

Ultra-Mobile, Stabilized Multi-Sensor Camera



The Nimbus is the smallest gyro stabilized EO/IR PTZ camera available with both visible and thermal imaging. Its visible/NIR colour sensor has a 6.5X optical zoom and 2X digital zoom for a total zoom power of 13X, while its 640×480 LWIR uncooled thermal camera provides a HVOF of 8-32 degrees with 2X and 4X digital zoom. The thermal infrared camera requires no maintenance or export control and can detect vehicles almost 2km away in complete darkness.

The Nimbus boasts incredibly small SWaP (Size Weight and Power) with a base weight of only 165 grams for the complete system, while still packing an advanced set of features like IP, SD recording, auto-tracking, GPS and gimbal stabilization.

Key Features:

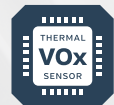
- › SWaP Optimized System at only 165 grams (just 5.8 ounces)
- › Complete EO/IR Gyro Gimbal System
- › Multi-sensor Thermal and Visible Imaging
- › 6.5X Optical Zoom Lens with visible field of view from 31° to 4.7°
- › 640×480 Thermal Resolution with a 32° field of view
- › GIS GPS Target Positioning in real time
- › MicroSD Card Slot for video and image capture

Optional Accessories:

- › Video Tracking
- › Video Compression IP Adapter
- › Shock Mount
- › Electronic Retractable Mount
- › PWM Adapter
- › SBus Adapter



Visible/NIR
Zoom Lens



Uncooled
Thermal



Gimbal
Stabilized



PTZ Controls



Mobile



No ITAR
Restrictions

*DRI detection ratings are based on industry-wide standards (Johnson's Criteria) that should be fully understood for proper expectations. For more information, please see our whitepaper about understanding DRI measurements.

NIMBUS

Optical & Thermal Cameras

Thermal Infrared Camera

Thermal cameras, unlike traditional visible cameras, use heat rather than light to see an object. Humans, animals, and vehicles are very hot in contrast to most backgrounds making trespassers hiding in shadows or bushes easy to spot. Thermal images are also unaffected by bright light and have the ability to see through atmospheric obstructions such as smoke, dust, and light fog. This makes it an ideal technology for a number of applications, including but not limited to surveillance and security, search and rescue, fire, marine and land navigation, and wide area situational assessment.

The Nimbus integrates a 17µm uncooled LWIR thermal sensor with a resolution of 640x480 which operates on 7,000nm-14,000nm wavelengths where terrestrial temperature targets emit most of their infrared energy. The sensor detects minute temperature differences to create high contrast images, and its no-maintenance uncooled design has no ITAR restrictions, which means a high ROI and long lifetime. We pair the uncooled LWIR core with a precision-engineered 19mm germanium lens that offers a 31.8° horizontal field of view, creating a system that is able to detect vehicles nearly 2km away and humans at 650m.* An ideal solution for aerial surveillance and reconnaissance.

Visible Optical Camera

The optical camera has been designed and optimized for aerial surveillance. It uses a 640x480 sensor that provides analog video which can be converted to digital with the IP adapter. The camera sensor has excellent spectral sensitivity for both visible and NIR wavelengths with true day/night modes for color images by day and black and white images at night. The visible sensor is paired with a telephoto 6.5X continuous zoom lens with an additional 2X digital zoom for a total of 13X zoom power. This translates to wide angle viewing at 31° and a narrow HFOV of 4.7° at max zoom. This zoom range allows you obtain details on targets detected by the thermal camera or match the thermal camera's view to have both thermal and visible video of the same scene.



DRI Ranges:

640m

Human Detection*

1900m

Vehicle Detection*

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NIMBUS Accessories

Designed for UAV/Drone Integration

The Nimbus is designed for easy integration with custom drones and off-the-shelf consumer UAVs such as the DJI model drones. Its SWaP optimized design ensures long flight times and the ability to use just about any drone as its total weight is only 165g.

Our accessories make integration quick and easy. There is an interface for PC integration with third party software, protocol call converters adapters that utilize standard radio control formats using the PWM or SBus interface. This allows you to utilize auto pilot features or manual control with joysticks, making it a complete and customizable solution for integration with aerial platforms.

MOUNTING OPTIONS:



Standard Mount



Right-Angle Mount



Retractable Mount

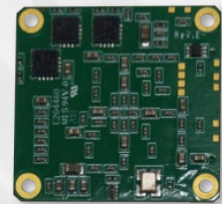
GPS/GIS Positioning

The optional GPS pinpoints the location of the Nimbus camera and video to geographic locations. GIS transmits the position of the camera, as well as its line of sight, and can plot the locations of the targets with high accuracy.

ADAPTERS:



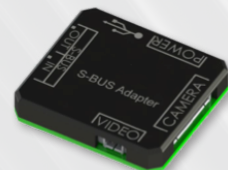
Video Compression
IP Adapter



Video Tracking



PWM Adapter



SBus Adapter

NMB-EOIR-GS

Specifications



Visible Camera Assembly

| | |
|--------------------------------|-------------------------|
| Resolution | 640×480 |
| Minimum Illumination (at f1.6) | Color: 0.8 Lux |
| Field of View | 31°-4.7° Horizontal FOV |
| Zoom | 6.5X Optical |

Thermal Camera Assembly

| | |
|---------------------|--|
| Image Sensor | Uncooled Vanadium Oxide Microbolometer |
| Resolution | 640×480 pixels |
| Pixel Pitch | 17µm |
| Lens | 19mm fixed germanium lens |
| Field of View | 32° Horizontal FOV |
| Digital Zoom | 4X |
| Spectral Range | 7,000-14,000nm |
| Image Display Modes | White Hot, other color palettes available upon request |

Communication & Presets

| | |
|----------------|------------------------|
| Serial Control | RS232 / PWM (optional) |
|----------------|------------------------|

Pan/Tilt

| | |
|------------------------|---|
| Drive Unit | Integrated micro-step resolver |
| Pan/Tilt | 180° to -180° Continuous Pan, up to 105°/sec / -45° to +135° Tilt, up to 105°/sec |
| Stabilization Accuracy | < 0.006° |

Physical

| | |
|------------|--------------------|
| Weight | 165g (5.8oz) |
| Dimensions | 54mm × 54mm × 79mm |

Environmental

| | |
|-------------------------|----------------|
| Operational Temperature | -20°C to +55°C |
|-------------------------|----------------|

Electrical

| | |
|-------------------|----------|
| Input Voltage | 9-32V DC |
| Power Consumption | 11W |

*Specifications subject to change.