

FLIR SC2500-NIR

High Performance Versatile InGaAs Camera

The SC2500-NIR complements FLIR's range of products for R&D and automation applications. It embeds a French InGaAs detector with a spectral sensitivity from 0.9 to 1.7µm.

Its removable lens interface makes it easy to integrate with custom devices or spectrometers, while a Gigabit Ethernet digital interface ensures a seamless connection to standard PC and laptops. It features a Trigger input allowing synchronization with the most fleeting event, as well as a Lock-In input used to enhance signal-to-noise ratio imaging, based on an image correlation process.

The camera embeds all necessary images processing in order to deliver ready to use, sharp images for applications such as silicon wafer or solar cells inspection, laser profiling, paint analysis, water or ice detection, imaging spectroscopy or high temperature thermography.

Technical Specifications

Feature List For SC2500-NIR	
Sensor type	InGaAs
Waveband	0.9 - 1.7 µm
Pixel Resolution	320 x 256
Pitch	30 µm
Sensor cooling	TEC (Regulated / OFF)
Sensor gain	Selectable (x1 or x20)
Windowing (down to)	128x8 (user defined)
Max frame rate	340 Hz Full Frame 15 kHz @ 128x8
Integration time	From 400ns to up to 1s, 1 µs step
Well capacity	3.5 Me- or 0.17 Me-

Optical Specifications	
Optical interface	Removable C-Mount with filter holder
Available lenses (mm)	6 / 12 / 16 / 25 / 35 / 50 / 75 / 100
Filter holder	Removable, for 1" filter, up to 2mm thickness

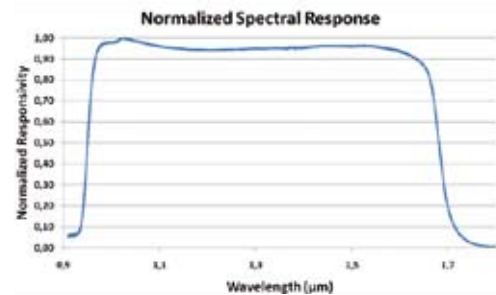
Measurement	
Embedded image processing	Non Uniformity Bad Pixels Replacement
Noise	<150 e- RMS (typical)
Quantum efficiency	>70% @ 1.5µm

Timing & Signals	
Analogue video	PAL or NTSC, composite
Digital video	14bits Gigabit Ethernet
Trigger	LVTTL
Lock-in input	0 - 10 Vpp data synchronous to image

Physical Specifications	
Size (w/o lens) (LxWxH)	82x50x172 mm
Weight (w/o lens)	0.9 Kgs
IP level	IP54
Input voltage	12 VDC
Mounting interface	Standard Photo Mount

Also available :

- Software development Kit (C++ / Labview)



Typical Camera Spectral Sensitivity

Accessories



Altair radiometric software

Factory temperature calibration

Spectral filters



Broad range of lenses