



FLYOVER® SFP, QSFP & OSFP PANEL ASSEMBLIES

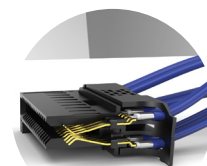
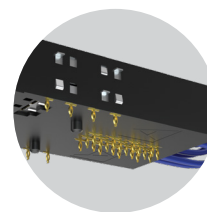


PAM 4	PAM 4	PAM 4
56	112	224
G b p s	G b p s	G b p s

FEATURES & BENEFITS

Flyover® panel cable systems utilize Samtec Flyover® cable technology to route data above lossy PCB through Eye Speed® ultra low skew twinax cable, 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 reduce costs by creating a multifunction board.

- High-speed contacts directly terminated to Eye Speed® ultra low skew twinax
- Low-speed and power positions transmitted through press-fit contact tails
- Multiple end 2 (co-packaged and near-chip) options for design flexibility
- Cages and heat sinks available for optimized thermal performance
- SI Evaluation Kits available, visit [samtec.com/kits](https://www.samtec.com/kits)



FLYOVER® SFP SYSTEM

- 112 Gbps PAM4 performance
- Belly-to-belly capable for maximum density
- Accepts all MSA compliant SFP pluggable modules
- Eye Speed Thinax™ ultra low skew twinax cable (3.5 ps/m max)

FLYOVER® OSFP SYSTEM

- Up to 1600 Gbps aggregate (224 Gbps PAM4)
- 8 Channels (x8 bidirectional, 16 differential pairs)
- Belly-to-belly capable for maximum density
- Eye Speed Thinax™ ultra low skew twinax (3.5 ps/m max) or Eye Speed® hyper low skew twinax (1.75 ps/m max)

FLYOVER® QSFP SYSTEM

- 4 Channels (x4 bidirectional, 8 differential pairs)
- Up to 400 Gbps aggregate (112 Gbps PAM4)
- Compatible with all MSA QSFP pluggables
- Eye Speed® ultra low skew twinax cable (3.5 ps/m max)

FLYOVER® QSFP DOUBLE DENSITY

- 8 Channels (x8 bidirectional, 16 differential pairs)
- Up to 800 Gbps aggregate (112 Gbps PAM4)
- PCIe® 6.0/CXL® 3.2 capable
- Belly-to-belly capable for maximum density
- Backward compatible with QSFP and QSFP-DD modules
- Eye Speed® ultra low skew twinax or Eye Speed Thinax™ twinax cable (3.5 ps/m max)

The PCIe® design mark is a registered trademark and/or service mark of PCI-SIG.

FQSFP	LEAD STYLE	CABLE LENGTH	PLATING	CONTACT TYPE	END OPTION
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FQSFP



-01
= 10 Low-Speed,
8 Pairs High-Speed

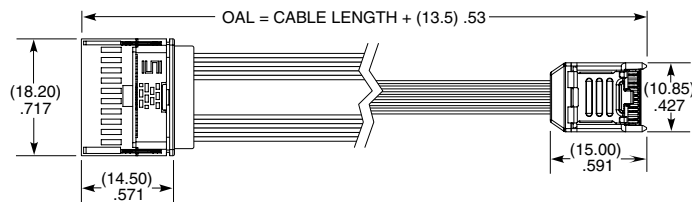
-L
= 10 μ" (0.25 μm)
Gold over
50 μ" (1.27 μm)
Ni on contact area,
Matte Tin on tail

-PF
= Press-fit

-3
= ECUE
(FireFly™)

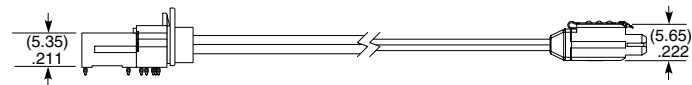
-4
= ARC6-8
(AcceleRate®; 34 AWG,
100 Ω ultra low skew
twinax cable)

-5
= ARC6-8
(AcceleRate®; 34 AWG,
92 Ω Thinax™ ultra low
skew twinax cable)



PRESS-FIT TOOLING

CAT-PT-FQSFP-01
For more information, visit
www.samtec.com/tooling



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

QSFP	CAGE OPTION	NUMBER 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

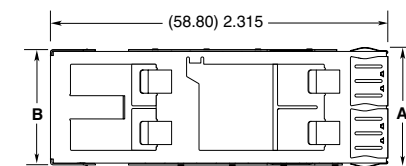
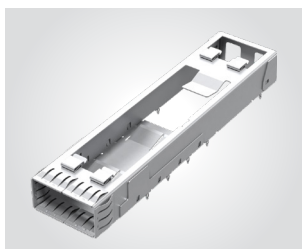
-LP
= Light Pipe
(1 & 4 ports only)

-F
= Flyover®

-4
= Four Ports

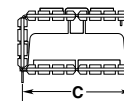
-N
= No heat sink closed top
(Not available with -LP)

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



PRESS-FIT TOOLING

CAT-PT-FQSFP-03-XX
For more information, visit
www.samtec.com/tooling

Notes:

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

HEAT SINKS

PART NUMBER	HEAT SINK HEIGHT
HS-QSFP-P1-01	(4.20 mm) .165"
HS-QSFP-P1-02	(6.50 mm) .256"
HS-QSFP-P1-03	(13.50 mm) .531"
HS-QSFP-P1-04	(1.50 mm) .059"

For Light Pipe, add -LP to the end of part number.
View complete specifications at samtec.com?HS-QSFP

LIGHT PIPES

PART NUMBER	NO. OF PORTS
LP-FQSFP-01	1 pipe
LP-FQSFP-02	2 pipes
LP-FQSFP-04	4 pipes

View complete specifications at samtec.com?LP-FQSFP