Compact, thermal imaging camera with cooled InSb detector at an extremely affordable price.

Designed for electronics inspections, medical thermography, manufacturing monitoring, and non-destructive testing, FLIR A6700sc is ideal for high-speed thermal events and moving targets.

High sensitivity, crisp thermal images
FLIR A6700sc incorporates a cooled Indium Antimonide (InSb) detector that operates in the 3- to 5-micron waveband. Optionally, a broadband version that operates in the 1-5 micron waveband is available. Both versions produce crisp thermal images of 640 x 512. Achieving a high thermal sensitivity of <20 mK, FLIR A6700sc is able to capture the finest image details and temperature difference information.

Synchronization and triggering
Precise camera synchronization and triggering makes the cameras ideal for high-speed, high sensitivity applications. Working in snapshot mode the FLIR A6700sc is able to register all pixels from a thermal event simultaneously. This is particularly important when monitoring fast moving objects where a standard thermal imaging camera would suffer from image blur. The camera supports image frame rates up to 480 frames per second when operating in windowing mode.

Using a standard GigE Vision™ interface to transmit both commands and full dynamic range digital video FLIR A6700sc is a true “plug and play” thermal imaging camera. Simultaneous analog and digital outputs are available.

Cold filters available
Custom cold filtering options for specific spectral detection and measurement are available. Perfect for imaging through glass, measuring temperature of thin film plastics, filtering different wavebands for laser profiling and detection, or optical gas imaging.

Software
FLIR A6700sc camera works seamlessly together with FLIR ResearchIR Max software enabling intuitive viewing, recording and advanced processing of the thermal data provided by the camera. Each camera comes standard with this especially for R&D applications developed software. A Software Developers Kit (SDK) is optionally available.

Key features
- Excellent image quality: 640 x 512 pixels
- High sensitivity: <20 mK
- High speed image acquisition: up to 480 Hz
- Synchronization: with other instruments
- Extender rings available
- Wide choice of optics
- Very low noise: cryogenically cooled InSb Detector
### Technical specifications

**Detector**
- **Detector Type**: Indium Antimonide (InSb)
- **Spectral Range**: 3 – 5 μm or 1 - 5 μm
- **Resolution**: 640 x 512
- **Detector Pitch**: 15 μm
- **NETD**: <20 mK (18 mk typical)
- **Well Capacity**: 7.2 M electrons
- **Operability**: >99.8% (>99.95% typical)
- **Sensor Cooling**: Closed Cycle Rotary

**Electronics / Imaging**
- **Readout**: Snapshot
- **Readout Modes**: Asynchronous Integrate While Read; Asynchronous Integrate Then Read
- **Synchronization Modes**: Sync In
- **Integration Time**: 480 ns to 687 sec
- **Frame Rate (Full Window)**: Up to 60Hz, full res Up to 480Hz, 1/4 res
- **Subwindow Mode**: 1/2 or 1/4 Window
- **Max Frame Rate (1/4 Min Window)**: 480Hz @ 1/4 window
- **Dynamic Range**: 14-bit
- **Digital Data Streaming**: Gigabit Ethernet (GigE Vision)
- **Analog Video**: NTSC, PAL
- **Camera Control**: Genicam

**Measurement**
- **Standard Temperature Range**: -20°C to 350°C (-4°F to 662°F)
- **Optional Temperature Range**: Up to 1,500°C (2,732°F) Up to 2,000°C (3,632°F)
- **Accuracy**: ± 2°C or ±2% of reading

**Optics**
- **f/#**: f/4.0 or f/2.5
- **Available Lenses**: 3-5μm: 13mm, 13mm (low distortion), 25mm, 50mm, 100mm (all lenses are f/2.5) 1-5μm: 25mm, 50mm, 100mm (lenses are f/2.5)
- **Microscopes**: 1x (this lens is f/4 and requires an f/4 camera)
- **Focus**: Manual
- **Filtering**: Removable Behind the Lens or Permanent “cold” Filter Available

**Image Presentation**
- **Analog Palettes**: Selectable 8-bit
- **AG**: Manual, Linear, Plateau Equalization, DDE
- **Zoom**: Video Zoom is Auto Selected: Full Res = 1x, 1/4 Res = 2x

**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 10,000 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 ( < 50 W steady state)
- **Weight w/o Lens**: 5 lbs / 2.3 kg
- **Size (L × W × H)** w/o Lens: 7.7 x 4.0 x 4.0" / 19.6 x 10.2 x 10.2 cm
- **Mounting**: 2 x ¼"-20, 1 × 3/8"– 16, 4 × 10/24

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- 1-5μm: 25mm, 50mm, 100mm (lenses are f/2.5)

**Microscopes:**
- 1x (this lens is f/4 and requires an f/4 camera)

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