



EO SPECTRE

TACTICAL SIGINT SOLUTION

About EO SPECTRE

EO Spectre is a tactical SIGINT and Technical Surveillance Countermeasures (TSCM) device that passively monitors and analyzes signals, providing comprehensive situational awareness and safeguarding against emerging RF threats. It is available in versions tailored for both government operations, including surveillance and counter-surveillance, as well as for businesses seeking similar protection.

EO Spectre passively monitors and analyzes Bluetooth and Wi-Fi (2.4 GHz) traffic in real-time with 100 MHz bandwidth. It extracts MAC/device information, decodes Bluetooth BR/EDR/LE, captures Wi-Fi WPA2 handshakes, and it is possible to add an additional mode to the password cracking platform.

The device supports spectral analysis up to 6 GHz and features 2D and 3D waterfall displays with recording, replay, and annotation options. Advanced analytics identify unique device activity patterns over time, going beyond MAC addresses to detect covert surveillance tools.

Built on a 12" Windows 11 tablet, EO Spectre operates fully offline and includes FPGA-accelerated signal processing for extended performance in both static and mobile use cases.

In its additional mode, EO Spectre can be enhanced with advanced capabilities to detect IMSI catchers (BTS Hunter) and counteract attacks designed to overwhelm and disrupt attacks.



Key Features

Passive 2.4 GHz Bluetooth & Wi-Fi Monitoring

2D/3D Waterfalls with Replay & Annotation

Secure Offline Operation

WPA2 Capture/Cracking & PCAP Storage (additional mode for password cracking possible)

Detect and Counteract IMSI Catchers (BTS Hunter)

MAC Extraction & GPS Tagging

Advanced Traffic Pattern Analytics

Spectral Analysis up to 6 GHz





Features

- Fully passive
- Fully offline for operation security
- 24/7 static or mobile form factor
- 12" Windows 11 tablet form factor with both Wi-Fi and ethernet access as well as HDMI for external monitor support
- Modern desktop application
- Standalone web server with a web application for cumulating findings from multiple devices. Perfect for gathering and analyzing intelligence from complex operations
- Designed for practicality, ensuring both durability and a lightweight form to guarantee effectiveness in challenging conditions
- 100 MHz of instantaneous bandwidth – effectively covering the whole Bluetooth and Wi-Fi spectrum and all respective channels
- Hardware accelerated real time signal processing ensuring better performance and prolonged battery life
- Bluetooth BR/EDR (Basic Rate/Enhanced Data Rate) & LE (Low Energy) support
- Decoding Bluetooth BR/EDR traffic – Allows to dig deeper and extract information such as packet types which helps distinguishing voice and data traffic
- Bluetooth LE monitoring of both advertisement and data channels
- Wi-Fi (2.4 GHz) support
- Wi-Fi WPA2 handshake captures & cracking, and it is possible to add an additional mode to the password cracking platform.
- Wi-Fi PCAPs for later forensic activities
- Extract MAC addresses and device information for both Bluetooth and Wi-Fi

- Advanced analytics – Identification of activity patterns of a specific device over time, revealing covert Bluetooth/Wi-Fi eavesdropping tools, thanks to logging and tagging each packet with time, GPS location, recurrence, and other factors for both surveillance purposes and surveillance countermeasures. Our engines utilize more information and device signatures beyond MAC addresses, as those may be manually or automatically changed with each transmission
- Spectral analysis – Fast sweeping up to 6 GHz with both 2D & 3D waterfalls (with up to 24 hour storage), individual pre-selected band monitoring, storing and comparing signal traces, smart notifications upon a presence of an uncommon signal and more
- GPS tracking & map overlays
- Automated PDF reports
- Detect and Counteract IMSI Catchers (Supported technologies: GSM / UMTS / LTE / 5G-NSA / 5G-SA)
- EO Spectre software, which includes detection engines, user interfaces, and FPGA images, is continuously developed to incorporate new features, support the latest versions of technologies and protocols, and can be updated using secure offline update packages



If you are interested, please contact our sales department who will discuss your security options with you. Please send your enquiry with your contact details to:

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Learn more at eo-security.com