DroneTrack Drone Detection System

Passive RF direction finding and Remote ID detection. Finds, identifies and locates drones and their pilots, with a live bearing from one unit and a position from two or more.



25 miles
Detection range (40 km). Depends on terrain, line of sight and placement.

70 MHz to 6 GHz
Receiver tuning range

6-element array
Circular direction-finding array, 450 MHz to 6 GHz

360°
Coverage, including drones flown over 3G, 4G and 5G

Under 1 min
From power-on to detecting, no calibration flights

-40°C to +70°C
Operating range, at night and in fog and rain

$8,995 per unit, with the software platform and the desktop and mobile apps included. Three finishes, identical apart from colour: Military Green, Pearl White, Matte Black. 2-year warranty. Tripod not included: heavy-duty tripod with CNC-machined auto twist-lock connector available as an add-on, $850. Triangulation pack: three complete units in one finish, $25,985 (save $1,000). In stock. Free shipping in the US; international shipping quoted on request.

Detection

Detection range	Up to 25 miles (40 km), transmitter at ~600 m. 20 km (12 miles) at a realistic ~275 m. See test conditions
Coverage	360°, full RF spectrum including 3G/4G/5G
Detection technology	RF direction finding + Remote ID
Detection method	Passive RF monitoring and Remote ID detection
Supported drone bands	All commercial drones and most FPV drone bands
Swarm detection	Multiple simultaneous drones
Max simultaneous drones	Up to 10 RF contacts, with adjustable priorities for focused direction updates
Triangulation	Locates the drone and its pilot with two or more units
Time to alert	To be confirmed
Drone library	To be confirmed
AI processing	On-device, no internet required
Setup time	< 1 minute (plug-n-play)

Wideband RF receiver

Receiver type	Dual-channel software-defined radio receiver
Receiver architecture	Direct-conversion wideband RF architecture
Receive channels	2, coherent dual-channel reception
Hardware tuning range	70 MHz to 6 GHz
Max instantaneous bandwidth	Up to 56 MHz single-channel, up to 30.72 MHz per system dual-channel
Analog receive bandwidth	Software-adjustable, approx. 200 kHz to 56 MHz
Analog-to-digital conversion	12-bit
Max converter sample rate	61.44 MS/s
Receiver gain	Software-adjustable, up to approx. 76 dB
RF port impedance	50 ohms
Max recommended RF input	−15 dBm
Host interface	SuperSpeed USB 3.0
Signal processing	Programmable FPGA-assisted digital signal processing

Direction finding

Direction-finding array

Array configuration	Six-element circular antenna array
Antenna elements	6
Frequency support	450 MHz to 6 GHz
Direction-finding method	Intelligent RF power sampling with vector-based angle-of-arrival processing
Bearing accuracy	To be confirmed

RF switching system

Switch type	High-speed solid-state RF antenna switch
Switched antenna inputs	6
Switch controller	Dedicated embedded high-performance microcontroller
Switching operation	Automatic and continuous during RF direction finding

Remote ID

Wi-Fi Remote ID receiver

Receiver type	Dedicated USB Wi-Fi monitoring adapter
Operating mode	Passive monitor mode
Supported bands	Configuration-dependent 2.4 GHz and 5 GHz
Broadcast types	Wi-Fi beacon Remote ID, Neighbor Awareness Networking, compatible manufacturer-specific IDs
Operation	Independent from the main direction-finding receiver

Bluetooth Remote ID receiver

Receiver type	Dedicated Bluetooth Low Energy receiver
Primary function	Detection and decoding of compatible Bluetooth Remote ID broadcasts
Operation	Continuous passive scanning
Compatibility	Dependent on broadcast format and regional implementation
Remote ID standards	To be confirmed

Positioning and connectivity

Positioning receiver	Fast-acquisition GNSS positioning receiver
High-speed receiver connection	USB 3.2 over Ethernet
Unit to operator link	To be confirmed
Software	Software platform: dashboard, spectrum analyzer, push alerts, incident logging. Desktop and mobile apps, no separate licence
Software requirements	To be confirmed
API and webhooks	On the roadmap: REST API and real-time event notifications
Data export	Planned: CSV and JSON exports, with PDF incident reports to follow
VMS / PSIM integration	Available on request: custom integration after a technical assessment

Power and cabling

Input power	110 to 220 V
Unit power	12V DC or PoE compatible
PoE standard	To be confirmed
Power draw	To be confirmed
Cabling	Armored Cat6 UTP Ethernet cable (carries power and data)
Supplied cable length	To be confirmed
Connectors	To be confirmed

Physical and environment

Operating conditions	Night, fog, rain, -40°C to +70°C
Storage temperature	To be confirmed
Humidity	To be confirmed
Wind rating	To be confirmed
Width (unit)	740 mm (29.1 in)
Weight (unit)	30 lb (13.6 kg)
Mounting	Heavy-duty tripod with CNC-machined auto twist-lock connector: optional add-on, $850. Not included with the unit.
Mounting height	To be confirmed
Tripod height	To be confirmed
Designed for	Fixed-site, portable and multi-node deployments

Origin, compliance and support

Origin	Hardware and software, Columbus, Georgia, USA
Countermeasures	None. Detection only: no jamming or spoofing
Export classification	To be confirmed
Warranty	2 years
MTBF	To be confirmed
Spec questions	Mon–Fri 8am–6pm ET, reply within 1 business day

In the box (per unit)

1×	DroneTrack RF sensor unit with six-element direction-finding array, in your chosen finish
1×	Armored Cat6 cable, carries power and data
1×	PoE injector and 110 to 220 V power supply
Incl.	Software platform: dashboard, spectrum analyzer, push alerts, incident logging
Incl.	Desktop and mobile apps, no separate licence

Figures marked “To be confirmed” are not yet published; ask our engineers for them (Mon–Fri 8am–6pm ET, reply within 1 business day). Test conditions: airborne 1.5 GHz video transmitter at 10 W; DDS antenna about 6.1 m above ground. Detected 20 km away with the transmitter about 275 m above the DDS takeoff elevation; the 25-mile figure was reached with the transmitter at about 600 m. Range on your site depends on terrain, line of sight and antenna height. Specifications may change; the current version is at dronetrack.com/specifications.