



MISSION CATALOG · CB-000003

AGT-DMS10-4300-75 LONG RANGE HIGH SPEED THERMAL IMAGING CAMERA

A long-range high-speed dual-sensor PTZ thermal imaging camera designed for forest fire protection, perimeter security, and 24-hour surveillance...

Model AGT-DMS10-4300-75

KEY BENEFITS

- Long range 24-hour monitoring capability
- Delicate and smooth thermal and visible images
- Convenient for installation and application
- 360° omni-directional high-speed pan-tilt
- Super-strong aluminum alloy housing with IP67 protection
- Higher thermal sensitivity for reliable detection
- Effective operation in all environments
- Lightweight design: weight < 10kg

Quoted & supported by CircuitBull® (Votus Global Inc)

DESCRIPTION

The AGT-DMS10-4300-75 is a long-range high-speed thermal imaging camera built for forest fire protection and critical infrastructure monitoring. It integrates a 640×512 sixth-generation uncooled VOx thermal detector with a 75mm lens, a 47× optical zoom visible starlight camera, and a switchable-angle IR laser illuminator to deliver continuous day/night coverage. The quasi-spherical aluminum alloy PTZ head provides 360° horizontal and ±90° pitch rotation with speeds up to 100°/s, while IP67 sealing and wide-temperature operation ensure reliability in harsh environments. Onboard intelligent video analytics include fire and smoke detection, hotspot tracking, intrusion and boundary-crossing detection, people/vehicle classification, face detection, automatic target tracking, and AR information fusion. Active defense features such as integrated audio and strobe lighting, alarm linkage, and firefighting device control enhance situational response. The camera supports H.265/H.264/MJPEG multi-stream encoding, ONVIF/GB28181 protocols, and SDK integration for flexible deployment.

OVERVIEW

- Supports image scale, laser rangefinder (LRF), and access to multiple sensors.
- Highly intelligent: supports hotspot, smoke and fire alarms, temperature detection; area intrusion detection; vehicle, boat and human detection, classification and identification; target tracking, screening and filtering; AR intelligent information fusion linkage.
- Active defence: supports loud speaker and flashing lights to deter or deny intruders.
- Pitch: -90° to +90°, horizontal 360° continuous rotation, full coverage of 720° three-dimensional space.
- Horizontal speed: 0.01°/s to 100°/s; pitch speed: 0.01°/s to 80°/s, with high speed start/stop, focal speed adaptation, and accurate target positioning.

APPLICATIONS

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

TECHNICAL SPECIFICATION

PTZ	
Pitch rotation angle	-90°~+90°
Structure material	Quasi-spherical micro-rotary, integrated 5-window multi-channel, fine cast high strength aluminium alloy
Preset positions	3000
Cruise routes	16
Presets per route	256
Watch functions	Preset bit, pattern scan, cruise scan, vertical scan, frame scan, panorama scan, apple skin scan, horizontal fan sweep line scan
3D frame selection	Support 3D frame selection zoom
Orientation information	Angle query/real-time return and positioning; lens FOV return and positioning
Zero point correction	Support northward zero point remote correction
THERMAL	
Detector	Sixth generation uncooled focal plane array VOx detector
Resolution	640×512
Wavelength	8~14μm
NETD	40mK (@25°C F1.0)
Lens	75mm
FOV	5.9°×4.7°
Image enhancement	SDE digital image enhancement
Enhancement levels	255 levels
Pseudo-color	16 kinds, hot black/hot white

TECHNICAL SPECIFICATION

THERMAL	
Electronic zoom	1.0~8.0× continuous zoom (step 0.1)
Correction modes	Manual, background, automatic interval, Gamma
Dead pixel correction	Support
Non-uniformity correction	Automatic/hand
Protection	Anti-sun damage, strong light protection
Video resolutions	1920×1080, 1280×1024, 1280×960, 1024×768, 1280×720, 704×576, 640×512, 640×480, 400×300, 384×288, 352×288, 352×240
VISIBLE	
Sensor	Back-illuminated ultra-low illumination starlight CMOS
Min illumination (color)	0.0005Lux
Min illumination (B/W)	0.0001Lux @ 0Lux (IRON)
Lens	7mm~330mm
Optical zoom	47×
Digital zoom	16×
Image processing	White balance, electronic shutter, frame accumulation, backlight compensation, glare suppression, 2D/3D DNR, electronic anti-shake, wide dynamic
Day/Night	0.4-0.75μm visible and 0.8-0.95μm near-IR independent dual light window
Fog penetration	Electronic and optical fog penetration
Video resolutions	2592×1520, 2560×1440, 1920×1080, 1280×1024, 1280×960, 1024×768, 1280×720, 704×576, 640×512, 640×480, 400×300, 384×288, 352×288, 352×240
LASER	
Illuminator	New infrared GHT-III HD flood light source, no scattered particles
Angle	3°~65° switchable

TECHNICAL SPECIFICATION

LASER	
Distance	300m
DETECTION	
Vehicle range	6500m
Human range	2500m
Fire point range	3000m (@2x2m)
RECOGNITION	
Vehicle range	1800m
Human range	800m
ENHANCEMENTS	
Image flip	Left/right, up/down, diagonal
OSD settings	Channel name, time, gimbal orientation, FOV, focal length, preset name
Fire detection threshold	255 levels
Fire detection targets	1-16
Hot spot tracking	Support
Intelligent analysis	Intrusion, boundary crossing, entering/leaving area, motion, wandering, people gathering, fast moving, target tracking, items left/taken, people/vehicle detection, face detection
Analysis areas	16
People/vehicle filtering	Support
Temperature filtering	Support
Auto tracking	Single scene, multi-scene, panoramic, alarm linkage tracking
AR fusion capacity	512
AR fusion information	Fire point, analysis recording logo, orientation angle, FOV angle, focal length, multiplier

TECHNICAL SPECIFICATION

ENHANCEMENTS	
Image fusion modes	18 kinds
Picture-in-picture	Support
Alarm management	Alarm capture and upload
Distance measurement (passive)	Support
Distance measurement (laser)	Optional
Sound and light alarm	Internal integrated tweeter + flashing light, alarm sound customization
Fire fighting linkage	Support alarm linkage fire fighting device
Camera diagnostics	Disconnection alarm, IP conflict alarm, illegal access alarm, SD card abnormal alarm, video masking alarm, anti-sun damage
Life management	Health index record
Life management parameters	Working time, shutter count, working temperature, limit temperature, motor cumulative time
Power failure memory	Restore position, preset point state, cruise state, line scan state before power failure
Remote maintenance	Fault query, self-test, remote restart, online/remote upgrade
Key frame setting	Key frame interval 100 levels adjustable
Configuration file	Import and export function
Web access	WEB full function configuration, remote online upgrade
Glare protection	Anti-sun burn function
Temperature correction	No thermal image design, imaging resolution unaffected by temperature
Scene mode	Multiple configuration scenarios

TECHNICAL SPECIFICATION

ENHANCEMENTS	
Auto focus tuning	Remote auto focus precision parameter adjustment
Day cruise presets	1-40
Night cruise presets	41-80
Auto day/night switch	Support
Lens servo	Lens preset position, focal length return, focus positioning
Parameter setting	OSD menu remote call operation
Safety control	Illegal access alarm, three-level user rights, IP/MAC whitelist and blacklist, user mis-login lockout
POWER	
Working voltage (DC)	DC 9~36V
AC adapter	External AC220V
Battery adapter	Battery power adapter
CONSUMPTION	
Rated power consumption	≤40W
Peak power consumption	≤60W
ENVIRONMENT	
Working temperature	-40°C~60°C
Working humidity	≤95%
Protection grade	IP67
Anti-salt spray	No change in surface after 96 hours continuous spraying at pH 6.5~7.2
Anti-surge	6KV
Anti-static contact	8KV

TECHNICAL SPECIFICATION

ENVIRONMENT	
Anti-static air	15KV
INTERFACE	
Ethernet	1× RJ45
Alarm inputs	2
Alarm output	1
Audio input	1
RS485	1
Network protocols	HTTP, HTTPS, FTP, SMTP, DNS, NTP, RTSP, RTCP, RTP, TCP, UDP, ICMP, DHCP
Device protocols	ONVIF, GB28181
Development interface	SDK secondary development
Video encoding	H.265/H.264/MJPEG, multi-stream
Video bitrate	32Kbps~16Mbps
Audio encoding	G.711A/G.711U/G726

COMMERCIAL TECHNICAL DATA

DATASHEET · EN

DOCUMENT CONTROL SHEET

ISSUING AUTHORITY

ORGANIZATION	Volls Global Inc
REGISTERED OFFICE	1207 Delaware Ave #5352
LOCALITY	Wilmington, DE 19806
COUNTRY	United States
POINT OF CONTACT	info@circuitbull.com
BRAND	Circuitbull®
PARENT ORGANIZATION	Volls Global · volls.us

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