

Micro-Hyperspec™ SWIR 640

900–2500 nm for Hyperspectral
Remote Sensing



FEATURES

- Geology, mining, environmental monitoring applications
- Factory integrated & flight tested
- SWIR wavelength range (900 to 2,500 nm)
- Built-in high-performance GPS-IMU, solid-state storage
- Compatible with DJI and NDAA-compliant UAVs, as well as rotary stages for ground truth scanning



INTEGRATED SYSTEM FOR SWIR REMOTE-SENSING MISSIONS

The **Micro-Hyperspec® SWIR 640** hyperspectral sensor features 640 spatial pixels and 267 spectral bands in a Stirling-cooled MCT-based imaging system integrated as a drone payload system or a ‘turnkey’ system that even includes the drone! NDAA-compliant UAVs available. The SWIR wavelength range is useful for a variety of applications including geology, archeology, mineral prospecting, mining, environmental monitoring, and infrastructure inspection.

PORTABLE & ROBUST SYSTEMS FOR HYPERSPECTRAL REMOTE-SENSING UAV MISSIONS WORLDWIDE

Because you may travel to locations that give additional meaning to the word “remote” in remote sensing, our turnkey systems feature UAVs that fold and disassemble to more easily transportable sizes that can be quickly deployed in the field.

Rechargeable batteries supply power to all systems, and additional batteries as well as chargers are available to extend your missions.

Headwall Photonics hosts workshops and often present on topics such as best practices for planning and undertaking remote-sensing missions so that customers can learn from these experiences.

Training sessions, both in person and online, are given by experts who are not only makers but users of these systems, and have successfully completed missions at a variety of locations around the world.

MICRO-HYPERSPEC™ SWIR 640 900–2500nm for Hyperspectral Remote Sensing

SPECIFICATIONS	
Wavelength Range	900 – 2500nm
Spectral Bands	267
Spatial Pixels	640
Camera Technology	MCT
Pixel Pitch	15 µm
Aperture	f/2.5
Dispersion/Pixel	6 nm
Entrance Slit Width	20 µm
FWHM Slit Image	8 nm
Frame Rate (Sustained) ¹	200 Hz
ADC Bit Depth	16-bits
Spectrograph Design	Aberration-Corrected
Interface	CameraLink
Weight (sensor only)	1.9 kg / 4.2 lbs
Dimensions (sensor only)	75 x 126 x 212 mm
Power Req (Typical / Max)	Up to 24 W
Operational Temp Range	-30 – 50 °C
Storage Temp Range	-40 – 60 °C
Compatible UAVs	DJI Matrice 600 Pro, FreeFly Alta X

¹ Higher frame rates attainable with certain configurations

Micro-Hyperspec SWIR (900 – 2500nm) Turnkey Packages (UAV and sensor integration included)	
Part Number	Description
1007A-30704	Micro-Hyperspec SWIR 640, Turnkey Package on Freefly Alta X UAV
1007A-10702	Micro-Hyperspec SWIR 640, Turnkey Package on DJI M600 Pro UAV
Micro-Hyperspec SWIR (900 – 2500nm) Payload Packages (UAV and sensor integration sold separately)	
Part Number	Description
1007A-30721	Micro-Hyperspec SWIR 640, Payload Package for Freefly Alta X UAV
1007A-10720	Micro-Hyperspec SWIR 640, Payload Package for DJI M600 Pro UAV

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