



TANK-101B-D525-N455

Fanless Embedded Controller with Dual Core Intel® Atom™ D525

- ◆ Dual core Intel® Atom™ D525 inside
- ◆ Wide range 9~36VDC power input with isolation protection
- ◆ Isolation protected COM and CAN communication
- ◆ Extended temperature fanless design support -20°C ~ 70°C (N455)



TANK-101B is designed with all the functions and protections compliant with targeting transport market. TANK-101B provides not only the dual core computing power delivered by Intel® Atom™ D525, its onboard memory with CompactFlash/SATA DOM solid-state storage can withstand the severe operating environment on board. With typical voltage at 24VDC, TANK-101B can take wide range DC input from 9V to 36V as power source. It also has COM port and CANBus with isolation protection for device control, dual Intel® GbE LAN and 802.11b/g/n for high speed communication. TANK-101B supports all these versatile functions in a compact enclosure yet support fanless operation.

**It is self-validated by IEI inside lab.*

Isolation Protection

An integrated circuit (IC) connected to external ports is susceptible to damaging electrostatic discharge (ESD) pulses from the operating environment and peripherals. Additional protection can violate stringent signaling requirements, leaving design engineers with the need to balance performance and reliability.

COM3 : RS232/422/485
Default RS422 with isolation

Wide Range Power Input:
9~36 VDC

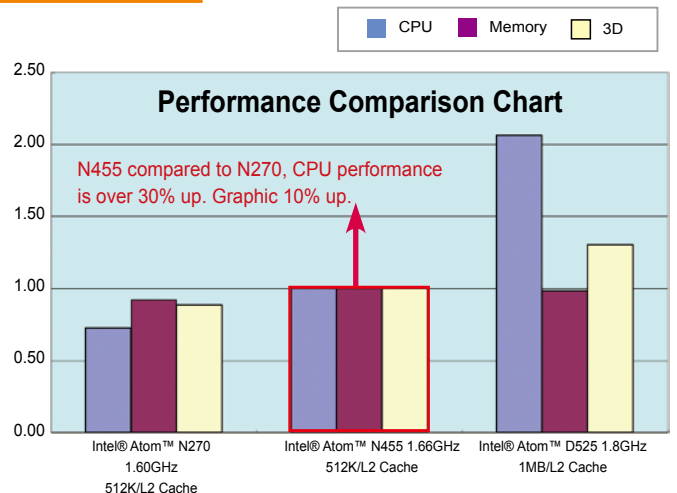
Protection	ESD	±15KV
	Isolation	3000VDC

CAN bus: Isolated DB-9
Isolated protection : 2500 Vrms on CAN site

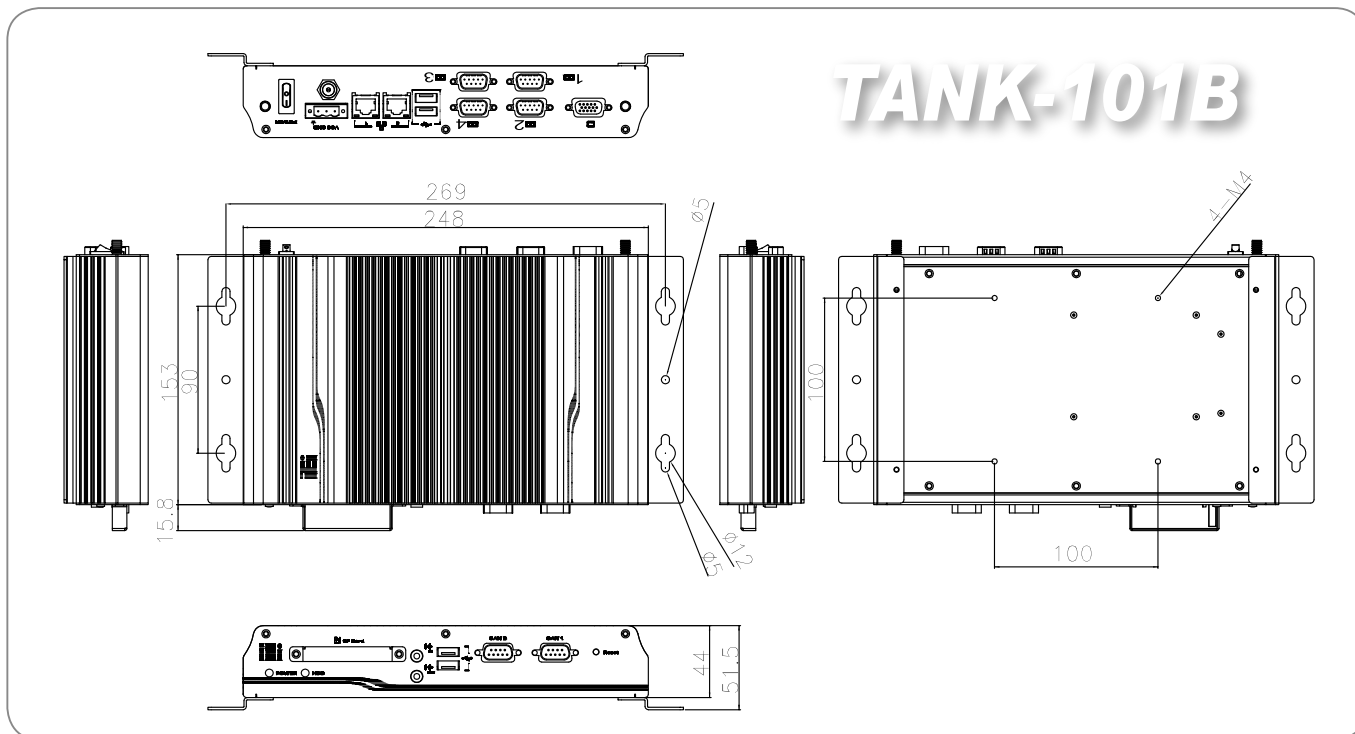
New Dual Core Intel® Atom™ D525

Luna Pier Refresh is the new generation two chip dual core solution of Intel® Atom™ family. Empowered by 45nm process technology:

- 45nm process technology delivers more performance at lower TDP
- Provides mobile single core to desktop dual-core scalability
- 3rd generation graphic core with 400MHz render clock speed



Dimensions (unit: mm)



Specifications

Model Name		TANK-101B
Platform		Intel®
Chassis	Color	Cool Gray+Blue
	Dimensions	248 x 138 x 44 mm
	Chassis Construction	Aluminum Alloy with heavy duty metal
Motherboard	Processor CPU	Intel® Atom™ D525 processor 1.8 GHz /1 MB L2 cache Intel® Atom™ N455 processor 1.66 GHz /512 KB L2 cache
	Chipset	ICH8M
	System Memory	1 GB DDR3 memory on board One expansion 204-pin DDR3 slot (Support up to 2GB)
Storage	Hard Drive	1 x 2.5" SATA HDD space
	Compact Flash	1
System Function	USB 2.0	4
	Ethernet	2 x Realtek 8111E PCIe GbE
	RS232	4 (COM 3 with isolation)
	RS232/422/485	RS232/422/485 Default RS422 with isolation
	Display	1 x VGA
	Resoluition	Up to 2048 x 1536 @ 60 Hz
	Audio	1 x Mic in, 1 x Speaker out
	Other	2 x CAN with isolation
	Wireless	1 x 802.11 b/g/n
Power	Wide Range Power In	9~36 V DC
Reliability	Mounting	DIN mount (optional), wall-mount
	Operating Temperature	-20°C ~ 60°C (D525 model with CompactFlash®/SSD)
		-20°C ~ 70°C (model with CompactFlash® /SSD)
		*Ambient air speed pre IEC-68-2-2 standard
	Operating Shock	-10°C ~ 50°C with WI-FI
	Operating Shock	Half sine wave 3G; 11ms 3axis
Operating Vibration	Meet MIL-STD-810F 514.5C-1 with SATA HDD MIL-STD-810F 514.5C-2 with SATA SSD/CF	
Weight (Net/Gross)		2.1 kg / 3.9 kg

Packing List

1 x QIG
1 x Driver CD
1 x Screw set
2 x Wireless antenna (For wireless model only)
1 x SATA hard drive cable
2 x Wall mount bracket

Ordering Information

Part No.	Description
TANK-101B-R10/D525/1GB	Extend temperture fanless embedded system with dual core Intel® Atom™ Processor D525 1.8GHz CPU with two isolated CAN, one isolated Serial Ports, 1GB DDR3 memory onboard, 9~36V DC in, Pantone 287C + Cool Gray 2C, -20°C ~ 60°C, RoHS
TANK-101B-R10/N455/1GB	Extend temperture fanless embedded system with Intel® Atom™ Processor N455 1.66GHz CPU with two isolated CAN, one isolated Serial Ports, 1GB DDR3 memory onboard, 9~36V DC in, Pantone 287C + Cool Gray 2C, -20°C ~ 70°C, RoHS
TANK-101BW-R10/D525/1GB	Fanless embedded system with dual core Intel® Atom™ Processor D525 1.8GHz CPU with two isolated CAN, one isolated Serial Ports, built-in 802.11b/g/n wireless, 1GB DDR3 memory onboard, 9~36V DC in, Pantone 287C + Cool Gray -10°C ~ 50°C, RoHS
DK-84MB	DIN mount kit for embedded system, black, RoHS

Embedded OS support

TANK-101B-XPE-1GB	Windows® XP Embedded OS image, for TANK-101B, with 1GB CompactFlash memory card, RoHS
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* For other CompactFlash® capacity, please contact with IEI for customization.