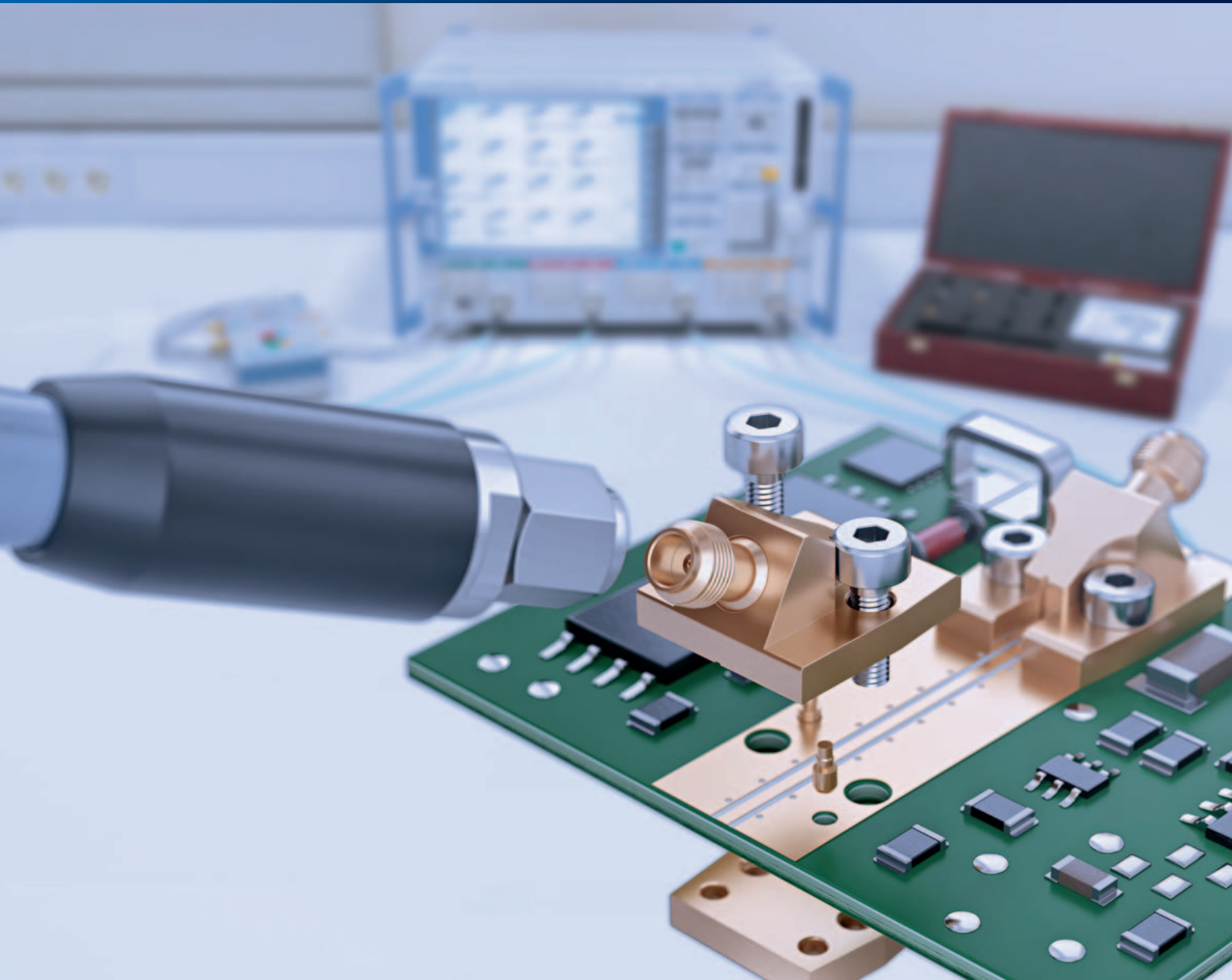


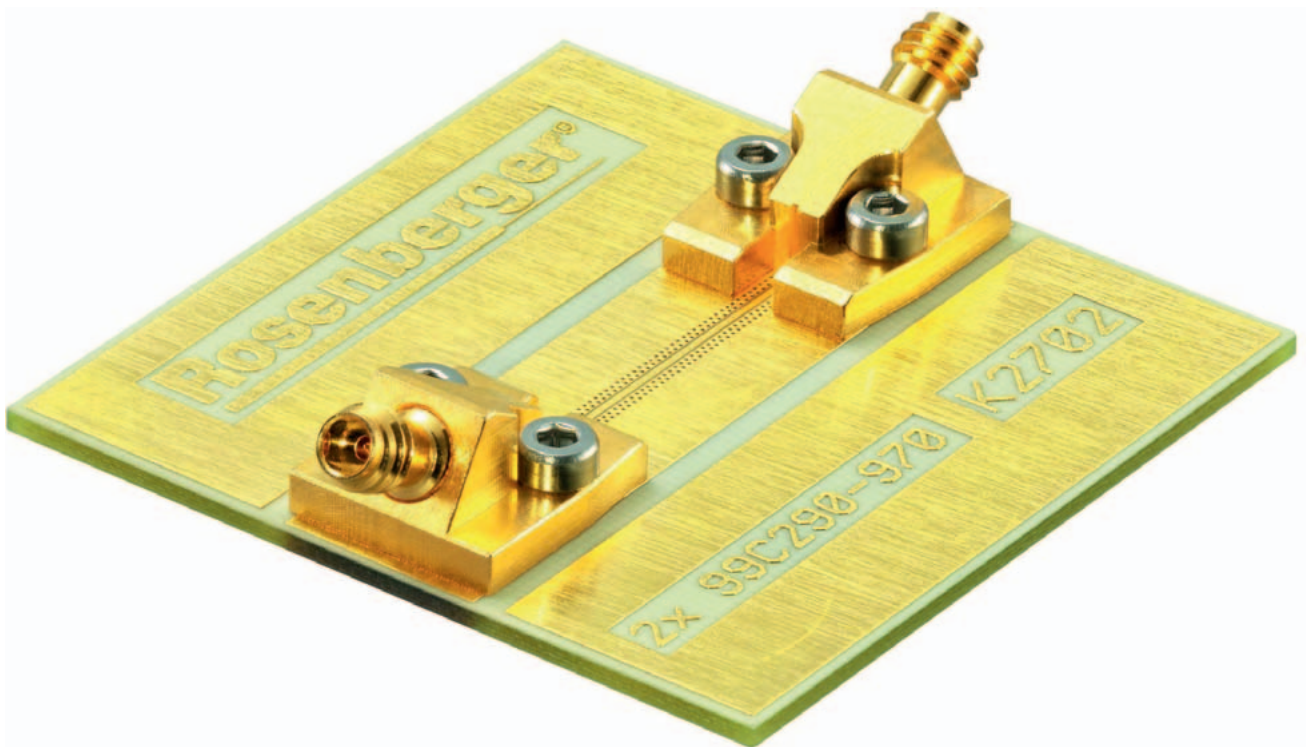
Rosenberger

For Frequencies up to 110 GHz

RPC-1.00 Connectors

TEST & MEASUREMENT





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. Gauge kits are also available.

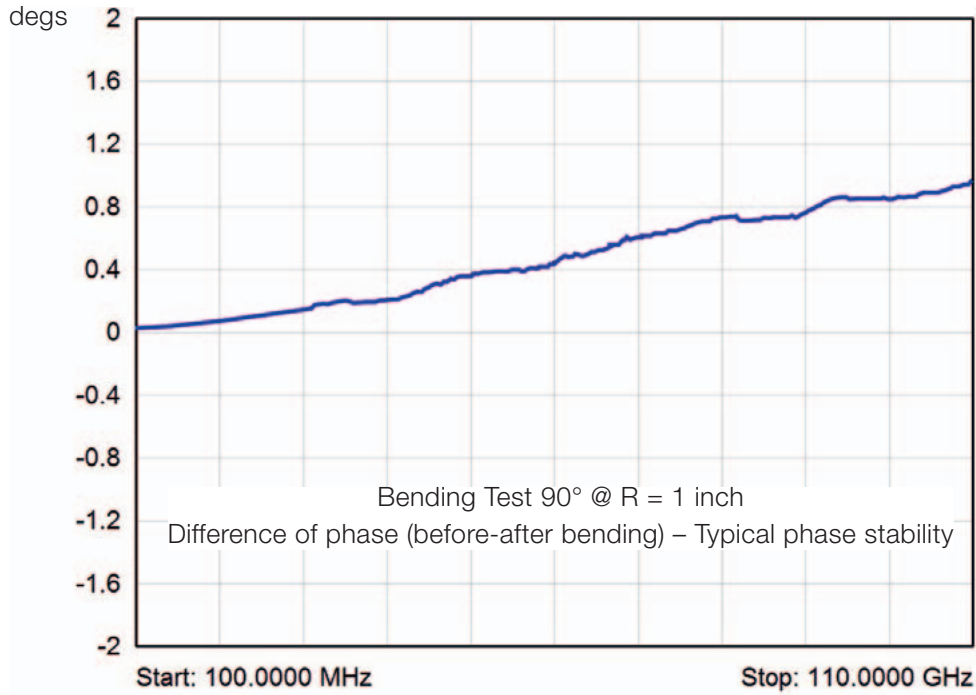
Customer-specific cable assembly solutions are available on request.

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

Bending test of RPC-1.00 cable assembly, standard length



Product Portfolio

Cable Assemblies

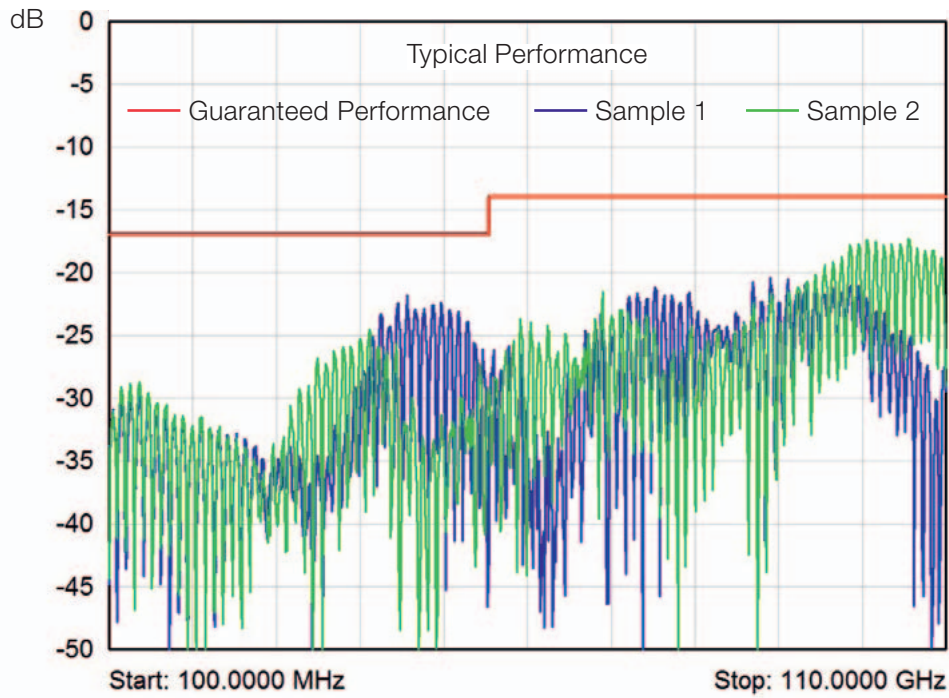
Rosenberger No. ¹⁾	Connector 1	Connector 2	Armouring ²⁾	Return Loss	
L70-278-xxx	RPC-1.00 male	RPC-1.00 male	No	≥ 17 dB, DC to 50 GHz ≥ 14 dB, 50 GHz to 110 GHz	
L70-279-xxx	RPC-1.00 male	RPC-1.00 female	No	≥ 17 dB, DC to 50 GHz ≥ 14 dB, 50 GHz to 110 GHz	
L70-280-xxx	RPC-1.00 female	RPC-1.00 female	No	≥ 17 dB, DC to 50 GHz ≥ 14 dB, 50 GHz to 110 GHz	
L70-281-xxx	RPC-1.00 male	RPC-1.00 male	Yes ³⁾	≥ 17 dB, DC to 50 GHz ≥ 14 dB, 50 GHz to 110 GHz	
L70-282-xxx	RPC-1.00 male	RPC-1.00 female	Yes ³⁾	≥ 17 dB, DC to 50 GHz ≥ 14 dB, 50 GHz to 110 GHz	
L70-283-xxx	RPC-1.00 female	RPC-1.00 female	Yes ³⁾	≥ 17 dB, DC to 50 GHz ≥ 14 dB, 50 GHz to 110 GHz	

¹⁾ xxx: please fill in the requested length. Standard = 140 mm

³⁾ Armouring and bending protection gives high mechanical stability during flexes

²⁾ armouring: silicone rubber jacket over glass fiber braid / stainless steel spiral

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 ≥ 17 dB, 20 GHz to 50 GHz ≥ 15 dB, 50 GHz to 75 GHz ≥ 12 dB, 75 GHz to 110 GHz
01S101-S20D3	Straight	RPC-1.00 male – RPC-1.00 male	≥ 20 dB, DC to 20 GHz ≥ 17 dB, 20 GHz to 50 GHz ≥ 15 dB, 50 GHz to 75 GHz ≥ 12 dB, 75 GHz to 110 GHz
01S101-K20D3	Straight	RPC-1.00 male – RPC-1.00 female	≥ 20 dB, DC to 20 GHz ≥ 17 dB, 20 GHz to 50 GHz ≥ 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 ≥ 17 dB, 20 GHz to 50 GHz ≥ 14 dB, 50 GHz to 70 GHz
01K108-S00D3	Straight	RPC-1.00 female – RPC-1.85 male	
01S108-S00D3	Straight	RPC-1.00 male – RPC-1.85 male	
01S108-K00D3	Straight	RPC-1.00 male – RPC-1.85 female	

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



Gauge Kit

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

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.



Website

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

Rosenberger

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