

# Approved minutes P802.3bs 400 Gb/s Ethernet Electrical Ad Hoc Teleconference 6<sup>th</sup> March 2017

Minutes taken by Andre Szczepanek, Inphi

The meeting started at 8:05 am Pacific chaired by Andre Szczepanek, the attendee list was taken from the Webex attendee list, plus any e-mail notifications of attendance.

Documentation for the call can be found at the Ad Hoc web page:

<http://www.ieee802.org/3/bs/public/adhoc/elect/index.shtml>

Andre reminded everyone of the updated IEEE patent policy

(<http://www.ieee802.org/3/patent.html>) and asked if anyone was unfamiliar with it. No one responded.

Andre presented the IEEE participation Foil.

Andre asked if anyone had any objection or additions to the draft agenda. No one responded, so this agenda was approved by the Ad Hoc.

Andre asked if anyone had any objection or additions to the draft minutes from the 20<sup>th</sup> February 2017 call. No one responded, so the minutes were approved by the Ad Hoc.

## Presentation #1

Title: Electrical Interface Ad Hoc Opening/Agenda

Presenter: Andre Szczepanek, Inphi

[http://www.ieee802.org/3/bs/public/adhoc/elect/06Mar\\_17/szczepanek\\_01\\_030617\\_elect.pdf](http://www.ieee802.org/3/bs/public/adhoc/elect/06Mar_17/szczepanek_01_030617_elect.pdf)

## Presentation #2

Title: Merged Jitter Sub-clause

Presenter: Andre Szczepanek, Inphi

[http://www.ieee802.org/3/bs/public/adhoc/elect/06Mar\\_17/szczepanek\\_02\\_030617\\_elect.pdf](http://www.ieee802.org/3/bs/public/adhoc/elect/06Mar_17/szczepanek_02_030617_elect.pdf)

Andre presented the proposed merged jitter sub-clause, that addresses both structural and methodology comments against the existing jitter sub-clauses. Some minor editorial changes to the document were proposed during the discussion, these have been incorporated in the posted document. There was also discussion on whether taking the maximum of the 12 calculated EOJ should be replaced by the mean or the RMS. Andre asked that this discussion be taken off-line and that interested parties should come up with a consensus modification.

## Presentation #3

Title: 50G PAM4 C2M ADS and COM Eye Simulation Comparison

Presenter: Mike Dudek, Cavium

[http://www.ieee802.org/3/bs/public/adhoc/elect/06Mar\\_17/dudek\\_01\\_030617\\_elect.pdf](http://www.ieee802.org/3/bs/public/adhoc/elect/06Mar_17/dudek_01_030617_elect.pdf)

#### Presentation #4

Title: 5G PAM4 C2M Effect of Impairments on eye opening

Presenter: Mike Dudek, Cavium

[http://www.ieee802.org/3/bs/public/adhoc/elect/06Mar\\_17/dudek\\_02\\_030617\\_elect.pdf](http://www.ieee802.org/3/bs/public/adhoc/elect/06Mar_17/dudek_02_030617_elect.pdf)

Mike presented results of ADS simulations of the Chip-to-Module link.

#### Presentation #5

Title: Chip-to-module far-end TX eye measurement proposal

Presenter: Adam Healey, Broadcom

[http://www.ieee802.org/3/bs/public/adhoc/elect/06Mar\\_17/healey\\_01\\_030617\\_elect.pdf](http://www.ieee802.org/3/bs/public/adhoc/elect/06Mar_17/healey_01_030617_elect.pdf)

Adam presented simulations that indicate the current Tx eye measurement method can be met without the use of Tx pre-cursor equalization. The presentation proposes an additional test to verify that a transmitter is providing Tx pre-cursor equalization.

The meeting adjourned at 10:00am Pacific.

Attendee list (taken from Webex attendee list)

Andre Szczepanek	Inphi
Vittal Balasubramani	Dell
Yasuo Hidaka	Fujitsu
Ali Ghiasi	Independent
Tao Hu	Cavium
Adam Healey	Broadcom
Raj Hegde	Broadcom
Martin White	Cavium
Vittal Balasubramani	Dell
Piers Dawe	Mellanox
John Ewen	Global Foundries
Mike Dudek	Cavium
Megha Shanbhag	TE
Raymond Nering	Cisco
Charles Moore	Charles Moore Consulting
Ed Frlan	Semtech
Peter Anslow	Ciena
Richard Mellitz	Samtec
Aananda Kumar	Maxlinear
Tom Palkert	VISI
Upen Kareti	Cisco
Adee Ran	Intel
Kumaran Krishnasamy	Broadcom
Rick Rabinovich	Ixia