



MISSION CATALOG · CB-000039

AGT-HTVC6511-2132 LONG RANGE THERMAL SECURITY CAMERA WITH MOTION DETECTION

The AGT-HTVC6511-2132 is a long-range dual-spectrum thermal security camera with a 640×512 VOx uncooled detector, 25–105mm thermal zoom,...

Model AGT-HTVC6511-2132

KEY BENEFITS

- Long range 24-hour monitoring
- Delicate and smooth images
- Convenient for installation and application
- 360-degree omnidirectional pan-tilt
- Super-strong aluminum alloy with IP66
- Higher sensitivity
- Effective in all environments
- Small size and low weight

DESCRIPTION

The AGT-HTVC6511-2132 is a long-range dual-spectrum thermal security camera built around a 5th-generation UFPA VOx uncooled detector with 640×512 resolution (384×288 optional) and a 25–105mm continuous-zoom thermal lens. It delivers vehicle detection out to 8.6 km and human detection out to 3.4 km, with a NETD of 50 mK @25°C F1.0. The integrated visible channel uses a 2 MP starlight CMOS sensor with an 8–320mm motorized lens, while an optional 8W 810nm laser illuminator extends night-time performance. The camera is mounted on a 50kg-capacity PTZ with 360° pan, ±45° tilt, and 255 presets, supporting auto-cruise, line scan, and power-off memory. Intelligent functions include regional/cross-border intrusion detection, target tracking, fire detection, 3D frame selection zoom/positioning, panoramic stitching, and radar linkage. Housed in integral aluminum alloy with IP66 protection (IP67 optional), it operates from -25°C to +60°C and includes surge, vibration, and salt-fog resistance for harsh outdoor environments.

OVERVIEW

- VOx uncooled detector 640×512
- NETD less than 50mK (@25°C F1.0)
- SDE digital image processing, AGC, 2X digital amplification
- 10 pseudo color and B/W, B/W inverse
- Intelligent functions: cross-border/intrusion detection and target tracking
- 255 level alarm threshold can be setup
- Advanced algorithm supports shot-point/fire detection and alert
- One integral aluminum alloy housing, waterproof, IP66 weather proof, anti-dust

APPLICATIONS

- Seaport and airport monitoring
- Water system monitoring
- Storage monitoring
- Oilfield & oil depot security
- Ecological and environmental monitoring
- Border and coastal defense
- Highways and railways monitoring

TECHNICAL SPECIFICATION

THERMAL	
Field of View	30°* 23°~6.2°*4.6°
Zoom	Electric zoom
Focus	manual / auto focus, 3A adaptive active focus algorithm, support multiple trigger modes, precise high speed
Optical Machine	3CAM mode and AS+DOE optical machine structure, high infrared transmittance, no virtual focus and small axis in the zoom process
Image Enhancement	SDE digital image enhancement technology to enhance image details
Pseudo-color / Polarity	16 kinds of pseudo-color images, hot black / hot white two polarities
Image Parameters	AGC automatic gain control, brightness, contrast
Electronic Zoom	2X, 4X, support global synchronous display
NUC Correction	automatic / manual correction, background correction
VISIBLE	
Sensor Type	1/2.8" target surface star-level CMOS, integrated ICR dual filter day and night switching
Resolution	2 Mega pixels, 1920X1080
Min Illumination (Color)	0.05 Lux
Min Illumination (B/W)	0.01 Lux
Encoding	H.265/H.264 video format, support multi-stream
Video Bit Rate	32Kbps ~ 16Mbps
Frame Rate	60Hz 30 frames / sec
Local Storage	SD card local storage
Motion Detection	support

TECHNICAL SPECIFICATION

VISIBLE	
Occlusion Alarm	support
Cross-border Detection	support
Regional Intrusion Detection	support
White Balance	support
Electronic Shutter	support
Strong Light Suppression	support
3D Digital Noise Reduction	support
Wide Dynamic	support
Anti-infrared Over Exposure	support
Lens Focal Length	8 ~ 320mm, 2 Mega pixel high-definition power zoom
Lens Focus	manual / auto focus, 3A adaptive active focus algorithm, support multiple trigger modes, precise high speed
Aperture	Automatic
Day/Night Type Light	0.4-0.75um visible light wide spectral window and 0.8-0.95um near infrared laser narrow spectrum window day and night independent double pass light window to improve imaging light and stray light signal to noise ratio
Preset Position	precision potentiometer, zoom focus feedback
LASER	
Availability	optional
Power	8W
Wavelength	810nm infrared laser
Illumination Angle	1°~ 20°, DSS digital step lighting angle control technology

TECHNICAL SPECIFICATION

LASER	
Homogenization	GHT-II high-definition lens group ultra-homogenization patented technology, brightness balance of all focal lengths is >92%
Laser Safety	ZQB safety laser beam processing patent technology, in line with international IEC60825 safety standards
HOUSING	
Material	integral aluminum alloy housing, stainless steel, anti strong wind
Structure	Integral double window
Window Glass	4mm optical glass, transmission>98%
Surface Coating	PTA three-proofing coatings
IP Rating	IP66 (IP67 optional)
Thermal Balance Design	applied thermal balance design and wide temperature electronics, which could operate under high / low temperature
Connector	waterproof aviation connector
PTZ	
Load	50kg
Pan Range	0 ~ 360°
Tilt Range	-45°~ +45°
Horizontal Speed	0.01°/S ~ 30°/S
Pitch Speed	0.01°/S ~ 15°/S
Speed Adaptive	support lens focal length speed adaptive function
Preset Positions	255, support lens zoom, focus preset
Accuracy	±0.1°
Patrol Sweep	support 6 cruises, 1 apple peel, 1 line sweep

TECHNICAL SPECIFICATION

PTZ	
Watch	Preset / Auto Cruise Route / Auto Scan Route
Power-off Memory	support (recoverable position before power-off, preset position status, cruise status, line sweep status)
Bearing Information	support angle query return, positioning
Zero Point Correction	support north direction zero point remote correction function
Power Consumption	about 100W
Weight	15kg
INTERFACE	
Network Interface	1 way RJ45, 10/100 Base-T adaptive (integrated video output and RS422/485 control communication)
Network Protocol	support TCP/IP, UDP, IPv4/v6; support HTTP, RTP, RTSP, NFS, DHCP, NTP, SMTP, SNMPv1/v2c/v3, UPNP, PPPoE, DNS, FTP; support PSIA, ONVIF2.0, GB28181 and other network protocols
Physical Interface	alloy waterproof aviation plug
POWER	
Power Supply	AC/DC24V, anti-reverse protection
Total Power Consumption	150W
WEIGHT	
Total Weight	35kg (including Pan/Tilt)
ENVIRONMENT	
Working Temperature	-25°C~ +60°C (optional -40°C)
Storage Temperature	-45°C~ +70°C
Humidity	<90%
Earthquake Resistance	0.2g (according to the 5.4 severity level 2 of GB/T15211-2013)
Impact Resistance	15g (according to the 5.3 severe level 3 of GB/T15211-2013)
Lightning Protection	built-in surge protection of interface circuit, power supply 4000V, signal 2000V

TECHNICAL SPECIFICATION

ENVIRONMENT	
Anti-salt Fog	at pH 6.5 ~ 7.2, continuous spraying for 96 hours, no change in surface
ENHANCEMENTS	
Glare Protection	support, anti-sun burn function
Temperature Correction	no thermal image design, imaging resolution is not affected by temperature
Scene Mode	support multiple configuration scenarios, adapt to various environment applications
Auto Focus Tuning	support remote auto focus precision parameter adjustment, adapt to different scenes
Day/Night Cruise	day and night group cruise different preset groups, day cruise 1-40 preset position, night cruise 41-80 preset position, automatically switch day and night according to the photosensitive state, adapt to different time and space scenes
Lens Servo	support lens preset position, focal length return, focus positioning function
OSD Menu	OSD menu remote call operation
Remote Maintenance	support embedded program remote upgrade for easy after-sales maintenance
Alarm Threshold	255 level alarm threshold can be setup
Fire Detection	support shot-point / fire detection and alert
OPTIONS	
Wiper	optional built-in wiper
Window Cleaning	optional external small spray device, self-storing water, no damage to ice, no impact on host function
Expansion Module	optional Beidou / GPS, laser ranging and other extended functions
Optical Network	optional built-in fiber module, single-mode fiber output, improve anti-interference
INTELLIGENT FUNCTIONS	
Regional Intrusion Detection	support
Cross-border Intrusion Detection	support
Multi-scene Group Cruise Detection	support

TECHNICAL SPECIFICATION

INTELLIGENT FUNCTIONS

3D Frame Selection Zoom / Positioning	support
Automatic Tracking	support
Panoramic Stitching	support
Radar Linkage	support (requires key area prevention software)

COMMERCIAL TECHNICAL DATA

DATASHEET · EN

DOCUMENT CONTROL SHEET

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