Datasheet

Portable PIM Analyzers - PP Series



- Multiple Test Modes: Field Diagnostic, Analyzer with Multi PIM, PIM over Time, Rx Sweep, Single Carrier Mode for system insertion loss measurements, Distance to PIM, VSWR, Distance to Fault.
- Embedded DTP, VSWR, DTF option.
- Variable output power 15 dBm to 44 / 46dBm. Ideal for Macro BTS and DAS.
- Very high PIM sensitivity: -172 dBc @ 2x43 dBm carriers.
- PIM vs. Time graph, Min & Maxhold feature. Perfect for static & dynamic PIM measurements
- Removable Case Lid

AWT portable PP Series PIM analyzers are powerful tools for analyzing telecommunication infrastructure. These PIM testers provide constant CW Power and with that, are in full conformance to PIM standard IEC 62037. The ruggedized analyzers are built to work under tough conditions. If hot or cold, they will perform reliably. The market leading dynamic range and low receiver noise level makes them ideal for pinpointing and eliminating PIM at BTS sites and in-building DAS installations. Measurement results are stored as PDF document, BMP screen shots, PDF protocol with embedded screen shot or as alphanumerical CSV files. Distance-to-PIM (DTP) measurements are accurate due to a patented technology.

Models

Model	Description	Tx Range (MHz)	Rx Range (MHz)
PP700L	LTE700 (low)	728 ~ 759	698 ~ 716
PP700U	LTE700 (high)	730 ~ 759	776 ~ 788
PP800	LTE800	791 - 821	832 ~ 862
PP800SMR	SMR800	851 ~ 869	806~ 824
PP850	AMPS/CDMA	869 ~ 896	824 ~ 851
PP900	GSM900	935 ~ 960	890 ~ 915
PP900E	E-GSM & GSM900	925 ~ 960	880 ~ 915
PP1800	DCS 1800 /GSM1800	1805 ~ 1880	1710 ~ 1785
PP1900	PCS1900	1930 ~ 1990	1850 ~ 1910
PP2000TD	TD-SCDMA(2000)	2010 ~ 2025	1900 ~ 1920
PP2100UMTS	UMTS/W-CDMA	2110 ~ 2170	1920 ~ 1980 / 2060
PP2100AWS	AWS	2110 ~ 2155	1710 ~ 1755
PP1921PA	PCS & AWS	1930~1990 / 2110~2155	1850~1910 / 1710~1755
PP2160JP	W-CDMA-JP	2150 ~ 2170	2110 ~ 2140
PP2300LTE	LTE2300	2320 ~ 2330	2300 ~ 2310
PP2400LTE	LTE2400, Band 40	2300 ~ 2345	2355 ~ 2400
PP2500	Band 41, BRS / EBS	2593 ~ 2690	2496 ~ 2580
PP2600LTE	IMT-E(2600), LTE2600	2620 ~ 2690	2500 ~ 2570

RF & Microwave Technology

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

Portable PIM Test Systems

Field use demands ruggedized yet accurate test instruments. Our portable PIM testers are designed exactly for these conditions. The wide Tx power range from 15dBm to 44dBm makes the PP series analyzers ideal for Macro BTS sites and DAS installations. VSWR, DTF and DTP (opt) can be measured with the push of a button.

PIM Analyzers for Production

Production analyzers have to perform permanently. AWT - Global offers single and dual band PIM analyzers that are build for 24/7 operation. Also available are expandable systems for up to four frequency bands.



Technical Specifications

System	
Measurement Method	Reverse (reflected) PIM, 3rd, 5th, 7th, 9th, 11th up to 25th order (4 strongest)
Residual PIM PP1921PA	< -129 dBm / -172 dBc < -125 dBm / -168 dBc
User Interface Ports	3x USB 1x LAN, 1x RF Output (7-16 DIN female)
Display	10.2 inch, touch screen
Transmitter	
Frequencies	See table
Frequency increments	100 kHz
Frequency accuracy	2 ppm
Power (per tone)	15 - 44 dBm adjustable (46 dBm opional)
Power Accuracy	+/- 0.35 dB
Reverse Pwr. Protection	+43 dBm for 5 sec
Receiver	
Measurement Range	-45 dBm to - 132 dBm
	-88 dBc to -175 dBc
Noise Floor (BW: 300 / 1200 Hz)	<-138 / -132 dBm typ
(PP1921PA	<-134 / -128 dBm typ.)
Dynamic Range (typical)	96 dB (ref: -70 dBm)
Max Input Power	0 dBm
Measurement Accuracy	+/- 1.0 dB @ 2 x 43 dBm

Options & Accessories

Туре	Description
POPT1	Embedded option for Distance-to-PIM (DTP), Return Loss, VSWR and distance-to-fault (DTF)
POPT5	RF power range from 25dBm to 46dBm,
PACC2	Accessory Kit: low PIM cable 3m DIN(m)-DIN(m), low PIM Load 50W / 10W, dual port DIN(m)-DIN(f), PIM <-165 dBc, 690-2800 MHz, torque wrench DIN7/16, (4) adaptors, cleaning tabs, carrying case IP66
PIMGEN	PIM generator, preset PIM value -80 dBm (+/-10) for quick system tests
PLOAD100	Low PIM load 100W, PIM < -165 dBc, 690-2800 MHz, with handle
PLOAD50	Low PIM load 50W / 10W (25 mins / permanent), PIM < -165 dBc, 690 - 2800 MHz, dual port DIN(m)-DIN(f), with ear for carabiner or strap
LIC308DMDM-2M	Low PIM cable 2m (6ft), PIM < -165 dBc @ 2x43 dBm, DIN(m)-DIN(m)
LIC308DMDM-3M	Low PIM cable 3m (10ft), PIM < -165 dBc @ 2x43 dBm, DIN(m)-DIN(m)
ADA-DMDF	Connector Saver. Adapter DIN(m)-DIN(f), PIM <-165 dBc @ 2x43 dBm

Distance to PIM / Distance to VSWR (Opt)

DTP / DTF resolution	0.1 m
DTP Accuracy	0.5 m (typ.)
DTF Accuracy	0.5 m (typ.)
Cable Types	Pre stored types & user can add new cable types

Electrical

Main Power	100 - 240V, 50/60Hz
Power consumption	640 Watts (VA)

Dimensions / Weight

Dimensions	457 x 305 x 500 (mm) 18.0 x 12.0 x 19.7 (inch)
Weight	24 - 26 kg
POPT1	+1kg

Environmental

Environmental		
Operating Temperature	-10° C to +50° C	
Storage Temperature	-20° C to +60° V	
Ingress Protection	IP66 (lid closed) IP20 (lid open)	
Relative humidity	max 90% (non condensing)	
Mechanical shock rating	40G	

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.

For more information on any of our products or services please visit our Web site: www.awt-global.com

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