

## IEEE P802.3ck Telephonic Interim meeting – March 30, 2020

Prepared by Kent Lusted and Beth Kochuparambil

### Proposed Agenda:

- Approval of the Agenda
- IEEE Patent Policy reminder:
  - <http://www.ieee802.org/3/patent.html>
- IEEE Copyright reminder
  - <https://standards.ieee.org/ipr/index.html>
- IEEE Participation Requirements reminder
- Ground Rules and operations reminder
- Next Steps for 3ck
- Comment Resolution
  - CR General
    - ran\_3ck\_adhoc\_01\_031120 (slide 10)
    - TX Characteristics: #62, 63, 74
    - ghiasi\_3ck\_03 (slide 6)
    - CM to Diff RL: #130
  - 163 KR
  - COM TBD (Tr): #67, 155
  - 162 CA
    - COM TBD (Tr): #66
    - healey\_3ck\_01 (slide 4)
    - COM Tx Coef. Range: #75
    - mellitz\_3ck\_03\_1119 (slide 8)
    - lim\_3ck\_01\_1119 (slide 9)
    - COM SNR\_TX: #10014, 64
    - COM DFE Tap Range: #136
    - COM DFE Floating Taps: #10151, 160, 148
    - benartsi\_3ck\_01a\_0919 slide 6
    - PCB: #40, 41, 10016, 10017, 10018
  - C2M General
    - Host jitter: #108, 10063
    - Module jitter: #107
    - Module fixture: #110
    - ghiasi\_3ck\_03 (slide 10)
    - Host Diff to CM RL: #124
  - C2C
    - RX Interference Tol.: 78, 156
  - CR, General
    - ran\_3ck\_04
    - TX Equalizer: #57
- Max\_Wait\_Timer Discussion (15 minutes)

Presentations posted at: [http://www.ieee802.org/3/ck/public/20\\_03/index.html](http://www.ieee802.org/3/ck/public/20_03/index.html)

Meeting began at ~07:05 a.m. Pacific by Beth Kochuparambil.

Meeting began with the agenda presentation:

[http://www.ieee802.org/3/ck/public/20\\_03/agenda\\_3ck\\_04\\_0320.pdf](http://www.ieee802.org/3/ck/public/20_03/agenda_3ck_04_0320.pdf)

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. Chair noted a suggested re-ordering of the comment list in the agenda. She also noted comment resolution would be cut 15 minutes prior to the close of the meeting for the wait timer discussion. Chair asked if there were objections or modifications to the agenda. No one responded.

**Motion #1:**

Move to approve the agenda.

M: Adee Ran

S: Rich Mellitz

Motion passed by voice without opposition

Chair reminded participants of the IEEE patent policy. She asked if anyone was unfamiliar with the IEEE patent policy. (See: <http://www.ieee802.org/3/patent.html> ) No one responded. Chair made the call for patents. No one responded.

Reminded participants of the IEEE copyright policy. She asked if anyone was unfamiliar with the copyright policy. (See: <https://standards.ieee.org/ipr/index.html> ) No one responded.

Reminded participants of the IEEE Participation Requirements and showed the slide with the Participation requirements. She asked people to leave the call if unwilling to abide by this policy.

Chair reviewed the expectations and ground rules for the telephonic interim meetings.

Chair noted the deadline for pulling comments from the buckets had passed.

Chair reviewed the current schedule and the proposed adjusted schedule on slide 11 of [http://www.ieee802.org/3/ck/public/20\\_03/agenda\\_3ck\\_04\\_0320.pdf](http://www.ieee802.org/3/ck/public/20_03/agenda_3ck_04_0320.pdf) and discussed implications of the adjusted schedule would include less recirculations between now and September than originally planned. There was no objection.

## Agenda Items

The Chief Editor reviewed the comment agenda for the day. (see: [http://www.ieee802.org/3/ck/public/20\\_03/agenda\\_3ck\\_04\\_0320mini.pdf](http://www.ieee802.org/3/ck/public/20_03/agenda_3ck_04_0320mini.pdf))

Comment resolution began.

**Straw poll #1:** (transmitter characteristics in comment #62)

I support changing the maximum step size for all TX taps to 0.025 for Clause 162, Clause 163, and Annex 120F for transmitter characteristics (not COM).

Y: 22 N: 11

**Straw poll #2:** (recommendation note in comment #62)

I support adding the recommendation in the suggested remedy for comment #62.

Y: 14 N: 13

**Straw Poll #3:** (TX tap step size)

*For use of closing comment #62. Details in the comment database.*

Yes: 18 No: 13

**straw poll #4:** (RL CM-Diff for CR)

*For use of closing comment #130. Details in the comment database.*

Yes: 10 No: 27

Chair reminded participants that the current meeting was announced to be 3 hour duration and was scheduled to end at 10:00am Pacific time.

**Straw poll #5:** (SNR\_TX & COM)

*For use of closing comment #10014 & 64. Details in the comment database.*

Yes: 18 No: 18

**Straw poll #6:** (SNR\_TX & COM)

*For use of closing comment #10014 & 64. Details in the comment database.*

Yes: 6 No: 36

Comment resolution was ended to hold max\_wait\_timer discussion. Discussion surrounded feasibility and user experience.

Chair noted that Straw Polls #7, #8, and #9 would occur simultaneously in the tool.

**Straw Poll #7:** (direction check on max\_wait\_timer, comment 18)

I would support a max\_wait\_timer value, TMWT, in the range (assuming integer values): Chicago Rules

A: TMWT <= 3 s

B: 3 s < TMWT <= 6 s

C: 6 s < TMWT <= 9 s

D: 9 s < TMWT <= 12 s

E: 12 s < TMWT <= 15 s

F: 15 s < TMWT

G: Need more information

A: 3 B: 7 C: 13 D: 15 E: 13 F: 4 G: 8

**Straw Poll #8:** (direction check on max\_wait\_timer, comment 18)

I would support a max\_wait\_timer value, TMWT, in the range (assuming integer values): Choose 1

A: TMWT <= 3 s

B: 3 s < TMWT <= 6 s

C: 6 s < TMWT <= 9 s

D: 9 s < TMWT <= 12 s

E: 12 s < TMWT <= 15 s

F: 15 s < TMWT

A: 1 B: 3 C: 3 D: 6 E: 3 F: 2 G: 4

**Straw Poll #9:** (direction check on max\_wait\_timer, comment 18)

I believe a value can be chosen this comment cycle:

Yes: 12 No: 9 Abstain: 16

Chair noted the next meeting was scheduled for 8 April for 2 hours. The main topic would be VEC.

The telephonic interim ended at ~10:10 am Pacific.

List of attendees (captured from Webex tool)

Name	Affiliation	Employed by
Adam Healey	Broadcom	Broadcom
Adee Ran	Intel	Intel
Alan Kinningham	I-PEX	I-PEX
Alex Haser	Molex	Molex
Ali Ghiasi	Ghiasi Quantum/Inphi	Ghiasi Quantum/Inphi
Arthur Marris	Cadence	Cadence
Ayal Shoal	Synopsys	Synopsys
Beth Kochuparambil	Cisco	Cisco
Biman Chattopadhyay	Synopsys	Synopsys
Brandon Gore	Samtec	Samtec
Bruce Champion	TE Connectivity	TE Connectivity
Burrell Best	Samtec	Samtec
Champion Kao	Intel	Intel
Chan Chih (David) Chen	Applied Optoelectronics	Applied Optoelectronics
Chris DiMinico	PHY-SI	PHY-SI
Dave Hess	Cord Data	Cord Data
David Malicoat	Senko	Malicoat Networking Solutions
David Ofelt	Juniper	Juniper
Ed Frlan	Semtech	Semtech

Frank Chang	Source Photonics	Source Photonics
Frank Lambrecht	Gigamon	Gigamon
Gary Nicholl	Cisco	Cisco
Geoff Zhang	Xilinx	Xilinx
George Luk	Credo	Credo
Greg LeCheminant	Keysight	Keysight Technologies
Greg McSorley	Amphenol	Amphenol
Hansel Dsilva	Achronix	Achronix
Hormoz Djahanshahi	Microchip	Microchip
Howard Heck	Intel	Intel
Ilya Lyubumirshky	Inphi	Inphi
James Weaver	Arista	Arista
Jane Lim	Cisco	Cisco
Jeff Slavick	Broadcom	Broadcom
Jeffery Maki	Juniper	Juniper
John Calvin	Keysight	Keysight
John Ewen	Marvell	Marvell
Joshua Kim	Hirose	Hirose
Kent Lusted	Intel	Intel
Klaus Engenhardt	Keysight	Keysight
Liav Ben-Artzi	Marvell	Marvell
Matt Brown	Huawei	Huawei
Mau-Lin Wu	Mediatek	Mediatek

Mike Dudek	Marvell	Marvell
Mike Klempa	UNH-IOL	UNH-IOL
Mike Li	Intel	Intel
Nathan Tracy	TE Connectivity	TE Connectivity
Phil Sun	Credo	Credo
Piers Dawe	Mellanox	Mellanox
Qing Xu	Ranovus	Ranovus
Rich Mellitz	Samtec	Samtec
Rick Rabinovich	Keysight	Keysight
Sam Kocsis	Amphenol	Amphenol
Scott Sommers	Molex	Molex
Stephen Didde	Keysight	Keysight
Steve Trowbridge	Nokia	Nokia
Takeshi Nishimura	Yamaichi Electronics, USA	Yamaichi Electronics, USA
Tao Hu	Marvell	Marvell
Terry Little	Foxconn Interconnect Technology	Foxconn Interconnect Technology
Tom Palkert	Molex/Macom	Molex/Macom
Toshiaki Sakai	Socionext	Socionext
Upen Kareti	Cisco	Cisco
Xiang He	Huawei	Huawei
Yasuo Hidaka	Credo	Credo
Yekutiel Uliel	Intel	Intel