

# 0,50mm DIFFERENTIAL PAIR QTH-DP SERIES

## SPECIFICATIONS

For complete specifications see [www.samtec.com?QTH-DP](http://www.samtec.com?QTH-DP)

**Insulator Material:** Liquid Crystal Polymer  
**Terminal Material:** Phosphor Bronze  
**Plating:** Au over 50µ" (1,27µm) Ni



**Current Rating:** Contact: 1.0A @ 30°C  
 Temperature Rise  
 Ground Plane: 7.8A @ 30°C  
 Temperature Rise  
**Operating Temp Range:** -55°C to +125°C  
**Voltage Rating:** 125 VAC mated with QSH-DP & 5mm Stack Height

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

Mates with: QSH-DP, HQDP (See Application Specific note)



Integral ground plane  
 (0,50mm) .0197" pitch

## STACK HEIGHT

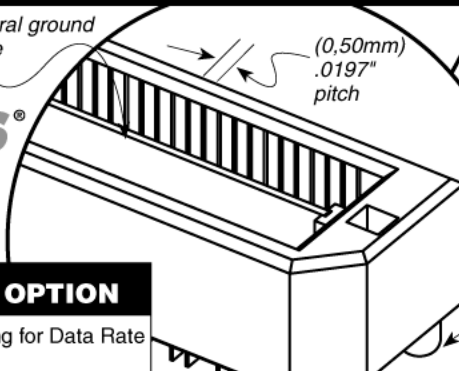
LEAD STYLE	STANDARD MATED HEIGHT
-01	(5,00) .198

Processing conditions will affect mated height.

## APPLICATION SPECIFIC OPTION

- 30µ" (0,76µm) Gold (Specify -H plating for Data Rate cable applications)
- 8mm, 11mm, 14mm, 16mm, 19mm, 22mm, 25mm and 30mm stack height
- Edge Mount (Contact Samtec Interconnect Processing Group)
- Guide Posts
- "Partitionable" - combine differential & single-ended banks in same connector

Call Samtec.



Alignment Pin

Configuration	Near End Crosstalk	Prop. Delay	Rated at 5%	Rated at 10%
5mm Stack Height	0.62% @ 700 MHz	1.08% @ 1.40 GHz	39.0pS	700 MHz
	<b>Impedance Mismatch (Ω)</b>			
	100.0 to 74.4 @ 50pS	100.0 to 78.9 @ 100pS	100.0 to 89.4 @ 250pS	100.0 to 95.0 @ 500pS

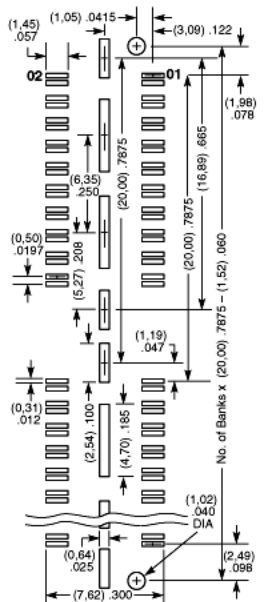
For complete Test Report logon to [www.samtec.com?QTH-DP](http://www.samtec.com?QTH-DP)

## Processing:

**Max Processing Temp:** 230°C for 60 seconds, or 260°C for 20 seconds 3x  
**Lead-Free Solderable:** Yes

**SMT Lead Coplanarity:** (0,10mm) .004" max (020-060) (0,15mm) .006" max (080-100)

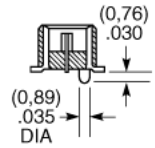
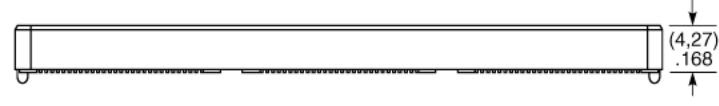
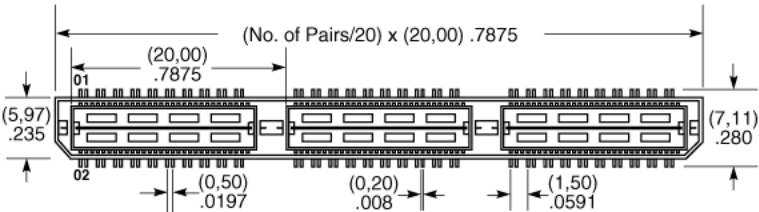
**Board Stacking:** For applications requiring more than two connectors per board, contact [ipg@samtec.com](mailto:ipg@samtec.com)  
**Suggested PCB Layouts:** For reference only. Go to [www.samtec.com?QTH-DP](http://www.samtec.com?QTH-DP) for recommended PCB layout.



**-020, -040, -060, -080, -100**  
 (20 pairs per bank)

**-L**  
 = 10µ" (0,25µm) Gold on Signal Pins and Ground Plane, Gold Flash on tails  
**-F**  
 = Gold Flash on Signal Pins and Ground Plane

**-K**  
 = (7,00mm) .275" DIA Polyimide Film Pick & Place Pad  
**-TR**  
 = Tape & Reel (-060 positions maximum)



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

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