

TANK-101B-D525-N455

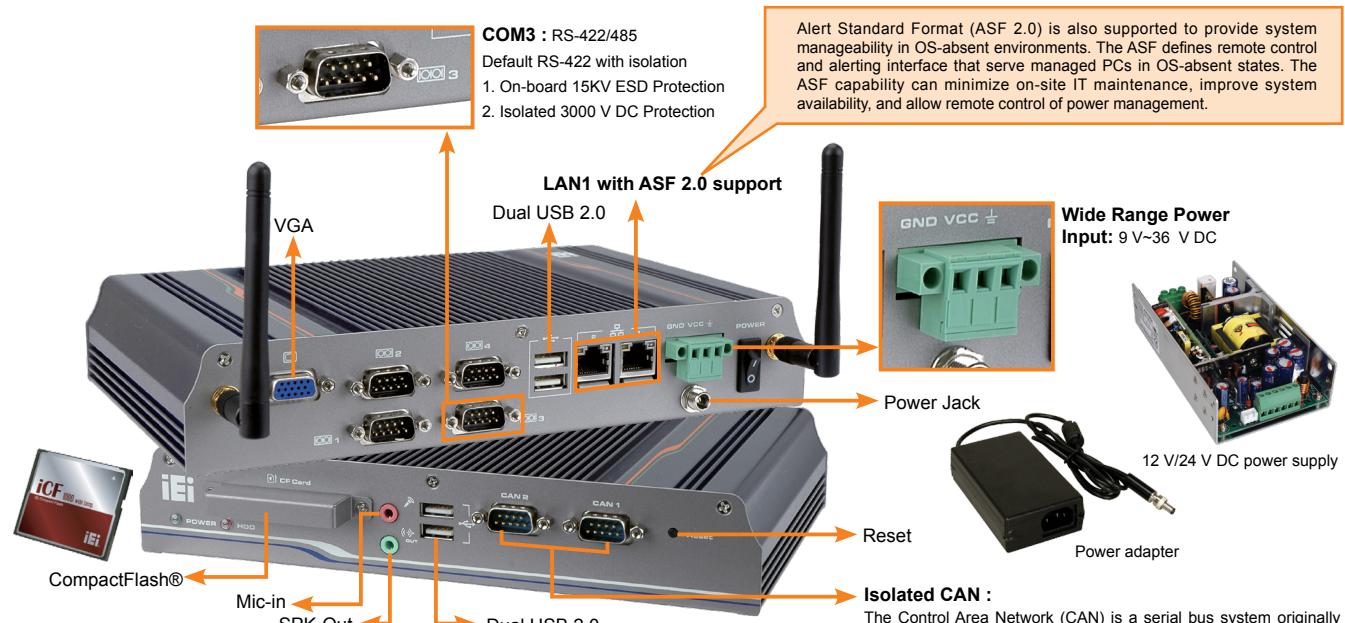
Fanless Embedded Controller with Dual-Core Intel® Atom™ D525 Processor



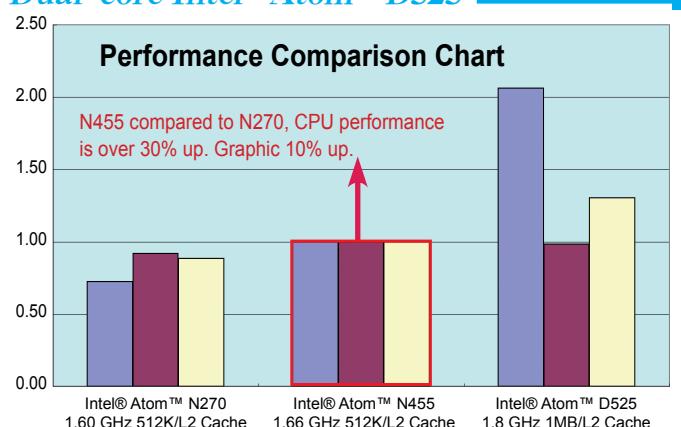
The TANK-101B is designed with all the functions and protections compliant with targeting transport market. It not only provides dual-core computing power delivered by the Intel® Atom™ D525, its onboard memory with CompactFlash®/SATA DOM solid-state storage can withstand severe operating environments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

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.



Dual-core Intel® Atom™ D525



Features

- ♦ Dual-core Intel® Atom™ D525 processor inside
- ♦ Wide range 9 V~36 V DC power input
- ♦ Isolation protected COM and CAN communication
- ♦ Extended temperature fanless design supports -20°C ~ 70°C (N455)



Wide Range Power Input: 9 V~36 V DC

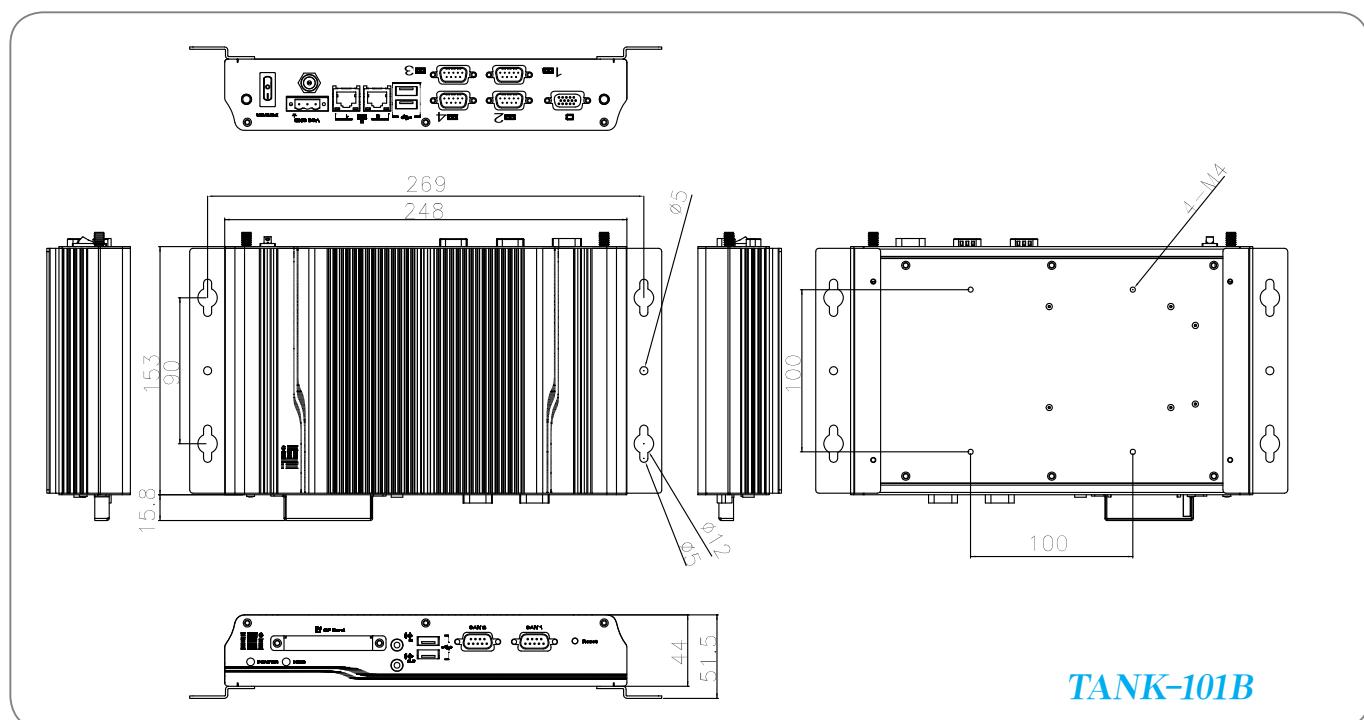
Power Jack: GND VCC ±

12 V/24 V DC power supply:

Reset:

Isolated CAN :
The Control Area Network (CAN) is a serial bus system originally developed by Bosch for use in automobiles, and is now increasingly used in industrial automation.
IEI TANK-101B has built-in on-board CAN controllers. The IEI CAN provides bus arbitration and error detection with an automatic transmission repeat function.
This drastically reduces the chance of data loss, ensures system reliability and is suitable for networking intelligent I/O devices such as sensors or actuator of machines or plants. On-board optical isolators along with additional protection design protect your system and equipment against damage from ground loops and electrostatic discharge (ESD), which increases system reliability in harsh environments.

| | |
|---------------------|----------------------|
| CAN Controller | Philips SJA1000T |
| CAN Transceiver | TI ISO1050DUBR |
| Signal Support | CAN_H, CAN_L |
| Speed (bps) | 1Mbps |
| Connectors | Two DB-9 Connectors |
| Isolated Protection | 2500Vrms on CAN side |

Dimensions (Unit: mm)**Specifications**

| Model Name | | TANK-101B |
|-----------------|-------------------------|--|
| Chassis | Color | Cool Gray+Blue |
| | Dimensions (WxDxH) (mm) | 248 x 138 x 44 |
| | System Fan | Fanless |
| | Chassis Construction | Aluminum alloys with heavy duty metal |
| Motherboard | Processor CPU | Intel® Atom™ D525 1.8 GHz Intel® Atom™ N455 1.66 GHz |
| | Chipset | Intel® ICH8M |
| | System Memory | 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 |
| | CF Card/CFast | 1 x CF Type II |
| System Function | USB 2.0 | 4 |
| | Ethernet | 2 x RJ-45 PCIe GbE by Realtek 8111E |
| | RS-232 | 3 x DB-9 |
| | RS-422/485 | 1 x DB-9 Default RS-422 with isolation |
| | CAN Bus | 2 x DB-9 CAN with isolation |
| | Display | 1 x VGA |
| | Resolution | VGA: Up to 2048 x 1536@60Hz |
| | Audio | 1 x Line-out, 1 x Mic-in |
| | Wireless | 1 x 802.11b/g/n (optional) |
| Expansions | PCIe Mini | 1 x Full size (reserved for Wi-Fi module) |
| Power | Power Input | DC Jack: 9 V~36 V DC |
| | Power Consumption | 12 V@1.85 A (Intel® Atom™ D525 with DDR3 1 GB) |
| Reliability | Mounting | Din-rail, wall mount |
| | Operating Temperature | -20°C~60°C (D525 with air flow CF/SSD), 5% ~ 95%, non-condensing -20°C~70°C (N455 with air flow CF/SSD), 5% ~ 95%, non-condensing |
| | Operating Shock | Half-sine wave shock 3G, 11ms, 3 shocks per axis |
| | Operating Vibration | MIL-STD-810F 514.5C-1 with SATA HDD MIL-STD-810F 514.5C-2 with CompactFlash®/SSD |
| | Weight (Net/Gross) | 2.1 kg/3.9 kg |
| | Safety/EMC | CE/FCC |
| OS | Supported OS | Microsoft® Windows® XP Embedded |

Packing list

1 x SATA HDD drive cable (Part No.: 32801-004900-100-RS)

1 x 60W 12 V power adapter (Meet PSE & ErP)
(Part No.: 63040-010060-120-RS)

2 x Wireless antenna (For wireless model only)

1 x Power cord 1 x One Key Recovery CD

2 x Wall mount brackets 1 x Driver CD

1 x Screw set 1 x QIG



Wall mount Bracket

Ordering information

| Part No. | Description |
|------------------------|---|
| TANK-101B-R11/D525/1GB | Extended tempreture fanless embedded system with dual-core Intel® Atom™ Processor D525 1.8 GHz CPU with two isolated CAN, one isolated serial port, 1 GB DDR3 memory onboard, 9 V~36 V DC in, Pantone 287C + Cool Gray 2C, -20°C ~ 60°C, RoHS |
| TANK-101B-R11/N455/1GB | Extended tempreture fanless embedded system with Intel® Atom™ Processor N455 1.66 GHz CPU with two isolated CAN, one isolated serial port, 1 GB DDR3 memory onboard, 9 V~36 V DC in, Pantone 287C + Cool Gray 2C, -20°C ~ 70°C, RoHS |

Embedded OS support

TANKCF-101B-XPE-1GB

Windows® XP Embedded OS image, for TANK-101B, with 1 GB CompactFlash® memory card, RoHS

* For other CompactFlash® capacity, please contact IEI for customization options.



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Электрон
Связь**

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