



**Contents**

Device	Part number	QTY	Calibration Option <sup>a</sup>
20 dB Attenuator plug/jack	05AS122-K20S3	1	FC
40 dB Attenuator plug/jack	05AS122-K40S3	1	FC
Mismatch Airline plug/jack	05S102-K100	1	FC
Including 50 Ω Center Conductor	05S101-K100/20D	1	
Combi wrench	53W011-000	1	-

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

This Verification Kit is designed as an electrical verification standard. Reference measurement values (calibration results) for transmission and reflection are included. Connected to a calibrated VNA the actual measured transmission and reflection values can be compared to the reference measurement values and the quality of the VNA calibration can be evaluated.

**Documentation**

This kit is delivered with

- **USB-Stick**  
With S2p data file of the reference measurement values. Calibration Certificate as PDF-file.
- **Kit Info Card**  
Handling precautions.
- **Calibration Certificate**  
Details see "Declaration of calibration options".
- **Operating Manual**

**Electrical specifications**

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

Device	Frequency	Parameter	Specification
20 dB Attenuator	DC to ≤ 4 GHz > 4 GHz to ≤ 18 GHz  DC to ≤ 4 GHz > 4 GHz to ≤ 18 GHz	Return Loss Return Loss  Insertion Loss Insertion Loss	≥ 32 dB ≥ 26 dB  20 dB ± 0.30 dB 20 dB ± 0.50 dB
40 dB Attenuator	DC to ≤ 4 GHz > 4 GHz to ≤ 18 GHz  DC to ≤ 4 GHz > 4 GHz to ≤ 18 GHz	Return Loss Return Loss  Insertion Loss Insertion Loss	≥ 32 dB ≥ 23 dB  40 dB ± 0.50 dB 40 dB ± 1.00 dB
25 Ω Mismatch Airline		Outer conductor: Diameter Length  Center Conductor: Diameter 50 Ω section Diameter 25 Ω section Length total Length 25 Ω section	7.000 mm nominal 100.00 mm nominal  3.040 mm nominal 4.615 mm nominal 100.00 mm nominal 75.00 mm nominal
50 Ω Airline Center Conductor		Diameter Length	3.040 mm nominal 100.00 mm nominal

**Declaration of calibration options**

**Factory Calibration**

Standard delivery for this verification standard includes a Factory Calibration. The Calibration Certificate issued reports individual calibration results, traceable to national / international standards. A S2p data file with the reference measurement values is included.

**Accredited Calibration**

Optional this kit can be delivered with an Accredited Calibration (DAkkS) having the highest confidence in the traceability. The DAkkS Calibration Certificate issued reports individual transmission and reflection calibration results traceable to national / international standards. S2p data files with reference measurement values and measurement uncertainties in electronic format are included for each Attenuator. The measurement uncertainties are smaller than in a Factory Calibration.

*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](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.

Draft	Date	Approved	Date	Rev.	Engineering change number	Name	Date
F. Reiner	17.12.18	Martin Moder	04.12.19	b01	19-2230	M.Ruf	04.12.19

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