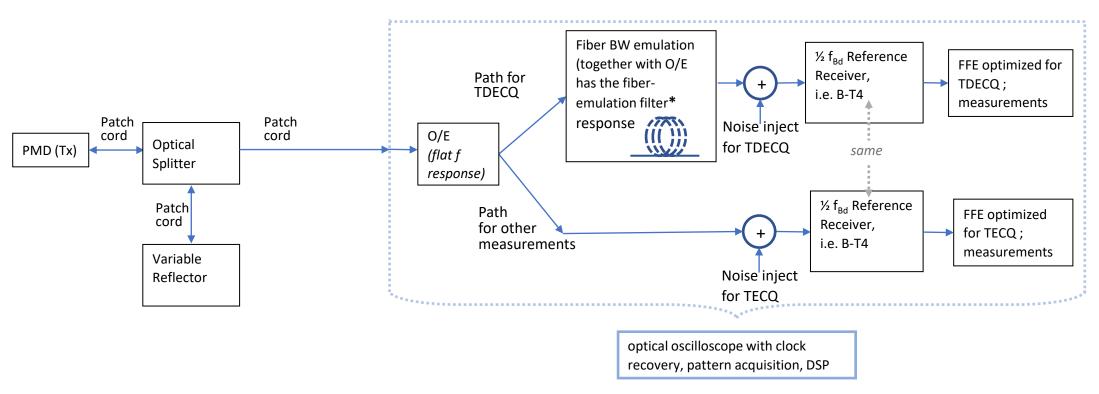
TDECQ, TECQ processing in IEEE 802.3db

V3.2 for comment #205 on D2.0

Pavel Zivny Tektronix

IEEE P802.3db 100 Gb/s, 200 Gb/s, and 400 Gb/s Short Reach Fiber Task Force
TF Plenary Meeting, Nov 11, 2021

for comment #205 on D2.0



*Table 167–12—The 3 dB bandwidth f_A of the fiber emulation filter for TDECQ measurement

For reference: 95.8.5.1 TDEC conformance test setup

• 95.8.5.1 TDEC conformance test setup

A block diagram for the TDEC conformance test is shown in Figure 95–3. Other measurement implementations may be used with suitable calibration.

Each optical lane is tested individually with all other lanes in operation. The optical splitter and variable reflector are adjusted so that each transmitter is tested with an optical return loss of 12 dB.

The combination of the O/E and the oscilloscope used to measure the optical waveform has a fourth-order Bessel-Thomson filter response with a bandwidth of 12.6 GHz. Compensation may be made for any deviation from an ideal fourth-order Bessel-Thomson response.

The clock recovery unit (CRU) has a corner frequency of 10 MHz and a slope of 20 dB/decade.

(... cont.)

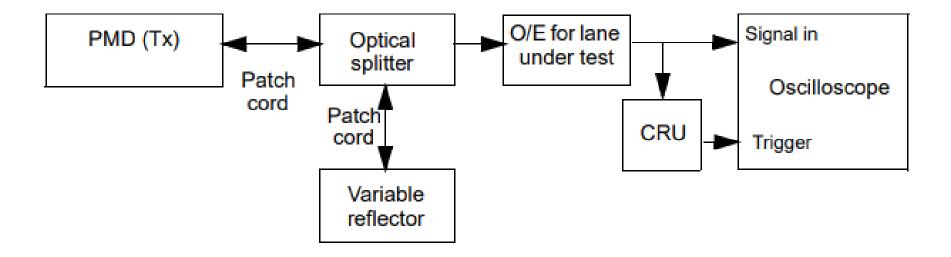


Figure 95–3—TDEC conformance test block diagram