

Minutes IEEE P802.3cy Greater than 10 Gb/s Electrical Automotive Ethernet PHY TF AdHoc meeting May 3, 2022

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
PoDL MDI Return Loss Update	Andrew Gardner	ADI
Clarify EEE Quiet Signaling	Ragnar Jonsson Alireza Razavi Majomard	Marvell
Revisit Alert Signaling	Ragnar Jonsson Alireza Razavi Majomard	Marvell
Update on Laning for 802.3cy	George Zimmerman	ADI, APL Group, Cisco, CommScope, Marvell, SenTekSe
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 10:024 am ET.

Introductions & Affiliations.

Presented file: [cy Task Force adhoc agenda 05 03 22.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: George was not able to attend due to a conflict. Steve and he talked yesterday and Steve will provide information on the upcoming July plenary at the end of the meeting.

Information on the phase of the RL measurements would be helpful as well.

It would be helpful if someone could build a test board with automotive PCB materials and designs. Haysam will work with Andy to do this.

Presentations/Discussion:

Presentation: PoDL MDI Return Loss Update (Andrew Gardner, ADI)

Andrew provided a presentation showing testing of potential PoDL inductors. Based on testing with no inductors, the test fixture limits the measurement capabilities at high frequency. Andy will look at other options for this and would appreciate any suggestions from other participants.

Presentation: Clarify EEE Quiet Signaling (Ragnar Jonsson, Alireza Razavi; Marvell)

Ragnar presented changes to the existing EEE text to improve transitions into and out of EEE mode. Clarifies that in practice, there may be some glitches transmitted as the PHY transitions into LPI. It's also possible that the receiver will "see" glitches that may or may not represent the bus. There is an issue with the text that was in ch and copied to cy as there is no "0" state in data transmit as we are using PAM4. PAM3 was used for bp which includes a "0" state.

Presentation: Revisit Alert Signaling (Ragnar Jonsson, Alireza Razavi; Marvell)

Ragnar presented on the need to send an alert signal before a wake signal. His proposal is that the alert signal is not needed and just a Wake signal could be sent if the Wake signal is constructed correctly.

By eliminating the alert signal, the transition time back to normal mode may be reduced.

He has requested feedback on a number of questions raised on slide 6.

Currently, a glitch during the alert signal can cause it to be missed which would not allow transition out of LPI.

Presentation: Update on Laning for 802.3cy (George Zimmerman, ADI, APL Group, Cisco, CommScope, Marvell, SenTekSe)

George provided an updated presentation on laning.

The goal is to keep the 25G PHY identical when used for 25G, 50G, and 100G. This means that anything required for laning needs to be done above the 25GMII interface.

Please review questions on slides 8, 15, 19, 20

Do we keep the laning in cy, or do we split the PAR and create a new project for the laning to make it more generic for other applications and to get MAC experts helping with this? There will be a presentation at NEA to gauge interest in a generic laning clause for electrical PHYs.

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

D1.1 is currently in TF review with comments due 11:59 pm May 6 AOE.

Early registration for the July Plenary is available. Please see the agenda for details. The meeting is available for in-person and virtual participation.

Our next meeting will be an Interim on May 17th.

Meeting adjourned at 12:03 PM ET.

Attendees (download participant list, email)

First	Last	Affiliation
Alireza Razavi	Majomard	Marvell
Andrew	Gardner	Analog Devices
Brett	McClellan	Marvell
Chris	Goralka	Foxconn Interconnect Technology
Christian	Neulinger	MD Elektronik
Clark	Carty	Cisco
Dave	Hess	Cord Data
Erwin	Köeppendörfer	Leoni Kabel GmbH
Geoff	Thompson	GraCaSI/Ind
George	Zimmerman	CME Consulting / ADI, APL Group, Cisco Systems, CommScope, Marvell, SenTekSe
Harsh	Patel	Amphenol ICC
Haysam	Kadry	Ford
Heiko	Strohmeier	Robert Bosch
Hossein	Sedarat	Ethernovia
Jamik	Steyer-Ege	Robert Bosch
Jim	Graba	Broadcom
Kambiz	Vakilian	Broadcom
Mike	Tu	Broadcom
Natalie	Wienckowski	General Motors
Peter	Wu	Marvell
Ragnar	Jonsson	Marvell
Rich	Boyer	Aptiv
Ryan	Petrarca	TDK

First	Last	Affiliation
Sami	Akin	VW
Stephan	Schreiner	Rosenberger
Steve	Carlson	High Speed Design, Robert Bosch GmbH, Ethernovia
Sujan	Pandey	Huawei
TOTAL	27	Attendees