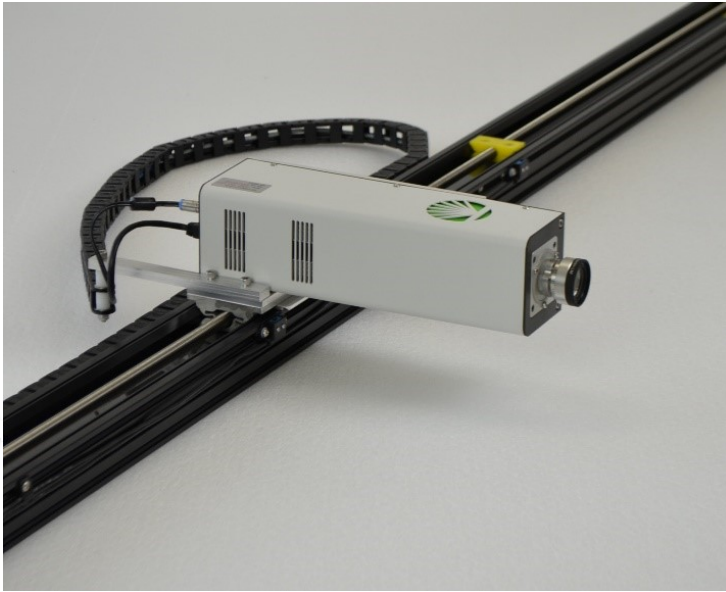




## MSV –500 HIGH SENSIVITY HYPERSPECTRAL VNIR CAMERA



**MSV-500 SPECTRAL CAMERA**

### Features:

- High-resolution sCMOS sensor
- Wide dynamic range: 27000:1 (16-bit mode)
- Readout Noise: 1.5 e-1 (Rolling Shutter), 2.2 e-1 (Global Shutter) Selectable Rolling shutter or Global shutter
- 2000 point spatial resolution, 1000 point spectral resolution
- Framerate 90 fps (USB3) or 100 fps (Dual CameraLink) over the full spectral window

### Overview

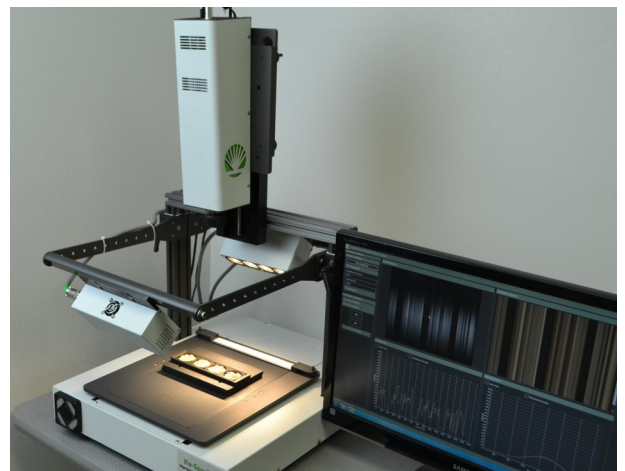
The MSV 500 is a high performance spectral camera for demanding applications. The MSV 500 uses a 5.5 mega pixel sCMOS sensor. The sCMOS sensor has a very low noise floor, in the single electron range.

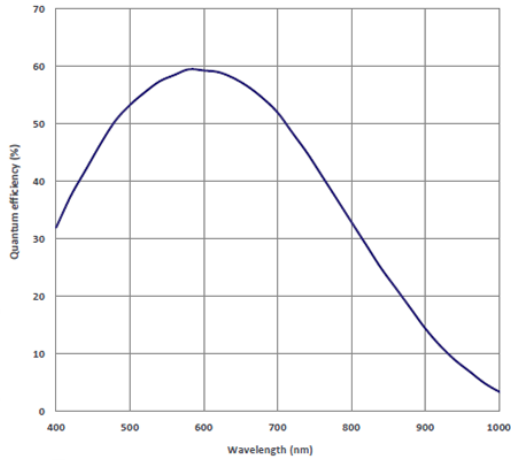
### High Dynamic Range

The user can select between two 12 bit amplifiers in software, one optimized for low noise applications where highest sensitivity is required or high dynamic range for stronger signals. A 16 bit mode is available that samples each 12 bit amplifier to produce an image that combines both low noise and high dynamic range information.

### Electronic Shutter

The sensor supports both global and rolling shutter modes. Global shutter can be critical for hyperspectral imaging of fast moving objects. The camera can achieve high frame rates, up to 90 frames per second over the full spectral window, or even higher with a reduced field of view.





**Quantum Efficiency curve**



**MSV-500 with Mirror scanner**

## Specifications

Sensor—5.5 mega pixel sCMOS

Dynamic Range settings—12 bit low noise, 12 bit High dynamic range, 16 bit combined

Electronic shutter—Rolling and Global Shutter

Spatial Sampling—up to 2000 points

Spectral bands—up to 1000

Optical Resolution - down to 1.2nm

Frame rate—up to 100 fps

Spectrograph—Specim V10E or V8E

Spectral Range - 400-1000 nm

Smile < 1.5μm

Keystone < 1μm

Numerical aperture - 2.4

Data interface - USB3 or 10 tap dual camera link

Options:

Mechanical shutter

Water Cooling for higher operating temperature environments.

