ÄRENDE

Diarienr: 06-10740 **Dossnr:** 18 - Gemensamt för verksamhetsgren Radio

Registrerad av:	Regdatum:	I/U	Ink/uppr datum
Ann-Christin Sundberg	2006-06-21	ut	2006-06-21

Avdelning : Spektrumavdelningen
Enhet: Rundradio tillstånd (S4)
Handläggare: Per Kjellin
Tillst/Typgnr:

Namn får visas på Internet : Ja
Namn/företag: Post- och telestyrelsen
Adress Stockholm, Sverige
Externt dnr/referensnr:

Ärenderubrik: Detaljkoordinering av DVB-T och DAB
Förvaltningsärende: Nej **Sekretess:** Nej
Överklagande: Nej
Besluts/avslutsdatum:

ÖVRIGA UPPGIFTER

Kompletteringsdatum:
Beslutsstatus:

HANDLING (ÅTGÄRD, AKTBILAGOR)

Diarienr	In/ut datum	Rubrik
06-10740-1	2006-06-21	Avtal

INKOM
POST & TELESTYRELSEN
2006 -06- 21
Aktbilaga 1
Dnr: 06-10740/18

Agreement between Finland and Sweden concerning the use of the broadcast band planned at the RRC 2006 conference.

The Swedish administration accepts the interference level on its DVB-T allotments/assignments caused by DVB-T assignments in Finland with the technical characteristics indicated in the input requirements used for the third planning iteration at the RRC-06 (Reference: CD-ROM issued by the ITU-R BR).

The Finnish administration accepts the interference level on its DVB-T allotments/assignments caused by the Swedish DVB-T assignments with the technical characteristics indicated in the input requirements used for the third planning iteration at the RRC-06 (Reference: CD-ROM issued by the ITU-R BR).

However, the parties agreed that when implementing assignments in regions with critical re-use distances, the possibility of using e.g. directive antennas or power restrictions should be considered.

Regarding allotments with technical characteristics indicated in the input requirements used for the third planning iteration at the RRC-06 (Reference: CD-ROM issued by the ITU-R BR), the parties agree that any future implementation of these allotments shall be coordinated with the other party if the cumulative interfering field strength from that implementation exceeds the values listed in Annex 1 on the boundary of any existing co-channel/co-block allotment in the Plan of the Final Acts of the Geneva RRC-06 Agreement. When calculating the cumulative interfering field strength, all assignments implementing the allotment should be considered.

It was noted that the values listed in Annex 1 will be applied provisionally. It was decided that the values will be finally decided between the parties not later than 1st October 2006.

Assignments that are situated within an allotment area with the same channel but not linked to that allotment will be treated in the implementation as if they were linked.

For the field strength calculation, the propagation model used in the Geneva RRC-06 agreement should apply.

For co-ordination it was agreed that a response should be submitted within six weeks from that the request has been received by the affected administration.

The parties agreed that this agreement will need to be revisited before the switch-off of analogue television in Sweden and Finland, if requested by one of the parties.

Geneva, 7th June 2006

For the Administration of Finland

Kari Kangas

For the Administration of Sweden

Anders Frederich

Annex 1 to agreement between Finland and Sweden

Interfering field strength requiring coordination

If the cumulative interfering field strength exceeds the values listed in Table 1-4 below on the boundary of any co-channel/co-block allotment in the Plan, coordination with the other party is needed.

For affected DVB-T the $E_{max\ int}$ for RPC2 should be used and for affected T-DAB the $E_{max\ int}$ for RPC5 should be used (irrespective of the technical characteristics of the plan entry).

DVB-T interfered by DVB-T for 200 MHz and 650 MHz respectively

Reference planning configuration	**RPC2**
Reference location probability	95%
Reference C/N [dB]	19
Reference (Emed)ref [dBμV/m] at 200 MHz	67
Reference (Emed)ref [dBμV/m] at 650 MHz	78
CF at 200 MHz	12.8
CF at 650 MHz	12.8
IM	2.8
$E_{max\ int}$ [dBμV/m] at 200 MHz	**38**
$E_{max\ int}$ [dBμV/m] at 650 MHz	**49**

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

In UHF the value should be adjusted with respect to frequency with $30*\log(f/f_{650})$, f in MHz.

T-DAB interfered with by T-DAB for 200 MHz

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

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

DVB-T interfered by T-DAB for 200 MHz

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

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

T-DAB interfered with by 7 MHz DVB-T for 200 MHz

Reference planning configuration	**RPC5**
Location probability	95%
Protection ratio [dB]	9
Reference $(E_{med})_{ref}$ [dBμV/m]	66
CF	14.6
IM	2.6
$E_{max\ int}$ [dBμV/m]	**45**

Table 4 $E_{max\ int}$ for T-DAB interfered with by 7 MHz 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:

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

where

E_{med} is the minimum median equivalent field strength (in dBμV/m)
for 200 MHz and 650 MHz, respectively;

f_{corr} is the frequency correction (in dB) for UHF, given by 30*log(f/f_{650}), f in MHz;

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

q is the distribution factor;

σ_w is the standard deviation of the lognormal distribution of the wanted signal (in dB);

σ_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).