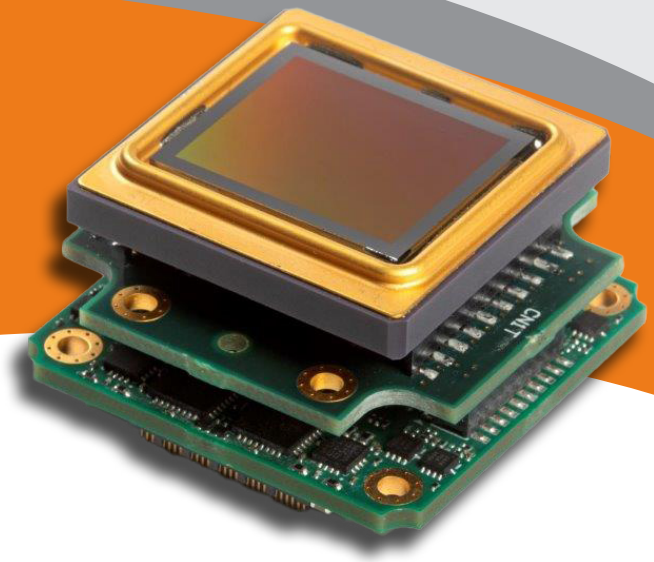
Xenics
Infrared Solutions

DIONE 1280 OEM SERIES

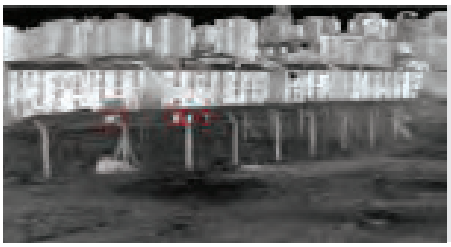
- Ultra-compact LWIR thermal imaging core
- SWaP optimized, uncooled and shutterless
- Microbolometer detector with 1280x1024 pixel resolution and 12 µm pixel pitch



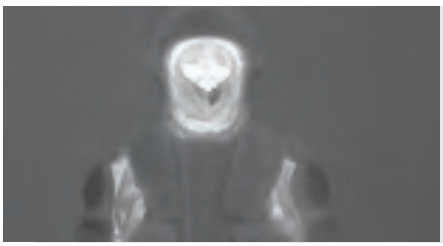
STATE-OF-THE-ART THERMAL IMAGING CORE

The Dione 1280 OEM series is based on an uncooled microbolometer detector with a 1280x1024 pixel resolution and 12 µm pixel pitch. The detector NETD is less than 40 mK (available upon request) or 50 mK. The maximum frame rate is 60 Hz.

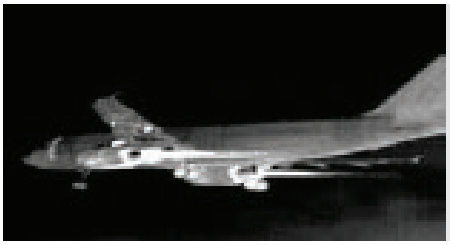
The Dione 1280 OEM benefits from Xenics image enhancement for advanced image processing while keeping power consumption low. Moreover, GenICam compliance and availability of multiple lenses add flexibility for integration programs in the target markets like safety and security, transportation and industrial process monitoring.



Border Security



Thermal Security



Vision Enhancement

DESIGNED FOR USE IN

- Safety & Security
- Transportation
- Process Monitoring

ADVANTAGES

- Ultra-compact size, low weight and power (SWaP)
- 1280x1024 microbolometer detector with 12 µm pixel pitch
- Frame rates up to 60 Hz
- Detector NETD is less than 40 mK (available upon request) or 50 mK
- Uncooled and shutterless

SPECIFICATIONS

Camera Specifications	Dione 1280 OEM 40 mK	Dione 1280 OEM 50 mK
Mechanical specifications		
Camera dimensions (width x height x length) [mm] (approx.)	35 x 35 x 23.5	
Camera weight [gr]	27	
Connector general I/O	SAMTEC ST5-30-1.50-L-D-P-TR	
Environmental & power specifications		
Operating temperature range (housing temperature) [°C]	From -40 to +70	
Storage temperature [°C]	From -40 to +85	
Power consumption [W]	1.9 (at 30 Hz operation) & 2.1 (at 60 Hz operation)	
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]	1280x1024	
Pixel pitch [µm]	12	
Detector type	Microbolometer	
Integration type	Rolling shutter	
Active area and diagonal [mm]	15.36 x 12.29 (diagonal 19.67)	
Detector NETD [Noise Equivalent Temperature Difference] [mK]	<40 (at 60 Hz, 300K, F/1), available upon request	<50 (at 60Hz, 300K, F/1)
Spectral range [µm]	8-14	
Pixel operability	>99.5%	
Max frame rate [Hz] [full frame]	60	
Integration time range [µs]	20 - 65 recommended (1 - 100 is possible)	
Region of interest	Yes	
Min region size [pixels]	80 x 80	
Analog-to-Digital [ADC] [bits]	14	
Command and control	via SAMTEC ST5 connector	
Digital output format	16bit DV (standard), MIPI CSI-2 (optional), USB (optional)	
Trigger	via SAMTEC ST5 connector	
Product selector guide		
Part number	XEN-000692	XEN-000691

XDS.024.04| Information furnished by Xenics is believed to be reliable. However, no responsibility is assumed for possible inaccuracies or omissions. Specifications are typical values and subject to change without notice. This information supersedes all previously supplied information.