Rosenberger

Much More Than Technology

In Building Solutions (IBS)

Rosenberger Site Solutions –
Much More Than Technology

The Rosenberger Site Solutions Group designs, manufactures and provides solutions for the wireless infrastructure market. Our products and systems offer innovative and leading-edge designs with focus on high performance and quality. Having an efficient network implementation in mind, we focus on total site kitting, logistics and delivery time leading to reduced cost of ownership. Globally present, the Rosenberger Site Solutions Group offers extensive local support making Rosenberger Site Solutions a partner instead of just a supplier.

Content

Home of Innovation

A global network of Rosenberger research & development and production centers provides innovation, optimized cost structure and outstanding local customer service.

The Rosenberger headquarters located in Fridolfing in the southeast part of Bavaria, Germany

Rosenberger Worldwide

Rosenberger has more than 14,200 employees at the headquarters, manufacturing plants and sales offices in Europe, Asia as well as in North and South America, who are engaged in development, manufacture and sales of the products.

Rosenberger is always near you with its capable partners in the most important industrial countries when you need competent advice and trouble-free delivery on location.

In many countries, Rosenberger subsidiaries are active in the manufacture of connectors and cable assemblies. This facilitates flexibility on location and provides a national element that can help in reducing tax and customs charges.

With the establishment of a European assembly and logistics center in eastern Hungary together with the complete manufacturing plants in China and India, Rosenberger has, on the one hand, established a sustainable competitive advantage by international comparisons, and on the other hand, makes a useful contribution to the industrial development of emerging economies.

Rosenberger Global Network

Company Headquarters
- Fridolfing, Germany

Europe
- Austria: Timelkam
- Denmark: Lynge
- Germany: Augsburg, Laufen, Neuenbürg, Radeberg
- Hungary: Jászárokszállás, Jászberény, Nyírbátor, Taksony
- Italy: Vimercate
- Spain: Madrid
- Sweden: Kista, Vallentuna
- UK: Bradford

North America
- Mexico: Apodaca
- USA: Akron, Pennsauken, Lake Charles

South America
- Brazil: Cacapava - São Paulo
- Chile: Santiago

Africa

- Tunesia

Asia

- China: Beijing, Dianshan Hu, Dongguan, Shanghai
- India: Manesar, Goa, Pune
- Japan: Tokyo
- Korea: Suwon-City

About Rosenberger Site Solutions

Rosenberger Site Solutions GmbH is located in Laufen, Germany. We design, manufacture and provide solutions for the wireless infrastructure market.

Our products and systems offer innovative and leading-edge designs with focus on high performance and quality. Our solutions are highly flexible and friendly installable to fit any installation scenario either outdoor, on a tower or on a rooftop, or indoor in shopping centres, parking places or the like.

Our customers are OEMs, network operators, installers and system integrators.

From our distribution facility in Laufen, Germany or via our partners, we deliver our products and solutions to our customers according to their specific kitting, packing, delivery and logistics requirements.

Our focus is on efficient network implementation and reduced total costs of ownership.

Rosenberger Site Solutions – Much More Than Technology

Feeders & Jumpers

FTTA/PTTA
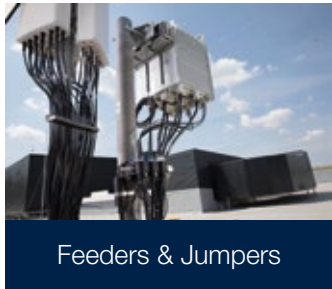
Connectivity Boxes

LTE/5G

Technology Convergence

Large Bandwidth & High Capacity

High Reliability

Low Latency

High Quality

| Connection Everywhere | Connected Cars | E-Health | Industry 4.0 | Media & Infotainment |

Small Cells

PIM α

pDAS

Transmission Line Devices

Installation Material & Accessories

RF Cable

Base Stations

RF Cable

Hybrid Combiner

RF Cable

Master Unit
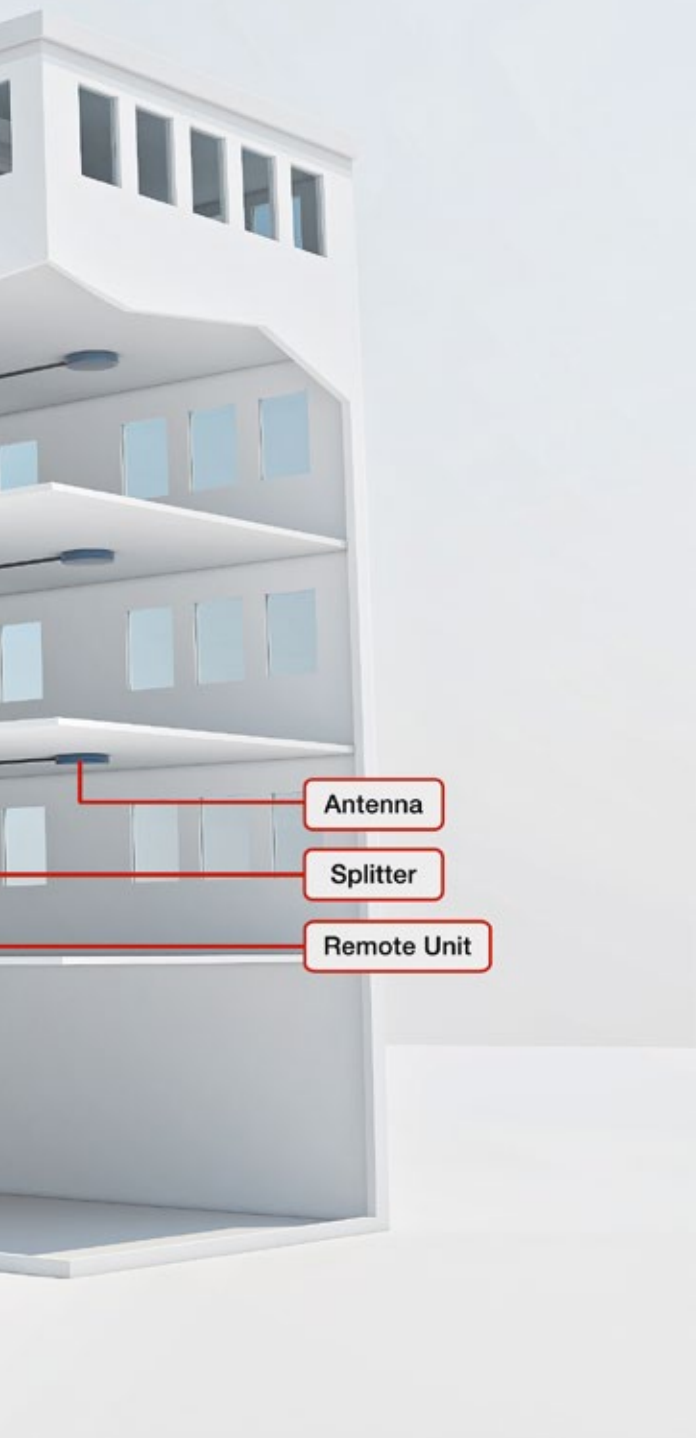
Fiber Cable
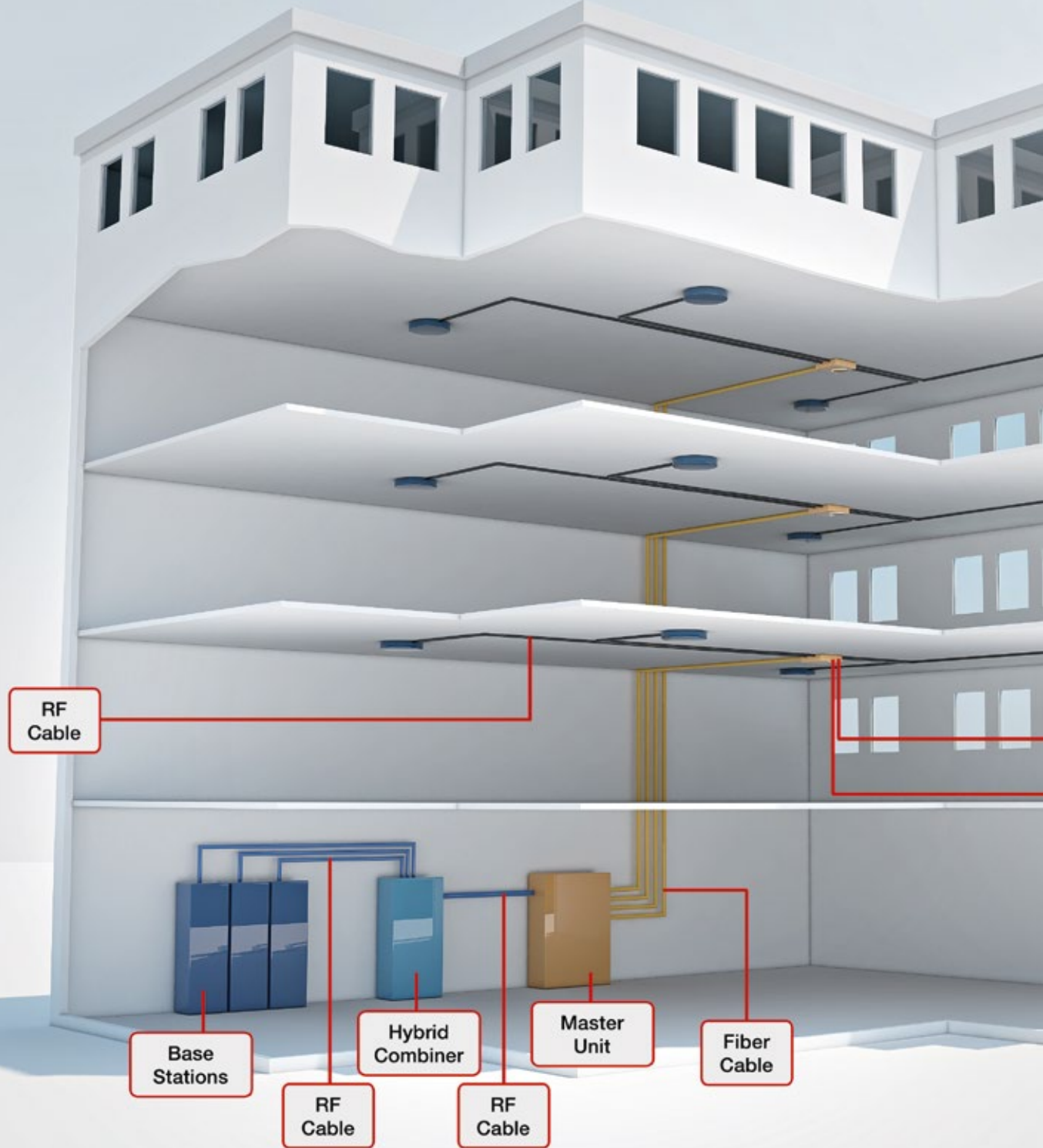
Components for In Building Solutions (IBS)

With the development of modern wireless communication technologies, mobile communications networks are deployed requiring wideband universal passive components. Rosenberger supplies a complete range of passive components for wireless Distributed Antenna Systems (DAS) for in-building coverage such as splitters, combiners, termination loads, attenuators, and antennas.

Easy to install, Rosenberger DAS components ensure reliable, high quality and low PIM operation.

Antenna

Splitter

Remote Unit

Rooftop Antenna

Rooftop Antenna

Repeater

Repeater

Diplexer

Hybrid Combiner

Antenna

Antenna

Directional Coupler

Splitter

Antenna

Directional Coupler

Splitter

Antenna

Antenna

Antenna

Passive Splitters

Available in 2 through 4-way with customized 5 and 6-way versions available on request, Rosenberger's passive splitters are designed for best in class performance and value. Covering the entire frequency range from 698 - 4200 MHz with PIM performance up to -160 dBc, these splitters support low-PIM DAS applications.

Features and Benefits

- Guaranteed PIM performance
- Low VSWR and loss
- High power performance

Rosenberger No.	Number of Splits	Frequency Band	PIM	Power Handling	Environmental	Interface
64PK126-K03N1-01	2					
64PK136-K05N1-01	3	698 - 4200 MHz	-160 dBc	300 W	IP65	4.3-10 female
64PK146-K06N1-01	4					

Directional Couplers

Directional couplers are used to divide an input signal into two proportional power levels. Designed with minimal internal connections, these couplers provide low PIM and high isolation and cover a frequency range from 698 to 4200 MHz.

Features and Benefits

- Guaranteed PIM performance
- High isolation, low VSWR and loss
- High power performance

Rosenberger No.	Coupling Ratio	Frequency Band	PIM	Power Handling	Environmental	Interface
64PK126-K06N1-01	6 dB					
64PK126-K08N1-01	8 dB					
64PK126-K10N1-01	10 dB					
64PK126-K12N1-01	12 dB	698 - 4200 MHz	-160 dBc	300 W	IP65	4.3-10 female
64PK126-K15N1-01	15 dB					
64PK126-K20N1-01	20 dB					
64PK126-K30N1-01	30 dB					

Hybrid Combiners

Available in broadband and band-specific versions, these hybrid combiners allow for the combining of multiple technologies within the same band. The excellent PIM performance of up to -161 dBc, low insertion loss, and low VSWR make these combiners an excellent choice for DAS applications.

Features and Benefits

- Low PIM and high isolation, low VSWR and insertion loss
- High reliability
- Simple installation

Rosenberger No.	Number of Splits	Frequency Band	PIM	Power Handling	Environmental	Interface
64PK226-K03N1-01	2/2	698 - 4200 MHz	-160 dBc	300 W	IP65	4.3-10 female
64PK446-K06N1-01	4/4					

Termination Loads

Rosenberger's low-PIM loads are used to terminate open transmission lines such as a non-used port of a hybrid coupler or combiner.

Features and Benefits

- Outstanding PIM performance
- Operating power 50 - 100 W

Rosenberger No.	Frequency Band	PIM	Power Handling	Interface
64S1ER-002N1-01	698 - 3800 MHz	n.a.	2 W	
64K1ER-050N1-01			50 W	4.3-10 female
64K1ER-100N1-01	698 - 4200 MHz	-160 dBc	100 W	
64K1ER-200N1-01			200 W	

2 W

50/100 W

Attenuators

Rosenberger offers a wide range of attenuators.

Features and Benefits

- Guaranteed PIM performance
- High isolation, low VSWR and loss
- Rugged aluminum housing for long lasting, reliable performance

Rosenberger No.	Frequency Band	VSWR	PIM	Power Handling	Interface
64AS050-KxxN1-01	698 - 4200 MHz	1.25	-160 dBc	50 W	4.3-10 male to 4.3-10 female
64AS100-KxxN1-01				100 W	

50 W

100 W

IBS Antennas

The Rosenberger broadband in-building antennas are suitable for all indoor distribution systems mainly installed in shopping malls, restaurants, office buildings, or sports facilities.

Features and Benefits

- Ultra-wideband Indoor Ceiling and Panel Mounting Antenna
- Smooth design
- Vertical polarization
- 2G/3G/4G/5G
- Small and compact

Rosenberger No.	Frequency Band	Antenna Type	PIM	Connector	Product
SLANT-O1S-64K-002-01	698 - 960 & 1425 - 2700 & 3300 - 3800 MHz	Ultra wideband ceiling mounting SISO	-150 dBc	4.3-10 female	
SLANT-O1S-64K-004-01*	698 - 2700 & 3300 - 3800 & 4900 - 6000 MHz	Ultra wideband ceiling mounting Low profile Ø 213 x 18.5 mm SISO	-150 dBc	4.3-10 female	
SLANT-O2M-64K-001-01	698 - 960 & 1425 - 2700 & 3300 - 3800 MHz	Ultra wideband ceiling mounting Low profile Ø 320 x 50 mm 2x2 MIMO	-150 dBc	2 x 4.3-10 female	
SLANT-O2M-64K-002-01*	698 - 960 & 1710 - 6000 MHz	Ultra wideband ceiling mounting Low profile Ø 300 x 40 mm 2x2 MIMO	-150 dBc	2 x 4.3-10 female	
SLANT-O4M-64K-001-01	698 - 960 & 1425 - 2700 & 3300 - 4200 MHz	Ultra wideband ceiling mounting Low profile Ø 320 x 50 mm 4x4 MIMO	-150 dBc	4 x 4.3-10 female	
SLANT-P1S-64K-002-01	698 - 960 & 1425 - 2700 & 3300 - 3800 MHz	Ultra wideband panel mounting SISO	-150 dBc	4.3-10 female	

* An absorber mat is available for mountng the metal substructure - SLZ0047-01

IBS Antennas

Rosenberger No.	Frequency Band	Antenna Type	PIM	Connector	Product
SLANT-P2M-64K-001-01	698 - 960 & 1425 - 2700 & 3300 - 3800 MHz	Ultra wideband panel mounting 2x2 MIMO	-150 dBc	2 x 4.3-10 female	
SLANT-P1S-64K-002-02	698 - 960 & 1425 - 2700 & 3300 - 3800 MHz	Ultra wideband panel mounting SISO Outdoor	-150 dBc	2 x 4.3-10 female	
SLANT-P2M-64K-001-02	698 - 960 & 1425 - 2700 & 3300 - 3800 MHz	Ultra wideband panel mounting MIMO Outdoor	-150 dBc	2 x 4.3-10 female	
SLANT-P4M-64K-002-01	698 - 960 & 1425 - 2700 & 3300 - 4000 MHz	Ultra wideband wall mounting 385 x 315 x 68 mm 4x4 MIMO	-150 dBc	4 x 4.3-10 female	
SLANT-P4M-64K-001-01	1710 - 2700 & 3300 - 3800 MHz	Ultra wideband panel mounting High capacity antenna 4 x 4 MIMO Outdoor 450 x 412 x 136 mm	-150 dBc	4 x 4.3-10 female	
SLANT-L1S-64K-001-01	698 - 960 & 1710 - 2700 & 3400 - 4000 MHz	Ultra wideband Donor antenna Outdoor	-150 dBc	4.3-10 female	

Rosenberger No.	Frequency Band	Antenna Type	PIM	Connector	Product
SLANT-O1S-64K-006-01	698 - 960 & 1710 - 2700 & 3400 - 3800 MHz	Ultra wideband Omni antenna Outdoor 154 x 51 mm	-155 dBc	4.3-10 female	
SLANT-O1S-64K-007-01	3400 - 3800 MHz	Omni antenna Outdoor 600 x 38 mm	-150 dBc	4.3-10 female	

Combiners

Rosenberger frequency combiners are deployed in site-sharing or co-siting applications. Suitable for both indoor and outdoor installations, these low-loss combiners are available as single units or for cross-pole antennas as double units. DC blocks can be added as an option.

Product Features

- Low PIM performance
- Wall or pole mount
- High isolation, low VSWR and insertion loss

Dualband Combiners

Rosenberger No.	Frequency 1 [MHz]	Frequency 2 [MHz]	PIM		Interface
SLCB016-12-64-01	694 - 862	880 - 960		Single unit	4.3-10
SLCB001-12-64-01	698 - 960	1710 - 2700		Single unit	4.3-10
SLCB012-12-64-01	1710 - 1880	1920 - 2170		Single unit	4.3-10
SLCB018-12-64-01	1710 - 1880	1920 - 2690		Single unit	4.3-10
SLCB019-22-64-02	380 - 2170	2300 - 2700		Double unit, Indoor only	4.3-10
SLCB017-22-64-01	380 - 2700	3500 - 3800	-160 dBc	Double unit	4.3-10
SLCB016-22-64-01	694 - 862	880 - 960		Double unit	4.3-10
SLCB001-22-64-01	694 - 960	1710 - 2700		Double unit	4.3-10
SLCB020-22-64-01	703 - 788	791 - 862		Double unit	4.3-10
SLCB012-22-64-01	1710 - 1880	1920 - 2170		Double unit	4.3-10
SLCB018-22-64-01	1710 - 1880	1920 - 2690		Double unit	4.3-10
SLCB015-22-64-01	1710 - 2180	2300 - 2700		Double unit	4.3-10

Other Frequency Configurations are available on request

Tripleband Combiners

Rosenberger No.	Frequency 1 [MHz]	Frequency 2 [MHz]	Frequency 3 [MHz]	PIM		Interface
SLCB003-13-64-01	698 - 960	1710 - 1880	1920 - 2170	-160 dBc	Single unit	4.3-10
SLCB001-13-64-01	1710 - 1880	1920 - 2170	2300 - 2700			
SLCB001-23-64-01	1710 - 1880	1920 - 2170	2300 - 2690		Double unit	
SLCB001-23-64-02	1710 - 1880	1920 - 2170	2300 - 2690		Double unit Indoor	

Other Frequency Configurations are available on request

Quadband Combiners

Rosenberger No.	Frequency 1 [MHz]	Frequency 2 [MHz]	Frequency 3 [MHz]	Frequency 4 [MHz]	PIM		Interface
SLCB002-14-64-01	698 - 960	1710 - 1880	1920 - 2170	2270 - 2700	-160 dBc	Single unit	4.3-10
SLCB002-24-64-01	698 - 960	1710 - 1880	1920 - 2170	2270 - 2700		Double unit	

Other Frequency Configurations are available on request

4.3-10 Connectors

Features and Benefits

- Low, reliable, and constant PIM independent of torque
- Outstanding insertion/return loss
- Small foot print – 40% smaller than 7-16 connectors
- Low weight – 60% reduction compared to other RF interfaces

4.3-10 Series   7-16 Series

Connectors – Technical Data

Connector Type	4.3-10
Minimum flange size	25.4 mm
Return loss	≥ 36 dB @ DC to 4 GHz ≥ 32 dB @ 4 GHz to 6 GHz
RF leakage	≥ 120 dB @ DC to 3 GHz (screw, HEX) ≥ 90 dB @ DC to 3 GHz (hand-screw) ≥ 70 dB @ 3 to 6 GHz (push-pull)
Passive intermodulation	≥ 166 dBc @ 2 x 43 dBm
Degree of protection (water tightness)	IP68 (@ 25 m, 1 hour)
Mating cycles	≥ 100
Coupling mechanisms	Screw (HEX), hand-screw, push-pull
Coupling torque (screw-on type)	> 5 Nm
Mating cycles	≥ 100
Coupling mechanisms	Screw (HEX), hand-screw, push-pull
Coupling torque (screw-on type)	> 5 Nm
Mating cycles	≥ 100
Coupling mechanisms	Screw (HEX), hand-screw, push-pull
Coupling torque (screw-on type)	> 5 Nm

64W022-001
99W057-000

Torque Wrench and Spanners

Rosenberger No.	Description	Torque Setting	Opening
64W022-001	Torque wrench for 4.3-10	5 ± 0.3 Nm	22 mm
53W010-000	Torque wrench for N	1.1 Nm	18 mm
60W000-002	Torque wrench for 7-16	25 Nm	32 mm
99W057-000	Spanner, adjustable		0 - 35 mm
99W057-001	Spanner, adjustable		0 - 46 mm

Universal Preparation Tool

Preparation Tools

Rosenberger No.	Description
60W107-C09	Stripping tool for 1/4" S (superflex)
60W107-C01	Stripping tool for 1/4" S (flex)
60W107-C08	Stripping tool for 1/2" S (superflex)
60W007-C03	Stripping tool for 1/2" R (flex)
60W007-C05	Stripping tool for 7/8" R
60W110-C06	Stripping tool for 1 1/4" R
60W110-C07	Stripping tool for 1 5/8" R
SLZ0002-000	Cable cutter up to 1 1/2"
SLZ0002-1001	Cable cutter up to 1 5/8"
SLZ0009-000	Cleaning Kit

Low-PIM, On-Site Connector Installation

To achieve the best PIM test results we recommend following the procedures below in addition to the recommendations outlined in the assembly instructions included with each individual connector.

It is very important to keep the prepped cable and connectors absolutely clean of dirt, metal particles, and scratches.

Prepare the cable according to assembly instructions (e.g. with tool 60W107-Cxx).

Use a plastic tool for removing the cut-off bond on the dielectric (e.g. SLT004-000).

On cables with tube inner conductor, remove burrs and sharp edges on the inside of the conductor (e.g. flaring tool integrated in tool 60W107-Cxx).

Before finally attaching the connector to the cable, clean the contact areas of the cables with alcohol by using non-metallic cleaning brushes/tools (e.g., SLZ0009-000).

4.3-10 Coaxial Cables and Connectors

4.3-10 Cable Connectors – Super Flexible Corrugated Cables

Connector Type	Rosenberger No.		
	1/4" Super flexible corrugated	3/8" Super flexible corrugated	1/2" Super flexible corrugated
4.3-10 male straight; screw type	64S1C7-C09N1	64S1C7-C02N1	64S1C7-C08N1
4.3-10 male right angle; screw type	64S2C7-C09N1	64S2C7-C02N1	64S2C7-C08N1
4.3-10 female straight; screw type	64K1C7-C09B1	64K1C7-C02B1	64K1C7-C08B1

4.3-10 Cable Connectors – Flexible Corrugated Cables

Connector Type	Rosenberger No.			
	1/2" Flexible corrugated	7/8" Flexible corrugated	1 1/4" Flexible corrugated	1 5/8" Flexible corrugated
4.3-10 male straight; screw type	64S1C7-C03N1	64S1C7-CX5N1	64S1D7-C06N1	64S1D7-C07N1
4.3-10 male right angle; screw type	64S2C7-C03N1			
4.3-10 female straight; screw type	64K1C7-C03B1	64K1C7-CX5B1	64K1D7-C06B1	64K1D7-C07B1

R = Ring corrugation
S = Spiral corrugation
PE = Polyethylene
FRNC = Flame-retardant & halogen- free (IEC 60332)
*higher ratings on request

Coaxial Cables Overview

Rosenberger No.				
Cable Dimension	Flexible (R)	Super flexible (S)	Low Loss (L)	CPR-Ratings*
1/4"	SL 014 R PE SL 014 R FRNC	SL 014 S PE SL 014 S FRNC		E_{ca}
3/8"		SL 038 S PE SL 038 S FRNC		E_{ca}
1/2"	SL 012 R PE SL 012 R FRNC	SL 012 S PE SL 012 S FRNC		E_{ca} $B2_{ca}$ s1 d1 a1
7/8"			SL 078 R L PE SL 078 R L FRNC	E_{ca} $B2_{ca}$ s1 d0 a1
1 1/4"			SL 114 R L PE SL 114 R L FRNC	E_{ca} $B2_{ca}$ s1 d1 a1
1 5/8"			SL 158 R L PE SL 158 R L FRNC	E_{ca} D_{ca} s2 d2 a1

Adaptors

These precision adaptors can be used at the test port of the analyzer or its extension cable to provide an interface compatible with the specified system test point before starting the calibration process. The PIM optimized adaptors ensure optimum accuracy and stability for testing.

65S153-KIMN1	60S101-SIMN1	64S101-S00N1	64S189-KD0N1

Rosenberger No.	Interface
53S101-S00N5	N male – N male
53K102-K00N5	N female – N female
53S164-S00N1	N male – 4.3-10 male
53S164-K00N1	N male – 4.3-10 female
53K164-S00N1	N female – 4.3-10 male
53S201-K00N5	N male – N female
60S101-SIMN1	7-16 male – 7-16 male
60S101-KIMN1	7-16 male – 7-16 female
60K101-KIMN1	7-16 female – 7-16 female
60S153-KIMN1	7-16 male – N female
53S160-SIMN1	7-16 male – N male
53S160-KIMN1	7-16 female – N male
53K160-KIMN1	7-16 female – N female
60S164-S00N1	7-16 male – 4.3-10 male
60S164-K00N1	7-16 male – 4.3-10 female
60S231-K00N1	7-16 male – 7-16 female
64S101-S00N1	4.3-10 male – 4.3-10 male
64S101-K00B1	4.3-10 male – 4.3-10 female
64K101-K00B1	4.3-10 female – 4.3-10 female
64K501-K00B1	4.3-10 female – 4.3-10 female – bulkhead adaptor
64S201-K00B1	4.3-10 male – 4.3-10 female
64S189-K00N1	NEX10® female – 4.3-10 male
64S189-S00N1	NEX10® male – 4.3-10 male
64K189-K00N1	NEX10® female – 4.3-10 female
64K189-S00N1	NEX10® male – 4.3-10 female
53S189-K00N1	NEX10® female – N male
53S189-S00N1	NEX10® male – N male
53K189-K00N1	NEX10® female – N female
53K189-S00N1	NEX10® male – N female

PIM Measurement

Excellent PIM performance is vital in today's mobile communications network. Rosenberger offers a complete range of PIM loads, measurement assemblies, and adaptors that meet our customers' expectations in terms of outstanding PIM performance.

PIM Load and Test Kits

For testing and troubleshooting, these high-quality precision loads are typically used to terminate system components at the characteristic impedance.

Rosenberger No.	Interface	Frequency	Product
IM-Load-Desk	4.3-10 / 7-16	700 MHz to 3.6 GHz	
60Z150-020	7-16 male – 7-16 female	DC to 2.7 GHz	
IM-Load-Site 4.3-10	4.3-10 male – 4.3-10 female	DC to 2.7 GHz	

Measurement Assemblies

The PIM optimized measurement assemblies ensure optimum accuracy and stability for testing.

Rosenberger No.	Description	Product
IM-Cable-716m-4310m-xxx	7-16 male – 4.3-10 female	
IM-Cable-716m-716m-xxx	7-16 male – 7-16 male	
IM-Cable-4310m-4310m-xxx	4.3-10 male – 4.3-10 male	

xxx = cable length in mm

Test Adaptors

These precision adaptors can be used at the test port of the analyzer or its extension cable to provide an interface compatible with the specified system test point before starting the calibration process. The PIM optimized adaptors ensure optimum accuracy and stability for testing.

Rosenberger No.	Description	Product
60S164-K00N1	7-16 male – 4.3-10 male	
60S164-S00N1	7-16 male – 4.3-10 female	

PIM Test Kits

Carry out high-precision and quality test and measurements with the Rosenberger test kits including test cables, adaptors, load, and torque wrench.

Rosenberger No.	Description	Product
SLTK003-002	4.3-10 and 7-16 contains a high-power, low-PIM load, different adaptors, highly flexible test cable 4.3-10 male to 4.3-10 male, torque wrench	

Field Strength Measurements at the Rosenberger HQ in Fridolfing

A Rosenberger Passive Intermodulation Analyzer (3400-3600 MHz) with a WiMAX 3500 MHz filter unit was used as the test transmitter. Between the transmitting antenna and the test transmitter there was a 10 m long ½" cable with approx. 2.3 dB @ 3600 MHz attenuation. The Omni SISO antenna was used as the antenna. The transmission power was 40 dBm.

Test setup of transmitter location
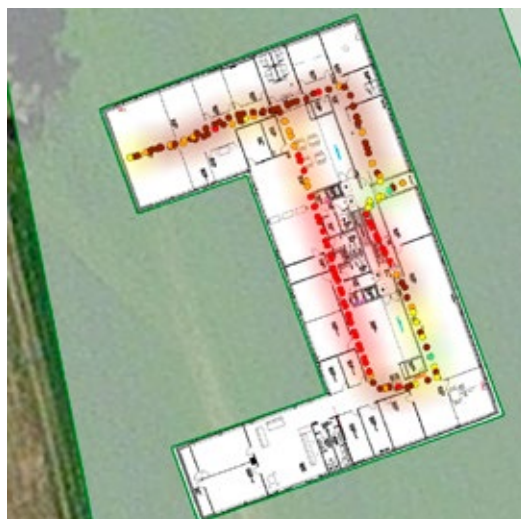
Display of measured values in the interior of an office building

PIM Site Analyzer α

Stressed PIM Tests without any Calibration on Site

The Rosenberger portable and multifunctional broadband PIM Site Analyzer α provides the best alternative of performing the most precise and efficient PIM tests on site.

The PIM Site Analyzer α consists of a single Master Unit with band-specific, interchangeable filter units, since the form factor of the filter units is the same. Take out one filter unit, e.g., 900 MHz, and replace with another filter unit, e.g., 1800 MHz, without any calibration of the filter unit, potential adaptors, test cable, or operational mode(s). Future-proof Plug and Play concept covering 700 to 2700 MHz.

Features and Benefits

- Broadband Base Unit 700 - 2700 MHz with field interchangeable, band-specific filter units
- Stressed PIM tests – continuous wave (CW) signal simulations real operating conditions of the base station (in conformation with IEC 62037-1)
- Outstanding PIM performance <-125 dBm (<-130 dBm typ.)
- No on-site calibration
- Accuracy of < 0.3 m for PIM Distance to Fault (DTF) measurement
- Future-proof for upcoming bands

Additional Features

- In-built WiFi for remote control via optional 10" Android tablet
- Operation via batteries or external power supply
- VSWR/return loss measurements
- Antenna isolation measurement
- Integrated spectrum analyzer
- 12" touchscreen
- Intuitive software operation

Filter Units

- 700, 800, 900, 1800, 2100, 2600 MHz (other frequency bands on request)

Base unit includes

- 1 filter unit
- 2 batteries
- External power unit
- Charging cable

Wide range of tools & accessories

Fast and easy interchangeable band filter units

PIM Site Analyzer α Broadband Base Unit

Rosenberger No.	Frequency Range RX	Frequency Range TX	Power Output	RX Noise Floor
IM-B-BU-0727	698 - 2700 MHz	see filter units	26 / 49 dBm	< -135 dBm

Detailed specifications on request

PIM Site Analyzer α Filter Units for 7-16

Rosenberger No.	Frequency Band	E-UTRA	Frequency Range RX	Frequency Range TX	Power Output	Residual IM @ 2x43 dBm Reflected IM
IM-B-FI-700/B28	APT 700	28	703 - 748 MHz	758 - 803 MHz		
IM-B-FI-800/B20	DigDiv	20	832 - 862 MHz	792 - 822 MHz		
IM-B-FI-900/B8+	EGSM 900	8	880 - 915 MHz	925 - 960 MHz		
IM-B-FI-1800/B3	DCS 1800	3	1710 - 1785 MHz	1805 - 1880 MHz	+23 ... +46 dBm	< -168 dBc
IM-B-FI-1400/B11+21	LTE 1400	11, 21	1427.9 - 1462.9 MHz	1475.9 - 1510.9 MHz		
IM-B-FI-2100/B1	UMTS 2100	1	1920 - 2060 MHz	2110 - 2170 MHz		
IM-B-FI-2600/B7	UMTS II / LTE 2600	7	2545 - 2580 MHz	2620 - 2695 MHz		

Detailed specifications on request

PIM Site Analyzer α Filter Units for 4.3-10

Rosenberger No.	Frequency Band	E-UTRA	Frequency Range RX	Frequency Range TX	Power Output	Residual IM @ 2x43 dBm Reflected IM
IM-B-FI-700/B28-G	APT 700	28	703 - 748 MHz	758 - 803 MHz		
IM-B-FI-800/B20-G	DigDiv	20	832 - 862 MHz	792 - 822 MHz		
IM-B-FI-900/B8+-G	EGSM 900	8	880 - 915 MHz	925 - 960 MHz		
IM-B-FI-1800/B3-G	DCS 1800	3	1710 - 1785 MHz	1805 - 1880 MHz	+23 ... +46 dBm	< -168 dBc
IM-B-FI-1400/B11+21-G	LTE 1400	11, 21	1427.9 - 1462.9 MHz	1475.9 - 1510.9 MHz		
IM-B-FI-2100/B1-G	UMTS 2100	1	1920 - 2060 MHz	2110 - 2170 MHz		
IM-B-FI-2600/B7-G	UMTS II / LTE 2600	7	2545 - 2580 MHz	2620 - 2695 MHz		

Detailed specifications on request

PIM Site Analyzer α Battery Pack

Rosenberger No.	Capacity
IM-A-BU-BAT	99 Wh

PIM Site Analyzer α Bag

Rosenberger No.	Description
IM-B-ACSRY-BAG	Carry Bag for PIM Site Analyzer
IM-A-ACSRY-Backpack	Backpack for accessories
IM-A-Bat-Charger	External charger for batteries
IM-A-BU-PU-EF	External power supply unit, 750W

Rosenberger B2ca Cables

Compliant and certified according the CPR – EN 50575

Coaxial Feeders / Coaxial Cables – Technical Data

Rosenberger No.	Description	Picture
SL 012R FRNC	1/2" flexible, no halogen, flame retardant	
SL 012S FRNC	1/2" superflexible, no halogen, flame retardant	
SL 078R FRNC	7/8" flexible, no halogen, flame retardant	
SL 114R FRNC	1 1/4" flexible, no halogen, flame retardant	

Coaxial Jumpers

Rosenberger No.	Description	Picture
SLJ12RF-64M64M-xxx	Jumper 4.3-10 male - 4.3-10 male, 1/2" Flexible FRNC	
SLJ12SF-64M64M-xxx	Jumper 4.3-10 male - 4.3-10 male, 1/2" Super Flexible FRNC	

other variants on request

FO Cables

Rosenberger No.	Description	Picture
L98B-A0992-xxx	PreCONNECT® - 2 FO DISCRETE, SM, 5 mm, LCD_RFE-LCD, B2ca	
L98B-A1115-xxx	PreCONNECT® - 2 FO DISCRETE, SM, 5 mm, LCD_LCD, B2ca	
L98B-A0987-xxx	PreCONNECT® - 12 FO BOX, SM, 9,1 mm, 6xLCC-6xLCC, B2ca	
L98B-A0988-xxx	PreCONNECT® - 24 FO BOX, SM, 9,1 mm, 12xLCC-12xLCC, B2ca	

Data Cable

Rosenberger No.	Description	Picture
L99-A0122-xxx	S/FTP Cat5e Cable Outdoor acc. to IEEE 802.3 bt (PoE++)	

2-Wire Power Cables

Rosenberger No.	Description	Picture
SL2C2.5MM2FRNC-S-BK-R	Power Cable 2 x 2,5 mm², Alu shielded, 7,7 mm	
SL2C4MM2FRNC-S-BK-R	Power Cable 2 x 4 mm², Alu shielded, 8,6 mm	
SL2C6MM2FRNC-S-BK-R	Power Cable 2 x 6 mm², Alu shielded, 9,4 mm	
SL2C10MM2FRNC-S-BK-R	Power Cable 2 x 10 mm², Alu shielded, 11,7 mm	
SL2C16MM2FRNC-S-BK-R	Power Cable 2 x 16 mm², Alu shielded, 14,8 mm	
SL2C25MM2FRNC-S-BK-R	Power Cable 2 x 25 mm², Alu shielded, 18,6 mm	
SL2C35MM2FRNC-S-BK-R	Power Cable 2 x 35 mm², Alu shielded, 19,8 mm	
SL2C6MM2FRNC-S-BK-N	Power Cable 2 x 6 mm², Alu shielded, 9,4 mm	
SL2C10MM2FRNC-S-BK-N	Power Cable 2 x 10 mm², Alu shielded, 11,7 mm	
SL2C16MM2FRNC-S-BK-N	Power Cable 2 x 16 mm², Alu shielded, 14,8 mm	
SL2C25MM2FRNC-S-BK-N	Power Cable 2 x 25 mm², Alu shielded, 18,6 mm	
SL2C35MM2FRNC-S-BK-N	Power Cable 2 x 35 mm², Alu shielded, 19,8 mm	

Double-Isolated Wires

Rosenberger No.	Description	Picture
SLZ0035-10-RD	Power Cable 1 x 10 mm², double isolated, red, 9,0 mm	
SLZ0035-16-RD	Power Cable 1 x 16 mm², double isolated, red, 10,0 mm	
SLZ0035-25-RD	Power Cable 1 x 25 mm², double isolated, red, 10,5 mm	
SLZ0035-35-RD	Power Cable 1 x 35 mm², double isolated, red, 11,0 mm	
SLZ0035-50-RD	Power Cable 1 x 50 mm², double isolated, red, 13,0 mm	
SLZ0035-10-WH	Power Cable 1 x 10 mm², double isolated, white, 9,0 mm	
SLZ0035-16-WH	Power Cable 1 x 16 mm², double isolated, white, 10,0 mm	
SLZ0035-25-WH	Power Cable 1 x 25 mm², double isolated, white, 10,5 mm	
SLZ0035-35-WH	Power Cable 1 x 35 mm², double isolated, white, 11,0 mm	
SLZ0035-50-WH	Power Cable 1 x 50 mm², double isolated, white, 13,0 mm	

Rosenberger No.

Website

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