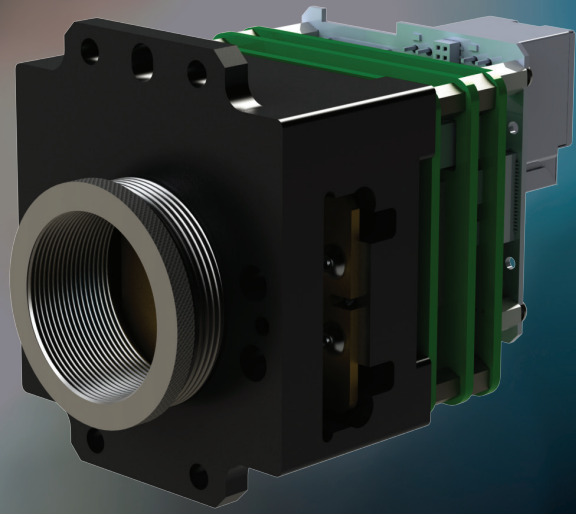


Cooled VGA SWIR InGaAs OEM Module



Quantitative SWIR imaging and surveillance

OEM versions with special form factors / cooling options are available for integration into specific instruments / systems.

The modules use selected InGaAs focal plane arrays with low dark current and low defective pixel count.

Thanks to efficient cooling and stable offset, the InGaAs camera allows reproducible acquisition for precise metrology measurements in the SWIR spectrum.

Camera Link and Gigabit Ethernet Vision compliant interface enables easy integration into existing systems.

Applications

Handheld vision enhancement

Active imaging

Airborne payload

Hand held goggles

Key Features

- | 14-bit digitization / 16-bit image processing
- | Read out noise
down to typically <30 electrons
- | 174 fps
full resolution with region of interest ROI
- | Excellent linearity
response to varying intensities and / or exposures
- | Gigabit Ethernet & Camera Link interface
- | Software option:
SDK kit, Labview VI's

Imaging through fog / haze

Range finding

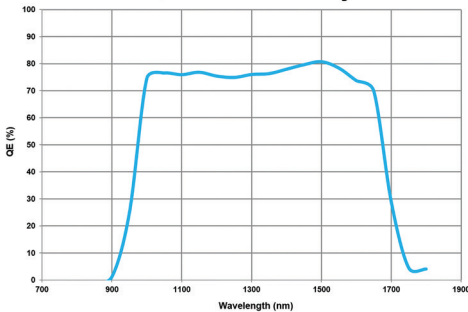
Hyperspectral imaging

Laser line detection at 1064nm and 1550nm

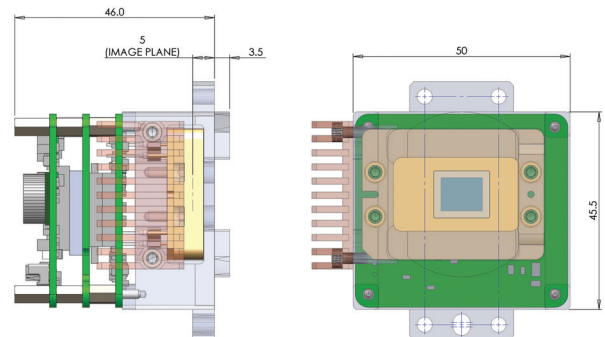
Cooled VGA SWIR InGaAs OEM Module

Characteristics	PSEL VGA 15µm Module
Spectral Range	900 - 1700 nm
Resolution	640 x 512 at 15µm x 15µm
Sensor Size	9.6 mm x 7.68 mm
Frame Rate (global shutter mode)	174 fps at full VGA resolution 570 fps at ¼ VGA resolution 7,200 fps at 640x4 resolution (spectroscopy or line mode)
Full Well Capacity	20k - 23k electrons (high gain mode) 80k - 105k electrons (mid gain mode)
Read Out Noise	28 - 38 electrons (high gain mode) 50 - 77 electrons (mid gain mode)
Dark Current	<30fA with no cooling & <0.7fA with air cooling
Sensor Temperature (°C)	-20°C to +55°C with air cooling
Corrections	Non uniformity, dark current, bright pixel, gain, offset, flatfield
ADC	14-bit with 16-bit digital processing
Exposure	30 µs up to > 500 ms depending on cooling
QE at 1500 nm	80%
Power Consumption / Input Voltage	2.5 Watts uncooled 6.5 Watts Cooled / 12V DC
Dimensions & Weight	45mm x 46.5mm x 50mm / 250g

Quantum Efficiency



Quantum efficiency response of Cooled SWIR InGaAs Module



Dimensions SWIR Module