

Minutes
IEEE 802.3av 10GEPON Task Force Meeting
Orlando, FL
March 13 – 15, 2007

Meeting minutes for 03/13/2007

Meeting commences at 9:00am

Presentation: Agenda and General Information

- Presented by Glen Kramer at 9:00am
- Eric Lynskey is volunteers as recording secretary
- Introductions are held (approximately 30 in the room)

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Motion 1

Motion to approve minutes from January 2007 (9:05am)

- M: Duane Remein
- S: Marek Hajduczenia
- Passed by voice without opposition

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Chair goes over Ground Rules:

- Chair covers changes to IEEE-SA operations manual regarding disclosure of affiliation. It is mentioned that failure to properly disclose affiliation can lead to loss of membership privileges and attendance credit.
- Existing patent policy is presented at 9:14am. (Chair mentions that a new patent policy will be in effect by the next meeting)
- Chair covers inappropriate topics for discussion
- Timeline was reviewed
- Schedule for this meeting was reviewed
- Chair asks if there are objections to having Robert Lingle's slides for power budget ad-hoc presented, as they were uploaded less than 24 hours before meeting (slides are available online and via memory stick).
 - o No objections are voiced, slides will be presented

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Motion 2

Motion to approve agenda (9:25am)

- M: Jeff Mandin
- S: Duane Remein
- Passed by voice without opposition

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- Chair reviews future IEEE 802 plenary meetings
- Chair asks if group will need 2 or 3 days in May interim meeting

- Chair will ask for 3 days

Presentation: Power Budget Ad Hoc Report

- Presented by Robert Lingle Jr. at 9:28am
- This presentation reviewed the ad hoc activities over the past two months.

Presentation: 10/10 and 10/1 budgets

- Presented by Frank Effenberger at 9:37am
- This presentation presented both a proposed power budget and also some considerations for port types and names.
- Several comments that the ER of 10dB may not be realistic and should be lower
- Several comments that upstream power of +4 is somewhat high

Recess for coffee break at 10:23am

Meeting resumes at 10:45am

Presentation: Downstream PMD tables for 10GEPON

- Presented by Wenbin Jiang at 10:46am
- This presentation proposes a set of PMD tables for downstream transmit and receive parameters.

Presentation: Semiconductor Optical Amplifiers – High Power Operation

- Presented by Robert Lingle for Boris Stefanov (not present) at 11:00am
- A good deal of discussion surrounded the 1dB transmit power values.

Wael Diab comes into the room and gives the attendance book talk at 11:40am

Presentation: Progress and Issues Concerning the Power Budget Discussions in the Power Budget Ad Hoc

- Presented by Motoyuki Takizawa at 11:45am
- The presentation presents a set of power budgets.

Recess for lunch break at 12:15pm

Meeting is called to order at 1:35pm

Presentation: SBS Mitigation in Digital Transmission for 10GEPON Standards Development

- Presented by Robert Lingle, Jr at 1:37pm
- Overview of SBS and discussion of dithering techniques.
- Discussion on whether it should be mandatory or optional

Presentation: Report on Optical Link Model Ad Hoc Activities

- Presented by Marek Hajduczenia at 2:09pm
- Presented overview of ad hoc activities and plans for coming months.

- Discussion on whether it is worthwhile to continue going after SBS simulations

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Straw Poll 1 (made by Chair)

How many believe ad hoc should continue going after SBS model?

Y: 0, N: not taken, A: not taken

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Presentation: Single Mode Fiber Loss

- Presented by Marek Hajduczenia
- Presentation shows that the current equations used in the spreadsheet model deviate from the actual specifications at 1550nm.

Recess for break at 3:04pm

Meeting reconvenes at 3:32pm

- Peter Anslow comes into the room to discuss the presentation
- It is mentioned that the fiber group within ITU has used 0.4dB, but the systems group within ITU uses 0.275 dB loss per kilometer
- There will be some coordination between the 10GEPON and HSSG groups so that similar values will be used by each group.

Presentation: Link Model Tutorial

- Presented by Marek Hajduczenia
- Presenter went through the relevant cells within the spreadsheet and then entered in the values from one of this week's presentations (effenberger_5_0703.pdf).

Meeting adjourns at 5:22pm

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Meeting minutes for 03/14/2007

Meeting commences at 8:59am

36 in room

Presentation: Dual Rate PMD Ad-hoc Report

- Presented by Frank Effenberger at 9:02am
- Review of the work done on the dual rate PMD over the past two months.

Presentation: Dual-rate burst upstream

- Presented by Frank Effenberger at 9:11am
- SiGe is the most common process for 10G PMDs
- CMOS TIAs exist for 10G but not at these sensitivity levels

Presentation: Compensation of TIA bandwidth limitation with FIR filters

- Presented by Marek Hajduczenia at 10:01am
- Presentation covers an alternative to using 10G receivers, by using 2.5Gbps receivers along with FIR filters. The presentation covers data taken from models and simulations, and actual lab measurements will be provided for the next meeting.

Meeting recesses for coffee break at 10:30am

Meeting reconvenes at 11:00am

Attendance books are brought into the room and passed out by chair

Presentation: Super-rating Ad-hoc Report

- Presented by Frank Effenberger at 11:02am
- Brief overview of ad-hoc activities

Presentation: FEC Super-rating: To speed, or not to speed... (will I get caught)

- Presented by Frank Effenberger at 11:06am
- Presented pros and cons for both super-rating and sub-rating
- Chair quickly reviewed presentation and results of straw poll from opening 802.3 plenary

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Motion 3

10GEPON will accommodate FEC's parity bandwidth by reducing the MAC's effective data rate (sub-rating).

M: Frank Effenberger

S: Jeff Mandin

Amendment offered by Duane Remein to change "will" to "shall". This was accepted as friendly by both mover and seconder.

Motion 3 (final version)

10GEPON shall accommodate FEC's parity bandwidth by reducing the MAC's effective data rate (sub-rating).

M: Frank Effenberger

S: Jeff Mandin

Y: 34 N: 0 A: 1 (everyone in room)

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Recess for lunch at 11:45am

Meeting reconvenes at 1:30pm

Glen Kramer asked to be recused from duties of the chair for the duration of FEC Framing and Synchronization discussion. Duane Remein assumed duties of the chair.

Presentation: FEC Framing and Synchronization Ad-Hoc Status Report

- Presented by Jeff Mandin at 1:34pm

Presentation: 10GEPON FEC Framing Ad-hoc Technical Status

- Presented by Jeff Mandin at 1:37pm

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Motion 4:

To accept the scheme outlined in slides 3-7 in 3av_0703_mandin_2.pdf as the baseline scheme for upstream FEC framing and synchronization.

M: Jeff Mandin

S: Frank Chang

Y: 28 N: 0 A: 8

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Motion 5: To accept the FEC codeword structure depicted in the illustration on slide 5 for the downstream (so that the FEC codeword structure on the upstream and downstream is identical).

M: Jeff Mandin

S: Frank Effenberger

Amendment by Glen Kramer to modify as follows.

Accepted as a friendly amendment by mover and seconder

Final Version

Motion 5: To accept as a baseline scheme the FEC codeword structure depicted in the illustration on slide 5 in 3av_0703_mandin_2.pdf for the downstream (so that the FEC codeword structures on the upstream and downstream are identical).

M: Jeff Mandin

S: Frank Effenberger

Y: 27 N: 0 A: 9

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Presentation: Upstream Burst Alignment

- Presented by Glen Kramer at 2:18pm

Recess for break at 3:12

Meeting reconvenes at 3:30pm

Presentation: Considerations for Data Detector Placement

- Presented by Jeff Mandin at 3:30pm

Presentation: Upstream Synchronization Framework

- Presented by Jeff Mandin at 4:13pm

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Attendance books are brought into the room at 4:30pm

Presentation: Interleaved FEC for 10GEAPON

- Presented by Dongsoo Lee at 4:45pm

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Straw Poll 2: When functional blocks depend on each other (e.g. FEC encoder and data detector) I prefer

- Combined state machine 10
- Separate state machines 4
- No opinion 18

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Straw Poll 3: Which FEC proposal should the FEC Framing ad hoc focus on for further development?

- 3av_0703_mandin_1.pdf 2
- 3av_0703_kramer_1.pdf 11
- No opinion 19

Glen Kramer resumed duties of chair.

Meeting adjourns at 5:21pm

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Meeting minutes for 03/15/2007

Meeting starts at 9:02am (approximately 30 in the room)

Presentation: 802.3av Comments from the Editors

- Presented by Duane Remein at 9:03am
- Editors will begin to craft two clauses based on Clauses 60 and 65.

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Motion 6

The 802.3av Task Force approves the creation of two clauses as presented in 3av_703_remein_1.pdf slides 7, 8, & 9.

M: Duane Remein

S. Marek Hajduczenia

Friendly amendment offered by Glen Kramer to change as follows.

Accepted by both mover and seconder.

Motion 6 (Final Version)

The 802.3av Task Force approves the creation of two clauses as presented in 3av_0703_remein_1.pdf slides 7, 8, & 9. Outline of the clauses may be modified as necessary.

M: Duane Remein

S. Marek Hajduczenia

Y: 25 N: 0 A: 4

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Presentation: Coexistence with Current Systems – 10GEPON System Configuration

- Presented by Keiji Tanaka at 9:19am
- It is hopeful that a wavelength plan proposal will be brought forward at the May meeting.

Presentation: Re-consider 1310nm CWDM PMD as one cost-effective and scalable upstream option

- Presented by Frank Chang at 9:59am
- A good deal of discussion on whether or not this proposal would be compatible with existing 1GEPON ONUs.
- Discussion on whether the data presented was applicable as it mostly dealt with short reach or multi-fiber solutions.

Break at 11:02am

Resumes at 11:24am

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Motion 7

For the 10GEPON upstream, the TDMA at 1310nm coexistence method is conditionally selected as baseline, unless feasible link budgets cannot be found for all cases.

M: Frank Effenberger

S: Brian Holden

Friendly amendment by Martin Bouda to change as follows

Accepted as a friendly amendment by mover and seconder

Motion 7 (final version)

For the 10GEPON upstream, the TDMA at 1310nm coexistence method is conditionally selected as baseline, unless technically and economically feasible link budgets cannot be found for all cases.

M: Frank Effenberger

S: Brian Holden

Y: 32 N: 0 A: 0

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Presentation: Downstream 10G wavelength plan and its impact on triplexer design

- Presented by Marek Hajduczenia at 11:31am
- Comment that 20dB may not be enough isolation between channels (30dB)

Presentation: Meeting summary

- Presented by Glen Kramer at 11:59am
- Chair asks the group to change the motions 2 and 3 to insert the actual presentation name. Both mover and seconder and the group were ok with this and offered no objections.

Action Items for May

- Revise link model spreadsheet interface (Marek)
- Review link model spreadsheet
- Review power budget proposals
- Wavelength plan proposal

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Motion 8
P802.3av TF asks 802.3 WG to allocate 3 days for 802.3av meetings at May meeting in Geneva.
M: Frank Chang
S: Duane Remein

Amendment offered by Frank Effenberger to change for 2.5 days. Accepted as friendly by mover and seconder.

Motion 8
P802.3av TF asks 802.3 WG to allocate at least 2.5 days for 802.3av meetings at May meeting in Geneva.
M: Frank Chang
S: Duane Remein
Y: 23 N: 0 A: 7

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Straw Poll 4
I will attend 802.3av meeting in Geneva on May 28-31, 2007
Y: 23 N: 1 Don't know: 8 Total in room: 32

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Straw Poll 5
I will attend 802.3av meeting in Seoul on September 17-20, 2007
Y: 12 N: 0 Don't know: 17 Total in room: 32

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Motion 9: Move to adjourn
M: Jeff Mandin
S: Marek Hajduczenia
Passed by voice without opposition at 12:31pm