

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	

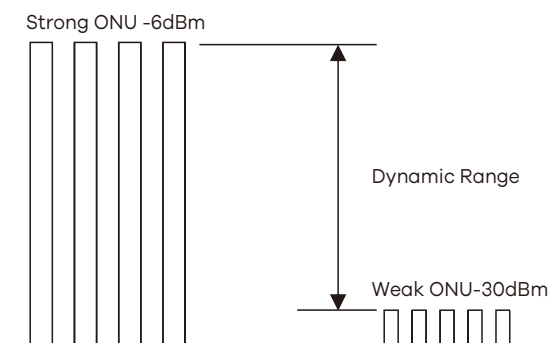
Characteristics

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

Note1: Measured with PRBS 2⁷-1 test pattern @1.25Gbps, Low Pass Filter is on.

Note2: Measured with a PRBS 2⁷-1 test pattern @1.25Gbps and ER=10dB, BER =10⁻¹²,

Note3: RX Dynamic Range Definition



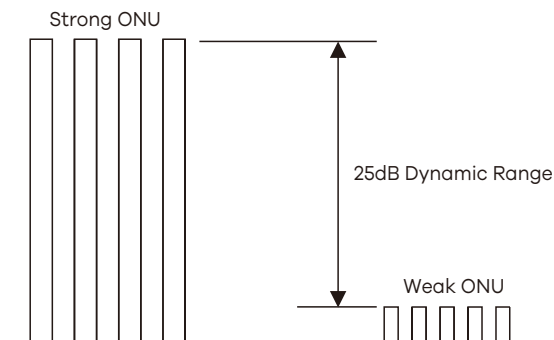
Characteristics

Parameter	Unit	Min.	Typical	Max.
GSFP-OLT-20++				
TX Central Wavelength	nm	1480	1490	1500
Spectral Width (-20dB)	nm			1
SMSR	dB	30		
Mean Launched Power	dBm	5		8
Mean Launched Power (TX Off)	dBm			-39
Extinction Ratio(Note 1)	dB	9		
TX Total Jitter	UI			0.43
Rise/Fall Time (20%-80%)	ps			260
RIN_{is}OMA	dB/Hz			-115
Optical Return Loss Tolerance	dB			-12
Transmitter and dispersion Penalty(20km G.652)	dB			2.3
TX Optical Eye Mask		Compliant With IEEE Std 802.3ah™ -2004		
Receive Wavelength	nm	1260	1310	1360
Sensitivity (Note 2)	dBm			-33
Overload	dBm	-6		
Dynamic Rang	dB	25		
Receiver Threshold Settling Time	ns			250
RX Dynamic Range(Note 3)	dBm	-30		-6
LOS-Deassert	dBm			-34
LOS-Assert	dBm	-45		
SD Hysteresis	dB	0.5		6
Receiver Reflectance	dB			-12
Electrical Interface Characteristics				
Power Supply Current	mA			300
Data Input Differential Swing	mV	200		1600
Data Differential Impedance	Ω	90	100	110
TTL Input -Low	V	0		0.8
TTL Input -High	V	2.0		Vcc
TTL Output -Low	V	0		0.4
TTL Output -High	V	2.4		Vcc
Data Output Differential Swing	mV	400		1600
Los Assert Time	ns			500
Los Deassert Time	ns			500

Note1: Measured with PRBS 2⁷-1 test pattern @1.25Gbps, Low Pass Filter is on.

Note2: Measured with a PRBS 2⁷-1 test pattern @1.25Gbps and ER=10dB, BER <10⁻¹²,

Note3: RX Dynamic Range Definition



Ordering Information

Model	Description
OLT-GSFP-20+	OLT SFP module, PX 20+ standard, downlink 1.25G/uplink 1.25G, TX wavelength 1490nm, RX wavelength 1310nm, SC interface
OLT-GSFP-20++	OLT SFP module, PX 20++ standard, downlink 1.25G/uplink 1.25G, TX wavelength 1490nm, RX wavelength 1310nm, SC interface

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