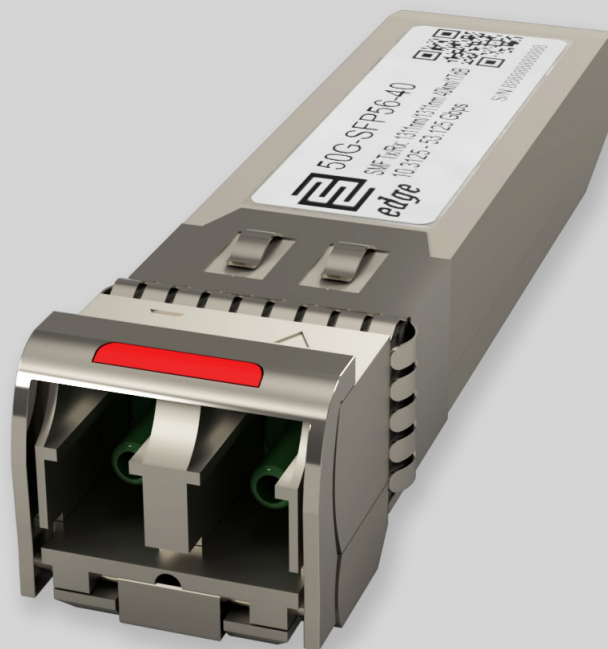


Key Highlights:

- **Type:** 50GBASE-ER SFP56
- **Compatibility:** Multi-Vendor MSA Compatible
- **Tx/Rx Wavelength:** 1310nm
- **Laser:** Cooled EML
- **Modulation:** PAM4
- **Fiber Type:** Single-Mode Fiber (SMF)
- **Connectors:** LC
- **Optical Budget:** 17 dB
- **Max. Distance:** 40 km
- **Data Rate:** 53.125 Gbps
- **Forward Error Correction:** Host FEC supported
- **DDM/DOM:** Supported
- **Power Consumption:** ≤ 3 W
- **Temperature:** Standard 0°-70°C



Optical Transceiver : 50G-SFP56-40

Product Description:

50G-SFP56-40 is a Multi-Vendor MSA Compatible 50GBASE-ER SFP56 (Small Form Pluggable 56). Transceiver designed for operation over single-mode optical fiber. Module has a minimum guaranteed optical budget of 17 dB, which in most cases is enough to reach 40 km distance using single-mode cable. However, distance is just an indicative parameter calculated for comfort of identification. Eventually we calculate distance taking in account minimal optical budget and average attenuation of optical cabling in industry. 50G-SFP56-40 uses 1x50Gb/s EML TOSA (1310nm) laser transmitters and 50Gb/s APD photodiode receiver. Module support DDM/DOM optical diagnostics, which provide diagnostic information about the present operating conditions. Additionally, the module supports FEC (Forward Error Correction) function which will help receiving side detect and correct bit errors and improve the overall quality of the link. 50G-SFP56-40 operates in standard 0°-70°C temperature range and has an LC connector. 50GBASE-ER SFP56 supports up to 53.125 Gbps data rate and such applications as 10G, 25G, 50G Ethernet (53.125 Gbps). 50G-SFP56-40 optical transceiver is a multi-purpose module which can be used in various scenarios in today's networking environment. Most popular applications are Internet Service Provider (ISP), Mobile



Operator and Data Center Core Networks. Transceiver is CE/RoHS certified and is compliant with product safety standards. The 50G-SFP56-40 transceiver is fully compliant to SFP56 Multi Source Agreement (MSA), IEEE802.3cd 50GBASE-ER standard. Consequently compliance to above standards guarantees that module is compatible and works with majority of networking equipment, where is not implemented special algorithm for protection against third party modules. However – our technical team has accumulated deep expertise in custom-encoded firmware's for 50GBASE-ER SFP56 transceivers in order to make it work in almost any brand of equipment. We will be glad to know your requirements – Contact Us.

Product Specification:

General parameter	Value
Media Type:	1 Lane of SMF
Connectors:	LC
TX Wavelength:	1310 nm
RX Wavelength:	1310 nm
Minimum Optical Budget:	17 dB
Maximum Distance:	40km
Supported Data Rate:	10.31, 25.78, 53.125 Gbps
Modulation:	PAM4
Supported Applications:	10G Ethernet 25G Ethernet 50G Ethernet
Digital Diagnostic Monitoring (DDM):	Supported
Forward Error Correction (FEC):	No
Operating Temperature Range:	Standard 0°- 70°C
Storage Temperature Range:	- 40° to 85°C
Relative Humidity (Non-Condensation):	5 to 95%
Power Consumption:	≤3W
Power Supply Voltage Typical:	+ 3.3V
Power Supply Voltage Range:	-3.135 to 3.465V
Compliance:	Class 1 FDA, IEC60825-1 Laser Safety Compliant, IEEE802.3cd 50GBASE-ER, RoHS-6, CE, SFP56 MSA, SFP-8472 V12.3, SFP-8431

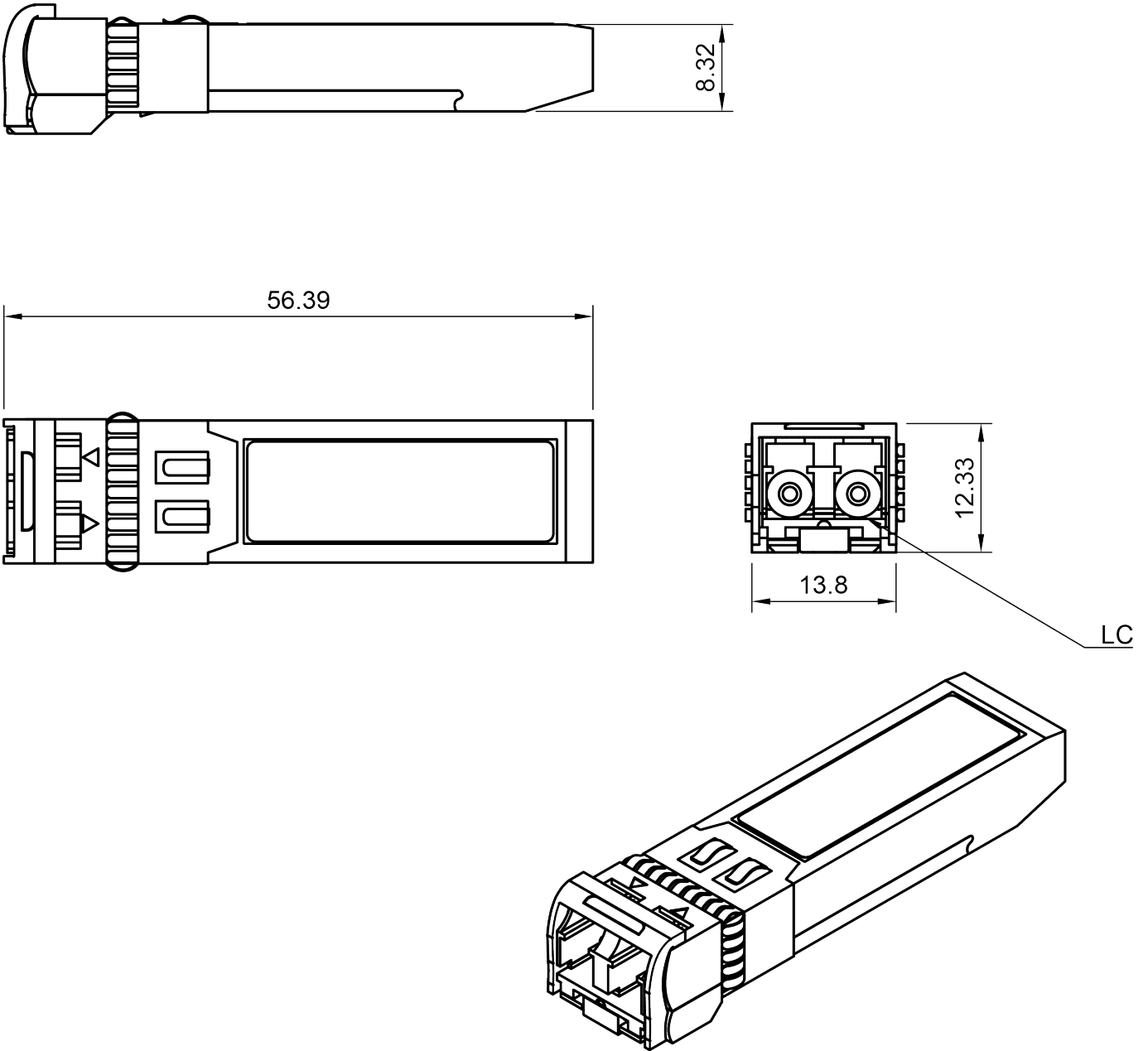


Transmitter Parameters:	Value
Transmitter Type:	Cooled EML Laser
Tx Wavelength Bandwidth:	13 nm (1304-1317 nm)
Average Launch Power, Each Lane (Max):	6.6 dBm
Average Launch Power, Each Lane (Min):	0.6 dBm
Extinction Ratio (Min):	6 dB

Receiver Parameters:	Value
Receiver Type:	APD
Rx Wavelength Bandwidth:	13 nm (1304-1317 nm)
Average Receive Power Each Lane (Min):	-17.6 dBm
Average Receive Power Each Lane (Max):	-3.4 dBm
Damage Threshold Each Lane:	-3.4 dBm



Mechanical Drawing



Compatibility:

EDGE Optical transceivers can be provided with custom-encoded firmware, in order to provide compatibility with more than 100 vendor brands in data and telecom communications industry:

MS - General MSA**AD** - ADVA**AE** - Advantech**AL** - Alcatel (Nokia)**AT** - Allied Telesis**AR** - Arista**AS** - Arris**AV** - Avaya**BC** - Barracuda**BR** - Broadcom**QL** - Cavium (Qlogic)**CR** - Ceragon**CP** - Checkpoint**CH** - Chelsio**CN** - Ciena**CI** - Cisco**LI** - Cisco (Linksys)**CE** - Comnet**CO** - Coriant**DH** - Dahua**DC** - DCN**DL** - Dell & Force10**DK** - D-Link**DZ** - DZS(Dasan-Zhone)**EI** - ECI**EC** - EdgeCore**EW** - EdgeWare**EL** - Eltex**EM** - EMC2**EN** - Enterasys**ER** - Ericsson**EF** - EXFO**EX** - Extreme Networks**F5** - F5 Networks**FI** - Finisar**FO** - Fortinet**FU** - Fujitsu**H3** - H3C**HI** - Hirschmann**HU** - Huawei**IB** - IBM**IF** - Infinera**IN** - Intel**IX** - Ixia**JU** - Juniper Networks**KM** - KeyMile**KY** - KyLand**LN** - Lenovo**ML** - Mellanox**ME** - Meraki (Cisco)**MT** - MikroTik**MO** - Moxa**MR** - MRV**NC** - NEC**NG** - Netgear**NK** - Nokia**NT** - Nortel**NS** - NSN**OR** - Oracle**PA** - Palo Alto Network**PL** - Planet**QC** - QCT(Quanta)**QN** - QNAP**RD** - RAD**RW** - RadWare**RC** - Raisecom**RK** - Ruckus**RU** - Ruijie Networks**SG** - Samsung**SV** - Sandvine**SC** - Silicom**SF** - SolarFlare**SW** - Sonicwall**SM** - Supermicro**SY** - Synology**TC** - Telco Systems**TP** - TP-LINK**TN** - Trendnet**UN** - Ubiquiti Networks**VX** - VeEx**WG** - WatchGuard**WS** - Waystream**WT** - Westermo**ZT** - ZTE**ZX** - Zyxel**HP** - HP**AG** - Avago**OC** - Oclaro**EU** - Emulex**TM** - Transmode**AU** - HP Aruba**XX** - Other

Warranty:

EDGE Optic's provides a limited **warranty for sixty (60) months** from Purchaser's receipt of the Equipment represented in this data sheet against defective design or workmanship. Warranty does not cover damage caused by improper

