75 Ohm SMB Plug Precision Load

<table>
<thead>
<tr>
<th>VSWR &amp; FREQ. RANGE</th>
<th>GOLD PLATED</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.05 + .01f (GHz)</td>
<td>0-2GHz</td>
</tr>
</tbody>
</table>

INCHES (MILLIMETERS) CUSTOMER DRAWINGS AVAILABLE UPON REQUEST
Mini-75 Ohm SMB Connectors

Specifications

ELECTRICAL RATINGS
Impedance: 75 ohms
Frequency Range: 0-2 GHz
VSWR: t = GHz

<table>
<thead>
<tr>
<th>Connector Type</th>
<th>Nominal VSWR (dB)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Straight cabled connectors</td>
<td>1.25 + 0.4f</td>
</tr>
<tr>
<td>Right angle cabled connectors</td>
<td>1.35 + 0.4f</td>
</tr>
<tr>
<td>Adapters</td>
<td>1.20 + 0.4f</td>
</tr>
<tr>
<td>Type N Adapters</td>
<td>1.05 + 0.1f</td>
</tr>
<tr>
<td>Matching pad 50 ohm/75 ohm</td>
<td>1.05 + 1.1f</td>
</tr>
<tr>
<td>Loads</td>
<td>1.05 + 0.1f</td>
</tr>
<tr>
<td>Uncabled receptacles, opens, shorts</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Dielectric Withstanding Voltage: (VRMS minimum at sea level)†
Connectors for RG-179, RG-59, Belden 735A, uncabled receptacles, adapters ... 335 Vrms
Open, shorts, loads, matching pad ... N/A

Dielectric Withstanding Voltage: (VRMS minimum at sea level)†
Connectors for RG-179, RG-59, Belden 735A, uncabled receptacles, adapters ... 1000 Vrms
Open, shorts, loads, matching pad ... N/A

Corona Level: (Volts minimum at 70,000 feet)†
Connectors for RG-179, RG-59, Belden 735A ... 250 Vrms
Uncabled receptacles, adapters, open, shorts, loads, matching pad: N/A

Electrical Length: Open + 1.5° (+5.2° relative to short)
Short + 1.5° (+5.2° relative to open)
Adapters + 5.2° (N/A for Jack-Bulkhead Jack and N Types)

Insertion Loss: (dB maximum, tested at 1.5 GHz)
Straight cable connectors ... 0.30 dB
Right angle cable connectors ... 0.60 dB
Matching pad ... 6 dB nominal
Uncabled receptacles, adapters, open, shorts, loads, matching pad ... N/A

Insulation Resistance: 1000 megohms minimum
Contact Resistance: (milliohms maximum) Initial After Environmental

Center contact (straight cabled connectors, uncabled receptacles, opens, shorts, loads) ... 6.0 8.0 8.0
Center contact (right angle cabled connectors and adapters) ... 12.0 16.0 12.0
Outer contact (gold plated connectors) ... 1.5 1.5 1.5
Outer contact (nickel plated connectors) ... 2.5 3.5 2.5
Braid to body (gold plated connectors) ... 2.5 N/A 2.5 N/A
Braid to body (nickel plated connectors) ... 2.5 N/A 2.5 N/A

RF Leakage: (dB minimum tested at 2.5 GHz)
Uncabled receptacles, adapters opens, shorts, loads, matching pad ... -55 dB

RF High Potential Withstanding Voltage: (Vrms minimum, tested at 4 and 7 MHz)†
Connectors for RG-179, RG-59, Belden 735A ... 700 Vrms
Uncabled receptacles and adapters ... 600 Vrms
Open, shorts, loads, matching pad ... N/A

Power Rating: (Loads and matching pad only) 1.0 watt at +25°C derated linearly to .5 watt at +125°C

MECHANICAL RATINGS

Engagement Design: MIL-C-39012, Series SMB
Engagement/Disengagement Force: 2 pounds minimum to 14 pounds maximum axial force
Contact Retention: 4 lbs. minimum axial force (captivated contacts)
1 inch-ounce minimum torque (uncapped receptacles)
Cable Retention: Axial Force* (pounds) (in-lb)
Connectors for RG-179, Belden 735A ... 20 N/A
Connectors for RG-59 ... 40 N/A

* or cable breaking strength whichever is less.
Durability: 500 cycles minimum

ENVIRONMENTAL RATINGS (Meets or exceed the applicable paragraph of MIL-C-39012)
Temperature Range: -65°C to +165°C -- Connectors and adapters
-65°C to +125°C -- Loads, matching pad
20°C to 28°C -- Opens, shorts

Thermal Shock: MIL-STD-202, Method 107, Condition B
(N/A opens, shorts, loads, matching pad)

Corrosion: MIL-STD-202, Method 101, Condition B
(N/A opens, shorts, loads, matching pad)

Shock: MIL-STD-210, Method 213, Condition B
(N/A opens, shorts, loads, matching pad)

Vibration: MIL-STD-202, Method 204, Condition B
(N/A opens, shorts, loads, matching pad)

Temperature Coefficient: (Loads only) +300 ppm/°C

MATERIAL SPECIFICATIONS
Bodies: Brass per QQ-B-626, gold plated** per MIL-G-45204 .00001" min.
N type adapters stainless steel per QQ-S-763, passivated per MIL-F-14072
Contacts: Male & Female - beryllium copper per QQ-C-530, gold plated per MIL-G-45240 .00003" min.
Insulators: PTFE fluorocarbon per ASTM D 1710 and ASTM D 1457
Expansion Caps: Brass per QQ-B-613, gold plated per MIL-G-45204 .00001" min. or nickel plated per QQ-N-290
Crimp Sleeves: Copper per WW-T-799, gold plated per MIL-G-45204 .00001" min. or nickel plated per QQ-N-290
Mounting Hardware: Brass (nuts) per QQ-B-626 or phosphor bronze (lockwashers) QQ-B-750, gold plated per MIL-G-45204 .00001" min. or nickel plated per QQ-N-290

MATING ENGAGEMENT FOR MINI-75 OHM SMB SERIES (INTERMATUREABLE WITH STANDARD 50 OHM SMB)

NOTES:
1. ID of contact to meet VSWR, mating characteristics and connector durability when mated with a dia .011-.021 (.488/0.53) male contact.
2. Must meet the force to engage and disengage when mated with mating part.

*All gold plated parts include a .00005" min. nickel underplate barrier layer.
†Avoid user injury due to misapplication. See safety advisory definitions inside front cover.