

High electrical performance for test & measurement applications

## Microwave Cable Assemblies

TEST & MEASUREMENT





Armoured Spring

Strengthening Net

Anti Twist Layer

Jacket PTFE Wire

## Product Portfolio

### Standard Portfolio

Rosenberger presents a revised and updated standard portfolio of flexible microwave cable assemblies with improved designs to meet the requirements of the market. Customer-specific cable assembly solutions are available on request.

Rosenberger also offers VNA test cables for Metrology Grade Performance and products up to 110 GHz.

### Product Features

- Cable assemblies for various frequencies up to 70 GHz
- High phase stability
- Low insertion loss and return loss
- Crush resistance (up to 1000 N) with armour
- High flex life
- Standard lengths: short delivery times

### Product Range

- Cables: RTK 081, RTK 092-70, RTK 106, RTK 125 and RTK 162
- Connector series: SMA, RPC-N, RPC-3.50, RPC-2.92, RPC-2.40, RPC-1.85
- Armour: T3 Armour (armoured spring with strengthening net, anti-twist layer and PTFE wire jacket over the raw cable)



\* For specific details please refer to the technical data sheets in our online catalog.



## Technical Data

### 18 GHz Assemblies Ultra Low Loss Variants

Rosenberger No.*	Frequency	Return Loss	Connector 1	Connector 2	Armouring
LA2-500-xxx	18 GHz	$\geq 17$ dB	SMA male	SMA male	No
LA2-501-xxx	18 GHz	$\geq 17$ dB	SMA male	SMA male	Yes
LA2-502-xxx	18 GHz	$\geq 17$ dB	RPC-N 50 $\Omega$ male	RPC-N 50 $\Omega$ male	No
LA2-503-xxx	18 GHz	$\geq 17$ dB	RPC-N 50 $\Omega$ male	RPC-N 50 $\Omega$ male	Yes

\*xxx: please fill in requested length (standard length = 1000/3000/5000/10000 mm)

### 26.5 GHz Assemblies Phase Stable Variants

Rosenberger No.*	Frequency	Return Loss	Connector 1	Connector 2	Armouring
LU7-500-xxx	18 GHz	$\geq 19$ dB	RPC-N 50 $\Omega$ male	RPC-N 50 $\Omega$ male	No
LU7-501-xxx	18 GHz	$\geq 19$ dB	RPC-N 50 $\Omega$ male	RPC-N 50 $\Omega$ female	No
LU7-502-xxx	18 GHz	$\geq 19$ dB	RPC-N 50 $\Omega$ male	RPC-N 50 $\Omega$ male	Yes
LU7-503-xxx	18 GHz	$\geq 19$ dB	RPC-N 50 $\Omega$ male	RPC-N 50 $\Omega$ female	Yes
LU7-504-xxx	18 GHz	$\geq 19$ dB	SMA male	SMA male	No
LU7-505-xxx	18 GHz	$\geq 19$ dB	SMA male	SMA male	Yes
LU7-506-xxx	26.5 GHz	$\geq 19$ dB	RPC-3.50 male	RPC-3.50 male	No
LU7-507-xxx	26.5 GHz	$\geq 19$ dB	RPC-3.50 male	RPC-3.50 female	No
LU7-508-xxx	26.5 GHz	$\geq 19$ dB	RPC-3.50 male	RPC-3.50 male	Yes
LU7-509-xxx	26.5 GHz	$\geq 19$ dB	RPC-3.50 male	RPC-3.50 female	Yes

\*xxx: please fill in requested length (standard length = 500/1000/1500/2000 mm)



#### 40 GHz Assemblies Phase Stable Variants

Rosenberger No.	Frequency	Return Loss	Connector 1	Connector 2	Armouring
LU1-500-xxx	40 GHz	$\geq 17$ dB	RPC-2.92 male	RPC-2.92 male	No
LU1-501-xxx	40 GHz	$\geq 17$ dB	RPC-2.92 male	RPC-2.92 female	No
LU1-502-xxx	40 GHz	$\geq 17$ dB	RPC-2.92 male	RPC-2.92 male	Yes
LU1-503-xxx	40 GHz	$\geq 17$ dB	RPC-2.92 male	RPC-2.92 female	Yes

\*xxx: please fill in requested length (standard length = 500/1000/1500/2000 mm)

#### 50 GHz Assemblies Phase Stable Variants

Rosenberger No.	Frequency	Return Loss	Connector 1	Connector 2	Armouring
LU8-500-xxx	50 GHz	$\geq 16.5$ dB	RPC-2.40 male	RPC-2.40 male	No
LU8-501-xxx	50 GHz	$\geq 16.5$ dB	RPC-2.40 male	RPC-2.40 female	No
LU8-502-xxx	50 GHz	$\geq 16.5$ dB	RPC-2.40 male	RPC-2.40 male	Yes
LU8-503-xxx	50 GHz	$\geq 16.5$ dB	RPC-2.40 male	RPC-2.40 female	Yes

\*xxx: please fill in requested length (standard length = 500/750/1000/1500 mm)

#### 70 GHz Assemblies Phase Stable Variants

Rosenberger No.	Frequency	Return Loss	Connector 1	Connector 2	Armouring
LU5-500-xxx	70 GHz	$\geq 14$ dB	RPC-1.85 male	RPC-1.85 male	No
LU5-501-xxx	70 GHz	$\geq 14$ dB	RPC-1.85 male	RPC-1.85 female	No
LU5-502-xxx	70 GHz	$\geq 14$ dB	RPC-1.85 male	RPC-1.85 male	Yes
LU5-503-xxx	70 GHz	$\geq 14$ dB	RPC-1.85 male	RPC-1.85 female	Yes

\*xxx: please fill in requested length (standard length = 300/500/750/1000 mm)



# Microwave Cable Assemblies

Standard microwave cable assemblies from Rosenberger are characterized by excellent electrical and mechanical performances – for frequencies up to 70 GHz. This range of cables includes ultra low-loss cables for antennas or applications with high-power requirement, miniature cables for test systems or applications with high flexibility, indoor and outdoor cables, special shielded cables and extremely phase-stable cables for test & measurement applications. Years of experience and longterm expertise in manufacturing of cable assemblies result in high-quality products made by Rosenberger.

## Cable Specification

Cable Name	RTK 092-70	RTK 125	RTK 106	RTK 162	RTK 081
Impedance	50 Ω				
Max. Frequency	70 GHz	50 GHz	40 GHz	26.5 GHz	18 GHz
Max. Power Handling (CW) @ 10 GHz	59 W	105 W	150 W	248 W	643 W
Phase Stability @ max. Frequency	7°	7°	6°	3°	3°
Insertion Loss @ max. Frequency	6.39 dB/m	3.97 dB/m	2.85 dB/m	2.03 dB/m	0.66 dB/m
Outer Dimension	2.33 mm	3.18 mm	3.73 mm	5.33 mm	7.90 mm
Bending Radius minimum	12 mm	16 mm	20 mm	27 mm	35 mm
Bending Radius multiple	32	32	40	53	80

Rosenberger also offers a wide range of test port cables and sets for VNA test applications. For further information please see the flyer.





## Website

For more information refer to our website:  
[www.rosenberger.com/t&m/equipment](http://www.rosenberger.com/t&m/equipment)

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