

RPC-3.50

Calibration Load
Plug

03S150-C10S3



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

Interface

According to

IEC 60169-23

Mechanically compatible with

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

Technical Data Sheet		Rosenberger
RPC-3.50	Calibration Load Plug	03S150-C10S3
Electrical data		
Frequency range Return loss DC Resistance Power handling		
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 Ω ± 0.25 Ω	
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_o / Impedance / Z_o	50 Ω	
Offset Delay	0.0000 ps	
Length (electrical) / Offset Length	0.00 mm	
Offset Loss	0.00 GΩ/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	
<small>¹ Temperature range over which these specification are valid.</small> <small>² This range is underneath and above the operating temperature range, within the calibration load is fully functional and could be used without damage.</small>		
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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 interval

Recommendation 12 months

Packing

Standard 1 pce in box
Weight 8.8 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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