AT A GLANCE

E.C.I. NETWORKS's 40G QSFP+ optical transceiver series includes SR4, eSR4. AOC, PSM4, LR4 and ER4 series. This series of products adopt LC or MPO optical ports and are compatible with IEEE802.3bm, QSFP+ MSA and other standards. It is widely applied in Data centers, Campus networks, Metropolitan area networks and other environments.

40G SR4/eSR4 PRODUCT FEATURES

- Hot-swappable input/output device that plugs into a 40 Gigabit Ethernet QSFP port
- Interoperable with other IEEE-compliant 40GBASE interfaces where applicable
- Support 40GBASE-SR4/eSR4/QDR application
- Compliant to QSFP+ Electrical MSA SFF-8436
- Multi rate of up to 10.3125Gbps
- SR4 Transmission distance up to 150m multimode fiber-OM4
- eSR4 Transmission distance up to 400m multimode fiber-OM4
- +3.3V single power supply
- Low power consumption
- Operating case temp Commercial: 0°C to +70 °C
- RoHS 6/6 compliant
- DDM/DOM Supported
- **Proven and tested on Multiple platforms including Cisco, Juniper, Arista QSFP 40G ports for superior performance, quality, and reliability**

APPLICATIONS EXAMPLES

- 40GBASE-SR4 at 10.3125Gbps per lane
- InfiniBand QDR
- High-speed 40G-SR4 Switch/core router interlinks and data center aggregation
- 40G visibility and aggregation solutions

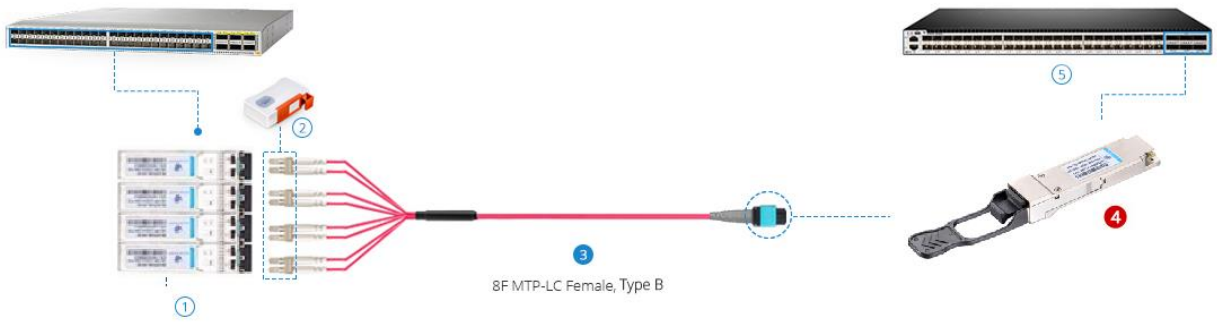
DATA CENTER DIRECT CONNECTIVITY

40GBASE-SR4 QSFP+ Modules support link lengths of 100 meters and 150 meters, respectively, on laser-optimized OM3 and OM4 multimode fibers. It primarily enables high-bandwidth 40G optical links over 8/12-fiber parallel fiber terminated with MPO/MTP multifiber female connectors.
40GBASE-eSR4 QSFP+ Modules support link lengths of 400 meters, respectively, on laser-optimized OM3 and OM4 multimode fibers.

MTP TO LC BREAKOUT TRUNK CABLE

It can also be used in a 4x10G breakout mode for interoperability with 10GBASE-SR interfaces. The 4x10G connectivity is achieved using an external 8/12-fiber parallel to 2-fiber duplex breakout cable, which connects the 40GBASE-SR4 module to four 10GBASE-SR optical interfaces. Our EN-QSFP40G-SR4/eSR4 is optimized to guarantee interoperability with any IEEE 40GBASE-SR4 and in 4x10G mode with the 10GBASE-SR.
MTP to LC Breakout/Fanout cable offer a connectivity transition from 8/12-fiber MTP connectors to duplex LC connectors.

1. Multiple Fiber Types - Available in Multimode (OM4) and Singlemode (OS2)
2. Available from 12 to 144 fiber counts in increments of 12 fibers



Ordering Information

P/N	EN-QSFP40G-SR4-xx	EN-QSFP40G-eSR4-xx
Product Description	QSFP+ 40Gb/s 850nm 150m Transceiver	QSFP+ 40Gb/s 850nm 400m Transceiver
Data Rate (Bit/s)	40G	40G
TX	850nm VCSEL	850nm VCSEL
RX	PIN	PIN
Reach	100/150m OM3/OM4	300/400m OM3/OM4
Interface	MPO	MPO
Output Power (dBm)	-7.6~2.4	-6~2.4
Sensitivity (dBm)	-10.2	-10.2
Temperature (℃)	0~70	0~70
Power consumption (w)	0.7	0.7

Product Selection

xx: Refers to vendor compatibility
I: I refers to Industrial Temperature where applicable
Per example:
EN-SFP10G-LR-EZ refers to Commercial Temperature, and compatible with Evertz, EN-SFP10GIDL-JREX refers to Industrial Temperature, and compatible with Juniper EX Series
** Please note pricing is same for most of the NEMs including Cisco, Juniper, F5, Fortinet, except HP, Evertz. There is an additional charge

Compatibility; Tested and Proven

- Proven Compatibility and Interoperability with; Cisco, Juniper, ALCATEL-LUCENT, ADVA, Brocade, CIENA, Huawei, PacketLight, Transmode, NEtInsight, ToyoTech, etc.
- Test and Visibility equipment such as; IXIA, GIGAMON, VSS, SPIRENT, JDSU, XENA, EXFO, etc.

Compliance

All our products come with Built-in digital diagnostic functions DDM Compliant with SFF-8472 Rev12 and Compliant with the MSA SFF SPECIFIACTIONS.

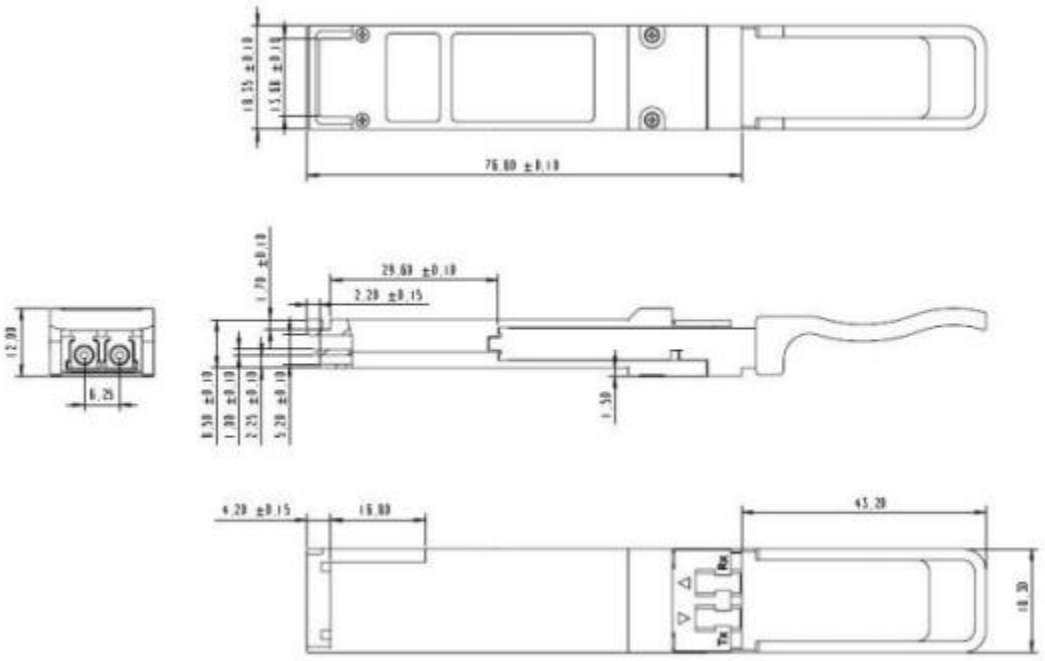
Recommended Operating Conditions

Parameter	Symbol	Min.	Typ	Max.	Unit
Operating Case Temperature	Tc	0		70	°C
Supply Voltage	V_{cc}	3.14	3.3	3.47	V
Power Dissipation	Pd			1.5	W
Bit Rate per channel	BR		10.3125		Gbps

Optical Characteristics

Parameter	Symbol	Min	Typical	Max	Unit	Notes
Transmitter						
Bit Rate	Br	1.25	10.3125	-	Gbps	
Center Wavelength	λC	830	850	870	nm	
RMS Spectral Width	λrms			0.65	nm	
Average Launch Power Tx_off	Poff			-30	dBm	
Average Launch Power	PAVG	-7.6		2.4	dBm	1
Extinction Ratio	ER	3.0			dB	
Receiver						
Bit Rate	Br	1.25	10.3125	-	Gbps	
Overload, each lane	PIN	2.5			dBm	
Receiver Sensitivity in OMA, each Lane	SEN			-10.2	dBm	2
Center Wavelength Range	λC	820		880	nm	
Signal Loss Assert Threshold	LOSA	-30			dBm	
Signal Loss Deassert	LOSD			-12	dBm	
LOS Hysteresis	LOSH	0.5			dB	

Mechanical specifications



Notice:

ECI Networks reserves the right to make changes to or discontinue any optical link product or service identified in this publication, without notice, in order to improve design and/or performance. Applications that are described herein for any of the optical link products are for illustrative purposes only.

For further information

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