BROCADE 4×16 GFC 2 KM QSFP OPTICAL TRANSCEIVER

STORAGE AREA NETWORK

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

HIGHLIGHTS

- Provides high system reliability through rigorous qualification and certification processes
- Leverages unique design parameters to provide the highest performance with industry-leading Brocade switch and backbone platforms
- Reduces downtime and support costs by helping eliminate issues related to transceiver incompatibility
- Provides ongoing end-to-end compatibility by helping eliminate issues resulting from unexpected design changes
- Optimizes connectivity with Brocade platforms to enable maximum cable distance
- Provides support for high throughput Inter-Chassis Links (ICLs) up to 2 km distance

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—once considered a generic component of Fibre Channel switching technologies—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.

Brocade® 4×16 GFC 2 km Quad Small Form-Factor Pluggables (QSFPs), part of the Brocade family of optical transceivers, are optimized to fully leverage Brocade 16 GFC backbone and switch 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.

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END-TO-END COMPATIBILITY AND RELIABILITY

Brocade 4×16 GFC 2 km QSFPs support highly reliable operations in data center fabrics and are optimized for Brocade 16 GFC switching platforms. They undergo rigorous qualification and certification testing that results in an end-to-end solution that is easier to maintain—helping to improve the availability of data center fabrics supporting mission-critical applications.

KEY FEATURES

Brocade 4×16 GFC 2 km QSFPs are hot-swappable, low-voltage (3.3 V) digital diagnostic optical transceivers that support high-speed serial links over parallel single-mode optical fibers at signaling rates up to 4×14.025 Gbps. They comply with the QSFP MSA mechanical specification (SFF-8436).

Brocade 4×16 GFC 2 km QSFPs are 1490 nm QSFPs that comply with 14.025 Gbps Fibre Channel specifications. Product highlights include:

- 1490 nm CW laser
- Diagnostic features providing real-time monitoring of:
  - Transmitted optical power (aggregate of four channels only)
  - Received optical power (aggregate of four channels only)
  - Laser bias current
  - Temperature
  - Supply voltage
- QSFP is attached to a 3 m ribbon fiber pigtail that is terminated with a male MTP 1×12 connector
- Industry-standard MTP 1×12 ribbon cable connector
- 2 km link length on parallel 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 4 Gbps, 8 Gbps, 10 Gbps, and 16 Gbps SFPs 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 over 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. To learn more, visit www.Brocade.com/CapitalSolutions.

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 4×16 GFC 2 KM QSFP SPECIFICATIONS

Systems	
Performance	Fibre Channel: 4×14.025 Gbps line speed, full duplex
Media	Hot-pluggable, industry-standard QSFP attached to a 3 m ribbon fiber pigtail that is terminated with a male MTP 1×12 connector, uses industry-standard MTP 1×12 single-mode fiber
Operating parameters	Transmit (Tx): Wavelength: 1490 nm Average power: −8.5 to -3 dBm per channel RIN: −135 dB/Hz max Receive (Rx): Wavelength: 1490 nm Average power: -14.5 to -3 dBm per channel SRS: −10.5 dBm max per channel
Operating distance	2 km on parallel single-mode fiber
Mechanicals	
Size	Width: 18.35 mm (0.72 in.) Height: 13.20 mm (0.52 in.) Depth: 72.40 mm (2.85 in.)
Environmentals	
Storage temperature	−40 °C to 85 °C (−40 °F to 185 °F)
Power	
Power dissipation	1.2 W

BROCADE 4×16 GFC 2 KM QSFP ORDERING INFORMATION

XBR-000255	QSFP, 4×16 GFC, 2 km on parallel single-mode fiber

Regulatory and Standards Compliance

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