

AT-128

AI Dual-Camera Face
Detection/Temperature
Measurement Module



The AT-128 AI dual-camera face detection and temperature measurement module is built-in with dual lenses (One for face detection and the other for facial temperature measurement), which runs AiGOAL deep learning software to execute real-time face detection and measure human forehead temperature. The temperature accuracy is 0.5°C and the thermal sensitivity is 0.050°C < 50mK; The face detection response time is less than 0.5 seconds; and the effective detection distance can up to 1 meter. The hardware of AT-128 is equipped with NVIDIA GPU sets to support real-time face detection processing.

The temperature measurement of AT-128 supports two modes: single-person mode and multi-person mode. The temperature alert can be easily set up via provided APIs, e.g., temperature samples exceeding 37.5°C will be alerted with red-colored bounding boxes on the screen if users set up the alert threshold as 37.5°C. from the preset fields. In addition, Optional WiFi module can be purchased to allow AT-128 to transmit sensed data wirelessly and also allow AT-128

to interfacing popular social software (e.g., LINE) to notify users of sensed data/important events in real time. Sensed data can be organized as summary report and regularly sent out to the location specified by users for extended uses.

AT-128 can be integrated with QR Code scanning procedure by displaying/generating QR codes on the screen for certain applications and events. For example, this allows for quick personal check-in to an office or a public venue. Other applications such as online COVID-19 health declaration form can also be integrated with AT-128.

Key Features and Benefits

Intelligent Face Temperature Measurement

AT-128 adapts FLIR Lepton® Thermal Camera as its thermal imager. The FLIR Lepton® is a radiometric-capable LWIR camera solution. Using focal plane arrays of 80x60 active pixels, Lepton integrates into native mobile-devices and other electronics as an IR sensor or thermal imager. The radiometric Lepton captures accurate, calibrated, and noncontact temperature data in every pixel of each image.

AT-128 runs EstiNet's AiGOAL deep learning AI models, which can achieve high-performance face detection with/without the existence of facial masks. The face detection results are combined with the output of thermal imager to display accurate temperatures of people. AT-128 supports both single-person detection mode and multi-people detection mode.

The output of facial temperature measurements can be transmitted out via optional wireless module for further extended use.

QR Code Display Function

The QR Code display function supports display or generation of QR codes on the linked screen. The QR codes can contain a link to a website/video for extended applications.

Message/Video Display

By using optional screen display module with larger display area, AT-128 allows clients to show more visual information on extra display areas. Display modes include images, video carousel (HDMI interface, file size less than 1GB), text/image advertisement, etc. The extra display function can also be used as posters to announce news, activities, daily meeting schedule, welcome messages, etc.

Product Specifications

System

- GPU: 128-core Maxwell
- CPU : Quad-core ARM A57 @1.43GHzl
- Memory: 4GB 64-bit LPDDR4 25.6 GB/s
- Storage: microSD
- I/O
 - Display HDMI 2.0 *1
 - USB 3.0 *4
 - USB 2.0 Micro-B
 - GPIO, I²C, I²S, SPI, UART
- Ethernet
 - Gigabit Ethernet

Settings

- Parameters:
 - Fever Temp. 1920x1200
 - Min Temp. of human body 1920x1080
 - Max Temp. of human body 1920x1050
 - Offset Temp. 1680x1050
 - Ambient Temp. 1600x900
 - Emissivity 1280x1024
- QRCode 1280x800
- Files: 1280x720
 - Title Picture 1152x864
 - Demo Picture 1024x768
- LINE Notify: 832x624
 - Access token 800x600
 - Alarm notify 720x576
 - Alarm notify interval 720x480
 - Daily notify 720x400
 - Daily notify time 640x480
- Display:
 - Screen resolution:
 - 1920x1200
 - 1920x1080
 - 1680x1050
 - 1600x900
 - 1280x1024
 - 1280x800
 - 1280x720
 - 1152x864
 - 1024x768
 - 832x624
 - Screen rotation:
 - Normal, Counterclockwise
 - Invert, Clockwise

Camera

- Thermal Imager : FLIR Lepton® Thermal Camera
- Camera operating temperature range: -10°C to + 80°C
- Face Detection Camera : 8 Megapixels, Resolution : 3280 × 2464

Suggested Power Adapter

- AC/DC Adapter w/ DC Barrel Connector, 20 Watt
- Input: AC 100~240V
- Output: DC 5V 4A

Wi-Fi dongle (Available Vendor List)

- TP-Link [Archer T2U Nano](#) (USB dual-band AC600 WiFi dongle)
- TP-Link [Archer T2U Plus](#) (USB dual-band AC600 WiFi adapter with high-gain antenna)
- TP-Link [TL-WN722N](#) (USB 802.11n 150Mbps WiFi adapter with high-gain antenna)
- Linksys [WUSB6300](#) (USB dual-band AC1200 WiFi dongle)
- Geekworm [Dual Band Wireless USB 3.0 Wi-Fi Adapter](#) (USB3 WiFi dongle and SMA antenna)

Ordering Information

Product Name	Q'ty(pcs)
AT-128	≤ 100
	500
	1000
	10000

- For pricing ,delivery and more information, please contact us:

AiGOAL_slas@estinet.com

Power Button

Face Detection Camera

Thermal Imager

Power Input

Ethernet Interface

HDMI Port

USB Port

Single-person Mode Temperature Measurement



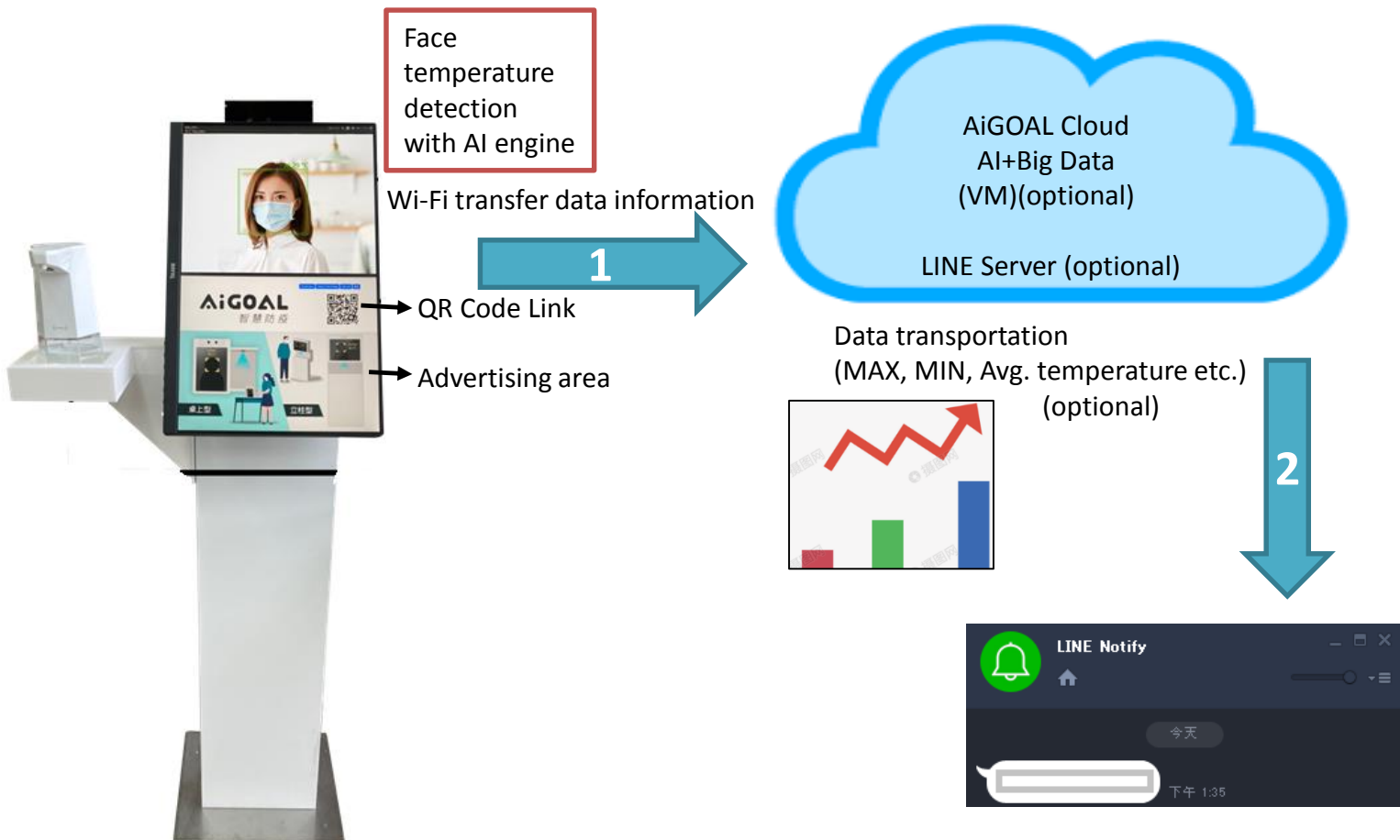
Temperature under 37.5 °C

Warning: Temperature exceeding 37.5 °C (or other preset threshold)

Multi-people Mode Temperature Measurement



AiGOAL Intelligent Face Temperature Measurement System



AiGOAL

AT-128

智慧雙鏡頭人臉偵測與
體溫量測模組



AT-128 AI雙鏡頭臉部偵測和溫度測量模組內置雙鏡頭（一個用於臉部偵測，另一個用於臉部溫度測量），該模組運行AiGOAL深度學習軟體以執行即時臉部偵測和測量人的額溫。溫度量測的準確性為 0.5°C ，熱靈敏度為 $0.050^{\circ}\text{C} < 50\text{mK}$ ；人臉檢測回應時間小於0.5秒；有效測量距離可達1公尺。AT-128的硬體配備了NVIDIA GPU，以支援即時臉部偵測處理。

AT-128的溫度測量支援兩種模式：單人模式和多人模式。可以透過提供的API輕鬆設置溫度警報，例如，如果用戶將警報值設置為 37.5°C ，則超過 37.5°C 的溫度將在螢幕上用紅色邊框警告。此外，

可以選購WiFi模組，用來讓AT-128進行無線數據傳輸，與使用社交軟體（例如LINE）來即時通知用戶偵測到的數據/重要事件。偵測到的數據可以統整為摘要報告，並定期發送到用戶指定的位置以供使用。

通過在螢幕上顯示/生成某些應用程序和事件的QR Code，AT-128可置放QR Code掃描程式。例如，在辦公室或公共場所允許快速地個人簽到作業。其他應用程式（例如線上之COVID-19健康聲明書）。

主要特色和優點

智慧人臉測溫

AT-128使用FLIRLepton[®]為其熱像儀。FLIRLepton[®]是具有輻射功能的LWIR攝像機解決方案。Lepton使用 80×60 像素的焦面陣列，可以作為IR傳感器或熱成像儀整合到本地移動設備和其他電子設備中。輻射Lepton可以在每個圖像的每個像素中獲得準確的、校準的和非接觸的溫度數據。

AT-128運行EstiNet的AiGOAL深度學習AI模型，無論是否使用面罩，該模型都可以實現高性能的人臉偵測，並與臉部偵測結果和熱成像儀的輸出相結合，以顯示準確的人體溫度。AT-128支援單人測溫模式和多人測溫模式。

臉部溫度測量結果的輸出，可以選用無線網路模組發送出去，以進階擴展其用途。

QR Code 顯示功能

QR Code顯示功能支援在連結的螢幕上顯示或生成QR Code。QR Code可以包含指定的網站/影片連結，以進行進階應用。

信息/影片顯示

若選擇使用具有更大顯示區域的螢幕，AT-128可讓客戶在額外的顯示區域上呈現更多的視覺訊息。顯示模式包括圖像、影片輪播（HDMI介面，檔案大小小於1GB）、文字/圖像廣告等。額外的顯示功能還可以當作海報來宣布新聞、活動、每日會議日程及歡迎消息等。

系統

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鏡頭

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供電

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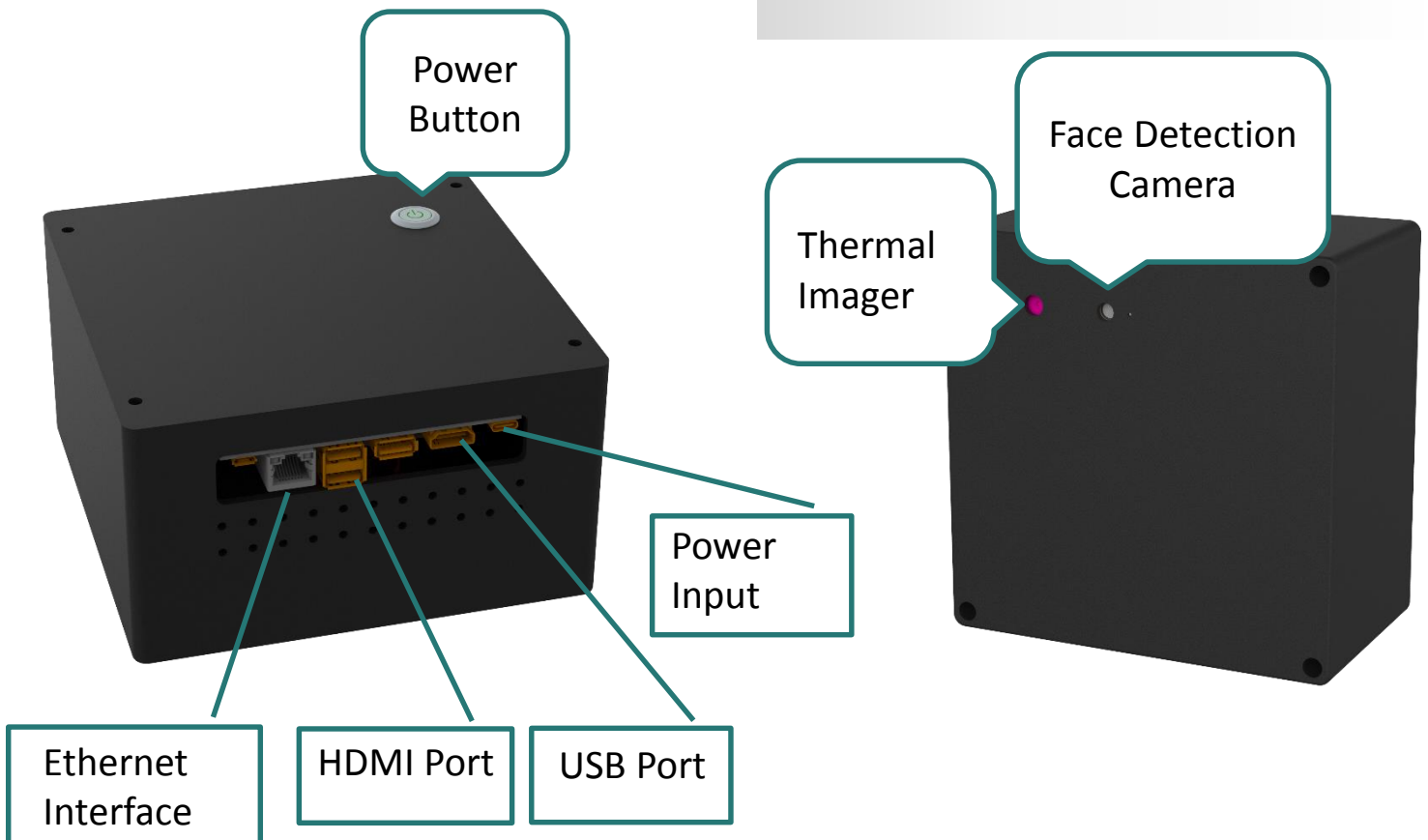
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訂購資訊

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	1000
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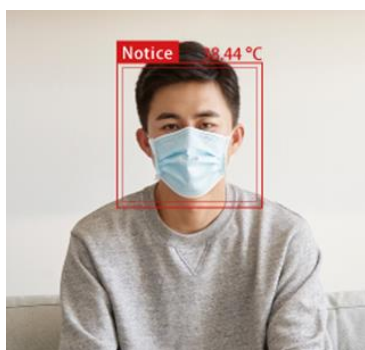
◆ 產品價格、運送方式或其他相關問題請與我們連繫: AiGOAL_slaes@estinet.com



單人模式體溫測量



體溫正常
低於 37.5 °C



警示:
體溫高於 37.5 °C
(或是其他事先預設
的溫度值)

多人模式體溫測量



AiGOAL 智慧人臉測溫系統

