

38999
III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

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



Subminiature MIL-DTL-38999 Series III Connector with Size 8 High Frequency Contacts

HIGH FREQUENCY CONTACTS

SPECIFICATIONS

Electrical

(Mated pair size 8 - RG 405 Semi-Rigid Cable)

| | |
|---------------------------------|------------------------|
| Impedance | 50 Ω |
| Frequency Range | DC - 40 GHz |
| VSWR | 1.05 ±0.01 (freq. GHz) |
| Insertion Loss | 0.03 (freq. GHz) |
| Insulation Resistance (Min.) | 10,000 M Ω |
| 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 C17300, 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 |

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 Gxs |
| Thermal Shock | MIL-STD-202, Method 107, Condition B, -65°C to +125°C |
| Moisture Resistance | MIL-STD-202, Method 106, Less step 7B |
| Barometric Pressure (Altitude) | MIL-STD-202, Method 105, Condition C, 70,000 ft. |

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

| High Frequency Amphenol Part Number (Termination Instruction Sheet) | Interface | Frequency | For use with Cable | Type | Cavity Size | Piggyback Grommet |
|--|---------------|-----------|---------------------|--------|-------------|-------------------|
| 21-033449-01HF (300-17-008) | BMZ | 40 GHz | TFLEX-405 | Socket | 8 | 21-033321-007 |
| 21-033448-01HF (300-17-008) | | | | Pin | | |
| 21-033449-02HF (300-89-009) | BMZ | 18 GHz | TFLEX-405 | Socket | 8 | 21-033321-007 |
| 21-033448-02HF (300-89-009) | | | | Pin | | |
| 21-033449-03HF (300-89-008) | BMZ | 12 GHz | RG-400/ RG-142 | Socket | 8 | 21-033321-009 |
| 21-033448-03HF (300-89-008) | | | | Pin | | |
| 21-033449-04HF (300-89-002) | BMZ | 18 GHz | TFLEX-402 | Socket | 8 | 21-033321-010 |
| 21-033448-04HF (300-89-002) | | | | Pin | | |
| 21-033449-06HF | BMA | 26.5 GHz | TFLEX-405 | Socket | 8 | 21-033321-007 |
| 21-033448-06HF | | | | Pin | | |
| 21-033449-07HF | BMA | 26.5 GHz | TFLEX-402 | Socket | 8 | 21-033321-010 |
| 21-033448-07HF | | | | Pin | | |
| 21-033449-08HF | BMZ-75 Ohm | 2 GHz | LMR-240-75 | Socket | 8 | 21-033321-008 |
| 21-033448-08HF | | | | Pin | | |
| 21-033449-09HF | SMPM | 65 GHz | TFLEX-405 | Socket | 12 | N/A |
| 21-033448-09HF | | | | Pin | | |
| 21-033449-10HF | SMPS | 65 GHz | 0.047 Dia. Cable | Socket | 16 | N/A |
| 21-033448-10HF | | | | Pin | | |
| 21-033449-11HF | BMZ | 2 GHz | RG179 | Socket | 8 | 21-033321-007 |
| 21-033448-11HF | | | | Pin | | |

HIGH SPEED

Fiber Optics
Contacts Connectors Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix (Pyle)

26500 Pyle

5015 Crimp Rear Release Matrix

22992 Class 1

Back-Shells

Options Others