# TANK-800-D525

D525 3-slot Fanless Embedded System

- Intel® Atom™ D525 1.8GHz dual-core proccessor

- On-board 1GB DDR3 memory and one DDR3 SO-DIMM slot (system max. 2GB)

- Redundant dual 9V~36V DC input

- Flexible PCI/PCIe expansion slots satisfy customized requirement

- Support four USB 2.0, one SATA 3Gb/s, two GbE LAN ports, six COM ports, one line-out and one mic-in

- Extended temperature fanless design support -20ºC ~ 70ºC

- Dual PCIe GbE LAN for high speed network applications

- One CompactFlash® socket

| Fanless | Redundant Dual DC | RS-232 | -20˚C ~ 70˚C | DDR3 1333 | Dual GbE | PCIe Expansion | MOUNT |
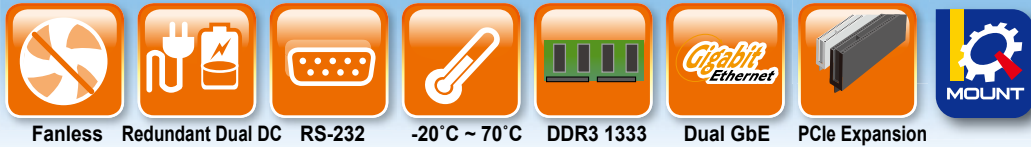
Versatile Expansion Interface

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

- The two kinds of backplane support standard PCI/PCIe cards with maximum dimension (WXHXD): 195mm x 170mm x 20 mm
- The rated voltage and current of the backplane

Voltage	Current
+5V	7A
+12V	3.75A
-12V	0.1A
+3.3V	8A
Backplane can support max power <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.
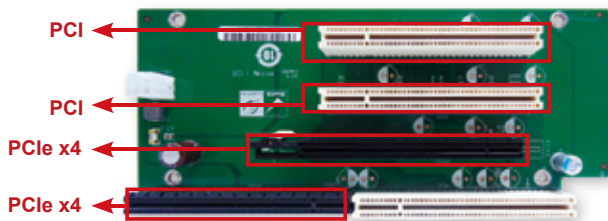
PCI
PCI
PCIe x4
PCIe x4

- One PCIe x4 (physical one PCIe x16 slot) and two PCI

PCIe x1
PCI
PCIe x2
PCIe x4

- One PCIe x 1 (physical one PCIe x4 slot) and one PCIe x2 (physical PCIe x16 slot) and one PCI

Rich I/O Function

- **Four USB Ports**
  Four USB ports can completely satisfy other USB devices or access requirements.

- **Dual GbE Ethernet Ports**
  Dual GbE Ethernet ports offer a diverse range of network communication options, helping users easily create an integrated industrial application that requires Ethernet protocols.

- **Serial Ports**
  Serial ports help millions of serial devices connect to the network for industrial applications. Our RS-232/422/485 serial ports provide powerful communication performance for all industrial device connectivity.

- **8-blt Digital IO, 4-bit input/ 4-bit output**
  The DIO channels are quite useful for remote controlling, such as powering on/off a device, LED on/off of LED card, Counter, Cash drawer etc.
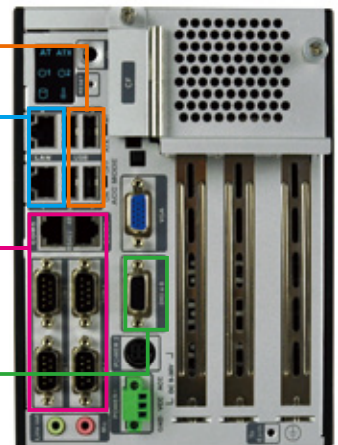
Redundant Dual DC Power Input

TANK-800-D525 adpots redundant dual DC power input designwhich ensures uninterrupted power supply to system and eliminates the risk of sudden shutdown and data loss, even if one power is unavailable or low voltage capacity is present.

136mm

2.6kg

Compact

Embedded computers hasn't a lot of extra space, Compact solution become more important, and compact can experience strong vibrations, not yet performance. And can be used in any industrial environment.

Power 1

Power 2

ACC

10.5V~36V DC Adapter

9V~36V Car lead-acid battey pack

Anti-vibration and Anti-shock Design

With the rugged design,TANK-800-D525 is reliable under industrial environment with strong vibrations and can be used as a core computer, requiring to be installed on the moving objects.

Cable-less

The Cable-less concept offers a strong hardware design and promises a reliable combination of embedded components. This design helps ensuring stable system operation and robust hardware design. With all the components firmly attached, TANK-800-D525 is suitable to be installed on moving objects.
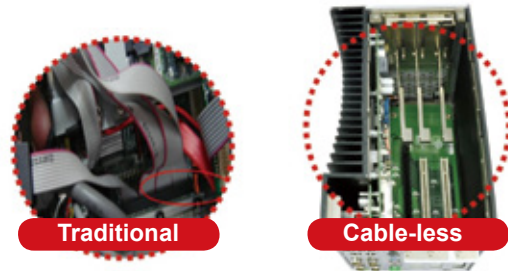
Traditional   **Cable-less**

Wide Range DC power input

TANK-800 takes wide range DC input to allow it to be powered everywhere, Regardless if there are 12 or 28 volts available at the sites, or you have 19V laptop adapter handy, you can simply feed the power and it will run. and endure great tolerance for the variation of equipment ouput.

Ingenious Fan Space Design

TANK-800-D525 reserves an easy-to-install, hot-pluggable fan module space, ensuring the PCI/PCIe expansion cards with high power consumption to operate under high temperature environment.
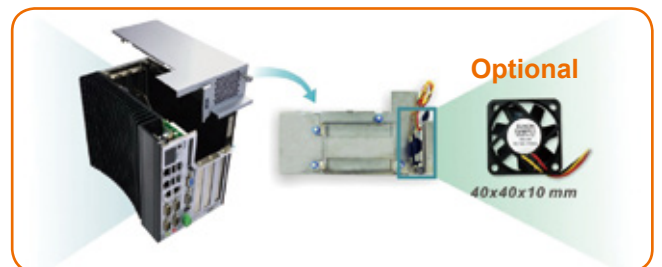
Optional

40x40x10 mm

Fanless

TANK-800-D525 focuses on the best components that generate less heat, but maintain high system performance. With the fanless design, TANK-800-D525 reduces system failure caused by fans and extends the lifetime of the device.
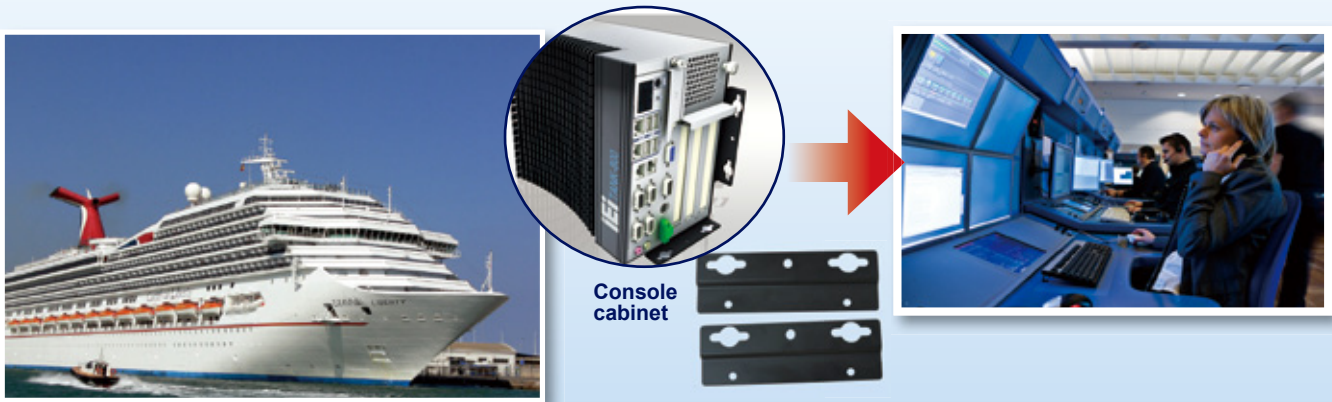
Fanless

Wide Temperature

TANK-800 embedded computers are designed to withstand temperatures ranging from -20°C~70°C for use in extremely hot or cold environment. One popular use is with applications that require installing the computers in roadside cabinets.
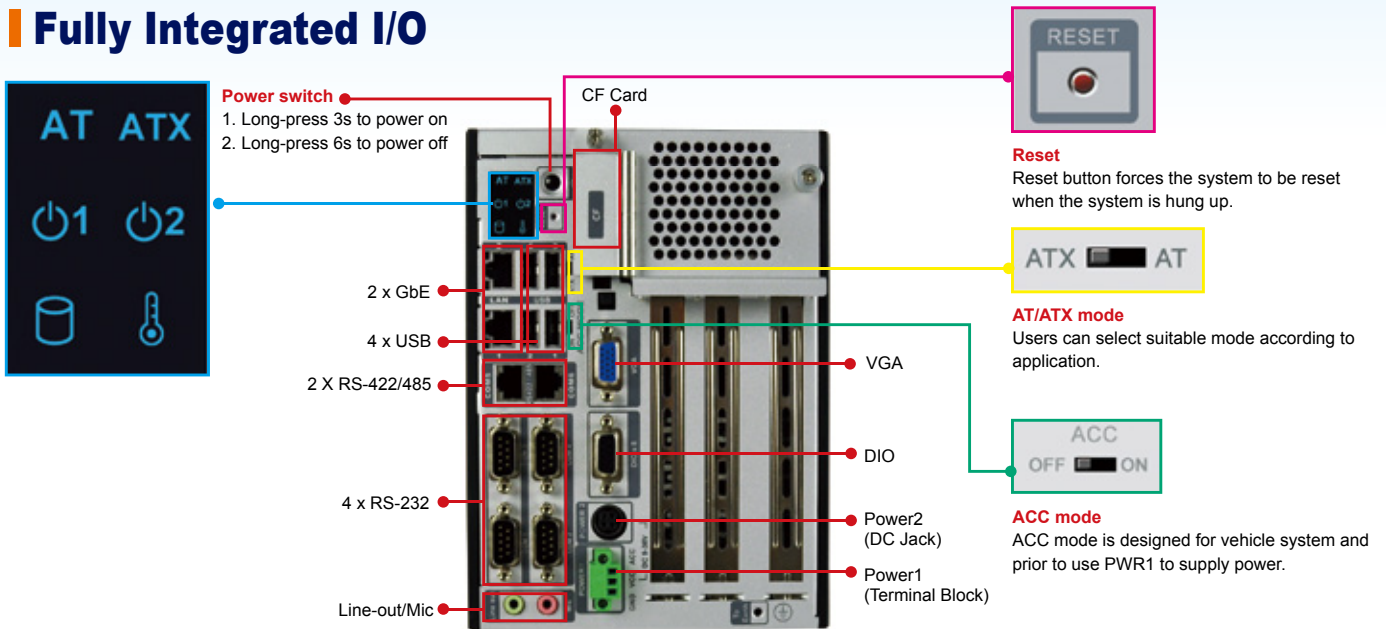
70°C

Mounting Method

Mount the embedded system onto a wall or other surfaces using the two mounting brackets.

Console cabinet

Fully Integrated I/O

Power switch
1. Long-press 3s to power on
2. Long-press 6s to power off

CF Card

AT ATX
1 2

2 x GbE

4 x USB

2 X RS-422/485

4 x RS-232

Line-out/Mic

VGA

DIO

Power2 (DC Jack)

Power1 (Terminal Block)

RESET

Reset
Reset button forces the system to be reset when the system is hung up.

ATX ▬ AT

AT/ATX mode
Users can select suitable mode according to application.

ACC
OFF ▬ ON

ACC mode
ACC mode is designed for vehicle system and prior to use PWR1 to supply power.

Dimensions
(Unit: mm)

219±1

188±1

136±1

231.6

115

Specifications

Model Name		TANK-800-D525
Chassis	Color	Black C + Sliver
	Dimensions (W x D x H)	136 mm x 219 mm x 188 mm
	Chassis Construction	Extruded Aluminum Alloy
Motherboard	CPU	Intel® Atom™ D525 1.8GHz dual-core proccessor
	Chipset	Intel® ICH8M
	Ethernet	Dual Realtek RTL8111E PCIe GbE controllers support ASF 2.0
	Memory	1 x 204-pin 800MHz DDR3 SDRAM SO-DIMM Slot (Max to 2G) On-board 1GB DDR3 memory
Storage	SATA	2.5'' SATA HDD bay
System Function	USB	4 x USB 2.0
	Ethernet	2 x RJ-45
	RS-232	4 x DB-9
	RS-422/485	2 x RJ-45
	Display	1 x VGA
	Resolution	Up to 2048x1536
	Audio	1 x Mic-in, 1 x Line-out
	DIO	1 x DB-9
	CF Slot	1 x CF Type II
	Interior Expansions	Option: One PCIe x4 (physical one PCIe x16 slot) and two PCI slots or one PCIe x1 (physical one PCIe x4 slot) and one PCIe x2 (physical PCIe x16 slot) and one PCI
Power	Power Adapter	90W power adapter Input: 100VAC~240VAC, 50/60Hz Output: 19V DC
	Power Supply	Redundant dual DC input Power 1: 9V (+/-0.3V) ~ 36V Power 2: 10.5V (+/-0.3V) ~ 36V
	Power Consumption	33W (without add-on card)
Reliability	Mounting	Desktop, wall mount
	Operating Temperature	-20°C ~ 70°C
	Storage Temperature	-30°C ~ 80°C
	Operating Shock	Half-sine wave shock 5G, 11ms, 3 axis
	Operating Vibration	Meet MIL-STD-810F 514.5C-2 (with SSD)
	Weight (Net/Gross)	2.6Kg / 3.0Kg

Ordering information

	Part No.	Description
Backplane (HPE-3S6)	TANK-800-D525/1GB/2P1E-R10	Extended temperature fanless embedded system with one PCIe x4 and two PCI expansion, Intel® Atom™ D525 1.8GHz Dual Core Processor, dual 9-36V DC-IN, 1GB DDR3 memory on-board,-20°C~70°C, RoHS
Backplane (HPE-3S7)	TANK-800-D525/1GB/1P2E-R10	Extended temperature fanless embedded system with one PCIe x1 one PCIe x2 and one PCI expansions, Intel® Atom™ D525 1.8GHz dual Core Processor, Dual 9-36V DC-IN, 1GB DDR3 memory on-board, -20°C~70°C, RoHS

Packing List

Item	P/N	Q'ty	Description
Utilities CD	7B000-000087-RS	1	drivers and user manual
One Key Recovery CD	IEI-7B000-000478-RS	1	
Power Adapter	63040-010090-020-RS	1	
Power Cord	32702-000401-100-RS	1	1500 mm, European Standard
Mounting Bracket	41020-0308C2-00-RS	2	
Mounting Brackets Screw	44033-040062-RS	1	M4*6 mounting brackets screw
Locking HDD sScrew	44043-030051-RS	4	M030*05 locking HDD screw
Locking Rubber Foot Screw	44005-030061-RS	8	M4*6 locking rubber foot screw
RJ-45 to DB-9 COM port Cable	32005-000200-200-RS	2	
Pluggable DC-in Terminal Block	33502-000007-RS	1	3-pin

Options

Item	P/N
Fan	31100-000272-RS
OS: Win CE 6.0 (128MB CF Card)	TANKCF-800-D525-CE060-128M-R10
OS: Win XPE (2GB CF Card)	TANKCF-800-D525-XPE-2G-R10
OS: Win XPE (4GB CF Card)	TANKCF-800-D525-XPE-4G-R10
OS: Linux (2GB CF Card)	TANKCF-800-D525-LNX-2G-R10
OS: Win 7 Embedded (4GB CF Card)	TANKCF-800-D525-WES7E-4G-R10