

AGREEMENT

between the administrations of

**Belgium, France, Germany, Luxembourg,
the Netherlands and Switzerland**

**on frequency usage and frequency coordination in
border areas for terrestrial systems capable of
providing wireless broadband electronic
communications services in the frequency band
1427-1518 MHz**

Maisons-Alfort, 23rd of May 2017

1. Introduction

The frequency bands 1427-1452 MHz, 1452-1492 MHz and 1492-1518 MHz are designated for terrestrial systems capable of providing wireless broadband electronic communications services

- for Belgium, France, Germany, Luxembourg and The Netherlands according to the Commission Implementing Decision (EU) 2015/750 of 8 May 2015 on the harmonisation of the 1452-1492 MHz frequency band for terrestrial systems capable of providing electronic communications services in the Union ; and the Mandate to CEPT of 14 March 2017 to develop harmonised technical conditions in additional frequency bands in the 1.5 GHz range for their use for terrestrial wireless broadband electronic communications services in the Union.
- for Switzerland according to the national frequency allocation plan as approved by the Federal Council.

The administrations of Belgium, France, Germany, Luxembourg, The Netherlands and Switzerland have agreed on the following frequency usage and cross-border frequency coordination procedures.

2. Principles of frequency usage and frequency coordination in border areas

The concept of equal access probability is a frequency planning principle enabling equitable coverage for two or more networks using the same frequency band with the same or different digital technologies in geographically adjacent areas without coordination. Operation of stations in the respective border area exceeding the specified field strength values after performing traditional frequency coordination would disturb the balance in the respective area and is therefore not desirable.

Furthermore this agreement is based on the principles of frequency usage and frequency coordination according to Recommendation ECC/REC(15)01 (see www.erodocdb.dk).

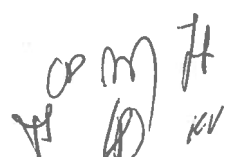
The field strength values refer to the mean field strength of each cell produced by the base station and are defined inside a reference frequency block of 5 MHz.

In cases of other frequency block sizes $10 \times \log_{10}$ (frequency block size / 5 MHz) should be added to the field strength values.

3. Technical provisions

3.1 The following mode of operation is considered:

SDL (supplemental downlink) is an unpaired frequency arrangement for additional base station transmission (downlink-only) in the band 1427-1518 MHz.



3.2 As the alignment of centre frequencies may not be known on each sides of the border, base stations in border areas may be operated without coordination with the neighbouring country if the produced field strength at a height of 3 m above ground does not exceed the following values:

a) Usage of preferential PCI:

65 dB μ V/m/5 MHz at the border line

47 dB μ V/m/5 MHz at a distance of 6 km beyond the border

b) Usage of non-preferential PCI:

47 dB μ V/m/5 MHz at the border line

3.3 In order to improve performance between LTE systems deployed in border areas the administration shall encourage operators to apply PCI coordination and arrange other radio parameters in accordance with the relevant annexes of ECC/REC(15)01 especially in the case where centre frequencies of LTE signals in border areas are aligned.

3.4 If centre frequencies of LTE signals are not aligned, mobile operators can use the field strength values of 3.2.a) for all PCI.

4. Operators arrangements

The conclusion of arrangements between operators shall be allowed to the extent possible, according to the provisions laid down in the "Agreement between the administrations of Belgium, France, Germany, Luxembourg, The Netherlands and Switzerland concerning the approval of arrangements between operators of terrestrial systems capable of providing electronic communications services" done at Brussels on 11th October 2011.

5. Prediction of propagation

For field strength calculations the tool of the latest version of the HCM-Agreement shall be applied. Time probability for all calculations is 10 %.

6. Revision of the agreement

This agreement may be modified at a request of any of the signatory administrations where such a modification becomes necessary in the light of administrative, regulatory or technical development.

7. Withdrawal from the agreement

Any signatory administration may withdraw from this agreement subject to six months' notice.

8. Language of the agreement

This agreement has been concluded in English language.

One original version of this agreement is handed over to each signatory administration.

Handwritten initials and signatures: JH, CP, MY, KU, AD, WP.

9. Date of entry into force

The date of entry into force of this agreement is subject to individual confirmations for each sub-band (1427-1452 MHz, 1452-1492 MHz and 1492-1518 MHz) sent to the signing administrations of this agreement.

The application of this agreement is valid between the administrations which both have confirmed the date of entry into force.

Administrations may need to conclude bilateral agreements, additional or transitional, to ensure the compatibility between mobile SDL and other radiocommunication services.

JH CP CM
KR GP AS

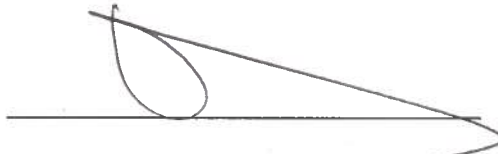
10. Signature of the agreement

Done at Maisons-Alfort on 23rd of May 2017

For BELGIUM

Belgian Institute for Postal
services and Telecommunications

On behalf of the BIPT Council
Michael Vandroogenbroek

A handwritten signature in black ink, consisting of a large loop at the top and a long horizontal stroke extending to the right, ending in a sharp point.

For FRANCE

Agence Nationale des Fréquences

Cédric Perros

A handwritten signature in black ink, featuring a series of overlapping, slanted strokes that form a dense, scribbled appearance.

For GERMANY

Federal Network Agency

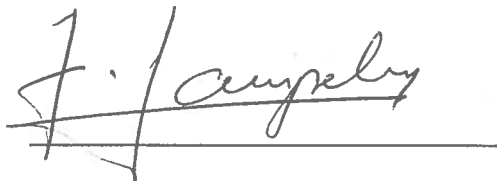
Tobias Schnetzer

A handwritten signature in black ink, with a cursive style, starting with a large 'S' and ending with a long horizontal stroke.

For LUXEMBOURG

For the Institut Luxembourgeois
de Régulation

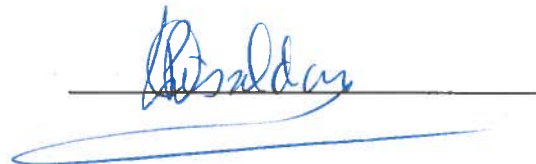
Jean Gompelmann

A handwritten signature in black ink, with a cursive style, starting with a large 'J' and ending with a long horizontal stroke.

For THE NETHERLANDS

Agentschap Telecom

Peter Disseldorp

A handwritten signature in blue ink, with a cursive style, starting with a large 'P' and ending with a long horizontal stroke.

For SWITZERLAND

Federal Office of Communications

Konrad Vonlanthen

A handwritten signature in blue ink, with a cursive style, starting with a large 'K' and ending with a long horizontal stroke.