

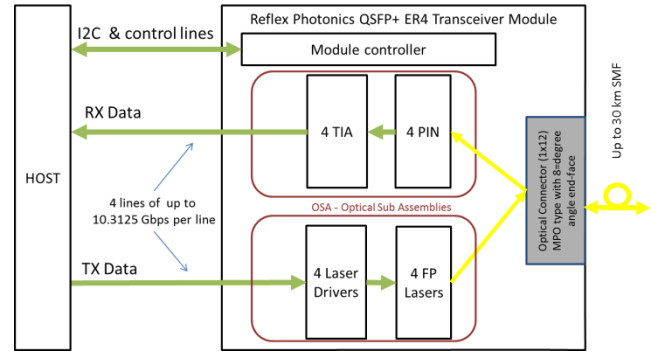
**QX-X04-C01801-02 QSFP+ ER4 SMF**

**Product Summary**

The Quad Small Form-Factor Pluggable (QSFP+) ER4 transceiver is a highly integrated 4-channel optical module that provides increased port density and total system cost savings. The QSFP+ full-duplex optical modules offer 4 CWDM transmit and receive channels, each capable of 10.3125 Gbps operation for an aggregate bandwidth of 41.25 Gbps over 30 km of single mode optical fiber.

The QSFP+ ER4 transceiver modules offer very high functionality and feature integration, accessible via a two-wire serial interface.

The central wavelengths of the 4 CWDM channels are 1271, 1291, 1311 and 1331 nm as members of the CWDM wavelength grid defined in ITU-T G694.2. It contains a duplex LC connector for the optical interface and a 38-pin connector for the electrical interface. To minimize the optical dispersion in the long-haul system, single-mode fiber (SMF) has to be applied in this module.



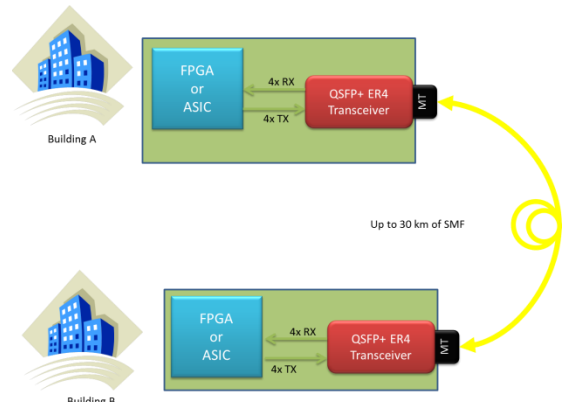
**QSFP+ ER4 Transceiver Block Diagram**

**Specifications and Features Highlights**

- Up to 10.3125 Gbps per channel bandwidth
- 4 CWDM channels MUX/DEMUX design
- Single +3.3V power supply
- CML compatible electrical I/O
- Up to 30 km transmission distance
- Single-Mode Optical Fiber (SMF)
- Duplex LC connector
- Operating case temperature: 0 to 70°C
- Digital diagnostic capabilities
- Maximum power consumption 3.5 W
- QSFP+ MSA compliant
- RoHS compliant

**Applications**

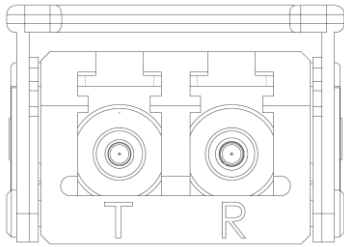
- 40G Telecom connections
- Ethernet 40G BASE-ER4 Links
- Infiniband QDR & DDR
- 40G Campus link



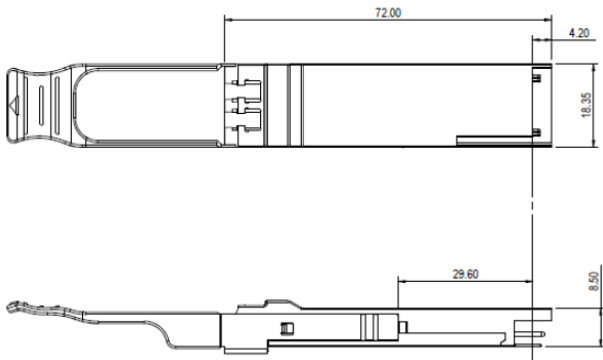
**QSFP+ ER4 Transceiver Application example**

**Optical Interface Lanes**

The figure below shows the orientation of the dual LC single-mode fiber facets of the optical connector.



**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
QX-X04-C01801-02	40G Ethernet, QSFP+ ER4, 30km SMF Fiber Optic Transceiver Module (10.3 Gbps per channel/RX and TX).

For more information on this or other products:  
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*Note: Document revision history is present in separate document.*