Tentative Minutes of the IEEE 802.11
PHY Group
Plenary Meeting
Vancouver, Canada
November 11-14, 1996

PHY group meeting 11-12-96
Meeting called to order by Dean Kawaguchi at 8:50 AM
Secretary George Fishel
Voting members present 14
Motion #1 to approve the minutes of the last meeting and to approve the agenda for this meeting
Vote: 14-0-0
Minutes and agenda approved

First order of business is comment resolution of the sponsor ballot of draft 5.0 standard.

Tom Phinney comments starting on revision to section 9
Most of the changes are editorial in this section.
Motion #2 to accept changes to clause 12
Motion made by Carl Andren
Second by Nathan Silberman
Vote: 12-0-2
Motion passes

Tom Phinney comments on section 10
Clause 13
Changes made were all editorial and can be accepted as is.
Comments on multiple antennas do not apply to IR a request was made by Dean K for an IR
editor to take a look at this section and how it applied to IR Francisco Lopez volunteered for this
duty.
Motion #3 to accept the changes to the text as proposed. The comments in the annotation will be
added in the comments resolution period.
Motion made by: Mike Trumpower
Second: Nathan Silberman
12-0-2
Motion passes.

Comments resolution
Motion #4 to extend this meeting till noon
motion made by Jon Bore
seconded by Cart Andren
No objection motion passes.
Motion made to break at 10:05
Motion passes.

Meeting re-convenes at 10:30

Comment resolution technical comments first
Comment on clause 12.3.3 Motion made by Mike Trompower to postpone comment till full plenary.
Comment on clauses 14.3.3.2.2 and 12.3.5.10.2 comment by Simon Black.
Motion # 5 to change "generated" to "available" in clause 14.3.3.2.2 and accept with this change.
Motion made by: Carl Andren
Second: Mike Trumpower
9-0-3 Motion passes
Clause 12.3.5.10.2 remains unchanged

Comment on clause 13.1.1.3 Motion #6 made to reject comment There is no desire for the IR group to accept this comment
Motion made by: Francisco Lopez
Second by: Jon Bore
Vote: 9-0-2 Motion passes.

Comment on clause 13.1.2 Motion # 7 to postpone till full plenary
Motion made by: Mike Trumpower
Second by: Roy Sebring
unanimous

Comment on clause 13.1.4.11.13.1.4.15 Motion #8 made to accept the comment and make changes.
Motion made by Naftali Chayat
Second: Mike Trumpower
Vote: 11-0-1 motion passes.

Comment on clause 13.1.4.1.4 Comment withdrawn by commenter.

Comment on clause 13.1.4.19 Comment rejected. A fixed value of usec. was voted in full WG. No means to measure propagation time provided. Refer to general comment by Mike Trompower.
Motion # 9 to rejected made by: Mike Trompower
Second: Al Petrick
Vote: 11-0-2 Motion passes.

Comment on clause 13.1.4.19 Second comment accepted as editorial.

Comment on clause 13.1.4.20 Comment accepted. Add definitions of Type 1 (0 to 40 deg. C), Type 2 (-20 to 55 deg. C), and Type 3 (-30 to 77 deg. C) temperature types. Corresponding changes
Motion #10 to accept comment with changes made by: Mike Trompower

Second By: Jon Bore
Vote: 10-0-3 Motion passes.

Comment on clause 13.1.4.44 Defer comment for resolution in FH group.
Motion # 11 made by: Jon Bore

Seconded by Roy Sebring
Motion passes unanimously.

Comment on clause 13.all and 14.all by: Tom Phenny. Editorial comments will be introduced at the full plenary.

General comment by: Mike Trompower on variable slot time duration. Motion #12 to postpone to plenary discussion

Meeting adjourned at 12:30 PM

Meeting re-convened at 1:45 PM on Wednesday 11-13-96. Meeting called to order by Dean Kawaguchi.

Dean presented a problem with slot time formula discovered in the FH group and requested comments on how to correct the problem. The following sections may be effected by this problem: 9.2.9, 13.1.4.4, 13.1.4.5, 14.8.2.1.5, 15.3.4
motion #13 change the MAC figures in 9.2.9 to subtract aRxDelay and aRxPLCPDelay from aCCADelay to =aCCAtime. Leave the slot time at 50 μs Add clarification in 13.1.4.5 that aCCATime Includes aRxRFDelay and aPLCPDelay. (FH and DS sections are consistant with this motion
Motion made by: Carl Andren
Second by: Al Petrick
Vote: 6-0-3 Motion passes

MAC comment: RxRFDelay & TxRFDelay not specified to beginning, middle, or end of analog bit.

Clauses 13.1.4.10 Motion #14 add the text: "The nominal time in μs between the issuance of a PMDDATA request to the PMD and the start of the corresponding symbol at the air interface. The start of the symbol is defined to be ½ symbol prior to the center of the symbol for FH, or ½ chip prior to the center of the first chip of the symbol for DS, or ½ slot time prior to the center of the corresponding slot for IR.."

Clause 13.1.4.12 Motion #14 cont. add the text: "The nominal time in μs between end of a symbol at the air interface issuance of a PMDDATA indicats to the PLCP. The start of the symbol is defined to be ½ symbol prior to the center of the symbol for FH, or ½ chip prior to the center of the first chip of the symbol for DS, or ½ slot time prior to the center of the corresponding slot for IR.."

Motion made by: Jan Boer
Second by: Roy Sebring
Vote: 10-0-0
Meeting adjourn at 3:15 PM.
Meeting of the full PHY reconvened at 10:45 AM by Dean Kawaguchi on Thursday 11-14-96
Agenda
Process Ballot Comments
Conformance Testing
Higher rate wireless 3 Mb PMD at 2.4 GHz and 5 GHz
Reports of WGs

Dean presented FH Working Group
Motion #15: accept REVSEC11 text changes from TLP with the modifications as recorded in the minutes and the comments resolution file.
FH: Nathan/Naftali 6-0-0

Motion # 16: Accept the changes to clause 14 and the FH portion of annex A of the D5 draft made by the FH PHY group at the November 96 meeting to resolve sponsor ballot comments.
FH: Carl/Ron 5-0-0
PHY: FH/Naftali
WG:

Report of DS PHY group from Jan Boer
Motion #17 to accept the motions from the DS PHY group
Motion made by Jan Boer
Seconded: Roy Sebring
Vote: 11-0-0 Motion passes

IR PHY report by Francisco Lopez
Motion #18: Accept changes to clause 16 as described in IR report.
Motion made by Francisco Lopez
Seconded: Naftali Chayat
Vote: 9-0-1 Motion passes

Dean introduces changes to Clause 12 and 13. Motion #19: Accept changes to Clause 12 and 13 of the D5 draft made by the PHY group at the Nov . 96 meeting.
Motion made by: Jan Boer
Seconded by: Roy Sebring
Vote: 10-0-0 Motion passes

Higher Speed WLANs
Naftali Chayat Made a report on the New high Speed study group meeting
Splitting work into two PARS
• One for Higher Speeds at 2.4 GHz

- And one for Much Higher Speeds at 5.2 GHz

In the high speed meeting the following motions were voted no:

A motion was made (Carl) and seconded (Jan) to have a PAR for an extension to the 802.11 standard in the ISM band. 6-1-0 was the vote. The proposed addition Motiom #20 by Jan Boer are a minimum data rate for FH at 3Mbps and for DS is 8Mbps and the sensitivity drop of no more than 10db compared to current 802.11 at 2Mbps modulation methods for FH and DS, respectively. The completion date is targeted at 11/30/98. Carl seconded the motion. Passed 6-0-0.

Motion to adjourn at 10:04.

Meeting minutes respectfully submitted by:

George Fishel

Members present at meeting:

Mr. Carl F. **Andren**
HARRIS Corporation
 Phone: +1 407 724 7535 voter
Fax: +1 407 724 7886
E-Mail: candren@harris.com

Mr. Jan **Boer**
Chair IEEE 802.11-PHY/DS
Lucent Technologies WCND
Phone: +31 30 609 7483   voter
Fax: +31 30 609 7556
E-Mail: janboer@lucent.com

Mr. Naftali **Chayat**
BreezeCom
Phone: +972 3 645 8423   voter
Fax: +972 3 645 9191
E-Mail: naftalic@mail.breezecom.co.il

Dr. Ran-Fun **Chiu**
Hewlett Packard
Phone: +1 415 857 7406
Fax: +1 415 852 3791   No bulk e-mail
E-Mail:

Mr. John **Fakatselis**
HARRIS Corporation
 Phone: +1 407 729 4733 voter
Fax: +1 407 724 7094   No bulk e-mail

E-Mail: jfakat01@ccmail.mis.semi.harris.com

Mr. George **Fishel**
AMP Inc.
 Phone: +1 717 592 6161 voter
Fax: +1 717 592 6179
E-Mail: grfishel@amp.com

Mr. Dean M. **Kawaguchi**
Chair IEEE 802.11-PHY/FH
Symbol Technologies Inc.
Phone: +1 408 369 2629   voter
Fax: +1 408 369 2740
E-Mail: deank@psd.symbol.com

Mr. Stuart J. **Kerry**
Vice-Chair IEEE P802.11
Symbol Technologies Inc.
Phone: +1 408 369 2634   voter
Fax: +1 408 369 2740
E-Mail: stuart@psd.symbol.com

Mr. Francisco J. **Lopez-Hernandez**
E.T.S.I. Telecommunicacion
Phone: +34 1 336 73 41   voter
Fax: +34 1 336 7319
E-Mail: dxtn@tfo.upm.es

Mr. Ronald **Mahany**
Norand Corporation
Phone: +1 319 369 3552   voter
Fax: +1 319 369 5534
E-Mail: mahanyrl@norand.com

Dr. Akira **Miura**
Panasonic Technologies Inc.
Phone: +1 415 858 1000 voter
Fax: +1 415 493 1930
E-Mail: miura@tadw.research.panasonic.com

Mr. Richard H. **Paine**
The Boeing Company
Phone: +1 206 865 4921
Fax: +1 206 865 2965   No bulk e-mail
E-Mail: richard.paine@iss-rt.boeing.com

Mr. Al **Petrick**
HARRIS Semiconductor
 Phone: +1 407 729 4944 voter
Fax: +1 407 724 7094   No bulk e-mail
E-Mail: apetrick@ccmail.mis.semi.harris.com

Mr. William **Roberts**
American Microsystems Inc.
Phone: +1 208 233 4690 x6514   voter
Fax: +1 208 234 6760   No bulk e-mail
E-Mail: wroberts@poci.amis.com

Mr. Roy **Sebring**
Intermec Corporation
Phone: +1 206 356 1740 voter
Fax: +1 206 348 2661
E-Mail: rsebring@intermec.com

Mr. Roy **Sebring**
Intermec Corporation
Phone: +1 206 356 1740 voter
Fax: +1 206 348 2661
E-Mail: rsebring@intermec.com

Mr. Nathan **Silberman**
Co-chair IEEE 802.11-PHY/HS-FH
Philips Semiconductors
Phone: +1 408 991 4076 voter

Fax: '+1 408 991 4800
E-Mail: snathan@ix.netcom.com

Mr. Mack **Sullivan**
Proxim Inc.
Phone: +1 415 526 3694   voter
Fax: +1 415 960 1984
E-Mail: mack@proxim.com

Mr. Mike **Trompower**
Aironet Wireless Communications Inc.
Phone: +1 330 664 7920   voter
Fax: +1 330 664 7301
E-Mail: mtrom@aironet.com