

Suitcase decoy device

1. Product Introduction

The UAV navigation decoy device is developed in response to various security threats brought by the "black flight" UAV. By launching strong satellite signals with false location information, it competes with the signals of satellites in orbit to invade the "black flight" UAV navigation system, so as to intercept and control the UAV that needs the navigation system to fly, so that it cannot fly into the protected area. Secure the area at low altitude.



2. Functional features

The device can locate and trap the UAV that relies on the Beidou /GPS/Glonass/Galileo satellite navigation system for positioning, and achieve the goal of forcing the UAV to land, drive away, and lure it to the designated position and unable to take off in the defense area by means of no-fly zone location setting.

- (1) With all-round, all-weather, long-distance UAV automatic defense function;
- (2) With UAV no-fly projection (forced landing) function, drive away, directional drive away;
- (3) It has the function of defending drone swarms;
- (4) Civil UAVs with navigation mode are effective;
- (5) With the user input decoy location, the system calculates and transmits the corresponding GPS/GLONASS/ Beidou Galileo signal function;
- (6) Can be launched to make the UAV circular motion, linear motion and other trajectories of decoy signals;
- (7) Integrated satellite receiver, synchronizing with the time of the orbiting satellite, and automatically shielding the same frequency interference;
- (8) With self-test and status output function, fault automatically reported charging system;
- (9) Adjustable output power, equipped with adaptive power amplifier module, can be adjusted according to the action distance;
- (10) Parameters, function control support interface protocol docking, support system integration and secondary development;
- (11) The equipment can be used in conjunction with the UAV spectrum detection system, radar detection system and photoelectric tracking and identification system to achieve automatic detection and early warning, tracking, identification, positioning and automatic defense integration 24-hour unattended defense situation.

3. Technical parameter

No.	Item	Parameter
1	Operating frequency	GPS L1CA(1575.42MHz),BDS B1I(1561.098MHz) , GLONASS G1(1602MHz),GALILEO E1(1575.42MHz)
2	Navigation spoofing	Uav no-fly projection (forced landing), directional drive away, UAV navigation interference, UAV defense function
3	Defensive radius	≥500m (10dBm) can be customized
4	Decoy intervention time	<10 seconds
5	Effective deception Angle	Horizontal: 360° Vertical: ±90°
6	Deception quantity	Infinite
7	Signal transmitting power	≤20W(adjustable)
8	Duration of launch	≥24h
9	Power dissipation	≤120W
10	weight	≤15 kg
11	Shell protection	IP65
12	Working temperature	- 40 °C ~ + 55 °C

4. Interface and definition

(1) Power interface

Power Supply Internal 12V battery power supply.

(2) Communication interface

Socket model: Network /UDP protocol

Standard RJ45.

(3) RF interface

Type N, connector N/SMA-KKF, defines GNSS input and GNSS output.

5. Shipping list

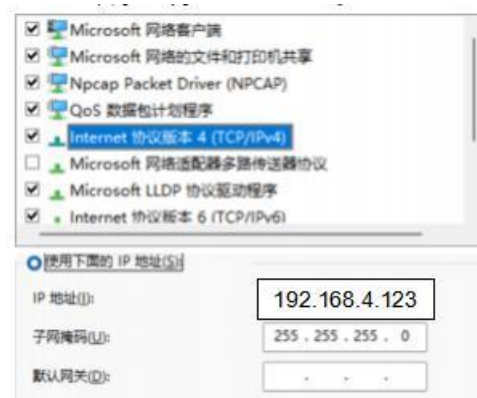
No.	Name	Quantities	Note
1	Navigation traps the host	1	
2	GNSS receiving antenna	1	
3	GNSS transmitting antenna	1	
4	Connect cables	1	One network cable
5	specification	1	Electronic vrsion by default

6. Upper computer operation

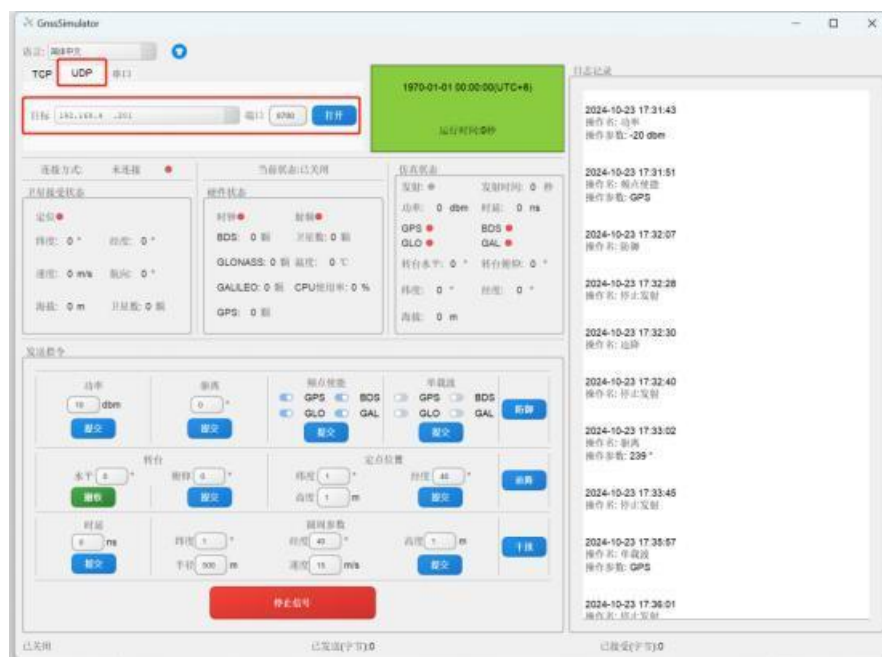
Open the software

Configure an IPV4 network segment for the PC

The IP address of the device is 192.168.4.201.



Open the host computer, select UDP protocol by default, enter IP: 192.168.4.201, and click "Open".



After the connection is successful, the IP address of the device is displayed next to Connection Mode



Wait about 30 seconds and check Satellite Receiving Status. The device will display the receiving status.



Wait about 3 minutes and check Hardware Status. The clock will finish taming and the indicator will turn green. The interface displays the number of satellites at each frequency and the total number of satellites.



Decoy the launch process

As shown below: First set "Power" in red box No. 1 and click Submit; Enable the frequency dot in the red box of device 2 and click "Submit"; Finally, select the 4 decoy strategies in the red box No. 3 and click "Submit" to complete the decoy signal transmission.

发送指令

功率 -10 dbm 提交	驱离 0 ° 提交	频点使能 ☒ GPS ☒ BDS ☒ GLO ☒ GAL 提交	单载波 ☐ GPS ☐ BDS ☐ GLO ☐ GAL 提交	防御 迫降 干扰
1 水平 0 ° 接收	3 俯仰 0 ° 提交	2 定点位置 纬度 1 ° 高度 1 m 提交	3 经度 40 ° 提交	
时延 0 ns 提交	圆周参数 纬度 1 ° 半径 500 m 经度 40 ° 速度 15 m/s 高度 1 m 提交			

(1) Drive away: 0° is due north direction, 90° is due east direction, 180° is due south direction, 270° is due west direction, according to different deception methods, set the drive away direction of the impassable.

(2) Defense: Take the current positioning position as the center of the circle, the radius of 30m, and draw a circle at the speed of 12.5m/s.

(3) Forced landing: give the drone a location of the airport closest to its current position, and within the effective range, let the drone enter the no-fly area for landing.

(4) Interference: in the corresponding frequency band, pull up the bottom noise, so that the UAV can not receive the satellite navigation signal normally.