

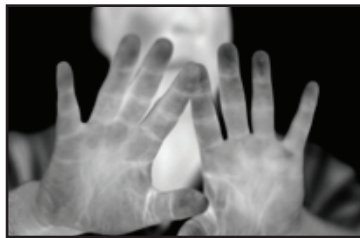
Atom 1024**ATOM™ 1024: Uncooled Infrared Camera
with XGA Resolution**

- Frame Rate: 30Hz XGA, 60Hz VGA
- Very Low Power Consumption
- < 50mK Detector Thermal Sensitivity
- Lightweight
- 17 micron Pixel Technology

Shown with 50mmF1
Objective Lens

Incorporating an advanced 1024x768 microbolometer detector array, the Atom 1024 Uncooled Infrared Camera delivers extremely high resolution in an XGA format. The camera is designed for a wide variety of applications that benefit from its superb image detail and excellent thermal sensitivity. Because of the camera's small compact size and low power consumption, the Atom 1024 is easy to integrate, and ideally suited for a wide range of military and COTS thermal imaging systems.

The Atom 1024's short thermal time constant produces superior thermal image quality even while imaging fast moving objects, making the system an ideal choice for handheld, ground vehicle and airborne EOIR platforms and advanced fusion-based night vision systems.

**FEATURES**

- 1024x768 resolution with 17 micron pixels
- < 50mK detector thermal sensitivity
- 30Hz XGA and 60Hz VGA frame rate
- < 10ms thermal time constant
- < 1.7 Watts (LVTTTL)
- Mil-Spec option

BENEFITS

- XGA resolution for high performance applications
- Increased range and detection performance
- Smooth motion within scene
- Less image blur – sharp images of objects in motion
- Longer battery life
- Ready to integrate into tactical systems

Atom 1024

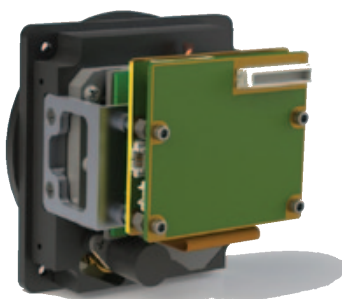
Camera Link Interface



GigE Interface



LVTTTL Electronics



ATOM 1024 IMAGER SPECIFICATIONS

Description	Camera Link	GigE	LVTTTL
Infrared Detector	Uncooled ASi Microbolometer		
Array Size	1024 x 768 pixels		
Pixel Pitch	17 microns		
Frame Rate	30Hz XGA (Option for 60Hz VGA)		
Thermal Time Constant	< 10 ms		
Detector Sensitivity (F1)	< 50 mK		
Time to First Image	< 4 seconds		
Video Processing	Non-uniformity correction, Auto/Manual gain, BPR, Digital Zoom, Digital Filtering, Built-in Self Test, Test patterns		
Operating Temperature Range	-40°C to 60°C	-30°C to 60°C	-40°C to 60°C
Non-operating Temperature Range	-45°C to 70°C		
14-bit Streaming Digital Output	Camera Link	Gigabit Ethernet	LVTTTL
Serial Control Interface	Camera Link	GigE	RS232
Graphical User Interface	Included		
Size (lens not included)	2.4"x 2.7"x 2.7" W x H x L	2.4"x 2.7"x 3.7" W x H x L	2.4"x 2.7"x 2.25" W x H x L
Weight (lens not included)	< 0.4 kg	< 0.5 kg	< 0.2 kg (< 0.1 kg electronics only)
Input Voltage	6-12 VDC	6-12 VDC	3.3 or 3.6 VDC
Power Consumption	< 3.6 W	< 3.6 W	< 1.7 W

ORDERING INFORMATION

ATOM Model	Lens	HFOV (nominal)
1024-73L (LVTTTL) 1024-73C (Camera Link) 1024-73G (GigE)	13mm, f1.1 manual focus	73°
1024-40L (LVTTTL) 1024-40C (Camera Link) 1024-40G (GigE)	25mm, f1.2 manual focus	40°
1024-20L (LVTTTL) 1024-20C (Camera Link) 1024-20G (GigE)	50mm, f1.2 manual focus	20°
1024-40/6.6L (LVTTTL) 1024-40/6.6C (Camera Link) 1024-40/6.6G (GigE)	25-150mm, f1.4 continuous zoom motorized focus	6.6 - 40°
1024-40/4.4L (LVTTTL) 1024-40/4.4C (Camera Link) 1024-40/4.4G (GigE)	25-225mm, f1.4 continuous zoom motorized focus	4.4 - 40°

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