

# ATOM 80

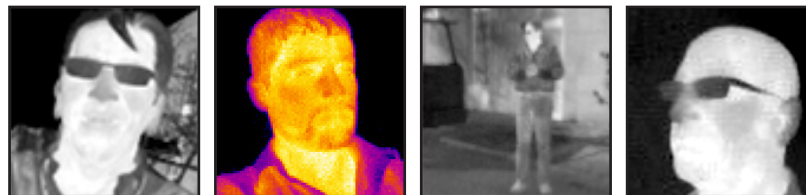
## 80x80 Uncooled Microbolometer Core For Low Cost, High Volume Applications



Infrared camera core  
easily integrated into  
OEM products

- High sensitivity thermal imaging sensor
- Easy USB interface
- Low power consumption
- Custom configurations available

The ATOM 80 is an affordable Thermal Infrared Module ideal for use in research and OEM applications. The module produces a digital USB video signal due to the thermal emission of objects having a temperature +/-50°C from ambient. Based on an 80x80 microbolometer array, this module includes Windows desktop software that performs: real-time recording and playback, single image capture and display, conversions to .AVI .JPG, .CSV and other image formats, color palette selection, auto/manual gain/level control and image averaging to improve sensitivity.



Actual ATOM 80 thermal images

### PERFORMANCE

Sensor	80x80 microbolometer array
Spectral Response	8-14 $\mu\text{m}$
Detector NETD	< 100 mK (f/1, 27°C)
Power Consumption	< 0.25 W
Operating Temperature Range	-20°C to +60°C
Frame Rate	30 Hz
Electrical Interface	USB 2.0
14-bit Streaming Digital Output	USB 2.0
Graphical User Interface (PC)	Included

### INFRARED SENSING AND LOW RESOLUTION IR IMAGING APPLICATIONS:

- Automotive night vision and obstacle detection
- Non-contact temperature measurement
- Building/home automation control
- Advanced intrusion detection
- People counting
- Traffic monitoring

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**ATOM 80 ORDERING INFORMATION** Each camera model below includes: Operating Instructions, D\*STAR A80 Desktop Windows Software, USB Cable, One-year Limited Warranty

Model	Dimensions/Weight	Lens	Frame Rate	Part Number
	1.25" x 1.5" x 0.63" (3.1 x 3.8 x 1.6 cm)  1.0 oz (29 g)	2.2 mm f/1.4  HFOV = 73°  Focus Range: 0.2 m to infinity  Passively athermalized	30 Hz	915481
			9 Hz	915482
	1.25" x 1.5" x 0.9" (3.1 x 3.8 x 2.3 cm)  1.1 oz (31 g)	5.0 mm f/1.2  HFOV = 30°  Focus Range: 0.2 m to infinity  Passively athermalized	30 Hz	915424
			9 Hz	915425
	1.25" x 1.5" x 1.4" (3.1 x 3.8 x 3.6 cm)  1.8 oz (50 g)	6.8 mm f/1.4  HFOV = 23°  Focus Range: 0.2 m to infinity  Passively athermalized	30 Hz	915422
			9 Hz	915423

# D\*STAR Uncooled

## D\*STAR Digital Storage and Retrieval Image Processing Software Suite for ATOM 80

- Real-time digital recording
- Powerful analysis tools
- Intuitive user interface



### WINDOWS DESKTOP SOFTWARE IS INCLUDED THAT PERFORMS:

- Real-time recording and playback,
- Single image capture and display,
- Image conversion to .AVI, .JPG, .CSV, .BMP, .TIF and .PNG
- Multiple color palette selection
- Auto/manual gain/level control
- Image Averaging (improves sensitivity)



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