



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

Interface

According to
Mechanically compatible with

IEC 60169-23
RPC-2.92 and SMA

Documents

Application note

AN001 "Calibration Services"

Material and plating

Connector parts

Center conductor
Outer conductor
Coupling nut
Dielectric
Substrate

Material

CuBe
Stainless steel
Stainless steel
PEEK
Al₂O₃

Plating

Gold, min. 1.27 µm, over nickel
Passivated
Passivated

Electrical data

Frequency range	DC to 26.5 GHz
Return loss	≥ 40 dB, DC to 4 GHz ≥ 35 dB, 4 GHz to 8 GHz ≥ 30 dB, 8 GHz to 26.5 GHz
DC Resistance	$50\ \Omega \pm 0.25\ \Omega$
Power handling	≤ 0.5 W

Mechanical data

Mating cycles	≥ 500
Maximum torque	1.70 Nm
Recommended torque	0.90 Nm
Gauge	0.00 mm to 0.04 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	0.0000 ps
Length (electrical) / Offset Length	0.00 mm
Offset Loss	0.00 G Ω /s
Loss	0.0000 dB/ $\sqrt{\text{GHz}}$

Environmental data

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

RoHS	compliant
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¹ Temperature range over which these specification are valid.

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

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Technical Data Sheet				Rosenberger									
RPC-3.50		Calibration Load Plug		03S150-C10S3									
<div>Declaration of calibration options</div> <div>Factory Calibration</div> <p>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 an Agilent/Keysight, Rohde & Schwarz and Anritsu compatible VNA format.</p> <div>Accredited Calibration</div> <p>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 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.</p> <p>For further, more detailed information see application note AN001 on the Rosenberger homepage.</p> <div>Calibration interval</div> <table><tr><td>Recommendation</td><td>12 months</td></tr></table> <div>Packing</div> <table><tr><td>Standard</td><td>1 pce in box</td></tr><tr><td>Weight</td><td>8.8 g/pce</td></tr></table>								Recommendation	12 months	Standard	1 pce in box	Weight	8.8 g/pce
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