



ANTENNA MEASUREMENT SYSTEM BASIC



ET-AMS-B

Excel™ Antenna Measurement System has been designed to Teach, Measure and Test Various parameters of Antennas.

SPECIFICATIONS

- Single training system to teach all types of antenna measurement
- Covers UHF, L, S and ISM Bands
- Software controlled PLL Synthesized Source and Detector working upto 3GHz with high dynamic range of power Transmission
- Customized selection of antenna from the list as per syllabus requirement
- Practical approach for Microstrip Antenna design covering concepts of size reduction, Bandwidth enhancement, stacked Multilayer configuration, impedance matching
- Non conductive and non magnetic Transmitter and Receiver stand
- Radiation pattern plotting software

SPECIFICATIONS

RF Source

- Source types : PLL Synthesized with integrated VCO
- Frequency range : 100MHz to 3GHz
- Frequency resolution : 1MHz
- Transmitted power min : -4dBm (103dB micro V)
- Transmitted power max : +5dBm (112dB microV)
- Impedance : 50 ohm / SMA

RF Detector

- Detector type : logarithmic detector
- Frequency range : 1MHz to 8GHz
- Resolution : 0.1dB
- Dynamic range : 65dB (±3dB)
- Noise level : <-120dbm
- Impedance : 50oham /SMA
- Representation of RF level : dBm
- Dispalpy : LCD Dispalpy, 20X4 with backlit

List of Standard Antenna Supplied with the setup

- Monopole plane base ground
- Dipole -2 Nos
- Yagi
- Folded Dipole
- Helical
- Rectangular Loop

ANTENNA SELECTION LIST AS PER USER REQUIREMENT

WIRE ANTENNA

Monopole - Wire	Dipole-Wire	Yagi
Monopole - wire base ground	Monopole with loading	3λ/2 linear dipole
Folded dipole	Cross dipole	Vee dipole
Logperodic	Circular loop	Rectangular loop
Helical		

PLANNER ANTENNA

Monopole - Planner	Dipole planner	RMSA - Shorting pin
RMSA -Circular polarize	RMSA- Shorting plate	Yagi-Uda
RMSA- Stubloaded	RMSA- Dual stub and Slot	CMSA
TMSA	Insert Feed	2X1 ARRAY
Annular ring	RMSA	

APERTURE ANTENNA

Dipole - SLOT	E-Horn	H-Horn
Open Ended Waveguide Rectangular	RMSA	

REFLECTOR ANTENNA

DIPOLE - Plane reflector	Corner reflector	Parabolic
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ARRAY ANTENNA

Broadside	Endfire	Collinear
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SOFTWARE

- Radiation pattern plotting and analysis software suitable for windows environment

Antenna Positioner

The Transmitter and Receiver Antenna stand is made of pECIAL material which is inert to EM frequency and it has engraved height and angle scale on It. It has facility to adjust the height and level.

Universal plug and fix Antenna mounts are provided to hold the antenna assembly in vertical and horizontal orientation for co and cross polarization.

Note : Specifications are subject to change due to our constant efforts for Improvement. Please refer to quotation for final specifications.

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Accessories

- SMA(M) to SMA(M) 50Ohm RG316 cable : 2nos
- USB Cable (Male A to Male A) : 1nos
- 3 Pin 6 Amp Power Chord : 1nos
- Experimental Manual : 1nos
- Software on CD : 1nos

EXPERIMENTS

- Measure the variation of field strength /inverse square law.
- Prove the reciprocity theorem of antenna.
- Measure co-polarization ,cross polarization
- Plot Radiation pattern of Wired Antenna, Aperture Antenna, Reflector Antenna, Array Antenna & Microstrip Antenna. (Optional)

Note : Additional antenna to be purchased separately.

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