# Minutes IEEE P802.3ch Multigig Automotive Ethernet PHY TF AdHoc meeting December 5, 2018

Prepared by George Zimmerman

## Proposed Agenda:

1. Agenda/Admin: George Zimmerman, agenda_3chah_01_120518.pdf
2. TF Chair's comments: no presentation
3. Presentations:

| Agenda | George Zimmerman (ad hoc Chair) | CME Consulting/ADI, Aquantia, BMW, Cisco, Commscope |
|---|---|---|
| Editor's to do list (updated as 11/21)<br><br>Timeline with commitments for next meeting: to be updated during meeting | Natalie Wienckowski, Chief Editor | General Motors NA |
| OAM Status Byte Update Proposal for OAM<10><0> | Natalie Wienckowski | General Motors NA |
| Alternate MDI return loss proposal | German Feyh | Broadcom |
| Asymmetric Framework | William Lo | Axonne |
| OAM Unbaselined Details | William Lo | Axonne |

4.      Discussion & Next steps – All

**See adhoc webpage for agenda deck and presentations**

## Agenda/Admin George Zimmerman as ad hoc chair:

Meeting began at 7:05 am PT.

## Introductions & Affiliations.

## Presented file: agenda_3chah_01_120518.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 7:12 am Pacific 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/ch/reflector.html.  If you cannot subscribe to the reflector for some reason, and need additional assistance please contact the Task Force chair.

## Chair's/Chief Editor's Comments – Steve Carlson & Natalie Wienckowski

Steve reminded the group that the draft 1.0 was out for Task Force review and that comments were needed to close all technical holes (TBDs and yellow text) to get to a technically complete draft 2.0 for working group ballot.

Natalie reminded the group about comments and reminded the group that highlighted areas in the draft were yet unapproved text and should be addressed with comments.  She reminded the group that comments were due by December 31, and that they would be appreciated early.  Among areas flagged for review were registers for the expanded OAM, where editorial choices were needed, as well as the link monitor state diagram, which was unapproved by motion but needed modification due to other motions.

Natalie shared the todo list from the previous meeting, and reviewed the status of volunteer work: http://www.ieee802.org/3/ch/todo/P802_3ch_Timeline_status_1218.xlsm

## Presentations/Discussion:
## Presentation: OAM Status Byte Update Proposal for OAM<10><0>, Natalie Wienckowski, General Motors

The presenter reviewed a proposal to complete the OAM status bytes.  There was discussion of the use and process for resetting error counters as well as clearing bits in the registers.

## Presentation: Alternate MDI return loss proposal, German Feyh, Broadcom

The presenter reviewed a proposal to modify the MDI return loss based on concerns that with configurations necessary to meet ESD requirements, parasitic capacitances,  and estimated component tolerances the existing return loss might be impossible to meet.  The relaxation proposal was discussed, with participants voicing that it would put additional burden on the signal processing, and would also need specification across the entire frequency range.  Other experts were encouraged to continue and contribute to the discussion to help reach consensus on a new balance of requirements.  The presenter clarified that the use of the term 'cost' on slide 2 was to indicate complexity of circuitry, not a price, and that an updated presentation would be provided for the website (Alternate MDI return loss proposal (rev b)), replacing cost with complexity, extending the frequency to 1 MHz, and trying to improve the return loss proposal based on the discussion.

## Presentation: Asymmetric Framework, William Lo, Axonne

The presenter discussed options for asymmetric modes and a proposal for including the rate change in the Reconciliation sublayer, culminating in a proposal for a new objective for an asymmetric mode with a 10 Mbps interface in one direction.  There was significant discussion of how this might be envisioned, whether it was a new phy type or a mode of the existing phy type.  There was also discussion over whether XGMII

might be extended to support 10 Mbps so that there would only be a single reconciliation interface type (and hence avoid a new PHY type). Experts were encouraged to look into the tradeoffs and how it might work. In the discussion there was general consensus to concentrate on existing ethernet rates.

## Presentation: OAM Unbaselined Details, William Lo, Axonne

The presenter discussed text which was included in draft 1.0 (page 99 line 37 through page 100 line 17), because it was necessary to implement the OAM proposal, even though it had not been in the approved motions. In the discussion, the editor agreed to update the draft on the website to highlight the text for review.

## Closing Business

The group agreed to hold the next ad hoc on December 19, to continue the discussion on issues raised by the presentations in this ad hoc.

Meeting adjourned at 8:57 AM PT.

## Attendees (from Webex + emails)

| First | Last | Affiliation |
|---|---|---|
| Jim | Bauer | Marvell |
| Rich | Boyer | Aptiv |
| Phillip | Brownlee | Consultant/TDK |
| Steven | Carlson | High Speed Design / Robert Bosch GmBH |
| Gerrit | den Besten | NXP |
| Michael | Dörndl | MD-Electronik |
| German | Feyh | Broadcom |
| Claude | Gauthier | NXP |
| Olaf | Grau | Robert Bosch GmBH |
| Taiji | Kondo | MegaChips |
| Bin | Lin | TE |
| William | Lo | Axonne |
| Brett | McClellan | Marvell |
| Wes | Mir | Aptiv |
| Douglas | Oliver | Ford |
| Sujan | Pandey | NXP |
| Harsh | Patel | Molex |
| Vimalli | Raman | Yazaki-Europe |
| Torsten | Reuschel | Robert Bosch GmBH |
| Masood | Shariff | CommScope |
| Tom | Souvignier | Broadcom |
| Geoff | Thompson | Independent |
| Mike | Tu | Broadcom |
| Alvin | Wang | Huawei |
| Natalie | Wienckowski | GM |
| Peter | wu | Marvell |

| John | Yurtin | Aptiv |
|------|--------|-------|
| Conrad | Zerna | Fraunhofer IIS |
| George | Zimmerman | CME Consulting/ADI, Aquantia, APL Group, BMW, Cisco, Commscope |
| **TOTAL** | **29** | **Attendees** |