



FLIR RS6800

High Speed MWIR Infrared Cameras for Range Applications

The RS6800 is a multi-application long range infrared camera system designed for range tracking, target signature, research, and science applications. The RS6800 camera is a rugged, high performance, full-featured radiometric instrument that can survive harsh range environments.

CRISP, CLEAR IMAGES

Stunning High Speed 565 frame/sec full resolution infrared imagery.

OPTIMIZED IMAGING

Four active preset operating modes provide adjustable integration times, embedded non-uniformity correction, bad pixel replacement, and window size adjustments.

HIGH-SPEED DATA

Provides digital data at 200 megapixels per second for extreme imaging flexibility and data capture.

FAST FRAME RATES

Full resolution 640x512 pixel frames at 565 fps, half height at 1100 fps and quarter height at 2000 fps,

WINDOWING FLEXIBILITY

FPA windowing for faster frame rates and focused analysis.

FRAME TIME-STAMPING

IRIG-B timing built directly into camera for on-board deterministic timestamping of every frame of data.

CONTINUOUS METRIC ZOOM

Provides a 10X continuous optical zoom from 120-1200mm. The RS6800 Metric Zoom provides IRIG synchronized, TSPI-accurate time-stamping of lens focal length and focus position data right in the image header along with IRIG-B. Optics have active athermalization.

RANGE-RUGGED

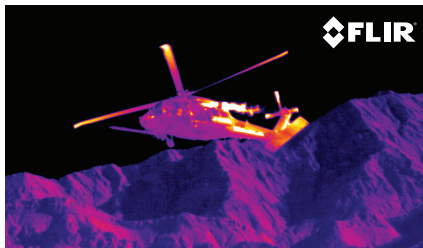
A high durability lens coating is standard, and the enclosure is sealed and supports a positive-pressure gas purge.

POWERFUL SOFTWARE & SDK

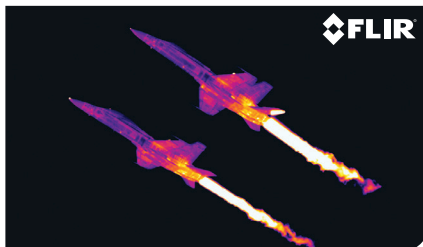
With the included ResearchIR Max software, you can view, acquire, analyze, and share high speed data from the camera. Alternately, using FLIR's SDK, you can command and control the camera with your own custom software.



Space shuttle launch



Blackhawk Helicopter



FA/18 Super Hornets

Imaging Specifications

System Overview	FLIR RS6800
Detector Type	Indium Antimonide (InSb)
Spectral Range	3.0 – 5.0 μm
Resolution	640 x 512
Detector Pitch	25 μm
NETD	<20 mK (18 mk typical)
Well Capacity	11.0M electrons
Operability	>99.5% (99.9% typical)
Sensor Cooling	Closed Cycle Rotary
Electronics / Imaging	
Readout	Snapshot
Readout Modes	Asynchronous Integrate While Read; Asynchronous Integrate Then Read
Synchronization Modes	Genlock; IRIG-B; Sync In, Sync Out, Trigger In
Image Time Stamp	
Integration Time	480 ns to 687 sec
Frame Rate (Full Window)	565 Hz
Subwindow Mode	User-Defined
Dynamic Range	14-bit
Digital Data Protocol	Simultaneous Gigabit Ethernet and CameraLink Full over Fiber (or CoaXpress)
Command & Control	Gigabit Ethernet, RS-232, CameraLink Full over Fiber (or CoaXpress)
Optics	
Camera f/#	f/5
Available Lenses	120-1200mm (10x) Continuous Metric Zoom 7.6 deg HFOV @ 120mm, 0.76 deg HFVO @ 1200mm
Focus	Motorized with autofocus and active athermalization
Image Presentation	
Analog Palettes	Selectable 8-bit
Automatic Gain Control	Manual, Linear, Plateau Equalization, ROI, DDE
Analog Overlay	Customizable (IRIG-B, Date, Integration Time, Internal Temp, Frame Rate, Sync Mode, Cooler Hours)
Zoom	1-4x, Digital Zoom, Panning
General	
Operating Temperature Range	-40°C to +50°C (-40°F to 122°F)
Storage Temperature Range	-55°C to 80°C (-67°F to 176°F)
Altitude	0 to 40,000 Feet Operational; 0 to 70,000 Feet Non-Operational
Shock / Vibration	40 g, 11 msec ½ sine pulse / 4.3 g RMS Random Vibration, All 3 Axis
Power	24 VDC
Weight	34.926 kg (77 lb)
Size (L x W x H) - Sunshield On	(927 x 315 x 290 mm) (36.5 x 12.4 x 11.4 in)
Mounting	9 x ¼"-20

Back Panel



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