

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



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 Ω min.
 - After Test: 100M Ω min.
- Current Rating: 0.8A/contact
- Contact Resistance:
 - Initial: 30m Ω max.
 - After Test: 50m Ω max.
- Voltage Rating: 100VAC
- Signal Integrity (Differential pairs, connector and SMT pads only)
 - Impedance Range: 81 to 108 Ω @ 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

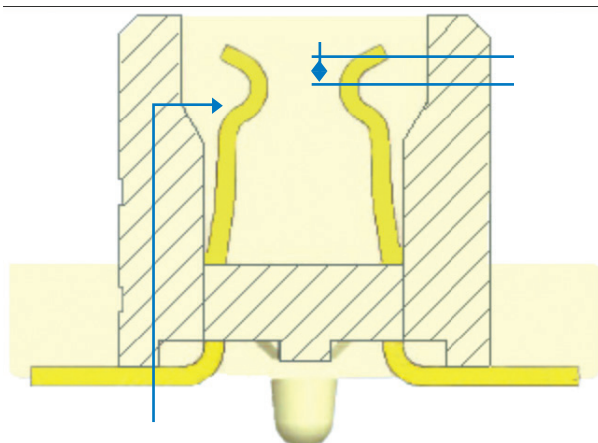


Industrial and Instrumentation
Office Equipment
Point-Of-Sale Terminal
Portable Industrial Terminal
Test and Measurement



Diagnostics System

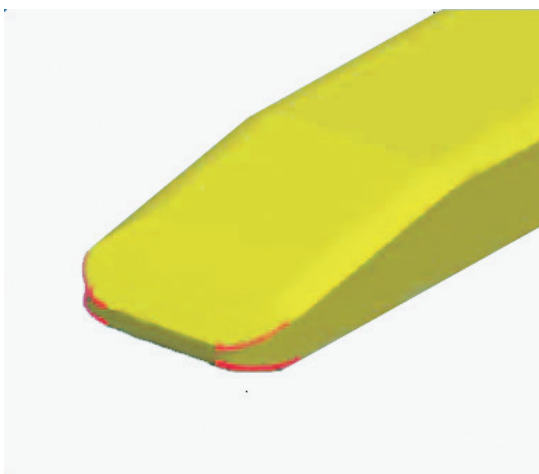
RECEPTACLE



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

BASE PART NUMBER

Receptacle

Plug

61082

61083

XX

TOTAL POSITIONS

40 pos

60 pos

80 pos

100 pos

120 pos

140 pos

160 pos

180 pos

200 pos

04

06

08

10

12

14

16

18

20

X

HOUSING HEIGHT

Tube without metal cap

Tape & Reel with metal caps

Tape & Reel without metal cap (with Kapton tape)

Tube with metal caps

0

2

6

9

X

PLATING CODE

Includes polarization pegs

0

X

PEG OPTION

Gold 0.2um min./Pure Tin 2um min. (Lead-free)

Nickel underplate overall 1.27um min.

Gold 0.38um min./Pure Tin 2um min. (Lead-free)

Nickel underplate overall 1.27um min.

Gold Flash (0.1um min.) over Palladium-Nickel

0.76um min./Pure Tin 2um (Lead-free)

Nickel underplate overall 1.27um min.

4

5

6

X

PACKAGING OPTION

Lead-free, RoHS compatible

LF

X

LF

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				
Recep 5				

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