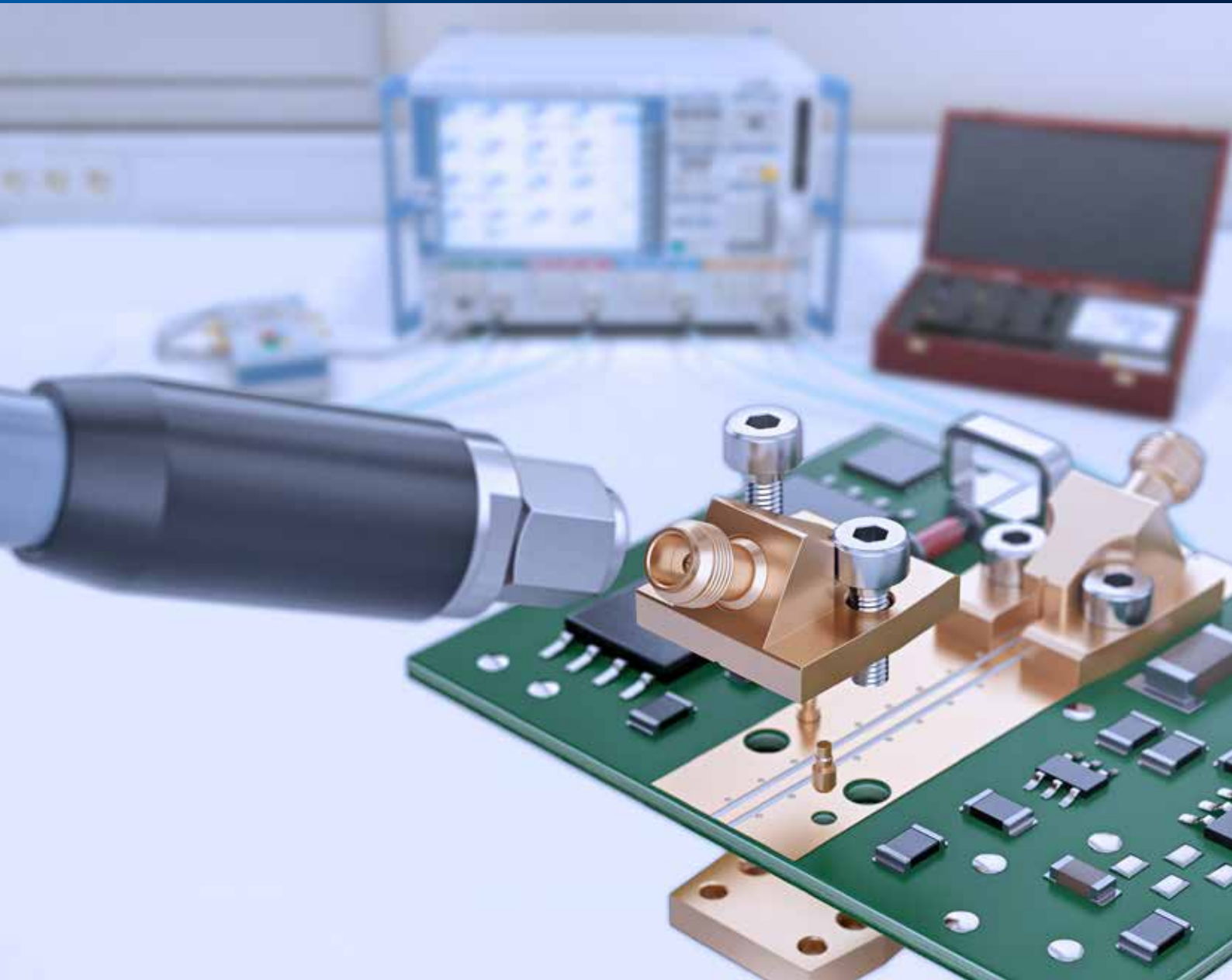


Rosenberger

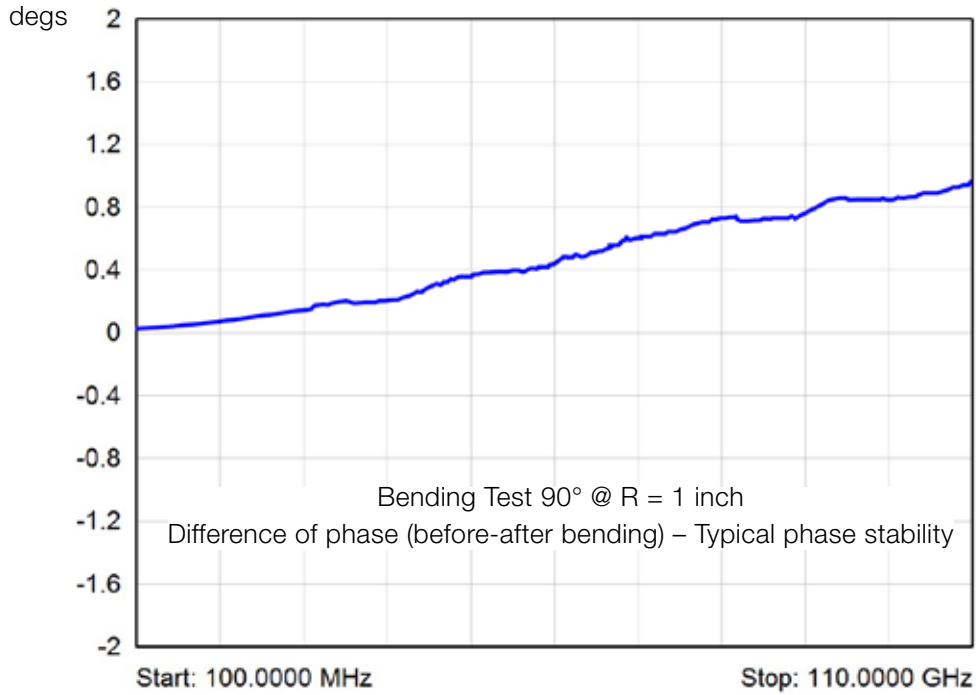
For Frequencies up to 110 GHz

RPC-1.00 Connectors

TEST & MEASUREMENT



Bending test of RPC-1.00 cable assembly, standard length



Product Portfolio

Semi-Rigid Cable Assemblies

Rosenberger No. ¹⁾	Connector 1	Connector 2	Return Loss
L70-278-xxx	RPC-1.00 male	RPC-1.00 male	≥ 17 dB, DC to 50 GHz ≥ 14 dB, 50 GHz to 110 GHz
L70-279-xxx	RPC-1.00 male	RPC-1.00 female	
L70-280-xxx	RPC-1.00 female	RPC-1.00 female	



Semi Rigid Cable Assemblies with Armouring ²⁾

Rosenberger No. ¹⁾	Connector 1	Connector 2	Return Loss
L70-281-xxx	RPC-1.00 male	RPC-1.00 male	≥ 17 dB, DC to 50 GHz ≥ 14 dB, 50 GHz to 110 GHz
L70-282-xxx	RPC-1.00 male	RPC-1.00 female	
L70-283-xxx	RPC-1.00 female	RPC-1.00 female	



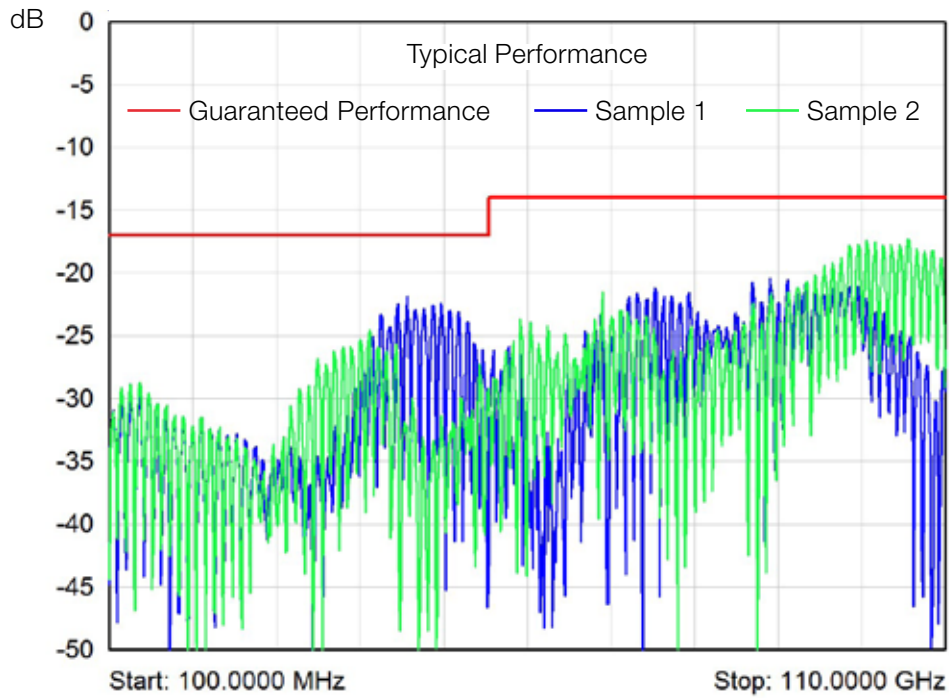
Flexible Cable Assemblies

Rosenberger No. ¹⁾	Connector 1	Connector 2	Return Loss
L70-286-xxx	RPC-1.00 male	RPC-1.00 male	≥ 17 dB, DC to 50 GHz ≥ 14 dB, 50 GHz to 110 GHz
L70-287-xxx	RPC-1.00 male	RPC-1.00 female	
L70-288-xxx	RPC-1.00 female	RPC-1.00 female	



¹⁾ xxx: please fill in the requested length. Standard = 140 mm
²⁾ Armouring: silicone rubber jacket over glass fiber braid / stainless steel spiral
 Armouring and bending protection gives high mechanical stability during flexes

Typical Reflection of a RPC-1.00 cable assembly, standard length



In-Series Adaptors

Rosenberger No.	Version	Interface	Return Loss
01K101-K20D3	Straight	RPC-1.00 female – RPC-1.00 female	≥ 20 dB, DC to 20 GHz
01S101-S20D3	Straight	RPC-1.00 male – RPC-1.00 male	≥ 17 dB, 20 GHz to 50 GHz
01S101-K20D3	Straight	RPC-1.00 male – RPC-1.00 female	≥ 15 dB, 50 GHz to 75 GHz ≥ 12 dB, 75 GHz to 110 GHz



Inter-Series Adaptors

Rosenberger No.	Version	Interface	Return Loss
01K108-K00D3	Straight	RPC-1.00 female – RPC-1.85 female ³⁾	≥ 19 dB, DC to 20 GHz
01K108-S00D3	Straight	RPC-1.00 female – RPC-1.85 male	≥ 17 dB, 20 GHz to 50 GHz
01S108-S00D3	Straight	RPC-1.00 male – RPC-1.85 male	≥ 14 dB, 50 GHz to 70 GHz
01S108-K00D3	Straight	RPC-1.00 male – RPC-1.85 female	
P9K101-K00D3	Straight	RPC-1.00 female – RPC-1.35 female	≥ 27 dB, DC to 18 GHz
P9S101-S00D3	Straight	RPC 1.00 male – RPC-1.35 male	≥ 18 dB, 18 GHz to 40 GHz ≥ 14 dB, 40 GHz to 65 GHz ≥ 12 dB, 65 GHz to 90 GHz



³⁾ RPC-1.85 Interface intermateable with RPC-2.40 and V connectors according to IEC 61169-32

PCB Connectors

Rosenberger No.	Version	Remarks	Return Loss
01K80A-40ML5	30° Angle	Solderless PCB connector, female Can be screwed anywhere on the board without soldering ⁴⁾	≥ 21 dB, DC to 26.5 GHz ≥ 19 dB, 26.5 GHz to 40 GHz ≥ 17 dB, 40 GHz to 70 GHz ≥ 12 dB, 70 GHz to 100 GHz ≥ 10 dB, 100 GHz to 110 GHz



⁴⁾ Please see Flyer Solderless PCB Mount Connectors



Waveguide-to-Coaxial Adaptors

Rosenberger No.	Version	Interface	Frequency range	Return Loss
01S900-387	Straight	RPC-1.00 male – WR-10	75 GHz to 110 GHz	≥ 16 dB
01K900-387	Straight	RPC-1.00 female – WR-10		
01S740-387	Straight	RPC-1.00 male – WR-12	60 GHz to 90 GHz	
01K740-387	Straight	RPC-1.00 female – WR-12		



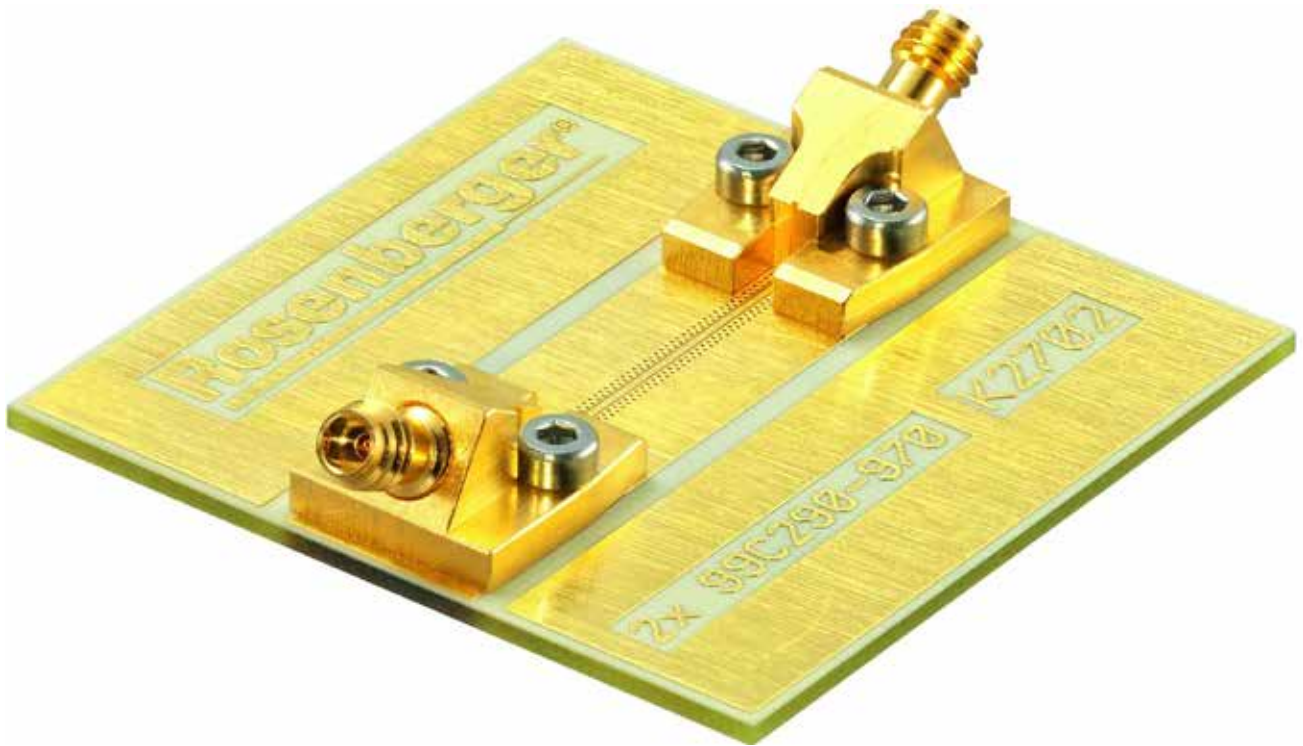
Gauge Kit

The mechanical gauging of connectors is essential to ensure correct fit and to achieve the best performance. This means that all coaxial connectors fitted on all equipment, cables and terminations etc. should be gauged on a regular basis in order to detect any out of tolerance conditions that may impair the electrical performance. Inner conductor protrusion can damage the equipment and recession can influence the electrical measurement.

For details please see the operating manual.

Rosenberger No.	Remarks
01GK0KS-010	Rosenberger gauge kits are delivered in a stable wooden box with gauge male / female incl. gauge block male / female.





RPC-1.00 Connectors – for Applications up to 110 GHz

RPC-1.00 connectors from Rosenberger – with 50 Ω impedance and 1.00 mm outer conductor – can be used for challenging test & measurement applications up to 110 GHz.

The new revised standard portfolio covers cable assemblies, in-series and inter-series adaptors and PCB connectors. Waveguide-to-coaxial adaptors as well as gauge kits are also available.

Customer-specific cable assembly solutions are available on request.

RPC-1.00 connectors are characterized by excellent technical data over the full frequency range and meet the highest levels of reliability and repeatability of performance.

Product Features

- Interface intermateable with 1.00 mm connectors according to IEC 61169-31
- Frequency range DC to 110 GHz
- Excellent return-loss values
- Mating cycles ≥ 500
- Impedance 50 Ω
- Threaded coupling
- Damage-free connection

For specific details refer to the technical datasheets in our online catalog



Website

For more information refer to our website:
www.rosenberger.com/rpc

Rosenberger

Rosenberger Hochfrequenztechnik GmbH & Co. KG

Hauptstraße 1 | 83413 Fridolfing

P.O. Box 1260 | 84526 Tittmoning

Germany

Phone +49 8684 18-0

info@rosenberger.com

www.rosenberger.com

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