

Camera	VNIR
Unique Features	High Dynamic Range
Spatial Resolution	2560 pixels
Dispersion	1.5 nm/pixel
# of Spectral Channels	399
Second Order Rejection	Built In OSF
Spectral Range	400 – 1000 nm
Peak Grating Efficiency	90% @ 500 nm
Scanning Mechanism	Rotation stage
Scanning Resolution	3 μ rad
Scan Angle (Field of Regard)	>180 deg
f/#	2.5
Imaging	Pushbroom Hyperspectral
Slit Width	10 to 25 μ m (Interchangeable) (custom widths available)
Dark Frame Collection	Automatic (w/built-in shutter)
Keystone Smile	<1 pixel
Calibration	Radiometric, Spectral
Lenses	Interchangeable, 25, 35, and 50 mm typical, others can be accommodated
All-reflective optics (Optional)	20 mm , 60 mm and 120 mm TMA
Detector (Others may be accomplished on a custom basis)	
Pixel Size	6.5 μ m
Detector Resolution	2560 \times 2160
Detector Diagonal	21.7 mm
Full Well e- (No Binning)	30,000
SNR (Full Well e-, No Binning)	173
Peak QE	57% @ 600nm
Max Frame Rate (Full Dispersion)	100 Hz
Detector Type	sCMOS
Exposure Control	10 μ s - 100 ms
Binning	Post processing
Bit Depth	16 bits
Digital Interface	Camera Link (Base Mode)
HyperVision Software	
Software control	HyperVision: full control of sensor, data capture, and real time display
Camera Control	Camera Link



Scan Control	Via USB 2.0
Frame rate / exposure time	Independent frame rate & exposure time control
GPS / AHRS / IMU (Optional)	Recorded in sync with image data
Data Time Stamping	IRIG or GPS Source (Optional) or computer clock (standard)
System Monitoring	Input Voltage Monitoring and Recording System Temperature Monitoring and Recording Real Time Waterfall and Frame Display
Display	False Color and Monochrome Auto-stretch Spectral Profiles Free run(scan) & during scan / recording Waterfall display rendered in realtime on system GPU
Data Processing	Custom OKSI ENVI Tools for Calibration and Analysis IDL / ENVI Integration Full System Control and Display via Wireless LAN
Control	From (i) local computer, (ii) remote via Ethernet, (iii) remote wireless control from ground station
Miscellaneous Features	Automatic Dark Field Collection Histogram Feedback IRIG / GPS Time Stamping
Mechanical	
L x W x H	7"×6"×3" (180×150×76 mm)
Mass	3.5 lbs. (1.6 Kg)
Sensor Mount	Side, Up, or Down Looking Airborne Application with Locked Stage Lab & field – with rotation stage sync'd to frame rate
Electrical	
Supply Voltage	12 VDC
Max Current	5 Amps
Max Power	60 Watts
Power sources	Works on DC or AC 1000W flight inverter + Line Interactive UPS with proper AC-to-DC are available
Environment	
Temperature control	TEC (optional) for operations in up to 110°F ambient

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