



QSFP / QSFP+ I/O & Cables

Product Presentation



QSFP / QSFP+ I/O & Cables

QSFP / QSFP+ (Quad Small form Factor Pluggable)

- QSFP - 4 channels @ 5 Gb/s – 20 G aggregate bandwidth
- QSFP+ - 4 channels @ 10 Gb/s – 40 G aggregate bandwidth
- QSFP+ - 4 channels @ 14 Gb/s – 56 G aggregate bandwidth
- QSFP+ - 4 channels @ 28 Gb/s – 112 G aggregate bandwidth
- SFF- 8436, SFF-8661, SFF-8662 compatible
- System management interface
 - EEPROM memory map compliant
- Support bandwidth requirements of:
 - IEEE 802.3ba (40 Gb/s) IEEE 802.3bj (100 Gb/s)
 - InfiniBand QDR & FDR & EDR specifications
- QSFP / QSFP+ based cable assemblies
- QSFP Passive cable assemblies
 - 5 Gb/s per channel compliant – P/N 10115856
 - 10 Gb/s per channel compliant – P/N 10093084
 - 14 Gb/s per channel compliant – P/N 10119239
 - 28 Gb/s per channel compliant – P/N 10121178
 - PVC or halogen free jacket
 - All FCI cables passed IBTA plug-fest compatibility in October, 2009
- QSFP+ Actively equalized cables - in evaluation

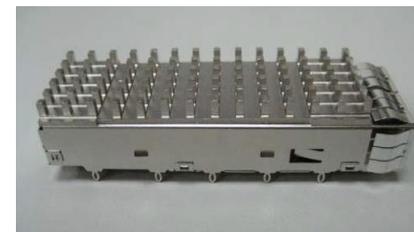
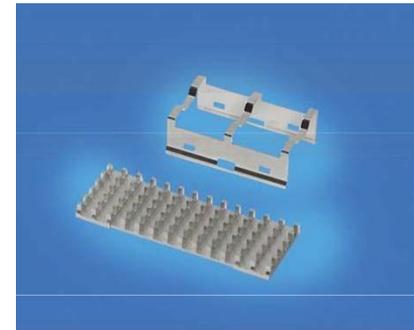


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QSFP / QSFP+ Connectors & Cages

Mating header & Cage P/N's

- QSFP+ R/A 38 position connector – P/N 10132344
 - 0.8mm contact pitch
 - SMT termination
 - Pick-n-place compatible
 - Tape & reel packaging
 - 30u" gold plating on contact interface
 - 150u" bright or mat tin in SMT termination area 100 cycle durability
 - 0.5 amps per contact
 - RoHs compliant
- QSFP+ cages – P/N's listed below
 - Copper alloy with 50u" nickel over-plate
 - EMI fingers – Copper alloy with 50u' tin over 50u" nickel
 - EOL press fit PCB termination
 - Tray packaging
 - Current cage configuration
 - 1x1 (1x1 (single) QSFP+ cage with EMI fingers – P/N 10130975
 - QSFP+ cage with heatsink – P/N 10128764
 - QSFP+ integrated cage kit – P/N 10116015(cage, heat sink & clip assemblies together)
 - RoHs compliant

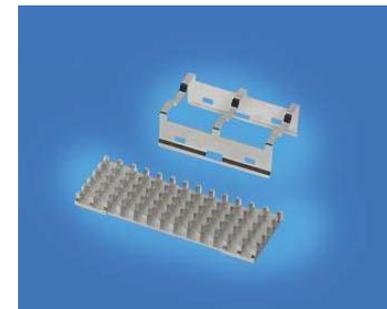


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QSFP / QSFP+ Product Information

QSFP / QSFP+ Product part numbers

- Cable assembly P/N's
 - QSFP passive cable assembly 5G per channel - 10115856
 - QSFP+ passive cables – 10G per channel - 10093084
 - QSFP+ passive cables – 14G per channel - 10119239
 - QSFP+ passive cables – 28G per channel - 10121178
 - See customer print for dash number definition
- Mating header & Cage P/N's
 - 10132344 – standard QSFP+ connector
 - 10130975 – 1x1 QSFP+ cage – EMI fingers
 - 10099115 - QSFP+ cage heat sink
 - 10099116 - QSFP+ cage heat sink clip
 - 10128764 - QSFP+ integrated cage kit – cage, heat sink & clip assembled



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QSFP / QSFP+ Product Capability Matrix

QSFP / QSFP+ Product Capability Matrix

- Capability matrix - Based on SFF-8436 defined acceptance thresholds

	Unequalized Cable Length/AWG*									
Performance Level	1M	2M	3M	4M	5M	6M	7M	8M	9M	10M
Infiniband- FDR	30	30	26	26	25					
Infiniband- QDR	30	30	30	28	26	24				
Infiniband- DDR	30	30	30	28	28	26	26	24	24	24
Infiniband- SDR	30	30	30	28	28	26	26	24	24	24
IEEE 802.3ba	30	30	30	TBD						
*MINIMUM RECOMMENDED CABLE AWG IS SHOWN										

- Capability matrix - Based on SFF-8661, SFF-8662 defined acceptance thresholds

	Unequalized Cable Length/AWG*				
Performance Level	1M	2M	3M	4M	5M
OIF CEI-25G-LR	30	30	30	26	26
IEEE 802.3bj	30	30	30	26	26
*MINIMUM RECOMMENDED CABLE AWG IS SHOWN					

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QSFP / QSFP+ Product Capability Matrix

QSFP+ Cable assembly & cage & connector documentation

- Documentation available on FCI web site
 - Product Datasheet
 - Product Drawings
 - Product Specification
 - 3-D mechanical Models
 - Application Specifications
- For more information on the following technical documents, please send your request to FCI Market team
 - Electrical models
 - Electrical test report
 - Qualification report
- Web links
 - <http://www.fci.com/en/products/cable-assemblies/qsfp-plus-cables-assemblies.html>
- Electrical test boards available upon request
- Cable assembly, connector & cage qualification samples – Available



THANK YOU

