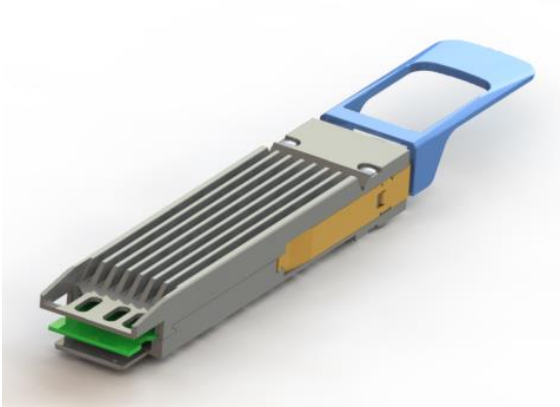


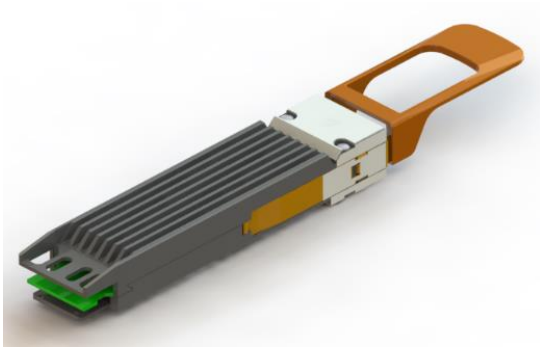
OSFP112 800G Loopback Module



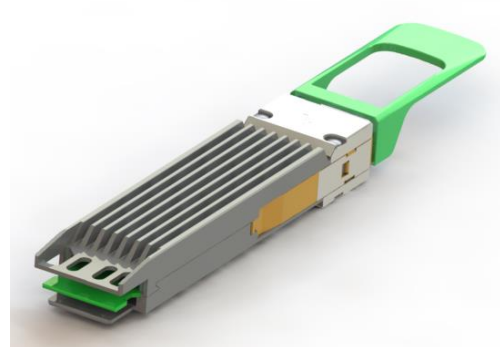
0-Watt



16-WattTBD



24-Watt



30-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°C to 85°C
- ◆ +3.3V power supply
- ◆ Supports 8*10G/25G/56G PAM4/112G PAM4 data rates
- ◆ 2-wire interface for integrated Digital Diagnostic Monitoring
- ◆ Signal integrity performance meets IEEE 802.3ba, 802.3bj, 802.3cd , 802.3ck 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
- ◆ IEEE 802.3ck D3.0

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/400G/800G Ethernet/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	T _s	-40	+85	°C
Ambient Operating Temperature	T _a	-40	+85	°C
Storage Relative Humidity	RH _s	0	95	%
Operating Relative Humidity	RH _o	0	85	%
Power Supply Voltage	V _{cc}	2.97	+3.63	V

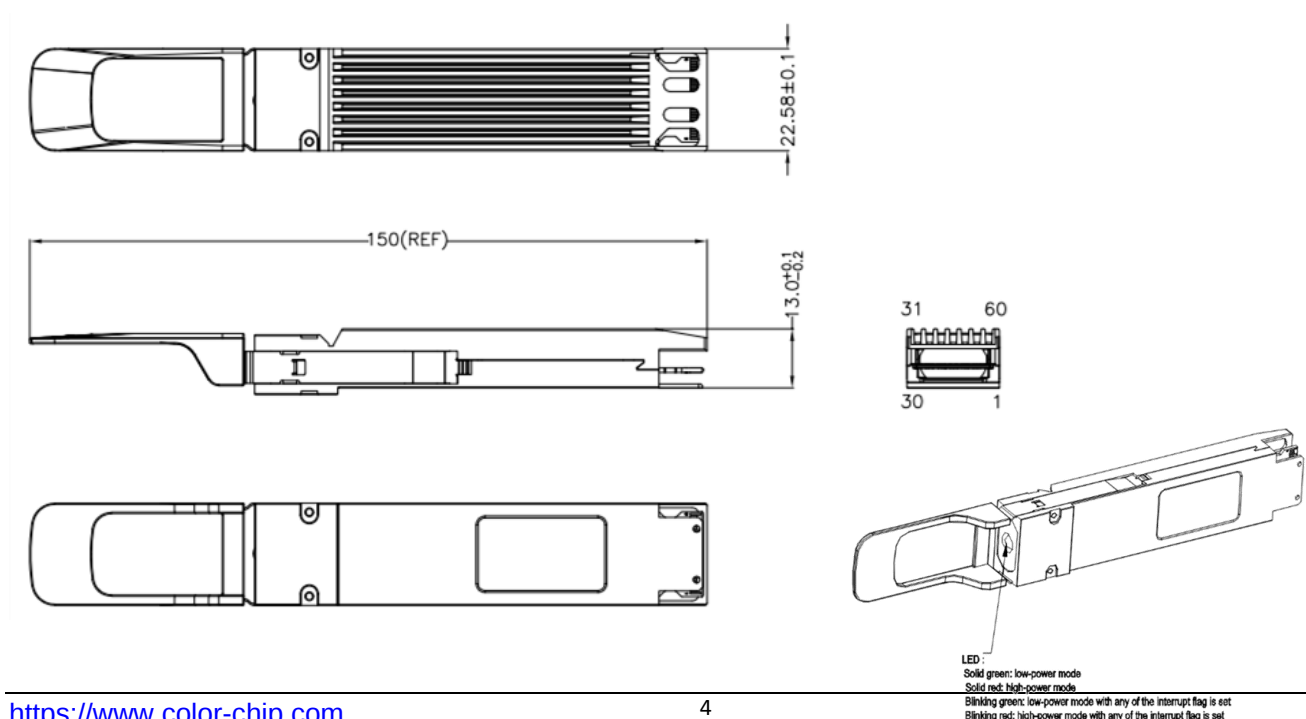
Recommended Operating Conditions					
Parameter	Symbol	Min	Typical	Max	Unit
Ambient Operating Temperature	T _a	-40	-	+85	°C
Power Supply Voltage	V _{cc}	2.97	3.3	3.63	V
Data Rate	BRate	0.1	-	800	Gbps
Durability Cycles		-	2000	2250	Cycles

High Speed Characteristics						
Parameter	Symbol	Min	Typical	Max	Unit	Notes
Input/Output Impedance	Z _d	90	95	105	Ohm	Differential Impedance
Differential Input/Output Return Loss	SDD11	Per IEEE802.3ck			dB	At Nyquist Frequency
	SDD22	Per IEEE802.3ck			dB	At Nyquist Frequency

Insertion Loss	SDD21	$IL_{LBmin}(f)$ $= 0.23$ $* (-0.00125$ $+ 0.12\sqrt{f}$ $+ 0.0575 * f)$	-	$IL_{LBmax}(f)$ $= 0.61$ $* (-0.00125$ $+ 0.12\sqrt{f}$ $+ 0.0575 * f)$	dB	
		f is frequency in GHz between 0.01 GHz and 50 GHz $IL_{LBmin}(f)$ is the minimum loopback insertion loss at frequency; $IL_{LBmax}(f)$ is the maximum loopback insertion loss at frequency; Exclude the MCB insertion loss, at 28GHz, the loopback insertion loss is: • ILLBmin (28GHz) = 0.52 dB, and • ILLBmax (28GHz) = 1.37 dB				
Insertion Loss Deviation	ILD	Per IEEE802.3ck			dB	At Nyquist Frequency
Intra Pair Skew	IPS			100	ps	

Package Outline

Dimensions are in millimeters. (Unit: mm)





ColorChip Technology Co., LTD.

Better World Beyond Optics

ColorChip SmartLoop for OSFP112 800G

Ordering Information

Model Number	Part Number	Product Description
T-100-O-LB-300	1190100034300	OSFP112 800G Loopback 30W, GREEN PULLTAB
T-100-O-LB-240	1190100034240	OSFP112 800G Loopback 24W, ORANGE PULLTAB
T-100-O-LB-160	1190100034160	OSFP112 800G Loopback 16W, CYAN PULLTAB
T-100-O-LB-000	1190100034000	OSFP112 800G Loopback 0W , BLUE PULLTAB