DEGEM SYSTEMS

MDC-3272

Com & Telecom

Microwave Optics Training System

Modern Communication

Fiber Optic Communication

Antennas

Radar

Cellular Communication

Global Position Systems

Satellite Communication

Microwaves

Telecommunication Networks

Degem's MDC-3272 Wave and Propagation training system is an ideal training equipment to teach the important physical properties of microwaves and propagation characteristics.

The training system is a self-contained training system that includes all the necessary instruments and accessories for studying the concepts of reflection, refraction, polarization, standing waves, and interferometer in the 10 GHz frequency band. The training system consists of a microwave transmitter, microwave receiver, ganiometer scale and a number of accessories to perform a number of important experiments.

The student manual explains essential theoretical concepts and provides a detailed experiment procedure for each topic.

- Complete set for transmission, reception and microwave power measurements
- Digital display for measuring relative microwave signal strength
- Accessories supplied for reflection, refraction, polarization and interference experiments
- Audio and voice communications
- Detector probe for field detection
- Accessories provided in a carrying case

Specifications

DESCRIPTION

The MDC-3272 training system comprises

- Microwave transmitter
- Microwave receiver
- Ganiometer
- Accessories stored in a carrying case

TECHNICAL CHARACTERISTICS

- Frequency range (10GHz approx.)
- Transmission power (10-15mW)
- Operating voltage (8V approx.)
- Antennas for transmission, reception (horn type)
- Ganiometer (0°-360°)
- Tone generator (1KHz)
- Transmitter arm (49cm)
- Receiver arm (49cm)
- Digital display (relative microwave power)
- Power supply (220V ±10%, 50Hz or 120V 60Hz)

ACCESSORIES

- Transmitter arm
- Receiver arm
- Ganiometer base unit
- Detector probe
- Prism
- Metal plates (various sizes)
- Metal plate holder
- Partial reflectors
- DIN cables with connectors
- Polarization grille
- Prism stand
- Microphone

EXPERIMENTS

- Set and operate the transmitter and receiver
- Standing waves and wave length measurement
- Reflection
- Refraction and Snell's Law
- Polarization
- Double slit diffraction and interference
- Fabry-Perot interferometer
- Voice communications in a microwave system

INSTRUCTIONAL MATERIALS

The experiment manual was written by pedagogical experts in modern microwave propagation. The essential theory to understand and perform the experiments is provided. The procedure for each experiment is clearly written to allow the students to easily complete each experiment.