

## MI-3630 Planar Near-field Antenna Measurement System

### Key Features & Benefits

- Rapid, accurate planar near-field measurements support near-field diagnostics and fast transformation to the far field for antenna pattern evaluation.
- Planar surface scanner geometry is ideally suited for measuring planar arrays or reflectors with medium to high gain and single or multiple beams commonly found in Wireless smart base station antennas, point to point and point to multipoint antennas, repeater relay antennas, and satellite antennas.
- Broad frequency coverage over 400 MHz to 18 GHz band handles most common measurement requirements.
- Models available with a variety of planar scanner probe travel areas to suit specific test requirements for a broad array of applications.
- Easy-to-use software provides data collection, processing and display.
- Data output includes patterns, contours, and 3-D plots of amplitude and phase offering the most discriminating analyst access to useful data presentations.
- Hardware is lightweight, compact, and portable, making it simple to install and convenient to use.
- Compatibility with high quality RF test equipment assures accurate measurements.
- Pattern output in contour, 3-D, polar or rectangular formats offers flexible data plotting.
- Network connection provides means to easily download data for offline analysis.

### Description

The MI-3630 family of planar near-field measurement systems is designed for test and measurement applications in the Wireless industry. The systems provide fast, accurate near-field diagnostics and transformation to the far field for antenna pattern evaluation. The planar surface scanner geometry is ideally suited for measuring planar arrays or reflectors with medium to high gain and single or multiple beams commonly found in wireless, point-to-point and point-to-multipoint antennas and repeater relay antennas. The MI-3630 system consists of a precision planar (X-Y axes) scanner, a near-field probe, dual-axis position controller and a workstation computer and software. The MI-3630 is easy to use, with software prompts to help operators complete setup and establish test parameter provisioning, data acquisition and data analysis. Using the system's workstation, an operator can quickly set the measurement frequency, configure the scanner, initiate a scan, and collect, process and display test data. The MI-3630 is compatible with a number of commercially available network analyzers. Various options are offered that extend utility of the MI-3630 systems. The options are listed on the following page.



**MI-3630 system shown with optional computer desk and vector network analyzer.**

**Note: actual configuration may vary.**

## **MI-3630 Specifications:**

**Probe:**

- WR-430 (1.70-2.60 GHz) open ended waveguide with SMA transition (other probes optional)

**Absorber:**

- Scanner: 12 inch pyramidal absorber
- Probe: 12 inch pyramidal absorber

**Probe Mount:**

- Bracket permitting vertical and horizontal mounting of probe

Model *	Measurement Area (Horizontal by Vertical)
MI-3630-3x3	3 ft x 3 ft
MI-3630-6x6	6 ft x 6 ft
MI-3630-8x8	8 ft x 8 ft
MI-3630-10X10	10 ft x 10 ft

**RF Cables:**

- Flexible 10 ft length (3 m) with SMA (M-M) coaxial connectors, DC to 18 GHz (4 each)

**RF Devices Supported:**

- MI-1783, MI-1795, MI-1797, Anritsu MS4623B, Agilent 8510A/B/C, Agilent 8530A, Agilent 8753A/B/C/D/E/ES, (Contact factory for complete list.)

**Operating Frequency:**

- 400 MHz to 18 GHz depending upon choice of customer furnished MI receiver or vector network analyzer

**Workstation and Software:**

- MI-3603P computer with monitor, color printer, keyboard, and mouse, MI-3603P system control, acquisition software, and planar near-field software

**Power:**

- 115/250 VAC, 50/60 Hz, 10 A, Single Phase

**Planarity:**

- 0.010 inches RMS

**Repeatability:**

- 0.002 inches

**Options:**

- Standard gain antennas for calibration
- Motorized probe polarization rotation
- Motorized probe Z-axis control
- Probes for other frequencies
- MI receiver and vector network analyzer
- Sources
- Chamber
- DUT positioner and mast

\*Other sizes and configurations available

