



microHSI™ 410 SHARK

This Selectable Hyperspectral Airborne Remote Sensing Kit (SHARK) is an integrated coherent hyperspectral imaging (HSI) sensor system designed specifically for integration with highly compact unmanned aerial vehicles (UAVs) and cost efficient drones.

Features

- This complete turn-key sensor system solution includes a 400-1,000 nm HSI sensor and a high-efficiency microprocessor control and data-acquisition subsystem with solid-state data storage.
- The microHSI™ 410 spectrometer features a high-efficiency reflective and optimally blazed diffraction grating that helps enable optimized throughput and signal-to-noise ratio (SNR) performance combined with exceptional spectral fidelity and spatial resolution.
- The standard system is designed for a minimum of 30-minute mission durations with extended mission-duration options available.

Key Benefits

- Covers 400-1,000 nm
- A compact, lightweight 1.6 lb package.
- Ultra-Low Size, Weight, Power, and Cost (SWaP-C) by using Corning's proprietary diamond turned optics systems for aluminum.
- Optimized for commercial remote sensing applications.
- Processes 12-bits of data upon landing to reduce storage.

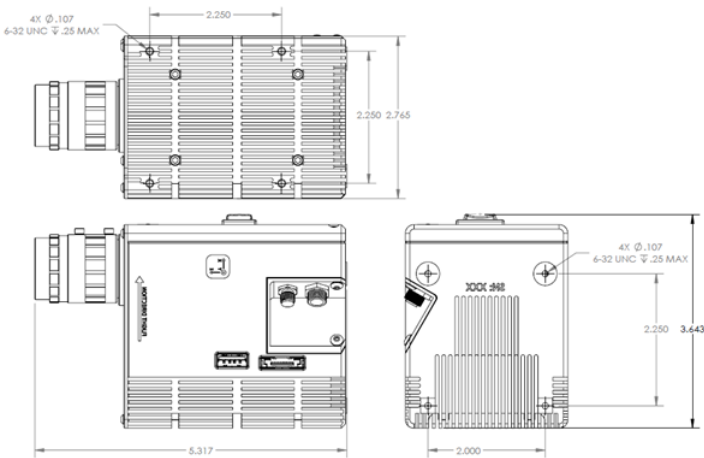


	Wavelength range covered	Applications	Sensor Weight
Corning® MicroHSI™ 410	400nm - 1,000nm	Agriculture and Industrial	1.6 lbs

Technical Characteristics*

Dimension	Unit
Sensor Type	Fully Coherent Line Imaging Spectrograph
Spectrograph	Monolithic Spectrometer
Grating	Diamond turned and Ruled High-Efficient Reflective Blazed
FPA Detector	CMOS
FPA Format	1936 X 1216 pixels with 5.86 μ pitch (1364 X 308 utilized)
Spatial Resolution	1364 pixels (1x spatial bin)
Focal length F/#	16mm, f/1.4 standard
Full FOV	28.6 degrees (500 mrad) standard
IFOV	f 366 μrad standard
Spectral Range and Spectral Bin Size	400-1000nm with a 2nm bin size
Typical Spectral readout	8.0 nm (4x spectral pixel bin)
Keystone	4.6 μm (over 1364 X 308 pixels)
Smile	1.5 μm (over 1364 X 308 pixels)
Maximum Frame Rate	>400 Hz (profile dependent)
Data Readout	12-bit
INS	GPS + Mems IMU+Kalman filtered solution
Size (standard lens, processor, data storage, INS)	5.37"X 3.44"X 2.77"with lens and 3.77" X 3.44" X 2.77" without lens
Weight (standard lens, data storage, INS)	1.6 lbs (0.68 kg)
Power Consumption (complete system)	<19 W@12 VDC
Temperature range	5 deg. C to 40 deg. C

* Performance listed is typical. Individual part configuration may vary. Contact our technical team for more information.



Learn more



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