

TANK-8700-MPHX

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

Features

- Supported CPUs:
 - AMD Ryzen™ 7000/8000 Series Mobile Processor
 - AMD Ryzen™ 5 7640U 3.5 GHz, (up to 4.9 GHz, 6 Core, TDP 28W)
 - AMD Ryzen™ 7 7840U 3.3 GHz, (up to 5.1 GHz, 8 Core, TDP 28W)
 - AMD Ryzen™ 9 7940HS 4.0 GHz, (up to 5.2 GHz, 8 Core, TDP 54W)
 - AMD Ryzen™ 5 8645HS 4.3 GHz, (up to 5.0 GHz, 6 Core, TDP 45W)
 - AMD Ryzen™ 7 8845HS 3.8 GHz, (up to 5.1 GHz, 8 Core, TDP 45W)
 - AMD Ryzen™ 9 8945HS 4.0 GHz, (up to 5.2 GHz, 8 Core, TDP 45W)
- 2 x 2.5G Ethernet ports
- Multiple USB ports and serial ports
- Multiple M.2 expansions and PCIe expansions
- CE/FCC compliant
- Three independent display

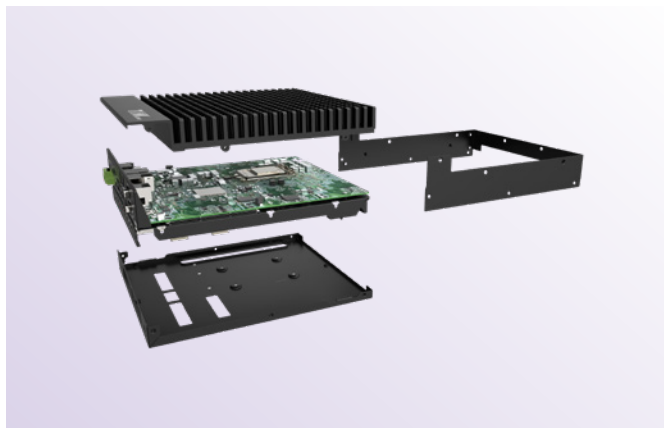


Specifications

Model Name		TANK-8700-MPHX
Chassis	Color	Black C
	Dimensions (WxDxH) (mm)	254.4 x 212.5 x 127.2
	System Fan	Fanless
	Chassis Construction	Extruded aluminum alloys
Motherboard	CPU	AMD Ryzen™ 7000/8000 Series Processor AMD Ryzen™ 5 7640U 3.5 GHz, (up to 4.9 GHz, 6 Core, TDP 28W) AMD Ryzen™ 7 7840U 3.3 GHz, (up to 5.1 GHz, 8 Core, TDP 28W) AMD Ryzen™ 9 7940HS 4.0 GHz, (up to 5.2 GHz, 8 Core, TDP 54W) AMD Ryzen™ 5 8645HS 4.3 GHz, (up to 5.0 GHz, 6 Core, TDP 45W) AMD Ryzen™ 7 8845HS 3.8 GHz, (up to 5.1 GHz, 8 Core, TDP 45W) AMD Ryzen™ 9 8945HS 4.0 GHz, (up to 5.2 GHz, 8 Core, TDP 45W)
	Chipset	SOC
	Memory	2 x SO-DIMM DDR5 5600 (8GB pre-installed) (up to 64GB)
Storage	HDD Bay	2 x 2.5" SATA 6Gb/s HDD/SSD bay
I/O Interfaces	Ethernet	2 x 2.5 GbE by Realtek 8125B controller 1 x RJ45 by M.2 IRIS2 Module
	USB	3 x USB 3.2 Gen2 (Type-A) (10Gb/s) 3 x USB 2.0
	COM	2 x RS-422/485 (with 2K isolation) (DB9), 3 x RS-232 (DB9)
	Digital I/O	8-bit (4-in/4-out) DB9 (Female)
	Display Interface	1 x DP++, 1 x HDMI™ 1 x USB4 (Display + USB 3.2 Gen2)
Internal Expansions	M.2	1 x M.2 M key (2280, PCIe Gen4 x2) 1 x M.2 A key (2230, PCIe Gen3 x1 & USB 2.0) 1 x M.2 B Key (3042/52/80, support IRIS2)
	Expansion Backplane	1 x PCIe Gen4 x8 1 x PCIe Gen3 x4 1 x PCIe Gen3 x1 (Only support 3A SKU) 1 x PCI (Only support 3B SKU)
Power	Power Input	DC Jack: 12 ~ 28V DC Terminal Block: 12 ~ 28V DC (with ACC Mode)
	Remote Power	TBD
	Power Consumption	TBD
Reliability	Mounting	Wall mount
	Operating Temperature	-20°C ~ 60°C
	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)	TBD
	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.



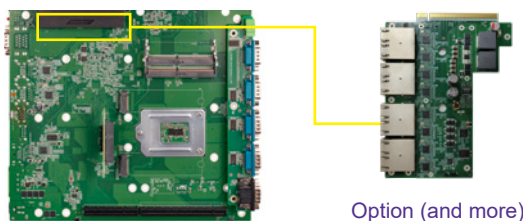
External Fan

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



Modular Board Design

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



Option (and more)

Expansion IO Board

GPOE-XM81-6P

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

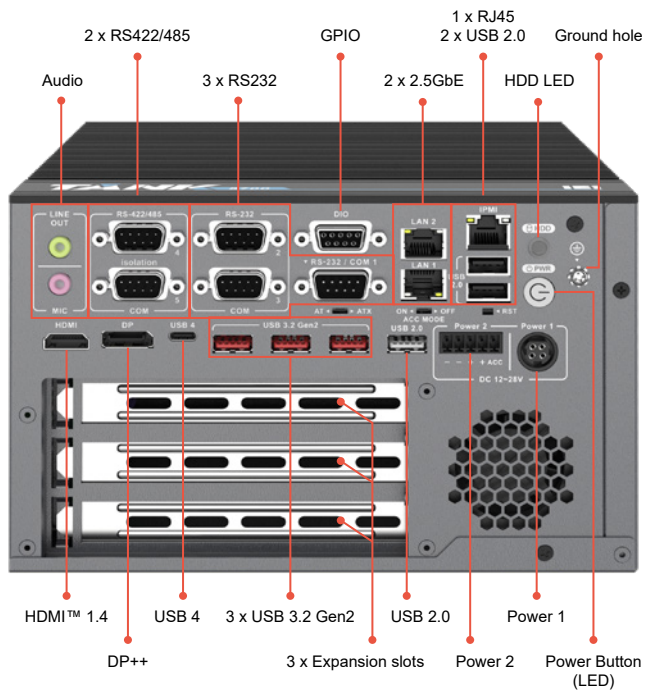
Support 35W & 65W CPU

Operating temperature:

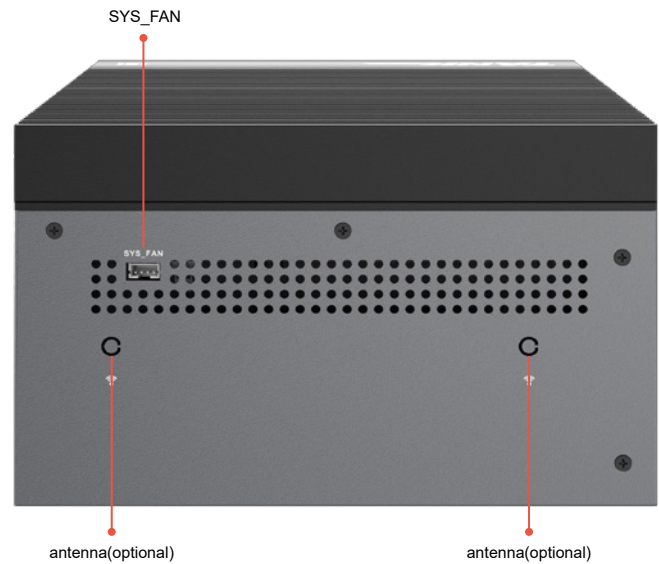
With 35w CPU (or 65W CPU PL1 & PL2, default 35W):	-20°C ~ 60°C
With 65w CPU:	-20°C ~ 50°C

Fully Integrated I/O

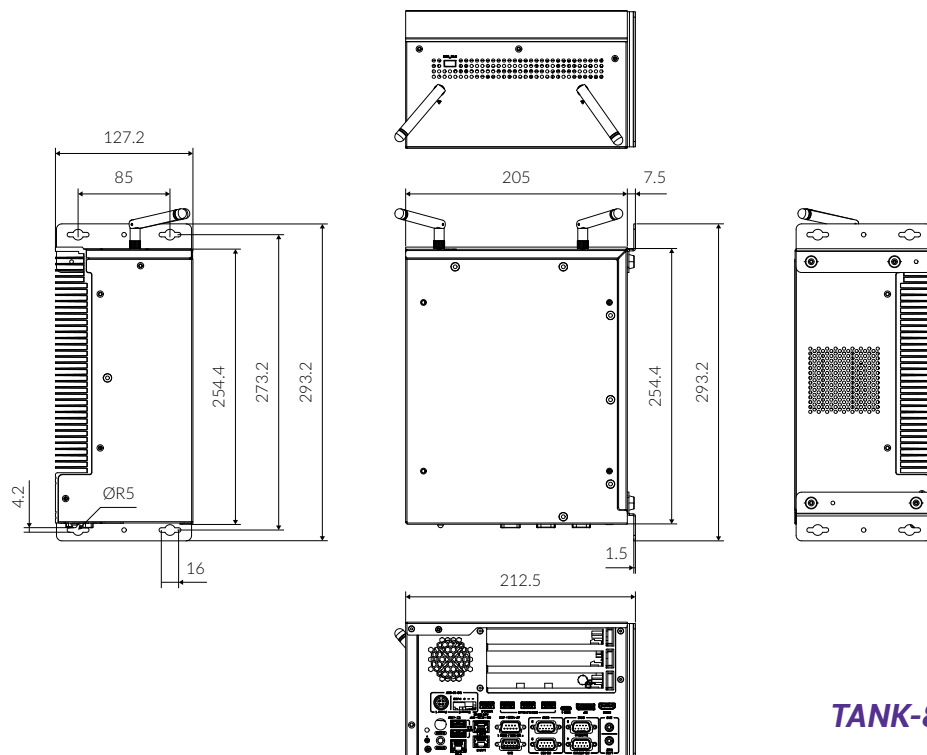
Front View



Top View



Dimensions (Unit: mm)



TANK-8700-MPHX

Ordering Information

Part No.	Description
TANK-8700-MPHX-77BC-3A-R10	Ruggedized Fanless embedded system with AMD Ryzen™ 7 7840U 3.3GHz, (up to 5.1 GHz, 8 Core, TDP 28W), 8GB DDR5 pre-installed memory, PCIe x8/PCIe x4/PCIe x1, HDMI™/DP/USB4, 9~36V DC, RoHS
TANK-8700-MPHX-77BC-3B-R10	Ruggedized Fanless embedded system with AMD Ryzen™ 7 7840U 3.3GHz, (up to 5.1 GHz, 8 Core, TDP 28W), 8GB DDR5 pre-installed memory, PCIe x8/PCIe x4/PCI, HDMI™/DP/USB4, 9~36V DC, RoHS
TANK-8700-MPHX-75BC-3A-R10	Ruggedized Fanless embedded system with AMD Ryzen™ 5 7640U 3.5GHz, (up to 4.9 GHz, 6 Core, TDP 28W), 8GB DDR5 pre-installed memory, PCIe x8/PCIe x4/PCIe x1, HDMI™/DP/USB4, 9~36V DC, RoHS
TANK-8700-MPHX-75BC-3B-R10	Ruggedized Fanless embedded system with AMD Ryzen™ 5 7640U 3.5GHz, (up to 4.9 GHz, 6 Core, TDP 28W), 8GB DDR5 pre-installed memory, PCIe x8/PCIe x4/PCI, HDMI™/DP/USB4, 9~36V DC, RoHS
TANK-8700-MPHX-89AD-3A-R10	Ruggedized Fanless embedded system with AMD Ryzen™ 9 8945HS 4.0 GHz, (up to 5.2 GHz, 8 Core, TDP 45W), 16GB DDR5 pre-installed memory, PCIe x8/PCIe x4/PCIe x1, HDMI™/DP/USB4, 9~36V DC, RoHS
TANK-8700-MPHX-89AD-3B-R10	Ruggedized Fanless embedded system with AMD Ryzen™ 9 8945HS 4.0 GHz, (up to 5.2 GHz, 8 Core, TDP 45W), 16GB DDR5 pre-installed memory, PCIe x8/PCIe x4/PCI, HDMI™/DP/USB4, 9~36V DC, RoHS
TANK-8700-MPHX-87AD-3A-R10	Ruggedized Fanless embedded system with AMD Ryzen™ 7 8845HS 3.8 GHz, (up to 5.1 GHz, 8 Core, TDP 45W), 16GB DDR5 pre-installed memory, PCIe x8/PCIe x4/PCIe x1, HDMI™/DP/USB4, 9~36V DC, RoHS
TANK-8700-MPHX-87AD-3B-R10	Ruggedized Fanless embedded system with AMD Ryzen™ 7 8845HS 3.8 GHz, (up to 5.1 GHz, 8 Core, TDP 45W), 16GB DDR5 pre-installed memory, PCIe x8/PCIe x4/PCI, HDMI™/DP/USB4, 9~36V DC, RoHS
TANK-8700-MPHX-85AD-3A-R10	Ruggedized Fanless embedded system with AMD Ryzen™ 5 8645HS 4.3 GHz, (up to 5.0 GHz, 6 Core, TDP 45W), 16GB DDR5 pre-installed memory, PCIe x8/PCIe x4/PCIe x1, HDMI™/DP/USB4, 9~36V DC, RoHS
TANK-8700-MPHX-85AD-3B-R10	Ruggedized Fanless embedded system with AMD Ryzen™ 5 8645HS 4.3 GHz, (up to 5.0 GHz, 6 Core, TDP 45W), 16GB DDR5 pre-installed memory, PCIe x8/PCIe x4/PCI, HDMI™/DP/USB4, 9~36V DC, 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)
TANK-87-SF1-R10	External fan for TANK-8700 Series
iRIS2-2600-R10	IPMI 2.0 adapter card with AST2600 BMC chip with KVM function for iEi iRIS2 Connector IPMI 2.0 module
TPM-IN03-R10	20-pin Infineon SPI TPM2.0 module, software mangement tool

Packing List

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