

AGREEMENT

between the administrations of

**CROATIA,
HUNGARY,
ROMANIA
and SERBIA**

concerning

**the frequency coordination
and preferential frequency distribution for
Fixed Wireless Access (FWA) systems
in the bands 3410 – 3500 MHz and 3510 – 3600 MHz**

Budapest, 27 October 2006

1. Preamble

The representatives of the Administrations of Croatia, Hungary, Romania and Serbia have concluded the present special Agreement under Article 6 of RR and within the framework of the bi- or multilateral agreements relating to the frequency co-ordination and preferential frequency distribution for Fixed Wireless Access (FWA) systems in the frequency bands 3410 – 3500 MHz paired with 3510 – 3600 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 FWA systems using FDD technology only. The channel arrangement used in this agreement is in conformity with CEPT/ERC/REC 14-03 Annex B1.

This agreement is applicable for systems with uplink band (terminal to central station) 3410-3500 MHz and downlink band (central station to terminal) 3510-3600 MHz according to the Recommendation ECC/REC/(04)05.

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 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 3.3 of this Agreement are fulfilled.

2.4 All other cases shall be coordinated .

2.5 Notifications for the central stations are not necessary unless required by the procedure mentioned in paragraph 4.

2.6 The entire frequency band 3410 – 3500 MHz paired with 3510 – 3600 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 minimise 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 using preferential frequencies may produce a spectral power flux density (pfd) not exceeding $-122\text{dBW}/(\text{MHz}\cdot\text{m}^2)$ at a distance of 15 km in the neighbouring country.
- 3.3 Transmitters using non-preferential frequencies may produce a spectral power flux density (pfd) not exceeding $-122\text{dBW}/(\text{MHz}\cdot\text{m}^2)$ at the border to the neighbouring country.
- 3.4 The calculation of the interfering spectral pfd shall be based on the Recommendation ITU-R P.452-12 for free space propagation taking into account an additional statistical loss of 15 dB for the calculation to consider the influence of topography and morphology.
- 3.5 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.
- 3.6 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.

4. Procedure in case of harmful interference

- 4.1 In cases of harmful interference the Administrations affected shall inform each other and endeavour to achieve a mutually satisfactory solution.
- 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 required.
- 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. Language of the Agreement

This Agreement has been concluded in English language in four originals.

7. 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.

8. Date of entry into force of the Agreement

This Agreement enters into force for each Administration not subject to confirmation at the date of signature. Administrations subject to confirmation shall confirm the Agreement by correspondence.

In the border relations concerning ROU, this Agreement, in its entirety, will enter into force not later than 2 years after the entering into force of the Recommendation mentioned in item 2.1, taking into account the national ongoing refarming process of the allotments in the band. This date will be announced to HNG and SRB Administrations in due time by ROU.

Budapest, 27 October 2006

For the Administration of Croatia

(Ivančica SAKAL)

For the Administration of Hungary
(subject to confirmation)

(Gábor PARRAG)

For the Administration of Romania
(subject to confirmation)

(Adrian IONESCU)

For the Administration of Serbia
(subject to confirmation)

(Petar STEFANOVIĆ)

**PREFERENTIAL FREQUENCY DISTRIBUTION PLAN
IN THE 3.5 GHz BAND**

7 MHz channels			Zones							
Channel number	Center frequency		HNG-ROU*	ROU-SRB	HNG-ROU-SRB	HNG-SRB	HNG-ROU-SRB	HNG-SRB	HRV-SRB	HNG-HRV*
	lower band [MHz]	upper band [MHz]								
1	3413.5	3513.5	HNG	SRB	SRB	SRB	SRB	SRB	SRB	HNG
2	3420.5	3520.5	ROU	ROU	ROU	SRB	HRV	HRV	HRV	HRV
3	3427.5	3527.5	HNG	SRB	HNG	HNG	HNG	SRB	SRB	HNG
4	3434.5	3534.5	ROU	ROU	ROU	HNG	HRV	HRV	HRV	HRV
5	3441.5	3541.5	ROU	SRB	SRB	SRB	SRB	SRB	SRB	HRV
6	3448.5	3548.5	HNG	ROU	HNG	HNG	HNG	SRB	SRB	HNG
7	3455.5	3555.5	HNG	SRB	SRB	SRB	SRB	SRB	SRB	HRV
8	3462.5	3562.5	ROU	ROU	ROU	HNG	HRV	HRV	HRV	HRV
9	3469.5	3569.5	HNG	ROU	HNG	HNG	HNG	HRV	HRV	HNG
10	3476.5	3576.5	ROU	SRB	SRB	SRB	SRB	SRB	SRB	HNG
11	3483.5	3583.5	ROU	ROU	ROU	SRB	HRV	HRV	HRV	HRV
12	3490.5	3590.5	HNG	SRB	HNG	HNG	HNG	HNG	HRV	HNG

* Existing agreement