

# BergStak® Lite 0.80mm Board-to-Board Connector

*Product Presentation*

Amphenol Information Communications  
and Commercial Products

 **FCi Basics**

# Amphenol ICC

# BergStak® Lite 0.80mm

## Value Proposition

 **FCI Basics**

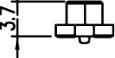
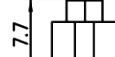
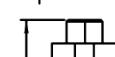
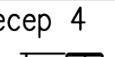
- BergStak® Lite 0.80mm is a **comprehensive** and **versatile** solution designed for **high-density** applications with the need for lower mating cycles.
- The BergStak® Lite 0.80mm solution includes **16 PCB stack heights** in **4 sizes up to 100 positions**.
- BergStak® Lite 0.80mm is an **economical version** that uses **Gold Flash** plating that can meet up to **50 mating cycles** while extending the mechanical advantage of the standard BergStak® 0.80mm.
- **Stack height flexibility** supports evolving designs and emerging mechanical requirements with a common mating interface.



# BergStak® Lite 0.80mm

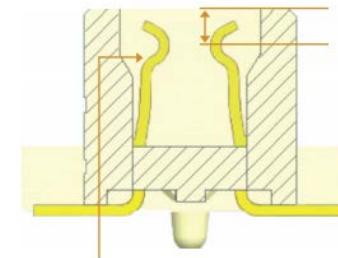
## Product Overview

 **FCi Basics**

X	FOR PLUG, SEE DWG. NO. 10144518				
COMBINATION OF MATED HEIGHT	Plug 1  4.7	Plug 2  5.7	Plug 3  6.7	Plug 4  7.7	
Recep 1  3.7	 5	 6	 7	 8	
Recep 2  7.7	 9	 10	 11	 12	
Recep 3  11.7	 13	 14	 15	 16	
Recep 4  15.7	 17	 18	 19	 20	



### RECEPTACLE



Early-contact point allows early engagement/ late disengagement and increases mating wipe

### HEADER



Coined contact tips assure smooth, safe wiping action during connector mating

# BergStak® Lite 0.80mm

## Product Specifications (1/2)

 **FCi Basics**

- Product Facts
  - 0.80mm double-row contact pitch
  - Vast range of sizes and stack heights
  - 5mm to 20mm stack heights in 1mm increments
  - Gold flash plating
  - Tapered PCB locator pegs increase the ease and accuracy of hand assembly
  - Blade-on-beam contacts allow peeling for safer, easier un-mating
- Specifications
  - Pitch: 0.80mm
  - Pin Count: From 40 to 100 pos
  - PCB Termination : SMT
  - Header Direction: Vertical
  - Plating: Gold Flash on contact
- Specification: UL File no. E66906 / CS File no. LR46923
- Technical Documents
  - Product Spec.: GS-12-1424
- Materials
  - Housing
    - Glass filled LCP (UL94V-0)
  - Contact Base Metal
    - Receptacles: Copper Alloy
    - Headers: Copper Alloy
  - Solder Area Finish in Matte pure tin over nickel

# BergStak® Lite 0.80mm

## Product Specifications (2/2)

 **FCi Basics**

- Performance Characteristics
  - Durability: 50 Cycles
  - Mating Force: 0.9N max./contact
  - Un-mating Force: 0.9N max./contact
  - Temperature Range: -40°C to +125°C
  - High Temperature Life: 125°C +/-5°C for 96 hours
  - Humidity: 90-95% relative Humidity for 96 Hours
  - Mixed Flowing Gas Class IIA: 5 days mated
  - Insulation Resistance:
    - Initial: 1000 MΩ min.
    - After Test: 100 MΩ min.
  - Current Rating: 0.5A/contact
    - Initial: 40 mΩ max.
    - After Test: 60 mΩ max.
- Voltage Rating: 100VAC
- Signal Integrity
  - (Differential pairs, connector and SMT pads only)
    - Impedance Range: 81 to 108Ω @50ps edge (10-90%)
    - Return Loss: <10dB up to 5GHz
    - Insertion Loss: <1.5dB up to 5GHz
    - NEXT: ≤ 4.0% for a 50ps edge (10-90%)
    - FEXT: ≤ 2.4% for a 50ps edge (10-90%)

# BergStak® Lite 0.80mm

## Features & Benefits

 **FCi Basics**

Features	Benefits
▪ Housing and terminal profile guarantees support of up to 12Gb/s	▪ Compatible with PCIe® Gen 2/3 and SAS 3.0 high speed performance on selected stack heights
▪ 40 to 100 position sizes in 20 position increments	▪ Comprehensive range of sizes and stack heights to satisfy all needs
▪ 5mm to 20mm stack heights in 1mm increments	▪ High density for all electrical applications needs
▪ 0.80mm double-row contact pitch conserves printed circuit board space	▪ Ensure terminals are not damaged during mating
▪ Scoop-proof housings	▪ Economical option for applications that require less stringent requirements
▪ Gold flash contact plating	▪ Facilitates ease and accuracy during manual assembly
▪ PCB locator pegs option	▪ High flammability rating
▪ Available in UL94V-0 flammability rated LCP	▪ Meets environmental, health and safety requirements
▪ RoHS compliant and lead-free	

# BergStak® Lite 0.80mm

## Main Markets & Applications

**FCi Basics**

- Communication
  - IP Phones
- Consumer
  - Drone
- Industrial & Instrumentation
  - Point-of-Sales (POS) Terminal
  - Security Systems
  - Portable Industrial Terminal
  - Test Equipment
  - Measurement Equipment



IP Phone



Test Equipment



Drone



POS Terminal

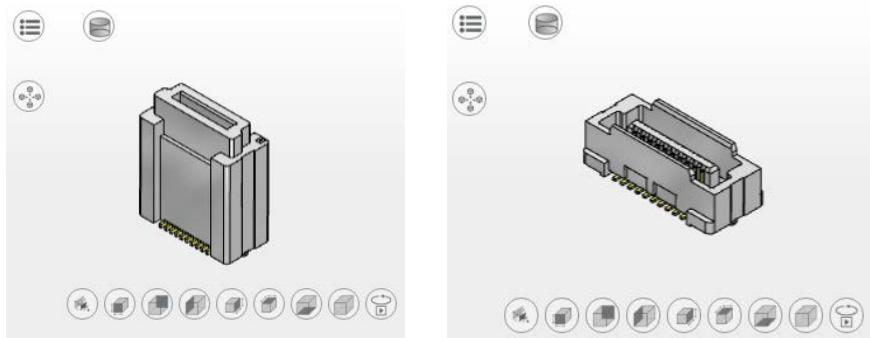
# BergStak® Lite 0.80mm

## Marcom Collaterals

 **FCi Basics**

- Available on [www.amphenol-icc.com](http://www.amphenol-icc.com)

- Technical Data Sheet
- 3D Views
- Part Numbers



 **FCi Basics**

**BergStak® Lite 0.80mm Board-to-Board Connector**  
Extraordinary product range, Benchmark performance, Dual-source champion

**NEW**



**TARGET MARKETS**



**FEATURES**

- Housing and terminal profile guarantees support of up to 150g's
- 40 to 100 position sizes in 10 position increments
- 5mm to 20mm stack heights in 1mm increments
- 0.80mm multi-row contact pitch conserves printed circuit board space
- Snap-fit housing
- Cold-form contact plating
- PCB locator pegs option
- Available in UL94-V0 flammability rated LOLO
- RoHS compliant and lead-free

**BENEFITS**

- Compatible with PCIe Gen 2/3 and SATA 3.0 high speed performance in selected stack heights
- Comprehensive range of sizes and stack heights to satisfy all needs
- High density for all electrical applications needs
- Ensure terminals are not damaged during mating
- Economical option for applications that require less stringent requirements
- Facilitates ease and accuracy during manual assembly
- High flammability rating
- Meets environmental, health and safety requirements

\*RoHS mark is a registered trademark of the IEC-SC-Cop

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COMPARE PRODUCT

PART NUMBER	DESCRIPTION	PRODUCT DRAWING	STATUS	
61082-024406LF	20 Positions, Dual Row, BTB Vertical Receptacle		Active	 <a href="#">FREE SAMPLE</a>
61082-024506LF	20 Positions, Dual Row, BTB Vertical Receptacle		Active	 <a href="#">FREE SAMPLE</a>
61082-024606LF	20 Positions, Dual Row, BTB Vertical Receptacle		Active	 <a href="#">FREE SAMPLE</a>
61082-041400LF	40 Positions, Dual Row, BTB Vertical Receptacle		Active	 <a href="#">FREE SAMPLE</a>
61082-041402LF	40 Positions, Dual Row, BTB Vertical Receptacle		Active 48	 <a href="#">FREE SAMPLE</a>
61082-041400LF	40 Positions, Dual Row, BTB Vertical Receptacle		Active	 <a href="#">FREE SAMPLE</a>

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Thank You