

## P/N: 29421-281

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### Website

<http://www.flir.com>

### Customer support

<http://support.flir.com>

### Disclaimer

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Specifications	
Model	X6981 SLS LWIR
Detector type	Strained layer superlattice (SLS)
Spectral range	7.5 $\mu\text{m}$ (lower), 11.5–12.5 $\mu\text{m}$ (upper)
Resolution	640 $\times$ 512
Detector pitch	25 $\mu\text{m}$
Thermal sensitivity/NETD	40 mK typical
Operability	99% typical
Sensor cooling	Closed-cycle rotary
Electronics	
Readout type	Snapshot
Readout modes	Asynchronous integrate while read, Asynchronous integrate then read
Synchronization modes	Sync-in, Tri-Level Sync, Sync-out
Image time stamp	Internal precision timestamp, IRIG-B AM decoder, TSPI accurate
Trigger modes	Trigger In, Record Start, Header Based
Minimum integration time	270 ns
Pixel clock	355 MHz
Frame rate (full window)	Programmable; 0.0015 Hz to 1004 Hz
Subwindow mode	Flexible windowing down to 32 $\times$ 4 (steps of 32 columns, 4 rows)
Dynamic range	14-bit
On-camera image storage	<ul style="list-style-type: none"> <li>RAM (volatile): 16 GB RAM included</li> <li>SSD (non-volatile): 512 GB included (compatible with 4 TB)</li> <li>Data transfer: SSD to Research Studio via data streaming buses</li> </ul>
Radiometric data streaming	Simultaneous Gigabit Ethernet (GigE Vision), Camera Link, CoaXPress® 1.1, dual 5 Gb links
Standard video	HDMI, SDI
Command and control	GigE, USB, RS-232, Camera Link, CXP (GenICam protocol supported over GigE or CXP)



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<b>Temperature measurement</b>	
Standard temperature range	-20°C to 350°C (-4°F to 662°F)
Optional temperature range	Up to 3000°C (5432°F)
Accuracy	≤100°C/212°F: ±2°C (±1°C typical) >100°C/212°F: ±2% of reading (±1% typical)
<b>Optics</b>	
Camera f/Number	f/2.5
Motorized lenses	17 mm, 25 mm, 50 mm, 100 mm, 200 mm
Manual lenses	17 mm, 25 mm, 50 mm, 100 mm, 200 mm
Micro/Macro lenses	1x
Lens interface	FLIR FPO-M (4-tab bayonet, motorized)
Focus	Motorized (compatible with manual)
Filtering	4-position warm filter wheel, standard 1-inch filters
<b>Image/Video Presentation</b>	
Palettes	Selectable 8-bit
Automatic gain control	Manual, Linear, Plateau equalization, ROI, DDE
Overlay	Customizable (ability to toggle off)
Video modes	SDI: 720p@50/59.9, 1080p@25/29.97
Digital zoom	Auto, best fit
<b>General</b>	
Operating temperature range	-20°C to 50°C (-4°F to 122°F)
Power	24 VDC (< 50 W steady state)
Weight w/handle, w/o lens	6.35 kg (14 lbs)
Size (L x W x H) w/o lens or handle	249 x 157 x 147 mm (9.8 x 6.2 x 5.8 in)
Mounting	2 x ¼ in. -20, 1 x 3/8 in. -16, 4 x #10 -24 Side: 3x ¼ in. -20 (each side)
Export classification	ECCN 6A003.b.4.a
Declaration of conformity	See: <a href="https://support.flir.com/resources/DoC">https://support.flir.com/resources/DoC</a>

### Supplies & accessories:

- 4215503; Lens 7.5-12 um 100 mm f/2.5 FPO Manual Bayonet
- 4215424; Lens 7.5-12 um 17 mm f/2.5 FPO Manual Bayonet
- 4215505; Lens 7.5-12 um 200 mm f/2.5 FPO Manual Bayonet
- 4215496; Lens 7.5-12 um 25 mm f/2.5 FPO Manual Bayonet
- 4215501; Lens 7.5-12 um 50 mm f/2.5 FPO Manual Bayonet
- 4213642; Lens 7.5-12 um, 1X microscope, f/2.5 FPO Manual Bayonet
- 4227599; FLIR Science Camera Power Supply
- 4233062; Cooled Science A and X Camera Microscope Stand
- 4232535; FLIR Research Studio, Professional Edition - 1 Year Subscription (online activation)
- 4232556; FLIR Research Studio, Professional Edition - Perpetual License (online activation)
- 4232590; FLIR Research Studio, Professional Edition - Perpetual License (USB dongle)
- 4220499; FLIR Research Studio, Standard Edition - 1 Year Subscription (online activation)
- 4220500; FLIR Research Studio, Standard Edition - Perpetual License (online activation)



## FLIR X6981 SLS LWIR (f/2.5)

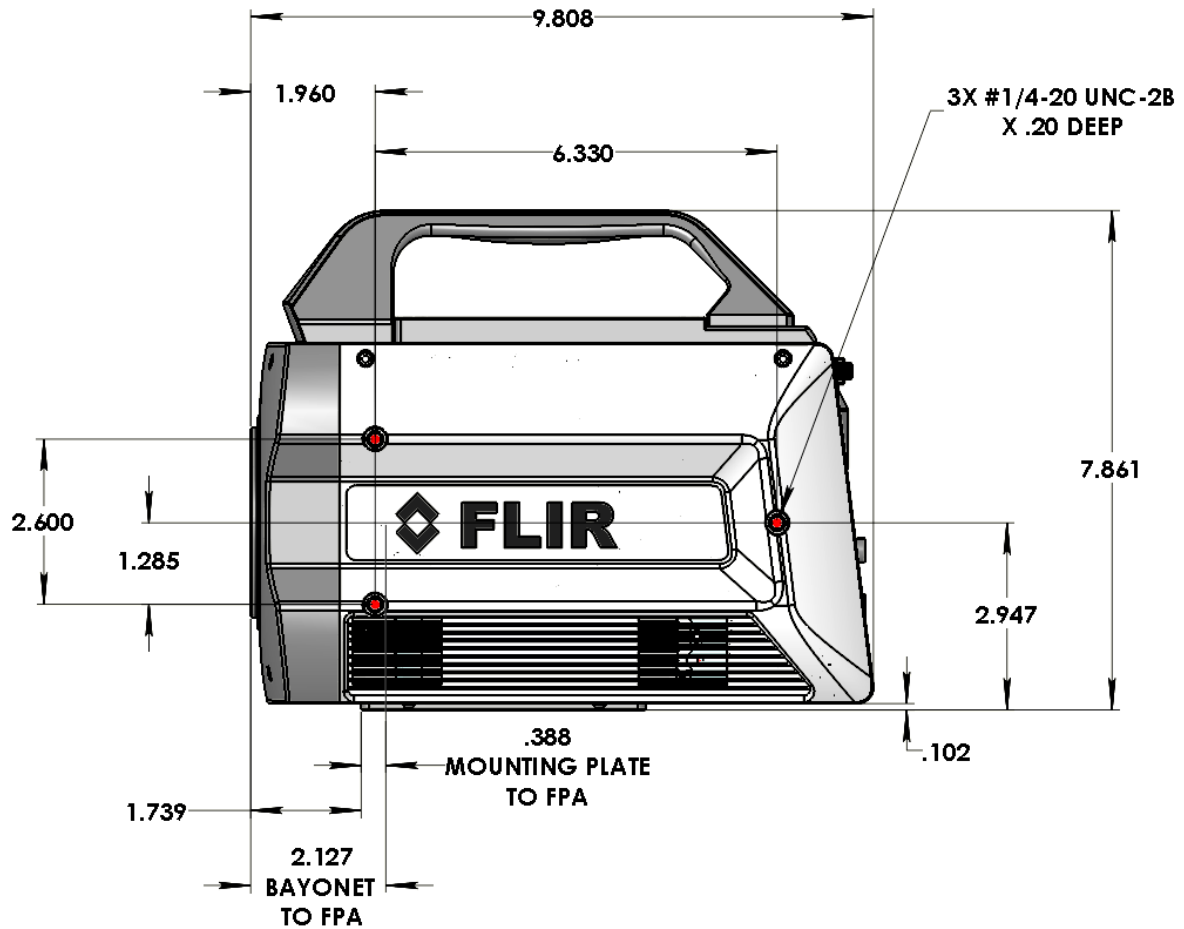
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- 4220646; FLIR Research Studio, Standard Edition - Perpetual License (USB dongle)
- 4232591; FLIR ResearchIR to Research Studio, Professional Edition - 1 Year License Upgrade
- 4224157; FLIR Science Camera SDK
- 4216760; FLIR Science File SDK

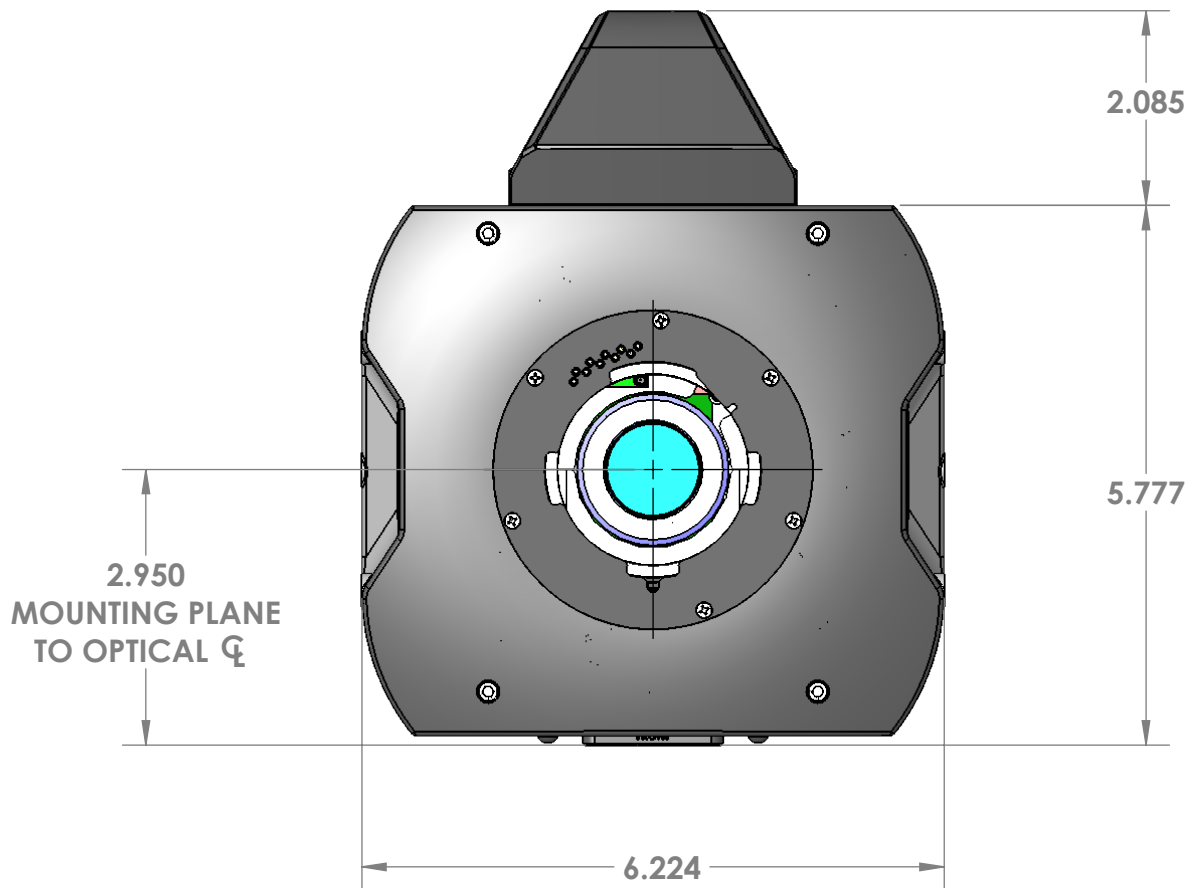


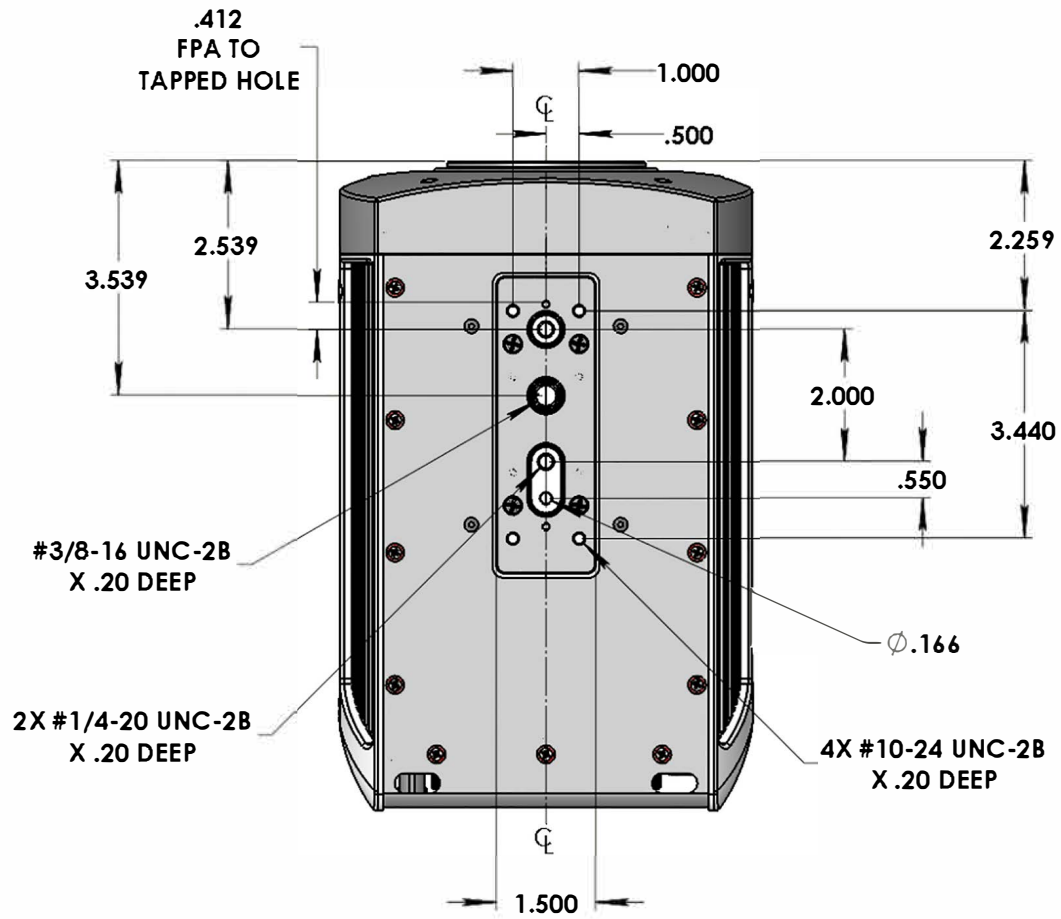
X6980 InSb in P/N Series 29267-28X

X6980 SLS in P/N Series 29421-28X

X8580 InSb in P/N Series 29422-28X

X8580 SLS in P/N Series 29428-28X





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