

**Product Name :**  
Basic Antenna Trainer

**Product Code :**  
NLAB-ELECTRONICSAB200009



**Description :**

Basic Antenna Trainer

**Technical Specification :**

Basic 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, 11Antennas,RFTransmitter/ Receiver, Antenna Plotting Software and relevant accessories/ cables.

Network Analyser: RF Transmitter & Receiver:

Frequency : 86 - 860 MHz PLL synthesized

Step Size : 0.05, 0.1, 0.25, 0.5, 1, 10, 100 Mhz

Accuracy : 0.01%

Display : 16X2 Backlit LCD

Functions : Menu, Enter, Escape, Up & Down

Memory Location : 1000 individual frequencies and level can be stored/recalled

Output Impedance : 50 Ohms

RF Level : 90 dBuV Typical

Measurement : RF level in dBuV with 0.1dB resolution

Dynamic Range : 60 dB Log

Manual Mode : Data logging for antenna gain & polar/cartesian plot

USB interface : Easy connectivity to PC using polar pattern plotting software

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 :

Antennas

01. Dipole  $L/2$

02. Dipole  $L/4$

03. Dipole  $3L/2$

- 04. Folded Dipole
- 05. Yagi Uda (3E)
- 06. Yagi Uda (4E)
- 07. Ground Plane with Reflector & Director
- 08. Endfire (Phase Array L/2)
- 09. Square Loop
- 10. Zeppelin/ Horizontal End Feed
- 11. Broadside Array L/2

Other Accessories

- a. RF Transmitter Tripod & Receiver Tripod
- b. Experimental Manual
- c. Antenna Plotting Software CD

## Naugralabequipments

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