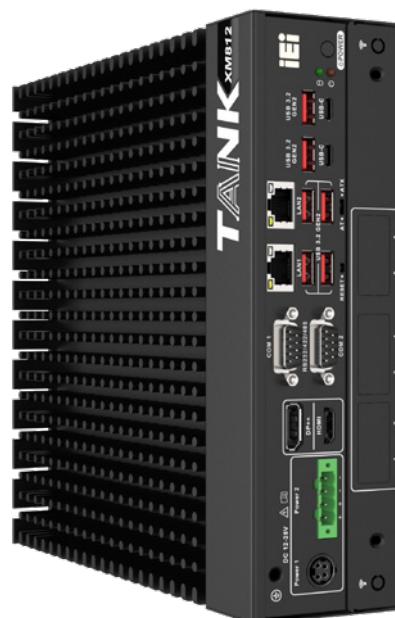


TANK-XM812

- High-Performance AMD Ryzen™ 7000/8000 Series AM5 Processor
- Fanless Embedded Computer

Features

- Supported CPUs:
AMD Ryzen™ 7000/8000 Series AM5 Processor
AMD Ryzen™ 7 8700G 4.2GHz (up to 5.1GHz, 8-core, 65W)
AMD Ryzen™ 5 8600G 4.3GHz (up to 5.0GHz, 6-core, 65W)
- 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
- Quad independent display

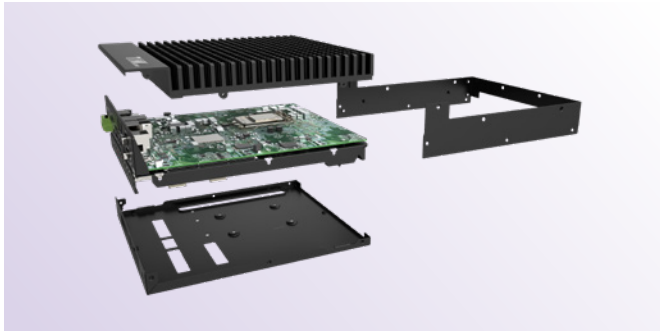


Specifications

Model Name		TANK-XM812
Chassis	Color	Black C
	Dimensions (WxDxH) (mm)	230.6 x 255 x 68.7
	System Fan	Fanless
	Chassis Construction	Extruded aluminum alloys
Motherboard	CPU	AMD Ryzen™ 7000/8000 Series AM5 Processor AMD Ryzen™ 7 8700G 4.2GHz (up to 5.1GHz, 8-core, 65W) AMD Ryzen™ 5 8600G 4.3GHz (up to 5.0GHz, 6-core, 65W)
	Chipset	B650
	Memory	2 x SO-DIMM DDR5 5200 (8GB pre-installed) (up to 96GB)
Storage	HDD Bay	2 x 2.5" SATA 6Gb/s HDD/SSD bay (RAID 0/1 supported)
I/O Interfaces	Ethernet	2 x 2.5 GbE by Intel® I226-V controller
	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™ 2 x USB Type-C (Display + USB 3.2 Gen2 x2)
	Audio	1 x MIC 1 x Line out
	TPM	1 x 20pin TPM connector (Optional TPM-IN03 module)
Internal Expansions	M.2	1 x 2280 M-key (PCIe Gen4 x4) 1 x 2230 A-key (USB 2.0 + PCIe Gen3 x1)
	Expansion Backplane	Optional
Power	Power Input	12 ~ 28V DC
	Remote Power	1 x 2-pin
	Power Consumption	12V @ 6.95A (AMD Ryzen™ 7 8700G with 8GB memory)
Reliability	Mounting	Wall mount
	Operating Temperature	-20°C ~ 60°C (CPU TDP35W & SSD) -20°C ~ 50°C (CPU TDP65W & SSD), 10% ~ 95% non-condensing
	Storage Temperature	-40°C ~ 85°C, 10% ~ 95%, non-condensing
	Operating Shock	IEC68-2-27 half-sine, 5 G, 11ms, 100 shocks (With SSD)
	Operating Vibration	Random Vibration Mode, MIL-STD-810H 514.8C-I (With SSD)
	Weight (Net/Gross)	3.18/5 kg
	Safety / EMC	CE, FCC
	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 advanced graphics cards.

Maximum length of graphics card supported: 350mm

*Specified power adapter is required.

*Support advanced graphics card



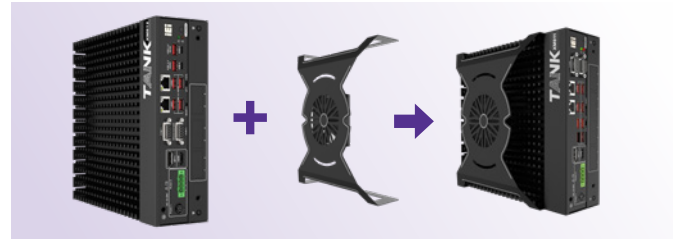
Flexible Expansion

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.



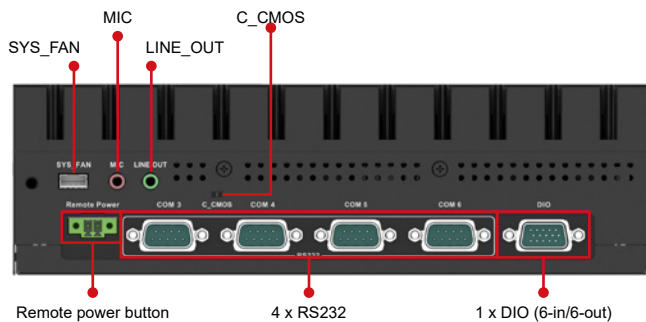
External Fan

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

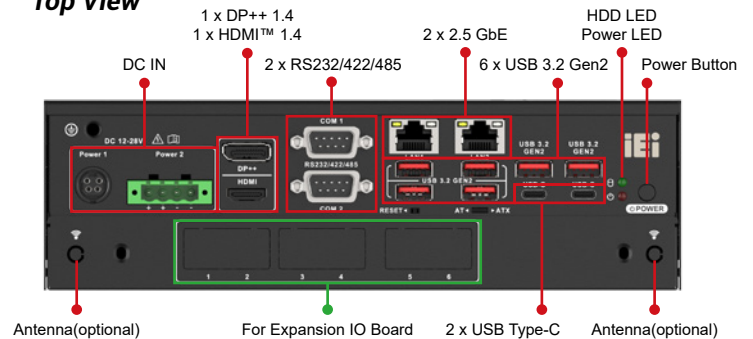


Fully Integrated I/O

Front View

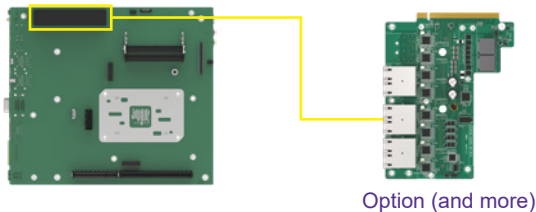


Top View



Modular Board Design

It supports various optional modules, such as M.2 expansion card, 6-port PoE expansion card, etc.



Expansion IO Board

GPOE-XM81-6P

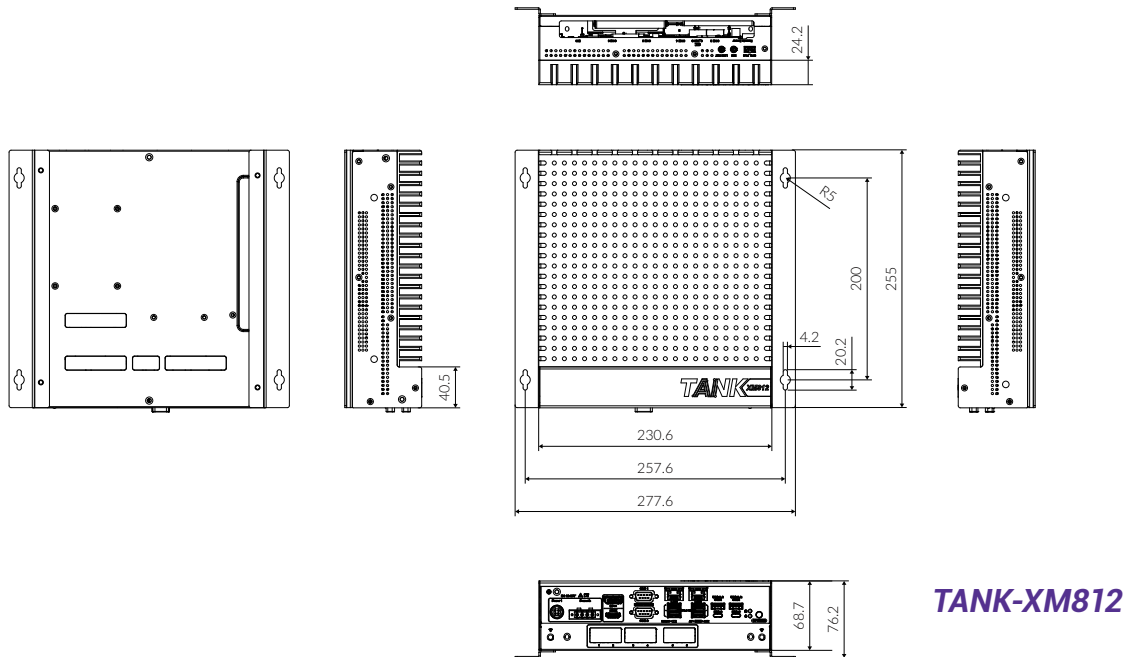
I/O expansion module for TANK 81 series, 6 x 2.5G LAN with PoE

Support 35W & 65W CPU

Operating temperature:

With 65W CPU PL1 & PL2, default 50W:	-20°C ~ 60°C
With 65w CPU:	-20°C ~ 50°C

* Default CPU PL1/PL2 power limit: 50W (adjustable via BIOS)

Dimensions (Unit: mm)**Ordering Information**

Model	Description
TANK-XM812-85AC-R10	Ruggedized Fanless Embedded System With AMD Ryzen™ 5 8600G, 8GB RAM, 1xHDMI™, 1xDP++, 12~28V DC and RoHS
TANK-XM812-87AC-R10	Ruggedized Fanless Embedded System With AMD Ryzen™ 7 8700G, 8GB RAM, 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. 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
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
TPM-IN03-R10	20-pin Infineon SPI TPM2.0 module, software management tool

Optional Expansion Backplane

Part No.	Description
TXCBP-XM81-2A-R10	Expansion backplane module for TANK 81 Series, 2 slot, 1 x PCIe Gen4 x16 & 1 x PCIe Gen3 x4
TXCBP-XM81-4A-R11	Expansion backplane module for TANK 81 Series, 4 slot, 1 x PCIe Gen4 x16 & 2 x PCIe Gen3 x4 & 1 x PCIe Gen3 x1 w/ Ext. PWR Conn.
TXCBP-XM81-4C-R10	Expansion backplane module for TANK 81 Series, 4 slot, 1 x PCIe Gen4 x16 & 2 x PCIe Gen3 x4 & 1 x PCIe Gen3 x4
IDD-X1228150-R10 ¹	Extended Power Board for TANK-XM81 Series, 150W@16~28V or 380W@12V DC input 12V output Power Module

¹. 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	4-slot One GPU expansion chassis for TANK 81 Series
TXC-XM81-G2-R10	6-slot Dual GPU expansion chassis for TANK 81 Series

Optional Internal Expansion Boards

Part No.	Description
GPOE-XM81-6P-R11	Tank 81 Series Expansion IO Board module, 6x2.5G Lan With POE

Packing List

1 x Screw pack	2 x Terminal block	1 x Mounting bracket	1 x Sata cable
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