

## **MICROWAVE OPTICS KIT**

OPTIKA SCIENCE 5263

# Microwave optics kit

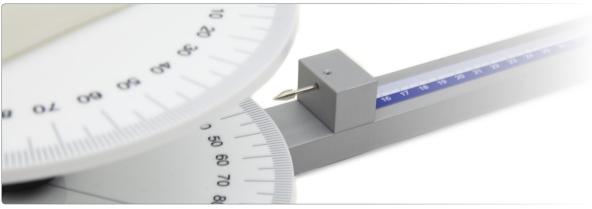


All the components shown in the picture are included

This microwaves set includes one transmitter, one receiver, one dipole probe and some accessories.

It is useful to study several experiments on microwaves:

it allows students to observe that microwaves have the same characteristics of light waves and they result in the same phenomena as reflection, refraction and diffraction.











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#### **Transmitter**

Frequency of oscillator: 11±1GHz Transmitted power: >10 mW Acoustic signal:

- -1 KHz
- -on/off -music

Dimensions: 270x100x150 mm Mains voltage: 220V 50Hz

#### Receiver

Gain: ≥ 60 dB Input for dipole probe Voltage output: -1,11V Dimensions: 270x100x150 mm Mains voltage: 220V 50Hz Sensitivity & gain control





#### Microwave probe

1 Dipole antenna with wire



#### Jointed bench

Microwave aluminium bench, two arms: 500 mm and 650 mm long. Provided with plate holder and protractor.

#### Paraffin prism

Useful to practice experiments on wave refraction.

#### Polystyrene body

Useful to practice experiments on wave absorption.



## Protractor

With an accuracy of 1°, the graduated scale is screenprinted on a policarbonate plate for a simple and quick measurement reading.



## Set of 4 plates

Dimension: 155x155 mm.

- 1. Reflection plate.
- 2. Polarization grating,11 slits.
- 3. Slit plate, slit 50 mm.
- 4. Double slits plate, single slit 35 mm.



#### Water tank

Useful to practice experiments on wave absorption.



#### PRATICABLE EXPERIMENTS

Some experiments that can be carried out:

- Polarization
- Diffraction
- Refraction
- Determining wavelength of standing waves
- Reflection
- Absorption
- Straight-line propagation of microwaves











