



# MicaSense Altum-PT

## RGB, Multispectral and Thermal Camera

The Altum-PT is the best-in-class multispectral camera with synchronized thermal images applicable for production agriculture, phenotyping, and environmental monitoring.



The MicaSense Altum-PT captures synchronized multispectral, thermal, and panchromatic data for pixel-aligned outputs at incredibly high resolutions for advanced vegetation research applications.

These comprise plant health monitoring from early emergence and on, with thermal for water stress and irrigation system monitoring as well.

# Altum-PT

## Technical Specification

Sensor resolution	2064 x 1544 (3.2MP per MS band), 4112 x 3008 (12MP per PAN band)
Spectral Bands	320 x 256 thermal infrared 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), NIR 842 nm center, 57 nm bandwidth
RGB color output	12.4 MP (global shutter, aligned with all bands)
Thermal	FLIR LWIR thermal infrared 7.5-13.5um radiometrically calibrated
Multispectral GSD	5.28 cm per pixel at 120 m (per multispectral band)
Thermal GSD	33.5 cm per pixel at 120 m
Panchromatic GSD	2.49 cm per pixel at 120 m
Trigger interval	1.0 seconds
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.
Field of view	50° HFOV x 38° VFOV (multispectral) 46° HFOV x 35° VFOV (panchromatic) 48° x 39° (thermal)
Storage	CFexpress Card
Payload weight RTF	733,7 g
Flight time	60min
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)

## Sample Data

FLIGHT ALTITUDE  
60 m | 197 ft AGL

FLIGHT SPEED  
17 m/s

GSD  
1.27 cm/px

