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With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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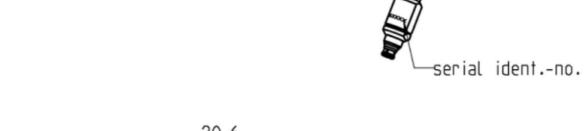
Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China

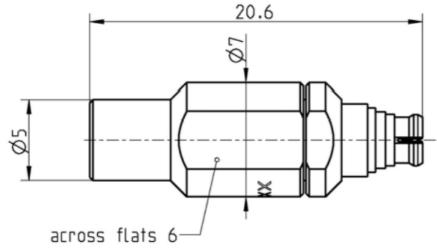






Technical Data Sheet		Rosenberger		
SMP	Calibration Adaptor Plug full detent / Jack	19S121-K20D3		





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

Interface	
According to	MIL-STD-348

Documents	
Application note	AN001 "Calibration Services"

Material and plating		
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	PEEK	•

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# Technical Data Sheet Rosenberger SMP Calibration Adaptor Plug full detent / Jack 19S121-K20D3

## Electrical data

Frequency range DC to 40 GHz Return loss  $\geq$  26 dB, DC to 4 GHz  $\geq$  20 dB, 4 GHz to 18 GHz

≥ 18 dB, 18 GHz to 40 GHz

## Mechanical data

 $\begin{array}{lll} \text{Mating cycles Plug side} & \geq 100 \\ \text{Mating cycles Jack side} & & \geq 1000 \\ \text{if mating part is Smooth bore} & \geq 1000 \\ \text{if mating part is Limited detent} & \geq 500 \\ \text{if mating part is Full detent} & \geq 100 \\ \text{Engagement force} & & = 5 \\ \text{Smooth bore} & 9 \\ \text{N} \end{array}$ 

- Limited detent 45 N
- Full detent 68 N
Disengagement force

- Smooth bore 2.2 N - Limited detent 9 N - 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.

 $\begin{array}{lll} \mbox{Offset $Z_{\rm o}$ / Impedance / $Z_{\rm o}$} & 50 \ \Omega \\ \mbox{Offset Delay} & 63.7107 \ ps \\ \mbox{Length (electrical) / Offset Length} & 19.10 \ mm \\ \mbox{Offset Loss} & 4.00 \ \mbox{G}\Omega/s \\ \mbox{Loss} & 0.0221 \ \mbox{dB}/\sqrt{\mbox{GHz}} \end{array}$ 

#### **Environmental data**

Operating temperature range<sup>1</sup> +20 °C to +26 °C
Rated temperature range of use<sup>2</sup> 0 °C to +50 °C
Storage temperature range -40 °C to +85 °C

RoHS compliant

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<sup>&</sup>lt;sup>1</sup> Temperature range over which these specification are valid.

This range is underneath and above the operating temperature range, within the calibration adaptor 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 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 3.4 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
Marion Striegler	15.09.15	Markus Müller	07.11.16	c00	15-1629	Marion Striegler	07.11.16
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