(0,50mm) .0197" **QTH SERIES** 







# **HIGH SPEED GROUND PLANE HEADER**

## **SPECIFICATIONS**

For complete specifications and recommended PCB layouts see www.samtec.com?QT FILE NO. E111594

(SP

Insulator Material: Liquid Crystal Polymer Terminal Material:

Phosphor Bronze Plating: Au or Sn over 50μ" (1,27μm) Ni

Current Rating: Contact: 1.0A @ 30°C Temperature Rise Ground Plane: 7.8A @ 30°C Temperature Rise

Operating Temp Range: -55°C to +125°C Voltage Rating:

125 VAC (5mm Stack Height) Max Cycles:

Unmating Force (-RT1 option): -RT1 option increases unmating force up to 50% **RoHS Compliant:** 

#### **Processing:** Lead-Free Solderable:

SMT Lead Coplanarity: (0,10mm) .004" max (030-060) (0,15mm) .006" max (090-120) Board Stacking: For applications requiring

more than two connectors per board or 4 banks or more, contact ipg@samtec.com

#### **APPLICATION** SPECIFIC OPTION

- 14mm, 15mm, 22mm and 30mm stack height (Caution: Some automatic placement/inspection machines may have component height restrictions. Please consult machinery specifications.)
- 30μ" (0,76μm) Gold (Specify -H plating for Data Rate cable mating applications.)
- Edge Mount & Guide Posts
- 150 positions per row Call Samtec.

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

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



Cable Mates: HFHM2, HQCD HQDP

(See Application Specific note)



Integral metal plane for power or ground

Standard Stack Heights from 5mm to 25mm

SAMTEC

Retention pin

EXTENDED LIFE PRODUCT 10 year Mixed Flowing Gas with 50µ" Gold

Call Samtec for maximum cycles mated with QSH

5mm Stack Height	Type	Rated @ 3dB Insertion Loss
Single-Ended Signaling	-D	9 GHz / 18 Gbps
Differential Pair Signaling	-D	8 GHz / 16 Gbps
Differential Pair Signaling	-DP	9.5 GHz / 19 Gbps

Performance data for other stack heights and complete test data available at www.samtec.com?QTH or contact sig@samtec.com

Polarized

#### **ALSO AVAILABLE**

Board Spacing Standoffs. See SO Series.

Protocols

Hypertransport™ XAUI

PCI Express® SATA

Infiniband

Download app notes at www.samtec.com/appnote Contact SIG @ samtec.com for questions on protocols

**PINS PER ROW** QTH NO. OF PAIRS

(7.11)

280

Α

**LEAD** STYLE

**PLATING** OPTION

ОТН

LEAD

-01

-02

-03

-04

-05

-07

Α

(4,27)

(7,26) .286

10,27 .404

15,25)

.600

18,26) .718

(24 24)

\*Processing conditions

will affect mated height

### **OTHER OPTION**

030, -060, -090, -120 (60 total pins per bank = -D)

020, -040, -060, -080 (20 pairs per bank = -D-DP)

-(20,00) .7875 -

(0,50) .0197

-D = (No. of Pins per Row/30) x (20,00) .7875

-DP = (No. of Pairs per Row/20) x (20,00) .7875

Specify **LEAD** STYLE from chart

= Gold Flash on Signal Pins and Ground Plane, Matte Tin on tails

= 10µ" (0,25µm) Gold on Signal Pins and Ground Plane, Matte Tin on tails

= Electro-Polished

Selective 50μ" (1,27μm) min Au over 150μ" (3,81μm) Ni on Signal Pins in contact area, 10μ" (0,25μm) min Au over 50μ" (1,27μm) Ni on Ground Plane in contact area, Matte Tin over 50µ"

–D = Single-Ended -D-DP Differential Pair (-01 only)

8

8

HEIGHT

WITH

QSH\*

(5,00) .197

(8,00) .315

(11,00) .433

(16,00)

.630

(19,00) .748

(25,00) .984

Place Pad (N/A with -05 & 07 lead style) -TR

-K

= (7,00mm)

.275" DIA

Polyimide film

Pick &

= Tape & Reel -090 positions maximum)

## -RT1

= Retention Option (-01 lead style only & -090 positions maximum)

> = Latching Option (-01 lead

style only) (N/A on -090 & -120 or -RT1 option)

-01 & -02 -03 thru -07 (1,27µm) min Ni on all solder tails (3,30) .130 .030 (0.64)(1,57) .025.035<sub>→</sub> DIA -RT1 DIA

Due to technical progress, all designs, specifications and components are subject to change without notice.

WWW.SAMTEC.COM

(0,20)

008