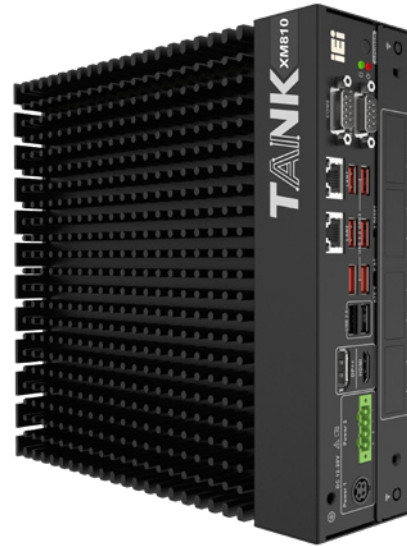


# TANK-XM810

- High-Performance 10<sup>th</sup> /11<sup>th</sup> Generation Intel® Core™ Processor
- Fanless Embedded Computer

## Features

- Supported CPUs:
  - Intel® Core™ i3-10100TE 2.3 GHz (up to 3.6 GHz, quad-core, 35W TDP)
  - Intel® Core™ i3-10320 3.8 GHz (up to 4.6 GHz, quad-core, 65W TDP)
  - Intel® Core™ i5-10500TE 2.3 GHz (up to 3.7 GHz, 6-core, 35W TDP)
  - Intel® Core™ i5-10500 3.1 GHz (up to 4.5 GHz, 6-core, 65W TDP)
  - Intel® Core™ i7-10700TE 2.0 GHz (up to 4.4 GHz, 8-core, 35W TDP)
  - Intel® Core™ i7-10700E 2.9 GHz, (up to 4.5 GHz, 8-core, 65W TDP)
- 2 x 2.5GbE ports
- Multiple USB ports and serial ports
- Multiple internal expansion boards for flexible selection
- Various optional backplanes and chassis
- CE/FCC compliant

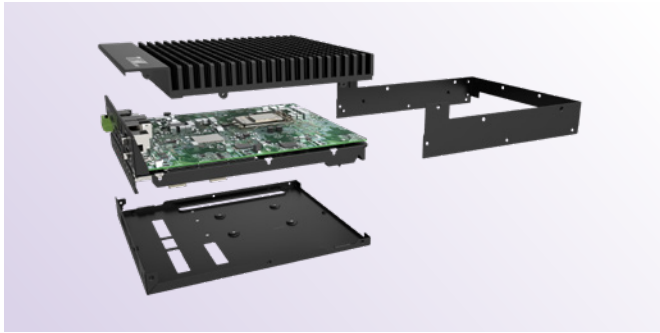


## Specifications

Model Name	TANK-XM810	
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	10/11 <sup>th</sup> Gen Intel® Core™ CPU TDP 35/65W Intel® Core™ i3-10100TE 2.3 GHz (up to 3.6 GHz, quad-core, 35W TDP) Intel® Core™ i3-10320 3.8 GHz (up to 4.6 GHz, quad-core, 65W TDP) Intel® Core™ i5-10500TE 2.3 GHz (up to 3.7 GHz, 6-core, 35W TDP) Intel® Core™ i5-10500 3.1 GHz (up to 4.5 GHz, 6-core, 65W TDP) Intel® Core™ i7-10700TE 2.0 GHz (up to 4.4 GHz, 8-core, 35W TDP) Intel® Core™ i7-10700E 2.9 GHz, (up to 4.5 GHz, 8-core, 65W TDP)
	Chipset	Q470/Q470E
	Memory	2 x SO-DIMM DDR4 3200 (8GB pre-installed) (up to 64GB)
Storage	HDD Bay	1 x 2.5" SATA 6Gb/s HDD/SSD bay
I/O Interfaces	Ethernet	2 x 2.5 GbE by Intel® I226-V(colay I226LM) controller
	USB 2.0	2
	USB 3.2 Gen 2 (10Gb/s)	6
	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	2 x 2280 M-key (PCIe Gen3 x2) bay (RAID 0/1 support)
	Expansion Backplane	Optional
Power	Power Input	12 ~ 28V DC
	Remote Power	1 x 2-pin
	Power Consumption	12V @ 8A (Intel® Core™ i9-10900TE with 8GB memory)
Reliability	Mounting	Wall mount
	Operating Temperature	-20°C ~ 60°C with air flow (CPU TDP35W & SSD) -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)	3.2/3.5 kg
	Safety / EMC	CE, FCC, UKCA
	Watchdog Timer	Programmable 1 ~ 255 sec/min
OS	Supported OS	Windows® 10/11 IoT Enterprise/ Linux

### 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



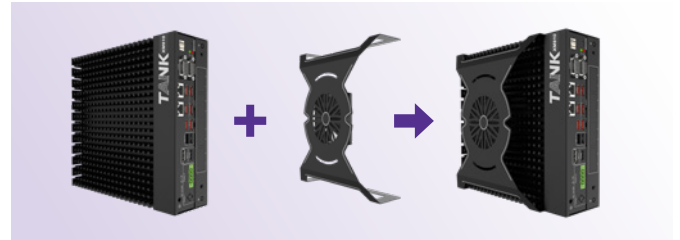
### Flexible Expansion

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.



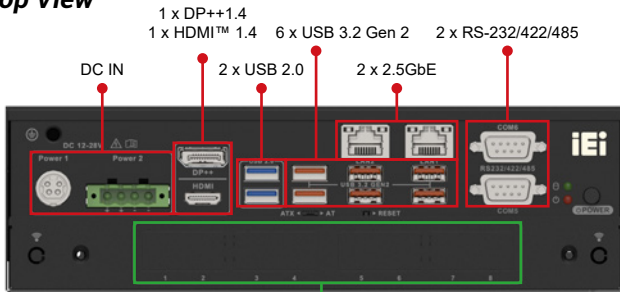
### External Fan

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



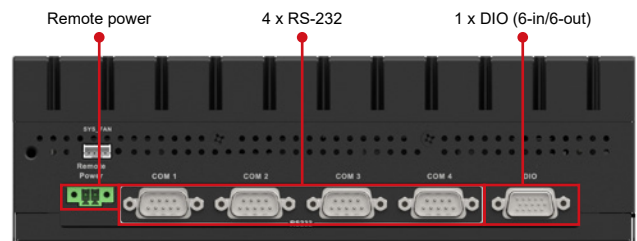
### Fully Integrated I/O

#### Top View



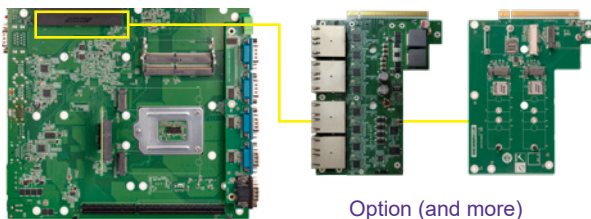
For Expansion IO Board

#### Front View



### Modular Board Design

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



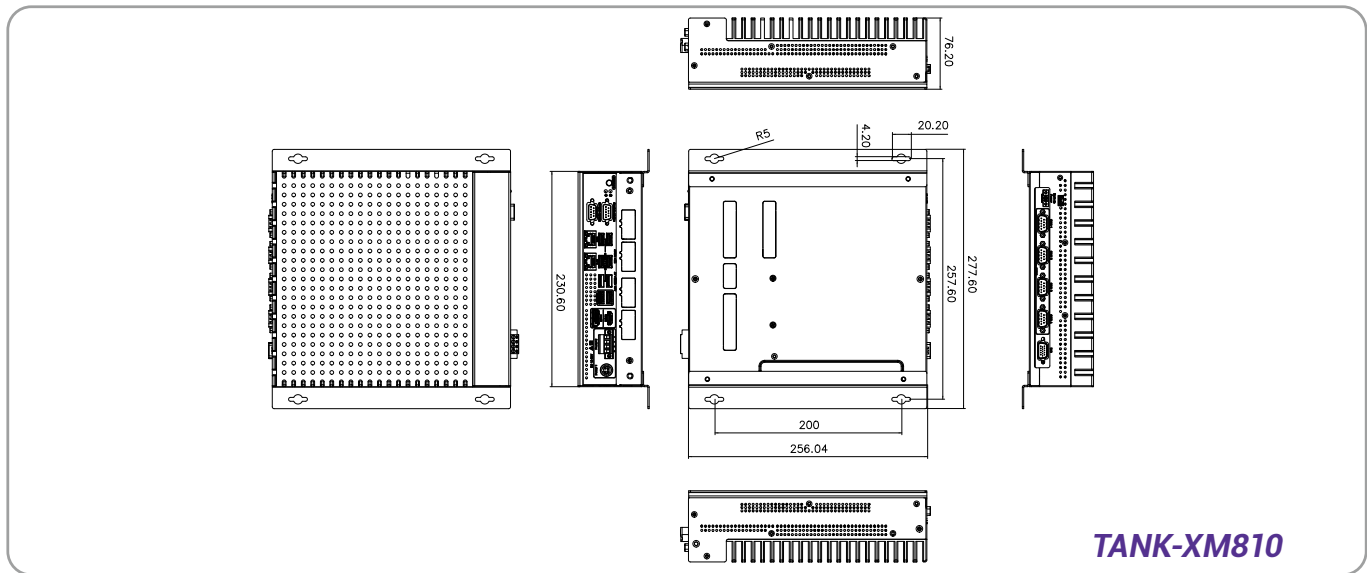
Option (and more)

Expansion IO Board	
GPOE-XM81-8P	I/O expansion module for TANK 81 series, 8 x 2.5G LAN with PoE
TXIOB-XM81-A	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

Part No.	Description
TANK-XM810-i3AC-R12	Ruggedized Fanless Embedded System with Intel® i3-10100TE 2.3 GHz, (up to 3.6 GHz, 4-core, TDP 35W), 8GB DDR4 pre-installed memory, 1xHDMI™, 1xDP++, 12~28V DC and RoHS
TANK-XM810-i3BC-R12	Ruggedized Fanless Embedded System with Intel® Core™ i3-10320 3.8 GHz, (up to 4.6 GHz, 4-core, TDP 65W), 8GB DDR4 pre-installed memory, 1xHDMI™, 1xDP++, 12~28V DC and RoHS
TANK-XM810-i5AC-R12	Ruggedized Fanless Embedded System with Intel® Core™ i5-10500TE 2.3 GHz, (up to 3.7 GHz, 6-core, TDP 35W), 8GB DDR4 pre-installed memory, 1xHDMI™, 1xDP++, 12~28V DC and RoHS
TANK-XM810-i5BC-R12	Ruggedized Fanless Embedded System with Intel® i5-10500 3.1 GHz, (up to 4.5 GHz, 6-core, TDP 65W), 8GB DDR4 pre-installed memory, 1xHDMI™, 1xDP++, 12~28V DC and RoHS
TANK-XM810-i7AC-R12	Ruggedized Fanless Embedded System with Intel® Core™ i7-10700TE 2.0 GHz, (up to 4.4 GHz, 8-core, TDP 35W), 8GB DDR4 pre-installed memory, 1xHDMI™, 1xDP++, 12~28V DC and RoHS
TANK-XM810-i7BC-R12	Ruggedized Fanless Embedded System with Intel® i7-10700E 2.9 GHz, (up to 4.5 GHz, 8-core, TDP 65W), 8GB DDR4 pre-installed memory, 1xHDMI™, 1xDP++, 12~28V DC and 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.NGWW 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
32702-000202-100-RS	POWER CORD; EUROPEAN CODE(VDE); 1000mm; 300V; (A)PLUG:SH-005(16A/250V); (B)CONNECTOR:C13(SH-006, 10A/250V)
SF-TANK-XM81-R10	External fan for TANK-XM81 Series
TANK-XM810-W10IoT21-H-R10	OS Image with Windows® 10 Enterprise High End 64-bit 2021 LTSC for TANK-XM810-i7 Series, with DVD-ROM, RoHS
TANK-XM810-W10IoT21-V-R10	OS Image with Windows® 10 Enterprise Value 64-bit 2021 LTSC for TANK-XM810-i3 & i5 Series, with DVD-ROM, RoHS

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-R11	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-R11	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-R11	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-R11	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
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