

## All comments

## IEEE P802.3cp D0.2 Bidirectional 10 Gb/s, 25 Gb/s, and 50 Gb/s

## Proposed Responses

CI 45 SC 45.2.1.27a P 28 L 9 # 79

Remein, Duane Futurewei Technologies, Inc.

Comment Type E Comment Status D EZ

Title for Table 45–31a should be "25G PMA/PMD extended ability 1 register bit definitions"

SuggestedRemedy  
per comment

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 45 SC 45.2.1.27a.1 P 28 L 49 # 80

Remein, Duane Futurewei Technologies, Inc.

Comment Type ER Comment Status D EZ

PMD names in did not all get updated correctly.

SuggestedRemedy  
Change:  
"BASE-BLR" to "BASE-BR10" (12x in CI 45 and 1x CI 158)  
"BASE-BMR" to "BASE-BR20" (12x in CI 45 and 1x CI 159)  
"BASE-BER" to "BASE-BR40" (12x in CI 45)

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 45 SC 45.2.1.27b P 30 L 9 # 81

Remein, Duane Futurewei Technologies, Inc.

Comment Type E Comment Status D EZ

Title for Table 45–31b should be "25G PMA/PMD extended ability 2 register bit definitions"

SuggestedRemedy  
per comment

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 56 SC 56.1.3 P 37 L 5 # 82

Remein, Duane Futurewei Technologies, Inc.

Comment Type E Comment Status D EZ

In Table 56–2—Nomenclature and clause correlation for P2P systems the term 10GBASE-BRx, 25GBASE-BRx and 50GBASE-BRs are not defined

SuggestedRemedy  
Copy definitions from 158.1, 159.1 & 160.1 and add to 56.1.3 below a) b) & c) respectively.

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 157 SC 157 P 39 L 9 # 83

Remein, Duane Futurewei Technologies, Inc.

Comment Type TR Comment Status D

CI 157 missing most content.

SuggestedRemedy  
see remein\_3cp\_1\_1907.pdf

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 158 SC 158 P 43 L 6 # 84

Remein, Duane Futurewei Technologies, Inc.

Comment Type E Comment Status D EZ

Remove editing instruction (exits in front of CI 157)

SuggestedRemedy  
per comment

Proposed Response Response Status W

PROPOSED ACCEPT.

## All comments

## IEEE P802.3cp D0.2 Bidirectional 10 Gb/s, 25 Gb/s, and 50 Gb/s

## Proposed Responses

CI 158 SC 158.1 P 43 L 29 # 85

Remein, Duane Futurewei Technologies, Inc.

Comment Type E Comment Status D

Table 158-1 was carried over from CI 52 and does not seem to be really necessary and should be removed.

Alternatively change name to "10GBASE-BRx Bidirectional PHYs"  
Split to include U & D phys,  
Add descriptions of "OLT/ONU PHY for 2 m to 10 m", "OLT/ONU PHY for 2 m to 20 m",  
and "OLT/ONU PHY for 2 m to 40 m" as appropriate.

## SuggestedRemedy

Remove table and references to it.

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 158 SC 158.1 P 43 L 46 # 86

Remein, Duane Futurewei Technologies, Inc.

Comment Type E Comment Status D EZ

Accept as baseline all clauses listed in Table 158-2 except CI 74

## SuggestedRemedy

Remove magenta highlights

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 158 SC 158.1.1 P 44 L 49 # 87

Remein, Duane Futurewei Technologies, Inc.

Comment Type T Comment Status D

These figure for BER and FLR are lower than what can be reasonably achieved for 10G links (see CI 52/59)

## SuggestedRemedy

Replace this section with:  
The bit error ratio (BER) shall be less than  $1 \times 10^{-12}$  at the PHY service interface.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.  
If we have a mandatory FEC then this can be less than  $1 \times 10^{-12}$ , how much is dependent on what FEC is selected.

CI 158 SC 158 P 46 L 18 # 88

Remein, Duane Futurewei Technologies, Inc.

Comment Type TR Comment Status D

If no comments against Figure 159-2 are received replace Figures 158-2 and 160-2 with a copy of Figure 159-2 with all text in black. Replace magenta text in Figure 159-2 with black. For Figure 160-2 Change "UNITDAT." to "UNITDATA\_0." in 2 places.

## SuggestedRemedy

per comment

Proposed Response Response Status W

PROPOSED ACCEPT.  
No comments have been received against Fig 159-2. Use in CI 158 & 160 with appropriate changes.

CI 158 SC 158.5.4 P 47 L 6 # 89

Remein, Duane Futurewei Technologies, Inc.

Comment Type E Comment Status D EZ

To what does "(1.10.0)" refer? The reader is left to wonder.

## SuggestedRemedy

Change to read "(MDIO register bit 1.10.0)"

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 158 SC 158.5.4 P 47 L 11 # 90

Remein, Duane Futurewei Technologies, Inc.

Comment Type E Comment Status D EZ

SIGNAL\_-  
DETECT crosses the line.

## SuggestedRemedy

make non-breaking here and at line 15

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 158 SC 158.5.4 P 47 L 26 # 91

Rerein, Duane Futurewei Technologies, Inc.

Comment Type E Comment Status D EZ

Table 158-5 should ref Tables 158-9 not Table 52-9, Table 52-13, or Table 52-17

*SuggestedRemedy*  
per comment

Proposed Response Response Status W  
PROPOSED ACCEPT.

CI 158 SC 158.5.6 P 47 L 52 # 92

Rerein, Duane Futurewei Technologies, Inc.

Comment Type E Comment Status D EZ

It just so happens that we do have variable mapping tables (see Table 158-3 & Table 158-4) which already include PMD\_global\_transmit\_disable.

*SuggestedRemedy*  
Remove the Ed Note & following sentence. Also:  
remove sentence at pg 48 line 16 beginning "If the MDIO interface is implemented, ...",  
remove Editor's Note at pg 48 line 24,  
remove sentence at pg 48 line 27 beginning "If the MDIO interface is implemented, ..."

Proposed Response Response Status W  
PROPOSED ACCEPT.

CI 158 SC 158.6 P 48 L 40 # 93

Rerein, Duane Futurewei Technologies, Inc.

Comment Type E Comment Status D EZ

Table 158-6 can be simplified.

*SuggestedRemedy*  
Change title to "10GBASE-BRx operating ranges"  
Merge upstream cells.  
Merge downstream cells.

Proposed Response Response Status W  
PROPOSED ACCEPT.

CI 158 SC 158.6.1 P 49 L 16 # 63

Shuai, Jialong Huawei

Comment Type TR Comment Status D WAN rate

There have agreed to re-use the LR and ER type PMD specifications. Therefore, the 10GBASE-BR10 are suggested to support both of SDH and Ethernet speeds.

*SuggestedRemedy*  
In Table 158-7, Split the 10GBASE-BR10-D into two columns in the rows for Signaling speed(nominal) and Signaling speed variation from nominal(max), Set Signaling speed(nominal) to 9.95328GBd and 10.3125GBd for each column. Set Signaling speed variation from nominal(max) to +/-20ppm and +/-100ppm for each column.

Proposed Response Response Status W  
PROPOSED REJECT.  
I don' t believe there was an intent to include the 10G WAN rate when the motion to accept the ER/LR PMD characteristics was passed (see Salt Lake motion 3#).

CI 158 SC 158.6.1 P 50 L 6 # 64

Shuai, Jialong Huawei

Comment Type TR Comment Status D WAN rate

There have agreed to re-use the LR and ER type PMD specifications. Therefore, the 10GBASE-BR10 are suggested to support both of SDH and Ethernet speeds.

*SuggestedRemedy*  
In Table 158-8, Split the 10GBASE-BR10-U into two columns in the rows for Signaling speed(nominal) and Signaling speed variation from nominal(max), Set Signaling speed(nominal) to 9.95328GBd and 10.3125GBd for each column. Set Signaling speed variation from nominal(max) to +/-20ppm and +/-100ppm for each column.

Proposed Response Response Status W  
PROPOSED REJECT.  
See response to comment #63.

CI 158 SC 158.6.2 P 51 L 9 # 65

Shuai, Jialong

Huawei

Comment Type TR Comment Status D WAN rate

There have agreed to re-use the LR and ER type PMD specifications. Therefore, the 10GBASE-BR10 are suggested to support both of SDH and Ethernet speeds.

*SuggestedRemedy*

In Table 158-9, Split the 10GBASE-BR10-D into two columns in the rows for Signaling speed(nominal) and Signaling speed variation from nominal(max), Set Signaling speed(nominal) to 9.95328GBd and 10.3125GBd for each column. Set Signaling speed variation from nominal(max) to +/-20ppm and +/-100ppm for each column.

Proposed Response Response Status W

PROPOSED REJECT.  
See response to comment #63.

CI 158 SC 158.6.2 P 52 L 6 # 66

Shuai, Jialong

Huawei

Comment Type TR Comment Status D WAN rate

There have agreed to re-use the LR and ER type PMD specifications. Therefore, the 10GBASE-BR10 are suggested to support both of SDH and Ethernet speeds.

*SuggestedRemedy*

In Table 158-10, Split the 10GBASE-BR10-U into two columns in the rows for Signaling speed(nominal) and Signaling speed variation from nominal(max), Set Signaling speed(nominal) to 9.95328GBd and 10.3125GBd for each column. Set Signaling speed variation from nominal(max) to +/-20ppm and +/-100ppm for each column.

Proposed Response Response Status W

PROPOSED REJECT.  
See response to comment #63.

CI 158 SC 158.8.4 P 56 L 16 # 94

Remein, Duane

Futurewei Technologies, Inc.

Comment Type T Comment Status D

This description for an OMA test procedure is essentially copied from CI 52.9.5 and needn't be copied verbatim.

*SuggestedRemedy*

Replace the text and figure using a cross reference by copying text from 159.7.4 here changing ref to 159.7.1 to 158.8.1 as shown below.

"OMA shall be as defined in 52.9.5 for measurement with a square wave (8 ones, 8 zeroes) test pattern or 68.6.2 (from the variable MeasuredOMA in 68.6.6.2) for measurement with a PRBS9 test pattern. See 158.8.1 for test pattern information."

Mark text as baseline (i.e., black)

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 158 SC 158.8.5 P 57 L 23 # 95

Remein, Duane

Futurewei Technologies, Inc.

Comment Type T Comment Status D

This description for a Transmitter and dispersion penalty test procedure is essentially copied from CI 52.9.10 and needn't be copied verbatim.

Note there are similar comments against 158.8.5.1, 158.8.5.3, and 158.8.5.4.

*SuggestedRemedy*

Replace with the text from 159.7.5 with appropriate changes as shown below.

"Transmitter and dispersion penalty (TDP) shall be as defined in 52.9.10 with the BER as specified in 158.1.1. The measurement procedure for 10GBASE-BRx is detailed in 158.8.5.1 to 158.8.5.4."

Mark text as baseline (i.e., black)

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 158 SC 158.8.5.1 P 57 L 33 # 96

Remein, Duane Futurewei Technologies, Inc.

Comment Type T Comment Status D

This description for a Reference transmitter requirements is essentially copied from CI 52.9.10.1 and needn't be copied verbatim.

*SuggestedRemedy*

Replace with:  
"The reference transmitter is as described in 52.9.10.1."  
Mark text as baseline (i.e., black)

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 158 SC 158.8.5.3 P 58 L 30 # 97

Remein, Duane Futurewei Technologies, Inc.

Comment Type T Comment Status D

This description for a Reference receiver requirements is essentially copied from CI 52.9.10.3 and needn't be copied verbatim.

*SuggestedRemedy*

Replace with:  
"The reference receiver is as described in 52.9.10.3."  
Mark text as baseline (i.e., black)

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 158 SC 158.8.5.4 P 58 L 51 # 98

Remein, Duane Futurewei Technologies, Inc.

Comment Type T Comment Status D

This description for a Test procedure is essentially copied from CI 52.9.10.4 and needn't be copied verbatim.

*SuggestedRemedy*

Replace with:  
"The test procedure is as described in 52.9.10.4 with the BER as specified in 158.1.1."  
Mark text as baseline (i.e., black)

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 158 SC 158.8.7 P 59 L 38 # 99

Remein, Duane Futurewei Technologies, Inc.

Comment Type T Comment Status D

This description for Transmitter optical waveform is essentially copied from CI 52.9.7 and needn't be copied verbatim.

*SuggestedRemedy*

Replace with:  
"The required optical transmitter pulse shape characteristics are specified in the form of a mask of the transmitter eye diagram as shown in Figure 52–8. The transmitter optical waveform of a port transmitting the test pattern specified in Table 158–15 shall meet specifications according to the methods specified in 52.9.10."  
Mark text as baseline (i.e., black)

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 158 SC 158.8.8 P 61 L 26 # 100

Remein, Duane Futurewei Technologies, Inc.

Comment Type T Comment Status D

This description for RINxOMA) measuring procedure is essentially copied from CI 52.9.6; Editor's Notes, Equations and Figure can be included by the existing ref to CI 52.9.6.

*SuggestedRemedy*

Remove per comment  
Mark text as baseline (i.e., black)

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 158 SC 158.8.9 P 61 L 45 # 101

Remein, Duane Futurewei Technologies, Inc.

Comment Type T Comment Status D

Accept text as baseline

*SuggestedRemedy*

Mark text as baseline (i.e., black)

Proposed Response Response Status W

PROPOSED ACCEPT.

EZ

CI 158 SC 158.8.10 P 62 L 2 # 102

Remein, Duane Futurewei Technologies, Inc.

Comment Type T Comment Status D

This description for Stressed receiver conformance test is essentially copied from CI 52.9.9; Editor's Notes, Equation and Figures can be included by the existing ref to CI 52.9.9.

*SuggestedRemedy*

Remove per comment  
Mark text as baseline (i.e., black)

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 158 SC 158.8.11 P 62 L 34 # 103

Remein, Duane Futurewei Technologies, Inc.

Comment Type T Comment Status D

This description for Measurement of the receiver 3 dB electrical upper cutoff frequency is essentially copied from CI 52.9.11; Editor's Notes, Equation and Figures can be included by the existing ref to CI 52.9.9.

*SuggestedRemedy*

Replace with:  
"The receiver 3 dB electrical upper cutoff frequency may be measured as described in 52.9.11 using the recommended patterns are test patterns 1 or 3 of 158.8.1, an appropriate PRBS, a valid 10GBASE-BRx signal, or another representative test pattern."  
Mark text as baseline (i.e., black)

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 158 SC 158.9.7 P 64 L 22 # 104

Remein, Duane Futurewei Technologies, Inc.

Comment Type E Comment Status D EZ

Stray 10GBASE-ER

*SuggestedRemedy*

Change to 10GBASE-BR20

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 158 SC 158.1 P 64 L 46 # 105

Remein, Duane Futurewei Technologies, Inc.

Comment Type T Comment Status D

I believe modal bandwidth is not applicable to SMF.

*SuggestedRemedy*

Change:  
"reflections, polarization mode dispersion and modal bandwidth" to  
"reflections, and polarization mode dispersion"

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 158 SC 158.10 P 65 L 1 # 106

Remein, Duane Futurewei Technologies, Inc.

Comment Type TR Comment Status D

Table 158-17 is not structured to match our selected PMDs and wavelengths. Similar issues with Table 159-11 and 160-14

*SuggestedRemedy*

See remein\_3cp\_3\_1907.pdf

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 158 SC 158.10 P 65 L 20 # 107

Remein, Duane Futurewei Technologies, Inc.

Comment Type E Comment Status D

Footnote f DGD is defined in CI 1.  
Same issue in Table 160-14 footnote c.

*SuggestedRemedy*

Change from:  
"Differential Group Delay (DGD) is the time difference at reception between the fractions of a pulse that were transmitted in the two principal states of polarization of an optical signal. DGD\_max is the maximum differential group delay that the system must tolerate." to  
"DGD\_max is the maximum differential group delay that the system must tolerate."

Proposed Response Response Status W

PROPOSED ACCEPT.

All comments

IEEE P802.3cp D0.2 Bidirectional 10 Gb/s, 25 Gb/s, and 50 Gb/s

Proposed Responses

CI 158 SC 158.11.2.1 P 66 L 14 # 108

Remein, Duane Futurewei Technologies, Inc.

Comment Type T Comment Status D

Wavelengths and distance here are not appropriate.

SuggestedRemedy

Change section to read:  
 "The maximum link distances for single-mode fiber are calculated based on an allocation of 2 dB total connection and splice loss at 1270 nm and 1330 nm for 10GBASE-BRx."  
 Mark text as baseline (i.e., black)

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 159 SC 159.1 P 71 L 13 # 109

Remein, Duane Futurewei Technologies, Inc.

Comment Type E Comment Status D EZ

Typos on generic PMD term.

SuggestedRemedy

Change "GBASE-BxR" to "GBASE-BRx" globally in the draft.

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 159 SC 159.1.1 P 72 L 43 # 110

Remein, Duane Futurewei Technologies, Inc.

Comment Type T Comment Status D

We should be able to meet the same error performance as other 25 Gb/s PHYs.

SuggestedRemedy

Remove magenta highlights from this section.

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 159 SC 159.3 P 73 L 10 # 111

Remein, Duane Futurewei Technologies, Inc.

Comment Type E Comment Status D EZ

This phrase "the 25GBASE-BR10, 25GBASE-BR20 or 25GBASE-BR40" can be simplified.

SuggestedRemedy

Replace with "a 25GBASE-BRx"

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 159 SC 159.5.1 P 74 L 24 # 112

Remein, Duane Futurewei Technologies, Inc.

Comment Type T Comment Status D

Accept figure as baseline; remove magenta highlights. Copy to Fig 158-2 and 160-2.

SuggestedRemedy

per comment

Proposed Response Response Status W

PROPOSED ACCEPT.  
 See comment #88

CI 159 SC 159.5.4 P 75 L 26 # 113

Remein, Duane Futurewei Technologies, Inc.

Comment Type E Comment Status D

Input signal should not be compliant 25GBASE-R.

SuggestedRemedy

Change "25GBASE-R" to "25GBASE-BRx", Remove magenta highlight.

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 159 SC 159.5.5 P 75 L 43 # 114

Remein, Duane Futurewei Technologies, Inc.

Comment Type E Comment Status D EZ

It just so happens that we have variable mapping tables (see Table 159-2 & Table 159-3) thus, phrase such as "If the MDIO interface is implemented" can be removed.

*SuggestedRemedy*

Strike the phrase "If the MDIO interface is implemented, and" and the sentences beginning "If the MDIO interface is implemented, ..." at:

Pg 76 line 10,  
Pg 76 line 15, and  
Pg 76 line 25

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 159 SC 159.5.7 P 76 L 10 # 115

Remein, Duane Futurewei Technologies, Inc.

Comment Type E Comment Status D

This sentence is not needed: "If the MDIO interface is implemented, PMD\_transmit\_fault shall be mapped to the transmit fault bit as specified in 45.2.1.7.4."

*SuggestedRemedy*

Strike.

Proposed Response Response Status W

PROPOSED ACCEPT.  
See tables 159-2/3

CI 159 SC 159.6 P 76 L 51 # 116

Remein, Duane Futurewei Technologies, Inc.

Comment Type T Comment Status D

Assuming we accept that access products should not require engineered links footnote "b" in Table 159-5 should be removed.

*SuggestedRemedy*

remove footnote

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 159 SC 159.6.1 P 77 L 4 # 117

Remein, Duane Futurewei Technologies, Inc.

Comment Type E Comment Status D

Two references to table 159-7 are not needed, one for 159-6 is.

*SuggestedRemedy*

Here change "Table 159-7 and Table 159-7 " to "Table 159-6 or Table 159-7, as appropriate, "

Search for other references to Table 159-6 or 159-7 which don't reference both tables and update as appropriate.

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 159 SC 159.6.1 P 77 L 17 # 67

Shuai, Jialong Huawei

Comment Type TR Comment Status D

The values of Center wavelength(range) of 25GBASE-BR10-D in Table 159-6 has been recommended to be set as page 4 of Shuai\_3cp\_02\_0519.pdf.

*SuggestedRemedy*

In Table 159-6, Set Center wavelength(range) to "1320 to 1340" for 25GBASE-BR10-D.

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 159 SC 159.6.2 P 77 L 53 # 118

Remein, Duane Futurewei Technologies, Inc.

Comment Type E Comment Status D EZ

We should reference both D & U Rx tables

*SuggestedRemedy*

Change "specifications in Table 159-8" to "specifications in Table 159-8 or Table 159-9" Search for other references to Table 159-8 or 159-9 which don't reference both tables and update as appropriate.

Proposed Response Response Status W

PROPOSED ACCEPT.

## All comments

## IEEE P802.3cp D0.2 Bidirectional 10 Gb/s, 25 Gb/s, and 50 Gb/s

## Proposed Responses

CI 159 SC 159.6.2 P 78 L 8 # 68

Shuai, Jialong

Huawei

Comment Type TR Comment Status D

The values of Center wavelength(range) of 25GBASE-BR10-U in Table 159-7 has been recommended to be set as page 4 of Shuai\_3cp\_02\_0519.pdf.

*SuggestedRemedy*

In Table 159-7, Set Center wavelength(range) to "1260 to 1280" for 25GBASE-BR10-U.

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 159 SC 159.6.3 P 79 L 8 # 69

Shuai, Jialong

Huawei

Comment Type TR Comment Status D

The values of Center wavelength(range) of 25GBASE-BR10-D in Table 159-8 has been recommended to be set as page 4 of Shuai\_3cp\_02\_0519.pdf.

*SuggestedRemedy*

In Table 159-8, Set Center wavelength(range) to "1260 to 1280" for 25GBASE-BR10-D.

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 159 SC 159.6.2 P 80 L 1 # 119

Remein, Duane

Futurewei Technologies, Inc.

Comment Type E Comment Status D EZ

Title to table 159-9 should be "25GBASE-BRx-U receive characteristics" (U is missing)

*SuggestedRemedy*

per comment

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 159 SC 159.6.3 P 80 L 8 # 70

Shuai, Jialong

Huawei

Comment Type TR Comment Status D

The values of Center wavelength(range) of 25GBASE-BR10-U in Table 159-9 has been recommended to be set as page 4 of Shuai\_3cp\_02\_0519.pdf.

*SuggestedRemedy*

In Table 159-9, Set Center wavelength(range) to "1320 to 1340" for 25GBASE-BR10-U.

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 159 SC 159.6.3 P 81 L 22 # 120

Remein, Duane

Futurewei Technologies, Inc.

Comment Type T Comment Status D

Assuming we accept that access products should not require engineered links footnote "a" in Table 159-10 should be removed.

*SuggestedRemedy*

remove footnote

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 159 SC 159.8 P 85 L 2 # 121

Remein, Duane

Futurewei Technologies, Inc.

Comment Type E Comment Status D E#Z

Accept this text as baseline, remove magenta highlight and Editor's Note.

*SuggestedRemedy*

per comment

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 159 SC 159.9 P 85 L 19 # 122

Remein, Duane

Futurewei Technologies, Inc.

Comment Type E Comment Status D EZ

Why does BR20 have to go 30 km?

*SuggestedRemedy*

Change to 20

Proposed Response Response Status W

PROPOSED ACCEPT.

## All comments

## IEEE P802.3cp D0.2 Bidirectional 10 Gb/s, 25 Gb/s, and 50 Gb/s

## Proposed Responses

Cl 159 SC 159.10 P 85 L 52 # 123

Remein, Duane Futurewei Technologies, Inc.

Comment Type E Comment Status D

We have a discrete reflectance table to BR10 & BR40 but nothing for BR20.

## SuggestedRemedy

Add editors' Note:

"Editor's Note: a table for Maximum channel insertion loss versus number of discrete reflectances for 25GBASE-BR20 may be needed.

Proposed Response Response Status W

PROPOSED ACCEPT.

Cl 159 SC 159.11 P 86 L 46 # 124

Remein, Duane Futurewei Technologies, Inc.

Comment Type T Comment Status D

Assuming we accept that access products should not require engineered links the statement "(over an engineered link)" should be removed.

Other than that this section should be accepted as baseline (remove magenta highlights).

## SuggestedRemedy

per comment

Proposed Response Response Status W

PROPOSED ACCEPT.

Cl 160 SC 160 P 91 L 3 # 125

Remein, Duane Futurewei Technologies, Inc.

Comment Type E Comment Status D

EZ

Remove "Editor's Note: To Do's:  
1) copy Editor's notes from 114"

## SuggestedRemedy

per comment

Proposed Response Response Status W

PROPOSED ACCEPT.

Cl 160 SC 160.2 P 93 L 20 # 126

Remein, Duane Futurewei Technologies, Inc.

Comment Type T Comment Status D EZ

PMD:IS\_UNITDATA\_i.request should be PMD:IS\_UNITDATA\_0.request and  
PMD:IS\_UNITDATA\_i.indication s/b PMD:IS\_UNITDATA\_0.indication

## SuggestedRemedy

per comment

Proposed Response Response Status W

PROPOSED ACCEPT.

Cl 160 SC 160.5.4 P 95 L 14 # 127

Remein, Duane Futurewei Technologies, Inc.

Comment Type E Comment Status D EZ

PMD:IS\_SIGNAL.indica-  
tion (line 14), SIGNAL\_DE-  
TECT(line 15), SIGNAL\_  
DETECT (line 19),and SIGNAL\_  
DETECT (line 40) shouldn't cross the line.

## SuggestedRemedy

make parameters non-breaking

Proposed Response Response Status W

PROPOSED ACCEPT.

Cl 160 SC 160.5.4 P 95 L 21 # 128

Remein, Duane Futurewei Technologies, Inc.

Comment Type T Comment Status D EZ

"50GBASE-R" s/b "50GBASE-BRx"

## SuggestedRemedy

per comment

Proposed Response Response Status W

PROPOSED ACCEPT.

Cl 160 SC 160.5.6 P 96 L 7 # 129

Remein, Duane Futurewei Technologies, Inc.

Comment Type E Comment Status D EZ

Most references to Table 160-6 should also reference 160-7.

*SuggestedRemedy*

Selectively added a ref (e.g., "or Table 160-7") where appropriate.  
Search for other references to Table 160-68 or 160-9 which don't reference both tables and update as appropriate.

Proposed Response Response Status W

PROPOSED ACCEPT.

Cl 160 SC 160.6 P 96 L 43 # 130

Remein, Duane Futurewei Technologies, Inc.

Comment Type TR Comment Status D

10GBASE-BR10 does not have a 2 m to 2 km operating range requirement but a 2 m to 10 km one.

*SuggestedRemedy*

Change "2 m to 2 km" to 2 m to 10 km"  
Remove magenta highlights for this para except for "type B1.1, B1.3, or B6\_a single-mode fibers"

Proposed Response Response Status W

PROPOSED ACCEPT.

Cl 160 SC 160.6 P 97 L 11 # 131

Remein, Duane Futurewei Technologies, Inc.

Comment Type TR Comment Status D

We have stated that access links need to be plug and play and not "engineered".

*SuggestedRemedy*

Removed footnote "b" from Table 160-5.  
Remove magenta highlights from table (leave footnote a highlighted).

Proposed Response Response Status W

PROPOSED ACCEPT.

Cl 160 SC 160.6.1 P 97 L 21 # 132

Remein, Duane Futurewei Technologies, Inc.

Comment Type T Comment Status D

This para can be greatly simplified.

*SuggestedRemedy*

Change from:  
"The 50GBASE-BR10 transmitter shall meet the specifications defined in Table 160-6 per the definitions in 160.7. The 50GBASE-BR20 transmitter shall meet the specifications defined in Table 160-6 per the definitions in 160.7. The 50GBASE-BR40 transmitter shall meet the specifications defined in Table 160-6 per the definitions in 160.7." to  
"The 50GBASE-BRx transmitters shall meet the specifications defined in Table 160-6 or Table 160-8, as applicable, per the definitions in 160.7."

Proposed Response Response Status W

PROPOSED ACCEPT.

Cl 160 SC 160.6.1 P 97 L 37 # 71

Shuai, Jialong Huawei

Comment Type TR Comment Status D 50G lambda

The values of Wavelengths(range) in Table 160-6 have been recommended to be set as page 6 of 190114\_Baseline proposal-50G BIDI 2019.1.11.pdf

*SuggestedRemedy*

In Table 160-6, Set Wavelengths(range) to "1324.5 to 1337.5" and "1306.29 to 1310.19" for 50GBASE-BR10-D and 50GBASE-BR40-D respectively.

Proposed Response Response Status W

PROPOSED ACCEPT.

The TF should consider adopting either the BR10 or BR40 wavelength plan for the BR25 PMD

## All comments

## IEEE P802.3cp D0.2 Bidirectional 10 Gb/s, 25 Gb/s, and 50 Gb/s

## Proposed Responses

Cl 160 SC 160.6.1 P 98 L 30 # 72

Shuai, Jialong

Huawei

Comment Type TR Comment Status D 50G lambda

The values of Wavelengths(range) in Table 160-7 have been recommended to be set as page 6 of 190114\_Baseline proposal-50G BIDI 2019.1.11.pdf

## SuggestedRemedy

In Table 160-7, Set Wavelengths(range) to "1264.5 to 1277.5" and "1292.21 to 1296.59" for 50GBASE-BR10-U and 50GBASE-BR40-U respectively.

Proposed Response Response Status W

PROPOSED ACCEPT.

The TF should consider adopting either the BR10 or BR40 wavelength plan for the BR25 PMD

Cl 160 SC 160.6.2 P 99 L 37 # 73

Shuai, Jialong

Huawei

Comment Type TR Comment Status D 50G lambda

The values of Wavelengths(range) in Table 160-8 have been recommended to be set as page 7 of 190114\_Baseline proposal-50G BIDI 2019.1.11.pdf

## SuggestedRemedy

In Table 160-8, Set Wavelengths(range) to "1264.5 to 1277.5" and "1292.21 to 1296.59" for 50GBASE-BR10-D and 50GBASE-BR40-D respectively.

Proposed Response Response Status W

PROPOSED ACCEPT.

The TF should consider adopting either the BR10 or BR40 wavelength plan for the BR25 PMD

Cl 160 SC 160.6.2 P 100 L 19 # 74

Shuai, Jialong

Huawei

Comment Type TR Comment Status D 50G lambda

The values of Wavelengths(range) in Table 160-9 have been recommended to be set as page 7 of 190114\_Baseline proposal-50G BIDI 2019.1.11.pdf

## SuggestedRemedy

In Table 160-9, Set Wavelengths(range) to "1324.5 to 1337.5" and "1306.29 to 1310.19" for 50GBASE-BR10-U and 50GBASE-BR40-U respectively.

Proposed Response Response Status W

PROPOSED ACCEPT.

The TF should consider adopting either the BR10 or BR40 wavelength plan for the BR25 PMD

Cl 160 SC 160.6.3 P 101 L 6 # 75

Shuai, Jialong

Huawei

Comment Type TR Comment Status D

There have agreed to re-use the LR and ER type PMD specifications. Therefore, the magenta values in Table 160-10 can be removed and consistent with 50GBASE-LR and 50GBASE-ER respectively.

## SuggestedRemedy

In Table 160-10 Column 50GBASE-BR10, set Power budget (for maximum TDECQ) to 10.1dB  
Operating distance to 10km  
Channel insertion loss to 6.3dB  
Maximum discrete reflectance to See 160.10.2.2  
Allocation for penalties (for maximum TDECQ) to 3.8  
Additional insertion loss allowed to 0

In Table 160-10,

Set Power budget (for maximum TDECQ) to 21.7dB for 50GBASE-BR40  
Split the 50GBASE-BR40 column into two columns, set Operating distance to 30km and 40km for each column respectively with footnote:"Links longer than 30 km are considered engineered links. Attenuation for such links needs to be less than the worst case for cables containing IEC 60793-2-50 type B1.1, type B1.3, or type B6\_a single-mode cabled optical fiber."

Split the 50GBASE-BR40 column into two columns, set Channel insertion loss to 15dB and 18dB for 30km and 40km respectively

Set Maximum discrete reflectance to See 160.10.2.2 for 50GBASE-BR40

Set Allocation for penalties (for maximum TDECQ) to 3.7dB for 50GBASE-BR40 Split the 50GBASE-BR40 column into two columns, set Additional insertion loss to 3dB and 0dB for 30km and 40km respectively

Proposed Response Response Status W

PROPOSED ACCEPT.

Cl 160 SC 160.7.1 P 102 L 14 # 133

Remein, Duane

Futurewei Technologies, Inc.

Comment Type E Comment Status D EZ

Outer OMA should point to 160.7.4 not 160.7.3

## SuggestedRemedy

per comment

Proposed Response Response Status W

PROPOSED ACCEPT.

Cl 160 SC 160.7.5.2 P 104 L 31 # 76

Shuai, Jialong

Huawei

Comment Type TR Comment Status D

The dispersion coefficients and optical return loss of 50GBASE-BR40 in Table 160-13 are incorrect.

*SuggestedRemedy*

In Table 160-13 Dispersion(ps/nm) Column, Change 0.2325 to 0.93. In Table 160-13 Optical return loss Column, Change 15.6dB to 15dB.

Proposed Response Response Status W

PROPOSED ACCEPT.

Cl 160 SC 160.7.5.2 P 104 L 48 # 134

Remein, Duane

Futurewei Technologies, Inc.

Comment Type E Comment Status D

EZ

The abbreviation DGD has not been introduced.

*SuggestedRemedy*

Change "DGD" to "differential group delay (DGD)"

Proposed Response Response Status W

PROPOSED ACCEPT.

Cl 160 SC 160.9 P 111 L 5 # 77

Shuai, Jialong

Huawei

Comment Type TR Comment Status D

There have agreed to re-use the LR and ER type PMD specifications. Therefore, the magenta values in Table 160-14 can be removed and consistent with 50GBASE-LR and 50GBASE-ER respectively.

*SuggestedRemedy*

In Table 160-14 Column 50GBASE-BR10, set  
Operating distance(max) to 10km Channel insertion loss(max) to 6.3dB  
Channel insertion loss(min) to 0dB  
Positive dispersion(max) to 16ps/nm  
Negative dispersion(min) to 18.6ps/nm  
DGD\_max to 8ps  
Optical return loss(min) to 22dB

In Table 160-10 Column 50GBASE-BR40  
In row for Operating distance(max),split the 50GBASE-BR40 column into two columns, set  
Operating distance(max) to 30km and 40km for each column respectively with  
footnote:"Links longer than 30 km are considered engineered links. Attenuation for such  
links needs to be less than the worst case for cables containing IEC 60793-2-50 type B1.1,  
type B1.3, or type B6\_a single-mode cabled optical fiber."  
set Channel insertion loss(max) to 18dB  
set Channel insertion loss(min) to 10dB with footnote "Channel insertion loss (min) may be  
implemented with an optical attenuator."  
In row for Positive dispersion(max),split the 50GBASE-BR40 column into two columns, set  
Positive dispersion(max) to 48ps/nm and 64ps/nm for 30km and 40km respectively.  
In row for Positive dispersion(min),split the 50GBASE-BR40 column into two columns, set  
Positive dispersion(min) to -56ps/nm and -74ps/nm for 30km and 40km respectively.  
set DGD\_max to 10.3ps  
set Optical return loss(min) to 19dB

Proposed Response Response Status W

PROPOSED ACCEPT.

Cl 160 SC 160.9 P 111 L 5 # 135

Remein, Duane

Futurewei Technologies, Inc.

Comment Type TR Comment Status D

Operating distance (max) seems somewhat shor.

*SuggestedRemedy*

Change from:  
"Operating distance (max) | 2 | | 10 | km" to  
"Operating distance (max) | 10 | 20 | 40 | km" to

Proposed Response Response Status W

PROPOSED ACCEPT.

Cl 160 SC 160.10.2.2 P 112 L 27 # 78

Shuai, Jialong Huawei

Comment Type TR Comment Status D

Some values of Maximum value for each discrete reflectance of 50GBASE-BR40 listed in first three rows in Table 160-16 are inconsistent with 50GBASE-ER spec.

SuggestedRemedy

In Table 160-16 column 50GBASE-BR40, Change -22dB to -19dB, -29dB to -27dB and -33dB to -32dB in 50GBASE-BR40 column.

Proposed Response Response Status W

PROPOSED ACCEPT.