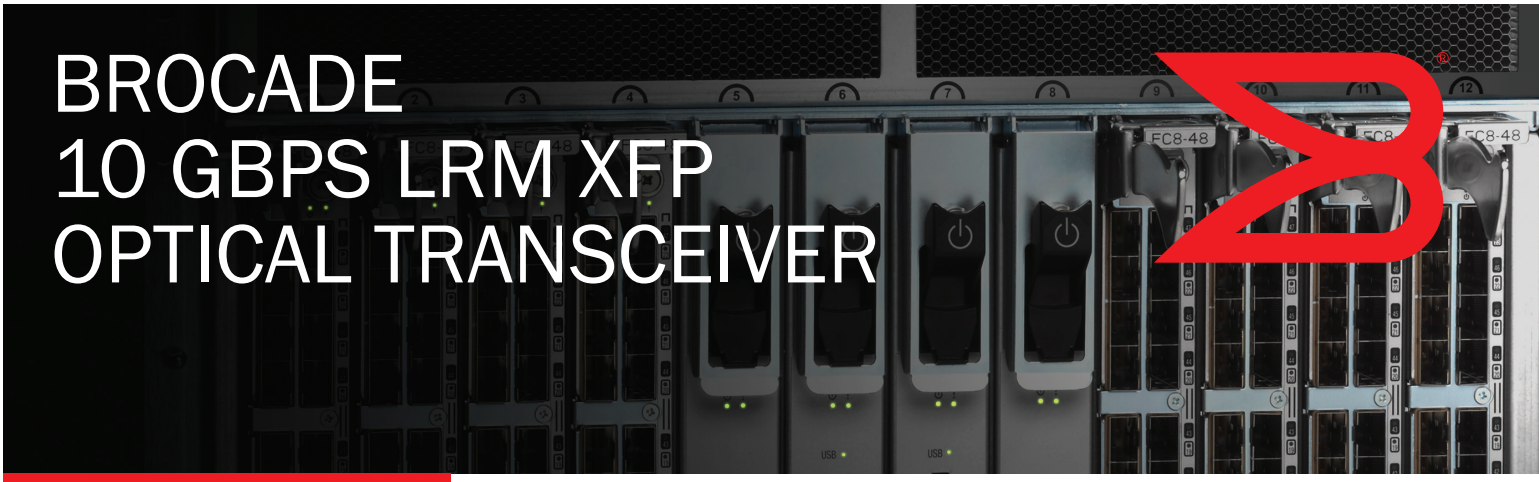
BROCADE 10 GBPS LRM XFP OPTICAL TRANSCEIVER



DATA CENTER

Optimized, Certified Optical Transceivers for the Highest-Performance Data Center Fabrics

HIGHLIGHTS

- Provides cost-effective 10 Gigabit Ethernet (GbE) links for extended-reach applications on legacy multimode fiber
- Provides high system reliability through rigorous qualification and certification processes
- Leverages unique design parameters to provide the highest performance with industry-leading Brocade solutions, supporting business continuity and disaster recovery
- Helps eliminate issues related to transceiver incompatibility, reducing downtime and support costs
- Helps eliminate issues resulting from unexpected design changes, providing ongoing end-to-end compatibility
- Optimizes connectivity with Brocade platforms to enable maximum cable distance

The Brocade One™ strategy helps simplify networking infrastructures through innovative technologies and solutions. The Brocade optics family supports this strategy by delivering thoroughly tested and standards-compliant optics that enable simple, non-stop connectivity across diverse storage resources.

Today's enterprise data centers are undergoing an infrastructure transformation, requiring higher speeds, greater scalability, and higher levels of performance and reliability to better meet the demands of business. As speed and performance needs increase, optical transceivers have become an integral part of overall system design. However, optical transceiver design margins and parameters vary widely, and can be the difference between an optimized, highly reliable fabric, and incompatibility issues that drive up support costs.

The Brocade® 10 Gbps Long Reach Multimode (LRM) XFP optical transceiver, part of the Brocade family of optical transceivers, is optimized to fully leverage Brocade 10 Gigabit Ethernet (GbE) switches and routers. Together, these optical transceivers provide state-of-the-art performance, helping IT organizations achieve new levels of infrastructure consolidation while expanding the capabilities of their applications and services.

END-TO-END COMPATIBILITY AND RELIABILITY

Brocade 10 Gbps LRM XFP Ethernet optical transceivers support highly reliable operations in data center fabrics and are optimized for Brocade switching platforms. They undergo rigorous qualification and certification testing that results in an end-to-end solution that is easier to maintain—helping improve the availability of data center fabrics supporting mission-critical applications.

KEY FEATURES

Brocade 10 Gbps LRM XFPs are hot-swappable, low-voltage (3.3 V) digital diagnostic Ethernet optical transceivers that support 10 Gbps Ethernet links for extended-reach applications using 62.5 µm legacy multimode fiber.

The Brocade 10 Gbps LRM Ethernet optical transceiver is a 1310 nm XFP that complies with 10GBASE-LRM specifications. Product highlights include:

- 1310 nm laser
- Optical interface specifications per IEEE 802.3aq 10GBASE-LRM
- Diagnostic features per SFF-8472 "Diagnostic Monitoring Interface for Optical Transceivers," providing real-time monitoring of:
  - Transmitted optical power
  - Received optical power
  - Laser bias current
  - Temperature
  - Supply voltage

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- Industry-standard LC duplex connector
- 220 m link lengths on OM1/OM2/OM3 fiber
- IEC 60825-1 Class 1/CDRH Class 1 laser eye safe
- Compliance with Restriction on Hazardous Substances (RoHS) directive

FAMILY OF OPTICAL TRANSCEIVERS

Brocade offers a comprehensive family of reliable transceivers to provide highly compatible, high-performance connectivity to Brocade switch and router products.

For additional ordering information, contact a Brocade representative or visit www.brocade.com/howtobuy.

BROCADE GLOBAL SERVICES

Brocade Global Services delivers world-class professional services, technical support, and education, enabling organizations to realize the full potential of Brocade 10 Gbps LRM XFP optical transceivers. Leveraging 15 years of expertise, Brocade Global Services helps organizations maximize their existing investments, accelerate new technology deployments, and optimize the performance of networking infrastructures.

CLOUD-OPTIMIZED NETWORK ACQUISITION

Brocade helps organizations easily address their information technology requirements by offering flexible network acquisition and support alternatives to meet their financial needs. Organizations can select from purchase, lease, and Brocade Network Subscription options to align network acquisition with their unique capital requirements and risk profiles.

MAXIMIZING INVESTMENTS

To help optimize technology investments, Brocade and its partners offer complete solutions that include professional services, technical support, and education. For more information, contact a Brocade sales partner or visit www.brocade.com.

BROCADE 10 GBPS LRM XFP SPECIFICATIONS

Systems	
Performance	Ethernet: 10.3125 Gbps line speed; full duplex
Media	Hot-pluggable 10GBase-LRM XFP optic for OM1/OM2/OM3 MMF with LC connector, optical monitoring capable. For distances up to 220 m.
Operating parameters	Transmit (Tx): Wavelength: 1260 to 1360 nm Average power: −6.5 dBm to +0.5 dBm RIN: −128 dB/Hz max Optical return loss: 12 dB max Receive (Rx): Wavelength: 1260 to 1360 nm Average power: 0.5 dBm max Optical return loss: −12 dB min SRS OMA: 224 µW, −6.5 dBm 3 dB cutoff maximum: 12.3 GHz
Mechanicals	
Size	Width: 18.45 mm (0.73 inches) Height: 12.35 mm (0.49 inches) Depth: 78.00 mm (3.07 inches)
Environmentals	
Storage temperature	−40°C to 85°C
Power	
Power dissipation	1.0 W

Regulatory and Standards Compliance

- North America: UL/CSA 60950, CDRH Class 1
- European Union: EN 60590, EN 60825 Class 1

Caution:

- *Do not look through the optical ports, as it is a potential eye hazard.*
- *XFP is an ESD sensitivity class-2 device. It should be handled accordingly.*

For information related to SFF Committee documentation, visit www.sffcommittee.org.

For information about supported SAN standards, visit www.brocade.com/sanstandards.

For information about switch and device interoperability, visit www.brocade.com/interoperability.

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