

IEEE P802.3ck D3.0 100/200/400 Gb/s Electrical Interfaces Task Force Initial Sponsor ballot comments

Cl **120F** SC **120F.3.1** P **239** L **13** # **I-106**

Mellitz, Richard Samtec, Inc.

Comment Type **TR** Comment Status **D** AC CM noise (bucket3)

DER0 for 120F is 1e-5 and DER0 for 163 is 1e-4. The reference to 163.9.2.7 need a reference to adjust for DER0.

SuggestedRemedy

Add a footnote to SCMR(min) to compute V_CMPP to with the distribution range to be between 0.000005 to 0.999995. (1.e. 1e-5).

Proposed Response Response Status **W**

PROPOSED ACCEPT IN PRINCIPLE.

Resolve using the response to comment i-101.

Cl **120F** SC **120F.3.1** P **239** L **13** # **I-102**

Mellitz, Richard Samtec, Inc.

Comment Type **TR** Comment Status **D** AC CM noise (bucket3)

Low frequency CM will not be very dependent on a test fixture. Signal to AC common-mode noise ratio, SCMR (min), is related to the Peak Pulse and used to compensate for test fixture loss. Since the low frequency the loss is very small the tp0v compensation is not correct. As demonstrated in mellitz_3k_adhoc_01_120821 noise originating from a power supply or other low frequency sources can be detrimental,

SuggestedRemedy

Add a new line to table 120F-1 called maximum low frequency AC common mode max peak to peak noise (V_CMPP) and set to 30 mV. Create a new section for such indicating the a low pass 4th order Bessel Thomson filter with a 3 dB point of 10 MHz is to be applied to the CM measurement. Additionally in section 163.9.2.7 indicate that the a high pass 4th order Bessel Thomson filter with a 3 dB point of 10 MHz is to be applied to the AC CM measurement and set SCMR (min) to 10.7 dB. See presentation.

Proposed Response Response Status **W**

PROPOSED ACCEPT IN PRINCIPLE.

Resolve using the response to comment i-101.

Cl **120G** SC **120G.3.1** P **258** L **13** # **I-104**

Mellitz, Richard Samtec, Inc.

Comment Type **TR** Comment Status **D** AC CM noise (bucket3)

RMS is poor indicator for CM mode noise. See CM histograms in mellitz_3k_adhoc_01_120821, mellitz_3ck_01a_0721, and mellitz_3ck_adhoc_01_121620. Clause 163.9.2.7 defines a more meaningful parameter V_CMPP as the peak-to-peak AC common-mode voltage.

SuggestedRemedy

Replace "AC common-mode output voltage (max, RMS)" with V_CMPP as the peak-to-peak AC common-mode voltage and set to 213 mV but define the distribution range to be between 0.000005 to 0.999995. (1.e. 1e-5) See presentation.

Proposed Response Response Status **W**

PROPOSED ACCEPT IN PRINCIPLE.

Resolve using the response to comment i-103.

Cl **120G** SC **120G.3.2** P **261** L **7** # **I-105**

Mellitz, Richard Samtec, Inc.

Comment Type **TR** Comment Status **D** AC CM noise (bucket3)

RMS is poor indicator for CM mode noise. See CM histograms in mellitz_3k_adhoc_01_120821, mellitz_3ck_01a_0721, and mellitz_3ck_adhoc_01_121620. Clause 163.9.2.7 defines a more meaningful parameter V_CMPP as the peak-to-peak AC common-mode voltage.

SuggestedRemedy

Replace "AC common-mode output voltage (max, RMS)" with V_CMPP as the peak-to-peak AC common-mode voltage and set to 213 mV but define the distribution range to be between 0.000005 to 0.999995. (1.e. 1e-5). See presentation

Proposed Response Response Status **W**

PROPOSED ACCEPT IN PRINCIPLE.

Resolve using the response to comment i-103.

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Cl **162A** SC **162A.4** P **285** L 1 # **I-215**
Dawe, Piers J G NVIDIA
Comment Type **E** Comment Status **D** (bucket3)
ILPCBmin
SuggestedRemedy
ILddPCBmin
Proposed Response Response Status **W**
PROPOSED ACCEPT IN PRINCIPLE.
Change "ILPCBmin" to "ILddPCBmin".