

RF & MICROWAVE TECHNOLOGY

AWT-Global offers advanced wireless technology for wireless, telecommunication and Radar applications; frequencies ranges from 9 kHz to 40 GHz.

TETRA

TETRA (TERrestrial TRunked RAdio) has been designed to fulfill the requirements of users in Private Mobile Radio (PMR), Land Mobile Radio (LMR), Public-Access Mobile Radio (PAMR) and public safety and security applications such as police, border patrol and coast guard, fire departments and ambulances. This ETSI-based standard is applied in most regions of the world.

PIM ANALYZERS FOR OTHER APPLICATIONS

AWT Global offers a wide portfolio of PIM systems for use in Field, Laboratory, Quality Assurance and Production environments. Visit our Website for more information:
www.awt-global.com/pim-test-systems/

PIM S1L TETRA & UHF PIM Analyzer



- Test Modes Include: Diagnostic, Analyzer, PIM-over-Time, Rx Sweep Mode, Multi-PIM Display.
- Very high PIM sensitivity: -165 dBc @ 2x 43 dBm carriers.
- Output Power (Adjustable): 15 dBm to 44 dBm.
- Data recording: CSV, PDF, Screenshot

Passive Intermodulation (PIM) is an unwanted mixing effect caused by non-linearity of passive components in the RF path of telecommunication systems. PIM diverts signal energy to other frequencies (spurious signals). This can generate interfering signals that may fall into receiving bands causing serious degradation of system performance.

Causes of PIM:

- Dissimilar metals with different electrical properties as well as corroded components and structures.
- Ferromagnetic metals like iron, nickel and steel, show hysteresis effects when RF energy is applied.
- Irregular contact areas, even on a microscopic scale, cause an inconsistent flow of electrons, generating inhomogeneous electrical fields.
- Spark discharges that may happen by accidental "hot" connections and disconnections create craters on the connectors' surfaces and lead to chemical reactions.

PIM S1L TETRA & UHF PIM testers are ideal for component testing in the laboratory and quality assurance and they are also valuable field tools, providing vital test results in TETRA & UHF networks. The specifications and measurement accuracy of our PIM analyzers are exceptional and deliver reliable results. AWT Global's PIM S1L TETRA & UHF analyzers are very easy to operate; just the touch of a button to start any predefined test.

When public safety officers assign their staff to critical missions, they rely on the performance of their TETRA & UHF networks. Communication and data transmission must not experience any PIM distortion. As such, low PIM components and installations are required. PIM S1L TETRA & UHF helps to establish highest quality networks.

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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PIM S1L TETRA & UHF Models

Model	Technologies	Tx Frequency (MHz)	Rx Frequency (MHz)
PS1L400	TETRA	390 ~ 400	380 ~ 385
PS1L400E	E-TETRA	420 ~ 430	410 ~ 412
PS1L-xxx*	UHF	*Other frequency combinations are available on request.	

Options & Accessories	
POPT1	VSWR/DTF/DTP (Distance to Fault / PIM) Option. Embedded in the tester
POPT5-400DB	Output power 18dBm to 46dBm
PACC2L	Accessory Kit: low PIM cable 3m / 10ft, low PIM load 100W, PIM <-165dBc @ 2*43dBm, 380-2800 MHz, (4) adapters, torque wrench with hard carry case
PACC2	Accessory Kit: low PIM cable 3m / 10ft, low PIM load 50/10W, PIM <-165 dBc @ 2*43dBm, 690-2800 MHz, (4) adapters, torque wrench with hard carry case
PLOAD100L	Load 100W, PIM < -165 dBc @ 2*43W, 380-2800 MHz, DIN 7/16 (f)
PLOAD50	Low PIM Load 50 W/ 10W (25 min / permanent), PIM < -165 dBc, 690-2800 MHz, ,DIN (m) – DIN (f)

Specifications

Receiver	
Reverse IM	-122 dBm / -165 dBc (typ.)
Noise Floor (BW)	-132 dBm (300Hz) -126 dBm (1200Hz)
Dynamic Range (typical)	96 dB (ref: -70 dBm)
Operational Input Power	-45 dBm RMS
Max Input Power	0 dBm
Measurement Accuracy	+/- 1.0dB @ 2 x 43 dBm

Transmitter	
Carrier Power	+15 to +44 dBm
Power Accuracy	+/- 0.35 dB
Frequency Accuracy	2 ppm
Reverse Pwr. Protection	+43 dBm for 5 sec

Dimensions / Weight / Environment / Electrical	
Dimensions	2 Modules 504 x 420 x 225 (mm) 504 x 420 x 156 (mm)
Weight	18.5 & 15.0 kg
Temperature	0 °C to +45 °C
Humidity	85% (non-condensing)
Protection	IP20
AC Power	100 to 240V 50 / 60 Hz
Power Consumption	700 Watts (VA)

Specifications subject to change without further notification