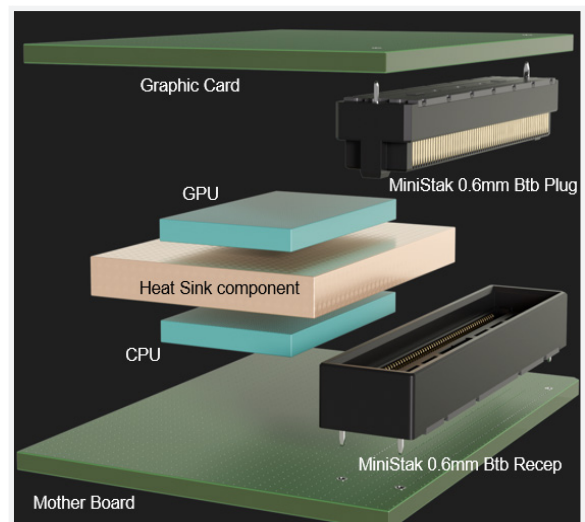


# MiniStak High Density High Speed 0.6mm Board-to-Board Connector

Amphenol has developed a product series of MiniStak high-density and high-speed board-to-board connectors on a 0.6mm pitch, performing to PCIe Gen5 SI with road map to PCIe Gen6. It supports stack heights of 5.0mm, 7.5mm, and 10.0mm. These connectors support the operating current rating at 0.5A per signal contact and 1.1A per power contact.

The product series has connector pin counts ranging from 40pos to 400pos at an increment of 40pos with road map up to 1000pos. And it is with multiple rows of BGA terminations from 4-rows to 10-rows. Withstanding up to 60 times mating cycles, these connectors are engineered for a wide range of high-reliability applications and demanding environments.

This high-density connector system saves space on the PCB and is highly suitable for high-density applications in data, embedded systems, medical, and communication markets, and is specifically designed to address the ever-increasing performance demands and bandwidth needs of new and upcoming applications.



## FEATURES

- Higher bandwidth up to PCIe Gen5 SI with road map to PCIe Gen6
- Fine pitch of 0.60mm
- Scalable pin count from 40pos to 400pos at the incremental of 40pos with road map up to 1000pos.
- Three stack height variations
- Operating current rating at 0.5A per signal contact and 1.1A per power contact (with 24 contacts energized)
- RoHS compliant and lead-free
- The connector pairs can withstand 50G mechanical shock

## BENEFITS

- To give an extra-long application life cycle without data transfer rates as bottlenecks
- To allow smaller PCB estate area
- To accommodate a variety of design and application needs
- Provide feasibility of stack height to cater to different applications
- Allows high current application by energizing more pins
- Meets environmental, health, and safety requirements
- Allows applications in the critical working environment

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### TECHNICAL INFORMATION

#### MATERIAL

- Terminal: Copper Alloy
- Housing: Glass filled, High temperature Resin, UL94-V0 compliant
- Plating: 30µin min. Au on contacts over 50µin min. Nickel
- Solder Spheres: Lead-free Alloy

#### ELECTRICAL PERFORMANCE

- Operating Current: Rating at 0.5A per signal contact and 1.1A per power contact (with 24 contacts energized)
- Operating Voltage Rating: Less than 30VDC
- Insulation Resistance: Above 1000MΩ

#### MECHANICAL PERFORMANCE

- Mating Force: Shall not exceed 0.42N per contact
- Un-mating Force: Shall be not less than 0.09N per contact
- Durability: 60 mating cycles
- Mechanical Shock: The pair can withstand up to 50G

#### PACKAGING

- Tape and Reel

#### ENVIRONMENTAL

- Thermal Shock: In accordance to EIA-364-32
- Mechanical Shock: In accordance to EIA-364-27
- Mixed Flowing Gas: In accordance to EIA 364-65
- Operating Temperature Range: -55°C to +85°C
- Meets MFG Class IIA

#### APPROVALS & CERTIFICATION

- UL

#### TARGET MARKETS/APPLICATIONS



Laptop & SSD



I&I & Embedded System



Medical

### PART NUMBERS WITH EXTENDED HOUSING WALL

Description	Part Numbers
MiniStak 248pos 0.6mm 7.5mm SH Btb Plug with extended housing wall	10180381-0248011LF
MiniStak 248pos 0.6mm 7.5mm SH Btb Receptacle with extended housing wall	10180382-0248011LF

Find part number details using the search box on [www.amphenol-cs.com](http://www.amphenol-cs.com)

### PART NUMBERS WITHOUT EXTENDED HOUSING WALL

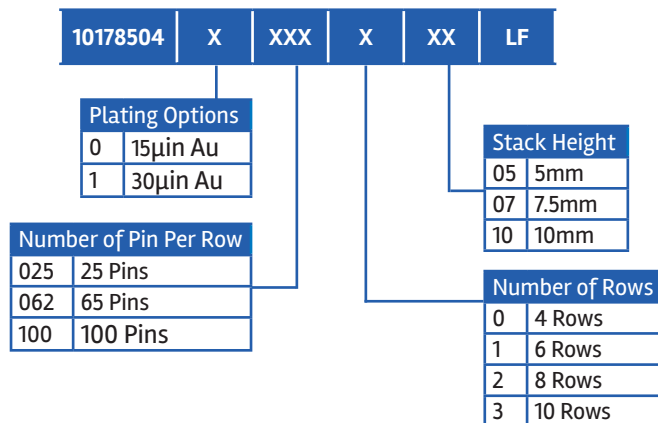
Description	Part Numbers
MiniStak 100pos 0.6mm 5mm SH Btb Plug with 30µin Au	10178504-1025005LF
MiniStak 248pos 0.6mm 5mm SH Btb Plug with 30µin Au	10178504-1062005LF
MiniStak 400pos 0.6mm 5mm SH Btb Plug with 30µin Au	10178504-1100005LF
MiniStak 100pos 0.6mm 5mm SH Btb Receptacle with 30µin Au	10178505-1025000LF
MiniStak 248pos 0.6mm 5mm SH Btb Receptacle with 30µin Au	10178505-1062000LF
MiniStak 400pos 0.6mm 5mm SH Btb Receptacle with 30µin Au	10178505-1100000LF
MiniStak 100pos 0.6mm 10mm SH Btb Plug with 30µin Au	10178504-1025010LF
MiniStak 248pos 0.6mm 10mm SH Btb Plug with 30µin Au	10178504-1062010LF
MiniStak 400pos 0.6mm 10mm SH Btb Plug with 30µin Au	10178504-1100010LF
MiniStak 100pos 0.6mm 10mm SH Btb Receptacle with 30µin Au	10178505-1025000LF
MiniStak 248pos 0.6mm 10mm SH Btb Receptacle with 30µin Au	10178505-1062000LF
MiniStak 400pos 0.6mm 10mm SH Btb Receptacle with 30µin Au	10178505-1100000LF

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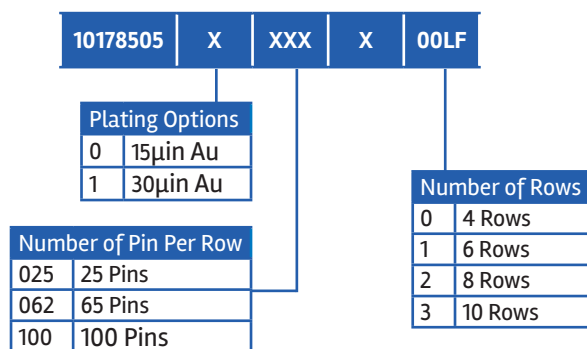
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### PART NUMBER SELECTOR

#### A – PLUG



#### B – RECEPTACLES



SS10MSTKHIDHS061124EA4