

(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  $\mu$ " (1.27  $\mu$ m) 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

## 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

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

## RECOGNITIONS

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



FILE NO. E111594

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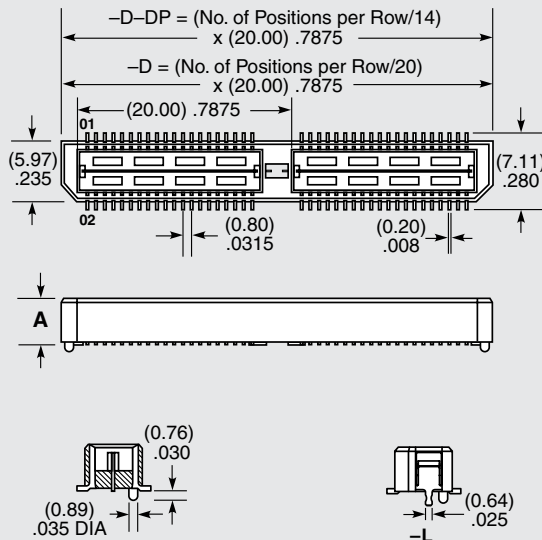
## PROTOCOLS

- 100 GbE
- XAUI
- PCI Express®
- SATA
- MGT (Rocket I/O)
- InfiniBand™

## 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, Guide Posts, Screw Down & Friction Lock
  - 56 (-DP), 80, 100 positions per row
  - Retention Option
- Contact Samtec.

QTE	PINS PER ROW NO. OF PAIRS	LEAD STYLE	PLATING OPTION	TYPE	A	OTHER OPTION
	-020, -040, -060 (40 total pins per bank = -D)	Specify LEAD STYLE from chart	-F = Gold Flash on Signal Pins and Ground Plane, Matte Tin on tails	-D = Single-Ended		-K = (7.00 mm) .275" DIA Polyimide Film Pick & Place Pad
	-014, -028, -042 (14 pairs per bank = -D-DP)		-L = 10 $\mu$ " (0.25 $\mu$ m) Gold on Signal Pins and Ground Plane, Matte Tin on tails	-D-DP = Differential Pair (-01 only)		-TR = Tape & Reel Packaging (N/A -05 & -07 lead style)
			-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			-L = Latching Option (N/A on -042 & -060 positions)



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

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

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.

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

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.