



**Contents**

Device	Part number	Quantity	Calibration Option <sup>a</sup>
Open circuit plug	09S12L-000S3	1	FC / AC
Open circuit jack	09K12L-000S3	1	FC / AC
Short circuit plug	09S12S-000S3	1	FC / AC
Short circuit jack	09K12S-000S3	1	FC / AC
Calibration load plug	09S150-C10S3	1	FC / AC
Calibration load jack	09K150-C10S3	1	FC / AC
Calibration adaptor plug/plug	09S121-S20S3	1	FC / AC
Calibration adaptor jack/jack	09K121-K20S3	1	FC / AC
Combi wrench	03W008-000	1	-
Torque wrench	03W021-000	1	FC
Gauge jack (including gauge block)	08W00S-000	1	FC
Gauge plug (including gauge block)	08W00K-000	1	FC

a. See "Declaration of calibration options" for explanation.

**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 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
<b>Opens<sup>b</sup></b> (plug and jack)	DC to ≤ 4 GHz > 4 GHz to ≤ 26.5 GHz > 26.5 GHz to ≤ 50 GHz	Error from Nominal Phase	≤ 2.0° ≤ 4.0° ≤ 6.0°
<b>Shorts<sup>b</sup></b> (plug and jack)	DC to ≤ 4 GHz > 4 GHz to ≤ 26.5 GHz > 26.5 GHz to ≤ 50 GHz	Error from Nominal Phase	≤ 1.5° ≤ 3.0° ≤ 4.5°
<b>Calibration loads</b> (plug and jack)	DC to ≤ 4 GHz > 4 GHz to ≤ 26.5 GHz > 26.5 GHz to ≤ 50 GHz	Return Loss	≥ 36 dB ≥ 30 dB ≥ 22 dB
<b>Calibration adaptors</b> (plug/plug and jack/jack)	DC to ≤ 4 GHz > 4 GHz to ≤ 26.5 GHz > 26.5 GHz to ≤ 50 GHz	Return Loss	≥ 30 dB ≥ 24 dB ≥ 17 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.

**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 standard definitions of the calibration standards are individually optimized and reported in an Agilent/Keysight, 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. Model based standard definitions of the calibration standards are individually optimized and reported in Agilent/Keysight, Rohde&Schwarz and Anritsu VNA format as well as in dense data sets needed for databased calibration kits. 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.

\* subcontracted to another DAkkS accredited calibration laboratory

*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 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
M. Moder	04.03.15	H. Babinger	07.03.22	b00	22-0322	A.Youmsi	07.03.22