

**Agreement between the Finnish Communications Regulatory Authority and the Technical Regulatory Authority of Estonia concerning the use of the 700 MHz frequency band (694 - 791 MHz) for Terrestrial Services in the border areas**

**2016**

## 1. Principles and definitions

- 1.1. The 700 MHz-band, as referred to in this agreement, covers the frequencies from 694 MHz to 791 MHz, with the Frequency Division Duplex (FDD) arrangement, including SDL (4×5 MHz in the duplex gap) of ECC Decision(15)01. The use of other arrangements such as Time Division Duplex (TDD) is not covered in this agreement.
- 1.2. This agreement is based on the concept of field strength levels and in the case when LTE systems are used preferential PCIs as defined in Annex 1.
- 1.3. This Agreement covers the co-ordination of base stations. User equipment, or terminals, are allowed to be used on non-interfering basis, in accordance with ITU RR 4.4.
- 1.4. For the purpose of this Agreement the Zones referred to in the following paragraphs are defined in Annex 2.
- 1.5. This Agreement does not abrogate the fulfilment of protection requirements for broadcasting service stipulated in GE-06 Regional Agreement until TV broadcasting is cancelled in the frequency band 694-790 MHz and the respective administration informs about it.

## 2. Use of frequencies without co-ordination

- 2.1. Finland may use the 700 MHz band without co-ordination with Estonia, if the predicted mean field strength produced by a base station does not exceed **59 dB(μV/m)/5 MHz** at a height of 3 m above the ground at Zone E or beyond.
- 2.2. Estonia may use the 700 MHz band without co-ordination with Finland, if the predicted mean field strength produced by a base station does not exceed **59 dB(μV/m)/5 MHz** at a height of 3 m above the ground at Zone F or beyond.
- 2.3. In case of other frequency block sizes, a value of  $10 \times \log_{10}(\text{frequency block size}/5 \text{ MHz})$  should be added to the field strength values in 2.1 and 2.2.

### **3. Co-ordination procedure**

- 3.1. If a frequency assignment has to be co-ordinated, the period of co-ordination shall not exceed 45 days from the date of the receipt of a written request and 20 days after a reminder. A request may be sent by e-mail to the administration's official e-mail address. If no reply is received after 65 days after the initial request the frequency assignment shall be considered as co-ordinated.
- 3.2. The exchange of the co-ordination information shall be in electronic form and sent by e-mail or by other electronic means as appropriate.
- 3.3. Preliminary co-ordination may take place between the operators concerned. The results of such preliminary co-ordination must be approved by the administrations.

### **4. General**

- 4.1. A complaint in case of harmful interference shall be based on the median values of measurements of field strength, performed at 3 meter of receiving antenna height at least on two different occasions over a range of at least 100 m along the zones.
- 4.2. In the presence of interference, the report of harmful interference shall be presented in accordance with Appendix 10 of the Radio Regulations. The other Administration shall take all possible steps in order to eliminate the interference.
- 4.3. The field strength values in this Agreement are based on a receiving antenna height of 3 m, 10% of the time and 50% of the locations.
- 4.4. The latest version of Recommendation ITU-R P.1546 "Method for point-to-area predictions for terrestrial services in the frequency range 30-3000 MHz" shall be used for field strength calculations.

## 5. Revision and cancellation

- 5.1. This Agreement may be revised upon mutual agreement of the two administrations.
- 5.2. This Agreement may be cancelled with a notice of at least twelve months from any of the two parties.

## 6. Entry into force

- 6.1. This Agreement shall be in force from date of signing.
- 6.2. This Agreement has been drawn up in two identical copies, one for Estonia and one for Finland.

Helsinki  
28 October 2016

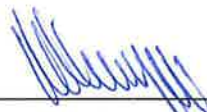
For the Finnish Communications  
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**PREFERENTIAL PHYSICAL-LAYER CELL IDENTITIES (PCI) FOR LTE**

PCI division, according to Table 2 below, may be used in border areas to improve coverage and service when channel centre frequencies are aligned.

The PCIs are divided between the administrations according to the following table:

PCI	Set A 0 to 83	Set B 84 to 167	Set C 168 to 251	Set D 252 to 335	Set E 336 to 419	Set F 420 to 503
Country	Finland	Finland	Estonia	Estonia	Estonia	Finland

Table 1. Preferential Physical-Layer Cell Identities (PCI) for LTE

**DEFINITION OF PROTECTED ZONES**

**In Estonia**

**Zone E**

The Estonian coast including the following islands: Saaremaa, Hiiumaa, Vormsi, Naissaar and Prangli

**In Finland**

**Zone F**

The South Coast of Finland described by a line drawn between the following islands (coordinates WGS 84):

Jurmo (59° 48' 56" N, 21° 33' 48" E), Russarö (59° 45' 54" N, 22° 56' 51" E), Rönnskär (59° 55' 54" N, 24° 23' 32" E), Isosaari (60° 05' 43" N, 25° 02' 40" E), Pirttisaari (60° 09' 30" N, 25° 26' 29" E) and Haapasaari (60° 17' 10" N, 27° 11' 42" E)