Rosenberger

Reduce Test Time and Connection Cycles

Multi-Port, Multi-Frequency PIM Test Solution

COMMUNICATION





REDUCE TEST TIME AND CONNECTION CYCLES

Multiple Bands Increase the Test Complexity

Mobile operators and equipment manufacturers continuously strive to maximize the performance, reliability and return on investment of their cellular network infrastructures. The stakes have never been higher. Rising competition and the arrival of 5G services, combined with ageing network infrastructure, increased cell tower co-location and growing user expectations are exposing PIM (passive intermodulation) vulnerabilities on an unprecedented scale.



In multiport-, multi-frequency PIM testing environments, such as production lines for base station antennas or RF components, the time taken for connecting/disconnecting the various ports for testing is becoming an increasingly important factor in terms of assembly time and labour cost. Both impact significantly on output rates and cost per device under test (DUT). A more efficient and less time consuming approach for enabling faster PIM testing and discovery has never been more crucial.

Challenges

- Multiple ports on DUT mean many connection cycles are required
- Multiple bands increase test complexity
- Ensuring appropriate line set up
- Maximizing ROI in testing equipment

Multi-Port and Multi-Frequency PIM Test Solution

Rosenberger provides the answer with an innovative multi-port, multi-frequency PIM testing solution, ensuring precision testing while maximizing on time savings and ROI.

- Modular design
- Multiple base units and filters
- Combiner unit
- Direct connection to DUT via PIM test cable and quick-lock adapter

Example of a high-band test configuration:

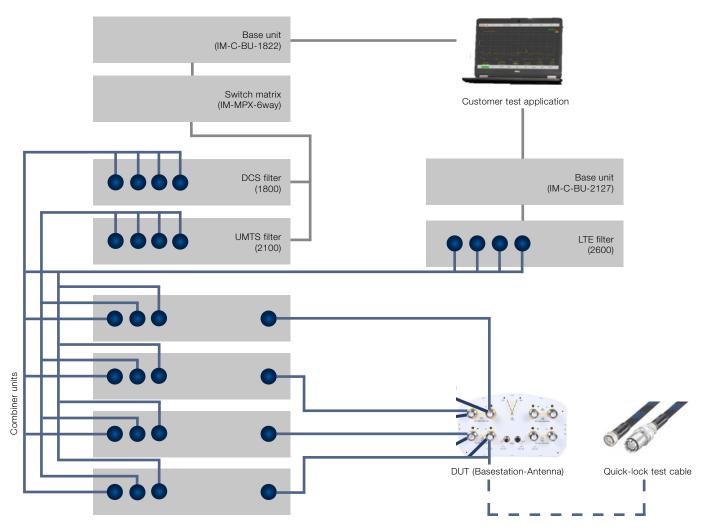
- 1 connection towards DUT on 4 high-band ports
- PIM test 4 high-band ports, 3 different bands simultaneously in one connection
- Overall test time ~ 30 seconds in sweep mode (PIM test including cable connection)

User Benefits

- Reduce test time and connection cycles
- Improve testing efficiency
- Optimize utilization of test equipment (totex)
- Reduce complexity of test setup
- Minimal cabling required
- Easily expandable
- Capex and opex savings

Specifications

Power at test port	2 x up to min. +30 44 dBm
(at filter unit)	
Output power accuracy	±0.5 dB
IM-level	≤ -168 dBc @ 2 x 43 dBm
(2 x 43 dBm, S/N = 10 dB)	(typ171 dBm)
Base units	IM-C-BU-0710 (700 – 1000 MHz)
	IM-C-BU-1822 (1800 – 2200 MHz)
	IM-C-BU-2127 (2100 – 2700 MHz)
4-Port filter units	IM-C-FI-xxxxR-4P
	(xxxx = for frequency band)
	700, 800, 850, 900, 1800, 1900,
	2100, 2600 MHz (other frequency
	bands and additional ports on
	request)





Website

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

Rosenberger

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