

# THE MOST COMPACT UNCOOLED EUROPEAN VGA THERMAL CORE

SWaP 12 $\mu$ m pitch with a section of 22x22 mm<sup>2</sup>



## MicroCube640 / 640E

Device-ALab latest generation of thermal cores in 12 $\mu$ m pixel pitch feature true SWaP design and cover main standard interfaces, including USB-C or MIPI-CSI2.

Size, weight and power altogether make this European-made thermal core the ideal candidate for all applications where consumption and/or footprint are key factors, namely UAVs, UGVs and robot-type platforms, as well as handheld devices and all battery-powered equipments.

## Key Features:

- VGA 12 $\mu$ m
- < 40mK without any denoising algorithm



- frame rate up to 60 Hz
- trigger / latency-free
- USB-C or MIPI-CSI2

- 22x22 mm<sup>2</sup> casing section
- 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 / 12 $\mu$ m
Spectral range	8 - 14 $\mu$ m
Frame rate	Up to 60 Hz
Max NETD (F/1 ; 300K ; 30 Hz)	< 40 mK
Typical NETD (F/1 ; 300K ; 30 Hz)	35 mK
Power consumption (USB model)	< 0.82 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)	USB type C lockable / RAW16
For engine core (embedded processing)	BT656 / YCbCr / MONO16 / MIPI CSI-2
Footprint	22 x 22mm <sup>2</sup> (section) / from 22 mm (depth)
Weight	from 22g
Optics	from 4.3 mm to 100+ mm EFL

### 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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