

GPON OLT C++ Optical Module

CLGPONOLTC++

Product Features:

- Support ITU-T G.984.2 GPON OLT C++ 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	Symbol	Min.	Typical	Max.	Unit	Notes
TX Central Wavelength	λ_c	1480	1490	1550	nm	
Spectral Width (-20dB)	$\Delta\lambda$			1	nm	
Side Mode Suppression Ratio	SMSR	30			dB	
CLGPONOLTC++ Launched Power		6		9	dBm	
Mean Launched Power (TX Off)				-45	dBm	
Extinction Ratio	ER	8.2			dB	
Optical Return Loss Tolerance		-15			dB	
Transmitter and dispersion Penalty	TDP			1	dB	
Transmitter Mask (PRBS 2 ²³ -1 @2.488G)	Compliant With ITU-T G.984.2, Margin > 20%					

Table 2 – Receiver Optical Specifications

Parameter	Symbol	Min.	Typical	Max.	Unit	Notes
Receive Wavelength	λ_c	1290	1310	1330	nm	
Sensitivity CLGPONOLTC++				-32	dBm	PRBS 2 ²³ -1 @1.244G, ER=10, BER<10 ⁻¹⁰
Sensitivity CLGPONOLTC++				-34	dBm	PRBS 2 ²³ -1 @1.244G, ER=10, BER<10 ⁻⁴
Overload CLGPONOLTC++		-12			dBm	PRBS 2 ²³ -1 @1.244G, ER=10, BER<10 ⁻¹⁰



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

Ordering Information

Table 3 - Ordering Information

Part No.	Description
CLGPONOLTC++	GPON OLT C++, 40km, TX 1490nm 2.488Gbps, RX 1310nm 1.244Gbps, SFP, BIDI SC/UPC Receptacle, Commercial Temperature

CONTACT:

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