



RESEARCH ENVIRONMENT

INTEGRATED ANTENNA MEASUREMENT SYSTEM

Equipment Descriptions

- (1) Dimensions of Anechoic Chamber Physical Space: 10m (length) x 6.5m (width) x 5.4m (height)
- (2) Systems include Planar Near-Field System, Cylindrical Near-Field System, Spherical Near-Field System and Far-Field Antenna Measurement System. They may be used to measure antenna radiation patterns, antenna gains, directivities, beamwidth and efficiency.

Service items

- (1) Planar Near-Field Measurement System: Measurement of high-gain antennas that exhibit high-directivities in both elevation and azimuth dimensions such as reflector antennas, reflectarray antennas, phased array antennas, and etc.
- (2) Cylindrical Near-Field Measurement System: Measurement of high-gain antennas that exhibit high-directivities in at least either elevation or azimuth dimension. The antenna candidates, in addition to those in (1), also include base-station antennas for mobile communications (GSM/3G, etc.)
- (3) Spherical Near-Field Measurement System: Measurement of directive antennas that exhibit directive patterns in the forward half-space of the antenna. Thus, the antenna candidates, in addition to those in (1) and (2), also include small size antennas such as patches, dipoles, and etc.
- (4) Far-Field Measurement System: Measurement of far-field patterns radiated from the small-sized antennas with low directivities such as those used for WLAN or handset antennas.
- (5) Frequency Range: 800MHz~18GHz for Spherical Near-Field Measurement System, and 750MHz~26.5GHz for others.

INTEGRATED RF TESTING LABORATORY

Equipment Descriptions

This laboratory provides a global testing of RF devices. Available equipments include Network analyzers, Spectrum analyzers, Source generators, Power Meters, Bond-wire Station and Oscilloscopes. The applicable frequency ranges are below 40GHz. The equipment manufacturers include Agilent and Anritsu.