

## Medium Range Intelligent Camera High Performance Detection And Tracking Capabilities For Critical Locations

Our Product Introduction

### Basic Information

- Place of Origin: China
- Brand Name: MYT
- Certification: CNAS、CMA、CAL、ILAC-MRA
- Model Number: DD-E3
- Minimum Order Quantity: 1
- Price: Pricing is negotiable based on order quantity
- Delivery Time: 10 work days
- Payment Terms: TT, LC
- Supply Ability: 1000units per month



### Product Specification

- Visible Camera Detection Distance:  $\geq 3000\text{m}$
- Tracking Distance:  $\geq 2500\text{m}$
- Identification Distance:  $\geq 2000\text{m}$
- Resolution: 640 X 512
- Highlight: Tracking Capabilities Intelligent Camera, Critical Locations Intelligent Camera, High Performance Detection Intelligent Camera



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## Product Description

### DD-E3 Medium-range Intelligent Camera

#### 1, Introduction

The DD-E3 medium-sized intelligent photoelectric turntable is a mid-to-long-range photoelectric detection system independently developed and designed by our company. It can integrate multiple spectral detection modules such as high-definition visible light cameras and non-cooled infrared thermal imagers. Depending on the needs, it can also be equipped with a laser rangefinder module. The system features all-weather surveillance, video acquisition, automatic search, tracking identification, and detection positioning for ground, sea surface, and low-altitude targets. It effectively detects, tracks, identifies, and alerts against civilian small to medium-sized consumer rotary-wing and fixed-wing drones, achieving situational awareness, threat assessment, and safety warnings in key areas. This ensures effective low-altitude security for critical locations around the clock.

The product features a U-shaped design, suitable for both fixed and vehicle-mounted installations. It is modular, allowing for flexible configuration of detection channels and optical configurations to meet customer needs, whether in full darkness or under various weather conditions such as fog, rain, and snow. It is designed to meet the requirements of regional prevention and counter-terrorism, low-altitude early warning, and emergency response tasks.



#### 2, Features

- 1) Strong load capacity: can carry long-focus visible light camera, non-cooling infrared thermal imager, optional laser ranging and other sensor modules to achieve ultra-long distance target observation;
- 2) Detection spectrum width: high-definition visible light and non-cooling infrared thermal imagers can be integrated, multi-band detection advantages complement each other, multi-source data convergence and fusion processing, so that the target is nowhere to hide, to meet the monitoring needs of day and night, all-weather environment;
- 3) Fast turning speed: the turning speed can reach 100°/s, the acceleration can reach 120°/s<sup>2</sup>, start and stop quickly, smooth operation, help to capture and track fast moving targets;
- 4) Wide coverage: azimuth rotation range 0°~360°, pitch rotation range -30°~+60°, realize no dead zone detection, full dimensional coverage;
- 5) High control accuracy: precision angle encoder is used in conjunction with high precision closed-loop servo control system, the positioning

- accuracy can reach 0.01°, high performance image processing unit is matched with high precision focusing control mechanism to achieve accurate automatic focusing;
- 6) Excellent tracking performance: automatic tracking module designed with a variety of advanced target capture algorithms and tracking algorithms, supplemented by high-precision servo control to ensure stable tracking of targets in the process of rapid movement and change of direction;
- 7) High degree of intelligence: support regional intrusion alarm, boundary intrusion alarm, mobile detection, target recognition, automatic tracking, radar linkage, 3D zoom positioning, PHM health management and other functions, greatly improving the level of unmanned, automation and informationization of the system;
- 8) Multiple active protection: with internal temperature self-regulation, rotating table blockage protection, strong heat source automatic protection, automatic focus protection, lightning and surge protection and other functions, the reliability of the system is greatly improved;
- 9) Strong environmental adaptability: high strength aluminum alloy material, IP66 protection, rainproof, dustproof, corrosion resistant, electromagnetic interference, long-term suitable for the harsh environment in the field.



3, Technical Parameters

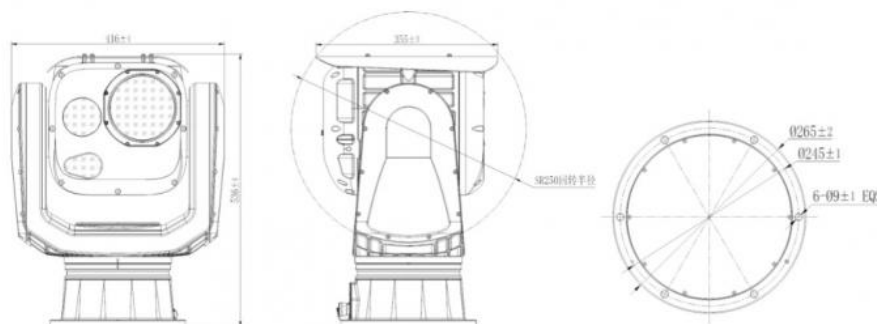
Model	DD-E3
Working Distance	For 0.3m*0.3m UAV targets, the atmospheric visibility is greater than or equal to 20km, the humidity is less than or equal to 50%RH, and the temperature difference is more than 6k Visible camera detection distance ≥ 3000m, tracking distance is ≥ 2500m, and identification distance is ≥ 2000m; Thermal camera detection distance is ≥ 1500m, the tracking distance is ≥ 1000m, and the identification distance is ≥ 1000m

Thermal Camera	<ol style="list-style-type: none"> <li>1. Detector: Sixth generation non-cooling focal plane array VOx detector</li> <li>2. Resolution: 640 x 512</li> <li>3. Wavelength: 8μm~14μm</li> <li>4. NETD: better than 30mK (@25 F1.0)</li> <li>5. Focal length: 31mm~155mm lens</li> <li>6. Camera control: electric zoom; manual/automatic focus</li> <li>7. Pseudo-color polarity: 16 pseudo-color images, hot black/white polarity</li> <li>8. Image enhancement: SDE digital image enhancement technology to enhance the details of the image</li> <li>9. Image parameters: AGC automatic gain control, brightness and contrast automatic/manual</li> <li>10. Bad point correction: Supports bad point correction function</li> <li>11. Image correction: support manual correction, background correction, automatic correction time interval, Gamma correction parameters can be adjusted</li> <li>12. Strong light protection: support against sun damage</li> </ol>
Visible Camera	<ol style="list-style-type: none"> <li>1. Sensor type: 1/1.8" target surface starlight level CMOS, ICR color to black</li> <li>2. Minimum illumination: color: 0.002Lux; black and white: 0.0002Lux</li> <li>3. Lens: 25~500mm, million HD electric zoom; manual/automatic focus</li> <li>4. Resolution: 2688x1520</li> <li>5. Image processing: support white balance, electronic shutter, frame accumulation, backlight compensation, strong light suppression, 2D/3D digital noise reduction, electronic anti-shake, wide dynamic</li> <li>6. Fog penetration: supports both electronic and optical fog penetration</li> </ol>
Audio and Video	<ol style="list-style-type: none"> <li>1. Thermal resolution: up to 1920 x 1080</li> <li>2. Visible light resolution: up to 3840 x 2160</li> <li>3. Video coding: H.265/H.264/MJPEG, support multiple streams</li> <li>4. Video bit rate: 32Kbps~16Mbps</li> <li>5. Image flip: left/right / up/down / center</li> <li>6. OSD Settings: Supports OSD display settings for channel name, time, PTZ azimuth, field of view Angle, and focal length. Supports preset bit name setting</li> </ol>
Laser rang finder (optional)	<ol style="list-style-type: none"> <li>1. Ranging range: 100m~2000m(0.3mx0.3m UAV target)</li> <li>2. Distance accuracy: ±2m</li> <li>3. Frequency: 5Hz</li> </ol>
Intelligent Analysis	<ol style="list-style-type: none"> <li>1. Implementation method: front-end embedded intelligent analysis module;</li> <li>2. AI performance 16TOPS, memory 8G, CPU8 core</li> <li>3. Abnormal behavior detection: support area intrusion detection, boundary intrusion detection, mobile detection; support target recognition;</li> <li>4. Classification and recognition: Support the classification and recognition of human, vehicle, ship, UAV and other targets (customers are required to assist in providing data sets)</li> </ol>
Tracking Function	<ol style="list-style-type: none"> <li>1. Tracking method: front-end embedded hardware tracking</li> <li>2. Tracking algorithm: Built-in multiple tracking algorithms, support multi-target detection, automatic capture, anti-obstructing tracking, recognition tracking and so on</li> <li>3. Tracking mode: manual and automatic tracking, radar linkage is supported</li> <li>4. Tracking function: automatic zoom and dual-channel target recognition are supported during tracking; adaptive tracking wave gate is supported, and the size of tracking box can be adapted according to the size of the target</li> <li>5. Tracking display: It has the tracking target eagle eye display, which can be adjusted at any position and supports 2, 4 and 8 times magnification display of the target; it also supports tracking status display, tracking target pixel, off-target amount, confidence level and other tracking box osd custom display</li> <li>6. Tracking accuracy: tracking accuracy: less than or equal to 0.5mrad</li> <li>7. Video switching: digital HD visible light/digital infrared video switching tracking</li> </ol>
Enhance Functionality	<ol style="list-style-type: none"> <li>1. Power-off memory: supports the ability to recover the position before power-off, preset point status, cruise state and line scan state</li> <li>2. Fault detection: support power on self-test, status query and fault code feedback</li> <li>3. Data return: it has real-time/ query return and positioning functions of lens field Angle, magnification, ZOOM/FOCUS value and turntable Angle. It supports real-time query/ return and positioning functions of horizontal and pitch Angle</li> <li>4. Remote maintenance: It has remote restart, online upgrade and remote upgrade functions to facilitate system maintenance</li> <li>5. Keyframe Settings: Supports keyframe spacing of 100 levels</li> <li>6. Configuration file: Supports the import and export of configuration files</li> <li>7. Web access: support full WEB configuration, remote online upgrade</li> </ol>

Turntable Structure	1. Structure: U-shaped, two shafts and two frames 2. Rotation range: horizontal: 360° continuous rotation; pitch: -30° ~ +60° 3. Rotation speed: horizontal: 0.01°/s~120°/s; pitch: 0.01°/s~90°/s 4. Acceleration: 120°/s <sup>2</sup> for horizontal and 120°/s <sup>2</sup> for pitch 5. Speed adaptive: it has intelligent sensing speed change function and supports lens focal length speed adaptive function 6. Position accuracy: less than or equal to 0.01° 7. Location time: less than 2s 8. Zero setting: Supports the setting of horizontal and pitch zero 9. Pre-set cruise: 3000, support 16 cruise routes, each can support 256 preset positions 10. Path scanning: support preset point cruise, day and night cruise, line scan, frame scan, apple skin scan, the scanning speed can be set 11. Watch: preset position / pattern scan / cruise scan / vertical scan / frame scan / panoramic scan / apple skin scan / horizontal fan sweep 12. Motor protection: turntable blockage protection, high reliability 13. Three-point bracket: optional quick leveling tripod for radar photoelectric linkage (optional)
	1. Communication interface: 1 RJ45 network port 2. Network protocol: support HTTP, HTTPS, FTP, SMTP, DNS, NTP, RTSP, RTCP, RTP, TCP, UDP, ICMP, DHCP network protocol; support ONVIF and GB28181 protocol 3. Secondary development: provide SDK or ipc protocol, easy to use or convenient for secondary development 4. Physical interface: alloy waterproof aviation plug
	1. Working temperature: -40 ~60 2. Storage temperature: -50 ~70 3. Working humidity: less than 95%RH 4. Flood protection: power 4000V, communication video signal 2000V 5. Salt spray resistance: in PH value 6.5~7.2, continuous salt spray test for 96 hours, no change on the surface 6. Protection level: IP66 for the whole machine
	1. Weight: less than 40kg 2. Size: 420mm x 358mm x 540mm (length x width x height) 3. Power supply: AC220V±20%,50Hz 4. Power consumption: rated power consumption is less than or equal to 150W, peak power consumption is less than or equal to 350W 5. Usage: vehicle-mounted/fixed 6. Supporting products: control keyboard (optional), client software (optional)
	1. Client: optional rgs2000 tracking dedicated client, support radar and photoelectric equipment access, real-time monitoring of equipment status 2. Status display: support the dynamic display of target spots and track information reported by radar, and support the synchronous playback of radar target track and photoelectric video recording 3. Auxiliary tools: support distance, area and Angle measurement; support static calibration azimuth calculation; support radar photoelectric four-quadrant auxiliary calibration 4. Pan control: support eight-direction pan control, support keyboard WASD control up and down left and right; support zoom and focus lens control; support horizontal Angle positioning, pitch Angle positioning, field Angle positioning 5. Electronic map: Supports electronic map, radar photoelectric real longitude and latitude map landing point, supports online and offline two-dimensional map 6. Remote configuration: support remote power on/off, restart, visible light thermal image power on/off, and remote camera parameter setting of photoelectric equipment 7. Multi-screen display: Supports video preview, electronic map, video surveillance, video playback and information management split screen display, supports multiple video preview interface split screen display

#### 4, Dimension

Refer to the reference drawing for size



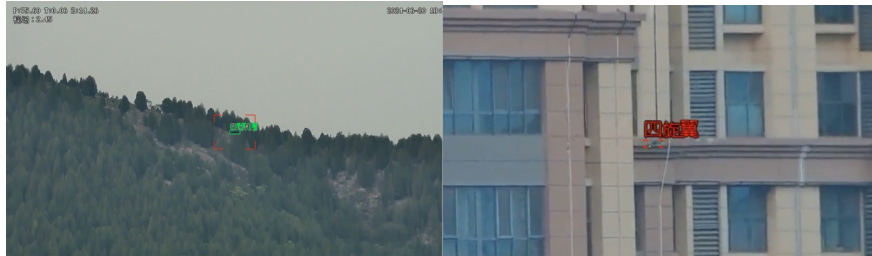
#### 5, Application Scenarios

It is mainly used for low-altitude security in military bases, airports, prisons, nuclear, biological and chemical industries, border and coastal defense, conference centers, office buildings, oil fields, oil depots and other key places.

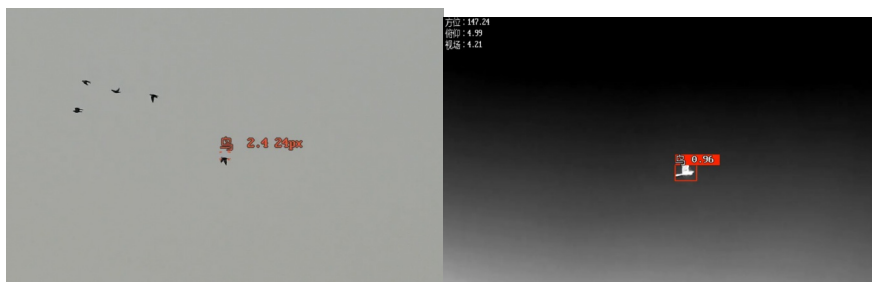




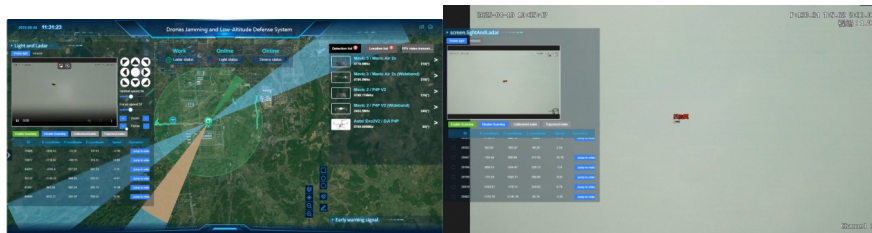
Drone identification and tracking, eagle eye display



Identification and tracking of high-speed UAV in complex background



Bird recognition and tracking

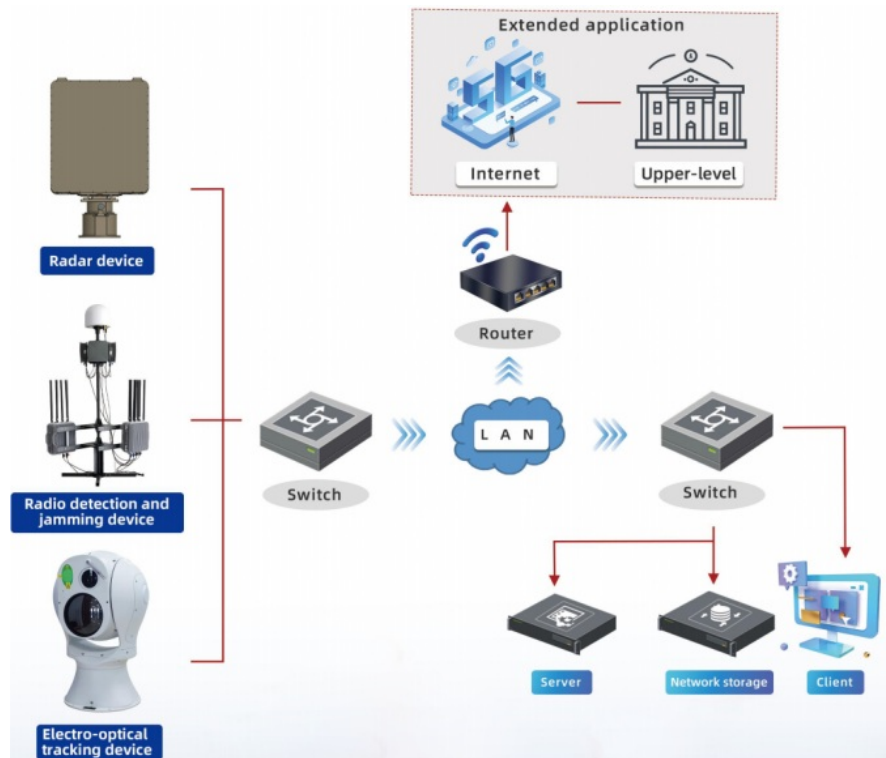


Anti-drone system applications



Anti-drone application on the vehicle

## 6, Typical deployment



Anti-drone system process

## 7, Certification Certificate



## 8, 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.



## 9, 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.



## 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









+8613101235550



gary@chinaantidrone.com



chinaantidrone.com

[www.chinaantidrone.com](http://www.chinaantidrone.com)