

Minutes  
Multi-Gigabit Optical Automotive Ethernet (OMEGA)  
Task Force Interim  
6 April 2021

Attendance list as recorded in Webex participant list

Last Name	First Name	Employer	Affiliations	April 6th
Abbot	John	Corning	Corning	X
Amamiya	Yasushi	MegaChips	MegaChips	
Andrae	Stefan	SEI Antech-Europe GmbH	SEI Antech-Europe GmbH	
Aono	Michikazu	Yazaki	Yazaki	
Araki	Nobuyasu	Yazaki	Yazaki	X
Bergner	Bert	TE Connectivity	TE Connectivity	
Boyer	Rich	APTIV	APTIV	
Barbero	Fernando	KDPOF	KDPOF	X
Bordogna	Mark	Intel	Intel	
Brooks	Paul	Viavi Solutions	Viavi Solutions	
Bruckman	Leon	Huawei	Huawei	
Choudhury	Mabud	OFS	OFS	
Chuang	Keng Hua	HPE	HPE	
Cuesta	Emilio	TE Connectivity	TE Connectivity	
Dittmann	Markus	KDPOF	KDPOF	X
Eek	Magnus	Volvo Cars	Volvo Cars	X
Ferretti	Vincent	Corning	Corning	
Fortusini	David	Corning	Corning	
Fukuoka	Takashi	AutoNetworks Technologies Ltd.	AutoNetworks Technologies Ltd.; Sumitomo Electric Industries, Ltd.	X
Glanzner	Martin	SEI Antech-Europe GmbH	SEI Antech-Europe GmbH	X
Goto	Hideki	Toyota Motor Corporation	Toyota Motor Corporation	
Grow	Robert	Robert M. Grow Consulting	RMG Consulting, KDPOF	X
Harshbarger	Douglas	Corning Incorporated	Corning Incorporated	X
Hartmann	Stephan	Siliconally GmbH	Siliconally GmbH	
Hayashi	Takehiro	HAT Labs	HAT Labs	X
HIRASE	Hidenari	AGC	AGC	X
Hormmeyer	Bernd	Phoenix Contact	Phoenix Contact	X
Huang	David	Broadcom	Broadcom	
Hyakutake	Yasuhiro	Adamant Namiki Precision Jewel	Adamant Namiki Precision Jewel	X
Isono	Hideki	FOC	FOC	X
Kadry	Haysam	Ford Motor Company	Ford Motor Company	
KAGAMI	Manabu	NI Tech	NI Tech	X
Kazuhiko	Ishibe	Anritsu	Anritsu	
Kamino	John	OFS	OFS	
Kawahara	Keisuke	Furukawa Electric	Furukawa Electric	X
KIKUTA	Tomohiro	Adamant Namiki Precision Jewel	Adamant Namiki Precision Jewel	X
Kim	Joshua	Hirose USA	Hirose USA	
King	Roger	TRUMPF Photonic Components	TRUMPF Photonic Components	
Kobayashi	Shigeru	AIO Core	AIO Core	X
Koepfendorfer	Erwin	Leoni	Leoni	X
Kondo	Tajji	MegaChips	MegaChips	X
Law	David	HPE	HPE	
Liu	Karen	Lightwave	Lightwave	
Lee	Bernard	Senko	Senko	
Lee	Sylvanus	Leviton	Leviton	
Lingle	Robert	OFS	OFS	

Malicoat	David	Malicoat Networking Solutions	Senko Advanced Components	X
Martino	Kjersti	Inneos	Inneos	X
Marques	Flavio	Furukawa electric	Furukawa Electric	
Masuda	Takeo	OITDA/PETRA	OITDA/PETRA	X
McMillan	Larry	Western Digital	Western Digital	
Mueller	Harald	Endress + Hauser	Endress + Hauser	
Nakagawa	Hideki	AGC	AGC	
Nicholl	Gary	Cisco	Cisco	
Nikolich	Paul	802 Chairman	802 Chairman	
Niihara	Yoshihiro	Fujikura	Fujikura	
Ogura	Ichiro	Petra	Petra	X
Omori	Kumi	NEC	NEC	
Pandey	Sujan	Huawei	Huawei	
Pankert	Joseph	TRUMPF Photonic Components	TRUMPF Photonic Components	
Pardo	Carlos	KDPOF	KDPOF	X
Pérez-Aranda	Rubén	KDPOF	KDPOF	X
Pham	Phong	EastPoint	EastPoint	
Piehler	David	Dell	Dell	
Pimpinella	Rick	Panduit	Panduit	X
Pitwon	Richard	Resolute Photonics	Resolute Photonics	X
Preis	Roland	MD Elektronik	MD Elektronik	X
Reinhard	Michael	SEI Antech-Europe GmbH	SEI Antech-Europe GmbH	
Sambasivan	Sam	AT&T	AT&T	
Savi	Olindo	Hubbell Incorporated	Hubbell Incorporated	
Sawano	Hiroshi	OITDA		
Sayre	Edward	Samtec	Samtec	
Shukla	Priyank	Synopsys	Synopsys	
Shigematsu	Masayuki	Sumitomo Electric	Sumitomo Electric	
Shiino	Matsato	Furukawa Electric	Furukawa Electric	X
Silvano de Sousa	Jonathan	GG-Group	GG-Group	X
Sun	Wensheng	Marvell	Marvell	
Sun	Yi	OFS	OFS	
Suzuki	Yasuo	KDPOF Japan	KDPOF	X
Swanson	Steve	Corning Inc.	Corning Inc.	X
Takahashi	Ryutaro	Senko	Senko	
Takahashi	Satoshi	POF Promotion	POF Promotion	X
Takahashi	Tadashi	Nitto Denko Corporation	Nitto Denko Corporation	X
Takayama	Kazuya	Nitto Denko Corporation	Nitto Denko Corporation	X
Theodoras	James	HG Genuine	HG Genuine	
Torres	Luisma	KDPOF	KDPOF	X
Tsuzaki	Nozomi	Independent	Independent	X
Ueno	Yuto	Sumitomo	Sumitomo	X
WATANABE	Yuji	AGC	AGC	X
Wendt	Mattias	Signify	Signify	
Wienckowski	Natalie	General Motors	General Motors	X
Xu	Xing	Huawei	Huawei	X
Yamada	Osamu	Yazaki	Yazaki	
Yonezawa	Kenji	AGC	AGC	X
Yurtin	John	APTIV	APTIV	X
Zhiwei	Yang	ZTE	ZTE	
Zhu	Liang	Marvell	Marvell	X

**Tuesday, 6th March 2021, 12:00 (noon) UTC**

The meeting was called to order at approximately 12:03 UTC Tuesday 6th April 2021  
Chaired by Robert Grow, IEEE P802.3cz Task Force Chair.

Mr. Grow presented *Agenda and General Information* ([https://www.ieee802.org/3/cz/public/30\\_mar\\_2021/Agenda\\_3cz\\_01\\_300321.pdf](https://www.ieee802.org/3/cz/public/30_mar_2021/Agenda_3cz_01_300321.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 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. Swanson had requested to present *How many PMDs for 802.3cz?* ([https://ieee802.org/3/cz/public/6\\_apr\\_2021/swanson\\_3cz\\_01\\_060421\\_How%20many%20PMDs.pdf](https://ieee802.org/3/cz/public/6_apr_2021/swanson_3cz_01_060421_How%20many%20PMDs.pdf)). The presentation describes a set of proposed critical criteria to select PMDs and the need to choose only one PMD per data rate that satisfies all the TF objectives. The presentation also describes four identified items that are important for the customer (Affordability, Availability, Scalability and Reliability), and rates each of the proposed PMDs based on these items. Several comments and questions were made and Mr. Swanson provided answers.

Mr. Eek had requested to present *Input on PMD decisions and Input to Connectors* ([https://ieee802.org/3/cz/public/6\\_apr\\_2021/eek\\_3cz\\_01\\_060421.pdf](https://ieee802.org/3/cz/public/6_apr_2021/eek_3cz_01_060421.pdf)). The presentation describes the need to choose only one PMD per data rate that satisfies all the TF objectives, and also describes requirements for the position of the connector. Mr. Eek remarked that multiple PMD flavors means more complexity in the OEM decision. Several comments and questions were made and Mr. Eek provided answers.

Mr. Pitwon asked to present *Thoughts on interoperable PMD* ([https://ieee802.org/3/cz/public/6\\_apr\\_2021/ogura\\_3cz\\_01a\\_060421.pdf](https://ieee802.org/3/cz/public/6_apr_2021/ogura_3cz_01a_060421.pdf)). The presentation describes the possibility to have a photodiode that is capable to receive wavelengths from 850 to 1320 nm, and, therefore, transceiver modules that are able to transmit in a single wavelength, but can receive in any of them. The presentation also shows a table with three different PMDs. Many participants made comments and questions about relative cost, interface between single mode laser and multi-mode fiber, anti-reflection coating of the photodiode and its effects on the responsivity among others, and Mr. Pitwon and Mr. Ogura provided answers.

Mr. Pérez-de-Aranda asked to present *Thoughts on interoperable PMD* ([https://ieee802.org/3/cz/public/6\\_apr\\_2021/perezaranda\\_3cz\\_01\\_060421\\_pmd\\_deadlines.pdf](https://ieee802.org/3/cz/public/6_apr_2021/perezaranda_3cz_01_060421_pmd_deadlines.pdf)). The presentation describes the proposal to adopt deadlines according with the currently agreed project timeline. Two motions were described for consideration later in the agenda.

Mr. Ogura asked to present *PMD matrix status report* ([https://ieee802.org/3/cz/public/6\\_apr\\_2021/ogura\\_3cz\\_02\\_060421.pdf](https://ieee802.org/3/cz/public/6_apr_2021/ogura_3cz_02_060421.pdf)). The presentation describes the different PMD options and the comparison items collected from the TF members. A total of 6 PMDs options were listed. A number of questions and comments were done and Mr. Ogura provided answers.

Mr. Grow opened the floor for motions.

Mr. Pérez-de-Aranda moved motion #1, and Mr. Swanson seconded it. The motion was identified as technical.

Motion #1: Move to adopt the deadline of 1 June meeting, to provide the information needed for filling the gaps considering all the project objectives and take objective decision of which PMD to use (one per data-rate), per criteria and actions defined in [perezaranda\\_3cz\\_01d\\_0321\\_pmd\\_comparison.pdf](https://ieee802.org/3/cz/public/6_apr_2021/perezaranda_3cz_01d_0321_pmd_comparison.pdf).

Mr. Grow asked if anyone opposes to the motion. Several participants opposed to the motion. The motion was discussed first and then voted by roll call.

The roll call result was the following:

Yes: 5  
 No: 14  
 Abstain: 5

Motion #1 therefore failed to be adopted.

Mr. Pérez-de-Aranda moved motion #2, and Mr. Pimpinella seconded it. The motion was identified as technical.

Motion #2: Move to adopt deadline of 6 July meeting, to adopt PMD baseline text with sufficient information for writing a technically complete draft, including all the data-rates and test methods.

Mr. Grow asked if anyone opposes to the motion. Several participants opposed to the motion. The motion was discussed first and then voted by roll call.

The roll call result was the following:

Yes: 7  
 No: 14  
 Abstain: 3

Motion #2 failed.

The detailed roll call results for Motion #1 and #2 are in the following table.

<b>IEEE P802.3cz Multi-Gigabit Optical Automotive Ethernet TF 6 April 2021</b>				Motion #1		Motion #2	
<b>By choosing to attend 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.</b>				Y	5	Y	7
				N	14	N	14
				A	5	A	3
Last Name	First Name	Employer	Affiliations		Vote		Vote
Abbott	John	Corning	Corning		n		y
Araki	Nobuyasu	Yazaki	Yazaki		n		n
Glanzner	Martin	SEI Antech-Europe GmbH	SEI Antech-Europe GmbH		a		a
Grow	Robert	Robert M. Grow Consulting	RMG Consulting, KDPOF				
HIRASE	Hidenari	AGC	AGC		n		n
Hyakutake	Yasuhiro	Adamant Namiki Precision Jewel	Adamant Namiki Precision Jewel		n		n
Isono	Hideki	Fujitsu Optical Components Limited	FUJITSU		n		n
KAGAMI	Manabu	NI Tech	NI Tech				n
KIKUTA	Tomohiro	Adamant Namiki Precision Jewel	Adamant Namiki Precision Jewel		n		n

Koeppendoerfer	Erwin	LEONI	LEONI Kabel GmbH		a		a
Kondo	Taiji	MegaChips	MegaChips		n		n
Malicoat	David	Malicoat Networking Solutions	Senko Advanced Components		a		
Masuda	Takeo	OITDS/PETR	OITDA/PETR		n		n
Ogura	Ichiro	PETRA	PETRA		n		n
Pardo	Carlos	KDPOF	KDPOF		y		y
Perez De Aranda Alonso	Ruben	KDPOF	KDPOF		y		y
Pimpinella	Rick	Panduit	Panduit		y		y
Pitwon	Richard	Resolute Photonics	AIO CORE		n		
Preis	Roland	MD Elektronik	MD Elektronik		a		a
Shiino	Masato	Furukawa Electric	Furukawa Electric		n		n
Swanson	Steve	Corning Inc.	Corning Inc.		y		y
Takahashi	Satoshi	POF Promotion	POF Promotion		a		y
Takahashi	Tadashi	Nitto Denko Corporation	Nitto Denko Corporation		n		n
Takayama	Kazuya	Nitto Denko Corp.	Nitto Denko Corp.		n		n
Torres	Luisma	KDPOF	KDPOF		y		y
Watanabe	Yuji	AGC	AGC		n		n
Wienckowski	Natalie	General Motors	General Motors				
Yonezawa	Kenji	AGC	AGC		n		n

Mr. Torres moved motion #3, and Mr. Grow failed to call for a second (no one noticed this during the teleconference). The motion was identified as technical.

Motion #3: Move to accept proposed responses to EZ “bucket” of comments granting the editor license to adjust terminology and other content in response for consistency with other comment resolutions.

Mr. Grow asked if anyone opposed the motion. Hearing none, the motion passed by unanimous consent.

Mr. Grow proposed the TF to continue its weekly meetings, and proposed a new meeting by April 20<sup>th</sup>, one week after the already scheduled April 13<sup>th</sup> teleconference, to continue with comment resolution. The April 20<sup>th</sup> meeting will be announced on the TF email reflector.

The meeting was adjourned at approximately 16:14 UTC.

Recording Secretary: Luisma Torres.