



(0,50mm) .0197"

QSH SERIES

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



QSH-030-01-F-D-A-RT1

QSH-060-01-L-D-A-K

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" (1,27µm) Ni

Current Rating:
Contact: 1.0A @ 30°C
Temperature Rise
Ground Plane: 7.8A @ 30°C
Temperature Rise

Operating Temp Range:
-55°C to +125°C

Voltage Rating:
125 VAC (5mm Stack Height)

Max Cycles:
100

Unmating Force (-RT1 option):
-RT1 option increases unmating force up to 50%

RoHS Compliant:
Yes



Board Mates:
QTH

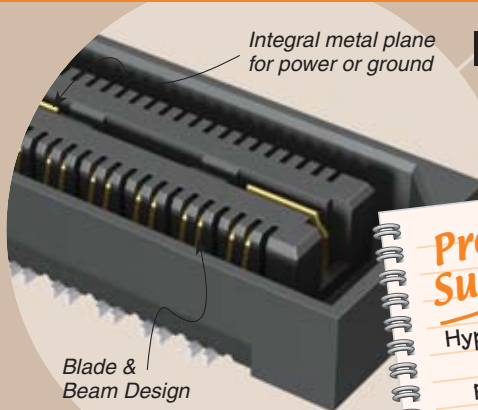
Cable Mates:
HQCD, HQDP, HFHM2
(See Application Specific note)



5mm Stack Height	Type	Rated @ 3dB Insertion Loss
Single-Ended Signaling	-D	9 GHz / 18 Gbps
Differential Pair Signaling	-D	8 GHz / 16 Gbps
Differential Pair Signaling	-DP	9.5 GHz / 19 Gbps

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

Integral metal plane for power or ground



Blade & Beam Design



Protocols Supported

Hypertransport™
XAUI
PCI Express®
SATA
Infiniband

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

ALSO AVAILABLE

Board Spacing Standoffs. See SO Series.

Processing:

Lead-Free Solderable:
Yes

SMT Lead Coplanarity:
(0,10mm) .004" max (030-060)
(0,15mm) .006" max (090-120)

Board Stacking:
For applications requiring more than two connectors per board or 4 banks or more, contact ipg@samtec.com

APPLICATION SPECIFIC OPTION

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

*Note: -C Plating passes 10 year MFG testing

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

QSH	PINS PER ROW NO. OF PAIRS	01	PLATING OPTION	TYPE	A	OTHER OPTION
			-F = Gold Flash on Signal Pins and Ground Plane, Matte Tin on tails			
	-030, -060, -090, -120 (60 total pins per bank = -D)		-L = 10µ" (0,25µm) Gold on Signal Pins and Ground Plane, Matte Tin on tails	-D = Single-Ended		-K = (8,25mm) .325" DIA Polyimide Film Pick & Place Pad
	-020, -040, -060, -080 (20 pairs per bank = -D-DP)		-C* = Electro-Polished Selective 50µ" (1,27µm) min Au over 150µ" (3,81µm) Ni on Signal Pins in contact area, 10µ" (0,25µm) min Au over 50µ" (1,27µm) Ni on Ground Plane in contact area, Matte Tin over 50µ" (1,27µm) min Ni on all solder tails	-D-DP = Differential Pair (-01 only)		-TR = Tape & Reel (-090 positions maximum)
						-RT1 = Retention Option (-090 positions maximum)
						-L = Latching Option (N/A on 120 positions or -RT1 option)

-D = (No. of Pins per Row/30) x (20,00) .7875 + (1,27) .050

-DP = (No. of Pairs per Row/20) x (20,00) .7875 + (1,27) .050

(20,00) .7875

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.

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

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