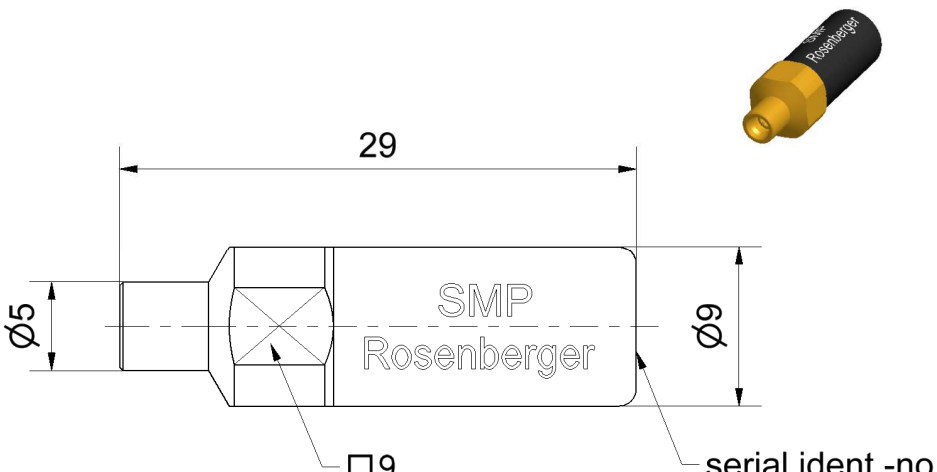


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RF_35/09.14/6.2

Technical Data Sheet		Rosenberger												
SMP	Open Circuit Plug – full detent	19S12L-000D3												
														
All dimensions are in mm; tolerances according to ISO 2768 m-H														
Interface According toMIL-STD-348														
Documents Application noteAN001 “Calibration Services”														
Material and plating <table><tr><td>Connector parts</td><td>Material</td><td>Plating</td></tr><tr><td>Center conductor</td><td>CuBe</td><td>Gold, min. 1.27 µm, over nickel</td></tr><tr><td>Outer conductor</td><td>CuBe</td><td>Gold, min. 1.27 µm, over nickel</td></tr><tr><td>Dielectric</td><td>PS</td><td></td></tr></table>			Connector parts	Material	Plating	Center conductor	CuBe	Gold, min. 1.27 µm, over nickel	Outer conductor	CuBe	Gold, min. 1.27 µm, over nickel	Dielectric	PS	
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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												
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Electrical data

Frequency range	DC to 40 GHz
Return loss	≤ 0.25 dB, DC to 4 GHz
	≤ 0.50 dB, 4 GHz to 18 GHz
	≤ 1.00 dB, 18 GHz to 40 GHz
Error from nominal phase ¹	≤ 3.0°, DC to 4 GHz
	≤ 5.0°, 4 GHz to 18 GHz
	≤ 8.0°, 18 GHz to 40 GHz

¹ The nominal phase is defined by the Offset Delay, the Offset Loss and the Fringing Capacitances

Mechanical data

Mating cycles	≥ 100
Engagement force	
- Full detent	68 N
Disengagement force	
- Full detent	22 N
Gauge	0.00 mm to 0.05 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.

Offset Z_0 / Impedance / Z_0	50 Ω
Offset Delay	20.0203 ps
Length (electrical) / Offset Length	6.00 mm
Offset Loss	3.20 G Ω /s
Loss	0.0111 dB/ $\sqrt{\text{GHz}}$
Fringing Capacitances ²	

² Fringing Capacitances are determined individually for each open circuit and are documented in a Calibration Certificate.

Environmental data

Operating temperature range ³	+ 20 °C to +26 °C
Rated temperature range of use ⁴	0 °C to +50 °C
Storage temperature range	- 40 °C to +85 °C

RoHS	compliant
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³ Temperature range over which these specification are valid.

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

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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 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 <table><tr><td>Recommendation</td><td>12 months</td></tr></table> Packing <table><tr><td>Standard</td><td>1 pce in box</td></tr><tr><td>Weigth</td><td>7.5 g/pce</td></tr></table>								Recommendation	12 months	Standard	1 pce in box	Weigth	7.5 g/pce										
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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.																							
<table><tr><td>Draft</td><td>Date</td><td>Approved</td><td>Date</td></tr><tr><td>Marion Striegler</td><td>14.09.15</td><td>Markus Müller</td><td>07.11.16</td></tr></table>				Draft	Date	Approved	Date	Marion Striegler	14.09.15	Markus Müller	07.11.16	<table><tr><td>Rev.</td><td>Engineering change number</td><td>Name</td><td>Date</td></tr><tr><td>c00</td><td>15-1629</td><td>Marion Striegler</td><td>07.11.16</td></tr></table>				Rev.	Engineering change number	Name	Date	c00	15-1629	Marion Striegler	07.11.16
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