

TANK-800-D525 820-H61

- Intel® D525 3-Slot Fanless Embedded System
- Intel® Sandy Bridge 3-Slot Embedded System

Features

- Intel® Atom™ D525 1.8 GHz dual-core processor for TANK-800
2nd/3rd generation Intel® Core™ low power desktop processors (max TDP: 65W) for TANK-820
- On-board 1GB DDR3 memory and one DDR3 SO-DIMM slot (system max. 3GB) for TANK-800
On-board 2GB DDR3 memory and one DDR3 SO-DIMM slot (system max. 10GB) for TANK-820
- Dual wide range DC power support
(TANK-800-D525: 9 V~36 V DC/ TANK-820-H61: 9 V~24 V DC)



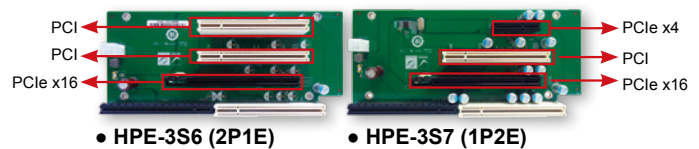
Versatile Expansion Interface

The TANK-800/820 series has various kinds of expansion interfaces which allow you to connect additional circuits or expansion boards to the system via I/EI riser cards. These expansion options provide flexible function enhancement and simplify system integration.

- The two types of backplane support standard PCI/PCle cards with maximum dimensions (111 mm in width x 190 mm in length).
- The rated voltage and current of the backplane

Voltage	Current	Voltage	Current
+5 V	7 A	-12 V	0.1 A
+12 V	3.75 A	+3.3 V	8 A
Max. power supported by the backplane: <45W			

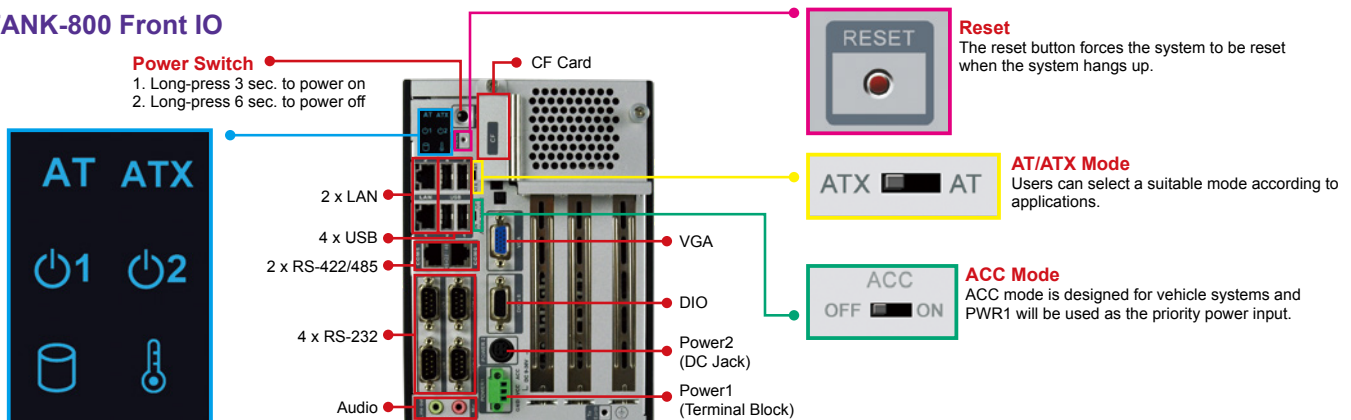
The system default power is 90 W. **The maximum total power of the backplane to support expansion cards is 45 W.** The power of the selected expansion cards can not exceed the max. power (45 W), otherwise, the system may be unstable.



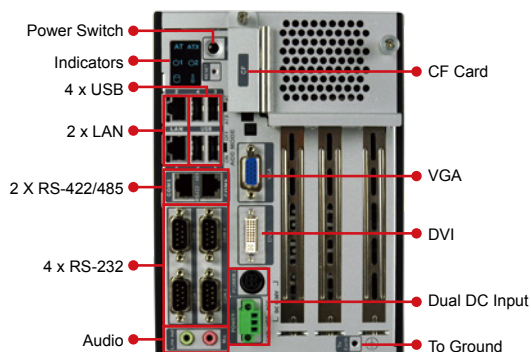
Backplane	Slot	TANK-800	TANK-820
		Signal	Signal
HPE-3S6 (2P1E)	PCI	PCI	PCI
	PCIe x16	PCIe x4	PCIe x8
HPE-3S7 (1P2E)	PCI	PCI	PCI
	PCIe x4	PCIe x1	PCIe x1
	PCIe x16	PCIe x2	PCIe x8

Fully Integrated I/O

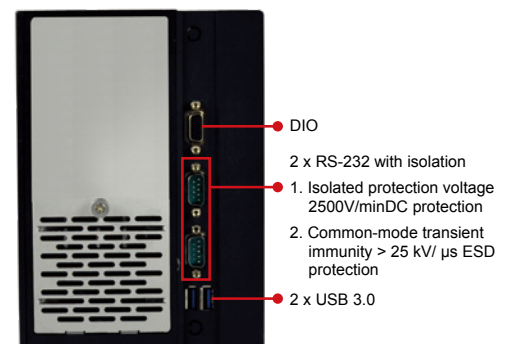
TANK-800 Front IO



TANK-820 Front IO



Rear I/O



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Specifications

Model Name		TANK-820-H61	TANK-800-D525
Chassis	Color	Black C + Silver	Black C + Silver
	Dimensions (WxDxH) (mm)	133 x 269 x 208	136 x 219 x 188
	System Fan	Fanless	Fanless
	Chassis Construction	Extruded aluminum alloys	Extruded aluminum alloys
Motherboard	CPU	Intel® Core™ i5-2xxT (above 2.7 GHz) Intel® Core™ i3-2xxT (above 2.5 GHz) Intel® Pentium® G6xxT (above 2.2 GHz)	Intel® Atom™ D525 1.8 GHz
	Chipset	Intel® H61	Intel® ICH8M
	System Memory	On-board DDR3 2 GB memory 1 x 204-pin DDR3 SO-DIMM (system max: 10 GB)	On-board DDR3 1 GB memory 1 x 204-pin DDR3 SDRAM SO-DIMM (system max: 3 GB)
Storage	Hard Drive	1 x 2.5" SATA 3Gb/s HDD/SSD bay	1 x 2.5" SATA 3Gb/s HDD/SSD bay
	CF Card/CFast	1 x CF Type II	1 x CF Type II
I/O Interfaces	USB 3.0	2	N/A
	USB 2.0	4	4
	Ethernet	2 x RJ-45 PCIe GbE by Realtek 8111E controller	2 x RJ-45 PCIe GbE by Realtek 8111E controller
	COM Port	6 x RS-232 (DB-9, two with isolation) 2 x RS-422/485 (RJ-45)	4 x RS-232 (DB-9) 2 x RS-422/485 (RJ-45)
	Digital I/O	8-bit digital I/O, 4-bit input/4-bit output	8-bit digital I/O, 4-bit input/4-bit output
	Display	1 x VGA, 1 x DVI-I	1 x VGA
	Resolution	VGA: Up to 2048 x 1536@75Hz DVI-I: Up to 1920 x 1080@60Hz	VGA: Up to 2048 x 1536@75Hz
	Audio	1 x Line-out, 1 x Mic-in	1 x Line-out, 1 x Mic-in
Expansions	PCI	2P1E: 2 x PCI, 1P2E: 1 x PCI	2P1E: 2 x PCI, 1P2E: 1 x PCI
	PCIe	2P1E: One PCIe x8 (physical PCIe x16 slot) 1P2E: One PCIe x1 (physical x4 slot), One PCIe x8 (physical x16 slot)	2P1E: One PCIe x4 (physical PCIe x16 slot) 1P2E: One PCIe x1 (physical x4 slot), One PCIe x2 (physical x16 slot)
Power	Power Input	DC Jack: 9 V~24 V DC Terminal Block: 9 V~24 V DC	DC Jack: 10.5 V~36 V DC Terminal Block: 9 V~36 V DC
	Power Consumption	19 V@3.5 A (Intel® Core™ i3-2100 with 6 GB DDR3 memory) w/o add-on card	19 V@1.73 A (Intel® Atom™ D525 with 1 GB DDR3 Memory)
Reliability	Mounting	Wall mount	Wall mount
	Operating Temperature	-20°C ~ 60°C with air flow (SSD), 5% ~ 95%, non-condensing	-20°C ~70°C with air flow (SSD), 5% ~ 95%, non-condensing
	Storage Temperature	-20°C ~ 70°C	-20°C ~ 70°C
	Operating Shock	Half-sine wave shock 5G, 11ms, 3 shocks per axis	Half-sine wave shock 5G, 11ms, 3 shocks per axis
	Operating Vibration	MIL-STD-810F 514.5C-2 (with SSD)	MIL-STD-810F 514.5C-2 (with SSD)
	Weight (Net/Gross)	4.2 kg/6.3 kg	2.6 kg/4.1 kg
	Safety/EMC	CE/FCC	CE/FCC
OS	Supported OS	Microsoft® Windows® Embedded Standard 7 E, Microsoft® Windows® XP Embedded	Microsoft® Windows® Embedded Standard 7 E, Microsoft® Windows® XP Embedded

Ordering Information

TANK-820 series

Part No.	Description
TANK-820-H61-I5/2G/2P1E-R22	Fanless wide temperature embedded system with one PCIe x8 and two PCI expansions, Intel® Core™ i5 dual-core 2xxT CPU (above 2.7 GHz, TDP 35 W), dual 9 V-24 V DC-IN, 2 GB DDR3 on-board memory, -20°C ~ 60°C
TANK-820-H61-I5/2G/1P2E-R22	Fanless wide temperature embedded system with one PCIe x1, one PCIe x8 and one PCI expansion, Intel® Core™ i5 dual-core 2xxT CPU (above 2.7 GHz, TDP 35 W), dual 9 V-24 V DC-IN, 2 GB DDR3 on-board memory, -20°C ~ 60°C
TANK-820-H61-I3/2G/2P1E-R22	Fanless wide temperature embedded system with one PCIe x8 and two PCI expansions, Intel® Core™ i3 dual-core 2xxT CPU (above 2.5 GHz, TDP 35 W), dual 9 V-24 V DC-IN, 2 GB DDR3 on-board memory, -20°C ~ 60°C
TANK-820-H61-I3/2G/1P2E-R22	Fanless wide temperature embedded system with one PCIe x1, one PCIe x8 and one PCI expansion, Intel® Core™ i3 dual-core 2xxT CPU (above 2.5 GHz, TDP 35 W), dual 9 V-24 V DC-IN, 2 GB DDR3 on-board memory, -20°C ~ 60°C
TANK-820-H61-P/2G/2P1E-R22	Fanless wide temperature embedded system with one PCIe x8 and two PCI expansions, Intel® Pentium® dual-core G6xxT CPU (above 2.2 GHz, TDP 35 W), dual 9 V-24 V DC-IN, 2 GB DDR3 on-board memory, -20°C ~ 60°C
TANK-820-H61-P/2G/1P2E-R22	Fanless wide temperature embedded system with one PCIe x1, one PCIe x8 and one PCI expansion, Intel® Pentium® dual-core G6xxT CPU (above 2.2 GHz, TDP 35 W), dual 9 V-24 V DC-IN, 2 GB DDR3 on-board memory, -20°C ~ 60°C

TANK-800 series

Part No.	Description
TANK-800-D525/1GB/2P1E-R12	Extended temperature fanless embedded system with one PCIe x4 and two PCI expansion, Intel® Atom™ D525 1.8 GHz dual core processor, dual 9 V-36 V DC-IN, on-board 1GB DDR3 memory, -20°C ~ 70°C, RoHS
TANK-800-D525/1GB/1P2E-R12	Extended temperature fanless embedded system with one PCIe x1, one PCIe x2 and one PCI expansions, Intel® Atom™ D525 1.8 GHz dual core processor, dual 9 V-36 V DC-IN, on-board 1GB DDR3 memory, -20°C ~ 70°C, RoHS

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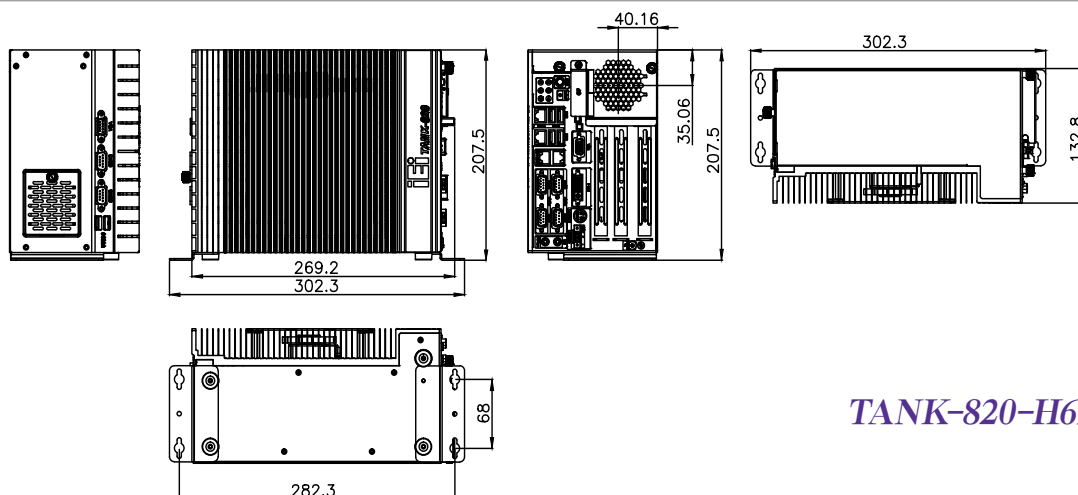
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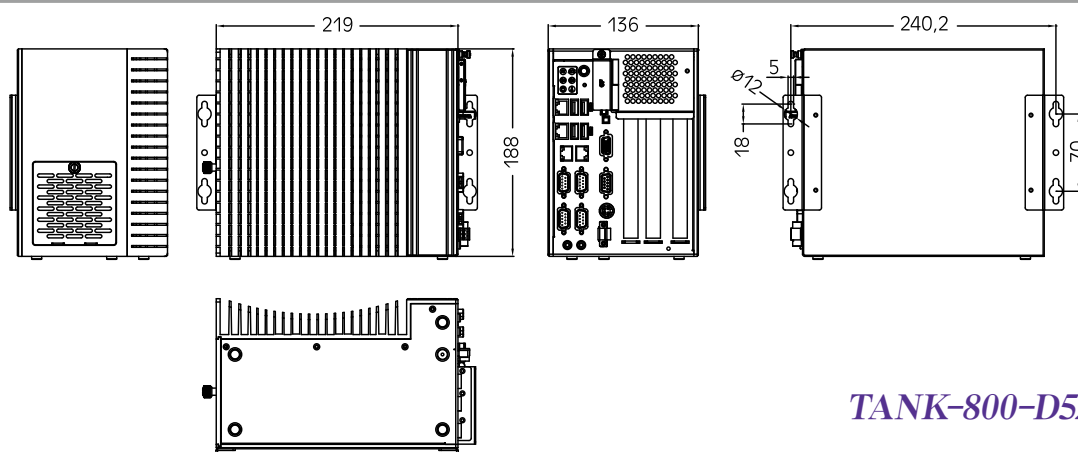
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Power Supply/
Peripherals

Dimensions (Unit: mm)



TANK-820-H61



TANK-800-D525

Options

TANK-820 series

Item	Part No.	Description
OS: XP	TANKCF-800-D525-XPE-4G-R10	OS Image with XPE, For TANK-800 D525 Series, W/Compact Flash Memory Card 4GB, R10
OS: Windows Embedded 7 (4GB CF Card)	TANKCF-800-D525-WES7E-4G-R10	OS Image with Windows® Embedded Standard 7 E for TANK-800 D525 Series, 4 GB CompactFlash® card, RoHS
System Fan	19Z00-000605-00-RS	Fan, +12V DC, 4-pin, 40 mm x 40 mm x 10 mm, 6500RPM, RoHS

TANK-800 series

Item	Part No.	Description
OS: Linux (2GB CF Card)	TANKCF-820-H61-LNX-2G-R10	OS Image with Linux for TANK-820 H61, Debian operating system, Kernel version 2.6.26, 2 GB CompactFlash® card, RoHS
OS: XP	TANKCF-820-H61-XPE-4G-R10	OS Image with XPE, for TANK-820-H61 series, W/Compact Flash Memory Card 4GB, R10, RoHS
OS: Windows Embedded 7 (4GB CF Card)	TANKCF-820-H61-WES7E-4G-R10	OS Image with Windows® Embedded Standard 7 E for TANK-820 H61 Series, 4 GB CompactFlash® card, RoHS

Packing List

TANK-820 series

1 x Power Cord	4 x HDD Screw	1 x Pluggable DC-in Terminal Block
1 x Power Adapter	4 x Rubber Foot Pad Screw	1 x Utility CD
2 x Mounting Bracket	2 x Foot Pad	1 x One Key Recovery CD
4 x Mounting Bracket Screw	2 x RJ-45 to DB-9 COM Port Cable	4 x Fan screw

TANK-800 series

1 x Power Cord	4 x HDD Screw	1 x Pluggable DC-in Terminal Block
1 x Power Adapter	8 x Rubber Foot Pad Screw	1 x Utility CD
2 x Mounting Bracket	4 x Foot Pad	1 x One Key Recovery CD
4 x Mounting Bracket Screw	2 x RJ-45 to DB-9 COM Port Cable	

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