HSC-2
HYPERSPECTRAL CAMERA

Frame camera
True 1 Mpixels
Fast frame rate
Up to thousand spectral bands
C-mount camera now available

Senop HSC-2 Hyperspectral Camera is a frame-based spectral system providing snapshot images in VNIR spectral range with up to thousand of narrow bands. This unique snapshot device providing only true image pixels with 1Mpixel resolution. No interpolation used.

The frame-based approach with integrated positioning and IMU enables easy image stitching for the mosaics with high resolution images. The Senop HSC-2 camera has been used with a wide variety of platforms including drones and fixed wing UAVs in several applications like: agriculture, forestry and water research, industry, medical and forensic.

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HSC-2 HYPERSPECTRAL CAMERA

Product set includes

- Senop HSC-2 Hyperspectral camera
- AC/DC Adapter with cable
- Power cable
- Ethernet cable 3m
- Trig-sync cable
- HSI-2 PC software in USB-memory
- Transport case
- Instruction manual

TECHNICAL DATA

PARAMETER	SPECIFICATION	REMARKS
Camera versions	HSC-2.1-B: 450-800 nm HSC-2.1-C: 500-900 nm HSC-2.3-C: 500-900 nm C-mount	HSC-2.3-C is a C-mount camera for example microscopical imaging.
Spectral FWHM	6-18 nm	
Spectral Step	0.1 nm	
Spectral Bands	up to 1000	The bands are freely selectable/programmable.
Horizontal FOV	36.8°	Diagonal 52.0°
Vertical FOV	36.8°	Diagonal 52.0°
Image Sensor	CMOS	Pixel size is 5.5 µm x 5.5 µm.
Dynamic Range	10/12 bits	
Max Image Rate (frames / s)	74 (12 bit) 149 (10 bit)	The camera exposures each band separately.
Image Resolutions	1024x1024	All pixels are true image pixels. No interpolation used.
Exposure time	Adjustable	Maximum frame rate may be limited if exposure time is long.
Memory	1TB	Shooting time with max frame rate 12 bit: 1h 45min & 10 bit: 1h 17min.
Connections	GigE RJ-45 Mini-Displayport v1.2 IO port with UART and 4GPIO pins MMCX for external GPS antenna (if needed) USB-C for irradiance sensor	
Weight	990 g	
Dimensions (l x w x h)	199 mm x 131 mm x 97 mm	
Positioning	GPS and BeiDou	With external antenna also Glonass and Galileo.
Voltage supply	7-17 VDC	Set includes AC/DC adapter with cable.
Inertial Measurement Unit	Gyroscope and 3 axis accelerometer	
Adjustable optics	Focus distance: 30 cm - ∞	FOV is limited with less than 30 cm distances.
Live Use	External display can be attached	
PC-software	Senop HSI-2	Windows 7 & 10
Data export	Standard ENVI	
Connectivity	Open API	

ACCESSORIES

Senop irradiance sensor	Capable of monitoring changes in the lighting conditions during the imaging for example in remote sensing applications.
Reflectance targets	Reflectance targets are placed to the survey site and used as field calibration targets for processing reflectance images.

Fully compatible with PerClass MIRA spectral image interpret software

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Senop Oy
Tutkijantie 5 K
FI-90590 Oulu, Finland
Tel. +358 20 734 3500

senop.fi