

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

Telephonic series for September-October 2021 Meeting:
Sept. 28, September 29, October 5, October 6, October 12, October 13, 2021
Online Meeting

Prepared by Beth Kochuparambil and Kent Lusted

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IEEE P802.3ck 100 Gb/s Electrical Lane Task Force – September 28, 2021

Prepared by Kent Lusted and Beth Kochuparambil

Proposed Agenda:

- Approval of the Agenda
- Approval of Sept. 22nd minutes
- IEEE Patent Policy reminder
- IEEE Copyright reminder
- IEEE Participation Requirements reminder
- Task Force Status
- Comment Resolution
 - Cross-clause Topics (slide 5 of comment agenda)
 - Clause 162 Topics (slide 6 of comment agenda)
 - Annexes 162 A/B/C/D (slide 7 of comment agenda)

Presentations posted at: https://www.ieee802.org/3/ck/public/21_09/index.html

Meeting began at ~7:05 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/21_09/agenda_3ck_01_0921.pdf

Chair reminded participants that Task Force attendance would be taken from the webex logs. Chair noted that the attendance for the IEEE 802.3 Working Group would be taken from the IEEE Meeting Attendance Tool.

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.

Presented the proposed agenda and noted that the agenda would cover the meetings on 28 and 29 September.

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

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.

Reviewed the Draft 2.2 Telephonic interim meeting series details. Chair noted that the meetings on 5 and 6 October would begin at 6:30 a.m. Pacific time (30 minutes earlier than normal) and would focus on Annex 120G. (see <https://www.ieee802.org/3/calendar.html>)

Chair noted that editors are using a “closed-as-a-result bucket” for comments deemed non-controversial. The bucket proposed responses would be adopted with motions later in the meeting series.

It was noted that comments currently collected in the “bucket1” are to be reviewed by participants and if any of them are to be taken out of the bucket, participants are to notify leadership by 3 October 2021, AOE. See: https://www.ieee802.org/3/ck/comments/draft2p2/8023ck_D2p2_comments_proposed_bucket1.pdf

Chief Editors Report -- Matt Brown

See: https://www.ieee802.org/3/ck/public/21_09/editorsrep_3ck_01_0921.pdf

- Matt Brown thanked all of the editors for their hard work to prepare initial responses to the comments.
- Annex 120G had the most comments during the review.

Common Resolution Agenda - Matt Brown

See: https://www.ieee802.org/3/ck/public/21_09/comagenda_3ck_01a_0921.pdf

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

- Chief Editor reminded participants to review the comments currently collected in bucket1. See:
https://www.ieee802.org/3/ck/comments/draft2p2/8023ck_D2p2_comments_proposed_bucket1.pdf

Comment resolution began.

Consensus Discussion Slides - Matt Brown

See: https://www.ieee802.org/3/ck/public/21_09/brown_3ck_01_0921.pdf

See slides 2-5

- It was noted that comment #69 proposes a change to N_v to 29 and should be included in the discussion on TX SNDR. Comment #25 proposed a change to N_v as well and should be included.

Consensus Discussion Slides - Howard Heck

See: https://www.ieee802.org/3/ck/public/21_09/heck_3ck_01_0921.pdf

Straw Poll #1:

For CR TX SNDR, I support N_p value of:

A: 29

B: 200

Results: A: 6, B: 21

(see comment 50)

Straw Poll #2:

For KR TX SNDR, I support N_p value of:

A: 29

B: 200

Results: A: 5, B: 22

(see comment 50)

Straw Poll #3:

For CR TX steady state voltage and pulse peak, I support N_v value of:

A: 29

B: 200

Results: A: 10, B: 17

(see comment 50)

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

Chair noted that there was an updated 01a presentation from Rich Mellitz on the CM Measurement Specifications. Chair asked if there was objection to the updated version. No one responded.

Presentation #1:

“CM Measurement Specification Recommendations”, Rich Mellitz

See: https://www.ieee802.org/3/ck/public/21_09/mellitz_3ck_01a_0921.pdf

- Clarifying questions were asked.

Straw Poll #4:

I support replacing or supplementing the "composite" AC common-mode parameter with new separate parameters for correlated and uncorrelated portions for one or more interfaces:

(choose one)

A: Yes

B: No

C: need more information or more work needed

Results: A: 10 , B: 8 , C: 11

(see comment #59)

Straw Poll #5:

In Draft 2.3, I support replacing or supplementing the "composite" AC common-mode parameter with new separate parameters for correlated and uncorrelated portions for one or more interfaces: (choose one)

A: Yes

B: No

Results: Y: 16, N: 18

(see comment #59)

Chair noted that Straw Poll #5 was a decision straw poll and would determine if the proposal was included in Draft 2.3.

Chair reminded participants to sign into the IEEE Meeting Attendance Tool for IEEE 802.3 Working Group meeting credit.

Chair noted that the next meeting was scheduled for 29 September and would resume with the comment agenda cross clause topics.

Chair received a late presentation from Piers Dawe related to comment #90. Chair noted that late presentations should focus on supporting evidence for a comment made, correcting a proposal based upon offline consensus building, or a consensus presentation.

Chair noted that comments currently collected in the “bucket1” are to be reviewed by participants and if any of them are to be taken out of the bucket, participants are to notify leadership by 3 October 2021, AOE. See:

https://www.ieee802.org/3/ck/comments/draft2p2/8023ck_D2p2_comments_proposed_bucket1.pdf

Meeting break at ~10:10 a.m.

IEEE P802.3ck 100 Gb/s Electrical Lane Task Force – September 29, 2021

Prepared by Kent Lusted and Beth Kochuparambil

Continue approved agenda from 28 September

Presentations posted at: https://www.ieee802.org/3/ck/public/21_09/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)

Beth welcomed attendees.

Meeting began with the agenda presentation:

https://www.ieee802.org/3/ck/public/21_09/agenda_3ck_01_0921.pdf

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 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 called for members of the press. No one responded.

Chair noted that comments currently collected in the “bucket1” are to be reviewed by participants and if any of them are to be taken out of the bucket, participants are to notify leadership by 3 October 2021, AOE. See:

https://www.ieee802.org/3/ck/comments/draft2p2/8023ck_D2p2_comments_proposed_bucket1.pdf

Common Resolution Agenda - Matt Brown

See: https://www.ieee802.org/3/ck/public/21_09/comagenda_3ck_01a_0921.pdf

- It was noted that the comment resolution agenda was subject to change.
- Reminded participants to review the comments currently collected in bucket1. See: https://www.ieee802.org/3/ck/comments/draft2p2/8023ck_D2p2_comments_proposed_bucket1.pdf

Comment resolution began.

Consensus Discussion Slides - Matt Brown

See: https://www.ieee802.org/3/ck/public/21_09/brown_3ck_01_0921.pdf

Consensus Discussion Slides - Howard Heck

See: https://www.ieee802.org/3/ck/public/21_09/heck_3ck_01_0921.pdf

Consensus Discussion Slides - Chris Diminico

See: https://www.ieee802.org/3/ck/public/21_09/diminico_3ck_01_0921.pdf

Straw Poll #6

I support adopting the changes in comment #89 suggested remedy

- A. Yes
- B. No

Results: Y: 11, N: 19

(see comment #89)

Chair reminded participants to sign into the IEEE Meeting Attendance Tool for IEEE 802.3 Working Group meeting credit.

Chair noted that comments currently collected in the “bucket1” are to be reviewed by participants and if any of them are to be taken out of the bucket, participants are to notify leadership by 3 October 2021, AOE. See: https://www.ieee802.org/3/ck/comments/draft2p2/8023ck_D2p2_comments_proposed_bucket1.pdf

Break at ~8:30 a.m. Resumed at ~8:38 a.m.

Straw Poll #7:

I support adopting the suggested remedy in comment #136.

- A. Yes
- B. No

Results: Y: 12 , N: 10

(see comment #136)

Presentation #2:

“Table 162-C Improved MDI Connector Mapping”, Ali Ghiasi

See: https://www.ieee802.org/3/ck/public/21_09/ghiasi_3ck_01_0921.pdf

- Discussed the proposed format and compared it to the format in the current draft.

Chair asked if there was objection to moving to comments on Annex 93A, Clause 163, and Annexes 120F & 163 A/B (slide 8 of the comment agenda) in the remaining meeting time. No one objected.

Consensus Discussion Slides - Howard Heck

See: https://www.ieee802.org/3/ck/public/21_09/heck_3ck_01_0921.pdf

Consensus Discussion Slides - Phil Sun

See: https://www.ieee802.org/3/ck/public/21_09/sun_3ck_01_0921.pdf

Chair reminded participants to sign into the IEEE Meeting Attendance Tool for IEEE 802.3 Working Group meeting credit.

Chair noted that comments currently collected in the “bucket1” are to be reviewed by participants and if any of them are to be taken out of the bucket, participants are to notify leadership by 3 October 2021, AOE. See:

https://www.ieee802.org/3/ck/comments/draft2p2/8023ck_D2p2_comments_proposed_bucket1.pdf

Chair noted that there would be a bucket2 with closed-as-a-result comments from the week’s meeting. The posting of the file to the website would be announced over the email reflector.

Chair reminded participants of the IEEE 802.3 Working Group meeting on Thursday, 30 September. See <https://www.ieee802.org/3/calendar.html> for more details. The only P802.3ck Task Force business would be liaison responses.

Chair noted the meetings on 5 and 6 October begin at 6:30 a.m. Pacific (see <https://www.ieee802.org/3/100GEL/email/msg00808.html> and <https://www.ieee802.org/3/calendar.html>) and would focus on the Annex 120G topic.

Meeting break at ~10:02 a.m.

IEEE P802.3ck 100 Gb/s Electrical Lane Task Force – October 5, 2021

Prepared by Kent Lusted and Beth Kochuparambil

Proposed Agenda:

- Approval of the Agenda
- IEEE Patent Policy reminder
- IEEE Copyright reminder
- IEEE Participation Requirements reminder
- Reminder of Ground Rules and Operations
- Task Force Status
- Comment Resolution
 - Bucket1 & Bucket2a
 - Request to re-open comments
 - Comment Agenda:

https://www.ieee802.org/3/ck/public/21_09/comagenda_3ck_03_0921.pdf

Presentations posted at: https://www.ieee802.org/3/ck/public/21_09/index.html

Meeting began at ~6:33 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/21_09/agenda_3ck_03_0921.pdf

Chair reminded participants that Task Force attendance would be taken from the webex logs.
There was no IMAT session code.

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.

Presented the proposed agenda and noted that the agenda would cover the meetings on 5 and 6 October.

Chair asked if there was objection to the shown agenda. No one responded.

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 reviewed the Task Force status. The liaison communications were approved by the IEEE 802.3 Working Group last week.

Chair reminded participants of the progress towards the SA ballot cycle.

Chair noted that the request to pull comments from “bucket1” (see: https://www.ieee802.org/3/ck/comments/draft2p2/8023ck_D2p2_comments_proposed_bucket1.pdf) and “bucket2a” (see: https://www.ieee802.org/3/ck/comments/draft2p2/8023ck_D2p2_comments_proposed_bucket2a.pdf) was 2 October AOE. She noted that “closed-as-a-result” bucket2 was updated to bucket2a to correct a typo in a proposed response in comment #64. There were requests to pull a total of 12 comments: 10, 15, 27, 33, 39, 44, 73, 74, 83, 109, 111, 139.

Motion #1:

Move to:

- Adopt the proposed responses in 8023ck_D2p2_comments_proposed_bucket1.pdf and 8023ck_D2p2_comments_proposed_bucket2a.pdf with the exception of comments 10, 15, 27, 33, 39, 44, 73, 74, 83, 109, 111, 139

M: Adee Ran

S: Howard Heck

Technical (>=75%)

Motion passed by unanimous consent

Chair noted that she received 3 requests to reopen comments closed at the last meeting per the procedure given in the Agenda, slide 19 (see: https://www.ieee802.org/3/ck/public/21_09/agenda_3ck_03_0921.pdf#page=19). These were

comments #149 (see: <https://www.ieee802.org/3/100GEL/email/msg00816.html>) , #107 (see: <https://www.ieee802.org/3/100GEL/email/msg00816.html>) , #136 (see: <https://www.ieee802.org/3/100GEL/email/msg00820.html>) . Chair provided an overview of comment #149 and asked if there was any additional support for reopening the comment. No support was indicated and comment #149 remained closed. Chair provided an overview of comment #107 and asked if there was any additional support for reopening the comment. No support was indicated and comment #107 remained closed. Chair provided an overview of comment #136 and asked if there was any additional support for reopening the comment. There was support to reopen comment #107 and Chair asked if there was opposition to reopening the comment. There was no opposition.

Chair and Chief Editor noted that comment #107 would be added to the agenda for discussion at a later meeting.

Common Resolution Agenda - Matt Brown

See: https://www.ieee802.org/3/ck/public/21_09/comagenda_3ck_03a_0921.pdf

- It was noted that the comment resolution agenda was subject to change.
- On slide 3, the count for bucket #1 was reduced to 48 due to the comment pulls noted earlier.
- The comment agenda was updated to version 03a as a result of discussion.

Comment resolution began.

Consensus Discussion Slides - Matt Brown

See: https://www.ieee802.org/3/ck/public/21_09/brown_3ck_02_0921.pdf

Straw Poll #8:

I support closing comment #48 using the provided suggested remedy.

Results: Y: 14, N: 11

(see comment #48)

Straw Poll #9:

I support the following method of determine eye height and VEC: (choose one)

- A. weighted window per Draft 2.2 (no change)
- B. weighted window per Draft 2.2, except increase standard deviation
- C. unweighted window per Draft 2.1

D. mask per D2.2 comment #101

Results: A: 17 , B: 5 , C: 6 , D: 2

(see comment #95)

Straw Poll #10:

I support the following method of determine eye height and VEC: (chicago rules)

- A. weighted window per Draft 2.2 (no change)
- B. weighted window per Draft 2.2, except increase standard deviation
- C. unweighted window per Draft 2.1
- D. mask per D2.2 comment #101

Results: A: 22 , B: 12 , C: 7 , D: 3

(see comment #95)

Break at ~7:55 a.m. Resumed at ~8:00 a.m.

Vice Chair reminded participants that there was no IMAT session code for the meeting.
Attendance would be taken from the webex logs.

Straw Poll #11:

I support the following to address host output and module output differential peak-to-peak output voltage (DPPV): (Chicago Rules)

- A. no change to the draft
- B. add steady-state voltage specification per comment #37, but leave DPPV as is
- C. adjust the DPPV maximum value per comments #96 and #150 to account for pattern dependency

Results: A: 9 , B: 10 , C: 10

(see comment #37)

Straw Poll #12:

I support the following to address host output and module output differential peak-to-peak output voltage (DPPV): (Choose one)

- A. no change to the draft
- B. add steady-state voltage specification per comment #37, but leave DPPV as is
- C. adjust the DPPV maximum value per comments #96 and #150 to account for pattern dependency

Results: A: 7 , B: 6 , C: 8

(see comment #37)

It was noted that straw poll #11 and #12 were related to the measurement and specification method.

Straw Poll #13:

I support the following to address host output and module output DPPV:

- A. add steady-state voltage specification per comment #37, but leave DPPV as is
- B. adjust the DPPV maximum value per comments #96 and #150 to account for pattern dependency

Results: A: 17, B: 7

(see comment #37)

Straw Poll #14:

I support adding steady-state voltage specification per comment #37, but leave DPPV as is

- A. Yes
- B. No

Results: A: 20, B: 9

(see comment #37)

Chair noted that Straw Poll #14 was a decision straw poll.

Straw Poll #15:

I support setting the steady state voltage limit to: (chicago rules)

- A. 375 mV
- B. 400 mV
- C. 420 mV

Results: A: 20 , B: 14 , C: 6

(see comment #37)

Straw Poll #16:

I support setting the steady state voltage limit to: (choose one)

- A. 375 mV
- B. 400 mV
- C. 420 mV

Results: A: 15 , B: 8 , C: 4

(see comment #37)

Straw Poll #17:

I support setting the DPPV as follows:

- A. Set to 750 mV
- B. Leave as is

Results: A: 16, B: 7

(see comment #37)

Chair noted that Straw Poll #17 was a decision straw poll.

Break at ~9:30 a.m. Resumed at ~9:35 a.m.

Chair thanked attendees for the progress made during the meeting. Chair thanked the Chief Editor for leading the comment resolution.

Chair noted that the meeting would resume on Wednesday at 6:30 a.m. Pacific. (see: <https://www.ieee802.org/3/calendar.html>) The agenda would continue with Annex 120G comments.

Meeting break at ~10:35 a.m.

IEEE P802.3ck 100 Gb/s Electrical Lane Task Force – October 6, 2021

Prepared by Kent Lusted and Beth Kochuparambil

Continue approved agenda from 5 October.

Presentations posted at: https://www.ieee802.org/3/ck/public/21_09/index.html

Meeting began at ~6:35 a.m. Pacific by Beth Kochuparambil, IEEE 802.3ck Task Force Chair.
(Note: all times are Pacific time zone unless otherwise indicated)

Beth welcomed attendees.

Meeting began with the agenda
presentation: https://www.ieee802.org/3/ck/public/21_09/agenda_3ck_03_0921.pdf

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 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 the leadership was reviewing the Task Force meeting schedule. If progress allows, the group could consider reducing the number of meetings.

Comment resolution began.

Common Resolution Agenda - Matt Brown

See: https://www.ieee802.org/3/ck/public/21_09/comagenda_3ck_04_0921.pdf

- It was noted that the comment resolution agenda was subject to change.
- On slide 3, the count for bucket #1 was reduced to 48 due to the comment pulls noted earlier.
- Chief Editor asked if there was objection to considering comment #109 during the meeting. No one responded.
- The changed comment agenda was saved as version '4'

Consensus Discussion Slides - Matt Brown

See: https://www.ieee802.org/3/ck/public/21_09/brown_3ck_02_0921.pdf

Break at ~7:45 a.m. Resumed at ~7:50 a.m.

Chief Editor asked if there was objection to reopening comment #46 for the purpose of adding a reference to comment #121 in the response. No one responded. A change was made in the response.

Break at ~9:20 a.m. Resumed at ~9:28 a.m.

Chair reviewed the progress made to date. Reminded participants of the next meeting at 7:00 a.m. Pacific time, Tuesday, 12 October. (see <https://www.ieee802.org/3/calendar.html>) The Task Force leadership may extend the duration of the meeting on 13 October; details would be announced over the email reflector and would only impact the Wednesday meeting.

Chair noted that there would be a "bucket3" with closed-as-a-result comments from the week's meeting, including a few bucket pulls from bucket1 and MDI labels/references. The posting of the file to the website would be announced over the email reflector. Expect the deadline for the request to pull comments from bucket3 to be Sunday, 10 October AoE.

Chair noted that the two biggest topics left are C2M gdc and the backplane receiver interference tolerance test. She asked participants to review the material in advance of next week's meeting. Chair noted that there was a discussion document for the Annex 120G gdc topic posted to the website and participants were to review prior to the next meeting. (see: https://www.ieee802.org/3/ck/public/21_09/kochuparambil_3ck_01_0921.pdf)

Meeting break at ~10:35 a.m.

IEEE P802.3ck 100 Gb/s Electrical Lane Task Force – October 12, 2021

Prepared by Kent Lusted and Beth Kochuparambil

Proposed Agenda:

- Approval of the Agenda
- IEEE Patent Policy reminder
- IEEE Copyright reminder
- IEEE Participation Requirements reminder
- Reminder of Ground Rules and Operations
- Comment Resolution
 - Bucket3
 - Comments per comment agenda
- Closing business

Presentations posted at: https://www.ieee802.org/3/ck/public/21_09/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/21_09/agenda_3ck_05_0921.pdf

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.

Presented the proposed agenda and noted that the agenda would cover the meetings on 12 and 13 October.

Chair asked if there was objection to the shown agenda. No one responded.

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 that the meeting start and finish times for the 13 October meeting were adjusted. (see: <https://www.ieee802.org/3/100GEL/email/msg00822.html>) The new start time was set to 6:30 a.m. Pacific and the new end time was set to 10:30 a.m. Pacific.

Chair reviewed the approach towards the SA Ballot.

Vice-Chair reminded participants of the early registration deadline of 21 October for the November IEEE 802 virtual plenary. Also noted that registration and fee payment was required.. (see: <https://www.ieee802.org/3/100GEL/email/msg00825.html>)

Chair noted that the request to pull comments from “bucket3” (see: https://www.ieee802.org/3/ck/comments/draft2p2/8023ck_D2p2_comments_proposed_bucket3.pdf) was 10 October AOE. Chair noted that there were no requests to pull comments from bucket3.

Motion #2:

Move to:

- Adopt the proposed responses in 8023ck_D2p2_comments_proposed_bucket3.pdf

M: Howard Heck

S: Pavel Zivny

Technical (>=75%)

Motion passed by unanimous consent

Chief Editor thanked the editors and Piers Dawe for reviewing bucket3.

Common Resolution Agenda - Matt Brown

See: https://www.ieee802.org/3/ck/public/21_09/comagenda_3ck_05a_0921.pdf

- It was noted that the comment resolution agenda was subject to change.
- There were approximately 25 comments remaining to address on the floor.

Chief Editor noted that comment #136 would be deferred to Wednesday, 13 October due to editor availability and offline consensus building.

Comment resolution began.

Consensus Discussion Slides - Phil Sun

See: https://www.ieee802.org/3/ck/public/21_09/sun_3ck_01a_0921.pdf

- It was noted that there was an updated version '01a' with additional figures and graphs.

Straw Poll #18:

I support adding a transformation from $h(t)$ to $u(t)$ in Figure 163A-3.

- A. Yes
- B. No

Results: Y: 14, N: 8
(see comment #54)

Chair noted that Straw Poll #18 was a decision straw poll.

Break at ~8:47 a.m. Resumed at ~8:47 a.m.

Straw Poll #19:

I support using the following to constrain pattern generator level spacing using the following text (or similar): (chicago rules)

- A. no specification (per D2.2)
- B. "The pattern generator output PAM4 levels are assumed to be equally spaced."
- C. "The pattern generator output PAM4 levels are equally spaced."
- D. "The pattern generator output PAM4 levels are equally spaced and if not the measurement must be appropriately adjusted."
- E. "The pattern generator output level separation mismatch ratio R_{LM} (see 120D.3.1.2) is greater than or equal to TBD%"
- F. "The pattern generator output level separation mismatch ratio R_{LM} (see 120D.3.1.2) is greater than or equal to TBD% and ES is 1/3 (see 120D.3.1.3) or higher"

Results: A: 1, B: 10, C: 7, D: 10, E: 10, F: 6

(Straw poll #19 was related to discussion on comment #118)

Straw Poll #20:

I support using the following to constrain pattern generator level spacing using the following text (or similar): (choose one)

- A. no specification (per D2.2)
- B. "The pattern generator output PAM4 levels are assumed to be equally spaced."
- C. "The pattern generator output PAM4 levels are equally spaced."
- D. "The pattern generator output PAM4 levels are equally spaced and if not the measurement must be appropriately adjusted."
- E. "The pattern generator output level separation mismatch ratio R_{LM} (see 120D.3.1.2) is greater than or equal to TBD%"
- F. "The pattern generator output level separation mismatch ratio R_{LM} (see 120D.3.1.2) is greater than or equal to TBD% and ES is $1/3$ (see 120D.3.1.3) or higher"

Results: A. 1, B. 4, C. 0, D. 6, E. 9, F. 2

(Straw poll #19 was related to discussion on comment #118)

Chair reminded participants of the 6:30 a.m. Pacific meeting start time on Wednesday, 13, October. (see: <https://www.ieee802.org/3/calendar.html>)

Meeting break at ~10:10 a.m.

IEEE P802.3ck 100 Gb/s Electrical Lane Task Force – October 13, 2021

Prepared by Kent Lusted and Beth Kochuparambil

Continue approved agenda from 12 October.

Presentations posted at: https://www.ieee802.org/3/ck/public/21_09/index.html

Meeting began at ~6:30 a.m. Pacific by Beth Kochuparambil, IEEE 802.3ck Task Force Chair.
(Note: all times are Pacific time zone unless otherwise indicated)

Beth welcomed attendees.

Meeting began with the agenda presentation:
https://www.ieee802.org/3/ck/public/21_09/agenda_3ck_06_0921.pdf

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 reminded participants that the agenda was approved on 12 October.

Chair noted that an updated proposed comment response file for the remaining open comments was posted to the Task Force website. (see: https://www.ieee802.org/3/ck/comments/draft2p2/8023ck_D2p2_comments_proposedResponses_final12.pdf)

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.

Vice-Chair reminded participants of the early registration deadline of 21 October for the November IEEE 802 virtual plenary. Also noted that registration and fee payment was required. (see: <https://www.ieee802.org/3/100GEL/email/msg00825.html>)

Common Resolution Agenda - Matt Brown

See: https://www.ieee802.org/3/ck/public/21_09/comagenda_3ck_06_0921.pdf

- It was noted that the comment resolution agenda was subject to change.
- Chief Editor noted that comment #118 had been withdrawn.
- There were approximately 11 comments remaining to address on the floor.

Comment resolution resumed.

Consensus Discussion Slides - Matt Brown

See: https://www.ieee802.org/3/ck/public/21_09/brown_3ck_02a_0921.pdf

- It was noted that there was an updated version '01' with additional figures and graphs.

Break at ~7:45 a.m. Resumed at ~7:52 a.m.

Consensus Discussion Slides - Beth Kochuparambil

See: https://www.ieee802.org/3/ck/public/21_09/kochuparambil_3ck_01a_0921.pdf

- Changes were made and saved as version '01a'

Presentation #3:

"What should the CTLE range be for Chip to Module?", Mike Dudek

See: https://www.ieee802.org/3/ck/public/21_09/dudek_3ck_01_0921.pdf

- On slide 4, the 0 mm PCB length includes the connector and HCB. The PCB trace length is the host PCB.
- Discussed the VEC results on slide 7.

Chair noted that the discussion on presentation #3 highlighted an error in the consensus discussion slides on the gdc topic. Changes were made on slide 9 and slide 11 and saved as version '01b' (see:

https://www.ieee802.org/3/ck/public/21_09/kochuparambil_3ck_01b_0921.pdf)

Piers Dawe withdrew comment #115.

Break at ~9:05 a.m. Resumed at ~9:11 a.m.

Consensus Discussion Slides - Chris Diminico

See: https://www.ieee802.org/3/ck/public/21_09/diminico_3ck_01b_0921.pdf

See slide 9

Straw Poll #21

For the MTF RLcc specification, I support

- A. No changed (same as draft 2.2)
- B. revised equation in slide 9 of diminico_01b instead of the suggested remedy

Results: A: 12, B: 16

(see comment #136)

Chair noted that Straw Poll #21 would be a decision straw poll.

Motion #3:

Move to generate D2.3 from Draft 2.2 and closed comments.

M: Adee Ran

S: Ali Ghiasi

Technical ($\geq 75\%$)

Motion passed by unanimous consent.

Chair thanked the editorial team for their work on the draft.

Chair reviewed the adopted Task Force timeline. (see:

https://www.ieee802.org/3/ck/P802_3ck_Timeline_12aug20.pdf)

Chair reviewed the near term timeline as shown on slide 20 of the agenda (see: https://www.ieee802.org/3/ck/public/21_09/agenda_3ck_06_0921.pdf) Chair discussed the requirements for a participant to comment on the draft during the SA ballot process. Chair noted that she can file non-binding comments on behalf of Task Force members that are not part of the SA ballot. Discussed the criteria to request conditional approval.

Straw Poll #22:

I support focusing review and comment resolution on D2.3 with the goal of requesting Conditional SA ballot at the November 2021 Plenary.

Results: Y: 18 , N: 5 , A: 2

Chair reviewed the path towards SA ballot on slide 21 of the agenda. (see: https://www.ieee802.org/3/ck/public/21_09/agenda_3ck_06_0921.pdf)

Chair noted that the comment resolution meetings for 19 and 20 October would be cancelled.

Meeting adjourned at ~10:25 a.m.

Attendees

Name	Affiliation	Employed by	9/28	9/29	10/5	10/6	10/12	10/13
Adam Healey	Broadcom	Broadcom	x	x	x	x	x	x
Adee Ran	Cisco	Cisco	x	x	x	x	x	x
Alan Kinningham	I-PEX	I-PEX	x	x	x	x		
Alex Haser	Molex	Molex	x	x	x	x	x	x
Ali Ghiasi	Ghiasi Quantum/Inphi	Ghiasi Quantum/Inphi	x	x	x	x	x	x
Arthur Marris	Cadence	Cadence	x				x	x
Ashley Moran	IEEE SA	IEEE SA		x				
Ayal Shoal	Synopsys	Synopsys	x	x	x	x	x	x
Beth Kochuparambil	Cisco	Cisco	x	x	x	x	x	x
Bill Simms	NVIDIA	NVIDIA		x		x	x	x
Bo Zhang	Marvell	Marvell		x				
Brandon Gore	Samtec	Samtec	x	x	x	x	x	x
Bruce Champion	TE Connectivity	TE Connectivity	x	x	x	x	x	x
Burrell Best	Samtec	Samtec		x				
Champion (Chien Ping) Kao	Cornelis Networks	Cornelis Networks	x	x	x	x	x	x
Chan Chih (David) Chen	Applied Optoelectronics	Applied Optoelectronics	x	x	x	x	x	x
Chris DiMinico	PHY-SI	PHY-SI	x	x	x	x		x
Christian Orlando	IEEE-SA	IEEE-SA					x	

Christy Bahn	IEEE-SA	IEEE-SA			x	x		
Curtis Donahue	Rohde & Schwarz	Rohde & Schwarz	x					
Dave Estes	Spirent	Spirent		x				
David Cassan	Alphawave IP	Alphawave IP			x	x		
David Malicoat	Senko	Independent	x	x		x		
David Piehler	Dell EMC	Dell EMC		x				
Ed Frlan	Semtech	Semtech				x		
Ed Ulrichs	Intel	Intel		x			x	
Enis Akbaba	Maxim Integrated	Maxim Integrated	x	x			x	
Eugene Opsasnick	Broadcom	Broadcom	x	x	x	x	x	x
Evan Smith	Tektronix	Tektronix					x	x
Frank Chang	Source Photonics	Source Photonics	x	x	x	x	x	x
Gary Nicholl	Cisco	Cisco		x	x	x	x	
Geoff Zhang	Xilinx	Xilinx	x	x	x	x	x	x
Greg LeCheminant	Keysight	Keysight			x	x		
Hai-Feng Liu	HG Genuine	HG Genuine	x	x				
Hao Ren	Huawei	Huawei		x				
Hessam Mohajeri	Cadence	Cadence			x	x	x	
Hormoz Djahanshahi	Microchip	Microchip				x	x	
Howard Heck	Intel	Intel	x	x	x	x	x	x

Inho Kim	Max Linear	Max Linear				x		
Istvan BakroNagy	EFFECT Photonics	EFFECT Photonics	x	x	x		x	x
James Weaver	Arista	Arista	x		x	x	x	x
James Young	Commscope	Commscope	x	x	x			x
Jane Lim	Cisco	Cisco	x	x	x	x		
Jeff Slavick	Broadcom	Broadcom	x	x		x	x	x
Jeffery Maki	Juniper	Juniper	x		x	x	x	
Jennifer Santulli	IEEE SA	IEEE SA		x				
Jinhua Chen	Luxshare ICT	Luxshare ICT	x	x	x	x	x	
Jodi Haasz	IEEE SA	IEEE SA	x					x
John Calvin	Keysight	Keysight	x	x	x	x	x	x
John Deandrea	II-VI/Finisar	II-VI/Finisar	x					
John Ewen	Marvell	Marvell	x	x	x	x	x	x
John Kamino	OFS Optics	OFS Optics		x				
John Yurtin	Aptiv	Aptiv	x	x				x
Jonathan Ingham	Broadcom	Broadcom	x					
Joshua Kim	Hirose	Hirose	x		x	x	x	x
Kae Dube	UNH-IOL	UNH-IOL		x				
Karen Liu	Nubis Communications	Nubis Communications		x				
Karl Bois	TE Connectivity	TE Connectivity		x	x	x	x	
Kent Lusted	Intel	Intel	x	x	x	x	x	x
Kumaran Krishnasamy	Broadcom	Broadcom	x	x	x	x	x	x

Kumi Omori	NEC	NEC		x				
Liav Ben-Artzi	Marvell	Marvell		x	x	x		
Lu-Vong Phan	ZT Systems	ZT Systems	x					x
Marc Cartier	Amphenol	Amphenol	x					
Mark Bordogna	Intel	Intel	x	x				
Mark Kimber	Semtech	Semtech			x	x	x	x
Mark Nowell	Cisco	Cisco		x				
Matt Brown	Huawei	Huawei	x	x	x	x	x	x
Mau-Lin Wu	Mediatek	Mediatek	x	x	x	x	x	x
Mike Davis	Sicoya	Sicoya	x					
Mike Dudek	Marvell	Marvell	x				x	x
Mike Klempa	Amphenol	Amphenol	x	x				x
Mike Li	Intel	Intel	x	x	x	x		
Nathan Tracy	TE Connectivity	TE Connectivity	x	x	x	x	x	x
Patricia Roder	IEEE	IEEE	x					
Patrick Casher	Foxconn Interconnect	Foxconn Interconnect	x					x
Patrick Cui	Source Photonics	Source Photonics	x		x		x	
Paul Brooks	Viavi	Viavi	x	x	x	x	x	
Paul Brooks	Viavi	Viavi	x					
Pavel Zivny	Tektronix	Tektronix	x	x	x	x	x	x
Peter Jones	Cisco	Cisco	x					
Phil Sun	Credo	Credo	x	x				
Phil Sun	Credo	Credo			x	x	x	x

Piers Dawe	NVIDIA	NVIDIA	x	x	x		x	x
Piers Dawe	NVIDIA	NVIDIA				x		
Pirooz Toyserkani	Cisco	Cisco	x	x	x	x	x	x
Qingya She	Fujitsu	Fujitsu		x		x		
Rajmohan Hegde	Broadcom	Broadcom	x	x				
Rich Mellitz	Samtec	Samtec	x	x	x	x	x	x
Rick Rabinovich	Keysight	Keysight	x	x	x	x	x	x
Robert Lingle	OFS	OFS		x				
Ryan Bepalko	Alphawave IP	Alphawave IP			x	x	x	x
Sam Kocsis	Amphenol	Amphenol			x	x	x	x
Scott Sommers	Molex	Molex	x	x	x	x	x	x
Scott Walley	Max Linear	Max Linear					x	x
Semmy Peng	Huawei	Huawei		x				
Shayan Shahramian	Alphawave	Alphawave			x	x	x	x
Shimon Muller	Axalume	Axalume	x	x				
SJ Yu	Foxconn Interconnect	Foxconn Interconnect		x		x		x
Stephen Didde	Keysight	Keysight	x	x	x	x	x	x
Steve Gorshe	Microchip	Microchip		x				
Steve Sekel	Wilder Tech	Wilder Tech	x	x	x	x	x	x
Tao Hu	Marvell	Marvell	x	x				
Teppei Ikeda	Denso	Denso			x		x	
Terry Little	Foxconn Interconnect	Foxconn Interconnect		x	x			x

Tobey PR Li	Mediatek	Mediatek	x	x	x	x	x	x
Tom Palkert	Macom/Samtec	Macom/Samtec	x	x	x	x	x	x
Tom Thompson	IEEE SA	IEEE SA						x
Toshiaki Sakai	Socionext	Socionext	x	x	x	x	x	x
Varun Garg	Keysight	Keysight			x	x		x
Victor Chen	Amazon	Amazon					x	x
Viet Tran	Keysight	Keysight		x				
Xiang He	Huawei	Huawei		x				
Yasuo Hidaka	Credo	Credo	x	x	x	x	x	x