

# TANK-700-QM67 ■ Intel® 2nd Gen Core™ Mobile Processor

## High Performance Fanless Embedded System with 2nd Generation Intel® mobile Core™ i7/i5/i3 and Celeron® Processor

Combo Gigabit LAN  
(SFP/Fiber/RJ-45)

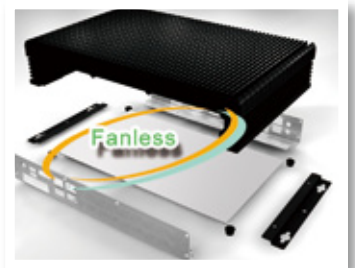


- 2nd Gen Intel® mobile Core™ i7/i5/i3 and Celeron® processor
- Intel® HD graphics supports H.264/AVC-MPEG2/VC1, DirectX 10.1 and OpenGL 3.0
- Built-in 2GB DDR3 memory and one DDR3 SO-DIMM slot (max. 4GB)
- Dual combo (10/100/1000 baseT(X) or 1000 baseSFP slot) Gigabit LAN ports, supporting Intel® AMT 7.0
- Support 8-channel video/audio capture and dual display by VGA/HDMI
- Support two USB 3.0 ports, four USB 2.0 ports, one SATA 6Gb/s port, one CAN-Bus port and eight COM ports (four with isolation)
- Dual-band 2.4/ 5GHz 802.11a/b/g/n 3T3R MIMO Wi-Fi for high speed wireless transmission
- Redundant dual DC power input (9V~36V)
- CAN-bus interface with isolation
- Extended temperature fanless design supports -20°C ~ 70°C



### Fanless Solution

TANK-700 focuses on the best components that generate less heat, but maintain high system performance. With the fanless design, TANK-700 reduces the system failure caused by fans and extends the lifetime of the device.



### Intel® Virtualization Technology

Intel Virtualization Technology (Intel VT) makes a single system appear as multiple independent systems to the softwares. This allows multiple, independent operating systems to run simultaneously on a single system. This entire "package" of virtual hardware - CPU, memory and networking, OS and application are not hardware, is turned into a single software file. Virtual machines are hardware independent, and because they are files, they can be manipulated with the ease of file copy and paste. Virtual machines bring an entirely new level of efficiency and flexibility to the IT environment.

#### Auto Distribute Resource

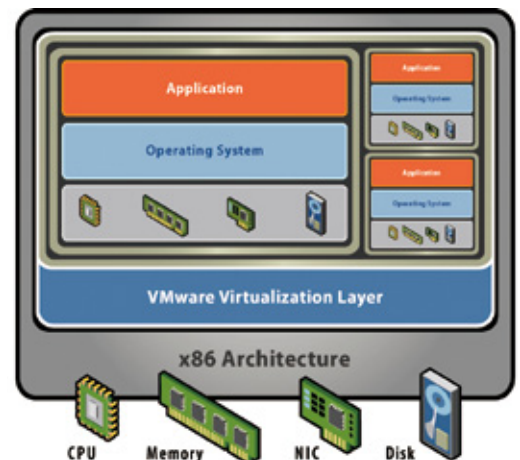
- Dynamic Balancing
- Continuous Optimization

#### Various Application

- Automated
- Cross Applications

#### Dynamic Adjust Resource

- Non-disruptive Scaling
- Flexible, Reconfigurable

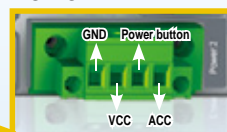




## Redundant Dual DC Power Input

TANK-700 adopts redundant dual DC power input design, which 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.

### Power1

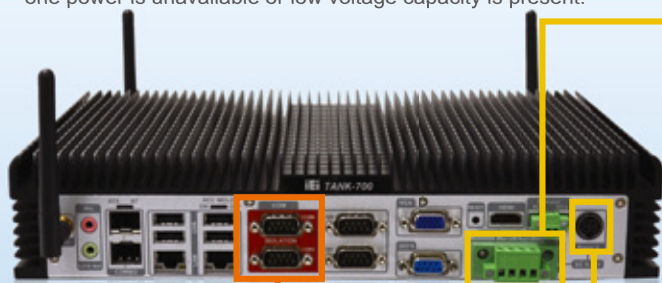


- PWR2 is inputting with 12V adapter and PWR1 is inputting from 9V to 16V, system can automatically switch. If PWR1 input is over 16V, it will be automatically switched to PWR2 when the adapter of PWR2 was plugged out; however it will not be restored when the adapter of PWR2 was plugged in again.
- PWR2 is inputting with 19V adapter and PWR1 is inputting from 9V to 26V, system can automatically switch. If PWR1 input is over 26V, it will be automatically switched to PWR2 when the adapter of PWR2 was plugged out; however it will not be restored when the adapter of PWR2 was plugged in again.

### Power2



10.5V~36V DC Adapter



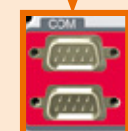
### Isolation Protection

## 4 COM Ports with Isolation

### COM with isolation

1. Isolated protection voltage 2500V/min DC protection
2. Common-mode transient immunity >25 kV/μs ESD protection

### 2 x RS-422/485



2 x RS-232



2 x RS-422 / 485

## CAN-bus interface with Isolation

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. This drastically reduces the chance of data loss and ensures system reliability and is suitable for intelligent networking I/O devices such as sensors or actuator of machines or plants.



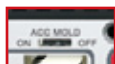
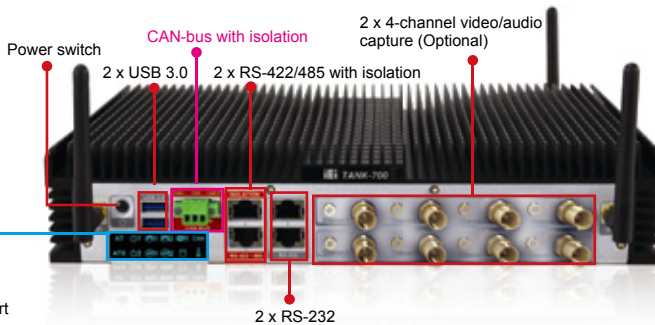
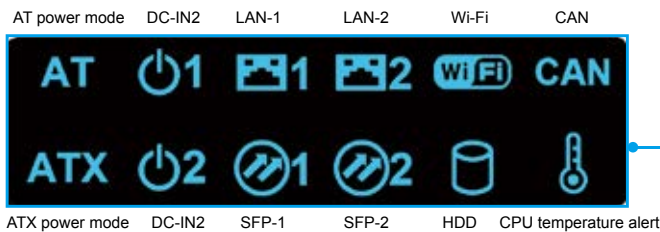
### CAN-bus with isolation

1. Isolated protection voltage 2500V/min DC protection
2. Typical transient immunity 50 kV/ms ESD protection

## Fully Integrated I/O

### Power switch and LED

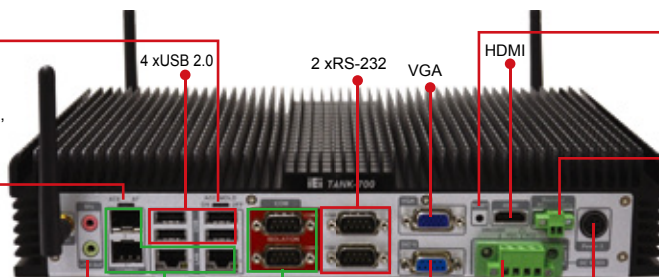
1. Long-press 3s to power on
2. Long-press 6s to power off



**ACC on/off**  
ACC on mode is designed for vehicle application, Use ACC signal to control power on/off.



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



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



**Remote control**  
Users can power on/off the system by inputting low or high voltage into the terminal block  
**High (2V~5V): Power off**  
**Low (< 0.4V): Power on**

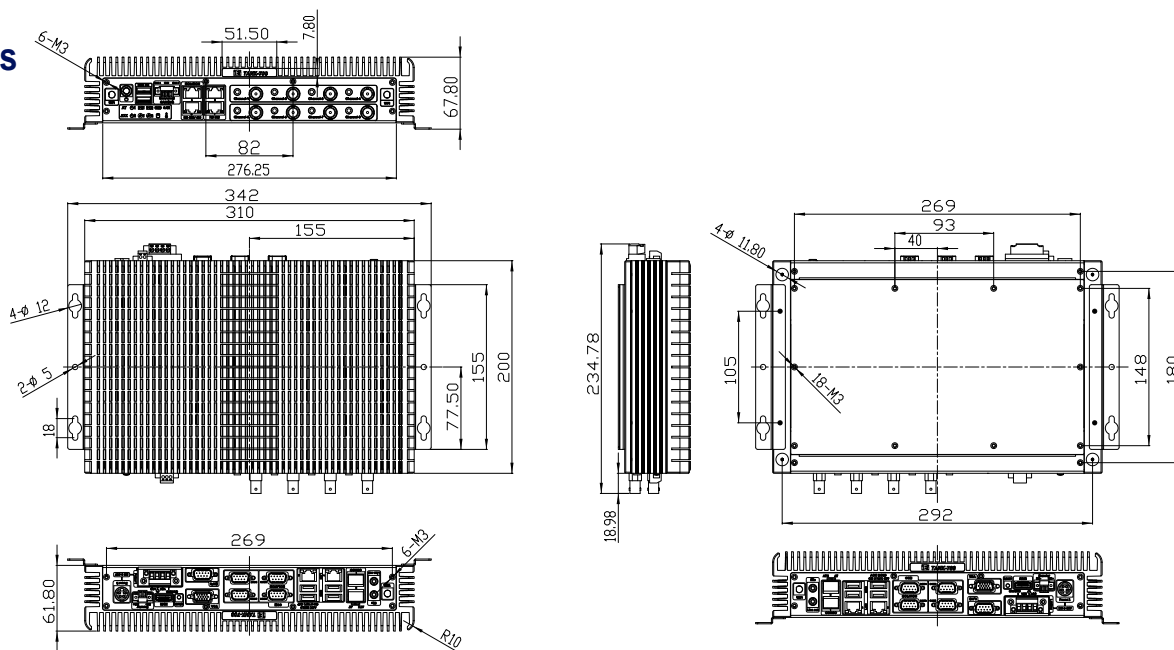


## Specifications

<b>Model Name</b>		<b>TANK-700-QM67</b>
<b>Chassis</b>	<b>Color</b>	Black C + Sliver C
	<b>Dimensions</b>	310 mm x 200 mm x 62 mm
	<b>Chassis Construction</b>	Extruded Aluminum Alloy Heavy duty steel sheet
<b>Motherboard</b>	<b>CPU</b>	2nd Generation Intel® mobile Core™ i7/i5/i3 and Celeron® processor
	<b>Chipset</b>	Intel® QM67
	<b>Ethernet</b>	Intel® 82579 PHY with Intel® iAMT 7.0 supported Intel® 82583V Ethernet controller
	<b>Memory</b>	1 x 204-pin 1066/1333 MHz dual-channel DDR3 SDRAM DIMM slot (system max. 4GB) On-board 2GB DDR3 memory
<b>Storage</b>	<b>SATA</b>	SATA 6Gb/s with 2.5" HDD/SSD support
<b>System Function</b>	<b>USB</b>	2 x USB 3.0 on front side 4 x USB 2.0 on rear side
	<b>Ethernet</b>	2 x Combo (SFP Fiber / RJ-45) Gigabit LAN
	<b>RS-232</b>	4 x DB-9 on rear side 2 x RJ-45 with isolation on front side
	<b>RS-422/485</b>	2 x RJ-45 with isolation on front side
	<b>Display</b>	1 x VGA 1 x HDMI
	<b>Resolution</b>	Up to 2048 x 1536 @ 75Hz (VGA), 1920 x 1200 @ 60Hz (HDMI)
	<b>Audio</b>	1 x Mic-in, 1 x Line-out
	<b>CAN-bus</b>	1 x Phoenix terminal block on front side
	<b>Audio/Video Capture</b>	Optional 4-channel audio/video input PCIe Mini card (up to two cards)
	<b>Interior Expansions</b>	3 x PCIe Mini slots
<b>Power</b>	<b>Power Adapter</b>	90W power adapter Input: 100VAC~240VAC, 50/60Hz Output: 19V DC
	<b>Power Supply</b>	Redundant dual DC input Power 1: 9V (+/-3%) ~ 36V Power 2: 10.5V (+/-3%) ~ 36V
	<b>Power Consumption</b>	19W@3.3A (Intel® Core™ i5-2540M processor with 4G DDR3 memory)
<b>Reliability</b>	<b>Mounting</b>	Desktop, Wall mount
	<b>Operating Temperature</b>	-20°C ~ 70°C, 5% ~9 5%, non-condensing
	<b>Storage Temperature</b>	-30°C ~ 80°C,
	<b>Operating Shock</b>	Half-sine wave shock 5G, 11ms, 3 axis
	<b>Operating Vibration</b>	Meet MIL-STD-810F 514.5C-2 (with SSD)
	<b>Weight (Net/Gross)</b>	3.8Kg / 6.54Kg

## Dimensions

(Unit: mm)



## Ordering Information

Part No.	Description	
TANK-700-QM67/C/2G-R10	Fanless embedded system ,2GB DDR3 on board memory, 8 channel capture card, VGA/HDMI, USB3.0, SATA3.0, SFP Fiber, Isolated CAN, Audio, 9-36V DC input, -20~70°C, R10	
TANK-700-QM67/2G-R10	Fanless embedded system,2GB DDR3 on board memory, VGA/HDMI, USB3.0, SATA3.0, SFP Fiber, Isolated CAN, Audio, 9-36V DC input, -20~70°C, R10	
TANK-700-QM67W/C/2G-R10	Fanless embedded system ,2GB DDR3 on board memory, 8 channel capture card, VGA/HDMI, USB3.0, SATA3.0, SFP Fiber, 3T3R 802.11 a/b/g/n wireless, Isolated CAN, Audio, 9-36V DC input, -20~70°C, R10	
TANK-700-QM67W/2G-R10	Fanless embedded system,2GB DDR3 on board memory, VGA/HDMI, USB3.0, SATA3.0, SFP Fiber, 3T3R 802.11 a/b/g/n wireless, Isolated CAN, Audio, 9-36V DC input, -20~70°C, R10	
CPU Selection	CPU-MB-i7-2640M	2nd Generation Intel® Core™ i7 Processor [Mobile], PPGA-988, dual core 2.8GHz, 35W, iAMT
	CPU-MB-i5-2520M	2nd Generation Intel® Core™ i5 Processor [Mobile], PPGA-988, dual core 2.5GHz, 35W, iAMT
	CPU-MB-i3-2310M	2nd Generation Intel® Core™ i3 Processor [Mobile], PPGA-988, dual core 2.1GHz, 35W
	CPU-MB-CM-B840	Intel® Celeron® Mobile Processor,PPGA-988,dual core 1.9GHz,35W
	CPU-MB-CM-B710	Intel® Celeron® Mobile Processor,PPGA-988,single core 1.6GHz,35W
Memory Selection	DDR3-SO-1333-2GB	SO-DIMM DDR3 1333 2GB
	DDR3-SO-1333-4GB	SO-DIMM DDR3 1333 4GB
	DDR3-SO-1333-8GB	SO-DIMM DDR3 1333 8GB

## Options

Item	TANK-700-QM67
Gigabit Ethernet SFP Module	SFP1G-SX-I
	SFP1G-MLX-I
	SFP1G-LX10-I
	SFP1G-ZX70-I
Fiber Cord	FPC-LCLC-MM3M
	FPC-LCLC-SS3M
OS: Win CE 6.0 (CDROM)	TANK-700-QM67-CE060-R10
OS: Win XPE (CDROM)	TANK-700-QM67-XPE-R10
OS: Linux (CDROM)	TANK-700-QM67-LNX-R10
OS: Win 7 Embedded (CDROM)	TANK-700-QM67-WES7E-R10

## Packing List

Item	P/N	Q'ty	Description
Utilities CD		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
RJ45 to DB9 COM Port Cable	32005-000200-200-RS	4	
Chassis Screw	44013-030041-RS	8	M3*4 chassis screw for backup
Mounting Brackets	41020-0163J4-00-RS	2	
Mounting Brackets Screw	44003-030062-RS	8	M3*6 mounting brackets screw
Wi-Fi Antenna	32505-000900-100-RS	3	External Antenna
Pluggable DC-in Terminal Block	33502-000055-RS	1	4pin
Pluggable CAN Terminal Block	33502-000007-RS	1	3pin
Pluggable Remote Control Terminal Block	33101-000422-RS	1	2pin