Minutes Multi-Gigabit Optical Automotive Ethernet (OMEGA) Task Force Interim 15-22 February 2022

Attendance list as recorded in Webex participant list

Last Name	First Name	Employer	Affiliations	February 15th	February 22th
Abbott	John	Corning	Corning	Х	Х
Amamiya	Yasushi	MegaChips	MegaChips	Х	Х
Andrae	Stefan	SEI Antech-Europe GmbH	SEI Antech-Europe GmbH		
Aono	Michikazu	Yazaki	Yazaki	Х	
Akin	Sami	VW AG	VW AG	Х	Х
Araki	Nobuyasu	Yazaki	Yazaki	Х	Х
Beaudoin	Denis	TI	TI		
Bergner	Bert	TE Connectivity	TE Connectivity		
Boyer	Rich	APTIV	APTIV		
Barbero	Fernando	KDPOF	KDPOF	Х	Х
Bordogna	Mark	Intel	Intel		
Borda	Jamila	BMW	BMW		
Brooks	Paul	Viavi Solutions	Viavi Solutions		
Brown	Blake	UNH-IOL	UNH-IOL		
Bruckman	Leon	Huawei	Huawei		Х
Brychta	Michal	Analog Devices	Analog Devices		
Calvin	John	Keysight	Keysight		
Carlson	Steve	HSD, Bosch, Ethernovia	, 5	Х	Х
Castrillon	Alejandro	Marvell	Marvell		
Castro	Jose	Panduit	Panduit		
Chang	Ayla				
Chang	Jae-yong	Keysight	Keysight	Х	Х
Choudhury	Mabud	OFS	OFS	Х	Х
Chuang	Keng Hua	HPE	HPE		
Connaughton	Mike	Leviton	Leviton		
Cuesta	Emilio	TE Connectivity	TE Connectivity		Х
DAmbrosia	John	Futurewei	Futurewei	Х	
Dawson	Fred	Ch			
DeAndrea	John	II-VI/Finisar	II-VI/Finisar	Х	
DiBiaso	Eric	TE Connectivity	TE Connectivity		
Diminico	Chris				
Dittmann	Markus	KDPOF	KDPOF	Х	Х
Donthu	Suresh	Corning	Corning		
Dube	Kae	UNH-IOL	UNH-IOL		
Eek	Magnus	Volvo Cars	Volvo Cars		
Felgenhauer	Alexander	Yazaki	Yazaki		
Fellhauer	Felix	Bosch	Bosch		
Ferretti	Vincent	Corning	Corning	Х	Х
Feyh	German	Broadcom	Broadcom	Х	Х
Fortusini	David	Corning	Corning		
Fritsche	Matthias	Harting	Harting		
Fukuoka	Takashi	AutoNetworks Technologies Ltd.	AutoNetworks Technologies Ltd.; Sumitomo Electric Industries, Ltd.		
Gao	Xiangong	Huawei	Huawei		
Gao	Sharon	Huawei	Huawei		
Gharba	Ahmed	Volvo Car Corp.	Volvo Car Corp.	1	
Giovanne	Laura	Broadcom	Broadcom	1	
Glanzner	Martin	SEI Antech-Europe GmbH	SEI Antech-Europe GmbH		Х
Gomez	Chisato	Nitto Denko Corporation	Nitto Denko Corporation	Х	Х

Goto	Hideki	Toyota Motor	Toyota Motor Corporation	Х	Х
		Corporation			
Grow	Robert	Robert M. Grow Consulting	RMG Consulting, KDPOF	Х	Х
Guangcan	Mi	Huawei	Huawei		
Haasz	Jodi	IEEE-SA	IEEE-SA	Х	Х
Hajduczenia	Marek	Charter Communications	Charter Communications		
Harshbarger	Douglas	Corning Incorporated	Corning Incorporated		
Hartmann	Stephan	Siliconally GmbH	Siliconally GmbH		
Hayashi	Takehiro	HAT Labs	HAT Labs	Х	Х
He	Long	Intel	Intel	Х	Х
He	Xiang	Huawei	Huawei		
HIRASE	Hidenari	AGC	AGC	Х	Х
Horrmeyer	Bernd	Phoenix Contact	Phoenix Contact		
Huang	David	Broadcom	Broadcom		
Huang	Shaowu	Marvell	Marvell		
Hyakudai	Toshihisa	Sony	Sony		
Hyakutake	Yasuhiro	Adamant Namiki Precision Jewel	Adamant Namiki Precision Jewel	Х	Х
Ikeda	Teppei	Denso	Denso		
Ingham	Jonathan	Huawei	Huawei		
Isono	Hideki	FOC	FOC	Х	Х
Jackson	Ken	Sumitomo	Sumitomo		
Jiménez	Andy	WESCO	WESCO		
Jonsson	Ragnar	Marvell	Marvell		
Kadry	Haysam	Ford Motor Company	Ford Motor Company		
KAGAMI	Manabu	NI Tech	NI Tech	Х	Х
Kazuhiko	Ishibe	Anritsu	Anritsu		
Kamino	John	OFS	OFS		
Kawahara	Keisuke	Furukawa Electric	Furukawa Electric	Х	Х
Kawatsu	Yasuaki	APRESIA Systems	APRESIA Systems		
KIKUTA	Tomohiro	Adamant Namiki Precision Jewel	Adamant Namiki Precision Jewel	Х	Х
Kim	Joshua	Hirose USA	Hirose USA		
King	Roger	TRUMPF Photonic Components	TRUMPF Photonic Components	Х	Х
Kinningham	Alan	I-PEX	I-PEX		
Kobayashi	Shigeru	AIO Core	AIO Core	Х	Х
Koeppendoerfer	Erwin	Leoni	Leoni	Х	Х
Kondo	Taiji	MegaChips	MegaChips	Х	Х
Kota	Kishore	Marvell	Marvell		
Kumadayazaki	Taketo				
Kurashima	Kazuyoshi	AGC	AGC	Х	Х
Lackner	Hans	QoSCom GmbH	QoSCom GmbH		
Laubach	Mark	Self	Self		_
Law	David	HPE	HPE	Х	Х
Lewis	David	Lumentum	Lumentum		
LI	Tobey	MediaTek	MediaTek		
Liu	Karen	Lightwave	Lightwave		
Lee	Bernard	Senko	Senko		
Lee	Sylvanus	Leviton	Leviton		
Lingle	Robert	OFS	OFS	Х	
Maguire	Valerie	Siemon	Siemon		
Malicoat	David	Malicoat Networking Solutions	Senko Advanced Components	Х	Х
Mark	Simon	Wurth	Wurth		
Martino	Kjersti	Inneos	Inneos	Х	Х
Marques	Flavio	Furukawa electric	Furukawa Electric	1	
Masuda	Takeo	OITDA/PETRA	OITDA/PETRA	Х	Х
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Mathaus	Virston	DNAVA	DNAVA		
Matheus	Kirsten	BMW	BMW		
Mandel McMillan	Juergen	Western Digital	Western Digital		
	Larry	Western Digital	Western Digital		
Mueller Mueller	Harald Thomas	Endress + Hauser	Endress + Hauser		
	Ramana	Rosenberger	Rosenberger	V	
Murty	Hideki	Broadcom AGC	Broadcom AGC	X	
Nakagawa		MD Elektronik			
Neulinger	Christian		MD Elektronik		
New Nicholl	Anthony	Prysmian Group	Prysmian Group	X	Х
	Gary	Cisco	Cisco		
Nikolich	Paul	802 Chairman	802 Chairman		
Niihara	Yoshihiro	Fujikura	Fujikura	X	
Ogura	Ichiro	Petra	Petra	X	Х
Omori	Kumi	NEC	NEC		
Ortiz	David	KDPOF	KDPOF		
Pandey	Sujan	Huawei	Huawei	.,	
Pankert	Joseph	TRUMPF Photonic Components	TRUMPF Photonic Components	Х	
Pardo	Carlos	KDPOF	KDPOF	Х	Χ
Parsons	Earl	Commscope	Commscope		
Peng	Semmy	Huawei	Huawei	Х	
Pérez-Aranda	Rubén	KDPOF	KDPOF	X	X
Peteranderl	Ralf	Rosenberger	Rosenberger		
Petrarca	Ryan	TDK	TDK		
Pham	Phong	EastPoint	EastPoint		
Piehler	David	Dell	Dell		
Pimpinella	Rick	Panduit	Panduit	Х	X
Pinzón	Plinio	KDPOF	KDPOF		
Pitwon	Richard	Resolute Photonics	Resolute Photonics		
Powell	William	Independent	Independent		
Preis	Roland	MD Elektronik	MD Elektronik	Х	
Pritz	Helmut	MD Elektronik	MD Elektronik	Х	
Regev	Alon	Keysight	Keysight		
Reinhard	Michael	SEI Antech-Europe GmbH	SEI Antech-Europe GmbH		
Ren	Hao	Huawei	Huawei		
Kell	Tiao	Beckhoff	Tidawei		
Retting	Thomas	Automation	Becjhoff Automation		
Rush	Joshua	UNH-IOL	UNH-IOL		
Sambasivan	Sam	AT&T	AT&T		
Sakai	Toshiaki	Socionext	Socionext		
Jakai	TOSTIIdKI	Hubbell	JOCIOTIEAL	+	
Savi	Olindo	Incorporated	Hubbell Incorporated		
Sawano	Hiroshi	OITDA	. rabbell meorporated	+	
Sayre	Edward	Samtec	Samtec	+	
Schwaerzler	Sebastian	ZF	ZF	X	Х
Schmalzigaug	Thomas	HUBER+SUHNER	HUBER+SUHNER	X	X
Shukla	Priyank	Synopsys	Synopsys		^
Shigematsu	Masayuki	Sumitomo Electric	Sumitomo Electric	+	
Shiino	Masato	Furukawa Electric	Furukawa Electric	X	Х
Shubochkin	Roman	OFS FUTURAWA ETECTTIC	OFS		^
				+	
Shukla	Priyank	Synopsys	Synopsys GG-Group		
Silvano de Sousa Simms	Jonathan Bill	GG-Group NVIDIA	NVIDIA NVIDIA	X	X
					^
Sommers	Scott	Molex	Molex	+	
Su	Charles	Huawei	Huawei	V	v
Sun	Wensheng	Marvell	Marvell	X	X
Sun	Yi	OFS KDBOE Janan	OFS VDDOE	- v	X
Suzuki	Yasuo	KDPOF Japan	KDPOF	X	X
Swanson	Steve	Corning Inc.	Corning Inc.	Х	Х
Takahashi	Ryutaro Satoshi	Senko POF Promotion	Senko POF Promotion	X	Х
Takahashi			· · · · · · · · · · · · · · · · · · ·		. v

Takahashi	Tadashi	Nitto Denko Corporation	Nitto Denko Corporation	Х	Х
Takayama	Kazuya	Nitto Denko Corporation	Nitto Denko Corporation	Х	Х
Tan	I-Hsing	Broadcom	Broadcom		
Tamada	Tomohiko	JAE	JAE		
Theuerkom	Thomas	Corning	Corning		
Theodoras	James	HG Genuine	HG Genuine		
Thompson	Geoff	GraCaSi			
Torres	Luisma	KDPOF	KDPOF	Х	Х
Tsujita	Yuichi	Nitto Denko Corporation	Nitto Denko Corporation	Х	Х
Tsuzaki	Nozomi	Independent	Independent	Х	
Ueno	Yuto	Sumitomo	Sumitomo	Х	Х
Vanderlaan	Paul	UL LLC	UL LLC		
Von Vangerow	Christian	TE	TE		
Voss	Bob	Panduit	Panduit		
Walsh	Thomas	KDPOF	KDPOF	Х	Х
Wang	Ruxou	Huawei	Huawei		
Wang	Haojie	CMCC	CMCC		
WATANABE	Yuji	AGC	AGC	Х	Х
Wendt	Mattias	Signify	Signify		
Wienckowski	Natalie	General Motors	General Motors	Х	Х
Withey	James	Fluke	Fluke		
Wiesner	Michael	Trumpf	Trumpf		
Xu	Dayin	Rockwell Automation	Rockwell Automation		
Xu	Xing	Huawei	Huawei		
Yamada	Osamu	Yazaki	Yazaki		
Yang	Zhiping	Waymo	Waymo		
Yang	Yumeng	Huawei	Huawei		
Yasui	Hideshi	AGC	AGC	Х	Х
Yonemura	Masatoshi	NITech	NITech		
Yonezawa	Kenji	AGC	AGC	Х	Х
Young	James	Commscope	Commscope	Х	Х
Yurtin	John	APTIV	APTIV	Х	Х
Zhang	Sen	Huawei	Huawei		
Zhang	Tingting	Huawei	Huawei		
Zhiwei	Yang	ZTE	ZTE		
Zhong	Qiwen	Huawei	Huawei		
Zhu	Liang	Marvell	Marvell		
Zhuang	Yan	Huawei	Huawei		

Tuesday, 15th February 2022, 12:00 (noon) UTC

The meeting was called to order at approximately 12:00 UTC Tuesday 15th February 2022 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 feb 2022/Agenda 3cz 01 150222.pdf).

Mr. Grow presented the agenda for the meeting. The agenda was approved by unanimous consent.

Mr. Grow presented the 8 February TF interim minutes for approval. The minutes were 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. Pérez-Aranda asked to summarize the presentations made last 8 February interim meeting *BASE-AU 980nm/OM3 baseline. Transmitter and receiver characteristics*

(https://www.ieee802.org/3/cz/public/8 feb 2022/perezaranda 3cz 01c 080222 TDFOM.pdf), BASE-AU 980nm/OM3 baseline. Reference receiver and transmitter and distortion figure of merit (https://www.ieee802.org/3/cz/public/8 feb 2022/perezaranda 3cz 02b 080222 TXRX characteristics.pdf), and

BASE-AU 980nm/OM3 baseline. Definition of the optical parameters and test methods (https://www.ieee802.org/3/cz/public/8 feb 2022/perezaranda 3cz 03b 080222 test methods.pd f). After summarizing the presentations, and some improvements made in some slides, Mr. Pérez-Aranda asked for questions. No one responded.

Mr. Watanabe asked to present *A Proposal of PAR splitting* (https://www.ieee802.org/3/cz/public/15 feb 2022/watanabe 3cz 01 150222 A%20Proposal%2 0of%20PAR%20splitting.pdf). This presentation proposed a PAR splitting based on the media used for data transmission, which lead to a new project provisionally named as 802.3dh. PAR, CSD and objectives are proposed, and were discussed in the TF. Many participants participated with questions and suggested changes to the PAR, objectives and CSD improvement.

Mr. Torres asked to present *How would a draft including 980 nm / OM3 baselines look?* (https://www.ieee802.org/3/cz/public/15 feb 2022/torres 3cz 01 150222 preview draft.pdf). This presentation announced an available Chief Editor draft in the private area which is technically complete and includes the approved suggested remedies resulting from D1.2 comment resolution, and baseline text proposed in:

- swanson 3cz 02c 030821 AUTO MDI Baseline.pdf: slides 6 12
- perezaranda 3cz 01c 080222 TDF0M.pdf: slides 9, 11 17
- perezaranda 3cz 02b 080222 TXRX characteristics.pdf: slides 2 8, 9
- perezaranda 3cz 03b 080222 test methods.pdf: slides 3, 5, 6, 8, 13 20

Mr. Torres noted that this is not an official TF draft, but a tool to move faster in case that the previous baseline text is approved. No questions were made.

Mr. Grow presented again Agenda and General Information

(https://www.ieee802.org/3/cz/public/15 feb 2022/Agenda 3cz 01 150222.pdf) and covered the presentation item on future meetings. Mr. Grow reminded TF participants that participation in WG ballots is required for the maintenance of voting rights. Mr. Grow also announced that motions are expected at 22nd February continuation meeting, and encouraged TF participants to review the technically complete draft, the PAR split proposal, and other presentations that are potentially subject to a vote.

Without enough time to conduct more agenda items, the meeting was recessed at approximately 13:54 UTC.

Tuesday, 22th February 2022, 12:00 (noon) UTC

The meeting was called to order at approximately 12:00 UTC Tuesday 22th February 2022 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 feb 2022/Agenda 3cz 01 150222.pdf).

Mr. Grow presented the reviewed the agenda approved on 15 February.

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. Watanabe asked to present an update of his presentation *A proposal PAR splitting* named as Revision f (https://www.ieee802.org/3/cz/public/15 feb 2022/watanabe 3cz 01f 220222.pdf) This update is the result of multiple contributions from several TF participants. Some questions were made, and Mr. Watanabe provided answers. A typo on the proposed objective modifications for

802.3dh was corrected, and the modified file was named Revision g (https://www.ieee802.org/3/cz/public/15 feb 2022/watanabe 3cz 01g 220222.pdf).

Mr. Watanabe moved the following motion:

Motion #1

Motion to support and adopt division of Multi-Gigabit Optical Automotive Ethernet work into two projects per <u>watanabe 3cz 01g 220222.pdf</u> and direct the TF Chair to prepare project documents consistent with this presentation for March plenary consideration.

In addition, adopt Chief Editor's draft (<u>Chief Editor proposes technically complete draft.pdf</u>) as P802.3cz/D1.3 and request that P802.3cz/D1.3 be submitted for March plenary WG preview.

The motion was seconded by Mr. Swanson.

Several participants spoke in favor of the motion.

Motion #1 passed by unanimous consent.

Mr. Abbott asked to present *Length Dependence of GI-POF BW and Next Steps* (https://www.ieee802.org/3/cz/public/15 feb 2022/abbott 3cz 01 150222 GI POF BW length de pendence.pdf). This presentation summarized some GI-POF results that should be double-checked and points that have to be addressed in moving GI-POF fiber toward a workable IEEE standard.

Mr. Grow noted he received an email from Ms. Wienckowski pointing out that there are a few TBDs in the PICS section of the Chief Editor's draft. Mr. Carlson moved the following motion:

Motion #2

Move to authorize the Chief Editor to complete the PICS consistently with the technical content of the draft.

Ms. Wienckowski seconded the motion.

Motion #2 passed by unanimous consent.

Mr. Grow asked Mr. Torres to update the front matter and PICS of the Chief Editor's draft and create P802.3cz/D1.3 to be submitted to the WG as approved in Motion #1. A version highlighting the updates will be also uploaded to the TF website.

Mr. Grow showed the current CSD, PAR and Objectives documents for 802.3dh, and also the proposed modification for 802.3cz approved by Motion #1. Some participants made editorial comments to the documents shown. Mr. Grow and Mr. Law will submit the documents with discussed updates for IEEE 802.3 and IEEE LMSC Executive Committee (EC) consideration.

Mr. Grow presented again *Agenda and General Information* (https://www.ieee802.org/3/cz/public/15 feb 2022/Agenda 3cz 01 150222.pdf) and covered the presentation item on future meetings. Four TF Interim Meetings were scheduled for P802.3cz on 8, 9, 15 and 16 March.

Having exhausted the agenda items, the meeting was adjourned without objection at approximately 13:46 UTC.

Recording secretary: Luisma Torres.