

IEEE P802.3ck D1.4 100/200/400 Gb/s Electrical Interfaces Task Force 5th Task Force review comments

Cl 162 SC 162.11 P 163 L 17 # 25  
 Brown, Matt Huawei  
 Comment Type T Comment Status D CA ERL (bucket2)  
 In Table 162-16, the specified value for cable assembly ERL is TBD  
 SuggestedRemedy  
 Provide a value or equation and update PICS.  
 Proposed Response Response Status W  
 PROPOSED ACCEPT IN PRINCIPLE.  
 Resolve using response to comment#103

Cl 162 SC 162.11 P 163 L 18 # 94  
 Haser, Alex Molex  
 Comment Type TR Comment Status D CA ERL (bucket2)  
 Fill in TBD for CA ERL limit  
 SuggestedRemedy  
 Replace TBD with 7.4 dB based on champion\_3ck\_02\_1020.pdf slide 6  
 Proposed Response Response Status W  
 PROPOSED ACCEPT IN PRINCIPLE.  
 Resolve using response to comment#103

Cl 162 SC 162.11 P 163 L 17 # 120  
 Ran, Adeel Intel  
 Comment Type TR Comment Status D CA ERL (bucket2)  
 (addressing TBD)  
 Minimum cable assembly ERL is TBD.  
 In another comment I am suggesting setting the minimum ERL of a MTF to 10.3 dB to enable measurement of the internal host circuitry. Based on this proposal, the ERL of a cable assembly cannot exceed 10.3 dB.  
 It can be assumed that the cable has more uniform impedance than the host board, so its ERL will be closer to that of a MTF.  
 The suggested value allows 1.3 dB difference for cable assembly implementation.  
 SuggestedRemedy  
 Change TBD to 9 dB.  
 Proposed Response Response Status W  
 PROPOSED ACCEPT IN PRINCIPLE.  
 Resolve using response to comment#103

Cl 162B SC 162B.1.3.2 P 262 L 43 # 42  
 Brown, Matt Huawei  
 Comment Type T Comment Status D MTF ERL (bucket2)  
 The specified value for MTF ERL is TBD.  
 SuggestedRemedy  
 Provide a value and update PICS.  
 Proposed Response Response Status W  
 PROPOSED ACCEPT IN PRINCIPLE.  
 Resolve using the response comment #112.

Cl 162 SC 162.11 P 163 L 17 # 113  
 Kocsis, Sam Amphenol  
 Comment Type TR Comment Status D CA ERL (bucket2)  
 CA ERL requirement is TBD  
 SuggestedRemedy  
 Replace TBD with 9dB  
 Proposed Response Response Status W  
 PROPOSED ACCEPT IN PRINCIPLE.  
 Resolve using response to comment#103

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Cl 162B SC 162B.1.3.2 P 262 L 43 # 131

Ran, Adeel Intel  
 Comment Type TR Comment Status D MTF ERL (bucket2)

(addressing TBD)  
 "The mated test fixture ERL shall be greater than or equal to TBD dB"

We have adopted a minimum of 7.3 dB for a host ERL in Table 162-10 (with parameters in 162.9.3.5). The parameters for MTF are the same, except that "Time-gated propagation delay" is 0 instead of 0.2 ns.

The value 0 was accepted explicitly (comment #122 against D1.3) but the difference does not seem to be justified, since the MTF includes the test fixture used for host ERL measurement (where the connector is time gated). Different time gating creates difference in the meaning of ERL.

The ERL from a high-quality MTF is the upper bound for any measurement of a DUT which uses any one of the test fixtures. Therefore, it should be significantly higher than 7.3 dB.

It is suggested to divide the budget evenly to allow about the same reflection power from the DUT's internal circuitry as from the mated connectors; if each one is 10.3 dB then their combination (RSS, since reflections are independently distributed) would be 7.3 dB.

*SuggestedRemedy*

Change minimum ERL from TBD to 10.3 dB.

In Table 162B-1, change T\_fx from 0 to 0.2 ns.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.  
 Resolve using the response comment #112.

Cl 162B SC 162B.1.3.2 P 262 L 43 # 106

DiMinico, Christopher MC Communications  
 Comment Type TR Comment Status D MTF ERL (bucket2)

Provide value for mated test fixture ERL TBD.

*SuggestedRemedy*

The mated test fixture ERL shall be greater than or equal to 9 dB.  
 Update PICS.

See diminico\_3ck\_adhoc\_01a\_121620 slide 6.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.  
 Resolve using the response comment #112.

Cl 162B SC 162B.1.3.2 P 262 L 43 # 105

Champion, Bruce TE Connectivity  
 Comment Type T Comment Status D MTF ERL (bucket2)

MTF ERL is listed at TBD in draft

*SuggestedRemedy*

TBD to be changed to 9 dB. See diminico\_3ck\_03a\_1020.pdf

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.  
 Resolve using the response comment #112.

Cl 162B SC 162B.1.3.2 P 262 L 43 # 98

Haser, Alex Molex  
 Comment Type TR Comment Status D MTF ERL (bucket2)

Fill in TBD for MTF ERL limi

*SuggestedRemedy*

Replace TBD with 9 dB based on diminico\_3ck\_03a\_1020.pdf slide 7

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.  
 Resolve using the response comment #112.

Cl 162B SC 162B.1.3.2 P 262 L 43 # 8

Dudek, Mike Marvell  
 Comment Type TR Comment Status D MTF ERL (bucket2)

The ERL of the mated test fixture should be significantly better than the specification for the ERL of the device under test. The ERL of the QSFP-DD improved connector used for channel modeling in e.g. Didel\_3ck\_01\_0320. has an ERL of 15.7dB.

*SuggestedRemedy*

Change TBD to 14dB. Also put this in TF2 of the PICS.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.  
 Resolve using the response comment #112.