

High-Performance Raman (520-635nm)

Hyperspectral Imaging Camera

The Raman-532 is an **ultra-high resolution** (\leq FWHM) hyperspectral imaging camera. With an electron multiplying CCD detector, the Raman-532 ensures the **highest possible spectral and sensitivity performance** for all Raman spectroscopy applications.

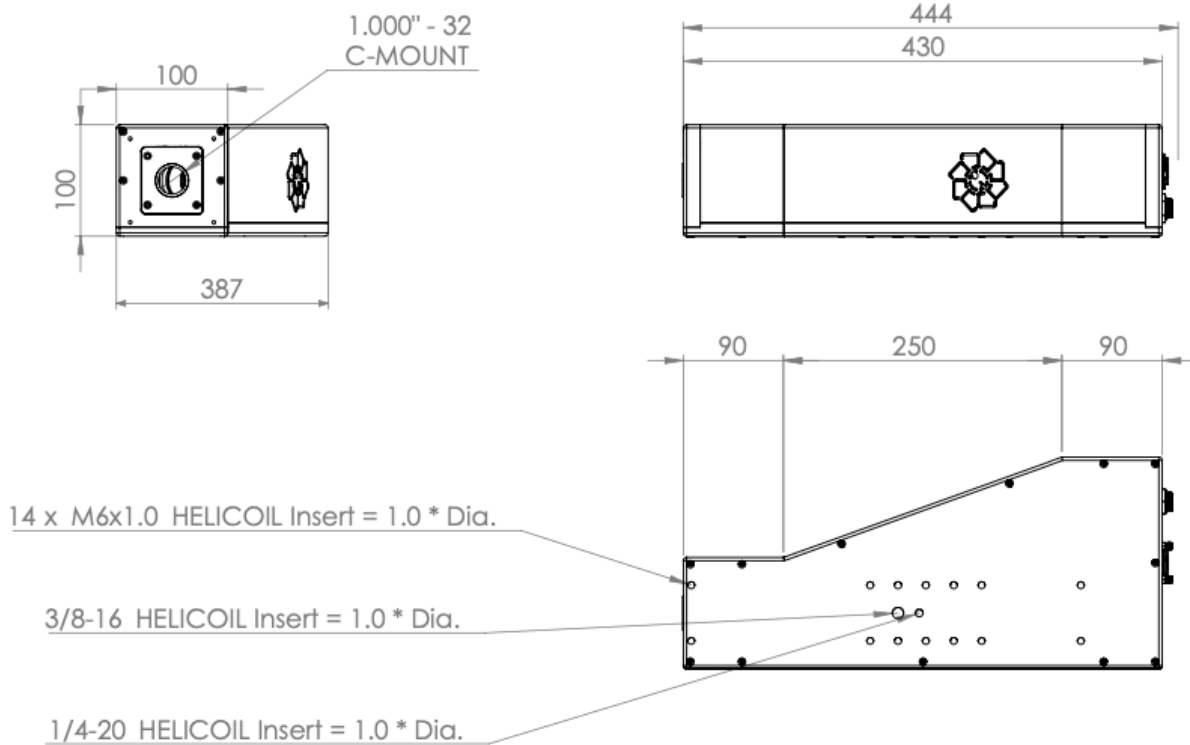
Highly **versatile** camera - fully compatible with all ClydeHSI hyperspectral scanning solutions, ideal for all applications studying the Raman spectral fingerprints of materials in a **non-invasive, non-destructive manner**. Already deployed in forensic and art conservation applications.



Technical Specifications

Parameter	Value	Units
Spectral Range	520 to 635	nm
Spectral Resolution	0.3	nm FWHM
Spatial Pixels (Cross Track)	1280	pix
Spectral Pixels	1024	pix
Smile and Keystone	Sub-pixel across output field	-
Effective Slit Length	12	mm
Detector Configuration	Back thinned frame transfer cooled EMCCD	-
Wavelength for Peak Quantum Efficiency	± 75	Nm
Non-linearity	≤ 1	μs
Digitiser Resolution	12	bit
Minimum Illumination	50	μlux
Interface	USB-3	

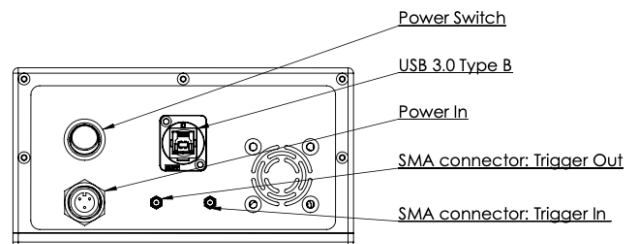
Dimensions



Connectivity

As with all ClydeHSI hardware and software, the Raman-532 HyperSpectral Camera has been designed from the ground up with **user convenience and functionality** in mind. As a result, Raman-532 is fully compatible with all of our hyperspectral scanning solutions and software, and comes provided with a mounting plate which is **universally compatible** with all of our systems to ensure efficient and safe operation.

The Raman-532 interface pictured below is designed for **user functionality and high performance**. One power cable and one USB input allow the camera to be powered up and connected to our software in seconds, where it can be fully operated by the user **easily and efficiently**.



Lenses for Raman-532 Hyperspectral Camera (520-635 nm)

ClydeHSI supplies 3 lenses compatible with our Raman-532 HyperSpectral Camera, each with a different focal length and subsequent field of view.

Note: the table shows the lens performance with a standard spectrograph slit and is dependent on specifications.

Focal Length (mm)	FOV (deg)	IFOV (mrad)
17	38.9	1.76
23	29.2	1.30
35	19.5	0.86
50	13	0.60

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.

Our mission is to provide each and every one of our clients with a complete, end-to-end hyperspectral imaging solution, each 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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