

Special Agreement

**concerning the use of the frequency bands
2570-2620 MHz for terrestrial MFCN systems**

between

**the Office of Electronic Communications of the Republic of Poland
and**

**the State Supervisory Department for Telecommunications
of the Ministry of Telecommunications and Informatization
of the Republic of Belarus**

Warsaw, February 2020

Preamble

According to Article 6 of ITU Radio Regulations, representatives of the Office of Electronic Communications of the Republic of Poland and the State Supervisory Department for Telecommunications of the Ministry of Telecommunications and Informatization of the Republic of Belarus (hereinafter referred to as the Parties) have agreed the present Special Agreement concerning the use of the 2570-2620 MHz frequency bands for terrestrial mobile/fixed communications networks (MFCN)¹ in border² areas with the purpose of avoiding mutual interference and optimising the use of the above-stated frequency bands on a mutually coordinated basis (hereinafter referred to as the Document).

1. Principles

- 1.1. This Document is based on the concept of coordination field strength levels for base stations as described in ECC Recommendation (11)05 of 26th May 2011 (amended 3rd February 2017) "Cross-border Coordination for Mobile/Fixed Communications Networks (MFCN) in the frequency band 2500-2690 MHz" (hereinafter referred to as ECC/REC/(11)05), on the principle of the equal access to spectrum by both Parties and preferential and non-preferential Physical Cell Identifiers³ (PCI) for LTE systems.
- 1.2. This Document covers the coordination⁴ between MFCN systems capable of providing electronic communication services in the frequency band 2570-2620 MHz.
- 1.3. The frequency arrangement for MFCN systems conforms to the TDD frequency arrangement and parameters of transmission for base and user stations in accordance with ECC/DEC(05)05 of 18th March 2005 (amended 5th July 2019) „Harmonised utilization of spectrum for Mobile/Fixed Communications Networks (MFCN) operating within the band 2500-2690 MHz“.
- 1.4. FDD frequency arrangement for MFCN systems in the 2500-2570/2620-2690 MHz frequency bands is not covered by this Document.
- 1.5. 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. Parties agree that coordination is not required for terminal stations in mobile and fixed services since that is covered by coordination of base stations.

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

² In the context of this Document the term "border" is understood as the international borderline between the countries of the Parties.

³ 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.

⁴ The term «coordination» should be understood as bilateral coordination between Parties without involving ITU BR in this process. The document given under this bilateral coordination shall be considered by Parties as agreed under relevant RR procedure.

2. Use of frequencies and PCI

- 2.1. Each Party may use the 2570-2620 MHz frequency bands for MFCN systems without coordination with the other Party if the predicted mean field strength produced by the cell (all transmitters within the base station sector) does not exceed field strength levels given in Annex 1.
- 2.2. After appropriate notification by the Belarusian Party, the Parties may use the frequency bands 2570-2620 MHz for MFCN systems without coordination with the other Party, if the predicted average field strength created by the cell (by all transmitters in the base station sector) does not exceed the field strength levels are given in Annex 2. After this notification Annex 1 will be treated as withdrawn.
- 2.3. For LTE systems in border areas each Party shall use PCI sets according to the Annex 3 to this Document⁵.
- 2.4. If frequency block size is other than 5 MHz, a correction, calculated by the formula $10 \times \log(\text{frequency block size, MHz} / 5)$, dB, shall be added to the field strength values indicated in items 2.1 or 2.2.

3. General

- 3.1. If the predicted mean field strength value of any cell produced by the base station exceeds the levels indicated in items 2.1 or 2.2 the frequency assignment shall be coordinated with the other Party.
- 3.2. The coordination procedure shall be performed in accordance with Section 4 of this Document.
- 3.3. In the presence of interference produced by a station covered by this Document, the Report of harmful interference shall be presented in accordance to Appendix 10 of the ITU Radio Regulations. The field strength specified in the interference report shall be based on the median values of measurements of field strength performed at antenna height of 3 m at least in two different points over a range of at least 100 m along the border. The Parties shall take all possible measures in order to eliminate the interference as soon as possible.
- 3.4. For field strength calculations the Parties shall use the latest version of ITU-R Recommendation P.1546 "Method for point-to-area predictions for terrestrial services in the frequency range 30 MHz to 4 000 MHz". The Parties may apply other calculation tools. In case of any differences in results of calculations the latest version of ITU-R Recommendation P.1546 shall be used as a reference.

⁵ Sharing of PCIs between operators of neighbouring countries should only be applied where channel centre frequencies used in the neighbouring countries are aligned independent of the channel bandwidth or where it is not known whether or not the channel centre frequencies used in the neighbouring countries are aligned, or where there is no network in operation in the neighbouring country unless otherwise stated in Annex 1 or administration agreements / operator arrangements. In addition, the trigger values of field strength given in Annex 1 for non-preferential PCIs should also be examined. The preferential PCIs of a two country PCI sharing should be applied for a base station if the trigger value of field strength relating to non-preferential PCIs (in Annex 1) could be exceeded at the borderline of only one neighbouring country. The preferential PCIs of a three country PCI sharing should be applied for a base station if the trigger value of field strength relating to non-preferential PCIs (Annex 1) could be exceeded at the borderline of only two neighbouring countries.

4. Coordination procedure

- 4.1. Coordination requests shall be drawn up according to Annex 4 of the ECC/REC/(11)05. A request can be sent by mail, fax or e-mail. In case if a request is sent by e-mail the requesting Party shall send by fax a covering letter to the affected Party and to receive a confirmation of its receipt.
- 4.2. The affected Party shall provide a feedback in respect of the request to coordinate assignments within 60 days from the date of the request receipt. If no feedback was received, an urgent reminder shall be sent. Parties that failed to respond within 30 days from the date of an urgent reminder receipt shall be deemed agreeing if the Party, a consent of which is sought, did not ask for extra time needed to coordinate the request review.
- 4.3. In case of a refusal of the affected Party to satisfy the request for coordination the affected Party shall inform the requesting Party about its disagreement and provide appropriate information regarding its frequency assignments justified given disagreement. The requesting Party shall provide to the affected Party results of its calculations, or any new technical characteristics of the assignment.
- 4.4. If no response from the affected Party to the proposals provided by requesting Party in item 4.3 was received within 30 days from the date of proposals receipt, an urgent reminder shall be sent. Parties that failed to respond within 15 days from the date of receipt of an urgent reminder shall be deemed agreed to the provided proposals on coordination.
- 4.5. The Party objecting to the received request for coordination shall provide results of its calculations and a proposal for reasonable changing of the request that shall not only provide for adequate protection for its available and planned services, but to the maximal possible extent shall preserve an initial objective of the request for coordination.
- 4.6. In case of controversies originating from applying of this Document Parties shall be governed by provisions and procedures of the ITU Radio Regulations, as well as applicable international and bilateral Agreements.

5. Operator arrangements

- 5.1. To further improve the compatibility of terrestrial systems capable of providing electronic communications services in border areas, the operators of the Parties by their agreement, may offer the administrations additional conditions, such as:
 - preferential frequency distribution arrangements,
 - frequency carrier definitions,
 - synchronisation of concerned networks.
- 5.2. Such operator arrangements after the coordination work with the respective administrations:
 - shall only be valid as long as all participating operators hold exclusive rights for concerned frequencies,
 - shall not impose disadvantages on other operators,
 - should respect field strength levels and provisions given by relevant documents (e.g. ECC recommendations),

- are subject to prior consent of the administrations concerned.

5.3. Further provisions are contained in the "Procedure concerning the approval of arrangements between operators of mobile radiocommunication networks agreed between the Office of Electronic Communications of the Republic of Poland and the State Supervisory Department for Telecommunications of the Ministry of Telecommunications and Informatization of the Republic of Belarus (done by correspondence, September&October 2019).

6. Revision and cancellation

- 6.1. This Document may be revised at any time on the initiative of any Party with the consent of the other Party.
- 6.2. 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. This does not affect the operation of stations already brought into use or coordinated under this Document. After such cancellation, Parties will exchange the list of stations already brought into use or coordinated under this Document.

7. Entry into force

- 7.1. This Document shall come into force on the date of signing it by both Parties.
- 7.2. This Document has been drawn in English in two identical copies, one for the Republic of Poland and one for the Republic of Belarus.

Warsaw, 6th February 2020

On behalf of
the State Supervisory Department for
Telecommunications of the Ministry
of Telecommunications and Informatization
of the Republic of Belarus

Yury Siamashka

On behalf of
the President of the Office of Electronic
Communications
of the Republic of Poland

Paweł Krzyński

Annex 1

Coordination field strength levels for MFCN TDD base stations in the 2570-2620 MHz frequency bands between the Republic of Belarus and the Republic of Poland

Predicted mean field strength level, dB μ V/m	(channel bandwidth 5 MHz ⁶)
at the border	23

⁶ If the bandwidth of the signal is other than 5 MHz the field strength should be corrected in accordance with item 2.3 of this Document.

Annex 2

Coordination field strength levels for unsynchronized MFCN TDD base stations in the 2570-2620 MHz frequency bands between the Republic of Belarus and the Republic of Poland

Predicted mean field strength level, dB μ V/m	(channel bandwidth 5 MHz ⁷)
at the border	30

Coordination field strength levels for synchronized MFCN TDD base stations in the 2570-2620 MHz frequency bands between the Republic of Belarus and the Republic of Poland⁸

Predicted mean field strength level, dB μ V/m	MFCN TDD vs. MFCN TDD case (channel bandwidth 5 MHz ⁵)		
	Centre frequencies aligned		Centre frequencies not aligned
	Preferential PCI's used	Non-preferential PCI's used	
at the border	65	49	65
at the 6 km line	49	-	49

⁷ If the bandwidth of the signal is other than 5 MHz the field strength should be corrected in accordance with item 2.3 of this Document.

⁸ Threshold values for synchronized MFCN base stations have to be confirmed in operators arrangements concluded according to the Article 5 of this Document. Operators may agree on different values that given in the table.

Annex 3

Allocation of preferential Physical-layer Cell Identities (PCI) for LTE systems in the 2620-2690 MHz frequency band to the Republic of Belarus and the Republic of Poland

Set	A	B	C	D	E	F
PCI	0...83	84...167	168...251	252...335	336...419	420...503
Set preferential to	POL ⁹	BLR ¹⁰	BLR	BLR	POL	POL

⁹ POL – Republic of Poland

¹⁰ BLR – Republic of Belarus