

BROCADE 10 GBPS DIRECT ATTACHED SFP+ COPPER CABLE



DATA CENTER

Optimized, Certified Cables for Network Connectivity

HIGHLIGHTS

- Provides flexibility with a choice of 1-, 3-, and 5-meter lengths
- Simplifies server connectivity in top-of-rack deployments
- Reduces the power needed to transmit data
- Provides high system reliability based on rigorous qualification and certification testing

Today's enterprise data center networks are undergoing an infrastructure transformation, requiring higher speeds, greater scalability, and higher levels of performance and reliability to better meet new business requirements. As speed and performance needs increase, modern copper cables have become an integral part of overall system design. However, copper cable design margins and parameters vary widely, and can be the difference between an optimized, highly reliable network and incompatibility issues that drive up support costs.

The Brocade® 10 Gbps Direct Attached Small Form-Factor Pluggable (SFP+) copper cable (1 m, 3 m, 5 m) is optimized to fully leverage Brocade 10 Gbps solutions. Products supporting these cables include Fibre Channel over Ethernet (FCoE)/Data Center Bridging (DCB) switches, Converged

Network Adapters (CNAs), and 10 Gigabit Ethernet (GbE) switches and routers. These cables, also known as Twinax cables, are suitable for in-rack connections between servers and top-of-rack switches. In addition, they provide state-of-the-art performance, helping IT organizations achieve new levels of infrastructure consolidation while expanding application and service capabilities.

END-TO-END COMPATIBILITY AND RELIABILITY

Brocade 10 Gbps Direct Attached SFP+ copper cables 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 networks supporting mission-critical applications.

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.

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KEY FEATURES

Brocade 10 Gbps Direct Attached SFP+ copper cables are hot-swappable, low-voltage (3.3 V) cable assemblies that connect directly into SFP+ modules at both ends. They use high-performance integrated duplex serial data links for bidirectional communication. In addition, these cables are designed for multi-gigabit data rates up to 10.5 Gbps, and they comply with the SFP mechanical (SFF-8431) and electrical interface (SFF-8432) standards.

Additional highlights include:

- SFP+ MSA compliance
- Hot-pluggable feature that enables organizations to change SFP+ compatible cables/modules without having to power down the system
- Compliance with Restriction on Hazardous Substances (RoHS) directive

COMPLETE FAMILY OF CABLES AND OPTICAL TRANSCEIVERS

Brocade offers a comprehensive family of reliable cables and optical transceivers to provide highly compatible, high-performance connectivity to Brocade Ethernet IP, FCoE, and Fibre Channel 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.

BROCADE SERVICE AND SUPPORT

If a customer has a valid support contract for Brocade IP platforms, the Brocade Technical Assistance Center will provide system support per the support contract. However, if it is determined that the system issues are caused by non-Brocade Twinax cables, the Brocade Technical Assistance Center may ask the customer to replace them with Brocade cables. Brocade will not issue an RMA against non-Brocade cables for replacement. The customer should work with Brocade Sales to replace these non-Brocade cables by purchasing Brocade cables.

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 DIRECT ATTACHED SFP+ COPPER CABLE SPECIFICATIONS

Systems	
Performance	10.5 Gbps line speed, full duplex Bit error rate: better than 10E-12
Media	Hot-pluggable, industry-standard Small Form-Factor Pluggable (SFP+) copper cable, available as 1 m, 3 m, or 5 m
Operating parameters	Supply voltage: 3.3 V Power consumption (per end): max 0.57 W
Mechanicals	
Wire AWG	1 m, 3 m: 30 AWG; 5 m cable: 28 AWG or 30 AWG
Label color*	1 m: Black insulation; 3 m: Yellow; 5 m: Blue
Size	Width: 13.55 mm (0.53 inches) Height: 8.80 mm (0.35 inches) Depth: 58.30 mm (2.30 inches)

* A colored label is wrapped around each end of the cable behind the SFP+ module to identify the 3 m and 5 m cables. The 1 m cable does not have any colored labels; it can be identified by its black insulation.

Environmentals	
Storage temperature	-40 °C to 85 °C / -40 °F to 185 °F
Operating temperature	0 °C to 70 °C / 32 °F to 158 °F

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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