# **≣FCi Basics**

## Amphenol ICC

# BergStak HS<sup>™</sup> 0.80mm Board-to-Board Connector

# FLEXIBLE SOLUTION FOR HIGH SPEED APPLICATION

BergStak HS<sup>™</sup> connector family is known for its fast data transmission, high signal quality, and time-proven reliability under extended periods of application. BergStak HS<sup>™</sup> 0.80mm connector family with 0.80mm pitch enables high-speed data applications with up to PCIe<sup>®</sup> Gen 5 32Gb/s.

- Free pin use of 5mm stack height
- Can use same layout as BergStak
- Meet SAS 4.0 and PCIe<sup>®</sup> Gen 5 standards
- Environment friendly with RoHS and low-halogen compliance



#### **FEATURES**

- High speed performance up to 32Gb/s
- 120 positions, with options from 40 to 140
- 5mm stack height, with options for 5mm and 12mm
- Available in single GND and double GND
- UL94V-0 high temperature LCP material
- Scoop-proof housings
- Lead-free and RoHS compliant

#### **BENEFITS**

- Meets SAS 4.0 and PCIe<sup>®</sup> Gen 5 standards
- Application flexibility
- Design flexibility
- With-stand harsh environment
- Enables easy manual assembly
- Meets environmental, health and safety requirements

## **TECHNICAL INFORMATION**

#### MATERIAL

- Housing: Glass filled LCP (UL94V-0, MSL level 1)
- Contact Base Metal
  - Receptacles: Copper alloy, high spring
  - Headers: Copper alloy
- Plating:
  - Solder area finish in matte pure tin over nickel
- Contact area plating gold

#### **ELECTRICAL PERFORMANCE**

- Current Rating: 0.8A per contact
- Contact Resistance: 50mΩ max.
- Signal Integrity for SAS 4.0
- Data Rate: up to 24Gb/s
- Multiline Crosstalk: < 0.5% at 20ps (20-80%)</li>
- Differential Impedance: 100 $\Omega$
- Single Ended Impedance: 50 $\Omega$
- Signal Integrity for PCIe® Gen 5
- Data Rate: Up to 32Gb/s
- Multiline Crosstalk: < 0.5% at 15ps (20-80%)
- Differential Impedance:  $85\Omega$
- Single Ended Impedance: 42.5Ω

#### **MECHANICAL PERFORMANCE**

- Durability: 100 cycles
- Mating Force:0.9N max. /contact
- Un-mating Force: 0.1N min. /contact
- Gauge Retention Force: >0.1N

#### **ENVIRONMENTAL**

- Mixed Flow Gas: Duration 7 days
- Vibration Sinusoidal: 11.95g
- Temperature Life : 125°C for 96 hours

## **PART NUMBERS**

Description	Part Numbers
BergStak HS <sup>™</sup> 0.80mm Header 120P	10147614-121406LF
BergStak HS <sup>™</sup> 0.80mm Receptacle 120P	10147613-121406LF

Remark: More options can be extended according to market needs

#### SPECIFICATIONS

Amphenol Product Specification: GS-12-1499

#### PACKAGING

• Tape & Reel

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



Server Storage



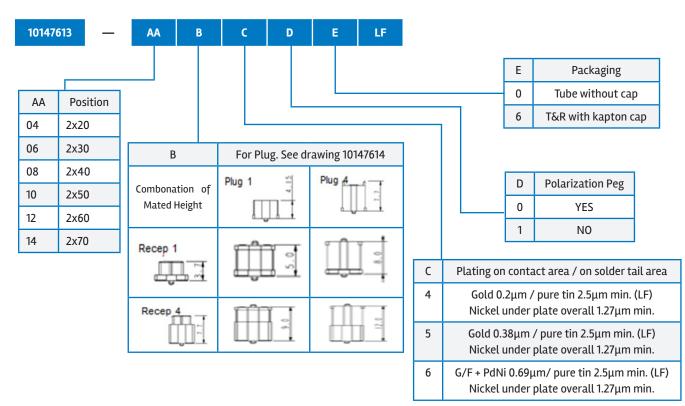
Industrial automation PLC



Medical

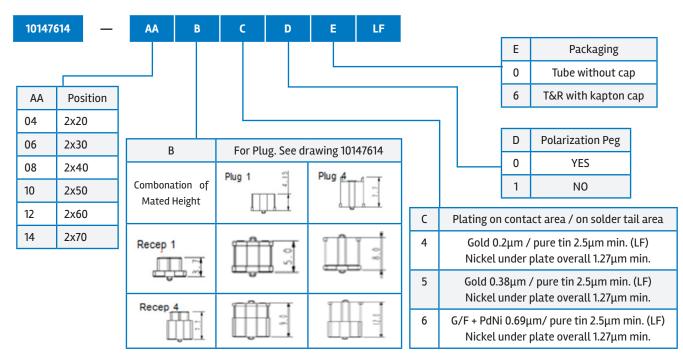
## www.amphenol-icc.com

#### Disclaimer



### **PART NUMBER SELECTOR**

Remark: More options can be extended according to market needs



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Authorized Distributor

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