



DT-5BANDS

~ SENSOR ~



DT18

MULTISPECTRAL SENSOR FOR PRECISION AGRICULTURE & VEGETATION MONITORING

5.4 cm

RESOLUTION

NDVI,
NDRE, LAI

CROP MAPS

5 Bands
Optical Filtering

RGB, RED EDGE, NIR

Calibration
Panel

INCLUDED

DT-5BANDS SENSOR

MULTISPECTRAL SENSOR FOR PRECISION AGRICULTURE

The DT-5bands payload includes 5 high precision sensors to capture the vegetation response at 5 frequency bands. Narrowband optical filters are applied to each sensors to produce 5 independent datasets: Red, Green, Blue, Red Edge and Near Infra-red. The DT-5bands sensor produces extremely accurate reflectance data thanks to the provided calibration panel. For use in highly variable light conditions, the Incident Light Sensor (option) allows for in-flight reflectance corrections. Based on the industry-leading Micasense RedEdge™ sensor, the DT-5Bands combined with the long range DT-18 UAV pushes the limits of agriculture UAV remote sensing.

APPLICATIONS

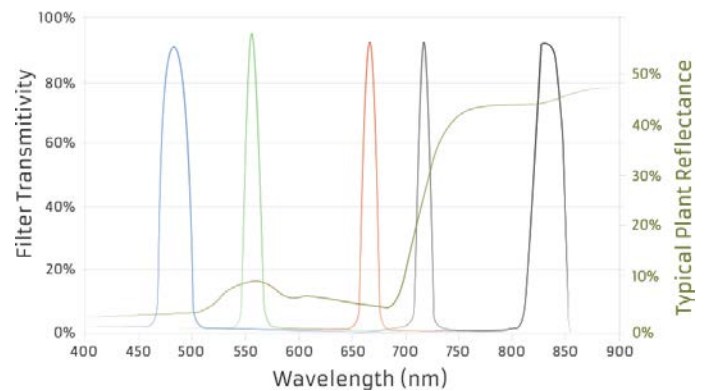
- Precision Agriculture
- Vegetation Monitoring, Forestry
- Crop Health Maps

Bands	Red, Green, Blue, Red Edge, NIR
Focal length	5.5 mm
Sensor size	3.6 mm x 4.8 mm
Width x Height	960 X 1,280 pixels
Ground Picture Size	W 155 m x L 103 m at 150 m AGL
Sensor type	Global shutter, distortion free
Automatic Gain Control	Yes
Resolution (GSD)	5.4 cm @ 80m AGL 10 cm @ 150 m AGL / 48 cm @ 700 m AGL
Surface area covered with DT-18 UAV	18.7 km ² @ 700 m AGL 4 km ² @ 150 m AGL / 2.1 km ² @ 80 m AGL
Image acquisition	5 images (each band) / second
Image triggering	Controlled by the autopilot
Onboard storage	32 GB micro SD card
Calibrated Panel	Included (with reflectance data)
Incident Light Sensor	Optional

Vegetation reflects light from the sun. A healthy plant typically has more chlorophyll and absorbs more red (R) and blue (B) than an unhealthy plant. Healthier plants also reflect more near infrared (NIR) energy.

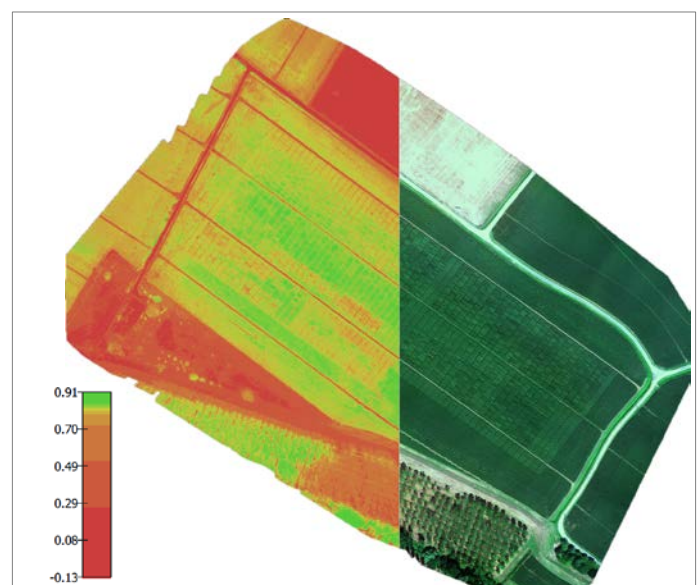
DT-5bands automatically adjusts the gain parameters even in varying sunlight conditions thus ensuring production of high quality images with incredibly accurate reflectance data, perfect for even the largest projects.

Using *Delair-Analytics* - or your own processing tools - generate your high precision vegetation index maps (such as NDVI, NDRE or others) from the DT-5bands' raw data and make the right decisions about your crop.



DT-5Bands narrowband optical filter response

A high precision calibrated reflective panel is available as an option to the DT-5Bands sensor to produce even more accurate data.



Example of Final product: NDVI health map of corn micro plots

