Cl **178** *SC* **178.10.2** *P* **287** *L* **37** # 40

Mellitz, Richard Samtec

Comment Type **TR** *Comment Status* **D** *Channel ILdd (bucket1p)*

Define the channel insertion loss to include the package i.e TP0d to TP5d.

SuggestedRemedy

change TBD to 40 dB

Proposed Response *Response Status* **W**

[Editor's note: This comment was not addressed due to lack of comment resolution time. Proposed responses, as prepared by the editorial team, may be found in the following file: https://www.ieee802.org/3/dj/comments/D1p0/8023dj_D1p0_comments_proposed_id_v2.pdf]

Cl **93B** *SC* **93B** *P* **520** *L* **6710** # 55

Mellitz, Richard Samtec

Comment Type **TR** *Comment Status* **D** *93B (bucket1p)*

We have been talking about "die-to-die" loss for while now. Add at test point reference to this and reference to section Annex 93B. One reference to this is in diminico_3dj_01_2307 slide 6 and 7.

SuggestedRemedy

Add TP0d and TP5d to figure 93B-1 and table 93B-1

Proposed Response *Response Status* **W**

[Editor's note: This comment was not addressed due to lack of comment resolution time. Proposed responses, as prepared by the editorial team, may be found in the following file: https://www.ieee802.org/3/dj/comments/D1p0/8023dj_D1p0_comments_proposed_id_v2.pdf]

Cl **176D** *SC* **176D.4.1** *P* **605** *L* **52** # 143

Ghiasi, Ali Ghiasi Quantum/Marvell

Comment Type **T** *Comment Status* **D** *Multiple COM parameters*

C2C should be aligned with C2M and addressing TBDs

SuggestedRemedy

SNRTx=33 dB
Add=0.02 UI
Sigma=0.01 UI
RLM=0.95
Eta0=1.25E-8

Proposed Response *Response Status* **W**

[Editor's note: This comment was not addressed due to lack of comment resolution time. Proposed responses, as prepared by the editorial team, may be found in the following file: https://www.ieee802.org/3/dj/comments/D1p0/8023dj_D1p0_comments_proposed_id_v2.pdf]

Cl **179** *SC* **179.11.3** *P* **327** *L* **34** # 390

Kocsis, Sam Amphenol

Comment Type **T** *Comment Status* **D** *ERL (bucket1p)*

ERL requirement for cable assemblie sthat have COM less than "4dB"

SuggestedRemedy

Change "4dB" to "TBD". Historical precedent may not be relevant for this specification

Proposed Response *Response Status* **W**

[Editor's note: This comment was not addressed due to lack of comment resolution time. Proposed responses, as prepared by the editorial team, may be found in the following file: https://www.ieee802.org/3/dj/comments/D1p0/8023dj_D1p0_comments_proposed_id_v2.pdf]

Cl **178** *SC* **178.9.2** *P* **276** *L* **18** # 452

Simms, William NVIDIA

Comment Type **T** *Comment Status* **D** *TX AC CM (bucket1p)*

SCMR may need to be relaxed for 200Gb/s. Measure of 15dB full band at TP0v given full band Vcm noise of 80mVpp at TP2.

SuggestedRemedy

Likely need to tighten 80mV Vcm in table 179-7 for 200Gb/s

Proposed Response *Response Status* **W**

[Editor's note: This comment was not addressed due to lack of comment resolution time. Proposed responses, as prepared by the editorial team, may be found in the following file: https://www.ieee802.org/3/dj/comments/D1p0/8023dj_D1p0_comments_proposed_id_v2.pdf]

Cl **176D** *SC* **176D.4.1** *P* **605** *L* **35** # 504

Howard Heck Intel Corporation

Comment Type **T** *Comment Status* **D** *Multiple COM parameters*

We need to fill in values for the TBDs AUI C2C device & package parameters in Table 176D-6and COM parameters in Table 176D-7.

SuggestedRemedy

Adopt the values proposed below for AUI C2C:
Table 176D-6:
R_0 = 50 ohms, R_d, = 50 ohms,
Table 176D-7:
f__r,= 0.75* f_b , A_v = 0.413 V, A_fe = 0.413 V, A_ne = 0.608 V, SNR_Tx = 33 dB, A_dd 0.02,R_LM = 0.95, eta_0 = 1.25e-8 V^2/GHz, M = 32,
d_w = 4, N_fix = 28, N_g = 0, N_f = NA, N_max = NA,, sigma_RJ = 0.01.
j W_min(j) W_max(j)
-4 0 0.5
-3 -0.15 0
-2 0 0.4
-1 -0.7 0
1 -0.35 0.85
2 -0.8
0.6
3-4 -0.2 0.3
5-8 -0.15 0.15
9-28 -0.05 0.05
A presentation is planned for the May 2024 interim in which we will provide analysis to supportthe proposed values.

Proposed Response *Response Status* **W**

[Editor's note: This comment was not addressed due to lack of comment resolution time. Proposed responses, as prepared by the editorial team, may be found in the following file: https://www.ieee802.org/3/dj/comments/D1p0/8023dj_D1p0_comments_proposed_id_v2.pdf]

Cl **179** *SC* **179.9.4** *P* **309** *L* **44** # 511

Dawe, Piers Nvidia

Comment Type **T** *Comment Status* **D** *TX AC CM (bucket1p)*

AC common-mode voltages are not as large as this in practice, even at 200G/lane

SuggestedRemedy

Reduce both AC common-mode voltage limits for CR, KR, C2C and C2M.

Proposed Response *Response Status* **W**

[Editor's note: This comment was not addressed due to lack of comment resolution time. Proposed responses, as prepared by the editorial team, may be found in the following file: https://www.ieee802.org/3/dj/comments/D1p0/8023dj_D1p0_comments_proposed_id_v2.pdf]

Cl **179** *SC* **179.9.4** *P* **309** *L* **46** # 512

Dawe, Piers Nvidia

Comment Type **TR** *Comment Status* **D** *Tx swing (bucket1p)*

Supply voltages and voltage swing trend downwards over the years. This 1200 mV max has not changed since 10GBASE-KR, a long time ago. C2M has 750 mV.

SuggestedRemedy

Reduce 1200 mV to e.g. 1000 mV, here, in the receiver Table 179-10 and in the text in 179.9.5.2. Reduce the steady-state voltage vf max from 0.6 V to 0.5 V. Similarly for KR and C2C.

Proposed Response *Response Status* **W**

[Editor's note: This comment was not addressed due to lack of comment resolution time. Proposed responses, as prepared by the editorial team, may be found in the following file: https://www.ieee802.org/3/dj/comments/D1p0/8023dj_D1p0_comments_proposed_id_v2.pdf]

Cl **179** *SC* **179.9.4** *P* **310** *L* **27** # 513

Dawe, Piers Nvidia

Comment Type **TR** *Comment Status* **D** *Tx jitter, Tx SNDR (bucket1p)*

Our way of measuring jitter doesn't work well enough with the increased max host loss over 3ck. It is not clear that it can or should be fixed. Our way of defining SNDR doesn't work correctly over host loss either. This can be fixed, but "vertical and horizontal noise" act together to degrade BER: more of one goes with less of the other.

SuggestedRemedy

Delete the SNDR and jitter specs. Add a VEC-like, TDECQ-like spec using this clause's COM reference receiver which can be implemented in a scope. Similarly for KR and C2C.

Proposed Response *Response Status* **W**

[Editor's note: This comment was not addressed due to lack of comment resolution time. Proposed responses, as prepared by the editorial team, may be found in the following file: https://www.ieee802.org/3/dj/comments/D1p0/8023dj_D1p0_comments_proposed_id_v2.pdf]

Cl **179** *SC* **179.9.4.6** *P* **315** *L* **15** # 514

Dawe, Piers Nvidia

Comment Type **TR** *Comment Status* **D** *Tx jitter, Tx SNDR (bucket1p)*

As explained in other comments, up to 3ck the SNDR spec acted together with the jitter spec to protect the link performance - but we don't have a satisfactory way of measuring jitter at today's speeds and losses, and separating the two things out "leaves margin on the table".

SuggestedRemedy

Delete the SNDR section. Add a VEC-like, TDECQ-like spec using this clause's COM reference receiver which can be implemented in a scope. Similarly for KR and C2C.

Proposed Response *Response Status* **W**

[Editor's note: This comment was not addressed due to lack of comment resolution time. Proposed responses, as prepared by the editorial team, may be found in the following file: https://www.ieee802.org/3/dj/comments/D1p0/8023dj_D1p0_comments_proposed_id_v2.pdf]

Cl **179** *SC* **179.9.4.7** *P* **315** *L* **24** # 515

Dawe, Piers
Nvidia

Comment Type **TR** *Comment Status* **D** *Tx jitter (bucket1p)*

Measuring jitter separately to other impairments relies on a better slew rate to noise ratio than we have at the observation point, and better than what is needed to make good links.

SuggestedRemedy

Delete the jitter section. Add a VEC-like, TDECQ-like spec using this clause's COM reference receiver which can be implemented in a scope. Similarly for KR and C2C.

Proposed Response *Response Status* **W**

[Editor's note: This comment was not addressed due to lack of comment resolution time. Proposed responses, as prepared by the editorial team, may be found in the following file: https://www.ieee802.org/3/dj/comments/D1p0/8023dj_D1p0_comments_proposed_id_v2.pdf]