



MISSION CATALOG · CB-000051

AGT-Z201-LFZ LONG DISTANCE MULTI-SENSOR THERMAL CAMERA

The AGT-Z201-LFZ is a long-range multi-sensor thermal camera system integrating HD daylight camera, uncooled thermal imager, gyro stabili...

Model AGT-Z201-LFZ

KEY BENEFITS

- Integrates HD daylight camera, uncooled thermal camera, gyro stabilization, intelligent analysis, and precise electronic control
- All-weather, all-time, full-dimensional target discovery, positioning, tracking, identification, and recording
- Long-distance detection up to 10 km for small ships and islands via thermal imaging
- Multi-spectrum active/passive detection enables 24-hour surveillance in all environments
- High-speed pan/tilt: 90°/s rotation speed and 120°/s² acceleration for fast-moving targets
- Wide coverage: 360° azimuth and -90° to +90° pitch for all-angle detection
- High control accuracy: ≤0.02° positioning accuracy with precision angle encoder and servo PT control

DESCRIPTION

The AGT-Z201-LFZ long-range multi-sensor thermal camera combines an HD daylight camera, uncooled thermal imager, two-axis gyro stabilization, intelligent video analytics, and precision electronic control in a rugged dome PTZ platform. It is engineered for shipboard and coastal video acquisition, sea-surface warning, key-target alerting, and radar-linked tracking across all weather and lighting conditions. The system supports all-weather, all-time, full-dimensional target discovery, positioning, tracking, identification, and recording, with detection ranges up to 10 km for small vessels and islands using thermal imaging and up to 20 km for vessels in daylight. A high-precision servo PT control system with angle encoders delivers $\leq 0.02^\circ$ positioning accuracy, while $90^\circ/\text{s}$ pan/tilt speed and $120^\circ/\text{s}^2$ acceleration enable rapid capture and tracking of fast-moving targets. Built for harsh environments, the dome enclosure uses high-strength aluminum alloy with IP67-rated three-proof protection against rain, dust, corrosion, and electromagnetic interference. It includes comprehensive self-diagnosis, power-failure memory, disconnection renewal, and remote upgrade capabilities to minimize downtime.

OVERVIEW

- Multi-spectrum: integrated HD daylight camera system, uncooled thermal camera system, and more; combined active/passive detection for 24-hour all-weather surveillance
- High/fast turning speed: $90^\circ/\text{s}$ rotation speed, $120^\circ/\text{s}^2$ acceleration, helpful for capture and tracking of fast-moving targets
- Wide coverage: azimuth rotation range $0\sim 360^\circ$, pitch rotation range $-90^\circ\sim +90^\circ$, all-angle detection and all-round coverage
- High control accuracy: precision angle encoder and high-precision servo PT control system deliver $\leq 0.02^\circ$ positioning accuracy; high-performance imaging processing with precision focus control enables precise auto focus
- Excellent tracking performance: automatic tracking module with multiple target acquisition and tracking algorithms, supplemented by high-precision servo control, ensures stable tracking during rapid movement
- Gyro stabilization: two-axis gyro stabilization structure effectively isolates disturbance of the optical system caused by carriers such as vehicles and ships, maintaining high image and video stability
- Intelligent analysis: supports target intrusion detection, motion detection, abnormal behavior detection, target classification and identification, hot-spot alarm, radar linkage, and 3D zoom positioning
- Self-diagnosis and self-recovery: supports lifecycle management, fault self-checking, front-end storage, resuming transmission after disconnection, memory after power failure, and remote restart/upgrade
- Environmental adaptability: high-strength aluminum alloy material, internal and external double-layer three-proof technology, IP67 protection, rain-proof, dust-proof, anti-corrosion, anti-electromagnetic interference

TECHNICAL SPECIFICATION

IMAGE PROCESSING	
Imageparameters	AGC automatic gain control, brightness, contrast
ENVIRONMENT	
Stronglightprotection	Support anti-sun damage
Temperaturecorrection	A thermalization design, image clarity is not affected by temperature
Workingtemperature	-40 ~+ 60°C
Storagetemperature	-45 ~+ 70°C
Humidity	<90%
Ingressprotection	IP67
AUDIO/VIDEO THERMAL RESOLUTION	
Support	1920×
DAYLIGHT RESOLUTION	
Support	2592×
TRACKING	
Auto Track	Support
Preset	3000
POWER	
Powerfailurememory	Support can restore the position before power failure, preset point state, cruise state, line sweep state
Others Powersupply	DC24V with power adapter
Normal	≤ 150W
Peak	≤ 400W
Weight	≤ 20kg
Dimensions/Weight	Dimensions: 300*260*65mm Weight: 5kg
PTZ	
Pan Tilt Structure	Dome model, wind resistance, strong anti-shake, can resist 12-level strong wind

TECHNICAL SPECIFICATION

INTERFACE	
Interface Networkinterface	RJ45
Physicalinterface	alloy waterproof aviation plug
Communication	2ch RS422;2 channel USB
Video	RJ45

COMMERCIAL TECHNICAL DATA

DATASHEET · EN

DOCUMENT CONTROL SHEET

ISSUING AUTHORITY

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MATRIX CODES · SCAN TO OPEN

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