

BREAKER Sensor

DIRECTION FINDING & PASSIVE RADAR FOR CRITICAL INFRASTRUCTURE AND BASE DEFENSE

BREAKER is a fixed-site passive RF sensor built to safeguard critical infrastructure, secure military installations, and monitor urban airspace with continuous low-altitude awareness. It supports both RF detection/direction finding and passive radar missions—all without emitting a single signal. The system is TRL-9 and operationally proven.

Capable of detecting a broad range of low-altitude threats, from uncrewed systems and Remote ID-enabled drones to manned aircraft, BREAKER delivers reliable, non-disruptive surveillance for airports, government installations, ports, stadiums, and forward-operating bases alike. It adapts as threats evolve—while staying passive and undetectable.



Key Operational Advantages

- **Mission-Configurable Dual Modes**
Performs RF detection/direction finding or passive radar—tailored to mission needs.
- **Urban & Base Defense Optimization**
Proven in high-clutter, high-density urban environments and at fixed installations requiring persistent airspace security.
- **Fully Passive, Non-Disruptive**
Safe to co-locate with telecom and aviation systems. No spectrum licensing. No RF emissions. No added risk to your site.
- **Software-Defined & Future-Ready**
Rapidly integrates new detection capabilities and signal sources through software updates. No hardware modification required.
- **Remote ID-Enabled**
Fully supports FAA Remote ID reception, including positional verification using direction-finding to eliminate spoofing risk.
- **Seamless Integration**
Systems feed data into ATAK, CLUE, Palantir COP tools, and municipal or federal C2 platforms via secure and open GeoJSON-based API.



DESIGNED & MANUFACTURED
IN THE USA

BREAKER Sensor Specifications

PERFORMANCE

- **Frequency Coverage:** 0.8–6.0 GHz
- **Field of View:** 90 deg Azimuth × 90 deg Elevation
- **Track Accuracy:** <2 deg Azimuth, <1 deg Elevation
- **Track Update Rate:** 2 Hz
- **Detection Range:**
 - Passive Radar - 5 - 30+ km, depending on emission source and target type
 - RF Detection - 7 - 25 km, depending on environment

INTEGRATION & DATA OUTPUTS

- **Primary I/O:** 100 Mbps / 1 Gbps RJ45 Ethernet
- **Raw Data Output:** 10 Gbps SM LC Fiber
- **Data Format:** GeoJSON-based API for track and detection data
- **Control Interface:** JSON RESTful API (mode, run/halt, etc.)
- **Network Compatibility:** Fully networkable and seamlessly integrates into Hidden Level's Airspace Monitoring Service (AMS)

SIZE, WEIGHT & POWER (SWaP)

- **Sensor Dimensions:** 23 in W × 60 in H × 19 in D
- **Weight:** 101 lbs
- **Power Requirements:** <250 W
- **Power Input:** Standard 100–240 VAC, <3 A

ENVIRONMENTAL HARDENING

- **Ingress Protection:** IP66 (dust and water resistance)
- **Design Compliance:** MIL-STD-810H (shock, vibration, temperature resilience)

DEPLOYMENT OPTIONS & FLEXIBILITY

- **Mounting Options:** Pole, tripod, rooftop, tower, or fixed infrastructure
- **Fixed-Site Ready:** Ideal for airbases, urban centers, and sensitive infrastructure
- **Software Upgradability:** Continuously enhanced through over-the-air software updates; no hardware swaps are required



FIELD PROVEN & READY TO SCALE

- **Operational in Multiple U.S. Cities:** Deployed at major airports and metropolitan areas, delivering persistent low-altitude awareness around critical infrastructure and high-profile venues.
- **Trusted by Federal Agencies:** Title 18/50-compliant to monitor airspace over sensitive areas, including high-profile federal buildings in Washington, DC.
- **Empowers Local Law Enforcement:** Actively supports police operations in cities like Arlington, TX, with 24/7 UAS tracking, enabling safe and lawful interdiction around stadiums and event zones.
- **Proven Detection Across Drone Ecosystem:** Continuously detects and verifies both cooperative (Remote ID) and non-cooperative drones, including encrypted-links and non-DJI platforms.

Hidden Level

HIDDENLEVEL.COM

Hidden Level is the world's leading RF intelligent platform, delivering mission-defined hardware and software solutions that combine passive sensing, persistent data, and applied intelligence to help customers and partners address complex safety and security challenges across air, ground, sea, and space. Designed and manufactured in the USA. 

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