Annex 8

Technical criteria and principles

between the State Supervisory Department for Telecommunications of the Ministry of Telecommunications and Informatization of the Republic of Belarus and the Electronic Communications Office of the Republic of Latvia
concerning the use of the frequency bands
1920-1980 MHz/ 2110-2170 MHz for terrestrial systems for Mobile/Fixed Communications Networks (MFCN) in border areas

Minsk, 26th May 2016

Preamble

According to Article 6 of the ITU Radio Regulations, representatives of the State Supervisory Department for Telecommunications of the Ministry of Telecommunications and Informatization of the Republic of Belarus and the Electronic Communications Office of the Republic of Latvia (hereinafter referred to as the Parties) have concluded the present technical criteria and principles (hereinafter referred to as the Document) concerning the use of the 1920-1980 MHz/ 2110-2170 MHz frequency bands for terrestrial systems for mobile/fixed communications networks (MFCN)[1] with the aim of optimizing the use of the frequency bands and avoiding mutual interference in border areas on a mutually agreed basis.

This Document cancels and replaces the "Technical criteria and principles agreed between the Electronic Communications Office of the Republic of Latvia and the State Supervisory Department for Telecommunications of the Ministry of Telecommunications and Informatization of the Republic of Belarus concerning the use of the frequency bands1920-1980 MHz/ 2110-2170 MHz for terrestrial UMTS systems in border areas" (Riga, 14th November 2012).

1. Principles

1.1. This Document is based on the concept of coordination threshold levels for base stations, allocation of preferential and non-preferential code groups for UMTS systems, allocation of preferential and non-preferential Physical Cell Identifiers[2] (PCI) for LTE systems as described in ERC Recommendation 01-01 of 5th February 2016 "Cross-border coordination for mobile/fixed communications networks (MFCN) in the frequency bands: 1920-1980 MHz and 2110-2170 MHz" (hereinafter referred to as the Recommendation ERC/REC 01-01), on the principle of the equal access to spectrum by both Parties.

1.2. The following Document presumes: mobile stations operating in FDD[3] mode transmit and receive respectively in the bands 1920-1980 MHz/ 2110-2170 MHz, base stations operating in FDD mode transmit and receive respectively in the bands 2110-2170 MHz/ 1920-1980 MHz. The Document conforms to ECC Decision (06)01 (amended in 2nd November 2012) "The harmonised utilisation of the bands 1920-1980 MHz and 2110-2170 MHz for mobile/fixed communications networks (MFCN) including terrestrial IMT systems".

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[1] Mobile/fixed communications networks (MFCN) includes IMT and other communications networks in the mobile and fixed services.

[2] Coordination of the Physical Cell Identifiers (PCI) is only needed in case of use of the LTE systems by both Parties when the channel centre frequencies are aligned independently of the channel bandwidth.

[3] FDD - Frequency Division Duplex.

1.3. Allocation of preferential and non-preferential code groups for UMTS FDD systems is given in Annex 1 to this Document.

1.4. Allocation of preferential and non-preferential Physical Cell Identifiers (PCI) for LTE systems between Parties is given in Annex 2 to this Document.

1.5. The field strength values in this Document are based on a receiving antenna height of 3 m above ground for 10% of time and 50% of locations.

1.6. This Document covers coordination of base stations.

1.7. In the context of this Document the term "border" is understood as the international borderline between the countries of the Parties.

2. Use of frequencies

2.1. Each Party may use frequency bands 1920-1980 MHz / 2110-2170 MHz for UMTS FDD or LTE FDD systems using its preferential codes or PCI with centre frequencies aligned, or where centre frequencies are not aligned, without coordination with the other Party if the predicted mean field strength value of each carrier produced by the base station does not exceed the value of 65 dBμV/m/5MHz at the border and does not exceed the value of 37 dBμV/m/5MHz at a distance of 6 km from the border inside the neighbouring country.

2.2. Each Party may use frequency bands 1920-1980 MHz / 2110-2170 MHz for UMTS FDD or LTE FDD systems using its non-preferential codes or PCI with centre frequencies aligned without coordination with the other Party if the predicted mean field strength value of each carrier produced by the base station does not exceed the value of 37 dBμV/m/5MHz at the border.

2.3. If frequency block size is wider than 5 MHz, a correction, calculated by the formula $10 \times \lg$(frequency block size / 5 MHz), dB, shall be added to the field strength values indicated in items 2.1 and 2.2.

2.4. Each Party shall notify the other Party concerning the beginning or cancellation of use of UMTS FDD or LTE FDD systems in frequency bands 1920-1980 MHz / 2110-2170 MHz located at a distance less than 20 km from border indicating the frequency bands or channels concerned.

3. Procedure

3.1. If the predicted mean field strength value of any carrier produced by the base station exceed the levels indicated in items 2.1 or 2.2 the frequency assignment shall be coordinated with the other Party.

3.2. The period of coordination shall not exceed 50 days from the date of the receipt of the request and 25 days after the reminder. If no reply is received within 75 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 6 of the Recommendation ERC/REC 01-01 in the appropriate ITU electronic formats.

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 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. The Parties shall take all possible measures in order to eliminate harmful interference.

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 3000 MHz".

4. Revision and cancellation

4.1. This Document may be revised at any time on the initiative of any Party with the consent of the other Party.

4.2. This Document 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.

5. Entry into force

5.1. This Document shall come into force on the date of signing it by both Parties.

5.2. This Document has been drawn up in two identical copies, one for the Republic of Latvia and one for the Republic of Belarus.

Minsk, 26th May 2016

On behalf of the State Supervisory Department for Telecommunications of the Ministry of Telecommunications and Informatization of the Republic of Belarus	On behalf of the Electronic Communications Office of the Republic of Latvia
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Annex 1

Allocation of preferential code groups for UMTS FDD systems in the 1920-1980 MHz/ 2110-2170 MHz frequency bands between the Republic of Latvia and the Republic of Belarus[4]

Set	**A**	**B**	**C**	**D**	**E**	**F**
Code indices	0...10	11...20	21...31	32...42	43...52	53...63
Set preferential to	LVA[5]	LVA	BLR[6]	BLR	LVA	BLR

[4] According to Annex 3 of the Recommendation ERC/REC 01-01.

[5] LVA – the Republic of Latvia.

[6] BLR – the Republic of Belarus.

Annex 2

Allocation of preferential Physical Cell Identifiers (PCI) for LTE systems in the 1920-1980 MHz / 2110-2170 MHz frequency bands between the Republic of Latvia and the Republic of Belarus[7]

Set	A	B	C	D	E	F
PCI	0...83	84...167	168...251	252...335	336...419	420...503
Set preferential to	LVA	LVA	BLR	BLR	LVA	BLR

[7] According to Annex 5 of the Recommendation ERC/REC 01-01.