

# IEEE P802.3df 200 Gb/s, 400 Gb/s, 800 Gb/s, and 1.6 Tb/s Ethernet Task Force

Unapproved Meeting Minutes, prepared by John D'Ambrosia, Mark Nowell, and Kent Lusted

## 6 December 2022

December 2022 session

IEEE P802.3df Task Force December 2022 Meeting Task Force Page -

[https://www.ieee802.org/3/df/public/22\\_12/index.html](https://www.ieee802.org/3/df/public/22_12/index.html)

Meeting called to order at 9:00 am Eastern time (all times eastern)

Meeting called to order by John D'Ambrosia, IEEE P802.3df Task Force Chair.

Mark Nowell, Vice-Chair, reminded participants to declare their affiliation in the online meeting tool.

Chair provided an update on the IEEE P802.3dj Task Force. The IEEE SA approved the formation of the Task Force.

Chair thanked Mark Nowell, Kent Lusted, and David Law for their help to run the November meeting.

<b>Presentation #1</b>	<b>Agenda and General Information</b>
Presenters	John D'Ambrosia
URL	<a href="https://www.ieee802.org/3/df/public/22_12/agenda_3df_a_2212.pdf">https://www.ieee802.org/3/df/public/22_12/agenda_3df_a_2212.pdf</a>

Chair noted an error in the agenda and corrected it with version 'a'.

Chair welcomed everyone to the meeting.

Chair reminded participants to declare their affiliation in the online meeting tool.

Chair noted that there may be an update to the January interim meeting on 16 January due to a US holiday.

Chair reminded participants to declare their affiliation in the online meeting tool.

Chair noted that Task Force meeting attendance would be through the IEEE Meeting Attendance Tool (IMAT).

Chair reviewed the agenda (Slide #2) and noted presentation order on Slide #3. Chair noted that individuals should check the webpage for the latest version of each presentation. Chair noted that all of the presentation times were subject to change.

Chair asked if there were any objections to the agenda. There were none. The agenda was considered approved by unanimous consent.

Minutes –

- November 2022 session - [https://www.ieee802.org/3/df/public/22\\_11/minutes\\_3df\\_2211\\_unapproved.pdf](https://www.ieee802.org/3/df/public/22_11/minutes_3df_2211_unapproved.pdf)

Chair asked if there were any corrections or modifications to the posted minutes. There were none. Chair asked if there were any objections to approving the minutes. There were none, and the minutes were considered approved by unanimous consent.

Chair reviewed meeting decorum. (See Slide #5-6) Chair asked if there were any members of the press present. No one responded.

Chair reviewed attendance. (See Slide #7) Chair noted that Task Force meeting attendance would be through the IEEE Meeting Attendance (IMAT).

Chair reviewed the Task Force Project Information / Organization. (See Slide #8).

Chair reviewed ground rules. (See Slide #9)

Chair reviewed the current state of the Task Force. (See Slide #15.)

Chair reviewed voting in the task force. (See Slide #11 and slide #12) Chair noted that the straw polls would use the online Zoom tool. Motions would be taken with the Direct Vote Live tool if there was not unanimous consent.

Slide #13 - Chair noted that the information regarding the IEEE SA Policies had been sent out via the Task Force reflector , and requested that individuals review the following IEEE SA policies prior to the interim meeting –

- IEEE SA Patent policy
- IEEE SA Copyright Policy
- IEEE SA Participation Policy

Chair asked if anyone needed to review the policies at that time – there were no requests to do so from in-person nor remote attendees.

Chair presented the third slide (See Slide #33) of the IEEE SA Patent Policy slides. Chair did call for Potentially Essential Patents, and no one came forward.

Chair presented the second slide (See Slide #38) of the IEEE SA Copyright Policy slides. Chair noted – “By participating in this activity, you agree to comply with the IEEE Code of Ethics, all applicable laws, and all IEEE policies and procedures including, but not limited to, the IEEE SA Copyright Policy.”

Chair presented the second slide (See Slide #42) of the IEEE SA Participation Policy slides. Chair noted – “Participants in the IEEE-SA “individual process” shall act independently of others, including employers. By participating in standards activities using the “individual process”, you are deemed to accept these requirements; if you are unable to satisfy these requirements then you shall immediately cease any participation.”

Chair noted there were no liaisons to consider.

**Presentation #2:**

Title	Chief Editors Report
Presenters	Matt Brown
URL	<a href="https://www.ieee802.org/3/df/public/22_12/brown_3df_01_2212.pdf">https://www.ieee802.org/3/df/public/22_12/brown_3df_01_2212.pdf</a>

Questions of clarification were addressed.

Chair reviewed the approach to comment resolution on slide 6 of the Chief Editor's report. (see: [https://www.ieee802.org/3/df/public/22\\_12/brown\\_3df\\_01\\_2212.pdf](https://www.ieee802.org/3/df/public/22_12/brown_3df_01_2212.pdf) ) Chair asked if there was opposition to the approach. No one responded.

**Presentation #3:**

Title	Comment Agenda
Presenters	Matt Brown
URL	<a href="https://www.ieee802.org/3/df/public/22_12/brown_3df_02_2212.pdf">https://www.ieee802.org/3/df/public/22_12/brown_3df_02_2212.pdf</a>

Chief Editor noted that the comment order was subject to change.

Chief Editor noted that there was an availability issue with the logic editor on Wednesday. He noted that the optical comment agenda items may be moved to Wednesday and the logic agenda times to Thursday. Confirmation would be sent via the email reflector.

There was a request to provide a list of comments to cover each session day. It was decided that the comment agenda was sufficient.

Chair reminded participants to sign into the IEEE Meeting Attendance Tool for Task Force attendance credit.

Chair appointed Kent Lusted to assist the editorial team with comment resolution and queue management as needed.

Comment resolution began with Matt Brown running comment resolution.

**Comment Resolution Input from Editorial Team**

See: [https://www.ieee802.org/3/df/public/22\\_12/brown\\_3df\\_03a\\_2212.pdf](https://www.ieee802.org/3/df/public/22_12/brown_3df_03a_2212.pdf)

Editorial team noted that the document would be referenced throughout comment resolution and may be updated based on discussion.

Chair noted that he received requests to pull comments # 44, 18, 45, 46, 30, 31, 32, 150, 152, 156, 184, 154, 173, 183, 10, 187 from the bucket prior to the deadline. Chair asked if there were bucket pull requests that he missed. No one responded.

<b>Motion #1</b>	Move to adopt the proposed responses in <a href="https://www.ieee802.org/3/df/comments/D1p0/8023df_D1p0_comments_bucket1_clause.pdf">https://www.ieee802.org/3/df/comments/D1p0/8023df_D1p0_comments_bucket1_clause.pdf</a> except # 44, 18, 45, 46, 30, 31, 32, 150, 152, 156, 184, 154, 173, 183, 10, 187
<b>Technical (&gt;= 75%)</b>	
<b>Moved by</b>	Matt Brown
<b>Second by</b>	Piers Dawe
<b>Results 802.3 (y/n/a)</b>	passed by unanimous consent. 10:10 a.m.

Matt Brown noted that he would pass the comment resolution responsibilities to Adee Ran at approximately 12:00 noon Eastern time due to his availability. He also noted that if the Cross Clause topics were completed ahead of schedule that the subsequent topic would be logic items.

Prior to the start of presentation #4, the author had an updated presentation with additional supporters in version '01a'. Chair would post it to the website.

#### Presentation #4

Title	Lane Muxing constraints for 800GBASE-4 PMA (Related to Comments #6, 166, 167)
Presenters	Adee Ran
URL	<a href="https://www.ieee802.org/3/df/public/22_12/ran_3df_01a_2212.pdf">https://www.ieee802.org/3/df/public/22_12/ran_3df_01a_2212.pdf</a>

There was an error on slide 3 where “flow 0 are denoted C/D” should be “flow 1 are denoted C/D”. The error would be fixed in version '01a'. Ali Ghiasi offered his support of the presentation. Questions of clarification were addressed.

Break at 10:53 a.m. Resumed at 11:00 a.m.

Chair reminded participants to sign into the IEEE Meeting Attendance Tool for Task Force attendance credit.

Prior to the start of presentation #5, the author had an updated presentation with editorial changes in version '01a'. Chair would post it to the website.

#### Presentation #5

Title	Multiplexing rules and impairments
Presenters	Piers Dawe
URL	<a href="https://www.ieee802.org/3/df/public/22_12/dawe_3df_01a_2212.pdf">https://www.ieee802.org/3/df/public/22_12/dawe_3df_01a_2212.pdf</a>

Questions of clarification were addressed.

#### Straw Poll #1

Type: Directional

Topic: PCS lane multiplexing

(see comment #6 in the comment reports)

## **Straw Poll #2**

Type: Directional

Topic: PCS lane multiplexing

(see comment #6 in the comment reports)

Chair reminded participants to sign into the IEEE Meeting Attendance Tool for Task Force attendance credit.

At 11:58 a.m, Matt Brown passed the comment resolution responsibilities to Adee Ran.

Chair and Chief Editor announced that Wednesday would start with the optic topic then move to the logic topic. Details would be sent to the Task Force email reflector.

Adee Ran had the comment resolution responsibilities.

Comment resolution recessed for the day at 12:54 p.m.

Chair noted that the Wednesday meeting would start with the optic topic then move to the logic topic due to editor availability.

Chair would be updating the website with the revised presentations.

Chair reminded participants of the call for presentations for the January 2023 meetings. (see: <https://www.ieee802.org/3/B400G/email/msg00587.html> )

Meeting recessed for the day at 12:57 p.m.

## 7 December 2022

Meeting reconvened at 9:00 a.m. eastern time zone.

Chair made opening comments and reviewed the plans for the day. (see: agenda deck) He reviewed the requirements to proceed to a Working Group ballot. Chief Editor Matt Brown noted that the current draft does not contain any TBDs.

Chair noted that the current Task Force schedule trend was to request a Working Group ballot at the March 2023 plenary meeting.

Vice-Chair reminded participants to declare their affiliation in the online meeting tool.

Chair appointed Kent Lusted to assist the editorial team with comment resolution and queue management as needed.

Chair reminded participants to sign into the IEEE Meeting Attendance Tool for Task Force attendance credit.

Chair noted that there was a late presentation from Piers Dawe on the topic of fiber connectors with comments #146, 145. He asked if there was opposition to accepting the presentation. No one responded.

### Presentation #6:

Title	Comment Agenda
Presenters	Matt Brown
URL	<a href="https://www.ieee802.org/3/df/public/22_12/brown_3df_02a_2212.pdf">https://www.ieee802.org/3/df/public/22_12/brown_3df_02a_2212.pdf</a>

The Chief Editor reviewed the updated comment agenda and noted that the comment order was subject to change.

Comment resolution began.

At 9:12 a.m, Matt Brown passed the comment resolution responsibilities to Tom Issenhuth.

### Presentation #7:

Title	Optical connector types for 800GBASE-VR8, 800GBASE-SR8, 800GBASE-DR8 and 800GBASE-DR8-2
Presenters	Piers Dawe
URL	<a href="https://www.ieee802.org/3/df/public/22_12/dawe_3df_02_2212.pdf">https://www.ieee802.org/3/df/public/22_12/dawe_3df_02_2212.pdf</a>

Author made editorial corrections to add "SMF" on slide 2 and "MMF" on slide 3 and would send updated version '02' for posting. Chair noted that the presentation had not been uploaded at the time of the presentation, so the updated version would still be "02."

Questions of clarification were addressed.

During the discussion of comment #123 related to 200GBASE-DR2 and 200GBASE-DR2-2, Chair reviewed the project scope per the approved PAR and CSD. Chair allowed an initial conversation to provide direction to the participants and noted that the proposed PMDs were not in scope. Chair reviewed the process to bring the topic for consideration by the Task Force.

#### **Comment Resolution Input from Editorial Team**

See: [https://www.ieee802.org/3/df/public/22\\_12/brown\\_3df\\_03a\\_2212.pdf](https://www.ieee802.org/3/df/public/22_12/brown_3df_03a_2212.pdf)

Editorial team noted that the document would be referenced throughout comment resolution and may be updated based on discussion.

Editor asked if there was objection to reopening comment #103 to correct a reference. No one responded. The comment was reopened, corrected, and closed.

At 10:30 a.m, Matt Brown resumed the comment resolution responsibilities.

Chair noted that the next topic would be the cross clause topic then proceed to the logic topic.

Break at 10:51 a.m. Resumed at 11:00 a.m.

Chair reminded participants to sign into the IEEE Meeting Attendance Tool.

#### **Comment Resolution Input from Editorial Team**

See: [https://www.ieee802.org/3/df/public/22\\_12/brown\\_3df\\_03a\\_2212.pdf](https://www.ieee802.org/3/df/public/22_12/brown_3df_03a_2212.pdf)

Editorial team noted that the document would be referenced throughout comment resolution and may be updated based on discussion.

Changes were made to the comment resolution input document and saved as version '03b'. (see: [https://www.ieee802.org/3/df/public/22\\_12/brown\\_3df\\_03b\\_2212.pdf](https://www.ieee802.org/3/df/public/22_12/brown_3df_03b_2212.pdf) )

Chief Editor noted that there was an error with closing comment #129 and #143 as the responses were intended for a different comment. The Chief Editor asked if there was objection to reopening these comments for correcting the response. No one responded. The comments were opened, corrected and closed.

Comment resolution recessed for the day.

Chair reminded participants to sign into the IEEE Meeting Attendance Tool.

The Chief Editor reviewed the remaining comments left to resolve. The Thursday meeting would start with the logic topic.

Chair noted that completing comment resolution on 9 December would provide the editorial team with extra time to prepare the next draft D1.1.

Chair thanked participants for their hard work in comment resolution.

Meeting recessed for the day at 12:59 p.m.

## 8 December 2022

Meeting reconvened at 9:02 a.m.

Chair made opening comments and reviewed the plans for the day. (See [https://www.ieee802.org/3/df/public/22\\_12/agenda\\_3df\\_a\\_2212.pdf](https://www.ieee802.org/3/df/public/22_12/agenda_3df_a_2212.pdf) )

Chair reminded participants to sign into the IEEE Meeting Attendance Tool for attendance credit.

Vice-Chair reminded remote participants to declare their affiliation in the online tool.

Chair noted that the P802.3df Task Force web page was updated to reflect the approved PAR modification and CSD. Both the P802.3df and the P802.3dj email reflectors would be shared across the two projects. (see: <https://www.ieee802.org/3/B400G/email/msg00604.html>)

Chair received an updated presentation from Eugene Opsasnick with an additional supporter. It was posted to the website as version '01a'.

### **Presentation #8:**

Title	Comment Agenda
Presenters	Matt Brown
URL	<a href="https://www.ieee802.org/3/df/public/22_12/brown_3df_02a_2212.pdf">https://www.ieee802.org/3/df/public/22_12/brown_3df_02a_2212.pdf</a>

The Chief Editor reviewed the updated comment agenda and noted that the comment order was subject to change. The responses to the comments pulled from the bucket had been updated based on feedback from participants.

Comment resolution resumed.

At 9:12 a.m, Matt Brown passed the comment resolution responsibilities to Gary Nicholl.

Gary Nicholl asked if there was objection to reopening comment #180 to fix a reference. No one responded. The comment was opened, corrected and closed.

### **Comment Resolution Input from Editorial Team**

See: [https://www.ieee802.org/3/df/public/22\\_12/brown\\_3df\\_03b\\_2212.pdf](https://www.ieee802.org/3/df/public/22_12/brown_3df_03b_2212.pdf)

Editorial team noted that the document would be referenced throughout comment resolution and may be updated based on discussion.

### **Straw Poll #3**

Type: Directional

Topic: FEC bin counters

(see comment #189 in the comment reports)

#### Straw Poll #4

Type: Directional

Topic: FEC bin counters

(see comment #189 in the comment reports)

#### Presentation #9:

Title	<b>OTN Reference Point considerations</b>
Presenters	Tom Huber
URL	<a href="https://www.ieee802.org/3/df/public/22_12/huber_3df_01_2212.pdf">https://www.ieee802.org/3/df/public/22_12/huber_3df_01_2212.pdf</a>

Questions of clarification were addressed.

Chair asked Tom Huber to draft the proposed liaison to ITU-T for consideration by the Task Force.

Shawn Nicholl withdrew comment #107.

#### Presentation #10:

Title	<b>MTTFPA Analysis and Updates for Stateless 64B/66B Coding</b>
Presenters	Eugene Opsasnick
URL	<a href="https://www.ieee802.org/3/df/public/22_12/opsasnick_3df_01a_2212.pdf">https://www.ieee802.org/3/df/public/22_12/opsasnick_3df_01a_2212.pdf</a>

Questions of clarification were addressed.

Break at 11:00 a.m. Resumed at 11:10 a.m.

#### Comment Resolution Input from Editorial Team

See: [https://www.ieee802.org/3/df/public/22\\_12/brown\\_3df\\_03c\\_2212.pdf](https://www.ieee802.org/3/df/public/22_12/brown_3df_03c_2212.pdf)

Reviewed the PMA service interface clarifications on slides 44-54.

Chair noted that approximately 10 minutes of meeting remain for the day and approximately 10 comments remain.

Chair intended to complete comment resolution at the meeting.

Comment resolution recessed at 12:38 p.m.

Chair reviewed the future meetings. (see slide 17 in [https://www.ieee802.org/3/df/public/22\\_12/agenda\\_3df\\_a\\_2212.pdf](https://www.ieee802.org/3/df/public/22_12/agenda_3df_a_2212.pdf)) He noted that the January 2023 session would be a joint meeting of the P802.3df and P802.3dj Task Forces. The meeting on 16 January would focus on P802.3df administrative topics. The final agenda for the January session would be dependent on the number of presentation requests and D1.1 submitted comments. The February 2023 session would consider comments submitted during the anticipated Task Force Review D1.2.

Matt Brown confirmed that all comments had been closed. Chair announced that the comment resolution was complete.

Chair reminded participants to sign into the IEEE Meeting Attendance Tool for attendance credit.

Chair noted that he would try to take motion #2 by unanimous support and proceed to DVL if needed.

<b>Motion #2</b>	Move that the IEEE P802.3df Task Force generate Draft 1.1 for the second Task Force Review from D1.0 and the closed comments
<b>Technical (&gt;= 75%)</b>	
<b>Moved by</b>	Matt Brown
<b>Second by</b>	Mark Nowell
<b>Results 802.3 (y/n/a)</b>	passed by unanimous consent. 12:46 pm.

Chair noted that in motion #2 the closed comments included the bucket comments that were closed on 6 December by motion #1.

Chair thanked the participants and the editors for their hard work during comment resolution and improving the quality of the draft.

Chair noted that the scheduled Task Force meetings on 13-15 Dec would be canceled as a result of the progress made. He also noted that there would be no ad hoc meetings that week.

Chair discussed the schedule for the second Task Force review. Details would be sent via the email reflector.

Chair noted that the P802.3df Task Force web page was updated to reflect the approved PAR modification and CSD. Both the P802.3df and the P802.3dj email reflectors would be shared across the two projects. (see: <https://www.ieee802.org/3/B400G/email/msg00604.html>)

Chair noted that the agenda was complete.

Meeting adjourned at 12:53 p.m.

## Attendees

Name	Employer	Affiliation	6-Dec	7-Dec	8-Dec
Barakatain, Masoud		Huawei Technologies Co., Ltd			X
Ben-Artzi, Liav	Marvell Semiconductor, Inc.	Marvell Semiconductor, Inc.	X		X
Bernier, Eric	Huawei Technologies Canada Co., Ltd.	Huawei Technologies Canada Co., Ltd.	X	X	X
Bernstein, Gary	Leviton Manufacturing Co.	The Siemon Company	X		
Bliss, William	Broadcom Corporation	Broadcom Corporation	X	X	X
Bois, Karl	NVIDIA Corporation	NVIDIA Corporation	X	X	
Brooks, Paul	Viavi solutions GmbH	Viavi Solutions	X	X	X
Brown, Matthew	Huawei Technologies Canada	Huawei Technologies Canada	X	X	X
Bruckman, Leon	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd	X	X	X
Cai, Yuefeng		Huawei Technologies Co., Ltd		X	X
Calvin, John	Keysight Technologies	Keysight Technologies	X	X	X
Casher, Patrick		Foxconn Interconnect Technologies (FIT)	X	X	
Chang, Yongmao	Inphi Corporation	Source Photonics		X	X
Chappell, Neveia		Keysight Technologies	X	X	X
Chen, Chan	Applied Optoelectronics, Inc.	Applied Optoelectronics, Inc.	X	X	
Chen, Chin-Hui		Meta Platforms		X	
Cox, Ian		Broadcom Corporation	X	X	X
D'Ambrosia, John	Futurewei Technologies, U.S. Subsidiary of Huawei	Futurewei Technologies, U.S. Subsidiary of Huawei	X	X	X
Dawe, Piers J G	NVIDIA	Nvidia	X	X	X
de Koos, Andras	Microchip Technology Inc	Microchip Technology, Inc.	X	X	X
Del Vecchio, Peter		Broadcom Corporation	X	X	X
Didde, Stephen	Keysight Technologies	Keysight Technologies			X

Dumais, Patrick		Huawei Technologies Co., Ltd		X	
Ewen, John	Marvell	Marvell	X	X	X
Ferretti, Vincent	Corning Incorporated	Corning Incorporated	X		
FILIPPOU, DIMITRIS		Dimitris Filippou; I2QS		X	X
Gao, Xiangrong	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd	X		
Geng, Limin	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd	X	X	X
Ghiasi, Ali	Ghiasi Quantum LLC	Ghiasi Quantum LLC; Marvell Semiconductor, Inc.	X	X	X
Gorshe, Steven Scott	Microchip Technology, Inc.	Microchip Technology, Inc.		X	
Gustlin, Mark	Cisco Systems, Inc.	Cisco Systems, Inc.	X	X	X
He, Xiang	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd	X	X	X
Healey, Adam	Broadcom Inc.	Broadcom Inc.	X	X	X
Heck, Howard	Intel	Intel	X	X	X
Hidaka, Yasuo	Credo Semiconductor	Credo Semiconductor	X	X	X
Huang, Kechao	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd	X		X
HUANG, QINHUI	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd	X	X	X
Huber, Thomas	Nokia	Nokia	X	X	X
Hutchins, Jeff	Ranovus	Ranovus	X		X
Isono, Hideki	Fujitsu Optical Components Limited	Fujitsu Optical Components Limited		X	
Issenhuth, Tom	Issenhuth Consulting, LLC	Huawei Technologies Co., Ltd	X	X	X
Jackson, Kenneth	Sumitomo Electric Device Innovations, USA	Sumitomo Electric Industries, LTD	X	X	X
Jiang, Chendi	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd			X
Johnson, John	Broadcom Corporation	Broadcom Corporation	X	X	
Kao, Chienping	Intel	Cornelis Networks	X		X
Kareti, Upen	Cisco Systems, Inc.	Cisco Systems, Inc.	X	X	X
Kim, Kihong/Joshua	Hirose Electric (USA), Inc.	Hirose Electric (USA), Inc.	X	X	X

Kim, Taeyong		LESSENGERS Inc.	X	X	X
Kimber, Eric	Semtech Ltd	Semtech Ltd		X	
Klempa, Michael	Amphenol Corporation	Alphawave IP	X	X	X
Klingensmith, William	U.S. Federal Government	DoD	X		
Koch, Lavi		Nvidia	X	X	X
Kochuparambil, Elizabeth	Cisco Systems, Inc.	Cisco Systems, Inc.	X		
Kocsis, Sam	Amphenol Corporation	Amphenol Corporation	X	X	X
Kondo, Taiji	MegaChips Corporation	Dexerials Corporation		X	X
Krishnasamy, Kumaran	Broadcom Corporation	Broadcom Corporation	X	X	X
Lambert, Angela	Corning Incorporated	Corning Incorporated	X	X	X
Law, David	Hewlett Packard Enterprise	Hewlett Packard Enterprise			X
Lawson, Matthew	Cisco Systems, Inc.	Cisco Systems, Inc.		X	X
Le Cheminant, Greg	Keysight Technologies	Keysight Technologies	X	X	X
Li, Mike-Peng	Intel	Intel			X
Li, Pei-Rong	MediaTek Inc.	MediaTek Inc.	X	X	X
Lieder, Eyal		Marvell Semiconductor, Inc.	X	X	X
Lim, Jane	Cisco Systems, Inc.	Cisco Systems, Inc.	X	X	X
Lin, Youxi	Huawei Technologies Duesseldorf GmbH	Huawei Technologies Co., Ltd			X
Little, Terrance	Foxconn Electronics Inc.	Foxconn Electronics Inc.		X	
Liu, Cathy	Broadcom Corporation	Broadcom Corporation	X	X	X
Liu, Karen	Nubis Communications	Nubis Communications	X	X	X
LIU, XIANG	Huawei R&D USA	Huawei Technologies Co., Ltd	X		
Lusted, Kent	Intel	Intel	X	X	X
Maki, Jeffery	Juniper Networks, Inc.	Juniper Networks, Inc.	X	X	X

Malicoat, David	Malicoat Networking Solutions	Malicoat Networking Solutions; SENKO Advanced Components	X	X	X
Maniloff, Eric	Ciena Corporation	Ciena Corporation	X	X	X
Marris, Arthur	Cadence Design Systems, Inc.	Cadence Design Systems, Inc.	X		X
Mellitz, Richard	Samtec, Inc.	Samtec, Inc.	X	X	X
mi, guangcan	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd	X	X	X
Moorwood, Charles	Keysight Technologies	Keysight Technologies	X	X	X
Muller, Shimon	Enfabrica Corp.	Enfabrica	X	X	X
Nering, Raymond	Cisco Systems, Inc.	Cisco Systems, Inc.	X	X	X
Nicholl, Gary	Cisco Systems, Inc.	Cisco Systems, Inc.	X	X	X
Nicholl, Shawn	Xilinx	Advanced Micro Devices (AMD)			X
Nikolich, Paul	SELF FUNDED	self employed/various		X	
Ninomiya, Takuya		Senko Advanced Components	X	X	X
Nowell, Mark	Cisco Systems, Inc.	Cisco Systems, Inc.	X	X	X
Ofelt, David	Juniper Networks, Inc.	Juniper Networks, Inc.	X	X	X
Opsasnick, Eugene	Broadcom Inc.	Broadcom Inc.	X	X	X
Palkert, Thomas	Macom,&nbsp;Samtec	Samtec-Macom	X		
PARK, CHUL SOO	Juniper Networks Inc.	Juniper Networks, Inc.	X	X	X
Parsons, Earl	CommScope, Inc.	CommScope, Inc.	X	X	X
Parthasarathy, Vasu	Broadcom Corporation	Broadcom Corporation	X		
peng, semmy		Huawei Technologies Co., Ltd	X	X	X
Piehler, David	Dell Technologies	Dell	X	X	X
Pimpinella, Rick	Panduit Corp.	Panduit Corp.	X	X	X
Quan, Yu	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd		X	
Rabinovich, Rick	Keysight Technologies	Keysight Technologies	X	X	X
Rahn, Jeffrey	Facebook	Facebook		X	
Ran, Adee	Cisco Systems, Inc.	Cisco Systems, Inc.	X	X	

Rechtman, Zvi	NVIDIA	NVIDIA		X	
Ren, Hao	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd		X	X
Rodes, Roberto	II-VI	II-VI	X	X	X
Sakai, Toshiaki	Socionext Inc.	socionext	X	X	X
Savi, Olindo	Hubbell Incorporated	Hubbell Incorporated		X	X
Shanbhag, Megha	Tyco	TE Connectivity			X
Shoval, Ayal	Synopsys, Inc.	Synopsys, Inc.	X		
Shrikhande, Kapil	Marvell Semiconductor, Inc.	Marvell Semiconductor, Inc.	X	X	X
Shukla, Priyank	Synopsys, Inc.	Synopsys, Inc.	X	X	X
Sikkink, Mark	Hewlett Packard Enterprise	Hewlett Packard Enterprise	X	X	X
Simms, William	NVIDIA Corporation	NVIDIA Corporation	X	X	X
Sinn, Peter		Alphawave IP	X	X	X
Slavick, Jeff	Broadcom Inc	Broadcom Inc	X	X	X
Sluyski, MIke		Cisco Systems, Inc.	X	X	X
Sommers, Scott	Molex LLC	Molex Incorporated	X	X	X
Son, Yung Sung	Optomind Inc	Optomind Inc	X	X	X
Sorbara, Massimo	GLOBALFOUNDRIES	GLOBALFOUNDRIES	X	X	X
Stassar, Peter	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd	X	X	
SU, CHANGZHENG		Huawei Technologies Co., Ltd	X		
Summers, Robert		Broadcom Corporation	X	X	X
Sun, Yi		OFS			X
TAKAHARA, TOMOO	FUJITSU LABORATORIES LIMITED	FUJITSU LIMITED	X	X	
Terada, Masaru	FURUKAWA ELECTRIC	FURUKAWA ELECTRIC		X	
Toyserkani, Pirooz	Cisco Systems, Inc.	Cisco Systems, Inc.	X	X	X
Tracy, Nathan	TE Connectivity	TE Connectivity	X		X
Tran, Viet	Keysight Technologies	Keysight Technologies	X	X	X

Vitali, Marco	Sicoya	Sicoya	X		X
Wang, Ruoxu	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd	X	X	X
Weaver, James	Arista Networks	Arista Networks	X		X
Welch, Brian	Cisco Systems, Inc.	Luxtera	X	X	X
Williams, Tom	Cisco Systems, Inc.	Cisco Systems, Inc.	X	X	
Wingrove, Michael	Ciena Corporation	Ciena Corporation	X	X	X
Winzer, Peter		Nubis Communications	X		
Wu, Mau-Lin	MediaTek Inc.	MediaTek Inc.	X	X	X
yan, zengchao	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd	X		X
Yin, Shuang		Google	X	X	X
Young, James	CommScope, Inc.	CommScope			X
Zhang, Bo	Marvell Technology, Inc	Marvell Technology, Inc		X	
Zhong, Qiwen	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd			X
Zhuang, Yan	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd	X	X	X

