

Integrated Design Miniaturized High-Power Microwave Anti-Drone Security System with Early Warning Detection Tracking Identification Jamming Strike Functions

Our Product Introduction

Basic Information

- Place of Origin: China
- Brand Name: MYT
- Certification: CNAS、CMA、CAL、ILAC-MRA
- Model Number: DT-11
- Minimum Order Quantity: 1
- Price: Pricing is negotiable based on order quantity
- Delivery Time: 10 work days
- Payment Terms: TT,LC
- Supply Ability: 1000units per month



Product Specification

- Target Detection Range: $\geq 5\text{km}$ ($\text{RCS} \geq 0.01 \text{ M}^2$)
- Target Tracking Distance: $\geq 2\text{km}$ (with Visibility $\geq 20 \text{ Km}$)
- Interception Distance: $\geq 600\text{m}$ (microwave); $\geq 2\text{km}$ (interference)
- Interception Range: $360^\circ \times 85^\circ$ (azimuth \times Elevation)
- System Response Time: $\leq 6\text{s}$ (from Receiving The Command To The Microwave Emission Time)
- Continuous Strike Capability: 20 Pulses Per Second, Capable Of Continuous Operation
- Highlight: **miniaturized anti-drone jammer system, high-power microwave anti-drone security, early warning drone detection system**



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Product Description

Miniature High Power Microwave Anti-Drone Security System

1, Product overview

The High-Power Microwave Anti-Drone Security System is a state-of-the-art technology that utilizes high-intensity microwave radiation to neutralize or disable targets. Purpose-built for critical infrastructure protection, it effectively counters low-altitude intrusions by light/micro drones, reconnaissance aircraft, cruise missiles, fiber-optic drones, and drone swarms. This system meets the security requirements for high-stakes locations including political/military facilities, airports, ports, large dams, nuclear power plants, and public venues.



2, Product Technical Specifications

Parameter Type	Specifications
Target Detection Range	$\geq 5\text{km}$ (RCS $\geq 0.01 \text{ m}^2$)
Target Tracking Distance	$\geq 2\text{km}$ (with visibility $\geq 20 \text{ km}$)

Interception Distance	≥600m (microwave); ≥2km (interference)
Interception Range	360°×85° (azimuth × elevation)
System Response Time	≤6s (from receiving the command to the microwave emission time)
Continuous Strike Capability	20 pulses per second, capable of continuous operation

3, System Composition

The high - power microwave anti - drone security system showcases an innovative integrated design that seamlessly combines three crucial aspects: early warning detection, tracking identification, and jamming countermeasures. This sophisticated system is built upon three key components. Firstly, there is a high - precision search radar, which is specifically engineered to detect low - altitude, slow - moving, and small targets with great accuracy. These types of targets are often difficult to spot, but the high - precision search radar's capabilities make it a vital part of the system.

Secondly, the system is equipped with infrared electro - optical sensors and radio frequency detection systems. These components are remarkable as they can perform all - weather tracking. Whether it's day or night, in clear skies or adverse weather conditions, they can identify drone links across the full frequency bands. This comprehensive frequency - band coverage ensures that no drone can go undetected, regardless of the frequency it operates on.

The third key component consists of two countermeasure systems: radio jamming and high - power microwave. These countermeasures are the system's means of neutralizing detected drones. The radio jamming can disrupt the communication links of drones, while the high - power microwave can physically damage or disable them.

The system functions through networked interaction with command centers. This connection allows for seamless information transfer and coordination. Its modular architecture is another highlight. It provides intuitive target status displays, enabling operators to quickly understand the situation of detected drones. Additionally, the system incorporates AI - assisted decision - making, which significantly enhances its automation and intelligence levels. As a result, the system is capable of fully autonomous operation, reducing the need for extensive human intervention.

The system is made up of multiple subsystems. The high - power microwave subsystem contains elements such as the microwave source, antenna feeder, and sealing window. The microwave source is the heart of this subsystem, generating the high - power microwaves. The antenna feeder is responsible for guiding the microwaves to the desired direction, and the sealing window helps protect the internal components from external elements.

The servo tracking subsystem includes infrared tracking mechanisms, as well as azimuth and pitch turntables. The infrared tracking can accurately follow the heat signature of drones, while the turntables enable precise positioning to keep the system focused on the target. The radar subsystem, as mentioned earlier, is crucial for early detection. The cooling subsystem ensures that all components operate within the appropriate temperature range, preventing overheating and potential damage. The power subsystem supplies the necessary electrical energy for all components to function. The command subsystem is the brain of the system, coordinating all operations. The chassis subsystem provides the physical support and mobility, and the communication interface enables seamless interaction with other systems.

To achieve its functional and performance indicators while meeting mobility requirements, the system adopts vehicle - mounted integration. Using the vehicle chassis as the carrier, it optimizes the layout of equipment. This optimization not only makes the system more compact but also improves its efficiency. Additionally, noise reduction measures are implemented to ensure a quieter working environment. Temperature control is carried out to maintain the optimal operating temperature for all components. Electromagnetic protection is also provided to safeguard the system from external electromagnetic interference. All these efforts ensure that the system can be operated conveniently, comfortably, and safely. The system design schematic is presented in Figure 1, Figure 2, and Figure 3, which visually illustrate the relationships and functions of different components within the system.

4, After-Sales service

- 1) We offer 24 hours service after sales
- 2) If there are any usage or quality issues with the product, we provide online technical support to diagnose the cause of the problem.
- 3) Should you find the products unsatisfactory, kindly return it to us within a period of 3 months from the date of dispatch. Upon receipt and inspection, should the products be found to be free from any damage attributable to human factors, a full refund will be granted. Alternatively, we can engage in discussions to amend the product and subsequently reship the product to you.
- 4) This PI is applicable to the DDP shipping agreement.

5, Application Scenarios



6, Certification Certificate



7, Company profile

Chongqing Miao Yitang Technology Co., Ltd. is a specialized company engaged in anti-drone and unmanned intelligent defense management. With the technical support from the AI Internet of Things Research Institute of the Chinese Academy of Sciences and collaborations with multiple intelligent AI companies, the company has established research laboratories for AI unmanned field products, accumulating a variety of technical patents.

The company's products are widely applied to unmanned automatic management solutions for various defense and perimeter areas, including AI anti-drone systems and AI unmanned vehicle patrol systems. These systems integrate with multiple technologies such as optoelectronics, radar, vibration, thermal imaging, facial recognition, and radio frequency management, truly achieving a 24-hour uninterrupted anti-drone defense and ground perimeter defense warning system. This allows for cost savings for clients, reduction in human resource allocation, and

ensures the safety of clients' lives and property. The outstanding security system has won the company an excellent reputation and created higher value for its partners.



8, Customer Service

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CUSTOMER SERVICE

- * Fast and patient communication: professional sales reply immediately
- * Fast delivery: usually 2-7 days
- * Flexible Safe shipping: fast by air or sea with cheap freight
- * Customer-friendly: complete user manual and exact video training provided
- * After sales service: one year warranty and life time technical support



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