

The Cutting-Edge Anti UAV Radar With Micro-Doppler Signature And Flight Path Feature Recognition

Our Product Introduction

Basic Information

- Place of Origin: China
- Brand Name: MYT
- Certification: CNAS、CMA、CAL、ILAC-MRA
- Model Number: DD-R25
- 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: $\leq 10\text{m}$
- Velocity Range: $1\text{m/s} \sim 100\text{m/s}$
- Resolution Ratio: Distance: $\leq 15\text{m}$, Azimuth: $\leq 6^\circ$, Elevation: $\leq 6^\circ$
- Operating Temperature Range: $-40 \sim +70$
- Size: $\leq 335\text{mm} \times 318\text{mm} \times 145\text{mm}$
- Power Dissipation: $\leq 600\text{W}$
- Supply Electricity: AC220V/DC24V
- Levels Of Protection: IP66
- Joggle: RJ45 Network Port
- Highlight: Anti UAV radar with micro-Doppler signature,
Anti UAV radar flight path recognition,
Cutting-edge anti UAV radar system

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The DD-R25 medium-range X-band monopolar array radar

1, Product Overview

The DD-R25 medium-range X-band monopolar array radar adopts a fully solid-state, fully coherent, and pulse Doppler system. This enables it to conduct all-weather detection and early warning of "low, small, slow" targets. Leveraging machine learning and AI recognition technologies based on "micro-Doppler signatures" and "flight path features," it effectively detects and classifies various targets, including drones, light aircraft, helicopters, powered triplanes, airships, and airborne balloons, with an extremely low false alarm rate. The radar is equipped with a two-dimensional phase scanning system that can be extended into configurations like "azimuth mechanical scanning + elevation phase scanning" or multi-polar arrays to meet diverse application needs.

2, Function

The product possesses comprehensive target monitoring and analysis capabilities, enabling target positioning, trajectory display, and playback functions on the map while real-time presenting key parameters such as target distance, azimuth, elevation, and speed. The system features built-in data recording and storage functionality, which can completely save target trajectory data and radar status information, supporting subsequent data playback and query operations.

Employing AI recognition technology based on "micro-Doppler features" and "track features," the product has powerful target classification and identification capabilities, accurately recognizing various target types including drones, birds, people, and vehicles. The system integrates advanced machine learning technology, allowing it to autonomously adapt to the current environment and start operation directly without manual parameter adjustment.

To ensure reliable all-weather operation, the product is equipped with cloud and rain noise suppression capabilities, effectively eliminating interference under adverse weather conditions. The software interface provides flexible parameter configuration options, allowing users to adjust settings such as elevation coverage, target update rate, and monitoring range according to their needs. Additionally, the product features automatic compensation functions for independent positioning, orientation, elevation, and roll angles, ensuring measurement accuracy. During system operation, users can fully monitor equipment working conditions through real-time status monitoring functionality, ensuring stable and efficient system operation.

3, qualification

order number	parameter	metric
1	frequency range	X frequency range
2	detection range	$\geq 8\text{Km}(\text{RCS}:0.01\text{m}^2, \text{unmanned aerial vehicle})$ $\geq 15\text{Km}(\text{RCS}:0.3\text{m}^2, \text{unmanned aerial vehicle})$
3	fade zone	$\leq 150\text{m}$
4	work pattern	2D Phased Array
5	hunting zone	Heading: $\pm 45^\circ$, Pitch: $0^\circ \sim 80^\circ$ (set according to the task)
6	trace function	TAS feature available
7	TAS tracking target count	≥ 6
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: $\leq 3.6\text{s}$ (30° pitch coverage, 10km range) TAS: $\leq 0.5\text{s}$ (default)
11	resolution ratio	Distance: $<15\text{m}$, azimuth: $<6^\circ$, elevation: $<6^\circ$
12	Search precision (RMS)	Distance: $\leq 10\text{m}$, azimuth: $\leq 0.5^\circ$, elevation: $\leq 0.5^\circ$
13	Tracking accuracy (RMS)	Distance: $\leq 10\text{m}$, azimuth: $\leq 0.4^\circ$, elevation: $\leq 0.4^\circ$
14	joggle	RJ45 network port
15	target capacity	≥ 500 batches
16	weight	$\leq 15\text{kg}$ (net equipment weight, excluding power supply/cable)
17	supply electricity	AC220V/DC24V
18	power dissipation	$\leq 600\text{W}$
19	size	$\leq 335\text{mm} \times 318\text{mm} \times 145\text{mm}$
20	operating temperature range	$-40 \sim +60$
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, G Pay, and others). The shipping logos are accompanied by an illustration of a cargo ship, a truck, and a plane. The payment logos are accompanied by an illustration of a hand holding a smartphone with various payment icons.



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