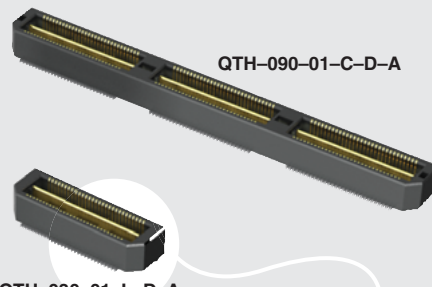




QTH-060-07-F-D-A



QTH-090-01-C-D-A

QTH-030-01-L-D-A

**(0.50 mm) .0197"**

## QTH SERIES

# 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 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:**  
125 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 [jqc@samtec.com](mailto:jqc@samtec.com)

## 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.

**Board Mates:**  
QSH

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



| QTH/QSH<br>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   | 8.5 GHz / 16 Gbps          | 10.5 GHz / 21 Gbps |
| Differential Pair Signaling  | -DP  | 9.5 GHz / 19 Gbps          | 16.5 GHz / 33 Gbps |

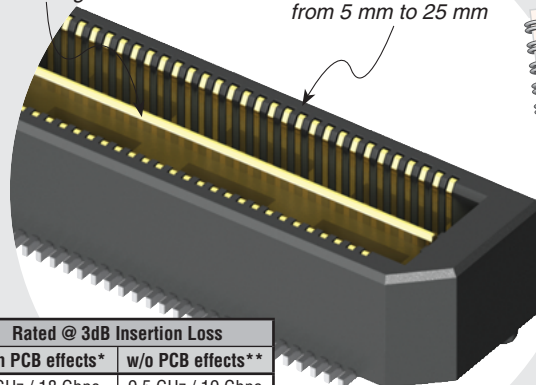
\*Performance data includes effects of a non-optimized PCB.

\*\*Test board losses de-embedded from performance data.

Performance data for other stack heights and complete test data available at [www.samtec.com?QTH](http://www.samtec.com?QTH) or contact [sig@samtec.com](mailto:sig@samtec.com)

*Integral metal plane for power or ground*

### Standard Stack Heights from 5 mm to 25 mm



## Protocols Supported

100 GbE  
Hypertransport™  
XAUI  
PCI Express®  
SATA  
InfiniBand™

Download app notes at  
[www.samtec.com/appnote](http://www.samtec.com/appnote)  
Contact SIG @ samtec.com  
for questions on protocols



28+  
Gbps

[illegible]

**\*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.

