

Key Highlights:

- **Type:** 200G-SR4 QSFP56
- **Compatibility:** Multi-Vendor MSA Compatible
- **Tx/Rx Wavelength:** 4x850nm/4x850nm
- **Laser:** VCSEL
- **Modulation:** PAM4
- **Fiber Type:** Multi-Mode Fiber (MMF)
- **Connectors:** MTP/MPO-12 PC
- **Optical Budget:** 1.9 dB
- **Max. Distance:** 100 m (OM4) / 70 m (OM3) with FEC
- **Data Rate:** 212.5 Gbps (4 x 53.125 Gbps)
- **FEC Forward Error Correction:** Supported
- **DDM/DOM:** Supported
- **Power Consumption:** ≤5 W
- **Temperature:** Standard 0° - 70°C



Optical Transceiver : 200G-QSFP56-100

Product Description:

200G-SR4 QSFP56 is a Multi-Vendor MSA Compatible 200GBASE-SR4 QSFP56 (Quad Small Form-Factor Pluggable) Transceiver designed for operation over Multi-Mode Fiber (MMF). 200G-SR4 QSFP56 has a QSFP form factor, built in 200G PAM4 (Pulse Amplitude Modulation 4-level) DSP (Digital Signal Processor) and module supports four electrical interface lanes, which can operate in 50G PAM4 encoding mode resulting in 200G (4x50G) data rate. 200GBASE-SR4 QSFP56 module becomes handy in Data Center environments where we would need to connect multiple 200G signals from the server side (NICs) to the Data Center aggregation switch. Module has a minimum guaranteed optical budget of 1.9 dB, which in most cases is enough to reach 100 m over OM4 multimode fiber, or 70 m over OM3 multimode fiber with FEC support. 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. 200G-SR4 QSFP56 uses 4 channel 53.125 Gbps VCSEL (Vertical Cavity Surface Emitting Laser) 850 nm transmitters and 4 channel 53.125 Gbps PIN 850 nm photodiode receivers. Module supports DDM/DOM optical diagnostics, which provide



diagnostic information about the present operating conditions. 200GBASE-SR4 QSFP56 operates in the standard 0°-70°C temperature range and has an MPO/MTP-12 PC optical connector and 38 pins edge connector for electrical interface. 200GBASE-SR4 QSFP56 supports 212.5 Gbps data rate and such applications as 200G Ethernet.

The 200G-SR4 QSFP56 transceivers are widely used in Mellanox, Intel, Arista, Huawei and other industry well known manufacturers equipment. Transceivers are CE/RoHS certified and are compliant with product safety standards. 200G-QSFP56-100 transceiver is fully compliant to 200GBASE-SR4 QSFP56 Multi Source Agreement (MSA), where IEEE Std 802.3bs defines physical layer specifications 200GAUI-4 electrical interface, IEEE 802.3cd defines four-lane 200 Gbit/s PHYs operation over Multi-Mode Fiber (MMF) with lengths up to 100 meters, SFF-8679 defines QSFP+ 4X Hardware and Electrical Specification and module is Common Management Interface Specification CMIS V4.0 compliant. 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 – we have accumulated expertise in custom-encoded firmware for 100G-QSFP56-100 in order to make these modules work in almost any brand of equipment. We will be glad to know your requirements – Contact Us.

Product Specification:

General parameter	Value
Media Type:	4 Lanes of MMF
Connectors:	MTP/MPO-12 PC
TX Wavelength:	4x850 nm
RX Wavelength:	4x850 nm
Minimum Optical Budget:	1.9 dB
Maximum Distance:	100 m (OM4) / 70 m (OM3)
Supported Data Rate:	212.5 Gbps
Supported Applications:	200G Ethernet (212.5 Gbps)
Modulation:	PAM4
DDM/DOM:	Supported
CDR (Clock and Data Recovery) chip	Supported
Forward Error Correction (FEC):	Supported
Operating Temperature Range:	Standard 0°- 70°C
Storage Temperature Range:	- 40° to 85°C
Relative Humidity (Non-Condensation):	0 to 85%
Power Consumption:	≤5 W



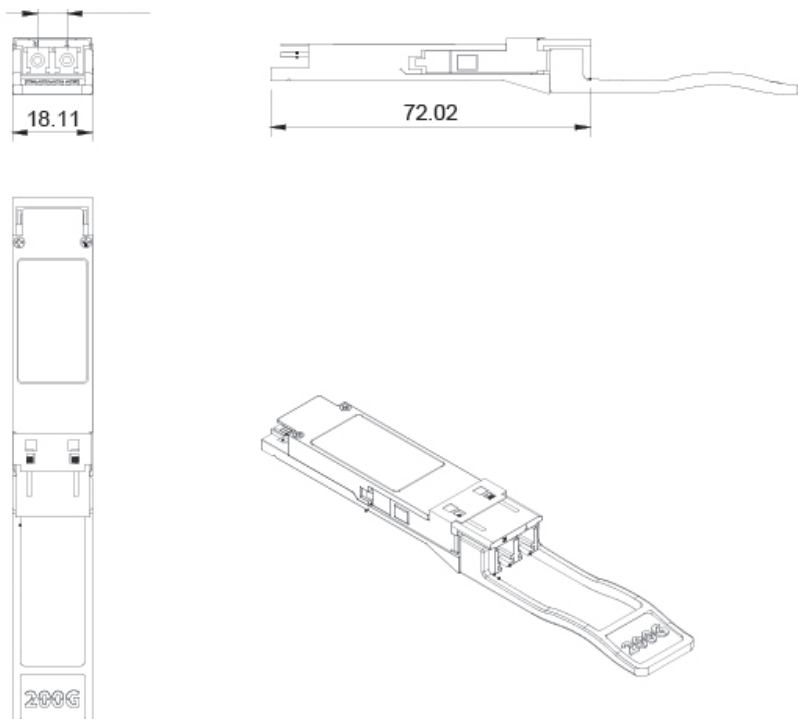
General parameter	Value
Power Supply Voltage Typical:	+ 3.3 V
Compliance:	IEEE Std 802.3bs, 200GAUI-4, IEEE 802.3cd, SFF-8679, CMIS V4.0, RoHS-6, CE

Transmitter Parameters:	Value
Transmitter Type:	4xVCSEL
Tx Wavelength Bandwidth:	850 nm
Average Launch Power Each Lane (Max):	+4 dBm
Average Launch Power Each Lane (Min):	-6.5 dBm
Extinction Ratio (Min):	3 dBm

Receiver Parameters:	Value
Receiver Type:	4xPIN
Rx Wavelength Bandwidth:	850 nm
Average Receive Power Each Lane (Min):	-8.4 dBm
Average Receive Power Each Lane (Max):	+4 dBm
Receiver Overload:	+4 dBm



Mechanical Dimensions



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 deployment, misuse and accidents.

