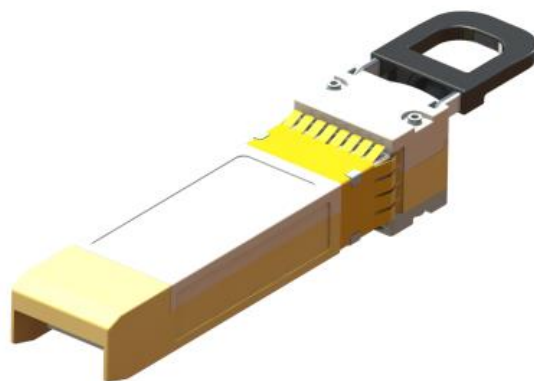
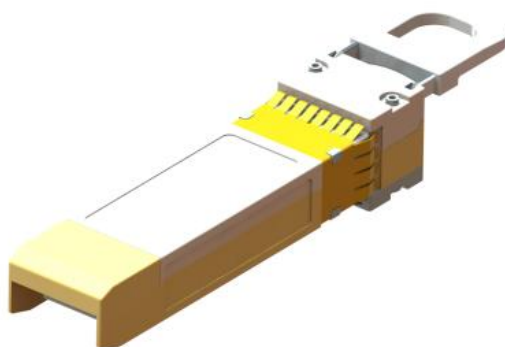


SFP28/10 25G/10G Loopback Module



0-Watt



2.5-Watt

Features

- ◆ Industry's highest rated mating cycles for 2000 and above
- ◆ Built-in surge current mitigation technology
- ◆ Adjustable power consumption up to 2.5W
- ◆ Operating temperature: -40°C to 85°C
- ◆ +3.3V power supply
- ◆ Supports 10G/25G data rates
- ◆ 2-wire interface for integrated Digital Diagnostic Monitoring
- ◆ Signal integrity performance meets IEEE 802.3ba, 802.3bj standards respectively
- ◆ Enhanced EMC/EMI design for noise harsh environment
- ◆ Custom EEPROM available
- ◆ A multi-color LED indicator for high/low power modes
- ◆ Hot-pluggable
- ◆ RoHS 2.0 compliant

Application

- ◆ SFP port/system testing
- ◆ Ethernet IEEE 802.3
- ◆ SONET, SDH, GBE, Fiber Channel Support

Standard

- ◆ SFF-8024, SFF Cross Reference to Industry Products, Rev 4.7
- ◆ SFP MSA SFF-8472,8432,8419,8071
- ◆ EIA 364 Series
- ◆ IEEE 803.2bm
- ◆ IEEE 803.2bj
- ◆ 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 10G/25G 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	Ts	-40	+85	°C
Ambient Operating Temperature	Ta	-40	+85	°C
Storage Relative Humidity	RHs	0	95	%
Operating Relative Humidity	RHo	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	°C
Power Supply Voltage	Vcc	2.97	3.3	3.63	V
Data Rate	BRate	0.1	-	25	Gbps
Durability Cycles		-	2000	2250	Cycles

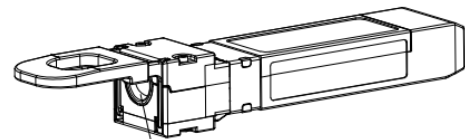
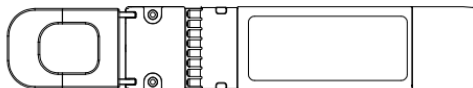
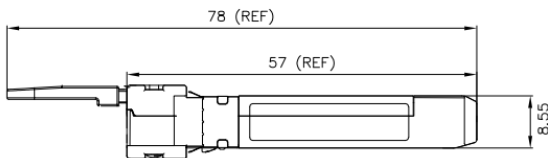
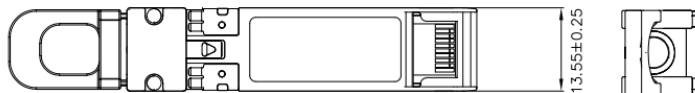
High Speed Characteristics						
Parameter	Symbol	Min	Typical	Max	Unit	Notes
Input/Output Impedance	Zd	90	100	110	Ohm	Differential Impedance
Differential Input/Output Return Loss	SDD11	IEEE 802.3bj CL92.10.3.			dB	At Nyquist Frequency

ColorChip SmartLoop for SFP 25/10G

Insertion Loss for SFP28	SDD21	$IL_{min}(f) = 0.0025 + 0.46\sqrt{f} + 0.185f + 0.01f^2 + 2 * IL_{catf}(f)$	-	$IL_{min}(f) = 0.0025 + 2.21\sqrt{f} + 0.185f + 0.0169f^2 + 2 * IL_{catf}(f)$	dB	f is frequency in GHz ; $IL_{catf}(f)$ is the reference test fixture printed circuit board insertion loss per Equation 92-35 of IEEE 802.3bj Standard at frequency f;
Insertion Loss Deviation	ILD	-1.0	-	+1.0	dB	At Nyquist Frequency

Package Outline

Dimensions are in millimeters. (Unit: mm)



LED:
 Solid green: low-power mode
 Solid red: high-power mode
 Blinking green: low-power mode with alarm/warning flag
 Blinking red: low-power mode with alarm/warning flag



ColorChip Technology Co., LTD.

Better World Beyond Optics

ColorChip SmartLoop for SFP 25/10G

Ordering Information

Model Number	Part Number	Product Description
T-25-S-LB-000	1050100032000	SFP28/10 25G/10G Loopback 0W, BLACK Pull-Tab
T-25-S-LB-025	1050100032025	SFP28/10 25G/10G Loopback 2.5W, WHITE Pull-Tab