

AGREEMENT

between administrations of

the Czech Republic and Republic of Poland

**on frequency planning and frequency usage at border
areas for terrestrial systems capable of providing
electronic communication services in the frequency band
2500 - 2690 MHz**

Wrocław, 5th June 2012

1. Introduction

The frequency band 2500 - 2690 MHz is designated for terrestrial systems capable of providing electronic communications services according to *COMMISSION DECISION (2008/477/EC) of 13th June 2008 on the harmonisation of the 2500-2690 MHz frequency band for terrestrial systems capable of providing electronic communications services in the Community* (notified under document number C(2008) 2625).

2. Principles of frequency planning and frequency usage at border areas

The administrations of the Czech Republic and the Republic of Poland have agreed on the following frequency planning and frequency usage procedures based on the concept of equal access probability. This concept enables equitable coverage for two or more networks using the same frequency band with the same or different digital technologies in geographically adjacent areas without coordination. Operation of stations in the respective border area exceeding the specified field strength values after performing traditional frequency coordination would disturb the balance in the respective area and is therefore not desirable.

The following principles apply to frequency utilisation by terrestrial systems capable of providing electronic communications services in geographically adjacent areas in cases where concerned administrations agree to use the concept of equal access probability:

- Field strength values are defined inside a reference frequency block of 5 MHz.
- The field strength calculations shall take into account the sum of all signals radiated from the respective antenna sector within the reference frequency block. The respective field strength values for each signal should be applied by each antenna sector and can be deduced by reducing the limit proportionally to the bandwidth portions falling into the reference frequency block (reduction factor = $10 \times \log(\text{bandwidth portion} / 5 \text{ MHz})$).

In order to assure equitable coverage and equal access probability to the spectrum in border areas even with different transmission technologies, and to enhance the efficiency of spectrum usage, the principles and field strength limits as given in chapter 3 of this agreement shall be respected by all network operators concerned.

3. Technical provisions

The frequency band 2500 MHz – 2690 MHz is divided into three parts:

- a) 2500 – 2570 MHz,
- b) 2570 – 2620 MHz,
- c) 2620 – 2690 MHz.

The bands a) and c) are paired bands and may be used for FDD systems.

The duplex spacing for FDD operation shall be 120 MHz with terminal station transmission (up link) located in band a) starting at 2500 MHz (extending to a maximum limit of 2570 MHz) and base station transmission (down link) located in band c) starting at 2620 MHz (extending to a maximum limit of 2690 MHz).

The band b) can be used by TDD systems or other usage modes complying with the applicable Block Edge Masks (BEM) given in *COMMISSION DECISION (2008/477/EC) of 13th June 2008*.

3.1 Frequency utilisation in the bands a) and c)

Base stations of FDD systems may be operated if the field strength produced at a height of 3 m above ground does not exceed the value of 65 dBµV/m in the reference

bandwidth of 5 MHz at the border line and does not exceed the value of 37 dB μ V/m in the reference bandwidth of 5 MHz at a line of 6 km beyond the border.

3.2. Frequency utilisation in band b)

3.2.1. Frequency utilisation in band b) for synchronised networks

Base stations of synchronised TDD systems may be operated if the produced field strength at a height of 3 m above ground does not exceed the value of 65 dB μ V/m in the reference bandwidth of 5 MHz at the border line, and does not exceed the value of 37 dB μ V/m in the reference bandwidth of 5 MHz at a line of 6 km beyond the border. Interference-free operation with these limits is only possible for synchronised networks.

3.2.2. Frequency utilisation in band b) for unsynchronised networks

Base stations of unsynchronised TDD systems may be operated if the field strength produced at a height of 3 m above ground does not exceed the value of 21 dB μ V/m in the reference frequency bandwidth of 5 MHz at the border line.

4. Operator arrangements

To further improve the compatibility of terrestrial systems capable of providing electronic communications services in border areas, operators may conclude additional arrangements such as:

- preferential frequency distribution arrangements,
- preferential code division arrangements (e.g. according to ERC/REC(01)01),
- preferential physical-layer cell identities (PCI) (e.g. according to ECC/REC/(11)05),
- frequency carrier definitions (e.g. according to ECC/REC/(11)05),
- synchronisation of concerned networks.

Such operator arrangements:

- 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. Field strength prediction

For the field strength calculations the tool of the HCM Agreement shall be applied. Time probability in all calculations is 10 %.

6. Revision of this agreement

This agreement may be modified at a request of any of the signatory administrations where such a modification becomes necessary in the light of administrative, regulatory or technical development. Modification of the agreement shall be done by an amendment.

7. Withdrawal from the agreement

Any administration may withdraw from the agreement by the end of a calendar month by giving notice of its intention at least six months before.

8. Language of the agreement

This agreement has been concluded in English language.

9. Date of entry into force

The date of entry into force is 1st July 2012.

10. Signature of the agreement

This agreement exists in 2 equally authentic copies. The Czech administration makes notification in accordance with HCM Agreement to the managing administration.

the Czech Republic:

Jiří Duhač

Republic of Poland:

Wiktor Sęga