Device-ALab
A PHOTONIS Company

ULTRA HIGH SENSITIVITY UNCOOLED VGA THERMAL CORE

SWaP capable of <30mK without any denoising

SmartIR640/640E - 30mK

A SWaP camera core which numerous generic variants make ready for integration. Definetely the ideal candidate for highly demanding LWIR applications such as: high DRI performance systems (defense, SAR, UAVs, PTZ), high-speed inspection systems (machine vision) or active thermography (Non-Destructive Testing)

Key Features:

- VGA 17µm
- < 30mK without any denoising

- frame rate up to 120 Hz
- trigger / latency-free
- various interfaces

- choice of lenses up to 90° HFOV
- also available without lens

EU based supplier

Key performances	
Sensor	Micro-bolometer technology
Resolution / Pixel pitch	640 x 480 pixels / 17 µm
Spectral range	8 - 14 µm
Frame rate	Up to 120 Hz
Max NETD (F/1 ; 300K ; 30 Hz)	< 30 mK
Typical NETD (F/1 ; 300K ; 30 Hz)	25 mK
Power consumption (USB 3.0 model)	< 1.1 W
Functions & Interfaces	
Image processing	Bad Pixel Correction, NUC, Shutterless
Image optimisation	Global/local AGC, Progressive digital zoom up to x4, Overlays
For module (host-based processing)	USB3.0 RAW16
For engine core (embedded processing)	BT656 / YCbCr / MONO16 / PAL-NTSC / Camera Link / 3G/HD-SDI
Footprint	30 x 30 x 23 mm³
Weight	from 38 g
Optics	from 7.5 mm to 100+ mm
Others	
Operating temperature range	-20°C to +60°C (Standard grade) -40°C to +70°C (Extended or Military grade)
Qualifications	MIL-STD-810G and MIL-STD-883 (TWS)

Contact us at
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PHOTONIS
Digital Vision

HIGH RESOLUTION UNCOOLED SXGA THERMAL CORE

True SWaP camera 1280 x 1024 pixels -12 µm pitch

IrLugX1M3™ / 1M3E™

Thanks to its amazing compactness and the outstanding resolution, IrLugX1M3™ series enable enhancement of electro optical-systems performances: obvious benefit is DRI (Detection Recognition Identification) a key factor for long range observation platforms in Search and Rescue or surveillance of sensitive areas for plants, border.
Its generic design ensure easy integration retrofit of existing E/O systems in defense and security.

Key Features:

- Compact section 35 x 35mm²
- Shutterless function
- SXGA 12µm

- frame rate up to 60 Hz
- trigger / latency-free
- various interfaces

- choice of lenses from up to 85° HFOV
- also available without lens

EU based supplier

Key performances	
Sensor	Micro-bolometer technology
Resolution / Pixel pitch	1280 x 1024 pixels / 12 µm
Spectral range	8 - 14 µm
Frame rate	Up to 60 Hz
Max NETD (F/1 ; 300K ; 30 Hz)	< 60 mK
Typical NETD (F/1 ; 300K ; 30 Hz)	55 mK
Power consumption (USB 3.0 model)	< 1.7 W
Functions & Interfaces	
Image processing	Bad Pixel Correction, NUC, Shutterless
Image optimisation	Global / Local AGC, Progressive digital zoom up to x4, Overlays
For module (host-based processing)	USB3.0 RAW16
For engine core (embedded processing)	BT656 / YCbCr / MONO16 / CameraLink / HD-SDI / 3G-SDI
Footprint	35 x 35 x 27 mm³
Weight	from 90 g
Optics	from 8.5 mm to 60 mm
Others	
Operating temperature range	-20°C to +60°C (Standard grade) -40°C to +70°C (Extended or Military grade)
Qualifications	MIL-STD-810G and MIL-STD-883 (TWS)

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