

High speed, high resolution, science-grade infrared camera with Gigabit Ethernet, Camera Link and USB interfaces for maximum flexibility and performance. Available in multiple wavebands, detector resolutions, and lens configurations.



- > Multiple Detector/ROIC Modes
- > Adjustable and Triggered Integration Times
- > Gigabit Ethernet, Camera Link™ and USB
- > Simultaneous Analog and Digital Data Output
- > Selectable Preset Sequencing
- > Integrated IRIG-B Time Stamp
- > 14-bit Digital Data
- > Researcher / RTools Software and SDK Available

Control Analog & Digital Data Streams Independently

The SC4000 has simultaneous and independent analog and digital output data streams. An example of this capability would be sending corrected imagery to a video monitor while un-corrected data is being sent to a digital recording system. This capability also works in windowing mode maintaining the analog video output.

Adjustable Integration Times (9µs to full frame)

SC4000 supports up to four active presets, or operating modes, with adjustable integration times, embedded non-uniformity correction and bad pixel replacement. The presets can be used individually or in a continuous cyclic mode for preset sequencing and superframing.

Adjustable Frame Rates

Through the SC4000 user interface, the user can adjust the frame rate output of the camera. This can be done with adjustability down to 0.1Hz of the camera output.

Fast Frame Rates

The SC4000 IR Camera features 14-bit digital data at extremely fast frame rates – 50 Megapixel Throughput (420 fps 320 x 256 / 1300 fps 160 x 128).

Variable/Flexible Sub-sampling/Windowing

SC4000 supports windowed readout modes, allowing a subset of the total image to be selectively read out with user-adjustable window sizes and offsets. Windowing can greatly increase the output frame rate.

Built-In IRIG-B

IRIG timing is built directly into the SC4000 camera providing accurate time stamping to the camera header information. The built-in IRIG also allows for external sync and trigger capabilities.

Multiple Video Outputs

The SC4000 features multiple independent video outputs to include:

- **Analog** – Composite (BNC)
- **Digital** – Camera Link
- **Digital** – Gigabit Ethernet

Optional Software & SDK

The SC4000 is compatible with ThermoCAM Researcher and ThermoCAM RTools software for data acquisition, analysis and reporting. Additionally the SC4000 has an optional Software Developers Kit (SDK) for custom programming.

ThermoVision SC4000 MWIR Technical Specifications

Read-out Integrated Circuit (ROIC) & Focal Plane Array (FPA)	
Indium Antimonide (InSb) - 320 (H) x 256 (V) Pixels	
Advanced ISCO209 ROIC	
30 micron pixel pitch	
> 99.5% Operability	
Wavelength Range: 3 - 5 μm (1.5 - 5 μm optional)	
Electronics & Data Rate	
320 x 256 @ 420 Hz Output	
14-bit Digital Data	
30 Hz Analog Output Independent of Digital Output (Frame Buffer)	
Windowing capability for increased frame rates	
Inputs / Outputs	
Gigabit Ethernet (RJ-45) for Command & Control / Digital Data Transmission	
Camera Link Base for Command & Control / Digital Data Transmission	
USB for Command & Control	
IRIG-B for time tagging of images, synchronizing to external events – via BNC	
Sync-In for triggering the camera to external devices – via BNC	
Sync-Out for triggering external devices to the camera – via BNC	
Genlock for triggering the analog video – via BNC	
Integration Active – via BNC	
Analog Video – RS-170A – via BNC	
Performance Specifications	
25mK Sensitivity (18mK typical)	
Environmental	
One Piece Design	
-40 C to +71 C Operational	
95% non-condensing	


Digital Data & Communications	
Command & Control (user selectable)	Gigabit Ethernet RJ-45 USB Camera Link
Data Output (user selectable)	Gigabit Ethernet Camera Link
Physical Specifications	
Size (L x W x H)	7.7" x 5" x 6"
Weight	10 lbs.

CAMERA INTERFACES



*See Configuration Table above



Made in U.S.A. 



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