

QTH-060-07-F-D-A

QTH-030-01-L-D-A

QTH-090-01-C-D-A

**QTH SERIES**

**(0.50 mm) .0197"**

# HIGH-SPEED GROUND PLANE HEADER

## SPECIFICATIONS

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

- Insulator Material:** Liquid Crystal Polymer
- Terminal Material:** Phosphor Bronze
- Plating:** Au or Sn over 50 μ" (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:** 125 VAC (5 mm Stack Height)
- Max Cycles:** 100
- RoHS Compliant:** Yes

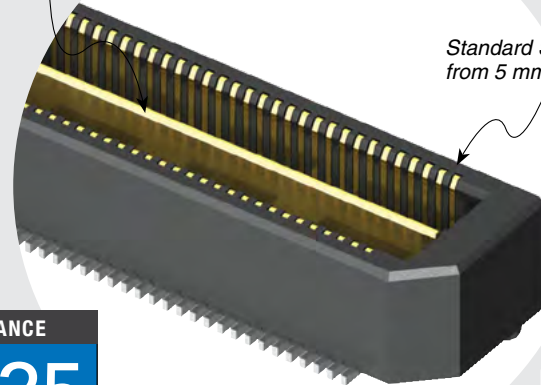
**Board Mates:** QSH

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

**Standoffs:** SO

Integral metal plane for power or ground

Standard Stack Heights from 5 mm to 25 mm



### 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 (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)

## RECOGNITIONS

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



## PROTOCOLS

- 100 GbE
- Hypertransport™
- XAUI
- PCI Express®
- SATA
- InfiniBand™

## 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
- Contact Samtec.



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

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

Specify LEAD STYLE from chart

**-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

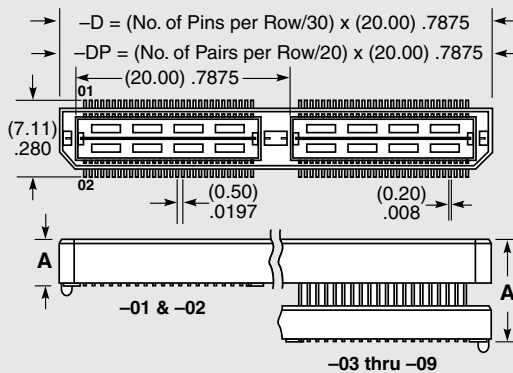
**-D**  
= Single-Ended

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

**-K**  
= (7.00 mm) .275" DIA Polyimide film Pick & Place Pad (N/A with -05 & -07 lead style)

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

**-L**  
= Latching Option (-01 lead style only) (N/A on -060 (-D-DP) & -090)



QTH LEAD STYLE	A	HEIGHT WITH QSH*
-01	(4.27) .168	(5.00) .197
-02	(7.26) .286	(8.00) .315
-03	(10.27) .404	(11.00) .433
-04	(15.25) .600	(16.00) .630
-05	(18.26) .718	(19.00) .748
-07	(24.24) .954	(25.00) .984
-09	(13.26) .522	(14.00) .551

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

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

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