



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

Interface

According to IEC 61169-65

Documents

Application note AN001 "Calibration Services"

Material and plating

Connector parts
Center conductor
Outer conductor
Coupling nut
Dielectric

Material
CuBe
CuBe or equiv.
Stainless steel
PEEK

Plating
Gold, min. 1.27µm
Gold, min. 1.27µm
Passivated

Electrical data

Frequency range DC to 90 GHz

This calibration standard is designed to be part of a Rosenberger RPC-1.35 calibration kit, e.g. P9CK010-150 or P9CK001-150. Please consult the data sheet of one of the mentioned calibration kits for the specified Residual System Data in that application.

Return loss ≥ 31 dB, DC to 10 GHz
 ≥ 24 dB, 10 GHz to 30 GHz
 ≥ 20 dB, 30 GHz to 50 GHz
 ≥ 18 dB, 50 GHz to 60 GHz
 ≥ 15 dB, 60 GHz to 90 GHz

Mechanical data

Mating cycles ≥ 3000
 Maximum torque 1.65 Nm
 Recommended torque 0.90 Nm
 Gauge 0.003 mm to 0.020 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 53.97 ps
 Length (electrical) / Offset Length 16.18 mm
 Offset Loss 5.95 G Ω /s
 Loss 0.0558 dB/ $\sqrt{\text{GHz}}$

Environmental data

Operating temperature range¹ +20 °C to +26 °C
 Rated temperature range of use² 0 °C to +50 °C
 Storage temperature range - 40 °C to +85 °C

RoHS compliant

¹ Temperature range over which these specification are valid.

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