

## Hyperspec® Co-Aligned VNIR/SWIR Sensor

### Product Datasheet



- Smallest and lightest instrument in its class
- 400–2,500nm wavelength range
- Dual VNIR & SWIR sensors with co-aligned pixels
- 640 spatial pixels / 270 VNIR and 267 SWIR spectral pixels
- Suitable for airborne or ground use
- All-reflective, concentric optical design
- Integrated high-performance GPS/IMU
- Solid-state internal data storage
- Optional 16-channel LiDAR



**PREMIUM PERFORMANCE IN A SIZE, WEIGHT, AND POWER EFFICIENT PACKAGE**

The Headwall Hyperspec® Co-Aligned VNIR/SWIR Sensor is designed for airborne or ground-based hyperspectral imaging. As the smallest and lightest instrument in its class, the sensor can be purchased as part of an integrated turnkey system with a DJI Matrice 600 Pro UAV and other sensor modalities such as LiDAR, as a factory data- and flight-tested payload component for integration onto a customized airborne imaging system, or as a ground-based hyperspectral imaging system with a Field Rotary Kit (part number 1007A-10412 sold separately).

Co-Aligned VNIR-SWIR Sensor		
Spectral range (nm)	VNIR (400–1000)	SWIR (900–2500)
Spectrograph design	High-throughput aberration-corrected concentric imager	
Spectral pixels	270	267
Spatial pixels	640	
Detector pixel pitch (μ)	7.4	15
Dispersion per Pixel (nm/pixel)	2.2	6
FWHM Slit Image (nm)	6	10
F/#	2.5	
Slit width (μ)	20	
Slit length (mm)	6	10.4
Camera technology	CMOS	Stirling-cooled MCT
Max frame rate (Hz)	350	200
Bit depth	12	16
Size (inches / mm)	10.7 x 8.3 x 6.5 / 272 x 211 x 165	
Weight / Weight including LiDAR (kg)	3.52 (4.0, including mount for airborne configuration) / 4.8	
Data storage	Internal solid-state drive: 480GB per sensor	
IO connectivity	GigE	
GPS/IMU	Integrated High-Performance model	
Mounting Options (sold separately)	UAV hard-mount / Field Rotary Kit	
LiDAR (16-channel)	Optional for UAV configurations	
Power requirement Typical / Max (W)	26 / 30	
Operational temperature range (°C)	0–40	
Storage temperature range (°C)	-30–60	

Manufactured by Headwall Photonics, distributed in the UK and Ireland by **analytik**.