



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

Interface

According to

IEC 61169-4, EN 122190, DIN 47223

Documents

Application note

AN001 "Calibration Services"

Material and plating

Connector parts

Center conductor
Outer conductor
Dielectric

Material

CuBe
Stainless steel
PPE

Plating

Gold, min. 1.27 µm, over nickel
Passivated

Electrical data

Frequency range	DC to 8 GHz
Return loss	≤ 0.10 dB, DC to 4 GHz ≤ 0.15 dB, 4 GHz to 8 GHz
Error from nominal phase ¹	≤ 1.0°, DC to 4 GHz ≤ 1.5°, 4 GHz to 8 GHz

¹ The nominal phase is defined by the Offset Delay, the Offset Loss and the Fringing Capacitances.

Mechanical data

Mating cycles	≥ 500
Maximum torque	35 Nm
Recommended torque	2.26 Nm
Gauge	1.78 mm to 1.82 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_o / Impedance / Z_o	50 Ω
Offset Delay	87.394 ps
Length (electrical) / Offset Length	26.20 mm
Offset Loss	0.50 G Ω /s
Loss	0.0076 dB/ $\sqrt{\text{GHz}}$
Fringing Capacitances ²	

² Fringing Capacitances are determined individually for each open circuit and are documented in a Calibration Certificate.

Environmental data

Operating temperature range ³	+ 20 °C to +26 °C
Rated temperature range of use ⁴	0 °C to +50 °C
Storage temperature range	- 40 °C to +85 °C
RoHS	compliant

³ Temperature range over which these specification are valid.

⁴ This range is underneath and above the operating temperature range, within the calibration adaptor is fully functional and could be used without damage.

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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 individually optimized and reported in an Agilent/Keysight, Rohde & Schwarz and Anritsu compatible VNA format.

Accredited Calibration

Optional this calibration standard can be delivered with an Accredited Calibration (DAkkS) having the highest confidence in the traceability. The DAkkS Calibration Certificate issued reports individual calibration results in a complex format, traceable to national / international standards. Model based standard definitions are individually optimized and reported in an Agilent/Keysight, Rohde & Schwarz and Anritsu compatible VNA format as well as in a dense data set needed for data based standard definitions. The uncertainties are smaller than in a Factory Calibration.

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

Calibration interval

Recommendation 12 months

Packing

Standard 1 pce in box
Weight 79 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
Marcel Panicke	03.08.15	Markus Müller	10.08.16	c00	16-1267	Marion Striegler	10.08.16

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