

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 Ω min.
 - After Test: 100M Ω min.
- Current Rating: 0.5A/contact
- Contact Resistance:
 - Initial: 40m Ω max.
 - After Test: 60m Ω max.
- Voltage Rating: 100VAC
- Signal Integrity (Differential pairs, connector and SMT pads only)
 - Impedance Range: 81 to 108 Ω @ 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

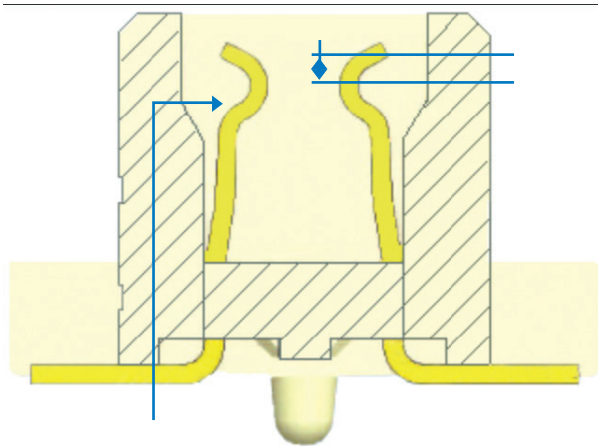


Drone



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

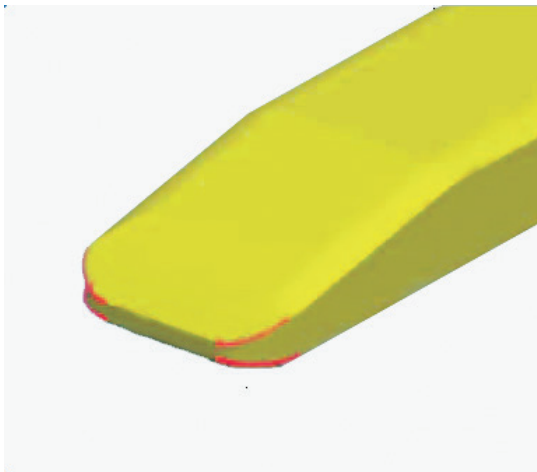
RECEPTACLE



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

XXXXX

BASE PART NUMBER

Receptacle

Plug

10144517

10144518

XX

TOTAL POSITIONS

40 pos

60 pos

80 pos

100 pos

04

06

08

10

X

HOUSING HEIGHT

X

PLATING CODE

Gold flash min./Pure Tin 2.5um min. (Lead-free)

Nickel underplate overall 1.27um min.

8

X

PEG OPTION

Includes polarization pegs

0

X

PACKAGING OPTION

Tape & Reel with metal caps

2

X

LF

Lead-free, RoHS compatible

LF

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				

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