

Special Agreement

**concerning the use of the frequency bands 450.0-460.0/460.0-470.0
MHz for radiocommunications systems in land mobile service in border
areas**

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 use of the frequency bands 450.0-460/460.0-470 MHz for radiocommunications systems in land mobile service in border¹ 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).

Arrangements, especially regarding the preferential radio channels division, agreed in the following documents:

- Соглашение между Администрациями связи Республики Беларусь, Литвы и Польши по вопросам координации частотных присвоений станциям сухопутной подвижной службы в полосе 450,000-453,000/460,000-463,000 МГц, г. Минск 25 июня 1997 г.,
- Соглашение между Администрациями связи Беларуси и Польши по использованию полосы частот 457,6-460,0/467,6-470,0 МГц для средств сухопутной подвижной и фиксированной служб в приграничных районах, г. Варшава 20 ноября 1998 г.,

remain valid.

This Document cancels and replaces the provisions of “Протокол многосторонней встречи представителей и экспертов Администраций Беларуси, Латвии, Литвы, Молдовы, Польши, России, Украины и Эстонии по координации частотных присвоений станциям сухопутной подвижной и фиксированной служб в приграничных районах. (5. Распределение частотных Соглашение между Администрациями связи Республики Беларусь, Литвы и Польши по вопросам координации частотных присвоений станциям сухопутной подвижной службы в полосе 450,000-453,000/460,000-463,000 МГц, г. Минск 25 июня 1997 г.

1. Principles

- This Document is based on the concept of coordination field strength levels for base stations as described in ECC Recommendation T/R 25-08 of 15th of January 1990 (amended 28th of September 2018) “Planning criteria and cross-border coordination of frequencies for land mobile systems in the range 29.7-470 MHz” (hereinafter referred to as T/R 25-08), on the principle of the equal access to spectrum by both Parties and preferential and non-preferential division of:
 - radio frequency channels for land mobile systems using channels up to 25 kHz,
 - Physical Cell Identifiers² (PCI) for LTE systems.
- This Document presumes that Frequency Division Duplex (FDD) mode is used in the frequency band 450.0-459.7/460.0-469.7 MHz. This arrangement is consistent with T/R 25-08.

¹ In the context of this Technical Agreement the term “border” is understood as the international borderline between the countries of the Parties.

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.

- This Document presumes that Time Division Duplex (TDD) or Frequency Division Duplex (FDD) mode is used in the frequency band 459.7-460.0/469.7-470.0 MHz.
- Field strength values are based on:
 - a receiving antenna height of 10 m above ground for 10 % of time and 50 % of locations for land mobile systems using channels up to 25 kHz,
 - a receiving antenna height of 3 m above ground for 10 % of time and 50 % of locations for LTE systems.
- In case of LTE systems this Document covers coordination of base stations. Parties agree that coordination is not required for terminal stations in land mobile service since that is covered by coordination of base stations.

2. Use of frequencies

- 2.1. Each Party may use the 450.0-460.0/460.0-470.0 MHz frequency bands for systems in land mobile service without coordination with the other Party if the predicted mean field strength produced by the base station or cell of the base station (all transmitters within the base station sector) does not exceed field strength levels given in Annex 1 or Annex 2.
- 2.2. For LTE systems in border areas each Party shall use PCI sets according to the Annex 3 to this Document.
- 2.3. 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 item 2.1.

3. General

- 3.1. If the predicted mean field strength value of any cell produced by the base station exceeds the levels indicated in item 2.1 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.

4. Coordination procedure

- 4.1. Coordination requests shall be drawn up according HCM Agreement. 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 Krzywiński

Annex 1

Field strength levels for cross-border coordination between land mobile systems using channels up to 25 kHz in the 450.0-460.0/460.0-470.0 MHz frequency bands between the Republic of Belarus and the Republic of Poland

System using channels up to 25 kHz using preferential frequency	20 dB μ V/m @50 km (beyond the borderline)
System using channels up to 25 kHz using non-preferential frequency	20 dB μ V/m @0 km (on the borderline)

Annex 2

Field strength levels for cross-border coordination between LTE systems in the 450.0-460.0/460.0-470.0 MHz frequency bands between the Republic of Belarus and the Republic of Poland

Mean field strength level, dB μ V/m/5 MHz	LTE vs. LTE case		
	Centre frequencies aligned		Centre frequencies not aligned
	Preferential PCI's or offset indexes used	Non-preferential PCI's or offset indexes used	
at the border	55	37	55
at the 10 km line	37	–	37

Mean field strength level, dB μ V/m/5 MHz	LTE vs. system using channels up to 25 kHz
at the border	55

Note 1: If a channel bandwidth other than 5 MHz is used, then a bandwidth conversion factor applies: $10 \times \log_{10}(\text{channel bandwidth} / 5 \text{ MHz})$

Annex 3

Allocation of preferential Physical Cell Identifiers (PCI) for LTE systems in the 450.0-460.0/460.0-470.0 MHz frequency bands 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 ³	BLR ⁴	BLR	BLR	POL	POL

³ POL – Republic of Poland

⁴ BLR – Republic of Belarus