



- Test Modes Include: Diagnostic, Analyzer with Multi-PIM, PIM-over-Time, Sweep Mode, Single Carrier Mode for System Return Loss measurements, Distance to PIM, VSWR, Distance-to-Fault.
- Variable output power 15 dBm to 44 dBm.
- Very high PIM sensitivity, up to -172 dBc @ 2x 43 dBm carriers.
- Intermodulation Products: IM3, IM5, IM7, IM9, IM11, IM13 up to IM25.
- PIM vs. Time graph and Min & Maxhold feature. Perfect for static & dynamic PIM measurements.

PIM S1L analyzers are ideal for component testing in the laboratory and/or during quality control. They offer variable output power from 15 dBm to 44 dBm per channel, and provide a wealth of features that deliver accurate and reliable results. PS1L systems are very easy to operate; it takes just one click to start a predefined test. These PIM analyzers are fully conform to PIM standard IEC 62037. Their market leading dynamic range and low receiver noise level makes them ideal for testing and analyzing RF components.

Models

Model	Description	Tx Range (MHz)	Rx Range (MHz)
PS1L700L	LTE700 (low)	728 ~ 759	698 ~ 716
PS1L700U	LTE700 (high)	730 ~ 759	776 ~ 788
PS1L725	APT700, 3GPP - Band 28	758 - 803	703 ~ 748
PS1L800	LTE800	791 ~ 821	832~ 862
PS1L800SMR	SMR800	851 ~ 869	806 ~ 824
PS1L850	AMPS/CDMA	869 ~ 896	824 ~ 851
PS1L900	GSM900	935 ~ 960	890 ~ 915
PS1L900E	E-GSM & GSM900	925 ~ 960	880 ~ 915
PS1L1800	DCS 1800 /GSM1800	1805 ~ 1880	1710 ~ 1785
PS1L1900	PCS1900	1930 ~ 1990	1850 ~ 1910
PS1L2000TD	TD-SCDMA(2000)	2010 ~ 2025	1900 ~ 1920
PS1L2100UMTS	UMTS/W-CDMA	2110 ~ 2170	1920 ~ 1980 / 2060
PS1L2100AWS	AWS	2110 ~ 2155	1710 ~ 1755
PS1L1921PA	PCS & AWS	1930 ~ 1990 / 2110 ~ 2155	1850 ~ 1910 / 1710 ~ 1755
PS1L2160JP	W-CDMA-JP	2150 ~ 2170	2110 ~ 2140
PS1L2350WCS	WCS	2350 ~ 2360	2305 ~ 2315
PS1LWBKR	WiBro-KR	2110 ~ 2170 / 2300 ~ 2390	1910 ~ 1990
PS1L2400LTE	LTE2400, Band 40	2300 ~ 2345	2355 ~ 2400
PS1L2500	Band 41, BRS / EBS	2593 ~ 2690	2496 ~ 2580
PS1L2600LTE	IMT-E(2600), LTE2600	2620 ~ 2690	2500 ~ 2570
PS1L3500LTE	LTE3500, Band 42	3510 ~ 3590	3410 ~ 3490

RF & Microwave Technology

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

S1L Series PIM Analyzers

Modern telecommunication technologies demand lowest passive intermodulation distortion of network installations. Selection of very low PIM components are particularly important when wireless signals of different frequencies share one RF path.

Signal degradation caused by PIM causes loss of network capacity. This translates directly into dissatisfied customers and reduced revenues for the operators. Low PIM components are key to optimal network operation.

Technical Specifications

System	
Measurement Method	Reverse (reflected) PIM, 3rd, 5th, 7th, 11th up to 25th order
Reverse IM	< -129 dBm / -172 dBc
PS1L1921PA	< -125 dBm / -168 dBc
PS1L2400 and higher	< -122 dBm / -165 dBc

Transmitter	
Frequencies	See table
Frequency increments	100 kHz
Frequency accuracy	2 ppm
Power (per tone)	15 - 44 dBm adjustable (46 dBm opt)
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.) PS1L1921PA <-134 / -128 dBm (typ.) PS1L2400 and higher <-131 / -125 dbm (typ.)
Dynamic Range (typical)	96 dB (ref: -70 dBm)
Max Input Power	0 dBm
Measurement Accuracy	+/- 1.0 dB (typ)

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-defined types, users can add new cable types

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

Dimensions / Weight	
Dimensions	504 x 397 x 237 (mm) 19.8 x 15.6 x 9.3 (inch)
Weight (freq > 1 GHz)	25.3 kg / 24.3 kg
EGSM, LTE700	+1 kg
PPOPT1	+1 kg

Environmental	
Operating Temperature	0° C to +40° C
Storage Temperature	-20° C to +60°
Relative humidity	85% (non condensing)

User Interfaces	
User Interface Ports	3x USB 1x LAN, 1x RF Output DIN 7/16 (f)
Display	7.1 inch, touch screen

Options & Accessories

Type	Description
POPT1	Embedded option for Distance-to-PIM (DTP), Return Loss, VSWR and distance-to-fault
POPT5	Increases output power. Adjustable 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 <-165dBc @2x43dBm 690-2800MHz, 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-1M	Low PIM cable 1m (3ft), PIM < -165dBc @ 2x43dBm, DIN(m)-DIN(m)
LIC308DMDM-2M	Low PIM cable 2m (6ft), PIM < -165dBc @ 2x43dBm, DIN(m)-DIN(m)

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:

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