



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

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



QSH-030-01-F-D-A

QSH SERIES

(0.50 mm) .0197"

# HIGH SPEED GROUND PLANE SOCKET

## SPECIFICATIONS

For complete specifications and recommended PCB layouts see [www.samtec.com?QSH](http://www.samtec.com?QSH)

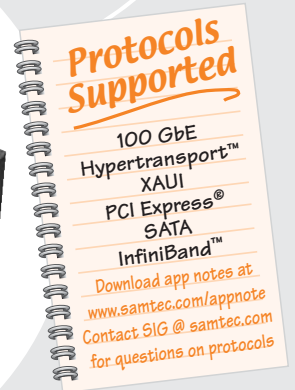
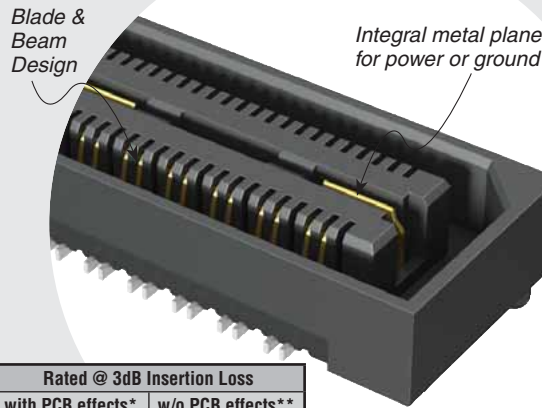
**Insulator Material:**  
Liquid Crystal Polymer  
**Contact Material:**  
Phosphor Bronze  
**Plating:** Au or Sn over 50µ" (1.27 µm) Ni  
**Current Rating:**  
Contact:  
2 A per pin  
(1 pin powered per row)  
Ground Plane:  
25 A per ground plane  
(1 ground plane powered)

**Operating Temp Range:**  
-55°C to +125°C  
**Voltage Rating:**  
175 VAC (5 mm Stack Height)  
**Max Cycles:** 100  
**RoHS Compliant:** Yes

**Processing:**  
**Lead-Free Solderable:** Yes  
**SMT Lead Coplanarity:**  
(0.10 mm) .004" max (030-060)  
(0.15 mm) .006" max (090)  
**Board Stacking:**  
For applications requiring more than two connectors per board contact [ipg@samtec.com](mailto:ipg@samtec.com)

**Board Mates:**  
QTH

**Cable Mates:**  
HQCD, HQDP  
(See Also Available note)



QTH/QSH 5 mm Stack Height	Type	Rated @ 3dB Insertion Loss	
		with PCB effects*	w/o PCB effects**
Single-Ended Signaling	-D	9 GHz / 18 Gbps	9.5 GHz / 19 Gbps
Differential Pair Signaling	-D	8 GHz / 16 Gbps	10.5 GHz / 21 Gbps
Differential Pair Signaling	-DP	9.5 GHz / 19 Gbps	16.5 GHz / 33 Gbps

\*Performance data includes effects of a non-optimized PCB.  
\*\*Test board losses de-embedded from performance data.  
Performance data for other stack heights and complete test data available at [www.samtec.com?QSH](http://www.samtec.com?QSH) or contact [sig@samtec.com](mailto:sig@samtec.com)

**infinch**  
CERTIFIED

28+  
Gbps

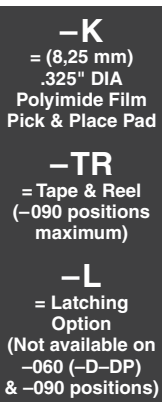
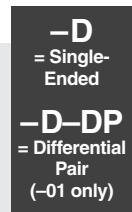
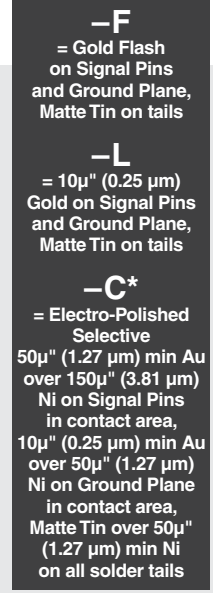
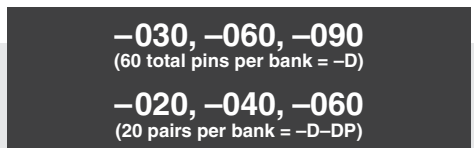
## RECOGNITIONS

For complete scope of recognitions see [www.samtec.com/quality](http://www.samtec.com/quality)



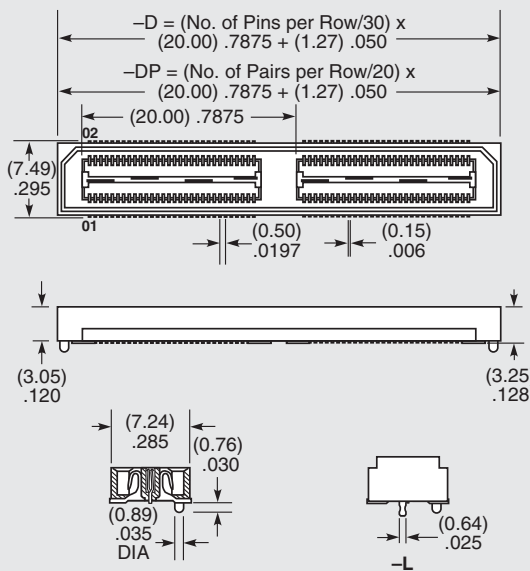
## ALSO AVAILABLE (MOQ Required)

- 15 mm, 22 mm and 30 mm stack height (Caution: Some automatic placement/inspection machines may have component height restrictions. Please consult machinery specifications.)
- 30µ" (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
- Contact Samtec.



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.



\*Note: -C Plating passes 10 year MFG testing  
Note: Some lengths, styles and options are non-standard, non-returnable.

**OTHER SOLUTIONS**  
• Board Spacing Standoffs. See SO Series