

# **TECHNICAL AGREEMENT**

**between the Administrations of**

**AUSTRIA, CROATIA, CZECH REPUBLIC,  
HUNGARY, ITALY, POLAND,  
SLOVAK REPUBLIC and SLOVENIA**

**concerning**

**the frequency coordination  
and preferential frequency distribution  
for fixed wireless systems  
in the bands**

**27940.5 – 28444.5 MHz and 28948.5 – 29452.5 MHz**

2008

## **1 Preamble**

In the framework of the bi- or multilateral agreements dealing with frequency coordination in general, the Telecommunication Administrations of Austria, Croatia, Czech Republic, Hungary, Italy, Poland, Slovak Republic and Slovenia concluded this Agreement for the purpose of the frequency co-ordination for the fixed wireless systems in the frequency bands 27940.5 – 28444.5 MHz paired with 28948.5 – 29452.5 MHz. The relevant provisions of the general bi- or multilateral agreements dealing with frequency coordination (e.g. HCM Agreement) shall apply unless otherwise laid down in this Agreement

## **2 Principles – Background**

- 2.1 The Administrations mentioned above deemed it necessary to conclude an agreement on the division of preferential frequencies for fixed wireless systems using FDD technology only. The channel arrangement used in the Agreement is in conformity with CEPT Recommendation T/R 13-02 Annex C. The band 27940.5 – 28444.5 MHz paired with 28948.5 – 29452.5 MHz is designated for the fixed service in ECC/DEC/(05)01. The use of the frequency bands shall be in accordance with ERC Recommendation (01)03 for FDD systems. These frequency bands may also be used for point-to-point systems as deemed appropriate by each Administration.
- 2.2 Preferential frequencies are frequencies which can be assigned by Administrations concerned without any coordination, provided that the provisions laid down in Paragraph 3.2 or 3.3 of this Agreement are fulfilled.
- 2.3 Non-preferential frequencies are frequencies which can be assigned by Administrations concerned without any coordination, provided that the provisions laid down in Paragraph 3.4 or 3.5 of this Agreement are fulfilled.
- 2.4 All other cases shall be coordinated.
- 2.5 Notifications for assignments are not necessary unless required by the procedure mentioned in Paragraph 4.
- 2.6 The entire band 27940.5 – 28444.5 MHz paired with 28948.5 – 29452.5 MHz is divided into blocks of preferential frequencies in a way that equal access to the spectrum is ensured for each Administration. The frequency partitioning as outlined in this Agreement may, however, be subject to bi- or multilateral accommodations negotiated on a case by case basis in the event that the actual frequency demand in particular border areas of the countries concerned requires modification of the frequency partitioning.
- 2.7 Operators shall have the possibility to cooperate in order to minimize interference and to achieve the most efficient use of the available spectrum. Such agreements between operators shall be subject to confirmation by the Administrations concerned.

### **3 Technical provisions**

- 3.1 The preferential frequency division is described in the Annex.
- 3.2 Transmitters of point-to-multipoint\* systems using preferential frequencies may produce a spectral power flux density (pfd) not exceeding  $-105 \text{ dBW}/(\text{MHz}\cdot\text{m}^2)$  at a distance of 15 km inside the neighbouring country.
- 3.3 Transmitters in point-to-point links using preferential frequencies may produce a spectral power flux density (pfd) not exceeding  $-115 \text{ dBW}/(\text{MHz}\cdot\text{m}^2)$  at a distance of 25 km inside the neighbouring country.
- 3.4 Transmitters of point-to-multipoint\* systems using non-preferential frequencies may produce a spectral power flux density (pfd) not exceeding  $-105 \text{ dBW}/(\text{MHz}\cdot\text{m}^2)$  at the border line.
- 3.5 Transmitters in point-to-point links using non-preferential frequencies may produce a spectral power flux density (pfd) not exceeding  $-115 \text{ dBW}/(\text{MHz}\cdot\text{m}^2)$  at the border line .
- 3.6 The calculation of the interfering spectral pfd shall be based on the Recommendation ITU-R P.452-12 on the basis of free space propagation and an atmospheric attenuation of 0.21 dB/km.
- 3.7 The above mentioned pfd values and the calculation of interference are provisional, and should be revised in accordance with relevant ECC documents to be developed or on the basis of practical experiences of the Signatory Administrations.
- 3.8 In case of multiple interferers at any point of the interference contour the resulting interfering signal shall be derived by summing up the contributing pfd values.

\* Point-to-multipoint systems do not refer to a set of point-to-point links concentrating in the same node.

### **4 Procedure in case of harmful interference**

- 4.1 In cases of harmful interference the Administrations affected shall inform each other and endeavour to mutually find solutions.
- 4.2 For exchange of data between Administrations the technical parameters as described in the general bi- or multilateral agreements in force shall be used.

## **5 Revision of this Agreement**

- 5.1 The text of this Agreement can be revised in light of administrative, regulatory or technical developments at the proposal of any Signatory Administration with the agreement of all other Signatory Administrations.
- 5.2 The revision of the preferential distribution annexed to this Agreement may be done with the agreement of the affected Administrations. All the Signatory Administrations shall be informed about the approved changes.

## **6 Languages of the Agreement**

This Agreement has been concluded in English in 1 (one) original. This original will be deposited at the Managing Administration of the HCM Agreement.

## **7 Status of existing Agreements**

- 7.1 The “Agreement between the Administrations of Austria, the Czech Republic, Hungary, Poland, the Slovak Republic, Slovenia and Ukraine on the frequency co-ordination in the bands 28052.5 – 28444.5 and 29060.5 – 29452.5 MHz Bratislava, 5<sup>th</sup> September 2002” (hereinafter named the “old Agreement”) is replaced by this Agreement for each Administration at the date of its signature.

For Administrations not signing this Agreement, the “old Agreement” will remain in force.

- 7.2 The “Agreement between the Administrations of Austria and Slovenia on the frequency co-ordination in the bands 27940.5 – 28444.5 and 28948.5 – 29452.5 MHz, Ljubljana, 15<sup>th</sup> April 2006” is replaced by this Agreement at the date of its signature by both the Administrations of Austria and Slovenia.

## **8 Date of entry into force for additional Signatories**

For Signatories of this Agreement, who have not signed the “old Agreement”, this Agreement shall enter into force at the date of its signature.

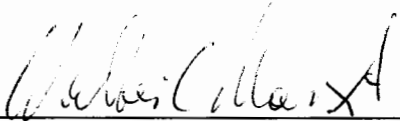
## **9 Accession to the Agreement**

Any European Administration which adjoins at least one Signatory Administration may accede to this Agreement. A declaration to that effect shall be addressed to the managing administration of the HCM Agreement. Upon approval by all concerned Signatory Administrations, the accession shall take effect at the date on which the requesting Administration signs this Agreement.

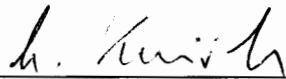
## 10 Withdrawal from this Agreement

Any Administration may withdraw from this Agreement by the end of a calendar month by giving notice of its intention at least six months in advance. Frequency assignments notified within the framework of this Agreement prior to the date of entry into force of the withdrawal shall remain valid and be protected according to their status.

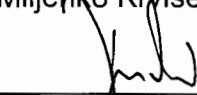
For the Administration of Austria  
on 30.04/2008

  
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(Walter C. Marxt, Director)

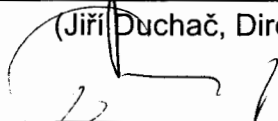
For the Administration of Croatia  
on 19.1.15/2008

  
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(Miljenko Krišek, Deputy President)

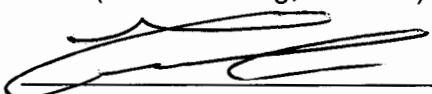
For the Administration of the Czech Republic  
on 22.1.15/2008

  
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(Jiří Duhač, Director)


For the Administration of Hungary  
on 10.1.16/2008

  
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(Gábor Parrag, Director)

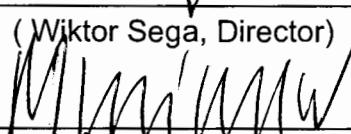
For the Administration of Italy  
on .....1...../2008

  
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(Francesco Troisi, Director)

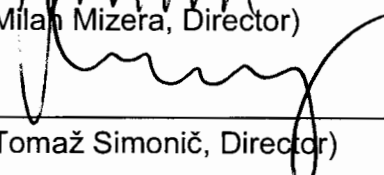
For the Administration of Poland  
on 1.1.07/2008

  
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(Wiktor Segal, Director)

For the Administration of the Slovak Republic  
on 14.1.07/2008

  
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(Milan Mizera, Director)

For the Administration of Slovenia  
on 21.1.07/2008

  
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(Tomaž Simonič, Director)

