



Antenna platform Order Code-10012 is a student friendly trainer kit for studying characteristics of different antennas. Order Code-10012 is designed so that students can take the readings and plot the polar plots themselves, thus understanding the subject thoroughly. They can even stop & repeat the readings in between if needed.

All the antennas are made by high conducting rods with chrome finish for long durability and mounted on the glass epoxy PCB for easy mounting and dismounting Areas of Experimentation and Study

- Polar plot & Polarization of various antennas.
- Wave modulation and Demodulation
- Antenna Gain
- Antenna Beam Width.
- Element Current study.
- Front Back Ratio study.
- · Antenna matching.
- SWR measurement.
- Antenna radiation with distance.
- Antenna bandwidth measurement

## Scope of Learning

- Study of Simple Dipole I /2 Antenna
- Performing Polarisation Test and Modulation Test
- Study of Reciprocity Theorem
- Study of variations in the radiation strength at a given distance from the antenna
- Antenna Current Sensor and SWR Measurement
- Study of Rhombus Antenna, Ground Plane Antenna, Slot Antenna, Helix Antenna and antenna bandwidth

## Features

- Self contained, simple and student friendly trainer
- Hands on set-up for measuring and plotting radiation patterns of different Antennas
- Built in RF & Modulation generators
- Built in frequency display
- Antenna Matching Stub
- Characteristics and SWR measurement
- Transmitting and Receiving levels observed on meters
- Built in DC power supply
- Fully documented, Operating manual and polar charts (2 types) with each trainer
- · "Antenna kit" for fabricating special antenna
- Compact design
- Light weight
  - 2 Year Warranty

## **Technical Specifications**

RF generator : 550 to 850 MHz approximately(with level adjust)

Modulation Generator : 1 KHz approximately (300 mV)

Directional Coupler : Forward & Reverse (On board selectable)

Matching Stub : Slide Stub

Antenna Rotation : 0-360 Degree, Resolution 1 Degree Transmitting & Receiver masts provided

Receiving antenna : Folded Dipole with reflector

Detector Display : Adjustable meter

Interconnections : BNC

Power Supply: $230 \text{ V} \pm 10\%$ , 50/60 HzPower Consumption:3VA (approximatelyWeight:3 kgs. ApproximatelyDimensions (MainUnit-mm):W  $285 \times \text{H}$   $75 \times \text{D}$  385

Note: Specifications are subject to change.

## Tesca Technologies Pvt. Ltd.



List of Accessories (Full Unit)			II. Rods for Ground Plane Antenna		
I. Antennas	:	22 nos.	1.6.9cm	:	1 no.
1. Simple Dipole 1/2	:	1 no.	2. 8.5cm	:	1 no.
2. Simple Dipole I /4	:	1 no.	3.20.5cm	:	1 no.
3. Simple Dipole 31 /2	:	1 no.	III. Current Probe	:	1 no.
4. Folded Dipole I /2	:	1 no.	IV. Transmitting Mast	:	l no.
5. Yagi-UDA Folded Dipole (3E)	:	1 no.	V. RF Detector	:	1 no.
6. Yagi-UDA Folded Dipole (5E)	:	1 no.	VI. Receiving Mast	:	1 no.
7. Yagi-UDA Simple Dipole (5E)	:	1 no.	VII. Accessories Kit:		
8. Yagi-UDA Simple Dipole (7E)	:	1 no.	1. BNC – Tee	:	1 no.
9. Hertz Antenna	:	1 no.	2. BNC - BNC Adapter (M)	:	1 no.
10. Zeppelin Antenna	:	1 no.	3. BNC - BNC Adapter (F)	:	1 no.
11.1 /2 Phase Array		1 no.	4. BNC(M) - BNC(F)		
12.1 /4 Phase Array		1 no.	Adapter (L-type)	:	1 no
<u> </u>	•		5. BNC – BNC Cable 25"	:	2 nos.
13. Combined Co-linear Array	:	l no.	6. BNC – BNC Cable 18"	:	1 no.
14. Broad Side Array	:	1 no.	VIII. Polar Graphs (dBmA)	:	25 nos.
15. Log Periodic Antenna	:	1 no.	IX. Polar Graphs		
16. Cut Paraboloid Antenna	:	1 no.	(For normalised reading)	:	25 nos.
17. Loop Antenna	:	1 no.	X. Antenna Fabrication Kit		
18. Rhombus Antenna	:	1 no.	1. Two PCB's		1 no.
19. Ground Plane	:	1 no.	2. 14 SWG wire roll 20"	•	1110.
20. Slot Antenna I /2	:	1 no.	XI. Mains Cord	:	1 no.
21. Helix Antenna	:	1 no.	XII. VIP Suitcase		1 no.
22. Detector Antenna	:	1 no.	XIII. +7.5 - 9V DC Adaptor(500mA)	:	1 no

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