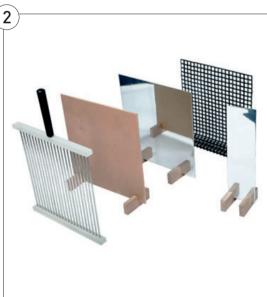
# Physics – Sound & Waves





# 1. Microwave Optics Kit, 2.8cm

This range of equipment has been developed to demonstrate the properties of electromagnetic waves and as an aid to teaching the behaviour of visible light. The value of using microwave radiation for this purpose is twofold. Firstly, the concept that visible light is a small section of a much wider band of frequencies may be introduced. Secondly microwave radiation share so many common properties with visible light that many experiments can be undertaken, which would otherwise be impossible due to limitations on time or equipment costs.

Using this range of apparatus the following can be demonstrated:

- Wave optics in centimetre range
- Properties of electromagnetic waves
- Interference and diffraction

#### Receiver specification:

- Mode: CW or modulated signal
- Frequency: 10.5GHz (compatable with many existing systems)
- Antenna gain: 17dB
- Supply voltage: 5V dc external adaptor (supplied)

#### Transmitter specification:

- Mode: CW or external modulated
- Frequency: 10.5GHz (compatable with many existing systems)
- Average power: 15mW
- Supply voltage: 5dc external adaptor (supplied)

#### Microwave probe detector:

- Mobile easy to use battery operated
- Built in illuminated signal strength meter
- BNC terminated output for use with oscilloscope, meter or audio amp
- Gain control
- Non directional

All equipment is designed and tested to EN 300-440, compliant to EN 50371.

Code	Description	Pack	Price
SE2010061	2.8cm receiver	Each	£177.19
SE201006	2.8cm transmitter	Each	£177.19
SE2010069	Probe receiver	Each	£90.37

## 2. Microwave Accessories

#### Hard Board Mirror

MDF board, 211 x 210mm. Supplied with feet.

Code	Pack	Price
EDU1160	Each	£8.17

### Polarisation Grill

An array of 22 parallel steel rods of diameter 3mm fixed in plastic plates. Ideal for demonstrating polarisation of microwaves.

Code	Pack	Price
EDU1154	Each	£12.66

#### Reflectors

Polished aluminium plate, supplied with feet.

Code	Dims, w x l, mm	Pack	Price
EDU1156	60 x 210	Each	£2.61
EDU1158	210 x 210	Each	£4.91

#### **Perforated Plate**

Painted steel perforated plate, size 210 x 210mm.

Code	Length, mm	Pack	Price
EDU1162	150	Each	£7.41

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