

FLYOVER® QSFP CABLE ASSEMBLIES



FEATURES & BENEFITS

QSFP28 and QSFP-DD 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® QSFP28 SYSTEM

- 4 Channels (x4 bidirectional, 8 differential pairs)
- ~100 Gbps 28G NRZ aggregate
(~200 Gbps 56G PAM4; 400 Gbps 112G PAM4)
- Compatible with all MSA QSFP pluggables
- Heat dissipation: ~3.5 W/cable
- 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](https://www.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



Increases panel density and optimizes airflow

FLYOVER® QSFP DOUBLE DENSITY

- 8 Channels (x8 bidirectional, 16 differential pairs)
- ~200 Gbps 28G NRZ aggregate
(~400 Gbps 56G PAM4; 800 Gbps 112G PAM4)
- Belly-to-belly mating for maximum density
- Backward compatible with QSFP modules
- Heat dissipation: ~7+ W/cable
- Variety of end 2 options
- Evaluation Kits available (REF-205605-X.XX-XX and REF-203423-X.XX-XX), visit [samtec.com/kits](https://www.samtec.com/kits)

Roadmap: Flyover® QSFP-DD 800G

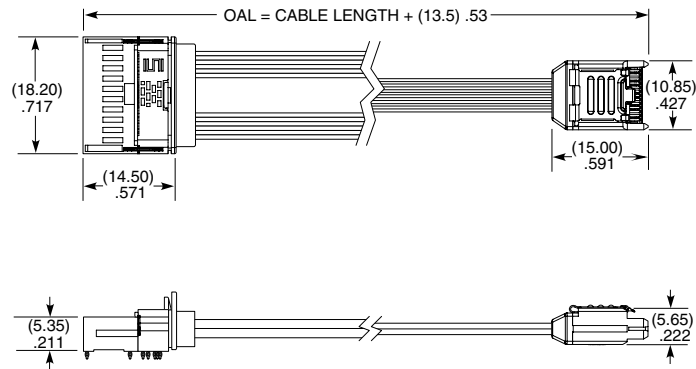
Samtec is developing Flyover® solutions for 800G including:

- Single to multiple ganged ports
- Belly-to-belly and mezzanine stack configurations
- Contact HDR@samtec.com for more information.

FLYOVER® QSFP28 CABLE ASSEMBLY

FQSFP	LEAD STYLE	CABLE LENGTH	PLATING	CONTACT TYPE	END OPTION
	-01 = 10 Low-Speed, 8 Pairs High-Speed	-"XX.X" = Length in inches 04.0" (101.6 mm) minimum	-L = 10 μ " (0.25 μ m) Gold over 50 μ " (1.27 μ m) Ni on contact area, Matte Tin on tail	-PF = Press-fit	-3 = ECUE -4 = ARC6-8

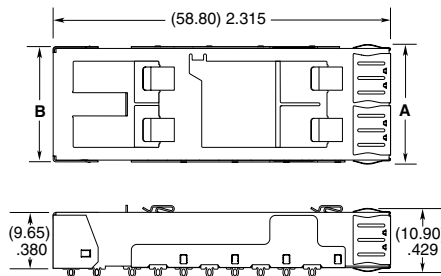
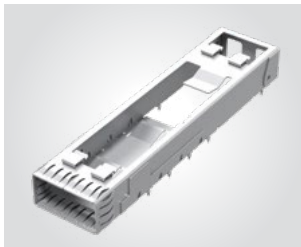
FQSFP



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

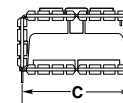
QSFP	CAGE OPTION	NO. OF PORTS	EMI PANEL OPTION	OPTION	FLYOVER
	-1 = Single Stack	-1 = One Port -2 = Two Ports -4 = Four Ports	-S = Spring Fingers	(Leave blank for no Light Pipe) -LP = Light Pipe (1 & 4 ports only) -N = No heat sink closed top (Not available with -LP)	(Leave blank for no flyover) -F = Flyover

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

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

View complete specifications at: samtec.com?FQSFP & samtec.com?QSFP

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

Mouser Electronics

Authorized Distributor

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[QSFPC-1-1-S-F](#)