

RF & MICROWAVE TECHNOLOGY

AWT-Global provides advanced telecommunication technology products and analyzers for a variety of RF and Microwave applications.

PIM ANALYZERS FOR PRODUCTION AND LAB

Production testing requires fast and highly reliable PIM analyzers. Our systems are used at many manufacturing sites around the world.

OTHER PIM ANALYZERS

AWT - Global offers also Expandable Multi Band PIM Analyzers (1-4 channels) and Portable PIM Testers.

PIM Analyzer - Single Band



Dual band analyzer shown

- Precision PIM Analyzer for Production and Laboratory.
- True continuous 24/7 operation.
- 3 Measurement Modes: PIM Analyzer, PIM over Time, PIM over Frequency (Frequency Sweep).
- Forward & Reverse PIM Measurements (2-port).
- One unit holds the complete PIM Analyzer system.

Passive Intermodulation (PIM) analyzers measure the amount of unwanted intermodulation signals that are generated by passive components during RF transmission. Increasing demand for wireless data capacity mandates optimally performing, high quality network elements. Wireless carriers use exclusively high quality, low PIM components to ensure optimal performance of their networks - today and in the future.

PIM is caused by RF components that show non-linear frequency behavior. Even the most careful production process can introduce PIM. Therefore, every single component has to be tested. It is paramount for manufacturers to minimize PIM during both, the design phase and the production process.

RF Components that may cause PIM:

- Cables
- Connectors
- Antennas
- Attenuators, Loads
- Surge Protectors
- Filter, Diplexers, Duplexers
- Combiners, Splitters, Couplers

AWT's PIM Analyzers are ideal for production and laboratory. These instruments are very accurate, yet highly reliable and built for true continuous 24/7 operation. The complete measurement system consists of only one unit, making set-up easy and operation convenient.

With the introduction of new wireless technologies like LTE and LTE-A, network operators demand RF components that offer excellent PIM characteristics. AWT'S PIM Analyzers are well suited for this task. With -127dBc sensitivity, our analyzers detect all PIM issues of tested RF components. Engineers appreciated the high accuracy over 100% of the IM measurements.



Models / Types

PRODUCT QUALITY

AWT is committed to providing our customers with products meeting the highest quality standards. All AWT products undergo thorough quality checks and are ISO 9001 and ISO 14001 certified.

MORE INFORMATION

For more information about any of our products or services please visit our Web site: www.awt-global.com or contact one of our sales offices.

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Model Number / Type	Tx Frequency (MHz)	Rx Frequency (MHz)
TETRA 400	390 ~ 400	380 ~ 384
E-TETRA400	420 ~ 430	410 ~ 412
LTE700-U	730 ~ 759	776 ~ 788
LTE700-L	728 ~ 759	698 ~ 716
CDMA	869 ~ 896	824 ~ 851
GSM900	935 ~ 960	890 ~ 915
LTE-JP1500	1488 ~ 1520	1456 ~ 1480
DCS/GSM1800	1805 ~ 1880	1710 ~ 1785
PCS1900	1930 ~ 1990	1850 ~ 1910
AWS	2010 ~ 2155	1710 ~ 1755
TD-SCDMA(2000)	2010 ~ 2025	1900 ~ 1920
UMTS/W-CDMA	2110 ~ 2170	1920 ~ 2060
W-CDMA-JP	2150 ~ 2170	2110 ~ 2140
IMT-E(2600)	2620 ~ 2690	2500 ~ 2570
WiBro-KR	2110 ~ 2170 2300 ~ 2390	1910 ~ 1990
Accessories		
Opt. 2	Accessory Kit: (2) low PIM cables 3m / 10ft, (1) low PIM cable 1m / 3ft, low PIM load 100W, adapters, torque wrench with hard carry case	
Opt. 3	Low PIM Load 100W, < 165 dBc @ 2* 43W, DIN 7/16 (f)	
Opt. 4	PIM Source: Generator with preset PIM value. Quick indication and system test.	

Specifications

Transmitter	
Carrier Power	+20 to +44 dBm (46 dBm optional)
Power Accuracy	+/- 0.35 dB
Frequency Accuracy	200 ppm
Reverse Pwr. Protection	+43 dBm for 5 sec

Dimensions / Weight / Environment / Electrical	
Dimensions	
All Units (except. E-GSM)	488 x 659 x 278 (mm)
E-GSM	488 x 719 x 278 (mm)
Weight	
All Units (except. E-GSM)	35 kg
E-GSM	36 kg
Temperature	-10 °C to +40 °C
Humidity	80%, RH (non condensing)
Protection	IP20 (indoor use)
AC Power	100 to 240V 50/60 Hz
Power Consumption	750 Watts (VA) max

Receiver	
Reverse IM @ 2x43dBm	-129 dBm / -172 dBc typ.
Forward IM @ 2x43dBm	-125 dBm / -168 dBc typ.
Noise Floor	-140 dBm (300 Hz BW)
Dynamic Range (typical)	> 96 dB (ref: -70 dBm)
Reverse Power Protection	+43 dBm for 5 sec
Operational Input Power	-40 dBm RMS
Max Input Power	-10 dBm
Measurement Accuracy	+/- 0.2 dB @ 2 x 43 dBm
Warm-up Time (for full measurement accuracy)	10 mins

