iProtect TSCM KIT

PROFESSIONAL PORTABLE DETECTION KIT

GENERAL FEATURES

- **Professionally Selected Toolset:** Includes all necessary components for detecting a wide range of covert surveillance eavesdropping devices.
- **Full Frequency Coverage (50 MHz – 44 GHz):** The combination of the iProtect 1216 detector (50 MHz – 12 GHz) and the iProtect 1240 microwave detector (9 GHz – 44 GHz) provides continuous monitoring across the entire spectrum, allowing for the detection of all types of RF threats (wireless microphones, video cameras, etc.).
- **Enhanced Sensitivity to BLE Tags:** A bandpass filter (2.4–2.5 GHz) and directional antenna eliminate interference and significantly increase sensitivity to low-power BLE and Bluetooth signals, including BLE tags (AirTag, etc.)
- **Optical Detection of Hidden Cameras:** Using the retroreflective effect, the WEGA-i device detects any optical lenses regardless of their operational status (powered on or off).
- **Mobility and Ergonomics:** The entire kit comes in an impact-resistant transport case with custom foam cutouts for immediate operational readiness.

KIT COMPONENTS

iProtect 1216 — Countersurveillance 3-Band RF Detector

- **Purpose:** Detection of analog and digital transmitters (GSM, 3G, 4G, Wi-Fi, DECT, Bluetooth/BLE, etc.).
- **3 Independent Graphical Scales:**
  - **Band 1:** 50 – 700 MHz (VHF / UHF)
  - **Band 2:** 700 MHz – 3 GHz (Mobile and wireless standards)
  - **Band 3:** 3 – 12 GHz (SHF / Microwave, 5 GHz Wi-Fi)
- **Advantage of Frequency Division:** In the presence of a strong interference source, sensitivity drops only in the affected band, preserving maximum sensitivity in the remaining two.
- **Alarm Mode & Histogram:** 48-step threshold adjustment and a graphical display of signal history over the last 5 seconds to track periodic pulsed devices.

iProtect 1240 — Millimeter-Wave Microwave Detector

- **Purpose:** Detection of high-frequency data transmission devices, including 5G mmWave devices and specialized protocols.
- **Frequency Range (9 GHz – 44 GHz):** Covers 5G mmWave bands (n257, n258, n260, n261).
- **Specialized Filtering:** Rejects frequencies below 9 GHz, allowing operation in complex environments without false triggers from standard mobile phones.
- **Dual Detection Scale:**
  - **Modulation level:** High sensitivity for long-range detection.
  - **RF level:** Pinpoint physical localization of the source.
- **Directional Antenna:** Built-in antenna with a 30° beamwidth for precise directional tracking.

Bandpass Filter (2.4 – 2.5 GHz) & LPDA-12 Microwave Directional Antenna

- **Hardware Selectivity:** Filters out noise and background signals outside the 2.4–2.5 GHz range (specifically cellular communications below 2 GHz).
- **Sensitivity Enhancement:** Suppressing background noise allows for a lower trigger threshold and extends the detection range for Bluetooth / BLE devices (including BLE tags).

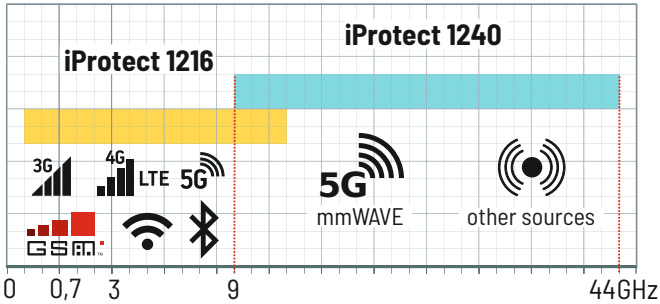
WEGA-i — Optical Hidden Camera Detector

- **Operating Principle:** Laser/optical retroreflection probing (pinhole lenses).
- **State-Independent:** Detects cameras regardless of power status, recording mode, or video transmission method.
- **Detection Distance:** 2 to 10 meters.
- **False Reflection Protection:** Light filter system and strobing mode distinguish true optical reflections from camera sensors from glares on interior surfaces, glass, or mirrors.

DETECTED THREATS

Threat Type	Description / Frequency Range	Primary Tool
Radio Microphones & Wireless Threats	Analog and digital audio/video transmitters (VHF/UHF, GSM, 3G, 4G, 5G, DECT, Wi-Fi, Bluetooth, etc.)	**iProtect 1216**
Hidden Video Cameras	Optical lens localization regardless of operational status	**WEGA-i**
BLE Tracking Tags	AirTag-type trackers and similar devices, including modified tags in Stealth mode	**iProtect 1216+** Filter + Antenna
Ultra-High Frequency 5G/IoT Devices	High-speed microwave transmitters up to 44 GHz	**iProtect 1240**

FULL FREQUENCY COVERAGE



COMBINED SPECIFICATIONS TABLE

Parameter	iProtect 1216	iProtect 1240	WEGA-i
Purpose	RF Detector (Analog + Digital)	Microwave / 5G mm Wave Detector	Optical Camera Detector
Operating Range	50 MHz – 12 GHz	9 GHz – 44 GHz	Optical (Visual)
Number of Channels	3 independent scales	1 (filters out < 9 GHz)	Optical channel + filter
Operating Modes	Silent, Audio, Alarm	Silent, Alarm, Sound	Strobing (adjustable)
Power Supply	Built-in Li-Ion (1150 mAh)	1 AA battery (LR06)	2 AAA batteries (LR03)
Battery Life	Up to 6 hours	10 – 20 hours	Depends on operating mode
Enclosure Material	Impact-resistant duralumin	Impact-resistant duralumin	Impact-resistant duralumin
Weight / Dimensions	265 g / 173×71×21 mm	172 g / 19 mm (diameter)	140 g / 140×34×16 mm

PACKAGE CONTENTS

1. Transport case with custom foam insert — 1 pc.
2. Countersurveillance 3-Band RF Detector iProtect 1216 — 1 pc.
3. Rod antenna for iProtect 1216 — 1 pc.
4. USB charging cable for iProtect 1216 (located beneath the device) — 1 pc.
5. Bandpass filter (2.4 - 2.5 GHz) (located beneath the device) — 1 pc.
6. LPDA-12 microwave directional antenna — 1 pc.
7. Microwave detector iProtect 1240 — 1 pc.
8. AA battery (LR6) for iProtect 1240 — 1 pc.
9. Optical hidden camera detector WEGA-i — 1 pc.
10. AAA battery (LR03) for WEGA-i (located beneath the device) — 2 pcs

OPERATING PROCEDURE and INSPECTION ALGORITHM

Note: Please carefully read the user manual for each individual device before use.

Recommended Sequence of Inspection Steps

1. **Optical Inspection:** Search for hidden camera lenses using the WEGA-i within the room according to the device's manual.
2. **Preparation for RF Search:** Turn off all authorized wireless devices (routers, gadgets, phones, laptops) to minimize background interference.
3. **General RF Search:** Scan the 50 MHz – 12 GHz frequency range using the iProtect 1216 with standard antennas.
4. **BLE and Bluetooth Detection:** Scan the 2.4 – 2.5 GHz range using the iProtect 1216 fitted with the bandpass filter and directional antenna.
5. **mmWave Monitoring:** Check for microwave signals using the iProtect 1240.

DETECTION of BLE TRACKING TAGS

By slipping a BLE tag into personal belongings, a vehicle, or cargo, attackers can track the location of an individual, car, or shipment. If a "standard" BLE tag stays near you for a certain period of time, your smartphone will trigger a built-in safety alert.

Why are modified tags dangerous?

Standard smartphone protections are ineffective against professional tracking tags running modified firmware (Stealth trackers). These devices change identification keys much more frequently or randomly, masking the radio packet parameters. As a result, the victim's smartphone interprets them as a random cluster of unrelated third-party devices, preventing the built-in "Unknown Tag Detected Near You" warning from triggering.

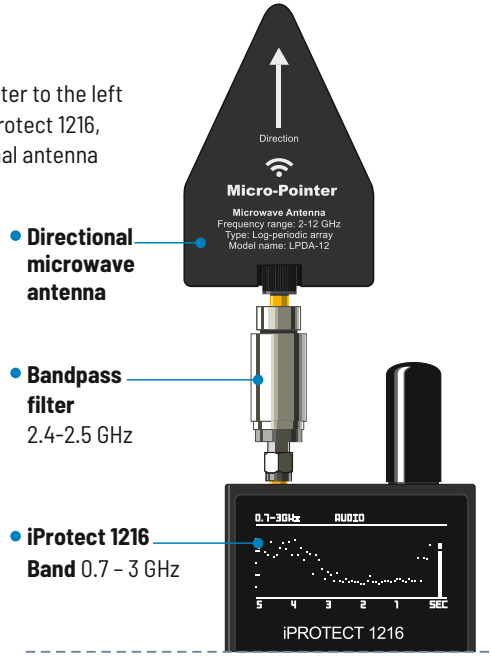
Step-by-step algorithm for finding BLE Devices (tags) using the iProtect TSCM KIT

1 Zone Preparation:

- Turn off or temporarily move all household wireless gadgets at least 10 meters away (headphones, access points, printers, laptops, mice, smartwatches, smartphones, etc.).
- ***Note:*** Many personal gadgets (headphones, smartwatches, etc.) feature built-in tag functionality to help locate them if lost. Ensure there are no third-party household BLE devices nearby, as they can also be repurposed for tracking. In this context, a gadget's safety is determined by its association with a trusted account.

❷ Assembly:

- Connect the bandpass filter to the left antenna socket of the iProtect 1216, then attach the directional antenna to the filter.



❸ Powering On:

- Turn on the iProtect 1216, switch to **AUDIO** or **ALARM** mode (using the MODE button), and select the 0.7 – 3 GHz band (press the joystick, then toggle right). If using ALARM mode, set the required threshold level.

❹ Search Process:

- Inspect the area by moving in a "zigzag/stripe" or "spiral" pattern, adjusting the vertical position of the iProtect 1216 from floor to ceiling while panning it in all directions.
- Shift your position with each pass according to the expected detection range (recommended step: 0.5 m).
- Monitor signal bargraph increases and the audio alarm (if ALARM mode is selected). A high reading indicates signal presence, while additional meter rise when pointing the antenna helps pinpoint the direction of the source.
- Pay close attention to rare, periodic spikes (BLE tags typically transmit Advertising packets once every 2 seconds).
- **Audio Identification (if AUDIO mode is selected):**
  - **Unpaired BLE:** Sounds like distinct "clicking" noises (an additional sign of a BLE tag is a click occurring every 2 seconds synchronously with bargraph spikes).
  - **Bluetooth:** Sounds like high-pitched "beeping/chirping."
  - **2.4 GHz Wi-Fi (if present as background noise):** Sounds like "rustling + hissing" near a client device, and "clacking/rattling" near an Access Point.

5 Managing Interference:

- **2.4 GHz Wi-Fi (Access Points, client devices):** The primary source of interference, as it operates in the same band as BLE but with significantly higher power. Operating Wi-Fi devices create a baseline noise level on the bargraph, hindering the detection of weaker sources at distance. If disabling the interference source is impossible, raise the threshold level (in ALARM mode) and scan slower with narrower pass distances to detect target signals up close.
- **Other Household BLE Gadgets:** These also create noise by saturating the area with multi-directional signals, complicating the localization of individual devices. If such a device is detected and confirmed safe, deactivate it for the duration of the sweep.

6 Expected Detection Range:

- **For BLE Tags:** 1 – 1.5 m (no interference) / ~0.5 m (with interference).
- **For Standard BLE Gadgets:** 1.5 – 2 m (no interference) / 0.5 – 1 m (with interference).

Direction
Micro-Pointer
Microwave Antenna
Frequency range: 2-12 GHz
Type: Log-periodic array
Model name: LPDA-12
0.7-3GHz
AUDIO
5 4 3 2 1 SEC
iPROTECT 1216
ONE BAND
BATTS OK
MODE
SILENT / AUDIO / ALARM
ALARM THRESHOLD
BAND SELECT
ALL BANDS / ONE BAND
LOCATES WIRELESS DEVICES
DETECTS BUGGING DEVICES
DETECTS 5G, 4G, 3G, GSM GPS TRACKERS
WEGA-i