

# ATOM<sup>®</sup>SW



Access to the World's Leading Infrared Technology

640 x 512 - 15  $\mu$ m pitch - InGaAs - with electronics boards



Utilizing the Sofradir Snake Short Wave Teclless sensor, the world's most compact infrared detector with VGA resolution, the ATOM@SW is a high performing solution to be integrated in your short wave system.

State of the art InGaAs technology provides you with outstanding electro-optics in a very high-speed, low-noise yet compact camera core for a wide variety of demanding applications.

## TECHNICAL SPECIFICATIONS

Format	640 x 512
Detector Pixel Pitch	15 $\mu$ x 15 $\mu$
Detector Spectral Range	0.9 $\mu$ m - 1.7 $\mu$ m
Frame Rate	200Hz

## ELECTRO-OPTICAL TYPICAL PERFORMANCE

Read Out Noise	<50e/pix/sec at full speed
Dark Current	30fA @ 0.2 V detector bias
Array Operability	>99.7%

## ELECTRICAL PERFORMANCES & INTERFACES

Exposure Time	1 $\mu$ s to full frame
Charge Handling Capacity	43 10 <sup>3</sup> e- (Gain 0) / 120 10 <sup>3</sup> e- (Gain 1) / 1.44 10 <sup>6</sup> e- (Gain 2)
Integration Type	Snapshot
Readout Modes	IWR, ITR
Data Interface	Camera Link or USB3
Communication Port	Camera Link or USB
Image Resolution	14 bits
Frame Synchronization	Internal or external through Camera Link Control Signal
On Board Data Processing	2 point NUC, BPR
Power Consumption	5W (typical)
Power Supply	9 V <sub>DC</sub> to 24 V <sub>DC</sub>

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## MECHANICAL FEATURES

Dimensions (with packaging)	55x53x60 mm
Dimensions (without packaging)	42x48x50 mm
Weight (with packaging)	0.08 kg
Weight (without packaging)	0.214 kg
Optical Interface	C-Mount, CS-Mount, T-Mount
Operating Temperature	-20°C to 40°C
Storage Temperature	-20°C to 40°C
EMC	Designed with state of the art EMC rules: MIL-STD-641
Environmental Conditions	MIL-STD-810G

## ATOM<sup>®</sup>SW APPLICATIONS

### SECURITY



The ATOM<sup>®</sup>SW is designed for quick and accurate location of intruders, where SWIR is a key technology to monitor facilities, especially in low light environments.



### INDUSTRIAL

As a high speed, compact camera core, ATOM<sup>®</sup>SW is sensitive enough for industrial applications that require outstanding thermal resolution, when accuracy is paramount.

### DEFENSE

The high performing ATOM<sup>®</sup>SW can meet the challenges of carrying out reconnaissance, surveillance and fire control in extreme and turbulent operating conditions.



### SURVEILLANCE

The ATOM<sup>®</sup>SW is fit for Remote Video Surveillance Systems, Mobile Surveillance Capabilities, and Integrated Fixed Tower applications in terms of its high sensitivity.



### SCIENTIFIC

The ATOM<sup>®</sup>SW camera core can be used to provide critical details about an objects' thermal and spectral characteristics required in scientific R&D applications.



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