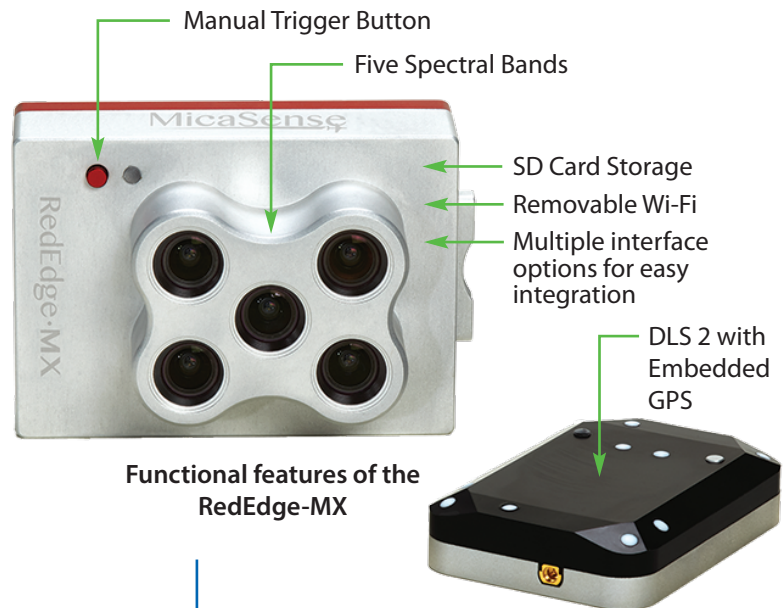# MicaSense RedEdge-MX Multispectral Camera
Multispectral Camera

The MicaSense RedEdge-MX is a rugged, built-to-last, professional multispectral sensor for agricultural and vegetation management drone mapping. RedEdge-MX captures five spectral bands, and is one of the most flexible solutions on the market. With optimized GSD (resolution); the new DLS 2 light sensor; the ability to generate plant health indexes and RGB (color) images from one flight. An advanced sensor means that you can count on getting high quality, accurate data when you need it.

Manual Trigger Button

Five Spectral Bands

SD Card Storage

Removable Wi-Fi

Multiple interface options for easy integration

DLS 2 with Embedded GPS

Functional features of the RedEdge-MX

KEY FEATURES

- Five narrow spectral bands captured during flight.
- High image resolution; 8 cm/pixel at 400 ft. (120 m).
- Single SD card stores all images with geotags.
- Standalone operation, with optional external trigger and data from host aircraft.
- Web-based configuration page accessed from any Wi-Fi–capable device.
- Embedded mounting points for easier integration.
- Global shutter imagers - doesn't require a gimbal.

PROFESSIONAL MULTISPECTRAL CAMERA KIT

- Metal enclosure for extreme durability
- DLS 2 for enhanced light calibration
- Captures five narrow spectral bands
- Generates plant health indexes and RGB (color) images from one flight
- Designed for easy and flexible integration
- Calibrated for precise, repeatable measurements
- Operates in temperatures up to 60°C or 140°F
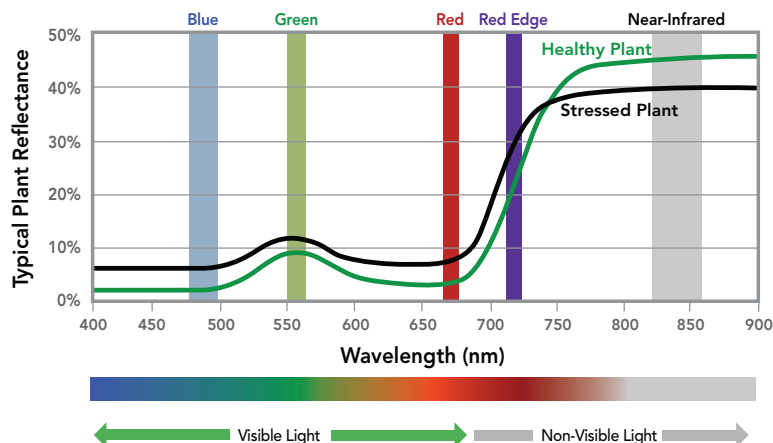
RedEdge-MX mounted on a Leptron RDASS™

MicaSense RedEdge-MX Multispectral Camera
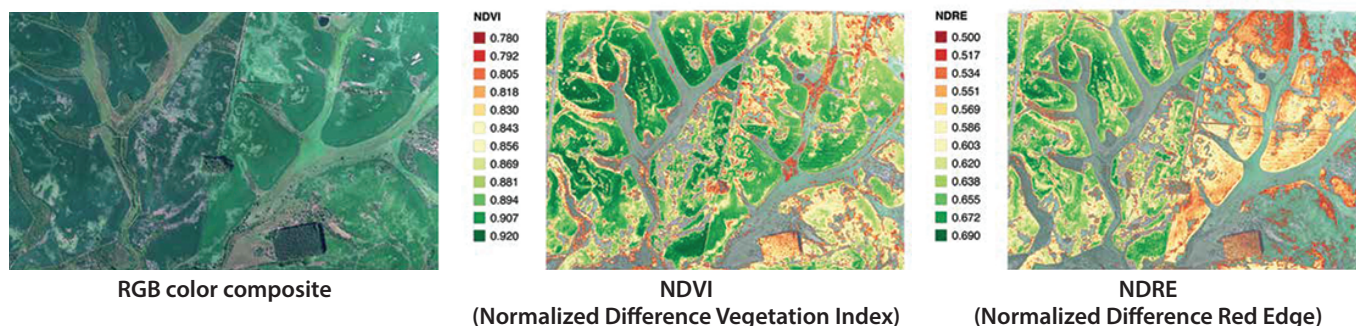## Multispectral Camera

SPECTRAL BANDS

Solid science, no guesswork

Plants reflect light in a predictable pattern across the color spectrum. These patterns are correlated to crop vigor and stress as well as nutrient information.
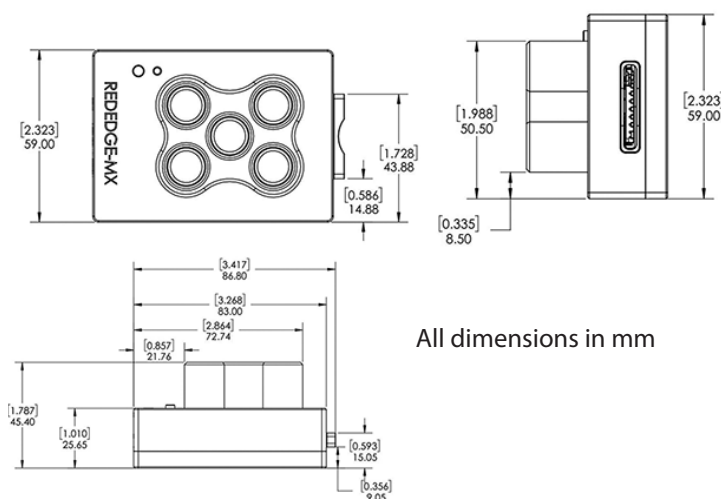
Multispectral imaging uses cameras with narrow-band filters to optimally sense plant reflectance, delivering the information needed to assess the status of your crops. This capability enables growers and agronomists to alter nutrient inputs and take action to address disease based on actual field conditions.

DETAILED INFORMATION MAPS

RGB color composite

NDVI
(Normalized Difference Vegetation Index)

NDRE
(Normalized Difference Red Edge)

SPECIFICATIONS

Weight	231.9 g (8.18 oz.) (Includes DLS 2 and cable)
Dimensions	8.7 cm x 5.9 cm x 4.54 cm (3.4 in. x 2.3 in. x 1.8 in.)
External Power	4.2 V DC - 15.8 V DC, 4 W nominal, 8 W peak
Spectral Bands	Blue, green, red, red edge, near IR (global shutter, narrowband)
RGB Output	Global shutter, aligned with all bands
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
Interfaces	Serial, 10/100/1000 ethernet, removable Wi-Fi, external trigger, GPS, SDHC
Field of View	47.2° HFOV
Custom Bands	400nm - 900nm (QE of 10% at 900nm)
Triggering Options	Timer mode, overlap mode, external trigger mode (PWM, GPIO, serial, and Ethernet options), manual capture mode
Heat	0-40°C ambient (no airflow); 0-50°C ambient with airflow >0.5m/s
Kit Contents	• RedEdge-MX sensor • Lens cover • Calibrated Reflectance Panel • New DLS 2 light sensor with integrated GPS • RedEdge-MX and DLS 2 cables • Mounting screws • Hard carrying case

All dimensions in mm