

## UEM-130

### Uncooled Camera Cores

Useful electronics cores for your Uncooled IR Camera, support HD 1024x768 @30Hz full frame rate detectors, and standard 640x480 @30Hz/60Hz full frame rate detectors. It fit for cameras surveillance and thermography applications.

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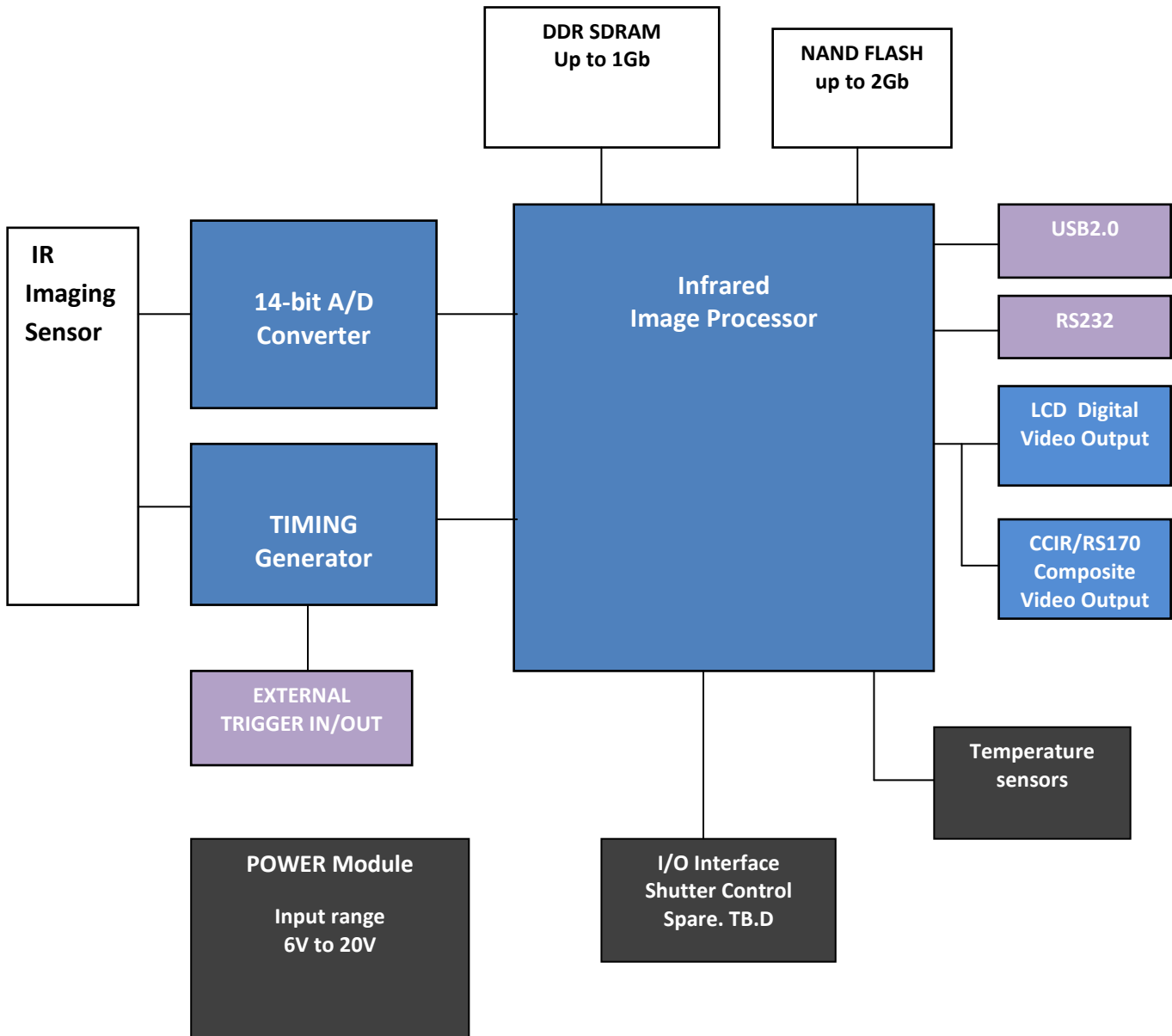
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# 1. BOARD ARCHITECTURE



## 2. TECHNICAL SPECIFICATIONS AND PERFORMANCES

On Board Memory Storage Capabilities	
<b>NAND FLASH</b>	Program, NUC and Data storage up to 2Gbits (256MB)
<b>DDR SDRAM</b>	Data processing and storage up to 1Gbits (128MB)
Supported Uncooled IR Detectors and Performances	
<b>ULIS</b>	<b>PICO1024E UL05251 1024x768</b> , up 30Hz full frame rate
	<b>PICO640P UL04272 640x480</b> , up 30Hz full frame rate
	<b>PICO640E-041 640x480</b> , up to 60Hz full frame rate
NUC Tables	
<b>1024x768 Detectors</b>	Up to 4 NUC Tables processing and saved to embedded FLASH
<b>640x480 Detectors</b>	Up to 4 NUC Tables processing and saved to embedded FLASH
External Trigger Capabilities	
<b>Trigger</b>	Trigger IN x1, TTL(0-5V) or LVTTTL (0-3.3V) Trigger OUT x1, TTL(0-5V) or LVTTTL (0-3.3V)
Video Outputs	
<b>LCD</b>	16bits or 24bits RGB Digital video Output x1
<b>CCIR/RS170</b>	CCIR /RS170 Composite Video 75 Ohms output x1, factory setting
Camera Control and Communication	
<b>RS232</b>	x1 com-ports up to 230Kbauds
<b>USB2.0</b>	x1 USB 2.0 full rate 480Mbps
Electrical specifications	
<b>Input voltage</b>	6V to 14V
<b>Power consumption</b>	3W Maximum (without detector proximity board)
<b>Operating temperature</b>	-40°C to +85°C
<b>Storage temperature</b>	-55°C to +125°C
Mechanical	
<b>Board size</b>	Stacking of 2 boards Dimensions 80mm x60mm x20mm

Main Software features	
<b>Integration Time</b>	Programmable by 1us step. (1us to 100ms)
<b>Frame Rate</b>	Programmable fix frequency 25Hz/30Hz or 50Hz/60Hz
<b>Windowing</b>	Programmable detector Full, Half, Quarter and Random window Image Flip Horizontally (FlipH) and Flip Vertically (FlipV)
<b>NUC processing</b>	Up to 4 Tables in 640x480 full format. NUC 1 Point and 2 Points, Created and Updated NUC Upload and Download from host PC NUC Load from embedded FLASH NUC Save to embedded FLASH
<b>Bad Pixels detection</b>	Improved bad pixel detection algorithm (Gain, Offset and Rms Noise method) Bad pixel replacement in array 7x7 neighbour.
<b>External triggering</b>	Selectable Internal/External synchronization
<b>AGC</b>	Advanced AGC algorithm Histogram equalization
<b>Shutter Control</b>	Command Open/Close