# Four-element Array X-band Medium-range Radar Employs Solid-state Coherent Pulse Doppler Technology Combined To Achieve All-weather Detection Of Low Small Slow Targets At Ultra-low False Alarm Levels

Our Product Introduction

## Basic Information

- Place of Origin: China
- Brand Name: MYT
- Certification: CNAS、CMA、CAL、ILAC-MRA
- Model Number: DD-R28
- 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:≤10m
- Velocity Range: 1m/s~100m/s
- Resolution Ratio: Distance: ≤15m, Azimuth: ≤6°, Elevation: ≤6°
- Operating Temperature Range: -40 +60
- Size: ≤ 950mm* 950mm*450 Mm
- Power Dissipation: ≤ 1400W
- Supply Electricity: AC220V/DC24V
- Levels Of Protection: IP66
- Joggle: RJ45 Network Port
- Highlight: **X-band medium-range radar**, **solid-state coherent pulse Doppler radar**, **anti UAV radar for low small slow targets**

## Product Description

# The DD-R28 medium-range X-band four-element array radar

**1, Product Overview**

The DD-R28 medium-range X-band four-element array radar employs a fully solid-state, fully coherent, and pulse Doppler system, enabling all-weather detection and early warning of "low, small, slow" targets. Utilizing machine learning and AI recognition technologies based on "micro-Doppler signatures" and "flight path features," the system achieves ultra-low false alarm rates while effectively detecting and classifying targets such as drones, light aircraft, helicopters, powered triplanes, airships, and airborne balloons.

**2, Function**

1) It can realize the target positioning, trajectory display and playback function on the map, and can display the target distance, azimuth, pitch and speed information;
2) Records and saves target track data and radar status data, and supports data playback and query;
3) Using AI recognition technology of "micro Doppler feature" and "track feature", it has the ability to classify and identify targets, such as drones, birds, people and cars;
4) Using machine learning technology, adaptive environment, no need to adjust parameters, can be started directly to work;
5) It has cloud and rain noise suppression function, which can work all day long;
6) The software can configure the pitch coverage, target update rate and range range;
7) It has the function of automatic compensation for independent positioning and orientation, pitch and roll angle;
8) It has real-time working status monitoring.

**3, qualification**

| order number | parameter | metric |
|---|---|---|
| 1 | frequency range | X frequency range |
| 2 | detection range | ≥ 8Km(RCS:0.01m2, unmanned aerial vehicle )<br>≥ 15Km(RCS:0.3 m2, unmanned aerial vehicle ) |
| 3 | fade zone | ≤ 150m |
| 4 | work pattern | 2D Phased Array |
| 5 | hunting zone | Azimuth: 0°~360°, elevation: 0°~80° (configure according to task requirements) |
| 6 | trace function | TAS feature available |
| 7 | TAS tracking target count | ≥ 24 |
| 8 | Minimum detection altitude | ≤ 10m |
| 9 | velocity range | 1m/s~100m/s |
| 10 | Target update rate | TWS: ≤ 3.6 seconds (30° pitch coverage, 10km range)<br>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 | ≤ 90Kg (net equipment weight, excluding power supply/cable) |
| 17 | supply electricity | AC220V/DC24V |
| 18 | power dissipation | ≤ 2500W |
| 19 | size | ≤ 950mm* 950mm*450 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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