*Cl* **45** *SC* **45.2.1.27a** *P* **28** *L* **9** # 79

Remein, Duane Futurewei Technologies, Inc.

*Comment Type* **E** *Comment Status* **X**

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

*SuggestedRemedy*

per comment

*Proposed Response* *Response Status* **O**

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

Remein, Duane Futurewei Technologies, Inc.

*Comment Type* **ER** *Comment Status* **X**

PMD names in did not all get updated correctly.

*SuggestedRemedy*

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

*Proposed Response* *Response Status* **O**

*Cl* **45** *SC* **45.2.1.27b** *P* **30** *L* **9** # 81

Remein, Duane Futurewei Technologies, Inc.

*Comment Type* **E** *Comment Status* **X**

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

*SuggestedRemedy*

per comment

*Proposed Response* *Response Status* **O**

*Cl* **56** *SC* **56.1.3** *P* **37** *L* **5** # 82

Remein, Duane Futurewei Technologies, Inc.

*Comment Type* **E** *Comment Status* **X**

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* **O**

*Cl* **157** *SC* **157** *P* **39** *L* **9** # 83

Remein, Duane Futurewei Technologies, Inc.

*Comment Type* **TR** *Comment Status* **X**

Cl 157 missing most content.

*SuggestedRemedy*

see remein_3cp_1_1907.pdf

*Proposed Response* *Response Status* **O**

*Cl* **158** *SC* **158** *P* **43** *L* **6** # 84

Remein, Duane Futurewei Technologies, Inc.

*Comment Type* **E** *Comment Status* **X**

Remove editing instruction (exits in front of Cl 157)

*SuggestedRemedy*

per comment

*Proposed Response* *Response Status* **O**

*Cl* **158** *SC* **158.1** *P* **43** *L* **29** # 85

Remein, Duane Futurewei Technologies, Inc.

*Comment Type* **E** *Comment Status* **X**

Table 158-1 was carried over from Cl 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* **O**

*Cl* **158** *SC* **158.1** *P* **43** *L* **46** # 86

Remein, Duane Futurewei Technologies, Inc.

*Comment Type* **E** *Comment Status* **X**

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

*SuggestedRemedy*

Remove magenta highlights

*Proposed Response* *Response Status* **O**

*Cl* **158** *SC* **158.1.1** *P* **44** *L* **49** # 87

Remein, Duane Futurewei Technologies, Inc.

*Comment Type* **T** *Comment Status* **X**

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

*SuggestedRemedy*

Replace this section with:
The bit error ratio (BER) shall be less than 1 x 10-12 at the PHY service interface.

*Proposed Response* *Response Status* **O**

*Cl* **158** *SC* **158** *P* **46** *L* **18** # 88

Remein, Duane Futurewei Technologies, Inc.

*Comment Type* **TR** *Comment Status* **X**

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* **O**

*Cl* **158** *SC* **158.5.4** *P* **47** *L* **6** # 89

Remein, Duane Futurewei Technologies, Inc.

*Comment Type* **E** *Comment Status* **X**

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* **O**

*Cl* **158** *SC* **158.5.4** *P* **47** *L* **11** # 90

Remein, Duane Futurewei Technologies, Inc.

*Comment Type* **E** *Comment Status* **X**

SIGNAL_-
DETECT crosses the line.

*SuggestedRemedy*

make non-breaking here and at line 15

*Proposed Response* *Response Status* **O**

*Cl* **158** *SC* **158.5.4** *P* **47** *L* **26** # 91

Remein, Duane Futurewei Technologies, Inc.

*Comment Type* **E** *Comment Status* **X**

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* **O**

*Cl* **158** *SC* **158.5.6** *P* **47** *L* **52** # 92

Remein, Duane Futurewei Technologies, Inc.

*Comment Type* **E** *Comment Status* **X**

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* **O**

*Cl* **158** *SC* **158.6** *P* **48** *L* **40** # 93

Remein, Duane Futurewei Technologies, Inc.

*Comment Type* **E** *Comment Status* **X**

Table 158-6 can be simplified.

*SuggestedRemedy*

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

*Proposed Response* *Response Status* **O**

*Cl* **158** *SC* **158.6.1** *P* **49** *L* **16** # 63

Shuai, Jialong Huawei

*Comment Type* **TR** *Comment Status* **X**

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* **O**

*Cl* **158** *SC* **158.6.1** *P* **50** *L* **6** # 64

Shuai, Jialong Huawei

*Comment Type* **TR** *Comment Status* **X**

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* **O**

*Cl* **158** *SC* **158.6.2** *P* **51** *L* **9** # 65

Shuai, Jialong Huawei

*Comment Type* **TR** *Comment Status* **X**

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* **O**

*Cl* **158** *SC* **158.6.2** *P* **52** *L* **6** # 66

Shuai, Jialong Huawei

*Comment Type* **TR** *Comment Status* **X**

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* **O**

*Cl* **158** *SC* **158.8.4** *P* **56** *L* **16** # 94

Remein, Duane Futurewei Technologies, Inc.

*Comment Type* **T** *Comment Status* **X**

This description for an OMA test procedure is essentially copied from Cl 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* **O**

*Cl* **158** *SC* **158.8.5** *P* **57** *L* **23** # 95

Remein, Duane Futurewei Technologies, Inc.

*Comment Type* **T** *Comment Status* **X**

This description for a Transmitter and dispersion penalty test procedure is essentially copied from Cl 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* **O**

*Cl* **158** *SC* **158.8.5.1** *P* **57** *L* **33** # 96

Remein, Duane Futurewei Technologies, Inc.

*Comment Type* **T** *Comment Status* **X**

This description for a Reference transmitter requirements is essentially copied from Cl 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* **O**

*Cl* **158** *SC* **158.8.5.3** *P* **58** *L* **30** # 97

Remein, Duane Futurewei Technologies, Inc.

*Comment Type* **T** *Comment Status* **X**

This description for a Reference receiver requirements is essentially copied from Cl 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* **O**

*Cl* **158** *SC* **158.8.5.4** *P* **58** *L* **51** # 98

Remein, Duane Futurewei Technologies, Inc.

*Comment Type* **T** *Comment Status* **X**

This description for a Test procedure is essentially copied from Cl 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* **O**

*Cl* **158** *SC* **158.8.7** *P* **59** *L* **38** # 99

Remein, Duane Futurewei Technologies, Inc.

*Comment Type* **T** *Comment Status* **X**

This description for Transmitter optical waveform is essentially copied from Cl 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* **O**

*Cl* **158** *SC* **158.8.8** *P* **61** *L* **26** # 100

Remein, Duane Futurewei Technologies, Inc.

*Comment Type* **T** *Comment Status* **X**

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

*SuggestedRemedy*

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

*Proposed Response* *Response Status* **O**

*Cl* **158** *SC* **158.8.9** *P* **61** *L* **45** # 101

Remein, Duane Futurewei Technologies, Inc.

*Comment Type* **T** *Comment Status* **X**

Accept text as baseline

*SuggestedRemedy*

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

*Proposed Response* *Response Status* **O**

*Cl* **158** *SC* **158.8.10** *P* **62** *L* **2** # 102

Remein, Duane Futurewei Technologies, Inc.

*Comment Type* **T** *Comment Status* **X**

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

*SuggestedRemedy*

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

*Proposed Response* *Response Status* **O**

*Cl* **158** *SC* **158.8.11** *P* **62** *L* **34** # 103

Remein, Duane Futurewei Technologies, Inc.

*Comment Type* **T** *Comment Status* **X**

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

*Cl* **158** *SC* **158.9.7** *P* **64** *L* **22** # 104

Remein, Duane Futurewei Technologies, Inc.

*Comment Type* **E** *Comment Status* **X**

Stray 10GBASE-ER

*SuggestedRemedy*

Change to 10GBASE-BR20

*Proposed Response* *Response Status* **O**

*Cl* **158** *SC* **158.1** *P* **64** *L* **46** # 105

Remein, Duane Futurewei Technologies, Inc.

*Comment Type* **T** *Comment Status* **X**

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* **O**

*Cl* **158** *SC* **158.10** *P* **65** *L* **1** # 106

Remein, Duane Futurewei Technologies, Inc.

*Comment Type* **TR** *Comment Status* **X**

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* **O**

*Cl* **158** *SC* **158.10** *P* **65** *L* **20** # 107

Remein, Duane Futurewei Technologies, Inc.

*Comment Type* **E** *Comment Status* **X**

Footnote f DGD is defined in Cl 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* **O**

*Cl* **158** *SC* **158.11.2.1** *P* **66** *L* **14** # 108

Remein, Duane Futurewei Technologies, Inc.

*Comment Type* **T** *Comment Status* **X**

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* **O**

*Cl* **159** *SC* **159.1** *P* **71** *L* **13** # 109

Remein, Duane Futurewei Technologies, Inc.

*Comment Type* **E** *Comment Status* **X**

Typos on generic PMD term.

*SuggestedRemedy*

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

*Proposed Response* *Response Status* **O**

*Cl* **159** *SC* **159.1.1** *P* **72** *L* **43** # 110

Remein, Duane Futurewei Technologies, Inc.

*Comment Type* **T** *Comment Status* **X**

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* **O**

*Cl* **159** *SC* **159.3** *P* **73** *L* **10** # 111

Remein, Duane Futurewei Technologies, Inc.

*Comment Type* **E** *Comment Status* **X**

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

*SuggestedRemedy*

Replace with "a 25GBASE-BRx"

*Proposed Response* *Response Status* **O**

*Cl* **159** *SC* **159.5.1** *P* **74** *L* **24** # 112

Remein, Duane Futurewei Technologies, Inc.

*Comment Type* **T** *Comment Status* **X**

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

*SuggestedRemedy*

per comment

*Proposed Response* *Response Status* **O**

*Cl* **159** *SC* **159.5.4** *P* **75** *L* **26** # 113

Remein, Duane Futurewei Technologies, Inc.

*Comment Type* **E** *Comment Status* **X**

Input signal should not be compliant 25GBASE-R.

*SuggestedRemedy*

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

*Proposed Response* *Response Status* **O**

*Cl* **159** *SC* **159.5.5** *P* **75** *L* **43** # 114

Remein, Duane Futurewei Technologies, Inc.

*Comment Type* **E** *Comment Status* **X**

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* **O**

*Cl* **159** *SC* **159.5.7** *P* **76** *L* **10** # 115

Remein, Duane Futurewei Technologies, Inc.

*Comment Type* **E** *Comment Status* **X**

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* **O**

*Cl* **159** *SC* **159.6** *P* **76** *L* **51** # 116

Remein, Duane Futurewei Technologies, Inc.

*Comment Type* **T** *Comment Status* **X**

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* **O**

*Cl* **159** *SC* **159.6.1** *P* **77** *L* **4** # 117

Remein, Duane Futurewei Technologies, Inc.

*Comment Type* **E** *Comment Status* **X**

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* **O**

*Cl* **159** *SC* **159.6.1** *P* **77** *L* **17** # 67

Shuai, Jialong Huawei

*Comment Type* **TR** *Comment Status* **X**

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* **O**

*Cl* **159** *SC* **159.6.2** *P* **77** *L* **53** # 118

Remein, Duane Futurewei Technologies, Inc.

*Comment Type* **E** *Comment Status* **X**

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* **O**

*Cl* **159** *SC* **159.6.2** *P* **78** *L* **8** # 68

Shuai, Jialong Huawei

*Comment Type* **TR** *Comment Status* **X**

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* **O**

*Cl* **159** *SC* **159.6.3** *P* **79** *L* **8** # 69

Shuai, Jialong Huawei

*Comment Type* **TR** *Comment Status* **X**

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* **O**

*Cl* **159** *SC* **159.6.2** *P* **80** *L* **1** # 119

Remein, Duane Futurewei Technologies, Inc.

*Comment Type* **E** *Comment Status* **X**

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

*SuggestedRemedy*

per comment

*Proposed Response* *Response Status* **O**

*Cl* **159** *SC* **159.6.3** *P* **80** *L* **8** # 70

Shuai, Jialong Huawei

*Comment Type* **TR** *Comment Status* **X**

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* **O**

*Cl* **159** *SC* **159.6.3** *P* **81** *L* **22** # 120

Remein, Duane Futurewei Technologies, Inc.

*Comment Type* **T** *Comment Status* **X**

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* **O**

*Cl* **159** *SC* **159.8** *P* **85** *L* **2** # 121

Remein, Duane Futurewei Technologies, Inc.

*Comment Type* **E** *Comment Status* **X**

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

*SuggestedRemedy*

per comment

*Proposed Response* *Response Status* **O**

*Cl* **159** *SC* **159.9** *P* **85** *L* **19** # 122

Remein, Duane Futurewei Technologies, Inc.

*Comment Type* **E** *Comment Status* **X**

Why does BR20 have to go 30 km?

*SuggestedRemedy*

Change to 20

*Proposed Response* *Response Status* **O**

*Cl* **159** *SC* **159.10** *P* **85** *L* **52** # 123

Remein, Duane Futurewei Technologies, Inc.

*Comment Type* **E** *Comment Status* **X**

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* **O**

*Cl* **159** *SC* **159.11** *P* **86** *L* **46** # 124

Remein, Duane Futurewei Technologies, Inc.

*Comment Type* **T** *Comment Status* **X**

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* **O**

*Cl* **160** *SC* **160** *P* **91** *L* **3** # 125

Remein, Duane Futurewei Technologies, Inc.

*Comment Type* **E** *Comment Status* **X**

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

*SuggestedRemedy*

per comment

*Proposed Response* *Response Status* **O**

*Cl* **160** *SC* **160.2** *P* **93** *L* **20** # 126

Remein, Duane Futurewei Technologies, Inc.

*Comment Type* **T** *Comment Status* **X**

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* **O**

*Cl* **160** *SC* **160.5.4** *P* **95** *L* **14** # 127

Remein, Duane Futurewei Technologies, Inc.

*Comment Type* **E** *Comment Status* **X**

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* **O**

*Cl* **160** *SC* **160.5.4** *P* **95** *L* **21** # 128

Remein, Duane Futurewei Technologies, Inc.

*Comment Type* **T** *Comment Status* **X**

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

*SuggestedRemedy*

per comment

*Proposed Response* *Response Status* **O**

*Cl* **160** *SC* **160.5.6** *P* **96** *L* **7** # 129

Remein, Duane Futurewei Technologies, Inc.

*Comment Type* **E** *Comment Status* **X**

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* **O**

*Cl* **160** *SC* **160.6** *P* **96** *L* **43** # 130

Remein, Duane Futurewei Technologies, Inc.

*Comment Type* **TR** *Comment Status* **X**

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* **O**

*Cl* **160** *SC* **160.6** *P* **97** *L* **11** # 131

Remein, Duane Futurewei Technologies, Inc.

*Comment Type* **TR** *Comment Status* **X**

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* **O**

*Cl* **160** *SC* **160.6.1** *P* **97** *L* **21** # 132

Remein, Duane Futurewei Technologies, Inc.

*Comment Type* **T** *Comment Status* **X**

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* **O**

*Cl* **160** *SC* **160.6.1** *P* **97** *L* **37** # 71

Shuai, Jialong Huawei

*Comment Type* **TR** *Comment Status* **X**

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* **O**

*Cl* **160** *SC* **160.6.1** *P* **98** *L* **30** # 72

Shuai, Jialong Huawei

*Comment Type* **TR** *Comment Status* **X**

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* **O**

*Cl* **160** *SC* **160.6.2** *P* **99** *L* **37** # 73

Shuai, Jialong Huawei

*Comment Type* **TR** *Comment Status* **X**

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* **O**

*Cl* **160** *SC* **160.6.2** *P* **100** *L* **19** # 74

Shuai, Jialong Huawei

*Comment Type* **TR** *Comment Status* **X**

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* **O**

*Cl* **160** *SC* **160.6.3** *P* **101** *L* **6** # 75

Shuai, Jialong Huawei

*Comment Type* **TR** *Comment Status* **X**

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
Allocatioin 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 Allocatioin 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* **O**

*Cl* **160** *SC* **160.7.1** *P* **102** *L* **14** # 133

Remein, Duane Futurewei Technologies, Inc.

*Comment Type* **E** *Comment Status* **X**

Outer OMA should point to 160.7.4 not 160.7.3

*SuggestedRemedy*

per comment

*Proposed Response* *Response Status* **O**

*Cl* **160** *SC* **160.7.5.2** *P* **104** *L* **31** # 76

Shuai, Jialong Huawei

*Comment Type* **TR** *Comment Status* **X**

The dispersion coeffecients 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* **O**

*Cl* **160** *SC* **160.7.5.2** *P* **104** *L* **48** # 134

Remein, Duane Futurewei Technologies, Inc.

*Comment Type* **E** *Comment Status* **X**

The abbreviation DGD has not been introduced.

*SuggestedRemedy*

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

*Proposed Response* *Response Status* **O**

*Cl* **160** *SC* **160.9** *P* **111** *L* **5** # 77

Shuai, Jialong Huawei

*Comment Type* **TR** *Comment Status* **X**

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* **O**

*Cl* **160** *SC* **160.9** *P* **111** *L* **5** # 135

Remein, Duane Futurewei Technologies, Inc.

*Comment Type* **TR** *Comment Status* **X**

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* **O**

*Cl* **160** *SC* **160.10.2.2** *P* **112** *L* **27** # 78

Shuai, Jialong Huawei

*Comment Type* **TR** *Comment Status* **X**

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* **O**