

(0.80 mm) .0315"

QTE SERIES

# HIGH-SPEED GROUND PLANE HEADER

## SPECIFICATIONS

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

**Insulator Material:**  
Liquid Crystal Polymer  
**Terminal Material:**  
Phosphor Bronze

**Plating:**  
Au or Sn over  
50 μm (1.27 μm) Ni  
**Current Rating:**  
Contact:

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 mated with QSE & 5 mm Stack Height  
**Max Cycles:**  
100

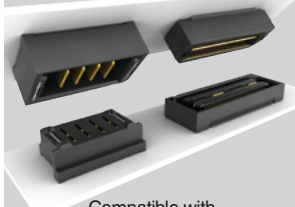
**RoHS Compliant:**  
Yes

**Board Mates:**  
QSE

**Cable Mates:**  
EQCD, EQDP  
(See Also Available Note)

**Standoffs:**  
SO

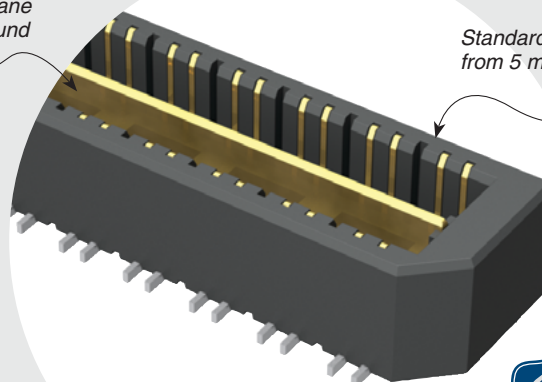
## POWER/SIGNAL APPLICATION



Compatible with UMP/TUMPS for flexible two-piece power/signal solutions

Integral metal plane for power or ground

Standard stack heights from 5 mm to 25 mm



## 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/contact](http://Samtec.com/contact) [SIG@samtec.com](mailto:SIG@samtec.com)

QTE-D/QSE-D

14 Gbps

QTE-DP/QSE-DP

28 Gbps

## 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 [ipg@samtec.com](mailto:ipg@samtec.com)

## RECOGNITIONS

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



## ALSO AVAILABLE (MOQ Required)

- 15 mm, 22 mm and 30 mm stack height
- 30 μm (0.76 μm) Gold (Specify -H plating for Data Rate cable mating applications.)
- Edge Mount, Guide Posts, Screw Down & Friction Lock
- 56 (-DP), 80, 100 positions per row
- Retention Option

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

## QTE - PINS PER ROW NO. OF PAIRS - LEAD STYLE - PLATING OPTION - TYPE - A - OTHER OPTION

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

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

Specify LEAD STYLE from chart

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

-L  
= 10 μm (0.25 μm) Gold on Signal Pins and Ground Plane, Matte Tin on tails

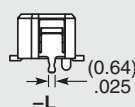
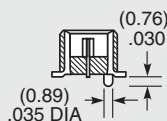
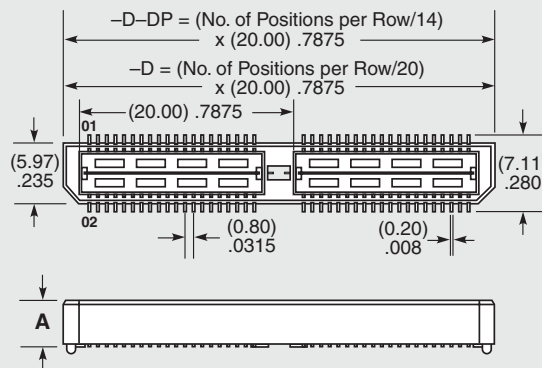
-C\*  
= Electro-Polished Selective  
50 μm (1.27 μm) min Au over 150 μm (3.81 μm) Ni on Signal Pins in contact area, 10 μm (0.25 μm) min Au over 50 μm (1.27 μm) Ni on Ground Plane in contact area, Matte Tin over 50 μm (1.27 μm) min Ni on all solder tails

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

-K  
= (7.00 mm) .275" DIA Polyimide Film Pick & Place Pad

-TR  
= Tape & Reel Packaging (N/A -05 & -07 lead style)

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



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

QTE LEAD STYLE	A	HEIGHT WITH QSE*
-01	(4.27) .168	(5.00) .197
-02	(7.26) .286	(8.00) .315
-03	(10.27) .404	(11.00) .433
-04	(15.25) .600	(16.00) .630
-05	(18.26) .718	(19.00) .748
-07	(24.24) .954	(25.00) .984
-09	(13.26) .522	(14.00) .551

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

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