

## IEEE P802.3ck Ad Hoc meeting – February 19th, 2020

Prepared by Kent Lusted and Beth Kochuparambil

### Proposed Agenda:

- Approval of the Agenda
- Approve January 15 2020 Ad Hoc Minutes
- IEEE Patent Policy reminder:
  - <http://www.ieee802.org/3/patent.html>
- IEEE Copyright reminder
  - <https://standards.ieee.org/ipr/index.html>
- IEEE Participation Requirements reminder
- Task Force Status
- .3ck Technical Presentations –
  - "Transmit Equalizer Step Size Sensitivity Analysis" – Adees Ran (30 mins)
  - "Measuring Transmitter Compliance Parameters at a varying TPOa" – Liav BenArtsi (20 mins)
  - "C2M VEC with RX Noise" – Yasuo Hidaka (30 mins)
  - "Transmit Equalizer control for C2C" – Adees Ran (20 mins)
- Comment Discussion (if time allows)
  - CA COM, Comments #10016, #10017, #10018
  - C2M VEC wording, Comments #10061, #10062
  - C2M far-end pre-cursor ISI, Comment #10144

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

Meeting began at ~07:00 a.m. Pacific by Beth Kochuparambil.

Meeting began with the agenda presentation:

[http://www.ieee802.org/3/ck/public/adhoc/feb19\\_20/agenda\\_021920\\_3ck\\_adhoc.pdf](http://www.ieee802.org/3/ck/public/adhoc/feb19_20/agenda_021920_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.

Presented the proposed agenda. Chair asked if there was opposition to the proposed agenda. No one responded. The agenda was approved by the ad hoc. Chair noted that comment discussion would only occur if time permitted.

The ad hoc chair noted that the January 15, 2020 minutes were posted. She asked if there were any additional corrections or modifications. No one responded.

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

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

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.

## Agenda Items

### P802.3ck Update, Beth Kochuparambil

See: [http://www.ieee802.org/3/ck/public/adhoc/jan15\\_20/agenda\\_011520\\_3ck\\_adhoc.pdf](http://www.ieee802.org/3/ck/public/adhoc/jan15_20/agenda_011520_3ck_adhoc.pdf)

- Reviewed the adopted timeline.
- Noted D1.1 review closes 26 February 2020 AOE. Proposed responses are targeted to be available the Thursday before the March 2020 plenary
- Noted upcoming ad hoc schedule and the intent to review open comments and craft the proposed responses.
- Presentation requests are due Friday, 6 March 2020 AOE. Presentations are due Monday, 9 March 2020 AOE.
- Noted co-located interim on Monday, 16 March from 8am-945am. See <http://schedule.802world.com/schedule/schedule/show> for more Plenary schedule details.
- Reviewed the list of hot topics to discuss in order to progress the draft.

### Presentation #1:

"Transmit Equalizer Step Size Sensitivity Analysis", Adee Ran

See: [http://www.ieee802.org/3/ck/public/adhoc/feb19\\_20/ran\\_3ck\\_adhoc\\_01\\_021920.pdf](http://www.ieee802.org/3/ck/public/adhoc/feb19_20/ran_3ck_adhoc_01_021920.pdf)

- Discussed the number of bits in the DAC to the quantization error on the step size.
- Discussed the breadth of channels to support and the impact of step size.

### Presentation #2:

"Measuring Transmitter Compliance Parameters at a varying TPOa", Liav BenArtsi

See: [http://www.ieee802.org/3/ck/public/adhoc/feb19\\_20/benartsi\\_3ck\\_adhoc\\_01a\\_021920.pdf](http://www.ieee802.org/3/ck/public/adhoc/feb19_20/benartsi_3ck_adhoc_01a_021920.pdf)

- Updated version '01a' with editorial updates. No objection.
- Discussed the challenges of measuring in large radix solutions and some additional solutions to measuring the signals.

### Presentation #3:

"C2M VEC with RX Noise", Yasuo Hidaka

See: [http://www.ieee802.org/3/ck/public/adhoc/feb19\\_20/hidaka\\_3ck\\_adhoc\\_01\\_021920.pdf](http://www.ieee802.org/3/ck/public/adhoc/feb19_20/hidaka_3ck_adhoc_01_021920.pdf)

- On slide 3, the step size of package lengths 22 to 32mm was 2mm. The step size for 12 to 20mm was 1mm.
- Author to check the module package size parameter values for the whole link analysis.

**Presentation #4:**

“Transmit Equalizer control for C2C”, Adee Ran

See: [http://www.ieee802.org/3/ck/public/adhoc/feb19\\_20/ran\\_3ck\\_adhoc\\_02\\_021920.pdf](http://www.ieee802.org/3/ck/public/adhoc/feb19_20/ran_3ck_adhoc_02_021920.pdf)

- Discussed the segmented topology impact on the PMD control function.
- Discussed forced configurations vs. the PMD link training functionality.

Chair reminded participants of the ad hoc presentation deadlines: intent to present is due the Monday prior AOE and presentation material is due on Tuesday prior at Noon Pacific time.

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

List of attendees (captured from Webex tool)

Name	Affiliation	Employed by
Adee Ran	Intel	Intel
Alan Kinningham	I-PEX	I-PEX
Alex Haser	Molex	Molex
Ali Ghiasi	Ghiasi Quantum	Ghiasi Quantum
Beth Kochuparambil	Cisco	Cisco
Bill Kirkland	Semtech	Semtech
Bo Zhang	Inphi	Inphi
Brandon Gore	Samtec	Samtec
Bruce Champion	TE Connectivity	TE Connectivity
Burrell Best	Samtec	Samtec
Champion Kao	Intel	Intel
Conrad Zerna	IIS Fraunhofer	IIS Fraunhofer
David Malicoat	Senko	Malicoat Networking Solutions
David Piehler	Dell EMC	Dell EMC
David Rennie	Synopsys	Synopsys
Ed Frlan	Semtech	Semtech
Erdem Matoglu	Amphenol	Amphenol
Femi Akinwale	Intel	Intel
Frank Chang	Inphi	Inphi
Gary Nicholl	Cisco	Cisco

Greg LeCheminant	Keysight	Keysight Technologies
Greg McSorley	Amphenol	Amphenol
han	CMCC	CMCC
Hansel Dsilva (Achronix Semiconductor)	Achronix	Achronix
Howard Heck	Intel	Intel
James Weaver	Arista	Arista
jie zheng	Foxconn Interconnect Technology	Foxconn Interconnect Technology
John Calvin	Keysight	Keysight
John Ewen	Globalfoundries	Globalfoundries
Kent Lusted	Intel	Intel
Kumaran Krishnasamy	Broadcom	Broadcom
Liav Ben-Artzi	Marvell	Marvell
Mark Kimber	Samtech	Samtech
Matt Brown	Huawei	Huawei
Mau-Lin Wu	Mediatek	Mediatek
Mike Dudek	Cavium	Cavium
Mike Klempa	UNH-IOL	UNH-IOL
Nathan Tracy	TE Connectivity	TE Connectivity
Phil Sun	Credo	Credo
Piers Dawe	Mellanox	Mellanox
Pirooz Tooyserkani	Cisco	Cisco

Rich Mellitz	Samtec	Samtec
Rick Rabinovich	Keysight	Keysight
Robert.Summers	Maxim Integrated	Maxim Integrated
roberto.odes	Finisar	Finisar
Ronaldo Sanchez	HPE	HPE
Sam Kocsis	Amphenol	Amphenol
Scott Sommers	Molex	Molex
Shimon Muller	Axalume	Axalume
Stephen Didde	Keysight	Keysight
Steve Sekel	Keysight	Keysight
Steve Trowbridge	Nokia	Nokia
Takeshi Nishimura	Yamaichi Electronics, USA	Yamaichi Electronics, USA
Tao Hu	Marvell	Marvell
Terry Little	Foxconn Interconnect Technology	Foxconn Interconnect Technology
Tom Palkert	Molex/Macom	Molex/Macom
Upen Kareti	Cisco	Cisco
Yang Zhiwei	ZTE	ZTE
Yasuo Hidaka	Credo	Credo
Zhiwei Yang	ZTE	ZTE
Zvi Rechtman	Mellanox	Mellanox