

**SPECIFICATIONS

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| WEIGHT | 577 g (20.35 oz.) Altum-PT + Wi-Fi + CF Express Card + DLS2 & Cables |
| DIMENSIONS | 11.0 x 8.0 x 6.9 cm (4.3in x 3.1in x 2.7in) |
| RGB OUTPUT* | 12.4 MP (global shutter, aligned with all bands) |
| SENSOR RESOLUTION | 2064 x 1544 (3.2MP per MS band) 4112 x 3008 (12MP panchromatic band) 320 x 256 thermal infrared |
| GROUND SAMPLE DISTANCE | 5.28 cm per pixel (per MS band), 2.49 cm per pixel (panchromatic band), and 33.5 cm per pixel (thermal)—at 120m (~400 ft) AGL |
| FIELD OF VIEW | 50° HFOV x 38° VFOV (MS) 46° HFOV x 35° VFOV (PAN) 48° x 40° (thermal) |
| EXTERNAL POWER | 7.0 V - 25.2 V |
| POWER INPUT | 5.5/7.0/10W (standby, average, peak) |
| IP RATING | IP4X |
| CAPTURE RATE | 2 captures per second raw DNG |
| STORAGE | CFexpress card |
| 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. 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) |
| THERMAL | FLIR LWIR thermal infrared 7.5-13.5um radiometrically calibrated |

*With appropriate post-processing

**Note: Specifications are subject to change without notice



Altum-PT: An optimized 3-in-1 solution for advanced remote sensing and agricultural research.

Altum-PT enables season-long plant canopy analysis that is more comprehensive and more detailed than what current sensors are capable of offering. Its high-resolution outputs enable plant counting and the detection of small canopy features at early growth stages. The enhanced patented thermal calibration technology guarantees the most accurate thermal maps available - over two times better than the previous Altum, opening the door to advanced research applications.

Key Features

- Ultra-high-resolution panchromatic imager for data outputs at 2.49 cm GSD from 120m—more than 2 times the resolution of today's comparable multispectral cameras.
- Built-in 320 x 256 radiometric thermal imager, enabling over twice the ground resolution of the previous Altum—33cm/pixel vs. 81cm/pixel.
- Removable, professional-grade CFexpress storage with up to 2TB capacity allowing faster write speeds of up to two captures/second.

ALTUM-PT™

▶ Over twice the spatial resolution of the previous Altum

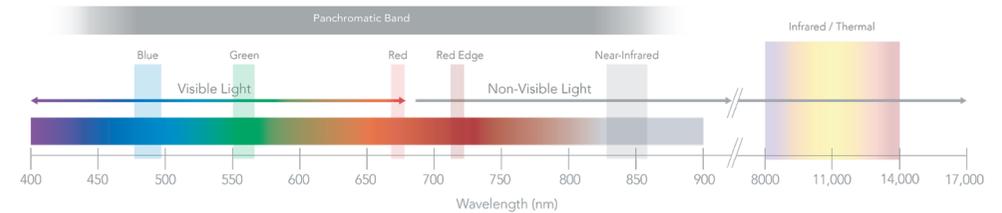
Altum-PT integrates an ultra-high-resolution panchromatic imager, a new thermal imager, and five discrete spectral bands, for outputs at over two times the resolution of the previous Altum. The higher spatial resolution capabilities mean that in most cases, Altum-PT can be used from early emergence all the way to the end of the season, allowing for subtle change detection and providing high-quality data throughout the year.

▶ Applications include...

- Irrigation management
- Disease, pest, and nutrient deficiency detection
- Plant breeding
- Fruit yield estimations
- Water stress prediction
- Species classification for land management/conservation

Simultaneous capture of thermal, multispectral, and panchromatic imagery

The MicaSense Altum-PT is a solution that simultaneously captures calibrated pixel-aligned RGB, thermal, multispectral, and panchromatic outputs. The panchromatic sensor allows for pan-sharpening the multispectral imagery, ultimately increasing the spatial resolution of the multispectral data for results at resolutions that enable entirely new capabilities—1.2 cm (0.47in) pan-sharpened ground resolution when flying at 60m (200ft).



Kit Contents

- Altum-PT sensor
- DLS 2 with embedded GPS
- Calibrated Reflectance Panel (CRP 2)
- USB WiFi dongle
- Lens cover
- Necessary integration cables
- Assorted mounting hardware
- CFexpress card
- CFexpress card reader
- Hard Carrying Case
- Quick Start Guide



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Ultra-high resolutions, unlimited analytical capabilities

Altum-PT is designed to provide the most accurate radiometric results at resolutions that enable entirely new remote sensing workflows. Its thermal imager captures a pixel size of 17cm when flown at 60m, enabling more granular detection of thermal variability. Altum-PT provides better detail and image quality, supporting the most challenging irrigation management tasks.