BROCADE 10 GBPS 80 KM SFP+ OPTICAL TRANSCEIVER

DATA CENTER

Optimized, Certified Optical Transceivers for Extending Data Center Networks

HIGHLIGHTS

- Provides high system reliability based on rigorous qualification and certification testing
- Leverages unique design parameters to provide the highest performance with industry-leading Brocade solutions to support business continuity
- 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 and networking environments 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 80 km SFP+ Ethernet optical transceiver, part of the Brocade family of optical transceivers, is optimized to fully leverage Brocade 10 Gigabit Ethernet (GbE) switches, routers, and Converged Network Adapter (CNA) products. 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 80 km SFP+ Ethernet optical transceivers support highly reliable operations in enterprise networks, and are optimized for Brocade switching platforms. They undergo rigorous qualification and certification testing to provide an end-to-end solution that is easier to maintain—helping improve the availability of data center networks supporting mission-critical applications.

KEY FEATURES

Brocade 10 Gbps 80 km SFP+ transceivers are hot-swappable, low-voltage (3.3V) digital diagnostic Ethernet optical transceivers that support high-speed serial links over multi-mode optical fiber at signaling rates up to 10.3125 Gbps. They comply with SFP mechanical (SFF-8432), optical, and electrical specifications (SFF-8431) for LC duplex transceivers.

Highlights include:

- 1550 nm EML laser
- 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
- 80 km link lengths on 9 µm single-mode 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 optical transceivers to provide highly compatible, high-performance connectivity to Brocade backbone and switch products.

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

BROCADE GLOBAL SERVICES

Brocade Global Services has the expertise to help organizations build scalable, efficient cloud infrastructures. Leveraging 15 years of expertise in storage, networking, and virtualization, Brocade Global Services delivers world-class professional services, technical support, network monitoring services, and education, enabling organizations to maximize their Brocade 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 80 KM SFP+ SPECIFICATIONS

Systems	
Performance	10.3125 Gbps line speed, full duplex
Media	Hot-pluggable, industry-standard Small Form-Factor Pluggable (SFP+), LC connector; 80 km (ZR)
Operating parameters	Transmit (Tx):
	Wavelength: 1530 to 1565 nm
	Average power: 0 to +5.0 dBm
	RIN: −128 dB/Hz max
	Optical return loss: 21 dB max
	Receive (Rx):
	Wavelength: 1530 to 1565 nm
	Average power: −20 to −8 dBm
	Optical return loss: −27 dB max
	Unstressed sensitivity: −23 dBm
Mechanicals	
Size	Width: 14.55 mm (0.57 in.)
	Height: 11.85 mm (0.47 in.)
	Depth: 56.50 mm (2.22 in.)
Environmentals	
Storage temperature	−40°C to 85°C (−40°F to 185°F)
Power	
Power dissipation (max)	1.9 W

Ordering Part Number

- 10G-SFPP-ZR

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.*
- *SFP 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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