



MISSION CATALOG · CB-000019

AGT-EP-HTRC6200-30 HD OUTDOOR THERMAL IMAGING CAMERA FOR OILFIELD SAFETY

Explosion-proof dual-spectrum PTZ camera with a 640×512 VOx thermal detector, 2MP starlight visible camera, and 30mm thermal lens for 24-...

Model AGT-EP-HTRC6200-30

KEY BENEFITS

- Long-range 24-hour monitoring
- Delicate and smooth thermal images
- Convenient installation and application
- 360° omni-directional pan-tilt coverage
- Rugged stainless steel housing with IP68 protection
- High thermal sensitivity effective in all environments

DESCRIPTION

The AGT-EP-HTRC6200-30 is a rugged, explosion-proof outdoor thermal imaging PTZ camera engineered for continuous safety monitoring in oilfield, petrochemical, mining, and other hazardous industrial environments. It combines a 640×512 VOx uncooled thermal detector with a 2MP starlight visible camera and an 810nm infrared laser illuminator to deliver round-the-clock imaging under all lighting and weather conditions. The thermal channel provides NETD $\leq 50\text{mK}$ sensitivity, a 30mm focal length, and a 20.6°×16.5° field of view, supported by SDE image enhancement, AGC, 16 pseudo-color palettes, and 2×/4× electronic zoom. The visible channel features a 1/1.8" starlight CMOS sensor with 1920×1080 resolution, a 6.1–317mm motorized zoom lens, and intelligent video analytics including motion detection, intrusion detection, and cross-border detection. Housed in 304/316L stainless steel rated IP68 and certified Ex d IIC T6 Gb / Ex tD A21 IP68 T80°C, the camera integrates a 30kg-capacity pan-tilt with 360° horizontal and $\pm 90^\circ$ vertical rotation. Additional capabilities include thermometry from -20°C to +550°C, over-temperature alarms, fire-source detection up to 1200m, and ONVIF/GB28181 network compatibility.

OVERVIEW

- VOx uncooled thermal detector with 640×512 resolution
- NETD $\leq 50\text{mK}$ (@25°C, F1.0)
- SDE digital image processing with AGC and 2×/4× digital zoom
- 16 pseudo-color palettes plus hot black/hot white polarity

APPLICATIONS

- Oil and gas production and refining
- Natural gas and coal mining operations
- Smelting and heavy industrial plants
- Transportation infrastructure in hazardous areas
- Chemical, dust, and flammable/explosive environments

TECHNICAL SPECIFICATION

PTZ	
Pan speed	0.1°/s ~ 30°/s
Tilt speed	0.1°/s ~ 30°/s
Focal length speed adaptive	supported
THERMAL	
Detector	5th generation uncooled focal plane array VOx detector
Resolution	640 × 512
Spectral range	7.5 ~ 14 μm
NETD	≤50 mK (@25°C, F1.0)
Focal length	30 mm
Field of view	20.6° × 16.5°
Image enhancement	SDE digital image enhancement
Pseudo color	16 pseudo-colors, hot black/hot white
Image parameters	AGC, brightness, contrast
Electronic zoom	2×/4×, global synchronous display
NUC correction	auto/manual, background correction
Temperature range	-20°C ~ +120°C / -20°C ~ +550°C
Measurement mode	full-screen, point, line, area, irregular regions, up to 16 regions
Precision correction	temperature correction, emissivity, atmospheric transmittance, humidity
Over-temperature warning	sound and light alarm, switch output, manual/auto linkage to firefighting/broadcasting

TECHNICAL SPECIFICATION

THERMAL	
Alarm log	real-time temperature data, trend curve, snapshot/video on alarm, log and playback (with professional software)
VISIBLE	
Image sensor	1/1.8" starlight CMOS with ICR dual-filter day/night switching
Resolution	1920 × 1080 (2 MP)
Min illumination color	0.005 Lux
Min illumination B/W	0.001 Lux
Video compression	H.265/H.264
Video bitrate	32 Kbps ~ 16 Mbps
Frame rate	60 Hz / 30 fps
Storage	SD card local storage
Smart detection	motion detection, occlusion alarm, cross-border detection, area intrusion detection
Image features	white balance, electronic shutter, strong light suppression, 3D DNR, wide dynamic, infrared overexposure
Focal length	6.1 mm ~ 317 mm motorized zoom
Focus	auto/manual, 3A adaptive active focus algorithm
Iris	auto
Spectral window	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

TECHNICAL SPECIFICATION

LASER	
Illumination angle	2.0° ~ 70.0°
Angle control	DSS digital step illumination angle control
Uniformity	>92%
Safety standard	IEC 60825 compliant, ZQB laser beam processing patent technology
DETECTION	
Vehicle	2520 m
Person	1000 m
Fire source	1200 m (@2×2m)
RECOGNITION	
Vehicle	720 m
Person	300 m
POWER	
Total consumption	70W
WEIGHT	
Total	35 kg (including head)
NETWORK	
Interface	1× RJ45 10/100Base-T
Protocols	HTTP, HTTPS, FTP, SMTP, DNS, NTP, RTSP, RTCP, RTP, TCP, UDP, ICMP, DHCP
Compliance	ONVIF, GB28181
ENVIRONMENT	
Operating temperature	-40°C ~ +60°C
Storage temperature	-45°C ~ +70°C
Humidity	≤95% RH (@+25°C)
Protection level	IP68

TECHNICAL SPECIFICATION

ENVIRONMENT	
Explosion proof marking	Ex d IIC T6 Gb / Ex tD A21 IP68 T80°C
Working surface temperature	≤80°C
Temperature shock	front window withstands shock and thermal shock test per GB 3836.1-2010
Impact resistance	withstands impact test per GB/T2423.5-2019

COMMERCIAL TECHNICAL DATA

DATASHEET · EN

DOCUMENT CONTROL SHEET

ISSUING AUTHORITY

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