

Minutes

IEEE P802.3ck 100 Gb/s, 200 Gb/s and 400 Gb/s Electrical Interfaces Task Force

Telephonic series for May 2022 Meetings:

May 31 and June 1

Online Meeting

Prepared by Kent Lusted and Beth Kochuparambil

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IEEE P802.3ck 100 Gb/s Electrical Lane Task Force – May 31, 2022

Prepared by Kent Lusted and Beth Kochuparambil

Proposed Agenda:

- Approval of the Agenda
- IEEE Participation Requirements reminder
- IEEE Copyright reminder
- IEEE Patent Policy reminder
- Task Force Status
- Chief Editor's Report
- Comment Agenda
- Comment Resolution
- Closing Business

Presentations posted at: https://www.ieee802.org/3/ck/public/22_06/index.html

Meeting began at ~7:03 a.m. Pacific by Beth Kochuparambil, IEEE 802.3ck Task Force Chair. (Note: all times are Pacific time zone unless otherwise indicated)

Meeting began with the agenda presentation:

https://www.ieee802.org/3/ck/public/22_06/agenda_3ck_01_0622.pdf

Chair noted that the agenda would cover 31 May and 1 June.

Chair reminded participants that Task Force attendance would be taken from the webex logs.

The chair reminded participants to indicate full names and employer/affiliation correctly for the meeting minutes. Reminded participants to mute lines when not speaking and reviewed the steps to unmute.

Chair presented the proposed agenda. Chair asked if there was objection to approving the agenda. No one responded. The agenda was approved.

Chair noted that the Wednesday, 1 June meeting may run over the announced end time if comment resolution had been completed.

Chair reviewed the slide with the Participation requirements. Chair asked if anyone participating had not read the copyright slide set – no one responded. Chair showed the IEEE-SA copyright slides. Chair asked if anyone participating had not read the patent slide set – no one responded. Chair showed the patent policy slides and did the call for Potentially Essential Patents – no one responded.

Chair reviewed the ground rules. Chair called for members of the press. No one responded.

Chair reminded participants to build consensus offline in order to progress comment resolution.

Chair noted that late presentations should have multiple supporters or collaborators for the purpose of showing offline consensus that developed since comment submission.

Chair noted that she received updated presentations from Ali Ghiasi and Piers Dawe. Both presentations contain new technical information. She asked if there was objection to hearing the updated presentations. No one responded.

P802.3ck Status, Beth Kochuparambil

See: https://www.ieee802.org/3/ck/public/22_06/agenda_3ck_01_0622.pdf

- The second recirculation SA ballot closed on 21 May 2022. Received 21 comments from 3 commenters.
- Reviewed the next steps towards RevCom submittal.

Chief Editors Report - Matt Brown

See: https://www.ieee802.org/3/ck/public/22_06/editorsrep_3ck_01_0622.pdf

Comment Resolution Agenda - Matt Brown

See: https://www.ieee802.org/3/ck/public/22_06/comagenda_3ck_01_0622.pdf

- It was noted that the comment resolution agenda was subject to change going forward.

Comment resolution began.

Consensus Discussion Slides - Matt Brown

See: https://www.ieee802.org/3/ck/public/22_06/brown_3ck_01_0622.pdf

Chair noted that she received updated presentations from Ali Ghiasi with new technical information; version '01c'. She asked if there was objection to hearing the updated presentation. No one responded.

Presentation #1:

“Limits for AC Common Mode Voltage for C2M”, Ali Ghiasi

See: https://www.ieee802.org/3/ck/public/22_06/ghiasi_3ck_01c_0622.pdf

- On slide 9, the yellow and blue lines are SCC21 with different channel lengths.
- Reviewed the options provided on slide 12.

At ~7:55 a.m. Pacific, Beth Kochuparambil passed the meeting Chair responsibilities to Kent Lusted.

For the AC Common Mode topic, the Chief Editor asked if there was opposition to proceeding in the direction of Option B proposed in the ghiasi 01c presentation. No one objected.

Break for ~8:30 a.m. Resumed at ~8:35 a.m.

Straw Poll #1:

I would support setting the V_CMPP-BB (max) limit for Clause 162 to the following:

- A: lower than 80 mV
- B: higher than 80 mV
- C: 80 mV

Results: A: 6, B: 7, C: 15
(see comment R2-20)

Straw Poll #2:

I would support setting the V_CMPP-BB (max) limit for 120G to the following:

- A: lower than 80 mV
- B: higher than 80 mV
- C: 80 mV

Results: A: 7, B: 5, C: 12
(see comment R2-20)

As a result of closing comment R2-20, the Chief Editor announced that he would update the proposed responses to similar comments for review by the comment resolution group at the 1 June meeting. He asked if there was opposition to this approach. No one responded.

At ~9 a.m. Pacific, Kent Lusted returned the meeting Chair responsibilities to Beth Kochuparambil.

Consensus Discussion Slides - Matt Brown

See: https://www.ieee802.org/3/ck/public/22_06/brown_3ck_01_0622.pdf

Straw Poll #3:

I support the variable form as follows: (note: the first underscore in each of the below implies that the characters to right are subscript.)

- A. V_CMPP-LF (current)
- B. V_CMPPLF
- C. V_CMPP_LF
- D. V_CMPP,LF
- E. V_CMLF
- F. V_CM_LF
- G. VCM_LF

Results: A: 1 , B: 4 , C: 5, D: 1 , E: 5 , F: 4 , G: 8
(see comment R2-4)

Chief Editor asked if there was objection to closing comment R2-4 using the nomenclature of option G in straw poll #3. There were objections.

Straw Poll #4:

I support the variable form as follows: (note: the first underscore in each of the below implies that the characters to right are subscript.) (choose one)

- A. V_CMPPLF
- B. V_CMPP_LF
- C. V_CMLF
- D. V_CM_LF
- E. VCM_LF

Results: A: 1 , B: 4, C: 3, D: 0, E: 11
(see comment R2-4)

Straw Poll #5:

For the broadband common-mode variable I support the form: (note: the first underscore in each of the below implies that the characters to right are subscript.) (choose one)

- A. VCM_BB

B. VCM

Results: A: 9, B: 9
(see comment R2-4)

Chair thanked the comment resolution group for their hard work to resolve the comments.

Chair reminded participants of the next meeting on 1 June 2022. If the CRG completes comment resolution, the meeting may run past the announced end time to complete closing business.

Meeting break at ~10:05 a.m.

IEEE P802.3ck 100 Gb/s Electrical Lane Task Force – June 1, 2022

Prepared by Kent Lusted and Beth Kochuparambil

Continue approved agenda from 31 May.

Presentations posted at: https://www.ieee802.org/3/ck/public/22_06/index.html

Meeting began at ~7:00 a.m. Pacific by Beth Kochuparambil, IEEE 802.3ck Task Force Chair. (Note: all times are Pacific time zone unless otherwise indicated)

Meeting began with the agenda presentation
https://www.ieee802.org/3/ck/public/22_06/agenda_3ck_01_0622.pdf

Chair reminded participants that Task Force attendance would be taken from the webex logs.

Chair reminded participants to indicate full names and employer/affiliation correctly for the meeting minutes. Reminded participants to mute lines when not speaking and reviewed the steps to unmute.

Chair reviewed the slide with the Participation requirements. Chair asked if anyone participating had not read the copyright slide set – no one responded. Chair showed the IEEE-SA copyright slides. Chair asked if anyone participating had not read the patent slide set – no one responded. Chair showed the patent policy slides and did the call for Potentially Essential Patents – no one responded.

Chair reviewed the ground rules. Chair called for members of the press. No one responded.

Chair noted that if the CRG completes comment resolution, the meeting may run past the announced end time to complete closing business.

Comment Resolution Agenda - Matt Brown

See: https://www.ieee802.org/3/ck/public/22_06/comagenda_3ck_01_0622.pdf

- It was noted that the comment resolution agenda was subject to change.

Comment resolution began.

Straw Poll #6

For the note text I prefer the following text with editorial license:

- A. "The common-mode noise measurement should use sufficient samples to include the signal down to the AC coupling frequency."
- B. "The common-mode noise measurement should take into consideration frequencies down to the AC coupling frequency."

Results: A: 9, B: 18

(see comment R2-21)

Consensus Discussion Slides - Matt Brown

See: https://www.ieee802.org/3/ck/public/22_06/brown_3ck_01_0622.pdf

Chair noted that she received updated presentations from Piers Dawe with new technical information on slide 8; version '01a'. She asked if there was objection to hearing the updated presentation. No one responded.

Presentation #2:

"C2M eye width", Piers Dawe

See: https://www.ieee802.org/3/ck/public/22_06/dawe_3ck_01a_0622.pdf

- Discussed the details on slide 8.

Chair noted that Straw Poll #7 was a directional straw poll.

Straw Poll #7:

I support adding an ESMW specification for C2M.

Results: Y: 8 , N: 16

(see comment R2-17)

Consensus Discussion Slides - Matt Brown

See: https://www.ieee802.org/3/ck/public/22_06/brown_3ck_01_0622.pdf

Break at ~8:24 a.m. Resumed at ~8:30 a.m.

Chair noted that Straw Poll #8 was a directional straw poll.

Straw Poll #8:

I support changing Rpeak as proposed in comment R2-12.

Results: Y: 7, N: 14

(see comment R2-12)

Straw Poll #9:

I support the following variable name for the full-band AC common mode voltage: (note that the first underscore in option B below implies that the characters to right are subscript.)

A. VCM

B. VCM_FB

Results: A: 5 , B: 13

(see comment R2-4)

Comment resolution concluded at ~9:50 a.m.

Chair noted that the meeting would be extended past the announced end time in order to complete closing business.

Break at ~9:51 a.m. Resumed at ~9:54 a.m.

Chair reviewed the next steps for the SA ballot recirculation. She announced a tentative meeting for 29 June after the D3.3 ballot closes; details would be sent to the Task Force email reflector.

Chair noted that the next major decision would be the request for unconditional or conditional approval for RevCom submission at the July 2022 Plenary meeting.

The Chief Editor asked if there was objection to reopening comment R2-17 to include a URL reference in the response. No one responded. The comment R2-17 was reopened, the change was made, and closed.

Motion #1:

Move that the IEEE P802.3ck Task Force generate Draft 3.3 for SA Recirculation from D3.2 and closed comments.

M: Ali Ghiasi

S: Mike Dudek

Technical (>=75%)

Chair attempted to take the motion by unanimous consent. There was opposition.

A roll call vote was taken for Motion #1:

802.3 Voter	Vote	Employer	Affiliation
Brown, Matthew	Y	Huawei Technologies Canada	Huawei Technologies Canada
Dawe, Piers	N	NVIDIA	Nvidia
Dudek, Mike	Y	Marvell	Marvell
Ghiasi, Ali	Y	Ghiasi Quantum LLC	Ghiasi Quantum LLC; Marvell Semiconductor, Inc.
Heck, Howard	Y	Intel Corporation	Intel Corporation
Kochuparambil, Elizabeth	A	Cisco Systems, Inc.	Cisco Systems, Inc.
Li, Pei-Rong	Y		MediaTek Inc.
Lusted, Kent	A	Intel Corporation	Intel Corporation
Maki, Jeffery	Y	Juniper Networks, Inc.	Juniper Networks, Inc.
Malicoat, David	Y	Malicoat Networking Solutions	Malicoat Networking Solutions; SENKO Advanced Components
Opsasnick, Eugene	Y	Broadcom Inc.	Broadcom Inc.
Palkert, Tom	Y	Macom, Samtec	Samtec-Macom
Rabinovich, Rick	Y	Keysight Technologies	Keysight Technologies
Sakai, Toshiaki	Y	Socionext Inc.	socionext
Simms, William	N	NVIDIA Corporation	NVIDIA Corporation
Sommers, Scott	Y	Molex LLC	Molex Incorporated
Weaver, James	Y	Arista Networks	Arista Networks
Wu, Mau-Lin	Y	MediaTek Inc.	MediaTek Inc.
Zivny, Pavel	Y	Tektronix, Inc.	Tektronix, Inc.

Results: Y: 15, N: 2, A: 2

Motion passed.

Chair noted that the meeting agenda was complete. There would be no meeting on 7-8 June 2022.

Meeting adjourned at ~10:15 a.m.

Attendees

Name	Affiliation	Employed by	5/31	6/1
Adam Healey	Broadcom	Broadcom	x	x
Adee Ran	Cisco	Cisco	x	
Ali Ghiasi	Ghiasi Quantum/Inphi	Ghiasi Quantum/Inphi	x	x
Ayal Shoval	Synopsys	Synopsys	x	x
Beth Kochuparambil	Cisco	Cisco	x	x
Bill Simms	NVIDIA	NVIDIA	x	x
Champion (Chien Ping) Kao	Cornelis Networks	Cornelis Networks	x	x
Chan Chih (David) Chen	Applied Optoelectronics	Applied Optoelectronics	x	
Chris DiMinico	PHY-SI	PHY-SI	x	x
David Malicoat	Senko	Independent	x	x
Denz Choe	BeCe	BeCe		x
Ed Ulrichs	Intel	Intel	x	
Enis Akbaba	Analog Devices	Analog Devices	x	x
Eugene Opsasnick	Broadcom	Broadcom	x	x
Frank Chang	Source Photonics	Source Photonics		x
Gary Nicholl	Cisco	Cisco	x	
Geoff Zhang	AMD	AMD	x	x
Hessam Mohajeri	Independent	Independent		x
Howard Heck	Intel	Intel	x	x
James Weaver	Arista	Arista	x	x
Jane Lim	Cisco	Cisco	x	

Jeff Slavick	Broadcom	Broadcom		x
Jeffery Maki	Juniper	Juniper	x	x
Jodi Haasz	IEEE SA	IEEE SA	x	x
John Calvin	Keysight	Keysight	x	x
John Ewen	Marvell	Marvell	x	x
Joshua Kim	Hirose	Hirose	x	x
Karl Bois	NVIDIA	NVIDIA	x	x
Kent Lusted	Intel	Intel	x	x
Kumaran Krishnasamy	Broadcom	Broadcom		x
Leon Bruckman	Huawei	Huawei	x	
Liav Ben-Artzi	Marvell	Marvell	x	x
Mark Gustlin	Cisco	Cisco	x	
Matt Brown	Huawei	Huawei	x	x
Mau-Lin Wu	Mediatek	Mediatek	x	x
Megha Shanbhag	TE Connectivity	TE Connectivity	x	x
Mike Dudek	Marvell	Marvell	x	x
Nathan Tracy	TE Connectivity	TE Connectivity	x	x
Pavel Zivny	Tektronix	Tektronix	x	x
Phil Sun	Credo	Credo		x
Piers Dawe	NVIDIA	NVIDIA	x	x
Pirooz Tooyserkani	Cisco	Cisco	x	x
Ramesh Sivakolundu	Cisco	Cisco		x
Rich Mellitz	Samtec	Samtec	x	x
Rick Rabinovich	Keysight	Keysight	x	x

Ryan Bepalko	Alphawave IP	Alphawave IP	x	x
Scott Sommers	Molex	Molex	x	x
Stephen Didde	Keysight	Keysight	x	
Steve Sekel	Wilder Tech	Wilder Tech	x	x
Tao Hu	Marvell	Marvell		x
Terry Little	Foxconn Interconnect	Foxconn Interconnect	x	
Tobey PR Li	Mediatek	Mediatek	x	x
Tom Palkert	Macom/Samtec	Macom/Samtec		x
Toshiaki Sakai	Socionext	Socionext	x	x
Yasuo Hidaka	Credo	Credo	x	