

IEEE 802.3 100G Electrical Lane Study Group Ad Hoc meeting – May 9, 2018

Prepared by Kent Lusted and Beth Kochuparambil.

Proposed Agenda:

- Approval of the Agenda
- Approval of Previous Ad Hoc Minutes – Feb 26
- IEEE Patent Policy reminder:
 - <https://development.standards.ieee.org/myproject/Public/mytools/mob/preparslides.pdf>
- IEEE Participation Requirements reminder
- Agenda & Study Group Status - Beth Kochuparambil (4 minutes)
- PCS, FEC and PMA Sublayer Baseline Proposal - Mark Gustlin (14 minutes)
- C2M AUI Options - Ali Ghiasi (14 minutes)
- Short Host Channel Implications - Rob Stone (14 minutes)
- Using Chiplets to Lower Package Loss - Brian Holden (14 minutes)

Presentations posted at: <http://www.ieee802.org/3/100GEL/public/adhoc/index.html>

Meeting began at ~9:00 a.m. Pacific by Beth Kochuparambil, Study Group Chair.

Meeting began with the agenda presentation:

http://www.ieee802.org/3/100GEL/public/adhoc/may09_18/agenda_180509_100GEL_adhoc.pdf

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

Showed the links to the IEEE 802.3 100G/s per lane electrical Study Group ad hoc page and the email reflector.

Presented the proposed agenda and asked if there was objection as written. There was a request to swap the order of the Stone presentation and the Ghiasi presentation. The agenda was approved by the ad hoc.

Chair noted that the minutes from the previous meeting were recently posted to the ad hoc web page. Chair asked if there was opposition to approving them. No one responded.

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

Commented [LKC1]: Agenda is not yet posted to the website. Update link when available.

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

Agenda Items

Study Group Update – Beth Kochuparambil

- Reviewed the logistics for the May interim; meeting on Thursday all day and Friday morning.
- Presentation requests due May 11, AOE. Presentations due May 16, 5pm PDT.
- Focus topics for the May interim were sent to the email reflector.
- Received NESCOM recommendation May 1st. PAR is currently out for IEEE-SA Standards Board 10 day email ballot.

Chair asked presenters to hold questions to the end of the presentation.

Presentation #1:

“PCS, FEC, and PMA Sublayer Baseline Proposal”, Mark Gustlin

See: http://www.ieee802.org/3/100GEL/public/adhoc/may09_18/gustlin_100GEL_adhoc_01_050918.pdf

- Discussed the possibility of making precoding mandatory for the C2M and C2C interfaces. The precoding should be studied to know the impact to the PHY.
- Discussed if the coder is good enough for the channel.

Presentation #2:

“Short Host Channel System Implications”, Rob Stone

See: http://www.ieee802.org/3/100GEL/public/adhoc/may09_18/stone_100GEL_adhoc_01_050918.pdf

- On slide 4, the MR capable module would be optics not copper cables. The module could have two modes: low power and higher power electrical interface.
- The MR channels would not support passive copper cables.

Presentation #3:

“C2M AUI Options”, Ali Ghiasi

See: http://www.ieee802.org/3/100GEL/public/adhoc/may09_18/ghiasi_100GEL_adhoc_01_050918.pdf

- Reviewed and discussed the proposed options on slide 9.

Chair reminded participants to use the reflector for discussions.

Presentation #4:

“Chiplet Package Study”, Brian Holden

See: http://www.ieee802.org/3/100GEL/public/adhoc/may09_18/holden_100GEL_adhoc_01_050918.pdf

- Discussed the power delivery to the chiplets shown on slide 9.
- It is assumed that the full PHY is located on the chiplet.

Reminder that ppt request due on Friday, 11 May. Chair reviewed the goals of the May interim is to facilitate discussions towards baseline proposals.

The ad hoc meeting ended at ~10:04 a.m. Pacific.

List of attendees (captured from Webex tool)

<u>Name</u>	<u>Affiliation</u>
Adam Healey	Broadcom
Adee Ran	Intel
Adrian Butter	Global Foundries
Ali Ghiasi	GhiasiQuantum LLC
Andy Zambell	Amphenol
Arturo Pachon	TE Connectivity
Beth Kochuparambil	Cisco
Brian Holden	Kandou
Burrell Best	Samtec
Dale Murray	Lightcounting
Dave Lewis	Lumentum
David Malicoat	Senko
David Ofelt	Juniper
David Piehler	Dell EMC
Ed Frlan	Semtech
Fernando DeBerardinis	eSilicon
Gary Nicholl	Cisco
Geoff Thompson	GraCaSI S.A./Ind
Geoff Zhang	Xilinx
Greg LeCheminant	Keysight
Greg McSorley	Amphenol
Hormoz Djahanshahi	Microsemi
Howard Heck	Intel
Jacov Brener	Marvell
Jane Lim	Cisco
Jeff Slavick	Broadcom
Jeff Twombly	Credo
Jeffery Maki	Juniper
John Calvin	Vital Technical marketting
John D'Ambrosia	FutureWei (Subsidiary of Huawei)
John Ewen	Globalfoundries
Kapil Shrikhande	Innovium
Karen Liu	Kaiaam
KengHua Chuang	HPE
Kent Lusted	Intel
Kumaran Krishnasamy	Broadcom
Mark Gustlin	Xilinx
Mark Kimber	Samtech
Mark Nowell	Cisco
Martin White	Cavium
Matt Brown	Macom
Mau-Lin Wu	Mediatek

Mike Dudek	Cavium
Nathan Tracy	TE Connectivity
Paul Brooks	Viavi Solutions
Paul Kolesar	CommScope
Pete Anslow	Ciena
Phil Sun	Credo
Piers Dawe	Mellanox
Pirooz Toyserkani	Cisco
Rajmohan Hegde	Broadcom
Ramin Farjadrad	Aquantia
Rich Mellitz	Samtec
Rick Rabinovich	Keysight
Rita Horner	Synopsys
Rob Stone	Broadcom
Scott Sommers	Molex
Steve Sekel	Keysight
Takeshi Nishimura	Yamaichi Electronics, USA
Ted Sprague	Infinera
Tim Pak	Luxshare
Tom Palkert	Molex/Macom
Toshiaki Sakai	Socionext
Upen Kareti	Cisco
Vittal Balasubramanian	Innovium
Yang Zhiwei	ZTE
Yasuo Hidaka	Independent
Zvi Rechtman	Mellanox