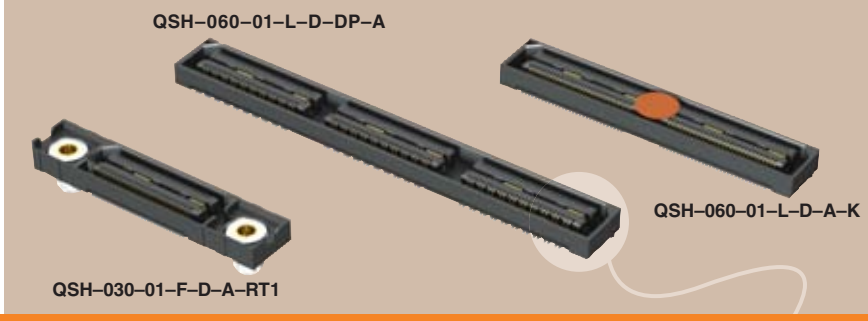
samtec

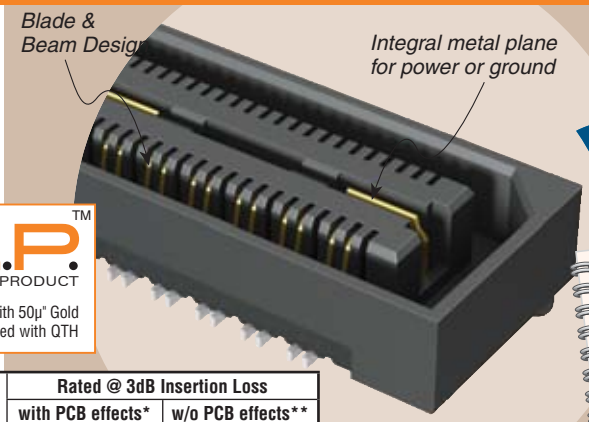
QSTRIP®

(0,50mm) .0197"

QSH SERIES



HIGH SPEED GROUND PLANE SOCKET



SPECIFICATIONS

For complete specifications and recommended PCB layouts see www.samtec.com?QSH

Insulator Material:
Liquid Crystal Polymer

Contact 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:
100

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

RoHS Compliant:
Yes

Processing:

Lead-Free Solderable:
Yes

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

Board Mates:
QTH

Cable Mates:
HQCD, HQDP, HFHM2
(See Application Specific note)

E.L.P.™ EXTENDED LIFE PRODUCT
10 year Mixed Flowing Gas with 50µ" Gold
Call Samtec for maximum cycles mated with QTH

QTH/QSH 5mm Stack Height	Type	Rated @ 3dB Insertion Loss	
		with PCB effects*	w/o PCB effects**
Single-Ended Signaling	–D	9 GHz / 18 Gbps	11 GHz / 22 Gbps
Differential Pair Signaling	–D	8 GHz / 16 Gbps	10.5 GHz / 21 Gbps
Differential Pair Signaling	–DP	9.5 GHz / 19 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 or contact sig@samtec.com

Final Inch® Break Out Region Performance Certified finalinch.com

Protocols Supported
Hypertransport™
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PCI Express®
SATA
InfiniBand™
Download app notes at www.samtec.com/appnote
Contact SIG @ samtec.com for questions on protocols

ALSO AVAILABLE
Board Spacing Standoffs. See SO Series.

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.

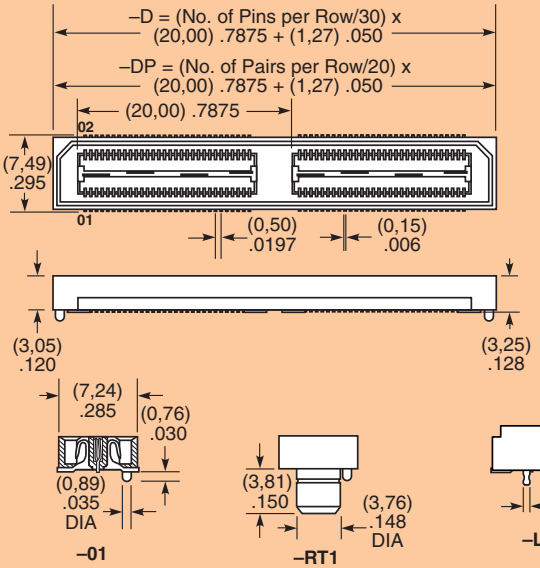
***Note:** –C Plating passes 10 year MFG testing

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

QSH – PINS PER ROW NO. OF PAIRS – 01 – PLATING OPTION – TYPE – A – OTHER OPTION

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

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



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

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

–C*
= 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" (1,27µm) min Ni on all solder tails

–D
= Single-Ended

–D–DP
= Differential Pair (–01 only)

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

*Processing conditions will affect mated height.

–K
= (8,25mm) .325" DIA Polyimide Film Pick & Place Pad

–TR
= Tape & Reel (–090 positions maximum)

–RT1
= Retention Option (–090 positions maximum)

–L
= Latching Option (N/A on –060 (–D–DP), –080, –090 & –120 positions or –RT1 option)

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