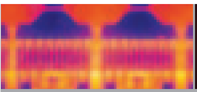
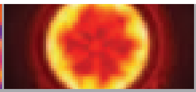
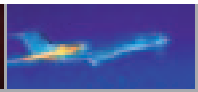
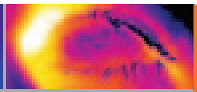
FLIR SYSTEMS

The Global Leader in Infrared Cameras

NEW!

ThermoVision® SC8000 MWIR

MEGA-PIXEL SCIENCE-GRADE INFRARED CAMERA

FLIR's mega-pixel SC8000 infrared camera for advanced scientific applications offers high resolution, high speed, and high performance with its unparalleled 1024x1024 InSb Focal Plane Array (FPA). Also features Gigabit Ethernet, Camera Link Full, and USB interfaces for maximum flexibility and performance.

Available with multiple lens configurations

- 1024x1024, 16-channel InSb FPA
- Preset Sequencing & Superframing Modes
- Integrated IRIG-B Timing
- Flexible FPA Windowing
- Gigabit Ethernet, Camera Link Full, and USB Interfaces
- Multiple Integration and Triggering Modes
- Powerful RTools Software
- Optional Software Development Kit (SDK) Available

Mega-Pixel Image Resolution

The SC8000 features FLIR's high resolution 1024x1024 InSb FPA for true mega-pixel image resolution without image dithering or stitching. Generating over 1 million pixels in a single thermal image, the SC8000 boasts 700,000 more pixels than a 640x512 array and 900,000 more pixels than a 320x256 array.

Multiple Camera Presets

The SC8000 supports up to four active preset operating modes, each with adjustable integration time, frame rate, window location, and window size. The presets can be used individually or in a continuous cyclic mode for pre-determined sequencing and superframing.

FPA Windowing

The SC8000 supports windowed read out modes, allowing a subset of the total image to be selectively read out, which results in faster frame rates. Window sizes and offsets are user defined allowing for maximum flexibility.

Advanced 16-Channel Read Out

The SC8000 features a high performance 16-channel read out that offers digital data at 205M pixels/second. This advanced read out functionality offers multiple triggering modes, integration times, and window sizes to meet the most demanding application requirements.

Fast Frame Rates

The SC8000 produces full window 1024 x 1024 14-bit data at a rapid 132 fps. By reducing the window size, the SC8000 offers frame rates of 309fps @ 640x512, 751fsp @ 320X256, and 909fsp @ 160x120.

Built-in IRIG-B Timing

IRIG-B timing is built directly into the SC8000 camera providing onboard deterministic time stamping of each frame of data as well as advanced IRIG-B triggering options.

Adjustable Frame Rates

The SC8000's camera control interface enables the user to adjust the output frame rate of the camera from .0015Hz to full frame.

Multiple Digital Outputs

The SC8000 features simultaneous Camera Link Full and Gigabit Ethernet outputs for maximum flexibility and performance.

Optional Software & Software Development Kit

The SC8000 is compatible with FLIR's ThermaCAM RTools software for data acquisition, analysis, and reporting. In addition, the SC8000 has an optional SDK for custom programming.

General Purpose I/O

The SC8000 provides three differential analog-to-digital inputs, eight digital (TTL) inputs, and seven digital (TTL) outputs. Data from the analog/digital inputs are stored in the image frame header. The digital outputs are available on the 120-pin AUX connector.

Status Indicators

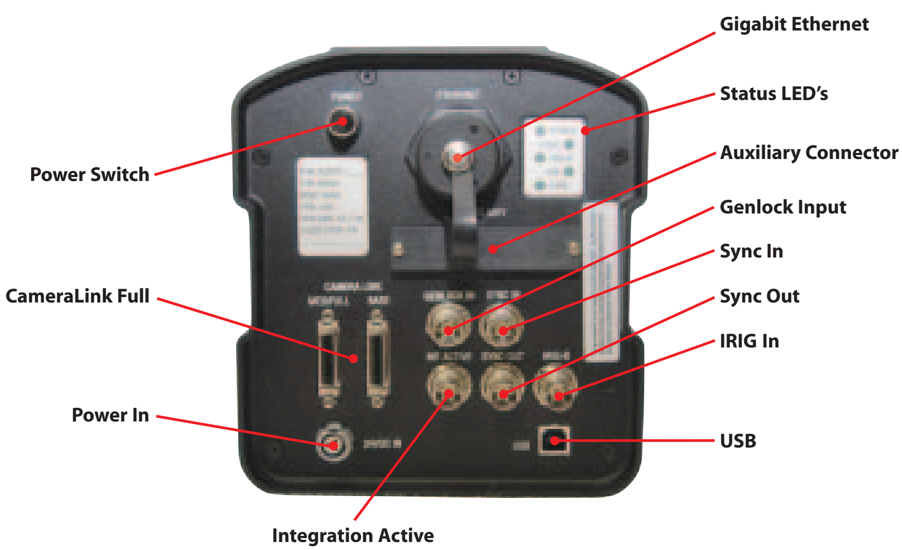
The SC8000 provides LEDs to show status for power, FPA temperature, IRIG, and whether the command interface is set to USB or GigE.

ThermoVision SC8000 MWIR Technical Specifications

Detector & Read-out	
Type	Indium Antimonide (InSb)
Spectral Range	3-5 µm
Resolution	1024 (H) x 1024 (V)
Detector Pitch	18 µm
NETD	< 25mK
Well Capacity	> 12M Electrons
Operability	> 99.5% (> 99.9% typical)
Electronics	
Read-out	Advanced ISC0404, 16-Channel
Read-out Type	Snapshot
Read-out Mode	Asynchronous Integrate While Read, Asynchronous Integrate Then Read
Synchronization Modes	Sync In, IRIG In, Genlock Input, Sync Out, Integration Active
Integration Time	500ns to Full Frame
Data Rate	205 MHz
Full Frame Rate	132 fps
Subwindowing Mode	Random, User Defined
Dynamic Rage	14 bit
Digital Data / Command & Control	
Sensor Data	GigE, Camera Link® Full
Command & Control	GigE, USB
General Specifications	
Sensor Cooling	Split-Stirling Closed Cycle
Sensor Assembly f/#	4.0
Power	24VDC
Environmental	
Temperature	-10C to 50C Operating Temperature -30C to 70C Non-operating
Altitude	0 to 40,000 Ft. Operating 0 to 70,000 Ft. Non-operating

Lens Options	
MWIR f/4: 25mm, 50mm, 100mm, 1 meter	
Physical Specifications	
Size (L x W x H)	7.7" x 5" x 6"
Weight	10 lbs.

CAMERA INTERFACES



For more information call:
Go To Infrared - 801-393-6050

Made in U.S.A.