

Minutes
Multi-Gigabit Optical Automotive Ethernet (OMEGA)
Task Force Plenary
14-15 July 2020

Attendance list as recorded by imat.ieee.org tool.

Name	Employer	14/07/2020	15/07/2020
A, Shaziah	General Motors Company	Yes	Yes
Abbott, John	Corning Incorporated	Yes	Yes
Andrae, Stefan	SEI ANTech-Europe GmbH	Yes	Yes
Aono, Michikazu	Yazaki Corporation	Yes	Yes
Araki, Nobuyasu	Yazaki Corporation	Yes	Yes
Baggett, Tim	Microchip Technology, Inc.	No	Yes
Beaudoin, Denis	Texas Instruments Incorporated	Yes	Yes
bordogna, mark	Intel	Yes	No
Boyer, Rich	Aptiv Signal and Power Solutions	Yes	Yes
Bruckman, Leon	HUAWEI	No	Yes
Castro, Jose	Panduit Corp.	Yes	No
Choudhury, Golam	OFS	Yes	Yes
Chuang, Keng Hua	Hewlett-Packard Development Company, L.P.	No	Yes
Cuesta, Emilio	TE Connectivity	Yes	Yes
D'Ambrosia, John	Futurewei (U.S. Subsidiary of Huawei)	No	Yes
DiBiao, Eric	TE Connectivity	Yes	Yes
Fukuoka, Takashi	AutoNetworks Technologies Ltd.; Sumitomo Electric Industries, Ltd.	Yes	Yes
Gardner, Mike	101 Consulting Corporation	Yes	Yes
GHARBA, Ahmed	Huawei Technologies Duesseldorf GmbH	No	Yes
Glanzner, Martin	Sumitomo Electric Industries, LTD	Yes	Yes
Goto, Hideki	TOYOTA MOTOR CORPORATION	Yes	Yes
Grow, Robert	RMG Consulting	Yes	Yes
Hartmann, Stephan	Siliconally GmbH	Yes	No
HIRASE, HIDENARI	AGC.Inc	Yes	Yes
Hormmeyer, Bernd	Phoenix Contact	No	Yes
HYAKUTAKE, YASUHIRO	Adamant Namiki Precision Jewel Co., Ltd.	Yes	Yes
ISHIBE, KAZUHIKO	Anritsu Company	Yes	Yes
Isono, Hideki	Fujitsu Optical Components Limited	Yes	Yes
Jonsson, Ragnar	Marvell	Yes	Yes
Kagami, Manabu	Nagoya Institute of Technology (NITech)	No	Yes
Kikuta, Tomohiro	Adamant Namiki Precision Jewel Co., Ltd.	Yes	Yes
Kondo, Taiji	MegaChips Corporation	Yes	Yes
Kumada, Taketo	Yazaki Corporation	Yes	Yes
Lackner, Hans	QoSCom - Quality in Communications - GmbH	Yes	No
Law, David	Hewlett Packard Enterprise	Yes	No
Lewis, Jon	Dell EMC	No	Yes

Name	Employer	14/07/2020	15/07/2020
Luo, Yuanqiu	Futurewei Technologies	Yes	No
Madgar, Zahy	Valens Semiconductor	Yes	Yes
Malicoat, David	Malicoat Networking Solutions; SENKO Advanced Components	Yes	Yes
mash, chris	Ethernovia Inc	Yes	Yes
MASUDA, TAKEO	OITDA	Yes	Yes
McMillan, Larry	Western Digital Corporation	Yes	Yes
Neuling, Christian	MD Elektronik	Yes	Yes
Ogura, Ichiro	PETRA	Yes	Yes
Pardo, Carlos	KDPOF	Yes	Yes
Perez De Aranda Alonso, Ruben	KDPOF	Yes	Yes
Piehler, David	Dell EMC	Yes	Yes
Pimpinella, Rick	Panduit Corp.	Yes	Yes
Pinzon, Plinio	KDPOF	Yes	Yes
Pitwon, Richard	AIO Core	Yes	Yes
Pohl, Christopher	Beckhoff Automation	Yes	No
Preis, Roland	MD Elektronik GmbH	Yes	Yes
Rabinovich, Rick	Keysight Technologies	Yes	Yes
Ramesh, Sridhar	Maxlinear Inc	No	Yes
Reinhard, Michael	SEI ANTech-Europe GmbH	Yes	Yes
Rettig, Thomas	Beckhoff Automation	Yes	Yes
Sakai, Toshiaki	socionext	Yes	No
Savi, Olindo	Hubbell Incorporated	Yes	Yes
SAWANO, Hiroshi	OITDA	Yes	Yes
Sedarat, Hossein	Ethernovia	Yes	No
Shigematsu, Masayuki	Innovation Core SEI	Yes	Yes
Shiino, Masato	FURUKAWA ELECTRIC	Yes	Yes
Sprague, Edward	Infinera Corporation	Yes	No
Suzuki, Yasuo	kdpor Japan	Yes	Yes
Swanson, Steven	Corning Incorporated	Yes	Yes
Takahashi, Satoshi	POF Promotion	Yes	Yes
Takahashi, Tadashi	Nitto Denko Corporation	Yes	Yes
Takayama, Kazuya	Nitto Denko Corporation	Yes	Yes
Thompson, Geoffrey	INDEPENDENT	Yes	Yes
Torres, Luis	Knowledge Development for Plastic Optical Fiber	Yes	Yes
Toyoda, Ryouma	Yazaki Corporation	Yes	Yes
Vanderlaan, Paul	UL LLC	Yes	Yes
Wang, Roy	Hewlett Packard Enterprise	Yes	No
Watanabe, Yuji	AGC	Yes	Yes
Wienckowski, Natalie	General Motors Company	Yes	Yes
YANG, Yumeng	Huawei Technologies Co., Ltd	No	Yes
Yonezawa, Kenji	AGC Inc.	Yes	Yes
Zhu, Chunhui	Futurewei Technologies	Yes	Yes

Name	Employer	14/07/2020	15/07/2020
Zhuang, Yan	Huawei Technologies Co. Ltd	Yes	Yes

Tuesday, 14 July 2020, 12:00 (noon) UTC

The meeting was called to order at approximately 12:03 UTC Tuesday 14th July 2020
Chaired by Robert Grow, IEEE P802.3cz Task Force Chair.

Mr. Torres volunteered to be Task Force Recording Secretary. The offering was accepted by unanimous consent. Mr. Torres thanked Task Force for the confirmation.

Mr. Grow presented *Agenda and General Information* (http://www.ieee802.org/3/cz/public/jul_2020/Agenda_3cz_01_0720.pdf). He noted that approval of the agenda would also approve the 9 June, 2020 Task Force Interim minutes. Agenda was approved by unanimous consent.

Mr. Grow reminded the audience that the attendance is recorded using the imat IEEE tool available at (<https://imat.ieee.org/my-site/home>).

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

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. Torres volunteered to be the TF Chief Editor. The offering was accepted by unanimous consent. Mr. Torres thanked to Task Force for the confirmation.

Mr. Grow explained the baseline text concept and asked the audience to contribute. He continued with some personal observations on the Task Force objectives. He also presented some recommendations to choose technical solutions based on baseline text proposals.

Mr. Grow explained the need to have a realistic timeline and the importance it will have to planning the next revision of IEEE Std 802.3. His prediction is that P802.3cz will be an amendment to the next revision of IEEE Std 802.3 (the current revision is IEEE Std 802.3-2018).

Mr. Grow presented a proposal of timeline. No motion associated yet.

Mr. Grow asked to accept for presentation two late contributions: *IEEE Best Practices* by Steve Swanson, and *Next Steps towards the PHY specification* by Rubén Pérez-Aranda. The late contributions were accepted to be presented by unanimous consent.

Mr. Swanson had requested to present *IEEE Best Practices* (http://www.ieee802.org/3/cz/public/jul_2020/swanson_3z_01_0720.pdf). The presentation identifies some issues and concerns about the project and how to deal with them. In response to discussion, Mr. Swanson agreed that one phrase in the presentation about “cost targets” for solutions might be misinterpreted and would be improved in a revision of the presentation.

Mr. Swanson remarked that the standardization process needs contributions to be driven.

Discussion highlighted that even though some refer to the first stage of draft review as Task Force “ballot” there are no rules requiring this stage of review. For that reason, this stage is typically called “Task Force review”. Discussion also noted that interoperability is key and the primary purpose of the 802.3 standard.

Mr. Pérez-Aranda had requested to present *VCSEL test methods* (http://www.ieee802.org/3/cz/public/jul_2020/perezaranda_OMEGA_01_0720_VCSEL_test_method_s.pdf). The presentation described in detail the VCSEL test setup used to characterize the VCSELS provided as samples by Trumpf, VIS; II-VI, Lumentum and TrueLight. This presentation included details about optical coupling test setup, LIV test method, AC test method and RIN test method. A

number of questions were asked about the presentation and Mr. Pérez-Aranda provided answers. Mr. Pérez-Aranda stated that he expects the VCSEL vendors to provide VCSEL reliability data.

With no further business to conduct by today, the meeting was recessed at approximately 13:57 UTC.

Wednesday, 15 July 2020, 12:00 (noon) UTC

The meeting was resumed at approximately 12:01 UTC Wednesday 15th July 2020

Chaired by Robert Grow, IEEE P802.3cz Task Force Chair.

Mr. Grow presented *Agenda and General Information*

(http://www.ieee802.org/3/cz/public/jul_2020/Agenda_3cz_01_0720.pdf).

Mr. Grow reminded the audience that the attendance is recorded using the imat IEEE tool available at (<https://imat.ieee.org/my-site/home>).

Mr. Grow asked if anyone had not seen the patent, copyright and participation guidelines slides. No one indicated that they had not seen the slides. He very quickly scrolled through the slides as a reminder.

Mr. Pérez-Aranda had requested to present *Characterization of Vendor A VCSELS*.

(http://www.ieee802.org/3/cz/public/jul_2020/perezaranda_OMEGA_02_0720_VendorA_VCSEL.pdf).

Mr. Swanson asked for clarification on the modulation scheme and resulting baud rates of the VCSELS tests. Mr. Pérez-Aranda will provide an update of the presentation that includes his answers.

The presentation describes the measurements obtained in the laboratory of three VCSELS provided by Vendor A. It also presents the extraction of key parameters of the VCSEL needed to build a VCSEL model valid in the range of temperatures defined in the objectives of this Task Force. A number of questions were asked about the presentation and Mr. Pérez-Aranda provided answers. Mr. Pérez-Aranda stated that contributions to double-check the presented results are welcome.

Mr. Pérez-Aranda had requested to present *Characterization of Vendor B VCSELS*.

(http://www.ieee802.org/3/cz/public/jul_2020/perezaranda_OMEGA_03_0720_VendorB_VCSEL.pdf). This presentation describes the same measurements and model fitting as the previous one but for a VCSEL device provided by vendor B. The characteristics and performance of this device is different from the VCSELS provided by vendor A.

Mr. Pérez-Aranda had requested to present *Characterization of Vendor C VCSELS*.

(http://www.ieee802.org/3/cz/public/jul_2020/perezaranda_OMEGA_04_0720_VendorC_VCSEL.pdf). This presentation describes the same measurements and model fitting as the previous one but for a different VCSEL device provided by vendor C.

Mr. Pérez-Aranda had requested to present *Characterization of Vendor D VCSELS*.

(http://www.ieee802.org/3/cz/public/jul_2020/perezaranda_OMEGA_05_0720_VendorD_VCSEL.pdf). This presentation describes the same measurements and model fitting as the previous one but for three different VCSEL devices provided by vendor D. A number of questions were asked about the presentation and Mr. Pérez-Aranda provided answers.

Mr. Pérez-Aranda had requested to present Next steps towards the PHY specification.

(http://www.ieee802.org/3/cz/public/jul_2020/perezaranda_OMEGA_06a_0720_PMD_next_steps.pdf). This presentation describes the next steps that are needed before the generation of the baseline proposal and plan to build consensus. A number of questions were asked about comparisons between data in the previous presentations and Mr. Pérez-Aranda provided answers.

Mr. Grow asked if there is some reason to meet next Monday. Hearing none, the extra meeting initially scheduled for Monday 20th July was cancelled by unanimous consent

With no further business to conduct, and having reached the end of the agenda, the meeting was adjourned at approximately 14:02 UTC.

Recording Secretary: Luisa Torres.