



MISSION CATALOG · CB-000056

EO/IR LAND SURVEILLANCE SYSTEM WITH THERMAL CAMERA

The AGT-ZS20GIS-CTVC63030-2132-LRF6K is a multi-sensor EO/IR surveillance system integrating a 2 MP visible camera, cooled MWIR thermal i...

Model AGT-ZS20GIS-CTVC63030-2132-LRF6K

KEY BENEFITS

- Integrates HD visible camera, cooled MWIR thermal camera, laser rangefinder, automatic tracking, gyro stabilization, and intelligent analysis in one unit
- All-weather, all-time, full-dimensional target discovery, positioning, tracking, identification, and tracing
- Long-distance detection of small ships and islands up to 8 km
- Wide detection spectrum with no-dead-angle full-dimensional coverage
- High control precision and excellent tracking performance
- Good attitude stability with two-axis gyro stabilization
- High degree of intelligence with radar linkage and automatic tracking
- Strong environmental adaptability with IP67 protection and shipboard vibration resistance

DESCRIPTION

The AGT-ZS20GIS-CTVC63030-2132-LRF6K is a rugged multi-sensor electro-optical/infrared (EO/IR) surveillance system designed for continuous all-weather, all-day operation. It combines a 2 MP low-light visible camera, a cooled 640×512 MWIR thermal imager, a 6 km laser rangefinder, two-axis gyro stabilization, automatic tracking, and radar linkage in a single compact pan-tilt unit. The system provides N×360° continuous pan rotation, ±90° tilt, and positioning accuracy up to 0.02° via direct-drive high-torque rare-earth permanent magnet synchronous motors. It supports preset point cruise, line scan, watch functions, and multiple tracking modes including manual control, radar-linked automatic tracking, and optional front-end module or back-end software tracking. Built to IP67 standards, the unit operates from -25 °C to +60 °C, resists salt spray, lightning surge, and shipboard vibration per GJB150A.16, and features aviation-grade waterproof connectors, power-on self-test, fault code feedback, and remote upgrade capability.

OVERVIEW

- Wide detection spectrum
- No-dead-angle detection and full-dimensional coverage
- High control precision
- Excellent tracking performance
- Good attitude stability
- High degree of intelligence
- Strong environmental adaptability

APPLICATIONS

- Ship / shipboard video collection
- Sea surface warning
- Important target alert
- Radar photoelectric linkage

TECHNICAL SPECIFICATION

ENHANCEMENTS	
Motor protection	turntable blocking protection, high reliability
Fault detection	support power-on self-check, status query and fault code feedback
Upgrade and maintenance	remote restart, remote upgrade function, convenient system maintenance
INTERFACE	
Network interface	1 channel 10M / 100M adaptive Ethernet port (including thermal image + high-definition visible light + RS422 / 485 control)
Power source	1 way DC24V
Physical interface	china-grade aviation waterproof plug, protection grade IP67
Network protocol	support TCP / IP, UDP, IPv4 / v6, HTTP, RTP, RTSP; support Onvif, GB28181 network video protocol
PTZ control protocol	Pelco-D industry standard and other multi-protocols, baud rate 2400, 4800, 9600, 19200 optional, customizable private protocol
ENVIRONMENT	
Working temperature	-25 °C ~ + 60 °C
Storage temperature	-30 °C ~ + 70 °C
Humidity	<95% RH
Anti-lightning surge	power supply 4000V, communication video signal 2000V
Anti-salt spray	PH value
Vibration resistance	meets GJB150A.16 shipboard environmental requirements
Protection level	IP67
POWER	
Power supply	equipped with ultra-wide input power adapter, AC90V ~ 305V to DC24V
Power consumption	The maximum power consumption of the turntable ≤250W, the stable power consumption ≤50W
Dimension	Φ280mm×430mm

TECHNICAL SPECIFICATION

POWER	
Weight	≤18kg
CAMERAS VISIBLE CAMERA	
Detector	1/3 "low illumination CMOS
Resolution	1920 × 1080 (2 MP)
Illumination	color
Lens focal length	8 ~ 320mm continuous zoom
Action distance	Under the conditions of atmospheric visibility greater than 10km, air humidity less than 50%, and background imperviousness, the action distance to small ships or islands and reefs can reach 8km.
Lens control	electric zoom, manual / auto focus
Interface and video format	IP network output, H.265 / H.264
COOLED THERMAL CAMERA	
Detector	Cooled Mercury Cadmium Telluride (MCT) infrared focal plane
Spectral range	3μm ~ 5μm
Resolution	640 × 512
Pixel size	15μm
Temperature sensitivity (NETD)	better than 15mk (@ F4.0, 25 oC)
Lens focal length	30 ~ 300mm continuous zoom
Action distance	when the atmospheric visibility is greater than 10km, the air humidity is less than 50%, and the target and background temperature difference is greater than 5K, the action distance to small ships or islands and reefs can reach 8km.
Focusing mode	manual / automatic focusing (automatic focusing supports zoom trigger, lens temperature trigger, scene detection trigger)
Electronic zoom	2X, 4X, support global synchronous display
Polarity	hot white, hot black and 16 kinds of false colors, support multi-configuration scene mode

TECHNICAL SPECIFICATION

COOLED THERMAL CAMERA	
Correction	automatic / manual / background correction
Image adjustment	brightness, contrast, AGC automatic control
Image enhancement	SDE digital detail enhancement function
Strong heat source protection	support
Starting time	≤7min (under normal temperature)
LASER	
Wavelength	1570nm
Measuring range	100 ~ 6000m
Ranging accuracy	± 3m
Control	RS422

COMMERCIAL TECHNICAL DATA

DATASHEET · EN

DOCUMENT CONTROL SHEET

ISSUING AUTHORITY

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