BergStak HS™ 0.50mm

Product Presentation

BergStak HS™ 0.50mm

Agenda

- Value Proposition
- Product Overview
- Product specifications
- Features & Benefits
- Part Numbers
- Market Applications
- Collaterals

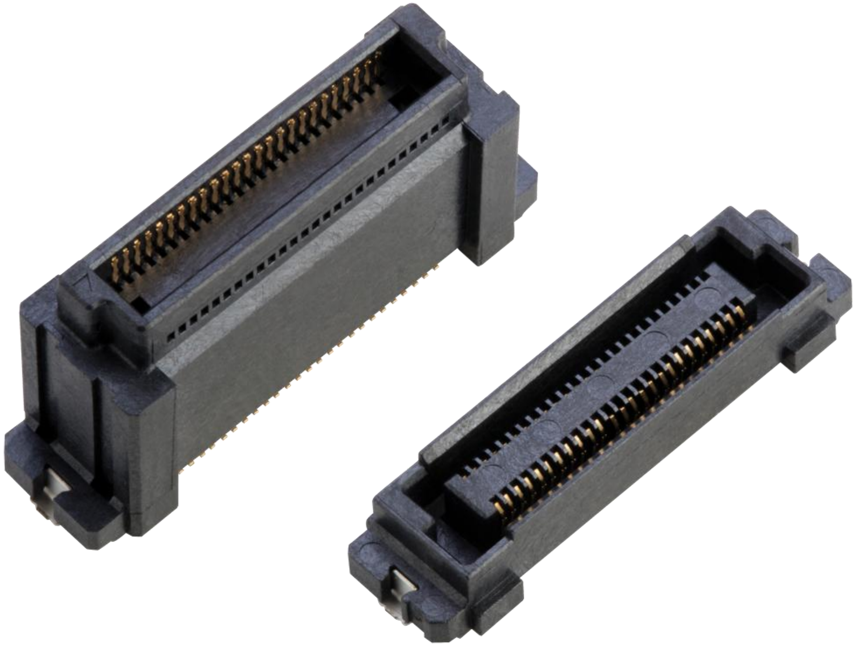
BergStak HS™ 0.50mm

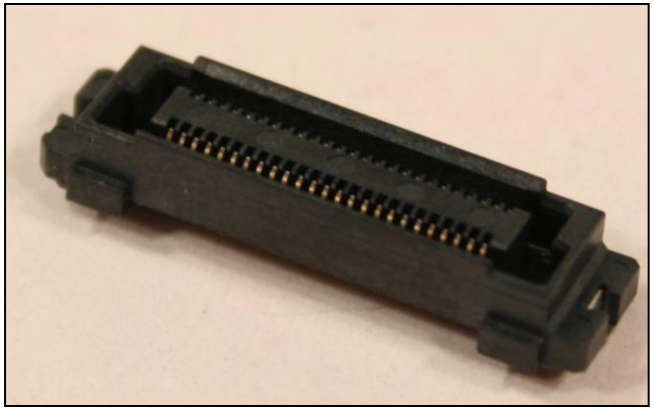
Value Proposition

- BergStak HS™ 0.50mm is a comprehensive and versatile solution designed for high-density application able to cover the needs of different applications.
- Extension of standard BergStak® 0.80mm and BergStak+™ 0.8mm offerings with the capability to support higher speed applications up to 25Gb/s.
- Has the ability to meet and exceed PCIe 3.0 & 4.0 industry standards.
- The BergStak HS™ 0.50mm presently has a stack height of 12mm and 50 positions. We plan to include stack heights of 5mm and 8mm with positions up to 120 positions upon request.
- The unique Scoop-proof housing design of BergStak HS™ 0.50mm solution prevents reverse mating which thus ensure terminals are not damaged during the mating. This design makes it suitable for High density and parallel board stacking applications for various applications.

BergStak HS™ 0.50mm

Product Overview





Plug Overview

Receptacle Overview

BergStak HS™ 0.50mm

Product Specifications

Product Facts

- Speed up to 25Gb/s
- 50 position with options up to 120 positions
- 12mm stack height available now. Potential 5mm & 8mm
- Vertical mating configuration
- 0.50mm double-row contact pitch
- Scoop-proof housings
- Multiple plating options available
- RoHS compliant and lead-free
- PCB locator pegs option
- PCB Termination: SMT

Specifications

- Product Specifications: TBD
- Application Specifications: TBD

Performance Characteristics

- Durability: 100 mating cycles
- Mating Force: 0.9N max./contact
- Unmating Force: 0.1N min./contact
- High Temperature Life: 105°C ± 5° for 500 hours
- Humidity: 90-95% relative Humidity for 96 hours
- Insulation Resistance: 100MΩ min.
- Current Rating: 0.5A/contact
- Voltage Rating: 50VAC
- Low-level Contact Resistance: 50mΩ max.

Performance Characteristics

- Housing: Glass filled LCP UL94V-0
- Terminal:
  - Receptacle: Copper Alloy, High Spring
  - Plug: Copper Alloy
- Hold Down: Copper Alloy

BergStak HS™ 0.50mm

Features & Benefits

Features	Benefits
▪ Support speed up to 25Gb/s	▪ Able to meet and exceed PCIe 4.0 industry standards
▪ 50 positions with options up to 120 positions ▪ 12mm stack heights with options for 5mm and 8mm stack heights	▪ Wide range of sizes and stack heights to support different applications
▪ Vertical mating configuration	▪ Suitable for parallel board stacking applications
▪ 0.50mm double-row contact pitch conserves printed circuit board space	▪ Small form factory suitable for high density board layout application
▪ Scoop-proof housings	▪ Ensure terminals are not damaged during mating
▪ Available in UL94 V-0 flammability rated LCP	▪ High flammability rating
▪ PCB locator pegs option	▪ Enables easy manual assembly
▪ Metal hold-down option	▪ Ensures more retention force
▪ RoHS compliant and lead-free	▪ Meets environmental, health and safety requirements

BergStak HS™ 0.50mm

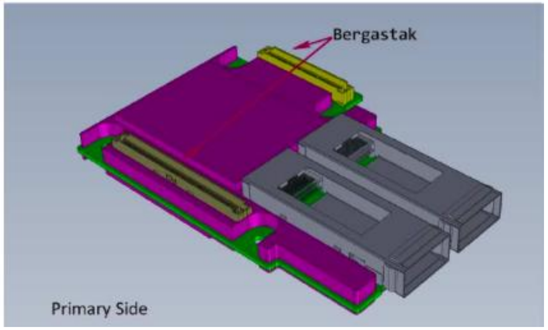
Part Numbers

Description	Part Number
50 position, 8.22mm height plug connector	10138650-50P12EHLF
50 positioning, 3.77mm height receptacle connector	10138651-50REHLF

BergStak HS™ 0.50mm

Main Markets & Applications

- Datacom/Telecom
  - Server
  - Storage
  - Open Compute Platform (Next Gen)
- Industrial and Instrumentation
  - Embedded Computer
  - Test Equipment
  - Measurement Equipment
- Medical Devices
  - MRI Machines
  - High Definition Scopes



BergStak HS™ 0.50mm

Collaterals

- Available on Amphenol FCI website:
  - Technical Datasheet

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	BENEFITS
• Housing and terminal profile optimized to 25Gb/s	• Supports high speed performance up to 25Gb/s
• Extension of standard BergStak® 0.80mm and BergStak+™ 0.80mm offering	• Supports higher speed applications from PCIe Gen 3, PCIe Gen 4 to 25Gb/s
• Vertical versus vertical mating configuration	• Suitable for parallel board stacking applications
• 50 position sizes, 12mm stack height available • 5 and 8mm stack heights, and up to 120 pin configurations available upon request	• Varying positions and height specification meets 25Gb/s requirements
• 0.5mm 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
• RoHS compliant and lead-free	• Meets environmental, health and safety requirements

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THANK YOU

Amphenol FCi