
IEEE P802.11
Wireless LANs

Origin: Chairman of PT SE24

SE24(98)18 a

draft MINUTES OF THE 18th MEETING OF PROJECT TEAM SE24:
SHORT RANGE DEVICES

Helsinki, 12-13 January 1998

1. Opening

The chairman, Ms Anne Leino bade the delegates welcome to Nokia House.

The list of participants is annexed.

2. Approval of the agenda

The agenda (doc. SE24(97)182a r.1) was approved without any comments.

3. Minutes of the last meeting

The minutes of the 17th meeting, doc.(97)179 were approved with one comment: Mr Bolt Sørensen clarified that under item 8, 2.4 GHz ISM band, at least 2 W output power is needed to get 10 m operation range.

4. Report from WGFM

Mr Jim Connolly reported on the SRD activities in WGFM:

- Some changes on ERC/Rec. 70-03 were agreed: Especially the frequency band 138.2-138.45 MHz was added in Annex 1 of the recommendation. A comment that voice should be avoided at 433 MHz was also added in Annex 1, too.
- The 8.2 MHz frequency band with the field strength limit of 9 dB μ A/m was added to draft Annex 9 with the note that WGSE shall confirm the limit and send a liaison statement of this to WGFM.
- The revised 70-03 and draft Annex 9 were sent to the public consultation which ends at 20 February.
- The SRD MG (Maintenance Group) had sent a questionnaire about RFID at 2.45 GHz and got a good response. WGFM had also endorsed the methodology used in SE24 study at 2.45 GHz but not necessarily the proposals in the report.
- WGFM / SRD MG will ask ITU-R SG 7 guidance of what would be the best place for ultra low power devices in the 401-406 MHz band. 3 MHz should be defined for this purpose.
- SRD MG ToR was revised so that at least ETSI and ECTEL representatives can participate to the meetings. The message towards industry is that their proposals to SRD MG should come via these bodies.

5. View of input documents

SE24(98)1 is the list of documents.

6. Draft Decisions for I-ETS 300 220, 300 330 and 300 440

Doc SE24(98)3, an extract from the last ERC meeting and, SE24(98)4, the draft ERC Decision on 300 200 were circulated for information. The draft Decision was adopted by ERC for public consultation, the deadline of which is 15 February.

Standard prETS 300 330 may be sent to pE in February and could then be approved in March. If this schedule comes true, SE24 can prepare a draft decision for the May WGSE meeting.

7. Compatibility studies related to the revision process of SRD

Recommendations

7.1 7.4 - 8.8 MHz

The draft report on 8.2 MHz (doc. (97)115 r.8) EAS was discussed once again and some editorial changes were made. Mr Greg Sleet put the editorials into the report and the revised version (97)115 r.9 was approved by the meeting. Mr Fockens will make the corrections to the Annex and the whole report will be sent to WGSE for approval.

7.2 6.68 MHz and 13.56 MHz

Mr Bolt Sørensen presented doc. (97)124 r.3 about RFID at 6.78 MHz and 13.56 MHz ISM bands. The document was handled in details and a lot of comments on it were received. Mr Bolt Sørensen promised to make the modifications for the next meeting. The chairman wished to get the revised document well before the next meeting so that members would have time to read it carefully already before the meeting.

It was agreed to modify tables 5.5.1 and 5.5.2 so that the frequency allocation are presented in the same way as in ITU-R RR. More information is needed about the protection of broadcasting service and aeronautical service. Mr Connolly will look after information of the first one and all administrations got the task to seek for information about aeronautical service.

The meeting considered document SE24(98)11 from France; this document explained the difficulty of applying the spurious emission limit to SRD equipment operating in the ISM bands at 6.78 and 13.56 MHz. Since spurious emission limits are applied at +/- 250% of the necessary bandwidth (NB), RFID as considered here within SE24 will not meet the spurious emission requirements if the NB is taken as the limits of the ISM band.

The meeting agreed that it is necessary that the NB of these systems to be properly defined, and that this will resolve the difficulty over spurious emissions. Of course, this NB will be greater than the ISM allocation and so it is necessary to have an appropriate SRD allocation to accommodate this use.

Mr Schuermann presented doc. (98)12 about the spectrum of RFID. Some information of this document could also be put the draft report on RFID.

7.3 The whole band below 30 MHz

The meeting discussed how the existing studies and information can be extended to cover the whole band below 30 MHz. Doc (97)96 contains summary information of the existing services and the interests of the manufacturers. Doc (98)10 is an extract from the ITU-R RR allocation table. The result of the study could be for instance a graph where the allowed field strength levels are presented as a function of frequency. Another possibility is to present the results as a similar table as is in doc. (97)124 r.3 5.5.1 and 5.5.2.

It was noted that a lot of information already exists: it shall be studied for instance which services are covered by measurements in doc. (97)32. Mr Fockens has collected information about the noise levels in the whole band below 30 MHz and also the propagation model used in 8.2 MHz study can be extended to cover the whole band.

It was agreed to take the noise level as the acceptable interference level and 'a trial' SRD field strength value of 9 dB μ A/m as starting points for the calculations. If the interference distance becomes too large then the field strength level is to be decreased. Based on measurements the acceptable interference level can also be higher than noise level (for instance 12 dB above noise level as it was at 8.2 MHz study).

Mr Fockens promised to modify the propagation model in (97)115 r.8 so that it can be used in the whole band in question.

A drafting group was created to prepare a table of frequencies, existing services and the acceptable interference levels. Mr Bolt Sørensen is the chairman of the group and Mr Fockens and Mr Steve Bond will participate to the work. In the first phase the DG will mostly collect and summarise the existing information.

Mr Fockens presented doc. (98)14, calculation of inductive loop interference range and gave the respective program to those who were interested.

7.4 Propagation model

It was agreed that the existing work done about the propagation aspects should be collected in one document and publish it as ERC report. This document would be even more valuable if a simplified formula /means to calculate the propagation attenuation could be developed (even on the cost of few decibels). That is that we should aim more at a practical model than a comprehensive scientific model which only few people can use.

Mr Fockens will continue this work as part of the work related to the study concerning frequencies below 30 MHz.

8. Technical problems associated with proposals from ETSI concerning 2.4-2.5 GHz

The meeting concentrated on planning of how to tackle the spread spectrum issue in SE24. The types of spread spectrum technologies at 2.45 GHz were identified, frequency hopping and direct sequence spread spectrum and the problem is how to assess interference potential from and to these systems to the existing study on 2.45 GHz.

Mr Bolt Sørensen reminded that spread spectrum is the only way to get 2 W output power which is needed for long enough operating range at 2.45 GHz. On the other hand there is concern about sharing possibilities in places where both RFID and RLANs will be operated. Mr Hulshof reminded the meeting about the Dutch study on 2.45 GHz (doc. (96)55) which contains information of spread spectrum equipment, too.

Doc. (98)13 from Sensormatic summarised the situation at 2.45 GHz and also requested that higher than 10 mW power levels should be allowed under licence exempted category.

Mr Connolly took a task to prepare a summary document, based on the SRD MG questionnaire of 2.45 GHz RFID, about the wanted applications, operation ranges and data rates. Every member should try to find information of how to calculate the interference of spread spectrum applications. NEDAP tries to extract the general methodology out of doc. (96)55.

Note: Mr Kruijs promised to provide information of the calculation of the effect of spread spectrum application, too.

9. Euroloop

Mr Loder presented doc. (98)7 of the compatibility statement about Siemens Euroloop. The conclusion presents the field strength level coming from the Siemens Euroloop below 10 MHz. The Siemens Euroloop field strength level is well below the allowed Cenelec noise levels which are determined both for the train and tracks - most of the noise comes from train.

This proposal of Euroloop seems not be a problem from interference point of view. Mr Loder was asked to add a short description of Euroloop system to the report, so, that a reader who is not involved with UIC systems gets a good picture of the situation.

There is still no participant from those who have proposed 2.45 GHz Euroloop and FM23 was requested SE24 to give preliminary results of the studies by March -98. The chairman will contact the representative of 2.45 GHz Euroloop to get some further information.

10. Any other business

There was no other business.

11. Place and date of the next meeting

26-27.2.1998

Graz, Austria

20-22.4.1998

Zandvoort, Netherlands (22.4 reserved for HIPERLANs)

12. Closure of the meeting

The chairman thanked the members for their work during and before the meeting. She was especially impressed about the fact that everybody went to sauna in the first evening of the meeting. She wished those who left the meeting after SRD part a safe journey back home and wished to see everybody again in Graz, Austria.

Origin: Chairman of PT SE24

SE24(98)18 b

**MINUTES OF THE 18th MEETING OF PROJECT TEAM SE24:
SHORT RANGE DEVICES, HIPERLANs**

Helsinki, 14 January 1998

1. Opening

2. Approval of the agenda

[doc. (97)182b]

3. Minutes of the last meeting

[(97)172]

4. View of input documents

5. Extension band for HIPERLANs

5.1 General [(97)21 r.5, 136 r.1]

5.2 Radars at 5.5 GHz [(97)168]

5.3 RTTT [(97)63 r.4]

5.4 HIPERLAN parameters [(97)170 r.1]

5.5 FSS [(97)104 r.1]

5.6 Fixed service

5.7 Drafting the final report [(97)169 r.2]

6. Any other business

7. Places and dates of the next meetings

19-20.3.1998

Berlin

22.4.1998

Netherlands

8. Closure of the meeting

Mr Steve BOND Telephone +44 171 211 0001
Radiocommunications Agency Telefax +44 171 211 0028
10N/14.4 Mobile +44 385 312204
New King's Beam House E-mail stephen.bond@itu.int
22 Upper Ground
LONDON SE1 9SA
UNITED KINGDOM

Mr Jim CONNOLLY Telephone +45 35 25 03 00
European Radiocommunications Office Telefax +45 35 25 03 30
Midtermolen 1 Mobile +45 20 99 24 43
DK-2100 COPENHAGEN E-mail connolly@ero.dk
DENMARK

**Ms Sally FENTON Telephone +44 171 211 0185
Radiocommunications Agency Telefax +44 171 211 0163
11N/17.2 E-mail fentons@ra.gtnet.gov.uk
New King's Beam House
22 Upper Ground
LONDON SE1 9SA
UNITED KINGDOM

*Mr Koos T.W.H. FOCKENS Telephone +31 544 47 1707
NEDAP N.V., IT-Logistic Telefax +31 544 46 2632
P.O. Box 103 E-mail kf@nedap.nl
NL-7140 AC GROENLO
THE NETHERLANDS

*Mr Georg GAIGAL Telephone +49 30 6708 3271
Deutsche Telekom Telefax +49 30 6708 3534
ZRA/T2a
Agastrasse 24
D-12489 BERLIN
GERMANY

Mr Wolfgang GRÜNDLER Telephone +49 30 22480 315
Regulierungsbehörde für Telekommunikation Telefax +49 30 22480 313
und Post, Ref. 132-12 E-mail wolfgang.gruendler@bapt.de
Mauerstrasse 69-75
D-10117 BERLIN
GERMANY

**Mr Paul HANSELL Telephone +44 1932 244481
Aegis Systems Ltd Telefax +44 1932 241748
Balfour House, Churchfield Road E-mail paul.hansell@aegis.demon.
Walton-on-Thames co.uk
SURREY KT12 2TD
UNITED KINGDOM

*Mr Jacques HULSHOF Telephone +31 544 471 111
NEDAP N.V. Telefax +31 544 465 232
P.O. Box 6 E-mail jhu@nedap.nl
NL-7140 AA GROENLO
THE NETHERLANDS

**Mr Jan KRUYSS
Lucent Technologies WCND bv
Zadelstede 1 - 10
P.O.Box 755
NL-3430 AT NIEUWEGEIN
THE NETHERLANDS

Telephone +31 30 6097 529
Telefax +31 30 6097 556
E-mail kruys@lucent.com

*Mr Max LODER
Siemens Switzerland
Albisriederstrasse 245
CH-8047 ZÜRICH
SWITZERLAND

Telephone +41 1 495 4670
Telefax +41 1 406 4178
E-mail max.loder@siemens.ch

*Mr Richard REES
The RFID Consortium Ltd
13 Braid Avenue
Edinburgh EH10 4SL
SCOTLAND

Telephone +44 131 446 9784
Mobile +44 468 79 4989
E-mail richard.rees@virgin.net

**Mr Marko SALMI
Telecommunications Administration Centre
P.O. Box 53
FIN-00211 HELSINKI
FINLAND

Telephone +358 9 6966 879
Telefax +358 9 6966 410
E-mail marko.salmi@thk.fi

*Mr Gregory SLEET
Checkpoint Systems, Inc.
101 Wolf Drive
Thorofare, New Jersey 08086
UNITED STATES OF AMERICA

Telephone +1 609 384 2339
Telefax +1 609 384 2366
E-mail gsleet@nj.checkpt.com

* Mr Josef SCHUERMANN
Texas Instruments Deutschland GmbH
Haggertystrasse 1
D-85350 FREISING
GERMANY

Telephone +49 8161 80 4371
Telefax +49 8161 80 4920
Mobile +49 17 1515 4298
E-mail j-schuermann@ti.com

** Mr Philippe TRISTANT Telephone +33 1 4518 7241
Agence Nationale des Fréquences (ANFR) Telefax +33 1 4518 7313
78, Avenue Général de Gaulle E-mail tristant@anfr.fr
BP 400
94704 MAISONS-ALFORT
FRANCE