

P802.3bs D2.0 optical comments

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Comments #123, 124

Cl 121 SC 121.7.2 P 219 L 11 # 123
Lewis, David Lumentum

Comment Type T *Comment Status* X

Table 121-7. The value for damage threshold is unnecessarily high at 3 dB above the maximum average receive power. Having such a high value makes it more difficult to find a source with sufficient power to do the test. Other SMF standards, such as 100GBASE-LR4/ER4 (Table 88-8) have set the damage threshold at 1 dB above the maximum average receive power.

SuggestedRemedy

Change the threshold from 6.5 dBm to 4 dBm.

Cl 124 SC 124.7.3 P 295 L 11 # 124
Lewis, David Lumentum

Comment Type T *Comment Status* X

Table 124-7. The value for damage threshold is unnecessarily high at 2.5 dB above the maximum average receive power. Having such a high value makes it more difficult to find a source with sufficient power to do the test. Other SMF standards, such as 100GBASE-LR4/ER4 (Table 88-8) have set the damage threshold at 1 dB above the maximum average receive power.

SuggestedRemedy

Change the threshold from 6.5 dBm to 5 dBm.

Comment #82 (and 81)

CI 121 SC 121.7.3 P 219 L 47 # 82
Ghiasi, Ali Ghiasi Quantum LLC

Comment Type T *Comment Status* X

Current -45 dB RL require APC connector and may not support installed based.

Suggested Remedy

Standard should allow reducing the number of connectors from 4 as defiend for operation with -45 dB RL to -35 dB with 2 connectors.

Adhoc contribution

http://www.ieee802.org/3/bs/public/adhoc/smf/16_08_16/anslow_01_0816_smf.pdf

inducate to support 2 connector the RL for each connector must be -39 dB. This is close enough to either the MPI budget or trade connector loss as few are used with MPI.

See [anslow_03_0816_smf](#)

Comment #74 (and 76)

CI 121 SC 121.8.5.4 P 225 L 49
Ghiasi, Ali Ghiasi Quantum LLC

74

Comment Type TR *Comment Status* X

Baseline reference EQ requiring T/2 sample put unnecessary burden for any digital implementation where T spaced can perform as well.

Suggested Remedy

Replace 5 tap T/2 with 7 tap T-spaced

Comment #168

CI 121 SC 121.8.9.1

P 226

L 46

168

Dudek, Mike

Cavium

Comment Type T *Comment Status* X

It is going to be extremely difficult to generate two thirds of the dB value of SECQ using a four order Bessel filter when a 5 tap FIR filter is equalizing the effect of the filter.

Suggested Remedy

Set the bandwidth of the filter to a fixed bandwidth somewhat narrower than the expected fiber bandwidth and Tx worst case expected risetime combination. 15GHz may be a reasonable value. Make equivalent changes on page 228 line 5.

Make similar changes to the other optical clauses using an equalizer.

Comment #17

CI 122 SC 122.7.3

Swanson, Steven

P 252

L 8

17

Coming Incorporated

Comment Type TR *Comment Status* X

In Table 122-13, the channel insertion loss for 200GBASE-LR4 and 400GBASE-LR8 is specified at 6.3 dB. However $10\text{km} \times 0.46\text{ dB/km}$ plus the 2.0 dB allocation for connectors = 6.6 dB.

Suggested Remedy

Change the channel insertion loss for 200GBASE-LR4 and 400GBASE-LR8 in Table 122-13 to 6.6 dB.

Comment #554

CI 124 SC 124.5.4 P 292 L 6 # 554
traverso, matt cisco

Comment Type T *Comment Status* X

Transmitters which use a single light source split among multiple lanes are challenged to meet -30 dBm.

The signal detect function must act on a signal between the average receive power, each lane (min) which is -5.4 dBm in this draft. Relaxing the FAIL value for signal_detect is technically feasible.

SuggestedRemedy

Suggest to change value to ≤ -20 dBm

See [welch_01_0816_smf](#)

Comment #112

CI 124 SC 124.7.1

P 294

L 9

112

King, Jonathan

Finisar

Comment Type T Comment Status X

The receiver sensitivity specs for 400GBASE-DR4 are marginal to what is technically feasible for a high volume product, and an additional 0.3 link loss capability is required.

Suggested Remedy

Move Tx_OMA specs (and dependents) up 0.8 dB, and Rx sensitivity specs (and dependents) up 0.5 dB, to reduce burden on Rx and increase channel insertion loss budget by 0.3 dB. With editorial licence, the details are: In Table 124-6: Increase Tx_OMA-TDECQ from -1.3dBm to -0.5 dBm also Increase OMAouter (max) from 4.2dBm to 5.0dBm. Increase OMAouter (min) from -0.3dBm to 0.5dBm. Increase Average launch power (max) from 4dBm to 4.8dBm. Increase Average launch power (min) from -5.4dBm to -4.6dBm. In Table 124-7: Increase 'Receive sensitivity (OMAINner), each lane (max)' from -9.2dBm to -8.7dBm; also Increase 'Stressed receiver sensitivity (OMAouter), each lane (max)' from -1.9dBm to -1.4dB; Increase 'Receive power, each lane, OMAouter (max)' from 4.2dBm to 5dBm; Increase 'Average receive power, each lane (max)' from 4dBm to 4.8dBm; Increase 'Average receive power, each lane (min)' from -2.4dBm to -1.6dB; Increase 'OMAouter of each aggressor lane' from 4.2dBm to 5.0 dBm. See presentation king_3bs_02_0916.

See [king_01_0816_smf](#)

Thanks!