

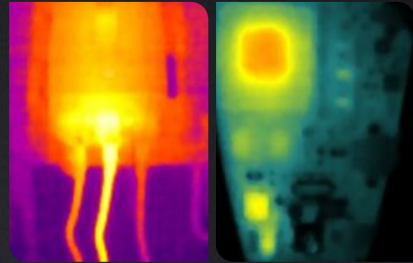
TIMO Series

Thermal Imaging Module

Boost Infrared Application of Consumer Electronics Market

Introduce

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.



Features and Benefits

Low cost, fast integration

- Minimum WLP infrared module, dimension at 8.5X8.5X9.16mm
- DVP Interface, compatible with various embedded platforms
- Visible camera module equivalent, directly integration
- Complete SDK development kit

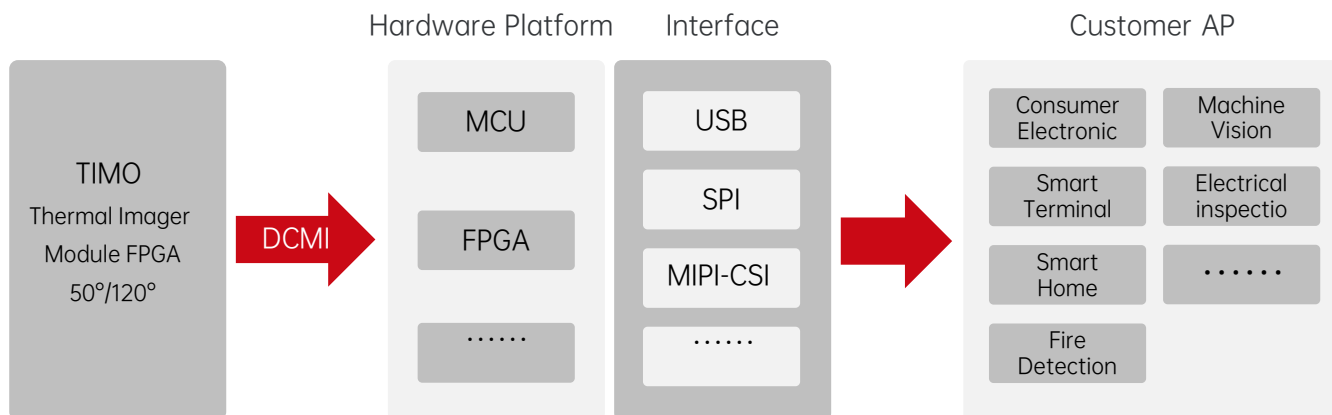
Extend longer operating time

- Low-power design, lowest to 10mW

Application

- Smart Home
- Intelligent Hardware Devices
- Machine Vision
- Internet of Things





Specifications

| Model | TIMO120 | TIMO256 |
|---|---|---|
| Imaging and optics | | |
| Detector type | WLP VOx | |
| Infrared resolution | 120 × 90 | 256 × 192 |
| Pixel Pitch | 17 μm | 12 μm |
| Wavelength range | 8 to 14 μm | |
| Field angle | 50°±1°/ 90°±5° | 56°±1° |
| NETD | ≤60 mK | ≤50 mK |
| Infrared frame rate | 25 Hz (Customizable, 1-30 Hz) | |
| Focusing mode | Focus-free | |
| Measurement and analysis | | |
| Measurement range | Industrial measurement: -20°C to 150°C, 100°C to 400°C (automatic switching) ; Human body: 20 °C to 50 °C (accurate temperature measuring range: 28-40°C) | Industrial measurement: -20°C to 150°C, 100°C to 550°C (automatic switching) ; Human body: 20 °C to 50 °C (accurate temperature measuring range: 28-40°C) |
| Measurement accuracy | Industrial measurement: ±2°C or ±2%, whichever is greater; Human body: ±0.5°C | |
| Data format and interface | | |
| External interface | 50°: 34 PIN; 90°: 40 PIN | 40 PIN |
| Data format | DVP | |
| Power supply and power consumption | | |
| Voltage | 3.3V ± 10% | |
| Typical power consumption | 45 mW @25 Hz, 16 mW @9 Hz, 10 mW @ below 4 Hz | ≤85 mW |
| Software kit | | |
| SDK | Android/ Linux/ Windows | |
| Environmental parameters | | |
| Working temperature | -20°C to 60°C | |
| Storage temperature | -40°C to 85°C | |
| Certification | RoHS | |
| Physical parameters | | |
| Weight | ≤2 g | ≤2.2 g |
| Size (L × W × H) | 50°: 8.5mm × 8.5mm × 9.16mm; 90°: 12mm × 10mm × 5.58mm | 15mm × 13mm × 6.95mm |



TIMO120



TIMO256

