

Super QSFP(100G) and Ultra QSFP(200G) Loopback
(Enhanced Version)



OVERVIEW

Luxshare-TECH’ s Super QSFP(100G) and Ultra QSFP(200G) passive electrical loopback module is used for high speed testing applica- tion for QSFP host ports. The Super QSFP loopback is designed for 100Gbps(Super QSFP) and 200G(Ultra QSFP) Ethernet applica- tions, which the loopback provides 4x28Gbps(NRZ) or 4x56Gps(PAM4) RX and TX lanes, I2C module management interface and all the QSFP SFF hardware signals. This Loopback module loops back 4-lane 28Gb/s transmit data from the Host back to 4-lane 28Gbps or 56Gbps(PAM4) receive data port to the Host, it provides an efficient way to verify QSFP ports during R&D test, production testing and field testing.

Luxshare-TECH Super QSFP(100G) and Ultra QSFP(200G) Loopback provides programmable power dissipation up to 6.5W allowing the module to emulate all the Super QSFP and Ultra QSFP power classes. It also provides a voltage sense, an insertion counter, a power staging, a LED blinking rate, an upper temperature cut off and 4 temperature sensors.

FEATURES & BENEFITS

- High speed signals Loopback: TX are electrically looped back to RX per lane with attenuation options at 28Gbps/lane(Super QSFP) and 56Gbps/lane (Ultra QSFP)
- Adding-18dB attenuation into the link of Tx looped back to Rx, similiar to DAC feature
- Data communication interface:The Loopback Module supports the same I2C interface as optical module
- LED indicator: A dual-color LED shows low/high power mode status and I2C enable/disable status
- Power control: Power dissipation could be controlled by I2C artificially, Range 0.3-6.5W, resolution is 0.2W
- Temperature monitor: 2 sensors on PCBA, another two closed to shell. Temp data could be read by I2C
- Operating Temperature is-20~105degree
- Cut-off temperature:A Cut-off temperature is pre-defined by register. Avoiding the overheating
- Insertion counter: Insertion action could be counted and it is nonvolatile.
- Voltage monitoring: Vcc could be detected. Range 0~3600mV, Resolution 0.1mV
- Device information read/write access right: System ID, Revision, Module dynamic info. Password entry etc
- Low speed signal: Modsel, Reset, Lpmode, Modprsl, IntL, SCL&SDA etc
- Visual software interface: Intelligent user interface available

PRODUCT APPLICATIONS

Server test
Switch and Router
HPC test
Router/Switch test

INDUSTRY STANDARDS

SFF 8636
SFF 8679
IEEE802.3bj

TECHNICAL INFORMATION

MATERIAL

Contact gold plated 30u"
Nickel plated zinc die cast shells & latching
Mechanism parts
Thermoplastic cable pull tab

ELECTRICAL PERFORMANCE

Differential impedance: 100 ohm
Current : 0.5 A/contact
Voltage: 30 V AC/contact

MECHANICAL PERFORMANCE

Rated Durability Cycles 250
Latch Pull Strength 90N MIN
Cable Retention in Plug 90N MIN

ENVIRONMENTAL

Storage temperature range: -40°C to +125°C
Operating temperature: -20°C to +105°C
RoHS compliant

SPECIFICATION

ES-10-00-0024

Partial PN Table

Product Numbers	Product Description
LA0QF149-SD-R	S-QSFP Loopback-18dB
LA0QF202-SD-R	S-QSFP Loopback FPC -18dB 3.5W