



All dimensions are in mm

## Interface

according to

IEC 61169-54

## Documents

Application note

AN001 "Calibration Services"

## Material and plating

### Connector parts

Center conductor - plug  
Center conductor - jack  
Outer conductor - plug  
Outer conductor - jack  
Body  
Coupling nut  
Dielectric

### Material

Brass  
CuBe  
Stainless steel  
CuBe or equiv.  
Stainless steel  
Stainless steel  
PTFE

### Plating

Gold, min. 1.27 µm, over nickel  
Gold, min. 1.27 µm, over nickel  
Passivated  
AuroDur®, gold plated  
Passivated  
Passivated

### Electrical data

Frequency range	DC to 12 GHz
Return loss	$\geq 35$ dB, DC to 4 GHz $\geq 32$ dB, 4 GHz to 6 GHz $\geq 25$ dB, 6 GHz to 12 GHz

### Mechanical data

Mating cycles	$\geq 100$
Maximum torque	5 Nm
Recommended torque	2 Nm
Gauge - plug	2.80 mm to 2.90 mm
Gauge - jack	3.10 mm to 3.20 mm

### General standard definitions

For proper operation the vector network analyzer (VNA) needs a model describing the electrical behaviour of this calibration standard. The different models, units, and terms used will depend on the VNA type and they will have to be entered into the VNA. All values are based on typical geometry and plating.

Offset $Z_0$ / Impedance / $Z_0$	50 $\Omega$
Offset Delay	189.466 ps
Length (electrical) / Offset Length	56.80 mm
Offset Loss	2.50 G $\Omega$ /s
Loss	0.0411 dB / $\sqrt{\text{GHz}}$

### Environmental data

Operating temperature range <sup>1</sup>	+20 °C to +26 °C
Rated temperature range of use <sup>2</sup>	0 °C to +50 °C
Storage temperature range	- 40 °C to +85 °C

RoHS compliant

<sup>1</sup> Temperature range over which these specification are valid.

<sup>2</sup> This range is underneath and above the operating temperature range, within the calibration adaptor is fully functional and could be used without damage.

## Declaration of calibration options

### Factory Calibration

Standard delivery for this calibration standard includes a Factory Calibration. The Calibration Certificate issued reports individual calibration results, traceable to national / international standards. Model based standard definitions are reported in Keysight / Agilent, Rohde & Schwarz and Anritsu compatible VNA formats.

### Accredited Calibration

Not available.

*For further, more detailed information see application note AN001 on the Rosenberger homepage.*

## Calibration interval

Recommendation 12 months

## Weight

108 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.

For the installation of the electrotechnical equipment, particular electrotechnical expertise is required.



Draft	Date	Approved	Date	Rev.	Engineering change number	Name	Date
M. Panicke	11.02.16	M. Hantschel	22.11.24	c00	24-2048	D. d'Argent	22.11.24
Rosenberger Hochfrequenztechnik GmbH & Co. KG P.O.Box 1260 D-84526 Tittmoning Germany <a href="http://www.rosenberger.com">www.rosenberger.com</a>					Tel. : +49 8684 18-0 Email : <a href="mailto:info@rosenberger.com">info@rosenberger.com</a>		Page 3 / 3