ATS7261 – Antenna Trainer

Key Features:

- Experiment with different types of antennas
- Antenna fabrication kit
- On board RF and tone generator
- On board matching stub
- SWR measurements
- 22 Antennas and radiation plotting patterns
- Motorised rotating unit

The Antenna Trainer System is ideal for introducing the principles of Antenna operations and design. The ATS7261 training system includes a set of modular mechanical elements forming various antennas, a transmitter unit and a detector unit. The Antenna Training System comes with a motorised antenna unit that allows for the automated recording of radiation patterns of the antennas. This operation is normally performed by rotating the transmitting antenna at different angles by hand and measuring the radiated intensity.

The motorised antenna unit consists of a microcontroller based system for capturing, displaying and printing of the antenna radiation patterns. The system captures a signal at an interval of ten rotations driven by a stepper motor and the radiation pattern is then displayed on the PC.

Experiments

- Arranging the trainer and performing functional checks
- Perform a modulation and demodulation test
- Plotting the polar graph/radiation pattern of an antenna manually
- Plotting a polar graph/radiation pattern of an antenna using the software
- Simple dipole λ/2, λ/4 and 3λ/2 antenna
- Folded dipole λ/2 antenna
- Yagi-UDA 5 and 7 element simple dipole antenna
- Yagi -UDA 3, and 5 element folded dipole antenna
- Hertz antenna
- Zeppelin antenna
- λ/2 Phase array (end fire) antenna
- λ/ 4 Phase array (end fire) antenna
- Combined co-linear and Broad side array antenna
- Log periodic antenna
- Cut paraboloid reflector antenna
- Loop, Rhombus, Ground plane, Slot and Helix antenna
- Perform polarisation test
- Variation in the radiation strength at a given distance from the antenna
- Reciprocity theorem for antennas
- Matching stub
- SWR measurement
- Antenna current sensor

Specification	
RF generator	750MHz (output adjustable)
Tone Generator	1KHz (output adjustable)
Directional Coupler	Forward and reverse (selectable)
Matching Stub	Slider type
Antenna Rotation	0-360 degrees. Resolution 1 degree
Receiving Antenna	Folded dipole with reflector
Detector Display	Level adjustable meter
Power Supply	230V ±10% 50/60Hz
Dimensions	W385 D75 H285
Weight (main unit)	3Kg approx.

Ordering Information

Model Number: **ATS7261**

Consists of:

Transmitting Antennas
- Dipole λ/2, λ/4 and 3 λ/2
- Folded Dipole λ/2
- Yagi UDA Folded Dipole 3E and 5E
- Yagi UDA Simple Dipole 5E and 7E
- Hertz Antenna
- Zeppelin Antenna
- Ground Plane
- Slot Antenna λ/2
- Loop Antenna
- Helix Antenna
- λ/2 Phase Array
- λ/4 Phase Array
- Combined Collinear Array
- Broad Side Array
- Detector Antenna
- Log Periodic Antenna
- Rhombus Antenna
- Cut Paraboloid Reflector Antenna

Current Probe
Mounting Stands
RF Detector
BNC Tee
BNC-BNC Adapter Male and Female
BNC-BNC Cables
Polar Graphs
5 Pin DIN cable
Patch Cords,
RS 232 Cable
Manual

Notes.

1. Specification is subject to change without notice.

2. All dimensions are in mm unless otherwise stated

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