



**Contents**

Device	Part number	Quantity	Calibration Option <sup>a</sup>
Open circuit plug	P5S12L-001S3	1	FC / AC
Open circuit jack	P5K12L-001S3	1	FC / AC
Short circuit plug	P5S12S-001S3	1	FC / AC
Short circuit jack	P5K12S-001S3	1	FC / AC
Calibration load plug	P5S170-C11S3	1	FC / AC
Calibration load jack	P5K170-C11S3	1	FC / AC
Calibration adaptor plug/plug	P5S121-S21S3	1	FC / AC
Calibration adaptor jack/jack	P5K121-K21S3	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 Analyzer Families PNA (Keysight/Agilent) and ZVA (Rohde&Schwarz). Calibration Certificate and User Manual 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"
- **Printed User Manual**

**Electrical specifications**

These specifications cover electrical key specifications for the calibration standards of the calibration kit. Specific and more detailed datasheets are available for each kit device among the part number.

Calibration standard	Frequency	Parameter	Specification
<b>Opens<sup>b</sup></b> (plug and jack)	DC to ≤ 4 GHz > 4 GHz to ≤ 8 GHz > 8 GHz to ≤ 18 GHz	Error from Nominal Phase	≤ 1.5° ≤ 3.0° ≤ 4.0°
<b>Shorts<sup>b</sup></b> (plug and jack)	DC to ≤ 4 GHz > 4 GHz to ≤ 8 GHz > 8 GHz to ≤ 18 GHz	Error from Nominal Phase	≤ 2.0° ≤ 3.0° ≤ 4.0°
<b>Calibration loads</b> (plug and jack)	DC to ≤ 4 GHz > 4 GHz to ≤ 8 GHz > 8 GHz to ≤ 12 GHz > 12 GHz to ≤ 18 GHz	Return Loss	≥ 40 dB ≥ 32 dB ≥ 30 dB ≥ 22 dB
<b>Calibration adaptors</b> (plug/plug and jack/jack)	DC to ≤ 4 GHz > 4 GHz to ≤ 12 GHz > 12 GHz to ≤ 18 GHz	Return Loss	≥ 36 dB ≥ 25 dB ≥ 20 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. Model based definitions of the calibration standards are reported in Agilent/Keysight, Rohde & Schwarz and Anritsu compatible VNA format.

**Accredited Calibration**

Optional this calibration standard can be delivered with an Accredited Calibration (DAkkS) up to 12 GHz having the highest confidence in the traceability. The DAkkS Calibration Certificate issued reports individual calibration results in a complex format, traceable to national / international standards. Model based standard definitions are individually optimized and reported in an Agilent/Keysight, Rohde & Schwarz and Anritsu compatible VNA format as well as in a dense data set needed for data based standard definitions. The uncertainties are 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 RPC-N 50 Ω to RPC-N 75 Ω Impedance Matching Adaptor
- Rosenberger RPC-N 50 Ω to RPC-N 75 Ω Matching Attenuator
- Rosenberger Gauge Kit P5GK0KS-010
- Rosenberger VNA Test cable kit and Microwave Cable Assemblies

*For further, more detailed information please visit our homepage [www.rosenberger.com](http://www.rosenberger.com).*

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.

For the installation of the electrotechnical equipment, particular electrotechnical expertise is required.



Draft	Date	Approved	Date	Rev.	Engineering change number	Name	Date
Herbert Babinger	01.09.21	Martin Moder	21.06.22	200	22-1065	G. Schiele	21.06.22

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