



MISSION CATALOG · CB-000054

AGT-TTVC121030C-2186 ALL-WEATHER DUAL-SENSOR THERMAL CAMERA

The AGT-TTVC121030C-2186 is an all-weather dual-sensor PTZ camera combining 1280×1024 thermal imaging and 2 MP visible-light video for lo...

Model AGT-TTVC121030C-2186

KEY BENEFITS

- Integrates infrared thermal imaging, HD visible light, video encoding, pan/tilt housing, and control electronics in one compact, easy-to-install system
- Latest-generation MEMS-based VOx detector with NETD down to 50 mK for finer image quality and better performance in fog, rain, and snow
- Unique AS optical and high-precision optomechanical design with excellent non-uniformity correction for superior image uniformity and dynamic range
- SDE image detail enhancement with smooth, noise-free images, multiple pseudo-colors, and hot black/hot white polarity modes for detecting low-contrast hidden targets
- Full HD color/black-and-white dual-mode low-illumination CMOS with 70× compact continuous zoom visible lens for small size and light weight

DESCRIPTION

The AGT-TTVC121030C-2186 integrates an uncooled 1280×1024 VOx thermal imager and a full HD visible-light camera into a single rugged PTZ platform. The thermal channel uses a 30–300 mm continuous-zoom lens with AS+DOE optomechanical design, SDE image enhancement, 16 pseudo-color modes, and NUC correction to deliver smooth, detailed imagery in fog, rain, and snow. The visible channel employs a 1/1.8-inch starlight CMOS sensor with an 11–860 mm 70× continuous-zoom lens, ICR day/night switching, H.265/H.264 encoding, and intelligent analytics including cross-border detection, intrusion detection, and face detection. An industrial-grade embedded control system manages electric zoom, focus, pan/tilt rotation, and preset positions through a single IP network connection. The heavy-duty CNC pan/tilt supports 360° continuous pan, ±45° tilt, speeds up to 30°/s horizontal, 255 presets, and power-off memory. The all-aluminum housing with 4 mm optical windows, thermal balance design, and IP66 rating (IP67 optional) ensures reliable operation from -25°C to +60°C.

OVERVIEW

- The AGT-TTVC121030C-2186 dual-band camera is based on sixth-generation uncooled infrared technology and HD visible-light imaging technology for remote day/night monitoring.
- Thermal imaging uses a high-sensitivity 1280×1024 uncooled focal-plane detector, AS-optics miniaturized infrared lens, advanced digital circuits, and image-processing algorithms to produce fine, smooth imagery.
- Visible light uses a full HD color/black-and-white dual-mode low-illumination CMOS sensor and 70× compact continuous-zoom lens, significantly reducing overall size and easing installation.
- A 360° full-scale pan/tilt enables search and observation out to 18 km, while an industrial-grade embedded control system provides stable zoom, focus, mode switching, and pan/tilt control.
- The super-strength aluminum housing achieves IP66 protection for reliable medium- and long-term field operation.

APPLICATIONS

- Seaport and airport monitoring
- Water system monitoring
- Storage monitoring
- Base security monitoring
- Oilfield and oil depot security
- Fire source prevention and monitoring
- Ecological and environmental monitoring
- Border and coastal defense
- Urban security and anti-UAV applications
- Highway and railway monitoring

TECHNICAL SPECIFICATION

IMAGE PROCESSING	
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	1~8X continuous zoom, support global synchronous display
NUC correction	automatic / manual correction, background correction
VISIBLE CAMERA	
Resolution	2 Mega pixels, 1920×1080
Illumination	color:
Encoding	H.265/H.264 video format, support multi-stream
Video bit rate	32Kbps ~ 16Mbps, 60Hz 30 frames / sec
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,
Protection	IP66(IP67 optional)
Interface	waterproof aviation connector ;
PT	
Load	50kg PTZ
Range	Pan 0 ~ 360 °, Tilt -45 ° ~ +45 °
Speed	horizontal
Preset position	255, support lens zoom, focus preset

TECHNICAL SPECIFICATION

PT	
Accuracy	±0.1°
Patrol sweep	support 6 cruises, 1 apple peel, 1 line sweep
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 120W
Weight	23kg
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
Power supply	AC/DC24V, anti-reverse protection
Physical interface	alloy waterproof aviation plug
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 no environment application
Auto focus tuning	support remote auto focus precision parameter adjustment, adapt to different scenes
Day and 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

TECHNICAL SPECIFICATION

ENHANCEMENTS	
Parameter setting	OSD menu remote call operation
Remote maintenance	support embedded program remote upgrade for easy after-sales maintenance
POWER	
Total power consumption	120W
Total weight	25kg (including Pan/Tilt)
ENVIRONMENT	
Working temperature	-25 °C~ +60°C (optional -40 °C)
Storage temperature	-45°C ~ + 70 °C
Humidity	<90%
Impact resistance	15g (according to the
Lightning protection	built-in surge protection of interface circuit, power supply 4000V, signal 2000V
Anti-salt fog	at pH

COMMERCIAL TECHNICAL DATA

DATASHEET · EN

DOCUMENT CONTROL SHEET

ISSUING AUTHORITY

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