IEEE P802.3cd Ad Hoc meeting – January 10, 2018

Prepared by Kent Lusted

Proposed Agenda:

- Approval of the Agenda
- Approval of the Dec 20 minutes
- IEEE patent policy reminder:
 - http://www.ieee802.org/3/patent.html
- IEEE Participation Requirements reminder
- P802.3cd TF Ad Hoc
 - P802.3cd Task Force Update, Mark Nowell (5 min)
 - "Transmitter specifications and COM for 50GBASE-CR.", Mike Dudek (30 mins)
 - "RLM vs. PAM4 Threshold Adjustment", Hai-Feng Liu (20 mins)
 - "TDECQ Updates with Threshold Adjustment: VCSEL Results", Frank Chang (15 mins)
 - Editorial Update, Matt Brown and the Amazing Editorial Team (remaining)

Presentations posted at: http://www.ieee802.org/3/cd/public/adhoc/arch ive/index.html

Meeting began at ~8:05 a.m. Pacific by Kent Lusted.

Meeting began with the agenda presentation:

http://www.ieee802.org/3/cd/public/adhoc/archive/agenda 011018 3cd adhoc-v2.pdf

The ad hoc chair reminded participants to indicate full names and employer/affiliation correctly for the meeting minutes. He reminded participants to mute lines when not speaking and reviewed the steps to unmute.

Showed the links to the IEEE P802.3cd Task Force ad hoc page and the email reflector.

Presented the proposed agenda and asked if there was objection as written. There was a request to modify the agenda to move the editorial item to the end. No one objected. The agenda was approved by the ad hoc.

Asked if there were comments regarding the posted minutes of the last ad hoc meeting. No one responded.

Reminded participants of the IEEE patent policy. He asked if anyone was unfamiliar with the IEEE patent policy. No one responded.

Reminded participants of the IEEE Participation Requirements and showed the slide with the Participation requirements. He asked if anyone was unfamiliar with the IEEE Participation Requirements. No one responded.

Agenda Items

P802.3cd Task Force update, Mark Nowell

- Meeting at January 2018 interim, week of Jan 22. Plan to address comments and generate D3.1.
- Monday morning ITU registration desk opens at 8:30 a.m., not 8:00 a.m. as previously communicated. Please pre-register to expedite the process.
- Presentation requests are due January 12, 2018. Presentation deadline is January 16, 2018.
- Comments are posted on the website. (See: http://www.ieee802.org/3/cd/comments/index.html)
- Chair noted that they are trying to minimize overlap with the other Study Groups and Task Forces meeting times. Please be aware that meetings may have variable start times so one group can start when another finishes please consider when booking your travel.
- There is a joint IEEE/ITU workshop on Saturday, January 27, 2018. High level agenda is available at https://www.itu.int/en/ITU-T/Workshops-and-Seminars/20180127/Pages/default.aspx
- Early registration for the March plenary is Friday, January 26, 2018.

Presentation #1:

"Transmitter specifications and COM for 50GBASE-CR.", Mike Dudek

See: http://www.ieee802.org/3/cd/public/adhoc/archive/dudek_011018_3cd_adhoc.pdf

- On slide 5, the mated test fixture model did not include crosstalk. Author thinks that the RIm row order may be incorrectly listed. Reviewed and discussed many of the details on the slide.
- It was noted that the exact cables used on slide 7 are listed in the backup material.
- There are no cable contributions that are 16dB IL.
- Author offered to run another set of experiments that change Nve.
- There was a request to make the test fixture S4P file available and run with the Amphenol cable contributions.
- Author asked for a cable contribution that was at the max IL of the spec.

Presentation #2:

"RLM vs. PAM4 Threshold Adjustment", Hai-Feng Liu

See: http://www.ieee802.org/3/cd/public/adhoc/archive/liu 011018 3cd adhoc.pdf

- Author thanked David Leyba of Keysight for his comments/suggestions.
- On slide 5, TDECQ would have an average power at a point lower than Pth2 and would change the amount of error. The math shown on slide 5 was challenged when compared to the TDECQ as defined in D3.0.

Presentation #3:

"TDECQ Updates with Threshold Adjustment: VCSEL Results", Frank Chang

See: http://www.ieee802.org/3/cd/public/adhoc/archive/chang_011018_3cd_01_adhoc-v2.pdf

- On slide 3, the eye on the left is the raw eye and the eye on the right is the post processed eye.
- It was noted that the scope filter bandwidth adjustment process included optimizing the TDECQ.
- It was noted that the presentation had references to an MSA meeting and the Chair stated that the presentation will be updated to remove it.

Editorial Update – Matt Brown

- Reviewed the comment count graphs from the editor's report.
- Reviewed the comments related to 100G and 50G skew variation. There was general agreement to remove the columns in the appropriate tables.
- Reviewed a comment about skew and the proposed response.

Matt Brown noted that the editorial team will try to post an early version of the proposed responses before the final version is available.

*** A free drink to the first person to let the Task Force Chair know they've read this ***

The ad hoc meeting ended at ~ 10 a.m. Pacific.

List of attendees (captured from Webex tool)

Name Company

Abhijeet Ardey (Source) sourcephotonics
Adam Healey broadcom.com
Adee Ran intel.com

Adrian Butter globalfoundries
Alexander Rysin mellanox.com

Ali Ghiasi n/a/

Anand A (MxI) maxlinear.com
Arthur Marris cadence.com
bill Kirkland semtech.com

Chris DiMinico n/a/

Dave marvell.com
Dave Lewis (Lumentum) lumentum.com
David Chen ao-inc.com

David Law HPE
David Malicoat (Senko) Senko

Ed Frlan (Semtech)semtech.comEd UlrichssourcephotonicsFlavio Marquesfurukawaelectri

Frank Chang inphi.com

Frank Lambrecht (Gigamon

Gigamon Inc.) Gary Nicholl cisco.com **Greg LeCheminant** keysight.com Hai-Feng Liu intel.com intel.com **Howard Heck** Jane Lim cisco.com Jeffery Maki juniper.net John Ewen globalfoundries jonathan finisar.com sei-device.com Kenneth Jackson (Sumitomo) Kent Lusted intel.com

broadcom.com Kumaran Krishnasamy Marco Mazzini cisco.com Mark Kimber (Semtech) semtech.com Mark Nowell cisco.com martin white cavium.com Matt Brown macom.com Mike Dudek cavium.com Nathan Tracy (TE) te.com

ofelt juniper.net

commscope.com Paul Kolesar Pavel tektronix.com **Peter Anslow** ciena.com peter stassar huawei.com credosemi.com Phil Sun mellanox.com **Piers** RICHARD MELLITZ samtec.com **Rick Rabinovich** ixiacom.com **Scott Sommers** molex.com Stephen Didde keysight.com keysight.com Steve Sekel Steve Trowbridge nokia.com T.SAKAI socionext.com

TAO HU cavium.com
Tom Palkert molex.com
Vittal Balasubramanian innovium.com

Yasuo Hidaka (Independent) n/a/