

Multispectral Target Recognition and Tracking Servo Turntable

P02 Technical Specifications Document

Product Name

Multispectral Target Recognition and
Tracking Servo Turntable

Specification Model

P02

Product Application

Perimeter security prevention, rail transit inspection, drone countermeasures, tracking of low, small, and slow-moving targets, etc.

Product Illustration



Product Features

- Multispectral imaging, visible light, thermal imaging, laser fill light encoded and transmitted under the same SOC.
- Dual-spectrum images are both automatically focused, and the visible light images are optically integrated with fog removal.
- Intelligent applications: Edge computing, deep learning algorithms, supporting object detection, object recognition, object tracking.
- Target classification recognition: more than 80 types of classification targets including humans, vehicles, ships, animals, etc., similarity ratio judgment
- Optional multi-sensor signal input, sensor alarm, voice intercom, environmental parameters, power management, etc.
- Open architecture, capable of integrating radar guidance, AIS, spectrum detection, TDOA, and other systems for guidance.
- Equipped with full-screen target capture, automatic tracking, guided tracking, and platform control functions;

- Single IP or virtual dual IP output, supports national protocols, freely connects to various NVRs, IPSANs, and management platforms.
- Three-proof structural design, wind resistance level 12, suitable for application in harsh environments.
- For airspace 1-3KM low, slow-moving targets
- Detection of large aircraft targets at altitudes of 1-15KM, and recognition of aircraft landing gear targets at altitudes of 1-5KM.

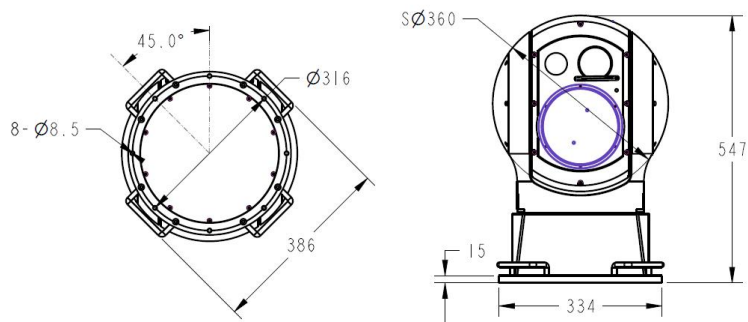
Technical specifications

Product	Name	Multispectral Target Recognition and Tracking Servo Turntable
	Detection model	UMAS-P02
	Specification model	UMAS-P02-1
	Image resolution	1920*1080 @25fps
	Lens focal length	F7.2-360mm (50X optical continuous zoom)
	Image mode	Color, black and white, optical defogging
Visible Light image	Image adjustment	White balance, wide dynamic range, gain control
	Video parameters	Brightness, contrast, sharpness, saturation.
	Focus mode	Automatic / Manual
	Daytime performance indicators	1.Reference target: Civil aircraft Detection range: $\geq 15\text{KM}$; Tracking range: $\geq 10\text{KM}$; Identification range: $\geq 7\text{KM}$ 2.Reference Target: Drone 0.35m*0.35m Detection range: $\geq 3.5\text{KM}$; Tracking range: $\geq 3\text{KM}$; Recognition range: $\geq 2.5\text{KM}$ (Working conditions: Ambient temperature: 20°C, Visibility: $\geq 10\text{Km}$, Relative humidity: <40%)
	Detector type	Uncooled Vanadium Oxide Detector
	Image resolution	640*512; Image encoding resolution: 12801024
Infrared Thermal imaging	Lens focal length	F30--150mm
	Image mode	Hot black, hot white, pseudo-color.

Servo turntable	Night performance indicators	<p>1.Reference target: Civil aircraft Detection range: $\geq 10\text{KM}$; Tracking range: $\geq 6\text{KM}$; Identification range: $\geq 4\text{KM}$</p> <p>2.Reference Target: Drone $0.35\text{m} \times 0.35\text{m}$ Detection range: $\geq 1.8\text{KM}$; Tracking range: $\geq 1.5\text{KM}$; Recognition range: $\geq 1.2\text{KM}$</p> <p>(Working conditions: Ambient temperature: 20°C, Visibility: $\geq 10\text{Km}$, Relative humidity: $<40\%$)</p>
	Rotary table type	Servo direct drive, PID feedback
	Horizontal range, speed	$0^{\circ} \sim 360^{\circ}$ horizontal key control speed: $0.1^{\circ} \sim 80^{\circ}/\text{s}$
	Pitch range, speed	$-45^{\circ} \sim 90^{\circ}$ vertical key control speed: $0.1^{\circ} \sim 80^{\circ}/\text{s}$
	Angle deflection correction	Electronic compensation
	Pre-set stop accuracy	$\pm 0.01^{\circ}$
	Video Compression format	H.256 / H.264 / MJPEG (Limited to image capture)
	Intelligent guidance	Capable of receiving radar guidance, spectral guidance, TDOA guidance, and multi-point optical positioning guidance
	Intelligent Search	Full-screen motion target search, thermal target tracking search
	Intelligent Tracking	Specific target recognition and tracking, moving target tracking, guided tracking, manual tracking
Video Encoding and Intelligence	Target recognition	Supports classification and identification of over 80 types of targets including drones, humans, vehicles, boats, etc.
	Network protocol	IPv4, TCP/IP, UDP, etc.
	Interface	Standard aviation plug interface (including: DC48V power supply, 10M/100M adaptive network interface)
	Protection level	IP66, optional three-proof protection
General Standards	Operating temperature/humidity	-40°C to $+60^{\circ}\text{C}$, humidity $<90\%$
	Power Supply & Power Consumption	AC220V to DC48V, with power supply; Power consumption $\leq 120\text{W}$

Size and dimensions	Φ 360*547mm(Standard configuration is for reference only, excluding customized equipment)
Weight (net weight)	≤ 40Kg (Standard configuration is for reference only, excluding customized equipment)

Product Dimensions



Specialized products vary slightly according to various applications, specific requirements can be inquired with business specialists, please understand and support!

Dedicated Software

Industry-specific platform management software, Tracer, SDK, or customized industry application software

Last updated date:2025-05-09

Standard product appearance and specification design are subject to change without further notice. Please refer to the actual product.