

TRACKER

Tracker is a compact radar device supporting integrated air-ground detection. It covers all types of drones, including conventional, radio silent, fiber-optic, and autonomous models, while also detecting ground personnel and vehicles, delivering an efficient and cost-effective air-ground security solution. Its lightweight design allows flexible deployment on fixed stations, vehicles, or airborne platforms. Utilizing K-band 2D phased array technology, it achieves high-speed scanning, rapid response, and high-fidelity detection, adapting to complex scenarios and precise guidance needs. Whether for airports, borders, or other critical areas, Tracker stands out as the intelligent choice for security with its high reliability and superior cost-effectiveness.



APPLICATION SCENARIOS

Portable Defense

Compact and lightweight, backpack-portable, deployable in 3 minutes.

Airspace awareness performance equivalent to UAVs

RF stealth capability with anti-jamming wireless communication for enhanced security.

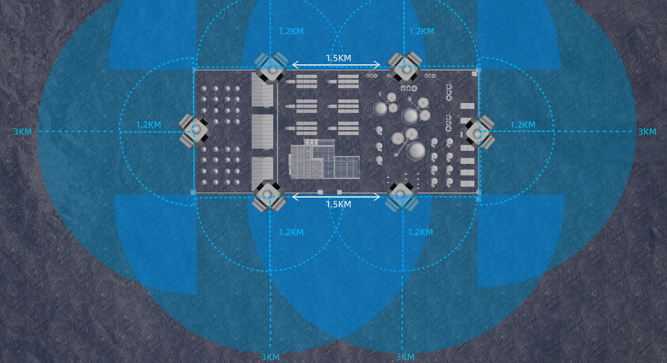


Area Security

Excellent cost-performance ratio for 1km critical area protection and mid-to-long-range detection gap filling.

Adapts to complex environments like urban airports and prisons.

Efficiently guides mainstream optical devices for target search, tracking, and evidence collection.



Vehicle-Mounted Radar

Enables mobile drone detection during vehicle movement, effective against high-speed FPV threats.

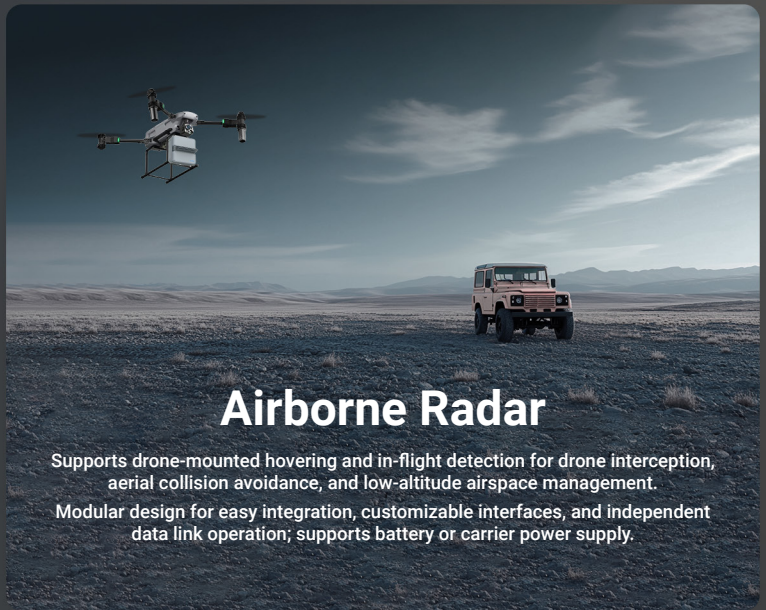
Multi-node networking for full-range coverage.



Airborne Radar

Supports drone-mounted hovering and in-flight detection for drone interception, aerial collision avoidance, and low-altitude airspace management.

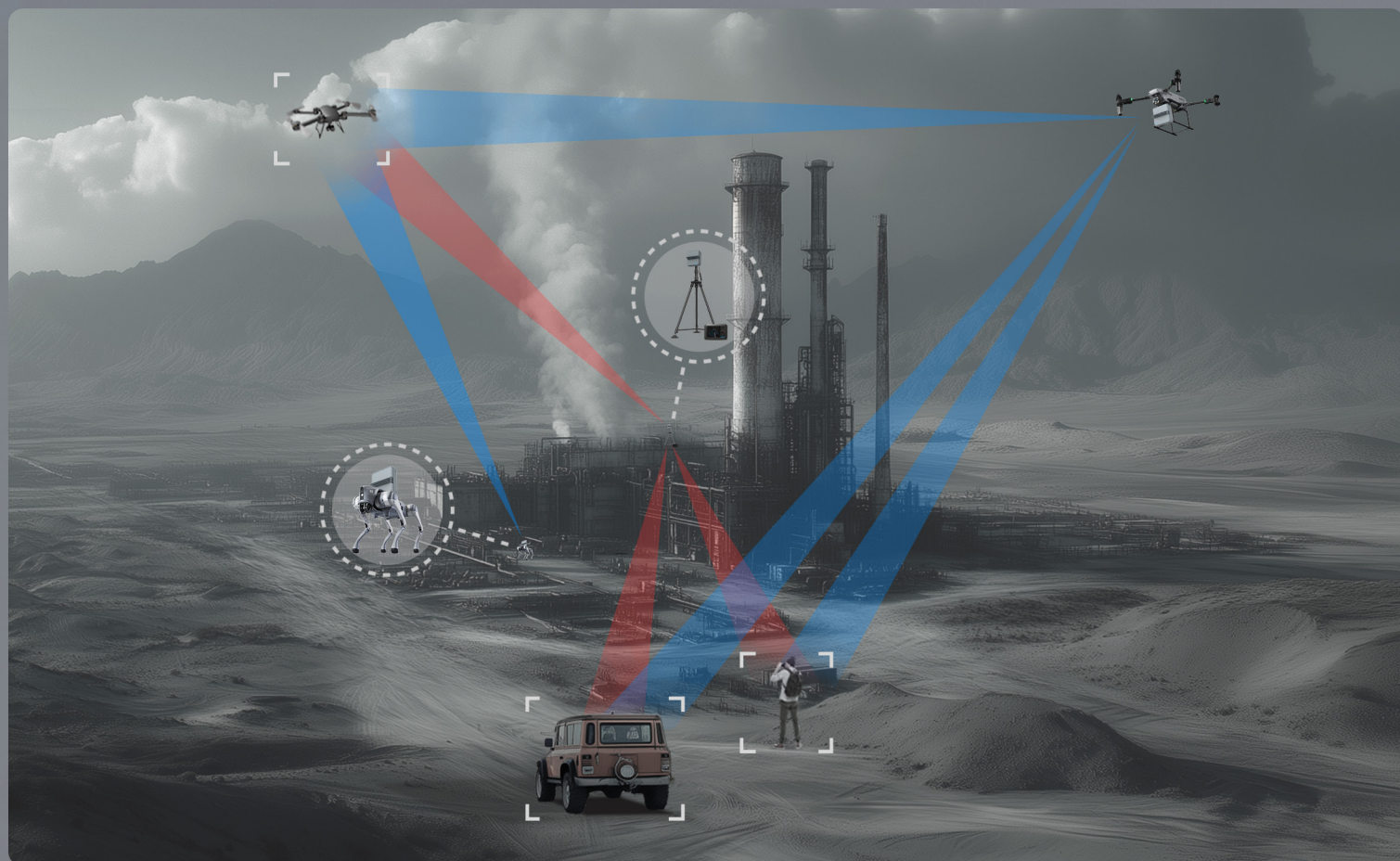
Modular design for easy integration, customizable interfaces, and independent data link operation; supports battery or carrier power supply.



Intelligent Surveillance

Tracker can achieve real-time wireless data interchange with the SkyShield system. The SkyShield system integrates feedback information from various devices, analyzes threat levels, and autonomously guides countermeasure devices to carry out strikes, realizing true intelligent surveillance.





KEY FEATURES



Air-Ground Detection

Environmental learning and micro-Doppler recognition for high-fidelity tracking of drones, personnel, and vehicles.



Precision Guidance

High refresh rate for guiding optical and countermeasure systems.



Rapid Deployment

Quick-release design with adaptive algorithms and occlusion handling; operational in 3 minutes.



High Stealth

Compact size, lightweight, and K-band linear frequency modulation for anti-reconnaissance capability.



Flexible Networking

Supports wired and wireless multi-node networking for dense coverage of core areas.

TECHNICAL SPECIFICATIONS

Radar Name	Tracker
Frequency Band	K-band
Scanning Method	AESA
Waveform Mechanism	FMCW
Operating Frequency	24.05GHz~24.25GHz
Effective Detection Range	Micro drone(RCS 0.01m2): 1.1km; Mini drone(RCS 0.2m2): 2.3km; Human: 2.2km; Vehicle, Vessels: 4km
Field of View	Azimuth: 100°; Elevation: 45°
Tracking Angle Accuracy	Azimuth: ±1.0°; Elevation: ±3°
Range Accuracy	2m
Airspace Search Time	2s
Max Tracking Targets	5~10 batches (TAS); 200 batches (TWS)
Target Tracking Update Cycle	200ms
Speed Range (Detectable Speed)	1~60m/s
Speed Accuracy	0.6m/s
Blind Zone	≤20m
Dimensions	205mm×225mm×64 mm(excluding front heatsink)
Weight	3kg±0.1kg
Power	≤130W
Power Supply	AC220V, 24±8V
Data Interface	Gigabit Ethernet
Operating Temperature	-40°C \~ +55°C
Storage Temperature	-55°C \~ +95°C
Protection Rating	IP67
Deployment Time	3min