

TECHNICAL ARRANGEMENT

between the Electronic Communications Office of the Republic of Latvia and the Communications Regulatory Authority of the Republic of Lithuania concerning the use of the frequency band 694-790 MHz for terrestrial systems for Mobile/Fixed Communication Networks (MFCN) in border areas

1 August 2021

Preamble

According to Article 6 of ITU Radio Regulations, representatives of the Electronic Communications Office of the Republic of Latvia and the Communications Regulatory Authority of the Republic of Lithuania (hereinafter referred to as the Parties) have concluded this Technical Arrangement concerning the use of the 694-790 MHz frequency band (hereinafter referred to as 700 MHz band) for terrestrial systems for Mobile/Fixed Communication Networks (MFCN) (hereinafter referred to as the Arrangement) with the aim of optimizing the use of the frequency band and avoiding mutual interference on a mutually coordinated basis.

Parties noted that 700 MHz band is currently used for Digital Terrestrial Television (DTT) broadcasting in Latvia while the band is already released from DTT broadcasting in Lithuania. DTT in Latvia is used in accordance with the Regional Agreement GE06 (Geneva, 2006).

The coordination between Land Mobile Service stations and Broadcasting Service entries of the GE06 Agreement digital Plan in operation within overlapping frequencies is outside the scope of this Arrangement and shall be carried out separately.

1. Principles

- 1.1. This Arrangement is based on the concept of coordination field strength levels for base stations, allocation of preferential and non-preferential Physical Cell Identifiers (PCI) for LTE and NR systems. This is in conformity with the ECC Recommendation (15)01 of 13 February 2015 "Cross-border coordination for Mobile/Fixed Communications Networks (MFCN) in the frequency bands: 694-790 MHz, 1427-1518 MHz and 3400-3800 MHz" (amended 14 February 2020) (hereinafter referred to as ECC/REC/(15)01).
- 1.2. The FDD¹ frequency arrangement is presumed: mobile stations (user equipment or terminals) transmit and receive in the frequency bands 703-733 / 758-788 MHz respectively, base stations transmit and receive in the frequency bands 758-788 / 703-733 MHz respectively.
- 1.3. The SDL² frequency arrangement is presumed: base stations transmit and mobile stations (user equipment or terminals) receive in the frequency band 738-758 MHz.
- 1.4. Allocation of preferential and non-preferential PCI for LTE and NR systems between Parties is given in Annex 1 of this Arrangement.
- 1.5. This Arrangement covers coordination of base stations.
- 1.6. In the context of this Arrangement the term "border" is understood as the international borderline between the countries of the Parties.

2. Use of frequencies and PCI

- 2.1. Each Party may use the frequency bands 703-733 / 758-788 MHz and 738-758 MHz for MFCN systems using its own preferential PCI without coordination with the other Party if the predicted mean field strength produced by the base station cell does not exceed the value of 59 dB μ V/m/ 5 MHz at a height of 3 m above ground at the border and the value of 41 dB μ V/m/ 5 MHz at a distance of 6 km from the border inside the territory of other Party respectively.

¹ FDD – Frequency Division Duplex.

² SDL – Supplemental Downlink.

- 2.2. For LTE and NR systems each Party may use all PCI available if the predicted mean field strength produced by the base station cell does not exceed the value of 41 dB μ V/m/ 5 MHz at a height of 3 m above ground at the border. If the predicted mean field strength produced by the base station cell exceeds the value of 41 dB μ V/m/ 5 MHz at a height of 3 m above ground at the border each Party shall use PCI according to the Annex 1 to this Arrangement.
- 2.3. If frequency block size is other than 5 MHz, a correction, calculated by the formula $10 \times \log_{10}(\text{frequency block size} / 5 \text{ MHz})$, dB, shall be added to the field strength values indicated in items 2.1 and 2.2.

3. Procedure

- 3.1. If the predicted mean field strength produced by the base station cell exceeds the values indicated in item 2.1 the frequency assignment shall be coordinated with the other Party.
- 3.2. The period of coordination shall not exceed 45 days from the date of receiving the request and 20 days after the reminder. If no reply is received within 65 days the frequency assignment shall be considered as coordinated. The exchange of coordination information shall take place by e-mail or other electronic means.
- 3.3. Coordination requests shall be drawn up according to Annex 3 of the ECC/REC/(15)01.
- 3.4. Complaints of harmful interference shall be based on the median value of measurements of field strength, performed at a receiving antenna height of 3 m above ground, at least in two different points over a distance of at least 100 m along the border.
- 3.5. Reports of harmful interference shall be presented in accordance to Appendix 10 of the ITU Radio Regulations and processed according to Article 15 of the ITU Radio Regulations.
- 3.6. For field strength calculations, the Parties shall use the latest version of Recommendation ITU-R P.1546 "Method for point-to-area predictions for terrestrial services in the frequency range 30 MHz to 4000 MHz" for 10% of time and 50% of locations.

4. Operators arrangement

- 4.1. Operators concerned may agree to deviate from field strength levels in item 2.1 by mutual consent, concluding an arrangement between operators with the consent of the Parties concerned. Such arrangement shall only be valid as long as all participating operators hold exclusive rights of use of concerned frequencies.

5. Revision and cancellation

- 5.1. This Arrangement may be revised at any time on the initiative of any Party with the consent of the other Party.
- 5.2. This Arrangement may be cancelled by a mutual decision of both Parties on terms and conditions adopted by the Parties or by a decision of one Party notifying the other Party on its intention at least six months before.

6. Entry into force

- 6.1. This Arrangement shall come into force on 1 August 2021.
- 6.2. This Arrangement has been drawn in English in two identical copies, one for the Republic of Latvia and one for the Republic of Lithuania.

Signed by correspondence.

On behalf of the Electronic
Communications Office of the
Republic of Latvia

On behalf of the Communications
Regulatory Authority of the
Republic of Lithuania

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Jānis Bārda

Place: *Rīga, Latvia*

Date: *12.07.2021.*

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Augutis Čėsna

Place: *Vilnius, Lithuania*

Date: *29.07.2021*

**Allocation of preferential Physical Cell Identifiers (PCI) for LTE and NR systems
in the 703-733 / 758-788 MHz and 738-758 MHz frequency bands
between the Republic of Latvia and the Republic of Lithuania**

Set	A	B	C	D	E	F
PCI for LTE	0 to 83	84 to 167	168 to 251	252 to 335	336 to 419	420 to 503
PCI for NR	0 to 83 504 to 587	84 to 167 588 to 671	168 to 251 672 to 755	252 to 335 756 to 839	336 to 419 840 to 923	420 to 503 924 to 1007
Set preferential to	LTU ³	LVA ⁴	LTU	LVA	LVA	LTU

³ LTU – the Republic of Lithuania.

⁴ LVA – the Republic of Latvia.