

# FLYOVER® QSFP CABLE ASSEMBLIES



## FEATURES & BENEFITS

QSFP28, QSFP-DD and QSFP-D8 systems utilize Samtec Flyover® technology to route data above lossy PCB, simplifying board layout and extending signal reach. The modular design enables optimized systems that improve heat management, increase signal integrity performance, build in scalability for future upgrades and reduces costs by creating a multifunction board.

NRZ	PAM4
56 Gbps	112 Gbps

## FLYOVER® QSFP SYSTEM

- 4 Channels (x4 bidirectional, 8 differential pairs)
- Up to 400 Gbps aggregate (112 Gbps PAM4)
- Compatible with all MSA QSFP pluggables
- Multiple heat sink options available for optimal dissipation
- Eye Speed® 30 or 34 AWG twinax cable
- Multiple end 2 options for design flexibility
- Evaluation Kits available (REF-205303-X.XX-XX and REF-200471-X.XX-XX), visit [samtec.com/kits](http://samtec.com/kits)



Localized press-fit control and power contacts eliminate the need for a secondary cable and connector



High-speed contacts directly soldered to Eye Speed® ultra low skew twinax

## FLYOVER® QSFP DOUBLE DENSITY

- 8 Channels (x8 bidirectional, 16 differential pairs)
- Up to 400 Gbps aggregate (56 Gbps PAM4)
- Belly-to-belly mating for maximum density
- Backward compatible with QSFP modules
- Multiple heat sink options available for optimal dissipation
- Variety of end 2 options
- Evaluation Kits available (REF-205605-X.XX-XX and REF-203423-X.XX-XX), visit [samtec.com/kits](http://samtec.com/kits)

## 800G FLYOVER® DOUBLE DENSITY

- 8 Channels (x8 bidirectional, 16 differential pairs)
- Up to 800 Gbps aggregate (112 Gbps PAM4)
- Belly-to-belly mating for maximum density
- Backward compatible with QSFP & QSFP-DD modules
- Multiple heat sink options available for optimal dissipation
- Variety of end 2 options

## FLYOVER® QSFP28 CABLE ASSEMBLY

FQSFP	LEAD STYLE	CABLE LENGTH	PLATING	CONTACT TYPE	END OPTION
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**-01**  
= 10 Low-Speed,  
8 Pairs High-Speed

**-"XX.X"**  
= Length in inches  
04.0" (101.6 mm)  
minimum

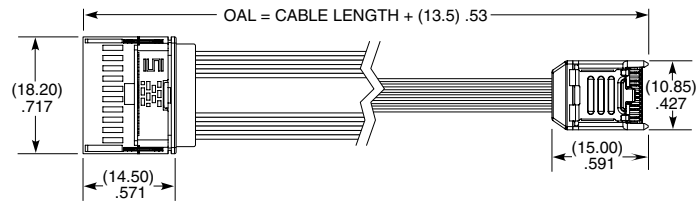
**-L**  
= 10 μ" (0.25 μm)  
Gold over  
50 μ" (1.27 μm)  
Ni on contact area,  
Matte Tin on tail

**-PF**  
= Press-fit

**-3**  
= ECUE

**-4**  
= ARC6-8

### FQSFP



**FQSFP-01-XX.X-L-PF-4 SHOWN**

QSFP	CAGE OPTION	NO. OF PORTS	EMI PANEL OPTION	OPTION	FLYOVER
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**-1**  
= Single Stack

**-1**  
= One Port

**-S**  
= Spring  
Fingers

(Leave blank for no Light Pipe)

(Leave blank for no flyover)

**-2**  
= Two Ports

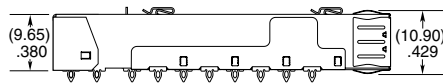
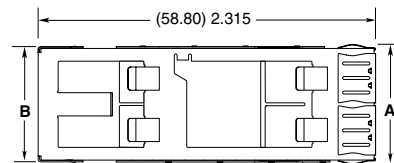
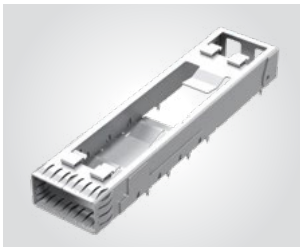
**-LP**  
= Light Pipe  
(1 & 4 ports only)

**-F**  
= Flyover

**-4**  
= Four Ports

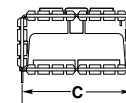
**-N**  
= No heat sink closed top  
(Not available with -LP)

### QSFP



**QSFP-1-1-S-F SHOWN**

NO. OF PORTS	A	B	C
-1	(20.62) .812	(19.85) .781	(19.00) .748
-2	(39.62) 1.560	(38.85) 1.530	(38.00) 1.496
-4	(77.62) 3.056	(76.85) 3.026	(76.00) 2.992



HEAT SINKS		LIGHT PIPES	
PART NUMBER	HEAT SINK HEIGHT	PART NUMBER	NO. OF PORTS
HS-QSFP-P1-01	(4.20 mm) .165"	LP-FQSFP-1	1 pipe
HS-QSFP-P1-02	(6.50 mm) .256"	LP-FQSFP-2	2 pipes
HS-QSFP-P1-03	(13.50 mm) .531"	LP-FQSFP-4	4 pipes
HS-QSFP-P1-04	(1.50 mm) .059"		

View complete specifications at [samtec.com/LP-FQSFP](http://samtec.com/LP-FQSFP)

For Light Pipe, add -LP to the end of part number.  
View complete specifications at [samtec.com/HS-QSFP](http://samtec.com/HS-QSFP)

View complete specifications at: [samtec.com/FQSFP](http://samtec.com/FQSFP) & [samtec.com/QSFP](http://samtec.com/QSFP)

**Notes:**  
Some sizes, styles and options are non-standard, non-returnable.

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