BERGSTAK® 0.8MM MEZZANINE CONNECTORS

Extraordinary product range, Benchmark performance, Dual-source champion

FLEXIBLE SOLUTION FOR HIGH DENSITY APPLICATIONS

FCI'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	BENEFITS
▪ Housing and terminal profile guarantees support of up to 12Gb/s	▪ Compatible with PCIe Gen 2/3 and SAS 3.0 high speed performance on selected stack heights
▪ Vertical versus vertical mating configuration	▪ Suitable for parallel board stacking applications
▪ 40 to 200 position sizes in 20 position increments ▪ 5mm to 20mm stack heights in 1mm increments	▪ Comprehensive range of sizes and stack heights to satisfy all needs
▪ 0.8mm double-row contact pitch conserves printed circuit board space	▪ High density for all electrical applications needs
▪ Scoop-proof feature housings	▪ Prevents reverse mating
▪ Multiple plating options available	▪ Satisfies different application requirement
▪ Multiple packaging options available	▪ Suitable for varies feeding processing
▪ PCB locator pegs option	▪ Facilitates ease and accuracy during manual assembly
▪ Available in UL94-V0 material	▪ High flammability rating
▪ RoHS compliant and lead-free	▪ 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: 1000MΩ min.
  - After Test: 100MΩ min.
- Current Rating: 0.8A/contact
- Contact Resistance:
  - Initial: 30mΩ max.
  - After Test: 50mΩ max.
- Voltage Rating: 100VAC
- Signal Integrity (Differential pairs, connector and SMT pads only)
  - Impedance Range: 81 to 108Ω @ 50 ps edge (10–90%)
  - Return Loss: < 10dB up to 5GHz
  - Insertion Loss: < 1.5dB up to 5GHz
  - NEXT: ≤ 4.0% for a 50 ps edge (10–90%)
  - FEXT: ≤ 2.4% for a 50 ps edge (10–90%)

ENVIRONMENTAL

- Temperature Range: –40°C to +125°C
- High Temperature Life: 105°C ± 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

Router
IP Phone

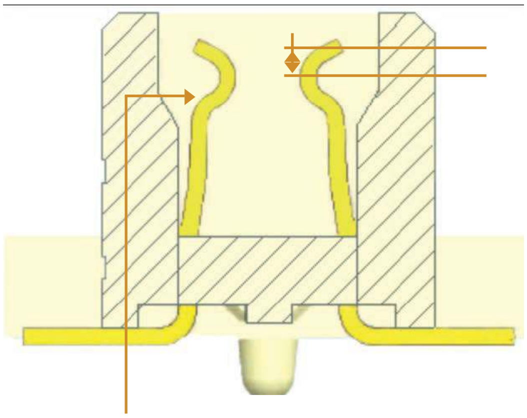
Server

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

Diagnostics System

For more information,
please contact: Communications@fci.com
or visit us at **www.fci.com**

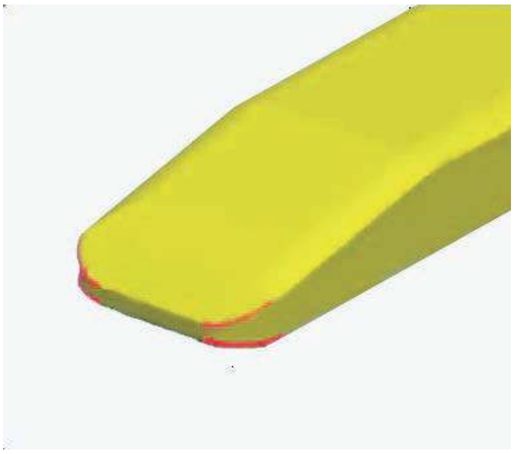
RECEPTACLE



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

For more information,
please contact: Communications@fci.com
or visit us at **www.fci.com**

PART NUMBER SELECTOR

XXXXX		XX		X		X		X		X		X
BASE PART NUMBER	–	TOTAL POSITIONS	–	HOUSING HEIGHT	–	PLATING CODE	–	PEG OPTION	–	PACKAGING OPTION	–	LF

Receptacle	61082
Plug	61083

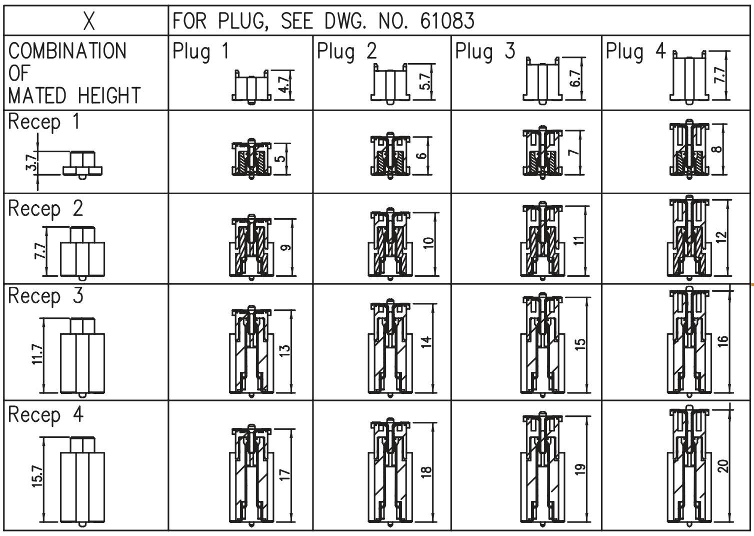
40 pos	04
60 pos	06
80 pos	08
100 pos	10
120 pos	12
140 pos	14
160 pos	16
180 pos	18
200 pos	20

Tube without metal cap	0
Tape & Reel with metal caps	2
Tape & Reel without metal cap (with Kapton tape)	6
Tube with metal caps	9

Includes polarization pegs	0

Lead-free, RoHS compatible	LF

Gold 0.2um min./Pure Tin 2um min. (Lead-free) Nickel underplate overall 1.27um min.	4
Gold 0.38um min./Pure Tin 2um min. (Lead-free) Nickel underplate overall 1.27um min.	5
Gold Flash (0.1um min.) over Palladium-Nickel 0.76um min./Pure Tin 2um (Lead-free) Nickel underplate overall 1.27um min.	6



X	FOR PLUG, SEE DWG. NO. 61083			
COMBINATION OF MATED HEIGHT	Plug 1 (4.7)	Plug 2 (5.7)	Plug 3 (6.7)	Plug 4 (7.7)
Recep 1 (3.7)	5	6	7	8
Recep 2 (7.7)	9	10	11	12
Recep 3 (11.7)	13	14	15	16
Recep 4 (15.7)	17	18	19	20

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