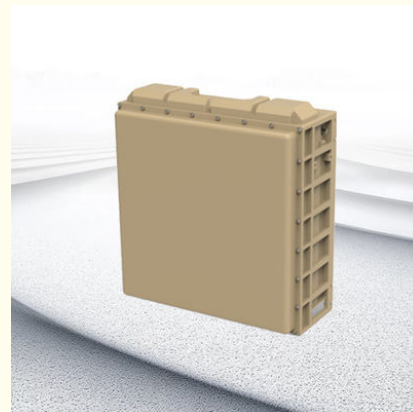


Medium-Range Anti UAV Radar With Machine Learning Technology For Enhanced Detection

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: **medium-range anti UAV radar, anti UAV radar with machine learning, enhanced detection UAV radar**

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

1, Product Overview

The DD-R25 medium-range X-band monopolar array radar is a highly sophisticated piece of equipment integrating a fully solid-state, fully coherent, and pulse Doppler system. This elaborate system design enables the radar to possess the outstanding capacity for all-weather detection and early warning, specifically targeting "low, small, slow" objects.

Regarding target detection and classification, the radar utilizes cutting-edge machine learning and artificial intelligence recognition technologies. These technologies are founded on "micro-Doppler signatures" and "flight path features". Consequently, it can effectively detect and accurately classify a diverse range of targets. These targets include drones, which are becoming increasingly common in modern airspace, light aircraft typically employed for general aviation purposes, helicopters renowned for their vertical take-off and landing capabilities, powered triplanes with unique flight characteristics, airships frequently used for low-altitude advertising or surveillance, and airborne balloons that can be utilized for various scientific or recreational activities. Moreover, it accomplishes this with an extremely low false alarm rate, guaranteeing the reliability of its detection outcomes.

The radar is also outfitted with a two-dimensional phase scanning system. This system offers significant flexibility as it can be extended into different configurations. For example, it can be configured as "azimuth mechanical scanning + elevation phase scanning", which may be advantageous for certain applications that necessitate a combination of mechanical and electronic scanning for comprehensive coverage. Additionally, it can be converted into multi-polar arrays. These different configurations enable the radar to meet the diverse application requirements of various scenarios, whether for military surveillance, civilian air traffic monitoring, or other security-related tasks.

2, Function

The product integrates comprehensive target monitoring and analysis capabilities. It enables target positioning, trajectory display, and playback functions on the map. Meanwhile, it presents key parameters such as target distance, azimuth, elevation, and speed in real time. The system is equipped with built-in data recording and storage functionality, which can comprehensively save target trajectory data and radar status information, thus providing support for 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, accurately identifying various target types, including drones, birds, people, and vehicles. The system incorporates advanced machine learning technology, enabling it to autonomously adapt to the current environment and commence operation directly without the need for manual parameter adjustment.

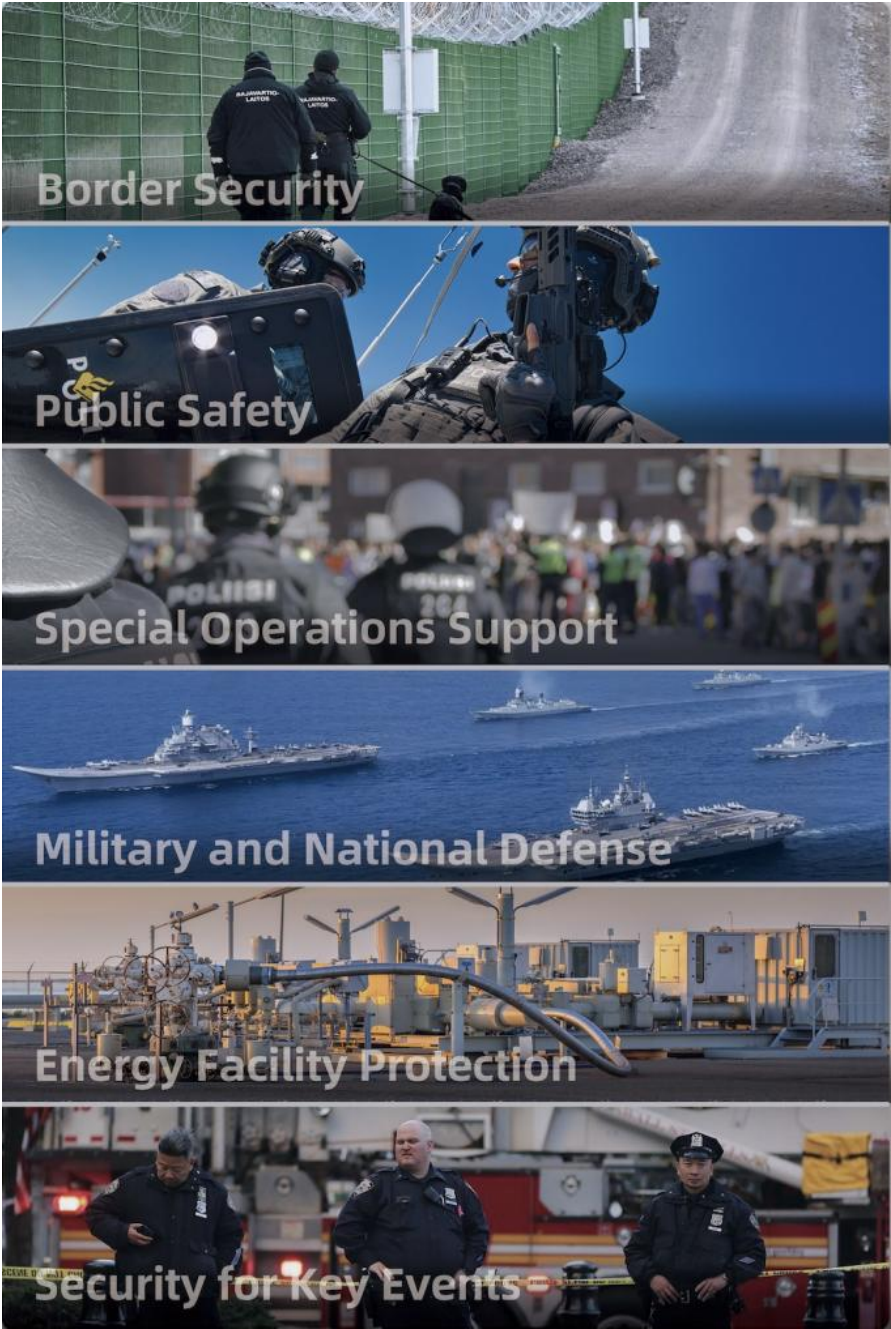
To ensure reliable all-weather operation, the product is equipped with cloud and rain noise suppression capabilities, effectively eliminating interference under adverse weather conditions. The software interface offers flexible parameter configuration options, enabling users to adjust settings such as elevation coverage, target update rate, and monitoring range according to their requirements. 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 the equipment's working conditions through 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	$\geq 8\text{Km}(\text{RCS}:0.01\text{m}^2, \text{unmanned aerial vehicle})$ $\geq 15\text{Km}(\text{RCS}:0.3\text{m}^2, \text{unmanned aerial vehicle})$
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	≤ 335mm* 318mm* 145 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 reshipe 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

Shipping logos: FedEx, TNT, UPS, DHL

Payment logos: T/T, AMEX, VISA, DISCOVER, WU, Apple Pay, G Pay



Chongqing Miao Yi Tang Technology Co., Ltd.

+8613101235550

gary@chinaantidrone.com

chinaantidrone.com

www.chinaantidrone.com

