Minutes IEEE P802.3cy Greater than 10 Gb/s Electrical Automotive Ethernet PHY TF AdHoc meeting September 2, 2020

Prepared by Natalie Wienckowski

Proposed Agenda:

1.

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
Test Points to Control Board Losses	George Zimmerman	CME Consulting, Inc., Marvell
Link Segment Length Proposal	Haysam Kadry	Ford Motor Company
GM cy link segment estimates	Natalie Wienckowski	General Motors
Link Segment Measurements	Natalie Wienckowski	General Motors
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 10:05 am ET.

Introductions & Affiliations.

Presented file: cy Task Force adhoc agenda 200902.pdf

1. Reviewed the Attendance information related to the ad hoc.
2. Displayed the Participation slide and reviewed it.

3. Displayed patent slide deck and reviewed it.
   Call for Patents was made at 10:15 am Eastern Time, none responded
4. 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 remarks:

Mr. Carlson requested that participants email your name and affiliation if this cannot be determined by your participant name in the Skype meeting.

Presentations/Discussion:

Presentation: Test Points to Control Board Losses (George Zimmerman, CME Consulting, Inc., Marvell)

The presenter discussed how to deal with the PCB losses that start to become significant at the higher communication rates required for this TF. Propose to define TPs and define where measurements are made, and base limits based on these measurements. Posed questions that need to be answered to determine what needs to be defined in the spec. Question as to whether there can be a standardized connector. OEMs are not against standardizing connectors, but it means that connector suppliers must share details with others to enable this. Need measurements on connectors to decide if this is needed – add to "to-do" list.

Presentation: Link Segment Length Proposal (Haysam M. Kadry, Ford)

The presenter discussed the link segments that should be considered in the P802.3cy spec. Suggested using 2 link segments, 7m & 11m, one for a Zonal Architecture (up to 7 m) and one for a Distributed Architecture (7 to 11 m typically).

Presentation: P802.3cy Link Segment Estimate (Natalie Wienckowski, General Motors)

The presenter discussed the link segments that should be considered in the P802.3cy spec. Defined 2 use cases that are 6m with 1in-line and 11m with 2 in-lines.

Comments on last 2 presentations: Participants suggested this is generally accomplished by having a single link segment requirement with the ability to make some links with lower relative cost components. It is agreed that there should be a single spec and different cables/connectors may be used to meet this at

different lengths. The propagation delay defined must work out to the maximum defined reach of 11 meters.

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

The To-Do list was update with the items that need to be done soon. 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 updated list can be found on this page: To Do spreadsheets

Closing Discussion

Mr. Carlson thanked those who provided presentations this week and those who volunteered for future meetings.

There was a question on where to find the most recent document on how to do the link segment measurements. This led to a discussion that it can be difficult to find the latest version as it could have been in the presentations for an ad-hoc, interim, or plenary. It was suggested that a page to keep the latest versions of files related to the channel and link segment would be helpful. A page has been created for this.

Meeting adjourned at 11:35 AM ET.

Attendees (from emails)

First	Last	Affiliation
Rich	Boyer	Aptiv
Carty	Clark	Cisco
Erwin	Koeppendoerfer	Leoni Kabel GmbH
Haysam	Kadry	Ford
Hossein	Sedarat	Ethernovia
Marty	Gubow	Keysight
Larry	McMillan	Western Digital
Louise	Yi	FIT
Makoto	Nariya	Sony
Masato	Shiino	Furukawa
Michikazu	Aono	Yazaki
Mike	Gardner	mG PHYLink Consulting
Mike	Tu	Broadcom
Harsh	Patel	Molex
Natalie	Wienckowski	General Motors
Nobuyasu	Araki	Yazaki
Ragnar	Jonsson	Marvell
Stephan	Hartmann	Siliconally GmbH

Steve	Carlson	High Speed Design, Robert Bosch GmbH, Ethernovia
Steve	Sedio	TDK
Sujan	Pandey	Huawei
Taiji	Kondo	MegaChips
Terry	Little	Foxconn Interconnect Technology
Tzahi	Madgar	Valens
Yasuhiro	Hyakutake	Adamant Namiki Precision Jewel
Ahmed	Gharba	Huawei
Benny	Prujan	Huawei
Christian	Neulinger	MD Elektronik
David	Law	HPE
Emilio	Cuesta	TE Connectivity
Eric	DiBiaso	TE Connectivity
George	Zimmerman	CME Consulting / Marvell
Luisma	Torres	KDPOF
Michael	Reinhard	SEI ANTech
Peter	Wu	Marvell
Roland	Preis	MD Elektronik
Ruben	Perez-Aranda	KDPOF
Stefan	Gianordoli	GG Group
Takashi	Fukuoka	Sumitomo Electric
Kazuya	Takayama	Nitto Denko Corp.
Takeshi	Nishimura	Yamaichi
Thomas	Mueller	Rosenberger
Kambiz	Vakilian	Broadcom
TOTAL	**43**	**Attendees**


PARTICIPANTS
Presenters (44)
+1 (949) 231-0997 Guest
Ahmed GHARBA (Huawei) Guest
Benny Prujan / Huawei Guest
Boyer, Rich - External Network
Christian Neulinger - MD Elektronik Guest
Clark Carty (ccarty) Guest
Clark Carty (Cisco) Guest
David Law (HPE) Guest
Emilio Cuesta (TE Connectivity) Guest
Eric DiBiaso - TE Guest
Erwin Köppendörfer, Leoni Kabel GmbH Guest
Ford, Haysam M. Kadry Guest
George Zimmerman (CME Consulting/A... Guest
Hossein Sedarat (Ethernovia) Guest
Keysight - Marty Gubow Guest
Larry McMillan (Western Digital) Guest
Louise Yi (FIT) Guest
Luisma Torres KDPOF Guest
Makoto Nariya (Sony) Guest
Masato Shiino (FURUKAWA) Guest
Michael Reinhard - SEI ANTech Guest
Michikazu Aono - Yazaki Guest
Mike Gardner (mG PHYLink Consulting, S... Guest
Mike Tu (Broadcom) Guest
Molex, Harsh Patel Guest
Natalie A. Wienckowski
Nobuyasu Araki, Yazaki Guest
Peter Wu, Marvell Guest
Ragnar Jonsson (Marvell) Guest
Roland Preis - MD-Elektronik GmbH Guest
Ruben Perez Aranda, KDPOF Guest
Stefan Gianordoli, GG Group Guest
Stephan Hartmann - Siliconally GmbH Guest
Steve Carlson (HSD, Bosch, Ethernovia) Guest
Steve Sedio (TDK) Guest


Sujan Pandey (Huawei) Guest
Taiji Kondo, MegaChips Guest
Takashi Fukuoka - Sumitomo Electric Guest
Takayama, Kazuya - Nitto Denko Corp. Guest
Takeshi Nishimura (Yamaichi) Guest
Terry Little (Foxconn Interconnect Techno... Guest
Thomas Müller [Rosenberger, Rosenberg... Guest
Tzahi Madgar Guest
Yasuhiro Hyakutake, Adamant Namiki Pr... Guest