

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



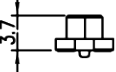
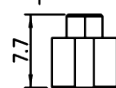
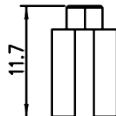
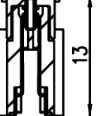
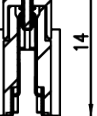
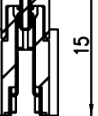
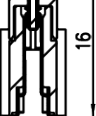
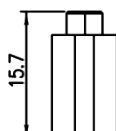
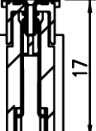
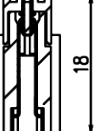
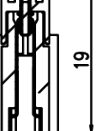
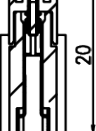
- BergStak® Lite 0.80mm is a **comprehensive** and **versatile** solution designed for **high-density** applications with the need for lower mating cycles.
- The BergStak® Lite 0.80mm solution includes **16 PCB stack heights** in **4 sizes up to 100 positions**.
- BergStak® Lite 0.80mm is an **economical 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

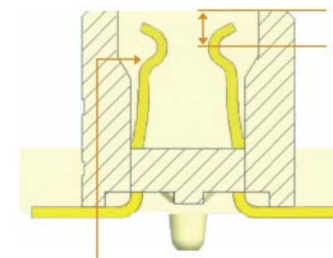
Product Overview

FCi Basics

X	FOR PLUG, SEE DWG. NO. 10144518			
COMBINATION OF MATED HEIGHT	Plug 1	Plug 2	Plug 3	Plug 4
Recep 1 				
Recep 2 				
Recep 3 				
Recep 4 				

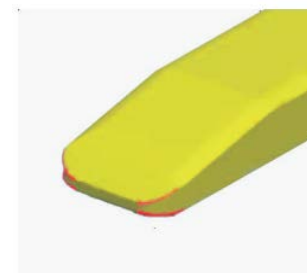


RECEPTACLE



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

HEADER



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

■ 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

■ 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



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 ▪ 5mm to 20mm stack heights in 1mm increments	▪ Comprehensive range of sizes and stack heights to satisfy all needs
▪ 0.80mm double-row contact pitch conserves printed circuit board space	▪ High density for all electrical applications needs
▪ Scoop-proof housings	▪ Ensure terminals are not damaged during mating
▪ Gold flash contact plating	▪ Economical option for applications that require less stringent requirements
▪ PCB locator pegs option	▪ Facilitates ease and accuracy during manual assembly
▪ Available in UL94V-0 flammability rated LCP	▪ High flammability rating
▪ RoHS compliant and lead-free	▪ Meets environmental, health and safety requirements

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

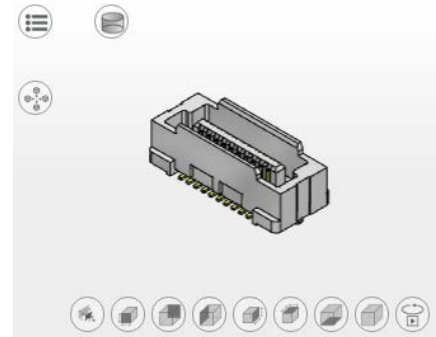
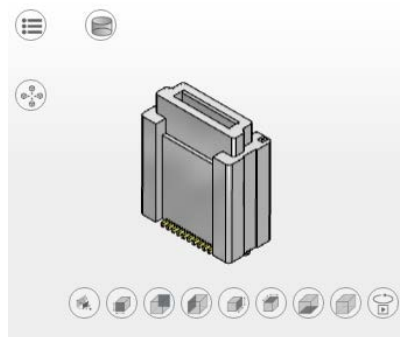
BergStak® Lite 0.80mm

Marcom Collaterals



Available on www.amphenol-icc.com

- Technical Data Sheet
- 3D Views
- Part Numbers



FCi Basics
Amphenol ICC

BergStak® Lite 0.80mm Board-to-Board Connector

Extraordinary product range, Benchmark performance, Dual-source champion

ECONOMICAL OPTION FOR HIGH DENSITY APPLICATIONS

Amphenol's BergStak® Lite 0.80mm is a flexible solution designed for high speed and high density, parallel board-to-board connector systems with 16 PCB stack heights in 4 sizes up to 100 positions.

- Housing and terminal profile guarantees supports of up to 100µm
- 40 to 100 position sizes in 20 position increments
- 5mm to 20mm stack heights in 1mm increments
- Gold flash plating on contact area supports 500 mating cycles for lower mating cycle application

TARGET MARKETS

FEATURES

- Housing and terminal profile guarantees supports of up to 100µm
- 40 to 100 position sizes in 20 position increments
- 5mm to 20mm stack heights in 1mm increments
- 0.80mm double-row contact pitch conserves printed circuit board space
- Scape-printed housing
- Gold flash contact plating
- PCB locator pins option
- Available in UL94V-0 flammability rated LCP
- RoHS compliant and lead-free

BENEFITS

- Compatible with PCIe Gen 2/3 and SAS 3.0 High-speed performance on selected stack heights
- Comprehensive range of sizes and stack heights to satisfy all needs
- High density for all electrical applications needs
- Ensures 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

©2019 Amphenol ICC, registered trademark of the FCC-ICC Corp.

www.amphenol-icc.com Amphenol Information Communications and Commercial Products

RESULTS 1-10 OF 393

COMPARE PRODUCT

PART NUMBER	DESCRIPTION	PRODUCT DRAWING	STATUS	
☐ #1082-024406LF	20 Positions, Dual Row, BTS Vertical Receptacle		Active	Check Stock FREE SAMPLE
☐ #1082-024506LF	20 Positions, Dual Row, BTS Vertical Receptacle		Active	Check Stock FREE SAMPLE
☐ #1082-024606LF	20 Positions, Dual Row, BTS Vertical Receptacle		Active	Check Stock FREE SAMPLE
☐ #1082-041400LF	40 Positions, Dual Row, BTS Vertical Receptacle		Active	Check Stock FREE SAMPLE
☐ #1082-041402LF	40 Positions, Dual Row, BTS Vertical Receptacle	Core Range	Active 48	Check Stock FREE SAMPLE
☐ #1082-041420LF	40 Positions, Dual Row, BTS Vertical Receptacle		Active	Check Stock FREE SAMPLE

Amphenol ICC

Thank You