

Agreement between the Finnish Communications Regulatory Authority and the Swedish Post and Telecom Authority concerning the use of the 1.5 GHz band (1427–1518 MHz) for terrestrial systems

Feb 2018

1. Principles and definitions

- 1.1 The 1.5 GHz band, as referred to in this agreement, corresponds to the frequencies from 1452 MHz to 1492 MHz, which are harmonized for MFCN-SDL, in accordance with EC Decision (EU) 2015/750 and ECC DEC (13)03 as well as the bands 1427 to 1452 MHz and 1492 to 1518 MHz which are harmonized for MFCN-SDL in accordance with ECC Decision (17)06. The use of other arrangements such as TDD is not covered in this agreement.
- 1.2 This agreement is based on the concept of field strength levels on borderlines in accordance with ECC REC (15)01. In the case when LTE systems are used, preferential PCIs as defined in Annex 1 shall be used.
- 1.3 This agreement covers the coordination 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 F and S referred to in the following paragraphs are defined in Annex 2.

2. Use of frequencies without coordination by administrations

- 2.1 Finland may use the 1.5 GHz band without coordination with Sweden, if the predicted mean field strength produced by a base station does not exceed $65 \text{ dB}(\mu\text{V}/\text{m})/5 \text{ MHz}$, calculated for 10 % of the time and 50 % of the locations, at a height of 3 m above the ground within Zone S, see Annex 2.
- 2.2 Sweden may use the 1.5 GHz MHz band without coordination with Finland, if the predicted mean field strength produced by a base station does not exceed $65 \text{ dB}(\mu\text{V}/\text{m})/5 \text{ MHz}$, calculated for 10 % of the time and 50 % of the locations, at a height of 3 m above the ground within Zone F, see Annex 2.
- 2.3 Field strength values are defined within a reference block of 5 MHz. In cases of other frequency block sizes a value of $10 \times \log_{10}(\text{frequency block size [in MHz]}/5)$ dB should be added to the field strength values.

3. General

- 3.1 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 border.

- 3.2 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.
- 3.3 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 prediction of field strength values.

4. Coordination procedure

- 4.1 If an intended frequency assignment has to be coordinated, the period of coordination 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 coordinated.
- 4.2 The exchange of the coordination information between the administrations shall be in electronic form and sent by e-mail or by other electronic means as appropriate or agreed bilaterally.
- 4.3 Preliminary coordination may take place between the operators concerned. The results of such preliminary coordination have to be covered by operators' arrangements which must be approved by the administrations.

5. Revision and cancellation

- 5.1 This agreement may be cancelled with a notice of at least twelve months from any of the two parties.
- 5.2 This agreement may be revised or cancelled without notice, if mutual understanding is reached between the administrations.

6. Enter into force

- 6.1 This agreement is valid from the date of signing.

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

Place

HELSINKI

Date

5.3.2018

For the Finnish Communication Regulatory Authority

Place

Stockholm

Date

20180214

For the Swedish Post and Telecom Authority

Jarno Ilme

Director of Spectrum Management

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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

ANNEX 2 - Definition of protected zones

1. 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)

2. 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.

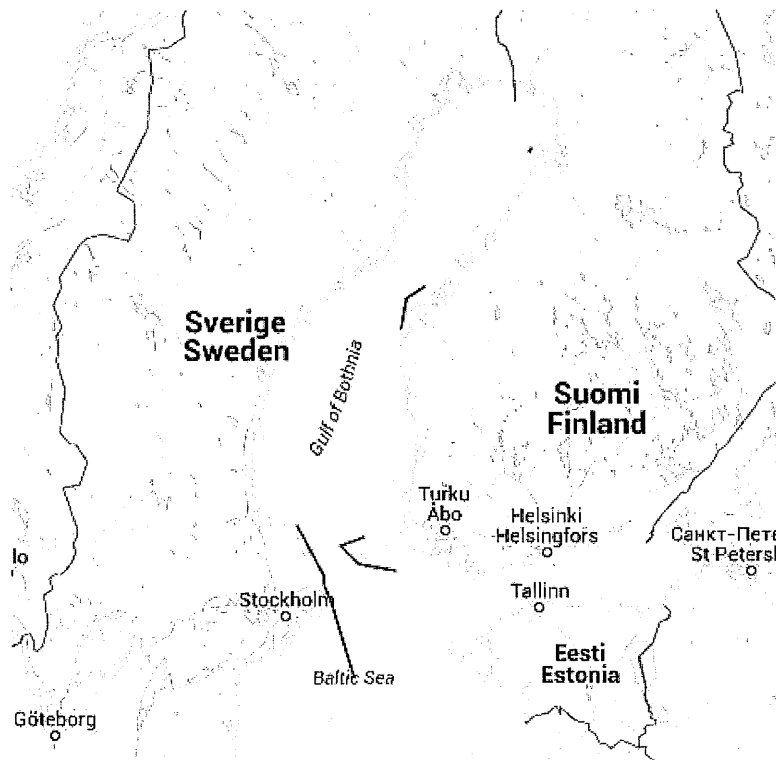


Illustration of Zone S and Zone F