iPROTECT 1240

Microwave Millimeter-Wave Detector

FEATURES

The evolution of mobile communications and the emergence of 4G/5G have changed the methods and technical solutions used for covert information retrieval (bugging devices). Modern mobile network infrastructure provides unpreceden-ted possibilities:

- transmission of audio, visual, and other information in real time
- wide bandwidth ensuring high-quality transmission
- wide network coverage
- unlimited data transmission distance, and absence of the necessity to deploy a monitoring post near the surveillance object
- remote control capability, accumulation of information, and accelerated transfer to increase concealment
- the possibility of storing information on cloud services with full anonymity

To detect radio-frequency covert surveillance devices, including those operating via 4G/5G channels, field detectors, mobile signal detectors, and specialized spectrum analyzers are used. Typically, they cover frequency ranges up to 6 GHz or 12 GHz and can effectively detect signals within those limits. However, several 5G bands operate at higher frequencies, and such signals cannot be detected by standard search equipment.

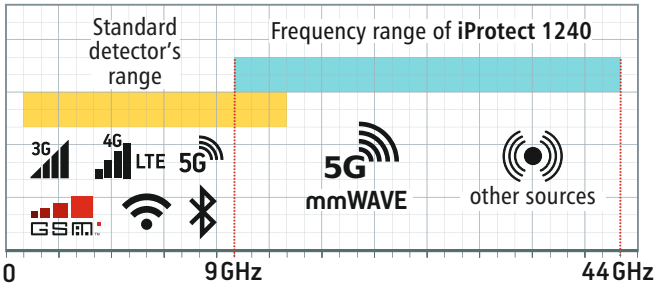
These are the millimeter-wave (mmWave) bands. Although these bands have limited penetration through walls and structures and are mostly used out-doors or in areas with large crowds, there remains a possibility they may be used for illegal information transmission. Therefore, during a professional bug sweep, detecting and localizing signal sources in the millimeter-wave range becomes essential.

5G Millimeter-Wave Bands

Band	Frequency (GHz)	Region
n257	26.50 – 29.50	Japan, South Korea and other countries of Asian
n258	24.25 – 27.50	Europe, Australia and other regionsn
n260	37.00 – 40.00	United States
n261	27.50 – 28.35	United States

The new iProtect 1240 detector has a frequency range of 9–44 GHz and iscapable of detecting signals inaccessible to other detectors and many spectrum analyzers:

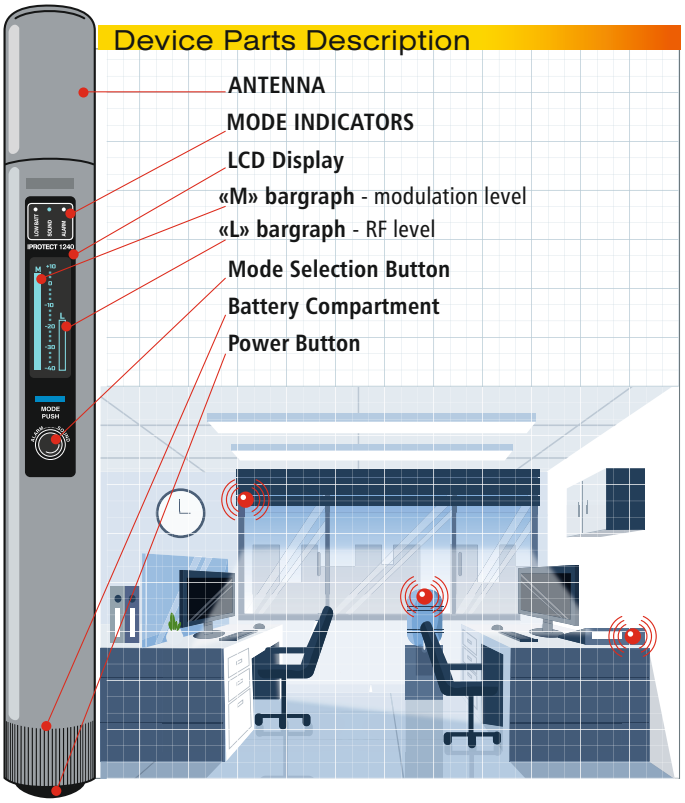
- mobile devices using 5G millimeter-wave bands, including those transmitting illegally obtained audio or video
- 5G mmWave access points
- other high-frequency signals, including bugging devices using proprietary non-5G protocols



Main Features

- Detects covert radio-frequency surveillance devices operating in ultra-high-frequency ranges that standard detectors cannot identify, such as hidden micro-phones, cameras, 5G mmWave transmitters, or other microwave transmitters
- Excellent addition to a professional sweep kit by expanding the detection range up to 44 GHz
- Significantly lower cost than professional spectrum analyzers and much easier to operate
- Ignores signals outside its range (below 9 GHz), simplifying operation
- Detects signals regardless of modulation type or transmitted information
- Three operating modes:
  - **Silent** (visual indication only)
  - **ALARM** (audio alert + visual)
  - **SOUND** (amplitude component playback + visual)
- Dual-level scale:
  - Modulation Level (high sensitivity, long-distance detection)
  - RF Level (precise localization)
- Built-in antenna with 30° directional pattern
- Compact and durable duralumin housing
- Powered by one AA battery (LR06)
- Low battery indication
- Battery life: 10–20 hours

SPECIFICATIONS

Frequency range	9–44 GHz
Sensitivity	-40 dBm
Modes	• **Silent** — visual indication only • **ALARM** — audio alert + visual indication • **SOUND** — amplitude component playback + visual
Bargraph types	• Modulation Level • RF Level
Control buttons	• Power • Mode
Display	OLED 128x32
Battery life	10 – 20 hours
Dimensions	172 x 19 mm
Current consumption	120 – 200 mA
Power	1 battery AA (LR06)

Device Parts Description