

CZ901 Anti-Drone Detection Electro-optical System

- a) Supports radar signal-guided operations;
- b) Automatically searches for, continuously tracks, and accurately locates airspace targets (small aircraft, helicopters, fixed-wing aircraft, and other low-altitude flying objects);
- c) Supports unmanned autonomous operation, allowing remote adjustment of equipment operating parameters and real-time display of equipment operating status and target detection information;
- d) Simultaneously outputs both infrared thermal imaging and visible light video feeds;
- e) Supports free switching between infrared thermal imaging and visible light video feeds;
- f) Infrared thermal imaging supports black-and-white thermal display modes and incorporates image enhancement algorithms to optimize image observation;
- g) The lens supports continuous optical zoom, autofocus, and manual fine-tuning, and can transmit lens focal length information in real time;
- h) The gimbal supports angle lock-and-hold function;
- i) The gimbal can receive position commands to achieve synchronous following rotation;
- j) The equipment has excellent vibration and shock resistance, and is equipped with a dual-axis azimuth and pitch stabilization system



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Device Module	Item	Parameter
IR	Detector type	Medium-wave cooled detector
	Working band	3~5um
	Resolution	640x512
	Focal length	50~1000mm
	FOV	0.55°x0.44°~11°x8.8° Continuous zoom
	Electronic zoom function	2X,4X
	Frame rate	50Hz
	Image processing	Image detail enhancement, white-to-black thermal imaging
TV camera	Sensor type	Coloring CMOS
	Image resolution	1920x1080
	Focal length	20mm~1200mm
	FOV	0.2°x0.15°~19.18°x14.28°
	Frame rate	30fps
	Electronic zoom function	2X,4X
	Lens control	Electric zoom, electric focus, automatic, manual, and semi-automatic focus.
Laser rangefinder	Wavelength	1535nm
	Measuring range	100m~15000m
	Max ranging frequency	5Hz
	Accuracy	Less than 3m

Servo stabilization loop	Stable loop isolation	≤3%(Typical disturbance 2.5°/2Hz)	
	Compensation function	Gyroscope zero-drift start-up compensation function and temperature drift compensation	
	Optical axis drift speed	Less than 6°/min	
Frame angle range	Azimuth range	Nx360°	
	Pitch angle range	-25°~+90°	
	Zero-point error	Azimuth	≤0.3°
		Pitch	≤0.3°
	Stable accuracy	70urad	
	Tracking accuracy	70urad	
	Speed of movement	Azimuth	0.1°~100°/s
		Pitch	0.1°~100°/s
	Acceleration	Azimuth	≥50°/s ²
		Pitch	≥50°/s ²
Weight	Weight	80kg	
Dimension	Dimension	See dimension drawing	
Power and Energy consumption	Power supply	28V±0.5V	
	Rated power consumption	7.1KW	
	Peak power consumption	7.7KW	
External electrical interfaces	Communication interface	RS422	
	Video interface	Network, SDI	