

sisu SCS *Hyperspectral Single Core Scanner*

The Single Core Scanner is the answer for the users who essentially need hyperspectral core imaging but produce only limited amount of cores per year. The SCS is equipped with a single sensor depending on the application requirements. The available pushbroom-based wavelength ranges are VNIR and SWIR. This turnkey solution applies only state-of-the-art components from the SPECIM product range.

The SCS provides the same functionalities compared to full scale sisuROCK but on a smaller scale. The small size makes it a more portable and ideal research tool for core like samples.

The SCS was designed for studying lake sediment core samples. Depending on the wavelength range used, one can detect either mineralogy or complicated organic compounds like photopigments or alkenones. The imaging ability is the key to discovering the distribution along the core samples.

Key benefits

- Turnkey hyperspectral core imager
- High resolution imagery
- Objective and consistent digital data
- Applies either VNIR or SWIR wavelength range
- Data acquisition done only once in single scan motion
- Use your time for the data analysis not manual core logging
- Versatile tool for different applications
- Ideal for research use
- Easily transportable from site to site



SCS with VNIR camera

Performance specifications

	VNIR	SWIR
Spectral range	400 - 1 000 nm	1 000 - 2 500 nm
Number of spectral bands	96 - 768 (adjustable by binning)	256
Spectral sampling	0.78 - 6.27 nm / pixel	6.3 nm / pixel
The number of Spatial pixels	up to 1 312	320
FOV	50 - 120 mm	50 - 120 mm
Pixel size on target	0.04 - 0.09 mm (1 312 pixels)	0.16 - 0.38 mm (320 pixels)
Scan speed (120 mm FOV)	~6 mm/s (up to 16 mm/s with binning)	up to 40 mm/s
Pixel size on target	100 µm	150 - 400 µm
Scan speed (130 mm FOV)	6.5 mm / s (up to 20 mm / s with binning)	40 mm / s
Scan time for 1.5 m long sample	4 minutes (90 s with binning)	~ 50 s
Max sample size	130 x 1 500 x 75 mm (L x W x H)	
System dimensions	3 210 x 522 x 1 000 mm (L x W x H)	
Overall system weight	93.5 kg (SCS frame)	
	2.7 kg / 8.5 kg (VNIR / SWIR sensor)	
	40.0 kg (PC / PSU unit)	
Cooling requirements	No external cooling required. Air conditioned room recommended.	
Operating conditions	Laboratory environment.	
Operating voltage	110 to 220 V (50/60 Hz)	
Power consumption	700 W	
Output data format	Binary 10-bit BIL data with separate ASCII format header, Envi compatible	
Instrument calibration	Spectral calibration. Normalization using internal referencing	
Warranty	One year	

SisuSCS dimensions

