

InphiSensor-S2

Technical Specifications



Document Revision History

Date	V	Description	Revised by
2025-08-10	1.0		

1. Product Overview

InphiSensor-S2 is a low-altitude UAV radio detection and identification product that integrates passive detection, precise identification, and accurate positioning functions. It integrates Adaptive Signal Decoding (ASD) technology and can obtain real-time information such as the drone's brand, model, fuselage electronic ID, flight altitude, longitude and latitude, and pilot location. It can realize the identification of friend or foe, blacklist and whitelist, and single- and multiple station positioning of the drone, providing a powerful means for low-altitude safety protection.



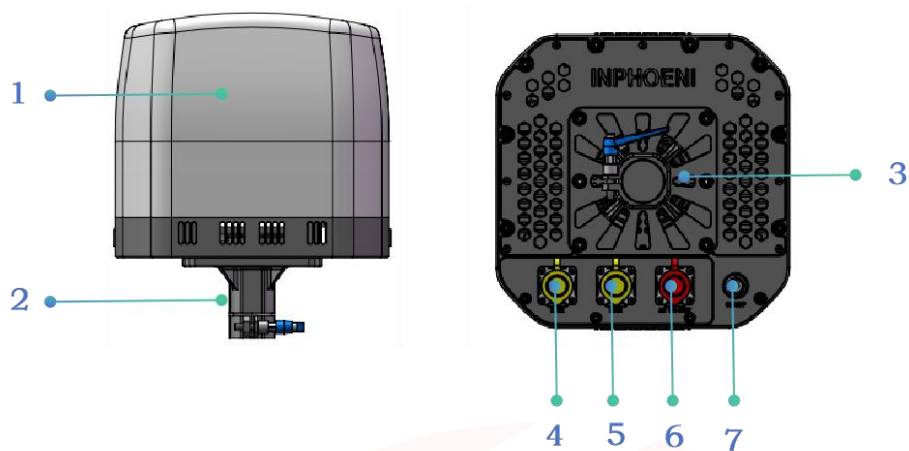
Figure 1. Product Image

2. Functions and features

- Passive detection: No electromagnetic signals emitted, zero interference with the surrounding environment;
- Detection Information: Accurately identify the drone's operating band, brand and model, ID, direction, latitude and longitude, flight altitude, and pilot location;
- Network positioning: Single-station protocol analysis positioning and multiple units networked together for TDOA positioning, achieving precise positioning for both the drone and the pilot (remote controller)
- Friend or foe: Import of whitelisted drone, and permanent marking of blacklisted drones;
- Image capture: Detect and display the real-time image transmission of FPV drones, taking screenshots and saving them;
- Full model library: Covers mainstream brands such as DJI/AUTEL, as well as DIY drones and FPV drones;
- Real-time Tracking: It features multi-target tracking. When multiple drones are detected simultaneously, their flight paths are displayed in different colors;
- Multi-Deployment: Lightweight design supports various deployment options, including fixed,

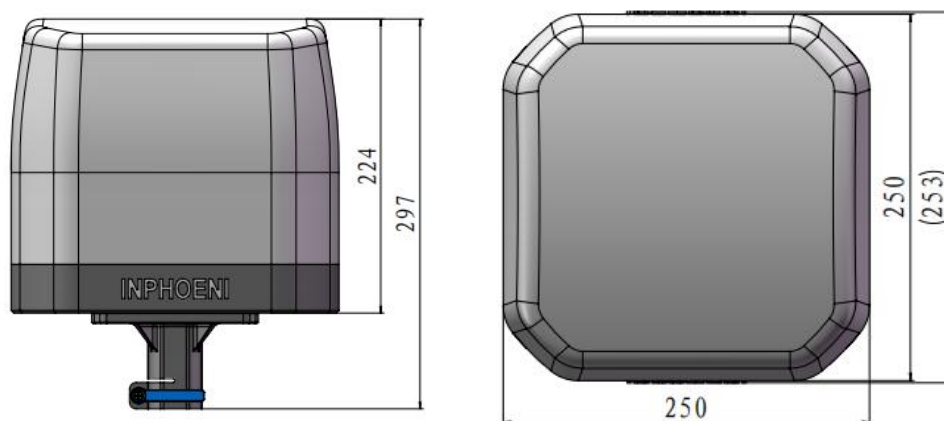
vehicle-mounted, and airborne, eliminating complex installation and configuration.

3. External interface



No.	Items	Label	Function
1.	Main unit	-	Built-in receiving antenna, computing unit, and power supply unit, protected by a fiberglass housing
2.	Mounting adapter	-	For equipment deployment and installation;
3.	Cooling fan	-	Heat dissipation from the bottom of the device; speed up the cooling of the device;
4.	Ethernet port 2	ETH2	Expand and coordinate with other detection and jamming equipment
5.	Ethernet port 1	ETH1	Command platform access interface
6.	Power supply port	AC100V-240V	AC100V-240V power supply interface
7.	Power button	ON/OFF	Power on/off button

4. Appearance and Dimensions



Device size: 250mm×250mm×297mm (Length*Width*Height; including fixed adapter)

5. Operation indicators

No.	Items	Indicators
1.	Detection Principle	Passive reception, no active radio signal transmission
2.	Detection Range	70MHz~6GHz
3.	Detection Bands	433MHz, 800MHz, 900MHz, 1.4GHz, 2.4GHz, 5.2GHz, 5.8GHz
4.	Sensitivity	-109dBm (2.4GHz, 5.8GHz)
5.	Detection Distance	0 ~ 5km(test target drone: DJI Mavic 3; environment: good electromagnetic environment, no obvious obstructions)
6.	Instantaneous Bandwidth	60MHz
7.	Detection Angle	Horizontal range: 0°~360°
8.	Positioning Method	Single-station protocol analysis positioning/TDOA multi-station network positioning
9.	Analog Video Transmission	Supports detection of simulated image transmission drones
10.	Power Consumption	≤35W
11.	Weight	≤3.5kg(Including fixing bracket)
12.	Dimensions	250mm×250mm×297mm(L*W*H; including fixed adapter)
13.	Power Supply	AC110V~240V
14.	Operating Temperature	-40℃~60℃
15.	IP Rating	IP66