

# Minutes IEEE P802.3cy Greater than 10 Gb/s Electrical Automotive Ethernet PHY TF AdHoc meeting May 18, 2021

Prepared by Natalie Wienckowski

## Proposed Agenda:

Title	Presenters(s)	Affiliation(s)
Agenda	Natalie Wienckowski (ad hoc Chair)	General Motors
TF Chair's Comments	Steve Carlson	High Speed Design, Robert Bosch GmbH, Ethernovia
<a href="#">802.3cy link segment insertion loss</a>	Thomas Müller	Rosenberger
<a href="#">P802.3cy PCB and test Fixture Considerations</a>	Chris DiMinico Haysam Kadry	MC Communications, PHY-SI LLC, SenTeske Ford
<a href="#">OAM for laned systems</a>	George Zimmerman	CME Consulting, Inc., Marvell
P802.3cy To-do list	Natalie Wienckowski	General Motors
Closing Remarks	Steve Carlson	High Speed Design, Robert Bosch GmbH, Ethernovia

[See adhoc webpage for agenda deck and presentations](#)

## Agenda/Admin Natalie Wienckowski as ad hoc chair:

Meeting began at 10:03 am ET.

## Introductions & Affiliations.

### Presented file: [cy Task Force adhoc agenda 05 18 21.pdf](#)

1. Reviewed the Attendance information related to the ad hoc.
2. Displayed patent slide deck and asked if any participant had not read the IEEE-SA Patent Slides slide set, none responded.  
Call for Patents was made at 10:09 am Eastern Time, none responded
3. Displayed the IEEE-SA Copyright policy slide and asked if any participant had not read the IEEE copyright slide set, none responded.
4. Displayed the IEEE-SA Participation slide and reviewed it.

5. Reminded participants to indicate full names and employer/affiliation for the meeting minutes.

Instructions for subscribing to the reflector may be found at <http://www.ieee802.org/3/cy/reflector.html>. If you cannot subscribe to the reflector for some reason, and need additional assistance please contact the Task Force chair.

**Chair's comments:** None at this time.

## **Presentations/Discussion:**

### **Presentation: [802.3cy PCB and test Fixture Considerations](#) (Chris DiMinico/ MC Communications, PHY-SI LLC, SenTeske; Haysam Kadry/Ford)**

*NOTE: The presentation linked to these minutes is updated from that presented to fix typos found during the presentation.*

Chris presented on PCB IL and Test Fixture Considerations. This is updated from the presentation given a few weeks ago. Haysam provided an update on the PCB IL and provided a recommended IL equation for the PCB. He also provided a recommended maximum IL which is based on a length of 76.2mm. Chris provided information on future work to define a test fixture for P802.3cy based on the PCB limits.

The IL for the PCB could be normative or informative. Haysam proposes to make this normative by adding the test fixture requirements in the spec.

The presentation will be updated to reflect the fact the P802.3cy is intended to allow a maximum of 2-inlines, not four.

There was a question about the number of significant figures used in the PCB IL equation and whether or not this is intended to be the final equation. At this time it is.

### **Presentation: [802.3cy link segment insertion loss](#) (Thomas Müller, Rosenberger)**

Thomas presented an updated proposal for a link segment IL equation. The update mainly impacted the limit at the low frequency, increasing the margin to better represent the behavior over temperature.

The term to the power of 6 is for an increased roll off above the Nyquist frequency.

There was a question as to whether The PHYs would be able to deal with a suck-out above Nyquist or is that no longer being looked at. This is still being investigated by those who design PHYs.

There was a question as to whether the proposed IL limit line would allow sufficient margin for actual cables with temperature and manufacturing tolerances.

In Thomas's opinion, the IL he has proposed is the best limit he can give at this time based on the cables he has tested, the simulations he has done, and his experience with cables.

## Presentation: [OAM for laned systems](#) (George Zimmerman / CME Consulting, Inc., Marvell)

This presentation was deferred to May 25<sup>th</sup> due to a lack of time.

## Presentation: [P802.3cy To-do list usage](#) (Natalie Wienckowski, General Motors)

The to-do list was reviewed and updated. Participants are urged to review the list for topics they can support and for missing topics. Please send a message to the reflector with requested changes to the list.

The current list can be found on this page: [To Do spreadsheets](#)

## Closing Discussion

The May 25<sup>th</sup> ad hoc meeting has been changed to an Interim. Please check the 802.3 calendar for the Zoom meeting details.

Details for the IEEE 802.3 May Interim are available in the agenda.

If anyone has s4p files or raw data including amplitude and phase for cables/link segments that have been presented in the past that can be shared, please email them to [Steve Carlson](#).

Registration is open for the July Plenary meeting. The cost is \$50 until June 30. Additional details will be shared during the 802.3 WG meeting on May 20<sup>th</sup>.

Meeting adjourned at 12:02 PM ET.

## Attendees (downloaded participant list, email)

First	Last	Affiliation
Alexander	Felgenhauer	Yazaki
Anthony	New	Prysmain Group
Brett	McClellan	Marvell
Chris	DiMinico	MC Communications, PHY-SI, SenTekse / Panduit
Christian	Neulinger	MD Elektronik
Clark	Carty	Cisco
Dave	Hess	Cord Data
Eric J	Chang	Intel Corporation
Eric	DiBiaso	TE Connectivity
Erwin	Köepfendorfer	Leoni Kabel GmbH
Fred	Dawson	Chemours

<b>First</b>	<b>Last</b>	<b>Affiliation</b>
George	Zimmerman	CME Consulting / ADI, APL Group, Cisco Systems, CommScope, Marvell, SenTekSe
Harsh	Patel	Molex
Haysam	Kadry	Ford
Hossein	Sedarat	Ethernovia
Istvan	BakroNagy	EFFECT Photonics
Jim	Graba	Broadcom
Joe	Aronson	TI
Jonathan	Silvano de Sousa	GG - Austria
Kambiz	Vakilian	Broadcom
Keisuke	Kawahara	FURUKAWA ELECTRIC
Larry	McMillan	Western Digital
Louise	Yi	FIT
Makoto	Nariya	Sony
Manabu	Kagami	NITech (Nagoya Institute of Technology)
Marek	Hajduczenia	Charter
Mark	Laubach	Independent
Martin	Glanzner	SEI ANTech Europe GmbH
Marty	Gubow	Keysight
Masato	Shiino	Furukawa
Michael	Reinhard	SEI ANTech
Mike	Tu	Broadcom
Natalie	Wienckowski	General Motors
Nobuyasu	Araki	Yazaki
Peter	Wu	Marvell
Ragnar	Jonsson	Marvell
Rich	Boyer	Aptiv
Roland	Preis	MD Elektronik
Shao-Chieh	Yu	FIT
Stefan	Andrä	SEI ANTech – Europe GmbH
Steve	Carlson	High Speed Design, Robert Bosch GmbH, Ethernovia
Sujan	Pandey	Huawei
Taiji	Kondo	MegaChips
Takeo	Masuda	OITDA/PETRA
Terry	Little	Foxconn Interconnect Technology
Theodore	Brillhart	Fluke Networks
Thomas	Müller	Rosenberger
Yi	Sun	OFS Optics
Yoshihiro	Niihara	Fujikura Ltd.

<b>First</b>	<b>Last</b>	<b>Affiliation</b>
Yusuke	Yano	NI Tech
<b>TOTAL</b>	<b>51</b>	<b>Attendees</b>