**Amphenol® High Frequency Contacts**

Amphenol and SV Microwave (an Amphenol company) offer DC to 40 GHz high frequency size 8, 12 and 16 coaxial contacts for the D38999 Series III housing and standard inserts. These contacts allow any application to continue to use the D38999 connector and be able to expand the use to include the microwave transmission lines. Features include:

- Superior electrical performance and high frequency capability
- Blindmate advantage and maintenance of an accurate phase length when mated
- Can be terminated to a multiple of cable types depending on the application
- Uses standard interfaces based on MIL-STD-348, and can be installed in any MIL-DTL-38999 size 8, 12 or 16 insert
- Unique “Float Mount” technology allows for consistent microwave performance while maintaining tight mechanical tolerances

**HIGH FREQUENCY CONTACTS**

### SPECIFICATIONS

**Electrical**

- Impedance: 50Ω
- Frequency Range: DC - 40 GHz
- VSWR: 1.05 ± 0.01 (freq. GHz)
- Insertion Loss: 0.03 dB (freq. GHz)
- Insulation Resistance (Min.): 10,000 MΩ
- Contact Resistance (Max.):
  - Center conductor: 6.0 mΩ
  - Outer conductor: 3.0 mΩ
  - Outer to cable: 0.5 mΩ
-Dielectric Withstanding Voltage: 1,000 VRMS
- Corona Extinction Voltage: 250 VRMS
- RF High Potential Voltage: 500 VRMS
- RF Leakage: - (80-freq. GHz)

**Materials and Finish**

- Body and Sleeve: Stainless steel per AMS-5640 Alloy UNS S30300 Type 1
- Ferrule: Brass per ASTM B16, Alloy UNS C36000
- Contact & Lock Ring: Beryllium copper per ASTM B196 Alloy UNS C36000, Td04
- Insulator: PTFE per ASTM D1710, Type 1, Grade 1, Class B
- Spring: Stainless steel per ASTM A313 Type 631
- Rear Body & Contacts: Gold per ASTM B488 Type II, Code C, Class 1.27; over Nickel per AMS-QQ-N-290 Class 1 (60µ inches); over Copper per MIL-C-14550 (10µ inches); Passivated per AMS-2700, Type 2

### HIGH FREQUENCY COAX CONTACTS FOR USE IN D38999, SERIES III CONNECTORS

<table>
<thead>
<tr>
<th>High Frequency Amphenol Part Number (Termination Instruction Sheet)</th>
<th>Interface</th>
<th>Frequency</th>
<th>For use with Cable</th>
<th>Type</th>
<th>Cavity Size</th>
<th>Piggyback Grommet</th>
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<tbody>
<tr>
<td>20-033449-01HF (300-17-008)</td>
<td>BMZ</td>
<td>40 GHZ</td>
<td>T-FLEX-405</td>
<td>Socket</td>
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<td>20-033321-007</td>
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<td>BMZ</td>
<td>12 GHZ</td>
<td>RG-400/RG-142</td>
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<td>20-033321-009</td>
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<td>20-033448-02HF (300-89-009)</td>
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<td>T-FLEX-402</td>
<td>Socket</td>
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<td>20-033321-010</td>
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<td>20-033321-007</td>
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<td>20-033448-04HF (300-89-002)</td>
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<td>26.5 GHZ</td>
<td>T-FLEX-402</td>
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<td>BMZ</td>
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<td>LMR-240-75</td>
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<td>SMPM</td>
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<td>SMPS</td>
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<td>Socket</td>
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</tbody>
</table>

### Environmental

- Temperature Range: -65°C to +125°C
- Corrosion (Salt Spray): MIL-STD-202, Method 101, Condition B
- Vibration: MIL-STD-202, Method 204, Condition D, 20 Gs
- Shock: MIL-STD-202, Method 213, Condition 1, 100 Gs
- Thermal Shock: MIL-STD-202, Method 107, Condition B, -65°C to +125°C
- Barometric Pressure (Altitude): MIL-STD-202, Method 105, Condition C, 70,000 ft.