

# Blindmate Microwave PkZ<sup>®</sup> Contacts

for the Mighty Mouse and Equivalent Housings



## Features and Benefits

- **Size 8** and **12** coaxial contacts for the series 80 Mighty Mouse connector and equivalent housings
- Microwave performance; **DC - 40 GHz**
- Axial mating tolerance up to **0.090"** eliminates the need for full mating
- Lower insertion forces as compared to spring-based contacts
- Simple and reliable PkZ interface
- Can accommodate a wide range of coaxial cables
- Custom designs available
- RoHS compliant

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## Applications

- Commercial Aviation
- Military Aerospace
- Ground Based Defense
- Test and Measurement
- Medical



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# Technical Specifications

## Blindmate Microwave PkZ<sup>®</sup> Contacts

for the Mighty Mouse and Equivalent Housings

### Size 8

#### Materials:

Plug and Receptacle Bodies - Brass per ASTM-B-16  
Insulators - Teflon (PTFE) per ASTM-D-1457  
Male Contact - Beryllium Contact per ASTM-B-196 or Brass per ASTM-B-16  
Female Contact - Beryllium Copper per ASTM-B-196  
Grounding Ring - Beryllium Copper per ASTM-B-196

#### Plating:

Gold per MIL-G-45204  
Copper per MIL-C-14550  
Nickel per QQ-N-290

#### Finishes:

50 $\mu$ " Minimum Gold Over Nickel Other Parts Plated to Meet the Environmental Requirements

#### Mating Characteristics:

Outer Bodies: 3 lbs. Maximum Insertion  
2 oz. Minimum Withdrawal  
Center Contacts: 32 oz. Maximum Insertion  
0.5 oz. Minimum Withdrawal  
Housing Retention: 12 lbs. Minimum  
Axial Mating Tolerance: .090"

#### Electricals:

Frequency Range: DC to 32 GHz  
Impedance: 50 Ohms (75 Ohm - Contact Sales)  
Voltage Rating Straight: 1,000 VRMS  
Voltage Rating Angled: 800 VRMS  
Current Rating: 5 Amps  
Insulation Resistance: 2,000 Megohms Minimum  
Insertion Loss: .06  $\sqrt{f}$  (GHz) dB  
Contact Resistance: Center Contact 5 Milliohms  
Contact Resistance: Outer Contact 3 Milliohms  
VSWR: Configuration Dependent  
RF Leakage: -90 dB Minimum at 2-3 GHz

#### Environmental:

Operating Temperature: -55°C to +165°C  
Vibration: MIL-STD-202, Method 204, Test Condition D  
Shock: MIL-STD-202, Method 213, Test Condition I  
Salt Spray: MIL-STD-1344, Method 1001, Condition B  
Durability: 500 Cycles  
Thermal Shock: MIL-STD-202, Method 107, Test Condition B, Except High Temperature Shall Be +85°C  
Moisture Resistance: MIL-STD-202, Method 106  
Insulation Resistance: 2,000 Megohms Post Humidity

#### Configurations:

Housings: Mighty Mouse or Equivalent Housings  
Cables: RG-142, 316, 402, and 405 or Equivalent Cables  
Cable Terminations: Direct Solder, Direct Crimp, Solder/Clamp, or Crimp/Clamp

### Size 12

#### Materials:

Plug and Receptacle Bodies - Brass per ASTM-B-16  
Insulators - Teflon (PTFE) per ASTM-D-1457  
Male Contact - Beryllium Contact per ASTM-B-196 or Brass per ASTM-B-16  
Female Contact - Beryllium Copper per ASTM-B-196

#### Plating:

Gold per MIL-G-45204  
Copper per MIL-C-14550  
Nickel per QQ-N-290

#### Finishes:

50 $\mu$ " Minimum Gold Over Nickel Other Parts Plated to Meet the Environmental Requirements

#### Mating Characteristics:

Outer Bodies: 1.5 lbs. Maximum Insertion  
2 oz. Minimum Withdrawal  
Center Contacts: 14 oz. Maximum Insertion  
0.5 oz. Minimum Withdrawal  
Housing Retention: 12 lbs. Minimum  
Axial Mating Tolerance: .070"

#### Electricals:

Frequency Range: DC to 40 GHz  
Impedance: 50 Ohms (75 Ohm - Contact Sales)  
Voltage Rating Straight: 800 VRMS  
Voltage Rating Angled: 600 VRMS  
Current Rating: 1.5 Amps  
Insulation Resistance: 2,000 Megohms Minimum  
Insertion Loss: .06  $\sqrt{f}$  (GHz) dB  
Contact Resistance: Center Contact 6 Milliohms  
Contact Resistance: Outer Contact 4 Milliohms  
VSWR: Configuration Dependent  
RF Leakage: -90 dB Minimum at 2-3 GHz

#### Environmental:

Operating Temperature: -55°C to +165°C  
Vibration: MIL-STD-202, Method 204, Test Condition D  
Shock: MIL-STD-202, Method 213, Test Condition I  
Salt Spray: MIL-STD-1344, Method 1001, Condition B  
Durability: 500 Cycles  
Thermal Shock: MIL-STD-202, Method 107, Test Condition B, Except High Temperature Shall Be +85°C  
Moisture Resistance: MIL-STD-202, Method 106  
Insulation Resistance: 2,000 Megohms Post Humidity

#### Configurations:

Housings: Mighty Mouse or Equivalent Housings  
Cables: RG-316 and 405, HP120s, or Equivalent Cables  
Cable Terminations: Direct Solder or Direct Crimp