

Atom[®] 640



LYNRED USA

Access to the World's Leading Infrared Technology

640 x 480 - 17 μ pitch - Microbolometer - with electronics boards



Incorporating an advanced 640x480 thermal image sensor array, the Atom 640 delivers a highly uniform image in a VGA format. The camera core is designed for a wide variety of applications that benefit from its superb image detail and excellent thermal sensitivity. Because of its small compact size and low power consumption, the Atom 640 is easy to integrate, and ideally suited for a wide range of military and COTS thermal imaging systems.

The Atom 640's short thermal time constant produces superior thermal image quality even while imaging fast moving objects, making the system an ideal choice for hand held targeting devices, ground and airborne vehicles, UAV, 24/7 surveillance, EOIR platforms, and advanced fusion-based night vision systems.

TECHNICAL SPECIFICATIONS

| | |
|----------------------------|---|
| Array Size | 640 x 480 pixels |
| Detector Pixel Pitch | 17 μ x 17 μ microns |
| Detector Spectral Range | 8 - 14 μ microns |
| Frame Rate | 60Hz / 30Hz / 9Hz |
| Detector Sensitivity (f/1) | < 50 mK |
| Time to First Image | < 2 seconds |
| Video Processing | Non-Uniformity Correction, Auto/Manual Gain, BPR, Digital Zoom, Digital Filtering, Built-In Self Test, Test Patterns, External Synchronization, Image Orientation |

FEATURES

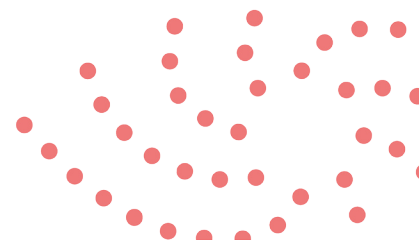
- 640 X 480 resolution with 17 micron pixels
- <50 mK detector thermal sensitivity
- 60Hz / 30Hz frame rate
- <1 Watt (minimum configuration)
- Tested to Mil-Spec 810G

BENEFITS

- VGA resolution for high performance applications
- Increased range and detection performance
- Smooth motion and detection performance
- Longer battery life
- Ready to integrate into tactical systems

+ Very Low Power Consumption

+ Lightweight



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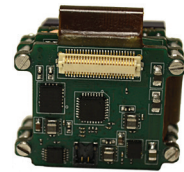
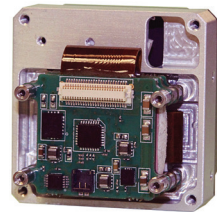


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ATOM 640 Imager Specifications



| Description | Standard with Camera Link & Chassis Option | Standard | Basic |
|---|---|--|--------------------|
| Frame Rate | | 9Hz/ 30Hz/ 60Hz | |
| Operating Temp. Range | | -40°C to 60°C | |
| Non-operating Temp. Range | | -45°C to 70°C | |
| 8 or 14-bit Digital Output | Camera Link | 3.3 V CMOS (Hirose 50 pin connector) | |
| Analog Video | NTSC or PAL (MCX connector) | NTSC or PAL (Available on Hirose 50 pin connector) | |
| Serial Control Interface | USB or Camera Link | LVCMOS level UART | |
| Graphical User Interface | Included | Included (Requires customer furnished interface as COM port) | |
| Size (lens not included) W x H x L | 1.6" x 1.6" x 1.3" w/o M34 | 1.6" x 1.6" x 1" w/o M34 | 1.2" x 1.2" x 0.9" |
| Weight | 90g (with M34 without lens) | 60g (with M34 without lens) | 30g |
| Lens Mount | M34 (Removable, Other interfaces available) | | N/A |
| Lens Options (Other lenses including continuous zoom available; please call for info) | 8mm F1.2 HFOV 68.4° / 14mm F1.2 HFOV 42.5° 19mm F1.2 HFOV 32° / 25mm F1.2 HFOV 24.6° 35mm F1.2 HFOV 17.7° | | N/A |
| Input Voltage | USB 5v (PoCL 12v Available) | 4-5.5 VDC (Hirose 50 pin connector) | |
| Power Consumption | < 1.6 W (USB or PoCL) | <1 W | |

ACCESSORIES

Tripod mount / Camera Link cable / Analog video cable / External sync cable

Lenses are also available as separate items, Calibration for additional lenses

DESKTOP SOFTWARE

Software Development Toolkit (SDK) for C++ or C#

D*STAR Digital Storage and Retrieval Image Processing Software Suite for ATOM 640. To be used in thermal imaging R&D applications



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