



- High power, low PIM coaxial switch 5x6 or 1x4 matrix
- Frequency range 698-2700 MHz.
- SCPI commands via Ethernet (wired or wireless).
- Significantly reduces test time for multi frequency PIM analysis.
- Applications: ATE systems, multi-band antenna and component testing.

AWT's new LPSU series high power, low PIM switch matrices combine up to 6 low PIM inputs with 5 low PIM outputs and vice versa. These switch matrices are designed in testing situations that require multi-band PIM sources, components or antennas. Combinations of multi-band PIM testing are now easily possible, improving workflow significantly. LPSUs can be integrated in existing production control systems.

With guaranteed PIM of only -163 dBc (@ 2x20W), LPSUs enable one time connections when testing multi-band antennas and components. The units come in a 4U standard 19" chassis. LED indicators show which ports are currently active. LPSU are remote controlled by SCPI commands, either via Ethernet cable or wireless.

Order Information

Type	Description
LPSU5P6T	Low PIM switch matrix, 6 Ports x 5 Ports, PIM <-163dBc (@2x20W), Insertion Loss (max.) 1.2dB, Return Loss (min.) 13dB, VSWR 1:1.58, Max Power (CW) 100W.
LPSU4P1T	Low PIM switch matrix, 1 Port x 4 Ports, PIM <-163dBc (@2x20W), Insertion Loss (max.) 1.2dB, Return Loss (min.) 13dB, VSWR 1:1.58, MAX Power (CW) 100W.
PLOAD100	Low PIM load 100W, PIM < -165 dBc, 690-2800 MHz , with handle, DIM(f) connector.
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
LIC308-DMDM-1M	Low PIM cable 1m (3ft), PIM < -165dBc @ 2x43dBm, DIN(m)-DIN(m)
LIC308-DMDM-2M	Low PIM cable 2m (6ft), PIM < -165dBc @ 2x43dBm, DIN(m)-DIN(m)
ADA-DMDF	Low PIM adapter, DIN(m)-DIN(f), PIM < -165dBc (@2x20W), Frequency DC-3000 MHz, Power (max) 300W, VSWR 1: 1.25, Connector Saver

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

Low Power Switch Matrix
 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

Switch Matrix

LPSU5P6T	5 Ports to 6 Ports
LPSU4P1T	4 Ports to 1 Port

System

Switching time	<100ms
Switching cycles	>500 000 cycles per switch (with no RF power applied to switches)
Reverse IM (max.)	-163 dBc / -120dBm @ 2 x 20W
Connector types	
RF ports	DIN 7/16 (f)
Communication interface	Ethernet Port (RJ45)

RF Specifications

Frequency:	700 - 2700 MHz
Impedance	50 Ohms
Insertion Loss (max.)	1.2 dB
Return Loss (min.)	13 dB
VSWR	1:1.58
Isolation (min.)	35 dB
Max input power (CW)	100 W

User Interfaces

User Interface Ports	IEEE-802.2 Ethernet communication bus
SCPI Commands	*IDN? SET: SW, SW_RST GET: SW, CAL, TEST
Setup / Default State	All switches open
LED Indicators	Switch active (closed)

Electrical

Main Power	100 - 240 VAC, 50/60 Hz
Power consumption	38 Watts (VA)

Dimensions / Weight

Dimensions	483 x 635 x 190 (mm) 19 x 25 x 7.5 (inch)
Weight	15.2 kg / 33.1 lb

Environmental

Operating Temperature	+5 °C to +40 °C
Storage Temperature	-10 °C to +60 °C
Relative humidity (max)	80% (non condensing)

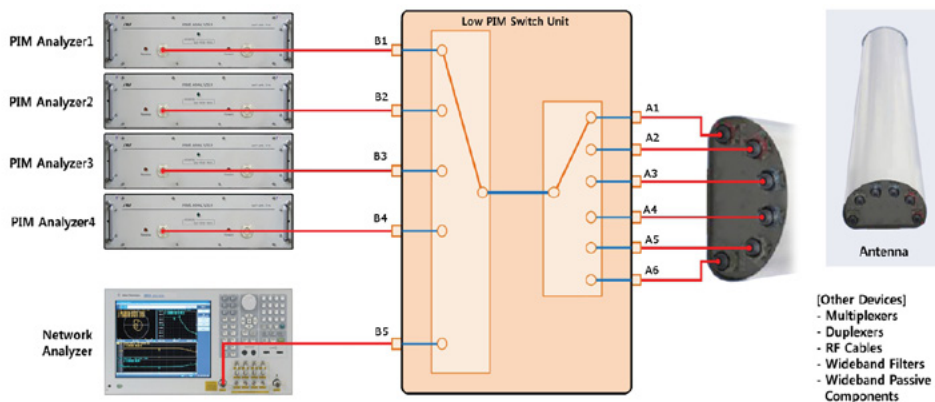
Product Quality

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

Application Example



Configuration example of the LPSU for DUT

AWT Global

117 Grand Avenue
Hackettstown,
New Jersey 07840
USA

p: +1 (973) 321-3423
e: sales@awt-global.com