

Minutes IEEE P802.3cy Greater than 10 Gb/s Electrical Automotive Ethernet PHY TF AdHoc meeting December 7, 2021

Prepared by Steve Carlson and Natalie Wienckowski

Proposed Agenda:

Title	Presenters(s)	Affiliation(s)
Agenda	Steve Carlson	High Speed Design, Robert Bosch GmbH, Ethernovia
TF Chair's Comments	Steve Carlson	High Speed Design, Robert Bosch GmbH, Ethernovia
FEC and Interleaving	Alejandro Castrillon Ragnar Jonsson	Marvell
802.3cy FEC Considerations	Mike Tu Chung-Jue Chen Maged Barsoum	Broadcom
Link Segment Insertion Loss For Low Frequencies	German Feyh	Broadcom
EEE Scenarios for Automotive Links	George Zimmerman	ADI, APL Group, Cisco, CommScope, Marvell, SenTekSe
P802.3cy To-do list	Steve Carlson	High Speed Design, Robert Bosch GmbH, Ethernovia
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 11:01 am ET.

Introductions & Affiliations.

No press were present on the call at 11:04 am ET.

Presented file: [cy Task Force adhoc agenda 12 07 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 11:08 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: [FEC and Interleaving](#) (Alejandro Castrillon, Ragnar Jonsson; Marvell)

Discussion deferred to after Mike Tu's FEC presentation.

Presentation: [802.3cy FEC Considerations](#) (Mike Tu, Chung-Jue Chen, Maged Barsoum; Broadcom)

Discussion on converging solutions. The various FEC presenters will work towards a joint presentation and plan to use the reflector for further discussion.

Presentation: [Link Segment Insertion Loss For Low Frequencies](#) (German Feyh; Broadcom)

Discussion on the concept to lower the IL limit. The author requested a straw poll from slide 4 of [Link Segment Insertion Loss For Low Frequencies](#).

165.7.1.1 Insertion loss

- Straw poll:
- Would you support a change of the link segment IL lower frequency limit from 10MHz down to potentially 1MHz similar to 802.3ch using the equation below?

$$\bullet \text{ Insertion loss}(f) = \left\{ \begin{array}{ll} 1.0 & TBD(1MHz) \leq f < 10MHz \\ 0.00135(f_{MHz}) + 0.3564(f_{MHz})^{0.45} + 0.495 \left(\frac{f_{MHz}}{7500}\right)^6 & 10MHz \leq f < 9000MHz \end{array} \right\} \text{ (dB)}$$

Y:25 N:0

The author indicated he would work with various subject matter experts with the goal of presenting a motion at a future interim.

Presentation: [EEE Scenarios for Automotive Links](#) (George Zimmerman; ADI, APL Group, Cisco, CommScope, Marvell, SenTekSe)

Limited discussion due to meeting time limit. The topic will be taken up at the 14 December ad hoc where it will be possible to have more discussion.

Presentation: [P802.3cy To-do list usage](#) (Steve Carlson; High Speed Design, Robert Bosch GmbH, Ethernovia)

The to-do list was deferred to 14 December to allow for additional discussion time

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

Closing Discussion

Thanks to everyone for their continued work and support through the marathon of on-line meetings.

Meeting adjourned at 12:02 AM ET.

Attendees (download participant list, email)

First	Last	Affiliation
Alireza	Razavi	Marvell
Bill	Simms	Nvidia
Brett	McClellan	Marvell
Chris	DiMinico	MC Communications, PHY-SI, SenTekse / Panduit
Chris	Goralka	Foxconn Interconnect Technology
Christian	Neulinger	MD Elektronik
Clark	Carty	Cisco
Congshi	Zou	Huawei
Dave	Hess	Cord Data
Emilio	Cuesta	TE Connectivity
Eric	DiBiaso	TE Connectivity
Erwin	Köeppendörfer	Leoni Kabel GmbH
Gary	Nicholl	Cisco
George	Zimmerman	CME Consulting / ADI, APL Group, Cisco Systems, CommScope, Marvell, SenTekSe
German	Feyh	Broadcom
Harsh	Patel	Amphenol ICC
Jae-yong	Chang	Keysight
Jamila	Borda	BMW
Jim	Bauer	Marvell
Jim	Graba	Broadcom
John	Calvin	Keysight
Jonathan	Silvano de Sousa	GG - Austria
Kambiz	Vakilian	Broadcom
Keisuke	Kawahara	FURUKAWA ELECTRIC
Leon	Bruckman	Huawei

First	Last	Affiliation
Louise	Yi	FIT
Mike	Tu	Broadcom
Nobuyasu	Araki	Yazaki
Peter	Wu	Marvell
Ragnar	Jonsson	Marvell
Roland	Preis	MD Elektronik
Ryan	Petrarca	TDK
Sami	Akin	VW
Sen	Zhang	Huawei
Shirley (Xuli)	Innon	Huawei
Steve	Carlson	High Speed Design, Robert Bosch GmbH, Ethernovia
Sujan	Pandey	Huawei
Taiji	Kondo	MegaChips
Takeo	Masuda	OITDA/PETRA
Terry	Little	Foxconn Interconnect Technology
Thomas	Müller	Rosenberger
Tingting	Zhang	Huawei
Tom	Souvignier	Broadcom
Yoshihiro	Niihara	Fujikura Ltd.
Yusuke	Yano	NI Tech
TOTAL	45	Attendees