

MUSES9-Phenocheck TECHNICAL DATASHEET

MUSES9-Phenocheck is the world's first 6 megapixel, snapshot, hand held, tablet PC-operable, spectral imager, in the range 400-1000nm.

- Ultra high spatial resolution: 3072 horizontalX2048 vertical pixels for all supported spectral bands.
- Displays simultaneously and side-by side up to 24 spectral images, spectral classification and vegetation index maps, all at video refresh rates.
- Integrates ring light LED illumination with cross polarization optics to eliminate glare inmacro imaging.
- Supports both diffuse reflectance and fluorescence imaging, even in outdooroperation settings.





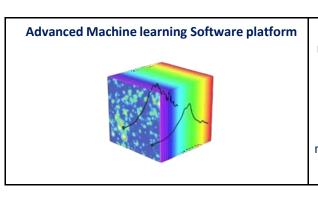


Detailed Specifications

Spectral Filtering Technology	Snapshot capturing	
	Spectral range	400-1000nm
	Spectral bands	Up to 24 (Pro edition) // 6 bands (Lite)
Imaging Sensor	CMOS	
	Spatial Resolution	3096 (H) × 2080 (V) approx. 6.44M pixels
	Format	1/1.8 inch
	Pixel Size	H: 2.4 μm, V: 2.4 μm
	Dynamic range	12 bit
	Dark current	0.39 e- / s
	Shutter	20 μs to 5 s
Camera Interface	USB 3.1	
Lens Thread	C-mount with internal autofocusing	Adapts to all types of lenses/microscopes/telescopes
Environmental	Temperature (Operating)	-5 °C to 45 °C
	Temperature (Storage)	-20 °C to 60 °C
	Humidity (Operating)	20 % to 80 % (non-condensing)
	Humidity (Storage)	20 % to 95 % (non-condensing)
Weight	450 g	
Software	Computer Control	Fully automated operation, shutter & gain control, auto calibration, ETF control and image capturing synchronization, light source control
	Image/Data viewer	On demand video rate display of spectral images, display of full spectra on mouse hovering over the displayed spectral image, spectra comparison window, color (reference) imaging, image enhancing tools, vegetation index mapping etc.
		Subject to change
Integrated Light Sources		Ring LED array with cross polarizers to eliminate glare



Accessories



The λambda³⁺ software suite, incorporating machine learning/Al tools. These tools allow for the development of a trained data structure, where the acquired spectra have been labelled with the structural information of reference materials. The output of this process is artificial color-coded composition maps of target materials, obtained in situ and non destructively.

SPECTRICON empowers researchers and professionals with themost advanced hyper-/multi- spectral camera systems

