

The Next-Generation Anti UAV Radar with Advanced 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-R24
- 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: $\leq 337\text{mm} \times 317\text{mm} \times 135\text{mm}$
- Power Dissipation: $\leq 350\text{W}$
- Supply Electricity: AC220V/DC24V
- Levels Of Protection: IP66
- Joggle: RJ45 Network Port
- Highlight: Anti UAV radar with micro-Doppler signature,
Next-gen UAV radar flight path recognition,
Anti drone radar advanced detection

The DD-R24 medium-range X-band monopolar array radar

1, Product Overview

The DD-R24 medium-range X-band monopolar 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. By harnessing machine learning and AI recognition technologies based on "micro-Doppler signatures" and "flight path features," the radar can effectively detect and classify a variety of targets. These targets encompass drones, light aircraft, helicopters, powered triplanes, airships, and airborne balloons, all with extremely low false alarm rates. The radar is outfitted with a two-dimensional phase scanning system, which can be expanded into configurations such as "azimuth mechanical scanning + elevation phase scanning" or multi-polar arrays, thus fulfilling a broad spectrum of application requirements.

2, Function

The product is equipped with comprehensive target monitoring and analysis capabilities. It enables target positioning, trajectory display, and playback functions on the map. Simultaneously, it presents key parameters in real time, including target distance, azimuth, elevation, and speed. The system incorporates built-in data recording and storage functionality, which can fully save target trajectory data and radar status information, thereby supporting subsequent data playback and query operations.

Utilizing AI recognition technology based on "micro-Doppler features" and "track features," the product demonstrates powerful target classification and identification capabilities. It can accurately recognize various target types, such as drones, birds, people, and vehicles. The system integrates advanced machine learning technology, enabling it to autonomously adapt to the current environment and commence operation directly without the need for manual parameter adjustment.

To guarantee 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 offers flexible parameter configuration options, enabling users to adjust settings, such as elevation coverage, target update rate, and monitoring range, according to their requirements. Moreover, the product features automatic compensation functions for independent positioning, orientation, elevation, and roll angles, ensuring measurement accuracy. During system operation, users can comprehensively monitor the equipment's working conditions through the real-time status monitoring functionality, ensuring the stable and efficient operation of the system.

3, qualification

order number	parameter	metric
1	frequency range	X frequency range
2	detection range	$\geq 5\text{Km}(\text{RCS}:0.01\text{m}^2, \text{unmanned aerial vehicle})$ $\geq 10\text{Km}(\text{RCS}:0.3\text{m}^2, \text{unmanned aerial vehicle})$
3	fade zone	$\leq 150\text{m}$
4	work pattern	2D Phased Array
5	hunting zone	Heading: $\pm 45^\circ$, Pitch: $0^\circ \sim 80^\circ$ (configurable according to mission requirements)
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: $\leq 3\text{s}$ (30° pitch coverage, 7.5km range) TAS: $\leq 0.5\text{s}$ (default)
11	resolution ratio	Distance: $\leq 15\text{m}$, azimuth: $\leq 6^\circ$, elevation: $\leq 6^\circ$
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	$\leq 13\text{kg}$ (net weight of the equipment, excluding power supply/cable)
17	supply electricity	AC220V/DC24V
18	power dissipation	$\leq 350\text{W}$
19	size	$\leq 337\text{mm} \times 317\text{mm} \times 135\text{mm}$
20	operating temperature range	$-40 \sim +70$
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.

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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