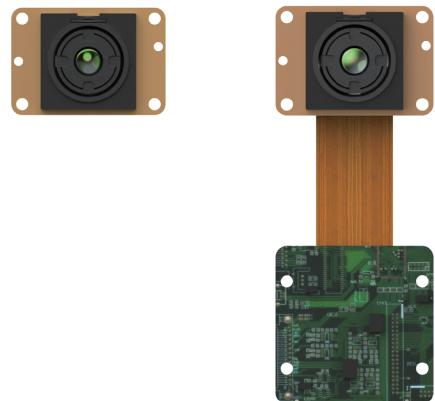


Turing C256 Uncooled Infrared Module

Turing C256 uncooled infrared module, adopting an advanced 256×192 wafer detector, features compact dimensions, lightweight design, and low power consumption, meeting the SWaP³ design requirements. The split assembly makes it more flexible to use. It comes with multiple auxiliary development tools that support multiple ARM architecture SOC platforms, ensuring ease of use and integration. It also supports the simultaneous output of images and temperature values with a variety of lightweight infrared lenses and extension components. As the best choice for low-cost solutions, this product series can be used in many scenarios such as industry, power, security protection, and machine vision.



Product Highlights

Low-Cost Solution

- It adopts the 256×192 WLP detector and weighs only 3.5g with a 3.2mm lens.
- It supports multiple ARM architecture SOC platforms, capable of directly processing sensor data.



Easy Development

- It is compatible with various mainstream embedded SOC platforms and can optimize the image effect of ISP.
- It provides multiple SDK development interfaces for rapid secondary development.



Multiple Selections

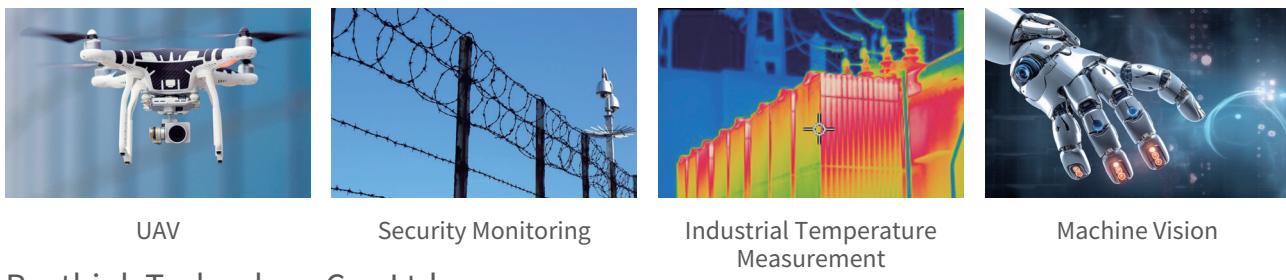
- The FOV varies from 20° to 90° and the extension supports multiple protocols such as DVP, MIPI, and analog video.
- The split design is convenient for integration and development, supporting applications in multiple areas such as consumer, intelligence, security, and industrial sectors.



Specifications

Model	Turing C256
Performance Characteristics	
Detector Type	Uncooled VOx infrared detector
Resolution	256×192
Pixel Pitch	12μm
Frame Rate	25Hz
Spectral Band	8~14μm
NETD	≤50mK@25°C (≤40mK, optional)
Image Adjustment	
Brightness/Contrast Adjustment	Manual/Automatic
Polarity	Black-hot/White-hot
Palette	Support multiple types
Reticule	Display/Blank/Move
Image Processing	digital filtering noise reduction, and digital detail enhancement
Mirror Image	Horizontal/Vertical/Diagonal
Power Supply	
Power Supply Range	3.8V~5.2V
Power Consumption (Typical, @25°C, Without Extension)	≤0.35W
Interface	
Digital Video	CDS2/CDS3/LVCMOS
Serial Communication Interface	UART
Extension Components	Analog Video
Interface/Supporting	
Direct Drive Solution	Compatible with SOC platforms such as HIS13516, HIS13519, NT98528, AR9201, AR9341, and CV28M33
Temperature Measurement Characteristics	
Temperature Measurement Range	For temperature measurement series, -20°C~+550°C
Measurement Accuracy	For temperature measurement series, ±3°C or ±3% at ambient temperature of -20°C~+60°C
Physical Characteristics	
Dimensions (Without Lens and Extension Components)	21×14.6mm
Weight (3.2mm, Without Extension Components)	≤3.5g
Lens	2mm, 3.2mm, 7mm, 10mm, and 13mm
Environment Adaptability	
Operating Temperature	-20°C~+60°C
Storage Temperature	-45°C~+85°C
Humidity	5~95%, non-condensing
Product Certification	RoHS2.0

Applications



UAV

Security Monitoring

Industrial Temperature Measurement

Machine Vision

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The information is for illustrative purposes only. The pictures and technical specifications are subject to change without notice. Sample No.: O2024-Turing C256-2P001