

Alticom™ Imaging Systems 25 November 2009

Electro -Optical Daylight Camera

Overview

Adaptable to UAVs and Other Moving Platforms

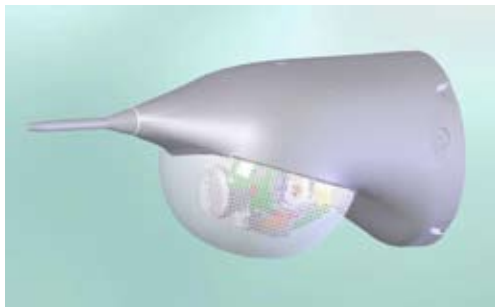
Overview

Designed for UAVs and Other Moving Platforms

Alticom™ Imaging Systems eliminate the vibration and motion common to lightweight UAVs. These turrets also perform well when integrated into piloted aircraft, boats, balloons and other unsteady, moving vehicles. Payload is made insensitive to platform motion.

Provides persistent video surveillance of a target over a long period of time. Common uses include:

- Insitu ScanEagle™ Unmanned Aerial Vehicle
- Other UAV & piloted aircraft & Unmanned Surface Vehicles –USV.
- Continuous Operation –no practical limit to
- maximum operational time
- Readily adapts to Air, Sea and Land platforms.



Nose section used on the ScanEagle™ UAV to enclose Alticom Vision™ turret.



Insitu™ ScanEagle UAV
Carrying an Altacam Vision™ Turret
Photo courtesy Boeing

Specifications

Fits Inside Sphere: 7 inch diameter / 18 cm

Weight: 2.2 pounds / 1000 grams

Storage Temp: 20° to 60° C

Operating Temp: 0° to 50° C

Horizontal Field of View: 1.7°-57°

Two Axis Gyro-Stabilized

Precision Inner 2-Axis Vernier Stage

Proprietary Vibration & Movement Stabilization
System

Mounting Footprint: To Insitu™ 2004 Interface

Articulation endless pan, +30°/-110° tilt

Slew Rate > 60° per sec

Power 11V -24V DC, 7W

Communications RS -232 data

The Alticam Vision™ Electro-Optical Daylight Camera provides superior picture quality and high zoom capability. It combines an exceptionally high 36X zoom lens with an expansively wide/telephoto horizontal field -of-view.

This camera incorporates a ¼ type EXview HAD™ CCD for high sensitivity in extreme low light environments. For optimized sensitivity in both day and nighttime shooting applications, it incorporates an Auto ICR function.

Circular Polarizing Filter: Horizontal Polarization

1/4 type EXview HAD CCD
Minimum Sensitivity of 1.4 lux (50 IRE)

Optical Zoom: 36X
Digital Zoom: 4X

High Performance Digital Signal Processor (DSP)

Image Sensor –¼-TYPE EXView HAD CCD
Video Signal System – NTSC

Number of Total Pixel s–Approx 380,000
Lens –36x optical zoon, f = 3.4mm (wide) to
122.4 mm (tele), F1.6 to F 4.5

Minimum Illumination -
1/60 s mode: 1.4 lx (typical) (F 1.6, 50 IRE)
1/4 s mode: 0.1 lx (typical) (F 1.6, 50 IRE)

S/N Ratio –More than 50 dB
Electronic Shutter–1/1 to 1/10,000 s, 22 steps
White Balance –Auto, ATW, Indoor, Outdoor, One-
Push, Manual

Gain – Auto / Manual (-3 to 28 dB, 2 dB steps)
AE Control –Auto, Manual, Priority Mode, Bright, EV
Compensation, Backlight Compensation, Slow AE
EV Compensation -10.5 to 10.5 dB (1.5 dB steps)

Backlight Compensation - On / Off
Flicker Cancel –Auto
Focusing System –Auto (Sensitivity, : normal, low),
One-Push AF, Manual, Infinity, Interval AF, Zoom
Trigger AF

Options

User Interface

- Joystick
- Video
- Dejitter
- Tracking

Video Transmission

- Wireless
- LAN
- USB

Athena™ Micro -Guidestar

Geo -Referencing and Geo-Pointing

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