Unapproved Minutes

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

Telephonic series for January/February 2022 Meeting:
January 25, January 26, February 1, February 2, February 15, February 16, February 22, and February 23, 2022
Online Meeting

Prepared by Kent Lusted and Beth Kochuparambil

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IEEE P802.3ck 100 Gb/s Electrical Lane Task Force – January 25, 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
- Comment Agenda
- Comment Resolution

Presentations posted at: https://www.ieee802.org/3/ck/public/22_01/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)

Meeting began with the agenda presentation
https://www.ieee802.org/3/ck/public/22_01/agenda_3ck_01a_0122.pdf

Chair noted that the agenda would cover 25 and 26 January.

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 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.

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 late presentations were received from Piers Dawe, Rich Mellitz (2), and Adee Ran (2). The presentations were posted to the website. (see: https://www.ieee802.org/3/ck/public/22_01/index.html)

Chair noted that broad recognition of an issue needs due consideration by the TF. She noted the need to get changes into D3.1 to minimize impact to the timeline. Chair noted that some topics on the comment agenda were deferred and were noted accordingly in the comment agenda.

Chair asked if there was objection to taking the bucket motion before the comment agenda. No one responded. Agenda was updated.

Chair noted that the editorial team prepared a set of proposed responses to comments deemed non-controversial in "bucket1" (see: https://www.ieee802.org/3/ck/comments/draft3p0/8023ck_D3p0_comments_proposed_bucket1.pdf). Chair received requests to pull 3 comments from bucket1 (#i-33, i-165, i-77) prior to the bucket1 deadline.

Motion #1:

Move to:

- Adopt the proposed responses in 8023ck_D3p0_comments_proposed_bucket1.pdf with the exception of comments 33, 165, 77

M: Arthur Marris
S: Shawn Nicholl
Technical (>=75%)

Passed by unanimous consent.
Chair noted that the editorial team prepared a set of proposed responses to comments deemed non-controversial in "bucket2b". It was noted that comments currently collected in the "bucket2b" 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 Sunday, 30 January, 2022 AOE. (see: https://www.ieee802.org/3/ck/comments/draft3p0/8023ck_D3p0_comments_proposed_bucket2b.pdf)
There was a request to highlight the differences between bucket2 and bucket2b. Vice-Chair noted that the differences were updated responses to i-159, i-155, i-26, i-28, i-219, as noted on the comment report website. (see: https://www.ieee802.org/3/ck/comments/index.html)

Common Resolution Agenda - Matt Brown

See: https://www.ieee802.org/3/ck/public/22_01/comagenda_3ck_01b_0122.pdf

- Updated version '01b" with editorial changes.
- It was noted that the comment resolution agenda was subject to change.
- Chief-Editor noted that there was a request to pull comment i-215 from "bucket2b" last week. It was pulled from "bucket2b" and would be addressed this week during discussion on the related topic.

Comment resolution began.

Jeff Slavick withdrew comment #i-77.

Chair asked if there was objection to hearing the two late presentations from Rich Mellitz. (see: https://www.ieee802.org/3/ck/public/22_01/mellitz_3ck_01_0122.pdf and https://www.ieee802.org/3/ck/public/22_01/mellitz_3ck_02_0122.pdf)

Consensus Discussion Slides - Matt Brown

See: https://www.ieee802.org/3/ck/public/22_01/brown_3ck_01_0122.pdf

Presentation #1:

"Common Mode Comment Recommendations ", Rich Mellitz
See: https://www.ieee802.org/3/ck/public/22_01/mellitz_3ck_01_0122.pdf

- Discussed the V_CM() filter plots on slide 4.
- Discussed the background on the Bessel Thomson filter proposed on slide 4.

Presentation #2:

"Common Mode 3rd Proposal ", Rich Mellitz
See: https://www.ieee802.org/3/ck/public/22_01/mellitz_3ck_02_0122.pdf

- On slide 4, discussed the uncorrelated and correlated elements of the signal.
- There was a request to provide test waveforms to use in the analysis.
- Discussed the effect of host loss and skew on the measurement.

Break at ~8:30 a.m. Resumed at ~8:45 a.m.

Straw Poll #1:

For KR and C2C, I support the AC CM voltage test methodology in mellitz_3ck_01_0122 slides 4 and 5.
(choose one)
A. Yes
B. No
C. abstain
Results: A: 20, B: 4, C: 6
(See comment #i-101)

Chair noted that Straw Poll #1 was a directional straw poll.

Straw Poll #2:

For KR and C2C, I support V_CMPP_LF value of:
A. 30 mV
B. 60 mV
Results: A: 8, B: 15
(See comment #i-101)

Straw Poll #3:

For KR and C2C, I support SCMR_HF value of:
A. 16 dB
B. 15 dB
Results: A: 9, B: 14
(See comment #i-101)

During discussion of Straw Poll #3, it was noted that SCMR is the signal to AC common-mode ratio in dB per Equation 163-2. A smaller number would be higher noise.

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

During the discussion of AC common-mode for CR and C2M (see comment #i-103), Chief-Editor asked if there was objection to the methodology direction proposed in mellitz_3ck_02_0122, slides 3 and 4. No one responded. The Chief-Editor noted that he would proceed in that direction based on the consensus.

Straw Poll #4:

I support the following value for V_CMPP_HF: (chicago rules)

A. 80 mV
B. 100 mV
C. 120 mV

Results: A: 12, B: 9, C: 8
(See comment #i-103)

Straw Poll #5:

I support the following value for V_CMPP_LF: (chicago rules)

A. 60 mV
B. 65 mV

Results: A: 13, B: 11
(See comment #i-103)

Consensus Discussion Slides - Howard Heck

See: https://www.ieee802.org/3/ck/public/22_01/heck_3ck_01a_0122.pdf

- See slide 25

Straw Poll #6:

I support P802.3ck specifying multiple CR host types as proposed in comment i-170.

A. Yes
B. No
C. Abstain

Results: A: 11 , B: 11 , C: 5
(see comment #i-170)

During the discussion of the topic “CR Loss budget” (see comment #i-170), the comment resolution group agreed to defer resolution of the comments related to the topic to a future

meeting week. Chair and Vice-Chair encouraged participants to review the proposed changes and build consensus offline.

Chair reminded participants of the start of the next meeting on Wednesday, 26 January. (See: https://www.ieee802.org/3/calendar.html)

Chair noted that comments currently collected in the "bucket2b" 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 Sunday, 30 January, 2022 AOE. (see: https://www.ieee802.org/3/ck/comments/draft3p0/8023ck_D3p0_comments_proposed_bucket2b.pdf)

Meeting break at ~10:30 a.m.

IEEE P802.3ck 100 Gb/s Electrical Lane Task Force – January 26, 2022

Prepared by Kent Lusted and Beth Kochuparambil

Continue approved agenda from 25 January.

Presentations posted at: https://www.ieee802.org/3/ck/public/22_01/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)

Meeting began with the agenda presentation
https://www.ieee802.org/3/ck/public/22_01/agenda_3ck_01a_0122.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.

Common Resolution Agenda - Matt Brown

See: https://www.ieee802.org/3/ck/public/22_01/comagenda_3ck_01b_0122.pdf

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

Comment resolution began.

Consensus Discussion Slides - Howard Heck

See: https://www.ieee802.org/3/ck/public/22_01/heck_3ck_01b_0122.pdf

- On slide 4, the value for the residual intersymbol interference was incorrect. It was corrected to -31 dB. Updated file '01b'

There was a request to address the "TX measurement topic" on the comment agenda slide 7 earlier due to commenter availability. (see: https://www.ieee802.org/3/ck/public/22_01/comagenda_3ck_01b_0122.pdf) Chair asked if there were objections. No one objected. The order was changed.

Presentation #3:

"802.3ck waveform measurement BW roll off ", Pavel Zivny
See: https://www.ieee802.org/3/ck/public/22_01/zivny_3ck_01b_0122.pdf

- Discussed the DUT and channel used for the graph on slide 7.
- On slide 7, the value of Np used was 14.

Straw Poll #7:

I support specifying the scope filter response in line with the suggested remedy in comment i-224.

A. Yes
B. No

Results: Y: 11, N: 13
(see comment i-224)

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

During the discussion of comment #i-173, the comment resolution group agreed to park comments related to the topic to a future meeting week. Chair and Vice-Chair encouraged participants to review the proposed changes and build consensus offline.

Break at ~8:25 a.m. Resumed ~8:42 a.m.

Consensus Discussion Slides - Howard Heck

See: https://www.ieee802.org/3/ck/public/22_01/heck_3ck_01b_0122.pdf

During the discussion of Clause 162 TX j3u topic (see comment #i-156, i-171), the comment resolution group agreed to park comments related to the topic to a future meeting week. Chair and Vice-Chair encouraged participants to review the proposed changes and build consensus offline.

Chair noted that the late presentation from Piers Dawe related to comment #i-183 was posted on the Task Force website. Chair noted that the presentation provided no new data and no co-authors or supporters. Chair reminded participants that late presentations are for the purpose of showing offline consensus that has developed. Chair asked if the Task Force wanted to view the presentation. No one responded.

Chair noted that comments currently collected in the "bucket2b" 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 Sunday, 30 January, 2022 AOE. (see: https://www.ieee802.org/3/ck/comments/draft3p0/8023ck_D3p0_comments_proposed_bucket2b.pdf)

Chair reminded participants of the start of the next meeting on Tuesday, 1 February. (See: https://www.ieee802.org/3/calendar.html) The meeting will resume to focus on 120G comments.

Chair reminded participants of the 3 parked topics and to please watch the email reflector for when those topics would be inserted back into the agenda.

Chair noted that editors would use a "closed-as-a-result bucket" (a.k.a "bucket3") for comments related to closed topics and deemed non-controversial. The bucket3 proposed responses would be announced over the email reflector. Deadline to remove comments from bucket3 was set as Sunday, 30 January 2022 AOE.

Meeting break at ~10:35 a.m.

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

Prepared by Kent Lusted and Beth Kochuparambil

Proposed Agenda:

- Approval of the Agenda
- Approval of the January 19, 2022 "Ad Hoc" Interim meeting minutes
- IEEE Participation Requirements reminder
- IEEE Copyright reminder
- IEEE Patent Policy reminder
- Task Force Status
- Comment Agenda
- Comment Resolution
    - Resolve bucket3
    - Resolve bucket2b

Presentations posted at: https://www.ieee802.org/3/ck/public/22_01/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, see:
https://www.ieee802.org/3/ck/public/22_01/agenda_3ck_03_0122.pdf

Chair noted that the agenda would cover 1 and 2 February.

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.

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

The minutes for the January 19, 2022 "Ad Hoc" Interim meeting were posted to the website. (see: https://www.ieee802.org/3/ck/public/adhoc/jan19_22/minutes_011922_3ck_adhoc.pdf) Chair asked if there were modifications or corrections to the posted minutes. No one responded. Chair asked if there was objection to approving the posted minutes. No one responded. Minutes were approved by unanimous consent.

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 of the decorum requirements.

Chair reviewed the next steps for SA Ballot and comment resolution as shown on slide 15 of https://www.ieee802.org/3/ck/public/22_01/agenda_3ck_03_0122.pdf .

Chair noted that the editorial team prepared a set of proposed responses to comments deemed non-controversial in "bucket3" and "bucket2b". (see: https://www.ieee802.org/3/ck/comments/draft3p0/8023ck_D3p0_comments_proposed_bucket3.pdf and https://www.ieee802.org/3/ck/comments/draft3p0/8023ck_D3p0_comments_proposed_bucket2b.pdf)

Chair received requests to pull 4 comments from bucket3 (#i-106, i-104, i-105, i-102) prior to the bucket3 deadline. Chair also received on-time requests to pull the following comments from bucket2b: i-215, i-118, i-228, i-7, i-160, i-161, i-98, i-91, i-92, i-26, i-28, i-30, i-89, i-90, i-138, i-139, i-217. (see: https://www.ieee802.org/3/ck/comments/index.html) Chair noted that the pulled comments would be added to the comment agenda for resolution on the floor.

Motion #2:

Move to:
adopt the proposed responses in

- 8023ck_D3p0_comments_proposed_bucket3.pdf with the exception of comments 106, 104, 105, & 102
- 8023ck_D3p0_comments_proposed_bucket2b.pdf with the exception of comments 215, 118, 228, 7, 160, 161, 98, 91, 92, 26, 28, 30, 89, 90, 138, 139, 217

M: Matt Brown
S: Pavel Zivny
Technical (>=75%)
Results: Motion passed by unanimous consent

Common Resolution Agenda - Matt Brown

See: https://www.ieee802.org/3/ck/public/22_01/comagenda_3ck_03_0122.pdf

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

Comment resolution began.

Consensus Discussion Slides - Matt Brown

Topic of 120G
See: https://www.ieee802.org/3/ck/public/22_01/brown_3ck_02_0122.pdf

Vice-Chair reminded participants of decorum.

Straw Poll #8:

I support the following direction of the eye opening specification method: (chicago rules)

A. weighted window per Draft 3.0 (as is or with some improvements)
B. revert to uniform weighted window per D2.1 (D3.0 comment #212)
C. 10pt mask per D3.0 comment #211

Results: A: 31 B: 12 C: 6
(see comment #i-211)

Straw Poll #9:

I support the following direction of the eye opening specification method: (choose one)

A. weighted window per Draft 3.0 (as is or with some improvements)
B. revert to uniform weighted window per D2.1 (D3.0 comment #212)
C. 10pt mask per D3.0 comment #211

Results: A: 27 B: 5, C: 1
(see comment #i-211)

Chair reminded participants of decorum.

Straw Poll #10

To address eye width issues expressed, I support the following method to modify the weighted window: (chicago rules)

A. No change
B. "Wider" weighting mask (e.g., larger sigma, alternate distribution shape)
C. Add jitter specification
D. Add eye width specification (i.e., per D3.0 comments 107, 108, 115, 116)

Results: A: 26, B: 15, C: 9, D: 9,
(See comment #i-211)

Straw Poll #11

To address eye width issues expressed, I support the following method to modify the weighted window: (choose one)

A. No change
B. "Wider" weighting mask (e.g., larger sigma, alternate distribution shape)
C. Add jitter specification
D. Add eye width specification (i.e., per D3.0 comments 107, 108, 115, 116)

Results: A: 19, B: 5, C: 3, D: 4
(See comment #i-211)

Break at ~8:35 a.m. Resumed at ~8:45 a.m.

Consensus Discussion Slides - Matt Brown

Topic of 120G
See: https://www.ieee802.org/3/ck/public/22_01/brown_3ck_02_0122.pdf

Chair reminded participants of the start of the next meeting on Wednesday, 2 February at 7:00 a.m. Pacific. (See: https://www.ieee802.org/3/calendar.html)

Meeting break at ~10:00 a.m.

IEEE P802.3ck 100 Gb/s Electrical Lane Task Force – February 2, 2022

Prepared by Kent Lusted and Beth Kochuparambil

Continue approved agenda from 1 February.

Presentations posted at: https://www.ieee802.org/3/ck/public/22_01/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_01/agenda_3ck_03_0122.pdf

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

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 of the decorum requirements for the meeting.

Common Resolution Agenda - Matt Brown

See: https://www.ieee802.org/3/ck/public/22_01/comagenda_3ck_04_0122.pdf

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

Comment resolution began.

Consensus Discussion Slides - Matt Brown

Topic of 120G
See: https://www.ieee802.org/3/ck/public/22_01/brown_3ck_02b_0122.pdf

- Changes were made and saved as version '02b'

Break at ~8:33 a.m. Resumed ~8:40 a.m.

During the discussion of comment #i-71, the comment resolution group agreed to park comments related to the topic to a future meeting week. Vice-Chair encouraged participants to review the proposed changes and build consensus offline.

Straw Poll #12:

I support reducing the pattern generator reference architecture to have 2 precursor taps instead of 3.

- Yes
- No

Results: Y: 7 , N: 21
(see comment #i-192)

Chair noted that editors would use a "closed-as-a-result bucket" (a.k.a "bucket4") for comments related to closed topics and deemed non-controversial. The bucket4 proposed responses would be announced over the email reflector. Deadline to remove comments from bucket4 was set as Sunday, 13 February 2022 AOE.

Chair reminded participants to register for the IEEE 802.3 March plenary meeting.

Chair reminded participants of the start of the next meeting on Tuesday, 15 February. (See: https://www.ieee802.org/3/calendar.html)

Chair reminded participants of the 3 parked topics and to please watch the email reflector for when those topics would be inserted back into the agenda.

Meeting break at ~10:05 a.m.

IEEE P802.3ck 100 Gb/s Electrical Lane Task Force – February 15, 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
- Comment Resolution
    - Resolve bucket4

Presentations posted at: https://www.ieee802.org/3/ck/public/22_01/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)

Meeting began with the agenda presentation
https://www.ieee802.org/3/ck/public/22_01/agenda_3ck_05_0122.pdf

Chair noted that the agenda would cover 15 and 16 February.

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.

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.

Chair noted that the editorial team prepared a set of proposed responses to comments deemed non-controversial in "bucket4". (see: https://www.ieee802.org/3/ck/comments/draft3p0/8023ck_D3p0_comments_proposed_bucket4.pdf)

Chair did not receive requests to pull any comments from bucket4 prior to the deadline. (see: https://www.ieee802.org/3/ck/comments/index.html)

Motion #3:

Move to:
adopt the proposed responses in

- 8023ck_D3p0_comments_proposed_bucket4.pdf

M: Howard Heck
S: Adee Ran
Technical (>=75%)
Results: Motion passed by unanimous consent

Common Resolution Agenda - Matt Brown

See: https://www.ieee802.org/3/ck/public/22_01/comagenda_3ck_05_0122.pdf

- It was noted that the comment resolution agenda was subject to change.
- Approximately 45 comments remain to be addressed on the floor.

Comment resolution began.

Straw Poll #13:

I support removing the box with text "VNA" from figures 120G-6, 120G-7, 120G-9, and 120G-10.

- Yes
- No

Results: Y: 13 , N: 9

(see comment #i-26)

Chair noted that Straw Poll #13 was a decision straw poll.

Chair noted there was a late contribution related to comment #i-71 based on offline consensus building. (see: https://www.ieee802.org/3/ck/public/22_01/ran_3ck_04_0122.pdf) Chair asked if there was an objection to hearing the presentation. No one responded.

Presentation #4:

"Supporting material for comment i-71 ", Adee Ran
See: https://www.ieee802.org/3/ck/public/22_01/ran_3ck_04_0122.pdf

- Discussed the proposed changes on slide 7.

Consensus Discussion Slides - Matt Brown

See: https://www.ieee802.org/3/ck/public/22_01/brown_3ck_02c_0122.pdf

- Changes were made and saved as version '02c'

Break at ~8:37 a.m. Resumed at ~8:50 a.m.

Presentation #5:

"Module stressed input loss calibration and other loss curves ", Piers Dawe
See: https://www.ieee802.org/3/ck/public/22_01/dawe_3ck_02a_0122.pdf

- Updated version '02a' with new slide and supporters.
- It was noted that slide 11 was the new slide.
- On slide 11, the blue line is the sum of the red line and the green line.

Chair reminded participants to build consensus offline.

Chair reminded participants of the start of the next meeting on Wednesday, 16 February at 6:30 a.m. Pacific. (See: https://www.ieee802.org/3/calendar.html) Comment resolution would begin with Cl 163, then big ticket/cross clause topics, then clause 162.

Chair reminded participants of the parked topics including 'asymmetric host loss' and ‘J3u methodology’ on the agenda.

Chair noted that there were several late presentations associated with comments on the topics of J3u, RX RITT and TX SNDR. (see:
https://www.ieee802.org/3/ck/public/22_01/rysin_3ck_01a_0122.pdf and
https://www.ieee802.org/3/ck/public/22_01/ran_3ck_02_0122.pdf and
https://www.ieee802.org/3/ck/public/22_01/ran_3ck_03_0122.pdf)

Meeting break at ~10:35 a.m.

IEEE P802.3ck 100 Gb/s Electrical Lane Task Force – February 16, 2022

Prepared by Kent Lusted and Beth Kochuparambil

Continue approved agenda from 15 February.

Presentations posted at: https://www.ieee802.org/3/ck/public/22_01/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)

Meeting began with the agenda presentation:
https://www.ieee802.org/3/ck/public/22_01/agenda_3ck_05_0122.pdf

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

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 there were several late presentations associated with comments on the topics of J3u, RX RITT and TX SNDR. (see:
https://www.ieee802.org/3/ck/public/22_01/rysin_3ck_01a_0122.pdf and
https://www.ieee802.org/3/ck/public/22_01/ran_3ck_02_0122.pdf and
https://www.ieee802.org/3/ck/public/22_01/ran_3ck_03_0122.pdf)

Common Resolution Agenda - Matt Brown

See: https://www.ieee802.org/3/ck/public/22_01/comagenda_3ck_05_0122.pdf

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

Comment resolution began.

Consensus Discussion Slides - Phil Sun

Topic: Clause 163
See: https://www.ieee802.org/3/ck/public/22_01/sun_3ck_01_0122.pdf

Mike Dudek withdrew comment #236.

Straw Poll #14:

I support P802.3ck specifying multiple CR host types as proposed in comment i-170.

- Yes
- No
- Abstain

Results: Y: 8 , N: 31 , A: 2
(see comment #i-170)

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

Consensus Discussion Slides - Kent Lusted

Topic: Shared Ground
See: https://www.ieee802.org/3/ck/public/22_01/lusted_3ck_03_0122.pdf

Straw Poll #15:

For CR, KR, C2M, and C2C, I support clarifying the ground connections in the figures and/or text.

- Yes
- No

Results: Y: 20 , N: 7
(see comment #i-55)

Chair noted that the result of Straw Poll #15 would determine the direction to take with comments #i-55, i-61, i-66, i-67. If the straw poll shows support, these comments would be parked to enable offline consensus building with the solution details.

During the discussion of topic shared ground connection, the comment resolution group agreed to defer resolution of the comments #i-55, i-61, i-66, i-67 related to the topic until the week of 22-23 February.

Consensus Discussion Slides - Kent Lusted

Topic: ILdd
See: https://www.ieee802.org/3/ck/public/22_01/lusted_3ck_03_0122.pdf

Break at ~8:32 a.m. Resumed ~8:44 a.m.

During the discussion of comment i-173 TX jitter, the comment resolution group agreed to defer resolution of the comment related to the topic until the week of 22-23 February.

Chair noted the presentation from Alex Rysin was a late contribution. She asked if there was objection to hearing the late presentation. No one responded.

Presentation #6:

"J3u Measurement for CL162 ", Alex Rysin
See: https://www.ieee802.org/3/ck/public/22_01/rysin_3ck_01b_0122.pdf

- There was a request to modify the last sentence on slide 18. Author to provide updated version '01b'.
- Discussed the impact of the oscilloscope noise on the measurement.
- On slide 15, milli-UI is the x-axis and mV is the y-axis.
- Discussed the calculation method on slide 13.

Straw Poll #16:

I support resolving comments i-156 and i-171 as follows: (chicago rules)

- A: no change
- B: relax the specification in some way
- C: measure only on transitions between levels 0 and 3
- D: specify that measurement noise effects should be factored out (non-prescriptive)
- E: combination of B and C

Results: A: 4, B: 12, C: 14, D: 17, E: 18
(See comment i-156)

Straw Poll #17:

I support resolving comments i-156 and i-171 as follows: (choose one)

- A: no change
- B: relax the specification in some way
- C: measure only on transitions between levels 0 and 3
- D: specify that measurement noise effects should be factored out (non-prescriptive)
- E: combination of B and C

Results: A: 2, B: 5, C: 5, D: 6, E: 12
(See comment i-156)

Straw Poll #18: - Canceled

I support resolving comment i-157 & i-171 using option E with a combination of (a) measure only on transitions between levels 0 and 3 and (b) specify that measurement noise effects should be factored out (non-prescriptive).

- A: Yes
- B: No

Mid-voting, clarifying questions/discussion brought out that multiple attendees had a different understanding of the straw poll. Chair announced that a different, more clear approach may be better suited and asked if there was opposition to canceling this straw poll. One objection was voiced. Chair canceled the straw poll.
(See comment i-156)

Straw poll #19:

I support specifying for CR and KR J3u that measurement noise effects should be factored out (non-prescriptive)

- A: Yes
- B: No

Results: A: 28, B: 2
(See comment i-156)
While taking this straw poll it was noted that it is for CR/KR j3u measurement only, but would not preclude expanding this action to other clauses, should there be consensus to do so.

Straw poll #20:

I support J3u changing methodology as follows (chicago rules)

- A: no change
- B: relax the specification in some way
- C: measure only on transitions between levels 0 and 3

Results: A: 12, B: 16, C: 14
(See comment i-156)

During the discussion of comment i-156 and i-171 TX J3u, the comment resolution group agreed to defer resolution of the comment related to the topic until the week of 22-23 February.

Chair reminded participants of the start of the next meeting on Tuesday, 22 February at 6:30 a.m. Pacific. (See: https://www.ieee802.org/3/calendar.html)

Meeting broke at 10:35 am PST

Attendees

Name	Affiliation	Employed by	1/25	1/26	2/1	2/2	2/15	2/16
Adam Healey	Broadcom	Broadcom	x	x	x	x	x	x
Adee Ran	Cisco	Cisco			x	x	x	x
Alan Kinningham	I-PEX	I-PEX					x	x
Alex Haser	Molex	Molex	x	x	x	x	x	x
Alexander Rysin	NVIDIA	NVIDIA	x	x			x	x
Ali Ghiasi	Ghiasi Quantum/Inphi	Ghiasi Quantum/Inphi	x	x	x	x	x	x
Anand RK	Cadence	Cadence		x	x			
Arthur Marris	Cadence	Cadence	x	x				
Ashley Moran	IEEE SA	IEEE SA		x				
Ayal Shoval	Synopsys	Synopsys	x	x	x		x	x
Beth Kochuparambil	Cisco	Cisco	x	x	x	x	x	x
Bill Simms	NVIDIA	NVIDIA	x	x	x	x	x	x
Brandon Gore	Samtec	Samtec	x	x	x		x	x
Bruce Champion	TE Connectivity	TE Connectivity		x		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
Chris DiMinico	PHY-SI	PHY-SI	x	x	x	x	x	x
Curtis Donahue	Rohde & Schwarz	Rohde & Schwarz	x		x		x	
Dave Hess	Cord Data	Cord Data				x	x	x
David Malicoat	Senko	Independent	x	x	x	x		x
David Ofelt	Juniper	Juniper						x
David Piehler	Dell EMC	Dell EMC	x					
Ed Frlan	Semtech	Semtech	x	x	x	x		
Enis Akbaba	Analog Devices	Analog Devices		x	x			x
Eugene Opsasnick	Broadcom	Broadcom	x	x	x	x	x	x
Frank Chang	Source Photonics	Source Photonics				x		x
Gary Nicholl	Cisco	Cisco		x	x			
Geoff Zhang	Xilinx	Xilinx	x	x	x	x	x	x
Geoff Zhang	AMD	AMD						x
Hansel Dsilva	Achronix	Achronix	x			x	x	
Haojie Wang	China Mobile	China Mobile	x					
Hessam Mohajeri	Cadence	Cadence	x	x	x	x	x	x
Hormoz Djahanshahi	Microchip	Microchip			x			
Howard Heck	Intel	Intel	x	x	x	x	x	x
Inho Kim	Max Linear	Max Linear			x	x		x

Istvan BakroNagy	EFFECT Photonics	EFFECT Photonics			x			
James Weaver	Arista	Arista	x	x	x	x	x	x
James Young	Commscope	Commscope	x		x	x		
Jane Lim	Cisco	Cisco	x	x	x	x	x	x
Jeff Slavick	Broadcom	Broadcom	x	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	x	x	x	x
John Calvin	Keysight	Keysight	x	x	x	x	x	x
John Deandrea	Finisar	II-VI			x			x
John Ewen	Marvell	Marvell	x	x	x	x	x	x
John Yurtin	Aptiv	Aptiv		x		x	x	x
Joshua Kim	Hirose	Hirose	x	x	x	x	x	
Karl Bois	NVIDIA	NVIDIA			x	x		
Kent Lusted	Intel	Intel	x	x	x	x	x	x
Kumaran Krishnasamy	Broadcom	Broadcom	x	x	x		x	x
Liav Ben-Artsi	Marvell	Marvell	x	x	x	x	x	x
Madhumita Sanyal	Synopsys	Synopsys				x		
Mark Gustlin	Cisco	Cisco	x					
Mark Kimber	Semtech	Semtech	x	x	x			
Matt Brown	Huawei	Huawei	x	x	x	x	x	x
Mau-Lin Wu	Mediatek	Mediatek	x	x	x	x	x	x
Megha Shanbhag	TE Connectivity	TE Connectivity			x	x		
Mike Davis	Sicoya	Sicoya		x				
Mike Dudek	Marvell	Marvell	x	x	x	x	x	x
Mike Li	Intel	Intel						x
Nathan Tracy	TE Connectivity	TE Connectivity	x	x			x	x
Patrick Casher	Foxconn Interconnect	Foxconn Interconnect			x			
Paul Brooks	Viavi	Viavi			x			
Pavel Zivny	Tektronix	Tektronix	x	x	x	x	x	x
Phil Sun	Credo	Credo	x	x	x	x	x	x
Piers Dawe	NVIDIA	NVIDIA	x	x	x	x	x	x
Pirooz Tooyserkani	Cisco	Cisco	x	x	x	x		x
Priyank Shukla	Synopsys	Synopsys	x					x
Ramesh Sivakolundu	Cisco	Cisco						x
Ray Schmelzer	Wilder Tech	Wilder Tech	x					
Rich Mellitz	Samtec	Samtec	x	x	x	x	x	x
Rick Rabinovich	Keysight	Keysight	x	x	x	x	x	x
Ryan Bespalko	Alphawave IP	Alphawave IP	x	x	x		x	

Sam Kocsis	Amphenol	Amphenol	x	x	x	x	x	x
Scott Sommers	Molex	Molex	x	x	x	x	x	x
Semmy Peng	Huawei	Huawei						x
Shawn Nicholl	Xilinx	Xilinx	x	x				
Shayan Shahramian	Alphawave	Alphawave	x	x				
Shimon Muller	Axalume	Axalume	x		x			x
Stephen Didde	Keysight	Keysight				x		
Steve Sekel	Wilder Tech	Wilder Tech	x	x	x	x	x	x
Terry Little	Foxconn Interconnect	Foxconn Interconnect	x	x	x		x	x
Thomas Mueller	Rosenberger	Rosenberger			x			
Tobey PR Li	Mediatek	Mediatek	x	x	x	x		x
Tom Palkert	Macom/Samtec	Macom/Samtec	x	x	x	x	x	x
Toshiaki Sakai	Socionext	Socionext	x	x	x	x	x	x
Upen Kareti	Cisco	Cisco	x					x
Vanessa Lalitte	IEEE SA	IEEE SA					x	
Yasuo Hidaka	Credo	Credo	x	x	x	x	x	x