

## P/N: 29422-283

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### Document identity

Publ. No.: 29422-283

Commit: 82693

Language:

Modified: 2022-01-25

Formatted: 2023-05-02

### Website

<http://www.flir.com>

### Customer support

<http://support.flir.com>

### Disclaimer

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Specifications	
Model	X8583 MWIR
Detector type	FLIR indium antimonide (InSb)
Spectral range	3.0 – 5.0 μm
Resolution	1280 × 1024
Detector pitch	12 μm
Thermal sensitivity/NETD	30 mK typical
Operability	≥99.95% typical
Sensor cooling	Linear sterling cooler
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; ~0.5 Hz to 181 Hz
Subwindow mode	Flexible windowing down to 64 × 4 (steps of 64 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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# FLIR X8583 InSb MWIR (f/4.1, 3.0-5.0 $\mu\text{m}$ )

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Temperature measurement	
Standard temperature range	-20°C to 350°C (-4°F to 662°F)
Optional temperature range	Up to 3000°C (5432°F)
Accuracy	$\leq 100^\circ\text{C}/212^\circ\text{F}$ : $\pm 2^\circ\text{C}$ ( $\pm 1^\circ\text{C}$ typical) $> 100^\circ\text{C}/212^\circ\text{F}$ : $\pm 2\%$ of reading ( $\pm 1\%$ typical)
Optics	
Camera f/Number	f/4.1
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, 3x, 50 mm close focus 1x20 cm long working distance (LWD)
Lens interface	FLIR FPO-M (4-tab bayonet, motorized)
Focus	Motorized (compatible with manual)
Filtering	4-position warm filter wheel, standard 1-inch filters
Image/Video Presentation	
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
General	
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:

- T300585; Lens 3.0-5.0  $\mu\text{m}$ , 5x microscope, f/4 FPO Manual Bayonet
- 4215502; Lens 3-5  $\mu\text{m}$  100 mm f/2.5 FPO Manual Bayonet
- 4215423; Lens 3-5  $\mu\text{m}$  17 mm f/2.5 FPO Manual Bayonet
- 4215504; Lens 3-5  $\mu\text{m}$  200 mm f/2.5 FPO Manual Bayonet
- 4215425; Lens 3-5  $\mu\text{m}$  25 mm f/2.5 FPO Manual Bayonet
- 4215500; Lens 3-5  $\mu\text{m}$  50 mm f/2.5 FPO Manual Bayonet
- T300385; Lens 3-5  $\mu\text{m}$  Macro f/2.5 MW FPO Manual Bayonet
- 4214995; Lens 3-5  $\mu\text{m}$ , 1X microscope, f/2.5 FPO Manual Bayonet
- T300350; Lens 3-5  $\mu\text{m}$ , 1X/20cm microscope, f/4 MW FPO Manual Bayonet
- 4219797; Lens 3-5  $\mu\text{m}$ , 3X microscope, f/2.5 FPO Manual Bayonet
- 4216414; Motorfocus 100 mm lens, 3.0-5.0  $\mu\text{m}$ , f/2.5 (4-Tab Motorized FPO Bayonet)
- 4216408; Motorfocus 17 mm lens, 3.0-5.0  $\mu\text{m}$ , f/2.5 (4-Tab Motorized FPO Bayonet)
- 4216416; Motorfocus 200 mm lens, 3.0-5.0  $\mu\text{m}$ , f/2.5 (4-Tab Motorized FPO Bayonet)
- 4216410; Motorfocus 25 mm lens, 3.0-5.0  $\mu\text{m}$ , f/2.5 (4-Tab Motorized FPO Bayonet)
- 4216412; Motorfocus 50 mm lens, 3.0-5.0  $\mu\text{m}$ , f/2.5 (4-Tab Motorized FPO Bayonet)
- 4227599; FLIR Science Camera Power Supply
- 4233062; Cooled Science A and X Camera Microscope Stand



## FLIR X8583 InSb MWIR (f/4.1, 3.0-5.0 $\mu\text{m}$ )

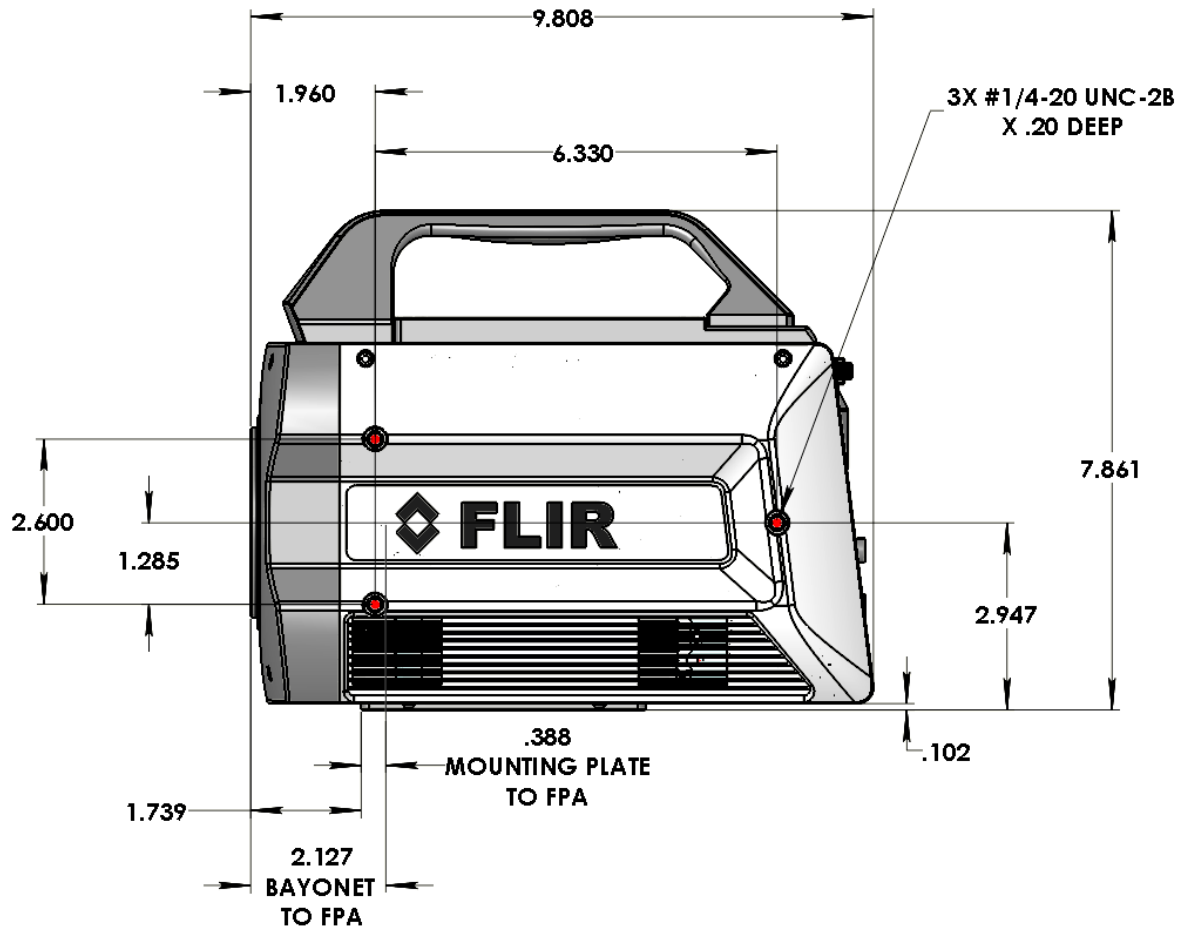
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- 4224157; FLIR Science Camera SDK
- 4216760; FLIR Science File SDK

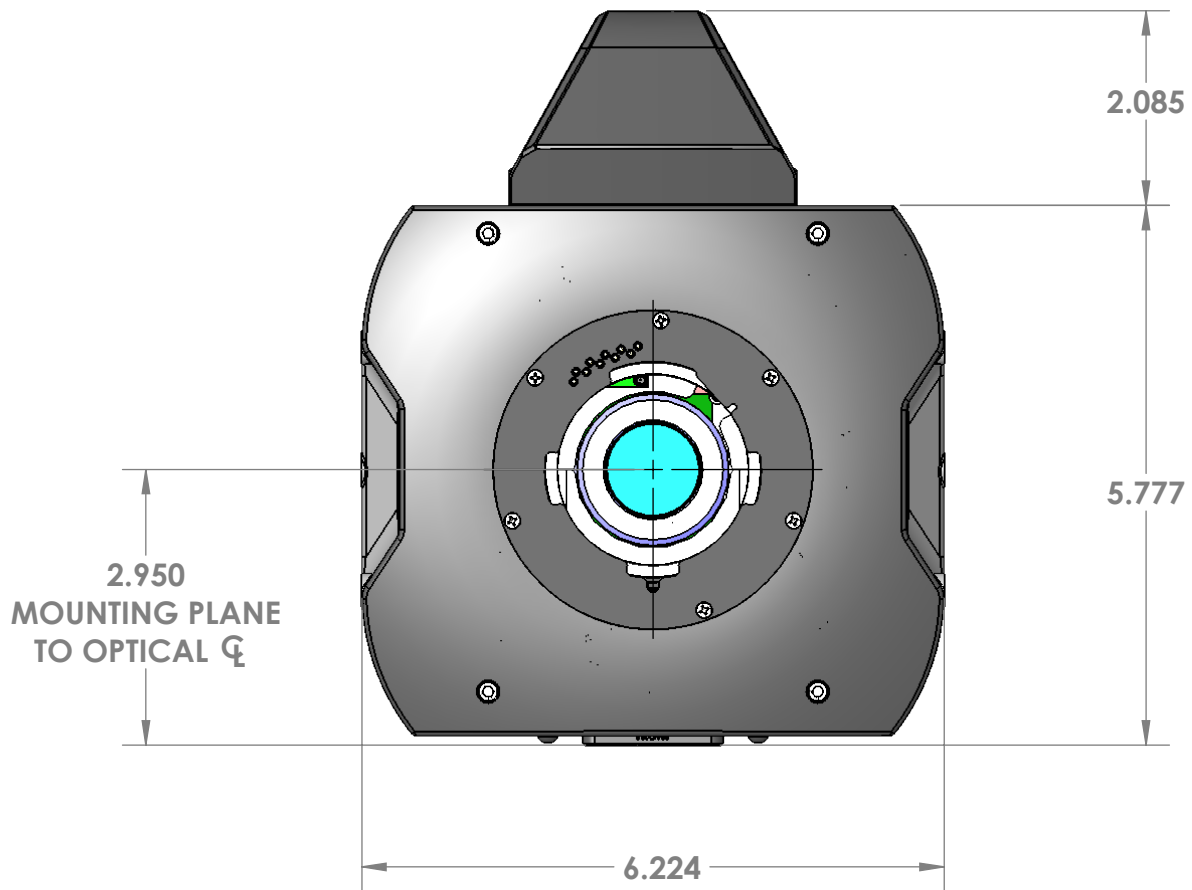


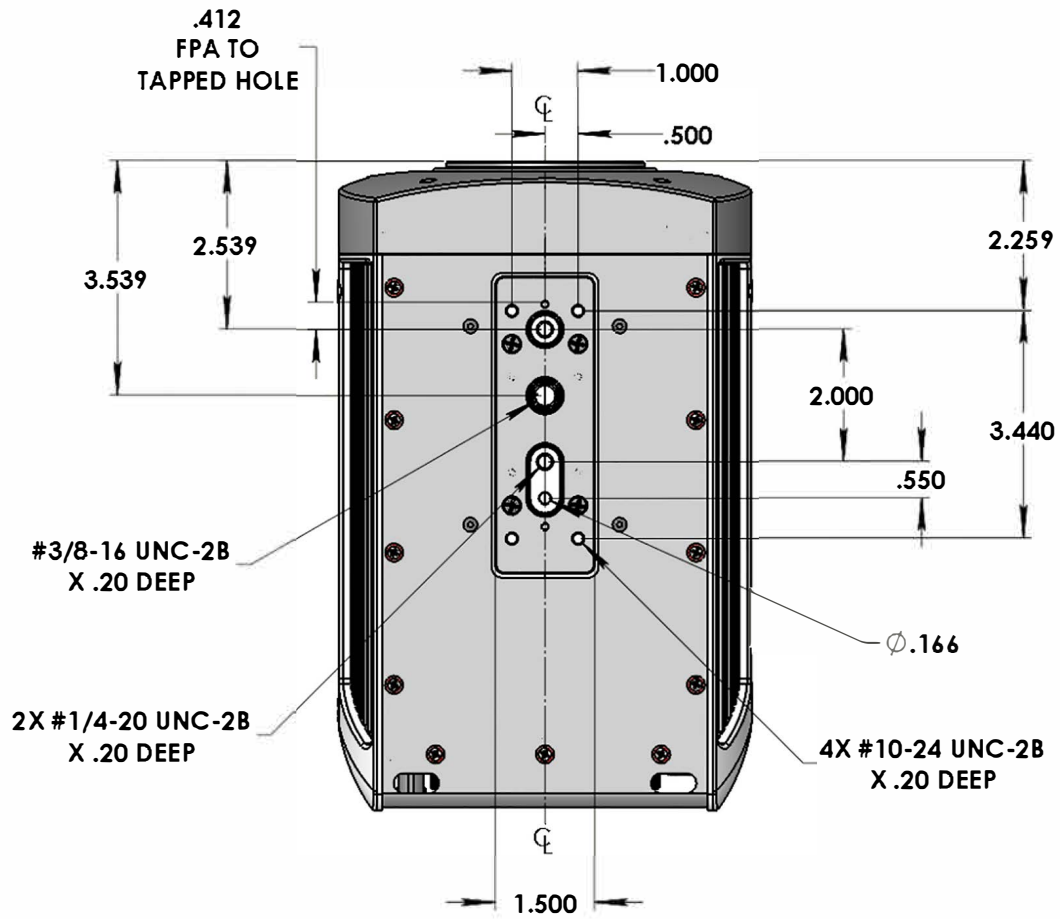
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