

ULTRA-COMPACT
UNCOOLED THERMAL CORE

EXOSSENS
REVEAL THE INVISIBLE

MicroCube 640



*EXTREMELY SMALL THERMAL CORE
WITH 12 μm PIXEL PITCH*

KEY FEATURES



EASY INTEGRATION



**HIGH SENSITIVE CAMERA
CORE IN LWIR**



**OPTIMIZED SIZE, WEIGHT
& POWER**

The latest generation of 12 μm pixel pitch thermal cores features a true SWaP design and supports main standard interfaces.

Its compact size, low weight and reduced power consumption make this European-made core ideal for applications where footprint and consumption are critical, including UAVs, UGVs, robotic platforms, handheld devices and battery-powered equipment.

Camera Specifications	MicroCube 50 mK (9Hz) MicroCube 40 mK (9Hz)	MicroCube 50 mK (60Hz) MicroCube 40 mK (60Hz)
Mechanical specifications		
Camera dimensions (width x height x length) [mm]	22.0 x 22.0 x 26.8	
Camera weight [gr]	< 25	
Interface connector	DF40-40DP (header)	
Environmental & power specifications		
Operating temperature range [°C]	-20 to +60	
Power consumption [W]	< 1.3 (DF40, MIPI-CSI); <1.6 (UVC)	
Power supply voltage	3.3 V to 5.0 V	
Mechanical shock (TWS)	1000 g, 0.4 ms, ½ sine X & Y axis, 700 g, 0.3 ms ½ sine Z axis	
Qualification	Industrial (Standard grade)	
Electro-optical specifications		
Image format [pixels]	640 x 480 pixels	
Pixel pitch [µm]	12 µm	
Image processing	BPC (Bad Pixel Correction), NUC (Non Uniformity Correction), Shutterless NUC	
Image optimization	AGC (Automatic Gain Control)	
Detector NETD (Noise Equivalent Temperature Difference)	< 40 mK or < 50 mK	
Spectral range [µm]	8 – 14	
Pixel operability	>99.8%	
Max frame rate [Hz] [full frame]	60	
Time to image	< 3 s	
Output options	MIPI-CSI, DF40	
Product selector guide		
Part number	XEN-000933	XEN-000936
	XEN-000935	



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