



Amitec Microwave Propagation Trainer MPT10

Amitec Model MPT10 Microwave Propagation Trainer is a useful training system for the microwave and optics Laboratories. It helps student to learn wave properties and propagation results and better able to visualize abstract concepts of optics due to use of larger wavelength of microwave.

Concepts of Reflection, Refraction, Polarization, Interference, Standing waves, Interferometer can be understood very easily. The setup is mainly consists of Microwave Transmitter, Microwave Receiver, Goniometer scale. Along with this setup lot of 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.

Amitec MPT10 Features

- # A Complete set for Transmission, Reception and Measurement of Microwave Power.
- # Digital display provided for measurement of microwave power in dBm & dBuV with 70dB dynamic range and 0.1dB resolution.
- # Stepper turntable provided with 1 degree resolution
- # Complete set of accessories for performing the experiments of Reflection, Refraction, Polarization, Interference etc.
- # Provided with a dipole probe for field detection.
- # Very low leakage of microwave signal,
- # High gain linearly polarised pyramidal Horn antennas with low beamwidth for precise results
- # Stable source with frequency, amplitude and phase stability
- # Accessories are provided in a carrying case.

E-Manual: Installation Video for ease of Learning

Amitec MPT10 Technical Specifications:

Transmitter

- Frequency : 10.3GHz Dielectric Resonator stabilized MEFET source on microstrip
- Accuracy : 0.1%
- Modulation : CW/ASK(DC-15 KHz) Ext
- RF Level : 1mW /0dBm typical
- Output Z : 50 ohms with N connector

Receiver

- Frequency : 10.3GHz Microwave receiver power meter
- Accuracy : 0.1%
- Sensitivity : -70dBm typical
- Resolution : 0.1dB
- Measure : Microwave power level in dBm & dBuV
- Demod : Digital out
- Input Z : 50 ohms with N connector
- PC interface : RS 232 connectivity to PC
- Display : 16x2 backlit LCD for angular Position and power level
- Rotation : 0-359 degrees
- Control : Menu, Enter, Escape, Up & Down
- Angle : User selectable steps of 1, 5, 10, 45 degrees
- Memory : 1000 memories for storing positions and RF levels for quick recall
- Auto Mode : Automatic rotation in user steps with Datalogging facility.
- Indication : Beep on reaching the selected Position
- Power Supply : 100-240V AC, 50-60 Hz

Goniometer

- Arm length : 45 cms each (4 arms) with mm& inch scale
- Extender : Arm 45 cms
- Turntable : Stepper motor for rotating Reflectors

Mfd by: Amitec Electronics Ltd.

Regd. Off: 504, Nilgiri, Barakhamba Road, New Delhi-110001

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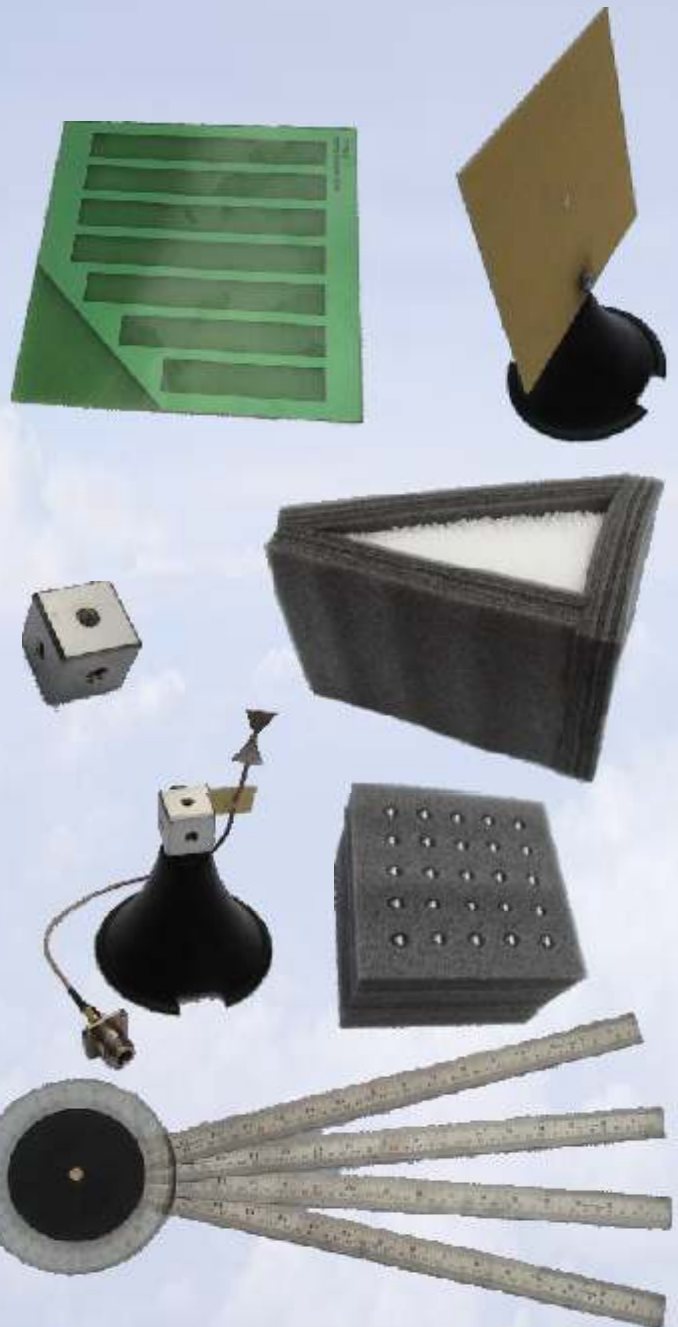
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Accessories:

1. Stepper turntable
2. Pyramidal Horn -2
3. Open waveguide / Waveguide to Coax adapter
4. Goniometer with Four Arms
5. Slotted component Holder
6. Polarization adapter cube X4
7. Polarization Grill
8. Metal Reflector X2
9. Partial Reflector X2
10. Narrow Slit Spacer
11. Wide split spacer
12. Slit Extender
13. Clips X4
14. Ethafoam Prism
15. Polyethylene Pellets
16. Cubic Lattice with 100 metal Spheres
17. Microwave Dipole Probe
18. Flexible tube as fiber optic



List of Experiments

- # Introduction of Transmitter and Receiver and setup.
- # Reflection
- # Standing Waves - Measuring Wavelengths
- # Refraction Through a Prism
- # Polarization
- # Double-Slit Interference
- # Lloyds Mirror
- # Fabry-Perot Interferometer
- # Michelson Interferometer
- # Fiber Optics at Microwave
- # Brewster's Angle
- # Bragg Diffraction

Dimension : 58X48X48 cms. Weight : 21 Kg
Warranty: 3 years

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