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Prague, 22 November 2016
Ref.: ČTÚ-90 291/2016-613

On the basis of public consultation under Section 130 of the Act No. 127/2005 Coll., on electronic communications and on amendment to certain related acts (The Electronic Communications Act), as amended (hereinafter “the Act”) and under of the Act No. 500/2004 Coll., the Administrative Regulations, as amended, and on the basis of the decision of the Council of the Czech Telecommunication Office (hereinafter “the Office”) under Section 107(9)(b)(2) of the Act and in order to implement Sections 9 and 12 of the Act, the Office as the appropriate state administration body under Section 108(1)(b) of the Act hereby issues this Measure of General Nature

General Authorization No. VO-R/10/11.2016-13
for the use of radio frequencies and for the operation of Short Range Devices

Article 1
Introductory provisions

The apparatus operating conditions^{1),2)} relating to the use of radio frequencies and to the operation of transmitting radio equipment of Short Range Devices³⁾ type (hereinafter the “device”) by natural persons or legal entities (hereinafter the “user”) are laid down in the Act and in this General Authorization under Section 10(1) of the Act⁴⁾.

Article 2
Factual common conditions

The factual conditions related to Section 10(1)(m) are as follows:

(1) The user can use radio frequencies and operate device without individual authorization for the use of radio frequencies under conditions defined for particular types of devices in articles 3 up to 13.

(2) The devices may be operated only with a built-in antenna or an antenna prescribed by the manufacturer⁵⁾. The devices shall not be operated with additional high-frequency power amplifiers and/or with frequency converters.

(3) The devices are operated on shared frequencies.

¹⁾ Sections 73 and 74 of the Act.

²⁾ European harmonized standards referred to in particular articles of this General Authorization, applied on the basis of the law No. 90/2016 Coll., on the assessment of conformity of stated products in case of their delivery on market, and Government Decree No. 426/2000 Coll., by which is set down technical requirements on radio and telecommunication terminal devices, as amended.

³⁾ The term Short Range Device - SRD is used by apparatus with low level of harmful interference due to low transmitting power and thus communication at short range. The use of radio frequencies by Short range devices is not considered as radiocommunication service in meaning of chapter 1, paragraph III. (Radiocommunication services) of Plan of the Frequency Band Allocations (National Table of Frequency Allocations) of 2 April 2010, Appendix to the Decree No. 105/2010 Coll.

⁴⁾ This General Authorization is based on the harmonisation documents of European Commission and European Conference of Postal and Telecommunications Administrations (CEPT) listed in Annex 1.

⁵⁾ Section 3(d) of the law No. 90/2016 Coll., on conformity assessment specified products relating to the making available on the market.

(4) The devices shall not cause harmful interference to the stations of radiocommunication services which use radio frequencies according to Plan of the Frequency Band Allocations, and have no protection from the harmful interference caused by these stations. They also have no protection from the harmful interference caused by other devices which have already been put into operation. Interference issues, if any, are settled by mutual agreement of users.

(5) The devices may be neither electrically nor mechanically modified.

(6) Unless specified otherwise, the values of technical parameters specified in this General Authorization are the limit values and shall not be exceeded in any operating mode of the equipment.

(7) In case that occupied bandwidth is not defined for specified category of device and specified frequency band then entire stated frequency band can be used for transfer of signals. In case that the duty cycle⁶⁾ for specified category of device and specified frequency band is not defined it can be used the duty cycle up to 100%.

(8) The adjacent frequency bands specified in this General Authorization can be used as a single frequency band on condition that specific conditions valid for all these adjacent bands are fulfilled.

Article 3

Specific conditions for non-specified Short Range Devices

(1) On the basis of the article 3 all kinds of devices which fulfill the technical conditions as specified for a given frequency band can be operated, regardless of the application or the purpose. The typical uses include for example telemetry, tele-command, alarms or transmission of data in general.

(2) The technical parameters of the devices are:

Ref.	Frequency band	Radiated power, or magnetic field intensity	Occupied band width	Duty cycle ⁶⁾	Other conditions according to paragraph	Harmonized standard (ČSN ETSI EN)
a	6765–6795 kHz	42 dB μ A/m /10 m			8, 9	300 330 ⁷⁾
b	13.553–13.567 MHz	42 dB μ A/m /10 m			8, 9	
c	26.957–27.283 MHz	42 dB μ A/m /10 m or 10 mW e.r.p.			8, 9	300 220 ⁸⁾
c1	26.995; 27.045; 27.095; 27.145; 27.195 MHz	100 mW e.r.p.	10 kHz	≤ 0.1 %	8	300 220 ⁸⁾
d	40.66–40.7 MHz	10 mW e.r.p.			8, 9	
e	138.2–138.45 MHz	10 mW e.r.p.		≤ 1.0 %	8	

⁶⁾ Duty cycle is the ratio of time when the device transmits actively relative to any one-hour period, unless otherwise stated in relevant article. Detailed definition of duty cycle is in ERC-REC 70-03⁴⁾ and harmonised standards ²⁾.

⁷⁾ ČSN ETSI EN 300 330 – Electromagnetic Compatibility and Radio Spectrum Matters (ERM) – Short range devices (SRD) – radio equipment operating in the frequency range of 9 kHz to 25 MHz and systems with inductive loop in a frequency range of 9 kHz to 30 MHz.

⁸⁾ ČSN ETSI EN 300 220 – Electromagnetic Compatibility and Radio Spectrum Matters (ERM) – Short range devices (SRD) – radio equipment to be used in the frequency range of 25 MHz to 1000 MHz, power levels ranging up to 500 mW.

<i>f</i>	169.4–169.475 MHz	500 mW e.r.p.	50 kHz	≤ 1.0 %	8	300 220 ⁸⁾
<i>f1</i>	169.4–169.4875 MHz	10 mW e.r.p.		paragraph 7 or ≤ 0.1 %	8	
<i>f2</i>	169.4875–169.5875 MHz	10 mW e.r.p.		paragraph 7 or during 6:00–24:00 ≤ 0.001 % and during 0:00–6:00 ≤ 0.1 %	8	
<i>f3</i>	169 5875–169.8125 MHz	10 mW e.r.p.		paragraph 7 or ≤ 0.1 %	7, 8	
<i>g</i>	433.05–434.79 MHz	10 mW e.r.p.		≤ 10 %	3, 8, 9	
<i>g1</i>	433.05–434.79 MHz	1 mW e.r.p.; for wideband channels of width > 250 kHz power spectral density is limited to –13 dBm/10 kHz			3, 8	
<i>g2</i>	433.05–434.79 MHz	10 mW e.r.p.	25 kHz		3, 8	
<i>h</i>	863.0–870.0 MHz	25 mW e.r.p.	see paragraph 4	paragraph 4, 7 or ≤ 0.1 % ⁹⁾ ,	3, 4, 5, 8 (FHSS ¹⁰⁾)	
<i>h1</i>	863.0–870.0 MHz	25 mW e.r.p.; spectral density is limited to –4.5 dBm/100 kHz (see paragraph 5)		paragraph 5, 7 or ≤ 0.1 % ⁹⁾ ,	3, 4, 5, 8 (DHSS ¹⁰⁾ – 5)	
<i>h2</i>	863.0–870.0 MHz	25 mW e.r.p.	see paragraph 6	paragraph 6, 7 or ≤ 0.1 % ⁹⁾ ,		
<i>h3</i>	868.0–868.6 MHz	25 mW e.r.p.		paragraph 7 or ≤ 1.0 % ⁹⁾	5, 8	
<i>h4</i>	868.7–869.2 MHz	25 mW e.r.p.		paragraph 7 or ≤ 0.1 % ⁹⁾	5, 8	
<i>h5</i>	869.4–869.65 MHz	500 mW e.r.p.	25 kHz ¹¹⁾	paragraph 7 or ≤ 10 % ⁹⁾	3, 5, 8	
<i>h6</i>	869.7–870.0 MHz	5 mW e.r.p.			3, 5, 8	
<i>h7</i>	869.7–870.0 MHz	25 mW e.r.p.		paragraph 7 or ≤ 0.1 % ⁹⁾	3, 5, 8	
<i>i</i>	2400–2483.5 MHz	25 mW e.i.r.p.			9	300 440 ¹²⁾
<i>j</i>	5725–5875 MHz	25 mW e.i.r.p.			9	
<i>k</i>	24.0–24.25 GHz	100 mW e.i.r.p.			9	

⁹⁾ The duty cycle is not limited when using LBT technology (Listen Before Talk - transmission only on request based on a reception).

¹⁰⁾ Frequency Hopping Spread Spectrum, FHSS; Direct Sequence Spread Spectrum, DSSS.

¹¹⁾ The entire frequency band can be also used as one channel for the transmission of high speed data.

¹²⁾ ČSN ETSI EN 300 440 – Electromagnetic Compatibility and Radio Spectrum Matters (ERM) – Short range devices (SRD) – radio equipment to be used in the frequency range of 1 GHz to 40 GHz.

<i>l</i>	57–64 GHz	100 mW e.i.r.p., transmitting output power 10 dBm and power spectral density 13 dBm/MHz e.i.r.p.			9	300 550 ¹³⁾
<i>l1</i>	61.0–61.5 GHz	100 mW e.i.r.p.				
<i>m</i>	122–123 GHz	100 mW e.i.r.p.			9	
<i>n</i>	244–246 GHz	100 mW e.i.r.p.				

(3) Devices in the frequency bands *g*, *g1*, *g2*, *h*, *h1* up to *h7* shall not be used for the transmission of analogue audio signals with the exception of the transmission of voice. Devices in the frequency bands *g1*, *g2*, *h4* can be used for the transmission of voice subject to advanced techniques mitigating interference used simultaneously.

(4) In the frequency band *h* can be operated devices with FHSS modulation with a channel spacing of ≤ 100 kHz, whereas the channel spacing of 100 kHz enabling partial division to 50 kHz or 25 kHz, is preferred. Duty cycle relates to entire transmitting in given band and for devices operated only in the frequency band 865–868 MHz can be increased up to 1 %.

(5) In the frequency band *h1* can be operated devices with DSSS modulation or with a different wideband modulation except for FHSS of unlimited channel spacing; for these devices the spectral power density is limited to –4.5 dBm/100 kHz in the case of using the entire frequency band, to +6.2 dBm/100 kHz in the case of only using the 865–868 MHz frequency sub-band and to +0.8 dBm/100 kHz in the case of only using the 865–870 MHz frequency sub-band; the narrowband devices with channel spacing ≤ 100 kHz. Duty cycle applies to the entire transmission in given band and for devices operated in the frequency sub-band 865–868 MHz only it can be increased up to 1 %.

(6) In the frequency band *h2* can be operated narrowband devices with channel spacing of ≤ 100 kHz whereas the channel spacing 100 kHz enabling partial division to 50 kHz or 25 kHz, is preferred.

(7) In the frequency bands *f1*, *f2*, *f3*, *h*, *h1*, *h2*, *h3* up to *h7*, the techniques for access to the spectrum and to mitigate interference which provides at very least an equal effect as techniques described in the harmonized standards shall be used²⁾; or it is possible to use the specified maximum values of the duty cycle.

(8) Transmission of video information is not allowed in the bands *a* up to *h7*.

(9) The frequency bands *a*, *b*, *c*, *d*, *g*, *i*, *j*, *k*, *l*, *m* may also be used for industrial, scientific and medical purpose (the so-called ISM bands), i.e. the use of radio frequencies for purposes other than information transmission – for example, technological heating, lighting, cooking, scientific experimentation etc. The harmful interference which thus arises shall be minimized.

Article 4

Specific conditions for Transport and Traffic Telematics (TTT¹⁴⁾)

(1) On the basis of the article 4 the devices used in the area of railway transport or in road, ship or aircraft transport depending on relevant technical restrictions and also devices for traffic management, navigation, mobility management and in intelligent transportation systems (ITS) can be operated only. They are used typically as interface among different modes of transport, for communication between vehicles (e.g. communication car-to-car), communication

¹³⁾ ČSN ETSI EN 305 550 – Electromagnetic Compatibility and Radio Spectrum Matters (ERM) – Short range devices (SRD) – radio equipment to be used in the frequency range of 40 GHz to 246 GHz.

¹⁴⁾ Abbreviation TTT stands for Transport and traffic telematics.

between vehicles and fixed placements (e.g. car-to-infrastructure) and for communication between system and users as well.

(2) The technical parameters of the devices are:

Ref.	Frequency band	Radiated power	Channel spacing	Other conditions	Harmonized standard (ČSN ETSI EN)
a	984–7484 kHz	9 dB μ A/m at a distance 10 m		railway devices of EUROBALISE system; transmission only after reception of signal from train; spectral mask according to ČSN ETSI EN 302 608 ¹⁵⁾	302 608 ¹⁵⁾
b	7.3–23.0 MHz	–7 dB μ A/m at a distance 10 m		railway devices of EUROLOOP system; transmission only in presence of train	302 609 ¹⁶⁾
c	27.09–27.1 MHz	42 dB μ A/m at a distance 10 m		railway devices of EUROBALISE, EUROLOOP system; spectral mask according to ČSN ETSI EN 302 608 ¹⁶⁾	302 608 ¹⁶⁾
d	2447.0; 2448.5; 2450.0; 2451.5; 2453.0 MHz	500 mW e.i.r.p.		railways device of AVI system; transmission only in presence of train	300 761 ¹⁷⁾
e1	5.795–5.805 GHz	2 W or 8 W e.i.r.p. ¹⁸⁾	5 MHz or 10 MHz ¹⁹⁾	transmission into vehicles, in particular for toll systems	300 674 ²⁰⁾
e2	5.805–5.815 GHz	2 W or 8 W e.i.r.p. ¹⁸⁾	5 MHz or 10 MHz ²⁰⁾		300 674 ²¹⁾
e3	5.875–5.905 GHz	2 W e.i.r.p. as per paragraph 5; the spectral density is limited to 23 dBm/MHz		as per paragraph 5	302 571 ²¹⁾
f1	24.05–24.075 GHz	100 mW e.i.r.p.			302 858 ²²⁾
f2	24.075–24.15 GHz	0.1 mW e.i.r.p.			
f3	24.075–24.15 GHz	100 mW e.i.r.p. as per paragraph 5	see paragraph 6	automotive radars	
f4	24.15–24.25 GHz	100 mW e.i.r.p.			
f5	21.65–24.25 GHz	see paragraph 3	see paragraph 3	only automotive radars in vehicles registered in member	302 288 ²³⁾

¹⁵⁾ ČSN ETSI EN 302 608 – Electromagnetic compatibility and Radio spectrum Matters (ERM) – Short range devices (SRD) – Radio equipment for Eurobalise railway systems.

¹⁶⁾ ČSN ETSI EN 302 609 – Electromagnetic compatibility and Radio spectrum Matters (ERM) – Short range devices (SRD) – Radio equipment for Euroloop railway systems.

¹⁷⁾ ČSN ETSI EN 300 761 – Electromagnetic compatibility and Radio Spectrum Matters (ERM) – Short range devices (SRD) Automatic vehicle identification for railways (AVI), operating in the 2.45 GHz frequency range.

¹⁸⁾ The transmission of data at 1 Mbit/s with power of 8 W is allowed in accordance with the standard²⁰⁾. The transmission of data at 500 kbit/s downlink and 250 kbit/s uplink with power of 2 W is allowed in accordance with the standard²²⁾.

¹⁹⁾ For channel spacing of 5 MHz, the following channels are recommended: 5797.5 MHz, 5802.5 MHz, 5807.5 MHz and 5812.5 MHz; for channel spacing of 10 MHz, the following channels are recommended: 5800 MHz and 5810 MHz.

²⁰⁾ ČSN ETSI EN 300 674 – Electromagnetic compatibility and Radio Spectrum Matters (ERM) – Road transport and traffic Telematics (RTTT) – Transmission equipment for Dedicated short range communications (DSRC) (500 kbit/s / 250 kbit/s), operating in the Industrial, scientific and medical (ISM) band of 5.8 GHz;

²¹⁾ ČSN ETSI EN 302 571 – Intelligent Transport Systems (ITS) – Radiocommunications equipment operating in the 5 855 MHz up to 5 925 MHz frequency band.

²²⁾ ČSN ETSI EN 302 858 – Electromagnetic compatibility and Radio Spectrum Matters (ERM) – Short range devices – Road transport and traffic telematics (RTTT) – Automotive short range radar equipment operating in the 24.05 GHz up to 24.25 GHz for automotive applications.

²³⁾ ČSN ETSI EN 302 288 – Electromagnetic compatibility and Radio Spectrum Matters (ERM) – Short range devices – Road

				states of European Union, until 30 June 2013	
<i>f6</i>	24.25–24.495 GHz	20 dBm e.i.r.p. see paragraph 6		automotive radars see paragraph 5 and 6	302 288 ²³⁾
<i>f7</i>	24.25–26.65 GHz	see paragraph 3	see paragraph 3	automotive radars until 31 December 2017 see paragraph 4	
<i>g</i>	63–64 GHz	40 dBm e.i.r.p.		car-to-car, car-to-infrastructure and infrastructure-to-car systems	302 686 ²⁴⁾
<i>h</i>	76–77 GHz	55 dBm e.i.r.p. (peak power) and 50 dBm e.i.r.p. (mean power); 23.5 dBm e.i.r.p. (mean power) for pulse radars		land automotive systems and infrastructure systems	301 091 ²⁵⁾
<i>i</i>	77–81 GHz	55 dBm e.i.r.p. (peak power); spectral power density –3 dBm/MHz, outside vehicle –9 dBm/MHz		land automotive systems	302 264 ²⁶⁾

(3) The frequency bands *f5* and *f7* are used as follows: for the ultra-wide band (UWB) short range automotive radar equipment with a maximum mean power density of –41.3 dBm/MHz of effective isotropic radiated power (e.i.r.p.) and with a peak power density of 0 dBm/50 MHz e.i.r.p., except for frequencies lower than 22 GHz, where the maximum mean density is limited to –61.3 dBm/MHz e.i.r.p. The radio spectrum in the 24.05–24.25 GHz frequency band is defined for the narrowband transmission mode/component, consisting of an unmodulated carrier wave with a maximum peak power of 20 dBm/MHz e.i.r.p. and with a duty cycle not exceeding 10 % for transmission with peak level higher than –10 dBm e.i.r.p. The transmission in the 23.6–24.0 GHz frequency band under the angle of 30° or more from the horizontal plane shall be attenuated by at least 25 dB for vehicle short range radar equipment placed to the market before the year 2010 and after by at least 30 dB.

(4) In the band *f7*, new devices are permitted into operation until 31 December 2017 only and after that date it is possible to operate in the band *f7* only devices in vehicles registered in the member states of European Union before that date.

(5) In the bands *e3*, *f3* and *f6*, the mitigation techniques shall be used which provide an effect at least equal to those techniques described in the harmonized standards²⁾.

(6) In the band *f6*, the maximal duty cycles and ranges of the frequency modulation apply in accordance with harmonized standards²⁾. The radiated power is limited as follows: 20 dBm e.i.r.p. (the radars oriented in the direction of driving, duty cycle ≤ 5.6 %/second/25 MHz); 16 dBm e.i.r.p. (the radars oriented against the driving, duty cycle ≤ 2.3 %/second/25 MHz); –11 dBm e.i.r.p. (other radars in the sub-band 24.25–24.495 GHz, duty cycle ≤ 0.25 %/second/25 MHz; –8 dBm e.i.r.p. (other radars in the sub-band 24.495–24.5 GHz, duty cycle ≤ 1.5 %/second/25 MHz).

transport and traffic telematics (RTTT) – Short range radar equipment operating in the 24 GHz band.

²⁴⁾ ČSN ETSI EN 302 686 – Intelligent Transport Systems (ITS) – Radiocommunicatio equipment operating in the band 63 GHz up to 64 GHz.

²⁵⁾ ČSN ETSI EN 301 091 – Electromagnetic Compatibility and Radio Spectrum Matters (ERM) – Short range devices – Road transport and traffic telematics (RTTT) – Radar equipment operating in band 76 GHz up to 77 GHz.

²⁶⁾ ČSN ETSI EN 302 264 – Electromagnetic compatibility and Radio Spectrum Matters (ERM) – Short range devices – Road transport and traffic telematics (RTTT) – Short range radar equipment operating in the band 77 GHz to 81 GHz band.

Article 5

Specific conditions for tracking and data acquisition equipment

(1) On the basis of the article 5, the devices used for tracking and detection of persons and items including emergency detection of buried victims and valuable items and for meter readings²⁷⁾ and data acquisition can be operated only.

(2) The technical parameters of the devices for tracking and data acquisition are:

Ref.	Frequency band	Radiated power, or magnetic field intensity	Other conditions	Harmonized standard (ČSN ETSI EN)
a	456.9–457.1 kHz	7 dB μ A/m /10 m	devices which are designated only for emergency detection of buried victims and valuable items	300 718 ²⁸⁾
b	169.4–169.475 MHz	500 mW e.r.p.	meter readings only ²⁷⁾ ; channel spacing 50 kHz, duty cycle ⁶⁾ \leq 10 %	300 220 ⁸⁾
c1	2483.5–2500 MHz	10 mW e.i.r.p.	MBANS devices only ²⁹⁾ ; duty cycle ⁶⁾ < 2 %; see paragraphs 3, 4	303 203 ³⁰⁾
c2	2483.5–2500 MHz	1 mW e.i.r.p.	MBANS devices only ²⁹⁾ ; duty cycle ⁶⁾ < 10 %; see paragraphs 3, 4	

(3) Frequency bands *c1*, *c2* are designated for MBANS²⁹⁾ operated indoor buildings, modulated bandwidth \leq 3 MHz. The frequency band *c1* is designated for the operation of MBANS²⁹⁾ devices in health-care facilities, the frequency band *c2* is designated for the operation of MBANS²⁹⁾ devices in flats of the patients.

(4) In the frequency bands *c1* and *c2* the devices shall use the techniques of access to the spectrum and mitigation of interference which provide at least the same protection level as the techniques described in the harmonized standards²⁾.

Article 6

Specific conditions for radiodetermination equipment

(1) On the basis of the article 6, the devices, used for determining of the position, velocity and/or other characteristics of an object or for obtaining of information relating to these parameters by means of the propagation of radio waves can be operated only. The article 6 does not apply to devices using point-to-point or point-to-multipoint communications³¹⁾.

²⁷⁾ The term „meter readings“ is understood as the radio devices which are parts of two-way radiocommunication systems which enable remote monitoring, measurement and data transfer in the framework of infrastructure of intelligent networks, e.g. networks for distribution of electricity, gas and water.

²⁸⁾ ČSN ETSI EN 300 718 – Electromagnetic Compatibility and Radio Spectrum Matters (ERM) – Avalanche Beacons; Transmitter-receiver systems.

²⁹⁾ Abbreviation MBANS stands for Medical Body Area Network Systems which mean an radio network in proximity of body of the patient used for data collection from sensors which monitor his vital functions including of transfer this data for monitoring or processing.

³⁰⁾ ČSN ETSI EN 303 203 – Electromagnetic Compatibility and Radio Spectrum Matters (ERM) – Short range devices –Medical Body Area Network Systems (MBANs) operating in the 2483.5 MHz to 2500 MHz range.

³¹⁾ See Annex 6 of Recommendation ERC/REC 70-03 – Relating to the use of Short Range Devices (SRD), version of 27 May 2016.

(2) The technical parameters of the devices for radiodetermination are:

Ref.	Frequency band	Radiated power, or magnetic field intensity	Other conditions	Harmonized standard (ČSN ETSI EN)
<i>a</i>	9200–9975 MHz	25 mW e.i.r.p.		300 440 ¹²⁾
<i>b</i>	13.4–14.0 GHz	25 mW e.i.r.p.		
<i>c</i>	17.1–17.3 GHz	+26 dBm e.i.r.p.	see paragraph 5	

(3) Technical parameters of the tank level probing radars are:

Ref.	Frequency band	Radiated power, or magnetic field intensity	Other conditions according to paragraph	Harmonized standard (ČSN ETSI EN)
<i>g</i>	4.5–7.0 GHz	+24 dBm e.i.r.p.	5, 6	302 372 ³²⁾
<i>h</i>	6.0–8.5 GHz	7 dBm/50 MHz peak e.i.r.p. and –33 dBm/MHz mean e.i.r.p.	5	302 729 ³³⁾
<i>i</i>	8.5–10.6 GHz	+30 dBm e.i.r.p.	5, 6	302 372 ³²⁾
<i>j1</i>	24.05–26.5 GHz	26 dBm/50 MHz peak e.i.r.p. and –14 dBm/MHz mean e.i.r.p.	5	302 729 ³³⁾
<i>j2</i>	24.05–27 GHz	43 dBm e.i.r.p.	6	302 372 ³²⁾
<i>k1</i>	57–64 GHz	35 dBm/50 MHz peak e.i.r.p. and –2 dBm/MHz mean e.i.r.p.	6	302 729 ³³⁾
<i>k2</i>	57–64 GHz	43 dBm e.i.r.p.	6	302 372 ³²⁾
<i>l1</i>	75–85 GHz	34 dBm/50 MHz peak e.i.r.p. and –3 dBm/MHz mean e.i.r.p.	6	302 729 ³³⁾
<i>l2</i>	75–85 GHz	43 dBm e.i.r.p.	6	302 372 ³²⁾

(4) Technical parameters of the ultra-wideband radars designated for imaging of the structure of walls and Earth's surface (GPR/WPR) are:

Ref.	Frequency band	Maximum spectral density e.i.r.p.	Max. peak radiated power	Harmonized standard (ČSN ETSI EN)
<i>m</i>	30–230 MHz	–65 dBm/MHz	–44.5 dBm/120 kHz (e.r.p.)	302 066 ³⁴⁾
<i>n</i>	230–1000 MHz	–60 dBm/MHz	–37.5 dBm/120 kHz (e.r.p.)	

³²⁾ ČSN ETSI EN 302 372 – Electromagnetic compatibility and radio spectrum (ERM) – Short range devices (SRD) – Equipment for detection and movements – Tank level probing radar (TLPR) operating in the frequency bands 5.8 GHz, 10 GHz, 25 GHz, 61 GHz and 77 GHz.

³³⁾ ČSN ETSI EN 302 729 – Electromagnetic compatibility and radio spectrum (ERM) – Short range devices (SRD) – Level Probing Radar (LPR) equipment operating in the frequency ranges 6 GHz to 8.5 GHz, 24.05 GHz to 26.5 GHz 57 GHz to 64 GHz, 75 GHz to 85 GHz.

³⁴⁾ ČSN ETSI EN 302 066 – Electromagnetic compatibility and radio spectrum (ERM) – Short range devices (SRD) – Ground and Wall Probing Radar applications (GPR/WPR).

<i>o</i>	1000–1600 MHz	in the sub-bands 1164–1215 MHz and 1559–1610 MHz: –75 dBm/kHz; in other sub-bands: –65 dBm/MHz	–30 dBm/MHz (e.i.r.p.)
<i>p</i>	1600–3400 MHz	–51.3 dBm/MHz	–30 dBm/MHz (e.i.r.p.)
<i>q</i>	3400–5000 MHz	–41.3 dBm/MHz	–30 dBm/MHz (e.i.r.p.)
<i>r</i>	5000–6000 MHz	–51.3 dBm/MHz	–30 dBm/MHz (e.i.r.p.)
<i>s</i>	> 6000 MHz	–65 dBm/MHz	–30 dBm/MHz (e.i.r.p.)

(5) In the frequency bands *c* and *g* to *l2*, it shall be used the techniques of access to the spectrum and mitigation of interference which provide at least the same protection level as the techniques described in the harmonized standards²⁾.

(6) The frequency bands *g*, *i*, *j2*, *k2*, *l2* are reserved only for tank level probing radars³⁵⁾ placed in metal or ferroconcrete tanks or similar constructions produced of material which has comparable attenuation characteristics. The stated maximal value of the power is valid for devices placed inside closed tank and corresponds to spectral density – 41.3 dBm/MHz e.i.r.p. outside of testing tank with volume of 500 liters.

Article 7 Specific conditions for alarms

(1) On the basis of the article 7, the devices used for radio communication for indication of the alarm at a distance place (alarm systems) or systems for call and help which enable reliable communication for persons which are in distress can be operated only. It covers devices with low duty cycle and high reliability in view of the rules, which set low total use of spectrum to provide highly reliable access to the spectrum and transfers in shared bands.

(2) The technical parameters of the devices are:

Ref.	Frequency band	Radiated power	Occupied bandwidth	Duty cycle ⁶⁾	Harmonized standard (ČSN ETSI EN)
<i>a1</i>	169.48125 MHz	500 mW e.r.p.	12.5 kHz	≤ 1 % (it does not apply to the systems for social alarms)	300 220 ⁸⁾
<i>a2</i>	169.59375 MHz	500 mW e.r.p.	12.5 kHz		
<i>b</i>	868.6–868.7 MHz	10 mW e.r.p.	25 kHz ¹¹⁾	≤ 1 %	
<i>c</i>	869.2–869.25 MHz	10 mW e.r.p.	25 kHz	≤ 0.1 %	
<i>d</i>	869.25–869.3 MHz	10 mW e.r.p.	25 kHz	≤ 0.1 %	
<i>e</i>	869.3–869.4 MHz	10 mW e.r.p.	25 kHz	≤ 1 %	
<i>f</i>	869.65–869.7 MHz	25 mW e.r.p.	25 kHz	≤ 10 %	

(3) Frequency band *c* is reserved only for devices which are part of social alarms³⁶⁾ systems.

³⁵⁾ Abbreviation TLPR stands for Tank Level Probing Radar.

³⁶⁾ As social alarms are understood the radiocommunication systems which allow reliable communication for a person in distress in confined area to initiate a call for assistance. The typical use of equipment for call for assistance includes help to the elderly or the disabled.

Article 8

Specific conditions of equipment for telecommand of cranes, forest machines and other machinery

(1) On the basis of the article 8, the devices for telecommand of cranes, forest machines, industrial scales, railway sidings and for similar use can be operated only.

(2) The technical parameters of the devices are as follows:

Ref.	Frequency band	Radiated power	Occupied bandwidth	Harmonized standard (ČSN ETSI EN)
<i>a</i>	172.525 MHz; 172.575 MHz; 173.650 MHz; 173.950 MHz	100 mW e.r.p.	12.5 kHz	300 220 ⁸⁾
<i>b</i>	430.0–430.45 MHz			

Article 9

Specific conditions for equipment with inductive loop

(1) On the basis of the article 9, the devices which use magnetic field and devices with inductive loop for near field range communication can be operated only. Typical use of these devices include car immobilizers, animal identification, alarm systems with inductive loop, cable detection, waste management, personal identification, wireless voice links, access control, proximity sensors, anti-theft systems including radio frequency anti-theft induction systems, data transfer to handheld devices, automatic article identification, wireless control systems and automatic road tolling.

(2) The inductive loop can be used only as an external antenna.

(3) The radio emission of the device with inductive loop in immediate vicinity of the inductive loop is not considered as interference within the meaning of the Act.

(4) The technical parameters of the devices are:

Ref.	Frequency band	Magnetic field intensity	Other conditions	Harmonized standard (ČSN ETSI EN)
<i>a</i>	< 9 kHz	<i>to be specified</i>	<i>to be specified</i>	<i>to be specified</i>
<i>b</i>	9–90 kHz	72 dB μ A/m at a distance of 10 m ⁷⁾		300 330 ⁷⁾
<i>c</i>	90–119 kHz	42 dB μ A/m at a distance of 10 m		
<i>d</i>	119–135 kHz	66 dB μ A/m at a distance of 10 m		
<i>d1</i>	135–140 kHz	42 dB μ A/m at a distance of 10 m		
<i>d2</i>	140–148.5 kHz	37.7 dB μ A/m at a distance of 10 m		
<i>e</i>	148.5–1600 kHz	–5 dB μ A/m at a distance of 10 m		
<i>f</i>	1600–5000 kHz	–15 dB μ A/m at a distance of 10 m	see paragraph 7	
<i>f1</i>	1900–2100 kHz	5 dB μ A/m at a distance of 10 m		
<i>f2</i>	3155–3400 kHz	13.5 dB μ A/m at a distance of 10 m		

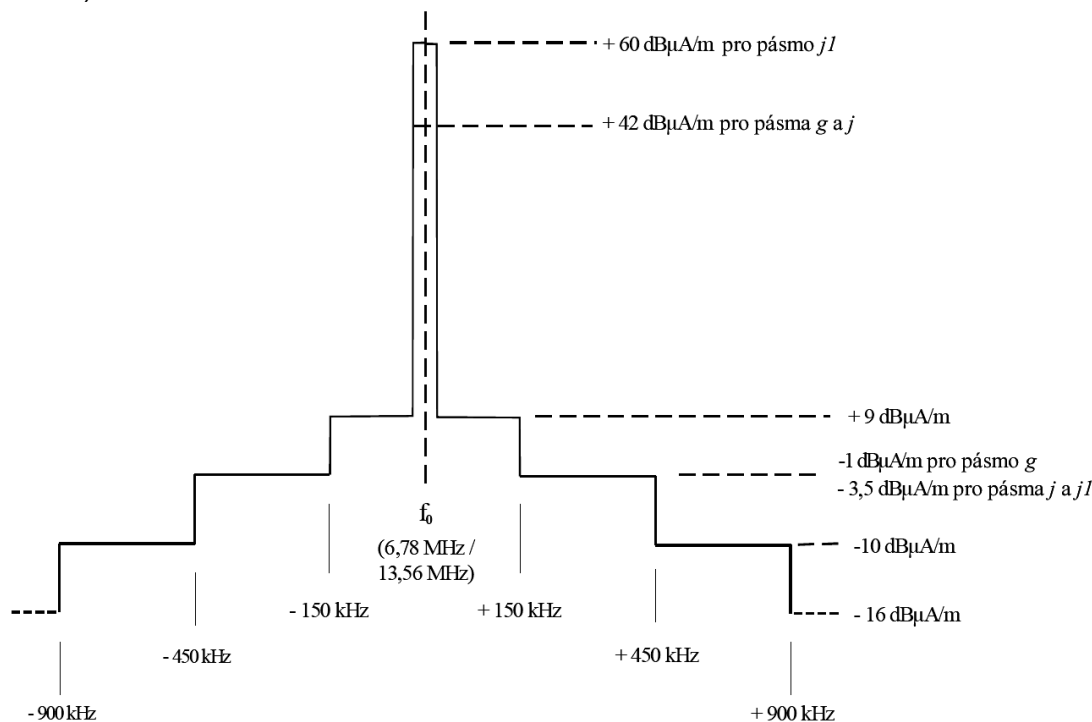
<i>g</i>	5–30 MHz	–20 dB μ A/m at a distance of 10 m	see paragraph 7	
<i>h</i>	6765–6795 kHz	42 dB μ A/m at a distance of 10 m	see paragraph 8	
<i>i</i>	7400–8800 kHz	9 dB μ A/m at a distance of 10 m		
<i>j</i>	10.2–11.0 MHz	9 dB μ A/m at a distance of 10 m		
<i>k</i>	13.553–13.567 MHz	42 dB μ A/m at a distance of 10 m	see paragraph 8	300 330 ⁷⁾
<i>k1</i>	13.553–13.567 MHz	60 dB μ A/m at a distance of 10 m	only devices of Electronic Article Surveillance ³⁸⁾ ; see paragraph 8	302 291 ³⁷⁾

(5) The occupied bandwidth is not prescribed; the entire band can be used.

(6) For devices with the built-in or by the manufacturer prescribed loop antenna with an area of 0.05 m² to 0.16 m², the indicated magnetic field strength shall be reduced by $10 \times \log(\text{area}/0.16 \text{ m}^2)$; if the area of the loop antenna is smaller than 0.05 m², the magnetic field intensity shall be reduced by 10 dB.

(7) In the frequency bands *f*, *g*, the specified maximum magnetic field strength relates to the width of the 10 kHz frequency segment. For devices operated in a segment wider than 10 kHz, the complete maximum strength while maintaining of this condition is –5 dB μ A/m at a distance of 10 m⁷⁾.

(8) The devices transmitting in the frequency bands *h*, *k*, *k1* can radiate in the sub-bands 5.88–7.68 MHz and 12.66–14.46 MHz with the values of magnetic field intensity at a distance of 10 m⁷⁾ as follows:



³⁷⁾ ČSN ETSI EN 302 291 – Electromagnetic Compatibility and Radio Spectrum Matters (ERM) – Short range devices (SRD) – Close Range Inductive Data Communication equipment operating at 13.56 MHz.

³⁸⁾ Abbreviation EAS stands for Electronic Article Surveillance.

Article 10
Specific conditions for wireless audio transmission

(1) On the basis of the article 10, it can be operated exclusively the wireless devices for audio transmission which includes for example wireless microphones for professional and consumer usage, wireless loudspeakers, wireless headphones, earpieces (assistive listening devices, i.e. radiocommunication systems which enhance perception of hearing to the hearing-impaired persons), assistive listening devices, communication means (e.g. in vehicles) or connection links used at concerts. These devices are high duty cycle / continuous transmission devices which rely on low latency.

(2) The technical parameters of the devices are:

Ref.	Frequency band	Radiated power	Occupied bandwidth	Other conditions	Harmonized standard (ČSN ETSI EN)
<i>a</i>	27.415–27.915 MHz	10 mW e.r.p.	50 kHz		300 422 ³⁹⁾ 301 357 ⁴⁰⁾
<i>b1</i>	36.4–36.65 MHz	10 mW e.r.p.	50 kHz		
<i>b2</i>	36.65–38.0 MHz	2 mW e.r.p.	50 kHz	microphones for hearing-impaired and earpieces only	
<i>b3</i>	38.0–38.5 MHz	10 mW e.r.p.	200 kHz		
<i>c</i>	87.5–108 MHz	50 nW e.r.p.	200 kHz		
<i>d1</i>	169.4–169.475 MHz	500 mW e.r.p.	50 kHz	microphones for hearing-impaired and earpieces only	300 422 ³⁹⁾ 301 357 ⁴⁰⁾
<i>d2</i>	169.4875–169.5875 MHz	500 mW e.r.p.	50 kHz	microphones for hearing-impaired and earpieces only	
<i>e1</i>	173.3 MHz	50 mW e.r.p.	75 kHz	microphones for hearing-impaired and earpieces only	
<i>e2</i>	173.965–174.015 MHz	2 mW e.r.p.	50 kHz	microphones for hearing-impaired and earpieces only	
<i>f</i>	174–216 MHz	50 mW e.r.p.		see paragraph 3	
<i>g</i>	470–694 MHz	50 mW e.r.p.		see paragraph 3	
<i>h</i>	694–786 MHz	50 mW e.r.p.		see paragraphs 3, 5	
<i>i</i>	786–789 MHz	12 mW e.r.p.			
<i>j1</i>	823–826 MHz	20 mW e.i.r.p.; for body worn microphones 50 mW e.i.r.p.	200 kHz	see paragraph 4	
<i>j2</i>	826–832 MHz	100 mW e.i.r.p.	200 kHz	see paragraph 4	
<i>k</i>	863–865 MHz	10 mW e.r.p.			
<i>k1</i>	864.8–865 MHz	10 mW e.r.p.	50 kHz	narrow band audio devices ⁴¹⁾	300 220 ⁸⁾

³⁹⁾ ČSN ETSI EN 300 422 – Electromagnetic compatibility and Radio spectrum Matters (ERM) – Radio microphones operated in the 25 MHz to 3 GHz frequency range.

⁴⁰⁾ ČSN ETSI EN 301 357 – Electromagnetic compatibility and Radio spectrum Matters (ERM) – Cordless audio devices in the range 25 MHz to 2000 MHz.

⁴¹⁾ As narrow band audio devices are understood baby phone, door systems etc.

/	1785–1804.8 MHz	20 mW e.i.r.p.; for body worn microphones 50 mW e.i.r.p.		see paragraph 4	300 422 ³⁹⁾ 300 357 ⁴⁰⁾
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(3) The frequency bands *f, g, h* are preferentially reserved for television broadcasting. Wireless microphones in these bands shall not cause interference to the reception of television signal and not claim protection from interference of the television signal.

(4) The conditions for range of spectral block edge masks⁴²⁾ valid for devices ensuring news programs and programme making and special events⁴³⁾, in duplex separation for FDD⁴⁴⁾ mode in the framework of the bands *j1, j2, l* are defined in Commission Implementing Decision No. 2014/641/EU of 1 September 2014 on harmonized technical conditions of radio spectrum use by wireless audio programme making and special events (PMSE) in the Union.

(5) In the framework of European Commission harmonization provisions, the designation of the band *h* is expected from 2020 in the framework of mobile services (see also article 6(4) of the part of radio spectrum utilization plan No. PV-P/10/08.2012-11⁴⁵⁾).

Article 11

Specific conditions for radiofrequency identification equipment

(1) On the basis of the article 11, it can be operated exclusively the devices for radiofrequency identification (Radio Frequency Identification, RFID) which are the radiocommunication systems with tag / interrogator based radio communications systems consisting of the radio devices (tags) attached to animate or inanimate items and of transmitter / receiver units (interrogators) which active the tags and receive data back. Typical use of these devices includes the tracking and identification of items, such as for Electronic Article Surveillance³⁷⁾, and collecting and transmitting data relating to the items equipped with the labels to which tags are attached, which may be either battery-less, battery assisted or battery powered. The responses from a tag are validated by its interrogator and passed to its host system.

(2) The technical parameters of the devices are:

Ref.	Frequency band	Radiated power / Magnetic field intensity	Occupied bandwidth	Duty cycle ⁶⁾	Other conditions as per paragraph	Harmonized standard (ČSN ETSI EN)
<i>a</i>	400–600 kHz	-8 dBμA/m at a distance of 10 m				300 330 ⁷⁾
<i>b</i>	13.553–13.567 MHz	60 dBμA/m at a distance of 10 m				
<i>b1</i>	11.81–14.46 MHz	see paragraph 3			3	
<i>c1</i>	865–868 MHz	100 mW e.r.p.	200 kHz	LBT ⁴⁶⁾	4	302 208 ⁴⁷⁾
<i>c2</i>	865.6–867.6 MHz	2 W e.r.p.	200 kHz	LBT ⁴⁶⁾	4	
<i>c3</i>	867.6–868 MHz	500 mW e.r.p.	200 kHz	LBT ⁴⁶⁾	4	

⁴²⁾ Block edge mask, BEM.

⁴³⁾ Programme making and special events, PMSE.

⁴⁴⁾ Abbreviation FDD stands for Frequency-Division Duplexing, the duplex with frequency division.

⁴⁵⁾ www.ctu.cz/cs/download/plan-yyuziti-radioveho-spektra/rok_2012/pv-p_10-08_2012-11.pdf.

⁴⁶⁾ From character of device and requirements of harmonised norm ČSN ETSI EN 302 208 results that devices operate in regime Listen Before Talk (LBT) – transmitting only upon request on the basis of receipt.

⁴⁷⁾ ČSN ETSI EN 302 208 – Electromagnetic compatibility and radio spectrum (ERM) – Radio frequency identification equipment operating in the band 865 MHz to 868 MHz with power levels up to 2 W.

d1	2446–2454 MHz	500 mW e.i.r.p.				300 440 ¹²⁾ 300 761 ¹⁷⁾
d2	2446–2454 MHz	4 W e.i.r.p.		≤ 15 % in any periods of 200 ms	5	300 440 ¹²⁾

(3) For devices in the frequency band *b*, the spectral mask according to ČSN EN 300 330 applies. This allows to use also frequencies from the band *b1* with output limits according to this mask.

(4) In the range of 865–868 MHz (the bands *c1* up to *c3*) there are 15 channels whose centers are set by the formula: 864.9 MHz + (0.2 MHz × the channel number). The device can be operated in more partial frequency bands (*b1* up to *b3*).

(5) Frequency band *d2* is only reserved for use inside buildings. Specific conditions shall be provided for such use: at a distance of 10 m from the outer edge of the building, any transmission shall not exceed the equivalent of the electromagnetic field intensity that would be recorded for a device with a radiated power of 500 mW e.i.r.p. located outside the building if it was measured at the same distance. In the case of a complex of buildings (e.g. shops in a shopping mall), the condition of electromagnetic field intensity shall be fulfilled at the distance of 10 m from the border of the area belonging to one user. The device shall use for suppression of interferences the technology of frequency hopping⁴⁸⁾.

Article 12

Specific conditions for medical implants

(1) On the basis of the article 12, the active medical implants can be operated only. This category of devices includes the radio part of active implantable medical devices which are intended for complete or partial implanting to human or animal body by surgical intervention or by medication and alternatively peripheral part of these devices.

(2) The technical parameters of the devices are:

Ref.	Frequency band	Radiated power / Magnetic field intensity	Duty cycle ⁶⁾	Occupied bandwidth	Other conditions	Harmonized standard (ČSN ETSI EN)
<i>a</i>	9–315 kHz	30 dBμA/m /10 m	≤ 10 %	–		302 195 ⁴⁹⁾
<i>b</i>	315–600 kHz	–5 dBμA/m /10 m	≤ 10 %	–	for veterinary implants only ⁵⁰⁾	302 536 ⁵¹⁾
<i>c</i>	12.5–20 MHz	–7 dBμA/m /10 m in a bandwidth of 10 kHz	≤ 10 %	–	for veterinary implants only ⁵⁰⁾ ; for transmission inside of buildings only	300 330 ⁷⁾
<i>d</i>	30.0–37.5 MHz	1 mW e.r.p.	≤ 10 %	–	for Ultra Low Power medical membrane implants for measurement of blood pressure ⁵²⁾	302 510 ⁵³⁾
<i>e1</i>	401–402 MHz	25 μW e.r.p.	see paragraph 3	25 kHz		

⁴⁸⁾ Frequency Hopping Spread Spectrum (FHSS).

⁴⁹⁾ ČSN ETSI EN 302 195 – Electromagnetic compatibility and radio spectrum (ERM) – Radio equipment in the frequency range 9 kHz to 315 kHz for Ultra low power active medical implants (ULP-AMI) and accessories.

⁵⁰⁾ The transmission devices, placed inside the animal body, which transmit data for the purpose of doing diagnostic functions and/or medical treatment.

⁵¹⁾ ČSN ETSI EN 302 536 – Electromagnetic compatibility and radio spectrum (ERM) – Short range devices (SRD) – Radio equipment in the frequency range 315 kHz to 600 kHz.

⁵²⁾ In the framework of the definition of the active implantable medical devices in Council Directive 90/385/EEC, as amended.

⁵³⁾ ČSN ETSI EN 302 510 – Electromagnetic compatibility and radio spectrum (ERM) – Radio equipment in the frequency range 30 MHz to 37.5 MHz for Ultra low power active medical membrane implants and accessories.

e2	402–405 MHz	25 µW e.r.p.		25 kHz, see paragraph 4	for active implantable medical means only ⁵²⁾	301 839 ⁵⁴⁾ 302 537 ⁵⁵⁾
e3	405–406 MHz	25 µW e.r.p.	see paragraph 3	25 kHz		
f	2483.5–2500 MHz	10 mW e.i.r.p.	≤ 10 %	1 MHz	for active implantable medical means only ⁵²⁾ ; see paragraph 5	301 559 ⁵⁶⁾

(3) The frequency bands e1, e3 are only intended for data transfer devices among active implantable medical devices⁵²⁾ and / or body worn devices and other devices placed outside of the human body and used for transfer from viewpoint of time of uncritical individual physiologic data on patient. Particular transmitters can combine the adjacent channels for enlargement of the bandwidth up to 100 kHz. It shall be used techniques to access spectrum and mitigate interference that provide at least equivalent effect as the techniques described in the harmonised standards²⁾. Alternatively a duty cycle ≤ 0.1 % may also be used.

(4) In the frequency band e2, the particular transmitters can combine the adjacent channels for enlargement of the bandwidth up to 300 kHz. It can be used other techniques to access spectrum or mitigate interference including bandwidths which are greater than 300 kHz on condition that they provide at least equivalent effect as the techniques described in the harmonised standards²⁾ for ensuring of compatible operation with other users, particularly with meteorological radio sondes.

(5) In the frequency band f, the master peripheral units can be used only inside buildings. During their operation, the techniques to access spectrum and mitigate interference that provide at least equivalent effect as the techniques described in the harmonised standards²⁾ shall be used as well. The entire frequency band may be used also as one channel for data high speed transfer.

Article 13

Specific conditions for remote control of acoustic information equipment for the blind

(1) On the basis of the article 13, the command devices for remote control of acoustic information devices for the blind can be operated only; they serve for remote control of stationary acoustic orientation small beacons or digital voice small beacons located at orientation points in cities, which are important for the blind e.g. at entrances to metro, hospitals, social care facilities, at bus stops and railway stations, at airports or to activate the information systems located in the means of public transport.

(2) The technical parameters of the devices are:

Ref.	Frequency	Radiated power	Occupied bandwidth	Command duration	Harmonized standard (ČSN ETSI EN)
a	86.79 MHz	10 mW e.r.p.	20 kHz	maximum 100 ms	300 220 ⁸⁾

⁵⁴⁾ ČSN ETSI EN 301 839 – Electromagnetic compatibility and radio spectrum (ERM) – Ultra low power active medical implants (ULP-AMI) and peripherals operating in the frequency range 402 to 405 MHz.

⁵⁵⁾ ČSN ETSI EN 302 537 – Electromagnetic compatibility and radio spectrum (ERM) – Short range devices (SRD) – Ultra low power medical data service systems operating in the frequency range 401 MHz to 402 MHz and 405 MHz to 406 MHz.

⁵⁶⁾ ČSN ETSI EN 301 559 – Electromagnetic compatibility and radio spectrum (ERM) – Short range devices (SRD) – Low power active medical implants (LP-AMI) operating in the frequency range 2483.5 MHz to 2500 MHz.

Article 14

Specific conditions for equipment using Ultra Wide Band technology

(1) On the basis of the article 14, the devices which use ultra-wideband technology (UWB) can be operated only. By this is meant the devices of which integral part or accessory includes the technology for short range radio communication which incorporates intentional generation and transmitting of the high-frequency energy spread over a frequency segment to be wider than 50 MHz which may overlap several frequency bands assigned to different radiocommunication services.

(2) The technical parameters of the devices for general usage of ultra-wideband technologies⁵⁷⁾, the devices for location tracking⁵⁸⁾, the devices built in road and rail vehicles⁵⁹⁾ and the devices on board of planes, are:

Ref.	Frequency band	Maximum mean e.i.r.p. density / 1 MHz	Maximum peak e.i.r.p. density / 50 MHz	Other conditions	Harmonized standard (ČSN ETSI EN)
a	≤ 1600 MHz	-90 dBm	-50 dBm		302 065-1 ⁵⁷⁾ 302 065-2 ⁵⁸⁾ 302 065-3 ⁵⁹⁾
b	1600-2700 MHz	-85 dBm	-45 dBm		
c	2700-3400 MHz	-70 dBm	-36 dBm	see paragraph 5	
d	3400-3800 MHz	-80 dBm	-40 dBm	see paragraph 5	
e	3800-4200 MHz	-70 dBm	-30 dBm	see paragraph 5	
f	4200-4800 MHz	-70 dBm	-30 dBm	see paragraph 5	
g	4800-6000 MHz	-70 dBm	-30 dBm		
h1	6000-8500 MHz	- 41.3 dBm	0 dBm	except devices in road and rail vehicles; see paragraphs 5, 6, 7	
h2	6000-8500 MHz	- 53.3 dBm	-13.3 dBm	except devices in road and rail vehicles; see paragraph 5	
i	8.5-10.6 GHz	-65 dBm	-25 dBm	see paragraph 5	
j	≥ 10.6 GHz	-85 dBm	-45 dBm		

(3) The technical parameters of material sensing devices shall comply with the conditions of item 5.1 of Commission Decision No. 2014/702/EU⁴⁾.

(4) The technical parameters of building material analysis (BMA devices) shall comply with the conditions of item 5.2 of Commission Decision No. 2014/702/EU⁴⁾.

(5) The devices can transmit with maximum mean e.i.r.p. density -41.3 dBm/MHz and maximum peak e.i.r.p. density 0 dBm measured in range of width 50 MHz if they use additional

⁵⁷⁾ ČSN ETSI EN 302 065 – Electromagnetic compatibility and Radio spectrum Matters (ERM) – Ultra Wideband technology (UWB) for communication purposes – Harmonised EN covering the essential requirements of article 3.2 of the R&TTE Directive – Part 1: Requirements for Generic UWB applications.

⁵⁸⁾ ČSN ETSI EN 302 065 – Electromagnetic compatibility and Radio spectrum Matters (ERM) – Ultra Wideband technology (UWB) for communication purposes – Harmonised EN covering the essential requirements of article 3.2 of the R&TTE Directive – Part 2: Requirements for UWB location tracking.

⁵⁹⁾ ČSN ETSI EN 302 065 – Electromagnetic compatibility and Radio spectrum Matters (ERM) – Ultra Wideband technology (UWB) for communication purposes – Harmonised EN covering the essential requirements of article 3.2 of the R&TTE Directive – Part 3: Requirements for UWB devices for ground based vehicular applications.

techniques mitigating interference which are described in relevant harmonized standards; in the sub-bands of radio spectrum specified in table:

Mitigating interference technique	LDC ⁶⁰⁾	DAA ⁶¹⁾	TPC ⁶²⁾	TPC ⁶²⁾ + DAA ⁶¹⁾
equipment for general use of ultra-wide band technologies	3100–4800 MHz	3100–4800 MHz 8500–9000 MHz	—	—
equipment for location tracking	—	8500–9000 MHz	—	—
equipment built into road and rail vehicles under fulfilment of limit in exterior according to standard ⁵⁹⁾	3100–4800 MHz 6000–8500 MHz	—	6000–8500 MHz	3100–4800 MHz 8500–9000 MHz

(6) The devices on board of planes can transmit in the sub-band 6650–6675.2 MHz only with Maximum mean e.i.r.p. density –62.3 dBm/MHz and maximum peak e.i.r.p. density 21 dBm measured in range of width 50 MHz.

(7) The devices on board of planes shall limit radiated power in the sub-band 7.25–7.9 GHz in accordance with Commission Decision No. 2014/702/EU⁴⁾.

Article 15 Final provisions

(1) Also considered as a equipment complying with the Government Order No. 426/2000 Coll., laying down the technical requirements for radio equipment and telecommunication terminal equipment, as amended, is any equipment for which the Office decided to approve the radio equipment in accordance with Section 10 of the Act No. 151/2000 Coll., on Telecommunications and on Amendment to Other Acts, as amended, provided that such equipment was placed to the market before 1 April 2003.

(2) The placement of TTT equipment into operation in the sub-band 24.25–26.65 GHz of the frequency band *f7* according to Article 4(2) shall be terminated on the date 1 January 2018. After this date it is possible to operate in the sub-band only equipment in vehicles registered in the European Community before this date.

Article 16 Repealing Provisions

This is to repeal General Authorisation No. VO-R/10/05.2014-3 for the use of radio frequencies and for operating short range devices of 7 May 2014, published in Issue 9/2014 of the Telecommunications Bulletin.

Article 17 Effect

This General Authorisation comes into effect on 15 December 2016.

⁶⁰⁾ Low duty cycle, on the basis of standards 302 065–1⁵⁶⁾, 302 065–3⁵⁸⁾.

⁶¹⁾ Detect and avoid, on the basis of standards 302 065–1⁵⁶⁾, 302 065–2⁵⁷⁾, 302 065–3⁵⁸⁾.

⁶²⁾ Transmit power control, on the basis of standard 302 065–3⁵⁸⁾.

Explanatory Memorandum

To implement Sections 9 and 12 of the Act, the Office issues General Authorisation No. VO-R/10/11.2016-13 for the use of radio frequencies and operation of short range devices (hereinafter the “General Authorisation”).

This General Authorisation is based on the principles set out in the Act and also on the frequency plans and harmonisation objectives of the European Union, and it replaces General Authorisation No. VO-R/10/05.2014-3, repealed by Article 16 of this General Authorisation.

Article 2 contains the common conditions of operation of short range devices which are specified for particular categories of equipment and for particular frequency bands of radio frequencies in Articles 3 to 14. These conditions are based on harmonization documents of European Commission and European Conference of Postal and Telecommunication Administrations (CEPT) listed in appendix 1 as well as from requirements resulting from exercising radio spectrum administration or more precisely ensuring the use of radio spectrum without interference.

After the publication of the General Authorisation No. VO-R/10/05.2014-3, European Radiocommunications Committee issued the up-to-date edition of Recommendation CEPT/ERC/REC 70-03 – Relating to the use of Short Range Devices (hereinafter only “70-03”). Moreover, other CEPT decisions and recommendations and series of harmonised standards were updated as well.

The Office also found out, that regardless of implemented amendments in the last update of the General Authorisation in some cases the producers and importers of the devices misinformed the users of short range devices about operational conditions of these devices in the Czech Republic which came from unequal or incorrect interpretation of particular categories of devices in the General Authorisation since such the interpretation was not in accordance with requirements of a relevant part of Radio spectrum utilization plan.

For the purpose of the implementation CEPT Recommendation and in order to prevent from unequal or incorrect interpretation of categorization of particular types of devices, the Office implemented the following changes in the sense of Section 12 of the Act in this General Authorisation compared with General Authorisation No. VO-R/10/05.2014-3:

1. In view of the fact that the definition of term “Short Range Device” in 70-03 states that it is not included to any radiocommunication services, the current paragraph 2 in article 2 was deleted. In connection with this change, the term “station” defined in Plan of the Frequency Band Allocation as the group of transmitters and receivers inevitable to practice a radiocommunication service was replaced by the term “devices”. At the same time the heading of the articles No. 3 up to 14 were specified to determine clearly the purview of particular articles.
2. In accordance with update of 70-03, the conditions for channel spacing were replaced by conditions for occupied bandwidth.
3. In accordance with reading 70-03, the data on harmonised standards were assigned to the particular frequency sub-bands.
4. In accordance with reading 70-03 and for the removal of certain inaccuracy, the current article 5 was split into article 5 (Specific conditions for tracking and data acquisition equipment) and article 6 (Specific conditions for radiodetermination equipment).
5. The frequency sub-bands noted twice both in article 3 and in current article 5 (the sub-bands *c*, *h*) and article 9 (the sub-band *k*) were kept in article 3 only.
6. The conditions for original sub-band *h* in article 3 are in compliance with 70-03. In connection with it the sub-band *h* was split into the sub-bands *h*, *h1*, *h2* and paragraph 4 was split into paragraphs 4, 5, 6. The sub-bands *h1–h5* and paragraphs 5–7 were renumbered.
7. In accordance with Directive 2014/53/EU (“RED” directive) which considers as radio equipment also devices using frequencies below 9 kHz, the article 9 was extended by new sub-band *a* with intention to make possible to operate an equipment below 9 kHz also after effect of this directive will expire.

8. In accordance with update of 70-03, the frequency sub-band *k1* was added and the frequency sub-band *l* extended on 1785–1804.8 MHz in article 10.

9. Article 4 was modified according to Commission Decision No. 2014/702/EU⁴).

10. The formal modifications were implemented, in particular for the purpose of equipment classification in compliance with Commission Decision and for update of standards quotation.

Article 15 stipulates the possibility to operate equipment put on the market before 1 April 2003 and limits the use of frequency band *f7* according to article 4(2) after 1 January 2018.

Article 16 repeals General Authorization VO-R/10/05.2014-3.

Article 17 stipulates the effect of General Authorisation in accordance with Section 124(2) of the Act.

On the basis of Section 130 of the Act and according to the Czech Telecommunication Office Rules for conducting consultations at the discussion site (hereinafter only “Rules”), the Office published on 29 September 2016, the draft of the Measure of a General nature laying down the General Authorization No. VO-R/10/XX.2016-Y for the use of radio frequencies and for the operation of Short Range Devices, and the call for comments at the discussion site.

In the framework of public consultation during one month public consultation, the Office received viewpoint from one subject. The viewpoint addressed implementation of the conditions for the sub-band *h* in article 3 in compliance with recommendation 70-03. The wording of viewpoint and its settlement is published in the table of viewpoints at the discussion site.

Beyond the framework of viewpoint and in accordance with Rules, the Office received ten comments with opinions (hereinafter only “inputs”).

Nine inputs addressed the use of frequency band 9200–9975 MHz for point-to-point links. These inputs claimed, that proposed update of General Authorisation prohibits the operation of point-to-point or point-to-multipoint devices in the frequency band 9200–9975 MHz and requested to allow the use of frequencies in the band by mentioned devices. The Office informs that these inputs are based on mistaken assumption since Measure of general nature which sets down whether in mentioned frequency band can be operated such devices is not this General Authorisation but Radio spectrum utilization plan. In the relevant part of Radio spectrum utilization plan is not any change related to the use of 9200–9975 MHz frequency band and in this version of General Authorisation there is no change as well. Definition in the heading of article 6 was specified only according to the new clarifying definition in 70-03. Former version of the General Authorisation has already contained the condition that this band is designated only for the operation of radiodetermination equipment, which means the devices for radiolocation and radionavigation resulting from definition in 70-03 and in accordance with specification of terms in Plan of the Frequency Band Allocations (National Table of Frequency Allocations) of 2 April 2010, Annex to Decree No. 105/2010 Coll., i.e. this article did not address equipment for data transfer.

One input concerned devices which use the radio frequencies below 9 kHz and called for detailing as well as to find final solution of this matter. In terms of this issues, the Office takes into account it as unsolved issue. However, it is new item and in connection with the effect of Directive 2014/53/EU, the harmonized standards have not been issued yet for such devices and specified conditions for this devices are in process of solving on European level.

For this reason, the Office sees as convenient to add the sub-band ≤ 9 kHz into article 9 so that the operation such devices might not be terminated and conditions will be specified in other updates of General Authorisation in accordance with European harmonisation.

On behalf of the Council of the Czech
Telecommunication Office

Jaromír Novák
Chairman of the Council
of the Czech Telecommunication Office
<signed>

General Authorisation is based on the harmonisation documents:

1. European Commission documents

No.	Name	article of General Authorisation
2014/53/EU	Directive of the European Parliament and of the Council of 16 April 2014 on the harmonization of the laws of the Member States relating to the making available on the market of radio equipment and repealing Directive 1999/5/EC.	3–14
2008/671/EC	Commission Decision of 5 August 2008 on the harmonized use of radio spectrum in the 5875–5905 MHz frequency band for safety-related applications of Intelligent Transport Systems (ITS).	4
2011/485/EU	Commission Implementing Decision of 29 July 2011 amending Decision 2005/50/EC on the harmonization of the 24 GHz range radio spectrum band for the time-limited use by automotive short-range radar equipment in the Community.	4
2013/752/ EU	Commission Implementing Decision of 11 December 2013 amending Decision 2006/771/EC on harmonization of the radio spectrum for use by short-range devices and repealing Decision 2005/928/EC.	3–7, 9–12
2014/641/ EU	Commission Implementing Decision of 1 September 2014 on harmonized technical conditions of radio spectrum use by wireless audio programme making and special events equipment (PMSE) in the Union.	10
2014/702/ EU	Commission Implementing Decision of 7 October 2014 amending Decision 2007/131/EC on allowing the use of the radio spectrum for equipment using ultra-wideband technology in a harmonized manner in the Community.	14

2. European Conference of Postal and Telecommunications Administrations (CEPT) documents

No.	Name	article of General Authorisation
ERC/REC 70-03	Recommendation - Relating to the use of Short Range Devices (SRD), version of 27 May 2016.	3–7, 9–12, 14
ERC/DEC/(01)17	Decision amended on 9 December 2011 on harmonized frequencies, technical characteristics and exemption from individual licensing of Ultra Low Power Active Medical Implant (ULP-AMI) communication systems operating in the frequency band 401–406 MHz on a secondary basis.	12
ECC/DEC/(04)03	Decision on the frequency band 77-81 GHz to be designated for the use of for the use of Automotive Short Range Radars (SRR).	4
ECC/DEC/(04)10	Decision amended on 1 June 2012 on the frequency bands to be designated for the temporary introduction of Automotive Range Radars (SRR).	4
ECC/DEC/(11)09	Recommendation - UWB Location Tracking Systems TYPE 2 (LT2).	14
ECC/DEC/(05)02	Decision - Harmonized frequency plan for the use of the band 169.4-169.8125 MHz.	3, 5, 7, 10
ECC/DEC/(06)04	Decision amended on 9 December 2011 on the harmonized conditions for devices using Ultra-Wideband (UWB) technology in bands below 10.6 GHz.	14
ECC/DEC/(06)08	Decision on the conditions for use of the radio spectrum by Ground- and Wall-Probing Radar (GPR/WPR) imaging systems.	6
ECC/DEC/(12)03	Decision on the harmonized conditions for UWB applications onboard aircraft.	14
ECC/DEC/(11)02	Decision on industrial Level Probing Radars (LPR) operating in frequency bands 6-8.5 GHz, 24.05-26.5 GHz, 57-64 GHz and 75-85 GHz.	6
ECC/DEC/(07)01	Decision on Specific Material Sensing devices using UWB technology.	14