

# 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

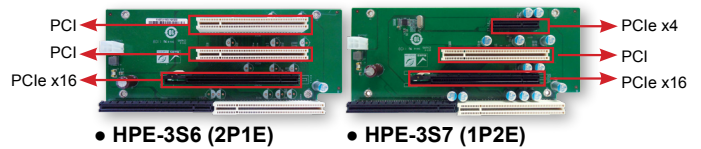
The TANK-800/820 series has various kinds of expansion interfaces which allow you to connect additional circuits or expansion boards to the system via IEI riser cards. These expansion options provide flexible function enhancement and simplify system integration.

- The two types of backplane support standard PCI/PCle cards with maximum dimensions (WxL): 111 x 190 mm
- 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

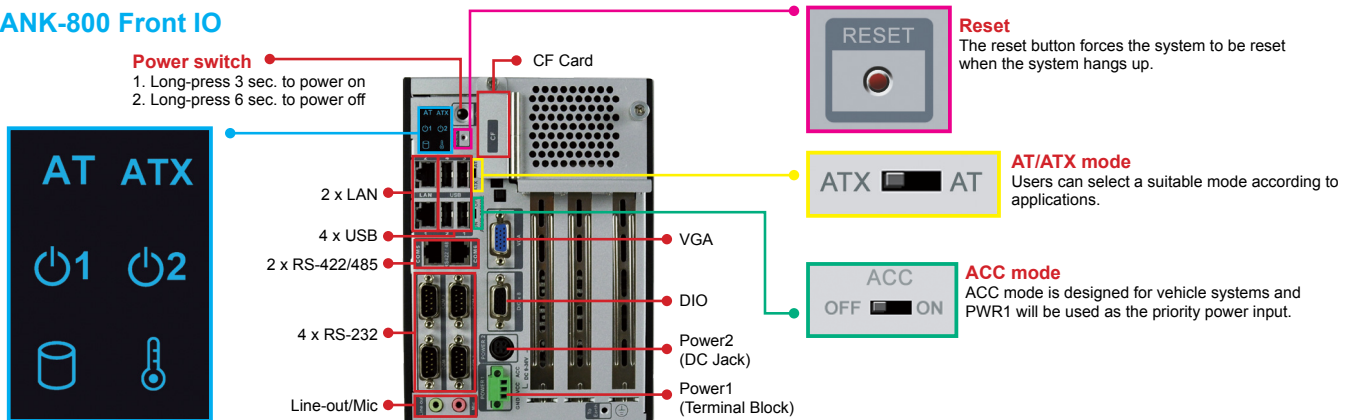
The system default power is 90 W. **The maximum total power of the backplane to support expansion cards is 45 W.** The power of the selected expansion cards can not exceed the max. power (45 W), otherwise, the system may be unstable.



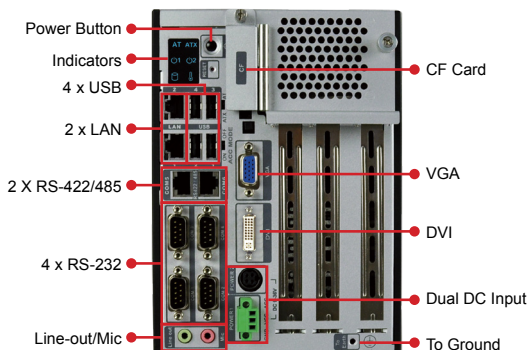
Backplane	Slot	TANK-800	TANK-820
		Signal	Signal
HPE-3S6 (2P1E)	PCI	PCI	PCI
	PCle x16	PCle x4	PCle x8
HPE-3S7 (1P2E)	PCI	PCI	PCI
	PCle x4	PCle x1	PCle x1
	PCle x16	PCle x2	PCle x8

## Fully Integrated I/O

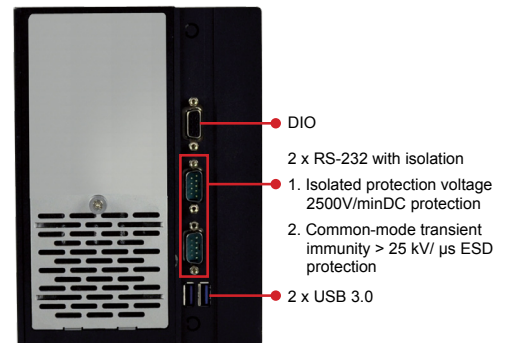
### TANK-800 Front IO



### TANK-820 Front IO



### Rear I/O



## 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	Processor 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	2 x RJ-45 PCIe GbE by Realtek 8111E
	RS-232	4 x DB-9 (two with isolation)	4 x DB-9
	RS-422/485	2 x RJ-45	2 x 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
Expansions	PCI	2P1E: 2 x PCI, 1P2E: 1 x PCI	2P1E: 2 x PCI, 1P2E: 1 x PCI
	PCIe	2P1E: One PCIe x 8 (physical PCIe x 16 slot) 1P2E: One PCIe x 1 (physical x 4 slot), One PCIe x 8 (physical x 16 slot)	2P1E: One PCIe x 4 (physical PCIe x 16 slot) 1P2E: One PCIe x 1 (physical x 4 slot), One PCIe x 2 (physical x 16 slot)
Power	Power Input	Terminal Block: 9 V~24 V DC DC Jack: 9 V~24 V DC	Terminal Block: 9 V~36 V DC DC Jack: 10.5 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
	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

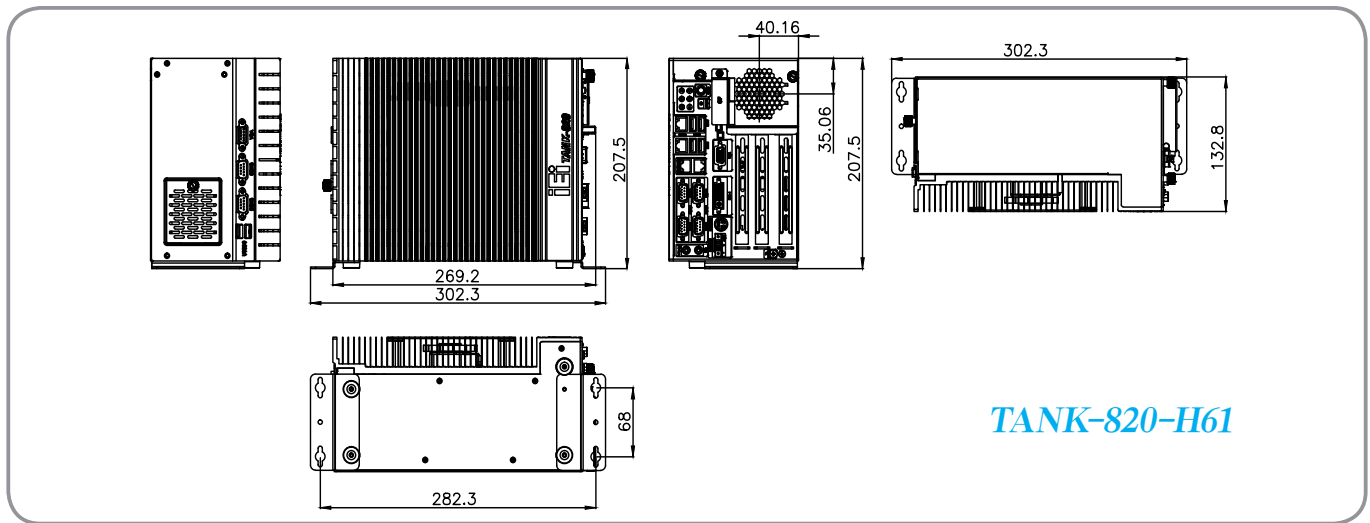
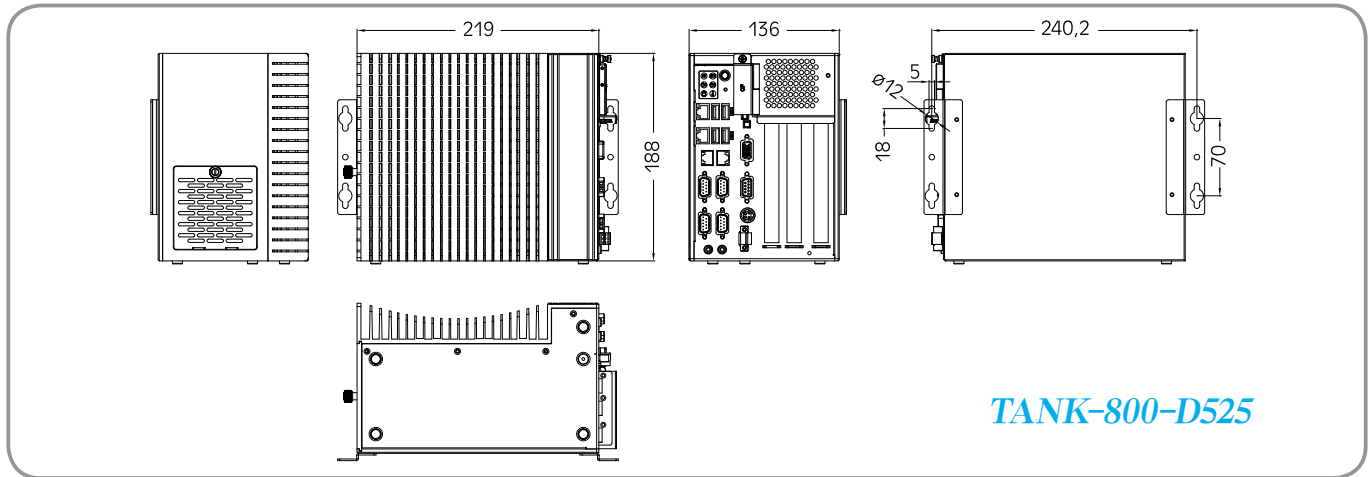
### TANK-800 series

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

### TANK-820 series

Part No.	Description
TANK-820-H61-P/2G/2P1E-R22	Fanless Extend temperature embedded system with One PCIe x8 and two PCI expansion, Pentium Dual Core G6xxT CPU (Above 2.2 GHz), TDP 35W, Dual 9 V-24 V DC-IN, 2GB DDR3 Memory on-board, -20°C ~ 60°C
TANK-820-H61-P/2G/1P2E-R22	Fanless Extend temperature embedded system with One PCIe x1 and one PCIe x 8 and one PCI expansion, Pentium Dual Core G6xxT CPU (Above 2.2 GHz), TDP 35W, Dual 9 V-24 V DC-IN, 2GB DDR3 Memory on-board, -20°C ~ 60°C
TANK-820-H61-i3/2G/2P1E-R22	Fanless Extend temperature embedded system with One PCIe x8 and two PCI expansion, Core i3 Dual Core 2xxT CPU (Above 2.5 GHz), TDP 35W, Dual 9 V-24 V DC-IN, 2GB DDR3 Memory on-board, -20°C ~ 60°C
TANK-820-H61-i3/2G/1P2E-R22	Fanless Extend temperature embedded system with One PCIe x1 and one PCIe x 8 and one PCI expansion, Core i3 Dual Core 2xxT CPU (Above 2.5 GHz), TDP 35W, Dual 9 V-24 V DC-IN, 2GB DDR3 Memory on-board, -20°C ~ 60°C
TANK-820-H61-i5/2G/2P1E-R22	Fanless Extend temperature embedded system with One PCIe x8 and two PCI expansion, Core i5 Dual Core 2xxT CPU (Above 2.7 GHz), TDP 35W, Dual 9 V-24 V DC-IN, 2GB DDR3 Memory on-board, -20°C ~ 60°C
TANK-820-H61-i5/2G/1P2E-R22	Fanless Extend temperature embedded system with One PCIe x1 and one PCIe x 8 and one PCI expansion, Core i5 Dual Core 2xxT CPU (Above 2.7 GHz), TDP 35W, Dual 9 V-24 V DC-IN, 2GB DDR3 Memory on-board, -20°C ~ 60°C

## Dimensions (Unit: mm)



## Options

Item	Part No.	Description
OS: Linux (2GB CF Card)	TANKCF-800-D525-LNX-2G-R10	OS Image with Linux for TANK-800 D525, Debian operating system, Kernel version 2.6.26, 2 GB CompactFlash® card, RoHS
	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: Win CE 6.0 (128MB CF Card)	TANKCF-800-D525-CE060-128M-R10	OS Image with WINCE 6.0, for TANK-800 D525 Series, 128 MB CompactFlash® card, RoHS
OS: Win XPE (4GB CF Card)	TANKCF-800-D525-XPE-4G-R10	OS Image with XPE, for TANK-800 D525 Series, 4 GB CompactFlash® card, RoHS
	TANKCF-820-H61-XPE-4G-R10	OS Image with XPE, for TANK-820 H61 Series, 4 GB CompactFlash® card, RoHS
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
	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

Item	Part No.	Quantity	Description
Utility CD		1	Drivers and user manual
One Key Recovery CD	7B000-000724-RS	1	
Power Adapter	63040-010090-100-RS	1	FSP090-DIEBN2, 90 V ~ 264 V AC input, 90 W, 19 V DC output, ErP (for TANK-800)
	63040-010120-210-RS	1	FSP120-ABBN2, 90 V ~ 264 V AC input, 120 W, 19 V DC output, ErP (for TANK-820)
Power Cord	32702-000401-100-RS	1	1500 mm, European Standard
Mounting Bracket	41020-0308C2-00-RS	2	Wall mount bracket, Mount bracket, NCT processing formation, TANK-800, RoHS
	41020-0366E4-00-RS	2	Wall mount bracket, Mount bracket, NCT processing formation, TANK-820 RoHS
Mounting Bracket Screws	44033-040062-RS	4	
HDD Screw	44043-030051-RS	4	M030*05 for securing HDD
Rubber Foot Pad Screws	44005-030061-RS	8	M4*6 for securing rubber foot pads (for TANK-800)
	44033-040061-RS	4	M4*6 for securing rubber foot pads (for TANK-820)
RJ-45 to DB-9 COM Port Cable	32005-000200-200-RS	2	Round cable, RS-232/422/485, RS-232 cable, 2, 300mm, 26AWG, (A)D-SUB 9P male, (B)RJ-45 8P8C+SHELL, RoHS
Pluggable DC-in Terminal Block	33502-000007-RS	1	3-pin terminal block
Foot Pads	46007-001500-RS	4	BOTTOM PAD, NF-002, 11.5D*8.7D*7.4H, black rubber, RoHS
FAN screws	44003-030151-RS	4	For TANK-820