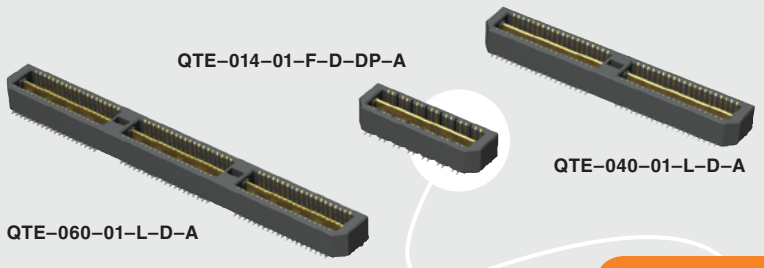
samtec

QSTRIP®




(0.80 mm) .0315"

QTE SERIES

# HIGH-SPEED GROUND PLANE HEADER

## SPECIFICATIONS

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

**Insulator Material:**
Liquid Crystal Polymer
**Terminal Material:**
Phosphor Bronze
**Plating:**
Au or Sn over
50 µ" (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)

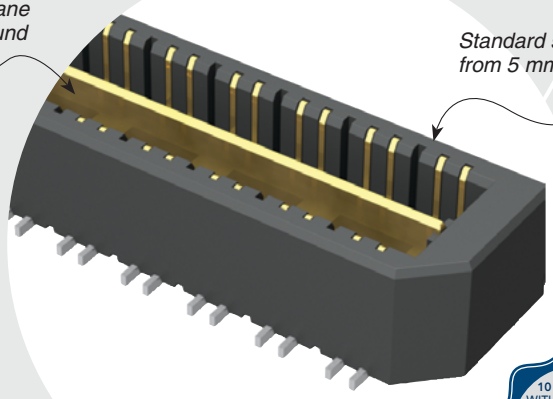
**Standoffs:**
SO

## POWER/SIGNAL APPLICATION

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

*Integral metal plane for power or ground*

*Standard stack heights from 5 mm to 25 mm*



10 YEAR MFG WITH 50 µ" GOLD
EXTENDED LIFE PRODUCT
HIGH MATING CYCLES

### HIGH-SPEED CHANNEL PERFORMANCE

| QTE-D/QSE-D or QTE-DP/QSE-DP @ 5 mm Mated Stack Height | QTE-D/QSE-D | QTE-DP/QSE-DP |
|---|---|---|
| *Rating based on Samtec reference channel.For full SI performance data visit Samtec.comor contact SIG@samtec.com* | 14 Gbps | 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

## RECOGNITIONS

For complete scope of recognitions see www.samtec.com/quality

FILE NO. E111594

## ALSO AVAILABLE (MOQ Required)

- 15 mm, 22 mm and 30 mm stack height
- 30 µ" (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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|

**PINS PER ROW NO. OF PAIRS**

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

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

**LEAD STYLE**

Specify LEAD STYLE from chart

**PLATING OPTION**

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

**–L**
= 10 µ" (0.25 µm) Gold on Signal Pins and Ground Plane, Matte Tin on tails

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

*Note:
–C Plating passes
10 year MFG testing

**TYPE**

**–D**
= Single-Ended

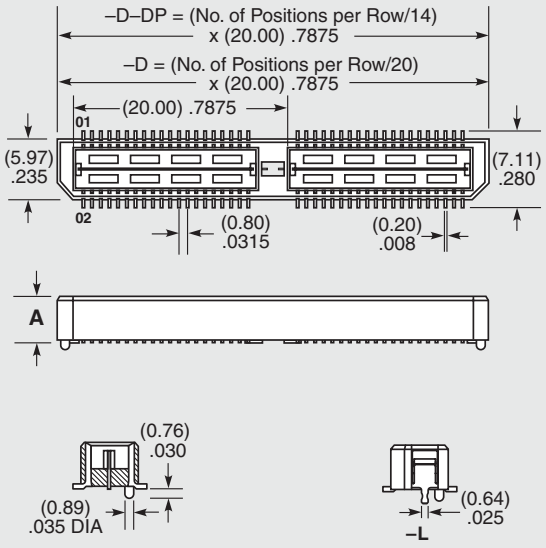
**–D–DP**
= Differential Pair (–01 only)

**OTHER OPTION**

**–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)




| 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

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



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