



OMEGA TYPE AT-1003

OMEGA TYPE AT-1003 PC Based Manual Antenna Trainer has been designed to provide useful tools for hands on experimentation and teaching of various commonly used antennas in UHF-Microwave band in the laboratory for students of all levels. It can be used in stand-alone mode. In this system, receiving antenna is rotated manually from 0 to 360 degrees and accordingly the signal strength can be monitored on the Receiver. It comes with a Polar plotting software for storing readings manually

The system consists of a set of two tripods one for mounting the transmitting antenna and another for mounting the receiving antenna, 11 Antennas, RF Transmitter/Receiver, Antenna Plotting Software and relevant accessories/cables.

RFTransmitter:

Frequency : 600-750 MHz continuously variable

Output Impedance : 75 Ohms

RF Level : 100 dBuV Typical Power Supply : 230V @ 50 Hz

RF Receiver:

Frequency : 610 MHz Helical band Pass Filter

Bandwidth : 5 Mhz Input Impedance : 75 Ohms

Measurement : RF level in dBuV with 0.1dB resolution

Display : 3 1/2 LCD Dynamic Range : 50 dB Log Power Supply : 230V @ 50 Hz

Experiments:

Variation of field strength with distance

Plot radiation pattern of omni directional antenna

Plot radiation pattern of directional antenna

Polarization of vertical and horizontal antenna

Study resonant and non resonant antenna

Demonstrate reciprocity theorem of antennas

Study current distribution along the element of antenna

Study different antennas polar plots, radiation patterns, gain, beam width, front back ratio

Comparison of different antennas

Shipping List AT-1003:

Antennas

- 1) Dipole L/2
- 2) Dipole L/4
- 3) Dipole 3L/2
- 4) Folded Dipole
- 5) Yagi Uda (3E)
- 6) Yagi Uda (4E)
- 7) Ground Plane with Reflector & Director
- 8) Endfire
- 9) Square Loop
- 10) Rhombus
- 11) Broadside

- a) RF Transmitter & Receiver + 2 Tripod
- b) 25 Antenna Elements
- c) Antenna Fabrication Kit + Copper Wire Roll
- d) Sniffer Probe
- e) 3 meter Measuring Tape
- f) Polarization Connector 2
- g) BNC BNC Cable
- h) Experimental Manual
- i) Installation Video Demo CD
- j) Antenna Plotting Software

We are committed to the continuous development of our products, and therefore reserve the right to amend specifications without prior notice.

OMEGA ELECTRONICS