

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

Attendance list as recorded in Webex participant list

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

|                |           |                                |                                |   |
|----------------|-----------|--------------------------------|--------------------------------|---|
| Goto           | Hideki    | Toyota Motor Corporation       | Toyota Motor Corporation       | X |
| Grow           | Robert    | Robert M. Grow Consulting      | RMG Consulting, KDPOF          |   |
| Guangcan       | Mi        | Huawei                         | Huawei                         |   |
| Haasz          | Jodi      | IEEE-SA                        | IEEE-SA                        | X |
| Hajduczenia    | Marek     | Charter Communications         | Charter Communications         |   |
| Harshbarger    | Douglas   | Corning Incorporated           | Corning Incorporated           | X |
| Hartmann       | Stephan   | Siliconally GmbH               | Siliconally GmbH               |   |
| Hayashi        | Takehiro  | HAT Labs                       | HAT Labs                       | X |
| He             | Xiang     | Huawei                         | Huawei                         |   |
| HIRASE         | Hidenari  | AGC                            | AGC                            | X |
| Hormmeyer      | 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          | Tepei     | Denso                          | Denso                          |   |
| Ingham         | Jonathan  | Huawei                         | Huawei                         | X |
| 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 |
| KAGAMI         | Manabu    | NI Tech                        | NI Tech                        | X |
| Kazuhiko       | Ishibe    | Anritsu                        | Anritsu                        |   |
| Kamino         | John      | OFS                            | OFS                            | X |
| Kawahara       | Keisuke   | Furukawa Electric              | Furukawa Electric              |   |
| 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     | X |
| Kinningham     | Alan      | I-PEX                          | I-PEX                          |   |
| Kobayashi      | Shigeru   | AIO Core                       | AIO Core                       | X |
| Koeppendoerfer | Erwin     | Leoni                          | Leoni                          | X |
| Kondo          | Taiji     | MegaChips                      | MegaChips                      | X |
| Kota           | Kishore   | Marvell                        | Marvell                        |   |
| Kumadayazaki   | Takeo     |                                |                                |   |
| Kurashima      | Kazuyoshi | AGC                            | AGC                            | X |
| Lackner        | Hans      | QoSCom GmbH                    | QoSCom GmbH                    |   |
| Laubach        | Mark      | Self                           | Self                           |   |
| Law            | David     | HPE                            | HPE                            | X |
| Lewis          | David     | Lumentum                       | Lumentum                       | X |
| Li             | Tobey     | MediaTek                       | MediaTek                       |   |
| Liu            | Karen     | Lightwave                      | Lightwave                      |   |
| Lee            | Bernard   | Senko                          | Senko                          |   |
| Lee            | Sylvanus  | Leviton                        | Leviton                        |   |
| Lingle         | Robert    | OFS                            | OFS                            | X |
| Maguire        | Valerie   | Siemon                         | Siemon                         |   |
| Malicoat       | David     | Malicoat Networking Solutions  | Senko Advanced Components      |   |
| Mark           | Simon     | Würth                          | Würth                          |   |
| Martino        | Kjersti   | Inneos                         | Inneos                         | X |
| Marques        | Flavio    | Furukawa electric              | Furukawa Electric              |   |
| Masuda         | Takeo     | OITDA/PETRA                    | OITDA/PETRA                    | X |
| Matheus        | Kirsten   | BMW                            | BMW                            |   |

|                  |           |                            |                            |   |
|------------------|-----------|----------------------------|----------------------------|---|
| Mandel           | Juergen   |                            |                            | X |
| McMillan         | Larry     | Western Digital            | Western Digital            |   |
| Mueller          | Harald    | Endress + Hauser           | Endress + Hauser           |   |
| Mueller          | Thomas    | Rosenberger                | Rosenberger                | X |
| Murty            | Ramana    | Broadcom                   | Broadcom                   |   |
| Nakagawa         | Hideki    | AGC                        | AGC                        | X |
| Neulinger        | Christian | MD Elektronik              | MD Elektronik              | X |
| New              | Anthony   | Prysmian Group             | Prysmian Group             | X |
| Nicholl          | Gary      | Cisco                      | Cisco                      |   |
| Nikolich         | Paul      | 802 Chairman               | 802 Chairman               |   |
| Niihara          | Yoshihiro | Fujikura                   | Fujikura                   | X |
| Ogura            | Ichiro    | Petra                      | Petra                      | X |
| Omor             | Kumi      | NEC                        | NEC                        |   |
| Ortiz            | David     | KDPOF                      | KDPOF                      |   |
| Pandey           | Sujan     | Huawei                     | Huawei                     |   |
| Pankert          | Joseph    | TRUMPF Photonic Components | TRUMPF Photonic Components |   |
| Pardo            | Carlos    | KDPOF                      | KDPOF                      |   |
| Parsons          | Earl      | Commscope                  | Commscope                  |   |
| Peng             | Semmy     | Huawei                     | Huawei                     |   |
| Pérez-Aranda     | Rubén     | KDPOF                      | KDPOF                      | X |
| Peteranderl      | Ralf      | Rosenberger                | Rosenberger                |   |
| Petrarca         | Ryan      | TDK                        | TDK                        |   |
| Pham             | Phong     | EastPoint                  | EastPoint                  |   |
| Piehler          | David     | Dell                       | Dell                       |   |
| Pimpinella       | Rick      | Panduit                    | Panduit                    | X |
| Pinzón           | Plinio    | KDPOF                      | KDPOF                      |   |
| Pitwon           | Richard   | Resolute Photonics         | Resolute Photonics         | X |
| Powell           | William   | Independent                | Independent                |   |
| Preis            | Roland    | MD Elektronik              | MD Elektronik              | X |
| Pritz            | Helmut    | MD Elektronik              | MD Elektronik              | X |
| Regev            | Alon      | Keysight                   | Keysight                   |   |
| Reinhard         | Michael   | SEI Antech-Europe GmbH     | SEI Antech-Europe GmbH     |   |
| Ren              | Hao       | Huawei                     | Huawei                     |   |
| Retting          | Thomas    | Beckhoff Automation        | Beckhoff Automation        |   |
| 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                      |                            |   |
| Sayre            | Edward    | Samtec                     | Samtec                     |   |
| Schmalzigaug     | Thomas    | HUBER+SUHNER               | HUBER+SUHNER               | X |
| Shukla           | Priyank   | Synopsys                   | Synopsys                   |   |
| Shigematsu       | Masayuki  | Sumitomo Electric          | Sumitomo Electric          |   |
| Shiino           | Masato    | Furukawa Electric          | Furukawa Electric          | X |
| Shubochkin       | Roman     | OFS                        | OFS                        |   |
| 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                        | X |
| 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 |
| Tan          | I-Hsing   | Broadcom                | Broadcom                |   |
| Tamada       | Tomohiko  | JAE                     | JAE                     |   |
| Theuerkom    | Thomas    | Corning                 | Corning                 |   |
| Theodoras    | James     | HG Genuine              | HG Genuine              |   |
| Thompson     | Geoff     | GraCaSi                 |                         | X |
| Torres       | Luisma    | KDPOF                   | KDPOF                   |   |
| Tsujita      | Yuichi    | Nitto Denko Corporation | Nitto Denko Corporation | X |
| Tsuzaki      | Nozomi    | Independent             | Independent             | X |
| Ueno         | Yuto      | Sumitomo                | Sumitomo                | X |
| Vanderlaan   | Paul      | UL LLC                  | UL LLC                  |   |
| Von Vangerow | Christian | TE                      | TE                      |   |
| Voss         | Bob       | Panduit                 | Panduit                 | X |
| Walsh        | Thomas    | KDPOF                   | KDPOF                   | X |
| Wang         | Ruxou     | Huawei                  | Huawei                  |   |
| Wang         | Haojie    | CMCC                    | CMCC                    |   |
| WATANABE     | Yuji      | AGC                     | AGC                     | X |
| Wendt        | Mattias   | Signify                 | Signify                 |   |
| Wienckowski  | Natalie   | General Motors          | General Motors          | X |
| 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                     | X |
| Yonemura     | Masatoshi | NITech                  | NITech                  |   |
| Yonezawa     | Kenji     | AGC                     | AGC                     | X |
| Young        | James     | Commscope               | Commscope               | X |
| Yurtin       | John      | APTIV                   | APTIV                   | X |
| 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, 1st February 2022, 12:00 (noon) UTC

The meeting was called to order at approximately 12:00 UTC Tuesday 1st 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/1\\_feb\\_2022/Agenda\\_3cz\\_01\\_010222.pdf](https://www.ieee802.org/3/cz/public/1_feb_2022/Agenda_3cz_01_010222.pdf)).

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

Mr. Grow presented the January 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. Grow pointed out that the standard drafting process shown in the presentation is not normative, but a proven path to success. Mr. Grow also remarked that it is the WG members who approve the the WG ballot and that rules do not require TF approval to advance to WG ballot.

Mr. Grow also briefly summarize his report to the WG about the blocking situation in 802.3cz TF.

Mr. Grow commented that three technical contributions have been asked to be presented next week. Mr. Grow announced that a new TF interim meeting 8 February has been scheduled to make these presentations possible.

Mr. Swanson asked to present *Moving forward in IEEE 802.3cz*

([https://www.ieee802.org/3/cz/public/1\\_feb\\_2022/swanson\\_3cz\\_01\\_010222\\_Moving\\_Forward.pdf](https://www.ieee802.org/3/cz/public/1_feb_2022/swanson_3cz_01_010222_Moving_Forward.pdf)). This presentation is a summary of the current situation of the TF, a brief report of the voting results of the last motion about the adoption of the 980nm OM3, and its support level inside the TF. Mr. Swanson also pointed out that the different PMD proposals are on different timelines, that the TF Chair has the responsibility to produce a draft standard timely. And that there is a willingness for the 802.3 WG to take action if the TF fails to make progress.

After the presentation, Ms. Wienckowski moved Motion#1.

Motion #1

Move to adopt PMD, MDI and Media baseline text proposal of slides 6 – 12 of "swanson\_3cz\_02c\_030821\_AUTO\_MDI\_Baseline.pdf.

The motion was identified as technical (>= 75%).

Mr. Swanson seconded the motion.

The motion was opened for discussion.

Several participants spoke in favor of the motion, with arguments based on the expectation that the TF offer a timely, technically complete draft for voting in the WG. Also that it includes a PMD with broad support in the TF. It was also noted that the only reason given to not move forward is that an eventual PAR split to develop a standard based on the GIPOF PMD is not ready. Mr. Law and Mr. Grow clarified that the PAR split process can be done independently of the approval of Motion #1. Participants spoke against this motion based on the unresolved PAR split that would create a project to standardize a GIPOF PMD media separately. Opposition also suggested the need to collect more VCSEL random failures data. An OEM affiliated participant remarked that every automotive component has different fail modes, and that it is the standard in the industry is to control them at system level.

After a long discussion, Motion #1 was opened for voting using Direct Live Vote tool. The results were the following:

Yes: 37 No: 15 Abstain: 0

Motion #1 failed.

The detailed roll call results are shown in the following table.

| <b>Attendee</b>      | <b>Vote</b> |
|----------------------|-------------|
| Anthony New          | Yes         |
| Carlos Pardo         | Yes         |
| Chisato Gomez        | No          |
| Christian Neulinger  | Yes         |
| Christopher Diminico | Yes         |
| David Law            | Yes         |
| David Malicoat       | Yes         |
| Eric DiBiaso         | Yes         |
| Fernando Barbero     | Yes         |
| Haysam Kadry         | Yes         |

|                              |     |
|------------------------------|-----|
| Hideki Goto                  | No  |
| Hideki Isono                 | No  |
| Hideki Nakagawa              | No  |
| Hideshi Yasui                | No  |
| Ichiro Ogura                 | No  |
| James Young                  | Yes |
| Jamila Josip Borda           | Yes |
| John Abbott                  | Yes |
| John D'Ambrosia              | Yes |
| John Kamino                  | Yes |
| Jon Lewis                    | Yes |
| Jonathan Ingham              | Yes |
| Kazuya Takayama              | No  |
| Kenji Yonezawa               | No  |
| Kjersti Martino              | Yes |
| Luis Torres                  | Yes |
| Manabu Kagami                | Yes |
| Masato Shiino                | Yes |
| Michael Reinhard             | Yes |
| Natalie Wienckowski          | Yes |
| Nobuyasu Araki               | No  |
| Nozomi Tsuzaki               | No  |
| Rick Pimpinella              | Yes |
| Robert Lingle                | Yes |
| Robert Voss                  | Yes |
| Roger King                   | Yes |
| Roland Preis                 | Yes |
| Ruben Perez De Aranda Alonso | Yes |
| Satoshi Takahashi            | Yes |
| Shigeru Kobayashi            | No  |
| Steven Carlson               | Yes |
| Steven Swanson               | Yes |
| Tadashi Takahashi            | No  |
| Taiji Kondo                  | Yes |
| Takehiro Hayashi             | Yes |
| Takeo Masuda                 | No  |
| Vincent Ferretti             | Yes |
| Wensheng Sun                 | Yes |
| Yasuhiro Hyakutake           | Yes |
| Yasuo Suzuki                 | Yes |
| Yuichi Tsujita               | No  |
| Yuji Watanabe                | No  |

Several participants expressed their frustration about this blocking situation that is not related with technical discussions. Mr. Grow and Mr. Law (the 802.3 Chair) commented that some will be scheduled for WG discussion on P802.3, possibly in the mid-session WG teleconference of Plenary Meeting in March, where the WG may consider actions to try to unblock it at WG level.

Mr. Torres asked to review the ToDo list ([https://www.ieee802.org/3/cz/P802\\_3cz\\_todo\\_01n\\_200122.xlsm](https://www.ieee802.org/3/cz/P802_3cz_todo_01n_200122.xlsm)).

Mr. Ogura confirmed that he will present contributions about 1310 nm light source PMD bandwidth, attenuation, and launch conditions at a future meeting.

Mr. Pérez-Aranda confirmed that he will present contributions on 8<sup>th</sup> February about 980nm OM3 PMD that will allow a technically complete draft standard based on this PMD.

The ToDo list was updated accordingly.

Having completed the agenda, the meeting was adjourned without objection at approximately 13:26 UTC.

Recording secretary: Luisma Torres.