RAMAN-532

High-Performance Raman (520-635nm)

Hyperspectral Imaging Camera

Key Applications:

Materials Science

Heritage Science

Forensic Trace Evidence Detection

Foreign Body Detection

Pharmaceuticals and Cosmetics

Life Sciences

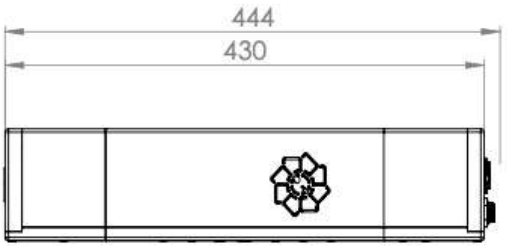
Geology and Mineralogy

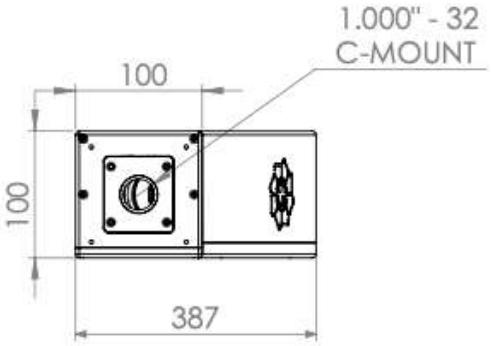
The **ClydeHSI Raman-532** is an **ultra-high resolution** push-broom hyperspectral Raman imaging camera, enabling users to obtain Raman spectral fingerprints across large areas at high speed in a non-contact, non-destructive manner.

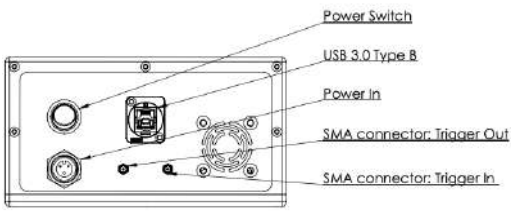
Electron multiplying CCD detector ensures the **highest possible spectral and sensitivity performance** for all Raman spectroscopy applications.

Fully compatible with all ClydeHSI hyperspectral scanning solutions and software packages. Supplied with a universally compatible mounting plate to ensure efficient and safe operation on all ClydeHSI system configurations.

User-interchangeable fore-optics to accommodate wide range of standoff distance and spatial resolution requirements. The ClydeHSI NIR Series is suitable for a wide range of laboratory and industrial machine vision applications.







CLYDE HSI

Raman-532 (520-635nm) Hyperspectral Imaging Camera

Technical Specifications

Parameter	Value	Units
Model	**Raman-532**	
Mode of Operation	Push-broom	
Spectral Range	520 to 635	nm
Spectral Resolution	0.3 <10	nm FWMH cm^{-1}
Pixels (Spatial Line)	1280	pix
Spectral Pixels	1024	pix
Pixel Size	8	µm
Dark Current	0.0001	e^-/s
Readout Noise	EM Gain ON: <0.01 EM Gain OFF: <60e-	e-
Dynamic Range	55	dB
Full Well Capacity	>20	ke-
Sensor Material	Back thinned frame transfer cooled EMCCD	
Sensor Cooling	TEC, with fan	
Smile and Keystone	Sub-pixel across output field	
Effective Slit Width	30	µm
Effective Slit Length	12	mm
Objective Lens Options	17 23 35 50	mm
Lens Mount	C-Mount	
Bit Depth	12	bit
Frame Rate[a]	25	Hz
Integration Time[b]	10 to 8,000,000	µs
Shutter[c]	Integrated global shutter	
Camera Interface	USB-3	
Input Voltage	24	V DC
Operating Temperature	-20 to +55	degC
Humidity	5%-95%	
Weight	7.5	kg
Dimensions	444 x 387 x 100	mm

Notes:

*a.*Frame rate depends also upon the computer performance and operating system. It also depends upon the interface chosen, the bit resolution, and the binning conditions.

b. Integration time is independent of frame rate in the case that Integration time < 1/frame-rate

c. Shutter operation controlled by software for dark signal and bad pixel mapping