



MISSION CATALOG · CB-000059

AGT-EP-HTRC6200-30 EXPLOSION-PROOF DUAL SENSOR THERMAL IMAGING CAMERA

The AGT-EP-HTRC6200-30 is an explosion-proof dual-sensor thermal imaging camera with a 640×512 VOx uncooled detector, 30 mm thermal lens,...

Model AGT-EP-HTRC6200-30

KEY BENEFITS

- Long-range 24-hour monitoring
- Delicate and smooth images
- Convenient installation and application
- 360° omnidirectional pan-tilt
- Super-strong aluminum alloy with IP68
- Higher sensitivity
- Effective in all environments

DESCRIPTION

The AGT-EP-HTRC6200-30 is an explosion-proof dual-sensor thermal imaging camera designed for continuous 24-hour monitoring in hazardous industrial environments. It combines a 640×512 VOx uncooled thermal detector with a 2 MP visible-light camera, a 6.1–317 mm motorized zoom lens, and an 810 nm laser illuminator, all housed in an IP68-rated 304/316L stainless steel enclosure certified for explosive atmospheres. The thermal channel delivers a 30 mm focal length with a 20.6°×16.5° field of view, NETD ≤50 mK, and SDE digital image enhancement with 16 pseudo-color palettes, AGC, and electronic zoom. The visible channel supports H.265/H.264 multi-stream encoding, star-level low-light sensitivity, 3D noise reduction, WDR, and intelligent video analytics including motion detection, cross-border detection, and area intrusion. An integrated radiometric function measures temperatures from –20 °C to +550 °C with point, line, area, and irregular region modes, and provides over-temperature alarms with relay outputs and fire-fighting/broadcast linkage. The CNC pan-tilt supports 360° horizontal and ±90° pitch rotation, carries up to 30 kg, and operates over –40 °C to +60 °C with IP68 protection and Ex d IIC T6 Gb/Ex tD A21 IP68 T80 °C certification.

OVERVIEW

- VOx uncooled detector, 640×512
- NETD ≤50 mK (@25°C, F1.0)
- SDE digital image processing, AGC, 2× digital amplification
- 16 pseudo-color and B/W, B/W inverse

APPLICATIONS

- Oil industry
- Natural gas
- Coal mining
- Smelting
- Transportation
- Chemical plants
- Dust and other flammable/explosive environments

TECHNICAL SPECIFICATION

THERMAL	
Temperature measurement mode	Full-screen temperature information back, point, line, surface, irregular areas, simultaneously detect 16
Temperature correction	Supported
Emissivity correction	Supported
Atmospheric transmittance correction	Supported
Humidity correction	Supported
Over-temperature alarm	Sound and light alarm
Alarm output	Reserve switch quantity alarm output
External linkage	Manual/automatic linkage fire fighting system and broadcasting system
Alarm log	Record temperature data of each object in real time, automatically generate change trend curve, automatically store temperature data, image snapshot and video recording when alarm triggered, create and record relevant log, video real-time storage and playback (with professional software)
VISIBLE	
Sensor target	1/1.8 inch star-level CMOS integrated ICR dual-filter day and night switching
Resolution	2 megapixels, 1920×1080
Illuminance (color)	0.005 Lux
Illuminance (black and white)	0.001 Lux
Video coding	H.265/H.264 video format, support for multi-stream
Video coding rate	32 KBPS ~ 16 Mbps
Frame rate	60 Hz, 30 fps
Local storage	SD card local storage
Mobile detection	Supported

TECHNICAL SPECIFICATION

VISIBLE	
Occlusion alarm	Supported
Cross-border detection	Supported
Area intrusion detection	Supported
White balance	Supported
Electronic shutter	Supported
Strong light suppression	Supported
3D digital noise reduction	Supported
Wide dynamic	Supported
Infrared overexposure	Supported
Focal length	6.1 mm ~ 317 mm, 2 million high definition electric zoom
Focus	Manual/Automatic Focus, 3A adaptive active focus algorithm, support multiple trigger modes, accurate and high speed
Aperture	Auto
Day-night pass light	0.4-0.75 μm visible broad spectral window and 0.8-0.95 μm near-infrared laser narrow spectral window
Preset position	Precision potentiometer, variable focus feedback
LASER	
Power	4W
Wavelength	810 nm infrared laser
Illumination angle	2.0° ~ 70.0°, DSS digital step illumination angle control technology
Homogenization	Patented superhomogenization technology for the high-definition lens group of GHT-II, brightness uniformity of full-focus spot >92%

TECHNICAL SPECIFICATION

LASER	
Laser safety	ZQB laser beam processing patent technology, in line with IEC 60825 safety standards
ENHANCEMENTS	
Image enhancement	SDE Digital Image Enhancement Technology to enhance image details
Pseudo-color polarity	16 pseudo-color images, hot black/hot white polarity
Image parameters	AGC automatic gain control, brightness, contrast
Electronic zoom	2×, 4×, support global synchronous display
NUC correction	Automatic/manual correction, background correction
DETECTION	
Vehicle distance	2520 m
Person distance	1000 m
Fire source distance	1200 m (@2×2 m)
RECOGNITION	
Vehicle distance	720 m
Person distance	300 m
PAN-TILT	
Load	30 kg CNC pan set
Pan range	Horizontal 0°~360°
Tilt range	Pitch -90°~+90°
Pan speed	Horizontal 0.1°/s ~ 30°/s
Tilt speed	Pitch 0.1°/s ~ 30°/s
Speed adaptive	Support lens focal length speed adaptive function
HOUSING	
Material	304/316L stainless steel

TECHNICAL SPECIFICATION

HOUSING	
Structure	Double side loading
Window glass	4 mm crystallite infrared high efficiency antireflection HLIN optical glass, transmittance >98%
Protection level	IP68
Explosion proof marking	Ex d IIC T6 Gb/Ex tD A21 IP68 T80°C
INTERFACE	
Network interface	1-way RJ45, 10/100base-t adaptive
NETWORK	
Protocols	HTTP, HTTPS, FTP, SMTP, DNS, NTP, RTSP, RTCP, RTP, TCP, UDP, ICMP, DHCP
Standards	ONVIF and GB28181 protocol
CONSUMPTION	
Total power consumption	70W
WEIGHT	
Total weight	35 kg (including head)
ENVIRONMENT	
Working temperature	-40°C ~ +60°C
Storage temperature	-45°C ~ +70°C
Humidity	≤95% RH (@+25°C)
Temperature shock	Front window designed to withstand shock and thermal shock test specified in GB 3836.1-2010
Impact resistance	Withstands impact test specified in GB/T2423.5-2019
Working surface temperature	≤80°C
Protection level	IP68
Explosion proof marking	Ex d IIC T6 Gb/Ex tD A21 IP68 T80°C

COMMERCIAL TECHNICAL DATA

DATASHEET · EN

DOCUMENT CONTROL SHEET

ISSUING AUTHORITY

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