

The Innovative Anti UAV Radar With Advanced Machine Learning And AI Recognition Capabilities

Our Product Introduction

Basic Information

- Place of Origin: China
- Brand Name: MYT
- Certification: CNAS、CMA、CAL、ILAC-MRA
- Model Number: DD-R26
- 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: $\leq 12^\circ$
- Operating Temperature Range: $-40 \sim +70$
- Size: $\leq 195\text{mm} \times 316\text{mm} \times 165\text{mm}$
- Power Dissipation: $\leq 200\text{W}$
- Supply Electricity: AC220V/DC24V
- Levels Of Protection: IP66
- Joggle: RJ45 Network Port
- Highlight: **Anti UAV radar with AI recognition,
Machine learning anti drone radar,
Innovative UAV detection radar**

The DD-R26 medium-range single-element X-band radar

1, Product Overview

The DD-R26 medium-range single-element X-band radar is configured with a fully solid-state, fully coherent, and pulse Doppler system. This system empowers all-weather detection and early warning capabilities for "low, small, slow" targets. By harnessing machine learning and AI recognition technologies grounded in "micro-Doppler signatures" and "flight path features," the radar is capable of effectively detecting and classifying a wide range of targets. These targets encompass drones, light aircraft, helicopters, powered triplanes, airships, and airborne balloons, all while maintaining an extremely low false alarm rate. The radar is outfitted with a two-dimensional phase scanning system. This system can be extended into configurations like "azimuth mechanical scanning + elevation phase scanning" or multi-element arrays to fulfill diverse application requirements.

2, Function

The product is equipped with comprehensive target monitoring and analysis capabilities. It enables the precise positioning of targets on the map, presenting their trajectories for display. Moreover, it has a playback function that allows users to review past target movements. Simultaneously, it can present key parameters in real - time, such as the distance between the target and the observer, the azimuth angle indicating the horizontal direction of the target, the elevation angle showing the vertical direction, and the speed at which the target is moving.

The system comes with built - in data recording and storage functionality. This feature can comprehensively save not only the target trajectory data but also the radar status information. This stored data supports subsequent playback for in - depth analysis and query operations, facilitating users to access specific data points as needed.

By employing AI recognition technology based on "micro - Doppler features" and "track features", the product demonstrates powerful target classification and identification capabilities. It can accurately distinguish various target types. These include drones, which are unmanned aerial vehicles often used for various applications; birds, which are natural flying creatures; people, whether they are on foot or in groups; and vehicles, which can be cars, trucks, or other motorized transportation means.

The system integrates advanced machine learning technology. This enables it to autonomously adapt to the current environment. As a result, it can start operating directly without the need for manual parameter adjustment. This not only saves time but also reduces the potential for human - error in parameter setting.

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 caused by adverse weather conditions such as clouds and rain. This ensures that the system can function accurately regardless of the weather outside.

The software interface offers flexible parameter configuration options. Users can adjust settings like elevation coverage, which determines the vertical range of monitoring; the target update rate, which affects how frequently new target data is acquired; and the monitoring range, which defines the maximum distance at which the system can detect targets, according to their specific needs.

In addition, the product features automatic compensation functions for independent positioning, orientation, elevation, and roll angles. These functions play a crucial role in ensuring measurement accuracy, compensating for any potential errors that may occur due to various factors such as equipment tilt or changes in position.

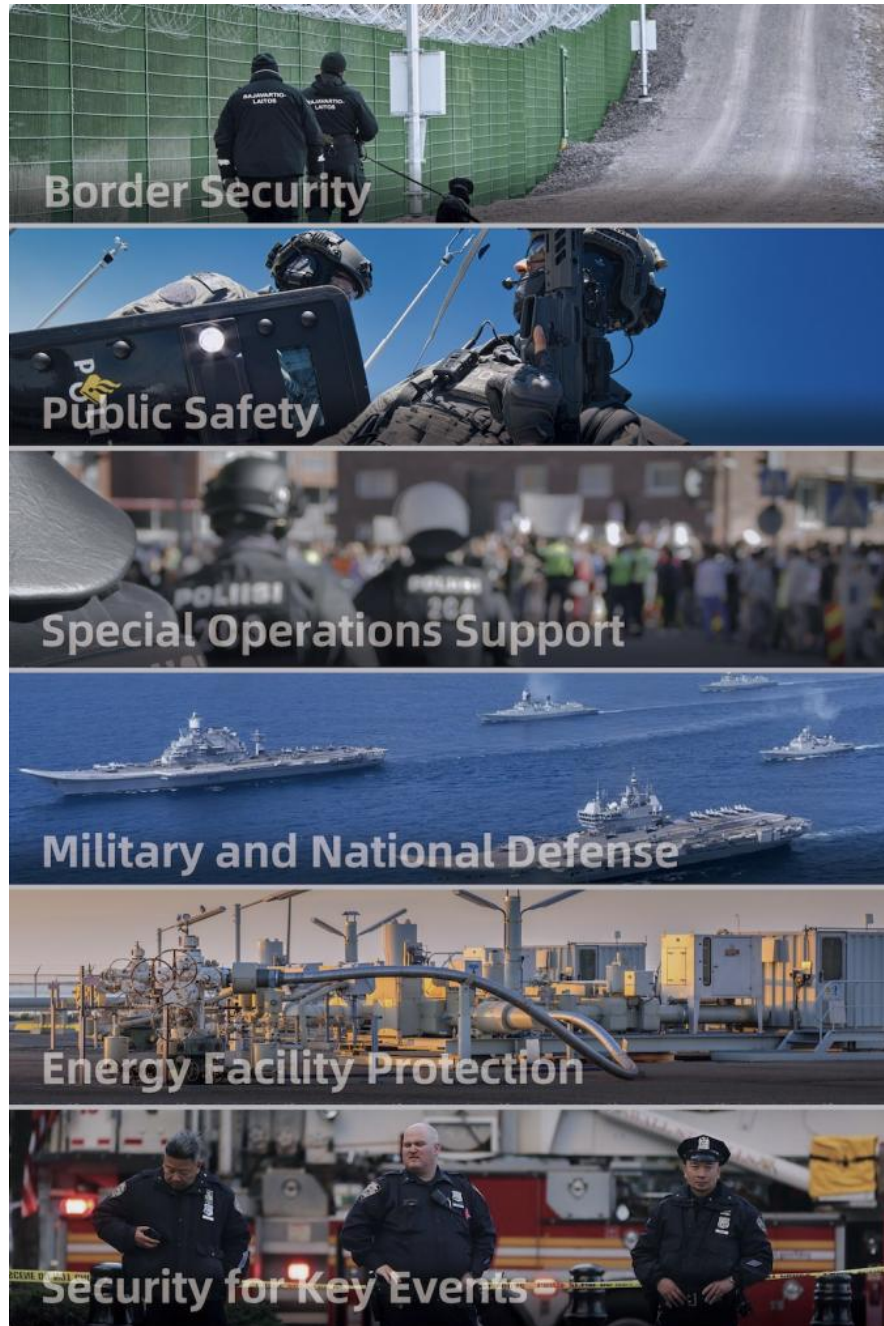
During system operation, users can fully monitor the equipment working conditions through the real - time status monitoring functionality. This allows them to detect any potential issues promptly, ensuring the stable and efficient operation of the entire system.

3, qualification

order number	parameter	metric
1	frequency range	X frequency range
2	detection range	$\geq 3\text{Km}(\text{RCS}:0.01\text{m}^2, \text{unmanned aerial vehicle})$ $\geq 6\text{Km}(\text{RCS}:0.3\text{m}^2, \text{unmanned aerial vehicle})$
3	fade zone	$\leq 100\text{m}$
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	≥ 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: ≤ 3.5 seconds (30° pitch coverage, 5km range) TAS: $\leq 0.5\text{s}$ (default)
11	resolution ratio	Distance: $\leq 15\text{m}$, azimuth: $\leq 6^\circ$, elevation: $\leq 12^\circ$
12	Search precision (RMS)	Distance: $\leq 10\text{m}$, azimuth: $\leq 0.5^\circ$, elevation: $\leq 1^\circ$
13	Tracking accuracy (RMS)	Distance: $\leq 10\text{m}$, azimuth: $\leq 0.4^\circ$, elevation: $\leq 0.6^\circ$
14	joggle	RJ45 network port

15	target capacity	≥500 batches
16	weight	≤ 8.5Kg (net weight of the device, excluding power supply/cable)
17	supply electricity	AC220V/DC24V
18	power dissipation	≤ 200W
19	size	≤ 195mm*316mm* 165mm
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



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