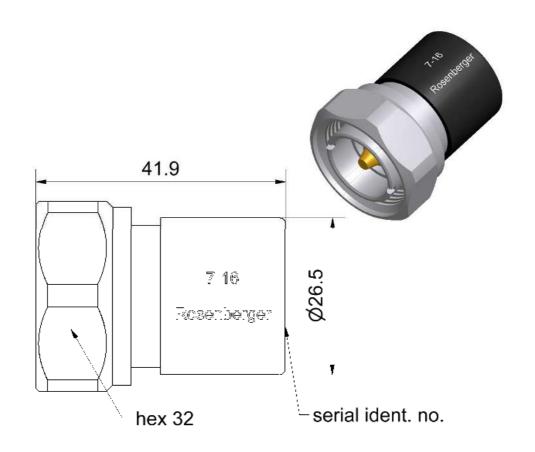
Technical Data Sheet		Rosenberger				
7-16	Short Circuit Plug	60S12S-000S3				



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

Interface

According to

IEC 61169-4, EN 122190, DIN 47223

Documents

Application note

AN001 "Calibration Services"

Material and plating Connector parts

Center conductor Outer conductor Coupling nut Dielectric

Material

CuBe Stainless steel Stainless steel **Plating**

Gold, min. 1.27 µm, over nickel **Passivated Passivated**

PPE

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

1/3

Technical Data Sheet

Rosenberger

7-16

Short Circuit

60S12S-000S3

Electrical data

Frequency range DC to 8 GHz

Return loss ≤ 0.10 dB, DC to 4 GHz

 \leq 0.15 dB, 4 GHz to 8 GHz

Error from nominal phase¹ $\leq 1.0^{\circ}$, DC to 4 GHz

 \leq 1.5°, 4 GHz to 8 GHz

Mechanical data

 $\begin{array}{ll} \text{Mating cycles} & \geq 500 \\ \text{Maximum torque} & 35 \text{ Nm} \\ \text{Recommended torque} & 2.26 \text{ Nm} \\ \end{array}$

Gauge 1.72 mm to 1.76 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.

 $\begin{array}{ll} \mbox{Offset Z_{\circ} / Impedance / Z_{\circ}} & 50 \ \Omega \\ \mbox{Offset Delay} & 56.372 \ ps \\ \mbox{Length (electrical) / Offset Length} & 16.90 \ mm \\ \mbox{Offset Loss} & 0.50 \ G\Omega/s \\ \mbox{Loss} & 0.0049 \ dB/\sqrt{\mbox{GHz}} \end{array}$

Short Inductance²

Environmental data

Operating temperature range³ +20 °C to +26 °C Rated temperature range of use⁴ 0 °C to +50 °C Storage temperature range -40 °C to +85 °C

RoHS compliant

³ Temperature range over which these specification are valid.

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

¹ The nominal phase is defined by the Offset Delay, the Offset Loss and the Short Inductance.

² Short Inductances are determined individually for each Short circuit and are documented in a Calibration Certificate.

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

Technical Data Sheet 7-16 Short Circuit Plug 60S12S-000S3

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 individually optimized and 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 individually optimized and 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	I
Packing Standard	I 1 pce in box
Weight	93 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	03.08.15	Markus Müller	10.08.16		c00	16-1267	Marion Striegler	r	10.08.16
Rosenberger Hochfrequenztechnik GmbH & Co. KG										Page

Rosenberger Hochfrequenztechnik GmbH & Co. KG P.O.Box 1260 D-84526 Tittmoning Germany www.rosenberger.de

Tel. : +49 8684 18-0 Email : <u>info@rosenberger.de</u> i age

3/3