

Minutes IEEE P802.3ch Multigig Automotive Ethernet PHY TF AdHoc meeting June 27, 2018

Prepared by George Zimmerman

Proposed Agenda:

1. Agenda/Admin: George Zimmerman, agenda_3chah_01_062718.pdf
2. SG Chair's comments: no presentation
3. Presentations:

PoDL for NGAUTO-Technical and Economic Feasibility	Gitesh Bhagwat	Analog Devices
RS FEC Proposal for Multi-Gigabit Automotive PHY	Mike Tu	Broadcom

4. Discussion & Next steps – All

See [adhoc webpage for agenda deck and presentations](#)

Agenda/Admin George Zimmerman acting as ad hoc chair:

Meeting began at 7:03am PT.

Introductions & Affiliations.

Presented file: [agenda 3chah 01 062718.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 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 – Natalie Wienckowski, Chief Editor

Steve Carlson was not present on the call. Natalie Wienckowski reminded the group of the upcoming plenary meeting and the need to make progress, and that draft presentations were due the next day (Thursday 6/28/18).

Presentations/Discussion:

Presentation: PoDL for NGAUTO-Technical and Economic Feasibility, Gitesh Bhagwat, Analog Devices

[bhagwat 3ch 01a 0618.pdf](#)

The presenter discussed applications of PoDL (clause 104 powering) for use with 802.3ch, particularly the MDI electrical characteristics and their feasibility. Measurement results were presented to show feasibility. The presenter asked for guidance and there was discussion on the low frequency limit. General discussion tended to maintain the 5 MHz lower-limit on specification as opposed to moving the lower limit up to 10 MHz, but that if necessary, the specification for MDI RL could be relaxed at low frequencies. Additionally there was discussion about the MDI mode conversion proposed, but without significant changes.

Presentation: RS FEC Proposal for Multi-Gigabit Automotive PHY, Mike Tu, Broadcom

[tu 3ch 01a 0718.pdf](#)

The presenter previewed a presentation for the July plenary, presenting FEC coding options and a proposal for Reed Solomon FEC coding based on $m=10$ and interleaving. The proposal used 64/65b coding, with the idea that when codewords were uncorrectable smaller blocks might be useful. There was discussion about this resulting in a large number of errors progressing unchecked to the MAC, which might violate the mean time to false packet acceptance requirement in ethernet, and for that reason, uncorrectable FEC frames were usually marked as all errors. 256/257b and 512/513b encodings are also used in 802.3 standards with FEC, including RS-FECs. There was further discussion about the length of burst correction needed.

Closing Business

Participants were advised to keep discussion going to pre-circulate and preview issues for the plenary meeting via the reflector (as there would be no more adhoc before the plenary).

Meeting adjourned at 8:09AM PT.

Attendees (from Webex + emails)

(need to confirm affiliation of highlighted attendee)

First	Last	Affiliation
Brian	??	brian@att.com?
Devaraju	Basappa	nxp
Jim	Bauer	marvell
Gitesh	Bhagwat	analog
Youssef	Bouri	aptiv
Rich	Boyer	aptiv

Phillip	Brownlee	tdk
Clark	Carty	cisco
Marven	Dawood	aptiv
Gerrit	denBesten	NXP
Eric	DiBiaso	te
Michael	Dörndl	md-elektronik
Ramin	Farjadrad	aquantia
German	Feyh	broadcom
Claude	Gauthier	NXP
Amrit	Gopal	ford
Craig	Gunther	Harman
Venkat	Iyer	microchip
Taiji	Kondo	megachips
Paul	Langner	aquantia
James	Lawlis	ford
Larry	Matola	aptiv
Brett	McClellan	marvell
Greg	McSorley	amphenol-highspeed
Waseem	Mir	aptiv
isaac	molina	analog
Douglas	Oliver	ford
Sujan	Pandey	nxp
Harsh	Patel	molex
Vimalli	Raman	yazaki-europe
Jean	Razafiarivelo	aptiv
Litsa	Rubino	aptiv
Tom	Souvignier	broadcom
Heath	Stewart	analog
Yves	Stricot	aptiv
Nish.	Takeshi	Yamaichi Electronics
Geoff	Thompson	Unemployed/unaffiliated
Mike	Tu	broadcom
Natalie	Wienckowski	gm
Peter	Wu	marvell
George	Zimmerman	CME Consulting/ADI, APL Group,
TOTAL		39 Attendees