



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

Interface

According to IEC 61169-54

Documents

Application note AN001 "Calibration Services"

Material and plating

Connector parts

- Center conductor
- Outer conductor
- Coupling nut
- Dielectric

Material

- Brass
- Stainless steel
- Stainless steel
- PTFE

Plating

- Gold, min. 1.27 µm, over nickel
- Passivated
- Passivated

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Electrical data

Frequency range	DC to 12 GHz
Return loss	≤ 0.15 dB, DC to 12 GHz
Error from nominal phase ¹	≤ 2.0°, DC to 4 GHz ≤ 2.5°, 4 GHz to 6 GHz ≤ 3.0°, 6 GHz to 12 GHz

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

Mechanical data

Mating cycles	≥ 100
Maximum torque	5 Nm
Recommended torque	2 Nm
Gauge	2.80 mm to 2.90 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 Ω
Offset Delay	80.055 ps
Length (electrical) / Offset Length	24.00 mm
Offset Loss	0.70 GΩ/s
Loss	0.0097 dB/√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 open circuit is fully functional and could be used without damage.

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