



The Wave and Propagation Trainer is a useful training system for the Laboratories. It helps student to learn Wave Properties and Propagation results. Concepts of Reflection, Refraction, Polarization, Diffraction, Interference, Standing waves and Interferometer can be understood very easily. The setup mainly consists of Microwave Transmitter, Microwave Receiver, Goniometer scale. Along with this setup a number of other accessories are provided to perform different experiments. A user friendly manual is provided with this system to help student in performing the experiments and to understand the topic theoretically.

#### Technical Specifications:

Frequency of Operation	: 10 GHz (approx)
Power of Transmission	: 10 - 15 mW
Operating Voltage	: 8 V (approx)
Antennas for Transmission & Reception	: Horn type
Goniometer Scale	: 0° - 360°
Tone Generator	: 1 KHz Frequency
Transmitter and Receiver arm length	: 49 cm each (approx)
Power Display	: Digital, Relative Measurements
Power Supply	: 230 V ± 10%, 50 Hz

#### Accessories

Microwave Transmitter	Metal Plates of different dimensions
Microwave Receiver	Partial Reflectors
Transmitter Arm	Din Connectors Cables
Receiver Arm	Metal Plate holder
Goniometer Base Unit	Polarization Grille
Detector Probe	Prism Stand
Prism	Microphone

- A Complete set for Transmission, Reception and Measurement of Microwave Power
- Digital displays are provided for relative strength measurement of microwave
- Complete set of accessories for performing the experiments of Reflection, Refraction, Polarization and Interference etc.
- Audio / Voice communication facility is provided
- Provided with a detector probe for field detection
- Accessories are provided in a carrying case
- Provided with a detailed Operating manual

#### Experiments that can be performed

- To understand the Basic setup and Introduction to the given system
- To understand the Working of Transmitter and Receiver
- To study the Standing Waves and Measure the Wavelength of Microwave
- To study the Reflection in Microwaves
- To study the Refraction in Microwaves (Snell's Law)
- To study the Polarization in Microwaves
- To study the double slit Diffraction and Interference in Microwaves
- To study the Fabry-Perot Interferometer
- To study the Voice Communication with the help of Microwave Receiver

Note: Specifications are subject to change.

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