

BergStak+™ 0.80mm Mezzanine Connector

Superior performance up to 16Gb/s

BOARD-TO-BOARD SOLUTION FOR HIGH SPEED AND HIGH DENSITY APPLICATIONS

BergStak+™ 0.80mm is designed to be the next generation PCIe 4.0 compliant mezzanine connector system. It is fully compatible with the existing BergStak® 0.80mm product recommended by the Open Compute Project (OCP).

- Backward mateable and footprint compatible with existing BergStak® 0.80mm
- Available in 80 and 120 positions. Other position options on request
- Available in 5, 8, 12 and 16mm stack heights



TARGET MARKETS



FEATURES

- Housing and terminal profile optimized to meet 16Gb/s
- Backward mateable and footprint compatible
- 80 and 120 position sizes
- 5mm, 8mm, 12mm and 16mm stack heights
- 0.8mm double-row contact pitch
- Scoop-proof feature housings
- Multiple plating options available
- Multiple packaging options available
- PCB locator pegs option available
- RoHS compliant and lead-free

BENEFITS

- Meets PCIe 4.0 industry standards
- Supports migration path from PCIe 3.0 to PCIe 4.0
- Comprehensive range of sizes and stack heights to satisfy varying 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
- 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
- Solder Area Finish: Matte pure Tin over Nickel

MECHANICAL PERFORMANCE

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

ELECTRICAL PERFORMANCE

- Insulation Resistance: 1000M 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: 85 Ω @30ps (20–80%)
 - Return Loss: <–10dB up to 8GHz
 - Insertion Loss: >–1dB up to 8GHz
 - NEXT: <–32dB up to 8GHz
 - FEXT: <–32dB up to 8GHz

ENVIRONMENTAL

- Temperature Range: –40°C to +125°C
- High Temperature Life: 105°C \pm 5°C for 1000 hours
- Humidity: 80%–98% relative humidity, 24h/cycle, total 10 cycles

SPECIFICATIONS

- Product Specification: GS-12-1354
- Application Specification: GS-20-0480
- Test Report: TBD

PACKAGING

- Tape and Reel
- Tube

TARGET MARKETS/APPLICATIONS



Datacom
Telecom



Server
Storage



Embedded Computer


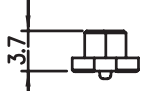
Disclaimer

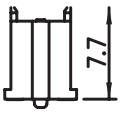
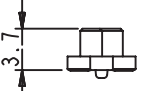
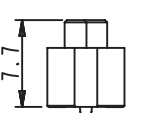
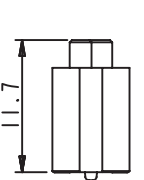
Please note that the above information is subject to change without notice.

PART NUMBERS

Position	Description	Connector Height (mm)	Part Numbers
80	PCIe 4.0 Plug 1	4.7	10139085-081402LF
80	PCIe 4.0 Plug 4	7.7	10139085-084402LF
80	PCIe 4.0 Receptacle 1	3.7	10139781-081402LF
80	PCIe 4.0 Receptacle 2	7.7	10139781-082402LF
80	PCIe 4.0 Receptacle 3	11.7	10139781-083402LF
120	PCIe 4.0 Plug 1	4.7	10139085-121402LF
120	PCIe 4.0 Plug 4	7.7	10139085-124402LF
120	PCIe 4.0 Receptacle 1	3.7	10139781-121402LF
120	PCIe 4.0 Receptacle 2	7.7	10139781-122402LF
120	PCIe 4.0 Receptacle 3	11.7	10139781-123402LF

AVAILABLE STACK HEIGHTS

COMBINATION OF MATED HEIGHT 5MM		10139085 SERIES
10139781 Series	Plug 1	
	Recep 1	

COMBINATION OF MATED HEIGHT 8, 12, 16MM		10139085 SERIES
10139781 Series	Plug 4	
	Recep 1	
	Recep 2	
	Recep 3	

BWBERGSTAK-087EA4

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[FCI / Amphenol:](#)

[10139085-084402LF](#) [10139085-124402LF](#) [10139781-123402LF](#) [10139781-083402LF](#) [10139085-081402LF](#)
[10139781-121402LF](#) [10139085-121402LF](#) [10139781-081402LF](#) [10139781-122402LF](#) [10139781-082402LF](#)
[10139781-12140QLF](#)