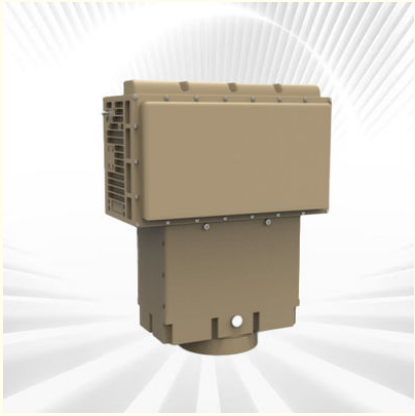
The Cutting-Edge Anti UAV Radar for Low False Alarm Rates and Accurate Target Detection in All-Weather Conditions

Our Product Introduction

Basic Information

- Place of Origin: China
- Brand Name: MYT
- Certification: CNAS、CMA、CAL、ILAC-MRA
- Model Number: DD-R33
- Minimum Order Quantity: 1
- Price: Pricing is negotiable based on order quantity
- Delivery Time: 10 work days
- Payment Terms: L/C,T/T
- Supply Ability: 1000units per month



Product Specification

- TAS Tracking Target Count:≥6
- Minimum Detection Altitude:≤10m
- Velocity Range: 1m/s~100m/s
- Resolution Ratio: Distance: ≤15m, Azimuth: ≤6°, Elevation: ≤12°
- Operating Temperature Range: -40 +60
- Size: ≤405mm*316mm*160mm
- Power Dissipation: ≤200W
- Supply Electricity: AC220V/DC24V
- Levels Of Protection: IP66
- Joggle: RJ45 Network Port
- Highlight: **Anti UAV radar with low false alarm**, **All-weather anti UAV radar**, **Accurate target detection radar**

Product Description

The DD-R33 medium-range X-band phased array radar

1, Product Overview

The DD-R33 medium-range X-band phased array radar is configured with a fully solid-state, fully coherent, and pulse Doppler system. This empowers it to perform all-weather detection and early warning of "low, small, slow" targets. Through the utilization of machine learning and AI-based trajectory feature recognition, the system is capable of accurately detecting and classifying a diverse range of targets, including drones, light aircraft, helicopters, powered triplanes, airships, and airborne balloons, all the while maintaining an extremely low false alarm rate.

2, Function

The product makes use of cutting - edge machine learning technology. This advanced technology endows the product with the remarkable ability to acclimate to the complex and ever - changing battlefield environments. Once installed, it can be directly deployed into use without the necessity of any parameter adjustment. This not only saves time but also enhances the product's usability in urgent situations.

The system is equipped with powerful detection capabilities. It has an extremely low false alarm rate, which is crucial in real - world applications. This allows it to effectively detect the often - evasive maneuvering flight of unmanned aerial vehicles. To guarantee reliable operation around the clock and in all weather conditions, the product comes with a specifically designed cloud and rain noise suppression functionality. This feature enables the system to operate continuously, whether it is raining, foggy, or in other adverse weather scenarios.

Regarding scanning modes, the system offers two distinct directional scanning methods. The first is the combination of "one - dimensional mechanical scanning + one - dimensional phase scanning", and the second is "two - dimensional phase scanning". With these two methods, the system can achieve comprehensive 360° airspace detection, covering a vast area. At the same time, it can also conduct precise monitoring of key areas. Moreover, users can switch flexibly between these two modes without having to make any changes to the software, providing great convenience for different operational requirements.

The product also integrates mechanical scanning tracking and phase scanning TAS (Track - While - Scan) tracking functions. This integration ensures that the system can continuously and stably track targets, regardless of their movement patterns or speeds.

The AI recognition technology based on "track features" is another highlight of this system. It enables the system to accurately classify and identify multiple target types. These include drones, which are commonly used in modern warfare and surveillance; birds, which might interfere with the detection; personnel, who could be potential threats or subjects of interest; and vehicles, whether they are military or civilian.

The built - in automatic positioning and calibration module further simplifies the operation process. It can automatically implement equipment leveling and north calibration functions. This means that users do not need to manually perform these complex and time - consuming operations.

In addition, the system provides flexible setting functions for distance and elevation scanning ranges. This allows users to customize the system according to their actual needs, whether it is for long - range detection, high - altitude monitoring, or specific area - of - interest scanning.

3, qualification

order number	parameter	metric
1	frequency range	X frequency range
2	detection range	≥ 3Km(RCS:0.01m^2, unmanned aerial vehicle) ≥ 6Km(RCS:0.3 m^2, unmanned aerial vehicle)
3	fade zone	≤100m
4	work pattern	Supports machine scanning and 2D phase scanning
5	hunting zone	Scan: Angle: 0°~360°, Pitch: 0°~80° (configure according to task requirements)
		Sweep: Azimuth: -45° to 45°, elevation: 0° to 80° (configure according to mission requirements)
6	trace function	Machine scanning tracking function / phase scanning TAS function
7	TAS tracking target count	≥6
8	Minimum detection altitude	≤10m
9	velocity range	1m/s~100m/s
10	Target update rate	Scan duration ≤3.5 seconds per phase, with a pitch coverage of 30° and a range of 5 km.
11	resolution ratio	Distance: ≤15m, azimuth: ≤6°, elevation: ≤12°
12	Search precision (RMS)	Distance: ≤10m, azimuth: ≤0.4°, elevation: ≤1°
13	Tracking accuracy (RMS)	Distance: ≤10m, azimuth: ≤0.4°, elevation: ≤0.6°
14	joggle	RJ45 network port
15	target capacity	≥500 batches
16	weight	≤16kg (front panel: ≤9kg, turntable: ≤12kg)

17	supply electricity	AC220V/DC24V
18	power dissipation	≤200W
19	size	≤405mm*316mm*160mm
20	operating temperature range	-40 +60
21	levels of protection	IP66

4, Application Scenarios

5, Certification Certificate

6, 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.

7, Customer 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.

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