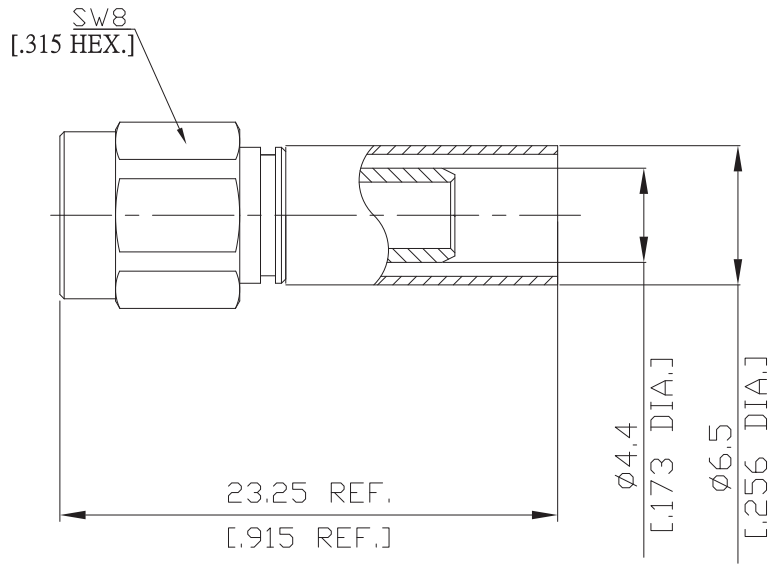
ROSNOL®
RF/Microwave Interconnect

# Technical Data Sheet

## SMA Male Connector Crimp/Solder Attachment for RG142

# SMA1C50-G142A / 911




All dimensions are in mm [inch]
Tolerances according to DIN ISO 2768-mH

## Interface

| | |
|---|---|
| According to | IEC 60169-15;CECC 22110; MIL-PRF-39012 SMA; MIL-STD-348/310 |

## Electrical Data

| | |
|---|---|
| Impedance | 50 Ω |
| Frequency | DC to 12.4 GHz |
| VSWR (Return Loss) | ≤ 1.20 (≥ 20.83 dB) |
| Insertion Loss | ≤ 0.04 x √F (GHz) dB |
| Insulation Resistance | ≥ 5 GΩ |
| Center contact resistance | ≤ 3 mΩ |
| Outer contact resistance | ≤ 2 mΩ |
| Test Voltage (at sea level) | 1000 V rms |
| Working Voltage (at sea level) | 480 V rms |
| Power handling | ≤ 200 W @ 2 GHz |
| RF Leakage | ≥ 100 dB up to 1 GHz |

-VSWR in application depends decisive on cable assembly process-

## Material And Plating

| Piece Parts | Material | Plating |
|---|---|---|
| Centre Contact | Beryllium Copper | Gold plating (Non-magnetic nickel-phosphorus underplating) |
| Body | Brass | Gold plating (Non-magnetic nickel-phosphorus underplating) |
| Insulator | PTFE | |
| Gasket | Silicone Rubber | |
| Coupling Nut | Brass | Gold plating (Non-magnetic nickel-phosphorus underplating) |
| Crimp ferrules | Brass | Gold plating (Non-magnetic nickel-phosphorus underplating) |



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| | |
|---|---|
| **Mechanical Data** | |
| Coupling mechanisms | Screw-lock |
| Mating Cycles | ≥ 500 |
| Coupling Nut Retention | ≥ 270 N |
| Center Contact Captivation: axial | ≥ 27 N |
| Coupling Test Torque | 1.70 Nm max. |
| Recommended Torque | 0.8 Nm to 1.1 Nm |
| Centre contact | Soldered |
| Cable entry | Crimped |
| **Environmental Data** | |
| Temperature Range | -65°C to +165°C |
| Thermal shock | MIL-STD-202, Method 107, Condition B |
| Corrosion | MIL-STD-202, Method 101, Condition B |
| Vibration | MIL-STD-202, Method 204, Condition D |
| Shock | MIL-STD-202, Method 213, Condition I |
| Moisture Resistance | MIL-STD-202, Method 106 |
| RoHS | compliant |
| **Suitable Cable** | |
| | RG55, RG 142, RG 223, RG 400 |
| **Packing** | |
| | Single or 100 |





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