



MISSION CATALOG · CB-000004

AGT-TTVC6516-2075 MARINE TOP THERMAL IMAGING CAMERA

The AGT-TTVC6516-2075 is a marine-mounted dual-band PTZ camera combining fifth-generation uncooled thermal imaging and full-HD visible-li...

Model AGT-TTVC6516-2075

KEY BENEFITS

- Dual-band day/night imaging with fifth-generation uncooled VOx thermal detector and full-HD visible CMOS in a compact integrated package.
- High thermal sensitivity with NETD of 50 mK for fine image quality and reduced degradation in fog, rain, and snow.
- Advanced AS optical and precision optomechanical design for superior thermal image quality.
- Non-uniform image correction technology ensures good uniformity and wide dynamic range.
- SDE image detail enhancement with smooth, noise-free images and multiple pseudo-color/polarity modes for low-contrast target detection.

Quoted & supported by Circuitbull® (Volls Global Inc)

- Full-HD color/black-and-white dual-mode low-illumination CMOS with 30× compact continuous zoom.

DESCRIPTION

The AGT-TTVC6516-2075 is a smart dual-band marine camera built on fifth-generation uncooled infrared technology and high-definition visible-light imaging. It integrates a 640×512 VOx thermal sensor with a 31–155 mm lens, a 2 MP 1920×1080 visible CMOS with a 22–750 mm lens, video encoding, a heavy-duty pan/tilt, and a rugged housing into a single marine-mounted unit for remote day/night monitoring. Advanced image processing includes SDE detail enhancement, 16 pseudo-color modes, hot black/hot white polarity, AGC, electronic zoom, and automatic/manual NUC correction. Intelligent functions such as cross-border/intrusion detection, target tracking, and front-end hot-spot detection alarm enable unattended operation. A single RJ45 network connection carries video, alarm, and positioning data, with support for ONVIF, GB28181, and multiple network protocols. Optional add-ons include an 810 nm laser illuminator, laser ranging, Beidou/GPS, and an electronic compass. The system is housed in a super-strength aluminum alloy enclosure rated IP66 (IP67 optional) with anti-salt-fog coating, surge-protected interfaces, and wide-temperature electronics. It operates from -25°C to +60°C (optional -40°C), stores from -45°C to +70°C, and withstands vibration, shock, and marine environmental stresses, making it suitable for continuous maritime deployment.

OVERVIEW

- Integrates infrared thermal imaging, HD visible light, video encoding, pan/tilt, housing, and control electronics in one marine-mounted unit.
- Designed for high integration, compact installation, and reliable operation in challenging marine environments.
- Built around the latest MEMS-based VOx detector with NETD up to 50 mK for fine picture quality and all-weather performance.
- Uses unique AS optical design and high-precision optomechanics for superior thermal image quality.
- Employs excellent non-uniform correction technology for uniform images and wide dynamic range.
- SDE image detail enhancement with multiple pseudo-color and hot black/hot white polarity modes.
- Heavy-duty CNC pan/tilt provides 360° continuous rotation, no dead angles, and stable, low-jitter tracking.
- Supports glare protection, anti-sun burn, multi-configuration scene modes, and intelligent analytics.
- Front-end hot-spot detection alarm based on raw frame data for fast, accurate locking.
- IP network design allows all video, alarm, and positioning data over a single cable.
- Optional laser illuminator creates a three-band system; optional laser ranging, Beidou/GPS, and electronic compass extend situational awareness.

APPLICATIONS

- Marine navigation and collision avoidance
- Coastal and harbor surveillance
- Search and rescue at sea
- Long-range day/night maritime monitoring
- Perimeter and border security in maritime environments
- Unattended remote monitoring of offshore platforms and vessels

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	2×, 4×, 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
ENHANCEMENTS	
Power	15 W
Wavelength	810nm china grade infrared 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
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
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
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

TECHNICAL SPECIFICATION

PT	
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
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

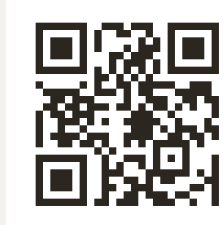
DATASHEET · EN

DOCUMENT CONTROL SHEET

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