



# TIM-048

## Smart Thermal Monitoring System Solution



### Features

- Turnkey solution for temperature monitoring and measurement
- Long range infrared radiation of 8µm to 14 µm
- Intuitive user interface with touchscreen and physical buttons
- Easy to use monitoring & setup utility
- Compact size for easy installation
- Ideal for condition monitoring and process monitoring

RISC Computing Platforms

### Lonewave Infrared Camera

#### Wireless

Wi-Fi	IEEE 802.11 a/b/g/n
Antenna	Built-in dual band (2.4G/5G) chip antenna

#### Camera

Camera	5 Mega pixel FF
Flash Light	LED Flashlight

#### Sensor

Array Format	80 x 60
Pixel	17µm
Effective Frame Rate	8.6Hz
Scene Dynamic Range	0°C ~ 120°C
Radiometric Accuracy	±5°C
Field of View	51° (H), 63.5° (D)

#### I/O Interface & Button

USB Port	micro USB connector for debug (internal)
Power Jack	1 x 3-pin M8 power jack (IP67)
LED	3-color LED; Pair, Link, Activity

#### Power

Power Input	5V/2A
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#### Mechanical

Net Weight	150 g
Dimensions (H x W x D)	89.9 x 64.24 x 27.27 mm 105.9 x 99.3 x 44.2 mm w/ stand

### Control HMI

#### Wireless

CPU	ARM Quad-core Cortex-A35
OS	Android 8.1, (BTO service for Buildroot)
Memory	2GB DDR4 memory soldered on board
Flash	16GB eMMC flash soldered on board

### Peripherals and Devices

Front Camera	1 x 8MP resolution CMOS MIPI-CSI Type AF camera module
Audio	1 x built-in speaker (1W) 1 x built-in microphone

#### Wireless

WWAN	WCDMA / LTE, Mini PCIE interface (optional)
WLAN	IEEE 802.11 a/b/g/n/ac
Bluetooth	Bluetooth 4.2, low power BLE
NFC	1 x 13.56MHz RFID & NFC reader with ISO 14443A/14443B/15693 & mifare
GPS	Supporting GPS / Galileo / Glonass / BeiDou / QZSS (optional)

#### I/O Interface

SD Card	1 x microSDHC/microSDXC/ microSD (Max. 128GB) card socket
USB	2 x USB 2.0 Type-A port; 1 x micro USB 2.0
Speaker	1 x 8Ω/1W
DB9 Interface	1 x RS-232/422/485 COM port; 1 x RS-232 COM port
LAN	1 x RJ-45 Ethernet, 10/100Mbps
CAN	OBD-II
DIO	3 x DI, 3x DO (dry contract)
Expansion	Mini PCIE interface (USB signal only)

#### LCD Display

Size/Type	8" TFT LCD
Resolution	1024 x 600
Brightness (cd/m <sup>2</sup> )	500 cd/m <sup>2</sup>

#### Power Input

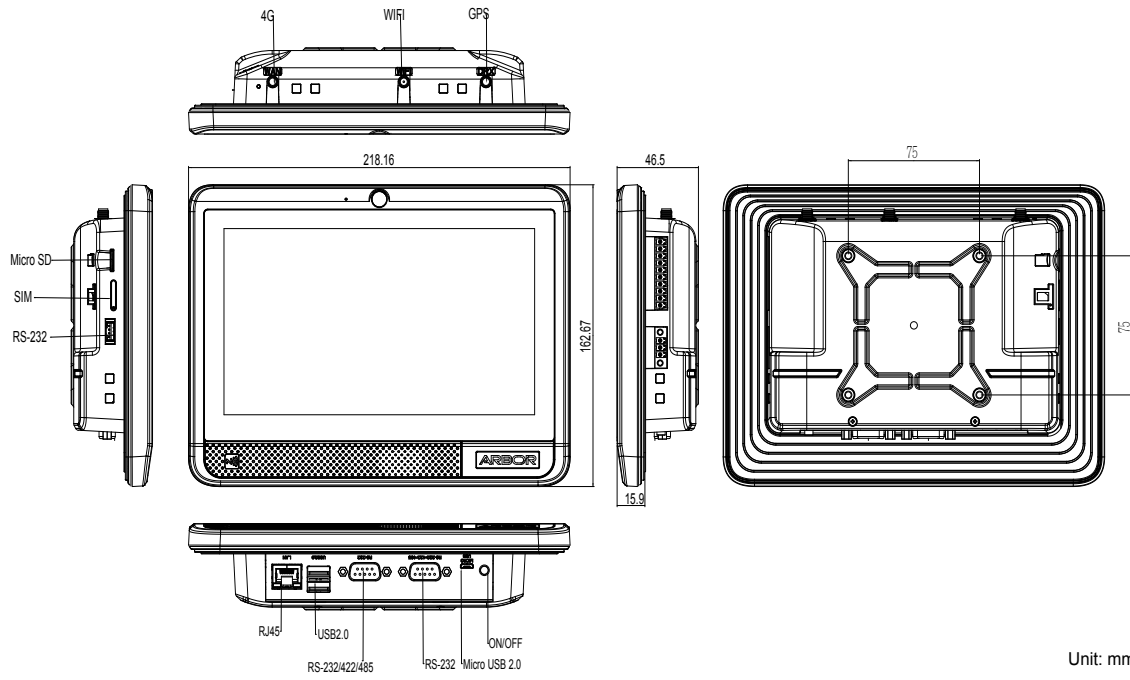
Power Input	Built-in ignition detection
DC Input	3-pin terminal block 9V~36V auto-detection

#### Mechanical & Environmental

Operating Temp.	-20°C ~ 70°C (-4°F~158°F)
Storage Temp.	-20°C ~ 70°C (-4°F~158°F)
Operating Humidity	5~90% RH@ 50°C (non-condensing)
Dimensions (W x H x D)	218.16 x 162.67 x 46.5mm (W x H x D)
Weight	940g (2.07lb)



## Dimensions



Unit: mm

## Assured Systems

Assured Systems is a leading technology company with over 1,500 regular clients in 80 countries, deploying over 85,000 systems to a diverse customer base in 12 years of business. We offer high-quality and innovative rugged computing, display, networking and data collection solutions to the embedded, industrial, and digital-out-of-home market sectors.

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