SlimStack 0.40mm-Pitch Board-to-Board Connectors, High Retention Force (HRF) Series offer high mating assurance and retention force in a low-profile, multiple-lock design making them an ideal solution for rugged compact applications.

Features and Advantages

- Clear click feeling on mating: Indicates mating confirmation
- Nickel-barrier plating on terminal and fitting nail: Prevents solder flux intrusion
- Rugged lock and dual-contact design: Provides secure electrical contact and mating reliability
- Narrow width, low profile and small pitch: Yields space savings for mobile and compact applications
- Wide range of circuit sizes (6 to 60): Offers design flexibility
- Low-halogen material: Meets environmental considerations

Applications

**Mobile Devices**
- Tablet PCs
- Wearable devices
- Smartphones
- Digital cameras
- Portable audio devices
- POS devices

**Consumer**
- Earbuds
- Gaming devices
- IoT devices
- AR/VR

**Automotive**
- Navigation equipment
- Car Infotainment

**Data/Computing**
- Laptop PCs
- PC accessories

**Line-up**

<table>
<thead>
<tr>
<th>Series Name</th>
<th>Receptacle</th>
<th>Plug</th>
<th>Receptacle</th>
<th>Plug</th>
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<tr>
<td>503548</td>
<td>503552</td>
<td>503304</td>
<td>503308</td>
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<tr>
<td>Circuits</td>
<td>6 to 18</td>
<td>20 to 60</td>
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</table>
SlimStack Board-to-Board Connectors, 0.40mm Pitch, HRF Series

Specifications

**REFERENCE INFORMATION**
Packaging: Embossed tape on reel
Designed In: Millimeters
RoHS: Yes
Halogen Free: Low-halogen

**MECHANICAL**
Pitch: 0.40mm
Mated Height: 0.70mm
Width: 2.60mm
Durability (max.): 30 cycles

**ELECTRICAL**
Voltage (max.): 50V
Current (max.): 0.3A per circuit
Contact Resistance (max.): 80 milliohms
Dielectric Withstanding Voltage: 250V AC
Insulation Resistance (min.): 100 Megohms

**PHYSICAL**
Housing: LCP, UL94V-0, Black
Contact: Copper Alloy
Plating:
- Contact Area – Gold
- Solder Tail Area – Gold
- Underplating – Nickel
Operating Temperature: -40 to +85°C

Dimensions

*Refer to drawing for detail dimension

**HFR 7S Receptacle** (503548 Series)

**HFR 7L Receptacle** (503304 Series)

**HFR 7S Plug** (503552 Series)

**HFR 7L Plug** (503308 Series)

**Ordering Information**

<table>
<thead>
<tr>
<th>Series Name</th>
<th>Part Number</th>
<th>Mated Height (mm)</th>
<th>Mated Width (mm)</th>
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<td>Plug</td>
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XX: Number of circuits