



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

Interface

According to IEC 61169-24, EIA-550

Documents

Application note AN001 "Calibration Services"

Material and plating

Connector parts

- Center contact
- Outer contact
- Coupling nut
- Dielectric

Material

- CuBe
- Stainless steel
- Stainless steel
- PS, POM

Plating

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

Electrical data

Frequency	DC to 6 GHz
Return loss ¹	≥ 30 dB, DC to 3 GHz
	≥ 27 dB, 3 GHz to 4 GHz
	≥ 20 dB, 4 GHz to 6 GHz

¹ Only valid if a F plug with a pin diameter between 0.76mm and 0.86mm is used.

Mechanical data

Mating cycles	≥ 1000
Maximum torque	6.78 Nm
Recommended torque	2.00 Nm
Nominal pin diameter	0.81 mm
Permitted male contact diameter	0.64 mm to 1.13 mm
Gauge male side	0.00 mm to 0.10 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.

Offset Z ₀ / Impedance / Z ₀	75 Ω
Offset Delay	111.744 ps
Length (electrical) / Offset Length	33.50 mm
Offset Loss	3.90 GΩ/s
Loss	0.0252 dB/√GHz
Line Loss @ 1GHz	0.0008 dB/mm

Environmental data

Operating temperature range ²	+20 °C to +26 °C
Rated temperature range of use ³	0 °C to +50 °C
Storage temperature range	- 40 °C to +85 °C

RoHS compliant

² Temperature range over which these specification are valid.

³ This range is underneath and above the operating temperature range, within the calibration adaptor is fully functional and could be used without damage.

F 75 Ω

Calibration Adaptor
Plug/Jack (Full Range)

74S121-K22S3

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 28.0 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	08.08.18	Markus Müller	17.07.19	b00	19-1328	Marion Striegler	17.07.19
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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