

New 17 Micron Pixel Design!

PRELIMINARY



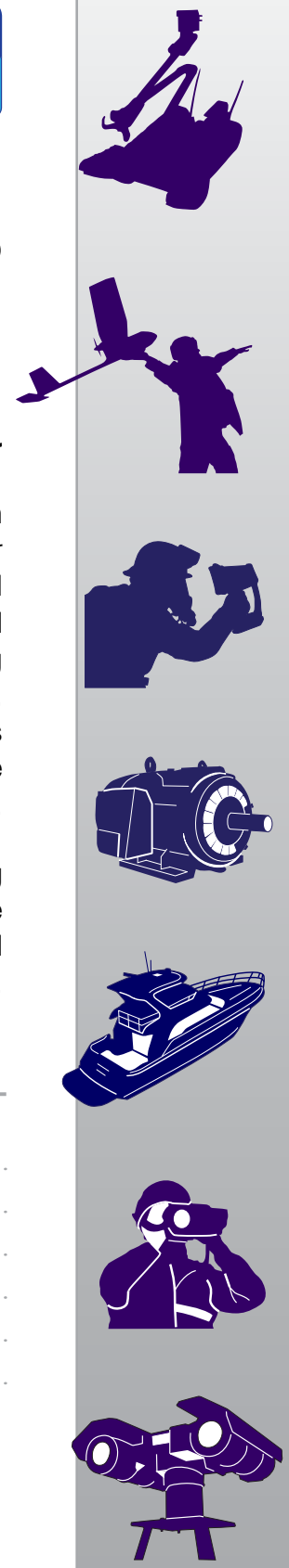
ATOM™ 640: Micro High Resolution Thermal Imaging Camera



Product is preliminary

Incorporating ULIS's advanced all silicon 640x480 17 micron pixel microbolometer technology, the ATOM 640 is a micro thermal imaging module designed for small UAVs and portable low power military night vision imaging systems. The thermal camera module is affordable, easy to integrate and reliable. Weighing only 80 grams and operating on less than 1 watt of input power, the ATOM 640 is ideal for integration into a wide range of military and COTS thermal imaging systems.

The module produces superior thermal image quality even while imaging fast moving objects. Our unique low motion blur makes ATOM 640 the ideal choice for handheld, ground vehicle and airborne EOIR platforms and advanced fusion-based night vision systems.



Features

- 640x480 resolution with 17 micron pixels
- < 60mK thermal sensitivity
- 60Hz frame rate
- 10 ms thermal time constant
- < 1 Watt power consumption
- Mil-Spec qualified
- Total volume: < 9 inch³ (w/lens)
[< 140 cm³ (w/lens)]

Benefits

- Greater performance without increasing system size and weight
- Increased range and detection performance
- Fast imaging – ideal for image fused systems
- Less image blur – sharp images of objects in motion
- Longer battery life
- Ready to integrate into tactical systems
- Extremely small thermal imaging core with VGA resolution



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Atom 640 Imager Specifications

Thermal Imaging Camera Core	Uncooled ASI Microbolometer
Format	640x480
Pixel Geometry	17 microns
Frame Rate	60 Hz (interlaced)
Thermal Time Constant	10 ms
Digital Output	14-bit (Snapshot via USB, streaming via standard Camera Link interface)
Size	2.1" wide x 1.9" tall x 2.2" long (preliminary, w/30°lens) [53mm wide x 48mm tall x 55mm long (preliminary, w/30°lens)]
Weight	80g (preliminary, includes 30° lens)
Input Voltage	3.0 - 5.0 VDC
Power Consumption	< 1 W (preliminary)
Thermal Sensitivity	< 60mK f1.0
Time to First Image	< 4 seconds
Lens	f1.0 athermalized 30° manual focus
Video Processing	AGC, polarity, symbology, NUC correction
Operating Temperature Range	-20°C to 49°C
Non-operating Temperature Range	-40°C to 71°C
Control Interface	USB or RS-232

Ordering Information

Part No.

ATOM 640 with 30° Lens and Camera Link interface (frame grabber board not included)	915070
120/240 VAC Power Supply	915073
USB Interface Cable (w/power input)	915074
RS232 Interface Cable (w/power input)	915075

Camera Link™ is a registered trademark of the AIA.

Technical characteristics described in this data sheet are for information only and are not contractual. Because of ongoing product enhancements, specifications are subject to change without notice. Export of these products from the United States is controlled by the US Government. Prior authorization is required for re-export or transfer.



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