

WGP3200-M XPON Stick ONU



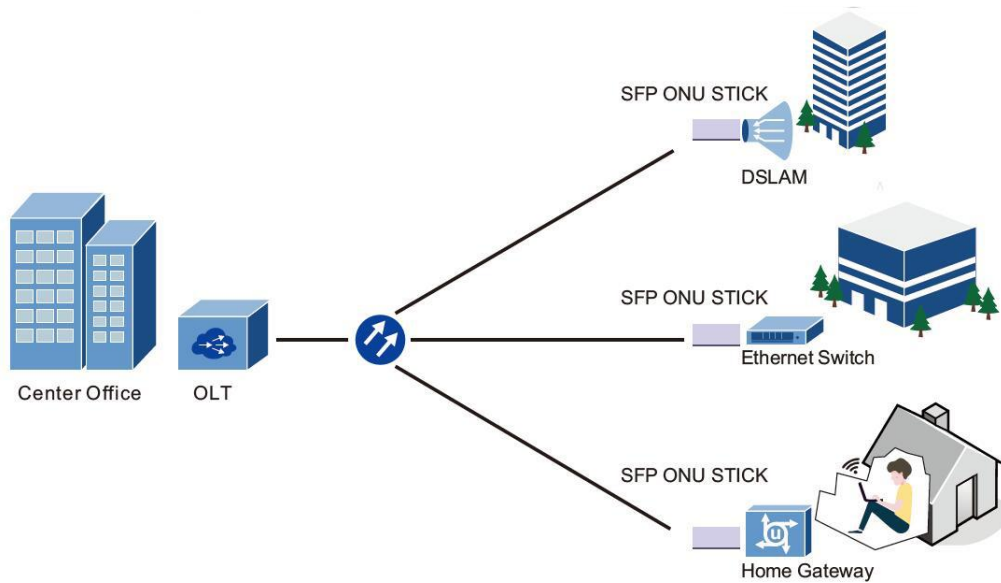
WGP3200-M is an SFP interface type ONU, compact and exquisite, plug and play, with good heat dissipation and shielding effects. It can be hot plugged into SFP slots of switches, cameras, and other devices to work. The entire device to function can be as an ONT or even MDU, allowing it to be directly connected to GPON or EPON optical networks, replacing external ONUs and improving system integration. It supports asymmetric uplink and downlink GPON and symmetric uplink and downlink EPON rates. It works with OLT office equipment to provide users with Ethernet services and IP integrated services with good QoS guarantee and flexible bandwidth allocation.

Performance Features

- ◇ Single fiber bi-directional data links GPON ONU and EPON ONU application with XPON MAC function.
- ◇ SC/UPC receptacle SFP with PON ONU MAC inside, "Plug-and-play" via auto-discovery and configuration
- ◇ 1310nm DFB burst mode transmitter, 1490nm TIA continuous mode receiver.
- ◇ Single 3.3V power supply.
- ◇ Digital diagnostic monitor interface compatible with SFF-8472
- ◇ SFP MSA compliance.
- ◇ Low EMI and excellent ESD protection.
- ◇ Class I laser safety standard IEC-60825 compliant.
- ◇ RoHS compliance.
- ◇ XPON stick compatible with GPON and EPON system.
- ◇ Complies with IEEE802.3ah.
- ◇ Complies with SFP Multi-Source Agreement (MSA) SFF-8074i.
- ◇ Complies with ITUT-T G984.2, G.984.2 Amendment1
- ◇ Complies with ITUT G.988 ONU management and control interface (OMCI) specification.

Applications

- Passive Optical Networks (PON)
- The product is an MSA-compliant SFP that incorporates not just the optics for an ONU. but all of the electronics need as well. It is a "PON on a Stick" that an entire FTTH ONU in a slightly oversized SFP. It can be plugged into networking equipment. According to the different fiber environments and distance requirements, it allows to customize the data interfaces on a switch, router, etc.



Technical Specifications

Recommended Operating Condition					
Parameter	Unit	Min.	Typ.	Max.	Notes
Power Supply Voltage	V	3.13	3.3	3.47	
Power Consumption	W	-	2.10	2.5	Max value under high temp environment
Case Operating Temperature	°C	0		+70	
	°C	-40		+85	
Operating Humidity Range	%	5		95	
Data Rate	Gbit/s	GPON mode TX: 1.244/RX: 2.488 EPON mode TX: 1.25/RX: 1.25			

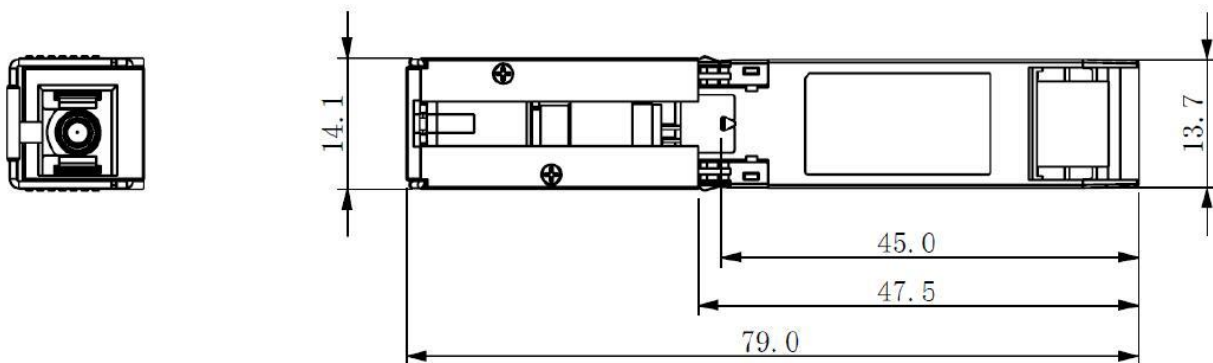
Transmitter Optical Characteristics					
Parameter	Unit	Min.	Typ.	Max.	Notes
Optical Center Wavelength	nm	1290	1310	1330	
Spectral Width	nm			1	
Side Mode Suppression Ratio	dB	30			
Average Launch Optical Power	dBm	0.5		4	Launched into SMF fiber
Burst Off Average Output Power	dBm			-45	
Extinction Ratio	dB	10			
Rise/Fall time (20%-80%)	ns			0.26	Unfiltered PRBS223-1@1244.16Mbps
RIN ₁₅ OMA	dB/Hz			-115	
Optical Return Loss Tolerance	dB	-15			
Transmitter Reflectance	dB			-10	
TX and Dispersion Penalty	dB			1	Transmit on 20km SMF
Optical Eye Diagram		Compliant with ITU-T G984.2			PRBS223-1@1244.16Mbps

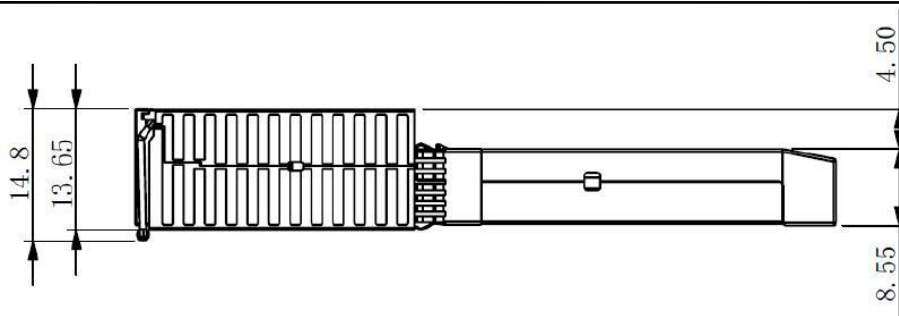
Transmitter Electrical Characteristics					
Parameter	Unit	Min.	Typ.	Max.	Notes
Data Input Differential Swing	mV	300		1800	CML input, AC coupled
Input Differential Impedance	Ω	90	100	110	
TxDisable Control voltage - Low	V	0		0.8	
TxDisable Voltage - High	V	2.0		Vcc	
TX Fault Alarm Voltage - Low	V	0		0.4	
TX Fault Alarm Voltage - High	V	2.4		Vcc	

Receiver Optical Characteristics					
Parameter	Unit	Min.	Typ.	Max.	Notes
Operating Wavelength	nm	1480	1490	1500	
Sensitivity	dBm			-28	PRBS223- 1@2488Mbps
Saturation Optical Power	dBm	-3			
Loss of Signal De-Assert	dBm			-29	
Loss of Signal Assert	dBm	-40			
Signal-Detected Hysteresis	dBm	0.5		6	
Receiver Reflectance	dB			-12	$\lambda=1490\text{nm}$
WDM Filter Isolation	dB	38			$\lambda=1550\text{nm}$
	dB	35			$\lambda=1650\text{nm}$

Receiver Electrical Characteristics					
Parameter	Unit	Min.	Typ.	Max.	Notes
Data Output Differential Swing	mV	300		1200	CML output, AC coupled
Loss of Signal - Low	V	0		0.4	
Loss of Signal - High	V	2.4		Vcc	

Mechanical dimension





Notes

1. Precautions for operation: This device is susceptible to damage caused by electrostatic discharge (ESD). It is strongly recommended to use in a static free environment. Follow the correct ESD program guidelines.
2. Laser safety: The radiation emitted by laser equipment may harm to the human eyes. Directly or indirectly contact with the eyes should be avoided.