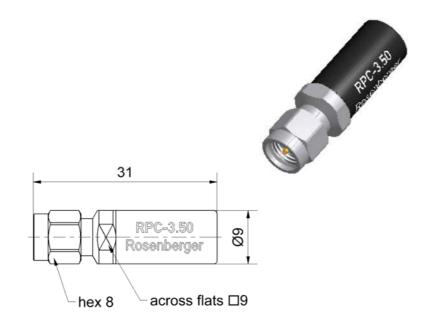
Technical Data Sheet		Rosenberger		
RPC-3.50	Calibration Load Plug	03S150-C10S3		



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

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

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Technical Data Sheet

Rosenberger

RPC-3.50

Calibration Load

03S150-C10S3

Electrical data

Frequency range Return loss

 \geq 40 dB, DC to 4 GHz \geq 35 dB, 4 GHz to 8 GHz \geq 30 dB, 8 GHz to 26.5 GHz

DC to 26.5 GHz

DC Resistance $50 \Omega \pm 0.25 \Omega$ Power handling $\leq 0.5 \text{ W}$

Mechanical data

 $\begin{array}{ll} \text{Mating cycles} & \geq 500 \\ \text{Maximum torque} & 1.70 \text{ Nm} \\ \text{Recommended torque} & 0.90 \text{ Nm} \\ \end{array}$

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.

 $\begin{array}{ll} \mbox{Offset $Z_{\rm o}$ / Impedance / $Z_{\rm o}$} & 50 \ \Omega \\ \mbox{Offset Delay} & 0.0000 \ \mbox{ps} \\ \mbox{Length (electrical) / Offset Length} & 0.00 \ \mbox{mm} \\ \mbox{Offset Loss} & 0.00 \ \mbox{G}\Omega/\mbox{s} \\ \end{array}$

Loss $0.0000 \, dB/\sqrt{GHz}$

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

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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.

Technical Data Sheet		Rosenberger		
RPC-3.50	Calibration Load	03S150-C10S3		

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 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 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 intervalRecommendation12 monthsPackingStandard1 pce in boxWeight8.8 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
Herbert Babinger	17.10.14	Martin Moder	17.10.14	g00	14-1492	Herbert Babinger	17.10.14
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