

GPON OLT Optical Module



OLT-GSFP-C+



OLT-GSFP-C++



Product Features

- Support ITU-T G.984.2 GPON OLT C+/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
- Operation case temperature 0~70°C for commercial
- RoHS6 compliance

Operating Condition

Parameter	Unit	Min.	Typical	Max.
Storage Temperature	°C	-40	3.3	85
Operating Case Temp for C-temp	°C	0		70
Operating Relative Humidity	%	5		95
Power Supply Voltage	V	3.15		3.45
Supply Current	mA			600
Bit Rate for Tx	Gbps		2.488	
Bit Rate for Rx	Gbps		1.244	

Characteristics

OLT-GSFP-C+

Parameter	Unit	Min.	Typical	Max.
Transmitter				
TX Central Wavelength	nm	1480	1490	1500
Spectral Width (-20dB)	nm			1
Side Mode Suppression Ratio (SMSR)	dB	30		
Mean Launched Power	dBm	3		7
Mean Launched Power (TX Off)	dBm			-45
Extinction Ratio	dB	8.2		
Optical Return Loss Tolerance	dB	-12		
Transmitter and dispersion Penalty	dB			1
Transmitter Mask(PRBS2 ²³ -1@2.488G)		Compliant With ITU-T G.984.2		
Receiver				
Receive Wavelength	nm	1290	1310	1330
Sensitivity(PRBS2 ²³ -1@1.244G,ER=10,BER<10 ⁻¹⁰)	dBm			-31
Overload(PRBS2 ²³ -1@1.244G,ER=10,BER<10 ⁻¹⁰)	dBm	-12		
Receiver Burst Mode Dynamic Range	dB	15		
Damage Threshold for Receiver	dBm	5		
SD Assert Level	dBm			-33
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		
Electrical Interface Characteristics				
Data Input Swing Differential/TX	mV	200		2000
Data Output Swing Differential/RX	mV	400		1600
Date Differential Impedance	Ω	90	100	110
LVTTL Output High	V	2.4		Vcc
LVTTL Output Low	V	0		0.4
LVTTL Input High	V	2.0		Vcc+0.3
LVTTL Input Low	V	0		0.8
Timing Characteristics				
Guard Time (Tg)	ns	25.6		
Reset Pulse Width (Tr)	ns			12.8
Reset Delay (Trd)	ns			12.8
Receiver Preamble Time (Tp)	ns			140
SD Assert Time (TSDA)	ns			100
SD De-assert Time (TSDD)	ns			12.8
RSSI Trigger Delay (Ttd)	ns	25		
RSSI Trigger Pulse Width (Tw)	ns	500		
Internal I2C Delay (Twait)	us			500

Characteristics

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Transmitter				
TX Central Wavelength	nm	1480	1490	1500
Spectral Width (-20dB)	nm			1
Side Mode Suppression Ratio (SMSR)	dB	30		
Mean Launched Power	dBm	4.5		10
Mean Launched Power (TX Off)	dBm			-45
Extinction Ratio	dB	8.2		
Optical Return Loss Tolerance	dB	-12		
Transmitter and dispersion Penalty	dB			1
Transmitter Mask(PRBS2 ²³ -1@2.488G)		Compliant With ITU-T G.984.2		
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RSSI Trigger Pulse Width (Tw)	ns	500		
Internal I2C Delay (Twait)	us			500

Ordering Information

Model	Description
OLT-GSFP-C+	OLT SFP module, Class C+ standard, downlink 2.5G/uplink 1.25G, TX wavelength 1490nm, RX wavelength 1310nm, SC interface
OLT-GSFP-C++	OLT SFP module, Class C++ standard, downlink 2.5G/uplink 1.25G, TX wavelength 1490nm, RX wavelength 1310nm, SC interface

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