65R

Global Shutter High-Resolution Sensor

The Sentera 65R Sensor offers 65-megapixel global shutter RGB imagery optimized for drone integration. Its compact, lightweight design extends flight times, enhancing efficiency. With a resolution of 9344 x 7000 pixels and a ground sampling distance of 0.45 cm/pixel, it ensures exceptional detail. The 65R can be integrated either as a stand-alone sensor or with a stabilizing gimbal, offering plug-and-play compatibility with popular drone platforms, making it ideal for surveying, mapping, and analytics. It empowers professionals to make informed decisions with high-resolution data, significantly reducing the number of images needed for comprehensive coverage.

Key Benefits

- **Maximize Productivity:** Global shutter, fast capture rate, and gimbal stabilization enable quicker and longer flights without compromising data quality
- **Ease of Use:** Plug-and-play integration, time-of-capture geo-tagging, and ample internal storage reduce training requirements and streamline workflows
- **Easy Integration:** The 65R is compatible with many popular UAS platforms and integrates easily with other systems using standard interfaces and I/O options
- **High Accuracy:** Equipped with 65 million pixels of global shutter image capture, integrated pulse-per-second synchronization, a 58-degree HFOV, and time-of-capture geo-tagging, the 65R ensures high-accuracy data right out of the box
- **Exceptional Color Quality:** Large sensor size and high-quality lens system capture rich details and accurate colors, ensuring controlled color quality without creative or artistic modes

Key Features

- Equipped with a high-resolution 65-megapixel global shutter
- Complete metadata tagging with geolocation and image characteristics
- Captures images at a rate of 3 FPS (0.333s)
- Open and standardized data formats
- User-configurable onboard image processing pipeline
- Controlled color quality without creative or artistic modes
- NDAA compliant

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SENSORS & DRONES

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More Pixels, Fewer Images

The Sentera 65R captures a higher number of pixels per image, allowing for detailed coverage with fewer images needed, reducing both flight and post-processing time compared to other sensors in the market.

25% REDUCTION IN IMAGE COUNT

120 images VS 160 images

Lightweight Design, Enhanced Performance

The Sentera 65R on a gimbal is about 43% lighter than similar sensors, allowing for longer flights, greater endurance, and more coverage per mission with less battery use.

43% LESS WEIGHT

0.6kg VS 1kg

Setting a New Benchmark in Resolution

The Sentera 65R's 65MP resolution isn't just an incremental improvement—it represents a 36% leap beyond the 45MP standard that has dominated the industry.

36% GREATER RESOLUTION

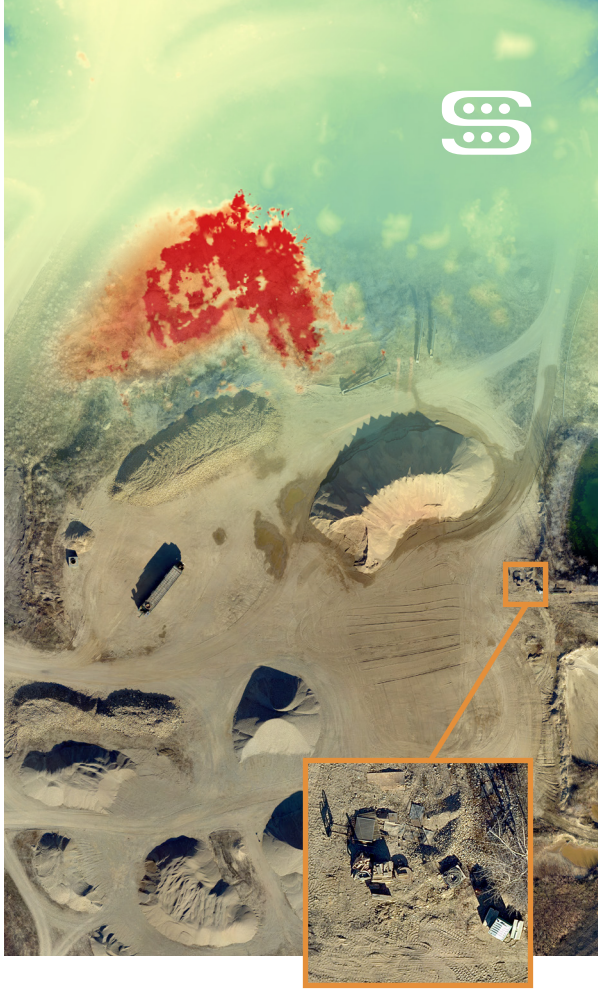
65 MP VS 45 MP

Visit us at senterasensors.com to learn more.

SPECIFICATIONS**

65R

Resolution	9344px by 7000px
Shutter Type	Global
Sensor	Gpixel GMAX3265
Power Input	10.5 - 26V
Power Consumption	12W Typical, 15W Max
Capture Rate	3 FPS (0.333s)
Storage	512 GB NVMe SSD
Interfaces	USB-C 3.0, Gigabit Ethernet, PPS, Serial, Discrete I/O
Supported Protocols	DJI Skyport, MAVLINK, Custom
Image Format	JPEG
Weight (Sensor only)	330g
Weight (With gimbal)	Skyport: 580g Smart Dovetail: 588g Gremsy T3/S1: 564g
GSD @200ft (60m)	0.28in (0.7cm)
GSD @400ft (120m)	0.55in (1.4cm)
Focal Length (custom lens options available)	27mm
Field of View	58° HFOV
Dimensions (Sensor Only)	3.5mm x 70.6mm x 106.4mm
Dimensions (With gimbal)	101mm x 144.8mm x 150.6mm



The Sentera 65R delivers high-resolution RGB imagery with unparalleled detail and color fidelity, ideal for comprehensive site analysis and planning. DEM and RGB images of a gravel pile yard surveyed at 120m altitude.

COMPATIBILITY**

Fully Integrated:

DJI	M350, M300, M210, M200
Inspired Flight	IF800 Tomcat, IF1200A
Freefly	Astro
Sentera	PHX

Custom Integration Options:

Gimbal Interfaces:	
Freefly	Smart Dovetail
Gremsy	Hyper Quick
DJI	Z30

Non-Gimbal Interfaces:	
JST GH	Serial, Power In, Ethernet, PPS PWM
USB-C	USB
Barrel Jack	Power In
2-56 Threaded Mounting Holes	Mounting 8 Locations

Key Use Cases

- Surveying and inspection
- Mapping larger areas
- 3D reconstruction and volumetrics
- Elevation mapping (DSM/DEM)
- Precision phenotyping
- Plant counting
- Crop health, damage, disease detection, nutrient status, and stress

Scan QR code to browse support documentation

**Specifications are subject to change without notice