

8.5 x 8.5 SoM QSH and QTH B2B Connectors

8.5 x 8.5 SoMs have three Samtec Q Strip Socket on the bottom side.

- Module use 3 x ASP-122952-01 (QTH-090-01-L-D-A) , (180 pins, "60" per bank)
- Carrier use 3 x ASP-122953-01 (QSH-090-01-F-D-A), (180 pins, "60" per bank)

Connector Specifications	Value
Insulator material	Black Liquid Crystal Polymer
Stacking height	5 mm
Contact material	Phosphor-bronze
Plating	Au or Sn over 50 μ" (1.27 μm) Ni
Current rating	2 A per pin (2 pins powered)
Operating temperature range	-55 °C to +125 °C
RoHS compliant	Yes

Connector specifications.

Connector Mating height

When using the same type on baseboard, the mating height is 5mm. Other mating heights are possible by using connectors with a different height

Order number	Connector on baseboard	compatible to	Mating height
	ASP-122953-01	QTH-090-01-L-D-A	5 mm
	ASP-122952-01	QSH-090-01-F-D-A	5 mm

Connectors.

The module can be manufactured using other connectors upon request.

Connector Speed Ratings

The Q Strip connector speed rating depends on the stacking height; please see the following table:

Stacking height	Speed rating
5 mm, Single-Ended	9.5 GHz
8 mm, Single-Ended	8.5 GHz
11 mm, Single-Ended	6 GHz
16 mm, Single-Ended	5.5 GHz
20 mm, Single-Ended	3.5 GHz
30 mm, Single-Ended	3 GHz
5 mm, Differential	10.5 GHz / 25Gbit/s
8 mm, Differential	8 GHz
11 mm, Differential	5 GHz

16 mm, Differential	6 GHz
20 mm, Differential	8.5 GHz
30 mm, Differential	1.5 GHz

Speed rating.

Current Rating

Current rating of Samtec Q Strip Socket B2B connectors is 2A per pin (2 adjacent pins powered).

Connector Mechanical Ratings

- Shock: 50 G, 11 ms half Sine
- Vibration: 7.3G random, 2 hours per axis, 3 axes total

Manufacturer Documentation

File	Modified
PDF File qsh.pdf	23 07, 2019 by Pedram Babakhani
PDF File qsh-xxx-01-x-d-xx-footprint.pdf	24 07, 2019 by Pedram Babakhani
PDF File qsh-xxx-01-x-d-xxx-mkt.pdf	24 07, 2019 by Pedram Babakhani
PDF File qth.pdf	23 07, 2019 by Pedram Babakhani
PDF File qth-xxx-xx-x-d-xxx-footprint.pdf	24 07, 2019 by Pedram Babakhani
PDF File qth-xxx-xx-x-d-xxx-mkt.pdf	24 07, 2019 by Pedram Babakhani

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