

# MTP31-B



## Infrared temperature sensor module

The MTP31 infrared temperature measurement modules integrates the MEMS thermopile sensor developed by Mfrontier Advanced. The temperature measurement range can be accurate to within 0.1. The perfect combination of the core intelligent algorithm and the temperaturecalibrated low-power MCU greatly ensures remote control. Accuracy of distance temperature measurements. The MTP31 infrared temperature measurement module supports UART and IIC digital output, which facilitates customers to quickly and conveniently integrate into terminal products, which can greatly improve the efficiency of terminal product development.

Medical instruments



Thermometry detection



Power detection



Smart home appliances



Industrial applications



Smart building



## Features

- Non-contact temperature measurement, high sensitivity
- Core intelligent algorithm, accuracy up to 0.2°C
- Built-in DSP real-time calculation, real-time calibration
- Ultra-low power consumption <2mA, extending the battery life of end products

## Products parameters

|                                     |   |
|-------------------------------------|---|
| Measurement range                   | Body temperature mode 32~42.5 °C, object surface mode 0~300 °C        |
| Accuracy                            | ±0.3 for body temperature mode, ±1 or ±1% m.v for object surface mode |
| Digital resolution                  | 0.1 °C  |
| Measurement period                  | 0.5 s   |
| Supply voltage                      | 4.5~5.5 V   |
| Working current                     | < 2 mA  |
| Output signal                       | UART  |
| Communication level                 | TTL 3.3 V   |
| Temperature compensation            | 10.0~40.0 °C  |
| Field of view (50% signal strength) | 5°  |
| Spectral response                   | 5.5~14 μm   |
| Remote temperature measurement      | 10:1  |
| Working temperature                 | 0~50 °C   |
| Working humidity                    | 0~95%RH (non condensation)  |
| Size                                | 35*26*30 (L*W*H)  |

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