



# **MICROWAVE OPTICS KIT**

5436



All the components shown in the picture are included

This microwaves set includes one transmitter, one receiver and several 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.



2



# **OPTIKA SCIENCE**

### Transmitter

- power supply: 12 V 1,5 A DC carrier wave frequency: 10.5 GHz
- wavelength: 2.85 cm
- switch between IM and EM - BNC input

Internal modulation mode (IM) - square wave

- modulation frequency: 676 Hz

External modulation mode (EM) allowed frequency range: 100 Hz - 20 MHz

- max amplitude: 5 V peak to peak

### Receiver

- power supply: 12 V 1,5 A DC
- max operational distance: 1,5 m
- BNC output

### **Paraffin prism**

Useful to practice experiments on microwave refraction.

### **Polystyrene body**

For experiments on microwave absorption.

# Protractor

With an accuracy of 1°.

The graduated scale is screenprinted on a policarbonate plate for a simple and quick measurement reading.

# **PRATICABLE EXPERIMENTS**

The experiments that can be carried out concern:

- Polarization
- Diffraction
- Refraction
- Total reflection
- Reflection
- Absorption
- Propagation of microwaves









5436

## Jointed bench

Microwave aluminium bench with two arms, respectively 500 mm and 650 mm long. Provided with plate holder and protractor to perform quantitative measurements.

# Set of 4 metal plate

Dimension: 155x155 mm

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

# Water tank

Useful to practice experiments on microwave absorption.











**OPTIKA° S.r.I.** Via Rigla, 30 - 24010 Ponteranica (BG) - ITALIA Tel.: +39 035.571.392 - info@optikascience.com