# 35/05.10/6.

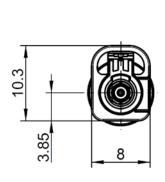
## **Technical Data Sheet**

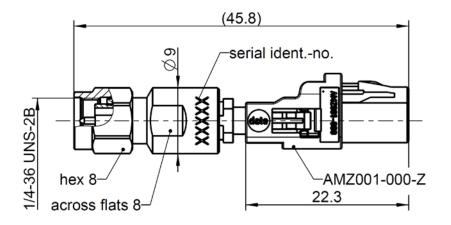
## Rosenberger

**CALIBRATION ADAPTOR** RPC-3.50 Plug - HFM Jack

03S1AM-K20S3







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

## Interface

RPC-3.50 according to RPC-3.50 mechanically compatible with HFM according to

IEC 60169-23 RPC-2.92 and SMA RN\_108-01

## **Documents**

Application note

AN001 "Calibration Services"

## Material and plating

Connector parts Center contact Outer contact RPC-3.50 Outer contact HFM Dielectric RPC-3.50 Dielectric HFM Coupling nut RPC-3.50 Gasket RPC-3.50 Body Housing HFM Secondary lock HFM

## Material CuBe

PBT GF20

PBT GF20

Gold, min. 1.27 µm, over chemical nickel Stainless steel **Passivated** Gold, min. 1.27 µm, over chemical nickel CuBe PS PEI Stainless steel **Passivated** Silicone **Brass** 

**Plating** 

AuroDur®, gold plated

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## R 35/05.10/6.1

## **Technical Data Sheet**

## Rosenberger

## CALIBRATION ADAPTOR RPC-3.50 Plug – HFM Jack

## 03S1AM-K20S3

## Electrical data

Frequency Return loss DC to 15 GHz  $\geq$  34 dB, DC to 1 GHz  $\geq$  25 dB, 1 GHz to 6 GHz  $\geq$  20 dB, 6 GHz to 12 GHz  $\geq$  18 dB, 12 GHz to 15 GHz

## Mechanical data

RPC-3.50HFMMating cycles≥ 500≥ 500  $^3$ Mating cycles housing≥ 25

Maximum torque 1.70 N

Recommend torque 0.80 Nm to 1.10 Nm

Engagement force  $\leq$  15 N Disengagement force  $\geq$  2 N

Gauge 0.00 mm to 0.08 mm

## **General standard definition**

For proper operation the vector network analyser (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.

 $\begin{array}{ll} \text{Offset Z}_0 \, / \, \text{Impedance} \, / \, Z_0 & 50 \, \Omega \\ \text{Offset Delay} & 143.0889 \, \text{ps} \\ \text{Length (electrical)} \, / \, \text{Offset Length} & 42.90 \, \text{mm} \\ \text{Offset Loss} & 4.26 \, \text{G}\Omega/\text{s} \\ \end{array}$ 

Loss  $0.0529 \, \mathrm{dB} \, / \, \sqrt{GHz}$ 

## **Environmental data**

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

RoHS compliant

<sup>1</sup> Temperature range over which these specifications are valid.

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<sup>&</sup>lt;sup>3</sup> Limitations are possible due to the quality of the used mating connector

<sup>&</sup>lt;sup>2</sup> This range is underneath and above the operating temperature range, within the open circuit is fully functional and could be used without damage

# Technical Data Sheet CALIBRATION ADAPTOR RPC-3.50 Plug – HFM Jack ROSENDET 03S1AM-K20S3

## 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
Weight	
	8.2 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
Florian Reiner	09.03.16	Martin Moder	24.11.17	300	17-1951	M. Rahberger	24.11.17
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