

(0.80 mm) .0315"

QSE SERIES

# HIGH-SPEED GROUND PLANE SOCKET

## 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 or Sn over 50  $\mu$ " (1.27  $\mu$ m) Ni

### Current Rating:

Contacts:

2 A per pin

(2 pins powered)

Ground Plane:

23 A per ground plane

(1 ground plane powered)

### Operating Temp Range:

-55 °C to +125 °C

### Voltage Rating:

225 VAC (5 mm Stack Height)

### Max Cycles:

100

### RoHS Compliant:

Yes

### Board Mates:

QTE

### Cable Mates:

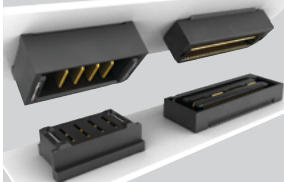
EQCD, EQDP

(See Also Available Note)

### Standoffs:

SO

## POWER/SIGNAL APPLICATION



Compatible with UMPT/UMPS for flexible two-piece power/signal solutions

Blade & Beam Design

Integral metal plane for power or ground

## HIGH-SPEED CHANNEL PERFORMANCE

QTE-D/QSE-D or QTE-DP/QSE-DP @ 5 mm Mated Stack Height

Rating based on Samtec reference channel. For full SI performance data visit [Samtec.com/or contact SIG@samtec.com](http://Samtec.com/or contact SIG@samtec.com)

14  
G b p s

28  
G b p s



## PROCESSING

### Lead-Free Solderable:

Yes

### SMT Lead Coplanarity:

(0.10 mm) .004" max (020-060)

### Board Stacking:

For applications requiring more than two connectors per board contact [jpg@samtec.com](mailto:jpg@samtec.com)

## RECOGNITIONS

For complete scope of recognitions see [www.samtec.com/quality](http://www.samtec.com/quality)



FILE NO. E111594

## ALSO AVAILABLE (MOQ Required)

- 15 mm, 22 mm and 30 mm stack height
- 30  $\mu$ " (0.76  $\mu$ m) Gold (Specify -H plating for Data Rate cable mating applications.)
- Edge Mount
- 56 (-DP), 80, 100 positions per row
- Retention, Guide Posts and Friction Lock options.

### Note:

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

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

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

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

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

—L  
= 10  $\mu$ " (0.25  $\mu$ m) Gold on Signal Pins and Ground Plane, Matte Tin on tails

—C\*  
= Electro-Polished Selective  
50  $\mu$ " (1.27  $\mu$ m) min Au over 150  $\mu$ " (3.81  $\mu$ m) Ni on Signal Pins in contact area, 10  $\mu$ " (0.25  $\mu$ m) min Au over 50  $\mu$ " (1.27  $\mu$ m) Ni on Ground Plane in contact area, Matte Tin over 50  $\mu$ " (1.27  $\mu$ m) min Ni on all solder tails

—D  
= Single-Ended

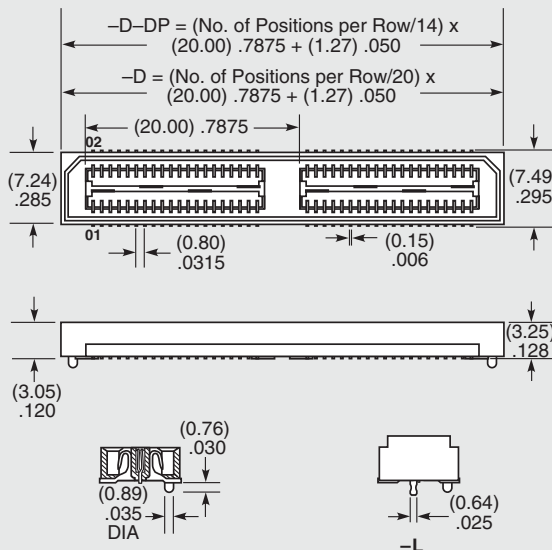
—D-DP  
= Differential Pair (-01 only)

—GP  
= Guide Post (-020 only)

—K  
= (8.25 mm) .325" DIA Polyimide Film Pick & Place Pad

—TR  
= Tape & Reel Packaging

—L  
= Latching Option (N/A on -042 & -060 positions)



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

| QTE LEAD STYLE | MATED HEIGHT WITH QSE* |
|----------------|------------------------|
| —01            | (5.00) .197            |
| —02            | (8.00) .315            |
| —03            | (11.00) .433           |
| —04            | (16.00) .630           |
| —05            | (19.00) .748           |
| —07            | (25.00) .984           |
| —09            | (14.00) .551           |

\*Processing conditions will affect mated height. See SO Series for board space tolerances

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

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

All parts within this catalog are built to Samtec's specifications. Components must be approved by Samtec and identified in a Samtec customer-specific drawing to apply.