Unapproved Minutes

IEEE P802.3db 100 Gb/s, 200 Gb/s, and 400 Gb/s Short Reach Fiber Task Force Interim Meeting

Webex Meeting
February 18, 2021
Prepared by Mabud Choudhury

Group Name: IEEE P802.3db 100 Gb/s, 200 Gb/s, and 400 Gb/s Short Reach Fiber Task Force
Date/Location: Thursday, February 18, 2021. Webex meeting.
Chair: Robert Lingle, Jr (OFS)
Editors: Ramana Murty (Broadcom), Earl Parsons (CommScope)
Recording Secretary: Mabud Choudhury (OFS)
Meeting Participants: Attendance is listed in Appendix A (44 attendees – based on official IMAT attendance list; 49 Webex attendees)

Call to order:
IEEE P802.3db 100 Gb/s, 200 Gb/s, and 400 Gb/s Short Reach Fiber Task Force (TF) Interim WebEx meeting was convened at 12:02 PM Eastern Standard Time (EST/ UTC -5), Thursday, February 18, 2021 by Robert Lingle, Jr., P802.3db TF Chair.

Webex Meeting Procedures:
He instructed attendees to either add their affiliations to their names in the Webex participants list, or else list their name with affiliation in the chat window – a meeting requirement. [These two instructions were repeated multiple times throughout the meeting via Chat].

Late request for contribution: the request to make contribution for nering_3db_01_021821.pdf was past Chair's announced deadline for contribution requests. Chair asked if anyone in TF objected to allowing this contribution? No one responded with an objection.

Chair's Presentation:
Title: "Agenda and General Information"
Presenter: Robert Lingle, Jr. (OFS)
agenda_3db_01a_021821.pdf
Version 01a updates:

- Slide 37 with correct information for March 16 TF meeting: Tuesday, March 16, 2021, 10am to 12 Noon Eastern US (EDT/UTC -4)
- Slide 36, wording for .3db Motion #3 (generated during meeting) was added.

Mr. Lingle then proceeded with reviewing the **Agenda**, Slide 3 of agenda_3db_01a_021821.pdf (slide 3, Agenda, unchanged for version 01a and asked if there any modifications, additions or deletions? There were none.

.3db Motion #1:
Move to approve the Agenda for Interim TF Teleconference, Slide 3 of agenda_3db_01_021821.pdf

- M: Ray Nering
- S: James Young
- (Procedural > 50%)
- Motion passed by unanimous consent.

Agenda approved at 12:05 PM

Approved Agenda:

- Welcome
- Approve Agenda
- Attendance
- Approve Meeting Minutes for January 21st Interim & February 4 Ad Hoc TF meetings
- Goals for this meeting
- Reflector and Web
- Ground Rules
- IEEE
- Structure, Bylaws and Rules
  - Call for Patents. IEEE Patent Policy reminder: http://www.ieee802.org/3/patent.html
  - IEEE Copyright reminder: https://standards.ieee.org/ipr/index.html
  - IEEE Participant reminder: http://www.ieee802.org/devdocs.shtml
- IEEE Standards Process
- PAR & Objectives
- Contributions:
  - "Updated Baseline for 100 Gb/s per Lane Optical PMDs Supporting 50 and 100m OM4 MMF" - Ramana Murty and David Dolfi
  - "Receiver Sensitivity Analysis for Baseline Proposal" - Ray Nering [Submitted after deadline, for approval by TF]
- Straw Polls & Motions
- Future Meetings

Attendance: Chair asked attendees to use http://imat.ieee.org/ to record attendance and provided Session Code and reviewed the IMAT steps to log attendance for this TF meeting. Attendance record based on IMAT only. The request to record attendance via IMAT and providing Session Code for this meeting were repeated multiple times via Chat.

Approved Meeting Minutes: Mr. Choudhury indicated that the January 21, 2021 TF interim and February 4, 2021 TF ad hoc unapproved meeting minutes had been previously posted with request for updates/corrections. Mr. Lingle asked if there were any updates/corrections to the January 21, 2021 TF interim and February 4, 2021 TF ad hoc unapproved meeting minutes. There were none.

.3db Motion #2:
Move to approve meeting minutes for:

- January 21, 2021 IEEE P802.3db 100 Gb/s, 200 Gb/s, and 400 Gb/s Short Reach Fiber TF Interim meeting: unapproved_meeting_minutes_3db_01_0121.pdf
- February 4, 2021 IEEE P802.3db 100 Gb/s, 200 Gb/s, and 400 Gb/s Short Reach Fiber TF Telephonic Ad Hoc meeting: unapproved_minutes_3db_adhoc_01_020421.pdf

- M: John Abbott
- S: Ray Nering
- (Procedural > 50%)
- Motion passed by unanimous consent.

Task Force Decorum: Chair asked for attendees to stay on mute when not speaking. Chair asked if anyone from the **Press** was present – no one indicated that they were from the Press.

Mr. Lingle provided **Goal for the meeting:**

- Review, discussion, progress, update on consensus building to adopt Baseline Proposal.
- Straw polls, as needed, to move us towards adopting Baseline Proposal.
- Potentially adopt Baseline Proposal.

Reflector and Web: Chair showed the links to the IEEE 802.3db 100 Gb/s, 200 Gb/s, and 400 Gb/s Short Reach Fiber Task Force page, and the email reflector.

Chair reviewed:
Ground Rules: slide 11 of agenda_3db_01a_021821.pdf
IEEE Structure: slide 12 of agenda_3db_01a_021821.pdf
Important Bylaws and Rules: slide 13 of agenda_3db_01a_021821.pdf

Secretary had shared the IEEE SA Patent, Copyright and Participation Policies prior to the meeting and had asked participants to be familiar these policies. Mr. Lingle asked if any participants had questions, and that there were no questions.

IEEE SA Patent Policy: Mr. Lingle provided overview of slides 14-18 of agenda_3db_01a_021821.pdf. Chair made "**Call for Potentially Essential Patents**" at 12:14 PM. No response from TF participants.

IEEE SA Copyright Policy: Mr. Lingle showed slides 19-21 of agenda_3db_01a_021821.pdf entitled "IEEE SA Copyright Policy" overview

IEEE SA Participation Policy: Mr. Lingle showed the participation policy overview slides 22-24 of agenda_3db_01a_021821.pdf .

Mr. Lingle then reviewed the Overview of IEEE 802.3 Standards Process – completed Study Group Phase, and now in Task Force Comment Phase (slide 26 of agenda_3db_01a_021821.pdf).

Chair showed links for Approved Project Documents: PAR, CSD and Objectives slide 30 of agenda_3db_01a_021821.pdf). Mr. Lingle then showed the TF Objectives and Timeline.

Chair reviewed selection of Baselines overview.

Contribution #1:
Title: "Updated Baseline for 100 Gb/s per Lane Optical PMDs Supporting 50 and 100m OM4 MMF"
Presenter: Ramana Murty (affiliated with Broadcom Inc.)
murty_3db_01b_021821.pdf
Version 01a update: Slide 2, Supporters added.
Version 01b updates:

- Slide 2, more Supporters added, including those indicating to be listed as Supporter during TF meeting.
- Slide 6, Average receive power, each lane (min) changed from -6.7 to -6.8 dBm.
- Slide 6, Stressed receiver sensitivity changed from -1.9 to -2.0 dBm.

- Slide 6, footnote f: Changed 200GBASE-SR2 and 400GBASE-SR4 to 200GBASE-xR2 and 400GBASE-xR4, respectively.
- Based on contribution and subsequent TF discussion and consensus, indicate the range of stressed receiver sensitivity in the table, and indicate the range for other Tx and Rx parameters that would be impacted with footnotes.

- Presentation provided updated Baseline Proposal based on TF input/technical discussions/feedback/consensus building, contributions from other TF participants since initial December 17, 2020 Baseline Proposal murty_3db_adhoc_01b_121720.pdf
- Brief discussion followed on 50 m and 100 m interoperability.
- Ali Ghiasi and Mike Dudek requested to be added to list of Supporters.
- Author welcomed feedback from the group.

Contribution #2:
Title: "Receiver Sensitivity Analysis for Baseline Proposal"
Presenter: Ray Nering (affiliated with Cisco)
nering_3db_01_021821.pdf

- Presentation shows that additional margin may be necessary in the current baseline proposal when considering scaling the receiver sensitivity from 50G to 100G.
- Presentation provides:
    - Maintaining focus on lower cost requires considering the manufacturability and yield of 802.3db PMDs.
    - Previous study of Receiver Sensitivity Estimate for MMF links
    - Receiver Sensitivity IEEE 50G SMF vs 100G SMF
    - Proposed changes to Updated Baseline.
- Technical discussion followed.
- Topics included: proposal requires an additional 0.5 dB OMA from the Tx, which would come out of the Tx budget; receivers should have margin against the -6.4 dBm assumed in the link budget considering the NEP of TIAs; receiver sensitivity should be set higher because it may be harder to maintain the same responsivity at 50G; eye safety concerns with max average power of 4 dBm and max OMA of 3.5 dBm; why increase receiver sensitivity by 0.4 dBm when it was higher in FR?; impact on the Tx, optical safety, set up window.
- Based on this contribution and subsequent TF discussion and consensus, Ramana Murty indicated the range of stressed receiver sensitivity in the table in the baseline draft and indicated the range for other Tx and Rx parameters that would be impacted with footnotes.

Chair then led TF discussion if further updates were required to updated Baseline Proposal (based on the 2 contributions above) or if there should be a TF motion to adopt updated Baseline Proposal from this meeting. A TF participant proposed proceeding to consider motion .3db Motion #3 below. Secretary reminded TF that votes were limited to 802.3 Voters only – requirement for telephonic interim meetings.
After wording for motion was finalized, and after Mover and Second were recorded, Chair asked if there was discussion on the motion. There was none. Chair asked if any 802.3 voters objected to the motion. As the motion was about be passed by unanimous consent, a TF participant objected but was found to not be an 802.3 voter. The Chair again asked if any 802.3 voters objected to the motion. There were none.

.3db Motion #3:

- Move to adopt content of slides 4-8 of murty_3db_01b_021821.pdf as baseline for IEEE P802.3db
- Mover – Ramana Murty
- Second – Earl Parsons
- Technical (>/=75% of 802.3 voters)
- Motion passes by unanimous consent.

Future meetings:

- See: http://ieee802.org/3/calendar.html and http://ieee802.org/3/interims/index.html
- P802.3db TF Ad Hoc Teleconferences are currently scheduled:
- Biweekly on Thursdays at 12 Noon to 2 pm Eastern US (EST/UTC -5): http://www.ieee802.org/3/db/public/adhoc/index.html
- Ad hoc meetings will be converted to TF interims when TF business requires

On TF interim teleconferences, only 802.3 voters may vote on TF motions

- TF Interim Meetings:
    - **Thursday, March 4, 2021, 12 Noon to 2 pm Eastern US (EST/UTC -5)**
- March IEEE 802.3 WG plenary session will be virtual, March 8 – 18, 2021 P802.3db TF meeting during WG plenary session:
    - **Tuesday, March 16, 2021, 10am to 12 Noon Eastern US (EDT/UTC -4)**

.3db Motion #4:

Move to Adjourn TF Telephonic Interim Meeting

- M: Ali Ghiasi
- S: Mike Dudek
- (Procedural > 50%)
- Motion passes by unanimous consent.

The Task Force Interim meeting was adjourned at 1:58 PM EST/ UTC -5, Thursday, February 18, 2021.

Next Meeting:

Scheduled P802.3db TF Interim Webex meeting for Thursday, March 4, 2021 at 12:00 Noon – 2:00 PM EST/UTC -5.

Appendix A: Attendance List IEEE P802.3db Task Force WebEx Interim Meeting
44 individuals attended on Thursday, 18 February 2021, 12:02 PM – 1:58 PM EST/UTC -5

	Name	Employer	Affiliation
1	Abbott, John	Corning Incorporated	Corning Incorporated
2	Akbaba, Enis	Maxim Integrated Products	Maxim Integrated Products
3	Bhatt, Vipul	II-VI	II-VI
4	Bruckman, Leon	HUAWEI	HUAWEI
5	Calvin, John	Keysight Technologies	Keysight Technologies
6	Castro, Jose	Panduit Corp.	Panduit Corp.
7	Chang, Yongmao	Inphi Corporation	Source Photonics
8	Chen, Chan	Applied Optoelectronics, Inc.	Applied Optoelectronics, Inc.
9	Choudhury, Mabud	OFS	OFS
10	Dawe, Piers J G	Mellanox Technologies	Nvidia
11	Didde, Stephen	Keysight Technologies	Keysight Technologies
12	Dolfi, David	Broadcom Corporation	Broadcom Corporation
13	Dudek, Michael	Marvell	Marvell
14	Ferretti, Vincent	Corning Incorporated	Corning Incorporated
15	He, Xiang	HUAWEI	HUAWEI
16	Hidaka, Yasuo	Credo Semiconductor	Credo Semiconductor
17	Hu, Kangmin	Innogrit	Innogrit
18	Jackson, Kenneth	Sumitomo Electric Device Innovations, USA	Sumitomo Electric Industries, LTD
19	Kamino, John	OFS	OFS
20	Kimber, Eric	Semtech Ltd	Semtech Ltd
21	Koleva, Vera	II-VI	II-VI
22	Latchman, Ryan	MACOM	MACOM
23	Le Cheminant, Greg	Keysight Technologies	Keysight Technologies
24	Ledentsov, Nikolay	VI Systems GmbH	VI Systems GmbH
25	Lin, Youxi	Huawei Technologies Co. Ltd	Huawei Technologies Co. Ltd
26	Lingle, Robert	OFS	OFS
27	Lyubomirsky, Ilya	Inphi Corporation	Inphi Corporation
28	Maki, Jeffery	Juniper Networks, Inc.	Juniper Networks, Inc.
29	Malicoat, David	Malicoat Networking Solutions	Malicoat Networking Solutions; SENKO Advanced Components
30	Marques, Flavio	FURUKAWA ELECTRIC	FURUKAWA ELECTRIC
31	Murty, Ramana	Broadcom Corporation	Broadcom Corporation
32	Nering, Raymond	Cisco Systems, Inc.	Cisco Systems, Inc.
33	Palkert, Thomas	EIC	Samtec-Macom
34	Parsons, Earl	CommScope, Inc.	CommScope, Inc.
35	Quan, Yu	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd
36	Radhamohan, Rajeshmohan	MAXLINEAR INC	MaxLinear Inc
37	Shubochkin, Roman	OFS	OFS
38	Son, Yung Sung	Optomind Inc	Optomind Inc
39	Sun, Yi	OFS	OFS
40	Swanson, Steven	Corning Incorporated	Corning Incorporated
41	Thompson, lance	II-VI	II-VI
42	Ulrichs, Ed	Source Photonics	Intel
43	Young, James	CommScope, Inc.	CommScope
44	Zhang, Bo	Inphi Corporation	Inphi Corporation