

CR comment discussion

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IEEE P802.3ck Task Force

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Agenda

- Provide background to help resolve comments related to COM for cable assemblies

Comment #64

CI 162 SC 162.11.7 P 160 L 6 # 64
Mellitz, Richard Samtec
Comment Type TR Comment Status D
SNR_Tx needs to account for host board crosstalk as suggested in mellitz_3ck_03b_1119 and lim_3ck_01_1119.pdf
SuggestedRemedy
Replace TBD for SNR_Tx with 32 dB
Proposed Response Response Status W
PROPOSED ACCEPT IN PRINCIPLE.
Resolve with comment #10014.

CI 162 SC 162.11.7 P 160 L 6 # 10014
Mellitz, Richard Samtec
Comment Type TR Comment Status D
[Comment resubmitted from Draft 1.0. Subcl. 162.11.7 - Pg 152 - In 33]
To move forwards a value for SNR_Tx needs to be chosen
SuggestedRemedy
Replace TBD with 32 dB as in slide 8 of mellitz_3ck_03_1119, slide 9 of lim_3ck_01_1119 in Table 162-15.
Proposed Response Response Status W
PROPOSED ACCEPT IN PRINCIPLE.
For task force discussion relating to slide 8 of mellitz_3ck_03_1119 and slide 9 of lim_3ck_01_1119 in Table 162-15.

Response to Comment #64

CI 162 SC 162.11.7 P 160 L 6 # 10014
Mellitz, Richard Samtec
Comment Type TR Comment Status R
[Comment resubmitted from Draft 1.0. Subcl. 162.11.7 - Pg 152 - In 33]
To move forwards a value for SNR_Tx needs to be chosen
SuggestedRemedy
Replace TBD with 32 dB as in slide 8 of mellitz_3ck_03_1119, slide 9 of lim_3ck_01_1119 in Table 162-15.
Response Response Status C
REJECT.
The task force reviewed slide 8 of http://www.ieee802.org/3/ck/public/19_11/mellitz_3ck_03a_1119.pdf and slide 9 of http://www.ieee802.org/3/ck/public/19_11/lim_3ck_01a_1119.pdf
Based on the results of strawpolls #5 and #6 there is no consensus to make a change.
Straw poll #5
I support closing comment #10014 and #64 using SNR_TX = 32 dB:
Yes: 18
No: 18
Straw poll #6
I support closing comment #10014 and #64 using SNR_TX = 32 dB and COM = 2.5 dB:
Yes: 6
No: 36

Comment #160

CI 162 SC 162.11.7 P 180 L 45 # 160

Kareti, Upen Reddy Cisco

Comment Type TR Comment Status D

DFE floating tap tail root-sum-of-squares limit 0.02, which is changed from from adopted baseline value of 0.03.

This constraint was created to avoid test programs to create unrelastic channel and subject serdes to pass such a channel This is not intended to limit reasonable real channels. The value 0.03 is arrived by looking KR and CR channels for possible package combination. Constraining further only fails some of the channels including Task Force identified must pass cahnnels.

SuggestedRemedy

Change back to Adopted base line value of 0.03 or eliminate this constaint altogether

Proposed Response Response Status W

PROPOSED REJECT.

The change to 0.02 was adopted as a result of closing comment D1.0 comment #152 based on straw poll #12.

Response for D1.0, Comment #152

CI 163 SC 163.10 P 175 L 40 # 152

Dawe, Piers Mellanox

Comment Type TR Comment Status A

This DFE floating tap tail root-sum-of-squares limit is 0.03. For the worst of 7 borderline channels in kasapi_3ck_01_1119 slide 12 (kareti1, OACH4, which is an outlier and probably should not be supported), the value is 0.022. Even for this channel with the most unlucky combination of package lengths including out-of-scope ones, it's <= 0.025 (slide 13). We should not encourage even worse channels than this, such as the failing channels on slides 16-17, and we should not indulge this one so much.

SuggestedRemedy

Remember that this parameter isn't a hard pass-fail limit; channels can exceed this but don't get a free pass for the excess ISI noise that they cause.
Change 0.03 to 0.02.

Response Response Status C

ACCEPT IN PRINCIPLE.

Based upon the result of strawpoll #12, implement the suggested remedy.

Strawpoll #12

I support closing comment #152 using the suggested remedy.

Yes: 13

No: 3

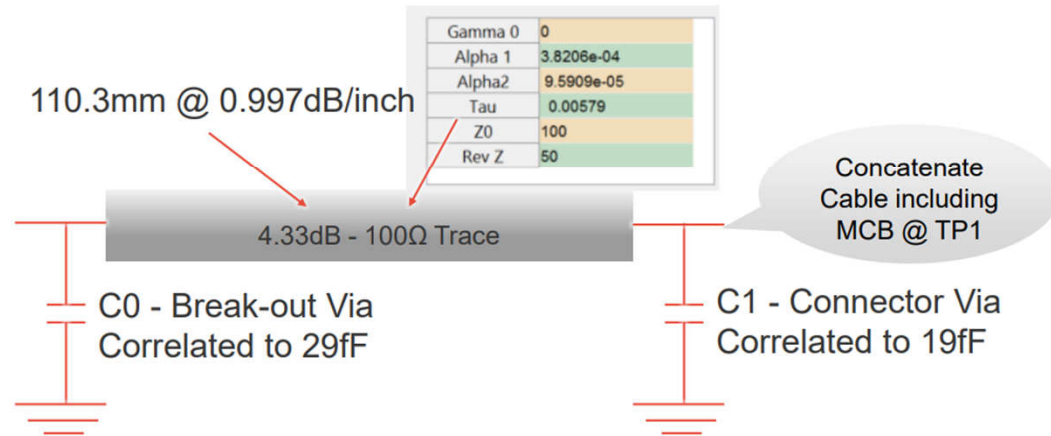
Comment Summary – CA COM Include PCB

C#	Comment Summary	Notes
40 41	Add two capacitive discontinuities (19fF, 29fF) to the PCB, and update the trace parameters per referenced presentations	benartsi_01a_071 (slide 8) & benartsi_01a_0919 (slide 6)
10016	Replace TBDs in 162.11.7.1.1. zp=110.3mm, IL=4.33dB. Add new table with parameter values	
10017	Add new table for 93A transmission line. [gamma0, a1, a2]=[0 3.8206e-04 9.5909e-05]	
10018	Apply same transmission line parameters to crosstalk path in 162.11.7.1.2 as in signal path in 162.11.7.1.1	

10016, 10017, 10018 were discussed at the 02/26/2020 ad hoc with general consensus to make the proposed changes.

benartsi_3ck_01a_0919, slide 6

Model to be Inserted as "Include PCB" - Reminder



benartsi_01a_0719 (slide 8)

Current Model to be Inserted as "Include PCB"

