

ZD-Handheld Drone Locator Specification



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1. Overview

This drone detector is a new generation handheld drone detection and positioning device, enhancing the FPV drone detection capability. It can effectively detect low-frequency racing drones and decode their first-person flight perspective images.

This product integrates drone spectrum detection, protocol analysis, RID identification, and other regulatory functions into one unit, with a portable single-unit weight of approximately 650g. It can achieve real-time detection and early warning for the 900 series drones, accurately locating and tracking common drones and their operators (remote controllers). The design is compact and lightweight, easy to carry, with long battery life, and can be used in various low-altitude security operations.

2. Components

The hardware (accessories) of this product is composed as shown in the following table:

No.	Name	Quantity	Unit	Notes
1	Detection host	1	piece	
2	Low frequency antenna	1	piece	
3	Full band antenna	1	piece	
4	Power adapter & charging cable	1	piece	
5	Protective box	1	piece	
6	European standard conversion plug	1	piece	

3. Functions

- Drone positioning^[1]:** Locates the drones and shows the results as icons of drones on the e-map.
- Pilot positioning^[2]:** Locates the remote controllers (pilots), and shows the results as icons of the remote controllers on the e-map.
- FPV detection:** capable of detecting and identifying homemade racing drones, real-time analysis of their first-person flight footage.
- Pilot navigation^[4]:** PL2 Pro plans the route for tracking drone controllers with easy operation.
- RID detection^[5]:** PL2 Pro is able to identify DJI drones (with OcuSync protocol), drones with RID, and the unique serial number (SN) of WIFI drones.
- Comprehensive information^[6]:** Realtime display of the drone model, coordinates, velocity, altitude, pilot coordinates and so on.
- Black and white list^[7]:** Once a white list is set, the alarm of PL2 Pro will not be set off if the drone in white list is detected.
- Early warning:** The device will alarm by beeping or vibrating when detects the drone.
- Trajectory playback:** Assists security personnel to analyze historical drone flight data.
- History records:** The detection results will be saved for review, including SN, model, frequency band, etc.

11) Multiple languages: Supports English, Chinese, Russian, and Portuguese.

Notes

[1]-[7]: Only applies to DJI series with OcuSync protocols.

[5]: GB 42590-2023, ASTM F3411 Remote ID, ASD-STAN prEN 4709-002

4. Features

- 1) Racing drone detection:** Newly upgraded low-frequency FPV detection capability, which can cover the frequency bands of most homemade racing drones.
- 2) Image demodulation:** Real-time parsing of the first-person view (FPV) flight footage of FPV drones, with clearer image demodulation.
- 3) Portable and easy to use:** When detecting and positioning common drones such as DJI and Autel, this device can operate normally without an external antenna, making it more portable and user-friendly.
- 4) Comprehensive regulatory coverage:** Capable of detecting over 900 types of drones, including DJI (including O4), Autel, Feimi, etc.
- 5) Networking and interconnection:** Can be connected to the low-altitude management platform to realize multi-device linkage and intelligent unified dispatching management of security zones.
- 6) Mobile and portable:** The device weighs only ~658g, is portable for individual soldiers, and can be used immediately after being turned on.

5. Parameter

5.1 Performance Index

No.	Indicator	Parameter	Notes
1	Frequency range	100MHz~6GHz	
2	Detection radius	1~2km (urban environment) 2~3km (open environment)	
3	Response time	3 ~ 5s	
4	Targeting range	1~2km (urban environment) 2~3km (open environment)	
5	Detection quantity	≥10	

5.2 Mechanical Parameters

No.	Indicator	Parameter	Notes
1	Dimensions	185mm*80mm*33mm	
2	Weight	(658±10)g	With an antenna
3	Packing box size	L*W*H: (335*260*130mm) ±5mm	
4	Packing box weight (full)	2.5kg	

5.3 Electrical Characteristics

No.	Indicator	Parameter	Notes
1	Battery capacity	8000mAh	Built-in lithium battery
2	Operating time	~4h	When Screen brightness is 20%, temperature is 25℃
3	Charging duration	~2.5 h	With the original charger

5.4 Environmental Adaptability

No.	Indicator	Parameter	Notes
1	Operating temperature	-35~50℃	
2	Storage temperature	-40~40℃	

5.5 Touch Screen

No.	Indicator	Parameter	Notes
1	Screen size	6-inch	
2	Screen resolution	2160*1080 pixels	

5.6 System Storage

No.	Indicator	Parameter	Notes
1	Memory	8GB	
2	Storage	256GB	

5.7 Operating Environment

No.	Indicator	Parameter	Notes
1	Operating system	Android 12	
2	Network environment	Online / Offline	