Season-long canopy analysis at a higher resolution

The RedEdge-P is the rugged, high-quality, powerful multispectral sensor you’ve come to trust, now with a high-resolution panchromatic band for pan-sharpened output resolutions of 2cm (at 60m) - twice the ground resolution of the industry-standard RedEdge-MX. It enables pixel-aligned outputs at previously unattainable resolutions while maintaining the efficiency and reliability of the RedEdge legacy, opening the door to season-long comprehensive plant canopy analysis at all growth stages.

The new standard for data quality and repeatability

RedEdge-P uses purpose-built optics and industry-leading industrial image sensors coupled with narrowband, scientific-grade filters. In addition, it undergoes a rigorous factory calibration process, creating a high-quality, calibrated, rugged tool for pan-sharpened multispectral outputs you can trust.

Applications

- Plant counting
- Phenotyping
- Plant health mapping
- Fertilizer management
- Disease identification
- Species differentiation and weed detection
- Advanced crop scouting
- High-res 3D point clouds

Fly Lower. Fly Faster. See More.

RedEdge-P uses the professional-grade CFexpress memory card standard, providing removable storage with customizable sizes from 64 Gigabytes to 2 terabytes, allowing constant capture of all image bands every second for over 24 hours. For jobs requiring multiple flights, there’s no need to plug cables into the camera after a flight or bring your computer to the field. RedEdge-P’s removable storage gets your next flight started in seconds.

The spectral resolution of the RedEdge-P Multispectral Sensor

The MicaSense RedEdge-P measures the light reflected in five different bands (red, green, blue, red edge, and near-infrared), which, coupled with a panchromatic lens, provides high-resolution RGB and multispectral outputs.
**SPECIFICATIONS**

**WEIGHT**
350 g (12.3 oz.) RedEdge-P + DLS 2

**DIMENSIONS**
8.9 x 7.0 x 6.7 cm (3.5in x 2.8in x 2.6in)

**RGB OUTPUT**
5.1 MP (global shutter, aligned with all bands)

**SENSOR RESOLUTION**
1456 x 1088 (1.6MP per MS band)
2464 x 2056 (5.1MP panchromatic band)

**GROUND SAMPLE DISTANCE**
7.7 cm per pixel (per MS band) at 120m (~400 ft) AGL
3.98 cm per pixel (panchromatic band) at 120m (~400 ft) AGL

**FIELD OF VIEW**
50° HFOV x 38° VFOV (MS)
44° HFOV x 38° VFOV (PAN)

**EXTERNAL POWER**
7.0 V - 25.2 V

**POWER INPUT**
5.5/7.0/10W (standby, average, peak)

**IP RATING**
IP4X

**CAPTURE RATE**
Up to three captures per second raw DNG

**STORAGE**
CFexpress card

**INTERFACES**
Three configurable GPIO: select from trigger input, PPS input, PPS output, and top of frame signals. Host virtual button. USB 2.0 port for WiFi. Serial. 10/100/1000 Ethernet. CF Express for storage

**SPECTRAL BANDS**
Blue (475 nm center, 32 nm bandwidth),
Green (560 nm center, 27 nm bandwidth),
Red (668 nm center, 14 nm bandwidth),
Red Edge (717 nm center, 12 nm bandwidth),
Near-IR (842 nm center, 57 nm bandwidth)

**KIT CONTENTS**
- RedEdge-P sensor
- Lens cover
- Calibrated reflectance panel
- DLS 2 light sensor with integrated GPS
- RedEdge-P and DLS 2 cables
- Mounting screws
- Hard carrying case
- CFexpress card reader

*With appropriate post-processing

**Note: Specifications are subject to change without notice**

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RedEdge-P:
Season-long data capture at a faster rate
A single-camera solution for synchronized capture of calibrated high-resolution multispectral and RGB imagery, with an optimized FOV and capture rate for efficient flights.

Key Features
- High-resolution panchromatic band for pan-sharpened output resolutions of 2cm (0.8in) at 60m
- Five spectral bands for multiple vegetation indices and composites
- New professional removable storage standard in CFexpress, enabling up to three captures per second for faster flight speeds, cutting down on time required to map an area
- Electrical and mechanical interfaces compatible with existing RedEdge installations with just a connector upgrade

Visit us at ageagle.com/product/rededge-p/ to learn more.
www.ageagle.com | Made in the USA