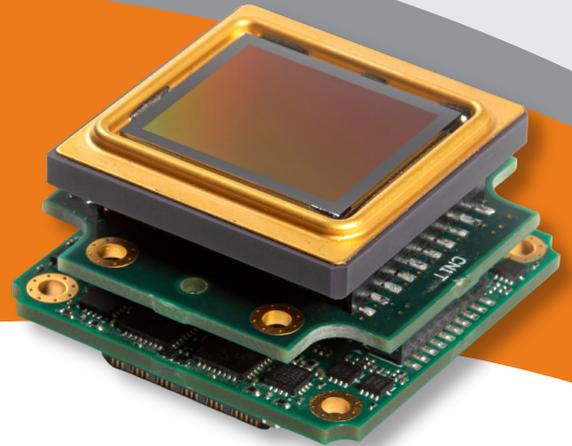


DIONE 1024 OEM SERIES

Ultra-compact LWIR thermal imaging core

- SWaP optimized, uncooled and shutterless
- Microbolometer detector with 1024x768 pixel resolution and 12 μm pixel pitch



STATE-OF-THE-ART THERMAL IMAGING CORE

The Dione 1024 OEM series is based on an uncooled microbolometer detector with a 1024x768 pixel resolution and 12 μm pitch. The detector NETD is less than 40 mK (available upon request) or 50 mK. The maximum frame rate is 80 Hz.

All Dione 1024 versions benefit from Xenics image enhancement for advanced image processing while keeping power consumption low. Moreover, GenICam compliance and availability of multiple lenses adds flexibility for integration programs in the target markets like safety and security, transportation and industrial process monitoring.

DESIGNED FOR USE IN

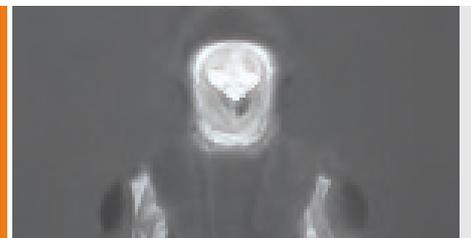
- Safety & Security
- Transportation
- Process Monitoring

ADVANTAGES

- Ultra-compact size, low weight and power (SWaP)
- 1024x768 microbolometer detector with 12 μm pixel pitch
- Frame rates up to 80 Hz
- Detector NETD is less than 40 mK (available upon request) or 50 mK
- Uncooled and shutterless



Border Security



Thermal Security



Vision Enhancement

SPECIFICATIONS

| Camera Specifications | Dione 1024 OEM 40 mK | Dione 1024 OEM 50 mK |
|--|--|--------------------------|
| Mechanical specifications | | |
| Camera dimensions (width x height x length) [mm] (approx.) | 35x35x21.5 | |
| Camera weight [gr] | 25 | |
| Optical interface (optional) | - | |
| 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 -45 to +85 | |
| Average power consumption [W] | ~ 2.1 (at 60 Hz) ~ 1.9 (at 30 Hz) | |
| 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] | 1024x768 | |
| Pixel pitch [µm] | 12 | |
| Detector type | Microbolometer | |
| Integration type | Rolling shutter | |
| Active area and diagonal [mm] | 12.29 x 9.432 (diagonal 15.49) | |
| Detector NETD (Noise Equivalent Temperature Difference) [mK] | <40 (at 30Hz, 300K, F/1), available upon request | <50 (at 30Hz, 300K, F/1) |
| Spectral range [µm] | 8-14 | |
| Pixel operability | >99.5% | |
| Max frame rate [Hz] [full frame] | 80 | |
| Integration time range [µs] | 20 - 65 recommended (1 - 100 is possible) | |
| Region of interest | No | |
| Analog-to-Digital [ADC] [bits] | 16 | |
| Command and control | via SAMTEC ST5 connector | |
| Digital output format | 16bit DV (standard), MIPI CSI-2 (optional) | |
| Trigger | via SAMTEC ST5 connector | |
| Product selector guide | | |
| Part number | XEN-000795 | XEN-000793 |

XDS037.02 | 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.



For more information on our products
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