

Long Range Intelligent Camera Photoelectric Turntable Anti Drone System For Key Area Safety And Protection

Our Product Introduction

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Basic Information

- Place of Origin: China
- Brand Name: MYT
- Certification: CNAS、CMA、CAL、ILAC-MRA
- Model Number: DD-E5
- 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 Light Detection Distance: $\geq 5000m$
- Tracking Distance: $\geq 4000m$
- Identification Distance: $\geq 3000m$
- Spectral Range: $8\mu m \sim 14\mu m$
- NETD: Better Than 30mK
- Focal Length: 23~230mm
- Highlight: Key Area Anti Drone System, Intelligent Camera Anti Drone System, Photoelectric Turntable Anti Drone System



More Images



Product Description

DD-E5 Long-range Intelligent Camera

1, Introduction

The DD-E5 photoelectric turntable is independently developed by our company, specifically designed for low-altitude safety in key areas such as military bases, nuclear and biological defense sites, border and coastal defense, conference centers, office buildings, prisons, and airports. It integrates high-definition visible light cameras, non-cooled thermal imaging modules, and multi-spectral detection modules, complemented by intelligent target detection and tracking modules. This system can effectively detect, track, identify, and warn against civilian small to medium-sized rotary-wing and fixed-wing drones. The photoelectric turntable can operate independently or in conjunction with radar equipment, passive spectrum detection devices, and radio interference devices to form an automatic drone defense system, ensuring effective low-altitude safety around the clock and all year round.

The product features a spherical design, making it resistant to strong winds and low vibration, ensuring stable and clear imaging. It adopts an upper-lower split structure, allowing for independent packaging and transportation, which disperses the overall weight and significantly enhances transportability in complex terrains. The modular design enables flexible configuration of detection channels and optical configurations according to customer needs, meeting requirements for detection, identification, and recognition under various weather conditions such as complete darkness, fog, rain, and snow. The product uses an integral die-casting process, resulting in a robust structure that is lightweight and highly sealed. The entire unit is filled with nitrogen and has an IP67 protection rating, enabling reliable operation in harsh outdoor environments over long periods.



2, Features

1) High Payload Capacity

Capable of supporting long-focus visible-light cameras, uncooled infrared thermal imagers, and optional laser rangefinders, enabling ultra-long-range target observation.

2) Broad Spectral Detection Range

Integrates high-definition visible light and uncooled infrared thermal imaging, leveraging multi-band detection for enhanced target visibility. Multi-source data fusion ensures seamless day/night and all-weather monitoring.

3) Rapid Pan/Tilt Speed

Achieves a rotational speed of up to 100°/s with acceleration of 120°/s², ensuring swift start-stop motion and smooth operation for fast-moving target capture and tracking.

4) Full-Area Coverage

Azimuth rotation: 0°–360°; pitch rotation: -30° to +60°, eliminating blind spots and enabling full-dimensional surveillance.

5) Precision Control

Utilizes a high-precision angle encoder and closed-loop servo control system for 0.01° positioning accuracy. Paired with an advanced autofocus mechanism, it ensures sharp image clarity.

6) Advanced Tracking Capabilities

Equipped with intelligent target acquisition and tracking algorithms, enhanced by high-precision servo control for stable tracking even during rapid motion and directional changes.

7) Intelligent Automation

Supports intrusion alerts, motion detection, target recognition, auto-tracking, radar linkage, 3D zoom positioning, and PHM health management, boosting unmanned operation and system autonomy.

8) Robust Self-Protection

Features auto temperature regulation, obstruction protection, heat-source shielding, focus protection, and lightning/surge resistance to maximize system reliability.

9) Harsh-Environment Durability

Constructed with high-strength aluminum alloy, IP66-rated housing, resistant to rain, dust, corrosion, and EMI, ensuring long-term performance in extreme field conditions.



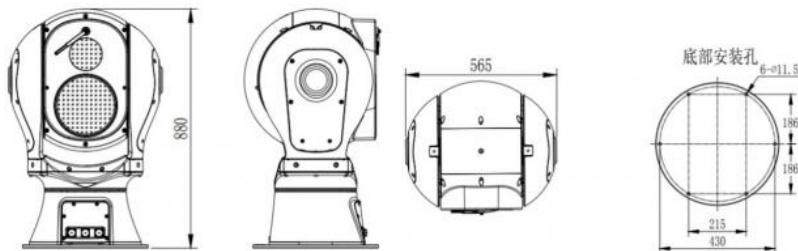
3, Technical Parameters

Model	DD-E5 photoelectric turntable
Working Distance	For 0.3m*0.3m UAV targets with atmospheric visibility of 20km or more, humidity of 50%RH or less and temperature difference of more than 6° Visible light detection distance is ≥ 5000m, tracking distance is ≥ 4000m, and identification distance is ≥ 3000m; The thermal detection distance is ≥ 2000m, the tracking distance is ≥ 1500m, and the identification distance is ≥ 1000m

Thermal Camera	<ol style="list-style-type: none"> 1. Detector: non-cooled oxidized alum (VOx) infrared focal plane 2. Spectral range: 8μm~14μm 3. Resolution: 640 x 512 4. NETD: better than 30mK 5. Focal length: 23~230mm, 10x continuous zoom lens 6. Camera control: electric zoom, manual/automatic focus 7. Image enhancement: SDE digital image detail enhancement technology 8. Polarized pseudo-color: hot black, hot white, and a variety of pseudo-colors are available 9. Image adjustment: brightness, contrast, gamma correction 10. Code format: H.264/H.265/MJPEG 11. Support strong light protection function
Visible Camera	<ol style="list-style-type: none"> 1. Sensors: 1/1.8" target surface starlight level CMOS, ICR color to black 2. Resolution: 2688 x 1520 3. Illuminance: color: 0.002 Lux; black and white: 0.0002Lux 4. Code format: H.264/H.265/MJPEG 5. Image enhancement: support wide dynamic, strong light suppression, electronic anti-shake, 3D digital noise reduction, automatic white balance and other functions 6. Focal length 12.5~775mm high-definition electric zoom lens 7. Fog penetration: support photoelectric/electronic double fog penetration
Servotable	<ol style="list-style-type: none"> 1. Structure: spherical, two axes and two frames 2. Window: Two Windows, which can carry two kinds of band sensors at the same time 3. Horizontal range: N x 360° continuous rotation, mechanical lock after power failure 4. Pitch range: -90°~+90°, with soft limit function, program can be set 5. Rotation speed: horizontal 0.01~120°/s, pitch 0.01~90°/s, horizontal maximum rotation speed is greater than or equal to 200°/s 6. Acceleration: 120°/s2 for horizontal and 120°/s2 for pitch 7. Speed adaptive: it has intelligent sensing speed change function and supports lens focal length speed adaptive function 8. Drive mode: direct drive with high torque rare earth permanent magnet synchronous motor for high speed start and stop 9. Position accuracy: better than 0.005° 10. Location time: less than 2S 11. Zero setting: Supports the setting of horizontal and pitch zero 12. Preset: more than 2048 13. Path scanning: support preset point cruise, day and night cruise, line scan, frame scan, apple skin scan, the scanning speed can be set 14. Motor protection: turntable blockage protection, high reliability
Tracking Function	<ol style="list-style-type: none"> 1. Tracking method: front-end embedded hardware tracking 2. Tracking mode: manual and automatic tracking, radar linkage is supported 3. Video switching: digital HD visible light/digital infrared video switching tracking 4. Tracking Function: Equipped with multiple tracking algorithms, it supports multi-target detection, automatic capture, automatic zoom during tracking, real-time display of target trajectories, and resistance to brief occlusions. It offers both manual and automatic tracking modes, and supports radar linkage for tracking. The system also supports target recognition during tracking, recognition-based tracking, and adaptive tracking wave gates, where the tracking box size can adjust according to the target's size. 5. Tracking display: It has a tracking target eagle eye display, which can be adjusted at any position and supports 2, 4 and 8 times magnification of the target
Intelligent Analyse	<ol style="list-style-type: none"> 1. Built-in 16Tops computing power processor 2. Implementation method: front-end embedded intelligent analysis module 3. Abnormal behavior detection: supports target recognition; supports regional intrusion detection, boundary intrusion detection, mobile detection, etc 4. Target recognition: Support the recognition function of people, vehicles, drones, birds and other targets (customers need to assist in providing data sets)
Environment Adaptability	<ol style="list-style-type: none"> 1. Working temperature: -40 ~60 , storage temperature: -45 ~+70 2. Humidity: 95%RH 3. Lightning surge protection: power supply 4000V, communication frequency signal 2000V 4. Salt spray resistance: PH value 6.5~7.2, continuous salt spray test for 96 hours, still can work normally 5. Vibration: in line with the requirements of highway truck transportation environment in GJB150A.16 6. Protection class: IP67
Enhance Functionality	<ol style="list-style-type: none"> 1. Health management: Support power on self-test, status query and fault code feedback, support visible light, thermal image components, horizontal pitch motor, chip temperature, running time and other hardware health query 2. 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 3. Upgrade and maintenance: remote restart, remote upgrade function, convenient system maintenance

Else	<ol style="list-style-type: none"> 1. Network interface: 1100M/1000M adaptive Ethernet port 2. Network protocol: support TCP/IP, HTTP, RTP, RTSP, PPPoE, DNS, FTP; support ONVIF2.0, GB28181 and other network protocols; 3. Power supply: AC220V±20%,50Hz 4. Power consumption: maximum ≤ 600W, stable ≤ 150W 5. Size: Φ565mm H880mm 6. Total weight: less than 110kg 7. Stool: portable tripod, quick erection and leveling, no shaking (optional)
Software	<ol style="list-style-type: none"> 1. Client: With rgs2000 tracking dedicated client, it supports the access of radar and photoelectric equipment to monitor the status of equipment in real time 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, and supports multiple video preview interface split screen display

4. Dimension



5. Application Scenarios

It is mainly used for low-altitude security prevention in key places such as military bases, airports, prisons, nuclear, biological and chemical industries, border and coastal defense, conference centers, office buildings, oil fields, oil depots, etc. Typical application cases in military and civil airports in recent years include:

Anti-drone

In 2019, it will provide support for Shuangliu International Airport and the National Day parade

Hong Kong International Airport, Daxing International Airport, 2020

In 2021, Hefei civil air defense will counter unmanned aircraft and anti-drone security for the 100th anniversary of the founding of the Party

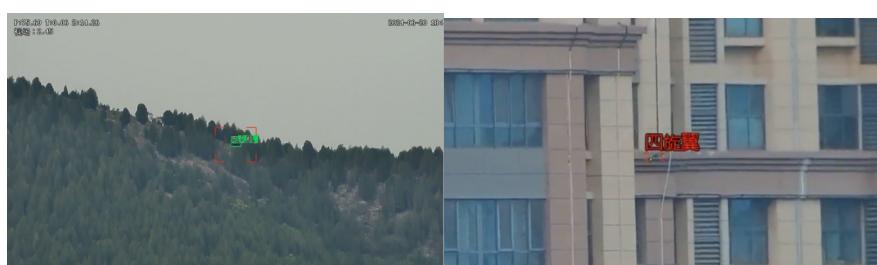
In 2022, a unit in Beijing will provide support for anti-drone operations at low altitude and anti-drone operations in Hong Kong

In 2023, a certain J trade anti-drone vehicle and an Australian BD anti-drone will be deployed

In 2024, the airport will conduct anti-wild bird detection in Daxing, bird detection in Ningbo and anti-wild bird detection in Russia's foreign trade



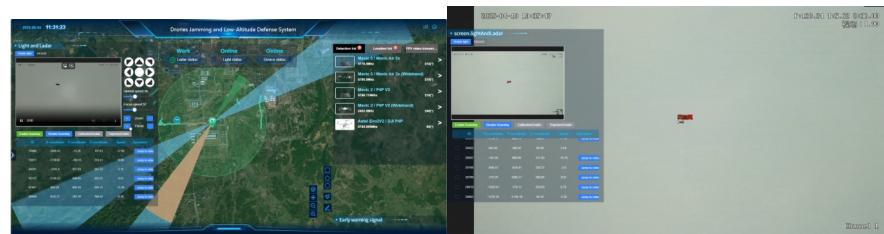
Drone identification and tracking, eagle eye display



Identification and tracking of high-speed UAV in complex background

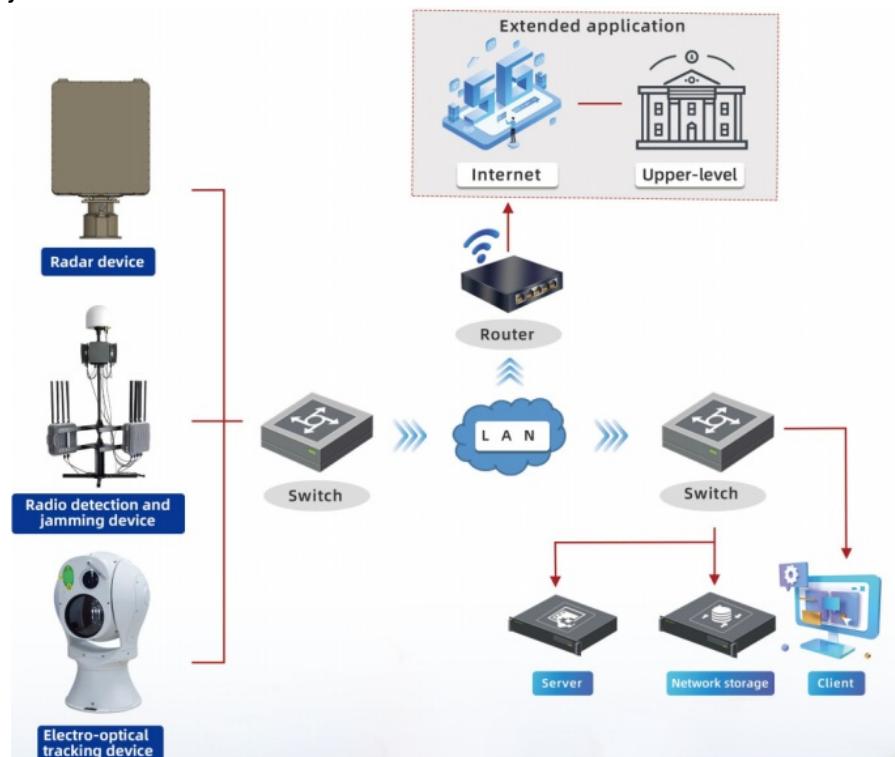


Bird recognition and tracking



Anti-drone system applications

6, Typical deployment



Anti-drone system process

7, Certification Certificate

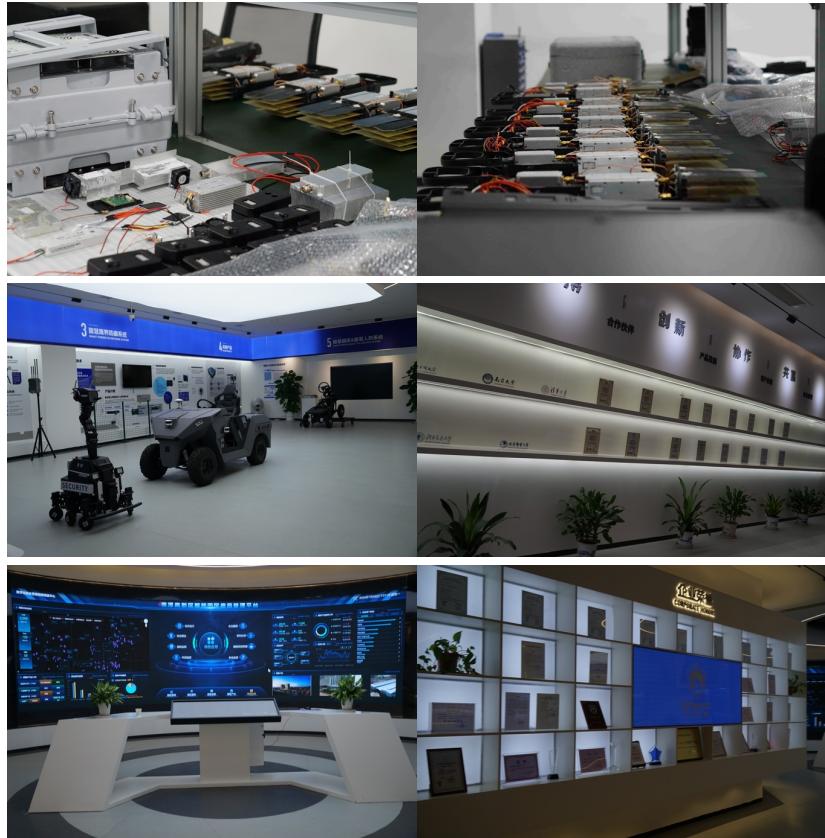




8, Company profile

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

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