



## Gyrocam<sup>®</sup> IR

### Infrared/Color Camera

#### POWER REQUIREMENTS

- Operational from 22 VDC to 33 VDC
- 28 volts DC, negative ground
- Fused at 20 amps
- Nominal operating current 6 amps
- Start-up operating current 12 amps

#### SHOCK AND VIBRATION

- 6g's non-operating, sinusoidal 15 minutes each axis, no degradation in performance
- 15g's one time, 1 millisecond sinusoid, each axis, unit intact

#### STABILIZATION CHARACTERISTICS

- 200 Hz inner-loop bandwidth
- Vibration attenuation at 7 Hz better than 30 dB
- Vibration attenuation at 21 Hz better than 20 dB
- Vibration attenuation at 60 Hz better than 12 dB
- Vibration attenuation at 120 Hz better than 6 dB
- Typical stabilization less than 5 to 10 microradians depending on the type of aircraft

#### OPERATIONAL CHARACTERISTICS

- Operating temperature range from -38°F to 155°F
- Maximum transit speed 400 knots
- Altitude to 30,000 feet (tested)
- Mil-spec EMI qualified and tested

#### IR SYSTEM WEIGHT

- 60-pound gimbal
- 15-pound IFU
- 6-pound kneeboard controller or 0.7-pound handheld controller

#### OPTIONS

- Interface to external devices such as: mapping systems, GPS, IMU, ethernet, laser range finder
- Universal RS232/RS422 interface allows seamless integration

The Gyrocam<sup>®</sup> IR infrared/color camera is a high-performance dual-sensor system, combining advanced thermal imaging and high-resolution color in a single, lightweight gimbal. The unit is suited for military, law enforcement and public safety applications.

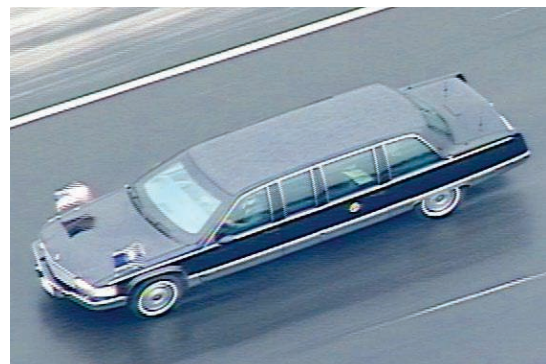
The 800-line, 3-chip color camera provides clear, crisp images, recording every detail in high resolution. The 3 to 5 micron infrared sensor includes a 17 mm to 200 mm lens, which can capture differences in heat signatures in either traditional black and white, or as color-enhanced images.

The unit's exceptional sensitivity and wide dynamic range provides clean images, without blooming or smearing, even in marginal weather conditions. Its use of the midwave spectrum allows it to penetrate heavy smoke and high humidity and provides outstanding performance, even in arctic conditions.

The user-friendly Gyrocam IR allows the operator to simultaneously view images from both the thermal imager and the color camera, making it a true multi-mission law enforcement tool.



THE GYROCAM INFRARED/COLOR CAMERA PROVIDES THERMAL IMAGING IN TOTAL DARKNESS.



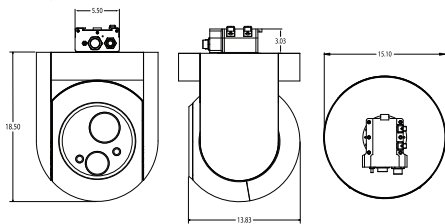
THE HIGH RESOLUTION COLOR CAMERA PROVIDES VIEWS OF THE PRESIDENTIAL MOTORCADE FROM MILES AWAY.



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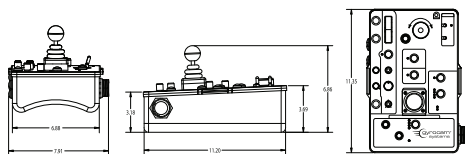
## Infrared/Color Camera

### IR weight and dimensions



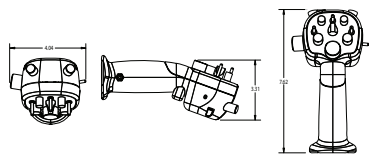
**Weight:** 60 lbs  
**Size:** Height 18.50" gimbal only  
 21.53" including mount  
 Width 15.10"  
 Depth 13.83"

### Kneboard-controller weight and dimensions



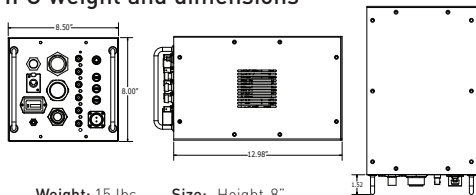
**Weight:** 6 lbs  
**Size:** Height 6.86" with joystick  
 3.69" without joystick  
 Width 6.88"  
 Depth 11.35"

### Handheld-controller weight and dimensions



**Weight:** 0.7 lb  
**Size:** Height 7.62" with joystick  
 Width 4.04"  
 Depth 3.31"

### IFU weight and dimensions



**Weight:** 15 lbs  
**Size:** Height 8"  
 Width 8.5"  
 Depth 12.98" housing only  
 14.50" housing with handles

### GIMBAL STABILIZATION & PERFORMANCE

Stabilization	Azimuth, fine azimuth, elevation, fine elevation
Pan range	360° azimuth
Tilt range	+120° to -120° elevation
Maximum slew rate	72°/sec
Maximum airspeed	(400 kts)
Electrical	MIL STD 704D (28VDC)
Hand controller	Choice of kneboard or handheld



GYROCAM IR INFRARED/COLOR

### HIGH-RESOLUTION COLOR CAMERA

Pickup	3-chip DSP processing interline transfer CCD
Horizontal resolution	800 lines
Video S/N ratio	62 dB NTSC
Sensitivity	f8.0 at 2000 lux, f2.0 at 4 lux
Gain selection	User selectable to 24 dB (hyper gain)



KNEEBOARD CONTROLLER

### INFRARED THERMAL IMAGER

Spectral band	3 to 5 micron – midwave
Detector/scanner	320 x 256 pixel InSb
Processing	DSP video enhancement
NEAT	40 milliKelvins
Cooling	Closed stirling cycle
Focal length (HFOV)	<u>Standard</u> Wide: 31° Medium: 9.2° Narrow: 2.8°



HANDHELD CONTROLLER

### DAYTIME LENS

Lens	Optical zoom with 2x extender	
Focal length (HFOV)	<u>1x Optical</u> Wide: 31.3° Narrow: 1.6°	<u>2x Optical</u> Wide: 15.4° Narrow: 0.8°
	Optional Optical Extender	
	<u>1x Optical</u> Wide: 20.6° Narrow: 1.1°	<u>2x Optical</u> Wide: 10.2° Narrow: 0.54°