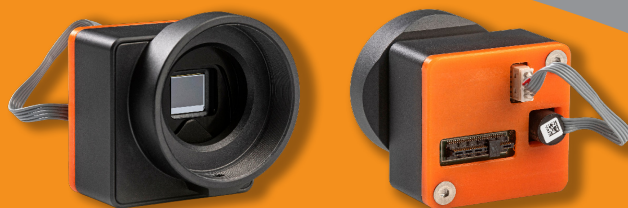


# Dione S 640 CAM Series

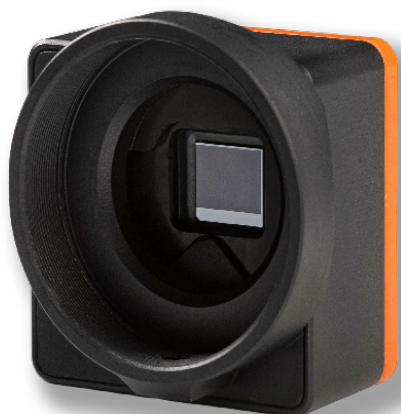
## Ultra-compact LWIR thermal imaging core

- ▶ SWaP optimized, uncooled with mechanical shutter
- ▶ Microbolometer detector with 640x480 resolution and 12  $\mu\text{m}$  pixel pitch



## State-of-the-art thermal imaging core

The Dione S 640 series is based on an uncooled microbolometer detector with a 640x480 pixel resolution and 12  $\mu\text{m}$  pixel pitch. The NETD (Noise Equivalent Temperature Difference) is less than 60 mK and the maximum frame rate is 60 Hz.



The Dione S 640 CAM comes in two variations:

- (1) Dione S 640 CAM M24 with a small housing and M24x0.5 optical mount
- (2) Dione S 640 CAM M34 with a small housing and M34x0.5 optical mount

All Dione S 640 versions benefit from Xenics image enhancement for advanced image processing while keeping power consumption low (approximately 0.85 W). A 16 bit digital video output (compatible with CameraLink) is available on all versions, via the SAMTEC ST5 connector. Moreover, GenICam compliance and availability of multiple lenses adds flexibility for integration programs in the target markets such as safety and security, transportation and industrial process monitoring.

## Designed for use in

- Safety & Security
- Transportation
- Process Monitoring

## Advantages

- Ultra-compact size, low weight and power (SWaP)
- 640x480 microbolometer detector with 12  $\mu\text{m}$  pixel pitch
- Frame rates up to 60 Hz
- Uncooled with mechanical shutter



Thermal security



Vision enhancement



Border security

► Camera Specifications

Camera Specifications	Dione S 640 CAM M24	Dione S 640 CAM M34
Mechanical specifications		
Approximate Dimensions - excluding lens [width x height x length] [mm]	37.4 x 37.4 x 28.4	42.0 X 42.0 X 30.3
Weight [gr] - excluding lens	50	55
Optical interface	M24x0.5	M34x0.5
Connector I/O	SAMTEC ST5-30-1.50-L-D-P-TR	
Environmental & power specifications		
Ambient operating temperature range [°C]	From -40 to +70	
Storage temperature [°C]	From -40 to +85	
Power consumption [W]	0.85	
Power supply voltage	DC 5 V	
Shock	40 g, 11 ms, MIL-STD810G	
Vibration	5 g (20 to 2000 Hz), MIL-STD810G	
Regulatory compliance	RoHS	
Electro-optical specifications		
Image format [pixels]	640 x 480	
Pixel pitch [µm]	12	
Detector type	Microbolometer	
Integration type	Rolling shutter	
Active area and diagonal [mm]	7.68 x 5.76 [diagonal 9.6]	
Detector NETD [Noise Equivalent Temperature Difference] [mK]	<60 [at 30 Hz, 300 K, F/1]	
Spectral range [µm]	8 - 14	
Pixel operability	>99.5% [excluding 3 peripheral rows and columns]	
Max frame rate [Hz] [full frame]	60	
Integration time range [µs]	20 - 65	
Region of interest	No	
Min region size [pixels]	NA	
Analog-to-Digital [ADC] [bits]	14	
Command and control	SAMTEC ST5 connector	
Digital output format	16 bit [compatible with CameraLink]	
Trigger	SAMTEC ST5 connector	
Product selector guide		
Part number	XEN-000713	XEN-000714

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