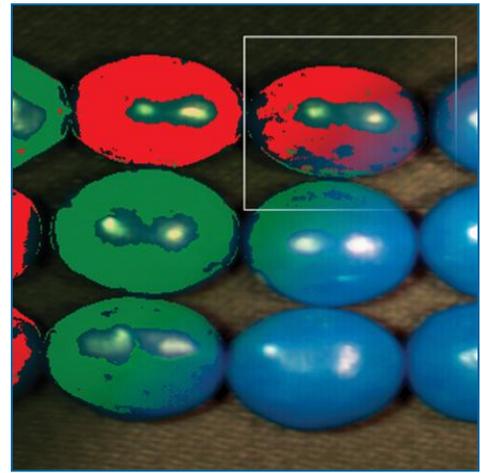


Hyperspectral Imaging Technology

Corning Advanced Optics



Corning[®] microHSI[™] 410 Vis-NIR Hyperspectral Sensor

Corning's microHSI[™] 410 hyperspectral sensor, designed for the 400 – 1000 nm spectral range, meets all of your imaging camera needs in a compact and small-form-factor package. This hyperspectral sensor is higher performing and lower cost compared to other hyperspectral technologies, making the benefits of hyperspectral data more accessible. This sensor comes in easy-to-use format, ideal for applications like process control, precision agriculture, medical diagnostics, food quality, and others. The microHSI 410 sensor is Corning's standard product offering for the 400-1000 nm spectral range. Customizable versions are also available.

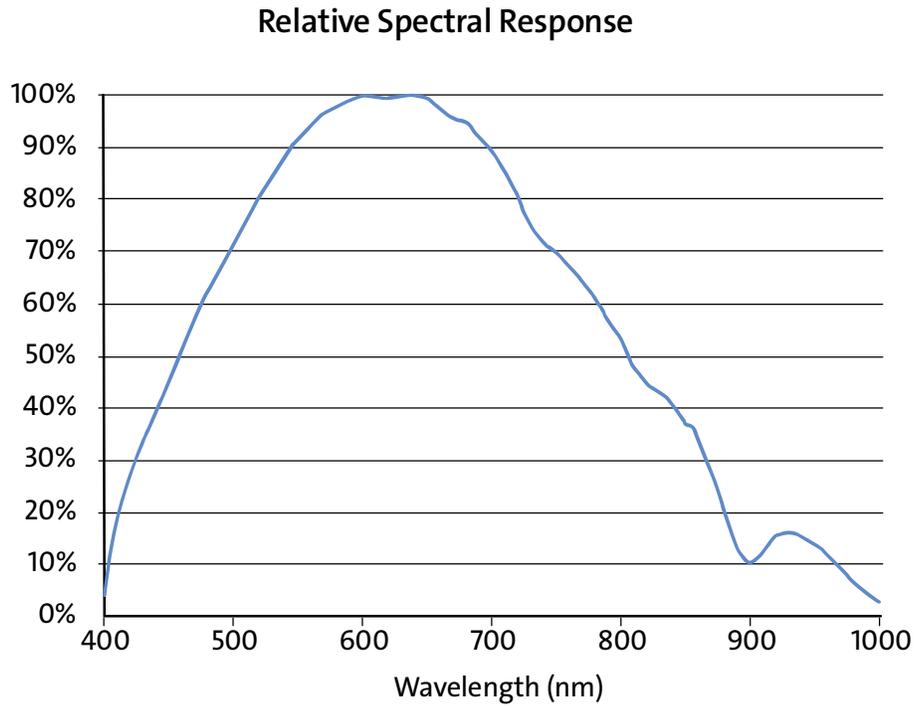
The Corning Advantage

Light Collection	Hyperspectral imagers collect light in proportion to their optical numerical aperture (NA). Corning’s hyperspectral systems have a higher NA for enhanced light collection sensitivity in an extremely compact, lightweight package.
Transmission	High-performance coatings and enhanced-efficiency blazed gratings provide significantly better throughput.
Sensitivity	A combination of high NA optics and improved transmission delivers more light to the detector. Superior sensitivity means smaller anomalies can be detected and/or processed faster.
Wavelength Stability	Corning patented hyperspectral systems deliver stability over temperature (0 °C to 45 °C typical), pressure and humidity.
Durability	Encapsulated reflective surfaces isolate the optics from contamination, handling, humidity, and abrasion.
Transmission Stability	Protected critical optical surfaces deliver consistent, reliable throughput, and retain stability.

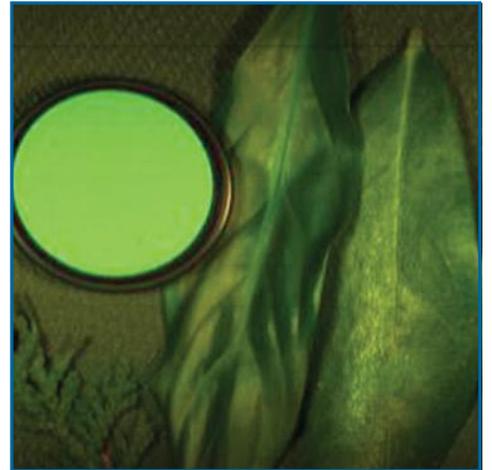
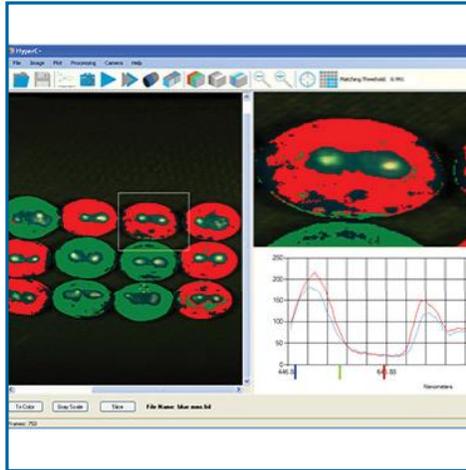
Vis-VNIR System Attributes

Spectral	Range (nm)	400 - 1000
	Pixels (µm)	120 x 15 (4X binned)
		240 x 7.50 (2X binned)
		480 x 3.75 (unbinned)
	Maximum Resolution	5.0 nm (2X spectral pixel bin)
	Typical Spectral Readout	5.0nm (4X spectral pixel bin) <i>lower resolution possible</i>
	Dispersion (nm/pixel)	5.0 (4X binned)
		2.5 (2X binned)
1.25 (unbinned)		
Smile (pixels)	< 1.0 (unbinned)	
Keystone (pixels)	< 1.0 (unbinned)	
Spatial	Pixels (µm)	320 x 15 (4X binned)
		640 x 7.5 (2X binned)
		1280 x 3.75 (unbinned)
	Resolution (pixels)	< 1.0
fov (16 mm foreoptics) (degrees)	8.5	
Radiometric Size & Weight	f/#	1.4
	Dimensions - L x W x H (cm)	15.2 x 6.4 x 6.1
		10.9 x 6.4 x 6.1 (without foreoptics)
	Weight (kg)	0.45

Relative Spectral Performance



Enhanced Discrimination Capabilities



NOTE: Visibly similar test samples are identified by very subtle differences in spectral signature. False color techniques allow for accurate sorting and designation of the samples.

CORNING

For more information about Corning's hyperspectral and multi-spectral imaging systems please contact:

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