

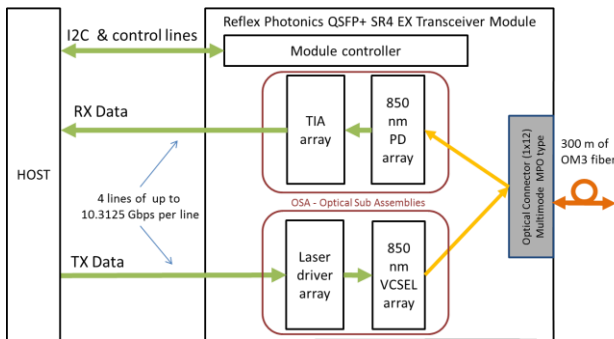
QE-X04-C01801-02 QSFP+ eSR4 EX Range

Product Summary

The Quad Small Form-Factor Pluggable (QSFP+) transceiver is a highly integrated 4-channel optical module that provides increased port density and lower system cost. The QSFP+ full-duplex optical modules offer 4 independent transmit and 4 receive channels, each capable of up to 10.3 Gbps operation for an aggregate bandwidth of 41.25 Gbps over 300 meters of optical fiber*.

The QSFP+ transceiver modules have been designed to meet the harshest external operating conditions including temperature, humidity and EMI interference. The modules offer low BER and many features, accessible via a two-wire serial interface.

* Actual link distance depends on fiber type and data rate



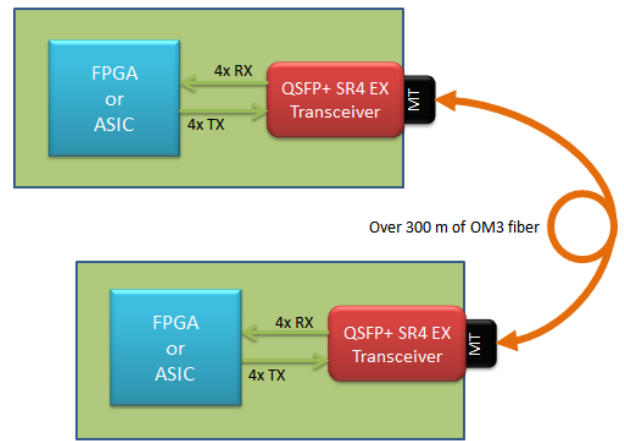
QSFP+ eSR4 EX Range Transceiver Block Diagram

Specifications and Features Highlights

- Aggregate Bandwidth of 41.25 Gbps
- Up to 10.3125 Gbps per channel bandwidth
- 4 Independent full-duplex channels
- MTP/MPO optical connector
- Single +3.3V power supply
- CML compatible electrical I/O
- 50µm multi-mode ribbon fibers supported
- Over 300 meter transmission on OM3 MMF
- Operating case temperature: 0 to 70°C
- Digital diagnostic capabilities
- Low power level (max 1.5 W)
- QSFP+ MSA compliant

Applications

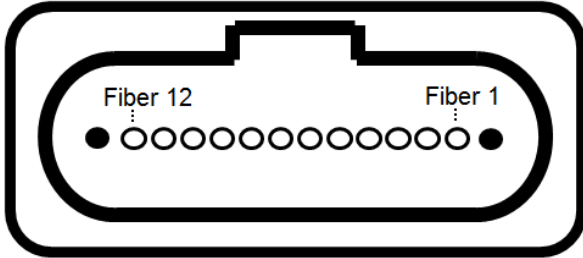
- High-performance computing clusters
- Data center backbone
- Ethernet switches
- High-speed servers
- SAN, Routers, hubs, load balancer



QSFP+ eSR4 EX Range Transceiver Application example

Optical Interface Lanes

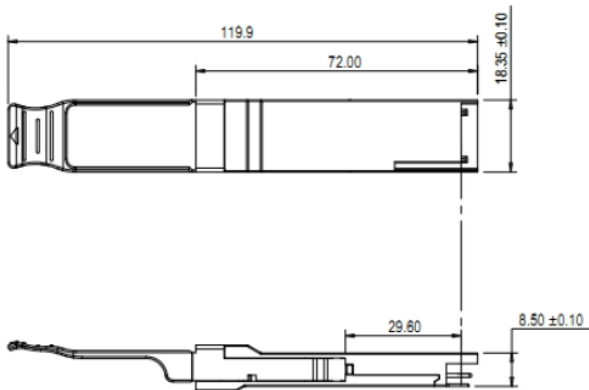
The figure and table below show the orientation of the multi-mode fiber facets of the optical connector and the lane assignment respectively.



Outside view of the QSFP+ eSR4 module MPO receptacle

MPO Fiber #	Lane Assignment	MPO Fiber #	Lane Assignment
1	RX0	7	Unused
2	RX1	8	Unused
3	RX2	9	TX3
4	RX3	10	TX2
5	Unused	11	TX1
6	Unused	12	TX0

Mechanical Considerations



Compliance

Description	Specification
Safety	Laser Class 1 product EN 60825-1: 2007
EMC	EN 55022: 2010 EN:55024:2010
RoHS	2002/95/EC
General information only; details are in data spec	

Ordering information

Part Number	Description
QE-X04-C01801-02	40G Ethernet, QSFP+ eSR4 Extended Distance Range up to 300 m Fiber Optic Transceiver Module (10.3 Gbps per channel/RX and TX).

For more information on this or other products:
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 or by email at sales@reflexphotonics.com

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Note: Document revision history is present in separate document.