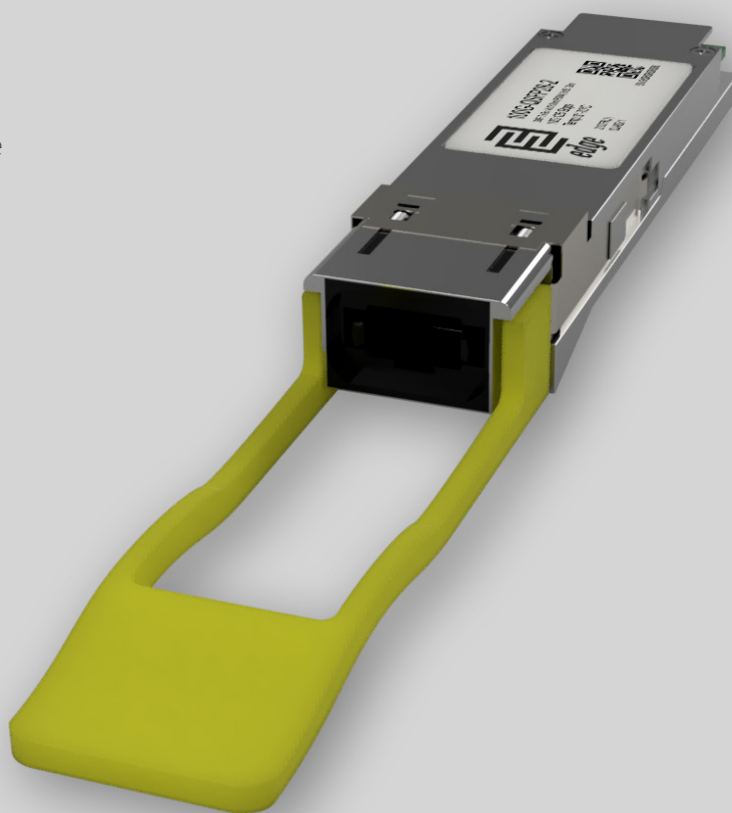


Key Highlights:

- **Type:** 100GBASE-PSM4 & IR4 QSFP28
- **Compatibility:** Multi-Vendor MSA Compatible
- **Tx/Rx Wavelength:** 1310nm/1310nm
- **Laser:** DML
- **Fiber Type:** Single-Mode Fiber (SMF)
- **Connectors:** MTP/MPO
- **Optical Budget:** 8 dB
- **Max. Distance:** 500m / 2km
- **Data Rate:** 103.125 Gbps
- **FEC Forward Error Correction:** Supported
- **DDM/DOM:** Supported
- **Power Consumption:** $\leq 3.5W$
- **Temperature:** Standard 0°-70°C



Optical Transceiver : 100G-QSFP28-2

Product Description:

100G-QSFP28-2 is Multi-Vendor MSA Compatible 100GBASE-PSM4/IR4 QSFP28 (Quad Small Form-Factor Pluggable 28) Transceiver designed for operation over single-mode optical fiber. Module has minimum guaranteed optical budget of 8 dB, which in most cases is enough to reach 2 km distance using single-mode fiber. However, distance is just 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. 100G-QSFP28-2 uses cooled 25Gb/s DML (1310 nm) laser transmitters and 25Gb/s PIN photodiode receivers. Module support DDM/DOM optical diagnostics, which provide diagnostic information about the present operating conditions. Additionally 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. 100G-QSFP28-2 operates in standard 0°-70°C temperature range and has double MTP/MPO connector. 100GBASE-PSM4/IR4 QSFP28 support up to 103.125 Gbps data rate and such applications as 100G Ethernet (103.125 Gbps).



100G-QSFP28-2 optical transceiver is 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. 100G-QSFP28-2 Transceiver is fully compliant to QSFP28 Multi Source Agreement (MSA), 100G PSM4 MSA and IEEE 802.3bm standards. 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 100GBASE-PSM4/IR4 QSFP28 transceiver in order to make it work in almost any brand equipment. We will be glad to know your requirements.

Product Specification:

General parameter	Value
Media Type:	Single-Mode Fiber (SMF)
Connectors:	MTP/MPO
TX Wavelength:	1310 nm
RX Wavelength:	1310 nm
Minimum Optical Budget:	8 dB
Maximum Distance:	500m / 2km
Supported Data Rate:	103.125 Gbps
Data Rate, each Lane up to:	25.78125Gbps
Supported Applications:	100G Ethernet (103.125Gbps)
Digital Diagnostic Monitoring (DDM):	Supported
Forward Error Correction (FEC):	Supported
Optical Clock And Data Recovery (CDR):	Supported
Operating Temperature Range:	Standard 0°-70°C
Storage Temperature Range:	- 40° to 85°C
Relative Humidity (Non-Condensation):	0 to 85%
Power Consumption:	≤ 3.5W
Power Supply Voltage Typical:	+3.3V
Power Supply Voltage Range:	-3.135 to 3.465V
Chipset:	Macom, Sumitomo, Samtech, Oclaro, Avago, II-IV
Compliance:	QSFP28 MSA, 100G PSM4 MSA, IEEE 802.3bm, SFF-8636, SFF-8665, CE, RoHS-6, Class 1 FDA, IEC60825-1 Laser Safety Compliant

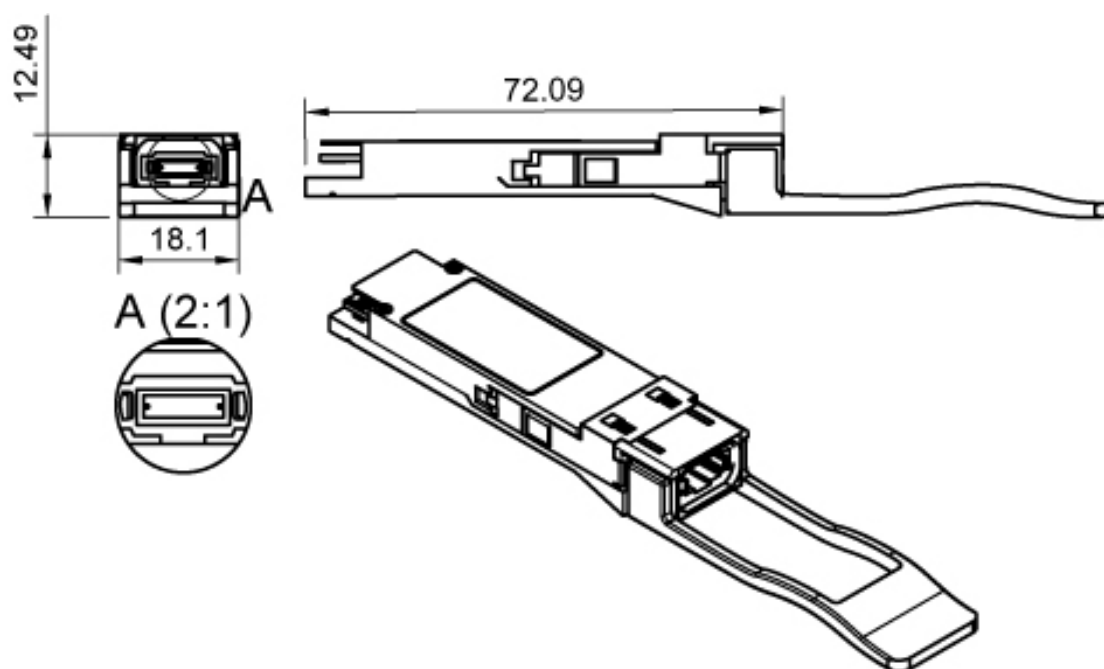


Transmitter Parameters:	Value
Transmitter Type:	DML
Tx Wavelength Bandwidth:	95 nm (1260-1355 nm)
Total Average Launch Power (Max):	9.5 dBm
Average Launch Power (Min) Each Lane:	- 2 dBm
Average Launch Power (Max) Each Lane:	2 dBm
Optical Modulation Amplitude OMA (Min) Each Lane:	2.0 dBm
Optical Modulation Amplitude OMA (Max) Each Lane:	4.5 dBm
Launch Power in OMA minus TDEC (Min) Each Lane:	1.0 dBm
TDP Each Lane:	3.2 dB
Extinction Ratio (Min):	3.5 dB
Optical Return Loss Tolerance (Max):	12 dB
Transmitter Reflectance:	- 12 dB
Relative Intensity Noise:	- 128 dB/Hz
Average Launch Power OFF Transmitter (Max) Each Lane:	- 30 dBm



Receiver Parameters:	Value
Receiver Type:	PIN
Rx Wavelength Bandwidth:	95 nm (1260-1355 nm)
Average Receiver Sensitivity (Min) Each Lane:	-10 dBm
Average Receiver Sensitivity (Max) Each Lane:	3.5 dBm
Receiver Overload:	4.5 dBm
Receiver Reflectance (Max) Each Lane:	- 12 dB
Receive Power OMA (Max) Each Lane:	4.5 dBm
Receiver Sensitivity OMA (Max) Each Lane:	-9 dBm
Difference in Receive Power between any Two Lanes OMA:	5.5 dB
LOS Assert (Min):	- 18 dBm
LOS De-assert (Max):	- 15 dBm
LOS Hysteresis (Min):	0.5 dB

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
AL - Alcatel-Lucent
AR - Arista
AV - Avaya
BR - Brocade
CN - Ciena
CI - Cisco
DL - Dell & Force10
DK - D-Link
EM - EMC2
ET - Enterasys

ER - Ericsson
EX - Extreme Networks
F5 - F5 Networks
FO - Fortinet
FU - Fujitsu
H3 - H3C
HI - Hirschmann
HP* - HP Networking
HS* - HP Storage
HU - Huawei
IB - IBM
IF - Infinera

IN - Intel
JU - Juniper Networks
LI - Linksys
ML - Mellanox
ME - Meraki (Cisco)
MT - MikroTik
MO - Moxa
MR - MRV
NG - Netgear
NS - NSN
PA - Palo Alto Network
QL - Qlogic

RD - RAD
RU - Ruijie Networks
SM - Supermicro
SY - Synology
TC - Telco Systems
TP - TP-LINK
TN - Trendnet
WG - WatchGuard
ZT - ZTE
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.

