PRODUCT DATA SHEET

VNIR E-Series

Micro-Hyperspec® Hyperspectral Imaging Sensors

- VNIR, NIR, Ext. VNIR, SWIR versions
- Small & light for easy airborne deployment
- All-reflective, concentric optical layout
- High spectral & spatial resolution
- Up to 369 spectral bands
- Up to 1,600 spatial bands
- Airborne (UAV, aircraft, satellite)
- Advanced machine vision applications
- Collect full spectrum for every pixel
- Frame rates from 90 Hz to 450 Hz, depending on model

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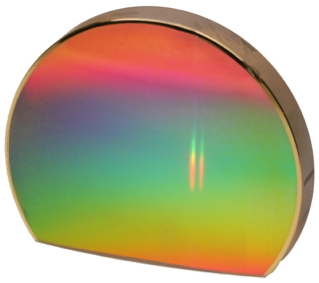
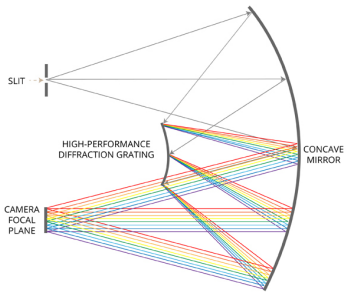
Spectral Range	VNIR (400-1000nm)		NIR (900-1700nm)		Extended VNIR (600-1700nm)	SWIR (900-2500nm)	
Configuration	A-Series	E-Series	R640	R320	R640	M384	M640
Focal Plane Array	Silicon CCD	Scientific CMOS	InGaAs			MCT	
Pixel Pitch (microns)	7.4	6.5	15	30	15	24	15
Aperture	F/2.5						
Slit Length (mm)	10.5						
Dispersion/Pixel (nm)	1.9	1.6	6	12	4.1	9.6	6
Entrance Slit Width (µm)	20		25		20	25	20
FWHM Slit Image (nm)	5		10	10	5.5	10	8
Spectral Bands	325	369	134	67	267	166	267
Spatial Bands	1004	1600	640	320	640	384	640
Aberration-Corrected	Yes						
Max. Frame Rate (Hz)	90	250	120	346	120	450	>200
ADC Bit Depth	12	16	14			16	
Cooling	No	TE-cooled				Stirling-cooled	
Digital Output Format	Base CameraLink	Full Camera-Link, 80-bit	Base CameraLink			RS232/Base CameraLink	Base Cameralink
Weight without lens (lb / kg)	1.6 / 0.7	3.1 / 1.4	1.9 / 0.9			4.4 / 2.0	3.4 / 1.6
Max Power (W)	6.6	20	2.5	4	2.5	14.4	14



Headwall-manufactured diffraction gratings manage reflected light with exceptional precision and resolution. For Micro-Hyperspec, choose between standard holographic gratings or high-efficiency diamond-turned gratings.



Headwall's concentric design layout using mirrors and gratings provides aberration-free imaging and a wide field-of-view.

Telecentric lens provides a perfectly matched exit pupil that eliminates unwanted image artifacts.

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