

# GEPON OLT

## Optical Module



**OLT-GSFP-20+**



**OLT-GSFP-20++**



### Product Features

- Compatible IEEE 802.3ah 1000BASE-PX20+/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)
- Single 3.3V power supply
- Operation case temperature -10~70°C for commercial
- RoHS-6 compliance

### Absolute Maximum Ratings

Parameter	Unit	Min.	Typical	Max.
Power Supply	V	0		4.2
Storage Ambient Temperature	°C	-40		85
Operating Case Temperature	°C	-10		70
Operating Relative Humidity	%	5		95
Receiver Damaged Threshold	dBm	0		

### Operating Condition

Parameter	Unit	Min.	Typical	Max.
Power Supply	V	3.1	3.3	3.5
Operating Case Temp for C-temp	°C	-10		70
Operating Relative Humidity	%	5		95
Data Rate(TX/RX)	Gbit/s		1.25	

# Characteristics

Parameter	Unit	Min.	Typical	Max.
<b>GSFP-OLT-20+</b>				
<b>TX Central Wavelength</b>	nm	1480	1490	1500
<b>Spectral Width (-20dB)</b>	nm			1
<b>SMSR</b>	dB	30		
<b>Mean Launched Power</b>	dBm	2		7
<b>Mean Launched Power (TX Off)</b>	dBm			-39
<b>Extinction Ratio(Note 1)</b>	dB	9		
<b>TX Total Jitter</b>	UI			0.43
<b>Rise/Fall Time (20%-80%)</b>	ps			260
<b>RIN<sub>is</sub>OMA</b>	dB/Hz			-115
<b>Optical Return Loss Tolerance</b>	dB			-12
<b>Transmitteranddispersion Penalty(20km G.652)</b>	dB			2.3
<b>TX Optical Eye Mask</b>		Compliant With IEEE Std 802.3ah™-2004		
<b>Receive Wavelength</b>	nm	1260	1310	1360
<b>Sensitivity (Note 2)</b>	dBm			-30
<b>Overload</b>	dBm	-6		
<b>Receiver Threshold Settling Time</b>	ns			250
<b>RX Dynamic Range(Note 3)</b>	dBm	-30		-6
<b>LOS-Deassert</b>	dBm			-31
<b>LOS-Assert</b>	dBm	-45		
<b>SD Hysteresis</b>	dB	0.5		6
<b>Receiver Reflectance</b>	dB			-12
<b>Electrical Interface Characteristics</b>				
<b>Power Supply Current</b>	mA			300
<b>Data Input Differential Swing</b>	mV	200		1600
<b>Data Differential Impedance</b>	Ω	90	100	110
<b>TTL Input -Low</b>	V	0		0.8
<b>TTL Input -High</b>	V	2.0		Vcc
<b>TTL Output -Low</b>	V	0		0.4
<b>TTL Output -High</b>	V	2.4		Vcc
<b>Data Output Differential Swing</b>	mV	400		1600
<b>Los Assert Time</b>	ns			500
<b>Los Deassert Time</b>	ns			500

Note1: Measured with PRBS 2<sup>7</sup>-1 test pattern @1.25Gbps, Low Pass Filter is on.

Note2: Measured with a PRBS 2<sup>7</sup>-1 test pattern @1.25Gbps and ER=10dB, BER =10<sup>-12</sup>,

Note3: RX Dynamic Range Definition

