Issued:	Enters into force:	Validity:
16.2.2024	19.2.2024	until further notice

Legal basis:
Section 96(1) and section 97(2) of the Act on Electronic Communications Services (917/2014).

Provisions on sanctions for operations violating this Regulation are laid down in:
Section 348(1) of the Act on Electronic Communications Services (917/2014).

Implemented EU legislation:
The European Commission will be notified of the Regulation in accordance with Directive (EU) 2015/1535.

Modification details:
The amendments made to the previous version are listed as part of the Frequency Allocation Table appended to the Regulation.

This Regulation repeals the previous version (4 AD/2023M) issued on 12 January 2023).

Radio frequency regulation 4 AE/2024M

Section 1 Scope of application

This Regulation applies to the radio frequency spectrum 100 Hz - 400 GHz.

Radio transmitters intended for use on the radio frequencies must meet the requirements of this Regulation for transmitting and receiving frequencies, channel spacing, bandwidth of transmission, duplex separation, transmitted powers and other corresponding radio characteristics (radio interfaces).

Electrical equipment other than radio equipment (ISM equipment), designated to generate radio frequency energy and used for scientific, industrial, medical or other similar purposes may only be used on the radio frequencies and on the conditions determined in this Regulation.

Section 2 Objective of the Regulation

The radio frequencies are used as this Regulation provides to safeguard the fair availability, efficient, appropriate and sufficiently interference-free use of radio frequencies.

Section 3 Definitions

The Frequency Allocation Table, as given in annex, contains provisions on the allocation of radio frequencies, frequency bands and sub-bands for different purposes of use. The radio interface requirements and the frequency bands designated for ISM equipment, and the terms of use of this equipment, referred to in section 1, are also included in the Frequency Allocation Table.

Section 4 Entry into force

This Regulation enters into force on 19 February 2024 and will remain in force until further notice.

This Regulation repeals the Regulation bearing the same title (The Finnish Transport and Communications Agency 4 AD/2023M) issued by the Finnish Transport and Communications Agency on 12 January 2023.

Helsinki 16 February 2024

Jarkko Saarimäki
Director-General

Jarno Ilme
Deputy Director-General

Amendments made to the Radio Frequency Regulation 4 AD since 13 January 2023

Mobile service

- ECC/DEC(22)01 has been added to the comments column for the sub-band 452.425 - 456.925 MHz
- ECC/DEC(22)01 has been added to the comments column for the sub-band 703 - 733 MHz
- ECC/DEC(22)01 has been added to the comments column for the sub-band 832 - 862 MHz
- ECC/DEC(22)01 has been added to the comments column for the sub-band 880.100 - 914.900 MHz
- ECC/DEC(20)02 has been added to the comments column for the sub-band 874.400 - 879.900 MHz
- ECC/DEC(20)02 has been added to the comments column for the sub-band 919.400 - 924.900 MHz
- ECC/DEC(22)01 has been added to the comments column for the sub-band 1710.100 - 1784.900 MHz
- ECC/DEC(20)02 has been added to the comments column for the sub-band 1900 - 1910 MHz
- ECC/DEC(22)01 has been added to the comments column for the sub-band 1920 - 1980 MHz
- ECC/DEC(14)02 and ECC/DEC(22)01 have been added to the comments column for the sub-band 2300 - 2320 MHz
- ECC/DEC(22)01 has been added to the comments column for the sub-band 2500 - 2570 MHz
- ECC/DEC(22)01 has been added to the comments column for the sub-band 2570 - 2620 MHz
- ECC/DEC(22)01 has been added to the comments column for the sub-band 3400 - 3800 MHz
- ECC/DEC(22)01 has been added to the comments column for the sub-band 24.250 - 25.100 GHz
- ECC/DEC(22)01 has been added to the comments column for the sub-band 25.100 - 27.000 GHz
- ECC/DEC(22)01 has been added to the comments column for the sub-band 27.000 - 27.500 GHz
- Comments on channels for short term events concerning the sub-bands 148.28125 – 149.39375 MHz and 152.88125 – 153.99375 MHz have been specified — the channels remain unchanged.
- The sub-band 438 – 440 MHz (control, alarm, telemetry, telecommand, data transmission) has been divided into two sub-bands based on the used channel width (12.5 kHz / 25 kHz): 438.16875 – 439.99375 MHz (channel width 12.5 kHz) and 438.175 – 439.975 MHz (channel width 25 kHz).
- Simplex channels 459.250; 459.275; 459.550; 459.600; 459.625; 459.675; 459.750 and 459.775 MHz for short term events have been added to the comments for the sub-band 459.025 – 460.000 MHz.
- Simplex channels 468.950; 468.975; 469.250; 469.300; 469.325; 469.375; 469.450 and 469.475 MHz for short term events have been added to the comments for the sub-band 468.725 – 469.700 MHz.
- New European Commission Implementing Decision (EU) 2024/340 has been added replacing decisions 2010/166/EU and (EU) 2017/191. This decision is on harmonised conditions for the use of radio spectrum for mobile communication services on board vessels (MCV) in sub-bands 1710.100 - 1784.900 MHz, 1805.100 - 1879.900 MHz, 1920 - 1980 MHz, 2110 - 2170 MHz, 2500 - 2570 MHz, 2570 - 2620 MHz and 2620 - 2690 MHz.

Aeronautical mobile (R)
The comment "The user of radio equipment used in aviation must have a radio telephone operators certificate issued by the Finnish Transport and Communications Agency (Traficom)." has been changed to "The user of a radio transmitter shall check the Finnish Transport and Communications Agency’s regulation PEL M2-93 to see whether the special certificate required for aeronautical radiocommunication is needed."

The national common frequency for power-driven flight has been changed from 122.500 MHz to 122.925 MHz.

The national common frequency for flight calibration 122.400 MHz has been removed.

Satellite service

The comments column for the frequency band 148.000 MHz - 150.050 MHz has been updated with information on the fact that the sub-bands include licence-exempt terminal equipment.

Amateur radio

The use of the sub-band 435 - 438 MHz has been changed according to the IARU recommendation so that the allocation for amateur radio communication starts from 436 MHz and wide-band data transmissions are allowed. The allocation for amateur-satellite service remains the same.

Short-range devices
References to the ECC recommendation ECC/REC/(08)01 and to the standard EN 302 571 have been added to the allocation for intelligent transport systems for the frequency band 5855 - 5875 MHz.

Channel width at the most 200 kHz added for low-power FM transmitters.

Military use

Sub-band 230 - 240 MHz has been allocated for military use.

Frequency band. Services in Finland

Frequency band and services in use or intended to be used in this frequency band in Finland. The frequency bands and services are based on the Radio Regulations (RR) and the ERC Report25.

In the Frequency Allocation Table, primary services are written with upper case letters (e.g. MOBILE) and secondary services with lower case letters (e.g. Mobile).

Sub-band, its width and usage

Sub-bands, their width and intended use. In mobile and fixed services, the centre frequencies of the extreme channels are the lower and upper limits of a sub-band. In other radio services, the sub-band limits form the limits for the given usage.

Mode of traffic

Mode of traffic of a sub-band is either simplex (use of one frequency) or duplex (use of two frequencies).

Class of station

Class of station is based on the Radio Regulations (RR). In the land mobile service, for instance, the class of station of a base station is FB.

Direction

Defines the direction of transmission, i.e. whether the frequency is used for transmitting (TX) or receiving (RX) or both (TXRX).

Channel width

States the frequency separation between the centre frequencies of two adjacent channels.

Bandwidth

States the bandwidth allowed for a transmission using the channel (i.e. necessary bandwidth).

Class of emission

Determines, for instance, type of modulation and type of information to be transmitted.

Duplex separation and paired band

The corresponding frequency band (paired band) is situated at the distance given by the duplex separation either on higher frequencies (+) or on lower frequencies (-) than the band given in the table.

Standard type

Gives information on the most essential properties of radio link equipment (e.g. DRS 34/18000= capacity 34 Mbit/s, frequency range 18000 MHz or FM 4/419 = modulation FM, capacity 4speech channels and frequency range 419 MHz).

Radiated power

The sum of the transmitter power and the antenna gain subtracted by the attenuation of the transmission lines is the radio transmitter's radiated power. The maximum radiated power is stated as W ERP units when it is compared to a dipole antenna (gain dBd) or as W EIRP units when it is compared to an isotropic antenna (gain dBi).

Radio Regulations, RR

The mandatory (binding) Annex to the Constitution and Convention of the International Telecommunications Union (ITU Radio Regulations).

Duty cycle

The duty cycle is defined as the ratio of the maximum transmitter "on" time, relative to a one-hour period.

Output power of radio link

If no maximum output power is mentioned for the transmitter of a radio link, the value given in the standard reference is applicable. The standard reference concerning the radiation pattern envelope of a radio link antenna defines the required maximum side lobe attenuation, which can be relaxed depending on the usage environment of the system in question.

References to standards

The standard references are only for informative purposes and they do not set compulsory requirements for placing of equipment on the market. When there are references to standards or other comparable specifications in the Radio Frequency Plan, this implies that they have been used as assumptions for equipment performance in an interference analysis concerning a new frequency assignment or as a technical basis for compatibility studies between different radio communications services or as a technical basis for coordination agreements with other countries. Standard references may in some cases also be used to define a channel access procedure, the use of which is a condition for the use of certain frequency bands.

The standard references do not specify the version of the standard. Reference means the latest version published in the Official Journal of the European Union.

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LYHENNELUETTELO / TABELL ÖVER FÖRKORTNINGAR / LIST OF ABBREVIATIONS

ADS-B	Automatic Dependent Surveillance-Broadcast
AVI	Automatic Vehicle Identification
BFWA	Broadband Fixed Wireless Access
CENELEC	European Committee for Electrotechnical Standardization
CEPT	The European Conference of Postal and Telecommunications Administration
DAB	Digital Audio Broadcasting
DEC	Decision
DECT	Digital European Cordless Telecommunication system
DGPS	Differential GPS
DME	Distance Measuring Equipment
DSC	Digital Selective Calling
ECA	European Common Allocation
ECC	Electronic Communications Committee
EIRP	Equivalent Isotropically Radiated Power
EN xxx	European Norm xxx standardit
ENG/OB	Electronic News Gathering/Outside Broadcasting
EPIRB	Emergency Position-Indicating RadioBeacon
ERC	European Radiocommunications Committee
ETSI	European Telecommunications Standards Institute
EY	Euroopan Yhteisö
EU	Euroopan Unioni
FM	Frequency Modulation
FWA	Fixed Wireless Access
FWS	Fixed Wireless Systems
GBAS	Ground Based Augmentation System
GMDSS	Global Maritime Distress and safety System
GPS	Global Positioning System
HEST	High EIRP Satellite Terminals
HDFSS	High Density Fixed Satellite Service
IALA	International Association of Lighthouse Authorities
ILS	Instrument Landing System
IMT-2000	International Mobile Telecommunications
ISM	Industrial, Scientific and Medical applications
ITU-R	International Telecommunication Union, Radiocommunication sector
LA	AM/DSB CB
LEST	Low EIRP Satellite Terminals
LR	Radiolocation Land Station
MLS	Microwave Landing System
MVDS	Multipoint Video Distribution System
MWS	Multimedia Wireless Systems
NDB	Non-Directional Radio Beacon
NMT	Nordic Mobile Telephone
OB	Outside Broadcasting
OR	Off-Route
PMR	Professional / Private Mobile Radio
R	Route
REC	Recommendation
RES	Resolution
RHA68	Tiedote "Harrastuskäyttöön varatut kanavat taajuusalueella 68–71 MHz" Meddelande "för fritidsbruk reserverade kanaler inom frekvensbandet 68–71 MHz" Announcement "Channels in the 68–71 MHz frequency band reserved for hobby usage"
RLAN	Radio Local Area Network
RR	Radio Regulations
RR AP30B	Appendix 30B of the ITU Radio Regulations
RTTT	Road transport and traffic telematics
SAR	Search And Rescue, Synthetic Aperture Radar
SRD	Short Range Devices
SRR	Short Range Radar
SSR	Secondary Surveillance Radar
TETRA	Terrestrial Trunked Radio

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LYHENNELUETTELO / TABELL ÖVER FÖRKORTNINGAR / LIST OF ABBREVIATIONS

TRAFICOM	Liikenne- ja viestintävirasto Traficom / Transport- och kommunikationsverket Traficom / Finnish Transport and Communications Agency (Traficom).
TV	Television
UWB	Ultra Wideband
VDL	VHF Data Link
VIRVE	Finland's Public Authority Network, emergency services network
VLBI	Very Long Baseline Interferometry
WLAN	Wireless Local Area Network
WLL	Wireless Local Loop
VOR	VHF Omnidirectional Radio Range

Inductive equipment, NMR equipment, ultra-wideband equipment (UWB) and wide-band data transmission equipment (WAS/RLAN) 57–71 GHz and Amateur radio transmitters

1. Inductive equipment

The frequency bands in the 100 Hz - 30 MHz frequency range typically assigned for inductive equipment in Europe are listed in the ECC Recommendation ERC/REC 70-03 on the use of Short Range Equipment (https://cept.org/eco/). Inductive equipment complying with Recommendation ERC/REC 70-03 and European Commission Implementing Decision (EU) 2022/180 may be used in Finland. The use of other inductive equipment that meet the requirements of standard EN 300 330 or another similar European harmonised standard on inductive equipment and whose conformity has been verified in accordance with section 255 of the Act on Electronic Communications Services is not restricted in Finland, either. For licence-exempt equipment, see Finnish Transport and Communications Agency Regulation 15.

2. NMR equipment

Enclosed Nuclear Magnetic Resonance (NMR) equipment in the frequency range 9 kHz - 130 MHz in accordance with Commission Implementing Decision (EU) 2022/180. NMR equipment can be used to investigate the properties of different materials, for example. For licence-exempt equipment, see Finnish Transport and Communications Agency Regulation 15.

3. Ultra-wideband equipment (UWB) and wide-band data transmission equipment (WAS/RLAN) 57–71 GHz

Ultra-wideband equipment (UWB, Ultra Wide Band) are operated in several sub-bands and, thus, this group of equipment has not been added to the Frequency Allocation Table. The frequency bands and air interfaces assigned for this equipment group are listed below.

Equipment categories: licence-exempt generic UWB equipment, building material analysis and material sensing equipment, tank level probing radars, level probing radars, GPR/WPR equipment subject to licence and wideband data transmission equipment (WAS/RLAN) within the band 57–71 GHz.

GENERIC UWB EQUIPMENT

Frequency band	Conditions for use
6.0 - 8.5 GHz	For licence-exempt equipment, see Finnish Transport and Communications Agency Regulation 15. Spectral power density of UWB transmission -41.3 dBm/MHz EIRP. Fixed installed equipment only for indoor use and for use in automotive and railway vehicles. Fixed installed equipment in automotive or railway vehicles must employ low duty cycle (LDC) or transmit power control (TPC), and the spectral power density caused by the equipment must be ≤ -53.3 dBm/MHz EIRP outside these vehicles. ECC Decision ECC/DEC/(06)04. Standard EN 302 065 as applicable.

	European Commission Decision (EU) 2019/785.
6.0 - 8.5 GHz	For licence-exempt equipment, see Finnish Transport and Communications Agency Regulation 15. Equipment intended for internal data transmission on board aircraft and approved to be used on board aircraft in accordance with Commission Decision (EU) 2019/785. ECC Decision ECC/DEC/(12)03.
3.1 - 4.8 GHz	For licence-exempt equipment, see Finnish Transport and Communications Agency Regulation 15. Equipment using low duty cycle (LDC) or DAA mitigation technique. Spectral power density of UWB transmission -41.3 dBm/MHz EIRP. Fixed installed equipment only for indoor use and for use in automotive and railway vehicles. In automotive and railway vehicles, fixed installed equipment using DAA mitigation technique must employ transmit power control (TPC). The spectral power density caused by fixed installed equipment in automotive or railway vehicles must be ≤ -53.3 dBm/MHz EIRP outside these vehicles. ECC Decision ECC/DEC/(06)04. Standard EN 302 065 as applicable. European Commission Decision (EU) 2019/785.
4.2 - 4.8 GHz	For licence-exempt equipment, see Finnish Transport and Communications Agency Regulation 15. New equipment to be taken into use on 31.12.2010 at the latest. Spectral power density of UWB transmission -41.3 dBm/MHz EIRP. Fixed installed equipment only for indoor use and for use in automotive and railway vehicles. In automotive and railway vehicles, fixed installed equipment must employ transmit power control (TPC) or have a maximum spectral power density of -53.3 dBm/MHz EIRP. ECC Decision ECC/DEC/(06)04. Standard EN 302 065. European Commission Decision (EU) 2019/785.
3.8 - 4.2 GHz	For licence-exempt equipment, see Finnish Transport and Communications Agency Regulation 15. Vehicular access systems with applicable mitigation technique. Spectral power density of UWB transmission -41.3 dBm/MHz EIRP. Low duty cycle (LDC). European Commission Decision (EU) 2019/785.
6.0 - 8.5 GHz	For licence-exempt equipment, see Finnish Transport and Communications Agency Regulation 15. Vehicular access systems with applicable mitigation technique. Spectral power density of UWB transmission -41.3 dBm/MHz EIRP. Low duty cycle (LDC) or transmit power control (TPC). European Commission Decision (EU) 2019/785.
8.5 - 9.0 GHz	For licence-exempt equipment, see Finnish Transport and Communications Agency Regulation 15.

	Equipment using DAA mitigation technique. Spectral power density of UWB transmission -41.3 dBm/MHz EIRP. Fixed installed equipment only for indoor use and for use in automotive and railway vehicles. In automotive and railway vehicles, fixed installed equipment using DAA mitigation technique must employ transmit power control (TPC), and the spectral power density caused by the equipment must be ≤ -53.3 dBm/MHz EIRP outside these vehicles. ECC Decision ECC/DEC/(06)04. Standard EN 302 065 as applicable. European Commission Decision (EU) 2019/785.

UWB MATERIAL SENSING EQUIPMENT

Frequency band	Conditions for use
2.2 - 9.0 GHz	For licence-exempt equipment, see Finnish Transport and Communications Agency Regulation 15. UWB material sensing equipment. Standard EN 302 065 as applicable. ECC Decision ECC/DEC/(07)01. European Commission Decision (EU) 2019/785.

TANK LEVEL PROBING RADARS

Frequency band	Conditions for us
4.5 - 7.0 GHz	For licence-exempt equipment, see Finnish Transport and Communications Agency Regulation 15. Tank level probing radars. Spectral power density outside the tank ≤ -41.3 dBm/MHz EIRP. Radiated power inside the tank ≤ +24 dBm EIRP. Standard EN 302 372. European Commission Decision 2006/771/EC, supplemented by Implementing Decision (EU) 2022/180.
8.5 - 10.6 GHz	For licence-exempt equipment, see Finnish Transport and Communications Agency Regulation 15. Tank level probing radars. Spectral power density outside the tank ≤ -41.3 dBm/MHz EIRP. Radiated power inside the tank ≤ +30 dBm EIRP. Standard EN 302 372. European Commission Decision 2006/771/EC, supplemented by Implementing Decision (EU) 2022/180.
24.05 - 27.00 GHz	For licence-exempt equipment, see Finnish Transport and Communications Agency Regulation 15. Tank level probing radars. Spectral power density outside the tank ≤ -41.3 dBm/MHz EIRP. Radiated power inside the tank ≤ +43 dBm EIRP. Standard EN 302 372. European Commission Decision 2006/771/EC, supplemented by Implementing Decision (EU) 2022/180.
57 - 64 GHz	For licence-exempt equipment, see Finnish Transport and Communications Agency Regulation 15. Tank level probing radars. Spectral power density outside the tank ≤ -41.3 dBm/MHz EIRP. Radiated power inside the tank

	≤ +43 dBm EIRP. Standard EN 302 372. European Commission Decision 2006/771/EC, supplemented by Implementing Decision (EU) 2022/180.
75 - 85 GHz	For licence-exempt equipment, see Finnish Transport and Communications Agency Regulation 15. Tank level probing radars. Spectral power density outside the tank ≤ -41.3 dBm/MHz EIRP. Radiated power inside the tank ≤ +43 dBm EIRP. Standard EN 302 372. European Commission Decision 2006/771/EC, supplemented by Implementing Decision (EU) 2022/180.

LEVEL PROBING RADARS

Frequency band	Conditions for use
6.0 - 8.5 GHz	For licence-exempt equipment, see Finnish Transport and Communications Agency Regulation 15. Level probing radars. Standard EN 302 729. ECC Decision ECC/DEC/(11)02. European Commission Decision 2006/771/EC, supplemented by Implementing Decision (EU) 2022/180.
24.05 - 26.50 GHz	For licence-exempt equipment, see Finnish Transport and Communications Agency Regulation 15. Level probing radars. Standard EN 302 729. ECC Decision ECC/DEC/(11)02. European Commission Decision 2006/771/EC, supplemented by Implementing Decision (EU) 2022/180.
57 - 64 GHz	For licence-exempt equipment, see Finnish Transport and Communications Agency Regulation 15. Level probing radars. Standard EN 302 729. ECC Decision ECC/DEC/(11)02. European Commission Decision 2006/771/EC, supplemented by Implementing Decision (EU) 2022/180.
75 - 85 GHz	For licence-exempt equipment, see Finnish Transport and Communications Agency Regulation 15. Level probing radars. Standard EN 302 729. ECC Decision ECC/DEC/(11)02. European Commission Decision 2006/771/EC, supplemented by Implementing Decision (EU) 2022/180.

GPR/WPR EQUIPMENT

Frequency band	Conditions for use
30 - 12400 MHz	GPR/WPR equipment intended for professional use in accordance with Decision ECC/DEC/(06)08. For licence-exempt equipment, see Finnish Transport and Communications Agency Regulation 15. Standard EN 302 066.

WIDE-BAND DATA TRANSMISSION EQUIPMENT (WAS/RLAN) 57–71 GHz

Frequency band	Conditions for use
57 - 71 GHz	For licence-exempt equipment, see Finnish Transport and Communications Agency Regulation 15. Radiated power ≤ 40 dBm EIRP, spectral power density of transmission ≤ 23 dBm/MHz EIRP. Fixed outdoor installations not permitted. Standard EN 302 567. European Commission Decision 2006/771/EC, supplemented by Implementing Decision (EU) 2022/180.
57 - 71 GHz	For licence-exempt equipment, see Finnish Transport and Communications Agency Regulation 15. Radiated power ≤ 40 dBm EIRP, spectral power density of transmission ≤ 23 dBm/MHz EIRP and transmit power ≤ 27 dBm. European Commission Decision 2006/771/EC, supplemented by Implementing Decision (EU) 2022/180.
57 - 71 GHz	For licence-exempt equipment, see Finnish Transport and Communications Agency Regulation 15. Radiated power ≤ 55 dBm EIRP, spectral power density of transmission ≤ 38 dBm/MHz EIRP and minimum transmitting antenna gain 30 dBi. Only fixed outdoor installations. European Commission Decision 2006/771/EC, supplemented by Implementing Decision (EU) 2022/180.

4. Amateur radio transmitters

For justified reasons and for experimental purposes, the radio licence may entitle a radio amateur of general class to use higher transmitter power in a frequency band assigned for amateur radio communication than stipulated in the Frequency Allocation Table. The terms of an amateur radio station licence may also contain exceptions as to the provisions on amateur radio transmitters in this Table.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
8.3 - 9 kHz METEOROLOGICAL AIDS	8.3 - 9 kHz (0.700 kHz) Meteorological Aids		Passive system registering lightning strikes.
9 - 11.3 kHz METEOROLOGICAL AIDS	9 - 11.3 kHz (2.300 kHz) Meteorological Aids		Passive system registering lightning strikes.
RADIONAVIGATION	9 - 11.3 kHz (2.300 kHz) Radionavigation		
11.3 - 14 kHz RADIONAVIGATION	11.3 - 14 kHz (2.700 kHz) Radionavigation		
14.000 - 19.950 kHz MARITIME MOBILE	14.000 - 19.950 kHz (5.950 kHz) Maritime mobile		
FIXED	14.000 - 19.950 kHz (5.950 kHz) Fixed		
19.950 - 20.050 kHz STANDARD FREQUENCY AND TIME SIGNAL	19.950 - 20.050 kHz (0.100 kHz) Standard frequency and time signal		20 kHz standard frequency.
20.050 - 70.000 kHz FIXED	20.050 - 70.000 kHz (49.950 kHz) Fixed		
MARITIME MOBILE	20.050 - 70.000 kHz (49.950 kHz) Maritime mobile		
70 - 72 kHz RADIONAVIGATION	70 - 72 kHz (2 kHz) Maritime radionavigation	Simplex Land station (NL) TX / 0.25 kHz	
72 - 84 kHz FIXED	72 - 84 kHz (12 kHz) Fixed		
MARITIME MOBILE	72 - 84 kHz (12 kHz) Maritime mobile		

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
RADIONAVIGATION	72 - 84 kHz (12 kHz) Radionavigation		
84 - 86 kHz RADIONAVIGATION	84 - 86 kHz (2 kHz) Maritime radionavigation	Simplex Land station (NL) TX / 0.25 kHz	
86 - 90 kHz MARITIME MOBILE	86 - 90 kHz (4 kHz) Maritime mobile		
FIXED	86 - 90 kHz (4 kHz) Fixed		
RADIONAVIGATION	86 - 90 kHz (4 kHz) Radionavigation		
90 - 110 kHz RADIONAVIGATION	90 - 110 kHz (20 kHz) Radionavigation		Loran C-navigation system (100 kHz +/- 10 kHz). No transmitters in Finland.
Fixed	90 - 110 kHz (20 kHz) Fixed		
110 - 112 kHz RADIONAVIGATION	110 - 112 kHz (2 kHz) Radionavigation		
FIXED	110 - 112 kHz (2 kHz) Fixed		
MARITIME MOBILE	110 - 112 kHz (2 kHz) Maritime mobile		
112 - 115 kHz RADIONAVIGATION	112 - 115 kHz (3 kHz) Maritime radionavigation	Simplex Land station (NL) TX / 0.25 kHz	
115.000 - 117.600 kHz RADIONAVIGATION	115.000 - 117.600 kHz (2.600 kHz) Maritime radionavigation	Simplex Land station (NL) TX / 0.25 kHz	

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
Fixed	115.000 - 117.600 kHz (2.600 kHz) Fixed		
Maritime mobile	115.000 - 117.600 kHz (2.600 kHz) Maritime mobile		
117.600 - 126.000 kHz RADIONAVIGATION	117.600 - 126.000 kHz (8.400 kHz) Radionavigation		
FIXED	117.600 - 126.000 kHz (8.400 kHz) Fixed		
MARITIME MOBILE	117.600 - 126.000 kHz (8.400 kHz) Maritime mobile		
126 - 129 kHz RADIONAVIGATION	126 - 129 kHz (3 kHz) Maritime radionavigation	Simplex Land station (NL) TX	
129 - 130 kHz RADIONAVIGATION	129 - 130 kHz (1 kHz) Radionavigation		
FIXED	129 - 130 kHz (1 kHz) Fixed		
MARITIME MOBILE	129 - 130 kHz (1 kHz) Maritime mobile		
130.000 - 148.500 kHz MARITIME MOBILE	130.000 - 148.500 kHz (18.500 kHz) Maritime mobile		
FIXED	130.000 - 148.500 kHz (18.500 kHz) Fixed		

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
Amateur	135.700 - 137.800 kHz (2.100 kHz) Amateur	Simplex Amateur station (AT) TXRX	See Finnish Transport and Communications Agency Regulation 6. User certificate required. See Finnish Transport and Communications Agency Regulation 18. Maximum radiated power 1 W EIRP. The numerical value means the peak envelope power when the carrier of the transmission is attenuated by at least 6 dB. In other cases it means the carrier power.
148.500 - 255.000 kHz BROADCASTING	148.500 - 255.000 kHz (106.500 kHz) Broadcasting	Sound broadcasting (BC) TX 9 kHz / 10 kHz	Usage according to plan GE-75. No services in Finland.
255.000 - 283.500 kHz AERONAUTICAL RADIONAVIGATION	255.000 - 283.500 kHz (28.500 kHz) Aeronautical radionavigation	Simplex Land station (AL) TX 1 kHz / 810 Hz	Non-Directional Beacon.
BROADCASTING	255.000 - 283.500 kHz (28.500 kHz) Broadcasting	Sound broadcasting (BC) TX 9 kHz / 10 kHz	Usage according to plan GE-75. No services in Finland.
283.500 - 315.000 kHz AERONAUTICAL RADIONAVIGATION	283.500 - 315.000 kHz (31.500 kHz) Aeronautical radionavigation	Simplex Land station (AL) TX 0.5 kHz / 304 Hz Simplex Land station (AL) TX 1 kHz / 810 Hz	Non-Directional Beacon.
MARITIME RADIONAVIGATION	283.500 - 315.000 kHz (31.500 kHz) Radio beacons and DGPS-transmitters	Simplex Land station (NL) TX 0.5 kHz / 304 Hz	GE-85 plan radio beacons and DGPS transmitters according to the IALA plan in all Baltic Sea countries. Consol navigation system. No transmitters in Finland.
315 - 325 kHz AERONAUTICAL RADIONAVIGATION	315 - 325 kHz (10 kHz) Aeronautical radionavigation	Simplex Land station (AL) TX 1 kHz / 810 Hz	Non-Directional Beacon.
Maritime radionavigation	315 - 325 kHz (10 kHz) Maritime radionavigation		

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
325 - 405 kHz AERONAUTICAL RADIONAVIGATION	325 - 405 kHz (80 kHz) Aeronautical radionavigation	Simplex Land station (AL) TX 1 kHz / 810 Hz	Non-Directional Beacon.
405 - 415 kHz RADIONAVIGATION	405 - 415 kHz (10 kHz) Aeronautical radionavigation	Simplex Land station (AL) TX 1 kHz / 810 Hz	Non-Directional Beacon.
	405 - 415 kHz (10 kHz) Maritime radionavigation	Simplex Land station (NL) TX 0.5 kHz / 304 Hz	410 kHz direction finding transmitter on ship. 406.5 - 413.5 kHz maritime direction finding has interference protection (RR 5.76).
415 - 435 kHz AERONAUTICAL RADIONAVIGATION	415 - 435 kHz (20 kHz) Aeronautical radionavigation	Simplex Land station (AL) TX 1 kHz / 810 Hz	Non-Directional Beacon.
MARITIME MOBILE	415 - 435 kHz (20 kHz) Maritime mobile	Duplex Coast station (FC) TX Ship station (MS) TX 0.5 kHz / A1A, F1B Duplex Coast station (FC) RX Mobile station (MR) RX 0.5 kHz / A1A, F1B Simplex Coast station (FC) TXRX Ship station (MS) TXRX 0.5 kHz / A1A, F1B	Usage according to plan GE-85. User certificate required. See Finnish Transport and Communications Agency Regulation 18.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
435 - 495 kHz MARITIME MOBILE	435 - 495 kHz (60 kHz) Maritime mobile	Duplex Coast station (FC) TX Ship station (MS) TX 0.5 kHz / A1A, F1B Duplex Coast station (FC) RX Ship station (MS) RX 0.5 kHz / A1A, F1B Simplex Coast station (FC) TXRX Ship station (MS) TXRX 0.5 kHz / A1A, F1B	Usage according to plan GE-85. User certificate required. See Finnish Transport and Communications Agency Regulation 18. 490 kHz GMDSS:n NAVTEX.
Aeronautical radionavigation	435 - 495 kHz (60 kHz) Aeronautical radionavigation		Non-Directional Beacon.
Amateur	472 - 479 kHz (7 kHz) Amateur		See Finnish Transport and Communications Agency Regulation 6. User certificate required. See Finnish Transport and Communications Agency Regulation 18. Maximum radiated power 1 W EIRP.
495 - 505 kHz MARITIME MOBILE	495 - 505 kHz (10 kHz) Maritime mobile		
505.000 - 526.500 kHz AERONAUTICAL RADIONAVIGATION	505.000 - 526.500 kHz (21.500 kHz) Aeronautical radionavigation	Simplex Land station (AL) TX 1 kHz / 810 Hz	Non-Directional Beacon.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
MARITIME MOBILE	505.000 - 526.500 kHz (21.500 kHz) Maritime mobile	Duplex Coast station (FC) TX Ship station (MS) TX 0.5 kHz / A1A, F1B Duplex Coast station (FC) RX Ship station (MS) RX 0.5 kHz / A1A, F1B Simplex Coast station (FC) TXRX Ship station (MS) TXRX 0.5 kHz / A1A, F1B	User certificate required. See Finnish Transport and Communications Agency Regulation 18. Usage according to plan GE-85. 518 kHz NAVTEX MS/RX.
526.500 - 1606.500 kHz BROADCASTING	526.500 - 1606.500 kHz (1080 kHz) Broadcasting	Sound broadcasting (BC) TX 9 kHz / 10 kHz	Usage according to plan GE-75. See Finnish Transport and Communications Agency Regulation 70.
1606.500 - 1625.000 kHz LAND MOBILE	1606.500 - 1625.000 kHz (18.500 kHz) Land mobile		
FIXED	1606.500 - 1625.000 kHz (18.500 kHz) Fixed		
MARITIME MOBILE	1607.000 - 1624.500 kHz (17.500 kHz) Telex and DSC-traffic	Duplex Coast station (FC) TX 0.5 kHz / 2141.500 - 2160.000 kHz	User certificate required. See Finnish Transport and Communications Agency Regulation 18. Usage according to plan GE-85. 1621.0-1624.5 kHz national DSC frequencies, TX coast stations.
1625 - 1635 kHz RADIOLOCATION	1625 - 1635 kHz (10 kHz) Radiolocation		

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
1635 - 1800 kHz MARITIME MOBILE	1635 - 1800 kHz (165 kHz) Maritime radiotelephone service	Duplex Coast station (FC) TX 3 kHz / 2.8 kHz 2060.000 - 2141.500 kHz J3E	User certificate required. See Finnish Transport and Communications Agency Regulation 18. Usage according to plan GE-85. Carrier frequency 1.4 kHz below center frequency.
FIXED	1635 - 1800 kHz (165 kHz) Fixed		
LAND MOBILE	1635 - 1800 kHz (165 kHz) Land mobile		
1800 - 1810 kHz RADIOLOCATION	1800 - 1810 kHz (10 kHz) Radiolocation		
1810 - 1850 kHz AMATEUR	1810 - 1850 kHz (40 kHz) Amateur	Simplex Amateur station (AT) TXRX	See Finnish Transport and Communications Agency Regulation 6. User certificate required. See Finnish Transport and Communications Agency Regulation 18. Maximum transmitter power in the elementary class 120 W and in the general class 1500 W. The numerical value means the peak envelope power when the carrier of the transmission is attenuated by at least 6 dB. In other cases it means the carrier power.
1850 - 2000 kHz MOBILE	1850 - 1950 kHz (100 kHz) Maritime radiotelephone service	Duplex Coast station (FC) TX 3 kHz / 2.8 kHz J3E	User certificate required. See Finnish Transport and Communications Agency Regulation 18.
FIXED	1850 - 2000 kHz (150 kHz) Fixed		

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
Amateur	1850 - 2000 kHz (150 kHz) Amateur	Simplex Amateur station (AT) TXRX	See Finnish Transport and Communications Agency Regulation 6. User certificate required. See Finnish Transport and Communications Agency Regulation 18. The transmitter power max. 15 W. Peak envelope power 60 W, when the carrier of the transmission is attenuated by at least 6 dB.
MOBILE	1950 - 2000 kHz (50 kHz) Maritime radiotelephone service	Duplex Coast station (FC) RX 3 kHz / 2.8 kHz J3E	User certificate required. See Finnish Transport and Communications Agency Regulation 18.
2000 - 2025 kHz MOBILE (except aeronautical mobile (R))	2000 - 2025 kHz (25 kHz) Maritime radiotelephone service	Duplex Coast station (FC) RX 3 kHz / 2.8 kHz J3E	User certificate required. See Finnish Transport and Communications Agency Regulation 18. Paired band is not defined. 2000.4 - 2024.4 kHz vessels.
FIXED	2000 - 2025 kHz (25 kHz) Fixed		
2025 - 2045 kHz MOBILE (except aeronautical mobile (R))	2025 - 2045 kHz (20 kHz) Maritime radiotelephone service	Duplex Coast station (FC) TX Ship station (MS) TX 3 kHz / 2.8 kHz J3E Duplex Coast station (FC) RX Ship station (MS) RX 3 kHz / 2.8 kHz J3E	User certificate required. See Finnish Transport and Communications Agency Regulation 18. Paired band is not defined.
Meteorological Aids	2025 - 2045 kHz (20 kHz) Meteorological Aids		Maritime research (RR 5.104).
FIXED	2025 - 2045 kHz (20 kHz) Fixed		

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
2045 - 2160 kHz MARITIME MOBILE	2045 - 2060 kHz (15 kHz) Maritime radiotelephone service	Duplex Ship station (MS) TX 3 kHz / 2.8 kHz J3E	User certificate required. See Finnish Transport and Communications Agency Regulation 18. 2046.4, 2049.4, 2052.4, 2055.4, and 2058.4 kHz international ship to shore frequencies.
FIXED	2045 - 2160 kHz (115 kHz) Fixed		
LAND MOBILE	2045 - 2160 kHz (115 kHz) Land mobile		
MARITIME MOBILE	2060.000 - 2141.500 kHz (81.500 kHz) Maritime radiotelephone service	Duplex Coast station (FC) RX 3 kHz / 2.8 kHz 1635 - 1800 kHz J3E	User certificate required. See Finnish Transport and Communications Agency Regulation 18.
	2141.500 - 2160.000 kHz (18.500 kHz) Telex and DSC-traffic	Duplex Coast station (FC) RX 0.5 kHz / 1605.500 - 1625.000 kHz F1B	User certificate required. See Finnish Transport and Communications Agency Regulation 18. Usage according to plan GE-85. 2156.0 - 2159.5 kHz national DSC frequencies, ships TX.
2160 - 2170 kHz RADIOLOCATION	2160 - 2170 kHz (10 kHz) Radiolocation	Simplex Mobile station (MR) TXRX / 1.5 kHz	
2170.000 - 2173.500 kHz MARITIME MOBILE	2170.000 - 2173.500 kHz (3.500 kHz) Maritime mobile	Duplex Coast station (FC) TX Ship station (MS) TX Duplex Coast station (FC) RX Ship station (MS) RX Simplex Coast station (FC) TXRX Ship station (MS) TXRX	User certificate required. See Finnish Transport and Communications Agency Regulation 18.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
2173.500 - 2190.500 kHz MOBILE (Distress, safety and calling communication)	2173.500 - 2190.500 kHz (17 kHz) Maritime mobile	Simplex Coast station (FC) TXRX Ship station (MS) TXRX	User certificate required. See Finnish Transport and Communications Agency Regulation 18. The frequency band is reserved exclusively for distress and international calling traffic. 2174.5 kHz distress frequency (telex). 2177.0 kHz international DSC calling frequency for ships. 2182.0 kHz distress and calling frequency (phone), standard ETS 300 441. 2187.5 kHz distress frequency (DSC). 2189.5 kHz international DSC calling frequency for coast stations.
2190.500 - 2194.000 kHz MARITIME MOBILE	2190.500 - 2194.000 kHz (3.500 kHz) Maritime mobile	Duplex Coast station (FC) TX Ship station (MS) TX Duplex Coast station (FC) RX Ship station (MS) RX Simplex Coast station (FC) TXRX Ship station (MS) TXRX	User certificate required. See Finnish Transport and Communications Agency Regulation 18.
2194 - 2300 kHz MOBILE (except aeronautical mobile (R))	2194 - 2300 kHz (106 kHz) Maritime radiotelephone service	Duplex Coast station (FC) RX Ship station (MS) RX 3 kHz / 2.8 kHz J3E Simplex Coast station (FC) TXRX Ship station (MS) TXRX 3 kHz / 2.8 kHz J3E	User certificate required. See Finnish Transport and Communications Agency Regulation 18. 2196.4 - 2259.4 kHz vessels. 2264.4 - 2297.4 kHz ship to ship.
FIXED	2194 - 2300 kHz (106 kHz) HF links	Simplex Fixed station (FX) TXRX	

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
MOBILE (except aeronautical mobile (R))	2194 - 2300 kHz (106 kHz) Radiolocation	Simplex Mobile station (MR) TXRX	
2300 - 2498 kHz FIXED	2300 - 2498 kHz (198 kHz) HF links	Simplex Fixed station (FX) TXRX	
BROADCASTING	2300 - 2498 kHz (198 kHz) Broadcasting		Restrictions on use (RR 5.113).
MOBILE (except aeronautical mobile (R))	2300 - 2498 kHz (198 kHz) Maritime radiotelephone service	Simplex Coast station (FC) TXRX Ship station (MS) TXRX 3 kHz / 2.8 kHz J3E	User certificate required. See Finnish Transport and Communications Agency Regulation 18. 2300.4 - 2495.4 kHz ship to ship. 2339.4 kHz traffic between Finnish vessels.
2498 - 2501 kHz STANDARD FREQUENCY AND TIME SIGNAL	2498 - 2501 kHz (3 kHz) Standard frequency and time signal		2500 kHz standard frequency.
2501 - 2502 kHz STANDARD FREQUENCY AND TIME SIGNAL	2501 - 2502 kHz (1 kHz) Standard frequency and time signal		
Space research	2501 - 2502 kHz (1 kHz) Space research		
2502 - 2625 kHz MOBILE (except aeronautical mobile (R))	2502 - 2578 kHz (76 kHz) Radio telex service	Duplex Coast station (FC) RX Ship station (MS) TX 0.5 kHz / F1B	User certificate required. See Finnish Transport and Communications Agency Regulation 18.
FIXED	2502 - 2625 kHz (123 kHz) HF links	Simplex Fixed station (FX) TXRX	
MOBILE (except aeronautical mobile (R))	2578 - 2625 kHz (47 kHz) Radio telex service	Duplex Coast station (FC) TX Ship station (MS) RX 0.5 kHz / F1B	User certificate required. See Finnish Transport and Communications Agency Regulation 18. Also radiotelephone service (class of emission 2K80J3E).

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
2625 - 2650 kHz MARITIME MOBILE	2625 - 2650 kHz (25 kHz) Maritime mobile	Duplex Coast station (FC) TX F1B, J3E Duplex Coast station (FC) RX F1B, J3E Simplex Coast station (FC) TXRX F1B, J3E	User certificate required. See Finnish Transport and Communications Agency Regulation 18.
MARITIME RADIONAVIGATION	2625 - 2650 kHz (25 kHz) Maritime radionavigation		
2650 - 2850 kHz FIXED	2650 - 2850 kHz (200 kHz) HF links	Simplex Fixed station (FX) TXRX	
MOBILE (except aeronautical mobile (R))	2650 - 2850 kHz (200 kHz) Maritime mobile	Duplex Coast station (FC) TX	User certificate required. See Finnish Transport and Communications Agency Regulation 18.
2850 - 3025 kHz AERONAUTICAL MOBILE (R)	2850 - 3025 kHz (175 kHz) Aeronautical mobile	Simplex Aeronautical station (FA) TXRX Mobile (ML) TXRX 3 kHz / 2.7 kHz	The user of a radio transmitter shall check the Finnish Transport and Communications Agency’s regulation PEL M2-93 to see whether the special certificate required for aeronautical radiocommunication is needed. 3023 kHz international collective frequency (search and rescue), R and OR.
3025 - 3155 kHz AERONAUTICAL MOBILE (OR)	3025 - 3155 kHz (130 kHz) Aeronautical mobile		The user of a radio transmitter shall check the Finnish Transport and Communications Agency’s regulation PEL M2-93 to see whether the special certificate required for aeronautical radiocommunication is needed.
3155 - 3200 kHz FIXED	3155 - 3200 kHz (45 kHz) HF links	Simplex Fixed station (FX) TXRX	
MOBILE (except aeronautical mobile (R))	3155 - 3200 kHz (45 kHz) Maritime mobile	Simplex Coast station (FC) TXRX	User certificate required. See Finnish Transport and Communications Agency Regulation 18. Recommendation of use: Vessel (MS) F1B transmission.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
3200 - 3230 kHz BROADCASTING	3200 - 3230 kHz (30 kHz) Broadcasting		Restrictions on use (RR 5.113).
FIXED	3200 - 3230 kHz (30 kHz) Fixed	Simplex Fixed station (FX) TXRX 8 kHz /	
MOBILE (except aeronautical mobile (R))	3200 - 3230 kHz (30 kHz) Maritime radiotelephone service	Duplex Coast station (FC) RX 3 kHz / 2.8 kHz J3E	User certificate required. See Finnish Transport and Communications Agency Regulation 18. Paired band is not defined. 3202.4 - 3229.4 kHz vessels.
3230 - 3400 kHz MOBILE (except aeronautical mobile)	3230 - 3400 kHz (170 kHz) Maritime radiotelephone service	Duplex Base station (FB) RX 3 kHz / 2.8 kHz J3E	User certificate required. See Finnish Transport and Communications Agency Regulation 18.
FIXED	3230 - 3400 kHz (170 kHz) HF links	Simplex Fixed station (FX) TXRX	
BROADCASTING	3230 - 3400 kHz (170 kHz) Broadcasting		Restrictions on use (RR 5.113).
3400 - 3500 kHz AERONAUTICAL MOBILE (R)	3400 - 3500 kHz (100 kHz) Aeronautical mobile		The user of a radio transmitter shall check the Finnish Transport and Communications Agency’s regulation PEL M2-93 to see whether the special certificate required for aeronautical radiocommunication is needed.
3500 - 3800 kHz AMATEUR	3500 - 3800 kHz (300 kHz) Amateur	Simplex Amateur station (AT) TXRX	See Finnish Transport and Communications Agency Regulation 6. User certificate required. See Finnish Transport and Communications Agency Regulation 18. Maximum transmitter power in the elementary class 120 W and in the general class 1500 W. The numerical value means the peak envelope power when the carrier of the transmission is attenuated by at least 6 dB. In other cases it means the carrier power.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
FIXED	3500 - 3800 kHz (300 kHz) HF links	Simplex Fixed station (FX) TXRX	
MOBILE (except aeronautical mobile)	3500 - 3800 kHz (300 kHz) Maritime mobile	Simplex Coast station (FC) TXRX	User certificate required. See Finnish Transport and Communications Agency Regulation 18.
3800 - 3900 kHz FIXED	3800 - 3900 kHz (100 kHz) HF links	Simplex Fixed station (FX) TXRX	
AERONAUTICAL MOBILE (OR)	3800 - 3900 kHz (100 kHz) Aeronautical mobile		The user of a radio transmitter shall check the Finnish Transport and Communications Agency’s regulation PEL M2-93 to see whether the special certificate required for aeronautical radiocommunication is needed.
LAND MOBILE	3800 - 3900 kHz (100 kHz) Mobile radio		
3900 - 3950 kHz AERONAUTICAL MOBILE (OR)	3900 - 3950 kHz (50 kHz) Aeronautical mobile		The user of a radio transmitter shall check the Finnish Transport and Communications Agency’s regulation PEL M2-93 to see whether the special certificate required for aeronautical radiocommunication is needed.
3950 - 4000 kHz BROADCASTING	3950 - 4000 kHz (50 kHz) Broadcasting		
FIXED	3950 - 4000 kHz (50 kHz) HF links	Simplex Fixed station (FX) TXRX	
4000 - 4063 kHz MARITIME MOBILE	4000 - 4063 kHz (63 kHz) Maritime radiotelephone service	Duplex Coast station (FC) RX 3 kHz / 2.8 kHz J3E Simplex Ship station (MS) TXRX 3 kHz / 2.8 kHz J3E	User certificate required. See Finnish Transport and Communications Agency Regulation 18. 4001.4 - 4061.4 kHz ship to ship. 21 maritime radio simplex channels. Used by Finnish vessels. Also cross band traffic ship to shore.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
FIXED	4000 - 4063 kHz (63 kHz) HF links	Simplex Fixed station (FX) TXRX	
4063 - 4438 kHz MARITIME MOBILE	4063.300 - 4064.800 kHz (1.500 kHz) Data service	Simplex Coast station (FC) RX 0.3 kHz /	User certificate required. See Finnish Transport and Communications Agency Regulation 18. 6 channels, maritime research. More detailed instructions for use in RR App 17.
	4066.400 - 4144.400 kHz (78 kHz) Maritime radiotelephone service	Duplex Coast station (FC) RX 3 kHz / 2.8 kHz 4358.400 - 4436.400 kHz J3E	User certificate required. See Finnish Transport and Communications Agency Regulation 18. Carrier frequency 1.4 kHz below center frequency. 4126.4 kHz international distress and calling frequency. More detailed instructions for use in RR App 17.
	4147.400 - 4150.400 kHz (3 kHz) Maritime radiotelephone service	Simplex Coast station (FC) TXRX Ship station (MS) TXRX 3 kHz / 2.8 kHz J3E	User certificate required. See Finnish Transport and Communications Agency Regulation 18. Traffic between vessels and other simplex traffic. Carrier frequency 1.4 kHz below center frequency. Digital transmission referred to in ITU-R. M.1798 allowed provided that no interference is caused to other maritime service. Ship station 1.5 kW, coast station 10 kW. Bandwidth 2.8 kHz. Several adjacent channels may be combined. More detailed instructions for use in RR App 17.
	4153.5 - 4168.5 kHz (15 kHz) Data service	Simplex Ship station (MS) TX 3 kHz /	User certificate required. See Finnish Transport and Communications Agency Regulation 18. Digital transmission allowed on condition that harmful interference is not caused to other mobile maritime service. The modes of traffic A1A and A1B are allowed. More detailed instructions for use in RR App 17.

Frequency band Services in Finland	**Sub-band (its width) and usage**	**Mode of traffic Class of station and direction, Radiated power / Transmitter power (max.) Channel spacing / Bandwidth Duplex separation and duplex band Class of emission Standard type**	**Terms and comments as to radio interface. References to standards are for information only.**
	4170.500 - 4180 kHz (9.500 kHz) Radio telex service	Duplex Coast station (FC) RX 0.5 kHz / 0.304 kHz 4210.500 - 4216.000 kHz F1B	User certificate required. See Finnish Transport and Communications Agency Regulation 18. 4177.5 kHz international distress and safety frequency. Digital transmission allowed on condition that harmful interference is not caused to other mobile maritime service. More detailed instructions for use in RR App 17.
	4181.750 - 4187.750 kHz (6 kHz) Data service	Simplex Ship station (MS) TXRX Coast station (FC) RX 3 kHz /	User certificate required. See Finnish Transport and Communications Agency Regulation 18. Digital transmission allowed on condition that harmful interference is not caused to other mobile maritime service. Bandwidth 2.8 kHz. More detailed instructions for use in RR App 17.
	4190.75 - 4196.75 kHz (6 kHz) Data service	Simplex Coast station (FC) TXRX Ship station (MS) TXRX 3 kHz /	User certificate required. See Finnish Transport and Communications Agency Regulation 18. Digital transmission allowed on condition that harmful interference is not caused to other mobile maritime service. The modes of traffic A1A and A1B are allowed. More detailed instructions for use in RR App 17.
	4199.7500 - 4205.75 kHz (6 kHz) Data service	Coast station (FC) TX Ship station (MS) RX 3 kHz /	User certificate required. See Finnish Transport and Communications Agency Regulation 18. Digital transmission allowed on condition that harmful interference is not caused to other mobile maritime service. The modes of traffic A1A and A1B are allowed. More detailed instructions for use in RR App 17.
	4207.500 - 4209.000 kHz (1.500 kHz) DSC service	Duplex Coast station (FC) RX 0.5 kHz / 0.304 kHz 4219.500 - 4220.500 kHz F1B Simplex Coast station (FC) TXRX 0.5 kHz / F1B	User certificate required. See Finnish Transport and Communications Agency Regulation 18. 4207.5 kHz international distress frequency (simplex). 4208.5; 4209.0 ja 4208.0 kHz international calling frequencies. More detailed instructions for use in RR App 17.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	4209.500 - 4216.000 kHz (6.500 kHz) Radio telex service	Duplex Coast station (FC) TX 0.5 kHz / 0.304 kHz 4172.500 - 4178.500 kHz F1B Simplex Coast station (FC) TX 0.5 kHz / 0.304 kHz	User certificate required. See Finnish Transport and Communications Agency Regulation 18. 4209.5 and 4210.0 kHz GMDSS/MSI. Digital transmission allowed on condition that harmful interference is not caused to other mobile maritime service. More detailed instructions for use in RR App 17.
	4217.75 - 4219.25 kHz (1.500 kHz) Data service	Simplex Coast station (FC) TXRX Ship station (MS) TXRX 3 kHz /	User certificate required. See Finnish Transport and Communications Agency Regulation 18. Digital transmission allowed on condition that harmful interference is not caused to other mobile maritime service. The modes of traffic A1A and A1B are allowed. More detailed instructions for use in RR App 17.
	4219.500 - 4220.500 kHz (1 kHz) DSC service	Duplex Coast station (FC) TX 0.5 kHz / 0.304 kHz 4207.500 - 4209.000 kHz F1B	User certificate required. See Finnish Transport and Communications Agency Regulation 18. 4219.5, 4220.0 and 4220.5 kHz international calling frequencies. More detailed instructions for use in RR App 17.
	4221 - 4351 kHz (130 kHz) Wide-band telegraphy and special transmissions	Duplex Coast station (FC) TX Simplex Coast station (FC) TXRX	User certificate required. See Finnish Transport and Communications Agency Regulation 18. Wideband transmissions, facsimile and special transmission. Channel spacing and paired band are not defined. Digital transmission allowed on condition that harmful interference is not caused to other mobile maritime service. The modes of traffic A1A and A1B are allowed. More detailed instructions for use in RR App 17.
	4352.400 - 4436.400 kHz (84 kHz) Radiotelephone service	Duplex Coast station (FC) TX 3 kHz / 2.8 kHz 4066.400 - 4144.400 kHz J3E	User certificate required. See Finnish Transport and Communications Agency Regulation 18. Carrier frequency 1.4 kHz below center frequency. 4418.4 kHz international calling frequency. More detailed instructions for use in RR App 17.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
4438 - 4650 kHz Radiolocation	4438 - 4488 kHz (50 kHz) Radiolocation		Radio location for beacons for marine research only RR Res 612).
FIXED	4438 - 4650 kHz (212 kHz) HF links	Simplex Fixed station (FX) TXRX	
MOBILE (except aeronautical mobile (R))	4438 - 4650 kHz (212 kHz) Mobile radio		
4650 - 4700 kHz AERONAUTICAL MOBILE (R)	4650 - 4700 kHz (50 kHz) Aeronautical mobile	Simplex Aeronautical station (FA) TXRX Mobile (ML) TXRX 3 kHz / 2.7 kHz	The user of a radio transmitter shall check the Finnish Transport and Communications Agency’s regulation PEL M2-93 to see whether the special certificate required for aeronautical radiocommunication is needed.
4700 - 4750 kHz AERONAUTICAL MOBILE (OR)	4700 - 4750 kHz (50 kHz) Aeronautical mobile		The user of a radio transmitter shall check the Finnish Transport and Communications Agency’s regulation PEL M2-93 to see whether the special certificate required for aeronautical radiocommunication is needed.
4750 - 4850 kHz LAND MOBILE	4750 - 4850 kHz (100 kHz) Land mobile		
FIXED	4750 - 4850 kHz (100 kHz) HF links	Simplex Fixed station (FX) TXRX	
AERONAUTICAL MOBILE (OR)	4750 - 4850 kHz (100 kHz) Aeronautical mobile		The user of a radio transmitter shall check the Finnish Transport and Communications Agency’s regulation PEL M2-93 to see whether the special certificate required for aeronautical radiocommunication is needed.
BROADCASTING	4750 - 4850 kHz (100 kHz) Broadcasting		Restrictions on use (RR 5.113).
4850 - 4995 kHz LAND MOBILE	4850 - 4995 kHz (145 kHz) Land mobile		
FIXED	4850 - 4995 kHz (145 kHz) HF links	Simplex Fixed station (FX) TXRX	

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
BROADCASTING	4850 - 4995 kHz (145 kHz) Broadcasting		Restrictions on use (RR 5.113).
4995 - 5003 kHz STANDARD FREQUENCY AND TIME SIGNAL	4995 - 5003 kHz (8 kHz) Standard frequency and time signal		5000 kHz standard frequency.
5003 - 5005 kHz STANDARD FREQUENCY AND TIME SIGNAL	5003 - 5005 kHz (2 kHz) Standard frequency and time signal		
Space research	5003 - 5005 kHz (2 kHz) Space research		
5005 - 5060 kHz BROADCASTING	5005 - 5060 kHz (55 kHz) Broadcasting		Restrictions on use (RR 5.113).
FIXED	5005 - 5060 kHz (55 kHz) Fixed		
5060 - 5250 kHz FIXED	5060 - 5250 kHz (190 kHz) HF links	Simplex Fixed station (FX) TXRX	
Mobile (except aeronautical mobile)	5060 - 5250 kHz (190 kHz) Mobile radio		
5250 - 5450 kHz Radiolocation	5250 - 5275 kHz (25 kHz) Radiolocation		Radio location for beacons for marine research only RR Res 612).
MOBILE (except aeronautical mobile)	5250 - 5450 kHz (200 kHz) Maritime mobile	Simplex Coast station (FC) TXRX	User certificate is required of users of maritime safety equipment.
FIXED	5250 - 5450 kHz (200 kHz) HF links	Simplex Fixed station (FX) TXRX	

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
AMATEUR	5351.5 - 5366.5 kHz (15 kHz) Amateur		See Finnish Transport and Communications Agency Regulation 6. User certificate required. See Finnish Transport and Communications Agency Regulation 18. Maximum radiated power 15 W EIRP. The numerical value means the peak envelope power when the carrier of the transmission is attenuated by at least 6 dB. In other cases it means the carrier power.
5450 - 5480 kHz LAND MOBILE	5450 - 5480 kHz (30 kHz) Land mobile		
FIXED	5450 - 5480 kHz (30 kHz) Fixed		
AERONAUTICAL MOBILE (OR)	5450 - 5480 kHz (30 kHz) Aeronautical mobile		The user of a radio transmitter shall check the Finnish Transport and Communications Agency’s regulation PEL M2-93 to see whether the special certificate required for aeronautical radiocommunication is needed.
5480 - 5680 kHz AERONAUTICAL MOBILE (R)	5480 - 5680 kHz (200 kHz) Aeronautical mobile		The user of a radio transmitter shall check the Finnish Transport and Communications Agency’s regulation PEL M2-93 to see whether the special certificate required for aeronautical radiocommunication is needed. 5680 kHz international collective frequency for search and rescue, R and OR.
5680 - 5730 kHz AERONAUTICAL MOBILE (OR)	5680 - 5730 kHz (50 kHz) Aeronautical mobile		The user of a radio transmitter shall check the Finnish Transport and Communications Agency’s regulation PEL M2-93 to see whether the special certificate required for aeronautical radiocommunication is needed.
5730 - 5900 kHz LAND MOBILE	5730 - 5900 kHz (170 kHz) Land mobile		
FIXED	5730 - 5900 kHz (170 kHz) HF links	Simplex Fixed station (FX) TXRX	

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
5900 - 5950 kHz BROADCASTING	5900 - 5950 kHz (50 kHz) Broadcasting		Restricted fixed and mobile service possible, on condition that harmful interference is not caused to the broadcasting service (RR 5.136).
5950 - 6200 kHz BROADCASTING	5950 - 6200 kHz (250 kHz) Broadcasting	Simplex Sound broadcasting (BC) TX / 10 kHz	
6200 - 6525 kHz MARITIME MOBILE	6201.400 - 6222.400 kHz (21 kHz) Maritime radiotelephone service	Duplex Coast station (FC) RX 3 kHz / 2.8 kHz 6502.400 - 6523.400 kHz J3E	User certificate required. See Finnish Transport and Communications Agency Regulation 18. Carrier frequency 1.4 kHz below center frequency. 6216.4 kHz (carrier frequency 6215 kHz) is distress and security frequency (simplex) and international ships TX frequency (duplex). More detailed instructions for use in RR App 17.
	6225.400 - 6231.400 kHz (6 kHz) Maritime radiotelephone service	Simplex Coast station (FC) TXRX Ship station (MS) TXRX 3 kHz / 2.8 kHz J3E	User certificate required. See Finnish Transport and Communications Agency Regulation 18. Traffic between vessels and other simplex traffic. Carrier frequency 1.4 kHz below center frequency. Digital transmission referred to in ITU-R. M.1798 allowed provided that no interference is caused to other maritime service. Ship station 1.5 kW, coast station 10 kW. Bandwidth 2.8 kHz. Several adjacent channels may be combined. More detailed instructions for use in RR App 17.
	6234.5 - 6258.5 kHz (24 kHz) Data service	Simplex Ship station (MS) TXRX Coast station (FC) RX 3 kHz /	User certificate required. See Finnish Transport and Communications Agency Regulation 18. Several adjacent channels may be combined. Digital transmission allowed on condition that harmful interference is not caused to other mobile maritime service. The modes of traffic A1A and A1B are allowed. More detailed instructions for use in RR App 17.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	6260.250 - 6260.7500 kHz (0.500 kHz) Radio telex service	Simplex Coast station (FC) RX 0.5 kHz / 0.304 kHz F1B	User certificate required. See Finnish Transport and Communications Agency Regulation 18. 10000 kHz standard frequency. More detailed instructions for use in RR App 17.
	6261.300 - 6262.500 kHz (1.200 kHz) Data service	Simplex Coast station (FC) TXRX 0.3 kHz /	User certificate required. See Finnish Transport and Communications Agency Regulation 18. 6 channels, maritime research. More detailed instructions for use in RR App 17.
	6263.000 - 6269.500 kHz (6.500 kHz) Radio telex service	Duplex Coast station (FC) RX 0.5 kHz / 0.304 kHz 6314.500 - 6320.500 kHz F1B Simplex Coast station (FC) TXRX 0.5 kHz / 0.304 kHz F1B	User certificate required. See Finnish Transport and Communications Agency Regulation 18. 6268.0 kHz international distress/telex (TX/RX). More detailed instructions for use in RR App 17.
	6271.250 - 6277.250 kHz (6 kHz) Data service	Simplex Ship station (MS) TXRX Coast station (FC) RX 3 kHz /	User certificate required. See Finnish Transport and Communications Agency Regulation 18. Several adjacent channels may be combined. Digital transmission allowed on condition that harmful interference is not caused to other mobile maritime service. The modes of traffic A1A and A1B are allowed. More detailed instructions for use in RR App 17.
	6280.25 - 6310.2500 kHz (30 kHz) Data service	Simplex Ship station (MS) TXRX Coast station (FC) TXRX 3 kHz /	User certificate required. See Finnish Transport and Communications Agency Regulation 18. Digital transmission allowed on condition that harmful interference is not caused to other mobile maritime service. The modes of traffic A1A and A1B are allowed. More detailed instructions for use in RR App 17.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	6312.000 - 6313.500 kHz (1.500 kHz) DSC service	Duplex Coast station (FC) RX 0.5 kHz / 0.304 kHz 6331 - 6332 kHz F1B	User certificate required. See Finnish Transport and Communications Agency Regulation 18. 6312.0 kHz international DSC distress frequency. 6312.5; 6313.0 and 6313.5 kHz international calling frequencies. More detailed instructions for use in RR App 17.
	6314.000 - 6321.500 kHz (7.500 kHz) Radio telex service	Duplex Coast station (FC) TX 0.5 kHz / 0.304 kHz 6263.000 - 6269.500 kHz F1B Simplex Coast station (FC) TXRX 0.5 kHz / 0.304 kHz F1B	User certificate required. See Finnish Transport and Communications Agency Regulation 18. 6314 kHz GMDSS/MSI (TX/RX). More detailed instructions for use in RR App 17.
	6323.2500 - 6329.2500 kHz (6 kHz) Data service	Simplex Coast station (FC) TXRX Ship station (MS) RX 3 kHz /	User certificate required. See Finnish Transport and Communications Agency Regulation 18. Several adjacent channels may be combined. Digital transmission allowed on condition that harmful interference is not caused to other mobile maritime service. The modes of traffic A1A and A1B are allowed. More detailed instructions for use in RR App 17.
	6331 - 6332 kHz (1 kHz) DSC service	Duplex Coast station (FC) TX 0.5 kHz / 6312.000 - 6313.500 kHz F1B	User certificate required. See Finnish Transport and Communications Agency Regulation 18. 6331.0; 6331.5 and 6332.0 kHz international calling frequencies. More detailed instructions for use in RR App 17.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	6332.5 - 6501 kHz (168.500 kHz) Wide-band telegraphy and special transmissions	Duplex Coast station (FC) TX Simplex Coast station (FC) TXRX	User certificate required. See Finnish Transport and Communications Agency Regulation 18. Channel spacing and paired band are not defined. Wideband transmissions, facsimile and special transmission. Digital transmission allowed on condition that harmful interference is not caused to other mobile maritime service. The modes of traffic A1A and A1B are allowed. More detailed instructions for use in RR App 17.
	6502.400 - 6523.400 kHz (21 kHz) Radiotelephone service	Duplex Coast station (FC) TX 3 kHz / 2.8 kHz 6201.400 - 6222.400 kHz J3E	User certificate required. See Finnish Transport and Communications Agency Regulation 18. Carrier frequency 1.4 kHz below center frequency. 6517.4 kHz international calling frequency. Digital transmission referred to in ITU-R. M.1798 allowed provided that no interference is caused to other maritime service. Ship station 1.5 kW, coast station 10 kW. Bandwidth 2.8 kHz. The transmission must be within one channel. More detailed instructions for use in RR App 17.
6525 - 6685 kHz AERONAUTICAL MOBILE (R)	6525 - 6685 kHz (160 kHz) Aeronautical mobile	Simplex Aeronautical station (FA) TXRX Mobile (ML) TXRX 3 kHz / 2.7 kHz	The user of a radio transmitter shall check the Finnish Transport and Communications Agency’s regulation PEL M2-93 to see whether the special certificate required for aeronautical radiocommunication is needed.
6685 - 6765 kHz AERONAUTICAL MOBILE (OR)	6685 - 6765 kHz (80 kHz) Aeronautical mobile		The user of a radio transmitter shall check the Finnish Transport and Communications Agency’s regulation PEL M2-93 to see whether the special certificate required for aeronautical radiocommunication is needed.
6765 - 7000 kHz FIXED	6765 - 7000 kHz (235 kHz) HF links	Simplex Fixed station (FX) TXRX	6765 - 6795 kHz ISM (RR 5.138).
MOBILE (except aeronautical mobile (R))	6765 - 7000 kHz (235 kHz) Mobile radio		6765 - 6795 kHz ISM (RR 5.138).

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
7000 - 7100 kHz AMATEUR	7000 - 7100 kHz (100 kHz) Amateur	Simplex Amateur station (AT) TXRX	See Finnish Transport and Communications Agency Regulation 6. User certificate required. See Finnish Transport and Communications Agency Regulation 18. Maximum transmitter power in the elementary class 120 W and in the general class 1500 W. The numerical value means the peak envelope power when the carrier of the transmission is attenuated by at least 6 dB. In other cases it means the carrier power.
AMATEUR-SATELLITE	7000 - 7100 kHz (100 kHz) Amateur-Satellite	Simplex Amateur station (AT) TXRX	See Finnish Transport and Communications Agency Regulation 6. User certificate required. See Finnish Transport and Communications Agency Regulation 18. Maximum transmitter power in the elementary class 120 W and in the general class 1500 W. The numerical value means the peak envelope power when the carrier of the transmission is attenuated by at least 6 dB. In other cases it means the carrier power.
7100 - 7200 kHz AMATEUR	7100 - 7200 kHz (100 kHz) Amateur	Simplex Amateur station (AT) TXRX	See Finnish Transport and Communications Agency Regulation 6. User certificate required. See Finnish Transport and Communications Agency Regulation 18. Maximum transmitter power in the elementary class 120 W and in the general class 1500 W. The numerical value means the peak envelope power when the carrier of the transmission is attenuated by at least 6 dB. In other cases it means the carrier power.
7200 - 7300 kHz BROADCASTING	7200 - 7300 kHz (100 kHz) FM sound broadcasting		
7300 - 7400 kHz BROADCASTING	7300 - 7400 kHz (100 kHz) Broadcasting		Restricted fixed and mobile service possible, on condition that harmful interference is not caused to the broadcasting service (RR 5.143 and 5.143B).

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
7400 - 7450 kHz BROADCASTING	7400 - 7450 kHz (50 kHz) Broadcasting		Restricted fixed and mobile services possible, on condition that harmful interference is not caused to the broadcasting service (RR 5.143B).
7450 - 8100 kHz FIXED	7450 - 8100 kHz (650 kHz) HF links	Simplex Fixed station (FX) TXRX	
MOBILE (except aeronautical mobile (R))	7450 - 8100 kHz (650 kHz) Mobile radio		
8100 - 8195 kHz MARITIME MOBILE	8100 - 8195 kHz (95 kHz) Maritime radiotelephone service	Duplex Coast station (FC) RX 3 kHz / J3E Simplex Ship station (MS) TXRX 3 kHz / J3E	User certificate required. See Finnish Transport and Communications Agency Regulation 18. 8102.4 - 8129.4 kHz ship to ship. Used by Finnish ships. Also cross band traffic, ship to shore.
FIXED	8100 - 8195 kHz (95 kHz) HF links	Simplex Fixed station (FX) TXRX	
8195 - 8815 kHz MARITIME MOBILE	8196.400 - 8292.400 kHz (96 kHz) Maritime radiotelephone service	Duplex Coast station (FC) RX 3 kHz / 2.8 kHz 8720.400 - 8813.400 kHz J3E	User certificate required. See Finnish Transport and Communications Agency Regulation 18. Carrier frequency 1.4 kHz below center frequency. 8256.4 kHz international calling frequency. 8292.4 kHz international distress frequency (TX/RX). More detailed instructions for use in RR App 17.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	8295.400 - 8298.400 kHz (3 kHz) Maritime radiotelephone service	Simplex Coast station (FC) TXRX Ship station (MS) TXRX 3 kHz / 2.8 kHz J3E	User certificate required. See Finnish Transport and Communications Agency Regulation 18. Carrier frequency 1.4 kHz below center frequency. Digital transmission referred to in ITU-R. M.1798 allowed provided that no interference is caused to other maritime service. Ship station 1.5 kW, coast station 10 kW. Bandwidth 2.8 kHz. Several adjacent channels may be combined. More detailed instructions for use in RR App 17.
	8301.5 - 8337.5 kHz (36 kHz) Data service	Simplex Ship station (MS) TXRX 3 kHz /	User certificate required. See Finnish Transport and Communications Agency Regulation 18. Several adjacent channels may be combined. Digital transmission allowed on condition that harmful interference is not caused to other mobile maritime service. The modes of traffic A1A and A1B are allowed. More detailed instructions for use in RR App 17.
	8339.25 - 8339.75 kHz (0.500 kHz) Radio telex service	Duplex Coast station (FC) RX 0.5 kHz / 0.304 kHz F1B Simplex Ship station (MS) TXRX 0.5 kHz / 0.304 kHz F1B	User certificate required. See Finnish Transport and Communications Agency Regulation 18. More detailed instructions for use in RR App 17.
	8340.300 - 8341.500 kHz (1.200 kHz) Data service	Duplex Coast station (FC) RX 0.3 kHz /	User certificate required. See Finnish Transport and Communications Agency Regulation 18. 5 channels, maritime research. More detailed instructions for use in RR App 17.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	8343.250 - 8358.2500 kHz (15 kHz) Data service	Simplex Ship station (MS) TXRX Coast station (FC) RX 3 kHz /	User certificate required. See Finnish Transport and Communications Agency Regulation 18. Paired band is not defined. Digital transmission allowed on condition that harmful interference is not caused to other mobile maritime service. The modes of traffic A1A and A1B are allowed. More detailed instructions for use in RR App 17.
	8361.250 - 8373.250 kHz (12 kHz) Data service	Simplex Coast station (FC) TXRX Ship station (MS) TXRX 3 kHz /	User certificate required. See Finnish Transport and Communications Agency Regulation 18. Several adjacent channels may be combined. Digital transmission allowed on condition that harmful interference is not caused to other mobile maritime service. The modes of traffic A1A and A1B are allowed. More detailed instructions for use in RR App 17.
	8375.00 - 8383.5000 kHz (8.500 kHz) Radio telex service	Duplex Coast station (FC) TX 0.5 kHz / 0.304 kHz 8417.00 - 8423.500 kHz F1B Simplex Ship station (MS) TXRX 0.5 kHz / 0.304 kHz F1B	User certificate required. See Finnish Transport and Communications Agency Regulation 18. 8376.5 kHz distress frequency (TX/RX). Digital transmission allowed on condition that harmful interference is not caused to other mobile maritime service. More detailed instructions for use in RR App 17.
	8385.500 - 8406.500 kHz (21 kHz) Data service	Simplex Ship station (MS) TXRX Coast station (FC) TXRX 3 kHz /	User certificate required. See Finnish Transport and Communications Agency Regulation 18. Unpaired frequencies. Digital transmission allowed on condition that harmful interference is not caused to other mobile maritime service. More detailed instructions for use in RR App 17.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	8409.5 - 8412.5 kHz (3 kHz) Data service	Simplex Coast station (FC) TXRX Ship station (MS) RX 3 kHz /	User certificate required. See Finnish Transport and Communications Agency Regulation 18. Digital transmission allowed on condition that harmful interference is not caused to other mobile maritime service. Several adjacent channels may be combined. The modes of traffic A1A and A1B are allowed. More detailed instructions for use in RR App 17.
	8414.500 - 8416.000 kHz (1.500 kHz) DSC service	Duplex Coast station (FC) RX 0.5 kHz / 0.304 kHz 8436.500 - 8437.500 kHz F1B	User certificate required. See Finnish Transport and Communications Agency Regulation 18. 8414.5 kHz international distress frequency (TX/RX). 8415.0, 8415.5 and 8416.0 kHz international calling frequencies. More detailed instructions for use in RR App 17.
	8416.500 - 8423.5000 kHz (7 kHz) Radio telex service	Duplex Coast station (FC) TX 0.5 kHz / 0.304 kHz 8377.00 - 8383.5000 kHz F1B Simplex Coast station (FC) TXRX 0.5 kHz / 0.304 kHz F1B	User certificate required. See Finnish Transport and Communications Agency Regulation 18. 8416.5 kHz GMDSS safety frequency (MSI transmission). More detailed instructions for use in RR App 17.
	8425.5 - 8434.5 kHz (9 kHz) Data service	Simplex Coast station (FC) TXRX Ship station (MS) RX 3 kHz /	User certificate required. See Finnish Transport and Communications Agency Regulation 18. Several adjacent channels may be combined. Digital transmission allowed on condition that harmful interference is not caused to other mobile maritime service. The modes of traffic A1A and A1B are allowed. More detailed instructions for use in RR App 17.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	8436.500 - 8437.500 kHz (1 kHz) DSC service	Duplex Coast station (FC) RX 0.5 kHz / 0.304 kHz 8414.500 - 8416.000 kHz F1B	User certificate required. See Finnish Transport and Communications Agency Regulation 18. 8436.5, 8437.0 and 8437.5 kHz international calling frequencies. More detailed instructions for use in RR App 17.
	8438 - 8707 kHz (269 kHz) Wide-band telegraphy and special transmissions	Duplex Coast station (FC) TX Simplex Coast station (FC) TXRX	User certificate required. See Finnish Transport and Communications Agency Regulation 18. Wideband transmissions, radiotelegraphy, facsimile and special transmission systems. Digital transmission allowed on condition that harmful interference is not caused to other mobile maritime service. The modes of traffic A1A and A1B are allowed. More detailed instructions for use in RR App 17.
	8708.400 - 8717.400 kHz (9 kHz) Maritime radiotelephone service	Duplex Coast station (FC) TX 3 kHz / 2.8 kHz J3E	User certificate required. See Finnish Transport and Communications Agency Regulation 18. Paired band is not defined. Carrier frequency 1.4 kHz below center frequency. More detailed instructions for use in RR App 17.
	8720.400 - 8813.400 kHz (93 kHz) Maritime radiotelephone service	Duplex Coast station (FC) TX 3 kHz / 2.8 kHz 8196.400 - 8292.400 kHz J3E	User certificate required. See Finnish Transport and Communications Agency Regulation 18. 8780.4 kHz international calling frequency. Carrier frequency 1.4 kHz below center frequency. More detailed instructions for use in RR App 17.
8815 - 8965 kHz AERONAUTICAL MOBILE (R)	8815 - 8965 kHz (150 kHz) Aeronautical mobile		The user of a radio transmitter shall check the Finnish Transport and Communications Agency’s regulation PEL M2-93 to see whether the special certificate required for aeronautical radiocommunication is needed.
8965 - 9040 kHz AERONAUTICAL MOBILE (OR)	8965 - 9040 kHz (75 kHz) Aeronautical mobile		The user of a radio transmitter shall check the Finnish Transport and Communications Agency’s regulation PEL M2-93 to see whether the special certificate required for aeronautical radiocommunication is needed.
9040 - 9400 kHz FIXED	9040 - 9400 kHz (360 kHz) HF links	Simplex Fixed station (FX) TXRX	

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
Radiolocation	9305 - 9355 kHz (50 kHz) Radiolocation		Radio location for beacons for marine research only RR Res 612).
9400 - 9500 kHz BROADCASTING	9400 - 9500 kHz (100 kHz) Broadcasting		Restricted fixed service possible, on condition that harmful interference is not caused to the broadcasting service (RR 5.146).
9500 - 9900 kHz BROADCASTING	9500 - 9900 kHz (400 kHz) Broadcasting	Simplex Sound broadcasting (BC) TX / 10 kHz	
9900 - 9995 kHz FIXED	9900 - 9995 kHz (95 kHz) HF links	Simplex Fixed station (FX) TXRX	
9995 - 10003 kHz STANDARD FREQUENCY AND TIME SIGNAL	9995 - 10003 kHz (8 kHz) Standard frequency and time signal		10000 kHz standard frequency.
10003 - 10005 kHz STANDARD FREQUENCY AND TIME SIGNAL	10003 - 10005 kHz (2 kHz) Standard frequency and time signal		
Space research	10003 - 10005 kHz (2 kHz) Space research		
10005 - 10100 kHz AERONAUTICAL MOBILE (R)	10005 - 10100 kHz (95 kHz) Aeronautical mobile	Simplex Aeronautical station (FA) TXRX Mobile (ML) TXRX 3 kHz / 2.7 kHz	The user of a radio transmitter shall check the Finnish Transport and Communications Agency’s regulation PEL M2-93 to see whether the special certificate required for aeronautical radiocommunication is needed.
10100 - 10150 kHz FIXED	10100 - 10150 kHz (50 kHz) HF links	Simplex Fixed station (FX) TXRX	

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
Amateur	10100 - 10150 kHz (50 kHz) Amateur	Simplex Amateur station (AT) TXRX	See Finnish Transport and Communications Agency Regulation 6. User certificate required. See Finnish Transport and Communications Agency Regulation 18. Maximum transmitter power in the elementary class 120 W and in the general class 1500 W. The numerical value means the peak envelope power when the carrier of the transmission is attenuated by at least 6 dB. In other cases it means the carrier power.
10150 - 11175 kHz FIXED	10150 - 11175 kHz (1025 kHz) HF links	Simplex Fixed station (FX) TXRX	
Mobile (except aeronautical mobile (R))	10150 - 11175 kHz (1025 kHz) Mobile radio		
11175 - 11275 kHz AERONAUTICAL MOBILE (OR)	11175 - 11275 kHz (100 kHz) Aeronautical mobile		The user of a radio transmitter shall check the Finnish Transport and Communications Agency’s regulation PEL M2-93 to see whether the special certificate required for aeronautical radiocommunication is needed.
11275 - 11400 kHz AERONAUTICAL MOBILE (R)	11275 - 11400 kHz (125 kHz) Aeronautical mobile		The user of a radio transmitter shall check the Finnish Transport and Communications Agency’s regulation PEL M2-93 to see whether the special certificate required for aeronautical radiocommunication is needed.
11400 - 11600 kHz FIXED	11400 - 11600 kHz (200 kHz) HF links	Simplex Fixed station (FX) TXRX	
11600 - 11650 kHz BROADCASTING	11600 - 11650 kHz (50 kHz) Broadcasting		Restricted fixed service possible, on condition that harmful interference is not caused to the broadcasting service (RR 5.146).
11650 - 12050 kHz BROADCASTING	11650 - 12050 kHz (400 kHz) Broadcasting	Simplex Sound broadcasting (BC) TX / 10 kHz	
12050 - 12100 kHz BROADCASTING	12050 - 12100 kHz (50 kHz) Broadcasting		Restricted fixed service possible, on condition that harmful interference is not caused to the broadcasting service (RR 5.146).

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
12100 - 12230 kHz FIXED	12100 - 12230 kHz (130 kHz) HF links	Simplex Fixed station (FX) TXRX	
12230 - 13200 kHz MARITIME MOBILE	12231.400 - 12351.400 kHz (120 kHz) Maritime radiotelephone service	Duplex Coast station (FC) RX 3 kHz / 2.8 kHz 13078.400 - 13198.400 kHz J3E	User certificate required. See Finnish Transport and Communications Agency Regulation 18. Carrier frequency 1.4 kHz below center frequency. 12291.4 kHz international distress frequency and calling frequency of maritime rescue centres. More detailed instructions for use in RR App 17.
	12354.400 - 12366.400 kHz (12 kHz) Maritime radiotelephone service	Simplex Coast station (FC) TXRX Ship station (MS) TXRX 3 kHz / 2.8 kHz J3E	User certificate required. See Finnish Transport and Communications Agency Regulation 18. Carrier frequency 1.4 kHz below center frequency. Finnish vessels use all these frequencies. 12360.4 kHz international calling frequency for radiotelephone service (ships and coast stations). Digital transmission referred to in ITU-R. M.1798 allowed provided that no interference is caused to other maritime service. Ship station 1.5 kW, coast station 10 kW. Bandwidth 2.8 kHz. Several adjacent channels may be combined. More detailed instructions for use in RR App 17.
	12369.5 - 12417.5 kHz (48 kHz) Data service	Simplex Ship station (MS) TXRX Coast station (FC) RX 3 kHz /	User certificate required. See Finnish Transport and Communications Agency Regulation 18. Several adjacent channels may be combined. Digital transmission allowed on condition that harmful interference is not caused to other mobile maritime service. The modes of traffic A1A and A1B are allowed. More detailed instructions for use in RR App 17.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	12419.25 - 12419.75 kHz (0.500 kHz) Maritime mobile	Duplex Coast station (FC) RX 0.5 kHz / 0.304 kHz F1B Simplex Coast station (FC) TXRX 0.5 kHz / 0.304 kHz F1B	User certificate required. See Finnish Transport and Communications Agency Regulation 18. More detailed instructions for use in RR App 17.
	12420.300 - 12421.500 kHz (1.200 kHz) Data service	Simplex Coast station (FC) TXRX 0.3 kHz /	User certificate required. See Finnish Transport and Communications Agency Regulation 18. 5 channels, maritime research. More detailed instructions for use in RR App 17.
	12422.0 - 12422.001 kHz (0.001 kHz) Radio telex service	Duplex Coast station (FC) RX 0.5 kHz / 0.304 kHz F1B Simplex Coast station (FC) TXRX 0.5 kHz / 0.304 MHz F1B	User certificate required. See Finnish Transport and Communications Agency Regulation 18. More detailed instructions for use in RR App 17.
	12423.75000 - 12450.7500 kHz (27 kHz) Data service	Simplex Ship station (MS) TXRX Coast station (FC) RX 3 kHz /	User certificate required. See Finnish Transport and Communications Agency Regulation 18. Several adjacent channels may be combined. Digital transmission allowed on condition that harmful interference is not caused to other mobile maritime service. The modes of traffic A1A and A1B are allowed. More detailed instructions for use in RR App 17.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	12453.75 - 12474.5 kHz (20.750 kHz) Data service	Coast station (FC) TXRX Ship station (MS) TXRX 3 kHz /	User certificate required. See Finnish Transport and Communications Agency Regulation 18. Several adjacent channels may be combined. Digital transmission allowed on condition that harmful interference is not caused to other mobile maritime service. The modes of traffic A1A and A1B are allowed. More detailed instructions for use in RR App 17.
	12476.500 - 12522.500 kHz (46 kHz) Radio telex service	Duplex Coast station (FC) RX 0.5 kHz / 0.304 kHz 12579.500 - 12624.500 kHz F1B	User certificate required. See Finnish Transport and Communications Agency Regulation 18. 12520.0 kHz international distress frequency (TX/RX). More detailed instructions for use in RR App 17.
	12524.250 - 12575.250 kHz (51 kHz) Data service	Simplex Coast station (FC) TXRX Ship station (MS) TXRX 3 kHz /	User certificate required. See Finnish Transport and Communications Agency Regulation 18. Several adjacent channels may be combined. Digital transmission allowed on condition that harmful interference is not caused to other mobile maritime service. The modes of traffic A1A and A1B are allowed. More detailed instructions for use in RR App 17.
	12577.000 - 12578.500 kHz (1.500 kHz) DSC service	Duplex Coast station (FC) RX 0.5 kHz / 0.304 kHz 12657 - 12658 kHz F1B	User certificate required. See Finnish Transport and Communications Agency Regulation 18. 12577 kHz international DSC distress frequency. 12577.5, 12578.0 and 12578.5 kHz international calling frequencies. More detailed instructions for use in RR App 17.
	12579.000 - 12624.500 kHz (45.500 kHz) Radio telex service	Duplex Coast station (FC) TX 0.5 kHz / 0.304 kHz 12477.00 - 12522.500 kHz F1B Simplex Coast station (FC) TXRX 0.5 kHz / 0.304 kHz F1B	User certificate required. See Finnish Transport and Communications Agency Regulation 18. 12579 kHz international security frequency/MSI (TX/RX). Digital transmission allowed on condition that harmful interference is not caused to other mobile maritime service. More detailed instructions for use in RR App 17.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	12626.25000 - 12653.2500 kHz (27 kHz) Data service	Simplex Coast station (FC) TXRX Ship station (MS) RX 3 kHz / F1B	User certificate required. See Finnish Transport and Communications Agency Regulation 18. Several adjacent channels may be combined. Digital transmission allowed on condition that harmful interference is not caused to other mobile maritime service. The modes of traffic A1A and A1B are allowed. More detailed instructions for use in RR App 17.
	12655.000 - 12656.500 kHz (1.500 kHz) Radio telex service	Duplex Coast station (FC) RX 0.5 kHz / 0.304 kHz F1B Simplex Ship station (MS) TXRX 0.5 kHz / 0.304 kHz F1B	User certificate required. See Finnish Transport and Communications Agency Regulation 18. Digital transmission allowed on condition that harmful interference is not caused to other mobile maritime service. More detailed instructions for use in RR App 17.
	12657 - 12658 kHz (1 kHz) DSC service	Duplex Coast station (FC) TX 0.5 kHz / 0.304 kHz 12577.500 - 12578.500 kHz F1B	User certificate required. See Finnish Transport and Communications Agency Regulation 18. 12657.0, 12657.5 and 12658.0 kHz international calling frequencies. More detailed instructions for use in RR App 17.
	12658.500 - 13077.000 kHz (418.500 kHz) Wide-band telegraphy and special transmissions	Duplex Coast station (FC) TX Simplex Coast station (FC) TXRX	User certificate required. See Finnish Transport and Communications Agency Regulation 18. Channel spacing and paired band are not defined. Wideband transmissions, facsimile and special transmission. Digital transmission allowed on condition that harmful interference is not caused to other mobile maritime service. The modes of traffic A1A and A1B are allowed. More detailed instructions for use in RR App 17.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	13078.400 - 13198.400 kHz (120 kHz) Maritime radiotelephone service	Duplex Coast station (FC) TX 3 kHz / 2.8 kHz 12231.400 - 12351.400 kHz J3E	User certificate required. See Finnish Transport and Communications Agency Regulation 18. 13138.4 kHz international calling frequency. Digital transmission referred to in ITU-R. M.1798 allowed provided that no interference is caused to other maritime service. Ship station 1.5 kW, coast station 10 kW. Bandwidth 2.8 kHz. The transmission must be within one channel. More detailed instructions for use in RR App 17.
13200 - 13260 kHz AERONAUTICAL MOBILE (OR)	13200 - 13260 kHz (60 kHz) Aeronautical mobile		The user of a radio transmitter shall check the Finnish Transport and Communications Agency’s regulation PEL M2-93 to see whether the special certificate required for aeronautical radiocommunication is needed.
13260 - 13360 kHz AERONAUTICAL MOBILE (R)	13260 - 13360 kHz (100 kHz) Aeronautical mobile		The user of a radio transmitter shall check the Finnish Transport and Communications Agency’s regulation PEL M2-93 to see whether the special certificate required for aeronautical radiocommunication is needed.
13360 - 13410 kHz RADIO ASTRONOMY	13360 - 13410 kHz (50 kHz) Radio astronomy		
FIXED	13360 - 13410 kHz (50 kHz) HF links	Simplex Fixed station (FX) TXRX	Protection for radio astronomy (RR 5.149).
13410 - 13570 kHz FIXED	13410 - 13570 kHz (160 kHz) HF links	Simplex Fixed station (FX) TXRX	
Mobile (except aeronautical mobile (R))	13410 - 13570 kHz (160 kHz) Mobile radio		13553 - 13567 kHz ISM (RR 5.150).
Radiolocation	13450 - 13550 kHz (100 kHz) Radiolocation		Radio location for beacons for marine research only RR Res 612).

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
Mobile (except aeronautical mobile (R))	13553 - 13567 kHz (14 kHz) (SRD) Non-specific Short Range Devices		Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Radiated power max. 10 mW ERP. Standard EN 300 330. 13553 - 13567 kHz ISM (RR 5.150).
13570 - 13600 kHz BROADCASTING	13570 - 13600 kHz (30 kHz) Broadcasting		Restricted fixed and mobile service possible, on condition that harmful interference is not caused to the broadcasting service (RR 5.151).
13600 - 13800 kHz BROADCASTING	13600 - 13800 kHz (200 kHz) Broadcasting	Simplex Sound broadcasting (BC) TX / 10 kHz	
13800 - 13870 kHz BROADCASTING	13800 - 13870 kHz (70 kHz) Broadcasting		Restricted fixed and mobile service possible, on condition that harmful interference is not caused to the broadcasting service (RR 5.151).
13870 - 14000 kHz FIXED	13870 - 14000 kHz (130 kHz) HF links	Simplex Fixed station (FX) TXRX	
Mobile (except aeronautical mobile (R))	13870 - 14000 kHz (130 kHz) Mobile radio		
14000 - 14250 kHz AMATEUR	14000 - 14250 kHz (250 kHz) Amateur	Simplex Amateur station (AT) TXRX	See Finnish Transport and Communications Agency Regulation 6. User certificate required. See Finnish Transport and Communications Agency Regulation 18. Maximum transmitter power in the elementary class 120 W and in the general class 1500 W. The numerical value means the peak envelope power when the carrier of the transmission is attenuated by at least 6 dB. In other cases it means the carrier power.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
AMATEUR-SATELLITE	14000 - 14250 kHz (250 kHz) Amateur-Satellite	Simplex Amateur station (AT) TXRX	See Finnish Transport and Communications Agency Regulation 6. User certificate required. See Finnish Transport and Communications Agency Regulation 18. Maximum transmitter power in the elementary class 120 W and in the general class 1500 W. The numerical value means the peak envelope power when the carrier of the transmission is attenuated by at least 6 dB. In other cases it means the carrier power.
14250 - 14350 kHz AMATEUR	14250 - 14350 kHz (100 kHz) Amateur	Simplex Amateur station (AT) TXRX	See Finnish Transport and Communications Agency Regulation 6. User certificate required. See Finnish Transport and Communications Agency Regulation 18. Maximum transmitter power in the elementary class 120 W and in the general class 1500 W. The numerical value means the peak envelope power when the carrier of the transmission is attenuated by at least 6 dB. In other cases it means the carrier power.
14350 - 14990 kHz FIXED	14350 - 14990 kHz (640 kHz) HF links	Simplex Fixed station (FX) TXRX	
Mobile (except aeronautical mobile (R))	14350 - 14990 kHz (640 kHz) Mobile radio		
14990 - 15005 kHz STANDARD FREQUENCY AND TIME SIGNAL	14990 - 15005 kHz (15 kHz) Standard frequency and time signal		15000 kHz standard frequency.
15005 - 15010 kHz STANDARD FREQUENCY AND TIME SIGNAL	15005 - 15010 kHz (5 kHz) Standard frequency and time signal		
Space research	15005 - 15010 kHz (5 kHz) Space research		

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
15010 - 15100 kHz AERONAUTICAL MOBILE (OR)	15010 - 15100 kHz (90 kHz) Aeronautical mobile		The user of a radio transmitter shall check the Finnish Transport and Communications Agency's regulation PEL M2-93 to see whether the special certificate required for aeronautical radiocommunication is needed.
15100 - 15600 kHz BROADCASTING	15100 - 15600 kHz (500 kHz) Broadcasting	Simplex Sound broadcasting (BC) TX / 10 kHz	
15600 - 15800 kHz BROADCASTING	15600 - 15800 kHz (200 kHz) Broadcasting		Restricted fixed service possible, on condition that harmful interference is not caused to the broadcasting service (RR 5.146).
15800 - 16360 kHz FIXED	15800 - 16360 kHz (560 kHz) HF links	Simplex Fixed station (FX) TXRX	
Radiolocation	16100 - 16200 kHz (100 kHz) Radiolocation		Radio location for beacons for marine research only RR Res 612).
16360 - 17410 kHz MARITIME MOBILE	16361.400 - 16526.400 kHz (165 kHz) Maritime radiotelephone service	Duplex Coast station (FC) RX 3 kHz / 2.8 kHz 17243.400 - 17408.400 kHz J3E	User certificate required. See Finnish Transport and Communications Agency Regulation 18. Carrier frequency 1.4 kHz below center frequency. 16421.4 kHz international distress frequency and calling frequency of maritime rescue centres. More detailed instructions for use in RR App 17.
	16529.400 - 16547.400 kHz (18 kHz) Maritime radiotelephone service	Simplex Coast station (FC) TXRX Ship station (MS) TXRX 3 kHz / 2.8 kHz J3E	User certificate required. See Finnish Transport and Communications Agency Regulation 18. Carrier frequency 1.4 kHz below center frequency. 16538.4 kHz international calling frequency for radiotelephone service (ships and coast stations). Digital transmission referred to in ITU-R. M.1798 allowed provided that no interference is caused to other maritime service. Ship station 1.5 kW, coast station 10 kW. Bandwidth 2.8 kHz. Several adjacent channels may be combined. More detailed instructions for use in RR App 17.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	16550.5 - 16613.5 kHz (63 kHz) Data service	Simplex Ship station (MS) TXRX Coast station (FC) RX 3 kHz /	User certificate required. See Finnish Transport and Communications Agency Regulation 18. Several adjacent channels may be combined. Digital transmission allowed on condition that harmful interference is not caused to other mobile maritime service. The modes of traffic A1A and A1B are allowed. More detailed instructions for use in RR App 17.
	16615.2500 - 16616.7500 kHz (1.500 kHz) Radio telex service	Duplex Coast station (FC) RX 0.5 kHz / 0.304 kHz F1B Simplex Ship station (MS) TXRX 0.5 kHz / 0.304 kHz F1B	User certificate required. See Finnish Transport and Communications Agency Regulation 18. Digital transmission allowed on condition that harmful interference is not caused to other mobile maritime service. More detailed instructions for use in RR App 17.
	16617.300 - 16618.500 kHz (1.200 kHz) Data service	Simplex Coast station (FC) RX 0.3 kHz /	User certificate required. See Finnish Transport and Communications Agency Regulation 18. 5 channels, maritime research. More detailed instructions for use in RR App 17.
	16620.25 - 16680.25 kHz (60 kHz) Data service	Simplex Ship station (MS) TXRX Coast station (FC) RX 3 kHz /	User certificate required. See Finnish Transport and Communications Agency Regulation 18. Digital transmission allowed on condition that harmful interference is not caused to other mobile maritime service. Several adjacent channels may be combined. The modes of traffic A1A and A1B are allowed. More detailed instructions for use in RR App 17.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	16682 - 16698.5 kHz (16.500 kHz) Radio telex service	Duplex Coast station (FC) RX 0.5 kHz / 16807 - 16821.5 kHz F1B Simplex Ship station (MS) TXRX 0.5 kHz / F1B	User certificate required. See Finnish Transport and Communications Agency Regulation 18. 16695.0 kHz international distress frequency (TX/RX). More detailed instructions for use in RR App 17.
	16700.50 - 16802.50 kHz (102 kHz) Data service	Simplex Coast station (FC) TXRX Ship station (MS) TXRX 3 kHz /	User certificate required. See Finnish Transport and Communications Agency Regulation 18. Several adjacent channels may be combined. Digital transmission allowed on condition that harmful interference is not caused to other mobile maritime service. The modes of traffic A1A and A1B are allowed. More detailed instructions for use in RR App 17.
	16804.500 - 16806.000 kHz (1.500 kHz) DSC service	Duplex Coast station (FC) RX 0.5 kHz / 0.304 kHz 16903 - 16904 kHz F1B	User certificate required. See Finnish Transport and Communications Agency Regulation 18. 16804.5 kHz international DSC distress frequency (simplex). 16805.0, 16805.5 and 16806.0 kHz international calling frequencies. More detailed instructions for use in RR App 17.
	16806.500 - 16821.500 kHz (15 kHz) Radio telex service	Duplex Coast station (FC) TX 0.5 kHz / 0.304 kHz 16683.500 - 16698.500 kHz F1B Simplex Coast station (FC) TX 0.5 kHz / 0.304 kHz F1B	User certificate required. See Finnish Transport and Communications Agency Regulation 18. 16806.5 kHz international security channel (MSI). More detailed instructions for use in RR App 17.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	16823.2500 - 16838.2500 kHz (15 kHz) Data service	Simplex Coast station (FC) TXRX Ship station (MS) TXRX 3 kHz /	User certificate required. See Finnish Transport and Communications Agency Regulation 18. Several adjacent channels may be combined. Digital transmission allowed on condition that harmful interference is not caused to other mobile maritime service. The modes of traffic A1A and A1B are allowed. More detailed instructions for use in RR App 17.
	16841.25 - 16901.25 kHz (60 kHz) Data service	Simplex Coast station (FC) TX Ship station (MS) RX 3 kHz /	User certificate required. See Finnish Transport and Communications Agency Regulation 18. Several adjacent channels may be combined. Digital transmission allowed on condition that harmful interference is not caused to other mobile maritime service. The modes of traffic A1A and A1B are allowed. More detailed instructions for use in RR App 17.
	16903 - 16904 kHz (1 kHz) DSC service	Duplex Coast station (FC) TX 0.5 kHz / 0.304 kHz 16804.500 - 16806.000 kHz F1B	User certificate required. See Finnish Transport and Communications Agency Regulation 18. 16903.0, 16903.5 and 16904.0 kHz international calling frequencies. More detailed instructions for use in RR App 17.
	16904.500 - 17242.000 kHz (337.500 kHz) Wide-band telegraphy and special transmissions	Duplex Coast station (FC) TX Simplex Coast station (FC) TXRX	User certificate required. See Finnish Transport and Communications Agency Regulation 18. Channel spacing and paired band are not defined. Wideband transmissions, radiotelegraphy, facsimile and special transmission systems. More detailed instructions for use in RR App 17.
	17243.400 - 17408.400 kHz (165 kHz) Maritime radiotelephone service	Duplex Coast station (FC) TX 3 kHz / 2.8 kHz 16361.400 - 16526.400 kHz J3E	User certificate required. See Finnish Transport and Communications Agency Regulation 18. Carrier frequency 1.4 kHz below center frequency. 17303.4 kHz international calling frequency. More detailed instructions for use in RR App 17.
17410 - 17480 kHz FIXED	17410 - 17480 kHz (70 kHz) HF links	Simplex Fixed station (FX) TXRX	

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
17480 - 17550 kHz BROADCASTING	17480 - 17550 kHz (70 kHz) Broadcasting		Restricted fixed service possible, on condition that harmful interference is not caused to the broadcasting service (RR 5.146).
17550 - 17900 kHz BROADCASTING	17550 - 17900 kHz (350 kHz) Broadcasting	Simplex Sound broadcasting (BC) TX / 10 kHz	
17900 - 17970 kHz AERONAUTICAL MOBILE (R)	17900 - 17970 kHz (70 kHz) Aeronautical mobile	Simplex Aeronautical station (FA) TXRX Mobile (ML) TXRX 3 kHz / 2.7 kHz	The user of a radio transmitter shall check the Finnish Transport and Communications Agency’s regulation PEL M2-93 to see whether the special certificate required for aeronautical radiocommunication is needed.
17970 - 18030 kHz AERONAUTICAL MOBILE (OR)	17970 - 18030 kHz (60 kHz) Aeronautical mobile		The user of a radio transmitter shall check the Finnish Transport and Communications Agency’s regulation PEL M2-93 to see whether the special certificate required for aeronautical radiocommunication is needed.
18030 - 18052 kHz FIXED	18030 - 18052 kHz (22 kHz) Fixed		
18052 - 18068 kHz FIXED	18052 - 18068 kHz (16 kHz) Fixed		
Space research	18052 - 18068 kHz (16 kHz) Space research		
18068 - 18168 kHz AMATEUR	18068 - 18168 kHz (100 kHz) Amateur	Simplex Amateur station (AT) TXRX	See Finnish Transport and Communications Agency Regulation 6. User certificate required. See Finnish Transport and Communications Agency Regulation 18. Maximum transmitter power in the elementary class 120 W and in the general class 1500 W. The numerical value means the peak envelope power when the carrier of the transmission is attenuated by at least 6 dB. In other cases it means the carrier power.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
AMATEUR-SATELLITE	18068 - 18168 kHz (100 kHz) Amateur-Satellite	Simplex Amateur station (AT) TXRX	See Finnish Transport and Communications Agency Regulation 6. User certificate required. See Finnish Transport and Communications Agency Regulation 18. Maximum transmitter power in the elementary class 120 W and in the general class 1500 W. The numerical value means the peak envelope power when the carrier of the transmission is attenuated by at least 6 dB. In other cases it means the carrier power.
18168 - 18780 kHz FIXED	18168 - 18780 kHz (612 kHz) HF links	Simplex Fixed station (FX) TXRX	
Mobile (except aeronautical mobile)	18186 - 18780 kHz (594 kHz) Mobile radio		
18780 - 18900 kHz MARITIME MOBILE	18781.400 - 18823.400 kHz (42 kHz) Maritime radiotelephone service	Duplex Coast station (FC) RX 3 kHz / 19756.400 - 19798.400 kHz J3E	User certificate required. See Finnish Transport and Communications Agency Regulation 18. Carrier frequency 1.4 kHz below center frequency. 18796.4 kHz international radiotelephone service calling freguency, pair frequency 19771.4 kHz. More detailed instructions for use in RR App 17.
	18826.400 - 18844.400 kHz (18 kHz) Maritime radiotelephone service	Simplex Coast station (FC) TXRX Ship station (MS) TXRX 3 kHz / 2.8 kHz J3E	User certificate required. See Finnish Transport and Communications Agency Regulation 18. Carrier frequency 1.4 kHz below center frequency. Digital transmission referred to in ITU-R. M.1798 allowed provided that no interference is caused to other maritime service. Ship station 1.5 kW, coast station 10 kW. Bandwidth 2.8 kHz. Several adjacent channels may be combined. More detailed instructions for use in RR App 17.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	18847.5 - 18871.5 kHz (24 kHz) Data service	Simplex Ship station (MS) TXRX Coast station (FC) RX 3 kHz /	User certificate required. See Finnish Transport and Communications Agency Regulation 18. Several adjacent channels may be combined. Digital transmission allowed on condition that harmful interference is not caused to other mobile maritime service. The modes of traffic A1A and A1B are allowed. More detailed instructions for use in RR App 17.
	18873.500 - 18880.00 kHz (6.500 kHz) Radio telex service	Duplex Coast station (FC) RX 0.5 kHz / 0.304 kHz 19684.00 - 19690.500 kHz F1B Simplex Coast station (FC) TXRX 0.5 kHz / 0.304 kHz F1B	User certificate required. See Finnish Transport and Communications Agency Regulation 18. More detailed instructions for use in RR App 17.
	18881.75 - 18893.75 kHz (12 kHz) Data service	Simplex Ship station (MS) TXRX Coast station (FC) RX 3 kHz / F1B	User certificate required. See Finnish Transport and Communications Agency Regulation 18. Several adjacent channels may be combined. Digital transmission allowed on condition that harmful interference is not caused to other mobile maritime service. The modes of traffic A1A and A1B are allowed. More detailed instructions for use in RR App 17.
	18896.75 - 18896.751 kHz (0.001 kHz) Data service	Simplex Coast station (FC) TXRX Ship station (MS) TXRX 3 kHz /	User certificate required. See Finnish Transport and Communications Agency Regulation 18. Digital transmission allowed on condition that harmful interference is not caused to other mobile maritime service. The modes of traffic A1A and A1B are allowed. More detailed instructions for use in RR App 17.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	18898.500 - 18899.500 kHz (1 kHz) DSC service	Duplex Coast station (FC) RX 0.5 kHz / 0.304 kHz 19703.500 - 19704.500 kHz F1B	User certificate required. See Finnish Transport and Communications Agency Regulation 18. 18898.5, 18899.0 and 18899.5 kHz international DSC calling frequencies, center frequencies. More detailed instructions for use in RR App 17.
18900 - 19020 kHz BROADCASTING	18900 - 19020 kHz (120 kHz) Broadcasting		Restricted fixed service possible, on condition that harmful interference is not caused to the broadcasting service (RR 5.146).
19020 - 19680 kHz FIXED	19020 - 19680 kHz (660 kHz) HF links	Simplex Fixed station (FX) TXRX	
19680 - 19800 kHz MARITIME MOBILE	19680.5 - 19680.501 kHz (0.001 kHz) Radio telex service	Duplex Coast station (FC) RX 0.5 kHz / 0.304 kHz F1B Simplex Coast station (FC) TXRX 0.5 kHz / 0.304 kHz F1B	User certificate required. See Finnish Transport and Communications Agency Regulation 18. More detailed instructions for use in RR App 17.
	19682.25 - 19682.251 kHz (0.001 kHz) Data service	Coast station (FC) TX Ship station (MS) RX 3 kHz /	User certificate required. See Finnish Transport and Communications Agency Regulation 18. Digital transmission allowed on condition that harmful interference is not caused to other mobile maritime service. The modes of traffic A1A and A1B are allowed. More detailed instructions for use in RR App 17.
	19684.00 - 19691.000 kHz (7 kHz) Radio telex service	Duplex Coast station (FC) TX 0.5 kHz / 0.304 kHz 18873.500 - 18880.00 kHz F1B Simplex Coast station (FC) TXRX 0.5 kHz / 0.304 kHz	User certificate required. See Finnish Transport and Communications Agency Regulation 18. More detailed instructions for use in RR App 17.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	19692.75 - 19701.75 kHz (9 kHz) Data service	Simplex Coast station (FC) TXRX Ship station (MS) RX 3 kHz /	User certificate required. See Finnish Transport and Communications Agency Regulation 18. Several adjacent channels may be combined. Digital transmission allowed on condition that harmful interference is not caused to other mobile maritime service. The modes of traffic A1A and A1B are allowed. More detailed instructions for use in RR App 17.
	19703.500 - 19704.500 kHz (1 kHz) DSC service	Duplex Coast station (FC) TX 0.5 kHz / 0.304 kHz 18898.500 - 18899.500 kHz F1B	User certificate required. See Finnish Transport and Communications Agency Regulation 18. 19703.5, 19704.0 and 19704.5 kHz international DSC calling frequencies, center frequencies. More detailed instructions for use in RR App 17.
	19705 - 19755 kHz (50 kHz) Wide-band telegraphy and special transmissions	Duplex Coast station (FC) TX Simplex Coast station (FC) TXRX	User certificate required. See Finnish Transport and Communications Agency Regulation 18. Channel spacing and paired band are not defined. Wideband transmissions, facsimile and special transmission. Digital transmission allowed on condition that harmful interference is not caused to other mobile maritime service. The modes of traffic A1A and A1B are allowed. More detailed instructions for use in RR App 17.
	19756.400 - 19798.400 kHz (42 kHz) Maritime radiotelephone service	Duplex Coast station (FC) TX 3 kHz / 2.8 kHz 18781.400 - 18823.400 kHz J3E	User certificate required. See Finnish Transport and Communications Agency Regulation 18. Carrier frequency 1.4 kHz below center frequency. 19771.4 kHz international calling frequency, paired frequency 18796.4 kHz. More detailed instructions for use in RR App 17.
19800 - 19990 kHz FIXED	19800 - 19990 kHz (190 kHz) Fixed		
19990 - 19995 kHz STANDARD FREQUENCY AND TIME SIGNAL	19990 - 19995 kHz (5 kHz) Standard frequency and time signal		

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
Space research	19990 - 19995 kHz (5 kHz) Space research		
19995 - 20010 kHz STANDARD FREQUENCY AND TIME SIGNAL	19995 - 20010 kHz (15 kHz) Standard frequency and time signal		20000 kHz standard frequency.
20010 - 21000 kHz FIXED	20010 - 21000 kHz (990 kHz) HF links	Simplex Fixed station (FX) TXRX	
Mobile	20010 - 21000 kHz (990 kHz) Mobile radio		
21000 - 21450 kHz AMATEUR	21000 - 21450 kHz (450 kHz) Amateur	Simplex Amateur station (AT) TXRX	See Finnish Transport and Communications Agency Regulation 6. User certificate required. See Finnish Transport and Communications Agency Regulation 18. Maximum transmitter power in the elementary class 120 W and in the general class 1500 W. The numerical value means the peak envelope power when the carrier of the transmission is attenuated by at least 6 dB. In other cases it means the carrier power.
AMATEUR-SATELLITE	21000 - 21450 kHz (450 kHz) Amateur-Satellite	Simplex Amateur station (AT) TXRX	See Finnish Transport and Communications Agency Regulation 6. User certificate required. See Finnish Transport and Communications Agency Regulation 18. Maximum transmitter power in the elementary class 120 W and in the general class 1500 W. The numerical value means the peak envelope power when the carrier of the transmission is attenuated by at least 6 dB. In other cases it means the carrier power.
21450 - 21850 kHz BROADCASTING	21450 - 21850 kHz (400 kHz) Broadcasting	Simplex Sound broadcasting (BC) TX / 10 kHz	

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
21850 - 21870 kHz FIXED	21850 - 21870 kHz (20 kHz) Fixed		
21870 - 21924 kHz FIXED	21870 - 21924 kHz (54 kHz) Fixed		
21924 - 22000 kHz AERONAUTICAL MOBILE (R)	21924 - 22000 kHz (76 kHz) Aeronautical mobile	Simplex Aeronautical station (FA) TXRX Mobile (ML) TXRX 3 kHz / 2.7 kHz	The user of a radio transmitter shall check the Finnish Transport and Communications Agency’s regulation PEL M2-93 to see whether the special certificate required for aeronautical radiocommunication is needed.
22000 - 22855 kHz MARITIME MOBILE	22001.400 - 22157.400 kHz (156 kHz) Maritime radiotelephone service	Duplex Coast station (FC) RX 3 kHz / 2.8 kHz 22697.400 - 22853.400 kHz J3E	User certificate required. See Finnish Transport and Communications Agency Regulation 18. Carrier frequency 1.4 kHz below center frequency. 22061.4 kHz international calling frequency, paired frequency 22757.4 kHz. More detailed instructions for use in RR App 17.
	22160.400 - 22178.400 kHz (18 kHz) Maritime radiotelephone service	Simplex Coast station (FC) TXRX Ship station (MS) TXRX 3 kHz / 2.8 kHz J3E	User certificate required. See Finnish Transport and Communications Agency Regulation 18. Carrier frequency 1.4 kHz below center frequency. Digital transmission referred to in ITU-R. M.1798 allowed provided that no interference is caused to other maritime service. Ship station 1.5 kW, coast station 10 kW. Bandwidth 2.8 kHz. Several adjacent channels may be combined. More detailed instructions for use in RR App 17.
	22181.5 - 22238.5 kHz (57 kHz) Data service	Simplex Ship station (MS) TXRX Coast station (FC) RX 3 kHz /	User certificate required. See Finnish Transport and Communications Agency Regulation 18. Several adjacent channels may be combined. Digital transmission allowed on condition that harmful interference is not caused to other mobile maritime service. The modes of traffic A1A and A1B are allowed. More detailed instructions for use in RR App 17.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	22240.300 - 22241.500 kHz (1.200 kHz) Data service	Simplex Coast station (FC) RX 0.3 kHz /	User certificate required. See Finnish Transport and Communications Agency Regulation 18. 3 channels, maritime research. More detailed instructions for use in RR App 17.
	22243.25 - 22288.25 kHz (45 kHz) Data service	Simplex Ship station (MS) TXRX Coast station (FC) RX 3 kHz /	User certificate required. See Finnish Transport and Communications Agency Regulation 18. Several adjacent channels may be combined. Digital transmission allowed on condition that harmful interference is not caused to other mobile maritime service. The modes of traffic A1A and A1B are allowed. More detailed instructions for use in RR App 17.
	22290.00 - 22299.00 kHz (9 kHz) Radio telex service	Duplex Coast station (FC) RX 0.5 kHz / 0.304 kHz 22382.5 - 22389.00 kHz F1B Simplex Coast station (FC) RX 0.5 kHz / 0.304 kHz	User certificate required. See Finnish Transport and Communications Agency Regulation 18. More detailed instructions for use in RR App 17.
	22300.750 - 22372.750 kHz (72 kHz) Data service	Duplex Coast station (FC) TXRX Ship station (MS) TXRX 3 kHz /	User certificate required. See Finnish Transport and Communications Agency Regulation 18. Several adjacent channels may be combined. The modes of traffic A1A and A1B are allowed. Digital transmission allowed on condition that harmful interference is not caused to other mobile maritime service. More detailed instructions for use in RR App 17.
	22374.500 - 22375.500 kHz (1 kHz) DSC service	Duplex Coast station (FC) RX 0.5 kHz / 0.304 kHz 22444 - 22445 kHz F1B	User certificate required. See Finnish Transport and Communications Agency Regulation 18. 22374.5, 22375.0 and 22375.5 kHz international calling frequencies, 3 halves of channels, (ships TX). More detailed instructions for use in RR App 17.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	22376 - 22376.001 kHz (0.001 kHz) Radio telex service	Duplex Coast station (FC) TXRX 0.5 kHz / 0.304 kHz F1B Simplex Coast station (FC) TX 0.5 kHz / 0.304 kHz F1B	User certificate required. See Finnish Transport and Communications Agency Regulation 18. More detailed instructions for use in RR App 17.
	22377.75 - 22380.75 kHz (3 kHz) Data service	Ship station (MS) TXRX Coast station (FC) RX 3 kHz /	User certificate required. See Finnish Transport and Communications Agency Regulation 18. Several adjacent channels may be combined. Digital transmission allowed on condition that harmful interference is not caused to other mobile maritime service. The modes of traffic A1A and A1B are allowed. More detailed instructions for use in RR App 17.
	22382.5 - 22389 kHz (6.500 kHz) Radio telex service	Duplex Coast station (FC) RX 0.5 kHz / 22290.5 - 22297 kHz F1B Simplex Ship station (MS) TXRX 0.5 kHz / F1B	User certificate required. See Finnish Transport and Communications Agency Regulation 18. More detailed instructions for use in RR App 17.
	22390.75 - 22441.75 kHz (51 kHz) Data service	Coast station (FC) TX Ship station (MS) RX 3 kHz /	User certificate required. See Finnish Transport and Communications Agency Regulation 18. Several adjacent channels may be combined. Digital transmission allowed on condition that harmful interference is not caused to other mobile maritime service. The modes of traffic A1A and A1B are allowed. More detailed instructions for use in RR App 17.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	22443.500 - 22443.501 kHz (0.001 kHz) Radio telex service	Simplex Coast station (FC) TXRX 0.5 kHz / 0.304 kHz F1B Duplex Ship station (MS) TX 0.5 kHz / 0.304 kHz F1B	User certificate required. See Finnish Transport and Communications Agency Regulation 18. More detailed instructions for use in RR App 17.
	22444 - 22445 kHz (1 kHz) DSC service	Duplex Coast station (FC) TX 0.5 kHz / 0.304 kHz 22374.500 - 22375.500 kHz F1B	User certificate required. See Finnish Transport and Communications Agency Regulation 18. 22444.0, 22444.5 and 22445.0 kHz international calling frequencies. More detailed instructions for use in RR App 17.
	22445.500 - 22696.000 kHz (250.500 kHz) Wide-band telegraphy and special transmissions	Duplex Coast station (FC) TX Simplex Coast station (FC) TXRX	User certificate required. See Finnish Transport and Communications Agency Regulation 18. Channel spacing and paired band are not defined. Wideband transmissions, facsimile and special transmission. Digital transmission referred to in ITU-R. M.1798 allowed provided that no interference is caused to other maritime service. The modes of traffic A1A and A1B are allowed. More detailed instructions for use in RR App 17.
	22697.400 - 22853.400 kHz (156 kHz) Maritime radiotelephone service	Duplex Coast station (FC) TX 3 kHz / 2.8 kHz 22001.400 - 22157.400 kHz J3E	User certificate required. See Finnish Transport and Communications Agency Regulation 18. Carrier frequency 1.4 kHz below center frequency. 22757.4 kHz international calling frequency, paired frequency 22061.4 kHz. More detailed instructions for use in RR App 17.
22855 - 23000 kHz FIXED	22855 - 23000 kHz (145 kHz) HF links	Simplex Fixed station (FX) TXRX	
23000 - 23200 kHz FIXED	23000 - 23200 kHz (200 kHz) HF links	Simplex Fixed station (FX) TXRX	

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
Mobile (except aeronautical mobile (R))	23000 - 23200 kHz (200 kHz) Mobile radio		
23200 - 23350 kHz FIXED	23200 - 23350 kHz (150 kHz) Fixed		
AERONAUTICAL MOBILE (OR)	23200 - 23350 kHz (150 kHz) Aeronautical mobile		The user of a radio transmitter shall check the Finnish Transport and Communications Agency’s regulation PEL M2-93 to see whether the special certificate required for aeronautical radiocommunication is needed.
23350 - 24000 kHz FIXED	23350 - 24000 kHz (650 kHz) HF links	Simplex Fixed station (FX) TXRX	
MOBILE (except aeronautical mobile)	23350 - 24000 kHz (650 kHz) Mobile radio		
24000 - 24890 kHz LAND MOBILE	24000 - 24890 kHz (890 kHz) Land mobile		
FIXED	24000 - 24890 kHz (890 kHz) Fixed		
Radiolocation	24450 - 24600 kHz (150 kHz) Radiolocation		Radio location for beacons for marine research only RR Res 612).
24890 - 24990 kHz AMATEUR	24890 - 24990 kHz (100 kHz) Amateur	Simplex Amateur station (AT) TXRX	See Finnish Transport and Communications Agency Regulation 6. User certificate required. See Finnish Transport and Communications Agency Regulation 18. Maximum transmitter power in the elementary class 120 W and in the general class 1500 W. The numerical value means the peak envelope power when the carrier of the transmission is attenuated by at least 6 dB. In other cases it means the carrier power.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
AMATEUR-SATELLITE	24890 - 24990 kHz (100 kHz) Amateur-Satellite	Simplex Amateur station (AT) TXRX	See Finnish Transport and Communications Agency Regulation 6. User certificate required. See Finnish Transport and Communications Agency Regulation 18. Maximum transmitter power in the elementary class 120 W and in the general class 1500 W. The numerical value means the peak envelope power when the carrier of the transmission is attenuated by at least 6 dB. In other cases it means the carrier power.
24990 - 25005 kHz STANDARD FREQUENCY AND TIME SIGNAL	24990 - 25005 kHz (15 kHz) Standard frequency and time signal		25000 kHz standard frequency.
25005 - 25010 kHz STANDARD FREQUENCY AND TIME SIGNAL	25005 - 25010 kHz (5 kHz) Standard frequency and time signal		
Space research	25005 - 25010 kHz (5 kHz) Space research		
25010 - 25070 kHz FIXED	25010 - 25070 kHz (60 kHz) Maritime mobile	Simplex Coast station (FC) TXRX	User certificate required. See Finnish Transport and Communications Agency Regulation 18.
MOBILE (except aeronautical mobile)	25010 - 25070 kHz (60 kHz) Mobile radio		
25070 - 25210 kHz MARITIME MOBILE	25071.400 - 25098.400 kHz (27 kHz) Maritime radiotelephone service	Duplex Coast station (FC) RX 3 kHz / 2.8 kHz 26146.400 - 26173.400 kHz J3E Simplex Coast station (FC) TXRX 3 kHz / 2.8 kHz J3E	User certificate required. See Finnish Transport and Communications Agency Regulation 18. Carrier frequency 1.4 kHz below center frequency. 25098.4 kHz international calling frequency, pair frequency 26173.4 kHz. More detailed instructions for use in RR App 17.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	25101.400 - 25119.400 kHz (18 kHz) Maritime radiotelephone service	Simplex Coast station (FC) TXRX Ship station (MS) TXRX 3 kHz / 2.8 kHz J3E	User certificate required. See Finnish Transport and Communications Agency Regulation 18. Carrier frequency 1.4 kHz below center frequency. Digital transmission referred to in ITU-R. M.1798 allowed provided that no interference is caused to other maritime service. Ship station 1.5 kW, coast station 10 kW. Bandwidth 2.8 kHz. Several adjacent channels may be combined. More detailed instructions for use in RR App 17.
	25122.5 - 25176.5 kHz (54 kHz) Data service	Simplex Ship station (MS) TXRX Coast station (FC) RX 3 kHz /	User certificate required. See Finnish Transport and Communications Agency Regulation 18. Several adjacent channels may be combined. Digital transmission allowed on condition that harmful interference is not caused to other mobile maritime service. The modes of traffic A1A and A1B are allowed. More detailed instructions for use in RR App 17.
	25179.500 - 25206.500 kHz (27 kHz) Data service	Simplex Ship station (MS) TXRX Coast station (FC) TXRX 3 kHz /	User certificate required. See Finnish Transport and Communications Agency Regulation 18. Several adjacent channels may be combined. Digital transmission allowed on condition that harmful interference is not caused to other mobile maritime service. The modes of traffic A1A and A1B are allowed. More detailed instructions for use in RR App 17.
	25208.500 - 25209.500 kHz (1 kHz) DSC service	Duplex Coast station (FC) RX 0.5 kHz / 0.304 kHz 26121 - 26122 kHz F1B	User certificate required. See Finnish Transport and Communications Agency Regulation 18. 25208.5, 25209.0 and 25209.5 kHz international calling frequencies. More detailed instructions for use in RR App 17.
25210 - 25550 kHz FIXED	25210 - 25550 kHz (340 kHz) Fixed		

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
MOBILE (except aeronautical mobile)	25210 - 25550 kHz (340 kHz) Mobile radio		
25550 - 25670 kHz RADIO ASTRONOMY	25550 - 25670 kHz (120 kHz) Radio astronomy		
25670 - 26100 kHz BROADCASTING	25670 - 26100 kHz (430 kHz) Broadcasting		
26100 - 26175 kHz MARITIME MOBILE	26100.500 - 26102.500 kHz (2 kHz) Radio telex service	Duplex Coast station (FC) RX 0.5 kHz / 0.304 kHz F1B Simplex Coast station (FC) TXRX 0.5 kHz / 0.304 kHz F1B	User certificate required. See Finnish Transport and Communications Agency Regulation 18. 26100.5 kHz GMDSS security frequency (MSI transmission), TX/RX. More detailed instructions for use in RR App 17.
	26104.25 - 26119.25 kHz (15 kHz) Data service	Simplex Coast station (FC) TX Ship station (MS) RX 3 kHz /	User certificate required. See Finnish Transport and Communications Agency Regulation 18. Several adjacent channels may be combined. Digital transmission allowed on condition that harmful interference is not caused to other mobile maritime service. The modes of traffic A1A and A1B are allowed. More detailed instructions for use in RR App 17.
	26121 - 26122 kHz (1 kHz) DSC service	Duplex Coast station (FC) TX 0.5 kHz / 0.304 kHz 25208.500 - 25209.500 kHz F1B	User certificate required. See Finnish Transport and Communications Agency Regulation 18. 26121.0, 26121.5 and 26122.0 kHz international calling frequencies. More detailed instructions for use in RR App 17.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	26122.500 - 26145.000 kHz (22.500 kHz) Wide-band telegraphy and special transmissions	Duplex Coast station (FC) TX Simplex Coast station (FC) TXRX	User certificate required. See Finnish Transport and Communications Agency Regulation 18. Channel spacing and paired band are not defined. Wideband transmissions, facsimile and special transmission. Digital transmission allowed on condition that harmful interference is not caused to other mobile maritime service. The modes of traffic A1A and A1B are allowed. More detailed instructions for use in RR App 17.
	26146.400 - 26173.400 kHz (27 kHz) Maritime radiotelephone service	Duplex Coast station (FC) TX 3 kHz / 2.8 kHz 25071.400 - 25098.400 kHz J3E	User certificate required. See Finnish Transport and Communications Agency Regulation 18. Carrier frequency 1.4 kHz below center frequency. 26173.4 kHz international calling frequency, paired frequency 25098.4 kHz. More detailed instructions for use in RR App 17.
26175 - 27500 kHz MOBILE	26175 - 26815 kHz (640 kHz) Military use		
Radiolocation	26200 - 26350 kHz (150 kHz) Radiolocation		Radio location for beacons for marine research only RR Res 612).
MOBILE	26825 - 27255 kHz (430 kHz) (SRD) Non-specific Short Range Devices	Simplex Base station (FB) TXRX Mobile (ML) TXRX 10 kHz /	Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Maximum transmitter power 500 mW. Radiated power max. 100 mW ERP. Standard EN 300 220 as applicable. Non-audio applications. 26957 - 27283 kHz ISM (RR 5.150). Radio control for scale models. SRD Recommendation ERC/REC/70-03. European Commission Decision 2006/771/EC, supplemented by Implementing Decision (EU) 2022/180.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	26957 - 27283 kHz (326 kHz) (SRD) Non-specific Short Range Devices		Radiated power max. 10 mW ERP. No channelling. Standard EN 300 220 as applicable. SRD Recommendation ERC/REC/70-03. European Commission Decision 2006/771/EC, supplemented by Implementing Decision (EU) 2022/180. 26957 - 27283 kHz ISM (RR 5.150).
	26965 - 27225 kHz (260 kHz) LA (National citizens band equipment)	Simplex Base station (FB) TXRX Mobile (ML) TXRX 10 kHz / 7 kHz	Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. The radiated power (ERP) of a transmitter equipped with an antenna built in connection with the transmitter (integral antenna) must not exceed 1 W. Only those LA radio telephones which have been taken into use 31.12.1992 or before that, may be held and used. 26957 - 27283 kHz ISM (RR 5.150).
	26965 - 27405 kHz (440 kHz) CB and PR-27	Simplex Base station (FB) TXRX Mobile (ML) TXRX 10 kHz / 7 kHz	Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. The transmitter power (with integral antenna ERP) max: FM: 4 W. AM: carrier power 4 W, standard EN 300 433. SSB: peak envelope power 12 W, standard EN 300 433. ECC Decision ECC/DEC/(11)03. 26957 - 27283 kHz ISM (RR 5.150).
	26965 - 27490 kHz (525 kHz) On-site paging	Simplex Base station (FB) TXRX Mobile (ML) TXRX 10 kHz / 7 kHz	Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Not for new equipment. Transmitter power of pagers (with integral antenna ERP) must not exceed 5 W. Standard EN 300 224. 26957 - 27283 kHz ISM (RR 5.150).

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
27.500 - 28.000 MHz MOBILE	27.500 - 27.990 MHz (0.490 MHz) On-site paging	Simplex Base station (FB) TX Mobile (ML) RX 10 kHz / 7 kHz	27.720 - 27.940 MHz on-site paging. Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Transmitter power of pagers (with integral antenna ERP) must not exceed 5 W. Standard EN 300 224.
28.000 - 29.700 MHz AMATEUR	28.000 - 29.700 MHz (1.700 MHz) Amateur		See Finnish Transport and Communications Agency Regulation 6. User certificate required. See Finnish Transport and Communications Agency Regulation 18. Maximum transmitter power in the elementary class 120 W and in the general class 1500 W. The numerical value means the peak envelope power when the carrier of the transmission is attenuated by at least 6 dB. In other cases it means the carrier power.
AMATEUR-SATELLITE	28.000 - 29.700 MHz (1.700 MHz) Amateur-Satellite		See Finnish Transport and Communications Agency Regulation 6. User certificate required. See Finnish Transport and Communications Agency Regulation 18. Maximum transmitter power in the elementary class 120 W and in the general class 1500 W. The numerical value means the peak envelope power when the carrier of the transmission is attenuated by at least 6 dB. In other cases it means the carrier power.
AMATEUR	29.520 - 29.590 MHz (0.070 MHz) Amateur	Duplex Amateur repeater (ATT) RX 10 kHz / 8 kHz +0.1 MHz 29.620 - 29.690 MHz	See Finnish Transport and Communications Agency Regulation 6. User certificate required. See Finnish Transport and Communications Agency Regulation 18.
	29.620 - 29.690 MHz (0.070 MHz) Amateur	Duplex Amateur repeater (ATT) TX 10 kHz / 8 kHz -0.1 MHz 29.520 - 29.590 MHz	See Finnish Transport and Communications Agency Regulation 6. User certificate required. See Finnish Transport and Communications Agency Regulation 18.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
29.700 - 47.000 MHz MOBILE	29.710 - 29.800 MHz (0.090 MHz) PMR	Simplex Mobile (ML) TXRX, 100 mW ERP / 10 kHz /	Common channels for PMR throughout Finland. See PMR standards in appendix 1 to this table.
	29.810 - 29.940 MHz (0.130 MHz) Control, alarm, telemetry, telecommand, data transmission	Simplex Base station (FB) TXRX, 0.5 W ERP / Mobile (ML) TXRX, 0.5 W ERP / 10 kHz / Fixed station (FX) TXRX, 0.5 W ERP /	See PMR standards in appendix 1 to this table.
	29.950 - 30.010 MHz (0.060 MHz) Military use		
	30.000 - 37.500 MHz (7.500 MHz) (SRD) Ultra low-power medical membrane implants for blood pressure measurements		Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Radiated power max. 1 mW ERP. Duty cycle max. 10 %. SRD Recommendation ERC/REC/70-03. Standard EN 302 510. European Commission Decision 2006/771/EC, supplemented by Implementing Decision (EU) 2022/180.
	30.020 - 30.300 MHz (0.280 MHz) Control, alarm, telemetry, telecommand, data transmission	Simplex Mobile (ML) TXRX 15 kHz / 10 kHz	Radiated power typically max. 200 mW ERP. No new licencees Also 20 kHz channel spacing. See PMR standards in appendix 1 to this table. 30.300 MHz on-site paging equipment is exempted from licensing, see Finnish Transport and Communications Agency Regulation 15, transmitter power of pagers (with integral antenna ERP) must not exeed 5 W, bandwidth max. 25 kHz. Standard EN 300 224.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	30.325 - 34.325 MHz (4 MHz) Military use		31.100, 32.100, 32.900 and 33.500 MHz wireless loudspeakers, equipment for in-ear monitoring, headphones, hearing aids, helmet radio telephones, radio microphones. Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Radiated power max. 10 mW ERP. Total bandwidth of the emission max. 200 kHz. Standard EN 300 422 as applicable. SRD Recommendation ERC/REC/70-03.
	34.350 - 34.950 MHz (0.600 MHz) Military use		
	34.995 - 35.225 MHz (0.230 MHz) (SRD) Model aircraft control systems	Simplex Mobile (ML) TXRX	Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Radiated power max. 100 mW ERP. Standard EN 300 220 as applicable. ERC Decision ERC/DEC/(01)11. SRD Recommendation ERC/REC/70-03.
	35.250 - 40.660 MHz (5.410 MHz) Military use		
	35.350 - 40.550 MHz (5.200 MHz) PMR	Simplex Mobile (ML) TXRX, 5 W ERP / 5 W 25 kHz /	36.700 and 37.100 MHz wireless loudspeakers, equipment for in-ear monitoring, headphones, hearing aids, helmet radio telephones, radio microphones. Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Radiated power max. 10 mW ERP. Total bandwidth of the emission max. 200 kHz. Standard EN 300 422 as applicable. SRD Recommendation ERC/REC/70-03. No new PMR usage.
Radiolocation	39.000 - 39.500 MHz (0.500 MHz) Radiolocation		Radio location for beacons for marine research only RR Res 612).

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
MOBILE	40.660 - 40.700 MHz (0.040 MHz) (SRD) Non-specific Short Range Devices		Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Radiated power max. 10 mW ERP. No channelling. Standard EN 300 220 as applicable. SRD Recommendation ERC/REC/70-03. 40.660 - 40.700 MHz ISM (RR 5.150). European Commission Decision 2006/771/EC, supplemented by Implementing Decision (EU) 2022/180.
	40.660 - 40.790 MHz (0.130 MHz) (SRD) Non-specific Short Range Devices	Simplex Mobile (ML) TXRX	Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Maximum transmitter power 500 mW. Radiated power max. 100 mW ERP. Standard EN 300 220 as applicable. Non-audio applications. 40.680 MHz on-site paging, transmitter power of pager (with integral antenna ERP) must not exceed 5 W. Standard EN 300 224. 40.660 - 40.700 MHz ISM (RR 5.150). Radio control for scale models. SRD Recommendation ERC/REC/70-03. ERC Decision ERC/DEC/(01)12.
	40.800 - 42.375 MHz (1.575 MHz) Military use		
Radiolocation	42.000 - 42.500 MHz (0.500 MHz) Radiolocation		Radio location for beacons for marine research only RR Res 612).
MOBILE	42.400 - 43.600 MHz (lower and upper limits of sub-band) (1.200 MHz) (SRD) Narrow band analogue voice devices	Simplex Mobile (ML) TXRX	Wireless loudspeakers, equipment for in-ear monitoring, headphones, hearing aids, helmet radio telephones. Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Radiated power max. 10 mW ERP. Total bandwidth of the emission max. 200 kHz. Standard EN 300 422 as applicable.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	42.400 - 43.600 MHz (1.200 MHz) (SRD) Radio microphones		Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Radiated power max. 10 mW ERP. Total bandwidth of the emission max. 200 kHz. Standard EN 300 422 as applicable. SRD Recommendation ERC/REC/70-03.
	43.625 - 46.975 MHz (3.350 MHz) Military use		
47 - 68 MHz MOBILE	47 - 68 MHz (21 MHz) Military use		67.500 MHz RHA68 channel reserved for hobby use and professional communications. Equipment exempt from licensing. Base stations are not allowed on the RHA68 channel. See Finnish Transport and Communications Agency Regulation 15. See PMR standards in appendix 1 to this table.
BROADCASTING	47 - 68 MHz (21 MHz) Television	Television (BT) TX 7 MHz / 7 MHz	TV channels 2, 3 and 4 (band I), Television use ended in Finland.
AMATEUR	50.000 - 50.500 MHz (0.500 MHz) Amateur	Simplex Amateur station (AT) TXRX	See Finnish Transport and Communications Agency Regulation 6. The electrical field emitted by amateur radio transmitters on the border of Finland and the Russian Federation at an altitude of 10 metres may not exceed +6dBuV/m during more than 10% of the time. User certificate required. See Finnish Transport and Communications Agency Regulation 18. Maximum transmitter power in the elementary class 30 W. Peak envelope power 120 W, when the carrier of the transmission is attenuated by at least 6 dB. Transmitter power in the general class max. 150 W. Peak envelope power 200 W, when the carrier of the transmission is attenuated by at least 6 dB.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
Amateur	50.500 - 52.000 MHz (1.500 MHz) Amateur	Simplex Amateur station (AT) TXRX	See Finnish Transport and Communications Agency Regulation 6. The electrical field emitted by amateur radio transmitters on the border of Finland and the Russian Federation at an altitude of 10 metres may not exceed +6dBuV/m during more than 10% of the time. User certificate required. See Finnish Transport and Communications Agency Regulation 18. Maximum transmitter power in the elementary class 30 W. Peak envelope power 120 W, when the carrier of the transmission is attenuated by at least 6 dB. Transmitter power in the general class max. 150 W. Peak envelope power 200 W, when the carrier of the transmission is attenuated by at least 6 dB.
	51.210 - 51.390 MHz (0.180 MHz) Amateur	Duplex Amateur repeater (ATT) RX 20 kHz / +0.6 MHz 51.810 - 51.990 MHz	See Finnish Transport and Communications Agency Regulation 6. User certificate required. See Finnish Transport and Communications Agency Regulation 18. Channels RF81 - RF99. The electrical field emitted by amateur radio transmitters on the border of Finland and the Russian Federation at an altitude of 10 metres may not exceed +6dBuV/m during more than 10% of the time.
	51.810 - 51.990 MHz (0.180 MHz) Amateur	Duplex Amateur repeater (ATT) TX 20 kHz / -0.6 MHz 51.210 - 51.390 MHz	See Finnish Transport and Communications Agency Regulation 6. User certificate required. See Finnish Transport and Communications Agency Regulation 18. Channels RF81 - RF99. The electrical field emitted by amateur radio transmitters on the border of Finland and the Russian Federation at an altitude of 10 metres may not exceed +6dBuV/m during more than 10% of the time.
68.000 - 74.800 MHz LAND MOBILE	68.025 - 71.000 MHz (2.975 MHz) Military use		

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	68.025 - 71.000 MHz (2.975 MHz) PMR, hobby and professional activities (RHA68)	Simplex Base station (FB) TXRX, 25 W ERP / 25 W Mobile (ML) TXRX, 5 W ERP / 5 W 25 kHz / 16 kHz	RHA68 channels reserved for hobby use and professional communications: 68.100 MHz road service, 68.300 and 68.525 MHz car racing, 68.225 and 68.425 MHz voluntary rescue services. 68.050, 68.175, 68.375, 68.575, 70.200 MHz hobby and professional activities. Equipment exempt from licensing. Basetations on channels allocated for road services, car racing and voluntary rescue services are subject to a licence. Base stations are allowed only to a limited extent on other RHA68 channels. See Finnish Transport and Communications Agency Regulation 15. See PMR standards in appendix 1 to this table.
Amateur	70.000 - 70.050 MHz (0.050 MHz) Amateur	Simplex Amateur beacon (ATM) TX	See Finnish Transport and Communications Agency Regulation 6. Regional restrictions: a) Amateur radio transmitters must not be used in the following municipalities: Lieksa, Ilomantsi, Joensuu, Kontiolahti, Polvijärvi, Juuka, Nurmes, Valtimo, Kuhmo, Hyrynsalmi, Suomussalmi, Ristijärvi and Sotkamo. b) In an area closer than 50 km from the borders of the Russian Federation and Finland the main lobe of the transmitting antenna must not point into directions between 0 degrees and 180 degrees and the maximum transmitting power allowed is 25 W. c) In an area closer than 50 km from the borders of Norway and Finland the maximum transmitting power allowed is 25 W. User certificate required. See Finnish Transport and Communications Agency Regulation 18. The transmitter power max. 25 W. The numerical value means the peak envelope power when the carrier of the transmission is attenuated by at least 6 dB. In other cases it means the carrier power.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	70.050 - 70.250 MHz (0.200 MHz) Amateur	Simplex Amateur station (AT) TXRX	See Finnish Transport and Communications Agency Regulation 6. Regional restrictions: a) Amateur radio transmitters must not be used in the following municipalities: Lieksa, Ilomantsi, Joensuu, Kontiolahti, Polvijärvi, Juuka, Nurmes, Valtimo, Kuhmo, Hyrynsalmi, Suomussalmi, Ristijärvi and Sotkamo. b) In an area closer than 50 km from the borders of the Russian Federation and Finland the main lobe of the transmitting antenna must not point into directions between 0 degrees and 180 degrees and the maximum transmitting power allowed is 25 W. c) In an area closer than 50 km from the borders of Norway and Finland the maximum transmitting power allowed is 25 W. User certificate required. See Finnish Transport and Communications Agency Regulation 18. Maximum transmitter power in the elementary class 30 W and in the general class 100 W. The numerical value means the peak envelope power when the carrier of the transmission is attenuated by at least 6 dB. In other cases it means the carrier power.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	70.250 - 70.300 MHz (0.050 MHz) Amateur	Simplex Amateur station (AT) TXRX	See Finnish Transport and Communications Agency Regulation 6. Regional restrictions: a) Amateur radio transmitters must not be used in the following municipalities: Lieksa, Ilomantsi, Joensuu, Kontiolahti, Polvijärvi, Juuka, Nurmes, Valtimo, Kuhmo, Hyrynsalmi, Suomussalmi, Ristijärvi and Sotkamo. b) In an area closer than 50 km from the borders of the Russian Federation and Finland the main lobe of the transmitting antenna must not point into directions between 0 degrees and 180 degrees and the maximum transmitting power allowed is 25 W. c) In an area closer than 50 km from the borders of Norway and Finland the maximum transmitting power allowed is 25 W. User certificate required. See Finnish Transport and Communications Agency Regulation 18. Maximum transmitter power in the elementary class and in the general class 25 W. The numerical value means the peak envelope power when the carrier of the transmission is attenuated by at least 6 dB. In other cases it means the carrier power.
LAND MOBILE	71.025 - 72.100 MHz (1.075 MHz) PMR, hobby and professional activities (RHA68)	Simplex Base station (FB) TXRX, 25 W ERP / 25 W Mobile (ML) TXRX, 5 W ERP / 5 W 25 kHz / 16 kHz	71.025, 71.050, 71.100, 71.175, 71.350, 71.375, 71.425, 71.475, 71.550, 71.575, 71.600, 71.625, 71.750, 71.900 MHz,RHA68 channels reserved for hobby use and professional communications. Equipment exempt from licensing. Base stations are allowed only to a limited extent on RHA68 channels. See Finnish Transport and Communications Agency Regulation 15. See PMR standards in appendix 1 to this table.
	72.125 - 72.700 MHz (0.575 MHz) Military use		

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	72.125 - 72.700 MHz (0.575 MHz) PMR	Simplex Base station (FB) TXRX, 25 W ERP / 25 W Mobile (ML) TXRX, 5 W ERP / 5 W 25 kHz / 16 kHz	72.200 MHz sales demonstration. 72.325 MHz RHA68 channel for hobby and professional activities. Equipment exempt from licensing. Base stations are not allowed on the RHA68 channel. See Finnish Transport and Communications Agency Regulation 15. See PMR standards in appendix 1 to this table.
	72.725 - 72.975 MHz (0.250 MHz) PMR	Simplex Base station (FB) TXRX, 25 W ERP / 25 W Mobile (ML) TXRX, 5 W ERP / 5 W 25 kHz / 16 kHz	See PMR standards in appendix 1 to this table.
	73.000 - 73.475 MHz (0.475 MHz) Military use		
	73.500 - 74.000 MHz (0.500 MHz) PMR	Simplex Mobile (ML) TXRX, 5 W ERP / 5 W 25 kHz / 16 kHz	Sub-band under review. See PMR standards in appendix 1 to this table.
	74.025 - 74.800 MHz (0.775 MHz) Military use		See PMR standards in appendix 1 to this table.
74.800 - 75.200 MHz AERONAUTICAL RADIONAVIGATION	74.800 - 75.200 MHz (0.400 MHz) Instrument landing system (ILS)	Simplex Land station (AL) TX 50 kHz / 2.6 kHz A2AAN	75.000 MHz Marker beacon frequency and its guardband.
75.200 - 87.500 MHz LAND MOBILE	75.225 - 76.000 MHz (0.775 MHz) PMR (taxis)	Duplex Base station (FB) RX, 25 W ERP / Mobile (ML) TX, 15 W ERP / 25 kHz / 16 kHz +5 MHz 80.225 - 81.000 MHz	See PMR standards in appendix 1 to this table.
	76.025 - 77.100 MHz (1.075 MHz) PMR	Duplex Base station (FB) RX, 25 W ERP / 25 W Mobile (ML) TX, 15 W ERP / 25 kHz / 16 kHz +5 MHz 81.025 - 82.100 MHz	See PMR standards in appendix 1 to this table.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	77.125 - 77.750 MHz (0.625 MHz) PMR	Duplex Base station (FB) RX, 25 W ERP / 25 W Mobile (ML) TX, 15 W ERP / 25 kHz / 16 kHz +5 MHz 82.125 - 82.750 MHz	See PMR standards in appendix 1 to this table. 77.200 MHz sales demonstration, simplex mobile station. 77.200/82.200 MHz sales demonstration.
	77.775 - 77.825 MHz (0.050 MHz) PMR (power utilities)	Simplex Mobile (ML) TXRX, 15 W ERP / 25 kHz / 16 kHz	See PMR standards in appendix 1 to this table.
	77.850 - 78.075 MHz (0.225 MHz) PMR (power utilities)	Duplex Base station (FB) TX, 25 W ERP / 25 W Mobile (ML) RX, 15 W ERP / 25 kHz / 16 kHz +6 MHz 83.850 - 84.075 MHz	See PMR standards in appendix 1 to this table.
	78.100 - 80.000 MHz (1.900 MHz) PMR (power utilities)	Duplex Base station (FB) TX, 25 W ERP / 25 W Mobile (ML) RX, 15 W ERP / 25 kHz / 16 kHz +6 MHz 84.100 - 86.000 MHz	See PMR standards in appendix 1 to this table.
	80.025 - 80.200 MHz (0.175 MHz) PMR	Simplex Mobile (ML) TXRX, 5 W ERP / 5 W 25 kHz / 16 kHz	See PMR standards in appendix 1 to this table.
	80.225 - 81.000 MHz (0.775 MHz) PMR (taxis)	Duplex Base station (FB) TX, 25 W ERP / Mobile (ML) RX, 15 W ERP / 25 kHz / 16 kHz -5 MHz 75.225 - 76.000 MHz	See PMR standards in appendix 1 to this table.
	81.025 - 82.100 MHz (1.075 MHz) PMR	Duplex Base station (FB) TX, 25 W ERP / 25 W Mobile (ML) RX, 15 W ERP / 25 kHz / 16 kHz -5 MHz 76.025 - 77.100 MHz	See PMR standards in appendix 1 to this table.
	82.125 - 82.750 MHz (0.625 MHz) PMR	Duplex Base station (FB) TX, 25 W ERP / 25 W Mobile (ML) RX, 15 W ERP / 25 kHz / 16 kHz -5 MHz 77.125 - 77.750 MHz	See PMR standards in appendix 1 to this table. 82.200/77.200 MHz sales demonstration.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	82.775 - 83.550 MHz (0.775 MHz) Military use		
	83.575 - 83.825 MHz (0.250 MHz) PMR (power utilities)	Simplex Mobile (ML) TXRX, 15 W ERP / 25 kHz / 16 kHz	See PMR standards in appendix 1 to this table.
	83.850 - 84.075 MHz (0.225 MHz) PMR (power utilities)	Duplex Base station (FB) RX, 25 W ERP / 25 W Mobile (ML) TX, 15 W ERP / 25 kHz / 16 kHz -6 MHz 77.850 - 78.075 MHz	See PMR standards in appendix 1 to this table.
	84.100 - 86.000 MHz (1.900 MHz) PMR (power utilities)	Duplex Base station (FB) RX, 25 W ERP / 25 W Mobile (ML) TX, 15 W ERP / 25 kHz / 16 kHz -6 MHz 78.100 - 80.000 MHz Simplex Base station (FB) TXRX, 25 W ERP / 25 W Mobile (ML) TXRX, 15 W ERP / 25 kHz / 16 kHz	See PMR standards in appendix 1 to this table. 85.325, 85.350 and 85.375 MHz common channels for PMR (power utilities).
	86.025 - 87.100 MHz (1.075 MHz) PMR	Simplex Base station (FB) TXRX, 25 W ERP / 25 W Mobile (ML) TXRX, 5 W ERP / 5 W 25 kHz / 16 kHz	See PMR standards in appendix 1 to this table.
	87.125 - 87.475 MHz (0.350 MHz) Military use		
87.500 - 108.000 MHz BROADCASTING	87.500 - 108.000 MHz (lower and upper limits of sub-band) (20.500 MHz) FM sound broadcasting	Simplex Sound broadcasting (BC) TX 100 kHz / 300 kHz	See Finnish Transport and Communications Agency Regulation 70. Decrees of the Government 1246/2014 and 1244/2014. Band II, usage according to agreement Geneva 84. Standard EN 302 018. Cenelec EN 50067 (RDS).

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	87.500 - 108.000 MHz (lower and upper limits of sub-band) (20.500 MHz) (SRD) Low-power FM transmitters	Simplex Mobile (ML) TXRX	Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Radiated power max. 50 nW ERP. Maximum channel width 200 kHz. SRD Recommendation ERC/REC/70-03. Standard EN 301 357. European Commission Decision 2006/771/EC, supplemented by Implementing Decision (EU) 2022/180.
108.000 - 117.975 MHz AERONAUTICAL MOBILE (R)	108.000 - 117.975 MHz (9.975 MHz) Aeronautical mobile		The use is limited to systems that operate in accordance with recognized international aeronautical standards (RR 5.197A). Frequency band 108 - 112 MHz GBAS (RR 5.197A). 113.250 MHz Common Signalling Channel (CSC) for VDL Mode 4 and guardband 113.225–113.275 MHz; not GBAS.
AERONAUTICAL RADIONAVIGATION	108.100 - 111.950 MHz (3.850 MHz) Instrument landing system (ILS)	Simplex Land station (AL) TX 50 kHz / 2.04 kHz A8XXF	ILS (Localizer). (RR 5.197A).
	111.975 - 117.975 MHz (6 MHz) VHF omnidirectional radio range (VOR)	Simplex Land station (AL) TX 50 kHz / 20.9 kHz A9WWF	VHF Omnidirectional Range (VOR). 113.250 MHz Common Signalling Channel (CSC) for VDL Mode 4 and guardband 113.225–113.275 MHz; not GBAS. (RR 5.197A).
117.975 - 137.000 MHz AERONAUTICAL MOBILE (R)	118.000 - 121.450 MHz (3.450 MHz) Aeronautical mobile service	Simplex Aeronautical station (FA) TXRX Mobile (ML) TXRX 25 kHz / 6 kHz	International and national aeronautical radiocommunication. The user of a radio transmitter shall check the Finnish Transport and Communications Agency’s regulation PEL M2-93 to see whether the special certificate required for aeronautical radiocommunication is needed. 119.700 MHz national common frequency for aerodrome control and approach control.
	118.000 - 121.466666 MHz (3.466666 MHz) Aeronautical mobile service	Simplex Aeronautical station (FA) TXRX Mobile (ML) TXRX 8.333 kHz / 5.6 kHz	International and national aeronautical radiocommunication. The user of a radio transmitter shall check the Finnish Transport and Communications Agency’s regulation PEL M2-93 to see whether the special certificate required for aeronautical radiocommunication is needed. 119.700 MHz national common frequency for aerodrome control and approach control.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	121.475 - 121.525 MHz (0.050 MHz) Aeronautical emercency service	Simplex Aeronautical station (FA) TXRX Mobile (ML) TXRX Earth station (TE) TX 25 kHz / 6 kHz	The user of a radio transmitter shall check the Finnish Transport and Communications Agency’s regulation PEL M2-93 to see whether the special certificate required for aeronautical radiocommunication is needed. 121.500 MHz nationwide aeronautical emergency frequency and its guardbands. Standard EN 300 152.
	121.550 - 121.975 MHz (0.425 MHz) Aeronautical mobile service	Simplex Aeronautical station (FA) TXRX Mobile (ML) TXRX 25 kHz / 6 kHz	The user of a radio transmitter shall check the Finnish Transport and Communications Agency’s regulation PEL M2-93 to see whether the special certificate required for aeronautical radiocommunication is needed. International and national aerodrome surface radiocommunication.
	121.550 - 121.991666 MHz (0.441666 MHz) Aeronautical mobile service	Simplex Aeronautical station (FA) TXRX Mobile (ML) TXRX 8.333 kHz / 5.6 kHz	The user of a radio transmitter shall check the Finnish Transport and Communications Agency’s regulation PEL M2-93 to see whether the special certificate required for aeronautical radiocommunication is needed. International and national aerodrome surface radiocommunication.
	122.000 - 123.050 MHz (1.050 MHz) Aeronautical mobile service	Simplex Aeronautical station (FA) TXRX Mobile (ML) TXRX 25 kHz / 6 kHz	National aeronautical radiocommunication. The user of a radio transmitter shall check the Finnish Transport and Communications Agency’s regulation PEL M2-93 to see whether the special certificate required for aeronautical radiocommunication is needed. Aeronautical national common frequencies: 122.200 MHz rescue and fire fighting, 122.300 MHz aviation training, 122.925 MHz power-driven flight, 122.025; 122.750 MHz gliding competitions, 122.950 MHz parachute jumping and hang-gliding (also used with towing services for paragliding, transmitter power must not exceed 5 W).

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	122.000 - 123.066666 MHz (1.066666 MHz) Aeronautical mobile service	Simplex Aeronautical station (FA) TXRX Mobile (ML) TXRX 8.333 kHz / 5.6 kHz	National aeronautical radiocommunication. The user of a radio transmitter shall check the Finnish Transport and Communications Agency’s regulation PEL M2-93 to see whether the special certificate required for aeronautical radiocommunication is needed. Aeronautical national common frequencies: 122.200 MHz rescue and fire fighting, 122.300 MHz aviation training, 122.925 MHz power-driven flight, 122.025; 122.750 MHz gliding competitions, 122.950 MHz parachute jumping and hang-gliding (also used with towing services for paragliding, transmitter power must not exceed 5 W).
	123.075 - 123.125 MHz (0.050 MHz) Aeronautical search and rescue service	Simplex Aeronautical station (FA) TXRX Mobile (ML) TXRX 25 kHz / 6 kHz	The user of a radio transmitter shall check the Finnish Transport and Communications Agency’s regulation PEL M2-93 to see whether the special certificate required for aeronautical radiocommunication is needed. 123.100 MHz aeronautical search and rescue frequency and its guardbands. It is an auxiliary frequency to 121.500 MHz.
	123.150 - 123.675 MHz (0.525 MHz) Aeronautical mobile service	Simplex Aeronautical station (FA) TXRX Mobile (ML) TXRX 25 kHz / 6 kHz	National aeronautical radiocommunication. The user of a radio transmitter shall check the Finnish Transport and Communications Agency’s regulation PEL M2-93 to see whether the special certificate required for aeronautical radiocommunication is needed. 123.500 MHz nationwide common channel for gliding.
	123.150 - 123.691666 MHz (0.541666 MHz) Aeronautical mobile service	Simplex Aeronautical station (FA) TXRX Mobile (ML) TXRX 8.333 kHz / 5.6 kHz	National aeronautical radiocommunication. The user of a radio transmitter shall check the Finnish Transport and Communications Agency’s regulation PEL M2-93 to see whether the special certificate required for aeronautical radiocommunication is needed. 123.500 MHz nationwide common channel for gliding.
	123.700 - 129.675 MHz (5.975 MHz) Aeronautical mobile service	Simplex Aeronautical station (FA) TXRX Mobile (ML) TXRX 25 kHz / 6 kHz	International and national aeronautical radiocommunication. The user of a radio transmitter shall check the Finnish Transport and Communications Agency’s regulation PEL M2-93 to see whether the special certificate required for aeronautical radiocommunication is needed.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	123.700 - 129.691666 MHz (5.991666 MHz) Aeronautical mobile service	Simplex Aeronautical station (FA) TXRX Mobile (ML) TXRX 8.333 kHz / 5.6 kHz	International and national aeronautical radiocommunication. The user of a radio transmitter shall check the Finnish Transport and Communications Agency's regulation PEL M2-93 to see whether the special certificate required for aeronautical radiocommunication is needed.
	129.700 - 130.875 MHz (1.175 MHz) Aeronautical mobile service	Simplex Aeronautical station (FA) TXRX Mobile (ML) TXRX 25 kHz / 6 kHz	National aeronautical radiocommunication. The user of a radio transmitter shall check the Finnish Transport and Communications Agency's regulation PEL M2-93 to see whether the special certificate required for aeronautical radiocommunication is needed.
	129.700 - 130.891666 MHz (1.191666 MHz) Aeronautical mobile service	Simplex Aeronautical station (FA) TXRX Mobile (ML) TXRX 8.333 kHz / 5.6 kHz	National aeronautical radiocommunication. The user of a radio transmitter shall check the Finnish Transport and Communications Agency's regulation PEL M2-93 to see whether the special certificate required for aeronautical radiocommunication is needed.
	130.900 - 136.491666 MHz (5.591666 MHz) Aeronautical mobile service	Simplex Aeronautical station (FA) TXRX Mobile (ML) TXRX 8.333 kHz / 5.6 kHz	International and national aeronautical radiocommunication. The user of a radio transmitter shall check the Finnish Transport and Communications Agency's regulation PEL M2-93 to see whether the special certificate required for aeronautical radiocommunication is needed.
	130.900 - 136.675 MHz (5.775 MHz) Aeronautical mobile service	Simplex Aeronautical station (FA) TXRX Mobile (ML) TXRX 25 kHz / 6 kHz	International and national aeronautical radiocommunication. The user of a radio transmitter shall check the Finnish Transport and Communications Agency's regulation PEL M2-93 to see whether the special certificate required for aeronautical radiocommunication is needed. 133.325 MHz nationwide common channel for operators of unmanned aircraft (drone/RPA/UA). Only analogue voice and audio applications are allowed.
	136.700 - 136.975 MHz (0.275 MHz) Aeronautical mobile service	Simplex Aeronautical station (FA) TXRX Mobile (ML) TXRX 25 kHz / 6 kHz	International and national aeronautical radiocommunication. The user of a radio transmitter shall check the Finnish Transport and Communications Agency's regulation PEL M2-93 to see whether the special certificate required for aeronautical radiocommunication is needed. Reserved for digital data transfer (VDL).
137 - 138 MHz METEOROLOGICAL-SATELLITE (SPACE-TO-EARTH)	137 - 138 MHz (1 MHz) Meteorological-satellites	Space station (EM) TX Earth station (TM) RX	

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
MOBILE-SATELLITE (SPACE-TO-EARTH)	137 - 138 MHz (1 MHz) Mobile satellite	Space station (EI) TX Mobile earth station (UA) RX	Use on a primary basis in the bands 137.000 - 137.025 MHz and 137.175 - 137.825 MHz.
SPACE OPERATION (SPACE-TO-EARTH)	137.025 - 138 MHz (0.975 MHz) Space operation	Space station (ET) TX Earth station (TT) RX	Short-duration (maximum three years) non-geostationary satellite systems.
138 - 144 MHz MOBILE	138 - 144 MHz (6 MHz) Military use		142.250 MHz (SRD) low-power alarms for security and safety, social alarms. Radiated power max. 1 mW ERP. The total bandwidth of the emission max 25 kHz. Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Standard EN 300 220 as applicable.
	138.200 - 138.450 MHz (lower and upper limits of sub-band) (0.250 MHz) (SRD) Non-specific Short Range Devices	Simplex Mobile (ML) TXRX	Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Radiated power max. 500 mW ERP. Duty cycle max. 10 %. Standard EN 300 220 as applicable. SRD Recommendation ERC/REC/70-03.
AERONAUTICAL MOBILE (OR)	139 - 143 MHz (4 MHz) Military use		

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
144 - 146 MHz AMATEUR	144 - 146 MHz (2 MHz) Amateur	Simplex Amateur station (AT) TXRX	See Finnish Transport and Communications Agency Regulation 6. User certificate required. See Finnish Transport and Communications Agency Regulation 18. Maximum transmitter power in the elementary class 30 W. Peak envelope power 120 W, when the carrier of the transmission is attenuated by at least 6 dB. Transmitter power in the general class max. 150 W. Peak envelope power 600 W, when the carrier of the transmission is attenuated by at least 6 dB. In the general class it is allowed to use 600 W carrier power for transmission class A1A and digital modes with a maximum bandwidth of 3 kHz in the frequency band 144.000 - 144.150 MHz.
AMATEUR-SATELLITE	144 - 146 MHz (2 MHz) Amateur-Satellite	Simplex Amateur station (AT) TXRX	See Finnish Transport and Communications Agency Regulation 6. User certificate required. See Finnish Transport and Communications Agency Regulation 18. Maximum transmitter power in the elementary class 30 W. Peak envelope power 120 W, when the carrier of the transmission is attenuated by at least 6 dB. Transmitter power in the general class max. 150 W. Peak envelope power 600 W, when the carrier of the transmission is attenuated by at least 6 dB. In the general class it is allowed to use 600 W carrier power for transmission class A1A and digital modes with a maximum bandwidth of 3 kHz in the frequency band 144.000 - 144.150 MHz.
AMATEUR	144.9750 - 145.1875 MHz (0.2125 MHz) Amateur	Duplex Amateur repeater (ATT) RX 12.5 kHz / +0.6 MHz 145.5750 - 145.7875 MHz	See Finnish Transport and Communications Agency Regulation 6. User certificate required. See Finnish Transport and Communications Agency Regulation 18. Channels RV48 - RV63.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
AMATEUR-SATELLITE	145.000 - 145.175 MHz (0.175 MHz) Amateur	Duplex Amateur repeater (ATT) RX 25 kHz / +0.6 MHz 145.600 - 145.775 MHz	See Finnish Transport and Communications Agency Regulation 6. User certificate required. See Finnish Transport and Communications Agency Regulation 18. Channels RV48 - RV62.
	145.5750 - 145.7875 MHz (0.2125 MHz) Amateur	Duplex Amateur repeater (ATT) TX 12.5 kHz / -0.6 MHz 144.9750 - 145.1875 MHz	See Finnish Transport and Communications Agency Regulation 6. User certificate required. See Finnish Transport and Communications Agency Regulation 18. Channels RV48 - RV63.
	145.600 - 145.775 MHz (0.175 MHz) Amateur	Duplex Amateur repeater (ATT) TX 25 kHz / -0.6 MHz 145.000 - 145.175 MHz	See Finnish Transport and Communications Agency Regulation 6. User certificate required. See Finnish Transport and Communications Agency Regulation 18. Channels RV48 - RV62.
	145.800 - 146.000 MHz (0.200 MHz) Amateur-Satellite	Simplex Amateur station (AT) TXRX	See Finnish Transport and Communications Agency Regulation 6. User certificate required. See Finnish Transport and Communications Agency Regulation 18. Maximum transmitter power in the elementary class 30 W. Peak envelope power 120 W, when the carrier of the transmission is attenuated by at least 6 dB. Transmitter power in the general class max. 150 W. Peak envelope power 600 W, when the carrier of the transmission is attenuated by at least 6 dB.
146.000 - 149.900 MHz LAND MOBILE	146.00625 - 146.29375 MHz (0.2875 MHz) Control, alarm, telemetry, telecommand, data transmission	Simplex Base station (FB) TXRX, 2 W ERP / 1 W Mobile (ML) TXRX, 2 W ERP / 1 W Fixed station (FX) TXRX, 2 W ERP / 1 W 12.5 kHz / 8 kHz FM 1/146	See PMR standards in appendix 1 to this table.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	146.30625 - 146.79375 MHz (0.4875 MHz) PMR	Simplex Base station (FB) TXRX, 25 W ERP / 25 W Mobile (ML) TXRX, 5 W ERP / 5 W 12.5 kHz / 8 kHz	See PMR standards in appendix 1 to this table.
	146.80625 - 146.89375 MHz (0.0875 MHz) PMR	Duplex Base station (FB) RX, 25 W ERP / 25 W Mobile (ML) TX, 15 W ERP / 12.5 kHz / 8 kHz +4.6 MHz 151.40625 - 151.49375 MHz	See PMR standards in appendix 1 to this table. 151.41875/146.81875 MHz, 151.44375/146.84375 MHz and 151.49375/146.89375 MHz common channels for PMR (power utilities) throughout Finland.
	146.90625 - 148.26875 MHz (1.3625 MHz) PMR	Duplex Base station (FB) RX, 25 W ERP / 25 W Mobile (ML) TX, 15 W ERP / 12.5 kHz / 8 kHz +4.6 MHz 151.50625 - 152.86875 MHz	See PMR standards in appendix 1 to this table. 147.100 MHz (25 kHz) common channel for PMR, all Finland. Simplex mobile stations, radiated power max. 5 W ERP.
SPACE OPERATION (EARTH-TO-SPACE)	148.000 - 149.900 MHz (1.900 MHz) Space operation	Earth station (TT) TX Space station (ET) RX	Short-duration (maximum three years) non-geostationary satellite systems. Maximum allowed bandwidth 50 kHz.
Mobile-Satellite (Earth-to-space)	148.000 - 149.900 MHz (1.900 MHz) Mobile satellite	Land mobile earth station (TU) TX Space station (EU) RX	Usage according to RR 5.221. Terminals exempt from licensing. See Finnish Transport and Communications Agency Regulation 15.
LAND MOBILE	148.28125 - 149.39375 MHz (1.1125 MHz) Digital PMR (DMR, dPMR)	Duplex Base station (FB) RX, 25 W ERP / 25 W Mobile (ML) TX, 15 W ERP / 12.5 kHz / +4.6 MHz 152.88125 - 153.99375 MHz	In a 12.5 kHz channel a 12.5 kHz or a 6.25 kHz channel, or two 6.25 kHz channels may be used. The distance from the centre frequency is stated in the radio licence. See PMR standards in appendix 1 to this table. ECC Decision ECC/DEC/(19)02. Short term events, digital or analogue systems: duplex channels 148.28125/152.88125 MHz, 148.81875/153.41875 MHz and 149.33125/153.93125 MHz, simplex channels 148.33125 MHz, 148.83125 MHz and 149.34375 MHz. The channels to use will be granted on a case by case basis. 149.35625 MHz, reindeer management in reindeer management areas, simplex, mobile stations.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	149.40625 - 149.89375 MHz (0.4875 MHz) Digital PMR (DMR, dPMR)	Duplex Base station (FB) RX, 25 W ERP / 25 W Mobile (ML) TX, 15 W ERP / 12.5 kHz / +4.6 MHz 154.00625 - 154.49375 MHz	In a 12.5 kHz channel a 12.5 kHz or a 6.25 kHz channel, or two 6.25 kHz channels may be used. The distance from the centre frequency is stated in the radio licence. See PMR standards in appendix 1 to this table. ECC Decision ECC/DEC/(19)02.
149.900 - 150.050 MHz MOBILE-SATELLITE (EARTH-TO-SPACE)	149.900 - 150.050 MHz (0.150 MHz) Mobile satellite	Land mobile earth station (TU) TX Space station (EU) RX	Terminals exempt from licensing. See Finnish Transport and Communications Agency Regulation 15.
150.050 - 154.000 MHz MOBILE LAND MOBILE	150.050 - 151.000 MHz (0.950 MHz) PMR		Sub-band under review.
	151.00625 - 151.39375 MHz (0.3875 MHz) PMR	Duplex Base station (FB) RX Mobile (ML) TX	Sub-band under review.
	151.40625 - 151.49375 MHz (0.0875 MHz) PMR	Duplex Base station (FB) TX, 25 W ERP / 25 W Mobile (ML) RX, 15 W ERP / 12.5 kHz / 8 kHz -4.6 MHz 146.80625 - 146.89375 MHz	See PMR standards in appendix 1 to this table. 151.41875/146.81875 MHz, 151.44375/146.84375 MHz and 151.49375/146.89375 MHz common channels for PMR (power utilities) throughout Finland.
	151.50625 - 152.86875 MHz (1.3625 MHz) PMR	Duplex Base station (FB) TX, 25 W ERP / 25 W Mobile (ML) RX, 15 W ERP / 12.5 kHz / 8 kHz -4.6 MHz 146.90625 - 148.26875 MHz	See PMR standards in appendix 1 to this table. 152.050 and 152.100 MHz (25 kHz) common channels for PMR, all Finland. Simplex mobile stations, radiated power max. 5 W ERP.
	152.88125 - 153.99375 MHz (1.1125 MHz) Digital PMR (DMR, dPMR)	Duplex Base station (FB) TX, 25 W ERP / 25 W Mobile (ML) RX, 15 W ERP / 12.5 kHz / -4.6 MHz 148.28125 - 149.39375 MHz	In a 12.5 kHz channel a 12.5 kHz or a 6.25 kHz channel, or two 6.25 kHz channels may be used. The distance from the centre frequency is stated in the radio licence. See PMR standards in appendix 1 to this table. ECC Decision ECC/DEC/(19)02. Short term events, digital or analogue systems: duplex channels 152.88125/148.28125 MHz, 153.41875/148.81875 MHz and 153.93125/149.33125 MHz, simplex channels 152.93125 MHz, 153.43125 MHz and 153.94375 MHz. The channels to use will be granted on a case by case basis. 153.95625 MHz, reindeer management in reindeer management areas, simplex, mobile stations.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
154 - 174 MHz MOBILE	154.00625 - 154.49375 MHz (0.4875 MHz) Digital PMR (DMR, dPMR)	Duplex Base station (FB) TX, 25 W ERP / 25 W Mobile (ML) RX, 15 W ERP / 12.5 kHz / -4.6 MHz 149.40625 - 149.89375 MHz	In a 12.5 kHz channel a 12.5 kHz or a 6.25 kHz channel, or two 6.25 kHz channels may be used. The distance from the centre frequency is stated in the radio licence. See PMR standards in appendix 1 to this table. ECC Decision ECC/DEC/(19)02.
	154.50625 - 154.64375 MHz (0.1375 MHz) PMR	Simplex Mobile (ML) TXRX, 5 W ERP / 5 W 12.5 kHz / 8 kHz	Common channels for PMR throughout Finland. See PMR standards in appendix 1 to this table.
	154.65625 - 154.89375 MHz (0.2375 MHz) Digital PMR (DMR, dPMR)	Simplex Mobile (ML) TXRX, 5 W ERP / 5 W 12.5 kHz /	In a 12.5 kHz channel a 12.5 kHz or a 6.25 kHz channel, or two 6.25 kHz channels may be used. The distance from the centre frequency is stated in the radio licence. See PMR standards in appendix 1 to this table. ECC Decision ECC/DEC/(19)02. 154.65625 MHz, 154.68125 MHz, 154.71875 MHz, 154.76875 MHz, 154.79375 MHz, 154.81875 MHz, 154.85625 MHz and 154.89375 MHz, common channels for DMR/dPMR throughout Finland.
	154.900 - 155.475 MHz (0.575 MHz) Military use		Also tracking and tracing radio equipment: 155.400, 155.425, 155.450, 155.475, 155.500, 155.525 MHz. Radiated power max. 2 W ERP. Channel width max. 25 kHz. Duty cycle max. 10 %. Tracking and tracing radio equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Other use of the frequencies, too; no protection against interference for tracking and tracing systems. See PMR standards in appendix 1 to this table.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
MARITIME MOBILE	155.500 - 155.825 MHz (0.325 MHz) PMR (boating)	Simplex Mobile (ML) TXRX Ship station (MS) TXRX	User certificate required. See Finnish Transport and Communications Agency Regulation 18. Standard EN 300 162. Standard EN 301 025. Standard EN 301 178. Standard EN 301 925. 155.500, 155.525 and 155.650 MHz common Nordic channels for leisure boating (L-channels). 155.625, 155.775 and 155.825 MHz common Nordic channels for fishing boats (F-channels). Also tracking and tracing radio equipment: 155.400, 155.425, 155.450, 155.475, 155.500, 155.525 MHz. Radiated power max. 2 W ERP. Channel width max. 25 kHz. Duty cycle max. 10 %. Tracking and tracing radio equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Other use of the frequencies, too; no protection against interference for tracking and tracing systems. See PMR standards in appendix 1 to this table.
MOBILE	155.500 - 155.825 MHz (0.325 MHz) Military use		
	155.850 - 155.875 MHz (0.025 MHz) Government	Duplex Base station (FB) RX Mobile (ML) TX 25 kHz / 16 kHz +4.6 MHz 160.450 - 160.475 MHz Simplex Mobile (ML) TXRX	
	155.900 - 156.000 MHz (0.100 MHz) Government	Duplex Base station (FB) RX Mobile (ML) TX 25 kHz / 16 kHz +4.6 MHz 160.500 - 160.600 MHz	

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
MARITIME MOBILE	156.025 - 156.350 MHz (0.325 MHz) Coast stations	Duplex Coast station (FC) RX Port station (FP) RX Base station (FB) RX 25 kHz / 16 kHz +4.6 MHz 160.625 - 160.950 MHz Simplex Ship station (MS) TXRX Mobile (ML) TXRX 25 kHz / 16 kHz	User certificate required. See Finnish Transport and Communications Agency Regulation 18. Standard EN 300 162. Standard EN 301 025. Standard EN 301 178. 156,025 MHz, GOFREP system, frequency used in Finland, ship station transmitting frequency. Simplex, in the frequency 156.300 MHz only (for intership communication, channel 6). Table of transmitting frequencies in the VHF maritime mobile band, see RR AP 18.
	156.375 - 156.875 MHz (0.500 MHz) Coast stations	Simplex Coast station (FC) TXRX Port station (FP) TXRX Base station (FB) TXRX 25 kHz / 16 kHz Simplex Ship station (MS) TXRX Mobile (ML) TXRX 25 kHz / 16 kHz	User certificate required. See Finnish Transport and Communications Agency Regulation 18. Standard EN 300 162. Standard EN 301 025. Standard EN 301 178. 156.400 and 156.625 MHz, channels 8 and 72 for intership communication only. 156.525 MHz, channel 70 international DSC frequency. 156.775 and 156.825 MHz, channels 75 and 76 are guardbands for channel 16 and satellite AIS channels. Maximum power of radio telephone 1 W. For AIS use see ITU-R M.1371. 156.800 MHz, channel 16 international distress, safety and calling frequency for navigation. Guardbands +/- 37.5 kHz. 156.875 MHz, channel 77 for intership communication only.

Frequency band Services in Finland	**Sub-band (its width) and usage**	**Mode of traffic Class of station and direction, Radiated power / Transmitter power (max.) Channel spacing / Bandwidth Duplex separation and duplex band Class of emission Standard type**	**Terms and comments as to radio interface. References to standards are for information only.**
MOBILE	156.900 - 157.425 MHz (0.525 MHz) Coast stations	Duplex Coast station (FC) RX Port station (FP) RX Base station (FB) RX 25 kHz / 16 kHz +4.6 MHz 161.500 - 162.025 MHz Simplex Coast station (FC) TXRX Port station (FP) TXRX Base station (FB) TXRX Ship station (MS) TXRX Mobile (ML) TXRX 25 kHz / 16 kHz	User certificate required. See Finnish Transport and Communications Agency Regulation 18. Standard EN 300 162. Standard EN 301 025. Standard EN 301 178. 157.025 MHz GOFREP system, alternattive frequency used in Finland, ship stations transmitting frequency. Simplex, in the frequencies 157.375 MHz (channel 87) and 157.425 MHz (channel 88) only.
	157.450 - 158.800 MHz (1.350 MHz) PMR	Duplex Base station (FB) RX, 25 W ERP / 25 W Mobile (ML) TX, 15 W ERP / 25 kHz / 16 kHz +4.6 MHz 162.050 - 163.400 MHz	See PMR standards in appendix 1 to this table.
	158.825 - 160.425 MHz (1.600 MHz) Government	Duplex Base station (FB) TX 25 kHz / 16 kHz +4.6 MHz 163.425 - 165.025 MHz Duplex Base station (FB) RX 25 kHz / 16 kHz +4.6 MHz 163.425 - 165.025 MHz Simplex Mobile (ML) TXRX	160.250, 160.275 and 160.300 MHz common channels for PMR, all Finland. Simplex mobile stations, radiated power max. 5 W ERP.
	160.450 - 160.475 MHz (0.025 MHz) Government	Duplex Base station (FB) TX Mobile (ML) RX 25 kHz / 16 kHz -4.6 MHz 155.850 - 155.875 MHz	

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	160.500 - 160.600 MHz (0.100 MHz) Government	Duplex Base station (FB) TX Mobile (ML) RX 25 kHz / 16 kHz -4.6 MHz 155.900 - 156.000 MHz	
MARITIME MOBILE	160.625 - 160.950 MHz (0.325 MHz) Coast stations	Duplex Coast station (FC) TX Port station (FP) TX Base station (FB) TX 25 kHz / 16 kHz -4.6 MHz 156.025 - 156.350 MHz	User certificate required. See Finnish Transport and Communications Agency Regulation 18. Standard EN 300 162. Standard EN 301 025. Standard EN 301 178. 160.625 MHz GOFREP system, frequency used in Finland, coast stations transmitting frequency.
MOBILE	160.975 - 161.150 MHz (0.175 MHz) Government		
	161.175 - 161.375 MHz (0.200 MHz) PMR	Duplex Base station (FB) RX Mobile (ML) TX 25 kHz / 16 kHz +4.6 MHz 165.775 - 165.975 MHz	Sub-band under review.
	161.4125 - 161.4625 MHz (0.050 MHz) Control, alarm, telemetry, telecommand, data transmission	Simplex Base station (FB) TXRX, 2 W ERP / 1 W Mobile (ML) TXRX, 2 W ERP / 1 W Fixed station (FX) TXRX, 2 W ERP / 1 W 25 kHz / 16 kHz FM 1/161	Duty cycle max. 10 %. See PMR standards in appendix 1 to this table.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
MARITIME MOBILE	161.500 - 162.025 MHz (0.525 MHz) Coast stations	Duplex Coast station (FC) TX Port station (FP) TX Base station (FB) TX 25 kHz / 16 kHz -4.6 MHz 156.900 - 157.425 MHz Simplex Coast station (FC) TXRX Port station (FP) TXRX Base station (FB) TXRX Ship station (MS) TXRX 25 kHz / 16 kHz	User certificate required. See Finnish Transport and Communications Agency Regulation 18. Standard EN 300 162. Standard EN 301 025. Standard EN 301 178. AIS1=161.975 MHz and AIS2=162.025 MHz international AIS-channels. For AIS use see ITU-R M.1371. 161.625 MHz GOFREP-system, Finlands alternate frequency, coast stations transmitting frequency. Simplex, frequencies 161.975 MHz (AIS1) and 162.025 MHz (AIS2) only.
MOBILE	162.050 - 163.400 MHz (1.350 MHz) PMR	Duplex Base station (FB) TX, 25 W ERP / 25 W Mobile (ML) RX, 15 W ERP / 25 kHz / 16 kHz -4.6 MHz 157.450 - 158.800 MHz	See PMR standards in appendix 1 to this table.
	163.425 - 165.025 MHz (1.600 MHz) Government	Duplex Base station (FB) RX Mobile (ML) TX 25 kHz / 16 kHz -4.6 MHz 158.825 - 160.425 MHz Duplex Base station (FB) TX Mobile (ML) RX 25 kHz / 16 kHz -4.6 MHz 158.825 - 160.425 MHz Simplex Base station (FB) TXRX Mobile (ML) TXRX	Radiated power typically max. 25 W ERP. 163.675, 164.525, 164.575 and 164.600 MHz for reindeer management in reindeer management areas, simplex, mobile stations.
	165.050 - 165.275 MHz (0.225 MHz) Government		

Frequency band Services in Finland	**Sub-band (its width) and usage**	**Mode of traffic Class of station and direction, Radiated power / Transmitter power (max.) Channel spacing / Bandwidth Duplex separation and duplex band Class of emission Standard type**	**Terms and comments as to radio interface. References to standards are for information only.**
	165.300 - 165.750 MHz (0.450 MHz) PMR	Duplex Base station (FB) RX, 25 W ERP / 25 W Mobile (ML) TX, 15 W ERP / 25 kHz / 16 kHz +4.6 MHz 169.900 - 170.350 MHz	
	165.775 - 165.975 MHz (0.200 MHz) PMR	Duplex Base station (FB) TX, 25 W ERP / 25 W Mobile (ML) RX, 15 W ERP / 25 kHz / 16 kHz -4.6 MHz 161.175 - 161.375 MHz	Sub-band under review.
	166.000 - 167.675 MHz (1.675 MHz) PMR	Duplex Base station (FB) TX, 25 W ERP / 25 W Mobile (ML) RX, 15 W ERP / 25 kHz / 16 kHz +4.6 MHz 170.600 - 172.275 MHz Simplex Mobile (ML) TXRX, 5 W ERP / 5 W	See PMR standards in appendix 1 to this table. 167.650/172.250 MHz sales demonstration.
	167.700 - 168.550 MHz (0.850 MHz) Use and maintenance of railway network	Duplex Base station (FB) TX, 25 W ERP / 25 W Mobile (ML) RX, 15 W ERP / 25 kHz / 16 kHz +4.6 MHz 172.300 - 173.150 MHz Duplex Base station (FB) RX, 25 W ERP / 25 W Mobile (ML) TX, 15 W ERP / 25 kHz / 16 kHz +4.6 MHz 172.300 - 173.150 MHz Simplex Mobile (ML) TXRX, 5 W ERP / 5 W	See PMR standards in appendix 1 to this table.
	168.575 - 169.400 MHz (0.825 MHz) PMR	Duplex Base station (FB) TX, 25 W ERP / 25 W Mobile (ML) RX, 15 W ERP / 25 kHz / 16 kHz +4.6 MHz 173.175 - 174.000 MHz	See PMR standards in appendix 1 to this table.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	169.400 - 169.475 MHz (lower and upper limits of sub-band) (0.075 MHz) (SRD) Short range devices	50 kHz /	Meter reading systems, hearing aids and short range devices. Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Meter reading and short range devices, maximum radiated power 500 mW ERP. Duty cycle < 10 % for meter reading systems. Duty cycle < 1 % for short range devices. Standard EN 300 220 as applicable. Hearing aids, maximum radiated power 500 mW ERP. Standard EN 300 422 as applicable. SRD Recommendation ERC/REC/70-03. ECC Decision ECC/DEC/(05)02. European Commission Decision 2006/771/EC, supplemented by Implementing Decision (EU) 2022/180.
	169.4000 - 169.4875 MHz (lower and upper limits of sub-band) (0.0875 MHz) (SRD) Non-specific Short Range Devices		Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Radiated power max. 10 mW ERP. Duty cycle max. 0,1 %. Standard EN 300 220 as applicable. SRD Recommendation ERC/REC/70-03. ECC Decision ECC/DEC/(05)02. European Commission Decision 2006/771/EC, supplemented by Implementing Decision (EU) 2022/180.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	169.4875 - 169.5875 MHz (lower and upper limits of sub-band) (0.100 MHz) (SRD) Short range devices		Hearing aids and short range devices. Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Hearing aids, maximum radiated power 500 mW ERP and channel width 50 kHz. The effective radiated power of non-specific, short-range radio transmitters must not exceed 10 mW ERP, and their duty cycle must not exceed 0.001 %. However, between 00.00 and 06.00 am, the duty cycle must be lower than 0.1 %. Standard EN 300 422 as applicable. Standard EN 300 220 as applicable. ECC Decision ECC/DEC/(05)02. European Commission Decision 2006/771/EC, supplemented by Implementing Decision (EU) 2022/180.
	169.5875 - 169.8125 MHz (lower and upper limits of sub-band) (0.225 MHz) (SRD) Non-specific Short Range Devices		Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Radiated power max. 10 mW ERP. Duty cycle max. 0,1 %. Standard EN 300 220 as applicable. SRD Recommendation ERC/REC/70-03. ECC Decision ECC/DEC/(05)02. European Commission Decision 2006/771/EC, supplemented by Implementing Decision (EU) 2022/180.
	169.61875 - 169.80625 MHz (0.1875 MHz) PMR	Simplex Base station (FB) TXRX, 25 W ERP / 25 W Mobile (ML) TXRX, 5 W ERP / 5 W 12.5 kHz / 8 kHz	Tracking and tracing systems, paging, PMR. See PMR standards in appendix 1 to this table. ECC Decision ECC/DEC/(05)02. Paging. Standard EN 300 224.
	169.625 - 169.800 MHz (0.175 MHz) PMR	Simplex Base station (FB) TXRX, 25 W ERP / 25 W Mobile (ML) TXRX, 5 W ERP / 5 W 25 kHz / 16 kHz	Tracking and tracing systems, paging, PMR. See PMR standards in appendix 1 to this table. Paging. Standard EN 300 224. ECC Decision ECC/DEC/(05)02.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	169.825 - 169.875 MHz (0.050 MHz) PMR	Simplex Base station (FB) TXRX, 25 W ERP / 25 W Mobile (ML) TXRX, 5 W ERP / 5 W 25 kHz / 16 kHz	See PMR standards in appendix 1 to this table.
	169.900 - 170.350 MHz (0.450 MHz) PMR	Duplex Base station (FB) TX, 25 W ERP / 25 W Mobile (ML) RX, 15 W ERP / 25 kHz / 16 kHz -4.6 MHz 165.300 - 165.750 MHz	
	170.375 - 170.575 MHz (0.200 MHz) PMR	Simplex Mobile (ML) TXRX, 5 W ERP / 5 W 25 kHz / 16 kHz	See PMR standards in appendix 1 to this table. 170.425 and 170.450 MHz common channels for PMR, throughout Finland, simplex, mobile stations, radiated power max. 5 W ERP.
	170.600 - 172.275 MHz (1.675 MHz) PMR	Duplex Base station (FB) RX, 25 W ERP / 25 W Mobile (ML) TX, 15 W ERP / 25 kHz / 16 kHz -4.6 MHz 166.000 - 167.675 MHz Simplex Mobile (ML) TXRX, 5 W ERP / 5 W	See PMR standards in appendix 1 to this table. 172.250/167.650 MHz sales demonstration. 172.250 MHz sales demonstration, simplex, mobile stations.
	172.300 - 173.150 MHz (0.850 MHz) Use and maintenance of railway network	Duplex Base station (FB) RX, 25 W ERP / 25 W Mobile (ML) TX, 15 W ERP / 25 kHz / 16 kHz -4.6 MHz 167.700 - 168.550 MHz Duplex Base station (FB) TX, 25 W ERP / 25 W Mobile (ML) RX, 15 W ERP / 25 kHz / 16 kHz -4.6 MHz 167.700 - 168.550 MHz Simplex Mobile (ML) TXRX, 5 W ERP / 5 W	See PMR standards in appendix 1 to this table.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	173.175 - 174.000 MHz (0.825 MHz) PMR	Duplex Base station (FB) RX, 25 W ERP / 25 W Mobile (ML) TX, 15 W ERP / 25 kHz / 16 kHz -4.6 MHz 168.575 - 169.400 MHz	See PMR standards in appendix 1 to this table.
	173.965 - 174.015 MHz (0.050 MHz) (SRD) Hearing aids	50 kHz /	Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Exempting from licensing concerns equipment, for which the user only can choose common frequencies according to Regulation 15. Radiated power max. 10 mW ERP. Standard EN 300 422 as applicable. SRD Recommendation ERC/REC/70-03. European Commission Decision 2006/771/EC, supplemented by Implementing Decision (EU) 2022/180.
174 - 230 MHz Mobile	174 - 195 MHz (lower and upper limits of sub-band) (21 MHz) (SRD) Radio microphones, hearing aids, in-ear monitoring	Simplex Mobile (ML) TXRX	Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Secondary use, interference may occur. Radiated power typically maximum 50 mW ERP. Standard EN 300 422 as applicable. SRD Recommendation ERC/REC/70-03. European Commission Decision 2014/641/EU.
	174 - 225 MHz (51 MHz) PMR		Sub-band under review. Terms for the use of digital television and radio broadcasting service according to the Geneva 2006 plan restrict the use of the band.
	195 - 216 MHz (21 MHz) PMR		Fixed-term product development and testing of wireless communications applications until 31 December 2024.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	216 - 225 MHz (9 MHz) (SRD) Radio microphones, hearing aids, in-ear monitoring	Simplex Mobile (ML) TXRX	Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Secondary use, interference may occur. Radiated power typically maximum 50 mW ERP. Standard EN 300 422 as applicable. SRD Recommendation ERC/REC/70-03. European Commission Decision 2014/641/EU.
	225 - 230 MHz (5 MHz) Military use		
230 - 235 MHz Mobile	230 - 235 MHz (5 MHz) Military use		Eiscat receiver in the frequency range 230,016 - 236,544 MHz in the municipality of Enontekiö. 230 - 231 MHz (SRD) Short range devices, licence exempted equipment, taken into use before 31.12.1998.
BROADCASTING	230 - 235 MHz (lower and upper limits of sub-band) (5 MHz) Digital sound broadcasting	Simplex Sound broadcasting (BC) TX	Digital radio (DAB) according to the Wiesbaden-95 Plan (Constanta 2007). Standard EN 300 401. 230 - 231 MHz (SRD) Short range devices, licence exempted equipment, taken into use before 31.12.1998. See Finnish Transport and Communications Agency Regulation 15. Transmitter power and radiated power (ERP) max. 500 mW. Eiscat receiver in the frequency range 230,016 - 236,544 MHz in the municipality of Enontekiö.
235 - 267 MHz BROADCASTING	235 - 240 MHz (5 MHz) Digital sound broadcasting	Simplex Sound broadcasting (BC) TX	Digital radio (DAB) according to the Wiesbaden-95 Plan (Constanta 2007). Standard EN 300 401. Eiscat receiver in the frequency range 230,016 - 236,544 MHz in the municipality of Enontekiö.
Mobile	235 - 240 MHz (5 MHz) Military use		Eiscat receiver in the frequency range 230,016 - 236,544 MHz in the municipality of Enontekiö.
MOBILE	240 - 267 MHz (27 MHz) Military use		243 MHz aeronautical and maritime frequency for emergency and search and reascue (EPIRB, emergency position-indicating radio beacon and radiotelephones). Standard EN 300 152.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
FIXED	240 - 267 MHz (27 MHz) Military use		
267 - 272 MHz MOBILE	267 - 272 MHz (5 MHz) Military use		
FIXED	267 - 272 MHz (5 MHz) Military use		
272 - 273 MHz MOBILE	272 - 273 MHz (1 MHz) Military use		
FIXED	272 - 273 MHz (1 MHz) Military use		
273 - 322 MHz FIXED	273 - 308 MHz (35 MHz) Military use		
MOBILE	273 - 308 MHz (35 MHz) Military use		
	308 - 319 MHz (11 MHz) Military use		
FIXED	308 - 319 MHz (11 MHz) Military use		
	319 - 322 MHz (3 MHz) Military use		
MOBILE	319 - 322 MHz (3 MHz) Military use		
322.000 - 328.600 MHz FIXED	322.000 - 328.000 MHz (6 MHz) Military use		

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
MOBILE	322.000 - 328.000 MHz (6 MHz) Military use		
	328.000 - 328.600 MHz (0.600 MHz) Guardband for ILS		
328.600 - 335.400 MHz AERONAUTICAL RADIONAVIGATION	328.600 - 335.400 MHz (6.800 MHz) Instrument landing system (ILS)	Simplex Land station (AL) TX 50 kHz / 300 Hz A8XXF	ILS (Glide Path).
335.400 - 339.000 MHz FIXED	335.400 - 336.000 MHz (0.600 MHz) Guardband for ILS		
MOBILE	335.400 - 336.000 MHz (0.600 MHz) Guardband for ILS		
	336.000 - 339.000 MHz (3 MHz) Military use		
FIXED	336.000 - 339.000 MHz (3 MHz) Military use		
339.000 - 380.000 MHz MOBILE	339.000 - 358.500 MHz (19.500 MHz) Military use		
FIXED	339.000 - 358.500 MHz (19.500 MHz) Military use		
	358.500 - 378.000 MHz (19.500 MHz) Military use		
MOBILE	358.500 - 378.000 MHz (19.500 MHz) Military use		

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	378.000 - 380.000 MHz (2 MHz) Guardband for emergency services network (VIRVE)		Guardband for emergency services network (VIRVE).
FIXED	378.000 - 380.000 MHz (2 MHz) Guardband for emergency services network (VIRVE)		Guardband for emergency services network (VIRVE).
380.000 - 399.900 MHz MOBILE	380.0125 - 384.9875 MHz (4.975 MHz) Emergency services network (VIRVE)	Duplex Base station (FB) RX, 25 W ERP / Mobile (ML) TX, 15 W ERP / 25 kHz / 25 kHz +10 MHz 390.0125 - 394.9875 MHz	Mobile terminals belonging to the emergency services network (VIRVE) are exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. See PMR standards in appendix 1 to this table. Harmonised channels for Direct Mode Operation (DMO): 380.0125-380.1375 MHz and 390.0125-390.1375 MHz. Harmonised channels for Air-Ground-Air operation (AGA): 384.8125-384.9875 MHz and 394.8125-394.9875 MHz. ECC Decision ECC/DEC/(08)05. ERC Decision ERC/DEC/(01)19. ECC Decision ECC/DEC/(06)05.
	385.0125 - 389.9875 MHz (4.975 MHz) TETRA	Duplex Base station (FB) RX, 25 W ERP / 25 W Mobile (ML) TX, 15 W ERP / 25 kHz / 25 kHz +10 MHz 395.0125 - 399.8875 MHz	Mobile terminals belonging to the emergency services network (VIRVE) are exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. 395.0125 - 395.9875 / 385.0125 - 385.9875 MHz expansionband for Direct Mode Operation (DMO) of the emergency services network (VIRVE). See PMR standards in appendix 1 to this table. ECC Decision ECC/DEC/(08)05.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	390.0125 - 394.9875 MHz (4.975 MHz) Emergency services network (VIRVE)	Duplex Base station (FB) TX, 25 W ERP / Mobile (ML) RX, 15 W ERP / 25 kHz / 25 kHz -10 MHz 380.0125 - 384.9875 MHz	Mobile terminals belonging to the emergency services network (VIRVE) are exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. See PMR standards in appendix 1 to this table. Harmonised channels for Direct Mode Operation (DMO): 380.0125-380.1375 MHz and 390.0125-390.1375 MHz. Harmonised channels for Air-Ground-Air operation (AGA): 384.8125-384.9875 MHz and 394.8125-394.9875 MHz. ECC Decision ECC/DEC/(08)05. ERC Decision ERC/DEC/(01)19. ECC Decision ECC/DEC/(06)05.
	395.0125 - 399.8875 MHz (4.875 MHz) TETRA	Duplex Base station (FB) TX, 25 W ERP / 25 W Mobile (ML) RX, 15 W ERP / 25 kHz / 25 kHz -10 MHz 385.0125 - 389.9875 MHz	Mobile terminals belonging to the emergency services network (VIRVE) are exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. 395.0125 - 395.9875 / 385.0125 - 385.9875 MHz expansionband for Direct Mode Operation (DMO) of the emergency services network (VIRVE). See PMR standards in appendix 1 to this table. ECC Decision ECC/DEC/(08)05.
399.900 - 400.050 MHz MOBILE-SATELLITE (EARTH-TO-SPACE)	399.900 - 400.050 MHz (0.150 MHz) Mobile satellite	Land mobile earth station (TU) TX Space station (EU) RX	Terminals exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Standard EN 301 721.
400.050 - 400.150 MHz STANDARD FREQUENCY AND TIME SIGNAL-SATELLITE	400.050 - 400.150 MHz (0.100 MHz) Standard frequency and time signal satellite	Space station (EE) TX Earth station (UE) RX Space station (EY) TX Earth station (UY) RX	400.100 MHz standard frequency.
400.150 - 401.000 MHz METEOROLOGICAL AIDS	400.150 - 401.000 MHz (0.850 MHz) Sondes	Simplex Mobile station (SA) TX Base station (SM) RX	Usage according ITU-R Rec. RS.1165-2. Standard EN 302 054.
MOBILE-SATELLITE (SPACE-TO-EARTH)	400.150 - 401.000 MHz (0.850 MHz) Mobile satellite	Space station (EI) TX Mobile earth station (UA) RX	

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
401 - 406 MHz MOBILE	401 - 402 MHz (1 MHz) Ultra low-power medical implants	Simplex 25 kHz /	Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Radiated power typically max. 0.025 mW ERP and an appropriate access protocol or duty cycle < 0.1 % and radiated power max. 250 nW ERP. Adjacent channels may be combined for increased bandwidth up to 100 kHz. Standard EN 302 537. ERC Decision ERC/DEC/(01)17. European Commission Decision 2006/771/EC, supplemented by Implementing Decision (EU) 2022/180.
METEOROLOGICAL-SATELLITE (EARTH-TO-SPACE)	401 - 403 MHz (2 MHz) Meteorological data collection platforms (DCPs)	Earth station (TM) TX Space station (EM) RX	Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Tracking and tracing equipment in the Argos satellite-based system, in the frequency 401.650 MHz, +/- 30 kHz.
EARTH EXPLORATION-SATELLITE (EARTH-TO-SPACE)	401 - 403 MHz (2 MHz) Earth exploration satellite	Earth station (TW) TX Space station (EW) RX	
METEOROLOGICAL AIDS	401 - 406 MHz (5 MHz) Sondes	Simplex Base station (SM) RX Mobile station (SA) TX	Usage according ITU-R Rec. RS.1165-2. Standard EN 302 054.
MOBILE	402 - 405 MHz (3 MHz) Ultra low-power medical implants	Simplex 25 kHz /	Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Radiated power max. 0.025 mW ERP. Adjacent channels may be combined for increased bandwidth up to 300 kHz. Standard EN 301 839. ERC Decision ERC/DEC/(01)17. European Commission Decision 2006/771/EC, supplemented by Implementing Decision (EU) 2022/180.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	405 - 406 MHz (1 MHz) Ultra low-power medical implants	Simplex 25 kHz /	Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Radiated power typically max. 0.025 mW ERP and an appropriate access protocol or duty cycle < 0.1 % and radiated power max. 250 nW ERP. Adjacent channels may be combined for increased bandwidth up to 100 kHz. Standard EN 302 537. ERC Decision ERC/DEC/(01)17. European Commission Decision 2006/771/EC, supplemented by Implementing Decision (EU) 2022/180.
406.000 - 406.100 MHz MOBILE-SATELLITE (EARTH-TO-SPACE)	406.000 - 406.100 MHz (0.100 MHz) Rescue service	Earth station (TE) TX Space station (EI) RX	User certificate required. See Finnish Transport and Communications Agency Regulation 18. EPIRB and ELT transmissions from Earth-to-COSPAS-SARSAT-satellites. Standard EN 300 152.
406.100 - 410.000 MHz MOBILE	406.125 - 406.600 MHz (0.475 MHz) Control, alarm, telemetry, telecommand, data transmission	Simplex Base station (FB) TXRX, 2 W ERP / 1 W Mobile (ML) TXRX, 2 W ERP / 1 W 25 kHz / 16 kHz	See PMR standards in appendix 1 to this table. No new licences for fixed or mobile service stations in the 406.100-406.200 MHz frequency band.
	406.625 - 406.925 MHz (0.300 MHz) Control, alarm, telemetry, telecommand, data transmission	Simplex Fixed station (FX) TXRX, 2 W ERP / 1 W 25 kHz / 16 kHz FM 1/406	See PMR standards in appendix 1 to this table.
	406.950 - 407.000 MHz (0.050 MHz) Control, alarm, telemetry, telecommand, data transmission	Simplex Base station (FB) TXRX, 2 W ERP / 1 W Mobile (ML) TXRX, 2 W ERP / 1 W 25 kHz / 16 kHz	See PMR standards in appendix 1 to this table.
	407.0125 - 407.4875 MHz (lower and upper limits of sub-band) (0.475 MHz) Control, alarm, telemetry, telecommand, data transmission	Simplex Fixed station (FX) TXRX, 2 W ERP / 1 W 150 kHz /, 100 kHz /	See PMR standards in appendix 1 to this table.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	407.525 - 408.550 MHz (1.025 MHz) PMR	Simplex Base station (FB) TXRX, 25 W ERP / 25 W Mobile (ML) TXRX, 5 W ERP / 5 W 25 kHz / 16 kHz	See PMR standards in appendix 1 to this table. 407.525, 407.575, 408.375 and 408.400 MHz common channels for PMR, througout Finland, simplex, mobile stations, radiated power max. 5 W ERP.
	408.575 - 409.000 MHz (0.425 MHz) Control, alarm, telemetry, telecommand, data transmission	Simplex Base station (FB) TXRX, 2 W ERP / 1 W Mobile (ML) TXRX, 2 W ERP / 1 W 12.5 kHz / 8 kHz	See PMR standards in appendix 1 to this table.
	409.0125 - 409.9750 MHz (0.9625 MHz) Control, alarm, telemetry, telecommand, data transmission	Simplex Fixed station (FX) TXRX, 2 W ERP / 1 W 12.5 kHz / 8 kHz FM 1/409	See PMR standards in appendix 1 to this table.
410 - 420 MHz MOBILE	410.0125 - 410.8875 MHz (0.875 MHz) Digital PMR (DMR, dPMR)	Duplex Base station (FB) RX, 25 W ERP / 25 W Mobile (ML) TX, 15 W ERP / 12.5 kHz / 12.5 kHz +10 MHz 420.0125 - 420.8875 MHz	In a 12.5 kHz channel a 12.5 kHz or a 6.25 kHz channel, or two 6.25 kHz channels may be used. The distance from the centre frequency is stated in the radio licence. See PMR standards in appendix 1 to this table. ECC Decision ECC/DEC/(19)02.
FIXED	410.975 - 412.850 MHz (1.875 MHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX, / 25 W 125 kHz / 100 kHz +10 MHz 420.975 - 422.850 MHz FM4/419	Channels B2a - B13a. See PMR standards in appendix 1 to this table.
	412.925 - 413.975 MHz (1.050 MHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX, / 25 W 25 kHz / 16 kHz +10 MHz 422.925 - 423.975 MHz FM1/420	Channels C65a - C107a. See PMR standards in appendix 1 to this table.
MOBILE	414.0125 - 416.3375 MHz (2.325 MHz) TETRA	Duplex Base station (FB) RX, 25 W ERP / 25 W Mobile (ML) TX, 15 W ERP / 25 kHz / 25 kHz +10 MHz 424.0125 - 426.3375 MHz Simplex Mobile (ML) TXRX, 5 W ERP / 5 W	See PMR standards in appendix 1 to this table. ECC Decision ECC/DEC/(19)02. 416.2375 MHz DMO throughout Finland. 415,6125/425,6125 MHz sales demonstration.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	416.350 - 417.500 MHz (1.150 MHz) Digital PMR (DMR, dPMR)	Duplex Base station (FB) RX +10 MHz 426.350 - 427.500 MHz	Channel width 6.25 - 200 kHz. See PMR standards in appendix 1 to this table. ECC Decision ECC/DEC/(19)02.
	417.525 - 417.900 MHz (0.375 MHz) PMR	Duplex Base station (FB) RX, 25 W ERP / 25 W Mobile (ML) TX, 15 W ERP / 12.5 kHz / 8 kHz +10 MHz 427.525 - 427.900 MHz	See PMR standards in appendix 1 to this table.
	417.925 - 419.125 MHz (1.200 MHz) Digital wideband PMR networks	Duplex Base station (FB) RX, 25 W ERP / 25 W Mobile (ML) TX, 15 W ERP / +10 MHz 427.925 - 429.125 MHz	Channel width 25 - 200 kHz. See PMR standards in appendix 1 to this table. ECC Decision ECC/DEC/(19)02.
	419.150 - 419.525 MHz (0.375 MHz) PMR	Duplex Base station (FB) RX, 25 W ERP / 25 W Mobile (ML) TX, 15 W ERP / 12.5 kHz / 8 kHz +10 MHz 429.150 - 429.525 MHz	See PMR standards in appendix 1 to this table. 429.3625/419.3625 MHz and 429.4625/419.4625 mobile base stations for short-term use.
	419.55625 - 419.71875 MHz (0.1625 MHz) Digital PMR (DMR, dPMR)	Duplex Base station (FB) RX, 25 W ERP / 25 W Mobile (ML) TX, 15 W ERP / 12.5 kHz / 12.5 kHz +10 MHz 429.55625 - 429.71875 MHz	In a 12.5 kHz channel a 12.5 kHz or a 6.25 kHz channel, or two 6.25 kHz channels may be used. The distance from the centre frequency is stated in the radio licence. See PMR standards in appendix 1 to this table. ECC Decision ECC/DEC/(19)02.
FIXED	419.750 - 420.000 MHz (lower and upper limits of sub-band) (0.250 MHz) Control, alarm, telemetry, telecommand, data transmission	Simplex Fixed station (FX) TXRX, / 2 W 100 kHz /, 150 kHz /	See PMR standards in appendix 1 to this table. Centre frequencies 419.825 MHz (150 kHz channel width) and 419.950 (100 kHz channel width).
420 - 430 MHz MOBILE	420.0125 - 420.8875 MHz (0.875 MHz) Digital PMR (DMR, dPMR)	Duplex Base station (FB) TX, 25 W ERP / 25 W Mobile (ML) RX, 15 W ERP / 12.5 kHz / 12.5 kHz -10 MHz 410.0125 - 410.8875 MHz	In a 12.5 kHz channel a 12.5 kHz or a 6.25 kHz channel, or two 6.25 kHz channels may be used. The distance from the centre frequency is stated in the radio licence. See PMR standards in appendix 1 to this table. ECC Decision ECC/DEC/(19)02.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
FIXED	420.975 - 422.850 MHz (1.875 MHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX, / 25 W 125 kHz / 100 kHz -10 MHz 410.975 - 412.850 MHz FM4/419	Channels B2b - B13b. See PMR standards in appendix 1 to this table.
	422.925 - 423.975 MHz (1.050 MHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX, / 25 W 25 kHz / 16 kHz -10 MHz 412.925 - 413.975 MHz FM1/420	Channels C65b - C107b. See PMR standards in appendix 1 to this table.
MOBILE	424.0125 - 426.3375 MHz (2.325 MHz) TETRA	Duplex Base station (FB) TX, 25 W ERP / 25 W Mobile (ML) RX, 15 W ERP / 25 kHz / 25 kHz -10 MHz 414.0125 - 416.3375 MHz Simplex Mobile (ML) TXRX, 5 W ERP / 5 W	See PMR standards in appendix 1 to this table. ECC Decision ECC/DEC/(19)02. 426.2375 MHz DMO throughout Finland. 415,6125/425,6125 MHz sales demonstration.
	426.350 - 427.500 MHz (1.150 MHz) Digital PMR (DMR, dPMR)	Duplex Base station (FB) TX -10 MHz 416.350 - 417.500 MHz	Channel width 6.25 - 200 kHz. See PMR standards in appendix 1 to this table. ECC Decision ECC/DEC/(19)02.
	427.525 - 427.900 MHz (0.375 MHz) PMR	Duplex Base station (FB) TX, 25 W ERP / 25 W Mobile (ML) RX, 15 W ERP / 12.5 kHz / 8 kHz -10 MHz 417.525 - 417.900 MHz	See PMR standards in appendix 1 to this table.
	427.925 - 429.125 MHz (1.200 MHz) Digital wideband PMR networks	Duplex Base station (FB) TX, 25 W ERP / 25 W Mobile (ML) RX, 15 W ERP / -10 MHz 417.925 - 419.125 MHz	Channel width 25 - 200 kHz. See PMR standards in appendix 1 to this table. ECC Decision ECC/DEC/(19)02.
	429.150 - 429.525 MHz (0.375 MHz) PMR	Duplex Base station (FB) TX, 25 W ERP / 25 W Mobile (ML) RX, 15 W ERP / 12.5 kHz / 8 kHz -10 MHz 419.150 - 419.525 MHz	See PMR standards in appendix 1 to this table. 429.3625/419.3625 MHz and 429.4625/419.4625 mobile base stations for short-term use.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	429.55625 - 429.71875 MHz (0.1625 MHz) Digital PMR (DMR, dPMR)	Duplex Base station (FB) TX, 25 W ERP / 25 W Mobile (ML) RX, 15 W ERP / 12.5 kHz / 12.5 kHz -10 MHz 419.55625 - 419.71875 MHz	In a 12.5 kHz channel a 12.5 kHz or a 6.25 kHz channel, or two 6.25 kHz channels may be used. The distance from the centre frequency is stated in the radio licence. See PMR standards in appendix 1 to this table. ECC Decision ECC/DEC/(19)02.
FIXED	429.750 - 430.000 MHz (lower and upper limits of sub-band) (0.250 MHz) Control, alarm, telemetry, telecommand, data transmission	Simplex Fixed station (FX) TXRX, / 2 W 100 kHz /, 150 kHz /	See PMR standards in appendix 1 to this table. Centre frequencies 429.825 MHz (150 kHz channel width) and 429.950 (100 kHz channel width).
430 - 432 MHz MOBILE	430 - 432 MHz (2 MHz) (SRD) Tracking, tracing and data acquisition systems		Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Medical data acquisition systems (capsule endoscopy). European Commission Decision 2006/771/EC, supplemented by Implementing Decision (EU) 2022/180.
	430.025 - 431.975 MHz (1.950 MHz) Control, alarm, telemetry, telecommand, data transmission	Simplex Base station (FB) TXRX, 2 W ERP / 1 W Mobile (ML) TXRX, 2 W ERP / 1 W Fixed station (FX) TXRX, 2 W ERP / 1 W 25 kHz / 16 kHz	See PMR standards in appendix 1 to this table. 430.025, 430.050, 430.075, 430.100 and 430.125 MHz common channels for mobile and nomadic data transmission systems, throughout Finland, maximum radiated power 0.5 W ERP, channel width 12.5 kHz or 25 kHz. 430.150, 430.200, 430.225 and 430.250 MHz common channels for mobile and nomadic DGNSS correction signal transmitters, and sales demonstration for data transmission systems, throughout Finland, maximum radiation power 10 W ERP, channel width 12.5 kHz or 25 kHz. 430.300, 430.325, 430.350 and 430.375 MHz common channels for mobile and nomadic data transmission systems and for DGNSS correction signal transmitters, radiation power maximum 10 W ERP, channel width 12.5 or 25 kHz.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
432 - 438 MHz AMATEUR	432 - 435 MHz (3 MHz) Amateur	Simplex Amateur station (AT) TXRX	See Finnish Transport and Communications Agency Regulation 6. User certificate required. See Finnish Transport and Communications Agency Regulation 18. Maximum transmitter power in the elementary class 30 W. Peak envelope power 120 W, when the carrier of the transmission is attenuated by at least 6 dB. Transmitter power in the general class max. 150 W. Peak envelope power 600 W, when the carrier of the transmission is attenuated by at least 6 dB. In the general class it is allowed to use 600 W carrier power for transmission class A1A and digital modes with a maximum bandwidth of 3 kHz in the frequency band 432.000 - 432.150 MHz.
Mobile	432 - 438 MHz (6 MHz) (SRD) Tracking, tracing and data acquisition systems		Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Medical data acquisition systems (capsule endoscopy). European Commission Decision 2006/771/EC, supplemented by Implementing Decision (EU) 2022/180.
AMATEUR	432.5000 - 432.5875 MHz (0.0875 MHz) Amateur	Duplex Amateur repeater (ATT) RX 12.5 kHz / +2.0 MHz 434.5000 - 434.5875 MHz	See Finnish Transport and Communications Agency Regulation 6. User certificate required. See Finnish Transport and Communications Agency Regulation 18.
	432.600 - 432.975 MHz (0.375 MHz) Amateur	Duplex Amateur repeater (ATT) RX 25 kHz / +2.0 MHz 434.600 - 434.975 MHz	See Finnish Transport and Communications Agency Regulation 6. User certificate required. See Finnish Transport and Communications Agency Regulation 18.
	432.6000 - 432.9875 MHz (0.3875 MHz) Amateur	Duplex Amateur repeater (ATT) RX 12.5 kHz / +2.0 MHz 434.6000 - 434.9875 MHz	See Finnish Transport and Communications Agency Regulation 6. User certificate required. See Finnish Transport and Communications Agency Regulation 18.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	433.000 - 433.375 MHz (0.375 MHz) Amateur	Duplex Amateur repeater (ATT) RX 25 kHz / +1.6 MHz 434.600 - 434.975 MHz	See Finnish Transport and Communications Agency Regulation 6. User certificate required. See Finnish Transport and Communications Agency Regulation 18.
	433.0000 - 433.3875 MHz (0.3875 MHz) Amateur	Duplex Amateur repeater (ATT) RX 12.5 kHz / +1.6 MHz 434.6000 - 434.9875 MHz	See Finnish Transport and Communications Agency Regulation 6. User certificate required. See Finnish Transport and Communications Agency Regulation 18.
Mobile	433.050 - 434.790 MHz (1.740 MHz) (SRD) Non-specific Short Range Devices		Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Radiated power max. 25 mW ERP. Standard EN 300 220 as applicable. Duty cycle < 10 %, enters into force on 1 April 2003. SRD Recommendation ERC/REC/70-03. European Commission Decision 2006/771/EC, supplemented by Implementing Decision (EU) 2022/180.
	433.050 - 434.790 MHz (1.740 MHz) (SRD) Non-specific Short Range Devices		Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Radiated power max. 1 mW ERP. The spectral power density of transmission to be below -13 dBm/10 kHz for broadband transmitters, no restrictions on duty cycle, audio and video applications not allowed. Standard EN 300 220 as applicable. SRD Recommendation ERC/REC/70-03. European Commission Decision 2006/771/EC, supplemented by Implementing Decision (EU) 2022/180.
AMATEUR	433.0625 - 433.1625 MHz (0.100 MHz) Amateur	Duplex Amateur repeater (ATT) RX 12.5 kHz / +5 MHz 438.0625 - 438.1625 MHz	See Finnish Transport and Communications Agency Regulation 6. User certificate required. See Finnish Transport and Communications Agency Regulation 18.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
Mobile	434.040 - 434.790 MHz (0.750 MHz) (SRD) Non-specific Short Range Devices		Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Radiated power max. 10 mW ERP. Channel spacing max. 25 kHz. No restrictions on duty cycle, audio and video applications not allowed. Standard EN 300 220 as applicable. SRD Recommendation ERC/REC/70-03. European Commission Decision 2006/771/EC, supplemented by Implementing Decision (EU) 2022/180.
AMATEUR	434.5000 - 434.5875 MHz (0.0875 MHz) Amateur	Duplex Amateur repeater (ATT) TX 12.5 kHz / -2.0 MHz 432.5000 - 432.5875 MHz	See Finnish Transport and Communications Agency Regulation 6. User certificate required. See Finnish Transport and Communications Agency Regulation 18.
	434.600 - 434.975 MHz (0.375 MHz) Amateur	Duplex Amateur repeater (ATT) TX 25 kHz / -1.6 MHz 433.000 - 433.375 MHz	See Finnish Transport and Communications Agency Regulation 6. User certificate required. See Finnish Transport and Communications Agency Regulation 18.
	434.600 - 434.975 MHz (0.375 MHz) Amateur	Duplex Amateur repeater (ATT) TX 25 kHz / -2.0 MHz 432.600 - 432.975 MHz	See Finnish Transport and Communications Agency Regulation 6. User certificate required. See Finnish Transport and Communications Agency Regulation 18.
	434.6000 - 434.9875 MHz (0.3875 MHz) Amateur	Duplex Amateur repeater (ATT) TX 12.5 kHz / -2.0 MHz 432.6000 - 432.9875 MHz	See Finnish Transport and Communications Agency Regulation 6. User certificate required. See Finnish Transport and Communications Agency Regulation 18.
	434.6000 - 434.9875 MHz (0.3875 MHz) Amateur	Duplex Amateur repeater (ATT) TX 12.5 kHz / -1.6 MHz 433.0000 - 433.3875 MHz	See Finnish Transport and Communications Agency Regulation 6. User certificate required. See Finnish Transport and Communications Agency Regulation 18.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
AMATEUR-SATELLITE	435 - 438 MHz (3 MHz) Amateur-Satellite	Simplex Amateur station (AT) TXRX	See Finnish Transport and Communications Agency Regulation 6. User certificate required. See Finnish Transport and Communications Agency Regulation 18. Maximum transmitter power in the elementary class 30 W. Peak envelope power 120 W, when the carrier of the transmission is attenuated by at least 6 dB. Transmitter power in the general class max. 150 W. Peak envelope power 600 W, when the carrier of the transmission is attenuated by at least 6 dB.
AMATEUR	436 - 438 MHz (2 MHz) Amateur	Simplex Amateur station (AT) TXRX	See Finnish Transport and Communications Agency Regulation 6. User certificate required. See Finnish Transport and Communications Agency Regulation 18. Maximum transmitter power in the elementary class 30 W. Peak envelope power 120 W, when the carrier of the transmission is attenuated by at least 6 dB. Transmitter power in the general class max. 150 W. Peak envelope power 600 W, when the carrier of the transmission is attenuated by at least 6 dB. Broadband datatransmissions are allowed.
438 - 440 MHz MOBILE	438 - 440 MHz (2 MHz) (SRD) Tracking, tracing and data acquisition systems		Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Medical data acquisition systems (capsule endoscopy). European Commission Decision 2006/771/EC, supplemented by Implementing Decision (EU) 2022/180.
Amateur	438.0625 - 438.1625 MHz (0.100 MHz) Amateur	Duplex Amateur repeater (ATT) TX 12.5 kHz / -5 MHz 433.0625 - 433.1625 MHz	See Finnish Transport and Communications Agency Regulation 6. User certificate required. See Finnish Transport and Communications Agency Regulation 18.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
MOBILE	438.16875 - 439.99375 MHz (1.825 MHz) Control, alarm, telemetry, telecommand, data transmission	Simplex Base station (FB) TXRX, 2 W ERP / 1 W Mobile (ML) TXRX, 2 W ERP / 1 W Fixed station (FX) TXRX, 2 W ERP / 1 W 12.5 kHz / 8 kHz FM 1/448	See PMR standards in appendix 1 to this table.
	438.175 - 439.975 MHz (1.800 MHz) Control, alarm, telemetry, telecommand, data transmission	Simplex Base station (FB) TXRX, 2 W ERP / 1 W Mobile (ML) TXRX, 2 W ERP / 1 W Fixed station (FX) TXRX, 2 W ERP / 1 W 25 kHz / 16 kHz FM 1/448	See PMR standards in appendix 1 to this table.
440 - 450 MHz MOBILE	440.0125 - 440.5875 MHz (0.575 MHz) PMR	Simplex Mobile (ML) TXRX, 5 W ERP / 5 W 25 kHz / 16 kHz	See PMR standards in appendix 1 to this table.
	440.60625 - 440.89375 MHz (0.2875 MHz) PMR	Simplex Mobile (ML) TXRX, 5 W ERP / 5 W 12.5 kHz / 8 kHz	See PMR standards in appendix 1 to this table.
	440.90625 - 441.18125 MHz (0.275 MHz) Control, alarm, telemetry, telecommand, data transmission	Simplex Fixed station (FX) TXRX, 2 W ERP / 1 W 12.5 kHz / 8 kHz FM 1/441	See PMR standards in appendix 1 to this table.
	441.200 - 441.575 MHz (0.375 MHz) Control, alarm, telemetry, telecommand, data transmission	Simplex Fixed station (FX) TXRX, 2 W ERP / 1 W 25 kHz / 16 kHz FM 1/441	See PMR standards in appendix 1 to this table.
	441.600 - 442.750 MHz (1.150 MHz) Control, alarm, telemetry, telecommand, data transmission	Simplex Base station (FB) TXRX, 2 W ERP / 1 W Mobile (ML) TXRX, 2 W ERP / 1 W Fixed station (FX) TXRX, 2 W ERP / 1 W 25 kHz / 16 kHz FM 1/442	See PMR standards in appendix 1 to this table.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	442.775 - 443.000 MHz (0.225 MHz) PMR	Simplex Mobile (ML) TXRX, 5 W ERP / 5 W 25 kHz / 16 kHz	See PMR standards in appendix 1 to this table. 442.850, 442.875, 442.900, 442.925, 442.950 and 442.975 MHz common lifting control channels throughout Finland, maximum radiated power 1 W ERP, channel spacing 25 kHz. 442.84375, 442.85625, 442.86875, 442.88125, 442.89375, 442.90625, 442.91875, 442.93125, 442.94375, 442.95625, 442.96875 and 442.98125 MHz common lifting control channels throughout Finland, maximum radiated power 1 W ERP, channel spacing 12.5 kHz.
	443.025 - 444.000 MHz (0.975 MHz) PMR	Simplex Base station (FB) TXRX, 25 W ERP / 25 W Mobile (ML) TXRX, 5 W ERP / 5 W 25 kHz / 16 kHz	See PMR standards in appendix 1 to this table. 443.125, 443.500, 443.550 and 443.800 MHz common channels for PMR, throughout Finland, simplex, mobile stations, maximum radiated power 5 W ERP. 443.525 MHz channel for smoke diving, throughout Finland, simplex, mobile stations. 443.975 MHz sales demonstration, simplex, mobile stations.
	444.01875 - 444.66875 MHz (0.650 MHz) PMR	Simplex Mobile (ML) TXRX, 5 W ERP / 5 W 12.5 kHz / 8 kHz	See PMR standards in appendix 1 to this table. 444.075, 444.150 and 444.300 MHz are meter reading frequencies throughout Finland, maximum effective radiated power 500 mW ERP, maximum duty cycle 10 %, channel spacing 25 kHz.
	444.675 - 444.975 MHz (0.300 MHz) Control, alarm, telemetry, telecommand, data transmission	Simplex Fixed station (FX) TXRX, 2 W ERP / 1 W 150 kHz / 100 kHz	See PMR standards in appendix 1 to this table.
	445 - 446 MHz (1 MHz) PMR	Simplex Base station (FB) TXRX, 25 W ERP / 25 W Mobile (ML) TXRX, 5 W ERP / 5 W 25 kHz / 16 kHz	See PMR standards in appendix 1 to this table. 445.200 and 445.675 MHz common channels for PMR, throughout Finland, simplex, mobile stations, maximum radiated power 5 W ERP. 445.750 MHz special transports on main roads, entire Finland. 445.850 MHz mast and line work at electricity plants, entire Finland.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	446.000 - 446.200 MHz (0.200 MHz) Analog PMR446	Simplex Mobile (ML) TXRX, 500 mW ERP / 12.5 kHz / 8 kHz	Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Equipment with channel spacing 12.5 kHz: 446.00625 MHz + (0…15) x 12.5 kHz Standard EN 300 296. ECC Decision ECC/DEC/(15)05. European Commission Decision 2006/771/EC, supplemented by Implementing Decision (EU) 2022/180.
	446.000 - 446.200 MHz (0.200 MHz) Digital PMR446	Simplex Mobile (ML) TXRX, 500 mW ERP /	Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Total bandwidth of the emission 6.25 kHz or 12.5 kHz. Equipment with channel spacing 6.25 kHz: 446.003125 MHz + (0…31) x 6.25 kHz Standard EN 301 166. Equipment with channel spacing 12.5 kHz: 446.00625 MHz + (0…15) x 12.5 kHz. Standard EN 300 113. ECC Decision ECC/DEC/(15)05. European Commission Decision 2006/771/EC, supplemented by Implementing Decision (EU) 2022/180.
	446.21875 - 446.99375 MHz (0.775 MHz) Control, alarm, telemetry, telecommand, data transmission	Simplex Fixed station (FX) TXRX, 2 W ERP / 1 W 12.5 kHz / 8 kHz FM 1/446	See PMR standards in appendix 1 to this table.
	447.00625 - 447.29375 MHz (0.2875 MHz) Digital PMR (DMR, dPMR)	Simplex Mobile (ML) TXRX, 5 W ERP / 5 W 12.5 kHz /	In a 12.5 kHz channel a 12.5 kHz or a 6.25 kHz channel, or two 6.25 kHz channels may be used. The distance from the centre frequency is stated in the radio licence. See PMR standards in appendix 1 to this table. ECC Decision ECC/DEC/(19)02. 447.00625 MHz, 447.05625 MHz, 447.08125 MHz, 447.15625 MHz, 447.18125 MHz, 447.20625 MHz, 447.23125 MHz and 447.28125 MHz common channels for DMR/dPMR throughout Finland. Simplex, mobile stations, maximum radiated power 5 W ERP.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	447.30625 - 447.70625 MHz (0.400 MHz) PMR	Simplex Mobile (ML) TXRX, 5 W ERP / 5 W 12.5 kHz / 8 kHz	See PMR standards in appendix 1 to this table.
	447.71875 - 448.76875 MHz (1.050 MHz) Control, alarm, telemetry, telecommand, data transmission	Simplex Base station (FB) TXRX, 2 W ERP / 1 W Mobile (ML) TXRX, 2 W ERP / 1 W 12.5 kHz / 8 kHz	448.35625 MHz safety systems for rail track work throughout Finland. See PMR standards in appendix 1 to this table.
	448.78125 - 448.99375 MHz (0.2125 MHz) Control, alarm, telemetry, telecommand, data transmission	Simplex Base station (FB) TXRX, 2 W ERP / 1 W Fixed station (FX) TXRX, 2 W ERP / 1 W Mobile (ML) TXRX, 2 W ERP / 1 W 12.5 kHz / 8 kHz FM 1/448	See PMR standards in appendix 1 to this table.
	449.00625 - 449.51875 MHz (0.5125 MHz) Control, alarm, telemetry, telecommand, data transmission	Simplex Base station (FB) TXRX, 2 W ERP / 1 W Mobile (ML) TXRX, 2 W ERP / 1 W Fixed station (FX) TXRX, 2 W ERP / 1 W 12.5 kHz / 8 kHz FM 1/448	See PMR standards in appendix 1 to this table.
	449.53125 - 449.98125 MHz (0.450 MHz) Digital PMR (DMR, dPMR)	Simplex Mobile (ML) TXRX, 5 W ERP / 5 W 12.5 kHz / 8 kHz	In a 12.5 kHz channel a 12.5 kHz or a 6.25 kHz channel, or two 6.25 kHz channels may be used. The distance from the centre frequency is stated in the radio licence. See PMR standards in appendix 1 to this table. ECC Decision ECC/DEC/(19)02.
450 - 470 MHz MOBILE	450.000 - 450.300 MHz (0.300 MHz) On-site paging	Simplex Base station (FB) TX, 25 W ERP / 25 W Mobile (ML) RX, 5 W ERP / 5 W Duplex Base station (FB) TX, 25 W ERP / 25 W Mobile (ML) RX, 5 W ERP / 5 W 25 kHz / 16 kHz +12.2 MHz 462.200 - 462.500 MHz	Channel width 12.5 kHz or 25 kHz. Standard EN 300 224. Frequencies 450.175 MHz and 450. 200 MHz for licence-exempt customer paging systems with a maximum effective radiated power of 2W ERP, a maximum channel width of 25 kHz and a maximum duty cycle of 10%. See Finnish Transport and Communications Agency Regulation 15.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	450.325 - 452.475 MHz (2.150 MHz) PMR	Duplex Base station (FB) TX, 25 W ERP / 25 W Mobile (ML) RX, 15 W ERP / 25 kHz / 16 kHz +9.7 MHz 460.025 - 462.175 MHz	See PMR standards in appendix 1 to this table. Regional restrictions on use in the sub-band 452.425 - 452.475 MHz due to the 450 MHz digital broadband public mobile network. Decrees of the Government 1246/2014 and 1244/2014. 451.175/460.875 MHz sales demonstration.
	452.425 - 456.925 MHz (lower and upper limits of sub-band) (4.500 MHz) Digital broadband 450 mobile network	Duplex Base station (FB) RX Mobile (ML) TX +10 MHz 462.425 - 466.925 MHz	Terminals exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. CC Decision ECC/DEC/(22)01. Regional restrictions on use in the sub-band 452.425 - 453.700 MHz due to PMR service. Decrees of the Government 1246/2014 and 1244/2014.
	452.525 - 452.975 MHz (0.450 MHz) PMR	Duplex Base station (FB) RX, 25 W ERP / 25 W Mobile (ML) TX, 15 W ERP / 25 kHz / 16 kHz +10 MHz 462.525 - 462.975 MHz	See PMR standards in appendix 1 to this table. Regional restrictions on use in the sub-band due to the 450 MHz digital broadband public mobile network. Decrees of the Government 1246/2014 and 1244/2014.
	453.0125 - 453.6625 MHz (0.650 MHz) PMR	Duplex Base station (FB) RX, 25 W ERP / 25 W Mobile (ML) TX, 15 W ERP / 25 kHz / 16 kHz +10 MHz 463.0125 - 463.6625 MHz	See PMR standards in appendix 1 to this table. Regional restrictions on use in the sub-band due to the 450 MHz digital broadband public mobile network. Decrees of the Government 1246/2014 and 1244/2014.
	456.9625 - 457.4625 MHz (0.500 MHz) PMR	Duplex Base station (FB) RX, 25 W ERP / 25 W Mobile (ML) TX, 15 W ERP / 25 kHz / 16 kHz +10 MHz 466.9625 - 467.4625 MHz	See PMR standards in appendix 1 to this table.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	457.500 - 458.100 MHz (0.600 MHz) PMR	Duplex Base station (FB) RX, 25 W ERP / 25 W Mobile (ML) TX, 15 W ERP / 25 kHz / 16 kHz +10 MHz 467.500 - 468.100 MHz	See PMR standards in appendix 1 to this table. 457.525, 457.550 and 457.575 MHz communication on-board, simplex and duplex TX, channel spacing 25 kHz, maximum 2 W ERP, class of emission G3E, (RR 5.287). 457.600 MHz speech communication on-board, maximum radiated power 2 W ERP, simplex and duplex TX. 457.525, 457.5375, 457.550, 457.5625 and 457.575 MHz communication on-board, simplex and duplex TX, channel spacing 12.5 kHz, maximum 2 W ERP, digital and analogue transmission, (RR 5.287). 457.515625, 457.521875, 457.528125, 457.534375, 457.540625, 457.546875, 457.553125, 457.559375, 457.565625, 457.571875, 457.578125 and 457.584375 MHz on-board radio communications, simplex and duplex, channel spacing 6.25 kHz, max.2 W ERP, digital transmission, (RR 5.287). Standard EN 300 720.
	458.125 - 459.000 MHz (0.875 MHz) PMR	Simplex Base station (FB) TXRX, 25 W ERP / 25 W Mobile (ML) TXRX, 5 W ERP / 5 W 25 kHz / 16 kHz	See PMR standards in appendix 1 to this table. 458.250, 458.850 and 458.900 MHz common channels for PMR, throughout Finland, simplex, mobile stations, maximum radiated power 5 W ERP. 458.600, 458.625, 458.725 and 458.800 MHz communication on-board passanger ships,maximum radiated power 1 W ERP, also driving schools, maximum radiated power 5 W ERP.
	459.025 - 460.000 MHz (0.975 MHz) PMR	Duplex Base station (FB) RX, 25 W ERP / 25 W Mobile (ML) TX, 15 W ERP / 25 kHz / 16 kHz +9.7 MHz 468.725 - 469.700 MHz	See PMR standards in appendix 1 to this table. Short term events, digital or analogue systems: simplex channels 459,250; 459,275; 459,550; 459,600; 459,625 ; 459,675; 459,750 and 459,775 MHz. The channels to use will be granted on a case by case basis.
	460.025 - 462.175 MHz (2.150 MHz) PMR	Duplex Base station (FB) RX, 25 W ERP / 25 W Mobile (ML) TX, 15 W ERP / 25 kHz / 16 kHz -9.7 MHz 450.325 - 452.475 MHz	See PMR standards in appendix 1 to this table. 460.875/451.175 MHz sales demonstration.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	462.200 - 462.500 MHz (0.300 MHz) On-site paging	Duplex Base station (FB) RX, 25 W ERP / 25 W Mobile (ML) TX, 5 W ERP / 5 W 25 kHz / 16 kHz -12.2 MHz 450.000 - 450.300 MHz Simplex Base station (FB) TX	Standard EN 300 224. Regional restrictions on use in the sub-band 462.425 - 462.500 MHz due to the 450 MHz digital broadband public mobile network. Decrees of the Government 1246/2014 and 1244/2014.
	462.425 - 466.925 MHz (4.500 MHz) Digital broadband 450 mobile network	Duplex Base station (FB) TX Mobile (ML) RX -10 MHz 452.425 - 456.925 MHz	Regional restrictions on use in the sub-band 462.425 - 463.700 MHz due to PMR service. Decrees of the Government 1246/2014 and 1244/2014.
	462.525 - 462.975 MHz (0.450 MHz) PMR	Duplex Base station (FB) TX, 25 W ERP / 25 W Mobile (ML) RX, 15 W ERP / 25 kHz / 16 kHz -10 MHz 452.525 - 452.975 MHz	See PMR standards in appendix 1 to this table. Regional restrictions on use in the sub-band due to the 450 MHz digital broadband public mobile network. Decrees of the Government 1246/2014 and 1244/2014.
	463.0125 - 463.6625 MHz (0.650 MHz) PMR	Duplex Base station (FB) TX, 25 W ERP / 25 W Mobile (ML) RX, 15 W ERP / 25 kHz / 16 kHz -10 MHz 453.0125 - 453.6625 MHz	See PMR standards in appendix 1 to this table. Regional restrictions on use in the sub-band due to the 450 MHz digital broadband public mobile network. Decrees of the Government 1246/2014 and 1244/2014.
	466.9625 - 467.4625 MHz (0.500 MHz) PMR	Duplex Base station (FB) TX, 25 W ERP / 25 W Mobile (ML) RX, 15 W ERP / 25 kHz / 16 kHz -10 MHz 456.9625 - 457.4625 MHz	See PMR standards in appendix 1 to this table.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	467.500 - 468.100 MHz (0.600 MHz) PMR	Duplex Base station (FB) TX, 25 W ERP / 25 W Mobile (ML) RX, 15 W ERP / 25 kHz / 16 kHz -10 MHz 457.500 - 458.100 MHz	See PMR standards in appendix 1 to this table. 467.525, 467.550 and 467.575 MHz communication on-board, simplex and duplex RX, channel spacing 25 kHz, maximum radiated power 2 W ERP, class of emission G3E, (RR 5.287). 467.600 MHz speech communication on-board, maximum radiated power 2 W ERP, simplex and duplex RX. 467.525, 467.5375, 467.550, 467.5625 and 467.575 MHz communication on-board, simplex and duplex RX, channel spacing 12.5 kHz, maximum 2 W ERP, digital and analogue transmission, (RR 5.287). 467.515625, 467.521875, 467.528125, 467.534375, 467.540625, 467.546875, 467.553125, 467.559375, 467.565625, 467.571875, 467.578125 and 467.584375 MHz on-board radio communications, simplex and duplex, channel spacing 6.25 kHz, max.2 W ERP, digital transmissions, (RR 5.287). Standard EN 300 720.
	468.125 - 468.700 MHz (0.575 MHz) Control, alarm, telemetry, telecommand, data transmission	Simplex Base station (FB) TXRX, 2 W ERP / 1 W Mobile (ML) TXRX, 2 W ERP / 1 W Fixed station (FX) TXRX, 2 W ERP / 1 W 25 kHz / 16 kHz FM 1/468	See PMR standards in appendix 1 to this table. 468.200 MHz non-specific short range devices (SRD) exempt from licensing. The last day of taking into use new equipment was 31.12.2007. Maximum transmitter power and radiated power (ERP) 500 mW, the total bandwidth of the emission maximum 25 kHz. Standard EN 300 220 as applicable.
	468.725 - 469.700 MHz (0.975 MHz) PMR	Duplex Base station (FB) TX, 25 W ERP / 25 W Mobile (ML) RX, 15 W ERP / 25 kHz / 16 kHz -9.7 MHz 459.025 - 460.000 MHz	See PMR standards in appendix 1 to this table. Short term events, digital or analogue systems: simplex channels 468,950; 468,975; 469,250; 469,300; 469,325 ; 469,375; 469,450 and 469,475 MHz. The channels to use will be granted on a case by case basis.
	469.725 - 469.975 MHz (0.250 MHz) PMR	Simplex Mobile (ML) TXRX, 5 W ERP / 5 W 25 kHz / 16 kHz	See PMR standards in appendix 1 to this table.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
470 - 694 MHz BROADCASTING	470 - 694 MHz (224 MHz) Television	Simplex Television (BT) TX 8 MHz / 8 MHz	TV channels 21 - 48. Digital television according to Geneva 2006 Agreement. Television (DVB): standards EN 300 744, EN 302 304 and EN 302 755. Decrees of the Government 1246/2014 and 1244/2014. See Finnish Transport and Communications Agency Regulation 70.
MOBILE	470 - 694 MHz (224 MHz) Cognitive radio networks		Decrees of the Government 1246/2014 and 1244/2014.
	470 - 694 MHz (lower and upper limits of sub-band) (224 MHz) (SRD) Radio microphones, hearing aids, in-ear monitoring	Simplex Mobile (ML) TXRX	Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Secondary use, interference may occur, regional restrictions. In the place of use of a radio microphone a radio microphone system may use only a frequency band, which is not allocated to television and broadcasting. Radiated power typically maximum 50 mW ERP. Standard EN 300 422 as applicable. SRD Recommendation ERC/REC/70-03. European Commission Decision 2014/641/EU. TV channels 21 and 23: also licensed reporter communications in the frequencies 470.500 MHz, 473.250 MHz, 474.250 MHz, 474.750 MHz, 476.500 MHz, 477.250 MHz, 486.500 MHz, 489.250 MHz, 490.250 MHz, 490.750 MHz, 492.500 MHz ja 493.250 MHz. The frequencies of tv channel 21 470.500 MHz, 473.250 MHz, 474.250 MHz, 474.750 MHz, 476.500 MHz and 477.250 MHz may also be used by mobile sound program transmission links. Standard EN 300 454. These frequencies may not be used for other radio microphone systems.
694 - 791 MHz MOBILE	698 - 703 MHz (5 MHz) Mobile radio		Sub-band under review. European Commission Decision 2016/687/EU.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	703 - 733 MHz (30 MHz) Terrestrial systems capable of providing electronic communications services	Duplex Base station (FB) RX +55 MHz 758 - 788 MHz	Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. ECC Decision ECC/DEC/(15)01. CC Decision ECC/DEC/(22)01. European Commission Decision 2016/687/EU. Decrees of the Government 1246/2014 and 1244/2014.
	733 - 736 MHz (3 MHz) Mobile radio		Sub-band under review. European Commission Decision 2016/687/EU.
	738 - 753 MHz (15 MHz) Mobile radio		Sub-band under review. European Commission Decision 2016/687/EU.
	753 - 758 MHz (5 MHz) Mobile radio		Sub-band under review. European Commission Decision 2016/687/EU.
	758 - 788 MHz (30 MHz) Terrestrial systems capable of providing electronic communications services	Duplex Base station (FB) TX -55 MHz 703 - 733 MHz	Decrees of the Government 1246/2014 and 1244/2014. ECC Decision ECC/DEC/(15)01. European Commission Decision 2016/687/EU.
	788 - 791 MHz (3 MHz) Mobile radio		Sub-band under review. European Commission Decision 2016/687/EU.
791 - 862 MHz MOBILE	791 - 821 MHz (30 MHz) Terrestrial systems capable of providing electronic communications services	Duplex Base station (FB) TX +41 MHz 832 - 862 MHz	Decrees of the Government 1246/2014 and 1244/2014. ECC Decision ECC/DEC/(09)03. European Commission Decision 2010/267/EC.
	823 - 826 MHz (3 MHz) (SRD) Radio microphones, hearing aids, in-ear monitoring	Simplex Mobile (ML) TXRX	Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Maximum radiated power 12 mW ERP, for body-worn microphones max. 60 mW ERP. Standard EN 300 422 as applicable. SRD Recommendation ERC/REC/70-03. European Commission Decision 2014/641/EU.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	826 - 832 MHz (6 MHz) (SRD) Radio microphones, hearing aids, in-ear monitoring	Simplex Mobile (ML) TXRX	Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Radiated power max. 60 mW ERP. Standard EN 300 422 as applicable. SRD Recommendation ERC/REC/70-03. European Commission Decision 2014/641/EU.
	832 - 862 MHz (30 MHz) Terrestrial systems capable of providing electronic communications services	Duplex Base station (FB) RX -41 MHz 791 - 821 MHz	Terminals exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. ECC Decision ECC/DEC/(09)03. ECC Decision ECC/DEC/(12)01. CC Decision ECC/DEC/(22)01. European Commission Decision 2010/267/EC. Decrees of the Government 1246/2014 and 1244/2014.
862 - 960 MHz MOBILE	862 - 863 MHz (1 MHz) (SRD) Non-specific Short Range Devices		Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Radiated power max. 25 mW ERP. Duty cycle max. 0,1 %. Channel width max. 350 kHz. Standard EN 300 220 as applicable. European Commission Decision 2006/771/EC, supplemented by Implementing Decision (EU) 2022/180.
	863 - 865 MHz (2 MHz) (SRD) Wireless audio applications	Simplex Mobile (ML) TXRX	Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Wireless loudspeakers, equipment for in-ear monitoring, headphones, hearing aids, helmet radio telephones. Standard EN 301 357. Standard EN 300 422 as applicable. Radiated power max. 10 mW ERP. SRD Recommendation ERC/REC/70-03. European Commission Decision 2006/771/EC, supplemented by Implementing Decision (EU) 2022/180.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	863 - 865 MHz (2 MHz) (SRD) Radio microphones	Simplex Mobile (ML) TXRX	Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Radiated power max. 10 mW ERP. Standard EN 300 422 as applicable. SRD Recommendation ERC/REC/70-03.
	863 - 865 MHz (2 MHz) (SRD) Non-specific Short Range Devices		Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Radiated power max. 25 mW ERP. Duty cycle max. 0.1 % or an appropriate access protocol. Standard EN 300 220 as applicable. SRD Recommendation ERC/REC/70-03. European Commission Decision 2006/771/EC, supplemented by Implementing Decision (EU) 2022/180.
	863 - 868 MHz (5 MHz) (SRD) Wide-band data transmission equipment		Data networks. Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Radiated power max. 25 mW ERP. Channel width at least 600 kHz and max. 1 MHz. The maximum duty cycle is 10% for master stations and 2.8% for other network devices. SRD Recommendation ERC/REC/70-03. European Commission Decision 2006/771/EC, supplemented by Implementing Decision (EU) 2022/180.
	864.150 - 868.050 MHz (3.900 MHz) Cordless telephones (CT 2)	Simplex Base station (FB) TXRX Mobile (ML) TXRX 100 kHz /	Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Radiated power max. 20 mW EIRP. Standard EN 301 797. ECC Decision ECC/DEC/(01)02. Introduction of new equipment is not allowed after 31.12. 2004.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	864.800 - 865.000 MHz (0.200 MHz) (SRD) Narrow band analogue voice devices	Simplex Mobile (ML) TXRX 50 kHz /	Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Standard EN 300 220 as applicable. Radiated power max. 10 mW EIRP. Total bandwidth of the emission max. 50 kHz. SRD Recommendation ERC/REC/70-03.
	865 - 868 MHz (3 MHz) (SRD) Non-specific Short Range Devices		Data networks. Transmissions are only allowed in the following frequency bands: 865.600-865.800 MHz 866.200-866.400 MHz 866.800-867.000 MHz 867.400-867.600 MHz Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Radiated power max. 500 mW ERP. Maximum channel width 200 kHz. The maximum duty cycle is 10% for master stations and 2.5% for other network devices. Automatic power control (APC) or similar mitigation technique. SRD Recommendation ERC/REC/70-03. European Commission Decision 2006/771/EC, supplemented by Implementing Decision (EU) 2022/180.
	865 - 868 MHz (3 MHz) (SRD) Radio frequency identification devices (RFID)	200 kHz /	Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Equipment based on Standard EN 302 208-2 V1.1.1 865.000 - 865.600 MHz radiated power max. 100 mW ERP. 865.600 - 867.600 MHz radiated power max. 2 W ERP. 867.600 - 868.000 MHz radiated power max. 500 mW ERP. SRD Recommendation ERC/REC/70-03. European Commission Decision 2006/804/EC.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	865 - 868 MHz (3 MHz) (SRD) Radio frequency identification devices (RFID)	200 kHz /	Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Only following sub-bands to be used by the interrogator: 865.600 - 865.800 MHz radiated power max. 2 W ERP. 866.200 - 866.400 MHz radiated power max. 2 W ERP. 866.800 - 867.000 MHz radiated power max. 2 W ERP. 867.400 - 867.600 MHz radiated power max. 2 W ERP. Standard EN 302 208. SRD Recommendation ERC/REC/70-03. European Commission Decision 2006/804/EC. European Commission Decision 2006/771/EC, supplemented by Implementing Decision (EU) 2022/180.
	865 - 868 MHz (3 MHz) (SRD) Non-specific Short Range Devices		Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Radiated power max. 25 mW ERP. Duty cycle max. 1 % or an appropriate access protocol. Standard EN 300 220 as applicable. SRD Recommendation ERC/REC/70-03. European Commission Decision 2006/771/EC, supplemented by Implementing Decision (EU) 2022/180.
	868.000 - 868.600 MHz (lower and upper limits of sub-band) (0.600 MHz) (SRD) Non-specific Short Range Devices		Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Radiated power max. 25 mW ERP. Duty cycle max. 1 % or an appropriate access protocol. Standard EN 300 220 as applicable. SRD Recommendation ERC/REC/70-03. European Commission Decision 2006/771/EC, supplemented by Implementing Decision (EU) 2022/180. 868.150 - 868.650 MHz (SRD) Non-specific short range devices exempt from licensing that have been taken into use before 31.12.1998, see Finnish Transport and Communications Agency Regulation15. Radiated power max. 500 mW ERP.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	868 - 870 MHz (2 MHz) (SRD) Non-specific Short Range Devices		Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. The following sub-bands are excluded as these sub-bands are assigned for low-power alarms for security and safety and for social alarms: 868.600 - 868.700 MHz 869.200 - 869.250 MHz 869.250 - 869.300 MHz 869.300 - 869.400 MHz 869.650 - 869.700 MHz Radiated power max. 25 mW ERP. Duty cycle max. 0.1 % or an appropriate access protocol. Standard EN 300 220 as applicable. SRD Recommendation ERC/REC/70-03. European Commission Decision 2006/771/EC, supplemented by Implementing Decision (EU) 2022/180.
	868.600 - 868.700 MHz (lower and upper limits of sub-band) (0.100 MHz) (SRD) Short range devices	25 kHz /	Low-power alarms for security and safety, and social alarms. Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Radiated power max. 10 mW ERP. Duty cycle max. 1 %. Standard EN 300 220 as applicable. SRD Recommendation ERC/REC/70-03. European Commission Decision 2006/771/EC, supplemented by Implementing Decision (EU) 2022/180.
	868.700 - 869.200 MHz (lower and upper limits of sub-band) (0.500 MHz) (SRD) Non-specific Short Range Devices		Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Radiated power max. 25 mW ERP. Duty cycle max. 0.1 % or an appropriate access protocol. Standard EN 300 220 as applicable. SRD Recommendation ERC/REC/70-03. European Commission Decision 2006/771/EC, supplemented by Implementing Decision (EU) 2022/180.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	869.200 - 869.250 MHz (lower and upper limits of sub-band) (0.050 MHz) (SRD) Short range devices	25 kHz /	Social alarms only. Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Radiated power max. 10 mW ERP. Duty cycle max. 0,1 %. Standard EN 300 220 as applicable. SRD Recommendation ERC/REC/70-03. European Commission Decision 2006/771/EC, supplemented by Implementing Decision (EU) 2022/180.
	869.250 - 869.300 MHz (lower and upper limits of sub-band) (0.050 MHz) (SRD) Short range devices	25 kHz /	Low-power alarms for security and safety, and social alarms. Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Radiated power max. 10 mW ERP. Duty cycle max. 0,1 %. Standard EN 300 220 as applicable. SRD Recommendation ERC/REC/70-03. European Commission Decision 2006/771/EC, supplemented by Implementing Decision (EU) 2022/180.
	869.300 - 869.400 MHz (lower and upper limits of sub-band) (0.100 MHz) (SRD) Low-power alarms for security and safety, social alarms	25 kHz /	Low-power alarms for security and safety, and social alarms. Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Radiated power max. 10 mW ERP. Duty cycle max. 1 %. Standard EN 300 220 as applicable. SRD Recommendation ERC/REC/70-03. European Commission Decision 2006/771/EC, supplemented by Implementing Decision (EU) 2022/180.
	869.400 - 869.650 MHz (lower and upper limits of sub-band) (0.250 MHz) (SRD) Non-specific Short Range Devices	-	Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Radiated power max. 500 mW ERP. Duty cycle max. 10 % or an appropriate access protocol. Standard EN 300 220 as applicable. SRD Recommendation ERC/REC/70-03. European Commission Decision 2006/771/EC, supplemented by Implementing Decision (EU) 2022/180.

Frequency band Services in Finland	**Sub-band (its width) and usage**	**Mode of traffic Class of station and direction, Radiated power / Transmitter power (max.) Channel spacing / Bandwidth Duplex separation and duplex band Class of emission Standard type**	**Terms and comments as to radio interface. References to standards are for information only.**
	869.650 - 869.700 MHz (lower and upper limits of sub-band) (0.050 MHz) (SRD) Short range devices	25 kHz /	Low-power alarms for security and safety, and social alarms. Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Radiated power max. 25 mW ERP. Duty cycle max. 10 %. Standard EN 300 220 as applicable. SRD Recommendation ERC/REC/70-03. European Commission Decision 2006/771/EC, supplemented by Implementing Decision (EU) 2022/180.
	869.700 - 870.000 MHz (lower and upper limits of sub-band) (0.300 MHz) (SRD) Non-specific Short Range Devices		Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Radiated power max. 5 mW ERP. Maximum radiated power 25 mW ERP, when duty cycle < 1 % or an appropriate access protocol is used. Standard EN 300 220 as applicable. SRD Recommendation ERC/REC/70-03. European Commission Decision 2006/771/EC, supplemented by Implementing Decision (EU) 2022/180.
	870 - 873 MHz (lower and upper limits of sub-band) (3 MHz) (SRD) Non-specific Short Range Devices		Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Radiated power max. 25 mW ERP. Channel spacing max. 600 kHz. Duty cycle max. 1 %. Standard EN 300 220 as applicable. SRD Recommendation ERC/REC/70-03.
	870.000 - 874.400 MHz (4.400 MHz) (SRD) Tracking, tracing and data acquisition systems		Data networks. Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Radiated power max. 500 mW ERP. Maximum channel width 200 kHz. The maximum duty cycle is 10% for master stations and 2.5% for other network devices. Automatic power control (APC) or similar mitigation technique. Standard EN 303 204. SRD Recommendation ERC/REC/70-03.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	870 - 876 MHz (6 MHz) Mobile radio	Duplex Base station (FB) RX +45 MHz 915 - 921 MHz	
	874 - 874.4 MHz (0.400 MHz) (SRD) Non-specific Short Range Devices	-	Data networks. Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Radiated power max. 500 mW ERP. Maximum channel width 200 kHz. The maximum duty cycle is 10% for master stations and 2.5% for other network devices. Automatic power control (APC) or similar mitigation technique. Standard EN 303 204. European Commission Decision (EU) 2018/1538. European Commission Implementing Decision (EU) 2022/172.
	874.400 - 879.900 MHz (lower and upper limits of sub-band) (5.500 MHz) Mobile radio	-	Sub-band under review. ECC Decision ECC/DEC/(20)02. European Commission Implementing Decision (EU) 2021/1730. Railway radio systems
	880.100 - 914.900 MHz (34.800 MHz) Digital mobile network	Duplex Base station (FB) RX +45 MHz 925.100 - 959.900 MHz	Terminals exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. ERC Decision ERC/DEC/(94)01. ERC Decision ERC/DEC/(95)01. ERC Decision ERC/DEC/(97)02. ECC Decision ECC/DEC/(06)13. ECC Decision ECC/DEC/(12)01. CC Decision ECC/DEC/(22)01. European Commission Implementing Decision (EU) 2022/173. Decrees of the Government 1246/2014 and 1244/2014.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	914.0125 - 914.9875 MHz (0.975 MHz) Cordless telephones (CT 1)	Duplex Base station (FB) RX 25 kHz / 16 kHz +45 MHz 959.0125 - 959.9875 MHz	Secondary use, interference may occur. Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Radiated power max. 10 mW ERP. Standard EN 301 796. ECC Decision ECC/DEC/(01)01. Introduction of new equipment is not allowed after 31.12.2003.
	915.000 - 919.400 MHz (4.400 MHz) (SRD) Tracking, tracing and data acquisition systems		Data networks. Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Radiated power max. 25 mW ERP. Channel spacing max. 600 kHz. Duty cycle max. 1 %. SRD Recommendation ERC/REC/70-03.
	915 - 921 MHz (6 MHz) Mobile radio	Duplex Base station (FB) TX -45 MHz 870 - 876 MHz	
	916.100 - 918.900 MHz (2.800 MHz) (SRD) Radio frequency identification devices (RFID)		Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Centre frequencies of the interrogator: 916.300 MHz 917.500 MHz 918.700 MHz Radiated power max. 4 W ERP. Channel spacing max. 400 kHz. European Commission Decision (EU) 2018/1538. European Commission Implementing Decision (EU) 2022/172.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	917.300 - 918.900 MHz (1.600 MHz) (SRD) Non-specific Short Range Devices		Data networks. Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Transmissions are only allowed in the following frequency bands: 917.300-917.700 MHz and 918.500-918.900 MHz. Radiated power max. 500 mW ERP. Maximum channel width 200 kHz. The maximum duty cycle is 10% for master stations and 2.5% for other network devices. Automatic power control (APC) or similar mitigation technique. European Commission Decision (EU) 2018/1538. European Commission Implementing Decision (EU) 2022/172.
	917.400 - 919.400 MHz (2 MHz) (SRD) Wide-band data transmission equipment		Data networks. Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Radiated power max. 25 mW ERP. Channel width at least 600 kHz and max. 1 MHz. The maximum duty cycle is 10% for master stations and 2.8% for other network devices. European Commission Decision (EU) 2018/1538. European Commission Implementing Decision (EU) 2022/172.
	917.4 - 919.4 MHz (2 MHz) (SRD) Non-specific Short Range Devices		Data networks. Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Radiated power max. 25 mW ERP. Channel spacing max. 600 kHz. Duty cycle max. 1 %. European Commission Decision (EU) 2018/1538. European Commission Implementing Decision (EU) 2022/172.
	919.400 - 924.900 MHz (lower and upper limits of sub-band) (5.500 MHz) Mobile radio	-	Sub-band under review. ECC Decision ECC/DEC/(20)02. European Commission Implementing Decision (EU) 2021/1730. Railway radio systems

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	925.100 - 959.900 MHz (34.800 MHz) Digital mobile network	Duplex Base station (FB) TX -45 MHz 880.100 - 914.900 MHz	ERC Decision ERC/DEC/(94)01. ERC Decision ERC/DEC/(97)02. ECC Decision ECC/DEC/(06)13. European Commission Implementing Decision (EU) 2022/173. Decrees of the Government 1246/2014 and 1244/2014.
	959.0125 - 959.9875 MHz (0.975 MHz) Cordless telephones (CT 1)	Duplex Base station (FB) TX 25 kHz / 16 kHz -45 MHz 914.0125 - 914.9875 MHz	Secondary use, interference may occur. Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Radiated power max. 10 mW ERP. Standard EN 301 796. Introduction of new equipment is not allowed after 31.12.2003.
960 - 1164 MHz AERONAUTICAL MOBILE (R)	960 - 1164 MHz (204 MHz) Aeronautical mobile		The use is limited to systems that operate in accordance with recognised international aeronautical standards (RR 5.327A).
AERONAUTICAL RADIONAVIGATION	962 - 1024 MHz (62 MHz) Distance measuring equipment (DME)	Duplex Land station (AL) TX 1 MHz / 1 MHz +63 MHz 1025 - 1087 MHz	DME. The X channels are used for distance measuring. The centre frequencies of the extreme channels are the lower and upper limits of the sub-band.
	1025 - 1087 MHz (62 MHz) Distance measuring equipment (DME)	Duplex Land station (AL) RX 1 MHz / 1 MHz -63 MHz 962 - 1024 MHz	DME. The X channels are used for distance measuring. TX=1030 MHz secondary surveillance radar (SSR). The centre frequencies of the extreme channels are the lower and upper limits of the sub-band.
AERONAUTICAL MOBILE-SATELLITE (R)	1087.700 - 1092.300 MHz (4.600 MHz) Aeronautical mobile-satellite	Mobile station (AM) TX	ADS-B.
AERONAUTICAL RADIONAVIGATION	1088 - 1100 MHz (12 MHz) Distance measuring equipment (DME)	Duplex Land station (AL) RX 1 MHz / 1 MHz +63 MHz 1151 - 1163 MHz	DME. The X channels are used for distance measuring. RX=1090 MHz secondary surveillance radar (SSR). The centre frequencies of the extreme channels are the lower and upper limits of the sub-band.
	1101 - 1150 MHz (49 MHz) Distance measuring equipment (DME)	Duplex Land station (AL) RX 1 MHz / 1 MHz +63 MHz 1164 - 1213 MHz	DME. The X channels are used for distance measuring. The centre frequencies of the extreme channels are the lower and upper limits of the sub-band.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	1151 - 1163 MHz (12 MHz) Distance measuring equipment (DME)	Duplex Land station (AL) TX 1 MHz / 1 MHz -63 MHz 1088 - 1100 MHz	DME. The X channels are used for distance measuring. The centre frequencies of the extreme channels are the lower and upper limits of the sub-band.
1164 - 1215 MHz AERONAUTICAL RADIONAVIGATION	1164 - 1213 MHz (49 MHz) Distance measuring equipment (DME)	Duplex Land station (AL) TX 1 MHz / 1 MHz -63 MHz 1101 - 1150 MHz	DME. The X channels are used for distance measuring. The centre frequencies of the extreme channels are the lower and upper limits of the sub-band.
RADIONAVIGATION-SATELLITE (SPACE-TO-EARTH, SPACE-TO-SPACE)	1164 - 1215 MHz (51 MHz) Radionavigation satellite	Space station (EN) TX Mobile earth station (UN) RX Space station (EN) TX Space station (EN) RX	(RR 5.328A).
1215 - 1240 MHz RADIONAVIGATION	1215 - 1240 MHz (25 MHz) Radionavigation		
EARTH EXPLORATION-SATELLITE	1215 - 1240 MHz (25 MHz) Active sensors	Space station (EW) TX Space station (EW) RX	
RADIONAVIGATION-SATELLITE (SPACE-TO-EARTH, SPACE-TO-SPACE)	1215 - 1240 MHz (25 MHz) Radionavigation satellite	Space station (EN) TX Mobile earth station (UN) RX Space station (EN) TX Space station (EN) RX	
1240 - 1260 MHz EARTH EXPLORATION-SATELLITE	1240 - 1260 MHz (20 MHz) Active sensors	Space station (EW) TX Space station (EW) RX	Amateur radio communication also in the frequency band 1240-1300 MHz. Licences will be granted on a case-by-case basis for a fixed term until the large-scale deployment of the Galileo system.
RADIONAVIGATION	1240 - 1260 MHz (20 MHz) Radionavigation		Amateur radio communication also in the frequency band 1240-1300 MHz. Licences will be granted on a case-by-case basis for a fixed term until the large-scale deployment of the Galileo system.
RADIONAVIGATION-SATELLITE (SPACE-TO-EARTH, SPACE-TO-SPACE)	1240 - 1260 MHz (20 MHz) Radionavigation satellite	Space station (EN) TX Mobile earth station (UN) RX Space station (EN) TX Space station (EN) RX	Amateur radio communication also in the frequency band 1240-1300 MHz. Licences will be granted on a case-by-case basis for a fixed term until the large-scale deployment of the Galileo system.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
1260 - 1300 MHz RADIOLOCATION	1260 - 1300 MHz (40 MHz) Radars		In the frequency band 1270 - 1295 MHz usage also according ITU-R M. 1227. Amateur radio communication also in the frequency band 1240-1300 MHz. Licences will be granted on a case-by-case basis for a fixed term until the large-scale deployment of the Galileo system.
RADIONAVIGATION-SATELLITE (SPACE-TO-EARTH, SPACE-TO-SPACE)	1260 - 1300 MHz (40 MHz) Radionavigation satellite	Space station (EN) TX Mobile earth station (UN) RX Space station (EN) TX Space station (EN) RX	Amateur radio communication also in the frequency band 1240-1300 MHz. Licences will be granted on a case-by-case basis for a fixed term until the large-scale deployment of the Galileo system.
EARTH EXPLORATION-SATELLITE	1260 - 1300 MHz (40 MHz) Active sensors	Space station (EW) TX Space station (EW) RX	Amateur radio communication also in the frequency band 1240-1300 MHz. Licences will be granted on a case-by-case basis for a fixed term until the large-scale deployment of the Galileo system.
RADIONAVIGATION	1260 - 1300 MHz (40 MHz) Radionavigation		Amateur radio communication also in the frequency band 1240-1300 MHz. Licences will be granted on a case-by-case basis for a fixed term until the large-scale deployment of the Galileo system.
1300 - 1350 MHz RADIOLOCATION	1300 - 1350 MHz (50 MHz) Radars		Video links 1320 MHz.
RADIONAVIGATION-SATELLITE (EARTH-TO-SPACE)	1300 - 1350 MHz (50 MHz) Radionavigation satellite	Space station (EN) RX Mobile earth station (UN) TX	Video links 1320 MHz.
AERONAUTICAL RADIONAVIGATION	1300 - 1350 MHz (50 MHz) Aeronautical radionavigation		The use is restricted to ground-based radars and to associated airborne transponders, which transmit only when actuated by radars operating in the same band (RR 5.337). Video links 1320 MHz.
1350 - 1400 MHz FIXED	1352 - 1359 MHz (lower and upper limits of sub-band) (7 MHz) Sound program transmission		Sub-band under review.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	1360.750 - 1371.250 MHz (10.500 MHz) Radio systems of fixed wireless access network (FWA)	Simplex Base station (FB) TXRX 3.5 MHz /	
	1362.500 - 1369.500 MHz (7 MHz) Radio systems of fixed wireless access network (FWA)	Simplex Base station (FB) TXRX 7 MHz /	
	1375 - 1400 MHz (25 MHz) Military use		
1400 - 1427 MHz RADIO ASTRONOMY	1400 - 1427 MHz (27 MHz) Radio astronomy	Radio astronomy station (RA) RX	All emissions prohibited (RR 5.340). ECC Decision ECC/DEC/(11)01.
1427 - 1452 MHz MOBILE	1427 - 1452 MHz (25 MHz) Terrestrial systems capable of providing electronic communications services	Duplex Base station (FB) TX	Decrees of the Government 1246/2014 and 1244/2014. ECC Decision ECC/DEC/(17)06. European Commission Decision 2015/750/EU. European Commission Implementing Decision (EU) 2018/661. Sub-band under review.
FIXED AND MOBILE	1427 - 1452 MHz (25 MHz) Military use		Government Decree 1246/2014. ECC Decision ECC/DEC/(17)06. European Commission Implementing Decision (EU) 2018/661.
1452 - 1492 MHz FIXED AND MOBILE	1452 - 1492 MHz (40 MHz) Military use		Government Decree 1246/2014. European Commission Decision 2015/750/EU. European Commission Implementing Decision (EU) 2018/661.
MOBILE	1452 - 1492 MHz (40 MHz) Terrestrial systems capable of providing electronic communications services	Duplex Base station (FB) TX	Decrees of the Government 1246/2014 and 1244/2014. ECC Decision ECC/DEC/(13)03. European Commission Decision 2015/750/EU. European Commission Implementing Decision (EU) 2018/661. Sub-band under review.
1492 - 1518 MHz MOBILE	1492 - 1518 MHz (26 MHz) Terrestrial systems capable of providing electronic communications services	Duplex Base station (FB) TX	Decrees of the Government 1246/2014 and 1244/2014. ECC Decision ECC/DEC/(17)06. European Commission Decision 2015/750/EU. European Commission Implementing Decision (EU) 2018/661. Sub-band under review.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
FIXED AND MOBILE	1492 - 1518 MHz (26 MHz) Military use		Government Decree 1246/2014. ECC Decision ECC/DEC/(17)06. European Commission Implementing Decision (EU) 2018/661.
1518 - 1525 MHz MOBILE-SATELLITE (SPACE-TO-EARTH)	1518 - 1525 MHz (7 MHz) Mobile satellite	Space station (EI) TX Mobile earth station (UA) RX 1670 - 1675 MHz	ECC Decision ECC/DEC/(04)09. ECC Decision ECC/DEC/(12)01. Stations in the mobile-satellite service must not claim protection from the stations in the fixed service.
FIXED	1519.200 - 1524.800 MHz (5.600 MHz) Sound program transmission	200 kHz / 300 kHz FMÄ/1500	Fixed radio links and mobile transmitters for one-way sound program transmission. Standard EN 300 454.
1525 - 1530 MHz MOBILE-SATELLITE (SPACE-TO-EARTH)	1525 - 1530 MHz (5 MHz) Mobile satellite	Space station (EI) TX Mobile earth station (UA) RX +101.5 MHz 1626.500 - 1631.500 MHz	ECC Decision ECC/DEC/(12)01. Standard EN 301 426. Standard EN 301 444. Standard EN 301 681. User certificate is required of users of maritime safety equipment.
1530 - 1535 MHz MOBILE-SATELLITE (SPACE-TO-EARTH)	1530 - 1533 MHz (3 MHz) Mobile satellite	Space station (EI) TX Mobile earth station (UA) RX +101.5 MHz 1631.500 - 1634.500 MHz	ECC Decision ECC/DEC/(12)01. Standard EN 301 426. Standard EN 301 444. Standard EN 301 681. Priority to maritime distress and safety communications (RR 5.353A). User certificate is required of users of maritime safety equipment.
	1533 - 1535 MHz (2 MHz) Mobile satellite	Space station (EI) TX Mobile earth station (UA) RX +101.5 MHz 1634.500 - 1636.500 MHz	ECC Decision ECC/DEC/(12)01. Standard EN 301 426. Standard EN 301 444. Standard EN 301 681. Priority to maritime distress and safety communications (RR 5.353A). User certificate is required of users of maritime safety equipment.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
1535 - 1559 MHz MOBILE-SATELLITE (SPACE-TO-EARTH)	1535 - 1544 MHz (9 MHz) Mobile satellite	Space station (EI) TX Mobile earth station (UA) RX +101.5 MHz 1636.500 - 1645.500 MHz	ECC Decision ECC/DEC/(12)01. Standard EN 301 426. Standard EN 301 444. Standard EN 301 681. Priority to maritime distress and safety communications (RR 5.353A). User certificate is required of users of maritime safety equipment.
	1544 - 1545 MHz (1 MHz) Mobile satellite	Space station (EI) TX Mobile earth station (UA) RX +101.5 MHz 1645.500 - 1646.500 MHz	For distress and safety only (RR 5.356). SAR band in use for Inmarsat E earth stations. User certificate is required of users of maritime safety equipment.
	1545 - 1555 MHz (10 MHz) Mobile satellite	Space station (EI) TX Mobile earth station (UA) RX +101.5 MHz 1646.500 - 1656.500 MHz	ECC Decision ECC/DEC/(12)01. Priority to aeronautical distress and safety communications (RR 5.362A). User certificate is required of users of maritime safety equipment.
	1555 - 1559 MHz (4 MHz) Mobile satellite	Space station (EI) TX Mobile earth station (UA) RX +101.5 MHz 1656.500 - 1660.500 MHz	ECC Decision ECC/DEC/(12)01. Standard EN 301 426. Standard EN 301 444. Standard EN 301 681. User certificate is required of users of maritime safety equipment.
1559 - 1610 MHz RADIONAVIGATION-SATELLITE (SPACE-TO-EARTH, SPACE-TO-SPACE)	1559 - 1610 MHz (51 MHz) Radionavigation satellite	Space station (EN) TX Mobile earth station (UA) RX Space station (EN) TX Space station (EN) RX	
1610.000 - 1610.600 MHz MOBILE-SATELLITE (EARTH-TO-SPACE)	1610.000 - 1610.600 MHz (0.600 MHz) Mobile satellite	Mobile earth station (UA) TX Space station (EI) RX	Terminals exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. ECC Decision ECC/DEC/(09)02. ECC Decision ECC/DEC/(12)01. Standard EN 301 441. User certificate is required of users of maritime safety equipment.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
1610.600 - 1613.800 MHz MOBILE-SATELLITE (EARTH-TO-SPACE)	1610.600 - 1613.800 MHz (3.200 MHz) Mobile satellite	Mobile earth station (UA) TX Space station (EI) RX	Terminals exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. ECC Decision ECC/DEC/(09)02. ECC Decision ECC/DEC/(12)01. Standard EN 301 441. User certificate is required of users of maritime safety equipment.
1613.800 - 1626.500 MHz MOBILE-SATELLITE (EARTH-TO-SPACE)	1613.800 - 1626.500 MHz (12.700 MHz) Mobile satellite	Mobile earth station (UA) TX Space station (EI) RX	Terminals exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. ECC Decision ECC/DEC/(09)04. ECC Decision ECC/DEC/(09)02. ECC Decision ECC/DEC/(12)01. Standard EN 301 441. User certificate is required of users of maritime safety equipment.
Mobile-Satellite (space-to-Earth)	1613.800 - 1626.500 MHz (12.700 MHz) Mobile satellite	Space station (EI) TX Mobile earth station (UA) RX	ECC Decision ECC/DEC/(09)02. ECC Decision ECC/DEC/(12)01. Standard EN 301 441. User certificate is required of users of maritime safety equipment.
1626.500 - 1660.000 MHz MOBILE-SATELLITE (EARTH-TO-SPACE)	1626.500 - 1631.500 MHz (5 MHz) Mobile satellite	Mobile earth station (UA) TX Space station (EI) RX -101.5 MHz 1525 - 1530 MHz	Terminals exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. ECC Decision ECC/DEC/(12)01. Standard EN 301 426. Standard EN 301 444. Standard EN 301 681. Priority to maritime distress and safety communications (RR 5.353A). User certificate is required of users of maritime safety equipment.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	1631.500 - 1636.500 MHz (5 MHz) Mobile satellite	Mobile earth station (UA) TX Space station (EI) RX -101.5 MHz 1530 - 1535 MHz	Terminals exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. ECC Decision ECC/DEC/(12)01. Standard EN 301 426. Standard EN 301 444. Standard EN 301 681. Priority to maritime distress and safety communications (RR 5.353A). User certificate is required of users of maritime safety equipment.
	1636.500 - 1645.500 MHz (9 MHz) Mobile satellite	Mobile earth station (UA) TX Space station (EI) RX -101.5 MHz 1535 - 1544 MHz	Terminals exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. ECC Decision ECC/DEC/(12)01. Standard EN 301 426. Standard EN 301 444. Standard EN 301 681. Priority to maritime distress and safety communications (RR 5.353A). User certificate is required of users of maritime safety equipment.
	1645.500 - 1646.500 MHz (1 MHz) Mobile satellite	Mobile earth station (UA) TX Space station (EI) RX -101.5 MHz 1544 - 1545 MHz	For distress and safety only (RR 5.375). SAR band in use for Inmarsat E earth stations. User certificate is required of users of maritime safety equipment.
	1646.500 - 1656.500 MHz (10 MHz) Mobile satellite	Mobile earth station (UA) TX Space station (EI) RX -101.5 MHz 1545 - 1555 MHz	Terminals exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. ECC Decision ECC/DEC/(12)01. Standard EN 301 426. Standard EN 301 444. Standard EN 301 681. Priority to aeronautical distress and safety communications (RR 5.362A). User certificate is required of users of maritime safety equipment.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	1656.500 - 1660.000 MHz (3.500 MHz) Mobile satellite	Mobile earth station (UA) TX Space station (EI) RX -101.5 MHz 1555 - 1559 MHz	Terminals exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. ECC Decision ECC/DEC/(12)01. Standard EN 301 426. Standard EN 301 444. Standard EN 301 681. User certificate is required of users of maritime safety equipment.
1660.000 - 1660.500 MHz MOBILE-SATELLITE (EARTH-TO-SPACE)	1660.000 - 1660.500 MHz (0.500 MHz) Mobile satellite	Mobile earth station (UA) TX Space station (EI) RX -101.5 MHz 1555 - 1559 MHz	Terminals exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. ECC Decision ECC/DEC/(12)01. Standard EN 301 426. Standard EN 301 444. Standard EN 301 681. User certificate is required of users of maritime safety equipment.
RADIO ASTRONOMY	1660.000 - 1660.500 MHz (0.500 MHz) Radio astronomy	Radio astronomy station (RA) RX	
1660.500 - 1668.400 MHz RADIO ASTRONOMY	1660.500 - 1668.400 MHz (7.900 MHz) Radio astronomy	Radio astronomy station (RA) RX	
1668.400 - 1670.000 MHz RADIO ASTRONOMY	1668.400 - 1670.000 MHz (1.600 MHz) Radio astronomy	Radio astronomy station (RA) RX	
METEOROLOGICAL AIDS	1668.400 - 1670.000 MHz (1.600 MHz) Sondes	Mobile station (SA) TX Base station (SM) RX	Standard EN 302 454. Usage according ITU-R Rec. RS.1165-2.
1670 - 1675 MHz MOBILE-SATELLITE (EARTH-TO-SPACE)	1670 - 1675 MHz (5 MHz) Mobile satellite	Mobile earth station (UA) TX Space station (EI) RX 1518 - 1525 MHz	Terminals exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. ECC Decision ECC/DEC/(04)09. ECC Decision ECC/DEC/(12)01.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
Mobile	1670.0303 - 1674.9697 MHz (4.9394 MHz) Mobile radio		
1675 - 1690 MHz METEOROLOGICAL-SATELLITE (SPACE-TO-EARTH)	1675 - 1690 MHz (15 MHz) Meteorological-satellites	Space station (EM) TX Earth station (TM) RX	
	1675 - 1690 MHz (15 MHz) Sondes	Mobile station (SA) RX Base station (SM) RX	Standard EN 302 454. Usage according ITU-R Rec. RS.1165-2.
1690 - 1700 MHz METEOROLOGICAL-SATELLITE (SPACE-TO-EARTH)	1690 - 1700 MHz (10 MHz) Sondes	Mobile station (SA) RX Base station (SM) RX	Standard EN 302 454. Usage according ITU-R Rec. RS.1165-2.
	1690 - 1700 MHz (10 MHz) Meteorological-satellites	Space station (EM) TX Earth station (TM) RX	
1700 - 1710 MHz METEOROLOGICAL-SATELLITE (SPACE-TO-EARTH)	1700 - 1710 MHz (10 MHz) Meteorological-satellites	Space station (EM) TX Earth station (TM) RX	

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
1710 - 1980 MHz MOBILE	1710.100 - 1784.900 MHz (74.800 MHz) Digital mobile network	Duplex Base station (FB) RX +95 MHz 1805.100 - 1879.900 MHz	Terminals exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. ERC Decision ERC/DEC/(95)01. ERC Decision ERC/DEC/(95)03. ECC Decision ECC/DEC/(06)07. ECC Decision ECC/DEC/(06)13. ECC Decision ECC/DEC/(08)08. ECC Decision ECC/DEC/(12)01. CC Decision ECC/DEC/(22)01. European Commission Decision 2008/294/EC. European Commission Decision 2013/654/EU. European Commission Decision 2016/2317/EU. European Commission Implementing Decision (EU) 2022/173. European Commission Implementing Decision (EU) 2022/2324 on amending the Decision 2008/294/EC. European Commission Implementing Decision (EU) 2024/340. Decrees of the Government 1246/2014 and 1244/2014.
	1785.000 - 1804.800 MHz (19.800 MHz) (SRD) Radio microphones, hearing aids, in-ear monitoring	Simplex Mobile (ML) TXRX	Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Maximum radiated power 20 mW EIRP, for body-worn microphones max. 50 mW EIRP. Standard EN 300 422 as applicable. SRD Recommendation ERC/REC/70-03. European Commission Decision 2014/641/EU.
	1795 - 1800 MHz (5 MHz) (SRD) Wireless audio applications	Simplex Mobile (ML) TXRX	Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Standard EN 301 357. Radiated power max. 20 mW EIRP. SRD Recommendation ERC/REC/70-03.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	1805.100 - 1879.900 MHz (74.800 MHz) Digital mobile network	Duplex Base station (FB) TX -95 MHz 1710.100 - 1784.900 MHz	ERC Decision ERC/DEC/(95)03. ECC Decision ECC/DEC/(06)07. ECC Decision ECC/DEC/(06)13. ECC Decision ECC/DEC/(08)08. European Commission Decision 2008/294/EC. European Commission Decision 2013/654/EU. European Commission Decision 2016/2317/EU. European Commission Implementing Decision (EU) 2022/173. European Commission Implementing Decision (EU) 2022/2324 on amending the Decision 2008/294/EC. European Commission Implementing Decision (EU) 2024/340. Decrees of the Government 1246/2014 and 1244/2014. Licence-exempt mobile network base stations subject to registration in order to be placed on board vessels and aircraft. See Finnish Transport and Communications Agency Regulation 15.
	1881.792 - 1897.344 MHz (15.552 MHz) DECT	Simplex Base station (FB) TXRX Mobile (ML) TXRX 1.728 MHz /	Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Radiated power max. 250 mW ERP. Standard EN 301 406. ERC Decision ERC/DEC/(94)03.
	1900 - 1910 MHz (10 MHz) Mobile radio		Sub-band under review. ECC Decision ECC/DEC/(20)02. European Commission Implementing Decision (EU) 2021/1730. Railway radio systems
	1910 - 1920 MHz (10 MHz) Mobile radio	-	Sub-band under review.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	1920 - 1980 MHz (60 MHz) Digital mobile network	Duplex Base station (FB) RX +190 MHz 2110 - 2170 MHz	Terminals exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. ECC Decision ECC/DEC/(06)01. ECC Decision ECC/DEC/(06)07. ECC Decision ECC/DEC/(12)01. CC Decision ECC/DEC/(22)01. ERC Recommendation ERC/REC(01)01. European Commission Decision 2008/294/EC. European Commission Decision 2013/654/EU. European Commission Decision 2012/688/EU. European Commission Decision 2016/2317/EU. European Commission Implementing Decision (EU) 2020/667. European Commission Implementing Decision (EU) 2022/2324 on amending the Decision 2008/294/EC. European Commission Implementing Decision (EU) 2024/340. Decrees of the Government 1246/2014 and 1244/2014.
1980 - 2010 MHz MOBILE-SATELLITE (EARTH-TO-SPACE)	1980 - 2010 MHz (30 MHz) Mobile satellite	Mobile earth station (UA) TX Space station (EI) RX 2170 - 2200 MHz	Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. ECC Decision ECC/DEC/(06)09. ECC Decision ECC/DEC/(12)01. European Commission Decision 2007/98/EC. European Commission Decision 2009/449/EC. Decision No. 626/2008/EC of the European Parliament and of the Council. Until 13.5.2027: 1980 - 1995 MHz Inmarsat Venture's Limiteds pan-European systems providing mobile satellite services. 1995 - 2010 MHz Solaris Mobile Limited's pan-European systems providing mobile satellite services.
2010 - 2025 MHz FIXED	2010 - 2025 MHz (15 MHz) Wireless cameras		Wireless cameras. Standard EN 302 064. European Commission Decision 2016/339/EU.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
2025 - 2070 MHz FIXED	2025 - 2070 MHz (45 MHz) Military use		Transmitting earth station to be used for remote sensing satellite services in the frequency band 2036.25 MHz in Kirkkonummi. Transmitting satellite earth station in the 2025-2070 MHz frequency range in Sodankylä Tähtelä.
2070 - 2110 MHz SPACE OPERATION (EARTH-TO-SPACE, SPACE-TO-SPACE)	2070 - 2110 MHz (40 MHz) Space operation	Earth station (TT) TX Space station (ET) RX 2245 - 2290 MHz Space station (ET) TX Space station (ET) RX	
EARTH EXPLORATION-SATELLITE (EARTH-TO-SPACE, SPACE-TO-SPACE)	2070 - 2110 MHz (40 MHz) Earth exploration satellite	Earth station (TW) TX Space station (EW) RX Space station (EW) TX Earth station (TW) RX	
FIXED	2070 - 2110 MHz (40 MHz) Wireless cameras		Wireless cameras, for events only. Standard EN 302 064. ERC Recommendation ERC/REC 25-10.
2110 - 2170 MHz MOBILE	2110 - 2170 MHz (60 MHz) Digital mobile network	Duplex Base station (FB) TX -190 MHz 1920 - 1980 MHz	ECC Decision ECC/DEC/(06)01. ECC Decision ECC/DEC/(06)07. ERC Recommendation ERC/REC(01)01. European Commission Decision 2008/294/EC. European Commission Decision 2013/654/EU. European Commission Decision 2012/688/EU. European Commission Decision 2016/2317/EU. European Commission Implementing Decision (EU) 2020/667. European Commission Implementing Decision (EU) 2022/2324 on amending the Decision 2008/294/EC. European Commission Implementing Decision (EU) 2024/340. Decrees of the Government 1246/2014 and 1244/2014. Licence-exempt mobile network base stations subject to registration in order to be placed on board vessels and aircraft. See Finnish Transport and Communications Agency Regulation 15.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
2170 - 2200 MHz MOBILE-SATELLITE (SPACE-TO-EARTH)	2170 - 2200 MHz (30 MHz) Mobile satellite	Space station (EI) TX Mobile earth station (UA) RX 1980 - 2010 MHz	ECC Decision ECC/DEC/(06)09. ECC Decision ECC/DEC/(12)01. European Commission Decision 2007/98/EC. European Commission Decision 2009/449/EC. Decision No. 626/2008/EC of the European Parliament and of the Council. Until 13.5.2027: 2170 - 2185 MHz Inmarsat Ventures Limited's pan-European systems providing mobile satellite services. 2185 - 2200 MHz Solaris Mobile Limited's pan-European systems providing mobile satellite services.
2200 - 2245 MHz FIXED	2200 - 2245 MHz (45 MHz) Military use		Transmitting satellite earth station in the 2025-2070 MHz frequency range in Sodankylä Tähtelä.
2245 - 2290 MHz FIXED	2245 - 2290 MHz (45 MHz) Wireless cameras		Wireless cameras, for events only. Standard EN 302 064. ERC Recommendation ERC/REC 25-10.
SPACE OPERATION (SPACE-TO-EARTH, SPACE-TO-SPACE)	2245 - 2290 MHz (45 MHz) Space operation	Space station (ET) TX Earth station (TT) RX 2070 - 2110 MHz Space station (ET) TX Space station (ET) RX	
2290 - 2300 MHz FIXED	2290 - 2300 MHz (10 MHz) Wireless cameras		Wireless cameras and ENG-links 2290 - 2400 MHz. Channel spacing max. 20 MHz. In the frequency band 2290 - 2320 MHz the channels are assigned on a case-by-case basis. The frequency band 2320 - 2400 MHz is in common use for cordless cameras and ENG links subject to licence. Standard ETSI ETS 300 638. Standard EN 302 064. ERC Recommendation ERC/REC 25-10.
MOBILE	2290 - 2300 MHz (10 MHz) Mobile radio		

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
2300.000 - 2483.500 MHz Mobile	2300 - 2320 MHz (lower and upper limits of sub-band) (20 MHz) Local radio networks based on mobile technology	Base station (FB) TXRX Mobile (ML) TXRX	For example Private LTE. Terminals exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. ECC Decision ECC/DEC/(14)02. CC Decision ECC/DEC/(22)01. Decrees of the Government 1246/2014 and 1244/2014.
FIXED	2300 - 2400 MHz (100 MHz) Wireless cameras		Wireless cameras and ENG-links 2290 - 2400 MHz. Channel spacing max. 20 MHz. In the frequency band 2290 - 2320 MHz the channels are assigned on a case-by-case basis. The frequency band 2320 - 2400 MHz is in common use for cordless cameras and ENG links subject to licence. Standard ETSI ETS 300 638. Standard EN 302 064. ERC Recommendation ERC/REC 25-10.
Amateur	2300 - 2400 MHz (100 MHz) Amateur		See Finnish Transport and Communications Agency Regulation 6. User certificate required. See Finnish Transport and Communications Agency Regulation 18. Maximum transmitter power in the elementary class 30 W. Peak envelope power 120 W, when the carrier of the transmission is attenuated by at least 6 dB. Transmitter power in the general class max. 150 W. Peak envelope power 600 W, when the carrier of the transmission is attenuated by at least 6 dB.
Amateur-Satellite	2400 - 2450 MHz (50 MHz) Amateur-Satellite		See Finnish Transport and Communications Agency Regulation 6. User certificate required. See Finnish Transport and Communications Agency Regulation 18. Maximum transmitter power in the elementary class 30 W. Peak envelope power 120 W, when the carrier of the transmission is attenuated by at least 6 dB. Transmitter power in the general class max. 150 W. Peak envelope power 600 W, when the carrier of the transmission is attenuated by at least 6 dB.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
Amateur	2400 - 2450 MHz (50 MHz) Amateur		See Finnish Transport and Communications Agency Regulation 6. User certificate required. See Finnish Transport and Communications Agency Regulation 18. Maximum transmitter power in the elementary class 30 W. Peak envelope power 120 W, when the carrier of the transmission is attenuated by at least 6 dB. Transmitter power in the general class max. 150 W. Peak envelope power 600 W, when the carrier of the transmission is attenuated by at least 6 dB.
MOBILE	2400.000 - 2483.500 MHz (lower and upper limits of sub-band) (83.500 MHz) (SRD) Non-specific Short Range Devices		Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Radiated power max. 10 mW EIRP. Standard EN 300 440. SRD Recommendation ERC/REC/70-03. 2400 - 2500 MHz ISM (RR 5.150). European Commission Decision 2006/771/EC, supplemented by Implementing Decision (EU) 2022/180.
	2400.000 - 2483.500 MHz (lower and upper limits of sub-band) (83.500 MHz) (SRD) Equipment for detecting movement and for alert		Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Radiated power max. 25 mW EIRP. Standard EN 300 440. SRD Recommendation ERC/REC/70-03. European Commission Decision 2006/771/EC, supplemented by Implementing Decision (EU) 2022/180.
	2400.000 - 2483.500 MHz (83.500 MHz) (SRD) Wideband data transmission systems (WAS/RLAN)		Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Effective radiated power max. 100 mW EIRP. Standard EN 300 328. SRD Recommendation ERC/REC/70-03. European Commission Decision 2006/771/EC, supplemented by Implementing Decision (EU) 2022/180.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	2400.000 - 2483.500 MHz (83.500 MHz) (SRD) Equipment for automatic vehicle identification for railways (AVI)		Channels for AVI 2447, 2448.5; 2450; 2451,5 and 2453 MHz. Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Radiated power max. 500 mW EIRP. Standard EN 300 761. SRD Recommendation ERC/REC/70-03.
	2446 - 2454 MHz (8 MHz) (SRD) Radio frequency identification devices (RFID)		Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Radiated power max. 500 mW EIRP. Maximum radiated power 4 W EIRP only indoors and duty cycle < 15 %. The duty cycle must be < 15 % during any 200 ms period (i.e. 30 ms on, 170 ms off). Standard EN 300 440. Standard EN 300 761. SRD Recommendation ERC/REC/70-03. 2400 - 2500 MHz ISM (RR 5.150). European Commission Decision 2006/771/EC, supplemented by Implementing Decision (EU) 2022/180.
2483.500 - 2500.000 MHz MOBILE	2483.500 - 2500.000 MHz (16.500 MHz) (SRD) Ultra low-power medical implants	Simplex 1 MHz /	Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Radiated power max. 10 mW EIRP. Duty cycle max. 10 % or an appropriate access protocol. The frequency band may be used as a single channel for high-speed data transmission. Peripheral units are for indoor use only. SRD Recommendation ERC/REC/70-03. Standard EN 301 559. European Commission Decision 2006/771/EC, supplemented by Implementing Decision (EU) 2022/180.
MOBILE-SATELLITE (SPACE-TO-EARTH)	2483.500 - 2500.000 MHz (16.500 MHz) Mobile satellite	Space station (EI) TX Mobile earth station (UA) RX 1610.000 - 1626.500 MHz	2483.5 - 2500.0 MHz Globalstar. Standard EN 301 441. ECC Decision ECC/DEC/(09)02. ECC Decision ECC/DEC/(12)01. 2400 - 2500 MHz ISM (RR 5.150).

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
MOBILE	2483.500 - 2500.000 MHz (16.500 MHz) (SRD) Tracking, tracing and data acquisition systems	Simplex 3 MHz /	Medical body area network (MBAN) systems. Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Radiated power max. 1 mW ERIP. Duty cycle max. 10 %. Only indoor use permitted. Standard EN 303 203. SRD Recommendation ERC/REC/70-03. European Commission Decision 2006/771/EC, supplemented by Implementing Decision (EU) 2022/180.
	2483.500 - 2500.000 MHz (16.500 MHz) (SRD) Tracking, tracing and data acquisition systems		Medical body area network (MBAN) systems. Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Radiated power max. 10 mW EIRP. Duty cycle max. 2 %. Only indoor use permitted. Standard EN 303 203. SRD Recommendation ERC/REC/70-03. European Commission Decision 2006/771/EC, supplemented by Implementing Decision (EU) 2022/180.
	2483.500 - 2500.000 MHz (16.500 MHz) Mobile radio		2400 - 2500 MHz ISM (RR 5.150).
RADIODETERMINATION SATELLITE SERVICE (SPACE-TO-EARTH)	2483.500 - 2500.000 MHz (16.500 MHz) Radiodetermination satellites	Space station (EN) TX Mobile earth station (UN) RX	
2500 - 2690 MHz MOBILE	2500 - 2570 MHz (lower and upper limits of sub-band) (70 MHz) Terrestrial systems capable of providing electronic communications services	Base station (FB) TXRX +120 MHz 2620 - 2690 MHz	Terminals exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. ECC Decision ECC/DEC/(05)05. ECC Decision ECC/DEC/(12)01. CC Decision ECC/DEC/(22)01. European Commission Decision 2008/477/EC. European Commission Implementing Decision (EU) 2020/636. European Commission Implementing Decision (EU) 2024/340. Decrees of the Government 1246/2014 and 1244/2014.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	2570 - 2620 MHz (lower and upper limits of sub-band) (50 MHz) Terrestrial systems capable of providing electronic communications services	Duplex Base station (FB) TXRX Mobile (ML) TXRX	Terminals exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. ECC Decision ECC/DEC/(05)05. ECC Decision ECC/DEC/(12)01. CC Decision ECC/DEC/(22)01. European Commission Decision 2008/477/EC. European Commission Implementing Decision (EU) 2020/636. European Commission Implementing Decision (EU) 2024/340. Decrees of the Government 1246/2014 and 1244/2014.
	2620 - 2690 MHz (lower and upper limits of sub-band) (70 MHz) Terrestrial systems capable of providing electronic communications services	Base station (FB) TXRX -120 MHz 2500 - 2570 MHz	ECC Decision ECC/DEC/(05)05. European Commission Decision 2008/477/EC. European Commission Implementing Decision (EU) 2020/636. European Commission Implementing Decision (EU) 2024/340. Decrees of the Government 1246/2014 and 1244/2014. Licence-exempt mobile network base stations subject to registration in order to be placed on board vessels and aircraft. See Finnish Transport and Communications Agency Regulation 15.
2690 - 2700 MHz RADIO ASTRONOMY	2690 - 2700 MHz (10 MHz) Radio astronomy		
Mobile	2690 - 2700 MHz (10 MHz) Mobile radio		
2700 - 2900 MHz Radiolocation	2700 - 2900 MHz (200 MHz) Radars		Radiated peak power max. 100 dBW. The use is restricted to ground-based radars and to associated airborne transponders, which transmit only when actuated by radars operating in the same band (RR 5.337).
AERONAUTICAL RADIONAVIGATION	2700 - 2900 MHz (200 MHz) Aeronautical radionavigation		
Radiolocation	2700 - 2900 MHz (200 MHz) Military use		

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
2900 - 3100 MHz RADIOLOCATION	2900 - 3100 MHz (200 MHz) Radars		Radiated peak power max. 100 dBW.
RADIONAVIGATION	2900 - 3100 MHz (200 MHz) Radionavigation		
RADIOLOCATION	2900 - 3100 MHz (200 MHz) Military use		
3100 - 3300 MHz RADIOLOCATION	3100 - 3300 MHz (200 MHz) Radars		Radiated peak power max. 100 dBW.
	3100 - 3300 MHz (200 MHz) Military use		
3300 - 3400 MHz RADIOLOCATION	3300 - 3400 MHz (100 MHz) Radars		Radiated peak power max. 100 dBW.
	3300 - 3400 MHz (100 MHz) Military use		
3400 - 4200 MHz Amateur	3400 - 3408 MHz (8 MHz) Amateur		See Finnish Transport and Communications Agency Regulation 6. User certificate required. See Finnish Transport and Communications Agency Regulation 18. Maximum transmitter power in the elementary class 30 W. Peak envelope power 120 W, when the carrier of the transmission is attenuated by at least 6 dB. Transmitter power in the general class max. 150 W. Peak envelope power 600 W, when the carrier of the transmission is attenuated by at least 6 dB.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
MOBILE AND FIXED	3400 - 3800 MHz (lower and upper limits of sub-band) (400 MHz) Terrestrial systems capable of providing electronic communications services	Base station (FB) TXRX Mobile (ML) TXRX Fixed station (FX) TXRX Slave station (FXA) TXRX	Terminals exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. ECC Decision ECC/DEC/(11)06. CC Decision ECC/DEC/(22)01. European Commission Decision 2008/411/EC. European Commission Implementing Decision (EU) 2014/276. European Commission Implementing Decision (EU) 2019/235. Decrees of the Government 1246/2014 and 1244/2014.
FIXED SATELLITE (SPACE-TO-EARTH)	3800 - 4200 MHz (400 MHz) Fixed satellite	Space station (EC) TX Earth station (TC) RX	Not standardised earth stations and Very Small Aperture Terminal (VSAT). Standard EN 301 443.
FIXED	3810 - 3955 MHz (145 MHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 29 MHz / +213 MHz 4023 - 4168 MHz 4000/29M	Channel plan according to ITU-R F.382. Transfer of TV programs, channels B1a - B6a. Standard EN 302 217. Transmitter power max. 10 W. Radiation pattern envelope class 4. Minimum antenna gain 32 dBi. Minimum cross-polar discrimination 27 dB. Minimum hop length 20 km. Not for new equipment.
	3824.500 - 3969.500 MHz (145 MHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 29 MHz / +213 MHz 4037.500 - 4182.500 MHz 4000/29M	Channel plan according to ITU-R F.382. Transfer of TV programs, channels A1a - A6a. Standard EN 302 217. Transmitter power max. 10 W. Radiation pattern envelope class 4. Minimum antenna gain 32 dBi. Minimum cross-polar discrimination 27 dB. Minimum hop length 20 km. Not for new equipment.
	3930 - 4170 MHz (240 MHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 40 MHz / -320 MHz 3610 - 3850 MHz 3900/40M	CEPT Recommendation ERC/REC 12-08 Annex A. Channels 1b - 7b. Standard EN 302 217. Radiation pattern envelope class 4. Minimum antenna gain 32 dBi. Minimum cross-polar discrimination 27 dB. Minimum hop length 20 km. The use of channels 1 to 6 ended on 31 December 2018.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	4023 - 4168 MHz (145 MHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 29 MHz / - 213 MHz 3810 - 3955 MHz 4000/29M	Channel plan according to ITU-R F.382. Transfer of TV programs, channels B1b - B6b. Standard EN 302 217. Transmitter power max. 10 W. Radiation pattern envelope class 4, figure 2d. Minimum antenna gain 32 dBi. Minimum cross polar discrimination 27 dB. Minimum hop length 20 km. Not for new equipment.
	4037.500 - 4182.500 MHz (145 MHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 29 MHz / - 213 MHz 3824.500 - 3969.500 MHz 4000/29M	Channel plan according to ITU-R F.382. Transfer of TV programs, channels A1b - A6b. Standard EN 302 217. Transmitter power max. 10 W. Radiation pattern envelope class 4, figure 2d. Minimum antenna gain 32 dBi. Minimum cross polar discrimination 27 dB. Minimum hop length 20 km. Not for new equipment.
4200 - 4400 MHz AERONAUTICAL RADIONAVIGATION	4200 - 4400 MHz (200 MHz) Radio altimeters	Simplex Mobile station (AM) TX / 30 MHz	Radiated power max. 500 mW ERP.
AERONAUTICAL MOBILE (R)	4200 - 4400 MHz (200 MHz) Wireless avionics intra-communications (WAIC)	Aeronautical station (FA) TXRX	Radiated power max. 20 dBm EIRP.
4400 - 4800 MHz MOBILE	4400 - 4500 MHz (100 MHz) Military use		
FIXED	4400 - 4500 MHz (100 MHz) Military use		
FIXED SATELLITE (SPACE-TO-EARTH)	4500 - 4800 MHz (300 MHz) Fixed satellite	Space station (EC) TX Earth station (TC) RX 6725 - 7025 MHz	Frequency plan for fixed-satellite service, RR AP30B.
MOBILE	4500 - 4800 MHz (300 MHz) Military use		

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
FIXED	4500 - 4800 MHz (300 MHz) Military use		
4800 - 4990 MHz MOBILE	4800 - 4990 MHz (190 MHz) Military use		
FIXED	4800 - 4990 MHz (190 MHz) Military use		
4990 - 5000 MHz RADIO ASTRONOMY	4990 - 5000 MHz (10 MHz) Radio astronomy		
MOBILE	4990 - 5000 MHz (10 MHz) Military use		
FIXED	4990 - 5000 MHz (10 MHz) Military use		
5000 - 5150 MHz RADIONAVIGATION-SATELLITE (EARTH-TO-SPACE)	5000 - 5010 MHz (10 MHz) Radionavigation satellite	Space station (EN) RX Mobile earth station (UN) TX	
AERONAUTICAL RADIONAVIGATION	5000 - 5030 MHz (30 MHz) Aeronautical radionavigation		
RADIONAVIGATION-SATELLITE (SPACE-TO-EARTH, SPACE-TO-SPACE)	5010 - 5030 MHz (20 MHz) Radionavigation satellite	Space station (EN) TX Mobile earth station (UN) RX Space station (EN) RX	
AERONAUTICAL MOBILE (R)	5030 - 5091 MHz (61 MHz) Systems for unmanned airborne aircraft (RPAS/UAS/UA)		Sub-band under review.
AERONAUTICAL RADIONAVIGATION	5030 - 5150 MHz (120 MHz) Aeronautical radionavigation	Simplex Land station (AL) TX Mobile station (AM) RX	MLS. No services in Finland.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
FIXED SATELLITE	5091 - 5150 MHz (59 MHz) Fixed satellite	Earth station (TC) TX Space station (EC) RX	Non-GSO MSS feeder links (RR 5.444A).
5150 - 5250 MHz MOBILE	5150 - 5250 MHz (100 MHz) (SRD) Wideband data transmission systems (WAS/RLAN)		Wide-band data transmission systems (WAS/RLAN). Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Maximum radiated power 200 mW EIRP, the spectral power density of transmission to be below 10 mW/1 MHz. Restrictions on use indoors and outdoors and on board automotive and railway vehicles and aircraft. Standard EN 301 893. ECC Decision ECC/DEC/(04)08. European Commission Implementing Decision (EU) 2022/179, supplemented by Implementing Decision (EU) 2022/2307.
FIXED SATELLITE (EARTH-TO-SPACE)	5150 - 5250 MHz (100 MHz) Fixed satellite	Earth station (TC) TX Space station (EC) RX	Non-GSO MSS feeder links (RR 5.447A). 5150 - 5216 MHz (66 MHz) also space-to-Earth (RR 5.447B).
AERONAUTICAL RADIONAVIGATION	5150 - 5250 MHz (100 MHz) Aeronautical radionavigation		

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
5250 - 5350 MHz MOBILE	5250 - 5350 MHz (100 MHz) (SRD) Wideband data transmission systems (WAS/RLAN)		Wide-band data transmission systems (WAS/RLAN). Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Maximum radiated power 200 mW EIRP, the spectral power density of transmission to be below 10 mW/1 MHz. Restrictions on use indoors and outdoors and on board automotive and railway vehicles and aircraft. RLAN equipment operating in the frequency bands 5250 - 5350 MHz and 5470 - 5725 MHz shall employ transmitter power control, which provides, on average, a mitigation factor of at least 3 dB on the maximum permitted output power of the systems. If transmitter power control is not in use, the maximum permitted mean EIRP and the corresponding mean EIRP density limits for the 5250 - 5350 MHz and 5470 - 5725 MHz bands shall be reduced by 3 dB. RLAN equipment operating in the 5250 - 5350 MHz and 5470 - 5725 MHz bands shall use mitigation techniques that give at least the same protection as the detection, operational and response requirements described in standard EN 301 893. Standard EN 301 893. ECC Decision ECC/DEC/(04)08. European Commission Implementing Decision (EU) 2022/179, supplemented by Implementing Decision (EU) 2022/2307.
Earth Exploration-Satellite	5250 - 5350 MHz (100 MHz) Earth exploration satellite		
5350 - 5725 MHz RADIOLOCATION	5350 - 5400 MHz (50 MHz) Radars		
Earth Exploration-Satellite	5350 - 5460 MHz (110 MHz) Earth exploration satellite		
RADIOLOCATION	5400 - 5470 MHz (70 MHz) Military use		

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
MOBILE	5470 - 5725 MHz (255 MHz) (SRD) Wideband data transmission systems (WAS/RLAN)		Wide-band data transmission systems (WAS/RLAN). Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Radiated power max. 1 W EIRP, the spectral power ensity of transmission shall be below 50 mW / 1 MHz. Restrictions on use indoors and outdoors and on board automotive and railway vehicles and aircraft. RLAN equipment operating in the frequency bands 5250 - 5350 MHz and 5470 - 5725 MHz shall employ transmitter power control, which provides, on average, a mitigation factor of at least 3 dB on the maximum permitted output power of the systems. If transmitter power control is not in use, the maximum permitted mean EIRP and the corresponding mean EIRP density limits for the 5250 - 5350 MHz and 5470 - 5725 MHz bands shall be reduced by 3 dB. RLAN equipment operating in the 5250 - 5350 MHz and 5470 - 5725 MHz bands shall use mitigation techniques that give at least the same protection as the detection, operational and response requirements described in standard EN 301 893. Standard EN 301 893. ECC Decision ECC/DEC/(04)08. European Commission Implementing Decision (EU) 2022/179, supplemented by Implementing Decision (EU) 2022/2307. 5480/5570 MHz position location (TX/RX of LR station).
RADIOLOCATION	5470 - 5725 MHz (255 MHz) Radars		5480/5570 MHz position location (TX/RX of LR station).
	5500 - 5650 MHz (150 MHz) Meteorological radars	Simplex Radiolocation land station (LR) TX	Radiated peak power max. 100 dBW.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
Amateur-Satellite	5650 - 5670 MHz (20 MHz) Amateur-Satellite		User certificate required. See Finnish Transport and Communications Agency Regulation 18. Maximum transmitter power in the elementary class 30 W. Peak envelope power 120 W, when the carrier of the transmission is attenuated by at least 6 dB. Transmitter power in the general class max. 150 W. Peak envelope power 600 W, when the carrier of the transmission is attenuated by at least 6 dB.
Amateur	5650 - 5670 MHz (20 MHz) Amateur		User certificate required. See Finnish Transport and Communications Agency Regulation 18. Maximum transmitter power in the elementary class 30 W. Peak envelope power 120 W, when the carrier of the transmission is attenuated by at least 6 dB. Transmitter power in the general class max. 150 W. Peak envelope power 600 W, when the carrier of the transmission is attenuated by at least 6 dB.
RADIOLOCATION	5650 - 5725 MHz (75 MHz) Radars	Simplex Radiolocation land station (LR) TX	Radiated peak power max. 100 dBW.
Amateur	5670 - 5725 MHz (55 MHz) Amateur		See Finnish Transport and Communications Agency Regulation 6. User certificate required. See Finnish Transport and Communications Agency Regulation 18. Maximum transmitter power in the elementary class 30 W. Peak envelope power 120 W, when the carrier of the transmission is attenuated by at least 6 dB. Transmitter power in the general class max. 150 W. Peak envelope power 600 W, when the carrier of the transmission is attenuated by at least 6 dB.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
5725 - 5925 MHz Fixed	5725 - 5795 MHz (70 MHz) Fixed wide-band data transmission equipment (BFWA)		Fixed wide-band data transmission equipment (BFWA). Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Maximum effective radiated power 4 W EIRP. Maximum spectral power density 23 dBm / MHz EIRP. Equipment shall use mitigation techniques that give at least the same protection as the detection, operational and response requirements described in standard EN 302 502. Standard EN 302 502. ECC Recommendation ECC/REC/(06)04.
Amateur	5725 - 5830 MHz (105 MHz) Amateur		See Finnish Transport and Communications Agency Regulation 6. User certificate required. See Finnish Transport and Communications Agency Regulation 18. Maximum transmitter power in the elementary class 30 W. Peak envelope power 120 W, when the carrier of the transmission is attenuated by at least 6 dB. Transmitter power in the general class max. 150 W. Peak envelope power 600 W, when the carrier of the transmission is attenuated by at least 6 dB.
MOBILE	5725 - 5875 MHz (150 MHz) (SRD) Non-specific Short Range Devices		Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Radiated power max. 25 mW EIRP. Standard EN 300 440. 5725 - 5875 MHz ISM (RR 5.150) SRD Recommendation ERC/REC/70-03. European Commission Decision 2006/771/EC, supplemented by Implementing Decision (EU) 2022/180.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
RADIOLOCATION	5795 - 5815 MHz (20 MHz) (SRD) Transport and Traffic telematics (TTT)		Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Transmitter power max. 8 W EIRP in the band 5795-5805 MHz and 2 W EIRP in the band 5805-5815 MHz. Standard EN 300 674 as applicable. SRD Recommendation ERC/REC/70-03. European Commission Decision 2006/771/EC, supplemented by Implementing Decision (EU) 2022/180.
Fixed	5815 - 5850 MHz (35 MHz) Fixed wide-band data transmission equipment (BFWA)		Fixed wide-band data transmission equipment (BFWA). Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Maximum effective radiated power 4 W EIRP. Maximum spectral power density 23 dBm / MHz EIRP. Equipment shall use mitigation techniques that give at least the same protection as the detection, operational and response requirements described in standard EN 302 502. Standard EN 302 502. ECC Recommendation ECC/REC/(06)04.
Amateur-Satellite (space-to-Earth)	5830 - 5850 MHz (20 MHz) Amateur-Satellite (space-to-Earth)		See Finnish Transport and Communications Agency Regulation 6. User certificate required. See Finnish Transport and Communications Agency Regulation 18. Maximum transmitter power in the elementary class 30 W. Peak envelope power 120 W, when the carrier of the transmission is attenuated by at least 6 dB. Transmitter power in the general class max. 150 W. Peak envelope power 600 W, when the carrier of the transmission is attenuated by at least 6 dB.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
Amateur	5830 - 5850 MHz (20 MHz) Amateur		See Finnish Transport and Communications Agency Regulation 6. User certificate required. See Finnish Transport and Communications Agency Regulation 18. Maximum transmitter power in the elementary class 30 W. Peak envelope power 120 W, when the carrier of the transmission is attenuated by at least 6 dB. Transmitter power in the general class max. 150 W. Peak envelope power 600 W, when the carrier of the transmission is attenuated by at least 6 dB.
MOBILE	5855 - 5875 MHz (20 MHz) Intelligent Transport Systems (ITS)		Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. ECC Recommendation ECC/REC/(08)01. Standard EN 302 571. Effective radiated power max. 33 dBm EIRP. Maximum spectral power density 23 dBm/MHz EIRP. Power control range 30 dB. European Commission Decision 2006/771/EC, supplemented by Implementing Decision (EU) 2022/180.
	5875 - 5925 MHz (50 MHz) Intelligent Transport Systems (ITS)		Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. ECC Decision ECC/DEC/(08)01. European Commission Implementing Decision (EU) 2020/1426. Standard EN 302 571. Maximum radiated power 33 dBm EIRP. Maximum spectral power density 23 dBm/MHz EIRP. Appropriate access protocol.
5925 - 7080 MHz FIXED SATELLITE (EARTH-TO-SPACE)	5925 - 6650 MHz (725 MHz) Fixed satellite	Earth station (TC) TX Space station (EC) RX	Very Small Aperture Terminal (VSAT). Standard EN 301 443.
	5925 - 6725 MHz (800 MHz) Fixed satellite	Earth station (TC) TX Space station (EC) RX	Non-standardised earth stations.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
Mobile	5945 - 6425 MHz (480 MHz) (SRD) Wideband data transmission systems (WAS/RLAN)		Low power indoor WAS/RLAN devices (LPI WAS/RLAN). Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Maximum radiated power 23 dBm EIRP, the spectral power density of transmission max 10 dBm/MHz EIRP. Restrictions on use indoors and outdoors and on board automotive and railway vehicles and aircraft. ECC Decision ECC/DEC/(20)01. European Commission Implementing Decision (EU) 2021/1067.
	5945 - 6425 MHz (480 MHz) (SRD) Wideband data transmission systems (WAS/RLAN)		Very low power WAS/RLAN devices (VLP WAS/RLAN). Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Maximum radiated power 14 dBm EIRP, the spectral power density of transmission max 1 dBm/MHz EIRP or 10 dBm/MHz EIRP if the channel spacing is under 20 MHz. If spectral power density is above 1 dBm/MHz then frequency hopping must be used (at least 15 hop channels). Restrictions on use indoors and outdoors and on board automotive and railway vehicles and aircraft. ECC Decision ECC/DEC/(20)01. European Commission Implementing Decision (EU) 2021/1067.
FIXED	5945.200 - 6152.750 MHz (207.550 MHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 29.65 MHz / 30 MHz +252.04 MHz 6197.240 - 6404.790 MHz 6200/29M65	CEPT Recommendation ERC/REC 14-01. Channels 1a - 8a. Standard EN 302 217. Transmitter power max. 10 W. Radiation pattern envelope class 4. Minimum antenna gain 32 dBi. Minimum cross-polar discrimination 27 dB. Minimum hop length 20 km, high capacity links 10 km.
	5960.025 - 6137.925 MHz (177.900 MHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 59.3 MHz / +252.04 MHz 6212.065 - 6389.965 MHz 6200/59M3	CEPT Recommendation ERC/REC 14-01. Channels 1a - 4a. Standard EN 302 217. Transmitter power max. 10 W. Radiation pattern envelope class 4. Minimum antenna gain 32 dBi. Minimum cross-polar discrimination 27 dB. Minimum hop length 20 km, high capacity links 10 km.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	6197.240 - 6404.790 MHz (207.550 MHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 29.65 MHz / 30 MHz -252.04 MHz 5945.200 - 6152.750 MHz 6200/29M65	CEPT Recommendation ERC/REC 14-01. Channels 1b - 8b. Standard EN 302 217. Transmitter power max. 10 W. Radiation pattern envelope class 4. Minimum antenna gain 32 dBi. Minimum cross-polar discrimination 27 dB. Minimum hop length 20 km, high capacity links 10 km.
	6212.065 - 6389.965 MHz (177.900 MHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 59.3 MHz / -252.04 MHz 5960.025 - 6137.925 MHz 6200/59M3	CEPT Recommendation ERC/REC 14-01. Channels 1b - 4b. Standard EN 302 217. Transmitter power max. 10 W. Radiation pattern envelope class 4. Minimum antenna gain 32 dBi. Minimum cross-polar discrimination 27 dB. Minimum hop length 20 km, high capacity links 10 km.
	6460 - 6740 MHz (280 MHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 40 MHz / +340 MHz 6800 - 7080 MHz 6800/40M	CEPT Recommendation ERC/REC 14-02. Digital fixed radiolinks, channels 1a - 8a. Standard EN 302 217. Transmitter power max. 10 W. Radiation pattern envelope class 4. Minimum antenna gain 32 dBi. Minimum cross-polar discrimination 27 dB. Minimum hop length 20 km, high capacity links 10 km.
	6475 - 6715 MHz (240 MHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 60 MHz / +340 MHz 6815 - 7055 MHz 6800/60M	CEPT Recommendation ERC/REC 14-02. Digital fixed radiolinks, channels 1a - 5a. Standard EN 302 217. Transmitter power max. 10 W. Radiation pattern envelope class 4. Minimum antenna gain 32 dBi. Minimum cross-polar discrimination 27 dB. Minimum hop length 20 km, high capacity links 10 km.
FIXED SATELLITE (EARTH-TO-SPACE, SPACE-TO-EARTH)	6700 - 7075 MHz (375 MHz) Fixed satellite	Space station (EC) TX Earth station (TC) RX	Non-GSO MSS feeder links, space-to-Earth, (RR 5.458B).
	6725 - 7025 MHz (300 MHz) Fixed satellite	Earth station (TC) TX Space station (EC) RX 4500 - 4800 MHz	Frequency plan for fixed-satellite service, RR AP30B.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
FIXED	6800 - 7080 MHz (280 MHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 40 MHz / -340 MHz 6460 - 6740 MHz 6800/40M	CEPT Recommendation ERC/REC 14-02. Digital fixed radiolinks, channels 1b - 8b. Standard EN 302 217. Transmitter power max. 10 W. Radiation pattern envelope class 4. Minimum antenna gain 32 dBi. Minimum cross-polar discrimination 27 dB. Minimum hop length 20 km, high capacity links 10 km.
	6815 - 7055 MHz (240 MHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 60 MHz / -340 MHz 6475 - 6715 MHz 6800/60M	CEPT Recommendation ERC/REC 14-02. Digital fixed radiolinks, channels 1b - 5b. Standard EN 302 217. Transmitter power max. 10 W. Radiation pattern envelope class 4. Minimum antenna gain 32 dBi. Minimum cross-polar discrimination 27 dB. Minimum hop length 20 km, high capacity links 10 km.
FIXED SATELLITE (EARTH-TO-SPACE, SPACE-TO-EARTH)	7025 - 7075 MHz (50 MHz) Fixed satellite	Earth station (TC) TX Space station (EC) RX	Non-standardised earth stations.
7080 - 8500 MHz FIXED	7121 - 7233 MHz (112 MHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 28 MHz / +168 MHz 7289 - 7401 MHz 7300/28M	Channel plan according to ITU-R F.385, modified (duplex spacing changed). Digital fixed radiolinks, channels 1a - 5a. Standard EN 302 217. Radiation pattern envelope class 4. Minimum antenna gain 32 dBi. Minimum cross-polar discrimination 27 dB. Minimum hop length 20 km, high capacity links 10 km.
	7289 - 7401 MHz (112 MHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 28 MHz / -168 MHz 7121 - 7233 MHz 7300/28M	Channel plan according to ITU-R F.385, modified (duplex spacing changed). Digital fixed radiolinks, channels 1b - 5b. Standard EN 302 217. Radiation pattern envelope class 4. Minimum antenna gain 32 dBi. Minimum cross-polar discrimination 27 dB. Minimum hop length 20 km, high capacity links 10 km.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	7428 - 7540 MHz (112 MHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 28 MHz / +168 MHz 7596 - 7708 MHz 7600/28M	Channel plan according to ITU-R F.385, modified (the frequency moved upwards + 29 MHz.) Digital fixed radiolinks, channels 1a - 5a. Standard EN 302 217. Radiation pattern envelope class 4. Minimum antenna gain 32 dBi. Minimum cross-polar discrimination 27 dB. Minimum hop length 20 km, high capacity links 10 km.
	7456 - 7624 MHz (168 MHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 56 MHz / +245 MHz 7701 - 7869 MHz 7600/56M	CEPT Recommendation ERC/REC/(02)06. Digital fixed radiolinks. Channels 1a - 7a. Standard EN 302 217. Radiation pattern envelope class 4. Minimum antenna gain 32 dBi. Minimum cross-polar discrimination 27 dB. Minimum hop length 20 km, high capacity links 10 km.
	7501.500 - 7550.500 MHz (49 MHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 7 MHz / +168 MHz 7669.500 - 7718.500 MHz 7600/7M	Channel plan according to ITU-R F.385, modified (the frequency moved upwards + 29 MHz, national subdivision). Digital fixed radiolinks, channels 13a - 20a. Standard EN 302 217. Radiation pattern envelope class 4. Minimum antenna gain 32 dBi. Minimum cross-polar discrimination 27 dB. Minimum hop length 20 km, high capacity links 10 km.
	7505 - 7547 MHz (42 MHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 14 MHz / +168 MHz 7673 - 7715 MHz 7600/14M	Channel plan according to ITU-R F.385, modified (the frequency moved upwards + 29 MHz, national subdivision). Digital fixed radiolinks, channels 7a - 10a. Standard EN 302 217. Radiation pattern envelope class 4. Minimum antenna gain 32 dBi. Minimum cross-polar discrimination 27 dB. Minimum hop length 20 km, high capacity links 10 km.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	7596 - 7708 MHz (112 MHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 28 MHz / -168 MHz 7428 - 7540 MHz 7600/28M	Channel plan according to ITU-R F.385, modified (the frequency moved upwards + 29 MHz.) Digital fixed radiolinks, channels 1b - 5b. Standard EN 302 217. Radiation pattern envelope class 4. Minimum antenna gain 32 dBi. Minimum cross-polar discrimination 27 dB. Minimum hop length 20 km, high capacity links 10 km. Receiving satellite earth station to be used in the frequency band 7700–8500 MHz in Sodankylä Tähtelä.
	7669.500 - 7718.500 MHz (49 MHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 7 MHz / -168 MHz 7501.500 - 7550.500 MHz 7600/7M	Channel plan according to ITU-R F.385, modified (the frequency moved upwards + 29 MHz, national subdivision). Digital fixed radiolinks, channels 13b - 20b. Standard EN 302 217. Radiation pattern envelope class 4. Minimum antenna gain 32 dBi. Minimum cross-polar discrimination 27 dB. Minimum hop length 20 km, high capacity links 10 km. Receiving satellite earth station to be used in the frequency band 7700–8500 MHz in Sodankylä Tähtelä.
	7673 - 7715 MHz (42 MHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 14 MHz / -168 MHz 7505 - 7547 MHz 7600/14M	Channel plan according to ITU-R F.385, modified (the frequency moved upwards + 29 MHz, national subdivision). Digital fixed radiolinks, channels 7b - 10b. Standard EN 302 217. Radiation pattern envelope class 4. Minimum antenna gain 32 dBi. Minimum cross-polar discrimination 27 dB. Minimum hop length 20 km, high capacity links 10 km. Receiving satellite earth station to be used in the frequency band 7700–8500 MHz in Sodankylä Tähtelä.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	7701 - 7869 MHz (168 MHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 56 MHz / -245 MHz 7456 - 7624 MHz 7600/56M	CEPT Recommendation ERC/REC/(02)06. Digital fixed radiolinks. Channels 1b - 7b. Standard EN 302 217. Radiation pattern envelope class 4. Minimum antenna gain 32 dBi. Minimum cross-polar discrimination 27 dB. Minimum hop length 20 km, high capacity links 10 km. Receiving satellite earth station to be used in the frequency band 7700–8500 MHz in Sodankylä Tähtelä.
	7915 - 8005 MHz (90 MHz) Fixed radiolinks	Simplex Mobile radio link (FXS) TX 30 MHz / 8000/30M	Video links. The frequencies 7915 MHz, 7945 MHz, 7975 MHz and 8005 are common channels throughout Finland. Frequency 7955.25 MHz transfer of radar signals. Receiving satellite earth station to be used in the frequency band 7700–8500 MHz in Sodankylä Tähtelä.
	8045 - 8157 MHz (112 MHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 56 MHz / +310 MHz 8355 - 8467 MHz 8000/56M	Digital fixed radiolinks, channels 1a - 3a. CEPT Recommendation ERC/REC/(02)06. Standard EN 302 217. Radiation pattern envelope class 4. Minimum antenna gain 32 dBi. Minimum cross-polar discrimination 27 dB. Minimum hop length 20 km, high capacity links 10 km. Receiving satellite earth station to be used in the frequency band 7700–8500 MHz in Sodankylä Tähtelä.
	8225 - 8315 MHz (90 MHz) Fixed radiolinks	Simplex Mobile radio link (FXS) TX 30 MHz / 8000/30M	Video links. The frequencies 8225 MHz, 8255 MHz, 8285 MHz and 8315 are common channels throughout Finland. Receiving satellite earth station to be used in the frequency band 7700–8500 MHz in Sodankylä Tähtelä.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	8355 - 8467 MHz (112 MHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 56 MHz / -310 MHz 8045 - 8157 MHz 8000/56M	Digital fixed radiolinks, channels 1b - 3b. CEPT Recommendation ERC/REC/(02)06. Standard EN 302 217. Radiation pattern envelope class 4. Minimum antenna gain 32 dBi. Minimum cross-polar discrimination 27 dB. Minimum hop length 20 km, high capacity links 10 km. Receiving satellite earth station to be used in the frequency band 7700–8500 MHz in Sodankylä Tähtelä.
8500 - 10000 MHz RADIOLOCATION	8500 - 10000 MHz (1500 MHz) Radars		Maritime and aeronautical radiolocation. 8860/8960 MHz speed measuring of ships, TX/RX of fixed stations.
	8500 - 10000 MHz (1500 MHz) Military use		
EARTH EXPLORATION-SATELLITE	9300 - 9800 MHz (500 MHz) Earth exploration satellite		The terms of use have been specified in more detail in footnotes 5.427, 5.474, 5.475, 5.475A, 5.475B, 5.476A of the Radio Regulations.
RADIOLOCATION	9500 - 9975 MHz (475 MHz) (SRD) Equipment for detecting movement and for alert		Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Radiated power max. 25 mW EIRP. Standard EN 300 440. SRD Recommendation ERC/REC/70-03.
10.000 - 10.450 GHz Amateur	10.000 - 10.280 GHz (0.280 GHz) Amateur		See Finnish Transport and Communications Agency Regulation 6. User certificate required. See Finnish Transport and Communications Agency Regulation 18. Maximum transmitter power in the elementary class 30 W. Peak envelope power 120 W, when the carrier of the transmission is attenuated by at least 6 dB. Transmitter power in the general class max. 150 W. Peak envelope power 600 W, when the carrier of the transmission is attenuated by at least 6 dB.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
FIXED	10.000 - 10.280 GHz (0.280 GHz) Fixed radiolinks	Simplex Fixed station (FX) TX Mobile radio link (FXS) TX 10000/30M	Unidirectional video links including ENG/OB radio links in the frequencies 10.015 GHz, 10.075 GHz, 10.135 GHz. The frequencies 10.045 GHz and 10.105 GHz are common channels throughout Finland. Standard ETSI ETS 300 638.
MOBILE	10.000 - 10.450 GHz (0.450 GHz) Mobile radio		
FIXED	10.259 - 10.287 GHz (0.028 GHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 14 MHz / +350 MHz 10.609 - 10.637 GHz 10500/14M	ERC Recommendation ERC/REC 12-05. Standard EN 302 217. Digital fixed radiolinks, channels 2a - 4a. Radiation pattern envelope class 3. Minimum antenna gain 32 dBi. Minimum cross-polar discrimination 27 dB.
Amateur	10.368 - 10.370 GHz (0.002 GHz) Amateur		See Finnish Transport and Communications Agency Regulation 6. User certificate required. See Finnish Transport and Communications Agency Regulation 18. Maximum transmitter power in the elementary class 30 W. Peak envelope power 120 W, when the carrier of the transmission is attenuated by at least 6 dB. Transmitter power in the general class max. 150 W. Peak envelope power 600 W, when the carrier of the transmission is attenuated by at least 6 dB.
FIXED	10.406 - 10.450 GHz (0.044 GHz) Fixed radiolinks	Simplex Fixed station (FX) TX Mobile radio link (FXS) TX	Unidirectional video radiolinks including ENG/OB radio links. 10.427 GHz video transmission. Standard ETSI ETS 300 638. ERC Recommendation ERC/REC 25-10.
10.450 - 10.500 GHz RADIOLOCATION	10.450 - 10.500 GHz (lower and upper limits of sub-band) (0.050 GHz) (SRD) Equipment for detecting movement and for alert		Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Radiated power max. 500 mW EIRP. Standard EN 300 440. SRD Recommendation ERC/REC/70-03.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
Amateur	10.450 - 10.500 GHz (0.050 GHz) Amateur		See Finnish Transport and Communications Agency Regulation 6. User certificate required. See Finnish Transport and Communications Agency Regulation 18. Maximum transmitter power in the elementary class 30 W. Peak envelope power 120 W, when the carrier of the transmission is attenuated by at least 6 dB. Transmitter power in the general class max. 150 W. Peak envelope power 600 W, when the carrier of the transmission is attenuated by at least 6 dB.
Amateur-Satellite	10.450 - 10.500 GHz (0.050 GHz) Amateur-Satellite		See Finnish Transport and Communications Agency Regulation 6. User certificate required. See Finnish Transport and Communications Agency Regulation 18. Maximum transmitter power in the elementary class 30 W. Peak envelope power 120 W, when the carrier of the transmission is attenuated by at least 6 dB. Transmitter power in the general class max. 150 W. Peak envelope power 600 W, when the carrier of the transmission is attenuated by at least 6 dB.
10.500 - 10.680 GHz RADIOLOCATION	10.500 - 10.550 GHz (lower and upper limits of sub-band) (0.050 GHz) (SRD) Equipment for detecting movement and for alert		Licence exempted equipment, taken into use before 31.12.1998. See Finnish Transport and Communications Agency Regulation 15.
	10.500 - 10.600 GHz (lower and upper limits of sub-band) (0.100 GHz) (SRD) Equipment for detecting movement and for alert		Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Radiated power max. 25 mW EIRP. Duty cycle max. 10 %. Indoor use only. Standard EN 300 440.
	10.5 - 10.6 GHz (0.100 GHz) Government		

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
FIXED	10.609 - 10.637 GHz (0.028 GHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 14 MHz / -350 MHz 10.259 - 10.287 GHz 10500/14M	ERC Recommendation ERC/REC 12-05. Standard EN 302 217. Digital fixed radiolinks, channels 2b - 4b. Radiation pattern envelope class 3. Minimum antenna gain 32 dBi. Minimum cross-polar discrimination 27 dB. ECC Decision ECC/DEC/(10)01.
10.680 - 10.700 GHz RADIO ASTRONOMY	10.680 - 10.700 GHz (0.020 GHz) Space research		All emissions prohibited (RR 5.340).
10.700 - 11.700 GHz FIXED SATELLITE (SPACE-TO-EARTH)	10.700 - 10.950 GHz (0.250 GHz) Fixed satellite	Space station (EC) TX Earth station (TC) RX 12.750 - 13.250 GHz	Frequency plan for fixed-satellite service, RR APS30B. Not in use in Finland, but reserved.
	10.700 - 11.700 GHz (1 GHz) Fixed satellite	Space station (EC) TX Earth station (TC) RX	Non-standardised earth stations. 10.950 - 11.200 GHz and 11.450 - 11.700 GHz usage according ITU-R Res. 155.
	10.700 - 11.700 GHz (1 GHz) Fixed satellite	Space station (EC) TX Earth station (TC) RX	ERC Decision ERC/DEC/(00)08. ECC Decision ECC/DEC/(06)02 (LEST). ECC Decision ECC/DEC/(06)03 (HEST). ECC Decision ECC/DEC/(17)04(NGSO FSS ES). ECC Decision ECC/DEC/(05)11 (AES). ECC Decision ECC/DEC/(18)05 (NGSO ESIM). ECC Decision ECC/DEC/(18)04 (GSO ESIM). Standard EN 301 428. Standard EN 302 186. Standard EN 303 980. Standard EN 302 977. Standard EN 302 448.
	10.700 - 11.700 GHz (1 GHz) Fixed satellite	Space station (EC) TX Earth station (TC) RX	Satellite News Gathering (SNG). Standard EN 301 430.
	11.200 - 11.450 GHz (0.250 GHz) Fixed satellite	Space station (EC) TX Earth station (TC) RX 12.750 - 13.250 GHz	Frequency plan for fixed-satellite service, RR APS30B. Not in use in Finland, but reserved.
11.700 - 12.500 GHz BROADCASTING-SATELLITE	11.700 - 12.500 GHz (0.800 GHz) Broadcasting satellite	Space station (EV) TX Earth station (UV) RX 17.300 - 18.100 GHz	Frequency plan for broadcasting-satellite, RR AP30, WRC2000. ERC Decision ERC/DEC/(00)08.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
Fixed satellite (space-to-Earth)	11.700 - 12.500 GHz (0.800 GHz) Fixed satellite	Space station (EC) TX Earth station (TC) RX	ERC Decision ERC/DEC/(00)08. ECC Decision ECC/DEC/(06)02 (LEST). ECC Decision ECC/DEC/(06)03 (HEST). ECC Decision ECC/DEC/(17)04(NGSO FSS ES). ECC Decision ECC/DEC/(18)05 (NGSO ESIM). ECC Decision ECC/DEC/(18)04 (GSO ESIM). Standard EN 301 428. Standard EN 303 980. Standard EN 302 977. Standard EN 302 448.
	11.700 - 12.500 GHz (0.800 GHz) Fixed satellite	Space station (EC) TX Earth station (TC) RX	Non-GSO fixed-satellite. Non-standardised earth stations.
12.500 - 12.750 GHz FIXED SATELLITE (SPACE-TO-EARTH)	12.500 - 12.750 GHz (0.250 GHz) Fixed satellite	Space station (EC) TX Earth station (TC) RX	Satellite News Gathering (SNG). Standard EN 301 430.
	12.500 - 12.750 GHz (0.250 GHz) Fixed satellite	Space station (EC) TX Earth station (TC) RX	Non-standardised earth stations. 12.500 - 12.750 GHz usage according ITU-R Res. 155.
	12.500 - 12.750 GHz (0.250 GHz) Fixed satellite	Space station (EC) TX Earth station (TC) RX	ECC Decision ECC/DEC/(06)02 (LEST). ECC Decision ECC/DEC/(06)03 (HEST). ECC Decision ECC/DEC/(17)04(NGSO FSS ES). ECC Decision ECC/DEC/(18)05 (NGSO ESIM). ECC Decision ECC/DEC/(18)04 (GSO ESIM). ECC Decision ECC/DEC/(05)11 (AES). Standard EN 301 428.
12.750 - 13.250 GHz FIXED SATELLITE (EARTH-TO-SPACE)	12.750 - 13.250 GHz (0.500 GHz) Fixed satellite	Earth station (TC) TX Space station (EC) RX	Non-standardised earth stations.
	12.750 - 13.250 GHz (0.500 GHz) Fixed satellite	Earth station (TC) TX Space station (EC) RX	Satellite News Gathering (SNG). Standard EN 301 430.
	12.750 - 13.250 GHz (0.500 GHz) Fixed satellite	Earth station (TC) TX Space station (EC) RX 10.700 - 10.950 GHz 11.200 - 11.450 GHz	Frequency plan for fixed-satellite service, RR AP30B.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
FIXED	12.7545 - 12.9715 GHz (0.217 GHz) Fixed radiolinks	Fixed station (FX) TXRX 7 MHz / +266 MHz 13.0205 - 13.2375 GHz 13000/7M	CEPT Recommendation ERC/REC 12-02E. Digital fixed radiolinks, channels 1a - 19a. Standard EN 302 217. Radiation pattern envelope class 4. Minimum antenna gain 32 dBi. Minimum cross-polar discrimination 27 dB.
	12.758 - 12.968 GHz (0.210 GHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 14 MHz / +266 MHz 13.024 - 13.234 GHz 13000/14M	CEPT Recommendation ERC/REC 12-02E. Digital fixed radiolinks, channels 1a - 9a. Standard EN 302 217. Radiation pattern envelope class 4. Minimum antenna gain 32 dBi. Minimum cross-polar discrimination 27 dB.
	12.765 - 12.961 GHz (0.196 GHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 28 MHz / +266 MHz 13.031 - 13.227 GHz 13000/28M	CEPT Recommendation ERC/REC 12-02E. Channels 1a - 4a. Standard EN 302 217. Radiation pattern envelope class 4. Minimum antenna gain 32 dBi. Minimum cross-polar discrimination 27 dB.
	12.779 - 12.835 GHz (0.056 GHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 56 MHz / +266 MHz 13.045 - 13.101 GHz 13000/56M	CEPT Recommendation ERC/REC 12-02E. Digital fixed radiolinks, channel 1a - 3a. Standard EN 302 217. Radiation pattern envelope class 4. Minimum antenna gain 32 dBi. Minimum cross-polar discrimination 27 dB.
	12.989 - 13.003 GHz (0.014 GHz) Fixed radiolinks		
	13.0205 - 13.2375 GHz (0.217 GHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 7 MHz / -266 MHz 12.7545 - 12.9715 GHz 13000/7M	CEPT Recommendation ERC/REC 12-02E. Digital fixed radiolinks, channels 1b - 19b. Standard EN 302 217. Radiation pattern envelope class 4. Minimum antenna gain 32 dBi. Minimum cross-polar discrimination 27 dB.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	13.024 - 13.234 GHz (0.210 GHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 14 MHz / -266 MHz 12.758 - 12.968 GHz 13000/14M	CEPT Recommendation ERC/REC 12-02E. Digital fixed radiolinks, channels 1b - 9b. Standard EN 302 217. Radiation pattern envelope class 4. Minimum antenna gain 32 dBi. Minimum cross-polar discrimination 27 dB.
	13.031 - 13.227 GHz (0.196 GHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 28 MHz / -266 MHz 12.765 - 12.961 GHz 13000/28M	CEPT Recommendation ERC/REC 12-02E. Channels 1b - 4b. Standard EN 302 217. Radiation pattern envelope class 4. Minimum antenna gain 32 dBi. Minimum cross-polar discrimination 27 dB.
	13.045 - 13.101 GHz (0.056 GHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 56 MHz / -266 MHz 12.779 - 12.835 GHz 13000/56M	CEPT Recommendation ERC/REC 12-02E. Digital fixed radiolinks, channels 1b - 3b. Standard EN 302 217. Radiation pattern envelope class 4. Minimum antenna gain 32 dBi. Minimum cross-polar discrimination 27 dB.
13.250 - 13.400 GHz AERONAUTICAL RADIONAVIGATION	13.250 - 13.400 GHz (0.150 GHz) Aeronautical radionavigation		Limited to Doppler navigation aids (RR 5.497).
Earth Exploration-Satellite	13.250 - 13.400 GHz (0.150 GHz) Earth exploration satellite		
13.400 - 13.750 GHz RADIOLOCATION	13.400 - 13.750 GHz (0.350 GHz) (SRD) Equipment for detecting movement and for alert		Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Radiated power max. 25 mW EIRP. Standard EN 300 440. SRD Recommendation ERC/REC/70-03.
EARTH EXPLORATION-SATELLITE	13.400 - 13.750 GHz (0.350 GHz) Earth exploration satellite		

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
13.750 - 14.000 GHz RADIOLOCATION	13.750 - 14.000 GHz (lower and upper limits of sub-band) (0.250 GHz) (SRD) Equipment for detecting movement and for alert		Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Radiated power max. 25 mW EIRP. Standard EN 300 440. SRD Recommendation ERC/REC/70-03.
FIXED SATELLITE (EARTH-TO-SPACE)	13.750 - 14.000 GHz (0.250 GHz) Fixed satellite	Earth station (TC) TX Space station (EC) RX	Non-standardised earth stations. In the frequency area restrictions on EIRP and antenna sizes (RR 5.502 and RR 5.503).
	13.750 - 14.000 GHz (0.250 GHz) Fixed satellite	Earth station (TC) TX Space station (EC) RX	Satellite News Gathering (SNG). Standard EN 301 430. In the frequency area restrictions on EIRP and antenna sizes (RR 5.502 and RR 5.503).
14.000 - 14.500 GHz FIXED SATELLITE (EARTH-TO-SPACE)	14.000 - 14.250 GHz (0.250 GHz) Fixed satellite	Earth station (TC) TX Space station (EC) RX	Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. ECC Decision ECC/DEC/(06)02 (LEST). ECC Decision ECC/DEC/(06)03 (HEST). ECC Decision ECC/DEC/(18)04 (GSO ESIM). Standard EN 301 428. Standard EN 303 980. Standard EN 302 977. Standard EN 302 448.
Mobile-Satellite	14.000 - 14.500 GHz (0.500 GHz) Mobile satellite	Land mobile earth station (TU) TX Space station (EU) RX Ship earth station (TG) TX Space station (EG) RX	Terminals exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. ECC Decision ECC/DEC/(05)11 (AES). Standard EN 302 186.
FIXED SATELLITE (EARTH-TO-SPACE)	14.000 - 14.500 GHz (0.500 GHz) Fixed satellite	Earth station (TC) TX Space station (EC) RX	Terminals exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. ECC Decision ECC/DEC/(18)05 (NGSO ESIM). ECC Decision ECC/DEC/(17)04(NGSO FSS ES). Fixed installed terminals transmitter power max 45 dBW EIRP in the band 14.25-14.5 GHz. Standard EN 303 980.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	14.000 - 14.500 GHz (0.500 GHz) Fixed satellite	Earth station (TC) TX Space station (EC) RX	Satellite News Gathering (SNG). Standard EN 301 430.
	14.000 - 14.500 GHz (0.500 GHz) Fixed satellite	Earth station (TC) TX Space station (EC) RX	Non-standardised earth stations. 14.000 - 14.470 GHz usage according ITU-R Res. 155.
	14.250 - 14.5 GHz (0.250 GHz) Fixed satellite	Earth station (TC) TX Space station (EC) RX	Terminals exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. ECC Decision ECC/DEC/(03)04. Standard EN 303 978.
14.500 - 15.350 GHz FIXED	14.515 - 14.613 GHz (0.098 GHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 14 MHz / +728 MHz 15.243 - 15.341 GHz 15000/14M	Channel plan according to ITU-R F.636. Digital fixed radiolinks, channels 1a - 8a. Standard EN 302 217. Radiation pattern envelope class 3. Minimum antenna gain 32 dBi. Minimum cross-polar discrimination 27 dB.
	14.627 - 14.921 GHz (0.294 GHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 14 MHz / +308 MHz 14.935 - 15.229 GHz 15000B/14M	Channel plan according to ITU-R F.636. Digital fixed radiolinks, channels 1a - 22a. Standard EN 302 217. Radiation pattern envelope class 3. Minimum antenna gain 32 dBi. Minimum cross-polar discrimination 27 dB.
	14.935 - 15.229 GHz (0.294 GHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 14 MHz / -308 MHz 14.627 - 14.921 GHz 15000B/14M	Channel plan according to ITU-R F.636. Digital fixed radiolinks, channels 1b - 22b. Standard EN 302 217. Radiation pattern envelope class 3. Minimum antenna gain 32 dBi. Minimum cross-polar discrimination 27 dB.
	15.243 - 15.341 GHz (0.098 GHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 14 MHz / -728 MHz 14.515 - 14.613 GHz 15000/14M	Channel plan according to ITU-R F.636. Digital fixed radiolinks, channels 1b - 8b. Standard EN 302 217. Radiation pattern envelope class 3. Minimum antenna gain 32 dBi. Minimum cross-polar discrimination 27 dB.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
15.350 - 15.400 GHz RADIO ASTRONOMY	15.350 - 15.400 GHz (0.050 GHz) Radio astronomy		VLBI.
15.400 - 15.700 GHz RADIOLOCATION	15.400 - 15.700 GHz (0.300 GHz) Radiolocation		
AERONAUTICAL RADIONAVIGATION	15.430 - 15.630 GHz (0.200 GHz) Aeronautical radionavigation		
15.700 - 17.100 GHz RADIOLOCATION	15.700 - 17.100 GHz (1.400 GHz) Military use		
	15.700 - 17.100 GHz (1.400 GHz) Radars		
17.100 - 17.300 GHz RADIOLOCATION	17.100 - 17.300 GHz (0.200 GHz) (SRD) radio location (GBSAR)		Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Maximum radiated power 26 dBm EIRP. Appropriate access protocol. SRD Recommendation ERC/REC/70-03. Standard EN 300 440. European Commission Decision 2006/771/EC, supplemented by Implementing Decision (EU) 2022/180.
EARTH EXPLORATION-SATELLITE	17.100 - 17.300 GHz (0.200 GHz) Earth exploration satellite		
RADIOLOCATION	17.100 - 17.300 GHz (0.200 GHz) Wideband Data Transmission Systems (WAS/RLAN)		Not for new equipment.
17.300 - 19.300 GHz FIXED SATELLITE (SPACE-TO-EARTH)	17.300 - 17.700 GHz (0.400 GHz) Fixed satellite	Space station (EC) TX Earth station (TC) RX	ECC Decision ECC/DEC/(05)08 (HDFFS). ECC Decision ECC/DEC/(15)04. ECC Decision ECC/DEC/(13)01.
FIXED SATELLITE (EARTH-TO-SPACE)	17.300 - 18.100 GHz (0.800 GHz) Fixed satellite	Earth station (TC) TX Space station (EV) RX 11.700 - 12.500 GHz	Use limited to feeder links for broadcasting-satellite service (BSS) (RR 5.516).

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
FIXED	17.755 - 18.250 GHz (0.495 GHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 55 MHz / +1010 MHz 18.765 - 19.260 GHz 18700/55M	ERC Decision ERC/DEC/(00)07. CEPT Recommendation ERC/REC 12-03. Standard EN 302 217. Digital fixed radiolinks, channels 1a - 10a. Radiation pattern envelope class 3. Minimum antenna gain 32 dBi. Minimum cross-polar discrimination 27 dB.
FIXED SATELLITE (EARTH-TO-SPACE, SPACE-TO-EARTH)	17.800 - 18.600 GHz (0.800 GHz) Fixed satellite	Space station (EC) TX Earth station (TC) RX	Non-GSO RR 5.484A. ERC Decision ERC/DEC/(00)07.
FIXED	17.810 - 18.580 GHz (0.770 GHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 110 MHz / +1010 MHz 18.820 - 19.590 GHz 18700/110M	ERC Decision ERC/DEC/(00)07. CEPT Recommendation ERC/REC 12-03. Digital fixed radiolinks, channels 1a - 8a. Standard EN 302 217. Radiation pattern envelope class 3. Minimum antenna gain 32 dBi. Minimum cross-polar discrimination 27 dB.
	17.865 - 18.525 GHz (0.660 GHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 220 MHz / +1010 MHz 188.75 - 19.535 GHz 18700/220M	ERC Decision ERC/DEC/(00)07. CEPT Recommendation ERC/REC 12-03. Standard EN 302 217. Channels 1a - 7a. Radiation pattern envelope class 3. Minimum antenna gain 32 dBi. Minimum cross-polar discrimination 27 dB.
FIXED SATELLITE (SPACE-TO-EARTH)	18.100 - 18.800 GHz (0.700 GHz) Fixed satellite	Space station (EC) TX Earth station (TC) RX	ERC Decision ERC/DEC/(00)07. ECC Decision ECC/DEC/(15)04. ECC Decision ECC/DEC/(13)01. 18.1 - 18.4 GHz use limited to feeder links for broadcasting-satellite service (BSS) (RR 5.520).
FIXED	18.3325 - 18.4975 GHz (0.165 GHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 27.5 MHz / +1010 MHz 19.3425 - 19.5075 GHz 18700/27M5	ERC Decision ERC/DEC/(00)07. CEPT Recommendation ERC/REC 12-03. Standard EN 302 217. Digital fixed radiolinks, channelsA23a - 29a. Radiation pattern envelope class 3. Minimum antenna gain 32 dBi. Minimum cross-polar discrimination 27 dB.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	18.5275 - 18.5725 GHz (0.045 GHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 15 MHz / +1010 MHz 19.5375 - 19.5825 GHz 18700/15M	ERC Decision ERC/DEC/(00)07. Standard EN 302 217. Channel plan according to ITU-R F.595, modified. Digital fixed radiolinks, channels 1a - 3a. Radiation pattern envelope class 3. Minimum antenna gain 32 dBi. Minimum cross-polar discrimination 27 dB.
	18.5875 - 18.6475 GHz (0.060 GHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 7.5 MHz / +1010 MHz 19.5975 - 19.6575 GHz 18700/7M5	ERC Decision ERC/DEC/(00)07. Standard EN 302 217. Channel plan according to ITU-R F.595, modified. Digital fixed radiolinks, channels 5a - 13a. Radiation pattern envelope class 3. Minimum antenna gain 32 dBi. Minimum cross-polar discrimination 27 dB. Transmitter power max. 0.5 W in the band 18.6-18.8 GHz.
	18.765 - 19.260 GHz (0.495 GHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 55 MHz / -1010 MHz 17.755 - 18.250 GHz 18700/55M	ERC Decision ERC/DEC/(00)07. CEPT Recommendation ERC/REC 12-03. Standard EN 302 217. Digital fixed radiolinks, channels 1b - 10b. Radiation pattern envelope class 3. Minimum antenna gain 32 dBi. Minimum cross-polar discrimination 27 dB. Transmitter power max. 0.5 W in the band 18.6-18.8 GHz.
FIXED SATELLITE (SPACE-TO-EARTH)	18.800 - 19.300 GHz (0.500 GHz) Fixed satellite	Space station (EC) TX Earth station (TC) RX	ERC Decision ERC/DEC/(00)07. Non-GSO fixed-satellite service (RR 5.523A). ECC Decision ECC/DEC/(13)01. ECC Decision ECC/DEC/(15)04.
FIXED	18.820 - 19.260 GHz (0.440 GHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 110 MHz / -1010 MHz 17.810 - 18.250 GHz 18700/110M	ERC Decision ERC/DEC/(00)07. CEPT Recommendation ERC/REC 12-03. Digital fixed radiolinks, channel 1b - 5b. Standard EN 302 217. Radiation pattern envelope class 3. Minimum antenna gain 32 dBi. Minimum cross-polar discrimination 27 dB. Transmitter power max. 0.5 W in the band 18.6-18.8 GHz.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	18.875 - 19.205 GHz (0.330 GHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 220 MHz / -1010 MHz 17.865 - 18.195 GHz 18700/220M	ERC Decision ERC/DEC/(00)07. CEPT Recommendation ERC/REC 12-03. Standard EN 302 217. Channels 1b - 4b. Radiation pattern envelope class 3. Minimum antenna gain 32 dBi. Minimum cross-polar discrimination 27 dB. Transmitter power max. 0.5 W in the band 18.6-18.8 GHz.
19.300 - 19.700 GHz FIXED SATELLITE (EARTH-TO-SPACE, SPACE-TO-EARTH)	19.300 - 19.700 GHz (0.400 GHz) Fixed satellite	Earth station (TC) TX Space station (EC) RX Space station (EC) TX Earth station (TC) RX	ERC Decision ERC/DEC/(00)07. Also non-GSO MSS feeder links (RR 5.523D), also Earth-to-space (RR 5.523B). ECC Decision ECC/DEC/(13)01. ECC Decision ECC/DEC/(15)04.
FIXED	19.315 - 19.535 GHz (0.220 GHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 220 MHz / -1010 MHz 18.305 - 18.525 GHz 18700/220M	ERC Decision ERC/DEC/(00)07. CEPT Recommendation ERC/REC 12-03. Channels 5b - 7b. Standard EN 302 217. Radiation pattern envelope class 3. Minimum antenna gain 32 dBi. Minimum cross-polar discrimination 27 dB.
	19.3425 - 19.5075 GHz (0.165 GHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 27.5 MHz / -1010 MHz 18.3325 - 18.4975 GHz 18700/27M5	ERC Decision ERC/DEC/(00)07. CEPT Recommendation ERC/REC 12-03. Digital fixed radiolinks, channels 23b - 29b. Standard EN 302 217. Radiation pattern envelope class 3. Minimum antenna gain 32 dBi. Minimum cross-polar discrimination 27 dB.
	19.370 - 19.590 GHz (0.220 GHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 110 MHz / -1010 MHz 18.360 - 18.580 GHz 18700/110M	ERC Decision ERC/DEC/(00)07. CEPT Recommendation ERC/REC 12-03. Digital fixed radiolinks, channels 6b-8b. Standard EN 302 217. Radiation pattern envelope class 3. Minimum antenna gain 32 dBi. Minimum cross-polar discrimination 27 dB.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	19.5375 - 19.5825 GHz (0.045 GHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 15 MHz / -1010 MHz 18.5275 - 18.5725 GHz 18700/5M	ERC Decision ERC/DEC/(00)07. Channel plan according to ITU-R F.595, modified. Digital fixed radiolinks, channels 1b - 4b. Standard EN 302 217. Radiation pattern envelope class 3. Minimum antenna gain 32 dBi. Minimum cross-polar discrimination 27 dB.
	19.5975 - 19.6575 GHz (0.060 GHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 7.5 MHz / -1010 MHz 18.5875 - 18.6475 GHz 18700/7M5	ERC Decision ERC/DEC/(00)07. Channel plan according to ITU-R F.595, modified. Digital fixed radiolinks, channels 5b - 13b. Standard EN 302 217. Radiation pattern envelope class 3. Minimum antenna gain 32 dBi. Minimum cross-polar discrimination 27 dB.
19.700 - 20.100 GHz FIXED SATELLITE (SPACE-TO-EARTH)	19.700 - 20.100 GHz (0.400 GHz) Fixed satellite	Space station (EC) TX Earth station (TC) RX 29.500 - 30.000 GHz	Standard EN 301 459. ECC Decision ECC/DEC/(05)08 (HDFFS). ECC Decision ECC/DEC/(13)01. ECC Decision ECC/DEC/(15)04.
	19.700 - 20.100 GHz (0.400 GHz) Fixed satellite	Space station (EC) TX Earth station (TC) RX	Non-standardised earth stations. ECC Decision ECC/DEC/(05)08 (HDFFS). 19.700 - 20.100 GHz usage according ITU-R Res. 155.
20.100 - 20.200 GHz FIXED SATELLITE (SPACE-TO-EARTH)	20.100 - 20.200 GHz (0.100 GHz) Fixed satellite	Space station (EC) TX Earth station (TC) RX 29.500 - 30.000 GHz	Standard EN 301 459. ECC Decision ECC/DEC/(05)08 (HDFFS). ECC Decision ECC/DEC/(13)01. ECC Decision ECC/DEC/(15)04.
MOBILE-SATELLITE (SPACE-TO-EARTH)	20.100 - 20.200 GHz (0.100 GHz) Mobile satellite	Space station (EI) TX Mobile earth station (UA) RX	
FIXED SATELLITE (SPACE-TO-EARTH)	20.100 - 20.200 GHz (0.100 GHz) Fixed satellite	Space station (EC) TX Earth station (TC) RX	Non-standardised earth stations. ECC Decision ECC/DEC/(05)08 (HDFFS). 20.100 - 20.200 GHz usage according ITU-R Res. 155.
20.200 - 21.200 GHz MOBILE-SATELLITE (SPACE-TO-EARTH)	20.200 - 21.200 GHz (1 GHz) Mobile satellite	Space station (EI) TX Mobile earth station (UA) RX	
21.200 - 23.600 GHz FIXED	21.200 - 21.400 GHz (0.200 GHz) Fixed radiolinks		21.2 - 21.4 GHz ENG/OB radio links and monitoring cameras. ERC Recommendation ERC/REC 25-10.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
BROADCASTING-SATELLITE	21.400 - 22.000 GHz (0.600 GHz) Broadcasting satellite		
FIXED	21.650 - 23.600 GHz (1.950 GHz) (SRD) Automotive Short Range Radar (SRR)		21.650 - 26.650 GHz automotive Short Range Radar (SRR). Terminals exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Use in the sub-band 21.650 - 23.600 GHz is not according to the mode of traffic in the Radio Regulation and the last day of taking into use new radars was 30.6.2013. The spectral power density of UWB transmission < -41.3 dBm/MHz EIRP, except for frequencies below 22 GHz where the spectral power density is < -61.3 dBm/MHz EIRP. 24.05 - 24.25 GHz narrowband component, peak power 20 dBm EIRP. Duty cycle < 10% for peak emission above -10 dBm EIRP. Standard EN 302 288. ECC Decision ECC/DEC/(04)10. European Commission Decision 2005/50/EC.
	22.078 - 22.134 GHz (0.056 GHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 56 MHz / +1008 MHz 23.086 - 23.142 GHz 23000/56M	ERC Recommendation T/R 13-02. Digital fixed radiolinks, channels 1a - 2a. Standard EN 302 217. Radiation pattern envelope class 3. Minimum antenna gain 32 dBi. Minimum cross-polar discrimination 27 dB.
	22.078 - 22.526 GHz (0.448 GHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 112 MHz / +1008 MHz 23.086 - 23.534 GHz 23000/112M	ERC Recommendation T/R 13-02. Digital fixed radiolinks, channels 1a - 5a. Standard EN 302 217. Radiation pattern envelope class 3. Minimum antenna gain 32 dBi. Minimum cross-polar discrimination 27 dB.
	22.134 - 22.470 GHz (0.336 GHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 224 MHz / +1008 MHz 23.142 - 23.478 GHz 23000/224M	ERC Recommendation T/R 13-02. Channels 1a - 4a. Standard EN 302 217. Radiation pattern envelope class 3. Minimum antenna gain 32 dBi. Minimum cross-polar discrimination 27 dB.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	22.190 - 22.414 GHz (0.224 GHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 28 MHz / +1008 MHz 23.198 - 23.422 GHz 23000/28M	ERC Recommendation T/R 13-02. Digital fixed radiolinks, channels 1a - 9a. Standard EN 302 217. Radiation pattern envelope class 3. Minimum antenna gain 32 dBi. Minimum cross-polar discrimination 27 dB.
RADIO ASTRONOMY	22.210 - 22.500 GHz (0.290 GHz) Radio astronomy	Radio astronomy station (RA) RX	VLBI, satellite-VLBI, continuum measurements, solar radio emission, molecule lines. Water vapour emission line.
EARTH EXPLORATION-SATELLITE	22.210 - 22.500 GHz (0.290 GHz) Earth exploration satellite		
FIXED	22.435 - 22.505 GHz (0.070 GHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 14 MHz / +1008 MHz 23.443 - 23.513 GHz 23000/14M	ERC Recommendation T/R 13-02. Digital fixed radiolinks, channels 3a - 8a. Standard EN 302 217. Radiation pattern envelope class 3. Minimum antenna gain 32 dBi. Minimum cross-polar discrimination 27 dB.
	22.5155 - 22.5715 GHz (0.056 GHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 7 MHz / +1008 MHz 23.5235 - 23.5795 GHz 23000/7M	ERC Recommendation T/R 13-02. Digital fixed radiolinks, channels 1a - 9a. Standard EN 302 217. Radiation pattern envelope class 3. Minimum antenna gain 32 dBi. Minimum cross-polar discrimination 27 dB.
	22.600 - 23.000 GHz (0.400 GHz) Fixed radiolinks	Simplex Fixed station (FX) TXRX	ENG/OB radiolinks and monitoring cameras. ERC Recommendation ERC/REC 25-10.
	23.086 - 23.142 GHz (0.056 GHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 56 MHz / -1008 MHz 22.078 - 22.134 GHz 23000/56M	ERC Recommendation T/R 13-02. Digital fixed radiolinks, channels 1b - 2b. Standard EN 302 217. Radiation pattern envelope class 3. Minimum antenna gain 32 dBi. Minimum cross-polar discrimination 27 dB.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	23.086 - 23.534 GHz (0.448 GHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 112 MHz / -1008 MHz 22.078 - 22.526 GHz 23000/112M	ERC Recommendation T/R 13-02. Digital fixed radiolinks, channel 1b - 5b. Standard EN 302 217. Radiation pattern envelope class 3. Minimum antenna gain 32 dBi. Minimum cross-polar discrimination 27 dB.
	23.142 - 23.478 GHz (0.336 GHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 224 MHz / -1008 MHz 22.134 - 22.470 GHz 23000/224M	ERC Recommendation T/R 13-02. Channels 1b - 4b. Standard EN 302 217. Radiation pattern envelope class 3. Minimum antenna gain 32 dBi. Minimum cross-polar discrimination 27 dB.
	23.198 - 23.422 GHz (0.224 GHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 28 MHz / -1008 MHz 22.190 - 22.414 GHz 23000/28M	ERC Recommendation T/R 13-02. Digital fixed radiolinks, channels 1b - 9b. Standard EN 302 217. Radiation pattern envelope class 3. Minimum antenna gain 32 dBi. Minimum cross-polar discrimination 27 dB.
	23.443 - 23.513 GHz (0.070 GHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 14 MHz / -1008 MHz 22.435 - 22.505 GHz 23000/14M	ERC Recommendation T/R 13-02. Digital fixed radiolinks, channels 3b - 8b. Standard EN 302 217. Radiation pattern envelope class 3. Minimum antenna gain 32 dBi. Minimum cross-polar discrimination 27 dB.
	23.5235 - 23.5795 GHz (0.056 GHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 7 MHz / -1008 MHz 22.5155 - 22.5715 GHz 23000/7M	ERC Recommendation T/R 13-02. Digital fixed radiolinks, channels 1b - 9b. Standard EN 302 217. Radiation pattern envelope class 3. Minimum antenna gain 32 dBi. Minimum cross-polar discrimination 27 dB.
	23.5935 - 23.5970 GHz (0.0035 GHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 3.5 MHz / -1008 MHz 22.5855 - 22.589 GHz 23000/3M5	ERC Recommendation T/R 13-02. Digital fixed radiolinks, channels 5b - 6b. Standard EN 302 217. Radiation pattern envelope class 3. Minimum antenna gain 32 dBi. Minimum cross-polar discrimination 27 dB.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
23.600 - 24.000 GHz RADIO ASTRONOMY	23.600 - 24.000 GHz (0.400 GHz) (SRD) Automotive Short Range Radar (SRR)		21.650 - 26.650 GHz automotive Short Range Radar (SRR). Terminals exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Use in the sub-band 23.6 - 24.0 GHz is not according to the mode of traffic in the Radio Regulation and the last day of taking into use new radars was 30.6.2013. The spectral power density of UWB transmission < -41.3 dBm/MHz EIRP, except for frequencies below 22 GHz where the spectral power density is < -61.3 dBm/MHz EIRP. 24.05 - 24.25 GHz narrowband component, peak power 20 dBm EIRP. Duty cycle < 10% for peak emission above -10 dBm EIRP. Standard EN 302 288. ECC Decision ECC/DEC/(04)10. European Commission Decision 2005/50/EC.
EARTH EXPLORATION-SATELLITE	23.600 - 24.000 GHz (0.400 GHz) Earth exploration satellite		
	23.600 - 24.000 GHz (0.400 GHz) (SRD) Automotive Short Range Radar (SRR)		21.650 - 26.650 GHz automotive Short Range Radar (SRR). Terminals exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Use in the sub-band 23.6 - 24.0 GHz is not according to the mode of traffic in the Radio Regulation and the last day of taking into use new radars was 30.6.2013. The spectral power density of UWB transmission < -41.3 dBm/MHz EIRP, except for frequencies below 22 GHz where the spectral power density is < -61.3 dBm/MHz EIRP. 24.05 - 24.25 GHz narrowband component, peak power 20 dBm EIRP. Duty cycle < 10% for peak emission above -10 dBm EIRP. Standard EN 302 288. ECC Decision ECC/DEC/(04)10. European Commission Decision 2005/50/EC.
RADIO ASTRONOMY	23.600 - 24.000 GHz (0.400 GHz) Radio astronomy		All emissions prohibited (RR 5.340). Water vapour emission line.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
24.000 - 24.050 GHz Radiolocation	24.000 - 24.050 GHz (lower and upper limits of sub-band) (0.050 GHz) (SRD) Equipment for detecting movement and for alert		Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Radiated power max. 100 mW EIRP. Standard EN 300 440. SRD Recommendation ERC/REC/70-03. 24.000 - 24.250 GHz ISM (RR 5.150).
AMATEUR	24.000 - 24.050 GHz (0.050 GHz) Amateur		See Finnish Transport and Communications Agency Regulation 6. User certificate required. See Finnish Transport and Communications Agency Regulation 18. Maximum transmitter power in the elementary class 30 W. Peak envelope power 120 W, when the carrier of the transmission is attenuated by at least 6 dB. Transmitter power in the general class max. 150 W. Peak envelope power 600 W, when the carrier of the transmission is attenuated by at least 6 dB.
AMATEUR-SATELLITE	24.000 - 24.050 GHz (0.050 GHz) Amateur-Satellite		See Finnish Transport and Communications Agency Regulation 6. User certificate required. See Finnish Transport and Communications Agency Regulation 18. Maximum transmitter power in the elementary class 30 W. Peak envelope power 120 W, when the carrier of the transmission is attenuated by at least 6 dB. Transmitter power in the general class max. 150 W. Peak envelope power 600 W, when the carrier of the transmission is attenuated by at least 6 dB.
Radiolocation	24.000 - 24.050 GHz (lower and upper limits of sub-band) (0.050 GHz) (SRD) Non-specific Short Range Devices		Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Radiated power max. 100 mW EIRP. Standard EN 300 440. SRD Recommendation ERC/REC/70-03. 24.000 - 24.250 GHz ISM (RR 5.150).

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	24.000 - 24.050 GHz (0.050 GHz) (SRD) Automotive Short Range Radar (SRR)		21.650 - 26.650 GHz automotive Short Range Radar (SRR). Terminals exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. The last day of taking into use radars in the frequency band 21.65 - 24.25 GHz was 30.6.2013. The spectral power density of UWB transmission < -41.3 dBm/MHz EIRP, except for frequencies below 22 GHz where the spectral power density is < -61.3 dBm/MHz EIRP. 24.05 - 24.25 GHz narrowband component, peak power 20 dBm EIRP. Duty cycle < 10% for peak emission above -10 dBm EIRP. Standard EN 302 288. ECC Decision ECC/DEC/(04)10. European Commission Decision 2005/50/EC. European Commission Decision 2011/485/EU. European Commission Decision (EU) 2017/2077.
24.050 - 24.250 GHz RADIOLOCATION	24.050 - 24.250 GHz (lower and upper limits of sub-band) (0.200 GHz) (SRD) Equipment for detecting movement and for alert		Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Radiated power max. 100 mW EIRP. Standard EN 300 440. SRD Recommendation ERC/REC/70-03. 24.000 - 24.250 GHz ISM (RR 5.150).
Amateur	24.050 - 24.250 GHz (0.200 GHz) Amateur		See Finnish Transport and Communications Agency Regulation 6. User certificate required. See Finnish Transport and Communications Agency Regulation 18. Maximum transmitter power in the elementary class 30 W. Peak envelope power 120 W, when the carrier of the transmission is attenuated by at least 6 dB. Transmitter power in the general class max. 150 W. Peak envelope power 600 W, when the carrier of the transmission is attenuated by at least 6 dB.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
RADIOLOCATION	24.050 - 24.250 GHz (lower and upper limits of sub-band) (0.200 GHz) (SRD) Non-specific Short Range Devices		Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Radiated power max. 100 mW EIRP. Standard EN 300 440. SRD Recommendation ERC/REC/70-03. 24.150 - 24.250 GHz European Commission Decision 2006/771/EC, the valid technical Annex is Decision (EU) 2019/1345.
	24.050 - 24.250 GHz (0.200 GHz) (SRD) Automotive Short Range Radar (SRR)		21.650 - 26.650 GHz automotive Short Range Radar (SRR). Terminals exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. The last day of taking into use radars in the frequency band 21.65 - 24.25 GHz was 30.6.2013. The spectral power density of UWB transmission < -41.3 dBm/MHz EIRP, except for frequencies below 22 GHz where the spectral power density is < -61.3 dBm/MHz EIRP. 24.05 - 24.25 GHz narrowband component, peak power 20 dBm EIRP. Duty cycle < 10% for peak emission above -10 dBm EIRP. Standard EN 302 288. ECC Decision ECC/DEC/(04)10. European Commission Decision 2005/50/EC. European Commission Decision 2011/485/EU. European Commission Decision (EU) 2017/2077.
	24.050 - 24.250 GHz (0.200 GHz) (SRD) Transport and Traffic telematics (TTT)		Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Effective radiated power max. 100 mW EIRP. Standard EN 302 858. European Commission Decision 2006/771/EC, supplemented by Implementing Decision (EU) 2022/180.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
24.250 - 27.000 GHz MOBILE AND FIXED	24.250 - 25.100 GHz (lower and upper limits of sub-band) (0.850 GHz) Local terrestrial systems capable of providing electronic communications services	Base station (FB) TXRX Mobile (ML) TXRX Fixed station (FX) TXRX Slave station (FXA) TXRX	Terminals exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. ECC Decision ECC/DEC/(18)06. CC Decision ECC/DEC/(22)01. European Commission Implementing Decision (EU) 2019/784. European Commission Implementing Decision (EU) 2020/590. Decrees of the Government 1246/2014 and 1244/2014.
FIXED	24.250 - 27.000 GHz (2.750 GHz) (SRD) Automotive Short Range Radar (SRR)		21.650 - 26.650 GHz automotive Short Range Radar (SRR). Terminals exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Use in the sub-band 24.250 - 26.650 GHz is not according to the mode of traffic in the Radio Regulation. The last day of taking into use radars in the frequency band 21.65 - 24.25 GHz was 30.6.2013. Radars in the frequency band 24.25 - 26.65 GHz to be taken into use on 1.1.2018 at the latest. Introduction of radars in the 24.25 - 26.65 GHz band in a vehicle for which type approval was granted before 1 January 2018 is not allowed after 1 January 2022. The spectral power density of UWB transmission < -41.3 dBm/MHz EIRP, except for frequencies below 22 GHz where the spectral power density is < -61.3 dBm/MHz EIRP. 24.05 - 24.25 GHz narrowband component, peak power 20 dBm EIRP. Duty cycle < 10% for peak emission above -10 dBm EIRP. Standard EN 302 288. ECC Decision ECC/DEC/(04)10. European Commission Decision 2005/50/EC. European Commission Decision 2011/485/EU. European Commission Decision (EU) 2017/2077.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
MOBILE AND FIXED	25.100 - 27.000 GHz (lower and upper limits of sub-band) (1.900 GHz) Terrestrial systems capable of providing electronic communications services	Base station (FB) TXRX Mobile (ML) TXRX Fixed station (FX) TXRX Slave station (FXA) TXRX	Terminals exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. ECC Decision ECC/DEC/(18)06. CC Decision ECC/DEC/(22)01. European Commission Implementing Decision (EU) 2019/784. European Commission Implementing Decision (EU) 2020/590. Decrees of the Government 1246/2014 and 1244/2014.
EARTH EXPLORATION-SATELLITE (SPACE-TO-EARTH)	25.500 - 27.000 GHz (1.500 GHz) Earth exploration satellite	Space station (EW) TX Earth station (TW) RX	The earth stations shall not claim protection from stations in the fixed and mobile services (RR 5.536A ja RR 5.536B).
27.000 - 27.500 GHz MOBILE AND FIXED	27.000 - 27.500 GHz (lower and upper limits of sub-band) (0.500 GHz) Terrestrial systems capable of providing electronic communications services	Base station (FB) TXRX Mobile (ML) TXRX Fixed station (FX) TXRX Slave station (FXA) TXRX	Terminals exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. ECC Decision ECC/DEC/(18)06. CC Decision ECC/DEC/(22)01. European Commission Implementing Decision (EU) 2019/784. European Commission Implementing Decision (EU) 2020/590. Decrees of the Government 1246/2014 and 1244/2014.
27.500 - 29.500 GHz FIXED SATELLITE (EARTH-TO-SPACE)	27.5000 - 27.8285 GHz (0.3285 GHz) Fixed satellite	Earth station (TC) TX Space station (EC) RX	Standard EN 301 360. ECC Decision ECC/DEC/(05)01.
	27.500 - 29.500 GHz (2 GHz) Fixed satellite	Earth station (TC) TX Space station (EC) RX	Non-standardised earth stations. ECC Decision ECC/DEC/(13)01. Terminals exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Standard EN 303 978.
FIXED	27.9475 - 27.9895 GHz (0.042 GHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 14 MHz / +1008 MHz 28.9555 - 28.9975 GHz 28000/14M	ECC Decision ECC/DEC/(05)01. ERC Recommendation T/R 13-02. Standard EN 302 217. Digital fixed radiolinks, channel 1a - 3a. Radiation pattern envelope class 3. Minimum antenna gain 32 dBi. Minimum cross-polar discrimination 27 dB.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	28.0105 - 28.1505 GHz (0.140 GHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 28 MHz / +1008 MHz 29.0185 - 29.1585 GHz 28000/28M	ECC Decision ECC/DEC/(05)01. ERC Recommendation T/R 13-02. Standard EN 302 217. Digital fixed radiolinks, channel 1a - 6a. Radiation pattern envelope class 3. Minimum antenna gain 32 dBi. Minimum cross-polar discrimination 27 dB.
	28.1925 - 28.4165 GHz (0.224 GHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 56 MHz / +1008 MHz 29.2005 - 29.4245 GHz 28000/56M	ECC Decision ECC/DEC/(05)01. ERC Recommendation T/R 13-02. Standard EN 302 217. Digital fixed radiolinks, channel 1a - 5a. Radiation pattern envelope class 3. Minimum antenna gain 32 dBi. Minimum cross-polar discrimination 27 dB.
FIXED SATELLITE (EARTH-TO-SPACE)	28.4445 - 28.8365 GHz (0.392 GHz) Fixed satellite	Earth station (TC) TX Space station (EC) RX	Standard EN 301 360. ECC Decision ECC/DEC/(05)01.
	28.8365 - 28.9485 GHz (0.112 GHz) Fixed satellite	Earth station (TC) TX Space station (EC) RX	Standard EN 301 360. ECC Decision ECC/DEC/(05)01.
FIXED	28.9555 - 28.9975 GHz (0.042 GHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 14 MHz / -1008 MHz 27.9475 - 27.9895 GHz 28000/14M	ECC Decision ECC/DEC/(05)01. ERC Recommendation T/R 13-02. Standard EN 302 217. Digital fixed radiolinks, channel 1b - 4b. Radiation pattern envelope class 3. Minimum antenna gain 32 dBi. Minimum cross-polar discrimination 27 dB.
	29.0185 - 29.1585 GHz (0.140 GHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 28 MHz / -1008 MHz 28.0105 - 28.1505 GHz 28000/28M	ECC Decision ECC/DEC/(05)01. ERC Recommendation T/R 13-02. Standard EN 302 217. Digital fixed radiolinks, channel 1b - 6b. Radiation pattern envelope class 3. Minimum antenna gain 32 dBi. Minimum cross-polar discrimination 27 dB.
FIXED SATELLITE (EARTH-TO-SPACE)	29.100 - 29.500 GHz (0.400 GHz) Mobile-satellite feeder links	Earth station (TC) TX Space station (EC) RX	ECC Decision ECC/DEC/(05)01.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
FIXED	29.2005 - 29.4245 GHz (0.224 GHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 56 MHz / -1008 MHz 28.1925 - 28.4165 GHz 28000/56M	ECC Decision ECC/DEC/(05)01. ERC Recommendation T/R 13-02. Standard EN 302 217. Digital fixed radiolinks, channel 1b - 5b. Radiation pattern envelope class 3. Minimum antenna gain 32 dBi. Minimum cross-polar discrimination 27 dB.
FIXED SATELLITE (EARTH-TO-SPACE)	29.4525 - 29.5000 GHz (0.0475 GHz) Fixed satellite	Earth station (TC) TX Space station (EC) RX	Standard EN 301 360. ECC Decision ECC/DEC/(05)01.
29.500 - 31.000 GHz FIXED SATELLITE (EARTH-TO-SPACE)	29.500 - 30.000 GHz (0.500 GHz) Fixed satellite	Earth station (TC) TX Space station (EC) RX 10.700 - 12.750 GHz 19.700 - 20.200 GHz	Terminals exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. ECC Decision ECC/DEC/(06)02 (LEST). ECC Decision ECC/DEC/(06)03 (HEST). Standard EN 301 459.
FIXED SATELLITE (EARTH-TO-SPACE)	29.500 - 30.000 GHz (0.500 GHz) Fixed satellite	Mobile earth station (UA) TX Space station (EI) RX	Terminals exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. ECC Decision ECC/DEC/(13)01. Standard EN 303 978. ECC Decision ECC/DEC/(15)04.
FIXED SATELLITE (EARTH-TO-SPACE)	29.500 - 30.000 GHz (0.500 GHz) Fixed satellite	Earth station (TC) TX Space station (EC) RX	Non-standardised earth stations. ECC Decision ECC/DEC/(05)08 (HDFFS). 29.500 - 30.000 GHz usage according ITU-R Res. 155.
	29.500 - 31.000 GHz (1.500 GHz) Fixed satellite	Earth station (TC) TX Space station (EC) RX	Non-standardised earth stations. Non-GSO fixed-satellite service (RR 5.484A).
31.000 - 31.300 GHz FIXED	31.000 - 31.300 GHz (0.300 GHz) Fixed radiolinks		Temporary ENG/OB radio links. Sub-band under review. ERC Recommendation ERC/REC/(02)02.
MOBILE	31.000 - 31.300 GHz (0.300 GHz) Mobile radio		
31.300 - 31.500 GHz RADIO ASTRONOMY	31.300 - 31.500 GHz (0.200 GHz) Radio astronomy		All emissions prohibited (RR 5.340). ECC Decision ECC/DEC/(10)02

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
EARTH EXPLORATION-SATELLITE (Passive)	31.300 - 31.500 GHz (0.200 GHz) Earth exploration satellite		All emissions prohibited (RR 5.340). ECC Decision ECC/DEC/(10)02
31.500 - 31.800 GHz EARTH EXPLORATION-SATELLITE	31.500 - 31.800 GHz (0.300 GHz) Earth exploration satellite		
RADIO ASTRONOMY	31.500 - 31.800 GHz (0.300 GHz) Radio astronomy		
SPACE RESEARCH	31.500 - 31.800 GHz (0.300 GHz) Space research		
31.800 - 33.400 GHz RADIONAVIGATION	31.800 - 33.400 GHz (1.600 GHz) Radionavigation		
FIXED	31.899 - 32.515 GHz (0.616 GHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 56 MHz / +812 MHz 32.711 - 33.327 GHz 32000/56M	ERC Recommendation ERC/REC/(01)02. Standard EN 302 217. Digital fixed radiolinks, channel 1a - 12a. Radiation pattern envelope class 3. Minimum antenna gain 32 dBi. Minimum cross-polar discrimination 27 dB.
	31.927 - 32.487 GHz (0.560 GHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 112 MHz / +812 MHz 32.739 - 33.299 GHz 32000/112M	ERC Recommendation ERC/REC/(01)02. Standard EN 302 217. Digital fixed radiolinks, channel 1a - 6a. Radiation pattern envelope class 3. Minimum antenna gain 32 dBi. Minimum cross-polar discrimination 27 dB.
	32.711 - 33.327 GHz (0.616 GHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 56 MHz / -812 MHz 31.899 - 32.515 GHz 32000/56M	ERC Recommendation ERC/REC/(01)02. Standard EN 302 217. Digital fixed radiolinks, channel 1b - 12b. Radiation pattern envelope class 3. Minimum antenna gain 32 dBi. Minimum cross-polar discrimination 27 dB.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	32.739 - 33.299 GHz (0.560 GHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 112 MHz / -812 MHz 31.927 - 32.487 GHz 32000/112M	ERC Recommendation ERC/REC/(01)02. Standard EN 302 217. Digital fixed radiolinks, channel 1b - 6b. Radiation pattern envelope class 3. Minimum antenna gain 32 dBi. Minimum cross-polar discrimination 27 dB.
33.400 - 35.500 GHz RADIOLOCATION	33.400 - 35.500 GHz (2.100 GHz) Radars		Short range radars. Standard EN 300 440.
35.500 - 36.000 GHz RADIOLOCATION	35.500 - 36.000 GHz (0.500 GHz) Radars		Short range radars. Standard EN 300 440.
EARTH EXPLORATION-SATELLITE	35.500 - 36.000 GHz (0.500 GHz) Radars		
36 - 37 GHz RADIO ASTRONOMY	36 - 37 GHz (1 GHz) Radio astronomy	Radio astronomy station (RA) RX	Continuum measurements, solar radio emission.
37.000 - 39.500 GHz FIXED	37.05975 - 37.09825 GHz (0.0385 GHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 3.5 MHz / +1260 MHz 38.31975 - 38.35825 GHz 38000/3M5	CEPT Recommendation T/R 12-01. Digital fixed radiolinks, channels 1a - 12a. Standard EN 302 217. Radiation pattern envelope class 4. Minimum antenna gain 32 dBi. Minimum cross-polar discrimination 27 dB.
	37.1035 - 37.2225 GHz (0.119 GHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 7 MHz / +1260 MHz 38.3635 - 38.4825 GHz 38000/7M	CEPT Recommendation T/R 12-01. Digital fixed radiolinks, channels 7a - 24a. Standard EN 302 217. Radiation pattern envelope class 4. Minimum antenna gain 32 dBi. Minimum cross-polar discrimination 27 dB.
	37.233 - 37.331 GHz (0.098 GHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 14 MHz / +1260 MHz 38.493 - 38.591 GHz 38000/14M	CEPT Recommendation T/R 12-01. Digital fixed radiolinks, channels 13a - 20a. Standard EN 302 217. Radiation pattern envelope class 4. Minimum antenna gain 32 dBi. Minimum cross-polar discrimination 27 dB.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	37.3415 - 38.1745 GHz (0.833 GHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 7 MHz / +1260 MHz 38.6015 - 39.4345 GHz 38000/7M	ERC Decision ERC/DEC/(00)02. CEPT Recommendation T/R 12-01. Standard EN 302 217. Digital fixed radiolinks, channels 41a - 160a. Radiation pattern envelope class 4. Minimum antenna gain 32 dBi. Minimum cross-polar discrimination 27 dB.
	37.352 - 37.604 GHz (0.252 GHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 28 MHz / +1260 MHz 38.612 - 38.864 GHz 38000/28M	ERC Decision ERC/DEC/(00)02. CEPT Recommendation T/R 12-01. Standard EN 302 217. Digital fixed radiolinks, channels 11a - 20a. Radiation pattern envelope class 4. Minimum antenna gain 32 dBi. Minimum cross-polar discrimination 27 dB.
FIXED SATELLITE (SPACE-TO-EARTH)	37.500 - 39.500 GHz (2 GHz) Fixed satellite	Space station (EC) TX Earth station (TC) RX	ERC Decision ERC/DEC/(00)02.
FIXED	37.646 - 38.150 GHz (0.504 GHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 56 MHz / +1260 MHz 38.906 - 39.410 GHz 38000/56M	ERC Decision ERC/DEC/(00)02. CEPT Recommendation T/R 12-01. Standard EN 302 217. Digital fixed radiolinks, channels 11a - 20a. Radiation pattern envelope class 4. Minimum antenna gain 32 dBi. Minimum cross-polar discrimination 27 dB.
	38.31975 - 38.35825 GHz (0.0385 GHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 3.5 MHz / -1260 MHz 37.05975 - 37.09825 GHz 38000/3M5	ERC Decision ERC/DEC/(00)02. CEPT Recommendation T/R 12-01. Standard EN 302 217. Digital fixed radiolinks, channels 1b - 12b. Radiation pattern envelope class 4. Minimum antenna gain 32 dBi. Minimum cross-polar discrimination 27 dB.
	38.3635 - 38.4825 GHz (0.119 GHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 7 MHz / -1260 MHz 37.1035 - 37.2225 GHz 38000/7M	ERC Decision ERC/DEC/(00)02. CEPT Recommendation T/R 12-01. Standard EN 302 217. Digital fixed radiolinks, channels 7b - 24b. Radiation pattern envelope class 4. Minimum antenna gain 32 dBi. Minimum cross-polar discrimination 27 dB.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	38.493 - 38.591 GHz (0.098 GHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 14 MHz / -1260 MHz 37.233 - 37.331 GHz 38000/14M	ERC Decision ERC/DEC/(00)02. CEPT Recommendation T/R 12-01. Standard EN 302 217. Digital fixed radiolinks, channels 13b - 20b. Radiation pattern envelope class 4. Minimum antenna gain 32 dBi. Minimum cross-polar discrimination 27 dB.
	38.6015 - 39.4345 GHz (0.833 GHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 7 MHz / -1260 MHz 37.3415 - 38.1745 GHz 38000/7M	ERC Decision ERC/DEC/(00)02. CEPT Recommendation T/R 12-01. Standard EN 302 217. Digital fixed radiolinks, channels 41b - 160b. Radiation pattern envelope class 4. Minimum antenna gain 32 dBi. Minimum cross-polar discrimination 27 dB.
	38.612 - 38.864 GHz (0.252 GHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 28 MHz / -1260 MHz 37.352 - 37.604 GHz 38000/28M	ERC Decision ERC/DEC/(00)02. CEPT Recommendation T/R 12-01. Standard EN 302 217. Digital fixed radiolinks, channels 11b - 20b. Radiation pattern envelope class 4. Minimum antenna gain 32 dBi. Minimum cross-polar discrimination 27 dB.
	38.906 - 39.410 GHz (0.504 GHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 56 MHz / -1260 MHz 37.646 - 38.150 GHz 38000/56M	ERC Decision ERC/DEC/(00)02. CEPT Recommendation T/R 12-01. Standard EN 302 217. Digital fixed radiolinks, channels 11b - 20b. Radiation pattern envelope class 4. Minimum antenna gain 32 dBi. Minimum cross-polar discrimination 27 dB.
39.500 - 40.500 GHz MOBILE-SATELLITE (SPACE-TO-EARTH)	39.500 - 40.500 GHz (1 GHz) Mobile satellite	Space station (EI) TX Mobile earth station (UA) RX	ERC Decision ERC/DEC/(00)02.
MOBILE	39.500 - 40.500 GHz (1 GHz) Mobile radio		
FIXED SATELLITE (SPACE-TO-EARTH)	39.500 - 40.500 GHz (1 GHz) Fixed satellite	Space station (EC) TX Earth station (TC) RX	ERC Decision ERC/DEC/(00)02.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
40.500 - 42.500 GHz FIXED	40.500 - 42.500 GHz (2 GHz) Fixed radiolinks		ERC Recommendation ERC/REC/(01)04. Standard EN 302 217.
LAND MOBILE	40.5 - 42.5 GHz (2 GHz) Land mobile		Sub-band under review.
BROADCASTING	40.500 - 42.500 GHz (2 GHz) Broadcasting		
BROADCASTING-SATELLITE	40.500 - 42.500 GHz (2 GHz) Broadcasting satellite	Space station (EV) TX Earth station (UV) RX	
FIXED SATELLITE (SPACE-TO-EARTH)	40.500 - 42.500 GHz (2 GHz) Fixed satellite	Space station (EC) TX Earth station (TC) RX	ECC Decision ECC/DEC/(02)04.
FIXED	40.606 - 41.838 GHz (1.232 GHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 112 MHz / +1500 MHz 42.106 - 43.338 GHz 42000/112M	Digital fixed radiolinks, channels 1a - 12a. ERC Recommendation ERC/REC/(01)04. Standard EN 302 217. Radiation pattern envelope class 4. Minimum antenna gain 32 dBi. Minimum cross-polar discrimination 27 dB.
	40.662 - 41.782 GHz (1.120 GHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 224 MHz / +1500 MHz 42.162 - 43.282 GHz 42000/224M	Digital fixed radiolinks, channel 1a - 6a. ERC Recommendation ERC/REC/(01)04. Standard EN 302 217. Radiation pattern envelope class 4. Minimum antenna gain 32 dBi. Minimum cross-polar discrimination 27 dB.
	42.106 - 43.338 GHz (1.232 GHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 112 MHz / -1500 MHz 40.606 - 41.838 GHz 42000/112M	Digital fixed radiolinks, channel 1b - 12b. ERC Recommendation ERC/REC/(01)04. Standard EN 302 217. Radiation pattern envelope class 4. Minimum antenna gain 32 dBi. Minimum cross-polar discrimination 27 dB.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	42.162 - 43.282 GHz (1.120 GHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 224 MHz / -1500 MHz 40.662 - 41.782 GHz 42000/224M	Digital fixed radiolinks, channel 1b - 6b. ERC Recommendation ERC/REC/(01)04. Standard EN 302 217. Radiation pattern envelope class 4. Minimum antenna gain 32 dBi. Minimum cross-polar discrimination 27 dB.
42.500 - 43.500 GHz FIXED	42.500 - 43.500 GHz (1 GHz) Fixed radiolinks		ERC Recommendation ERC/REC/(01)04. Standard EN 302 217.
RADIO ASTRONOMY	42.500 - 43.500 GHz (1 GHz) Radio astronomy	Radio astronomy station (RA) RX	VLBI, continuum measurements, solar research.
FIXED SATELLITE (EARTH-TO-SPACE)	42.500 - 43.500 GHz (1 GHz) Fixed satellite	Space station (EC) RX Earth station (TC) TX	
MOBILE (except aeronautical mobile)	42.5 - 43.5 GHz (1 GHz) Mobile radio		Sub-band under review.
43.500 - 47.000 GHz RADIONAVIGATION-SATELLITE	43.500 - 47.000 GHz (3.500 GHz) Radionavigation satellite		
RADIONAVIGATION	43.500 - 47.000 GHz (3.500 GHz) Radionavigation		
MOBILE-SATELLITE	43.500 - 47.000 GHz (3.500 GHz) Mobile satellite		
MOBILE	43.500 - 47.000 GHz (3.500 GHz) Mobile radio		

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
47.000 - 47.200 GHz AMATEUR	47.000 - 47.200 GHz (0.200 GHz) Amateur		See Finnish Transport and Communications Agency Regulation 6. User certificate required. See Finnish Transport and Communications Agency Regulation 18. Maximum transmitter power in the elementary class 30 W. Peak envelope power 120 W, when the carrier of the transmission is attenuated by at least 6 dB. Transmitter power in the general class max. 150 W. Peak envelope power 600 W, when the carrier of the transmission is attenuated by at least 6 dB.
AMATEUR-SATELLITE	47.000 - 47.200 GHz (0.200 GHz) Amateur-Satellite		See Finnish Transport and Communications Agency Regulation 6. User certificate required. See Finnish Transport and Communications Agency Regulation 18. Maximum transmitter power in the elementary class 30 W. Peak envelope power 120 W, when the carrier of the transmission is attenuated by at least 6 dB. Transmitter power in the general class max. 150 W. Peak envelope power 600 W, when the carrier of the transmission is attenuated by at least 6 dB.
47.200 - 50.200 GHz FIXED	47.200 - 47.500 GHz (0.300 GHz) High altitude platform station (HAPS)		(RR 5.552A).
	47.200 - 50.200 GHz (3 GHz) Fixed radiolinks		ERC Recommendation ERC/REC/12-11.
MOBILE	47.200 - 50.200 GHz (3 GHz) Mobile radio		
FIXED SATELLITE (EARTH-TO-SPACE)	47.200 - 50.200 GHz (3 GHz) Fixed satellite	Earth station (TC) TX Space station (EC) RX	47.2 - 49.2 GHz broadcasting-satellite service (BSS) feeder links (RR 5.552).
FIXED SATELLITE (SPACE-TO-EARTH)	47.500 - 47.900 GHz (0.400 GHz) Fixed satellite	Space station (EC) TX Earth station (TC) RX	ECC Decision ECC/DEC/(05)08 (HDFFS).

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
FIXED	47.900 - 48.200 GHz (0.300 GHz) High altitude platform station (HAPS)		(RR 5.552A).
FIXED SATELLITE (SPACE-TO-EARTH)	48.200 - 48.540 GHz (0.340 GHz) Fixed satellite	Space station (EC) TX Earth station (TC) RX	ECC Decision ECC/DEC/(05)08 (HDFFS).
RADIO ASTRONOMY	48.940 - 49.040 GHz (0.100 GHz) Radio astronomy		
FIXED SATELLITE (SPACE-TO-EARTH)	49.440 - 50.200 GHz (0.760 GHz) Fixed satellite	Space station (EC) TX Earth station (TC) RX	ECC Decision ECC/DEC/(05)08 (HDFFS).
50.200 - 50.400 GHz SPACE RESEARCH	50.200 - 50.400 GHz (0.200 GHz) Space research		
50.400 - 51.400 GHz FIXED	50.400 - 51.400 GHz (1 GHz) Fixed radiolinks		
FIXED SATELLITE (EARTH-TO-SPACE)	50.400 - 51.400 GHz (1 GHz) Fixed satellite	Earth station (TC) TX Space station (EC) RX	
51.400 - 52.600 GHz FIXED	51.400 - 52.600 GHz (1.200 GHz) Fixed radiolinks		Digital fixed radiolinks. Channel plan according to ERC Recommendation ERC/REC/12-11 will be taken into use in the near future. Standard EN 302 217.
52.600 - 55.780 GHz SPACE RESEARCH	52.600 - 55.780 GHz (3.180 GHz) Space research		
55.780 - 57.000 GHz FIXED	55.780 - 57.000 GHz (1.220 GHz) Fixed radiolinks		Digital fixed radiolinks. Channel plan according to ERC Recommendation ERC/REC/12-12 will be taken into use in the near future. Maximum transmitter power 4 dBm / MHz in the band 55.780 - 56.260 GHz. Standard EN 302 217.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
57.000 - 58.200 GHz FIXED	57.000 - 58.200 GHz (1.200 GHz) (SRD) Non-specific Short Range Devices		Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Radiated power max. 100 mW EIRP. Transmitter power max. 10 dBm. SRD Recommendation ERC/REC/70-03. Standard EN 305 550. European Commission Decision 2006/771/EC, supplemented by Implementing Decision (EU) 2022/180.
MOBILE	57.000 - 58.200 GHz (1.200 GHz) Mobile radio		57 - 71 GHz, Wide-band data transmission systems (WAS/RLAN). Licence-exempt equipment, see Traficom's Regulation 15 and Radio Frequency Regulation 4, annex, Inductive equipment, NMR-equipment, ultra-wide-band equipment and wide-band data transmission equipment (WAS/RLAN) 57 - 71 GHz. European Commission Decision 2006/771/EC, supplemented by Implementing Decision (EU) 2022/180.
FIXED	57.200 - 58.200 GHz (1 GHz) Fixed radiolinks	Simplex Fixed station (FX) TXRX 100 MHz / 58000/100M	Digital fixed radiolinks. Channel plan according to ERC Recommendation ERC/REC/12-09 Annex A, item a), channels 3 -12. No frequency planning. Taken into use before 1.2.2009. No new licences. Standard EN 302 217. Class A. Radiation pattern envelope class 3. Minimum antenna gain 32 dBi. Minimum cross-polar discrimination 27 dB. Sub-band under review.
58.200 - 59.000 GHz EARTH EXPLORATION-SATELLITE (PASSIVE)	58.200 - 59.000 GHz (0.800 GHz) Earth exploration satellite		Sub-band under review.
FIXED	58.200 - 59.000 GHz (0.800 GHz) Fixed		Sub-band under review.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	58.200 - 59.000 GHz (0.800 GHz) (SRD) Non-specific Short Range Devices		Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Radiated power max. 100 mW EIRP. Transmitter power max. 10 dBm. SRD Recommendation ERC/REC/70-03. Standard EN 305 550. European Commission Decision 2006/771/EC, supplemented by Implementing Decision (EU) 2022/180.
MOBILE	58.200 - 59.000 GHz (0.800 GHz) Mobile radio		57 - 71 GHz, Wide-band data transmission systems (WAS/RLAN). Licence-exempt equipment, see Traficom's Regulation 15 and Radio Frequency Regulation 4, annex, Inductive equipment, NMR-equipment, ultra-wide-band equipment and wide-band data transmission equipment (WAS/RLAN) 57 - 71 GHz. European Commission Decision 2006/771/EC, supplemented by Implementing Decision (EU) 2022/180.
SPACE RESEARCH	58.200 - 59.000 GHz (0.800 GHz) Space research		
59.000 - 59.300 GHz FIXED	59.000 - 59.300 GHz (lower and upper limits of sub-band) (0.300 GHz) Fixed radiolinks		Fixed radiolinks (59 - 63 GHz). Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Radiated power max. 55 dBm EIRP. Transmitter power max. 10 dBm and the spectral power ensity of transmission shall be below -10 dBm/MHz. Minimum antenna gain 30 dBi. ECC Recommendation ECC/REC/(09)01. Standard EN 302 217.
RADIOLOCATION	59.000 - 59.300 GHz (0.300 GHz) Radiolocation		

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
MOBILE	59.000 - 59.300 GHz (0.300 GHz) Mobile radio		57 - 71 GHz, Wide-band data transmission systems (WAS/RLAN). Licence-exempt equipment, see Traficom's Regulation 15 and Radio Frequency Regulation 4, annex, Inductive equipment, NMR-equipment, ultra-wide-band equipment and wide-band data transmission equipment (WAS/RLAN) 57 - 71 GHz. European Commission Decision 2006/771/EC, supplemented by Implementing Decision (EU) 2022/180.
	59.000 - 59.300 GHz (0.300 GHz) (SRD) Non-specific Short Range Devices		Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Radiated power max. 100 mW EIRP. Transmitter power max. 10 dBm. SRD Recommendation ERC/REC/70-03. Standard EN 305 550. European Commission Decision 2006/771/EC, supplemented by Implementing Decision (EU) 2022/180.
59.300 - 64.000 GHz FIXED	59.300 - 63.000 GHz (lower and upper limits of sub-band) (3.700 GHz) Fixed radiolinks		Fixed radiolinks (59 - 63 GHz). Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Radiated power max. 55 dBm EIRP. Transmitter power max. 10 dBm and the spectral power ensity of transmission shall be below -10 dBm/MHz. Minimum antenna gain 30 dBi. Standard EN 302 217. ECC Recommendation ECC/REC/(09)01.
MOBILE	59.300 - 64.000 GHz (4.700 GHz) (SRD) Non-specific Short Range Devices		Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Radiated power max. 100 mW EIRP. Transmitter power max. 10 dBm. SRD Recommendation ERC/REC/70-03. Standard EN 305 550. European Commission Decision 2006/771/EC, supplemented by Implementing Decision (EU) 2022/180.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	59.300 - 64.000 GHz (4.700 GHz) Mobile radio		57 - 71 GHz, Wide-band data transmission systems (WAS/RLAN). Licence-exempt equipment, see Traficom's Regulation 15 and Radio Frequency Regulation 4, annex, Inductive equipment, NMR-equipment, ultra-wide-band equipment and wide-band data transmission equipment (WAS/RLAN) 57 - 71 GHz. European Commission Decision 2006/771/EC, supplemented by Implementing Decision (EU) 2022/180.
RADIOLOCATION	59.300 - 64.000 GHz (4.700 GHz) Radiolocation		
MOBILE	61.000 - 61.500 GHz (lower and upper limits of sub-band) (0.500 GHz) (SRD) Non-specific Short Range Devices		Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Radiated power max. 100 mW EIRP. Standard EN 305 550. SRD Recommendation ERC/REC/70-03. 61.0 - 61.5 GHz ISM (RR 5.138). European Commission Decision 2006/771/EC, supplemented by Implementing Decision (EU) 2022/180.
	62 - 63 GHz (1 GHz) Mobile radio		CEPT Recommendation T/R 22-03. Sub-band under review.
RADIOLOCATION	63 - 64 GHz (1 GHz) (SRD) Transport and Traffic telematics (TTT)		Equipment installed in vehicles exempted from licensing. See Finnish Transport and Communications Agency Regulation 15. Radiated power max. 40 dBm EIRP. Standard EN 302 686. ECC Decision ECC/DEC/(09)01. European Commission Decision 2006/771/EC, supplemented by Implementing Decision (EU) 2022/180.
	63.720 - 64.000 GHz (0.280 GHz) (SRD) Transport and Traffic telematics (TTT)		Equipment installed in vehicles exempted from licensing. See Finnish Transport and Communications Agency Regulation 15. Radiated power max. 40 dBm EIRP.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
64 - 65 GHz MOBILE	64 - 65 GHz (1 GHz) Mobile radio		57 - 71 GHz, Wide-band data transmission systems (WAS/RLAN). Licence-exempt equipment, see Traficom's Regulation 15 and Radio Frequency Regulation 4, annex, Inductive equipment, NMR-equipment, ultra-wide-band equipment and wide-band data transmission equipment (WAS/RLAN) 57 - 71 GHz. European Commission Decision 2006/771/EC, supplemented by Implementing Decision (EU) 2022/180.
FIXED	64 - 65 GHz (1 GHz) Fixed radiolinks		ECC Recommendation ECC/REC/(05)02. Sub-band under review.
MOBILE	64 - 65 GHz (1 GHz) (SRD) Transport and Traffic telematics (TTT)		Equipment installed in vehicles exempted from licensing. See Finnish Transport and Communications Agency Regulation 15. Radiated power max. 40 dBm EIRP.
65 - 66 GHz MOBILE	65.000 - 65.88 GHz (0.880 GHz) (SRD) Transport and Traffic telematics (TTT)		Equipment installed in vehicles exempted from licensing. See Finnish Transport and Communications Agency Regulation 15. Radiated power max. 40 dBm EIRP.
FIXED	65 - 66 GHz (1 GHz) Fixed		ECC Recommendation ECC/REC/(05)02. Sub-band under review.
MOBILE	65 - 66 GHz (1 GHz) Mobile radio		57 - 71 GHz, Wide-band data transmission systems (WAS/RLAN). Licence-exempt equipment, see Traficom's Regulation 15 and Radio Frequency Regulation 4, annex, Inductive equipment, NMR-equipment, ultra-wide-band equipment and wide-band data transmission equipment (WAS/RLAN) 57 - 71 GHz. European Commission Decision 2006/771/EC, supplemented by Implementing Decision (EU) 2022/180.
66 - 71 GHz MOBILE	66 - 71 GHz (5 GHz) Mobile radio		57 - 71 GHz, Wide-band data transmission systems (WAS/RLAN). Licence-exempt equipment, see Traficom's Regulation 15 and Radio Frequency Regulation 4, annex, Inductive equipment, NMR-equipment, ultra-wide-band equipment and wide-band data transmission equipment (WAS/RLAN) 57 - 71 GHz. European Commission Decision 2006/771/EC, supplemented by Implementing Decision (EU) 2022/180.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
MOBILE-SATELLITE	66 - 71 GHz (5 GHz) Mobile satellite		
RADIONAVIGATION	66 - 71 GHz (5 GHz) Radionavigation		
RADIONAVIGATION-SATELLITE	66 - 71 GHz (5 GHz) Radionavigation satellite		
71 - 74 GHz MOBILE	71 - 74 GHz (3 GHz) Mobile radio		
FIXED SATELLITE (SPACE-TO-EARTH)	71 - 74 GHz (3 GHz) Fixed satellite		
MOBILE-SATELLITE (SPACE-TO-EARTH)	71 - 74 GHz (3 GHz) Mobile satellite	Space station (EI) TX Mobile earth station (UA) RX	
FIXED	71.250 - 75.750 GHz (4.500 GHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 250 MHz / +10 GHz 81.250 - 85.750 GHz 80000/250M	ECC Recommendation ECC/REC/(05)07. Digital fixed radiolinks, channels 1a - 12a. Standard EN 302 217. Radiation pattern envelope class 3. Minimum antenna gain 38 dBi.
	71.375 - 75.375 GHz (4 GHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 500 MHz / +10 MHz 81.375 - 85.375 GHz 80000/500M	ECC Recommendation ECC/REC/(05)07. Digital fixed radiolinks, channel 1a - 6a. Standard EN 302 217. Radiation pattern envelope class 3. Minimum antenna gain 38 dBi.
	71.625 - 75.125 GHz (3.500 GHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 1 GHz / +10 GHz 81.625 - 85.125 GHz 80000/1G	ECC Recommendation ECC/REC/(05)07. Digital fixed radiolinks, channels 1a - 3a. Standard EN 302 217. Radiation pattern envelope class 3. Minimum antenna gain 38 dBi.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	71.875 - 74.375 GHz (2.500 GHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 1.5 GHz / +10 MHz 81.875 - 84.375 GHz 80000/1G5	ECC Recommendation ECC/REC/(05)07. Digital fixed radiolinks, channels 1a - 2a. Standard EN 302 217. Radiation pattern envelope class 3. Minimum antenna gain 38 dBi.
	72.125 - 74.625 GHz (2.500 GHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 2 GHz / +10 GHz 82.125 - 84.625 GHz 80000/2G	ECC Recommendation ECC/REC/(05)07. Digital fixed radiolinks, channels 1a - 2a. Standard EN 302 217. Radiation pattern envelope class 3. Minimum antenna gain 38 dBi.
74 - 76 GHz FIXED	71.250 - 75.750 GHz (4.500 GHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 250 MHz / +10 GHz 81.250 - 85.750 GHz 80000/250M	ECC Recommendation ECC/REC/(05)07. Digital fixed radiolinks, channels 12a - 19a. Standard EN 302 217. Radiation pattern envelope class 3. Minimum antenna gain 38 dBi.
	71.375 - 75.375 GHz (4 GHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 500 MHz / +10 MHz 81.375 - 85.375 GHz 80000/500M	ECC Recommendation ECC/REC/(05)07. Digital fixed radiolinks, channels 6a - 9a. Standard EN 302 217. Radiation pattern envelope class 3. Minimum antenna gain 38 dBi.
	71.625 - 75.125 GHz (3.500 GHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 1 GHz / +10 GHz 81.625 - 85.125 GHz 80000/1G	ECC Recommendation ECC/REC/(05)07. Digital fixed radiolinks, channels 3a - 4a. Standard EN 302 217. Radiation pattern envelope class 3. Minimum antenna gain 38 dBi.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
	71.875 - 74.375 GHz (2.500 GHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 1.5 GHz / +10 MHz 81.875 - 84.375 GHz 80000/1G5	ECC Recommendation ECC/REC/(05)07. Digital fixed radiolinks, channel 2a. Standard EN 302 217. Radiation pattern envelope class 3. Minimum antenna gain 38 dBi.
	72.125 - 74.625 GHz (2.500 GHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 2 GHz / +10 GHz 82.125 - 84.625 GHz 80000/2G	ECC Recommendation ECC/REC/(05)07. Digital fixed radiolinks, channel 2a. Standard EN 302 217. Radiation pattern envelope class 3. Minimum antenna gain 38 dBi.
BROADCASTING	74.000 - 75.500 GHz (1.500 GHz) Broadcasting		
Space research (space-to-Earth)	74.000 - 75.500 GHz (1.500 GHz) Space research		
FIXED SATELLITE (SPACE-TO-EARTH)	74.000 - 75.500 GHz (1.500 GHz) Fixed satellite	Space station (EC) TX Earth station (TC) RX	
MOBILE	74.000 - 75.500 GHz (1.500 GHz) Mobile radio		
BROADCASTING-SATELLITE	74.000 - 75.500 GHz (1.500 GHz) Broadcasting satellite		

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
76.000 - 77.500 GHz RADIOLOCATION	76 - 77 GHz (lower and upper limits of sub-band) (1 GHz) (SRD) Transport and Traffic telematics (TTT)		Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Maximum radiated power: peak power 316 W EIRP, average power 100 W EIRP, average power for pulsed radars 225 mW EIRP. Standard EN 301 091 as applicable. SRD Recommendation ERC/REC/70-03. European Commission Decision 2006/771/EC, supplemented by Implementing Decision (EU) 2022/180.
Space research (space-to-Earth)	76 - 77 GHz (1 GHz) Space research		
RADIOLOCATION	76 - 77 GHz (1 GHz) (SRD) Transport and Traffic telematics (TTT)		Anti-collision radar for helicopters. Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Maximum radiated power: peak power 30dBm EIRP, maximum spectral power density 3 dBm/MHz. Duty cycle max. 56 %/s. Standard EN 303 360. SRD Recommendation ERC/REC/70-03. ECC Decision ECC/DEC/(16)01. European Commission Decision 2006/771/EC, supplemented by Implementing Decision (EU) 2022/180.
Amateur	76.000 - 77.500 GHz (1.500 GHz) Amateur		See Finnish Transport and Communications Agency Regulation 6. User certificate required. See Finnish Transport and Communications Agency Regulation 18. Maximum transmitter power in the elementary class 30 W. Peak envelope power 120 W, when the carrier of the transmission is attenuated by at least 6 dB. Transmitter power in the general class max. 150 W. Peak envelope power 600 W, when the carrier of the transmission is attenuated by at least 6 dB.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
RADIO ASTRONOMY	76.000 - 77.500 GHz (1.500 GHz) Radio astronomy		
Amateur-Satellite	76.000 - 77.500 GHz (1.500 GHz) Amateur-Satellite		See Finnish Transport and Communications Agency Regulation 6. User certificate required. See Finnish Transport and Communications Agency Regulation 18. Maximum transmitter power in the elementary class 30 W. Peak envelope power 120 W, when the carrier of the transmission is attenuated by at least 6 dB. Transmitter power in the general class max. 150 W. Peak envelope power 600 W, when the carrier of the transmission is attenuated by at least 6 dB.
RADIOLOCATION	77.000 - 77.500 GHz (0.500 GHz) (SRD) Automotive Short Range Radar (SRR)		77 - 81 GHz automotive Short Range Radar (SRR). Terminals exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. The spectral power density -3 dBm/MHz EIRP and peak power 55 dBm EIRP. The spectral power density < -9 dBm / MHz EIRP outside a vehicle. Standard EN 302 264. ECC Decision ECC/DEC/(04)03. European Commission Decision 2004/545/EC.
77.500 - 78.000 GHz AMATEUR-SATELLITE	77.500 - 78.000 GHz (0.500 GHz) Amateur-Satellite		See Finnish Transport and Communications Agency Regulation 6. User certificate required. See Finnish Transport and Communications Agency Regulation 18. Maximum transmitter power in the elementary class 30 W. Peak envelope power 120 W, when the carrier of the transmission is attenuated by at least 6 dB. Transmitter power in the general class max. 150 W. Peak envelope power 600 W, when the carrier of the transmission is attenuated by at least 6 dB.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
Radio Astronomy	77.500 - 78.000 GHz (0.500 GHz) Radio astronomy		
AMATEUR	77.500 - 78.000 GHz (0.500 GHz) Amateur		See Finnish Transport and Communications Agency Regulation 6. User certificate required. See Finnish Transport and Communications Agency Regulation 18. Maximum transmitter power in the elementary class 30 W. Peak envelope power 120 W, when the carrier of the transmission is attenuated by at least 6 dB. Transmitter power in the general class max. 150 W. Peak envelope power 600 W, when the carrier of the transmission is attenuated by at least 6 dB.
RADIOLOCATION	77.500 - 78.000 GHz (0.500 GHz) (SRD) Automotive Short Range Radar (SRR)		77 - 81 GHz automotive Short Range Radar (SRR). Terminals exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. The spectral power density -3 dBm/MHz EIRP and peak power 55 dBm EIRP. The spectral power density < -9 dBm / MHz EIRP outside a vehicle. Standard EN 302 264. ECC Decision ECC/DEC/(04)03. European Commission Decision 2004/545/EC.
Space research (space-to-Earth)	77.500 - 78.000 GHz (0.500 GHz) Space research		

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
78 - 79 GHz RADIOLOCATION	78 - 79 GHz (1 GHz) (SRD) Automotive Short Range Radar (SRR)		77 - 81 GHz automotive Short Range Radar (SRR). Terminals exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. The spectral power density -3 dBm/MHz EIRP and peak power 55 dBm EIRP. The spectral power density < -9 dBm / MHz EIRP outside a vehicle. Standard EN 302 264. ECC Decision ECC/DEC/(04)03. European Commission Decision 2004/545/EC.
Amateur	78 - 79 GHz (1 GHz) Amateur		See Finnish Transport and Communications Agency Regulation 6. User certificate required. See Finnish Transport and Communications Agency Regulation 18. Maximum transmitter power in the elementary class 30 W. Peak envelope power 120 W, when the carrier of the transmission is attenuated by at least 6 dB. Transmitter power in the general class max. 150 W. Peak envelope power 600 W, when the carrier of the transmission is attenuated by at least 6 dB.
Radio Astronomy	78 - 79 GHz (1 GHz) Radio astronomy		
Space research (space-to-Earth)	78 - 79 GHz (1 GHz) Space research		

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
Amateur-Satellite	78 - 79 GHz (1 GHz) Amateur-Satellite		See Finnish Transport and Communications Agency Regulation 6. User certificate required. See Finnish Transport and Communications Agency Regulation 18. Maximum transmitter power in the elementary class 30 W. Peak envelope power 120 W, when the carrier of the transmission is attenuated by at least 6 dB. Transmitter power in the general class max. 150 W. Peak envelope power 600 W, when the carrier of the transmission is attenuated by at least 6 dB.
RADIOLOCATION	78 - 79 GHz (1 GHz) Radiolocation		
79 - 81 GHz RADIOLOCATION	79 - 81 GHz (2 GHz) (SRD) Automotive Short Range Radar (SRR)		77 - 81 GHz automotive Short Range Radar (SRR). Terminals exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. The spectral power density -3 dBm/MHz EIRP and peak power 55 dBm EIRP. The spectral power density < -9 dBm / MHz EIRP outside a vehicle. Standard EN 302 264. ECC Decision ECC/DEC/(04)03. European Commission Decision 2004/545/EC.
RADIO ASTRONOMY	79 - 81 GHz (2 GHz) Radio astronomy		

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
Amateur	79 - 81 GHz (2 GHz) Amateur		See Finnish Transport and Communications Agency Regulation 6. User certificate required. See Finnish Transport and Communications Agency Regulation 18. Maximum transmitter power in the elementary class 30 W. Peak envelope power 120 W, when the carrier of the transmission is attenuated by at least 6 dB. Transmitter power in the general class max. 150 W. Peak envelope power 600 W, when the carrier of the transmission is attenuated by at least 6 dB.
Space research (space-to-Earth)	79 - 81 GHz (2 GHz) Space research		
Amateur-Satellite	79 - 81 GHz (2 GHz) Amateur-Satellite		See Finnish Transport and Communications Agency Regulation 6. User certificate required. See Finnish Transport and Communications Agency Regulation 18. The transmitter power in the elementary class max. 30 W. Peak envelope power 120 W, when the carrier of the transmission is attenuated by at least 6 dB. Transmitter power in the general class max. 150 W. Peak envelope power 600 W, when the carrier of the transmission is attenuated by at least 6 dB.
RADIOLOCATION	79 - 81 GHz (2 GHz) Radiolocation		

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
81 - 84 GHz Amateur	81.000 - 81.500 GHz (0.500 GHz) Amateur		See Finnish Transport and Communications Agency Regulation 6. User certificate required. See Finnish Transport and Communications Agency Regulation 18. Maximum transmitter power in the elementary class 30 W. Peak envelope power 120 W, when the carrier of the transmission is attenuated by at least 6 dB. Transmitter power in the general class max. 150 W. Peak envelope power 600 W, when the carrier of the transmission is attenuated by at least 6 dB. (RR 5.561A).
Amateur-Satellite	81.000 - 81.500 GHz (0.500 GHz) Amateur-Satellite		See Finnish Transport and Communications Agency Regulation 6. User certificate required. See Finnish Transport and Communications Agency Regulation 18. Maximum transmitter power in the elementary class 30 W. Peak envelope power 120 W, when the carrier of the transmission is attenuated by at least 6 dB. Transmitter power in the general class max. 150 W. Peak envelope power 600 W, when the carrier of the transmission is attenuated by at least 6 dB. (RR 5.561A).
MOBILE	81 - 84 GHz (3 GHz) Mobile radio		
FIXED SATELLITE (EARTH-TO-SPACE)	81 - 84 GHz (3 GHz) Fixed satellite	Earth station (TC) TX Space station (EC) RX	
Space research (space-to-Earth)	81 - 84 GHz (3 GHz) Space research		
MOBILE-SATELLITE (EARTH-TO-SPACE)	81 - 84 GHz (3 GHz) Mobile satellite	Mobile earth station (UA) TX Space station (EI) RX	

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
RADIO ASTRONOMY	81 - 84 GHz (3 GHz) Radio astronomy		
FIXED	81.250 - 85.750 GHz (4.500 GHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 250 MHz / -10 GHz 71.250 - 75.750 GHz 80000/250M	ECC Recommendation ECC/REC/(05)07. Digital fixed radiolinks, channels 1b - 12b. Standard EN 302 217. Radiation pattern envelope class 3. Minimum antenna gain 38 dBi.
	81.375 - 85.375 GHz (4 GHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 500 MHz / -10 MHz 71.375 - 75.375 GHz 80000/500M	ECC Recommendation ECC/REC/(05)07. Digital fixed radiolinks, channel 1b - 6b. Standard EN 302 217. Radiation pattern envelope class 3. Minimum antenna gain 38 dBi.
	81.625 - 85.125 GHz (3.500 GHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 1 GHz / -10 GHz 71.625 - 75.125 GHz 80000/1G	ECC Recommendation ECC/REC/(05)07. Digital fixed radiolinks, channels 1b - 3b. Standard EN 302 217. Radiation pattern envelope class 3. Minimum antenna gain 38 dBi.
	81.875 - 84.375 GHz (2.500 GHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 1.5 GHz / -10 MHz 71.875 - 74.375 GHz 80000/1G5	ECC Recommendation ECC/REC/(05)07. Digital fixed radiolinks, channels 1b - 2b. Standard EN 302 217. Radiation pattern envelope class 3. Minimum antenna gain 38 dBi.
	82.125 - 84.625 GHz (2.500 GHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 2 GHz / -10 GHz 72.125 - 74.625 GHz 80000/2G	ECC Recommendation ECC/REC/(05)07. Digital fixed radiolinks, channels 1b - 2b. Standard EN 302 217. Radiation pattern envelope class 3. Minimum antenna gain 38 dBi.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
84 - 86 GHz FIXED	81.250 - 85.750 GHz (4.500 GHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 250 MHz / -10 GHz 71.250 - 75.750 GHz 80000/250M	ECC Recommendation ECC/REC/(05)07. Digital fixed radiolinks, channels 12b - 19b. Standard EN 302 217. Radiation pattern envelope class 3. Minimum antenna gain 38 dBi.
	81.375 - 85.375 GHz (4 GHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 500 MHz / -10 MHz 71.375 - 75.375 GHz 80000/500M	ECC Recommendation ECC/REC/(05)07. Digital fixed radiolinks, channels 6b - 9b. Standard EN 302 217. Radiation pattern envelope class 3. Minimum antenna gain 38 dBi.
	81.625 - 85.125 GHz (3.500 GHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 1 GHz / -10 GHz 71.625 - 75.125 GHz 80000/1G	ECC Recommendation ECC/REC/(05)07. Digital fixed radiolinks, channels 3b - 4b. Standard EN 302 217. Radiation pattern envelope class 3. Minimum antenna gain 38 dBi.
	81.875 - 84.375 GHz (2.500 GHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 1.5 GHz / -10 MHz 71.875 - 74.375 GHz 80000/1G5	ECC Recommendation ECC/REC/(05)07. Digital fixed radiolinks, channel 2b. Standard EN 302 217. Radiation pattern envelope class 3. Minimum antenna gain 38 dBi.
	82.125 - 84.625 GHz (2.500 GHz) Fixed radiolinks	Duplex Fixed station (FX) TXRX 2 GHz / -10 GHz 72.125 - 74.625 GHz 80000/2G	ECC Recommendation ECC/REC/(05)07. Digital fixed radiolinks, channel 2b. Standard EN 302 217. Radiation pattern envelope class 3. Minimum antenna gain 38 dBi.
MOBILE	84 - 86 GHz (2 GHz) Mobile radio		

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
FIXED SATELLITE (EARTH-TO-SPACE)	84 - 86 GHz (2 GHz) Fixed satellite		
RADIO ASTRONOMY	84 - 86 GHz (2 GHz) Radio astronomy		
86 - 92 GHz RADIO ASTRONOMY	86 - 92 GHz (6 GHz) Radio astronomy	Radio astronomy station (RA) RX	Spectral line and continuum measurements, solar radio emission, also VLBI. All emissions prohibited (RR 5.340).
92 - 94 GHz RADIO ASTRONOMY	92 - 94 GHz (2 GHz) Radio astronomy	Radio astronomy station (RA) RX	Spectral line measurements.
FIXED	92 - 94 GHz (2 GHz) Fixed		
MOBILE	92 - 94 GHz (2 GHz) Mobile radio		
RADIOLOCATION	92 - 94 GHz (2 GHz) Radiolocation		
94.000 - 94.100 GHz SPACE RESEARCH (ACTIVE)	94.000 - 94.100 GHz (0.100 GHz) Space research		
EARTH EXPLORATION-SATELLITE	94.000 - 94.100 GHz (0.100 GHz) Earth exploration satellite		Spaceborne cloud radars (RR 5.562).
RADIOLOCATION	94.000 - 94.100 GHz (0.100 GHz) Radiolocation		
Radio Astronomy	94.000 - 94.100 GHz (0.100 GHz) Radio astronomy		

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
94.100 - 95.000 GHz RADIO ASTRONOMY	94.100 - 95.000 GHz (0.900 GHz) Radio astronomy		
FIXED	94.100 - 95.000 GHz (0.900 GHz) Fixed		
MOBILE	94.100 - 95.000 GHz (0.900 GHz) Mobile radio		
RADIOLOCATION	94.100 - 95.000 GHz (0.900 GHz) Radiolocation		
95 - 100 GHz RADIONAVIGATION-SATELLITE	95 - 100 GHz (5 GHz) Radionavigation satellite		
MOBILE	95 - 100 GHz (5 GHz) Mobile radio		
RADIONAVIGATION	95 - 100 GHz (5 GHz) Radionavigation		
RADIO ASTRONOMY	95 - 100 GHz (5 GHz) Radio astronomy	Radio astronomy station (RA) RX	Spectral line and continuum measurements.
FIXED	95 - 100 GHz (5 GHz) Fixed		
RADIOLOCATION	95 - 100 GHz (5 GHz) Radiolocation		
100 - 102 GHz RADIO ASTRONOMY	100 - 102 GHz (2 GHz) Radio astronomy	Radio astronomy station (RA) RX	Spectral line and continuum measurements, solar radio emission, also VLBI. All emissions prohibited (RR 5.340).

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
SPACE RESEARCH (PASSIVE)	100 - 102 GHz (2 GHz) Space research		
EARTH EXPLORATION-SATELLITE (PASSIVE)	100 - 102 GHz (2 GHz) Earth exploration satellite		
102 - 105 GHz RADIO ASTRONOMY	102 - 105 GHz (3 GHz) Radio astronomy	Radio astronomy station (RA) RX	Spectral line and continuum measurements, solar radio emission, also VLBI.
FIXED	102 - 105 GHz (3 GHz) Fixed		
MOBILE	102 - 105 GHz (3 GHz) Mobile radio		
105.000 - 109.500 GHz SPACE RESEARCH (PASSIVE)	105.000 - 109.500 GHz (4.500 GHz) Space research		
RADIO ASTRONOMY	105.000 - 109.500 GHz (4.500 GHz) Radio astronomy	Radio astronomy station (RA) RX	Spectral line and continuum measurements, solar radio emission, also VLBI.
FIXED	105.000 - 109.500 GHz (4.500 GHz) Fixed		
MOBILE	105.000 - 109.500 GHz (4.500 GHz) Mobile radio		
109.500 - 111.800 GHz RADIO ASTRONOMY	109.500 - 111.800 GHz (2.300 GHz) Radio astronomy		Spectral line and continuum measurements, solar radio emission, also VLBI. All emissions prohibited (RR 5.340).
EARTH EXPLORATION-SATELLITE (PASSIVE)	109.500 - 111.800 GHz (2.300 GHz) Earth exploration satellite		All emissions prohibited (RR 5.340).

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
SPACE RESEARCH (PASSIVE)	109.500 - 111.800 GHz (2.300 GHz) Space research		Spectral line and continuum measurements, solar radio emission, also VLBI. All emissions prohibited (RR 5.340).
111.800 - 114.250 GHz RADIO ASTRONOMY	111.800 - 114.250 GHz (2.450 GHz) Radio astronomy		Spectral line and continuum measurements, solar radio emission, also VLBI.
FIXED	111.800 - 114.250 GHz (2.450 GHz) Fixed		
MOBILE	111.800 - 114.250 GHz (2.450 GHz) Mobile radio		
SPACE RESEARCH (PASSIVE)	111.800 - 114.250 GHz (2.450 GHz) Space research		Spectral line and continuum measurements, solar radio emission, also VLBI.
114.250 - 116.000 GHz EARTH EXPLORATION-SATELLITE (PASSIVE)	114.250 - 116.000 GHz (1.750 GHz) Earth exploration satellite		Spectral line and continuum measurements, solar radio emission, also VLBI. All emissions prohibited (RR 5.340).
RADIO ASTRONOMY	114.250 - 116.000 GHz (1.750 GHz) Radio astronomy		Spectral line and continuum measurements, solar radio emission, also VLBI. All emissions prohibited (RR 5.340).
SPACE RESEARCH (PASSIVE)	114.250 - 116.000 GHz (1.750 GHz) Space research		All emissions prohibited (RR 5.340).
116.000 - 119.980 GHz INTER-SATELLITE	116.000 - 119.980 GHz (3.980 GHz) Inter-satellite		
EARTH EXPLORATION-SATELLITE (PASSIVE)	116.000 - 119.980 GHz (3.980 GHz) Earth exploration satellite		
SPACE RESEARCH (PASSIVE)	116.000 - 119.980 GHz (3.980 GHz) Space research		

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
119.980 - 122.250 GHz EARTH EXPLORATION-SATELLITE (PASSIVE)	119.980 - 122.250 GHz (2.270 GHz) Earth exploration satellite		
SPACE RESEARCH (PASSIVE)	119.980 - 122.250 GHz (2.270 GHz) Space research		
INTER-SATELLITE	119.980 - 122.250 GHz (2.270 GHz) Inter-satellite		
MOBILE	122.000 - 122.250 GHz (0.250 GHz) (SRD) Non-specific Short Range Devices		Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Maximum radiated power 10 dBm/250 MHz EIRP and maximum power spectral density -48 dBm/MHz with an elevation angle of above 30 degrees. SRD Recommendation ERC/REC/70-03. Standard EN 305 550. 122 - 123 GHz ISM (RR 5.138). European Commission Decision 2006/771/EC, supplemented by Implementing Decision (EU) 2022/180.
122.250 - 123.000 GHz INTER-SATELLITE	122.250 - 123.000 GHz (0.750 GHz) Inter-satellite		
FIXED	122.250 - 123.000 GHz (0.750 GHz) Fixed		
MOBILE	122.250 - 123.000 GHz (0.750 GHz) (SRD) Non-specific Short Range Devices		Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Radiated power max. 100 mW EIRP. Standard EN 305 550. SRD Recommendation ERC/REC/70-03. 122 - 123 GHz ISM (RR 5.138). European Commission Decision 2006/771/EC, supplemented by Implementing Decision (EU) 2022/180.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
Amateur	122.250 - 123.000 GHz (0.750 GHz) Amateur		See Finnish Transport and Communications Agency Regulation 6. User certificate required. See Finnish Transport and Communications Agency Regulation 18. Maximum transmitter power in the elementary class 30 W. Peak envelope power 120 W, when the carrier of the transmission is attenuated by at least 6 dB. Transmitter power in the general class max. 150 W. Peak envelope power 600 W, when the carrier of the transmission is attenuated by at least 6 dB.
123 - 130 GHz RADIONAVIGATION-SATELLITE	123 - 130 GHz (7 GHz) Radionavigation satellite		
FIXED SATELLITE (SPACE-TO-EARTH)	123 - 130 GHz (7 GHz) Fixed satellite		
MOBILE-SATELLITE (SPACE-TO-EARTH)	123 - 130 GHz (7 GHz) Mobile satellite		
RADIONAVIGATION	123 - 130 GHz (7 GHz) Radionavigation		
Radio Astronomy	123 - 130 GHz (7 GHz) Radio astronomy		
130 - 134 GHz INTER-SATELLITE	130 - 134 GHz (4 GHz) Inter-satellite		
FIXED	130 - 134 GHz (4 GHz) Fixed		
MOBILE	130 - 134 GHz (4 GHz) Mobile radio		

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
EARTH EXPLORATION-SATELLITE (ACTIVE)	130 - 134 GHz (4 GHz) Earth exploration satellite		Earth exploration satellite 133.500 - 134.000 GHz (RR 5.562E).
RADIO ASTRONOMY	130 - 134 GHz (4 GHz) Radio astronomy		
134 - 136 GHz AMATEUR	134 - 136 GHz (2 GHz) Amateur		See Finnish Transport and Communications Agency Regulation 6. User certificate required. See Finnish Transport and Communications Agency Regulation 18. Maximum transmitter power in the elementary class 30 W. Peak envelope power 120 W, when the carrier of the transmission is attenuated by at least 6 dB. Transmitter power in the general class max. 150 W. Peak envelope power 600 W, when the carrier of the transmission is attenuated by at least 6 dB.
Radio Astronomy	134 - 136 GHz (2 GHz) Radio astronomy		
AMATEUR-SATELLITE	134 - 136 GHz (2 GHz) Amateur-Satellite		See Finnish Transport and Communications Agency Regulation 6. User certificate required. See Finnish Transport and Communications Agency Regulation 18. Maximum transmitter power in the elementary class 30 W. Peak envelope power 120 W, when the carrier of the transmission is attenuated by at least 6 dB. Transmitter power in the general class max. 150 W. Peak envelope power 600 W, when the carrier of the transmission is attenuated by at least 6 dB.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
136 - 141 GHz Amateur	136 - 141 GHz (5 GHz) Amateur		See Finnish Transport and Communications Agency Regulation 6. User certificate required. See Finnish Transport and Communications Agency Regulation 18. Maximum transmitter power in the elementary class 30 W. Peak envelope power 120 W, when the carrier of the transmission is attenuated by at least 6 dB. Transmitter power in the general class max. 150 W. Peak envelope power 600 W, when the carrier of the transmission is attenuated by at least 6 dB. (RR 5.149).
RADIO ASTRONOMY	136 - 141 GHz (5 GHz) Radio astronomy		
RADIOLOCATION	136 - 141 GHz (5 GHz) Radiolocation		
Amateur-Satellite	136 - 141 GHz (5 GHz) Amateur-Satellite		See Finnish Transport and Communications Agency Regulation 6. User certificate required. See Finnish Transport and Communications Agency Regulation 18. Maximum transmitter power in the elementary class 30 W. Peak envelope power 120 W, when the carrier of the transmission is attenuated by at least 6 dB. Transmitter power in the general class max. 150 W. Peak envelope power 600 W, when the carrier of the transmission is attenuated by at least 6 dB. (RR 5.149).
141.000 - 148.500 GHz FIXED	141.000 - 148.500 GHz (7.500 GHz) Fixed		
MOBILE	141.000 - 148.500 GHz (7.500 GHz) Mobile radio		

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
148.500 - 151.500 GHz SPACE RESEARCH (PASSIVE)	148.500 - 151.500 GHz (3 GHz) Space research		All emissions prohibited (RR 5.340).
RADIO ASTRONOMY	148.500 - 151.500 GHz (3 GHz) Radio astronomy		All emissions prohibited (RR 5.340).
EARTH EXPLORATION-SATELLITE (PASSIVE)	148.500 - 151.500 GHz (3 GHz) Earth exploration satellite		All emissions prohibited (RR 5.340).
151.500 - 155.500 GHz RADIO ASTRONOMY	151.500 - 155.500 GHz (4 GHz) Radio astronomy		
FIXED	151.500 - 155.500 GHz (4 GHz) Fixed		
MOBILE	151.500 - 155.500 GHz (4 GHz) Mobile radio		
RADIOLOCATION	151.500 - 155.500 GHz (4 GHz) Radiolocation		
155.500 - 158.500 GHz SPACE RESEARCH (PASSIVE)	155.500 - 158.500 GHz (3 GHz) Space research		
FIXED	155.500 - 158.500 GHz (3 GHz) Fixed		The date of entry into force was 1.1.2018 (RR 5.562G).
MOBILE	155.500 - 158.500 GHz (3 GHz) Mobile radio		The date of entry into force was 1.1.2018 (RR 5.562G).
EARTH EXPLORATION-SATELLITE (PASSIVE)	155.500 - 158.500 GHz (3 GHz) Earth exploration satellite		The allocation is valid until 1.1.2018 (RR 5.562F).
RADIO ASTRONOMY	155.500 - 158.500 GHz (3 GHz) Radio astronomy		

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
158.500 - 164.000 GHz MOBILE-SATELLITE (SPACE-TO-EARTH)	158.500 - 164.000 GHz (5.500 GHz) Mobile satellite		
FIXED	158.500 - 164.000 GHz (5.500 GHz) Fixed		
FIXED SATELLITE (SPACE-TO-EARTH)	158.500 - 164.000 GHz (5.500 GHz) Fixed satellite		
MOBILE	158.500 - 164.000 GHz (5.500 GHz) Mobile radio		
164 - 167 GHz SPACE RESEARCH (PASSIVE)	164 - 167 GHz (3 GHz) Space research		All emissions prohibited (RR 5.340).
RADIO ASTRONOMY	164 - 167 GHz (3 GHz) Radio astronomy		All emissions prohibited (RR 5.340).
EARTH EXPLORATION-SATELLITE (PASSIVE)	164 - 167 GHz (3 GHz) Earth exploration satellite		All emissions prohibited (RR 5.340).
167.000 - 174.500 GHz FIXED	167.000 - 174.500 GHz (7.500 GHz) Fixed		
MOBILE	167.000 - 174.500 GHz (7.500 GHz) Mobile radio		
FIXED SATELLITE (SPACE-TO-EARTH)	167.000 - 174.500 GHz (7.500 GHz) Fixed satellite		
INTER-SATELLITE	167.000 - 174.500 GHz (7.500 GHz) Inter-satellite		
174.500 - 174.800 GHz INTER-SATELLITE	174.500 - 174.800 GHz (0.300 GHz) Inter-satellite		

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
FIXED	174.500 - 174.800 GHz (0.300 GHz) Fixed		
MOBILE	174.500 - 174.800 GHz (0.300 GHz) Mobile radio		
174.800 - 182.000 GHz INTER-SATELLITE	174.800 - 182.000 GHz (7.200 GHz) Inter-satellite		
EARTH EXPLORATION-SATELLITE (PASSIVE)	174.800 - 182.000 GHz (7.200 GHz) Earth exploration satellite		
SPACE RESEARCH (PASSIVE)	174.800 - 182.000 GHz (7.200 GHz) Space research		
182 - 185 GHz RADIO ASTRONOMY	182 - 185 GHz (3 GHz) Radio astronomy		183.310 GHz spectral line measurements of water molecule. All emissions prohibited (RR 5.340).
185 - 190 GHz INTER-SATELLITE	185 - 190 GHz (5 GHz) Inter-satellite		
EARTH EXPLORATION-SATELLITE (PASSIVE)	185 - 190 GHz (5 GHz) Earth exploration satellite		
SPACE RESEARCH (PASSIVE)	185 - 190 GHz (5 GHz) Space research		
190.000 - 191.800 GHz SPACE RESEARCH (PASSIVE)	190.000 - 191.800 GHz (1.800 GHz) Space research		All emissions prohibited (RR 5.340).
EARTH EXPLORATION-SATELLITE (PASSIVE)	190.000 - 191.800 GHz (1.800 GHz) Earth exploration satellite		All emissions prohibited (RR 5.340).
191.800 - 200.000 GHz MOBILE	191.800 - 200.000 GHz (8.200 GHz) Mobile radio		

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
INTER-SATELLITE	191.800 - 200.000 GHz (8.200 GHz) Inter-satellite		
RADIONAVIGATION-SATELLITE	191.800 - 200.000 GHz (8.200 GHz) Radionavigation satellite		
MOBILE-SATELLITE	191.800 - 200.000 GHz (8.200 GHz) Mobile satellite		
RADIONAVIGATION	191.800 - 200.000 GHz (8.200 GHz) Radionavigation		
FIXED	191.800 - 200.000 GHz (8.200 GHz) Fixed		
200 - 202 GHz SPACE RESEARCH (PASSIVE)	200 - 202 GHz (2 GHz) Space research		All emissions prohibited (RR 5.340).
EARTH EXPLORATION-SATELLITE (PASSIVE)	200 - 202 GHz (2 GHz) Earth exploration satellite		All emissions prohibited (RR 5.340).
RADIO ASTRONOMY	200 - 202 GHz (2 GHz) Radio astronomy		All emissions prohibited (RR 5.340).
202 - 209 GHz SPACE RESEARCH (PASSIVE)	202 - 209 GHz (7 GHz) Space research		All emissions prohibited (RR 5.340).
EARTH EXPLORATION-SATELLITE (PASSIVE)	202 - 209 GHz (7 GHz) Earth exploration satellite		All emissions prohibited (RR 5.340).
RADIO ASTRONOMY	202 - 209 GHz (7 GHz) Radio astronomy		All emissions prohibited (RR 5.340).
209 - 217 GHz RADIO ASTRONOMY	209 - 217 GHz (8 GHz) Radio astronomy		

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
FIXED	209 - 217 GHz (8 GHz) Fixed		
FIXED SATELLITE (EARTH-TO-SPACE)	209 - 217 GHz (8 GHz) Fixed satellite		
MOBILE	209 - 217 GHz (8 GHz) Mobile radio		
217 - 226 GHz SPACE RESEARCH (PASSIVE)	217 - 226 GHz (9 GHz) Space research		
RADIO ASTRONOMY	217 - 226 GHz (9 GHz) Radio astronomy		
FIXED	217 - 226 GHz (9 GHz) Fixed		
FIXED SATELLITE (EARTH-TO-SPACE)	217 - 226 GHz (9 GHz) Fixed satellite		
MOBILE	217 - 226 GHz (9 GHz) Mobile radio		
226.000 - 231.500 GHz SPACE RESEARCH (PASSIVE)	226.000 - 231.500 GHz (5.500 GHz) Space research		All emissions prohibited (RR 5.340).
EARTH EXPLORATION-SATELLITE (PASSIVE)	226.000 - 231.500 GHz (5.500 GHz) Earth exploration satellite		All emissions prohibited (RR 5.340).
RADIO ASTRONOMY	226.000 - 231.500 GHz (5.500 GHz) Radio astronomy		All emissions prohibited (RR 5.340).
231.500 - 232.000 GHz FIXED	231.500 - 232.000 GHz (0.500 GHz) Fixed		

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
MOBILE	231.500 - 232.000 GHz (0.500 GHz) Mobile radio		
Radiolocation	231.500 - 232.000 GHz (0.500 GHz) Radiolocation		
232 - 235 GHz FIXED	232 - 235 GHz (3 GHz) Fixed		
MOBILE	232 - 235 GHz (3 GHz) Mobile radio		
FIXED SATELLITE (SPACE-TO-EARTH)	232 - 235 GHz (3 GHz) Fixed satellite		
Radiolocation	232 - 235 GHz (3 GHz) Radiolocation		
235 - 238 GHz SPACE RESEARCH (PASSIVE)	235 - 238 GHz (3 GHz) Space research		
EARTH EXPLORATION-SATELLITE (PASSIVE)	235 - 238 GHz (3 GHz) Earth exploration satellite		
FIXED SATELLITE (SPACE-TO-EARTH)	235 - 238 GHz (3 GHz) Fixed satellite		
238 - 240 GHz FIXED	238 - 240 GHz (2 GHz) Fixed		
MOBILE	238 - 240 GHz (2 GHz) Mobile radio		
FIXED SATELLITE (SPACE-TO-EARTH)	238 - 240 GHz (2 GHz) Fixed satellite		

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
RADIOLOCATION	238 - 240 GHz (2 GHz) Radiolocation		
RADIONAVIGATION	238 - 240 GHz (2 GHz) Radionavigation		
RADIONAVIGATION-SATELLITE	238 - 240 GHz (2 GHz) Radionavigation satellite		
240 - 241 GHz FIXED	240 - 241 GHz (1 GHz) Fixed		
MOBILE	240 - 241 GHz (1 GHz) Mobile radio		
RADIOLOCATION	240 - 241 GHz (1 GHz) Radiolocation		
241 - 248 GHz Amateur	241 - 248 GHz (7 GHz) Amateur		See Finnish Transport and Communications Agency Regulation 6. User certificate required. See Finnish Transport and Communications Agency Regulation 18. Maximum transmitter power in the elementary class 30 W. Peak envelope power 120 W, when the carrier of the transmission is attenuated by at least 6 dB. Transmitter power in the general class max. 150 W. Peak envelope power 600 W, when the carrier of the transmission is attenuated by at least 6 dB.
RADIO ASTRONOMY	241 - 248 GHz (7 GHz) Radio astronomy		

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
Amateur-Satellite	241 - 248 GHz (7 GHz) Amateur-Satellite		See Finnish Transport and Communications Agency Regulation 6. User certificate required. See Finnish Transport and Communications Agency Regulation 18. Maximum transmitter power in the elementary class 30 W. Peak envelope power 120 W, when the carrier of the transmission is attenuated by at least 6 dB. Transmitter power in the general class max. 150 W. Peak envelope power 600 W, when the carrier of the transmission is attenuated by at least 6 dB.
RADIOLOCATION	244 - 246 GHz (lower and upper limits of sub-band) (2 GHz) (SRD) Non-specific Short Range Devices		Equipment exempt from licensing. See Finnish Transport and Communications Agency Regulation 15. Radiated power max. 100 mW EIRP. SRD Recommendation ERC/REC/70-03. Standard EN 305 550. 244 - 246 GHz ISM (RR 5.138). European Commission Decision 2006/771/EC, supplemented by Implementing Decision (EU) 2022/180.
248 - 250 GHz AMATEUR	248 - 250 GHz (2 GHz) Amateur		See Finnish Transport and Communications Agency Regulation 6. User certificate required. See Finnish Transport and Communications Agency Regulation 18. Maximum transmitter power in the elementary class 30 W. Peak envelope power 120 W, when the carrier of the transmission is attenuated by at least 6 dB. Transmitter power in the general class max. 150 W. Peak envelope power 600 W, when the carrier of the transmission is attenuated by at least 6 dB.
Radio Astronomy	248 - 250 GHz (2 GHz) Radio astronomy		

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
AMATEUR-SATELLITE	248 - 250 GHz (2 GHz) Amateur-Satellite		See Finnish Transport and Communications Agency Regulation 6. User certificate required. See Finnish Transport and Communications Agency Regulation 18. Maximum transmitter power in the elementary class 30 W. Peak envelope power 120 W, when the carrier of the transmission is attenuated by at least 6 dB. Transmitter power in the general class max. 150 W. Peak envelope power 600 W, when the carrier of the transmission is attenuated by at least 6 dB.
250 - 252 GHz SPACE RESEARCH (PASSIVE)	250 - 252 GHz (2 GHz) Space research		All emissions prohibited (RR 5.340).
RADIO ASTRONOMY	250 - 252 GHz (2 GHz) Radio astronomy		All emissions prohibited (RR 5.340).
EARTH EXPLORATION-SATELLITE (PASSIVE)	250 - 252 GHz (2 GHz) Earth exploration satellite		All emissions prohibited (RR 5.340).
252 - 265 GHz RADIONAVIGATION-SATELLITE	252 - 265 GHz (13 GHz) Radionavigation satellite		
MOBILE	252 - 265 GHz (13 GHz) Mobile radio		
RADIONAVIGATION	252 - 265 GHz (13 GHz) Radionavigation		
RADIO ASTRONOMY	252 - 265 GHz (13 GHz) Radio astronomy		
FIXED	252 - 265 GHz (13 GHz) Fixed		

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic** **Class of station and direction, Radiated power / Transmitter power (max.)** **Channel spacing / Bandwidth** **Duplex separation and duplex band** **Class of emission** **Standard type**	**Terms and comments as to radio interface.** **References to standards are for information only.**
MOBILE-SATELLITE (EARTH-TO-SPACE)	252 - 265 GHz (13 GHz) Mobile satellite		
265 - 275 GHz RADIO ASTRONOMY	265 - 275 GHz (10 GHz) Radio astronomy		
FIXED	265 - 275 GHz (10 GHz) Fixed		
MOBILE	265 - 275 GHz (10 GHz) Mobile radio		
FIXED SATELLITE (EARTH-TO-SPACE)	265 - 275 GHz (10 GHz) Fixed satellite		
275 - 400 GHz (not allocated)	275 - 400 GHz (125 GHz) (not allocated)		

PMR STANDARDS

The standard references are only for informative purposes and they do not set compulsory requirements for placing of equipment on the market. When there are references to standards or other comparable specifications in the Radio Frequency Plan, this implies that they have been used as assumptions for equipment performance in an interference analysis concerning a new frequency assignment or as a technical basis for compatibility studies between different radio communications services or as a technical basis for coordination agreements with other countries. Standard references may in some cases also be used to define a channel access procedure, the use of which is a condition for the use of certain frequency bands.

The standard references do not specify the version of the standard. Reference means the latest version published in the Official Journal of the European Union.

1. Radiotelephone Base Stations only for Analogue Speech Transmission

1.1 Radiotelephone base stations
Standard EN 300 086
Equipment with selectivity call: Standard EN 300 219

1.2 Vehicle-mounted radiotelephones
Standard EN 300 086
Equipment with selectivity call: Standard EN 300 219

1.3 Portable radiotelephones

a) equipment with antenna connector
Standard EN 300 086
Equipment with selectivity call: Standard EN 300 219

b) equipment with integral antenna
Standard EN 300 296
Equipment with selectivity call: Standard EN 300 341

2. Radiotelephones for analogue Speech and/or Data Transmission

2.1 Radiotelephone base stations

a) channel spacing ≥ 25 kHz:
Standard EN 300 394-1
Standard EN 302 561

b) channel spacing 25 kHz or 12.5 kHz:
Standard EN 300 113

c) channel spacing ≤ 10 kHz
Standard EN 301 166

2.2 Vehicle-mounted radiotelephones

a) channel spacing ≥ 25 kHz:
Standard EN 300 394-1
Standard EN 302 561

b) channel spacing 25 kHz or 12.5 kHz:
Standard EN 300 113

c) channel spacing ≤ 10 kHz
Standard EN 301 166

2.3 Portable radiotelephones

a) channel spacing ≥ 25 kHz:
Standard EN 300 394-1
Standard EN 302 561

b) channel spacing 25 kHz or 12.5 kHz:
Equipment with antenna connector: Standard EN 300 113
Equipment with integral antenna: Standard EN 300 390

c) channel spacing ≤ 10 kHz:
Standard EN 301 166

3. Telecommand and Telemetry Equipment and Data Transmission Systems

3.1 Standard EN 300 220 or EN 302 561 with the following specifications:

These standards are applied to equipment with transmission power belov 0.5 W in the frequency bands 29.810 - 29.940 MHz and 161.4125 - 161.4625 MHz and in the sub-bands within the frequency band 406...470 MHz identified by Finnish Transport and Communication Agency for this purpose.

3.2. Standard EN 300 113 or standard EN 302 561 applies to all other frequency ranges than those mentioned above, or to equipment with a transmission power exceeding 0.5 W.

MARITIME CHANNELLING TABLES

Paired radiotelephony channels in the 4 MHz band

	Coast stations		Ships	
Channel number	Carrier frequency	Assigned frequency	Carrier frequency	Assigned frequency
401	4357	4358,4	4065	4066,4
402	4360	4361,4	4068	4069,4
403	4363	4364,4	4071	4072,4
404	4366	4367,4	4074	4075,4
405	4369	4370,4	4077	4078,4
406	4372	4373,4	4080	4081,4
407	4375	4376,4	4083	4084,4
408	4378	4379,4	4086	4087,4
409	4381	4382,4	4089	4090,4
410	4384	4385,4	4092	4093,4
411	4387	4388,4	4095	4096,4
412	4390	4391,4	4098	4099,4
413	4393	4394,4	4101	4102,4
414	4396	4397,4	4104	4105,4
415	4399	4400,4	4107	4108,4
416	4402	4403,4	4110	4111,4
417	4405	4406,4	4113	4114,4
418	4408	4409,4	4116	4117,4
419	4411	4412,4	4119	4120,4
420	4414	4415,4	4122	4123,4
421	4417*	4418,4*	4125*1)	4126,4*
422	4420	4421,4	4128	4129,4
423	4423	4424,4	4131	4132,4
424	4426	4427,4	4134	4135,4
425	4429	4430,4	4137	4138,4
426	4432	4433,4	4140	4141,4
427	4435	4436,4	4143	4144,4
428	4351	4352,4	-	-
429	4354	4355,4	-	

*) Channel 421 (coast station carrier frequency 4417 kHz and ship station carrier frequency 4125 kHz) is the calling channel in radiotelephony.

1) The ship station TX frequency 4125 kHz of channel 421 is used as the distress and safety frequency in radiotelephony.

Paired radiotelephony channels in the 6 MHz band

	Coast stations		Ships	
Channel number	Carrier frequency	Assigned frequency	Carrier frequency	Assigned frequency
601	6501	6502,4	6200	6201,4
602	6504	6505,4	6203	6204,4
603	6507	6508,4	6206	6207,4
604	6510	6511,4	6209	6210,4
605	6513	6514,4	6212	6213,4
606	6516*	6517,4*	6215*2)	6216,4*
607	6519	6520,4	6218	6219,4
608	6522	6523,4	6221	6222,4

*) Channel 606 (coast station carrier frequency 6516 kHz and ship station carrier frequency 6215 kHz) is the calling channel in radiotelephony.

2) The ship station TX frequency 6215 kHz of channel 606 is used as the distress and safety frequency in radiotelephony.

Paired radiotelephony channels in the 8 MHz band

	Coast stations		Ships			Coast stations		Ships	
Channel number	Carrier frequency	Assigned frequency	Carrier frequency	Assigned frequency	Channel number	Carrier frequency	Assigned frequency	Carrier frequency	Assigned frequency
801	8719	8720,4	8195	8196,4	819	8773	8774,4	8249	8250,4
802	8722	8723,4	8198	8199,4	820	8776	8777,4	8252	8253,4
803	8725	8726,4	8201	8202,4	821	8779*	8780,4*	8255*	8256,4*
804	8728	8729,4	8204	8205,4	822	8782	8783,4	8258	8259,4
805	8731	8732,4	8207	8208,4	823	8785	8786,4	8261	8262,4
806	8734	8735,4	8210	8211,4	824	8788	8789,4	8264	8265,4
807	8737	8738,4	8213	8214,4	825	8791	8792,4	8267	8268,4
808	8740	8741,4	8216	8217,4	826	8794	8795,4	8270	8271,4
809	8743	8744,4	8219	8220,4	827	8797	8798,4	8273	8274,4
810	8746	8747,4	8222	8223,4	828	8800	8801,4	8276	8277,4
811	8749	8750,4	8225	8226,4	829	8803	8804,4	8279	8280,4
812	8752	8753,4	8228	8229,4	830	8806	8807,4	8282	8283,4
813	8755	8756,4	8231	8232,4	831	8809	8810,4	8285	8286,4
814	8758	8759,4	8234	8235,4	832	8812	8813,4	8288	8289,4
815	8761	8762,4	8237	8238,4	833	8291 3)	8292,4	8291 3)	8292,4
816	8764	8765,4	8240	8241,4	834	8707	8708,4	-	-
817	8767	8768,4	8243	8244,4	835	8710	8711,4	-	-
818	8770	8771,4	8246	8247,4	836	8713	8714,4	-	-
					837	8716	8717,4	-	-

*) Channel 821 (coast station carrier frequency 8779 kHz and ship station carrier frequency 8255 kHz) is the calling channel in radiotelephony.

3) The ship station TX frequency 8291 kHz of channel 833 is used as the distress and safety frequency in radiotelephony.

Paired radiotelephony channels in the 12 MHz band

	Coast stations		Ships			Coast stations		Ships	
Channel number	Carrier frequency	Assigned frequency	Carrier frequency	Assigned frequency	Channel number	Carrier frequency	Assigned frequency	Carrier frequency	Assigned frequency
1201	13077	13078,4	12230	12231,4	1221	13137*	13138,4*	12290*4)	12291,4*
1202	13080	13081,4	12233	12234,4	1222	13140	13141,4	12293	12294,4
1203	13083	13084,4	12236	12237,4	1223	13143	13144,4	12296	12297,4
1204	13086	13087,4	12239	12240,4	1224	13146	13147,4	12299	12300,4
1205	13089	13090,4	12242	12243,4	1225	13149	13150,4	12302	12303,4
1206	13092	13093,4	12245	12246,4	1226	13152	13153,4	12305	12306,4
1207	13095	13096,4	12248	12249,4	1227	13155	13156,4	12308	12309,4
1208	13098	13099,4	12251	12252,4	1228	13158	13159,4	12311	12312,4
1209	13101	13102,4	12254	12255,4	1229	13161	13162,4	12314	12315,4
1210	13104	13117,4	12269	12270,4	1230	13164	13165,4	12317	12318,4
1211	13107	13105,4	12257	12258,4	1231	13167	13168,4	12320	12321,4
1212	13110	13108,4	12260	12261,4	1232	13170	13171,4	12323	12324,4
1213	13113	13111,4	12263	12264,4	1233	13173	13174,4	12326	12327,4
1214	13116	13114,4	12266	12267,4	1234	13176	13177,4	12329	12330,4
1215	13119	13120,4	12272	12273,4	1235	13179	13180,4	12332	12333,4
1216	13122	13123,4	12275	12276,4	1236	13182	13183,4	12335	12336,4
1217	13125	13126,4	12278	12279,4	1237	13185	13186,4	12338	12339,4
1218	13128	13129,4	12281	12282,4	1238	13188	13189,4	12341	12342,4
1219	13131	13132,4	12284	12285,4	1239	13191	13192,4	12344	12345,4
1220	13134	13135,4	12287	12288,4	1240	13194	13195,4	12347	12348,4
					1241	13197	13198,4	12350	12351,4

*) Channel 1221 (coast station carrier frequency 13137 kHz and ship station carrier frequency 12290 kHz) is the calling channel in radiotelephony.

4) The ship station TX frequency 12290 kHz of channel 1221 is used as the distress and safety frequency in radiotelephony.

Paired radiotelephony channels in the 16 MHz band

	Coast stations		Ships	
Channel number	Carrier frequency	Assigned frequency	Carrier frequency	Assigned frequency
1601	17242	17243,4	16360	16361,4
1602	17245	17246,4	16363	16364,4
1603	17248	17249,4	16366	16367,4
1604	17251	17252,4	16369	16370,4
1605	17254	17255,4	16372	16373,4
1606	17257	17258,4	16375	16376,4
1607	17260	17261,4	16378	16379,4
1608	17263	17264,4	16381	16382,4
1609	17266	17267,4	16384	16385,4
1610	17269	17270,4	16387	16388,4
1611	17272	17273,4	16390	16391,4
1612	17275	17276,4	16393	16394,4
1613	17278	17279,4	16396	16397,4
1614	17281	17282,4	16399	16400,4
1615	17284	17285,4	16402	16403,4
1616	17287	17288,4	16405	16406,4
1617	17290	17291,4	16408	16409,4
1618	17293	17294,4	16411	16412,4
1619	17296	17297,4	16414	16415,4
1620	17299	17300,4	16417	16418,4
1621	17302*	17303,4*	16420*4)	16421,4*
1622	17305	17306,4	16423	16424,4
1623	17308	17309,4	16426	16427,4
1624	17311	17312,4	16429	16430,4
1625	17314	17315,4	16432	16433,4
1626	17317	17318,4	16435	16436,4
1627	17320	17321,4	16438	16439,4
1628	17323	17324,4	16441	16442,4
1629	17326	17327,4	16444	16445,4
1630	17329	17330,4	16447	16448,4
1631	17332	17333,4	16450	16451,4
1632	17335	17336,4	16453	16454,4
1633	17338	17339,4	16456	16457,4
1634	17341	17342,4	16459	16460,4
1635	17344	17345,4	16462	16463,4
1636	17347	17348,4	16465	16466,4
1637	17350	17351,4	16468	16469,4
1638	17353	17354,4	16471	16472,4
1639	17356	17357,4	16474	16475,4
1640	17359	17360,4	16477	16478,4
1641	17362	17363,4	16480	16481,4
1642	17365	17366,4	16483	16484,4
1643	17368	17369,4	16486	16487,4
1644	17371	17372,4	16489	16490,4
1645	17374	17375,4	16492	16493,4
1646	17377	17378,4	16495	16496,4
1647	17380	17381,4	16498	16499,4
1648	17383	17384,4	16501	16502,4
1649	17386	17387,4	16504	16505,4
1650	17389	17390,4	16507	16508,4
1651	17392	17393,4	16510	16511,4
1652	17395	17396,4	16513	16514,4
1653	17398	17399,4	16516	16517,4
1654	17401	17402,4	16519	16520,4
1655	17404	17405,4	16522	16523,4
1656	17407	17408,4	16525	16526,4

*) Channel 1621 (coast station carrier frequency 16302 kHz and ship station carrier frequency 16420 kHz) is the calling channel in radiotelephony.

4) The ship station TX frequency 16420 kHz of channel 1621 is used as the distress and safety frequency in radiotelephony.

Paired radiotelephony channels in the 18/19 MHz band

	Coast stations		Ships	
Channel number	Carrier frequency	Assigned frequency	Carrier frequency	Assigned frequency
1801	19755	19756,4	18780	18781,4
1802	19758	19759,4	18783	18784,4
1803	19761	19762,4	18786	18787,4
1804	19764	19765,4	18789	18790,4
1805	19767	19768,4	18792	18793,4
1806	19770*	19771,4 *	18795 *	18796,4 *
1807	19773	19774,4	18798	18799,4
1808	19776	19777,4	18801	18802,4
1809	19779	19780,4	18804	18805,4
1810	19782	19783,4	18807	18808,4
1811	19785	19786,4	18810	18811,4
1812	19788	19789,4	18813	18814,4
1813	19791	19792,4	18816	18817,4
1814	19794	19795,4	18819	18820,4
1815	19797	19798,4	18822	18823,4

*) Channel 1806 (coast station carrier frequency 19770 kHz and ship station carrier frequency 18795 kHz) is the calling channel in radiotelephony.

Paired radiotelephony channels in the 22 MHz band

	Coast stations		Ships	
Channel number	Carrier frequency	Assigned frequency	Carrier frequency	Assigned frequency
2201	22696	22697,4	22000	22001,4
2202	22699	22700,4	22003	22004,4
2203	22702	22703,4	22006	22007,4
2204	22705	22706,4	22009	22010,4
2205	22708	22709,4	22012	22013,4
2206	22711	22712,4	22015	22016,4
2207	22714	22715,4	22018	22019,4
2208	22717	22718,4	22021	22022,4
2209	22720	22721,4	22024	22025,4
2210	22723	22724,4	22027	22028,4
2211	22726	22727,4	22030	22031,4
2212	22729	22730,4	22033	22034,4
2213	22732	22733,4	22036	22037,4
2214	22735	22736,4	22039	22040,4
2215	22738	22739,4	22042	22043,4
2216	22741	22742,4	22045	22046,4
2217	22744	22745,4	22048	22049,4
2218	22747	22748,4	22051	22052,4
2219	22750	22751,4	22054	22055,4
2220	22753	22754,4	22057	22058,4
2221	22756*	22757,4*	22060*	22061,4*
2222	22759	22760,4	22063	22064,4
2223	22762	22763,4	22066	22067,4
2224	22765	22766,4	22069	22070,4
2225	22768	22769,4	22072	22073,4
2226	22771	22772,4	22075	22076,4
2227	22774	22775,4	22078	22076,4
2228	22777	22778,4	22081	22082,4
2229	22780	22781,4	22084	22085,4
2230	22783	22784,4	22087	22088,4
2231	22786	22787,4	22090	22091,4
2232	22789	22790,4	22093	22094,4
2233	22792	22793,4	22096	22097,4
2234	22795	22796,4	22099	22100,4
2235	22798	22799,4	22102	22103,4
2236	22801	22802,4	22105	22106,4
2237	22804	22805,4	22108	22109,4
2238	22807	22808,4	22111	22112,4
2239	22810	22811,4	22114	22115,4
2240	22813	22814,4	22117	22118,4
2241	22816	22817,4	22120	22121,4
2242	22819	22820,4	22123	22124,4
2243	22822	22823,4	22126	22127,4
2244	22825	22826,4	22129	22130,4
2245	22828	22829,4	22132	22133,4
2246	22831	22832,4	22135	22136,4
2247	22834	22835,4	22138	22139,4
2248	22837	22838,4	22141	22142,4
2249	22840	22841,4	22144	22145,4
2250	22843	22844,4	22147	22148,4
2251	22846	22847,4	22150	22151,4
2252	22849	22850,4	22153	22154,4
2253	22852	22853,4	22156	22157,4

*) Channel 2221 (coast station carrier frequency 22756 kHz and ship station carrier frequency 22060 kHz) is the calling channel in radiotelephony.

Paired radiotelephony channels in the 25 MHz band

	Coast stations		Ships	
Channel number	Carrier frequency	Assigned frequency	Carrier frequency	Assigned frequency
2501	26145	26146,4	25070	25071,4
2502	26148	26149,4	25073	25074,4
2503	26151	26152,4	25076	25077,4
2504	26154	26155,4	25079	25080,4
2505	26157	26158,4	25082	25083,4
2506	26160	26161,4	25085	25086,4
2507	26163	26164,4	25088	25089,4
2508	26166	26167,4	25091	25092,4
2509	26169	26170,4	25094	25095,4
2510	26172 *	26173,4 *	25097 *	25098,4

*) Channel 2510 (coast station carrier frequency 26172 kHz and ship station carrier frequency 25097 kHz) is the calling channel in radiotelephony.

Unpaired radiotelephony frequencies (3JE) in bands 4, 6, 8, 12, 16, 18, 22 and 25 MHz

These frequencies are used for ship-to-ship communications. When required, they can be used also for communications between a ship and a coast station.

The frequencies can be used for simplex communicating also by coast station when the transmitting power does not exceed 1 kW.

4 MHz f c	4 MHz f a	6 MHz f c	6 MHz fa	8 MHz fc	8 MHz fa	12 MHz fc	12 MHz fa
4146	4147,4	6224	6225,4	8294	8295,4	12353	12354,4
4149	4150,4	6227	6228,4	8297	8298,4	12356	12357,4
		6230	6231,4			12359	12360,4
						12362	12363,4
						12365	12366,4

16 MHz f c	16 MHz f a	18 MHz fc	18 MHz fa	22 MHz fc	22 MHz fa	25 MHz fc	25 MHz fa
16528	16529,4	18825	18826,4	22159	22160,4	25100	25101,4
16531	16532,4	18828	18829,4	22162	22163,4	25103	25104,4
16534	16535,4	18831	18832,4	22165	22166,4	25106	25107,4
16537	16538,4	18834	18835,4	22168	22169,4	25109	25110,4
16540	16541,4	18837	18838,4	22171	22172,4	25112	25113,4
16543	16544,4	18840	18841,4	22174	22175,4	25115	25116,4
16546	16547,4	18843	18844,4	22177	22178,4	25118	25119,4

f c = carrier frequency
f a = assigned frequency

Additional unpaired frequencies (J3E) shared with fixed service in the 4 and 8 MHz bands

These frequencies are used for ship-to-ship communications. When required, they can be used also for communications between a ship and a coast station.

4 MHz f c	4 MHz f a	4 MHz fc	4 MHz fa	8 MHz fc	8 MHz fa	8 MHz fc	8 MHz fa
4000	4001,3	4033	4034,4	8101	8102,4	8149	8150,4
4003	4004,3	4036	4037,4	8104	8105,4	8152	8153,4
4006	4007,3	4039	4040,4	8107	8108,4	8155	8156,4
4009	4010,3	4042	4043,4	8110	8111,4	8158	8159,4
4012	4013,3	4045	4046,4	8113	8114,4	8161	8162,4
4015	4016,3	4048	4049,4	8116	8117,4	8164	8165,4
4018	4019,3	4051	4052,4	8119	8120,4	8167	8168,4
4021	4022,3	4054	4055,4	8122	8123,4	8170	8171,4
4024	4025,3	4057	4058,4	8125	8126,4	8173	8174,4
4027	4028,3	4060	4061,4	8128	8129,4	8176	8177,4
4030	4031,3			8131	8132,4	8179	8180,4
				8134	8135,4	8182	8183,4
				8137	8138,4	8185	8186,4
				8140	8141,4	8188	8189,4
				8143	8144,4	8191	8192,4
				8146	8147,4		

f c = carrier frequency
f a = assigned frequency

Paired telex frequencies (NBDP) 4 MHz

All frequencies are assigned frequencies

Channel number	Coast station TX (kHz)	Ship TX (kHz)	Channel number	Coast station TX (kHz)	Ship TX (kHz)
1	4210,5	4172,5	11	4177,5 *)	4177,5 *)
2	4211	4173	12	4215,5	4178
3	4211,5	4173,5	13	4216	4178,5
4	4212	4174	14	4216,5	4179
5	4212,5	4174,5	15	4217	4179,5
6	4213	4175	16	4217,5	4180
7	4213,5	4175,5	17	4218	4180,5
8	4214	4176	18	4218,5	4181
9	4214,5	4176,5	19	4219	4185,5
10	4215	4177			

*) 4177,5 kHz is the distress frequency for telex communications.

Paired telex frequencies (NBDP) 6 MHz

All frequencies are assigned frequencies

Channel number	Coast station TX (kHz)	Ship TX (kHz)	Channel number	Coast station TX (kHz)	Ship TX (kHz)	Channel number	Coast station TX (kHz)	Ship TX (kHz)
1	6314,5	6263	14	6320,5	6269,5	27	6327	6281
2	6315	6263,5	15	6321	6270	28	6327,5	6281,5
3	6315,5	6264	16	6321,5	6270,5	29	6328	6282
4	6316	6264,5	17	6322	6271	30	6328,5	6282,5
5	6316,5	6265	18	6322,5	6271,5	31	6329	6283
6	6317	6265,5	19	6323	6272	32	6329,5	6283,5
7	6317,5	6266	20	6323,5	6272,5	33	6330	6284
8	6318	6266,5	21	6324	6273	34	6330,5	6284,5
9	6318,5	6267	22	6324,5	6273,5			
10	6319	6267,5	23	6325	6274			
11	6268 *)	6268 *)	24	6325,5	6274,5			
12	6319,5	6268,5	25	6326	6275			
13	6320	6269	26	6326,5	6275,5			

*) 6268,0 kHz is the distress frequency for telex communications.

Paired telex frequencies (NBDP) 8 MHz

All frequencies are assigned frequencies

Channel number	Coast station TX (kHz)	Ship TX (kHz)	Channel number	Coast station TX (kHz)	Ship TX (kHz)	Channel number	Coast station TX (kHz)	Ship TX (kHz)
1	8376,5 *)	8376,5 *)	15	8423,5	8383,5	29	8430,5	8390,5
2	8417	8377	16	8424	8384	30	8431	8391
3	8417,5	8377,5	17	8424,5	8384,5	31	8431,5	8391,5
4	8418	8378	18	8425	8385	32	8432	8392
5	8418,5	8378,5	19	8425,5	8385,5	33	8432,5	8392,5
6	8419	8379	20	8426	8386	34	8433	8393
7	8419,5	8379,5	21	8426,5	8386,5	35	8433,5	8393,5
8	8420	8380	22	8427	8387	36	8434	8394
9	8420,5	8380,5	23	8427,5	8387,5	37	8434,5	8394,5
10	8421	8381	24	8428	8388	38	8435	8395
11	8421,5	8381,5	25	8428,5	8388,5	39	8435,5	8395,5
12	8422	8382	26	8429	8389	40	8436	8396
13	8422,5	8382,5	27	8429,5	8389,5			
14	8423	8383	28	8430	8390			

*) 8376,5 kHz is the distress frequency for telex communications.

Paired telex frequencies (NBDP) 12 MHz

All frequencies are assigned frequencies

Channel number	Coast station TX (kHz)	Ship TX (kHz)	Channel number	Coast station TX (kHz)	Ship TX (kHz)	Channel number	Coast station TX (kHz)	Ship TX (kHz)
1	12579,5	12477	61	12609,5	12507	121	12639	12537
2	12580	12477,5	62	12610	12507,5	122	12639,5	12537,5
3	12580,5	12478	63	12610,5	12508	123	12640	12538
4	12581	12478,5	64	12611	12508,5	124	12640,5	12538,5
5	12581,5	12479	65	12611,5	12509	125	12641	12539
6	12582	12479,5	66	12612	12509,5	126	12641,5	12539,5
7	12582,5	12480	67	12612,5	12510	127	12642	12540
8	12583	12480,5	68	12613	12510,5	128	12642,5	12540,5
9	12583,5	12481	69	12613,5	12511	129	12643	12541
10	12584	12481,5	70	12614	12511,5	130	12643,5	12541,5
11	12584,5	12482	71	12614,5	12512	131	12644	12542
12	12585	12482,5	72	12615	12512,5	132	12644,5	12542,5
13	12585,5	12483	73	12615,5	12513	133	12645	12543
14	12586	12483,5	74	12616	12513,5	134	12645,5	12543,5
15	12586,5	12484	75	12616,5	12514	135	12646	12544
16	12587	12484,5	76	12617	12514,5	136	12646,5	12544,5
17	12587,5	12485	77	12617,5	12515	137	12647	12545
18	12588	12485,5	78	12618	12515,5	138	12647,5	12545,5
19	12588,5	12486	79	12618,5	12516	139	12648	12546
20	12589	12486,5	80	12619	12516,5	140	12648,5	12546,5
21	12589,5	12487	81	12619,5	12517	141	12649	12547
22	12590	12487,5	82	12620	12517,5	142	12649,5	12547,5
23	12590,5	12488	83	12620,5	12518	143	12650	12548
24	12591	12488,5	84	12621	12518,5	144	12650,5	12548,5
25	12591,5	12489	85	12621,5	12519	145	12651	12549
26	12592	12489,5	86	12622	12519,5	146	12651,5	12549,5
27	12592,5	12490	87	12520 *)	12520 *)	147	12652	12555
28	12593	12490,5	88	12622,5	12520,5	148	12652,5	12555,5
29	12593,5	12491	89	12623	12521	149	12653	12556
30	12594	12491,5	90	12623,5	12521,5	150	12653,5	12556,5
31	12594,5	12492	91	12624	12522	151	12654	12557
32	12595	12492,5	92	12624,5	12522,5	152	12654,5	12557,5
33	12595,5	12493	93	12625	12523	153	12655	12558
34	12596	12493,5	94	12625,5	12523,5	154	12655,5	12558,5
35	12596,5	12494	95	12626	12524	155	12656	12559
36	12597	12494,5	96	12626,5	12524,5	156	12656,5	12559,5
37	12597,5	12495	97	12627	12525			
38	12598	12495,5	98	12627,5	12525,5			
39	12598,5	12496	99	12628	12526			
40	12599	12496,5	100	12628,5	12526,5			
41	12599,5	12497	101	12629	12527			
42	12600	12497,5	102	12629,5	12527,5			
43	12600,5	12498	103	12630	12528			
44	12601	12498,5	104	12630,5	12528,5			
45	12601,5	12499	105	12631	12529			
46	12602	12499,5	106	12631,5	12529,5			
47	12602,5	12500	107	12632	12530			
48	12603	12500,5	108	12632,5	12530,5			
49	12603,5	12501	109	12633	12531			
50	12604	12501,5	110	12633,5	12531,5			
51	12604,5	12502	111	12634	12532			
52	12605	12502,5	112	12634,5	12532,5			
53	12605,5	12503	113	12635	12533			
54	12606	12503,5	114	12635,5	12533,5			
55	12606,5	12504	115	12636	12534			
56	12607	12504,5	116	12636,5	12534,5			
57	12607,5	12505	117	12637	12535			
58	12608	12505,5	118	12637,5	12535,5			
59	12608,5	12506	119	12638	12536			
60	12609	12506,5	120	12638,5	12536,5			

*) 12520,0 kHz is the distress frequency for telex communications.

Paired telex frequencies (NBDP) 16 MHz

All frequencies are assigned frequencies

Channel number	Coast station TX (kHz)	Ship TX (kHz)	Channel number	Coast station TX (kHz)	Ship TX (kHz)	Channel number	Coast station TX (kHz)	Ship TX (kHz)
1	16807	16683,5	61	16836,5	16713,5	121	16866,5	16748,5
2	16807,5	16684	62	16837	16714	122	16867	16749
3	16808	16684,5	63	16837,5	16714,5	123	16867,5	16749,5
4	16808,5	16685	64	16838	16715	124	16868	16750
5	16809	16685,5	65	16838,5	16715,5	125	16868,5	16750,5
6	16809,5	16686	66	16839	16716	126	16869	16751
7	16810	16686,5	67	19839,5	16716,5	127	16869,5	16751,5
8	16810,5	16687	68	16840	16717	128	16870	16752
9	16811	16687,5	69	16840,5	16717,5	129	16870,5	16752,5
10	16811,5	16688	70	16841	16718	130	16871	16753
11	16812	16688,5	71	16841,5	16718,5	131	16871,5	16753,5
12	16812,5	16689	72	16842	16719	132	16872	16754
13	16813	16689,5	73	16842,5	16719,5	133	16872,5	16754,5
14	16813,5	16690	74	16843	16720	134	16873	16755
15	16814	16690,5	75	16843,5	16720,5	135	16873,5	16755,5
16	16814,5	16691	76	16844	16721	136	16874	16756
17	16815	16691,5	77	16844,5	16721,5	137	16874,5	16756,5
18	16815,5	16692	78	16845	16722	138	16875	16757
19	16816	16692,5	79	16845,5	16722,5	139	16875,5	16757,5
20	16816,5	16693	80	16846	16723	140	16876	16758
21	16817	16693,5	81	16846,5	16723,5	141	16876,5	16758,5
22	16817,5	16694	82	16847	16724	142	16877	16759
23	16818	16694,5	83	16847,5	16724,5	143	16877,5	16759,5
24	16695 *)	16695 *)	84	16848	16725	144	16878	16760
25	16818,5	16695,5	85	16848,5	16725,5	145	16878,5	16760,5
26	16819	16696	86	16849	16726	146	16879	16761
27	16819,5	16696,5	87	16849,5	16726,5	147	16879,5	16761,5
28	16820	16697	88	16850	16727	148	16880	16762
29	16820,5	16697,5	89	16850,5	16727,5	149	16880,5	16762,5
30	16821	16698	90	16851	16728	150	16881	16763
31	16821,5	16698,5	91	16851,5	16728,5	151	16881,5	16763,5
32	16822	16699	92	16852	16729	152	16882	16764
33	16822,5	16699,5	93	16852,5	16729,5	153	16882,5	16764,5
34	16823	16700	94	16853	16730	154	16883	16765
35	16823,5	16700,5	95	16853,5	16730,5	155	16883,5	16765,5
36	16824	16701	96	16854	16731	156	16884	16766
37	16824,5	16701,5	97	16854,5	16731,5	157	16884,5	16766,5
38	16825	16702	98	16855	16732	158	16885	16767
39	16825,5	16702,5	99	16855,5	16732,5	159	16885,5	16767,5
40	16826	16703	100	16856	16733	160	16886	16768
41	16826,5	16703,5	101	16856,5	16733,5	161	16886,5	16768,5
42	16827	16704	102	16857	16739	162	16887	16769
44	16828	16705	104	16858	16740	164	16888	16770
45	16828,5	16705,5	105	16858,5	16740,5	165	16888,5	16770,5
46	16829	16706	106	16859	16741	166	16889	16771
47	16829,5	16706,5	107	16859,5	16741,5	167	16889,5	16771,5
48	16830	16707	108	16860	16742	168	16890	16772
49	16830,5	16707,5	109	16860,5	16742,5	169	16890,5	16772,5
50	16831	16708	110	16861	16743	170	16891	16773
51	16831,5	16708,5	111	16861,5	16743,5	171	16891,5	16773,5
52	16832	16709	112	16862	16744	172	16892	16774
53	16832,5	16709,5	113	16862,5	16744,5	173	16892,5	16774,5
54	16833	16710	114	16863	16745	174	16893	16775
55	16833,5	16710,5	115	16863,5	16745,5	175	16893,5	16775,5
56	16834	16711	116	16864	16746	176	16894	16776
57	16834,5	16711,5	117	16864,5	16746,5	177	16894,5	16776,5
58	16835	16712	118	16865	16747	178	16895	16777
59	16835,5	16712,5	119	16865,5	16747,5	179	16895,5	16777,5
60	16836	16713	120	16866	16748	180	16896	16778

(to be continued)

Paired telex frequencies (NBDP) 16 MHz (continued from previous page)

All frequencies are assigned frequencies

Channel number	Coast station TX (kHz)	Ship TX (kHz)
181	16896,5	16778,5
182	16897	16779
183	16897,5	16779,5
184	16898	16780
185	16898,5	16780,5
186	16899	16781
187	16899,5	16781,5
188	16900	16782
189	16900,5	16782,5
190	16901	16783
191	16901,5	16783,5
192	16902	16784
193	16902,5	16784,5

*) 16695,0 kHz is the distress frequency for telex communications.

Paired telex frequencies (NBDP) 18/19 MHz

All frequencies are assigned frequencies

Channel number	Coast station TX (kHz)	Ship TX (kHz)	Channel number	Coast station TX (kHz)	Ship TX (kHz)
1	19681	18870,5	31	19696	18885,5
2	19681,5	18871	32	19696,5	18886
3	19682	18871,5	33	19670	18886,5
4	19682,5	18872	34	19670,5	18887
5	19683	18872,5	35	19671	18887,5
6	19683,5	18873	36	19671,5	18888
7	19684	18873,5	37	19672	18888,5
8	19684,5	18874	38	19672,5	18889
9	19685	18874,5	39	19673	18889,5
10	19685,5	18875	40	19673,5	18890
11	19686	18875,5	41	19701	18890,5
12	19686,5	18876	42	19701,5	18891
13	19687	18876,5	43	19702	18891,5
14	19687,5	18877	44	19702,5	18892
15	19688	18877,5	45	19703	18892,5
16	19688,5	18878			
17	19689	18878,5			
18	19689,5	18879			
19	19690	18879,5			
20	19690,5	18880			
21	19691	18880,5			
22	19691,5	18881			
23	19692	18881,5			
24	19692,5	18882			
25	19693	18882,5			
26	19693,5	18883			
27	19694	18883,5			
28	19694,5	18884			
29	19695	18884,5			
30	19695,5	18885			

Paired telex frequencies (NBDP) 22 MHz

All frequencies are assigned frequencies

Channel number	Coast station TX (kHz)	Ship TX (kHz)	Channel number	Coast station TX (kHz)	Ship TX (kHz)	Channel number	Coast station TX (kHz)	Ship TX (kHz)
1	22376,5	22284,5	61	22406,5	22314,5	121	22436,5	22344,5
2	22377	22285	62	22407	22315	122	22437	22345
3	22377,5	22285,5	63	22407,5	22315,5	123	22437,5	22345,5
4	22378	22286	64	22408	22316	124	22438	22346
5	22378,5	22286,5	65	22408,5	22316,5	125	22438,5	22346,5
6	22379	22287	66	22409	22317	126	22439	22347
7	22379,5	22287,5	67	22409,5	22317,5	127	22439,5	22347,5
8	22380	22288	68	22410	22318	128	22440	22348
9	22380,5	22288,5	69	22410,5	22318,5	129	22440,5	22348,5
10	22381	22289	70	22411	22319	130	22441	22349
11	22381,5	22289,5	71	22411,5	22319,5	131	22441,5	22349,5
12	22382	22290	72	22412	22320	132	22442	22350
13	22382,5	22290,5	73	22412,5	22320,5	133	22442,5	22350,5
14	22383	22291	74	22413	22321	134	22443	22351
15	22383,5	22291,5	75	22413,5	22321,5	135	22443,5	22351,5
16	22384	22292	76	22414	22322			
17	22384,5	22292,5	77	22414,5	22322,5			
18	22385	22293	78	22415	22323			
19	22385,5	22293,5	79	22415,5	22323,5			
20	22386	22294	80	22416	22324			
21	22386,5	22294,5	81	22416,5	22324,5			
22	22387	22295	82	22417	22325			
23	22387,5	22295,5	83	22417,5	22325,5			
24	22388	22296	84	22418	22326			
25	22388,5	22296,5	85	22418,5	22326,5			
26	22389	22297	86	22419	22327			
27	22389,5	22297,5	87	22419,5	22327,5			
28	22390	22298	88	22420	22328			
29	22390,5	22298,5	89	22420,5	22328,5			
30	22391	22299	90	22421	22329			
31	22391,5	22299,5	91	22421,5	22329,5			
32	22392	22300	92	22422	22330			
33	22392,5	22300,5	93	22422,5	22330,5			
34	22393	22301	94	22423	22331			
35	22393,5	22301,5	95	22423,5	22331,5			
36	22394	22302	96	22424	22332			
37	22394,5	22302,5	97	22424,5	22332,5			
38	22395	22303	98	22425	22333			
39	22395,5	22303,5	99	22425,5	22333,5			
40	22396	22304	100	22426	22334			
41	22396,5	22304,5	101	22426,5	22334,5			
42	22397	22305	102	22427	22335			
43	22397,5	22305,5	103	22427,5	22335,5			
44	22398	22306	104	22428	22336			
45	22398,5	22306,5	105	22428,5	22336,5			
46	22399	22307	106	22429	22337			
47	22399,5	22307,5	107	22429,5	22337,5			
48	22400	22308	108	22430	22338			
49	22400,5	22308,5	109	22430,5	22338,5			
50	22401	22309	110	22431	22339			
51	22401,5	22309,5	111	22431,5	22339,5			
52	22402	22310	112	22432	22340			
53	22402,5	22310,5	113	22432,5	22340,5			
54	22403	22311	114	22433	22341			
55	22403,5	22311,5	115	22433,5	22341,5			
56	22404	22312	116	22434	22342			
57	22404,5	22312,5	117	22434,5	22342,5			
58	22405	22313	118	22435	22343			
59	22405,5	22313,5	119	22435,5	22343,5			
60	22406	22314	120	22436	22344			

Paired telex frequencies (NBDP) 25/26 MHz

All frequencies are assigned frequencies

Channel number	Coast station TX (kHz)	Ship TX (kHz)
1	26101	25173
2	26101,5	25173,5
3	26102	25174
4	26102,5	25174,5
5	26103	25175
6	26103,5	25175,5
7	26104	25176
8	26104,5	25176,5
9	26105	25177
10	26105,5	25177,5
11	26106	25178
12	26106,5	25178,5
13	26107	25179
14	26107,5	25179,5
15	26108	25180
16	26108,5	25180,5
17	26109	25181
18	26109,5	25181,5
19	26110	25182
20	26110,5	25182,5
21	26111	25183
22	26111,5	25183,5
23	26112	25184
24	26112,5	25184,5
25	26113	25185
26	26113,5	25185,5
27	26114	25186
28	26114,5	25186,5
29	26115	25187
30	26115,5	25187,5
31	26116	25188
32	26116,5	25188,5
33	26117	25189
34	26117,5	25189,5
35	26118	25190
36	26118,5	25190,5
37	26119	25191
38	26119,5	25191,5
39	26120	25192
40	26120,5	25192,5

Unpaired telex frequencies (NBDP) 4, 6, 8, 12, 16, 18, 22 and 25 MHz

All frequencies are assigned frequencies.

In addition to telex traffic these frequencies can be used for morse telegraphy working (AIA). The frequencies are intended primarily for ship-to-ship communications. They can also be used as ship station TX frequencies in ship-to-shore communications.

Channel number	Ship TX (kHz)	Ship TX (kHz)	Ship TX (kHz)	Ship TX (kHz)	Ship TX (kHz)	Ship TX (kHz)	Ship TX (kHz)	Ship TX (kHz)
1	4202,5	6300,5	8396,5	12560	16785	18893	22352	25193
2	4203	6301	8397	12560,5	16785,5	18893,5	22352,5	25193,5
3	4203,5	6301,5	8397,5	12561	16786	18894	22353	25194
4	4204	6302	8398	12561,5	16786,5	18894,5	22353,5	25194,5
5	4204,5	6302,5	8398,5	12562	16787	18895	22354	25195
6	4205	6303	8399	12562,5	16787,5	18895,5	22354,5	25195,5
7	4205,5	6303,5	8399,5	12563	16788	18896	22355	25196
8	4206	6304	8400	12563,5	16788,5	18896,5	22355,5	25196,5
9	4206,5	6304,5	8400,5	12564	16789	18897	22356	25197
10	4207	6305	8401	12564,5	16789,5	18897,5	22356,5	25197,5
11		6305,5	8401,5	12565	16790	18898	22357	25198
12		6306	8402	12565,5	16790,5		22357,5	25198,5
13		6306,5	8402,5	12566	16791		22358	25199
14		6307	8403	12566,5	16791,5		22358,5	25199,5
15		6307,5	8403,5	12567	16792		22359	25200
16		6308	8404	12567,5	16792,5		22359,5	25200,5
17		6308,5	8404,5	12568	16793		22360	25201
18		6309	8405	12568,5	16793,5		22360,5	25201,5
19		6309,5	8405,5	12569	16794		22361	25202
20		6310	8406	12569,5	16794,5		22361,5	25202,5
21		6310,5	8406,5	12570	16795		22362	25203
22		6311	8407	12570,5	16795,5		22362,5	25203,5
23		6311,5	8407,5	12571	16796		22363	25204
24			8408	12571,5	16796,5		22363,5	25204,5
25			8408,5	12572	16797		22364	25205
26			8409	12572,5	16797,5		22364,5	25205,5
27			8409,5	12573	16798		22365	25206
28			8410	12573,5	16798,5		22365,5	25206,5
29			8410,5	12574	16799		22366	25207
30			8411	12574,5	16799,5		22366,5	25207,5
31			8411,5	12575	16800		22367	25208
32			8412	12575,5	16800,5		22367,5	
33			8412,5	12576	16801		22368	
34			8413	12576,5	16801,5		22368,5	
35			8413,5		16802		22369	
36			8414		16802,5		22369,5	
37					16803		22370	
38					16803,5		22370,5	
39					16804		22371	
40							22371,5	
41							22372	
42							22372,5	
43							22373	
44							22373,5	
45							22374	