



Ideal for the thinnest mobile devices, the SlimStack™ ST6 0.35mm pitch board-to-board connector system offers the smallest overall size of any similar pitch system along with robust features that provide secure mating retention, terminal protection and reliable electrical contact

Molex's new SlimStack ST6 series is an ultra-low-profile 0.35mm pitch board-to-board connector. This makes it ideal for the thinnest and most compact mobile applications such as mobile phones and tablet PCs.

The SlimStack ST6 system also incorporates a variety of robust mechanical and electrical features found in Molex's SlimStack ST7 and other versions to complement its space savings. These include a double friction lock system that helps ensure secure mating retention, which often becomes more of an issue as pitch and height shrink.

Features and Benefits

Ultra-low profile and compact size

Saves space in tight-packaging applications

Sharp-edged terminal design

Removes flux contaminants for improved electrical contact

Metal cover nail

Provides secure PCB retention and protection in the event of zippering-style unmating

Dimple-lock terminal design

Enables secure mating retention force and additional electrical contact assurance

Fitting-nail lock

Provides additional mating retention assurance

Vacuum pick-and-place area on both plug and receptacle

Saves assembly time and expense versus kapton tape

Markets and Applications

- Mobile Device
 - Smart Phone
 - Mobile Phone
 - Tablet PC
 - Portable Audio
 - Portable Game Device
- Digital Still Camera
- Digital Video Camera
- Any compact, handheld device



Smart Phone



Portable Audio Player



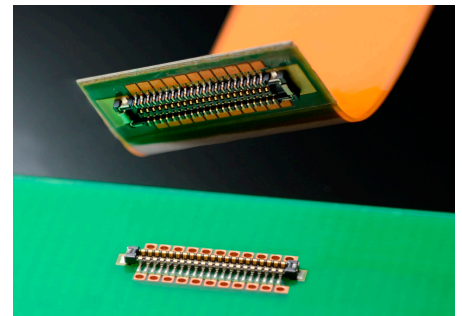
Digital Still Camera



Tablet PC

**SlimStack™ ST6
0.35mm Pitch
SMT Board-to-
Board Connectors
0.60mm Height
1.90mm Width**

504455 Receptacle
504459 Plug



Molex ultra-low-profile SlimStack ST6 connectors



Specifications

REFERENCE INFORMATION

Designed In: mm
Packaging: Embossed Tape
ROHS Compliant: Yes
Halogen Status: Low Halogen

ELECTRICAL

Voltage: 50V max.
Current: 0.3A max.
Contact Resistance:
80 milliohms max.
Dielectric Withstanding Voltage:
250V AC (rms) for one minute
Insulation Resistance:
100 Megohms min.

MECHANICAL

Durability: 30 cycles

PHYSICAL

Housing: LCP, UL 94V-0, black
Contact: Copper Alloy
Plating:
Contact Area – Gold
Solder Tail Area – Gold
Underplating – Nickel
Operating Temperature:
-40 to +85°C

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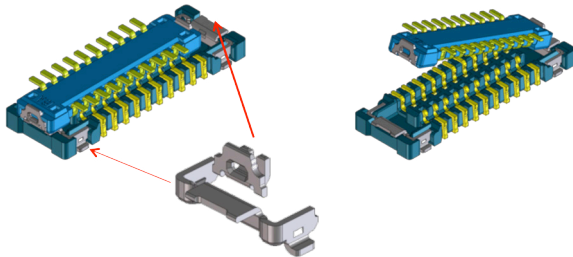
504455 Receptacle

504459 Plug

Additional Features

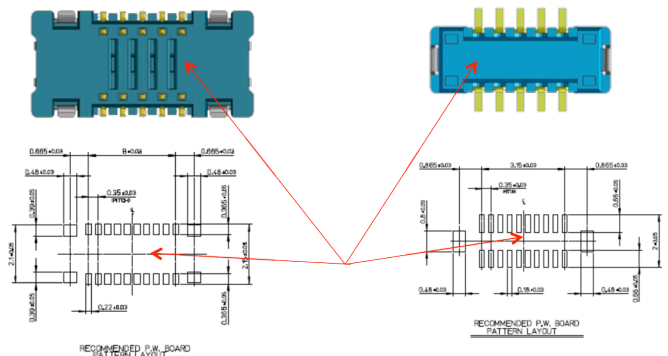
Cover Nail Design

Secure PCB retention and protection against damage in the event of zippering-style unmating



Space-Saving PCB Design

Molded housing wall makes it possible to run tracing patterns underneath for space savings



Ordering Information

Order No.	Type	Circuit Size
504455-4210	Receptacle	42
504459-4210	Plug	42

www.molex.com/slimstack035.html