

26 MARS 2010
0056-2010



Aan
Agence Nationale des Fréquences
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Doorkiesnummer : 050-58 77 219
Ons kenmerk : AT-EZ/
Bijlage(n) : -
Onderwerp : Revised UMTS agreement

Datum : 23 maart 2010
Uw kenmerk : -
Aantal bladen : 1 van 1

Dear Antoine,

Please find attached the revised and signed Agreement on border coordination of UMTS/IMT-2000 systems. This Agreement was already signed by you in Maisons-Alfort on 4 February. The Agreement is now also signed by the administration of The Netherlands.

Best regards,

A handwritten signature in blue ink, appearing to read "Peter".

Peter Disseldorp

Advisor Networks
Radiocommunications Agency
The Netherlands

AGREEMENT

**BETWEEN THE ADMINISTRATIONS OF
BELGIUM, FRANCE, GERMANY, LUXEMBOURG,
THE NETHERLANDS AND SWITZERLAND**

**ON BORDER COORDINATION OF
UMTS/IMT-2000 SYSTEMS**

**IN THE FREQUENCY BANDS
1900-1980 MHz, 2010-2025 MHz
AND 2110-2170 MHz**

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1. INTRODUCTION

The frequency bands 1900-1980 MHz, 2010-2025 MHz and 2110-2170 MHz are designated for pan-European digital land mobile services Universal Mobile Telecommunications System (UMTS) / International Mobile Telecommunications 2000 (IMT-2000) according to ECC/DEC/(06)01.

Principles of border coordination for UMTS/IMT-2000 systems are laid down in ERC/REC/(01)01 (revised Dublin 2003, Helsinki 2007 - Border coordination of UMTS/IMT-2000 systems).

The Administrations of Belgium, France, Germany, Luxembourg, the Netherlands and Switzerland have agreed on the following coordination procedures.

This Agreement abrogates and replaces the previous Agreement in English and French language, done at Brussels on 30th November 2001.

2. PRINCIPLES OF COORDINATION

In order to assure in border areas equitable access to the spectrum and to enhance the efficiency of spectrum usage the principles of code coordination (according to Annexes 1 and 4 to ERC/REC/(01)01) shall be applicable to the UMTS/IMT-2000 frequency bands taking into account the provisions laid down in ERC/REC/(01)01 and in this Agreement.

Preferential use of frequencies as laid down in Annex 3 of ERC/REC/(01)01 shall not be the subject of this Agreement but may be subject to arrangements between operators.

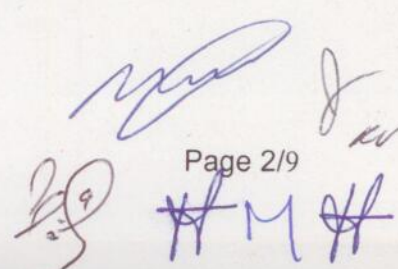
These principles of coordination shall be applied in the frequency bands 1900-1920 MHz, 2020-2025 MHz and 2110-2170 MHz.

The frequency band 2010-2020 MHz shall be subject to separate Agreement. The use of the frequency band 1920-1980 MHz for TDD systems shall be subject to additional bilateral Agreements.

3. PROVISION FOR CODE COORDINATION

3.1. ALLOTMENT OF PREFERENTIAL CODES

The division of preferential codes shall be in accordance with Annex 4 to ERC/REC/(01)01. The division relevant to the signatories to this Agreement is given at the Annex to this Agreement.



3.2. TECHNICAL CHARACTERISTICS

3.2.1 Coordination in border areas between FDD systems in the band 2110-2170MHz

Frequencies for UMTS FDD systems using preferential codes with centre frequencies aligned, or where centre frequencies are not aligned, or not using a IMT-2000/UMTS radio interface¹, may be used without coordination with a neighbouring country if the predicted mean field strength of each carrier produced by the base station does not exceed a value of:

- **37 dB μ V/m/5MHz** at a height of 3 m above ground at a distance of 6 km inside the neighbouring country **and** a value of **65 dB μ V/m/5MHz** at a height of 3 m above ground at the borderline for the following bilateral cases: F/BEL, F/D, F/LUX, BEL/HOL, BEL/D, BEL/LUX.
- **37 dB μ V/m/5MHz** at a height of 3 m above ground at a distance of 6 km inside the neighbouring country for the following bilateral cases: HOL/D, D/LUX, D/SUI.
- **45 dB μ V/m/5MHz** at a height of 3 m above ground at the borderline for the following bilateral case: SUI/F.

Frequencies used at the border for UMTS FDD systems using non preferential codes with centre frequencies aligned may be used without coordination with a neighbouring country if the predicted mean field strength of each carrier produced by the base station does not exceed a value of:

- **37 dB μ V/m/5MHz** at a height of 3 m above ground at and beyond the border line in the following bilateral cases: F/BEL, F/D, F/LUX, BEL/HOL, BEL/D, BEL/LUX, HOL/D, D/LUX, D/SUI.
- **21 dB μ V/m/5MHz** at a height of 3 m above ground at and beyond the border line in the following bilateral case: F/SUI.

3.2.2 Coordination in border areas between TDD systems in the bands 1900-1920MHz and 2020-2025MHz

UMTS TDD systems using preferential codes with centre frequencies aligned, or where centre frequencies are not aligned, may be used without coordination with a neighbouring country if the predicted mean field strength of each carrier produced by the base station does not exceed a value of:

- **37 dB μ V/m/5MHz** at a height of 3 m above ground at and beyond the border line for the following bilateral cases: F/BEL, F/LUX, F/D, F/SUI, BEL/HOL, BEL/D, BEL/LUX.

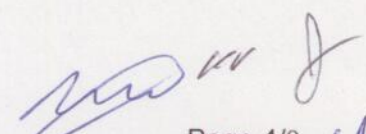
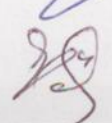
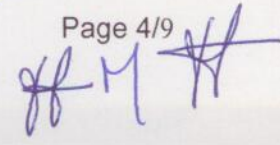
¹ Here it is assumed that the non-UMTS/IMT-2000 air interface is broadband, example given approximately 5 MHz

- **37 dB μ V/m/5MHz** at a height of 3 m above ground at a distance of 6 km inside the neighbouring country for the following bilateral cases: HOL/D, D/LUX, D/SUI.

UMTS TDD systems using non preferential codes and with centre frequencies aligned may be used without coordination with a neighbouring country if the predicted mean field strength of each carrier produced by the base station does not exceed a value of:

- **21 dB μ V/m/5MHz** at a height of 3 m above ground at and beyond the border line for the following bilateral cases: F/BEL, F/LUX, F/D, F/SUI, BEL/HOL, BEL/D, BEL/LUX.
- **37 dB μ V/m/5MHz** at a height of 3 m above ground at and beyond the border line for the following bilateral cases: HOL/D, D/LUX, D/SUI.

Trilateral cases shall be considered as three bilateral cases.


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4. PREDICTION OF PROPAGATION

For the field strength calculations to be used to trigger coordination the mobile service tool of the HCM Agreement, which is based on the site general model Recommendation ITU-R P1546 (see Annex 2 to ERC/REC/(01)01), shall be applied.

5. EXCHANGE OF INFORMATION FOR COORDINATION PURPOSES

Exchanges of information for coordination purposes shall be in the format set out at Annex 2A to the HCM Agreement.

The notification in conformity with paragraph 4.5.4 of the HCM Agreement is not required.

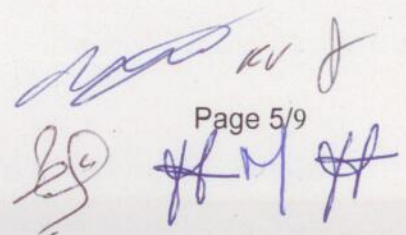
6. ARRANGEMENTS BETWEEN OPERATORS

The establishment of arrangements between operators shall be encouraged to the extent possible.

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 mobile radio communications networks" done at Saint-Dié on 17th October 2001 shall be applicable to the UMTS/IMT-2000 frequency bands.

7. REVISION OF THE AGREEMENT

This Agreement may be modified at the request of one of the signatory Administrations where such a modification becomes necessary in the light of administrative, regulatory or technical developments.

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8. COORDINATION BETWEEN UMTS/IMT-2000 SYSTEMS AND OTHER TERRESTRIAL SERVICES



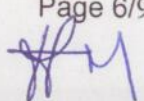

The coordination of frequencies between UMTS/IMT-2000 systems and other terrestrial services shall be based on additional bilateral agreements. These bilateral agreements should take into account the provisions of this Agreement.

9. WITHDRAWAL FROM THE AGREEMENT

Each Administration may withdraw from this Agreement subject to 6 months notice.

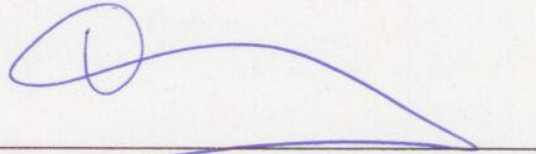
10. DATE OF ENTRY INTO FORCE

This Agreement will enter into force on 15th March 2010.



  
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Done at Maisons-Alfort on Thursday 4th February 2010

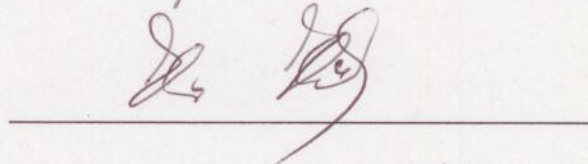
For BELGIUM
Belgian institute for postal services
and telecommunications
M. Vandroogenbroek



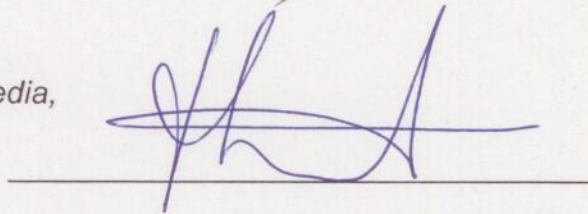
For FRANCE
Agence nationale des fréquences
A. Rigole



For GERMANY
Bundesnetzagentur
H. Hönnekes



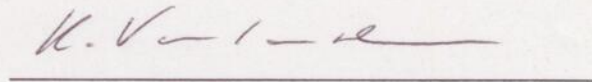
For LUXEMBOURG
For the Minister of Communication and Media,
R. Thurmes



For THE NETHERLANDS
Agentschap Telecom
M. Hoogland



For SWITZERLAND
Federal Office of Communications
K. Vonlanthen



ANNEX

Preferential codes for UTRA

Type country 1: BEL, SUI

Type country 2: D

Type country 3: F, HOL

Type country 4: LUX

For each type of country, the following tables show the sharing of the codes with its neighbouring countries, with the following conventions of writing:

	Preferential code
	non-preferential code

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1. FDD case:

For the FDD mode ; 3GPP TS 25.213 defines 64 « scrambling code groups » in §5.2.3, numbered {0..63}.

	Set A	Set B	Set C	Set D	Set E	Set F
Country 1	0..10	11..20	21..31	32..42	43..52	53..63
Border 1-2	█	█				█
Zone 1-2-3	█	█				
Border 1-3	█		█			
Zone 1-2-4		█				█
Border 1-4			█			
Zone 1-3-4	█					

	Set A	Set B	Set C	Set D	Set E	Set F
Country 2	0..10	11..20	21..31	32..42	43..52	53..63
Border 2-1			█	█	█	
Zone 2-3-1			█	█		
Border 2-3		█				
Zone 2-1-4						
Border 2-4						█
Zone 2-3-4			█	█		

	Set A	Set B	Set C	Set D	Set E	Set F
Country 3	0..10	11..20	21..31	32..42	43..52	53..63
Border 3-2	█				█	█
Zone 3-1-2					█	
Border 3-1				█		
Zone 3-1-4				█		
Border 3-4			█			
Zone 3-2-4					█	

	Set A	Set B	Set C	Set D	Set E	Set F
Country 4	0..10	11..20	21..31	32..42	43..52	53..63
Border 4-1		█		█	█	
Zone 4-1-2		█		█		
Border 4-2	█					
Zone 4-2-3						
Border 4-3				█		
Zone 4-3-1	█			█		

2. TDD case:

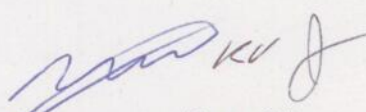
For the TDD mode, 3GPP TS 25.223 defines 32 « scrambling code groups » in §7.3, numbered {0..31}.

	Set A	Set B	Set C	Set D	Set E	Set F
Country 1	0..4	5..10	11..15	16..20	21..26	27..31
Border 1-2	█	█				█
Zone 1-2-3	█	█				
Border 1-3	█		█			
Zone 1-2-4		█				█
Border 1-4			█			
Zone 1-3-4	█					

	Set A	Set B	Set C	Set D	Set E	Set F
Country 2	0..4	5..10	11..15	16..20	21..26	27..31
Border 2-1			█	█	█	
Zone 2-3-1			█	█		
Border 2-3		█				
Zone 2-1-4						
Border 2-4						█
Zone 2-3-4			█	█		

	Set A	Set B	Set C	Set D	Set E	Set F
Country 3	0..4	5..10	11..15	16..20	21..26	27..31
Border 3-2	█				█	█
Zone 3-1-2					█	
Border 3-1				█		
Zone 3-1-4				█		
Border 3-4			█			
Zone 3-2-4					█	

	Set A	Set B	Set C	Set D	Set E	Set F
Country 4	0..4	5..10	11..15	16..20	21..26	27..31
Border 4-1		█		█	█	
Zone 4-1-2		█		█		
Border 4-2	█					
Zone 4-2-3						
Border 4-3				█		
Zone 4-3-1	█			█		


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