

HIGH PRECISION SINGLE SENSORS

The Sentera High Precision NDVI and High Precision NDRE Single Sensors utilize patent-pending technology to improve spectral band separation and generate more accurate vegetation index measurements.



VERSATILE

Available in two variants, normalized difference vegetation index (NDVI) and normalized difference vegetation red edge (NDRE) data, the Sentera High Precision Single Sensor filters effectively reject out-of-band leakage before it can contaminate the measurement and lead to index errors.

ACCURATE

These advanced sensors make it easier for users to integrate satellite-based index data with drone-based index data. Utilizing high precision filters, you are provided with invaluable NDVI or NDRE information about crop health, maturity, and vigor.

FEATURES

- Effectively collects only the precise bands needed for accurate NDVI and NDRE measurements
- Easily integrates into virtually any drone platform including the DJI Phantom 4 and Mavic
- Low-distortion optics + global shutter technology ensure crisp, clear crop imagery
- Helps customize application of fertilizer, pesticides and herbicides base on data-drive information
- Leverage plant health data using FieldAgent web, mobile, and desktop software

CUTTING-EDGE

Have confidence in the data you collect and analyze. Sentera's High Precision Single Sensors help you gain valuable insights on crop health, maturity, and vigor.

ADVANCING PRECISION AGRICULTURE

HIGH PRECISION SINGLE SENSORS

Installation Options

The Sentera High Precision NDVI and NDRE Single Sensors can be integrated on multiple existing, in-service or new drone platforms. Some of our most popular commercial installations include the DJI Phantom 4 Pro and DJI Mavic 2 Pro.



DJI Phantom



DJI Mavic

PERFORMANCE SPECIFICATIONS

Sensor

Resolution	1.2MP CMOS
Shutter	Global
Pixel Size	3.75um
Pixel Count	12.48 horizontal / 950 vertical

Lens

Focal Length	4.14mm
FOV	60° horizontal / 47° vertical
GSD @200 Altitude	2.2" (5.5cm)
GSD@400 Altitude	4.3" (11.0cm)

Filter

NDVI	Red Band: 625nm CWL x 100nm width NIR BAnd: 850nm CWL x 40nm width
Red Edge (NDRE)	Red Edge Band: 720nm x 40nm width NIR Band: 840nm x 20nm width

Size

1" x 1.33" x 1.47" (25.4mm x 33.8mm x 37.3mm)

Weight

30 grams

Power

2.5W

Voltage Input Range

5V to 40V

Frame Rate

1.2MP Stills: 7fps

Image Format

JPEG, TIFF

Storage

32GB SD card per sensor
Image format: JPEG, 200,000 images per card
Image Format: TIFF, 8,000 images per card

Interfaces

Ethernet, Serial/UART, Bluetooth

Control

Open ICD for triggering and metadata logging over serial or IP, compatible with:

- PIXHAWK™ autopilot
- MAVLink™- based systems
- Customized ICD options available