



# iPROTECT 1215

microwave pointer



USER MANUAL

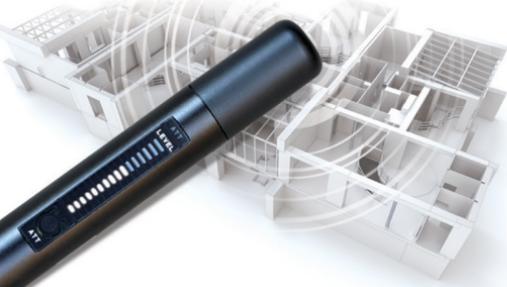
It is possible that foes can spy on you using radio microphones working on 'stealth' microwave frequency bands. Conventional RF detectors are typically capable of discovering signals up to 4-6 GHz; therefore higher frequencies usually stay unstudied during sweeping procedures, unless you apply an expensive spectrum analyzer.

The new microwave pointer-probe iProtect 1215 was designed to extend the checked frequency range during sweeping procedures up to 13 GHz. It can find surveillance bugging devices which are usually not detectable by standard RF detectors. The directed antenna allows the operator to understand where the signal originates from and, as such, to locate the source physically.

Particular attention should be paid to the 5.8GHz ISM band on which a number of wireless devices can be active without being discovered by conventional RF detectors at a sufficient distance.

#### Typical signals detected by iProtect 1215 are:

- Wireless microphones working on 5 GHz frequency band
- Wireless video cameras 5GHz
- Covert 5GHz Wi-Fi access point
- Covert 5GHz Wi-Fi client device
- Other surveillance (bugging devices) employing frequencies between 4-13 GHz



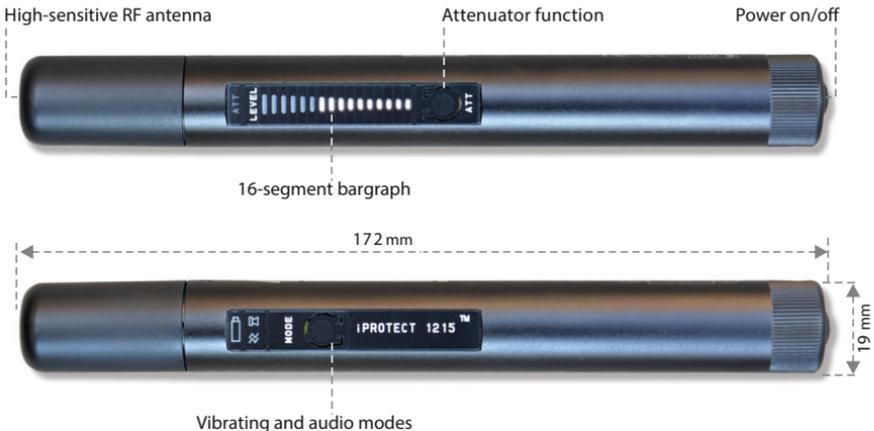
## FEATURES

- Detects bugging devices omitted by standard RF detectors
- Discovers microwave signals in the range of 4-13 GHz
- Detects signals not depending on their type – video, audio, digital or analogue
- Built-in directed antenna
- 3 working modes: Normal, Vibrating and Audio
- 16-segment indicator for easy and precise pinpointing of the bugging device
- Sensitivity controlled by attenuator
- Antenna's directivity (out-of-direction attenuation) -6 dBm
- Portable and durable duralumin body
- Powered by just 1 AA (LR06) battery
- Low power indication
- Battery resource 12-25 hours

## SPECIFICATION

Frequency range	4000 – 13000 MHz (4-13 GHz) Power button, Mode button, ATT button
Indicators	<ul style="list-style-type: none"><li>• 16-segment bargraph</li><li>• Vibration</li><li>• Battery state (3 colors)</li><li>• Working mode</li><li>• ATT state</li></ul>
Battery resource	12 – 25 hours
Dimensions	172 x 19 mm
Current consumption	Normal: 80 mA Vibrating: 180 mA Audio: 130 mA
Power source	1 x AA battery (LR06)

## CONTROLS



## PARTS DESCRIPTION

The iProtect 1215 microwave pointer has a 16-segment bargraph indicator which allows the operator to see the slightest changes in the level and, as such, accurately find the area with the strongest signal for location.

When it is necessary to decrease the sensitivity, typically during the location process, the operator can use the attenuator function ATT.

The iProtect 1215 has a 'physical' (as in professional communications) RF attenuator of a level up to -20dB. The corresponding indicator will show the attenuator status.

The working mode (Vibrating/Audio/Normal) can be selected by the MODE button. The vibrating

mode allows the user to 'feel' the increased level without actually watching the bargraph. This is convenient during the process of inspecting hard to access places like gaps under/behind furniture and construction. The Audio mode helps the user to identify signals in many cases.

The power can be turned on and off with the help of the button on the bottom tip of the detector. The battery compartment is also situated here.

When the battery becomes low, the power indicator changes its color from green to orange. When the battery is about to discharge completely, the power indicator becomes red.

## SWEEPING

The iProtect 1215 pointer is an auxiliary device designed to extend the checked frequency range during the TSCM sweeping procedure. Therefore it should be used together with a standard RF detector or other equipment in order to perform a comprehensive check.

### **To avoid false detections turn off all RF transmitting devices before starting the sweeping procedure:**

- Wi-Fi routers and Wi-Fi devices (printers, video cameras, laptops, etc.)
- Cordless phones
- Cell phones
- Bluetooth devices, etc.

Start with the attenuator turned off. Enter the room while holding the pointer and start probing objects and surfaces with its antenna (upper tip). Since some types of transmitters have extremely low power, it is recommended to carry out the inspection at a distance of not less than 10-20 cm from the object.

Since the pointer's antenna is directed, rotate the device in different directions during the scan to maximize the chances of catching a signal.

Move around the room in a selected direction – clockwise or counter clockwise and probe all the items/surfaces/gaps, etc. Pay special attention to the places where electrical wires are present as a potential bugging device could be powered by these. Do not forget about any objects situated in the middle of the room. Open all wardrobes, cabinets, etc. since a bugging device could be anywhere; test the ceiling (opening tiles of gypsum) and the floor. Use a ladder if necessary to get as close to high points in the room as possible.

The target zone (the area around the most used work space in the room being checked) is the

most important since sound around this area is clearest; therefore inspect it with as much care as possible.

An increased RF level on the bargraph and/or vibration from the 1215 are signs of microwave signals, which can be produced both by a normal device like a Wi-Fi router or a real bugging device, for example by 5 GHz video or audio bugging device. To avoid false alarms during the sweeping procedure turn off the 'legal and known' Wi-Fi routers temporarily. Activate the flight mode on all mobile phones present in the checked premises.

The task of operator is to find the place with the maximum RF level and then to trace the transmitter. If it is impossible to find the strongest place and the signal is similar everywhere (for example near a window), it may be external interference. In modern cities there is lot of interference like communication base stations or broadcasting.

Please remember that interference may also get into a room from adjacent premises. It can be a Wi-Fi router in the neighboring flat/office, for example.

If the RF level is strong, the bargraph may show the maximum level. The attenuator function will be useful in this case. Turn it on and continue searching for the place with the maximum level, after finishing and returning to the normal sweep do not forget to turn off the attenuator.

After finding a place with a strong RF level go to a physical inspection. Disassemble the object and try to find the transmitter

Do not stop sweeping even if a bugging device is found. Some other, better hidden, bugging devices may be still present in the room.

## DETECTING DISTANCE

Depending on the transmitter's power and frequency the distance may vary from 20 cm to 2-3 meters