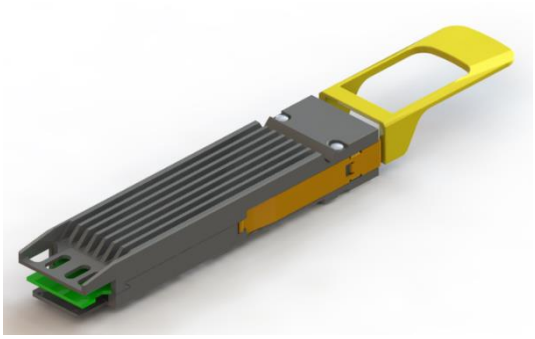
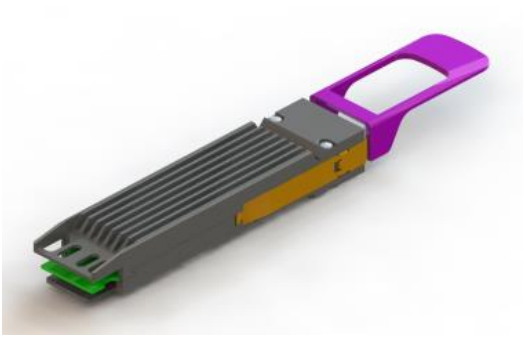
OSFP 400G Loopback Module

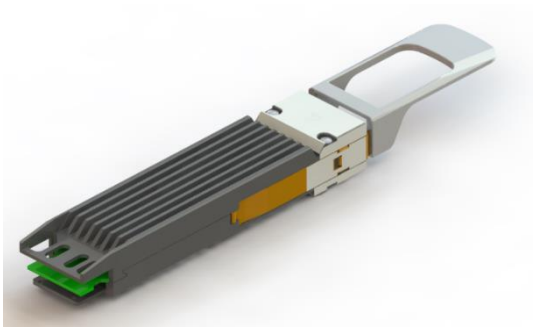


0-Watt



14-Watt TBD

16-Watt



20-Watt

Features

- Industry's highest rated mating cycles for 2000 and above
- Built-in surge current mitigation technology
- Adjustable power consumption evenly distributed to the 4 regions, each region is individually
- programmed between 1.0W through 7.5W with 0.5W increment
- Operating temperature: -40℃ to 85℃
- +3.3V power supply
- Supports 8*10G/25G/56G PAM4 data rates
- 2-wire interface for integrated Digital Diagnostic Monitoring
- Signal integrity performance meets IEEE 802.3ba, 802.3bj, 802.3cd standards respectively
- Enhanced EMC/EMI design for noise harsh environment
- Enhanced heat dissipation technology for high power testing
- Custom EEPROM available
- A multi-color LED indicator for high/low power modes
- Hot-pluggable
- RoHS 2.0 compliant

Application

- OSFP port/system testing
- Ethernet IEEE 802.3 (Gigabit, 10~800 Gigabit Ethernet)
- SONET, SDH, GBE, Fiber Channel Support

Standard

- Common Management Interface Specification, Rev 4.0
- SFF-8024, SFF Cross Reference to Industry Products, Rev 4.7
- OSFP Octal Small Form Factor Pluggable Module, Rev 3.0
- EIA 364 Series
- IEEE 803.2bm
- IEEE 803.2bj
- IEEE 802.3cd
- IEEE802.3bs

Description

Designed and engineered to accommodate customers high usage 2000 cycles at -40°C to 85°C, the loopback module series are the most reliable products in the market to enable the quickest customers systems production and deployment. Software defined multiple power consumption may emulate the optical module power, and the embedded insertion loss characteristics emulates the real-world cabling for 100G/400GEthernet/Infiniband/FC. The built-in surge current mitigation technology mitigates the DUT risks from being damaged. The broad operating temperature range accommodates the enterprise, datacom and telecom applications. The loopback module may be used for ports testing, field deployment testing and equipment troubleshooting.

Specification

Absolute Maximum Ratings				
Parameter	**Symbol**	**Min**	**Max**	**Unit**
Storage Temperature	Ts	-40	+85	℃
Ambient Operating Temperature	Ta	-40	+85	℃
Storage Relative Humidity	RH_S	0	95	%
Operating Relative Humidity	RH_O	0	85	%
Power Supply Voltage	Vcc	2.97	+3.63	V

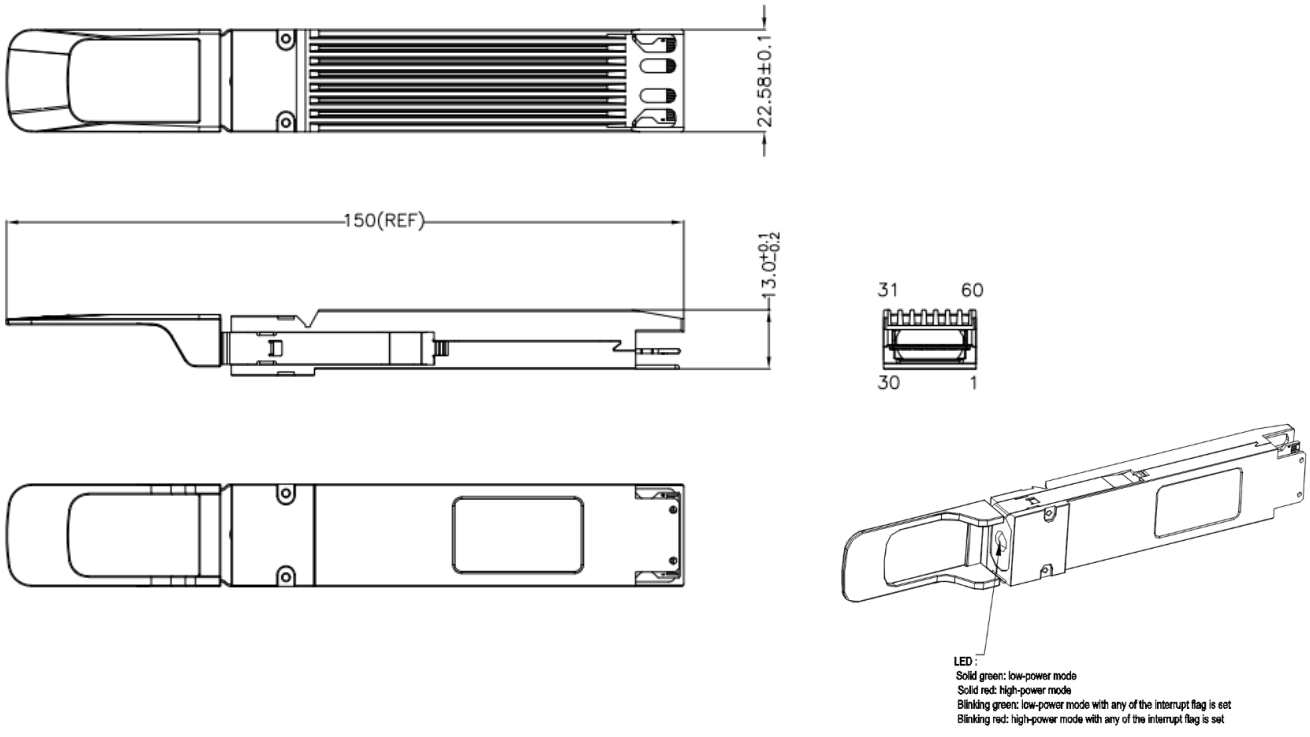
Recommended Operating Conditions					
Parameter	**Symbol**	**Min**	**Typical**	**Max**	**Unit**
Ambient Operating Temperature	Ta	-40	-	+85	℃
Power Supply Voltage	V_{CC}	2.97	3.3	3.63	V
Data Rate	BRate	0.1	-	400	Gbps
Durability Cycles		-	2000	2250	Cycles

High Speed Characteristics						
Parameter	**Symbol**	**Min**	**Typical**	**Max**	**Unit**	**Notes**
Input/Output Impedance	Zd	90	100	110	Ohm	Differential Impedance
Differential Input/Output Return Loss	SDD11 /22	IEEE 802.3bj CL92.10.3.			dB	At Nyquist Frequency

Insertion Loss	SDD21	$SDD21_{MIN} = -0.005 * f^2 - 2 * IL_{catf}(f)$	-	$SDD21_{MAX} = -0.015 * (8+f)^2 - 2 * IL_{tcatf}(f)$	dB	
		f is frequency in GHz; $IL_{catf}(f)$ is the reference test fixture printed circuit board insertion loss3 at frequency f; Exclude the MCB insertion loss, at 13GHz, the loopback insertion loss is SDD21MIN(13GHz) = -0.845dB, SDD21MAX(13GHz) = -6.615dB				
Insertion Loss Deviation	ILD	-1.0	-	+1.0	dB	At Nyquist Frequency
Intra Pair Skew	IPS			200	ps	

Package Outline

Dimensions are in millimeters. (Unit: mm)



Ordering Information

Model Number	Part Number	Product Description
T-50-O-LB-200	1190100033200	OSFP 400G Loopback 20W,WHITE PULLTAB
T-50-O-LB-160	1190100033160	OSFP 400G Loopback 16W,BLACK PULLTAB
T-50-O-LB-140	1190100033140	OSFP 400G Loopback 14W,PURPLE PULLTAB
T-50-O-LB-000	1190100033000	OSFP 400G Loopback 0W ,YELLOW PULLTAB