Agreement between the Finnish Communications Regulatory Authority and the Swedish Post and Telecom Authority concerning the use of the 700 MHz-band (694-790 MHz) for terrestrial systems

October 2015

1. Principles and definitions

1.1. The 700 MHz-band, as referred to in this agreement, covers the frequencies from 694 MHz to 790 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 the base stations. The 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.

2. Use of frequencies without co-ordination by administrations

2.1. Finland may use the 700 MHz-band without co-ordination with Sweden, if the predicted mean field strength produced by a base station does not exceed **54 dB(μV/m)/5 MHz** at a height of 1.5 m above the ground at Zone S or beyond.

2.2. Sweden 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 **54 dB(μV/m)/5 MHz** at a height of 1.5 m above the ground at Zone F or beyond.

3. General

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. If no reply is received after 65 days the frequency assignment shall be considered as co-ordinated.

3.2. The exchange of the co-ordination information between the administrations 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.

3.4. A complaint in case of harmful interference shall be based on the median values of measurements of field strength, performed at 1.5 meter of receiving antenna height at least on two different occasions over a range of at least 100 m along the border.

3.5. 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.

3.6. The field strength values in this agreement are based on a receiving antenna height of 1.5 m, 10% of the time and 50% of the locations.

3.7. The latest version of ITU-R P.1546 " Method for point-to area predictions for terrestrial services in the frequency range 30-3000 MHz" shall be used.

4. Revision and cancellation

4.1. This agreement may be revised or cancelled as desired by one of the administrations with a notice of at least twelve months.

4.2. This agreement may be revised or cancelled without notice, if mutual understanding is reached between the administrations.

5. Enter into force

5.1. This agreement shall enter into force April 1, 2017.

5.2. This agreement has been drawn in two identical copies, one for Finland and one for Sweden.

Place HELSINKI
Date 23.10.2015
For the Finnish Communications Regulatory Authority

Jarno Ilme
Director of Spectrum Management

Place STOCKHOLM
Date 16/10-15
For the Swedish Post and Telecom Authority

Jonas Wessel
Director of Spectrum Department

ANNEX 1

PREFERENTIAL PHYSICAL-LAYER CELL IDENTITIES (PCI) FOR LTE

PCI division, according to Table 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	Finland	Sweden	Sweden	Sweden

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

ANNEX 2 Definition of protected zones

In Finland

Zone F

The land border between Sweden and Finland.
The coastline of Finland.
At Ahvenanmaa/Åland:
- A line between Norrskär (60° 32' 24" N, 20° 12' 30" E), Ådskär (60° 21' 03" N, 19° 31' 17" E), Västerön (60° 14' 17" N, 19° 28' 30" E), Askö (59° 59' 20" N, 19° 59' 19" E) and Kalskär (59° 47' 51" N, 20° 57' 50" E)

At Vaasa/Vasa:
- A line between Mickelsöarna (63° 28' 30" N, 21° 44' 40" E), Lappöarna (63° 22' 03" N, 21° 11' 00" E) and Bergö (62° 58' 41" N, 21° 06' 59" E)

At Oulu/Uleåborg:
- Hailuoto (65° 02' 23" N, 24° 33' 04" E)

In Sweden

Zone S

The land border between Finland and Sweden.
The coastline of Sweden.
At the coast of Uppland and Stockholm archipelago:
- A line between Argos grund (60° 37' 42" N, 18° 21' 47" E), Simpnäsklubb (59° 53' 34" N, 19° 04' 46" E), Söderarm (59° 45' 10" N, 19° 24' 21" E), Svenska högarna (59° 26' 38" N, 19° 30' 06" E) and Huvudskär (58° 47' 46" N, 18° 34' 13" E)

Note: Geographical coordinates in WGS 84.

Illustration of Zone S and Zone F