

Pursuant to Article 24, Paragraph (1), Indent 3) and Article 129, Paragraph (3) of the Law on Electronic Communications (The Official Gazette of the Republic of Macedonia No. 39/2014), the Director of the Agency for Electronic Communications, on 18.09.2014, adopted the following

R U L E B O O K
ON RADIO FREQUENCIES ALLOWED FOR USE WITHOUT RADIO FREQUENCY USE LICENCE

Article 1

This Rulebook regulates the radio frequencies that are allowed to be used without a radio frequency use license, in accordance with the regulations of the European Conference of Postal and Telecommunications Administrations (CEPT) and other international rules and regulations adopted by the Republic of Macedonia.

Article 2

Radio frequencies that shall be used without a radio frequency use license and the terms of their use are annexed to this Rulebook as its integral part.

Article 3

This Rulebook shall enter into force on the day of its publication in the Official Gazette of the Republic of Macedonia.

On the day when this Rulebook enters into force, the Rulebook on Radio Frequencies Allowed for Use without a Radio Frequency Use License (The Official Gazette of the Republic of Macedonia No. 64/2007) and the Rulebook amending the Rulebook on Radio Frequencies Allowed for Use without a Radio Frequency Use License (The Official Gazette of the Republic of Macedonia No. 169/2010) shall be repealed.

Upon its entry into force, this Rulebook shall be published on the web site of the Agency for Electronic Communications.

No. 0201-1305/3
18 September 2014
Skopje

Director,

Robert Ordanoski

APPENDIX

(for radio frequencies used without authorisation for use of radio frequencies)

Radio frequencies	Use	MKS & ETSI Standard	Power/Magnetic field	Access and Requirements	Bandwidth	CEPT Documents	Remark
9.00 - 315 KHz	SRD: active medical implants with accessories (for ULP-AMI)	MKS EN 302 195	30 dB μ A/m at 10 meters	\leq 10% duty cycle		ERC/REC 70-03 Annex 12	ULP-AMI (active medical implants with ultra low power). Use inductive loop tech. for telemetry.
9.00 - 90 kHz	SRD: inductive application	MKS EN 300 330	72 dB μ A/m at 10 meters (at 30 KHz the field strength decreases by 3 dB/oct)			ERC/REC 70-03 Annex 9	Only loop coil antenna may be used as an external antenna
90 - 119 KHz	SRD: inductive application	MKS EN 300 330	42 dB μ A/m at 10 meters			ERC/REC 70-03 Annex 9	Only loop coil antenna may be used as an external antenna
119 - 135 KHz	SRD: inductive application	MKS EN 300 330	66 dB μ A/m at 10 meters (at 119 KHz the field strength decreases by 3 dB/oct)			ERC/REC 70-03 Annex 9	Only loop coil antenna may be used as an external antenna
135 - 140 KHz	SRD: inductive application	MKS EN 300 330	42 dB μ A/m at 10 meters			ERC/REC 70-03 Annex 9	Only loop coil antenna may be used as an external antenna
140 - 148.5 KHz	SRD: inductive application	MKS EN 300 330	37,7 dB μ A/m at 10 meters			ERC/REC 70-03 Annex 9	Only loop coil antenna may be used as an external antenna
148.5KHz - 5 MHz	SRD: inductive application	MKS EN 300 330	- 15 dB μ A/m at 10 meters (max field strength is			ERC/REC 70-03 Annex 9	Only loop coil antenna may be used as an external antenna
315 - 600 KHz	SRD: active medical implants with accessories	MKS EN 302 536	- 5 dB μ A/m at 10 meters	\leq 10% duty cycle		ERC/REC 70-03 Annex 12	Applications intended for medical implants
400 - 600 kHz	SRD: inductive applications	MKS EN 300 330	- 8 dB μ A/m at 10 meters			ERC/REC 70-03 Annex 9	Only for RFID. (min. bandwidth 30 kHz)
456.9-457.1 KHz	SRD: detection of avalanche victims	MKS EN 300 718	7 dB μ A/m at 10 meters		continuous wave (CW) without modulation	ERC/REC 70-03 Annex 2	Central frequency: 457 kHz
984 - 7484 kHz	SRD: railway application (Balise/Eurobalise)	MKS EN 302	9dB μ A/m at 10 meters	\leq 1% duty cycle		ERC/REC 70-03 Annex 4	Central frequency: 4234 kHz. Transmits only after receipt of Balise/Eurobalise tele-powering signal from a train
3155 - 3400 KHz	SRD: inductive application	MKS EN 300 330	13.5 dB μ A/m at 10 meters			ERC/REC 70-03 Annex 9	Only loop coil antenna may be used as an external antenna
4515 KHz	SRD: railway application (system Euroloop)	MKS EN 300 330	7 dB μ A/m at 10 meters			ERC/REC 70-03 Annex 4	Transmits only after receipt of Eurobalise signal from a train
5 - 30 MHz	SRD: inductive application	MKS EN 300 330	-20 dB μ A/m at 10 meters D21			ERC/REC 70-03 Annex 9	Only loop coil antenna may be used as an external antenna .
6765 - 6795 KHz	SRD: unspecified devices	MKS EN 300 330	42 dB μ A/m at 10 meters			ERC/REC 70-03 Annex 1	
	SRD: inductive application	MKS EN 300 330	42 dB μ A/m at 10 meters			ERC/REC 70-03 Annex 9	

7.3 - 23 MHz	SRD: railway application	MKS EN 302 609	-7 dBµA/m at 10 meters			ERC/REC 70-03 Annex 4	Central frequency 13.547MHz. Transmitted only in the presence of trains.
7400 - 8800 kHz	SRD: inductive application	MKS EN 300 330	9 dBµA/m at 10 meters			ERC/REC 70-03 Annex 9	
10200 - 11000 kHz	SRD: inductive application	MKS EN 300 330	9 dBµA/m at 10 meters			ERC/REC 70-03 Annex 9	
12.5-20 MHz	SRD: active medical implants with accessories	MKS EN 300 330	-7 dBµA/m at 10 meters	≤10% duty cycle		ERC/REC 70-03 Annex 12	Only for internal use of ULP-AID. Max field strength specified for a band of 10 kHz. The transmission mask for ULP-AID is defined as follows: 3dB pass-through band 300kHz, 10dB pass-through band 800kHz, 20dB pass-through band 2 MHz.
13.553 - 13.567 MHz	SRD: unspecified devices	MKS EN 300 330	42 dBµA/m at 10 m			ERC/REC 70-03 Annex 1	
	SRD: inductive application	MKS EN 300 330	42 dBµA/m at 10 m 60 dBµA/m at 10 m			ERC/REC 70-03 Annex 9 ERC/REC 70-03 Annex 9	Only for RFID and EAS
13.410-13.553 MHz 13.567-13.710 MHz	SRD: inductive application	MKS EN 300 330	9 dBµA/m at 10 meters			ERC/REC 70-03 Annex 9	Only for RFID, related to the previous sub-band
13.110-13.410 MHz 13.710-14.010 MHz	SRD: inductive application	MKS EN 300 330	-3.5 dBµA/m at 10 meters			ERC/REC 70-03 Annex 9	Only for RFID, related to sub-band between 13.553 - 13.567 MHz.
12.660-13.110 MHz 14.010-14.460 MHz	SRD: inductive application	MKS EN 300 330	-10 dBµA/m at 10 meters			ERC/REC 70-03 Annex 9	Only for RFID, related to sub-band between 13.553 - 13.567 MHz.
11.810-12.660 MHz 14.460-15.310 MHz	SRD: inductive application	MKS EN 300 330	-16 dBµA/m at 10 meters			ERC/REC 70-03 Annex 9	Only for RFID, related to sub-band between 13.553 - 13.567 MHz.
13.460-13.553 MHz 13.567-13.660 MHz	SRD: inductive application	MKS EN 300 330	27 dBµA/m at 10 meters			ERC/REC 70-03 Annex 9	Only for RFID, related to the previous sub-band
13.360-13.460 MHz 13.660-13.760 MHz	SRD: inductive application	MKS EN 300 330	linear transition from 27 to -3.5 dBµA/m at 10 meters			ERC/REC 70-03 Annex 9	Only for RFID, related to previous sub-bands
13.110-13.360 MHz 13.760-14.010 MHz	SRD: inductive application	MKS EN 300 330	-3.5 dBµA/m at 10 meters			ERC/REC 70-03 Annex 9	
12.660-13.110 MHz 14.010-14.460 MHz	SRD: inductive application	MKS EN 300 330	-5 dBµA/m at 10 meters			ERC/REC 70-03 Annex 9	
26.957-27.283 MHz	SRD: unspecified devices	MKS EN 300 220 MKS EN 300 330	42 dBµA/m at 10 meters 10 mW e.r.p.			ERC/REC 70-03 Annex 1	
26.957-27.283 MHz	SRD: inductive application	MKS EN 300 330	42 dBµA/m at 10 meters			ERC/REC 70-03 Annex 9	

26.960-27.410 MHz	CB radio stations operating in the citizen band	MKS EN 300 135 MKS EN 300 433				ECC/DEC(11)03	CEPT PR 27
26.995 MHz 27.045 MHz 27.095 MHz 27.145 MHz	SRD: unspecified devices	MKS EN 300 220	100 mW e.r.p.	<0.1% duty cycle	up to 10KHz	ERC/REC 70-03 Annex1	
27.195 MHz	SRD: radio-controlled models	EN MKS EN 300 220	100 mW e.r.p.		10KHz	ERC/REC 70-03 Annex 8	
27.090-27.100 MHz	SRD: railway application (Balise/ Eurobalise)	MKS EN 302 608 MKS EN 300 330	42 dBµA/m at 10 meters			ERC/REC 70-03 Annex 4	Central frequency: 27.095 MHz. Down-link: for Balise/Eurobalise
29.7 - 47 MHz	SRD: radio mics	MKS EN 300 422	10 mW e.r.p.		≤ 50 KHz	ERC/REC 70-03 Annex 10	According to band setting.
30 - 37.5 MHz	SRD: active medical implants with accessories	MKS EN 302 510	1 mW e.r.p.	≤ 10% duty cycle		ERC/REC 70-03 Annex 12	Medical membrane implants with ultra low power for measuring blood pressure.
30 MHz - 12.4 GHz	SRD: Radio-deterministic applications (GPR/WPR)	MKS EN 302 066				ECC/DEC/(06)08ERC/REC 70-03 Annex 6	Radars for examining underground and through walls
34.995 - 35.225 MHz	SRD: radio-controlled models	MKS EN 300 220	100 mW e.r.p.		10 KHz	ERC/DEC/(01)11 ERC/REC 70-03 Annex 8	Only for flying models
40.660 - 40.700 MHz	SRD: unspecified devices	MKS EN 300 220	10 mW e.r.p.			ERC/REC 70-03 Annex 1	
40.665 MHz 40.675 MHz 40.685 MHz	SRD: radio-controlled models	MKS EN 300 220	100 mW e.r.p.		10 kHz	ERC/DEC/(01)12 ERC/REC 70-03 Annex 8	
87.5 - 108 MHz	SRD: wireless audio applications	MKS EN 301 357	50 nW e.r.p.		200 kHz	ERC/REC 70-03 Annex 13	Not permitted pilot tones ensuring continuous transmission.
137 - 137.175 MHz	S-PCS <1GHz (T)	MKS EN 301 721				ERC/DEC/(99)05	Mobile ground stations
137.75 - 138 MHz	S-PCS <1GHz (T)	MKS EN 301 721				ERC/DEC/(99)05	Mobile ground stations
138.2 - 138.45 MHz	SRD: unspecified devices	MKS EN 300 220	10 mW e.i.r.p.	<1,0 %		ERC/REC 70-03 Annex 1	
148 - 150.05 MHz	S-PCS <1GHz (T)	MKS EN 301 721				ERC/DEC/(99)05	Mobile ground stations
169.4-169.475 MHz	SRD: unspecified devices	MKS EN 300 220	500 mW e.r.p.	<10% duty cycle	up to 50kHz	ECC/DEC/(05)02 ECC/REC 70-03 Annex 1	
	SRD: devices for monitoring and	MKS EN 300 220	500 mW e.r.p.	<10% duty cycle	Max 50kHz	ECC/DEC/(05)02, ECC/REC 70-03,	
	SRD: measurement read-out	MKS EN 300 220	500 mW e.r.p.	<10% duty cycle	Max 50kHz	ECC/DEC/(05)02EC C/REC 70-03 Annex 2	
	SRD: Hearing aid	MKS EN 300 422	10 mW e.i.r.p. 500 mW e.i.r.p.		≤ 50 KHz	ECC/DEC/(05)02 ECC/REC 70-03 Annex 10	Hearing aid devices (personal) Hearing aid devices (public)
169.4-169.4875 MHz	SRD: unspecified devices	MKS EN 300 422	10 mW e.i.r.p.	<0.1% duty cycle	≤ 50 KHz	ECC/DEC/(05)02 ECC/REC 70-03 Annex 1	concentration or multiplexes of individual devices should be avoided
169.4-174 MHz	SRD: Hearing aid	MKS EN 300 422	10 mW e.i.r.p.		≤ 50 KHz	ECC/REC 70-03 Annex 10	Hearing aid According to band setting.

169.4875-169.5875 MHz	SRD: unspecified devices	MKS EN 300 220	10 mW e.i.r.p.	<0.001% duty cycle, except between 00:00 and 06:00 hours, the limitation is <0.1%		ECC/DEC/(05)02 ECC/REC 70-03 Annex 10	concentration or multiplexes of individual devices should be avoided
	SRD: Hearing aid	MKS EN 300 220	10 mW e.i.r.p.		≤ 50 KHz	ECC/DEC/(05)02 ECC/REC 70-03 Annex 10	Hearing aid (for personal use)
			500 mW e.i.r.p.		≤ 50 KHz	ECC/DEC/(05)02 ECC/REC 70-03 Annex 10	Hearing aid (for public use)
169.4875-169.8125 MHz	SRD: Hearing aid	MKS EN 300 422	10 mW e.i.r.p.		Max 50kHz	ECC/REC 70-03 Annex 10	Hearing aid devices (for public use)
			500 mW e.i.r.p.		Max 50kHz		
169.5875-169.8125 MHz	SRD: unspecified devices	MKS EN 300 422	10 mW e.i.r.p.	<0.1% duty cycle		ECC/DEC/(05)02EC C/REC 70-03 Annex 1	
173.965 - 174.015 MHz	SRD: Hearing aid	MKS EN 300 422	2 mW e.r.p.		≤ 50 KHz	ERC/REC 70-03 Annex 10	Hearing aid (Hearing aid devices)
174 - 216 MHz	SRD: Radio-microphones and Hearing aid	MKS EN 300 422	50 mW e.r.p.			ERC/REC 70-03 Annex 10	According to band setting for professional mics
399.9 - 400,05 MHz	S-PCS <1GHz (T)	MKS EN 301 721				ERC/DEC/(99)05	Mobile ground stations
400.15 - 401 MHz	S-PCS <1GHz (T)	MKS EN 301 721				ERC/DEC/(99)05	Mobile ground stations
401 - 402 MHz	SRD: active medical implants with accessories (for ULP-AMI)	MKS EN 302 537	25 μW e.r.p.	LBT or duty cycle ≤=0.1%	25 kHz	ERC/REC 70-03 Annex 12	Individual transmitters may combine adjacent channels for increased bandwidth up to 100 kHz
402 - 405 MHz	SRD: active medical implants with	MKS EN 301 839	25 μW e.r.p.		25 kHz	ERC/DEC/(01)17 ERC/REC 70-03	Individual transmitters may combine adjacent channels
405 - 406 MHz	SRD: active medical implants with accessories (for ULP-AMI)	MKS EN 302 537	25 μW e.r.p.	LBT or duty cycle ≤=0.1%	25 kHz	ERC/REC 70-03 Annex 12	Individual transmitters may combine adjacent channels for increased bandwidth up to 100 kHz
406 - 406.1 MHz	S-PCS <1GHz (T)	MKS EN 301 721				ERC/DEC/(99)05	Mobile ground stations
410 - 430 MHz	digital PMR/PAMR (T)	ETS 300 392 ETS 300 393 ETS 300 394 MKS EN 303 035				ERC/DEC/(99)02 ERC/DEC/(99)03	Mobile terminals
433.050 - 434.790 MHz	SRD: unspecified devices	MKS EN 300 220	10 mW e.r.p.	<10% duty cycle		ERC/REC 70-03 Annex 1	
433.050 - 434.790 MHz	SRD: unspecified devices	MKS EN 300 220	1 mW e.r.p. - 13dBm/10kHz (for broadband channels exceeding 250kHz bandwidth)			ERC/REC 70-03 Annex 1	It is not allowed to transmit video and audio. Voice transmission is permitted at max 25kHz band as LBT and equivalent devices with sensor limiting the transmission period up to 1 min. for each transmission..

434.040 - 434.790 MHz	SRD: unspecified devices	MKS EN 300 220	10 mW e.r.p.		up to 25 KHz	ERC/REC 70-03 Annex 1	It is not allowed to transmit video and audio. Voice transmission is permitted at max 25kHz band as LBT and equivalent devices with sensor limiting the transmission period up to 1 min. for each transmission..
446 - 446.1 MHz	PMR446	EN MKS EN 300 296	500 mW e.r.p.		12,5 kHz		Mobile terminals for voice communications
446.1 - 446.2 MHz	PMR446	EN MKS EN 300 296	500mW e.r.p.		6,25 kHz or 12,5 kHz	ECC/DEC(05)02	
470 - 786 MHz	SRD: Radio-microphones	MKS EN 300 422	50mW e.r.p.			ERC/REC 70-03 Annex 10	According to band setting. Professional mics
470 - 862 MHz	SRD: Radio-microphones	MKS EN 300 422	50 mW e.r.p.				According to band setting.
786 - 789 MHz	SRD: Radio-microphones	MKS EN 300 422	12mW e.r.p.			ERC/REC 70-03 Annex 10 , technical requirements for PMSE, including radio-mics as per Annex3 ECC/DEC/(09)03 section 3.1	According to band setting.
823 - 826 MHz	SRD: Radio-microphones and Hearing aid	MKS EN 300 422	20mW e.r.p. 100mW e.r.p.		≤200 kHz	ECC/DEC/(09)03 Annex 3 section 3.1 for PMSE including radio-mics, ERC/REC 70-03 Annex 10	100mW limit for devices worn on the body
826 - 832 MHz	SRD: Radio-microphones and Hearing aid	MKS EN 300 422	100mW e.r.p.		≤200 kHz	ECC/DEC/(09)03 Annex 3 section 3.1 for PMSE (including radio-mics), ERC/REC 70-03 Annex 10	
863 - 865 MHz	SRD: Radio-microphones and Hearing aid	MKS EN 300 422 MKS EN 301 357	10 mW e.r.p.			ERC/REC 70-03 Annex 10	
	SRD: wireless audio applications	MKS EN 301 357	10 mW e.r.p.			ERC/REC 70-03 Annex 13	
863-870 MHz	SRD: unspecified devices	MKS EN 300 220	25 mW e.r.p.	≤0.1% or LBT	≤ 100kHz for 47 or more channels	ERC/REC 70-03 Annex 1	FHSS modulation
			≤25 mW e.r.p. power density: -4.5 dBm/100kHz	≤0.1% or LBT+AFA		ERC/REC 70-03 Annex 1	DSSS and other broadband modulations differing from FHSS
			≤25 mW e.r.p.	≤0.1% or LBT+AFA	≤100kHz for 1 или повеќе канал. modulation опсерот е ≤300kHz	ERC/REC 70-03 Annex 1	Narrow-/Broadband modulation
864,8 - 865 MHz	SRD: wireless audio applications	MKS EN 300 220	10 mW e.r.p.		50 KHz	ERC/REC 70-03 Annex 13	Narrowband analogue devices for voice transmission
865 - 865.6 MHz	SRD: radio frequency identification (RFID)	MKS EN 302 208	100 mW e.r.p.		≤ 200 KHz	ERC/REC 70-03 Annex 11	Central frequency::864.9 MHz +0.2 MHz* channel number) channel between 1 and 3

865.6 - 867.6 MHz	SRD: radio frequency identification (RFID)	EN 302 208	2 W e.r.p.		≤ 200 KHz	ERC/REC 70-03 Annex 11	Central frequency::864.9 MHz +0.2 MHz* channel number) channel between 4 and 13
867.6 - 868 MHz	SRD: radio frequency identification (RFID)	MKS EN 302 208	500 mW e.r.p.		≤ 200 KHz	ERC/REC 70-03 Annex 11	Central frequency::864.9 MHz +0.2 MHz* channel number) channel 14 and 15
868.0 - 868.6 MHz	SRD: unspecified devices	MKS EN 300 220	≤25 mW e.r.p.	≤ 1,0% or LBT+AFA	without channel distribution (the whole band may be used)	ERC/REC 70-03 Annex 1	Narrow-/Broadband modulation. The whole sub-band may be used.
868.6 - 868.7 MHz	SRD: alerts	MKS EN 300 220	10 mW e.r.p.	< 1% duty cycle	25 kHz	ERC/REC 70-03 Annex 7	The whole band may be used as a single channel for high-
868.7 - 869.2 MHz	SRD: unspecified devices	MKS EN 300 220	≤25 mW e.r.p.	≤ 0,1% or LBT+AFA	without channel distribution (the whole band may be used)	ERC/REC 70-03 Annex 1	Narrow-/Broadband modulation. The whole sub-band may be used.
869.20 - 869.25 MHz	SRD: alerts	MKS EN 300 220	10 mW e.r.p.	< 0,1% duty cycle	25 KHz		Civic alerts
869.25 - 869.3 MHz	SRD: alerts	MKS EN 300 220	10 mW e.r.p.	< 0,1% duty cycle	25 KHz	ERC/REC 70-03 Annex 7	
869.3 - 869.4 MHz	SRD: unspecified devices	MKS EN 300 220	10 mW e.r.p.		25 KHz	ERC/REC 70-03 Annex 1	
	SRD: alerts	MKS EN 300 220	10 mW e.r.p.	≤ 1,0% duty cycle	25 KHz	ERC/REC 70-03 Annex 7	
869.4 - 869.65 MHz	SRD: unspecified devices	MKS EN 300 220	≤500 mW e.r.p.	< 10% или LBT+AFA	25 KHz (for 1 or more channels)	ERC/REC 70-03 Annex 1	The whole band may be used as a single channel for high-speed data transfer
869.65 - 869.7 MHz	SRD: alerts	EN MKS EN 300 220	25 mW e.r.p.	< 10% duty cycle	25 KHz (for 1 or more channels)	ERC/REC 70-03 Annex 7	
869.7 - 870 MHz	SRD: unspecified devices	EN MKS EN 300 220	≤5 mW e.r.p.	до 100% или		ERC/REC 70-03 Annex 1	Narrow-/Broadband modulation. The whole sub-band may be used
			≤25mW e.r.p.	LBT+AFA			
870 - 875.600 MHz	SRD: devices for monitoring, searching and data collection		500 mW e.r.p.	≤ 2.5% duty cycle for ER-GSM protection (873-875.6MHz duty cycle e ≤ 0.01% max transmission time of 5ms/1s)	≤200kHz	ERC/REC 70-03 Annex 2	Co APC (Adaptive Power Control) power control and reduction ≤5 mW.
870 - 875.800 MHz	SRD: unspecified devices	EN MKS EN 300 220	25 mW e.r.p.	≤ 1,0% duty cycle for ER-GSM protection (873-875.8MHz duty cycle e до ≤ 0.01% max transmission time of 5ms/1s)	≤600kHz	ERC/REC 70-03 Annex 1	
	SRD: transport and traffic telemetry (TTT)	EN MKS EN 300 220	500 mW e.r.p. 100 mW e.r.p.	≤ 1,0% duty cycle for ER-GSM protection (873-875.8MHz duty cycle e до ≤ 0.01% max transmission time of 5ms/1s)	≤500kHz	ERC/REC 70-03 Annex 5	500 mW e.r.p restriction for vehicle-2-vehicle applications; 100 mW e.r.p for vehicle applications; mandatory APC (Adaptive Power Control)
870 - 876 MHz	SRD: unspecified devices	EN MKS EN 300 220	25mW e.r.p.	≤ 1,0% duty cycle for ER-GSM protection (873-876MHz duty cycle e до ≤ 0.01% max transmission time of 5ms/1s)	≤200kHz	ERC/REC 70-03 Annex 1	

915 - 921 MHz	SRD: unspecified devices	MKS EN 300 220	25mW e.r.p.	≤ 1,0% duty cycle for ER-GSM protection (918-921MHz duty cycle $e_{\text{dpo}} \leq 0.01\%$ max transmission time of 5ms/1s)	≤200kHz	ERC/REC 70-03 Annex 1	
	SRD: radio frequency identification (RFID)	MKS EN 302 208	4 W e.r.p.	for ER-GSM protection (918-921MHz, where possible DAA is required)	≤200kHz	ERC/REC 70-03 Annex 11	
915.200 - 920.800 MHz	SRD: unspecified devices	EN MKS EN 300 220	25mW e.r.p. except for the following 4 channels with center frequencies: 916.3MHz, 917.5MHz, 918.7MHz and 919.9MHz, channel width of 400kHz and 100 mW e.i.r.p	≤ 1,0% duty cycle for ER-GSM protection (918-920.8MHz duty cycle is up to ≤ 0.01% and max transmit on time of 5ms/1s)	≤600kHz except for the 4 channels with central frequencies: 916.3MHz, 917.5MHz, 918.7MHz and 919.9MHz, where $e < 400\text{kHz}$	ERC/REC 70-03 Annex 1	
916.1 - 916.5 MHz 916.1 - 916.5 MHz 916.1 - 916.5 MHz	SRD: radio-microphones and Hearing aid	EN MKS EN 300 422	10 mW e.r.p.	≤ 25% duty cycle	≤ 400 kHz	ERC/REC 70-03 Annex 10	
1492 - 1518 MHz	SRD: radio-microphones	MKS EN 300 422	50 mW e.r.p.			ERC/REC 70-03 Annex 10	According to band setting. Only for internal use.
1610.0 - 1626.5 MHz	S-PCS	MKS EN 301 473 MKS EN 301 441 MKS EN 301 721	-3 dB (W/4 KHz), mid-range limit			ECC/DEC/(07)05	Mobile satellite terminals
			-15 dB (W/4 KHz), peak limit				
1626.5 - 1645.5 MHz	Mobile satellite terminals	ETS 300 254 ETS 300 423 MKS EN 301 426 MKS EN 301 444 MKS EN 301 473 MKS EN 301 681				ECC/DEC/(07)05, ERC/DEC/(95)01, ERC/DEC/(98)01, ERC/DEC/(98)02, ERC/DEC/(98)04, ERC/DEC/(99)19, ERC/DEC/(99)21, ERC/DEC/(01)23, ERC/DEC/(01)24	
1646.5 - 1660.50 MHz	Mobile satellite terminals	ETS 300 254 ETS 300 423 MKS EN 301 426 MKS EN 301 444 MKS EN 301 473 MKS EN 301 681				ECC/DEC/(07)05, ERC/DEC/(95)01, ERC/DEC/(98)01, ERC/DEC/(98)02, ERC/DEC/(98)04, ERC/DEC/(99)19, ERC/DEC/(99)21, ERC/DEC/(01)23, ERC/DEC/(01)24	
1710 - 1785 MHz	DCS 1800	ETS 300 607 MKS EN 301	1 W (30dBm) 0,25 W (24dBm)		200 KHz 5 MHz	ERC/DEC/(97)11, ERC/DEC/(98)21	Mobile terminals DCS1800
	Devices for mobile communications within an aircraft	MKS EN 301 502 MKS EN 301 511 MKS					

1785 - 1795 MHz	SRD: Radio-microphones and Hearing aid	MKS EN 300 422	20 mW e.i.r.p. 50 mW e.i.r.p.			ERC/REC 70-03 Annex 10	Professional radio-microphones 50 mW e.i.r.p. for devices worn on the body
1795 - 1800 MHz	SRD: Radio-microphones and Hearing aid	MKS EN 300 422	20 mW e.i.r.p. 50 mW e.i.r.p.			ERC/REC 70-03 Annex 10	Professional radio-microphones 50 mW e.i.r.p. for devices worn on the body
	SRD: wireless audio applications	MKS EN 301 357	20 mW			ERC/REC 70-03 Annex 13	
1800 - 1804.8 MHz	SRD: Radio-microphones and Hearing aid	MKS EN 300 422	20 mW e.i.r.p. 50 mW e.i.r.p.				Professional radio-microphones 50 mW e.i.r.p. for devices worn on the body
1800 - 1805 MHz	terminals for public communication networks	EN 302 326			5 MHz		
1805 - 1880 MHz	Devices for mobile communications within an aircraft (MCA)	MKS EN 301 502 MKS EN 301 511 MKS EN 301 419 MKS EN 302 480					
1880 - 1900 MHz	DECT	ETS 300 175 ETS 300 323 MKS EN 301 406	250 mW peak e.r.p. (peak power for a time)			ERC/DEC/(95)01, ERC/DEC/(98)22	Wireless terminals DECT
1900 - 1980 MHz	UMTS/IMT2000 (T)	MKS EN 301 908				ERC/DEC/(00)06	Ground Mobile terminals UMTS / IMT2000
1980 - 2010 MHz	UMTS/IMT2000 (T)	MKS EN 301 908				ERC/DEC/(00)06	Ground Mobile terminals UMTS / IMT2000
	S-PCS	MKS EN 301 442 MKS EN 301 473				ECC/DEC/(07)05	Mobile satellite terminals
2010 - 2025 MHz	UMTS/IMT2000 (T)	MKS EN 301 908				ERC/DEC/(00)06	Ground Mobile terminals UMTS / IMT2000
2110 - 2170 MHz	UMTS/IMT2000 (T)	MKS EN 301 908				ERC/DEC/(00)06	Ground Mobile terminals UMTS / IMT2000
2170 - 2200 MHz	UMTS/IMT2000 (T)	MKS EN 301 908				ERC/DEC/(00)06	Ground Mobile terminals UMTS / IMT2000
	S-PCS	MKS EN 301 442				ECC/DEC/(07)05	Mobile satellite terminals
2.2 - 8 GHz	SRD: Radio-deterministic applications (BMA)	EN302 435	*	*	*	ECC/DEC/(07)01, ERC/REC 70-03 Annex 6	For analysis of construction materials *ECC Decision stipulates the restrictions
2400 - 2483.5 MHz	SRD: Radio-deterministic applications	MKS EN 300 440	25 mW e.i.r.p.			ERC/DEC/(01)08, ERC/REC/70-03 Annex 6	
	SRD: unspecified devices	MKS EN 300 440	10 mW e.i.r.p.			ERC/REC 70-03 Annex 1	
	SRD: broadband systems for data transfer, including also WAS/RLANs	MKS EN 300 328	100 mW e.i.r.p.	Adequate mechanisms for joint use of the spectrum, as LBT and DAA (Detect-And Avoid) may be utilised.		ERC/REC 70-03 Annex 3	For broadband modulations, except for FHSS, max e.i.r.p. is limited to 10mW/1MHz

2446 - 2454 MHz	SRD:	MKS EN 300 440 MKS EN 300 761	≤500 mW e.i.r.p.			ERC/REC/ 70-03 Annex 11	
	radio frequency identification (RFID)	MKS EN 300 440	>500 mW до 4W e.i.r.p.	≤ 15% duty cycle (FHSS may be used)		ERC/REC/ 70-03 Annex 11	Above 500 mW for internal use and duty cycle lower than 15% for each interval of 200 ms (30ms on/170ms off).
	SRD: railway application (automatic railway car identification) AVI	MKS EN 300 761	500 mW e.i.r.p.			ERC/REC/ 70-03 Annex 4	Transmits only if vehicle is present. 5 channels, each with 1,5 MHz
2483.5 - 2500 MHz	S-PCS	MKS EN 301 441 MKS EN 301 473	-dB (W/4 KHz), average value -15dB (W/4 KHz), peak value			ERC/DEC/(97)03, ERC/DEC/(97)05	Mobile satellite terminals
	SRD: devices for monitoring, searching and data collection	MKS EN 303 203	1 mW e.i.r.p.	Adequate mechanisms for joint use of the spectrum (LBT and AFA) for devices ≤ 10% duty cycle	Modulation band ≤ 3 MHz	ERC/REC 70-03 Annex 2	Only for internal use for MBANS, in healthcare institutions
		MKS EN 303 203	10 mW e.i.r.p.	Adequate mechanisms for joint use of the spectrum (LBT and AFA) for devices ≤ 2% duty cycle	Modulation band ≤ 3 MHz	ERC/REC 70-03 Annex 2	Only for internal use for MBANS, in the patient's home
	SRD: active medical implants with accessories	MKS EN 301 559	10 dBm e.i.r.p.	LBT+AFA and < 10% duty cycle.	1MHz	ERC/REC 70-03 Annex 12	For active medical low power implants and accessories, the respective harmonised standard is used. Individual transmitters may combine directly adjacent channels on dynamic basis. Only for internal use.
2500 - 2690 MHz	UMTS/IMT2000 (T)					ERC/DEC/(00)06	Ground Mobile terminals UMTS / IMT2000
3.1-4.8 GHz	SRD: unspecified devices	MKS EN 300 065 EN300 500	*	*		ERC/DEC/(06)04, ERC/DEC/(00)12, ERC/REC/70-03 Annex 1	General UWB regulation. * See all parameter restrictions in ECC decisions.
3.41-3.8 GHz	Terminals in public communication networks	EN 302 326					
3400 - 4200 MHz	Fixed satellite systems using ROES (T)					ERC/DEC/(99)26	Ground terminals intended only for reception (ROES)
4500 - 7000 MHz	SRD: Radio-deterministic applications (TLPR)	MKS EN 302 372	-41.3dBm/MHz e.i.r.p			ERC/REC/70-03 Annex 6	Only for radars measuring liquids in tanks
5150 - 5350 MHz	SRD: broadband systems for data transfer, including also WAS/RLANs	MKS EN 301 893	200mW max mean (maximum average)			ECC/DEC/(04)08, ERC/REC/70-03 Annex 3	Only for internal use. Maximum average e.i.r.p. e до 10mW/MHz for each 1 MHz band

5470 - 5725 MHz	SRD: broadband systems for data transfer, including also WAS/RLANS	MKS EN 301 893	1 W max average e.i.r.p.			ECC/DEC/(04)08, ERC/REC/70-03 Annex 3	For internal and external use Maximum average e.i.r.p. e до 50mW/MHz for each1 MHz band
5725 - 5875 MHz	SRD: unspecified devices	MKS EN 300 440	25 mW e.i.r.p.			ERC/REC 70-03 Annex 1	
5725 - 5875 MHz	BFWA	MKS EN 302 502	*	*	*	ECC/REC(06)04	*The ECC decision contains the restrictions.
5795 - 5805 MHz	SRD: transport and traffic telemetry (TTT)	MKS EN 302 674	2 W e.i.r.p. 8 W e.i.r.p.			ERC/REC 70-03 Annex 5	For systems with power higher than 8 W, authorisation is required.
5805 - 5815 MHz	SRD: transport and traffic telemetry (TTT)	MKS EN 300 674	2 W e.i.r.p. 8 W e.i.r.p.			ERC/REC 70-03 Annex 5	For systems with power higher than 8 W, authorisation is required
6000 - 8500 MHz	SRD: Radio-deterministic applications	EN 302 729				ERC/DEC/(11)02, ERC/REC/70-03 Annex 6	For industrial LPR radars
8500 - 10 600 MHz	SRD: Radio-deterministic applications (TLPR)	MKS EN 302 372	-41.3dBm/MHz e.i.r.p			ERC/REC/ 70-03 Annex 6	Only for radars measuring liquids in tanks
9200 - 9975 MHz	SRD: Radio-deterministic applications	MKS EN 300 440	25 mW e.i.r.p.			ERC/REC/ 70-03 Annex 6	
10.5 - 10.6 GHz	SRD: Radio-deterministic applications	MKS EN 300 440	500 mW e.i.r.p.			ERC/REC/ 70-03 Annex 6	
10.7 - 11.7 GHz	Fixed satellite systems using SIT (T)	ETS 300 255				ERC/DEC/(95)01, ERC/DEC/(98)15	Terminals Omnitrac
12.5 - 1.75 GHz	Mobile satellite system Euteltracks	ETS 300 255				ERC/DEC/(95)01, ERC/DEC/(98)15	Terminals Omnitrac
	Fixed satellite systems using VSAT	MKS EN 301 428 MKS EN 301 430	до 2 W, до 50 dBW e.i.r.p.			ERC/DEC/(00)05	VSAT terminals placed at 500m distance from the airport fence.
	Mobile satellite system ARCANET(T)	ETS 300 255				ERC/DEC/(98)24	Portable Terminals ARCANET
13.4 - 14.0 GHz	SRD: Radio-deterministic applications	MKS EN 300 440	25 mW e.i.r.p.			ERC/REC/ 70-03 Annex 6	
14 - 14.25 GHz	Mobile satellite system Euteltracks	ETS 300 255				ERC/DEC/(95)01, ERC/DEC/(98)15	Terminals Omnitrac
	Fixed satellite systems using VSAT	MKS EN 301 428	до 2 W, до 50 dBW e.i.r.p.			ERC/DEC/(00)05	VSAT terminals placed at 500m distance from the airport fence.
	Mobile satellite system ARCANET(T)	ETS 300 255				ERC/DEC/(98)24	Portable Terminals ARCANET
17.1 - 17.3 GHz	SRD: Radio-deterministic applications (DAA)	MKS EN 300 440	26 dBm e.i.r.p.	DAA (Detect and Avoid)		ERC/REC/70-03 Annex 3	Ground Based Synthetic Aperture Radar (GBSAR)
17.7 - 20.2 GHz	Fixed satellite systems and radiobroadcasting satellite systems, using ROES (T)					ERC/DEC/(99)26	

19.7 - 20.2 GHz	Fixed satellite systems using SUT (T)	MKS EN 301 459	до 2 W, до 50 dBW e.i.r.p.			ERC/DEC/(00)04	Satellite user terminals SUT (T)	
21.65 - 26.65 GHz	SRD: transport and traffic telemetry (TTT)	EN 302 288				ERC/DEC/(04)10, ERC/REC 70-03 Annex 5	Only for SRR (automotive Short Range Radars) New devices may not be sold after 1 st of July 2013.	
24 - 24,25 GHz	SRD: unspecified devices	MKS EN 300 440	100 mW e.i.r.p.			ERC/REC 70-03 Annex 1		
24.05 - 24,25 GHz	SRD: Radio-deterministic applications	MKS EN 300 440	100 mW e.i.r.p.			ERC/REC 70-03 Annex 6		
24.05 - 24.075 GHz	SRD: transport and traffic telemetry (TTT)	EN 302 858	100 mW e.i.r.p.			ERC/REC 70-03 Annex 5	For automotive radars	
24.05 - 26.5 GHz	SRD: Radio-deterministic applications	EN 302 729				ECC/DEC/(11)02, ERC/REC 70-03 Annex 6	For industrial LPR radars	
24.05 - 27 GHz	SRD: Radio-deterministic applications (TLPR)	MKS EN 302 372	-41.3dBm/MHz e.i.r.p			ERC/REC 70-03 Annex 6	Only for radars measuring liquids in tanks	
24.075 - 24.150 GHz	SRD: transport and traffic telemetry (TTT)	EN 302 858	0.1 mW e.i.r.p.			ERC/REC 70-03 Annex 5	For automotive radars	
			100mW e.i.r.p.	≤4μs/40kHz dwell time every 3ms			ERC/REC 70-03 Annex 5	For automotive radars. Access and requirements are provided for devices mounted behind the bumpers. If there are no bumpers, the requirement is max 3μs/40kHz dwell time every 3ms
				≤1μs/40kHz dwell time every 40ms			ERC/REC 70-03 Annex 5	For automotive radars. Access and requirements are provided for devices mounted behind the bumpers or in case of no bumpers.
24.150 - 24.250 GHz	SRD: transport and traffic telemetry (TTT)	EN 302 858	100 mW e.i.r.p.			ERC/REC 70-03 Annex 5	For automotive radars	
24.25 - 24.495 GHz	SRD: transport and traffic telemetry (TTT)		-11dBm e.i.r.p	≤0.25%/s/25MHz duty cycle		ERC/REC 70-03 Annex 5	For automotive radars	
24.495 - 24.50 GHz	SRD: transport and traffic telemetry (TTT)		-8dBm e.i.r.p	≤1.5%/s/ 5MHz duty cycle		ERC/REC 70-03 Annex 5	Restricted for WLAM (Broadband Low Activity Mode) in order to avoid interference, and permitted for specific configurations as per ECC Report 164	
24.250 - 24.50 GHz	SRD: transport and traffic telemetry (TTT)		+20dBm e.i.r.p	≤5.6%/s/ 25MHz duty cycle		ERC/REC 70-03 Annex 5		
			+16dBm e.i.r.p	≤2.3%/s/ 25MHz duty cycle		ERC/REC 70-03 Annex 5		
24.25 - 26.65 GHz	SRD: transport and traffic telemetry (TTT)	EN 302 288				ECC/DEC(04)10, ERC/REC 70-03 Annex 5	For SRR (automotive radars) up to 1 st January 2018	
29,5 - 30 GHz	Terminals in satellite communication networks	MKS EN 301 459						
57 - 59 GHz	Fixed links	MKS EN 301 751				ERC/REC(09)01		

57 - 64 GHz	SRD: unspecified devices	MKS EN 305 550	100 mW e.i.r.p., max. transmitter output power of 10 mW and power density up to 13dBm/MHz e.i.r.p.			ERC/REC/ 70-03 Annex 1	
	SRD: Radio-deterministic applications (TLPR)	MKS EN 302 372	-41.3 dBm/MHz e.i.r.p.			ERC/REC/ 70-03 Annex 6	Only for radars measuring liquids in tanks
	SRD: Radio-deterministic applications (LPR)	MKS EN 302 729				ECC/DEC/(11)02, ERC/REC/70-03 Annex 6	Only for radars measuring liquids in tanks
57 - 66 GHz	SRD: broadband systems for data transfer	EN 302 567	40 dBm average e.i.r.p.			ERC/REC/(05)02, ERC/REC/(09)01, ERC/REC 70-03	Outdoor fixed installation is not permitted. Max average e.i.r.p. up to 13 dBm/MHz
61 - 61.5 GHz	SRD: unspecified devices	EN 305 550	100 mW e.i.r.p.			ERC/REC 70-03 Annex 1	
63 - 64 GHz	SRD: road-transport and traffic telemetry					ERC/DEC/(02)01, ERC/REC 70-03 Annex 5	Vehicle-2-Vehicle and Road-2-Vehicle systems
75 - 85 GHz	SRD: Radio-deterministic applications (LPR)	MKS EN 302 729	-41.3 dBm/MHz e.i.r.p.			ECC/DEC/(11)02, ERC/REC/70-03 Annex 6	For industrial (LPR) radars
76 - 77 GHz	SRD: road-transport and traffic telemetry	MKS EN 301 091	55 dBm peak e.i.r.p.			ERC/DEC/(02)01, ERC/REC 70-03 Annex 5	23.5 dBm average power only for pulse-wave radars. For automotive radars
	SRD: railway application	MKS EN 301 091	55 dBm peak e.i.r.p.			ERC/REC 70-03 Annex 4	Vehicle obstruction/detection at railway crossing 50dBm, average power or 23.5 dBm average power for pulse-wave radar
77 - 81 GHz	SRD: transport and traffic telemetry	EN 302 264				ERC/DEC/(04)03, ERC/REC 70-03 Annex 5	For automotive short-range radars (SRR)
122 -122.25 GHz	SRD: unspecified devices	EN 305 550	10 dBm e.i.r.p./250MHz and-48			ERC/REC 70-03 Annex 1	
122.25 -123 GHz	SRD: unspecified devices	EN 305 550	100 mW e.i.r.p.			ERC/REC 70-03 Annex 1	
224 -246 GHz	SRD: unspecified devices	EN 305 550	100 mW e.i.r.p.			ERC/REC 70-03 Annex 1	
244-246 GHz	SRD: unspecified devices	EN 305 550	100 mW e.i.r.p.			ERC/REC 70-03 Annex 1	
3.1-4.8 GHz 6-9 GHz	SRD: unspecified devices	EN 302 065 EN 302 500 only 6-9 GHz				ECC/DEC/(06)04, ERC/REC 70-03 Annex 1	UWB Regulation
6-8.5 GHz	SRD: unspecified devices	EN 302 065				ECC/DEC/(12)03, ERC/REC 70-03 Annex 1, ERC/REC 70-03 Annex 1	UWB Regulation on aircraft interior

Abbreviations:	
SRD =	Short Range Device
LBT =	Listen Before Talk
LPR =	Level Probing Radar
AFA =	Adaptive Frequency Agility
DAA =	Detect-And Avoid