

BergStak HS™
0.80mm connector
Product Presentation

**Amphenol Information Communications
and Commercial Products**

FCi Basics

Amphenol ICC

BergStak HS™ 0.80mm connector

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Value Proposition

BergStak HS™ 0.80mm connector

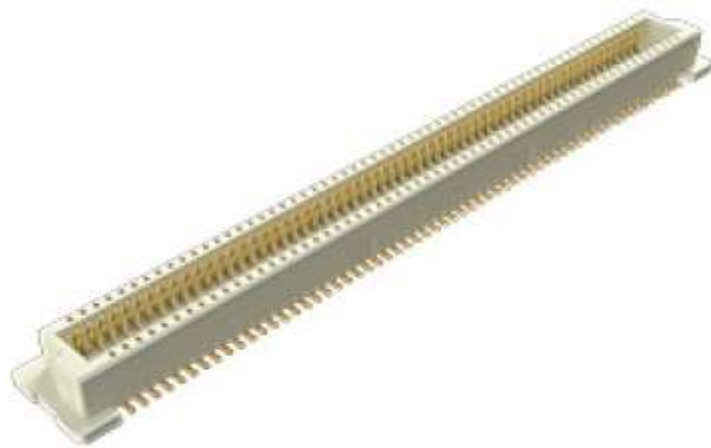


- BergStak HS™ 0.80mm connector is a flexible solution designed for **high speed and high density**, parallel board-to-board applications.
- BergStak® HS™ 0.80mm **support with higher speed up to 32Gb/s**.
- The connector is currently offered in **120 positions and 5mm stack height**. Stack heights of 5mm and 12mm with 40 to 140 pos are available upon request.
- It meets and exceeds **SAS 4.0, and PCIe Gen 5 standards**.
- The unique Scoop-proof housing feature of BergStak HS™ 0.80mm prevents reverse mating preventing terminal damage.
- Thanks to all these features, BergStak HS™ 0.80mm is Ideal for applications in the **Communications, Data and Industrial & Instrumentation, Medical** .

BergStak HS™ 0.80mm connector

Product Overview

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Receptacle Overview



Header Overview

Product Specifications

BergStak HS™ 0.80mm connector



Performance Characteristics

- Durability: 100 cycles
- Mating Force: 0.9N max . per contact
- Un-mating Force: 0.1N min. per contact
- Current Rating: 0.8A per contact
- Voltage Rating: 100VAC
- Low-level Contact Resistance LLCR : 50mΩ max.
- Insulation Resistance: 1000 MΩ min.

Materials

- Housing: Glass filled LCP (UL94V-0)
- Terminal base metal
 - Receptacles: Copper Alloy
 - Headers: Copper Alloy

Environmental

- High temperature life: 125°C for 96 hours
- Humidity: 90-95% relative for 240 hours

Technical Documents

- Product Spec.: GS-12-1499

Features and Benefits

BergStak HS™ 0.80mm connector

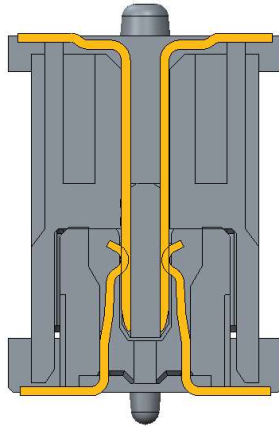


Features	Benefits
Date rate: 24Gb/s and 32Gb/s	Meets SAS4.0 and PCIe Gen5 standard
120 positions, with options 40 to 140 5mm stack height, with options for 5mm and 12mm	Supports a wide range of applications
Vertical mating configuration	Suitable for parallel board stacker applications
0.80mm double-row contact pitch	Small form factor high density layout saves board space
Scoop-proof housings	Prevents terminal mating damage
UL94V-0 high temperature LCP material	High flammability rating
Locating pegs option available	Enables easy manual assembly
Halogen-free products	Aid efforts to minimize the use of environmentally sensitive materials in the electronics industry
Lead-Free and RoHS compliant	Meets environmental, health and safety requirements

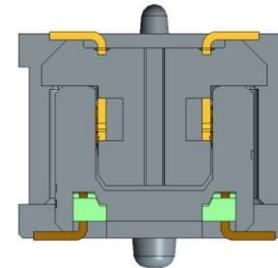
Design Features

BergStak HS™ 0.80mm

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V.S.



Bergstak® 0.8mm pitch structure uses Blade on beam design.

Open Pin fill design structure to support PCIe Gen 3 or below performance.

Width 6.0mm(P1/P2/P3/P4/R1) or width 6.4mm(R2/R3/R4)

All ground pins are **separated**.

BergStak HS™ product supports up to PCIe 5.0 – 32Gbps and SAS 4.0-24G by widen the tongue of the product . This is also backward compatible with existing BergStak® product's PCB(the existing PCB with **ground vias on both side of GND pad**).

Open pin filed design

Width 6.5mm(P1/R1).

All ground pins are **separated** .

Performance

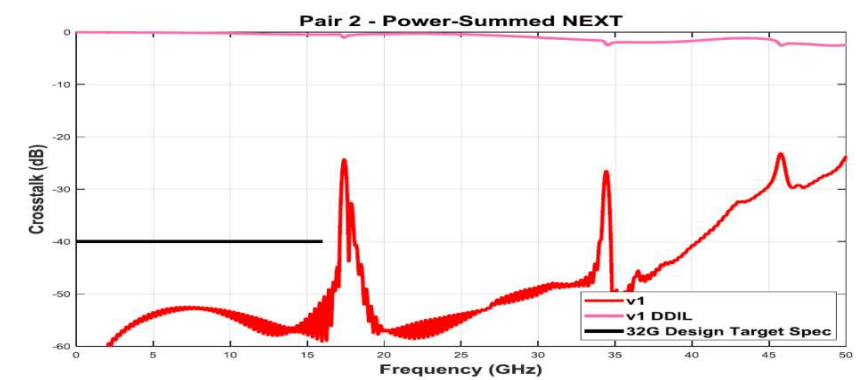
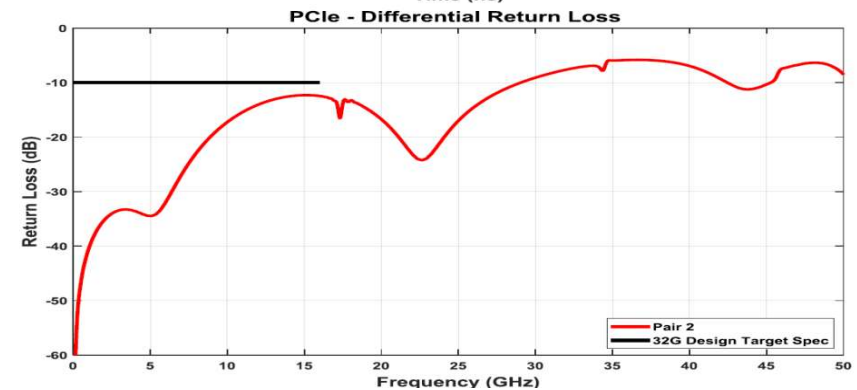
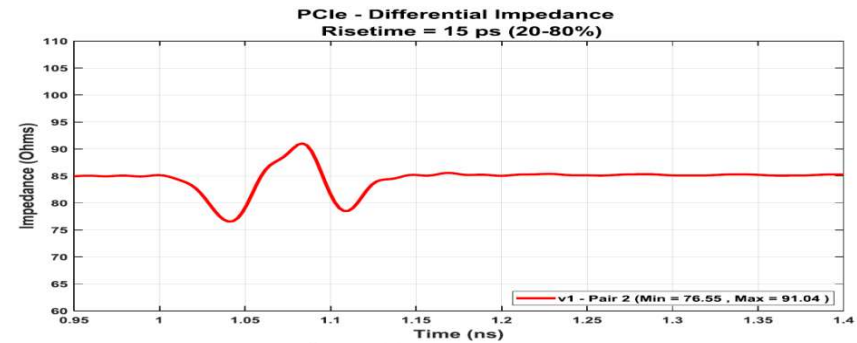
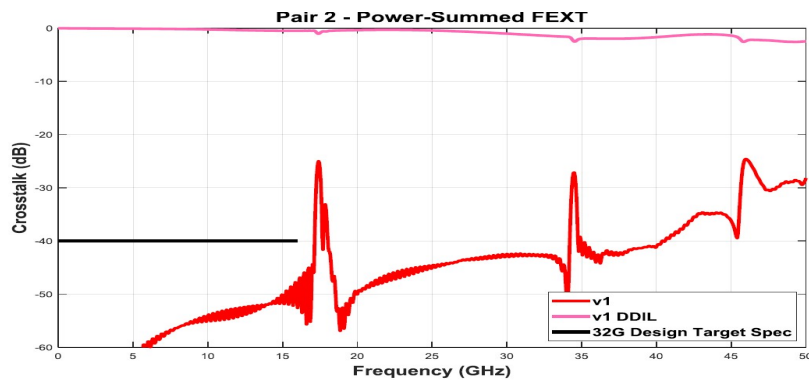
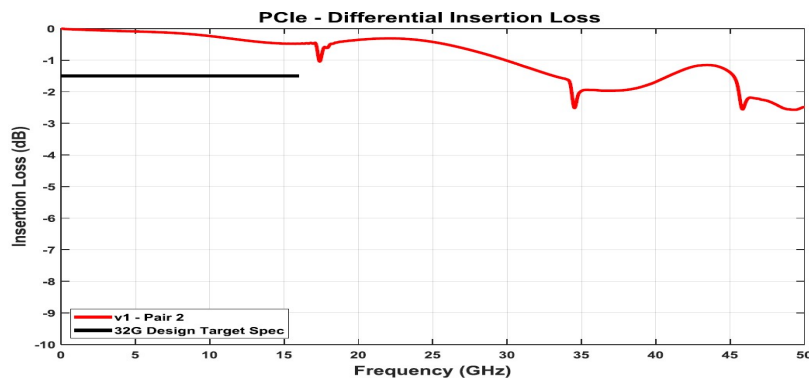
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- Add a graph where we show our 5mm HS product.

Double GND for PCIe Gen5



- Single GND for PCIe Gen 5 is achievable by using one line for signal transmission



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Part Numbers



	Item	Position	Product Height (mm)	Stack Height (mm)	Part Number
	0.8mm BTB Vertical Header	120	4.15	5	10147614-121406LF
	0.8mm BTB Vertical Receptacle	120	3.7	5	10147613-121406LF

Markets and Applications

BergStak HS™ 0.80mm connector

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Datacom/Telecom

- Server
- Storage



Industrial and Instrumentation

- Embedded Computer
- Test and Measurement Equipment



Medical Devices

- MRI Machines
- High Definition Scopes



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THANK YOU!