

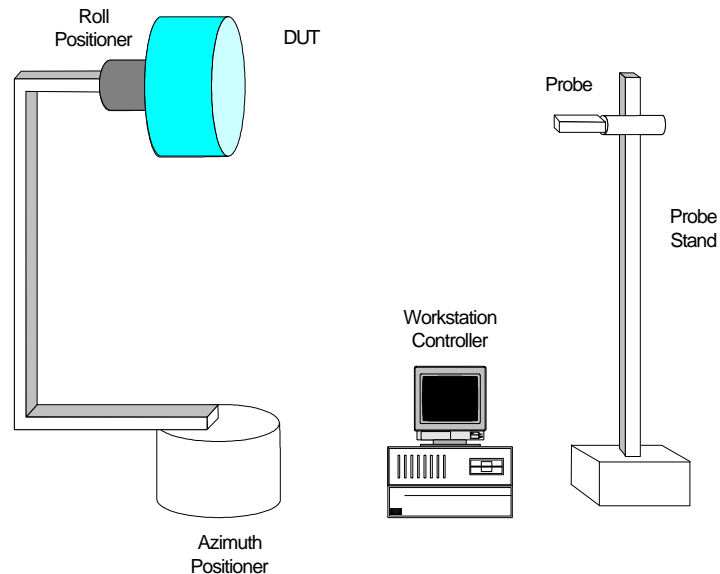
MI-3650 Spherical Near-field Antenna Measurement System

Key Features & Benefits

- Rapid, accurate spherical near-field measurements support near-field diagnostics and fast transformation to the far field for antenna pattern evaluation.
- The spherical surface scanner geometry is ideally suited for measuring broad beam patterns with medium to low gain, characteristic of single elements, electrically small antennas, and embedded elements such as antennas commonly found in a wide variety of personal Wireless devices that include mobile phones, PDAs, pocket PCs, Laptops, GPS receivers, and automotive Wireless electronics.
- Broad frequency coverage over 400 MHz to 18 GHz band covers most common measurement requirements.
- Models available with a variety of measurement sphere diameters 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 a useful data presentation.
- Hardware is lightweight, compact, and portable, making it simple to install and convenient to use.
- High quality RF test equipment assures accurate measurements.
- Pattern output in polar or rectangular formats for single or multiple patterns offers the ultimate in flexible data plotting.
- Network connection provides means to easily download data for offline analysis.

Key Features & Benefits

The MI-3650 family of spherical 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 spherical scanner configuration is ideally suited for measuring antennas commonly found in mobile wireless applications such as handsets. The MI-3650 system consists of a dual axis phi-over-theta positioner for the device under test (DUT), near-field probe, dual-axis position controller and a workstation computer and software. The MI-3650 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-3650 is compatible with a number of commercially available network analyzers. Various options are offered that extend utility of the MI-3650 systems. The options are listed on the following page.



MI-3650 Specifications:

Antenna Load:

- 40 lbs max

Probe:

- WR-430 (1.70 to 2.60 GHz) spherical near-field probe with SMA transition (other probes optional)

Model	Measurement Sphere Diameter
MI-3650-3	3 ft
MI-3650-6	6 ft
MI-3650-9	9 ft

Absorber:

- Scanner: 8 inch pyramidal absorber
- Probe: 8 inch pyramidal absorber

RF Cables:

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

Rotary Joint:

- DC to 18 GHz, three of each for phi, theta and polarization

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

Power:

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

Angular Accuracy:

- 0.01 degrees

Repeatability:

- 0.002 degrees

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

