Approved minutes P802.3bs 400 Gb/s Ethernet Electrical Ad Hoc Teleconference 27th February 2017

Minutes taken by Andre Szczepanek, Inphi

The meeting started at 8:05 am Pacific chaired by Andre Szczepanek, the attendee list was taken from the Webex attendee list, plus any e-mail notifications of attendance.

Documentation for the call can be found at the Ad Hoc web page:
http://www.ieee802.org/3/bs/public/adhoc/elect/index.shtml

Andre reminded everyone of the updated IEEE patent policy (http://www.ieee802.org/3/patent.html) and asked if anyone was unfamiliar with it. No one responded.

Andre presented the IEEE participation Foil.
Andre asked if anyone had any objection or additions to the draft agenda. No one responded, so this agenda was approved by the Ad Hoc.

Andre asked if anyone had any objection or additions to the draft minutes from the 20th February 2017 call. No one responded, so the minutes were approved by the Ad Hoc.

Presentation #1
Title: Electrical Interface Ad Hoc Opening/Agenda/Work-items
Presenter: Andre Szczepanek, Inphi
http://www.ieee802.org/3/bs/public/adhoc/elect/27Feb_17/szczepanek_01_022717_elect.pdf

Andre presented big ticket items from the Draft 3.0 comments. The first item was the organization of the jitter sub-clauses. Andre proposed to create a strawman proposal for the sub-clauses for presentation at the 6th March ad hoc.

The second item was jitter measurement methodology. Andre proposed using the i-26 remedy to address a group of 7 related comments. The text of this remedy was then edited by the group to create the consensus text below:

For each transition i, 1<=i<=12, of the transitions specified in Table 120D-2, obtain a set S_i = {t_i(1), t_i(2), ...} of transition times modulo the period of the pattern. The size of all sets should be chosen to enable calculation of J4 (as defined below) with sufficient accuracy.

Calculate the average of each set S_i, t_i_Avg, and subtract it from all elements of that set, to create a set S_i0={t_i(1)-t_i_Avg, t_i(2)-t_i_Avg, ...}.

Combine the sets S_i0, i=1 to 12, to create an estimated probability distribution f_J(t).

J4 is defined as the time interval that includes all but 10^-4 of f_J(t), from the 0.005th to the 99.995th percentile of f_J(t).

J_RMS is defined as the standard deviation of f_J(t).

The third big ticket item was the C2M connector crosstalk issue which has 7 related comments. Andre presented the results of the straw poll announced at the previous ad hoc (shown below)

- Option A: Change 10.2 dB to 7.5 dB for current MDI crosstalk with CL120.d TX

- Option B: Reduce MDFEXT=2.8 mV and PSXT=2.9 mV and define an improved CL120.d TX to support 10.2 dB

- Option C: Reduce C2M channel loss to 7.5 dB and leave the current crosstalk limit of CL 92, then add an informative section on engineered link implementation to support up to 10.2 dB using COM analysis.

- Option D (not in Ali's presentation): Reduce MDFEXT=2.8 mV and PSXT=2.9 mV and define a reduced receiver Vertical Eye Opening to support 10.2 dB

- 12 responses received

    — Option A : 0

    — Option B : 1

    — Option C : 2

    — Option D : 6

    — B & D : 1

    — B or D : 1

    — None of the above : 1

Mike Dudek indicated that he has presentation to make at the next ad hoc relating to eye opening results from COM, that would have some bearing on this issue.

The meeting adjourned at 9:00am Pacific.

Attendee list (taken from Webex attendee list)

Andre Szczepanek	Inphi
Phong Pham	usconec
Rick Rabinovich	Ixia
Yasuo Hidaka	Fujitsu
Will Bliss	Broadcom
Mark Kimber	Semtech
Adee Ran	Intel
Megha Shanbhag	TE
Piers Dawe	Mellanox
Mike Dudek	Cavium
Charles Moore	Charles Moore Consulting
Martin White	Cavium
Vittal Balasubramani	Dell
Stephane Dallaire	Inphi
Mark Nowell	Cisco
Upen Kareti	Cisco
Richard Mellitz	Samtec
Rajmohan Hegde	Broadcom
Nathan Tracy	TE
Aananda Kumar	Maxlinear