Rosenberger

Excellent Performance up to 145 GHz

RPC-0.80 Connector Series

SEMICONDUCTOR & TEST

About Rosenberger

Rosenberger, a leading global electronics manufacturer headquartered in Germany, provides innovative high-frequency, high-voltage, and fiber optic solutions. With worldwide sales and production facilities, the company develops both standardized and customized connectivity technologies for demanding applications.

Our products are trusted across industries such as telecommunications, test and measurement, automotive, medical, industrial electronics, and aerospace.

Since its founding in 1958, Rosenberger has been committed to innovation and top quality. As a family-owned business, we value long-term relationships with customers and employees.

Test & Measurement

Rosenberger is a dependable and renowned development partner in industrial measurement technology. The fact that we work with leading global companies from the electronic measurement technology field reflects the way that others trust our research and development, our high-quality manufacturing, and not least our customer-orientated “Made in Germany” service. Rosenberger provides customized solutions – cost-optimized and timely – from the initial idea right through to volume production.

Rosenberger develops and produces a comprehensive range of cost-effective, high-quality and high-precision test & measurement products and services – microwave measurements & VNA calibrations, lab and factory testing, semiconductor test applications, PCB connections or network testing.

Next-Level Connectivity – RPC-0.80 – 145 GHz

With the growing demand for high-frequency solutions in microwave applications such as chip testing, radar and satellite technology, and terahertz system research, high-precision, high-frequency connector systems are increasingly coming into focus. In this context, the RPC-0.80 coaxial connector represents a significant technological advancement.

Designed for frequencies up to 145 GHz, this connector enables precise measurements and low-loss connections in the sub-THz range – where conventional interfaces such as 1.00 mm or 1.85 mm reach their physical limits.

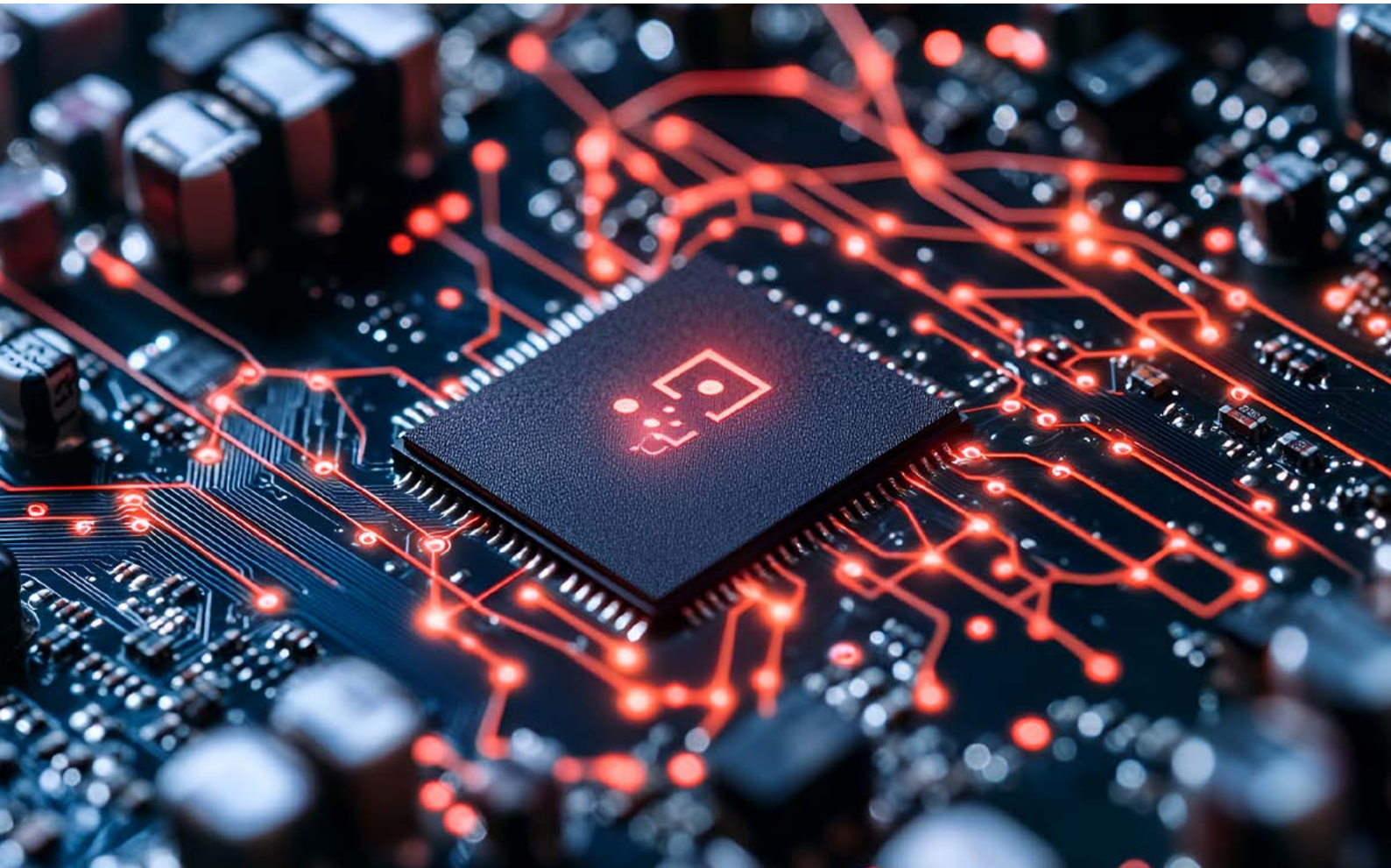
Thanks to its compact design and high mechanical and electrical precision, the Rosenberger RPC-0.80 connector offers not only excellent repeatability and impedance matching, but also a reliable foundation for the development and characterization of cutting-edge RF components and systems.

Technical Data

- Interface according to IEC 61169-64, IEEE Std 287
- Frequency range DC to 145 GHz
- Impedance 50 Ω
- Mating cycles > 1000
- Threaded coupling mechanism

Applications

- Cryogenic and Quantum Technology
- Chip testing
- Terahertz systems
- Radar and satellite technology
- D-band applications

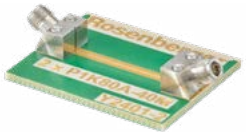


Product Portfolio

PCB Connectors

Rosenberger No.	Description	Product
P1K721-40MZ5	Straight jack Solderless	
P1K80A-40MZ5	Angled jack, 30° Solderless	

Test PC-Board

Rosenberger No.	Description	Product
PCB-Y2401-SB	Test PC-board 2 × P1K80A-40MZ5 connectors Impedance 50 Ω Frequency range DC to 145 GHz	

Cable Connectors

Rosenberger No.	Description	Product
P1K101-2P4Z5	Straight jack Solder For 031" semi-rigid cable	
P1K501-2P4Z5	Straight bulkhead jack Solder For 031" semi-rigid cable	
P1S101-2P4Z5	Straight plug Solder For 031" semi-rigid cable	
P1S501-2P4Z5	Straight bulkhead plug Solder For 031" semi-rigid cable	

Tools

Rosenberger No.	Description	Product
01W021-000	Torque wrench 0.35 Nm With 6 mm across flats	
03W008-000	Combi wrench With 5 mm, 6 mm, 7 mm and 8 mm across flats	

In-Series Adaptors

Rosenberger No.	Description	Product
P1K121-K00Z5	RPC-0.80 female – RPC-0.80 female	
P1S121-K00Z5	RPC-0.80 male – RPC-0.80 female	
P1S121-S00Z5	RPC-0.80 male – RPC-0.80 male	

Inter-Series Adaptors

Rosenberger No.	Description	Product
P1K101-K00L5	RPC-0.80 female – RPC-1.00 female	
P1K101-S00L5	RPC-0.80 female – RPC-1.00 male	
P1S101-K00L5	RPC-0.80 male – RPC-1.00 female	
P1S101-S00L5	RPC-0.80 male – RPC-1.00 male	

Waveguide-to-Coaxial Adaptors

Rosenberger No.	Description	Product
P1K1400-387	RPC-0.80 female – WR-6	
P1S1400-387	RPC-0.80 male – WR-6	

Cable Assemblies

Rosenberger offers a range of standard as well as customized solutions for RPC-0.80 cable assemblies. Custom specific versions on request, please feel free to contact us.

Website

For more information refer to our website:
www.rosenberger.com/rpc-080

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