

Amphenol

COMMUNICATIONS SOLUTIONS

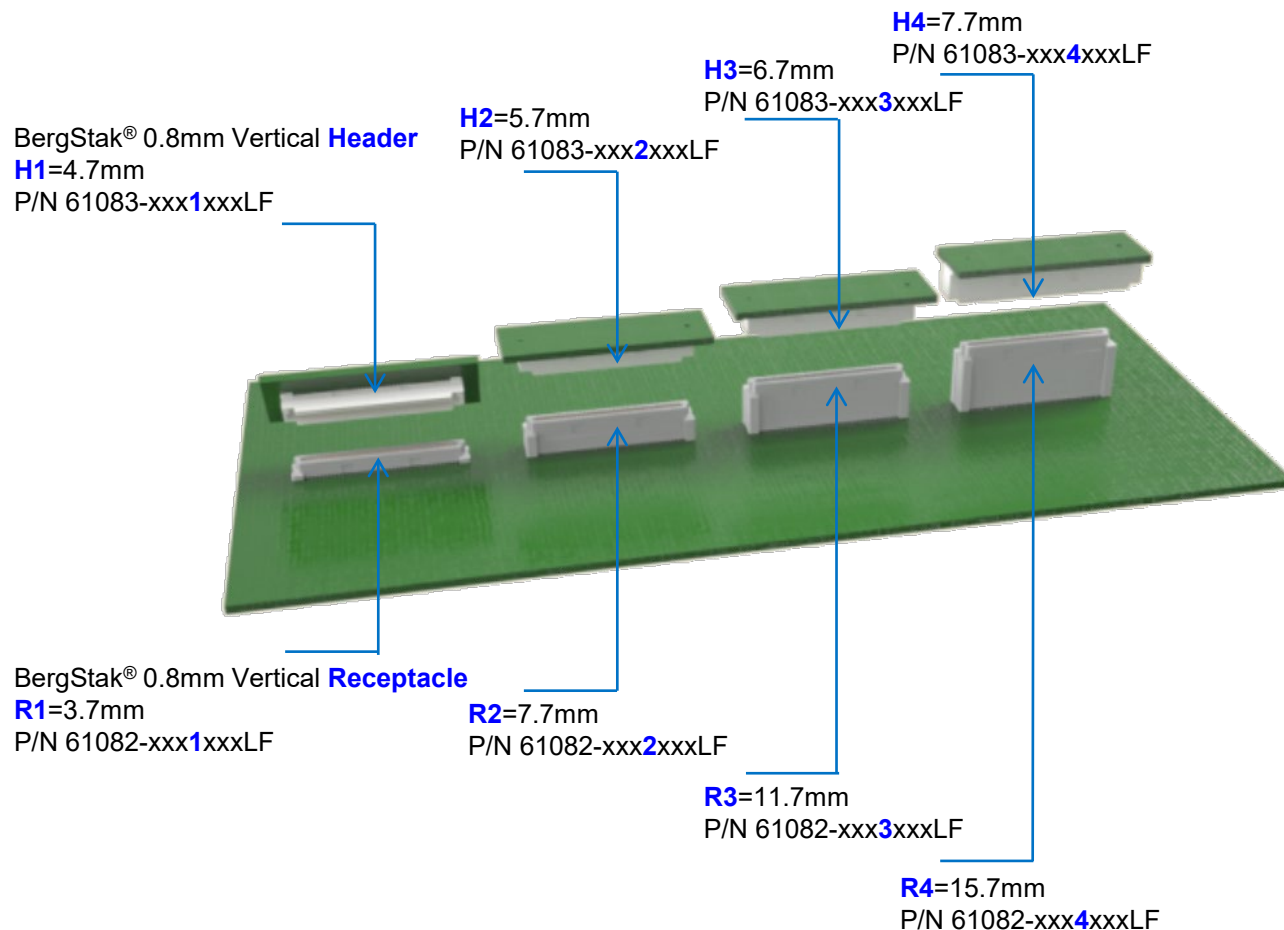
Basics Board-to-Board
BergStak® 0.80mm Pitch

 **FCi Basics**

BergStak® 0.80mm Value Proposition

- BergStak® 0.80mm connector is flexible solution designed for **high speed** and **high density**, parallel board-to-board applications .
- BergStak® 0.80mm is designed for stack heights from **5mm to 20mm** (1mm increments), for **20 to 200** signal pins (20, 40, 60, 80, 100, 120, 140, 160, 180, 200).
- BergStak® 0.80mm supports with high speed up to **12Gb/s**.
- BergStak® 0.80mm supports **0.8A/pin** with all pin powered.
- BergStak® 0.80mm meets **USCAR-2** vibration and Shock Class V2.
- The unique scoop-proof housing and blade-on-beam terminal features of BergStak® 0.80mm provide easy PCB assembly, **prevents reverse mating** and **preventing terminal damage**.
- BergStak® 0.80mm is ideal for applications in the **Communications , Data and Industrial & Instrumentation, Medical and Automotive** .

BergStak® 0.80mm Product Overview



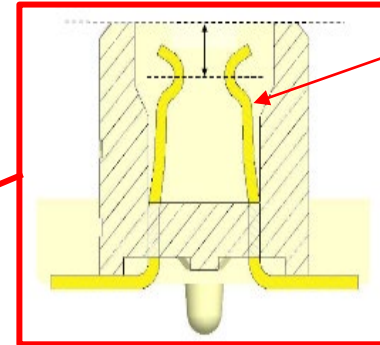
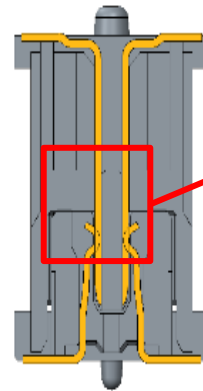
- H means Header height ; R means Receptacle height
- Refer to part number scheme in drawing about xxxx definition

BergStak® 0.80mm Product Overview

“blade on beam” contacts prevent subbing and contact damage; and allow peeling from one end to ease un-mating



Polarization and generous lead-in angles align for accurate mating



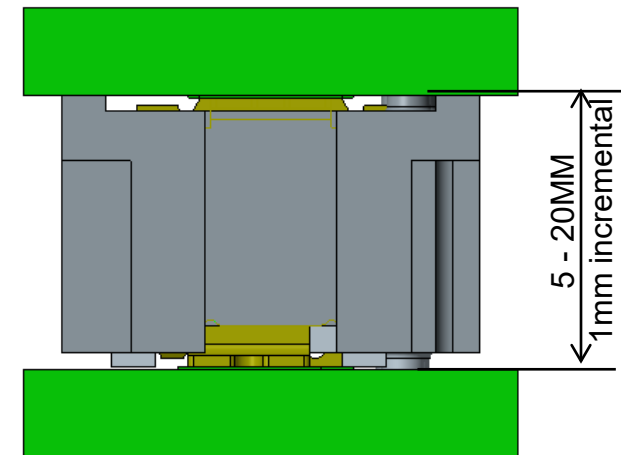
High spring BeCu contact with precision tapered contacts preserves normal force after cycling (durability: 100 mating cycles)

Short point of contact enables early mating and late un-mating, increasing system reliability.

BergStak® 0.80mm Product Overview

FOR PLUG, SEE DWG. NO. 61083				
COMBINATION OF MATED HEIGHT	Plug 1	Plug 2	Plug 3	Plug 4
Recep 1 				
Recep 2 				
Recep 3 				
Recep 4 				

Stack Height



BergStak® 0.80mm

Product Specifications

Specifications

- Pitch: 0.80mm
- Positions: 20 ~ 200pos in 20pos. Increments
- Data rate: Speed up to 12Gb/s
- Termination: SMT
- Configurations: Vertical
- Stack Heights: 5~20mm
- USCAR, UL E66906, CS LR46923

Materials

- Header / Receptacle : High temperature thermoplastic LCP, Natural (UL94V-0)
- Terminal: Copper Alloy, high spring (Receptacles)
Brass (Headers)
- Plating on contact: Gold or GXT

Electrical Performances

- Voltage Rating: 100V AC
- Current Rating: 0.8A/pin
- Insulation Resistance: 1000MΩ min.
- Contact Resistance: 30m-ohms max (Initial)

Mechanical Performance

- Durability: 100 cycles
- Mating Force: 0.9N max. per contact
- Un-mating Force: 0.1N min. per contact
- Wiping Length: 1.2mm

Environmental

- Operating Temperature: -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 2° (30GXT)

Technical Documents

- Product Spec: GS-12-547
- Application Spec: GS-20-059

Packaging

- Tape and reel
- Tube

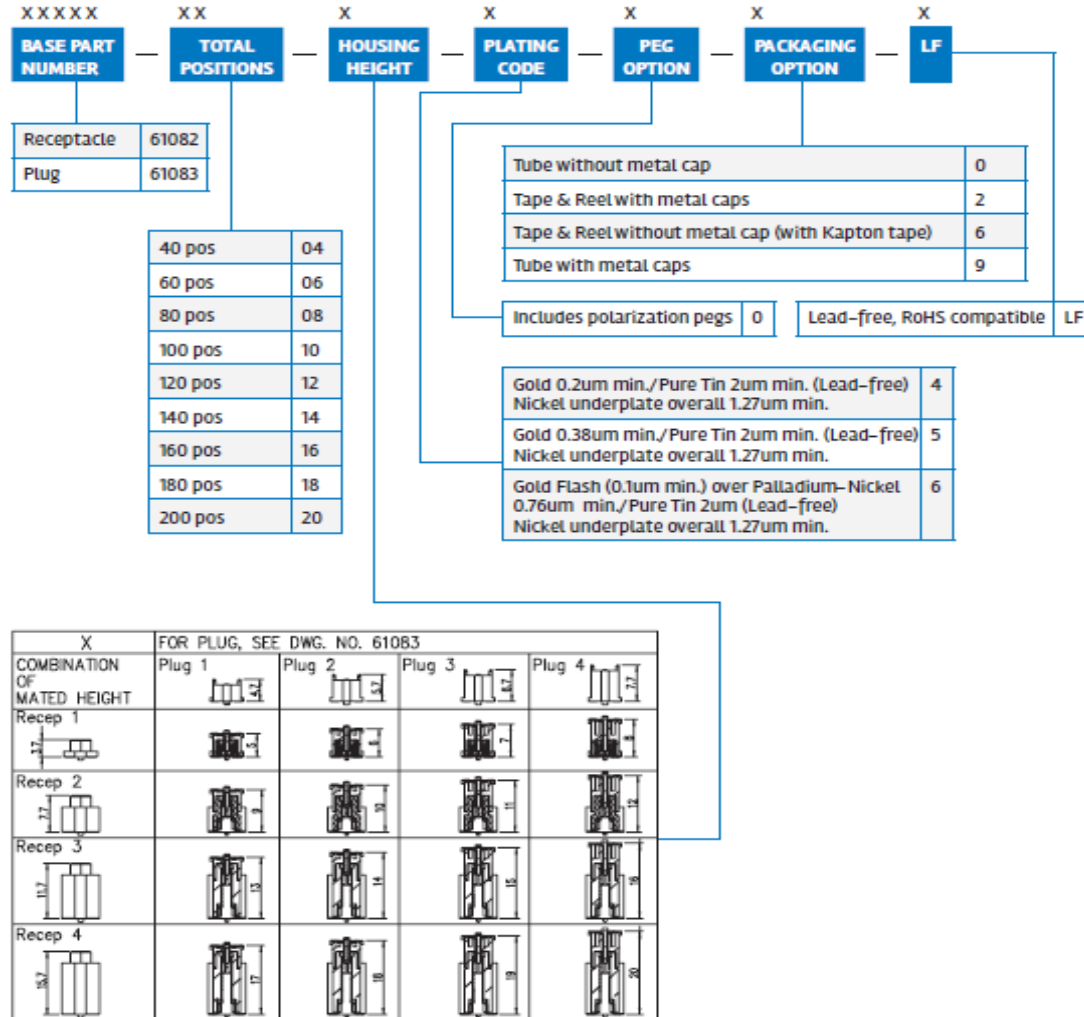
BergStak® 0.80mm

Features and Benefits

Features	Benefits
Variable position (20~200pos.) and stack height (5~20mm)	Meets your needs for a wide range of applications
Reliable Blade-on-Beam contact design	Provide reliable mating force and excellent contact performance
Data rate up to 12Gb/s	Compatible with PCIe® Gen 1/2/3 , 10G Base-KR and SAS 3.0 .
Scoop proof housing with ±0.9mm misalignment tolerance	Supports secure blind mating and automatic assembly
Housing with metal hold down	Guarantees stable PCB retention force
Locating pegs available	Enables easy manual assembly
UL94V-0 high temperature LCP material	High flammability rating with operating temperatures up to 125°C
Lead-Free, RoHS and Halogen-free compliant	Meets environmental, health and safety requirements

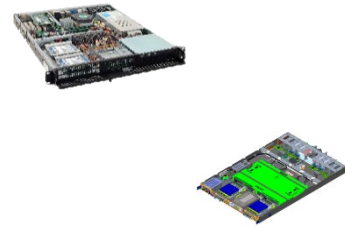
BergStak® 0.80mm

Part Number



Data & Communication

- Servers
- Storage
- Open computer platform



Consumer

- POS (Point of Sales) Equipments
- LED Control
- Security Systems



Industrial

- Analytical Instruments
- Robotics
- PLC & Sever Driver



Automotive

- Radar / Lidar
- Flat Panel , Cluster
- LED Reading Lighting



BergStak® 0.80mm

Additional information

- [BergStak® 0.8mm Datasheet](#)
- [BergStak® 0.8mm Product Presentation](#)
- [BergStak® 0.8mm Product Specification](#)
- [BergStak® 0.8mm Application Specification](#)
- [BergStak® 0.8mm Product overview](#)

- Header *Housing with pins (male connector)*
- Receptacle *Female housing*
- Vertical *Connection axis perpendicular to the board*
- SMT *Surface-Mount Technology*



Thank you