

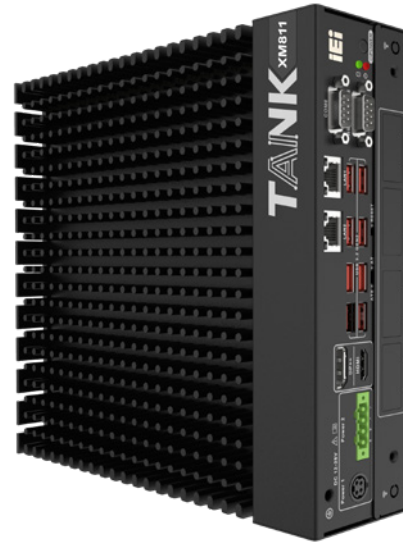
# TANK-XM811

- High-Performance 12<sup>th</sup>/13<sup>th</sup> Generation Intel® Core™ Processor
- Fanless Embedded Computer



## Features

- Supported CPUs:
  - Intel® Core™ i5-12500TE 1.9 GHz (up to 4.3 GHz, 6-core, 35W TDP)
  - Intel® Core™ i7-12700TE 1.4 GHz (up to 4.6 GHz, 12-core, 35W TDP)
  - Intel® Core™ i9-12900TE 1.1 GHz (up to 4.8 GHz, 16-core, 35W TDP)
- 2 x 2.5G Ethernet ports
- Multiple USB ports and serial ports
- Multiple internal expansion boards for flexible selection
- Various optional backplanes and chassis
- CE/FCC compliant



## Specifications

| Model Name            |                         | TANK-XM811   |
|-----------------------|-------------------------|--|
| Chassis               | Color                   | Black C  |
|                       | Dimensions (WxDxH) (mm) | 230.6 x 256.04 x 76.2  |
|                       | System Fan              | Fanless  |
|                       | Chassis Construction    | Extruded aluminum alloys   |
| Motherboard           | CPU                     | 12 <sup>th</sup> /13 <sup>th</sup> Gen Intel® Core™ CPU 35/65W TDP<br>Intel® Core™ i5-12500TE 1.9 GHz (up to 4.3 GHz, 6-core, 35W TDP)<br>Intel® Core™ i7-12700TE 1.4 GHz (up to 4.6 GHz, 12-core, 35W TDP)<br>Intel® Core™ i9-12900TE 1.1 GHz (up to 4.8 GHz, 16-core, 35W TDP) |
|                       | Chipset                 | R680E  |
|                       | Memory                  | 2 x SO-DIMM DDR4 3200 (8GB pre-installed) (up to 64GB)   |
|                       | Storage                 | HDD Bay  |
| I/O Interfaces        | Ethernet                | 2 x RJ-45, 1 x I225V & 1 x I225-LM 2.5GbE  |
|                       | USB 3.2 Gen 2 (10Gb/s)  | 8  |
|                       | COM                     | 2 x RS-232/422/485, 4 x RS-232   |
|                       | Digital I/O             | 12-bit (6-in/6-out) DB15   |
|                       | Display Interface       | 1 x DP++, 1 x HDMI   |
| Internal Expansions   | M.2                     | 1 x 2280 M-key (PCIe Gen4 x4)<br>1 x 2230 A-key (USB+PCIe Gen3 x1, supports vPRO)  |
|                       | Expansion Backplane     | Optional   |
|                       | Power                   | Power Input  |
| Power                 | Remote Power            | 1 x 2-pin  |
|                       | Power Consumption       | 12V @ 8.8A (Intel® Core™ i9-12900TE with 16GB memory)  |
|                       | Reliability             | Mounting   |
| Operating Temperature |                         | -20°C ~ 60°C with air flow (CPU TDP35W &SSD)<br>-20°C ~ 50°C with air flow (CPU TDP65W &SSD), 10% ~ 95% non-condensing   |
| Storage Temperature   |                         | -40°C ~ 85°C, 10% ~ 95%, non-condensing  |
| Operating Shock       |                         | Half-sine wave shock 5G, 11ms, 100 shocks per axis (SSD)   |
| Operating Vibration   |                         | MIL-STD-810G 514.6C-1 (with SSD)   |
| Weight (Net/Gross)    |                         | 3.33/3.7 kg  |
| Safety / EMC          |                         | CE, FCC, UKCA  |
| Watchdog Timer        |                         | Programmable 1 ~ 255 sec/min   |
| OS                    | Supported OS            | Windows® 10/11 IoT Enterprise/ Linux   |

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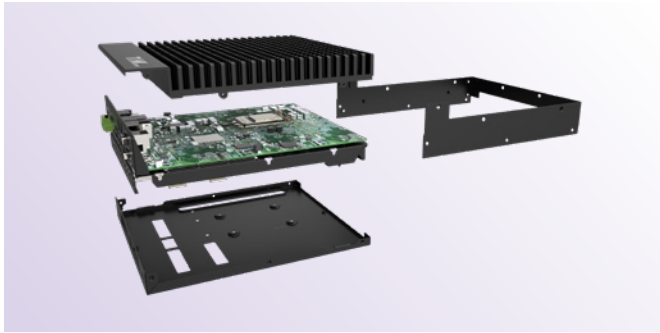
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## Modular Design, Easy to Install

The mainboard is secured to the support bracket to prevent PCB from bending or warping. The three-layer structure consisting of heat spreader, mainboard and baseboard makes it easier to install CPU, memory and HDD, compared with the former TANK series.



## Support High-performance Graphics Card

With IEI power board, it can support 3060 and other advanced graphics cards.

Maximum length of graphics card supported: 350mm

\*Specified power adapter is required.

### NVIDIA 3060

\*Support advanced graphics card



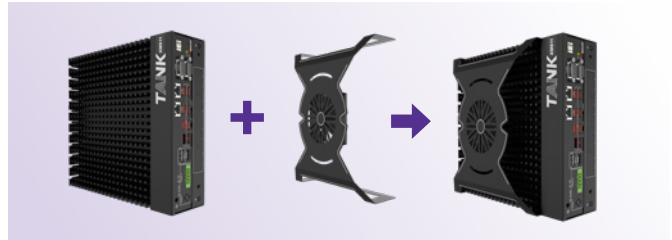
## Flexible Expansion

Different expansion requirements can be met. Dual-slot and four-slot SKUs are provided for selection. Customers can choose the type of expansion slot according to their needs.



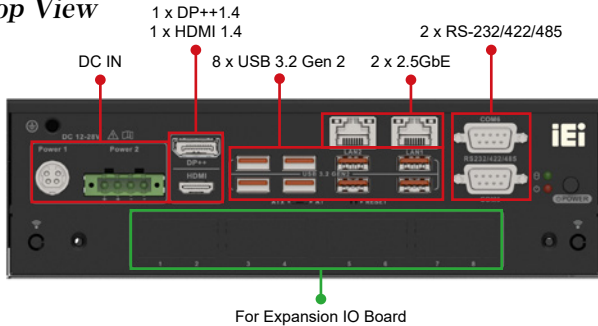
## External Fan

Installing an external fan helps to increase system performance in harsh environment.

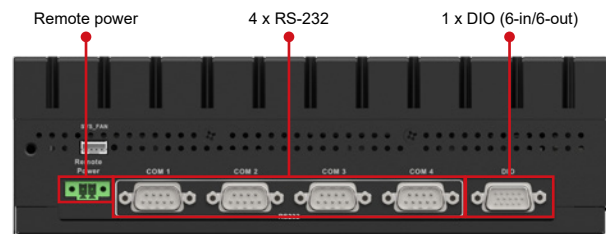


## Fully Integrated I/O

### Top View

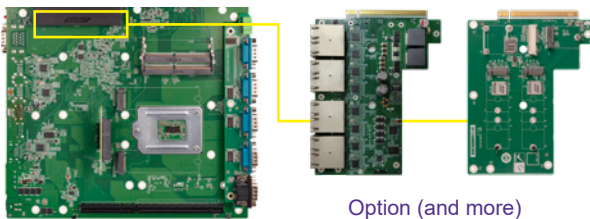


### Front View



## Modular Board Design

It supports various optional modules, such as M.2 expansion card, 8-port PoE expansion card, etc.



### Expansion IO Board

GPOE-XM81-8P-R10 I/O expansion module for TANK 81 series, 8 x 2.5G LAN with PoE

TXIOB-XM81-A-R10 I/O expansion module for TANK 81 series, 2 x M.2 B Key, 1 x M.2 A Key, 1 x PCIe Mini

## Support 35W & 65W CPU

### Operating temperature:

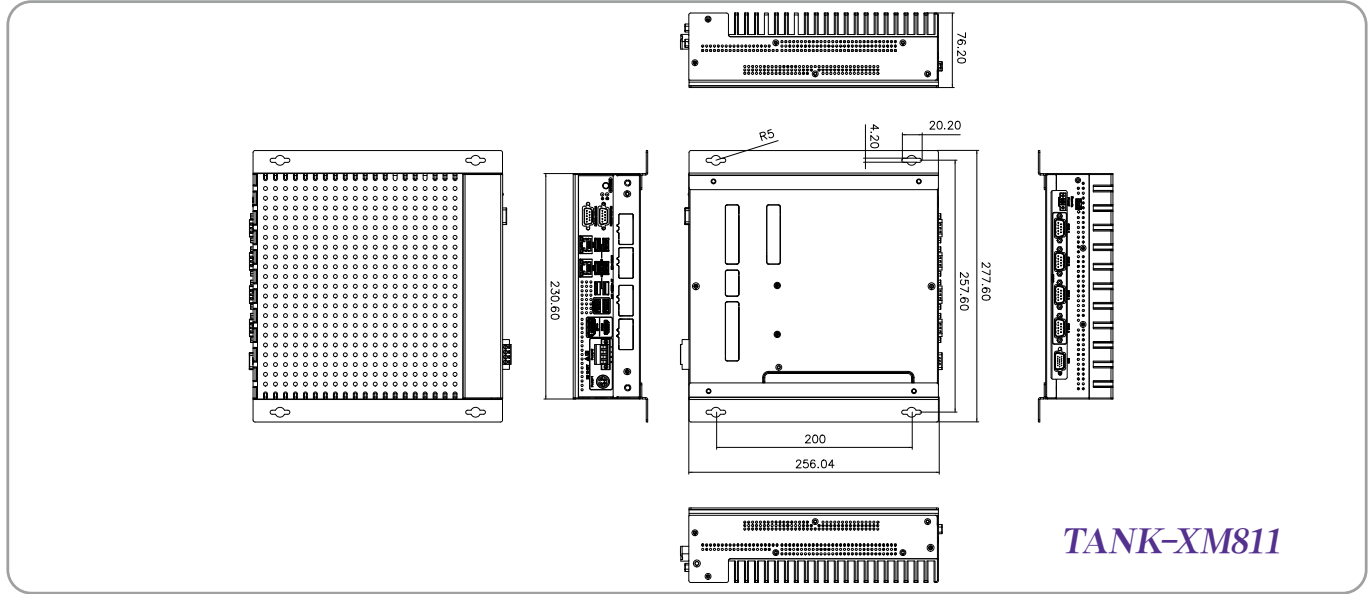
With 35w CPU (or 65W CPU PL1 & PL2, default 35W):

-20°C ~ 60°C

With 65w CPU:

-20°C ~ 50°C

## Dimensions (Unit: mm)



## Ordering Information

| Model                     | Description   |
|---------------------------|---|
| TANK-XM811-i5AC-R10       | Ruggedized Fanless Embedded System with Intel® Core™ i5, 8GB RAM, 1 x HDMI, 1 x DP++, 12~28V DC and RoHS    |
| TANK-XM811-i7AC-R10       | Ruggedized Fanless Embedded System with Intel® Core™ i7, 8GB RAM, 1 x HDMI, 1 x DP++, 12~28V DC and RoHS    |
| TANK-XM811-i9AD-R10       | Ruggedized Fanless Embedded System with Intel® Core™ i9, 16GB RAM, 1 x HDMI, 1 x DP++, 12~28V DC and RoHS   |
| TANK-XM811-W10IoT21-H-R10 | OS Image with Windows® 10 Enterprise High End 64-bit 2021 for TANK-XM811-i7 & i9 Series, with DVD-ROM, RoHS |
| TANK-XM811-W10IoT21-V-R10 | OS Image with Windows® 10 Enterprise Value 64-bit 2021 for TANK-XM811-i3 & i5 Series, with DVD-ROM, RoHS    |

## Options

| Part No.             | Description  |
|----------------------|--|
| EMB-WIFI-KIT02I3-R10 | 2T2R M.2 wifi module kit for embedded system, IEEE802.11a/b/g/n/ac/ax, 1 x M.2 AE Key Wireless LAN & Bluetooth 5.2; Intel; AX210.NGWG Module, 2 x RF cable, 2 x Antenna; RoHS              |
| 63040-010180-200-RS  | Adapter Power; FSP; FSP180-ABAN3; 9NA1804008; Active PFC; Vin: 90~264VAC; 180W; Dim: 75.6*151.3*25.4mm; Plug=6.5mm; Cable=1500mm; Erp(NO LOAD 0.5W); Vout: 19VDC; Din 4Pin/lock; CCL; RoHS |
| 32000-000002-RS      | European power cord  |
| SF-TANK-XM81-R10     | External fan for TANK-XM81 Series  |

## Optional Expansion Backplane

| Part No.             | Description  |
|----------------------|--|
| TXCBP-XM81-2A-R10    | Expansion backplane module for TANK 81 Series, 2 slot, 1 x PCIe x16 & 1 x PCIe x4  |
| TXCBP-XM81-2B-R10    | Expansion backplane module for TANK 81 Series, 2 slot, 2 x PCIe x8   |
| TXCBP-XM81-4A-R10    | Expansion backplane module for TANK 81 Series, 4 slot, 1 x PCIe x16 & 2 x PCIe x4 & 1 x PCIe x1 w/ external power supply |
| TXCBP-XM81-4B-R10    | Expansion backplane module for TANK 81 Series, 4 slot, 2 x PCIe x8 & 2 x PCIe x4 w/ external power supply                |
| TXCBP-XM81-4C-R10    | Expansion backplane module for TANK 81 Series, 4 slot, 1 x PCIe x16 & 2 x PCI & 1 x PCIe x4                              |
| TXCBP-XM81-G2-PW-R10 | Expansion backplane module for TANK 81 Series, 6 slot, 2 x PCIe x8 & 2 x PCIe x4 w/ external power supply                |
| IDD-X1228150-R10*    | Extended Power Board for TANK-XM81 Series, 150W@16~28V or 380W@12V DC input 12V output Power Module                      |

\* For expansion cards (graphics cards, accelerator cards) that require independent power supply to provide independent power supply, it must be equipped with a Backplane with W/external power supply function.

## Optional Expansion Chassis

| Part No.        | Description                                   |
|-----------------|---|
| TXC-XM81-3S-R10 | 3-slot expansion chassis for TANK 81 Series   |
| TXC-XM81-4S-R10 | 4-slot expansion chassis for TANK 81 Series   |
| TXC-XM81-G1-R10 | One GPU expansion chassis for TANK 81 Series  |
| TXC-XM81-G2-R10 | Dual GPU expansion chassis for TANK 81 Series |

## Optional Internal Expansion Boards

| Part No.         | Description  |
|------------------|--|
| GPOE-XM81-8P-R10 | I/O expansion module for TANK 81 Series, 8 x 2.5G LAN with PoE                       |
| TXIOB-XM81-A-R10 | I/O expansion module for TANK 81 Series, 2 x M.2 B Key, 1 x M.2 A Key, 1 x PCIe Mini |

## Packing List

1 x Screw pack

2 x Terminal block

1 x Mounting bracket