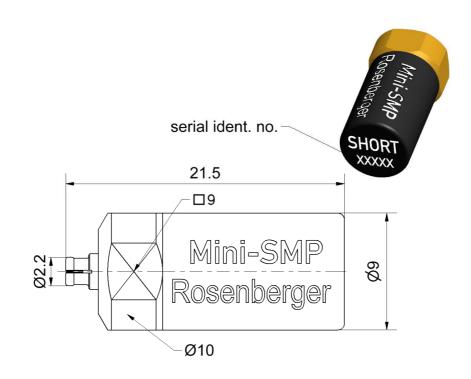
Technical Data Sheet		Rosenberger		
Mini-SMP	Short Circuit Jack	18K12S-000D3		



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

Interface

According to

MIL-STD-348
Mateable with GPPOTM (Gilbert Engineering Co., Inc.) and SSMPTM (Connectors Devices, Inc.)

Documents

Application note

AN001 "Calibration Services"

Material and plating Connector parts

Center conductor
Outer conductor

Material Plating

CuBe Gold, min. 1.27 μ m, over nickel CuBe Gold, min. 1.27 μ m, over nickel

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Technical Data Sheet Rosenberger

Mini-SMP

Short Circuit Jack

18K12S-000D3

Electrical data

Frequency range DC to 40 GHz

Return loss \leq 0.40 dB, DC to 18 GHz

≤ 0.50 dB, 18 GHz to 40 GHz

Error from nominal phase¹ $\leq 5.0^{\circ}$, DC to 18 GHz $\leq 10.0^{\circ}$, 18 GHz to 40 GHz

Mechanical data

Mating cycles

if mating part is Smooth bore ≥ 500 if mating part is Full detent ≥ 100

Engagement force

Smooth boreFull detent11 N typical19 N typical

Disengagement force

Smooth boreFull detent11 N typical29 N typical

Gauge 0.00 mm to 0.08 mm

General standard definition

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.

 $\begin{array}{lll} \text{Offset Z_{\circ} / Impedance / Z_{\circ}} & 50 \ \Omega \\ \text{Offset Delay} & 13.9430 \ \text{ps} \\ \text{Length (electrical) / Offset Length} & 4.18 \ \text{mm} \\ \text{Offset Loss} & 4.17 \ \text{G}\Omega/\text{s} \\ \text{Loss} & 0.0101 \ \text{dB/} \sqrt{\text{GHz}} \end{array}$

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.

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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 short circuit is fully functional and could be used without damage.

Technical Data Sheet		Rosenberger		
Mini-SMP Short Circ	uit	18K12S-000D3		

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 Rosenberger standards**, national / international standards are not available. Model based standard definitions are individually optimized and reported in an Agilent/Keysight, Rohde & Schwarz and Anritsu compatible VNA format.

Accredited Calibration

Not available.

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 5.5 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	12.10.09	Markus Müller	07.11.16	e00	15-1674	Marion Striegler	07.11.16

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