

(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](http://www.samtec.com?QSH)

### Insulator Material:

Liquid Crystal Polymer

### Contact Material:

Phosphor Bronze

### Plating:

Au or Sn over

50  $\mu$ " (1.27  $\mu$ 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  
UMPT/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](http://Samtec.com)  
or contact [SIG@samtec.com](mailto: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](mailto:jpg@samtec.com)

## RECOGNITIONS

For complete scope of recognitions see

[www.samtec.com/quality](http://www.samtec.com/quality)



## STANDARDS

- PISMO™ 1

Visit [www.samtec.com/standards](http://www.samtec.com/standards) for more information.

## ALSO AVAILABLE (MOQ Required)

- 15 mm, 22 mm and 30 mm stack height
- 30  $\mu$ " (0.76  $\mu$ 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 <math>\mu</math>" (0.25 <math>\mu</math>m) Gold on Signal Pins and Ground Plane, Matte Tin on tails</p> <p>–C* = Electro-Polished Selective 50 <math>\mu</math>" (1.27 <math>\mu</math>m) min Au over 150 <math>\mu</math>" (3.81 <math>\mu</math>m) Ni on Signal Pins in contact area, 10 <math>\mu</math>" (0.25 <math>\mu</math>m) min Au over 50 <math>\mu</math>" (1.27 <math>\mu</math>m) Ni on Ground Plane in contact area, Matte Tin over 50 <math>\mu</math>" (1.27 <math>\mu</math>m) 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 &amp; Place Pad</p> <p>–TR = Tape &amp; Reel (–090 positions maximum)</p> <p>–L = Latching Option (Not available on –060 (–D–DP) &amp; –090 positions)</p>																	
<p>–D = (No. of Pins per Row/30) x (20.00) .7875 + (1.27) .050</p> <p>–DP = (No. of Pairs per Row/20) x (20.00) .7875 + (1.27) .050</p> <p>(7.49) .295</p> <p>(0.50) .0197</p> <p>(0.15) .006</p> <p>(3.05) .120</p> <p>(3.25) .128</p> <p>(7.24) .285</p> <p>(0.76) .030</p> <p>(0.89) .035 DIA</p> <p>(0.64) .025</p> <p>–L</p>																						
<p>*Note: –C Plating passes 10 year MFG testing</p>																						
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Due to technical progress, all designs, specifications and components are subject to change without notice.

[WWW.SAMTEC.COM](http://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.