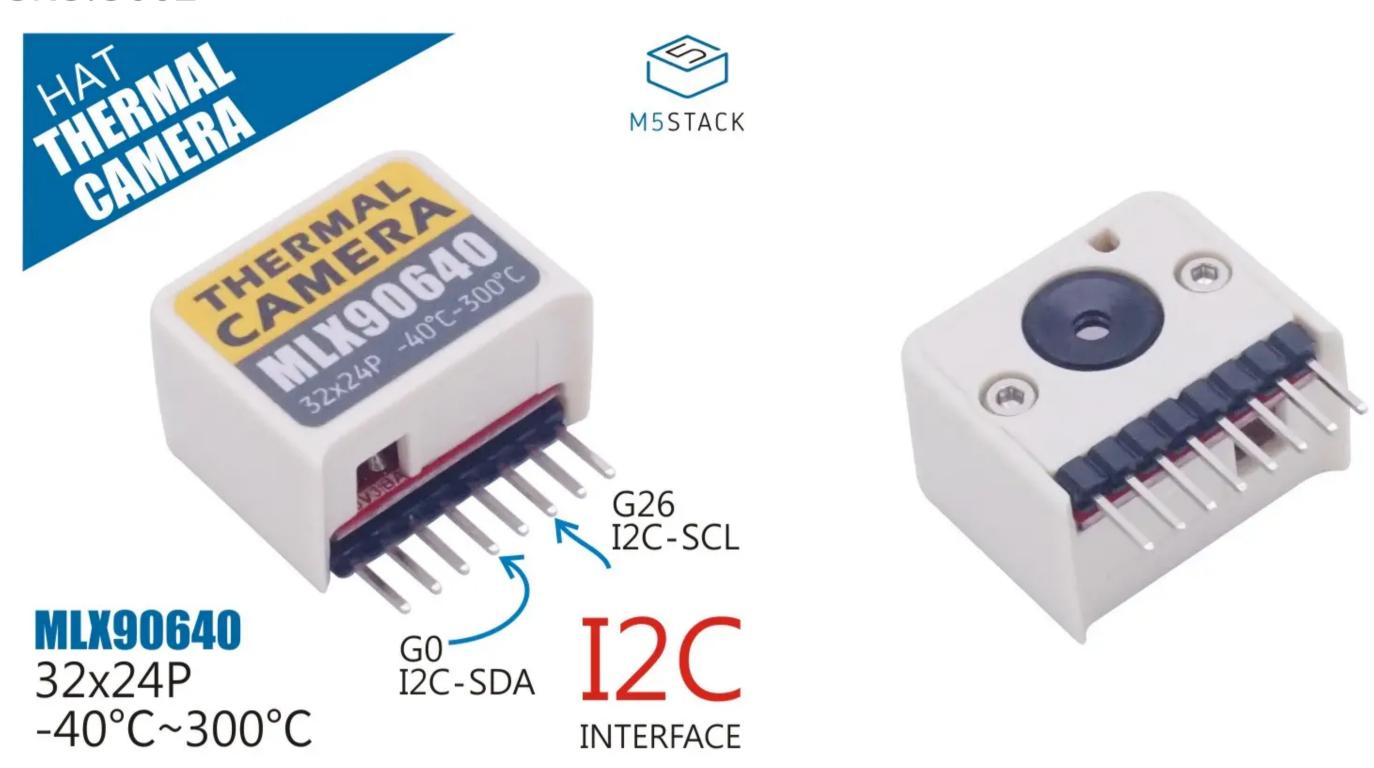
THERMAL HAT

SKU:U062

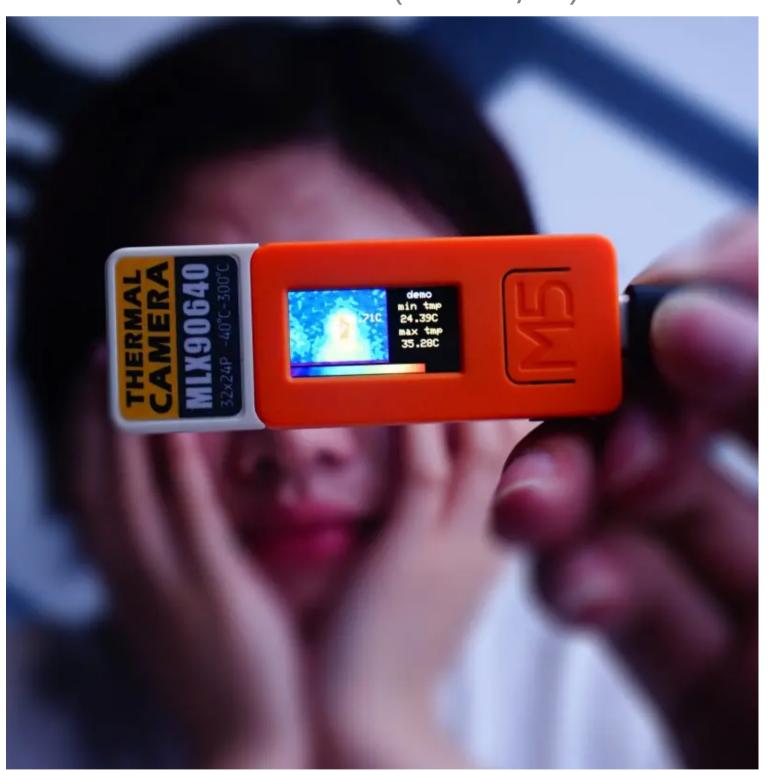


Description

THERMAL HAT is an M5StickC-compatible human infrared thermal imaging. Built-in **MLX90640** thermopile sensor that measures the surface temperature of an object and generates a thermal image through a temperature gradient formed by the surface temperature. Resolution is **32 x 24**)

MLX90640 Infrared (IR) sensor arrays offer high resolution and the ability to work reliably in harsh environments. Compared to expensive highend thermal imaging cameras, Hat-Thermal is a cost-effective alternative. Relatively general Micro-bolometer, the advantage of this sensor is that it does not require frequent re-calibration, thus ensuring continuity of detection and reducing system maintenance costs. The field of view provides a wide-angle version ($110^{\circ} \times 75^{\circ}$).

The I2C address is **0x33**. (GOIO 0/26)



Product Features

- Operating Voltage: 3V ~ 3.6V
- Current Consumption: 23mA
- Field of View: 110°x75°
- Measurement Range: -40°C ~ 300°C
- Resolution: ±1.5°C
- Refresh Rate: 0.5Hz-64Hz

Operating temperature: -40°C ~ 85°C

Include

1x THERMAL CAMERA HAT

Applications

- High precision non-contact temperature measurements
- Intrusion / Movement detection
- Visual IR thermometers

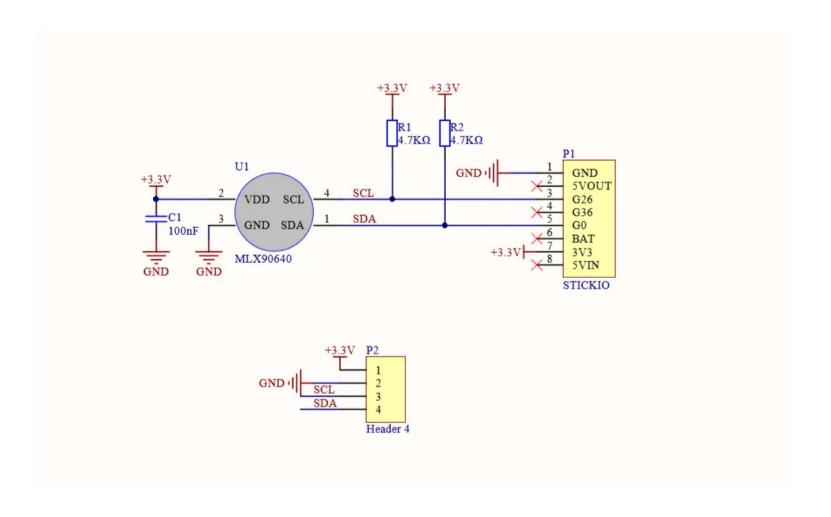
Specification

Resources	Parameter Parame
Communication protocol	I2C: 0x33
Net weight	8g
Gross weight	13g
Product Size	25*24*14m
Product Size	40*42*30mm

Pin Map

M5StickC	GPI00	GPIO26	5V	GND
HAT THERMAL	SDA	SCL	5V	GND

Schematic



Related Link

MLX90640 Datasheet

EasyLoader



download EasyLoader

1.EasyLoader is a simple and fast program burner. Every product page in EasyLoader provides a product-related case program. It can be burned to the master through simple steps, and a series of function verification can be performed.

• After downloading the software, double-click to run the application, connect the M5 device to the computer through the data cable, select the port parameters, click "Burn" to start burning. (For M5StickC burning, please Set the baud rate to 750000 or 115200)

Example

1. Arduino

Click here to download Arduino code

2. UIFlow

Click here to download the UIFlow example

```
Setup

set minT to 20

set maxT to 40

Loop

Update X 8 Y 25 show True show in center True Label label show Get min temperature

Label label show Get center temperature

Label label2 show Get max temperature

Button A wasPressed change minT by 1

Set the max visible temperature minT Set the max visible temperature maxT shows a change maxT by 1

Set the max visible temperature minT set the max visible temperature maxT set the max visible temperature max set
```

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for Thermal Imaging Cameras category:

Click to view products by M5Stack manufacturer:

Other Similar products are found below:

T-SCAN 750 FLK-100-CLKT TB-IND-T90 TR-EVO-T90-UART 63907-0804 101020893 101020894 101020895 DEV-17544 TR-EVO-T33 TR-EVO-T33-USB TR-EVO-T90 TR-EVO-T90-USB