



MW DIODE DETECTOR PRECISION PROBE



SKU: frm-mw-105-detector



PRODUCT DESCRIPTION

This incredible broad-band diode envelope detector allows you to detect, demodulate and measure microwaves with a special sub-millimeter resolution.

The shape is designed to be easily fitted to our series of slotted waveguides, but the product also allows free-space measurements without any issues.

How it differs from the competition

Let's take a look at the competition, for example Pasco's [Microwave Detector Probe](#). It can be noted almost everyone takes a similar technological approach: an antenna, a long coaxial cable, and the electronics.

Our product, instead, has everything mounted on one truly tiny board, where all the amplification and demodulation of the 10GHz signal is done.

This enables a series of advantages:

- Much smaller than the competition
- Cheaper
- Sturdy, as we don't have fragile coax and delicate connectors
- Reduced transmission losses and thus improved sensitivity

Example experiments:

- Measure the evanescent wave out of a dielectric surface. The exponential decay of the wave over the distance can be measured with the help of a micrometer.
- Measure how the wave propagates inside any slotted waveguide

Features:

- 12V supply
- Audio output on a standard 3.5mm jack
- IEC 61000-4-2 25KV compliant input/output for high ESD tolerance
- Sturdy steel antenna
- Compact and lightweight

This item is usually sold in conjunction a slotted waveguide, slider accessory and cable holder.