

BergStak® Secure Connector

HIGH SECURITY/HIGH DENSITY/ HIGH SPEED/HYBRID BOARD-TO-BOARD CONNECTOR

The BergStak® Secure connector family contains one-time-use and multi-times-use solutions to support customers' different needs on connection security. The family now contains variants with 3-row and 4-row contacts with 37 columns per row, and it can be extended in both (10)row and (100)column direction based on customer requirements, to fulfill high pin count/high signal density requirements.

With open-pin-assignment (GND/Signal) data rates reach up to 32Gb/s. The optional shields improve EMI performance and support power transmissions, making it a hybrid solution.

- Optional shields to enhance EMI performance and support power transmission
- Meets high pin count/high signal density requirements
- Dual-beam receptacle contacts ensure reliable connection
- Compliant to USCAR-2 standards
- Open-pin-assignment (GND/Signal) with up to 32Gb/s data transmission speed

FEATURES

- Optional Shielding
- High speed performance up to 32Gb/s Compliant to PCIe® Gen 5
- Dual-beam receptacle contacts
- Multi row and multi column contacts
- Blind-mating features
- One-Time-Use option with tamper-resistant screw and terminal, along with shield lock feature
- Polarization feature and locating pegs
- Mylar on top surface and packed in Tape&Reel



TARGET MARKETS



BENEFITS

- Shielding enhance EMI performance and support power transmission
- Unshielded version meets high signal density, high speed and high reliability with reduced cost
- Ideal for high-end data communication, medical technology and industrial automation segments
- Provides high electrical reliability and withstands high level of vibration
- Design flexibility to meet high pin count/high signal density requirements
- Suitable for connections where visual and tactile tools are compromised during mating process
- Suitable for applications where security is a top priority
- Avoids reverse mating, and easier to locate on board
- Support auto assembly process

TECHNICAL INFORMATION

MATERIAL

- Housing: High temperature thermoplastic LCP, black (UL94V-0)
- Terminal: Copper alloy, high spring
- Plating: Gold / GXT on contact area, and tin plating on soldering tail

ELECTRICAL PERFORMANCE

- Current Rating: 1A per contact; 10A per shield
- Insulation Resistance: $1 \times 10^{10} \Omega$ min.
- Voltage Rating: 100V AC
- LLCR: $4 \text{ m}\Omega$ max.
- Data Rate: Up to 32Gb/s

MECHANICAL PERFORMANCE

- Mating and Un-mating Force: 1N max./contact
- Durability: 200 cycles for multi-times-use option
- Mechanical Shock and Vibration: USCAR-2 V2

ENVIRONMENTAL

- Operating Temperature Range: -55°C to $+105^{\circ}\text{C}$
- Mixed Flowing Gas Corrosion: IEC 60512-11-7, Class -IIA

APPROVALS AND CERTIFICATIONS

- UL E66906

SPECIFICATIONS

- Product Specification: GS-12-1607

PACKAGING

- Tape & Reel

TARGET MARKETS/APPLICATIONS



Autonomous Driving



Mobile Networks

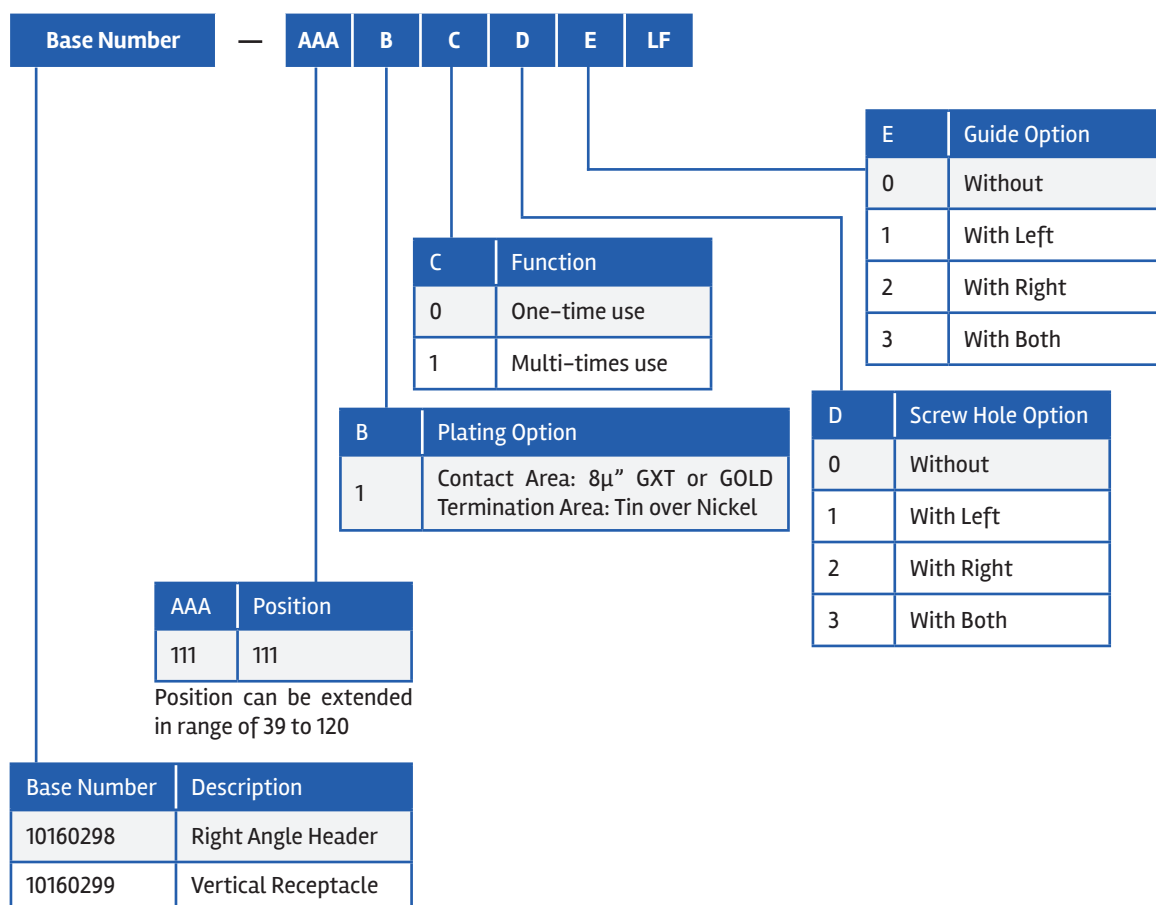


Server/Storage



Factory Automation

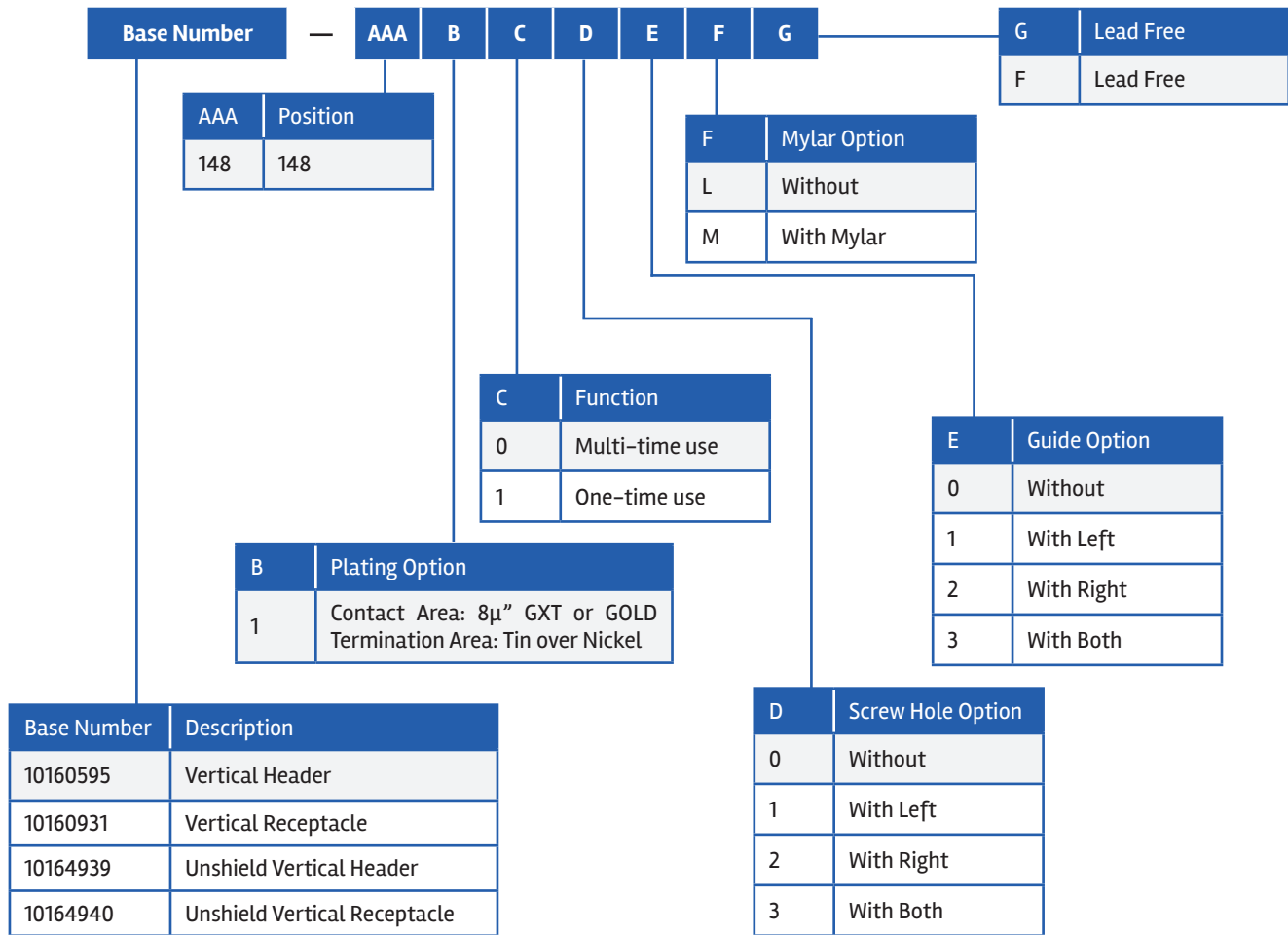
PART NUMBER SELECTOR – 3 ROW SECURE CONNECTOR



PART NUMBER

Description	Series
BergStak® Secure Connector, Right Angle Header, 3x37positions, Multi-times use, Left Screw hole, Left Guide	10160298-1111011LF
BergStak® Secure Connector, Right Angle Header, 3x37positions, Multi-times use	10160298-1111000LF
BergStak® Secure Connector, Right Angle Header, 3x37positions, Multi-times use, Right Guide	10160298-1111002LF
BergStak® Secure Connector, Right Angle Header, 3x37positions, One-time use, Left Screw hole, Left Guide	10160298-1111111LF
BergStak® Secure Connector, Right Angle Header, 3x37positions, One-time use	10160298-1111100LF
BergStak® Secure Connector, Right Angle Header, 3x37positions, One-time use, Right Guide	10160298-1111102LF
BergStak® Secure Connector, Vertical Receptacle, 3x37positions, Left Guide	10160299-1111001LF
BergStak® Secure Connector, Vertical Receptacle, 3x37positions	10160299-1111000LF
BergStak® Secure Connector, Vertical Receptacle, 3x37positions, Right Guide	10160299-1111002LF

PART NUMBER SELECTOR– 4 ROW SHIELD/UNSHIELD SECURE CONNECTOR



PART NUMBER

Description	Series
BergStak® Secure Connector, 4 row, 148position, Left guide, Header	10160595-1481001LF
BergStak® Secure Connector, 4 row, 148position, Right guide, Header	10160595-1481002LF
BergStak® Secure Connector, 4 row, 148position, Left guide, Receptacle	10160931-1481001LF
BergStak® Secure Connector, 4 row, 148position, Right guide, Receptacle	10160931-1481002LF
BergStak® Unshielded Secure Connector, 4 row, 148position, Right guide, Receptacle	10164940-1481002LF
BergStak® Unshielded Secure Connector, 4 row, 148position, Right guide, Header	10164939-1481022LF
BergStak® Unshielded Secure Connector, 4 row, 148position, Left guide, Receptacle	10164940-1481001LF
BergStak® Unshielded Secure Connector, 4 row, 148position, Left guide, Header	10164939-1481011LF
BergStak® Unshielded Secure Connector, 4 row, 148position, No guide, Receptacle	10164940-1481000LF
BergStak® Unshielded Secure Connector, 4 row, 148position, No guide, Header	10164939-1481000LF