FLIR RS6700

Range & scientific infrared camera

The RS6700 is a multi-application long range infrared camera system designed for range tracking, target signature, research, and science applications. RS6700 cameras are rugged, high performance, full-featured radiometric instruments that can survive the harshest of environments.

LONG-RANGE IMAGING

Three dual FOV optical configurations and fast auto-focus allows the rapid capture of targets at extreme distances in darkness and low visibility conditions. The highly sensitive FLIR Indium Antimonide (InSb) detector produces crisp thermal images of 640 x 512 pixels highlighting the smallest temperature variations.

HIGH SPEED THERMAL IMAGING

FLIR RS6700 Series offers adjustable frame rates from 0.0015 Hz to the maximum frame rate; high speed 50 Megapixel clock streams 14-bit digital data at 125 Hz full frame. It supports FPA windowing for even higher frame rates and focused analysis.

IMAGE TRIGGERING AND TIME STAMPING

Advanced sync and trigger features allow user to choose from internal clock, external BNC input, IRIG time, or software trigger. IRIG-B timing is built directly into camera for on-board deterministic time-stamping of each frame and advanced triggering options.

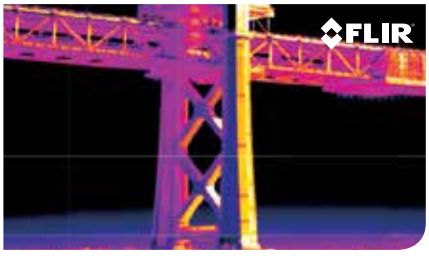
Harrier jet

INTERFACE FLEXIBILITY

Multiple independent video outputs include industry-standard Camera Link™, Gigabit Ethernet and composite video (NTSC or PAL).

ELECTRONIC IMAGE ENHANCEMENT

The FLIR RS6700 Series comes standard with an integrated Digital Detail Enhancement (DDE) video algorithm for improved target detection.



San Francisco Bay bridge support

SOFTWARE

FLIR RS6700 cameras works seamlessly together with FLIR ResearchIR Max software enabling intuitive viewing, recording and advanced processing of the thermal data provided by the camera. A Software Developers Kit (SDK) is optionally available.

MATHWORKS® MATLAB

Capture data directly into MathWorks® MATLAB software for advanced image analysis and processing.

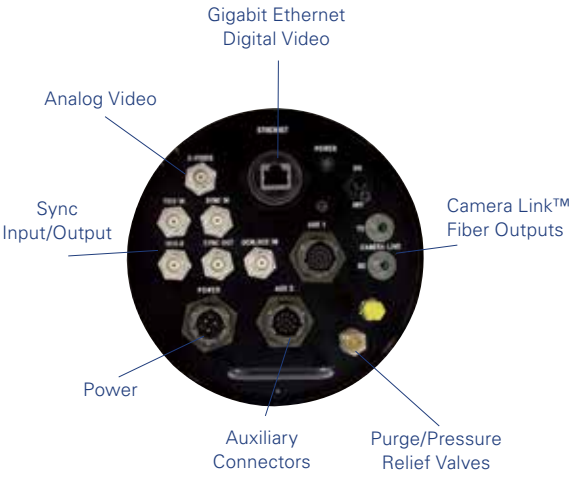
KEY FEATURES

- FLIR BUILT SENSOR AND CRYO COOLER
- RUGGED SEALED SYSTEM
- THREE DUAL FOV CONFIGURATIONS
- DDE IMAGE ENHANCEMENT
- CO_2 NOTCH FILTER OPTION

MathWorks

Imaging Specifications

System Overview	FLIR RS6700
Detector Type	FLIR Indium Antimonide (InSb)
Spectral Range	3.0 – 5.0 µm
Resolution	640 × 512
Detector Pitch	15 µm
NETD	< 25 mK (21 mK Typical)
Well Capacity	7.2 M electrons
Operability	>99.8% (>99.95% Typical)
Sensor Cooling	FLIR 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
Image Time Stamp	Internal IRIG-B Decoder Clock / TSPI Accurate Time Stamp
Integration Time	480 ns to 687 sec
Frame Rate (Full Window)	Programmable 0.0015 Hz to 126 Hz
Subwindow Mode	Flexible windowing (steps of 16 columns, 4 rows)
Max Frame Rate (@ Min Window)	4.175 kHz (16 × 4)
Dynamic Range	14-bit
Digital Data Streaming	Simultaneous Gigabit Ethernet and Camera Link
Analog Video	NTSC, PAL
Camera Control	Gigabit Ethernet, USB, RS-232, Camera Link
Optics	
Camera f/#	f/4.0
Available Lenses	RS6700: 50/250 mm; 11° × 8.8° / 2.2° × 1.8° RS6701: 100/500 mm; 5.5° × 4.4° / 1.1° × 0.9° RS6702: 150/750 mm; 3.7° × 2.9° / 0.7° × 0.6°
Focus	Automatic or Manual (Motorized)
Analog Video	
Palettes	Selectable 8-bit
AGC	Manual, Linear, Plateau Equalization, ROI, DDE
Overlay	Customizable (IRIG-B, Date, Integration Time, Internal Temp, Frame Rate, Sync Mode, Cooler Hours)
Zoom	1-4×, Digital Zoom, Panning
General	
Operating Temperature	Range -32°C to 55°C (-25.6°F to 131°F)
Storage Temperature	Range -46°C to 71°C (-50.8°F to 159.8°F)
Altitude	0 to 40,000 Feet Operational; 0 to 70,000 Feet Non-operational
Encapsulation	IP67
Shock / Vibration	40 g, 11 ms ½ Sine Pulse / 4.3 g RMS Random Vibration, All 3 Axis
Power	24 VDC
Weight	RS6700: 11.3 kg (25.0 lb) RS6701: 11.6 kg (25.5 lb) RS6702: 14.1 kg (31.0 lb)
Size (L × D)	RS6700: 558.8 × 228.6 mm (22 × 9 in) RS6701: 558.8 × 228.6 mm (22 × 9 in) RS6702: 609.6 × 228.6 mm (24 × 9 in)
Mounting	5 × ¼" – 20



PORTLAND
Corporate Headquarters
FLIR Systems, Inc.
27700 SW Parkway Ave.
Wilsonville, OR 97070
USA
PH: +1 866.477.3687

BELGIUM

FLIR Systems Trading
Belgium BVBA
Luxemburgstraat 2
2321 Meer
Belgium
PH: +32 (0) 3665 5100

SWEDEN

FLIR Systems AB
Antennvägen 6,
PO Box 7376
SE-187 66 Täby
Sweden
PH: +46 (0)8 753 25 00

NASHUA

FLIR Systems, Inc.
9 Townsend West
Nashua, NH 06063
USA
PH: +1 603.324.7611

UK

FLIR Systems UK
2 Kings Hill Avenue
Kings Hill
West Malling - Kent
ME19 4AQ
United Kingdom
PH: +44 (0)1732 220 011

www.flir.com
NASDAQ: FLIR