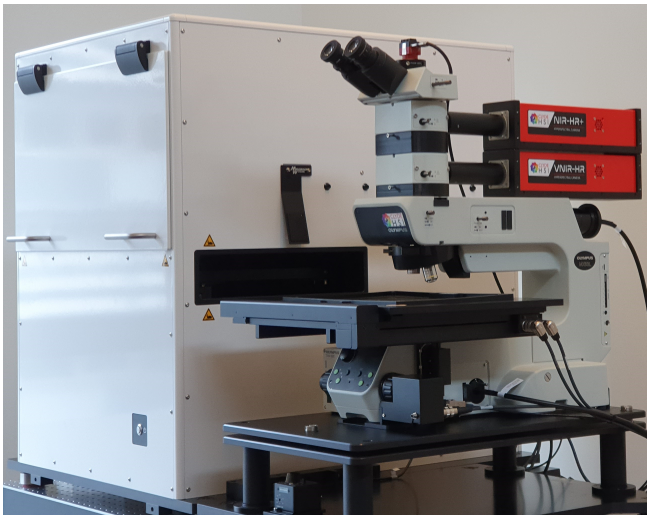




# MICROSCOPE

Large-area, Multi-modal, High Spectral and Spatial Resolution

## Hyperspectral Scanning Solution



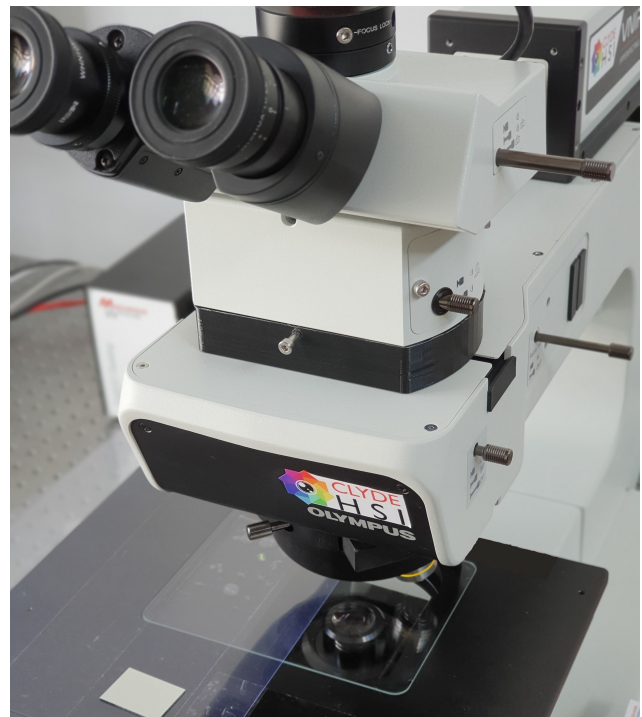
The ClydeHSI Hyperspectral Microscope is a unique, multi-modal capable instrument that can be configured to permit light and dark field microscopy, reflection, transmission, luminescence, polarisation and Raman microscopy studies

The system offers a high degree of applicational versatility and ultra-high precision. With spatial resolution capabilities of  $\leq 1 \mu\text{m}$ , the system is ideal for applications with colour and materials identification needs such as forensic trace evidence identification and analysis and medical applications.

The system also has a motorised nosepiece and auto sample loading capabilities (pictured) for ultimate user functionality.

### Key Features:

- <1 $\mu\text{m}$  Spatial Resolution*
- Automatic Robotic Sample Loader*
- Multi-modal Imaging Capability*
- Auto-focus of Spectral Cameras*
- Auto-exposure Setting*
- Auto-square-pixel Facility*
- Simultaneous Dual Camera Acquisition*



## Scanning Stage Technical Specifications

Parameter	Value	Units	Comment
Operational Modes	Reflectance, Transmission, Luminescence, Raman, Polarisation		Multi-modal operation with spectral correction and multi-strip mosaic imaging for large area high resolution scans
Spectral Range	400 to 1700	nm	Broad spectral range, ideal for colour and materials identification needs
Spatial Resolution	≤1	µm	Interchangeable objectives using motorised nosepiece
Spatial Range	Options for 75 x 50 mm to 300 x 300 mm	mm	Large area, highly stabilised, motorised platform
Stage Repeatability	≤1	µm	
Max Sample Area	300 x 300	mm <sup>2</sup>	Depends upon stage
Optional Auto-loader Sample Capacity	6		Robotic arm loads samples into sample area automatically

## ClydeHSI Hyperspectral Cameras

The ClydeHSI Microscope is capable of single and dual camera operation with simultaneous data acquisition, and is fully compatible with all ClydeHSI hyperspectral cameras, light sources, and data acquisition and analysis software. This ensures broad adaptability to applications and the capability to capture hyperspectral data from a broad spectral range.

## Hyperspectral Camera Options for Microscope

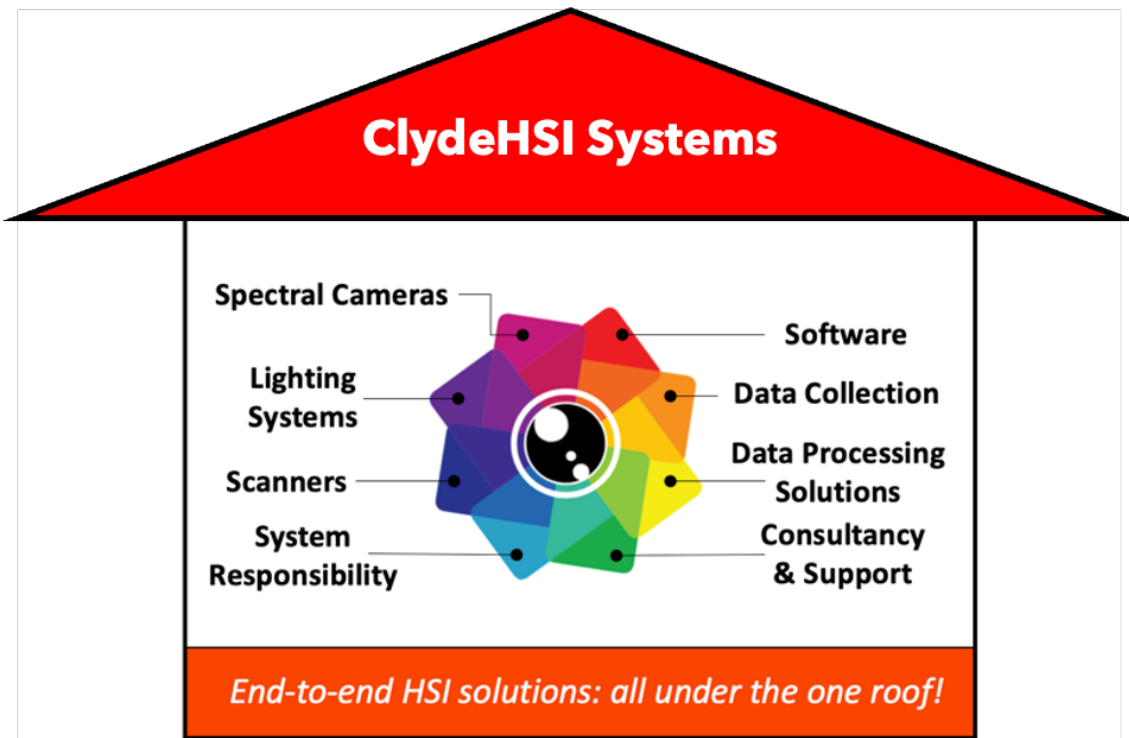
Parameter	Value					Units
Model	VNIR-S	VNIR-HR	NIR-HR	NIR-HR+	Raman-532	
Spectral Range	400-1000		950-1700		520-635	nm
Optical Spectral Resolution	8	<3	<5		0.3	nm FWHM
Pixels (Spatial Line)	1936		320	640	1280	pix
Pixels (Spectral)	1216		256	512	1024	pix
Spectral Sampling/pixel	0.3		3	1.5	0.3	nm
Smile and Keystone	Sub-pixel across output field					-
Camera output	Up to 14				12	bit
Camera Interface	USB-3, GigE				USB-3	-
Frame Rate (full frame)	Up to 155		Up to 344	Up to 300	25	lfps
Shutter	N/A	Integrated				
Lens Mount	C-mount					
Lens Options	17, 23, 35, 50		15, 22.5, 30, 56, 1:1 Macro		17, 23, 35, 50	mm

## About Us

### We make and measure rainbows.

ClydeHSI are specialists in optical spectroscopy and provide a wide range of both hyper-spectral and conventional spectroscopy instruments and full systems. All our products are supported by leading software for data acquisition, analysis and display.

**We take care of the technology, so you can focus on what matters to you: the spectroscopy, the imaging and the science.**



Our mission is to provide each and every one of our clients with a complete, end-to-end hyperspectral imaging solution, designed and rigorously tested to ensure **robust, reliable, accurate and repeatable** hyperspectral imaging measurements across a range of academic and industrial applications. Our ultimate goal for all of our systems is to **make hyperspectral imaging easy** for any and all end users.

We believe in **high quality engineering and design**, allowing us to develop market leading products and services. Within our Photonics Research Facility, we have the capability to rapidly develop new products and systems, and welcome the opportunity to partner with our customers on new developments - both within the scientific research community and for equipment for industrial applications.

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