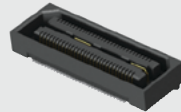
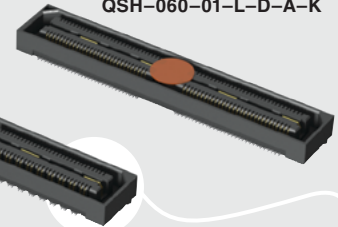


QSH-060-01-L-D-DP-A

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



QSH-030-01-F-D-A



(0.50 mm) .0197"

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 μ" (1.27 μm) 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

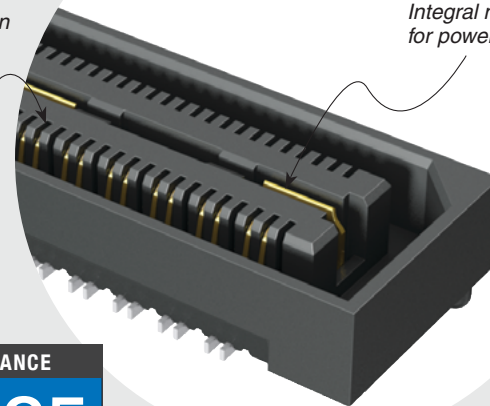
**Board Mates:**  
QTH

**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 [ipg@samtec.com](mailto:ipg@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 μ" (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

**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

—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  
= 10 μ" (0.25 μm) Gold on Signal Pins and Ground Plane, Matte Tin on tails

—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

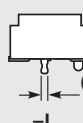
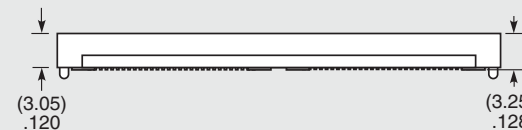
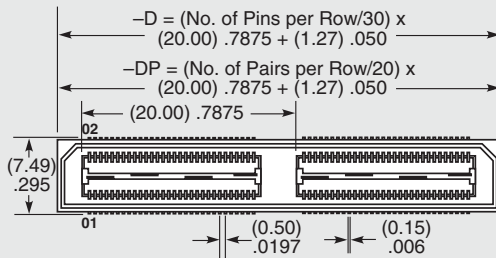
—D  
= Single-Ended

—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 (Not available on -060 (-D-DP) & -090 positions)



\*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](http://WWW.SAMTEC.COM)

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

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