

Regulation

GOVERNING AMATEUR RADIO STATIONS AND THEIR USE

Issued in Helsinki on 4 November 2009

The Finnish Communications Regulatory Authority (FICORA) has, under section 26, paragraph 1, subparagraphs 4 and 5, of the Radio Act of 16 November 2001 (1015/2001), prescribed as follows:

General stipulations

Section 1

Scope of application

This Regulation contains provisions on the construction and use of amateur radio transmitters and on other special stipulations to be followed in the amateur radio traffic.

Section 2

Definitions

In this Regulation:

1. *amateur radio transmitter* means a radio transmitter which functions on a radio frequency assigned by the Finnish Communications Regulatory Authority to amateur radio traffic and which in the frequency range 26 MHz - 2450 MHz is able to function only in frequency bands assigned to amateur radio activities by the Radio Regulations complementing the Convention of the International Telecommunication Union^a or by a Regulation issued by the Finnish Communications Regulatory Authority,
2. *amateur radio station* means , a radio station that includes one or more amateur radio transmitters,

^a Brought into force by Decree 43/1986.

3. *amateur repeater station* means an amateur radio station intended to be used for automatic forwarding of amateur radio transmissions without direct supervision by the holder of the licence for the station,
4. *peak envelope power (pX)* means the average power supplied to the antenna transmission line by a transmitter during one radio frequency cycle at the crest of the modulation envelope taken under normal conditions,
5. *carrier power (pZ)* means the average power supplied to the antenna transmission line by a transmitter during one radio frequency cycle taken under the condition of no modulation,
6. *unwanted emissions* means emissions, which are outside the frequency used for the transmission and the level of which may be reduced without affecting the transmission of information.

Licence and call sign

Section 3

Licence holder

An amateur radio station licence will, in accordance with section 10 of the Radio Act, be granted a natural person with a radio amateur's certificate, referred to in section 15, paragraph 1 of the Radio Act for the use of an amateur radio transmitter, or a legal person with the aim to pursue radio amateur activities and the supervisor of whose station holds such a certificate^b.

Section 4

Special licence for an amateur radio station

For the possession and use of the following radio transmitters, a special licence for an amateur radio station is required:

- a) an amateur repeater station without direct supervision of the licence holder and
- b) an amateur radio station operating without direct supervision of a radio amateur.

^b Amateur radio certificate

Section 5

Amateur radio station's call sign

As call sign of an amateur radio station, the call sign assigned in the radio licence must be used, unless paragraphs 2-5 define otherwise. The call sign must be transmitted at the beginning and at least once every 10 minutes during the communication. The transmission must be made in a way that can be received universally.

If the number after the Finnish prefix in the call sign of a Finnish amateur radio station licence is zero (0), in other parts of Finland than the Province of Åland, a stroke and a number from 1 to 9 must be suffixed after the call sign.

If the number after the Finnish prefix in the call sign of a Finnish amateur radio station licence is other than zero (0) in the Province of Åland the call sign prefix OH0/ or alternatively a stroke and number zero (0) must be suffixed after the call sign.

In front of another amateur radio call sign than a Finnish one, the letters OH and a stroke (OH/) in other parts of Finland than the Province of Åland or in the Province of Åland OH, zero and a stroke (OH0/) must be prefixed to the national call sign.

In addition to what is defined about call signs in paragraphs 1-4, it is allowed to add an auxiliary sign or signs separated by a stroke (/) after the call sign.

Use of an amateur radio transmitter

Section 6

Emission quality

In the amateur service, it is not allowed to use unnecessary strong transmitter power or bandwidth.

Section 7

Prohibition of encryption

Amateur radio communication may not be coded in the purpose of scrambling.

Section 8

Use of someone else's amateur radio station

In the use of someone else's amateur radio station it is not allowed to go beyond the rights of the competence class of the licence holder or those of the user's competence class. If the amateur radio station is used under direct supervision of the holder of the certificate for the station or the supervisor of a club radio station, it is, however, allowed to use the licence holder's or the station supervisor's privileges.

Section 9

Other traffic than amateur radio traffic

An amateur radio station may communicate with another station than an amateur radio station in immediate rescue of human life or in prevention of threatening emergency or in training in rescue operations led by the authorities.

Section 10

Forbidden amateur radio traffic

Radiocommunication with amateur stations of a foreign country is forbidden if the administration of the country concerned has notified that it objects to such radiocommunication.

Section 11

Equal and secondary rights

When operating in a frequency band for which the amateur radio service, according to table 1 in the Annex, has only secondary rights, the emissions of the amateur station must not cause harmful interference in other services operating within this frequency band on a primary basis.

When operating in a frequency band, which, according to table 1 in the Annex, has been allocated on equal basis for amateur radio service and other radio service, the transmissions of an amateur radio station must not cause

harmful interference in Finnish radio services operating within the same frequency band.

Section 12

Supervision of the amateur radio station of an association

At the amateur radio station of an association there must be a supervisor who supervises that the regulations concerning radiocommunications are followed in the amateur radio activities. The Finnish Communications Regulatory Authority must be informed of the name of the supervisor.

The supervisor of an amateur repeater station must cut off the transmission of the repeater station without delay, if he discovers that the repeater station is used against the stipulations on radiocommunications or the terms of the radio licence.

Section 13

Use of an amateur radio station on board a Finnish vessel

Permission must be obtained from the master of the ship for the use of an amateur radio station on board a Finnish vessel. The operation of the amateur radio station must be stopped immediately, if this is required either by the master of the ship, the shipping company, the maritime authority, the port authority or the Finnish Communications Regulatory Authority.

The operation of the amateur radio station must not cause interference in other radio communications of the ship, the emergency duty of the radio station on board or the operation of other radio equipment on board.

Section 14

Use of an amateur radio station on board a Finnish aircraft

An amateur radio station may be used on board a Finnish aircraft within the Finnish airspace, if the Civil Aviation Administration of Finland (CAA) has given its permission and the master of the aircraft his or her approval of the use of the amateur radio station.

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The operation of the amateur radio station must be stopped immediately, if either the master of the aircraft, the owner of the aircraft, the aviation authority or the Finnish Communications Regulatory Authority so requires.

It is forbidden to use transmitters, receivers, antennas and feeding cables belonging to the radio station of the aircraft for amateur radiocommunications.

The operation of the amateur radio station must not interfere with the normal service of the radio station of the aircraft or the operation of other equipment on board.

At the amateur radio station on board a Finnish aircraft, the frequencies below 30 MHz as mentioned in the Annex may be used. Of the frequencies above 30 MHz only those reserved for the amateur service with exclusive rights may be used.

Technical regulations

Section 15

Properties of an amateur radio transmitter

If the amateur radio transmitter is constructed in such a way that it is possible to exceed the maximum output power of the transmitter, the transmitter must be equipped with a meter enabling a reliable judgement of application of the output limit.

The level of spurious emissions of an amateur radio station must be as low as possible:

1) The attenuation of spurious emissions below 30 MHz must be at least 40 dB relative to the output power of the transmitter. The peak envelope power of spurious emissions (pX) must not exceed 10 mW.

2) The attenuation of spurious emissions on frequencies exceeding 30 MHz must be at least 60 dB relative to the output power of the transmitter. The peak envelope power of spurious emissions (pX) outside the frequency bands allocated to the amateur radio service must not exceed 25 μ W.

However, if the spurious emissions cause harmful interference in another radiocommunication services, the values mentioned in paragraph 2 must be attenuated by a further 20 dB.

The emitted frequency must be as stable as possible.

If the field strength towards interfered radio equipment, telecommunication terminals, electrical equipment or telecommunication networks, caused by an

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amateur radio station, exceeds the given value this kind of equipment should be capable of handling, it has been described in section 33 of the Act on Radio Frequencies and Telecommunication Equipment, how to eliminate or limit this interference.

Section 16

Properties of an amateur repeater station

The transmitter of an amateur repeater station must be constructed in such a way that only a starting signal can switch on this transmitter.

The remote-control system of an amateur repeater station must be such that only the supervisor of the repeater station can control the station.

Entry into force, transition provisions and information

Section 17

Entry into force

This Regulation enters into force on 4 November 2009 and remain valid until further notice.

This Regulation sets aside the Regulation bearing the same title and issued by the Finnish Communications Regulatory Authority on 21 December 2001 (FICORA 6F/2001 M).

Section 18

Information and publication

This Regulation is included in the Series of Regulations issued by the Finnish Communications Regulatory Authority and it can be obtained from the Customer Service Office of FICORA:

Visiting address	Itämerenkatu 3 A, HELSINKI
Postal address	PO Box 313 FIN-00181 HELSINKI
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Helsinki 4 November 2009

On behalf of Director-General

Director General

Jorma Koivunmaa
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ANNEX 1**FREQUENCY BANDS AND MAXIMUM TRANSMITTED POWERS ALLOWED IN THE AMATEUR RADIO SERVICE**

The terms of an amateur radio station licence may contain exceptions as to the provisions of this Table.

The Finnish Communications Regulatory Authority may, for justified reasons, entitle a radio amateur holding a general class certificate to use higher powers than those mentioned in the Table, when experimenting.

The reception of radio amateur traffic is also allowed on other radio frequencies than those allocated in this Table.

Abbreviations used in the Table:

sat=	Amateur-satellite communication also
status=	The status of the amateur service in relation to other radio communication in the frequency band used
pex=	Exclusive primary allocation, only amateur communication in this band
pri=	On equal primary basis together with other radio communication
sec=	On a secondary basis; amateur radio communication may not cause interference or claim protection against interference

Notes:

- 1) The numerical value means the peak envelope power when the carrier of the transmission is attenuated by at least 6 dB. In other cases the numerical value means the carrier power.^c
- 2) Peak envelope power 60 W, if the carrier of the transmission is attenuated by at least 6 dB. ^c
- 3) Subject to not causing harmful interference to other communication operating within this frequency band.
- 4) Peak envelope power 200 W, if the carrier of the transmission is attenuated by at least 6 dB.
- 5) In the frequency band 50.0 - 52.0 MHz it is allowed to use radio transmitters in the amateur radio communication, observing the following restrictions:

^c In Annex 7 of the Decree 294/2002, issued by the Ministry of Social Affairs and Health on the limitation of public exposure to non-ionized radiation, limiting maximum values for electric and magnetic field strengths (effective value) and their equivalent power density values not to be exceeded have been defined, concerning surroundings where transmitting antennas are situated in places people stay.

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It is forbidden to use amateur radio transmitters inside the area of Niirala, Suoniemi, Pykälävaara, Tervavaara, Lusikkavaara and Ahvenvaara and the Border of Finland.

- 6) Peak envelope power 120 W, if the carrier of the transmission is attenuated by at least 6 dB.
- 7) Peak envelope power 600 W, if the carrier of the transmission is attenuated by at least 6 dB.
- 8) The transmission of the amateur radio station must be kept within the frequency band in use in all operating conditions. The bandwidth of the transmission must not be unnecessary wide.
- 9) In the bands 435 - 438 MHz, 1260 - 1270 MHz, 2400 - 2450 MHz and 5650 - 5670 MHz, the amateur-satellite communication may operate subject to not causing harmful interference to other communication.

The bands 1260 - 1270 MHz and 5650 - 5670 MHz are allocated to the amateur communication and the amateur-satellite communication, limited to the Earth-to-space direction, on a secondary basis.

The band 5830 - 5850 MHz is allocated to the amateur communication and the amateur-satellite communication (satellite-to-Earth) on a secondary basis.

- 10) 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.
- 11) In the frequency band 70.000 - 70.175 MHz and 70.225 - 70.300 MHz it is allowed to use radio transmitters in the amateur radio communication, observing the following restrictions:
 - a) It is forbidden to use amateur radio transmitters in the following counties: Lieksa, Ilomantsi, Joensuu, Kontiolahhti, Polvijärvi, Juuka, Nurmes, Valtimo, Kuhmo, Hyrynsalmi, Suomussalmi, Ristijärvi and Sotkamo
 - b) In an area closer than 50 km from the borders of the Russian Federation and Finland the main lobe of the transmitting antenna may not point into directions between 0 degrees and 180 degrees and the maximum allowed transmitting power is 25 W.
 - c) In an area closer than 50 km from the borders of Norway and Finland the maximum allowed transmitting power is 25 W.

TABLE Frequency bands and maximum powers permitted in the amateur radio communication

Frequency band	Status	Max. band-width allowed	Max. power of transmitter allowed		sat	Notes
			Novice class	General class		
135.7 - 137.8 kHz	sec		1 W _{EIRP} ¹⁾	1 W _{EIRP} ¹⁾		In this band power is measured as radiated power
1810 - 1850 kHz	pri	8 kHz	120 W ¹⁾	1500 W ^{1) 11)}		
1850 - 1855 kHz	pri	8 kHz	15 W ²⁾	15 W ²⁾		3)
1861 - 1906 kHz	pri	8 kHz	15 W ²⁾	15 W ²⁾		3)
1912 - 2000 kHz	pri	8 kHz	15 W ²⁾	15 W ²⁾		3)
3500 - 3800 kHz	pri	8 kHz	120 W ¹⁾	1500 W ^{1) 11)}		
7000 - 7100 kHz	pex	8 kHz	120 W ¹⁾	1500 W ^{1) 11)}	sat	
7100 - 7200 kHz	sec	8 kHz	120 W ¹⁾	250 W ¹⁾		
10100 - 10150 kHz	sec	1 kHz	120 W ¹⁾	1500 W ^{1) 11)}		
14000 - 14250 kHz	pex	8 kHz	120 W ¹⁾	1500 W ^{1) 11)}	sat	
14250 - 14350 kHz	pex	8 kHz	120 W ¹⁾	1500 W ^{1) 11)}		
18068 - 18168 kHz	pex	8 kHz	120 W ¹⁾	1500 W ^{1) 11)}	sat	
21000 - 21450 kHz	pex	8 kHz	120 W ¹⁾	1500 W ^{1) 11)}	sat	
24890 - 24990 kHz	pex	8 kHz	120 W ¹⁾	1500 W ^{1) 11)}	sat	
28000 - 29700 kHz	pex	8 kHz	120 W ¹⁾	1500 W ^{1) 11)}	sat	

TABLE (cont'd) Frequency bands and maximum powers permitted in the amateur radio communication

Frequency band	Status	Max. band-width allowed	Max. power of transmitter allowed		sat	Notes
			Novice class	General class		
50.0 - 52.0 MHz	sec	18 kHz	30 W ⁶⁾	150 W ⁴⁾		^{3) 5)} Broadcasting services on a primary basis. Restrictions in use.
70,000 - 70,050 MHz	sec	1 kHz	25 W ¹⁾	25 W ¹⁾		¹¹⁾ Regional restrictions
70,050 - 70,175 MHz	sec	18 kHz	30 W ¹⁾	100 W ¹⁾		¹¹⁾ Regional restrictions
70,225 - 70,250 MHz	sec	18 kHz	30 W ¹⁾	100 W ¹⁾		¹¹⁾ Regional restrictions
70,250 - 70,300 MHz	sec	18 kHz	25 W ¹⁾	25 W ¹⁾		¹¹⁾ Regional restrictions
144 - 146 MHz	pex	18 kHz	30 W ⁶⁾	150 W ^{7) 10)}	sat	
432 - 435 MHz	pri	⁸⁾	30 W ⁶⁾	150 W ^{7) 10)}		
435 - 438 MHz	pri	⁸⁾	30 W ⁶⁾	150 W ⁷⁾	sat	⁹⁾
1240 - 1260 MHz	sec	⁸⁾	30 W ⁶⁾	150 W ⁷⁾		
1260 - 1270 MHz	sec	⁸⁾	30 W ⁶⁾	150 W ⁷⁾	sat	⁹⁾
1270 - 1300 MHz	sec	⁸⁾	30 W ⁶⁾	150 W ⁷⁾		
2300 - 2400 MHz	sec	⁸⁾	30 W ⁶⁾	150 W ⁷⁾	sat	⁹⁾
2400 - 2450 MHz	sec	⁸⁾	30 W ⁶⁾	150 W ⁷⁾		
3400 - 3408 MHz	sec	⁸⁾	30 W ⁶⁾	150 W ⁷⁾		
5650 - 5670 MHz	sec	⁸⁾	30 W ⁶⁾	150 W ⁷⁾	sat	⁹⁾
5670 - 5725 MHz	sec	⁸⁾	30 W ⁶⁾	150 W ⁷⁾		
5725 - 5830 MHz	sec	⁸⁾	30 W ⁶⁾	150 W ⁷⁾		⁹⁾
5830 - 5850 MHz	sec	⁸⁾	30 W ⁶⁾	150 W ⁷⁾	sat	⁹⁾

TABLE (cont'd) Frequency bands and maximum powers permitted in the amateur radio communication

Frequency band	Status	Max. band-width allowed	Max. power of transmitter allowed		sat	Notes
			Novice class	General class		
10.00 - 10.28 GHz	sec	8)	30 W ⁶⁾	150 W ⁷⁾		
10.368 - 10.370 GHz	sec	8)	30 W ⁶⁾	150 W ⁷⁾		
10.45 - 10.50 GHz	sec	8)	30 W ⁶⁾	150 W ⁷⁾	sat	
24.00 - 24.05 GHz	pri	8)	30 W ⁶⁾	150 W ⁷⁾	sat	
24.05 - 24.25 GHz	sec	8)	30 W ⁶⁾	150 W ⁷⁾		
47.00 - 47.20 GHz	pex	8)	30 W ⁶⁾	150 W ⁷⁾	sat	
76.00 - 77.50 GHz	sec	8)	30 W ⁶⁾	150 W ⁷⁾	sat	
77.50 - 78.00 GHz	pri	8)	30 W ⁶⁾	150 W ⁷⁾	sat	
78.00 - 81.00 GHz	sec	8)	30 W ⁶⁾	150 W ⁷⁾	sat	
81.00 - 81.50 GHz	sec	8)	30 W ⁶⁾	150 W ⁷⁾	sat	
122.25 - 123.00 GHz	sec	8)	30 W ⁶⁾	150 W ⁷⁾		
134.00 - 136.00 GHz	pri	8)	30 W ⁶⁾	150 W ⁷⁾	sat	
136.00 - 141.00 GHz	sec	8)	30 W ⁶⁾	150 W ⁷⁾	sat	
241.00 - 248.00 GHz	sec	8)	30 W ⁶⁾	150 W ⁷⁾	sat	
248.00 - 250.00 GHz	pri	8)	30 W ⁶⁾	150 W ⁷⁾	sat	
275.00 -1000.00 GHz		8)	30 W ⁶⁾	150 W ⁷⁾		By special permit only, no specification of frequency bands