

(0.50 mm) .0197"

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

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

QSH-030-01-F-D-A

QSH SERIES

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

50 μ " (1.27 μ m) Ni

Current Rating:

Contact:

2 A per pin

(2 pins powered)

Ground Plane:

25 A per ground plane

(1 ground plane powered)

Operating Temp Range:

-55 °C to +125 °C

Voltage Rating:

175 VAC (5 mm Stack Height)

Max Cycles:

100

RoHS Compliant:

Yes

Board Mates:

QTH

Cable Mates:

HQCD, HQDP

(See Also Available Note)

Standoffs:

SO



Blade & Beam Design

Integral metal plane for power or ground

POWER/SIGNAL APPLICATION



Compatible with UMP/UMPS for flexible two-piece power/signal solutions

HIGH-SPEED CHANNEL PERFORMANCE

QTH/QSH @ 5 mm Mated Stack Height

Rating based on Samtec reference channel. For full SI performance data visit Samtec.com or contact SIG@samtec.com

25
Gbps

PROCESSING

Lead-Free Solderable:

Yes

SMT Lead Coplanarity:

(0.10 mm) .004" max (020-060)

Board Stacking:

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

RECOGNITIONS

For complete scope of recognitions see www.samtec.com/quality



STANDARDS

- PISMO™ 1

Visit www.samtec.com/standards for more information.

ALSO AVAILABLE (MOQ Required)

- 15 mm, 22 mm and 30 mm stack height
- 30 μ " (0.76 μ m) Gold (Specify -H plating for Data Rate cable mating applications.)
- Edge Mount & Guide Posts
- 80 (-DP), 120, 150 positions per row
- Retention Option

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
	<p>-030, -060, -090 (60 total pins per bank = -D)</p> <p>-020, -040, -060 (20 pairs per bank = -D-DP)</p>		<p>-F = Gold Flash on Signal Pins and Ground Plane, Matte Tin on tails</p> <p>-L = 10 μ" (0.25 μm) Gold on Signal Pins and Ground Plane, Matte Tin on tails</p> <p>-C* = Electro-Polished Selective 50 μ" (1.27 μm) min Au over 150 μ" (3.81 μm) Ni on Signal Pins in contact area, 10 μ" (0.25 μm) min Au over 50 μ" (1.27 μm) Ni on Ground Plane in contact area, Matte Tin over 50 μ" (1.27 μm) min Ni on all solder tails</p>	<p>-D = Single-Ended</p> <p>-D-DP = Differential Pair (-01 only)</p>	<p>-K = (8.25 mm) .325" DIA Polyimide Film Pick & Place Pad</p> <p>-TR = Tape & Reel (-090 positions maximum)</p> <p>-L = Latching Option (Not available on -060 (-D-DP) & -090 positions)</p>	

$-D = (\text{No. of Pins per Row}/30) \times (20.00) .7875 + (1.27) .050$
 $-DP = (\text{No. of Pairs per Row}/20) \times (20.00) .7875 + (1.27) .050$

***Note:**
-C Plating passes 10 year MFG testing

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
-09	(14.00) .551

*Processing conditions will affect mated height. See SO Series for board space tolerances

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

WWW.SAMTEC.COM

All parts within this catalog are built to Samtec's specifications. Components must be approved by Samtec and identified in a Samtec customer-specific drawing to apply.