Changes to TDECQ, SECQ and transition time measurement bandwidths
Comments r04-19, r04-20, r04-21, r04-6, r04-1

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Comment r04-1 proposes to add a sentence as follows

- "Compensation may be made for any deviation from an ideal fourth-order Bessel-Thomson response."
- at the end of the third exception in 138.8.5
- at the end of the second paragraph of 138.8.7
- after the second sentence of the first exception in 138.8.10
- at the end of the second paragraph of 139.7.5.1
- at the end of the second paragraph of 139.7.7
- at the end of the fourth exception in 140.7.5
- at the end of the second paragraph of 140.7.7

Comments r04-19, r04-20, and r04-21 propose to change the filter related text in 138.8.7, 139.7.5.1, and 139.7.7 as follows

Change:

… fourth-order Bessel-Thomson filter response with a bandwidth of approximately 13.28125 GHz to at least …

to:

… fourth-order Bessel-Thomson filter with a bandwidth of approximately 13.28125 GHz <u>tracking the filter response</u> to at least …

138.8.5

- Change the third exception to
- The combination of the O/E converter and the oscilloscope used to measure the optical waveform has a 3 dB bandwidth of approximately 11.2 GHz with a fourth-order Bessel-Thomson response to at least 1.5 x 22.4 GHz and at frequencies above 1.5 x 22.4 GHz the response should not exceed –24 dB. Compensation may be made for any deviation from an ideal fourth-order Bessel-Thomson response.

138.8.7

- Change "as measured through an optical to electrical converter (O/E) and oscilloscope with a combined frequency response of a fourth-order Bessel-Thomson filter with a bandwidth of approximately 13.28125 GHz to at least 1.5×26.5625 GHz and at frequencies above 1.5×26.5625 GHz the response should not exceed -24 dB."

- to

- "as measured through an O/E converter and oscilloscope with a combined 3 dB bandwidth of approximately 13.28125 GHz with a fourth-order Bessel-Thomson response to at least 1.5×26.5625 GHz and at frequencies above 1.5×26.5625 GHz the response should not exceed -24 dB. Compensation may be made for any deviation from an ideal fourth-order Bessel-Thomson response.

138.8.10

- Change "the combination of the O/E and the oscilloscope has a bandwidth of approximately 13.28125 GHz and a fourth-order Bessel-Thomson filter response. This frequency response should be followed to at least 1.5 × 26.5625 GHz and at frequencies above 1.5 × 26.5625 GHz the response should not exceed −24 dB."

- to

- "the combination of the O/E converter and the oscilloscope has a 3 dB bandwidth of approximately 13.28125 GHz with a fourth-order Bessel-Thomson response to at least 1.5 × 26.5625 GHz and at frequencies above 1.5 × 26.5625 the response should not exceed −24 dB. Compensation may be made for any deviation from an ideal fourth-order Bessel-Thomson response."

139.7.5.1 TDECQ conformance test setup

- Change "The combination of the O/E and the oscilloscope has a fourth-order Bessel-Thomson filter response with a bandwidth of approximately 13.28125 GHz to at least 1.5 × 26.5625 GHz and at frequencies above 1.5 × 26.5625 GHz the response should not exceed –24 dB. "

- to

- "The combination of the O/E converter and the oscilloscope has a 3 dB bandwidth of approximately 13.28125 GHz with a fourth-order Bessel-Thomson response to at least 1.5 × 26.5625 GHz and at frequencies above 1.5 × 26.5625 GHz the response should not exceed –24 dB. Compensation may be made for any deviation from an ideal fourth-order Bessel-Thomson response."

139.7.7 Transmitter transition time

- Change "as measured through an optical to electrical converter (O/E) and oscilloscope with a combined frequency response of a fourth-order Bessel-Thomson filter with a bandwidth of approximately 13.28125 GHz to at least 1.5 × 26.5625 GHz and at frequencies above 1.5 × 26.5625 GHz the response should not exceed –24 dB."

- to

- "as measured through an O/E converter and oscilloscope with a combined 3 dB bandwidth of approximately 13.28125 GHz with a fourth-order Bessel-Thomson response to at least 1.5 x 26.5625 GHz and at frequencies above 1.5 x 26.5625 GHz the response should not exceed –24 dB. Compensation may be made for any deviation from an ideal fourth-order Bessel-Thomson response."

140.7.5 TDECQ for PAM4

- Change "The combination of the O/E converter and the oscilloscope has a fourth-order Bessel-Thomson filter response with a bandwidth of approximately 26.5625 GHz to at least 1.3×53.125 GHz and at frequencies above 1.3×53.125 GHz the response should not exceed -20 dB."

- to

- "The combination of the O/E converter and the oscilloscope has a 3 dB bandwidth of approximately 26.5625 GHz with a fourth-order Bessel-Thomson response to at least 1.3 x 53.125 GHz and at frequencies above 1.3 x 53.125 GHz the response should not exceed –20 dB. Compensation may be made for any deviation from an ideal fourth-order Bessel-Thomson response."

140.7.7

- Change "as measured through an optical to electrical converter (O/E) and oscilloscope with a combined frequency response of a fourth-order Bessel-Thomson filter with a bandwidth of approximately 26.5625 GHz to at least 1.3 × 53.125 GHz and at frequencies above 1.3 × 53.125 GHz the response should not exceed −20 dB."

- to

- "as measured through an O/E converter and oscilloscope with a combined 3 dB bandwidth of approximately 26.5625 GHz with a fourth-order Bessel-Thomson response to at least 1.3 x 53.125 GHz and at frequencies above 1.3 x 53.125 GHz the response should not exceed −20 dB. Compensation may be made for any deviation from an ideal fourth-order Bessel-Thomson response."