DaVinci 45G
Test Socket

Co-axial Impedance controlled socket for high speed solution
Features & Benefits

DaVinci Technology
- Improved coaxial socket
- Proprietary insulated metal socket
- Spring probe simplicity
- Easily configurable
- Field maintainable
- Patent pending

Superior Durability
- Entire signal path shielded
- Insensitive to temperature and humidity
- Extreme rigidity (very low deflection rate)

Quality Material and Unique Design
- Proprietary patent insulated metal [IM] body
- IM or engineering plastic IC package alignment guide option
- Customized foot print
- Customized component clearance at the bottom side of the socket

Excellent Thermal Property
- Metal socket with efficient heat transfer
- Additional air channel options
- High current carrying capacity

Single-ended Probe
- Single-ended probe with long compliance
- Long lasting stable Co-Axial structure for high speed signals
- Efficient grounding

The Next Generation of Test Solutions

Smiths Interconnect, a leading supplier of high reliability test solutions, is introducing the DaVinci 45G test socket to our technology portfolio. DaVinci 45G test socket is the best Co-Axial socket for reliable high speed test in its class to meet the growing demands of high-speed data transfer and process. The patented technology provides the superior electrical performance and the new structure provides low power inductance, higher current carrying capacity and lower contact resistance. Smiths Interconnect’s highly capable lab and engineering facility can ensure design validation, RF measurements, custom electrical and mechanical simulations.

Smiths Interconnect’s best-in-class engineering, test development expertise and commitment to excellence allow us to continuously invest in innovative technologies and solutions for the testing requirements of next generation devices.

Market
- Communication
- Computer
- Automobile
- Defense
- Industrial | Medical
- Game consoles
- AI & Deep learning

Mechanical Performance

- Supper rigid IM material provides least deflection

<table>
<thead>
<tr>
<th>Material</th>
<th>IM Material</th>
<th>PEEK Ceramic</th>
<th>MDS-100</th>
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</thead>
<tbody>
<tr>
<td>Max Deflection</td>
<td>0.009mm</td>
<td>0.085mm</td>
<td>0.046mm</td>
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Technical Characteristics

Mechanical & Environmental

<table>
<thead>
<tr>
<th></th>
<th>&gt;0.7 mm</th>
<th>0.65 mm</th>
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<tbody>
<tr>
<td>Minimum Pitch</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Compliance / Travel</td>
<td>0.50 mm</td>
<td>0.40 mm</td>
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<tr>
<td>Operating Temperature</td>
<td>-55 to 120°C</td>
<td></td>
</tr>
<tr>
<td>Life Span</td>
<td>&gt;200,000</td>
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Electrical

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>Loop Inductance</td>
<td>0.2 nH</td>
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<tr>
<td>Mutual Capacitance</td>
<td>0.15 pF</td>
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<tr>
<td>Contact Resistance</td>
<td>80 mΩ</td>
<td></td>
</tr>
<tr>
<td>Current Capacity</td>
<td>3.0 A</td>
<td></td>
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<tr>
<td>Bandwidth</td>
<td>45 GHz / 26 Gbps</td>
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Bandwidth & Frequency Response

- Insertion Loss (S21): 40GHz @ -1 dB
- Return Loss (S11): 40GHz @ -10 dB

Contact Resistance

- Signal pin
- Power & Ground
Global Support

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