

# 6X MULTISPECTRAL SENSOR

The Sentera 6X Multispectral Sensor delivers science-grade multi-band and high resolution visual band image products via a streamlined, easy-to-use, data processing workflow.



## VERSATILE

Designed to meet the most demanding research and data sciences requirements, the 6X features 5 simultaneously-triggered, precision-filtered 3.2 MP global-shutter imagers, and one 20.1MP RGB imager, each with a dedicated, high-quality optical path. All together, the sensor produces 8 channels of image data, with fast frame rate performance and high radiometric accuracy.

## ACCURATE

Leveraging technology used in Sentera's advanced enterprise-class sensors, the 6X is equipped with a custom processor tailored to efficiently handle massive data throughput and perform onboard computer vision and machine learning computations. Actionable data is immediately available due to streamlined workflows that move typical post-processing operations, such as multi-band registration of imagery and lens corrections, into the sensor. The result is multi-layer imagery or crop analytics data output instantly available at the field edge.

## FEATURES

- Real-time onboard multi-layer image registration and advanced analytics
- Completely configurable image pipeline
- Immediate delivery of actionable data
- 5 frames per second sustained capture rate
- MAVLink compatible
- Simple integration to drone platforms
- Optional ambient color correction
- Optimal data products for manipulation and distribution

Advancing Precision Agriculture

# 6X MULTISPECTRAL

## Sensors

### 5X 3.2MP Monochrome Global Shutter

HFOV- 47°

GSD @ 400ft - 2.0" (5.2cm)

GSD @ 200 ft - 1.0" (2.6cm)

Spectral Bands

Blue: 475nm x 30nm

Green: 550nm x 20nm

Red: 670nm x 30nm

Red Edge: 715nm x 10nm

NIR: 840nm x 20nm

### 1X 20MP RGB Electronic Rolling Shutter - Sony IMX147

HFOV - 47°

GSD @ 400ft - 0.8" (2.0cm)

GSD @ 200ft - 0.4" (1.0cm)

*\*Synchronized capture across all sensors*

## Camera

**Dimensions-** 3.13" x 2.60" x 2.66"

**Weight-** 290 grams

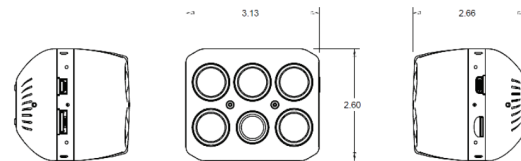
**Power Consumption-** 15W

### Imagery Per Trigger:

- (1) 12-bit TIF 3.2MP registered monochrome images
- (1) 8-bit JPG 20MP RGB image

**Sustained Capture Rate-** 5 FPS

**Storage-** 512 GB Internal PCIe NVMe

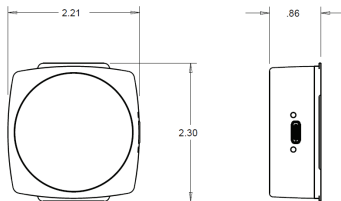


## Light Sensor Specifications

Dimensions - 2.55" c 2.55" x 0.86"

Weight - 55 grams

Integrated GPS



## Interfaces

- (1) USB-C (Light Sensor and GPS Data)
- (1) Gigabit Ethernet (Data Transfer and Command/Control) Optional Expansion Port
- (1) 3.3V @1A Output
- (1) 5.0V @ 1A Output
- (2) 3.3V UART (U-blox, MAVLINK, DJI A3 Metadata)
- (1) 3.3V Pulse Per Second (PPS) for Synchronization
- (1) 3.3V Shutter Event Output for Synchronization
- (1) 3.3V Discrete Trigger Input

## Gimbal Kit Options

DJI Inspire 1 / Matrice 100 / Matrice 600

DJI Inspire 2 / Matrice 200 - 210\* / Matrice 300\*

Custom 3rd Party

\*Full DJI Skyport Support

