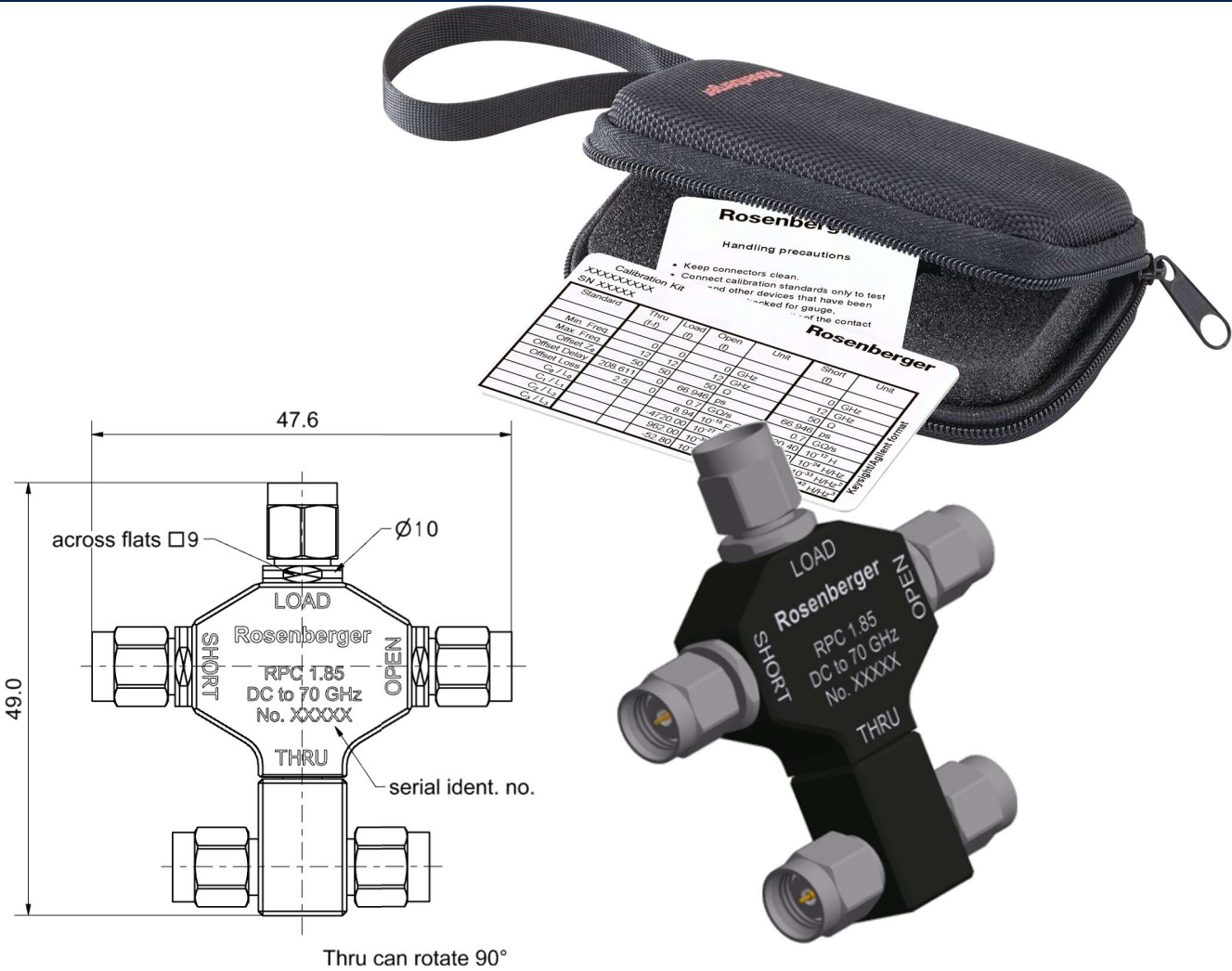




All dimensions are in mm; tolerances according to ISO 2768 m-H

Interface

According to
Mechanically compatible with

IEC 61169-32
RPC-2.40

Contents and Documentation

This kit is delivered with

- **Standard Definitions Card**
Printed Standard Definitions that can be used on nearly all Vector Network Analyzers
- **Test Results Documentation**
- **Hard Shell Case**
- **Protection Caps**

Material and plating

Connector parts

Center conductor
Outer conductor
Coupling nut
Body
Dielectric
Substrate

Material

CuBe
Stainless steel
Stainless steel
Aluminum
PS
Al₂O₃

Plating

Gold, min. 1.27 µm, over nickel
Passivated
Passivated
black anodized

Technical Data Sheet		Rosenberger
RPC-1.85	Calibration Kit Plug	08S30R-MSOTS3
Electrical data Frequency range DC to 70.0 GHz Thru Return loss ≥ 28 dB, DC to 4 GHz ≥ 21 dB, 4 GHz to 26.5 GHz ≥ 20 dB, 26.5 GHz to 50 GHz ≥ 17 dB, 50 GHz to 70 GHz Open Error from nominal phase¹ ≤ 2.0°, DC to 4 GHz ≤ 5.0°, 4 GHz to 26.5 GHz ≤ 7.0°, 26.5 GHz to 50 GHz ≤ 10.0°, 50 GHz to 70 GHz Short Error from nominal phase² ≤ 2.0°, DC to 4 GHz ≤ 5.0°, 4 GHz to 26.5 GHz ≤ 7.0°, 26.5 GHz to 50 GHz ≤ 10.0°, 50 GHz to 70 GHz Load Return loss ≥ 35.0 dB, DC to 4 GHz ≥ 25.0 dB, 4 GHz to 26.5 GHz ≥ 22.0 dB, 26.5 GHz to 50 GHz ≥ 20.0 dB, 50 GHz to 70 GHz DC Resistance 50 Ω ± 0.5 Ω Power handling (at 25 °C, sea level) ≤ 0.5 W, derate by 0.005 W/K ¹ The nominal phase is defined by the Offset Delay, the Offset Loss and the Fringing Capacitances ² The nominal phase is defined by the Offset Delay, the Offset Loss and the Short Inductance Mechanical data Mating cycles ≥ 500 Maximum torque 1.65 Nm Recommended torque 0.90 Nm Gauge 0.00 mm to 0.05 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. Thru Offset Z₀ / Impedance / Z₀ 50 Ω Offset Delay 84.492 ps Length (electrical) / Offset Length 25.33 mm Offset Loss 4.00 GΩ/s Loss 0.0294 dB/√GHz Line Loss @ 1GHz 0.0012 dB/mm Load Offset Z₀ / Impedance / Z₀ 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		
Rosenberger Hochfrequenztechnik GmbH & Co. KG P.O.Box 1260 D-84526 Tittmoning Germany www.rosenberger.de		Tel. : +49 8684 18-0 Email : info@rosenberger.de Page 2 / 3

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RF_35/09_14/6.2

Technical Data Sheet				Rosenberger			
RPC-1.85		Calibration Kit Plug		08S30R-MSOTS3			
Open Offset Z_o / Impedance / Z_o Offset Delay Length (electrical) / Offset Length Offset Loss Loss Fringing Capacitances $C_0 = 10.0000 \times 10^{-15} \text{ F}$ $C_1 = -500.000 \times 10^{-27} \text{ F/Hz}$ $C_2 = 11.5000 \times 10^{-36} \text{ F/Hz}^2$ $C_3 = -0.10000 \times 10^{-45} \text{ F/Hz}^3$ Short Offset Z_o / Impedance / Z_o Offset Delay Length (electrical) / Offset Length Offset Loss Loss Short Inductance $L_0 = -12.0000 \times 10^{-12} \text{ H}$ $L_1 = 250.000 \times 10^{-24} \text{ H/Hz}$ $L_2 = -8.10000 \times 10^{-33} \text{ H/Hz}^2$ $L_3 = 0.08000 \times 10^{-42} \text{ H/Hz}^3$							
Environmental data Operating temperature range³ Rated temperature range of use⁴ Storage temperature range RoHS + 20 °C to +26 °C 0 °C to +50 °C - 40 °C to +85 °C compliant							
³Temperature range over which these specifications are valid. ⁴This range is underneath and above the operating temperature range, within the calibration kit is fully functional and could be used without damage							
Declaration of documentation Standard delivery for this kit includes Test Results. The documentation issued reports which quantities were tested individually, traceable to national / international standards. Model based standard definitions of the calibration standards are reported in Agilent / Keysight, Rohde & Schwarz and Anritsu compatible VNA format.							
Inspection interval Recommendation 12 months							
Packing Standard Weight 1 pce in bag 34 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			
Marcel Panicke 12.04.18 Markus Müller 06.05.20				b00 19-2083 Marion Striegler 06.05.20			
Rosenberger Hochfrequenztechnik GmbH & Co. KG P.O.Box 1260 D-84526 Tittmoning Germany www.rosenberger.de				Tel. : +49 8684 18-0 Email : info@rosenberger.de			Page 3 / 3

Environmental data

Operating temperature range³+ 20 °C to +26 °C

Rated temperature range of use⁴0 °C to +50 °C

Storage temperature range- 40 °C to +85 °C

RoHScompliant

³ Temperature range over which these specifications are valid.

⁴ This range is underneath and above the operating temperature range, within the calibration kit is fully functional and could be used without damage

Declaration of documentation

Standard delivery for this kit includes Test Results. The documentation issued reports which quantities were tested individually, traceable to national / international standards. Model based standard definitions of the calibration standards are reported in Agilent / Keysight, Rohde & Schwarz and Anritsu compatible VNA format.

Inspection interval

Recommendation12 months

Packing

Standard1 pce in bag

Weight34 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.

Mouser Electronics

Authorized Distributor

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