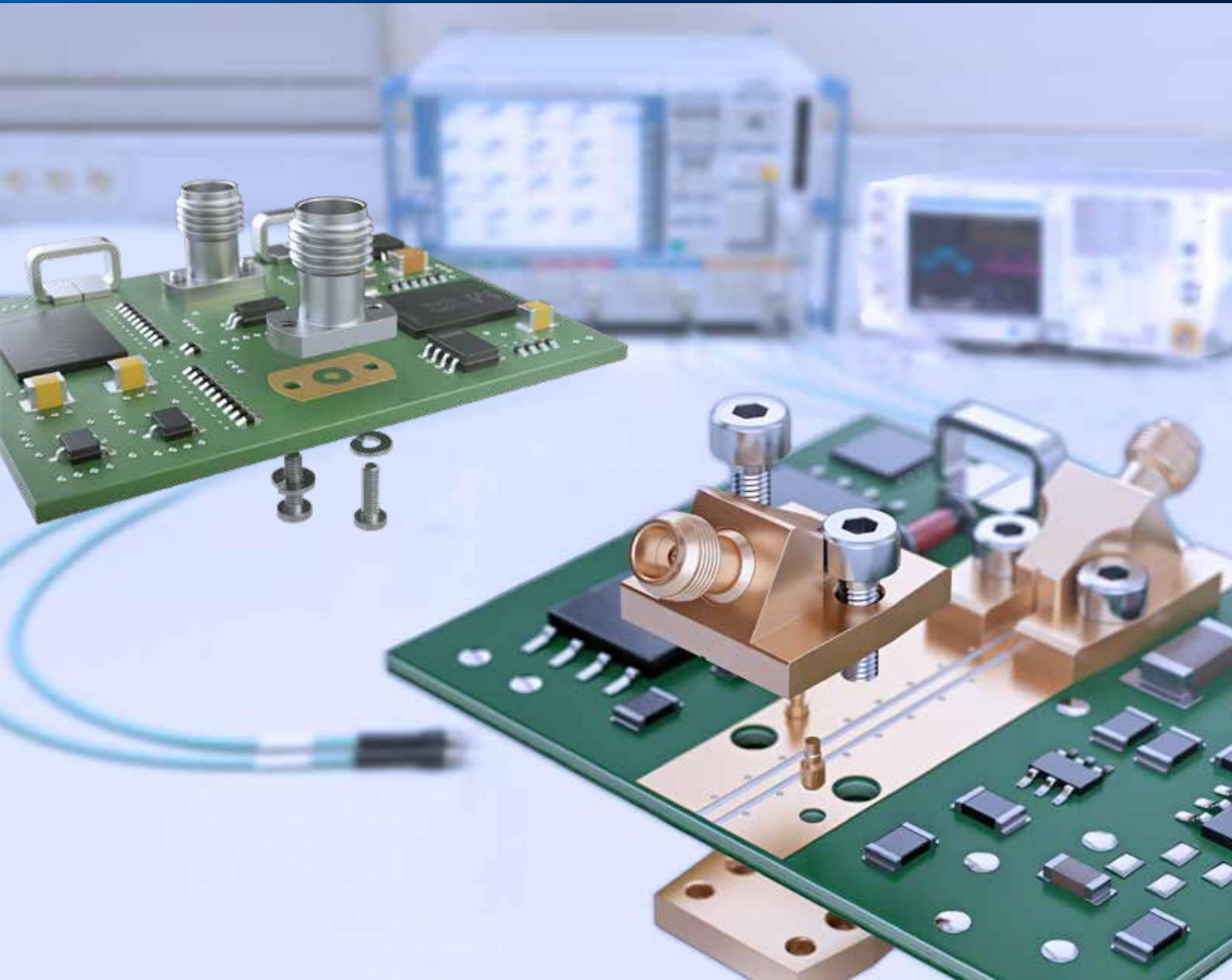


# Rosenberger

Easy to Assemble

## Solderless PCB Connectors

TEST & MEASUREMENT





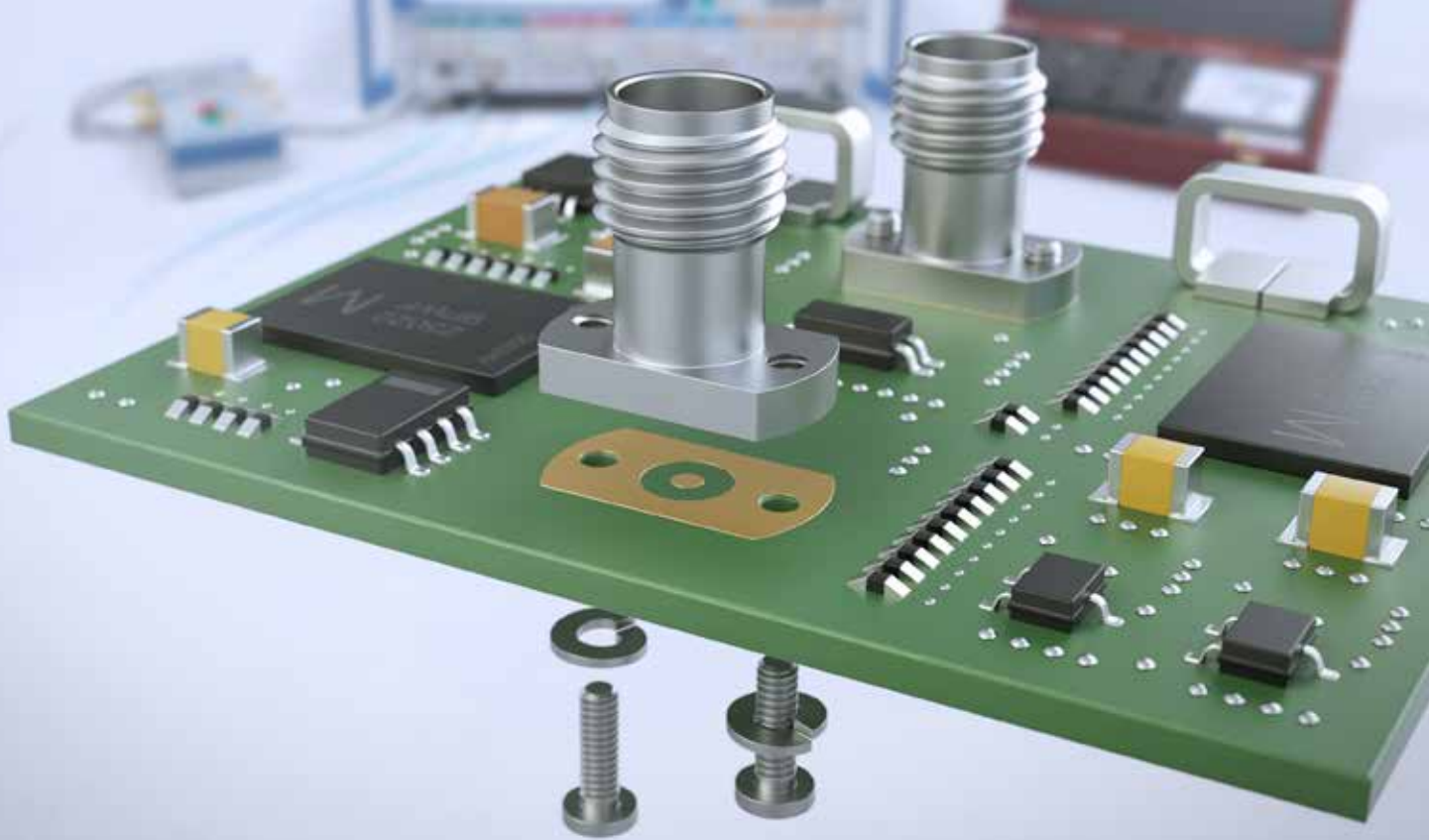
## Solderless PCB Connectors – up to 110 GHz

Rosenberger provides a wide product range of solderless PCB connectors for challenging test & measurement demands. These PCB connectors can easily be assembled by using screws.

The product spectrum includes:

- Economic solderless PCB connectors for standard applications with frequencies up to 90 GHz
- High-performance solderless PCB connectors for frequencies up to 110 GHz
- Test PCBs, assembled with two PCB connectors





## Economic Solderless PCB Connectors

For a variety of standard applications Rosenberger has developed cost-effective, economic solderless PCB connectors. These straight connector types are designed to provide low return loss values for frequencies up to 90 GHz.

Economic solderless PCB connectors from Rosenberger can be easily mounted by using screws. Standard screws for a PCB thickness of maximum 2.5 mm are included, optional screws for thicker PCBs are available on request. Their mode-free design allows very good RF performance for standard applications in the fields of test and measurement, chip testing fixtures, board characterization or communication industries.

New: For high temperatures up to 125 °C there are new connectors available with a PEEK bead which allows the usage during temperature shocks. These are more robust than the versions up to 85 °C. We offer these connectors for RPC-2.92 (02K724-40MS3), RPC-1.85 (08K724-40MS3) and RPC-1.35 (P9K724-40ML3).

RPC-2.92 is compatible with SMA, RPC-3.50 and K Connector. RPC-1.85 is compatible with V and RPC-2.40 connector. The 02K724-40MS3 and the 08K724-40MS3 can use the same footprint as 08K722-40MS3.

### Product Features

- PCB connection – no soldering required
- RPC-1.35, RPC-1.85, RPC-2.40, RPC-2.92 and RPC-3.50 interfaces available
- Cost-effective connectors
- Mating cycles interface  $\geq 500$
- Mating cycles PCB side  $\geq 300$  (typical)
- Reduced installation time
- Temperature +85 °C or +125 °C (new) available
- For frequencies up to 90 GHz
- Universal, robust and reusable



## Product Portfolio

Rosenberger No.	Connector	Return Loss <sup>1)</sup>	Remarks
For temperatures up to 85 °C and without temperature shock applications:			
03K721-40MS3	RPC-3.50 female	≥ 21 dB, DC to 26.5 GHz	For stripline or microstrip on bottom layer
03K722-40MS3			For microstrip on top layer
02K721-40MS3	RPC-2.92 female	≥ 21 dB, DC to 26.5 GHz ≥ 15 dB, 26.5 GHz to 40 GHz	For stripline or microstrip on bottom layer
02K722-40MS3			For microstrip on top layer
09K721-40MS3	RPC-2.40 female	≥ 21 dB, DC to 26.5 GHz ≥ 15 dB, 26.5 GHz to 40 GHz ≥ 14 dB, 40 GHz to 50 GHz	For stripline or microstrip on bottom layer
09K722-40MS3			For microstrip on top layer
08K721-40MS3	RPC-1.85 female	≥ 21 dB, DC to 26.5 GHz ≥ 15 dB, 26.5 GHz to 40 GHz ≥ 14 dB, 40 GHz to 50 GHz ≥ 10 dB, 50 GHz to 70 GHz	For stripline or microstrip on bottom layer
08K722-40MS3			For microstrip on top layer
For temperatures up to 125 °C and temperature shock stable applications:			
02K724-40MS3	RPC-2.92 female	≥ 21 dB, DC to 26.5 GHz ≥ 15 dB, 26.5 GHz to 43.5 GHz	Stripline or Microstrip possible
08K724-40MS3	RPC-1.85 female	≥ 21 dB, DC to 26.5 GHz ≥ 15 dB, 26.5 GHz to 40 GHz ≥ 14 dB, 40 GHz to 50 GHz ≥ 10 dB, 50 GHz to 70 GHz	Stripline or Microstrip possible
P9K724-40ML3	RPC-1.35 female	≥ 21 dB, DC to 26.5 GHz ≥ 15 dB, 26.5 GHz to 40 GHz ≥ 14 dB, 40 GHz to 50 GHz ≥ 10 dB, 50 GHz to 75 GHz ≥ 8 dB, 75 GHz to 90 GHz	Stripline or Microstrip possible

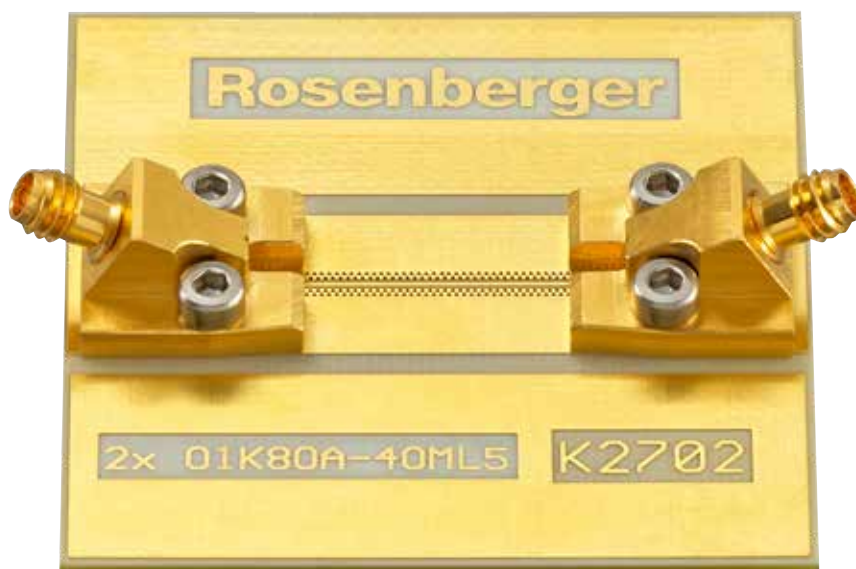
1) Return Loss in application depends decisive on PCB layout



For economic solderless PCB connectors Rosenberg offers test PCBs also for sale and for loan. The test PCBs are assembled with two solderless connectors with the same interface.

Rosenberger No.	Connector	Return Loss
PCB-R3802-SB	2 x 03K721-40MS3	≥ 15 dB, DC to 26.5 GHz
PCB-S4102-SB	2 x 03K722-40MS3	
PCB-R3803-SB	2 x 02K721-40MS3	≥ 14 dB, DC to 26.5 GHz ≥ 10 dB, 26.5 GHz to 40 GHz
PCB-S4103-SB	2 x 02K722-40MS3	
PCB-R3804-SB	2 x 09K721-40MS3	≥ 14 dB, DC to 26.5 GHz ≥ 10 dB, 26.5 GHz to 40 GHz ≥ 7 dB, 40 GHz to 50 GHz
PCB-S4104-SB	2 x 09K722-40MS3	
PCB-R3805-SB	2 x 08K721-40MS3	≥ 14 dB, DC to 26.5 GHz ≥ 10 dB, 26.5 GHz to 40 GHz ≥ 7 dB, 40 GHz to 70 GHz
PCB-S4105-SB	2 x 08K722-40MS3	
PCB-S4105-SU	Unpopulated Stripline PCB	For usage with 08K724-40MS3, 02K724MS3 and 08K722-40MS3
PCB-V4410-SB	2 x P9K724-40ML3	≥ 14 dB, DC to 26.5 GHz ≥ 10 dB, 26.5 GHz to 40 GHz ≥ 7 dB, 40 GHz to 90 GHz

For specific details refer to the technical data sheets in our online catalog.  
[www.rosenberger.com/ok](http://www.rosenberger.com/ok)



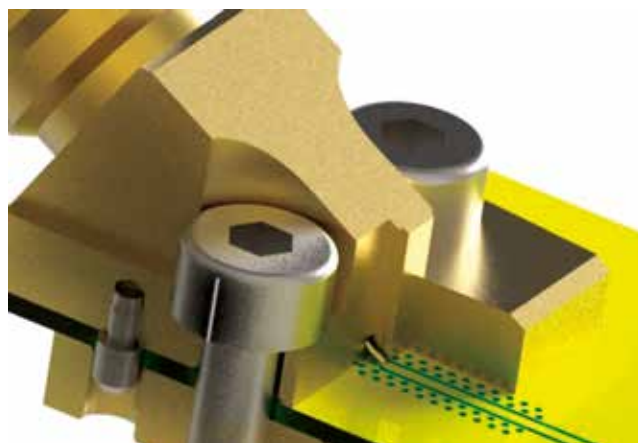
## High-Performance Solderless PCB Connectors

For high-performance applications Rosenberger has developed solderless PCB mount connectors. These 30° angle connectors are designed to provide low return loss values for frequencies up to 110 GHz – for single-layer or multi-layer printed circuit boards where the microwave layer is on the top.

Solderless PCB mount connectors from Rosenberger can be easily mounted by using screws and pre-positioning dowel pins. Screws for a PCB thickness of maximum 1.5 mm are included. The dimensions are expandable by using longer screws. Their mode-free design allows excellent RF performance for high performance applications in ultra-high frequency test and measurement applications, applications where minimum radiation and coupling to adjacent circuitry is mandatory or test fixtures and board characterization.

### Product Features

- PCB connection – no soldering required
- Prepositioning enforced by dowel pins
- Clamping mechanism accommodates a wide range of board thicknesses while providing a continuous ground connection between contact area and circuit board
- Universal, robust and reusable
- RPC-1.00, RPC-1.35, RPC-1.85 and RPC-2.92 interfaces available
- Mating cycles interface  $\geq 500$
- Mating cycles on PCB side  $\geq 300$
- For frequencies up to 110 GHz





## Product Portfolio

Rosenberger No.	Connector	Return Loss <sup>1)</sup>
02K80F-40ML5	RPC-2.92 female	≥ 21 dB, DC to 26.5 GHz ≥ 19 dB, 26.5 GHz to 40 GHz
08K80E-40ML5	RPC-1.85 female	≥ 21 dB, DC to 26.5 GHz ≥ 19 dB, 26.5 GHz to 40 GHz ≥ 17 dB, 40 GHz to 60 GHz ≥ 14 dB, 60 GHz to 70 GHz
P9K80A-40ML5	RPC-1.35 female	≥ 21 dB, DC to 26.5 GHz ≥ 19 dB, 26.5 GHz to 40 GHz ≥ 17 dB, 40 GHz to 60 GHz ≥ 14 dB, 60 GHz to 70 GHz ≥ 12 dB, 70 GHz to 90 GHz
01K80A-40ML5	RPC-1.00 female	≥ 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

1) Return Loss in application depends decisive on PCB layout

For high-performance solderless PCB connectors Rosenberger offers test PCBs also for sale and for loan. The test PCBs are assembled with two solderless connectors with the same interface.

Rosenberger No.	Connector	Return Loss
PCB-L3401A-SB	2 x 02K80F-40ML5	≥ 15 dB, DC to 40 GHz
PCB-K2702E-SB	2 x 08K80E-40ML5	≥ 12 dB, DC to 70 GHz
PCB-K2702D-SB	2 x P9K80A-40ML5	≥ 12 dB, DC to 70 GHz ≥ 10 dB, 70 GHz to 90 GHz
PCB-K2702A-SB	2 x 01K80A-40ML5	≥ 12 dB, DC to 70 GHz ≥ 7 dB, 70 GHz to 110 GHz

For specific details refer to the technical data sheets in our online catalog.  
[www.rosenberger.com/ok](http://www.rosenberger.com/ok)



## Website

For more information refer to our website:  
[www.rosenberger.com/solderless-pcb](http://www.rosenberger.com/solderless-pcb)

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