



SWIR-384

High-Performance Short Wave Infrared (1000-2500nm)

Hyperspectral Imaging Camera



Key Applications:

Materials Sorting & Analysis

Heritage Science

Food and Agriculture

Food Quality Grading

Mineralogy and Geology

Waste Sorting and Recycling

Moisture Measurement

Pharmaceuticals

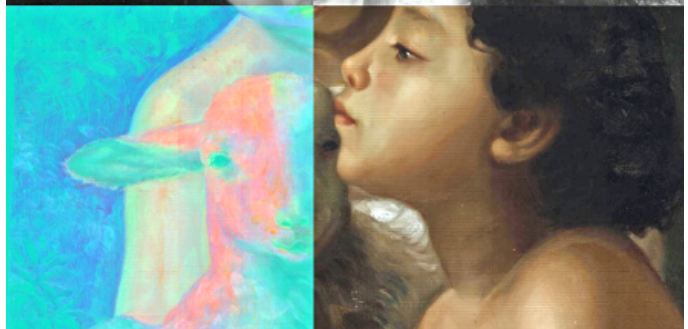
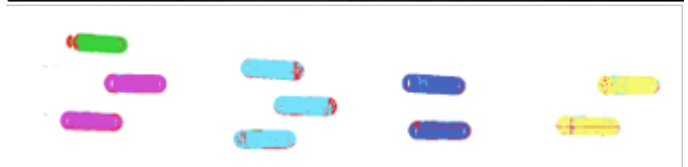
The SWIR-384 is a **high speed, high sensitivity and highly stabilised**

Hyperspectral Camera that covers the short-wave infrared (SWIR) spectral range from 1000 to 2500nm.

The SWIR-384 is fully compatible with all ClydeHSI hyperspectral scanning solutions and software packages, and are provided with a universally compatible mounting plate to ensure efficient and safe operation on all ClydeHSI system configurations.

Temperature stabilised for exceptional noise performance in a wide range of operational environments.

User-interchangeable fore-optics to accommodate wide range of standoff distance and spatial resolution requirements. The SWIR-384 is suitable for a wide range of laboratory and industrial machine vision applications.



Technical Specifications

Parameter	Value	Units
Model	SWIR-384	
Spectral Range	1000-2500	nm
Spectral Resolution	≤12	nm FWHM
Spectral Sampling/pixel	5.6	nm
Pixels (Spatial Line)	384	pix
Spectral Pixels	288	pix
SNR @ Max Signal	1050:1	
Pixel Size	24	μm
Full Well Capacity	1 (Low gain), 0.34 (High gain)	Me-
Sensor Material	MgCdTe	
Sensor Cooling	Stirling cryogenic cooling	
Smile and Keystone	Sub-pixel across output field	
Effective Slit Width	30	μm
Effective Slit Length	9.2	mm
Objective Lens Options	12 22 30 56 1:1 Macro	mm
Lens mount	C-mount	
Bit Depth	16	bit
Camera Interface	CameraLINK	
Frame Rate ^a	Up to 450	lfps
Integration time ^b	0.1 to 20	ms
Shutter ^c	Integrated	
ROI	Freely selectable multiple bands of interest, spectral and/or spatial	
Input Voltage	24	V DC
Operating Temperature	-20 to +65	degC
Humidity	5% - 95%	
Weight	14	kg
Dimensions	545 x 176 x 178	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

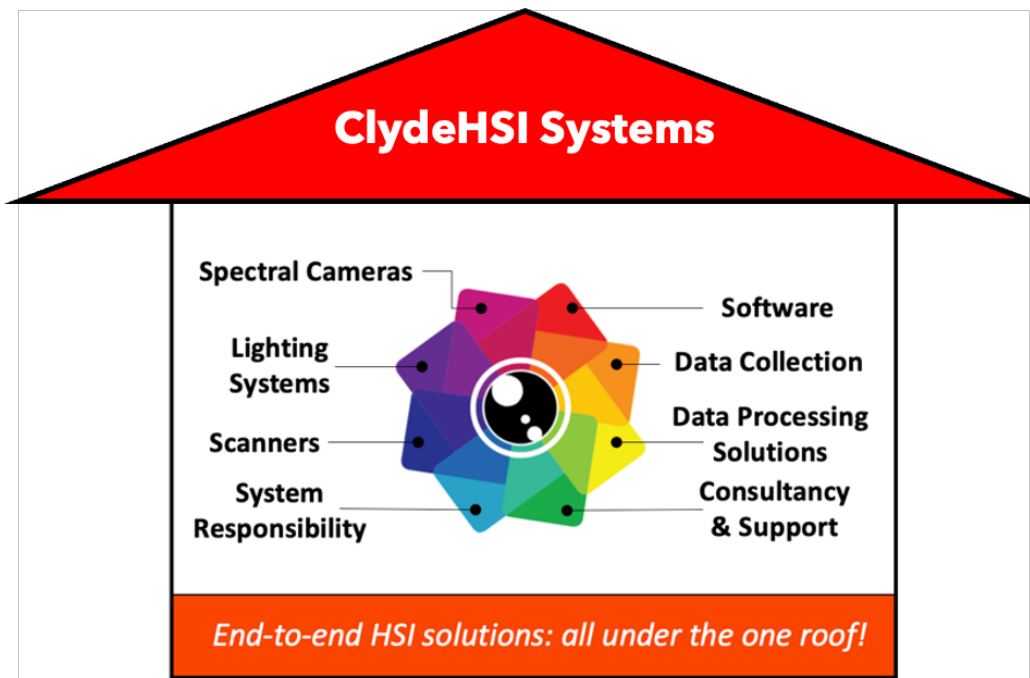
c. Shutter operation controlled by software for dark signal and bad pixel mapping

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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