



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

**Interface**

According to IEC 61169-24<sup>1</sup>, EIA-550

<sup>1</sup> Accepts only limited pin diameter, see "Mechanical data".

**Documents**

Application note AN001 "Calibration Services"

**Material and plating**

**Connector parts**

Center contact	Material	Plating
Outer contact	CuBe	Gold, min. 1.27 μm, over nickel
Dielectric	Stainless steel	Passivated
	PS	

**Electrical data**

Frequency range	DC to 6 GHz
Return loss	≤ 0.10 dB, DC to 4 GHz ≤ 0.15 dB, 4 GHz to 6 GHz
Error from nominal phase <sup>2</sup>	≤ 1.0°, DC to 4 GHz ≤ 1.5°, 4 GHz to 6 GHz

<sup>2</sup> The nominal phase is defined by the Offset Delay, the Offset Loss and the Fringing Capacitances.

**Mechanical data**

Mating cycles	≥ 1000
Maximum torque	6.78 Nm
Recommended torque	2.00 Nm
Permitted male pin diameter <sup>3</sup>	0.76 mm to 0.86 mm
Gauge	0.00 mm to 0.10 mm

<sup>3</sup> Connecting a F plug with larger male pin diameter will damage female contact fingers of this Open circuit. Use "full range adaptor" 74S121-K22S3 instead.

**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 <sub>o</sub> / Impedance / Z <sub>o</sub>	75 Ω
Offset Delay	53.370 ps
Length (electrical) / Offset Length	16.00 mm
Offset Loss	2.40 GΩ/s
Loss	0.0148 dB/√GHz
Fringing Capacitances <sup>4</sup>	

<sup>4</sup> Fringing Capacitances are determined individually for each Open circuit and are documented in a Calibration Certificate.

**Environmental data**

Operating temperature range <sup>5</sup>	+20 °C to +26 °C
Rated temperature range of use <sup>6</sup>	0 °C to +50 °C
Storage temperature range	- 40 °C to +85 °C

RoHS compliant

<sup>5</sup> Temperature range over which these specification are valid.

<sup>6</sup> This range is underneath and above the operating temperature range, within the open circuit is fully functional and could be used without damage.