

# 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

<b>10156000</b>		—	<b>AA</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>LF</b>
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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

<b>10156001</b>		—	<b>AA</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>LF</b>
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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

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