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MicaSense series



Sensor

ΒY

KAMBILL SYSTEMS PVT. LTD.







ABOUT THE PRODUCT

Seamlessly integrates a 12 MP high-resolution panchromatic sensor, a new thermal sensor that provides twice the ground resolution of the previous Altum, and five discrete spectral bands. Its high-resolution makes it the perfect sensor for machine learning plant-level applications such as early-stage crop counting. It also features a global shutter for distortion-free results, open APIs, and a new storage device allowing up to 2 captures/second.

APPLICATIONS



Infrastructure Inspection



Precision Agriculture



Environmental Monitoring

FEATURES



Thanks to the panchromatic band, Altum-PT enables high-resolution RGB, multispectral, and thermal imagery for machine learning applications such as plant counting and advanced vegetation research applications.

THERMAL SENSOR

The built-in 320 x 256 FLIR Boson® thermal sensor enables accurate thermal maps at a GSD of 17 cm / 6.7 in from 60 m / 200 ft flight altitude.



OPEN INTERFACE FOR EASY INTEGRATION

The Altum-PT SkyPort ensures perfect compatibility with DJI's M300 RTK drones. The camera also features an open API interface for easy integration with many popular drone and software platforms.



CONTACT US







Specifications

SENSOR SPECIFICATIONS

Weight

577 g / 20.35 oz. Altum-PT + Wi-Fi + CFexpress card + DLS2 & cables

Dimensions

11.0 x 8.0 x 6.9 cm / 4.3 in x 3.1 in x 2.7 in

External Power

7.0 V - 25.2 V

Power Input

5.5 / 7.0 / 10W (standby, average, peak)

Sensor Resolution

2064 x 1544 (3.2MP per MS band), 4112 x 3008 (12MP per PAN band), 320 × 256 thermal infrared

Spectral Bands

Blue (475nm ±32nm), Green (560nm ±27nm), Red (668nm ±14nm), Red Edge (717nm ±12nm), NIR (842nm ±57nm)

RGB Color Output

12.4 MP (global shutter, aligned with all bands)

Capture Rate

Up to 2 capture per second raw DNG - Capture rates vary based on write speed of USB storage device and user configuration settings

Thermal

FLIR LWIR thermal infrared 7.5-13.5um radiometrically calibrated

Multispec GSD (per multispec band)

 $5.28\ \text{cm}$ per pixel at $120\ \text{m}$ / $2\ \text{in}$ per pixel at $400\ \text{ft}$

Thermal GSD

33.5 cm per pixel at 120 m / 13 in per pixel at 400 ft

Panchro & Pansharpened GSD

 $2.49\ \text{cm}$ per pixel at $120\ \text{m}$ / $0.98\ \text{in}$ per pixel at $400\ \text{ft}$

Interfaces

3 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. CFexpress for storage

Field of View

50° HFOV x 38° VFOV (multispectral), 46° HFOV x 35° VFOV (panchromatic), 480 x 390 (thermal)

Storage

CFexpress card