

Industrial System Platform Solutions

As the leading Industrial System provider, IEI continues to extend the product footprint from component level to system integration service. Our strong knowledge of market and technology innovation offers reliability, flexibility and interoperability for all of our industrial products with choices of size, performance and features.

1. Transportation System

Model Name	Processor
IKARPC-07A	Intel® Atom™ E3826 1.46 GHz, Freescale™ i.MX 6 Cortex™-A9 1.0 GHz
IKARPC-W10A-BT	Intel® Atom™ E3826 1.46 GHz
IVS-300	Intel® Core™ i5-6300U 2.4 GHz, Intel® Celeron® J1900 2.0GHz
IVS-200-ULT2	Intel® Core™ i5-5350U 1.8 GHz, Intel® Celeron® 3765U 1.9 GHz
IVS-110-AL	Intel® Apollolake® E3930 Dual-core 1.8GHz
IVS-100-BT	Intel® Atom™ E3826 1.46 GHz
ITCS-100-H81	Intel® Core™ i5-4570TE 2.7GHz, Intel® Celeron® G1820TE 2.2GHz
IRS-100-ULT3	Intel® Core™ i5-6300U 2.4 GHz
SBOX-100-QM87	Intel® Core™ i5-4400E 2.7 GHz



2. Industrial Automation System

Model Name	Processor
TANK-870-Q170	Intel® Core™ i7-6700TE 2.4 GHz, Intel® Core™ i5-6500TE 2.3 GHz
TANK-870e-H110	Intel® Core™ i7-6700TE 2.4 GHz, Intel® Core™ i5-6500TE 2.3 GHz
TANK-860-HM86	Intel® Core™ i5-4400E 2.7 GHz, Intel® Celeron® 2000E 2.2 GHz
TANK-820-H61	Intel® Core™ i5/i3, Pentium® processor
TANK-801-BT	Intel® Celeron® J1900 2 GHz
TANK-800-D525	Intel® Atom™ D525 1.8 GHz
TANK-760-HM86	Intel® Core™ i7-4700EQ 2.4 GHz, Intel® Core™ i5-4400E 2.7 GHz, Intel® Celeron® 2000E 2.2 GHz
TANK-720-Q67	Intel® Core™ i5/i3, Pentium® processor
TANK-700-QM67	Intel® Core™ i5/i3, Pentium® Mobile processor
TANK-610-BW	Intel® Celeron® N3160 1.6GHz
TANK-600-D2550/N2600	Intel® Atom™ D2550 1.86 GHz / Intel® Atom™ N2600 1.6 GHz
TANK-6000-C226	Intel® Xeon® E3 1225-v3 3.2 GHz, Intel® Core™ i3 4330 3.5 GHz



3. Digital Signage Embedded System

Model Name	Processor
IDS-300-BW	Intel® Celeron® N3160 1.6GHz
IDS-200-A70M	AMD® R-series R-260H 2.1 GHz



4. DIN-Rail Embedded System

Model Name	Processor
DRPC-120-BT	Intel® Atom™ E3845 1.91 GHz
DRPC-100-CV	Intel® Atom™ N2800 1.86 GHz



5. Compact Size Embedded System

Model Name	Processor
ulBX-250-BW	Intel® Celeron® N3160 1.6GHz
ulBX-230-BT	Intel® Celeron® N2930 1.83 GHz
ulBX-210-CV	Intel® Atom™ N2600 1.6 GHz
ulBX-200 Series	VIA® Eden™ ULV 1 GHz, Intel® Atom™ Z510P 1.1 GHz



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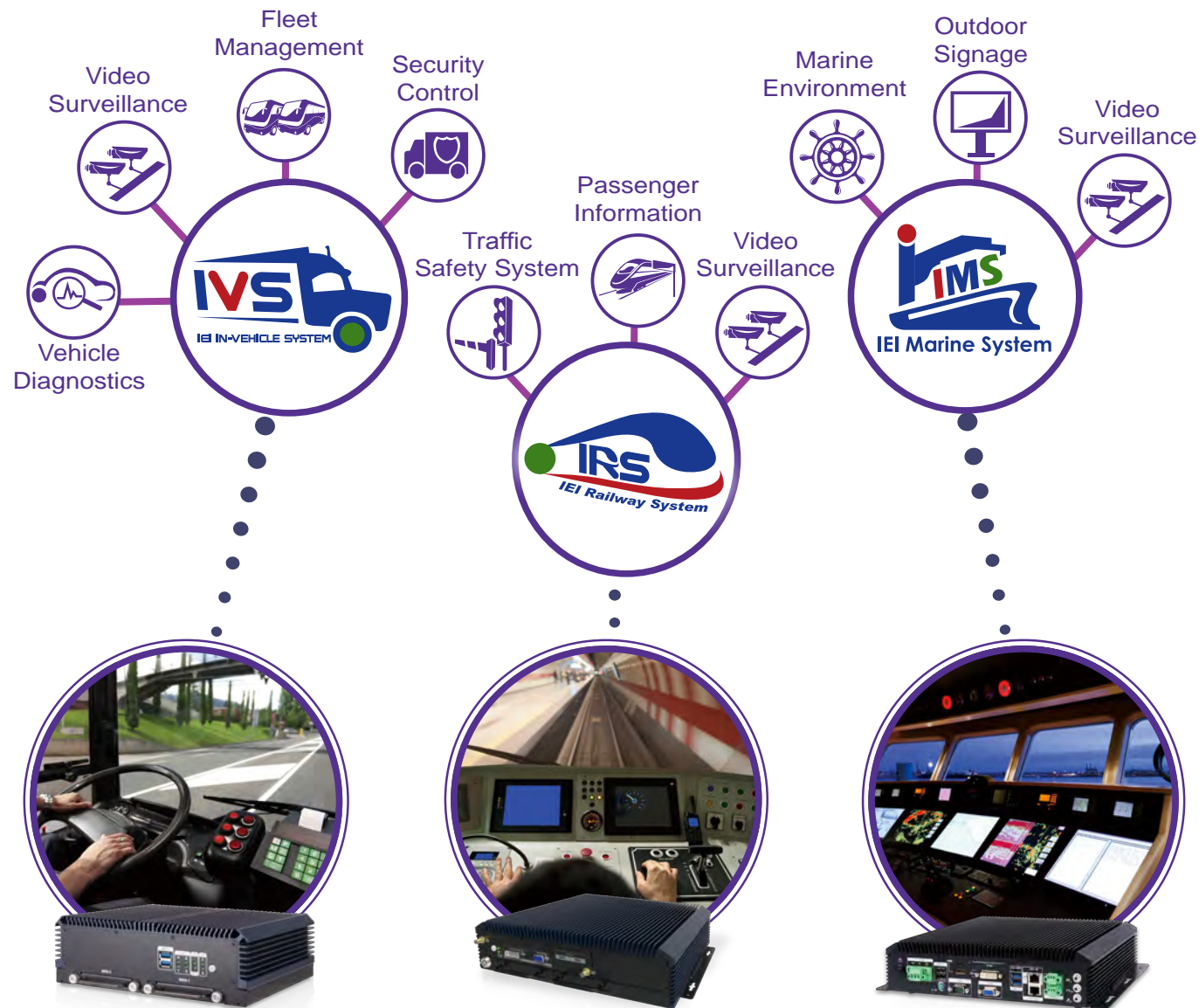
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Optional Peripherals

Transportation Solution

IEI transportation series is divided into three categories for different markets: in-vehicle, railway and marine. All these products have passed harsh vibration and shock test and can withstand in extreme temperature. This series allows wide voltage input and features multiple communication options. In addition, our products are in fanless design suitable for various markets and with rich I/O for different applications.

Ruggedized Solution



■ IVS & IKARPC Series In-Vehicle Features

- Wide working temperature
- Wide DC input range
- E-mark certification
- OBD-II function
- Multi wireless communication
- DNV, IEC 60945 4th, IACS-E10, IEC 61174 Certification
- IP 4x protection

■ IRS Series Railway Features

- Wide working temperature
- Support DVI and VGA dual display
- EN-50155 certification
- Dual SIM slot
- M12 connector

■ SBOX Series Marine Features

- Isolation protection ports
- Three independent displays
- Full range dimming
- DNV, IEC 60945 4th, IACS-E10, IEC 61174 Certification
- IP 4X protection

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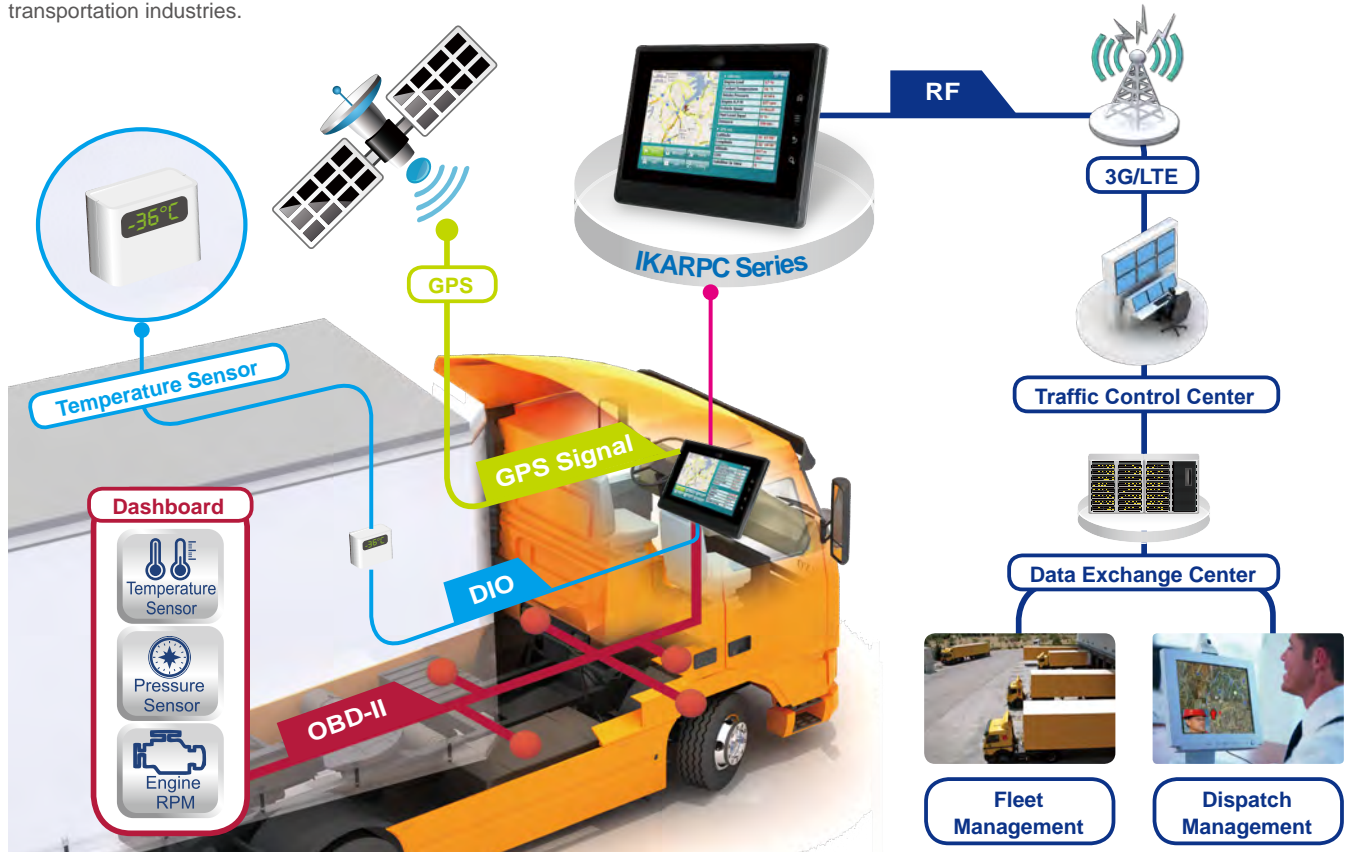
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In-Vehicle: IKARPC Series

Logistics industry's commonly used satellite positioning systems, electronic maps, Internet access, mobile communication systems with 3.75G/LTE/Wi-Fi/Bluetooth/GPS/RFID are all combined together in our solutions for fleet management, logistics, manufacturing and passenger transportation industries.



Key Features

■ High Brightness Screen



The IKARPC-07A series is equipped with an ultra-high brightness LCD panel to help drivers avoid low visibility caused by direct sunlight.

■ Communication

The transportation series reserves multiple PCIe Mini slots for different network communication. Users can use CDMA/GPRS/HSUPA+/LTE to transmit and receive real-time data, use Wi-Fi for data acquisition, or use GPS to get accurate location data.

■ CAN Bus/OBD-II



The IKARPC series supports On Board Diagnostics (OBD) and Controller Area Network (CAN bus) and is built-in with OBD-II and CAN bus for real-time vehicle diagnostic. CAN has a high degree of flexibility to adjust capacity which can be added in the existing network of nodes.

■ X86/ARM solution



The IKARPC-07A has two solutions, Intel and ARM architecture for customers. You can choose Intel solution which supports Windows OS, or you can choose ARM solution which supports Android OS.



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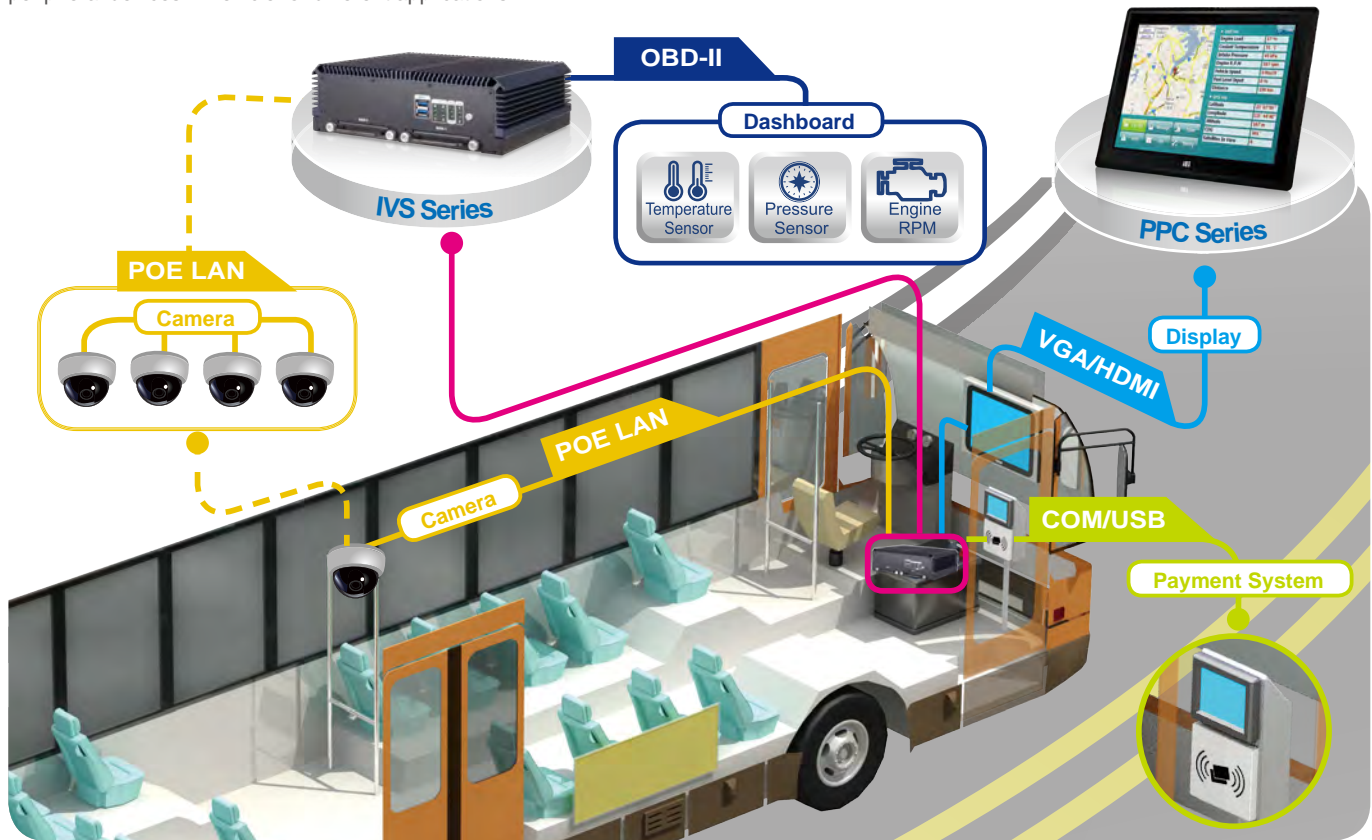
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In-Vehicle: IVS Series

The IVS series vehicle box PC is designed with reliable performance for harsh environments. Rich I/O ports are provided to connect with multiple peripheral devices in vehicle for different applications.



Key Features

■ Wide Range Temperature



IEI fanless product series has leading-edge thermal design and has been tested under extreme temperature conditions in order to ensure that IEI fanless products can work in any harsh environment.

■ Vibration and Shock Resistance



In-vehicle systems must be able to withstand the shock and vibration that comes with driving a vehicle. IEI transportation series meet the requirement for different environments and has passed particular verification dependent on MIL-STD-810G 514.5 standard, EN61373 for railway market, EN60721 for in-vehicle market.



■ E-mark Certification



All vehicles, vehicle parts, and electronic products for the car must be enforced EMC testing. IEI IVS and IKARPC In-Vehicle series product all get E-Mark certification which are required for the European market.

■ Particular Power Solution



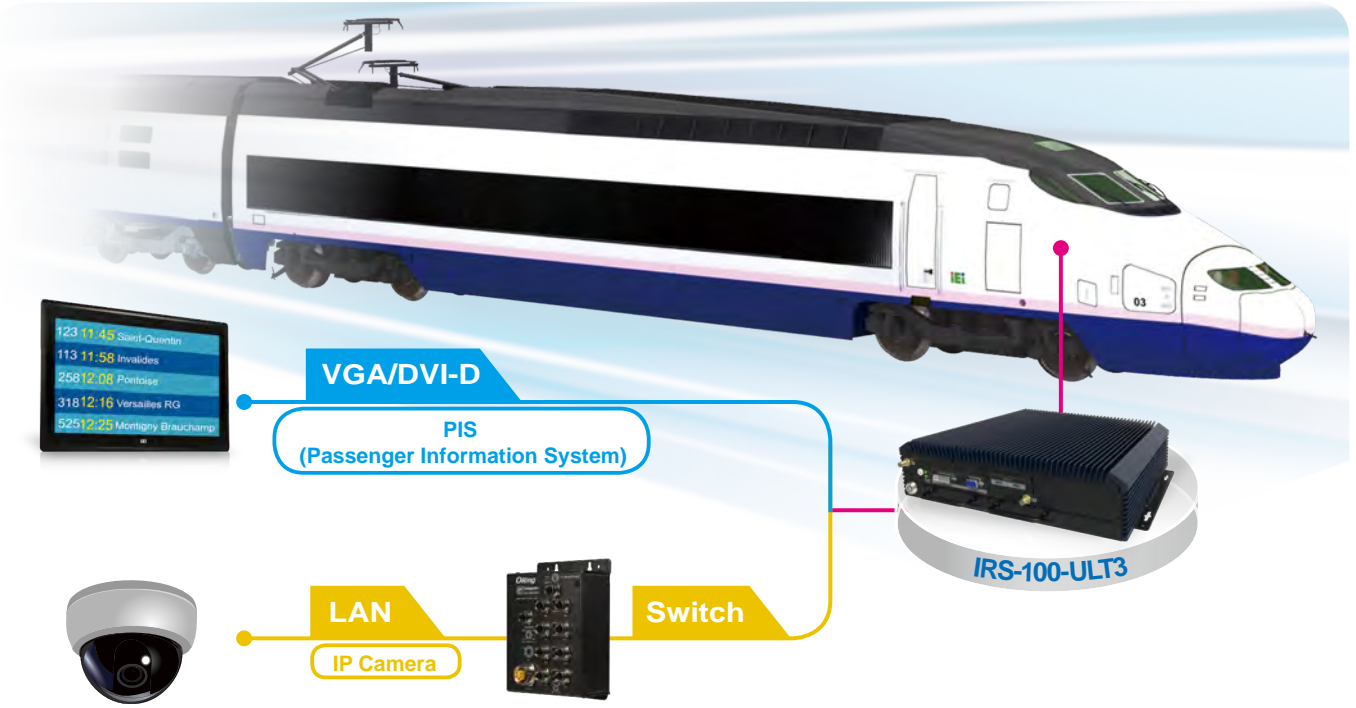
We design wide power input to prevent surge when starting engine. We develop power management for users. For in-vehicle market, we design wide DC input and ACC power to ensure users can operate the system well.



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Railway: IRS Series

IEI's Railway System (IRS) is focused on the rolling stock market with a variety of advanced technologies designed. The IRS-100 series is compliant with EN 50155 standard. The IRS-100 provides multiple storage bays for data saving, lockable connectors, GPS function and Wi-Fi for wireless communication. Users can control passenger information system (PIS) and network video recorder (NVR) through the IRS-100. The popular IP cameras for surveillance application can also be implemented to provide real time video monitoring to ensure passengers' safety.



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Key Features

■ Dual SIM Slot



The IRS-100 offers dual SIM slot with the ability to automatically switch between two different networks in order to maintain seamless connectivity in remote areas. The system supports GPRS/UMTS/HSDPA/LTE technologies for transmission.

■ Lockable M12 Connectors



To against vibration and shock, the M12 connector is used for dual LAN communication which offers a reliable performance for high-quality data acquisition or transmission. The M12 connector can ensure that all cables can be tightly secured and improve anti-vibration capability.

■ Multiple Isolated Port Protection



The IRS-100 provides 2.5kV isolation on the RS-232/422/485, DIO and power in order to protect from any stray electrical signals from other devices and to ensure stable operation in harsh environments.

Front View



Rear View



■ Operating Temperature and EN 50155 Compliance

EN50155 is the standard for electronic equipment used on rolling stock. IEI's railway system (IRS-100) complies with EN50155 T3 standard and passed tests for vibration, shock, and wide temperature. IRS-100 can run in an extremely hot or cold environment -40°C ~ 70°C.

Standard	EN50155 T1	EN50155 T2	EN50155 T3	EN50155 TX
Internal Cabinet Temperature Range	-25°C - +55°C	-40°C - +55°C	-25°C - +70°C	-40°C - +70°C

■ Wide Range of DC/DC Converters

Railway rolling stock is required to meet the requirement of EN50155 for electronic equipment.

IRS-100 has wide range of input voltages of 16VDC~160VDC, therefore, users are able to install variety devices in different railway rolling stock applications.

Nominal Input	24V	37.5V	48V	72V	96V	110V
Input Range (0.7-1.25 Vin)	17-30V	26-47V	34-60V	50-90V	67-120V	77-137V
Brownout 100ms (0.6xVin)	14V	22V	29V	43V	58V	66V
Transient 1s (1.4xVin)	34V	61V	67V	101V	135V	154V

■ Compliant with Electromagnetic Interference Requirements

Railway electronic systems are subjected to different level of electromagnetic interference requirements.

Standard	Parameter		EN50155	
Rolling Equipment	Vibration	Category < 0.3 kg	Shock (half sine)	Long. / Trans. / Vert. axis
	Frequency range	5 - 150 Hz	Peak acceleration	5 g / 2 g / 1 g
	Acceleration	5 g	Duration	50 ms / 20 ms / 20 ms

■ Compliant with Mechanical Requirements

Railway electronic systems are subjected to high-level mechanical environmental constraints depending on their implementation.

	Generic Standards	EN 50121-3 and -4	EN 50155
Radio electrical conducted emission <30MHz 0,15 - 0,5 MHz (quasi peak) 0,5 - 5 MHz (quasi peak) 5 - 30 MHz (quasi peak)	EN55022 EN55011	EN55011 level +20 dB : 79 dB/μV/m+20dB (quasi peak) 73 dB/μV/m+20dB (quasi peak) 73 dB/μV/m+20dB (quasi peak)	Level: 70 dB/μV/ qp 70 dB/μV/ qp 70 dB/μV/ qp
Radio magnetic emission qp at 10m >30MHz 30 - 80 MHz 80 - 230 MHz 230 - 1,000 MHz	EN55022 EN55011	EN55011 level class B : 40 dB/μV/m (quasi peak) 40 dB/μV/m (quasi peak) 47 dB/μV/m (quasi peak)	Level: 70 dB/μV/m < 70 dB/μV/m < 70 dB/μV/m
Electrostatic discharge immunity (Internal)	EN61000-4-2 or IEC-801-2	Level: 6KV contact cond. B Level: 8KV air cond. B	
Radio frequency electromagnetic fields immunity (80 - 1,000 MHz)	EN61000-4-3 or IEC-801-3 EN50140	Level: 10V/m condition A Level: 20V/m condition A	Level: 10V/m Level: 20V/m
Fast transient/burst immunity (DC power port and I/O ports)	EN61000-4-4 or IEC-801-4	Level: 0.5KV condition A Level: 2KV condition A	Level: 2KV
Surge immunity	EN61000-4-5 or IEC-801-5	Level: 2KV condition B Impedance 42 Ohm	Level: 1.8 KV
Conducted disturbances induced by radio frequency fields immunity (150KHz-80MHz) (DC power port and I/O port)	EN50141 or EN61000-4-6 or EN50121-4	Level: 3V condition A Modulation 80% AM Impedance 150 Ohm Level: 10V condition A	
Damped oscillatory magnetic field immunity	EN61000-4-10	Level: 30A/m condition B	

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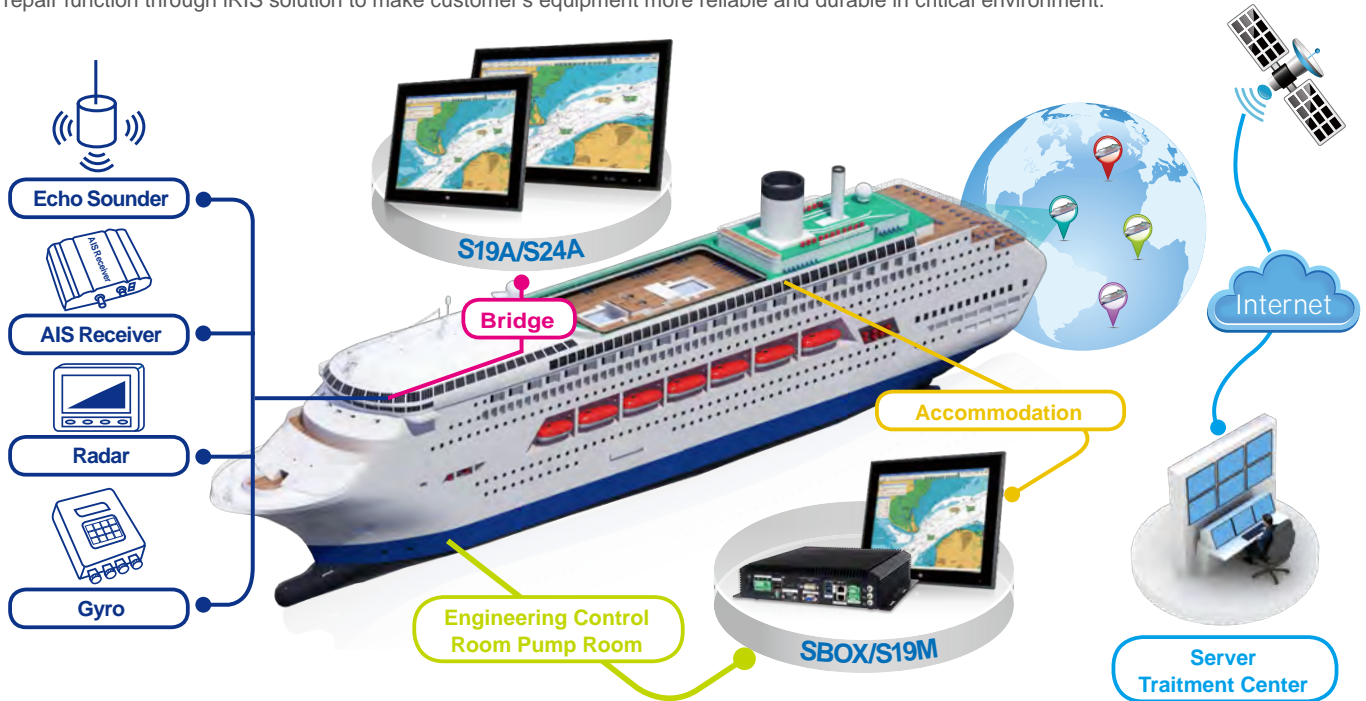
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Marine: SBOX Series

It is difficult to send out technical support for maritime field application due to the location limitation. The best way to solve the urgent issue is remote troubleshooting with IEI iRIS solution. IEI marine-grade solutions provide the most convenient method of real-time system alert notice and repair function through iRIS solution to make customer's equipment more reliable and durable in critical environment.



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IEI Mobile Solutions

Key Features

■ 3 independent displays: HDMI, DVI, and VGA

The three simultaneously independent displays are supported via the on-board video output combinations of VGA, DVI and HDMI. This versatile combination of display output options makes the marine system ideal for multi-monitor required applications in the bridge room.



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■ Multiple Isolated Ports for Comprehensive Protection against Electrical Surges

Ground loop and electric surges are common in the marine applications of electronic products due to the dense placement of devices. These stray electrical signals can cause equipment damage or malfunction.

■ 2.5 kV isolation protection on the RS-232/422/485

IEI marine computer is protected from any stray electrical signals from other devices on the ship. Electric surges that were generated from other electronic devices which often passed through serial lines to the marine computer can cause severe damage and malfunction to the computers.

■ Two independent CAN 2.0B channels with 2.5 kV isolation protection

CAN 2.0B is a kind of marine electronic data network for communication between marine electronic devices such as chart plotters, navigation instruments, GPS receivers, etc.

■ Isolated 18 V~36 V DC power 2250 V DC Input to Output Basic Insulation



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DNV Compliance

The DNV regulation is one of the most stringent standards in the maritime industry. It sets the minimum requirements of devices based on where the device is located. IEI marine series complies with DNV regulations and has passed tests for temperature, humidity, vibration, EMC and water- and dust-proof levels.

■ Operating Temperature

The marine series can run in wide temperature environment from -15°C to 55°C.

Temperature	Class A	Class B	Class C	Class D
Location	Machinery spaces, control rooms, accommodation, bridge	Inside cubicles, desks, etc. with temperature rise of 5° C or more	Pump rooms, holds, rooms with no heating	Open deck, masts
Minimum equipment specification	Ambient temperatures: +5°C to +55°C	Ambient temperatures: +5° C to +70°C	Ambient temperatures: -25°C to +55°C	Ambient temperatures: -25°C to +70°C

■ Humidity

The marine series conforms to DNV class A of humidity.

Humidity	Class A	Class B
Location	Locations where special pre-cautions are taken to avoid condensation	All other locations
Minimum equipment specification	Relative humidity up to 96 % at all relevant temperatures.	Relative humidity up to 100 % at all relevant temperatures

■ Vibration

The marine series is subjected to DNV Class A vibration test and can be widely used on bulkheads, beams, deck and bridge.

Vibration	Class A	Class B	Class C
Location	On bulkheads, beams, deck, bridge	On machinery such as internal combustion engines, com-pressors, pumps, including piping on such machinery	Masts
Minimum equipment specification	Frequency range: 3-13.2 Hz, Amplitude: 1.0 mm (peak value) Frequency range: 13.2-100 Hz, Acceleration amplitude: 0.7 g	Frequency range: 3-25 Hz, Amplitude: 1.6 mm (peak value) Frequency range: 25-100 Hz, acceleration amplitude: 4.0 g	Frequency range: 3-13.2 Hz, Amplitude: 3.0 mm (peak value) Frequency range: 13.2-50 Hz, Acceleration amplitude: 2.1 g

■ EMC

Being different to CE and FCC standards, DNV regulations especially emphasize the importance of electromagnetic compatibility. IEI marine series is compliant with strict class B level and can provide a safe operating environment of sailing period.

Vibration	Class B			
Location	All locations including bridge and open deck			
Minimum equipment specification	Immunity			
	Conducted Low Frequency (Test 3.14.4)	Electrical Fast Transient/Burst (Test 3.14.5)	Electrical Slow Transient Surge (Test 3.14.6)	
	AC 50/60 Hz Supply Voltage up to 15th harmonics: 10% of UN 15th to 100th harmonics: decreasing from 10% to 1% of UN 100th to 200th: harmonics 1% of UN DC Supply Voltage Frequency Sweep Range: 50 Hz to 10 kHz Signal Level: 3 V r.m.s. max 2W	Amplitude : 2 kV line on power supply port/earth; 1 kV on I/O data control and communication ports(coupling clamp)	Amplitude: 0.5 kV, differential mode 1 kV, common mode	
	Conducted Radio Frequency (Test 3.14.7 – Table 3.20/3.21)	Radiated Electromagnetic Field (Test 3.14.8)	Electrostatic Discharge (Test 3.14.9)	
	Frequency range:150 kHz - 80 MHz Voltage level (e.m.f.): 3 V r.m.s. Spot frequencies: 2/3/4/6.2/8.2/12.6/16.5/18.8/22/25 MHz. Voltage level (e.m.f.) :10 V r.m.s.	Frequency range: 80 MHz to 2 GHz Electric field strength: 10 V/m	Output voltage Air: 8 kV Contact: 6 kV	
	Emission			
	Radiated (Test 3.14.10 - 11)			
	Enclosure Port	Frequency range	Measuring bandwidth	Limits (quasi-peak)
	EMC B All locations including bridge and open deck	0.15-0.3 MHz	9 kHz	80 - 52 dBµV/m
		0.30-30 MHz	9 kHz	52 - 34 dBµV/m
30-2000 MHz		120 kHz	54 dBµV/m	
Except: 156-165 MHz		9 kHz	24 dBµV/m	
Conducted (Test 3.14.10 - 12)				
Power Port	Frequency range	Measuring bandwidth	Limits (quasi-peak)	
EMC B All locations including bridge and open deck	10-150 kHz	200 Hz	96 – 50 dBµV	
	150-350 kHz	9 kHz	60 – 50 dBµV	
	0.35 - 30 MHz	9 kHz	50 dBµV	

■ Enclosure

The marine series is compliant with high waterproof and dustproof level. The front bezel complies with IP66 rating and the rear side complies with IP22.

Enclosure	Class A	Class B	Class C	Class D
Location	Control rooms, accommodation, bridge	Engine room	Open deck, masts, below floor plates in engine room	Submerged application, bilges
Minimum equipment specification	IP22	IP44	IP56	IP68

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E-Window Tool Kit

Innovative E-windows technology is a new modular way of adding flexible functionality to a wide range of device. Using standardized component helps system integrators easily add more features without any costly efforts.



E-Window

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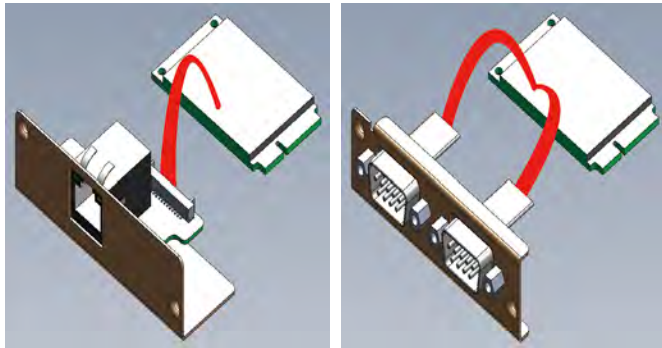
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Features

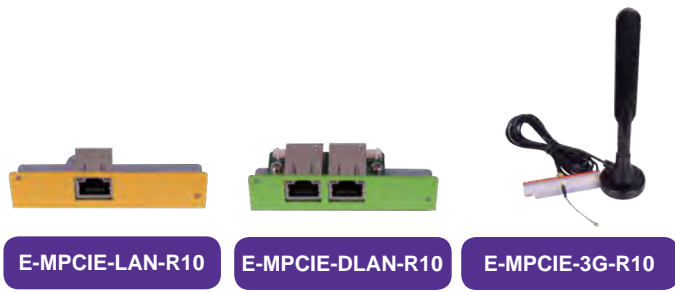
- Easy maintenance
- Variety module & I/O plate with flexible customization
- Integration of multiple functions
- Easy for replacement with different modules



E-Window I/O Plate with PCIe Mini Card
An e-window module uses a PCIe Mini slot embedded on the motherboard.

Supported Model

Transportation System
IVS-110-AL
ITCS-100-H81
Industrial Automation System
TANK-870e-H110



Ordering Information

Part No.	Description
E-MPCIE-LAN03-R10	PCIe mini card supports 1-port GbE with REALTEK RTL8111E controller, with PMS 194C I/O bracket and 150 mm cable
E-MPCIE-DLAN03-R10	PCIe mini card supports 2-port GbE with Intel® I211 controller, with PMS 194C I/O bracket and 150mm cable
E-MPCIE-CClink-R10	PCIe mini card supports CC-Link Slave interface according to V2.0 and V1.1, with black C I/O bracket and 250mm cable, R10
E-MPCIE-PROFIBUS-R10	PCIe mini card supports universal PROFIBUS DP card for Master or Slave, with black C I/O bracket and 250mm cable, R10
E-MPCIE-EtherCAT-R10	PCIe mini card supports universal for all Real-Time Ethernet protocols, with black C I/O bracket and 280mm cable, R10
E-MPCIE-3G02-R10	PCIe mini card supports 3G WWAN Module, with PMS 130C I/O bracket, RF antenna 150mm cable and GSM antenna cable

Transportation System



Model Name		IKARPC-07A-A9	IKARPC-07A-BT	IKARPC-W10A-BT
Chassis	Color	Black C + Silver	Black C + Silver	Blue C + Black C
	Dimensions (WxDxH) (mm)	210 x 154 x 28	210 x 154 x 28	277 x 186 x 27
	System Fan	Fanless	Fanless	Fanless
	Chassis Construction	PC + ABS plastic	PC + ABS plastic	PC + ABS plastic
	Construction	PC + ABS plastic	PC + ABS plastic	PC + ABS plastic
Display	Size	7"	7"	10.1"
	Resolution	1024 x 3 (RGB) x 600	1024 x 3 (RGB) x 600	1280 x 800
	Brightness (cd/m ²)	500	500	350
	Contrast Ratio	700:1	700:1	800:1
	Pixel Pitch (mm)	0.05 (W) x 0.15 (H)	0.05 (W) x 0.15 (H)	0.0565 (W) x 0.1695 (H)
	Viewing Angle (H/V)	130° (H) / 140° (V)	130° (H) / 140° (V)	150° (H)/145° (V)
	Touchscreen	Projected capacitive touch with USB interface	Projected capacitive touch with USB interface	Projected capacitive touch with USB interface
Motherboard	CPU	Freescale™ i.MX 6 Cortex™-A9 (quad-core, 1.0 GHz)	Intel® Atom™ processor E3826 (dual-core, 1.46 GHz, 7W)	Intel® Atom™ processor E3826 (dual-core, 1.46 GHz, 7W)
	Chipset	N/A	SoC	SoC
	System Memory	On-board 1 GB SDRAM	On-board 2 GB SDRAM	On-board 2 GB DDR3
Storage	Hard Drive	N/A	N/A	1 x 2.5" SATA 3Gb/s HDD/SSD drive bay
	SD card	1 x SD slot (supports SD 2.0, max. 32 GB)	1 x Micro SD slot (supports SD 2.0, max. 32 GB)	1 x SD slot (supports SD 2.0, max. 32 GB)
	Flash	On-board 8 GB INAND flash	N/A	N/A
	mSATA	N/A	1 x mSATA (SATA 3Gb/s) optional	N/A
Communication	WLAN	On-board Wi-Fi 802.11a/b/g/n	PCIe Mini Wi-Fi 802.11a/b/g/n/ac (optional)	PCIe Mini Wi-Fi 802.11a/b/g/n/ac (optional)
	Bluetooth	Bluetooth 3.0+HS	BT 4.0/3.0+HS (combo with WLAN optional module)	BT 4.0/3.0+HS (combo with WLAN optional module)
	WWAN	PCIe Mini WCDMA/HSDPA/HSUPA (optional)	PCIe Mini WCDMA/HSDPA/HSUPA (optional)	PCIe Mini WCDMA/HSDPA/HSUPA (optional)
	RFID	13.56 MHz ISO4443 A/B, read-write capable, ISO 14443A (MIFARE), ISO 14443B (FeliCa)	N/A	N/A
	GPS	On board GPS	On board GPS	On board GPS
I/O Interfaces	20-pin Connector	1 x 10/100 LAN, 1 x OBD-II/CAN bus, 1 x USB 2.0	1 x GbE LAN, 1 x OBD-II/CAN bus, 1 x USB 2.0	N/A
	24-pin Connector	1 x Audio line-out(R+L) 1 x Audio line-in 1 x RS-232 4-bit digital I/O (2-bit input, 2-bit output)	1 x Audio line-out(R+L) 1 x Audio line-in 1 x RS-232 4-bit digital I/O (2-bit input, 2-bit output)	N/A
	8-pin Connector	Video input	N/A	N/A
	USB 3.0	N/A	1	1
	USB 2.0	2	1	1
	Ethernet	N/A	N/A	1 x RJ-45 PCIe GbE by Realtek 8111E
	COM Port	N/A	N/A	2 x DB-9 RS-232
	Digital I/O	N/A	N/A	8-bit digital I/O (4-bit input, 4-bit output)
	CAN-Bus/OBD-II	N/A	N/A	1 x DB-9 CAN-bus/OBD-II
	Display	N/A	1 x HDMI	1 x HDMI
	SIM	1 x on board SIM card slot	2 x on board SIM card slot	2 x on board SIM card slot
Antenna	1 x GPS, 1 x WWAN	1 x GPS, 1 x WWAN	1 x GPS, 1 x WWAN	
Expansions	PCIe Mini	1 x Full-size PCIe Mini (reserved for mSATA module), 1 x Full-size PCIe Mini (reserved for WWAN module), 1 x Half-size PCIe Mini (reserved for WLAN module)	1 x Full-size PCIe Mini (reserved for WWAN module), 1 x Full-size PCIe Mini (reserved for WLAN module)	
Multimedia	Speaker	1 x Speaker (2 W)	1 x Speaker (2 W)	1 x Speaker (2 W)
	Camera	5-megapixel CMOS	2-megapixel CMOS	2-megapixel CMOS
Power	Power Input	Cigarette lighter power cable, DC 9 V~30 V	Cigarette lighter power cable, DC 9 V~30 V	Cigarette lighter power cable, DC 9 V~30 V
	Power Consumption	12 V @ 0.8 A	12V @ 1.25 A	12 V @ 1.73 A
Reliability	Mounting	VESA 75	VESA 75	VESA 100
	Operating Temperature	-20°C ~ 60°C with air flow	-20°C ~ 60°C with air flow	-20°C ~ 60°C with air flow
	Weight (Net/Gross)	0.9 kg/2.1 kg	0.9 kg/2.1 kg	1.3 kg/2.8 kg
	Safety/EMC	CE/FCC/E-Mark/IP 54 compliant front panel	CE/FCC/E-Mark/IP 54 compliant front panel	CE/FCC/E-Mark/IP 64 compliant front panel
OS	Supported OS	Android 4.2.2 Microsoft® Windows Embedded 8, Microsoft® Windows Embedded Standard 7 E	Microsoft® Windows Embedded 8, Microsoft® Windows Embedded Standard 7 E	

- 1 IEIMobile Solutions
- 2 Automation Panel PC Solutions
- 3 Healthcare Panel PC Solution
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- 5 ORing Network Communication
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Transportation System



New



Preliminary



Model Name	IVS-300	IVS-200-ULT2	IVS-110-AL	IVS-100-BT	
Chassis	Color	Blue C	Blue C	Blue C	
	Dimensions (WxDxH) (mm)	255 x185 x80	255 x 150 x 63	241 x 160 x 59 (TBD)	200 x 150 x 76
	System Fan	Fanless	Fanless	Fanless	Fanless
	Chassis Construction	Extruded aluminum alloy	Extruded aluminum alloy	Extruded aluminum alloy	Extruded aluminum alloy
Motherboard	CPU	Intel® Celeron® J1900 Processor (quad-core 2GHz, 10W TDP) or Intel® Core™ i5-6300U processor (dual-core, 2.4 GHz, 15W TDP)	Intel® Core™ i5-5350U Processor (dual-core, 1.8 GHz, 15W TDP) or Intel® Celeron® 3765U Processor (dual-core, 1.9 GHz, 15W TDP)	Intel® Atom™ x5 E3930 Processor (dual-core 1.8GHz, 6.5W TDP)	Intel® Atom™ E3826 processor (dual-core, 1.46 GHz, 7W TDP)
	Chipset	SoC	SoC	SoC	SoC
	System Memory	IVS-300-BT: 2 x 204-pin DDR3L SO-DIMM. 4GB pre-installed (system max. 16GB) IVS-300-ULT3: 2 x 260-pin DDR4L SO-DIMM, 4GB pre-installed (system max. 64GB)	2 x 204-pin DDR3 SO-DIMM slot 4 GB Pre-installed (system max. 16 GB)	2 x 204-pin DDR3L SO-DIMM. 4GB pre-installed (system max. 16GB)	2 x 204-pin DDR3 SO-DIMM slot, 2 GB pre-installed (system max. 8GB)
Storage	Hard Drive	2 x 2.5" SATA 6Gb/s HDD/SSD removable drive bay	1 x 2.5" SATA 6Gb/s HDD/SSD removable drive bay	1 x 2.5" SATA 6Gb/s HDD/SSD drive bay	1 x 2.5" SATA 3Gb/s HDD/SSD drive bay
	SD Card	N/A	N/A	N/A	1 (supports SD 2.0, max. 32 GB)
	Flash	N/A	N/A	1 x eMMC 5.0 8GB (reserved)	N/A
	mSATA	N/A	1 x mSATA (SATA 6Gb/s)	1 x mSATA (PCIe Mini Slot) 1 x eMMC 5.0 8G (reserved)	N/A
Communication	WLAN	PCIe Mini Wi-Fi 802.11 a/b/g/n/ac (optional)	PCIe Mini Wi-Fi 802.11b/g/n (optional)	PCIe Mini Wi-Fi 802.11 a/b/g/n/ac (optional)	PCIe Mini Wi-Fi 802.11b/g/n (optional)
	Bluetooth	BT 4.0/3.0+HS (combo with WLAN optional module)	Bluetooth 2.1 (combined with WWAN optional module)	BT 4.0/3.0+HS (combo with WLAN optional module)	Bluetooth 2.1 (combined with WWAN optional module)
	WWAN	PCIe Mini WCDMA/HSDPA/HSUPA (optional)	PCIe Mini WCDMA/HSDPA/HSUPA (optional)	PCIe Mini WCDMA/HSDPA/HSUPA (optional)	PCIe Mini WCDMA/HSDPA/HSUPA (optional)
	RFID	N/A	N/A	N/A	UHF module, 902 MHz ~ 928 MHz operating band (optional)
	GPS	On board GPS	N/A	On board GPS	On board GPS
I/O Interfaces	USB 3.0	2	2	4	4
	USB 2.0	N/A	2	N/A	N/A
	Ethernet	4 x RJ-45 PCIe GbE by Intel® i210-AT Support PoE IEEE802.3af (Each port max 15.4W)	4 x RJ-45 connector LAN1: PCIe GbE by Intel® I218 LAN2: PCIe GbE by Intel® I211 LAN3: PCIe GbE by Intel® I211 LAN4: PCIe GbE by Intel® I211	1 x RJ-45 PCIe GbE by Intel® I210-IT	2 x RJ-45 PCIe GbE by Realtek 8111E
	COM Port	2 x DB-9 RS-232 1 x DB-15 isolated RS-422/485	2 x DB-9 RS-232/422/485 4 x DB-9 RS-232 (optional)	1 x DB-9 RS-232/422/485 (BIOS configuration)	2 x DB-9 RS-232 1 x DB15 RS-422/485
	Digital I/O	Isolated 8-bit digital I/O (4-bit input / 4-bit output)	8 bit digital I/O (4-bit input / 4-bit output) (optional)	1 x Printer port	8-bit digital I/O (4-bit input / 4-bit output)
	CAN-bus/OBD-II	1 x DB9 CAN-Bus/OBD-II	N/A	1 x DB9 CAN-Bus/OBD-II	1 x DB9 CAN-Bus/OBD-II
	Display	1 x VGA, 1 x HDMI	1 x VGA, 1 x HDMI	1 x VGA, 1 x HDMI	1 x VGA, 1 x HDMI
	Resolution	VGA : Up to 1920 x 1080 @60Hz HDMI : Up to 1920 x 1080 @60Hz	VGA: up to 2560 x 1600 @60 Hz HDMI: up to 3840 x 2160 @60 Hz	VGA : Up to 3840 x 2160 @30Hz HDMI : Up to 3840 x 2160 @30Hz	HDMI: Up to 1920 x 1080 @60 Hz VGA: Up to 1920 x 1080 @60 Hz
	Audio	1 x Line out, 1 x Mic in	1 x Line out, 1 x Mic in	1 x Line out	1 x Line in, 1 x Line out
	SIM	2 x on board SIM card slot	1 x on board SIM card slot	2 x on board SIM card slot	2 x on board SIM card slot
Antenna	1 x 3G, 1 x GPS, 1 x BT, 1 x Wi-Fi	1 x 3G, 1 x BT, 1 x Wi-Fi	1 x 3G, 1 x GPS, 1 x BT, 1 x Wi-Fi	2 x Wi-Fi/BT, 1 x WWAN, 1 x GPS, 4 x UHF	
Expansions	PCI	N/A	N/A	N/A	1 x PCI104
	PCIe Mini	1 x Half-size PCIe Mini (reserved for WLAN) 1 x Full-size PCIe Mini (reserved for WWAN) 1 x Full-size PCIe Mini (only for skylake platform)	1 x Full-size PCIe Mini (reserved for WWAN or mSATA) 1 x Half-size PCIe Mini (reserved for WLAN)	1 x Full/Half-size PCIe Mini slot (reserved for WWAN) 1 x Full/Half-size PCIe Mini slot (reserved for mSATA or E-window) 1 x Half-size PCIe Mini slot (reserved for WLAN)	1 x Full-size PCIe Mini (reserved for WWAN) 1 x Full-size PCIe Mini (reserved for capture card module) 1 x Full-size PCIe Mini (reserved for analog DIO module) 1 x Full-size PCIe Mini (reserved for WLAN)
Power	Power Input	Cigarette lighter power cable : DC 9 V~36 V	DC jack : 9 V~36 V DC	Cigarette lighter power cable : 9 V~ 36 V DC	Cigarette lighter power cable : DC 9 V~30 V
	Power Consumption	12 V @ 10 A (Intel® i5-6300U with 4 GB DDR4L memory + 4 PoE)	12 V @ 2.1 A (Intel® i5-5350U with 4 GB DDR3 memory)	TBD	12 V @ 3.2 A (Intel® Atom™ E3826 with 2 GB DDR3 memory)
Reliability	Mounting	Wall mount	VESA 100	Wall mount / VESA 100	VESA 100
	Operating Temperature	-20°C ~60°C with air flow	-20°C ~ 60°C with air flow (SSD)	-30°C ~ 70°C with air flow	-20°C ~ 60°C with air flow
	Weight (Net/Gross)	3 kg/4.5 kg	2.2 kg/3 kg	TBD	2.1 kg/3.6 kg
	Safety/EMC	CE/FCC/E-Mark	CE/FCC/E-Mark	CE/FCC/E-Mark/ IP rating : IP 4X compliant	CE/FCC/E-Mark
OS	Supported OS	Microsoft® Windows Embedded 8, Microsoft® Windows Embedded Standard 7 E	Microsoft® Windows Embedded 8, Microsoft® Windows Embedded Standard 7 E	Microsoft® Windows 10 IoT Enterprise, Linux Yocto	Microsoft® Windows Embedded Standard 7 E

1 IEMobile Solutions

2 Automation Panel Solutions

3 Healthcare Panel PC Solution

4 Industrial System

5 ORing Network Communication

6 Automation Control

7 Optional Peripherals

Transportation System



Model Name		ITCS-100-H81	IRS-100-ULT3	SBX-100-QM87
Chassis	Color	Black	Blue C	Black
	Dimensions (WxDxH) (mm)	310 x 200 x 112.8	290 x 225 x 69	290 x 225 x 75
	System Fan	Fanless	Fanless	Fanless
	Chassis Construction	Extruded aluminum alloy	Extruded aluminum alloy	Extruded aluminum alloy
Motherboard	CPU	Intel® Celeron® G1820TE Processor (dual-core 2.2 GHz, 35W TDP) or Intel® Core™ i5-4570TE Processor (dual-core 2.7 GHz 35W TDP)	Intel® Core™ i5-6300U processor (dual-core, 2.4 GHz, 15W TDP)	Intel® mobile Core™ i5-4400E (2.7 GHz, 37W)
	Chipset	Intel® H81	SoC	Intel® QM87
	System Memory	2 x 204-pin DDR3 SO-DIMM 4GB pre-installed (system max 32GB)	2 x 260-pin DDR4 SO-DIMM 4GB pre-installed (system max. 32 GB)	2 x 204-pin DDR3 SO-DIMM slot (system max. 16 GB) Pre-installed 4 GB DDR3 SO-DIMM
IPMI	iRIS Solution	N/A	N/A	1 x iRIS-2400
Storage	Hard Drive	2 x 3.5" SATA 6Gb/s HDD drive bay	2 x 2.5" SATA 6Gb/s HDD/SSD drive bay	2 x 2.5" SATA 6Gb/s SSD bay with RAID 0/1 function
	CFast/CF Card	N/A	1 x CFast	1 x CFast
	Flash	2GB on-board flash	N/A	N/A
	mSATA	N/A	1 x mSATA	N/A
I/O Interfaces	PS/2 (KB/MS)	1 x KB, 1 x MS	N/A	1
	USB 3.0	N/A	2	2
	USB 2.0	4	1 (M12 connector)	2
	Ethernet	2 x RJ-45 connector 1 x PCIe GbE by Intel® I211AT 1 x PCIe GbE by Intel® I210AT	2 x RJ-45 PCIe GbE by Intel® I211 (M12 connector)	2 x RJ-45 with teaming support 1 x PCIe GbE by Intel® I217LM 1 x PCIe GbE by Intel® I210-AT (2 with 2 kV isolation)
	COM Port	4 x RS-232 + 4 x RS-232/422/485 (SCSI type, 4 x RS-232/422/485 with isolated)	2 x DB-9 RS-232/422/485 (with 2.5 kV isolation)	1 x DB-9 (non-isolated) 4 x RS-232/422/485 (with 2.5 kV isolation)
	Digital I/O	1 x D-SUB 25 pin connector 24-bit digital I/O (12-bit input / 12-bit output)	1 x Terminal block 8-bit digital I/O (4-bit input / 4-bit output, 2.5 kV isolation)	N/A
	CAN-bus/OBD-II	N/A	N/A	2 x CAN-bus (with 2.5 kV isolation)
	Display	1 x VGA + 1 x DVI-D	1 x VGA, 1 x DVI-D	1 x VGA, 1 x DVI-D, 1 x HDMI
	Resolution	VGA : Up to 1920 x 1080 @60Hz DVI-D : Up to 1920 x 1080 @60Hz	VGA : Up to 1920 x 1200 @60Hz DVI-D : Up to 1920 x 1200 @60Hz	VGA: Up to 1920 x 1200 @ 60 Hz HDMI: Up to 2500 x 1600 @ 60 Hz DVI-D: Up to 2500 x 1600 @ 60 Hz
	Audio	1 x Line-out + 1 x Line-in	1 x Line-out, 1 x Mic-in	1 x Line-out, 1 x Line-in, 1 x Mic-in
	TPM	1 x 20-pin LPC	N/A	N/A
	SIM	N/A	2 x SIM card slot	N/A
	Antenna	N/A	1 x 3G, 1 x BT, 2 x Wi-Fi	2 x Antenna SMA hole (reserved)
Expansions	PCIe Mini	1 x Full-size PCIe Mini (for IVCME-C604 or E-window)	2 x Full-size PCIe Mini (for WWAN / WLAN module)	2 x Full size
Power	Power Input	DC jack : 9V~36V DC	M12 Connector: 24 V~110 V DC	Terminal block: 18 V~36 V DC with isolation
	Power Consumption	12V @ 5A (Intel® i5-4570TE with 4 GB DDR3 memory)	TBD	100 W (Intel® mobile Core™ i5-4400E with 4 GB DDR3 memory)
Reliability	Mounting	Wall mount	Wall mount	Wall mount
	Operating Temperature	-20°C ~ 55°C with air flow	-40°C ~ 70°C with air flow (with industrial SSD/CF), compliant with EN 50155	*-15°C ~ 55°C (5°F ~ 131°F) with air flow (SSD)
	Weight (Net/Gross)	6.36 kg/9.2 kg	3.9 kg / 5.1 kg	4.08 kg / 6.03 kg
	Safety/EMC	CE/FCC	CE/FCC Compliance with EN50155, EN50121	EMC/CE/FCC/DVN, IEC 60945 4th, IACS-E10, IEC 61174 compliant IP rating: IP22 compliant rear cover
OS	Supported OS	Microsoft® Windows® Embedded 8, Microsoft® Windows® Embedded Standard 7 E, Linux (Ubuntu)	Microsoft® Windows® Embedded 8, Microsoft® Windows® Embedded Standard 7 E	Microsoft® Windows® Embedded 8, Microsoft® Windows® Embedded Standard 7 E

- 1 IEIMobile Solutions
- 2 Automation Panel PC Solutions
- 3 Healthcare Panel PC Solution
- 4 Industrial System
- 5 ORing Network Communication
- 6 Automation Control
- 7 Optional Peripherals

IKARPC-07A Vehicle Computer Series

Features

- 7" sunlight readable TFT LCD with projected capacitive touchscreen
- Built-in HSUPA/GPRS/GSM, Wi-Fi and Bluetooth
- Built-in GPS receiver
- Supports On-Board Diagnostics: one CAN 2.0B or OBD-II



Specifications

Model Name		IKARPC-07A-A9	IKARPC-07A-BT	
Chassis	Color	Black C + Silver	Black C + Silver	
	Dimensions (WxHxD) (mm)	210 x 154 x 28	210 x 154 x 28	
	System Fan	Fanless	Fanless	
	Chassis Construction	PC + ABS plastic	PC + ABS plastic	
Display	Size	7"	7"	
	Resolution	1024 x 3 (RGB) x 600	1024 x 3 (RGB) x 600	
	Brightness (cd/m ²)	500	500	
	Contrast Ratio	700:1	700:1	
	Pixel Pitch (mm)	0.05 (W) x 0.15 (H)	0.05 (W) x 0.15 (H)	
	Viewing Angle (H/V)	130° (H) / 140° (V)	130° (H) / 140° (V)	
	Touchscreen	Projected capacitive touch with USB interface	Projected capacitive touch with USB interface	
	CPU	Freescale™ i.MX 6 Cortex™-A9 (quad-core, 1.0 GHz)	Intel® Atom™ processor E3826 (dual-core, 1.46 GHz, 7W)	
Motherboard	Chipset	N/A	SoC	
	System Memory	On-board 1 GB SDRAM	On-board 2 GB SDRAM	
	SD Card	1 x SD slot (supports SD 2.0, max. 32 GB)	1 x Micro SD slot (supports SD 2.0, max. 32 GB)	
Storage	Flash	On-board 8 GB iNAND flash	N/A	
	mSATA	N/A	1 x mSATA (SATA 3Gb/s) optional	
Communication	WLAN	On-board Wi-Fi 802.11a/b/g/n	PCIe Mini Wi-Fi 802.11a/b/g/n/ac (optional)	
	Bluetooth	Bluetooth 3.0+HS	BT 4.0/3.0+HS (combo with WLAN optional module)	
	WWAN	PCIe Mini WCDMA/HSDPA/HSUPA (optional)	PCIe Mini WCDMA/HSDPA/HSUPA (optional)	
	RFID	13.56 MHz ISO4443 A/B, read-write capable, ISO 14443A (MIFARE), ISO 14443B (FeliCa)	N/A	
	GPS	On board GPS	On board GPS	
	20-pin Connector	1 x 10/100 LAN 1 x OBD-II/CAN bus 1 x USB 2.0	1 x GbE LAN 1 x OBD-II/CAN bus 1 x USB 2.0	
I/O Interfaces	24-pin Connector	1 x Audio line-out (R+L) 1 x Audio line-in 1 x RS-232 4-bit digital I/O (2-bit input, 2-bit output)	1 x Audio line-out (R+L) 1 x Audio line-in 1 x RS-232 4-bit digital I/O (2-bit input, 2-bit output)	
	8-pin Connector	Video input	N/A	
	USB 3.0	N/A	1	
	USB 2.0	2	1	
	Display	N/A	1 x HDMI	
	SIM	1 x on board SIM card slot	2 x on board SIM card slot	
	Antenna	1 x GPS, 1 x WWAN	1 x GPS, 1 x WWAN	
	Expansions	PCIe Mini	1 x Full-size PCIe Mini (reserved for WWAN)	1 x Full-size PCIe Mini (reserved for mSATA module), 1 x Full-size PCIe Mini (reserved for WWAN module), 1 x Half-size PCIe Mini (reserved for WLAN module)
	Multimedia	Speaker	1 x Speaker (2 W)	1 x Speaker (2 W)
		Camera	5-megapixel CMOS	2-megapixel CMOS
LED Indicator & Button	Indicator	Power/BT/Wi-Fi/3G	Power/HDD/Wi-Fi/3G	
	Button	1 x Power button	1 x Power button	
Power	Power Input	Cigarette lighter power cable, DC 9 V~30 V	Cigarette lighter power cable, DC 9 V~30 V	
	Consumption	12 V @ 0.8 A	12V @ 1.25 A	
	Mounting	VESA 75	VESA 75	
Reliability	Operating Temperature	-20°C ~ 60°C with air flow	-20°C ~ 60°C with air flow	
	Storage Temperature	-30°C ~ 70°C	-30°C ~ 70°C	
	Humidity	10% ~ 95%, non-condensing	10% ~ 95%, non-condensing	
	Operating Shock	Half-sine wave shock 5G, 11ms, 3 shocks per axis	Half-sine wave shock 5G, 11ms, 3 shocks per axis	
	Operating Vibration	MIL-STD-810F 514.5C-2 (with SSD)	MIL-STD-810F 514.5C-2 (with SSD)	
	Weight (Net/Gross)	0.9 kg/2.1 kg	0.9 kg/2.1 kg	
	Safety/EMC	CE/FCC/E-Mark/IP 54 compliant front panel	CE/FCC/E-Mark/IP 54 compliant front panel	
	OS	Supported OS	Android 4.2.2	Microsoft® Windows® Embedded 8, Microsoft® Windows® Embedded Standard 7 E

1
IEI Mobile Solutions

2
Automation Panel Solutions

3
Healthcare Panel PC Solution

4
Industrial System

5
QRing Network Communication

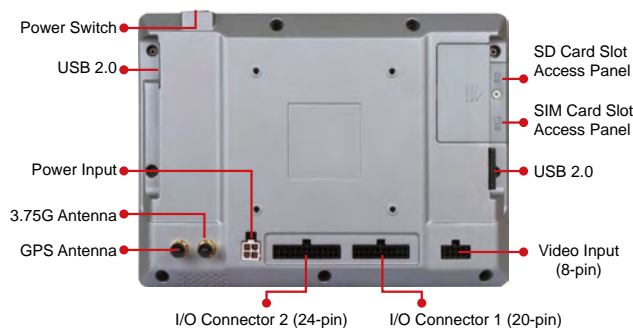
6
Automation Control

7
Optional Peripherals

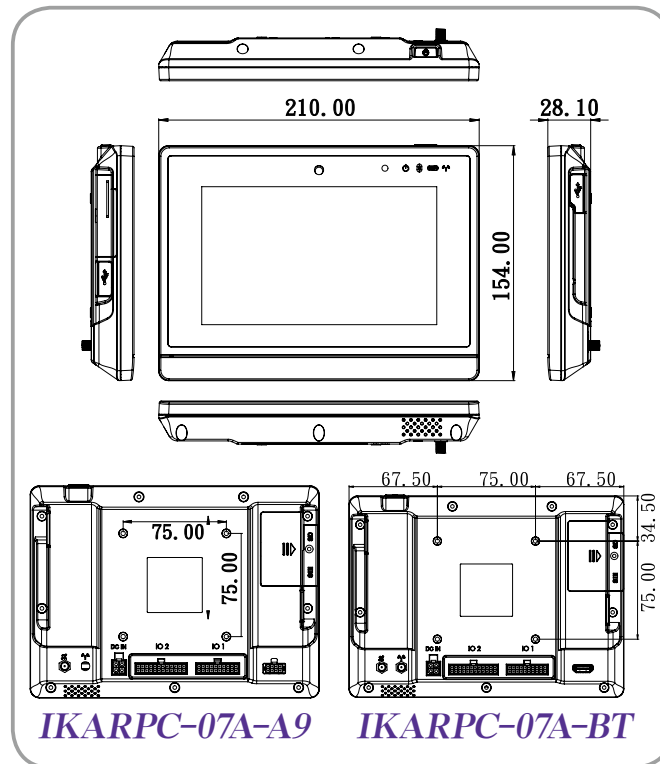
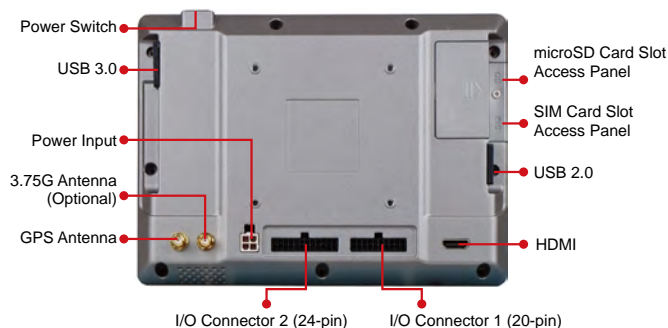
Fully Integrated I/O

Dimensions (Unit: mm)

IKARPC-07A-A9 Rear view



IKARPC-07A-BT Rear view



Ordering Information

Part No.	Description
IKARPC-07A-A9-R10	7" 500 cd/m ² 1024 x 600 in-vehicle panel PC with Freescale™ i.MX6 quad-core processor, 1.0 GHz, 1 GB SDRAM, 8 GB EMMC flash, 5-megapixel camera, RFID reader, OBD-II, HSUPA, GPS, Wi-Fi, BT, RoHS
IKARPC-07A-BT-E3/2G-R10	7" 500 cd/m ² 1024 x 600 in-vehicle panel PC with Intel® Atom™ E3826 1.46 GHz processor, 7 W TDP, on-board 2 GB DDR3L memory, OBD-II, on-board GPS, 2-megapixel camera, RoHS

Options

Item	Part No.	Description
Power adapter	IVIPOWER-4PIN-R10	Power adapter with 4-pin transfer cable, RoHS
Cigarette lighter power cable	32002-004000-100-RS	Round cable, power cable, car cigarette lighter cable, 2000 mm, 18 AWG, (A) cigarette lighter (5 A 250 V)+ ψ3 green LED, (B) MOLEX 5557-0400 P=4.2, SHANGHAI YING YU, RoHS
VESA mount stand	IVI-MK03-R10	138mm 75x75 VESA mount stand
OBD-II cable	32025-000300-100-RS	Round cable, OBD-II cable, 2000 mm, 24 AWG, (A) OBD-II 16P male, (B) D-sub 9P female, one piece package with label, NIAN YEONG, RoHS
J1939/FMS cable	32025-000400-100-RS	Round cable, J1939 cable, 2000 mm, 22 AWG, (A) J1939 9P male, (B) D-9P female, RoHS

IKARPC-07A-A9 Series

Item	Part No.	Description
I/O connector 1 cable (20-pin)	32024-002400-100-RS	Round cable, integration cable, I/O cable, 300 mm, 24 AWG, (A)terminal block 3P P=5.08, (B)USB A type female+2 NUT, (C)PCB jack: RJ-45 8P8C, (D)D-sub 9P male, (E)MOLEX 5557-2000 P=3.0, one piece package with label, RoHS
I/O connector 2 cable (24-pin)	32024-002900-100-RS	Round cable, integration cable, I/O cable, 300 mm, 22 AWG, (A)terminal block 8P P=5.08, (B)MOLEX 43025-2400 P=3.0, (C)D-sub 9P male, (D)phone jack 3.5_3P+NUT, (E)phone jack 3.5_5P+NUT, one piece package with label, RoHS
Video input cable (8-pin)	32010-001700-100-RS	Round cable, video cable, 300 mm, 26 AWG, (A)MOLEX 43025-0800 P=3.0, (B)RCA jack, yellowx4, RoHS

IKARPC-07A-BT Series

Item	Part No.	Description
I/O connector 1 cable (20-pin)	32024-003000-100-RS	Round cable, integration cable, I/O cable, 300 mm, 24 AWG (A)terminal block 3P P=5.08, (B)USB A type female+2 NUT, (C)PCB jack: RJ-45 8P8C, (D)D-sub 9P male, (E)MOLEX 5557-2000 P=3.0, one piece package with label, RoHS
I/O connector 2 cable (24-pin)	32124-003700-100-RS	Round cable, integration cable, I/O cable, 300 mm, 22 AWG, (A)terminal block 8P P=5.08, (B)MOLEX 43025-2400 P=3.0, (C)D-sub 9P male, (D)phone jack 3.5_3P+NUT, (E)phone jack 3.5_5P+NUT, one piece package with label, RoHS
OS: Windows Embedded 7 (DVD-ROM)	IKARPC-07A-BT-WES7P-R10	OS image with Windows® Embedded Standard 7 E for IKARPC-07A-BT Series, DVD-ROM, RoHS
OS: Windows Embedded 8 (DVD-ROM)	IKARPC-07A-WE8S-R10	OS image with Windows® Embedded Standard 8 E for IKARPC-07A-BT Series, WE8S license label, DVD-ROM, RoHS
Wireless kit	IKARPC-WIFI-KIT01-R10	1T1R wifi module kit for embedded system, IEEE 802.11b/g/n, 1 x wifi module, RoHS
WWAN kit	IKARPC-3G-KIT02-R10	F260 3.75G module kit for embedded system, with BT V2.1, RoHS

Packing List

Item	P/N	Qty	Description
ACC power cable	32002-001900-100-RS	1	Round cable, power cable, 3000 mm, 16 AWG, (A) MOLEX 5557-04P P=4.2, RoHS
GPS/GSM antenna	32506-000100-100-RS	1	Integration antenna, GPS/GSM, RG 174, 5000 mm/5000 mm, PPF-5423SA5X-999, magnetic mount: φ55 mm x 22mm, 1575.42 MHz/850 MHz/900 MHz/1800 MHz/1900 MHz, 2 x SMA plug, RoHS
Utility CD		1	User manual and driver CD

IKARPC-W10A

Vehicle Computer Series

Features

- 10.1" TFT LCD with projected capacitive touchscreen
- Intel® Atom™ E3826 1.46 GHz CPU
- Windows® Embedded Standard 7
- Option HSUPA/GPRS/GSM, Wi-Fi and Bluetooth
- Built-in GPS function
- Built-in OBD-II/CAN 2.0



Specifications

Model Name	IKARPC-W10A	
Chassis	Color	Blue C + Black C
	Dimensions (WxHxD) (mm)	277 x 186 x 27
	System Fan	Fanless
	Chassis Construction	PC + ABS plastic
Display	Size	10.1"
	Resolution	1280 x 800
	Brightness (cd/m ²)	350
	Contrast Ratio	800:1
	Pixel Pitch (mm)	0.0565 (W) x 0.1695 (H)
	Viewing Angle (H/V)	150° (H)/145° (V)
	Touchscreen	Projected capacitive touch with USB interface
Motherboard	CPU	Intel® Atom™ processor E3826 (dual-core, 1.46 GHz, 7W)
	Chipset	SoC
	System Memory	On-board 2 GB DDR3
Storage	Hard Drive	1 x 2.5" SATA 3Gb/s HDD/SSD drive bay
	SD Card	1 x SD slot (supports SD 2.0, max. 32 GB)
Communication	WLAN	PCIe Mini Wi-Fi 802.11a/b/g/n/ac (optional)
	Bluetooth	BT 4.0/3.0+HS (combo with WLAN optional module)
	WWAN	PCIe Mini WCDMA/HSDPA/HSUPA (optional)
	GPS	On board GPS
	USB 3.0	1
I/O Interfaces	USB 2.0	1
	Ethernet	1 x RJ-45 PCIe GbE by Realtek 8111E
	COM Port	2 x DB-9 RS-232
	Digital I/O	8-bit digital I/O (4-bit input / 4-bit output)
	CAN-bus/OBD-II	1 x DB9 CAN-Bus/OBD-II
	Display	1 x HDMI
	Resolution	HDMI: Up to 1920 x 1080 @ 60 Hz
	Audio	1 x Line out, 1 x Mic in
	SIM	2 x on board SIM card slot
	Antenna	1 x GPS, 1 x WWAN
Expansions	PCIe Mini	1 x Full-size PCIe Mini (reserved for WWAN module), 1 x Full-size PCIe Mini (reserved for WLAN module)
	Audio	1 x Speaker (2 W)
Multimedia	Camera	2-megapixel CMOS
	Indicator	Power/Wi-Fi/HDD/3.5G
LED Indicator & Button	Button	1 x Power button
	Power Input	Cigarette lighter power cable, DC 9 V-30 V
Power	Consumption	12 V @ 1.73 A
	Mounting	VESA 100
Reliability	Operating Temperature	-20°C ~ 60°C with air flow
	Storage Temperature	-30°C ~ 70°C
	Humidity	10% ~ 95%, non-condensing
	Operating Shock	Half-sine wave shock 5G, 11ms, 3 shocks per axis
	Operating Vibration	MIL-STD-810F 514.5C-2 (with SSD)
	Weight (Net/Gross)	1.3 kg/2.8 kg
	Safety/EMC	CE/FCC/E-Mark/IP 64 compliant front panel
	OS	Supported OS

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IEIMobile Solutions

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Automation Panel Solutions

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Healthcare Panel PC Solution

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Industrial System

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ORing Network Communication

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Automation Control

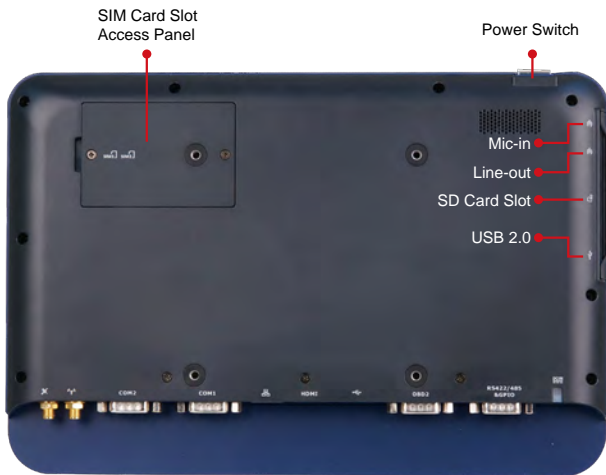
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Optional Peripherals

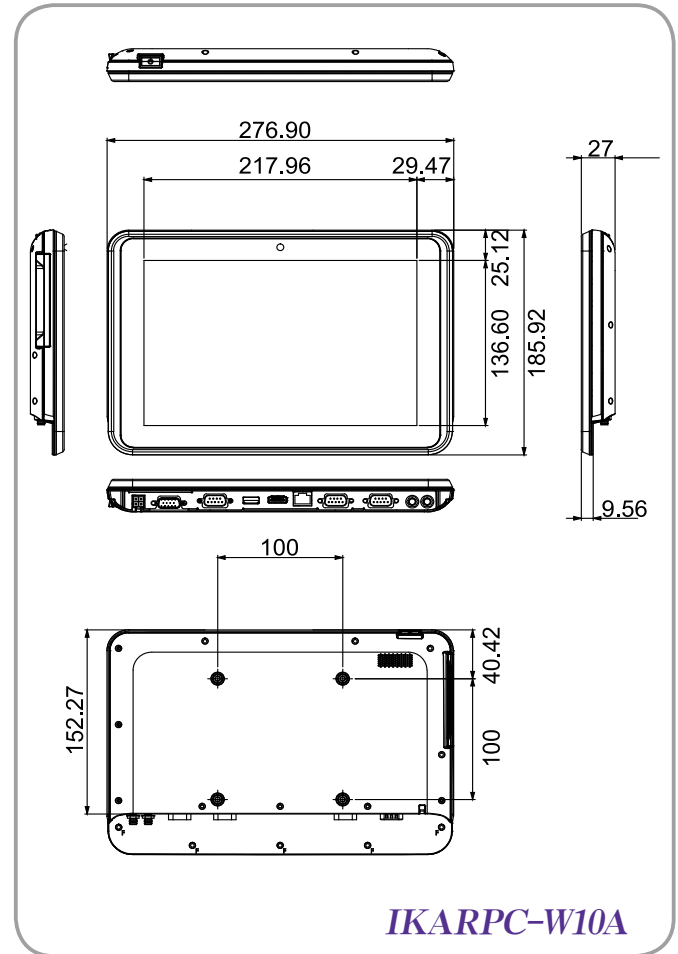
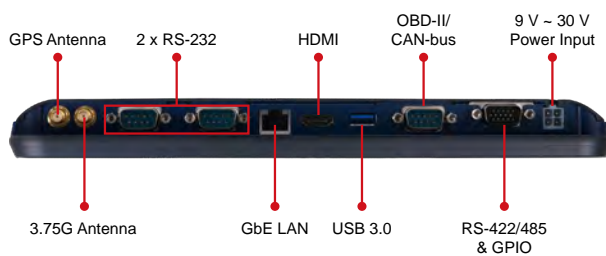
Fully Integrated I/O

Dimensions (Unit: mm)

Rear view



Bottom view



Ordering Information

Part No.	Description
IKARPC-W10A-BT-E3/2G-R10	10.1" 350 cd/m2 1280 x 800, in-vehicle panel PC with Intel® Atom E3826 1.46GHz, 7W TDP, 2GB DDR3L on-board memory, OBD-II, on-board GPS, 2-megapixel camera, RoHS

Options

Item	Part No.	Description
Power adapter	IVIPOWER-4PIN-R10	Power adapter with 4-pin transfer cable, RoHS
Cigarette lighter power cable	32002-004000-100-RS	Round cable, power cable, car cigarette lighter cable, 2000 mm, 18 AWG, (A) cigarette lighter (5 A 250 V)+ ψ 3 green LED, (B) MOLEX 5557-0400 P=4.2, RoHS
OBD-II cable	32025-000300-100-RS	Round cable, OBD-II cable, 2000 mm, 24 AWG, (A) OBD-II 16P male, (B) D-sub 9P female, one piece package with label, RoHS
J1939/FMS cable	32025-000400-100-RS	Round cable, J1939 cable, 2000 mm, 22 AWG, (A)J1939 9P male, (B)D-9P female, RoHS
OS: Windows Embedded 7 (DVD-ROM)	IKARPC-W10A-BT-WES7P-R10	OS image with Windows® Embedded Standard 7 E for IKARPC-W10A-BT Series, DVD-ROM, RoHS
OS: Windows Embedded 8 (DVD-ROM)	IKARPC-W10A-WE8S-R10	OS image with Windows® Embedded Standard 8 E for IKARPC-W10A Series, WE8S license label, DVD-ROM, RoHS
Wireless kit	IKARPC-WIFI-KIT02-R10	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, RoHS
WWAN kit	IKARPC-3G-KIT02-R10	F260 3.75G module kit for embedded system, with BT V2.1, RoHS
VESA mount stand	IVI-MK02-R10	286mm 75x75 / 100x100 VESA mount stand

Packing List

Item	P/N	Qty	Description
ACC power cable	32002-001900-100-RS	1	Round cable, power cable, 3000 mm, 16 AWG, (A) MOLEX 5557-04P P=4.2, SHANGHAI YING YU, RoHS
GPS/GSM antenna	32506-000100-100-RS	1	Integration antenna, GPS/GSM, RG 174, 5000 mm/5000 mm, PPF-5423SA5X-999, magnetic mount: ϕ 55 mm x 22mm, 1575.42 MHz/850 MHz/900 MHz/1800 MHz/1900 MHz, 2 x SMA plug, RoHS
Utility CD		1	User manual and driver CD

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- 7 Optional Peripherals

IVS-300 Vehicle Surveillance System

New

Features

- Intel® Skylake ULT /Baytrail processor
- 4 x PoE IEEE802.3af
- 2x Hot-swappable 2.5" drive bay
- Optional 3G/Wi-Fi
- 2 x RS-232, 1 x Isolated RS-422/485
- 4 x DI/DO
- 1 x HDMI (lockable), 1 x VGA



Specifications

Model Name		IVS-300-BT	IVS-300-ULT3
Chassis	Color	Blue C	Blue C
	Dimensions (WxHxD) (mm)	255 x 80 x 185	255 x 80 x 185
	System Fan	Fanless	Fanless
	Chassis Construction	Extruded aluminum alloy	Extruded aluminum alloy
Motherboard	CPU	Intel® Core™ i5-6300U processor (dual-core, 2.4 GHz, 15W TDP)	Intel® Celeron® J1900 Processor (quad-core 2GHz, 10W TDP)
	Chipset	SoC	
	System Memory	2 x 204-pin DDR3L SO-DIMM. 4GB pre-installed (system max. 16GB)	2 x 260-pin DDR4L SO-DIMM, 4GB pre-installed (system max. 64GB)
Storage	Hard Drive	2 x 2.5" SATA 6Gb/s SSD removable drive bay	2 x 2.5" SATA 6Gb/s SSD removable drive bay
Communication	WLAN	PCIe Mini Wi-Fi 802.11 a/b/g/n/ac (optional)	PCIe Mini Wi-Fi 802.11 a/b/g/n/ac (optional)
	Bluetooth	BT 4.0/3.0+HS (combo with WLAN optional module)	BT 4.0/3.0+HS (combo with WLAN optional module)
	WWAN	PCIe Mini WCDMA/HSDPA/HSUPA (optional)	PCIe Mini WCDMA/HSDPA/HSUPA (optional)
	GPS	On board GPS	On board GPS
I/O Interfaces	USB 3.0	2	2
	Ethernet	4 x RJ-45 PCIe GbE by Intel® i210-AT Support PoE IEEE802.3af (Each port max 15.4W)	4 x RJ-45 PCIe GbE by Intel® i210-AT Support PoE IEEE802.3af (Each port max 15.4W)
	COM port	2 x DB-9 RS-232 1 x DB-15 isolated RS-422/485	2 x DB-9 RS-232 1 x DB-15 isolated RS-422/485
	Digital I/O	Isolated 8-bit digital I/O (4-bit input, 4-bit output)	Isolated 8-bit digital I/O (4-bit input, 4-bit output)
	CAN-Bus/OBD-II	1 x DB9 CAN-Bus/OBD-II	1 x DB9 CAN-Bus/OBD-II
	Display	1 x VGA, 1 x HDMI	1 x VGA, 1 x HDMI
	Resolution	VGA : Up to 1920 x 1080 @60Hz HDMI : Up to 1920 x 1080 @60Hz	VGA : Up to 1920 x 1080 @60Hz HDMI : Up to 1920 x 1080 @60Hz
	Audio	1 x Mic in, 1 x Line out	1 x Mic in, 1 x Line out
	SIM	2 x on board SIM card slot	2 x on board SIM card slot
	Antenna	1 x 3G, 1 x GPS, 1 x BT, 1 x Wi-Fi	1 x 3G, 1 x GPS, 1 x BT, 1 x Wi-Fi
Expansions	PCIe Mini	1 x Half-size PCIe Mini (reserved for WLAN) 1 x Full-size PCIe Mini (reserved for WWAN) 1 x Full-size PCIe Mini (only for skylake platform)	1 x Half-size PCIe Mini (reserved for WLAN) 1 x Full-size PCIe Mini (reserved for WWAN) 1 x Full-size PCIe Mini (only for skylake platform)
Led Indicator & Button	Indicator	8 x LED (4 PoE, 1 HDD, 1 Wi-Fi, 2 SIM)	8 x LED (4 PoE, 1 HDD, 1 Wi-Fi, 2 SIM)
	Button	1 x Power button	1 x Power button
Power	Power Input	Cigarette lighter power cable: DC 9 V~36 V	Cigarette lighter power cable: DC 9 V~36 V
	Consumption	12 V @ 8 A (Intel® J1900 with 4 GB DDR3L memory + 4 PoE)	12 V @ 10 A (Intel® i5-6300U with 4 GB DDR4L memory + 4 PoE)
Reliability	Mounting	Wall mount	Wall mount
	Operating Temperature	-20°C ~ 60°C with air flow	-20°C ~ 60°C with air flow
	Storage Temperature	-30°C ~ 70°C	-30°C ~ 70°C
	Humidity	10% ~ 95%, non-condensing	10% ~ 95%, non-condensing
	Operating Shock	Half-sine wave shock 5G, 11ms, 3 shocks per axis	Half-sine wave shock 5G, 11ms, 3 shocks per axis
	Operating Vibration	MIL-STD-810F 514.5C-2 (with SSD)	MIL-STD-810F 514.5C-2 (with SSD)
OS	Weight (Net/Gross)	3kg/4.5kg	3kg/4.5kg
	Safety/EM C	CE / FCC / E-Mark	CE / FCC / E-Mark
	Supported OS	Microsoft® Windows® Embedded 8, Microsoft® Windows® Embedded Standard 7 E	Microsoft® Windows® Embedded 8, Microsoft® Windows® Embedded Standard 7 E

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IEIMobile Solutions

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Automation Panel Solutions

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Healthcare Panel PC Solution

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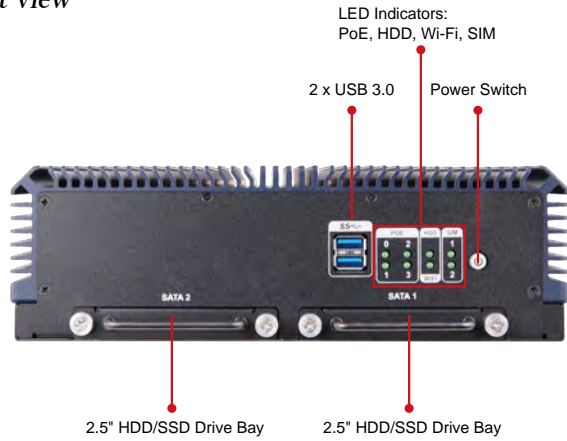
Automation Control

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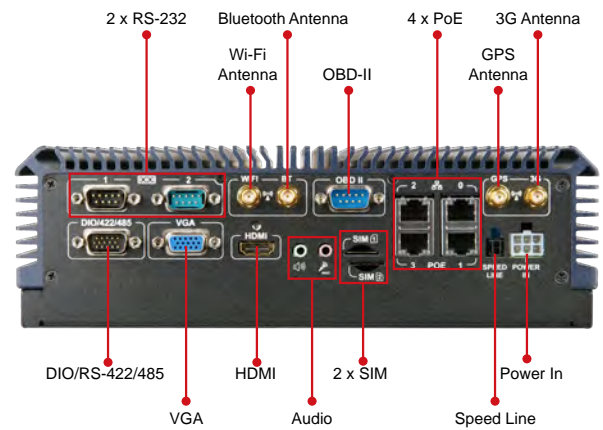
Optional Peripherals

Fully Integrated I/O

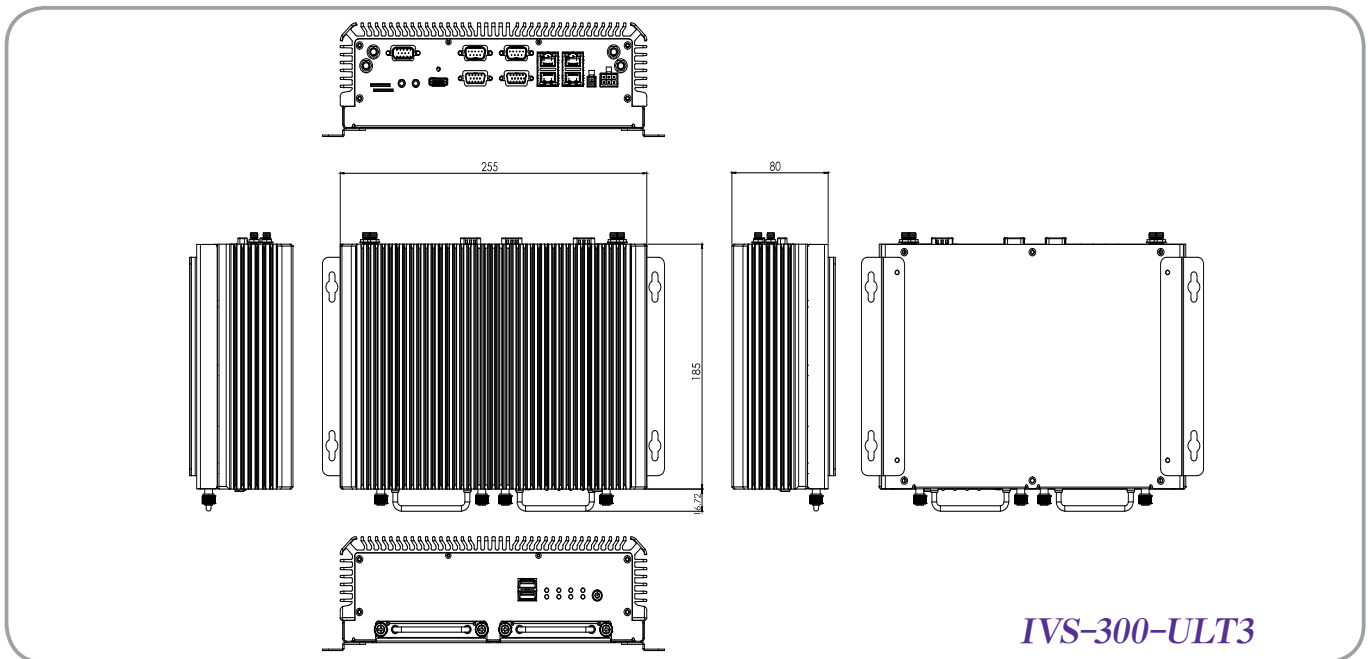
Front view



Rear view



Dimensions (Unit: mm)



Ordering Information

Part No.	Description
IVS-300-ULT3-i5/4G-R10	Fanless embedded system with 6th generation 14nm Intel® Core™ i5-6300U (15W) mobile processor (ULT) with 4GB DDR3L pre-installed memory, PoE, on-board GPS, HDMI, VGA, two 2.5" removable SATA HDD bay, RoHS
IVS-300-BT-J1/4G-R10	Fanless embedded system with Intel® Celeron® Processor J1900 (10W) Processor with 4GB DDR3L pre-installed memory, PoE, on board GPS, HDMI, VGA, two 2.5" removable SATA HDD bay, RoHS

Options

Part No.	Description
IVS-300-ULT3-WES7E64-R10	OS Image with Windows® Embedded Standard 7 E 64-bit for IVS-300-ULT3, with DVD-ROM, RoHS
IVS-300-BT-WES7E64-R10	OS Image with Windows® Embedded Standard 7 E 64-bit for IVS-300-BT, with DVD-ROM, RoHS
IVS-WIFI-KIT02-R10	1T1R Wi-Fi module kit for embedded system, IEEE802.11a/b/g/n/ac Wi-Fi with Bluetooth 4.0/3.0+HS, 1 x Wi-Fi module, 1 x Antenna, RoHS
IVS-3G-KIT02-R10	3G module kit for embedded system, F260, 1 x 3G module, RoHS
VIPOWER-6PIN-R10	Power adapter with 4-pin transfer cable, RoHS

Packing List

Item	P/N	Qty	Description
ACC power cable	32002-001900-100-RS	1	Round cable, power cable, 3000 mm, 16 AWG, (A) MOLEX 5557-04P P=4.2, RoHS
GPS/GSM antenna	32506-000100-100-RS	1	Integration antenna, GPS/GSM, RG 174, 5000 mm/5000 mm, PPF-5423SA5X-999, magnetic mount: φ55 mm x 22mm, 1575.42 MHz/850 MHz/900 MHz/1800 MHz/1900 MHz, 2 x SMA plug, RoHS
Utility CD		1	User manual and driver CD

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Optional Peripherals

IVS-200-ULT2

Vehicle Surveillance System



Features

- Intel® i5-5350U dual-core 1.8 GHz CPU or Intel® Celeron® 3755U dual-core 1.7 GHz CPU
- Four Intel® GbE LAN ports
- 9 V~36 V DC input
- Two RS-232/422/485
- E-Mark certification



Specifications

Model Name		IVS-200-ULT2	
Chassis	Color	Blue C	
	Dimensions (WxHxD) (mm)	255 x 63 x 150	
	System Fan	Fanless	
	Chassis Construction	Extruded aluminum alloy	
Motherboard	CPU	Intel® Core™ i5-5350U Processor (dual-core, 1.8 GHz, 15W TDP) or Intel® Celeron® 3765U Processor (dual-core, 1.9 GHz, 15W TDP)	
	Chipset	SoC	
	System Memory	2 x 204-pin DDR3 SO-DIMM slot 4 GB Pre-installed (system max. 16 GB)	
Storage	Hard Drive	1 x 2.5" SATA 6Gb/s HDD/SSD removable drive bay	
	mSATA	1 x mSATA (SATA 6Gb/s)	
Communication	WLAN	PCIe Mini Wi-Fi 802.11b/g/n (optional)	
	Bluetooth	Bluetooth 2.1 (combined with WWAN optional module)	
	WWAN	PCIe Mini WCDMA/HSDPA/HSUPA (optional)	
I/O Interfaces	USB 3.0	2	
	USB 2.0	2	
	Ethernet	4 x RJ-45 connector LAN1: PCIe GbE by Intel® I218 LAN2: PCIe GbE by Intel® I211 LAN3: PCIe GbE by Intel® I211 LAN4: PCIe GbE by Intel® I211	
		COM Port	2 x DB-9 RS-232/422/485 4 x DB-9 RS-232 (optional)
		Display	1 x VGA, 1 x HDMI
		Resolution	VGA: up to 2560 x 1600 @ 60 Hz HDMI: up to 3840 x 2160 @ 60 Hz
	DIO	8 bit digital I/O (4-bit input, 4-bit output) (optional)	
	SIM	1 x on board SIM card slot	
	Antenna	1 x 3G, 1 x BT, 1 x Wi-Fi	
	Audio	1 x Line out, 1 x Mic in	
	Expansions	PCIe Mini	1 x Full-size PCIe Mini (reserved for WWAN or mSATA) 1 x Half-size PCIe Mini (reserved for WLAN)
		Power Input	DC jack : 9 V~36 V DC
	Power	Consumption	12 V @ 2.1 A (Intel® i5-5350U with 4 GB DDR3 memory)
Reliability		Mounting	VESA 100
	Operating Temperature	-20°C ~ 60°C with air flow (SSD)	
	Storage Temperature	-30°C ~ 70°C	
	Humidity	10% ~ 95%, non-condensing	
	Operating Shock	Half-sine wave shock 5G, 11ms, 3 shocks per axis	
	Operating Vibration	MIL-STD-810F 514.5C-2 (with SSD)	
OS	Weight (Net/Gross)	2.2 kg/3 kg	
	Safety/EMC	CE/FCC/E-Mark	
	Supported OS	Microsoft® Windows® Embedded 8, Microsoft® Windows® Embedded Standard 7 E	

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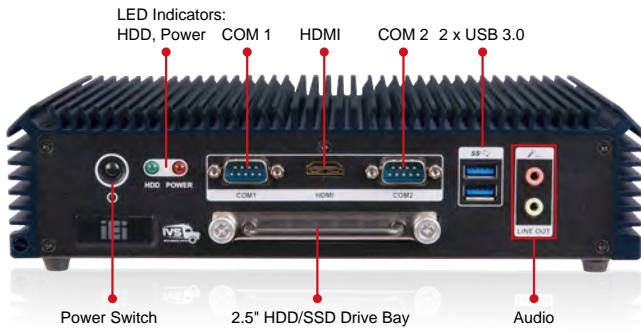
Automation Control

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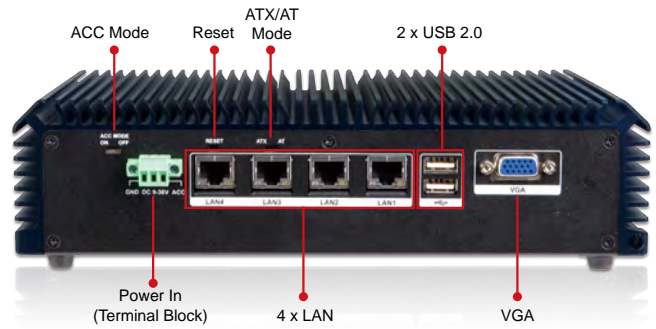
Optional Peripherals

Fully Integrated I/O

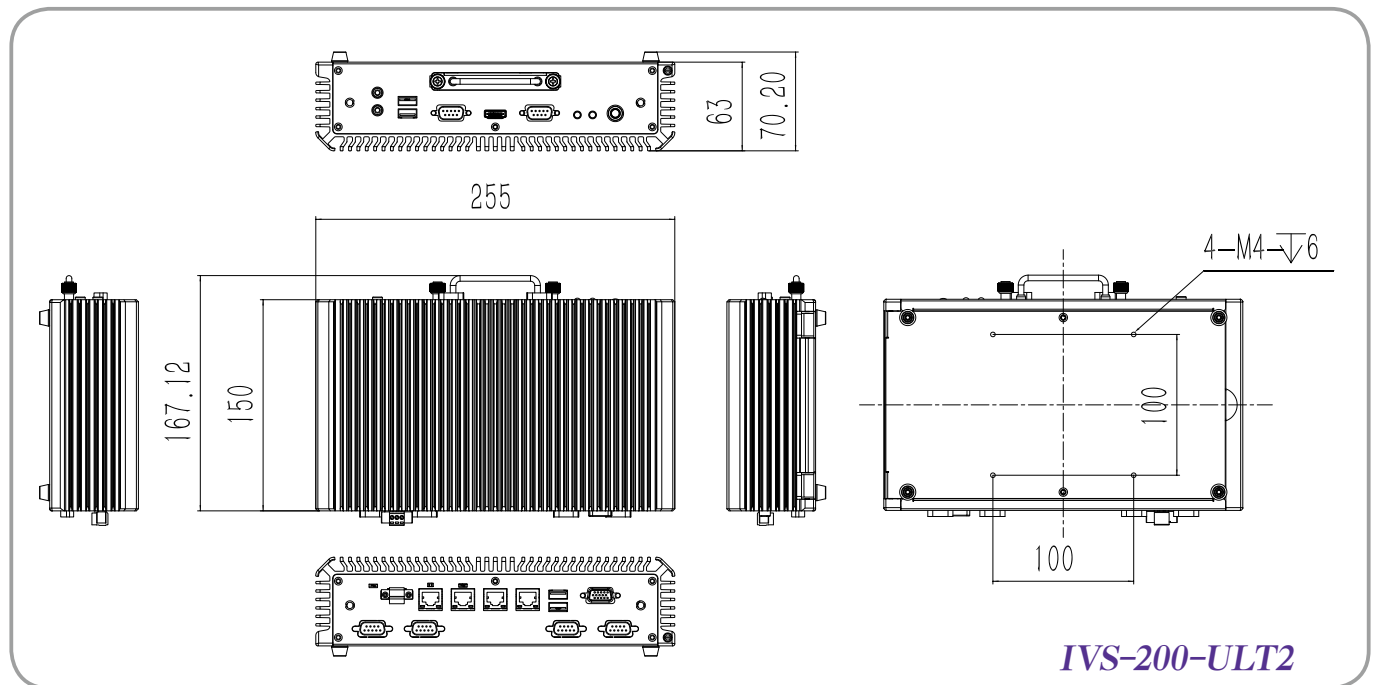
Front view



Rear view



Dimensions (Unit: mm)



Ordering Information

Part No.	Description
IVS-200-ULT2-i5/4G-R10	Fanless system with Intel® Core™ i5-5350U CPU, up to 2.9GHz, TDP 15W, four GbE LAN ports, one HDMI, one VGA, two RS-232/422/485, one 2.5" removable SATA HDD bay, 4 GB memory pre-installed, 9 V-36 V DC, R10, RoHS
IVS-200-ULT2-C/4G-R10	Fanless system with Intel® Celeron® 3765U 1.7GHz CPU, TDP 15W, four GbE LAN ports, one HDMI, one VGA, two RS-232/422/485, one 2.5" removable SATA HDD bay, 4 GB memory pre-installed, 9 V-36 V DC, R10, RoHS

Options

Item	Part No.	Description
Wireless kit	IVS-WIFI-KIT01-R10	1T1R wifi module kit for embedded system, IEEE 802.11b/g/n, 1 x wifi module, 1 x Antenna, RoHS
WWAN kit	IVS-3G-KIT01-R10	F260 3G module, BT V2.1, 1 x Antenna, RoHS
OS	IVS-200-ULT2-WES7E64-R10	OS Image with Windows® Embedded Standard 7 E 64-bit for IVS-200-ULT2, DVD-ROM, RoHS
Serial cable	32205-005400-100-RS	RS-232 cable, 150 mm, 2x5 pin
DIO cable	32231-000100-200-RS	DIO cable, 150 mm, 2x5 pin

Packing List

Item	Qty	Description
Utility CD	1	User manual and driver CD

- 1 IEIMobile Solutions
- 2 Automation Panel Solutions
- 3 Healthcare Panel PC Solution
- 4 Industrial System
- 5 ORing Network Communication
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- 7 Optional Peripherals

IVS-110-AL

Vehicle Fleet Management System

Preliminary

Features

- Intel® Apollo Lake processor
- Dual SIM slot
- Optional 3G/Wi-Fi
- 1 x Isolated RS-232/422/485
- 16 x DI/DO
- 1 x HDMI (lockable), 1 x VGA
- Built-in GPS function
- E-Mark certification
- Built-in OBD-II/CAN 2.0
- IP4X protection



Specifications

Model	IVS-110-AL	
Chassis	Color	Blue C
	Dimensions (WxHxD) (mm)	241 x 59 x 160 (TBD)
	System Fan	Fanless
	Chassis Construction	Extruded aluminum alloy
Motherboard	CPU	Intel® Atom™ x5 E3930 Processor (dual-core 1.8GHz, 6.5W TDP)
	Chipset	SoC
	System Memory	2 x 204-pin DDR3L SO-DIMM. 4GB pre-installed (system max. 16GB)
Storage	Hard Drive	1 x 2.5" SATA 6Gb/s HDD/SSD drive bay
	mSATA / eMMC	1 x mSATA (PCIe Mini Slot) 1 x eMMC 5.0 8G (reserved)
Communication	WLAN	PCIe Mini Wi-Fi 802.11 a/b/g/n/ac (optional)
	Bluetooth	BT 4.0/3.0+HS (combo with WLAN optional module)
	WWAN	PCIe Mini WCDMA/HSDPA/HSUPA (optional)
	GPS	On board GPS
I/O Interfaces	USB 3.0	4
	Ethernet	1 x RJ-45 PCIe GbE by Intel® I210-IT
	COM Port	1 x RS-232/422/485 (BIOS configuration)
	Digital I/O	1 x Printer port 16-bit digital I/O (8-bit input / 8-bit output)
	CAN-bus/OBD-II	1 x DB9 CAN-Bus/OBD-II
	Display	1 x VGA, 1 x HDMI
	Resolution	VGA : Up to 3840 x 2160 @30Hz HDMI : Up to 3840 x 2160 @30Hz
	Audio	1 x Line out
	SIM	2 x on board SIM card slot
	TPM	1 x 20-pin header
Expansions	PCIe Mini	1 x Full/Half-size PCIe Mini slot (reserved for WWAN) 1 x Full/Half-size PCIe Mini slot (reserved for mSATA or E-window) 1 x Half-size PCIe Mini slot (reserved for WLAN)
	Power Input	Cigarette lighter power cable: 9 V~ 36 V DC
	Consumption	TBD
Reliability	Mounting	Wall mount / VESA 100
	Operating Temperature	-30°C ~ +70°C with air flow
	Storage Temperature	-40°C ~ 80°C
	Humidity	10% ~ 95%, non-condensing
	Operating Shock	50 Grms, Half-sine 11 ms Duration (w/ SSD, according to IEC60068-2-27)
	Operating Vibration	5 Grms, 5-500 Hz, 3 Axes(w/ SSD, according to IEC60068-2-64) MIL-STD-810F 514.5C-2 (with SSD)
	Weight (Net/Gross)	TBD
Safety/EMC	CE/FCC/E-Mark/IP rating : IP 4X compliant	
OS	Supported OS	Microsoft® Windows 10 IoT Enterprise, Linux Yocto

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Optional Peripherals

Fleet Management Tracking System

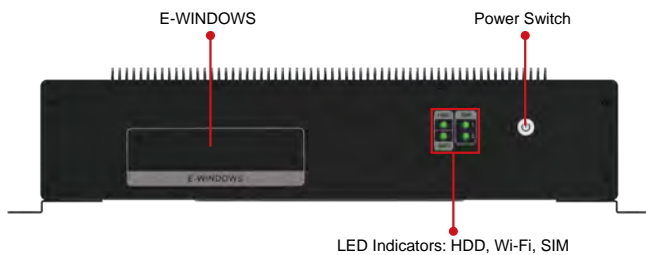


Vehicle Condition Control

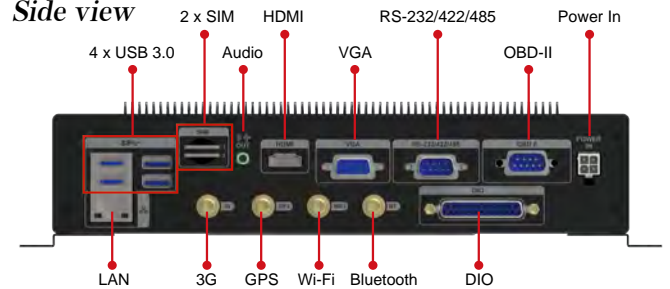


Fully Integrated I/O

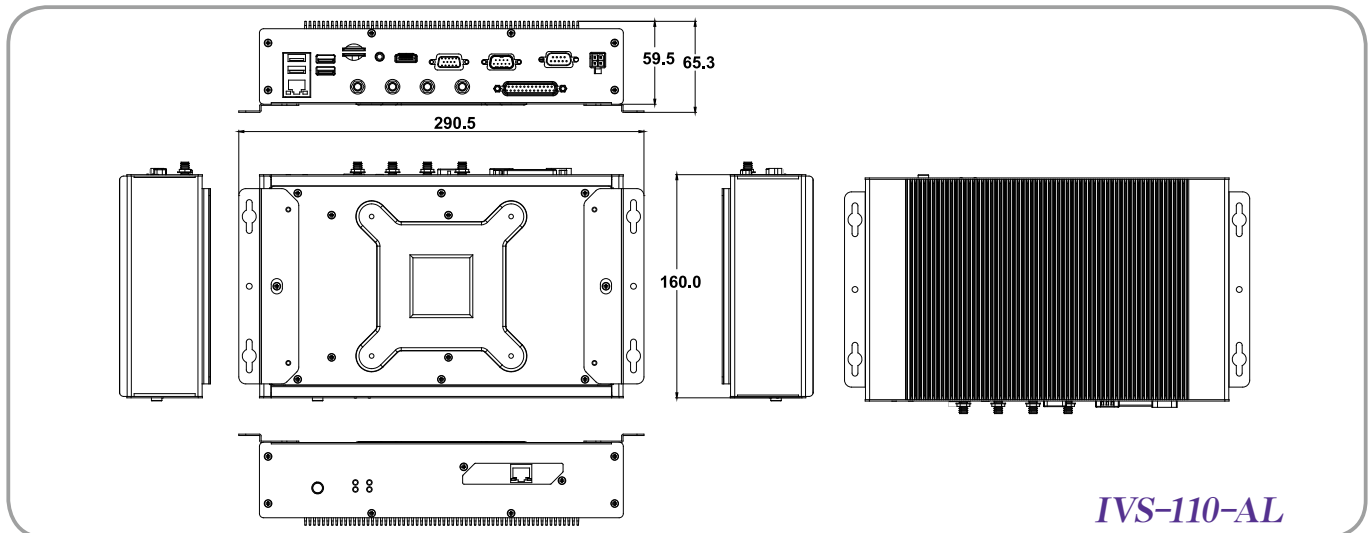
Front view



Side view



Dimensions (Unit: mm)



IVS-110-AL

Ordering Information

Part No.	Description
IVS-110-AL-E/4G-R10	Fanless embedded system with Intel® Atom™ x5 Processor E3930 dual-core 1.8GHz with 4GB DDR3L pre-installed memory, on board GPS, HDMI, VGA, one 2.5" removable SATA HDD bay, RoHs.

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IVS-100-BT

Vehicle Fleet Management System



Features

- Intel® Atom® E3826 1.46 GHz CPU
- Powered by Windows® Embedded Standard 7
- Supports 2.5" SATA 3Gb/s SSD
- Built-in GPS function
- Built-in VGA output and HDMI output
- Dual SIM slot
- Optional 3G/Wi-Fi/UHF reader modules
- Optional software compression video capture card



Specifications

Model Name		IVS-100-BT
Chassis	Color	Blue C
	Dimensions (WxHxD) (mm)	200 x 76 x 150
	System Fan	Fanless
	Chassis Construction	Extruded aluminum alloy
Motherboard	CPU	Intel® Atom™ processor E3826 (dual-core, 1.46 GHz, 7W TDP)
	Chipset	SoC
	System Memory	2 x 204-pin DDR3 SO-DIMM slot, 2 GB pre-installed (system max. 8GB)
Storage	Hard Drive	1 x 2.5" SATA 3Gb/s HDD/SSD drive bay
	SD Card	1 (supports SD 2.0, max. 32 GB)
Communication	WLAN	PCIe Mini Wi-Fi 802.11b/g/n (optional)
	Bluetooth	Bluetooth 2.1 (combined with WWAN optional module)
	WWAN	PCIe Mini, WCDMA/HSDPA/HSUPA (optional)
	RFID	UHF module, 902 MHz ~ 928 MHz operating band (optional)
	GPS	On board GPS
I/O Interfaces	USB 3.0	4
	Ethernet	2 x 10/100/1000 Mbps RJ-45 by RTL8111E PCIe GbE
	COM Port	2 x RJ-45 PCIe GbE by Realtek 8111E
	Digital I/O	8-bit digital I/O (4-bit input, 4-bit output)
	CAN-bus/OBD-II	1 x DB-9 CAN-bus/OBD-II
	Display	1 x VGA, 1 x HDMI
	Resolution	HDMI: Up to 1920 x 1080 @60 Hz VGA: Up to 1920 x 1080 @60 Hz
	Audio	1 x Line in, 1 x Line out
	SIM	2 x on board SIM card slot
	Antenna	2 x Wi-Fi/BT, 1 x WWAN, 1 x GPS, 4 x UHF
	Other	4-channel SC video capture card (optional)
Expansions	PCI	1 x PCI-104
	PCIe Mini	1 x Full-size PCIe Mini (reserved for WWAN) 1 x Full-size PCIe Mini (reserved for capture card module) 1 x Full-size PCIe Mini (reserved for analog DIO module) 1 x Full-size PCIe Mini (reserved for WLAN)
Power	Power Input	Cigarette lighter power cable, DC 9 V~30 V
	Consumption	12 V @ 3.2 A (Intel® Atom™ E3826 with 2 GB DDR3 memory)
Reliability	Mounting	VESA 100
	Operating Temperature	-20°C ~ 60°C with air flow
	Storage Temperature	-30°C ~ 70°C
	Humidity	10% ~ 95%, non-condensing
	Operating Shock	Half-sine wave shock 5G, 11ms, 3 shocks per axis
OS	Operating Vibration	MIL-STD-810F 514.5C-2 (with SSD)
	Weight (Net/Gross)	2.1 kg/3.6 kg
	Safety/EMC	CE/FCC/E-Mark
	Supported OS	Microsoft® Windows® Embedded 8, Microsoft® Windows® Embedded Standard 7 E

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IEIMobile Solutions

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Automation Panel Solutions

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Healthcare Panel PC Solution

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ORing Network Communication

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Automation Control

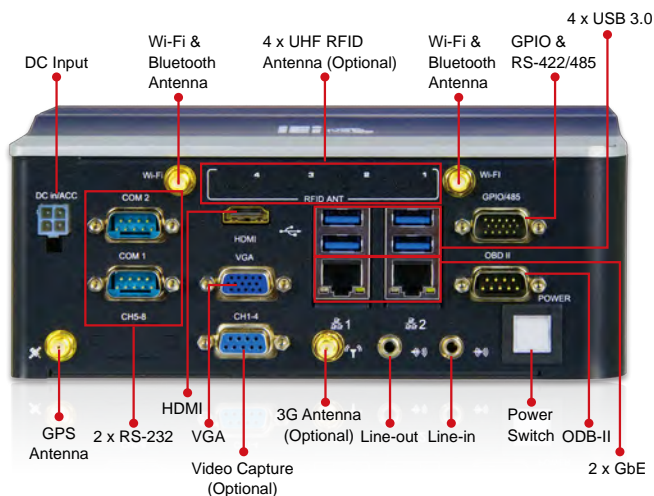
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Optional Peripherals

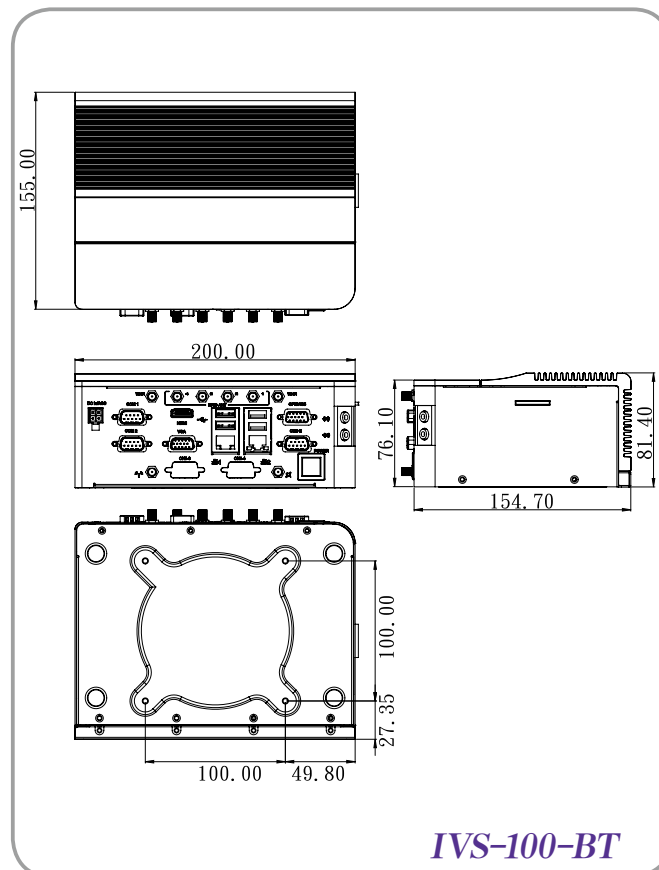
Fully Integrated I/O

Dimensions (Unit: mm)

Front view



Side view



IVS-100-BT

Ordering Information

Part No.	Description
IVS-100-BT-E3/2G-R10	Fanless embedded system with Intel® Atom™ E3826 1.46 GHz processor, 7W TDP, pre-installed 2 GB DDR3L memory, two GbE LAN, one HDMI, one VGA, one 2.5" SATA HDD bay, on-board GPS, RoHS

Options

Item	Part No.	Description
Power adapter	IVIPOWER-4PIN-R10	Power adapter with 4-pin transfer cable, RoHS
Cigarette lighter power cable	32002-004000-100-RS	Round cable, power cable, car cigarette lighter cable, 2000 mm, 18 AWG, (A) cigarette lighter (5 A 250 V)+ψ3 green LED, (B) MOLEX 5557-0400 P=4.2, RoHS
OBD-II cable	32025-000300-100-RS	Round cable, OBD-II cable, 2000 mm, 24 AWG, (A) OBD-II 16P male, (B) D-sub 9P female, one piece package with label, RoHS
J1939/FMS cable	32025-000400-100-RS	Round cable, J1939 cable, 2000 mm, 22 AWG, (A)J1939 9P male, (B)D-9P female, RoHS
OS: Windows Embedded 7 (DVD-ROM)	IVS-100-WES7E-R10	OS image with Windows® Embedded Standard 7 E for IVS-100 Series, DVD-ROM, RoHS
Wireless kit	IVS-WIFI-KIT01-R10	1T1R wifi module kit for embedded system, IEEE 802.11b/g/n, 1 x wifi module, 1 x Antenna, RoHS
WWAN kit	IVS-3G-KIT01-R10	F260 3G module, BT V2.1, 1 x Antenna, RoHS
UHF module	IVS-UHF01-R10	UHF RFID patch antenna, 915 MHz, only for United States
UHF RFID antenna (Patch Antenna 915 MHz)	AVL-2000PLUS-FCC01-R10	UHF RFID antenna module, patch antenna, 915 MHz, 8.5dBi, with RFID cable, LMR195, 10000 mm, SMA PLUG, RoHS
4-channel video capture card	IVS-SC01-R10	Video capture card, PCIe Mini card with 4-channel video capture, SC330N4 MC, RoHS
Dead reckoning box	IVI-DR-R10	IVI dead reckoning box, USB output

Packing List

Item	P/N	Qty	Description
ACC power cable	32002-001900-100-RS	1	Round cable, power cable, 3000 mm, 16 AWG, (A) MOLEX 5557-04P P=4.2, SHANGHAI YING YU, RoHS
GPS/GSM antenna	32506-000100-100-RS	1	Integration antenna, GPS/GSM, RG 174, 5000 mm/5000 mm, PPF-5423SA5X-999, magnetic mount: φ55 mm x 22mm, 1575.42 MHz/850 MHz/900 MHz/1800 MHz/1900 MHz, 2 x SMA plug, RoHS
Utility CD		1	User manual and driver CD

- 1 IEIMobile Solutions
- 2 Automation Panel Solutions
- 3 Healthcare Panel PC Solution
- 4 Industrial System
- 5 ORing Network Communication
- 6 Automation Control
- 7 Optional Peripherals

ITCS-100-H81 Toll Gate Device Control System

New

Features

- Intel® Core™ i5-4570TE CPU dual-core 2.7 GHz or Intel® Celeron® Processor G1820TE dual-core 2.2 GHz
- 9~36 V DC input
- 4 x RS-232, 4 x RS-232/422/485
- 1 x VGA, 1 x DVI-D
- 2 x 3.5" SATA 6Gb/s HDD drive bay
- 24 x DIO



Specifications

Model Name		ITCS-100-H81-C/4G-R10	ITCS-100-H81-i5/4G-R10
Chassis	Color	Black	
	Dimensions (WxHxD) (mm)	310 x 112.8 x 200	
	System Fan	Fanless	
	Chassis Construction	Extruded aluminum alloy	
Motherboard	CPU	Intel® Celeron® G1820TE Processor (dual-core 2.2 GHz, 35W TDP)	Intel® Core™ i5-4570TE Processor (dual-core 2.7 GHz 35W TDP)
	Chipset	Intel® H81	
	System Memory	2 x 204-pin DDR3 SO-DIMM 4GB pre-installed (system max 32GB)	
Storage	Hard Drive	2 x 3.5" HDD bay SATA 6Gb/s	
	Flash	2GB on-board flash	
I/O Interfaces	USB 2.0	4	
	Ethernet	2 x RJ-45 connector 1 x PCIe GbE by Intel® I211AT 1 x PCIe GbE by Intel® I210AT	
	COM Port	4 x RS-232 + 4 x RS-232/422/485 (SCSI type, 4 x RS-232/422/485 with isolated)	
	Digital I/O	1 x D-SUB 25 pin connector 24-bit digital I/O (12-bit input / 12-bit output)	
	Display	1 x VGA + 1 x DVI-D	
	Resolution	VGA: Up to 1920 x 1080@60Hz DVI-D: Up to 1920 x 1080@60Hz	
	PS/2 (KB/MS)	1 x KB, 1 x MS	
	Audio	1 x Line-out + 1 x Line-in	
	TPM	1 x 20-pin LPC	
	Expansions	PCIe Mini	1 x Full-size PCIe Mini (for IVCME-C604 or E-window)
LED Indicator & Button	Button	1 x Power button, 1 x Reset button	
	Indicator	1 x Software LED, 1 x HDD LED, 24 x DIO, 8 x COM port	
Power	Power Input	DC jack : 9V~36V DC	
	Consumption	12V @ 5A (Intel® i5-4570TE with 4 GB DDR3 memory)	
Reliability	Mounting	Wall mount	
	Operating Temperature	-20°C ~ 55°C with air flow	
	Storage Temperature	-30°C ~ 70°C	
	Humidity	10% ~ 90%, non-condensing	
	Operating Shock	Half-sine wave shock 5G, 11ms, 3 shocks per axis	
	Operating Vibration	MIL-STD-810G 514.6C-1	
OS	Weight (Net/Gross)	6.36 kg/9.2 kg	
	Safety/EMC	CE/FCC	
	Supported OS	Microsoft® Windows® Embedded 8, Microsoft® Windows® Embedded Standard 7 E, Linux (Ubuntu)	
	Watchdog Timer	Software programmable supports 1~255 sec, system reset	

1

IEIMobile Solutions

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Automation Panel Solutions

3

Healthcare Panel PC Solution

4

Industrial System

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ORing Network Communication

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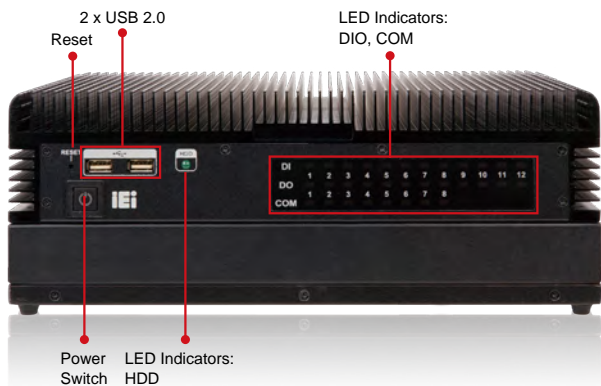
Automation Control

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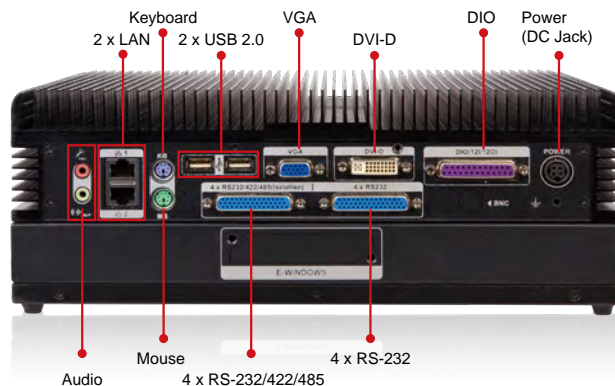
Optional Peripherals

Fully Integrated I/O

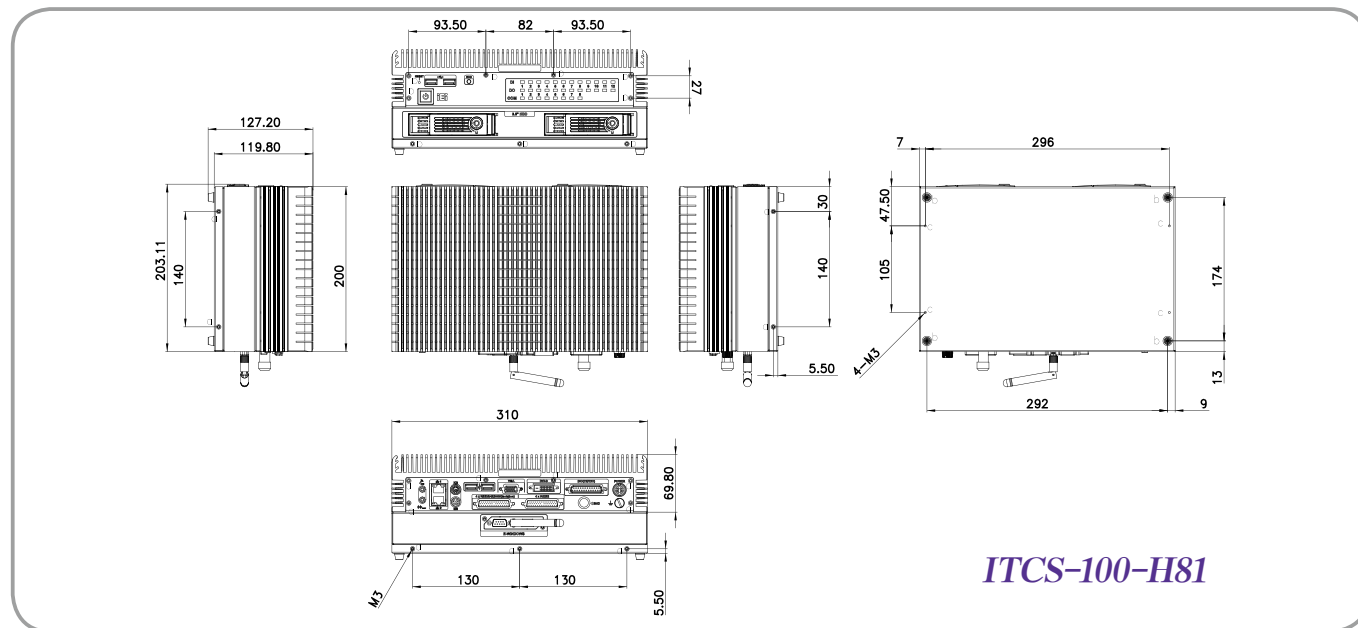
Front view



Rear View



Dimensions (Unit: mm)



Ordering Information

Part No.	Description
ITCS-100-H81-I5/4G-R10	Fanless embedded system with Intel® H81 chipset, Intel® Core™ i5-4570TE Processor dual-core 2.7 GHz, 35W TDP, 4GB DDR3L pre-installed memory, RS-232/422/485, 24-bit DIO, E-windows, two 3.5" removable SATA HDD bays, RoHS
ITCS-100-H81-C/4G-R10	Fanless embedded system with Intel® H81 chipset, Intel® Celeron® Processor G1820TE dual-core 2.2 GHz, 35W TDP, 4GB DDR3L pre-installed memory, RS-232/422/485, 24-bit DIO, E-windows, two 3.5" removable SATA HDD bays, RoHS

Packing List

Item	P/N	Qty	Description
DIO cable	32031-000200-100-RS	1	DIO cable, round cable, 3, 1500 mm, 26AWG, (A)D-sub 25-pin male *3, one piece package with label, RoHS
DB-44 to quad DB-9 cable	32005-003300-100-RS	1	RS-232/422/485 cable, round cable, 5, 1500 mm, 28AWG, (A)D-sub 44-pin male, (B)D-sub 9-pin male *4, one piece package with label, RoHS
DB-44 to quad DB-9 cable	32005-003400-100-RS	1	RS-232/422/485 cable, round cable, 5, 1500 mm, 28AWG, (A)D-sub 44-pin male, (B)D-sub 9-pin male *4, one piece package with label, blue, RoHS
One Key Recovery CD	7B000-001169-RS	1	DVD-ROM Disk, v1.6, One Key Recovery (supports SkyLake, Braswell), RoHS
Utility CD		1	User manual and driver CD

Options

Item	Part No.	Description
Power adapter	63040-010090-101-RS	Adapter Power, FSP, FSP090-DIEBN2, 9NA0904739, Active PFC, Vin:90~264VAC, 90W, Plug=6.5mm, Cable=1500mm, Erp(NO LOAD 0.5W), Vout:19VDC, Din 4Pin/lock, CCL, RoHS
Power cord	32702-000400-200-RS	Power cord, European code (VDE), 2, 1800 mm, (A)Plug: SH-025 (16A/250V), (B)Connector: SM-112 (2.5A/250V), Self-Man, CCL, RoHS
Video capture card	IVCME-C604-R10	PCIe Mini video/audio capture card with 4-channel video/audio input, total 120fps@D1 for 4 channels (NTSC)
OS:Windows Embedded 7	ITCS-100-H81-WES7E64-R10	OS Image with Windows® Embedded Standard 7 E 64-bit for ITCS-100-H81, with DVD-ROM, RoHS
OS:Windows Embedded 8	ITCS-100-H81-WE8E64-R10	OS Image with Windows® 8 Embedded 64-bit for ITCS-100-H81, with DVD-ROM, RoHS

IRS-100-ULT3

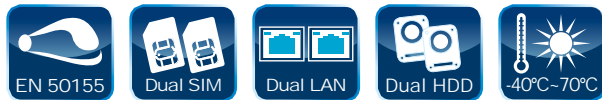
Railway Surveillance System

New



Features

- Intel® Skylake ULT processor
- Dual M12 LAN port
- VGA / DVI dual display
- Dual SIM card design
- 16 V DC~160 V DC input
- 2 x 2.5" hot-swappable SATA SSD drive bay
- EN 50155



Specifications

Model Name	IRS-100-ULT3	
Chassis	Color	Blue C
	Dimensions (WxHxD) (mm)	290 x 69 x 225
	System Fan	Fanless
	Chassis Construction	Extruded aluminum alloy
Motherboard	CPU	Intel® Core™ i5-6300U processor (dual-core, 2.4 GHz, 15W TDP)
	Chipset	SoC
	System Memory	2 x 260-pin DDR4 SO-DIMM 4GB pre-installed (system max. 32 GB)
Storage	Hard Drive	2 x 2.5" SATA 6Gb/s SSD drive bay
	CFast/CF Card	1 x CFast (SATA 6Gb/s)
	mSATA	1 x mSATA (SATA 6Gb/s)
Communication	WLAN	PCIe Mini Wi-Fi 802.11 a/b/g/n/ac (optional)*
	Bluetooth	BT 4.0/3.0+HS (combo with WLAN optional module)
	WWAN	PCIe Mini WCDMA/HSDPA/HSUPA (optional)
I/O Interfaces	USB 3.0	2
	USB 2.0	1 (M12 connector)
	Ethernet	2 x RJ-45 PCIe GbE by Intel® I211 (M12 connector)
	COM Port	2 x DB-9 RS-232/422/485 (with 2.5 kV isolation)
	Digital I/O	1 x Terminal block for 8-bit digital I/O (4-bit input/4-bit output, 2.5 kV isolation)
	Display	1 x VGA, 1 x DVI-D
	Resolution	VGA : Up to 1920 x 1200 @60Hz DVI-D : Up to 1920 x 1200 @60Hz
	Audio	1 x Line-out, 1 x Mic-in
	SIM	2 x SIM card slot
	Expansions	PCIe Mini
Power		Power Input M12 Connector: 24 V ~ 110 V DC
Reliability	Consumption	TBD
	Mounting	Wall mount
	Operating Temperature	-40°C ~ 70°C with air flow (with industrial SSD/CF), compliant with EN 50155
	Storage Temperature	-40°C ~ 85°C
	Humidity	10% ~ 95%, non-condensing
	Operating Shock	Compliant with EN 61373 Category 1 Class B
	Operating Vibration	Compliant with EN 61373 Category 1 Class B
OS	Weight (Net/Gross)	3.9 kg / 5.1 kg
	Safety/EM C	CE/FCC, compliant with EN 50155, EN 50121-3-2
	Supported OS	Microsoft® Windows® Embedded 8, Microsoft® Windows® Embedded Standard 7 E

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IEIMobile Solutions

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Automation Panel Solutions

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Healthcare Panel PC Solution

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Industrial System

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ORing Network Communication

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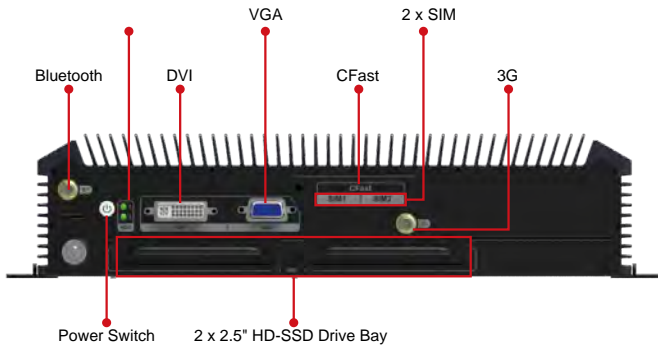
Automation Control

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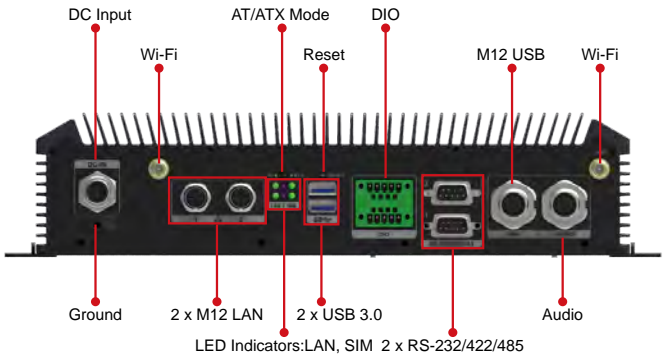
Optional Peripherals

Fully Integrated I/O

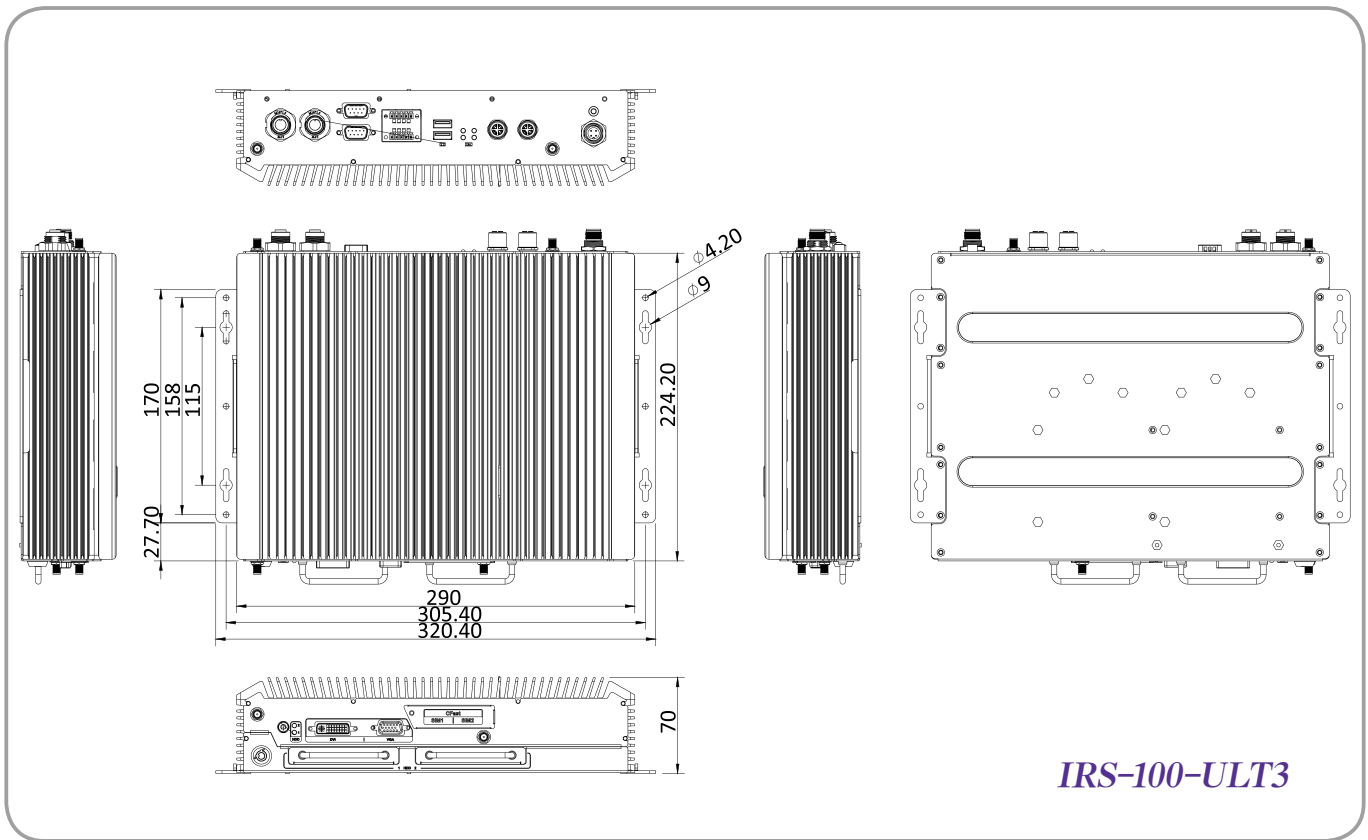
Front view



Rear view



Dimensions (Unit: mm)



Ordering Information

Part No.	Description
IRS-100-ULT3-I5E/4G-R10	Fanless railway system with Intel® Core™ i5-6300U (15W) processor (ULT), 4 GB DDR3 pre-installed memory, two 2.5" SATA SSD bays, VGA, DVI-D, two M12 GbE LAN, R10

Options

Part No.	Description
IRS-100-ULT3-WES7E64-R10	OS Image with Windows® Embedded Standard 7 E 64-bit for IRS-100-ULT3, DVD-ROM, RoHS
IRS-WIFI-KIT02-R10	1T1R Wi-Fi module kit for embedded system, IEEE802.11a/b/g/n/ac Wi-Fi with Bluetooth 4.0/3.0+HS, 1 x Wi-Fi module, 1 x Antenna, RoHS
IRS-3G-KIT02-R10	3G module kit for embedded system, F260, 1 x 3G module, RoHS

Packing List

Item	Qty	Description
Utility CD	1	User manual and driver CD

- 1 IEIMobile Solutions
- 2 Automation Panel Solutions
- 3 Healthcare Panel PC Solution
- 4 Industrial System
- 5 ORing Network Communication
- 6 Automation Control
- 7 Optional Peripherals

SBOX-100-QM87

Maritime Embedded System

New

Features

- Fanless marine computer with 4th Generation Intel® Core™ i5 dual-core processor
- -15°C ~ +55°C wide temperature
- Isolation protection
 - » 4 x RS-232/422/485 isolated serial ports
 - » Isolated 18 V~36 V DC input
 - » 2 x Isolated CAN-bus 2.0B
- 2 x 2.5" SSD bay with RAID 0/1 function
- Supports IEI iRIS-2400 (IPMI 2.0 compliant)

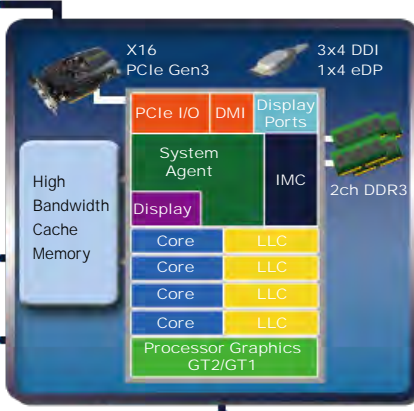


Intel® Core™ i5 High Performance Computing Power in a Fanless Design

IEI's high performance marine solutions are built with the powerful Intel® Core™ i5 CPU within a fanless system architecture. No matter your applications are general marine system management, monitoring or conning systems, radar systems, or ECDIS navigation, IEI's marine computers will give you the most stability than ever.

- Improved CPU performance with Intel® 22nm 4th Generation Mobile Core™ i5-4400E 2.7 GHz processor
- Two 204-pin 1600/1333MHz dual-channel DDR3 SDRAM support up to 16 GB

Next Generation Intel® HD Graphics with DX 11.1, OpenGL 4.x, OpenCL 1.2



Built-in 22 nm Processor

Intel® Turbo Boost Technology

2 Ch DDR3L 1600 MHz 1/2 DIMM per Channel

Up to 4C and 8MB of Intel® Smart Cache

Intel® AVX 2.0 + Intel® AES New Instructions and Improvements



With IEI's fanless solutions, your vessels can avoid the bothersome of replacement of fan, increasing safety and efficiency for the crew and the entire ship.

Three independent aluminum heat sinks help the heat dissipate averagely, and help the system efficiently achieve wide operating temperature range between -15°C~55°C.

3 independent displays: HDMI, DVI, and VGA

The three simultaneously independent displays are supported via the on-board video output combinations of VGA, DVI and HDMI. This versatile combination of display output options make the marine system ideal for multi-monitor required applications in the bridge room.



Display 1



HDMI

Display 2



VGA

DVI

Display 3



- 1 IEI Mobile Solutions
- 2 Automation Panel Solutions
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Multiple Isolated Ports for Comprehensive Protection against Electrical Surges

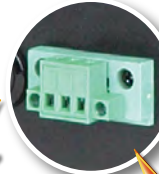
Ground loop and electric surges are common in the marine applications of electronic products due to the dense placement of devices. These stray electrical signals can cause equipment damage or malfunction.

■ 2.5 kV isolation protection on the RS-232/422/485

IEI marine computer is protected from any stray electrical signals from other devices on the ship. Electric surges that were generated from other electronic devices which often passed through serial lines to the marine computer can cause severe damage and malfunction to the computers.

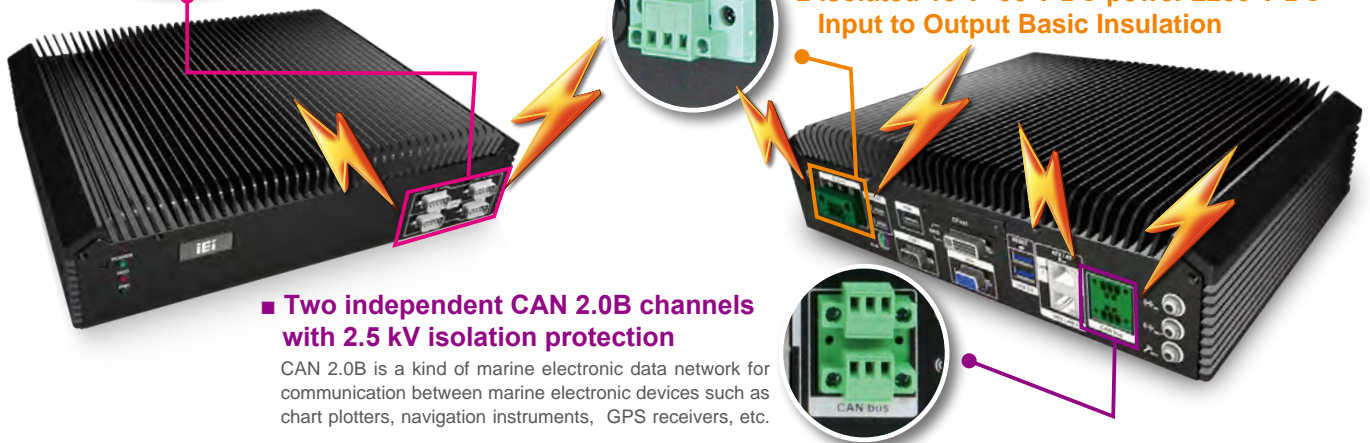
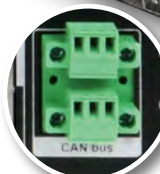


■ Isolated 18 V~36 V DC power 2250 V DC Input to Output Basic Insulation



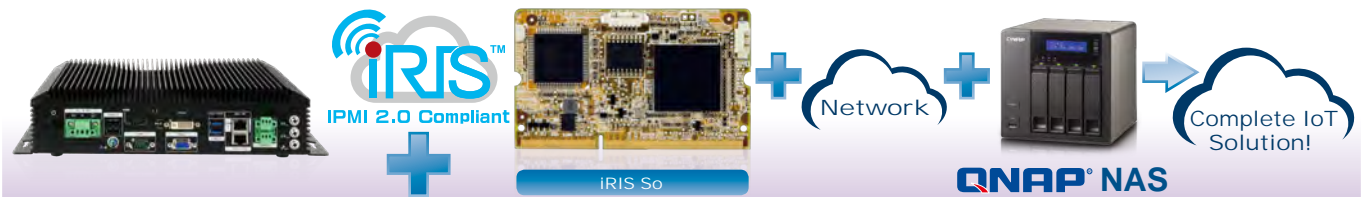
■ Two independent CAN 2.0B channels with 2.5 kV isolation protection

CAN 2.0B is a kind of marine electronic data network for communication between marine electronic devices such as chart plotters, navigation instruments, GPS receivers, etc.



IEI Remote Intelligent Management System

The marine computer supports IEI iRIS remote management solution which helps users to manage multiple devices through single management interface and elevates work efficiency. The iRIS solution only requires a module and Internet connection!

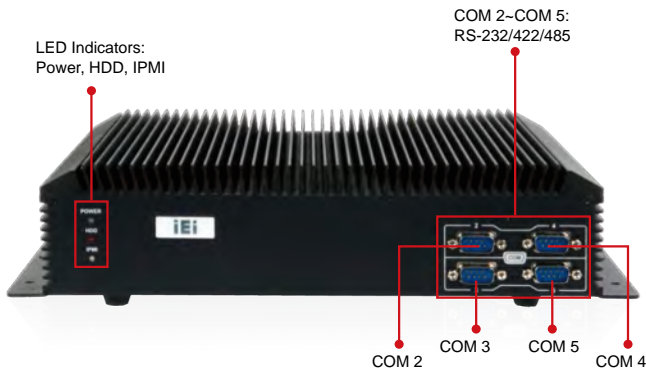


iRIS Key Feature	Detailed Functions	iRIS Key Feature	Detailed Functions
System health monitor	<ul style="list-style-type: none"> Hardware monitor Health log Event log 	Screen record	<ul style="list-style-type: none"> Remote video streaming record Event Trigger Setting & video record
Remote system maintenance	<ul style="list-style-type: none"> Remote BIOS update Remote OS recovery Remote KVM + One Key Recovery Remote out-of-band backup 	Remote power control	<ul style="list-style-type: none"> Reset Power Power Off Server – Immediately Power Off Server – Orderly Power On Server Power Cycle Server
Active alert & notice	<ul style="list-style-type: none"> Send instant system alerts via e-mail Send instant system alerts via SMS Send instant system alerts to management server 	Remote troubleshooting	<ul style="list-style-type: none"> Remote software update Remote OS installation & recovery Remote KVM Post code display
Remote device control	<ul style="list-style-type: none"> Fan control Remote KVM Remote setting BIOS 	Diagnose before dispatch	<ul style="list-style-type: none"> Health log analysis Event log analysis
		Group control	<ul style="list-style-type: none"> Group control

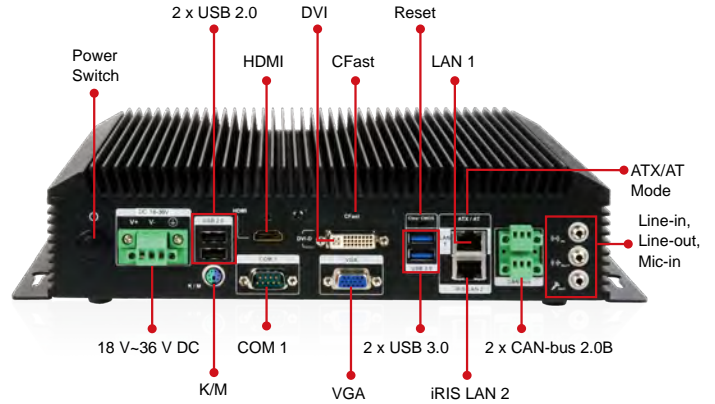
- 1 IEIMobile Solutions
- 2 Automation Panel Solutions
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Fully Integrated I/O

Front view



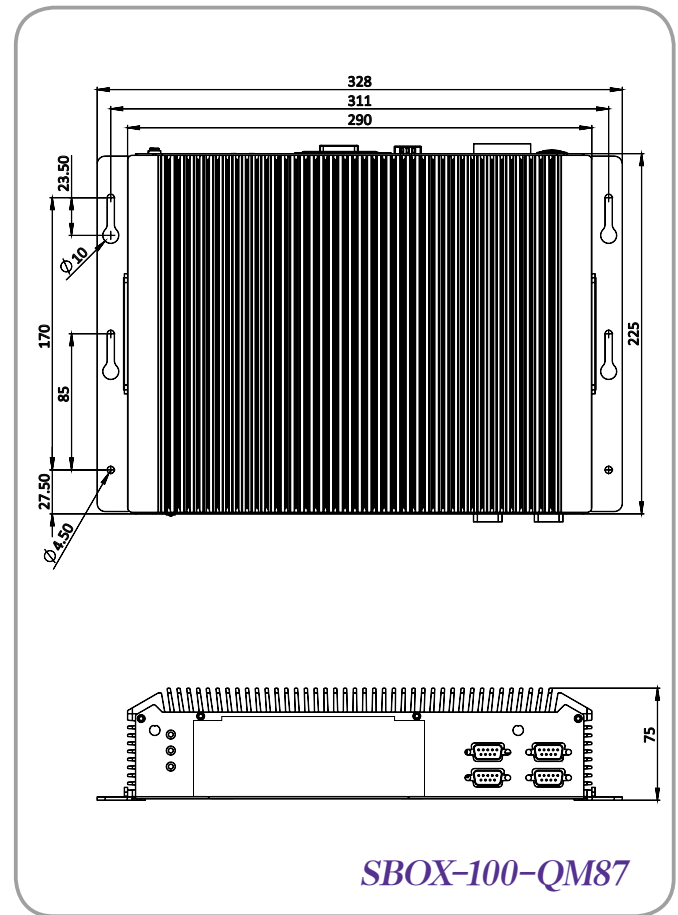
Rear view



Specifications

Model Name	SBOX-100-QM87	
Chassis	Color	Black
	Dimensions (WxHxD) (mm)	290 x 75 x 225
	System Fan	Fanless
	Chassis Construction	Extruded aluminum alloy
Motherboard	CPU	Intel® mobile Core™ i5-4400E (2.7 GHz, 37W)
	Chipset	Intel® QM87
	System Memory	2 x 204-pin DDR3 SO-DIMM slot (system max. 16 GB) Pre-installed 4 GB DDR3 SO-DIMM
IPMI	iRIS Solution	iRIS-2400
Storage	Hard Drive	2 x 2.5" SATA 6Gb/s SSD bay with RAID 0/1 function
	CF Card/CFast	1 x CFast
I/O Interfaces	PS2 (KB/MS)	1
	USB 3.0	2
	USB 2.0	2
	Ethernet	2 x RJ-45 with teaming support 1 x PCIe GbE by Intel® I217LM 1 x PCIe GbE by Intel® I210-AT (2 with 2 kV isolation)
	COM Port	1 x DB-9 (non-isolated) 4 x RS-232/422/485 (with 2.5 kV isolation)
	CAN-bus/OBD-II	2 x CAN-bus (with 2.5 kV isolation)
	Display	1 x VGA, 1 x DVI-D, 1 x HDMI
	Resolution	VGA: Up to 1920 x 1200 @ 60 Hz HDMI: Up to 2500 x 1600 @ 60 Hz DVI-D: Up to 2500 x 1600 @ 60 Hz
	Audio	1 x Line-out, 1 x Line-in, 1 x Mic-in
	Wireless	2 x Antenna SMA hole (reserved)
Expansions	PCIe Mini	2 x Full size
LED Indicator & Button	Indicator	Power (power on: green, power off: orange), storage (red, blinking), IPMI (blue)
	Power Input	Terminal block: 18 V~36 V DC with isolation
Power	Consumption	100 W (Intel® mobile Core™ i5-4400E with 4 GB DDR3 memory)
	Mounting	Wall mount
Reliability	Operating Temperature	-15°C ~ 55°C (5°F ~ 131°F) with air flow (SSD)
	Storage Temperature	-20°C ~ 60°C (-4°F ~ 140°F)
	Humidity	5% ~ 95%, non-condensing
	Operating Shock	
	Operating Vibration	IEC 60945 and DNV 2.4 IASC-E10 compliant
OS	Weight (Net/Gross)	4.08 kg / 6.03 kg
	Safety/EMC	EMC/CE/FCC/DV/N, IEC 60945 4th, IACS-E10, IEC 61174 compliant IP rating: IP22 compliant rear cover
	Supported OS	Microsoft® Windows® Embedded 8, Microsoft® Windows® Embedded Standard 7 E

Dimensions (Unit: mm)



Ordering Information

Part No.	Description
SBOX-100-QM87-I5/4G-R10	Fanless marine computer with Intel® Mobile Core™ i5-4400E 2.7 GHz processor, 4 GB DDR3 memory, iRIS-2400 supported, isolated 18 V~36 V DC, R10

Packing List

Item	P/N	Qty	Description
User manual & driver CD		1	Drivers and user manual
PS/2 cable	32006-000300-100-RS	1	PS/2 cable
Rubber pad & screw pack		1	Rubber pad & screw pack

1 IEMobile Solutions

2 Automation Panel Solutions

3 Healthcare Panel PC Solution

4 Industrial System

5 ORing Network Communication

6 Automation Control

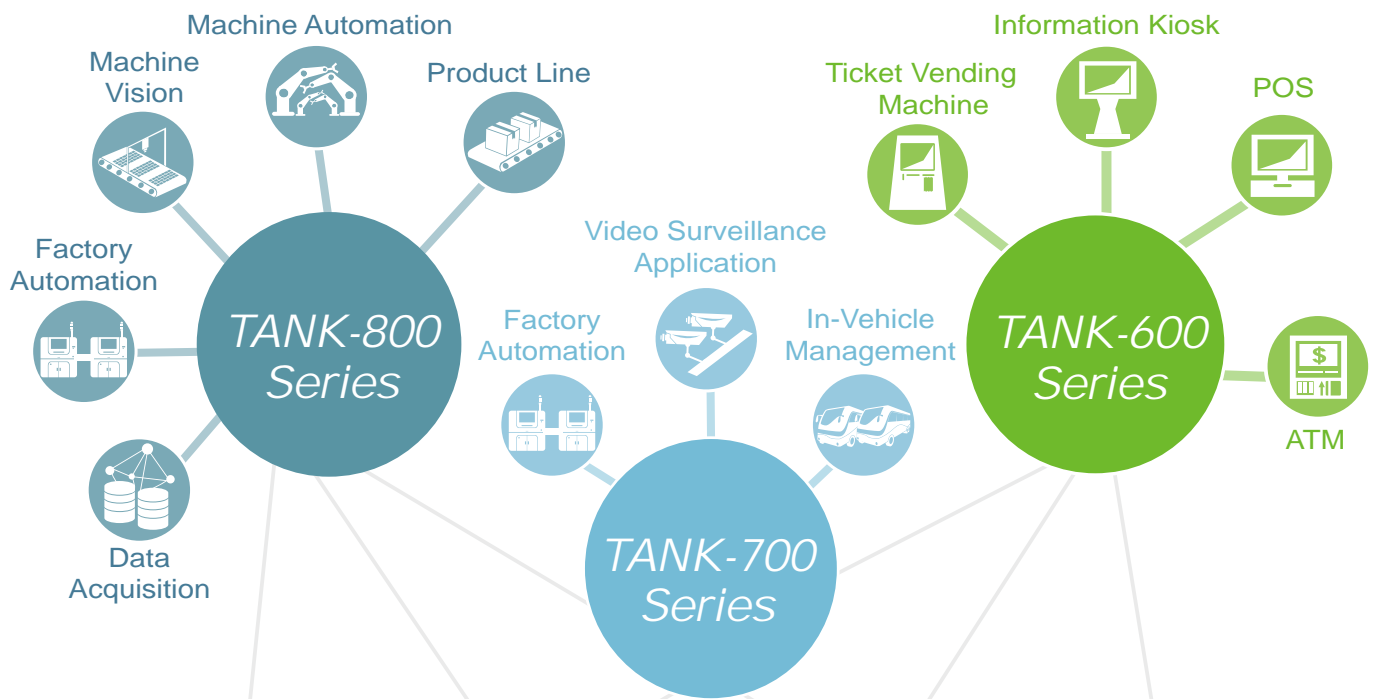
7 Optional Peripherals

Industrial Automation Solution



IEI offers complete rugged fanless products with a wide range of I/O interfaces and multiple expansion, allowing users to connect to different devices for comprehensive automation solution. IEI's industrial automation solution provides a reliable platform to fulfill a wide variety of application demand, such as machine automation, surveillance application, and information kiosk. To fight the upcoming trend of IoT, IEI develops an IPMI 2.0 compliant technology - iRIS (IEI Remote Intelligent System). iRIS is a hardware-level remote management solution that can make your systems more efficient in system integration. "TANK" is a model name for a series of IEI ruggedized embedded box products.

Ruggedized Solution



■ TANK-800 Series

Multiple PCI/PCIe Expansion

- Great flexibility of expansion slots
- IPMI function for remote control management
- Design fulfills high storage demand
- Wide range temperature



■ TANK-700 Series

Multiple PCIe Mini Expansion

- Support triple display
- Flexible expansion design
- 8-channel audio/video capture capability
- Military compliant



■ TANK-600 Series

Multiple Serial Port

- Support 8 COM ports
- mSATA and 2.5" SATA storage device
- Wide range temperature
- Low power

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TANK Series Selection Guide

The TANK series contains great coverage of the Intel® desktop, mobile and Atom™ solutions. From high performance to low power consumption, IEI provides a vast series of specifications to fulfill the diverse demands of our customers.



Platform		Multiple PCI/PCIe Expansion	Multiple PCIe Mini	Multiple COM Port
Desktop	Sandy Bridge	TANK-820-H61	TANK-720-Q67	-
	Skylake	TANK-870-Q170, TANK-870e-H110	-	-
Mobile	Sandy Bridge	-	TANK-700-QM67	-
	Haswell	TANK-860-HM86	TANK-760-HM86	-
Atom™	Pineview	TANK-800-ICH8M	-	-
	Cedarview	-	-	TANK-600-NM10
	Bay Trail	TANK-801-BT	-	-
	Braswell	-	-	TANK-610-BW

Key Features

Fanless design



The advantage of IEI fanless product series is to reduce the failure caused by fan and maintenance efforts. IEI also design functional heatsink to make sure the products can work in harsh environments.

Wide range temperature



IEI fanless product series has leading-edge thermal design, and has been tested under extreme temperature environments in order to ensure that IEI fanless products can be operated in any harsh environment.

Wide range power input



The 9 V ~ 36 V DC wide power input allows the TANK series to be used in different applications. IEI provides you safe and reliable operations under industrial conditions with a wide range of acceptable inputs.

EMC & Safety Certifications



IEI TANK series has been CE and FCC certified, which proves that we give top priority to quality control and inspection of all our products.



(TANK-760 only)

A Variety of Applications

IEI TANK ruggedized embedded box series is ideal for applications that require remote control or multiple video outputs. Furthermore, with the IEI iRIS technology, the users can achieve Internet of Things (IoT) among different devices, such as panel PCs and single board computers.



Remote management

By installing the IEI iRIS module, IEI products are 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.

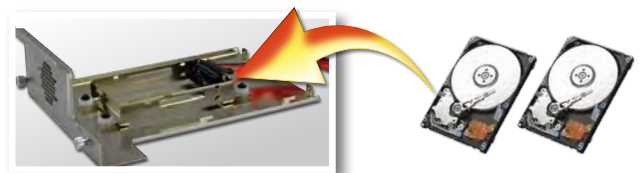


iRIS-2400



Easy Maintenance and Expansion

The internal components of the TANK-800, such as 2.5" SATA HDD/SSD, can be quickly installed and maintained by removing the HDD bracket.



The TANK-700 Series is equipped with multiple PCIe Mini card slots for expansions, such as Wi-Fi, 3G and GPS cards. These expansion slots can be accessed easily for adding extra functions to the system.



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IEIMobile Solutions

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Automation Panel Solutions

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Optional Peripherals

Industrial Automation System






Model Name		TANK-870-Q170	TANK-870e-H110	
Chassis	Color	Black C + Silver	Dark silver purple + Silver	
	Dimensions (WxDxH) (mm)	2-slot: 121.5 x 255.2 x 205 4-slot: 154.8 x 255.2 x 205	132.6 x 190 x 255.2	
	System Fan	Fanless	Fanless	
	Chassis Construction	Extruded aluminum alloys	Extruded aluminum alloys	
Motherboard	CPU	Intel® Core™ i7-6700TE (2.4 GHz, quad-core, TDP=35) Intel® Core™ i5-6500TE (2.3 GHz, quad-core, TDP=35)	Intel® Core™ i7-6700TE (2.4 GHz, quad-core, TDP=35) Intel® Core™ i5-6500TE (2.3 GHz, quad-core, TDP=35)	
	Chipset	Intel® Q170	Intel® H110	
	System Memory	2 x 260-pin DDR4 SO-DIMM, one 4 GB pre-installed (system max: 64GB)	2 x 260-pin DDR4 SO-DIMM, one 4 GB pre-installed (system max: 32GB)	
IPMI	iRIS Solution	1 x iRIS-2400 (optional)	N/A	
Storage	Hard Drive	2 x 2.5" SATA 6Gb/s HDD/SSD bay (RAID 0/1/5/10 support)	1 x 2.5" SATA 6Gb/s HDD/SSD bay	
	USB 3.0	4	4	
I/O Interfaces	USB 2.0	4	N/A	
	Ethernet	2 x RJ-45 LAN1: Intel® I219LM PCIe controller LAN2 (iRIS): Intel® I210 PCIe controller	2 x RJ-45 PCIe GbE by RTL8111G controller	
	COM Port	4 x RS-232 (2 x RJ-45, 2 x DB-9 w/ isolation) 2 x RS-232/422/485 (DB-9)	2 x RS-232/422/485 (DB-9, w/ isolation)	
	Digital I/O	8-bit digital I/O , 4-bit input / 4-bit output	N/A	
	Display	1 x VGA, 1 x HDMI/DP, 1 x iDP (optional)	1 x VGA, 1 x HDMI 1.4	
	Resolution	VGA: Up to 1920 x 1200@60Hz HDMI/DP: Up to 4096x2304@60Hz	VGA: Up to 1920 x 1200@60Hz HDMI 1.4: Up to 4096x2160@24Hz	
	Audio	1 x Line-out, 1 x Mic-in	1 x Line-out, 1 x Mic-in	
	Wireless	1 x 802.11b/g/n (optional)	1 x 802.11b/g/n (optional)	
	Expansions	Backplane	2-slot model: 1 x PCIe x16, 1 x PCI 2-slot model: 2 x PCIe x8 4-slot model: 2 x PCIe x8, 2 x PCI, 1 x Full-size PCIe Mni 4-slot model: 1 x PCIe x16, 3 x PCI, 1 x Full-size PCIe Mni	3A: 1 x PCIe x16 , 2 x PCI 3B: 1 x PCIe x16 , 1 x PCIe x4, 1 x PCI 3C: 3 x PCI
		PCIe Mini	1 x Half-size PCIe Mini slot 1 x Full-size PCIe Mini slot (supports mSATA, colay with SATA)	1 x Full-size PCIe Mini slot 1 x Full-size PCIe Mini slot (supports mSATA, colay with SATA)
Power	Power Input	DC Jack: 9 V~36 V DC Terminal Block: 9 V~36 V DC	DC Jack: 9 V~36 V DC	
	Power Consumption	19 V@3.68 A (Intel® Core™ i7-6700TE with 8 GB memory)	19 V@3.44 A (Intel® Core™ i7-6700TE with 8 GB memory)	
	Internal Power Connector	5V@3A or 12V@3A	5V@3A or 12V@3A	
Reliability	Mounting	Wall mount	Wall mount & Din Rail	
	Operating Temperature	i7-6700TE *-20°C ~ 45°C with air flow (SSD), 10% ~ 95%, non-condensing i5-6500TE *-20°C ~ 60°C with air flow (SSD), 10% ~ 95%, non-condensing	-20°C ~ 50°C with air flow (SSD), 10% ~ 95%, non-condensing	
	Operating Shock	Half-sine wave shock 5G, 11ms, 100 shocks per axis	Half-sine wave shock 5G, 11ms, 100 shocks per axis	
	Operating Vibration	MIL-STD-810G 514.6 C-1 (with SSD)	MIL-STD-810G 514.6C-1 (with SSD)	
	Weight (Net/Gross)	2-slot: 4.2 kg/6.3 kg 4-slot: 4.5 kg/6.5 kg	2.8 kg/4.3 kg	
	Safety/EMC	CE/FCC	CE/FCC	
OS	Supported OS	Microsoft® Windows® 8 Embedded, Microsoft® Windows® Embedded Standard 7 E, Microsoft® Windows® 10 IoT Enterprise	Microsoft® Windows® 8 Embedded, Microsoft® Windows® Embedded Standard 7 E, Microsoft® Windows® 10 IoT Enterprise	

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Optional Peripherals

Industrial Automation System



Model Name		TANK-860-HM86	TANK-801-BT	TANK-820-H61	TANK-800-D525
Chassis	Color	Black C + Silver	Black C + Silver	Black C + Silver	Black C + Silver
	Dimensions (WxDxH) (mm)	2-slot: 121.5 x 255.2 x 205 4-slot: 154.8 x 255.2 x 205 6-slot: 195.4 x 255.2 x 205	136 x 219 x 188	133 x 269 x 208	136 x 219 x 188
	System Fan	Fanless	Fanless	Fanless	Fanless
	Chassis Construction	Extruded aluminum alloys	Extruded aluminum alloys	Extruded aluminum alloys	Extruded aluminum alloys
Motherboard	CPU	Intel® Core™ i5-4400E 2.7 GHz Intel® Celeron® 2000E 2.2 GHz	Intel® Celeron® J1900 2 GHz	Intel® Core™ i5-2xxT (above 2.7 GHz) Intel® Core™ i3-2xxT (above 2.5 GHz) Intel® Pentium® G6xxT (above 2.2 GHz)	Intel® Atom™ D525 1.8 GHz
	Chipset	Intel® HM86	SoC	Intel® H61	Intel® ICH8M
	System Memory	2 x 204-pin DDR3 SO-DIMM, one 4GB pre-installed (system max: 16 GB)	1 x 204-pin DDR3L SO-DIMM, 2GB pre-installed (system max: 8 GB)	On-board DDR3 2 GB memory 1 x 204-pin DDR3 SO-DIMM (system max: 10 GB)	On-board DDR3 1 GB memory 1 x 204-pin DDR3 SDRAM SO-DIMM (system max: 3 GB)
IPMI	iRIS Solution	1 x iRIS-2400 (optional)	1 x iRIS-2400 (optional)	N/A	N/A
Storage	Hard Drive	2 x 2.5" SATA 6Gb/s HDD/SSD bay	1 x 2.5" SATA 3Gb/s HDD/SSD bay	1 x 2.5" SATA 3Gb/s HDD/SSD bay	1 x 2.5" SATA 3Gb/s HDD/SSD bay
	CF Card/CFast	1 x CFast	1 x CFast	1 x CF Type II	1 x CF Type II
I/O Interfaces	USB 3.0	4	2	2	N/A
	USB 2.0	2	2	4	4
	Ethernet	2 x RJ-45 1 x PCIe GbE by Intel® I210 1 x PCIe GbE by Intel® I217LM	2 x RJ-45 1 x PCIe GbE by Intel® I210 1 x PCIe GbE by Intel® I211	2 x RJ-45 PCIe GbE by Realtek 8111E controller	2 x RJ-45 PCIe GbE by Realtek 8111E controller
	COM Port	4 x RS-232 (DB-9, two with isolation) 2 x RS-422/485 (RJ-45)	2 x RS-232 (DB-9) 2 x RS-232/422/485 (DB-9, with isolation)	6 x RS-232 (DB-9, two with isolation) 2 x RS-422/485 (RJ-45)	4 x RS-232 (DB-9) 2 x RS-422/485 (RJ-45)
	Digital I/O	8-bit digital I/O, 4-bit input/4-bit output	16-bit digital I/O, 8-bit input/8-bit output	8-bit digital I/O, 4-bit input/4-bit output	8-bit digital I/O, 4-bit input/4-bit output
	Display	1 x VGA, 1 x DVI-I, 1 x DisplayPort	1 x DisplayPort, 1 x DVI-I	1 x VGA, 1 x DVI-I	1 x VGA
	Resolution	VGA: Up to 1920 x 1200@60Hz DVI-I: Up to 2500 x 1600@60Hz Displayport: Up to 2500 x 1600@60Hz	DisplayPort: Up to 2560 x 1600 MHz DVI-I: Up to 2560 x 1600 MHz	VGA: Up to 2048 x 1536@75Hz DVI-I: Up to 1920 x 1080@60Hz	VGA: Up to 2048 x 1536@75Hz
	Audio	1 x Line-out, 1 x Mic-in	1 x Line-out, 1 x Mic-in	1 x Line-out, 1 x Mic-in	1 x Line-out, 1 x Mic-in
	Wireless	1 x 802.11b/g/n (optional)	1 x 802.11b/g/n (optional)	N/A	N/A
Expansions	PCI/PCIe	2 A: Two PCIe x8 (physical PCIe x16 slot) 4 A: Two PCIe x8 (physical PCIe x16 slot) + 2 x PCI 6 A: One PCIe x8 (physical PCIe x16 slot) + two PCIe x4 + three PCI	3A: One PCIe x1 + Two x PCI 3B: Two PCIe x1 + One x PCI 3C: Three x PCI	2P1E: Two PCI, One PCIe x8 (physical PCIe x16 slot) 1P2E: One PCI, One PCIe x1 (physical x4 slot), One PCIe x8 (physical x16 slot)	2P1E: Two PCI, One PCIe x4 (physical PCIe x16 slot) 1P2E: One PCI, One PCIe x1 (physical x4 slot), One PCIe x2 (physical x16 slot)
	PCIe Mini	2A: 1 x Full-size (support mSATA) 4A: 1 x Full-size (support mSATA) + 1 x Full-size (on backplane) 6A: 1 x Full-size (support mSATA) + 1 x Full-size (on backplane)	1 x Full-size PCIe Mini	N/A	N/A
Power	Power Input	DC Jack: 9 V~36 V DC Terminal Block: 9 V~36 V DC	DC Jack: 9 V~36 V DC Terminal Block: 9 V~36 V DC	DC Jack: 9 V~24 V DC Terminal Block: 9 V~24 V DC	DC Jack: 10.5 V~36 V DC Terminal Block: 9 V~36 V DC
	Power Consumption	19 V@3.34 A (Intel® Core™ i5-4400E with 4 GB memory)	19 V@1.8 A (Intel® Celeron® J1900 with 2 GB DDR3 memory)	19 V@3.5 A (Intel® Core™ i3-2100 with 6 GB DDR3 memory) w/o add-on card	19 V@1.73 A (Intel® Atom™ D525 with 1 GB DDR3 Memory)
Reliability	Mounting	Wall mount	Wall mount	Wall mount	Wall mount
	Operating Temperature	-20°C ~ 60°C with air flow (SSD), 5% ~ 95%, non-condensing	-20°C ~ 60°C with air flow (SSD), 5% ~ 95%, non-condensing	-20°C ~ 60°C with air flow (SSD), 5% ~ 95%, non-condensing	-20°C ~ 70°C with air flow (SSD), 5% ~ 95%, non-condensing
	Operating Shock	Half-sine wave shock 5G, 11ms, 3 shocks per axis	Half-sine wave shock 5G, 11ms, 3 shocks per axis	Half-sine wave shock 5G, 11ms, 3 shocks per axis	Half-sine wave shock 5G, 11ms, 3 shocks per axis
	Operating Vibration	MIL-STD-810F 514.5C-2 (with SSD)	MIL-STD-810F 514.5C-2 (with SSD)	MIL-STD-810F 514.5C-2 (with SSD)	MIL-STD-810F 514.5C-2 (with SSD)
	Weight (Net/Gross)	2-slot: 4.2 kg/6.3 kg 4-slot: 4.5 kg/6.5 kg 6-slot: 4.8 kg/6.9 kg	2.8 kg/4.3 kg	4.2 kg/6.3 kg	2.6 kg/4.1 kg
	Safety/EMC	CE/FCC	CE/FCC	CE/FCC	CE/FCC
OS	Supported OS	Microsoft® Windows® 8 Embedded, Microsoft® WES7E, Microsoft® Windows® 10 IoT Enterprise	Microsoft® Windows® 8 Embedded, Microsoft® WES7E, Microsoft® Windows® 10 IoT Enterprise	Microsoft® WES7E, Microsoft® Windows® XP Embedded	Microsoft® WES7E, Microsoft® Windows® XP Embedded

*Notes : Power adapter supports 0°C ~ 40°C

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Industrial Automation System



Model Name		TANK-760-HM86	TANK-720-Q67	TANK-700-QM67	TANK-610-BW	
Chassis	Color	Black C + Silver	Blue C + Silver	Black C + Silver	Black C + Silver	
	Dimensions (WxDxH) (mm)	310 x 200 x 69.8	310 x 200 x 70	310 x 200 x 62	184 x 200.6 x 58.2	
	System Fan	Fanless	Fanless	Fanless	Fanless	
	Chassis Construction	Extruded aluminum alloys	Extruded aluminum alloys	Extruded aluminum alloys	Extruded Aluminum alloy	
Motherboard	CPU	Intel® Core™ i7-4700EQ 2.4 GHz Intel® Core™ i5-4400E 2.7 GHz Intel® Celeron® 2000E 2.2 GHz	Intel® Core™ i5-2xxT (above 2.7 GHz) Intel® Core™ i3-2xxT (above 2.5 GHz) Intel® Pentium® G6xxT (above 2.2 GHz)	Intel® Core™ i5-2xxE (above 2.5 GHz) Intel® Core™ i3-2xxE (above 2.2 GHz) Intel® Celeron® B8xx (above 1.6 GHz)	Intel® Celeron® N3160 processor (up to 2.24GHz, quad-core, 2MB cache, TDP=6W)	
	Chipset	Intel® HM86	Intel® Q67	Intel® QM67	SoC	
	System Memory	2 x 204-pin DDR3 SO-DIMM, one 4GB pre-installed (system max: 16 GB)	On-board DDR3 2 GB memory 1 x 204-pin DDR3 SO-DIMM (system max: 10 GB)	On-board DDR3 2 GB memory 1 x 204-pin DDR3 SO-DIMM (system max: 10 GB)	2 x 204-pin DDR3L SO-DIMM, one 2GB pre-installed (system max: 8 GB)	
IPMI	iRIS Solution	1 x iRIS-2400 (optional)	N/A	N/A	N/A	
Storage	Hard Drive	2 x 2.5" SATA 6Gb/s HDD/SSD bay	1 x SATA 3Gb/s with 2.5" HDD/SSD support 1 x SATA 6Gb/s with 2.5" HDD/SSD support	2 x 2.5" SATA 3Gb/s HDD/SSD bay	1 x 2.5" SATA 6Gb/s HDD/SSD bay	
	CF Card/CFast	1 x CFast	N/A	N/A	N/A	
	USB 3.0	4	2	2	4	
I/O Interfaces	USB 2.0	2	4	4	N/A	
	Ethernet	2 x RJ-45 1 x PCIe GbE by Intel® I210 1 x PCIe GbE by Intel® I217LM	2 x Combo (SFP Fiber/RJ-45) 1 x PCIe GbE by Intel® 82579 1 x PCIe GbE by Intel® 82583V	2 x Combo (SFP Fiber/RJ-45) 1 x PCIe GbE by Intel® 82579 1 x PCIe GbE by Intel® 82583V	2 x RJ-45 PCIe GbE by Intel I210-IT controller	
	Fiber	N/A	2 x Combo (SFP Fiber/RJ-45)	2 x Combo (SFP Fiber/RJ-45)	N/A	
	COM Port	4 x RS-232 (DB-9, with isolation) 2 x RS-232/422/485 (DB-9, with isolation)	4 x RS-232 (DB-9) 2 x RS-232 (RJ-45, with isolation) 2 x RS-422/485 (RJ-45, with isolation)	4 x RS-232 (DB-9) 2 x RS-232 (RJ-45, with isolation) 2 x RS-422/485 (RJ-45, with isolation)	6 x RS-232 2 x RS-232/422/485	
	Digital I/O	8-bit digital I/O, 4-bit input/4-bit output	8-bit digital I/O, 4-bit input/4-bit output	8-bit digital I/O, 4-bit input/4-bit output	N/A	
	CAN-bus	2 x Phoenix terminal block with isolation	1 x Phoenix terminal block	1 x Phoenix terminal block	N/A	
	Display	1 x VGA, 1 x HDMI, 1 x DisplayPort	1 x VGA, 1 x HDMI	1 x VGA, 1 x HDMI	1 x VGA, 1 x HDMI	
	Resolution	VGA: Up to 1920 x 1200@60Hz HDMI: Up to 2500 x 1600@60Hz DisplayPort: Up to 2500 x 1600@60Hz	VGA: Up to 2048 x 1536@75Hz HDMI: Up to 1920 x 1200@60Hz	VGA: Up to 2048 x 1536@75Hz HDMI: Up to 1920 x 1200@60Hz	VGA: Up to 1920 x 1200@60Hz HDMI: Up to 3840 x 2160@30Hz	
	Audio	1 x Line-out, 1 x Mic-in	1 x Line-out, 1 x Mic-in	1 x Line-out, 1 x Mic-in	1 x Line-out, 1 x Mic-in	
	Wireless	1 x 802.11b/g/n (optional)	1 x 802.11a/b/g/n 3T3R (optional)	1 x 802.11a/b/g/n 3T3R (optional)	1 x 802.11b/g/n (optional)	
	Other	Reserved IO window for PCIe Mini card expansion	Optional 4-channel audio/video input PCIe Mini card	Optional 4-channel audio/video input PCIe Mini card	N/A	
	Expansions	PCI	N/A	N/A	N/A	N/A
		PCIe	N/A	N/A	N/A	N/A
Power	Power Input	DC Jack: 9 V~36 V DC Terminal Block: 9 V~36 V DC	DC Jack: 10.5 V~36 V DC Terminal Block: 9 V~36 V DC	DC Jack: 10.5 V~36 V DC Terminal Block: 9 V~36 V DC	DC Jack: 9 V~36 V DC	
	Power Consumption	19 V@3.2 A (Intel® Core™ i5 i5-4400E with 4 GB memory)	19 V@3.1 A (Intel® Core™ i3-2100T with 4 GB DDR3 Memory)	19 V@3.3 A (Intel® Core™ i5-2540M with 4 GB DDR3 Memory)	12 V@1.49 A (Intel® Celeron N3160 with 4 GB DDR3L memory)	
	Mounting	Wall mount	Wall mount	Wall mount	Wall mount, VESA 100	
Reliability	Operating Temperature	-20°C ~ 70°C with air flow (SSD) for i5-4400E & 2000E -20°C ~ 50°C with air flow (SSD) for i7-4700EQ	-20°C ~ 50°C with air flow (SSD), 5% ~ 95%, non-condensing	-20°C ~ 70°C with air flow (SSD), 5% ~ 95%, non-condensing	-40°C ~ 60°C with air flow (SSD), 10% ~ 95%, non-condensing	
	Operating Shock	Half-sine wave shock 5G, 11ms, 3 shocks per axis	Half-sine wave shock 5G, 11ms, 3 shocks per axis	Half-sine wave shock 5G, 11ms, 3 shocks per axis	Half-sine wave shock 5G, 11ms, 100 shocks per axis	
	Operating Vibration	MIL-STD-810F 514.5C-2 (with SSD)	MIL-STD-810F 514.5C-2 (with SSD)	MIL-STD-810F 514.5C-2 (with SSD)	MIL-STD-810G 514.6C-1 (with SSD)	
	Weight (Net/Gross)	4.2 kg/6.9 kg	4.2 kg/6.9 kg	3.8 kg/6.5 kg	2.2Kg/3Kg	
	Safety/EMC	CE/FCC	CE/FCC	CE/FCC	CE/FCC	
OS	Supported OS	Microsoft® Windows® 8 Embedded, Microsoft® WES7E, Microsoft® Windows® 10 IoT Enterprise	Microsoft® WES7E, Microsoft® Windows® XP Embedded	Microsoft® WES7E, Microsoft® Windows® XP Embedded	Microsoft® Windows 8 Embedded, Microsoft® WES7E, Microsoft® Windows® 10 IoT Enterprise	

*Notes : Power adapter supports 0°C ~ 40°C

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Industrial Automation System



20°C ~ 70°C

Model Name		TANK-600-D2550	TANK-600-N2600	TANK-101B	TANK-6000-C226
Chassis	Color	Black C + Silver	Black C + Silver	Cool Gray + Blue	Black
	Dimensions (WxDxH) (mm)	193.4 x 200 x 57	193.4 x 200 x 57	248 x 153 x 44	310 x 199.5 x 112
	System Fan	Fanless	Fanless	Fanless	92 mm x 92 mm x 25 mm
	Chassis Construction	Aluminum alloys	Aluminum alloys	Aluminum alloys with heavy duty metal	Extruded aluminum alloys
Motherboard	CPU	Intel® Atom™ D2550 1.86 GHz	Intel® Atom™ N2600 1.6 GHz	Intel® Atom™ D525 1.8 GHz Intel® Atom™ N455 1.66 GHz	Intel® Xeon® E3 1225-v3 3.2 GHz Intel® Core™ i3 4330 3.5 GHz
	Chipset	Intel® NM10	Intel® NM10	Intel® ICH8M	Intel® C226
	System Memory	On-board DDR3 4 GB	On-board DDR3 2 GB	On-board DDR3 1 GB memory 1 x 204-pin DDR3 SDRAM SO-DIMM (system max: 3 GB)	4 x 240-pin DDR3 U-DIMM Pre-installed 4 GB DDR3 memory (system max: 32 GB)
IPMI	iRIS Solution	N/A	N/A	N/A	1 x iRIS-2400 on board
Storage	Hard Drive	1 x 2.5" SATA 3Gb/s HDD/SSD bay	1 x 2.5" SATA 3Gb/s HDD/SSD bay	1 x 2.5" SATA 3Gb/s HDD/SSD bay	3 x 2.5" SATA 6Gb/s HDD/SSD drive bay
	CF Card/CFast	N/A	N/A	1 x CF Type II	N/A
I/O Interfaces	USB 3.0	N/A	N/A	N/A	4
	USB 2.0	6	6	4	2
	Ethernet	2 x RJ-45 PCIe GbE by Realtek 8111E controller	2 x RJ-45 PCIe GbE by Realtek 8111E controller	2 x RJ-45 PCIe GbE by Realtek 8111E controller	4 x RJ-45 1 x PCIe GbE by Intel® i217 PHY 3 x PCIe by GbE Intel® i210
	Fiber	N/A	N/A	N/A	2 x Combo (SFP Fiber/RJ-45), combo with LAN 1/LAN 2
	COM Port	6 x RS-232 (DB-9) 2 x RS-232/422/485 (DB-9)	6 x RS-232 (DB-9) 2 x RS-232/422/485 (DB-9)	3 x RS-232 (DB-9) 1 x RS-422/485 (DB-9, Default RS-422 with isolation)	2 x RS-232 (DB-9)
	CAN-bus	N/A	N/A	2 x CAN-bus (DB-9 w/ isolation)	N/A
	Display	1 x VGA	1 x VGA	1 x VGA	1 x HDMI, 1 x VGA
	Resolution	VGA: Up to 2048 x 1536@75Hz	VGA: Up to 2048 x 1536@75Hz	VGA: Up to 2048 x 1536@60Hz	HDMI: Up to 1920 x 1200@60Hz VGA: Up to 1920 x 1200@60Hz
	Audio	1 x Line-out, 1 x Mic-in	1 x Line-out, 1 x Mic-in	1 x Line-out, 1 x Mic-in	1 x Line-out, 1 x Mic-in
	Wireless	N/A	N/A	1 x 802.11b/g/n (optional)	N/A
Expansions	PCIe	N/A	N/A	N/A	2 x PCIe x8 (Gen 3)
	PCIe Mini	1 x Half-size PCIe Mini 1 x Full-size PCIe Mini (supports mSATA, colay with SATA)	1 x Half-size PCIe Mini 1 x Full-size PCIe Mini (supports mSATA, colay with SATA)	1 x Full-size PCIe Mini	N/A
Power	Power Input	DC Jack: 9 V~36 V DC	DC Jack: 9 V~36 V DC	DC Jack: 9 V~36 V DC	DC Jack: 19 V/24 V DC
	Power Consumption	12 V@2.2 A (Intel® Atom™ D2550 with 4 GB DDR3 memory)	12 V@2 A (Intel® Atom™ N2600 with 2 GB DDR3 memory)	12 V@1.85 A (Intel® Atom™ D525 with 1 GB DDR3 memory)	19 V@4.8 A (Intel® Xeon® E3-1225 v3 with 8 GB memory)
Reliability	Mounting	VESA 100, DIN-Rail	VESA 100, DIN-Rail	Din-rail, wall mount	Wall mount
	Operating Temperature/Humidity	-20°C ~ 70°C with air flow (SSD), 5% ~ 95%, non-condensing	-20°C ~ 70°C with air flow (SSD), 5% ~ 95%, non-condensing	-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	-20°C ~ 55°C with air flow (SSD), 5% ~ 95%, non-condensing
	Operating Shock	Half-sine wave shock 5G, 11ms, 3 shocks per axis	Half-sine wave shock 5G, 11ms, 3 shocks per axis	Half-sine wave shock 3G, 11ms, 3 shocks per axis	Half-sine wave shock 5G, 11ms, 3 shocks per axis
	Operating Vibration	MIL-STD-810F 514.5C-2 (with SSD)	MIL-STD-810F 514.5C-2 (with SSD)	MIL-STD-810F 514.5C-1 with SATA HDD MIL-STD-810F 514.5C-2 with CompactFlash®/SSD	MIL-STD-810F 514.5C-2 (with SSD)
	Weight (Net/Gross)	2.2 kg/3 kg	2.2 kg/3 kg	2.1 kg/3.9 kg	2.5 kg/4.6 kg
	Safety/EMC	CE/FCC	CE/FCC	CE/FCC	CE/FCC
OS	Supported OS	Microsoft® WES7E, Microsoft® Windows® XP Embedded	Microsoft® WES7E, Microsoft® Windows® XP Embedded	Microsoft® Windows® XP Embedded	Microsoft® Windows® 8 Embedded, Microsoft® WES7E

*Notes : Power adapter supports 0°C ~ 40°C

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Optional Peripherals

TANK-870-Q170

- High-Performance 6th Generation Intel® Core™ Processor
- Fanless Embedded Computer

New

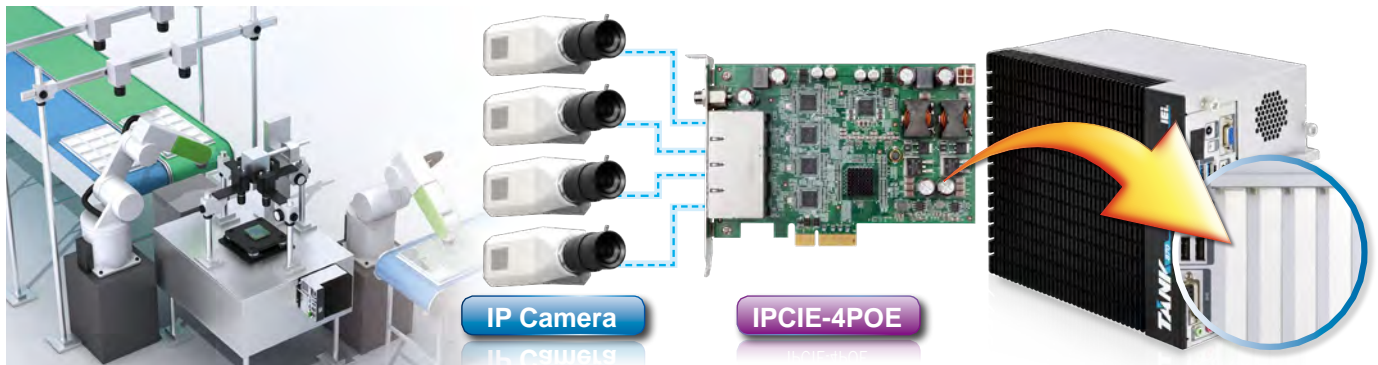
Features

- 6th Gen Intel® Core™ processor platform with Intel® Q170 chipset and DDR4 memory
- Triple independent display with high resolution support
- Rich high-speed I/O interfaces on one side for easy installation
- On-board internal power connector for providing power to add-on cards
- Great flexibility for hardware expansion



Smart Choice for Surveillance System

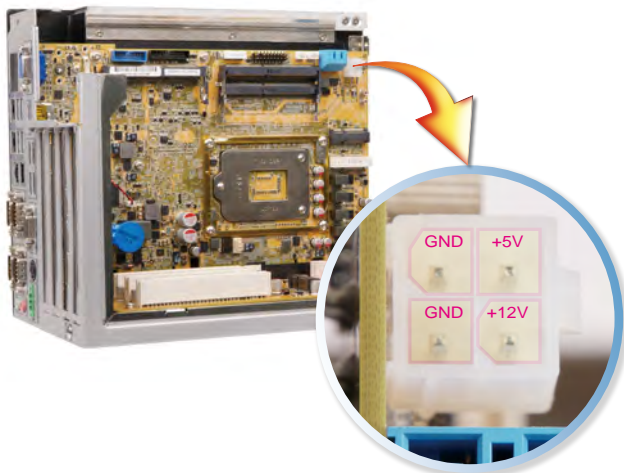
The TANK-870-Q170 integrated with IEI PoE Ethernet port expansion card can be used as a surveillance system for factory and public security. IEI PoE expansion card can support up to four PoE IEEE802.3af ports (max. 15.4 W per port) by PCIe x4.



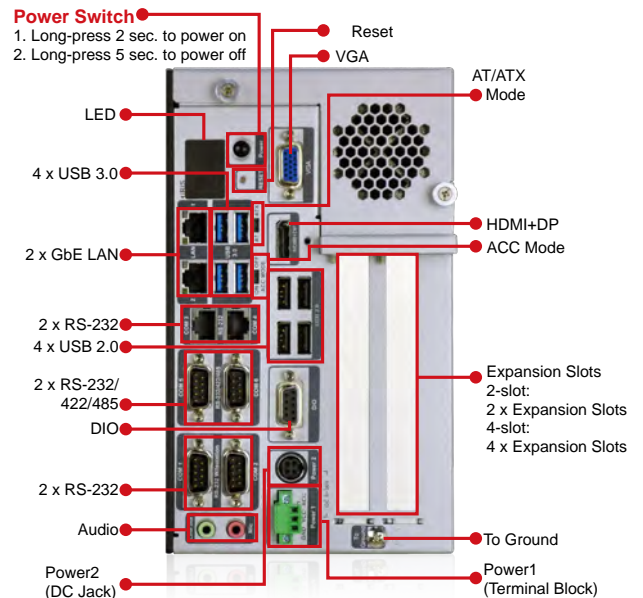
5V@3A or 12V@3A

Internal Power Connector

The TANK-870-Q170 provides the most convenient 4-pin internal power connector for add-on card usage, adding more flexibility to the embedded system in industrial environment.



Fully Integrated I/O



1
IEIMobile Solutions

2
Automation Panel Solutions

3
Healthcare Panel PC Solution

4
Industrial System

5
ORing Network Communication

6
Automation Control

7
Optional Peripherals

Flexible Expansion Interface

Backplane	TANK-870-Q170i-2A	TANK-870-Q170i-2B	TANK-870-Q170i-4A		TANK-870-Q170i-4B	
Slot Type	PCIe x16	PCIe x16	PCIe x16	PCIe x16	PCIe x16	PCI
Signal	PCIe x8	PCIe x16	PCIe x8	PCIe x8	PCIe x16	PCI
Slot Type	PCIe x16	PCI	PCI	PCI	PCI	PCI
Signal	PCIe x8	PCI	PCI	PCI	PCI	PCI
PCIe Mini	N/A	N/A	1		1	

* The expansions described above are provided by the backplanes

Specifications

Model Name	TANK-870-Q170	
Chassis	Color	Black C + Silver
	Dimensions (WxDxH) (mm)	2-slot: 121.5 x 255.2 x 205 4-slot: 154.8 x 255.2 x 205
	System Fan	Fanless
	Chassis Construction	Extruded aluminum alloys
Motherboard	CPU	Intel® Core™ i7-6700TE (2.4 GHz, quad-core, TDP=35) Intel® Core™ i5-6500TE (2.3 GHz, quad-core, TDP=35)
	Chipset	Intel® Q170
	System Memory	2 x 260-pin DDR4 SO-DIMM, one 4 GB pre-installed (system max: 64GB)
IPMI	iRIS Solution	1 x iRIS-2400 (optional)
Storage	Hard Drive	2 x 2.5" SATA 6Gb/s HDD/SSD bay (RAID 0/1 support)
I/O Interfaces	USB 3.0	4
	USB 2.0	4
	Ethernet	2 x RJ-45 LAN1: Intel® I219LM PCIe controller LAN2 (iRIS): Intel® I210 PCIe controller
	COM Port	4 x RS-232 (2 x RJ-45, 2 x DB-9 w/2.5KV isolation protection) 2 x RS-232/422/485 (DB-9)
	Digital I/O	8-bit digital I/O , 4-bit input / 4-bit output
	Display	1 x VGA 1 x HDMI/DP 1 x iDP (optional)
	Resolution	VGA: Up to 1920 x 1200@60Hz HDMI/DP: Up to 4096x2304@60Hz
	Audio	1 x Line-out, 1 x Mic-in
	Wireless	1 x 802.11b/g/n (optional)
Expansions	Backplane	2-slot model: 1 x PCIe x16, 1 x PCI 2-slot model: 2 x PCIe x8 4-slot model: 2 x PCIe x8, 2 x PCI, 1 x Full-size PCIe Mni 4-slot model: 1 x PCIe x16, 3 x PCI, 1 x Full-size PCIe Mni
	PCIe Mini	1 x Half-size PCIe Mini slot 1 x Full-size PCIe Mini slot (supports mSATA, colay with SATA)
Power	Power Input	DC Jack: 9 V~36 V DC Terminal Block: 9 V~36 V DC
	Power Consumption	19 V@3.68 A (Intel® Core™ i7-6700TE with 8 GB memory)
	Internal Power output	5V@3A or 12V@3A
Reliability	Mounting	Wall mount
	Operating Temperature	i7-6700TE -20°C ~ 45°C with air flow (SSD), 10% ~ 95%, non-condensing i5-6500TE -20°C ~ 60°C with air flow (SSD), 10% ~ 95%, non-condensing
	Storage Temperature	-40°C ~85°C with air flow (SSD), 10% ~ 90%, non-condensing
	Operating Shock	Half-sine wave shock 5G, 11ms, 100 shocks per axis
	Operating Vibration	MIL-STD-810G 514.6 C-1 (with SSD)
	Weight (Net/Gross)	2-slot: 4.2 kg/6.3 kg 4-slot: 4.5 kg/6.5 kg
	Safety/EMC	CE/FCC
OS	Supported OS	Microsoft® Windows® 8 Embedded, Microsoft® Windows® Embedded Standard 7 E, Microsoft® Windows® 10 IoT Enterprise

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IEIMobile Solutions

2

Automation Panel Solutions

3

Healthcare Panel PC Solution

4

Industrial System

5

ORing Network Communication

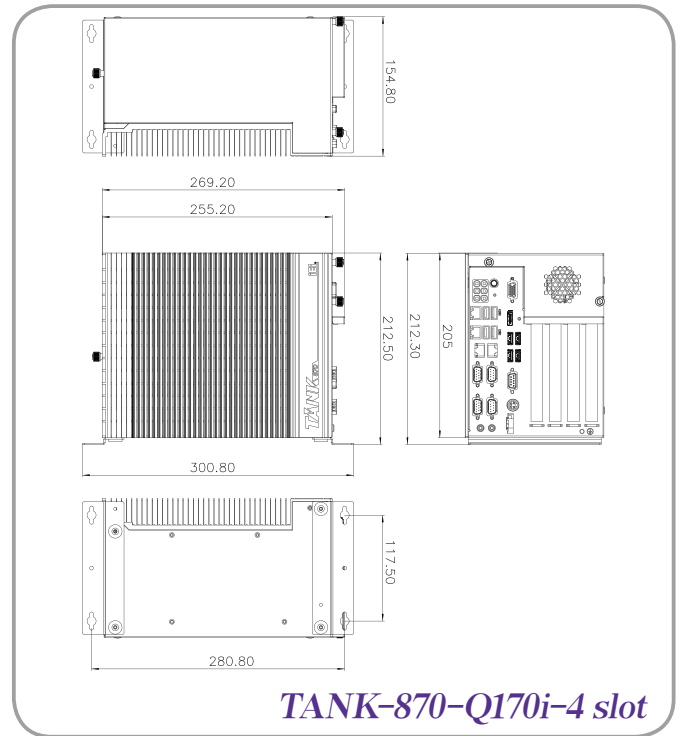
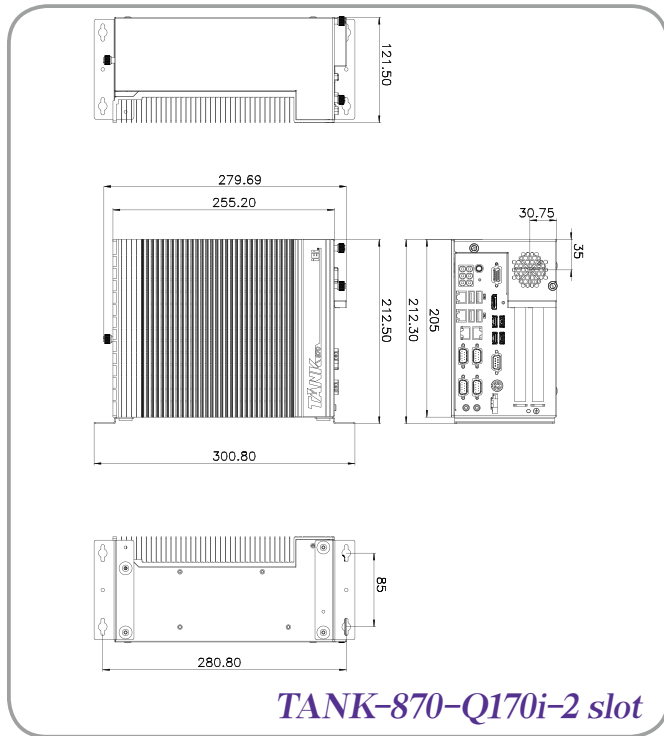
6

Automation Control

7

Optional Peripherals

Dimensions (Unit: mm)



Ordering Information

Part No.	Description
TANK-870-Q170i-i5/4G/2A-R10	Ruggedized fanless embedded system with Intel® Core i5-6500TE 2.3GHz (up to 3.3 GHz, Quad Core, TDP 35W), 4GB DDR4 pre-installed memory, 2 x PCIe by 8 expansion, VGA/HDMI+DP/iDP, iRIS-2400 optional, 9~36V DC, RoHS
TANK-870-Q170i-i5/4G/2B-R10	Ruggedized fanless embedded system with Intel® Core i5-6500TE 2.3GHz (up to 3.3 GHz, Quad Core, TDP 35W), 4GB DDR4 pre-installed memory, 1 x PCIe by 16 & 1 x PCI expansion, VGA/HDMI+DP/iDP, iRIS-2400 optional, 9~36V DC, RoHS
TANK-870-Q170i-i5/4G/4A-R10	Ruggedized fanless embedded system with Intel® Core i5-6500TE 2.3GHz (up to 3.3 GHz, Quad Core, TDP 35W), 4GB DDR4 pre-installed memory, 2 x PCIe by 8 & 2 x PCI expansion, VGA/HDMI+DP/iDP, iRIS-2400 optional, 9~36V DC, RoHS
TANK-870-Q170i-i5/4G/4B-R10	Ruggedized fanless embedded system with Intel® Core i5-6500TE 2.3GHz (up to 3.3 GHz, Quad Core, TDP 35W), 4GB DDR4 pre-installed memory, 1 x PCIe by 16 & 3 x PCI expansion, VGA/HDMI+DP/iDP, iRIS-2400 optional, 9~36V DC, RoHS
TANK-870-Q170i-i7/4G/2A-R10	Ruggedized fanless embedded system with Intel® Core i7-6700TE 2.4GHz (up to 3.4 GHz, Quad Core, TDP 35W), 4GB DDR4 pre-installed memory, 2 x PCIe by 8 expansion, VGA/HDMI+DP/iDP, iRIS-2400 optional, 9~36V DC, RoHS
TANK-870-Q170i-i7/4G/2B-R10	Ruggedized fanless embedded system with Intel® Core i7-6700TE 2.4GHz (up to 3.4 GHz, Quad Core, TDP 35W), 4GB DDR4 pre-installed memory, 1 x PCIe by 16 & 1 x PCI expansion, VGA/HDMI+DP/iDP, iRIS-2400 optional, 9~36V DC, RoHS
TANK-870-Q170i-i7/4G/4A-R10	Ruggedized fanless embedded system with Intel® Core i7-6700TE 2.4GHz (up to 3.4 GHz, Quad Core, TDP 35W), 4GB DDR4 pre-installed memory, 2 x PCIe by 8 & 2 x PCI expansion, VGA/HDMI+DP/iDP, iRIS-2400 optional, 9~36V DC, RoHS
TANK-870-Q170i-i7/4G/4B-R10	Ruggedized fanless embedded system with Intel® Core i7-6700TE 2.4GHz (up to 3.4 GHz, Quad Core, TDP 35W), 4GB DDR4 pre-installed memory, 1 x PCIe by 16 & 3 x PCI expansion, VGA/HDMI+DP/iDP, iRIS-2400 optional, 9~36V DC, RoHS

Options

Part No.	Description
32702-000400-200-RS	European power cord
63040-010120-210-RS	Power adapter, FSP120-ABBN2, 9NA1205302, Active PFC, Vin:90~264VAC, 120W, plug=6.5mm, cable=1500mm, Erp (no load 0.15W), Vout:19VDC, 4-pin DIN with lock, CCL, RoHS
19Z00-000605-00-RS	Fan, +12V DC, 4-pin, 40 mm x 40 mm x10 mm, 6500RPM, RoHS
iRIS-2400-R10	IPMI 2.0 adapter card with AST2400 BMC chip for DDR3 SO-DIMM socket interface
EMB-WIFI-KIT01-R11	1T1R Wi-Fi module kit for embedded system, IEEE802.11b/g/n, 1 x Wi-Fi module, 2 x RF cable, 2 x Antenna, RoHS
DP-DP-R10	DisplayPort to DisplayPort converter board (for IEI IDP connector)
DP-HDMI-R10	DisplayPort to HDMI converter board (for IEI IDP connector)
DP-LVDS-R10	DisplayPort to 24-bit dual channel LVDS converter board (for IEI IDP connector)
DP-VGA-R10	DisplayPort to VGA converter board (for IEI IDP connector)
DP-DVI-R10	DisplayPort to DVI-D converter board (for IEI IDP connector)
IPCIIE-4POE-R10	PCI Express Power over Ethernet frame grabber card, 4-port 1000 Base(T), 802.3af compliant, RoHS
TANK-870-Q170-WES7E64-R10	OS Image with Windows® Embedded Standard 7 E 64-bit for TANK-870-Q170 Series, with DVD-ROM, RoHS

* The TANK-870 can support up to 40°C operating temperature when installing with the IPCIE-4POE-R10.

Packing List

1 x Utility CD	1 x Chassis Screw	1 x One Key Recovery CD	1 x Mounting Bracket
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- 1 IEIMobile Solutions
- 2 Automation Panel Solutions
- 3 Healthcare Panel PC Solution
- 4 Industrial System
- 5 ORing Network Communication
- 6 Automation Control
- 7 Optional Peripherals

TANK-870e-H110

- High-Performance 6th Generation Intel® Core™ Processor
- Fanless Embedded Computer

Preliminary

Features

- 6th Gen Intel® Core™ processor platform with Intel® H110 chipset and DDR4 memory
- Support dual display VGA+HDMI
- On-board internal power connector for providing power to add-on cards
- Great flexibility for hardware expansion



Specifications

Model Name	TANK-870e-H110	
Chassis	Color	Dark silver purple + Silver
	Dimensions (WxDxH) (mm)	132.6 x 255.2 x 190
	System Fan	Fanless
	Chassis Construction	Extruded aluminum alloys
Motherboard	CPU	Intel® Core™ i7-6700TE (2.4 GHz, quad-core, TDP=35) Intel® Core™ i5-6500TE (2.3 GHz, quad-core, TDP=35)
	Chipset	Intel® H110
	System Memory	2 x 260-pin DDR4 SO-DIMM, one 4 GB pre-installed (system max: 32GB)
Storage	Hard Drive	1 x 2.5" SATA 6Gb/s HDD/SSD bay
I/O Interfaces	USB 3.0	4
	Ethernet	2 x RJ-45 PCIe GbE by RTL8111G controller
	COM Port	2 x RS-232/422/485 (DB-9, w/2.5KV isolation protection)
	Display	1 x VGA, 1 x HDMI 1.4
	Resolution	VGA: Up to 1920 x 1200@60Hz HDMI 1.4: Up to 4096x2160@24Hz
	Audio	1 x Line-out ; 1 x Mic-in
	Wireless	1 x 802.11b/g/n (optional)
Expansions	Backplane	3A: 1 x PCIe x16 , 2 x PCI 3B: 1 x PCIe x16 , 1 x PCIe x4, 1 x PCI 3C: 3 x PCI
	PCIe Mini	1 x Full-size PCIe Mini slot 1 x Full-size PCIe Mini slot (supports mSATA, colay with SATA)
	Power Input	DC Jack: 9 V~36 V DC
Power	Power Consumption	19 V@3.44 A (Intel® Core™ i7-6700TE with 8 GB memory)
	Internal Power Connector	5V@3A or 12V@3A
	Mounting	Wall mount & Din Rail
Reliability	Operating Temperature	-20°C ~ 50°C with air flow (SSD), 10% ~ 95%, non-condensing
	Storage Temperature	-40°C ~ 85°C with air flow (SSD), 5% ~ 90%, non-condensing
	Operating Shock	Half-sine wave shock 5G, 11ms, 100 shocks per axis
	Non-Operating Shock	Half-sine wave shock 15G, 11ms, 100 shocks per axis
	Operating Vibration	MIL-STD-810G 514.6C-1 (with SSD)
	Non-Operation Vibration	Half-sine mode IEC-60068-2-06
	Weight (Net/Gross)	4.2 kg/6.3 kg
Safety/EMC	CE/FCC	
OS	Supported OS	Microsoft® Windows® 8 Embedded, Microsoft® Windows® Embedded Standard 7 E, Microsoft® Windows® 10 IoT Enterprise

1

IEIMobile
Solutions

2

Automation
Panel
Solutions

3

Healthcare
Panel PC
Solution

4

Industrial
System

5

ORing
Network
Communication

6

Automation
Control

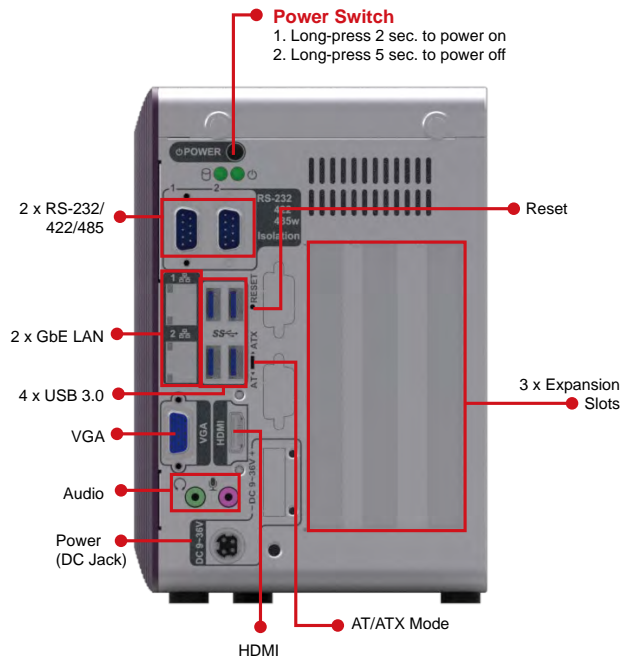
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Optional
Peripherals

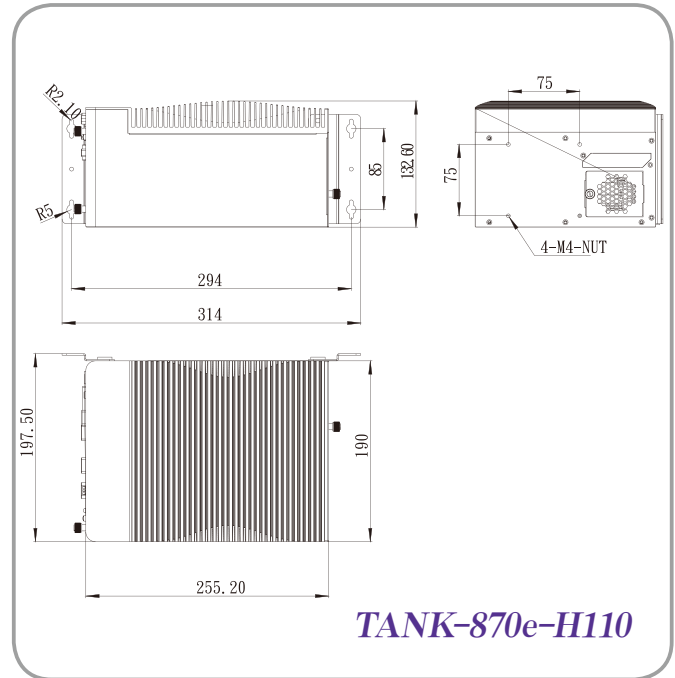
Versatile Expansion Interface

Backplane	3A HPE-3S6		3B HPE-3S7			3C HPE-3PCI
Slot	2 x PCI	1 x PCIe x16	1 x PCI	1 x PCIe x4	1 x PCIe x16	3 x PCI
Signal	PCI	PCIe x16	PCI	PCIe x1	PCIe x1	PCI

Fully Integrated I/O



Dimensions (Unit: mm)



Ordering Information

Part No.	Description
TANK-870e-H110-i5/4G/3A-R10	Ruggedized fanless embedded system with Intel® Core i5-6500TE 2.3GHz (up to 3.3 GHz, Quad Core, TDP 35W), 4GB DDR4 pre-installed memory, 2 x PCI and 1 x PCIe by 1 expansion, VGA/HDMI, 9~36V DC, RoHS
TANK-870e-H110-i5/4G/3B-R10	Ruggedized fanless embedded system with Intel® Core i5-6500TE 2.3GHz (up to 3.3 GHz, Quad Core, TDP 35W), 4GB DDR4 pre-installed memory, 1 x PCI and 2 x PCIe by 1 expansion, VGA/HDMI, 9~36V DC, RoHS
TANK-870e-H110-i5/4G/3C-R10	Ruggedized fanless embedded system with Intel® Core i5-6500TE 2.3GHz (up to 3.3 GHz, Quad Core, TDP 35W), 4GB DDR4 pre-installed memory, 3 x PCI expansion, VGA/HDMI, 9~36V DC, RoHS
TANK-870e-H110-i7/4G/3A-R10	Ruggedized fanless embedded system with Intel® Core i7-6700TE 2.4GHz (up to 3.4 GHz, Quad Core, TDP 35W), 4GB DDR4 pre-installed memory, 2 x PCI and 1 x PCIe by 1 expansion, VGA/HDMI, 9~36V DC, RoHS
TANK-870e-H110-i7/4G/3B-R10	Ruggedized fanless embedded system with Intel® Core i7-6700TE 2.4GHz (up to 3.4 GHz, Quad Core, TDP 35W), 4GB DDR4 pre-installed memory, 1 x PCI and 2 x PCIe by 1 expansion, VGA/HDMI, 9~36V DC, RoHS
TANK-870e-H110-i7/4G/3C-R10	Ruggedized fanless embedded system with Intel® Core i7-6700TE 2.4GHz (up to 3.4 GHz, Quad Core, TDP 35W), 4GB DDR4 pre-installed memory, 3 x PCI expansion, VGA/HDMI, 9~36V DC, RoHS

Options

Part No.	Description
32702-000400-200-RS	European power cord
63040-010120-210-RS	Power adapter, FSP120-ABBN2, 9NA1205302, Active PFC, Vin:90~264VAC, 120W, plug=6.5mm, cable=1500mm, Erp (no load 0.15W), Vout:19VDC, 4-pin DIN with lock, CCL, RoHS
19Z00-000605-00-RS	Fan, +12V DC, 4-pin, 40 mm x 40 mm x10 mm, 6500RPM, RoHS
EMB-WIFI-KIT01-R11	1T1R Wi-Fi module kit for embedded system, IEEE802.11b/g/n, 1 x Wi-Fi module, 2 x RF cable, 2 x Antenna, RoHS
TANK-870e-H110-WES7E64-R10	OS Image with Windows® Embedded Standard 7 E 64-bit for TANK-870e-H110 Series, with DVD-ROM, RoHS

Packing List

1 x Utility CD	1 x Chassis Screw	1 x One Key Recovery CD	1 x Mounting Bracket
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- 1
IEMobile Solutions
- 2
Automation Panel PC Solutions
- 3
Healthcare Panel PC Solution
- 4
Industrial System
- 5
ORing Network Communication
- 6
Automation Control
- 7
Optional Peripherals

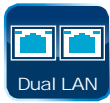
TANK-860-HM86

- Intel® HM86 mobile solution
- Three different expansion slot options



Features

- Intel® HM86 chipset + 4th generation Intel® Core™ CPU
- Great flexibility of expansion slots
 - » 2-slot model: 2 x PCIe by 16, 1 x PCIe Mini slot
 - » 4-slot model: 2 x PCIe by 16, 2 x PCI, 2 x PCIe Mini slot
 - » 6-slot model: 1 x PCIe by 16, 2 x PCIe by 4, 3 x PCI, 2 x PCIe Mini slot
- IPMI function for remote control management
- Three independent video outputs support high resolution
- 2 x 2.5" SATA HDD bay design fulfills high storage demand



Automation Solution

The TANK-860 is a fanless expandable embedded system with PCIe and/or PCI slots. With rich I/O, customers can make it as a control center. Furthermore, the ruggedized design make the TANK-860 more reliable even in harsh environments.

Rich I/O

Rich I/O

PCI/PCIe Expansion

PCI/PCIe Expansion

Ruggedized System

Ruggedized System



Automation

Automation

Machine Vision

Machine Vision

Data Acquisition

Data Acquisition

1

IEIMobile Solutions

2

Automation Panel Solutions

3

Healthcare Panel PC Solution

4

Industrial System

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ORing Network Communication

6

Automation Control

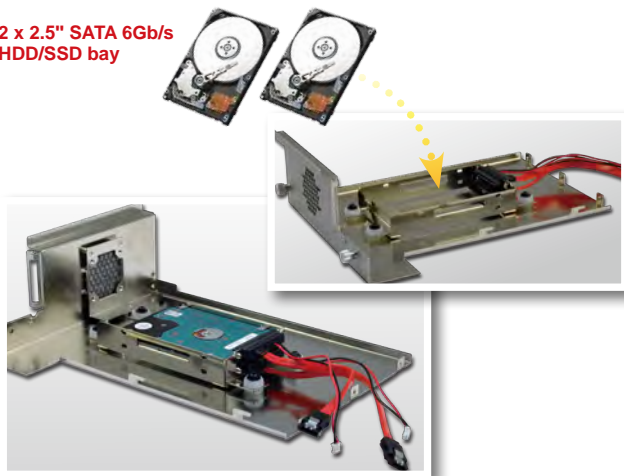
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Optional Peripherals

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.

2 x 2.5" SATA 6Gb/s HDD/SSD bay



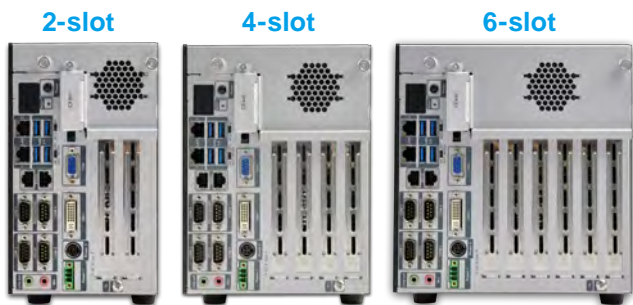
Swappable CFAST Design

CFAST is based on the Serial ATA bus and supports up to 300 MBps transfer rates, which is much higher than the CF card. With the hot-swappable design, users can replace the CFAST even when the system is running.



Abundant Expansion Interface

The TANK-860 series has a great variety of different expansion interfaces. From basic 2-slot expansion model to advanced 6-slot expansion model, customers can choose the most suitable one to apply.



Versatile Expansion Interface

	2-slot model	4-slot model		6-slot model		
Physical Slot	PCIe x16	PCIe x16	PCIe x16	PCIe x16	PCIe x4	PCIe x4
Signal	PCIe x8	PCIe x8	PCIe x8	PCIe x8	PCIe x4	PCIe x4
Slot type	PCIe x16	PCI	PCI	PCI	PCI	PCI
Signal	PCIe x8	PCI	PCI	PCI	PCI	PCI

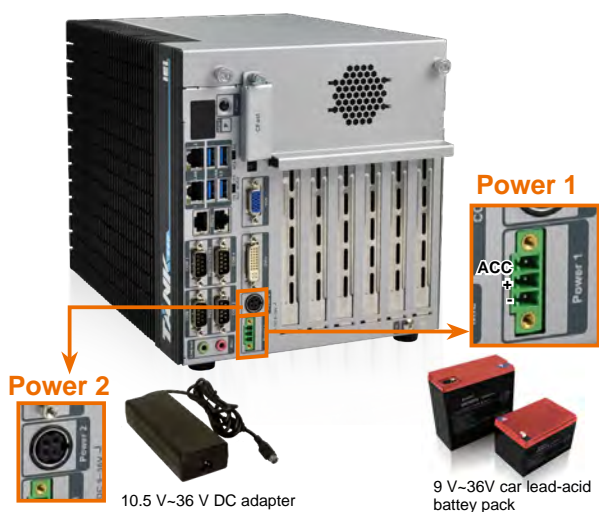
Wide Range Temperature

The TANK-860-HM86 series is designed to withstand wide range of temperatures. With this design, the TANK-860-HM86 series can even be installed in a high-temperature roadside cabinet.



Dual DC Power Input

The TANK-860-HM86 adopts dual DC power input design, which ensures uninterrupted power supply to the system and eliminates the risk of sudden shutdown and data loss, even if one power is unavailable or low voltage capacity is present.



iRIS Solution



By installing the IEI iRIS-2400 module, the TANK-860 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.

Triple Display

The TANK-860 contains VGA/DisplayPort/DVI video outputs, which can be applied to multi-display application and support high Full HD video quality.



Anti-Vibration and Anti-Shock Design

With the rugged design, the TANK-860-HM86 series is reliable in industrial environments to resist strong vibrations and can be used as a core computer required to be installed on moving objects.



Wide Range DC Power Input

The TANK-860-HM86 series accepts wide range DC power input, allowing it to be powered anywhere, no matter if a 12 V/24 V DC source or a 19 V power adapter is available.

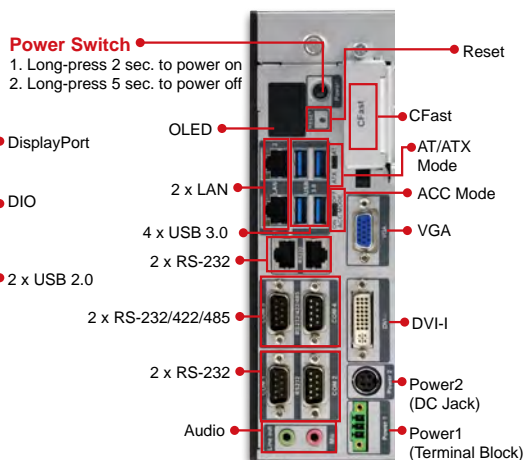


Fully Integrated I/O

Front View



Rear View



1

IEIMobile Solutions

2

Automation Panel Solutions

3

Healthcare Panel PC Solution

4

Industrial System

5

ORing Network Communication

6

Automation Control

7

Optional Peripherals

Specifications

Model Name		TANK-860-HM86
Chassis	Color	Black C + Silver
	Dimensions (WxHxD) (mm)	2 slot: 121.5 x 255.2 x 205 4 slot: 154.8 x 255.2 x 205 6 slot: 195.4 x 255.2 x 205
	System Fan	Fanless
	Chassis Construction	Extruded aluminum alloys
Motherboard	CPU	Intel® Core™ i5-4400E 2.7 GHz 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)
IPMI	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 1 x PCIe GbE by Intel® I210 1 x PCIe GbE by Intel® I217LM
	COM Port	4 x RS-232 (2 DB-9 w/ isolation, 2 RJ-45) 2 x RS-232/422/485 (DB-9)
	Digital I/O	8-bit digital I/O, 4-bit input/4-bit output
	Display	1 x VGA, 1 x DVI-I, 1 x DisplayPort
	Resolution	VGA: Up to 1920 x 1200@60Hz DVI-I: Up to 2500 x 1600@60Hz Displayport: Up to 2500 x 1600@60Hz
	Audio	1 x Line-out, 1 x Mic-in
	Wireless	1 x 802.11b/g/n (optional)
	Expansions	PCI/PCIe
PCIe Mini		2A: 1 x Full-size (supports mSATA, colay with SATA) 4A: 1 x Full-size (supports mSATA, colay with SATA) + 1 x Full-size (on backplane) 6A: 1 x Full-size (supports mSATA, colay with SATA) + 1 x Full-size (on backplane)
Power	Power Input	DC Jack: 9 V~36 V DC Terminal Block: 9 V~36 V DC
	Power Consumption	19 V@3.34 A (Intel® Core™ i5-4400E with 4 GB memory)
Reliability	Mounting	Wall mount
	Operating Temperature	-20°C ~ 60°C with air flow (SSD), 5% ~ 95%, non-condensing
	Storage Temperature	-30°C ~ 70°C with air flow (SSD), 5% ~ 90%, non-condensing
	Operating Shock	Half-sine wave shock 5G, 11ms, 3 shocks per axis
	Operating Vibration	MIL-STD-810F 514.5C-2 (with SSD)
	Weight (Net/Gross)	2-slot: 4.2 kg/6.3 kg 4-slot: 4.5 kg/6.5 kg 6-slot: 4.8 kg/6.9 kg
	Safety/EMC	CE/FCC
OS	Supported OS	Microsoft® Windows® 8 Embedded, Microsoft® Windows® Embedded Standard 7 E

Ordering Information

Part No.	Description
TANK-860-HM86i-5/4G/2A-R10	Intel® Core™ i5-4400E 2.7 GHz dual-core, TDP 37W, 4GB DDR3 pre-installed memory, 2 x PCIe expansion, VGA/DVI-I/DisplayPort, iRIS-2400 optional, 9 V~36 V DC, R10, RoHS
TANK-860-HM86i-5/4G/4A-R10	Intel® Core™ i5-4400E 2.7 GHz dual-core, TDP 37W, 4GB DDR3 pre-installed memory, 2 x PCIe and 2 x PCI expansion, VGA/DVI-I/DisplayPort, iRIS-2400 optional, 9 V~36 V DC, R10, RoHS
TANK-860-HM86i-5/4G/6A-R10	Intel® Core™ i5-4400E 2.7 GHz dual-core, TDP 37W, 4GB DDR3 pre-installed memory, 3 x PCIe and 3 x PCI expansion, VGA/DVI-I/DisplayPort, iRIS-2400 optional, 9 V~36 V DC, R10, RoHS
TANK-860-HM86i-C/4G/2A-R10	Intel® Celeron® 2000E 2.2 GHz dual-core, TDP 37W, 4GB DDR3 pre-installed memory, 2 x PCIe expansion, VGA/DVI-I/DisplayPort, iRIS-2400 optional, 9 V~36 V DC, R10, RoHS
TANK-860-HM86i-C/4G/4A-R10	Intel® Celeron® 2000E 2.2 GHz dual-core, TDP 37W, 4GB DDR3 pre-installed memory, 2 x PCIe and 2 x PCI expansion, VGA/DVI-I/DisplayPort, iRIS-2400 optional, 9 V~36 V DC, R10, RoHS
TANK-860-HM86i-C/4G/6A-R10	Intel® Celeron® 2000E 2.2 GHz dual-core, TDP 37W, 4GB DDR3 pre-installed memory, 3 x PCIe and 3 x PCI expansion, VGA/DVI-I/DisplayPort, iRIS-2400 optional, 9 V~36 V DC, R10, RoHS
TANK-860-QGW-i5/8G/2A-R10	Intel® Core™ i5-4400E CPU, 2 x 4GB DDR3 memory, 2 x PCIe expansion, Dual GbE, COM, DIO, VGA/DVI-I/DisplayPort, iRIS-2400 optional, with QTS-Gateway, 9 V~36 V DC, RoHS
TANK-860-QGW-i5/8G/4A-R10	Intel® Core™ i5-4400E CPU, 2 x 4GB DDR3 memory, 2 x PCIe and 2 x PCI expansion, Dual GbE, COM, DIO, VGA/DVI-I/DisplayPort, iRIS-2400 optional, with QTS-Gateway, 9 V~36 V DC, RoHS
TANK-860-QGW-i5/8G/6A-R10	Intel® Core™ i5-4400E CPU, 2 x 4GB DDR3 memory, 3 x PCIe and 3 x PCI expansion, Dual GbE, COM, DIO, VGA/DVI-I/DisplayPort, iRIS-2400 optional, with QTS-Gateway, 9 V~36 V DC, RoHS

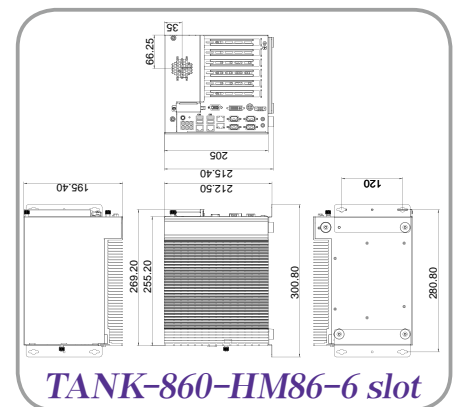
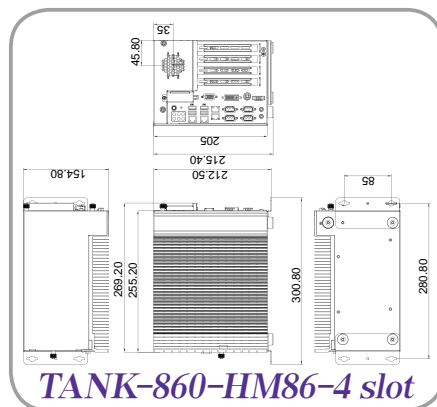
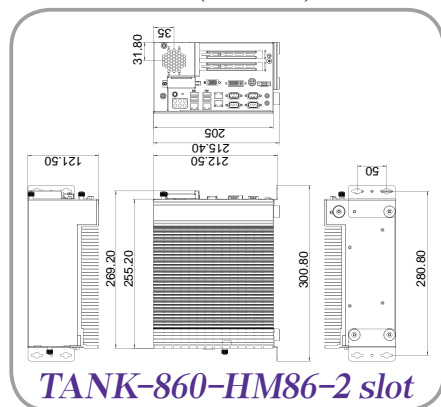
Options

Part No.	Description
32702-000400-200-RS	European power cord
63040-010120-210-RS	Power adapter, FSP120-ABB2, 9NA1205302, Active PFC, Vin:90~264VAC, 120W, plug=6.5mm, cable=1500mm, Erp (no load 0.15W), Vout:19VDC, 4-pin DIN with lock, CCL, RoHS
19200-000605-00-RS	Fan, +12V DC, 4-pin, 40 mm x 40 mm x10 mm, 6500RPM, RoHS
iRIS-2400-R10	IPMI 2.0 adapter card with AST2400 BMC chip for DDR3 SO-DIMM socket interface
EMB-WIFI-KIT01-R11	1T1R Wi-Fi module kit for embedded system, IEEE802.11b/g/n, 1 x Wi-Fi module, 2 x RF cable, 2 x Antenna, RoHS
TANK-860-HM86-WES7E-R10	OS Image with Windows® Embedded Standard 7 E for TANK-860 H Series, with CD-ROM, RoHS

Packing List

1 x Utility CD	1 x Chassis Screw
1 x One Key Recovery CD	1 x Mounting Bracket

Dimensions (Unit: mm)



- 1 IEMobile Solutions
- 2 Automation Panel Solutions
- 3 Healthcare Panel PC Solution
- 4 Industrial System
- 5 ORing Network Communication
- 6 Automation Control
- 7 Optional Peripherals

TANK-801-BT

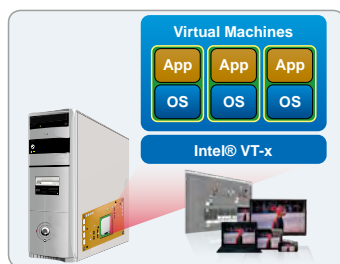
- Intel® Celeron® J1900 2 GHz, 10W
- Versatile three different backplane types

Features

- Intel® Celeron® J1900 2 GHz, 10W
- 16-bit digital I/O, 8-bit input/8-bit output
- 1 x DVI-I
1 x DisplayPort
- Various expansion type:
 - 3A: One PCIe x1 + Two x PCI
 - 3B: Two PCIe x1 + One x PCI
 - 3C: Three x PCI
- Dual DC power input



Enhanced Visual Experience



Support Intel® Virtualization Technology



Automation

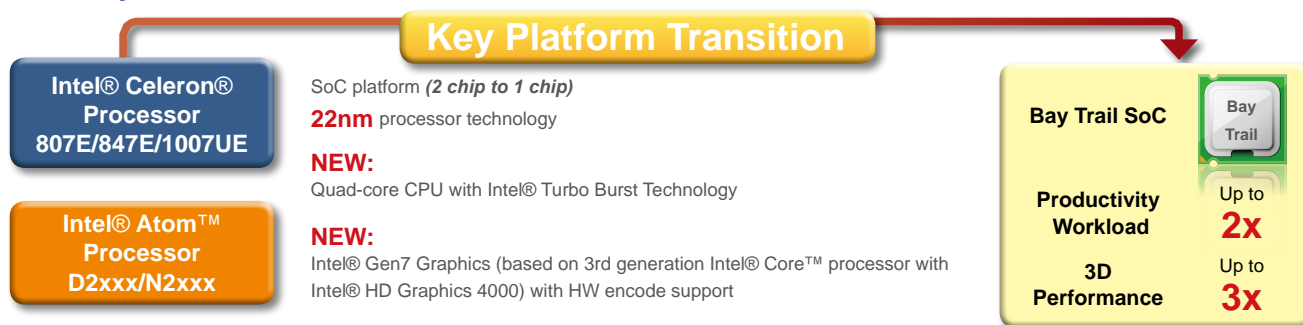


Video HD Technology
Spectacular HD Playback

Intel® Bay Trail Solution

Intel® Bay-Trail SoC (system on chip) integrates with CPU and graphics. With the Gen 7 graphics and the DX11 and full HD support, the TANK-801-BT is a good solution for visual application.

Intel® Bay Trail Platform Transition



Intel® Bay Trail Graphics and Media Features

3D Graphics	DX11.1, OGL 4.0, OGL ES 2.0, OVG 1.1
Video Decode	H.264, MPEG2, MPEG4, VC1/WMV9, VP8 up to 1080p decode
Video Encode	H.264, MPEG2

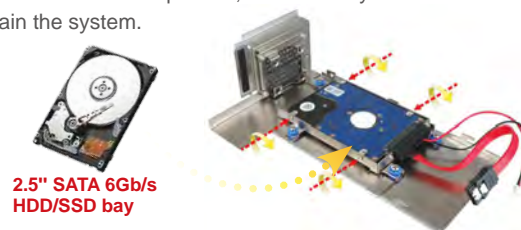
Diversified Expansion Interfaces

The TANK-801 series has three different expansion options on PCI and PCIe slot selection. Users can choose the suitable model for their application.

Backplane	TANK-801	
	Slot type	Signal
HPE-3S6 (2P1E)	PCI	PCI
	PCIe x16	PCIe x16
HPE-3S7 (1P2E)	PCI	PCI
	PCIe x4	PCIe x1
	PCIe x16	PCIe x1
HPE-3PCI	PCI	PCI

Easy of Installation

Users can easily install SO-DIMM, PCIe Mini cards and expansion cards by removing the TANK-801's top cover. A 2.5" SATA HDD/SSD bay is located on the top cover, which is very convenient for users to maintain the system.

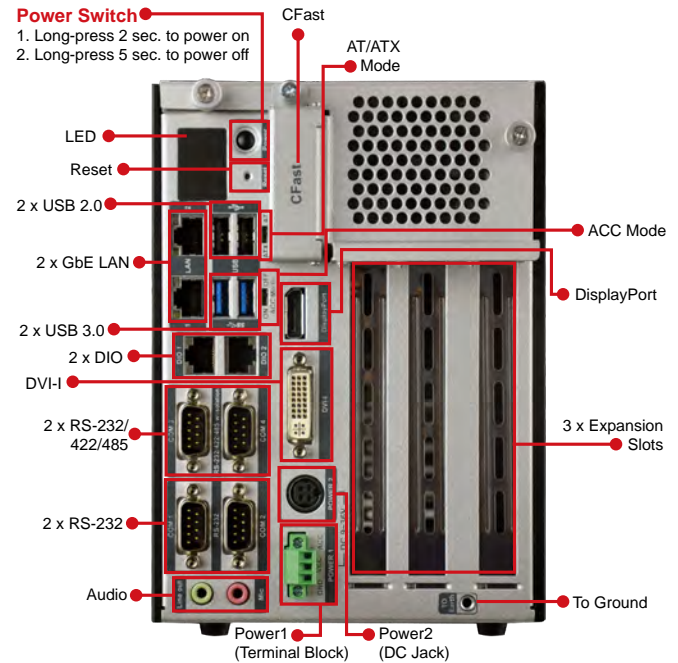


- 1 IEIMobile Solutions
- 2 Automation Panel Solutions
- 3 Healthcare Panel PC Solution
- 4 Industrial System
- 5 ORing Network Communication
- 6 Automation Control
- 7 Optional Peripherals

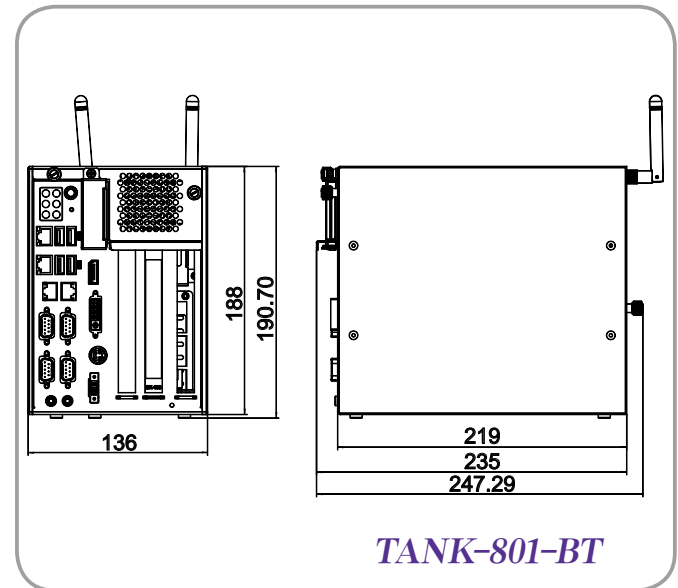
Specifications

Model Name	TANK-801-BT		
Chassis	Color	Black C + Silver	
	Dimensions (WxDxH) (mm)	136 x 219 x 188	
	System Fan	Fanless	
	Chassis Construction	Extruded aluminum alloys	
Motherboard	CPU	Intel® Celeron® J1900 2 GHz	
	Chipset	SoC	
Storage	System Memory	1 x 204-pin DDR3L SO-DIMM, 2GB pre-installed (system max: 8 GB)	
	Hard Drive	1 x 2.5" SATA 3Gb/s HDD/SSD bay	
I/O Interfaces	CF Card/CFast	1 x CFast	
	USB 3.0	2	
I/O Interfaces	USB 2.0	2	
	Ethernet	2 x RJ-45 1 x PCIe GbE by Intel® I210 1 x PCIe GbE by Intel® I211	
	COM Port	2 x RS-232 (DB-9) 2 x RS-232/422/485 (DB-9, with isolation)	
	Digital I/O	16-bit digital I/O, 8-bit input/8-bit output	
	Display	1 x DisplayPort, 1 x DVI-I	
	Resolution	DisplayPort: Up to 2560 x 1600 MHz DVI-I: Up to 2560 x 1600 MHz	
	Audio	1 x Line-out, 1 x Mic-in	
	Wireless	1 x 802.11b/g/n (optional)	
	Expansions	PCI/PCIe	3A: One PCIe x1 + Two x PCI 3B: Two PCIe x1 + One x PCI 3C: Three x PCI
		PCIe Mini	1 x Full-size PCIe Mini
Power	Power Input	DC Jack: 9 V~36 V DC Terminal Block: 9 V~36 V DC	
	Power Consumption	19 V@1.8 A (Intel® Celeron® J1900 with 2 GB DDR3 memory)	
Reliability	Mounting	Wall mount	
	Operating Temperature	-20°C ~ 60°C with air flow (SSD), 5% ~ 95%, non-condensing	
	Storage Temperature	-40°C ~ 85°C with air flow (SSD), 5% ~ 90%, non-condensing	
	Operating Shock	Half-sine wave shock 5G, 11ms, 3 shocks per axis	
	Operating Vibration	MIL-STD-810F 514.5C-2 (with SSD)	
	Weight (Net/Gross)	2.8 kg/4.3 kg	
	Safety/EMC	CE/FCC	
OS	Supported OS	Microsoft® Windows® 8 Embedded, Microsoft® Windows® Embedded Standard 7 E	

Fully Integrated I/O



Dimensions (Unit: mm)



1
IEI Mobile Solutions

2
Automation Panel Solutions

3
Healthcare Panel PC Solution

4
Industrial System

5
ORing Network Communication

6
Automation Control

7
Optional Peripherals

Ordering Information

Part No.	Description
TANK-801-BT-J1/2G/3A-R11	Fanless embedded system with two PCI and one PCIe x1 expansion, Intel® Bay-Trail J1900 2 GHz, TDP 10W, 2GB DDR3L pre-installed memory, 1 x DVI-I, 1 x DisplayPort, iRIS-2400 optional, 9 V~36 V DC, RoHs
TANK-801-BT-J1/2G/3B-R11	Fanless embedded system with one PCI and two PCIe x1 expansions, Intel® Bay-Trail J1900 2 GHz, TDP 10W, 2GB DDR3L pre-installed memory, 1 x DVI-I, 1 x DisplayPort, iRIS-2400 optional, 9 V~36 V DC, RoHs
TANK-801-BT-J1/2G/3C-R11	Fanless embedded system with three PCI expansion, Intel® Bay-Trail J1900 2 GHz, TDP 10W, 2 GB DDR3L pre-installed memory, 1 x DVI-I, 1 x DisplayPort, iRIS-2400 optional, 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
19Z00-000605-00-RS	Fan, +12V DC, 4-pin, 40 mm x 40 mm x 10 mm, 6500RPM, RoHS
EMB-WIFI-KIT01-R11	1T1R Wi-Fi module kit for embedded system, IEEE802.11b/g/n, 1 x Wi-Fi module, 2 x RF cable, 2 x Antenna, RoHs
TANK-801-BT-WES7E-R10	OS Image with Windows® Embedded Standard 7 E for TANK-801 Series, CD-ROM, RoHS

Packing List

1 x Utility CD	1 x Power Adapter (With PSE & ErP Certified)	1 x Chassis Screw
1 x One Key Recovery CD	1 x Power Cord	1 x Mounting Bracket

TANK-800-D525 820-H61

- Intel® D525 3-Slot Fanless Embedded System
- Intel® Sandy Bridge 3-Slot Embedded System

Features

- Intel® Atom™ D525 1.8 GHz dual-core processor for TANK-800 2nd/3rd generation Intel® Core™ low power desktop processors (max TDP. 65W) for TANK-820
- On-board 1GB DDR3 memory and one DDR3 SO-DIMM slot (system max. 3GB) for TANK-800
- On-board 2GB DDR3 memory and one DDR3 SO-DIMM slot (system max. 10GB) for TANK-820
- Dual wide range DC power support (TANK-800-D525: 9 V~36 V DC/ TANK-820-H61: 9 V~24 V DC)



Versatile Expansion Interface

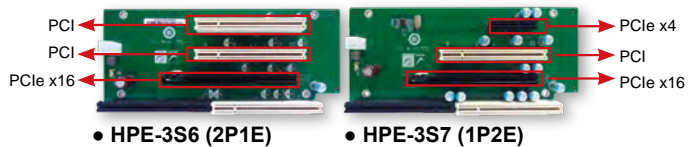
The TANK-800/820 series has various kinds of expansion interfaces which allow you to connect additional circuits or expansion boards to the system via IEI riser cards. These expansion options provide flexible function enhancement and simplify system integration.

- The two types of backplane support standard PCI/PCIe cards with maximum dimensions (111 mm in width x 190 mm in length).
- The rated voltage and current of the backplane

Voltage	Current	Voltage	Current
+5 V	7 A	-12 V	0.1 A
+12 V	3.75 A	+3.3 V	8 A

Max. power supported by the backplane: <45W

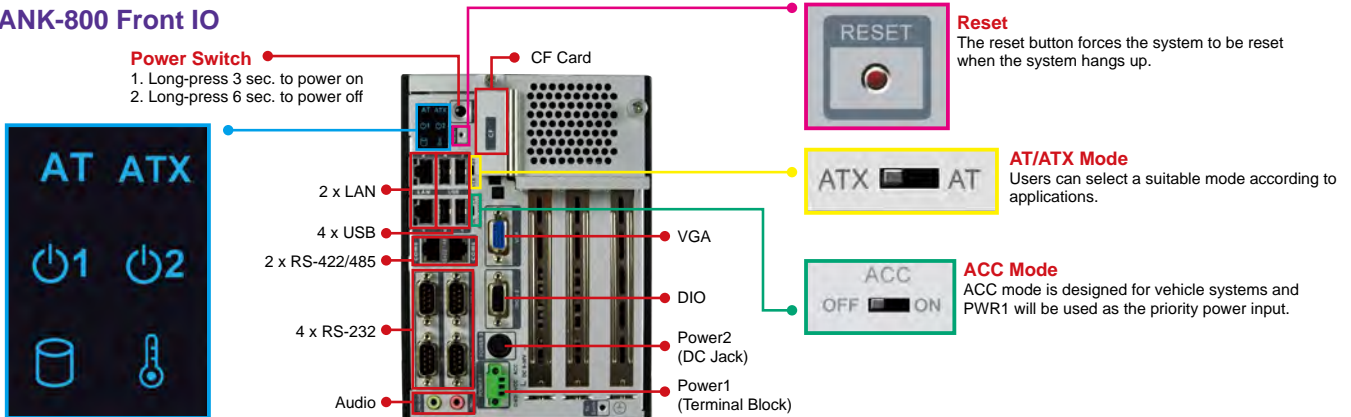
The system default power is 90 W. **The maximum total power of the backplane to support expansion cards is 45 W.** The power of the selected expansion cards can not exceed the max. power (45 W), otherwise, the system may be unstable.



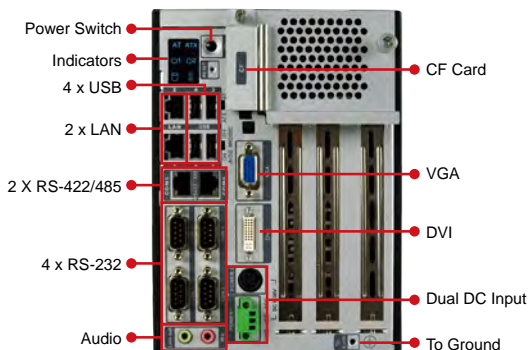
Backplane	Slot	TANK-800	TANK-820
		Signal	Signal
HPE-3S6 (2P1E)	PCI	PCI	PCI
	PCIe x16	PCIe x4	PCIe x8
HPE-3S7 (1P2E)	PCI	PCI	PCI
	PCIe x4	PCIe x1	PCIe x1
	PCIe x16	PCIe x2	PCIe x8

Fully Integrated I/O

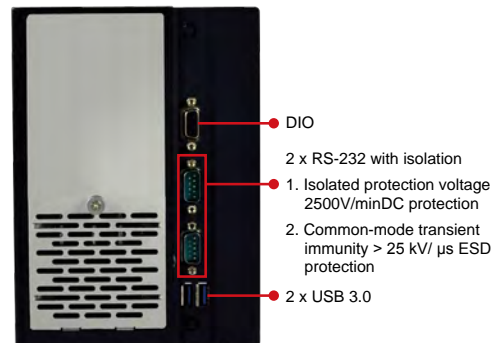
TANK-800 Front IO



TANK-820 Front IO



Rear I/O



- 1 IEIMobile Solutions
- 2 Automation Panel Solutions
- 3 Healthcare Panel PC Solution
- 4 Industrial System
- 5 ORing Network Communication
- 6 Automation Control
- 7 Optional Peripherals

Specifications

Model Name		TANK-820-H61	TANK-800-D525
Chassis	Color	Black C + Silver	Black C + Silver
	Dimensions (WxDxH) (mm)	133 x 269 x 208	136 x 219 x 188
	System Fan	Fanless	Fanless
	Chassis Construction	Extruded aluminum alloys	Extruded aluminum alloys
Motherboard	CPU	Intel® Core™ i5-2xxT (above 2.7 GHz) Intel® Core™ i3-2xxT (above 2.5 GHz) Intel® Pentium® G6xxT (above 2.2 GHz)	Intel® Atom™ D525 1.8 GHz
	Chipset	Intel® H61	Intel® ICH8M
	System Memory	On-board DDR3 2 GB memory 1 x 204-pin DDR3 SO-DIMM (system max: 10 GB)	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	1 x 2.5" SATA 3Gb/s HDD/SSD bay
	CF Card/CFast	1 x CF Type II	1 x CF Type II
I/O Interfaces	USB 3.0	2	N/A
	USB 2.0	4	4
	Ethernet	2 x RJ-45 PCIe GbE by Realtek 8111E controller	2 x RJ-45 PCIe GbE by Realtek 8111E controller
	COM Port	6 x RS-232 (DB-9, two with isolation) 2 x RS-422/485 (RJ-45)	4 x RS-232 (DB-9) 2 x RS-422/485 (RJ-45)
	Digital I/O	8-bit digital I/O, 4-bit input/4-bit output	8-bit digital I/O, 4-bit input/4-bit output
	Display	1 x VGA, 1 x DVI-I	1 x VGA
	Resolution	VGA: Up to 2048 x 1536@75Hz DVI-I: Up to 1920 x 1080@60Hz	VGA: Up to 2048 x 1536@75Hz
	Audio	1 x Line-out, 1 x Mic-in	1 x Line-out, 1 x Mic-in
Expansions	PCI	2P1E: 2 x PCI, 1P2E: 1 x PCI	2P1E: 2 x PCI, 1P2E: 1 x PCI
	PCIe	2P1E: One PCIe x8 (physical PCIe x16 slot) 1P2E: One PCIe x1 (physical x4 slot), One PCIe x8 (physical x16 slot)	2P1E: One PCIe x4 (physical PCIe x16 slot) 1P2E: One PCIe x1 (physical x4 slot), One PCIe x2 (physical x16 slot)
Power	Power Input	DC Jack: 9 V~24 V DC Terminal Block: 9 V~24 V DC	DC Jack: 10.5 V~36 V DC Terminal Block: 9 V~36 V DC
	Power Consumption	19 V@3.5 A (Intel® Core™ i3-2100 with 6 GB DDR3 memory) w/o add-on card	19 V@1.73 A (Intel® Atom™ D525 with 1 GB DDR3 Memory)
Reliability	Mounting	Wall mount	Wall mount
	Operating Temperature	-20°C ~ 60°C with air flow (SSD), 5% ~ 95%, non-condensing	-20°C ~70°C with air flow (SSD), 5% ~ 95%, non-condensing
	Storage Temperature	-20°C ~ 70°C	-20°C ~ 70°C
	Operating Shock	Half-sine wave shock 5G, 11ms, 3 shocks per axis	Half-sine wave shock 5G, 11ms, 3 shocks per axis
	Operating Vibration	MIL-STD-810F 514.5C-2 (with SSD)	MIL-STD-810F 514.5C-2 (with SSD)
	Weight (Net/Gross)	4.2 kg/6.3 kg	2.6 kg/4.1 kg
	Safety/EMC	CE/FCC	CE/FCC
OS	Supported OS	Microsoft® Windows® Embedded Standard 7 E, Microsoft® Windows® XP Embedded	Microsoft® Windows® Embedded Standard 7 E, Microsoft® Windows® XP Embedded

Ordering Information

TANK-820 series

Part No.	Description
TANK-820-H61-i5/2G/2P1E-R22	Fanless wide temperature embedded system with one PCIe x8 and two PCI expansions, Intel® Core™ i5 dual-core 2xxT CPU (above 2.7 GHz, TDP 35 W), dual 9 V-24 V DC-IN, 2 GB DDR3 on-board memory, -20°C ~ 60°C
TANK-820-H61-i5/2G/1P2E-R22	Fanless wide temperature embedded system with one PCIe x1, one PCIe x8 and one PCI expansion, Intel® Core™ i5 dual-core 2xxT CPU (above 2.7 GHz, TDP 35 W), dual 9 V-24 V DC-IN, 2 GB DDR3 on-board memory, -20°C ~ 60°C
TANK-820-H61-i3/2G/2P1E-R22	Fanless wide temperature embedded system with one PCIe x8 and two PCI expansions, Intel® Core™ i3 dual-core 2xxT CPU (above 2.5 GHz, TDP 35 W), dual 9 V-24 V DC-IN, 2 GB DDR3 on-board memory, -20°C ~ 60°C
TANK-820-H61-i3/2G/1P2E-R22	Fanless wide temperature embedded system with one PCIe x1, one PCIe x8 and one PCI expansion, Intel® Core™ i3 dual-core 2xxT CPU (above 2.5 GHz, TDP 35 W), dual 9 V-24 V DC-IN, 2 GB DDR3 on-board memory, -20°C ~ 60°C
TANK-820-H61-P/2G/2P1E-R22	Fanless wide temperature embedded system with one PCIe x8 and two PCI expansions, Intel® Pentium® dual-core G6xxT CPU (above 2.2 GHz, TDP 35 W), dual 9 V-24 V DC-IN, 2 GB DDR3 on-board memory, -20°C ~ 60°C
TANK-820-H61-P/2G/1P2E-R22	Fanless wide temperature embedded system with one PCIe x1, one PCIe x8 and one PCI expansion, Intel® Pentium® dual-core G6xxT CPU (above 2.2 GHz, TDP 35 W), dual 9 V-24 V DC-IN, 2 GB DDR3 on-board memory, -20°C ~ 60°C

TANK-800 series

Part No.	Description
TANK-800-D525/1GB/2P1E-R12	Extended temperature fanless embedded system with one PCIe x4 and two PCI expansion, Intel® Atom™ D525 1.8 GHz dual core processor, dual 9 V-36 V DC-IN, on-board 1GB DDR3 memory, -20°C ~ 70°C, RoHS
TANK-800-D525/1GB/1P2E-R12	Extended temperature fanless embedded system with one PCIe x1, one PCIe x2 and one PCI expansions, Intel® Atom™ D525 1.8 GHz dual core processor, dual 9 V-36 V DC-IN, on-board 1GB DDR3 memory, -20°C ~ 70°C, RoHS

1

IEIMobile Solutions

2

Automation Panel Solutions

3

Healthcare Panel PC Solution

4

Industrial System

5

ORing Network Communication

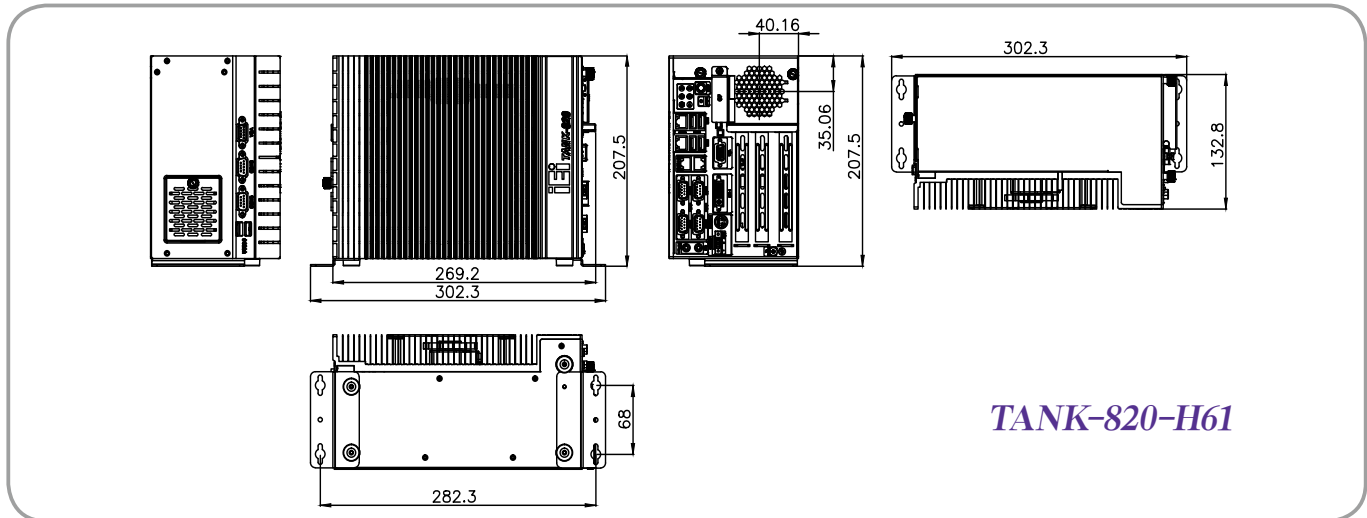
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Automation Control

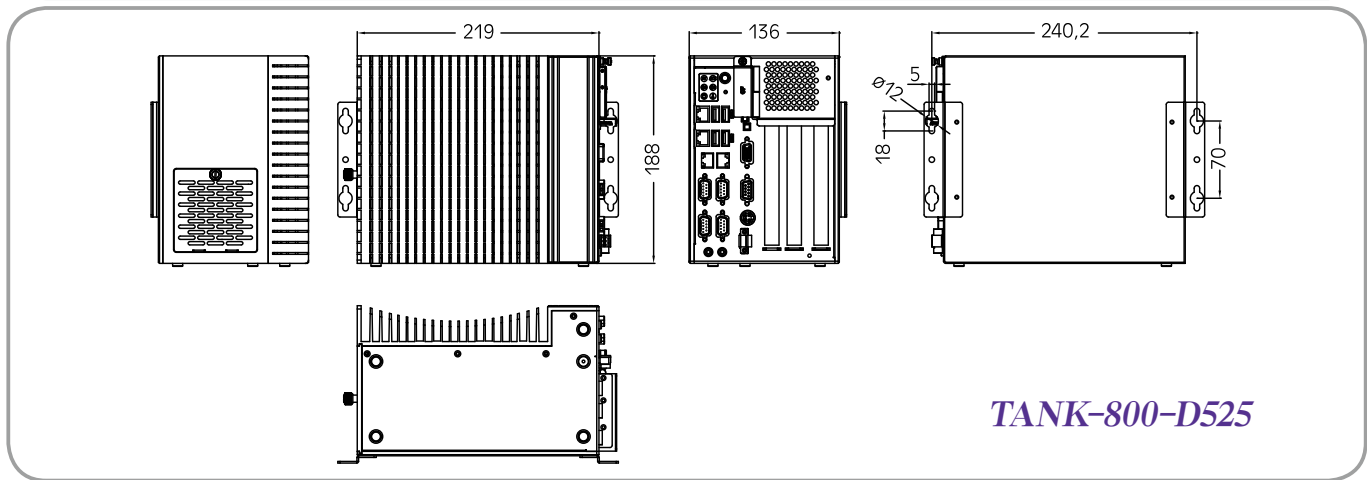
7

Optional Peripherals

Dimensions (Unit: mm)



TANK-820-H61



TANK-800-D525

Options

TANK-820 series

Item	Part No.	Description
OS: XP	TANKCF-800-D525-XPE-4G-R10	OS Image with XPE, For TANK-800 D525 Series, W/Compact Flash Memory Card 4GB, R10
OS: Windows Embedded 7 (4GB CF Card)	TANKCF-800-D525-WES7E-4G-R10	OS Image with Windows® Embedded Standard 7 E for TANK-800 D525 Series, 4 GB CompactFlash® card, RoHS
System Fan	19Z00-000605-00-RS	Fan, +12V DC, 4-pin, 40 mm x 40 mm x 10 mm, 6500RPM, RoHS

TANK-800 series

Item	Part No.	Description
OS: Linux (2GB CF Card)	TANKCF-820-H61-LNX-2G-R10	OS Image with Linux for TANK-820 H61, Debian operating system, Kernel version 2.6.26, 2 GB CompactFlash® card, RoHS
OS: XP	TANKCF-820-H61-XPE-4G-R10	OS Image with XPE, for TANK-820-H61 series, W/Compact Flash Memory Card 4GB, R10, RoHS
OS: Windows Embedded 7 (4GB CF Card)	TANKCF-820-H61-WES7E-4G-R10	OS Image with Windows® Embedded Standard 7 E for TANK-820 H61 Series, 4 GB CompactFlash® card, RoHS

Packing List

TANK-820 series

1 x Power Cord	4 x HDD Screw	1 x Pluggable DC-in Terminal Block
1 x Power Adapter	4 x Rubber Foot Pad Screw	1 x Utility CD
2 x Mounting Bracket	2 x Foot Pad	1 x One Key Recovery CD
4 x Mounting Bracket Screw	2 x RJ-45 to DB-9 COM Port Cable	4 x Fan screw

TANK-800 series

1 x Power Cord	4 x HDD Screw	1 x Pluggable DC-in Terminal Block
1 x Power Adapter	8 x Rubber Foot Pad Screw	1 x Utility CD
2 x Mounting Bracket	4 x Foot Pad	1 x One Key Recovery CD
4 x Mounting Bracket Screw	2 x RJ-45 to DB-9 COM Port Cable	

TANK-760-HM86

- Intel® HM86 mobile solution
- Three independent video outputs

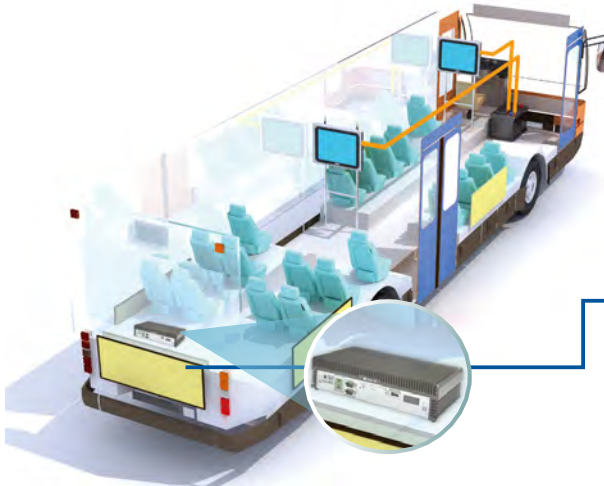
Features

- Intel® Core™ i7-4700EQ 2.4 GHz qual-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.



1 IEIMobile Solutions

2 Automation Panel Solutions

3 Healthcare Panel PC Solution

4 Industrial System

5 ORing Network Communication

6 Automation Control

7 Optional Peripherals

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

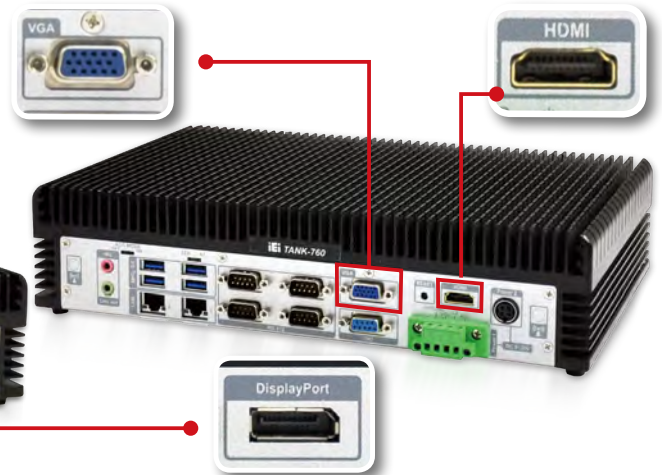


Controller Area Network (CAN or CAN-bus) is a vehicle bus standard designed to communicate or detect errors with each other within a vehicle, industrial automation and medical equipment. The TANK-760 has two CAN-bus interfaces, which allow customers to connect more devices in vehicle application.



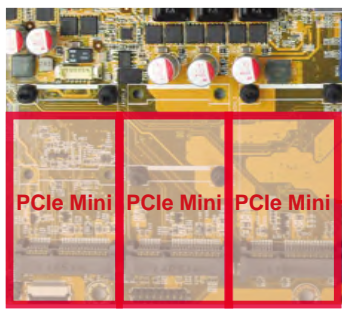
Triple Display

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

1 2 3

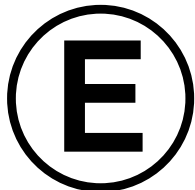
Military Compliant

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).



MIL-STD 810F

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.

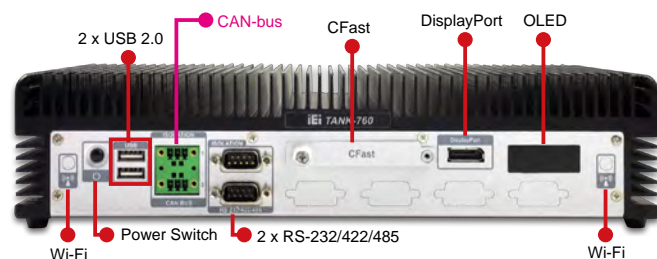
iRIS Solution



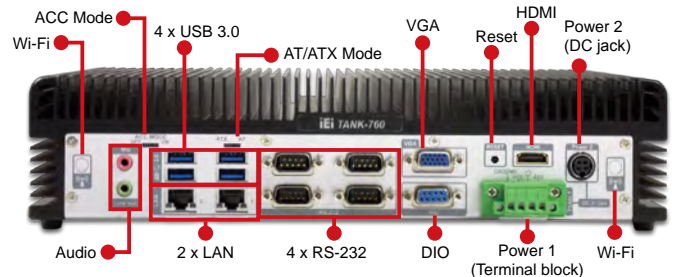
By installing the IEI iRIS-2400 module, the TANK-760 is capable to complete your IoT application through the advanced remote control features, such as power management and control, remote KVM for device status monitoring, sending active alerts and warning messages by e-mail or SMS.

Fully Integrated I/O

Front View



Rear View

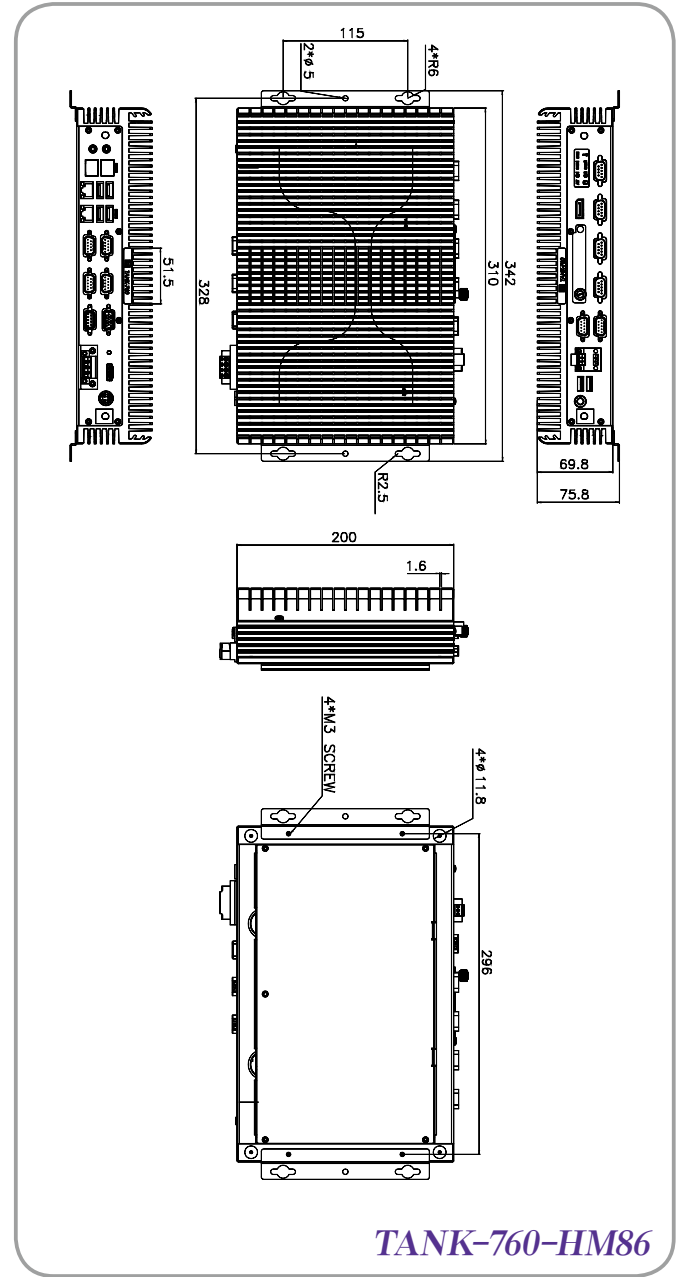


- 1 IEMobile Solutions
- 2 Automation Panel PC Solutions
- 3 Healthcare Panel PC Solution
- 4 Industrial System
- 5 ORing Network Communication
- 6 Automation Control
- 7 Optional Peripherals

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 Intel® Core™ i5-4400E 2.7 GHz 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 1 x PCIe GbE by Intel® I210 1 x PCIe GbE by Intel® I217LM	
	COM Port	4 x RS-232 (DB-9, with isolation) 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 HDMI: Up to 2500 x 1600@60Hz 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 1 x Full-size PCIe Mini slot 3 (supports mSATA, colay with SATA)
	Power	Power Input	DC Jack: 9 V~36 V DC Terminal Block: 9 V~36 V DC
Power Consumption		19 V@3.2 A (Intel® Core™ i5 i5-4400E with 4 GB memory)	
Reliability	Mounting	Wall mount	
	Operating Temperature	-20°C ~ 70°C with air flow (SSD) for i5-4400E & 2000E -20°C ~ 50°C with air flow (SSD) for i7-4700EQ	
	Operating Shock	Half-sine wave shock 5G, 11ms, 3 shocks per axis	
	Operating Vibration	MIL-STD-810F 514.5C-2 (with SSD)	
	Weight (Net/Gross)	4.2 kg/6.9 kg	
OS	Safety/EMC	CE/FCC	
	Supported OS	Microsoft® Windows® 8 Embedded, Microsoft® Windows® Embedded Standard 7 E	

Dimensions (Unit: mm)



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-KIT01-R11	1T1R Wi-Fi module kit for embedded system, IEEE802.11b/g/n, 1 x Wi-Fi module, 2 x 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 Utility CD	1 x Power Adapter	1 x Chassis Screw
1 x One Key Recovery CD	1 x Power Cord	1 x Mounting Bracket

1

IEI/Mobile Solutions

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Automation Panel Solutions

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Healthcare Panel PC Solution

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Industrial System

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ORing Network Communication

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Automation Control

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Optional Peripherals

TANK-700-QM67 720-Q67

- Intel® 2nd Gen Core™ Mobile Processor
- Intel® 2nd Gen Core™ Desktop Processor

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

Combo Gigabit LAN (SFP Fiber/RJ-45)



Features

- 2nd Gen Intel® Core™ i7/i5/i3 or Celeron® mobile processors for TANK-700
- 2nd Gen Intel® Core™ i5/i3 Pentium® and Celeron® desktop processors for TANK-720
- Intel® HD graphics supports H.264/AVC-MPEG2/VC1, DirectX 10.1 and OpenGL 3.0
- On-board 2GB DDR3 memory and one DDR3 SO-DIMM slot (system max. 10 GB)
- Dual combo (10/100/1000 BASE-T(X) or 1000 baseSFP slot RJ-45 port) Gigabit LAN ports, supporting Intel® AMT 7.0
- Supports 8-channel audio/video capture and dual display by VGA and HDMI
- Dual-band 2.4/5 GHz 802.11a/b/g/n 3T3R MIMO Wi-Fi for high speed wireless transmission



8-Channel Audio/Video Capture Solution

With an H.264 codec, the TANK-700/720 series is capable of compressing and decompressing Full HD (1920x1080) video in real-time without increasing CPU loadings. By supporting real-time recording, previewing, and HD video transmission through surveillance devices, the TANK-700/720 series is suitable as an intelligent monitoring system and transportation intelligent scheduling system solution.

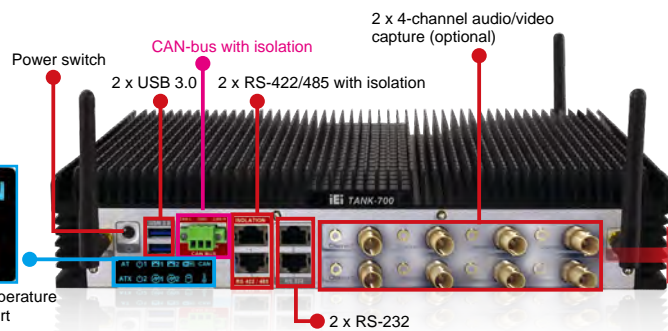
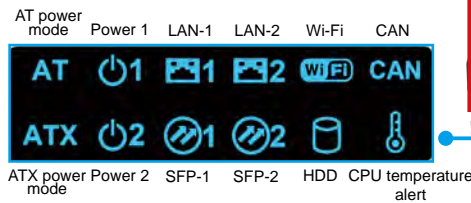
2 x 4-channel audio/video capture (system model name: IVCS-7008)



Fully Integrated I/O

Power switch and LED

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



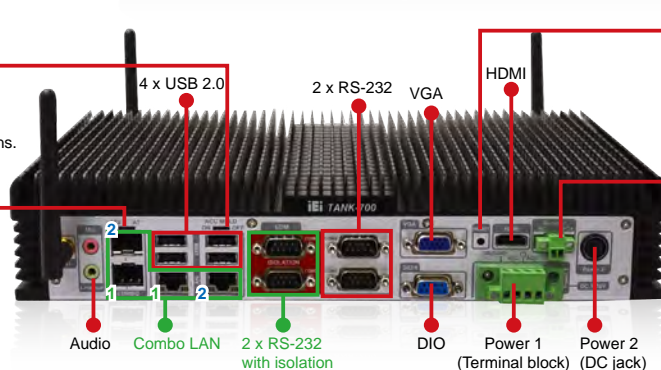
ACC on/off

ACC on mode is designed for vehicle applications. Use the ACC signal to control power on/off.



AT/ATX mode

Users can select a suitable mode according to the application.



Reset

The reset button forces the system to be reset when system hangs up.



Remote control

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

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IEIMobile Solutions

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Automation Panel PC Solutions

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Healthcare Panel PC Solution

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Industrial System

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ORing Network Communication

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Automation Control

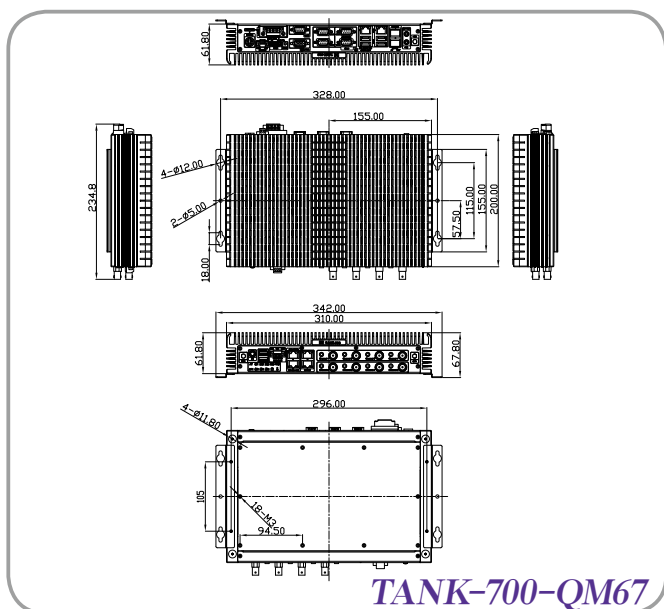
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Optional Peripherals

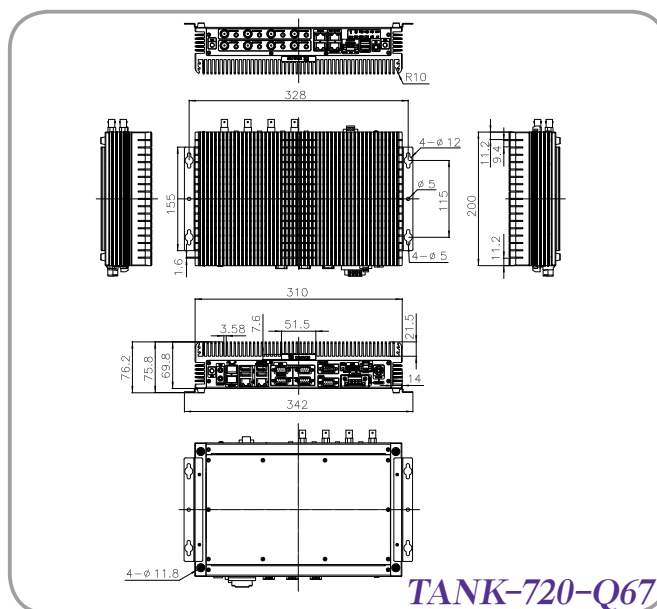
Specifications

Model Name	TANK-700-QM67	TANK-720-Q67		
Chassis	Color	Black C + Silver	Blue C + Silver	
	Dimensions (WxDxH) (mm)	310 x 200 x 62	310 x 200 x 70	
	System Fan	Fanless	Fanless	
	Chassis Construction	Extruded aluminum alloys	Extruded aluminum alloys	
Motherboard	CPU	Intel® Core™ i5-2xxE (above 2.5 GHz) Intel® Core™ i3-2xxE (above 2.2 GHz) Intel® Celeron® B8xx (above 1.6 GHz)	Intel® Core™ i5-2xxT (above 2.7 GHz) Intel® Core™ i3-2xxT (above 2.5 GHz) Intel® Pentium® G6xxT (above 2.2 GHz)	
	Chipset	Intel® QM67	Intel® Q67	
	System Memory	On-board DDR3 2 GB memory 1 x 204-pin DDR3 SO-DIMM (system max: 10 GB)	On-board DDR3 2 GB memory 1 x 204-pin DDR3 SO-DIMM (system max: 10 GB)	
Storage	Hard Drive	2 x 2.5" SATA 3Gb/s HDD/SSD bay	1 x SATA 3Gb/s with 2.5" HDD/SSD support 1 x SATA 6Gb/s with 2.5" HDD/SSD support	
I/O Interfaces	USB 3.0	2	2	
	USB 2.0	4	4	
	Ethernet	2 x Combo (SFP Fiber/RJ-45) 1 x PCIe GbE by Intel® 82579 1 x PCIe GbE by Intel® 82583V	4 x RS-232 (DB-9, 2 x w/ isolation) 2 x RS-232 (RJ-45, with isolation) 1 x PCIe GbE by Intel® 82583V	
	Fiber	2 x Combo (SFP Fiber/RJ-45)	2 x Combo (SFP Fiber/RJ-45)	
	COM Port	4 x RS-232 (DB-9, 2 x w/ isolation) 2 x RS-232 (RJ-45, w/ isolation) 2 x RS-422/485 (RJ-45, with isolation)	4 x RS-232 (DB-9) 2 x RS-232 (RJ-45, with isolation) 2 x RS-422/485 (RJ-45, with isolation)	
	Digital I/O	8-bit digital I/O, 4-bit input/4-bit output	8-bit digital I/O, 4-bit input/4-bit output	
	CAN-bus	1 x Phoenix terminal block	1 x Phoenix terminal block	
	Display	1 x VGA, 1 x HDMI	1 x VGA, 1 x HDMI	
	Resolution	VGA: Up to 2048 x 1536@75Hz HDMI: Up to 1920 x 1200@60Hz	VGA: Up to 2048 x 1536@75Hz HDMI: Up to 1920 x 1200@60Hz	
	Audio	1 x Line-out, 1 x Mic-in	1 x Line-out, 1 x Mic-in	
	Wireless	1 x 802.11a/b/g/n 3T3R (optional)	1 x 802.11a/b/g/n 3T3R (optional)	
	Other	Optional 4-channel audio/video input PCIe Mini Card	Optional 4-channel audio/video input PCIe Mini Card	
	Expansions	PCIe Mini	3 x Full-size PCIe Mini	3 x Full-size PCIe Mini
	Power	Power Input	DC Jack: 10.5 V~36 V DC Terminal Block: 9 V~36 V DC	DC Jack: 10.5 V~36 V DC Terminal Block: 9 V~36 V DC
		Power Consumption	19 V@3.3 A (Intel® Core™ i5-2540M with 4 GB DDR3 Memory)	19 V@3.1 A (Intel® Core™ i3-2100T with 4 GB DDR3 Memory)
Reliability	Mounting	Wall mount	Wall mount	
	Operating Temperature	-20°C ~70°C with air flow (SSD), 5% ~ 95%, non-condensing	-20°C ~50°C with air flow (SSD), 5% ~ 95%, non-condensing	
	Operating Shock	Half-sine wave shock 5G, 11ms, 3 shocks per axis	Half-sine wave shock 5G, 11ms, 3 shocks per axis	
	Operating Vibration	MIL-STD-810F 514.5C-2 (with SSD)	MIL-STD-810F 514.5C-2 (with SSD)	
	Weight (Net/Gross)	3.8 kg/6.5 kg	4.2 kg/6.9 kg	
	Safety/EMC	CE/FCC	CE/FCC	
OS	Supported OS	Microsoft® Windows® Embedded Standard 7 E, Microsoft® Windows® XP Embedded	Microsoft® Windows® Embedded Standard 7 E, Microsoft® Windows® XP Embedded	

Dimensions (Unit: mm)



TANK-700-QM67



TANK-720-Q67

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IEIMobile Solutions

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Automation Panel Solutions

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Healthcare Panel PC Solution

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Industrial System

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QRing Network Communication

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Automation Control

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Optional Peripherals

Ordering Information

TANK-700 series

Part No.	Description
TANK-700-QM67-I5/2G-R22	Embedded System Active Fanless embedded system, Core™ i5 Dual Core 2xxE CPU (Above 2.5 GHz), TDP 35W, 2GB DDR3 on board memory, VGA/HDMI, USB 3.0, 2 x SATA 3.0, SFP Fiber, Isolated CAN, Audio, 9 V-36 V DC input, -20°C~70°C, RoHS
TANK-700-QM67-I3/2G-R22	Embedded System Active Fanless embedded system, Core™ i3 Dual Core 2xxE CPU (Above 2.2 GHz), TDP 35W, 2GB DDR3 on board memory, VGA/HDMI, USB 3.0, 2 x SATA 3.0, SFP Fiber, Isolated CAN, Audio, 9 V-36 V DC input, -20°C~70°C, RoHS
TANK-700-QM67-C/2G-R22	Embedded System Active Fanless embedded system, Celeron® Dual Core B8xx CPU (Above 1.6 GHz), TDP 35W, 2GB DDR3 on board memory, VGA/HDMI, USB 3.0, 2 x SATA 3.0, SFP Fiber, Isolated CAN, Audio, 9 V-36 V DC input, -20°C~70°C, RoHS

TANK-720 series

Part No.	Description
TANK-720-Q67-I5/2G-R21	Fanless embedded system, Intel® Core™ i5 dual-core 2xxT CPU (above 2.7 GHz, TDP 35 W), 2 GB DDR3 on-board memory, VGA/HDMI, USB 3.0, two SATA 6Gb/s, SFP fiber, isolated CAN, audio, 9 V-36 V DC input, -20°C~50°C, R21, RoHS
TANK-720-Q67-I3/2G-R21	Fanless embedded system, Intel® Core™ i3 dual-core 2xxT CPU (above 2.5 GHz, TDP 35 W), 2 GB DDR3 on-board memory, VGA/HDMI, USB 3.0, two SATA 6Gb/s, SFP fiber, isolated CAN, audio, 9 V-36 V DC input, -20°C~50°C, R21, RoHS
TANK-720-Q67-P/2G-R21	Fanless embedded system, Intel® Pentium® dual-core G6xxT CPU (above 2.2 GHz, TDP 35 W), 2 GB DDR3 on-board memory, VGA/HDMI, USB 3.0, two SATA 6Gb/s, SFP fiber, isolated CAN, audio, 9 V-36 V DC input, -20°C~50°C, R21, RoHS

Options

Options	Part No.	Description
Gigabit Ethernet SFP Module	SFP1G-SX-I	1Gbps SFP optical transceiver, multi-mode/550m, 850nm (0°C ~ 70°C)/industrial grade (-20°C ~ 85°C)
	SFP1G-MLX-I	1Gbps SFP optical transceiver, multi-mode/2Km, 1310nm (0°C ~ 70°C)/industrial grade (-40°C ~ 85°C)
	SFP1G-LX10-I	1Gbps SFP optical transceiver, single-mode/10Km, 1310nm (0°C ~ 70°C)/industrial grade (-40°C ~ 85°C)
	SFP1G-XD50-I	1Gbps SFP optical transceiver, single-mode/50Km, 1550nm (0°C ~ 70°C)/industrial grade (-40°C ~ 85°C)
Fiber Cord	FPC-LCLC-MM3M	Optical connector LC/LC, multi-mode, diameter 62.5/125 μm, length 3m
Fiber Cord	FPC-SCSC-SS3M	3m length cable with SC to SC connector (single mode, 9/125μm)
Wi-Fi Kit	EMB-WIFI-KIT03-R10	3T3R Wi-Fi module kit for embedded system, IEEE 802.11a/b/g/n, 1 x Wi-Fi module, 3 x RF cable, 3 x Antenna, RoHS
OS: XP	TANK-700-QM67-XPE-R10	OS Image with XPE, For TANK-700 QM67 Series,with CDROM,RoHS
	TANK-720-Q67-XPE-R10	OS Image with XPE,For TANK-720 Q67 Series,with DVDROM,R10
OS: Windows Embedded 7	TANK-700-QM67-WES7E-R10	OS Image with Windows® Embedded Standard 7 E for TANK-700 QM67 Series, CD-ROM, RoHS
	TANK-720-Q67-WES7E-R10	OS Image with Windows® Embedded Standard 7 E for TANK-720 Q67 Series, DVD-ROM, R10

Packing List

Item	Qty	Description
Pluggable DC-in Terminal Block	1	4-pin
Pluggable CAN-bus Terminal Block	1	3-pin
Pluggable Remote Control Terminal Block	1	2-pin
RJ-45 to DB-9 COM Port Cable	4	Round cable, RS-232/422/485, RS-232 cable, 2, 300mm, 26AWG, (A)D-SUB 9P male, (B)RJ-45 8P8C+SHELL, RoHS
Power Cord Convert Cable	1	Convert normal type cord to triangle type cord cable
Power Cord	1	1500 mm, European Standard
Power Adapter	1	FSP090-DIEBN2, 90 V~264 V AC input, 90 W, 19 V DC output, ErP, 4-pin DIN
Mounting Bracket	2	
Mounting Bracket Screws	8	M3*6 mounting bracket screws
Chassis Screw	8	M3*4 chassis screws for backup
One Key Recovery CD	1	DVD-ROM disk for One Key Recovery, RoHS
Utility CD	1	Drivers and user manual

1

IEIMobile Solutions

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Automation Panel Solutions

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Healthcare Panel PC Solution

4

Industrial System

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ORing Network Communication

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Automation Control

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Optional Peripherals

TANK-610-BW

Fanless Embedded System

New

Features

- Intel® Celeron® N3160 processor
- Multiple COM ports: six RS-232 and two RS-232/422/485
- VGA and HDMI dual independent display
- mSATA and one x 2.5" SATA storage device
- Wide range temperature



Specifications

Model Name		TANK-610-BW
Chassis	Color	Black C + Silver
	Dimensions (WxDxH) (mm)	184 x 200.6 x 58.2
	System Fan	Fanless
	Chassis Construction	Extruded aluminum alloy
Motherboard	CPU	Intel® Celeron® N3160 processor (up to 2.24GHz, quad-core, 2MB cache, TDP=6W)
	Chipset	SoC
	System Memory	2 x 204-pin DDR3L SO-DIMM, one 2GB pre-installed (system max: 8 GB)
Storage	Hard Drive	1 x 2.5" SATA 6Gb/s HDD/SSD Bay
	USB 3.0	4
I/O Interfaces	Ethernet	2 x RJ-45 PCIe GbE by Intel® I210-IT controller
	COM Port	6 x RS-232, 2 x RS-232/422/485
	Display	1 x VGA, 1 x HDMI
	Resolution	VGA: Up to 1920 x 1200@60HZ, HDMI: Up to 3840 x 2160@30Hz
	Audio	1 x Line-out, 1 x Mic-in
	Wireless	1 x 802.11 b/g/n (optional)
	Expansions	PCIe Mini
Power	Power Input	DC Jack: 9 V~36 V DC
	Power Consumption	12 V@1.49 A (Intel® Celeron® N3160 with 4 GB DDR3L memory)
Reliability	Mounting	Wall mount, VESA 100
	Operating Temperature	-40°C ~ 60°C with air flow (SSD), 10% ~ 95%, non-condensing
	Storage Temperature	-40°C ~ 80°C
	Operating Shock	Half-sine wave shock 5G, 11ms, 100 shocks per axis
	Operating Vibration	MIL-STD-810G 514.6C-1 (with SSD)
	Weight (Net/Gross)	2.2 kg/3 kg
	Safety/EMC	CE/FCC
OS	Supported OS	Microsoft® Windows 8 Embedded, Microsoft® Windows® Embedded Standard 7 E

1 IEMobile Solutions

2 Automation Panel Solutions

3 Healthcare Panel PC Solution

4 Industrial System

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6 Automation Control

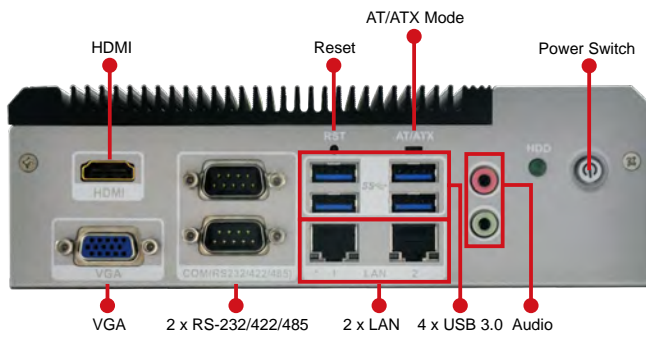
7 Optional Peripherals

Various Applications

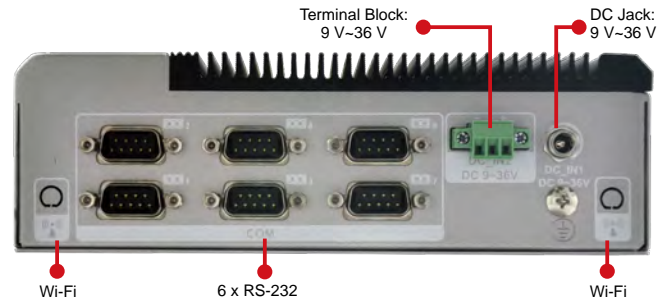


Fully Integrated I/O

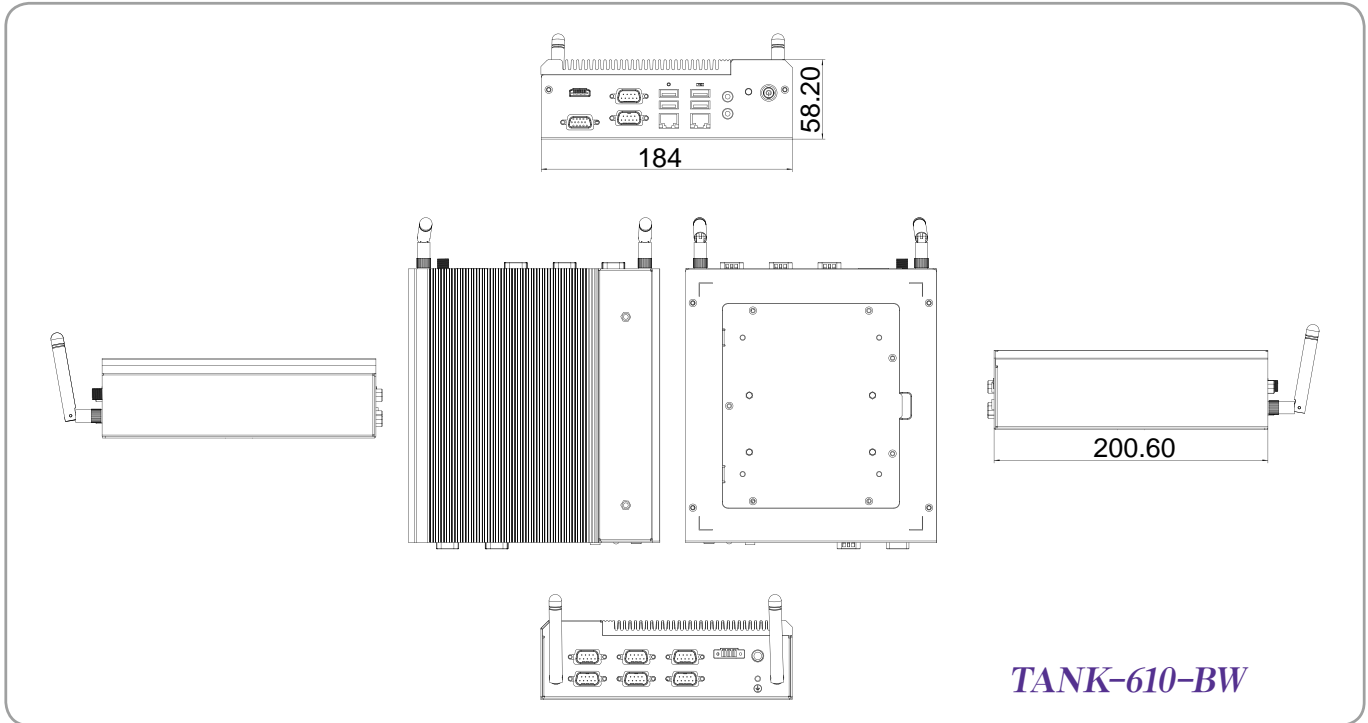
Front View



Rear View



Dimensions (Unit: mm)



Ordering Information

Part No.	Description
TANK-610-BW-N3/2G-R10	Fanless wide temperature embedded system with Intel® Celeron® N3160 1.6GHz, (up to 2.24 GHz, quad-core, TDP 6W), 2GB DDR3L pre-installed memory, 9 V-36 V DC, with RS-232/422/485, USB 3.0, VGA/HDMI, dual Intel® PCIe GbE, RoHS

Options

Part No.	Description
AFLWK-19	VESA 100 mount kit
EMB-WIFI-KIT01-R11	1T1R Wi-Fi module kit for embedded system , IEEE802.11b/g/n, 1 x Wi-Fi module, 2 x RF cable, 2 x Antenna, RoHS
TANK-610-BW-WES7E64-R10	OS Image with Windows® Embedded Standard 7 E 64Bit for TANK-610 BW Series, with DVD-ROM, RoHS, R10

Packing List

Item	Qty	Description
Power cord	1	1500 mm, European Standard
Power adapter (Meet PSE & ErP)	1	FSP065-REBN2, 90 V-264 V AC input, 65 W, 19 V DC output, ErP
Wall mount bracket	1	Wall mount bracket/holder
Screw set	1	
One Key Recovery CD	1	DVD-ROM disk for One Key Recovery, RoHS
Utility CD	1	Drivers and user manual

- 1 IEIMobile Solutions
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TANK-600-D2550 ■ Fanless Embedded System

TANK-600-N2600 ■ Intel® Celerarview Dual Core Atom™ CPU

Features

- Intel® Atom™ D2550 1.86 GHz dual-core processor
Intel® Atom™ N2600 1.6 GHz dual-core processor
- Eight COM ports: six RS-232 and two RS-232/422/485
- 6 x USB 2.0
- Dual PCIe GbE LAN for high-speed network applications



Specifications

Model Name		TANK-600-D2550	TANK-600-N2600
Chassis	Color	Black C + Silver	
	Dimensions (WxDxH) (mm)	193.4 x 200 x 57	
	System Fan	Fanless	
	Chassis Construction	Aluminum alloys	
Motherboard	CPU	Intel® Atom™ D2550 1.86 GHz	Intel® Atom™ N2600 1.6 GHz
	Chipset	Intel® NM10	
	System Memory	On-board DDR3 4 GB	On-board DDR3 2 GB
Storage	Hard Drive	1 x 2.5" SATA 3Gb/s HDD/SSD bay	
I/O Interfaces	USB 2.0	6	
	Ethernet	2 x RJ-45 PCIe GbE by Realtek 8111E controller	
	COM Port	6 x RS-232 (DB-9) 2 x RS-232/422/485 (DB-9)	
	Display	1 x VGA	
	Resolution	VGA: Up to 2048 x 1536@75Hz	
	Audio	1 x Line-out, 1 x Mic-in	
	Expansions	PCIe Mini	1 x Half-size PCIe Mini 1 x Full-size PCIe Mini (supports mSATA, colay with SATA)
Power	Power Input	DC Jack: 9 V~36 V DC	
	Power Consumption	12 V@2.2 A (Intel® Atom™ D2550 with 4 GB DDR3 memory)	12 V@2 A (Intel® Atom™ N2600 with 2 GB DDR3 memory)
Reliability	Mounting	VESA 100, DIN-Rail	
	Operating Temperature	-20°C ~70°C with air flow (SSD), 5% ~ 95%, non-condensing	
	Storage Temperature	-30°C ~80°C	
	Operating Shock	Half-sine wave shock 5G, 11ms, 3 shocks per axis	
	Operating Vibration	MIL-STD-810F 514.5C-2 (with SSD)	
	Weight (Net/Gross)	2.2 kg/3 kg	
	Safety/EMC	CE/FCC	
OS	Supported OS	Microsoft® Windows® Embedded Standard 7 E, Microsoft® Windows® XP Embedded	

Fulfill a Great Variety of Applications



AFC



ATM



Automation



Kiosk

Wide Range Temperature



The TANK-600 supports -20°C~70°C wide range environment.
The best choice for some ruggedize applications.

RS-232



RS-232 is a standard serial port to connect between DTE (Data Terminal Equipment) and DCE (Data Communication Equipment). With the advantage of long distance transmission and simple transmission line, the TANK-600 can fulfill users' demand to connect a large number of devices through the RS-232 serial ports.

Versatile Mounting Ways

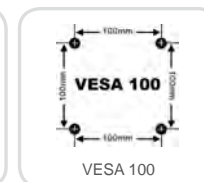
The TANK-600 series can be mounted with VESA 100 devices, DIN rail or wall mount kit providing users different ways to meet their applications.



Wall mount bracket



DIN-Rail



VESA 100

1 IEMobile Solutions

2 Automation Panel Solutions

3 Healthcare Panel PC Solution

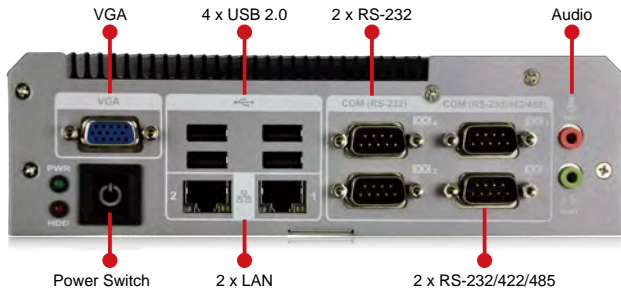
4 Industrial System

5 ORing Network Communication

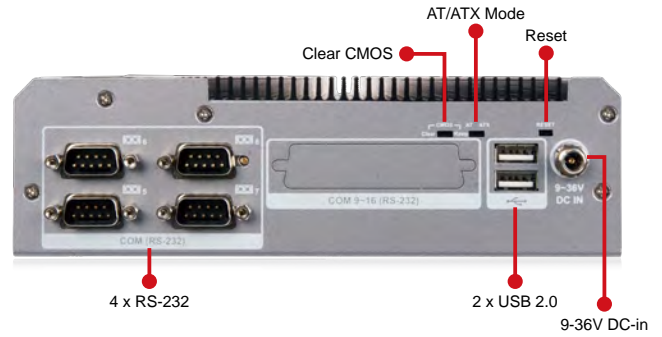
6 Automation Control

7 Optional Peripherals

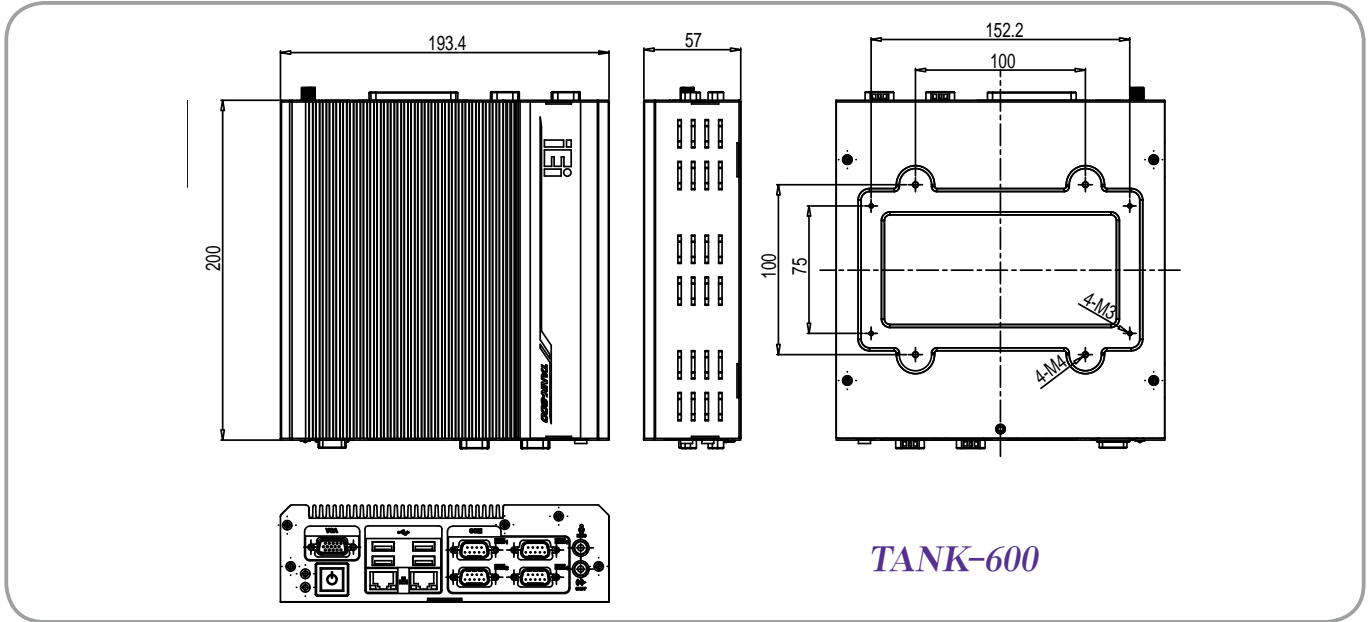
Front View



Rear View



Dimensions (Unit: mm)



Ordering Information

Part No.	Description
TANK-600-CV-D2550-8C/4G-R11	Fanless wide temperature embedded system with Intel® Atom™ D2550 1.86 GHz processor dual-core CPU, with 4 GB on-board DDR3 RAM, one VGA, dual GbE LAN, six USB 2.0, two RS-232/422/485, six RS-232, RoHS
TANK-600-CV-N2600-8C/2G-R11	Fanless wide temperature embedded system with Intel® Atom™ N2600 1.6 GHz processor dual-core CPU, with 2 GB on-board DDR3 RAM, one VGA, dual GbE LAN, six USB 2.0, two RS-232/422/485, six RS-232, RoHS

Options

Part No.	Description
DK-84MB	DIN mount kit for embedded system, black, RoHS
AFLWK-19	VESA 100 mount kit

Packing List

Item	Description
Power cord	Power cord, European code (VDE), 2, 1830 mm, (A) Plug (16 A 250 V) SH-005, (B) Connector (10 A 250 V) SH-006, Self-Man, CCL, RoHS
Power adapter (Meet PSE & ErP)	FSP065-REBN2, 90 V~264 V AC input, 65 W, 19 V DC output, ErP
Wall mount bracket	Wall mount bracket/holder NCT processing formation, TANK-600-CV, PAINTING, PMS 8401C, 41019-1106XX, NCT(N), SECC, VER:00, CCL, RoHS
Screw set	
One Key recovery CD	CD-ROM Disk, V1.3, RECOVERYV13.ISO, for One Key Recovery, RoHS
Utility CD	Drivers and user manual

TANK-101B-D525 N455

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



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)



The TANK-101B is designed with all the functions and protections compliant with the 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. 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 CAN bus 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 its operating environment and peripherals. Additional protection can violate stringent signaling requirements, leaving design engineers with the need to balance performance and reliability.

1
IEI Mobile Solutions

2
Automation Panel Solutions

3
Healthcare Panel PC Solution

4
Industrial System

5
ORing Network Communication

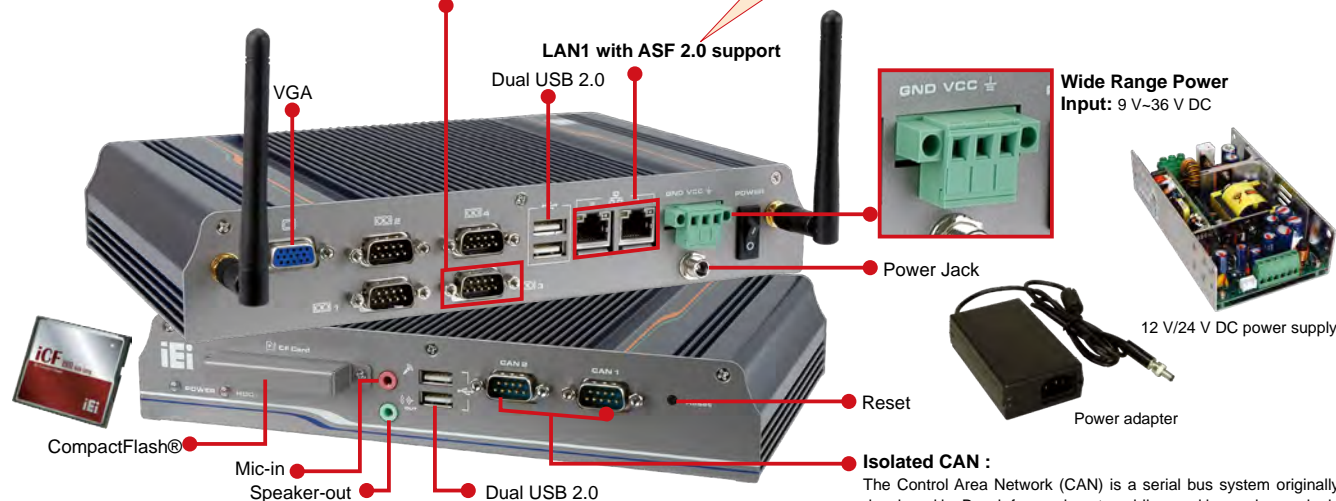
6
Automation Control

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Optional Peripherals

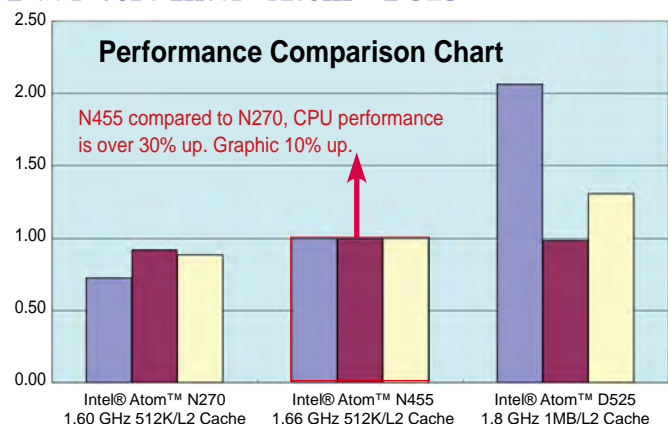


COM3 : RS-422/485
Default RS-422 with isolation
1. On-board 15KV ESD Protection
2. Isolated 3000 V DC Protection

Alert Standard Format (ASF 2.0) is also supported to provide system manageability in OS-absent environments. The ASF defines remote control and alerting interface that serve managed PCs in OS-absent states. The ASF capability can minimize on-site IT maintenance, improve system availability, and allow remote control of power management.



Dual-core Intel® Atom™ D525



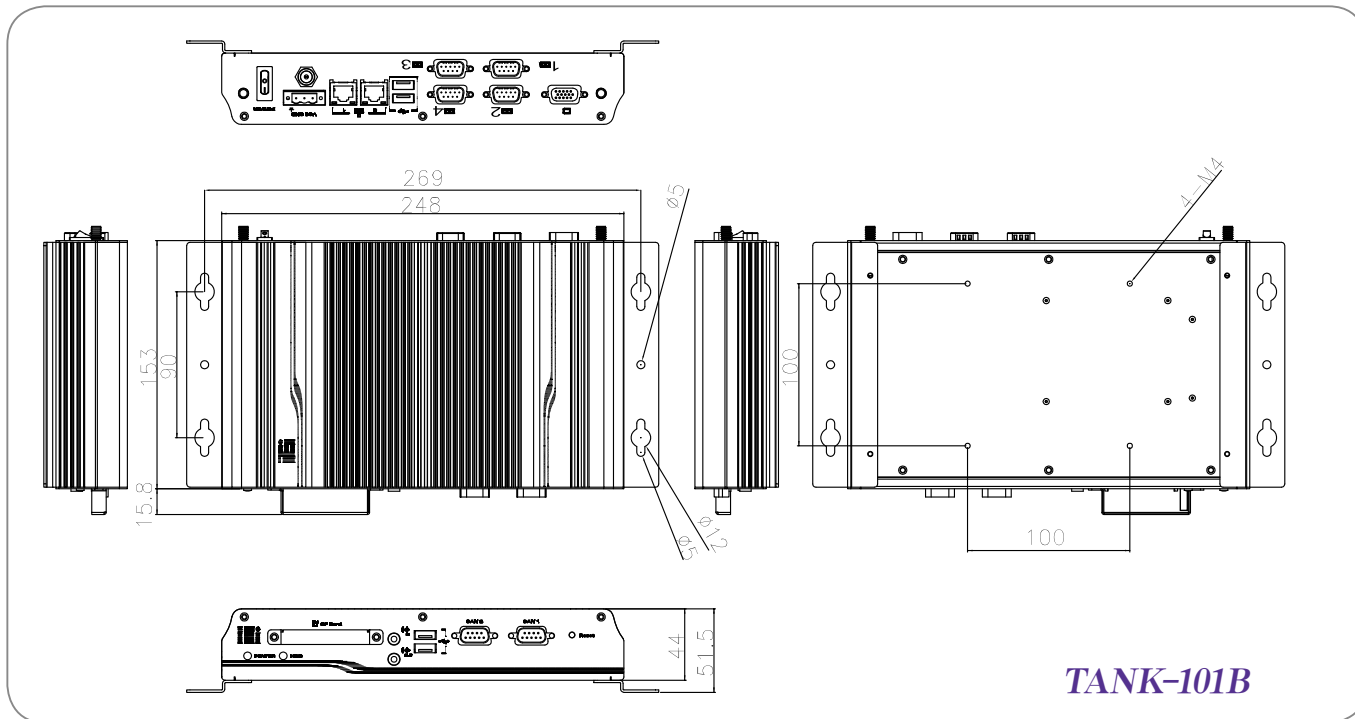
The Control Area Network (CAN) is a serial bus system originally developed by Bosch for use in automobiles, and is now increasingly used in industrial automation.

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)



TANK-101B

Specifications

Model Name		TANK-101B	
Chassis	Color	Cool Gray+Blue	
	Dimensions (WxDxH) (mm)	248 x 153 x 44	
	System Fan	Fanless	
Chassis Construction		Aluminum alloys with heavy duty metal	
Motherboard	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 controller	
	COM Port	3 x RS-232 (DB-9) 1 x RS-422/485 (DB-9, Default RS-422 with isolation)	
	CAN Bus	2 x CAN-bus (DB-9 w/ 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 PCIe Mini
	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

Ordering Information

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

Packing List

1 x Power cord
1 x 60W 12 V power adapter (Meet PSE & ErP)
2 x Wall mount brackets
1 x Screw set
1 x SATA HDD drive cable
1 x One Key Recovery CD
1 x Driver CD
1 x QIG



Wall mount brackets

1

IEIMobile Solutions

2

Automation Panel Solutions

3

Healthcare Panel PC Solution

4

Industrial System

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ORing Network Communication

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Automation Control

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Optional Peripherals

TANK-6000-C226

- ◆ Support IPMI 2.0 via IEI iRIS solution
- ◆ Intel® E3 1225 v3/i3 4330 high performance CPU

Features

- Workstation with Intel® C226 chipset
- Intel® E3 1225 v3/i3 4330 high performance CPU
- Support two PCIe by 8 expansion cards
- 4 x LAN port (two SFP fiber combo ports)
- 3 x 2.5" HDD/SSD bay
- Support IPMI 2.0 via IEI iRIS solution
- Support programable OLED display module



New Intelligent Machine Vision Solution

On the industrial field, machine vision is the most popular application, and it has grown over last 10 years. Machine vision is widely related to all kinds of fields from automobile, food inspection, traffic surveillance and even handset inspection. Machine vision connects our daily life. There are a variety of camera types that can be connected for vision applications, such as USB cameras, GigE cameras and even the Camera Link high level cameras. The TANK-6000 contains many great features which can meet different requirements mentioned above.

Machine vision application fields

Automobile	Retail	Food
Electronics validation	Consumer goods	Medical
Aerospace	Graphics and animation	Gaming

GigE Camera

GigE camera is a type of digital video camera commonly employed for surveillance and machine vision. With LAN connected, GigE camera can transmit real-time video to the TANK-6000 and identify captured images.

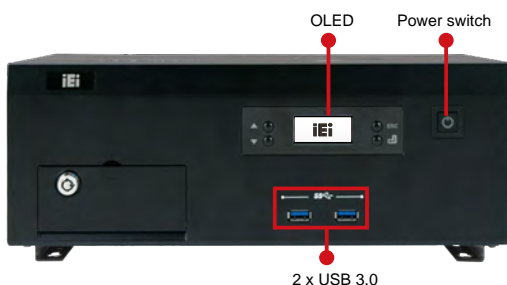
High Speed Image Identification

The TANK-6000 contains four GbE LAN ports, which allow users to link multiple cameras. With Intel® HD GT2 technology, the TANK-6000 supports hardware decoding, encoding and transcoding capabilities as well as video and alarm management. The three 2.5" HDD bays support RAID function to ensure data safety. Furthermore, with the integrated iRIS solution, users can use the remote power control function for power maintenance. Wherever you are, IEI iRIS technology allows you to remotely control and monitor your devices via Internet connection.

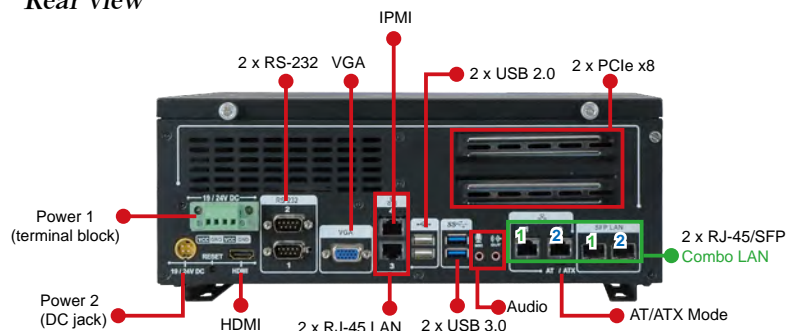


Fully Integrated I/O

Front view



Rear view



1

IEI Mobile Solutions

2

Automation Panel Solutions

3

Healthcare Panel PC Solution

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Industrial System

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ORing Network Communication

6

Automation Control

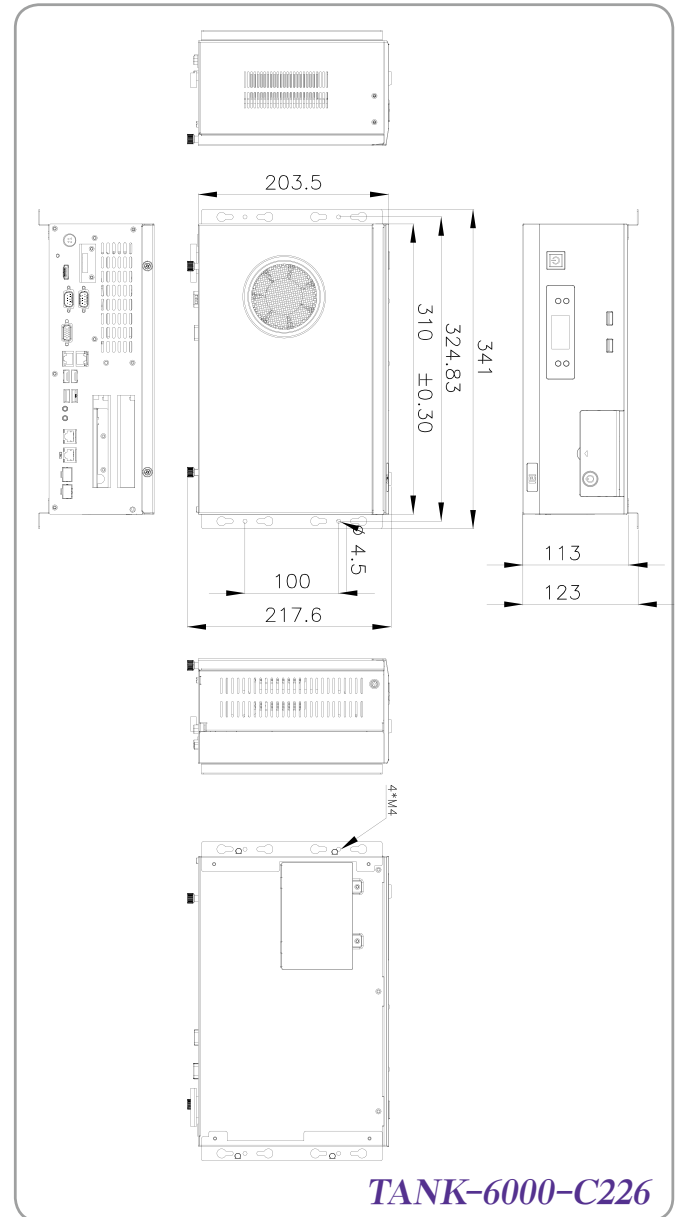
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Optional Peripherals

Specifications

Model Name		TANK-6000-C226	
Chassis	Color	Black	
	Dimensions (WxHxD) (mm)	310 x 199.5 x 112	
	System Fan	92 mm x 92 mm x 25 mm	
	Chassis Construction	Extruded aluminum alloys	
Motherboard	CPU	Intel® Xeon® E3 1225-v3 3.2 GHz Intel® Core™ i3 4330 3.5 GHz	
	Chipset	Intel® C226	
	System Memory	4 x 240-pin DDR3 U-DIMM, 4 GB pre-installed (system max: 32 GB)	
IPMI	iRIS Solution	1 x iRIS-2400 on board	
Storage	Hard Drive	3 x 2.5" SATA 6Gb/s HDD/SSD drive bay	
I/O Interfaces	USB 3.0	4	
	USB 2.0	2	
	Ethernet	4 x RJ-45 1 x PCIe GbE by Intel® i217 PHY 3 x PCIe by GbE Intel® i210	
	Fiber	2 x Combo (SFP Fiber/RJ-45), combo with LAN 1/LAN 2	
	COM Port	2 x RS-232 (DB-9)	
	Display	1 x HDMI, 1 x VGA	
	Resolution	HDMI: Up to 1920 x 1200@60Hz VGA: Up to 1920 x 1200@60Hz	
	Audio	1 x Line-out, 1 x Mic in	
	Expansions	PCIe	2 x PCIe x8 (Gen 3)
	Power	Power Input	DC Jack: 19 V/24 V DC
Power Consumption		19 V@4.8 A (Intel®Xeon® E3-1225 v3 with 8 GB memory)	
Reliability	Mounting	Wall mount	
	Operating Temperature	-20°C ~ 55°C with air flow (SSD), 5% ~ 95%, non-condensing	
	Operating Shock	Half-sine wave shock 5G, 11ms, 3 shocks per axis	
	Operating Vibration	MIL-STD-810F 514.5C-2 (with SSD)	
	Weight (Net/Gross)	2.5 kg/4.6 kg	
OS	Safety/EMC	CE/FCC	
	Supported OS	Microsoft® Windows® 8 Embedded, Microsoft® Windows® Embedded Standard 7 E	

Dimensions (Unit: mm)



Ordering Information

Part No.	Description
TANK-6000-C226i-E3/4G-R11	Embedded System with Intel® C226 chipset, Intel® quad-core Xeon® E3-1225 v3 3.2 GHz, TDP 84W, OLED indicator, two PCIe by 8 expansion, three 2.5" SATA HDD bays, DDR3 U-DIMM 4GB pre-installed (2 x 2GB), iRIS-2400 supported, 19 V/24 V DC, RoHS, R11
TANK-6000-C226i-i3/4G-R11	Embedded System with Intel® C226 chipset, Intel® dual-core i3- 4330 3.5 GHz, TDP 54W, OLED indicator, two PCIe by 8 expansion, three 2.5" SATA HDD bays, DDR3 U-DIMM 4GB pre-installed (2 x 2GB), iRIS-2400 supported, 19 V/24 V DC, RoHS, R11

Options

Part No.	Description
TANK-6000-C226-WEST7E-R10	OS Image with Windows® Embedded Standard 7 E for TANK-6000 Series, CD-ROM, RoHS

Packing List

Item	Description
Power Adapter (With PSE & ErP Certified)	Power adapter, FSP, FSP220-ABAN2, 9NA2200401, Vin: 90 V~264 V AC, 220W, ErP, Vout:19 V DC, Din 4Pin, CCL, RoHS
Wall mount kit	Mounting bracket, NCT processing formation, TANK-6000, PAINTING, PMS Black C, 41020-0378XX, NCT(N), SECC, VER: 00, CCL, RoHS
Screw pack	TANK-6000 screw pack
One Key Recovery CD	DVD-ROM Disk, V1.4, RECOVERYV14.ISO, FOR ONE KEY RECOVERY, RoHS
Utility CD	Drivers and user manual

- 1 IEIMobile Solutions
- 2 Automation Panel Solutions
- 3 Healthcare Panel PC Solution
- 4 Industrial System
- 5 ORing Network Communication
- 6 Automation Control
- 7 Optional Peripherals

DRPC-100-CV DRPC-120-BT

- Fanless DIN-Rail Embedded System
- Intel® E3845 1.91GHz/Intel® N2800 1.86GHz Solution

Features

DRPC-120-BT

- Intel® Atom™ E3845 1.91GHz
- 1 x 2.5" SATA HDD/SSD drive bay
- DDR3L 1.35V SO-DIMM support
- Programmable OLED display
- 8-bit digital I/O (4-bit inputs/outputs)
- IEI iRIS-2400 solution



DRPC-100-CV

- Intel® Atom™ N2800 1.86GHz
- Serial, CAN-bus and digital I/O interfaces with isolation protection
- 1 x PCIe Mini expansion slot for add-on function purpose
- Programmable OLED display



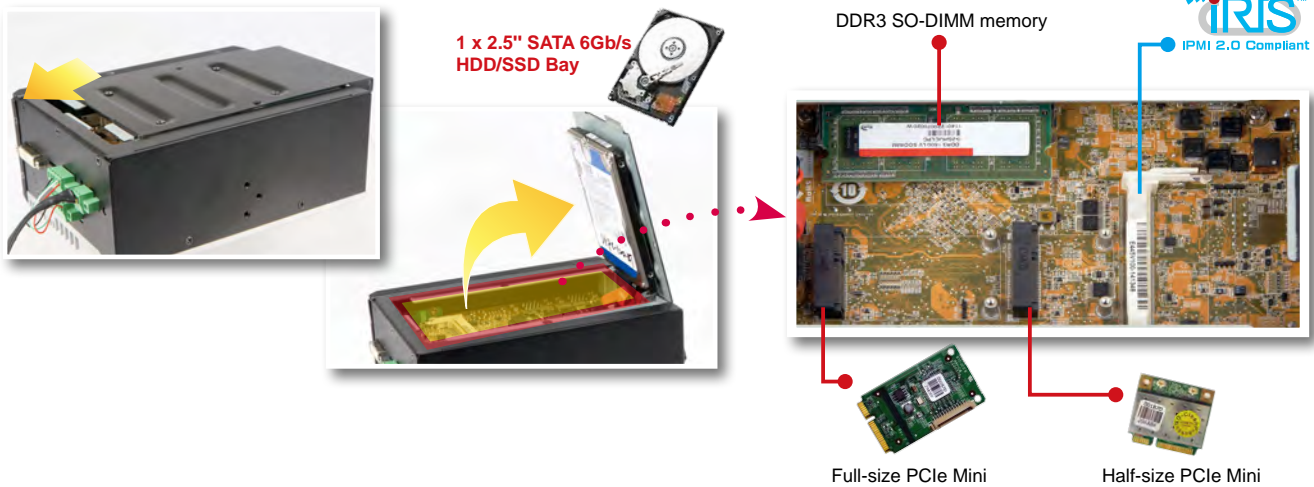
DRPC-120-BT



DRPC-100-CV

1 User Friendly Installation

The DRPC-120 is designed with an easy removable back cover for users to install SATA HDD, PCIe Mini cards, DDR3 memory modules or iRIS-2400 modules conveniently.



2

Automation Panel Solutions

3

Healthcare Panel PC Solution

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Industrial System

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ORing Network Communication

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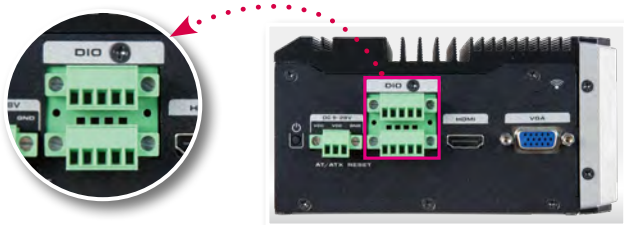
Automation Control

7

Optional Peripherals

8-Channel Digital I/O

The DRPC-120 is outfitted with 8-channel (4-bit input and 4-bit output) digital I/O to provide digital input and output signals for control of industrial devices.



Fanless

The DRPC-100/120 series provides the best components for generating less heat, while maintaining high system performance. With the fanless design, the DRPC-100/120 reduces system failure caused by fans and extends the lifetime of the device.



iRIS Solution



IPMI 2.0 Compliant

By installing the IEI iRIS-2400 module, the DRPC-120 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.

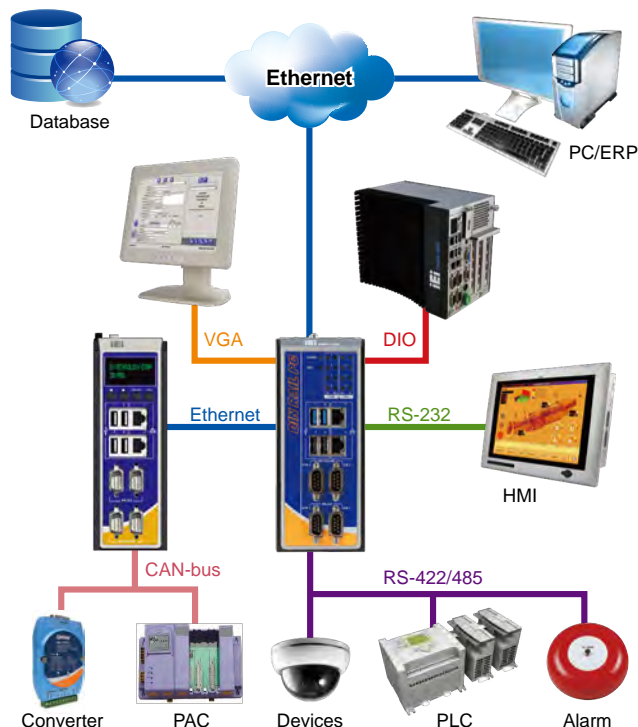
DIN Rail Standard

A DIN rail is a metal rail of a standard type widely used for mounting circuit breakers and industrial control equipment inside equipment racks. These products are typically made from cold rolled carbon steel sheet with a zinc-plated and chromated bright surface finish. The term derives from the original specifications having been published by Deutsches Institut für Normung (DIN) in Germany, which have since been adopted as European (EN) and international (ISO) standards.



Communication Gateway

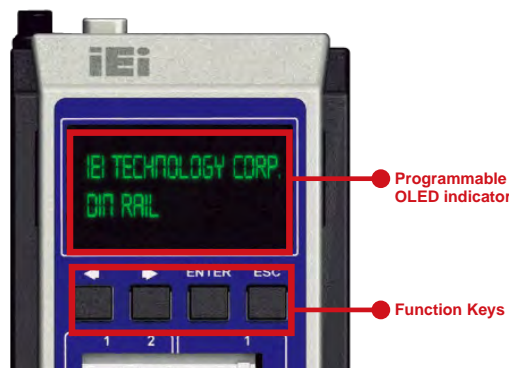
For high surge ESD automation environments, the DRPC-100 provides isolated digital IO, CAN-bus and serial communication ports.



OLED Indicator Function

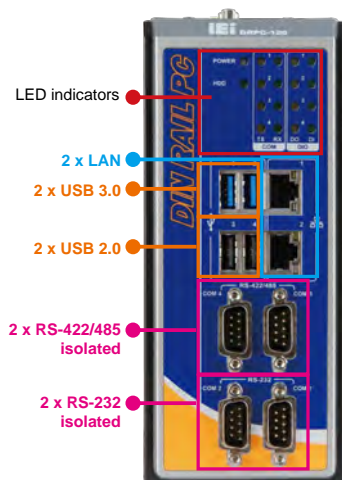
- Programmable OLED Display**
Users can program their own APIs to show any information by the OLED display.
- Programmable Function Keys**
Users can program the four keys to control DRPC-100 & OLED display.
- Terminal Screen & Status Display**
It supports both text format and graphic format.
- Protocol & Demo Source Code Open**
IEI provides the protocol & demo source code for users to program their own usage.

DRPC-100/120 OLED indicator

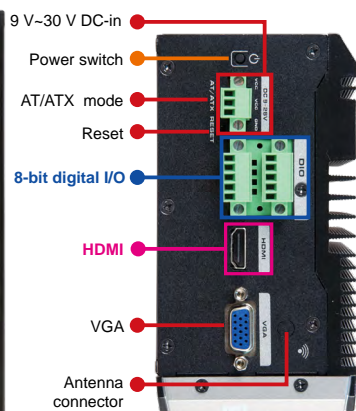


Fully Integrated I/O

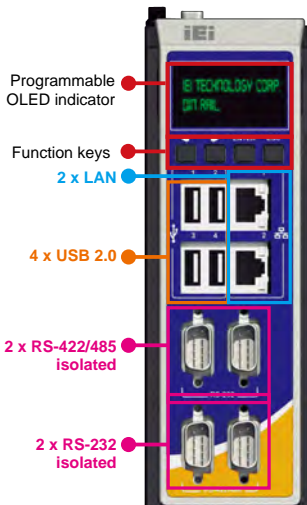
DRPC-120 Front View



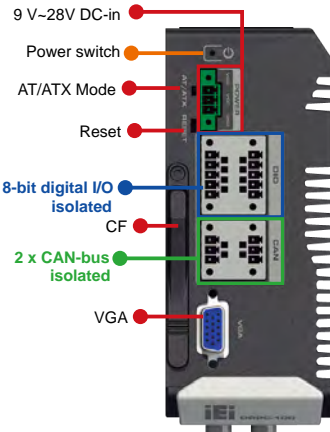
DRPC-120 Top Side View



DRPC-100 Front View



DRPC-100 Top Side View



- 1 IEIMobile Solutions
- 2 Automation Panel Solutions
- 3 Healthcare Panel PC Solution
- 4 Industrial System
- 5 ORing Network Communication
- 6 Automation Control
- 7 Optional Peripherals

Specifications

Model Name	DRPC-120-BT	DRPC-100-CV	
Chassis	Color	Black	Black
	Dimensions (WxDxH) (mm)	74.08 x 140 x 171.5	59.4 x 140 x 171.5
	System Fan	Fanless	Fanless
	Chassis Construction	Extruded aluminum alloys	Extruded aluminum alloys
Motherboard	CPU	Intel® Atom™ E3845 1.91 GHz	Intel® Atom™ N2800 1.86 GHz
	Chipset	SoC	Intel® NM10
	System Memory	1 x 204-pin DDR3L SO-DIMM 2 GB pre-installed (system max: 8GB)	1 x 204-pin DDR3 SO-DIMM 2 GB pre-installed (system max: 4GB)
IPMI	iRIS Solution	1 x iRIS-2400 (optional)	N/A
Storage	Hard Drive	1 x 2.5" SATA 3Gb/s HDD/SSD bay	N/A
	CF card	N/A	1
I/O Interfaces	USB 3.0	2	N/A
	USB 2.0	2	4
	Ethernet	2 x RJ-45 1 x PCIe GbE by Intel® I210 controller 1 x PCIe GbE by Intel® I211 controller	2 x RJ-45 Realtek 8111E PCIe GbE
	COM Port	2 x RS-232 (DB-9 w/3KV isolation protection*) 2 x RS-422/485 (DB-9 w/3KV isolation protection*)	2 x RS-232 (DB-9 w/3KV isolation protection*) 2 x RS-422/485 (DB-9 w/3KV isolation protection*)
	Digital I/O	8-bit digital I/O, 4-bit input/4-bit output	1 x Phoenix terminal block w/ 3KV isolation protection 8-bit digital I/O, 4-bit input/4-bit output
	CAN-bus	N/A	1 x Phoenix terminal block w/ 3KV isolation protection, supporting 2-port CAN-bus
	Display	1 x VGA, 1 x HDMI	1 x VGA
	Resolution	Up to 1920 x 1200 @ 60Hz	Up to 1920 x 1200 @ 60Hz
	Wireless	1 x 802.11b/g/n 1T1R (optional)	1 x 802.11b/g/n 1T1R (optional)
	Other	N/A	SATA DOM support
Expansions	PCIe Mini	1 x Half-size PCIe Mini slot (w/o USB signal) 1 x Full-size PCIe Mini slot (supports mSATA, colay with SATA)	1 x Full-size PCIe Mini slot (supports mSATA, colay with SATA)
Power	Power Input	3-pin terminal block: 9 V ~ 30 V DC	3-pin terminal block: 9 V ~ 28 V DC
	Power Consumption	12 V@ 2.1 A (Intel® Atom™ E3845 with 2 GB memory)	12 V@1.85 A (Intel® Atom™ N2800 with 2 GB DDR3 memory)
Reliability	Mounting	DIN-rail	DIN-rail
	Operating Temperature	-20°C ~ 60°C with air flow (mSATA), 5% ~ 95%, non-condensing	-25°C ~ 65°C with air flow (mSATA), 5% ~ 95%, non-condensing
	Operating Shock	Half-sine wave shock 5G, 11ms, 3 shocks per axis	Half-sine wave shock 3G, 11ms, 3 shocks per axis
	Operating Vibration	MIL-STD-810F 514.5C-2 (with SSD)	MIL-STD-810F 514.5C-2
	Weight (Net/Gross)	1.4 kg/2.5 kg	1 kg/2 kg
OS	Safety/EMC	CE/FCC	CE/FCC
	Supported OS	Microsoft® 8, Microsoft® Windows® Embedded Standard 7 E	Microsoft® Windows® Embedded Standard 7 E, Microsoft® Windows® XP Embedded

* COM port isolation: 3 kV for 1 sec, 2.5 kV for 1 minute

Ordering Information

Part No.	Description
DRPC-120-BTI-E5-OLED/2G-R10	Fanless embedded system, Intel® Bay-Trail E3845 1.91 GHz, TDP 10W, 2GB DDR3L pre-installed memory, one VGA, one HDMI, 8 CH DIO, iRIS-2400 optional, 9 V~30 V DC, OLED indicators, R10, RoHS
DRPC-120-BTI-E5-LED/2G-R10	Fanless embedded system, Intel® Bay-Trail E3845 1.91 GHz, TDP 10W, 2GB DDR3L pre-installed memory, one VGA, one HDMI, 8 CH DIO, iRIS-2400 optional, 9 V~30 V DC, LED indicators, R10, RoHS
DRPC-120-QGW-E5-LED/4G-R10	Fanless embedded system with Intel® Bay-Trail E3845 1.91 GHz, TDP 10W, 4 GB DDR3L pre-installed memory, with QTS-Gateway, 1 x VGA, 1 x HDMI, 8 CH DIO, iRIS-2400 optional, 9 V~30 V DC, LED indicators, RoHS
DRPC-100-CV-LED-R10	Extended temperature fanless embedded system with Intel® Atom™ N2800, with 2 GB DDR3 memory, two GbE, four USB 2.0, two RS-232, two RS-422/485, two CAN-bus, one 8-bit DIO, 9 V~28V DC, -20°C to 65°C, LED indicators, RoHS
DRPC-100-CV-OLED-R11	Extended temperature fanless embedded system with Intel® Atom™ N2800, with 2 GB DDR3 memory, two GbE, four USB 2.0, two RS-232, two RS-422/485, two CAN-bus, one 8-bit DIO, 9 V~28V DC, -20°C to 65°C, OLED indicators, RoHS

Packing List

1 x Utility CD	1 x Screw kit	1 x Mounting bracket
1 x One Key Recovery CD	1 x SATA cable & SATA power cable	

1

IEI/Mobile Solutions

2

Automation Panel Solutions

3

Healthcare Panel PC Solution

4

Industrial System

5

QRing Network Communication

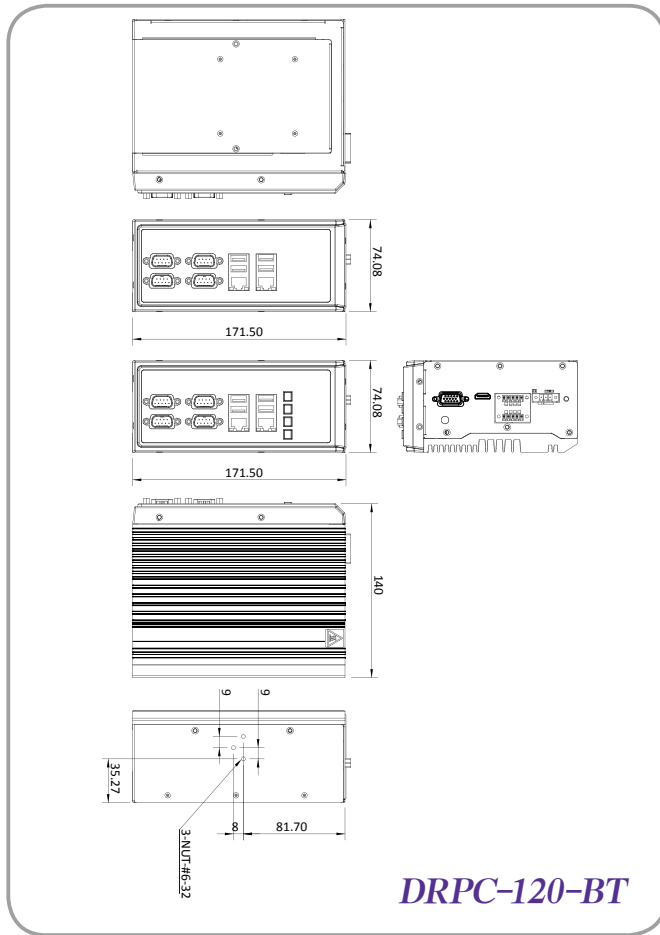
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Automation Control

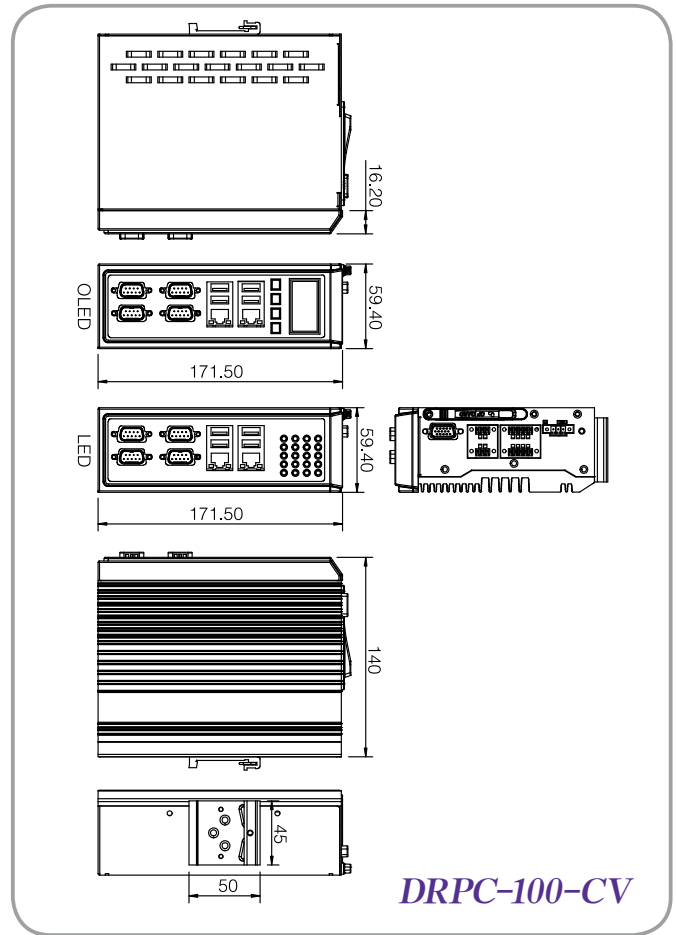
7

Optional Peripherals

Dimensions (Unit: mm)



Dimensions (Unit: mm)



Options

DRPC-120-BT series

Item	Part No.	Description
OS: Windows Embedded 7	DRPC-120-WES7E-R10 (CD-ROM)	OS Image with Windows® Embedded Standard 7 E for DRPC-120 Series, CD-ROM, RoHS
Wireless kit	EMB-WIFI-KIT01-R11	1T1R Wi-Fi module kit for embedded system, IEEE802.11b/g/n, 1 x Wi-Fi module, 2 x RF cable, 2 x antenna, RoHS
Adapter	63040-010036-121-RS	Adapter Power, FSP, FSP036-RBBN2, Vin: 90V~264VAC, 36W, Erp(NO LOAD 0.1W), Vout:12VDC, Φ2.5/Φ5.5/lock, CCL, RoHS
Power Cable	32102-026500-100-RS	Power cable 200mm, (A) DC jack to (B) 3-pin terminal block P=3.5
Power Cord	32702-000400-200-RS	European power cord
DIN-Rail mounting kit	DK-DRPC-R10	Rugged DIN-Rail mounting kit only for DRPC series

DRPC-100-CV series

Item	Part No.	Description
OS: Win XPE (4GB CF card)	DRPCCF-100-CV-XPE-R10	OS Image with XPE, for DPRC-100-CV Series, W/CompactFlash® Memory Card 4GB
OS: Windows Embedded 7 (4GB CF card)	DRPCCF-100-CV-WES7E-R10	OS Image with Windows® Embedded Standard 7 E for DPRC-100-CV Series, in 4 GB CompactFlash® card
Wi-Fi module	27310-000012-RS	Wireless LAN module, Wi-Fi with Bluetooth 4.0/3.0+HS, AzureWave, AW-CB161H, IEEE802.11a/b/g/n/ac, 2.412 GHz~2.472 GHz, 5.15 GHz~5.85 GHz, PCIe Mini, a(13dBm), b(16dBm), g(13dBm), n(12dBm), ac(10dBm), 3.3 V, Realtek RTL8821AE, 1T1R, RoHS
Antenna	32505-000900-100-RS	External antenna, WLAN, RG 178,108MM, peak gain 2.0DBI, Exceltek, 2.4 GHz~2.5 GHz/5.15 GHz~5.85 GHz, reverse SMA plug, RoHS
RF cable	32501-000600-100-RS	Antenna, RF cable, RF cable, outside diameter:1.13 mm, 500 mm, 0 GHz~6 GHz, (A) Reverse SMA jack, one nut + two washer, (B) I-PEX, RoHS
Adapter	63040-010036-121-RS	Adapter Power, FSP, FSP036-RBBN2, Vin:90~264VAC, 36W, Erp(NO LOAD 0.1W), Vout:12VDC, Φ2.5/Φ5.5/lock, CCL, RoHS
Power cable	32102-026500-100-RS	Power cable 200mm, (A) DC jack to (B) 3-pin terminal block P=3.5
Power cord	32702-000400-200-RS	European power cord
DIN-rail mounting kit	DK-DRPC-R10	Rugged DIN-Rail mounting kit only for DRPC series

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- 7 Optional Peripherals

Compact Size Embedded System



New

Model Name	uIBX-250-BW	uIBX-230-BT	uIBX-210-CV-N2600	uIBX-200-VX800B	
Chassis	Color	Black	Silver	Silver	
	Dimensions (WxDxH) (mm)	136.6 x 102.4 x 52	137 x 102.8 x 57	146.6 x 132 x 45.2	120 x 120 x 44.4
	System Fan	Fanless	Fanless	Fanless	Fanless
	Chassis Construction	Extruded aluminum alloy	Extruded aluminum alloys	Aluminum alloys	Aluminum alloys
Motherboard	CPU	Intel® Celeron® N3160 (up to 2.24 GHz, quad-core, 2 MB cache, TDP=6W)	Intel® Celeron® N2930 1.83 GHz	Intel® Atom™ N2600 1.6 GHz	VIA® Eden™ ULV 1 GHz
	Chipset	SoC	SoC	Intel® NM10	VIA® VX800
	System Memory	1 x 204-pin DDR3L SO-DIMM 2 GB pre-installed (system max: 8GB)	1 x 204-pin DDR3L SO-DIMM 2 GB pre-installed (system max: 8GB)	1 x 204-pin DDR3 SO-DIMM 2 GB pre-installed (system max: 2GB)	On-board DDR2 1 GB memory
Storage	Hard Drive	1 x 2.5" SATA 6Gb/s HDD/SSD bay	1 x 2.5" SATA 3Gb/s HDD/SSD bay	1 x 2.5" SATA HDD bay	N/A
	CF Card/CFast	N/A	N/A	N/A	1 x CF Type II
I/O Interfaces	USB 3.0	4	1	N/A	N/A
	USB 2.0	N/A	3	4	4
	Ethernet	2 x RJ-45 PCIe GbE by Intel® I211 controller	1 x RJ-45 PCIe GbE by Intel® I210 controller	1 x RJ-45 PCIe GbE by Realtek 8111E controller	1 x RJ-45 PCIe GbE by Realtek 8111CP controller
	COM Port	2 x RS-232/422/485 (RJ-45)	1 x RS-232 (DB-9)	2 x RS-232 (DB-9) 1 x RS-422/485 (RJ-45)	2 x RS-232 (DB-9)
	Button	1 x Power button 1 x AT/ATX switch 1 x Reset button	1 x Power button 1 x AT/ATX switch 1 x Reset button	1 x Power button 1 x AT/ATX switch 1 x Reset switch	1 x Power switch
	Display	1 x HDMI, 1 x VGA	VGA	1 x VGA, 1 x HDMI	1 x VGA
	Resolution	HDMI: 3840 x 2160@30MHz VGA: 1920 x 1200@60Hz	Up to 2560 x 1600@60Hz	VGA: Up to 1920 x 1200 HDMI: Up to 1920 x 1080	VGA: Up to 1920 x 1440@60Hz
	Audio	1 x Line-out, 1 x Mic-in	1 x Line-out, 1 x Mic-in	1 x Line-out, 1 x Mic-in	1 x Line-out, 1 x Mic-in
	Wireless	1 x 802.11b/g/n (optional)	N/A	1 x 802.11b/g/n (optional)	1 x 802.11b/g/n (optional)
	Expansions	PCIe Mini	1 x Full-size PCIe Mini card	N/A	1 x Full-size PCIe Mini (reserved for Wi-Fi module)
Power	Power Input	DC Jack: 12 V DC	DC Jack: 12 V DC	DC Jack: 12 V DC	DC Jack: 5 V DC
	Power Consumption	12V @ 2A (Intel® Celeron® N3160 with 2 GB memory)	12 V @ 1.8 A (Intel® Celeron® N2930 with 2 GB memory)	12 V @ 1.57 A (Intel® Atom™ N2600 with 2 GB DDR3 memory)	5 V @ 2.52 A (VIA® Eden™ 500MHz DDR2 512MB) 5 V @ 3.2 A (VIA® Eden™ 1 GHz DDR2 1 GB)
Reliability	Mounting	Wall mount, VESA 75	Wall mount	VESA 75/100	VESA 75/100
	Operating Temperature	-20°C ~60°C with air flow (SSD), 10% ~ 95%, non-condensing	-20°C ~60°C with air flow (SSD), 5% ~ 95%, non-condensing	0°C ~50°C with air flow (mSATA), 5% ~ 95%, non-condensing	0°C ~50°C with air flow (CF), 5% ~ 95%, non-condensing
	Operating Shock	Half-sine wave shock 5G, 11ms, 3 shocks per axis	Half-sine wave shock 5G, 11ms, 3 shocks per axis	Half-sine wave shock 3G, 11ms, 3 shocks per axis	
	Operating Vibration	MIL-STD-810F 514.5 C-1(HDD), MIL-STD-810F 514.5 C-2(SSD)	MIL-STD-810F 514.5-1 (HDD), MIL-STD-810F 514.5 C-2 (SSD)	Meet MIL-STD-810F 514.5C-1	Meet MIL-STD-810F 514.5C-2
	Weight (Net/Gross)	470 g/1.4 kg	470 g/1.4 kg	980 g/1.8 kg	480 g/1.5 kg
Safety/EMC	CE/FCC	CE/FCC	CE/FCC	CE/FCC	
OS	Supported OS	Microsoft® Windows 8, Microsoft® Embedded Standard 7 E	Microsoft® Windows 8, Microsoft® Embedded Standard 7 E	Microsoft® Embedded Standard 7 E, Microsoft® Windows® XP Embedded, Microsoft® Windows® CE 6.0	Microsoft® Windows® XP Embedded, Microsoft® Windows® CE 5.0

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uIBX-250-BW

Ultra Compact Size

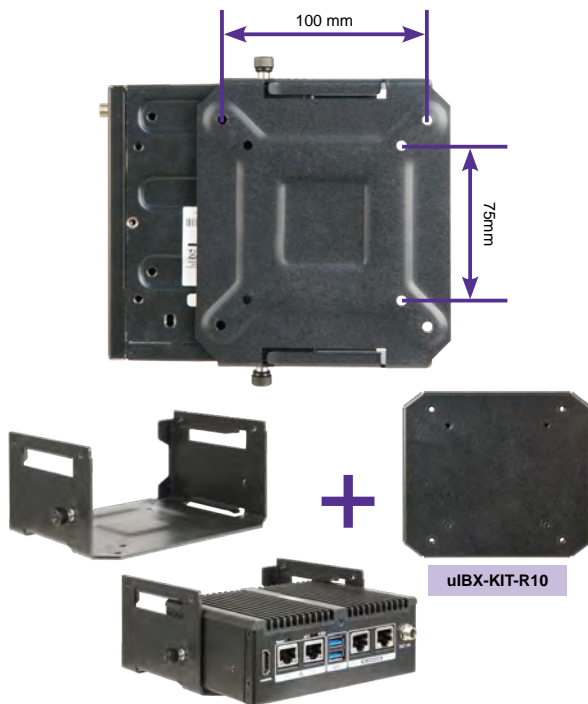
New

Features

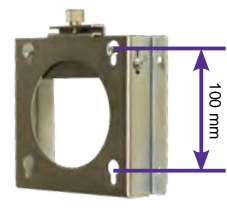
- Fanless system with Intel® Celeron® N3160 processor
- Dual display
- Two RS-232/422/485
- Full-size PCIe Mini slot for expansion
- Four USB 3.0 ports
- Two GbE LAN ports



Smart Mounting Design

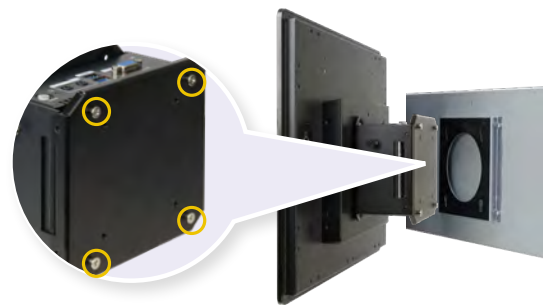


A. Wall mount



Assemble the uIBX-250 with the uIBX-KIT-R10 on the back of monitor.

AFLWK-12/AFLWK-19



The monitor with the uIBX-250 can be mounted on the wall easily and support VESA 75/100.

B. VESA mount 75/100

Step.1



Install the uIBX-KIT-R10 which supports VESA 75/100 on the back of the monitor.

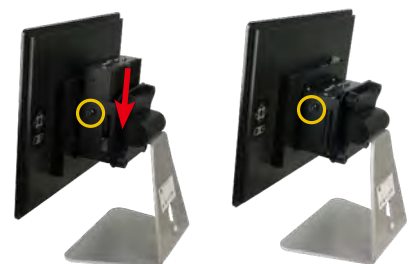
Step.2



Assemble the uIBX-250, stand and monitor.

Step.3

screw to fix uIBX-250



Mount it on the back of monitor to save even more space, the location the uIBX-250 could be adjusted by user for different applications.

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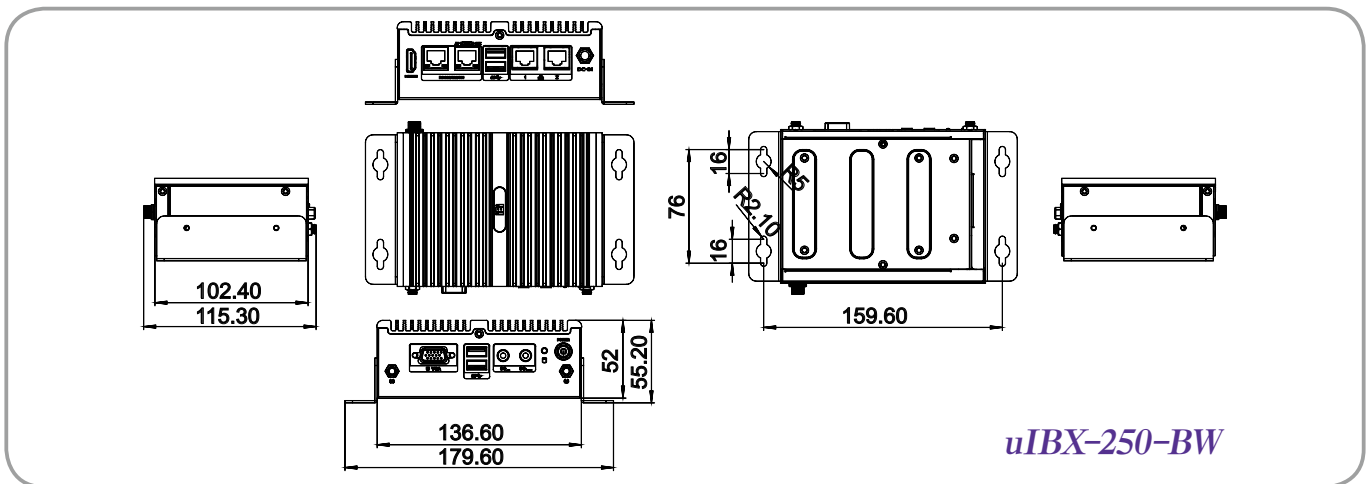
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Optional Peripherals

Specifications

Model Name		uIBX-250-BW
Chassis	Color	Black
	Dimensions (WxDxH) (mm)	136.6 x 102.4 x 52
	System Fan	Fanless
	Chassis Construction	Extruded aluminum alloy
Motherboard	CPU	Intel® Celeron® N3160 (up to 2.24 GHz, quad-core, 2 MB cache, TDP=6W)
	Chipset	SoC
	System Memory	1 x 204-pin DDR3L SO-DIMM slot (2 GB pre-installed, system max: 8GB)
Storage	Hard Drive	1 x 2.5" SATA 6Gb/s HDD/SSD bay
I/O Interfaces	USB 3.0	4
	Ethernet	2 x RJ-45 PCIe GbE by Intel® I211 controller
	COM Port	2 x RS-232/422/485 (RJ-45)
	Button	1 x Power button, 1 x AT/ATX switch, 1 x Reset button
	Display	1 x HDMI, 1 x VGA
	Resolution	HDMI: 3840 x 2160@30MHz, VGA: 1920 x 1200@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 PCIe Mini
Power	Power Input	DC Jack: 12 V DC
	Power Consumption	12V @ 2A (Intel® Celeron® N3160 with 2 GB memory)
Reliability	Mounting	Wall mount, VESA 75
	Operating Temperature	-20°C ~60°C with air flow (SSD), 10% ~ 95%, non-condensing
	Operating Shock	Half-sine wave shock 5G, 11ms, 3 shocks per axis
	Operating Vibration	MIL-STD-810F 514.5 C-1 (HDD), MIL-STD-810F 514.5 C-2 (SSD)
	Weight (Net/Gross)	470 g/1.4 kg
	Safety/EMC	CE/FCC
OS	Supported OS	Microsoft® Windows 8, Microsoft® Embedded Standard 7 E

Dimensions (Unit: mm)



uIBX-250-BW

Ordering Information

Part No.	Description
uIBX-250-BW-N3/2G-R10	Fanless embedded system with Intel® Celeron® N3160 1.6 GHz (up to 2.24 GHz, quad core, TDP 6 W), 2 GB DDR3L pre-installed memory, 12 V DC, with RS-232/422/485, USB 3.0, VGA/HDMI, dual Intel® PCIe GbE, RoHS

Options

Part No.	Description
32005-000200-200-RS	RS-232/422/485 round cable, 300 mm, 26AWG; (A) D-sub 9-pin male, (B) RJ-45; RoHS
EMB-WIFI-KIT01-R11	1T1R Wi-Fi module kit for embedded system, IEEE802.11b/g/n, 1 x Wi-Fi module, 2 x RF cable, 2 x Antenna; RoHS
uIBX-KIT-R10	uIBX smart mounting kit for monitor and stand
uIBX-250-WES7E64-R10	OS image with Windows® Embedded Standard 7 E 64-bit for uIBX-250, DVD-ROM, RoHS

Packing List

1 x Utility CD	1 x Power Adapter	1 x Mounting Bracket
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IEIMobile Solutions

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Automation Panel Solutions

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Healthcare Panel PC Solution

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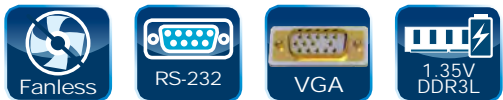
Optional Peripherals

uIBX-230-BT

- Ultra Compact Size
- Intel® Celeron® Processor N2930 1.83 GHz

Features

- Ultra compact size embedded system
- Intel® Celeron® processor N2930 1.83 GHz 7.5W on-board
- 1 x 2.5" SATA 6Gb/s HDD/SSD drive bay
- DDR3L SO-DIMM for low power consumption



Specifications

Model Name		uIBX-230-BT
Chassis	Color	Silver
	Dimensions (WxDxH) (mm)	137 x 102.8 x 57
	System Fan	Fanless
	Chassis Construction	Extruded aluminum alloys
Motherboard	CPU	Intel® Celeron® N2930 1.83 GHz
	Chipset	SoC
	System Memory	1 x 204-pin DDR3L SO-DIMM 2 GB pre-installed (system max: 8GB)
Storage	Hard Drive	1 x 2.5" SATA 3Gb/s HDD/SSD bay
I/O Interfaces	USB 3.0	1
	USB 2.0	3
	Ethernet	1 x RJ-45 PCIe GbE by Intel® I210 controller
	COM Port	1 x RS-232 (DB-9)
	Display	1 x VGA
	Resolution	Up to 2560 x 1600@60Hz
	Audio	1 x Line-out, 1 x Mic-in
Power	Power Input	DC Jack: 12 V DC
	Power Consumption	12 V @ 1.8 A (Intel® Celeron® N2930 with 2 GB memory)
Reliability	Mounting	Wall mount
	Operating Temperature	-20°C ~60°C with air flow (SSD), 5% ~ 95%, non-condensing
	Operating Shock	Half-sine wave shock 5G, 11ms, 3 shocks per axis
	Operating Vibration	MIL-STD-810F 514.5-1 (HDD), MIL-STD-810F 514.5 C-2 (SSD)
	Weight (Net/Gross)	470 g/1.4 kg
	Safety/EMC	CE/FCC
OS	Supported OS	Microsoft® Windows® 8, Microsoft® Windows® Embedded Standard 7 E

Ordering Information

Part No.	Description
uIBX-230-BT-N2/2G-R11	Fanless embedded system, Intel® Bay-Trail N2930 1.83 GHz, TDP 7.5W, 2GB DDR3L pre-installed memory, one VGA, one RS-232, 12 V DC, R11, RoHs

Options

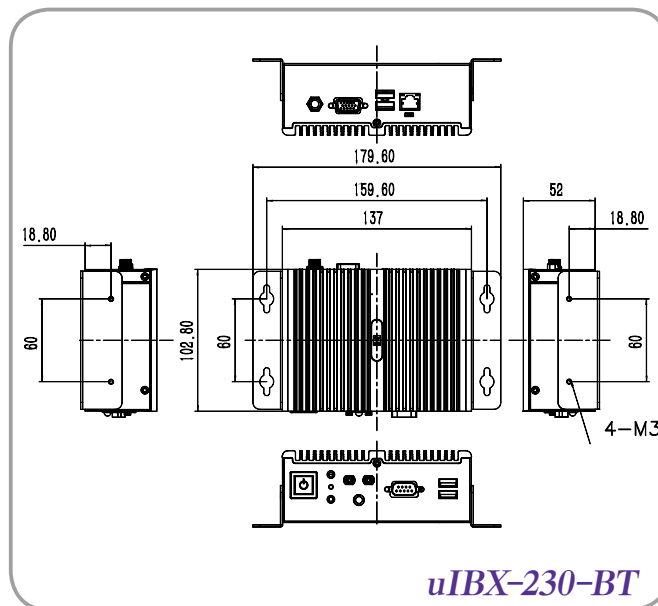
Part No.	Description
uIBX-KIT-R10	uIBX smart mounting kit for monitor and stand
uIBX-230-BT-WES7E-R10	OS Image with Windows® Embedded Standard 7 E for uIBX-230-BT, DVD-ROM, RoHS

Ultra Compact Size

Space-saving demand in industrial environment is very common in nowadays. Many applications require a small space for system installation. With the palm-size embedded box design plus its basic IO interface, the uIBX-230 can definitely meet the space-saving requirement.



Dimensions (Unit: mm)



Packing List

1 x Utility CD	1 x Power Adapter (PSE & ErP certified)
1 x Chassis Screw	1 x Power Cord
1 x Mounting Bracket	

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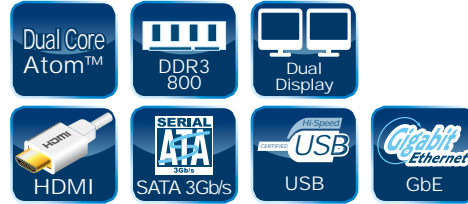
uIBX-210-CV-N2600

Fanless Embedded System with Intel® Atom™ N2600 1.6 GHz, Intel® NM10 Chipset, 2 GB DDR3 Memory



Features

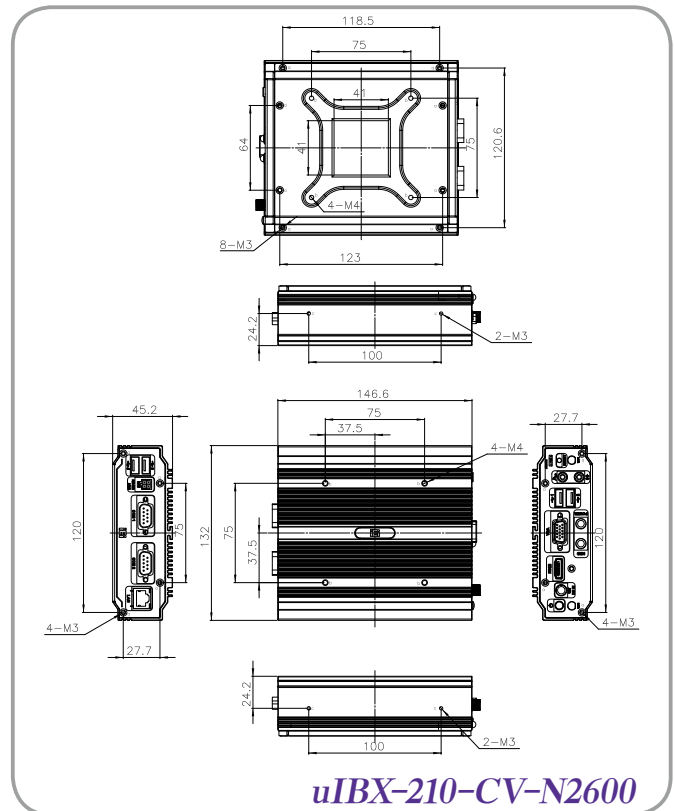
- Slim and compact embedded system design with 3rd Gen Intel® Atom™ N2600 dual-core processor, supports DDR3 memory (system max: 2 GB)
- 12V only single voltage design, supports AT/ATX power mode selection
- Flexible VGA and HDMI with dual-display support
- Supports PCIe Mini card slot
- Fully I/O with four USB, one VGA, one HDMI, three COM and audio



Specifications

Model Name		uIBX-210-CV-N2600
Chassis	Color	Silver
	Dimensions (WxDxH) (mm)	146.6 x 132 x 45.2
	System Fan	Fanless
	Chassis Construction	Aluminum alloys
Motherboard	CPU	Intel® Atom™ N2600 1.6 GHz
	Chipset	Intel® NM10
	System Memory	1 x 204-pin DDR3 SO-DIMM 2 GB pre-installed (system max: 2GB)
Storage	Hard Drive	1 x 2.5" SATA HDD bay
I/O Interfaces	USB 2.0	4
	Ethernet	1 x RJ-45 PCIe GbE by Realtek 8111E controller
	COM Port	2 x RS-232 (DB-9) 1 x RS-422/485 (RJ-45)
	Display	1 x VGA, 1 x HDMI
	Resolution	VGA: Up to 1920 x 1200 HDMI: Up to 1920 x 1080
	Audio	1 x Line-out, 1 x Mic-in
	Wireless	1 x 802.11b/g/n (optional)
	Expansions	PCIe Mini
Power	Power Input	DC Jack: 12 V DC
	Power Consumption	12 V@1.57 A (Intel® Atom™ N2600 with 2 GB DDR3 memory)
Reliability	Mounting	VESA 75/100
	Operating Temperature	0°C ~50°C with air flow (mSATA), 5% - 95%, non-condensing
	Operating Shock	Half-sine wave shock 3G, 11ms, 3 shocks per axis
	Operating Vibration	Meet MIL-STD-810F 514.5C-1
	Weight (Net/Gross)	980 g/1.8 kg
	Safety/EMC	CE/FCC
	OS	Supported OS

Dimensions (Unit: mm)



uIBX-210-CV-N2600

Ordering Information

Part No.	Description
uIBX-210-CV-N2600/2GB-R11	Fanless embedded system with Intel® Atom™ N2600 DC 1.6 GHz, Intel® NM10 chipset, 2 GB DDR3 memory, 12 V DC-In, with 36W power adaptor PSE adaptor, black, RoHS

Options

Part No.	Description
EMB-WIFI-KIT01-R11	1T1R Wi-Fi module kit for embedded system, IEEE802.11b/g/n, 1 x Wi-Fi module, 2 x RF cable, 2 x Antenna, RoHS
UIBXVK-210B	VESA 75 mount kit for uIBX-210, black
VK-75100B	VESA mount 75 to 100 adapter, black

Packing List

1 x uIBX-210-CV-N2600-R10	1 x One Key Recovery CD
1 x Adaptor	1 x Utility CD
1 x Screw set	1 x QIG (Quick Installation Guide)

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Optional Peripherals

uIBX-200-VX800

- Ultra Compact Size
- VIA® Eden™ ULV 1 GHz/500 MHz processor



Features

- VIA® Eden™ ULV 1 GHz/500 MHz processor
- Supports MPEG2, WMV9/VC1 decoding
- Internal SATA connector (SATA DOM)

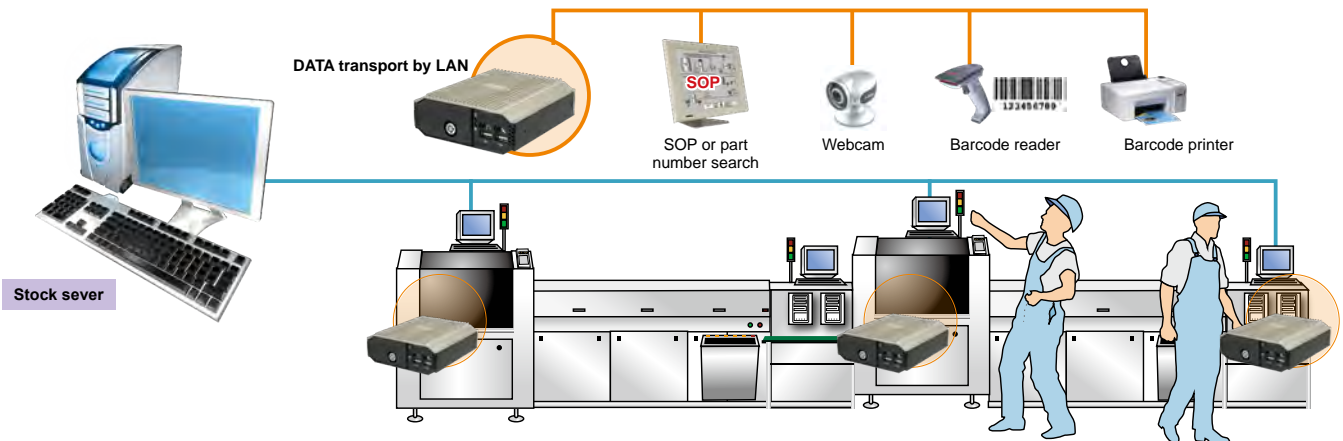


Ultra Compact Size

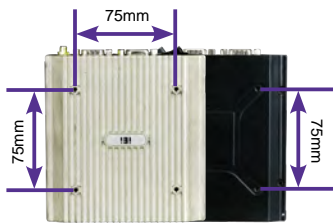


uIBX-200-VX800 at Production Line

The uIBX-200-VX800 has all the essential functions to work as a thin client on the production line. Operators can read the assembly SOP and search for part numbers online, get constant production schedule updates and other instructions from the management center. During production, the component barcodes can be collected by the barcode scanner and updated to the production server either by batch or via LAN or Wi-Fi connection. Webcam can also be installed to collect image data during the production process.



Smart Mounting Design



uIBXVX-200B



VK-75100B

A. Wall mount

VESA 75 support. Easy to mount TOP or BOTTOM side.



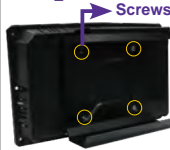
AFLWK-12

uIBX-200 can be mounted directly on the wall with VESA 75 mounting kit



B. VESA mount 75

Step.1



Install the mount kit on the back of the monitor.

Step.2



Assemble the uIBX-200, stand and panel.

Step.3

Screw to fix uIBX-200



The direction of the installation can be adjusted for different applications.

C. VESA mount 100



Secure the VK-75100B and panel using screws.



Mount it on the back of an LCD monitor to save even more space and create an all-in-one PC at the same time.

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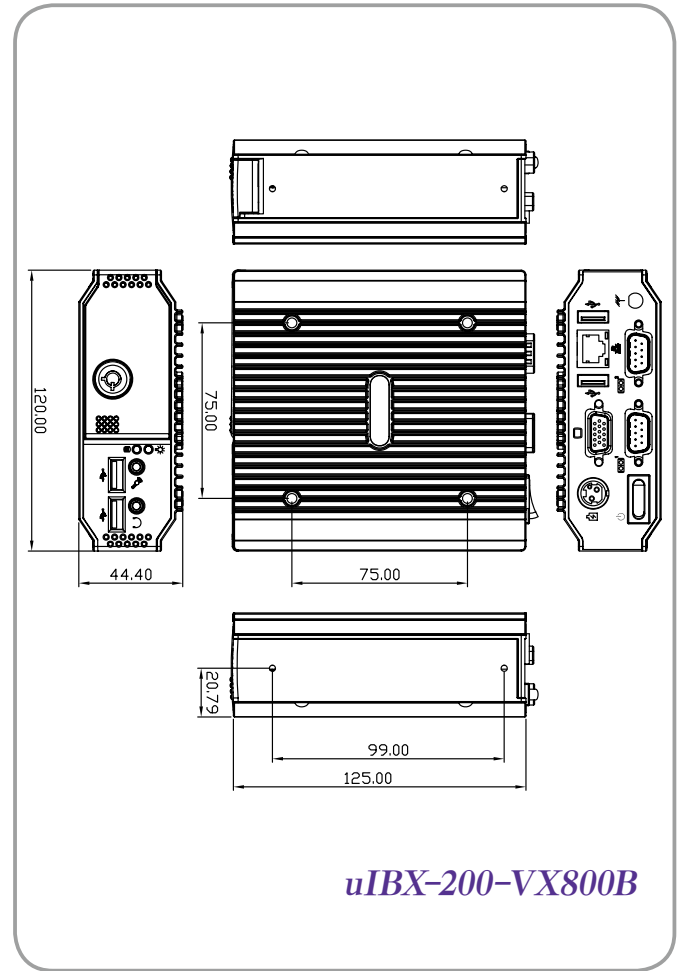
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Optional Peripherals

Specifications

Model Name		uIBX-200-VX800B
Chassis	Color	Silver
	Dimensions (WxDxH) (mm)	120 x 120 x 44.4
	System Fan	Fanless
	Chassis Construction	Aluminum alloys
Motherboard	CPU	VIA® Eden™ ULV 1 GHz
	Chipset	VIA® VX800
	System Memory	On-board DDR2 1 GB memory
Storage	CF Card/CFast	1 x CF Type II
I/O Interfaces	USB 2.0	4
	Ethernet	1 x RJ-45 PCIe GbE by Realtek 8111CP controller
	COM Port	2 x RS-232 (DB-9)
	Display	1 x VGA
	Resolution	VGA: Up to 1920 x 1440@60Hz
	Audio	1 x Line-out, 1 x Mic-in
	Wireless	1 x 802.11b/g/n (optional)
	Expansions	PCIe Mini
Power	Power Input	DC Jack: 5 V DC
	Power Consumption	5 V@2.52 A (VIA® Eden™ 500MHz DDR2 512MB) 5 V@3.2 A (VIA® Eden™ 1 GHz with 1 GB DDR2 memory)
Reliability	Mounting	VESA 75/100
	Operating Temperature	0°C ~50°C with air flow (CF), 5% ~ 95%, non-condensing
	Operating Shock	Half-sine wave shock 3G, 11ms, 3 shocks per axis
	Operating Vibration	Meet MIL-STD-810F 514.5C-2
	Weight (Net/Gross)	480 g/1.5 kg
	Safety/EMC	CE/FCC
OS	Supported OS	Microsoft® Windows® XP Embedded , Microsoft® Windows® CE 5.0

Dimensions (Unit: mm)



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Optional Peripherals

Packing List

1 x QIG
1 x Driver CD
2 x Keys
1 x Screw set
1 x 5V 25W power adapter (PSE/ErP certified)
1 x 2dbi Wireless antenna (for wireless model only)
1 x One Key Recovery CD

Ordering Information

Part No.	Description
UIBX-200-R21/VX800B/1GB	Fanless embedded system with VIA® Eden™ ULV 1 GHz CPU, VX800 chipset, on-board 1 GB DDR2 memory, 5 V DC-In, 25W power adapter with ErP & PSE certificates, black, ROHS

Options

Part No.	Description
EMB-WIFI-KIT01-R11	1T1R Wi-Fi module kit for embedded system, IEEE802.11b/g/n, 1 x Wi-Fi module, 2 x RF cable, 2 x Antenna, RoHS
UIBXVK-210B	VESA 75 mount kit for uIBX-210, black
VK-75100B	VESA mount 75 to100 adapter, black
UIBXCF-200-VX800-CE060	Windows® CE 6.0 OS image, for uIBX-200-VX800, with 128 MB CompactFlash® card, RoHS

Digital Signage Solution



IDS-300 Key Features

■ Ultra HD

Display approaching 4K2K resolution. Best for high-definition screen. Triple display port:

- 1 x HDMI 2560 x 1600 @60Hz
- 2 x HDMI 3840 x 2160 @30Hz



■ Thin Appearance

The IDS-300 is only 39 mm in height which can be installed in a limited space and saves more space.



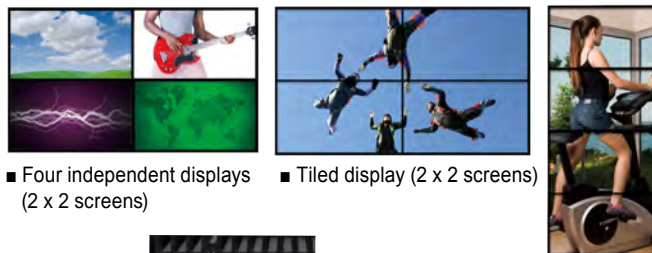
Multiple screens can be connected to IEI digital signage series to display information like flight information at airports, in-store advertising, restaurant menu or movie showtimes. These digital signage players are in compact size with high resolution, stable and easy to install. They are equipped with multiple HDMI ports for a variety of video display monitors. It's the best choice for you to implement in digital signage and video wall applications.



IDS-200 Key Features

■ A Variety of Video Output

The IDS-200 supports AMD's SLS (Single Large Surface) technology which allows four independent HDMI display outputs and a variety of video wall screen combinations. It is the best choice to implement in digital signage or video wall applications.



- Four independent displays (2 x 2 screens)
- Tiled display (2 x 2 screens)

- Tiled display (1 x 4 screens)

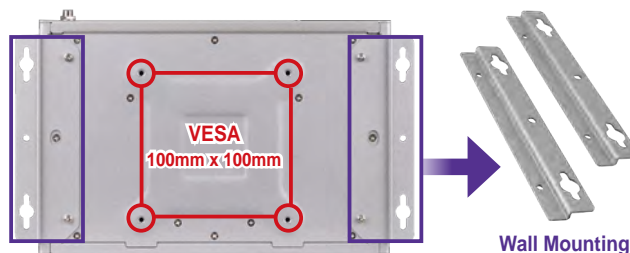


*HDMI 2 and 4

When deploying 4 independent video outputs, the monitors connected to HDMI 2 and HDMI 4 connectors must be identical (with the same brand, model number and size).

■ Mounting Method

The IDS series has different mounting ways to choose. The series has passed shock and vibration test based on the MIL-STD-810F standard.



- 1 IEIMobile Solutions
- 2 Automation Panel Solutions
- 3 Healthcare Panel PC Solution
- 4 Industrial System
- 5 ORing Network Communication
- 6 Automation Control
- 7 Optional Peripherals

Digital Signage Embedded System




Model Name		IDS-300-BW	IDS-200-A70M
Chassis	Color	Silver	Black
	Dimensions (WxDxH) (mm)	241 x 160 x 39	251 x 173.35 x 57
	System Fan	Fanless	Fanless
	Chassis Construction	Aluminum alloys	Aluminum alloys
Motherboard	CPU	Intel® Celeron® N3160 (up to 2.24GHz, quad-core, 2MB cache, TDP=6W)	AMD® R-series R-260H 2.1 GHz
	Chipset	SoC	AMD® A70M
	System Memory	1 x 204-pin DDR3L SO-DIMM 4 GB pre-installed (system max: 8GB)	2 x 204-pin DDR3 SO-DIMM 4 GB pre-installed (system max: 16GB)
IPMI	iRIS Solution	N/A	1 x iRIS-2400 (optional)
Storage	Hard Drive	1 x 2.5" SATA 6Gb/s HDD/SSD bay	1 x 2.5" SATA 6Gb/s HDD/SSD drive bay
	SD Card	N/A	1
	USB 3.0	4	2
I/O Interfaces	USB 2.0	N/A	2
	Ethernet	2 X RJ-45 PCIe GbE by RTL8111E controller	2 x RJ-45 1 x PCIe GbE by Intel® I210 1 x PCIe GbE by Intel® I211
	COM Port	2 x RS-232 (RJ-45)	1 x RS-232 (RJ-45)
	Button	1 x Power button 1 x AT/ATX Switch	1 x Power button 1 x AT/ATX Switch
	Display	3 x HDMI	4 x HDMI
	Resolution	HDMI 1&2 : up to 3840x2160 @ 30Hz HDMI 3 : up to 2560x1600 @ 60Hz	1920 x 1080@60Hz
	Audio	1 x Line-in, 1 x Line-out, 1 x Mic-in	1 x Line-out, 1 x S/PDIF
	Wireless	1 x 802.11b/g/n (optional)	1 x 802.11b/g/n (optional)
	Other	N/A	1 x SIM standard card slot
	Expansions	PCIe Mini	1 x Full-size PCIe Mini 1 x Full-size PCIe Mini (supports mSATA, colay with SATA)
Power	Power Input	DC Jack: 12 V DC	DC Jack: 10 V~30 V DC
	Power Consumption	12 V@2.48 A (Intel® Celeron® N3160 with 4GB memory)	19 V@1.78 A (AMD® R-260H with 4 GB memory)
	Mounting	Wall mount, VESA 100	Wall mount, VESA mount 75
Reliability	Operating Temperature	-10°C ~ 40°C with air flow (SSD), 10% ~ 95%, non-condensing	0°C ~ 50°C with air flow, 10% ~ 90%, non-condensing
	Operating Shock	Half-sine wave shock 5G, 11ms, 3 shocks per axis	Half-sine wave shock 5G, 11ms, 3 shocks per axis
	Operating Vibration	MIL-STD-810F 514.5 C-1(HDD)	MIL-STD-810F 514.5C-2 (with SSD)
	Weight (Net/Gross)	1.8 kg/ 3kg	5.24 kg/6.5 kg
	Safety/EMC	CE/FCC	CE/FCC
OS	Supported OS	Microsoft® Windows® 8 Embedded, Microsoft® Windows® Embedded Standard 7 E	Microsoft® Windows® 8 Embedded, Microsoft® Windows® Embedded Standard 7 E

*Notes : Power adapter supports 0°C ~ 40°C

1

IEI/Mobile
Solutions

2

Automation
Panel
Solutions

3

Healthcare
Panel PC
Solution

4

Industrial
System

5

ORing
Network
Communication

6

Automation
Control

7

Optional
Peripherals

IDS-300-BW

Digital Signage System

New

Features

- Fanless system with Intel® Celeron® N3160 processor
- Three HDMI ports
- Two full-size PCIe Mini slots for expansion
- Four USB 3.0 ports
- Two GbE LAN ports

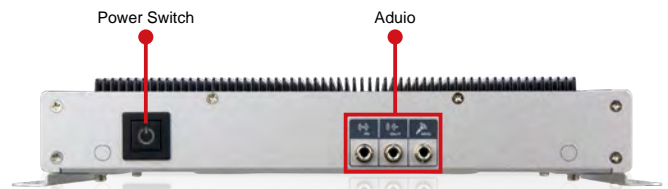


Specifications

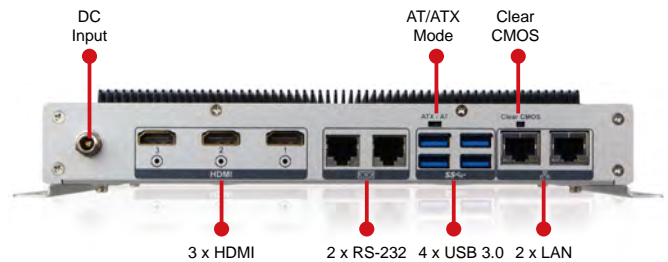
Model Name	IDS-300-BW	
Chassis	Color	Silver
	Dimensions (WxDxH) (mm)	241 x 160 x 39
	System Fan	Fanless
	Chassis Construction	Aluminum alloys
Motherboard	CPU	Intel® Celeron® N3160 (up to 2.24GHz, quad-core, 2MB cache, TDP=6W)
	Chipset	SoC
	System Memory	1 x 204-pin DDR3L SO-DIMM 4 GB pre-installed (system max: 8GB)
Storage	Hard Drive	1 x 2.5" SATA 6Gb/s HDD/SSD Bay
	USB 3.0	4
I/O Interfaces	Ethernet	2 X RJ-45 PCIe GbE by RTL8111E controller
	COM Port	2 x RS-232 (RJ-45)
	Button	1 x Power button 1 x AT/ATX Switch
	Display	3 x HDMI
	Resolution	HDMI 1&2 : up to 3840x2160 @ 30Hz HDMI 3 : up to 2560x1600 @ 60Hz
	Audio	1 x Line-in, 1 x Line-out, 1 x Mic-in
	Wireless	1 x 802.11b/g/n (optional)
	Expansions	PCIe Mini
Power	Power Input	DC Jack: 12 V DC
	Power Consumption	12 V@2.48 A (Intel® Celeron® N3160 with 4GB memory)
Reliability	Mounting	Wall mount, VESA 100
	Operating Temperature	-10°C ~ 40°C with air flow (SSD), 10% ~ 95%, non-condensing
	Operating Shock	Half-sine wave shock 5G, 11ms, 3 shocks per axis
	Operating Vibration	MIL-STD-810F 514.5 C-1(HDD)
	Weight (Net/Gross)	1.8 kg/ 3kg
	Safety/EMC	CE/FCC
OS	Supported OS	Microsoft® Windows® 8 Embedded, Microsoft® Windows® Embedded Standard 7 E

Fully Integrated I/O

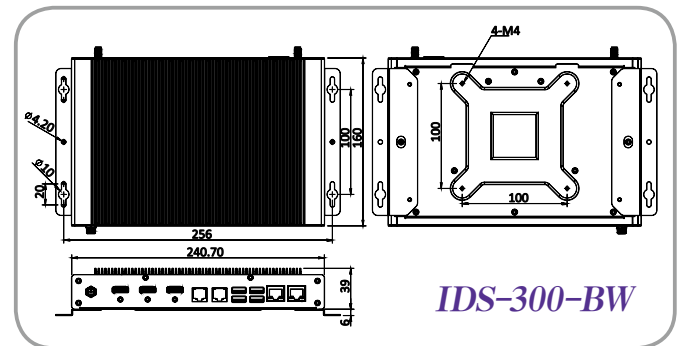
Front View



Rear View



Dimensions (Unit: mm)



Ordering Information

Part No.	Description
IDS-300-BW-N3/4G-R10	Fanless embedded system with Intel® Celeron N3160 1.6GHz, (up to 2.24 GHz, Quad Core, TDP 6W), pre-installed 4GB DDR3L memory, 12V DC, triple HDMI display, RoHS
IDS-300-BW-QGW-N3/4G-R10	Fanless embedded system with Intel® Celeron N3160 1.6GHz, (up to 2.24 GHz, Quad Core, TDP 6W), pre-installed 4GB DDR3L memory, with QTS-Gateway, 12V DC, triple HDMI display, RoHS

Options

Part No.	Description
EMB-WIFI-KIT01-R11	1T1R Wi-Fi module kit for embedded system, IEEE802.11b/g/n, 1 x Wi-Fi module, 2 x RF cable, 2 x Antenna, RoHS
IDS-300-WES7E64-R10	OS Image with Windows® Embedded Standard 7 E 64-bit for IDS-300, DVD-ROM, RoHS

Packing List

1 x Utility CD	1 x Power Adapter	1 x Mounting Bracket
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1

IEIMobile Solutions

2

Automation Panel PC Solutions

3

Healthcare Panel PC Solution

4

Industrial System

5

ORing Network Communication

6

Automation Control

7

Optional Peripherals

IDS-200-A70M

- AMD® R-series Embedded System
- Four independent HDMI outputs

Features

- High Definition AMD® R-series APU
- Four independent HDMI display video outputs
- Fanless design supporting 0°C ~ 50°C operating temperature
- SIM card support 3G/LTE wireless connection
- Support IPMI 2.0 via iRIS-2400 module



New Intelligent Digital Signage Solution

IEI iRIS Technology (IPMI 2.0 Compliant)

The IDS-200 is a next generation intelligent industrial digital signage system that supports four independent HDMI output displays. By installing the IEI IPMI 2.0 compliant iRIS-2400 module, the IDS-200 can benefit from the IPMI 2.0 features and allow system administrators to manage multiple systems remotely at the same time. The IDS-200 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.

Centralized control center:

In the control center, administrators can make remote diagnosis and remote OS installation without on-site visits. These great features can help users to increase system maintenance efficiency and reduce cost. Furthermore, administrators can install software remotely for the whole group, which can save your time and reduce maintenance cost significantly.

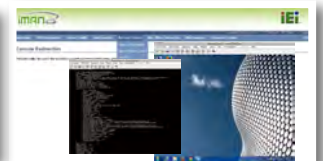
Remote management any time any where:

By installing the iRIS-2400 module, users can achieve remote management from a variety of devices, such as notebooks, mobile phones, tablets or any devices that can be linked to the Internet. With the real-time monitoring feature, users can monitor system health without on-site checking. The active alert message feature allows users to prepare appropriate prevention strategies to reduce security risk.

■ iRIS Remote Management Solution



Group Management Apps



Web UI for Single Device



1

IEIMobile Solutions

2

Automation Panel Solutions

3

Healthcare Panel PC Solution

4

Industrial System

5

QRing Network Communication

6

Automation Control

7

Optional Peripherals

A Variety of Video Output

The IDS-200 supports AMD's SLS (Single Large Surface) technology which allows four independent HDMI display outputs and a variety of video wall screen combinations. It is the best choice to implement in digital signage or video wall applications.

■ Four independent displays (2 x 2 screens) ■ Tiled display (2 x 2 screens) ■ Tiled display (1 x 4 screens)

Each screen Max. resolution 1920x1080



Max. resolution 3840x2160



Max. resolution 1920x4320



*HDMI 2 and 4

When deploying 4 independent video outputs, the monitors connected to HDMI 2 and HDMI 4 connectors must be identical (with the same brand, model number and size).

High Definition AMD® R-series APU

The AMD® Embedded R-series Accelerated Processing Unit (APU) combines AMD® high performance CPU technology and powerful AMD® Radeon graphics technology onto a single chip. The IDS-200 contains an R-260H APU, balanced with TDP 17W power and Radeon HD 7500G graphics. It is the best solution for graphics processing.

■ High Definition AMD® R-series APU

◆ 3D Acceleration

- Full DirectX® 11 support, including full speed 32-bit floating point per component operations
- Shader Model 5
- OpenCL™ 1.1 support
- OpenGL 4.2 support

◆ UVD 3.2 dedicated hardware video decoder

- H.264, MPEG4 Part 2, VC-1 and MPEG2 decode6
- Simultaneous dual HD source decode

◆ VCE (Video Compression Engine) 1.0

- Hardware assisted encoding of HD video streams
- H.264 (baseline + CABAC) 1080p at 60 fps
- Real time transcoding

■ Target market of IDS-200



Entertainment

- ◆ Ultimate video solution Support up to 4 displays
- ◆ Great graphics processing Fulfill a variety of hardware decoder

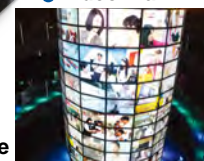


Digital Signage



Gaming

Designed for high graphics performance



Video Wall

S/PDIF Digital Audio Interconnect



S/PDIF is called "Sony/Philips Digital Interface Format". It is a digital audio output and its quality is much better than analog audio. S/PDIF is based on the professional AES3 interconnect standard. It is widely applied in Dolby Digital or DTS surround sound.



SD Card Supported

The IDS-200 contains an SD card slot, allowing users to install and change media contents easily.



Removable HDD/SSD Drive Bay

The IDS-200 has one easy-to-install HDD bay that supports 2.5" SATA 6Gb/s HDD.



SIM Card Supported

The IDS-200 has a SIM card slot for 3G/LTE wireless connection. Users can deploy the IDS-200 in outdoor environments for easy wireless data transmission.



1
IEIMobile Solutions

2
Automation Panel PC Solutions

3
Healthcare Panel PC Solution

4
Industrial System

5
ORing Network Communication

6
Automation Control

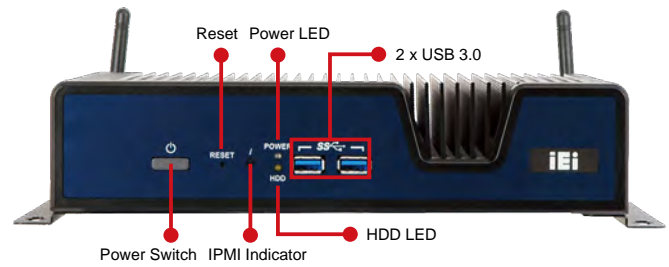
7
Optional Peripherals

Specifications

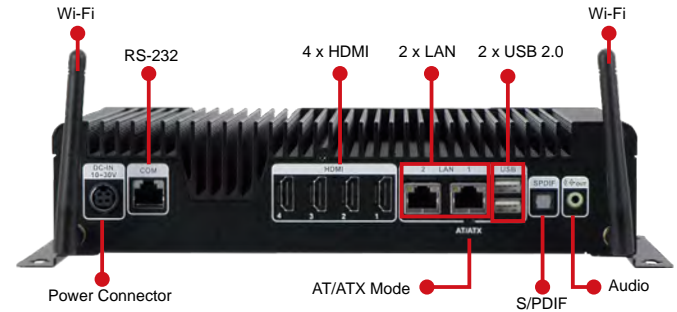
Model Name		IDS-200-A70M	
Chassis	Color	Black	
	Dimensions (WxDxH) (mm)	251 x 173.35 x 57	
	System Fan	Fanless	
	Chassis Construction	Aluminum alloys	
Motherboard	CPU	AMD® R-series R-260H 2.1 GHz	
	Chipset	AMD® A70M	
	System Memory	2 x 204-pin DDR3 SO-DIMM (4GB pre-installed) (system max: 16GB)	
iRIS Module	iRIS Solution	1 x iRIS-2400 (optional)	
Storage	Hard Drive	1 x 2.5" SATA 6Gb/s HDD/SSD drive bay	
	SD Card	1	
I/O Interfaces	USB 3.0	2	
	USB 2.0	2	
	Ethernet	2 x RJ-45 1 x PCIe GbE by Intel® I210 1 x PCIe GbE by Intel® I211	
	COM Port	1 x RS-232 (RJ-45)	
	Display	4 x HDMI	
	Resolution	1920 x 1080@60Hz	
	Audio	1 x Line-out, 1 x S/PDIF	
	Wireless	1 x 802.11b/g/n (optional)	
	Other	1 x SIM standard card slot	
	Expansions	PCIe Mini	1 x Half-size PCIe Mini 1 x Full-size PCIe Mini (supports mSATA, colay with SATA)
		Power Input	DC Jack: 10 V~30 V DC
Power	Power Consumption	19 V@1.78 A (AMD® R-260H with 4 GB memory)	
	Mounting	Wall mount, VESA mount 75	
Reliability	Operating Temperature	0°C ~ 50°C with air flow, 10% ~ 90%, non-condensing	
	Operating Shock	Half-sine wave shock 5G, 11ms, 3 shocks per axis	
	Operating Vibration	MIL-STD-810F 514.5C-2 (with SSD)	
	Weight (Net/Gross)	5.24 kg/6.5 kg	
OS	Supported OS	CE/FCC	
		Microsoft® Windows® 8 Embedded, Microsoft® Windows® Embedded Standard 7 E	

Fully Integrated I/O

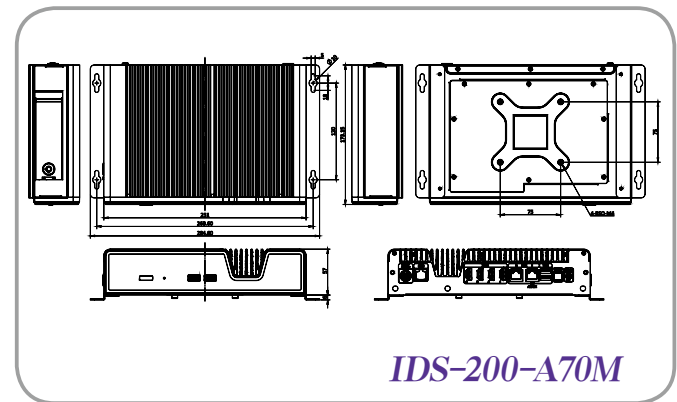
Front View



Rear View



Dimensions (Unit: mm)



Ordering Information

Part No.	Description
IDS-200-A70Mi/4G-R10	Fanless embedded system, AMD® APU dual-core R260H 2.1 GHz, TDP 17W, 4GB DDR3 SO-DIMM (2 x 2GB) pre-installed, four HDMI, iRIS-2400 optional, 10 V~30 V DC input, R10, RoHS

Options

Part No.	Description
iRIS-2400-R10	IPMI 2.0 adapter card with AST2400 BMC chip for DDR3 SO-DIMM socket interface
MPCIE-3G-R10	PCIe Mini 3G adapter card, RoHS
EMB-WIFI-KIT01-R11	1T1R Wi-Fi module kit for embedded system, IEEE802.11b/g/n, 1 x Wi-Fi module, 2 x RF cable, 2 x Antenna, RoHS
IDS-200-WES7E-R10	OS Image with Windows® Embedded Standard 7 E for IDS-200 Series, with CD-ROM, RoHS

Packing List

Item	Qty	Description
Utility CD	1	Drivers and user manual
Power adapter	1	Power adapter, FSP090-D2BA1, 9NA0902808, Active PFC, Vin:90~264VAC, 90W, DIM: 51x129x30.9 (mm), plug=6.5mm, cable=1500mm, Eip (no load 0.3W), Vout:19 V DC, 4-pin DIN with lock, CCL, RoHS
Power cord	1	Power cord, European code (VDE), 2, 1500 mm, (A) Plug (16 A 250 V) SH-005, (B) Connector (2.5 A 250 V) SM-112, cable spec.:H05VV-F 3C 0.75 mm Self-Man, CCL, RoHS
Screw pack	1	IDS-200 screw pack
Wall mount kit	1	Wall mount bracket, NCT processing formation, IDS-200, PAINTING, PMS Black C, 41020-0381XX, NCT(N), SECC, VER: 00, CCL, RoHS