Data Sheet

Hyperspec® UV -VIS
Hyperspectral Imaging Sensor

Hyperspec® UV imaging sensor for the 250-500nm spectral range

Headwall's Hyperspec® UV integrated hyperspectral imaging sensor provides the foundation for utilizing hyperspectral imaging to achieve superior spectral sensing and chemical imaging results for mission-critical applications ranging from biomedical applications to forensic science to process monitoring where UV measurement is a critical application parameter.

The award-winning, Hyperspec® imaging spectrometer family is built on a totally reflective concentric, f/2.0 optical design and optimized for a wide range of laboratory applications that require precise imaging in the UV-VIS range. It provides 1,392 Spatial bands, 961 Spectral bands, and USB 2.0 connectivity. Headwall's imaging sensors minimize stray light and aberrations by eliminating transmissive optical components such as prisms. Hyperspec UV-VIS can be combined with Headwall's Starter Kit that includes a linear stage, gantry, illumination, and full software control.

Applications:

- Biomedical research
- Chemical & biological analysis
- Food safety & quality
- Forensics
- Laboratory & healthcare
- Material identification
- Microscopy
- Process control of biomass/biofuels

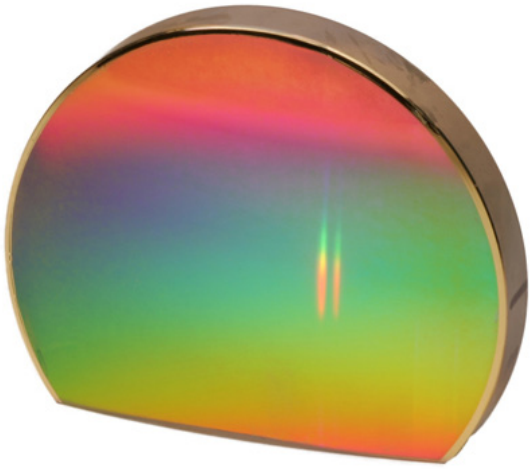
Key Benefits:

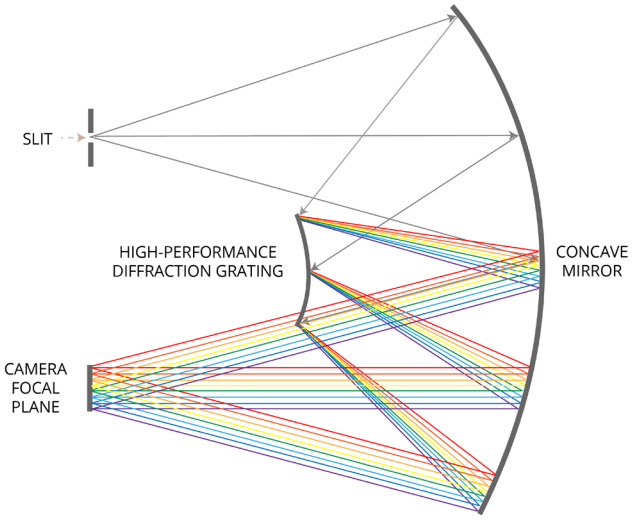
- Superb imaging performance
- High spectral/spatial resolution
- Ideal for low light, low signal applications
- Accurate, consistent spectral measurement
- Compact with very wide field of view
- Extremely high signal-to-noise
- Very portable - laboratory or field
- Rugged design for durability & stability
- Cost effective deployment

Application-Specific Solutions For Critical Environments

Hyperspec® UV-VIS	
Wavelength Range (nm)	250-500
Aperture	F/2.0
Dispersion per pixel (nm/pixel)	0.26
Entrance Slit Width (µm)	25
Slit Length (mm)	12
FWHM Slit Image (nm)	1.4
Spectral Bands	961
Spatial Bands	1392
Smile - Aberration-corrected	Yes
Keystone - Aberration-corrected	Yes
FPA Detector	Interline CCD
ADC Bit Depth	14
Max. Frame Rate (Hz)	7
Camera Control Interface	USB 2.0
Max. Power (W)	2
Weight (lb / kg)	7 / 3.2

Headwall's hyperspectral sensors deliver aberration-corrected imaging characterized by high spatial and spectral resolution, a wide field of view, and very high signal throughput. Headwall's own application-specific diffraction gratings are fundamental to these key specifications, which are crucial for airborne hyperspectral sensors. Headwall's all-reflective, concentric sensor design is robust and thermally stable.





About Headwall Photonics: Headwall is the leading designer and manufacturer of imaging spectrometers and spectral instrumentation for industrial, commercial, and government markets. Headwall's high performance spectrometers, spectral engines, and holographic diffraction gratings have been selected by OEM and end-user customers around the world for use in critical application environments. As a pioneer in advanced, patented optics technology, Headwall enjoys a market-leading position through the design and manufacture of spectral instrumentation that is customized for application-specific performance.

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