Unconfirmed Meeting Minutes: IEEE 802.3 Greater than 10 Gb/s Automotive Ethernet Electrical PHYs Study Group

# November 12, 2019
# Waikoloa Village, HI, USA

Prepared by Jon Lewis

IEEE 802.3 Greater than 10 Gb/s Automotive Ethernet Electrical PHYs Study Group (B10G) Study Group meeting convened at 9:00 AM, Tuesday, November 12, 2019 by Steve Carlson, Study Group Chair.

Attendance is listed in Appendix A

## ADMINISTRATIVE MATTERS

**Presentation:** agenda_B10GAUTO_1a_1119.pdf
**Presenter:** Steve Carlson, Chair.

The Chair called for introductions and affiliations, the participants introduced themselves, and the Chair then proceeded with the agenda.

The Chair reviewed the agenda. Mr. Carlson turned to presentation agenda_B10GAUTO_1a_1119.pdf and reviewed the schedule of presentations for the meeting.

**Motion #1: Move to approve the agenda as shown in agenda_B10GAUTO_1a_1119.pdf**
**M: Tom Souvignier S: Haysam Kadry**
**(Procedural > 50%)**
**Approved by voice without opposition**
**Motion Passes**

The Chair then resumed the review of presentation agenda_B10GAUTO_1a_1119.pdf:

- Mr. Carlson noted that there should be no recording or photography without permission.
- Mr. Carlson asked if anyone was attending from the press including those who would run a public blog on this meeting, none responded.

Mr. Carlson then continued review of the presentation, Big Ticket items for this meeting, to develop PAR, 5 Criteria, and Objectives for 10 Mb/s Single Twisted Pair Ethernet.

Mr. Carlson reviewed the goals for the meeting, access to the reflector and website, and ground rules.

**IEEE Patent Policy**, Mr. Carlson read aloud the patent policy for study groups from agenda_B10GAUTO_1a_1119.pdf, page entitled "Guidelines for IEEE-SA Meetings" (9:19 AM).

Mr. Carlson showed and read aloud the copyright slides.

Mr. Carlson showed slides 15-17 and proceeded to read the slides aloud. Mr. Carlson asked if there was any discussion on the slide, none responded.

Mr. Carlson reviewed the standards development process for IEEE and where this study group is in the process.

Mr. Carlson reviewed the WG motion from the November plenary meeting of the 802.3 WG to establish the Study Group.

**LIAISONS**

The Chair moved to liaisons and noted that there were no liaisons for the Study Group at this time.

**Attendance**, Mr. Carlson advised the group of the IEEE meeting attendance tool and procedures, including both the attendance sheet and the web attendance tracking tool.

**PRESENTATIONS**

The Chair then moved to the presentations for the meeting.

NOTE: Abstracts are given when supplied by the presenter.

**Title: Channel Data Capacity Analysis for B10GAUTO**
(DiBiaso_B10GAUTO_01_1119.pdf)
**Presenter: Eric DiBiaso, TE Connectivity**

**The group took a short break at 10:06.**

**The group resumed at 10 :27.**

The Chair called the meeting to order and continued with the presentations for the meeting.

**Title: Need for Generic 10G+ Channel Model (sankararaman_B10G_01a_1119.pdf)**
**Presenter: Sandeep Sankararaman, Rosenberger**

**Title: PoDL Feasibility for B10GAUTO Systems**
**(bhagwat_B10GAUTO_01_1119.pdf)**

**Presenter: Gitesh Bhagwat, Analog Devices**

**Title: Technical Feasibility – PHYs beyond 10G**
**(zimmerman_3B10G_02a_1119.pdf)**
**Presenter: George Zimmerman, CME Consulting**

**Title: Technical Feasibility - EEE for Asymmetry**
**(zimmerman_3B10G_01_1119.pdf)**
**Presenter: George Zimmerman, CME Consulting**

**The group broke for lunch at 11:58 AM**

**The group resumed at 1:33 PM**

The Chair resumed the meeting and showed the draft project files.

**Motion #2: Move to approve the CSD responses as shown in B10GAUTO_CSD_DRAFT_03_1119.pdf**
**M: George Zimmerman S: Chris Mash**
**(Technical >= 75%)**
**Y: 26 N: 0 A: 0**
**Motion Passes**

**Motion #3: Move to approve the Draft Objectives as shown in B10GAUTO_OBJ_DRAFT_03_1119.pdf**
**M: Natalie Wienckowski S: Haysam Kadry**
**(Technical >= 75%)**
**Y: 25 N: 0 A: 1**
**Motion Passes**

The Chair noted the dates for upcoming ad hoc calls (November 20, December 4, and December 18, 2019) and noted that the Study Group would have to pre-circulate the PAR and CSD out of the January interim.

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**Motion #4: Grant the second rechartering and six month extension of the IEEE 802.3 Greater than 10 Gb/s Automotive Ethernet Electrical PHYs study group**
**M: Eric Dibiaso S: Haysam Kadry**
**(Procedural > 50%)**
**Y: 33 N: 0 A: 0**
**Motion Passes**

**FUTURE MEETINGS**
Mr. Carlson reviewed future meetings locations from the agenda presentation.

Attendance:

Attend January 2020 interim, Geneva, CH:
Y: 13  N: 12  M: 8
Attend March 2020 802 Atlanta, GA USA plenary:
Y: 16  N: 1  M: 16
No further motions of business were offered.

**Adjournment**
**Motion #5:**

- **To adjourn the meeting**
- **M: Chris Mash  S: Brett McClellan**
- **Motion Passes by Voice without Opposition**

**The Meeting was adjourned at 2:30 PM, Tuesday, November 12, 2019.**

*Appendix A: Attendees at the IEEE 802.3 Greater than 10 Gb/s Automotive Ethernet Electrical PHYs Study Group Meeting, November 12, 2019*

| IEEE 802.3 Greater than 10 Gb/s Automotive Ethernet Electrical PHYs Study Group November 2019 | Day 1<br>12 Nov |
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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 | Tues |
|---|---|---|---|---|
| Andrae | Stefan | SEI Antech-Europe GmbH | SEI Antech-Europe GmbH | X |
| Aono | Michikazu | Yazaki | Yazaki | X |
| Bhagwat | Gitesh | Analog Devices | Analog Devices | X |
| Boyer | Rich | Aptiv | Aptiv | X |
| Carlson | Steve | High Speed Design | Robert Bosch, Marvell | X |
| Chalupsky | David | Intel | Intel | X |
| DiBiaso | Eric | TE Connectivity | TE Connectivity | X |
| Eyal | Massad | Valens Semi | Valens Semi | X |
| Goto | Hideki | Toyota Motor Corporation | Toyota Motor Corporation | X |
| Grow | Robert | RMG Consulting | RMG Consulting/KDPOF | X |
| Gubow | Martin | Keysight Technologies | Keysight Technologies | X |
| Hyakutake | Yasuhiro | Adamant Namiki Precision Jewel | Adamant Namiki Precision Jewel | X |
| Kadry | Haysam | Ford Motor Company | Ford Motor Company | X |
| Kagami | Manabu | NITech | NITech | X |
| Kikuta | Tomahiro | Adamant Namiki Precision Jewel | Adamant Namiki Precision Jewel | X |
| Kondo | Taiji | Megachips | Megachips | X |
| Kumada | Taketo | Yazaki | Yazaki | X |
| Kurata | Kazuhiko | AIO Core | AIO Core | X |
| Lewis | Jon | Dell \| EMC | Dell \| EMC | X |
| Lin | Alex | Mediatek | Mediatek | X |
| Lo | William | Axonne Inc | Axonne Inc | X |
| Madgar | Zahy | Valens | Valens | X |

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|---|---|---|---|---|
| Mash | Chris | Ethernovia | Ethernovia | X |
| Masuda | Takeo | OITDA | OITDA | X |
| McClellan | Brett | Marvell | Marvell | X |
| McMillan | Larry | Western Digital | Western Digital | X |
| Mortazavi | Sanaz | Volkswagon AG | Volkswagon AG | X |
| Murphy | Sean | Texas Instruments | Texas Instruments | X |
| Niihara | Yoshihiro | Fujikura | Fujikura | X |
| Ogura | Ichiro | PETRA | PETRA | X |
| Parthasarathy | Raju | Tektronix | Tektronix | X |
| Perez Aranda | Rubeh | KDPOF | KDPOF | X |
| Pitwon | Richard | AIO Core | AIO Core | X |
| Ruju | Partharavuty | Tektronix | Tektronix | X |
| Sederat | Hossein | Ethernovia | Ethernovia | X |
| Shah | Anup | Mentor Graphics | Mentor Graphics | X |
| Shiino | Masato | Furukawa Electric | Furukawa Electric | X |
| Shirani | Ramin | Ethernovia | Ethernovia | X |
| Souvignier | Tom | Broadcom Ltd. | Broadcom Ltd. | X |
| Takahashi | Tadashi | Nitto Denko Corporation | Nitto Denko Corporation | X |
| Takayama | Kazuya | Nitto Denko Corporation | Nitto Denko Corporation | X |
| Takeuchi | Junichi | JAE Electronics | JAE Electronics | X |
| Tseng | Tachin | Realtek | Realtek | X |
| Wang | Alvin | Huawei | Huawei | X |
| Wang | Zhu | MTK | MTK | X |
| Wienckowski | Natalie | GM | GM | X |
| Zhang | Xingxin | Huawei | Huawei | X |
| Zhu | Chunhui | Huawei | Huawei | X |
| Zimmerman | George | CME Consulting | Commscope, Marvell, CME Consulting, Cisco, ADI, BMW, APL Group, SensTek | X |