Agreement between the Technical Regulatory Authority of Estonia and the Finnish Communications Regulatory Authority Concerning the use of the frequency band 2500-2690 MHz for terrestrial (mobile) systems

## 1 Principles and definitions

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.

For this agreement the Zones referred to in the following paragraphs are defined in Annex 2.

# 2 Use of frequencies without co-ordination

- 2.1 Establishment of agreements between concerned operators is encouraged to the extent possible. Subject to agreement between operators other technical characteristics can be used, i.e. other field strength limits, propagation models or preferential frequencies and/or codes. It is recommended to take ECC Rec.(11)05 into consideration when developing such agreements. Operators are obliged to inform the national telecommunication authorities of the content of such agreements.
- 2.2 Estonia may use the frequency band 2500-2690 MHz without co-ordination with Finland, if the predicted mean field strength of each carrier produced by a base station does not exceed a value of 21 dB $\mu$ V/m/5MHz or 14 dB $\mu$ V/m/MHz at a height of 3 m above earth surface at Zone F or beyond.
- 2.3 Finland may use the frequency band 2500-2690 MHz without co-ordination with Estonia, if the predicted mean field strength of each carrier produced by a base station does not exceed a value of 21 dB $\mu$ V/m/5MHz or 14 dB $\mu$ V/m/MHz at a height of 3 m above earth surface at Zone E or beyond.

## 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 the request and 20 days after the 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 the frequency assignment shall be considered as co-ordinated.

## 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 above earth surface at least on two different occasions over a range of at least 100 meter along the borderline.
- 4.2 The field strength values in this agreement are based on a receiving antenna height of 3 meter above earth surface, 10 % of the time and 50 % of locations.
- 4.3 Countries shall use the latest version of ITU-R P.1546 "Method for point-to area predictions for terrestrial services in the frequency range 30-3000 MHz" as specified in ECC/REC.(11)05 Annex 3 for field strength calculations relating to this agreement.

### 5 Revision and cancellation

- 5.1 This Agreement may be revised upon mutual agreement of the two administrations.
- 5.2 This agreement may be revised or cancelled as desired by one of the administrations with a notice of six months.
- 5.3 In case this agreement is cancelled and new one is not concluded the coordination procedure will be based on the latest version of CEPT ECC Recommendation (11)05 Annex 5.

## 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.
- 6.3 This Agreement, when in force replaces the previous Agreement between the Estonian Technical Surveillance Authority and the Finnish Communications Regulatory Authority concerning the use of the frequency band 2500 2690 MHz for terrestrial (mobile) systems (2009).

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# ASSIGNMENT¹ OF PREFERENTIAL CODE GROUPS BETWEEN ESTONIA AND **FINLAND**

## LTE2:

PCI	Set A	Set B	Set C	Set D	Set E	Set F
	0 to83	84 to 167	168 to 251	252 to 335	336 to 419	420 to 503
Country	Finland	Finland	Estonia	Estonia	Estonia	Finland

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

<sup>&</sup>lt;sup>1</sup> The assignment is based on ECC/REC/(11)05 Annex 5.
<sup>2</sup> ETSI TS 136 211 defines 168 unique physical cell-identity groups numbered 0..167, hereafter called "PCI groups". Within each PCI group there are three separate PCIs giving 504 PCIs in total

## **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)