# Quick Fact Sheet **PIM Master**<sup>™</sup>

**High-Performance Passive Intermodulation Analyzer** 

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MW8208A

Cellular Band 869 MHz – 894 MHz **MW8209A** E-GSM Band 925 MHz – 960 MHz **MW8219A** PCS/AWS Bands 1900 MHz – 2100 MHz

### Featuring Patented Distance-to-PIM (DTP)™ The Fastest Way to Pinpoint the Source of PIM

Anritsu Company introduces its first generation high performance PIM testing solution for the Cellular, E-GSM, PCS, and AWS frequency bands. Anritsu has developed the PIM Master to verify if receiver interference at a cell site is due to an intermodulation product of two or more transmit frequencies, also known as passive intermodulation (PIM).

The PIM Master generates two high power tones in the transmit band of a base station and Anritsu's family of handheld RF instruments' PIM Analyzer measures the 3rd, 5th, or 7th order intermodulation products in the receive band coming back down the same cable. The GPS option will record the location of the measurement.

Anritsu labs has invented and succeeded in developing a patented technology that pinpoints PIM faults called Distance-to-PIM (DTP)<sup>™</sup>. No more wasting time rappelling down towers trying to locate PIM, no more wondering if the PIM is coming from the antenna system or the surrounding environment.

In many cases PIM faults cannot be discovered with just 2 x 20 Watts of power. With the ability to test at 40 Watts, one can spot serious problems that cannot be seen on a 20 Watt PIM tester.

### Anritsu's handheld instruments supporting the PIM Master include:

- Site Master™ S332E & S362E
- Spectrum Master™ MS271xE, MS2721B & MS272xC
- Cell Master™ MT8212E & MT8213E
- BTS Master™ MT8221B & MT8222B



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#### **Key Specifications**

PIM Measurement Ranges			
RF Test Power	Two CW tones of 20, 30, or 40 Watts (≈ 43, 45, 46 dBm) (user selectable)		
Transmit Frequency Range	MW8208A – 869 to 894 MHz MW8209A – 925 to 960 MHz MW8219A – 1930 to 1990 MHz, 2110 to 2155 MHz		
3rd, 5th, and 7th Order Frequency Ranges	MW8208A – 824 to 849 MHz MW8209A – 880 to 915 MHz MW8219A – 1710 to 1755 MHz, 1850 to 1910 MHz		
Residual PIM Performance	< -112 dBm/-155 dBc typical		
Measurable PIM Order	3rd, 5th, and 7th order intermodulation product (if in band)		
Distance-to-PIM	Distance and magnitude of multiple PIM sources		
General			
Test Port	7/16 DIN, female, 50 $\Omega$		
RF Out	Type N, female, 50 $\Omega$ (connect to RF In on instrument)		
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10 MHz Out	BNC, female, 50 $\Omega$ , 10 MHz (connect to Ext. Ref. In on instrument)		
10 MHz Out USB Interface	BNC, female, 50 Ω, 10 MHz (connect to Ext. Ref. In on instrument)   Type B (connect to USB Type A port on instrument)		
10 MHz Out USB Interface AC Power	BNC, female, 50 Ω, 10 MHz (connect to Ext. Ref. In on instrument)   Type B (connect to USB Type A port on instrument)   90-240 VAC, 50/60 Hz - IEC60320 C14		
10 MHz Out USB Interface AC Power Temperature	BNC, female, 50 Ω, 10 MHz (connect to Ext. Ref. In on instrument)   Type B (connect to USB Type A port on instrument)   90-240 VAC, 50/60 Hz - IEC60320 C14   Operating Temperature –10 °C to 55 °C		
10 MHz Out USB Interface AC Power Temperature Humidity	BNC, female, 50 Ω, 10 MHz (connect to Ext. Ref. In on instrument)   Type B (connect to USB Type A port on instrument)   90-240 VAC, 50/60 Hz - IEC60320 C14   Operating Temperature –10 °C to 55 °C   95% maximum		
10 MHz Out USB Interface AC Power Temperature Humidity Dimensions	BNC, female, 50 Ω, 10 MHz (connect to Ext. Ref. In on instrument)Type B (connect to USB Type A port on instrument)90-240 VAC, 50/60 Hz - IEC60320 C14Operating Temperature -10 °C to 55 °C95% maximum300 mm x 425 mm x 500 mm (12 in x 17 in x 20 in)		

#### **Standard Accessories**

Part Number	Description
10580-00280	PIM Master™ User Guide
11410-00546	PIM Master Product Brochure
2000-1635-R	3-cable PIM Interface (USB, RF, REF) AC Power Cable (country dependent)

#### **Optional Accessories**

Part Number	Description
760-257-R	MW82xxA Transit Case
760-258-R	MW82xxA Accessory Transit Case
2000-1637-R	PIM Master Accessory Kit with 2.75 m Armored PIM Test Cable
10580-00315	Certified PIM Master™ PIM Measurement Training Course

#### Options

Part Number	Description	<b>R</b>
MW8208A-0425	Large Wheel Option (as shown in photo)	
MW8209A-0425		
MW8219A-0425		
MW8208A-0098	Standard Calibration to Z540	
MW8209A-0098		
MW8219A-0098		

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