

IEEE P802.3cp D2.0 BiDi 10/25/50 Gb/s Optical Access PHYs Initial Working Group ballot comments

Cl 45 SC 45.2.1.27a.4 P29 L25 # 168

Dudek, Mike Marvell

Comment Type TR Comment Status A

25GBASE-BR20-U should not be described in a section titles 25GBASE-BR40-D and it needs its own bit.

SuggestedRemedy

Make this paragraph a different section with its own bit and title and renumber the rest of the sub-clauses.

Response Response Status W

ACCEPT.
Make "25GBASE-BR20-U ability (1.34.11)" a subclause title

Cl 157 SC 157.1.4 P42 L36 # 235

Thompson, Geoff GraCaSI S.A./Independent

Comment Type ER Comment Status A

The way Table 157-3 is split across the page break is, at a minimum, confusing. It needs to be controlled appropriately.

SuggestedRemedy

Keep the table on a single page or pro-actively control the row split at a logical point with new column headings on the new page. Change the title on the 2nd piece to Table 157-3 (continued).

Response Response Status U

ACCEPT IN PRINCIPLE.
Remove all BR40+ items, try to keep table on a single page

Cl 157 SC 157.2.4 P44 L35 # 237

Thompson, Geoff GraCaSI S.A./Independent

Comment Type TR Comment Status R

The statement "The PMA also may provide an observable electrical interface for the 25GAUI or 50GAUI chip-to-chip 35 (C2C) or chip-to-module (C2M)." has no meaning within the scope of the standard. Anything that is not forbidden in the standard may be provided.

SuggestedRemedy

If optional standardized test points are specified or called out then say so. If that is not the case then delete the text.

Response Response Status U

REJECT.
This follows last sentence in 105.3.4

Cl 157 SC 157.4 P45 L18 # 238

Thompson, Geoff GraCaSI S.A./Independent

Comment Type TR Comment Status R

I believe that PAUSE operation is not the only reason that demands that there be an upper bound on the propagation delays through the network. I am given to understand that both maximum and minimum transit time need to be specified to support TSN.

SuggestedRemedy

Generalize the reasons for specifying delay and include specification of minimum delay as well.

Response Response Status U

REJECT.
Remedy is not specific enough.
Can you please provide an 802.3 reference clause for the minimum delay constraint spec?

Cl 158 SC 158.1 P47 L34 # 157

Marris, Arthur Cadence Design Systems

Comment Type TR Comment Status A FEC

Is it really adequate to just say "Clause 108 describes an FEC for 25 Gb/s PHY, but the same scheme can be applied to 10 Gb/s PHYs"?

SuggestedRemedy

Consider opening up clause 108 to explain how it works with 10G PMDs

Response Response Status U

ACCEPT IN PRINCIPLE.
See#248, In Cl. 108, add a new paragraph to the end of 108.1.1 "This RS-FEC sublayer also applies to 10GBASE-BR20 PHY, specified in Clause 158. When applying it to 10GBASE-BR20 PHY, "25GBASE-R" and "25.78125 GBd" in this clause are replaced by "10GBASE-BR20" and "10.3125 GBd", respectively."
Group comments #248, 157, 171, 225

IEEE P802.3cp D2.0 BiDi 10/25/50 Gb/s Optical Access PHYs Initial Working Group ballot comments

Cl 158 SC 158.1 P47 L34 # 171

Dudek, Mike Marvell
 Comment Type TR Comment Status A FEC

The footnote says the 108 RS-FEC is described for 25Gb/s. It should not be left to the reader to work out how to apply it to 10Gb/s

SuggestedRemedy

Bring appropriate edits to Clause108 into the document. E.g. The delays in ns are probably wrong. The introduction would need work etc. Whether this RS FEC meets the delay constraints for 10G networks in Clause 44 should also be investigated if this has not already been done.

Response Response Status W

ACCEPT IN PRINCIPLE.
 See#248, In Cl. 108, add a new paragraph to the end of 108.1.1 "This RS-FEC sublayer also applies to 10GBASE-BR20 PHY, specified in Clause 158. When applying it to 10GBASE-BR20 PHY, "25GBASE-R" and "25.78125 GBd" in this clause are replaced by "10GBASE-BR20" and "10.3125 GBd", respectively."
 Group comments #248, 157, 171, 225

Cl 158 SC 158.6.3 P54 L14 # 192

Stassar, Peter Huawei
 Comment Type TR Comment Status A

It doesn't make sense to have 15 dB for 20km and 18 dB for 40km. 15 dB would rather be a channel loss for a 30km channel as in clause 114 for 25GBASE-ER. Also applies to 159 and 160

SuggestedRemedy

Define an appropriate channel insertion loss for 20km, e.g. 11 or 12 dB, and optimize power values in Table 158-6 and Table 158-7. Also in 159 and 160

Response Response Status U

ACCEPT IN PRINCIPLE.
 Editorial license: To justify 15 dB add text to describe 0.5 dB/km fiber loss and 5 dB connection loss in Clauses 158-160

Cl 158 SC 158.6.3 P54 L14 # 191

Stassar, Peter Huawei
 Comment Type TR Comment Status R

Channel insertion loss numbers do not add up using the attenuation coefficient and the allocation for connector and splice loss of 2 dB. This comment is related to another comment requesting a change in attenuation coefficient. Compare with other recent optical PMDs and make numbers consistent between Clauses 158, 159 and 160.

SuggestedRemedy

Make numbers consistent for channel insertion loss in Clauses 158, 159 and 160

Response Response Status U

REJECT.
 No consensus reached from the group to make changes to the draft.

Cl 158 SC 158.6.3 P54 L22 # 190

Stassar, Peter Huawei
 Comment Type TR Comment Status R

An attenuation of 0.4 dB/km is used, 0.43 dB/km in Table 159-8 and 0.5 dB/km in Table 160-6. Use a single value for all 3 clauses, preferably 0.5 dB/km to make the specifications consistent. Now they are all different. Applies similarly to 159 and 160

SuggestedRemedy

Change loss to 0.5 dB/km consistent with other recent PMDs like P802.3cu in 158 and 159 and with clause 160

Response Response Status U

REJECT.
 No consensus reached from the group to make changes to the draft.

IEEE P802.3cp D2.0 BiDi 10/25/50 Gb/s Optical Access PHYs Initial Working Group ballot comments

Cl 158 SC 158.9 P55 L6 # 94

Grow, Robert RMG Consulting

Comment Type TR Comment Status A

An indirect reference like this should not be used because of the difficulty of properly maintaining the document. Because the subclauses of 52.10 specifically reference port types, it could be argued that the requirements do not apply because clause 52 does not reference 10BASE-BRx port types.

SuggestedRemedy

A general safety subclause should copy P802.3cr 52.10.1, and the other clauses can copy the relevant subclauses of the latest revision or amendment that changes the text of the relevant subclause.

If indirection is still desired, the port type lists in Clause 52 need to be deleted (preferred) or expanded to include 10GBASE-BRx.

Response Response Status U

ACCEPT IN PRINCIPLE.

See #184, editorial license to add safety requirements as .3cu, .3ct

Cl 158 SC 158.12.4.9 P63 L8 # 96

Grow, Robert RMG Consulting

Comment Type TR Comment Status A

E1 is not properly written. P802.3cr is eliminating references to IEC 60950-1.

SuggestedRemedy

The PICs should point to J.2 which is being inserted by P802.3cr. If indirection is retained, the PICs could be written more like E1 in Clause 159 to eliminate a contradiction to P8023cr.

Response Response Status U

ACCEPT IN PRINCIPLE.

See #184, follow .3cu D3.0 to refer to J.2, apply same statement to Clauses 159 and 160.

Cl 159 SC 159.5.4 P69 L13 # 172

Dudek, Mike Marvell

Comment Type TR Comment Status A

It is inappropriate in a standard to say "and poor 25GBASE-BR20 is left to the wind".

SuggestedRemedy

This problem needs to be fixed to create an inter-operable standard.

Response Response Status W

ACCEPT IN PRINCIPLE.

See #1, change text to show -20 dBm is for BR10, -26 dBm is for BR20/40

Cl 159 SC 159.8 P73 L33 # 97

Grow, Robert RMG Consulting

Comment Type ER Comment Status A

The indirection is getting a bit absurd. This points to 114.8, and 114.8 points to 112.8. Then you have the same problem of 112.8 specifications being specific to 25GBASE-SR.

SuggestedRemedy

If still using indirection, remove the two levels of indirection and point to 112.8. Fix corresponding PICS items in 159.11.4.8.

Response Response Status U

ACCEPT IN PRINCIPLE.

Editorial license to use content in 802.3cu D2.2 Clause 151.9 for .3cp 159.8

Cl 160 SC 160.5.4 P87 L42 # 174

Dudek, Mike Marvell

Comment Type TR Comment Status A

The average receive power min fo BR20 etc. is -17.6dB. So a power of -17dB should have signal detect =OK, but the other line says <-16dB is Fail. It can't meet both lines

SuggestedRemedy

Change the signal detect FAIL level from <-16dBm to <-20dBm for BR20 etc.

Response Response Status U

ACCEPT IN PRINCIPLE.

Apply suggested remedy, change BR20 Average launch power of OFF transmitter (max) in Table 160-6 to -20 dBm to support the remedy

Cl 160 SC 160.6 P L # 185

Stassar, Peter Huawei

Comment Type TR Comment Status R

Specification methodology and parameters for PAM4 optical signals have recently been modified in P802.3cu. Parameters have been deleted, added or modified. Often to simplify the specification. Align with P802.3cu D2.2. Especially TDECQ – 10log10(Ceq)c (max) has been removed as Tx parameter and SECQ – 10log10(Ceq)f (max) as Rx parameter. TECQ has been added, as well as TDECQ - TECQ, Transmitter over/under-shoot (max), Transmitter peak-to-peak power (max). "OMA minus TDECQ = value" has been modified to "OMA = value + TDECQ". In a similar way receiver sensitivity specification has been modified. Etcetera

SuggestedRemedy

Align PAM4 specification methodology with P802.3cu D2.2.

Response Response Status U

REJECT.

No consensus reached on addressing the remedy PAM4 spec in Clause 160.

IEEE P802.3cp D2.0 BiDi 10/25/50 Gb/s Optical Access PHYs Initial Working Group ballot comments

CI 160 SC 160.6.1 P89 L51 # 175

Dudek, Mike Marvell

Comment Type TR Comment Status A

The Average launch power of OFF transmitter must be less than the Fail level of the Signal detect for the signal detect to work properly.

SuggestedRemedy

Change the value for BR20 etc. to -20dBm (see other comment for why -20 not -16)

Response Response Status W

ACCEPT IN PRINCIPLE.
See resolution to #174

CI 160 SC 160.6.2 P90 L42 # 176

Dudek, Mike Marvell

Comment Type TR Comment Status A

The receive power (OMAouter) max values are wrong for BR20 and BR40+. (or the Tx OMA outer max values are wrong) The min attenuation for 20km is 0dB, for 40km 10dB.

SuggestedRemedy

Change BR20 to 4.4dBm, and BR40+ to 2.4dBm.

Response Response Status W

ACCEPT IN PRINCIPLE.
BR20's MAX OMA should be 4.4 dBm, BR40 remains at -2.6 dBm, BR40+ should be removed

CI 160 SC 160.8 P92 L6 # 98

Grow, Robert RMG Consulting

Comment Type TR Comment Status A

Another example of indirection problems. Laser safety descriptions include port types in the description. General safety is changed by P802.3cr, etc.

SuggestedRemedy

Change (or not) consistent with changes made to 158 and 159.

Response Response Status U

ACCEPT IN PRINCIPLE.
See#184, follow .3cu D3.0 to refer to J.2, apply same statement to Clauses 159 and 160.