

# TANK-760-HM86

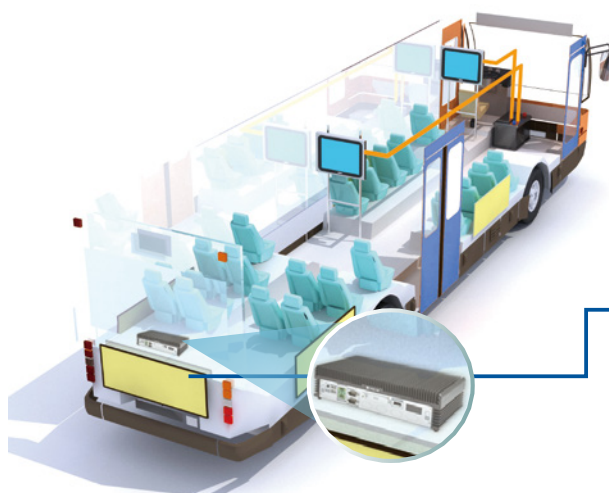
- Intel® HM86 mobile solution
- Three independent video outputs

## Features

- Intel® Core™ i7-4700EQ 2.4 GHz quad-core processor
- Intel® Core™ i5-4400E 2.7 GHz dual-core processor
- Intel® Celeron® 2000E 2.2 GHz dual-core processor
- One CFast socket
- Support three independent video outputs
- Built-in two 2.5" SATA 6Gb/s HDD bays
- 9 V~36 V DC input
- Support IEI iRIS-2400 (IPMI 2.0 compliant)



## Vehicle Control Center



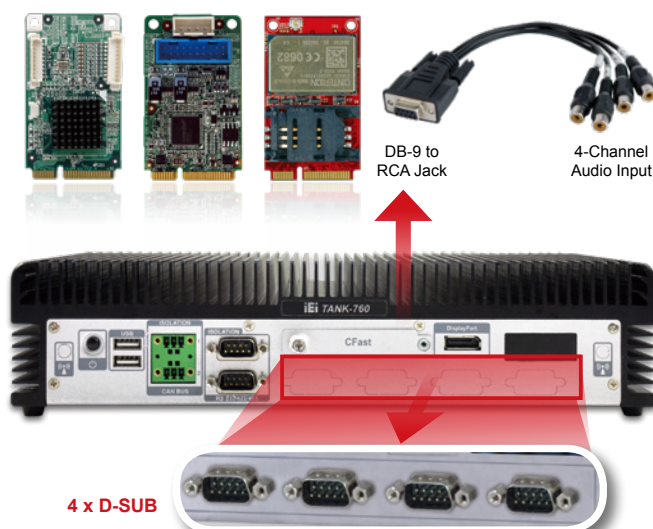
The TANK-760 is a platform based on the 4th generation Intel® Core™ i5 or Celeron® processor (codenamed Haswell) and the Intel® HM86 chipset. The TANK-760 is equipped with an abundant of I/O ports and supports a wide range of operating temperature. The TANK-760 can be used as a control center for in-vehicle application, such as buses or trucks. With dual CAN-bus port, more peripheral devices can be connected for vehicle applications.



## Flexible Expansion Design

The TANK-760 is designed with four D-sub knockout holes and three PCIe Mini card slots for installing I/O expansion cards, such as video/audio capture cards or COM port cards.

### PCIe Mini Video/Audio Capture Card

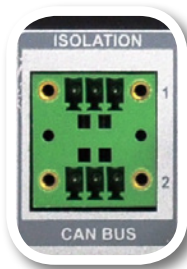


## Dual 2.5" SATA HDD/SSD Bay

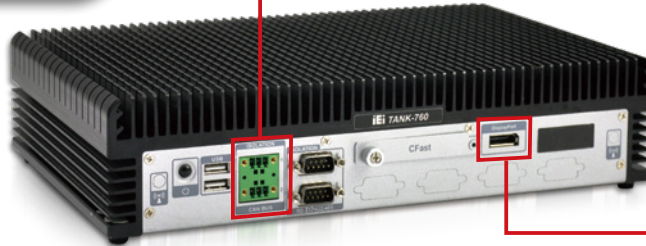
With two 2.5" SATA HDD/SSD bays, users can fulfill large storage requirement and use it as a terminal for data acquisition. The easy-to-assemble design reduces user fatigue in system installation.



## Dual CAN-Bus Port

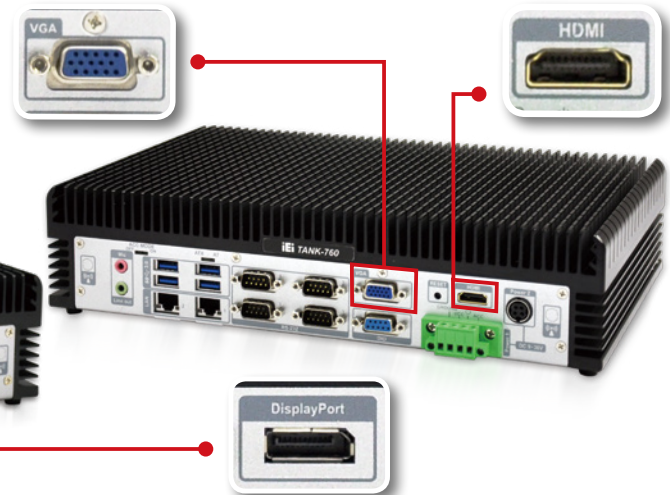


Controller Area Network (CAN or CAN-bus) is a vehicle bus standard designed to communicate or detect errors with each other within a vehicle, industrial automation and medical equipment. The TANK-760 has two CAN-bus interfaces, which allow customers to connect more devices in vehicle application.



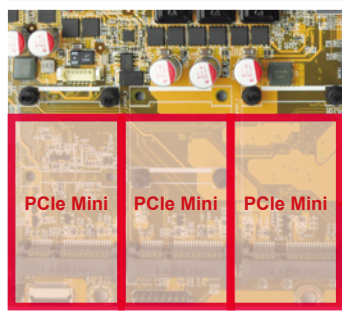
## Triple Display

The TANK-760 contains VGA, DisplayPort and HDMI video outputs, which can be applied to multi-display application and support high Full HD video quality.



## Three PCIe Mini

There are lots of different PCIe Mini cards for various applications, such as Wi-Fi, 3G and GPS cards. With three PCIe Mini cards, customers can add extra functions via PCIe Mini cards to apply the TANK-760 in different environments.



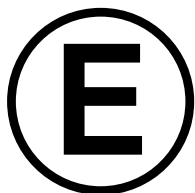
Full-size PCIe Mini

## Military Compliant

The TANK-760 is compliant with MIL-STD-810F standard for shock and vibration. The MIL-STD-810 test series is approved for use by all departments and agencies of the United States Department of Defense (DoD).



## E-Mark Compliant



E-Mark is a commonly recognized certificate in the automobile industry in Europe. E-mark is from the Economic Commission for Europe (Economic Commission of Europe, referred to as ECE) and including 28 countries currently. It is compulsory for vehicles application.

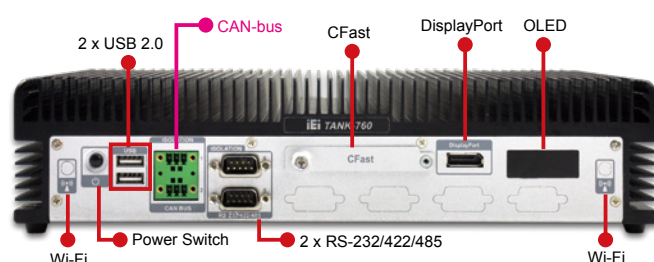
## iRIS Solution



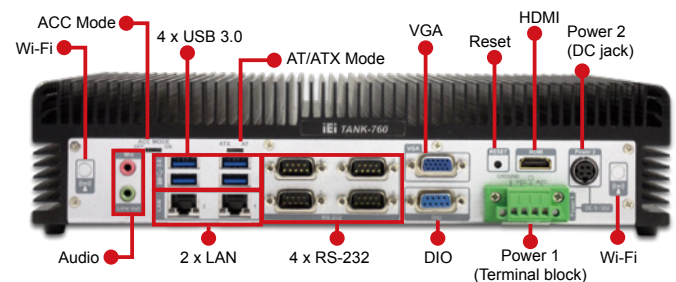
By installing the Iei iRIS-2400 module, the TANK-760 is capable to complete your IoT application through the advanced remote control features, such as power management and control, remote KVM for device status monitoring, sending active alerts and warning messages by e-mail or SMS.

## Fully Integrated I/O

### Front View



### Rear View



## Specifications

| Model Name     |                         | TANK-760-HM86                                                                                                 |
|----------------|-------------------------|---------------------------------------------------------------------------------------------------------------|
| Chassis        | Color                   | Black C + Silver                                                                                              |
|                | Dimensions (WxDxH) (mm) | 310 x 200 x 69.8                                                                                              |
|                | System Fan              | Fanless                                                                                                       |
|                | Chassis Construction    | Extruded aluminum alloys                                                                                      |
| Motherboard    | CPU                     | Intel® Core™ i7-4700EQ 2.4 GHz<br>Intel® Core™ i5-4400E 2.7 GHz<br>Intel® Celeron® 2000E 2.2 GHz              |
|                | Chipset                 | Intel® HM86                                                                                                   |
|                | System Memory           | 2 x 204-pin DDR3 SO-DIMM, one 4GB pre-installed (system max: 16 GB)                                           |
| iRIS Module    | iRIS Solution           | 1 x iRIS-2400 (optional)                                                                                      |
| Storage        | Hard Drive              | 2 x 2.5" SATA 6Gb/s HDD/SSD bay                                                                               |
|                | CF Card/CFast           | 1 x CFast                                                                                                     |
| I/O Interfaces | USB 3.0                 | 4                                                                                                             |
|                | USB 2.0                 | 2                                                                                                             |
|                | Ethernet                | 2 x RJ-45<br>1 x PCIe GbE by Intel® I210<br>1 x PCIe GbE by Intel® I217LM                                     |
|                | COM Port                | 4 x RS-232 (DB-9, with isolation)<br>2 x RS-232/422/485 (DB-9, with isolation)                                |
|                | Digital I/O             | 8-bit digital I/O, 4-bit input/4-bit output                                                                   |
|                | CAN-bus                 | 2 x Phoenix terminal block with isolation                                                                     |
|                | Display                 | 1 x VGA, 1 x HDMI, 1 x DisplayPort                                                                            |
|                | Resolution              | VGA: Up to 1920 x 1200@60Hz<br>HDMI: Up to 2500 x 1600@60Hz<br>DisplayPort: Up to 2500 x 1600@60Hz            |
|                | Audio                   | 1 x Line-out, 1 x Mic-in                                                                                      |
|                | Wireless                | 1 x 802.11b/g/n (optional)                                                                                    |
|                | Other                   | Reserved IO window for PCIe Mini card expansion                                                               |
| Expansions     | PCIe Mini               | 1 x Full-size PCIe Mini slot 1/2*<br>1 x Full-size PCIe Mini slot 3 (supports mSATA, colay with SATA)         |
|                | Power Input             | DC Jack: 9 V~36 V DC<br>Terminal Block: 9 V~36 V DC                                                           |
| Power          | Power Consumption       | 19 V@3.2 A<br>(Intel® Core™ i5 i5-4400E with 4 GB memory)                                                     |
|                | Mounting                | Wall mount                                                                                                    |
| Reliability    | Operating Temperature   | -20°C ~ 70°C with air flow (SSD)<br>for i5-4400E & 2000E<br>-20°C ~ 50°C with air flow (SSD)<br>for i7-4700EQ |
|                | Operating Shock         | Half-sine wave shock 5G, 11ms,<br>3 shocks per axis                                                           |
|                | Operating Vibration     | MIL-STD-810F 514.5C-2 (with SSD)                                                                              |
|                | Weight (Net/Gross)      | 4.2 kg/6.9 kg                                                                                                 |
|                | Safety/EMC              | CE/FCC                                                                                                        |
| OS             | Supported OS            | Microsoft® Windows® 8 Embedded,<br>Microsoft® Windows® Embedded Standard 7 E                                  |

\* TANK-760-QGW-i5/8G-R10 has only two Full-size PCIe Mini slots( slot 2 & slot 3)

## Ordering Information

| Part No.                 | Description                                                                                                                                                                                    |
|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| TANK-760-HM86i-i7/4G-R10 | Fanless embedded system , Intel® Core™ i7-4700EQ Quad core 2.4GHz, TDP 47W, 4GB DDR3 pre-installed memory , VGA/HDMI/Displayport, iRIS-2400 optional, 9~36V DC, RoHs, R10                      |
| TANK-760-HM86i-i5/4G-R10 | Fanless embedded system, Intel® Core™ i5 dual-core i5-4400E 2.7 GHz, TDP 37W, 4GB DDR3 pre-installed memory, VGA/HDMI/DisplayPort, iRIS-2400 optional, 9 V~36 V DC, RoHs, R10                  |
| TANK-760-HM86i-C/4G-R10  | Fanless embedded system, Intel® Celeron® dual-core 2000E 2.2 GHz, TDP 37W, 4GB DDR3 pre-installed memory, VGA/HDMI/DisplayPort, iRIS-2400 optional, 9 V~36 V DC, RoHs, R10                     |
| TANK-760-QGW-i5/8G-R10   | Fanless embedded system, Intel® Core™ i5 dual-core i5-4400E 2.7 GHz, TDP 37W, 2 x 4GB DDR3 pre-installed memory, VGA/HDMI/DisplayPort, iRIS-2400 optional, with QTS-Gateway, 9 V~36 V DC, RoHs |

## Options

| Part No.                | Description                                                                                                                                           |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| iRIS-2400-R10           | IPMI 2.0 adapter card with AST2400 BMC chip for DDR3 SO-DIMM socket interface                                                                         |
| EMB-WIFI-KIT11-R20      | 1T1R wifi module kit for embedded system, IEEE802.11a/b/g/n/ac WiFi with Bluetooth 4.0/3.0+HS, 1 x wifi module, 2 x 350mm RF cable, 2 x Antenna, RoHS |
| TANK-760-HM86-WES7E-R10 | OS Image with Windows® Embedded Standard 7 E for TANK-760 HM86 Series, CD-ROM, RoHS                                                                   |

## Packing List

|                   |                      |
|-------------------|----------------------|
| 1 x Power Adapter | 1 x Chassis Screw    |
| 1 x Power Cord    | 1 x Mounting Bracket |

## Dimensions (Unit: mm)

