

Prague, 20 November 2019
Ref. 33 307/2019-619

Czech Telecommunication Office (hereinafter “the Office“) under Section 108(1)(b) of the Act 127/2005 Coll., on electronic communications and on amendment to certain related acts (the Electronic Communications Act), as amended (hereinafter “the Act”), in compliance with the Act No. 500/2004 Coll., the Administrative Procedure Code, as amended, on the basis of results of public consultations under Section 130 and on the basis of the Office Council’s decision under Section 107(9)(b) and in order to implement Sections 9 and 12 of the Act, the Office hereby issues this Measure of General Nature

**Part No. PV-P/3/11.2019-6
of the Radio Spectrum Utilisation Plan
for the frequency band 52.6-59 GHz.**

Article 1
Introductory provision

This part of the Radio Spectrum Utilisation Plan sets out the technical characteristics and conditions for radio spectrum utilisation in the frequency band from 52.6 GHz to 59 GHz by radiocommunication services. This part of the Radio Spectrum Utilisation Plan follows up the Common Part of the Radio Spectrum Utilisation Plan¹⁾.

Part 1
General information on the frequency band

Article 2
Frequency bands

Band (GHz)	Current condition		Future harmonisation ²⁾	
	Allocation	Utilisation	Allocation	Utilisation
52.6–54.25	EARTH EXPLORATION-SATELLITE (passive) SPACE RESEARCH (passive)	Passive sensors and applications All emissions are prohibited	EARTH EXPLORATION-SATELLITE (passive) SPACE RESEARCH (passive)	Passive sensors and applications

¹⁾ Common Part of the Radio Spectrum Utilisation Plan No. PV/10.2005-35.

²⁾ ERC Report 25: European Table of Frequency Allocations and Applications in the frequency range 8.3 kHz to 3000 GHz, rev. 2019.

54.25–55.78	EARTH EXPLORATION- SATELLITE (passive) SPACE RESEARCH (passive)	Passive sensors and application	EARTH EXPLORATION- SATELLITE (passive) SPACE RESEARCH (passive)	Passive sensors and application
55.78–56.9	EARTH EXPLORATION- SATELLITE (passive) FIXED INTER-SATELLITE SPACE RESEARCH (passive) ³⁾	Passive sensors Fixed links	EARTH EXPLORATION- SATELLITE (passive) FIXED INTER-SATELLITE SPACE RESEARCH (passive) ³⁾	Passive sensors High density fixed links
56.9–57	EARTH EXPLORATION- SATELLITE (passive) FIXED MOBILE ³⁾ SPACE RESEARCH (passive)	Passive sensors Fixed links	EARTH EXPLORATION- SATELLITE (passive) FIXED MOBILE ³⁾ SPACE RESEARCH (passive)	Passive sensors High density fixed links
57–58.2	EARTH EXPLORATION- SATELLITE (passive) FIXED INTER-SATELLITE MOBILE ³⁾ SPACE RESEARCH (passive)	Passive sensors Fixed high-speed links and stations for broadband data transmission SRD	EARTH EXPLORATION- SATELLITE (passive) FIXED INTER-SATELLITE MOBILE ³⁾ SPACE RESEARCH (passive)	Passive sensors Fixed high-speed links and stations for broadband data transmission SRD
58.2–59	EARTH EXPLORATION- SATELLITE (passive) FIXED SPACE RESEARCH (passive)	Passive application Fixed links SRD	EARTH EXPLORATION- SATELLITE (passive) FIXED RADIOASTRONOMY SPACE RESEARCH (passive)	Passive application High density fixed links SRD

Article 3 Frequency band characteristics

The prevailing part of the 52.6–59 GHz frequency band is characterized as being used by passive satellite services – the Earth Exploration-Satellite Service and space research service. All emissions in the 52.6–54.25 GHz band are prohibited according to the footnote of the Radio Regulations⁴⁾ (hereinafter „RR“) and also, users of the adjacent bands are obliged

³⁾ Stations in the aeronautical mobile service may be operated according Footnote 5.558 of the RR.

⁴⁾ Note 5.340 of the Radio Regulations, International Telecommunication Union, Geneva, 2008.

to take it into account. The use of the 57–59 GHz band by the fixed high-speed links and stations for broadband data transmission is the most significant one in the Czech Republic.

Article 4 **International obligations**

Provisions of the RR⁵⁾ apply to operation and coordination.

Part 2

Devices operated outside the radiocommunication services

Article 5

Current conditions for devices operated outside the radiocommunication services

- (1) The frequencies may be used in accordance with the Commission Decision (hereinafter “the EC”)⁶⁾ and the CEPT Recommendation⁷⁾ by short range devices while using such devices is possible based on the General Authorisation⁸⁾, which lays down specific conditions of the use of radio frequencies by SRDs including technical parameters. The frequency 57–59 GHz⁹⁾ band is dedicated particularly to be used by non-specified short range devices and devices for radio location.
- (2) The SRD must not cause harmful interference to other users of the frequency band and have no protection from the harmful interference caused by other authorized users of the frequency bands.

Article 6

Information on future development for devices operated outside the radiocommunication services

Currently, there is no information about changes in use of the frequencies by SRDs.

Part 3 **Fixed service**

Article 7

Current conditions in the fixed service

- (1) The 55.78–59 GHz frequency band is allocated to the fixed service.
- (2) The 55.78–57 GHz band is not used yet.

⁵⁾ Radio Regulations, International Telecommunication Union, Geneva 2016.

⁶⁾ 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.

⁷⁾ CEPT/ERC/REC Recommendation 70-03 Relating to the use of Short Range Devices (SRD).

⁸⁾ General Authorisation No. VO-R/10/01.2019-1 for the use of radio frequencies and for the operation of Short Range Devices.

⁹⁾ The conditions for frequency band adjacent from above are set in Part of the Radio Spectrum Utilisation Plan No. PV-P/23/11.2019-7 for frequency band 59–105 GHz, as amended.

(3) Operating the fixed high-speed point-to-point links or the stations for broadband data transmission¹⁰⁾ can be shared in the 57–79 GHz⁹⁾ band in accordance with the EC Decision **Chyba! Záložka není definována.**). Specific conditions for the use of radio frequencies, including technical parameters, are laid down in General Authorisation¹¹⁾ provided that the operators of the fixed outside installations, including fixed high-speed point-to-point links, are obliged to register the stations before starting to use the radio frequencies via an online portal, which will be launched to the date specified in the respective General Authorisation¹¹⁾. Using the radio frequencies by fixed outside installations and by point-to-point links is possible only from the date set in respective General Authorisation¹¹⁾.

Article 8

Information on future development in the fixed service

Conditions of the use of the 55.78–57 GHz band will be determined in case of interest in its use. In the 55.78–56.26 GHz band the maximum spectral power flux density supplied to the antenna of the station will be limited to -26 dB (W/MHz) in order to protect stations in Earth Exploration-Satellite Service (passive) according to footnote of the RR¹²⁾.

Part 4

Satellite services

Article 9

Current conditions in satellite services

(1) The 52.6–59 GHz band is allocated to the Earth Exploration Satellite Service and the space research service. Because of solely passive operation these services require protection against harmful interference caused by transmitting stations of other services. For this reason all emissions in the 52.6–54.25 GHz band are prohibited in accordance with the footnote of the RR⁴⁾ and in the 55.78–56.26 GHz band the maximum spectral power flux density delivered to the antenna of station in fixed service is limited to -26 dB (W/MHz) in accordance with the footnote of the RR¹²⁾.

(2) Limitation of the inter-satellite service in bands 55.78–56.9 GHz and 57–58.2 GHz is determined, based on footnote of the RR¹³⁾, in such way that the single-entry power flux-density at all altitudes from 0 km to 1 000 km above the Earth's surface produced by a station in the inter-satellite service, for all conditions and for all methods of modulation, shall not exceed -147 dB(W/m²/100 MHz) for all angles of arrival. In accordance with the footnote of the RR¹⁴⁾ the use of the 56.9–57 GHz band by inter-satellite systems is limited to links between satellites in geostationary satellite orbit and to transmissions from non-geostationary satellites in high Earth orbit to those in low Earth orbit.

¹⁰⁾ Including station of the type point-to-point and point-to-multipoint.

¹¹⁾ General Authorisation No. VO-R/12/XX.2019-YY for use of radio frequencies and operating devices for broadband data transmission in frequency band from 2.4 GHz to 71 GHz, as amended.

¹²⁾ Footnote 5.557A of the RR.

¹³⁾ Footnote 5.556A of the RR.

¹⁴⁾ Footnote 5.558A of the RR.

Article 10

Information on future development in satellite services

Changes in the use of the frequency band by these radiocommunication services are not expected on international or national level.

Part 5

Mobile service

Article 11

Current conditions in mobile service

In the 55.78–58.2 GHz band stations in the aeronautical mobile service may be operated in accordance with the footnote of the RR³⁾ subject to not causing harmful interference to the inter-satellite service. In accordance with the provision of the RR¹⁵⁾ this aeronautical mobile service cannot claim protection from harmful interference caused by the other services having allocations in this band.

Article 12

Information on future development in mobile service

Changes in the use of the frequency band by this radiocommunication service are not expected on international or national level.

Part 6

Radio astronomy

Article 13

Current conditions in radio astronomy

In the 58.2–59 GHz band radio astronomy observations may be carried out under national arrangements in accordance with footnote of the RR¹⁶⁾. This frequency band is not used by radio astronomy in the Czech Republic.

Article 14

Information on future development in radio astronomy

Changes in the use of the frequency band by this radiocommunication service are not expected on international nor on national level.

¹⁵⁾ Provision 5.43 of the RR.

¹⁶⁾ Footnote 5.556 of the RR.

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

Part 7
Final provisions

Article 15
Repealing provisions

This is to repeal the Part No. PV-P/3/02.2010-2 of the Radio Spectrum Utilisation Plan for the 52.6-59 GHz frequency band of the 24 February 2010.

Article 16
Effect

This part of the Radio Spectrum Utilisation Plan is effective from 1 January 2020.

Explanatory memorandum

To implement Section 16(2) of the Act, the Office issues Measure of General Nature part No. PV-P/3/11.2019-6 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 by radiocommunication services in the frequency band from 52.6 GHz to 59 GHz.

This part of the plan is based on the principles set out in the Act and in European legislation, especially in the Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communications networks and services (Framework Directive) and Decision No. 676/2002/EC of the European Parliament and of the Council on a common 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, as amended.

The purpose of this part of the plan is to ensure the transparency of conditions for the radio spectrum use and ability to anticipate the decisions of the Office. The reason to issue this part of the plan is in particular the need to implement the EC Decision⁶⁾ on operation of broadband data systems in the 57–59 GHz band⁹⁾ and arrangements for introducing conditions for opening the 57–59 GHz band for access for fixed high-speed point-to-point links and fixed installations for broadband data transmission¹⁰⁾ based on General Authorisation. Also, references were updated in the text according to a new edition of related documents.

Article 1 describes the subject of the measure and refers common part of the plan.

Article 2 consists of information on utilisation of frequency band according to current issue of National Table of Frequency Allocations. Column “Future harmonisation” in the Table presents future intentions, i.e. allocation to services and utilisation by applications according to ERC Report 25: European Table of Frequency Allocations and Utilisations. More details about applications can be found in relevant articles on individual radiocommunication services. The changes correspond with the current issue of National Table of Frequency Allocations. The plan was amended with Information on usage by fixed high-speed stations whose operating conditions are specified in the relevant sections of this part of the plan.

Article 3 presents band characteristics with information common to radiocommunication services utilising the described band. The main relevance of the 57 – 59 GHz band for high-speed links and broadband data transmission was updated.

Article 4 contains international obligations, determined by the Radio Regulations of the International Telecommunication Union upon which the Office acts in radio spectrum management.

For short range devices (SRD) listed in the CEPT Recommendation⁷⁾ and in the EC Decision⁶⁾ which cannot be considered stations according to the definition of radiocommunication service described in Provision 1.61 of the RR and formerly treated in article with conditions for fixed service, new Part 2 was inserted with conditions for devices operated outside the radiocommunication service. Specific conditions for using the frequencies are stated in respective General Authorisation. The conditions for devices for broadband data transmission¹⁰⁾ that share frequencies with fixed high-speed point-to-point links are described in Article 7.

In Part 3 and following parts, the Office lays down conditions for utilisation of the stated frequency bands in individual radiocommunication services.

In accordance with EC Decision⁶⁾ and CEPT Recommendation⁷⁾, Section 3 with conditions allowing shared operation of stations for broadband data transmission was inserted in the Article 7 which contains conditions for the use of frequencies in fixed service. Based on specific national users' demand, these new conditions also allow operation of fixed high-speed point-to-point links¹⁷⁾ where no coordination is provided by the Office, although the links are characterized as fixed service, the used frequencies are shared with other users of the frequency band, and the links have, from regulatory point of view, equal position as links of other users using frequencies according to the Section 3. The technical conditions for stations using frequencies under Section 3 relate to CEPT Recommendation⁷⁾ and are stated in General Authorisation¹¹⁾ including conditions for the use of the radio frequencies. These are especially the maximal value of the e.i.r.p., power supplied to the antenna and the antenna gain. The Office in General Authorisation, aiming to make mutual compatibility of the stations easier, also lays down in accordance with Section 10(1)(p) of the Act the obligation to notify the commencement of utilisation of radio frequencies by fixed outside installations as well as by point-to-point links (i.e. registration of the stations in the band⁹⁾) through special online registration portal. The registration portal was being prepared at the time of publication of this part of the Radio Spectrum Utilisation Plan and the date of its launch is the date when General Authorisation VO-R/12 comes into effect. Due to the procedural change of utilisation regime from individual authorisation to General Authorisation, the utilisation of 57,1–58,9 GHz band based on individual authorisation is cancelled from 31 December 2019.

The reason for obligatory registration of fixed outside installations on principle of geolocation database is mainly to create conditions for effective frequencies sharing by both stations equipped with techniques mitigating mutual interference and stations which are not equipped so and whose original purpose assumed individual coordination in the fixed service¹⁷⁾. The registration system will also allow optimisation of the spectrum utilisation in case of using various operational modes of the stations – e.g. directional or sector antennas and active antenna systems incl. beamforming.

Devices operated inside buildings and devices described in Article 5 are not registered and conditions stated in respective General Authorisation are to be applied.

Article 8 contains information on future development and expected changes in the fixed service. The original information was omitted since the assumptions were factually met.

Part 4 contains information on frequency bands utilisation by satellite service. Based on current assumptions of harmonisation²⁾, assumptions in article 10 with information on future development of this service were edited.

Part 5 informs about current conditions in the mobile service. The original assumptions in Article 12 were omitted since they were factually met.

Part 6 informs about radio astronomy, which is currently not provided in the Czech Republic, but the users of radio spectrum should be aware of passive character of the service with the signals being on noise level so the potential harmful interference could make operation of this service in neighbouring countries impossible.

¹⁷⁾ Stations according to EN 302 217.

The previous part of the plan in the frequency band from 52.6 GHz to 59 GHz is repealed in the Article 15 (Part 7).

Effective date of this part of the Radio Spectrum Utilisation Plan is laid down in accordance with Art. 124 of the Act in the Article 16.

Based on the Section 130 of the Act and in accordance with the Rules of the CTU for consultation at the discussion site, the Office published on 24 September 2019 its draft Measure of General Nature Part No. PV-P/3/XX.2019-YY of the Radio Spectrum Utilisation Plan and a call for comments at the discussion site.

During the public consultation, the Office received four comments from two entities. Suggestions to omit the paragraph with original conditions for fixed point-to-point links operated on the basis of individual authorisation for use of radio frequencies were accepted. This kind of operation is now possible according to Article 7(3). Also, suggestion to amend specification to integrity of the frequency 57 – 66 GHz band and interlinking the plan to utilisation of the spectrum for frequency band adjacent from above was accepted.

The suggestion to edit terminology (“station, device”) was not accepted regarding the need to balance the regulatory position of applications for 60 GHz band (i.e. incl. 57 – 59 GHz). The settlement table is therefore amended with necessary explanations including clarification of implementing the EC Decision⁶). Part of comments and suggestions were, more or less, related to this field.

The full wording of all comments and statements and their settlement including explanatory memorandum is stated in the settlement table and published at the discussion site.

On behalf of the
Czech Telecommunication Office Council

Jaromír Novák
Chairman of the
Czech Telecommunication Office Council

<signed>