

GPON OLT Optical Module

Tx Power +9dBm

CLGPONOLT9+

Product Features

- Support ITU-T G.984.2 GPON OLT Tx Power +9dBm +8dBm application
- Single fiber bi-directional data links with symmetric 2.488Gbps Tx and 1.244Gbps Rx
- 1490nm continuous-mode transmitter with DFB LD
- 1310nm burst-mode receiver with APD-TIA
- 2-wire interface for integrated digital diagnostic Monitoring
- Receiver RESET, Signal Detect, RSSI function indication (RESET, RX_SD, RSSI)
- SFP package with SC/UPC receptacle optical interface
- Single +3.3V power supply
- Operating case temperature: 0~70°C
- RoHS6 compliance



Functional Characteristics (Optical)

The following tables list the performance specifications for the various functional blocks of the integrated optical transceiver module.

Table 1 – Transmitter Optical Specifications

Parameter	Unit	Min.	Typical	Max.
TX Central Wavelength	nm	1480	1490	1550
Spectral Width (-20dB)	nm			1
Side Mode Suppression Ratio (SMSR)	dB	30		
CLGPONOLT9+ Launched Power	dBm	9		10
CLGPONOLT8+ Launched Power	dBm	8		10
Mean Launched Power (TX Off)	dBm			-45
Extinction Ratio	dB	8.2		
Optical Return Loss Tolerance	dB	-15		
Transmitter and dispersion Penalty	dB			1
Transmitter Mask(PRBS2 ²³ -1@2.488G)	Compliant With ITU-T G.984.2 Margin>20%			

Note 1: Average launch power, each lane (min) is informative and not the principal indicator of signal strength

Note 2: Transmitter reflectance is defined looking into the transmitt

Table 2 – Receiver Optical Specifications

Parameter	Unit	Min.	Typical	Max.
Receive Wavelength	nm	1290	1310	1330
Sensitivity CLGPONOLT8+ (PRBS2 ²³ -1@1.244G,ER=10,BER<10 ⁻¹⁰)	dBm			-32
Sensitivity CLGPONOLT8+ (PRBS2 ²³ -1@1.244G,ER=10,BER<10 ⁻⁴)	dBm			-34
Sensitivity CLGPONOLT9+ (PRBS2 ²³ -1@1.244G,ER=10,BER<10 ⁻¹⁰)	dBm			-33
Sensitivity CLGPONOLT9+ (PRBS2 ²³ -1@1.244G,ER=10,BER<10 ⁻⁴)	dBm			-35
Overload (PRBS2 ²³ -1@1.244G,ER=10,BER<10 ⁻¹⁰)	dBm	-15		



Receiver Burst Mode Dynamic Range	dB	15		
Damage Threshold for Receiver	dBm	-3		
SD Assert Level	dBm			-36
SD De-assert Level	dBm	-45		
SD Hysteresis	dB	0.5		6
WDM Filter isolation to 1550nm	dB	38		
WDM Filter isolation to 1650nm	dB	35		

Note 1: Measured with conformance test signal at TP3 for the BER= 6.4x10⁻⁵.

Ordering Information

Table 3 - Ordering Information

Ordering P/Ns	Description
CLGPONOLT9+	GPON OLT Tx Power +9dBm, 60km, TX 1490nm 2.488Gbps, RX 1310nm 1.244Gbps, SFP, BIDI SC/UPC Receptacle, Commercial Temperature

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