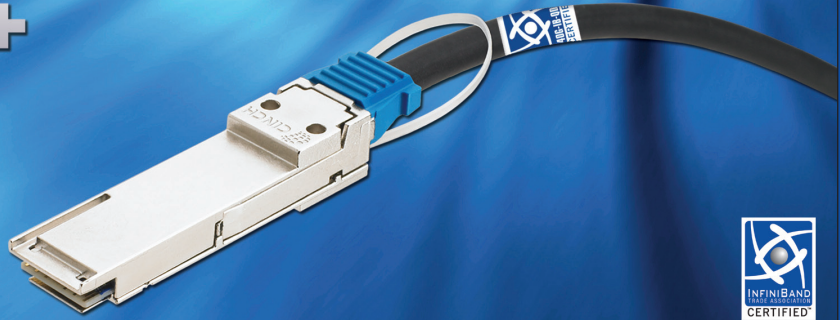# QSFP+

High Speed Cables
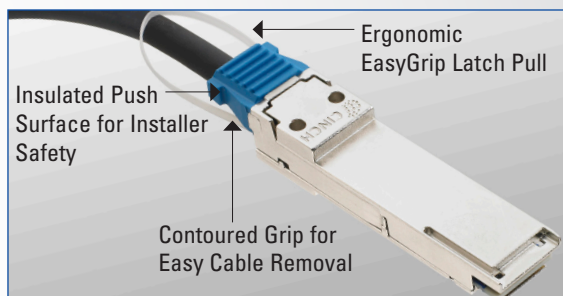### With PairShield ™ Technology

The Cinch Advantage:
How we do it.

Cinch Connectors QSFP+ copper cable assemblies exceed industry standard performance specifications for InfiniBand QDR, 40G Ethernet, SAS and Fibre Channel applications.

Cinch QSFP+ passive cable family offers the following superior advantages:

- **Superior Crosstalk Management:** The Cinch QSFP+ design includes a dramatic improvement to crosstalk management using Cinch proprietary PairShield™ termination technology.

- **Ergonomic Design:** In addition, Cinch QSFP+ includes an ergonomic pull-to-release latch tether and an ESD insulated grasp area.

Ergonomic EasyGrip Latch Pull

Insulated Push Surface for Installer Safety

Contoured Grip for Easy Cable Removal

- **"Smart" Cables:** All Cinch QSFP+ cables include an EEPROM cable management interface in each plug programmed per the SFF8436 memory map as well as DC blocking capacitors on the receive lanes and an I^{2}C module select buffer.

- **24-30 Gage Availability:** Cables are available in a range of wire gages from 24, 26, 28 and 30AWG twinax cables with lengths ranging from 0.50m for 30AWG to 10m for 24AWG.

- **Independent Recognition:** Cinch Connectors is a proud participant in the IBTA Logo License program. Cinch earned recognition on the IBTA Integrator's list for both DDR and QDR applications.
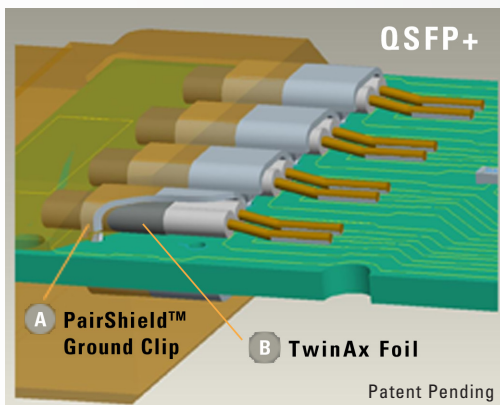
The Cinch QSFP+ passive cable family meets industry standard requirements:

- Conforms to the Small Form Factor SFF8436 specification for QSFP+.
  See www.sffcommittee.org for SFF specifications

- Supports the InfiniBand Trade Association (IBTA) specification for Quad Data Rate (QDR-10Gbs) as well as Dual Data Rate (DDR-5Gbs).
  See www.infinibandta.org for InfiniBand specifications

  - InfiniBand QDR link provides 40Gbs of bandwidth (4 X 10Gbs) for both transmit and receive in full duplex mode for a total link bandwidth of 80Gbs.

- Supports the XLAUI specification for 40Gb Ethernet 802.3ba.
  See www.ieee802.org for Ethernet specifications

- In addition, the Cinch QSFP+ cables support the developing QSFP+ 6G SAS 2.1 specification.
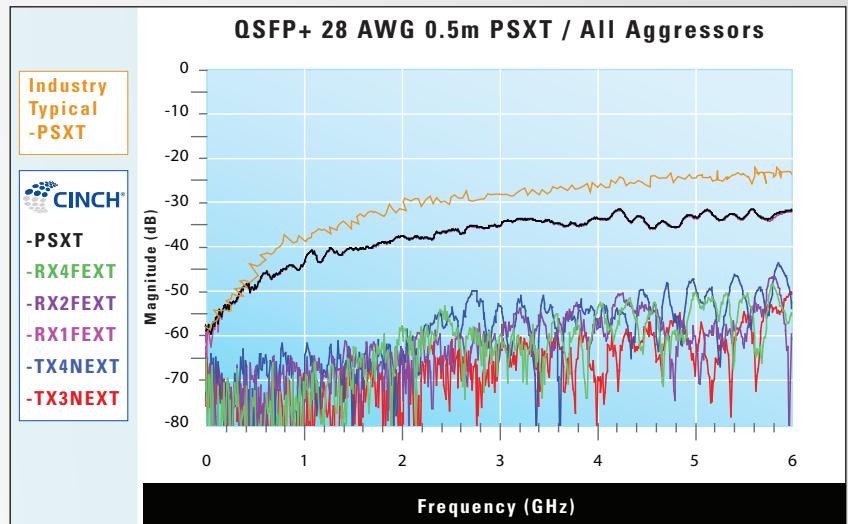 See www.t10.org for SAS specifications

Typical Applications

- HPC Server Clusters

- Storage Area Networks (SANs)

- Enterprise Data Center Networks

CINCH

Cinch QSFP+ PairShield™ Crosstalk Management

QSFP+

A PairShield™ Ground Clip

B TwinAx Foil

Patent Pending

QSFP+ 28 AWG 0.5m PSXT / All Aggressors

Industry Typical -PSXT

CINCH
-PSXT
-RX4FEXT
-RX2FEXT
-RX1FEXT
-TX4NEXT
-TX3NEXT

Magnitude (dB)

Frequency (GHz)

(A) The Cinch PairShield™ paddlecard termination includes the PairShield™ ground clip and extended paddlecard. Together, these technologies provide the industry's lowest multi-aggressor crosstalk.

(B) Terminating the TwinAx foil shield under the PairShield™ ground clip isolates adjacent pairs on the same side of the paddlecard. The extended paddlecard isolates cross card pairs. Together, these design improvements minimize crosstalk and provide an optimized launch to assure error free interconnects.

Part Number	Cable Type	Length (meters)	Wire Gage	InfiniBand		40G Ethernet	6G SAS
				DDR	QDR		
717 04 00 060	Passive	0.50	30	Yes	Yes	Yes	Yes
717 04 00 061	Passive	1.00	30	Yes	Yes	Yes	Yes
717 04 00 062	Passive	2.00	30	Yes	Yes	Yes	Yes
717 04 00 063	Passive	3.00	30	Yes	Yes	Yes	Yes
717 04 00 064	Passive	4.00	30	Yes	Yes	Yes	Yes
717 04 00 065	Passive	5.00	30	Yes	-	-	Yes
717 04 00 040	Passive	0.50	28	Yes	Yes	Yes	Yes
717 04 00 041	Passive	1.00	28	Yes	Yes	Yes	Yes
717 04 00 042	Passive	2.00	28	Yes	Yes	Yes	Yes
717 04 00 043	Passive	3.00	28	Yes	Yes	Yes	Yes
717 04 00 044	Passive	4.00	28	Yes	Yes	Yes	Yes
717 04 00 045	Passive	5.00	28	Yes	Yes	Yes	Yes
717 04 00 046	Passive	6.00	28	Yes	-	-	Yes
717 04 00 012	Passive	3.00	26	Yes	Yes	Yes	Yes
717 04 00 013	Passive	4.00	26	Yes	Yes	Yes	Yes
717 04 00 014	Passive	5.00	26	Yes	Yes	Yes	Yes
717 04 00 015	Passive	6.00	26	Yes	Yes	Yes	Yes
717 04 00 016	Passive	7.00	26	Yes	Yes	Yes	Yes
717 04 00 017	Passive	8.00	26	Yes	-	-	Yes
717 04 00 003	Passive	3.00	24	Yes	Yes	Yes	Yes
717 04 00 004	Passive	4.00	24	Yes	Yes	Yes	Yes
717 04 00 005	Passive	5.00	24	Yes	Yes	Yes	Yes
717 04 00 006	Passive	6.00	24	Yes	Yes	Yes	Yes
717 04 00 007	Passive	7.00	24	Yes	Yes	Yes	Yes
717 04 00 008	Passive	8.00	24	Yes	Yes	Yes	Yes
717 04 00 066	Passive	9.00	24	Yes	-	-	Yes
717 04 00 009	Passive	10.0	24	Yes	-	-	Yes

Applications are shown for reference. Cables are available for test in your system.
To request quotations, testable cable samples or for additional information, please email qsfp@cinch.com.