

# Rosenberger

Broadband. Precise. Future-proof.

## PIM Site Analyzer $\alpha$

COMMUNICATION





Wide Range of Tools & Accessories

## PIM Site Analyzer α

# About Rosenberg

### Company Profile

Rosenberger is one of the world's leading manufacturers of impedance controlled and optical connectivity solutions. It provides connectivity solutions in high-frequency, high-voltage, and fiber-optic technology for mobile communication networks, data centers, test & measurement applications, automotive electronics, as well as high-voltage contact systems, medical electronics or aerospace engineering.

### Passive Intermodulation (PIM) Test Solutions for All Applications. Made in Germany.

Mobile communication networks around the world are subject to ever-increasing requirements. The demand for high data rates, short response times, and maximum availability, combined with the increasing complexity of the networks, presents considerable challenges in terms of the efficiency of the infrastructure.

Passive intermodulation (PIM) is one of the main causes of faults in modern networks. PIM – which is caused by factors such as inadequate installation or component quality, or by site-specific external influences – can significantly reduce the network quality (for example, with regard to range or data transmission) and is therefore a serious problem for network operators.



Fast and Easy Interchangeable Band Filter Units

## Stressed PIM Tests without any Calibration on Site

# PIM Site Analyzer $\alpha$

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

The PIM Site Analyzer  $\alpha$  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.

### Benefits

- Broadband Base Unit 700 - 2700 MHz with field interchangeable, band-specific filter units
- Stressed PIM tests – continuous wave (CW) signal simulates real operating conditions of the base station (in conformity 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
- Hardware ready for later CPRI SW upgrade

### 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

### General Specification PIM Site Analyzer $\alpha$

IM Order	3rd, 5th, 7th, 9th, 11th, 13th, 15th, 17th
Output Power	26 – 49 dBm equals 23 – 46 dBm at testport
Residual PIM	$< -125$ dBm ( $> 168$ dBc @ $2x +43$ dBm)
PIM vs. Distance	
• Accuracy/Resolution	• $< 0.3$ m depends on number of PIM sources and accuracy of cable velocity factor
• Range	• Down to $-120$ dBm PIM, 0 – 150 m
Frequency Range (seamless)	700 ... 2700 MHz
Filter Units*	Interchangeable to frequency band(s) 700, 800, 900, 1800, 1900, 2100, 2600 MHz

\* Other frequency bands on request



For more information  
refer to our microsite:  
[www.rosenberger.com/pia](http://www.rosenberger.com/pia)

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