

Unconfirmed Meeting Minutes: Meeting of the IEEE 802.3ch Multi-Gig Automotive Ethernet PHY Task Force

- April 16th-17th (Tuesday and Wednesday) 2019; 30400 Van Dyke, Ave. Warren, Michigan....USA
- Prepared by Phil Brownlee (Consultant/TDK America)

The meeting of the IEEE P802.3ch Multi-Gig Automotive Ethernet PHY Task Force convened at (**10:01 a.m.**), Tuesday, April 16th, 2019 by Steve Carlson, IEEE 802.3ch task force chair.

- Attendance for the meeting is listed in Appendix A:

All presentations referenced in these minutes are located on the April 2019 link: IEEE 802.3ch public website.

www.ieee802.org/3/ch/public/apr19/index.html

Administrative Matters: (10:02 a.m.)

- Per task force chair (Steve Carlson) we will not approve Vancouver minutes, mainly due to attendance count at this meeting

IEEE P802.3ch task force chair (Steve Carlson) displayed the agenda in http://www.ieee802.org/3/ch/public/apr19/agenda_3ch_01_0419.pdf

- The task Force Chair (Steve Carlson) asked the participants to introduce themselves, their employer and affiliations.

Motion #1: Move to approve the agenda as shown in

http://www.ieee802.org/3/ch/public/apr19/agenda_3ch_01_0419.pdf

M: Chris Diminico

S: George Zimmerman

Approved by voice without opposition (Procedural > 50%)

Motion Passes

Attendance, Task force chair (Steve Carlson) advised the group that the attendance tool should be used each day to record attendance for the two-day meeting. The physical attendance log was introduced and passed to the group.

Task force chair (Steve Carlson) reviewed task force Decorum (10:14 a.m.)

- Mr. Carlson noted that there should be no recording or photography permitted. Mr. Carlson asked if anyone was from the press and no one responded as being from the press
- Goal is comment resolution of draft 1.2 and identify missing information to be able to go to draft 1.3
- Draft needs to be technically complete as we are only 1/3 through our process with a goal to a “good draft”, not a perfect draft.
- Goal is to request working group ballot at the May meeting in May, Salt Lake City, Utah
- Draft is for individual use only and never share log in credential
- Mr. Carlson reviewed our ground rules based on Roberts rules of Order
- Mr. Carlson reviewed the IEEE structure
- Mr. Carlson reviewed the IEEE bylaws and rules
- Mr. Carlson reviewed the IEEE patent policy (10:29 a.m.)
- Mr. Carlson made the call for potentially essential patents at (10:31 a.m.), none responded.
- Mr. Carlson reviewed participation in IEEE 802 meetings (10:33 a.m.)
- Mr. Carlson reviewed the IEEE 802.3 stds. process (10:36 a.m.) and where the task force currently is as of this meeting, with a goal to move to working group ballot in the near future.
- Mr. Carlson reviewed the IEEE 802.3CH NG auto Ethernet task force objectives (10:44 a.m.)

George Zimmerman presented the ad hoc report (10:46 a.m.)

http://www.ieee802.org/3/ch/public/apr19/zimmerman_3ch_03_0419.pdf

- George noted that the group has had one ad hoc call since March Interim, April 3rd

Motion #2: Move to confirm minutes for ad hocs on 4/3 as posted

M: George Zimmerman

S: Natalie Wienckowski

Approved by voice without opposition (Procedural > 50%)

Motion passes

- It was noted by George Zimmerman that the next ad hoc May 1st 7-9 a.m. PST

Natalie Wienckowski: **(10:50 a.m.) Opening Editor's Report** providing details of draft 1.2 task force review

Link: http://www.ieee802.org/3/ch/public/apr19/wienckowski_3ch_03b_0419.pdf

Motion #3: Move to include 2 comments (#87 & 88) submitted after P802.3ch draft 1.2 declared comment deadline of April 7, 2019 AOE, included with Editor's proposed responses.

**M: Natalie Wienckowski
S: Tom Souvignier**

**Approved by voice without opposition (Technical \geq 75%)
Motion passes**

Motion #4: Move to accept all proposed "EZ bucket" resolutions sorted by clause/subclause.

**M: Natalie Wienckowski
S: Doug Oliver**

**Approved by voice without opposition (Technical \geq 75%)
Motion passes**

Comment Resolution: (Natalie Wienckowski)---(10:59 a.m.)

- 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.
- Presentations related to comment resolution are listed as they were presented. Details on the outcome of these presentations are contained in the comment database.

The IEEE 802.3ch task force broke for lunch at **(12:06 p.m.)** The group resumed at **(01:16 p.m.)** Comment resolution continued.

The IEEE 802.3ch task force had a brief recess at **(03:13 p.m.)**. The group resumed at **(03:32 p.m.)**. Comment resolution continued.

Presentation #1: Noise Level in Alien Crosstalk Test, Hossein Sedarat (04:04 p.m.)

http://www.ieee802.org/3/ch/public/apr19/sedarat_3ch_01a_0419.pdf

- Discussion was on noise level in alien crosstalk and SNR margin as it relates to comment 87-page 156 line 12 of clause 149, subclause 149.5.3.2 and 88-page 156 line 12 from comment resolution April 2019

Presentation #2: Alien Crosstalk Coupling Specifications, George Zimmerman (04:39 p.m.)

Link: http://www.ieee802.org/3/ch/public/apr19/zimmerman_3ch_02c_0419.pdf

- Discussion was on rev. B, but rev. C will be available soon
- Goal: “Getting to the required level”; page #6 of presentation
- Page #7 is related to how much margin can be given relative to measurements
- The chart on page #8 suggests a 10db margin to Mueller measurements
- Page #9 provides a proposed Alien Crosstalk Specification
- The TF supported the equations on page #9 of this presentation

Presentation #3: Transmitter Timing Jitter Proposal, Tom Souvignier (05:24 p.m.)

http://www.ieee802.org/3/ch/public/mar19/souvignier_3ch_01a_0319.pdf

- This presentation, page #2 test mode 1 transmit clock jitter was reopened as a discussion related to comment #36 page 151, line 39

Topic “Noise on boards versus MDI” by George Zimmerman (05:28 p.m.)

- George Zimmerman suggested a special ad hoc to define test points at the MDI versus the PHY.
- Between April and May the volume of ad hoc material is expected to be light
- This ad-hoc will need to cover a great deal of material between April and the May meeting
- Chris Diminico (Phy-Si) volunteered to lead the Ad-hoc along with crosstalk in the MDI, and was therefore appointed as ad hoc Chair by the P802.3ch TF Chair
- Cabling data is needed to define R.L. and Alien crosstalk is also needed (per George Zimmerman)
- It was suggested by Steve Carlson that the automotive companies standardize cables and connectors
- Goal is to have this ad hoc on Friday mornings

Meeting adjourned for the day at (05:39 p.m.)

Wednesday April 17th:

- The IEEE 802.3ch task force reconvened (**08:30 a.m.**)

Opening comment: (Steve Carlson)

- Task force chair commented that the group must stay focused on the comments to insure the task force remains on schedule!

Comment Resolution: (Natalie Wienckowski) (**08:35 a.m.**)

- 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.
- Presentations related to comment resolution are listed as they were presented. Details on the outcome of these presentations are contained in the comment database.

Presentation #1: (**09:07 a.m.**) **Transmit Deterministic Jitter by Ramin Farjad;** presented and displayed by Natalie Wienckowski

http://www.ieee802.org/3/ch/public/adhoc/farjadrad_3ch_adhoc01b_0419.pdf

- This presentation; slide #5 was discussed as a review against proposed: Use Scaled Jitter Specs from 802.3bj and related to comments #21 and #22)...(**See comment resolution data base from this OOC task force for details**)

Presentation #2: (**09:31 a.m.**) **On Transmit Power Levels, Mike Tu**

http://www.ieee802.org/3/ch/public/apr19/tu_3ch_03_0419.pdf

Straw Poll #1:

Support making the change; to -1.5 dB from Mike Tu's original proposal in the above presentation, slide #8:

Results: Yes: 11, No: 1, Abstain: 6.

Group had a brief recess at (**09:58 a.m.**)

Group reconvened to continue comment resolution: (**10:15 a.m.**)

- Comment by chair (Steve Carlson); The group is going to move into “modifications to EEE” and asked the group to keep focused

Presentation #3: (10:20 a.m.) EEE & LPI comments, Saied Benyamin (Comment # 65 & 66)”

http://www.ieee802.org/3/ch/public/apr19/Benyamin_3ch_02c_041619.pdf

- Relates to comment/s: #65 and #66
- Implement Benjamin presentation above; see comment from updated data base #65 and #66 for details and resolution

Presentation #4: (10:52 a.m.) Comment 38 - request to exit LPI, Brett McClellan presented by George Zimmerman

http://www.ieee802.org/3/ch/public/apr19/mcclellan_3ch_01_0419.pdf

- Relates to comment #38
- Suggested by George Zimmerman (11:00 a.m.) to postpone this until after lunch.

(11:01 a.m.): Group moved to comment #44, which is proposed reject...see details for reason/s in comment #44 from task force on 04/17/19

Presentation #5: (11:12 a.m.) Transmit PSD Mask, Gerrit den Besten, presented by George Zimmerman

http://www.ieee802.org/3/ch/public/apr19/DenBesten_3ch_01_0419.pdf

- Relates to comment #86
- See updated comment in data base

Presentation #6: (11:32 a.m.) EEE Improvements For Highly Sparse Traffic, Saied Benyamin

http://www.ieee802.org/3/ch/public/apr19/Benyamin_3ch_01_0419.pdf

Straw Poll #2:

I support the concept in Benjamin ch_01_0419.pdf

- Results: Y:18 N:0 A:1

End of comment resolution at (12:04 p.m.)

The IEEE 802.3ch task force broke for lunch at (12:05 p.m.) The group resumed at (01:03 p.m.)

Administrative: (Steve Carlson): Reviewed details of the upcoming meetings in May and July advising of hotel details for the July meeting

Presentation #7: (1:10 p.m.) EEE Improvements For Highly Sparse Traffic, Saied Benyamin

http://www.ieee802.org/3/ch/public/apr19/Benyamin_3ch_01a_0419.pdf

The presentation was updated with changes and presented to the TF as version 01a.

Motion: #5:

Move to accept the EEE Slow Wake changes as per Benyamin_3ch_01a_0419 slides 8 through 17. Grant editorial license to implement the proposal and align with other comments.

M: Saied Benyamin

S: Tom Souvignier

Yes: 19

No: 0

Abstain: 0

(Technical \geq 75%)

Motion passes

Motion: #6:

Move to instruct the chief editor to create a D1.3 for task force recirculation from D1.2, from closed comments received on D1.2, and adopted baselines from passed motions; and pre-submit D1.3 to IEEE 802.3 in anticipation of the requesting WG ballot in May 2019

M: Natalie Wienckowski

S: Haysam Kadry

Yes: 19

No: 0

Abstain: 0

(Technical \geq 75%)

Motion passes

(01:23 p.m.) Draft 1.3 Proposed Timing by chief editor, Natalie Wienckowski

- All approved content required by Sunday, April 21st, 2019
- PICS required by Wednesday, April 24th, 2019
- D1.3 available by Friday, April 26th, 2019
- Comments due on Saturday, May 11th, 2019 (14days)
- Proposed responses available by Wednesday, May 15th, 2019

Motion #7

Instruct editor to implement PICs as needed throughout draft 1.3 prior to task force review

M: Curtis Donahue

S: Doug Oliver

Approved by voice without opposition

(Technical \geq 75%)

Motion passes

Motion #8:

Motion to adjourn the meeting

M: Tom Souvignier

S: Haysam Kadry

Approved by voice without opposition (Procedural > 50%)

Motion passes

Meeting adjourned at: (01:30) p.m.

The attendance at the Warren session is attached as Appendix A:

	Name	Employer	Affiliation	4/16/19 Tues	4/17/19 Wed
1	Natalie Wienckowski	General Motors	General Motors	Naw	Naw
2	Steve Carlson	High Speed Design	Bosch, Marvell	SC	SC
3	Haysam Kadry	Ford Motor Company	Ford Motor Company	HK	HK
4	Harsh Patei	Moilex	Moilex	HP	HP
5	Phil Brownlee	Independent	TDK	SB	SB
6	Rich Boyer	Aptiv	Aptiv	R.B.	R.B.
7	Doug Oliver	Ford Motor Company	Ford Motor Company	DAO	DAO
8	George Zimmerman	CME Consulting	Commscope, Aquantia, CME Consulting, Cisco, ADI, BMW, APL Group, SensTekse	GG	GG
9	Mike Tu	Broadcom	Broadcom	M.T.	M.T.
10	Saied Benyamin	Aquantia	Aquantia	SB	SB
11	Tom Souvignier	Broadcom	Broadcom	T.S.	T.S.
12	Dave Huang	Cadence	Cadence	Dave	—
13	Eric DiBiasso	TE Connectivity	TE Connectivity	EAD	EAD
14	Marty Gubow	Keysight Technologies	Keysight Technologies	M.G.	M.G.
15	Kambiz Vakilian	Broadcom	Broadcom	K.V.	K.V.
16	Dong Wei	Futurewei Technologies	Futurewei Technologies	DW	DW
17	Chris Diminico	PHY-SI	Panduit	C.D.	—
18	Ziad Hatab	Harman	Harman	ZH	—
19	Rob Cadena	Harman	Harman	—	—
20	Tom McGrane	ToyoTech	ToyoTech	T.M.	—
21	Taka Katayma	ToyoTech	ToyoTech	T.K.	—
22	Hossein Sedarat	Ethernovia	Ethernovia	H.S.	H.S.
23	Mike Potts	General Motors	General Motors	M.P.	M.P.
24	Jim Koch	Samtec	Samtec	J.K.	J.K.
25	Jim Nadolny	Samtec	Samtec	J.N.	J.N.
26	Curtis Donahue	UNH-IOL	UNH-IOL	C.D.	C.D.
27	Paul Neveux	Superior Essex	Superior Essex	P.N.	P.N.
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