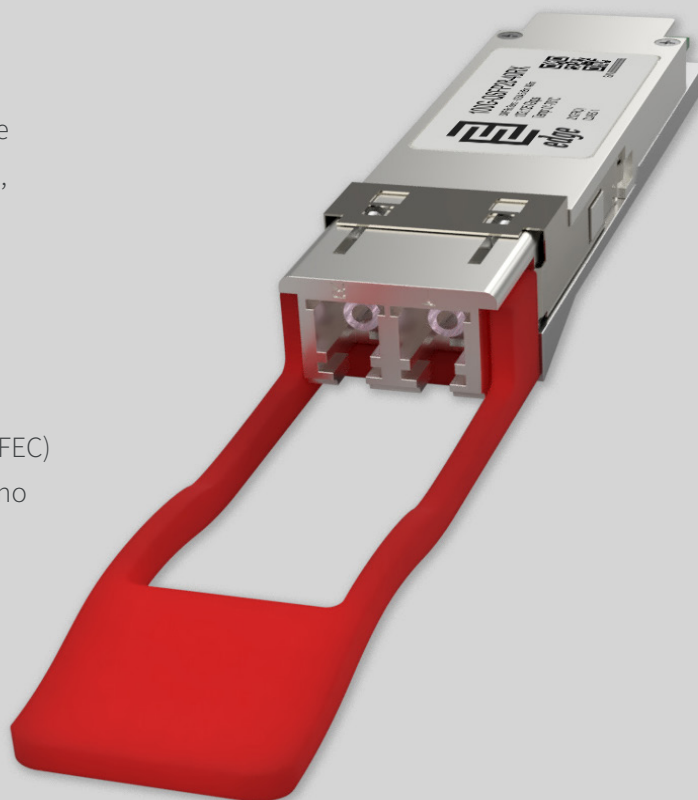


Key Highlights:

- **Type:** 100GBASE-ER4 Lite RX Only QSFP28
- **Compatibility:** Multi-Vendor MSA Compatible
- **Tx/Rx Wavelength:** Rx Only: 1295.56, 1300.05, 1304.58, 1309.14 nm
- **Laser:** Rx only: PIN ROSA (without TOSA)
- **Fiber Type:** Single-Mode Fiber (SMF)
- **Connectors:** Single LC
- **Average Receiver Sensitivity (Min) Each Lane:** -20.5 dBm (with host FEC)/-17 dBm (no host FEC)
- **Max. Distance:** 40km (with host FEC), 30km (no host FEC)
- **Data Rate:** 103.125-112.2 Gbps
- **DDM/DOM:** Supported
- **FEC Forward Error Correction:** Supported
- **Power Consumption:** $\leq 2.5W$
- **Temperature:** Standard 0°-70°C



Optical Transceiver : 100G-QSFP28-40RX

Product Description:

100G-QSFP28-40RX is Multi-Vendor MSA Compatible 100GBASE-ER4 Lite Rx Only QSFP28 (Quad Small Form-Factor Pluggable 28) Transceiver. As global online traffic is asymmetrical - especially this statement is valid nowadays when biggest share of global traffic is video streaming, there is much more downlink traffic than uplink. To address this challenge and help engineers design networks more cost efficiently 100GBASE-ER4 Lite Rx Only comes in play. 100GBASE-ER4 Lite Rx Only doesn't have 4x28Gb/s TOSA transmitters, it only has 4x28Gb/s PIN ROSA receivers comparing to classical 100GBASE-ER4 Lite module which has both components - 4x28Gb/s TOSA transmitters and 4x28Gb/s PIN ROSA receivers. With help of that 100GBASE-ER4 Lite Rx Only becomes cost efficient alternative comparing to classical 100GBASE-ER4 Lite and can be used in network scenario in combination with 100GBASE-ER4 Lite to make most optimal 100G connections according to real requirements for downlink and uplink in your network. Module operates over one single-mode optical fiber where it receives four independent optical communication lanes, separated from each other using LAN WDM technology.



Module has guaranteed average receiver sensitivity for each lane: -20.5 dBm (with host FEC) or -17 dBm (without host FEC), which in most cases is enough to receive signal from 40km distance (with host FEC) or 30km distance (without host FEC) using single-mode cable. 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. 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-QSFP28-40RX operates in Standard 0°-70°C temperature range and has single LC connector. 100GBASE-ER4 Lite Rx Only QSFP28 support up to 103.125-112.2 Gbps data rate and such applications as 100G Ethernet (103.125Gbps), Optical Transport Network OTU4 4I1-9D1F (112 Gbps) and 128G Fiber Channel (112.2 Gbps). 100G-QSFP28-40RX optical transceiver is multi-purpose module used in number of different places in today's networking environment. Most popular applications are Internet Service Provider (ISP), Mobile Operator and Data Center Backbone and Core networks to address traffic asymmetry challenge, and as well can be used in networking scenarios where Deep Packet Inspection (DPI) is performed.

Transceiver is CE/RoHS certified and it is Compliant with product safety standards. 100G-QSFP28-40RX Transceiver is fully compliant to QSFP28 Multi Source Agreement (MSA), IEEE 802.3ba 100GBASE-ER4 Lite and IEEE 802.3bm, Optical Transport Network OTU4 4I1-9D1F and 128G Generation 6 Fiber Channel 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-ER4 Rx Only 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:	Single LC
RX Wavelength:	1295.56, 1300.05, 1304.58, 1309.14 nm
Minimum Optical Budget:	- 20.5 dBm (with host FEC)/ -17 dBm (no host FEC)
Maximum Distance:	40 km (with host FEC), 30 km (no host FEC)
Supported Data Rate:	103.125 - 112.2 Gbps
Data Rate, each Lane up to:	28.05 Gbps
Supported Applications:	100G Ethernet (103.125Gbps), OTU4 4I1-9D1F (112 Gbps), 128GFC (112.2 Gbps)
Digital Diagnostic Monitoring (DDM):	Supported
Forward Error Correction (FEC):	Supported
Optical Clock And Data Recovery (CDR):	Supported

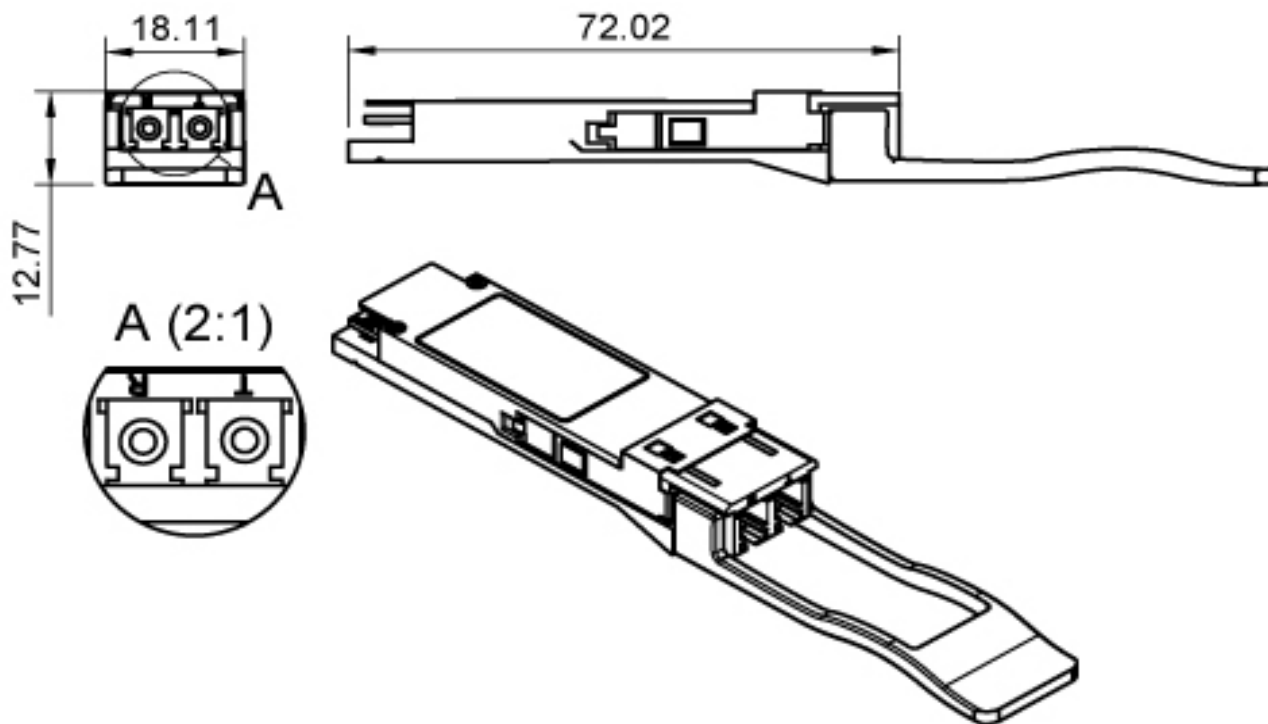


General parameter	Value
Operating Temperature Range:	Standard 0° - 70°C
Storage Temperature Range:	- 40° to 85°C
Relative Humidity (Non-Condensation):	0 to 85%
Power Consumption:	≤ 2.5W
Power Supply Voltage Typical:	+ 3.3V
Power Supply Voltage Range:	- 3.135 to 3.465V
Compliance:	QSFP28 MSA, IEEE 802.3ba 100GBASE-ZR4, SFF-8636, SFF-8665, CE, RoHS, Class 1 FDA, IEC60825-1 Laser Safety Compliant

Receiver Parameters:	Value
Receiver Type:	PIN ROSA
Rx Wavelength Bandwidth:	4 LAN WDM Separated 1310 nm Lanes (15.66 nm 1294.53 – 1310.19nm) (L0 Tx center 1295.56nm, L1 Tx center 1300.05nm, L2 Tx center 1304.58nm, L3 Tx center 1309.14nm)
Average Receive Power (Min):	- 20.5 dBm (with host FEC)/ -17 dBm (no host FEC)
Average Receive Power (Max):	- 7 dBm
Receiver Overload:	- 6 dBm
Receive Power OMA (Max) Each Lane:	- 7 dBm
Receiver Sensitivity OMA (Max) Each Lane:	- 18.5 dBm@100GE / 18 dBm@OTU4
Difference in Receive Power between any Two Lanes OMA:	3.6 dB
Stressed Receiver Sensitivity OMA (Max) Each Lane:	- 16 dBm
LOS Assert (Min):	- 26 dBm
LOS De-assert (Max):	- 24 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.

