Pursuant to Art. 96, para. 3 of the Law on Electronic Communications (*Official Gazette of RS*, no. 44/10) and Art. 12, para. 1, item 1) and Art. 16, para. 1, item 4) of the Statutes of the Republic Agency for Electronic Communications (*Official Gazette of RS*, no. 59/10),

the Managing Board of the Republic Agency for Electronic Communications in its session held on 19 February 2013, passed the following

RULEBOOK
on the manner of radio frequency usage under general authorization regime

Article 1

This Rulebook shall stipulate in detail the manner of radio frequency usage under general authorization regime, in line with the relevant international agreements and recommendations.

Article 2

Any applicant is entitled to use radio frequencies used under general authorization regime according to the allocation plan, provided that potential interferences are minimal or the radio frequency bands are coordinated or, in particular, if in line with the relevant international agreements and recommendations.

The applicant referred to in para. 1 herein shall be entitled to radio frequency usage under general authorization regime in the manner and under the terms and conditions stipulated in Annex 1 and Annex 2, which are printed herewith and are an integral part hereof.

Radio frequencies shall be used under general authorization regime in line with the allocation plan, i.e. the usage may not cause harmful interference to any radio service, nor seek protection from any radio service operating in line with the allocation plan.

The list of abbreviations used herein is provided in Annex 3, which is printed herewith and is an integral part hereof.

Article 3

Republic Agency for Electronic Communications (hereinafter: Agency) shall manage the registration of the entities entitled to use radio frequencies under general authorization regime in the manner and under the terms and conditions stipulated under Annex 2 (hereinafter: Right Holder).

The Agency shall publish on its website the information on the registered Right Holders and other information of importance for radio frequency usage under general authorization regime.

Article 4

The day this Rulebook enters into force, the Rulebook on classes of radio-stations for which radio-station licence is not required (*Official Gazette of RS*, no. 26/07) shall cease to be valid.

Article 5

This Rulebook shall enter into force on the eighth day following the publishing in the *Official Gazette of the Republic of Serbia*.

Ref. no.1-01-3400-3/13
Done in Belgrade, 19 February 2013

Chair of the
Managing Board

Prof. Dr. Jovan Radunović

ANNEX **1**

Annex 1 shall regulate the manner and terms and conditions of those radio frequency usages under general authorization regime where registration is not required provided that radio frequency usage is in line herewith.

1.1 Non-Specific Short Range Devices (SRD)

Table 1.1. covers frequency bands and regulatory as well as informative parameters for non-specific short range devices (SRD) used primarily for Telemetry, Telecommand, Alarms and other similar applications. Video applications should be preferably used above 2.4 GHz.

Table 1.1 Non-specific SRD

Frequency Band	Power/Magnetic Field (maximum value)	Special requirement and limit	Channel Spacing	ECC regulation ETSI standard	Notes
a 6765-6795 kHz	42 dBμA/m at 10 m	No limit	No spacing	ERC/REC/70-03 EN 300 330	The frequency band is also identified in Annex 1, item 1.9.
b 13.553-13.567 MHz	42 dBμA/m at 10 m	No limit	No spacing	ERC/REC/70-03 EN 300 330	The frequency band is also identified in Annex 1, item 1.9.
c 26.957-27.283 MHz	42 dBμA/m at 10 m 10 mW e.r.p.	No limit	No spacing	ERC/DEC/(01)02 ERC/REC/70-03 EN 300 220 EN 300 330	The frequency band is also identified in Annex 1, item 1.9.
d 40.660-40.700 MHz	10 mW e.r.p.	No limit	No spacing	ERC/DEC/(01)03 ERC/REC/70-03 EN 300 220	
e 138.20-138.45 MHz	10 mW e.r.p.	<1.0% DC (1)	No spacing	ERC/REC/70-03	
f 433.050-434.790 MHz	10 mW e.r.p.	<10% DC (1)	No spacing	ERC/REC/70-03 EN 300 220	
f1 433.050-434.790 MHz	1 mW e.r.p. -13dBm/10 kHz	No limit (except for analogue and digital voice	No spacing	ERC/REC/70-03 EN 300 220	Power density limited to -13 dBm/10 kHz for wideband modulation with a bandwidth greater than 250 kHz. Audio and video applications are not allowed.

		transmission)			Analogue and digital voice applications are allowed with a max. bandwidth ≤ 25 kHz and with spectrum access technique such as LBT or equivalent and shall include a power output sensor controlling the transmitter to a maximum transmit period of 1 minute for each transmission.
f2 434.040-434.790 MHz	10 mW e.r.p.	No limit (except for analogue and digital voice transmission)	Up to 25 kHz	ERC/REC/70-03 EN 300 220	Audio and video applications are not allowed. Analogue and digital voice applications are allowed with a max. bandwidth ≤ 25 kHz and with spectrum access technique such as LBT or equivalent and shall include a power output sensor controlling the transmitter to a maximum transmit period of 1 minute for each transmission.
g 863-870 MHz	≤ 25 mW e.r.p.	≤ 0.1% DC or LBT (1)	≤ 100 kHz for 47 or more channels	ERC/REC/70-03 EN 300 220	FHSS Audio and video applications are allowed provided that a digital modulation method is used with a max. bandwidth of 300 kHz. Sub-bands for alarms are excluded (see Annex 1, item 1.7). Duty cycle may be increased to 1% if the band is limited to 865-868 MHz. The preferred channel spacing is 100 kHz allowing for a subdivision into 50 kHz or 25 kHz.
	≤ 25 mW e.r.p. Power density: -4.5dBm/100 kHz	≤ 0.1% DC or LBT +AFA (1)	No spacing	EN 300 220	DSSS and other wideband techniques other than FHS. Audio and video applications are allowed provided that a digital modulation method is used with a max. bandwidth of 300 kHz. Sub-bands for alarms are excluded (see Annex 1, item 1.7). The power density can be increased to +6.2 dBm/100 kHz, if the band of operation is limited to 865-868 MHz and 865-870 MHz. Duty cycle may be increased to 1% if the band is limited to 865-868 MHz. For wide-band techniques, other than FHSS and DSSS, operating with a bandwidth of 200 kHz to 3 MHz, the duty cycle can be increased to 1% if the band is limited to 865-868 MHz and power to ≤10 mW e.r.p.
	≤ 25 mW e.r.p.	≤ 0.1% DC	≤ 100 kHz	EN 300 220	Narrow / wide-band modulation.

		or LBT+AFA (1)	for 1 or more channels modulation bandwidth ≤300 kHz		Audio and video applications are allowed provided that a digital modulation method is used with a max. bandwidth of 300 kHz. Sub-bands for alarms are excluded (see Annex 1, item 1.7). The preferred channel spacing is 100 kHz allowing for a subdivision into 50 kHz or 25 kHz. Duty cycle may be increased to 1% if the band is limited to 865-868 MHz.
g1 868.000-868.600 MHz	≤ 25 mW e.r.p.	<1% DC или LBT+AFA (1)	No spacing, for 1 or more channels	ERC/REC/70-03 EN 300 220	Narrow / wide-band modulation. No channel spacing, however the whole stated frequency band may be used. Audio and video applications are allowed provided that a digital modulation method is used with a max. bandwidth of 300 kHz. The preferred channel spacing is 100 kHz allowing for a subdivision into 50 kHz or 25 kHz.
g2 868.700-869.200 MHz	≤ 25 mW e.r.p.	<0.1% DC or LBT+AFA (1)	No spacing, for 1 or more channels	ERC/REC/70-03 EN 300 220	Narrow / wide-band modulation. No channel spacing, however the whole stated frequency band may be used. Audio and video applications are allowed provided that a digital modulation method is used with a max. bandwidth of 300 kHz. The preferred channel spacing is 100 kHz allowing for a subdivision into 50 kHz or 25 kHz.
g3 869.400-869.650 MHz	≤ 500 mW e.r.p.	<10% DC or LBT+AFA (1)	25 kHz for 1 or more channels	ERC/REC/70-03 EN 300 220	Narrow / wide-band modulation. No channel spacing, however the whole stated frequency band may be used as 1 channel for high speed data transmissions
g4 869.700-870.000 MHz	≤ 5 mW e.r.p. ≤ 25 mW e.r.p.	No limit <1% or LBT+AFA (1)	No spacing, for 1 or more channels	ERC/REC/70-03 EN 300 220	Narrow / wide-band modulation. No channel spacing, however the whole stated frequency band may be used. Audio and video applications are excluded. Voice applications (analogue or digital) are allowed with a maximum bandwidth of ≤ 25 kHz, and with spectrum access technique such as LBT or equivalent and shall include a power output sensor controlling the transmitter to a maximum transmit period of 1 minute for each

					transmission.
h 2400-2483.5 MHz	10 mW e.i.r.p.	No limit	No spacing	ERC/REC/70-03 EN 300 440	The frequency band is also identified in Annex 1, item 1.6. and Annex 2, item 2.1.
i 5725-5875 MHz	25 mW e.i.r.p.	No limit	No spacing	ERC/REC/70-03 EN 300 440	
j 24.00-24.25 GHz	100 mW e.i.r.p.	No limit	No spacing	ERC/REC/70-03 EN 300 440	The frequency band is also identified in Annex 1, item 1.6.
k 61.0-61.5 GHz	100 mW e.i.r.p.	No limit	No spacing	ERC/REC/70-03 EN 305 550	
l 122-123 GHz	100 mW e.i.r.p.	No limit	No spacing	ERC/REC/70-03 EN 305 550	

(1) Additional explanations regarding duty cycle (DC), Listen Before Talk (LBT) and Adaptive Frequency Agility (AFA): When either DC, LBT or equivalent technique applies then it shall not be user dependent/adjustable and shall be guaranteed by appropriate technical means. For LBT devces without AFA, or equivalent techniques, the DC limit applies.

For any type of frequency agile device the duty cycle limit applies to the total transmission unless LBT or equivalent technique is used.
LBT device with AFA may be used instead of DC.

1.2 Tracking, tracing and data acquisition short range devices

Table 1.2 covers frequency bands and regulatory as well as informative parameters recommended for short range devices used for: Detecting avalanche victims, Meter Reading and Asset Tracking and Tracing.

Table 1.2 Tracking, tracing and data acquisition

Frequency Band	Power/Magnetic Field	Special requirement	Channel Spacing	ECC regulation ETSI standard	Notes

	(maximum value)	and limit			
a 456.9-457.1 kHz	7dBμA/m at 10 m	No limit		ERC/REC/70-03 EN 300 718	Detection of avalanche victims. Note: Centre frequency is 457 kHz. No modulation. Continuous Wave (CW).
b 169.4-169.475 MHz	500 mW e.i.r.p.	< 10% DC	Max 50 kHz	ERC/REC/70-03 ECC/DEC/(05)02 EN 300 220	Meter Reading.
c 169.4-169.475 MHz	500 mW e.i.r.p.	< 1% DC	Max 50 kHz	ERC/REC/70-03 ECC/DEC/(05)02 EN 300 220	Asset Tracking and Tracing.

1.3 Wideband data transmission systems

Table 1.3 covers frequency bands and regulatory as well as informative parameters recommended for Wideband Data Transmission Systems and Wireless Access Systems including Radio Local Area Networks (WAS/RLANs).

Table 1.3 Wideband Data Transmission Systems

Frequency Band	Power/Magnetic Field (maximum value)	Special requirement and limit	Channel Spacing	ECC regulation ETSI standard	Notes
a 5150-5350 MHz	200 mW max mean e.i.r.p. The maximum e.i.r.p. density is limited to 10 mW/MHz	Indoor		ECC/DEC/(04)08 EN 301 893	Mean e.i.r.p. refers to e.i.r.p range during the transmission burst. For frequencies above 5250 MHz DFS and TPC are mandatory. If there is no TPC. maximum mean e.i.r.p. and maximum e.i.r.p. density are reduced by 3 dB.
b 17.1-17.3 GHz	100 mW e.i.r.p.				Only for devices placed in the market or into operation prior to entry into force hereof.

c57-66 GHz	40 dBm max mean e.i.r.p. The maximum mean e.i.r.p density is limited to 13 dBm/MHz.	Adequate spectrum sharing mechanism (e.g. Listen-before Talk, Detect And-Avoid) shall be implemented by the equipment.		ERC/REC/70-03 EN 302 567	Mean e.i.r.p. refers to e.i.r.p range during the transmission burst. Fixed outdoor installations are not allowed.

1.4. Railway applications

Table 1.3 covers frequency bands and regulatory as well as informative parameters recommended for short range devices intended for use on railways.

Table 1.4 Railway applications

Frequency Band	Power/Magnetic Field (maximum value)	Special requirement and limit	Channel Spacing	ECC regulation ETSI standard	Notes
a 27.090 –27.100 MHz	42 dBμA/m at 10 m	No limit	No spacing	ERC/REC/70-03 EN 302 608	Tele-powering и down-link signal for Balise/ Eurobalise. May also be optionally used for the activation of the Loop/Euroloop. Centre frequency is 27.095 MHz.
b 4234 kHz	9 dBμA/m at 10 m	< 1% DC	No spacing	ERC/REC/70-03 EN 302 608	Balise up-link (ground - train) system includes Eurobalise Transmitting only on receipt of a Balise / Eurobalise telepowering signal from a train. Centre frequency is 4234 kHz. Eurobalise transmission mask 984-7484 kHz (-23dB).
c 11.1-16.0 MHz	-7 dBμA/m на 10 m	No limit	No spacing	ERC/REC/70-03 EN 302 609	Loop up/link (ground-train) systems include Euroloop. Transmitting only in presence of trains. Centre frequency is13.547 MHz. Euroloop transmission mask 7.3-23.0 MHz (-23dBc).

d 76-77GHz	55dBm peak e.i.r.p.	No limit	No spacing	ERC/REC/70-03 EN 301 091	Obstruction/Vehicle detection via radar Sensor at railway level crossings. 50 dBm average power or 23.5 dBm average power for pulse radar. The frequency band is also included in Annex 1, item 1.5.
e 2446-2454 MHz	500 mW e.i.r.p.	No limit		EN 300 761	Automatic identification system of railway vehicles. Transmitting only in presence of trains. 5 channels, each 1.5 MHz wide, within 2446-2454 MHz band.

1.5 Road transport and traffic telematics - RTTT/ITS

Table 1.5 covers frequency bands and regulatory as well as informative parameters recommended for short range devices used for Road Transport and Traffic Telematics (RTTT) including all types of communications between vehicles (e.g. car-to-car), and between vehicles and fixed locations (e.g. car-to-infrastructure) as well as radar system installations to be used in ground based vehicles.

Table 1.5 RTTT/ITS

Frequency Band	Power/Magnetic Field (maximum value)	Special requirement and limit	Channel Spacing	ECC regulation ETSI standard	Notes
a 5795-5805 MHz	2W e.i.r.p. 8 W e.i.r.p.	No limit		ERC/ REC/70-03 EN 300 674	
b 5805-5815 MHz	2W e.i.r.p. 8 W e.i.r.p.	No limit		ERC/ REC/70-03 EN 300 674	
c 76-77 GHz	55 dBm peak e.i.r.p.	No limit	No spacing	ERC/REC/70-03 EN 301 091	For vehicle radars 50 dBm average power or 23.5 dBm average power for pulse radar only.
d1 21.65-26.65 GHz	*	*	*	ERC/REC/70-03 ECC/DEC/(04)10 EN 302 288	For automotive Short Range Radars (SRR). * See detailed requirements in related ECC Decision. New SRR equipment may only be placed onto the market until 1 July 2013

d2 24.25-26.65 GHz	*	*	*	ERC/REC/70-03 ECC/DEC/(04)10 EN 302 288	For automotive Short Range Radars (SRR). * See detailed requirements in related ECC Decision. SRR equipment may only be placed onto the market until 1 January 2018.
e 77-81 GHz	*	*	*	ERC/REC/70-03 ECC/DEC/(04)03 EN 302 264	For automotive Short Range Radars (SRR) * See detailed requirements in related ECC Decision.
f1 24.050-24.075 GHz	100 mW e.i.r.p.	No limit		ERC/ REC/70-03EN302 858	For vehicle radars
f2 24.075-24.150 GHz	0.1 mW e.i.r.p.	No limit		ERC/ REC/70-03 EN302 858	For vehicle radars
	100 mW e.i.r.p.	≤4μs/40kHz dwell time every 3ms		ERC/ REC/70-03 EN 302 858	For vehicle radars The spectrum access and mitigation requirement is given for devices mounted behind a bumper. If mounted without a bumper, the requirement should be 3μs/40kHz maximum dwell time every 3ms. A requirement for minimum frequency modulation range (applicable to FMCW or step frequency signals) or minimum instantaneous bandwidth (applicable to pulsed signal) of 250 kHz applies in addition to the requirement on maximum dwell time
		≤1ms/40kHz dwell time every 40ms		ERC/ REC/70-03 EN302 858	For automotive radars A requirement for minimum frequency modulation range (applicable to FMCW or step frequency signals) or minimum instantaneous bandwidth (applicable to pulsed signal) of 250 kHz applies in addition to the requirement on maximum dwell time
f3 24.150-24.250 GHz	100 mW e.i.r.p.	No limit		ERC/ REC/70-03 EN302 858	For automotive radars
g 63-64 GHz	40 dBm e.i.r.p.			ECC/DEC/(09)01 EN 302 686	ITS
h 5855-5875 MHz	33 dBm e.i.r.p.			ECC/REC/(08)01 EN 302 571	ITS Maximum spectral power density 23

					dBm/ MHz e.i.r.p. with a TPC range of 30 dB.
i 5875-5925 MHz	33 dBm e.i.r.p.			ECC/DEC/(08)01 EN 302 571	ITS Maximum spectral power density 23 dBm/ MHz e.i.r.p. with a TPC range of 30 dB.

1.6 Radiodetermination applications

Table 1.6 covers frequency bands and regulatory as well as informative parameters recommended for SRD radiodetermination applications including Equipment for Detecting Movement and Alert. Radiodetermination is defined as the determination of the position, velocity and/or other characteristics of an object, or the obtaining of information relating to these parameters, by means of the propagation properties of radio waves.

Table 1.6 Radiodetermination applications

Frequency Band	Power/Magnetic Field (maximum value)	Special requirement and limit	Channel Spacing	ECC regulation ETSI standard	Notes
a 2400-2483.5 MHz	25 mW e.i.r.p.	No limit	No spacing	ERC/REC/70-03 ERC/DEC/(01)08 EN 300 440	
b 9200-9500 MHz	25 mW e.i.r.p.	No limit	No spacing	ERC/REC/70-03 EN 300 440	
c 9500-9975 MHz	25 mW e.i.r.p.	No limit	No spacing	ERC/REC/70-03 EN 300 440	
d 10.5-10.6 GHz	500 mW e.i.r.p.	No limit	No spacing	ERC/REC/70-03 EN 300 440	
e 13.4-14.0 GHz	25 mW e.i.r.p.	No limit	No spacing	ERC/REC/70-03 EN 300 440	
f 24.05-24.25 GHz	100 mW e.i.r.p.	No limit	No spacing	ERC/REC/70-03 EN 300 440	The frequency band is identified with the same emission parameters in Annex 1, item 1.1.
g 4.5-7.0 GHz	-41.3 dBm/MHz e.i.r.p (outside the	No limit	No spacing	ERC/REC/70-03 EN 302 372	For Tank Level Probing Radar (TLPR)

	enclosed test tank structure)				
h 8.5-10.6 GHz	-41.3 dBm/MHz e.i.r.p. (outside the enclosed test tank structure)	No limit	No spacing	ERC/REC/70-03 EN 302 372	For Tank Level Probing Radar (TLPR)
i 24.05-27.00 GHz	-41.3 dBm/MHz e.i.r.p. (outside the enclosed test tank structure)	No limit	No spacing	ERC/REC/70-03 EN 302 372	For Tank Level Probing Radar (TLPR)
j 57-64 GHz	-41.3 dBm/MHz e.i.r.p. (outside the enclosed test tank structure)	No limit	No spacing	ERC/REC/70-03 EN 302 372	For Tank Level Probing Radar (TLPR)
k 75-85 GHz	-41.3 dBm/MHz e.i.r.p. (outside the enclosed test tank structure)	No limit	No spacing	ERC/REC/70-03 EN 302 372	For Tank Level Probing Radar (TLPR)
l 6.0-8.5 GHz	*	*	*	ERC/REC/70-03 ECC/DEC/(11)02 EN 302 729	For Industrial Level Probing Radar (LPR) *See detailed requirements in related ECC Decision
m 24.05-26.5 GHz	*	*	*	ERC/REC/70-03 ECC/DEC/(11)02 EN 302 729	For Industrial Level Probing Radar (LPR) *See detailed requirements in related ECC Decision
n 57-64 GHz	*	*	*	ERC/REC/70-03 ECC/DEC/(11)02 EN 302 729	For Industrial Level Probing Radar (LPR) *See detailed requirements in related ECC Decision
o 75-85 GHz	*	*	*	ERC/REC/70-03 ECC/DEC/(11)02 EN 302 729	For Industrial Level Probing Radar (LPR) *See detailed requirements in related ECC Decision

1.7 Alarms

Table 1.7 covers frequency bands and regulatory as well as informative parameters recommended for short range devices intended exclusively for alarm systems including social alarms (e.g. to help the elderly and the disabled) and alarms for security and safety.

Table 1.7 Alarms

Frequency Band	Power/Magnetic Field (maximum value)	Special requirement and limit	Channel Spacing	ECC regulation ETSI standard	Notes
a 868.6-868.7 MHz	10 mW e.r.p.	<1.0% DC	25 kHz	ERC/REC/70-03 EN 300 220	The whole frequency band may also be used as 1 channel for high speed data transmissions
b 869.25-869.30 MHz	10 mW e.r.p.	<0.1% DC	25 kHz	ERC/REC/70-03 EN 300 220	
c 869.65-869.70 MHz	25 mW e.r.p.	<10% DC	25 kHz	ERC/REC/70-03 EN 300 220	
d 869.20-869.25 MHz	10 mW e.r.p.	<0.1% DC	25 kHz	ERC/REC/70-03 EN 300 220	Social alarms
e 869.3-869.4 MHz	10 mW e.r.p.	<1% DC	25 kHz	ERC/REC/70-03 EN 300 220	
f 169.4750-169.4875 MHz	10 mW e.r.p.	<0.1% DC	12.5 kHz	ERC/REC/70-03 ECC/DEC/(05)02 EN 300 220	Social alarms (exclusive use)
g 169.5875-169.6000 MHz	10 mW e.r.p.	<0.1% DC	12.5 kHz	ERC/REC/70-03 ECC/DEC/(05)02 EN 300 220	Social alarms (exclusive use)

1.8 Model control

Table 1.8 covers frequency bands and regulatory as well as informative parameters recommended for the application of model control short range devices, which is solely for the purpose of controlling the movement of the model, in the air, on land or over or under the water surface. It should be noted that the bands are not exclusive for this type of application.

Table 1.8 Model control

Frequency Band	Power/Magnetic Field	Special requirement	Channel Spacing	ECC regulation ETSI standard	Notes

	(maximum value)	and limit			
a 26.995, 27.045, 27.095, 27.145, 27.195 MHz	100 mW e.r.p.	No limit	10 kHz	ERC/REC/70-03 EN 300 220	
b 34.995 - 35.225 MHz	100 mW e.r.p.	No limit	10 kHz	ERC/REC/70-03 ERC/DEC/(01)11 EN 300 220	Only for flying models.
c 40.665, 40.675, 40.685, 40.695MHz	100 mW e.r.p.	No limit	10 kHz	ERC/REC/70-03 ERC/DEC/(01)12 EN 300 220	

1.9 Inductive applications

Table 1.9 covers frequency bands and regulatory as well as informative parameters recommended for short range device intended for inductive applications include for example car immobilisers, animal identification, alarm systems, cable detection, waste management, personal identification, wireless voice links, access control, data transfer to handheld devices, automatic article identification, wireless control systems, automatic road tolling and anti-theft systems including RF anti-theft induction systems. It should be noted that other types of anti-theft systems can be operated in accordance with other relevant tables in this annex.

Table 1.9 Inductive applications

Frequency Band	Power/Magnetic Field (maximum value)	Special requirement and limit	Channel Spacing	ECC regulation ETSI standard	Notes
a1 9 – 90 kHz	72 dBμA/m at 10 m	No limit	No spacing	ERC/REC/70-03 EN 300 330	In case of external antennas only loop coil antennas may be employed. Field strength level descending 3 dB/oct at 30 kHz
a2 90-119 kHz	42 dBμA/m at 10 m	No limit	No spacing	ERC/REC/70-03 EN 300 330	In case of external antennas only loop coil antennas may be employed
a3 119-135 kHz	66 dBμA/m at 10 m	No limit	No spacing	ERC/REC/70-03 EN 300 330	In case of external antennas only loop coil antennas may be employed. Field strength level descending 3 dB/oct at 119 kHz
b 135-140.0 kHz	42 dBμA/m at 10 m	No limit	No spacing	ERC/REC/70-03 EN 300 330	In case of external antennas only loop coil antennas may be employed
c 140.0-148.5 kHz	37.7 dBμA/m at 10m	No limit	No spacing	ERC/REC/70-03 EN 300 330	In case of external antennas only loop coil antennas may be employed
d 6765-6795 kHz	42 dBμA/m at 10 m	No limit	No spacing	ERC/REC/70-03 EN 300 330	

e 7400-8800 kHz	9 dBμA/m at 10 m	No limit	No spacing	ERC/REC/70-03 EN 300 330	
f 13.553-13.567 MHz	42 dBμA/m at 10 m	No limit	No spacing	ERC/REC/70-03 EN 300 330 EN 302 291	
f1 13.553-13.567 MHz	60 dBμA/m at 10 m	No limit	No spacing	ERC/REC/70-03 EN 300 330	For RFID and EAS only
g 26.957- 27.283 MHz	42 dBμA/m at 10 m	No limit	No spacing	ERC/REC/70-03 EN 300 330	
h 10.200-11.000 MHz	9 dBμA/m at 10 m	No limit	No spacing	ERC/REC/70-03 EN 300 330	
k 3155-3400 kHz	13.5 dBμA/m at 10 m	No limit	No spacing	ERC/REC/70-03 EN 300 330	In case of external antennas only loop coil antennas may be employed
11 148.5 kHz – 5 MHz	-15 dBμA/m at 10 m	No limit	No spacing	ERC/REC/70-03 EN 300 330	In case of external antennas only loop coil antennas may be employed. The maximum field strength is specified in a bandwidth of 10 kHz. The maximum allowed total field strength is -5 dBμA/m at 10 m for systems operating at bandwidths larger than 10 kHz whilst keeping the density limit (-15 dBμA/m in a bandwidth of 10 kHz).
12 5 - 30 MHz	-20 dBμA/m at 10 m	No limit	No spacing	ERC/REC/70-03 EN 300 330	In case of external antennas only loop coil antennas may be employed. The maximum field strength is specified in a bandwidth of 10 kHz. The maximum allowed total field strength is -5 dBμA/m at 10 m for systems operating at bandwidths larger than 10 kHz whilst keeping the density limit (-20 dBμA/m in a bandwidth of 10 kHz).
13 400-600 kHz	-8 dBμA/m at 10 m	No limit	No spacing	ERC/REC/70-03 EN 300 330	For RFID only. In case of external antennas only loop coil antennas may be employed. The maximum field strength is specified in a bandwidth of 10 kHz. The maximum allowed total field strength is -5dBμA/m at 10 m for systems operating at bandwidths larger than 10 kHz

					measured at the centre frequency whilst keeping the density limit (-8dBμA/m in a bandwidth of 10 kHz.) These systems should operate with a minimum operating bandwidth of 30 kHz.

1.10 Radio microphone applications including aids for the hearing impaired

Table 1.10 covers frequency bands and regulatory as well as informative parameters recommended for radio microphone applications (also referred to as wireless microphones or cordless microphones) including aids for the hearing impaired (also referred to as assistive listening devices). Radio microphones are small, low power (typically 50 mW or less) transmitters, designed to be worn on body or hand held, for the transmission of sound. The receivers are more tailored to specific uses and may range from small and portable to rack mounted modules as part of a multichannel system. This annex covers professional and consumer radio microphones, both hand-held and body-worn, and aids for the hearing impaired.

Table 1.10 Radio microphone applications including aids for the hearing impaired

Frequency Band	Power/Magnetic Field (maximum value)	Special requirement and limit	Channel Spacing	ECC regulation ETSI standard	Notes
a 29.7-47.0 MHz	10 mW e.r.p.	No limit	50 kHz	ERC/REC/70-03 EN 300 422	The frequency bands 30.3-30.5 MHz, 32.15-32.45 MHz and 41.015-47.00 MHz are harmonised military bands
b 173.965-74.015MHz	2 mW e.r.p.	No limit	50 kHz	ERC/REC/70-03 EN 300 422	Aids for the hearing impaired
c 863-865 MHz	10 mW e.r.p.	No limit	No spacing	ERC/REC/70-03 EN 300 422 EN 301 357	
d 174-216 MHz	50 mW e.r.p.	No limit	No spacing	ERC/REC/70-03 EN 300 422	
e 470-862 MHz	50 mW e.r.p.	No limit	No spacing	EN 300 422	
f 1785-1795 MHz	20 mW e.i.r.p. 50 mW e.i.r.p.	No limit	No spacing	ERC/REC/70-03 EN 300 422 EN 301 840	50 mW restricted to body worn microphones
g 1795-1800 MHz	20 mW e.i.r.p. 50 mW e.i.r.p.	No limit	No spacing	ERC/REC/70-03 EN 300 422 EN 301 840	50 mW restricted to body worn microphones
h1 169.4-169.475	10 mW e.r.p.	No limit	Max	ERC/REC/70-03	Aids for the hearing impaired

MHz			50 kHz	ECC/DEC/(05)02 EN 300 422	
h2 169.4875- 169.5875 MHz	10 mW e.r.p.	No limit	Max 50 kHz	ERC/REC/70-03 ECC/DEC/(05)02 EN 300 422	Aids for the hearing impaired
i 169.4-174.0 MHz	10 mW e.r.p.	No limit	Max 50 kHz	ERC/REC/70-03 EN 300 422	Aids for the hearing impaired

1.11 Radio frequency identification applications

Table 1.11 covers frequency bands and regulatory as well as informative parameters recommended for radio frequency identification (RFID) applications including for example automatic article identification, asset tracking, alarm systems, waste management, personal identification, access control, data transfer to handheld devices and wireless control systems, anti-theft systems, location systems. It should be noted that other types of RFID systems can be operated in accordance with other relevant tables in this annex.

Table 1.11 RFID

Frequency Band	Power/Magnetic Field (maximum value)	Special requirement and limit	Channel Spacing	ECC regulation ETSI standard	Notes
a1 2446-2454 MHz	500 mW e.i.r.p.	No limit	No spacing	ERC/REC/70-03 EN 300 440 EN 300 761	FHSS or CW - no modulation
a2 2446-2454 MHz	4W e.i.r.p.	≤15% DC	No spacing	ERC/REC/70-03 EN 300 440	FHSS Power levels above 500 mW are restricted to be used inside the boundaries of a building and the DC of all transmissions shall in this case be ≤15 % in any 200 ms period
b1 865-865.6 MHz	100 mW e.r.p.	No limit	200 kHz	ERC/REC/70-03 EN 302 208	
b2 865.6-867.6MHz	2 W e.r.p.	No limit	200 kHz	ERC/REC/70-03 EN 302 208	
b3 867.-868MHz	500 mW e.r.p.	No limit	200 kHz	ERC/REC/70-03 EN 302 208	

1.12 Active medical implants – wireless medical applications

Table 1.12 covers frequency bands and regulatory as well as informative parameters recommended for Active Medical Implants and their associated peripherals.

Table 1.12 Active medical implants – wireless medical applications

Frequency Band	Power/Magnetic Field (maximum value)	Special requirement and limit	Channel Spacing	ECC regulation ETSI standard	Notes
a 9-315 kHz	30 dBμA/m at 10 m	<10% DC	No spacing	ERC/REC/70-03 EN 302 195	Ultra Low Power Active Medical Implant systems
b 315-600 kHz	-5 dBμA/m at 10 m	<10%DC	No spacing	ERC/REC/70-03 EN 302 536	For animal implantable devices.
c 30-37.5 MHz	1 mW e.r.p.	<10%DC	No spacing	ERC/REC/70-03 EN 302 510	The application is for Ultra Low Power medical membrane implants for blood pressure measurements.
d 12.5-20.0 MHz	-7 dBμA/m at 10 m	<10%DC	No spacing	ERC/REC/70-03 EN 300 330	The application is for ULP active animal implantable devices (ULP-AID), limited to indoor only applications. The maximum field strength is specified in a bandwidth of 10 kHz. The transmission mask of ULP-AID is defined as follows: 3dB bandwidth 300 kHz 10dB bandwidth 800 kHz 20dB bandwidth 2 MHz.
e 402-405 MHz	25 μW e.r.p.	No limit	25 kHz Adjacent channels May be combined for increased bandwidth up to 300 kHz	ERC/DEC/(01)17 EN 301 839	For Low Power Active Medical Implants
f 401-402 MHz	25 μW e.r.p.	No limit	25 kHz Adjacent channels May be combined for increased bandwidth up to	ERC/DEC/(01)17 EN 302 537	For Low Power Active Medical Implants

			100 kHz		
g 405-406 MHz	25 μW e.r.p.	No limit	25 kHz Adjacent channels May be combined for increased channel spacing	ERC/DEC/(01)17 EN 302 537	For Low Power Active Medical Implants

1.13 Wireless audio applications

Table 1.13 covers frequency bands and regulatory as well as informative parameters recommended for applications for wireless audio systems including the following, cordless loudspeakers; cordless headphones; cordless headphones for portable use, for example portable CD, cassette or radio devices carried on a person; cordless headphones for use in a vehicle, for example for use with a radio or mobile telephone etc; in-ear monitoring, for use with concerts or other stage productions.

Table 13. Wireless audio applications

Frequency Band	Power/Magnetic Field (maximum value)	Special requirement and limit	Channel Spacing	ECC regulation ETSI standard	Notes
a 863-865 MHz	10 mW e.r.p.	No limit	No spacing	ERC/REC/70-03 EN 301 357	
b 864.8-865 MHz	10 mW e.r.p.	No limit	50 kHz	ERC/REC/70-03 EN 300 220	Narrow band analogue voice devices
c 1795-1800 MHz	20 mW e.i.r.p.	No limit	No spacing	ERC/REC/70-03 EN 301 357	
d 87.5-108 MHz	50 nW e.r.p.	No limit	200 kHz	ERC/REC/70-03 EN 301 357	

1.14 Short range devices used for ultra wideband technology (UWB)

Table 1.14 covers frequency bands and regulatory as well as informative parameters recommended for short range devices using ultra wideband technology (UWB) in under 10.6 GHz bands. Devices using UWB technology are deployed in: communications, measurement, location systems, monitoring and medical applications.
Table 1.14.1 covers maximum e.i.r.p. limits for UWB devices.
Table 1.14.2 covers maximum e.i.r.p. limits for UWB Ground- and Wall- Probing Radar applications (GPR/WPR).

Table 1.14.3 covers maximum e.i.r.p. limits for UWB BMA devices using.

Table 1.14 UWB devices

Frequency Band	Power/Magnetic Field	Special requirement and limit	Channel Spacing	ECC regulation ETSI standard	Notes
a 3.1 - 4.8 GHz 6 - 9 GHz	*	*	*	ECC/REC/70-03 ECC/DEC/(06)04 EN 302 065 EN 302 500-2	Generic UWB regulation Maximum e.i.r.p. for UWB devices are given in Table 1.14.1. *Detailed requirements are defined in relevant ECC recommendation. EN 302 500-2 applies only to 6 – 9 GHz band.
b 3.1 - 4.8 GHz 6 - 9 GHz	*	*	*	ECC/DEC/(06)08 EN 302 066	GPR/WPR Maximum e.i.r.p. for UWB GPR/WPR are given in Table 1.14.2 * Detailed requirements are defined in relevant ECC recommendation.
c 3.1 - 4.8 GHz 6 - 8 GHz	*	*	*	ECC/DEC/(07)01 EN 302 435-2	Building Material Analysis (BMA) devices Maximum e.i.r.p. for UWB BMA devices are given in Table 1.14.3 * Detailed requirements are defined in relevant ECC recommendation.

Table 1.14.1 Maximum e.i.r.p. for UWB devices

Frequency Band	Max mean e.i.r.p. spectral density	Max peak e.i.r.p. spectral density (measured at 50 MHz)	Notes
3.1- 3.4 GHz	-70 dBm/MHz	-36 dBm	A maximum mean e.i.r.p. density of – 41.3 dBm/MHz and a maximum peak e.i.r.p. of 0 dBm measured in 50 MHz shall be allowed in the 3.1-4.8 GHz bands provided that LDC mitigation technique or DAA mitigation technique are applied.
3.4 - 3.8 GHz	-80 dBm/MHz	-40 dBm	A maximum mean e.i.r.p. density of – 41.3 dBm/MHz and a maximum peak e.i.r.p. of 0 dBm measured in 50 MHz shall be allowed in the 3.1-4.8 GHz bands provided that LDC mitigation technique or DAA

			mitigation technique are applied.
3.8 - 4.2 GHz	-70 dBm/MHz	-30 dBm	A maximum mean e.i.r.p. density of – 41.3 dBm/MHz and a maximum peak e.i.r.p. of 0 dBm measured in 50 MHz shall be allowed in the 3.1-4.8 GHz bands provided that LDC mitigation technique or DAA mitigation technique are applied.
4.2 - 4.8 GHz	-70 dBm/MHz	-30 dBm	A maximum mean e.i.r.p. density of – 41.3 dBm/MHz and a maximum peak e.i.r.p. of 0 dBm measured in 50 MHz shall be allowed in the 3.1-4.8 GHz bands provided that LDC mitigation technique or DAA mitigation technique are applied.
6 - 8.5 GHz	-41.3 dBm/MHz	0 dBm	
8.5 - 9 GHz	-65 dBm/MHz	-25 dBm	A maximum mean e.i.r.p. density of – 41.3 dBm/MHz and a maximum peak e.i.r.p. of 0 dBm measured in 50 MHz shall be allowed in the 8.5-9 GHz bands provided that LDC mitigation technique or DAA mitigation technique are applied.

Table 1.14.2 Maximum e.i.r.p. for UWB GPR/WPR devices

Frequency Band	Maximum permitted mean e.i.r.p. spectral density for undesired radiation	Notes
3.1 - 3.4 GHz	-51.3 dBm/MHz	
3.4 - 4.8 GHz	-41.3 dBm/MHz	
6 – 9 GHz	-65 dBm/MHz	

Table 1.14.3 Maximum e.i.r.p. for UWB BMA devices

Frequency Band	Maximum mean e.i.r.p. spectral density	Maximum peak e.i.r.p. spectral density (measured at 50 MHz)	Notes
3.1 - 3.4 GHz	-70 dBm/MHz	-42 dBm	LBT devices may operate with a maximum mean e.i.r.p. spectral density

			of – 50 dBm/MHz.
3.4 - 4.8 GHz	-50 dBm/MHz	-10 dBm	
6 - 8 GHz	-50 dBm/MHz	-10 dBm	
8 - 8.5 GHz	-70 dBm/MHz	-30 dBm	
8.5 - 9 GHz	-85 dBm/MHz	-45 dBm	

1.15 Satellite communications

Table 1.15 covers frequency bands and regulatory as well as informative parameters recommended for satellite communication devices.

Table 1.15 Satellite communications

Frequency Band	Power/Magnetic Field (maximum value)	Special requirement and limit	Channel Spacing	ECC regulation ETSI standard	Notes
a 10.7-11.7 GHz	2 W (max transmitter power) 50 dBW e.i.r.p.			ECC/DEC/(03)04 EN 301 428	VSAT (space-to-Earth) Minimum distance from the airport terminal coordination zone where such radio stations may be used is 500 m.
b 10.7-12.75 GHz	60 dBW e.i.r.p.			ECC/DEC/(06)03 EN 301 428 EN 301 459	HEST (space-to-Earth) Maximum field strength within the airport terminal coordination zone may not exceed 20 V/m. Coordination zone is defined in ECC/DEC/(06)03, Annex 1. When an antenna is coupled to more than one transmitter or a transmitter provides more than one carrier (multi-carrier operation), the 50 dBW e.i.r.p. level of is the sum of all simultaneous emissions from the antenna.
	34 dBW e.i.r.p.			ECC/DEC/(06)02 EN 301 428 EN 301 459	LEST (space-to-Earth) When an antenna is coupled to more than one transmitter or a transmitter provides more than one carrier (multi-carrier operation), the 34 dBW e.i.r.p. level of is the sum of all simultaneous emissions from the antenna.

c 14-14.25 GHz	60 dBW e.i.r.p.			ECC/DEC/(06)03 EN 301 428 EN 301 459	HEST (Earth-to-space) Maximum field strength within the airport terminal coordination zone may not exceed 20 V/m. Coordination zone is defined under ECC/DEC/(06)03, Annex 1. When an antenna is coupled to more than one transmitter or a transmitter provides more than one carrier (multi-carrier operation), the 50 dBW e.i.r.p. level of is the sum of all simultaneous emissions from the antenna.
	34 dBW e.i.r.p.			ECC/DEC/(06)02 EN 301 428 EN 301 459	LEST (Earth-to-space) When an antenna is coupled to more than one transmitter or a transmitter provides more than one carrier (multi-carrier operation), the 34 dBW e.i.r.p. level of is the sum of all simultaneous emissions from the antenna.
d 14.25-14.5 GHz	2 W (max transmitter power) 50 dBW e.i.r.p.			ERC/REC 13-03 ECC/DEC/(03)04 EN 301 428	VSAT (Earth-to-space) Minimum distance from the airport terminal coordination zone where such radio stations may be used is 500 m.
e 19.7-20.2 GHz	60 dBW e.i.r.p.			ECC/DEC/(06)03 EN 301 428 EN 301 459	HEST (space-to-Earth) Maximum field strength within the airport terminal coordination zone may not exceed 20 V/m. Coordination zone is defined under ECC/DEC/(06)03, Annex 1. When an antenna is coupled to more than one transmitter or a transmitter provides more than one carrier (multi-carrier operation), the 50 dBW e.i.r.p. level of is the sum of all simultaneous emissions from the antenna.
	34 dBW e.i.r.p.			ECC/DEC/(06)02 EN 301 428 EN 301 459	LEST (space-to-Earth) When an antenna is coupled to more than one transmitter or a transmitter provides more than one carrier (multi-carrier operation), the 34 dBW e.i.r.p. level of is the sum of all simultaneous emissions from the antenna.
f 29.5-30 GHz	60 dBW e.i.r.p.			ECC/DEC/(06)03 EN 301 428 EN 301 459	HEST (Earth-to-space) Maximum field strength within the airport terminal coordination zone may not exceed 20 V/m. Coordination zone is defined under

					ECC/DEC/(06)03, Annex 1. When an antenna is coupled to more than one transmitter or a transmitter provides more than one carrier (multi-carrier operation), the 50 dBW e.i.r.p. level of is the sum of all simultaneous emissions from the antenna.
	34 dBW e.i.r.p.			ECC/DEC/(06)02 EN 301 428 EN 301 459	LEST (Earth-to-space) When an antenna is coupled to more than one transmitter or a transmitter provides more than one carrier (multi-carrier operation), the 34 dBW e.i.r.p. level of is the sum of all simultaneous emissions from the antenna.

1.16 Other radio devices

Table 1.16 covers frequency bands and regulatory as well as informative parameters recommended for the following radio devices**:** PMR 446, DECT and BBDR.

Table 1.16 PMR 446, DECT BBDR

Frequency Band	Power/Magnetic Field (maximum value)	Special requirement and limit	Channel Spacing	ECC regulation ETSI standard	Notes
446.000-446.100MHz	500 mW e.r.p.		12,5 kHz	ERC/DEC (98)25 EN 300 296	PMR 446 Voice communications mobile terminals
1880-1900 MHz	250 mW e.r.p.	Indoor		ERC/DEC (94)03 ERC/DEC (98)22 EN 301 406	DECT Mobile terminals
4940-4990MHz				ECC/REC/(08)04 EN 302 625	BBDR The spectral power density should not exceed the values of 26 dBm/MHz e.i.r.p. for a BBDR base station and 13 dBm/MHz e.i.r.p. for BBDR user equipment.
5150-5250 MHz				ECC/REC/(08)04 EN 302 625	BBDR The spectral power density should not exceed the values of 26 dBm/MHz

					e.i.r.p. for a BBDR base station and 13 dBm/MHz e.i.r.p. for BBDR user equipment.

1.17 Industrial, scientific and medical (ISM) applications

Table 1.17 covers frequency bands and regulatory as well as informative parameters recommended for devices intended for industrial, scientific and medical (ISM) applications defined under Radiocommunications Regulations.

Table 1.17 ISM

Frequency Band	Central Frequency	Note
6765-6795 kHz	6780 kHz	RR 5.138 applies.
13553-13567 kHz	13560 kHz	RR 5.150 and и 15.13 apply.
26957-27283 kHz	27120 kHz	RR 5.150 and 15.13 apply.
40.66-40.70 MHz	40.68 MHz	RR 5.150 and 15.13 apply.
433.05-434.79 MHz	433.92 MHz	RR 5.150 and RR 5.138 and 15.13 apply.
2400-2500 MHz	2450 MHz	RR 5.150 and 15.13 apply.
5725-5875 MHz	5800 MHz	RR 5.150 and 15.13 apply.
24-24.25 GHz	24.125 GHz	RR 5.150 and 15.13 apply.
61-61.5 GHz	61.25 GHz	RR 5.138 applies.

ANNEX 2

Annex 2 shall regulate the registration procedure for entities entitled to use radio frequencies under general authorization regime, as well as the manners and terms and conditions of the usage.

The application for registration procedure referred to in Article 3 of the Rulebook shall be submitted by the applicant intending to use radio frequencies under general authorization regime in the manner regulated herein.

The application shall be submitted to the Agency no later than 30 days prior to commencement of radio frequency usage under general authorization regime, using the appropriate application form, which is printed herewith and is an integral part hereof.

Application-based registration shall be carried out according to the chronological order of submissions. The Agency shall register radio frequency usage under general authorization regime in the appropriate Register (Register of radio frequency usage under general authorization regime) provided that all terms and conditions stipulated herein are fulfilled.

The Agency shall inform the Right Holder on the completed registration procedure.
The Right Holder should commence with the radio frequency usage under general authorization regime no later that 2 months following the day the entry is made in the appropriate Register.

The Right Holder shall inform the Agency if they no longer have the need to use the radio frequencies they have registered for.

The Agency shall erase entry from the appropriate Register if:

- the Right Holder informs the Agency that they are no longer using the radio frequencies they have registered for.

- upon the expiry of the deadline given to commence with the usage, the Agency finds that the frequencies the Right Holder had registered for are not being used;

- the Right Holder is not using the frequencies in the manner and under terms and conditions stipulated herein.

2.1 Wideband data transmission systems WAS/RLANs

Table 2.1 covers frequency bands and regulatory as well as informative parameters recommended for Wideband Data Transmission Systems and Wireless Access Systems including Radio Local Area Networks (WAS/RLANs). Any applicant intending to use radio frequencies for such purposes shall be required to submit a filled-out application form (ΕΡΦΟΟ1) for each radio station installed outdoors, except for a radio station with integrated antenna held by end-user.

Table 2.1 WAS/RLANs

Frequency Band	Power/Spectral power density	Application and limit	Channel Spacing	ECC regulation ETSI standard	Notes
a 2400-2483.5 MHz	100 mW e.i.r.p.	Adequate spectrum sharing mechanism (e.g. Listen-before-Talk, Detect-And-Avoid) shall be implemented by the equipment	No spacing	ERC/REC/70-03 EN 300 328	For wide band modulations other than FHSS, the maximum e.i.r.p. density is limited to 10 mW/MHz
b 5470-5725 MHz	1 W mean e.i.r.p. 50 mW/MHz mean e.i.r.p. density in any 1 MHz band.		No spacing	ECC/DEC/(04)08 EN 301 893	Mean power (e.i.r.p.) refers to the e.i.r.p. during the transmission burst. Mandatory use of DFS. For the highest permitted e.i.r.p. level ATPC shall be required, ensuring ATPC operating range of at least 6dB. In case there is no ATPC, maximum permitted mean e.i.r.p. and maximum permitted mean e.i.r.p. density shall be reduced by 3 dB.

2.2 Broadband Fixed Wireless Access BFWA systems

Table 2.2 covers frequency bands and regulatory as well as informative parameters recommended for Broadband Fixed Wireless Access (BFWA) systems. Any applicant intending to use radio frequencies in the relevant bands shall be required to submit a filled-out application form (ЕРФОО1) for each radio station installed outdoors, except for a radio station with integrated antenna held by end-user.

Table 2.2 BFWA

Frequency Band	Power/Spectral power density	Application and limit	Channel Spacing	ECC regulation ETSI standard	Notes
5725-5875 MHz	*	*	*	ECC/REC/(06)04 EN 302 502	DFS is mandatory in 5725-5850 MHz bands. * Basic limit are given in Table 2.2.1 while detailed limit are defined in ECC/REC/(06)04

Table 2.2.1 Basic limits for different network configurations

Network configuration / parameters	P-MP (Point-to-Multipoint)	P-P (Point-to-Point)	Mesh	AP-MP (Any Point-to-Multipoint) (Hybrid Mesh and Point-to-Point network)	Notes
Maximum mean e.i.r.p.	36 dBm	36 dBm	33 dBm	33 dBm	Maximum mean e.i.r.p. requires ATPC to be switched-on
Maximum mean e.i.r.p. density	23 dBm/MHz	23 dBm/MHz	20 dBm/MHz	20 dBm/MHz	
ATPC band for each radio station	12dB	12dB	12dB	12dB	

2.3 Fixed links in 72-76/82-86 GHz frequency bands

Table 2 covers frequency bands and regulatory as well as informative parameters recommended for fixed or microwave links. Any applicant intending to use radio frequencies in the relevant bands shall be required to submit a filled-out application form (ЕРФОО2).

When applying for a new microwave link, the applicant shall harmonize the parameters of their own link with the current state of registered links in order to prevent any interference.

Table 2.3 72-76/82-86 GHz frequency bands

Frequency band	Operation mode	Channel spacing	ECC/REC regulation ETSI standard	Notes
72-76 GHz	TDD	250 MHz 500 MHz 1000MHz	ECC/REC/(05)07, Annex 4 EN 302 217 TS 102 524	Basic channel spacing 250MHz. For FDD operation mode, radio channels with 250 MHz channel spacing are divided into 4 sub-channels with 62.5 MHz channel spacing and 2 sub-channels with 125 MHz channel spacing. When channels with 62.5 MHz or 125 MHz channel spacing are used, as a rule, the final channel is used, e.g. 15th, followed by the 14th, and so on. Central frequencies of the radio channels are used according to the arrangements in Table 2.3.1. and Table 2.3.2.
82-86 GHz	TDD	250 MHz 500 MHz 1000MHz		
72-76 paired with 82-86 GHz	FDD (transmission/reception spacing is 10 GHz)	62.5 MHz 125 MHz 250 MHz 500 MHz 1000MHz		

Table 2.3.1 Channel arrangement in 72-76/82-86GHz frequency bands

250 MHz			500 MHz			1000 MHz		
	B	H		B	H		B	H
1	72250	82250	1	72375	82375	1	72625	82625
2	72500	82500						
3	72750	82750	2	72875	82875			
4	73000	83000						
5	73250	83250	3	73375	83375			
6	73500	83500						
7	73750	83750	4	73875	83875	2	74125	84125
8	74000	84000						
9	74250	84250	5	74375	84375			
10	74500	84500						
11	74750	84750	6	74875	84875	3	75125	85125
12	75000	85000						
13	75250	85250	7	75375	85375			
14	75500	85500						
15	75750	85750						

Table 2.3.2 Channel arrangement for 125 MHz and 62.5 MHz channel spacing (e.g. 14th and 15th channel)

	250MHz		125MHz		62.5MHz	
	B	H	B	H	B	H
14th channel	75500	85500	75437.5	85437.5	75406.25	85406.25
					75468.75	85468.75
			75862.5	85862.5	75531.25	85531.25
					75593.75	85593.75
15th channel	75750	85750	75687.5	85687.5	75656.25	85656.25
					75718.75	85718.75
			75812.5	85812.5	75781.25	85781.25
					75843.75	85843.75

2.4 Radio station operating in citizens' band (CB)

Table 2.4 covers frequency bands and regulatory as well as informative parameters recommended for radio stations operating in citizens' band. Any applicant intending to use radio frequencies in the relevant bands shall be required to submit a filled-out application form ЕРФОО3.

Table 2.4 CB radio stations

Frequency band	Maximum e.r.p.	Modulation	Channel spacing	ECC regulation ETSI standard	Notes
26.960 - 27.410MHz	4W	Angle-modulation (FM/PM)	10 kHz	ERC/DEC/(11)03 EN 300 135 EN 300 433	The usage of the following frequencies is not allowed: 26.995 MHz, 27.045 MHz, 27.095 MHz, 27.145 MHz and 27.195 MHz. CB radio stations are intended for in simplex operation and are used exclusively for voice communications. It is not allowed to use any additional equipment that may enable the following: transmitter power exceeding the limit, connectivity to public electronic communication network, using unauthorized types of emission, operation via repeater or satellite, transmission or retransmission of the communications or programmes of the broadcasters or other legal entities.
	4W	DSB modulation			
	12W (measured as a peak envelope power)	SSB modulation			

ЕРФОО1 Form

REGISTRATION FORM FOR RADIO FREQUENCY USAGE IN 2400-2483.5 MHz, 5470-5725 MHz and 5725-5875 MHz FREQUENCY BANDS

Applicant data

Name of the legal/natural entity	
Address	
Personal ID number	
Telephone/Fax/ E-mail	
Fiscal ID number	

Radio station data

Frequency band	
SSID (Service set identification)	
MAC address (Access Point)	
Location name/address	
Location coordinates (WGS84) (dd mm ss)	
Network purpose	
Network configuration	
Transmitter power (dBm)	
ATPC (YES/NO)	
DFS (YES/NO)	
Emission bandwidth	
Manufacturer and type of radio device	
Antenna type	
Antenna gain (dBi)	
Maximum radiation azimuth	
For P-P configuration (Point-to- point)	
Location name/address of the other point in configuration	
Location coordinates (WGS84) (dd mm ss)	

ЕРФОО2 Form

REGISTRATION FORM FOR RADIO FREQUENCY USAGE IN 72-76/82-86 GHz FREQUENCY BAND

Applicant data

Name of the legal/natural entity	
Address	
Personal ID number	
Telephone/Fax/ E-mail	
Fiscal ID number	

Microwave link information

	location A	**location B**
Location name/address		
Coordinates (WGS84) (dd mm ss)		
Height above sea level		
Antenna heath above ground		
Microwave link length		
Device information		
Transmission frequency (MHz)		
Capacity (Mbit/s)		
Emission bandwidth (MHz)		
Receiver threshold BER $\leq 10^{-6}$ (dBm)		
Transmitter output power (dBm)		
e.i.r.p (dBm)		
Manufacturer and type of radio device		
Antenna information		
Antenna gain (dBi)		
Polarization		
Azimuth		
Elevation		
Manufacturer, antenna type, antenna diameter		
Note:		

ЕРФОО3 Form

REGISTRATION FORM FOR RADIO FREQUENCY USAGE IN 27 MHz FREQUENCY BAND FOR ALL CB RADIO STATIONS

Applicant data			
Name (Father's Name) Surname			
Address			
Personal ID number			
Telephone/Fax/ E-mail			
Radio station data			
Location			
Place and Postal Code			
Street and Number			
Municipality			
Device information			
Manufacturer and type of radio station	Serial number	Transmitter power [W]	Type of emission (FM/PM, AM DSB, AM SSB)
Antenna information			
Manufacturer	Type	Antenna gain (dBd)	

ANNEX **3**

List of abbreviations used in the Rulebook

AFA - *Adaptive Frequency Agility*
AP-MP- *Any point-to-Multipoint*
ATPC- *Automatic Transmit Power Control*
BBDR- *Broad Band Disaster Relief*
BFWA - *Broadband Fixed Wireless Access*
BMA- *Building Material Analysis*
CB - *Citizen Band*
CEPT - *European Conference of Postal and Telecommunications Administrations*
CW- *Continuous Wave*
DAA - *Detect And Avoid*
DEC - *Decision*
DECT - *Digital Enhanced Cordless Telecommunication*
DC - *Duty Cycle*
DSB- *Double Side Band*
DSSS - *Direct Sequence Spread Spectrum*
EAS- *Electronic Article Surveillance*
ECA - *European Common Allocation*
ECC - *Electronic Communications Committee*
ERC - *European Radiocommunications Committee*
FDD - *Frequency Division Duplex*
FHSS- *Frequency Hopping Spread Spectrum*
FM - *Frequency Modulation*
FMCW- *Frequency Modulation Continuous Wave*
FSS - *Fixed Satellite Service*
FWA - *Fixed Wireless Access*
GPR/WPR - *Ground Probing Radar/Wall Probing Radar*
HEST - *High E.i.r.p. Satellite Terminals*
HF - *High Frequency*
ISM - *Industrial, Scientific and Medical*
ITS - *Intelligent Transport Systems*
ITU - *International Telecommunication Union*
LBT- *Listen Before Talk*
LDC - *Low Duty Cycle*
LEST - *Low E.i.r.p. Satellite Terminals*
LPR - *Level Probing Radar*

PMR - *Professional Mobile Radio, Private Mobile Radio*
PPDR - *Public Protection and Disaster Relief*
P-MP - *Point-to-Multipoint*
PP- *Point-to-Point*
REC - *Recommendation*
RFID - *Radio Frequency Identification*
RLANS - *Radio Local Area Network System*
RR - *ITU Radio Regulations*
RTTT - *Road Transport & Traffic Telematics*
SSB- *Single Side Band*
SRD - *Short Range Device*
SRR - *Short Range Radar*
TDD - *Time Division Duplex*
TLPR - *Tank Level Probing Radar*
TPC- *Transmit Power Control*
UWB - *Ultra Wideband*
VSAT - *Very Small Aperture Terminal*
WAS - *Wireless Access System*