

Agenda and General Information

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

Robert Lingle, Jr.

OFS

Ad Hoc Teleconference, October 1, 2020

Meeting

- Attendance
 - Please use <http://imat.ieee.org/> to record attendance
 - Session code/password (provided during meeting):
 - Attendance record based on IMAT only
- Webex
 - Please mute your lines if you are not speaking
 - *6 to mute/unmute or click on mute button in the WebEx window
 - Noisy, unmuted lines will be muted by the WebEx organizer
 - *6 to unmute if this happens to you

Proposed Agenda

- Meeting Attendance and Webex
- Approve Agenda
- Reflector and Web
- IEEE
 - 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>
- Presentations
 - "In Support of Linear Interface: Measurements / Simulations" - Ryan Latchman (MACOM)
 - "One vs. Two Link Length PMDs for 100 Gb/s per Lane" – Raman Murthy (Broadcom), Vipul Bhatt (II-VI)
- Chair's discussion of next steps
- Future Meetings

Reflector and Web

- To subscribe to the IEEE P802.3db 100 Gb/s, 200 Gb/s, and 400 Gb/s Short Reach Fiber Task Force reflector, send an email to:

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with the following in the body of the message (do not include “<>”):

subscribe **stds-802-3-100GSR** *<yourfirstname>* *<yourlastname>*

- Send IEEE P802.3db 100 Gb/s, 200 Gb/s, and 400 Gb/s Short Reach Fiber Task Force reflector messages to:

STDS-802-3-100GSR@listserv.ieee.org

- Task Force web page URL:

<http://ieee802.org/3/db/index.html>

Participants have a duty to inform the IEEE

- Participants shall inform the IEEE (or cause the IEEE to be informed) of the identity of each holder of any potential Essential Patent Claims of which they are personally aware if the claims are owned or controlled by the participant or the entity the participant is from, employed by, or otherwise represents
- Participants should inform the IEEE (or cause the IEEE to be informed) of the identity of any other holders of potential Essential Patent Claims

**Early identification of holders of potential
Essential Patent Claims is encouraged**

Ways to inform IEEE

- Cause an LOA to be submitted to the IEEE-SA (patcom@ieee.org); or
- Provide the chair of this group with the identity of the holder(s) of any and all such claims as soon as possible; or
- **Speak up now and respond to this Call for Potentially Essential Patents**

If anyone in this meeting is personally aware of the holder of any patent claims that are potentially essential to implementation of the proposed standard(s) under consideration by this group and that are not already the subject of an Accepted Letter of Assurance, please respond at this time by providing relevant information to the WG Chair

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- This means participants:
 - **Shall act & vote** based on their personal & independent opinions derived from their expertise, knowledge, and qualifications
 - **Shall not act or vote** based on any obligation to or any direction from any other person or organization, including an employer or client, regardless of any external commitments, agreements, contracts, or orders
 - **Shall not direct** the actions or votes of other participants or retaliate against other participants for fulfilling their responsibility to act & vote based on their personal & independently developed opinions
- By participating in standards activities using the “*individual process*”, you are deemed to accept these requirements; if you are unable to satisfy these requirements then you shall immediately cease any participation

Contributions

- "In Support of Linear Interface: Updated Measurements / Simulations" - Ryan Latchman (MACOM)
 - [latchman_3db_adhoc_01_100120.pdf](#)
- "One vs. Two Link Length PMDs for 100 Gb/s per Lane" - Ramana Murty (Broadcom), Vipul Bhatt (II-VI)
 - [murty_3db_adhoc_01_100120.pdf](#)

Chair's discussion of next steps (1 of 3)

- During extended SG phase due to COVID-19 delay, some SG members expressed concerns that 100GSR should address traditional 100m reach, but TF was weak at that time.
- At first TF Ad Hoc on 6/25, a well-crafted proposal was made to exceed our 50m objective with a 100m baseline

- At 7/14 TF Ad Hoc, straw poll results to the right suggested that two objectives might be palatable, pending further information on relative costs and end-user input

Straw Poll #3

- I currently believe the IEEE P802.3db TF should:
 - A. make no change to the current 50m objectives,
 - B. modify the current 50m objective to longer reach [for example 80-100m], or
 - C. have two objectives including one optimized for cost/power [for example 20-30m] and one optimized for longer reach [for example 80-100m]
- A: 17 B: 3 C: 31

Chair's discussion of next steps (2 of 3)

- Chair's discussion with likely early adopters
 - Transceivers are desirable for TOR elimination
 - Having multiple suppliers of practical parts is a key to early success for fiber-to-the-server
 - Do not overburden optics for fiber-to-the-server with yield hit or higher relative cost to achieve 100m reach
 - Chair believes a 30m reach over OM3 MMF remains important
- End user contributions are being actively encouraged from the hyperscale & server NIC card community in October

Time Horizon	Likely Application	Reach Requirement	Need
Early Adopter	Hyperscale fiber-to-the-server, TOR elimination	30 to 50m	Tx specs which promote higher yield & low cost in Year One
Second	Big Cloud in China	70 to 100m	Lower cost & power
Longer-term	Large Enterprise DCs	100m	Meet traditional reach targets used in brownfield cable infrastructures

Chair's discussion of next steps (3 of 3)

- Staffing of key roles
- We need to produce baseline proposal tables ASAP
- Key members of our TF want clarity on reach targets before writing tables of parameters
- Linear Interface – chair believes TF work on this topic requires an explicit objective, approved by TF and WG
- Straw polls on all topics in October ad hoc telecons
- Final decisions on adding any objectives not later than 11/12 Interim Telecon
- Timeline adopted at 11/12 Interim Telecon
- Full speed ahead

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 (EDT/UTC -4):
<http://www.ieee802.org/3/db/public/adhoc/index.html>
 - Next meeting Thursday, October 15, 12 Noon to 2 pm Eastern US (EDT/UTC -4)
- P802.3db TF Interim Teleconference: 10/29 and 11/12 Ad Hocs designated as Interims
- Please note three 802.3 Plenary Meetings in November on web calendar

Thank You!