Ironwood ELECTRONICS

Board-to-Board Connectors for High Speed Applications

Connectors using spring pin contact technology provide up to 50GHz signal speed in a smallest footprint for prototype and production applications. These rugged interconnects utilize our laser-and-laminate process for rapid development and short lead-times, without expensive hard tooling. Connectors support pitches from 0.4mm to 1.27mm.

FEATURES AND BENEFITS

<table>
<thead>
<tr>
<th>Feature</th>
<th>Benefit</th>
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<tbody>
<tr>
<td>Shortest Contact</td>
<td>Highest bandwidth applications - 50GHz</td>
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<tr>
<td>Dual Spring Contact</td>
<td>Low contact resistance - 20mOhms</td>
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<td>Laminated Substrate</td>
<td>No internal hardware - small footprint allows to be placed in location where conventional molded connectors obstruct</td>
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<td>Laser Cut Substrate</td>
<td>Precise contact location - 25 micron positional tolerance</td>
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<td>Soft Tool</td>
<td>Configurable stack height and location</td>
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3D MODEL

www.ironwoodelectronics.com
**SPECIFICATIONS**

### Mechanical
- Force per contact: 8 grams to 30 grams
- Life cycles: >50 K
- Contact length (@test): 1.0 mm to 6.0 mm

### Electrical
- Insertion loss $S_{21}$$\pm$1dB: up to 50 GHz
- Return loss $S_{11}$$\pm$15dB: up to 50 GHz
- Self inductance: 0.28 nH
- Mutual inductance: 0.08 nH
- Mutual capacitance: 0.02 pF
- Impedance: 55 Ohms
- Time delay: 6.6 ps
- Current carrying capacity: 1.8 A
- Contact resistance: 20 mOhms

### Material
- Operating temperature: -55°C to +180°C
- Housing: Laminated Polyimide (Cirlex®)
- Contact: BeCu Plunger with SS spring

**PERFORMANCE**

- Insertion loss $S_{21}$
- Return loss $S_{11}$
- Smith Chart for the thru measurement into a 50 Ohm probe
- Temperature rise as a function of drive current