Technical Data Sheet		Rosenberger
RPC-N 50 Ω	Calibration Kit Industrial Version	**05CK010-150**

Contents

Device	Part number	Quantity	Calibration Option[a]
Open circuit plug	05S12L-000S3	1	FC / AC
Open circuit jack	05K12L-000S3	1	FC / AC
Short circuit plug	05S12S-000S3	1	FC / AC
Short circuit jack	05K12S-000S3	1	FC / AC
Calibration load plug	05S150-C10S3	1	FC / AC
Calibration load jack	05K150-C10S3	1	FC / AC
Calibration adaptor plug/plug	05S121-S20S3	1	FC / AC
Calibration adaptor jack/jack	05K121-K20S3	1	FC / AC
Combi wrench	53W011-000	1	-
Torque wrench	53W009-000	1	FC

a. See “Declaration of calibration options” for explanation.

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Documentation

This kit is delivered with

- **USB-Stick**
  Standard Definitions as data files for Vector Network Anaylzer Families PNA (Keysight/Agilent) and ZVA (Rohde&Schwarz). Calibration Certificate as PDF-file.
- **Standard Definitions Cards**
  Printed Standard Definitions that can be used on nearly all Vector Network Analyzers.
- **Kit Info Card**
  Handling precautions and information for installing Standard Definitions on a Vector Network Analyzer.
- **Calibration Certificate**
  Details see "Declaration of calibration options"
- **Operating Manual**

Electrical specifications

This specification covers electrical key values for the main calibration standards of the calibration kit. Specific datasheets are available for each component among the part number.

Calibration standard	Frequency	Parameter	Specification
Opens[b] (plug and jack)	DC to ≤ 4 GHz > 4 GHz to ≤ 8 GHz > 8 GHz to ≤ 18 GHz	Error from Nominal Phase	≤ 1.5° ≤ 2.0° ≤ 3.0°
Shorts[b] (plug and jack)	DC to ≤ 4 GHz > 4 GHz to ≤ 8 GHz > 8 GHz to ≤ 18 GHz	Error from Nominal Phase	≤ 1.2° ≤ 1.5° ≤ 2.5°
Calibration loads (plug and jack)	DC to ≤ 4 GHz > 4 GHz to ≤ 8 GHz > 8 GHz to ≤ 18 GHz	Return Loss	≥ 45 dB ≥ 32 dB ≥ 30 dB
Calibration adaptors (plug/plug and jack/jack)	DC to ≤ 4 GHz > 4 GHz to ≤ 8 GHz > 8 GHz to ≤ 18 GHz	Return Loss	≥ 36 dB ≥ 32 dB ≥ 30 dB

b. The specifications for opens and shorts are given as allowed deviation from nominal model as defined in calibration certificate included with your kit.

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Declaration of calibration options

Factory Calibration

Standard delivery for this kit includes a Factory Calibration. All devices marked with “FC” in the Content table above are reported in a Calibration Certificate with their individual calibration results, traceable to national / international standards. Classical standard definitions of the calibration standards are reported in Agilent, Rohde&Schwarz and Anritsu compatible VNA format.

Accredited Calibration

Optional this kit can be delivered with an Accredited Calibration (DAkkS) having the highest confidence in the traceability. All devices marked with “AC” in the Content table above are reported in a DAkkS Calibration Certificate with their individual calibration results in a complex format, traceable to national / international standards. Classical standard definitions of the calibration standards are reported in Agilent, Rohde&Schwarz and Anritsu VNA format as well as in dense data sets needed for databased calibration kits. The uncertainties are a little bit smaller than in a Factory Calibration.
All devices marked with “FC” only cannot be calibrated under accreditation. They are factory calibrated as described above.

For further, more detailed information see application note AN001 on the Rosenberger homepage.

Calibration interval

Recommendation	12 months

Recommended accessories

- Rosenberger Test Port Adaptor
- Rosenberger Gauge Kit 05GK0KS-010
- Rosenberger VNA Test cable kit and Microwave Cable Assemblies

For further, more detailed information please visit our homepage www.rosenberger.com.

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