

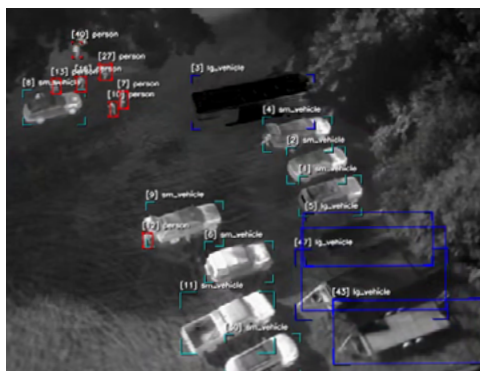
Uncooled, Longwave Infrared (LWIR) OEM Thermal Camera Module for Volume Applications

BOSON® - FLEET GRADE



Made in the USA and ITAR free, Boson longwave infrared (LWIR) OEM thermal camera modules set the standard for size, weight, and power (SWaP). Available at competitive quantity pricing, Boson Fleet grade models enable applications where consistent, reliable performance and value drive mission requirements for uncrewed aircraft systems and other high-volume applications. Using as little as 600 mW, the 12 μm uncooled detector comes in two resolutions – 640 x 512 or 320 x 256 – and four lens configurations.

Teledyne FLIR, the world's largest producer of thermal imaging systems, streamlines integration and reduces development cost with an easy-to-use SDK, a user-friendly GUI, comprehensive product integration documentation, and an expert-level Technical Services team.



INDUSTRY-LEADING SIZE, WEIGHT, AND POWER (SWaP)

Full-featured VGA and QVGA LWIR thermal camera modules

- Low power consumption, starting at 600 mW
- 640 and 320 resolutions, 12 μm pixel pitch LWIR microbolometer
- Rugged construction and full performance across a wide temperature range (-40 °C to 80 °C)

PROVEN PERFORMANCE, AVAILABILITY, AND VALUE

Consistent performance available at competitive large-quantity pricing

- High volume manufacturing with off-the-shelf availability
- Accessible third-party accessory kits from numerous third parties
- Minimum order quantity of 12,000 units

DESIGNED FOR INTEGRATORS

Shared mechanical/electrical compatibility provides plug-and-play with existing designs

- Boson SDK, GUI, and comprehensive product integration documentation
- Highly qualified Technical Services team available to support integration
- Manufactured in the USA and classified under US Department of Commerce jurisdiction as EAR 6A003.b.4.a (ITAR free)

www.teledyneflir.com

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SPECIFICATIONS

THERMAL IMAGER

Array Format	640 x 512 or 320 x 256	
Pixel Pitch	12 µm	
Thermal Spectral Range	Longwave infrared; 8 µm – 14 µm	
Thermal Sensitivity	Fleet: ≤60 mK	
Scene Dynamic Range	320 x 256	640 x 512
	to 140 °C (high gain)	to 145 °C (high gain)
Full Frame Rate, Slow Frame Rate	60 Hz baseline; 30 Hz runtime selectable	
Non-uniformity Correction (NUC)	Factory calibrated; updated FFCs with FLIR Silent Shutterless NUC (SSN™)	
Solar Protection	Yes, lens only	
Digital Zoom	1x to 8x zoom	
Symbol Overlay	Re-writable each frame; alpha blending for translucent overlay	

LENS OPTIONS

Array Format	320 x 256	640 x 512
Horizontal Field of View (HFOV);	50°; 4.5 mm	24°; 18 mm
Effective Focal Length	34°; 6.3 mm	
	24°; 9.1 mm	

PHYSICAL ATTRIBUTES

Size	21 x 21 x 11 mm (0.83 x 0.83 x 0.43 in) without lens
Weight	7.5 g (0.26 oz) without lens
Precision Mounting Holes	Four tapped M1.6x0.35 (rear cover)

INTERFACING

Input Voltage	3.3 VDC
Power Dissipation	Varies by configuration. 320+ as low as 500 mW 640+ as low as 1000 mW
Video Channels	CMOS, USB3, or BT.656-like
Control Channels	UART or USB

ENVIRONMENTAL

Operating Temperature Range	-40 °C to 80 °C (-40 °F to 176 °F)
Non-Operating Temperature Range	-50 °C to 85 °C (-58 °F to 185 °F)
Shock	1,500 g @ 0.4 msec
Operational Altitude	12 km (max altitude of a commercial airliner or airborne platform)

Specifications are subject to change without notice.

SANTA BARBARA
Teledyne FLIR LLC, Inc.
6769 Hollister Ave.
Goleta, CA 93117
PH: +1 805.690.6602

EUROPE
Teledyne FLIR LLC, Inc.
Luxemburgstraat 2
2321 Meer
Belgium
PH: +32 (0) 3665 5106

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