

Hyperspectral Imaging Technology

Corning Advanced Optics

CORNING



The Corning Advantage

Light Collection

Hyperspectral imagers collect light in proportion to their optical numerical aperture (NA). Corning Vis-NIR 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 Vis-NIR 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 severe abrasion - even frosalt fog.

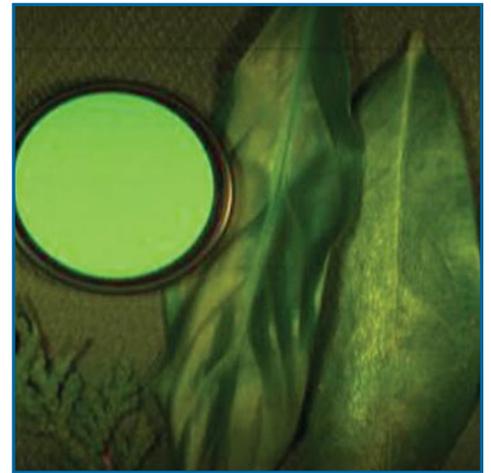
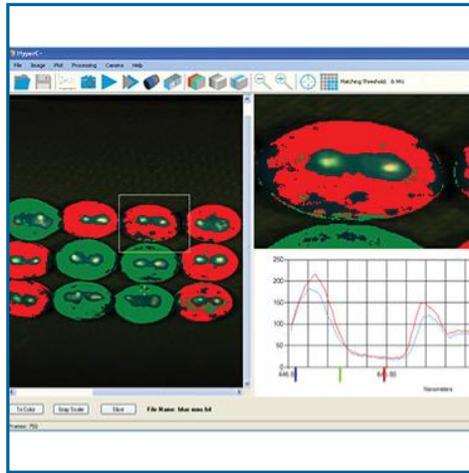
Transmission Stability

Protected critical optical surfaces deliver consistent, reliable throughput, and retain stability.

Vis-VNIR System Attributes

Spectral	Range (nm)	400 - 850
	Pixels (μm)	90 x 15 (4X binned)
		180 x 7.50 (2X binned)
		360 x 3.75 (unbinned)
	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	f/#	1.4
Size & Weight	Dimensions - L x W x H (cm)	21 x 6.4 x 6.1 (with scanner)
		15.2 x 6.4 x 6.1 (without scanner)
10.9 x 6.4 x 6.1 (without foreoptics)		
Weight (kg)	0.76 (with scanner)	
	0.45 (without scanner)	

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.

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

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