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

Prague, 16 August 2022
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Based on the result 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 Administrative Procedure Code, as amended, hereby issues this Measure of General Nature

# Part No. PV-P/4/08.2022-16 of the Radio Spectrum Utilisation Plan for the frequency band 33.4–39.5 GHz.

## Article 1
## Introductory provision

This part of the Radio Spectrum Utilisation Plan sets out the technical characteristics and conditions for the use of radio spectrum in the frequency band from 33.4 GHz to 39.5 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 Plan.[1])

## Part 1
## General information on the frequency band

## Article 2
## Frequency band characteristics

(1) The 33.4–36 GHz band in Europe is characterised by its non-civil utilisation and is shared with civil applications at the national level. The 36-39.5 GHz band is designated for civil utilisation, notably in fixed service. The conditions for sharing the band by terrestrial and space services are determined in accordance with the relevant provisions of the Radio Regulations (hereinafter "RR").[2])

(2) Allocation of frequency bands to radiocommunication services listed in the National Table of Frequency Allocations[3]) (hereinafter "Decree") is based on the European harmonisation target[4]) (hereinafter "ECA").

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[1]) Common part of the Radio Spectrum Utilisation Plan No. PV/10.2005-35 published in the Telecommunication Bulletin 14/2005, as amended.
[2]) Article 21, Radio Regulations, International Telecommunication Union, Geneva, 2020.
[3]) Government Decree No. 105/2010 Coll., on the Frequency Band Allocation Plan (National Table of Frequency Allocation), as amended.
[4]) ERC Report 25: European Table of Frequency Allocations and Applications in the frequency range 8.3 kHz to 3000 GHz, rev. 2021.

(3) Information stated in this Article are further detailed in Parts laying down the conditions for the band utilisation in individual radiocommunication services and bands.

## Article 3
## **International obligations**

(1) Provisions of the RR and HCM Agreement[5]) apply to operation and coordination of radio frequencies (hereinafter “frequencies”).

(2) Where there is stated in this part of the Radio Spectrum Utilisation Plan that a footnote of the Radio Regulations applies, the text of a footnote of Radio Regulations stated in Part III of the Decree[3]) shall be applied.

## Article 4
## **Information on future development**

(1) Following the new conditions set in Article 5(2), the Office expects a development in the utilisation of radio channels of up to 224 MHz width in fixed service in the 37–39.5 GHz band and further decrease of interest to utilise the band with radio channels with narrower bandwidth.

(2) The 37–43.5 GHz band or its part is designated for IMT by the RR footnote.[6]) Its utilisation in the Czech Republic is not expected. The national conditions will be reassessed after potential issue of a harmonisation document.

# Part 2
# **Conditions for utilisation**

## Article 5
## **Fixed service**

(1) The 36–37 GHz band is not utilised in the fixed service in the Czech Republic.

(2) The 37–39.5 GHz band is designated for utilisation by fixed point-to-point links and the operated transmitting radio equipment shall meet following conditions:

a) the duplex separation of transmitted and received frequency 1260 MHz;

b) the radio channels shall have width of 112 MHz, whereas centre frequencies $f_n$ and $f_n'$ [MHz] of particular operating channels are in relation to the reference frequency $f_0$ = 38 248 MHz given by formulas:

$$f_n = f_0 - 1246 + 112n \text{ in the lower part of the band and}$$
$$f_n' = f_0 + 14 + 112n \text{ in the upper part of the band,}$$
where n = 1, 2, 3 up to 10 (preferably 1, 8 and 9);

or 56 MHz, whereas centre frequencies $f_n$ and $f_n'$ [MHz] of particular operating channels are in relation to the reference frequency $f_0$ = 38 248 MHz given by formulas:

$$f_n = f_0 - 1218 + 56n \text{ in the lower part of the band and}$$
$$f_n' = f_0 + 42 + 56n \text{ in the upper part of the band,}$$

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[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, Zagreb, 30 September 2010.

[6]) Footnote 5.550B of RR.

where n = 1, 2 ,3 up to 20 (preferably 1, 2 and 16 up to 20);

or 28 MHz, whereas centre frequencies $f_n$ and $f_n'$ [MHz] of particular operating channels are in relation to the reference frequency $f_0$ = 38 248 MHz given by formulas:

$f_n = f_0 - 1204 + 28n$ in the lower part of the band and
$f_n' = f_0 + 56 + 28\ n$ in the upper part of the band,
where n = 0, 1, 2, up to 41 (preferably 30 up to 41);

or 14 MHz, whereas centre frequencies $f_n$ and $f_n'$ [MHz] of particular operating channels are in relation to the reference frequency $f_0$ =38 248 MHz given by formulas:

$f_n = f_0 - 1197 + 14n$ in the lower part of the band and
$f_n' = f_0 + 63 + 14n$ in the upper part of the band,
where n = 1, 2, 3 up to 80 (preferably 33 up to 58);

or 7 MHz, whereas centre frequencies $f_n$ and $f_n'$ [MHz] of particular operating channels are in relation to the reference frequency $f_0$ =38 248 given by formulas:

$f_n = f_0 – 1193.5 + 7n$ in the lower part of the band and
$f_n' = f_0 + 66.5 + 14n$ in the upper part of the band,
where n = 1, 2, 3 up to 160 (preferably 26 up to 64);

or 3,5 MHz, whereas centre frequencies $f_n$ and $f_n'$ [MHz] of particular operating channels are in relation to the reference frequency $f_0$ = 28 248 MHz given by formulas:

$f_n = f_0 – 1191.75 + 3.5n$ in the lower part of the band and
$f_n' = f_0 + 68.52 + 3.5n$ in the upper part of the band,
where n = 1, 2, 3 up to 320 (preferably 33 up to 50).

This arrangement is in accordance with ITU-R[7]) and ECC[8]) Recommendations.

With effect from 1 January 2023, in accordance with these Recommendations, it is possible to utilise the radio channels of 224 MHz width by fixed links, whereas centre frequencies $f_n$ and $f_n'$ [MHz] of particular operating channels are in relation to the reference frequency $f_0$ = 38 248 MHz given by formulas:

$f_n = f_0 – 1190 + 112n$ in the lower part of the band and
$f_n' = f_0 + 70 + 112n$ in the upper part of the band,
where n = 1, 2, 3 up to 9 (preferably 8).

The numbering of radio channels of 224 MHz width is stated only for identification purposes. Two adjacent radio channels of 224 MHz width shall not be utilised in the same fixed point as they are overlapping.

(3) The national and international frequency coordination shall be carried out by the Office.

(4) In accordance with ECC Decision,[9]) the uncoordinated Earth stations in the fixed-satellite service which shares the 37.5–39.5 GHz band with fixed service cannot claim protection from stations in fixed service.

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[7]) ITU-R-F 749-1 Recommendation – Radio-frequency channel arrangements for radio-relay systems operating in the 38 GHz band.

[8]) ECC T/R 12-01 Recommendation – Harmonised radio frequency channel arrangements for analogue and digital terrestrial fixed systems operating in the band 37–39.5 GHz.

[9]) ERC/DEC (00)02 Decision – ERC Decision of 4 March 2022 Use of the band 37.5-39.5 GHz by the fixed service and by earth stations of the fixed-satellite service (space-to-Earth) and use of the band 39.5-40.5 GHz by earth stations of the fixed-satellite service and the mobile-satellite service (space-to-Earth).

Article 6
**Radiolocation service**

For civil purposes in the radiolocation service, it is possible to use the 33.4–35.2 GHz band which is designated for the operation of the short range radars, motion detectors, geodetic and similar measuring equipment.

Article 7
**Earth exploration-satellite and space research services**

The mean power flux-density in Earth exploration-satellite and space research services designated for active observations in the 35.3–36 GHz band shall not exceed the limit set in the RR footnote.[10]) In the 36–37 GHz band, both services are designated for passive observations, and for sharing between Earth exploration-satellite service (passive) and fixed and mobile services, the RR footnote[11]) applies. The data, together with data from observing in other bands, are utilised globally for weather forecasting, observation of clouds, rain and snow precipitation, ice morphology in the seas, etc. At present, these services are not used in the Czech Republic.

Article 8
**Fixed-satellite service**

The 37.5–39.5 GHz band is allocated to this service for space-to Earth utilisation for reception by coordinated as well as uncoordinated Earth stations. In accordance with ECC Decision,[9]) the uncoordinated Earth stations in the fixed-satellite service cannot claim protection from stations in the fixed service. For coordination of non-geostationary satellite systems in the 37.5–39.5 GHz band, the RR footnote[12]) applies.

Article 9
**Meteorological aids service**

In the Czech Republic, this radiocommunication service was allocated with 35.2–36 GHz band. At present, it is not utilised in the Czech Republic. The 35.2–35.5 GHz band is utilised in Europe by satellite radars for rain precipitation monitoring.

Article 10
**Radio astronomy service**

The radio astronomy service is a passive service based on the reception of radio waves of space origin. Due to low levels of received signals, the utilisation of this service depends on protection against harmful interference from other radiocommunication services. The radio astronomy service can use the 36.43–36.5 GHz frequency band in accordance with the RR footnote.[13]) At present, it is not used in the Czech Republic.

[10]) Footnote 5.549A of RR.
[11]) Footnote 5.550A of RR.
[12]) Footnote 5.550C of RR.
[13]) Footnote 5.149 of RR.

Article 11
**Mobile service**

At present, allocation to the mobile service in the 36–39.5 GHz band has no utilisation in the Czech Republic.

Part 3
**Final provisions**

Article 12
**Repealing provisions**

This is to repeal the Measure of General Nature – Part No. PV-P/4/10.2005-37 of the Radio Spectrum Utilisation Plan for the 33.4–39.5 GHz frequency band of 18 October 2005.

Article 13
**Effect**

This part of the Radio Spectrum Utilisation Plan shall come into effect on 1 January 2023.

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/4/08.2022-16 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 33.4 GHz to 39.5 GHz by radiocommunication services.

The part of the plan is based on the principles set out in the Act and in European legislation, especially Directive (EU) 2018/1972 of the European Parliament and of the Council establishing the European Electronic Communications Code and 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 radio spectrum use and ability to anticipate the decisions of the Office. The purpose of the new issue of this part of the plan is notably to update the conditions for the use of 37–39.5 GHz band by fixed links. In relation to rising demands on high-speed data transmissions and followingly the interest of users to operate fixed links with radio channel with wider bandwidths, the conditions for utilisation of wider range of frequencies and in reasonable cases also of radio channels of 112 MHz and 224 MHz width are newly set. Given the lower interest in radio channels with narrower bandwidths, the ranges of preferred radio channels were adjusted, but this shall not prevent further utilisation of other radio channels, if necessary.

Article 2 presents characteristics of the frequency band, the division of its civil and non-civil utilisation and, as the most significant, the utilisation in fixed service by fixed links.

Article 3 contains international obligations determined by Radio Regulations of the International Telecommunication Union and HCM Agreement upon which the Office acts in radio spectrum management.

Article 4 contains the information on expected future development of the utilisation of frequencies in the range described by this part of the plan. Given the rising demands on higher speeds in data traffic, the utilisation of radio channels with wider bandwidth and increased use of the 37–39.5 GHz band by fixed service is trending. The Office does not expect the utilisation of the band or its part by mobile service because it is not harmonised for this utilisation at the European level.

Part 2 sets the conditions of the band utilisation by specific radiocommunication services. The most significant utilisation of the band is the operation of fixed point-to-point links within the fixed service, for which the conditions are set in Article 5 of this Part. The range of available radio channels was newly extended with radio channels of 112 MHz and 224 MHz width, based on the interest of users.

These conditions are basic ones and the Office can determine other technical parameters for the utilisation of frequencies, with respect to real configuration, by an individual authorisation for the use of frequencies. By reasons of transparency and ability to anticipate the decisions of the Office and in connection to the prepared amendment to the Government Order No. 154/2005 Coll. on the determination of the amounts and the method of calculating the charges for the use of frequencies and numbers, as amended, the effect of the provisions related to conditions of the use of radio channels of 224 MHz width was set from 1 January 2023. The text in Paragraph 3 on the procedure of frequencies coordination was aligned with texts of other parts of the RSUP.

In Article 6, the Office determines the band for civil utilisation by the radiolocation service and its applications. The text of the Article was left unchanged.

Article 7 describes the Earth exploration-satellite and space research services which are not utilised in the Czech Republic, but the data obtained from the observations are being

used in a number of European countries for weather forecasts, rain and snow precipitation monitoring, etc.

Article 8 sets the band for utilisation by satellite Earth stations for reception from the satellites. For better precision, the text states that the band can be utilised either by coordinated or by uncoordinated stations. A reference was made to RR footnote 5.550C on coordination of non-geostationary satellite systems, adopted by the World Radiocommunication Conference WRC-19.

Meteorological aids service, described in Article 9, is utilised in Europe to monitor rain precipitation by satellite radars. Although this service is not utilised in the Czech Republic, the users of this band should be aware of this utilisation in other European countries.

Article 10 informs on radio-astronomy service. Although it is not used in the Czech Republic at present, the users of radio spectrum must take into account that this service is passive and uses signals at the level of noise. Potential harmful interference could impact the utilisation of this service or make it impossible, e.g. in neighbouring countries.

Based on the Section 130 of the Act and in accordance with the Czech Telecommunication Office Rules for Conducting Consultations at the Discussion Site, the Office published a draft of the Measure of General Nature Part No. PV-P/4/XX.2022-Y of the Radio Spectrum Utilisation Plan on 21 June 2022 together with the Call for comments. During the public consultation period the Office did not receive any comment to the draft of this part of the plan.

On behalf of the Council of the Czech
Telecommunication Office

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