Multispectral sensing for any platform

MicaSense RedEdge™ is an advanced multispectral camera specially designed for small unmanned aircraft systems. It provides accurate multiband data for agricultural remote sensing.

RedEdge™ is powered by MicaSense, Inc., a team of data-collection leaders with decades of expertise in a variety of unmanned aerial vehicle (UAV) applications. MicaSense is redefining remote sensing technology and pioneering a new way to harvest information.

Key Features

- Simultaneous capture of five discrete spectral bands
- Narrowband optical filters provide full imager resolution for each band
- Fast capture rate enables faster flight speeds and lower flight altitudes
- Global shutter design for distortion-free results on every platform
- Single SD card stores all images with geotags
- Calibrated for precise, repeatable measurements
- Rugged design with no moving parts
- Standalone operation, with optional external trigger and data from host aircraft
- Intuitive web-based interface accessed from any Wi-Fi capable device
- Option for Ethernet or serial connectivity with host aircraft for full configuration, status, and control of the camera

RedEdge™ at a Glance

- Five Discrete Bands
- Status LED
- Power Button and Manual Trigger
- SD Card
- External Power and External Trigger
- Serial Port
- Serial and Ethernet Data Port
- GPS Module
Spectral bands
High-grade optical filters deliver precise information specially targeted to agricultural applications.

Detailed, quantitative information maps
This data map shows a vineyard from 400 feet above ground level (AGL). Zooming in offers information on individual plant vigor.

Specifications
- **Weight:** 150 g (5.3 oz)
- **Dimensions:** 12.1 cm x 6.6 cm x 4.6 cm (4.8 in x 2.6 in x 1.8 in)
- **External Power:** 5.0 V DC, 4 W nominal
- **Spectral Bands:** Blue, green, red, red edge, near IR (narrowband)
- **Ground Sample Distance:** 8 cm per pixel (per band) at 120 m (~400 ft) AGL
- **Capture Rate:** 1 capture per second (all bands), 12-bit RAW
- **Interface:** Serial, Ethernet, GPS
- **Field of View:** 47.2° HFOV

ATLAS imagery • analytics

ATLAS is a powerful, cloud-based data processing, analytics, and management platform that converts raw data from RedEdge™ into quantitative crop-health maps.

RedEdge™ generates standards-compliant images that can be used with the MicaSense ATLAS data processing solution, as well as a variety of orthomosaic-creation and mapping tools.