Bundesministerium
für Verkehr,
Innovation und Technologie

Innovation und Telekommunikation

AGREEMENT

BETWEEN THE ADMINISTRATIONS OF AUSTRIA AND ITALY

ON FREQUENCY PLANNING AND FREQUENCY COORDINATION AT BORDER AREAS FOR ELECTRONIC COMMUNICATIONS SERVICES

IN THE FREQUENCY BAND 2500 - 2690 MHz

VIENNA, 14.12.2016

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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 Austria and Italy 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 within 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 x log (bandwidth portion / 5 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 CHARACTERISTICS

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 primarily 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).
Under certain conditions, bands a) and c) are also available for operation of time division duplex (TDD) systems.

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

3.1 Frequency utilisation in cases where only FDD systems are used in bands a) and c)

Base stations of FDD systems may be operated if the produced field strength 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 dBμV/m in the reference bandwidth of 5 MHz at a line of 6 km beyond the border. In the case that LTE is deployed both sides of the border the field strength level at 6 km can be increased to 49 dBμV/m/5MHz in accordance with ECC/REC/(11)05.

3.2. Frequency utilisation in band b)

Base stations of 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 dBμV/m in the reference bandwidth of 5 MHz at the border line, and does not exceed the value of 39 dBμV/m in the reference bandwidth of 5 MHz at a line of 5 km beyond the border. Interference-free operation with these limits is only possible for synchronised networks.

3.3 Frequency utilisation in cases where TDD systems operate in the paired bands a) and c)

3.3.1 Frequency utilisation in cases where stations of TDD systems operate in the FDD downlink band c)

Base stations of such 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 dBμV/m in the reference bandwidth of 5 MHz at the border line, and does not exceed the value of 39 dBμV/m in the reference bandwidth of 5 MHz at a line of 5 km beyond the border.

3.3.2 Frequency utilisation in cases where stations of TDD systems operate in the FDD uplink band a)

Base stations of such TDD systems may be operated if the produced field strength at a height of 10 m above ground at the border line does not exceed the value of 39 dBμV/m in the reference bandwidth of 5 MHz.

4 - OPERATOR ARRANGEMENTS

The establishment of arrangements between operators shall be allowed to the extent possible, according to the provisions laid down in the "Agreement between the administrations of Austria and Italy concerning the approval of arrangements between operators of Electronic Communications Services" from 14.12.2016.

5 - FIELD STRENGHT PREDICTION

For the field strength calculations the tool of the HCM Agreement shall be applied. Time probability in all calculations is 10 %. Mobile Network Operators may agree to use a method based on field measurement as evidence of an actual interference problem.

6 - REVISION OF THE AGREEMENT

With the consent of the other administrations, this agreement may be modified at the request of one of the signatory administrations where such a modification becomes necessary in the light of administrative, regulatory or technical developments.

The technical characteristics may be reviewed in the light of practical experience of its application and of the operation of **terrestrial systems capable of providing electronic** communications services in general.

7 - WITHDRAWAL FROM THE AGREEMENT

Any administration may withdraw from this Agreement subject to six months notice.

8 - LANGUAGE OF THE AGREEMENT

This agreement has been concluded in English.

One original version of this agreement is handed over to each signatory administration and a copy is submitted to the managing administration of the HCM Agreement.

9 - DATE OF ENTRY INTO FORCE

The date of entry into force is the date of signature.

For AUSTRIA 14.12.2016

For ITALY 16.12.2016