## **≣FCi Basics**

## Amphenol ICC

# BergStak<sup>®</sup> Lite 0.80mm Board-to-Board Connector

Extraordinary product range, Benchmark performance, Dual-source champion

### ECONOMICAL OPTION FOR HIGH DENSITY APPLICATIONS

Amphenol's BergStak<sup>®</sup> Lite 0.8mm is a flexible solution designed for high speed and high density, parallel board-toboard connector system with 16 PCB stack heights in 4 sizes up to 100 positions.

- Housing and terminal profile guarantees support of up to 12Gb/s
- 40 to 100 position sizes in 20 position increments
- 5mm to 20mm stack heights in 1mm increments
- Gold flash plating on contact area supports 50 mating cycles for lower mating cycle application



#### **FEATURES**

- Housing and terminal profile guarantees support of up to 12Gb/s
- 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
- Scoop-proof housings
- Gold flash contact plating
- PCB locator pegs 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

\*The PCIe® mark is a registered trademark of the PCI-SIG Corp

### www.amphenol-icc.com

### **TECHNICAL INFORMATION**

#### MATERIAL

- Housing: Glass filled LCP, UL94V-0
- Contact Base Metal
  - Receptacle: Copper Alloy
  - Plug: Copper Alloy
- Contact Area Finish: Gold flash over Nickel
- Solder Area Finish: Matte pure Tin over Nickel

#### **MECHANICAL PERFORMANCE**

- Durability: 50 mating cycles
- Mating Force: 0.9N max./contact
- Unmating Force: 0.1N min./contact

#### **ELECTRICAL PERFORMANCE**

- Insulation Resistance:
- Initial: 1000M $\Omega$  min.
- After Test: 100M $\Omega$  min.
- Current Rating: 0.5A/contact
- Contact Resistance:
- Initial: 40m $\Omega$  max.
- After Test: 60mΩ max.
- Voltage Rating: 100VAC
- Signal Integrity (Differential pairs, connector and SMT pads only)
- Impedance Range: 81 to 108Ω @ 50 ps edge (10-90%)
- Return Loss: < 10dB up to 5GHz</p>
- Insertion Loss: < 1.5dB up to 5GHz</p>
- NEXT: ≤ 4.0% for a 50 ps edge (10-90%)
- FEXT: ≤ 2.4% for a 50 ps edge (10-90%)

#### **ENVIRONMENTAL**

- 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 2a: 5 days mated

#### **APPROVALS AND CERTIFICATIONS**

- UL E66906
- File no. LR46923

#### **SPECIFICATIONS**

Product Specification: GS-12-1424

#### PACKAGING

• Tape & Reel

#### **TARGET MARKETS/APPLICATIONS**



IP Phones



#### Drone

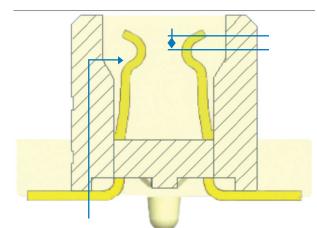


Measurement Equipment Point-of-Sales (POS) Terminal Portable Industrial Terminal Security Systems Test Equipment

Disclaimer

### BergStak<sup>®</sup> Lite 0.80mm Board-to-Board Connector

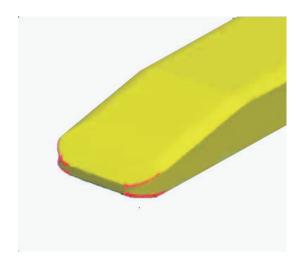
### RECEPTACLE



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

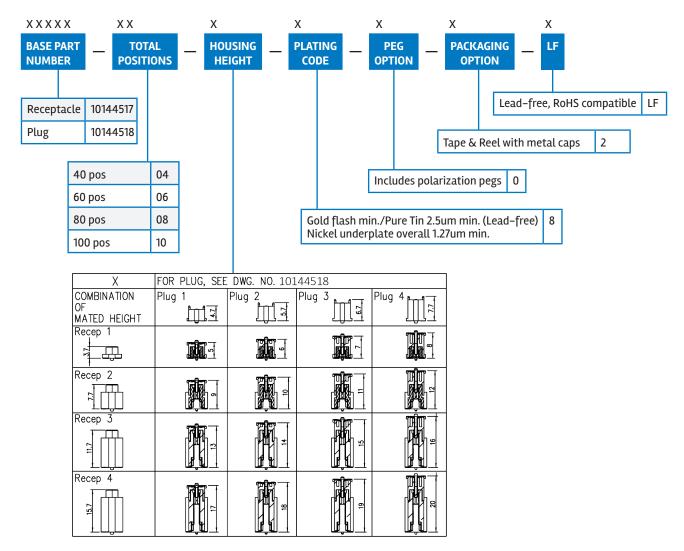
Precision-tapered contacts control mating stress while providing reliable, high normal force

### **HEADER**



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

### PART NUMBER SELECTOR



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