

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 $\pm 0.85\text{mm}$ in pitch direction and $\pm 1.29\text{mm}$ 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

| Description | Part Numbers |
|---|-------------------|
| BergStak® 0.50mm Self-Alignment BTB Conn, Vertical Receptacle, 50 Positions | 10156000-051100LF |
| BergStak® 0.50mm Self-Alignment BTB Conn, Vertical Header, 50 Positions | 10156001-051100LF |

Remark: More options can be extended according to the market needs