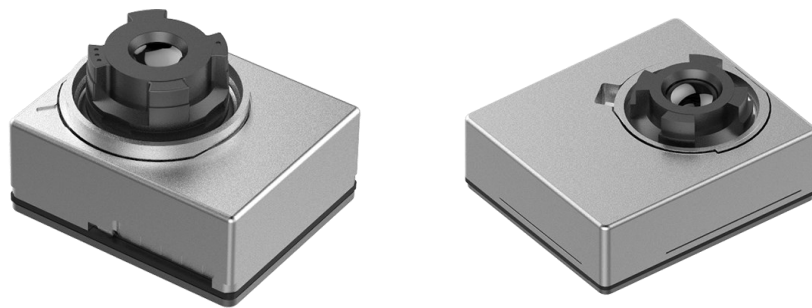


## STIMO Miniature Thermal Modules STIMO120 / STIMO256



**2022 V1**

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## STIMO Series Miniature Thermal Modules

The wafer-level package infrared module integrates wafer-level optical lens, wafer-level package detector, and basic imaging processing circuit to achieve accurate temperature data and sharp images for each pixel in the full frame, enabling easy integration into mobile terminals or smart devices, especially innovative products with strict requirements on cost, size and weight.

### ✓ Low cost, fast integration

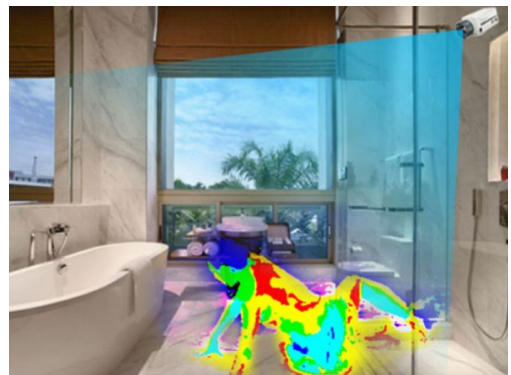
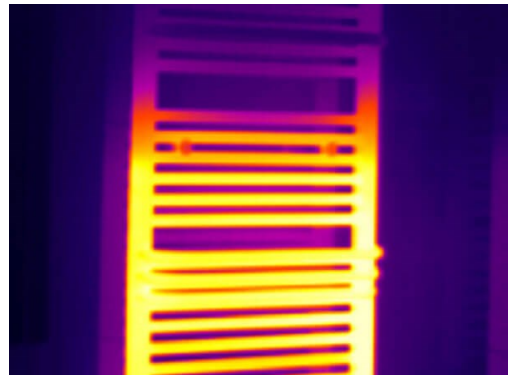
- Minimum WLP infrared module, dimension at 8.5 x 8.5 x 9.16mm.
- DVP interface, compatible with various embedded platforms.
- Visible camera module equivalent, direct integration.
- Complete SDK development kit.

### ✓ Extend longer operating time

- Low-power design, lowest to 9mW.

## Applications

STIMO series thermal imaging cores have been widely used in the consumer electronics market. It's easier for STIMO infrared thermal imaging core to be integrated into more terminal products and greatly reduces the cost of customers.



## STIMO120 - STIMO Series 120x90 VOx Uncooled Thermal Module

STIMO120 is one of the STIMO series miniature infrared modules offered by SIMTRUM. It integrates an optical lens, 120x90@17 $\mu$ m wafer level package (WLP) detector and basic image processing circuit to quickly obtain thermal images of the target area and heat distribution.

STIMO120 thermal imaging core is oriented for small size, light weight & low price (SWaP) infrared imaging applications. Its super miniature structure and ultralow power consumption are convenient to be integrated into various smart devices, thermal imagers or mobile terminals with strict requirements on cost, size and weight.

### Feature

- DVP Interface, compatible with various embedded platforms;
- Visible camera module equivalent, directly integration;
- Minimum WLP infrared module; size: 8.5x8.5x9.16mm;
- Provide software development kit
- Ultra-low power consumption, as low as 10mW



### Specifications

Model	STIMO-120
<b>IR Detector Performance</b>	
Resolution	120x90
Pixel Pitch	17 $\mu$ m
Spectral Range	8~14 $\mu$ m
NETD	$\leq$ 60mk
Lens Type	WLO
Focus	Fixed Zoom
Field of View	90° /50°
Depth of Field	10cm to infinity
Output Image Frame Rate & Resolution	1~30Hz
<b>Temperature measurement</b>	
Temperature Range	-20°C ~ +120°
Temperature Accuracy	Customizable
<b>Interface Control</b>	
AVDD	3.6V $\pm$ 0.05V
VSK/VDET	4.7V $\pm$ 0.05V
DVDD	1.8V $\pm$ 0.05V
Interface	Digital Interface
Power Consumption	45mW(Typical Mode); 9mW (low power mode)
<b>Physical Characteristics</b>	
Dimension(mm)	12x10x5.48(HFOV=90 degrees) 8.5x8.5x9.16(HFOV= 50 degrees) (The specification shall prevail)
Operation temperature	-20°C ~ +60°
Storage temperature	-40°C ~ +85°

## STIMO256 – STIMO Series 256x192 Vox Uncooled Thermal Module

STIMO256 is one of the STIMO series miniature infrared modules offered by SIMTRUM. It integrates 256×192 wafer-level-packaging infrared detector, wafer-level optical lens, micro solenoid valve shutter and supports 25°/50° field of view.

STIMO256 infrared camera module is oriented for small size, lightweight & low price (SWaP) infrared thermal imaging applications but still requires better image quality. Its super miniature structure and ultralow power consumption are convenient to be integrated into various inspection tools, security monitoring cameras or handheld infrared thermal imagers with strict requirements on cost, size and weight.

### Feature

- Equipped with high-precision PM motor and the thinnest solenoid valve shutter;
- Realize the function of near-far focal adjustment and autofocus temperature measurement;
- High accuracy, customizable temperature measurement range
- Special software development kit, support cross-platform and rich features



### Specifications

Model	STIMO-256
<b>IR Detector Performance</b>	
Resolution	256x192
Pixel Pitch	12μm
Spectral Range	8~14μm
NETD	≤45mk
Lens Type	WLO
Focus	Fixed Zoom
Field of View	53° ±1°
Depth of Field	10cm to infinity
Output Image Frame Rate & Resolution	1~30Hz
<b>Temperature measurement</b>	
Temperature Range	-20°C ~ +120°
Temperature Accuracy	Customizable
<b>Interface Control</b>	
AVDD	3.6V±0.05V
VSK/VDET	5V±0.05V
DVDD	1.8V±0.05V
Interface	Digital Interface
Power Consumption	70mW
<b>Physical Characteristics</b>	
Dimension(mm)	15x13x6.83
Operation temperature	-20°C ~ +60°
Storage temperature	-40°C ~ +85°