

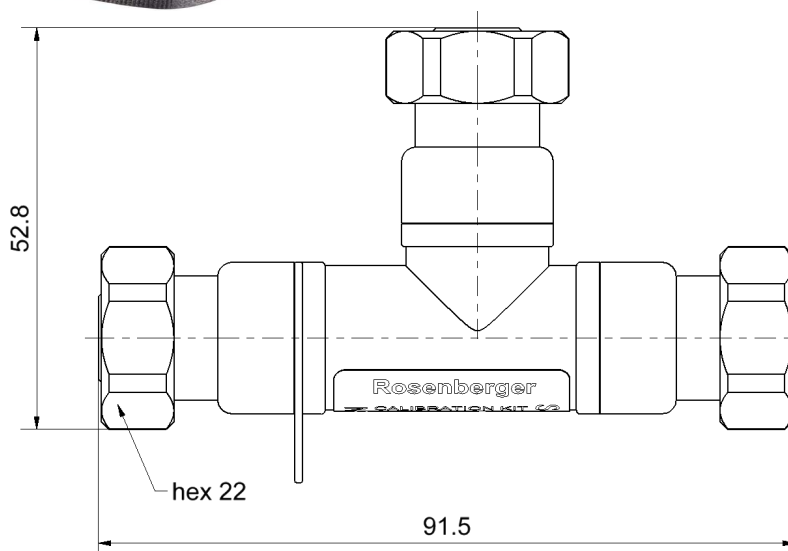
Technical Data Sheet

Rosenberger
Rosenberger Site Solutions, LLC

4.1-9.5

Calibration Kit
Plug

65S36R-MSOS3



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

Interface

According to

IEC 60169-11, DIN 47231

Documents

N/A

Material and plating

Connector parts

Center conductor
Outer conductor
Coupling nut
Body
Dielectric
Substrate

Material

CuBe
Stainless steel
Brass
Brass
PTFE
Al₂O₃

Plating

Gold, min. 1.27 µm, over nickel
Passivated
White bronze(e.g. Optalloy®)
White bronze(e.g. Optalloy®); powder-coated

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Electrical data

Frequency range DC to 6 GHz

Open

Return loss ≤ 0.15 dB, DC to 6 GHz

Error from nominal phase¹ $\leq 3.0^\circ$, DC to 6 GHz

Short

Return loss ≤ 0.15 dB, DC to 6 GHz

Error from nominal phase² $\leq 2.0^\circ$, DC to 6 GHz

Load

Return loss ≥ 42 dB, DC to 2.5 GHz

≥ 38 dB, 2.5 GHz to 6 GHz

DC-Resistance $50 \Omega \pm 0.5 \Omega$

Power handling ≤ 1.0 W

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 15 Nm

Recommended torque 2 Nm

Gauge 5.05 mm to 5.13 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.

Open

Offset Z_0 / Impedance / Z_0 50 Ω

Offset Delay 90.830 ps

Length (electrical) / Offset Length 27.23 mm

Offset Loss 0.70 G Ω /s

Loss 0.0110 dB/ $\sqrt{\text{GHz}}$

Fringing Capacitances $C_0 = -7.42660 \times 10^{-15}$ F / -7.42660 fF

$C_1 = 1625.84 \times 10^{-27}$ F/Hz / 1.62584 fF /GHz

$C_2 = 657.180 \times 10^{-36}$ F/Hz² / 0.65718 fF /GHz²

$C_3 = -139.680 \times 10^{-45}$ F/Hz³ / -0.13968 fF /GHz³

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Short Offset Z_0 / Impedance / Z_0 Offset Delay Length (electrical) / Offset Length Offset Loss Loss Short Inductance 50 Ω 90.830 ps 27.23 mm 0.70 GΩ/s 0.0110 dB/ $\sqrt{\text{GHz}}$ $L_0 = 0.0000 \times 10^{-12} \text{ H}$ / 0.0000 pH $L_1 = 0.0000 \times 10^{-24} \text{ H/Hz}$ / 0.0000 pH/GHz $L_2 = 0.0000 \times 10^{-33} \text{ H/Hz}^2$ / 0.0000 pH/GHz² $L_3 = 0.0000 \times 10^{-42} \text{ H/Hz}^3$ / 0.0000 pH/GHz³ Load Offset Z_0 / Impedance / Z_0 Offset Delay Length (electrical) / Offset Length Offset Loss Loss 50 Ω 0.0000 ps 0.000 mm 0.00 GΩ/s 0.0000 dB/ $\sqrt{\text{GHz}}$ Environmental data Operating temperature range³ Storage temperature range RoHS 0 °C to +50 °C -55 °C to +90 °C compliant ³ Temperature range over which these specifications are valid. Packing Standard Weight 1 pce in bag 241 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. <tr><td colspan="2">Draft</td><td colspan="2">Date</td><td colspan="2">Approved</td><td colspan="2">Date</td></tr> <tr><td colspan="2">Marcel Panicke</td><td colspan="2">01/10/13</td><td colspan="2">Markus Müller</td><td colspan="2">14/08/14</td></tr> <tr><td colspan="4">Corporate Headquarters Rosenberger Hochfrequenztechnik GmbH & Co. KG P.O. Box 1260 D-84526 Tittmoning Germany Tel. +49 8684 18-0</td><td colspan="2">Rev.</td><td colspan="2">Engineering change number</td></tr> <tr><td colspan="4"></td><td colspan="2">b00</td><td colspan="2">14-1131</td></tr> <tr><td colspan="4"></td><td colspan="2">Name</td><td colspan="2">Date</td></tr> <tr><td colspan="4"></td><td colspan="2">Marion Striegler</td><td colspan="2">14/08/14</td></tr> <tr><td colspan="4">Rosenberger Site Solutions, LLC P.O. Box 4268, Lake Charles, LA 70606 Ph.337.598.5250 Fax: 337.598.5290 rlss@rlss.us www.rlss.us</td><td colspan="4">Page 3 of 3</td></tr>								Draft		Date		Approved		Date		Marcel Panicke		01/10/13		Markus Müller		14/08/14		Corporate Headquarters Rosenberger Hochfrequenztechnik GmbH & Co. KG P.O. Box 1260 D-84526 Tittmoning Germany Tel. +49 8684 18-0				Rev.		Engineering change number						b00		14-1131						Name		Date						Marion Striegler		14/08/14		Rosenberger Site Solutions, LLC P.O. Box 4268, Lake Charles, LA 70606 Ph.337.598.5250 Fax: 337.598.5290 rlss@rlss.us www.rlss.us				Page 3 of 3			
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