



(0,50 mm) .0197"

QSH SERIES

QSH-060-01-L-D-DP-A



HIGH SPEED GROUND PLANE SOCKET

SPECIFICATIONS

For complete specifications and recommended PCB layouts see www.samtec.com?QSH

Insulator Material:

Liquid Crystal Polymer

Contact Material:

Phosphor Bronze

Plating:

Au or Sn over 50µ" (1,27 µm) Ni

Current Rating:

1.0A per contact @ 30°C

Temperature Rise

Ground Plane: 7.8A per ground plane @ 30°C

Temperature Rise

Operating Temp Range:

-55°C to +125°C

Voltage Rating:

125 VAC (5 mm Stack Height)

Max Cycles:

100

RoHS Compliant:

Yes

Processing:

Lead-Free Solderable:

Yes

SMT Lead Coplanarity:

(0,10 mm) .004" max (030-060)

(0,15 mm) .006" max (090)

Board Stacking:

For applications requiring more than two connectors per board contact ipg@samtec.com

APPLICATION SPECIFIC OPTION

- 14 mm, 15 mm, 22 mm and 30 mm stack height (Caution: Some automatic placement/inspection machines may have component height restrictions. Please consult machinery specifications.)
 - 30µ" (0,76 µm) Gold (Specify -H plating for Data Rate cable mating applications.)
 - Edge Mount & Guide Posts
 - 80(-DP), 120, 150 positions per row
 - Retention Option
- Call Samtec.

*Note: -C Plating passes 10 year MFG testing

Note: Some lengths, styles and options are non-standard, non-returnable.

Board Mates:
QTH

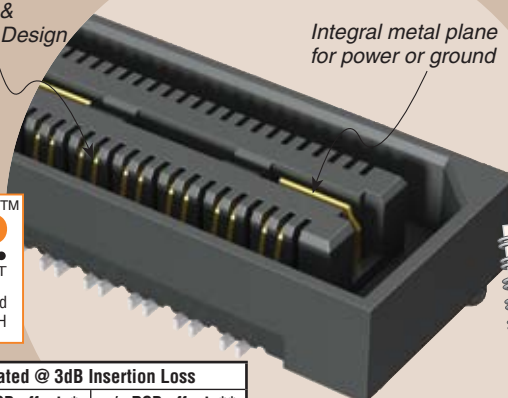
Cable Mates:
HQCD, HQDP

(See Application Specific note)



Blade & Beam Design

Integral metal plane for power or ground



Protocols Supported

- 100 GbE
- Hypertransport™
- XAUI
- PCI Express®
- SATA
- InfiniBand™

Download app notes at:
www.samtec.com/appnote
Contact SIG @ samtec.com for questions on protocols

25+ Gbps

QTH/QSH 5 mm Stack Height	Type	Rated @ 3dB Insertion Loss	
		with PCB effects*	w/o PCB effects**
Single-Ended Signaling	-D	9 GHz / 18 Gbps	9.5 GHz / 19 Gbps
Differential Pair Signaling	-D	8 GHz / 16 Gbps	10.5 GHz / 21 Gbps
Differential Pair Signaling	-DP	9.5 GHz / 19 Gbps	16.5 GHz / 33 Gbps

*Performance data includes effects of a non-optimized PCB.
**Test board losses de-embedded from performance data.

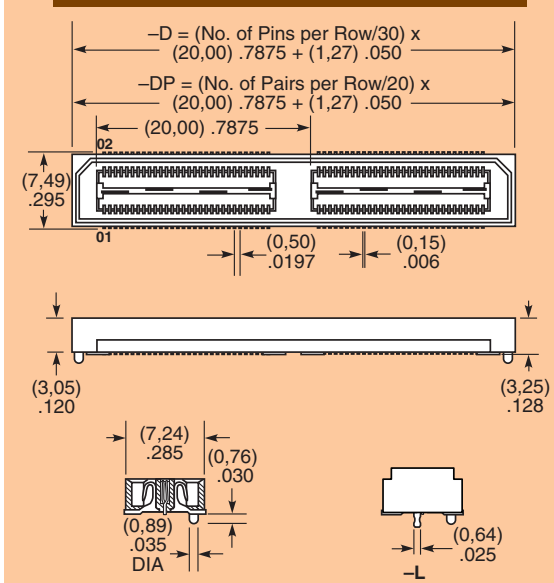
Performance data for other stack heights and complete test data available at www.samtec.com?QSH or contact sig@samtec.com

QSH - PINS PER ROW NO. OF PAIRS - 01 - PLATING OPTION - TYPE - A - OTHER OPTION

-030, -060, -090 (60 total pins per bank = -D)
-020, -040, -060 (20 pairs per bank = -D-DP)

-F = Gold Flash on Signal Pins and Ground Plane, Matte Tin on tails
-L = 10µ" (0,25 µm) Gold on Signal Pins and Ground Plane, Matte Tin on tails
-C* = Electro-Polished Selective 50µ" (1,27 µm) min Au over 150µ" (3,81 µm) Ni on Signal Pins in contact area, 10µ" (0,25 µm) min Au over 50µ" (1,27 µm) Ni on Ground Plane in contact area, Matte Tin over 50µ" (1,27 µm) min Ni on all solder tails

-D = Single-Ended
-D-DP = Differential Pair (-01 only)
-K = (8,25 mm) .325" DIA Polyimide Film Pick & Place Pad
-TR = Tape & Reel (-090 positions maximum)
-L = Latching Option (N/A on -060 (-D-DP), -080, -090 & -120 positions)



QTH LEAD STYLE	MATED HEIGHT WITH QSH*
-01	(5,00) .197
-02	(8,00) .315
-03	(11,00) .433
-04	(16,00) .630
-05	(19,00) .748
-07	(25,00) .984

*Processing conditions will affect mated height.

ALSO AVAILABLE
Board Spacing Standoffs. See SO Series.

Due to technical progress, all designs, specifications and components are subject to change without notice.

WWW.SAMTEC.COM