GEPON OLT PX20+++ Optical Module

CLEPONOLTPX20+++

Product Features:

- Compatible IEEE 802.3ah 1000BASE-PX20+++ GEPON application
- Applied to EPON OLT for a Single Fiber Bi-directional EPON System
- SFP, Single SC connector, Digital Diagnostic Interface Compliant with SFF-8472
- Burst Digital Receiving Signal Strength Indication (RSSI), support DDM function
- Single 3.3V power supply
- Operation case temperature 0~70°C for commercial
- RoHS-6 compliance

Functional Characteristics

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

Table 1 – Optical Characteristics

Parameter	Symbol	Min.	Typical	Max.	Unit	Notes
Transmitter						
TX Central Wavelength	λc	1480		1500	nm	
Spectral Width (-20dB)	Δλ			1	nm	
Side Mode Suppression Ratio	SMSR	30			dB	
Mean Launched Power		7		10	dBm	
Mean Launched Power (TX Off)				-39	dBm	
Extinction Ratio	ER	9			dB	PRBS 2^7-1 @1.25Gbps, low pass filter on
TX Total Jitter				0.43	UI	
Rise/Fall Time (20%-80%)				260	ps	
RIN15OMA				-115	dB/Hz	
Optical Return Loss Tolerance				12	dB	
Transmitter and dispersion Penalty	TDP			2.3	dB	
TX Optical Eye Mask	Compliant With IEEE Std 802.3ah-2004					
Receiver						
Receive Wavelength	λc	1260		1360	nm	
Sensitivity				-34	dBm	PRBS 2^7-1 @1.25Gbps, ER=10dB, BER<10^-12
Overload		-7			dBm	
Dynamic Range		25			dB	
Receiver Threshold Settling Time				250	ns	
RX Dynamic Range		-30		-6	dBm	RX dynamic range definition
LOS De-Assert				-34	dBm	
LOS Assert		-45			dBm	
SD Hysteresis		0.5		6	dB	
Receiver Reflectance				-12	dB	

Table 2 – Electrical Characteristics

Parameter	Symbol	Min.	Typical	Max.	Unit	Notes
Recommended Operating Conditions						
Storage Ambient Temperature		-40		85	℃	
Operating Case Temperature	Tc	0		70	℃	
Power Supply Voltage	Vcc	3.1	3.3	3.5	V	
Operating Relative Humidity	RH	5		85	%	
Data Rate (TX/RX)			1.25		Gbit/s	
Electrical Characteristics						
Power Supply Current	Icc			300	mA	
Data Input Differential Swing		200		1600	mV	
Data Differential Impedance	Zdiff	90	100	110	Ω	
TTL Input - Low		0		0.8	V	
TTL Input - High		2.0		Vcc	V	
TTL Output - Low		0		0.4	V	
TTL Output - High		2.4		Vcc	V	
Data Output Differential Swing		400		1600	mV	
LOS Assert Time				500	ns	
LOS Deassert Time				500	ns	

Ordering Information

Table 3 - Ordering Information

Part No.	Description
CLEPONOLTPX20+++	EPON OLT PX20+++, Tx +7dBm, 30km, TX 1490nm 1.25G, RX 1310nm 1.25G -34dBm, SFP form-factor, SC/UPC receptacle connector, Commercial temperature

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