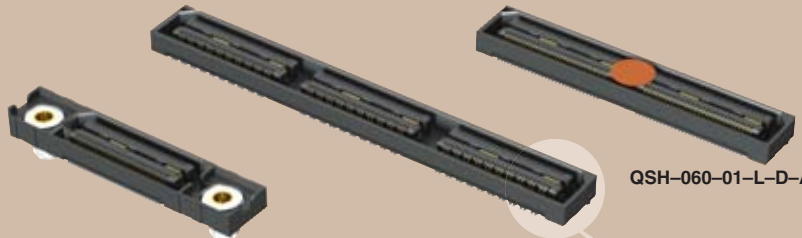




(0,50mm) .0197"

QSH SERIES

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



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

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

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



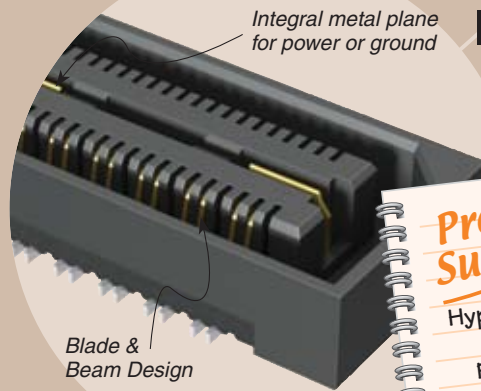
Board Mates:
QTH

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



Retention pin option

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.



-030, -060, -090, -120
(60 total pins per bank = -D)

-020, -040, -060, -080
(20 pairs per bank = -D-DP)

-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

(7,49) .295

(0,50) .0197 (0,15) .006

(3,05) .120 (3,25) .128

(7,24) .285 (0,76) .030

(0,89) .035 DIA

(3,81) .150 (3,76) .148 DIA

(0,64) .025

-F
= Gold Flash on Signal Pins and Ground Plane, Matte Tin on tails

-L
= 10µ" (0,25µm) Gold on Signal Pins and Ground Plane, Matte Tin on tails

-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
= Single-Ended

-D-DP
= Differential Pair (-01 only)

-K
= (8,25mm) .325" DIA Polyimide Film Pick & Place Pad

-TR
= Tape & Reel (-090 positions maximum)

-RT1
= Retention Option (-090 positions maximum)

-L
= Latching Option (N/A on -060 (-D-DP), -080, -090 & -120 positions or -RT1 option)

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.

*Note: -C Plating passes 10 year MFG testing

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

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

WWW.SAMTEC.COM