

Minutes
Multi-Gigabit Optical Automotive Ethernet (OMEGA)
Task Force Hybrid Plenary
Montreal, 11-12 July 2022

Attendance list as recorded in Webex participant list

Last Name	First Name	Employer	Affiliations	July 11th	July 12th
Abbott	John	Corning	Corning	X	X
Amamiya	Yasushi	MegaChips	MegaChips		
Andrae	Stefan	SEI Antech-Europe GmbH	SEI Antech-Europe GmbH		
Aono	Michikazu	Yazaki	Yazaki		
Akin	Sami	VW AG	VW AG		
Araki	Nobuyasu	Yazaki	Yazaki		X
Beaudoin	Denis	TI	TI		
Bergner	Bert	TE Connectivity	TE Connectivity		
Boyer	Rich	APTIV	APTIV		
Barbero	Fernando	KDPOF	KDPOF		
Ben Artsi	Liav	Marvell	Marvell		
Bordogna	Mark	Intel	Intel		
Borda	Jamila	BMW	BMW	X	X
Brooks	Paul	Viavi Solutions	Viavi Solutions		
Brown	Blake	UNH-IOL	UNH-IOL		
Bruckman	Leon	Huawei	Huawei		
Brychta	Michal	Analog Devices	Analog Devices		
Calvin	John	Keysight	Keysight		
Carlson	Steve	HSD, Bosch, Ethernovia			
Carty	Clark	Cisco	Cisco		
Castrillon	Alejandro	Marvell	Marvell		
Castro	Jose	Panduit	Panduit		
Chang	Ayla				
Chang	Jae-yong	Keysight	Keysight	X	X
Cheng	Ling	Huawei			
Choudhury	Mabud	OFS	OFS	X	X
Chuang	Keng Hua	HPE	HPE		
Connaughton	Mike	Leviton	Leviton		
Cuesta	Emilio	TE Connectivity	TE Connectivity		X
D'Ambrosia	John	Futurewei	Futurewei		
Dawson	Fred	Ch			
DeAndrea	John	II-VI/Finisar	II-VI/Finisar		
DiBiao	Eric	TE Connectivity	TE Connectivity		
Diminico	Chris				
Dittmann	Markus	KDPOF	KDPOF		
Donthu	Suresh	Corning	Corning	X	X
Dube	Kae	UNH-IOL	UNH-IOL		
Eek	Magnus	Volvo Cars	Volvo Cars		
Felgenhauer	Alexander	Yazaki	Yazaki		
Fellhauer	Felix	Bosch	Bosch		X
Ferretti	Vincent	Corning	Corning	X	X
Feyh	German	Broadcom	Broadcom	X	X
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.		
Giovanne	Laura	Broadcom	Broadcom		
Glanzner	Martin	SEI Antech-Europe GmbH	SEI Antech-Europe GmbH		X

Gomez	Chisato	Nitto Denko Corporation	Nitto Denko Corporation		
Goto	Hideki	Toyota Motor Corporation	Toyota Motor Corporation	X	
Graba	Jim	Broadcom	Broadcom		X
Grow	Robert	Robert M. Grow Consulting	RMG Consulting, KDPOF	X	X
Guangcan	Mi	Huawei	Huawei		
Haasz	Jodi	IEEE-SA	IEEE-SA		
Hajduczenia	Marek	Charter Communications	Charter Communications		
Harshbarger	Douglas	Corning Incorporated	Corning Incorporated	X	X
Hartmann	Stephan	Siliconally GmbH	Siliconally GmbH		
Hayashi	Takehiro	HAT Labs	HAT Labs	X	X
He	Long	Intel	Intel		
He	Xiang	Huawei	Huawei		
HIRASE	Hidenari	AGC	AGC		
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	X	
Ikeda	Teppei	Denso	Denso		
Ingham	Jonathan	Huawei	Huawei		
Isono	Hideki	FOC	FOC	X	
Jackson	Ken	Sumitomo	Sumitomo		
Jiménez	Andy	WESCO	WESCO		
Jonsson	Ragnar	Marvell	Marvell		
Kadry	Haysam	Ford Motor Company	Ford Motor Company	X	X
KAGAMI	Manabu	NI Tech	NI Tech	X	X
Kazuhiko	Ishibe	Anritsu	Anritsu		
Kamino	John	OFS	OFS		
Kawahara	Keisuke	Furukawa Electric	Furukawa Electric		X
Kawatsu	Yasuaki	APRESIA Systems	APRESIA Systems		
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		
Kinningham	Alan	I-PEX	I-PEX		
Kobayashi	Shigeru	AIO Core	AIO Core		
Koependoerfer	Erwin	Leoni	Leoni		X
Kondo	Taiji	MegaChips	MegaChips		
Kota	Kishore	Marvell	Marvell		
Kubota	Masaki	AGC	AGC		
Kumadayazaki	Taketo				
Kurashima	Kazuyoshi	AGC	AGC		
Lackner	Hans	QoSCom GmbH	QoSCom GmbH		
Lambert	Angie	Corning	Corning	X	X
Laubach	Mark	Tibit Communications	Tibit Communications		
Law	David	HPE	HPE	X	X
Lewis	David	Lumentum	Lumentum	X	X
LI	Tobey	MediaTek	MediaTek		
Liu	Karen	Lightwave	Lightwave		
Lee	Bernard	Senko	Senko		
Lee	Sylvanus	Leviton	Leviton		
Lingle	Robert	OFS	OFS		
Lennartsson	Kent	Kvaser AB	Kvaser AB		
Maguire	Valerie	Siemon	Siemon		

Mahlich	Matthias	Robert Bosch GmbH	Robert Bosch GmbH	X	X
Malicoat	David	Malicoat Networking Solutions	Senko Advanced Components		
Mark	Simon	Wurth	Wurth		
Martino	Kjersti	Inneos	Inneos	X	X
Marris	Arthur	Cadence	Cadence		
Marques	Flavio	Furukawa electric	Furukawa Electric	X	
Masuda	Takeo	OITDA/PETRA	OITDA/PETRA		
Matheus	Kirsten	BMW	BMW		
Mahlich	Mathias	Bosch	Bosch		
Mandel	Juergen				
Mark	Simon	Würth Elektronik	Würth Elektronik		
McMillan	Larry	Western Digital	Western Digital		
Mueller	Harald	Endress + Hauser	Endress + Hauser		
Mueller	Thomas	Rosenberger	Rosenberger		X
Murty	Ramana	Broadcom	Broadcom	X	X
Nakagawa	Hideki	AGC	AGC		
Neulinger	Christian	MD Elektronik	MD Elektronik		
Nering	Ray	Cisco	Cisco		
New	Anthony	Prysmian Group	Prysmian Group		X
Nicholl	Gary	Cisco	Cisco		
Nikolich	Paul	802 Chairman	802 Chairman		
Niihara	Yoshihiro	Fujikura	Fujikura		
Ogura	Ichiro	Petra	Petra		
Oi	Shigehiro	AGC	AGC		
Omori	Kumi	NEC	NEC		
Ortiz	David	KDPOF	KDPOF		
Pandey	Sujan	Huawei	Huawei		
Pankert	Joseph	TRUMPF Photonic Components	TRUMPF Photonic Components		
Pardo	Carlos	KDPOF	KDPOF	X	X
Parsons	Earl	Commscope	Commscope		
Patel	Harsh	Ampherol	Ampherol		X
Peng	Semmy	Huawei	Huawei		
Pérez-Aranda	Rubén	KDPOF	KDPOF	X	X
Peteranderl	Ralf	Rosenberger	Rosenberger		
Petrarca	Ryan	TDK	TDK		
Pham	Phong	EastPoint	EastPoint		
Piehler	David	Dell	Dell	X	
Pimpinella	Rick	Panduit	Panduit		
Pinzón	Plinio	KDPOF	KDPOF		
Pitwon	Richard	Resolute Photonics	Resolute Photonics		
Powell	William	Independent	Independent		
Preis	Roland	MD Elektronik	MD Elektronik		
Pritz	Helmut	MD Elektronik	MD Elektronik		
Regev	Alon	Keysight	Keysight		
Reinhard	Michael	SEI Antech-Europe GmbH	SEI Antech-Europe GmbH	X	
Ren	Hao	Huawei	Huawei		
Retting	Thomas	Beckhoff Automation	Beckhoff Automation		
Rodes	Roberto	II-VI	II-VI		
Rush	Joshua	UNH-IOL	UNH-IOL		
Sambasivan	Sam	AT&T	AT&T		
Sakai	Toshiaki	Socionext	Socionext		
Savi	Olindo	Hubbell Incorporated	Hubbell Incorporated		
Sawano	Hiroshi	OITDA		X	X
Sayre	Edward	Samtec	Samtec		
Schwaerzler	Sebastian	ZF	ZF		
Schmalzigaug	Thomas	HUBER+SUHNER	HUBER+SUHNER		
Shukla	Priyank	Synopsys	Synopsys		

Shigematsu	Masayuki	Sumitomo Electric	Sumitomo Electric		
Shiino	Masato	Furukawa Electric	Furukawa Electric	X	X
Shubochkin	Roman	OFS	OFS		
Schreiner	Stephan	Rosemberger	Rosemberger		
Shukla	Priyank	Synopsys	Synopsys		
Silvano de Sousa	Jonathan	GG-Group	GG-Group		
Simms	Bill	NVIDIA	NVIDIA		X
Sommers	Scott	Molex	Molex		
Su	Charles	Huawei	Huawei		
Sun	Wensheng	Marvell	Marvell	X	
Sun	Yi	OFS	OFS		
Sugihara	Okihiro	Utsunomiya University	Utsunomiya University		
Suzuki	Yasuo	KDPOF Japan	KDPOF		
Swanson	Steve	Corning Inc.	Corning Inc.		
Takahashi	Ryutaro	Senko	Senko		
Takahashi	Satoshi	POF Promotion	POF Promotion	X	X
Takahashi	Tadashi	Nitto Denko Corporation	Nitto Denko Corporation	X	
Takayama	Kazuya	Nitto Denko Corporation	Nitto Denko Corporation	X	
Tazebay	Mehmet				X
Tan	I-Hsing	Broadcom	Broadcom		
Tamada	Tomohiko	JAE	JAE		
Tazebay	Mehmet	Broadcom	Broadcom		
Theuerkom	Thomas	Corning	Corning		
Theodoras	James	HG Genuine	HG Genuine		
Thompson	Geoff	GraCaSi			
Tooyserkani	Pirooz	Cisco	Cisco		
Torres	Luisma	KDPOF	KDPOF	X	X
Tsujita	Yuichi	Nitto Denko Corporation	Nitto Denko Corporation	X	
Tsuzaki	Nozomi	Independent	Independent		
Ueno	Yuto	Sumitomo	Sumitomo		
Vanderlaan	Paul	UL LLC	UL LLC		
Von Vangerow	Christian	TE	TE		
Voss	Bob	Panduit	Panduit		
Walsh	Thomas	KDPOF	KDPOF		
Wang	Ruxou	Huawei	Huawei		
Wang	Sharon				X
Wang	Haojie	CMCC	CMCC		
WATANABE	Yuji	AGC	AGC	X	X
Wendt	Mattias	Signify	Signify		
Wienckowski	Natalie	General Motors	General Motors	X	X
Withey	James	Fluke	Fluke		
Wiesner	Michael	Trumpf	Trumpf		
Wu	Peter	Marvell	Marvell		X
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		
Yonemura	Masatoshi	NITech	NITech		
Yonezawa	Kenji	AGC	AGC		
Young	James	Commscope	Commscope		
Yurtin	John	APTIV	APTIV		
Zhang	Sen	Huawei	Huawei		
Zhang	Tingting	Huawei	Huawei		
Zhiwei	Yang	ZTE	ZTE		
Zhong	Qiwen	Huawei	Huawei		
Zhu	Liang	Marvell	Marvell		

Zhuang	Yan	Huawei	Huawei		
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Monday, 11th July 2022, 13:00 EST

The meeting was called to order at approximately 13:03 EST Monday 11th July 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/jul_2022/Agenda_3cz_01a_0722.pdf.

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

Mr. Grow asked for any modification or correction on the May TF interim minutes. No one answered, and Mr. Grow declared the minutes approved.

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. Grow announced that an invitation to join the ballot group for voting the draft in the IEEE-SA ballot stage was sent by 10 July, and will be closed 9 August. Mr. Grow explained how to join the ballot group.

Mr. Grow inform that there is a possibility to have SA ballot before September interim meeting.

Mr. Grow commented the meaning of an “out-of-scope” comment, and pointed out that many of the received comments on D2.1 were out-of-scope, and they were marked in the proposed response field of the database.

Mr. Grow announced that the P802.3cz modified PAR, CSD and objectives have been approved and are available in the TF website.

Mr. Grow presented the IEEE P802.3cz Working Group first recirculation results, summarized in the following table:

P802.3cz	Initial (D2.0)		Recirc 1 (D2.1)		Status	Req %
	#	%	#	%		
Comments	261	-	33		-	-
Abstain	15	10.20%	16	10.39%	PASS	< 30
Disapprove with comment	6	-	5		-	-
Disapprove without comment	0	-	-		-	-
Approve	126	95.45%	133	96.38%	PASS	≥ 75
Ballots returned	147	70.33%	154	73.68%	PASS	> 50
Voters	209	-	209		-	-

Mr. Grow talked about the future meetings. Mid-August teleconferences will be scheduled in case that the TF decide to have two recirculation ballots between July and September.

Mr. Torres asked to present *Chief Editor's report*
https://www.ieee802.org/3/cz/public/jul_2022/editor_3cz_01_0722.pdf This presentation showed the received comments statistics and a proposed roadmap to resolve them in the next two days during plenary 802.3 meeting. D2.1 received 33 comments and 26 late comments. Mr. Torres pointed out that due to the number of received comments, he proposed to proceed with the comment resolution in clause and line order. No objections were made to proceed with this order.

Mr. Torres moved to consider the 26 late comments received. Mr. Pérez-Aranda seconded. The wording of the motion was the following:

Motion #1

Move to consider the 26 late comments received in the TF comment resolution.

(Technical >= 75%)

Mover: Luisma Torres

Seconded: Rubén Pérez-Aranda

The motion passed by unanimous consent.

Mr. Torres started comment resolution of all 59 comments in the database, in line and page order.

First 35 comments were discussed and the TF reached consensus for their respective responses.

Mr. Murthy asked to present the late presentation *VCSEL wavelength for Automotive Links* (https://www.ieee802.org/3/cz/public/jul_2022/murthy_3cz_01_0722.pdf) supporting out-of-scope comment #32. The TF approved by unanimous consent to hear the presentation. The presentation proposed to increase the bandwidth range from 970-990 nm to 840-990 nm to allow the use of 850 nm VCSELs. A discussion started about the use of 850nm in automotive links, reliability, temperature range, testability, among others. Mr. Torres proposed to reject the comment based on the presentations and discussions made in the group and detailed in the proposed response for this comment. Mr. Murthy, Mr. Jackson and Mr. Isono opposed. Mr. Grow proposed a roll call vote on the comment resolution.

Mr. Ferretti proposed the following motion, seconded by Mr. Hayashi:

Motion #2

Move to postpone to take the vote about response to comment 32 until Tuesday.

(Technical >= 75%)

Mover: Vince Ferretti

Seconded: Takehiro Hayashi

The motion passed by unanimous consent.

Mr. Jackson moved to recess until 12 July. Mr. Lewis seconded. The motion was approved by unanimous consent. Mr. Grow declared the meeting recessed by approximately 17:08 EST.

Tuesday, 12th July 2022, 8:00 EST

The meeting was called to order at approximately 8:00 EST Tuesday 12th July 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/jul_2022/Agenda_3cz_01a_0722.pdf).

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. Pardo move the following motion, seconded by Ms. Wienckowski:

Motion #3

Move to approve the proposed response to comment #32 as drafted by the editor.

(Technical >= 75%)

Mover: Carlos Pardo

Secunder: Natalie Wienckowski

After discussion of the motion, several participants present opposition to approve the motion, and a roll call vote was conducted using DVL.

The results were 19 Yes, 9 No, 9 Abstain.

Attendee	Vote
Anthony New	Abstain
Carlos Pardo	Yes
David Lewis	No
David Malicoat	Abstain
Douglas Harshbarger	Yes
Emilio Cuesta	No
Erwin Koependoerfer	Yes
German Feyh	No
Golam Choudhury	No
Haysam Kadry	Abstain
Hideki Goto	Yes
Hideki Isono	No
John Abbott	Yes
John Calvin	Abstain
Karl Bois	No
Keisuke Kawahara	Yes
Kenneth Jackson	No
Kjersti Martino	Yes
Luis Torres	Yes
Masato Shiino	Abstain
Natalie Wienckowski	Yes
Nobuyasu Araki	Yes
Pavel Zivny	Yes
Ramana Murty	No
Ruben Perez De Aranda Alonso	Yes
Sam Kocsis	Yes
Satoshi Takahashi	Abstain
Suresh Donthu	Yes
Takehiro Hayashi	Yes
Tomohiro Kikuta	Abstain
Wensheng Sun	Abstain
William Simms	No
Yasuhiro Hyakutake	Yes
Yi Sun	Yes
Yoshihiro Niihara	Abstain
Jamila Borda	Yes
Vince Ferretti	Yes

Motion #3 failed.

Mr. Grow asked if there were any other proposed responses. Participants observed that a motion to accept obviously would not pass. With no other proposals for a response, Mr. Grow asked Mr. Torres to include in the comment resolution for #32 a sentence remarking that a consensus to make a change to the draft was not reached.

Mr. Torres continued the comment resolution, and reached comment #33. Mr. Pérez-Aranda asked to present *Fiber aging* (https://www.ieee802.org/3/cz/public/jul_2022/perezaranda_3cz_01_0722_fiber_aging.pdf) in support of comment #33. This presentation described the suggested changes in the draft to include the effect of the fiber aging on the system. After some discussion on the working of footnote b, the TF reached consensus on the answer to comment #32.

Mr. Torres continued the comment resolution, and the end of the comment list was reached.

On the view of the comment resolution results, Mr. Torres moved the following motion, seconded by Mr. Abbott:

Motion #4

Move to:

- Reaffirm the P802.3cz CSD responses (<https://mentor.ieee.org/802-ec/dcn/22/ec-22-0084-00-ACSD-p802-3cz.pdf>).
- Request conditional approval for P802.3cz Standards Association ballot.

(Technical >=75%)

Mover: Luisma Torres

Seconded: John Abbott

The motion was approved by unanimous consent.

Mr. Torres also moved the following motion, seconded by Mr. Pérez-Aranda:

Motion #5

Move to:

- Implement the approved responses with editorial license and generate D2.2 for WG recirculation ballot.

(Technical >=75%)

Mover: Luisma Torres

Seconded: Rubén Pérez-Aranda

The motion was approved by unanimous consent.




















Mr. Torres announced that he expected to have the D2.2 version of the draft ready for WG second recirculation by 22 July.

Mr. Grow presented *Agenda and General Information* (https://www.ieee802.org/3/cz/public/jul_2022/Agenda_3cz_01a_0722.pdf).


Mr. Grow asked to talk about future meetings and schedule for next recirculations and IEEE-SA ballot. Mr. Grow proposed to open second recirculation 25 July (based on Mr. Torres draft availability date), end by 9 August, and have Task Force meetings scheduled on 11-12 August to resolve comments against D2.2. The TF approved the proposed schedule without objection. A contingent third recirculation, depending on the number and substance of the comments received, would start by 15 August until 30 August, and the comment resolution would take place during the 802.3 September interim meeting.

Having exhausted the agenda items, the meeting was adjourned at approximately 11:45 UTC.
Recording secretary: Luisa Torres.



You don't typically include the below!


-  IEEE 802.3
Host, me
-  IEEE 802.3
Cohost 
-  IEEE 802.3
Cohost 
-  Anthony New Pry... 
-  Bob Grow RMG Consulting, ...
-  Erwin Koependoerfe...  
-  German Feyh - Br... 
-  Jim Graba, Broadcom 
-  John S AbbottCor... 
-  Keisuke Kawahara, Furukaw... 

MO  Mabud Choudhury OFS

ME  Masato Shiino FURUKAWA ...


MT  Mehmet Tazebay



  Natalie Wienckowski [GM]

NY  Nobuyasu Araki YAZAKI

PM  Peter Wu- Marvell

RK Rubén Pérez-Aranda, KDPOF

SW  Sharon Wang

TR  Thomas Mueller Rose... 

from IEEE 802.3 to everyone: 4:28 PM

Yuji Watanabe, AGC. Thank you for your advise

from Jose Castro to everyone: 4:30 PM

Jose Castro (Panduit)

from Mehmet Tazebay to everyone: 4:32 PM

Mehmet Tazebay [Broadcom]

from Natalie Wienckowski [GM] to everyone: 4:55 PM

The channel insertion loss is calculated at the end of the useful life, including aging, using the maximum distance specified in Table 166-7...