Effective Multi-Polar Array Configurations Anti UAV Radar The Medium-Range X-Band Monopolar Array Radar

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:≤10m
- Velocity Range: 1m/s~100m/s
- Resolution Ratio: Distance: ≤15m, Azimuth: ≤6°, Elevation: ≤6°
- Operating Temperature Range: -40 +70
- Size: ≤ 335mm* 318mm* 145mm
- Power Dissipation: ≤ 600W
- Supply Electricity: AC220V/DC24V
- Levels Of Protection: IP66
- Joggle: RJ45 Network Port
- Highlight: **Medium-Range X-Band Anti UAV Radar**, **Multi-Polar Array Anti UAV Radar**, **Monopolar Array Anti UAV Radar**

Product Description

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

1, Product Overview

The DD-R25 medium-range X-band monopolar array radar employs a fully solid-state, fully coherent, and pulse Doppler system. This allows it to perform all-weather detection and early warning of "low, small, slow" targets. By leveraging machine learning and AI recognition technologies based on "micro-Doppler signatures" and "flight path features," it effectively detects and classifies a variety of targets, such as 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, which can be extended into configurations such as "azimuth mechanical scanning + elevation phase scanning" or multi-polar arrays to meet various application requirements.

2, Function

The product encompasses comprehensive target monitoring and analysis capabilities. It enables target positioning, trajectory display, and playback functions on the map, and simultaneously 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, 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 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 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	≥ 8Km(RCS:0.01m^2, unmanned aerial vehicle) ≥ 15Km(RCS:0.3 m^2, unmanned aerial vehicle)
3	fade zone	≤ 150m
4	work pattern	2D Phased Array
5	hunting zone	Heading: ±45°, Pitch: 0°~ 80° (set according to the task)
6	trace function	TAS feature available
7	TAS tracking target count	≥ 6
8	Minimum detection altitude	≤ 10m
9	velocity range	1m/s~100m/s
10	Target update rate	TWS: ≤ 3.6s (30° pitch coverage, 10km range) TAS: ≤ 0.5s (default)
11	resolution ratio	Distance: <15m, azimuth: <6°, elevation: <6°
12	Search precision (RMS)	Distance: ≤10m, azimuth: ≤0.5°, elevation: ≤0.5°
13	Tracking accuracy (RMS)	Distance: ≤10m, azimuth: ≤0.4°, elevation: ≤0.4°
14	joggle	RJ45 network port
15	target capacity	≥500 batches
16	weight	≤ 15 kg (net equipment weight, excluding power supply/cable)
17	supply electricity	AC220V/DC24V
18	power dissipation	≤ 600W
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 reship the product to you.

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