



- Expandable PIM Analyzer for Manufacturing and Laboratory.
- One Master Control Unit controls up to 4 different RF Units.
- 3 Measurement Modes: Multi PIM, PIM over Time, PIM over Frequency (Sweep).
- RF Units measure reverse and forward PIM ( 2-port).
- Measures intermodulation products: IM3, IM5, IM7, IM9, IM11, IM13 to IM25 ( 4 strongest IM products simultaneously.)

AWT's PEM Series expandable PIM analyzers are ideal when multi-band measurements are required. These analyzers are scalable, new frequencies can be added with growing requirements. This makes PEM a cost effective solution for component and antenna testing. The Control Unit can manage up to four RF Units supporting different frequency bands. Any frequency combination is possible. PEM Series analyzers are designed for true 24/7 operation - no overheating, no drifting. They are fully conform to the international PIM standard IEC 62037. PEM analyzers are compact and require minimal rack height.

## Models

| Model       | Description                              | Tx Range (MHz)            | Rx Range (MHz)     |
|-------------|--|---------------------------|--------------------|
| PEMCTRL     | Master Control Unit for up to 4 RF Units | All                       | All                |
| PEM385      | TETRA 385                                | 385 ~ 400                 | 410~ 425           |
| PEM400      | TETRA 400                                | 390 ~ 400                 | 380 ~ 385          |
| PEM400E     | E-TETRA                                  | 420 ~ 430                 | 410 ~ 412          |
| PEM700L     | LTE700 (lower band)                      | 728 ~ 759                 | 698 ~ 716          |
| PEM700U     | LTE700 (upper band)                      | 730 ~ 759                 | 776 ~ 788          |
| PEM800      | LTE800                                   | 791 ~ 821                 | 832~ 862           |
| PEM850      | AMPS/CDMA                                | 869 ~ 896                 | 824 ~ 851          |
| PEM900E     | E-GSM & GSM900                           | 925 ~ 960                 | 880 ~ 915          |
| PEM1800     | DCS 1800 /GSM1800                        | 1805 ~ 1880               | 1710 ~ 1785        |
| PEM1900     | PCS1900                                  | 1930 ~ 1990               | 1850 ~ 1910        |
| PEM2000TD   | TD-SCDMA(2000)                           | 2010 ~ 2025               | 1900 ~ 1920        |
| PEM2100AWS  | AWS                                      | 2110 ~ 2155               | 1710 ~ 1755        |
| PEM2100UMTS | UMTS/W-CDMA                              | 2110 ~ 2170               | 1920 ~ 1980 / 2060 |
| PEM2160JP   | W-CDMA-JP                                | 2150 ~ 2170               | 2110 ~ 2140        |
| PEMWBKR     | WiBro-KR                                 | 2110 ~ 2170 / 2300 ~ 2390 | 1910 ~ 1990        |
| PEM2600LTE  | IMT-E(2600), LTE2600                     | 2620 ~ 2690               | 2500 ~ 2570        |
| PEM3500     | 3500LTE                                  | 3510 ~ 3590               | 3410 ~ 3490        |

### RF & Microwave Technology

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

### Expandable PIM Analyzers

Production testing requires fast and highly reliable PIM analyzers. As the spectrum of manufactured products widens, PIM analysis may have to be performed on additional frequencies. Our expandable PIM analyzer can be equipped with up to four RF Units.

### PIM Analyzers -Types

AWT - Global offers a wide variety of PIM analyzers for many different applications. These include single, double, triple and quadruple band analyzers for standard frequencies and customized frequency bands.

## Technical Specifications

| Transmitter             |                        |
|-------------------------|------------------------|
| Frequency band          | depends on RF Unit     |
| Frequency increments    | 100 kHz                |
| Frequency accuracy      | 2 ppm                  |
| Power (per tone)        | 20 - 44 dBm adjustable |
| PEM3500                 | 20 - 43 dBm            |
| Power Accuracy          | +/- 0.35 dB            |
| Reverse Pwr. Protection | +43 dBm for 5 sec      |

| Receiver                                  |   |
|---|---|
| Reverse IM @ 2x43dBm                      | -45dBm to -129dBm (typ.)<br>-88 dBc to -172 dBc     |
| Forward IM @ 2x43dBm<br>(not for PEM3500) | -45 dBm to - 125 dBm (typ.)<br>-88 dBc to -165 dBc  |
| Noise Floor                               | < 140 dBm typ (@300 Hz)<br><-134 dBm typ (@1200 Hz) |
| Dynamic Range (typical)                   | 96 dB (ref: -70 dBm)                                |
| Max Input Power                           | 0 dBm   |
| Measurement Accuracy                      | +/- 1.0dB (typ)                                     |

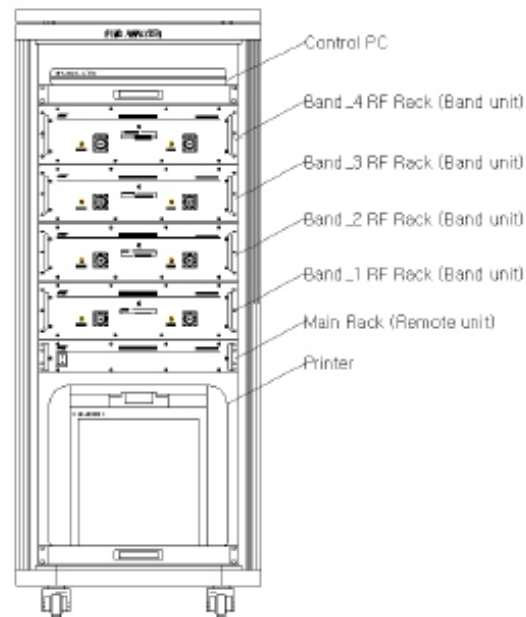
| Electrical                           |                        |
|--------------------------------------|------------------------|
| Main Power                           | 100 to 240V, 50 / 60Hz |
| Control Unit                         | 88 Watts (VA)          |
| RF Units<br>( @ RF power 2 x 44 dBm) | 700 W (VA) max         |

| Environmental         |                |
|-----------------------|----------------|
| Operating Temperature | 0° C to +40° C |

Relative humidity 80% RH max (non cond.)

| Dimensions / Weight    |   |
|------------------------|---|
| Control unit           | 483 x 305 x 88.9 (mm)<br>18.8 x 12.1 x 3.5 (inch) |
| RF Units ( excl. EGSM) | 483 x 667 x 143 (mm)<br>18.8 x 26.5 x 5.6(inch)   |
| RF Unit EGSM           | 483 x 756 x 143 (mm)<br>18.8 x 29.8 x 5.6 (inch)  |

|              |                          |
|--------------|--------------------------|
| Control Unit | 11.7 kg / 25.7 lbs       |
| RF units     | 25 - 28 ka / 55 - 62 lbs |



Example: 19" rack set up with printer & PC

## 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](http://www.awt-global.com)

## Accessories

| Type           | Description   |
|----------------|---|
| PCTRLCOM       | Control Computer for PS2M, PD2M and PEM Series Analyzers  |
| PLOAD100       | Low PIM load 100W, PIM < -165 dBc, 690 - 2800 MHz, Connector DIN(f)   |
| PLOAD100L      | Low PIM load 100W, PIM < -163 dBc, 380 - 2800 MHz, Connector DIN(f)   |
| ADA-DMDF       | Low PIM adapter, PIM < -165dBc, DIN(m)-DIN(f), Connector Saver  |
| LIC308-DMDM-1M | Low PIM cable, 1m (3 ft), PIM < -165dBc @ 2x43 dBm, DIN(m)-DIN(m)   |
| PACC2          | Accessory Kit: low PIM cable 3m DIN(m)-DIN(m), low PIM Load 50W / 10W, dual port DIN(m)-DIN(f), PIM <-165dBc, torque wrench DIN7/16, (4) low PIM adaptors, cleaning tabs, hard carrying case IP66 |
| PIMGEN         | PIM generator, preset PIM value -80 dBm (+/-10) for quick system tests  |

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Specifications subject to change without further notification