BergStak® 0.50mm Self-Alignment Board-to-Board Connector

FINE PITCH SOLUTION WITH SELF-ALIGNMENT FEATURE

The BergStak® 0.50mm self-alignment connectors come with a unique self-alignment feature that allows customers to use in the applications which needs blind mating. It can support ±0.85mm in pitch direction and ±1.29mm in width direction.

The 0.50mm fine pitch design supports high signal density applications where space is a constraint.

Scoop-proof housings ensure terminals are not damaged during mating and thus can minimize the contact damage with improving the manufacturing quality.

BergStak® 0.50mm self-alignment connector currently has a stack height of 3mm on 50 positions, and positions are extendable from 20 to 60 upon request.

- 0.50mm fine pitch
- Self-alignment feature supporting blind mating
- Suitable for parallel board stacker applications
- Scoop-proof feature

TARGET MARKETS

FEATURES

- Self-alignment feature
- 50 positions available, extendable from 20 to 60 positions in increments of 10
- Scoop-proof housings
- 0.50mm double row contacts
- Vertical mating configuration
- UL94V-0 high temperature LCP material
- RoHS compliant, halogen and lead free

BENEFITS

- Supports blind mating and automatic assembly cost effectively
- Application flexibility
- Prevents terminal mating damage
- High density connector, suitable for applications with space constraints
- Suitable for parallel board stacker applications
- High flammability rating
- Meets health, safety and environment requirements
TECHNICAL INFORMATION

MATERIAL

- Housing: High temperature thermoplastic LCP, black (UL94V-0)
- Terminal base material
  - Receptacles: Copper alloy
  - Headers: Copper alloy

ELECTRICAL PERFORMANCE

- Current Rating: 0.5A per contact
- Voltage Rating: 100V AC
- LLCR:
  - Initial: 30mΩ max.
  - After test: 50mΩ max.
- Insulation Resistance: 1000MΩ min.
- Support speed PCIe Gen1 with 2.5Gb/s

MECHANICAL PERFORMANCE

- Durability: 50 cycles.
- Mating Force: 0.8N max. per contact
- Un–mating Force: 0.15N min. per contact
- Contact Retention Force: 1N min. per contact

ENVIRONMENTAL

- Operating temperature Range: –40°C ~ 125°C
- Salt Spray Test: 5±1% salt concentration 48±4 hours 35±2°C

SPECIFICATIONS

- Product Specification: GS–12–1298

PACKAGING

- Tape & Reel

TARGET MARKETS/APPLICATIONS

- Automotive Camera
- 5G AAU
- Home Automation
- IoT Devices
- Factory Automation Camera
- Embedded Computer
PART NUMBER SELECTOR – RECEPTACLE

10156000 — AA B C D E LF

AA Position
02 20
03 30
04 40
05 50
06 60

B Description
1 Receptacle 1 for 3mm mating height

C Plating Option
1 Contact Area: 2μin Au over 15μin min. Pd-Ni
Solder Area: 2μin min. Au

D Locator Hold Down
0 NO NO

E Package
0 Tape and Reel w/o Cap

PART NUMBER SELECTOR – HEADER

10156001 — AA B C D E LF

AA Position
02 20
03 30
04 40
05 50
06 60

B Description
1 Header 1 for 3mm mating height

C Plating Option
1 Contact Area: 2μin Au over 15μin min. Pd-Ni
Solder Area: 2μin min. Au

D Locator Hold Down
0 NO NO

E Package
0 Tape and Reel w/o Cap

PART NUMBERS

<table>
<thead>
<tr>
<th>Description</th>
<th>Part Numbers</th>
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<tbody>
<tr>
<td>BergStak® 0.50mm Self-Alignment BTB Conn, Vertical Receptacle, 50 Positions</td>
<td>10156000–051100LF</td>
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Remark: More options can be extended according to the market needs