

Table 75–6—PR type OLT PMD receive characteristics

Description	10GBASE-PR-D1	10GBASE-PR-D2 and 10GBASE-PR-D3	Unit
Signaling speed (range)	10.3125 ± 100 ppm	10.3125 ± 100 ppm	GBd
Wavelength (range)	1260 to 1280	1260 to 1280	nm
Bit error ratio (max) ^a	10 ⁻³	10 ⁻³	–
Average receive power (max)	–1	–6	dBm
Damage threshold (max) ^b	0	–5	dBm
Receiver sensitivity (max)	–24	–28	dBm
Receiver sensitivity OMA (max)	–23.22 (4.77)	–27.22 (1.90)	dBm (μW)
Signal detect threshold (min)	–45	–45	dBm
Receiver reflectance (max)	–12	–12	dB
Stressed receive sensitivity (max) ^c	–21	–25	dBm
Stressed receive sensitivity OMA (max)	–20.22 (9.51)	–24.22 (3.79)	dBm (μW)
Vertical eye-closure penalty ^d	2.99	2.99	dB
T _{receiver_settling} (max) ^e	800	800	ns
Stressed eye jitter	0.3	0.3	UI pk to pk
Jitter corner frequency for a sinusoidal jitter	4	4	MHz
Sinusoidal jitter limits for stressed receiver conformance test (min, max)	(0.05, 0.15)	(0.05, 0.15)	UI

^aThe BER of 10⁻¹² is achieved by the utilization of FEC as described in 76.3.

^bDirect ONU–OLT connection may result in damage of the receiver.

^cThe stressed receiver sensitivity is mandatory.

^dVertical eye closure penalty and the jitter specifications are test conditions for measuring stressed receiver sensitivity. They are not required characteristics of the receiver.

^eT_{receiver_settling} represents an upper bound. Optics with better performance may be used in compliant implementations, since the OLT notifies the ONUs of its requirements in terms of the T_{receiver_settling} time via the SYNCTIME parameter (see 77.3.3.2).

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