

## IEEE P802.3ck Ad Hoc meeting – June 26, 2019

Prepared by Kent Lusted and Beth Kochuparambil

### Proposed Agenda:

- Approval of the Agenda
- Approve 12 June 2019 ad hoc minutes
- IEEE Patent Policy reminder:
  - <http://www.ieee802.org/3/patent.html>
- IEEE Participation Requirements reminder
- Logistics for July Plenary meeting
- Status of the Task Force
- .3ck Ad Hoc –
  - “Following Up on Representing Discontinuities for CR Host Board”, Liav Ben-Artzi
  - “On-die Termination Model Comparison for COM”, Phil Sun
  - “The effect of host trace length on 100G C2M Performance”, Mike Dudek
  - “How to Proceed on C2C Application”, Ali Ghiasi

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

Meeting began at ~7:00 a.m. Pacific by Beth Kochuparambil.

Meeting began with the agenda presentation:

[http://www.ieee802.org/3/ck/public/adhoc/jun26\\_19/agenda\\_062619\\_3ck\\_adhoc.pdf](http://www.ieee802.org/3/ck/public/adhoc/jun26_19/agenda_062619_3ck_adhoc.pdf)

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

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

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

Presented the proposed agenda. There was a request to reorder the presentations to move Ali Ghiasi’s presentation to be second presentation. There was no opposition. The agenda was approved by the ad hoc.

Chair noted that the June 12, 2019 minutes were posted. She asked if there were corrections or modifications. No one responded. Minutes were approved by the Task Force.

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

## Agenda Items

### P802.3ck Update, Beth Kochuparambil

See: [http://www.ieee802.org/3/ck/public/adhoc/jun26\\_19/agenda\\_062619\\_3ck\\_adhoc.pdf](http://www.ieee802.org/3/ck/public/adhoc/jun26_19/agenda_062619_3ck_adhoc.pdf)

- Task Force will meet week of July 15, 2019 in Vienna, Austria. Meeting Tuesday-Thursday.
- Request for presentations due Friday, July 5, 2019 AOE. Presentations are due Wednesday, July 10, 2019 at 5pm Pacific.
- Chair reviewed high-level status of C2M, Backplane, Copper cable, and C2C.
- Goal: adopt baselines and prepare for draft 1.0.
- Chair cautioned participants to focus on baseline adoption to reduce the potential schedule impact.

### Presentation #1:

“Following Up on Representing Discontinuities for CR Host Board”, Liav Ben-Artzi

See: [http://www.ieee802.org/3/ck/public/adhoc/jun26\\_19/benartzi\\_3ck\\_adhoc\\_01a\\_062619.pdf](http://www.ieee802.org/3/ck/public/adhoc/jun26_19/benartzi_3ck_adhoc_01a_062619.pdf)

- Updated version ‘01a’ with changes. No opposition.
- Discussed the xtalk impact on slide 7.
- There was a request to share the stackup details on slide 7.
- The xtalk used in the analysis is only FEXT, no NEXT.

### Presentation #2:

“How to Proceed on C2C Application”, Ali Ghiasi

See: [http://www.ieee802.org/3/ck/public/adhoc/jun26\\_19/ghiasi\\_3ck\\_adhoc\\_01\\_062619.pdf](http://www.ieee802.org/3/ck/public/adhoc/jun26_19/ghiasi_3ck_adhoc_01_062619.pdf)

- Author noted that the  $b[2, n] = 0.2$  was incorrect on slide 11.
- It was noted that the COM sheets have an incorrect setting for DER and that all of the results would need to be rerun.

### Presentation #3:

“On-die Termination Model Comparison for COM”, Phil Sun

See: [http://www.ieee802.org/3/ck/public/adhoc/jun26\\_19/sun\\_3ck\\_adhoc\\_01\\_062619.pdf](http://www.ieee802.org/3/ck/public/adhoc/jun26_19/sun_3ck_adhoc_01_062619.pdf)

- Reviewed the COM settings on slides 11-12.

### Presentation #4:

“The effect of host trace length on 100G C2M Performance”, Mike Dudek

See: [http://www.ieee802.org/3/ck/public/adhoc/jun26\\_19/dudek\\_3ck\\_adhoc\\_01\\_062619.pdf](http://www.ieee802.org/3/ck/public/adhoc/jun26_19/dudek_3ck_adhoc_01_062619.pdf)

- Discussed host channel length sensitivity to the COM result.
- Debated imposing a minimum trace length requirement.

Chair noted that there was no ad hoc next week, but we will meet again Wednesday, July 10th. Chair reminded participants of the meeting registration deadline, the presentation request deadline and the presentation submission deadline. Chair also reminded participants of the US holiday next week.

The ad hoc meeting ended at ~9:00 a.m. Pacific.

List of attendees (captured from Webex tool)

Name	Affiliation	Employed by
Adam Healey	Broadcom	Broadcom
Adrian Butter	Global Foundries	Global Foundries
Alan Kinningham	I-PEX	I-PEX
Alex Haser	Molex	Molex
Alex Levin	Microsoft	Microsoft
Ali Ghiasi	Ghiasi Quantum	Ghiasi Quantum
Anand RK	Cadence	Cadence
Andy Zambell	Amphenol	Amphenol
Arthur Marris	Cadence	Cadence
Arturo Pachon	Cisco	Cisco
Athos Kasapi	Cadence	Cadence
Beth Kochuparambil	Cisco	Cisco
Bill Kirkland	Semtech	Semtech
Brandon Gore	Samtec	Samtec
Bruce Champion	TE Connectivity	TE Connectivity
Burrell Best	Samtec	Samtec
Chien-Ping Kao	Intel	Intel
Clint Walker	Alphawave IP	Alphawave IP
Daniel Koehler	More than IP	More than IP
David Malicoat	Senko	Malicoat Networking Solutions
David Ofelt	Juniper	Juniper

David Piehler	Dell EMC	Dell EMC
David Rennie	Synopsys	Synopsys
Frank Chang	Inphi	Inphi
Frank McCarthy	Aquantia	Aquantia
Gary Nicholl	Cisco	Cisco
Geoff Zhang	Xilinx	Xilinx
Hsinho Wu	Intel	Intel
Jane Lim	Cisco	Cisco
Jeff Slavick	Broadcom	Broadcom
Jeff Twombly	Credo	Credo
Jeffery Maki	Juniper	Juniper
John Ewen	Globalfoundries	Globalfoundries
Jon Beecroft	Cray	Cray
Kapil Shrikhande	Innovium	Innovium
Kent Lusted	Intel	Intel
Kumaran Krishnasamy	Broadcom	Broadcom
Liav Ben-Artzi	Marvell	Marvell
Marika Immonen	TTM	TTM
Mark Gustlin	Cisco	Cisco
Masashi Shimanouchi	Intel	Intel
Mau-Lin Wu	Mediatek	Mediatek
Mike Dudek	Cavium	Cavium
Nathan Tracy	TE Connectivity	TE Connectivity
Pete Anslow	Ciena	Ciena
Phil Sun	Credo	Credo

Piers Dawe	Mellanox	Mellanox
Rich Mellitz	Samtec	Samtec
Rick Rabinovich	Keysight	Keysight
Rita Horner	Synopsys	Synopsys
Ryan	Macom	Macom
Scott Sommers	Molex	Molex
sina.barkeshli@aquantia.com	Aquantia	Aquantia
Stephen Didde	Keysight	Keysight
Steve Baumgartner	Global Foundries	Global Foundries
Steve Sekel	Keysight	Keysight
Tao Hu	Marvell	Marvell
Tom Palkert	Molex/Macom	Molex/Macom
Upen Kareti	Cisco	Cisco
Wendy Wu	Cadence	Cadence
Yan Zhuang	Huawei	Huawei
Yasuo Hidaka	Credo	Credo
Yuchun(Louis) Lu	Huawei	Huawei