

802.3df D3.1

Comment Resolution

P802.3df editorial team

Introduction

- This slide package was assembled by the 802.3df editorial team to provide background and detailed resolutions to aid in comment resolution.

Clause 124

Clause 124, FLR requirements

Comment #31

Text in question

If the error statistics are not sufficiently random to meet ~~this requirement~~ the specified frame loss ratio for 64-octet frames with minimum interpacket gap, then the BER shall be less than ~~that required to give a frame loss ratio of less than 1.7×10^{-12} for 64-octet frames with minimum interpacket gap~~ the value required to meet that frame loss ratio.

Cl 124 SC 124.1.1 P105 L9 # R1-31

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

This sentence needs more work. At present, it says that if something is not good enough to achieve an end, something else has to be better than what's needed to achieve that unachievable end.

However, clarifying this may be out of scope.

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SuggestedRemedy

If the error statistics are not sufficiently random to meet the specified frame loss ratio for 64-octet frames with minimum interpacket gap *when the BER is at the limit*, then the BER shall be less than the value required to meet that frame loss ratio.

The original text in 124.1.1 has been modified in D3.1 to address the different FLRs specified for 200G/400G PMDs ($1.7e-12$) and for 800G ($3.4e-12$).

The suggested remedy includes a condition that did not appear in the original text, and is not an obvious improvement.

However, the new text may be less clear than the original, and can be improved.

Clause 124, FLR requirements

Comment #31 – Proposed text for 124.1.1

Text is rearranged (as shown by highlight colors) due to addition of 800G PMDs, without changing the wording.

124.1.1 Bit error ratio

Change 124.1.1 as follows:

The bit error ratio (BER) for 400GBASE-DR4 and 400GBASE-DR4-2 PMDs, when processed according to Clause 120, shall be less than 2.4×10^{-4} provided that the error statistics are sufficiently random that this results in a frame loss ratio (see 1.4.344) of less than 1.7×10^{-12} for 64-octet frames with minimum interpacket gap when processed according to Clause 120 and then Clause 119. For a complete Physical Layer, the frame loss ratio may be degraded to 6.2×10^{-11} for 64-octet frames with minimum interpacket gap due to additional errors from the electrical interfaces.

For a complete Physical Layer, the frame loss ratio may be degraded to 6.2×10^{-11} for 64-octet frames with minimum interpacket gap due to additional errors from the electrical interfaces. If the error statistics are not sufficiently random to meet this requirement, then the BER shall be less than that required to give a frame loss ratio of less than 1.7×10^{-12} for 64-octet frames with minimum interpacket gap.

The bit error ratio (BER) for 800GBASE-DR8 and 800GBASE-DR8-2 PMDs, when processed according to Clause 173, shall be less than 2.4×10^{-4} provided that the error statistics are sufficiently random that this results in a frame loss ratio (see 1.4.344) of less than 3.4×10^{-12} for 64-octet frames with minimum interpacket gap when processed according to Clause 173 and then Clause 172. If the error statistics are not sufficiently random to meet this requirement, then the BER shall be less than that required to give a frame loss ratio of less than 3.4×10^{-12} for 64-octet frames with minimum interpacket gap.

For a complete Physical Layer, the frame loss ratio may be degraded to 6.2×10^{-11} for 64-octet frames with minimum interpacket gap due to additional errors from the electrical interfaces.

If the error statistics are not sufficiently random to meet this requirement, then the BER shall be less than that required to give a frame loss ratio of less than 1.7×10^{-12} for 64-octet frames with minimum interpacket gap.