



CommScope FLX™ 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 Brand	CommScope FLX™
Product Series	SFP

General Specifications

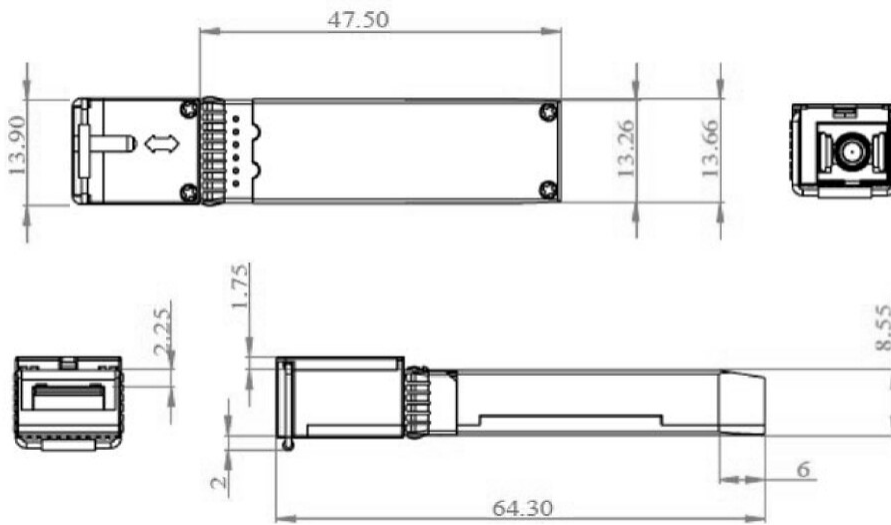
Reflectance, maximum	-20 dB @ 1310 nm -20 dB @ 1490 nm
Crosstalk at 1490 nm to 1310 nm	-46 dB
Data Rate	1.244 Gbit/s (Rx) 2.488 Gbit/s (Tx)
Transmission Distance, maximum	20 km

Dimensions

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

Dimension Drawing

619630-001-00



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

Receiver Data Output Differential Swing Range	600–1600 mVpp
Receiver Loss of Signal Assert Time, maximum	12.8 ns
Receiver Loss of Signal de-Assert Time, maximum	50 ns
Receiver Loss of Signal Detected Voltage High, minimum	2.4 V
Receiver Loss of Signal Detected Voltage Low, maximum	0.4 V
Receiver Output Differential Impedance Range	80–120 ohm
Receiver Time to Initialize, maximum	300 ms
Transmitter Data Input Differential Swing Range	200–1600 mVpp
Transmitter Disable Voltage High, minimum	2 V
Transmitter Disable Voltage Low, maximum	0.8 V
Transmitter Fault Indication Voltage High, mminimum	2.4 V
Transmitter Fault Indication Voltage Low, maximum	0.4 V
Transmitter Input Differential Impedance Range	90–100 ohm
 Optical Specifications	
Optical Port Interface	SC/UPC
Receiver Burst-Mode Dynamic Range	+15 dB to +20 dB
Receiver Center Wavelength	1310 nm nominal (1290–1330 nm)
Receiver Loss of Signal Assert Level, minimum	–45 dBm
Receiver Loss of Signal de-Assert, maximum	–33 dBm
Receiver Saturation, minimum	–12 dBm
Receiver CID, minimum	72
Receiver Sensitivity, maximum	–32 dBm
Receiver Rx Reflectance, maximum	–20 dB
Receiver Reflected Power Tolerance, maximum	10 dB
Transmitter Center Wavelength	1490 nm nominal (1480–1500 nm)
Transmitter Data Rate	2.488 Gb/s
Transmitter Extinction Ratio, minimum	8.2 dB
Transmitter Side Mode Suppression, minimum	30 dB
Transmitter Launch Power Range	+3 to +7 dBm
Transmitter Launch Power OFF Transmitter, maximum	–40 dBm
Transmitter Incident Light Power Tolerance	–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

