



## THERMAL CAMERA FOR DRONES



# FLIR Vue<sup>TM</sup> Pro and FLIR Vue<sup>TM</sup> Pro R

Designed for professional use, the FLIR Vue<sup>TM</sup> Pro and FLIR Vue<sup>TM</sup> Pro R are much more than thermal cameras, featuring thermal measurement and data recording capabilities that add tremendous value to sUAS operations and services. Simple integration into many of the world's leading airframes and powerful data collection tools enable informed decision making.

The FLIR Vue Pro R offers the power to gather accurate, non-contact temperature measurements from an aerial perspective. Each still image the Vue Pro R saves contains calibrated temperature data embedded in every pixel, adding more value to sUAS operations and services than ever.

Delivering industry-leading thermal imaging quality and affordability, the Vue Pro and Vue Pro R add full data recording of thermal video and 14-bit still imagery, making them perfect for airborne solar panel inspection, building inspection, livestock management, natural resource management and protection, public safety, and search and rescue.



### AFFORDABLE THERMAL IMAGING AND ON-BOARD DATA RECORDING

Record digital video and still imagery to a removable micro-SD card, eliminating data transmission loss.

- Simple power-in/video-out interface over 10-pin mini-USB connector
- Image settings optimized for airborne operations
- Record real-time thermal videos in MOV format
- Aircraft flight information is saved in each still image



### MAVLINK INTEGRATION & PWM CONTROLS

In addition to MAVLink compatibility for image geo-tagging, the accessory port allows remote in-flight camera function control.

- Multiple recording options including flight data in each image
- Mobile app allows for PWM configurations in the field
- MAVLink integration with convenient RS-232 connection



### FLEXIBLE, POWERFUL CAMERA CONTROL AND CONFIGURATION OPTIONS

Easy configuration with the FLIR UAS app lets pilots set color palettes and image optimization features.

- Control selectable camera functions with PWM inputs – imagery controls, recording start/stop, and still image capture
- Vue Pro R saves Radiometric JPEGs with temperature data embedded in every pixel
- Vue Pro R saves still images as Radiometric JPEGs, or 14-bit TIFF formats



## SPECIFICATIONS

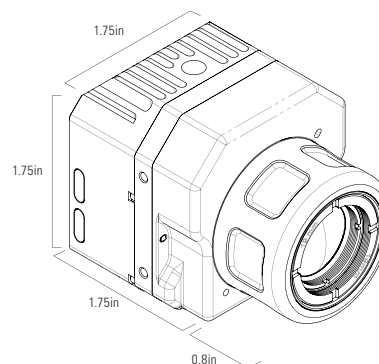
| Thermal Imager                                       |                                                                     | FLIR Vue Pro and FLIR Vue Pro R     |  |
|------------------------------------------------------|---------------------------------------------------------------------|-------------------------------------|--|
| Sensor Technology                                    | Uncooled VOx Microbolometer                                         |                                     |  |
| Array Format                                         | 640 × 512                                                           | 336 × 256                           |  |
| Lens Options<br>(FOV for Full-Sensor Digital Output) | 9 mm; 69° × 56°<br>13 mm; 45° × 37°<br>19 mm; 32° × 26°             | 9 mm; 35° × 27°<br>13 mm; 25° × 19° |  |
| Lens Options*<br>(FOV for NTSC Analog Output)        | 9 mm; 62° × 49°<br>13 mm; 45° × 35°<br>19 mm; 32° × 24°             | 9 mm; 34° × 26°<br>13 mm; 24° × 18° |  |
| Spectral Band                                        | 7.5 – 13.5 μm                                                       |                                     |  |
| Full Frame Rates                                     | 30 Hz (NTSC); 25 Hz (PAL)                                           |                                     |  |
| Exportable Frame Rates                               | 7.5 Hz (NTSC); 8.3 Hz (PAL)                                         |                                     |  |
| Radiometric Data                                     | Available on the FLIR Vue Pro R                                     |                                     |  |
| Physical Attributes                                  |                                                                     |                                     |  |
| Size                                                 | 57.4 × 44.45 × 44.45 mm (2.26 × 1.75 × 1.75 in) including lens      |                                     |  |
| Weight                                               | 92 – 113.4 g (3.25 – 4 oz) configuration dependant                  |                                     |  |
| Precision Mounting Holes                             | Two M2×0.4 on two sides & bottom<br>One 1/4-20 threaded hole on top |                                     |  |
| Image Processing & Display Controls                  |                                                                     |                                     |  |
| Image Optimization for sUAS                          | Yes                                                                 |                                     |  |
| Scene Presets & Image Processing                     | Adjustable in app                                                   |                                     |  |
| Invertable Image                                     | Adjustable in app                                                   |                                     |  |
| Color Palettes                                       | Adjustable in app and via PWM                                       |                                     |  |
| Zoom                                                 | Adjustable in app and via PWM                                       |                                     |  |
| Interfacing                                          |                                                                     |                                     |  |
| Input Voltage                                        | 4.8 – 6.0 VDC                                                       |                                     |  |
| Power Dissipation (Peak)                             | 2.1 W (3.9 W)                                                       |                                     |  |
| Optional Power & HDMI Video Module                   |                                                                     |                                     |  |
| Input Power Range                                    | 5 VDC – 28 VDC                                                      |                                     |  |
| Reverse Polarity Protection                          | Yes                                                                 |                                     |  |
| Analog Video Output                                  | Yes                                                                 |                                     |  |
| HDMI Output                                          | 1280 × 720 @ 50 Hz, 60 Hz                                           |                                     |  |
| Environmental                                        |                                                                     |                                     |  |
| Operating Temperature Range                          | -20°C to 50°C (-4°F to 122°F)                                       |                                     |  |
| Non-Operating Temperature Range                      | -55°C to 95°C (-67°F to 203°F)                                      |                                     |  |
| Operational Altitude                                 | 12,192 m (40,000 ft)                                                |                                     |  |

\*Because the analog video output resolutions (640 × 480 and 320 × 240) are less than the full-sensor resolution captured when saving digital stills and video, the resultant FOVs are also slightly smaller. Both sets of values are shown to allow operators the option to choose the FOVs that most accurately reflect their pre-flight planning requirements.

Specifications are subject to change without notice.

## OPTIONAL POWER & HDMI VIDEO MODULE

The Optional Power & HDMI Video Module makes the Vue Pro and Vue Pro R easier to integrate than ever. Its 10-pin mini-USB connector accepts a wider input power range and provides reverse polarity protection while still providing analog video output and access to the camera's on-board storage. The micro-HDMI connector outputs HDMI video for live digital video downlink systems like DJI Lightbridge and 3DR Solo. All this in a package that's only 11 mm thick and weighs 15 g.



Vue Pro R with Optional Power/HDMI Video Module attached.

### NASDAQ: FLIR

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