

Minutes  
Multi-Gigabit Optical Automotive Ethernet (OMEGA)  
Task Force Ad hoc  
15-22 December 2020

Attendance list as recorded in Webex participant list

Last Name	First Name	Employer	Affiliations	Dec 15th	Dec 22th
Aono	Michikazu	Yazaki	Yazaki		X
Araki	Nobuyasu	Yazaki	Yazaki	X	X
Barbero	Fernando	KDPOF	KDPOF	X	
Bruckman	Leo	Huawei	Huawei	X	X
Chang	Jae-yong	Keysight	Keysight	X	
Cuesta	Emilio	TE Connectivity	TE Connectivity	X	X
Dittmann	Markus	KDPOF	KDPOF	X	X
Fortusini	Davide	Corning	Corning	X	X
Fukuoka	Takashi	AutoNetworks Technologies Ltd.	AutoNetworks Technologies Ltd.; Sumitomo Electric Industries, Ltd.	X	X
Goto	Hideki	Toyota Motor Corporation	Toyota Motor Corporation	X	X
Grow	Robert	Robert M. Grow Consulting	RMG Consulting, KDPOF	X	X
Harshbarger	Doug	Corning Incorporated	Corning Incorporated		X
HIRASE	Hidenari	AGC	AGC	X	
Horrmeier	Bernd	Phoenix Contact	Phoenix Contact	X	X
Hunter		Senko Advanced Components, Inc.	Senko	X	
Hyakutake	Yasuhiro	Adamant Namiki Precision Jewel	Adamant Namiki Precision Jewel	X	X
Isono	Hideki	FOC	FOC	X	
KAGAMI	Manabu	NI Tech	NI Tech	X	X
Kamino	John	OFS	OFS		X
Kazuya	Takayama	Nitto Denko Corp.	Nitto Denko Corp.	X	X
KIKUTA	Tomohiro	Adamant Namiki Precision Jewel	Adamant Namiki Precision Jewel	X	X
Kobayashi	Shigeru	AIO Core	AIO Core		X
Kondo	Taiji	MegaChips	MegaChips	X	X
Ledentsov, Jr.	Nick	VI Systems GmbH	VI Systems GmbH		X
Malicoat	David	Malicoat Networking Solutions	Senko Advanced Components	X	X
Ortiz	David	KDPOF	KDPOF	X	
Pardo	Carlos	KDPOF	KDPOF	X	X
Pérez-Aranda	Rubén	KDPOF	KDPOF	X	X
Pimpinella	Rick	Panduit	Panduit	X	X
Pinzón	Plinio Jesús	KDPOF SL	KDPOF SL	X	X
Preis	Roland	MD Elektronik	MD Elektronik	X	X
Shigematsu	Masayuki	Sumitomo Electric	Sumitomo Electric	X	X
Shiino	Matsato	Furukawa Electric	Furukawa Electric	X	X
Silvano de Sousa	Johnathan	Gebauer & Griller	Gebauer & Griller	X	
Swanson	Steve	Corning Inc.	Corning Inc.	X	X
Takahashi	Satoshi	POF Promotion	POF Promotion	X	X
Takahashi	Tadashi	Nitto Denko Corporation	Nitto Denko Corporation	X	X
Torres	Luisma	KDPOF	KDPOF	X	X
Ueno	Yuto	Sumitomo	Sumitomo	X	X
WATANABE	Yuji	AGC	AGC	X	X
Wienckowski	Natalie	General Motors	General Motors	X	X
Xing	Xu	Huawei	Huawei	X	X
Yurtin	John	APTIV	APTIV	X	X
Zou	Congshi	Huawei	Huawei		X

**Tuesday, 15th December 2020, 12:00 (noon) UTC**

The meeting was called to order at approximately 12:12 UTC Tuesday 15th December 2020  
Chaired by Robert Grow, IEEE P802.3cz Task Force Chair.

Mr. Grow presented *Agenda and General Information*  
([https://www.ieee802.org/3/cz/public/15\\_dec\\_2020/Agenda\\_3cz\\_01\\_151220.pdf](https://www.ieee802.org/3/cz/public/15_dec_2020/Agenda_3cz_01_151220.pdf)). Mr. Grow presented the agenda for the meeting. The agenda was approved by unanimous consent.

Mr. Grow asked the audience if there was anybody from the press. No one responded to the call.

Mr. Grow asked the audience if there are someone that is not familiar with the IEEE general rules presentation. No one responded. Mr. Grow went through the general rules' presentation briefly.

Mr. Grow issued the call for essential patent claims. No one responded to the call. He also presented the slides on the IEEE Copyright Policy and participation guidelines

Mr. Ortiz had requested to present *Introduction to semiconductor qualification and reliability assessment*  
([https://www.ieee802.org/3/cz/public/15\\_dec\\_2020/ortiz\\_3cz\\_01\\_151220\\_reliability\\_assesment.pdf](https://www.ieee802.org/3/cz/public/15_dec_2020/ortiz_3cz_01_151220_reliability_assesment.pdf)).

The presentation describes the reliability assessment for automotive semiconductors based on a Mission Profile. A Mission Profile proposal for 802.3cz was presented. Mr. Ortiz asked for feedback about the presented Mission Profile proposal to the Task Force members.

Mr. Swanson had requested to present *Proposed IEEE 802.3cz PMD, MDI and Media Baseline Text*  
([https://www.ieee802.org/3/cz/public/15\\_dec\\_2020/swanson\\_3cz\\_01\\_151220\\_AUTO\\_MDI%20Specification.pdf](https://www.ieee802.org/3/cz/public/15_dec_2020/swanson_3cz_01_151220_AUTO_MDI%20Specification.pdf)). The presentation proposes a placeholder for a PMD, MDI and media based on OM3 glass fiber and 2 dB IL connector. Mr. Swanson ask for feedback on the number presented to the Task Force. A number of questions were asked about the presentation and Mr. Swanson provided answers.

Mr. Swanson had requested to present *Proposal for testing optical connectors*  
([https://www.ieee802.org/3/cz/public/15\\_dec\\_2020/swanson\\_3cz\\_02\\_151220\\_AUTO\\_Connector%20Testing.pdf](https://www.ieee802.org/3/cz/public/15_dec_2020/swanson_3cz_02_151220_AUTO_Connector%20Testing.pdf)). The presentation proposed an automotive connector testing based on current Datacom connector standards. Mr. Swanson commented that the severity proposed probably need to be reviewed. A number of questions were asked about the presentation and Mr. Swanson provided answers.

Mr. Swanson gave an update about the Optical Components consensus building Ad Hoc meeting held outside the Task Force. 18 people attend to that meeting and Mr. Swanson presented a list with the Optical Components big tickets that are remaining.

Mr. Fukuoka had requested to present *Introduction to ISO24581 (Automotive Optical Harness standardization)*  
([https://www.ieee802.org/3/cz/public/15\\_dec\\_2020/fukuoka\\_3cz\\_01a\\_151220\\_ISO24581.pdf](https://www.ieee802.org/3/cz/public/15_dec_2020/fukuoka_3cz_01a_151220_ISO24581.pdf)). The presentation describes the ISO TC22/SC32/WG10 work on the standardization of optical harness for 1 Gb/s Ethernet (ISO 21111-4) and higher data rates (ISO 24581). A number of questions were asked about the presentation and Mr. Fukuoka provided answers.

Mr. Pimpinella agreed to delay his presentations until the next call, and review of the To-Do list was skipped.

Mr. Grow proposed to continue this Ad Hoc meeting on 22<sup>nd</sup> December and accept additional contributions if any. Next Ad Hoc meeting is proposed to be held by 12<sup>th</sup> January, and cancel the previously arranged 29<sup>th</sup> December meeting. All proposals were accepted by unanimous consent.

The meeting was adjourned by 16:03.

The meeting was resumed 12:02 UTC Tuesday 22th December 2020. Chaired by Robert Grow, IEEE P802.3cz Task Force Chair.

Mr. Grow presented *Agenda and General Information* ([https://www.ieee802.org/3/cz/public/22\\_dec\\_2020/Agenda\\_3cz\\_01a\\_221220.pdf](https://www.ieee802.org/3/cz/public/22_dec_2020/Agenda_3cz_01a_221220.pdf)). Mr. Grow presented the agenda for the meeting. The agenda was approved by unanimous consent.

Mr. Grow asked the audience if there was anybody from the press. No one responded to the call.

Mr. Grow asked the audience if there are someone that is not familiar with the IEEE general rules presentation. No one responded. Mr. Grow went through the general rules' presentation briefly.

Mr. Grow issued the call for essential patent claims. No one responded to the call. He also presented the slides on the IEEE Copyright Policy and participation guidelines

Mr. Pimpinella had requested to present *Evaluation of Eye Safety Hazard for VCSEL-MMF Channels* ([https://www.ieee802.org/3/cz/public/22\\_dec\\_2020/pimpinella\\_3cz\\_01\\_221220.pdf](https://www.ieee802.org/3/cz/public/22_dec_2020/pimpinella_3cz_01_221220.pdf)). The presentation describes a way to calculate the AEL and OFCS power limits for Eye Safety. A number of questions were asked about the presentation and Mr. Pimpinella provided answers.

Mr. Pérez-de-Aranda had requested to present *Eye safety analysis for 802.3cz links* ([https://www.ieee802.org/3/cz/public/22\\_dec\\_2020/perezaranda\\_3cz\\_01\\_221220\\_eyesafety.pdf](https://www.ieee802.org/3/cz/public/22_dec_2020/perezaranda_3cz_01_221220_eyesafety.pdf)). The presentation describes Average Optical Power measurements for different VCSELs and connector types (butt coupling and Expanded Beam Optics) to extract the worst case for Eye Safety limits. It also describes an option based in an eye safety power state to meet eye safety limits. A number of questions were asked about the presentation and Mr. Pérez-de-Aranda provided answers.

Mr. Pérez-de-Aranda had requested to present *Reliability constrained link budget assessment for 10 & 25 Gb/s* ([https://www.ieee802.org/3/cz/public/22\\_dec\\_2020/perezaranda\\_3cz\\_02\\_221220\\_reliability\\_linkbudget.pdf](https://www.ieee802.org/3/cz/public/22_dec_2020/perezaranda_3cz_02_221220_reliability_linkbudget.pdf)). The presentation describes different VCSELs reliability analysis for different mission profiles. The conclusion is that the bias current can be increased maintaining the same wear out reliability. The presentation also shows the impact on the link budget of this increase in the bias current for 10 and 25 Gb/s. A number of questions were asked about the presentation and Mr. Pérez-de-Aranda provided answers.

Mr. Grow presented the last slides of *Agenda and General Information* regarding the future meetings. He proposed to have the next IEEE P802.3cz Task Force Ad Hoc meeting by January 12<sup>th</sup> and to convert this meeting or the next one in Task Force interim to approve possible liaisons. The proposal will be discussed in the mail reflector.

Mr. Grow also provided to the Task Force participants the user and password for the private area of the Task Force Website. The drafts, liaisons, and other documents will be stored in this area.

Mr. Torres presented the ToDo list and ask the Task Force participants to present new contributions about the remaining tasks to complete the draft. Several proposals were received and the ToDo list was updated accordingly.

Mr. Swanson commented on the specification of two different medias for the same speed. Mr. Grow commented that the Task Force objectives do not preclude this case.

Mr. Torres remembered the Task Force participants that the Draft 1.0 will be available by January 8<sup>th</sup>. The first round of comments is expected to be finished by the beginning of March and the comment resolution is also expected to take place during the same month.

With scheduled time for the call having expired, the meeting was adjourned at approximately 14:12 UTC.

Recording Secretary: Luisma Torres.