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

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

14 November 2022
November 2022 Plenary meeting
IEEE P802.3df Task Force November 2022 Meeting Task Force Page -
https://www.ieee802.org/3/df/public/22_11/index.html

Meeting called to order at 1:06 pm ICT (all times ICT), 14 November 2022

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

Presentation #1	**Agenda and General Information**
Presenters	John D'Ambrosia
URL	https://www.ieee802.org/3/df/public/22_11/agenda_3df_a_2211.pdf

Chair welcomed everyone to the meeting.

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

Chair noted that the in-room attendees are now permitted to join the online meeting session without audio and video.

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

Chair reminded participants that every attendee at any IEEE 802 plenary meeting must register and pay a fee to participate. (see: https://www.ieee802.org/3/df/public/22_11/agenda_3df_2211.pdf slide 2)

Chair noted that the primary goal for the plenary meeting was to respond to comments submitted against the proposed PAR and CSD modifications. Second priority was to hear all of the presentations and discuss them. Straw polls would be completed as time allowed. Chair noted that any motions made in the November plenary related to 800 GbE and 1.6 TbE would need to be reaffirmed by the P802.3dj Task Force when approved. Chair stated that he did not want to spend time on controversial motions at the November meeting.

Chair reviewed the agenda (Slide #3) and noted presentation order on Slides #4 thru #7. 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 –

- October 2022 session - https://www.ieee802.org/3/df/public/22_10/minutes_3df_2210_unapproved.pdf

Chair asked if there were any corrections or modifications. 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 #9.) Chair asked if there were any members of the press present. No one responded.

Chair noted that the in-room attendees are now permitted to join the online meeting session without audio and video.

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

Chair reviewed attendance. (See Slide #12.) 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 #13).

Chair reviewed ground rules. (See Slide #14.)

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

Chair reviewed voting in the task force. (See Slide #16 and slide #17.) Chair noted that the straw polls would use the online Zoom tool.

Slide #18 - Chair noted that the information regarding the IEEE SA Policies had been sent out via the Task Force reflector (see: https://www.ieee802.org/3/B400G/email/msg00520.html) , 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 #38) 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 #43) 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 #47) 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 two liaisons from the OIF for the Task Force to consider: one regarding the 800ZR/800LR IA (see: Slide #19, https://www.ieee802.org/3/df/public/22_09/OIF_liaison_letter_IEEE803.2_800LR_29Aug22_Redacted.pdf) and one regarding the CEI-112G-XSR+ specification (see: https://www.ieee802.org/3/private/liaison_docs/OIF/OIF_liaison_IEEE_802.3_CEI-112G-XSRplus_cover_08Nov22-combined.pdf) .

Chair prepared a draft liaison communication for the Task Force to consider for the 800ZR/800LR IA. Feedback was received from Tom Huber and the updated version was posted on the website. (see: https://www.ieee802.org/3/df/public/22_11/dambrosia_3df_02a_2211_Redacted.pdf)

Chair appointed Kent Lusted to determine if a response to the OIF liaison on CEI-112G-XSR+.

Chair reviewed the status of the Architecture & Logic, Electrical, and Optics ad hoc meetings. See Slide #18.

Presentation #2:

Title	200G/Lane AUI FEC Direction
Presenters	Mark Gustlin
URL	https://www.ieee802.org/3/df/public/22_11/gustlin_3df_01_2211.pdf

Questions of clarification were addressed.

Prior to the start of presentations #3 and #4, Adee Ran indicated that he had updated versions of the presentation with additional supporters and editorial changes. These would be version '01a' and version '02a', respectively.

Presentation #3:

Title	Analysis of PMA muxing options for 200G/lane signaling.
Presenters	Adee Ran
URL	https://www.ieee802.org/3/df/public/22_11/ran_3df_01a_2211.pdf

Questions of clarification were addressed. Presentation was updated with a supporters list.

Presentation #4:

Title	Symbol-muxing PMA for 200 Gb/s per lane signaling - towards a PMA baseline proposal
Presenters	Adee Ran
URL	https://www.ieee802.org/3/df/public/22_11/ran_3df_02a_2211.pdf

Questions of clarification were addressed.

Chair noted that he received updated presentations for posting to the Task Force website. The contribution from Yuchun Lu had additional technical information and Hossein Shakiba had two new additional pages. Chair asked if there was objection to hearing the updated presentations. No one responded.

Chair would post the updated presentations (lu_3df_01a_2211) and (shakia_3df_01a_2211) to the website, time permitting.

Presentation #5:

Title	End-to-end FEC for 200G per lane based 200GbE, 400GbE, 800GbE and 1.6TbE
Presenters	Yuchun Lu
URL	https://www.ieee802.org/3/df/public/22_11/lu_3df_01a_2211.pdf

Questions of clarification were addressed.

Break at 3:11 p.m. Resumed at 3:28 p.m.

Prior to the start of presentations #6, Will Bliss indicated that he had an updated presentation with additional supporters. It would be version '01a'.

Presentation #6:

Title	Proposal of Inner Code for 200 Gb/s per Lambda IM-DD Optical PMD
Presenters	Will Bliss
URL	https://www.ieee802.org/3/df/public/22_11/bliss_3df_01b_2211.pdf

Matt Brown offered his support to the presentation. Author to send updated version '01b' with the additional supporter. Questions of clarification were addressed.

Presentation #7:

Title	Generic Overview of various FEC Architecture for 200Gb/s per Lane PMD
Presenters	Arash Farhood
URL	https://www.ieee802.org/3/df/public/22_11/farhood_3df_01_2211.pdf

Questions of clarification were addressed.

Prior to the start of presentations #8, Kechao Huang indicated that he had an updated presentation with additional supporters. It would be version '01a'.

Presentation #8:

Title	Further Consideration on the Concatenated FEC for 800G FR4 and LR4
Presenters	Kechao Huang
URL	https://www.ieee802.org/3/df/public/22_11/huang_3df_01a_2211.pdf

Questions of clarification were addressed.

Presentation #9:

Title	FEC Performance for 200 Gb/s per Lane Optical PHY and Interoperating
Presenters	Xiang He
URL	https://www.ieee802.org/3/df/public/22_11/he_3df_01_2211.pdf

Questions of clarification were addressed.

During the Xiang He presentation, there was an internet issue with the in-person meeting and the on-line connection was dropped. After a few minutes, the online meeting was restored except for in-room audio of the bridge. Chair reminded participants that remote attendance was by best effort .

Vice-Chair reminded participants of the 8:00 a.m. start time on Tuesday.

Chair noted that he received comments on the project documentation that need to be resolved by the Task Force on Wednesday. Additional time on Wednesday would be needed to address the feedback.

Meeting recessed for the day at 5:42 p.m.

15 November 2022
Meeting reconvened at 8:00 a.m. on 15 November.

Chair made opening comments and reviewed the plans for the day.

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

Chair summarized the network issues observed yesterday. Chair reminded participants that remote participation is by best effort.

Chair reminded participants that every attendee at any IEEE 802 plenary meeting must register and pay a fee to participate. (see slide 2 of https://www.ieee802.org/3/df/public/22_11/agenda_3df_a_2211.pdf)

Chair noted that he would be intermittently available during the day due to project documentation feedback. When he was not present, the Vice Chair Mark Nowell would serve as the meeting Chair.

Chair noted that the IEEE P802.3df Task Force review of Draft 1.0 completed on Monday. The Chief Editor Matt Brown was preparing a report for review later in the week.

At ~8:13 a.m. during the Ali Ghiasi presentation, there was an internet connectivity issue with the in-person meeting and the on-line connection was dropped. The online meeting was restored after a few minutes. Chair reminded participants that remote attendance was by best effort.

Presentation #10:

Title	Supporting 200G PMDs with Multiple AUIs and Concatenated FEC
Presenters	Ali Ghasi
URL	https://www.ieee802.org/3/df/public/22_11/ghiasi_3df_01_2211.pdf

Questions of clarification were addressed.

Prior to the start of presentations #11, Arash Farhood indicated that he had an updated presentation with additional supporters. It would be version '02b'.

Presentation #11:

Title	Concatenated SFEC proposal for 200 Gb/s per Lane IM-DD Optical PMD
Presenters	Arash Farhood
URL	https://www.ieee802.org/3/df/public/22_11/farhood_3df_02b_2211.pdf

Questions of clarification were addressed.

Chair noted that the Vice Chair was removing participants from the online meeting that had not declared their affiliation. He noted that participants are required to declare their affiliation in the meeting tool.

Presentation #12:

Title	Higher Loss 200G/lane AUI C2M Specification Baseline Thoughts
Presenters	Kent Lusted
URL	https://www.ieee802.org/3/df/public/22_11/lusted_3df_02_2211.pdf

Questions of clarification were addressed.

Presentation #13:

Title	Medium Loss 200G/lane C2M AUI Specification Proposal Thoughts
Presenters	Kent Lusted
URL	https://www.ieee802.org/3/df/public/22_11/lusted_3df_03a_2211.pdf

Questions of clarification were addressed.

Break at 10:00 a.m. Resumed at 10:22 a.m.

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

Presentation #14:

Title	COM 3.9 Update
Presenters	Rich Mellitz
URL	https://www.ieee802.org/3/df/public/22_11/mellitz_3df_01_2211.pdf

Chair noted that the COM 3.9 tool contribution was available on the Task Force webpage. (see: https://www.ieee802.org/3/df/public/tools/COM/mellitz_3df_02_2211.zip)
Questions of clarification were addressed.

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

Chair noted that the Vice Chair was removing participants from the online meeting that had not declared their affiliation. He noted that participants are required to declare their affiliation in the meeting tool.

Presentation #15:

Title	An Updated, High-Radix Switch Oriented, Fitted COM PKG Model
Presenters	Adee Ran
URL	https://www.ieee802.org/3/df/public/22_11/benartsi_3df_01a_2211.pdf

Questions of clarification were addressed. Update with new supporters provided (noted above).

Break at 11:38 a.m. Resumed at 1:00 p.m.

Presentation #16:

Title	Characteristics of a 224Gbps Chip to Module Channel with Various Host Architectures
Presenters	Nathan Tracy
URL	https://www.ieee802.org/3/df/public/22_11/tracy_3df_02_2211.pdf

Questions of clarification were addressed.

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

Presentation #17:

Title	Considering advanced signal processing for assessing electrical channel performance
Presenters	Matt Brown
URL	https://www.ieee802.org/3/df/public/22_11/brown_3df_01a_2211.pdf

Questions of clarification were addressed.

Prior to the start of presentations #18, Hossein Shakiba indicated that he had an updated presentation with additional supporters. It would be version '01a'.

Presentation #18:

Title	A path toward incorporating the advanced signal processing in electrical channel performance assessment
Presenters	Hossein Shakiba
URL	https://www.ieee802.org/3/df/public/22_11/shakiba_3df_01a_2211.pdf

Questions of clarification were addressed.

Presentation #19:

Title	A 212 Gbps-PAM4 High-Loss Chip-to-Module Channel and Its Characteristics
Presenters	Mike Li
URL	https://www.ieee802.org/3/df/public/22_11/li_3df_01_2211.pdf

Questions of clarification were addressed.

Break at 3:15 p.m. Resumed at 3:40 p.m.

Chair asked in-person participants to refresh their network connection to fix connectivity issues.

Presentation #20:

Title	212 Gbps-PAM4 Chip-to-Module Link Simulation and Analysis with a High-Loss Channel

Presenters	Mike Li
URL	https://www.ieee802.org/3/df/public/22_11/li_3df_02_2211.pdf

Questions of clarification were addressed.

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

Presentation #21:

Title	Power considerations for 200G/L AUI
Presenters	Tobey P.-R. Li
URL	https://www.ieee802.org/3/df/public/22_11/prli_3df_01_2211.pdf

Questions of clarification were addressed.

For presentation #22, the IEEE 802.3 WG Chaired received a request for co-author Dan Cunio, who did the technical work in the following presentation, be permitted be to attend via remote access for this presentation only, to help answer any related technical questions related to the presentation. Under a provision in the IEEE 802 LMSC Operations Manual Clause 5 'IEEE 802 LMSC sessions', the 802.3 WG Chair with agreement by the P802.3df Chair agreed to the request.

Presentation #22:

Title	Exploration feasibility of 200 Gbps/Lane using Diff PAM4 and SE PAM4
Presenters	Leon Bruckman
URL	https://www.ieee802.org/3/df/public/22_11/bruckman_3df_01a_2211.pdf

A participant noted that the version '01' contribution had references to channels by companies. Chair asked the author to update the presentation to version '01a' to reference individual's contributions of channels.
Questions of clarification were addressed.

Presentation #23:

Title	Update to tracy_3df_01a_2207 : Characteristics of a Passive Direct Attach Copper Cable (DAC) Assembly in CR Channels with Various Host Architectures
Presenters	Nathan Tracy
URL	https://www.ieee802.org/3/df/public/22_11/tracy_3df_01_2211.pdf

Chair noted that the channels were posted to the Task Force website. (see: https://www.ieee802.org/3/df/public/tools/c2m/tracy_3df_02_2211_sparameters.zip)

Questions of clarification were addressed.

John D'Ambrosia thanked Mark Nowell for chairing the meeting while he was responding to the PAR and CSD feedback.

Chair noted that in-room participants were to join the online meeting tool for straw polls. The online meeting tool would be used for the straw poll voting.

Straw Poll #1:
I would support adopting RS(544,514,10) as the FEC encoding for the 200G/lane AUIs (C2M and C2C)
Pick one
Results: Y: 54 , N: 0 , A: 9

Chair asked if there were any other topics to straw poll. There was a verbal discussion on the MLSD topic and there was agreement that participants want to see more information on the topic.

Chair reminded participants of the 8:00 a.m. start on Wednesday.

Chair reviewed the plans for Wednesday and indicated that the allocated time for the PAR and CSD feedback would be insufficient. The agenda would be adjusted in order to complete the necessary documentation.

Chair asked participants to send their straw poll requests for Thursday to Mark Nowell.

Meeting recessed for the day at 5:32 p.m.

16 November 2022

Meeting reconvened at 8:02 a.m. on 16 November.

Chair made opening comments and reviewed the plans for the day. See https://www.ieee802.org/3/df/public/22_11/agenda_3df_a_2211.pdf

Chair noted that the Task Force received comments from three groups on the PAR and CSD documentation that need to be addressed. The proposed documentation changes were posted to the Task Force webpage.

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

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

John D'Ambrosia passed the meeting Chair responsibilities to Mark Nowell.

Presentation #24:

Title	Summary of Comments Submitted Against IEEE P802.3df and IEEE P802.3dj PARs
Presenters	John D'Ambrosia
URL	https://www.ieee802.org/3/df/public/22_11/dambrosia_3df_03a_2211.pdf

Questions of clarification were addressed.

During presentation #24, John D'Ambrosia displayed the Proposed Draft IEEE P802.3df CSD Modification Responses (see: https://www.ieee802.org/3/df/public/22_11/dambrosia_3df_04_2211.pdf) and Proposed Draft IEEE P802.3dj CSD Modification Responses (see: https://www.ieee802.org/3/df/public/22_11/dambrosia_3df_05_2211.pdf).

During the review of presentation #24, changes were made and saved as version '3a' to address participant feedback. (see: https://www.ieee802.org/3/df/public/22_11/dambrosia_3df_03a_2211.pdf)

John D'Ambrosia reviewed the process for sending the PAR and CSD responses back to the commenters. He suggested making a presentation with all of the content to send back as part of the communication and asked for editorial license in the response. He asked if there was objection to the approach. No one responded.

John D'Ambrosia discussed the issue with the PAR Item 4.2 "expected date of submission" for P802.df and the IEEE tool issue that prevents setting it to November 2023. The November 2023 was the date adopted by the Task Force. He asked if there was objection to changing the PAR Item 4.2 "Expected Date of submission" to Jan 2024. There was no objection. Mr. Law, the IEEE 802.3 Working Group Chair, noted that the change was not necessary, as it had already been made by IEEE SA.

Based on the changes made to dambrosia_3df_03a_2211, changes were made to dambrosia_3df_05_2211 version '05' and saved as version '05a'. (see: https://www.ieee802.org/3/df/public/22_11/dambrosia_3df_05a_2211.pdf)

Mark Nowell asked if there was objection to the Task Force sending the responses reviewed in dambrosia_3df_03a_2211 with editorial license. No one responded.

Motion #1	Move to adopt: ● For the modified IEEE P802.3df PAR ○ The PAR Item 5.2.b response in https://www.ieee802.org/3/df/public/22_11/dambrosia_3df_03a_2211.pdf slide 13 ○ The PAR Item 8.1 response in https://www.ieee802.org/3/df/public/22_11/dambrosia_3df_03a_2211.pdf slide 14 ● For the new IEEE P802.3dj PAR ○ The PAR Item 5.2.b response in https://www.ieee802.org/3/df/public/22_11/dambrosia_3df_03a_2211.pdf slide 17 ● For the new IEEE P802.3dj CSD ○ The CSD "Managed Objects", "Coexistence", "Broad Market Potential", "Compatibility", "Distinct Identity", "Technical Feasibility", and "Economic Feasibility" responses, as per https://www.ieee802.org/3/df/public/22_11/dambrosia_3df_05a_2211.pdf slides 13-20
Technical (>= 75%)	
Moved by	Adee Ran
Second by	Liav Ben-Artsi
Results 802.3 (y/n/a)	Passed by unanimous consent. 9:33 a.m.

Motion #2	Move to reaffirm: ● The CSD "Managed Objects", "Coexistence", "Broad Market Potential", "Compatibility", "Distinct Identity", "Technical Feasibility", and "Economic Feasibility" responses, as per https://www.ieee802.org/3/df/public/22_11/dambrosia_3df_04_2211.pdf
Technical (>= 75%)	
Moved by	Ali Ghasi
Second by	Adee Ran
Results 802.3 (y/n/a)	Passed by unanimous consent. 9:36 a.m.

Mark Nowell passed the meeting Chair responsibilities back to John D'Ambrosia.

Prior to the start of presentations #25, Guangcan Mi indicated that she had an updated presentation with a correction to a figure. It would be version '01a'.

Presentation #25:

Title	Baseline specifications of optical PMDs based on 200G/lane for 500m and 2km
Presenters	Guangcan Mi
URL	https://www.ieee802.org/3/df/public/22_11/mi_3df_01a_2211.pdf

Break at 10:05 a.m. Resumed at 10:30 a.m.

Chair provided an update regarding the PAR modifications and would be working with the IEEE 802.3 Working Group Chair to create the updated PARs.

Prior to the start of presentation #26, Greg Le Cheminent indicated that he had an updated presentation with additional supporters. It would be version '01a'. Chair would upload to the Task Force website.

Presentation #26:

Title	Considerations for TECQ and TDECQ 200Gb/s transmitter lane specification and measurement
Presenters	Greg Le Cheminent
URL	https://www.ieee802.org/3/df/public/22_11/lecheminant_3df_01a_2211.pdf

Questions of clarification were addressed.

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

Chair asked if there was objection to changing the order of the Chris Cole presentation with the Earl Parson presentation. No one responded.

Prior to the start of presentation #27, the author indicated that he had an updated presentation with additional supporters. It would be version '01a'. Chair would upload to the Task Force website.

Presentation #27:

Title	Statistical approach to chromatic dispersion
Presenters	Earl Parsons
URL	https://www.ieee802.org/3/df/public/22_11/parsons_3df_01a_2211.pdf

Questions of clarification were addressed.

Break at 11:52 a.m. Resumed at 1:01 p.m.

Presentation #28:

Title	Update to Modern SMF Parameters for use in Calculating PMD Penalties
Presenters	Chris Cole
URL	https://www.ieee802.org/3/df/public/22_11/cole_3df_01a_2211.pdf

During the presentation, the author noted that he would provide a correction on slide 4 in version '01a'.
Questions of clarification were addressed.

Prior to the start of presentation #28, the author indicated that he had an updated presentation with editorial updates. It would be version '01a'. Chair would upload to the Task Force website.

Presentation #29:

Title	Further discussion of DGD penalty and specification for 800G LR4
Presenters	Maxim Kuschnerov
URL	https://www.ieee802.org/3/df/public/22_11/kuschnerov_3df_01a_2211.pdf

Questions of clarification were addressed.

Prior to the start of presentation #28, the author indicated that he had an updated presentation with editorial updates. It would be version '01a'. Chair would upload to the Task Force website.

Presentation #30:

Title	Towards an 800G-LR4 IMDD Specification Consensus - Nov 2022 update
Presenters	Roberto Rodes
URL	https://www.ieee802.org/3/df/public/22_11/rodes_3df_01a_2211.pdf

Questions of clarification were addressed.

Break at 2:59 p.m. Resumed at 3:20 p.m.

Prior to the start of the Frank Chang contribution, the Task Force chair noted the following for participants:

- Relative Cost analysis is a potential consideration in the 10km PHY debate, but be aware such presentations may require IEEE Risk management review if individuals do not follow guidelines provided in IEEE SA Anti-trust policy available at <http://standards.ieee.org/wp-content/uploads/2022/02/antitrust.pdf >.
- Further information about IEEE 802.3 cost discussion can be found in 'Presentation on Cost Discussions to IEEE 802.3 Working Group' <https://www.ieee802.org/3/100GNGOPTX/public/may12/lindsay_01_0512_optx.pdf >.
- Please note that such IEEE Risk management review can take up to ~30 days. Individuals not budgeting sufficient time for review may have presentations scheduled for later meetings to allow these reviews.

Presentation #31:

Title	Relative Cost Analysis on IM-DD vs Coherent for 800G 10km SMF Optics
Presenters	Frank Chang
URL	https://www.ieee802.org/3/df/public/22_11/chang_3df_01a_2211.pdf

Author noted an error in the presentation where 118.8 GBd should be 113.3 GBd. Author to send an updated version '01a' with the correction.
Questions of clarification were addressed.

John D'Ambrosia resumed the meeting Chair responsibility.

Presentation #32:

Title	Coherent Laser Specifications and Control for 800G 10km application
Presenters	Eric Maniloff
URL	https://www.ieee802.org/3/df/public/22_11/maniloff_3df_01_2211.pdf

Questions of clarification were addressed.

Presentation #33:

Title	The challenges for a 10km PMD @ 800G
Presenters	Mike Sluyski
URL	https://www.ieee802.org/3/df/public/22_11/williams_3df_01_2211.pdf

Questions of clarification were addressed.

Presentation #34:

Title	Chief Editors Report
Presenters	Matt Brown
URL	https://www.ieee802.org/3/df/public/22_11/brown_3df_02_2211.pdf

Questions of clarification were addressed.
Chair noted that the website would be updated soon with the common reports and the updated presentations.

Chair reviewed the plans for Thursday.

Chair asked that participants send straw poll requests to him, Mark Nowell and Kent Lusted.

Chair reminded participants to review the proposed response to the OIF that would be considered on Thursday. (see: https://www.ieee802.org/3/df/public/22_11/dambrosia_3df_02a_2211_Redacted.pdf)

Chair noted that he had submitted the PAR and CSD change responses.

Meeting recessed for the day at 6:00 p.m.

17 November 2022

Meeting reconvened at 8:03 am on 17 November.

Chair made opening comments and reviewed the plans for the day.

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

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

Chair reminded participants that every attendee at any IEEE 802 plenary meeting must register and pay a fee to participate. (see slide 2 of https://www.ieee802.org/3/df/public/22_11/agenda_3df_a_2211.pdf)

Chair noted that the agenda deck was updated to correct affiliation errors. (see https://www.ieee802.org/3/df/public/22_11/agenda_3df_a_2211.pdf)

Chair asked participants to not respond to an email thread topic on the email reflector and reminded participants of the IEEE Antitrust and anticompetition policy (see: https://standards.ieee.org/wp-content/uploads/2022/02/antitrust.pdf)

Chair intended to make a motion at the Working Group closing plenary for the P802.3dj and P802.3df Task Force to meet jointly at the January interim meeting. Chair asked if there was objection to the approach. No one responded.

Presentation #35:

Title	IEEE P802.3dj Moving Forward
Presenters	John D'Ambrosia
URL	https://www.ieee802.org/3/df/public/22_11/dambrosia_3df_01_2211.pdf

Questions of clarification were addressed.

Chair reminded participants of the voting rules for the plenary session. (see https://www.ieee802.org/3/df/public/22_11/agenda_3df_a_2211.pdf slide 16 and 17)

Motion #3	Move to adopt RS(544,514,10) as the FEC encoding for the 200G/lane AUIs (C2M and C2C)
Technical (>= 75%)	
Moved by	Mark Gustlin
Second by	David Ofelt
Results 802.3 (y/n/a)	Passed by unanimous consent. 8:15 a.m.

Chair noted that in-room participants were to join the online meeting tool for straw polls. The online meeting tool would be used for the straw poll voting.

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

Straw Poll #2:
I would support differential PAM4 signaling as the basis for all the 200 Gb/s per lane AUIs (C2M and C2C)
Results: Y: 96, N: 2, A: 24

Chair noted that Task Force meeting attendance would be through the IEEE Meeting Attendance Tool (IMAT) and reminded participants to sign into IMAT.

During the discussion of motion #4, Chair noted that the motion, if successful, would need to be reaffirmed by the P802.3dj Task Force. Chair noted that he would attempt to take the motion by unanimous consent and proceed to a roll call vote, if needed.

Motion #4	Move to adopt differential PAM4 signaling as the basis for all the 200 Gb/s per lane AUIs (C2M and C2C)
Technical (>= 75%)	
Moved by	Mike Li
Second by	Ali Ghiasi
Results 802.3 (y/n/a)	There was opposition when taken by unanimous consent. A roll call vote was used. Passed 8:57 a.m.

Roll call votes for motion #4 were:

Attendee	**Vote**
Adam Healey	Yes
Adee Ran	Yes
Ali Ghiasi	Yes
Andras De Koos	Abstain
Andrew Jimenez	Yes
Angela Lambert	Abstain
Arthur Marris	Yes
Cathy Liu	Yes
Changzheng Su	Yes
Chendi Jiang	Abstain
Chul Soo Park	Yes
David Lewis	Yes
David Malicoat	Yes
David Ofelt	Yes

Earl Parsons	Yes
Ed Ulrichs	Yes
Edward Nakamoto	Yes
Edward Sprague	Yes
Eric Bernier	No
Eric Kimber	Yes
Eric Maniloff	Yes
Eugene Opsasnick	Yes
Flavio Marques	Yes
Frank Effenberger	Yes
Gary Nicholl	Yes
Greg Le Cheminant	Yes
Guangcan Mi	Yes
Hao Ren	Yes
Haojie Wang	Yes
Howard Heck	Yes
James Theodoras	Yes
James Weaver	Yes
Jeffery Maki	Yes
Jeffrey Rahn	Yes
John Johnson	Abstain
Jonathan Ingham	Yes
Junqing Sun	Yes
Kathryn Dube	Abstain
Kechao Huang	Abstain
Kenneth Jackson	Yes
Kihong/Joshua Kim	Abstain
Leon Bruckman	No
Liav Ben-Artsi	Yes

Limin Geng	Abstain
Lokesh Kabra	Yes
Mark Gustlin	Yes
Mark Sikkink	Yes
Matthew Brown	Yes
Michael Dudek	Yes
Michael Klempa	Yes
Mike-Peng Li	Yes
Paul Brooks	Yes
Pei-Rong Li	Yes
Peter Stassar	Yes
Peter Wu	Yes
Piers J G Dawe	Yes
Pirooz Tooyserkani	Yes
Qingya She	Abstain
Qinhui Huang	Abstain
Ramana Murty	Yes
Raymond Nering	Yes
Richard Mellitz	Yes
Robert Grow	Abstain
Ruoxu Wang	Yes
Sam Kocsis	Yes
Sami Akin	Abstain
Scott Sommers	Yes
Shawn Nicholl	Yes
Shimon Muller	No
Steven Scott Gorshe	Abstain
Taiji Kondo	Yes
Thomas Huber	Yes

Thomas Palkert	Yes
Tom Issenhuth	Abstain
Tomoo Takahara	Yes
Toshiaki Sakai	Yes
Ulf Parkholm	Abstain
Upen Kareti	Yes
Viet Tran	Yes
Vincent Ferretti	Abstain
Wensheng Sun	Yes
William Simms	Yes
Xiang He	Yes
Xinyuan Wang	Yes
Yongbum Kim	Yes
Yu Quan	Yes
Yu Xu	Abstain
Yung Sung Son	Yes

Before presentation #36, John D'Ambrosia noted that Mark Nowell would Chair the meeting when he was presenting and that he would Chair the meeting when Mark Nowell was presenting.

Presentation #36:

Title	IEEE P802.3dj Moving Forward
Presenters	John D'Ambrosia, Mark Gustlin, Kent Lusted, Mark Nowell
URL	https://www.ieee802.org/3/df/public/22_11/dambrosia_3df_01a_2211.pdf

John D'Ambrosia stated that presentation slide 6 would be updated to reflect the motions passed at the November plenary meeting, specifically motions #3 and #4.
Questions of clarification were addressed.

Chair reminded participants to build consensus offline and work together on baseline proposals.

Break at 9:49 a.m. Resumed at 10:25 a.m.

Chair noted there were two liaisons from the OIF for the Task Force to consider: one regarding the 800ZR/800LR IA (see: Slide #19, https://www.ieee802.org/3/df/public/22_09/OIF_liaison_letter_IEEE803.2_800LR_29Aug22_Redacted.pdf) and one regarding the CEI-112G-XSR+ specification (see:

https://www.ieee802.org/3/private/liaison_docs/OIF/OIF_liaison_IEEE_802.3_CEI-112G-XSRplus_cover_08Nov22-combined.pdf) .
Kent Lusted noted that no response to OIF on the CEI-112G-XSR+ was needed, based on offline feedback.

Chair prepared a draft liaison communication for the Task Force to consider for the 800ZR/800LR IA. (see: https://www.ieee802.org/3/df/public/22_11/dambrosia_3df_02a_2211_Redacted.pdf) Changes to the file were made and saved as IEEE_802d3_to_OIF_3df_2211_draft. (see: https://www.ieee802.org/3/df/public/22_11/IEEE_802d3_to_OIF_3df_2211_draft_Redacted.pdf)

During the review of the OIF liaison letter, the Chair asked for guidance from the Task Force on which draft version to include in the response. There was consensus to send Draft 1.1.

Motion #5	Move that the IEEE P802.3df Task Force approve: ● IEEE_802d3_to_OIF_3df_2211_draft.pdf with editorial license granted to the Chair (or his appointed agent) as a liaison communication from the IEEE 802.3 Working Group to OIF.
Technical (>= 75%)	
Moved by	Tom Huber
Second by	Peter Stassar
Results 802.3 (y/n/a)	passed by unanimous consent. 11:09 a.m.

Chair reviewed the future meetings. He noted that there were no currently scheduled ad hoc meetings. He noted that the P802.3df Task Force ad hoc meeting charters would be terminated and a new set of P802.3dj Task Force ad hoc meetings would be chartered. Depending on comment resolution progress for D1.0 during the Dec 2022 session, scheduled comment resolution meetings might be converted to ad hoc meetings.

Chair noted that the updated P802.3df and P802.3dj PAR and CSD documents were posted to the Task Force main website.

Chair noted that the comments received against the first Task Force review with Draft 1.0 were posted to the Task Force website. (see: https://www.ieee802.org/3/df/comments/index.html)

Motion #6	Move to adjourn
Procedural (>50%)	
Moved by	Mark Nowell
Second by	Adee Ran
Results 802.3 (y/n/a)	Passed by unanimous consent. 11:23 a.m.

Meeting adjourned @ ≅ 11:23 am.

Attendees

14 November:

Name	Employer	Affiliation
Barakatain, Masoud		Huawei Technologies Co., Ltd
Ben-Artsi, Liav	Marvell Semiconductor, Inc.	Marvell Semiconductor, Inc.
Bernier, Eric	Huawei Technologies Canada Co., Ltd.	Huawei Technologies Co., Ltd
Bliss, William	Broadcom Corporation	Broadcom Corporation
Brooks, Paul	Viavi solutions GmbH	Viavi Solutions
Bruckman, Leon	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd
Cai, Yuefeng		Huawei Technologies Co., Ltd
Calvin, John	Keysight Technologies	Keysight Technologies
Chang, Yongmao	Inphi Corporation	Source Photonics
Chappell, Neveia		Keysight Technologies
Chen, Chan	Applied Optoelectronics, Inc.	Applied Optoelectronics, Inc.
cheng, weiqiang	China Mobile Limited	China Mobile Limited
Choudhury, Golam	OFS	OFS
Chuang, Keng Hua	Hewlett Packard Enterprise	Hewlett Packard Enterprise
Cox, Ian		Broadcom Corporation
Dawe, Piers J G	NVIDIA	Nvidia
de Koos, Andras	Microchip Technology Inc	Microchip Technology, Inc.
Diminico, Christopher	M C Communications, LLC	Panduit Corp.
Dube, Kathryn	UNH-IOL	UNH-IOL
Dudek, Michael	Marvell	Marvell
Estes, David	Spirent Communications	Spirent Communications
FAn, DAWEI	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd
Farhoodfar, Arash	Inphi Corporation	Inphi Corporation

Gao, Xiangrong	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd
Geng, Limin	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd
Gu, Tao		Centec
Gustlin, Mark	Cisco Systems, Inc.	Cisco Systems, Inc.
He, Xiang	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd
Healey, Adam	Broadcom Inc.	Broadcom Inc.
Heck, Howard	Intel	Intel
Hidaka, Yasuo	Credo Semiconductor	Credo Semiconductor
Huang, Kechao	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd
HUANG, QINHUI	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd
Huber, Thomas	Nokia	Nokia
Ingham, Jonathan	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd
Isono, Hideki	Fujitsu Optical Components Limited	Fujitsu Optical Components Limited
Issenhuth, Tom	Issenhuth Consulting, LLC	Huawei Technologies Co., Ltd
Jackson, Kenneth	Sumitomo Electric Device Innovations, USA	Sumitomo Electric Industries, LTD
Jiang, Chendi	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd
Jimenez, Andrew	Anixter Inc.	Anixter Inc.
Johnson, John	Broadcom Corporation	Broadcom Corporation
Jonsson, Ragnar	Marvell Semiconductor, Inc.	Marvell
Kabra, Lokesh	Synopsys, Inc.	Synopsys, Inc.
Kareti, Upen	Cisco Systems, Inc.	Cisco Systems, Inc.
Kim, Kihong/Joshua	Hirose Electric (USA), Inc.	Hirose Electric (USA), Inc.
Kim, Yongbum	Tenstorrent	Tenstorrent
Kimber, Eric	Semtech Ltd	Semtech Ltd
Klempa, Michael	Amphenol Corporation	Alphawave IP
Klingensmith, William	U.S. Federal Government	DoD

Koch, Lavi		Lavi Koch Nvidia
Kondo, Taiji	MegaChips Corporation	Dexerials Corporation
Kota, Kishore	Marvell Semiconductor, Inc.	Marvell Semiconductor, Inc.
Le Cheminant, Greg	Keysight Technologies	Keysight Technologies
Lewis, David	Lumentum Inc.	Lumentum Inc.
Li, Mike-Peng	Intel	Intel
Li, Pei-Rong	MediaTek Inc.	MediaTek Inc.
Lieder, Eyal		Marvell Semiconductor, Inc.
Lin, Youxi	Huawei Technologies Duesseldorf GmbH	Huawei Technologies Co., Ltd
Liu, Cathy	Broadcom Corporation	Broadcom Corporation
Lu, Yuchun	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd
Lusted, Kent	Intel	Intel
Ma, Huixiao		Huawei Technologies Co., Ltd
Maki, Jeffery	Juniper Networks, Inc.	Juniper Networks, Inc.
Malicoat, David	Malicoat Networking Solutions	Malicoat Networking Solutions; SENKO Advanced Components
Maniloff, Eric	Ciena Corporation	Ciena Corporation
Mark, Simon		Wurth Electronik Group
Marques, Flavio	FURUKAWA ELECTRIC	FURUKAWA ELECTRIC
Mellitz, Richard	Samtec, Inc.	Samtec, Inc.
mi, guangcan	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd
Moorwood, Charles	Keysight Technologies	Keysight Technologies
Muhigana, Ernest		Lumentum
Muller, Shimon	Enfabrica Corp.	Enfabrica
Nakamoto, Edward	Spirent Communications	Spirent Communications
Nering, Raymond	Cisco Systems, Inc.	Cisco Systems, Inc.
Nicholl, Shawn	Xilinx	Advanced Micro Devices (AMD)

Ninomiya, Takuya		Senko Advanced Components
Nowell, Mark	Cisco Systems, Inc.	Cisco Systems, Inc.
Ofelt, David	Juniper Networks, Inc.	Juniper Networks, Inc.
Omori, Kumi	NEC Corporation	NEC Corporation
Opsasnick, Eugene	Broadcom Inc.	Broadcom Inc.
PARK, CHUL SOO	Juniper Networks Inc.	Juniper Networks, Inc.
Parkholm, Ulf	Telefon AB LM Ericsson	Telefon AB LM Ericsson
Parsons, Earl	CommScope, Inc.	CommScope, Inc.
Parthasarathy, Vasu	Broadcom Corporation	Broadcom Corporation
Patra, lenin	Marvell Semiconductor, Inc.	Marvell Semiconductor, Inc.
peng, semmy		Huawei Technologies Co., Ltd
Quan, Yu	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd
Rabinovich, Rick	Keysight Technologies	Keysight Technologies
Rahn, Jeffrey	Facebook	Facebook
Ramesh, Sridhar	MaxLinear	MAXLINEAR INC
Rechtman, Zvi	NVIDIA	NVIDIA
Ren, Hao	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd
Riani, Jamal		Marvell Semiconductor, Inc.
Rodes, Roberto	II-VI	II-VI
Sakai, Toshiaki	Socionext Inc.	socionext
Sekel, Steve		Wilder Technologies
Shah, Anup	Siemens Corporation	Siemens EDA
Shanbhag, Megha	Tyco	TE Connectivity
Shukla, Priyank	Synopsys, Inc.	Synopsys, Inc.
Sikkink, Mark	Hewlett Packard Enterprise	Hewlett Packard Enterprise
Simms, William	NVIDIA Corporation	NVIDIA Corporation

Son, Yung Sung	Optomind Inc	Optomind Inc
Sprague, Edward	Infinera Corporation	Infinera Corporation
Stassar, Peter	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd
Sun, Wensheng	Marvell Semiconductor, Inc.	Marvell Semiconductor, Inc.
TAKAHARA, TOMOO	FUJITSU LABORATORIES LIMITED	FUJITSU LIMITED
Tooyserkani, Pirooz	Cisco Systems, Inc.	Cisco Systems, Inc.
Tracy, Nathan	TE Connectivity	TE Connectivity
Tran, Viet	Keysight Technologies	Keysight Technologies
Ulrichs, Ed	Intel	Intel
Wang, Haojie	China Mobile Communications Corporation (CMCC)	China Mobile Communications Corporation (CMCC)
Wang, Ruoxu	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd
Wang, Xinyuan	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd
Weaver, James	Arista Networks	Arista Networks
Welch, Brian	Cisco Systems, Inc.	Luxtera
Withey, James	Fluke Corporation	Fluke Corporation
Wong, Henry		Alphawave IP
Wu, Mau-Lin	MediaTek Inc.	MediaTek Inc.
Wu, Peter	Marvell Semiconductor, Inc.	Marvell Semiconductor, Inc.
Xu, Yu	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd
Yang, Xiaoling		Huawei Technologies Co., Ltd
Yin, Shuang		Google
Zhong, Qiwen	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd
Zhou, Xiang		Google
Zhuang, Yan	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd
Zimmerman, George	CME Consulting	CME Consulting/APL Group, Cisco, CommScope, Marvell, OnSemi, SenTekSe LLC

15 November:

Name	Employer	Affiliation
Barakatain, Masoud		Huawei Technologies Co., Ltd
Ben-Artsi, Liav	Marvell Semiconductor, Inc.	Marvell Semiconductor, Inc.
Bernier, Eric	Huawei Technologies Canada Co., Ltd.	Huawei Technologies Co., Ltd
Bliss, William	Broadcom Corporation	Broadcom Corporation
Brooks, Paul	Viavi solutions GmbH	Viavi Solutions
Brown, Matthew	Huawei Technologies Canada	Huawei Technologies Canada
Bruckman, Leon	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd
Calvin, John	Keysight Technologies	Keysight Technologies
Cassan, Dave	Alphawave	Alphawave
Castro, Jose	Panduit	Panduit Corp.
Chang, Yongmao	Inphi Corporation	Source Photonics
Chappell, Neveia		Keysight Technologies
Chen, Chan	Applied Optoelectronics, Inc.	Applied Optoelectronics, Inc.
Cole, Christopher R	Finisar Corporation	Finisar Corporation
Cox, Ian		Broadcom Corporation
D'Ambrosia, John	Futurewei Technologies, U.S. Subsidiary of Huawei	Futurewei Technologies, U.S. Subsidiary of Huawei
Dawe, Piers J G	NVIDIA	Nvidia
de Koos, Andras	Microchip Technology Inc	Microchip Technology, Inc.
Del Vecchio, Peter		Broadcom Corporation
Dube, Kathryn	UNH-IOL	UNH-IOL
Dudek, Michael	Marvell	Marvell
Dumais, Patrick		Huawei Technologies Co., Ltd
Estes, David	Spirent Communications	Spirent Communications

FAn, DAWEI	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd
Farhoodfar, Arash	Inphi Corporation	Inphi Corporation
Gao, Xiangrong	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd
Geng, Limin	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd
Ghiasi, Ali	Ghiasi Quantum LLC	Ghiasi Quantum LLC; Marvell Semiconductor, Inc.
Gorshe, Steven Scott	Microchip Technology, Inc.	Microchip Technology, Inc.
Gu, Tao		Centec
Gustlin, Mark	Cisco Systems, Inc.	Cisco Systems, Inc.
He, Xiang	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd
Healey, Adam	Broadcom Inc.	Broadcom Inc.
Heck, Howard	Intel	Intel
Hidaka, Yasuo	Credo Semiconductor	Credo Semiconductor
Huang, Kechao	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd
HUANG, QINHUI	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd
Huber, Thomas	Nokia	Nokia
Hutchins, Jeff	Ranovus	Ranovus
Ingham, Jonathan	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd
Isono, Hideki	Fujitsu Optical Components Limited	Fujitsu Optical Components Limited
Issenhuth, Tom	Issenhuth Consulting, LLC	Huawei Technologies Co., Ltd
Jackson, Kenneth	Sumitomo Electric Device Innovations, USA	Sumitomo Electric Industries, LTD
Jiang, Chendi	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd
Johnson, John	Broadcom Corporation	Broadcom Corporation
Jonsson, Ragnar	Marvell Semiconductor, Inc.	Marvell
Kareti, Upen	Cisco Systems, Inc.	Cisco Systems, Inc.
Kim, Kihong/Joshua	Hirose Electric (USA), Inc.	Hirose Electric (USA), Inc.

Kim, Yongbum	Tenstorrent	Tenstorrent
Kimber, Eric	Semtech Ltd	Semtech Ltd
Klempa, Michael	Amphenol Corporation	Alphawave IP
Klingensmith, William	U.S. Federal Government	DoD
Koch, Lavi		Lavi Koch Nvidia
Kochuparambil, Elizabeth	Cisco Systems, Inc.	Cisco Systems, Inc.
Kocsis, Sam	Amphenol Corporation	Amphenol Corporation
Kondo, Taiji	MegaChips Corporation	Dexerials Corporation
Kota, Kishore	Marvell Semiconductor, Inc.	Marvell Semiconductor, Inc.
Lawson, Matthew	Cisco Systems, Inc.	Cisco Systems, Inc.
Le Cheminant, Greg	Keysight Technologies	Keysight Technologies
Lewis, David	Lumentum Inc.	Lumentum Inc.
Li, Mike-Peng	Intel	Intel
Li, Pei-Rong	MediaTek Inc.	MediaTek Inc.
Lieder, Eyal		Marvell Semiconductor, Inc.
Lin, Youxi	Huawei Technologies Duesseldorf GmbH	Huawei Technologies Co., Ltd
Little, Terrance	Foxconn Electronics Inc.	Foxconn Electronics Inc.
Liu, Cathy	Broadcom Corporation	Broadcom Corporation
Liu, Hai-Feng	HG Genuine	HG Genuine
Liu, Karen	Nubis Communications	Nubis Communications
LIU, XIANG	Huawei R&D USA	Huawei Technologies Co., Ltd
Lu, Yuchun	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd
Lusted, Kent	Intel	Intel
Ma, Huixiao		Huawei Technologies Co., Ltd
Maki, Jeffery	Juniper Networks, Inc.	Juniper Networks, Inc.
Malicoat, David	Malicoat Networking Solutions	Malicoat Networking Solutions; SENKO Advanced Components

Maniloff, Eric	Ciena Corporation	Ciena Corporation
Marques, Flavio	FURUKAWA ELECTRIC	FURUKAWA ELECTRIC
Marris, Arthur	Cadence Design Systems, Inc.	Cadence Design Systems, Inc.
Mellitz, Richard	Samtec, Inc.	Samtec, Inc.
mi, guangcan	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd
Moorwood, Charles	Keysight Technologies	Keysight Technologies
Muhigana, Ernest		Lumentum
Muller, Shimon	Enfabrica Corp.	Enfabrica
Nakamoto, Edward	Spirent Communications	Spirent Communications
Nering, Raymond	Cisco Systems, Inc.	Cisco Systems, Inc.
Nicholl, Gary	Cisco Systems, Inc.	Cisco Systems, Inc.
Nicholl, Shawn	Xilinx	Advanced Micro Devices (AMD)
Ninomiya, Takuya		Senko Advanced Components
Noujeim, Leesa	Google	Google
Nowell, Mark	Cisco Systems, Inc.	Cisco Systems, Inc.
Ofelt, David	Juniper Networks, Inc.	Juniper Networks, Inc.
Omori, Kumi	NEC Corporation	NEC Corporation
Opsasnick, Eugene	Broadcom Inc.	Broadcom Inc.
Palkert, Thomas	Macom, Samtec	Samtec-Macom
PARK, CHUL SOO	Juniper Networks Inc.	Juniper Networks, Inc.
Parsons, Earl	CommScope, Inc.	CommScope, Inc.
Parthasarathy, Vasu	Broadcom Corporation	Broadcom Corporation
Patra, lenin	Marvell Semiconductor, Inc.	Marvell Semiconductor, Inc.
peng, semmy		Huawei Technologies Co., Ltd
Piehler, David	Dell Technologies	Dell
Quan, Yu	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd

Rabinovich, Rick	Keysight Technologies	Keysight Technologies
Rahn, Jeffrey	Facebook	Facebook
Ramesh, Sridhar	MaxLinear	MAXLINEAR INC
Ran, Adee	Cisco Systems, Inc.	Cisco Systems, Inc.
Rechtman, Zvi	NVIDIA	NVIDIA
Ren, Hao	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd
Riani, Jamal		Marvell Semiconductor, Inc.
Rodes, Roberto	II-VI	II-VI
Sakai, Toshiaki	Socionext Inc.	socionext
Savi, Olindo	Hubbell Incorporated	Hubbell Incorporated
Schube, Scott	Intel	Intel
Sekel, Steve		Wilder Technologies
Shah, Anup	Siemens Corporation	Siemens EDA
Shanbhag, Megha	Tyco	TE Connectivity
She, Qingya	Fujitsu Network Communications	Fujitsu Network Communications
Shoval, Ayal	Synopsys, Inc.	Synopsys, Inc.
Shrikhande, Kapil	Marvell Semiconductor, Inc.	Marvell Semiconductor, Inc.
Shukla, Priyank	Synopsys, Inc.	Synopsys, Inc.
Sikkink, Mark	Hewlett Packard Enterprise	Hewlett Packard Enterprise
Simms, William	NVIDIA Corporation	NVIDIA Corporation
Sommers, Scott	Molex LLC	Molex Incorporated
Son, Yung Sung	Optomind Inc	Optomind Inc
Sorbara, Massimo	GLOBALFOUNDRIES	GLOBALFOUNDIRES
Souvignier, Tom	Broadcom Corporation	Broadcom Corporation
Sprague, Edward	Infinera Corporation	Infinera Corporation
Stassar, Peter	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd

SU, CHANGZHENG		Huawei Technologies Co., Ltd
Sun, Junqing	Credo Semiconductor	Credo Semiconductor
Sun, Wensheng	Marvell Semiconductor, Inc.	Marvell Semiconductor, Inc.
TAKAHARA, TOMOO	FUJITSU LABORATORIES LIMITED	FUJITSU LIMITED
Theodoras, James	HG Genuine	HG Genuine
Tooyserkani, Pirooz	Cisco Systems, Inc.	Cisco Systems, Inc.
Tracy, Nathan	TE Connectivity	TE Connectivity
Tran, Viet	Keysight Technologies	Keysight Technologies
Ulrichs, Ed	Intel	Intel
Wang, Haojie	China Mobile Communications Corporation (CMCC)	China Mobile Communications Corporation (CMCC)
Wang, Ruoxu	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd
Wang, Xinyuan	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd
Weaver, James	Arista Networks	Arista Networks
Welch, Brian	Cisco Systems, Inc.	Luxtera
Williams, Tom	Cisco Systems, Inc.	Cisco Systems, Inc.
Wingrove, Michael	Ciena Corporation	Ciena Corporation
Wong, Henry		Alphawave IP
Wu, Mau-Lin	MediaTek Inc.	MediaTek Inc.
Wu, Peter	Marvell Semiconductor, Inc.	Marvell Semiconductor, Inc.
Xu, Yu	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd
yan, zengchao	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd
Yang, Xiaoling		Huawei Technologies Co., Ltd
Yin, Shuang		Google
Zebian, Sara		Google
Zhong, Qiwen	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd
Zhou, Xiang		Google

16 November:

Name	Employer	Affiliation
Barakatain, Masoud		Huawei Technologies Co., Ltd
Ben-Artsi, Liav	Marvell Semiconductor, Inc.	Marvell Semiconductor, Inc.
Bernier, Eric	Huawei Technologies Canada Co., Ltd.	Huawei Technologies Co., Ltd
Bliss, William	Broadcom Corporation	Broadcom Corporation
Brooks, Paul	Viavi solutions GmbH	Viavi Solutions
Brown, Matthew	Huawei Technologies Canada	Huawei Technologies Canada
Bruckman, Leon	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd
Cai, Yuefeng		Huawei Technologies Co., Ltd
Calvin, John	Keysight Technologies	Keysight Technologies
Cassan, Dave	Alphawave	Alphawave
Castro, Jose	Panduit	Panduit Corp.
Chang, Yongmao	Inphi Corporation	Source Photonics
Chappell, Neveia		Keysight Technologies
Chen, Chan	Applied Optoelectronics, Inc.	Applied Optoelectronics, Inc.
cheng, weiqiang	China Mobile Limited	China Mobile Limited
Chuang, Keng Hua	Hewlett Packard Enterprise	Hewlett Packard Enterprise
Cox, Ian		Broadcom Corporation
D'Ambrosia, John	Futurewei Technologies, U.S. Subsidiary of Huawei	Futurewei Technologies, U.S. Subsidiary of Huawei
D'Ambrosia, John	Futurewei Technologies, U.S. Subsidiary of Huawei	Futurewei Technologies, U.S. Subsidiary of Huawei
Dawe, Piers J G	NVIDIA	Nvidia
de Koos, Andras	Microchip Technology Inc	Microchip Technology, Inc.
Del Vecchio, Peter		Broadcom Corporation

Dube, Kathryn	UNH-IOL	UNH-IOL
Dudek, Michael	Marvell	Marvell
Dumais, Patrick		Huawei Technologies Co., Ltd
Estes, David	Spirent Communications	Spirent Communications
FAn, DAWEI	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd
Farhoodfar, Arash	Inphi Corporation	Inphi Corporation
Ferretti, Vincent	Corning Incorporated	Corning Incorporated
Gao, Xiangrong	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd
Geng, Limin	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd
Ghiasi, Ali	Ghiasi Quantum LLC	Ghiasi Quantum LLC; Marvell Semiconductor, Inc.
Gorshe, Steven Scott	Microchip Technology, Inc.	Microchip Technology, Inc.
Gu, Tao		Centec
Gustlin, Mark	Cisco Systems, Inc.	Cisco Systems, Inc.
Haasz, Jodi	IEEE-SA	IEEE Standards Association (IEEE-SA)
He, Xiang	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd
Healey, Adam	Broadcom Inc.	Broadcom Inc.
Heck, Howard	Intel	Intel
Hidaka, Yasuo	Credo Semiconductor	Credo Semiconductor
Huang, Kechao	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd
HUANG, QINHUI	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd
Huber, Thomas	Nokia	Nokia
Hutchins, Jeff	Ranovus	Ranovus
Ingham, Jonathan	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd
Issenhuth, Tom	Issenhuth Consulting, LLC	Huawei Technologies Co., Ltd
Jackson, Kenneth	Sumitomo Electric Device Innovations, USA	Sumitomo Electric Industries, LTD

Johnson, John	Broadcom Corporation	Broadcom Corporation
Kareti, Upen	Cisco Systems, Inc.	Cisco Systems, Inc.
Kim, Kihong/Joshua	Hirose Electric (USA), Inc.	Hirose Electric (USA), Inc.
Kim, Yongbum	Tenstorrent	Tenstorrent
Kimber, Eric	Semtech Ltd	Semtech Ltd
Klempa, Michael	Amphenol Corporation	Alphawave IP
Klingensmith, William	U.S. Federal Government	DoD
Koch, Lavi		Lavi Koch Nvidia
Kochuparambil, Elizabeth	Cisco Systems, Inc.	Cisco Systems, Inc.
Kocsis, Sam	Amphenol Corporation	Amphenol Corporation
Kondo, Taiji	MegaChips Corporation	Dexerials Corporation
Kota, Kishore	Marvell Semiconductor, Inc.	Marvell Semiconductor, Inc.
Kuschnerov, Maxim	Huawei Technologies Duesseldorf GmbH	Huawei Technologies Duesseldorf GmbH
Lambert, Angela	Corning Incorporated	Corning Incorporated
Law, David	Hewlett Packard Enterprise	Hewlett Packard Enterprise
Lawson, Matthew	Cisco Systems, Inc.	Cisco Systems, Inc.
Le Cheminant, Greg	Keysight Technologies	Keysight Technologies
Lewis, David	Lumentum Inc.	Lumentum Inc.
Li, Mike-Peng	Intel	Intel
Li, Pei-Rong	MediaTek Inc.	MediaTek Inc.
Lieder, Eyal		Marvell Semiconductor, Inc.
Lin, Youxi	Huawei Technologies Duesseldorf GmbH	Huawei Technologies Co., Ltd
Little, Terrance	Foxconn Electronics Inc.	Foxconn Electronics Inc.
Liu, Cathy	Broadcom Corporation	Broadcom Corporation
Liu, Hai-Feng	HG Genuine	HG Genuine
Liu, Karen	Nubis Communications	Nubis Communications

LIU, XIANG	Huawei R&D USA	Huawei Technologies Co., Ltd
Lu, Yuchun	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd
Lusted, Kent	Intel	Intel
Ma, Huixiao		Huawei Technologies Co., Ltd
Maki, Jeffery	Juniper Networks, Inc.	Juniper Networks, Inc.
Malicoat, David	Malicoat Networking Solutions	Malicoat Networking Solutions; SENKO Advanced Components
Maniloff, Eric	Ciena Corporation	Ciena Corporation
Marques, Flavio	FURUKAWA ELECTRIC	FURUKAWA ELECTRIC
Marris, Arthur	Cadence Design Systems, Inc.	Cadence Design Systems, Inc.
Mellitz, Richard	Samtec, Inc.	Samtec, Inc.
mi, guangcan	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd
Moorwood, Charles	Keysight Technologies	Keysight Technologies
Muhigana, Ernest		Lumentum
Muller, Shimon	Enfabrica Corp.	Enfabrica
Nakamoto, Edward	Spirent Communications	Spirent Communications
Nering, Raymond	Cisco Systems, Inc.	Cisco Systems, Inc.
Nicholl, Gary	Cisco Systems, Inc.	Cisco Systems, Inc.
Nicholl, Shawn	Xilinx	Advanced Micro Devices (AMD)
Ninomiya, Takuya		Senko Advanced Components
Noujeim, Leesa	Google	Google
Ofelt, David	Juniper Networks, Inc.	Juniper Networks, Inc.
Omori, Kumi	NEC Corporation	NEC Corporation
Opsasnick, Eugene	Broadcom Inc.	Broadcom Inc.
Palkert, Thomas	Macom, Samtec	Samtec-Macom
Pardo, Carlos	Knowledge Development for POF SL	KDPOF
PARK, CHUL SOO	Juniper Networks Inc.	Juniper Networks, Inc.

Parsons, Earl	CommScope, Inc.	CommScope, Inc.
Parthasarathy, Vasu	Broadcom Corporation	Broadcom Corporation
Patra, lenin	Marvell Semiconductor, Inc.	Marvell Semiconductor, Inc.
peng, semmy		Huawei Technologies Co., Ltd
Piehler, David	Dell Technologies	Dell
Quan, Yu	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd
Rabinovich, Rick	Keysight Technologies	Keysight Technologies
Rahn, Jeffrey	Facebook	Facebook
Ramesh, Sridhar	MaxLinear	MAXLINEAR INC
Ran, Adee	Cisco Systems, Inc.	Cisco Systems, Inc.
Rechtman, Zvi	NVIDIA	NVIDIA
Ren, Hao	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd
Riani, Jamal		Marvell Semiconductor, Inc.
Rodes, Roberto	II-VI	II-VI
Sakai, Toshiaki	Socionext Inc.	socionext
Savi, Olindo	Hubbell Incorporated	Hubbell Incorporated
Sekel, Steve		Wilder Technologies
Shah, Anup	Siemens Corporation	Siemens EDA
Shanbhag, Megha	Tyco	TE Connectivity
She, Qingya	Fujitsu Network Communications	Fujitsu Network Communications
Sheffi, Nir		Banias Labs
Shoval, Ayal	Synopsys, Inc.	Synopsys, Inc.
Shrikhande, Kapil	Marvell Semiconductor, Inc.	Marvell Semiconductor, Inc.
Shukla, Priyank	Synopsys, Inc.	Synopsys, Inc.
Sikkink, Mark	Hewlett Packard Enterprise	Hewlett Packard Enterprise
Simms, William	NVIDIA Corporation	NVIDIA Corporation

Sluyski, MIke		Cisco Systems, Inc.
Sommers, Scott	Molex LLC	Molex Incorporated
Son, Yung Sung	Optomind Inc	Optomind Inc
Sorbara, Massimo	GLOBALFOUNDRIES	GLOBALFOUNDIRES
Sprague, Edward	Infinera Corporation	Infinera Corporation
Stassar, Peter	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd
SU, CHANGZHENG		Huawei Technologies Co., Ltd
Sun, Junqing	Credo Semiconductor	Credo Semiconductor
TAKAHARA, TOMOO	FUJITSU LABORATORIES LIMITED	FUJITSU LIMITED
Theodoras, James	HG Genuine	HG Genuine
Tooyserkani, Pirooz	Cisco Systems, Inc.	Cisco Systems, Inc.
Tracy, Nathan	TE Connectivity	TE Connectivity
Tran, Viet	Keysight Technologies	Keysight Technologies
Ulrichs, Ed	Intel	Intel
Wang, Haojie	China Mobile Communications Corporation (CMCC)	China Mobile Communications Corporation (CMCC)
Wang, Ruoxu	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd
Wang, Xinyuan	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd
Weaver, James	Arista Networks	Arista Networks
Welch, Brian	Cisco Systems, Inc.	Luxtera
Williams, Tom	Cisco Systems, Inc.	Cisco Systems, Inc.
Wingrove, Michael	Ciena Corporation	Ciena Corporation
Wong, Henry		Alphawave IP
Wu, Mau-Lin	MediaTek Inc.	MediaTek Inc.
Wu, Peter	Marvell Semiconductor, Inc.	Marvell Semiconductor, Inc.
Xu, Yu	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd
yan, zengchao	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd

Yang, Xiaoling		Huawei Technologies Co., Ltd
Yin, Shuang		Google
Zhong, Qiwen	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd
Zhou, Xiang		Google

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Name	Employer	Affiliation
Akin, Sami	Volkswagen AG	Volkswagen Ag
Barakatain, Masoud		Huawei Technologies Co., Ltd
Ben-Artsi, Liav	Marvell Semiconductor, Inc.	Marvell Semiconductor, Inc.
Bernier, Eric	Huawei Technologies Canada Co., Ltd.	Huawei Technologies Co., Ltd
Brooks, Paul	Viavi solutions GmbH	Viavi Solutions
Brown, Matthew	Huawei Technologies Canada	Huawei Technologies Canada
Bruckman, Leon	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd
Cai, Yuefeng		Huawei Technologies Co., Ltd
Calvin, John	Keysight Technologies	Keysight Technologies
Cassan, Dave	Alphawave	Alphawave
Castro, Jose	Panduit	Panduit Corp.
Chang, Yongmao	Inphi Corporation	Source Photonics
Chappell, Neveia		Keysight Technologies
Chen, Chan	Applied Optoelectronics, Inc.	Applied Optoelectronics, Inc.
cheng, weiqiang	China Mobile Limited	China Mobile Limited
Chuang, Keng Hua	Hewlett Packard Enterprise	Hewlett Packard Enterprise
Cox, Ian		Broadcom Corporation
D'Ambrosia, John	Futurewei Technologies, U.S. Subsidiary of Huawei	Futurewei Technologies, U.S. Subsidiary of Huawei

Dawe, Piers J G	NVIDIA	Nvidia
de Koos, Andras	Microchip Technology Inc	Microchip Technology, Inc.
Del Vecchio, Peter		Broadcom Corporation
Dudek, Michael	Marvell	Marvell
Dumais, Patrick		Huawei Technologies Co., Ltd
Effenberger, Frank	Futurewei Technologies	Futurewei Technologies
Estes, David	Spirent Communications	Spirent Communications
FAn, DAWEI	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd
Farhoodfar, Arash	Inphi Corporation	Inphi Corporation
Fellhauer, Felix		Robert Bosch GmbH
Gao, Xiangrong	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd
Geng, Limin	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd
Ghiasi, Ali	Ghiasi Quantum LLC	Ghiasi Quantum LLC; Marvell Semiconductor, Inc.
Gorshe, Steven Scott	Microchip Technology, Inc.	Microchip Technology, Inc.
Gu, Tao		Centec
Gustlin, Mark	Cisco Systems, Inc.	Cisco Systems, Inc.
He, Xiang	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd
Healey, Adam	Broadcom Inc.	Broadcom Inc.
Heck, Howard	Intel	Intel
Hidaka, Yasuo	Credo Semiconductor	Credo Semiconductor
Huang, Kechao	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd
HUANG, QINHUI	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd
Huber, Thomas	Nokia	Nokia
Hutchins, Jeff	Ranovus	Ranovus
Ingham, Jonathan	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd

Isono, Hideki	Fujitsu Optical Components Limited	Fujitsu Optical Components Limited
Issenhuth, Tom	Issenhuth Consulting, LLC	Huawei Technologies Co., Ltd
Jackson, Kenneth	Sumitomo Electric Device Innovations, USA	Sumitomo Electric Industries, LTD
Jiang, Chendi	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd
Jimenez, Andrew	Anixter Inc.	Anixter Inc.
Johnson, John	Broadcom Corporation	Broadcom Corporation
Jonsson, Ragnar	Marvell Semiconductor, Inc.	Marvell
Kabra, Lokesh	Synopsys, Inc.	Synopsys, Inc.
Kareti, Upen	Cisco Systems, Inc.	Cisco Systems, Inc.
Kim, Kihong/Joshua	Hirose Electric (USA), Inc.	Hirose Electric (USA), Inc.
Kim, Yongbum	Tenstorrent	Tenstorrent
Kimber, Eric	Semtech Ltd	Semtech Ltd
Klempa, Michael	Amphenol Corporation	Alphawave IP
Klingensmith, William	U.S. Federal Government	DoD
Koch, Lavi		Lavi Koch Nvidia
Kocsis, Sam	Amphenol Corporation	Amphenol Corporation
Kondo, Taiji	MegaChips Corporation	Dexerials Corporation
Kota, Kishore	Marvell Semiconductor, Inc.	Marvell Semiconductor, Inc.
Lambert, Angela	Corning Incorporated	Corning Incorporated
Lawson, Matthew	Cisco Systems, Inc.	Cisco Systems, Inc.
Le Cheminant, Greg	Keysight Technologies	Keysight Technologies
Lewis, David	Lumentum Inc.	Lumentum Inc.
Li, Mike-Peng	Intel	Intel
Li, Pei-Rong	MediaTek Inc.	MediaTek Inc.
Lieder, Eyal		Marvell Semiconductor, Inc.
Lin, Youxi	Huawei Technologies Duesseldorf GmbH	Huawei Technologies Co., Ltd

Liu, Cathy	Broadcom Corporation	Broadcom Corporation
Liu, Hai-Feng	HG Genuine	HG Genuine
LIU, XIANG	Huawei R&D USA	Huawei Technologies Co., Ltd
Lu, Yuchun	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd
Luo, Yuanqiu	Futurewei Technologies	Futurewei Technologies
Lusted, Kent	Intel	Intel
Ma, Huixiao		Huawei Technologies Co., Ltd
Maki, Jeffery	Juniper Networks, Inc.	Juniper Networks, Inc.
Malicoat, David	Malicoat Networking Solutions	Malicoat Networking Solutions; SENKO Advanced Components
Maniloff, Eric	Ciena Corporation	Ciena Corporation
Marques, Flavio	FURUKAWA ELECTRIC	FURUKAWA ELECTRIC
Marris, Arthur	Cadence Design Systems, Inc.	Cadence Design Systems, Inc.
Mellitz, Richard	Samtec, Inc.	Samtec, Inc.
mi, guangcan	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd
Moorwood, Charles	Keysight Technologies	Keysight Technologies
Muhigana, Ernest		Lumentum
Muller, Shimon	Enfabrica Corp.	Enfabrica
Murty, Ramana	Broadcom Inc.	Broadcom Corporation
Nakamoto, Edward	Spirent Communications	Spirent Communications
Nering, Raymond	Cisco Systems, Inc.	Cisco Systems, Inc.
Nicholl, Shawn	Xilinx	Advanced Micro Devices (AMD)
Ninomiya, Takuya		Senko Advanced Components
Noujeim, Leesa	Google	Google
Nowell, Mark	Cisco Systems, Inc.	Cisco Systems, Inc.
Ofelt, David	Juniper Networks, Inc.	Juniper Networks, Inc.
Omori, Kumi	NEC Corporation	NEC Corporation

Opsasnick, Eugene	Broadcom Inc.	Broadcom Inc.
Palkert, Thomas	Macom, Samtec	Samtec-Macom
PARK, CHUL SOO	Juniper Networks Inc.	Juniper Networks, Inc.
Parkholm, Ulf	Telefon AB LM Ericsson	Telefon AB LM Ericsson
Parsons, Earl	CommScope, Inc.	CommScope, Inc.
Parthasarathy, Vasu	Broadcom Corporation	Broadcom Corporation
Patra, lenin	Marvell Semiconductor, Inc.	Marvell Semiconductor, Inc.
peng, semmy		Huawei Technologies Co., Ltd
Piehler, David	Dell Technologies	Dell
Quan, Yu	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd
Rahn, Jeffrey	Facebook	Facebook
Ramesh, Sridhar	MaxLinear	MAXLINEAR INC
Ran, Adee	Cisco Systems, Inc.	Cisco Systems, Inc.
Rechtman, Zvi	NVIDIA	NVIDIA
Ren, Hao	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd
Riani, Jamal		Marvell Semiconductor, Inc.
Rodes, Roberto	II-VI	II-VI
Sakai, Toshiaki	Socionext Inc.	socionext
Savi, Olindo	Hubbell Incorporated	Hubbell Incorporated
SAWANO, Hiroshi	OITDA (Optoelectronics Industry and Technology Development Association)	OITDA
Sekel, Steve		Wilder Technologies
Shah, Anup	Siemens Corporation	Siemens EDA
Shanbhag, Megha	Tyco	TE Connectivity
She, Qingya	Fujitsu Network Communications	Fujitsu Network Communications
Sheffi, Nir		Banias Labs
Shoval, Ayal	Synopsys, Inc.	Synopsys, Inc.

Shrikhande, Kapil	Marvell Semiconductor, Inc.	Marvell Semiconductor, Inc.
Shukla, Priyank	Synopsys, Inc.	Synopsys, Inc.
Sikkink, Mark	Hewlett Packard Enterprise	Hewlett Packard Enterprise
Simms, William	NVIDIA Corporation	NVIDIA Corporation
Sluyski, MIke		Cisco Systems, Inc.
Sommers, Scott	Molex LLC	Molex Incorporated
Son, Yung Sung	Optomind Inc	Optomind Inc
Sorbara, Massimo	GLOBALFOUNDRIES	GLOBALFOUNDIRES
Souvignier, Tom	Broadcom Corporation	Broadcom Corporation
Sprague, Edward	Infinera Corporation	Infinera Corporation
Stassar, Peter	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd
SU, CHANGZHENG		Huawei Technologies Co., Ltd
Sun, Junqing	Credo Semiconductor	Credo Semiconductor
Sun, Wensheng	Marvell Semiconductor, Inc.	Marvell Semiconductor, Inc.
TAKAHARA, TOMOO	FUJITSU LABORATORIES LIMITED	FUJITSU LIMITED
Theodoras, James	HG Genuine	HG Genuine
Tooyserkani, Pirooz	Cisco Systems, Inc.	Cisco Systems, Inc.
Tracy, Nathan	TE Connectivity	TE Connectivity
Tran, Viet	Keysight Technologies	Keysight Technologies
Ulrichs, Ed	Intel	Intel
Wang, Haojie	China Mobile Communications Corporation (CMCC)	China Mobile Communications Corporation (CMCC)
Wang, Ruoxu	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd
Wang, Xinyuan	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd
Weaver, James	Arista Networks	Arista Networks
Welch, Brian	Cisco Systems, Inc.	Luxtera
Williams, Tom	Cisco Systems, Inc.	Cisco Systems, Inc.

Wingrove, Michael	Ciena Corporation	Ciena Corporation
Wong, Henry		Alphawave IP
Wu, Mau-Lin	MediaTek Inc.	MediaTek Inc.
Wu, Peter	Marvell Semiconductor, Inc.	Marvell Semiconductor, Inc.
Xu, Yu	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd
yan, zengchao	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd
Yang, Xiaoling		Huawei Technologies Co., Ltd
Yin, Shuang		Google
Zhou, Xiang		Google