

Base Product



CommScope GPON Optical Module, class C+, SFP (Small Form-factor Pluggable) package with SC receptacle optical interface, 2488 Mbps downstream Tx/1244 Mbps upstream Rx

FEATURES

- Support ITU-T G.984.2 (08/2019) GPON class C+
- SFP (Small Form-factor Pluggable) package with SC receptacle optical interface
- 1490nm continuous-mode transmitter with DFB laser
- 1310nm burst-mode receiver with APD-TIA
- 2488 Mbps downstream Tx/1244 Mbps upstream Rx
- Digital diagnostic SFF-8472 compliant
- +3.3V power supplies
- RoHS With Exemption 7C(I)
- Operating case temperature: Industrial temp -40 ~ 90°C

Product Classification

Product Type	Optical transceiver
Product Series	SFP

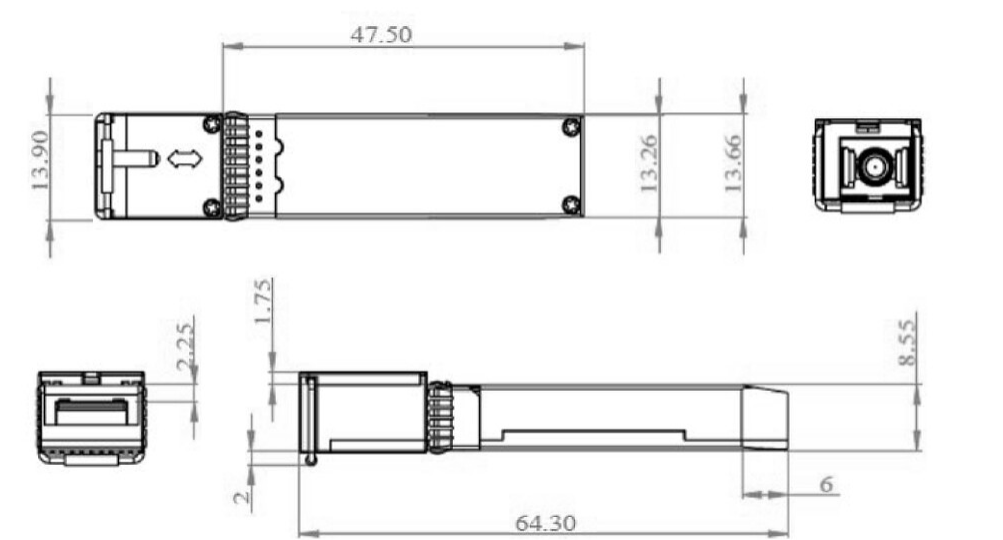
General Specifications

Reflectance, maximum	-20 dB @ 1310 nm   -20 dB @ 1490 nm
Crosstalk at 1490 nm to 1310 nm	-46 dB
Data Rate	1.244 Gbit/s (Rx)   2.488 Gbit/s (Tx)
Transmission Distance, maximum	20 km

Dimensions

Height	12.294 mm   0.484 in
Width	13.894 mm   0.547 in
Length	64.287 mm   2.531 in

Dimension Drawing



Port Configuration

Pin	Logic	Description
1	VeeT	Transmitter Ground
2	TX Fault	Transmitter Fault Indication
3	TX Disable	Transmitter Disable
4	MOD-DEF2	SDA
5	MOD-DEF1	SCL
6	MOD-DEF0	Connected to Ground in the transceiver
7	Reset	Receiver Reset, Active High
8	Rx_LOS	High : Loss of signal; Low: Signal detected
9	RSSI Trigger	LVTTTL Active high
10	VeeR	Receiver Ground
11	VeeR	Receiver Ground
12	RD-	Inv. Receiver Data Out
13	RD+	Receiver Data Out
14	VeeR	Received Ground
15	VccR	Receiver Vcc
16	VccT	Transmitter Vcc
17	VeeT	Transmitter Ground
18	TD+	Transmit Data In
19	TD-	Inv. Transmit Data In
20	VeeT	Transmitter Ground

Electrical Specifications

Input Voltage	+3.14 to +3.46 Vdc
Input Voltage, maximum	3.6 V
Power Consumption, maximum	1.5

<b>Receiver Data Output Differential Swing Range</b>	600–1600 mVpp
<b>Receiver Loss of Signal Assert Time, maximum</b>	12.8 ns
<b>Receiver Loss of Signal de-Assert Time, maximum</b>	50 ns
<b>Receiver Loss of Signal Detected Voltage High, minimum</b>	2.4 V
<b>Receiver Loss of Signal Detected Voltage Low, maximum</b>	0.4 V
<b>Receiver Output Differential Impedance Range</b>	80–120 ohm
<b>Receiver Time to Initialize, maximum</b>	300 ms
<b>Transmitter Data Input Differential Swing Range</b>	200–1600 mVpp
<b>Transmitter Disable Voltage High, minimum</b>	2 V
<b>Transmitter Disable Voltage Low, maximum</b>	0.8 V
<b>Transmitter Fault Indication Voltage High, minimum</b>	2.4 V
<b>Transmitter Fault Indication Voltage Low, maximum</b>	0.4 V
<b>Transmitter Input Differential Impedance Range</b>	90–100 ohm

## Optical Specifications

<b>Optical Port Interface</b>	SC/UPC
<b>Receiver Burst-Mode Dynamic Range</b>	+15 dB to +20 dB
<b>Receiver Center Wavelength</b>	1310 nm nominal (1290–1330 nm)
<b>Receiver Loss of Signal Assert Level, minimum</b>	–45 dBm
<b>Receiver Loss of Signal de-Assert, maximum</b>	–33 dBm
<b>Receiver Saturation, minimum</b>	–12 dBm
<b>Receiver CID, minimum</b>	72
<b>Receiver Sensitivity, maximum</b>	–32 dBm
<b>Receiver Rx Reflectance, maximum</b>	–20 dB
<b>Receiver Reflected Power Tolerance, maximum</b>	10 dB
<b>Transmitter Center Wavelength</b>	1490 nm nominal (1480–1500 nm)
<b>Transmitter Data Rate</b>	2.488 Gb/s
<b>Transmitter Extinction Ratio, minimum</b>	8.2 dB
<b>Transmitter Side Mode Suppression, minimum</b>	30 dB
<b>Transmitter Launch Power Range</b>	+3 to +7 dBm
<b>Transmitter Launch Power OFF Transmitter, maximum</b>	–40 dBm
<b>Transmitter Incident Light Power Tolerance</b>	–15 dB

Environmental Specifications

Operating Temperature	-40 °C to +90 °C (-40 °F to +194 °F)
Storage Temperature	-40 °C to +90 °C (-40 °F to +194 °F)
Operating Humidity	5%–85%
Safety Standard	GPON ITU-T G.984

Regulatory Compliance/Certifications

Agency	Classification
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system