

High-Performance Anti UAV Radar X-band Short-Range Quad-Cell Radar With Built-In Data Recording And Storage Functionality

Our Product Introduction

Basic Information

- Place of Origin: China
- Brand Name: MYT
- Certification: CNAS、CMA、CAL、ILAC-MRA
- Model Number: DD-R36
- 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: ≥ 24
- Minimum Detection Altitude: $\leq 10\text{m}$
- Velocity Range: $1\text{m/s} \sim 100\text{m/s}$
- Resolution Ratio: Distance: $\leq 15\text{m}$, Azimuth: $\leq 12^\circ$, Elevation: $\leq 12^\circ$
- Operating Temperature Range: $-40 \sim +60$
- Size: $\leq 720\text{mm} \times 720\text{mm} \times 230\text{mm}$
- Power Dissipation: $\leq 500\text{W}$
- Supply Electricity: AC220V/DC24V
- Levels Of Protection: IP66
- Joggle: RJ45 Network Port
- Highlight: X-band anti UAV radar, short-range quad-cell radar, anti UAV radar with data recording

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Product Description

The DD-R36 X-band short-range quad-cell radar

1, Product Overview

The DD-R36 X-band short-range quad-cell radar is outfitted with a fully solid-state, fully coherent, and pulse Doppler system. This configuration facilitates all-weather detection and early warning of "low, small, slow" targets. By making use of machine learning and AI recognition technologies founded on "micro-Doppler signatures" and "flight path features," the system attains ultra-low false alarm rates. Concurrently, it efficiently detects and classifies a diverse range of targets, including drones, light aircraft, helicopters, powered triplanes, airships, and airborne balloons.

2, Function

The product comes with an extensive array of target monitoring and analysis capabilities. It empowers users to conduct target positioning, display target trajectories, and utilize the playback functions right on the map. Simultaneously, it presents crucial parameters in real - time. These parameters include the target distance, which precisely indicates how far the target is from the monitoring device; the azimuth, specifying the horizontal direction of the target; the elevation, denoting the vertical angle of the target; and the speed, revealing how fast the target is moving.

Integrated within the system is the built - in data recording and storage functionality. This feature can comprehensively save all the target trajectory data, which details the movement path of the target over time, as well as the radar status information, such as the radar's operating mode and signal strength. This comprehensive data saving is crucial as it supports subsequent data playback for in - depth analysis and query operations, enabling users to retrieve specific data points or time - series data as needed.

By harnessing AI recognition technology based on "micro - Doppler features" and "track features," the product showcases powerful target classification and identification capabilities. It can accurately distinguish various target types. For instance, it can precisely identify drones, which are becoming increasingly common in various scenarios; birds, often an important factor in environmental and airspace monitoring; people, relevant for security and surveillance applications; and vehicles, whether on land, sea, or in the air.

The system also integrates advanced machine learning technology. This enables the system to autonomously adapt to the current environment. It can start operating directly without the need for users to manually adjust parameters. This self - adapting feature significantly simplifies the operation process and allows the system to perform optimally in different environmental conditions.

To ensure reliable all - weather operation, the product is equipped with cloud and rain noise suppression capabilities. These capabilities are designed to effectively eliminate interference under adverse weather conditions, such as heavy clouds or rain, which could otherwise disrupt the monitoring and analysis processes.

The software interface of the product offers a wide range of flexible parameter configuration options. Users can adjust settings according to their specific requirements. For example, they can modify the elevation coverage to determine the vertical range of the monitoring area, adjust the target update rate to control how frequently new target information is received, and set the monitoring range to define the maximum distance at which the system can detect targets.

Moreover, the product is equipped with automatic compensation functions for independent positioning, orientation, elevation, and roll angles. These functions play a vital role in ensuring measurement accuracy. Even in situations where external factors might cause slight changes in the device's position or orientation, the automatic compensation functions can adjust the data to maintain accurate measurements.

During system operation, users can fully monitor the equipment's working conditions through the real - time status monitoring functionality. This allows them to keep a close eye on various aspects of the system, such as power consumption, signal strength, and the status of different components. By doing so, they can ensure the stable and efficient operation of the system, promptly detect any potential issues, and take appropriate measures to address them.



3, qualification

order number	parameter	metric
1	frequency range	X frequency range
2	detection range	$\geq 1.5\text{Km}(\text{RCS}:0.01\text{m}^2, \text{unmanned aerial vehicle})$
3	fade zone	$\leq 80\text{m}$
4	work pattern	2D Phased Array
5	hunting zone	Azimuth: $0^\circ\sim 360^\circ$, elevation: $0^\circ\sim 60^\circ$ (configure according to task requirements)
6	trace function	TAS feature available
7	TAS tracking target count	≥ 24
8	Minimum detection altitude	$\leq 10\text{m}$
9	velocity range	$1\text{m/s}\sim 100\text{m/s}$
10	Target update rate	TWS: $\leq 3\text{s}$ (60° pitch coverage) TAS: $\leq 0.5\text{s}$ (default)
11	resolution ratio	Distance: $\leq 15\text{m}$, azimuth: $\leq 12^\circ$, elevation: $\leq 12^\circ$
12	Search precision (RMS)	Distance: $\leq 10\text{m}$, azimuth: $\leq 1^\circ$, elevation: $\leq 1^\circ$
13	Tracking accuracy (RMS)	Distance: $\leq 10\text{m}$, azimuth: $\leq 0.8^\circ$, pitch: $\leq 0.8^\circ$
14	joggle	RJ45 network port
15	target capacity	≥ 500 batches
16	weight	$\leq 45\text{Kg}$ (net weight of the device, excluding power supply/cable)
17	supply electricity	AC220V/DC24V
18	power dissipation	$\leq 500\text{W}$
19	size	$\leq 720\text{mm}^* 720\text{mm}^* 230\text{mm}$
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.

A graphic titled "CUSTOMER SERVICE" on a clipboard. It lists five service points: fast communication, fast delivery (2-7 days), flexible shipping (air or sea), customer-friendly (manual and training), and after-sales service (one-year warranty and lifetime technical support). Below the text are logos for shipping companies (FedEx, TNT, UPS, DHL) and payment methods (T/T, AMEX, VISA, DISCOVER, WU, Apple Pay, Google Pay, and others). The shipping section includes an illustration of an airplane, a truck, and a ship. The payment section shows a hand holding a smartphone with various payment icons.



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