

## Agreement

between Lithuania and Poland concerning the use of the broadcast band planned at the RRC 2006 conference.

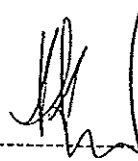
Administration of Lithuania and Administration of Poland agreed on the following:

1. In the case that two or more assignments are operating in an SFN the basis for calculation of interference shall be the power sum of all transmitters in the relevant SFN.
2. Any other future implementation of an allotment shall be coordinated if the cumulative interfering field strength exceeds the values listed in Annex 1 on the area of any existing co-channel/co-block allotment.

Geneva, 08.06.2006



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Rimvydas Bagdonavicius  
on behalf of the  
Administration of Lithuania



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Krystyna Roslan-Kuhn  
on behalf of the  
Administration of Poland

## Annex 1 to agreement between Republic of Lithuania and Poland

### Allowable interfering field strength calculation

For affected DVB-T it's proposed to use the  $E_{\max \text{ int}}$  for RPC2 and for affected T-DAB it's proposed to use the  $E_{\max \text{ int}}$  for RPC5.

#### DVB-T interfered by DVB-T for VHF and UHF respectively

Reference planning configuration	RPC2
Reference location probability	95%
Reference C/N [dB]	19
Reference ( $E_{\text{med}}\text{ref}$ ) [dB $\mu$ V/m] in VHF	67
Reference ( $E_{\text{med}}\text{ref}$ ) [dB $\mu$ V/m] in UHF	78
CF	12.8
IM for VHF	2.8
$E_{\max \text{ int}}$ [dB $\mu$ V/m] in VHF	38
$E_{\max \text{ int}}$ [dB $\mu$ V/m] in UHF	46.2

**Table 1  $E_{\max \text{ int}}$  for DVB-T interfered by DVB-T**

#### T-DAB interfered with by T-DAB for VHF

Reference planning configuration	RPC5
Location probability	95%
Reference C/N [dB]	15
Reference ( $E_{\text{med}}\text{ref}$ ) [dB $\mu$ V/m]	66
CF	14.6
IM	2.6
$E_{\max \text{ int}}$ [dB $\mu$ V/m]	39

**Table 2  $E_{\max \text{ int}}$  for T-DAB interfered by T-DAB**

#### DVB-T interfered by T-DAB for VHF

Reference planning configuration	RPC2
Reference location probability	95%
Protection ratio [dB]	23.6
Reference ( $E_{\text{med}}\text{ref}$ ) [dB $\mu$ V/m] at 200 MHz	67
CF at 200 MHz	12.8
IM	2.4
$E_{\max \text{ int}}$ [dB $\mu$ V/m]	33

**Table 3  $E_{\max \text{ int}}$  for DVB-T interfered by T-DAB**

T-DAB interfered with by 7 MHz DVB-T and 8 MHz DVB-T respectively for VHF

Reference planning configuration	RPC5
Location probability	95%
Protection ratio [dB] for 7 MHz DVB-T interferer	9
Protection ratio [dB] for 8 MHz DVB-T interferer	8
Reference ( $E_{med}ref$ ) [dB $\mu$ V/m]	66
CF	14.6
IM	2.6
$E_{max\ int}$ [dB $\mu$ V/m] for 7 MHz DVB-T interferer	45
$E_{max\ int}$ [dB $\mu$ V/m] for 8 MHz DVB-T interferer	46

Table 4  $E_{max\ int}$  for T-DAB interfered with by DVB-T

### Derivation maximum allowable interfering field strength

The maximum allowable interfering field strength,  $E_{max\ int}$ , at any test point given by the input requirement is calculated as follows:

$$E_{max\ int} = E_{med} - CF - PR + IM$$

where

$E_{med}$  is the minimum median equivalent field strength (in dB $\mu$ V/m) for VHF and UHF, respectively;

CF is the combined location correction factor:  $CF = q\sqrt{(\sigma_w^2 + \sigma_i^2)}$ ;

$q$  is the distribution factor;

$\sigma_w$  is the standard deviation of the lognormal distribution of the wanted signal (in dB);

$\sigma_i$  is the standard deviation of the lognormal distribution of the interfering signal (in dB);

$PR$  is the appropriate protection ratio;

When the interfering system is of the same type as the wanted one,  $PR$  is equal to  $C/N$  for the wanted system's RPC.  $PR$  and  $C/N$  are taken from Addendum 12 to Document 7-E, input from CEPT to RRC-06;

$IM$  is the implementation margin (in dB) and is used only for VHF.