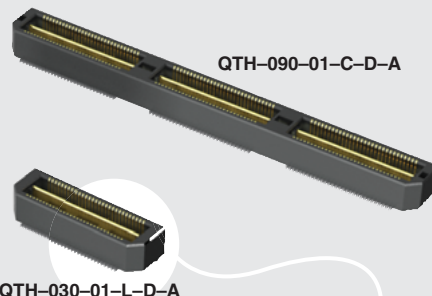




QTH-060-07-F-D-A



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

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 jq@samtec.com

RECOGNITIONS

For complete scope
of recognitions see
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 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

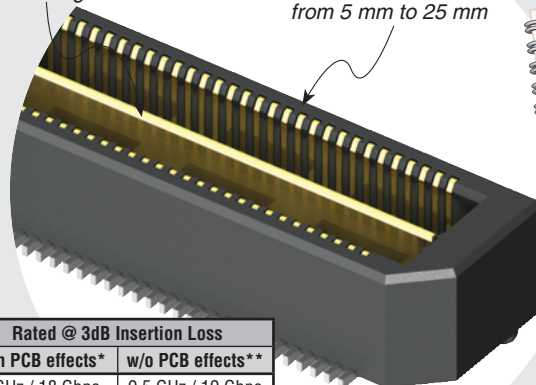
*Performance data includes effects of a non-optimized PCB.

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

Performance data for other stack heights and complete test data available at www.samtec.com?QTH or contact 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
Contact SIG @ samtec.com
for questions on protocols



28+
Gbps

QTH	PINS PER ROW NO. OF PAIRS	LEAD STYLE	PLATING OPTION	TYPE	A	OTHER OPTION
	—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 = 10μ" (0.25 μm) Gold on Signal Pins and Ground Plane, Matte Tin on tails —C* = Electro-Polished Selective 50μ" (1.27 μm) min Au over 150μ" (3.81 μm) Ni on Signal Pins in contact area, 10μ" (0.25 μm) min Au over 50μ" (1.27 μm) Ni on Ground Plane in contact area, Matte Tin over 50μ" (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)

Technical drawing of a QTH component showing top and side views with dimensions and labels.

Top View Dimensions:

- Overall width: (7.11) .280
- Pin pitch: (20.00) .7875
- Pin width: (0.50) .0197
- Pin spacing: (0.20) .008
- Pin length: (0.20) .008

Side View Dimensions:

- Pin height: (0.20) .008
- Pin width: (0.50) .0197
- Pin length: (0.20) .008

Labels:

- 01: Pin 1
- 02: Pin 2
- 03: Pin 3
- 04: Pin 4
- 05: Pin 5
- 06: Pin 6
- 07: Pin 7
- 08: Pin 8
- 09: Pin 9
- 10: Pin 10
- 11: Pin 11
- 12: Pin 12
- 13: Pin 13
- 14: Pin 14
- 15: Pin 15
- 16: Pin 16
- 17: Pin 17
- 18: Pin 18
- 19: Pin 19
- 20: Pin 20
- 21: Pin 21
- 22: Pin 22
- 23: Pin 23
- 24: Pin 24
- 25: Pin 25
- 26: Pin 26
- 27: Pin 27
- 28: Pin 28
- 29: Pin 29
- 30: Pin 30
- 31: Pin 31
- 32: Pin 32
- 33: Pin 33
- 34: Pin 34
- 35: Pin 35
- 36: Pin 36
- 37: Pin 37
- 38: Pin 38
- 39: Pin 39
- 40: Pin 40
- 41: Pin 41
- 42: Pin 42
- 43: Pin 43
- 44: Pin 44
- 45: Pin 45
- 46: Pin 46
- 47: Pin 47
- 48: Pin 48
- 49: Pin 49
- 50: Pin 50
- 51: Pin 51
- 52: Pin 52
- 53: Pin 53
- 54: Pin 54
- 55: Pin 55
- 56: Pin 56
- 57: Pin 57
- 58: Pin 58
- 59: Pin 59
- 60: Pin 60

*Processing conditions will affect mated height.

OTHER SOLUTIONS

- Board Spacing Standoffs. See SO Series.

***Note:** –C Plating passes
10 year MFG testing

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