

# Agreement between the German Federal Network Agency and the Swedish Post and Telecom Authority concerning the use of the 1.5 GHz band (1452–1492 MHz) for terrestrial systems

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April 2017

## 1. Principles and definitions

- 1.1. The 1500 MHz 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. 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 the base stations.
- 1.4. For the purpose of this agreement the borderline of Germany and Sweden respectively is defined as the coastline of the other country according ITU Digitized World Map (IDWM).

## 2. Use of frequencies without coordination by administrations

- 2.1. Germany may use the 1500 MHz band without coordination with Sweden, if the predicted mean field strength [of each cell] 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 at the Swedish borderline or beyond.
- 2.2. Sweden may use the 1500 MHz band without coordination with Germany, if the predicted mean field strength [of each cell] 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 at the German borderline or beyond.
- 2.3. Field strength values are defined within a reference block of 5 MHz. In cases of other frequency block sizes a value of  $10 \times \log_{10}(\text{frequency block size [in MHz]}/5)$  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 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 revised upon mutual agreement of the two administrations. This agreement may be cancelled with a notice of at least twelve months from any of the two parties.

#### 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 Germany and one for Sweden.

Place *Mainz*

Date *29/05/2017*

For the German Federal Network Agency

Place *Stockholm*

Date *April 24<sup>th</sup> 2017*

For the Swedish Post and Telecom Authority

## 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	Sweden	Germany	Germany	Germany	Sweden	Sweden