



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

Interface

According to IEC 457-2

Documents

Application note AN001 "Calibration Services"

Material and plating

Connector parts

| Connector parts | Material | Plating |
|------------------|-----------------|---------------------------------|
| Center conductor | PS | |
| Outer conductor | CuBe | Gold, min. 1.27 µm, over nickel |
| Body | Stainless steel | Passivated |
| Coupling nut | Stainless steel | Passivated |
| Dielectric | PS | |

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Electrical data

| | |
|---------------------------------------|----------------------------|
| Frequency range | DC to 18 GHz |
| Return loss | ≤ 0.10 dB, DC to 4 GHz |
| | ≤ 0.15 dB, 4 GHz to 18 GHz |
| Error from nominal phase ¹ | ≤ 1.2°, DC to 4 GHz |
| | ≤ 2.5°, 4 GHz to 18 GHz |

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

Mechanical data

| | |
|--------------------|---------------------|
| Mating cycles | ≥ 5000 |
| Maximum torque | 1.95 Nm |
| Recommended torque | 1.36 Nm |
| Gauge | 0.00 mm to 0.025 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 | 0.0000 ps |
| Length (electrical) / Offset Length | 0.000 mm |
| Offset Loss | 0.00 GΩ/s |
| Loss | 0.0000 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.