FLIR

UNCOOLED SWIR OEM CAMERA CORE

FLIR Boson™ SWIR

The new FLIR Boson™ SWIR is a SWaP+C-optimized Short-wave Infrared (SWIR) camera core. Designed as an integrated system from the focal plane array (FPA) up, the Boson SWIR uses FLIR InGaAs FPA technology and uncooled (TEC-less) temperature compensation to optimize SWaP+C and ease of integration into an OEM system.

The Boson SWIR produces superb imagery using a 640 x 512 format 15µm pixel pitch FPA in the SWIR and Vis-SWIR spectrum. As with the FLIR Boson, Boson SWIR image processing electronics run FLIR XIR™ expandable infrared video processing architecture powered by an Intel® Movidius™ Myriad™ 2 vision processing unit (VPU). Boson SWIR supports advanced image processing, video analytics, peripheral sensor drivers, and several industry-standard communication interfaces while consuming little power.

www.flir.com

SIZE, WEIGHT AND POWER + COST (SWAP+C) OPTIMIZED

Compact and configurable VGA Uncooled SWIR camera core

- InGaAs 640 x 512/15µm pixel pitch FPA
- <21 x 21 x 28 mm and 15.5 grams lensless
- Low power consumption with <1.6W @ 21°C
- Rugged construction and wide operational temperature rating -20°C to +60°C

DESIGNED FOR INTEGRATORS

Simplify development and shorten time to market

- Built-in support for physical and protocol-level industry standards including USB2
- Full suite of hardware accessories
- FLIR XIR expandable infrared video processing architecture and a robust SDK
- Classified under US Department of Commerce jurisdiction as EAR 6A003.b.4.a

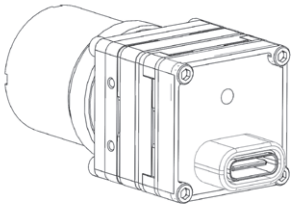
FLIR VALUE AND REPUTATION

The performance, reliability, and support expected from FLIR

- Industry's most advanced SWaP+C-optimized image processing
- Commercially developed, military qualified (CDMQ)
- Uncooled FPA temperature compensation (TEC-less)
- Highly qualified FLIR Technical Services team to support integration

SPECIFICATIONS

Imaging	
Sensor Technology	Short-wave Infrared (SWIR) Camera Core
Detector Type	Indium Gallium Arsenide (InGaAs)
Array Format	640 x 512
Pixel Pitch	15 µm
Operability	>99.5% (Industrial Spec) >99.0% (Professional Spec) >98.0% (Consumer Spec)
Spectral Range	0.9 – 1.7 µm (SWIR) 0.6 – 1.7 µm (Vis-SWIR)
Active Area	9.6 x 7.68 mm
Quantum Efficiency	> 65% (Industrial Spec)
Optical Fill Factor	100%
Noise Equivalent Irradiance (NEI)	NEI < 1E10 ph/s/cm^2 @ 20°C
Full Frame Rates	60Hz
Time to Image	<2 sec
Electrical	
Input Supply Voltage	3.3 VDC
Total Power Dissipation	<1.6 W (21°C)
ESD Protection	Built-In
Video Channels	CMOS or USB2
Control Channels	UART or USB
Mechanical	
Size (L x W x H)	<21 x 21 x 28 mm
Weight	15.5 grams lensless
Lens Mount	M18 mount, C-mount adapter available
Precision Mounting Holes	M1.6 x 0.35 on 2 sides, 2 per side
Environmental	
Operating Temperature Rating	-20°C to +60°C with correct heatsink
Shock	1500g @ 0.4 msec



Specifications are subject to change without notice.
For the most up-to-date specs, go to www.flir.com

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18-2080-OEM Boson SWIR Datasheet Updated LTR

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