



All dimensions are in mm; tolerances according to ISO 2768 m-H

Interface

According to IEC 60169-16, MIL-PRF-39012, CECC 22210

Documents

Assembly instruction 53 03

Material and plating

Connector parts

Center contact
Outer contact
Body
Dielectric
Gasket
Crimping ferrule

Material

Brass
Brass
Brass
PTFE
Silicone
Copper

Plating

AuroDur®, gold plated
Flash white bronze over silver(e.g. Optargen®)
White bronze(e.g. Optalloy®)

Flash white bronze over silver(e.g. Optargen®)

N 50 Ω STRAIGHT PLUG**53S101-115N5****Electrical data**

| | |
|--|---|
| Impedance | 50 Ω |
| Frequency | DC to 11 GHz |
| Return loss | ≥ 30 dB, DC to 2.5 GHz ≥ 28 dB, 2.5 to 4 GHz ≥ 20 dB, 4 to 8 GHz |
| Insertion loss | ≤ 0.05 dB, DC to 8 GHz |
| Insulation resistance | $\geq 5 \times 10^3$ M Ω |
| Center contact resistance | ≤ 1 m Ω |
| Outer contact resistance | ≤ 0.25 m Ω |
| Test voltage | 2500 V rms |
| Working voltage | 1400 V rms |
| Power handling (at 20 °C, sea level, VSWR 1.0) | 1000 W @ 1 GHz 700 W @ 2 GHz |
| RF-leakage | ≥ 128 dB up to 1 GHz |
| <i>- Limitations are possible due to the used cable type -</i> | |

Mechanical data

| | |
|-----------------------------------|------------------|
| Mating cycles | min. 500 |
| Coupling nut retention | ≥ 450 N |
| Center contact captivation: axial | ≥ 28 N |
| Coupling test torque | max. 1.7 Nm |
| Recommended torque | 0.7 Nm to 1.1 Nm |

Environmental data

| | |
|---------------------|---------------------------------|
| Temperature range | -55°C to +155°C |
| Thermal shock | MIL-STD-202, Meth. 107, Cond. B |
| Corrosion | MIL-STD-202, Meth. 101, Cond. B |
| Vibration | MIL-STD-202, Meth. 204, Cond. B |
| Shock | MIL-STD-202, Meth. 213, Cond. I |
| Moisture resistance | MIL-STD-202, Meth. 106 |
| 2002/95/EC (RoHS) | compliant |

Tooling

| | |
|---------------|------------|
| Crimping tool | 11W150-000 |
| Crimp insert | 11W150-215 |

Suitable cables

RG 213 /U

Packing

| | |
|----------|-------------|
| Standard | 1 pc in bag |
| Weight | 33.4 g/pc |

While the information has been carefully compiled to the best of our knowledge, nothing is intended as representation or warranty on our part and no statement herein shall be construed as recommendation to infringe existing patents. In the effort to improve our products, we reserve the right to make changes judged to be necessary.

| Draft | Date | Approved | Date | Rev. | Engineering change number | Name | Date |
|--|----------|-----------|----------|------|--|--------------|---------------|
| Inge Mühlauer | 08.06.04 | Fang Rong | 01.02.12 | b00 | 12-0070 | B. Wollitzer | 01.02.12 |
| Rosenberger Hochfrequenztechnik GmbH & Co. KG P.O.Box 1260 D-84526 Tittmoning Germany www.rosenberger.de | | | | | Tel.: +49 8684 18-0 Fax: +49 8684 18-499 email: info@rosenberger.de | | Page 2 / 2 |