

BergStak HS™ 0.50mm Mezzanine Connector

Superior performance up to 25Gb/s

FLEXIBLE SOLUTION FOR HIGH SPEED APPLICATIONS

BergStak HS™ 0.50mm connector is a flexible solution designed for high speed and high density, parallel board-to-board applications with various heights in different sizes.

The BergStak HS™ 0.50mm connector series meets the new 25Gb/s performance requirement.

- Available in 50 positions
- Available in 12mm stack height
- 5 and 8mm stack heights, and up to 120 pin configurations available upon request



FEATURES

- Housing and terminal profile optimized to 25Gb/s
- Extension of standard BergStak® 0.80mm and BergStak+™ 0.80mm offering
- Vertical versus vertical mating configuration
- 50 position sizes, 12mm stack height available
- 5 and 8mm stack heights, and up to 120 pin configurations available upon request
- 0.5mm 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
- RoHS compliant and lead-free

BENEFITS

- Supports high speed performance up to 25Gb/s
- Supports higher speed applications from PCIe Gen 3, PCIe Gen 4 to 25Gb/s
- Suitable for parallel board stacking applications
- Varying positions and height specification meets 25Gb/s requirements
- 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

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TECHNICAL INFORMATION

MATERIAL

- Housing: Glass filled LCP, UL94V-0
- Contact Base Metal:
 - Receptacle: Copper Alloy, High Spring
 - Plug: Copper Alloy
- Solder Area Finish: Matte pure Tin over Nickel

ELECTRICAL PERFORMANCE

- Insulation Resistance:
 - Initial: 100MΩ min.
 - After Test: 50MΩ min.
- Current Rating: 0.5A/contact
- Contact Resistance:
 - Initial: 50mΩ max.
 - After Test: 70mΩ max.
- Voltage Rating: 50VAC
- Signal Integrity (Differential pairs)...as simulated data
 - Impedance: Supports both 85 and 100Ω applications
 - Return Loss:
 - 24dB @ 12.5GHz
 - 17.5dB @ 8GHz
 - Insertion Loss:
 - 0.4dB @ 12.5GHz
 - 0.37dB @ 8GHz
 - Power-summed NEXT:
 - 65dB @ 12.5GHz
 - 62.5dB @ 8GHz
 - Power-summed FEXT:
 - 62.4dB @ 12.5GHz
 - 63dB @ 8GHz

MECHANICAL PERFORMANCE

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

ENVIRONMENTAL

- Operating Temperature: -40°C to +85°C
- High Temperature Life: 105°C ±5°C for 500 hours
- Humidity: 90-95% relative Humidity for 96 hours

SPECIFICATIONS

- Product Specification: TBD
- Test Report: TBD

PACKAGING

- Tape & Reel
- Tube

TARGET MARKETS/APPLICATIONS



Datacom
Telecom



Server
Storage



Embedded Computer

PART NUMBERS

Position	Description	Connector Height (mm)	Stack Height (mm)	Part Numbers
50	Plug	3.80	12	10138650-50P12EHLF
50	Receptacle	10.67		10138651-50REHLF