



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.

Designed to meet the most demanding research and data sciences requirements, the 6X features 5 simultaneously-triggered, precision-filtered 3.2MP 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.

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 & BENEFITS

- 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

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SENSORS

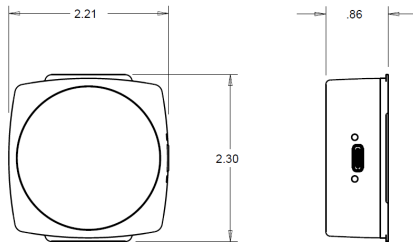
5X 3.2MP Monochrome Global Shutter
HFOV – 47°
GSD @ 400ft – 2.0" (5.2cm)
GSD @ 200ft – 1.0" (2.6cm)
Spectral Bands
Blue: 475nm x 30nm
Green: 550nm x 20nm
Red: 670nm x 30nm
Red Edge: 715nm x 10nm
NIR: 840nm x 20nm

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

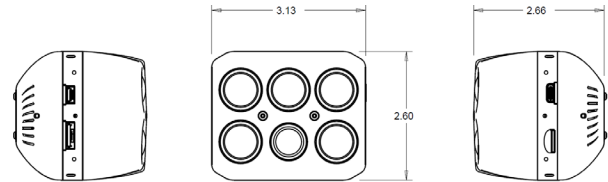
LIGHT SENSOR SPECIFICATIONS

Dimensions – 2.55" x 2.55" x 0.86"
Weight – 55 grams
Integrated GPS



CAMERA SPECIFICATIONS

Dimensions – 3.13" x 2.60" x 2.66"
Weight – 280 grams
Power Consumption – 15W
Imagery Per Trigger:
- (1) 12-bit TIFF with Five Registered 3.2MP Monochrome Image Layers
- (1) 8-bit JPG 20MP RGB Image
Sustained Capture Rate – 5 FPS
Storage – 512 GB Internal PCIe NVMe



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



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