

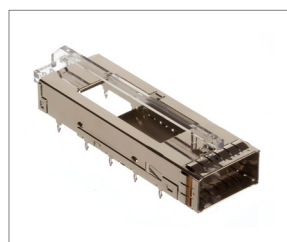
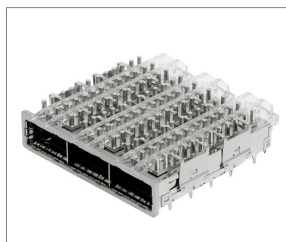
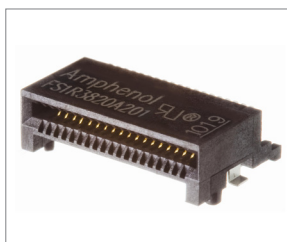
ExpressPort® QSFP+

Product Description

The ExpressPort® QSFP+ interconnect system is comprised of a 38 position 0.8mm pitch SMT connector, and a press-fit cage. With four channels of data in one pluggable, the system interface is capable of transferring data up to 28 Gbps/Channel, and replacing up to 4 standard SFP+ receptacles. These features result in greater port density and overall cost savings over traditional SFP+ products. Supporting standards include, Gigabit Ethernet, InfiniBand, and SON-ET/SDH with different data rate options. ExpressPort® QSFP+ includes cages in single, ganged and stacked configurations with multiple heat sink options supporting various thermal requirements and port status with light pipes options.

Applications		SFF Supported Standards
Data Servers	SAN, NIC cards	ExpressPort QSFP+
Router/Switches	HBA'S	Connector SFF-8682
Hubs		Cage SFF-8683

Product Specifications - ExpressPort® QSFP+			
CONNECTOR		CAGE	
Materials Specifications			
Housing	Black color, Glass reinforced, Lead Free Solder Reflow Process Compatible Thermo Plastic	PCB Thickness	1.44 mm MIN for single mounted. (1xN)
Contacts Base Material	Phosphor Bronze	Belly to Belly	2.85 mm MIN for 1xN. 1.57 mm MIN for 2xN.
Contact Normal Force	50 grams min.		
Plating Solder Tails	Matte tin		
Plating Mating Area	Gold		
Resonance Dampening Feature	Conductive Polymer		
Operating & Storage Temperature	-40° to +85° C		
Electrical Specifications			
Operating Voltage	30 VDC per contact		
Operating Current	0.5 A per contact		
Differential Impedance	100 Ω +/-10 Ω		
Mechanical Specifications			
Mating Force	40 N Maximum	Unmating Force	30 N Maximum
Durability	250 mating cycles	Insertion Force to PCB	780 N for 1 port 1000 N for 2 Ports 1700 N for 4 Ports 2400 N for 6 Ports
Options			
Packaging	Tape and Reel	Packaging	Tray
EMI Options	Gasket, Spring Fingers		
Cage Mounting	Behind Bezel, Thru Bezel, Hybrid		
Configurations	1XN (N=1,2,3,4,6) 2XN (N=1,2,3)		
Environmental Specifications			
RoHS	Yes		
Halogen Free	Yes		
Flammability Rating	UL 94V-0		



Ordering Information

ExpressPort® QSFP+ (Connector)

FS1	SERIES DESIGNATION	FS1	R38	X	0	XX	XX		
R38	STYLE	R38 - 38 Position (QSFP 10G, ExpressPort® QSFP+ 12G+ & 16G)							
X	PLATING	2 - 30 μ" (0.76 μm) Gold Plating on Mating Area; Matte Tin Plating on Termination 3 - 15 μ" (0.38 μm) Gold Plating on Mating Area; Matte Tin Plating on Termination							
0	OPTION 1	0 - Standard							
	SPECIAL - QSFP+ (12 Gbps & UP)	00 - No Resonance Dampening, No Hold Down Tabs 01 - No Resonance Dampening, Hold Down Tabs							XX
	SPECIAL - QSFP+ (16 Gbps)	10 - Resonance Dampening, No Hold Down Tabs 11 - Resonance Dampening, Hold Down Tabs							
	OPTION 2	00 - QSFP Connector A2 - QSFP+ Connector							XX

ExpressPort® Stacked QSFP+

U90	SERIES DESIGNATION	U90	B	X	0	5	4	X	X	1	X	X	0	
B	STYLE	B - Standard												
X	NUMBER OF PORTS IN ROW	1 - 2X1 2 - 2X2 3 - 2X3												
0	HEAT SINK OPTION (No Light Pipe Available)	0 - No Heat Sink Option												
5	APPLICATION	5 - Options Available - Consult Factory												
4	CAGE & CONNECTOR CONTACT PLATING	4 - 30 μ" (0.76 μm) Gold Over 50 μ" (1.27 μm) to 150 μ" (3.81 μm) of Nickel; 15 μ" (0.38 μm) to 60 μ" (1.52 μm) of Matte Tin Over 50 μ" (1.27 μm) to 150 μ" (3.81 μm) of Nickel on Press-Fit Tail Area; Nickel Plating for Cage												
	CONNECTOR FOOTPRINT	0 - Standard												0
	VENT HOLES	0 - Large Vent Holes & EMI Cover 2 - Small Vent Holes & EMI Cover 4 - Rectangular Vent Holes & EMI Cover												X
	EMI GASKET OPTION	1 - Chomerics 1273 Conductive Elastomer 2 - Chomerics S6305 Conductive Elastomer												X
	PACKAGING	1 - Tray												1
	LIGHT PIPE OPTION	6 - Light Pipes (Triangular Outlet); Left Arrow Pointing Bottom Outlet & Right Arrow Pointing Top Port 7 - Without Light Pipes 8 - With Light Pipes; Left Arrow Pointing Top Port & Right Arrow Pointing Bottom Port												X
	DUST COVER OPTION	0 - Without Dust Cover D - With Dust Cover												X

ExpressPort® QSFP+ Cages

U90	SERIES DESIGNATION	U90	X	X	X	1	1	X	X	X			
X	STYLE	A - One Row Cage 0°, Through the Bezel (No Light Pipe) C - One Row Cage 1°, Through the Bezel (1X1 Only No Light Pipe) D - One Row Cage 0°, Hybrid with Elastomeric Gasket G - One Row Cage 0°, Behind the Bezel H - One Row Cage 0°, Through the Bezel with Optional Light Pipe K - One Row Cage 0°, Through the Bezel with No Heat Sink Opening L - One Row Cage 0°, No Pins on Back Wall P - One Row Cage 0°, Behind the Bezel with Low Profile Heat Sink and Clip R - One Row Cage 0°, Through the Bezel with Low Profile Heat Sink T - One Row Cage 0°, Through the Bezel with Low Profile Heat Sink and Clip with Optional Light Pipe W - One Row Cage 1°, Through the Bezel with No Rear Pin (1X1 Only No Light Pipe)											
X	NUMBER OF PORTS IN ROW	1 - 1X1 2 - 1X2 3 - 1X3 4 - 1X4 6 - 1X6											
X	HEAT SINK OPTION	1 - No Heat Sink or Clip Shipped 2 - Fin Style(Black Anodized) Heat Sink & Clip (H = 6.5 mm) 3 - Fin Style(Black Anodized) Heat Sink & Clip (H = 4.2 mm) 4 - Fin Style(Black Anodized) Heat Sink & Clip (H = 13.5 mm) 5 - Pin Style(Nickel Plated) Heat Sink & Clip (H = 6.5 mm) 6 - Pin Style(Nickel Plated) Heat Sink & Clip (H = 4.2 mm) 7 - Pin Style(Nickel Plated) Heat Sink & Clip (H = 13.5 mm)											
	PACKAGING	1 - Tray (Shipped Unassembled for Single Port) T - Tape & Reel (1X1 Only) A - Tray Heat Sink & Clip or Light Pipe Shipped Assembled											
	LIGHT PIPE OPTION	0 - Without Light Pipe 1 - Round 1.4mm Outlet Light Pipe 3 - Square 2.6x2.6mm Outlet Light Pipe, No EMI Gasket											
	DUST COVER OPTION	0 - Without Dust Cover D - With Dust Cover (Shipped Loose)											
	PLATING	1 - Nickel											
	APPLICATION	1 - Press-Fit Pins (2.5mm Long)											
	HEAT SINK OPTION	D - Pin-Fin Style(Black Anodized) Heat Sink & Clip (H = 6.5 mm) E - Pin-Fin Style(Black Anodized) Heat Sink & Clip (H = 4.2 mm) F - Pin-Fin Style(Black Anodized) Heat Sink & Clip (H = 13.5 mm) N - Pin-Fin Style(Nickel Plated) Heat Sink & Clip (H = 6.5 mm) P - Pin-Fin Style(Nickel Plated) Heat Sink & Clip (H = 4.2 mm) R - Pin-Fin Style(Nickel Plated) Heat Sink & Clip (H = 13.5 mm)											



Order Information:

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For more information consult factory or visit amphenol-highspeed.com

Product Applications; List represents common uses for the product but is not limited to these uses.

All specifications are subject to change without notice.

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