

# 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 0.8mm is a flexible solution designed for high speed and high density, parallel board-to-board 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

## 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: 60m $\Omega$  max.
- Voltage Rating: 100VAC
- Signal Integrity (Differential pairs, connector and SMT pads only)
  - Impedance Range: 81 to 108 $\Omega$  @ 50 ps edge (10-90%)
  - Return Loss: < 10dB up to 5GHz
  - Insertion Loss: < 1.5dB up to 5GHz
  - NEXT:  $\leq$  4.0% for a 50 ps edge (10-90%)
  - FEXT:  $\leq$  2.4% for a 50 ps edge (10-90%)

### ENVIRONMENTAL

- Temperature Range: -40°C to +125°C
- High Temperature Life: 125°C  $\pm$  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



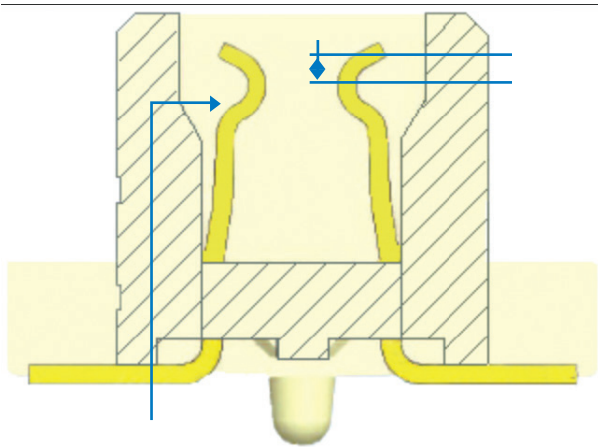
Drone



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

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

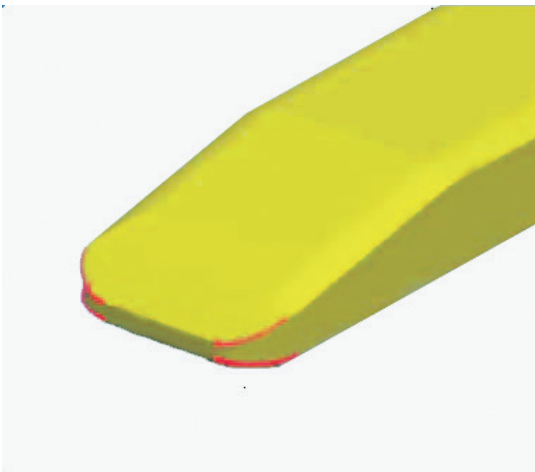
### RECEPTACLE



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

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

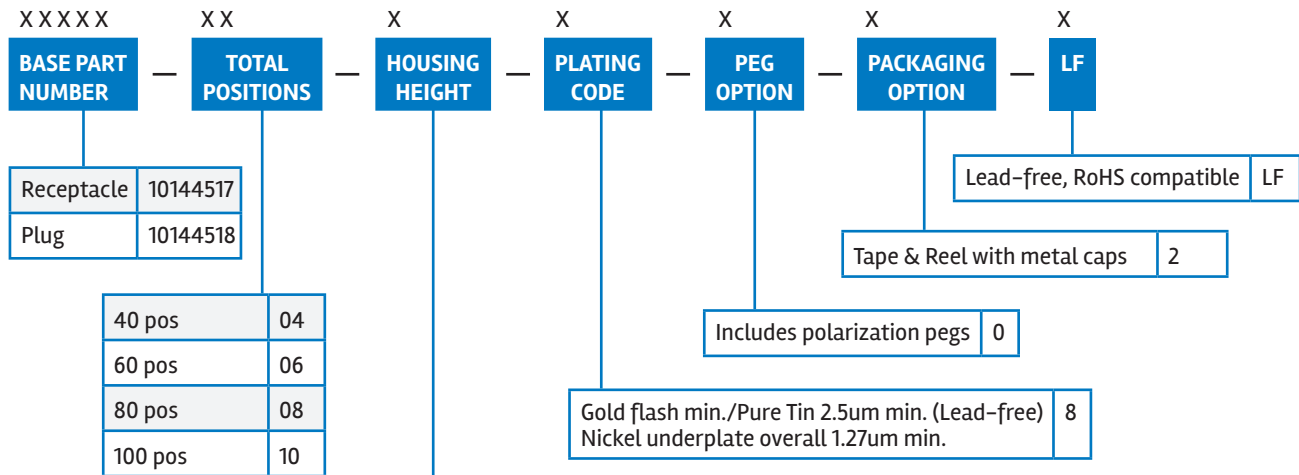
### HEADER



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

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## PART NUMBER SELECTOR



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				

BWBBERGLITE08097EA4