

Mini212 Miniature Thermal Module

Accelerate the Popularization of
Infrared Technology
in Emerging Fields



Description

MINI212 uncooled miniature thermal module is developed by GSTiR based on TIMO256 thermal module. It has small size, low power consumption, low cost, and multi-view configurations. With various universal control interfaces, MINI212 thermal module can be used in a variety of industry applications and output temperature and images directly, allowing integrators to integrate and develop their own products more efficiently and simply.

Meeting Low-cost Requirements

- Utilizing self-developed 256x192/12 μ m wafer-level-package infrared detector
- Next-generation image algorithms for clearer imaging: NUC/3DNR/DNS/DRC/EE/SFFC etc.
- Temperature measurement range: -20 $^{\circ}$ C ~ 150 $^{\circ}$ C , 100 $^{\circ}$ C ~ 550 $^{\circ}$ C

Ultra-compact Structure Design

- Size 17mmx17mm (With PCBA) for more compact integration
- Lightweight as low as 3.8g, achieving up to IP67 with the complete system

Rapid System Integration

- Providing Windows/Linux/ARM SDK
- RAW/YUV/BT656 digital video output

Specifications



Model	MINI212							
Resolution	256×192							
Pixel Size	12μm							
Spectral Response	8~14μm							
NETD	≤50mK							
Output Data	14bit Raw							
Frame Rate	Thermography: 25Hz				Night Vision: Max 50Hz			
Focusing Method	Manual Focus	Focus Free				Electric Focus		
Lens (HFOV/FL)	13°/13mm	17.5°/10mm	25°/ 7mm	56°/ 3.2mm	90°/ 2.1mm	17.5°/10mm	25°/ 7mm	56°/ 3.2mm
Weight (g)	20	8.5	6.9	3.8	8.8	10.9	7.8	6.8
PCBA size (mm)	17×17							
Digital Video Interface	USB2.0 / DVP / BT.656 / LVDS / SPI / MIPI / Network Port / USB3.0							
Working Voltage	3.3V±0.1V							
Typical Power Consumption	300mW							
Temperature Measurement Range	-20°C~+550°C (-20°C~+150°C +100°C~550°C)							
Temperature Measurement Accuracy	Greater of ±2°C / ±2%							
Working Temperature	-20°C~+60°C				-10°C~+60°C			
Humidity	5%~85% (Non-condensing)							
Storage Temperature	-40°C~+85°C							
Certification	RoHS 2.0							

Specifications are subject to change without prior notice

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