Unconfirmed Meeting Minutes: IEEE P802.3ch Multi-Gigabit Automotive Ethernet PHY Task Force
January 14-16, 2019
Long Beach, CA USA

Prepared by Jon Lewis

IEEE P802.3ch Multi-Gigabit Automotive Ethernet PHY Task Force meeting convened at 9:00 AM, Monday, January 14, 2019 by Steve Carlson, Task Force Chair.

Attendance is listed in Appendix A

Administrative Matters

Mr. Carlson called for introductions and affiliations then reviewed the agenda in agenda_3ch_01a_0119.pdf.

Motion #1:   Move to approve the agenda as shown in agenda_3ch_01a_0119.pdf
M: Bob Grow   S: George Zimmerman

Approved by voice without opposition (Procedural > 50%)
Motion Passes

Motion #2:   Move to approve the minutes of the November 2018 IEEE P802.3ch Multi-Gigabit Automotive Ethernet PHY Task Force Meeting.

M: Chris Mash   S: Tom Souvignier
Approved by voice without opposition (Procedural > 50%)

Motion Passes

Mr. Carlson noted that there should be no recording or photography.

At 9:10 am, Mr. Carlson asked if anyone was attending from the press including those who would run a public blog on this meeting. None responded.

The WG Chair reviewed the goals for the meeting, big ticket items, access to the reflector and website, and ground rules for the meeting.

Attendance, Mr. Carlson advised the group of the IEEE meeting attendance tool and procedures, including both the attendance book and the web attendance tracking tool. Mr. Carlson pointed out that the new attendance book contains GDPR notice.

The WG Chair reviewed the IEEE structure for standards development and the bylaws by which the Task Force is governed.

IEEE Patent Policy, at **9:28 AM**, Mr. Carlson showed the patent slides and proceeded to read aloud slides 1 and 2. Mr. Carlson made the call for potentially essential patents at **9:30 AM**, and none responded. Mr. Carlson then read aloud slides 3 and 4.

Mr. Carlson showed slide 16 entitled "Participation in IEEE 802 Meetings" and proceeded to read the slide aloud. Mr. Carlson asked if there was any discussion on the slide, none responded.

The Chair reviewed the IEEE 802.3 Standards process and where the Task Force was in the process and the process by which we will develop the standard.

Liaisons:

- None this cycle

The Chair then showed the locations of the approved project documents for the Task Force and reviewed the objectives for the Task Force.

PRESENTATIONS:

Mr. Carlson then moved to the presentations for the meeting.

Title: Ad-Hoc Report zimmerman_3ch_02_0119.pdf)
Presenter: Steve Carlson, High Speed Design, Robert Bosch, Marvell

Mr. Carlson noted that for future ad hoc meetings the calendar invite would not contain the teleconference details and that those would be published in the P802.3ch private area.

Motion #3: Move to confirm minutes for ad hocs on 11/21, 12/5, and 12/19/18 as posted
M: G. Zimmerman   S: N. Wienckowski
Approved by voice without opposition (Procedural > 50%)
Motion Passes

Wednesday, 7-9AM Pacific Time every 2 weeks.
Next scheduled ad hoc is 1/30/19. The meeting notice will be available in the private area.

Title: Opening Editor's Report – P802.3ch Draft 1.0a
(wienckowski_3ch_03c_0119.pdf)
Presenter: Natalie Wienckowski, General Motors

Comment resolution
Decisions during comment resolution were made by consensus, except where noted that motions were taken. For details on comment resolution see the posted comment database.

Motion #4: **Move to include 35 comments (#172 - #207) submitted after P802.3ch draft 1.0 declared comment deadline of December 31, 2018 AOE, included with Editor's proposed responses.**
M: Natalie Wienckowski   S: George Zimmerman
(Technical >= 75%)
Y: 39   N: 0   A: 8
Motion Passes

Motion #5: **Move to include 12 comments (#225 - #236) submitted after P802.3ch draft 1.0 declared comment deadline of December 31, 2018 AOE, included with Editor's proposed responses.**
M: Natalie Wienckowski   S: Kae Dube
(Technical >= 75%)
Y: 46   N: 1   A: 5
Motion Passes

Motion #6: **Move to accept all proposed "EZ bucket" resolutions sorted by clause/subclause.**
M: Natalie Wienckowski   S: George Zimmerman
(Technical >= 75%)
Y: 55   N: 0   A: 4
Motion Passes

Motion #7: **Move to accept all proposed "Editorial bucket" resolutions sorted by clause/subclause excluding comment #164.**
M: Natalie Wienckowski   S: Eric DiBiaso
(Technical >= 75%)
Y: 48   N: 0   A: 6
Motion Passes

The meeting broke for short break at 10:11 AM.

The meeting resumed at 10:31 AM.

The Chair brought the meeting back to order and Comment Resolution continued.

The Chief Editor continued comment resolution. For details on comment resolution see the posted comment database.

During comment resolution Phil Brownlee volunteered for the recording secretary position for Vancouver.

The meeting broke for lunch at 12:16 PM.

The meeting resumed at 1:31 PM.

The Chair brought the meeting back to order and Comment Resolution continued.

Title: Comment # 42, 48, 55, 56, 60 Figures and Text ([tu_3ch_01_0119.pdf](tu_3ch_01_0119.pdf))
Presenter: Mike Tu, Broadcom

The meeting broke for short break at 2:55 PM.

The meeting resumed at 3:30 PM.

The Chair brought the meeting back to order and Comment Resolution continued.

Straw Poll #1:
I prefer that bits 2309.10:9 Precoder setting:
> A: To only have effect when the PHY is in Test mode 3 and 1.2312.3:2 reflect the setting received by the link partner.
> B: Reflect the local transmitter precoder setting (ordinarily the same as the setting received by the link partner, except possibly for debugging, but setting these bits may override the requested setting during normal operation)

A: 6   B: 8

Straw Poll #2:
I strongly oppose that bits 2309.10:9 precoder setting:
> A: To only have effect when the PHY is in Test mode 3 and 1.2312.3:2 reflect the setting received by the link partner.
> B: Reflect the local transmitter precoder setting (ordinarily the same as the setting received by the link partner, except possibly for debugging, but setting these bits may override the requested setting during normal operation)

A: 2   B: 1

The Chair reminded the group that the start time for Tuesday would be 9:00 AM.

The meeting recessed for the day at 5:03 PM.

The meeting resumed at 9:00 AM on January 15.

The Chair brought the meeting to order and reminded the group to sign in to IMAT today.
Comment resolution continued.

Title: A Joint Proposal for PAM2 Training PHY Frame and InfoField (tu_3ch_02a_0119.pdf)
Presenter: Mike Tu, Broadcom

The meeting broke for short break at 10:30 AM.

The meeting resumed at 10:45 AM.

The Chair brought the meeting back to order and Comment Resolution continued.

Title: Proposal for intuitive and extendable mapping of interleaving register bits (DenBesten_3ch_01a_0119.pdf)
Presenter: Gerrit den Besten, NXP

Straw Poll #4:
I support:
      A: William Lo's mapping
      B: Gerrit den Besten's mapping
In support of resolution to Comment #91
A: 1   B: 17

Title: Comment # 42, 48, 55, 56, 60 Figures and Text (tu_3ch_01_0119.pdf)
Presenter: Mike Tu, Broadcom

Title: A Joint Proposal for PAM2 Training PHY Frame and InfoField (tu_3ch_02a_0119.pdf)
Presenter: Mike Tu, Broadcom

Title: PCS Receive and Transmit State Machines (Comment # 208) (Benyamin_3ch_02_0119.pdf)
Presenter: Saied Benyamin, Aquantia

The meeting broke for lunch at 12:02 PM.

The meeting resumed at 1:51 PM.

The Chair brought the meeting back to order and Comment Resolution continued.

Title: OAM Status Byte Update Proposal for OAM (wienckowski_3ch_02_0119.pdf)
Presenter: Natalie Wienckowski, General Motors

Title: Comment #236 (DenBesten_3ch_02a_0119.pdf)
Presenter: Gerrit den Besten, NXP

The meeting broke for short break at 2:57 PM.

The meeting resumed at 3:27 PM.

The Chair brought the meeting back to order and Comment Resolution continued.

Title: EEE OAM and Alert (Benyamin_3ch_01c_0119.pdf)
Presenter: Saied Benyamin, Aquantia

Comment Resolution concluded.

Title: Asymmetric Framework (Lo_3ch_01_0119.pdf)
Presenter: William Lo, Axonne, Inc.

Straw Poll #5:
Should the Task Force investigate asymmetric framework with the goal of having the feature scoped out in March.
Yes: 20
No: 6
Room Count: 53

Straw Poll #6:
If the asymmetric framework added x months to the P802.3ch timeline would you support it?
x = 9: 2
x = 3: 15
x = 6: 7

Title: MDI return loss considerations (feyh_3ch_01a_0119.pdf)
Presenter: German Feyh, Broadcom Ltd.

Comments 121, 122, and 123 were re-opened and modified at the request of the commenter and the consent of the Task Force.

The Chair reminded the group that the start time for Wednesday would be 9:00 AM.

The meeting recessed for the day at 5:44 PM.

The meeting resumed at 9:00 AM on January 16.

The Chair called the meeting to order and reviewed the agenda as shown in agenda_3ch_01a_0119.pdf.

The Chair noted that a message to the reflector indicating the commenter had withdrawn comments 121, 122, and 123 had taken more than 12 hours and that it had been overtaken by events.

Title: Closing Editor's Report – P802.3ch Draft 1.0a (wienckowski_3ch_04a_0119.pdf)
Presenter: Natalie Wienckowski, General Motors

The Task Force discussed commenting protocol.

Title: The road to a completed standard (anslow_b10k_01_0918.pdf)
Presenter: Steve Carlson, High Speed Design

Chair noted that there is a possibility of an off-cycle interim in April and that if necessary would be announced at the March plenary.

Motion #8: Move to accept the EEE Alert and LPI signaling changes as per benyamin_3ch_03_0119.pdf and grant editorial license to implement the proposal.
M: Saied Benyamin   S: Gerrit den Besten
(Technical >= 75%)
Y: 29   N: 0   A: 10
Motion Passes

Motion #9: Move to instruct the Chief Editor to create D1.1 from D1.0a, closed comments received on D1.0a, and adopted baselines from passed motions.
M: Natalie Wienckowski   S: Gerrit den Besten
(Technical >= 75%)
Y: 48   N: 0   A: 5
Motion Passes

Motion #10: Move to adjourn.
M: Brett McClellan   S: Bob Grow
(Procedural > 50%)
Motion passes by voice without opposition.

The chair thanked everyone for a very productive meeting.

The meeting was adjourned at 10:08 AM.

Appendix A: Attendees at the IEEE P802.3ch Multi-Gigabit Automotive Ethernet PHY Task Force Meeting, January 14-16, 2019.

IEEE 802.3 P802.3ch Multi-Gig Automotive Ethernet PHY Task Force IEEE 802.3 Jan 2019				Day 1 14 Jan	Day 2 15 Jan	Day 3 16 Jan
By choosing to attend and sign in to this meeting, you acknowledge and agree that your personal data will be documented for IEEE standards development purposes to comply with policies and procedures, legal and accreditation requirements, and evaluation of patent claims by patent offices. See Front Page for additional information.						
Last Name	First Name	Employer	Other Affiliations	Mon	Tues	Wed
Amaki	Nobuyasu	Yazaki	Yazaki	X	X	X
Baggett	Tim	Microchip	Microchip			X
Bains	Amrik	Cisco	Cisco		X	X
Benyamin	Saied	Aquantia	Aquantia	X	X	X
Brownlee	Phillip	Independent	TDK	X	X	X
Buckmeier	Brian	Bel Fuse Inc	Bel Fuse Inc			X
Carlson	Steve	High Speed Design	Robert Bosch	X	X	X
Choudhury	Mabud	OFS	OFS	X		
Dawson	Fred	Chemours	Chemours			X
Den Besten	Gerrit	NXP Semiconductors	NXP Semiconductors	X	X	X
DiBiaso	Eric	TE Connectivity	TE Connectivity	X	X	X
Diminico	Chris	PHY-SI	Panduit		X	X
Dube	Kathryn	UNH-IOL	UNH-IOL	X	X	X
Dupuis	Marcel	Web Industries	Web Industries	X	X	X
Engels	Ivan	Leoni	Leoni	X	X	X

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Last Name	First Name	Employer	Other Affiliations	Mon	Tues	Wed
Farjadrad	Ramin	Aquantia	Aquantia		X	X
Fazlolahi	Amir	Futurewei Technologies	Futurewei Technologies	X	X	X
Feyh	German	Broadcom Ltd.	Broadcom Ltd.	X	X	X
Fritsche	Matthias	Harting	Harting			X
Gardner	Mike	Molex, LLC	Molex, LLC	X	X	X
Gauthier	Claude	NXP Semiconductors	NXP Semiconductors	X	X	X
Goel	Pankaj	Mentor Graphics	Mentor Graphics	X		
Graber	Steffen	Pepperl+Fuchs	Pepperl+Fuchs		X	
Grau	Olaf	Robert Bosch	Robert Bosch	X	X	X
Grow	Robert	RMG Consulting	RMG Consulting	X	X	X
GuGow	Martin	Keysight Technologies	Keysight Technologies	X	X	X
Gupta	Sanjay	Futurewei Technologies	Futurewei Technologies	X	X	X
Haifei	Wang	Huawei	Huawei	X	X	X
Hess	Dave	Cord Data	Cord Data	X	X	X
Hyakutake	Yasuhiro	Adamant Namiki Precision Jewel	Adamant Namiki Precision Jewel	X	X	X
Ito	Hiroaki	Yazaki	Yazaki	X	X	X

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Last Name	First Name	Employer	Other Affiliations	Mon	Tues	Wed
Kadry	Haysam	Ford Motor Company	Ford Motor Company	X	X	X
Koczwara	Wojciech	Rockwell Automation	Rockwell Automation	X	X	X
Kondo	Taiji	Megachips	Megachips	X	X	X
Kountz	Dennis	Chemours	Chemours	X	X	X
Krieger	Olaf	Volkswagen	Volkswagen	X	X	X
Kumada	Taketo	Yazaki	Yazaki	X	X	X
Lambright	Frank	Gigamon, Inc.	Gigamon, Inc.		X	
Law	David	Hewlett Packard Enterprise	Hewlett Packard Enterprise	X	X	
Lawlis	James	Ford Motor Company	Ford Motor Company	X	X	X
Lewis	Jon	Dell	EMC	Dell	EMC	X	X	X
Lo	William	Axonne Inc	Axonne Inc	X	X	X
Mash	Chris	Marvell	Marvell	X	X	
Masuda	Takeo	OITDA	OITDA	X	X	
Matheus	Kirsten	BMW	BMW	X	X	X
McClellan	Brett	Marvell	Marvell	X	X	X
Mizutani	Mitsuharu	TDK	TDK	X	X	X

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Last Name	First Name	Employer	Other Affiliations		Mon	Tues	Wed
Mootazaui	Sanaz	Volkswagen	Volkswagen		X		
Mortazavi	Sanaz	Volkswagen	Volkswagen			X	
Neveux	Paul	Superior Essex	Superior Essex		X	X	X
Nikolich	Paul	Self	802 Chair		X		
Pardo	Carlos	KDPOF	KDPOF		X		X
Patel	Harsh	Molex, LLC	Molex, LLC		X	X	X
Patwarduan	Gaurav	Analog Devices	Analog Devices			X	X
Rabinovich	Rick	Keysight Technologies	Keysight Technologies		X	X	
Reed	Charity	UNH-IOL	UNH-IOL		X	X	X
Reinhard	Michael	SEI Antech-Europe GmbH	SEI Antech-Europe GmbH		X	X	X
Reinhard	Michael	SEI Antech-Europe GmbH	SEI Antech-Europe GmbH		X		
Salehi	Hamid Reza	Marvell	Marvell		X	X	
Sambaraju	Rakesh	Nexans Canada	Nexans			X	
Sederat	Hossein	Ethernovia	Ethernovia		X	X	X
Shariff	Masood	Commscope	Commscope		X	X	X
Shiino	Masato	Furukawa Electric	Furukawa Electric		X	X	X

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Last Name	First Name	Employer	Other Affiliations	Mon	Tues	Wed
Shirani	Ramin	Ethernovia	Ethernovia	X	X	X
Souvignier	Tom	Broadcom Ltd.	Broadcom Ltd.	X	X	X
Sparrowhawk	Bryan	Leviton	Leviton	X	X	X
Sternbery	Mitchell	UNH-IOL	UNH-IOL	X	X	X
Stewart	Heath	Analog Devices	Analog Devices	X	X	
Takahashi	Tadashi	Nitto Denko Corporation	Nitto Denko Corporation	X	X	X
Takayama	Kazuya	Nitto Denko Corporation	Nitto Denko Corporation	X	X	X
Thompson	Geoff	GraCaSI SA.	Independent	X	X	X
Toshiyaso	Ito	Yamaichi	Yamaichi	X	X	
Tseng	Tachin	Realtek	Realtek	X	X	
Tu	Mike	Broadcom Ltd.	Broadcom Ltd.	X	X	
Vernickel	Ricky	Leoni	Leoni	X	X	X
Wang	Alvin	Huawei	Huawei	X	X	X
Wells	Hunter	UNH-IOL	UNH-IOL	X	X	X
Wienckowski	Natalie	GM	GM	X	X	X
Withey	James	Fluke	Fluke	X	X	

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Last Name	First Name	Employer	Other Affiliations	Mon	Tues	Wed
Wu	Peter	Marvell	Marvell	X	X	X
Wu	Dance	Marvell	Marvell	X		
Wu	Mau-Lin	Mediatek	Mediatek	X	X	
Young	Adrian	Leviton	Leviton	X	X	
Zerna	Conrad	Frannhofer IIS	Frannhofer IIS	X	X	
Zhang	Xingxin	Huawei	Huawei	X	X	X
Zhu	Chunhui	Huawei	Huawei	X	X	X
Zimmerman	George	CME Consulting	Commscope, Aquantia, CME Consulting, Cisco, ADI, BMW, APL Group	X	X	X