

Ku-band medium-range four-element array radar with cutting-edge machine learning and AI recognition technologies

Our Product Introduction

Basic Information

- Place of Origin: China
- Brand Name: MYT
- Certification: CNAS、CMA、CAL、ILAC-MRA
- Model Number: DD-R23
- 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: $\leq 6^\circ$, Elevation: $\leq 4^\circ$
- Operating Temperature Range: $-40 \sim +70$
- Size: $\leq 950\text{mm} \times 950\text{mm} \times 450\text{mm}$
- Power Dissipation: $\leq 1400\text{W}$
- Supply Electricity: AC220V/DC24V
- Levels Of Protection: IP66
- Joggle: RJ45 Network Port
- Highlight: **Ku-band anti UAV radar, four-element array radar with AI, medium-range radar with machine learning**

DD-R23 Ku-band medium-range four-element array radar

1, Product Overview

The DD - R23 Ku - band medium - range four - element array radar has a state - of - the - art, fully solid - state, fully coherent system with a pulse Doppler mechanism. It can conduct all - weather detection and early warnings for "low, small, slow" targets.

It uses cutting - edge machine learning and AI recognition technologies based on "micro - Doppler signatures" and "flight path features" to achieve an ultra - low false alarm rate.

The DD - R23 is effective in target detection and classification. It can accurately detect and categorize drones, light aircraft, helicopters, powered triplanes, airships, and airborne balloons, making it a versatile airspace monitoring tool.

2, Function

The product is furnished with comprehensive target monitoring and analysis capabilities. It facilitates target positioning, trajectory display, and playback functions on the map. Concurrently, it presents key parameters such as target distance, azimuth, elevation, and speed in real time. The system is integrated with built-in data recording and storage functionality, which is capable of completely saving target trajectory data and radar status information, and supports subsequent data playback and query operations.

Leveraging AI recognition technology based on "micro-Doppler features" and "track features," the product showcases powerful target classification and identification capabilities. It can accurately identify 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 initiate operation directly without the necessity for manual parameter adjustment.

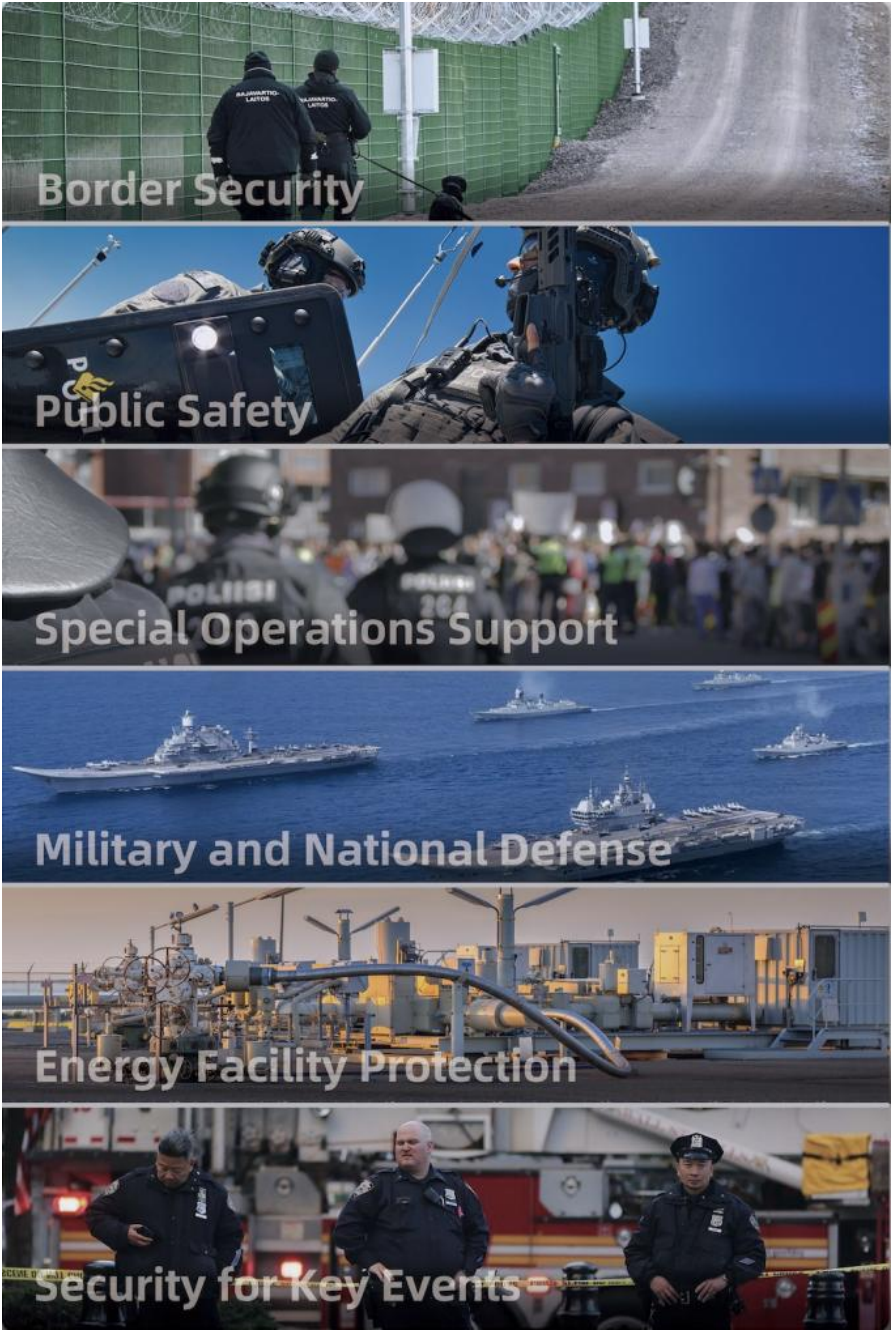
To ensure reliable all-weather operation, the product is equipped with cloud and rain noise suppression capabilities, effectively eliminating interference under adverse weather conditions. The software interface provides flexible parameter configuration options, enabling users to adjust settings such as elevation coverage, target update rate, and monitoring range in accordance with 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 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	Ku 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	Azimuth: $0^\circ\sim 360^\circ$, elevation: $0^\circ\sim 80^\circ$ (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: ≤ 3.5 seconds (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: $\leq 4^\circ$
12	Search precision (RMS)	Distance: $\leq 10\text{m}$, azimuth: $\leq 0.5^\circ$, elevation: $\leq 0.4^\circ$
13	Tracking accuracy (RMS)	Distance: $\leq 10\text{m}$, azimuth: $\leq 0.4^\circ$, elevation: $\leq 0.3^\circ$
14	joggle	RJ45 network port
15	target capacity	≥ 500 batches
16	weight	$\leq 80\text{Kg}$ (net equipment weight, excluding power supply/cable)
17	supply electricity	AC220V/DC24V
18	power dissipation	$\leq 1400\text{W}$
19	size	$\leq 950\text{mm} \times 950\text{mm} \times 450\text{mm}$

20	operating temperature range	-40 + 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 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. Shipping icons: cargo plane, cargo ship, cargo truck.

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



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