

# 0,80mm HI-SPEED SOCKET QSE SERIES

## SPECIFICATIONS

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

**Insulator Material:** Liquid Crystal Polymer



**Terminal Material:** Phosphor Bronze

**Plating:** Au over 50µ" (1,27µm) Ni

**Current Rating:** Contacts: 2A @ 80°C

Ground Plane: 9.5A @ 80°C

**Operating Temp Range:** -55°C to +125°C

**Voltage Rating:** 225 VAC (5mm Stack Height)

**Max Cycles:** 100

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

**RoHS Compliant:** Yes

**Processing:**

**Max Processing Temp:** 230°C for 60 seconds, or 260°C for 20 seconds 3x

**Lead-Free Solderable:** Yes

**SMT Lead Coplanarity:** (0,10mm) .004" max (020-060)

(0,15mm) .006" max (080)

**Board Stacking:**

For applications requiring more than two connectors per board or 4 banks or more, contact [ipg@samtec.com](mailto: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
- 100 positions per row
- Guide Posts and Friction Lock options.

Call Samtec.

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

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

**Board Mates:** QTE



**Board Mates:** EQCD, EQSD, EQDP, EQRF (See Application Specific note)



Blade & Beam Design

Integral metal plane for power or ground

(0,80mm) .0315" pitch

**Protocols Supported**

- XAUI
- PCI Express®
- SATA
- MGT (Rocket I/O)
- Infiniband

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

| 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  | 8.5 GHz / 17 Gbps           |

Performance data for other stack heights available at [www.samtec.com?QSE](http://www.samtec.com?QSE)



**ALSO AVAILABLE**

Board Spacing Standoffs. See SO Series.

**QSE** - **PINS PER ROW NO. OF PAIRS** - **01** - **PLATING OPTION** - **TYPE** - **A** - **OTHER OPTION**

**-020, -040, -060, -080**  
(40 total pins per bank = -D)

**-014, -028, -042, -056**  
(14 pairs per bank = -D-DP)

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

**-F**  
= Gold Flash 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

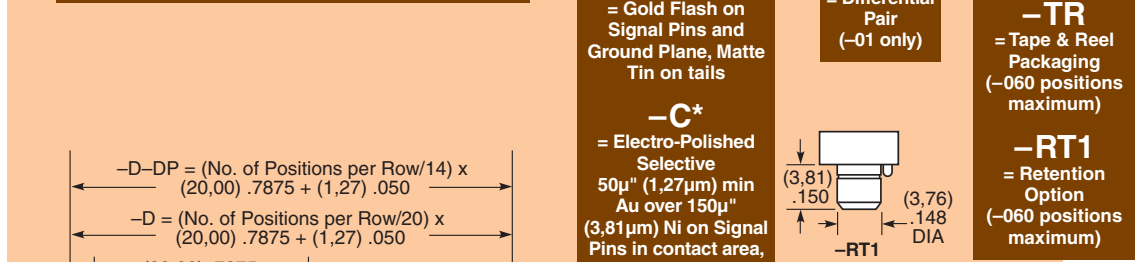
**-D**  
= Single-Ended

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

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

**-TR**  
= Tape & Reel Packaging (-060 positions maximum)

**-RT1**  
= Retention Option (-060 positions maximum)



## STACK HEIGHTS

| QTE LEAD STYLE | MATED HEIGHT WITH QSE |
|----------------|-----------------------|
| -01            | (5,00) .198           |
| -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.

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

[WWW.SAMTEC.COM](http://WWW.SAMTEC.COM)