## **TECHNICAL AGREEMENT**

between the Administrations of

AUSTRIA CROATIA, HUNGARY and SLOVENIA

on the frequency coordination in the frequency bands 876 – 880/921 – 925 MHz (GSM-R)

#### 1 Preamble

In the framework of the "HCM Agreement (Vilnius 2005)" the Administrations of Austria, Croatia, Hungary and Slovenia concluded this agreement for the purpose of the frequency coordination for GSM-R systems in the frequency band 876 – 880/921 – 925 MHz. The relevant provisions of the "HCM Agreement (Vilnius 2005)" and ECC REC/(05)08 shall be applied 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 allotment of the preferential frequencies for GSM-R systems in the frequency band 876 880/921 925 MHz. The channel arrangement used in this agreement is according to ECC/DEC/(02)05.
- 2.2 Operators shall have the possibility to cooperate in order to minimize interference and to achieve the most efficient use of the available spectrum.

## 3 Technical provisions

- 3.1 The preferential frequency division is given in Annex.
- 3.2 Preferential frequencies may be used without coordination with a neighbouring country if the field strength of each carrier produced by the base station does not exceed 19 dB $_{\mu}$ V/m (10% of time, 50% of locations) at a height of 3m above ground at a distance of 15 km inside the neighbouring country.
- 3.3 Non-preferential frequencies may be used without coordination with a neighbouring country if the field strength of each carrier produced by the base station does not exceed 19 dB $\mu$ V/m (10% of time, 50% of locations) at a height of 3m above ground at the border line.
- 3.4 Operators may make arrangements to use frequencies in a different way according to the respective "Agreement between Administrations concerning the approval of arrangements between operators of radiocommunications networks".

## 4 Exchange of information

Notifications of base stations will be exchanged on explicit request of any Signatory Administration.

#### 5 Procedure in case of harmful interference

In cases of harmful interference the Administrations affected shall inform each other and endeavour to achieve mutually acceptable solutions.

## 6 Revision of this Agreement

This agreement can be revised in the light of administrative, regulatory or technical developments at the proposal of any Signatory Administration with the agreement of all other Signatory Administrations.

## 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 made 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 Language of the Agreement

This Agreement has been concluded in English in four originals.

| 9 | Date | of | entry | into | force | of | the | Agreement |
|---|------|----|-------|------|-------|----|-----|-----------|
|---|------|----|-------|------|-------|----|-----|-----------|

| 5 Date of citity into force of the Agreem            |  |
|--|--|
| This Agreement enters into force at the dat          | e of the last signature.   |
| For the Administration of Austria on/2007            | e of the last signature.   |
| For the Administration of Croatia on 1.3.7.96.72007  | Light King of The Control of the Con |
| For the Administration of Hungary on 2.5.1.0.3.12007 | * 60) *  |
| For the Administration of Slovenia on 1.1/2007       | ( Sold State of the state of th |

# Preferential frequency partitioning in the GSM-R bands

| Center<br>freq.<br>(MHz) | Channel<br>spacing<br>(kHz) | Block<br>nr | AUT/  | AUT/<br>HNG/<br>SVN*                | AUT/<br>HRV/<br>SVN | HNG/<br>SVN | HNG/<br>HRV/<br>SVN | HRV/<br>SVN | HRV/<br>HNG | Duplex<br>freq.<br>(MHz) |
|--------------------------|-----------------------------|-------------|-------|-------------------------------------|---------------------|-------------|---------------------|-------------|-------------|--------------------------|
| 876,0125                 | 12,5                        | D1          | DMO   |                                     |                     |             |                     |             |             |                          |
| 876,0250                 | 12,5                        | D2          | DMO   |                                     |                     |             |                     |             |             |                          |
| 876,0375                 | 12,5                        | D3          | DMO   |                                     |                     |             |                     |             |             |                          |
| 876,0500                 | 12,5                        | D4          | DMO   |                                     |                     |             |                     |             |             |                          |
| 876,0625                 | 12,5                        | D5          | DMO   |                                     |                     |             |                     |             |             | 004.0000                 |
| 876,2000                 | 200                         | 1           | AUT   | <b>WAUTH!</b>                       | MAUTI               | SVN         | HRV                 | HRV         | HRV         | 921,2000                 |
| 876,4000                 | 200                         | 2           | HAUT  | YAMIN                               | AUTH                | 140         | HRV                 | HRV         | HRV         | 921,4000                 |
| 876,6000                 | 200                         | 3           | SVN   | and the second second second second | HRV                 | 4/40        |                     | SVN         |             | 921,6000                 |
| 876,8000                 | 200                         | 4           | AUTH  | HAUTE                               | AUT                 | SVN         | HRV                 | HRV         | HRV         | 921,8000                 |
| 877,0000                 | 200                         | 5           | SVN   | 4 1                                 | HRV                 | LING.       | in this             | SVN         | 1250        | 922,0000                 |
| 877,2000                 | 200                         | 6           | AUTI  | <b>FAUTINE</b>                      | AUT                 | 100         | HRV                 | HRV         | HRV         | 922,2000                 |
| 877,4000                 | 200                         | 7           | AUT   | KAUTH                               | <b>AUT</b>          | SVN         | HRV                 | HRV         | HRV         | 922,4000                 |
| 877,6000                 | 200                         | 8           | SVN   | HME                                 | HRV                 |             | Lijve .             | SVN         | ii Mi       | 922,6000                 |
| 877,8000                 | 200                         | 9           | SVN   | SVN                                 | SVN                 | SVN         | SVN                 | SVN         |             | 922,8000                 |
| 878,0000                 | 200                         | 10          | AUT   | AUTH                                | WAUT                |             | HRV                 | HRV         | HRV         | 923,0000                 |
| 878,2000                 | 200                         | 11          | AUTH  |                                     | HRV                 |             |                     | HRV         |             | 923,2000                 |
| 878,4000                 | 200                         | 12          | SVN   | SVN                                 | SVN                 | SVN         | SVN                 | SVN         | HRV         | 923,4000                 |
| 878,6000                 | 200                         | 13          | SVN   |                                     | HRV                 | MINIC       |                     | SVN         |             | 923,6000                 |
| 878,8000                 | 200                         | 14          | AUT   |                                     | AUT                 | a Nich      | JIM                 | HRV         |             | 923,8000                 |
| 879,0000                 | 200                         | 15          | SVN   | SVN                                 | SVN                 | SVN         | SVN                 | SVN         | MNC         | 924,0000                 |
| 879,2000                 | 200                         | 16          | SVN   | SVN                                 | SVN                 | SVN         | SVN                 | SVN         |             | 924,2000                 |
| 879,4000                 | 200                         | 17          | AUT   |                                     |                     | H.M.C       | HRV                 | HRV         | HRV         | 924,4000                 |
| 879,6000                 | 200                         | 18          | SVN   | SVN                                 | SVN                 | SVN         | SVN                 | SVN         | HRV         | 924,6000                 |
| 879,8000                 | 200                         | 19          | SVN   | SVN                                 | SVN                 | SVN         | SVN                 | SVN         | HRV         | 924,8000                 |
| 880,0000                 | 200                         | 20          | Guard |                                     |                     |             |                     |             |             | 925,0000                 |

<sup>\*</sup> existing agreement