Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
9 - 14 kHz RADIONAVIGATION	9 - 14 kHz (5 kHz) Radionavigation		
14.000 - 19.950 kHz FIXED	14.000 - 19.950 kHz (5.950 kHz) Fixed		
MARITIME MOBILE	Maritime mobile		
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	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	Maritime mobile		
RADIONAVIGATION	Radionavigation		
84 - 86 kHz RADIONAVIGATION	84 - 86 kHz (2 kHz) Maritime radionavigation	Simplex. Land station (NL) TX 0,25 kHz.	
86 - 90 kHz FIXED	86 - 90 kHz (4 kHz) Fixed		
MARITIME MOBILE	Maritime mobile		
RADIONAVIGATION	Radionavigation		
90 - 110 kHz RADIONAVIGATION	90 - 110 kHz (20 kHz) Radionavigation		Loran C-navigation system (100 kHz +/- 10 kHz). No transmitters in Finland.
Fixed	Fixed		

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
110 - 112 kHz FIXED MARITIME MOBILE RADIONAVIGATION	110 - 112 kHz (2 kHz) Fixed Maritime mobile Radionavigation		
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 Fixed Maritime mobile	115.000 - 117.600 kHz (2.600 kHz) Maritime radionavigation Fixed Maritime mobile	Simplex. Land station (NL) TX 0,25 kHz.	
117.600 - 126.000 kHz FIXED MARITIME MOBILE RADIONAVIGATION	117.600 - 126.000 kHz (8.400 kHz) Fixed Maritime mobile Radionavigation		Reception of weather maps.
126 - 129 kHz RADIONAVIGATION	126 - 129 kHz (3 kHz) Maritime radionavigation	Simplex. Land station (NL) TX 0,25 kHz.	
129 - 130 kHz FIXED MARITIME MOBILE RADIONAVIGATION	129 - 130 kHz (1 kHz) Fixed Maritime mobile Radionavigation		
130.000 - 148.500 kHz FIXED MARITIME MOBILE Amateur	130.000 - 148.500 kHz (18.500 kHz) Fixed Maritime mobile 135.700 - 137.800 kHz (2.100 kHz) Amateur	 Simplex. Amateur station (AT) TXRX	 Regulation Ficora 6. User certificate required. Radiated power max. 1 W ERP. 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 TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
148.500 - 255.000 kHz BROADCASTING	148.500 - 255.000 kHz (106.500 kHz) Broadcasting	Broadcasting station (sound) (BC) TX 9 kHz, 10 kHz.	Usage according to plan GE-75.
255.000 - 283.500 kHz AERONAUTICAL RADIONAVIGATION BROADCASTING	255.000 - 283.500 kHz (28.500 kHz) Aeronautical radionavigation Broadcasting	Simplex. Land station (AL) TX 1 kHz, 0,8 kHz.	Non-Directional Beacon.
		Broadcasting station (sound) (BC) TX 9 kHz, 10 kHz.	Usage according to plan GE-75.
283.500 - 315.000 kHz AERONAUTICAL RADIONAVIGATION MARITIME RADIONAVIGATION	283.500 - 315.000 kHz (31.500 kHz) Aeronautical radionavigation Radio beacons and DGPS-transmitters	Simplex. Land station (AL) TX 0,5 kHz, 0,8 kHz.	Non-Directional Beacon.
		Simplex. Land station (NL) TX 0,5 kHz, 0,8 kHz.	GE-85 plan radio beacons and DGPS-transmitter in all Baltic Sea countries according to the IALA plan. Consol navigation system. No transmitter in Finland.
315 - 325 kHz AERONAUTICAL RADIONAVIGATION Maritime radionavigation	315 - 325 kHz (10 kHz) Aeronautical radionavigation Maritime radionavigation	Simplex. Land station (AL) TX 1 kHz, 0,8 kHz.	Non-Directional Beacon.
325 - 405 kHz AERONAUTICAL RADIONAVIGATION	325 - 405 kHz (80 kHz) Aeronautical radionavigation	Simplex. Land station (AL) TX 1 kHz, 0,8 kHz.	Non-Directional Beacon.
405 - 415 kHz RADIONAVIGATION	405 - 415 kHz (10 kHz) Aeronautical radionavigation	Simplex. Land station (AL) TX 1 kHz, 0,8 kHz.	410 kHz direction finding transmitter on ship. 406.5-413.5 kHz maritime direction finding has interference protection (RR 5.76). Non-Directional Beacon.
415 - 435 kHz AERONAUTICAL RADIONAVIGATION MARITIME MOBILE	415 - 435 kHz (20 kHz) Aeronautical radionavigation Telex and radiotelegraphy service	Simplex. Land station (AL) TX 1 kHz, 0,8 kHz.	Non-Directional Beacon.
		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)	GE-85 plan. User certificate required.

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
435 - 495 kHz MARITIME MOBILE	435 - 495 kHz (60 kHz) Telex and radiotelegraphy service	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)	GE-85 plan. User certificate required. 490.0 kHz GMDSS:n NAVTEX
Aeronautical radionavigation	Aeronautical radionavigation		Non-Directional Beacon.
495 - 505 kHz MOBILE	495 - 505 kHz (10 kHz) Mobile radio		Other use must not cause harmful interference to maritime mobile service (RR 5.82B).
505.000 - 526.500 kHz MARITIME MOBILE	505.000 - 526.500 kHz (21.500 kHz) Telex and radiotelegraphy service	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)	GE-85 plan. User certificate required. 518.0 kHz NAVTEX MS/RX
AERONAUTICAL RADIONAVIGATION	Aeronautical radionavigation	Simplex. Land station (AL) TX 1 kHz, 0,8 kHz.	Non-Directional Beacon.
526.500 - 1606.500 kHz BROADCASTING	526.500 - 1606.500 kHz (1080 kHz) Broadcasting	Broadcasting station (sound) (BC) TX 9 kHz, 10 kHz.	Usage according to plan GE-75. In use: 558 kHz Helsinki 963 kHz Pori.
1606.500 - 1625.000 kHz FIXED	1606.500 - 1625.000 kHz (18.500 kHz) Fixed		
LAND MOBILE	Land mobile		
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. GE-85 plan. 1621.0-1624.5 kHz national DSC frequencies, TX coast stations.

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
1625 - 1635 kHz RADIOLOCATION	1625 - 1635 kHz (10 kHz) Radiolocation		
1635 - 1800 kHz FIXED	1635 - 1800 kHz (165 kHz) Fixed		
MARITIME MOBILE	Radiotelephone service	Duplex. Coast station (FC) TX 3 kHz, 2,8 kHz. (J3E) 2060.000 - 2141.500 kHz	User certificate required. GE-85 plan. Carrier frequency 1.4 kHz below center frequency.
LAND MOBILE	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 8 kHz.	Regulation Ficora 6. User certificate required. The transmitter power in the novice 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 AMATEUR	1850 - 1855 kHz (5 kHz) Amateur	Simplex. Amateur station (AT) TXRX 8 kHz.	Regulation Ficora 6. User certificate required. 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	1850 - 1950 kHz (100 kHz) Maritime radiotelephone service	Duplex. Coast station (FC) TX 3 kHz, 2,8 kHz. (J3E)	User certificate required.
FIXED	1850 - 2000 kHz (150 kHz) Fixed		
AMATEUR	1861 - 1906 kHz (45 kHz) Amateur	Simplex. Amateur station (AT) TXRX 8 kHz.	Regulation Ficora 6. User certificate required. The transmitter power max. 15 W. Peak envelope power 60 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 TX/RX-code** **Channel spacing, bandwidth. (Class of emission)** **Duplex separation and duplex band** **Standart type**	**Comments**
	1912 - 2000 kHz (88 kHz) Amateur	Simplex. Amateur station (AT) TXRX 8 kHz.	Regulation Ficora 6. User certificate required. 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.
2000 - 2025 kHz FIXED	2000 - 2025 kHz (25 kHz) Fixed		
MOBILE (except aeronautical mobile (R))	Maritime radiotelephone service	Duplex. Coast station (FC) RX 3 kHz, 2,8 kHz. (J3E)	User certificate required. Paired band is not defined. 2000,4-2024,4 kHz vessels.
2025 - 2045 kHz FIXED	2025 - 2045 kHz (20 kHz) Fixed		
MOBILE (except aeronautical mobile (R))	Maritime 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. Paired band is not defined.
Meteorological aids	Meteorological Aids		
2045 - 2160 kHz MARITIME MOBILE	2045 - 2060 kHz (15 kHz) Radiotelephone service	Duplex. Ship station (MS) TX 3 kHz, 2,8 kHz. (J3E)	User certificate required. 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	Land mobile		
MARITIME MOBILE	2060.000 - 2141.500 kHz (81.500 kHz) Radiotelephone service	Duplex. Coast station (FC) RX 3 kHz, 2,8 kHz. (J3E) 1635 - 1800 kHz	User certificate required.
	2141.500 - 2160.000 kHz (18.500 kHz) Telex and DSC-traffic	Duplex. Coast station (FC) RX 0,5 kHz, (F1B) 1605.500 - 1625.000 kHz	User certificate required. GE-85 plan. 2156.0 -2159.5 kHz national DSC frequencies, ships TX.

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
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.
2173.500 - 2190.500 kHz MOBILE	2173.500 - 2190.500 kHz (17 kHz) Maritime mobile	Simplex. Coast station (FC) TXRX Ship station (MS) TXRX	User certificate required. 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.
2194 - 2300 kHz FIXED MOBILE (except aeronautical mobile (R))	2194 - 2300 kHz (106 kHz) HF links Radiolocation Maritime radiotelephone service	Simplex. Fixed station (FX) TXRX Simplex. Mobile station (MR) TXRX Duplex. Coast station (FC) RX Ship station (MS) RX 3 kHz, (J3E) Simplex. Coast station (FC) TXRX Ship station (MS) TXRX 3 kHz, (J3E)	 User certificate required. 2196.4 - 2259.4 kHz vessels. 2264.4 - 2297.4 kHz ship to ship.

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
2300 - 2498 kHz FIXED	2300 - 2498 kHz (198 kHz) HF links	Simplex. Fixed station (FX) TXRX	
BROADCASTING	Broadcasting		Restrictions on use (RR 5.113).
MOBILE (except aeronautical mobile (R))	Maritime radiotelephone service	Simplex. Coast station (FC) TXRX Ship station (MS) TXRX 3 kHz, (J3E)	User certificate required. 2300.4 - 2495.4 kHz ship to ship. 2339.4 kHz traffic between finnish ships.
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	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.
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. Also radiotelephone service (class of emission 2K80J3E).
2625 - 2650 kHz MARITIME RADIONAVIGATION	2625 - 2650 kHz (25 kHz) Maritime radionavigation		
MARITIME MOBILE	Maritime radiotelephone service	Duplex. Coast station (FC) TX (F1B) (J3E) Duplex. Coast station (FC) RX (F1B) (J3E) Simplex. Coast station (FC) TXRX (F1B) (J3E)	User certificate required.

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
2650 - 2850 kHz FIXED MOBILE (except aeronautical mobile (R))	2650 - 2850 kHz (200 kHz) HF links Maritime radiotelephone service	Simplex. Fixed station (FX) TXRX	
		Duplex. Coast station (FC) TX 0,5 kHz, (F1B)	User certificate required.
2850 - 3025 kHz AERONAUTICAL MOBILE (R)	2850 - 3025 kHz (175 kHz) Aeronautical mobile	Simplex. Aeronautical station (FA) TXRX 3 kHz, 2,7 kHz.	The user of radio equipment used in aviation must have a radio telephone operators certificate issued by the Finnish Civil Aviation Authority. 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 radio equipment used in aviation must have a radio telephone operators certificate issued by the Finnish Civil Aviation Authority.
3155 - 3200 kHz FIXED MOBILE (except aeronautical mobile (R))	3155 - 3200 kHz (45 kHz) HF links Maritime radiotelephone service	Simplex. Fixed station (FX) TXRX	
		Simplex. Coast station (FC) TXRX 0,5 kHz,	User certificate required. Recommendation of use: Vessel (MS) F1B-transmission.
3200 - 3230 kHz FIXED BROADCASTING MOBILE (except aeronautical mobile (R))	3200 - 3230 kHz (30 kHz) Fixed Broadcasting Maritime radiotelephone service	Simplex. Fixed station (FX) TXRX 8 kHz,	
			Restrictions on use (RR 5.113).
		Duplex. Coast station (FC) RX 3 kHz, (J3E)	User certificate required. Paired band is not defined. 3202.4 - 3229.4 kHz vessels.
3230 - 3400 kHz FIXED BROADCASTING MOBILE (except aeronautical mobile)	3230 - 3400 kHz (170 kHz) HF links Broadcasting Maritime radiotelephone service	Simplex. Fixed station (FX) TXRX	
			Restrictions on use (RR 5.113).
		Duplex. Base station (FB) RX 3 kHz, (J3E)	User certificate required.
3400 - 3500 kHz AERONAUTICAL MOBILE (R)	3400 - 3500 kHz (100 kHz) Aeronautical mobile		The user of radio equipment used in aviation must have a radio telephone operators certificate issued by the Finnish Civil Aviation Authority.

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
3500 - 3800 kHz FIXED	3500 - 3800 kHz (300 kHz) HF links	Simplex. Fixed station (FX) TXRX	
MOBILE (except aeronautical mobile)	Maritime service	Simplex. Coast station (FC) TXRX 3 kHz. (J3E)	User certificate required.
AMATEUR	Amateur	Simplex. Amateur station (AT) TXRX 8 kHz.	Regulation Ficora 6. User certificate required. The transmitter power in the novice 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.
3800 - 3900 kHz FIXED	3800 - 3900 kHz (100 kHz) HF links	Simplex. Fixed station (FX) TXRX	
AERONAUTICAL MOBILE (OR)	Aeronautical mobile		The user of radio equipment used in aviation must have a radio telephone operators certificate issued by the Finnish Civil Aviation Authority.
LAND MOBILE	Maritime service		User certificate required.
3900 - 3950 kHz AERONAUTICAL MOBILE (OR)	3900 - 3950 kHz (50 kHz) Aeronautical mobile		The user of radio equipment used in aviation must have a radio telephone operators certificate issued by the Finnish Civil Aviation Authority.
3950 - 4000 kHz FIXED	3950 - 4000 kHz (50 kHz) HF links	Simplex. Fixed station (FX) TXRX	
BROADCASTING	Broadcasting		
4000 - 4063 kHz FIXED	4000 - 4063 kHz (63 kHz) HF links	Simplex. Fixed station (FX) TXRX	
MARITIME MOBILE	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. 4001.4 - 4061.4 kHz ship to ship. 21 maritime radio simplex channels. Finnish ships use. 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 TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
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. 6 channels, maritime research.
	4066.400 - 4144.400 kHz (78 kHz) Radiotelephone service	Duplex. Coast station (FC) RX 3 kHz, 2,8 kHz. (J3E) 4352.400 - 4436.400 kHz	User certificate required. 27 half duplex channels. Carrier frequency 1.4 kHz below center frequency. 4126.4 kHz international distress and calling frequency.
	4147.400 - 4150.400 kHz (3 kHz) Radiotelephone service	Simplex. Coast station (FC) TXRX Ship station (MS) TXRX 3 kHz, 2,8 kHz. (J3E)	User certificate required. 2 channels. Traffic between vessels and other simplex traffic. Carrier frequency 1.4 kHz below center frequency.
	4154 - 4170 kHz (16 kHz) Wide-band telegraphy and special transmissions	Simplex. Ship station (MS) TX 4 kHz,	User certificate required. Wideband transmissions, facsimile and special transmission systems. 5 channels.
	4172.500 - 4181.500 kHz (9 kHz) Radio telex service	Duplex. Coast station (FC) RX 0,5 kHz, 0,304 kHz. (F1B) 4209.500 - 4219.000 kHz	User certificate required. 18 half duplex channels. 4177.5 kHz international distress and safety frequency. Digital transmission allowed on condition that harmful interference is not caused to other mobile maritime service.
	4181.750 - 4186.750 kHz (5 kHz) Radiotelegraphy service	Duplex. Coast station (FC) RX 0,1 kHz, (A1A) (A1B)	User certificate required. Paired band is not defined. Digital transmission allowed on condition that harmful interference is not caused to other mobile maritime service.
	4187 - 4202 kHz (15 kHz) Radiotelegraphy service	Duplex. Coast station (FC) RX 0,1 kHz, (A1A) (A1B) Simplex. Ship station (MS) TXRX 0,1 kHz, (A1A) (A1B)	User certificate required. Paired band is not defined. Finnish vessels: 4189.0, 4191.5, 4194.0 ja 4199.0 kHz, +/- 200 Hz. Digital transmission allowed on condition that harmful interference is not caused to other mobile maritime service.

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
	4202.500 - 4207.000 kHz (4.500 kHz) Telex and radiotelegraphy service	Duplex. Coast station (FC) RX 0,5 kHz, (A1A) (A1B) (F1B) Simplex. Ship station (MS) TXRX 0,5 kHz, (A1A) (A1B) (F1B)	User certificate required. 10 channels. Secondary traffic between vessels and coast stations. Digital transmission allowed on condition that harmful interference is not caused to other mobile maritime service.
	4207.500 - 4209.000 kHz (1.500 kHz) DSC service	Duplex. Coast station (FC) RX 0,5 kHz, 0,304 kHz. (F1B) 4219.500 - 4220.500 kHz Simplex. Coast station (FC) TXRX 0,5 kHz, (F1B)	User certificate required. 4207.5 kHz international distress frequency (simplex). 4208.5, 4209.0 ja 4208.0 kHz international calling frequencies, 3 half channels.
	4209.500 - 4219.000 kHz (9.500 kHz) Radio telex service	Duplex. Coast station (FC) TX 0,5 kHz, 0,304 kHz. (F1B) 4172.500 - 4181.500 kHz	User certificate required. 18 half duplex channels and 1 simplex channel. 4209.5 ja 4210.0 kHz GMDSS/MSI. Digital transmission allowed on condition that harmful interference is not caused to other mobile maritime service.
	4219.500 - 4220.500 kHz (1 kHz) DSC service	Duplex. Coast station (FC) TX 0,5 kHz, 0,304 kHz. (F1B) 4207.500 - 4209.000 kHz	User certificate required. 4219.5, 4220.0 and 4220.5 kHz international calling frequencies, 3 half channels.
	4221 - 4351 kHz (130 kHz) Wide-band telegraphy and special transmissions	Duplex. Coast station (FC) TX Simplex. Coast station (FC) TXRX	User certificate required. Wideband transmissions, facsimile and special transmission systems. Channel spacing and paired band are not defined.
	4352.400 - 4436.400 kHz (84 kHz) Radiotelephone service	Duplex. Coast station (FC) TX 3 kHz, 2,8 kHz. (J3E) 4066.400 - 4144.400 kHz	User certificate required. 29 half duplex channels. Carrier frequency 1.4 kHz below center frequency. 4418.4 kHz international calling frequency.
4438 - 4650 kHz FIXED MOBILE (except aeronautical mobile (R))	4438 - 4650 kHz (212 kHz) HF links Mobile radio	Simplex. Fixed station (FX) TXRX	
4650 - 4700 kHz AERONAUTICAL MOBILE (R)	4650 - 4700 kHz (50 kHz) Aeronautical mobile	Simplex. Aeronautical station (FA) TXRX 3 kHz, 2,7 kHz.	The user of radio equipment used in aviation must have a radio telephone operators certificate issued by the Finnish Civil Aviation Authority.

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
4700 - 4750 kHz AERONAUTICAL MOBILE (OR)	4700 - 4750 kHz (50 kHz) Aeronautical mobile		The user of radio equipment used in aviation must have a radio telephone operators certificate issued by the Finnish Civil Aviation Authority.
4750 - 4850 kHz FIXED	4750 - 4850 kHz (100 kHz) HF links	Simplex. Fixed station (FX) TXRX	
AERONAUTICAL MOBILE (OR)	Aeronautical mobile		The user of radio equipment used in aviation must have a radio telephone operators certificate issued by the Finnish Civil Aviation Authority.
BROADCASTING	Broadcasting		Restrictions on use (RR 5.113).
LAND MOBILE	Land mobile		
4850 - 4995 kHz FIXED	4850 - 4995 kHz (145 kHz) HF links	Simplex. Fixed station (FX) TXRX	
BROADCASTING	Broadcasting		Restrictions on use (RR 5.113).
LAND MOBILE	Land mobile		
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	Space research		
5005 - 5060 kHz FIXED	5005 - 5060 kHz (55 kHz) Fixed		
BROADCASTING	Broadcasting		Restrictions on use (RR 5.113).
5060 - 5250 kHz FIXED	5060 - 5250 kHz (190 kHz) HF links	Simplex. Fixed station (FX) TXRX	
Mobile (except aeronautical mobile)	Mobile radio		

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
5250 - 5450 kHz FIXED MOBILE (except aeronautical mobile)	5250 - 5450 kHz (200 kHz) HF links Maritime service	Simplex. Fixed station (FX) TXRX	
		Simplex. Coast station (FC) TXRX	User certificate is required of users of maritime safety equipment.
5450 - 5480 kHz FIXED AERONAUTICAL MOBILE (OR) LAND MOBILE	5450 - 5480 kHz (30 kHz) Fixed Aeronautical mobile Land mobile		
			The user of radio equipment used in aviation must have a radio telephone operators certificate issued by the Finnish Civil Aviation Authority.
5480 - 5680 kHz AERONAUTICAL MOBILE (R)	5480 - 5680 kHz (200 kHz) Aeronautical mobile		The user of radio equipment used in aviation must have a radio telephone operators certificate issued by the Finnish Civil Aviation Authority. 5680 kHz international collective frequency for search and rescue, R ja OR.
5680 - 5730 kHz AERONAUTICAL MOBILE (OR)	5680 - 5730 kHz (50 kHz) Aeronautical mobile		The user of radio equipment used in aviation must have a radio telephone operators certificate issued by the Finnish Civil Aviation Authority.
5730 - 5900 kHz FIXED LAND MOBILE	5730 - 5900 kHz (170 kHz) HF links Land mobile	Simplex. Fixed station (FX) TXRX	
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, 5.143, 5.146 and 5.151).
5950 - 6200 kHz BROADCASTING	5950 - 6200 kHz (250 kHz) Broadcasting	Simplex. Broadcasting station (sound) (BC) TX 10 kHz.	

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
6200 - 6525 kHz MARITIME MOBILE	6201.400 - 6222.400 kHz (21 kHz) Radiotelephone service	Duplex. Coast station (FC) RX 3 kHz, 2,8 kHz. (J3E) 6502.400 - 6523.400 kHz	User certificate required. 8 half channels. 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).
	6225.400 - 6231.400 kHz (6 kHz) Radiotelephone service	Simplex. Coast station (FC) TXRX Ship station (MS) TXRX 3 kHz, 2,8 kHz. (J3E)	User certificate required. 3 radiotelephone channels. Ships to ships traffic and other simplex traffic. Carrier frequency 1.4 kHz below center frequency.
	6235 - 6259 kHz (24 kHz) Wide-band telegraphy and special transmissions	Simplex. Coast station (FC) TXRX Ship station (MS) TXRX 4 kHz,	User certificate required. Wideband transmissions, facsimile and special transmission systems. 7 channels.
	6261.300 - 6262.500 kHz (1.200 kHz) Data service	Simplex. Coast station (FC) TXRX 0,3 kHz,	User certificate required. 6 channels, maritime research.
	6263.000 - 6275.500 kHz (12.500 kHz) Radio telex service	Duplex. Coast station (FC) RX 0,5 kHz, 0,304 kHz. (F1B) 6314.000 - 6326.500 kHz	User certificate required. 25 half channels. 6268.0 kHz international distress/telex (TX/RX). Digital transmission allowed on condition that harmful interference is not caused to other mobile maritime service.
	6275.750 - 6280.750 kHz (5 kHz) Radiotelegraphy service	Duplex. Coast station (FC) RX 0,1 kHz, (A1A) (A1B)	User certificate required. Paired band is not defined. International A1A calling channels for vessels (morse code). Digital transmission allowed on condition that harmful interference is not caused to other mobile maritime service.
	6281.000 - 6284.500 kHz (3.500 kHz) Radio telex service	Duplex. Coast station (FC) RX 0,5 kHz, 0,304 kHz. (F1B) 6327.000 - 6330.500 kHz	User certificate required. 8 half channels. Digital transmission allowed on condition that harmful interference is not caused to other mobile maritime service.

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
	6285 - 6300 kHz (15 kHz) Radiotelegraphy service	Duplex. Coast station (FC) RX 0,1 kHz, (A1A) (A1B) Simplex. Ship station (MS) TXRX 0,1 kHz, (A1A) (A1B)	User certificate required. Paired band is not defined. Finnish vessels: 6287.0, 6289.5, 6292.0 ja 6297.0 kHz, +/-200 Hz. Digital transmission allowed on condition that harmful interference is not caused to other mobile maritime service.
	6300.500 - 6311.500 kHz (11 kHz) Telex and radiotelegraphy service	Duplex. Coast station (FC) RX 0,5 kHz, (A1A) (F1B) Simplex. Ship station (MS) TXRX 0,5 kHz, (A1A) (F1B)	User certificate required. 23 channels. Unpaired frequencies. Digital transmission allowed on condition that harmful interference is not caused to other mobile maritime service.
	6312.000 - 6313.500 kHz (1.500 kHz) DSC service	Duplex. Coast station (FC) RX 0,5 kHz, 0,304 kHz. (F1B) 6331 - 6332 kHz	User certificate required. 6312.0 kHz international DSC distress frequency. 6312.5, 6313.0 ja 6313.5 kHz international calling frequencies, 3 half channels.
	6314.000 - 6330.500 kHz (16.500 kHz) Radio telex service	Duplex. Coast station (FC) TX 0,5 kHz, 0,304 kHz. (F1B) 6263.000 - 6275.500 kHz Duplex. Coast station (FC) TX 0,5 kHz, 0,304 kHz. (F1B) 6281.000 - 6284.500 kHz	User certificate required. 34 half duplex channels and 1 simplex channel. 6314.0 kHz GMDSS/MSI (TX/RX). Digital transmission allowed on condition that harmful interference is not caused to other mobile maritime service.
	6331 - 6332 kHz (1 kHz) DSC service	Duplex. Coast station (FC) TX 0,5 kHz, (F1B) 6312.000 - 6313.500 kHz	User certificate required. 6331.0, 6331.5 ja 6332.0 kHz international calling frequencies, 3 half channels.
	6332 - 6502 kHz (170 kHz) Wide-band telegraphy and special transmissions	Duplex. Coast station (FC) TX Simplex. Coast station (FC) TXRX	User certificate required. Channel spacing and paired band are not defined. Wideband transmissions, facsimile and special transmission systems.
	6502.400 - 6523.400 kHz (21 kHz) Radiotelephone service	Duplex. Coast station (FC) TX 3 kHz, 2,8 kHz. (J3E) 6201.400 - 6222.400 kHz	User certificate required. 8 channels. Carrier frequency 1.4 kHz below center frequency. 6517.4 kHz international calling frequency.
6525 - 6685 kHz AERONAUTICAL MOBILE (R)	6525 - 6685 kHz (160 kHz) Aeronautical mobile	Simplex. Aeronautical station (FA) TXRX 3 kHz, 2,7 kHz.	The user of radio equipment used in aviation must have a radio telephone operators certificate issued by the Finnish Civil Aviation Authority.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic. Class of station and TX/RX-code** **Channel spacing, bandwidth. (Class of emission)** **Duplex separation and duplex band** **Standart type**	**Comments**
6685 - 6765 kHz AERONAUTICAL MOBILE (OR)	6685 - 6765 kHz (80 kHz) Aeronautical mobile		The user of radio equipment used in aviation must have a radio telephone operators certificate issued by the Finnish Civil Aviation Authority.
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))	Mobile radio		6765 - 6795 kHz ISM (RR 5.138).
7000 - 7100 kHz AMATEUR AND AMATEUR-SATELLITE	7000 - 7100 kHz (100 kHz) Amateur and amateur-Satellite	Simplex. Amateur station (AT) TXRX 8 kHz.	Regulation Ficora 6. User certificate required. The transmitter power in the novice 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 8 kHz.	Regulation Ficora 6. User certificate required. The transmitter power in the novice 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 5.136, 5.143, 5.146 and 5.151).
7400 - 7450 kHz BROADCASTING	7400 - 7450 kHz (50 kHz) Broadcasting		Restricted fixed and mobile service possible, on condition that harmful interference is not caused to the broadcasting service (RR 5.143B).

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
7450 - 8100 kHz FIXED MOBILE (except aeronautical mobile (R))	7450 - 8100 kHz (650 kHz) HF links Mobile radio	Simplex. Fixed station (FX) TXRX	
8100 - 8195 kHz FIXED MARITIME MOBILE	8100 - 8195 kHz (95 kHz) HF links Radiotelephone service	Simplex. Fixed station (FX) TXRX	
		Duplex. Coast station (FC) RX 3 kHz, (J3E) Simplex. Ship station (MS) TXRX 3 kHz, (J3E)	User certificate required. 8102.4 - 8129.4 kHz ship to ship. 31 maritime radio simplex channels. Finnish ships use. Also cross band traffic, ship to shore.
8195 - 8815 kHz MARITIME MOBILE	8196.400 - 8292.400 kHz (96 kHz) Radiotelephone service	Duplex. Coast station (FC) RX 3 kHz, 2,8 kHz. (J3E) 8720.400 - 8813.400 kHz	User certificate required. 33 half channels and 1 simplex channel. Carrier frequency 1.4 kHz below center frequency. 8256.4 kHz international calling frequency. 8292.4 kHz international distress frequency (TX/RX).
	8295.400 - 8298.400 kHz (3 kHz) Radiotelephone service	Simplex. Coast station (FC) TXRX Ship station (MS) TXRX 3 kHz, 2,8 kHz. (J3E)	User certificate required. 2 channels. Carrier frequency 1.4 kHz below center frequency.
	8302 - 8338 kHz (36 kHz) Wide-band telegraphy and special transmissions	Simplex. Coast station (FC) TXRX Ship station (MS) TXRX 4 kHz,	User certificate required. Wideband transmissions, facsimile and special transmission systems. 10 channels.
	8340.300 - 8341.500 kHz (1.200 kHz) Data service	Duplex. Coast station (FC) RX 0,3 kHz,	User certificate required. 5 channels, maritime research.
	8342.000 - 8365.500 kHz (23.500 kHz) Radiotelegraphy service	Duplex. Coast station (FC) RX 0,1 kHz, (A1A) (A1B) Simplex. Ship station (MS) TXRX 0,1 kHz, (A1A) (A1B)	User certificate required. Paired band is not defined. Finnish vessels: 8344.0, 8346.5, 8349.0 and 8354.0 kHz, +/- 200 Hz. Digital transmission allowed on condition that harmful interference is not caused to other mobile maritime service.

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
	8365.750 - 8370.750 kHz (5 kHz) Radiotelegraphy service	Duplex. Coast station (FC) RX 0,1 kHz, (A1A) (A1B)	User certificate required. Paired band is not defined. International A1A calling channels for vessels (morse code). Digital transmission allowed on condition that harmful interference is not caused to other mobile maritime service.
	8371 - 8376 kHz (5 kHz) Radiotelegraphy service	Duplex. Coast station (FC) RX 0,1 kHz, (A1A) (A1B) Simplex. Ship station (MS) TXRX 0,1 kHz, (A1A) (A1B)	User certificate required. Paired band is not defined. Finnish vessels: 8374.0 kHz, +/- 200 Hz. Digital transmission allowed on condition that harmful interference is not caused to other mobile maritime service.
	8376.500 - 8396.000 kHz (19.500 kHz) Radio telex service	Duplex. Coast station (FC) RX 0,5 kHz, 0,304 kHz. (F1B) 8416.500 - 8436.000 kHz	User certificate required. 39 half channels and 1 simplex channel. 8376.5 kHz distress frequency (TX/RX). Digital transmission allowed on condition that harmful interference is not caused to other mobile maritime service.
	8396.500 - 8414.000 kHz (17.500 kHz) Telex and radiotelegraphy service	Duplex. Coast station (FC) RX 0,5 kHz, (A1A) (A1B) (F1B) Simplex. Ship station (MS) TXRX 0,5 kHz, (A1A) (A1B) (F1B)	User certificate required. 36 channels. Unpaired frequencies. Digital transmission allowed on condition that harmful interference is not caused to other mobile maritime service.
	8414.500 - 8416.000 kHz (1.500 kHz) DSC service	Duplex. Coast station (FC) RX 0,5 kHz, 0,304 kHz. (F1B) 8436.500 - 8437.500 kHz	User certificate required. 8414.5 kHz international distress frequency (TX/RX). 8415.0, 8415.5 and 8416.0 kHz international calling frequencies, 3 half channels.
	8416.500 - 8436.000 kHz (19.500 kHz) Radio telex service	Duplex. Coast station (FC) TX 0,5 kHz, 0,304 kHz. (F1B) 8376.500 - 8396.000 kHz	User certificate required. 39 half duplex channels and 1 simplex channel. 8416.5 kHz GMDSS safety frequency (MSI transmission). Digital transmission allowed on condition that harmful interference is not caused to other mobile maritime service.
	8436.500 - 8437.500 kHz (1 kHz) DSC service	Duplex. Coast station (FC) RX 0,5 kHz, 0,304 kHz. (F1B) 8414.500 - 8416.000 kHz	User certificate required. 8436.5, 8437.0 and 8437.5 kHz international calling frequencies, 3 half channels.

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
	8438 - 8707 kHz (269 kHz) Wide-band telegraphy and special transmissions	Duplex. Coast station (FC) TX Simplex. Coast station (FC) TXRX	User certificate required. Wideband transmissions, radiotelegraphy, facsimile and special transmission systems.
	8708.400 - 8717.400 kHz (9 kHz) Radiotelephone service	Duplex. Coast station (FC) TX 3 kHz, 2,8 kHz. (J3E)	User certificate required. Paired band is not defined. 4 channels. Carrier frequency 1.4 kHz below center frequency.
	8720.400 - 8813.400 kHz (93 kHz) Radiotelephone service	Duplex. Coast station (FC) TX 3 kHz, 2,8 kHz. (J3E) 8196.400 - 8292.400 kHz	User certificate required. 32 channels. 8780.4 kHz international calling frequency. Carrier frequency 1.4 kHz below center frequency.
8815 - 8965 kHz AERONAUTICAL MOBILE (R)	8815 - 8965 kHz (150 kHz) Aeronautical mobile		The user of radio equipment used in aviation must have a radio telephone operators certificate issued by the Finnish Civil Aviation Authority.
8965 - 9040 kHz AERONAUTICAL MOBILE (OR)	8965 - 9040 kHz (75 kHz) Aeronautical mobile		The user of radio equipment used in aviation must have a radio telephone operators certificate issued by the Finnish Civil Aviation Authority.
9040 - 9400 kHz FIXED	9040 - 9400 kHz (360 kHz) HF links	Simplex. Fixed station (FX) TXRX	
9400 - 9500 kHz BROADCASTING	9400 - 9500 kHz (100 kHz) Broadcasting		Restricted fixed and mobile service possible, on condition that harmful interference is not caused to the broadcasting service (RR 5.136, 5.143, 5.146 and 5.151).
9500 - 9900 kHz BROADCASTING	9500 - 9900 kHz (400 kHz) Broadcasting	Simplex. Broadcasting station (sound) (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.

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
10003 - 10005 kHz STANDARD FREQUENCY AND TIME SIGNAL	10003 - 10005 kHz (2 kHz) Standard frequency and time signal		
Space research	Space research		
10005 - 10100 kHz AERONAUTICAL MOBILE (R)	10005 - 10100 kHz (95 kHz) Aeronautical mobile	Simplex. Aeronautical station (FA) TXRX 3 kHz, 2,7 kHz.	The user of radio equipment used in aviation must have a radio telephone operators certificate issued by the Finnish Civil Aviation Authority.
10100 - 10150 kHz FIXED	10100 - 10150 kHz (50 kHz) HF links	Simplex. Fixed station (FX) TXRX	
Amateur	Amateur	Simplex. Amateur station (AT) TXRX 1 kHz.	Regulation Ficora 6. User certificate required. The transmitter power in the novice 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))	Mobile radio		
11175 - 11275 kHz AERONAUTICAL MOBILE (OR)	11175 - 11275 kHz (100 kHz) Aeronautical mobile		The user of radio equipment used in aviation must have a radio telephone operators certificate issued by the Finnish Civil Aviation Authority.
11275 - 11400 kHz AERONAUTICAL MOBILE (R)	11275 - 11400 kHz (125 kHz) Aeronautical mobile		The user of radio equipment used in aviation must have a radio telephone operators certificate issued by the Finnish Civil Aviation Authority.
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 and mobile service possible, on condition that harmful interference is not caused to the broadcasting service (RR 5.136, 5.143, 5.146 and 5.151).

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
11650 - 12050 kHz BROADCASTING	11650 - 12050 kHz (400 kHz) Broadcasting	Simplex. Broadcasting station (sound) (BC) TX 10 kHz.	11755 and 11820 kHz Pori, frequencies vary.
12050 - 12100 kHz BROADCASTING	12050 - 12100 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, 5.143, 5.146 and 5.151).
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) Radiotelephone service	Duplex. Coast station (FC) RX 3 kHz, 2,8 kHz. (J3E) 13078.400 - 13198.400 kHz	User certificate required. 41 half duplex channels of which one half is also used as simplex channel. Carrier frequency 1.4 kHz below center frequency. 12291.4 kHz international distress frequency and calling frequency of maritime rescue centres.
	12354.400 - 12366.400 kHz (12 kHz) Radiotelephone service	Simplex. Coast station (FC) TXRX Ship station (MS) TXRX 3 kHz, 2,8 kHz. (J3E)	User certificate required. 5 radiotelephone channels. 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).
	12370 - 12418 kHz (48 kHz) Wide-band telegraphy and special transmissions	Simplex. Base station (FB) TXRX Mobile station (MR) TXRX 4 kHz,	User certificate required. Wideband transmissions, facsimile and special transmission systems. 13 channels.
	12420.300 - 12421.500 kHz (1.200 kHz) Data service	Simplex. Coast station (FC) TXRX 0,3 kHz,	User certificate required. 5 channels, maritime research.
	12422.000 - 12476.500 kHz (54.500 kHz) Radiotelegraphy service	Duplex. Coast station (FC) RX 0,1 kHz, (A1A) (A1B) Simplex. Ship station (MS) TXRX 0,1 kHz, (A1A) (A1B)	User certificate required. Paired band is not defined. Finnish vessels: 12424.0, 12426.5, 12429.0, 12434.0, 12449.0, 12459.0 and 12474.0 kHz, +/- 200 Hz. Digital transmission allowed on condition that harmful interference is not caused to other mobile maritime service.

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
	12477.000 - 12549.500 kHz (72.500 kHz) Radio telex service	Duplex. Coast station (FC) RX 0,5 kHz, 0,304 kHz. (F1B) 12579.500 - 12656.500 kHz	User certificate required. 146 half duplex channels and 1 simplex channel. 12520.0 kHz international distress frequency (TX/RX). Digital transmission allowed on condition that harmful interference is not caused to other mobile maritime service.
	12549.750 - 12554.750 kHz (5 kHz) Radiotelegraphy service	Duplex. Coast station (FC) RX 0,1 kHz, (A1A) (A1B)	User certificate required. Calling frequencies. Paired band is not defined. Digital transmission allowed on condition that harmful interference is not caused to other mobile maritime service.
	12555.000 - 12559.500 kHz (4.500 kHz) Radio telex service	Duplex. Coast station (FC) RX 0,5 kHz, 0,304 kHz. (F1B) 12652.000 - 12656.500 kHz	User certificate required. 10 half duplex channels (channels 147-156). Digital transmission allowed on condition that harmful interference is not caused to other mobile maritime service.
	12560.000 - 12576.500 kHz (16.500 kHz) Telex and radiotelegraphy service	Duplex. Coast station (FC) RX 0,5 kHz, (A1A) (A1B) (F1B) Simplex. Ship station (MS) TXRX 0,5 kHz, (A1A) (A1B) (F1B)	User certificate required. 34 channels. Unpaired frequencies. Digital transmission allowed on condition that harmful interference is not caused to other mobile maritime service.
	12577.000 - 12578.500 kHz (1.500 kHz) DSC service	Duplex. Coast station (FC) RX 0,5 kHz, 0,304 kHz. (F1B) 12657 - 12658 kHz	User certificate required. 12577 kHz international DSC distress frequency. 12577.5, 12578.0 and 12578.5 kHz international calling frequencies, 3 half even channels, (ships TX).
	12579.000 - 12656.500 kHz (77.500 kHz) Radio telex service	Duplex. Coast station (FC) TX 0,5 kHz, 0,304 kHz. (F1B) 12477.000 - 12549.500 kHz Duplex. Coast station (FC) TX 0,5 kHz, 0,304 kHz. (F1B) 12555.000 - 12559.500 kHz	User certificate required. 156 half duplex channels and 1 simplex channel. 12579 kHz international security frequency/MSI (TX/RX). Digital transmission allowed on condition that harmful interference is not caused to other mobile maritime service.
	12657 - 12658 kHz (1 kHz) DSC service	Duplex. Coast station (FC) TX 0,5 kHz, 0,304 kHz. (F1B) 12577.500 - 12578.500 kHz	User certificate required. 12657.0, 12657.5 and 12658.0 kHz international calling frequencies, 3 half even channels, (ships RX).

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
	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. Channel spacing and paired band are not defined. Wideband transmissions, facsimile and special transmission systems.
	13078.400 - 13198.400 kHz (120 kHz) Radiotelephone service	Duplex. Coast station (FC) TX 3 kHz, 2,8 kHz. (J3E) 12231.400 - 12351.400 kHz	User certificate required. 41 half duplex channels. 13138.4 kHz international calling frequency.
13200 - 13260 kHz AERONAUTICAL MOBILE (OR)	13200 - 13260 kHz (60 kHz) Aeronautical mobile		The user of radio equipment used in aviation must have a radio telephone operators certificate issued by the Finnish Civil Aviation Authority.
13260 - 13360 kHz AERONAUTICAL MOBILE (R)	13260 - 13360 kHz (100 kHz) Aeronautical mobile		The user of radio equipment used in aviation must have a radio telephone operators certificate issued by the Finnish Civil Aviation Authority.
13360 - 13410 kHz FIXED RADIO ASTRONOMY	13360 - 13410 kHz (50 kHz) HF links Radio Astronomy	Simplex. Fixed station (FX) TXRX	Protection for radio astronomy.
13410 - 13570 kHz FIXED Mobile (except aeronautical mobile (R))	13410 - 13570 kHz (160 kHz) HF links Mobile radio	Simplex. Fixed station (FX) TXRX	
			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 5.136, 5.143, 5.146 and 5.151).
13600 - 13800 kHz BROADCASTING	13600 - 13800 kHz (200 kHz) Broadcasting	Simplex. Broadcasting station (sound) (BC) TX 10 kHz.	13770.0 kHz Pori, periodicaly.
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 5.136, 5.143, 5.146 and 5.151).

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
13870 - 14000 kHz FIXED Mobile (except aeronautical mobile (R))	13870 - 14000 kHz (130 kHz) HF links Mobile radio	Simplex. Fixed station (FX) TXRX	
14000 - 14250 kHz AMATEUR AND AMATEUR-SATELLITE	14000 - 14250 kHz (250 kHz) Amateur and amateur-Satellite	Simplex. Amateur station (AT) TXRX 8 kHz.	Regulation Ficora 6. User certificate required. The transmitter power in the novice 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 8 kHz.	Regulation Ficora 6. User certificate required. The transmitter power in the novice 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 Mobile (except aeronautical mobile (R))	14350 - 14990 kHz (640 kHz) HF links Mobile radio	Simplex. Fixed station (FX) TXRX	
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 Space research	15005 - 15010 kHz (5 kHz) Standard frequency and time signal Space research		

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic. Class of station and TX/RX-code** **Channel spacing, bandwidth. (Class of emission)** **Duplex separation and duplex band** **Standart type**	**Comments**
15010 - 15100 kHz AERONAUTICAL MOBILE (OR)	15010 - 15100 kHz (90 kHz) Aeronautical mobile		The user of radio equipment used in aviation must have a radio telephone operators certificate issued by the Finnish Civil Aviation Authority.
15100 - 15600 kHz BROADCASTING	15100 - 15600 kHz (500 kHz) Broadcasting	Simplex. Broadcasting station (sound) (BC) TX 10 kHz.	15185 kHz Pori periodically.
15600 - 15800 kHz BROADCASTING	15600 - 15800 kHz (200 kHz) Broadcasting		Restricted fixed and mobile service possible, on condition that harmful interference is not caused to the broadcasting service (RR 5.136, 5.143, 5.146 and 5.151).
15800 - 16360 kHz FIXED	15800 - 16360 kHz (560 kHz) HF links	Simplex. Fixed station (FX) TXRX	
16360 - 17410 kHz MARITIME MOBILE	16361.400 - 16526.400 kHz (165 kHz) Radiotelephone service	Duplex. Coast station (FC) RX 3 kHz, 2,8 kHz. (J3E) 17243.400 - 17408.400 kHz	User certificate required. 56 half duplex channels of which one half is also used as simplex channel. Carrier frequency 1.4 kHz below center frequency. 16421.4 kHz international distress frequency and calling frequency of maritime rescue centres.
	16529.400 - 16547.400 kHz (18 kHz) Radiotelephone service	Simplex. Coast station (FC) TXRX Ship station (MS) TXRX 3 kHz, 2,8 kHz. (J3E)	User certificate required. 7 radiotelephone channels. Carrier frequency 1.4 kHz below center frequency. 16538.4 kHz international calling frequency for radiotelephone service (ships and coast stations).
	16551 - 16615 kHz (64 kHz) Wide-band telegraphy and special transmissions	Simplex. Coast station (FC) TXRX Ship station (MS) TXRX 4 kHz,	User certificate required. Wideband transmissions, facsimile and special transmission systems. 17 channels.
	16617.300 - 16618.500 kHz (1.200 kHz) Data service	Simplex. Coast station (FC) RX 0,3 kHz,	User certificate required. 5 channels, maritime research.

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
	16619 - 16683 kHz (64 kHz) Radiotelegraphy service	Duplex. Coast station (FC) RX 0,1 kHz, (A1A) (A1B) Simplex. Ship station (MS) TXRX 0,1 kHz, (A1A) (A1B)	User certificate required. Paired band is not defined. Finnish vessels: 16621.0, 16623.5, 16626.0, 16631.0, 16646.0, 16656.0, 16671.0 and 16681.0 kHz, +/- 200 Hz. Digital transmission allowed on condition that harmful interference is not caused to other mobile maritime service.
	16683.500 - 16733.500 kHz (50 kHz) Radio telex service	Duplex. Coast station (FC) RX 0,5 kHz, 0,304 kHz. (F1B) 16806.500 - 16856.500 kHz	User certificate required. 101 half duplex channels and 1 simplex channel. 16695.0 kHz international distress frequency (TX/RX). Digital transmission allowed on condition that harmful interference is not caused to other mobile maritime service.
	16733.750 - 16738.750 kHz (5 kHz) Radiotelegraphy service	Duplex. Coast station (FC) RX 0,1 kHz, (A1A) (A1B)	User certificate required. Calling frequencies. Paired band is not defined. Digital transmission allowed on condition that harmful interference is not caused to other mobile maritime service.
	16739.000 - 16784.500 kHz (45.500 kHz) Radio telex service	Duplex. Coast station (FC) RX 0,5 kHz, 0,304 kHz. (F1B) 16857.000 - 16902.500 kHz	User certificate required. 92 half duplex channels (channels 102-193). Digital transmission allowed on condition that harmful interference is not caused to other mobile maritime service.
	16785 - 16804 kHz (19 kHz) Telex and radiotelegraphy service	Duplex. Coast station (FC) RX 0,5 kHz, (A1A) (A1B) (F1B) Simplex. Ship station (MS) TXRX 0,5 kHz, (A1A) (A1B) (F1B)	User certificate required. 39 channels. Unpaired frequencies. Digital transmission allowed on condition that harmful interference is not caused to other mobile maritime service.
	16804.500 - 16806.000 kHz (1.500 kHz) DSC service	Duplex. Base station (FB) RX 0,5 kHz, 0,304 kHz. (F1B) 16903 - 16904 kHz	User certificate required. 16804.5 kHz international DSC distress frequency (simplex). 16805.0, 16805.5 and 16806.0 kHz international calling frequencies, 3 half even channels, (ships TX).

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
	16806.500 - 16902.500 kHz (96 kHz) Radio telex service	Duplex. Coast station (FC) TX 0,5 kHz, 0,304 kHz. (F1B) 16683.500 - 16733.500 kHz Duplex. Base station (FB) TX 0,5 kHz, 0,304 kHz. (F1B) 16739.000 - 16784.500 kHz	User certificate required. 193 half duplex channels and 1 simplex channel. 16806.5 kHz international security channel (MSI). Digital transmission allowed on condition that harmful interference is not caused to other mobile maritime service.
	16903 - 16904 kHz (1 kHz) DSC service	Duplex. Coast station (FC) TX 0,5 kHz, 0,304 kHz. (F1B) 16804.500 - 16806.000 kHz	User certificate required. 16903.0, 16903.5 and 16904.0 kHz international calling frequencies, 3 half even channels, (ships RX).
	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. Channel spacing and paired band are not defined. Wideband transmissions, radiotelegraphy, facsimile and special transmission systems.
	17243.400 - 17408.400 kHz (165 kHz) Radiotelephone service	Duplex. Coast station (FC) TX 3 kHz, 2,8 kHz. (J3E) 16361.400 - 16526.400 kHz	User certificate required. 56 half duplex channels. Carrier frequency 1.4 kHz below center frequency. 17303.4 kHz international calling frequency.
17410 - 17480 kHz FIXED	17410 - 17480 kHz (70 kHz) HF links	Simplex. Fixed station (FX) TXRX	
17480 - 17550 kHz BROADCASTING	17480 - 17550 kHz (70 kHz) Broadcasting		Restricted fixed and mobile service possible, on condition that harmful interference is not caused to the broadcasting service (RR 5.136, 5.143, 5.146 and 5.151).
17550 - 17900 kHz BROADCASTING	17550 - 17900 kHz (350 kHz) Broadcasting	Simplex. Broadcasting station (sound) (BC) TX 10 kHz.	17800 kHz Pori.
17900 - 17970 kHz AERONAUTICAL MOBILE (R)	17900 - 17970 kHz (70 kHz) Aeronautical mobile	Simplex. Aeronautical station (FA) TXRX 3 kHz, 2,7 kHz.	The user of radio equipment used in aviation must have a radio telephone operators certificate issued by the Finnish Civil Aviation Authority.
17970 - 18030 kHz AERONAUTICAL MOBILE (OR)	17970 - 18030 kHz (60 kHz) Aeronautical mobile		The user of radio equipment used in aviation must have a radio telephone operators certificate issued by the Finnish Civil Aviation Authority.
18030 - 18052 kHz FIXED	18030 - 18052 kHz (22 kHz) Fixed		

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
18052 - 18068 kHz FIXED Space research	18052 - 18068 kHz (16 kHz) Fixed Space research		
18068 - 18168 kHz AMATEUR AND AMATEUR-SATELLITE	18068 - 18168 kHz (100 kHz) Amateur and amateur-Satellite	Simplex. Amateur station (AT) TXRX 8 kHz.	Regulation Ficora 6. User certificate required. The transmitter power in the novice 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 Mobile (except aeronautical mobile)	18168 - 18780 kHz (612 kHz) HF links	Simplex. Fixed station (FX) TXRX	
	18186 - 18780 kHz (594 kHz) Mobile radio		
18780 - 18900 kHz MARITIME MOBILE	18781.400 - 18823.400 kHz (42 kHz) Radiotelephone service	Duplex. Coast station (FC) RX 3 kHz, (J3E) 19756.400 - 19798.400 kHz	User certificate required. 15 half duplex channels. Carrier frequency 1.4 kHz below center frequency. 18796.4 kHz international radiotelephone service calling freguency, pair frequency 19771.4 kHz.
	18826.400 - 18844.400 kHz (18 kHz) Radiotelephone service	Simplex. Coast station (FC) TXRX Ship station (MS) TXRX 3 kHz, 2,8 kHz. (J3E)	User certificate required. 7 radiotelephone channels. Carrier frequency 1.4 kHz below center frequency.
	18848 - 18868 kHz (20 kHz) Wide-band telegraphy and special transmissions	Simplex. Coast station (FC) TXRX Ship station (MS) TXRX 4 kHz,	User certificate required. Wideband transmissions, facsimile and special transmission systems. 6 channels.
	18870.500 - 18892.500 kHz (22 kHz) Radio telex service	Duplex. Coast station (FC) RX 0,5 kHz, 0,304 kHz. (F1B) 19680.500 - 19703.000 kHz	User certificate required. 45 half channels.
	18893 - 18898 kHz (5 kHz) Telex and radiotelegraphy service	Duplex. Coast station (FC) RX 0,5 kHz, (A1A) (A1B) (F1B) Simplex. Ship station (MS) TXRX 0,5 kHz, (A1A) (A1B) (F1B)	User certificate required. 11 channels. Secondary traffic between vessels and coast stations.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic. Class of station and TX/RX-code** **Channel spacing, bandwidth. (Class of emission)** **Duplex separation and duplex band** **Standart type**	**Comments**
	18898.500 - 18899.500 kHz (1 kHz) DSC service	Duplex. Coast station (FC) RX 0,5 kHz, 0,304 kHz. (F1B) 19703.500 - 19704.500 kHz	User certificate required. 18898.5, 18899.0 and 18899.5 kHz international DSC calling frequencies, 3 channels, center frequencies.
18900 - 19020 kHz BROADCASTING	18900 - 19020 kHz (120 kHz) Broadcasting		Restricted fixed and mobile service possible, on condition that harmful interference is not caused to the broadcasting service (RR 5.136, 5.143, 5.146 and 5.151).
19020 - 19680 kHz FIXED	19020 - 19680 kHz (660 kHz) HF links	Simplex. Fixed station (FX) TXRX	
19680 - 19800 kHz MARITIME MOBILE	19680.500 - 19703.000 kHz (22.500 kHz) Radio telex service	Duplex. Coast station (FC) TX 0,5 kHz, 0,304 kHz. (F1B) 18870.500 - 18892.500 kHz	User certificate required. 45 half channels and 1 simplex channel. 19680.5 kHz GMDSS security frequency (MSI-transmission) TX/RX.
	19703.500 - 19704.500 kHz (1 kHz) DSC service	Duplex. Coast station (FC) TX 0,5 kHz, 0,304 kHz. (F1B) 18898.500 - 18899.500 kHz	User certificate required. 19703.5, 19704.0 ja 19704.5 kHz international DSC calling frequencies, 3 channels, center frequencies.
	19705 - 19755 kHz (50 kHz) Wide-band telegraphy and special transmissions	Duplex. Coast station (FC) TX Simplex. Coast station (FC) TXRX	User certificate required. Channel spacing and paired band are not defined. Wideband transmissions, radiotelegraphy, facsimile and special transmission systems.
	19756.400 - 19798.400 kHz (42 kHz) Radiotelephone service	Duplex. Coast station (FC) TX 3 kHz, 2,8 kHz. (J3E) 18781.400 - 18823.400 kHz	User certificate required. 15 half duplex channels. Carrier frequency 1.4 kHz below center frequency. 19771.4 kHz international calling frequency, paired frequency is 18796.4 kHz.
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		
Space research	19990 - 19995 kHz (5 kHz) Space research		

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
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	Mobile radio		
21000 - 21450 kHz AMATEUR AND AMATEUR-SATELLITE	21000 - 21450 kHz (450 kHz) Amateur and amateur-Satellite	Simplex. Amateur station (AT) TXRX 8 kHz.	Regulation Ficora 6. User certificate required. The transmitter power in the novice 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. Broadcasting station (sound) (BC) TX 10 kHz.	21550 kHz Pori, periodically.
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 3 kHz, 2,7 kHz.	The user of radio equipment used in aviation must have a radio telephone operators certificate issued by the Finnish Civil Aviation Authority.
22000 - 22855 kHz MARITIME MOBILE	22001.400 - 22157.400 kHz (156 kHz) Radiotelephone service	Duplex. Coast station (FC) RX 3 kHz, 2,8 kHz. (J3E) 22697.400 - 22853.400 kHz	User certificate required. 53 half duplex channels. Carrier frequency 1.4 kHz below center frequency. 22061.4 kHz international calling frequency, paired frequency is 22757.4 kHz.
	22160.400 - 22178.400 kHz (18 kHz) Radiotelephone service	Simplex. Coast station (FC) TXRX Ship station (MS) TXRX 3 kHz, 2,8 kHz. (J3E)	User certificate required. 7 radiotelephone channels. Carrier frequency 1.4 kHz below center frequency.

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
	22182 - 22238 kHz (56 kHz) Wide-band telegraphy and special transmissions	Simplex. Coast station (FC) TXRX Ship station (MS) TXRX 4 kHz.	User certificate required. Wideband transmissions, facsimile and special transmission systems. 15 channels.
	22240.300 - 22241.500 kHz (1.200 kHz) Data service	Simplex. Coast station (FC) RX 0,3 kHz,	User certificate required. 3 channels, maritime research.
	22242 - 22279 kHz (37 kHz) Radiotelegraphy service	Duplex. Coast station (FC) RX 0,1 kHz, (A1A) (A1B) Simplex. Ship station (MS) TXRX 0,1 kHz, (A1A) (A1B)	User certificate required. Paired band is not defined. Finnish vessels: 22244.0, 22246.5, 22249.0, 22254.0, 22269.0 and 22279.0 kHz, +/- 200 Hz. Digital transmission allowed on condition that harmful interference is not caused to other mobile maritime service.
	22279.250 - 22284.250 kHz (5 kHz) Radiotelegraphy service	Duplex. Base station (FB) RX 0,1 kHz, (A1A) (A1B)	User certificate required. Calling frequencies. Paired band is not defined. Digital transmission allowed on condition that harmful interference is not caused to other mobile maritime service.
	22284.500 - 22351.500 kHz (67 kHz) Radio telex service	Duplex. Coast station (FC) RX 0,5 kHz, 0,304 kHz. (F1B) 22376.000 - 22443.500 kHz	User certificate required. 135 half duplex channels. Digital transmission allowed on condition that harmful interference is not caused to other mobile maritime service.
	22352 - 22374 kHz (22 kHz) Telex and radiotelegraphy service	Duplex. Coast station (FC) RX 0,5 kHz, (A1A) (A1B) (F1B) Simplex. Ship station (MS) TXRX 0,5 kHz, (A1A) (A1B) (F1B)	User certificate required. 45 channels. Secondary traffic between vessels and coast stations. Digital transmission allowed on condition that harmful interference is not caused to other mobile maritime service.
	22374.500 - 22375.500 kHz (1 kHz) DSC service	Duplex. Coast station (FC) RX 0,5 kHz, 0,304 kHz. (F1B) 22444 - 22445 kHz	User certificate required. 22374.5, 22375.0 and 22375.5 kHz international calling frequencies, 3 half even channels, (ships TX).

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
	22376.000 - 22443.500 kHz (67.500 kHz) Radio telex service	Duplex. Coast station (FC) TX 0,5 kHz, 0,304 kHz. (F1B) 22284.500 - 22351.500 kHz	User certificate required. 135 half channels and 1 simplex channel. 22376.0 kHz GMDSS/MSI, (TX/RX). Digital transmission allowed on condition that harmful interference is not caused to other mobile maritime service.
	22444 - 22445 kHz (1 kHz) DSC service	Duplex. Coast station (FC) TX 0,5 kHz, 0,304 kHz. (F1B) 22374.500 - 22375.500 kHz	User certificate required. 22444.0, 22444.5 and 22445.0 kHz international calling frequencies, 3 half even channels, (ships RX).
	22445.500 - 22696.000 kHz (250.500 kHz) Wide-band telegraphy and special transmissions	Duplex. Coast station (FC) TX Simplex. Coast station (FC) TX	User certificate required. Channel spacing and paired band are not defined. Wideband transmissions, radiotelegraphy, facsimile and special transmission systems.
	22697.400 - 22853.400 kHz (156 kHz) Radiotelephone service	Duplex. Coast station (FC) TX 3 kHz, 2,8 kHz. (J3E) 22001.400 - 22157.400 kHz	User certificate required. 53 half duplex channels. Carrier frequency 1.4 kHz below center frequency. 22757.4 kHz international calling frequency, paired frequency in 22061.4 kHz.
22855 - 23000 kHz FIXED	22855 - 23000 kHz (145 kHz) HF links	Simplex. Fixed station (FX) TXRX	
23000 - 23200 kHz FIXED Mobile (except aeronautical mobile (R))	23000 - 23200 kHz (200 kHz) HF links Mobile radio	Simplex. Fixed station (FX) TXRX	
23200 - 23350 kHz FIXED AERONAUTICAL MOBILE (OR)	23200 - 23350 kHz (150 kHz) Fixed Aeronautical mobile		
			The user of radio equipment used in aviation must have a radio telephone operators certificate issued by the Finnish Civil Aviation Authority.

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
23350 - 24000 kHz FIXED MOBILE (except aeronautical mobile)	23350 - 24000 kHz (650 kHz) HF links Mobile radio	Simplex. Fixed station (FX) TXRX	
24000 - 24890 kHz FIXED LAND MOBILE	24000 - 24890 kHz (890 kHz) Fixed Land mobile		
24890 - 24990 kHz AMATEUR AND AMATEUR-SATELLITE	24890 - 24990 kHz (100 kHz) Amateur and amateur-Satellite	Simplex. Amateur station (AT) TXRX 8 kHz.	Regulation Ficora 6. User certificate required. The transmitter power in the novice 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 Space research	25005 - 25010 kHz (5 kHz) Standard frequency and time signal Space research		
25010 - 25070 kHz FIXED MOBILE (except aeronautical mobile)	25010 - 25070 kHz (60 kHz) Maritime service Mobile radio	Simplex. Coast station (FC) TXRX	User certificate required.

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
25070 - 25210 kHz MARITIME MOBILE	25071.400 - 25098.400 kHz (27 kHz) Radiotelephone service	Duplex. Coast station (FC) RX 3 kHz, 2,8 kHz. (J3E) 26146.400 - 26173.400 kHz Simplex. Coast station (FC) TXRX 3 kHz, 2,8 kHz. (J3E)	User certificate required. 10 half duplex channels. Carrier frequency 1.4 kHz below center frequency. 25098.4 kHz international calling frequency, pair frequency 26173.4 kHz. See channel spacing in appendix 1 to this table.
	25101.400 - 25119.400 kHz (18 kHz) Radiotelephone service	Simplex. Coast station (FC) TXRX Ship station (MS) TXRX 3 kHz, 2,8 kHz. (J3E)	User certificate required. 7 radiotelephone channels. Carrier frequency 1.4 kHz below center frequency. See channel spacing in appendix 1 to this table.
	25123 - 25159 kHz (36 kHz) Wide-band telegraphy and special transmissions	Simplex. Coast station (FC) TXRX Ship station (MS) TXRX 4 kHz,	User certificate required. Wideband transmissions, facsimile and special transmission systems. 10 channels.
	25161.500 - 25171.000 kHz (9.500 kHz) Radiotelegraphy service	Duplex. Coast station (FC) RX 0,1 kHz, (A1A) (A1B) Simplex. Ship station (MS) TXRX 0,1 kHz, (A1A) (A1B)	User certificate required. Paired band is not defined. Finnish vessels: 25163.5, 25166.0 and 25168.5 kHz +/- 200 Hz. Digital transmission allowed on condition that harmful interference is not caused to other mobile maritime service.
	25171.250 - 25172.750 kHz (1.500 kHz) Radiotelegraphy service	Duplex. Coast station (FC) RX 0,1 kHz, (A1A) (A1B)	User certificate required. Paired band is not defined. Digital transmission allowed on condition that harmful interference is not caused to other mobile maritime service.
	25173.000 - 25192.500 kHz (19.500 kHz) Radio telex service	Duplex. Coast station (FC) RX 0,5 kHz, 0,304 kHz. (F1B) 26100.500 - 26120.500 kHz	User certificate required. 40 half duplex channels. Digital transmission allowed on condition that harmful interference is not caused to other mobile maritime service.
	25193 - 25208 kHz (15 kHz) Radio telex service	Duplex. Coast station (FC) RX 0,5 kHz, (A1A) (A1B) (F1B) Simplex. Ship station (MS) TXRX 0,5 kHz, (A1A) (A1B) (F1B)	User certificate required. 31 channels. Secondary traffic between vessels and coast stations. Digital transmission allowed on condition that harmful interference is not caused to other mobile maritime service.

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
	25208.500 - 25209.500 kHz (1 kHz) DSC service	Duplex. Coast station (FC) RX 0,5 kHz, 0,304 kHz. (F1B) 26121 - 26122 kHz	User certificate required. 25208.5, 25209.0 and 25209.5 kHz international calling frequencies, 3 channels.
25210 - 25550 kHz FIXED MOBILE (except aeronautical mobile)	25210 - 25550 kHz (340 kHz) Fixed 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 - 26120.500 kHz (20 kHz) Radio telex service	Duplex. Coast station (FC) TX 0,5 kHz, 0,304 kHz. (F1B) 25173.000 - 25192.500 kHz	User certificate required. 40 half channels and 1 simplex channel. 26100.5 kHz GMDSS security frequency (MSI-transmission), TX/RX. Digital transmission allowed on condition that harmful interference is not caused to other mobile maritime service.
	26121 - 26122 kHz (1 kHz) DSC service	Duplex. Coast station (FC) TX 0,5 kHz, 0,304 kHz. (F1B) 25208.500 - 25209.500 kHz	User certificate required. 26121.0, 26121.5 and 26122.0 kHz international calling frequencies, 3 half even channels.
	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. Channel spacing and paired band are not defined. Wideband transmissions, radiotelegraphy, facsimile and special transmission systems.
	26146.400 - 26173.400 kHz (27 kHz) Radiotelephone service	Duplex. Coast station (FC) TX 3 kHz, 2,8 kHz. (J3E) 25071.400 - 25098.400 kHz	User certificate required. 10 half duplex channels. Carrier frequency 1.4 kHz below center frequency. 26173.4 kHz international calling frequency, paired frequency 25098.4 kHz.
26175 - 27500 kHz MOBILE	26175 - 26815 kHz (640 kHz) Military use		

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
	26825 - 27255 kHz (430 kHz) (SRD) Non-specific Short Range Devices	Simplex. Base station (FB) TXRX Land mobile station (ML) TXRX 10 kHz, 7 kHz.	Equipment are exempt from licensing, see exact frequencies in regulation Ficora 15. Transmitter power max. 500 mW, radiated power max. 100 mW ERP, standard EN 300 220-1, non-audio applications. 26957 - 27283 kHz ISM (RR 5.150). Telecommand equipment for use with scale model aircraft, according to SRD recommendation ERC/REC/70-03 och ERC decision ERC/DEC/(01)10. European Comission decision 2009/381/EC.
	26957 - 27283 kHz (326 kHz) (SRD) Non-specific Short Range Devices		Radiated power max. 10 mW ERP, no channelling, standard EN 300 220-1, audio applications is allowed, according to SRD recommendation ERC/REC 70-03 and ERC decision ERC/DEC/(01)02. European Commission decision 2009/381/EC.
	26965 - 27225 kHz (260 kHz) LA (National citizens band equipment)	Simplex. Base station (FB) TXRX Land mobile station (ML) TXRX 10 kHz, 7 kHz.	Equipment are exempt from licensing, see exact frequencies in regulation Ficora 15. The transmitter power must not exceed 5 W. 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 carried and used. 26957 - 27283 kHz ISM (RR 5.150).
	26965 - 27405 kHz (440 kHz) PR-27	Simplex. Base station (FB) TXRX Land mobile station (ML) TXRX 10 kHz, 7 kHz.	Equipment are exempt from licensing, see exact frequencies in regulation Ficora 15. The transmitter power (with integral antenna ERP) must not exceed 4 W, standard EN 300 135-1, ERC decision ERC/DEC(96)02. 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 TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
	26965 - 27405 kHz (440 kHz) CB	Simplex. Base station (FB) TXRX Land mobile station (ML) TXRX 10 kHz, 7 kHz.	Equipment are exempt from licensing, see exact frequencies in regulation Ficora 15. The transmitter power (with integral antenna ERP) max: FM: 4 W, standards EN 300 135-1 AM: carrier power 1 W, standards EN 300 433-1 SSB: peak envelope power 4 W, standards EN 300 433-1. 26957 - 27283 kHz ISM (RR 5.150).
	26965 - 27490 kHz (525 kHz) On-site paging	Simplex. Base station (FB) TXRX Land mobile station (ML) TXRX 10 kHz, 7 kHz.	Equipment are exempt from licensing, see exact frequencies in regulation Ficora 15. Transmitter power of pagers (with integral antenna ERP) must not exceed 5 W, standard EN 300 224-1. 26957 - 27283 kHz ISM (RR 5.150).
27.500 - 28.000 MHz MOBILE	27.500 - 27.990 MHz (0.490 MHz) On-site paging	Simplex. Base station (FB) TX Land mobile station (ML) RX 10 kHz, 7 kHz.	27.720 - 27.940 MHz on-site paging. Equipment are exempt from licensing, see exact frequencies in regulation Ficora 15. Transmitter power of pagers (with integral antenna ERP) must not exceed 5 W, standard EN 300 224-1.
28.000 - 29.700 MHz AMATEUR AND AMATEUR-SATELLITE	28.000 - 29.700 MHz (1.700 MHz) Amateur and amateur-Satellite		Regulation Ficora 6. User certificate required. The transmitter power in the novice 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	29.560 - 29.590 MHz (0.030 MHz) Amateur	Duplex. Amateur repeater station (ATT) RX 10 kHz, 8 kHz. +0,1 MHz 29.660 - 29.690 MHz	Regulation Ficora 6. User certificate required.
	29.660 - 29.690 MHz (0.030 MHz) Amateur	Duplex. Amateur repeater station (ATT) TX 10 kHz, 8 kHz. -0,1 MHz 29.560 - 29.590 MHz	Regulation Ficora 6. User certificate required.
29.700 - 47.000 MHz MOBILE	29.710 - 29.800 MHz (0.090 MHz) PMR	Simplex. Land mobile station (ML) TXRX 10 kHz,	Common channels for PMR, all Finland, radiated power max. 100 mW ERP. See PMR standards appendix 1 to this table.

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
	29.810 - 29.940 MHz (0.130 MHz) Control, alarm, telemetry, telecommand, data transmission	Simplex. Base station (FB) TXRX Land mobile station (ML) TXRX 10 kHz, Fixed station (FX) TXRX	Radiated power typically max. 0,5 W ERP. See PMR standards 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 are exempt from licensing, see regulation Ficora 15. Radiated power max. 1 mW ERP, duty cycle < 10%, according to SRD-recommendation ERC/REC 70-03.
	30.020 - 30.300 MHz (0.280 MHz) Control, alarm, telemetry, telecommand, data transmission	Simplex. Land mobile station (ML) TXRX 15 kHz, 10 kHz.	Radiated power typically max. 200 mW ERP. No new licences any more. Also 20 kHz channel spacing. See PMR standards appendix 1 to this table. 30.300 MHz on-site paging equipment are exempt from licensing, see regulation Ficora 15, transmitter power of pagers (with integral antenna ERP) must not exeed 5 W, bandwidth max. 25 kHz, standard EN 300 224-1.
	30.325 - 34.325 MHz (4 MHz) Military use		31.100, 32.100, 32.900 and 33.500 MHz wireless loudspeakers, in-ear monitoring, headphones, hearing aids, helmet radio telephones, radio microphones. Equipment are exempt from licensing, see regulation Ficora 15. Radiated power max. 10 mW ERP, the total bandwidth of the emission max. 200 kHz, standard EN 300 422-1. SRD recommendation ERC/REC/70-03.
	34.350 - 34.950 MHz (0.600 MHz) Military use		
	35.000 - 35.220 MHz (0.220 MHz) (SRD) Model aircraft control systems	Simplex. Land mobile station (ML) TXRX 10 kHz,	Equipment are exempt from licensing, see exact frequencies in regulation Ficora 15. Radiated power max. 100 mW ERP. Standard EN 300 220-1. ERC decision ERC/DEC/(01)11. SRD recommendation ERC/REC/70-03.

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
	35.250 - 40.660 MHz (5.410 MHz) Military use		
	35.350 - 40.550 MHz (5.200 MHz) PMR	Simplex. Land mobile station (ML) TXRX 25 kHz,	36.700 and 37.100 MHz wireless loudspeakers, in-ear monitoring, headphones, hearing aids, helmet radio telephones, radio microphones. Equipment are exempt from licensing, see regulation Ficora 15. Radiated power max. 10mW ERP, the total bandwidth of the emission max 200 kHz, standard EN 300 422-1. SRD recommendation ERC/REC/70-03.
	40.660 - 40.700 MHz (0.040 MHz) (SRD) Non-specific Short Range Devices		Equipment are exempt from licensing, see regulation Ficora 15. Radiated power 10 mW ERP, no channelling, standard EN 300 220-1, audio applications is allowed, ERC decision ERC/DEC/(01)03. SRD recommendation ERC/REC/70-03. 40,660 - 40,700 MHz ISM (RR 5.150). European Commission decision 2009/381/EC.
	40.660 - 40.790 MHz (0.130 MHz) (SRD) Non-specific Short Range Devices	Simplex. Land mobile station (ML) TXRX	Equipment are exempt from licensing, see regulation Ficora 15. Transmitter power max. 500 mW, radiated power max. 100 mW ERP, standard EN 300 220-1, non-audio applications. 40.680 MHz on-site paging, transmitter power of pagers (with integral antenna ERP) must not exceed 5 W, standard EN 300 224-1. 40.660 - 40.700 MHz ISM (RR 5.150). Telecommand equipment for use with scale model aircraft according to SRD recommendation ERC/REC 70-03 and ERC decision ERC/DEC/(01)12.
	40.800 - 42.375 MHz (1.575 MHz) Military use		

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
	42.400 - 43.600 MHz (lower and upper limits of sub-band) (1.200 MHz) (SRD) Narrow band analogue voice devices (SRD) Radio microphones	Simplex. Land mobile station (ML) TXRX	Wireless loudspeakers, in-ear monitoring, headphones, hearing aids, helmet radio telephones. Equipment are exempt from licensing, see regulation Ficora 15. Radiated power max. 10 mW ERP. The total bandwidth of the emission max. 200 kHz. Standard EN 300 422-1.
			Equipment are exempt from licensing, see regulation Ficora 15. Radiated power max. 10 mW ERP. The total bandwidth of the emission max. 200 kHz. Standard EN 300 422-1. SRD recommendation ERC/REC/70-03.
	43.625 - 46.975 MHz (3.350 MHz) Military use		
47 - 68 MHz BROADCASTING MOBILE	47 - 68 MHz (21 MHz) Television Military use	Broadcasting station (BT) TX 7 MHz, 7 MHz.	TV channels 2, 3 and 4 (band I); Television use ended in Finland. Sub-band under review.
			67.500 MHz channel for hobby and professional activities according to notification RHA68. - mobile stations only, whole area of Finland, radiated power max. 5 W ERP, channel width 25 kHz. A licence is granted for use of all RHA68 channels (26 channels). The channels are to be used in accordance with the licence conditions. See PMR standards appendix 1 to this table.
Amateur	50 - 52 MHz (2 MHz) Amateur	Simplex. Amateur station (AT) TXRX 18 kHz.	Regulation Ficora 6. Regional restrictions. User certificate required. The transmitter power in the novice class max. 30 W. Peak envelope power 120 W, when the carrier of the transmission is attenuated by at least 6 dB. The 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 station (ATT) RX 20 kHz, 18 kHz. +0,6 MHz 51.810 - 51.990 MHz	Regulation Ficora 6. User certificate required. Channels RF81 - RF99.

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
	51.810 - 51.990 MHz (0.180 MHz) Amateur	Duplex. Amateur repeater station (ATT) TX 20 kHz, 18 kHz. -0,6 MHz 51.210 - 51.390 MHz	Regulation Ficora 6. User certificate required. Channels RF81 - RF99.
68.000 - 74.800 MHz LAND MOBILE	68.025 - 71.000 MHz (2.975 MHz) Hobby and professional activities (RHA68)	Simplex. Base station (FB) TXRX Land mobile station (ML) TXRX 25 kHz, 16 kHz.	68.050, 68.175, 68.575, 70.200 MHz hobby and professional activities - mobile stations only, radiated power max. 5 W ERP. 68.375 MHz hobby and professional activities - mobile stations only, radiated power max. 25 W ERP. A licence is granted for use of all RHA68 channels (26 channels). The channels are to be used in accordance with the licence conditions. See PMR standards appendix 1 to this table.
	Military use		
Amateur	70.000 - 70.050 MHz (0.050 MHz) Amateur	Simplex. Amateur radio beacon station (ATM) TX 1 kHz.	Regulation Ficora 6. Regional restrictions. User certificate required. 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.
	70.050 - 70.175 MHz (0.125 MHz) Amateur	Simplex. Amateur station (AT) TXRX 18 kHz.	Regulation Ficora 6. Regional restrictions. User certificate required. The transmitter power in the novice class max. 30 W and in the general class max. 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.
	70.225 - 70.250 MHz (0.025 MHz) Amateur	Simplex. Amateur station (AT) TXRX 18 kHz.	Regulation Ficora 6. Regional restrictions. User certificate required. The transmitter power in the novice class max. 30 W and in the general class max. 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 TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
	70.250 - 70.300 MHz (0.050 MHz) Amateur	Simplex. Amateur station (AT) TXRX 18 kHz.	Regulation Ficora 6. Regional restrictions. User certificate required. The transmitter power in the novice class and in the general class 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.
LAND MOBILE	71.025 - 72.100 MHz (1.075 MHz) PMR, hobby and professional activities (RHA68)	Simplex. Base station (FB) TXRX Land mobile station (ML) TXRX 25 kHz, 16 kHz.	Channels for hobby and professional activities according to notification RHA68. 71.025, 71.350, 71.375, 71.425, 71.475, 71.550, 71.575, 71.600, 71.625 MHz hobby and professional activities - only mobile stations, radiated power max. 5 W ERP. 71.050, 71.100, 71.175, 71.750, 71.900 MHz hobby and professional activities - only mobile stations, radiated power max. 25 W ERP. A licence is granted for use of all RHA68 channels (26 channels). The channels are to be used in accordance with the licence conditions. See PMR standards appendix 1 to this table.
	72.125 - 72.700 MHz (0.575 MHz) PMR, hobby and professional activities (RHA68)	Simplex. Base station (FB) TXRX Land mobile station (ML) TXRX 25 kHz, 16 kHz.	Radiated power typically max. 5 W ERP. See PMR standards appendix 1 to this table. 72.200 MHz sales demonstration. 72.325 MHz channel for hobby and professional activities according to notification RHA68. - mobile stations, radiated power max. 5 W ERP. A licence is granted for use of all RHA68 channels (26 channels). The channels are to be used in accordance with the licence conditions.
	Military use		
	72.725 - 72.975 MHz (0.250 MHz) PMR	Simplex. Base station (FB) TXRX Land mobile station (ML) TXRX 25 kHz, 16 kHz.	Radiated power typically max. 5 W ERP. See PMR standards appendix 1 to this table.
	73.000 - 73.475 MHz (0.475 MHz) Military use		

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
	73.500 - 74.000 MHz (0.500 MHz) PMR	Simplex. Land mobile station (ML) TXRX 25 kHz, 16 kHz.	Sub-band under review. See PMR standards appendix 1 to this table.
	74.025 - 74.800 MHz (0.775 MHz) Military use		See PMR standards 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 2,6 kHz. (A2AAN)	75.000 MHz Marker beacon frequency and its guardbands.
75.200 - 87.500 MHz LAND MOBILE	75.225 - 76.000 MHz (0.775 MHz) PMR (taxis)	Duplex. Base station (FB) RX 25 kHz, 16 kHz. +5 MHz 80.225 - 81.000 MHz	Radiated power typically max. 25 W ERP. See PMR standards appendix 1 to this table.
	76.025 - 77.100 MHz (1.075 MHz) PMR	Duplex. Base station (FB) RX 25 kHz, 16 kHz. +5 MHz 81.025 - 82.100 MHz	Radiated power typically max. 25 W ERP. See PMR standards appendix 1 to this table.
	77.125 - 77.750 MHz (0.625 MHz) PMR	Duplex. Base station (FB) RX 25 kHz, 16 kHz. +5 MHz 82.125 - 82.750 MHz	Radiated power typically max. 25 W ERP. See PMR standards 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. Land mobile station (ML) TXRX 25 kHz, 16 kHz.	Radiated power typically max. 25 W ERP. See PMR standards appendix 1 to this table.
	77.850 - 78.075 MHz (0.225 MHz) PMR (power utilities)	Duplex. Base station (FB) TX 25 kHz, 16 kHz. +6 MHz 83.850 - 84.075 MHz	Radiated power typically max. 25 W ERP. See PMR standards appendix 1 to this table.
	78.100 - 80.000 MHz (1.900 MHz) PMR (power utilities)	Duplex. Base station (FB) TX 25 kHz, 16 kHz. +6 MHz 84.100 - 86.000 MHz	Radiated power typically max. 25 W ERP. See PMR standards appendix 1 to this table.
	80.025 - 80.200 MHz (0.175 MHz) PMR	Simplex. Land mobile station (ML) TXRX 25 kHz, 16 kHz.	Radiated power typically max. 5 W ERP. See PMR standards appendix 1 to this table.
	80.225 - 81.000 MHz (0.775 MHz) PMR (taxis)	Duplex. Base station (FB) TX 25 kHz, 16 kHz. -5 MHz 75.225 - 76.000 MHz	Radiated power typically max. 25 W ERP. See PMR standards appendix 1 to this table.
	81.025 - 82.100 MHz (1.075 MHz) PMR	Duplex. Base station (FB) TX 25 kHz, 16 kHz. -5 MHz 76.025 - 77.100 MHz	Radiated power typically max. 25 W ERP. See PMR standards appendix 1 to this table.

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
	82.125 - 82.750 MHz (0.625 MHz) PMR	Duplex. Base station (FB) TX 25 kHz, 16 kHz. -5 MHz 77.125 - 77.750 MHz	Radiated power typically max. 25 W ERP. See PMR standards appendix 1 to this table. 82.200/77.200 MHz sales demonstration.
	82.775 - 83.550 MHz (0.775 MHz) Military use		
	83.575 - 83.825 MHz (0.250 MHz) PMR (power utilities)	Simplex. Land mobile station (ML) TXRX 25 kHz, 16 kHz.	Radiated power typically max. 25 W ERP. See PMR standards appendix 1 to this table.
	83.850 - 84.075 MHz (0.225 MHz) PMR (power utilities)	Duplex. Base station (FB) RX 25 kHz, 16 kHz. -6 MHz 77.850 - 78.075 MHz	Radiated power typically max. 25 W ERP. See PMR standards appendix 1 to this table.
	84.100 - 86.000 MHz (1.900 MHz) PMR (power utilities)	Duplex. Base station (FB) RX 25 kHz, 16 kHz. -6 MHz 78.100 - 80.000 MHz Simplex. Base station (FB) TXRX Land mobile station (ML) TXRX 25 kHz, 16 kHz.	Radiated power typically max. 25 W ERP. See PMR standards appendix 1 to this table.
	86.025 - 87.100 MHz (1.075 MHz) PMR	Simplex. Base station (FB) TXRX Land mobile station (ML) TXRX 25 kHz, 16 kHz.	Radiated power typically max. 5 W ERP. See PMR standards 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. Broadcasting station (sound) (BC) TX 100 kHz, 300 kHz.	Decrees of the Government 680/2007 and 1158/2002. Band II, usage according to agreement Geneva 84. Standard EN 302 018-1, EN 302 018-2 Cenelec EN 50067 (RDS).
	87.500 - 108.000 MHz (lower and upper limits of sub-band) (20.500 MHz) (SRD) Low-power FM transmitters	Simplex. Land mobile station (ML) TXRX	Equipment are exempt from licensing, see regulation Ficora 15. Radiated power max. 50 nW ERP. SRD recommendation ERC/REC/70-03. Standard EN 301 357. European Comission decision 2009/381/EC.
108.000 - 117.975 MHz AERONAUTICAL MOBILE (R)	108.000 - 117.975 MHz (9.975 MHz) Aeronautical mobile		

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic. Class of station and TX/RX-code** **Channel spacing, bandwidth. (Class of emission)** **Duplex separation and duplex band** **Standart type**	**Comments**
AERONAUTICAL RADIONAVIGATION	108.100 - 111.950 MHz (3.850 MHz) Instrument landing system (ILS)	Simplex. Land station (AL) TX 50 kHz, 2,1 kHz. (A8XXF)	ILS (Localiser).
	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).
117.975 - 137.000 MHz AERONAUTICAL MOBILE (R)	118.000 - 121.400 MHz (3.400 MHz) Aeronautical mobile service	Simplex. Aeronautical station (FA) TXRX 25 kHz, 6 kHz.	International and national aeronautical radiocommunication. The user of radio equipment used in aviation must have a radio telephone operators certificate issued by the Finnish Civil Aviation Authority. 119.700 MHz common channel for aerodrome control and approach control.
	121.425 - 121.575 MHz (0.150 MHz) Aeronautical emercency service	Simplex. Aeronautical station (FA) TXRX 25 kHz, 6 kHz.	The user of radio equipment used in aviation must have a radio telephone operators certificate issued by the Finnish Civil Aviation Authority. 121.500 MHz national aeronautical emergency frequency and its guardbands, standard EN 300 152-1.
	121.600 - 121.975 MHz (0.375 MHz) Aeronautical mobile service	Simplex. Aeronautical station (FA) TXRX 25 kHz, 6 kHz.	The user of radio equipment used in aviation must have a radio telephone operators certificate issued by the Finnish Civil Aviation Authority. International and national aerodrome surface radiocommunication. 121.900 MHz is the aeronautical land communication channel throughout Finland.

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
	122.000 - 123.050 MHz (1.050 MHz) Aeronautical mobile service	Simplex. Aeronautical station (FA) TXRX 25 kHz, 6 kHz.	National aeronautical radiocommunication. The user of radio equipment used in aviation must have a radio telephone operators certificate issued by the Finnish Civil Aviation Authority. Nationwide common channels: 122.200 MHz rescue and fire fighting, 122.300 MHz aviation training, 122,400 MHz flight calibration, 122.500 MHz power-driven flight, 122,025; 122.750 MHz gliding competitions, 122.950 MHz parachute jumping and hang-gliding (also in accordance with towing services for paragliding, transmitter power max. 5 W).
	123.075 - 123.125 MHz (0.050 MHz) Aeronautical search and rescue service	Simplex. Aeronautical station (FA) TXRX 25 kHz, 6 kHz.	The user of radio equipment used in aviation must have a radio telephone operators certificate issued by the Finnish Civil Aviation Authority. 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 25 kHz, 6 kHz.	National aeronautical radiocommunication. The user of radio equipment used in aviation must have a radio telephone operators certificate issued by the Finnish Civil Aviation Authority. 123.500 MHz nationwide common channel for gliding.
	123.700 - 129.675 MHz (5.975 MHz) Aeronautical mobile service	Simplex. Aeronautical station (FA) TXRX 25 kHz, 6 kHz.	International and national aeronautical radiocommunication. The user of radio equipment used in aviation must have a radio telephone operators certificate issued by the Finnish Civil Aviation Authority.
	129.700 - 130.875 MHz (1.175 MHz) Aeronautical mobile service	Simplex. Aeronautical station (FA) TXRX 25 kHz, 6 kHz.	National aeronautical radiocommunication. The user of radio equipment used in aviation must have a radio telephone operators certificate issued by the Finnish Civil Aviation Authority.
	130.900 - 136.675 MHz (5.775 MHz) Aeronautical mobile service	Simplex. Aeronautical station (FA) TXRX 25 kHz, 6 kHz.	International and national aeronautical radiocommunication. The user of radio equipment used in aviation must have a radio telephone operators certificate issued by the Finnish Civil Aviation Authority. In the frequency band 131,400-131,975 MHz channel spacing 8,33 kHz is also used.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic. Class of station and TX/RX-code** **Channel spacing, bandwidth. (Class of emission)** **Duplex separation and duplex band** **Standart type**	**Comments**
	136.700 - 136.975 MHz (0.275 MHz) Aeronautical mobile service	Simplex. Aeronautical station (FA) TXRX 25 kHz, 6 kHz.	International and national aeronautical radiocommunication. The user of radio equipment used in aviation must have a radio telephone operators certificate issued by the Finnish Civil Aviation Authority. Reserved for digital data transfer (VDL).
137 - 138 MHz MOBILE-SATELLITE (SPACE-TO-EARTH) METEOROLOGICAL-SATELLITE (SPACE-TO-EARTH)	137 - 138 MHz (1 MHz) Mobile satellite Meteorological-satellites	Space station (EI) TX Mobile earth station (UA) RX	137.000 - 137.025 MHz and 137.175 - 137.825 MHz mobile satellite on a primary basis.
		Space station (EM) TX Earth station (TM) RX	
138 - 144 MHz MOBILE	138 - 144 MHz (6 MHz) Military use		142.250 MHz (SRD) low-power alarms for security and safety, social alarms, equipment are exempt from licensing, see regulation Ficora 15, radiated power max. 1 mW ERP, the total bandwidth of the emission max 25 kHz, standard EN 300 220-1.
	138.200 - 138.450 MHz (lower and upper limits of sub-band) (0.250 MHz) (SRD) Non-specific Short Range Devices	Simplex. Land mobile station (ML) TXRX	Equipment are exempt from licensing, see exact frequencies in regulation Ficora 15. Radiated power max. 500 mW ERP. Duty cycle < 10 %. Standard EN 300 220-1. SRD recommendation ERC/REC/70-03.
AERONAUTICAL MOBILE (OR)	139 - 143 MHz (4 MHz) Military use		
144 - 146 MHz AMATEUR AND AMATEUR-SATELLITE	144 - 146 MHz (2 MHz) Amateur and amateur-Satellite	Simplex. Amateur station (AT) TXRX 18 kHz.	Regulation Ficora 6. User certificate required. The transmitter power in the novice class max. 30 W. Peak envelope power 120 W, when the carrier of the transmission is attenuated by at least 6 dB. The 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. Beginning on 1 November 2007 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 bands 144.000 - 144.150 MHz and 432.000 - 432.150 MHz.

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
AMATEUR	145.0000 - 145.1875 MHz (0.1875 MHz) Amateur	Duplex. Amateur repeater station (ATT) RX 12,5 kHz, +0,6 MHz 145.6000 - 145.7875 MHz	Regulation Ficora 6. User certificate required. Channels RV48 - RV62.
	145.6000 - 145.7875 MHz (0.1875 MHz) Amateur	Duplex. Amateur repeater station (ATT) TX 12,5 kHz, -0,6 MHz 145.0000 - 145.1875 MHz	Regulation Ficora 6. User certificate required. Channels RV48 - RV62.
AMATEUR-SATELLITE	145.800 - 146.000 MHz (0.200 MHz) Amateur-Satellite	Simplex. Amateur station (AT) TXRX	Regulation Ficora 6. User certificate required. The transmitter power in the novice class 30 W. Peak envelope power 120 W, when the carrier of the transmission is attenuated by at least 6 dB. The transmitter power in the general class 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 Land mobile station (ML) TXRX Fixed station (FX) TXRX 12,5 kHz, 8 kHz.	Radiated power for base and fixed stations typically max. 2 W ERP. Radiated power for mobile stations typically max. 0.5 W ERP. See PMR standards appendix 1 to this table.
	146.3125 - 146.3375 MHz (0.025 MHz) PMR		Sub-band under review.
	146.35625 - 146.79375 MHz (0.4375 MHz) PMR	Simplex. Base station (FB) TXRX Land mobile station (ML) TXRX 12,5 kHz, 8 kHz.	Radiated power typically max. 5 W ERP. See PMR standards appendix 1 to this table.
	146.80625 - 146.89375 MHz (0.0875 MHz) PMR	Duplex. Base station (FB) RX 12,5 kHz, 8 kHz. +4,6 MHz 151.40625 - 151.49375 MHz	Radiated power typically max. 25 W ERP. See PMR standards appendix 1 to this table.
	146.90625 - 148.26875 MHz (1.3625 MHz) PMR	Duplex. Base station (FB) RX 12,5 kHz, 8 kHz. +4,6 MHz 151.50625 - 152.86875 MHz	Radiated power typically max. 25 W ERP. See PMR standards appendix 1 to this table. 147.100 MHz common channel for PMR, all Finland, simplex mobile stations, radiated power max. 5 W ERP.
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. Licence-exempt Orbcomm satellite terminals. See Ficora Regulation 15.

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
LAND MOBILE	148.28125 - 149.39375 MHz (1.1125 MHz) Digital PMR (DMR)	Duplex. Base station (FB) RX 12,5 kHz, +4,6 MHz 152.88125 - 153.99375 MHz	Radiated power typically max. 25 W ERP. See PMR standards appendix 1 to this table. ECC decision ECC/DEC/(06)06. Short term events, concerts etc., digital or analogue systems: duplex channels 148.28125/152.88125 MHz, 148.81875/153.41875 MHz and 149.33125/153.93125 MHz, simplex channels 148.29375 MHz, 148.83125 MHz, 149.34375 MHz. The channels to use will be granted on a case by case basis.
	149.40625 - 149.89375 MHz (0.4875 MHz) Digital PMR (DMR)	Duplex. Base station (FB) RX 12,5 kHz, +4,6 MHz 154.00625 - 154.49375 MHz	Radiated power typically max. 25 W ERP. See PMR standards appendix 1 to this table. ECC decision ECC/DEC/(06)06.
149.900 - 150.050 MHz RADIONAVIGATION-SATELLITE MOBILE-SATELLITE (EARTH-TO-SPACE)	149.900 - 150.050 MHz (0.150 MHz) Maritime satellite navigation Mobile satellite	Space station (EN) TX Mobile earth station (UN) RX	Reception of Tsykada navigation satellites, usage will end year 2015.
		Land mobile earth station (TU) TX Space station (EU) RX	Land mobile satellites until year 2015, (RR 5.224A). Licence-exempt Orbcomm satellite terminals. See Ficora Regulation 15.
150.050 - 154.000 MHz MOBILE LAND MOBILE	150.050 - 151.000 MHz (0.950 MHz) Military use		
	151.00625 - 151.39375 MHz (0.3875 MHz) PMR	Duplex. Base station (FB) RX	Sub-band under review.
	151.40625 - 151.49375 MHz (0.0875 MHz) PMR	Duplex. Base station (FB) TX 12,5 kHz, 8 kHz. -4,6 MHz 146.80625 - 146.89375 MHz	Radiated power typically max. 25 W ERP. See PMR standards appendix 1 to this table.
	151.50625 - 152.86875 MHz (1.3625 MHz) PMR	Duplex. Base station (FB) TX 12,5 kHz, 8 kHz. -4,6 MHz 146.90625 - 148.26875 MHz	Radiated power typically max. 25 W ERP. See PMR standards appendix 1 to this table. 152.050 and 152.100 MHz common channels for PMR, all Finland, simplex mobile stations, radiated power max. 5 W ERP.

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
	152.88125 - 153.99375 MHz (1.1125 MHz) Digital PMR (DMR)	Duplex. Base station (FB) TX 12,5 kHz, -4,6 MHz 148.28125 - 149.39375 MHz	Radiated power typically max. 25 W ERP. See PMR standards appendix 1 to this table. ECC decision ECC/DEC/(06)06. Short term events, concerts etc., digital or analogue systems: duplex channels 152.88125/148.28125 MHz, 153.41875/148.81875 MHz and 153.93125/149.33125 MHz, simplex channels 152.89375 MHz, 153.43125 MHz, 153.94375 MHz. The channels to use will be granted on a case by case basis.
154 - 174 MHz MOBILE	154.00625 - 154.49375 MHz (0.4875 MHz) Digital PMR (DMR)	Duplex. Base station (FB) TX 12,5 kHz, -4,6 MHz 149.40625 - 149.89375 MHz	Radiated power typically max. 25 W ERP. See PMR standards appendix 1 to this table. ECC decision ECC/DEC/(06)06.
	154.50625 - 154.64375 MHz (0.1375 MHz) PMR	Simplex. Land mobile station (ML) TXRX 12,5 kHz, 8 kHz.	Common channels for PMR, all Finland, radiated power max. 5 W ERP. See PMR standards appendix 1 to this table.
	154.65625 - 154.89375 MHz (0.2375 MHz) Digital PMR (DMR)	Simplex. Land mobile station (ML) TXRX 12,5 kHz,	Radiated power typically max. 5 W ERP. See PMR standards appendix 1 to this table. ECC decision ECC/DEC/(06)06. 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 PMR throughout Finland. Simplex, mobile stations, radiated power max. 5 W ERP.
	154.900 - 155.475 MHz (0.575 MHz) Military use		
MARITIME MOBILE	155.500 - 155.825 MHz (0.325 MHz) PMR (boating)	Simplex. Land mobile station (ML) TXRX	User certificate required. 155.500, 155.525 and 155.650 MHz common Nordic channels for leisure boating (L-channels), standards EN 300 162-1, EN 301 025-1, EN 301 178-1. 155,625; 155,775 ja 155,825 MHz common Nordic channels for fishing (F-channels), standards EN 301 178-1, EN 300 162-1, EN 301 025-1.
MOBILE	Military use		
	155.850 - 155.875 MHz (0.025 MHz) Government		

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
	155.900 - 156.000 MHz (0.100 MHz) Government		
MARITIME MOBILE	156.025 - 156.350 MHz (0.325 MHz) Coast stations	Duplex. Coast station (FC) RX Port station (FP) RX 25 kHz, 16 kHz. +4,6 MHz 160.625 - 160.950 MHz	User certificate required. Standards EN 301 025-1, EN 301 178-1, EN 300 162-1. 156.025 MHz GOFREP-system, Finlands frequency, ship station transmitting frequency. 156.300 MHz for intership communication only, channel 6, simplex mobile stations. The table of transmitting frequencies in the VHF maritime mobile band is shown in the Handbook of short range communications for yachtsmen, issued by Ficora (in Finnish and Swedish), or in RR AP 18.
	156.375 - 156.875 MHz (0.500 MHz) Coast stations	Simplex. Coast station (FC) TXRX Port station (FP) TXRX 25 kHz, 16 kHz.	User certificate required. Standards EN 301 025-1, EN 301 178-1, EN 300 162-1. 156.400 ja 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 quardbands for channel 16. 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.
	156.900 - 157.425 MHz (0.525 MHz) Coast stations	Duplex. Coast station (FC) RX Port station (FP) RX 25 kHz, 16 kHz. +4,6 MHz 161.500 - 162.025 MHz	User certificate required. Standards EN 301 025-1, EN 301 178-1, EN 300 162-1. 157.025 MHz GOFREP-system, Finlands alternate frequency, ship stations transmitting frequency.
MOBILE	157.450 - 158.800 MHz (1.350 MHz) PMR	Duplex. Base station (FB) RX 25 kHz, 16 kHz. +4,6 MHz 162.050 - 163.400 MHz	Radiated power typically max. 25 W ERP. See PMR standards appendix 1 to this table.

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
	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	Radiated power typically max. 25 W ERP. 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		
	160.500 - 160.600 MHz (0.100 MHz) Government		
MARITIME MOBILE	160.625 - 160.950 MHz (0.325 MHz) Coast stations	Duplex. Coast station (FC) TX Port station (FP) RX 25 kHz, 16 kHz. -4,6 MHz 156.025 - 156.350 MHz	User certificate required. Standards EN 301 025-1, EN 301 178-1, EN 300 162-1. 160.625 MHz GOFREP-system, Finlands frequency, 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 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 Land mobile station (ML) TXRX Fixed station (FX) TXRX 25 kHz, 16 kHz.	Radiated power for base and fixed stations typically max. 2 W ERP. Radiated power for mobile stations typically max. 0.5 W ERP. Duty cycle < 10 %. See PMR standards appendix 1 to this table.
MARITIME MOBILE	161.500 - 162.025 MHz (0.525 MHz) Coast stations	Duplex. Coast station (FC) TX Port station (FP) TX 25 kHz, 16 kHz. -4,6 MHz 156.900 - 157.425 MHz	User certificate required. Standardit EN 301 025-1, EN 301 178-1, EN 300 162-1. AIS1=161.975 MHz and AIS2=162.025 MHz international AIS-channels. 161.625 MHz GOFREP-system, Finlands alternate frequency, coast stations transmitting frequency.
MOBILE	162.050 - 163.400 MHz (1.350 MHz) PMR	Duplex. Base station (FB) TX 25 kHz, 16 kHz. -4,6 MHz 157.450 - 158.800 MHz	Radiated power typically max. 25 W ERP. See PMR standards appendix 1 to this table.

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
	163.425 - 165.025 MHz (1.600 MHz) Government	Duplex. Base station (FB) RX 25 kHz, 16 kHz. -4,6 MHz 158.825 - 160.425 MHz Duplex. Base station (FB) TX 25 kHz, 16 kHz. -4,6 MHz 158.825 - 160.425 MHz Simplex. Base station (FB) 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		
	165.300 - 165.750 MHz (0.450 MHz) PMR		
	165.775 - 165.975 MHz (0.200 MHz) PMR	Duplex. Base station (FB) TX 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 kHz, 16 kHz. +4,6 MHz 170.600 - 172.275 MHz Simplex. Land mobile station (ML) TXRX	Radiated power for duplex channels typically max. 25 W ERP and for simplex channels 5 W ERP. See PMR standards appendix 1 to this table. 167.650/172.250 MHz sales demonstration.
	167.700 - 168.550 MHz (0.850 MHz) PMR (Finnish State Railways)	Duplex. Base station (FB) TX 25 kHz, 16 kHz. +4,6 MHz 172.300 - 173.150 MHz Duplex. Base station (FB) RX 25 kHz, 16 kHz. +4,6 MHz 172.300 - 173.150 MHz Simplex. Land mobile station (ML) TXRX	Radiated power typically max. 25 W ERP. See PMR standards appendix 1 to this table. Also +4.65 and +4.7 MHz duplex separation.
	168.575 - 169.400 MHz (0.825 MHz) PMR	Duplex. Base station (FB) TX 25 kHz, 16 kHz. +4,6 MHz 173.175 - 174.000 MHz	Radiated power typically max. 25 W ERP. See PMR standards appendix 1 to this table.

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
	169.400 - 169.475 MHz (lower and upper limits of sub-band) (0.075 MHz) (SRD) Short range devices	50 kHz,	Meter reading systems, tracking and tracing systems and hearing aids. Equipment are exempt from licensing, see regulation Ficora 15. Meter reading and tracking devices, radiated power max. 500 mW ERP. Duty cycle < 10 % for meter reading systems. Duty cycle < 1 % for tracking and tracing systems. Standard EN 300 220-1. Hearing aids, radiated power max. 10 mW ERP. Other hearing aids (maximum radiated power 500 mW) ERP are subject to licence. Standard EN 300 422-1. SRD recommendation ERC/REC/70-03. ECC decision ECC/DEC/(05)02. European Comission decision 2005/928/EC and 2008/673/EC. Sub-band also for PMR use (to be removed), and interference may occur.
	169.400 - 169.600 MHz (0.200 MHz) PMR	Simplex. Base station (FB) TXRX Land mobile station (ML) TXRX 25 kHz, 16 kHz.	Radiated power typically max. 5 W ERP. See PMR standards appendix 1 to this table. PMR service is allowed until the radio licences expire. The licences are not renewed and no new licences are granted.
	169.4750 - 169.4875 MHz (lower and upper limits of sub-band) (0.0125 MHz) (SRD) Social alarms	12,5 kHz.	Centre frequency 169,48125 MHz. Equipment are exempt from licensing, see regulation Ficora 15. Radiated power max. 10 mW ERP. Duty cycle < 0.1 %. Other social alarms (maximum radiated power 500 mW, duty cycle above or as big as 0,1 %) are subject to licence. Standardi EN300 220-1. SRD recommendation ERC/REC/70-03. ECC decision ECC/DEC/(05)02. European Commission decision 2005/928/EC and 2008/673/EC. Sub-band also for PMR use (to be removed), and interference may occur.

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
	169.4875 - 169.5875 MHz (lower and upper limits of sub-band) (0.100 MHz) (SRD) Hearing aids	50 kHz, 50 kHz.	Centre frequencies are: 169,5125 MHz ja 169,5625 MHz. Equipment are exempt from licensing, see regulation Ficora 15. Radiated power max. 10 mW ERP. Other hearing aids (maximum radiated power 500 mW) ERP are subject to licence. Standard EN 300 422-1. ECC decision ECC/DEC/(05)02. European Commission decision 2005/928/EC and 2008/673/EC. Sub-band also for PMR use (to be removed), and interference may occur.
	169.5875 - 169.6000 MHz (lower and upper limits of sub-band) (0.0125 MHz) (SRD) Social alarms	12,5 kHz.	Centre frequency 169,59375 MHz. Equipment are exempt from licensing, see regulation Ficora 15. Radiated power max. 10 mW ERP. Duty cycle < 0.1 %. Other social alarms (maximum radiated power 500 mW, duty cycle above or as big as 0,1 %) are subject to licence. Standard EN 300 220-1. SRD recommendation ERC/REC/70-03. ECC decision ECC/DEC/(05)02. European Commission decision 2005/928/EC and 2008/673/EC. Sub-band also for PMR use (to be removed), and interference may occur.
	169.61875 - 169.80625 MHz (0.1875 MHz) PMR	Simplex. Base station (FB) TXRX Land mobile station (ML) TXRX 12,5 kHz, 8 kHz.	Tracking and tracing systems, paging, PMR. Radiated power typically max. 25 W ERP. See PMR standards appendix 1 to this table. ECC decision ECC/DEC/(05)02. Paging, standardi EN 300 224-1. European Commission decision 2005/928/EC and 2008/673/EC.
	169.625 - 169.800 MHz (0.175 MHz) PMR	Simplex. Base station (FB) TXRX Land mobile station (ML) TXRX 25 kHz, 16 kHz.	Tracking and tracing systems, paging, PMR. Radiated power typically max. 25 W ERP. See PMR standards appendix 1 to this table. Paging, standard EN 300 224-1. ECC decision ECC/DEC/(05)02. European Commission decision 2005/928/EC and 2008/673/EC.
	169.825 - 169.875 MHz (0.050 MHz) PMR	Simplex. Base station (FB) TXRX Land mobile station (ML) TXRX 25 kHz, 16 kHz.	Radiated power typically max. 5 W ERP. See PMR standards appendix 1 to this table.

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
	169.900 - 170.350 MHz (0.450 MHz) PMR	Duplex. Base station (FB) TX 25 kHz, 16 kHz. -4,6 MHz 165.300 - 165.750 MHz	
	170.375 - 170.575 MHz (0.200 MHz) PMR	Simplex. Land mobile station (ML) TXRX 25 kHz, 16 kHz.	Radiated power typically max. 5 W ERP. See PMR standards appendix 1 to this table. 170.425 and 170.450 MHz common channels for PMR, all 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 kHz, 16 kHz. -4,6 MHz 166.000 - 167.675 MHz Simplex. Land mobile station (ML) TXRX	Radiated power for duplex channels typically max. 25 W ERP and for simplex channels 5 W ERP. See PMR standards 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) PMR (Finnish State Railways)	Duplex. Base station (FB) RX 25 kHz, 16 kHz. -4,6 MHz 167.700 - 168.550 MHz Duplex. Base station (FB) TX 25 kHz, 16 kHz. -4,6 MHz 167.700 - 168.550 MHz Simplex. Land mobile station (ML) TXRX	Radiated power typically max. 25 W ERP. See PMR standards appendix 1 to this table. Also -4.65 and -4.7 MHz duplex separations.
	173.175 - 174.000 MHz (0.825 MHz) PMR	Duplex. Base station (FB) RX 25 kHz, 16 kHz. -4,6 MHz 168.575 - 169.400 MHz	Radiated power typically max. 25 W ERP. See PMR standards appendix 1 to this table.
	173.965 - 174.015 MHz (0.050 MHz) (SRD) Hearing aids	50 kHz.	Radiated power 2 mW ERP, regional restrictions, standard EN 300 422-1.
174 - 230 MHz BROADCASTING	174 - 230 MHz (lower and upper limits of sub-band) (56 MHz) Digital television and sound broadcasting	Simplex. Broadcasting station (BT) TX Broadcasting station (sound) (BC) TX 7 MHz, 7 MHz.	TV channels 5-12 (band III). Digital television and radio according to Geneva 2006 Agreement. Television (DVB): standard EN 300 774. Digital radio (DAB): Standard ETS 300 401. Secondary use, interference may occur: 174-230 MHz radio microphones and hearing aids, max. channel widt 200 kHz, radiated power max. 10 mW ERP, Standard EN 300 422-1, regional restrictions, frequencies assigned in the radio licence on a case by case basis.

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
230 - 235 MHz BROADCASTING	230 - 235 MHz (lower and upper limits of sub-band) (5 MHz) Digital sound broadcasting	Simplex. Broadcasting station (sound) (BC) TX	Digital radio (DAB) according to plan Wiesbaden 95 (Constanta 2007). Standard ETS 300 401. 230 - 231 MHz (SRD) Short range devices, licence exempted equipment, taken into use before 31.12.1998, see regulation Ficora 15, transmitter power and radiated power (ERP) max. 500 mW.
235 - 267 MHz BROADCASTING	235 - 240 MHz (5 MHz) Digital sound broadcasting	Simplex. Broadcasting station (sound) (BC) TX	Digital radio (DAB) according to plan Wiesbaden 95 (Constanta 2007). Standard ETS 300 401.
MOBILE	240 - 267 MHz (27 MHz) Military use		243 MHz emergency frequency for aviation and navigation (EPIRB, position indicating radiobeacon and radiotelephones for distress), standard EN 300 152-1.
267 - 272 MHz MOBILE	267 - 272 MHz (5 MHz) Military use		
272 - 273 MHz MOBILE	272 - 273 MHz (1 MHz) Military use		
273 - 322 MHz MOBILE	273 - 308 MHz (35 MHz) Military use		
FIXED, MOBILE	308.200 - 319.000 MHz (10.800 MHz) Sound program transmission	200 kHz, 300 kHz.	Fixed radio links and mobile transmitters for one-way sound program transmission. Standard EN 300 454-1.
MOBILE	319.025 - 322.000 MHz (2.975 MHz) Military use		
322.000 - 328.600 MHz MOBILE	322.000 - 328.600 MHz (6.600 MHz) Military use		
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, 2,1 kHz. (A8XXF)	ILS (Glide Path).

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
335.400 - 339.000 MHz MOBILE	335.400 - 338.500 MHz (3.100 MHz) Military use		Also civil usage: 335.800, 336.500, 337.000, 337.400 and 338.000 MHz individually licensed radio microphones. Radiated power typically max. 50 mW ERP. Channel width 200 kHz. Channels free from 3rd order intermodulation. It shall be prohibited for a user to take other frequencies into use than those mentioned on his licence. Standardi EN 300 422-1.
339.000 - 399.900 MHz FIXED	339.000 - 358.500 MHz (19.500 MHz) Fixed radiolinks	Duplex. Fixed station (FX) TXRX 500 kHz, 2 MHz. +20,5 MHz 359.500 - 379.000 MHz DRS2/360, FM24/360	Sub-band under review. Transmitter power max. 5 W. No new licences for radiolinks.
	359.500 - 379.000 MHz (19.500 MHz) Fixed radiolinks	Duplex. Fixed station (FX) TXRX 500 kHz, 2 MHz. -20,5 MHz 339.000 - 358.500 MHz DRS2/360, FM24/360	Sub-band under review. Transmitter power max. 5 W. No new licences for radiolinks.
MOBILE	380.0125 - 384.9875 MHz (4.975 MHz) Emergency services network (VIRVE)	Duplex. Base station (FB) RX 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 regulation Ficora 15. Radiated power typically max. 25 W ERP. Standard EN 303 035-1, EN 300 113-1 and EN 300 394-1. ECC decision ECC/DEC/(08)05. Harmonised channels for Direct Mode Operation (DMO), ERC/DEC/(01)19: 380.0125 - 380.1375 MHz and 390.0125 - 390.1375 MHz. Harmonised channels for Air-Ground-Air operation (AGA), ECC/DEC/(06)05: 384.8125 - 384.9875 MHz and 394.8125 - 394.9875 MHz.
	385.0125 - 389.9875 MHz (4.975 MHz) TETRA	Duplex. Base station (FB) RX 25 kHz, 25 kHz. +10 MHz 395.0125 - 399.8875 MHz	Standard EN 303 035-1, EN 300 113-1 and EN 300 394-1. In addition mobile terminals belonging to the emergency services network (VIRVE) are exempt from licensing, see regulation Ficora 15. 395.0125 - 395.9875 / 385.0125 - 385.9875 MHz expansionband for Direct Mode Operation (DMO) of the emergency services network (VIRVE). ECC decision ECC/DEC/(08)05.

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
	390.0125 - 394.9875 MHz (4.975 MHz) Emergency services network (VIRVE)	Duplex. Base station (FB) TX 25 kHz, 25 kHz. -10 MHz 380.0125 - 384.9875 MHz	Radiated power typically max. 25 W ERP. Standard EN 303 035-1, EN 300 113-1 and EN 300 394-1. ECC decision ECC/DEC/(08)05. Harmonised channels for Direct Mode Operation (DMO), ERC/DEC/(01)19: 380.0125 - 380.1375 MHz and 390.0125 - 390.1375 MHz. Harmonised channels for Air-Ground-Air operation (AGA) channels, ECC/DEC/(06)05: 384.8125 - 384.9875 MHz and 394.8125 - 394.9875 MHz.
	395.0125 - 399.8875 MHz (4.875 MHz) TETRA	Duplex. Base station (FB) TX 25 kHz, 25 kHz. -10 MHz 385.0125 - 389.9875 MHz	Radiated power typically max. 25 W ERP. Standard EN 303 035-1, EN 300 113-1 and EN 300 394-1. In addition mobile terminals belonging to the emergency services network (VIRVE) are exempt from licensing, see regulation Ficora 15. 395.0125 - 395.9875 / 385.0125 - 385.9875 MHz expansion band for Direct Mode Operation (DMO) of the emergency services network (VIRVE). ECC decision ECC/DEC/(08)05.
399.900 - 400.050 MHz RADIONAVIGATION-SATELLITE MOBILE-SATELLITE (EARTH-TO-SPACE)	399.900 - 400.050 MHz (0.150 MHz) Maritime satellite navigation Mobile satellite	Space station (EN) TX Mobile earth station (UN) RX	Reception of Tsykada navigation-satellites (usage will end in year 2015).
		Land mobile earth station (TU) TX Space station (EU) RX	Only land mobile-satellite until year 2015 (RR 5.224A).
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 MOBILE-SATELLITE (SPACE-TO-EARTH)	400.150 - 401.000 MHz (0.850 MHz) Sondes Mobile satellite	Simplex. Mobile station (SA) TX Base station (SM) RX	Usage according ITU-R Rec. RS.1165-2. Standard EN 302 054.
		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 TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
401 - 406 MHz MOBILE	401 - 402 MHz (1 MHz) (SRD) Ultra low-power medical implants	Simplex. 25 kHz,	Equipment are exempt from licensing, see regulation Ficora 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. Standard EN 302 537. SRD recommendation ERC/REC/70-03.
METEOROLOGICAL-SATELLITE (EARTH-TO-SPACE)	401 - 403 MHz (2 MHz) Meteorological data collection platforms (DCPs)	Earth station (TM) TX Space station (EM) RX	
EARTH EXPLORATION-SATELLITE (EARTH-TO-SPACE)	Earth exploration satellite	Earth station (TW) TX Space station (EW) RX	
METEOROLOGICAL AIDS	401 - 406 MHz (5 MHz) Sondes	Simplex. Mobile station (SA) TX Base station (SM) RX	Usage according ITU-R Rec. RS.1165-2. Standard EN 302 054.
MOBILE	402 - 405 MHz (3 MHz) (SRD) Ultra low-power medical implants	Simplex. 25 kHz,	Equipment are exempt from licensing, see regulation Ficora 15. Radiated power max. 0,025 mW ERP. Standard EN 301 839-1. SRD recommendation ERC/REC/70-03. ERC decision ERC/DEC/(01)17. European Commission decision 2009/381/EC.
	405 - 406 MHz (1 MHz) (SRD) Ultra low-power medical implants	Simplex. 25 kHz,	Equipment are exempt from licensing, see regulation Ficora 15. Radiated power max. 0.025 mW ERP and an appropriate access protocol or duty cycle < 0.1 % and radiated power max. 250 nW ERP. Standard EN 302 537. SRD recommendation ERC/REC/70-03.
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. 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 Land mobile station (ML) TXRX 25 kHz, 16 kHz.	Radiated power for base and fixed stations typically max. 2 W ERP. Radiated power for mobile stations typically max. 0.5 W ERP. See PMR standards appendix 1 to this table.

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
	406.625 - 406.925 MHz (0.300 MHz) Control, alarm, telemetry, telecommand, data transmission	Simplex. Fixed station (FX) TXRX 25 kHz, 16 kHz.	Radiated power for base and fixed stations typically max. 2 W ERP. See PMR standards appendix 1 to this table.
	406.950 - 407.000 MHz (0.050 MHz) Control, alarm, telemetry, telecommand, data transmission	Simplex. Base station (FB) TXRX Land mobile station (ML) TXRX 25 kHz, 16 kHz.	Radiated power for base and fixed stations typically max. 2 W ERP. Radiated power for mobile stations typically max. 0.5 W ERP. See PMR standards appendix 1 to this table.
	407.025 - 407.500 MHz (0.475 MHz) Military use		
	407.525 - 408.550 MHz (1.025 MHz) PMR	Simplex. Base station (FB) TXRX Land mobile station (ML) TXRX 25 kHz, 16 kHz.	Radiated power typically max. 5 W ERP. See PMR standards appendix 1 to this table. 407.525, 407.575, 408.375 and 408.400 MHz common channels for PMR, all 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 Land mobile station (ML) TXRX 12,5 kHz, 8 kHz.	Radiated power for base and fixed stations typically max. 2 W ERP. Radiated power for mobile stations typically max. 0.5 W ERP. See PMR standards appendix 1 to this table.
	409.0125 - 409.9750 MHz (0.9625 MHz) Control, alarm, telemetry, telecommand, data transmission	Simplex. Fixed station (FX) TXRX 12,5 kHz, 8 kHz.	Radiated power for base and fixed stations typically max. 2 W ERP. See PMR standards appendix 1 to this table.
410 - 420 MHz MOBILE FIXED	410.0125 - 410.8875 MHz (0.875 MHz) Digital PMR (DMR)	Duplex. Base station (FB) RX 25 kHz, 25 kHz. +10 MHz 420.0125 - 420.8875 MHz	Radiated power typically max. 25 W ERP. See PMR standards appendix 1 to this table. ECC decision ECC/DEC/(06)06.
	410.975 - 412.850 MHz (1.875 MHz) Fixed radiolinks	Duplex. Fixed station (FX) TXRX 125 kHz, 100 kHz. +10 MHz 420.975 - 422.850 MHz FM4/419	Transmitter power max. 25 W. Standard EN 300 086-1 for applicable parts. Channels B-2a - B13a.
	412.925 - 413.975 MHz (1.050 MHz) Fixed radiolinks	Duplex. Fixed station (FX) TXRX 25 kHz, 16 kHz. +10 MHz 422.925 - 423.975 MHz FM1/420	Transmitter power max. 25 W. Standard EN 300 086-1 for applicable parts. Channels C65a - C107a.

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
MOBILE	414.0125 - 416.3375 MHz (2.325 MHz) TETRA	Duplex. Base station (FB) RX 25 kHz, 25 kHz. +10 MHz 424.0125 - 426.3375 MHz	Radiated power typically max. 25 W ERP. Standard EN 303 035-1, EN 300 113-1 and EN 300 394-1. ECC decision ECC/DEC/(06)06.
	416.375 - 417.500 MHz (1.125 MHz) Mobile radio		Sub-band under review.
	417.525 - 417.900 MHz (0.375 MHz) PMR	Duplex. Base station (FB) RX 12,5 kHz, 8 kHz. +10 MHz 427.525 - 427.900 MHz	Radiated power typically max. 25 W ERP. See PMR standards appendix 1 to this table.
	417.925 - 419.125 MHz (1.200 MHz) Digital wideband PMR networks	Duplex. Base station (FB) RX +10 MHz 427.925 - 429.125 MHz	Channel width 25-200 kHz. See PMR standards appendix 1 to this table. ECC decision ECC/DEC/(04)06.
	419.150 - 419.525 MHz (0.375 MHz) PMR	Duplex. Base station (FB) RX 12,5 kHz, 8 kHz. +10 MHz 429.150 - 429.525 MHz	Radiated power typically max. 25 W ERP. See PMR standards appendix 1 to this table.
	419.55625 - 419.71875 MHz (0.1625 MHz) Digital PMR (DMR)	Duplex. Base station (FB) RX 12,5 kHz, 12,5 kHz. +10 MHz 429.55625 - 429.71875 MHz	Also for PMR systems using 6.25 kHz channel spacing. Radiated power typically max. 25 W ERP. See PMR standards appendix 1 to this table. ECC decision ECC/DEC/(06)06.
FIXED	419.750 - 420.000 MHz (0.250 MHz) Fixed radiolinks	Duplex. Fixed station (FX) TXRX 25 kHz, 16 kHz. +10 MHz 429.750 - 430.000 MHz FM1/420	Transmitter power max. 25 W. Standard EN 300 086-1 for applicable parts. Channels D1a - D10a.
420 - 430 MHz MOBILE	420.0125 - 420.8875 MHz (0.875 MHz) Digital PMR (DMR)	Duplex. Base station (FB) TX 25 kHz, 25 kHz. -10 MHz 410.0125 - 410.8875 MHz	Radiated power typically max. 25 W ERP. See PMR standards appendix 1 to this table. ECC decision ECC/DEC/(06)06.
FIXED	420.975 - 422.850 MHz (1.875 MHz) Fixed radiolinks	Duplex. Fixed station (FX) TXRX 125 kHz, 100 kHz. -10 MHz 410.975 - 412.850 MHz FM4/419	Transmitter power max. 25 W. Standard EN 300 086-1 for applicable parts. Channels B-2b - B13b.
	422.925 - 423.975 MHz (1.050 MHz) Fixed radiolinks	Duplex. Fixed station (FX) TXRX 25 kHz, 16 kHz. -10 MHz 412.925 - 413.975 MHz FM1/420	Transmitter power max. 25 W. Standard EN 300 086-1 for applicable parts. Channels C65b - C107b.
MOBILE	424.0125 - 426.3375 MHz (2.325 MHz) TETRA	Duplex. Base station (FB) TX 25 kHz, 25 kHz. -10 MHz 414.0125 - 416.3375 MHz	Radiated power typically max. 25 W ERP. Standards EN 303 035-1, EN 300 113-1 and EN 300 394-1. ECC decision ECC/DEC/(06)06.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic. Class of station and TX/RX-code** **Channel spacing, bandwidth. (Class of emission)** **Duplex separation and duplex band** **Standart type**	**Comments**
	426.375 - 427.500 MHz (1.125 MHz) Mobile radio		Sub-band under review.
	427.525 - 427.900 MHz (0.375 MHz) PMR	Duplex. Base station (FB) TX 12,5 kHz, 8 kHz. -10 MHz 417.525 - 417.900 MHz	Radiated power typically max. 25 W ERP. See PMR standards appendix 1 to this table.
	427.925 - 429.125 MHz (1.200 MHz) Digital wideband PMR networks	Duplex. Base station (FB) TX -10 MHz 417.925 - 419.125 MHz	Channel width 25-200 kHz. See PMR standards appendix 1 to this table. ECC decision ECC/DEC/(04)06.
	429.150 - 429.525 MHz (0.375 MHz) PMR	Duplex. Base station (FB) TX 12,5 kHz, 8 kHz. -10 MHz 419.150 - 419.525 MHz	Radiated power typically max. 25 W ERP. See PMR standards appendix 1 to this table.
	429.55625 - 429.71875 MHz (0.1625 MHz) Digital PMR (DMR)	Duplex. Base station (FB) TX 12,5 kHz, 12,5 kHz. -10 MHz 419.55625 - 419.71875 MHz	Also for PMR systems using 6.25 kHz channel spacing. Radiated power typically max. 25 W ERP. See PMR standards appendix 1 to this table. ECC decision ECC/DEC/(06)06.
FIXED	429.750 - 430.000 MHz (0.250 MHz) Fixed radiolinks	Duplex. Fixed station (FX) TXRX 25 kHz, 16 kHz. -10 MHz 419.750 - 420.000 MHz FM1/420	Transmitter power max. 25 W. Standard EN 300 086-1 for applicable parts. Channels D1b - D10b.

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
430 - 432 MHz MOBILE	430.025 - 431.975 MHz (1.950 MHz) Control, alarm, telemetry, telecommand, data transmission	Simplex. Base station (FB) TXRX Land mobile station (ML) TXRX 25 kHz, 16 kHz.	Radiated power for base and fixed stations typically max. 2 W ERP. Radiated power for mobile stations typically max. 0.5 W ERP. See PMR standards appendix 1 to this table. 430.025, 430.050, 430.075, 430.100 and 430.125 MHz common channels for mobile data applications, all Finland, radiated power max. 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 D-GPS correction signal transmitters, and sales demonstration for data applications, all Finland, radiation power max. 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 data applications and for D-GPS correction signal transmitters, radiation power max. 10 W ERP, channel width 12.5 or 25 kHz.
432 - 438 MHz AMATEUR	432 - 435 MHz (3 MHz) Amateur	Simplex. Amateur station (AT) TXRX	Regulation Ficora 6. User certificate required. The transmitter power in the novice class max. 30 W. Peak envelope power 120 W, when the carrier of the transmission is attenuated by at least 6 dB. The 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. 432.725, 432.775, 433.625, 433.775, 434.525, 434.575 MHz national packet radio trunking network. Beginning on 1 November 2007 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 bands 144.000 - 144.150 MHz and 432.000 - 432.150 MHz.
	433.000 - 433.375 MHz (0.375 MHz) Amateur	Duplex. Amateur repeater station (ATT) RX 25 kHz, +1,6 MHz 434.600 - 434.975 MHz	Regulation Ficora 6. User certificate required.

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
Mobile	433.050 - 434.790 MHz (1.740 MHz) (SRD) Non-specific Short Range Devices		Equipment are exempt from licensing, see regulation Ficora 15. Radiated power max. 25 mW ERP, standard EN 300 220-1, duty cycle <10 %, enters into force on 1 April 2003, peech and audio applications not allowed, ECC decision ECC/DEC/(04)02. SRD recommendation ERC/REC/70-03. European Commission decision 2009/381/EC.
	433.050 - 434.790 MHz (1.740 MHz) (SRD) Non-specific Short Range Devices		Equipment are exempt from licensing, see regulation Ficora 15. Radiated power max. 1 mW ERP, the spectral power density of transmission shall be below -13 dBm/10 kHz for broadband transmitters, standard EN 300 220-1, no restrictions on duty cycle, speech and audio applications not allowed, ECC decision ECC/DEC/(04)02. SRD recommendation ERC/REC/70-03. European Comission decision 2009/381/EC.
	434.040 - 434.790 MHz (0.750 MHz) (SRD) Non-specific Short Range Devices		Equipment are exempt from licensing, see regulation Ficora 15. Radiated power max. 10 mW ERP, channel spacing max. 25 kHz, standard EN 300 220-1, no restrictions on duty cycle, speech and audio applications not allowed, ECC decision ECC/DEC(04)02. SRD recommendation ERC/REC/70-03. European Comission decision 2009/381/EC.
AMATEUR	434.600 - 434.975 MHz (0.375 MHz) Amateur	Duplex. Amateur repeater station (ATT) TX 25 kHz, -1,6 MHz 433.000 - 433.375 MHz	Regulation Ficora 6. User certificate required.
AMATEUR AND AMATEUR-SATELLITE	435 - 438 MHz (3 MHz) Amateur and amateur-Satellite	Simplex. Amateur station (AT) TXRX	Regulation Ficora 6. User certificate required. The amateur-satellite service may operate subject to not causing harmful interference to other services. The transmitter power in the novice class max. 30 W. Peak envelope power 120 W, when the carrier of the transmission is attenuated by at least 6 dB. The 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 TX/RX-code** **Channel spacing, bandwidth. (Class of emission)** **Duplex separation and duplex band** **Standart type**	**Comments**
438 - 440 MHz RADIOLOCATION	438 - 440 MHz (2 MHz) Military use		
440 - 450 MHz MOBILE	440.0125 - 440.5875 MHz (0.575 MHz) PMR	Simplex. Land mobile station (ML) TXRX 25 kHz, 16 kHz.	Radiated power typically max. 5 W ERP. See PMR standards appendix 1 to this table.
	440.60625 - 440.89375 MHz (0.2875 MHz) PMR	Simplex. Land mobile station (ML) TXRX 12,5 kHz, 8 kHz.	Radiated power typically max. 5 W ERP. See PMR standards appendix 1 to this table.
	440.90625 - 441.18125 MHz (0.275 MHz) Control, alarm, telemetry, telecommand, data transmission	Simplex. Fixed station (FX) TXRX 12,5 kHz, 8 kHz.	Radiated power typically max. 2 W ERP. See PMR standards appendix 1 to this table.
	441.200 - 441.575 MHz (0.375 MHz) Control, alarm, telemetry, telecommand, data transmission	Simplex. Fixed station (FX) TXRX 25 kHz, 16 kHz.	Radiated power typically max. 2 W ERP. See PMR standards appendix 1 to this table.
	441.600 - 442.750 MHz (1.150 MHz) Control, alarm, telemetry, telecommand, data transmission	Simplex. Base station (FB) TXRX Land mobile station (ML) TXRX Fixed station (FX) TXRX 25 kHz, 16 kHz.	Radiated power for base and fixed stations typically max. 2 W ERP. Radiated power for mobile stations typically max. 0.5 W ERP. See PMR standards appendix 1 to this table.
	442.775 - 443.000 MHz (0.225 MHz) PMR	Simplex. Land mobile station (ML) TXRX 25 kHz, 16 kHz.	Radiated power typically max. 5 W ERP. See PMR standards appendix 1 to this table. 442.850, 442.875, 442.900, 442.925, 442.950 and 442.975 MHz common speech channels for crane operations, all Finland, radiated power max. 1 W ERP.
	443.025 - 444.000 MHz (0.975 MHz) PMR	Simplex. Base station (FB) TXRX Land mobile station (ML) TXRX 25 kHz, 16 kHz.	Radiated power typically max. 5 W ERP. See PMR standards appendix 1 to this table. 443.125, 443.500, 443.550 and 443.800 MHz common channels for PMR, all Finland, simplex mobile stations, radiated power max. 5 W ERP. 443.525 MHz smoke diving, whole Finland, simplex mobile stations. 443.975 MHz sales demonstration, simplex mobile stations.

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
	444.025 - 444.525 MHz (0.500 MHz) Government	Duplex. Base station (FB) TX 25 kHz, 16 kHz. +5 MHz 449.025 - 449.525 MHz	Radiated power typically max. 25 W ERP. See PMR standards 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, duty cycle max. 10 %.
	444.550 - 444.975 MHz (0.425 MHz) PMR, governmental	Simplex. Base station (FB) TXRX Land mobile station (ML) TXRX Duplex. Base station (FB) TX 25 kHz, 16 kHz. +5 MHz 449.550 - 449.975 MHz	Radiated power for duplex channels typically max. 25 W ERP and for simplex channels 5 W ERP. See PMR standards appendix 1 to this table.
	445 - 446 MHz (1 MHz) PMR	Simplex. Base station (FB) TXRX Land mobile station (ML) TXRX 25 kHz, 16 kHz.	Radiated power typically max. 5 W ERP. See PMR standards appendix 1 to this table. 445.200 and 445.675 MHz common channels for PMR, all Finland, simplex mobile stations, radiated power max. 5 W ERP.
	446.00625 - 446.09375 MHz (0.0875 MHz) PMR446	Simplex. Land mobile station (ML) TXRX 12,5 kHz, 8 kHz.	Equipment are exempt from licensing, see exact frequencies in regulation Ficora 15. Radiated power max. 500 mW ERP. Total bandwidth of the emission 12.5 kHz. Standard EN 300 296-1. ERC decisions ERC/DEC/(98)25, ERC/DEC/(98)26.
	446.100 - 446.200 MHz (0.100 MHz) Digital PMR446	Simplex. Land mobile station (ML) TXRX	Equipment are exempt from licensing, see regulation Ficora 15. Total bandwidth of the emission 6,25 kHz or 12,5 kHz. Equipment with channel spacing 6,25 kHz: 446,103125 MHz + (0…15) x 6,25 kHz Radiated power 500 mW ERP. Standard EN 301 166-1. Equipment with channel spacing 12,5 kHz: 446,10625 MHz + (0…7) x 12,5 kHz. Radiated power 500 mW ERP. Standard EN 300 113-1. ECC Decision ECC/DEC/(05)12.
	446.21875 - 446.99375 MHz (0.775 MHz) Control, alarm, telemetry, telecommand, data transmission	Simplex. Fixed station (FX) TXRX 12,5 kHz, 8 kHz.	Radiated power typically max. 2 W ERP. See PMR standards appendix 1 to this table.

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
	447.00625 - 447.29375 MHz (0.2875 MHz) Digital PMR (DMR)	Simplex. Land mobile station (ML) TXRX 12,5 kHz,	Radiated power typically max. 5 W ERP. See PMR standards appendix 1 to this table. ECC decision ECC/DEC/(06)06. 447,00625 MHz, 447,05625 MHz, 447,08125 MHz, 447,15625 MHz, 447,18125 MHz, 447,20625 MHz, 447,23125 MHz, 447,28125 MHz common channels for PMR throughout Finland. Simplex, mobile stations, radiated power max. 5 W ERP.
	447.30625 - 447.70625 MHz (0.400 MHz) PMR	Simplex. Land mobile station (ML) TXRX 12,5 kHz, 8 kHz.	Radiated power typically max. 5 W ERP. See PMR standards appendix 1 to this table.
	447.71875 - 448.76875 MHz (1.050 MHz) Control, alarm, telemetry, telecommand, data transmission	Simplex. Base station (FB) TXRX Land mobile station (ML) TXRX 12,5 kHz, 8 kHz.	Radiated power for base stations typically max. 2 W ERP and for mobile stations max. 0,5 W ERP. See PMR standards appendix 1 to this table.
	448.78125 - 448.99375 MHz (0.2125 MHz) Control, alarm, telemetry, telecommand, data transmission	Simplex. Base station (FB) TXRX Fixed station (FX) TXRX Land mobile station (ML) TXRX 12,5 kHz, 8 kHz.	Radiated power for base and fixed stations typically max. 2 W ERP. Radiated power for mobile stations typically max. 0.5 W ERP. See PMR standards appendix 1 to this table.
	449.00625 - 449.51875 MHz (0.5125 MHz) Control, alarm, telemetry, telecommand, data transmission	Simplex. Base station (FB) TXRX Land mobile station (ML) TXRX Fixed station (FX) TXRX 12,5 kHz, 8 kHz.	Radiated power for base and fixed stations typically max. 2 W ERP. Radiated power for mobile stations typically max. 0.5 W ERP. See PMR standards appendix 1 to this table.
	449.025 - 449.525 MHz (0.500 MHz) Government	Duplex. Base station (FB) RX 25 kHz, 16 kHz. -5 MHz 444.025 - 444.525 MHz	Radiated power typically max. 25 W ERP. See PMR standards appendix 1 to this table.
	449.550 - 450.000 MHz (0.450 MHz) PMR, governmental	Simplex. Base station (FB) TXRX Land mobile station (ML) TXRX Duplex. Base station (FB) RX 25 kHz, 16 kHz. -5 MHz 444.550 - 444.975 MHz	Radiated power for duplex channels typically max. 25 W ERP and for simplex channels 5 W ERP. See PMR standards appendix 1 to this table.
450 - 470 MHz MOBILE	450.000 - 450.300 MHz (0.300 MHz) On-site paging	Simplex. Base station (FB) TX Duplex. Base station (FB) TX 25 kHz, 16 kHz. +12,2 MHz 462.200 - 462.500 MHz	Radiated power typically max. 5 W ERP. Channel width 12,5 kHz or 25 kHz. Standard EN 300 224-1.

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
	450.325 - 452.500 MHz (2.175 MHz) PMR	Duplex. Base station (FB) TX 25 kHz, 16 kHz. +9,7 MHz 460.025 - 462.175 MHz	Radiated power typically max. 25 W ERP. See PMR standards appendix 1 to this table. Regional restrictions on use in the sub-band 452.425 - 452.500 MHz due to the 450 MHz digital broadband public mobile network, see Government Decree 680/2007. 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 1,275 MHz, 1,25 MHz. +10 MHz 462.425 - 466.925 MHz	Terminals are exempt from licensing, see regulation Ficora 15. ETSI EN 301 449, item 4.2.2.2.2 (base stations). Regional restrictions on use in the sub-band 452.425 - 453.700 MHz due to PMR service, see Government Decree 680/2007.
	452.525 - 452.975 MHz (0.450 MHz) PMR	Duplex. Base station (FB) RX 25 kHz, 16 kHz. +10 MHz 462.525 - 462.975 MHz	Radiated power typically max. 25 W ERP. See PMR standards appendix 1 to this table. Regionala begränsningar i användningen av delbandet 452,425 - 452,500 MHz på grund av det digitala bredbandiga 450 MHz mobilnätet, se Statsrådets förordning 680/2007.
	453.0125 - 453.6625 MHz (0.650 MHz) PMR	Duplex. Base station (FB) RX 25 kHz, 16 kHz. +10 MHz 463.0125 - 463.6625 MHz	Radiated power typically max. 25 W ERP. See PMR standards appendix 1 to this table. Regional restrictions on use in the sub-band due to the 450 MHz digital broadband public mobile network, see Government Decree 680/2007.
	456.9625 - 457.4625 MHz (0.500 MHz) PMR	Duplex. Base station (FB) RX 25 kHz, 16 kHz. +10 MHz 466.9625 - 467.4625 MHz	Radiated power typically max. 25 W ERP. See PMR standards appendix 1 to this table.
	457.500 - 458.100 MHz (0.600 MHz) PMR	Duplex. Base station (FB) RX 25 kHz, 16 kHz. +10 MHz 467.500 - 468.100 MHz	Radiated power typically max. 25 W ERP. See PMR standards appendix 1 to this table. 457.525, 457.550 and 457.575 MHz communication on-board, simplex and duplex TX, channel spacing 25 kHz, max 2 W ERP, class of emission G3E, (RR 5.287), standard EN 300 720-1. 457.5375 and 457.5625 MHz communication on-board, simplex and duplex TX, channel spacing 12.5 kHz, max 2 ERP, class of emission G3E, (RR 5.287). 457.600 MHz speech communication on-board, radiated power max. 2 W ERP, simplex and duplex TX.

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
	458.125 - 459.000 MHz (0.875 MHz) PMR	Simplex. Base station (FB) TXRX Land mobile station (ML) TXRX 25 kHz, 16 kHz.	Radiated power typically max. 5 W ERP. See PMR standards appendix 1 to this table. 458.250, 458.850 and 458.900 MHz common channels for PMR, all Finland, simplex mobile stations, radiated power max. 5 W ERP. 458.600, 458.625, 458.725 and 458.800 MHz communication on-board on passager ships, radiated power max. 1 W ERP also driving schools, radiated power max 5 W ERP.
	459.025 - 460.000 MHz (0.975 MHz) PMR	Duplex. Base station (FB) RX 25 kHz, 16 kHz. +9,7 MHz 468.725 - 469.700 MHz	Radiated power typically max. 25 W ERP. See PMR standards appendix 1 to this table.
	460.025 - 462.175 MHz (2.150 MHz) PMR	Duplex. Base station (FB) RX 25 kHz, 16 kHz. -9,7 MHz 450.325 - 452.475 MHz	Radiated power typically max. 25 W ERP. See PMR standards appendix 1 to this table. 460,875/451,175 MHz sales demonstration.
	462.200 - 462.500 MHz (0.300 MHz) On-site paging	Duplex. Base station (FB) RX 25 kHz, 16 kHz. -12,2 MHz 450.000 - 450.300 MHz	Radiated power typically max. 5 W ERP. Standard EN 300 224-1. Regional restrictions on use in the sub-band 462.425 - 462.500 MHz due to the 450 MHz digital broadband public mobile network, see Government Decree 680/2007.
	462.425 - 466.925 MHz (lower and upper limits of sub-band) (4.500 MHz) Digital broadband 450 mobile network	Duplex. Base station (FB) TX 1,275 MHz, 1,25 MHz. -10 MHz 452.425 - 456.925 MHz	ETSI EN 301 449, item 4.2.2.2.2 (base stations). Regional restrictions on use in the sub-band 462.425 - 463.700 MHz due to PMR service, see Government Decree 680/2007.
	462.525 - 462.975 MHz (0.450 MHz) PMR	Duplex. Base station (FB) TX 25 kHz, 16 kHz. -10 MHz 452.525 - 452.975 MHz	Radiated power typically max. 25 W ERP. See PMR standards appendix 1 to this table. Regional restrictions on use in the sub-band due to the 450 MHz digital broadband public mobile network, see Government Decree 680/2007.
	463.0125 - 463.6625 MHz (0.650 MHz) PMR	Duplex. Base station (FB) TX 25 kHz, 16 kHz. -10 MHz 453.0125 - 453.6625 MHz	Radiated power typically max. 25 W ERP. See PMR standards appendix 1 to this table. Regional restrictions on use in the sub-band due to the 450 MHz digital broadband public mobile network, see Government Decree 680/2007.

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
	466.9625 - 467.4625 MHz (0.500 MHz) PMR	Duplex. Base station (FB) TX 25 kHz, 16 kHz. -10 MHz 456.9625 - 457.4625 MHz	Radiated power typically max. 25 W ERP. See PMR standards appendix 1 to this table.
	467.500 - 468.100 MHz (0.600 MHz) PMR	Duplex. Base station (FB) TX 25 kHz, 16 kHz. -10 MHz 457.500 - 458.100 MHz	Radiated power typically max. 25 W ERP. See PMR standards appendix 1 to this table. 467.525, 467.550 and 467.575 MHz communication on-board, simplex and duplex RX, channel spacing 25 kHz, radiated power max. 2 W ERP, class of emission G3E, (RR 5.287), standard EN 300 720-1. 467.5375 and 467.5625 MHz communication on-board, channel spacing 12,5 kHz, radiated power max. 2 W ERP, class of emission G3E, (RR 5.287). 467.600 MHz speech communication on-board, radiated power max. 2 W ERP, simplex and duplex RX.
	468.125 - 468.700 MHz (0.575 MHz) Control, alarm, telemetry, telecommand, data transmission	Simplex. Base station (FB) TXRX Land mobile station (ML) TXRX Fixed station (FX) TXRX 25 kHz, 16 kHz.	Radiated power for base and fixed stations typically max. 2 W ERP. Radiated power for mobile stations typically max. 0.5 W ERP. See PMR standards appendix 1 to this table. 468.200 MHz non-specific short range devices (SRD) are exempt from licensing, see regulation Ficora 15. New equipment shall be taken into use on 31.12.2007 at the latest. Transmitter power and radiated power (ERP) max. 500 mW, the total bandwidth of the emission max. 25 kHz, standard EN 300 220-1.
	468.725 - 469.700 MHz (0.975 MHz) PMR	Duplex. Base station (FB) TX 25 kHz, 16 kHz. -9,7 MHz 459.025 - 460.000 MHz	Radiated power typically max. 25 W ERP. See PMR standards appendix 1 to this table.
	469.725 - 469.975 MHz (0.250 MHz) PMR	Simplex. Land mobile station (ML) TXRX 25 kHz, 16 kHz.	Radiated power typically max. 5 W ERP. See PMR standards appendix 1 to this table.

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
470 - 790 MHz BROADCASTING	470 - 790 MHz (lower and upper limits of sub-band) (320 MHz) Television	Simplex. Broadcasting station (BT) TX 8 MHz, 8 MHz.	TV channels 21-60 (band IV and V). Digital television according to Geneva 2006 Agreement. Decrees of the Government 680/2007 and 1158/2002. Television (DVB): standard EN 300 744. Mobile radio: Mobile station TX, channels 21 and 23. Radiomicrophones/reporter communications, the frequencies to use will be assigned on a case by case basis.
790 - 862 MHz MOBILE	790 - 822 MHz (32 MHz) Military use		
	790 - 862 MHz (72 MHz) Digital broadband 800 mobile network		The Decree of the Government 680/2007. Sub-band under review.
	790.100 - 821.900 MHz (31.800 MHz) Radio microphones	Simplex. Land mobile station (ML) TXRX	Radiated power typically max. 50 mW ERP. The total bandwidth of the emission max. 200 kHz. Standard EN 300 422-1. A user shall have no other selectable frequencies than those mentioned in his licence. SRD recommendation ERC/REC/70-03.
	838 - 862 MHz (24 MHz) Military use		
	854 - 862 MHz (lower and upper limits of sub-band) (8 MHz) Radio microphones	Simplex. Land mobile station (ML) TXRX	Radiated power typically max. 50 mW ERP. The total bandwidth of the emission max. 200 kHz. Standard EN 300 422-1. SRD recommendation ERC/REC/70-03. The whole sub-band can be used. Within this sub-band 200 kHz wide channels free from 3rd order intermodulation are example: 855.500, 856.000, 857.250, 860.375, 861.500 and 861.875 MHz. A user shall have no other selectable frequencies than those mentioned on his licence.
862 - 960 MHz MOBILE	862 - 863 MHz (1 MHz) Military use		

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
	863 - 865 MHz (2 MHz) (SRD) wireless audio applications	Simplex. Land mobile station (ML) TXRX	Equipment are exempt from licensing, see regulation Ficora 15. Wireless loudspeakers, headphones, in-ear monitoring, helmet radio telephones, standard EN 301 357-1. Hearing aids, standard EN 300 422-1. The total bandwidth of the emission max. 200 kHz. Radiated power max. 10 mW ERP. SRD recommendation ERC/REC/70-03. European Commission decision 2009/381/EC.
	(SRD) Radio microphones	Simplex. Land mobile station (ML) TXRX	Equipment are exempt from licensing, see regulation Ficora 15. The total bandwidth of the emission max. 200 kHz. Radiated power max. 10 mW ERP. Standard EN 300 422-1. SRD recommendation ERC/REC/70-03.
	863 - 870 MHz (lower and upper limits of sub-band) (7 MHz) (SRD) Non-specific Short Range Devices		Terminals are exempt from licensing, see regulation Ficora 15. The following sub-bands are excluded as these sub-bands are assigned for low-power alarms for security and safety and 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. Restrictions on e.g. modulation and duty factor on the sub-band. Radiated power max. 25mW ERP. Duty cycle max. 0.1 % or an appropriate access protocol. Standard EN 300 220-1. SRD recommendation ERC/REC/70-03. European Commission decision 2009/381/EC.
	864.150 - 868.050 MHz (3.900 MHz) Cordless telephones (CT 2)	Simplex. Base station (FB) TXRX Land mobile station (ML) TXRX 100 kHz,	Equipment are exempt from licensing, see exact frequencies in regulation Ficora 15. Radiated power max. 20 mW. Standard EN 301 797. 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 TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
	864.800 - 865.000 MHz (0.200 MHz) (SRD) Narrow band analogue voice devices	Simplex. Land mobile station (ML) TXRX 50 kHz,	Equipment are exempt from licensing, see regulation Ficora 15. Standard EN 300 220-1. Radiated power max. 10 mW ERP. The total bandwidth of the emission max. 50 kHz. SRD recommendation ERC/REC/70-03.
	865 - 868 MHz (3 MHz) (SRD) Radio frequency identification devices (RFID)	200 kHz,	Equipment are exempt from licensing, see regulation Ficora 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.
	865 - 868 MHz (3 MHz) (SRD) Radio frequency identification devices (RFID)	200 kHz,	Equipment are exempt from licensing, see regulation Ficora 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.
	868.000 - 868.600 MHz (lower and upper limits of sub-band) (0.600 MHz) (SRD) Non-specific Short Range Devices		Equipment are exempt from licensing, see exact frequencies in regulation Ficora 15. Radiated power max. 25 mW ERP. Duty cycle < 1 % or an appropriate access protocol. Standard EN 300 220-1. SRD recommendation ERC/REC/70-03. European Commission decision 2009/381/EC. 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 FICORA 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 TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
	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, social alarms. Equipment are exempt from licensing, see regulation Ficora 15. Radiated power max. 10 mW ERP. Duty cycle < 1 %. Standard EN 300 220-1. SRD recommendation ERC/REC/70-03. European Commission decision 2009/381/EC.
	868.700 - 869.200 MHz (lower and upper limits of sub-band) (0.500 MHz) (SRD) Non-specific Short Range Devices		Equipment are exempt from licensing, see regulation Ficora 15. Radiated power max. 25 mW ERP. Duty cycle < 0.1 % or an appropriate access protocol. Standard EN 300 220-1. SRD recommendation ERC/REC/70-03. European Commission decision 2009/381/EC.
	869.200 - 869.250 MHz (lower and upper limits of sub-band) (0.050 MHz) (SRD) Short range devices	25 kHz,	Only for social alarms. Equipment are exempt from licensing, see regulation Ficora 15. Radiated power max. 10 mW ERP. Duty cycle < 0.1 %. Standard EN 300 220-1. SRD recommendation ERC/REC/70-03. European Commission decision 2009/381/EC.
	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, social alarms. Equipment are exempt from licensing, see regulation Ficora 15. Radiated power max. 10 mW ERP. Duty cycle < 0.1 %. Standard EN 300 220-1. SRD recommendation ERC/REC/70-03. European Commission decision 2009/381/EC.
	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, social alarms. Equipment are exempt from licensing, see regulation Ficora 15. Radiated power max. 10 mW ERP. Duty cycle < 1 %. Standard EN 300 220-1. SRD recommendation ERC/REC/70-03. European Commission decision 2009/381/EC.

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
	869.400 - 869.650 MHz (lower and upper limits of sub-band) (0.250 MHz) (SRD) Non-specific Short Range Devices	25 kHz,	Equipment are exempt from licensing, see regulation Ficora 15. Radiated power max. 500 mW ERP. Duty cycle < 10 % or an appropriate access protocol. Standard EN 300 220-1. SRD recommendation ERC/REC/70-03. European Commission decision 2009/381/EC.
	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, social alarms. Equipment are exempt from licensing, see regulation Ficora 15. Radiated power max. 25 mW ERP. Duty cycle < 10 %. Standard EN 300 220-1. SRD recommendation ERC/REC/70-03. European Commission decision 2009/381/EC.
	869.700 - 870.000 MHz (lower and upper limits of sub-band) (0.300 MHz) (SRD) Non-specific Short Range Devices		Equipment are exempt from licensing, see regulation Ficora 15. Radiated power max. 5 mW ERP. Standard EN 300 220-1. SRD recommendation ERC/REC/70-03. European Commission decision 2009/381/EC.
	870 - 876 MHz (6 MHz) Mobile radio	Duplex. Base station (FB) RX +45 MHz 915 - 921 MHz	ECC decision ECC/DEC/(04)06.
	870 - 880 MHz (10 MHz) Military use		Restrictions for the military use in the GSM-R band.
	876.200 - 880.000 MHz (3.800 MHz) GSM-R	Duplex. Base station (FB) RX 200 kHz, 200 kHz. +45 MHz 921.200 - 925.000 MHz	Terminals are exempt from licensing, see regulation Ficora 15. ECC decision ECC/DEC/(02)05, ECC/DEC/(02)09. ERC decision T/R 25-09. Specifications to the appropriate extent: ETSI TS 151 010-1 (terminal) ETSI TS 151 021 (base station) ETSI TS 151 026 (repeater).

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
	880.200 - 914.800 MHz (34.600 MHz) GSM 900	Duplex. Base station (FB) RX 200 kHz, 200 kHz. +45 MHz 925.200 - 959.800 MHz	GSM terminals are exempt from licensing, see regulation Ficora 15. Specifications to the appropriate extent: ETSI TS 151 010-1 (GSM terminals) ETSI TS 151 021 (GSM base stations) ETSI TS 151 026 (GSM repeaters) ERC decision ERC/DEC/(97)02, ERC/DEC/(94)01, ERC/DEC/(95)01. European Commission decision 2009/766/EC. Decrees of the Government 680/2007 and 1158/2002.
	IMT	Duplex. Base station (FB) RX +45 MHz 925.200 - 959.800 MHz	UMTS terminals are exempt from licensing, see regulation Ficora 15. Specifications to the appropriate extent: ETSI TS 134 121 (UMTS terminals) ETSI TS 125 141 (UMTS base stations) ETSI TS 125 143 (UMTS repeaters) ECC decision ECC/DEC/(06)13. ERC decision ERC/DEC/(00)06. European Commission decision 2009/766/EC. Decrees of the Government 680/2007 and 1158/2002.
	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	Equipment are exempt from licensing, see regulation Ficora 15. Radiated power max. 10 mW. Standard EN 301 796. Introduction of new equipment is not allowed after 31.12.2003.
	915 - 921 MHz (6 MHz) Mobile radio	Duplex. Base station (FB) TX -45 MHz 870 - 876 MHz	ECC decision ECC/DEC/(04)06.
	915 - 925 MHz (10 MHz) Military use		Restrictions for the military use in the GSM-R band.
	921.200 - 925.000 MHz (3.800 MHz) GSM-R	Duplex. Base station (FB) TX 200 kHz, 200 kHz. -45 MHz 876.200 - 880.000 MHz	ECC decision ECC/DEC/(02)05. ERC recommendation T/R 25-09. Specifications to the appropriate extent: ETSI TS 151 010-1 (terminals) ETSI TS 151 021 (base station) ETSI TS 151 026 (repeaters).

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
	925.200 - 959.800 MHz (34.600 MHz) GSM 900	Duplex. Base station (FB) TX 200 kHz, 200 kHz. -45 MHz 880.200 - 914.800 MHz	Specifications to the appropriate extent: ETSI TS 151 010-1 (GSM terminals) ETSI TS 151 021 (GSM base stations) ETSI TS 151 026 (GSM repeaters) ERC decision ERC/DEC/(97)02, ERC/DEC/(94)01. The frequencies 928.9 - 930.5 MHz (GSM radio channels 994-1001) must not be used for mobile communications within a radius of 100 km and the frequencies 927.5 - 928.9 MHz (GSM radio channels 987-993) and 930.5 - 931.9 MHz (GSM radio channels 1002-1008) not for mobile communications within a radius of 50 km from the EISCAT organization (European Incoherent Scatter) receiver station in Sodankylä (26E3818 and 67N2145). Restriction valid until 30.6.2010. European Commission decision 2009/766/EC. Decrees of the Government 680/2007 and 1158/2002.
	IMT	Duplex. Base station (FB) TX -45 MHz 880.200 - 914.800 MHz	Specifications to the appropriate extent: ETSI TS 134 121 (UMTS terminals) ETSI TS 125 141 (UMTS base stations) ETSI TS 125 143 (UMTS repeaters) ECC decision ECC/DEC/(06)13. European Commission decision 2009/766/EC. Decrees of the Government 680/2007 and 1158/2002.
	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	Equipment are exempt from licensing, see regulation Ficora 15. Radiated power max. 10 mW. 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 recognized international aeronautical standards (RR 5.327A).
AERONAUTICAL RADIONAVIGATION	962 - 1164 MHz (202 MHz) Distance measuring equipment (DME)	Simplex. Land station (AL) TX 63 MHz, 1 MHz.	DME. The DME-X-channels are in use. 1030/1090 MHz SSR.

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
1164 - 1215 MHz AERONAUTICAL RADIONAVIGATION	1164 - 1213 MHz (49 MHz) Distance measuring equipment (DME)	Simplex. Land station (AL) TX 63 MHz, 1 MHz.	DME. The DME X-channels are in use.
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-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	
AERONAUTICAL RADIONAVIGATION	Aeronautical radionavigation		
RADIOLOCATION	Radars		
EARTH EXPLORATION-SATELLITE	Active sensors	Space station (EW) TX Space station (EW) RX	
1240 - 1260 MHz 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	
AERONAUTICAL RADIONAVIGATION	Aeronautical radionavigation		
RADIOLOCATION	Radars		
EARTH EXPLORATION-SATELLITE	Active sensors	Space station (EW) TX Space station (EW) RX	
Amateur	Amateur		Regulation Ficora 6. User certificate required. The transmitter power in the novice class max. 30 W. Peak envelope power 120 W, when the carrier of the transmission is attenuated by at least 6 dB. The 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 TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
1260 - 1300 MHz Amateur and amateur-satellite	1260 - 1270 MHz (10 MHz) Amateur and amateur-Satellite		Regulation Ficora 6. User certificate required. The amateur-satellite service may operate subject not to causing harmful interference to other services, limited to the Earth-to-space direction, on a secondary basis. The transmitter power in the novice class max. 30 W. Peak envelope power 120 W, when the carrier of the transmission is attenuated by at least 6 dB. The 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.
RADIONAVIGATION-SATELLITE- (SPACE-TO-EARTH,- SPACE-TO-SPACE) AERONAUTICAL RADIONAVIGATION RADIOLOCATION EARTH EXPLORATION-SATELLITE RADIOLOCATION	1260 - 1300 MHz (40 MHz) Radionavigation satellite Aeronautical radionavigation Radars Active sensors	Space station (EN) TX Mobile earth station (UN) RX Space station (EN) TX Space station (EN) RX	
		Space station (EW) TX Space station (EW) RX	
	1270 - 1295 MHz (25 MHz) Wind Profiler Radars		Usage according to ITU-R M. 1227.
Amateur	1270 - 1300 MHz (30 MHz) Amateur		Regulation Ficora 6. User certificate required. The transmitter power in the novice class max. 30 W. Peak envelope power 120 W, when the carrier of the transmission is attenuated by at least 6 dB. The 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.
1300 - 1350 MHz AERONAUTICAL RADIONAVIGATION RADIOLOCATION RADIONAVIGATION-SATELLITE- (EARTH-TO-SPACE)	1300 - 1350 MHz (50 MHz) Aeronautical radionavigation Radars Radionavigation satellite		
		Space station (EN) RX Mobile earth station (UN) TX	

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
1350 - 1400 MHz FIXED	1350 - 1375 MHz (25 MHz) Military use		
	1375.750 - 1376.750 MHz (1 MHz) Fixed radiolinks	Duplex. Fixed station (FX) TXRX 0,5 MHz, +52 MHz 1427.750 - 1428.750 MHz DRS2/1400	Channel plan according to CEPT Rec. T/R 13-01 Annex B. Digital point-to-point radiolinks, channels B1a - B3a. Standards on equipment and antennas EN 302 217. Radiation pattern envelope class 2. Minimum antenna gain 16 dBi. Minimum cross polar discrimination 25 dB. Sub-band under review.
	1378.750 - 1389.250 MHz (10.500 MHz) Fixed radiolinks	Duplex. Fixed station (FX) TXRX 3,5 MHz, 2 MHz. +52 MHz 1430.750 - 1441.250 MHz PMP4/1400	Channel plan according to CEPT Rec. T/R 13-01 Annex B. Point-to-multipoint radiolinks, channels A1a - A4a. Standards on equipment and antennas EN 302 326. Radiation pattern envelope for central station CS1 and for terminal station TS3. Minimum antenna gain for central station 5 dBi and for terminal station 14 dBi. Minimum cross polar discrimination for central station 20 dB. Sub-band under review.
	1391 - 1400 MHz (9 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).
1427 - 1429 MHz FIXED	1427.750 - 1428.750 MHz (1 MHz) Fixed radiolinks	Duplex. Fixed station (FX) TXRX 0,5 MHz, -52 MHz 1375.750 - 1376.750 MHz DRS2/1400	Channel plan according to CEPT Rec. T/R 13-01 Annex B. Digital point-to-point radiolinks, channels B1b - B3b. Standards on equipment and antennas EN 302 217. Radiation pattern envelope class 2. Minimum antenna gain 16 dBi. Minimum cross polar discrimination 25 dB. Sub-band under review.

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
1429 - 1452 MHz FIXED	1430.750 - 1441.250 MHz (10.500 MHz) Fixed radiolinks	Duplex. Fixed station (FX) TXRX 3,5 MHz, 2 MHz. -52 MHz 1378.750 - 1389.250 MHz PMP4/1400	Channel plan according to CEPT Rec. T/R 13-01 Annex B. Point-to-multipoint radiolinks, channels A1b - A4b. Standards on equipment and antennas EN 302 326. Radiation pattern envelope for central station class CS1 and for terminal station TS3. Minimum antenna gain for central station 5 dBi and for terminal station 14 dBi. Minimum cross polar discrimination for central station 20 dB. Sub-band under review.
	1443 - 1452 MHz (9 MHz) Military use		
1452 - 1492 MHz FIXED BROADCASTING	1452 - 1467 MHz (15 MHz) Military use Terrestrial Digital Audio Broadcasting (T-DAB)		The frequencies shall be used for fixed services until needed for T-DAB.
			Usage according to the Maastricht 2002 agreement (Constanta 2007). Standard ETS 300 401.
	1467.000 - 1479.500 MHz (12.500 MHz) Terrestrial Digital Audio Broadcasting (T-DAB)		Usage according to the Maastricht 2002 agreement (Constanta 2007). Standard ETS 300 401.
BROADCASTING-SATELLITE	1479.500 - 1492.000 MHz (12.500 MHz) Satellite Digital Audio Broadcasting (S-DAB)		Standard ETS 300 401. ECC decision ECC/DEC/(03)02.
1492 - 1525 MHz MOBILE MOBILE-SATELLITE (SPACE-TO-EARTH)	1492 - 1519 MHz (27 MHz) Military use		
	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. Stations in the mobile-satellite service shall not claim protection from the stations in the fixed service.
FIXED, MOBILE	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.

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
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	ERC Decision ERC/DEC/(98)12 (Inmarsat-D), ERC/DEC/(98)13 (Inmarsat-C), ERC/DEC/(98)14 (Inmarsat-M), ERC/DEC/(98)18 (EMS-Prodat), ERC/DEC/(98)19 (EMS-MSSAT), ERC/DEC/(98)29 (Inmarsat Mini-M), ERC/DEC/(99)18 (Inmarsat-B), ERC/DEC/(99)20 (Inmarsat-M4), ERC/DEC/(01)22 (SpaceChecker), ERC/DEC/(01)25 (Thuraya). ECC/DEC/(02)11. 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	ERC Decision ERC/DEC/(98)12 (Inmarsat-D), ERC/DEC/(98)13 (Inmarsat-C), ERC/DEC/(98)14 (Inmarsat-M), ERC/DEC/(98)18 (EMS-Prodat), ERC/DEC/(98)19 (EMS-MSSAT), ERC/DEC/(98)29 (Inmarsat Mini-M), ERC/DEC/(99)18 (Inmarsat-B), ERC/DEC/(99)20 (Inmarsat-M4), ERC/DEC/(01)22 (SpaceChecker), ERC/DEC/(01)25 (Thuraya). ECC/DEC/(02)11. 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 TX/RX-code** **Channel spacing, bandwidth. (Class of emission)** **Duplex separation and duplex band** **Standart type**	**Comments**
	1533 - 1535 MHz (2 MHz) Mobile satellite	Space station (EI) TX Mobile earth station (UA) RX +101,5 MHz 1634.500 - 1636.500 MHz	ERC Decision ERC/DEC/(98)12 (Inmarsat-D), ERC/DEC/(98)13 (Inmarsat-C), ERC/DEC/(98)14 (Inmarsat-M), ERC/DEC/(98)18 (EMS-Prodat), ERC/DEC/(98)19 (EMS-MSSAT), ERC/DEC/(98)29 (Inmarsat Mini-M), ERC/DEC/(99)18 (Inmarsat-B), ERC/DEC/(99)20 (Inmarsat-M4), ERC/DEC/(01)22 (SpaceChecker), ERC/DEC/(01)25 (Thuraya). ECC/DEC/(02)11. 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.
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	ERC Decision ERC/DEC/(98)12 (Inmarsat-D), ERC/DEC/(98)13 (Inmarsat-C), ERC/DEC/(98)14 (Inmarsat-M), ERC/DEC/(98)18 (EMS-Prodat), ERC/DEC/(98)19 (EMS-MSSAT), ERC/DEC/(98)29 (Inmarsat Mini-M), ERC/DEC/(99)18 (Inmarsat-B), ERC/DEC/(99)20 (Inmarsat-M4), ERC/DEC/(01)22 (SpaceChecker), ERC/DEC/(01)25 (Thuraya). ECC/DEC/(02)11. 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 TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
	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	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	ERC Decision ERC/DEC/(98)12 (Inmarsat-D), ERC/DEC/(98)13 (Inmarsat-C), ERC/DEC/(98)14 (Inmarsat-M), ERC/DEC/(98)18 (EMS-Prodat), ERC/DEC/(98)19 (EMS-MSSAT), ERC/DEC/(98)29 (Inmarsat Mini-M), ERC/DEC/(99)18 (Inmarsat-B), ERC/DEC/(99)20 (Inmarsat-M4), ERC/DEC/(01)22 (SpaceChecker), ERC/DEC/(01)25 (Thuraya). ECC/DEC/(02)11. 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 2483.500 - 2500.000 MHz	Terminals are exempt from licensing, see regulation Ficora 15. 1610.000 - 1621.350 MHz Globalstar, standard EN 301 441. ERC decision ERC/DEC/(97)03. 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 TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
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 2483.500 - 2500.000 MHz	Terminals are exempt from licensing, see regulation Ficora 15. 1610.000 - 1621.350 MHz Globalstar, standard EN 301 441. ERC decision ERC/DEC/(97)03. ERC decision ERC/DEC/(97)05. 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 2483.500 - 2500.000 MHz	Terminals are exempt from licensing, see regulation Ficora 15. 1610.000 - 1621.350 MHz Globalstar, standard EN 301 441. 1621.350 - 1626.500 MHz Iridium (also space-to-Earth), standard EN 301 441. Space-to-Earth direction on a secondary basis. ERC decision ERC/DEC/(97)03. ERC decision ERC/DEC/(97)05. 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 are exempt from licensing, see regulation Ficora 15. ERC Decision ERC/DEC/(98)12 (Inmarsat-D), ERC/DEC/(98)13 (Inmarsat-C), ERC/DEC/(98)14 (Inmarsat-M), ERC/DEC/(98)18 (EMS-Prodat), ERC/DEC/(98)19 (EMS-MSSAT), ERC/DEC/(98)29 (Inmarsat Mini-M), ERC/DEC/(99)18 (Inmarsat-B), ERC/DEC/(99)20 (Inmarsat-M4), ERC/DEC/(01)22 (SpaceChecker), ERC/DEC/(01)25 (Thuraya). ECC/DEC/(02)11. 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 TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
	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 are exempt from licensing, see regulation Ficora 15. ERC Decision ERC/DEC/(98)12 (Inmarsat-D), ERC/DEC/(98)13 (Inmarsat-C), ERC/DEC/(98)14 (Inmarsat-M), ERC/DEC/(98)18 (EMS-Prodat), ERC/DEC/(98)19 (EMS-MSSAT), ERC/DEC/(98)29 (Inmarsat Mini-M), ERC/DEC/(99)18 (Inmarsat-B), ERC/DEC/(99)20 (Inmarsat-M4), ERC/DEC/(01)22 (SpaceChecker), ERC/DEC/(01)25 (Thuraya). ECC/DEC/(02)11. 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 TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
	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 are exempt from licensing, see regulation Ficora 15. ERC Decision ERC/DEC/(98)12 (Inmarsat-D), ERC/DEC/(98)13 (Inmarsat-C), ERC/DEC/(98)14 (Inmarsat-M), ERC/DEC/(98)18 (EMS-Prodat), ERC/DEC/(98)19 (EMS-MSSAT), ERC/DEC/(98)29 (Inmarsat Mini-M), ERC/DEC/(99)18 (Inmarsat-B), ERC/DEC/(99)20 (Inmarsat-M4), ERC/DEC/(01)22 (SpaceChecker), ERC/DEC/(01)25 (Thuraya). ECC/DEC/(02)11. 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.

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
	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 are exempt from licensing, see regulation Ficora 15. ERC Decision ERC/DEC/(98)12 (Inmarsat-D), ERC/DEC/(98)13 (Inmarsat-C), ERC/DEC/(98)14 (Inmarsat-M), ERC/DEC/(98)18 (EMS-Prodat), ERC/DEC/(98)19 (EMS-MSSAT), ERC/DEC/(98)29 (Inmarsat Mini-M), ERC/DEC/(99)18 (Inmarsat-B), ERC/DEC/(99)20 (Inmarsat-M4), ERC/DEC/(01)22 (SpaceChecker), ERC/DEC/(01)25 (Thuraya). ECC/DEC/(02)11. 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.
	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 are exempt from licensing, see regulation Ficora 15. ERC Decision ERC/DEC/(98)12 (Inmarsat-D), ERC/DEC/(98)13 (Inmarsat-C), ERC/DEC/(98)14 (Inmarsat-M), ERC/DEC/(98)18 (EMS-Prodat), ERC/DEC/(98)19 (EMS-MSSAT), ERC/DEC/(98)29 (Inmarsat Mini-M), ERC/DEC/(99)18 (Inmarsat-B), ERC/DEC/(99)20 (Inmarsat-M4), ERC/DEC/(01)22 (SpaceChecker), ERC/DEC/(01)25 (Thuraya). ECC/DEC/(02)11. Standard EN 301 426. Standard EN 301 444. Standard EN 301 681. 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 TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
1660.000 - 1660.500 MHz RADIO ASTRONOMY MOBILE-SATELLITE (EARTH-TO-SPACE)	1660.000 - 1660.500 MHz (0.500 MHz) Radio Astronomy Mobile satellite	Radio astronomy station (RA) RX	
		Mobile earth station (UA) TX Space station (EI) RX -101,5 MHz 1555 - 1559 MHz	Terminals are exempt from licensing, see regulation Ficora 15. ERC Decision ERC/DEC/(98)12 (Inmarsat-D), ERC/DEC/(98)13 (Inmarsat-C), ERC/DEC/(98)14 (Inmarsat-M), ERC/DEC/(98)18 (EMS-Prodat), ERC/DEC/(98)19 (EMS-MSSAT), ERC/DEC/(98)29 (Inmarsat Mini-M), ERC/DEC/(99)18 (Inmarsat-B), ERC/DEC/(99)20 (Inmarsat-M4), ERC/DEC/(01)22 (SpaceChecker), ERC/DEC/(01)25 (Thuraya). ECC/DEC/(02)11. Standard EN 301 426. Standard EN 301 444. Standard EN 301 681. User certificate is required of users of maritime safety equipment.
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 METEOROLOGICAL AIDS RADIO ASTRONOMY	1668.400 - 1670.000 MHz (1.600 MHz) Sondes Radio Astronomy	Mobile station (SA) TX Base station (SM) RX	Standard EN 302 454. Usage according ITU-R Rec. RS.1165-2.
		Radio astronomy station (RA) RX	
1670 - 1675 MHz MOBILE-SATELLITE (EARTH-TO-SPACE) Mobile	1670 - 1675 MHz (5 MHz) Mobile satellite Mobile radio	Mobile earth station (UA) TX Space station (EI) RX 1518 - 1525 MHz	ECC decision ECC/DEC/(04)09.
1675 - 1690 MHz METEOROLOGICAL-SATELLITE (SPACE-TO-EARTH)	1675 - 1690 MHz (15 MHz) Meteorological-satellites Sondes	Space station (EM) TX Earth station (TM) RX	
		Mobile station (SA) RX Base station (SM) RX	Standard EN 302 454. Usage according ITU-R Rec. RS.1165-2.

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
1690 - 1700 MHz METEOROLOGICAL-SATELLITE (SPACE-TO-EARTH)	1690 - 1700 MHz (10 MHz) Meteorological-satellites Sondes	Space station (EM) TX Earth station (TM) RX	
		Mobile station (SA) RX Base station (SM) RX	Standard EN 302 454. Usage according ITU-R Rec. RS.1165-2.
1700 - 1710 MHz METEOROLOGICAL-SATELLITE (SPACE-TO-EARTH)	1700 - 1710 MHz (10 MHz) Meteorological-satellites	Space station (EM) TX Earth station (TM) RX	
1710 - 1980 MHz MOBILE	1710.200 - 1784.800 MHz (74.600 MHz) GSM 1800	Duplex. Base station (FB) RX 200 kHz, 200 kHz. +95 MHz 1805.200 - 1879.800 MHz	Terminals are exempt from licensing, see regulation Ficora 15. Standards and specifications: ETSI TS 151 010-1 (terminal) ETSI TS 151 021 (base station) ETSI TS 151 026 (repeaters). ERC decision ERC/DEC/(95)03, ERC/DEC/(95)01. ECC decision ECC/DEC/(06)07. European Commission decisions 2008/294/EC and 2009/766/EC. Decrees of the Government 680/2007 and 1158/2002.
	IMT	Duplex. Base station (FB) RX +95 MHz 1805.200 - 1879.800 MHz	Terminals are exempt from licensing, see regulation Ficora 15. Specifications to the appropriate extent: ETSI TS 134 121 (UMTS terminals) ETSI TS 125 141 (UMTS base stations) ETSI TS 125 143 (UMTS repeaters) ECC decision ECC/DEC/(06)13. ERC decision ERC/DEC/(00)06. IMT/UMTS channel plan under review. European Commission decision 2009/766/EC. Decrees of the Government 680/2007 and 1158/2002.
	1785 - 1800 MHz (15 MHz) (SRD) Radio microphones	Simplex. Land mobile station (ML) TXRX	Total bandwidth of emission for analogue transmitters max. 200 kHz. Total bandwidth of emission for digital transmitters max. 600 kHz. Standards EN 300 422-1 and EN 301 840. SRD recommendation ERC/REC/70-03.
	1800 - 1805 MHz (5 MHz) Mobile radio		European negotiations for the future use of the frequency band under-way. ECC decision ECC/DEC/(02)07.

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
	1805.200 - 1879.800 MHz (74.600 MHz) GSM 1800	Duplex. Base station (FB) TX 200 kHz, 200 kHz. -95 MHz 1710.200 - 1784.800 MHz	Standards and specifications: ETSI TS 151 010-1 (terminal) ETSI TS 151 021 (base station) ETSI TS 151 026 (repeaters). ERC decision ERC/DEC/(95)03. ECC decision ECC/DEC/(06)07. European Commission decisions 2008/294/EC and 2009/766/EC. Decrees of the Government 680/2007 and 1158/2002.
	IMT	Duplex. Base station (FB) TX -95 MHz 1710.200 - 1784.800 MHz	Specifications to the appropriate extent: ETSI TS 134 121 (UMTS terminals) ETSI TS 125 141 (UMTS base stations) ETSI TS 125 143 (UMTS repeaters) ECC decision ECC/DEC/(06)13. IMT/UMTS channel plan under review. European Commission decision 2009/766/EC. Decrees of the Government 680/2007 and 1158/2002.
	1881.792 - 1897.344 MHz (15.552 MHz) DECT	Simplex. Base station (FB) TXRX Land mobile station (ML) TXRX 1,728 MHz,	Terminals are exempt from licensing, see regulation Ficora 15. Radiated power max. 250 mW. Standard EN 301 406. ERC decison ERC/DEC/(94)03.
	1900 - 1920 MHz (20 MHz) IMT	Simplex. Base station (FB) TXRX Land mobile station (ML) TXRX	UTRAN TDD Terminals are exempt from licensing, see regulation Ficora 15. ECC decision ECC/DEC/(06)01. ERC recommendation ERC/REC/(01)01. ERC decision ERC/DEC/(00)06. Specifications to the appropriate extent: ETSI TS 134 122 (terminal) ETSI TS 125 142 (base stations) Decrees of the Government 680/2007 and 1158/2002.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic. Class of station and TX/RX-code** **Channel spacing, bandwidth. (Class of emission)** **Duplex separation and duplex band** **Standart type**	**Comments**
	1920 - 1980 MHz (60 MHz) IMT	Duplex. Base station (FB) RX +190 MHz 2110 - 2170 MHz	UTRAN FDD Terminals are exempt from licensing, see regulation Ficora 15. ECC decision ECC/DEC/(06)01. ERC decision ERC/DEC/(00)06 ERC recommendation ERC/REC/(01)01. Specifications to the appropriate extent: ETSI TS 134 121 (terminals) ETSI TS 125 141 (base stations) ETSI TS 125 143 (repeaters) Fixed radio: in the frequency band some old radio links are used; duplex band 2038.500-2094.500 MHz. Decrees of the Government 680/2007 and 1158/2002.
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 are exempt from licensing, see regulation Ficora 15. Standard EN 301 442. ERC decision ERC/DEC/(97)03, ERC/DEC/(97)05. ECC beslut ECC/DEC/(06)09. European Commission decision 2007/98/EC. Until 13.5.2027: 1980 - 1995 MHz Inmarsat Ventures Limiteds pan-European systems providing mobile satellite services. 1995 - 2010 MHz Solaris Mobile Limiteds pan-European systems providing mobile satellite services. European Commission Decision 2009/449/EC. Decision No. 626/2008/EC of the European Parliament and of the Council.
2010 - 2025 MHz MOBILE	2010 - 2025 MHz (15 MHz) Digital broadband 2000 mobile network	Simplex. Base station (FB) TXRX Land mobile station (ML) TXRX	Terminals are exempt from licensing, see regulation Ficora 15. The Decree of the Government 680/2007.

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
2025 - 2110 MHz SPACE OPERATION (EARTH-TO-SPACE, SPACE-TO-SPACE) EARTH EXPLORATION-SATELLITE (EARTH-TO-SPACE, SPACE-TO-EARTH) FIXED	2025 - 2110 MHz (85 MHz) Space operation Earth exploration satellite	Earth station (TT) TX Space station (ET) RX 2200 - 2290 MHz Space station (ET) TX Space station (ET) RX Earth station (TW) TX Space station (EW) RX Space station (EW) TX Earth station (TW) RX	
	2038.500 - 2094.500 MHz (56 MHz) Fixed radiolinks	Duplex. Fixed station (FX) TXRX 14 MHz, 16 MHz. +175 MHz 2213.500 - 2269.500 MHz DRS2X8/2100	Channel plan according to CEPT Rec. T/R 13-01 Annex C. Channels 1a - 5a. Standards on equipment and antennas EN 302 217. Class 2. Radiation pattern envelope class 2. Minimum antenna gain 20 dBi. Minimum cross polar discrimination 25 dB. Minimum hop lenght 20 km. No new links. Sub-band under review. In the frequency band some old radio links are used; the duplex band 1919.500-1975.500 MHz.
2110 - 2170 MHz MOBILE	2110 - 2170 MHz (60 MHz) IMT	Duplex. Base station (FB) TX -190 MHz 1920 - 1980 MHz	UTRAN FDD ECC decision ECC/DEC/(06)01. ERC recommendation ERC/REC/(01)01. Specifications to the appropriate extent: ETSI TS 134 121 (terminals) ETSI TS 125 141 (base stations) ETSI TS 125 143 (repeaters) Decrees of the Government 680/2007 and 1158/2002.

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
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	Standard EN 301 442. ERC decision ERC/DEC/(97)03, ERC/DEC/(97)05. ECC decision ECC/DEC/(06)09. European Commission decision 2007/98/EC. Until 13.5.2027: 2170 - 2185 MHz Inmarsat Ventures Limiteds pan-European systems providing mobile satellite services. 2185 - 2200 MHz Solaris Mobile Limiteds pan-European systems providing mobile satellite services. European Commission Decision 2009/449/EC. Decision No. 626/2008/EC of the European Parliament and of the Council.
2200 - 2290 MHz SPACE OPERATION (EARTH-TO-SPACE, SPACE-TO-SPACE)	2200 - 2290 MHz (90 MHz) Space operation	Space station (ET) TX Earth station (TT) RX 2025 - 2110 MHz Space station (ET) TX Space station (ET) RX	
FIXED	2213.500 - 2269.500 MHz (56 MHz) Fixed radiolinks	Duplex. Fixed station (FX) TXRX 14 MHz, 16 MHz. -175 MHz 2038.500 - 2094.500 MHz DRS2X8/2100	Channel plan according to CEPT Rec. T/R 13-01 Annex C. Channels 1b - 5b. Standards on equipment and antennas EN 302 217. Class 2. Radiation pattern envelope class 2. Minimum antenna gain 20 dBi. Minimum cross polar discrimination 25 dB. Minimum hop length 20 km. No new links. Sub-band under review.
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 2290-2315 MHz the channels are assigned on a case-to-case basis. The frequency band 2315-2400 MHz is in common use for cordless cameras and ENG links subject to licence. Standard ETS 300 638 and EN 300 744 applies. ERC recommendation ERC/REC 25-10.
MOBILE	Mobile radio		

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
2300.000 - 2483.500 MHz 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 2290-2315 MHz the channels are assigned on a case-to-case basis. The frequency band 2315-2400 MHz is in common use for cordless cameras and ENG links subject to licence. Standard ETS 300 638 and EN 300 744 applies. ERC recommendation ERC/REC 25-10.
Amateur	2300 - 2400 MHz (100 MHz) Amateur		Regulation Ficora 6. User certificate required. The transmitter power in the novice class max. 30 W. Peak envelope power 120 W, when the carrier of the transmission is attenuated by at least 6 dB. The 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 and amateur-satellite	2400 - 2450 MHz (50 MHz) Amateur and amateur-Satellite		Regulation Ficora 6. User certificate required. The amateur-satellite service may operate subject to not causing harmful interference to other services, limited to the Earth-to-space direction, on a secondary basis. The transmitter power in the novice class max. 30 W. Peak envelope power 120 W, when the carrier of the transmission is attenuated by at least 6 dB. The 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 TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
MOBILE	2400.000 - 2483.500 MHz (lower and upper limits of sub-band) (83.500 MHz) (SRD) Non-specific Short Range Devices		Equipment are exempt from licensing, see regulation Ficora 15. Radiated power max. 10 m W EIRP. Standard EN 300 440-1. SRD recommendation ERC/REC/70-03. 2400 - 2500 MHz ISM (RR 5.150). European Commission decision 2009/381/EC.
	(SRD) Equipment for automatic vehicle identification for railways (AVI)		Channels for AVI 2447, 2448.5; 2450; 2451,5 and 2453 MHz. Equipment are exempt from licensing, see regulation Ficora 15. Standard EN 300 761. Radiated power max. 500 mW EIRP. SRD recommendation ERC/REC/70-03.
	(SRD) Equipment for detecting movement and for alert		Equipment are exempt from licensing, see regulation Ficora 15. Radiated power max. 25 mW EIRP. Standard EN 300 440-1. ERC decision ERC/DEC/(01)08. SRD recommendation ERC/REC/70-03. European Comission decision 2009/381/EC.
	(SRD) Wideband Data Transmission Systems (WAS/RLAN)		Equipment are exempt from licensing, see regulation Ficora 15. Effective radiated power max. 100 mW EIRP. Standard EN 300 328-1. ERC decision ERC/DEC/(01)07. SRD recommendation ERC/REC/70-03. European Comission decision 2009/381/EC.
	2446 - 2454 MHz (8 MHz) (SRD) Radio frequency identification devices (RFID)		Equipment are exempt from licensing, see regulation Ficora 15. Radiated power typically max. 500 mW EIRP. Radiated power max. 4 W EIRP only indoors and duty cycle < 15 %. The duty cycle shall be < 15 % during any 200 ms period (i.e. 30 ms on, 170 ms off). Standard EN 300 440-1. SRD recommendation ERC/REC/70-03. 2400-2500 MHz ISM RR (RR 5.150). European Comission decision 2009/381/EC.
2483.500 - 2500.000 MHz MOBILE	2483.500 - 2500.000 MHz (16.500 MHz) Mobile radio		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 TX/RX-code** **Channel spacing, bandwidth. (Class of emission)** **Duplex separation and duplex band** **Standart type**	**Comments**
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. ERC decision ERC/DEC/(97)03. 2400 - 2500 MHz ISM (RR 5.150).
2500 - 2690 MHz MOBILE	2500 - 2570 MHz (lower and upper limits of sub-band) (70 MHz) Digital broadband 2500 mobile network	Base station (FB) TXRX +120 MHz 2620 - 2690 MHz	Terminals are exempt from licensing, see regulation Ficora 15. European comission decision 2008/477/EC. The Decree of the Government 680/2007.
FIXED	2500.250 - 2566.750 MHz (66.500 MHz) Fixed radiolinks	Duplex. Fixed station (FX) TXRX 3,5 MHz, 4 MHz. +119 MHz 2619.250 - 2685.750 MHz DRS2X2/2600	ITU-R F.283, modified (channel separation with 3.5 MHz channels). Digital radiolinks, channels 5a - 24a. Centre gap of the channel plan is 2569-2617 MHz. Standards on equipment and antennas EN 302 217. Radiation pattern envelope class 2. Minimum antenna gain 20 dBi. Minimum cross polar discrimination 25 dB. Minimum hop length 20 km. Present use of links allowed up to and including 31.12.2009.
MOBILE	2570 - 2620 MHz (lower and upper limits of sub-band) (50 MHz) Digital broadband 2500 mobile network		Terminals are exempt from licensing, see regulation Ficora 15. European Commission decision 2008/477/EC. The Decree of the Government 680/2007.
FIXED	2619.250 - 2685.750 MHz (66.500 MHz) Fixed radiolinks	Duplex. Fixed station (FX) TXRX 3,5 MHz, 4 MHz. -119 MHz 2500.250 - 2566.750 MHz DRS2X2/2600	ITU-R F.283, modified. Digital radiolinks, channels 5b - 24b. Centre gap of the channel plan is 2569-2617 MHz. Standards on equipment and antennas EN 302 217. Radiation pattern envelope class 2. Minimum antenna gain 20 dBi. Minimum cross polar discrimination 25 dB. Minimum hop length 20 km. Present use of links allowed up to and including 31.12.2009.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic. Class of station and TX/RX-code** **Channel spacing, bandwidth. (Class of emission)** **Duplex separation and duplex band** **Standart type**	**Comments**
MOBILE	2620 - 2690 MHz (lower and upper limits of sub-band) (70 MHz) Digital broadband 2500 mobile network	Base station (FB) TXRX -120 MHz 2500 - 2570 MHz	European Comission decision 2008/477/EC. The Decree of the Government 680/2007.
2690 - 2700 MHz RADIO ASTRONOMY	2690 - 2700 MHz (10 MHz) Radio Astronomy		
Mobile	Mobile radio		
2700 - 2900 MHz AERONAUTICAL RADIONAVIGATION Radiolocation	2700 - 2900 MHz (200 MHz) Aeronautical radionavigation		
	Military use		
	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).
2900 - 3100 MHz RADIONAVIGATION	2900 - 3100 MHz (200 MHz) Radionavigation		
RADIOLOCATION	Military use		
	Radars		Radiated peak power max. 100 dBW.
3100 - 3300 MHz RADIOLOCATION	3100 - 3300 MHz (200 MHz) Radars		Radiated peak power max. 100 dBW.
	Military use		
3300 - 3400 MHz RADIOLOCATION	3300 - 3400 MHz (100 MHz) Radars		Radiated peak power max. 100 dBW.
	Military use		

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
3400 - 4200 MHz Amateur	3400 - 3408 MHz (8 MHz) Amateur		Regulation Ficora 6. User certificate required. The transmitter power in the novice class max. 30 W. Peak envelope power 120 W, when the carrier of the transmission is attenuated by at least 6 dB. The 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 AND FIXED	3410 - 3500 MHz (lower and upper limits of sub-band) (90 MHz) Radio systems of fixed wireless access network (FWA) and digital broadband 3500 mobile network	Duplex. +100 MHz 3510 - 3600 MHz	Terminals are exempt from licensing, see regulation Ficora 15. Frequency bands: a) 3410-3438 MHz b) 3438-3466 MHz c) 3466-3490 MHz European Commission decision 2008/411/EC (see entry into force, section 4). Standards on equipment and antennas EN 302 326. Fixed wireless access network (FWA): Radiation pattern envelope for terminal station TS5, table 5. ERC recommendations ERC/REC 14-03, ERC/REC 13-04. ECC decision ECC/DEC/(07)02. Digital broadband 3500 mobile network: Mobile use is subject to licence. The Decree of the Government 680/2007.

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
	3500 - 3590 MHz (lower and upper limits of sub-band) (90 MHz) Radio systems of fixed wireless access network (FWA) and digital broadband 3500 mobile network	Duplex. -100 MHz 3400 - 3490 MHz	Terminals are exempt from licensing, see regulation Ficora 15. Frequency bands: a) 3510-3538 MHz b) 3538-3566 MHz c) 3566-3590 MHz Euroopean Comission decision 2008/411/EC (see entry into force, section 4). Fixed wireless access network (FWA): Central stations are subjects to licence. Radiation pattern envelope for central station CS class 3. Minimum antenna gain (non-directional) for central station 8 dBi. Standards on equipment and antennas EN 302 326. ERC recommendations ERC/REC 14-03, ERC/REC 13-04. ECC decision ECC/DEC/(07)02. Digital broadband 3500 mobile network: Mobile use is subject to licence. The Decree of the Government 680/2007.
FIXED	3597 - 3655 MHz (58 MHz) Fixed radiolinks	Duplex. Fixed station (FX) TXRX 29 MHz, +126 MHz 3723 - 3781 MHz DRS17/3700, DRS34/3700, FMTV/3700	Channel plan according to ITU-R F.382. Transfer of TV programs, channels D1a - D3a. Standards on equipment and antennas 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 lenght 20 km. DRS 34/3700
	3600 - 4200 MHz (600 MHz) Military use		Restricted right to use up to and including 31.12.2012.
	3610 - 3850 MHz (240 MHz) Fixed radiolinks	Duplex. Fixed station (FX) TXRX 40 MHz, +320 MHz 3930 - 4170 MHz DRS140/3900, DRS155/3900	Channel plan according to CEPT Rec. ERC/REC 12-08 Annex A. Channels 1a - 7a. Standards on equipment and antennas EN 302 217. Radiation pattern envelope class 4. Minimum antenna gain 32 dBi. Minimum cross polar discrimination 27 dB. Minimum hop length 20 km.

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
	3611.500 - 3669.500 MHz (58 MHz) Fixed radiolinks	Duplex. Fixed station (FX) TXRX 29 MHz, +126 MHz 3737.500 - 3795.500 MHz DRS17/3700, DRS34/3700, FMTV/3700	Transfer of TV programs, channels C1a - C3a. Standards on equipment and antennas 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.
	3723 - 3781 MHz (58 MHz) Fixed radiolinks	Duplex. Fixed station (FX) TXRX 29 MHz, -126 MHz 3597 - 3655 MHz DRS17/3700, DRS34/3700, FMTV/3700	Transfer of TV programs, channels D1b-D3b. Standards on equipment and antennas EN 302 217. Radiation pattern envelope class 4. Minimum antenna gain 32 dBi. Minimum cross polar discrimination 27 dB. Minimum hop length 20 km.
	3737.500 - 3795.500 MHz (58 MHz) Fixed radiolinks	Duplex. Fixed station (FX) TXRX 29 MHz, -126 MHz 3611.500 - 3669.500 MHz DRS17/3700, DRS34/3700, FMTV/3700	Transfer of TV programs, channels C1b - C3b. Standards on equipment and antennas EN 302 217. Radiation pattern envelope class 4. Minimum antenna gain 32 dBi. Minimum cross polar discrimination 27 dB. Minimum hop length 20 km.
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 DRS17/4000, DRS34/4000, FMTV/4000	Channel plan according to ITU-R F.382. Transfer of TV programs, channels B1a - B6a. Transmitter power max. 10 W. Standards on equipment and antennas EN 302 217. Radiation pattern envelope class 4. Minimum antenna gain 32 dBi. Minimum cross polar discrimination 27 dB. Minimum hop lenght 20 km.

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
	3824.500 - 3969.500 MHz (145 MHz) Fixed radiolinks	Duplex. Fixed station (FX) TXRX 29 MHz, +213 MHz 4037.500 - 4182.500 MHz DRS17/4000, DRS34/4000, FMTV/4000	Channel plan according to ITU-R F.382. Transfer of TV programs, channels A1a - A6a. Standards on equipment and antennas 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.
	3930 - 4170 MHz (240 MHz) Fixed radiolinks	Duplex. Fixed station (FX) TXRX 40 MHz, -320 MHz 3610 - 3850 MHz DRS140/3900, DRS155/3900	Channel plan according to CEPT Rec. ERC/REC 12-08 Annex A. Channels 1b - 7b. Standards on equipment and antennas EN 302 217. Radiation pattern envelope class 4. Minimum antenna gain 32 dBi. Minimum cross polar discrimination 27 dB. Minimum hop length 20 km.
	4023 - 4168 MHz (145 MHz) Fixed radiolinks	Duplex. Fixed station (FX) TXRX 29 MHz, - 213 MHz 3810 - 3955 MHz DRS17/4000, DRS34/4000, FMTV/4000	Channel plan according to ITU-R F.382. Transfer of TV programs, channels B1b - B6b. Standards on equipment and antennas 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.
	4037.500 - 4182.500 MHz (145 MHz) Fixed radiolinks	Duplex. Fixed station (FX) TXRX 29 MHz, - 213 MHz 3824.500 - 3969.500 MHz DRS17/4000, DRS34/4000, FMTV/4000	Channel plan according to ITU-R F.382. Transfer of TV programs, channels A1b - A6b. Standards on equipment and antennas 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.
4200 - 4400 MHz AERONAUTICAL RADIONAVIGATION	4200 - 4400 MHz (200 MHz) Radio altimeters	Simplex. Mobile station (AM) TX 30 MHz.	Radiated power 500 mW.

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
4400 - 4800 MHz FIXED	4400 - 4450 MHz (50 MHz) Fixed radiolinks		Sub-band under review.
MOBILE	Mobile radio		Sub-band under review.
FIXED	4450 - 4590 MHz (140 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, RR AP30B.
FIXED	4590 - 4610 MHz (20 MHz) Fixed radiolinks		Sub-band under review.
	Mobile radio		Sub-band under review.
	4610 - 4690 MHz (80 MHz) Military use		
4800 - 4990 MHz MOBILE	4800 - 4870 MHz (70 MHz) Mobile radio		Sub-band under review.
FIXED	Fixed radiolinks		Sub-band under review.
	4870 - 4990 MHz (120 MHz) Military use		
4990 - 5000 MHz FIXED	4990 - 5000 MHz (10 MHz) Fixed		
MOBILE	Mobile radio		
RADIO ASTRONOMY	Radio Astronomy		
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		

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
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) TX Space station (EN) RX	
AERONAUTICAL RADIONAVIGATION	5030 - 5150 MHz (120 MHz) Aeronautical radionavigation	Simplex. Land station (AL) TX Mobile station (AM) RX	ICAO MLS.
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 AERONAUTICAL RADIONAVIGATION	5150 - 5250 MHz (100 MHz) Aeronautical radionavigation		
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).
MOBILE	(SRD) Wideband Data Transmission Systems (WAS/RLAN)		Wide-band data transmission equipment (WAS/RLAN). Equipment are exempt from licensing, see regulation Ficora 15. Radiated power max. 200 mW EIRP, the spectral power ensity of transmission shall be below 10 mW/1 MHz, only indoor use permitted, standard EN 301 893-1, ECC decision ECC/DEC/(04)08. SRD recommendation ERC/REC/70-03. European Commission decision 2005/513/EC and 2007/90/EC.

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
5250 - 5350 MHz MOBILE	5250 - 5350 MHz (100 MHz) (SRD) Wideband Data Transmission Systems (WAS/RLAN)		Wide-band data transmission equipment (WAS/RLAN). Equipment are exempt from licensing, see regulation Ficora 15. Radiated power max. 200 mW EIRP, the spectral power ensity of transmission shall be below 10 mW/1MHz, only indoor use permitted. 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 EN 301 893. Standard EN 301 893-1. ECC decision ECC/DEC/(04)08. SRD recommendation ERC/REC/70-03. European Commission decision 2005/513/EC and 2007/90/EC.
Earth exploration-satellite	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		
	5470 - 5725 MHz (255 MHz) Radars		5480/5570 MHz position location (TX/RX of LR station).

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
MOBILE	5470 - 5725 MHz (255 MHz) (SRD) Wideband Data Transmission Systems (WAS/RLAN)		Wide-band data transmission equipment (WAS/RLAN). Equipment are exempt from licensing, see regulation Ficora 15. Radiated power max. 1 W EIRP, the spectral power ensity of transmission shall be below 50 mW / 1 MHz. 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 EN 301 893. Standard EN 301 893-1. ECC decision ECC/DEC/(04)08 TAC decision of 14.8.1996. SRD recommendation ERC/REC/70-03. 5480/5570 MHz position location (TX/RX of LR station). European Commission decision 2005/513/EC and 2007/90/EC.
RADIOLOCATION	5500 - 5650 MHz (150 MHz) Meteorological radars	Simplex. Radiolocation land station (LR) TX	Radiated peak power max. 100 dBW.
Amateur and amateur-satellite	5650 - 5670 MHz (20 MHz) Amateur and amateur-Satellite		User certificate required. Amateur-Satellite service earth-to-space direction, subject to not causing harmful interference to other services. The transmitter power in the novice class max. 30 W. Peak envelope power 120 W, when the carrier of the transmission is attenuated by at least 6 dB. The 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 TX/RX-code** **Channel spacing, bandwidth. (Class of emission)** **Duplex separation and duplex band** **Standart type**	**Comments**
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		Regulation Ficora 6. User certificate required. The transmitter power in the novice class max. 30 W. Peak envelope power 120 W, when the carrier of the transmission is attenuated by at least 6 dB. The 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.
5725 - 5925 MHz Fixed	5725 - 5795 MHz (70 MHz) Fixed wide-band data transmission equipment (BFWA)		Fixed wide-band data transmission equipment (BFWA). Equipment are exempt from licensing, see regulation Ficora 15. Effective radiated power max. 4 W EIRP. The spectral power max. 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 EN 302 502. Standard EN 302 502. ECC recommendation ECC/REC/(06)04.
Amateur	5725 - 5830 MHz (105 MHz) Amateur		Regulation Ficora 6. User certificate required. The transmitter power in the novice class max. 30 W. Peak envelope power 120 W, when the carrier of the transmission is attenuated by at least 6 dB. The 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 are exempt from licensing, see regulation Ficora 15. Radiated power max. 25 mW EIRP. Standard EN 300 440-1. 5725 - 5875 MHz ISM (RR 5.150) SRD recommendation ERC/REC/70-03. European Commission decision 2009/381/EC.

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
FIXED SATELLITE (EARTH-TO-SPACE)	5725 - 5925 MHz (200 MHz) Fixed satellite	Earth station (TC) TX Space station (EC) RX	Not standardised earth stations.
RADIOLOCATION	5795 - 5805 MHz (10 MHz) (SRD) Road Transport and Traffic telematics (RTTT)		Equipment are exempt from licensing, see regulation Ficora 15. Specially road toll systems. ECC decision ERC/DEC/(02)01. TAC decision of 18.11.1992. 5805 - 5815 MHz possible national expansion band for RTT. Standard EN 300 674. SRD recommendation ERC/REC/70-03.
Fixed	5815 - 5850 MHz (35 MHz) Fixed wide-band data transmission equipment (BFWA)		Fixed wide-band data transmission equipment (BFWA). Equipment are exempt from licensing, see regulation Ficora 15. Effective radiated power max. 4 W EIRP. The spectral power max. 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 EN 302 502. Standardi EN 302 502. ECC recommendation ECC/REC/(06)04.
Amateur and amateur-satellite	5830 - 5850 MHz (20 MHz) Amateur and amateur-Satellite		Regulation Ficora 6. User certificate required. Amateur-Satellite service space-to-earth direction, subject not to causing harmful interference to other services. The transmitter power in the novice class max. 30 W. Peak envelope power 120 W, when the carrier of the transmission is attenuated by at least 6 dB. The 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 SATELLITE (EARTH-TO-SPACE)	5850 - 5925 MHz (75 MHz) Fixed satellite	Earth station (TC) TX Space station (EC) RX 3400 - 4200 MHz	Very Small Aperture Terminal (VSAT), standard EN 301 443.

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
MOBILE	5875 - 5905 MHz (30 MHz) Intelligent Transport Systems (ITS)		ECC decision ECC/DEC/(08)01. European Commission decision 2008/671/EC. Standard EN 302 571. Radiated power max. 33 dBm EIRP. The spectral power density of UWB transmission max. 23 dBm/MHz EIRP. Appropriate access protocol.
Fixed	5875 - 5925 MHz (50 MHz) Fixed radiolinks		
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	Not standardised earth stations.
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	Channel plan according to CEPT Rec. ERC/REC 14-01. Channels 1a - 8a. Standards on equipment and antennas 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.
	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	Channel plan according to CEPT Rec. ERC/REC 14-01. Channels 1b - 8b. Standards on equipment and antennas 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.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic. Class of station and TX/RX-code** **Channel spacing, bandwidth. (Class of emission)** **Duplex separation and duplex band** **Standart type**	**Comments**
	6460 - 6740 MHz (280 MHz) Fixed radiolinks	Duplex. Fixed station (FX) TXRX 40 MHz, +340 MHz 6800 - 7080 MHz DRS140/6800, DRS2X34/6800	Channel plan according to CEPT Rec. ERC/REC 14-02. Digital fixed radiolinks, channels 1a - 8a. Standards on equipment and antennas 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.
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, RR AP30B.
FIXED	6800 - 7080 MHz (280 MHz) Fixed radiolinks	Duplex. Fixed station (FX) TXRX 40 MHz, -340 MHz 6460 - 6740 MHz DRS140/6800, DRS2X34/6800	Channel plan according to CEPT Rec. ERC/REC 14-02. Digital fixed radiolinks, channels 1b - 8b. Standards on equipment and antennas 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.
FIXED SATELLITE (EARTH-TO-SPACE, SPACE-TO-EARTH)	7025 - 7075 MHz (50 MHz) Fixed satellite	Earth station (TC) TX Space station (EC) RX	Not 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 DRS140/7300, DRS155/7300, DRS34/7300	Channel plan according to ITU-R F.385, modified (duplex spacing changed). Digital fixed radiolinks, channels 1a - 5a. Standards on equipment and antennas EN 302 217. Radiation pattern envelope class 4. Minimum antenna gain 32 dBi. Minimum cross polar discrimination 27 dB. Minimum hop length 20 km.

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
	7289 - 7401 MHz (112 MHz) Fixed radiolinks	Duplex. Fixed station (FX) TXRX 28 MHz, -168 MHz 7121 - 7233 MHz DRS140/7300, DRS155/7300, DRS34/7300	Channel plan according to ITU-R F.385, modified (duplex spacing changed). Digital fixed radiolinks, channels 1b - 5b. Standards on equipment and antennas EN 302 217. Radiation pattern envelope class 4. Minimum antenna gain 32 dBi. Minimum cross polar discrimination 27 dB. Minimum hop length 20 km.
	7428 - 7540 MHz (112 MHz) Fixed radiolinks	Duplex. Fixed station (FX) TXRX 28 MHz, +168 MHz 7596 - 7708 MHz DRS155/7600, DRS34/7600	Channel plan according to ITU-R F.385, modified (the frequency moved upwards + 29 MHz.) Digital fixed radiolinks, channels 1a - 5a. Standards on equipment and antennas EN 302 217. Radiation pattern envelope class 4. Minimum antenna gain 32 dBi. Minimum cross polar discrimination 27 dB. Minimum hop length 20 km.
	7501.500 - 7550.500 MHz (49 MHz) Fixed radiolinks	Duplex. Fixed station (FX) TXRX 7 MHz, +168 MHz 7669.500 - 7718.500 MHz DRS8/7600	Channel plan according to ITU-R F.385, modified (the frequency moved upwards + 29 MHz, national subdivision). Digital fixed radiolinks, channels D13a - D20a. Standards on equipment and antennas EN 302 217. Radiation pattern envelope class 4. Minimum antenna gain 32 dBi. Minimum cross polar discrimination 27 dB. Minimum hop length 20 km.
	7505 - 7547 MHz (42 MHz) Fixed radiolinks	Duplex. Fixed station (FX) TXRX 14 MHz, +168 MHz 7673 - 7715 MHz DRS2X8/7600	Channel plan according to ITU-R F.385, modified (the frequency moved upwards + 29 MHz, national subdivision). Digital fixed radiolinks, channels C7a - C10a. Standards on equipment and antennas EN 302 217. Radiation pattern envelope class 4. Minimum antenna gain 32 dBi. Minimum cross polar discrimination 27 dB. Minimum hop length 20 km.

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
	7596 - 7708 MHz (112 MHz) Fixed radiolinks	Duplex. Fixed station (FX) TXRX 28 MHz, -168 MHz 7428 - 7540 MHz DRS155/7600, DRS34/7600	Channel plan according to ITU-R F.385, modified (the frequency moved upwards + 29 MHz). Digital fixed radiolinks, channels 1b - 5b. Standards on equipment and antennas EN 302 217. Radiation pattern envelope class 4. Minimum antenna gain 32 dBi. Minimum cross polar discrimination 27 dB. Minimum hop length 20 km.
	7669.500 - 7718.500 MHz (49 MHz) Fixed radiolinks	Duplex. Fixed station (FX) TXRX 7 MHz, -168 MHz 7501.500 - 7550.500 MHz DRS8/7600	Channel plan according to ITU-R F.385, modified (the frequency moved upwards + 29 MHz, national subdivision). Digital fixed radiolinks, channels D13b - D20b. Standards on equipment and antennas EN 302 217. Radiation pattern envelope class 4. Minimum antenna gain 32 dBi. Minimum cross polar discrimination 27 dB. Minimum hop length 20 km.
	7673 - 7715 MHz (42 MHz) Fixed radiolinks	Duplex. Fixed station (FX) TXRX 14 MHz, -168 MHz 7505 - 7547 MHz DRS2X8/7600	Channel plan according to ITU-R F.385, modified (the frequency moved upwards + 29 MHz, national subdivision). Digital fixed radiolinks, channels C7b - C10b. Standards on equipment and antennas EN 302 217. Radiation pattern envelope class 4. Minimum antenna gain 32 dBi. Minimum cross polar discrimination 27 dB. Minimum hop length 20 km.
	7747.700 - 7955.250 MHz (207.550 MHz) Fixed radiolinks	Duplex. Fixed station (FX) TXRX 29,65 MHz, +252,04 MHz 7999.740 - 8177.640 MHz DRS17/8000, FMTV/8000	Fixed and portable radiolinks of Digita Ltd. ENG/OB radiolinks, channels 1a - 7a. Channel 8a 7955.25 MHz transfer for radar signal, ENG/OB radio links (simplex).
	7999.740 - 8177.640 MHz (177.900 MHz) Fixed radiolinks	Duplex. Fixed station (FX) TXRX 29,65 MHz, -252,04 MHz 7747.700 - 7925.600 MHz DRS17/8000, FMTV/8000	Fixed and portable radiolinks of Digita Ltd, channels 1b - 7b.

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
	8275 - 8500 MHz (225 MHz) Fixed radiolinks	Duplex. Fixed station (FX) TXRX	Sub-band under review. Standards on equipment and antennas EN 302 217. Radiation pattern envelope class 4. Minimum antenna gain 32 dBi. Minimum cross polar discrimination 27 dB. Minimum hop length 20 km.
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 station.
	Military use		
	9500 - 9975 MHz (475 MHz) (SRD) Equipment for detecting movement and for alert		Equipment are exempt from licensing, see regulation Ficora 15. Radiated power max. 25 mW EIRP. Standard EN 300 440-1. SRD recommendation ERC/REC/70-03.
10.000 - 10.450 GHz FIXED	10.000 - 10.280 GHz (0.280 GHz) Fixed radiolinks	Simplex. Fixed station (FX) TX Portable link (FXS) TX FM TV/10000	Unidirectional video links including ENG/OB radiolinks. Standard EN 300 638. 10.015, 10.075, 10.135 GHz. The frequencies 10.045 and 10.105 are common channels in the whole of Finland.
Amateur	Amateur		Regulation Ficora 6. User certificate required. The transmitter power in the novice class max. 30 W. Peak envelope power 120 W, when the carrier of the transmission is attenuated by at least 6 dB. The 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	10.000 - 10.450 GHz (0.450 GHz) Mobile radio		
FIXED	10.150 - 10.240 GHz (lower and upper limits of sub-band) (0.090 GHz) Radio systems of fixed wireless access network (FWA)	Duplex. Fixed station (FX) TXRX +350 MHz 10.500 - 10.590 GHz	Terminals are exempt from licensing, see regulation Ficora 15. Standards EN 301 751, EN 301 753, EN 301 124, EN 301 253, EN 301 080, EN 301 021. Antenna standard EN 302 085. Radiation pattern envelope class 3. ERC recommendations ERC/REC/12-05, ERC/REC 13-04.

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
	10.259 - 10.287 GHz (0.028 GHz) Fixed radiolinks	Duplex. Fixed station (FX) TXRX 14 MHz, +350 MHz 10.609 - 10.637 GHz DRS2X8/10500	Channel plan according to CEPT Rec. ERC/REC 12-05. Standards on equipment and antennas EN 302 217. Digital radiolinks, channels B2a - B4a. 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		Regulation Ficora 6. User certificate required. The transmitter power in the novice class max. 30 W. Peak envelope power 120 W, when the carrier of the transmission is attenuated by at least 6 dB. The 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	10.3885 - 10.4060 GHz (0.0175 GHz) Fixed radiolinks	Duplex. Fixed station (FX) TXRX 3,5 MHz, +266 MHz 10.6545 - 10.6720 GHz DRS2/10500, DRS8/10500	Digital fixed radiolinks, channels 30a-35a. No new licences.
	10.406 - 10.450 GHz (0.044 GHz) Fixed radiolinks	Simplex. Fixed station (FX) TX Portable link (FXS) TX	Unidirectional video radiolinks including ENG/OB radiolinks. Standard EN 300 638. 10.427 GHz video transmission. 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 are exempt from licensing, see regulation Ficora 15. Radiated power max. 500 mW EIRP. Standard EN 300 440-1. SRD recommendation ERC/REC/70-03.
Amateur and amateur-satellite	Amateur and amateur-Satellite		Regulation Ficora 6. User certificate required. The transmitter power in the novice class max. 30 W. Peak envelope power 120 W, when the carrier of the transmission is attenuated by at least 6 dB. The 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 TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
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 regulation Ficora 15.
FIXED	10.500 - 10.590 GHz (lower and upper limits of sub-band) (0.090 GHz) Radio systems of fixed wireless access network (FWA)	Duplex. Fixed station (FX) TXRX -350 MHz 10.150 - 10.240 GHz	Terminals are exempt from licensing, see regulation Ficora 15. Standards on equipment and antennas EN 302 217 and EN 302 326. Radiation pattern envelope class 3. Minimum antenna gain (non-directional) for central station 8 dBi. ERC recommendation ERC/REC/12-05, ERC/REC 13-04.
	10.609 - 10.637 GHz (0.028 GHz) Fixed radiolinks	Duplex. Fixed station (FX) TXRX 14 MHz, -350 MHz 10.259 - 10.287 GHz DRS2X8/10500	Channel plan according to CEPT Rec. ERC/REC 12-05. Standards on equipment and antennas EN 302 217. Digital radiolinks, channels B2b - B4b. Radiation pattern envelope class 3. Minimum antenna gain 32 dBi. Minimum cross polar discrimination 27 dB.
	10.6545 - 10.6720 GHz (0.0175 GHz) Fixed radiolinks	Duplex. Fixed station (FX) TXRX 3,5 MHz, -266 MHz 10.3885 - 10.4060 GHz DRS2/10500, DRS8/10500	Digital fixed radiolinks, channels 30b - 35b. No new licences.
10.680 - 10.700 GHz RADIO ASTRONOMY	10.680 - 10.700 GHz (0.020 GHz) Space research		
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, RR APS30B. Not in use in Finland, but reserved.

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
	10.700 - 11.700 GHz (1 GHz) Fixed satellite	Space station (EC) TX Earth station (TC) RX	Not standardised earth stations.
	Fixed satellite	Space station (EC) TX Earth station (TC) RX 14.250 - 14.500 GHz	ERC decision ERC/DEC/(00)08. Standard EN 301 428.
	Fixed satellite	Space station (EC) TX Earth station (TC) RX 29.500 - 30.000 GHz	ERC decision ERC/DEC/(00)08. Standard EN 301 459.
	Fixed satellite	Space station (EC) TX Earth station (TC) RX 14.000 - 14.250 GHz	ERC decision ERC/DEC/(00)08. OmniTRACS stations for EUTELTRACS system on a secondary basis, standard EN 301 427.
	Fixed satellite	Space station (EC) TX Earth station (TC) RX 12.750 - 13.250 GHz, 13.750 - 14.500 GHz	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, RR APS30B.
	11.450 - 11.700 GHz (0.250 GHz) Fixed satellite	Space station (EC) TX Earth station (TC) RX 14.000 - 14.250 GHz	ARCANET stations on a secondary basis, standard EN 301 427.
11.700 - 12.500 GHz BROADCASTING-SATELLITE Fixed satellite (space-to-earth)	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.
	Fixed satellite	Space station (EC) TX Earth station (TC) RX 29.500 - 30.000 GHz	Standard EN 301 459. ERC decision ERC/DEC/(00)08.
	Fixed satellite	Space station (EC) TX Earth station (TC) RX	Non-GSO fixed satellite, not 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	Not standardised earth stations.
	Fixed satellite	Space station (EC) TX Earth station (TC) RX 29.500 - 30.000 GHz	Standard EN 301 459.
	Fixed satellite	Space station (EC) TX Earth station (TC) RX 12.750 - 13.250 GHz, 13.750 - 14.500 GHz	Satellite News Gathering (SNG), standard EN 301 430.
	Fixed satellite	Space station (EC) TX Earth station (TC) RX 14.000 - 14.250 GHz	Standard EN 301 428. ARCANET stations and OmniTRACS stations for EUTELTRACS system on a secondary basis, standard EN 301 427.

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
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	Not standardised earth stations.
	Fixed satellite	Earth station (TC) TX Space station (EC) RX 10.700 - 11.700 GHz, 12.500 - 12.750 GHz	Satellite News Gathering (SNG), standard EN 301 430.
	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, RR AP30B.
FIXED	12.7545 - 12.9715 GHz (0.217 GHz) Fixed radiolinks	Duplex. Fixed station (FX) TXRX 7 MHz, +266 MHz 13.0205 - 13.2375 GHz DRS8/13000	Channel plan according to CEPT Rec. ERC/REC 12-02E. Digital radiolinks, channels E1a - E19a. Standards on equipment and antennas EN 302 217. Radiation pattern envelope class 4. Minimum antenna gain 32 dBi. Minimum cross polar discrimination 27 dBi.
	12.758 - 12.968 GHz (0.210 GHz) Fixed radiolinks	Duplex. Fixed station (FX) TXRX 14 MHz, +266 MHz 13.024 - 13.234 GHz DRS2X8/13000	Channel plan according to CEPT Rec. ERC/REC 12-02E. Digital fixed radiolinks, channels D1a - D9. Standards on equipment and antennas 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 DRS34/13000	Channel plan according to CEPT Rec. ERC/REC 12-02E. Digital fixed radiolinks, channels A1a - A4a. Standards on equipment and antennas 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. -266 MHz 12.7545 - 12.9715 GHz DRS8/13000	Channel plan according to CEPT Rec. ERC/REC 12-02E. Digital fixed radiolinks, channels E1b - E19b. Standards on equipment and antennas EN 302 217. Radiation pattern envelope class 4. Minimum antenna gain 32 dBi. Minimum cross polar discrimination 27 dBi.

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
	13.024 - 13.234 GHz (0.210 GHz) Fixed radiolinks	Duplex. Fixed station (FX) TXRX 14 MHz, -266 MHz 12.758 - 12.968 GHz DRS2X8/13000	Channel plan according to CEPT Rec. ERC/REC 12-02E. Digital fixed radiolinks, channels D1b - D9b. Standards on equipment and antennas 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 DRS34/13000	Channel plan according to CEPT Rec. ERC/REC 12-02E. Digital fixed radiolinks, channels A1b - A4b. Standards on equipment and antennas 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 Earth exploration-satellite	13.250 - 13.400 GHz (0.150 GHz) Aeronautical radionavigation Earth exploration satellite		Limited to Doppler navigation aids (RR 5.497).
13.400 - 13.750 GHz RADIOLOCATION EARTH EXPLORATION-SATELLITE	13.400 - 13.750 GHz (0.350 GHz) (SRD) Equipment for detecting movement and for alert Earth exploration satellite		Equipment are exempt from licensing, see regulation Ficora 15. Radiated power max. 25 mW EIRP. Standard EN 300 440-1. SRD recommendation ERC/REC/70-03.
13.750 - 14.000 GHz RADIOLOCATION FIXED SATELLITE (EARTH-TO-SPACE)	13.750 - 14.000 GHz (lower and upper limits of sub-band) (0.250 GHz) (SRD) Equipment for detecting movement and for alert Fixed satellite		Equipment are exempt from licensing, see regulation Ficora 15. Radiated power max. 25 mW EIRP. Standard EN 300 440-1. SRD recommendation ERC/REC/70-03.
		Earth station (TC) TX Space station (EC) RX	Not standardised earth stations. In the frequency area restrictions on eirp (RR 5.502 and RR 5.503).
	Fixed satellite	Earth station (TC) TX Space station (EC) RX 10.700 - 11.700 GHz, 12.500 - 12.750 GHz	Satellite News Gathering (SNG), standard EN 301 430. In the frequency area restrictions on eirp (RR 5.502 and RR 5.503).

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
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 12.500 - 12.750 GHz	Equipment are exempt from licensing, see regulation Ficora 15. ECC/DEC/(06)02 (LEST), ECC/DEC/(06)03 (HEST). Standard EN 301 428.
Mobile-satellite	Mobile satellite	Land mobile earth station (TU) TX Space station (EU) RX Ship earth station (TG) TX Space station (EG) RX 10.700 - 11.700 GHz, 11.450 - 11.700 GHz, 12.500 - 12.750 GHz	Terminals are exempt from licensing, see regulation Ficora 15. ECC/DEC/(98)15 (Omnitracs) ECC/DEC/(98)17 (Arcanet) ECC/DEC/(05)11 (AES) Standard EN 301 427. Standard EN 302 186.
FIXED SATELLITE (EARTH-TO-SPACE)	Fixed satellite	Earth station (TC) TX Space station (EC) RX 10.700 - 11.700 GHz, 12.500 - 12.750 GHz	Satellite News Gathering (SNG), standard EN 301 430.
	Fixed satellite	Earth station (TC) TX Space station (EC) RX	Not standardised earth stations.
	14.250 - 14.500 GHz (0.250 GHz) Fixed satellite	Earth station (TC) TX Space station (EC) RX 10.700 - 11.700 GHz	Standard EN 301 428.
Mobile-satellite	14.250 - 14.500 GHz (0.250 GHz) Mobile satellite	Land mobile earth station (TU) TX Space station (EU) RX Ship earth station (TG) TX Space station (EG) RX 10.700 - 11.700 GHz, 12.500 - 12.750 GHz	Terminals are exempt from licensing, see regulation Ficora 15. ECC decision ECC/DEC/(05)11 (AES). Standardi EN 302 186.
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 DRS2X8/15000, DRS8/15000	Channel plan according to ITU-R F.636. Digital fixed radiolinks, channels A1a - A8a. Standards on equipment and antennas 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 DRS2X8/15000, DRS8/15000	Channel plan according to ITU-R F.636. Digital fixed radiolinks, channels B1a - B22a. Standards on equipment and antennas 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 DRS2X8/15000, DRS8/15000	Channel plan according to ITU-R F.636. Digital fixed radiolinks, channels B1b - B22b. Standards on equipment and antennas 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 TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
	15.243 - 15.341 GHz (0.098 GHz) Fixed radiolinks	Duplex. Fixed station (FX) TXRX 14 MHz, -728 MHz 14.515 - 14.613 GHz DRS2X8/15000, DRS8/15000	Channel plan according to ITU-R F.636. Digital fixed radiolinks, channels A1b - A8b. Standards on equipment and antennas EN 302 217. Radiation pattern envelope class 3. Minimum antenna gain 32 dBi. Minimum cross polar discrimination 27 dB.
15.350 - 15.400 GHz RADIO ASTRONOMY	15.350 - 15.400 GHz (0.050 GHz) Radio Astronomy		VLBI.
15.400 - 15.700 GHz 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) Radars		
	Military use		
17.100 - 17.300 GHz RADIOLOCATION	17.100 - 17.300 GHz (0.200 GHz) (SRD) radio location (GBSAR)		Equipment are exempt from licensing, see regulation Ficora 15. Radiated power max. 26 dBm EIRP. Appropriate access protocol. SRD recommendation ERC/REC/70-03. Standard EN 300 440. European Comission decision 2009/381/EC.
	17.100 - 17.300 GHz (0.200 GHz) (SRD) Wideband Data Transmission Systems (WAS/RLAN)		SRD recommendation ERC/REC/70-03.
EARTH EXPLORATION-SATELLITE	Earth exploration satellite		
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.
FIXED SATELLITE (EARTH-TO-SPACE)	17.300 - 18.100 GHz (0.800 GHz) Fixed satellite	Earth station (UV) 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 TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
FIXED	17.755 - 17.920 GHz (0.165 GHz) Fixed radiolinks	Duplex. Fixed station (FX) TXRX 55 MHz, +1010 MHz 18.765 - 18.930 GHz DRS140/18700, DRS155/18700	ERC decision ERC/DEC/(00)07. Channel plan according to CEPT Rec. ERC/REC 12-03. Standards on equipment and antennas EN 302 217. Digital fixed radiolinks, channels F1a - F4a. 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	18.030 - 18.250 GHz (0.220 GHz) Fixed radiolinks	Duplex. Fixed station (FX) TXRX 110 MHz, +1010 MHz 19.040 - 19.260 GHz DRS140/18700, DRS155/18700	ERC decision ERC/DEC/(00)07. Channel plan according to CEPT Rec. ERC/REC 12-03. Digital fixed radiolinks, channels B3a - B5a. Antenna standard EN 302 217. Radiation pattern envelope class 3, figure 3c. 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. 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 DRS34/18700	ERC decision ERC/DEC/(00)07. Channel plan according to CEPT Rec. ERC/REC 12-03. Standards on equipment and antennas EN 302 217. Digital fixed radiolinks, channels A23a - A29a. Radiation pattern envelope class 3, figure 3c. Minimum antenna gain 32 dBi. Minimum cross polar discrimination 27 dB.
	18.5275 - 18.5725 GHz (0.045 GHz) Fixed radiolinks	Duplex. Fixed station (FX) TXRX 15 MHz, +1010 MHz 19.5375 - 19.5825 GHz DRS2X8/18700	ERC decision ERC/DEC/(00)07. Standards on equipment and antennas EN 302 217. Channel plan according to ITU-R F.595, modified. Digital fixed radiolinks, channels E1a - E4a. 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 TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
	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 DRS8/18700	ERC decision ERC/DEC/(00)07. Standards on equipment and antennas EN 302 217. Channel plan according to ITU-R F.595, modified. Digital fixed radiolinks, channels C5a - C13a. Radiation pattern envelope class 3. Minimum antenna gain 32 dBi. Minimum cross polar discrimination 27 dB. In the band 18,6 - 18,8 GHz GHz transmitter power max. 0,5 W.
	18.6575 - 18.6825 GHz (0.025 GHz) Fixed radiolinks	Duplex. Fixed station (FX) TXRX 5 MHz, +1010 MHz 19.6675 - 19.6925 GHz DRS2X2/18700	ERC decision ERC/DEC/(00)07. Standards on equipment and antennas EN 302 217. Channel plan according to ITU-R F.595, modified. Digital fixed radiolinks, channels D1a - D6a. Radiation pattern envelope class 3. Minimum antenna gain 32 dBi. Minimum cross polar discrimination 27 dB. In the band 18,6 - 18,8 GHz GHz transmitter power max. 0,5 W.
	18.765 - 18.930 GHz (0.165 GHz) Fixed radiolinks	Duplex. Fixed station (FX) TXRX 55 MHz, -1010 MHz 17.755 - 17.920 GHz DRS140/18700, DRS155/18700	ERC decision ERC/DEC/(00)07. Channel plan according to CEPT Rec. ERC/REC 12-03. Standards on equipment and antennas EN 302 217. Digital fixed radiolinks, channels F1b - F4b. Radiation pattern envelope class 3. Minimum antenna gain 32 dBi. Minimum cross polar discrimination 27 dB. In the band 18,6 - 18,8 GHz GHz transmitter power max. 0,5 W.
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).
FIXED	19.040 - 19.260 GHz (0.220 GHz) Fixed radiolinks	Duplex. Fixed station (FX) TXRX 110 MHz, -1010 MHz 18.030 - 18.250 GHz DRS140/18700, DRS155/18700	ERC decision ERC/DEC/(00)07. Channel plan according to CEPT Rec. ERC/REC 12-03. Digital fixed radiolinks, channels B3b - B5b. Antenna 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 TX/RX-code** **Channel spacing, bandwidth. (Class of emission)** **Duplex separation and duplex band** **Standart type**	**Comments**
19.300 - 19.700 GHz FIXED SATELLITE (EARTH-TO-SPACE, SPACE-TO-EARTH) FIXED	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).
	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 DRS34/18700	ERC decision ERC/DEC/(00)07. Channel plan according to CEPT Rec. ERC/REC 12-03. Digital fixed radiolinks, channels A23b - A29b. Standards on equipment and antennas EN 302 217. Radiation pattern envelope class 3. Minimum antenna gain 32 dBi. Minimum cross polar discrimination 27 dB.
	19.5375 - 19.5825 GHz (0.045 GHz) Fixed radiolinks	Duplex. Fixed station (FX) TXRX 15 MHz, -1010 MHz 18.5275 - 18.5725 GHz DRS2X2/18700	ERC decision ERC/DEC/(00)07. Channel plan according to ITU-R F.595, modified. Digital fixed radiolinks, channels E1b - E4b. Standards on equipment and antennas 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 DRS8/18700	ERC decision ERC/DEC/(00)07. Channel plan according to ITU-R F.595, modified. Digital fixed radiolinks, channels C5b - C13b. Standards on equipment and antennas EN 302 217. Radiation pattern envelope class 3. Minimum antenna gain 32 dBi. Minimum cross polar discrimination 27 dB.
	19.6675 - 19.6925 GHz (0.025 GHz) Fixed radiolinks	Duplex. Fixed station (FX) TXRX 5 MHz, -1010 MHz 18.6575 - 18.6825 GHz DRS2X2/18700	ERC decision ERC/DEC/(00)07. Channel plan according to ITU-R F.595, modified. Digital fixed radiolinks, channels D1b - D6b. Standards on equipment and antennas 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	Satellite User Terminals (SUT), standard EN 301 459. ECC decision ECC/DEC/(05)08.
	Fixed satellite	Space station (EC) TX Earth station (TC) RX	Not standardised earth stations. ECC decision ECC/DEC/(05)08.

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
20.100 - 20.200 GHz 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)	Fixed satellite	Space station (EC) TX Earth station (TC) RX 29.500 - 30.000 GHz	Satellite User Terminals (SUT), standard EN 301 459. ECC decision ECC/DEC/(05)08.
	Fixed satellite	Space station (EC) TX Earth station (TC) RX	Not standardised earth stations. ECC decision ECC/DEC/(05)08.
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	21.231 - 22.099 GHz (0.868 GHz) Fixed radiolinks	Duplex. Fixed station (FX) TXRX 14 MHz, +1232 MHz 22.463 - 23.331 GHz DRS2X8/23000, DRS8/23000	Channel plan according to ITU-R F.637, no new licences. Digital fixed radiolinks, channels C1a - C63a. Standarder EN 302 217, EN 300 638. 21.2 - 21.4 GHz ENG/OB radiolinks and monitoring cameras. ERC recommendation ERC/REC 25-10.
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 are exempt from licensing, see regulation Ficora 15. Use in the sub-band 21.650 - 23.600 GHz is not according to the mode of traffic in the Radio Regulation and new radars shall be taken into use on 30.6.2013 at the latest. 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 higher than -10 dBm EIRP. Standard EN 302 288. ECC decision ECC/DEC/(04)10. European Commission decision 2005/50/EC.

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
	22.078 - 22.134 GHz (0.056 GHz) Fixed radiolinks	Duplex. Fixed station (FX) TXRX 56 MHz, +1008 MHz 23.086 - 23.142 GHz DRS155/23000	Channel plan according to CEPT Rec. T/R 13-02. Digital fixed radiolinks, channels E1a - E2a. Standards on equipment and antennas EN 302 217. Radiation pattern envelope class 3. Minimum antenna gain 32 dBi. Minimum cross polar discrimination 27 dB.
	22.134 - 22.330 GHz (0.196 GHz) Fixed radiolinks	Duplex. Fixed station (FX) TXRX 28 MHz, +1232 MHz 23.366 - 23.562 GHz FMTV/21400	Channel plan according to ITU-R F.637, no new licences. Digital and analog fixed radiolinks, channels B33a - B40a. Standards EN 301 751, EN 300 198.
	22.190 - 22.414 GHz (0.224 GHz) Fixed radiolinks	Duplex. Fixed station (FX) TXRX 28 MHz, +1008 MHz 23.198 - 23.422 GHz DRS34/23000	Channel plan according to CEPT Rec. T/R 13-02. Digital fixed radiolinks, channels A1a - A9a. Standards on equipment and antennas EN 302 217. Radiation pattern envelope class 3. Minimum antenna gain 32 dBi. Minimum cross polar discrimination 27 dB.
RADIOASTRONOMI AND EARTH EXPLORATION-SATELLITE	22.210 - 22.500 GHz (0.290 GHz) Radioastronomi and Earth Exploration-Satellite	Radio astronomy station (RA) RX	VLBI, satellite-VLBI, continuum measurements, solar radio emission, molecule lines. Water vapour emission line.
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 DRS2X8/23000	Channel plan according to CEPT Rec. T/R 13-02. Digital fixed radiolinks, channels B3a - B8a. Standards on equipment and antennas EN 302 217. Radiation pattern envelope class 3. Minimum antenna gain 32 dBi. Minimum cross polar discrimination 27 dB.
	22.463 - 23.331 GHz (0.868 GHz) Fixed radiolinks	Duplex. Fixed station (FX) TXRX 14 MHz, -1232 MHz 21.231 - 22.099 GHz DRS2X8/23000, DRS8/23000	Channel plan according to ITU-R F.637, no new licences. Digital fixed radiolinks, channels C1b - C63b. Standard EN 302 217.
	22.5155 - 22.5715 GHz (0.056 GHz) Fixed radiolinks	Duplex. Fixed station (FX) TXRX 7 MHz, +1008 MHz 23.5235 - 23.5795 GHz DRS8/23000	Channel plan according to CEPT Rec. T/R 13-02. Digital fixed radiolinks, channels D1a - D9a. Standards on equipment and antennas 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 TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
	22.5855 - 22.5890 GHz (0.0035 GHz) Fixed radiolinks	Duplex. Fixed station (FX) TXRX 3,5 MHz, +1008 MHz 23.5935 - 23.5970 GHz DRS2/23000, DRS2X2/23000	Channel plan according to CEPT Rec. T/R 13-02. Digital fixed radiolinks, channels F5a - F6a. Standards on equipment and antennas 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 video monitoring.
	23.086 - 23.142 GHz (0.056 GHz) Fixed radiolinks	Duplex. Fixed station (FX) TXRX 56 MHz, -1008 MHz 22.078 - 22.134 GHz DRS155/23000	Channel plan according to CEPT Rec. T/R 13-02. Digital fixed radiolinks, channels E1b - E2b. Standards on equipment and antennas 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 DRS34/23000	Channel plan according to CEPT Rec. T/R 13-02. Digital fixed radiolinks, channels A1b - A9b. Standards on equipment and antennas EN 302 217. Radiation pattern envelope class 3. Minimum antenna gain 32 dBi. Minimum cross polar discrimination 27 dB.
	23.366 - 23.562 GHz (0.196 GHz) Fixed radiolinks	Duplex. Fixed station (FX) TXRX 28 MHz, -1232 MHz 22.134 - 22.330 GHz FMTV/21400	Channel plan according to ITU-R F.637, no new licences. Digital and analog fixed radiolinks, channels B33b - B40b. Standard EN 302 217.
	23.443 - 23.513 GHz (0.070 GHz) Fixed radiolinks	Duplex. Fixed station (FX) TXRX 14 MHz, -1008 MHz 22.435 - 22.505 GHz DRS2X8/23000	Channel plan according to CEPT Rec. T/R 13-02. Digital fixed radiolinks, channels B3b - B8b. Standards on equipment and antennas 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 DRS8/23000	Channel plan according to CEPT Rec. T/R 13-02. Digital fixed radiolinks, channels D1b - D9b. Standards on equipment and antennas 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 TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
	23.5935 - 23.5970 GHz (0.0035 GHz) Fixed radiolinks	Duplex. Fixed station (FX) TXRX 3,5 MHz, -1008 MHz 22.5855 - 22.5890 GHz DRS2/23000, DRS2X2/23000	Channel plan according to CEPT Rec. T/R 13-02. Digital fixed radiolinks, channels F5b - F6b. Standards on equipment and antennas EN 302 217. Radiation pattern envelope class 3. Minimum antenna gain 32 dBi. Minimum cross polar discrimination 27 dB.
23.600 - 24.000 GHz RADIOASTRONOMI AND 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 are exempt from licensing, see regulation Ficora 15. Use in the sub-band 23.6 - 24 GHz is not according to the mode of traffic in the Radio Regulation and new radars shall be taken into use on 30.6.2013 at the latest. 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 higher than -10 dBm EIRP. Standard EN 302 288. ECC decision ECC/DEC/(04)10. European Commission decision 2005/50/EC.
	23.600 - 24.000 GHz (0.400 GHz) Radioastronomi and Earth Exploration-Satellite		All emissions prohibited (RR 5.340). Water vapour emission line.
24.000 - 24.050 GHz AMATEUR AND AMATEUR-SATELLITE	24.000 - 24.050 GHz (0.050 GHz) Amateur and amateur-Satellite		Regulation Ficora 6. User certificate required. The transmitter power in the novice class max. 30 W. Peak envelope power 120 W, when the carrier of the transmission is attenuated by at least 6 dB. The 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 TX/RX-code** **Channel spacing, bandwidth. (Class of emission)** **Duplex separation and duplex band** **Standart type**	**Comments**
Radiolocation	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 are exempt from licensing, see regulation Ficora 15. New radars shall be taken into use on 30.6.2013 at the latest. 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 higher than -10 dBm EIRP. Standard EN 302 288. ECC decision ECC/DEC/(04)10. European Commission decision 2005/50/EC.
	(SRD) Equipment for detecting movement and for alert		Equipment are exempt from licensing, see regulation Ficora 15. Radiated power max. 100 mW EIRP. Standard EN 300 440-1. SRD recommendation ERC/REC/70-03. 24.000 - 24.250 GHz ISM (RR 5.150).
	(SRD) Non-specific Short Range Devices		Equipment are exempt from licensing, see regulation Ficora 15. Radiated power max. 100 mW EIRP. Standard EN 300 440-1. SRD recommendation ERC/REC/70-03. 24,000 - 24,250 GHz ISM (RR 5.150).
24.050 - 24.250 GHz RADIOLOCATION	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 are exempt from licensing, see regulation Ficora 15. New radars shall be taken into use on 30.6.2013 at the latest. 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 higher than -10 dBm EIRP. Standardi EN 302 288. ECC decision ECC/DEC/(04)10. European Commission decision 2005/50/EC.

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
	24.050 - 24.250 GHz (lower and upper limits of sub-band) (0.200 GHz) (SRD) Equipment for detecting movement and for alert		Equipment are exempt from licensing, see regulation Ficora 15. Radiated power max. 100 mW EIRP. Standard EN 300 440-1. SRD recommendation ERC/REC/70-03. 24,000 - 24,250 GHz ISM (RR 5.150).
	(SRD) Non-specific Short Range Devices		Equipment are exempt from licensing, see regulation Ficora 15. Radiated power max. 100 mW EIRP. Standard EN 300 440-1. SRD recommendation ERC/REC/70-03. 24,150-24,250 GHz European Comission decision 2009/381/EC.
Amateur	Amateur		Regulation Ficora 6. User certificate required. The transmitter power in the novice class max. 30 W. Peak envelope power 120 W, when the carrier of the transmission is attenuated by at least 6 dB. The 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.
24.250 - 27.000 GHz 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 are exempt from licensing, see regulation Ficora 15. Use in the sub-band 24.250 - 26.650 GHz is not according to the mode of traffic in the Radio Regulation and new radars shall be taken into use on 30.6.2013 at the latest. 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 higher than -10 dBm EIRP. Standard EN 302 288. ECC decision ECC/DEC/(04)10. European Commission decision 2005/50/EC.

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
	24.549 - 25.333 GHz (lower and upper limits of sub-band) (0.784 GHz) Radio systems of fixed wireless access network (FWA)	Duplex. Fixed station (FX) TXRX 56 MHz, +1008 MHz 25.557 - 26.341 GHz	Terminals are exempt from licensing, see regulation Ficora 15. Standards: EN 301 753, EN 301 213-1, EN 301 213-2 and EN 301 213-3. Antenna standard EN 301 215-2. Radiation pattern envelope for central station class CS2, table 3, figure 2. Minimum antenna gain for central station figure 3. Radiated power 24 dBW / MHz for directional antennas and 8 dBW / MHz for non-directional antennas. It is allowed for FWA operators to use point-to-point systems in their frequency bands, point-to-point standard EN 301 751. ERC recommendations ERC/REC 13-04, T/R 13-02 Annex B and ERC/REC/(00)05.
	25.347 - 25.431 GHz (0.084 GHz) Fixed radiolinks	Duplex. Fixed station (FX) TXRX 28 MHz, +1008 MHz 26.355 - 26.439 GHz DRS34/26000	Channel plan according to CEPT Rec. T/R 13-02. Standards on equipment and antennas EN 302 217. Digital radiolinks,channels A1a - A4a. Radiation pattern envelope class 3. Minimum antenna gain 32 dBi. Minimum cross polar discrimination 27 dB.
EARTH EXPLORATION-SATELLITE (SPACE-TO-EARTH) FIXED	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).
	25.557 - 26.341 GHz (lower and upper limits of sub-band) (0.784 GHz) Radio systems of fixed wireless access network (FWA)	Duplex. Fixed station (FX) TXRX 56 MHz, -1008 MHz 24.549 - 25.333 GHz	Terminals are exempt from licensing, see regulation Ficora 15. Standards on equipment and antennas EN 302 326. Radiation pattern envelope for terminal station TS1, table 1, figure 1. Minimum antenna gain for terminal station 26 dBi. Radiated power max. 24 dBW / MHz. It is allowed for FWA operators to use point-to-point systems in their frequency bands, point-to-point standard EN 302 217.. ERC recommendations ERC/REC 13-04, T/R 13-02 annex B and ERC/REC/(00)05.
	26.355 - 26.439 GHz (0.084 GHz) Fixed radiolinks	Duplex. Fixed station (FX) TXRX 28 MHz, -1008 MHz 25.347 - 25.431 GHz DRS34/26000	Channel plan according to CEPT Rec. T/R 13-02. Standards on equipment and antennas EN 302 217. Digital radiolinks, channel A1b - A4b. 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 TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
27.000 - 27.500 GHz FIXED	27.000 - 27.500 GHz (0.500 GHz) Fixed		
27.500 - 29.500 GHz FIXED SATELLITE (EARTH-TO-SPACE)	27.000 - 29.500 GHz (2.500 GHz) Fixed satellite	Earth station (TC) TX Space station (EC) RX	Not standardised earth stations.
	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.
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 DRS2X8/28000	ECC decision ECC/DEC/(05)01. Channel plan according to CEPT Rec. T/R 13-02. Standards on equipment and antennas EN 302 217. Digital radiolinks, channel C1a - C4a. Radiation pattern envelope class 3. Minimum antenna gain 32 dBi. Minimum cross polar discrimination 27 dB.
	28.0105 - 28.1505 GHz (0.140 GHz) Fixed radiolinks	Duplex. Fixed station (FX) TXRX 28 MHz, +1008 MHz 28.0185 - 29.1585 GHz DRS34/28000	ECC decision ECC/DEC/(05)01. Channel plan according to CEPT Rec. T/R 13-02. Standards on equipment and antennas EN 302 217. Digital radiolinks, channel A1a - A6a. 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 DRS155/28000	ECC decision ECC/DEC/(05)01. Channel plan according to CEPT Rec. T/R 13-02. Standards on equipment and antennas EN 302 217. Digital radiolinks, channel B1a - B5a. 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.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic. Class of station and TX/RX-code** **Channel spacing, bandwidth. (Class of emission)** **Duplex separation and duplex band** **Standart type**	**Comments**
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 DRS2X8/28000	ECC decisio ECC/DEC/(05)01. Channel plan according to CEPT Rec. T/R 13-02. Standards on equipment and antennas EN 302 217. Digitala radiolänkar, kanalerna C1b - C4b. Strålningsdiagram klass 3. Minimiförstärkning 32 dBi. Minimidämpning av korspolarisation 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 DRS34/28000	ECC decision ECC/DEC/(05)01. Channel plan according to CEPT Rec. T/R 13-02. Standards on equipment and antennas EN 302 217. Digital radiolinks, channel A1b - A6b. 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.
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 DRS155/28000	ECC decision ECC/DEC/(05)01. Channel plan according to CEPT Rec. T/R 13-02. Standards on equipment and antennas EN 302 217. Digital radiolinks, channel B1b - B5b. 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 decisio ECC/DEC(05)01.

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
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	Not standardised earth stations. ECC decision ECC/DEC/(05)08.
	Fixed satellite	Earth station (TC) TX Space station (EC) RX 10.700 - 12.750 GHz	Terminals are exempt from licensing, see regulation Ficora 15. ECC/DEC/(06)02 (LEST), ECC/DEC/(06)03 (HEST). Standard EN 301 459.
	Fixed satellite	Earth station (TC) TX Space station (EC) RX 19.700 - 20.200 GHz	Terminals are exempt from licensing, see regulation Ficora 15. ECC/DEC/(06)02 (LEST), ECC/DEC/(06)03 (HEST). Standard EN 301 459.
MOBILE-SATELLITE (EARTH-TO-SPACE)	Mobile satellite	Mobile earth station (UA) TX Space station (EI) RX	
FIXED SATELLITE (EARTH-TO-SPACE)	29.500 - 31.000 GHz (1.500 GHz) Fixed satellite	Earth station (TC) TX Space station (EC) RX	Not 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 radiolinks. Standard EN 302 063. Sub-band under review. CEPT Rec. ECC/REC 02-02.
MOBILE	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).
EARTH EXPLORATION-SATELLITE	Earth exploration satellite		
31.500 - 31.800 GHz EARTH EXPLORATION-SATELLITE	31.500 - 31.800 GHz (0.300 GHz) Earth exploration satellite		
RADIO ASTRONOMY	Radio Astronomy		
SPACE RESEARCH	Space research		
31.800 - 33.400 GHz RADIONAVIGATION	31.800 - 33.400 GHz (1.600 GHz) Radionavigation		

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
FIXED	31.8185 - 31.8535 GHz (0.035 GHz) Fixed radiolinks	Duplex. Fixed station (FX) TXRX 7 MHz, +812 MHz 32.6305 - 32.6655 GHz DRS8/32000	Channel plan according to CEPT Rec. ERC/REC/(01)02. Standards on equipment and antennas EN 302 217. Digital radiolinks, channel A1a - A6a. Radiation pattern envelope class 3. Minimum antenna gain 32 dBi. Minimum cross polar discrimination 27 dB.
	31.864 - 31.976 GHz (0.112 GHz) Fixed radiolinks	Duplex. Fixed station (FX) TXRX 14 MHz, +812 MHz 32.676 - 32.788 GHz DRS2X8/32000	Channel plan according to CEPT Rec. ERC/REC/(01)02. Standards on equipment and antennas EN 302 217. Digital radiolinks, channel B1a - B9a. Radiation pattern envelope class 3. Minimum antenna gain 32 dBi. Minimum cross polar discrimination 27 dB.
	31.997 - 32.277 GHz (0.280 GHz) Fixed radiolinks	Duplex. Fixed station (FX) TXRX 28 MHz, +812 MHz 32.809 - 33.089 GHz DRS8/32000	Channel plan according to CEPT Rec. ERC/REC/(01)02. Standards on equipment and antennas EN 302 217. Digital radiolinks, channel C1a - C11a. Radiation pattern envelope class 3. Minimum antenna gain 32 dBi. Minimum cross polar discrimination 27 dB.
	32.347 - 32.515 GHz (0.168 GHz) Fixed radiolinks	Duplex. Fixed station (FX) TXRX 56 MHz, +812 MHz 33.159 - 33.327 GHz DRS155/32000	Channel plan according to CEPT Rec. ERC/REC/(01)02. Standards on equipment and antennas EN 302 217. Digital radiolinks, channel D1a - D4a. Radiation pattern envelope class 3. Minimum antenna gain 32 dBi. Minimum cross polar discrimination 27 dB.
	32.6305 - 32.6655 GHz (0.035 GHz) Fixed radiolinks	Duplex. Fixed station (FX) TXRX 7 MHz, -812 MHz 31.8185 - 31.8535 GHz DRS8/32000	Channel plan according to CEPT Rec. ERC/REC/(01)02. Standards on equipment and antennas EN 302 217. Digital radiolinks, channel A1b - A6b. Radiation pattern envelope class 3. Minimum antenna gain 32 dBi. Minimum cross polar discrimination 27 dB.
	32.676 - 32.788 GHz (0.112 GHz) Fixed radiolinks	Duplex. Fixed station (FX) TXRX 14 MHz, -812 MHz 31.864 - 31.976 GHz DRS2X8/32000	Channel plan according to CEPT Rec. ERC/REC/(01)02. Standards on equipment and antennas EN 302 217. Digital radiolinks, channel B1b - B9b. 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 TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
	32.809 - 33.089 GHz (0.280 GHz) Fixed radiolinks		Channel plan according to CEPT Rec. ERC/REC/(01)02. Standards on equipment and antennas EN 302 217. Digital radiolinks, channel C1b - C11b. Radiation pattern envelope class 3. Minimum antenna gain 32 dBi. Minimum cross polar discrimination 27 dB.
	33.159 - 33.327 GHz (0.168 GHz) Fixed radiolinks	Duplex. Fixed station (FX) TXRX 56 MHz, -812 MHz 32.347 - 32.515 GHz DRS155/32000	Channel plan according to CEPT Rec. ERC/REC/(01)02. Standards on equipment and antennas EN 302 217. Digital radiolinks, channel D1b - D4b. 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	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 DRS2/38000, DRS2X2/38000	Channel plan according to CEPT Rec. T/R 12-01. Digital fixed radiolinks, channels A1a - A12a. Standards on equipment and antennas 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 DRS8/38000	Channel plan according to CEPT Rec. T/R 12-01. Digital fixed radiolinks, channels B7a - B24a. Standards on equipment and antennas 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 TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
	37.233 - 37.331 GHz (0.098 GHz) Fixed radiolinks	Duplex. Fixed station (FX) TXRX 14 MHz, +1260 MHz 38.493 - 38.591 GHz DRS2X8/38000	Channel plan according to CEPT Rec. T/R 12-01. Digital fixed radiolinks, channels C13a - C20a. Standards on equipment and antennas EN 302 217. Radiation pattern envelope class 4. Minimum antenna gain 32 dBi. Minimum cross polar discrimination 27 dB.
	37.3415 - 38.1745 GHz (0.833 GHz) Fixed radiolinks	Duplex. Fixed station (FX) TXRX 7 MHz, +1260 MHz 38.6015 - 39.4345 GHz DRS8/38000	ERC decision ERC/DEC/(00)02. Channel plan according to CEPT Rec. T/R 12-01. Standards on equipment and antennas 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 DRS34/38000	ERC decision ERC/DEC/(00)02. Channel plan according to CEPT Rec. T/R 12-01. Standards on equipment and antennas EN 302 217. Digital fixed radiolinks, channels D11a - D20a. 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 DRS155/38000	ERC decision ERC/DEC/(00)02. Channel plan according to CEPT Rec. T/R 12-01. Standards on equipment and antennas EN 302 217. Digital fixed radiolinks, channels E11a - E20a. 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 DRS2/38000, DRS2X2/38000	ERC decision ERC/DEC/(00)02. Channel plan according to CEPT Rec. T/R 12-01. Standards on equipment and antennas EN 302 217. Digital fixed radiolinks, channels A1b - A12b. 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 TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
	38.3635 - 38.4825 GHz (0.119 GHz) Fixed radiolinks	Duplex. Fixed station (FX) TXRX 7 MHz, -1260 MHz 37.1035 - 37.2225 GHz DRS8/38000	ERC decision ERC/DEC/(00)02. Channel plan according to CEPT Rec. T/R 12-01. Standards on equipment and antennas EN 302 217. Digital fixed radiolinks, channels B7b - B24b. Radiation pattern envelope class 4. Minimum antenna gain 32 dBi. Minimum cross polar discrimination 27 dB.
	38.493 - 38.591 GHz (0.098 GHz) Fixed radiolinks	Duplex. Fixed station (FX) TXRX 14 MHz, -1260 MHz 37.233 - 37.331 GHz DRS2X8/38000	ERC decision ERC/DEC/(00)02. Channel plan according to CEPT Rec. T/R 12-01. Standards on equipment and antennas EN 302 217. Digital fixed radiolinks, channels C13b - C20b. 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 DRS8/38000	ERC decision ERC/DEC/(00)02. Channel plan according to CEPT Rec. T/R 12-01. Standards on equipment and antennas 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 DRS34/38000	ERC decision ERC/DEC/(00)02. Channel plan according to CEPT Rec. T/R 12-01. Standards on equipment and antennas EN 302 217. Digital fixed radiolinks, channels D11b - D20b. 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 DRS155/38000	ERC decision ERC/DEC/(00)02. Channel plan according to CEPT Rec. T/R 12-01. Standards on equipment and antennas EN 302 217. Digital fixed radiolinks, channels E11b - E20b. 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 TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
39.500 - 40.500 GHz 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.
MOBILE	Mobile radio		
MOBILE-SATELLITE (SPACE-TO-EARTH)	Mobile satellite	Space station (EI) TX Mobile earth station (UA) RX	ERC decision ERC/DEC/(00)02.
40.500 - 42.500 GHz BROADCASTING-SATELLITE	40.500 - 42.500 GHz (2 GHz) Broadcasting satellite	Space station (EV) TX Earth station (UV) RX	
BROADCASTING	Broadcasting		
FIXED	Fixed radiolinks		Band for MWS. Standard EN 301 997. ERC recommendation ERC/REC/(01)04. ERC decision ERC/DEC/(99)15.
FIXED SATELLITE (SPACE-TO-EARTH)	Fixed satellite	Space station (EC) TX Earth station (TC) RX	ECC decision ECC/DEC/(02)04.
42.500 - 43.500 GHz FIXED	42.500 - 43.500 GHz (1 GHz) Fixed radiolinks		Band for MWS. Standard EN 301 997. ERC recommendation ERC/REC/(01)04. ERC decision ERC/DEC/(99)15.
RADIO ASTRONOMY	Radio Astronomy	Radio astronomy station (RA) RX	VLBI, continuum measurements, solar radio emission.
FIXED SATELLITE (EARTH-TO-SPACE)	Fixed satellite	Space station (EC) RX Earth station (TC) TX	
43.500 - 47.000 GHz MOBILE	43.500 - 47.000 GHz (3.500 GHz) Mobile radio		
MOBILE-SATELLITE	Mobile satellite		
RADIONAVIGATION	Radionavigation		
RADIONAVIGATION-SATELLITE	Radionavigation satellite		
47.000 - 47.200 GHz AMATEUR AND AMATEUR-SATELLITE	47.000 - 47.200 GHz (0.200 GHz) Amateur and amateur-Satellite		Regulation Ficora 6. User certificate required. The transmitter power in the novice class max. 30 W. Peak envelope power 120 W, when the carrier of the transmission is attenuated by at least 6 dB. The 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 TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
47.200 - 50.200 GHz FIXED	47.200 - 47.500 GHz (0.300 GHz) High altitude platform station (HAPS)		(RR 5.552A).
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 BSS feeder links (RR 5.552).
FIXED	Fixed radiolinks		Temporary ENG/OB radiolinks. ERC recommendation ERC/REC/ 25-10.
MOBILE	Mobile radio		
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.
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.
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.
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)	Fixed satellite	Earth station (TC) TX Space station (EC) RX	

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
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 - 57.780 GHz (5.180 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. In the band 55.780 - 56.260 GHz transmitter power max. 4 dBm / MHz. Standards EN 302 217.
57.000 - 58.200 GHz MOBILE	57.000 - 58.200 GHz (1.200 GHz) Mobile radio		Wideband Data Transmission Systems (WAS/RLAN) 57-66 GHz. Equipment are exempt from licensing, see regulation Ficora 15 and appendix Inductive Equipment and Ultra-Wideband Equipment (UWB).
FIXED	57.250 - 58.050 GHz (0.800 GHz) Fixed radiolinks	Simplex (TDD). Fixed station (FX) TXRX 100 MHz, DRS8/58000	Digital fixed radiolinks. Channel plan according to ERC recommendation ERC/REC/12-09 Annex A, item a), channels 3 -12. No co-ordinated frequency planning. Standards on equipment and antennas 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	Fixed		Sub-band under review.
MOBILE	Mobile radio		Wideband Data Transmission Systems (WAS/RLAN) 57-66 GHz. Equipment are exempt from licensing, see regulation Ficora 15 and appendix Inductive Equipment and Ultra-Wideband Equipment (UWB).
SPACE RESEARCH	Space research		

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
59.000 - 59.300 GHz FIXED	59.000 - 59.300 GHz (0.300 GHz) Fixed		Sub-band under review.
MOBILE	59.000 - 59.300 GHz (0.300 GHz) Mobile radio		Wideband Data Transmission Systems (WAS/RLAN) 57-66 GHz. Equipment are exempt from licensing, see regulation Ficora 15 and appendix Inductive Equipment and Ultra-Wideband Equipment (UWB).
RADIOLOCATION	Radiolocation		
59.300 - 64.000 GHz FIXED	59.300 - 62.000 GHz (2.700 GHz) Fixed		Sub-band under review.
MOBILE	59.300 - 64.000 GHz (4.700 GHz) Mobile radio		Wideband Data Transmission Systems (WAS/RLAN) 57-66 GHz. Equipment are exempt from licensing, see regulation Ficora 15 and item Inductive Equipment and Ultra-Wideband Equipment (UWB).
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 are exempt from licensing, see regulation Ficora 15. Radiated power max. 100 mW EIRP. Standard EN 300 440-1. SRD recommendation ERC/REC/70-03. 61.0 - 61.5 GHz ISM (RR 5.138). European Comission decision 2009/381/EC.
	62 - 63 GHz (1 GHz) Mobile radio		CEPT Rec. T/R 22-03. Sub-band under review.
RADIOLOCATION	63 - 64 GHz (1 GHz) (SRD) Road Transport and Traffic telematics (RTTT)		Road Transport and Traffic Telematics, a licence is still required for the use of these systems. ECC decision ECC/DEC/(02)01. TAC decision of 18.11.1992.
64 - 65 GHz FIXED	64 - 65 GHz (1 GHz) Fixed radiolinks		ECC Recommedation ECC/REC/(05)02. Sub-band under review.

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
MOBILE	64 - 65 GHz (1 GHz) Mobile radio		Wideband Data Transmission Systems (WAS/RLAN) 57-66 GHz. Equipment are exempt from licensing, see regulation Ficora 15 and item Inductive Equipment and Ultra-Wideband Equipment (UWB).
65 - 66 GHz FIXED	65 - 66 GHz (1 GHz) Fixed		ECC Recommedation ECC/REC/(05)02. Sub-band under review.
MOBILE	Mobile radio		Wideband Data Transmission Systems (WAS/RLAN) 57-66 GHz. Equipment are exempt from licensing, see regulation Ficora 15 and appendix Inductive Equipment and Ultra-Wideband Equipment (UWB).
66 - 71 GHz MOBILE	66 - 71 GHz (5 GHz) Mobile radio		
MOBILE-SATELLITE	Mobile satellite		
RADIONAVIGATION	Radionavigation		
RADIONAVIGATION-SATELLITE	Radionavigation satellite		
71 - 74 GHz FIXED SATELLITE (SPACE-TO-EARTH)	71 - 74 GHz (3 GHz) Fixed satellite		
FIXED	Fixed		ECC Recommendation ECC/REC/(05)07. Sub-band under review.
MOBILE	Mobile radio		
MOBILE-SATELLITE (SPACE-TO-EARTH)	Mobile satellite	Space station (EI) TX Mobile earth station (UA) RX	
74 - 76 GHz FIXED	74.000 - 75.500 GHz (1.500 GHz) Fixed		(RR 5.559A) ECC Recommendation ECC/REC/(05)07. Sub-band under review.
BROADCASTING	Broadcasting		
BROADCASTING-SATELLITE	Broadcasting satellite		
MOBILE	Mobile radio		
FIXED SATELLITE (SPACE-TO-EARTH)	Fixed satellite	Space station (EC) TX Earth station (TC) RX	
Space research (space-to-earth)	Space research		

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic. Class of station and TX/RX-code** **Channel spacing, bandwidth. (Class of emission)** **Duplex separation and duplex band** **Standart type**	**Comments**
FIXED	75.500 - 76.000 GHz (0.500 GHz) Fixed		ECC Recommendation ECC/REC/(05)07.
76.000 - 77.500 GHz RADIOLOCATION	76 - 77 GHz (lower and upper limits of sub-band) (1 GHz) (SRD) Road Transport and Traffic telematics (RTTT)		Equipment are exempt from licensing, see regulation Ficora 15. Radiated power max: peak power 316 W EIRP, average power 100 W EIRP, average power for pulsed radars 225 mW EIRP. Standard EN 301 091-1. TAC decision of 18.11.1992. SRD recommendation ERC/REC/70-03. ECC decision ECC/DEC/(02)01.
Space research (space-to-earth)	Space research		
RADIO ASTRONOMY	Radio Astronomy		
Amateur and amateur-satellite	76.000 - 77.500 GHz (1.500 GHz) Amateur and amateur-Satellite		Regulation Ficora 6. User certificate required. The transmitter power in the novice class max. 30 W. Peak envelope power 120 W, when the carrier of the transmission is attenuated by at least 6 dB. The 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 are exempt from licensing, see regulation Ficora 15. The spectral power density -3 dBm/MHz EIRP and peak power 55 dBm/MHz EIRP. The spectral power density < -9 dBm / MHz EIRP outside a vehicle. Standard draft EN 302 264. ECC decision ECC/DEC/(04)03. European Commission decision 2004/545/EC.

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
77.500 - 78.000 GHz AMATEUR AND AMATEUR-SATELLITE	77.500 - 78.000 GHz (0.500 GHz) (SRD) Automotive Short Range Radar (SRR)		77 - 81 GHz automotive Short Range Radar (SRR). Terminals are exempt from licensing, see regulation Ficora 15. Use in the sub-band 77.5 - 78 GHz is not according to the Service in the Radio Regulation. The spectral power density -3 dBm/MHz EIRP and peak power 55 dBm/MHz EIRP. The spectral power density < -9 dBm / MHz EIRP outside a vehicle. Standard draft EN 302 264. ECC decision ECC/DEC/(04)03. European Commission decision 2004/545/EC.
	77.500 - 78.000 GHz (0.500 GHz) Amateur and amateur-Satellite		Regulation Ficora 6. User certificate required. The transmitter power in the novice class max. 30 W. Peak envelope power 120 W, when the carrier of the transmission is attenuated by at least 6 dB. The 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 Space research (space-to-earth)	Radio Astronomy Space research		
78 - 79 GHz RADIOLOCATION	78 - 79 GHz (1 GHz) (SRD) Automotive Short Range Radar (SRR)		77 - 81 GHz automotive Short Range Radar (SRR). Terminals are exempt from licensing, see regulation Ficora 15. The spectral power density -3 dBm/MHz EIRP and peak power 55 dBm/MHz EIRP. The spectral power density < -9 dBm / MHz EIRP outside a vehicle. Standard draft EN 302 264. ECC decison ECC/DEC/(04)03. European Comission decision 2004/545/EC.

Frequency band **Services in Finland**	**Sub-band** **(its width)** **and usage**	**Mode of traffic. Class of station and TX/RX-code** **Channel spacing, bandwidth. (Class of emission)** **Duplex separation and duplex band** **Standart type**	**Comments**
	78 - 79 GHz (1 GHz) Radiolocation		
Amateur and amateur-satellite	Amateur and amateur-Satellite		Regulation Ficora 6. User certificate required. The transmitter power in the novice class max. 30 W. Peak envelope power 120 W, when the carrier of the transmission is attenuated by at least 6 dB. The 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	Radio Astronomy		
Space research (space-to-earth)	Space research		
79 - 81 GHz RADIO ASTRONOMY	79 - 81 GHz (2 GHz) Radio Astronomy		
RADIOLOCATION	79 - 81 GHz (2 GHz) (SRD) Automotive Short Range Radar (SRR)		77 - 81 GHz automotive Short Range Radar (SRR). Terminals are exempt from licensing, see regulation Ficora 15. The spectral power density -3 dBm/MHz EIRP and peak power 55 dBm/MHz EIRP. The spectral power density < -9 dBm / MHz EIRP outside a vehicle. Standard draft EN 302 264. ECC decision ECC/DEC/(04)03. European Commission decision 2004/545/EC.
	Radiolocation		
Amateur and amateur-satellite	Amateur and amateur-Satellite		Regulation Ficora 6. User certificate required. The transmitter power in the novice class max. 30 W. Peak envelope power 120 W, when the carrier of the transmission is attenuated by at least 6 dB. The 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)	Space research		

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
81 - 84 GHz Amateur and amateur-satellite	81.000 - 81.500 GHz (0.500 GHz) Amateur and amateur-Satellite		Regulation Ficora 6. User certificate required. The transmitter power in the novice class max. 30 W. Peak envelope power 120 W, when the carrier of the transmission is attenuated by at least 6 dB. The 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)
FIXED SATELLITE (EARTH-TO-SPACE)	81 - 84 GHz (3 GHz) Fixed satellite	Earth station (TC) TX Space station (EC) RX	
FIXED	Fixed		ECC Recommendation ECC/REC/(05)07. Sub-band under review.
MOBILE	Mobile radio		
RADIO ASTRONOMY	Radio Astronomy		
MOBILE-SATELLITE (EARTH-TO-SPACE)	Mobile satellite	Mobile earth station (UA) TX Space station (EI) RX	
Space research (space-to-earth)	Space research		
84 - 86 GHz FIXED	84 - 86 GHz (2 GHz) Fixed		ECC Recommendation ECC/REC/(05)07. Sub-band under review.
FIXED SATELLITE (EARTH-TO-SPACE)	Fixed satellite		
MOBILE	Mobile radio		
RADIO ASTRONOMY	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 FIXED	92 - 94 GHz (2 GHz) Fixed		
MOBILE	Mobile radio		
RADIOLOCATION	Radiolocation		
RADIO ASTRONOMY	Radio Astronomy	Radio astronomy station (RA) RX	Spectral line measurements.

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
94.000 - 94.100 GHz	94.000 - 94.100 GHz		Spaceborne cloud radars (RR 5.562).
EARTH	(0.100 GHz)		
EXPLORATION-SATELLITE	Earth exploration satellite		
RADIOLOCATION	Radiolocation		
SPACE RESEARCH (ACTIVE)	Space research		
Radio astronomy	Radio Astronomy		
94.100 - 95.000 GHz	94.100 - 95.000 GHz		
FIXED	(0.900 GHz)		
	Fixed		
MOBILE	Mobile radio		
RADIO ASTRONOMY	Radio Astronomy		
RADIOLOCATION	Radiolocation		
95 - 100 GHz	95 - 100 GHz		
FIXED	(5 GHz)		
	Fixed		
MOBILE	Mobile radio		
RADIOLOCATION	Radiolocation		
RADIONAVIGATION	Radionavigation		
RADIONAVIGATION-SATELLITE	Radionavigation satellite		
RADIO ASTRONOMY	Radio Astronomy	Radio astronomy station (RA) RX	Spectral line and continuum measurements.
100 - 102 GHz	100 - 102 GHz	Radio astronomy station (RA) RX	Spectral line and continuum measurements,
RADIO ASTRONOMY	(2 GHz)		solar radio emission, also VLBI.
	Radio Astronomy		All emissions prohibited (RR 5.340).
EARTH	Earth exploration satellite		
EXPLORATION-SATELLITE			
(PASSIVE)			
SPACE RESEARCH (PASSIVE)	Space research		
102 - 105 GHz	102 - 105 GHz		
FIXED	(3 GHz)		
	Fixed		
MOBILE	Mobile radio		
RADIO ASTRONOMY	Radio Astronomy	Radio astronomy station (RA) RX	Spectral line and continuum measurements,
			solar radio emission, also VLBI.

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
105.000 - 109.500 GHz	105.000 - 109.500 GHz		
FIXED	(4.500 GHz) Fixed		
MOBILE	Mobile radio		
SPACE RESEARCH (PASSIVE)	Space research		
RADIO ASTRONOMY	Radio Astronomy	Radio astronomy station (RA) RX	Spectral line and continuum measurements, solar radio emission, also VLBI.
109.500 - 111.800 GHz	109.500 - 111.800 GHz		All emissions prohibited (RR 5.340).
EARTH EXPLORATION-SATELLITE (PASSIVE)	(2.300 GHz) Earth exploration satellite		
RADIO ASTRONOMY	Radio Astronomy		
SPACE RESEARCH (PASSIVE)	Space research		Spectral line and continuum measurements, solar radio emissio, also VLBI.
111.800 - 114.250 GHz	111.800 - 114.250 GHz		All emissions prohibited (RR 5.340).
FIXED	(2.450 GHz) Fixed		
MOBILE	Mobile radio		
RADIO ASTRONOMY	Radio Astronomy		
SPACE RESEARCH (PASSIVE)	Space research		Spectral line and continuum measurements, solar radio emission, also VLBI.
114.250 - 116.000 GHz	114.250 - 116.000 GHz		Spectral line and continuum measurements, solar radio emission, also VLBI.
EARTH EXPLORATION-SATELLITE (PASSIVE)	(1.750 GHz) Earth exploration satellite		All emissions prohibited (RR 5.340).
RADIO ASTRONOMY	Radio Astronomy		
SPACE RESEARCH (PASSIVE)	Space research		
116.000 - 119.980 GHz	116.000 - 119.980 GHz		
EARTH EXPLORATION-SATELLITE (PASSIVE)	(3.980 GHz) Earth exploration satellite		
INTER-SATELLITE	Inter-satellite		
SPACE RESEARCH (PASSIVE)	Space research		

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
119.980 - 122.250 GHz SPACE RESEARCH (PASSIVE)	119.980 - 122.250 GHz (2.270 GHz) Space research		
EARTH EXPLORATION-SATELLITE (PASSIVE)	Earth exploration satellite		
INTER-SATELLITE	Inter-satellite		
MOBILE	122.000 - 122.250 GHz (0.250 GHz) (SRD) Non-specific Short Range Devices		Equipment are exempt from licensing, see regulation Ficora 15. SRD recommendation ERC/REC/70-03. Radiated power max. 100 mW ERIP. Standard EN 300 440-1. 122 - 123 GHz ISM (RR 5.138).
122.250 - 123.000 GHz MOBILE	122.250 - 123.000 GHz (0.750 GHz) (SRD) Non-specific Short Range Devices		Equipment are exempt from licensing, see regulation Ficora 15. Radiated power max. 100 mW ERIP. Standard EN 300 440-1. SRD recommendation ERC/REC/70-03. 122 - 123 GHz ISM (RR 5.138).
FIXED	Fixed		
INTER-SATELLITE	Inter-satellite		
Amateur	Amateur		User certificate required. Regulation Ficora 6. The transmitter power in the novice class max. 30 W. Peak envelope power 120 W, when the carrier of the transmission is attenuated by at least 6 dB. The 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 FIXED SATELLITE (SPACE-TO-EARTH)	123 - 130 GHz (7 GHz) Fixed satellite		
MOBILE-SATELLITE (SPACE-TO-EARTH)	Mobile satellite		
RADIONAVIGATION	Radionavigation		
RADIONAVIGATION-SATELLITE	Radionavigation satellite		
Radio astronomy	Radio Astronomy		

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
130 - 134 GHz FIXED	130 - 134 GHz (4 GHz) Fixed		
INTER-SATELLITE	Inter-satellite		
MOBILE	Mobile radio		
RADIO ASTRONOMY	Radio Astronomy		
EARTH EXPLORATION-SATELLITE (ACTIVE)	Earth exploration satellite		Earth exploration satellite 133.500 - 134.000 GHz (RR 5.562E).
134 - 136 GHz AMATEUR AND AMATEUR-SATELLITE	134 - 136 GHz (2 GHz) Amateur and amateur-Satellite		User certificate required. Regulation Ficora 6. The transmitter power in the novice class max. 30 W. Peak envelope power 120 W, when the carrier of the transmission is attenuated by at least 6 dB. The 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	Radio Astronomy		
136 - 141 GHz RADIOLOCATION	136 - 141 GHz (5 GHz) Radiolocation		
RADIO ASTRONOMY	Radio Astronomy		
Amateur and amateur-satellite	Amateur and amateur-Satellite		User certificate required. Regulation Ficora 6. The transmitter power in the novice class max. 30 W. Peak envelope power 120 W, when the carrier of the transmission is attenuated by at least 6 dB. The 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	Mobile radio		

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
148.500 - 151.500 GHz	148.500 - 151.500 GHz		All emissions prohibited (RR 5.340).
RADIO ASTRONOMY	(3 GHz) Radio Astronomy		
EARTH EXPLORATION-SATELLITE (PASSIVE)	Earth exploration satellite		
SPACE RESEARCH (PASSIVE)	Space research		
151.500 - 155.500 GHz	151.500 - 155.500 GHz		
FIXED	(4 GHz) Fixed		
MOBILE	Mobile radio		
RADIO ASTRONOMY	Radio Astronomy		
RADIOLOCATION	Radiolocation		
155.500 - 158.500 GHz	155.500 - 158.500 GHz		
SPACE RESEARCH (PASSIVE)	(3 GHz) Space research		
EARTH EXPLORATION-SATELLITE (PASSIVE)	Earth exploration satellite		The allocation is valid until 1.1.2018 (RR 5.562F).
FIXED	Fixed		The date of entry into force shall be 1.1.2018 (RR 5.562G).
MOBILE	Mobile radio		The date of entry into force shall be 1.1.2018 (RR5.562G).
RADIO ASTRONOMY	Radio Astronomy		
158.500 - 164.000 GHz	158.500 - 164.000 GHz		
FIXED SATELLITE (SPACE-TO-EARTH)	(5.500 GHz) Fixed satellite		
FIXED	Fixed		
MOBILE	Mobile radio		
MOBILE-SATELLITE (SPACE-TO-EARTH)	Mobile satellite		
164 - 167 GHz	164 - 167 GHz		All emissions prohibited (RR 5.340).
RADIO ASTRONOMY	(3 GHz) Radio Astronomy		
EARTH EXPLORATION-SATELLITE (PASSIVE)	Earth exploration satellite		
SPACE RESEARCH (PASSIVE)	Space research		

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
167.000 - 174.500 GHz FIXED	167.000 - 174.500 GHz (7.500 GHz) Fixed		
FIXED SATELLITE (SPACE-TO-EARTH)	Fixed satellite		
INTER-SATELLITE	Inter-satellite		
MOBILE	Mobile radio		
174.500 - 174.800 GHz FIXED	174.500 - 174.800 GHz (0.300 GHz) Fixed		
INTER-SATELLITE	Inter-satellite		
MOBILE	Mobile radio		
174.800 - 182.000 GHz EARTH EXPLORATION-SATELLITE (PASSIVE)	174.800 - 182.000 GHz (7.200 GHz) Earth exploration satellite		
INTER-SATELLITE	Inter-satellite		
SPACE RESEARCH (PASSIVE)	Space research		
182 - 185 GHz RADIO ASTRONOMY	182 - 185 GHz (3 GHz) Radio Astronomy		183.310 GHz spectral line measurements of water molecule.
185 - 190 GHz EARTH EXPLORATION-SATELLITE (PASSIVE)	185 - 190 GHz (5 GHz) Earth exploration satellite		
INTER-SATELLITE	Inter-satellite		
SPACE RESEARCH (PASSIVE)	Space research		
190.000 - 191.800 GHz EARTH EXPLORATION-SATELLITE (PASSIVE)	190.000 - 191.800 GHz (1.800 GHz) Earth exploration satellite		All emissions prohibited (RR 5.340).
SPACE RESEARCH (PASSIVE)	Space research		

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
191.800 - 200.000 GHz MOBILE	191.800 - 200.000 GHz (8.200 GHz) Mobile radio		
FIXED	Fixed		
INTER-SATELLITE	Inter-satellite		
MOBILE-SATELLITE	Mobile satellite		
RADIONAVIGATION	Radionavigation		
RADIONAVIGATION-SATELLITE	Radionavigation satellite		
200 - 202 GHz EARTH EXPLORATION-SATELLITE (PASSIVE)	200 - 202 GHz (2 GHz) Earth exploration satellite		All emissions prohibited (RR 5.340).
RADIO ASTRONOMY	Radio Astronomy		
SPACE RESEARCH (PASSIVE)	Space research		
202 - 209 GHz EARTH EXPLORATION-SATELLITE (PASSIVE)	202 - 209 GHz (7 GHz) Earth exploration satellite		All emissions prohibited (RR 5.340).
RADIO ASTRONOMY	Radio Astronomy		
SPACE RESEARCH (PASSIVE)	Space research		
209 - 217 GHz FIXED SATELLITE (EARTH-TO-SPACE)	209 - 217 GHz (8 GHz) Fixed satellite		
FIXED	Fixed		
MOBILE	Mobile radio		
RADIO ASTRONOMY	Radio Astronomy		
217 - 226 GHz RADIO ASTRONOMY	217 - 226 GHz (9 GHz) Radio Astronomy		
FIXED	Fixed		
FIXED SATELLITE (EARTH-TO-SPACE)	Fixed satellite		
MOBILE	Mobile radio		
SPACE RESEARCH (PASSIVE)	Space research		

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
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)	Earth exploration satellite		
RADIO ASTRONOMY	Radio Astronomy		
231.500 - 232.000 GHz FIXED	231.500 - 232.000 GHz (0.500 GHz) Fixed		
MOBILE	Mobile radio		
Radiolocation	Radiolocation		
232 - 235 GHz FIXED SATELLITE (SPACE-TO-EARTH)	232 - 235 GHz (3 GHz) Fixed satellite		
FIXED	Fixed		
MOBILE	Mobile radio		
Radiolocation	Radiolocation		
235 - 238 GHz FIXED SATELLITE (SPACE-TO-EARTH)	235 - 238 GHz (3 GHz) Fixed satellite		
EARTH EXPLORATION-SATELLITE (PASSIVE)	Earth exploration satellite		
SPACE RESEARCH (PASSIVE)	Space research		
238 - 240 GHz FIXED SATELLITE (SPACE-TO-EARTH)	238 - 240 GHz (2 GHz) Fixed satellite		
FIXED	Fixed		
MOBILE	Mobile radio		
RADIOLOCATION	Radiolocation		
RADIONAVIGATION	Radionavigation		
RADIONAVIGATION-SATELLITE	Radionavigation satellite		

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
240 - 241 GHz FIXED	240 - 241 GHz (1 GHz) Fixed		
MOBILE	Mobile radio		
RADIOLOCATION	Radiolocation		
241 - 248 GHz RADIO ASTRONOMY	241 - 248 GHz (7 GHz) Radio Astronomy		
Amateur and amateur-satellite	Amateur and amateur-Satellite		Regulation Ficora 6. User certificate required. The transmitter power in the novice class max. 30 W. Peak envelope power 120 W, when the carrier of the transmission is attenuated by at least 6 dB. The 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 are exempt from licensing, see regulation Ficora 15. Radiated power max. 100 mW EIRP. Standard EN 300 440-1. SRD recommendation ERC/REC/70-03. 244 - 246 GHz ISM (RR 5.138).
248 - 250 GHz AMATEUR AND AMATEUR-SATELLITE	248 - 250 GHz (2 GHz) Amateur and amateur-Satellite		Regulation Ficora 6. User certificate required. The transmitter power in the novice class max. 30 W. Peak envelope power 120 W, when the carrier of the transmission is attenuated by at least 6 dB. The 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	Radio Astronomy		

Frequency band Services in Finland	Sub-band (its width) and usage	Mode of traffic. Class of station and TX/RX-code Channel spacing, bandwidth. (Class of emission) Duplex separation and duplex band Standart type	Comments
250 - 252 GHz RADIO ASTRONOMY	250 - 252 GHz (2 GHz) Radio Astronomy		All emissions prohibited (RR 5.340).
EARTH EXPLORATION-SATELLITE (PASSIVE)	Earth exploration satellite		
SPACE RESEARCH (PASSIVE)	Space research		
252 - 265 GHz RADIO ASTRONOMY	252 - 265 GHz (13 GHz) Radio Astronomy		
FIXED	Fixed		
MOBILE	Mobile radio		
MOBILE-SATELLITE (EARTH-TO-SPACE)	Mobile satellite		
RADIONAVIGATION	Radionavigation		
RADIONAVIGATION-SATELLITE	Radionavigation satellite		
265 - 275 GHz FIXED SATELLITE (EARTH-TO-SPACE)	265 - 275 GHz (10 GHz) Fixed satellite		
FIXED	Fixed		
MOBILE	Mobile radio		
RADIO ASTRONOMY	Radio Astronomy		
275 - 400 GHz (not allocated)	275 - 400 GHz (125 GHz) (not allocated)		