

# TTSKC01 Portable Drone Detector

## I. Overview

TTSKC01 drone detector is a portable drone monitoring platform, used for detection, identification, location and tracking of drones and pilots.

TTSKC01 is suitable for drone monitoring in scenarios such as major events, daily security patrol, VIP secret service, critical infrastructure etc. It works offline or online, with option to connect multiple devices to cover large area. It is highly portable, easy to carry and use, ready to deploy in seconds.

## II. Product composition



Figure 1 TTSKC01 portable drone detector

## Product composition:

#	Components	Quantity	Unit
1	TTSKC01 device	1	pcs
2	Removable battery	2	pcs
3	Power adapter	1	pcs

## III. Functions

- 1、 **Drone detection and identification:** TTSKC01 detects and identifies various name brand drones such as DJI and AUTEL, as well as WiFi drones, FPVs, some DIY drones;
- 2、 **Trajectory tracking and display:** The real-time flight trajectory of the tracked drones can be displayed on the GIS map;
- 3、 **Pilot position display:** The position of the pilot (remote controller) can be tracked and displayed, and the location information can be updated in real time;
- 4、 **Drone detailed information monitoring:** The detailed information of drones and pilots can be displayed in real time, including: drone ID, frequency, latitude and longitude, model, altitude, height, pilot latitude and longitude, distance between the device and the pilot (or the distance between the drone and the reference point) and other information;
- 5、 **Sole identity:** For each drone, TTSKC01 can identify its unique S/N number;
- 6、 **Black and white list:** Distinguish between “friend” and “foe”, TTSKC01 will not alarm when a “friend” drone is detected, a “friend” or “foe” can be tagged (only support DJI series drones);
- 7、 **Intrusion alarm:** When the device detects a drone intrusion, an audible and/or visual alarm is performed;
- 8、 **Map operation:** Support online map and local map;
- 9、 **Map types:** Support a variety of digital maps, including AutoNavi, Bing, Baidu, Google, etc.;
- 10、 **Historic data playback:** Record and playback of historic drone trajectories, model, pilot location and home point and other information;
- 11、 **Data record query:** User can query the historic data of the drones detected according to the time period;

12、 **Data statistics:** Historical drone detection data statistics and graphical analysis;

13、 **Drone swarm tracking:** Multiple drones can be tracked at the same time and different drone trajectories are displayed with different colors;

14、 **Multi-device networking:** Multiple devices can access the back-end management platform at the same time for unified device management and data management, and can merge the detection results of multiple devices (including drones, pilots, and trajectories).

**Note:** Function 1,2,3,4,5,6 only apply to DJI Mavic, Air, Mini, FPV, Avata series.

## IV. Product features

- 1) Portable design, suitcase style, easy to carry and move;
- 2) Passive detection, no signal emission, environmentally friendly;
- 3) Real-time monitoring of drone signals in the surroundings to provide warning of drone intrusion in advance;
- 4) Dual-power supply design, can be powered by batteries or external source, which can adapt to a variety of scenarios;
- 5) Detachable battery allows for quick replacement;
- 6) Interfaces for external keyboard and mouse;
- 7) Online or offline upgrades;
- 8) Works offline or online;
- 9) Touch screen for easy operation;
- 10) Quick deployment, ready to use in seconds;
- 11) Self-diagnosis for quick troubleshooting;
- 12) Cabinet for antenna storage when the device is off duty.

## V. Specifications

### 4.1 Performance

#	Index	Parameter	Remark
1	Drone model that can be detected	DJI、AUTEL、FIMI、DAHUA、PowerVision、YUNEEC、UDIRC and other common brands of drones and some self-made FPVs and WiFi drones	
2	Drone model that can be located	DJI Mavic、Air、Mini、FPV、Avata series	
3	Frequency	900M、1.2G、2.4G、5.2G、5.8GHz	
4	Range	1~10km radius	Varies due to environment and drone model
6	Altitude	0m~1000m	
7	Drone swarm detection	≥5 drones	
8	Detection result refresh time	4~6s	Varies due to environment and drone model
9	Azimuth error	≤1.5° (RMS)	
10	Location error	≤10m	
11	Ready to use	≤120s	

## 4.2 Mechanics

1	Weight	≤20kg	Adaptor excluded
2	Size	(520mm*415mm*224mm)±2mm	Case closed

## 4.3 Electronics

1	Power consumption	≤100W	
2	External supply voltage	100 ~ 220V AC	
3	Battery run time	≥4h	Dual batteries

## 4.4 Environment adaptability

1	Operating temperature	-20~65℃	
2	Storage temperature	-40~70℃	
3	Waterproof	IP65	Case closed

## 4.5 Screen

1	Screen size	10.1 inches	
2	Resolution	1080P	1920*1200

# VI. Safety standards

## 6.1 Electromagnetic compatibility

The device meets the following EMC standards:

GB/T 17626.2-2018 *Electromagnetic compatibility test and measurement*

*technology - Electrostatic discharge immunity test;*

*GB/T 17626.3-2006 Electromagnetic compatibility test and measurement technology - Radio frequency electromagnetic field radiation immunity test;*

*GB/T 17626.4-2018 Electromagnetic compatibility test and measurement technology - Electrical fast transient burst immunity test;*

*GB/T 17626.5-2019 Electromagnetic compatibility test and measurement technology - surge (shock) immunity test;*

*GB/T 17626.6-2017 Electromagnetic Compatibility test and measurement technology - Conducted Disturbance Immunity Test for Radio Frequency Field Induction;*

*GB/T 17626.11-2008 Electromagnetic Compatibility test and measurement technology - Immunity Tests for Voltage Sags, Short Interruptions and Voltage Changes;*

All the above tests are carried out at Severity Level 3.

## **6.2 Electric safety**

The equipment meets the following electric safety-related standards:

*GB 16796-2009 Safety Prevention Alarm Equipment - Safety Requirements and Experimental Methods.*

## **6.3 Environment security**

The electric field strength of the electromagnetic environment meets the requirements of the public exposure control limit in the GB 8702-2014 standard.