



(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 50µ" (1.27 µm) Ni

Current Rating:

Contact:

2 A per pin

(1 pin powered per row)

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

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

Board Mates:

QSE

Cable Mates:

EQCD, EQDP, EQRF

(See Also Available note)



QTE/QSE 5 mm Stack Height	Type	Rated @ 3dB Insertion Loss	
		with PCB effects*	w/o PCB effects**
Single-Ended Signaling	-D	9 GHz / 18 Gbps	9 GHz / 18 Gbps
Differential Pair Signaling	-D	8 GHz / 16 Gbps	14 GHz / 28 Gbps
Differential Pair Signaling	-DP	8.5 GHz / 17 Gbps	13.5 GHz / 27 Gbps

*Performance data includes effects of a non-optimized PCB.

**Test board losses de-embedded from performance data.

Performance data for other stack heights and complete test data available at www.samtec.com/QTE or contact sig@samtec.com

Integral metal plane
for power or ground

Standard stack heights
from 5 mm to 25 mm

Protocols
Supported

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

Download app notes at:
www.samtec.com/appnote
Contact Sig@samtec.com
for questions on protocols

Final **inch**
CERTIFIED

28+
Gbps

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

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

—D
= Single-Ended

—D-DP
= Differential Pair
(-01 only)

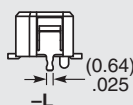
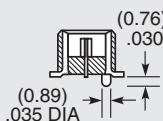
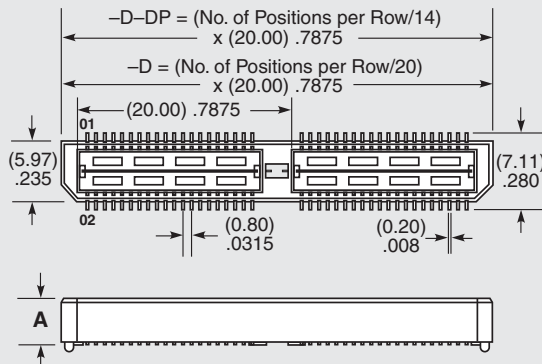
—K
= (7.00 mm)
.275" DIA
Polyimide
Film Pick &
Place Pad

—TR
= Tape & Reel
Packaging
(N/A on —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.



*Note: —C Plating passes
10 year MFG testing

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

OTHER SOLUTIONS

- Board Spacing Standoffs.
See SO Series

ALSO AVAILABLE (MOQ Required)

- 15 mm, 22 mm and 30 mm stack height (Caution: Some automatic placement/inspection machines may have component height restrictions. Please consult machinery specifications.)
- 30µ" (0.76 µm) Gold (Specify -H plating for Data Rate cable mating applications.)
- Edge Mount
- 56 (-DP), 80, 100 positions per row
- Guide Posts, Screw Down & Friction Lock
- Retention Option
- Contact Samtec.