BergStak HS™ 0.80mm Board-to-Board Connector

FLEXIBLE SOLUTION FOR HIGH SPEED APPLICATION

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

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

TARGET MARKETS

FEATURES

<table>
<thead>
<tr>
<th>FEATURES</th>
<th>BENEFITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>High speed performance up to 32Gb/s</td>
<td>Meets SAS 4.0 and PCIe® Gen 5 standards</td>
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<tr>
<td>120 positions, with options from 40 to 140</td>
<td>Application flexibility</td>
</tr>
<tr>
<td>5mm stack height, with options for 5mm and 12mm</td>
<td>Design flexibility</td>
</tr>
<tr>
<td>Available in single GND and double GND</td>
<td>With-stand harsh environment</td>
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<tr>
<td>UL94V-0 high temperature LCP material</td>
<td>Enables easy manual assembly</td>
</tr>
<tr>
<td>Scoop-proof housings</td>
<td>Meets environmental, health and safety requirements</td>
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<tr>
<td>Lead-free and RoHS compliant</td>
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www.amphenol-icc.com
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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%)
  - Differential Impedance: 100Ω
  - Single Ended Impedance: 50Ω
- Signal Integrity for PCIe® Gen 5
  - Data Rate: Up to 32Gb/s
  - Multiline Crosstalk: < 0.5% at 15ps (20–80%)
  - Differential Impedance: 85Ω
  - 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

<table>
<thead>
<tr>
<th>Description</th>
<th>Part Numbers</th>
</tr>
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<tbody>
<tr>
<td>BergStak HS™ 0.80mm Header 120P</td>
<td>10147614–121406LF</td>
</tr>
<tr>
<td>BergStak HS™ 0.80mm Receptacle 120P</td>
<td>10147613–121406LF</td>
</tr>
</tbody>
</table>

Remark: More options can be extended according to market needs
PART NUMBER SELECTOR

BergStak HS™ 0.80mm Board-to-Board Connector

PART NUMBER SELECTOR

10147613

AA | B | C | D | E | LF
---|---|---|---|---|---
AA | Position
04 | 2x20
06 | 2x30
08 | 2x40
10 | 2x50
12 | 2x60
14 | 2x70

B For Plug. See drawing 10147614

Combination of Mated Height

Recep 1

Recep 4

For Plug. See drawing 10147614

Remark: More options can be extended according to market needs

10147614

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