EO/IR SYSTEM Sharpeyes M-5

PRODUCT OVERVIEW

The Electro Optical/Infrared (EO/IR) day and night surveillance system, model Sharpeyes-M5, consists of one complete Electro Optical/ Infrared (EO/IR) camera unit and is capable of detecting unmanned aerial vehicles (UAVs) at a distance of 5 kilometers in Electro Optical mode. The camera system is a high-performance multi-sensor long range thermal camera. Instant Optical zoom on both the thermal camera channel and the visible daytime camera channel is easily accessible via a host of controlling options. This camera system provides ultimate night time surveillance performance. Combining these multiple sensors allows for accurate detection, recognition and identification of potential threats.

The housing is a rugged IP65 construction using a strengthened aluminum alloy with anti-corrosive coating, allowing it to withstand the harsh climates, strong light and wind for dependable perimeter security, homeland defense, and coastal protection. The high-speed Pan Tilt has zero backlash and is positioned by the user's preference of speeds.

The Sharpeyes-M5 is a high-precision, all-weather integrated coaxial electro-optical turret, designed for long-distance target detection, identification and continuous tracking missions.

It can be fixed on fortifications such as coastal guard posts, border sentry posts and high-rise buildings for stationary surveillance, and can also be mounted on ships, armored vehicles, unmanned platforms and other mobile carriers to provide all-day situational awareness support.

The turret integrates dual-spectrum imaging (visible light + thermal imaging) with flexible expansion for laser rangefinder, radar and other sensing

modules, and is equipped with ±0.01° high-precision servo control system and advanced intelligent target recognition algorithm.
It can realize fast capture and stable tracking of personnel, vehicles, ships, UAVs, birds and other multi-type targets, and provide high-definition image data and accurate target position information for subsequent command decision-making and fire strike, which is widely applicable to military reconnaissance, border defense monitoring, maritime patrol, low-altitude early warning and other scenarios.

Application

TECHNICAL SPECIFICATIONS

Specification Category	System Attribute	Parameter
Visible Light	Detection Range	5 Km.
	Identify : Micro - UAV (RCS = 0.01 m2)	3 Km.
	Sensor	1/1.8 inch 4MP CMOS Image Sensor
	Max Image Resolution	2688x1520
	Lens Focal Length	15~775mm
	Focus Mode	Auto/Manual
	Field of View (FOV)	29.1°x16.7° ~ 0.5°x0.3°
	Day/Night Conversion	Manual/Auto
	Anti-Shake	Supports image stabilization
	Fog Penetration	Support Fog Penetration Function
Thermal Lens	Sensor	Uncooled Focal Plane
	Response Band	8~14 μm
	NETD	≤40mK@F1.0
	Pixel Pitch	12 μm

Thermal Lens (continued)	Lens Focal Length	25~225mm
	Focus Mode	Auto/Manual
	Field of View	17.6°x14.1° ~ 2.0°x1.6°
	F-Number	F0.95~F1.5
	Spatial Resolution	0.053~0.480 μm
	Color Palette	Black, White, Rainbow and various pseudo-colors available (20 modes total)
Turret	Horizontal Range	360° continuous rotation
	Vertical Range	-90°~+90°
	Speed	0.01° ~ 120°/s
Network Functions	Max Resolution	2688x1520 (Visible), 1280x1024 (Thermal)
	Image Encoding Format	JPEG
	Video Compression Standard	H.264/H.265/MJPEG
	Visible Stream	50Hz: 25fps (2688x1520, 2560x1440, 1920x1080)
	Thermal Stream	50Hz: 25fps (1280x1024, 1280x720, 1024x768)
Intelligent Functions	Coaxial Linkage Zoom	Supported
	Intelligent Recording	Alarm-triggered recording
	AI Identification	Supported
System Interfaces	Power Interface	DC 48V ±15%
	Communication Interface	1 x RJ45 10M/100M Adaptive Ethernet Port
General Specification	Operating Temperature & Humidity	-40°C ~ +70°C; <90% RH
	Protection Rating	IP65
	Power Consumption	500W
	Dimensions	≤830mm x 610mm x580mm
	Weight	≤ 85 kg