

Prague, 13 October 2020
Ref.: ČTÚ-25 101/2020-619

Based on the results of a public consultation held 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 the decision of the Council of the Czech Telecommunication Office (hereinafter “the Office”) under Section 107(9)(b)(2) of the Act and to implement Section 16(2) of the Act, the Office as the competent administration authority under Section 108(1)(b) of the Act and Section 10 of the Act No. 500/2004 Coll., the Code of Administrative Procedure, as amended, hereby issues this Measure of General Nature

**Part No. PV-P/2/10.2020-10 of the Radio Spectrum Utilisation Plan
for the frequency band 24.25–27.5 GHz.**

Article 1
Introductory provision

This part of the Radio Spectrum Utilisation Plan sets down the technical characteristics and conditions for radio spectrum utilisation in the frequency band from 24.25 GHz to 27.5 GHz by radiocommunication services. This part of the Radio Spectrum Utilisation Plan is a follow-up to the Common part of the Radio Spectrum Utilisation Plan¹⁾.

Part 1
General information on the frequency band

Article 2
Frequency bands

Band (GHz)	Current conditions		Future harmonisation ²⁾	
	Allocation	Utilisation	Allocation	Utilisation
24.25–24.45	FIXED MOBILE	Fixed links SAP/SAB	FIXED MOBILE	Fixed links IMT SAP/SAB
24.45–24.65	FIXED INTER- SATELLITE	Fixed links SAP/SAB	FIXED MOBILE except aeronautical mobile	Fixed links IMT SAP/SAB

¹⁾ Common part of the Radio Spectrum Utilisation Plan Nr. PV/10.2005-35 published in the Telecommunication Journal 14/2005.

²⁾ ERC Report 25: The European Table of Frequency Allocations and Applications in the frequency range 8,3 kHz to 3000 GHz, rev. 2020.

This is an unofficial translation. The legally binding text is the original Czech version.

24.65–24.75	FIXED INTER- SATELLITE FIXED- SATELLITE (Earth to-space) ³⁾	Fixed links Feeder links	FIXED FIXED-SATELLITE (Earth to-space) MOBILE except aeronautical mobile ³⁾	Fixed links IMT Feeder links
24.75–25.25	FIXED FIXED- SATELLITE (Earth to-space) ³⁾	Fixed links Feeder links	FIXED FIXED-SATELLITE (Earth to-space) MOBILE except aeronautical mobile ³⁾	Fixed links IMT Feeder links
25.25–25.5	FIXED INTER- SATELLITE MOBILE	Fixed links MD	FIXED INTER-SATELLITE MOBILE	Fixed links IMT
25.5–26.5	FIXED INTER- SATELLITE MOBILE SPACE RESEARCH (space-to- Earth) Earth exploration- satellite (space-to- Earth)	Fixed links MD	FIXED INTER-SATELLITE MOBILE SPACE RESEARCH (space-to-Earth) Earth exploration - satellite (space-to- Earth)	Fixed links IMT
26.5–27	FIXED INTER- SATELLITE MOBILE SPACE RESEARCH (space-to- Earth) Earth exploration- satellite (space-to- Earth)	IMT MD	FIXED INTER-SATELLITE MOBILE SPACE RESEARCH (space-to-Earth) Earth exploration- satellite (space-to- Earth)	IMT MD
27–27.5	FIXED INTER- SATELLITE MOBILE	IMT MD	FIXED INTER-SATELLITE MOBILE	IMT MD

³⁾ Footnote 5.532B of the Radio Regulations effective from 1 January 2013.

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Article 3

Frequency band characteristics

(1) The current utilisation of the band is concentrated particularly in the fixed service. Because the utilisation of the band by access point-to-multipoint networks terminated, conditions were set for the released frequencies so they can be used by fixed point-to-point links on wide channels.

(2) The frequency band 24.25–27.5 GHz in the mobile service is harmonized globally for mobile IMT communication. The band belongs to priority bands for IMT/5G networks deployment in the EU Member states.

Article 4

International obligations

Provisions of the Radio Regulations⁴⁾ (hereinafter only „RR“), harmonisation documents of the European Commission (hereinafter only “EC”) and provisions of HCM Agreement⁵⁾, apply to operation and coordination.

Part 2

Devices operated outside the radiocommunication service

Article 5

Current conditions for devices operated outside the radiocommunication service

(1) The 24.25–24.5 GHz frequency band, in accordance with EC Decision⁶⁾, CEPT Decision⁷⁾ and CEPT Recommendation⁸⁾), can be used temporarily by automotive short-range radars (hereinafter only “SRR devices”⁹⁾). The specific conditions for the use of radio frequencies by the SRR devices, including the parameters and periods for the use of frequencies are set by a General Authorisation¹⁰⁾.

(2) The 24.05–27 GHz frequency band can be used by short range devices industry radars for tank level sounding in accordance with EC Decision¹¹⁾, CEPT Decision¹²⁾ and CEPT Recommendation⁸⁾). The specific conditions are set by a General Authorisation¹⁰⁾.

Article 6

Information on the future development of devices operated outside the radiocommunication service

⁴⁾ Radio Regulations, International Telecommunication Union, Geneva, 2020.

⁵⁾ HCM Agreement – Agreement between the Administrations of Austria, Belgium, the Czech Republic, Germany, France, Hungary, the Netherlands, Croatia, Italy, Liechtenstein, Lithuania, Luxembourg, Poland, Romania, the Slovak Republic, Slovenia and Switzerland on the co-ordination of frequencies between 29.7 MHz and 43.5 GHz for the fixed service and the land mobile service.

⁶⁾ Commission Implementing Decision (EU) 2011/485 of 29 July 2011 amending Decision 2005/50/EC on the harmonisation of the 24 GHz range radio spectrum band for the time-limited use by automotive short-range radar equipment in the Community

⁷⁾ CEPT Decision ECC/DEC/(04)10 of 12 November 2004 on the frequency bands to be designated for the temporary introduction of Automotive Short Range Radars (SRR), updated 02 March 2018.

⁸⁾ Recommendation CEPT ERC/REC 70-03 relating to the use of Short Range Devices (SRD), latest amended on 12 June 2020.

⁹⁾ The abbreviation SRR stands for automotive short-range radars.

¹⁰⁾ General Authorisation No. VO-R/10/12.2019-9 for the use of radio frequencies and for the operation of Short Range Devices.

¹¹⁾ Commission Implementing Decision (EU) 2019/1345 of 2 August 2019 amending Decision 2006/771/EC updating harmonised technical conditions in the area of radio spectrum use for short-range devices.

¹²⁾ CEPT Decision ECC/DEC/(11)02 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.

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(1) The Office will decide on termination of the 24.25–26.65 GHz band utilisation by the SSR devices in accordance with the decisions of the ECC⁶⁾ and the Commission¹³⁾ on harmonisation of the 79 GHz band.

(2) The amendment of the conditions for the use of short-range devices is subjected to a periodical update done by CEPT ECC and the Commission.

Part 3 Fixed service

Article 7 Current conditions in the fixed service

(1) The sub-band 24.25–24.5 GHz is designated, in accordance with CEPT Recommendation¹⁴⁾, for temporary point-to-point SAP/SAB¹⁵⁾ fixed links for audio-visual transmission. The channel separations are not determined.

(2) The frequency sub-bands 24.5–24.549 GHz, 25.445–25.557 GHz and 26.453–26.5 GHz are the guard bands and shall not be used. The frequency sub-bands 24.605–24.619 GHz, 24.675–24.689 GHz, 24.745–24.773 GHz, 25.613–25.627 GHz, 25.683–25.697 GHz and 25.753–25.781 GHz are the guard bands which shall not be used until 31 December 2020.

(3) The sub-bands 24.549–24.605/25.557–25.613 GHz, 24.619–24.675/25.627–25.683 GHz and 24.689–24.745/25.697–25.753 GHz are duplex sub-bands designated for use by point-to-multipoint fixed links within FWA¹⁶⁾ networks, (hereinafter only „access networks“) operated by allocation holders. For transmitting radio devices of the access networks, the following conditions apply:

- a) the duplex separation is 1008 MHz;
- b) the base stations transmit in lower part of the band and the maximal e.i.r.p. is 41.5 dBW;
- c) the channel arrangements proceed from CEPT Recommendations^{17), 18)} and ITU-R Recommendation¹⁹⁾;
- d) the channel width is 56 MHz, whereas the centre frequencies f_n and f_n' [MHz] of particular operating channels are in relation to the reference frequency $f_0 = 25\,501$ MHz given by formulas:

$$f_n = f_0 - 980 + 56n + 14(n-1), \text{ in the lower half of the duplex band and}$$
$$f_n' = f_0 + 28 + 56n + 14(n-1), \text{ in the upper part of the duplex band,}$$

where $n = 1, 2, 3,$

¹³⁾ Commission Decision 2004/545/EC of 8 July 2004 on the harmonisation of radio spectrum in the 79 GHz range for the use of automotive short-range radar equipment in the Community

¹⁴⁾ CEPT Recommendation ERC/REC 25-10 on Frequency ranges for the use of temporary terrestrial audio and video SAP/SAB links (incl. ENG/OB).

¹⁵⁾ Abbreviation stands for Service Ancillary for Broadcasting/Service Ancillary for Program.

¹⁶⁾ Abbreviation stands for Fixed Wireless Access.

¹⁷⁾ CEPT Recommendation T/R 13-02 on Preferred channel arrangements for fixed service systems in the frequency range 22–29.5 GHz.

¹⁸⁾ CEPT Recommendation ECC/REC (11) 01 on Guidelines for assignment of frequency blocks for FWA in the bands 24.5–26.5 GHz, 27.5–29.5 GHz and 31.8–33.4 GHz.

¹⁹⁾ ITU-R Recommendation F.748-4 on Radio-frequency arrangements for systems of the fixed service operating in the 25, 26 and 28 GHz.

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or the channel width is 28 MHz, whereas the centre frequencies f_n and f_n' [MHz] of particular operating channels are in relation to the reference frequency $f_0 = 25\,501$ MHz given by formulas:

$$\begin{aligned} f_n &= f_0 - 966 + 28n + 14m, \text{ in the lower half of the duplex band and} \\ f_n' &= f_0 + 42 + 28n + 14m, \text{ in the upper part of the duplex band,} \\ &\text{where for } n = 1, 2 \text{ is } m = 0, \\ &\text{for } n = 3, 4 \text{ is } m = 1, \\ &\text{for } n = 5, 6 \text{ is } m = 2, \end{aligned}$$

or the channel width is 14 MHz, whereas the centre frequencies f_n and f_n' [MHz] of particular operating channels are in relation to the reference frequency $f_0 = 25\,501$ MHz given by formulas:

$$\begin{aligned} f_n &= f_0 - 959 + 14n + 14m, \text{ in the lower half of the duplex band and} \\ f_n' &= f_0 + 49 + 14n + 14m, \text{ in the upper part of the duplex band,} \\ &\text{where for } n = 1, 2, 3, 4 \text{ is } m = 0, \\ &\text{for } n = 5, 6, 7, 8 \text{ is } m = 1, \\ &\text{for } n = 9, 10, 11, 12 \text{ is } m = 2; \end{aligned}$$

- e) links within the access networks are allowed for user terminals access only and not for point-to-point links of internal network infrastructure;
- f) international coordination of the access networks base stations is provided by the Office. The national coordination of the base stations is carried out by operators themselves and by the Office once the validity period of the allocations expired;
- g) the use of frequencies by users' terminals is allowed on the basis of General Authorisation²⁰⁾;
- h) the sub-bands 24.549–24.605/25.557–25.613 GHz, 24.689–24.745/25.697–25.753 GHz and 24.619–24.675/25.627–25.683 GHz can be used by access networks under Paragraph 3 based on the Individual Authorisation for the use of radio frequencies also after the validity period of the previously granted allocations expired, but until 31 December 2020 at the latest.

(4) The sub-bands 24.549–25.445/25.557–26.453 GHz are designated for point-to-point fixed links and the transmitting radio devices have to fulfil the following conditions:

- a) the minimal antenna gain is 35 dBi;
- b) the Office sets down maximal e.i.r.p. of point-to-point links individually and can specify further requirements on technical parameters of used radio equipment with respect to the specific configuration of links;
- c) the duplex separation is 1008 MHz;
- d) the channel arrangements are in accordance with CEPT Recommendations¹⁸⁾ and ITU-R Recommendation¹⁹⁾;
- e) the channel width is 112 MHz, whereas the centre frequencies f_n and f_n' [MHz] of particular operating channels are in relation to the reference frequency $f_0 = 25\,501$ MHz given by formulas:
$$\begin{aligned} f_n &= f_0 - 1008 + 112n, \text{ in the lower half of the duplex band and} \\ f_n' &= f_0 + 112n, \text{ in the upper part of the duplex band,} \\ &\text{where } n = 1 \text{ to } 8 \text{ (preferentially 1 to 3),} \end{aligned}$$

²⁰⁾ General Authorisation No. VO-R/1/12.2018-8 for the operation of user's terminals of electronic communications radio networks, as amended.

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or the channel width is 56 MHz, whereas the centre frequencies f_n and f_n' [MHz] of particular operating channels are in relation to the reference frequency $f_0 = 25\,501$ MHz given by formulas:

$$\begin{aligned} f_n &= f_0 - 980 + 56n, \text{ in the lower half of the duplex band and} \\ f_n' &= f_0 + 28 + 56n, \text{ in the upper part of the duplex band,} \\ &\text{where } n = 1 \text{ to } 16 \text{ (preferentially } 1 \text{ to } 3 \text{ and } 15, 16), \end{aligned}$$

or the channel width is 28 MHz, whereas the centre frequencies f_n and f_n' [MHz] of particular operating channels are in relation to the reference frequency $f_0 = 25\,501$ MHz given by formulas:

$$\begin{aligned} f_n &= f_0 - 966 + 28n, \text{ in the lower half of the duplex band and} \\ f_n' &= f_0 + 42 + 28n, \text{ in the upper part of the duplex band,} \\ &\text{where } n = 1 \text{ to } 32 \text{ (preferentially } 7 \text{ to } 15), \end{aligned}$$

or the channel width is 14 MHz, whereas the centre frequencies f_n and f_n' [MHz] of particular operating channels are in relation to the reference frequency $f_0 = 25\,501$ MHz given by formulas:

$$\begin{aligned} f_n &= f_0 - 959 + 14n, \text{ in the lower half of the duplex band and} \\ f_n' &= f_0 + 49 + 14n, \text{ in the upper part of the duplex band,} \\ &\text{where } n = 1 \text{ to } 64 \text{ (preferentially } 31, 32, 33 \text{ to } 39), \end{aligned}$$

or the channel width is 7 MHz, whereas the centre frequencies f_n and f_n' [MHz] of particular operating channels are in relation to the reference frequency $f_0 = 25\,501$ MHz given by formulas:

$$\begin{aligned} f_n &= f_0 - 955,5 + 7n, \text{ in the lower half of the duplex band and} \\ f_n' &= f_0 + 52,5 + 7n, \text{ in the upper part of the duplex band,} \\ &\text{where } n = 1 \text{ to } 128 \text{ (preferentially } 79, 80, 81 \text{ to } 108), \end{aligned}$$

or the channel width is 3,5 MHz, whereas the centre frequencies f_n and f_n' [MHz] of particular operating channels are in relation to the reference frequency $f_0 = 25\,501$ MHz given by formulas:

$$\begin{aligned} f_n &= f_0 - 953,75 + 3,5n, \text{ in the lower half of the duplex band and} \\ f_n' &= f_0 + 54,25 + 3,5n, \text{ in the upper part of the duplex band,} \\ &\text{where } n = 1 \text{ to } 256 \text{ (preferentially } 217, 218, 219 \text{ to } 224); \end{aligned}$$

- f) the national and international coordination of point-to-point links is provided by the Office;
- g) the Office grants Individual Authorisations for the use of radio sub-bands 24.549–24.773/25.557–25.784 GHz with effect from 1 January 2021.

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Article 8

Information on future development in the fixed service

(1) Utilisation of larger channel widths is expected for point-to-point links in the fixed service in the 24.5–26.5 GHz band.

(2) The potential future utilisation of the 26.5–27.5 GHz band by the fixed service is dependent on the development and the way of utilisation in the mobile service and on the possibilities of mutual coexistence of both services.

Part 4

Mobile service

Article 9

Current conditions in the mobile service

(1) In accordance with Commission Decision²¹⁾ and ECC Decision²²⁾, the 24.25–27.5 GHz band is dedicated on non-exclusive basis for utilisation by systems for provision of wireless broadband electronic communications services (IMT).

(2) For the use of the 26.5–27.5 GHz sub-band applies:

- a) The stations use frequencies in accordance with conditions set in the Annex of the Commission Decision²¹⁾;
- b) Five neighbouring blocks of 200 MHz width are defined in the sub-band, while the frequency of the upper edge of the last block is 27.5 GHz;
- c) The operation is with TDD²³⁾;
- d) The TRP²⁴⁾ of the base station antenna is max. 25 dBm/200 MHz;
- e) The use of these blocks or of blocks of their multiples' width is possible up to total width of 1 GHz;
- f) The base stations, having max. TRP higher than 5 dBm and in the same time being installed outdoors, must be equipped with the possibility to implement time synchronisation of time frames of the transmission and reception mode. The Office can recommend or set the obligation of synchronisation;
- g) Base stations, installed indoors, must be installed in a way that the radiation outdoors was the least and to keep the signal/noise distance on the locations of the base stations installed outdoors on at least 30 dB;
- h) In case of base stations installed outdoors, operated with max. allowed TRP and using non-synchronized operation in the same time, the basic geographical separation when using the same channel is 3 km in case of direct mutual visibility of the stations, or 1.6 km in case of placing the antenna up to 6 m above a terrain in an environment with barriers (e.g. urban environment). In case of using neighbouring immediately adjacent channels the separation is 1.5 km, or 0.9 km respectively. The Office can adapt the geographic separation individually, according to the current conditions;

²¹⁾ Commission Implementing Decision (EU) 2020/590 of 24 April 2020 amending Decision (EU) 2019/784 as regards an update of relevant technical conditions applicable to the 24,25-27,5 GHz frequency band.

²²⁾ Decision ECC/DEC/(18)06 on Harmonised technical conditions for Mobile/Fixed Communications Networks (MFCN) in the band 24.25–27.5 GHz..

²³⁾ The abbreviation TDD stands for Time Division Duplex.

²⁴⁾ The abbreviation TRP stands for total radiated power.

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- i) Base stations are equipped with active antenna systems. The main radiated bundle must aim under the horizon level;
- j) The use of frequencies by base stations and terminals is possible only based on the Individual Authorisation for the use of radio frequencies for experimental purposes.

(3) Currently, there are no specific conditions set for the use of radio frequencies and no Individual Authorisations for the IMT systems are granted in the 24.25–26.5 GHz band.

Article 10

Information on future development in the mobile service

(1) The Office shall specify the conditions for the use of 24.25 – 27.5 GHz band, including conditions of coexistence with the fixed service, based on market demand, experiences with experimental IMT/5G operation, and shall specify the planning procedures and authorisation conditions for the use of radio frequencies, and other parameters.

(2) After the conditions according to Paragraph 1 are specified, the Office shall set the conditions of access to the band for commercial use.

Part 5

Inter-satellite service

Article 11

Current conditions in the inter-satellite service

The utilisation of the 25.25–27.5 GHz band by the inter-satellite service is, in accordance with footnote²⁵⁾ of RR, limited to applications in space research and Earth exploration-satellite research, and also on data transmissions coming from industrial, and medical activities in the Universe.

Article 12

Information on future development in the inter-satellite service

The ERC Report²⁾ expects the allocation to the inter-satellite service in 24.45–24.75 GHz band to be terminated.

Part 6

Earth exploration-satellite service

Article 13

Current conditions in the Earth exploration-satellite service

In accordance with RR footnote²⁶⁾, terrestrial stations of this service shall not claim protection from the fixed and mobile services stations in the 25.5–27 GHz band, nor limit their utilisation and development.

²⁵⁾ Footnote 5.536 of RR.

²⁶⁾ Footnote 5.536B of RR.

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Article 14

Information on future development in the Earth exploration-satellite service

No changes are expected in utilisation of the band by this radiocommunication service.

Part 7

Space research service

Article 15

Current conditions in the Space research service

The Space search service is not used in the Czech Republic.

Article 16

Information on future development in the Space research service

No changes are expected in utilisation of the band by this radiocommunication service on international or national level.

Part 8

Final provisions

Article 17

Repealing provisions

This is to repeal the Measure of General Nature Part No. PV-P/2/11.2012-14 of the Radio Spectrum Utilisation Plan for the 24.25–27.5 GHz frequency band of 14 November 2012.

Article 18

Effect

This part of Radio Spectrum Utilisation Plan is effective from 15 November 2020.

This is an unofficial translation. The legally binding text is the original Czech version.

Explanatory memorandum

To implement Section 16(2) of the Act, the Office issues the Measure of General Nature Part No. PV-P/2/10.2020-10 of the Radio Spectrum Utilisation Plan (hereinafter „the part of the plan”), laying down the technical characteristics and conditions of the use of radio spectrum in the frequency band from 24.25 GHz to 27.5 GHz by radiocommunication services.

This part of the plan is based on the principles set down in the Act and in European legislation, especially in Directive 2002/21/EC of the European Parliament and of the Council on a Common Regulatory Framework for Electronic Communications Networks and Services (as amended by the Directive 2009/140/EC²⁷) and in Decision No. 676/2002/EC of the European Parliament and of the Council on a regulatory framework for radio spectrum policy in the European Community (Radio Spectrum Decision) as well as on principles determined in the Common part of the Radio Spectrum Utilisation Plan No. PV/10.2005-35. The purpose of this part of the plan is to ensure the transparency of conditions for the use of radio spectrum and the ability to anticipate the decisions of the Office.

The reason for this new issue is particularly to withdraw the limitation on number of rights in the fixed service in the 26 GHz band after conducting a review to determine whether the reasons for limiting the number of rights in this band persist. As a consequence, the utilisation of frequencies 24.549–24.745/25.557–25.753 GHz by point-to-multipoint links in the fixed service will be terminated, since it is being reduced on a long-term basis, as the review showed. The released part of the spectrum is then dedicated for the perspective broadband point-to-point links based on the users’ demands. Another reason is to set down the initial conditions for experimental operation of the IMT/5G systems in the mobile service in the 26.5–27.5 GHz band. Other amendments are implementation of the World Radiocommunication Conference WRC-19 results and structural amendments.

Article 2 presents information from the Plan of frequency bands allocations (National Table of Frequency Allocations). This information is complemented with current utilisations by applications and the harmonisation intention, i.e. allocation and use by applications according to the ERC Report 25 (European Table of Frequency and Applications Allocations) – is also presented. The amendments of the Table reflect changes in the relevant documents.

Article 3 sets characteristic of the band, especially with reference to the importance of the band in the fixed service and to the harmonisation for IMT in the mobile service. It was one of the first harmonized bands²⁸) dedicated for deploying the IMT/5G systems within the EU.

Article 4 presents the international obligations of the Czech Republic for the radio spectrum management which, in the case of the concerned band, means laying down the conditions for the use of the band in accordance with the Radio Regulations of the ITU, EC documents and the HCM Agreement.

Part 2 presents conditions for the use of the radio spectrum by devices operated outside the radiocommunication services, i.e. short-range devices. Article 5 lays down the conditions for SRR and for the industrial sensors for measuring fluid level in tanks. The utilisation of the 24.25–26.65 GHz band by SRR devices is temporary. For the new SRR devices, the perspective 79 GHz band is being harmonized. The specific conditions are laid down by the relevant General Authorisation¹⁰). The use of the radio spectrum by short-range

²⁷) Directive 2009/140/EC of the European Parliament and of the Council amending Directives 2002/21/EC on common regulatory framework for electronic communications network and services, 2002/19/EC on access to, and interconnection of, electronic communications network and associated facilities, and 2002/20/EC on the authorisation of electronic communications network and services.

²⁸) RSPG Opinion on spectrum related aspects for next-generation wireless systems (5G) of 9 November 2016.

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devices is still developing and the conditions for this use in the Czech Republic are updated on regular basis in accordance with the European harmonisation.

Part 3 describes the conditions for the use of the band in the fixed service. The number of rights in the duplex sub-bands 24.549–24.745/25.557–25.753 GHz utilized by fixed point-to-multipoint links (FWA) was limited until now. The Office performed a review in accordance with Section 20(4) of the Act, whether the reason for limiting the number of rights persists and also analysed the utilisation of the band. The review²⁹⁾ resulted in a conclusion that it was not necessary to limit the number of rights anymore in the next period, after expiration of the current radio frequency block allocations, and it was desirable to extend the sub-band available for the fixed point-to-point links. A transitional period is therefore set in Section 7(3)(h) for gradual termination of the fixed point-to-multipoint links operation, and the access networks base stations and the related user terminals can be operated up to 31 December 2020. New Individual Authorisations for the use of radio frequencies by the fixed service for point-to-point links in the sub-bands originally used by point-to-multipoint links shall be granted from 1 January 2021. The width of 112 MHz is newly dedicated also for the point-to-point links allowing to meet the demand for wider channels from spectrum users.

Part 4 lays down conditions for the use of frequencies in the mobile service. Article 9 implements the Commission Implementing Decision²¹⁾ for the 24.25–27.5 GHz band, and a sub-band in the range of 1 GHz is dedicated for the initial phase of deploying the IMT/5G stations – for experimental operation of IMT/5G stations only, in accordance with the Directive³⁰⁾. The reason for implementing the conditions for experimental operation of IMT/5G stations in Point (j) is the current absence of immediate market demand for the use of 26 GHz band by 5G applications, and further the need to add more technical and planning conditions, which cannot be specified in advance without any previous experience and data on individual technical 5G solutions. The Office expects that, beside other things, the future experiments with 5G in the 26 GHz band can bring this experience. With regard to Section 19 of the Act, setting that conditions for the use of frequencies in the case of experimental operation of the stations shall not be laid down by the Radio Spectrum Utilisation Plan, the conditions laid down in Article 9(2) are only initial and the individual conditions can be set by specific Individual Authorisation differently. The total radiated power of the base stations is set in Article 9(2)(d) due to the need to lay down basic figures of separating geographical distances, which are subsequently amended in Point (h) which regards to the cases of coexistence of non-synchronized IMT/5G base stations. The TRP value determines setting the specific geographical separation distances. These distances follow from a study on IMT/5G mutual compatibility in the 26 GHz band³¹⁾. With regard to the assumed future increase in local density of IMT/5G operation, Point (f) sets a technical condition to equip the stations with the possibility of mutual synchronisation, where its application will well contribute to effective spectrum utilisation and will ensure higher quality of the provided services, as a final consequence. The Office assumes that the TDD time frames scheme will be set in a form of recommendation or obligation in the Spectrum Utilisation Plan in the future and will allow for experience from other IMT TDD bands as well, especially from the 3.4–3.8 GHz band. In case of base stations installed indoors as well as of micro-cells with low TRP power, the synchronisation function obligation is not required due to low risk of mutual interference. The 5dBm TRP stated in Point (f) is derived from an estimate of mutual interference effect of non-synchronized base stations (micro-cells) located in mutual distance of 0.3 km causing decrease of data throughput below 5 %. The decrease of geographical separation is possible based on specific conditions like e.g. synchronized operation, lower TRP power used, terrain profile, or operation of stations of the same holder of Individual

²⁹⁾ <https://www.ctu.cz/sdeleni-ceskeho-telekomunikacniho-uradu-o-ukonceni-prezkoumani-podle-ss-20-odst-4-zakona-o> (Czech only).

³⁰⁾ Directive (EU) 2018/1972 of the European Parliament and of the Council of 11 December 2018 establishing the European Electronic Communications Code, Art. 54(1)(b).

³¹⁾ ECC Report 307: Toolbox for the most appropriate synchronisation regulatory framework including coexistence of MFCN in 24.25-27.5 GHz in unsynchronised and semi-synchronised mode.

This is an unofficial translation. The legally binding text is the original Czech version.

Authorisation to the use of radio frequencies. To decrease the possibility of interference of indoor stations, Point (g) states a combined condition to minimize radiation outside the building and, at the same time, interference towards already installed IMT/5G base stations outdoors. The signal/noise distance of 30 dB complies with basic operation requirements of the IMT/5G stations³¹). The obligation to use active antenna systems stated in Point (i) and limiting the maximal elevation of radiated bundles are set to decrease the risk of mutual network interference, and to protect the cosmic stations in satellite radiocommunication services, according to provisions of the Resolution 570 (rev. WRC-19). With regard to the current utilisation of the 24.25–26.5 GHz band by the fixed service, the Individual Authorisations in the mobile service in this band are currently not being granted (Paragraph 3). Article 10 states that the conditions of the use of frequencies in the 24.25–27.5 GHz band (or their specification) will be set based on the development of the spectrum users' demand, harmonisation, experience with experimental operation, and with IMT/5G networks planning under the conditions of shared utilisation of the frequencies, according to suitable possibilities to grant rights for the use of radio spectrum and other aspects, including qualitative requirements on the 5G operation. This experience will be used to specify future conditions for the commercial IMT/5G operation.

Parts 5 to 7 generally set the conditions of bands allocated for cosmic services.

Article 17 contains repealing provision and Article 18 sets down the effect of this part of Radio Spectrum Utilisation Plan.

Based on Section 130 of the Act and in accordance with Rules of the Czech Telecommunication Office for Consultation at the Discussion Site, the Office published a draft Measure of General Nature Part No. PV-P/2/XX.2012-Y of the Radio Spectrum Utilisation Plan at the discussion site together with the call for comments on 11 August 2020. During the public consultation, the Office received remarks and comments to the draft conditions for 5G NR in the 26 GHz band from 4 entities. The remarks tackled the absence of more detailed technical and planning parameters, business models, 5G NR technologies and other relations, including a suitable setting of future market competition conditions. Part of the comments, on the other hand, welcomed the intention to make the 26 GHz band accessible for IMT/5G applications in a short time horizon. Nevertheless, the received remarks, and other information of the Office received from communication with the sector stakeholders, do not indicate market demand for spectrum in 26 GHz band and do indicate the need to finalize solutions for some conditions as a follow up to the gradual deployment of transmission devices and their pilot testing in this band. With regard to these facts, the Office accepted the comments only partly and the 26.5–27.5 GHz band will make accessible to the use of 5G NR radio frequencies only for experimental use. Based on the gained findings, the Office will then prepare a draft measure to make the band available for commercial use and will specify the necessary regulatory and technical conditions in more detail.

The comments settlement table published on the discussion site presents the wording of all comments and the way they were processed by the Office, including justification thereof.

On behalf of the Council of the
Czech Telecommunication Office

Hana Továrková
Chair of the Council
of Czech Telecommunication Office
<signed>