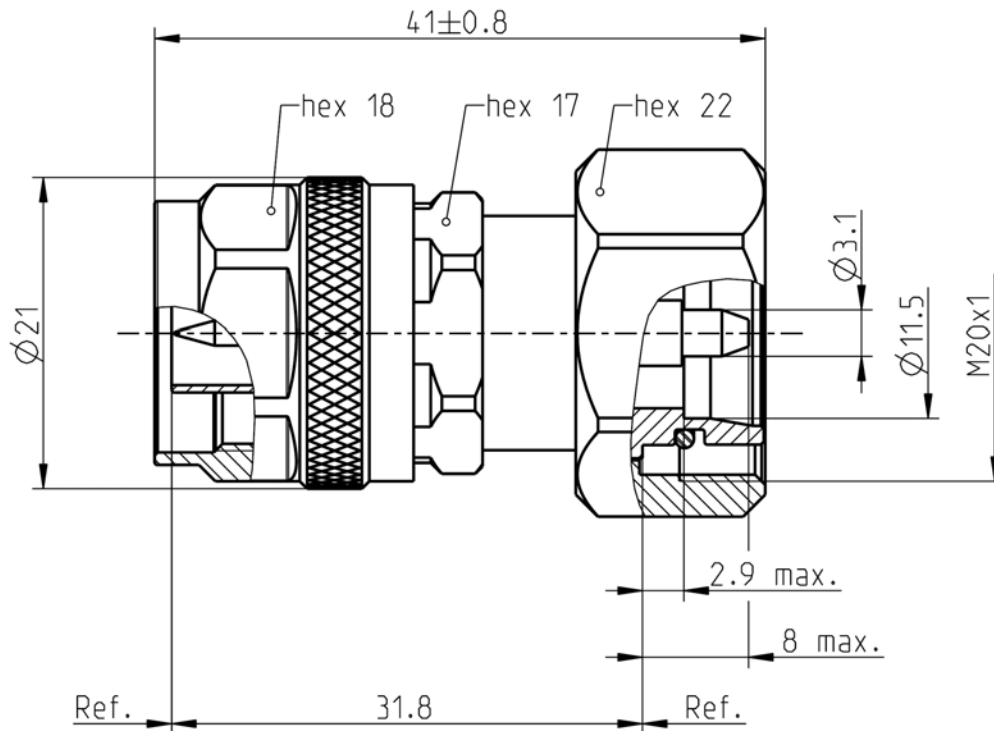


4.3-10

Adaptor  
4.3-10 plug – N plug

**53S164-S00N1**



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

#### Interface

According to 4.3-10 side: IEC 61169-xx  
N side: IEC 61169-16, MIL-PRF-39012, CECC 22210

#### Documents

Assembly instruction N/A

#### Material and plating

##### Connector parts

|                |              |          |
|----------------|--------------|----------|
| Center contact | 4.3-10 side: | Brass    |
| Center contact | N side:      | Brass    |
| Outer contact  |              | Brass    |
| Body           |              | Brass    |
| Dielectric     |              | PTFE     |
| Gasket         |              | Silicone |

##### Plating

Silver, 3-6 µm  
Silver, 3-6 µm  
Flash white bronze over silver(e.g. Optargen®)  
Flash white bronze over silver(e.g. Optargen®)

4.3-10

Adaptor  
4.3-10 plug – N plug

53S164-S00N1

## Electrical data

|                                                |                                            |
|------------------------------------------------|--------------------------------------------|
| Impedance                                      | 50 Ω                                       |
| Frequency                                      | DC to 12 GHz                               |
| Return loss                                    | ≥ 36 dB @ DC to 4 GHz                      |
|                                                | ≥ 32 dB @ 4 GHz to 6 GHz                   |
| Insertion loss                                 | ≤ 0.05 x $\sqrt{f \text{ [GHz]}}$ dB       |
| Insulation resistance                          | ≥ 5 GΩ                                     |
| Center contact resistance                      | ≤ 1.0 mΩ, 4.3-10 side    ≤ 1.0 mΩ, N side  |
| Outer contact resistance                       | ≤ 1.0 mΩ, 4.3-10 side    ≤ 0.25 mΩ, N side |
| Test voltage                                   | 2500 V rms                                 |
| Working voltage                                | 500 V rms                                  |
| RF-leakage                                     | ≥ 128 dB @ DC to 1 GHz                     |
| Power handling (at 20 °C, sea level, VSWR 1.0) | 1000 W @ 1 GHz                             |
|                                                | 700 W @ 2 GHz                              |
| Intermodulation (3 <sup>rd</sup> order)        | ≥ 155 dBc (2 x 43 dBm)                     |

- RL values only valid for the interface -

## Mechanical data

|                                   |              |               |
|-----------------------------------|--------------|---------------|
|                                   | 4.3-10 side  | N side        |
| Mating cycles                     | ≥ 100        | min. 500      |
| Center contact captivation: axial | ≥ 30 N       | ≥ 28 N        |
| radial                            | > 5 Ncm      | ≥ 3 Ncm       |
| Center contact retention force    | 1.5 N – 20 N |               |
| Recommended torque                | 5 Nm         | 0.7 to 1.1 Nm |

## Environmental data

|                                   |                                        |
|-----------------------------------|----------------------------------------|
| Temperature range                 | -55 °C to +90 °C operating temperature |
| Thermal shock                     | IEC 60169-1, Sub-clause 16.4           |
| Corrosion resistance              | ISO 21207 method B                     |
| Vibration                         | IEC 61169-1 9.3.3 and IEC 60068-2-64   |
| Shock                             | IEC 61169-1 9.3.14                     |
| Degree of protection (mated pair) | IEC 60529, IP68 1h / 25m               |
| RoHS                              | compliant                              |

## Tooling

N/A

## Suitable cables

N/A

## Weight

|        |             |
|--------|-------------|
| Weight | 62.16 g/pce |
|--------|-------------|

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           |
|-------------------------------------------------------------------------------------------------------------------------------------------|------------|----------|----------|-------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|-----------|----------------|
| F. Fraunhofer                                                                                                                             | 26.07.2013 | Sa. K.   | 24.03.14 | 200                                                                                                                                       | 14-0352                   | T. Krojer | 24.03.14       |
| Corporate Headquarters<br>Rosenberger Hochfrequenztechnik GmbH & Co. KG<br>P.O. Box 1260 D-84526 Tittmoning Germany<br>Tel. +49 8684 18-0 |            |          |          | Rosenberger Site Solutions, LLC<br>P.O. Box 4268, Lake Charles, LA 70606<br>Ph.337.598.5250 Fax: 337.598.5290 rlss@rlss.us<br>www.rlss.us |                           |           | Page<br>2 of 2 |