

QSFP+ to Four SFP+ Hydra Copper Cable Assemblies

To meet the needs for migration from 10 to 40 GbE, Panduit offers QSFP+ to Four SFP+ Direct Attach Hydra Breakout Cable Assemblies. As part of the Panduit High Speed Data Transport (HSDT) solution, these passive cables provide a cost-effective solution for interconnecting high speed 40 GbE switches and servers to existing 10 GbE equipment.

The 40 GbE QSFP+ end operates as four separate 10 Gb/s channels, which are connected to four 10 Gb/s SFP+ equipment ports. The four 10 Gb/s SFP+ ports can be located on the same switch/server or four different locations within the same rack. Each hydra breakout cable includes Panduit® Tak-Ty® Hook & Loop Cable Ties, which are adjustable to control the breakout point for maximum flexibility.

End-to-end (HSDT) solutions from Panduit deliver enhanced availability, agility, and security. Visit www.panduit.com/hsdt to learn more about how these solutions help customers manage risk across their physical infrastructure.



Key Features	Benefits
Compliant to SFF-8431, SFF-8432 and SFF-8436	Compliant with 40GBASE-CR4 QSFP+ and 10 GbE SFP+ enabled equipment; hot pluggable to QSFP+/SFP+ compliant host ports
EEPROM compliant to SFF-8472	Ensures interoperability with 10 GbE and 40 GbE equipment
Passive low power assembly	Provides a low cost, low power alternative to fiber optics up to 3.5 meters
100% performance tested	Confidence that each assembly delivers specified performance for ensured network availability
Low latency performance	Ideal for high performance computer clustering and other latency sensitive applications
Robust construction	High speed, 2-pair, 10 GHz, twin-axial cable, factory terminated to QSFP+ and SFP+ modular connectors; rated to a minimum 250 mating cycles
Advanced connector design	Excellent EMI resistance and alien crosstalk due to continuous shielding throughout the assembly including a unique design for transitioning the four cables into the QSFP+ housing
Adjustable hydra breakout	Tak-Ty® Hook & Loop Cable Ties can be adjusted to control breakout points on the hydra end of the cable assembly
High density deployment	QSFP+ connectors triple switch port density; robust easy-to-use latching feature allows high density belly-to-belly installation and deployments
Variety of lengths	Available 1 to 3.5 meters (0.5 meter increments) for design flexibility
Part of the Panduit Unified Physical InfrastructureSM solution	Designed to be integrated with Panduit® NetAccess™ Cabinets for design flexibility, improved thermal, and cable management

Key applications include:

- Top of Rack Switch to Server
- 8 Gb/s Fibre Channel
- Fibre Channel over Ethernet (FCoE)
- 10 Gigabit Ethernet

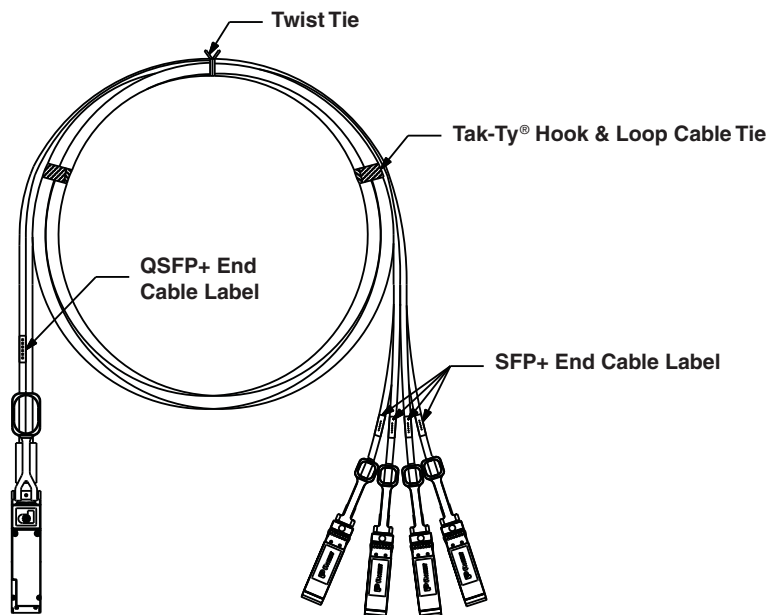
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Technical Information

Characteristic impedance	100 +/- 10 Ohm
Operating temperature	25°C to 80°C (-13°F to 176°F)
Storage temperature	-40°C to 80°C (-40°F to 176°F)
IEC flame compliance	IEC 60332-3-24
Bend radius	5 x O.D. single time, 10 x O.D. repeated times
Insertion force to cage	40N (9 lbf.) maximum
Withdrawal force from cage	30N (7 lbf.) maximum
Durability	250 mating cycles minimum
ROHS status	Compliant

Ordering Information

Part Number	Length (m)	Length (Ft.)	Cable Gauge	No. Tak-Ty Hook & Loop Cable Ties	Nominal Cable O.D.		Cable Color
					mm	In.	
PHQ4SFPXA1MBL	1	3.3	30 AWG	2	4.1	0.61	Black
PHQ4SFPXA1.5MBL	1.5	5.0	30 AWG	2	4.1	0.61	Black
PHQ4SFPXA2MBL	2	6.6	30 AWG	3	4.1	0.61	Black
PHQ4SFPXA2.5MBL	2.5	8.3	30 AWG	3	4.1	0.61	Black
PHQ4SFPXA3MBL	3	9.8	30 AWG	4	4.1	0.61	Black
PHQ4SFPXA3.5MBL	3.5	11.6	30 AWG	4	4.1	0.61	Black



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For more information

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