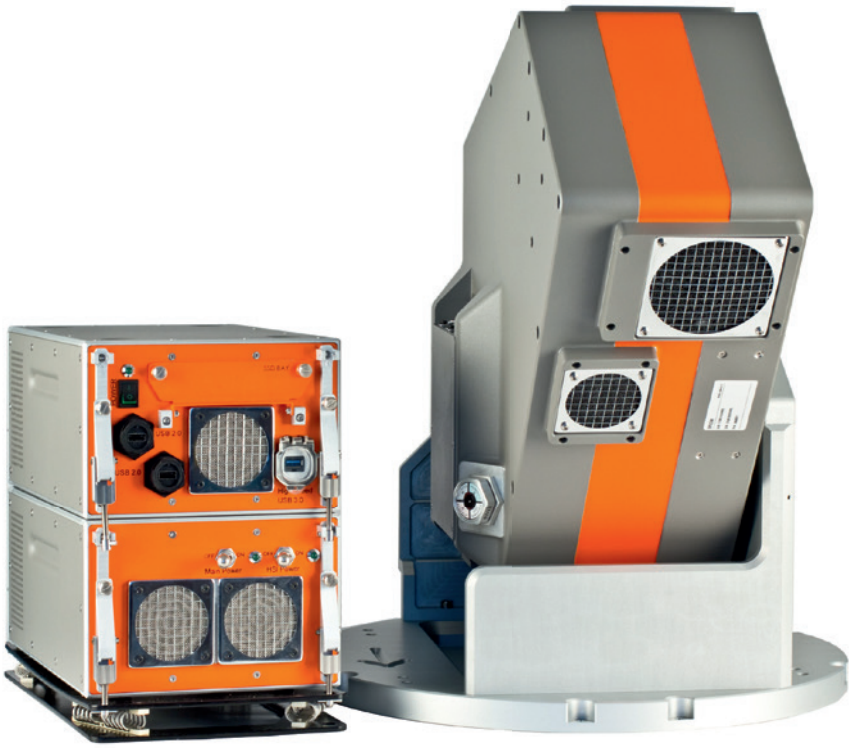
AisaFENIX 1K hyperspectral sensor



FULL SPECTRUM HYPERSPECTRAL DATA WITH 1024 PIXELS REDUCES YOUR FLYING COSTS BY 60 %

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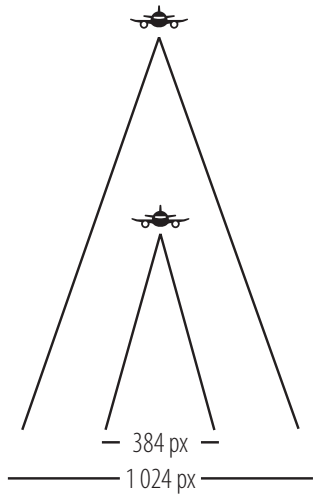
SPECIM
SPECTRAL IMAGING

AisaFENIX 1K hyperspectral sensor

	VNIR			SWIR
Camera specifications				
Spectrograph	High efficiency transmissive imaging spectrograph			
Spectral range	380 - 970 nm			970 - 2 500 nm
Spectral resolution	4.5 nm			14 nm
F/#	F/2.4			
Smile / Keystone	± 0.35 pixels			
Polarization sensitivity	Throughput practically independent of polarization			
Calibration	Sensor provided with wavelength and radiometric calibration file			
Signal-to-noise ratio (peak)	600 - 1 000:1 *			1 250:1
Spatial resolution	1 024 pixels			
Frame rate	Up to 100 Hz			
Integration time	Adjustable, within frame time			
FOV	40°			
IFOV	0.039°			
Swath width	0.73 x altitude			
Altitude for 1m pixel size	1 400 m			
Electro mechanical shutter	Yes			
Optics temperature stabilization	Yes			
Detector	CMOS			Stirling cooled MCT
Spectral binning options	2x	4x	8x	-
Number of spectral bands	348	174	87	256
Spectral sampling / band	1.7 nm	3.4 nm	6.8 nm	6.3 nm
Data interface	CameraLink 12-bit			CameraLink 16-bit
Operating modes	Hyperspectral and multispectral The operator can create application specific band configurations, and quickly change from one mode or configuration to others in flight operation.			
Typical power consumption **	150 W			
Maximum power consumption **	500 W			
Mechanical characteristics				
Size	Sensor 530 x 530 x 210 mm			DPU 300 x 260 x 195 mm
Weight	22.5 kg			9.5 kg
Environmental characteristics				
Storage temperature	- 20 ... +50 ºC			
Operating temperature	+ 5 ... +40 ºC, non-condensing			

***) Depends on spectral binning**

****) Complete system with DPU**



KEY BENEFITS

- Flying costs reduced by 60%
- Survey area covered 2.5 times faster
- Detection of targets occupying only a fraction of a pixel

FEATURES

- VNIR and SWIR wavelengths from 400 nm to 2 500 nm
- A common fore optic eliminates the need to co-register the data
- Fully temperature stabilized sensor head
- Excellent signal-to-noise ratio

APPLICATIONS

- Vegetation mapping: species classification, forest damages, fire science
- Environment: pollution control, environmental impact assesment
- Geology; mineral mapping, oil and gas exploration
- Law enforcement and defence; camouflaged targets, illicit farming

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