

Molex's latest 0.70mm height SlimStack connectors include high mating-retention features in order to maintain secure contact even when subjected to high vibration or shock. The connectors were developed for mobile phone makers who wanted to provide extra reliability in situations where the phone may be dropped or handled roughly.

This new version includes two contact friction locks and a nail friction lock that combine to offer superior mating retention. Other features of this new series include a dual-contact terminal design that provides secure electrical contact, a wide housing area to accommodate easy pick-and-place and a common footprint pattern with the standard 503304/503308 version to provide flexibility for connector type and board placement.

## SlimStack™ 0.40mm (.016") Pitch SMT Board-to-Board Connectors, 0.70mm (.028") Height, 2.60mm (.102") Width, High Mating-Retention

503548 Receptacle

503552 Plug

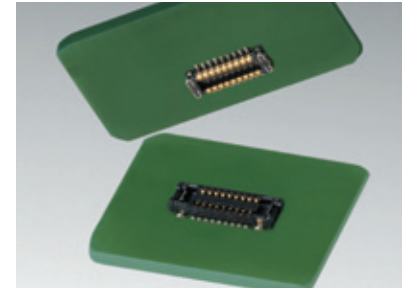
### FEATURES AND BENEFITS

#### Features

- High mating-retention features
- Integral end solder tabs with friction lock feature
- Narrow width, low profile and small pitch
- Space between PCB row patterns
- Nickel barrier plating
- Two-point contact

#### Benefits

- Provide superior mating reliability for high vibration or rugged applications
- Secure PCB retention and additional mating retention
- Space savings for mobile applications
- Allows for signal tracing under middle portion of housing area
- Protects against solder wicking and reduces cost
- Superior electrical contact assurance

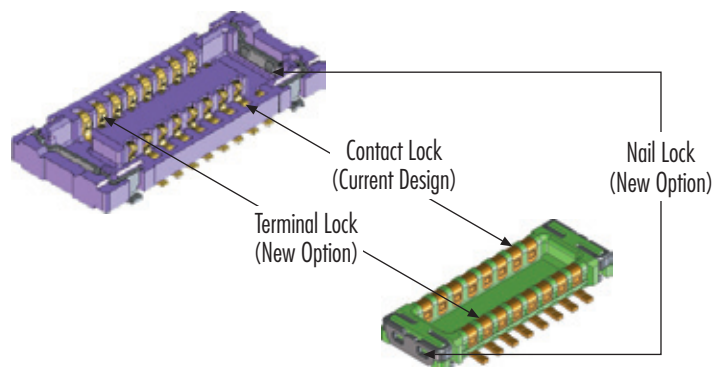


New 503548/503552 connectors with high mating-retention features

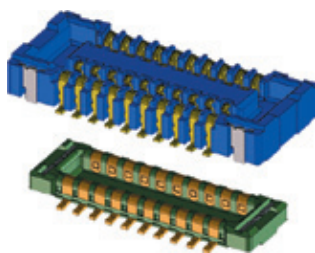
### KEY FEATURES

#### High Mating-Retention Type

Several locking functions combine to offer mating retention up to 48% stronger than Molex's standard 503304/503308 version

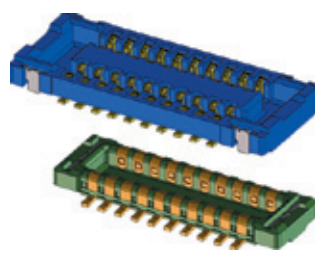


0.70mm/1.00mm Mated Height  
Narrow Body With Dual Contacts

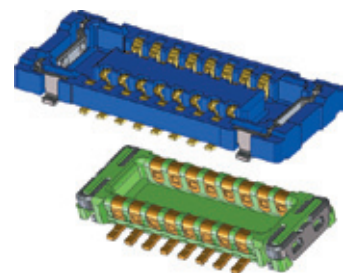


503489/503308  
1.00mm Height

Same plug



503304/503308  
0.70mm Height



503548/503552  
0.70mm Height High Retention

## SPECIFICATIONS

### Reference Information

- Packaging: Embossed
- Designed In: mm
- RoHS: Yes
- Halogen Free: Contact Product Manager for details

### Electrical

- Voltage (max.): 50V
- Current (max.): 0.3A
- Contact Resistance: 80 milliohms max.
- Dielectric Withstanding Voltage: 125V AC
- Insulation Resistance: 100 Megohms min.

### Mechanical

- Durability (min.): 30 cycles

### Physical

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

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(.016") Pitch SMT Board-  
to-Board Connectors,  
0.70mm (.028") Height,  
2.60mm (.102") Width,  
High Mating-Retention**

**503548 Receptacle**

**503552 Plug**

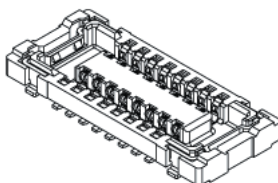
## MARKETS AND APPLICATIONS

- Mobile phones
- Digital still and video cameras
- Tablet PCs
- Navigation equipment
- Portable audio players
- Any compact application



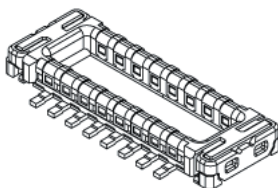
## ORDERING INFORMATION

### PCB Receptacle, High Retention Type



Order No.	Circuit Size
503548-0620	6
503548-1220	12
503548-1420	14
503548-1620	16
503548-1820	18

### PCB Plug, High Retention Type



Order No.	Circuit Size
503552-0620	6
503552-1220	12
503552-1420	14
503552-1620	16
503552-1820	18