

# BergStak® 0.8mm Mezzanine Connector

Extraordinary product range, Benchmark performance, Dual-source champion

## FLEXIBLE SOLUTION FOR HIGH DENSITY APPLICATIONS

Amphenol's BergStak® 0.8mm is a flexible solution designed for high speed and high density, parallel board-to-board connector system with 16 PCB stack heights in 9 sizes up to 200 positions.

- Housing and terminal profile guarantees support of up to 12Gb/s
- Vertical versus vertical mating configuration
- 40 to 200 position sizes in 20 position increments
- 5mm to 20mm stack heights in 1mm increments



### TARGET MARKETS



### FEATURES

- Housing and terminal profile guarantees support of up to 12Gb/s
- Vertical versus vertical mating configuration
- 40 to 200 position sizes in 20 position increments
- 5mm to 20mm stack heights in 1mm increments
- 0.8mm double-row contact pitch conserves printed circuit board space
- Scoop-proof feature housings
- Multiple plating options available
- Multiple packaging options available
- PCB locator pegs option
- Available in UL94-V0 material
- RoHS compliant and lead-free

### BENEFITS

- Compatible with PCIe Gen 2/3 and SAS 3.0 high speed performance on selected stack heights
- Suitable for parallel board stacking applications
- Comprehensive range of sizes and stack heights to satisfy all needs
- High density for all electrical applications needs
- Prevents reverse mating
- Satisfies different application requirement
- Suitable for varies feeding processing
- Facilitates ease and accuracy during manual assembly
- High flammability rating
- Meets environmental, health and safety requirements

\*The PCIe® mark is a registered trademark of the PCI-SIG Corp

## TECHNICAL INFORMATION

### MATERIAL

- Housing: Glass filled LCP, UL94V-0
- Contact Base Metal
  - Receptacle: Copper Alloy, High Spring
  - Plug: Brass
- Contact Area Finish: Gold or Gold flash over Palladium-nickel (GXT) over Nickel
- Solder Area Finish: Matte pure Tin over Nickel

### MECHANICAL PERFORMANCE

- Durability: 100 mating cycles
- Mating Force: 0.9N max./contact
- Unmating Force: 0.1N min./contact

### ELECTRICAL PERFORMANCE

- Insulation Resistance:
  - Initial: 1000M $\Omega$  min.
  - After Test: 100M $\Omega$  min.
- Current Rating: 0.8A/contact
- Contact Resistance:
  - Initial: 30m $\Omega$  max.
  - After Test: 50m $\Omega$  max.
- Voltage Rating: 100VAC
- Signal Integrity (Differential pairs, connector and SMT pads only)
  - Impedance Range: 81 to 108 $\Omega$  @ 50 ps edge (10-90%)
  - Return Loss: < 10dB up to 5GHz
  - Insertion Loss: < 1.5dB up to 5GHz
  - NEXT:  $\leq$  4.0% for a 50 ps edge (10-90%)
  - FEXT:  $\leq$  2.4% for a 50 ps edge (10-90%)

### ENVIRONMENTAL

- Temperature Range: -40°C to +125°C
- High Temperature Life: 105°C  $\pm$  5°C for 1000 hours
- Humidity: 90-95% relative humidity for 96 hours
- Mixed Flowing Gas Class 2a (30 GXT)

### APPROVALS AND CERTIFICATIONS

- UL E66906
- File no. LR46923

### SPECIFICATIONS

- Product Specification: GS-12-547
- Test Report: DGS-29-010

### PACKAGING

- Tape & Reel
- Tubes

### TARGET MARKETS/APPLICATIONS



IP Phone  
Router



Server

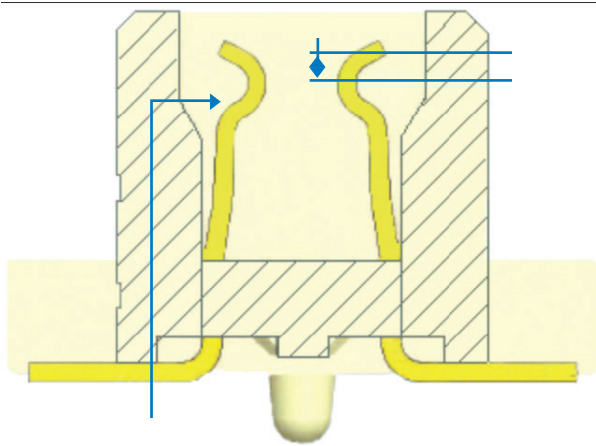


Industrial and Instrumentation  
Office Equipment  
Point-Of-Sale Terminal  
Portable Industrial Terminal  
Test and Measurement



Diagnostics System

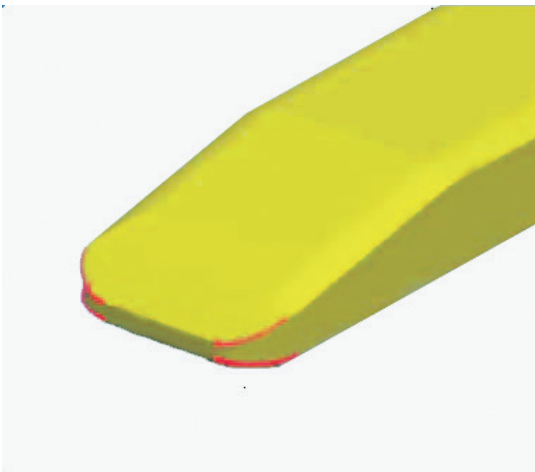
## RECEPTACLE



Early-contact point allows early engagement/ late disengagement and increases mating wipe

Precision-tapered contacts control mating stress while providing reliable, high normal force

## HEADER



Coined contact tips assure smooth, safe wiping action during connector mating

# PART NUMBER SELECTOR

XXXXX		XX		X	X	X	X	X																																			
<b>BASE PART NUMBER</b>		<b>TOTAL POSITIONS</b>		<b>HOUSING HEIGHT</b>	<b>PLATING CODE</b>	<b>PEG OPTION</b>	<b>PACKAGING OPTION</b>	<b>LF</b>																																			
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X	FOR PLUG, SEE DWG. NO. 61083			
COMBINATION OF MATED HEIGHT	Plug 1 	Plug 2 	Plug 3 	Plug 4 
Recep 1 				
Recep 2 				
Recep 3 				
Recep 4 				

BWBBERG08087EA4

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