8-Band Backpack-style Drone Signal Control Device

Model No: M02

1. Product Characteristics

(1) Using UHF broadband seamless signal control technology;
(2) Single switch control output, with battery power display;
(3) The higher the effective power (channel power), the greater the interference distance;
(4) Effective segmentation, only affect drone control and video transmission frequencies, will not affect other frequencies;
(5) Imported devices. The design of the slow start circuit can avoid the ignition phenomenon caused by the mechanical switch, and the integration is high and the work is stable;
(6) With built-in battery, battery life is about 1 hour, charging for 6 hours;
(7) Use 8 SMA/N type of directional antenna interface (400M / 500M / 900M / 1.2G / 1.5G / 2.4G / 5.2G / 5.8G)
(8) One power charging interface (DC28V IN)



2. Product Parameters

Frequency (Customizable)	Working Frequency	dBm	Output Power

433MHz	400-470MHz	47dBm	50W
500MHz	480-525MHz	47dBm	50W
900MHz	850-940MHz	47dBm	50W
1.2GHz	1160-1280MHz	47dBm	50W
1.5GHz	1550-1620MHz	47dBm	50W
2.4HGz	2380-2500MHz	45dBm	30W
5.2GHz	5150-5350MHz	47dBm	50W
5.8GHz	5700-6000MHz	45dBm	30W
Power Supply: AC220V-DC24V Omnidirectional authorized response range: 500-1500 meters			
Power Consumption: 360W Weight: 16kgs Size: 370×240×510mm			

3. Product Operation Instruction

1) Precautions

(1) Before using the device, please connect the antenna and tighten it accordingly.
(2) Please connect the handle one by one. After connecting the handle, the battery power on the handle displays the number of batteries inside the device, and the device can be charged at any time.
(3) When the device is in use, enable the fan heat dissipation system.
(4) This type of device is configured with both 28V DC and 220V AC. Please check and verify carefully before use.
(5) Avoid misconnection, burning module, etc.

2) Use Process

(1) Guided landing of DJI drones: Please open 1.5G, 2.4G, 5.8G;
(2) Guided returning DJI drones: Please open 2.4G, 5.8G;
(3) Guided landing of lane passing drones: Please open 1.5G, 2.4G, 5.2G, 5.8G;
(4) Guided returning the passageway UAV: Please open 2.4G, 5.2G, 5.8G;
(5) 400M remote control is the remote control frequency band of homemade drones, TV remote control, car keys, children's toys like flying machines and so on;
(6) 900M remote control is a commonly used remote control frequency band for industrial drones, Police level, customized drones, large class drones, etc.

(7) 1.2G is China's self-developed positioning signal awareness system, which will also be used in the UAV industry in the future, as the second positioning system of 1.5G (positioning signal awareness), which is currently in the published data and will be used in the future.

Note: Whether the device is in use or not, please charge the device once every half month to ensure the performance of the battery.

According to the test standards of the Ministry of Public Security and depending on the actual situation, the distance between the drone and the remote control is 100 meters, and the authorized response distance is about 1,000 meters.

Wireless communication must ensure sufficient carrier-to-dry ratio (signal-to-noise ratio) in order to effectively receive and complete communication. The communication signal control device is to disrupt the receiving conditions of the UAV by generating signal control signals with the same frequency as the UAV, and cut off the communication connection between the UAV and the remote control transmission. To achieve the effect of interference signal control.

The signal control power is certain, and the protection radius of the unblocked space is determined by the path attenuation and the control remote transmission signal level.The following table gives a comparison of distance and path attenuation. Then the coverage radius can be determined by the output channel power, remote control signal level and coverage line gain of the signal control device. As follows:

Pch+Gat-L-FAF≥Prx

Pch :	Minimum channel power output of the jammer
Gat :	Antenna gain
L :	Path attenuation
FAF :	Path loss added value, take 6-8dB
Prx :	Received signal strength

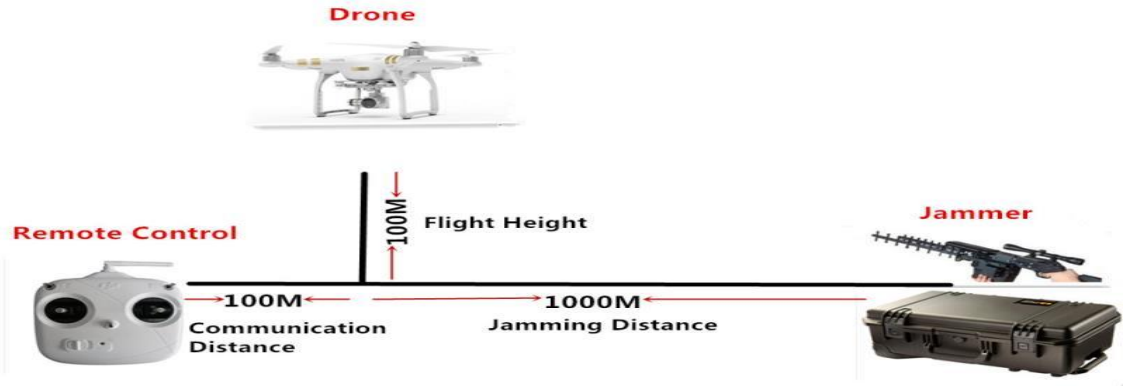
Distance And Attenuation Comparison Table

L=32+ 20logd +20logf+ FAF

Distance（m）	900MHz attenuation（dB）	1575MHz attenuation（dB）	Distance（m）	2400MHz attenuation（dB）	5800MHz attenuation（dB）
1	38	44	25	66	72
2	44	50	30	67.5	73.5
3	48	54	35	69	75
4	50	56	40	70	76

5	52	58	45	71	77
6	53.5	59.5	50	72	78
7	55	61	60	73.5	79.5
8	56	62	70	75	81
9	57	63	80	76	82
10	58	64	90	77	83
15	61.5	67.5	100	78	84
20	64	70	200	84	90

Use the antenna to correspond to the center of the protection area, as shown below:



(1) The antenna must be connected before switching on the power supply. Do not remove the antenna when the host is working.
(2) Drone signal control equipment should be placed in a place with good ventilation, and try to avoid the occlusion of large objects to ensure the protection effect.
(3) When using the protection device outdoors, pay attention to waterproof and avoid exposure to the sun.
(4) The antenna should be used in a vertical direction towards the drone.

4. FAQ

Q1: Is drone authorized response equipment harmful to human body and mobile phone?

A: Please rest assured that the intensity of the emitted electromagnetic signal is very weak, and the test data show that the signal strength is far away

It poses no danger to human body. At the same time, only the signal control of the forward signal, so that the UAV can not establish contact with the operating remote control, therefore, there will be no damage to the UAV itself.

Q2: Is there a difference in distance between indoor and outdoor use of drone

authorized response equipment?

A: Yes, generally speaking, outdoor signals use outdoor, so the indoor interference effect is poor. Strictly speaking: whether it is used indoors or outdoors; The effective working distance of the UAV signal control device has a certain relationship with the electromagnetic environment and the surrounding environment. Such as distance, location, etc.

Q3: The case of the UAV authorized response equipment heats up after working for a period of time. Will it damage the machine if working for a long time?

A: This is a normal phenomenon. In design, we use the thermal conductivity of the all-aluminum housing to assist in heat dissipation. Thus, the machine can be guaranteed to work stably for a long time. Therefore, the case heating will not damage the machine.