

IEEE P802.3cu D3.1 100 Gb/s per wavelength on SMF 1st Sponsor recirculation ballot comments

CI 140 SC 140.6.1 P43 L15 # R1-1

Stassar, Peter Huawei Technologies Co., Ltd  
 Comment Type **TR** Comment Status **A** power excursion

Transmitter power excursion (max) should be in "dB" instead of "dBm"

*SuggestedRemedy*

Change "dBm" to "dB"

Response Response Status **C**

ACCEPT IN PRINCIPLE.

During Task Force discussion on this comment, it was determined that dBm is the correct units but as a result of the discussion it was found that some changes to the power excursion parameter should be made.

Change the value of the Transmitter power excursion (max) parameter for 100GBASE-LR1 from "2.5 dBm" to "2.8 dBm"

CI 151 SC 151.7.1 P72 L33 # R1-2

Stassar, Peter Huawei Technologies Co., Ltd  
 Comment Type **TR** Comment Status **A** power excursion

Transmitter power excursion (max) should be in "dB" instead of "dBm"

*SuggestedRemedy*

Change "dBm" to "dB"

Response Response Status **C**

ACCEPT IN PRINCIPLE.

During Task Force discussion on this comment, it was determined that dBm is the correct units but as a result of the discussion it was found that some changes to the power excursion parameter should be made.

Change the value of the Transmitter power excursion (max) parameter for 400GBASE-FR4 from "1.5 dBm" to "1.8 dBm" and for 400GBASE-LR4-6 from "2.2 dBm" to "2.5dBm".

CI 0 SC 0 P0 L # R1-3

Nicholl, Gary Cisco Systems, Inc.  
 Comment Type **E** Comment Status **A** new famemaker template

Implement new FM template (Version 4.4)

*SuggestedRemedy*

Implement new FM template (Version 4.4), based on the email from Pete Anslow to the 802.3\_EDITORS reflector on 10/30/2020

Response Response Status **C**

ACCEPT.

CI 151 SC 151.8.2 P79 L48 # R1-4

Nicholl, Gary Cisco Systems, Inc.  
 Comment Type **E** Comment Status **A** unnecessary text

There is no need to state "for 400GBASE-FR4 and 400GBASE-LR4-6" in the first sentence of 151.8.2.

*SuggestedRemedy*

Delete "for 400GBASE-FR4 and 400GBASE-LR4-6" in the first sentence of subclause 151.8.2. Make an equivalent change in 151.8.3, 151.8.6, 151.8.9, 151.8.10, 151.8.12 and 151.8.13.

Response Response Status **C**

ACCEPT.

CI 151 SC 151.8.2 P79 L48 # R1-5

Nicholl, Gary Cisco Systems, Inc.  
 Comment Type **E** Comment Status **A** comma

There is an unnecessary comma in the first sentence of 151.8.2, 151.8.10, 151.8.12 and 151.8.13.

*SuggestedRemedy*

Remove the unnecessary comma in the first sentence of 151.8.2, 151.8.10, 151.8.12 and 151.8.13.

Response Response Status **C**

ACCEPT.

IEEE P802.3cu D3.1 100 Gb/s per wavelength on SMF 1st Sponsor recirculation ballot comments

Cl 151 SC 151.8.13 P83 L4 # R1-6  
 Nicholl, Gary Cisco Systems, Inc.  
 Comment Type E Comment Status A comma  
 Missing comma after "122.8.9" in the first sentence of 151.8.13.  
 SuggestedRemedy  
 Add a comma after "122.8.9" in the first sentence of 151.8.13.  
 Response Response Status C  
 ACCEPT.

Cl 140 SC 140.7.5b P52 L19 # R1-7  
 Nicholl, Gary Cisco Systems, Inc.  
 Comment Type E Comment Status A overshoot  
 Over/Under-shoot is only applicable for 100GBASE-FR1 and 100GBASE-LR1, and not for 100GBASE-DR.  
 SuggestedRemedy  
 Add "for 100GBASE-FR1 and 100GBASE-LR1" after "Table 140-6" in the first sentence of 140.7.5b  
 Response Response Status C  
 ACCEPT.

Cl 140 SC 140.7.5c P52 L53 # R1-8  
 Nicholl, Gary Cisco Systems, Inc.  
 Comment Type E Comment Status A power excursion  
 Transmitter power excursion is only applicable for 100GBASE-FR1 and 100GBASE-LR1, and not for 100GBASE-DR.  
 SuggestedRemedy  
 Add "for 100GBASE-FR1 and 100GBASE-LR1" after "Table 140-6" in the first sentence of 140.7.5c  
 Response Response Status C  
 ACCEPT.

Cl 140 SC 140.10a P58 L3 # R1-9  
 Nicholl, Gary Cisco Systems, Inc.  
 Comment Type E Comment Status A interop guidelines  
 "Recommendations for interoperation" is a more appropriate description than "Guidelines for interoperation" in this section.  
 SuggestedRemedy  
 Replace "Guidelines" with "Recommendations" throughout subclause 140.10a. Make a similar change for 151.12.  
 Response Response Status C  
 ACCEPT IN PRINCIPLE.

Delete "Guidelines for" throughout subclause 140.10a. Make a similar change for subclause 151.12.

Cl 140 SC 140.6.3 P47 L32 # R1-10  
 Nicholl, Gary Cisco Systems, Inc.  
 Comment Type T Comment Status A wavelength reference  
 In footnote (b) of Table 140-8 it is probably unnecessary to reference the wavelength at which the fiber attenuation is 0.43 dB/km. In an earlier revision footnote (a) of Table 140-8 was changed to remove the reference to the wavelength, thus making footnotes (a) and (b) inconsistent. There is also no reference to the wavelength in footnote (a) of Table 151-9.

SuggestedRemedy  
 Remove "at 1304.5 nm" from footnote (b) of Table 140-8.

Response Response Status C  
 ACCEPT.

Cl 140 SC 140.6.1 P43 L17 # R1-11  
 Dawe, Piers J G Mellanox Technologies  
 Comment Type E Comment Status A TECQ description  
 Table 160-6 has "TECQ (max)" while Table 151-7 has "Transmitter eye closure for PAM4 (TECQ), each lane (max)"

SuggestedRemedy  
 Change to "Transmitter eye closure for PAM4 (TECQ) (max)"

Response Response Status C  
 ACCEPT IN PRINCIPLE.

Presume the comment is referring to Table 140-6 and not Table 160-6.

Change the TECQ description in Table 140-6 to "Transmitter eye closure for PAM4 (TECQ) (max)"

IEEE P802.3cu D3.1 100 Gb/s per wavelength on SMF 1st Sponsor recirculation ballot comments

Cl 140 SC 140.10a.1 P59 L12 # R1-12

Dawe, Piers J G Mellanox Technologies

Comment Type TR Comment Status R 10LogCeq

As pointed out in D3.0 comment 65, a 100GBASE-FR1 or 100GBASE-LR1 transmitter is allowed to transmit a bad signal that a 100GBASE-DR may not, and that a 100GBASE-DR receiver is not qualified for. This breaks interoperability. The K limit is missing, and the over/under-shoot, while useful, does not catch all bad transmitters that would fail the K limit. The response to comment 65 does not address the failure of interoperability, it only says that there was a previous decision to remove the K limit. Comment 65 and this one point out that that should be changed.

SuggestedRemedy

As interoperability with 100GBASE-DR applies over much shorter distances than the full distance for 100GBASE-FR1 or 100GBASE-LR1, and as it is expected that decent transmitters will have no problem meeting the spec proposed below, and there is no extra measurement needed, In Table 140-6, insert a limit of 3.4 dB for TECQ - 10log10(Ceq') (max), derived from TECQ in the same way that K = TDECQ - 10log10(Ceq) is derived from TDECQ

Response Response Status U

REJECT.

This comment is considered substantively similar to the previously rejected comment i-65.

The comment is again arguing that the over/under-shoot test, while useful, does not catch all bad transmitters that would fail a K limit (10LogCeq) test, and therefore leaves the potential for 100GBASE-FR1 and 100GBASE-LR1 transmitters that would not interoperate with a 100GBASE-DR receiver.

Note that the "TDECQ-10log10(Ceq)" parameter for 100GBASE-FR1 and 100GBASE-LR1 was removed in draft D2.0 and replaced with the over/under-shoot parameter.

The response to i-65 is shown here for reference:

"  
REJECT.

The comment is proposing a value for a parameter that is not currently in Draft D3.0, for 100GBASE-FR1.

The IEEE P802.3cu Task Force reviewed this parameter previously during both task force review and working group ballot, and reached consensus to not include it.

While the comment does not request the addition of this parameter into the draft, that may have been the intention of the commenter.

There is no consensus to make the proposed change."

Cl 151 SC 151.5.7 P70 L2 # R1-13

Dawe, Piers J G Mellanox Technologies

Comment Type E Comment Status A unnecessary text

the average launch power of the OFF transmitter in Table 151-8 for 400GBASE-FR4 and 400GBASE-LR4-6

SuggestedRemedy

Change and to or, or better, delete "for 400GBASE-FR4 and 400GBASE-LR4-6". Also in 151.5.8.

Response Response Status C

ACCEPT IN PRINCIPLE.

- Delete "for 400GBASE-FR4 and 400GBASE-LR4-6" at the end of line 3 on page 70.
- Delete "for 400GBASE-FR4 and 400GBASE-LR4-6" at the end of line 15 on page 70.

Cl 151 SC 151.8.5 P80 L20 # R1-14

Dawe, Piers J G Mellanox Technologies

Comment Type E Comment Status A spelling

Thompson

SuggestedRemedy

Thomson 3 times in this subclause, twice in 151.8.10

Response Response Status C

ACCEPT IN PRINCIPLE.

- Replace "Thompson" with "Thomson (3 instances)" in subclause 151.8.5
- Replace "Thompson" with "Thomson (2 instances)" in subclause 151.8.10

Cl 140 SC 140.7.5.2 P51 L43 # R1-15

Dawe, Piers J G Mellanox Technologies

Comment Type T Comment Status A wording change

802.3 doesn't specify devices, it specifies interfaces

SuggestedRemedy

Change "device" to "transmitter" (twice in this subclause).  
Had this been a WDM PMD, it would have been "lane under test".

Response Response Status C

ACCEPT.

IEEE P802.3cu D3.1 100 Gb/s per wavelength on SMF 1st Sponsor recirculation ballot comments

Cl 151 SC 151.8.5.1 P80 L40 # R1-16  
 Dawe, Piers J G Mellanox Technologies  
 Comment Type T Comment Status A wording change  
 802.3 doesn't specify devices, it specifies interfaces. And the dispersion is different for the four wavelengths.  
 SuggestedRemedy  
 Change "device" to "lane" (twice in this subclause).  
 Response Response Status C  
 ACCEPT IN PRINCIPLE.  
 Change "device" to "transmitter lane" (twice in this subclause).

Cl 151 SC 151.8.8 P81 L36 # R1-17  
 Dawe, Piers J G Mellanox Technologies  
 Comment Type E Comment Status A extra space  
 leading space before: is average  
 SuggestedRemedy  
 Remove  
 Response Response Status C  
 ACCEPT.

Cl 151 SC 151.8.8 P81 L36 # R1-18  
 Dawe, Piers J G Mellanox Technologies  
 Comment Type E Comment Status A missing the  
 is average  
 SuggestedRemedy  
 is the average? Also in 140.7.5c  
 Response Response Status C  
 ACCEPT IN PRINCIPLE.  
 - Change from "is average" to "is the average" on page 81, line 36.  
 - Change from "is average" to "is the average" on page 53, line 8.

Cl 151 SC 151.8.13 P83 L4 # R1-19  
 Dawe, Piers J G Mellanox Technologies  
 Comment Type E Comment Status A comma  
 Misplaced comma  
 SuggestedRemedy  
 Change  
 400GBASE-LR4-6 if, measured using  
 to  
 400GBASE-LR4-6, if measured using  
 Response Response Status C  
 ACCEPT IN PRINCIPLE.  
 Delete comma.

Cl 151 SC 151.13.4.5 P92 L40 # R1-20  
 Dawe, Piers J G Mellanox Technologies  
 Comment Type E Comment Status A reorder PICS  
 Put the PICS in the same order as the transmitter table and optical parameters subclauses  
 SuggestedRemedy  
 Over/under-shoot and Transmitter power excursion should come after OM6 Over/under-shoot and before Extinction ratio, as OM7, OM8  
 Response Response Status C  
 ACCEPT.