



CAM-HYB-SERIES

Hybrid Laser-Illuminated Visible-Light / Thermal Imaging Long-Range Camera

This series features extended-range infra-red laser illumination coupled with a long-range visible-light camera. An integrated Thermal Imaging camera provides the ability to detect threats even in zero-visibility conditions. Patent-pending independent smart-laser technology allows users to control the concentration, scatter, and direction of the light array ("Searchlight Technology"), which is also capable of glass penetration. Paired with Aventura's video content analytics and C4 Management Platform this provides the ultimate long-range enterprise perimeter surveillance solution.

Features:

- Visibility in pitch darkness, fog, smoke, dust
- 19,600 feet day light and 9,800 feet night mode
- Independently Zoom IR Laser From Visible-Light camera
- Subject Identification/Sees Through Glass
- Wide-Dynamic-Range/Thermal Imagery
- Auto-Tracking
- Rugged Construction
- IP66

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THERMAL

LASER/VISIBLE-LIGHT

SPECIFICATIONS

THERMAL CAMERA SPECS

Array Format	640 x 480 pixels
Detector Type	Fourth generation of uncooled focal array VOx microbolometer
Spectral Range	7.5 - 13.5 μ m
Lens	20-100 mm (1000), 45-135 mm (2000), or 75-150 mm (3000, 3000MP)
Field of View	7° x 5.6° to 1.4° x 1.1°
Min. Illumination (day)	Color (day) 0.1 lux f1.4
Min. Illumination (night)	B/W (night) 0 lux f1.4
Effective Distance	Vehicles: 6500 ft (2000m), People: 2600 ft (800m)
Electronic Zoom	2x
Image Processing	Digital Detail Enhancement (DDE); Automatic Gain Control (AGC)
Noise Equivalent Temperature Difference	50 mK

VISIBLE-LIGHT CAMERA

Style	Laser Night Vision Pan Tilt Camera
Signal System	NTSC/PAL
Image Sensor	1/2" Infrared Enhancement CCD
Pixel	752 x 582 (1000, 2000, 3000), 2 Megapixel (3000MP)
Lens	17-370mm (1000), 30-750mm (2000), 12.5-750mm 2x (3000), 16.7-1000 2x (3000MP)
Field of View (H)	30°~0.62°
Minimum Illumination	0.02 lux (color), 0.0009 lux (black white)
Signal-to-Noise Ratio	≥50 dB
Electronic Shutter	1/50 to 1/10,000 s, 16 steps
Wide Dynamic Range	On/Off
Backlight Compensation	On/Off

LASER

Effecting Distance	5000 m daylight, 3000 m night mode
Laser Power	Dual circuit drive, regulated voltage and current, power up 1s, photosensitive outside control
Laser Lens	60x 100 mm laser telephoto lens f2.0, multilayer plating near infrared, laser coupling >95%
Laser Light	Power: 15 W, wave length: 810 nm, illumination angle: 0.3-17°, uniform light, nitrogen-filled

MECHANICAL (Pan-Tilt-Zoom Head)

Field-of-Regard	Rotate 355° horizontally, up and down vertically +6°~-90°;
Pan/Tilt Rate of Speed	Speed: 7.5°/s horizontally; 6°/s vertically;
Position Accuracy	1 mrad

SYSTEM FEATURES

Remote Control	RS-485
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AVAILABLE MODELS

Part number	Description
CAM-HYB-1000	1000m Max Night-time Range Combination Thermal / Laser-Illuminated Visible-Light Long-Range Camera
CAM-HYB-2000	2000m Max Night-time Range Combination Thermal / Laser-Illuminated Visible-Light Long-Range Camera
CAM-HYB-3000	3000m Max Night-time Range Combination Thermal / Laser-Illuminated Visible-Light Long-Range Camera
CAM-HYB-3000MP	2 Megapixel 3000m Max Night-time Range Combination Thermal / Laser-Illuminated Visible-Light Long-Range Camera

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CAM-HYB-SERIES

Rev: 030211

Automatic Heater	Yes
Programmable Search	32 presets/1 path
Pelco D Compliance	Pelco D/Extended Protocol
IMAGE PRESENTATION	
Video Out	Composite signal 1.0Vp-p/75ohm
Signal Connector	BNC video output
INTERFACES	
TCP/IP	Optional
RS-232	Optional
ENVIRONMENTAL	
Operating Temperature	-13°F~131°F (-25°C~55°C)
Storage Temperature	-40°F~149°F (-40°C~ 65°C)
Automatic Window Defrost	No
MIL-Std 810E	Rain, sand/dust, shock, vibration
Operating Humidity	Up to 90%
Ingress Protection Rating (IEC 60529)	IP 66
Weatherproof	Yes
Impact Resistance	4 G
Other	Anti salt fog, spraying 48 hours under PH6.5-7.2
ELECTRICAL	
Input Voltage	24 VAC
Power Consumption	60~170 Watts
PHYSICAL	
Weight	88 lb (40 kg)
Dimensions (W x H x D)	7.8" x 13.8" x 27.5" (200 x 350 x 700 mm)
Housing Material	Shell: Precision aluminum alloy, Glass: optical microlite, Coating: anti-reflective film
Housing Color	Beige
Camera Mounting	4-hole pattern
REGULATORY	
Regulatory Type	CE, FCC, UL
Warranty (Effective Jan 1, 2009)	
1 Year	