

Multi-spectral Tracking Camera

Product Overview

The multi-spectral tracking camera system integrates high performance, low-light, day-and-night high-definition visible light camera, combined with high-sensitivity infrared thermal cooled detector, laser ranging, high-precision turntable, and built-in AI recognition and tracking module, enabling it to identify and track targets such as drones day and night in all weather conditions.



Model: GTN- D07751100

Multi-spectral • High-precision • AI Recognition and Tracking

Application Area

Drone tracking, border defense, coastal defense, forest and grassland fire prevention, nature reserves, wetland parks, ecological scenic areas, oil fields and depots, highways, bridges and tunnels, and maritime and fishery administration.

Features

- Built-in AI recognition module, supports drone recognition and tracking, and supports linkage with radar detection, passive spectrum detection and radio jamming device;
- Intelligent focusing algorithm to avoid tracking loss caused by momentary image blurring during focusing;
- High precision: The turntable adopts a high-precision encoder and full closed-loop control, with a positioning accuracy of $\leq 0.01^\circ$;
- High load capacity: Typical load capacity is 60kg, and it can operate stably in harsh environments such as high altitude, low air pressure, strong wind, and freezing;
- The turntable supports 255 speed levels, with a minimum speed range of $0.001^\circ/\text{s}$;
- All internal circuit boards can be remotely upgraded and maintained;
- Multiple protections: Features multiple protection functions including overheating, overcurrent, and overvoltage; intelligent temperature control system, waterproof and heat dissipation design ensure long-term stable operation of the device;
- All components of the product are made of salt spray resistant materials according to the characteristics of the local climate, ensuring normal operation under different conditions, and also having wind resistance.

Picture Effects



Technical Parameters

MODEL	GTN-D07751100
Performance	
Standard atmospheric conditions (Normal visibility)	Temperature 15–20°C, relative humidity ≤50%, horizontal visibility ≥20 km, mid-latitude atmospheric
Targets	Small rotary-wing drone (0.3m x 0.3m)
Visible light	Detection range ≥5000m Tracking range ≥4000m Identification range ≥3000m
Thermal	Detection range ≥5000m Tracking range ≥4000m Identification range ≥3000m
Laser ranging	≥3000m
IR	
Sensor	Cooled MCT 640x512 FPA
Pixel pitch	15μm
Band	3.7-4.8μm
NETD	≤20mK
Focal length	90-1100mm 12X Optical zoom
Lens control mode	Motorized zoom, manual/autofocus
Polar pseudo-color	Black-hot/White-hot/Multiple pseudo-color conversion
Visible light	
Sensor	1/1.8" CMOS ICR color to black
Resolution	2688×1520
Focal length	12.5-775mm 62X Optical zoom
Minimum illumination	0.0003 Lux (color) / 0.0001 Lux (black and white)
Defog	Electronic defog+optical defog ON/OFF
Focus control mode	Electric/Autofocus
Video compression	H.264/H265/MJpeg
Image performance	Supports exposure compensation, highlight suppression, wide

	dynamic range , and electronic image stabilization.
Laser range finder	
Distance	3km (Target:0.3m*0.3m)
Laser wavelength	1535nm Eye safe
Accruacy	$\leq \pm 2m$
Turntable	
Structure	Spherical, two axes and two frames
Horizontal range	360°continuous rotation
Vertical range	-60° ~ +60°
Horizontal speed	0.005°~45°/s
Vertical speed	0.005°~35°/s
Positioning accuracy	0.005°
Preset position	2048
Path scanning modes	Preset point cruise, day and night cruise, line scanning, frame scanning, apple peel scanning, with adjustable scanning speed
Motor protection	Turret locked-rotor protection with highreliability
Remote restart	Supports remote restart, power outage memory, and remote upgrade functions
AI recognition and tracking module	
Detection	Moving target detection, AI target recognition
Identify	Classification and identification of people,vehicle,ships and drones
Track	Recognize fully autonomous tracking and support point and track
Target guidance and locking	Support protocol guidance for multiple types of devices such as radar detection, spectrum detection, ADS-B, AIS, etc
Recognition time	<1 s
Recognition rate	>98%
Environmental adaptability	
Shield	Integrated spherical full seal design,

	anti salt spray pH value (6.5-7.2) continuous for 96 hours
Protection grade	IP66
Operation temperature	-45℃ ~ +70℃
Other	
Network interface	1-channel 100M/1000M adaptive Ethernet port
Network protocol	TCP/IP, HTTP, RTP, RTSP, PPPoE, DNS, FTP; Support ONVIF, GB28181 and other network protocols
Power supply	AC220V/DC48V
Power consumption	≤200W
Dimension	550mm×550mm×995mm(L×W×H)
Weight	110KG±5%

External Dimensions

