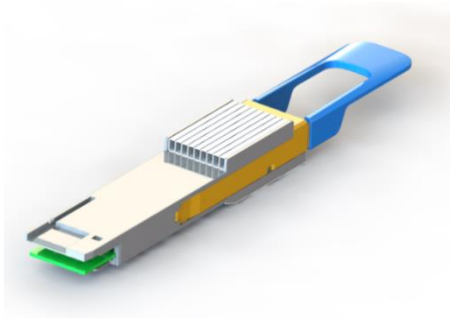
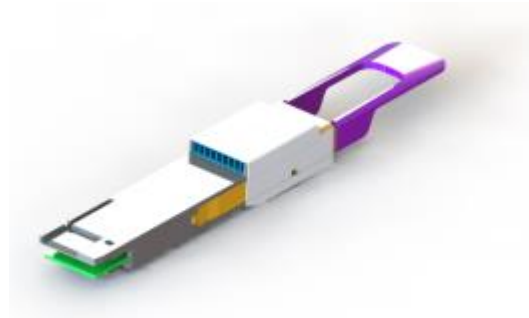


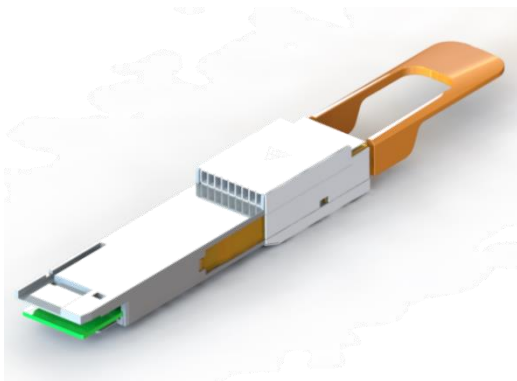
QSFP-DD800 800G Loopback Module



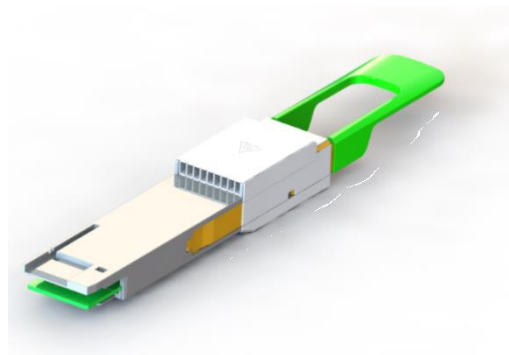
0-Watt



16-Watt TBD



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 3 regions, each region is individually programmed between 1.0W through 10.0W with 0.5W increment
- ◆ Operating temperature: -40°C to 85°C
- ◆ +3.3V power supply
- ◆ Supports 8*10G/25G/56G PAM4/112G data rates
- ◆ 2-wire interface for integrated Digital Diagnostic Monitoring
- ◆ Signal integrity performance meets IEEE 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 3.0 compliant

Application

- ◆ QSFP-DD port/system testing
- ◆ Ethernet IEEE 802.3 (Gigabit, 10 Gigabit and 25 Gigabit Ethernet)
- ◆ SONET, SDH, GBE, Fiber Channel Support

Standard

- ◆ Common Management Interface Specification, Rev 4.0
- ◆ QSFP-DD/QSFP-DD800/QSFP112 Hardware Specification, Rev 6.01
- ◆ IEEE Std 802.3cd
- ◆ IEEE Std 802.3ck Draft 3.0
- ◆ IEEE 802.3cd
- ◆ IEEE 802.3bj
- ◆ SFF-8024, SFF Cross Reference to Industry Products, Rev 4.7

Description

Designed and engineered to accommodate customers high usage 2000 cycles from -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	Ts	-40	+85	°C
Ambient Operating Temperature	Ta	-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

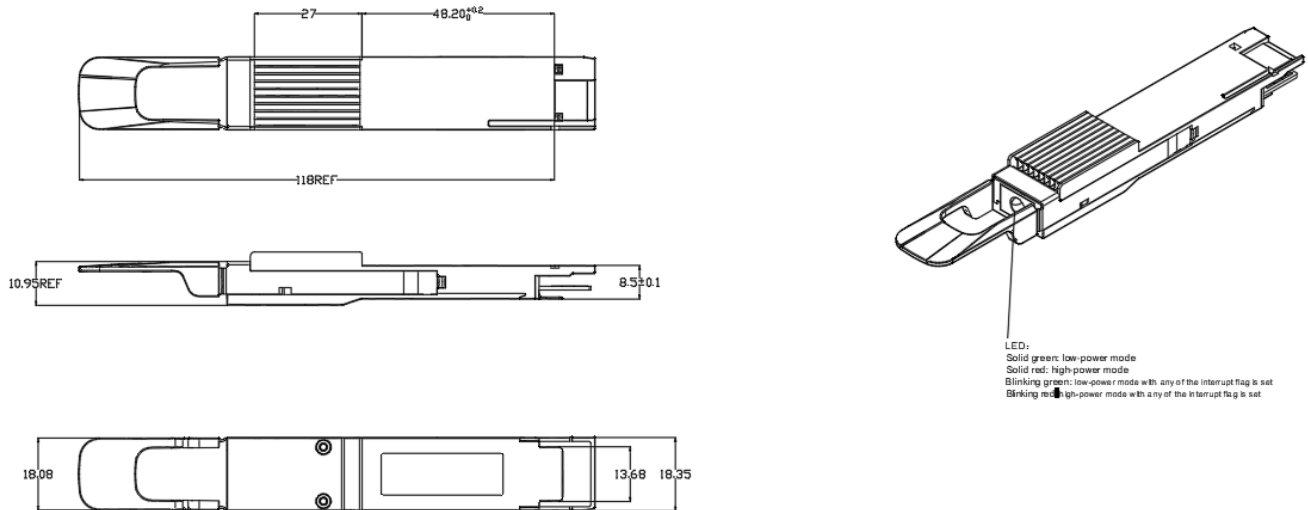
Recommended Operating Conditions					
Parameter	Symbol	Min	Typical	Max	Unit
Ambient Operating Temperature	Ta	-40	-	+85	°C
Power Supply Voltage	V _{cc}	2.97	3.3	3.63	V
Data Rate	BRate	0.1	-	800	Gbps
Durability Cycles		-	2000	2250	Times

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	IEEE 802.3ck			dB	At Nyquist Frequency
	SDD22	IEEE 802.3ck			dB	At Nyquist Frequency

Insertion Loss	SDD21	$IL_{LBmin}(f) = 0.36 * (-0.00125 + 0.12\sqrt{f} + 0.0575 * f)^2$	-	$IL_{LBmax}(f) = 1.12 * (-0.00125 + 0.12\sqrt{f} + 0.0575 * f)$	dB	<p>where f is frequency in GHz between 0.01GHz and 50.00GHz $IL_{LBmin}(f)$ is the minimum loopback insertion loss at frequency f $IL_{LBmax}(f)$ is the maximum loopback insertion loss at frequency f Exclude the MCB insertion loss, at 28GHz, the loopback insertion loss is:</p> <ul style="list-style-type: none"> • $IL_{LBmin}(28GHz) = 0.81$ dB, and • $IL_{LBmax}(28GHz) = 2.51$ dB
Insertion Loss Deviation	ILD	IEEE 802.3ck			dB	At Nyquist Frequency
Intra Pair Skew	IPS			100	ps	

Package Outline

Dimensions are in millimeters. (Unit: mm)



Ordering Information

Model Number	Part Number	Product Description
T-100-QD-LB-300	1180100034300	QSFP-DD800 800G Loopback 30W ,GREEN Pull-Tab
T-100-QD-LB-240	1180100034240	QSFP-DD800 800G Loopback 24W ,ORANGE Pull-Tab
T-100-QD-LB-160	1180100034160	QSFP-DD800 800G Loopback 16W ,PURPLE Pull-Tab
T-100-QD-LB-000	1180100034000	QSFP-DD800 800G Loopback 0W ,BLUE Pull-Tab