



Healthcare

Network

Edge Computing

iei®

WWW.AILINK.COM.TW

PRODUCT SELECTION GUIDE



Ver.2022



秉誠智能科技
AILink Intelligent Technology

Embedded 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
IVS-200-ULT2	Intel® Core™ i5-5350U 1.8 GHz, Intel® Celeron® 3765U 1.9 GHz
IVS-110-AL	Intel® Atom® E3950 2.0 GHz



2. Embedded Edge Computing System

Model Name	Processor
FLEX-BX210-Q470	Intel® Core™ i9-10900TE 1.8 GHz (up to 4.5 GHz) Intel® Core™ i5-10500TE 2.3 GHz (up to 3.7 GHz)



3. Industrial Automation System

Model Name	Processor
TANK-XM811	Intel® Core™ i5-12500TE 1.9 GHz (up to 4.3 GHz) Intel® Core™ i7-12700TE 1.4 GHz (up to 4.6 GHz)
TANK-XM810	Intel® Core™ i3-10320 3.8 GHz (up to 4.6 GHz) Intel® Core™ i5-10500TE 2.3 GHz (up to 3.7 GHz) Intel® Core™ i7-10700TE 2.0 GHz (up to 4.4 GHz)
TANK-880-Q370	Intel® Core™ i7-9700TE 1.8 GHz (up to 3.8 GHz) Intel® Core™ i5-9500TE 2.2 GHz (up to 3.6 GHz)
TANK-871-Q170	Intel® Core™ i7-6700TE 2.4 GHz (up to 3.4 GHz) Intel® Core™ i5-6500TE 2.3 GHz (up to 3.3 GHz)
TANK-870-Q170	Intel® Core™ i7-6700TE 2.4 GHz (up to 3.4 GHz) Intel® Core™ i5-6500TE 2.3 GHz (up to 3.3 GHz)
TANK-870e-H110	Intel® Core™ i7-6700TE 2.4 GHz (up to 3.4 GHz) Intel® Core™ i5-6500TE 2.3 GHz (up to 3.3 GHz)
TANK-610-BW	Intel® Celeron® N3160 1.6 GHz



4. DIN-Rail Embedded System

Model Name	Processor
DRPC-W-TGL-U	Intel® Core™ i7-1185G7E 1.8 GHz (up to 4.4 GHz) Intel® Core™ i5-1145G7E 1.5 GHz (up to 4.1 GHz) Intel® Core™ i3-1115G4E 2.2 GHz (up to 3.9 GHz) Intel® Celeron® 6305 1.8 GHz
DRPC-W-JL	Intel® Celeron™ N5105 2.0 GHz (up to 2.9 GHz)
DRPC-W-EHL	Intel® Celeron™ J6412 2.0 GHz (up to 2.6 GHz)
DRPC-240-TGL	Intel® Core™ i5-1145G7E 1.5 GHz (up to 4.1 GHz) Intel® Celeron® 6305 1.8 GHz
DRPC-230-ULT5	Intel® Core™ i5-8265U 1.6 GHz (up to 3.9 GHz)
DRPC-130-AL	Intel® Atom® x5-E3930 1.3 GHz (up to 1.8 GHz)
DRPC-120-BT	Intel® Atom® E3845 1.91 GHz



5. Compact Size Embedded System

Model Name	Processor
ITG-100-AL	Intel® Atom® x5-E3930 1.3 GHz (up to 1.8 GHz)
ulBX-250-BW	Intel® Celeron® N3160 1.6 GHz



6. Digital Signage Embedded System

Model Name	Processor
IDS-310-AL	Intel® Celeron® J3455 1.5 GHz (up to 2.3 GHz) Intel® Celeron® N3350 1.1 GHz (up to 2.4 GHz)



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.

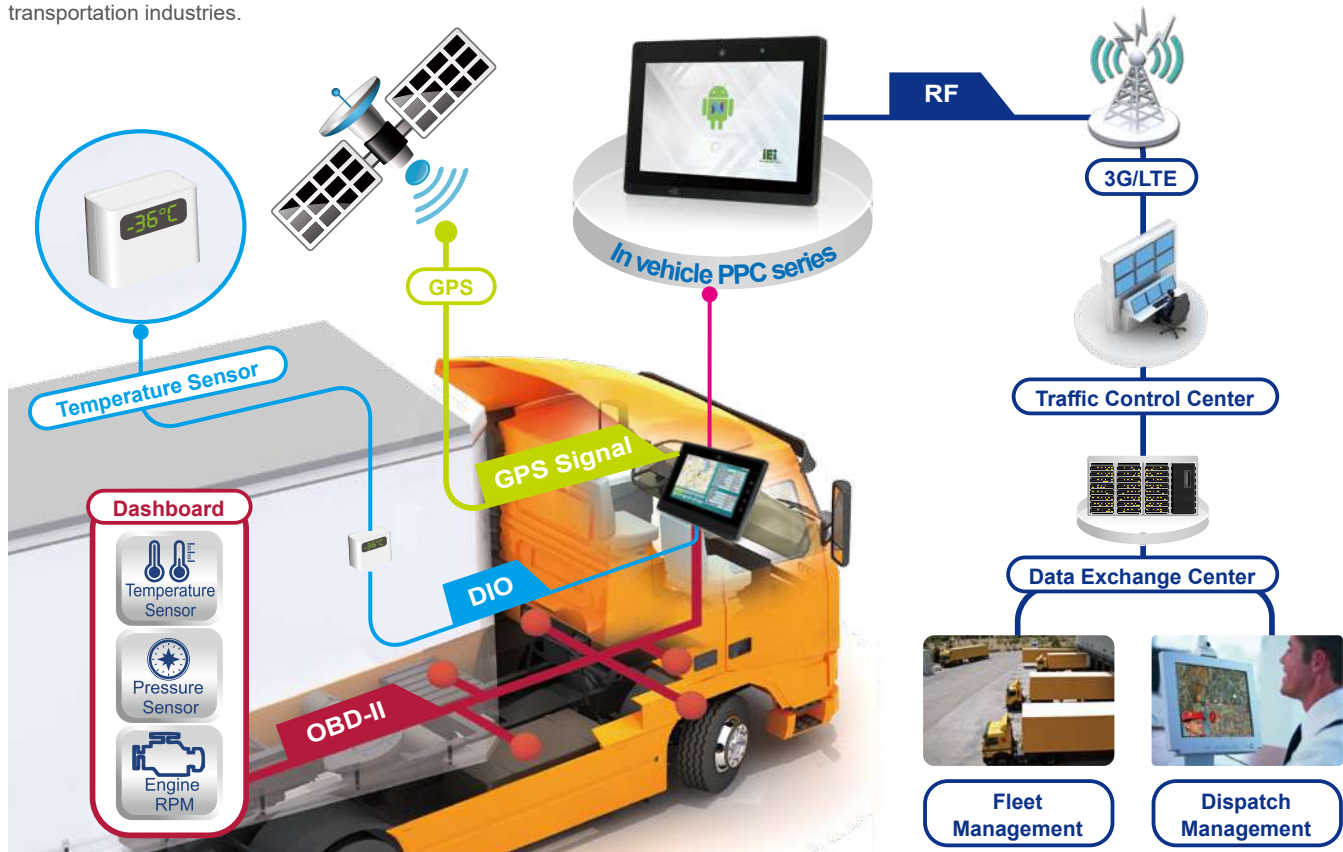
Ruggedized Solution





In-Vehicle PPC 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 in-vehicle panel PC 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 (Optional)

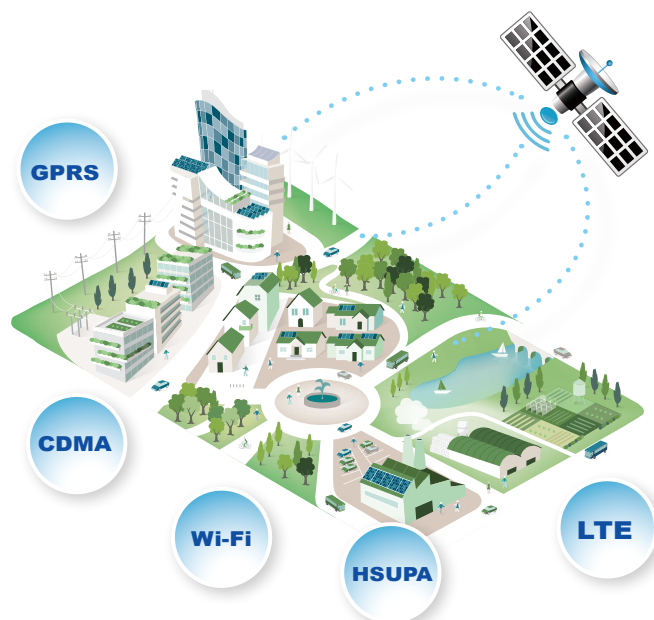


The in-vehicle panel PC series supports On-board Diagnostics (OBD) and Controller Area Network (CAN bus) and is built-in with OBD-II and CAN bus for real time vehicle diagnostic. CAN has a high degree of flexibility to adjust capacity which can be added in the existing network of nodes.

■ X86/ARM Solution



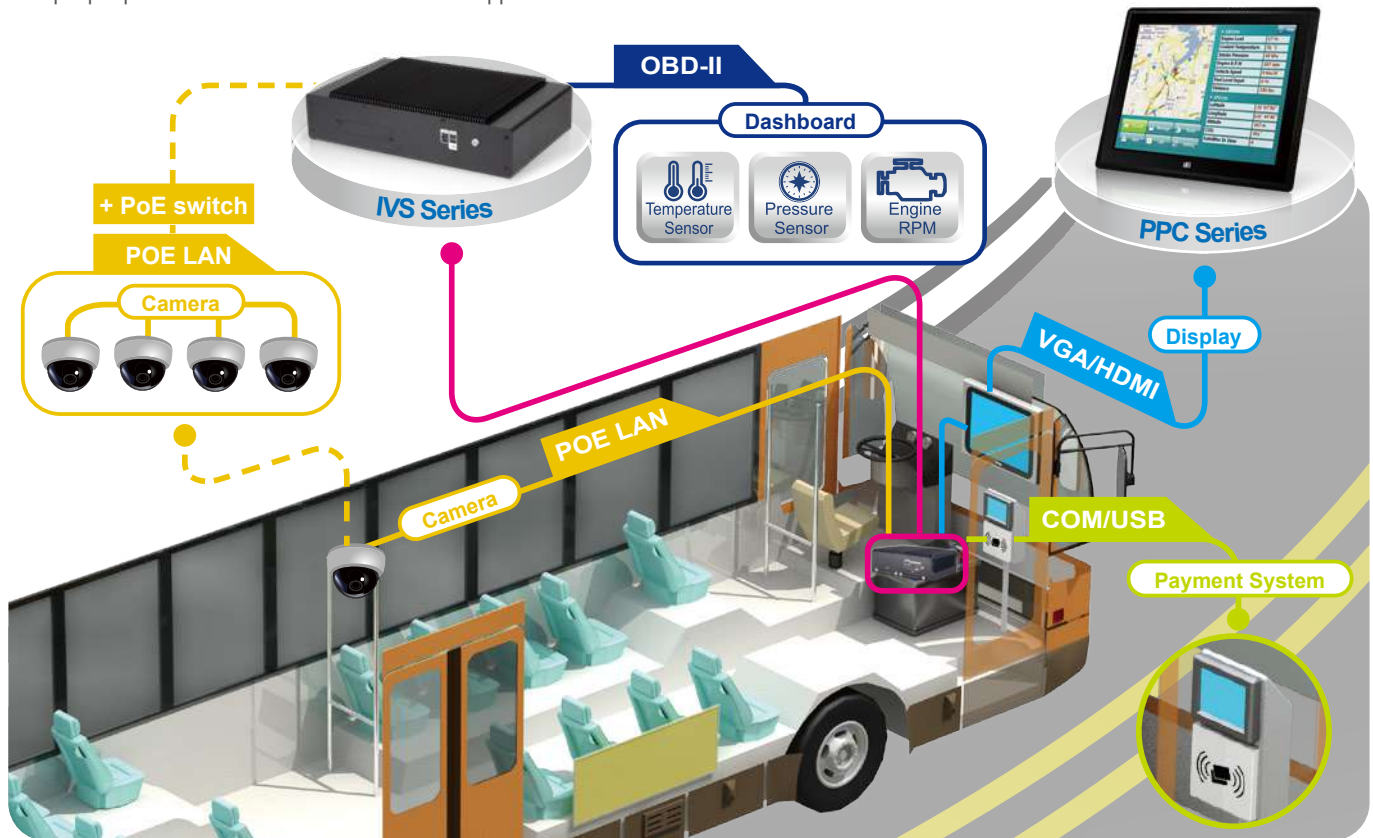
The in-vehicle panel PC series has two solutions, Intel and ARM architecture for customers. You can choose Intel solution which supports Windows OS, or you can choose ARM solution which supports Android OS.





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.

■ E-mark Certification



All vehicles, vehicle parts, and electronic products for the car must be enforced EMC testing. All of IEI IVS and in-vehicle panel PC series products have passed E-Mark certification which are required for the European market.

■ 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 meets 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.

■ 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.



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

Features

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

Supported Model

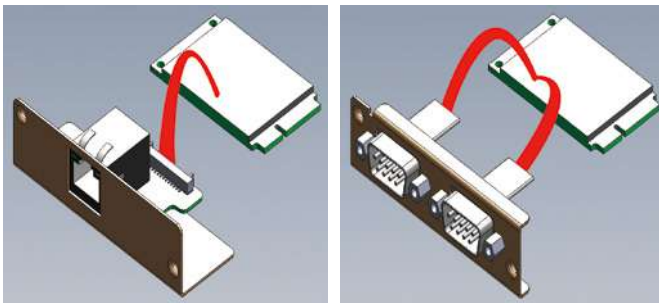
Transportation System

IVS-110-AL

Industrial Automation System

TANK-871-Q170

TANK-870e-H110



E-Window I/O Plate with PCIe Mini Card

An E-Window module uses a PCIe Mini slot embedded on the motherboard.



E-MPCIE-LAN-R10



E-MPCIE-DLAN-R10

Ordering Information

Part No.	Description
E-MPCIE-DLAN-R10	PCIe Mini card supports 2-port GbE with Intel I211 controller, with PMS 194C I/O bracket and 250mm cable
E-MPCIE-LAN-R10	PCIe Mini card supports 1-port GbE with Realtek RTL8111E controller, with PMS 194C I/O bracket and 250mm cable
E-MPCIE-UART-KIT01-R10	PCI Express Mini supports quad RS-232/422/485 port module
E-MPCIE-CAN-R10	PCI Express Mini Dual CAN Bus module, Full size, RoHs

Transportation System



Model Name		IVS-200-ULT2	IVS-110-AL
Chassis	Color	Blue C	Black
	Dimensions (WxDxH) (mm)	290 x 225 x 69	261 x 170 x 60
	System Fan	Fanless	Fanless
	Chassis Construction	Extruded aluminum alloy	Extruded aluminum alloy
Motherboard	CPU	Intel® Core™ i5-5350U 1.8 GHz (up to 2.9 GHz, dual-core, TDP 15W) Intel® Celeron® 3765U 1.9 GHz (dual-core, TDP 15W)	Intel® Atom™ x7-E3950 1.6 GHz (up to 2.0 GHz, quad-core, TDP 12W)
	Chipset	SoC	SoC
	System Memory	2 x SO-DIMM DDR3L 1600/1866 (4GB pre-installed)(up to 16GB)	1 x SO-DIMM DDR3L 1600/1866 (4GB pre-installed)(up to 8GB)
Storage	Hard Drive	1 x 2.5" SATA 6Gb/s HDD/SSD removable bay	1 x 2.5" SATA 6Gb/s HDD/SSD bay
	eMMC	N/A	1 x eMMC5.0 (optional)
Communication	WLAN	802.11 a/b/g/n/ac (optional)	802.11 a/b/g/n/ac (optional)
	Bluetooth	Bluetooth 2.1 (optional)	BT 4.0/3.0+HS (optional)
	WWAN	WCDMA/HSDPA/HSUPA (optional)	WCDMA/HSDPA/HSUPA (optional)
	GPS	N/A	On-board GPS
I/O Interfaces	USB	2 x USB 3.2 Gen1 2 x USB 2.0	4 x USB 3.2 Gen1
	Ethernet	4 x RJ-45: 1 x GbE by Intel® I218 3 x GbE by Intel® I211	1 x RJ-45: 1 x GbE by Intel® I210
	COM Port	2 x RS232/422/485 with AFC (DB9) 4 x RS232 (DB9)	1 x RS232/422/485 with AFC (DB9)
	Digital I/O	8-bit Digital I/O (4-in/ 4-out)(pin header)	16-bit Digital I/O (8-in/ 8-out)
	OBD-II	N/A	1 x OBD-II/J1939 (DB9)
	Display	1 x HDMI (up to 3840 x 2160@30Hz) 1 x VGA (up to 1920 x 1600@60Hz)	1 x HDMI (up to 3840 x 2160@30Hz) 1 x VGA (up to 1920 x 1600@60Hz)
	Audio	1 x Line-out, 1 x Mic-in	1 x Line-out
	Antenna	1 x 3G, 1 x BT, 1 x Wi-Fi	1 x 3G, 1 x GPS, 1 x BT, 1 x Wi-Fi
	Other	1 x Power button, 1 x Reset button, 1 x AT/ATX Switch, 1 x ACC Switch, 1 x LED for Power (Red), 1 x LED for Storage (Green)	1 x Power Button, 1 x LED for HDD, 1 x LED for Wi-Fi, 2 x LED for SIM
Expansions	PCIe Mini	1 x Full-size with SIM card slot (PCIe/USB2.0) 1 x Full-size (PCIe/USB 2.0/SATA)	1 x Full/Half-size with SIM card slot (PCIe/USB 2.0) 1 x Full/Half-size with SIM card slot (PCIe/USB 2.0) 1 x Half-size (PCIe/USB 2.0)
Power	Power Input	DC Jack: 9 ~ 36V DC	Cigarette lighter power cable: 9 ~ 36V DC
	Power Consumption	12V @ 2.1A (Intel® i5-5350U with 4GB memory)	12V @ 5A (Intel® x7-E3950 with 8GB memory)
Reliability	Mounting	VESA 100	Wall-mount/ VESA 100
	Operating Temperature	-20 ~ 60°C with air flow, 10% ~ 95% non-condensing	-30 ~ 70°C with air flow (SSD), 10% ~ 95% non-condensing
	Storage Temperature	-40 ~ 80°C with air flow, 10% ~ 95% non-condensing	-40 ~ 80°C with air flow (SSD), 10% ~ 95% non-condensing
	Operating Shock	Half-sine wave shock 5G, 11ms, 100 shocks per axis (SSD)	Half-sine wave shock 5G, 11ms, 100 shocks per axis (SSD)
	Operating Vibration	MIL-STD-810G 514.6C-1 (SSD)	MIL-STD-810F 514.5C-2 (SSD)
	Weight (Net/ Gross)	1.3KG/ 1.45KG	2.4KG/ 3.8KG
	Safety/EMC	CE/ FCC/ E-Mark	CE/ FCC/ E-Mark
	IP Rating	N/A	IP 4X compliant
OS	Watchdog Timer	Programmable 1 ~ 255 sec/min	Programmable 1 ~ 255 sec/min
	Supported OS	Microsoft® Windows Embedded 8, Microsoft® Windows Embedded Standard 7 E	Microsoft® Windows 10

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

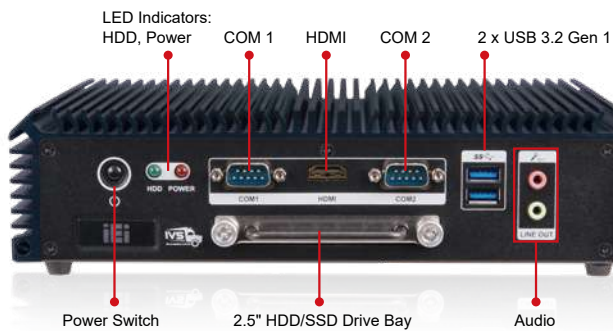


Specifications

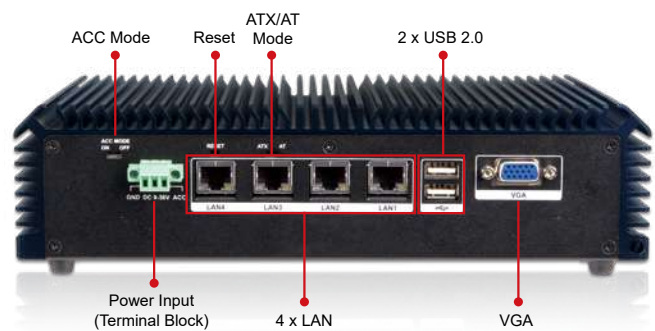
Model Name		IVS-200-ULT2
Chassis	Color	Blue C
	Dimensions (WxHxD) (mm)	255 x 63 x 150
	System Fan	Fanless
	Chassis Construction	Extruded aluminum alloy
Motherboard	CPU	Intel® Core™ i5-5350U 1.8 GHz (up to 2.9 GHz, dual-core, TDP 15W) Intel® Celeron® 3755U 1.9 GHz (dual-core, TDP 15W)
	Chipset	SoC
	System Memory	2 x SO-DIMM DDR3L 1600/1866 (4GB pre-installed)(up to 16GB)
Storage	Hard Drive	1 x 2.5" SATA 6Gb/s HDD/SSD removable bay
Communication	WLAN	802.11 a/b/g/n/ac (optional)
	Bluetooth	Bluetooth 2.1 (optional)
	WWAN	WCDMA/HSDPA/HSUPA (optional)
I/O Interfaces	USB	2 x USB 3.2 Gen1 2 x USB 2.0
	Ethernet	4 x RJ-45: 1 x GbE by Intel® I218 3 x GbE by Intel® I211
	COM Port	2 x RS232/422/485 with AFC (DB9) 4 x RS232 (DB9)
	Digital I/O	8-bit Digital I/O (4-in/ 4-out)(pin header)
	Display	1 x HDMI (up to 3840 x 2160@30Hz) 1 x VGA (up to 1920 x 1600@60Hz)
	Audio	1 x Line-out, 1 x Mic-in
	Antenna	1 x 3G, 1 x BT, 1 x Wi-Fi
	Other	1 x Power button, 1 x Reset button, 1 x AT/ATX Switch, 1 x ACC Switch, 1 x LED for Power (Red), 1 x LED for HDD (Green)
Expansions	PCIe Mini	1 x Full-size with SIM card slot (PCIe/USB 2.0) 1 x Full-size (PCIe/USB 2.0/SATA)
Power	Power Input	DC Jack: 9 ~ 36V DC
	Power Consumption	12V @ 2.1A (Intel® i5-5350U with 4GB memory)
Reliability	Mounting	VESA 100
	Operating Temperature	-20°C ~ 60°C with air flow, 10% ~ 95% non-condensing
	Storage Temperature	-30°C ~ 70°C with air flow, 10% ~ 95% non-condensing
	Operating Shock	Half-sine wave shock 5G, 11ms, 100 shocks per axis (SSD)
	Operating Vibration	MIL-STD-810F 514.5C-2 (SSD)
	Weight (Net/Gross)	2.2KG/ 3.0KG
	Safety/EMC	CE/ FCC/ E-Mark
	Watchdog Timer	Programmable 1 ~ 255 sec/min
OS	Supported OS	Microsoft® Windows Embedded 8, Microsoft® Windows Embedded, Standard 7 E

Fully Integrated I/O

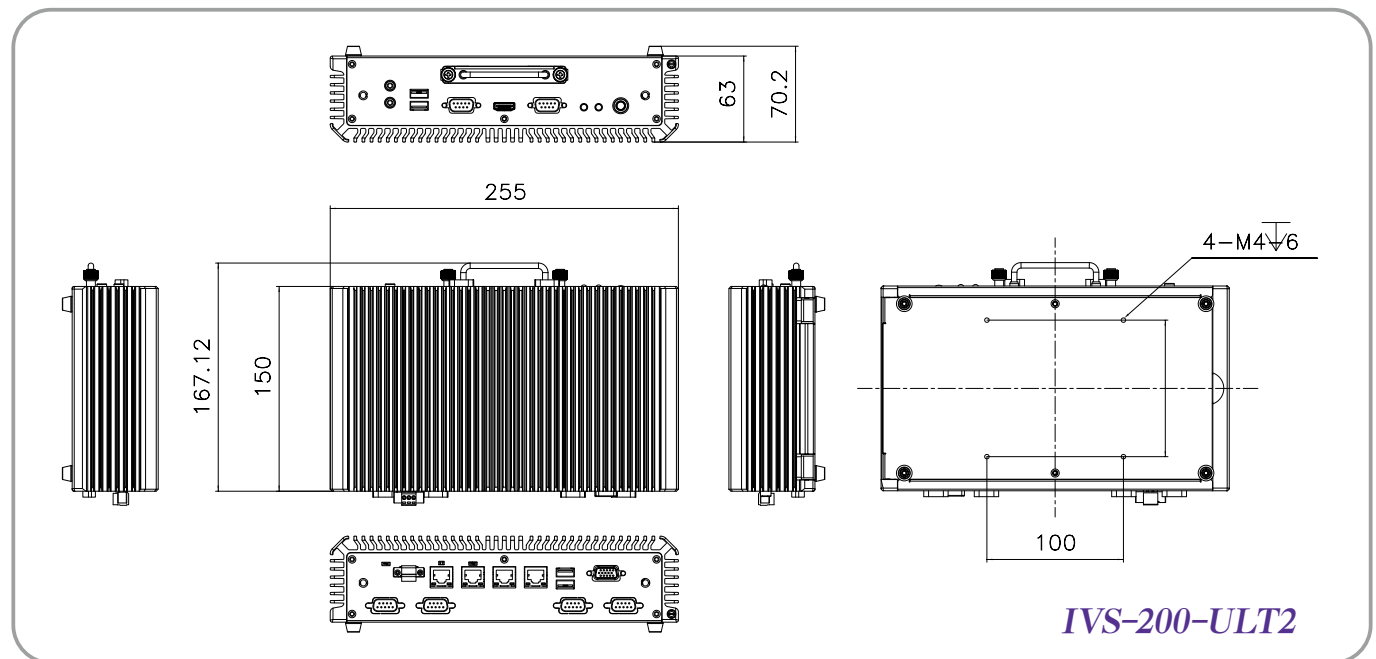
Front view



Rear view



Dimensions (Unit: mm)



Ordering Information

Part No.	Description
IVS-200-ULT2-i5/4G-R11	Fanless system with Intel® Core™ i5-5350U CPU, up to 2.9 GHz, 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, RoHS
IVS-200-ULT2-C/4G-R11	Fanless system with Intel® Celeron® 3765U 1.7 GHz 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, RoHS

Options

Item	Part No.	Description
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
Wireless kit	EMB-WIFI-KIT01-R20	1T1R wifi module kit for embedded system, IEEE802.11a/b/g/n/ac WiFi with Bluetooth 4.0/3.0+HS, 1 x wifi module, 2 x 250mm RF cable, 2 x Antenna, RoHS

Packing List

Item	Part No.	Qty	Description
Screw pack	44013-030041-RS	4	Screw pack
	44005-030083-RS	4	Screw pack
Wall mount kit	41020-0433C2-00-RS	2	Wall mount bracket

IVS-110-AL

Vehicle Fleet Management System



Features

- Intel® Apollo Lake processor
- Dual SIM slot
- 16 x DI/DO
- 1 x HDMI (lockable), 1 x VGA
- Built-in GPS function
- E-Mark certification
- Built-in OBD-II/J1939
- IP4X protection



Specifications

Model		IVS-110-AL
Chassis	Color	Black
	Dimensions (WxDxH) (mm)	261 x 170 x 60
	System Fan	Fanless
	Chassis Construction	Extruded aluminum alloy
Motherboard	CPU	Intel® Atom™ x7-E3950 1.6 GHz (up to 2.0 GHz, quad-core, TDP 12W)
	Chipset	SoC
	System Memory	1 x SO-DIMM DDR3L 1600/1866 (4GB pre-installed)(up to 8GB)
Storage	Hard Drive	1 x 2.5" SATA 6Gb/s HDD/SSD bay
	eMMC	1 x eMMC5.0 (optional)
Communication	WLAN	802.11 a/b/g/n/ac (optional)
	Bluetooth	BT 4.0/3.0+HS (optional)
	WWAN	WCDMA/HSDPA/HSUPA (optional)
	GPS	On-board GPS
I/O Interfaces	USB	4 x USB 3.2 Gen1
	Ethernet	1 x RJ-45: 1 x GbE by Intel® I210
	COM Port	1 x RS232/422/485 with AFC (DB9)
	Digital I/O	16-bit Digital I/O (8-in/ 8-out)
	OBD-II	1 x OBD-II/J1939 (DB9)
	Display	1 x HDMI (up to 3840 x 2160@30Hz) 1 x VGA (up to 1920 x 1600@60Hz)
	Audio	1 x Line-out
	Antenna	1 x 3G, 1 x GPS, 1 x BT, 1 x Wi-Fi
	Other	1 x Power Button, 1 x LED for HDD, 1 x LED for Wi-Fi, 2 x LED for SIM
Expansions	PCIe Mini	1 x Full/Half-size with SIM card slot (PCIe/USB 2.0) 1 x Full/Half-size with SIM card slot (PCIe/USB 2.0) 1 x Half-size (PCIe/USB 2.0)
Power	Power Input	Cigarette lighter power cable: 9 ~ 36V DC
	Power Consumption	12V @ 5A (Intel® x7-E3950 with 8GB memory)
Reliability	Mounting	Wall-mount/ VESA 100
	Operating Temperature	-30 ~ 70°C with air flow (SSD), 10% ~ 95% non-condensing
	Storage Temperature	-40 ~ 80°C with air flow (SSD), 10% ~ 95% non-condensing
	Operating Shock	Half-sine wave shock 5G, 11ms, 100 shocks per axis (SSD)
	Operating Vibration	MIL-STD-810F 514.5C-2 (SSD)
	Weight (Net/Gross)	2.4KG/ 3.8KG
	Safety/EMC	CE/ FCC/ E-Mark
	IP Rating	IP 4X compliant
	Watchdog Timer	Programmable 1 ~ 255 sec/min
OS	Supported OS	Microsoft® Windows 10

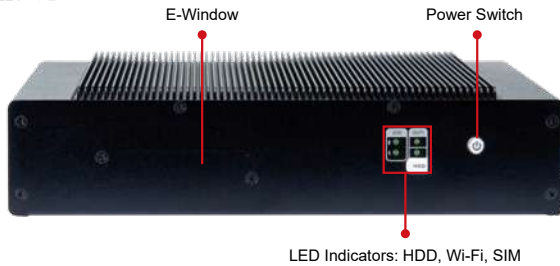
Fleet Management Tracking System



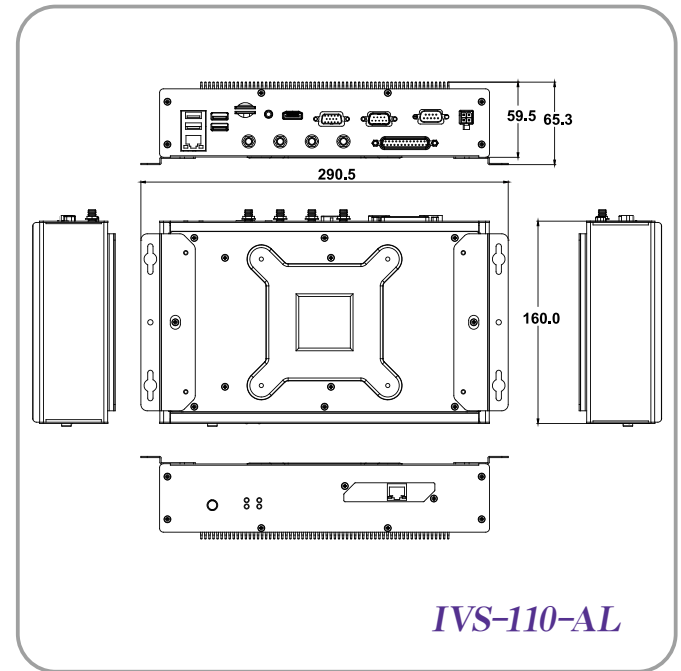
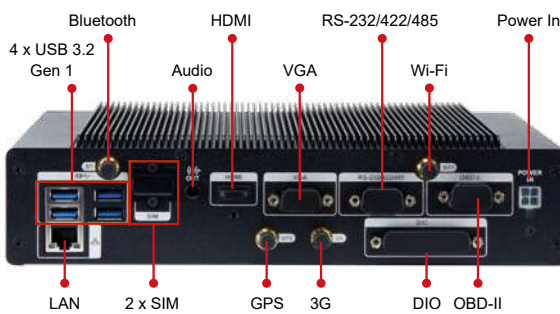
Fully Integrated I/O

Dimensions (Unit: mm)

Front view



Side view



IVS-110-AL

Ordering Information

Part No.	Description
IVS-110-AL-E3/4G-R10	Fanless embedded system with Intel® Atom™ x7-E3950 (12W) Processor with 4GB DDR3L pre-installed memory, on-board GPS, HDMI, VGA, one GbE LAN, one 2.5" SATA HDD bay, two SIM slots, RoHS

Options

Item	Part No.	Description
GPS/LTE antenna	32506-000400-100-RS	Integration Antenna, Magnetic Antenna Base+GPS/4G LTE ANTENNA, RG 174, 5000MM, AU-4S-LTE, GPS Gain:27dB, LTE, Gain:0dBi, 50Ω, SANAV, 1575.42MHz/704-960MHz/1710-2766MHz, VSWR ≤ 2.0, SMA PLUG, REVERSE SMA PLUG, RoHS
Power adapter	IVIPOWER-4PIN-R20	Power adapter with 4-pin transfer cable, RoHS
OBD-II cable	32025-003400-100-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
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
ACC power cable	32002-001900-100-RS	Round cable, power cable, 3000 mm, 16 AWG, (A) MOLEX 5557-04P P=4.2, SHANGHAI YING YU, RoHS

Packing List

Item	Part No.	Qty	Description
Screw pack	44005-030083-RS	4	Screw pack
	42005-000603-RS	4	Screw pack
	44003-030052-RS	4	Screw pack
	44045-020031-RS	5	Screw pack
SATA cable	32801-003608-100-RS	1	Sata cable, 3, 150mm/150mm, 26AWG, SATA 7+15P female 180°, SATA 7P female 90°+lock, JST PHR-2 P=2.0, One pcs PKG W/ label, RoHS
Wall mount kit	41020-0482C2-00-RS	2	Wall mount bracket

E-Window (for ATO assembly) E-Window

Part No.	Description
E-MPCIE-LAN-R10	PCIe Mini card supports 1-port GbE with Realtek RTL8111E controller, with PMS 194C I/O bracket and 250mm cable, R10
E-MPCIE-DLAN-R10	PCIe Mini card supports 2-port GbE with Intel I211 controller, with PMS 194C I/O bracket and 250mm cable, R10
E-MPCIE-UART-KIT02-R10	PCI Express Mini supports Dual RS-232/422/485, 16-bit GPIO module, full-size, RoHS

FLEX System



Model Name		FLEX-BX210-Q470
Chassis	Color	Black
	Dimensions (WxDxH) (mm)	357 x 230 x 88
	System Fan	System Fan x3, CPU Cooler x1
	Chassis Construction	Metal Housing
Motherboard	CPU	10 th /11 th Generation Intel® Core™ processor (65W TDP up to 125W) Intel® Core™ i3-10320 3.8 GHz (up to 4.6 GHz, quad-core, 65W TDP) Intel® Core™ i5-10500TE 2.3 GHz (up to 3.7 GHz, 6-core, 35W TDP) Intel® Core™ i7-10700TE 2.0 GHz (up to 4.4 GHz, 8-core, 35W TDP)
	Chipset	Q470/Q470E
	System Memory	2 x 288-pin 2933/2666 MHz dual-channel DDR4 unbuffered DIMM supporting up to 64GB
Storage	Hard Drive	4 x 2.5" SATA 6Gb/s HDD/SSD bay
I/O Interfaces	USB	6 x USB 3.2 Gen.1
	Ethernet	3 x RJ-45: 1 x GbE by Intel® I225LM 2 x GbE by Intel® I225V
	COM Port	2 x RS-232
	Display	1 x HDMI (up to 3840 x 2160@30Hz) 1 x DP (up to 4096 x 2304@60Hz)
	Audio	1 x Line-out, 1 x Mic-in
	Wireless	1 x 802.11a/b/g/n/ac (optional)
	TPM	Intel PTT from CPU
	Other	1 x Power switch w/LED 1 x AT/ATX switch 1 x Reset button 1 x HDD LED
	M.2	1 x M.2 A-Key (2230 for Wi-Fi) Optional 1 x M.2 B-Key 3042/52 socket (with SIM card slot, supporting 5G/LTE; supports PCIe 3.0 x1 & USB 3.2 Gen 1) 1 x M.2 M-Key 2280 socket (supports PCIe 3.0 x4)
	Backplane	2 x PCIe 3.0 x8 (x16 Slot) 2 x PCIe 3.0 x4
Power	Power Input	100 ~ 240V AC
	Power Consumption	100 ~ 240V AC @ 6 ~ 3A
Reliability	Mounting	Wall mount / Rack mount
	Operating Temperature	-10°C ~ 50°C (with air flow), 10% ~ 95% (non-condensing)
	Storage Temperature	-20°C ~ 60°C, 10% ~ 95% (non-condensing)
	Operating Shock	Half-sine wave shock 5G, 11ms, 100 shocks per axis (SSD)
	Operating Vibration	MIL-STD-810G 514.6C-1 (SSD)
	Weight (Net/Gross)	4.1KG/7.2KG
	Safety/EMC	CE/ FCC
	Watchdog Timer	Programmable 1 ~ 255 sec/min
OS	Supported OS	Microsoft® Windows 10 / 11, Linux

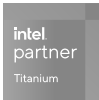
FLEX-BX210-Q470

■ 2U Modular PC with 10/11th Generation LGA1200
Intel® Core™ i7/i5/i3, Pentium® Processor



Features

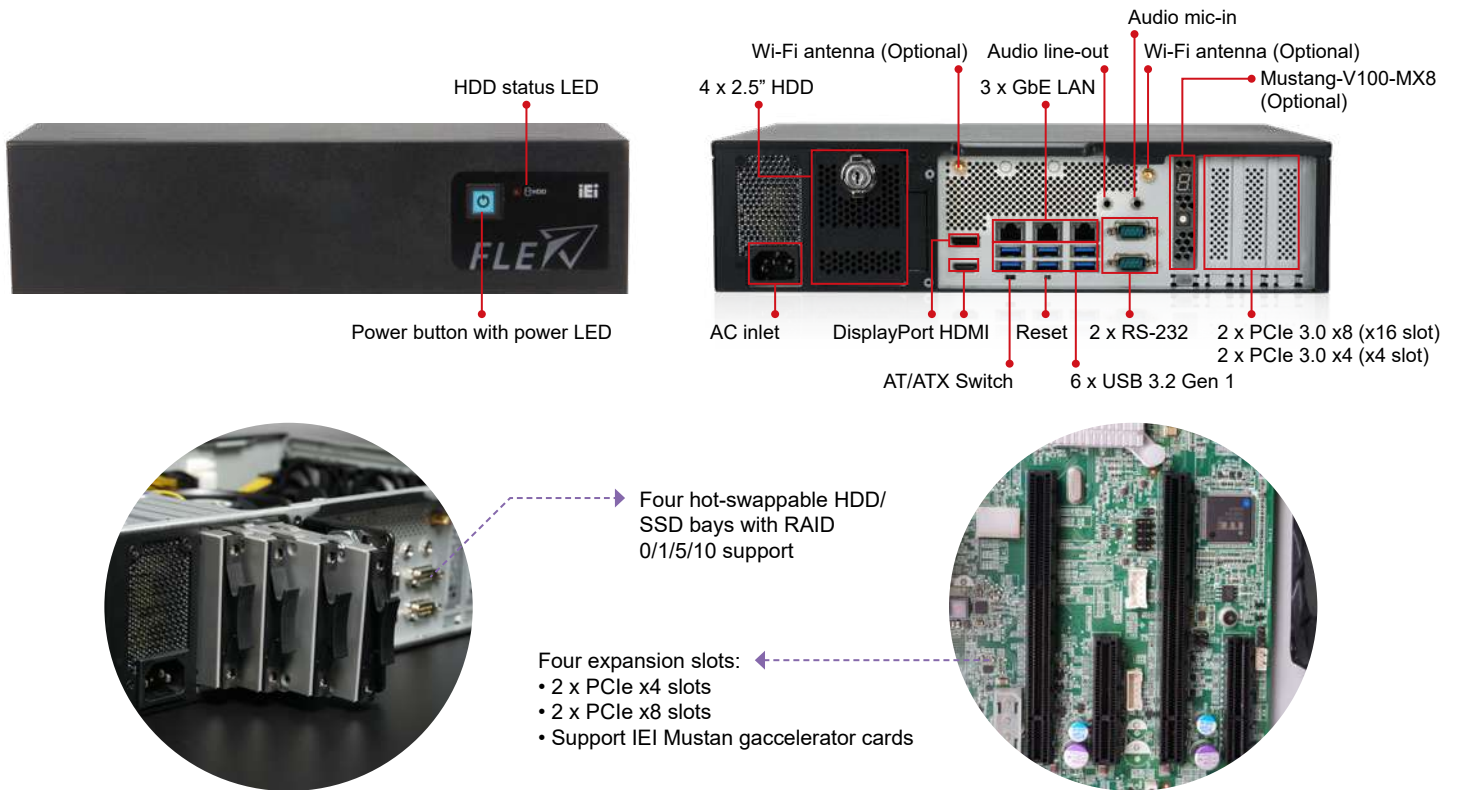
- Supported CPUs:
Intel® Core™ i3-10320 3.8 GHz (up to 4.6 GHz, quad-core, 65W TDP)
Intel® Core™ i5-10500TE 2.3 GHz (up to 3.7 GHz, 6-core, 35W TDP)
Intel® Core™ i7-10700TE 2.0 GHz (up to 4.4 GHz, 8-core, 35W TDP)
- Four hot-swappable HDD/SSD bays with RAID 0/1/5/10 support
- Equipped with PCIe 3.0 x4 slots and PCIe 3.0 x8 slots
- M.2 2280 PCIe Gen 3 x4 supporting NVMe
- Support IEI Mustang accelerator cards



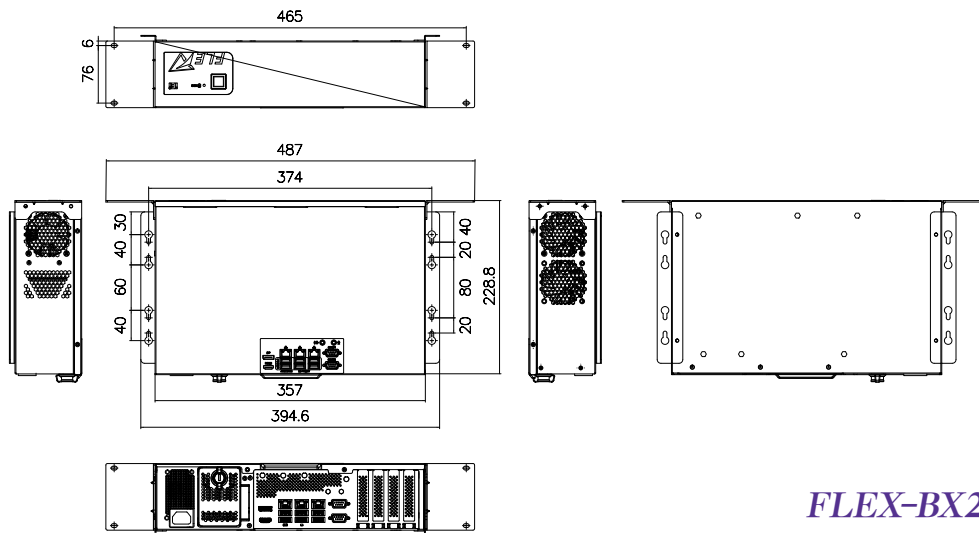
Specifications

Model Name		FLEX-BX210-Q470
System	CPU	10 th /11 th Generation Intel® Core™ processor (65W TDP up to 125W) Intel® Core™ i3-10320 3.8 GHz (up to 4.6 GHz, quad-core, 65W TDP) Intel® Core™ i5-10500TE 2.3 GHz (up to 3.7 GHz, 6-core, 35W TDP) Intel® Core™ i7-10700TE 2.0 GHz (up to 4.4 GHz, 8-core, 35W TDP)
	Chipset	Q470/Q470E
	Memory	2 x 288-pin 2933/2666 MHz dual-channel DDR4 unbuffered DIMM supporting up to 64GB
	Graphics Engine	Intel® HD Graphics Gen 9 Engines with Low power 16 execution unit, supports DX2015, OpenGL 5.X and OpenCL2.x, ES 2.0
	Ethernet	LAN1: Intel® I225LM LAN2/LAN3: Intel® I225V
	Storage	4 hot-swappable 2.5" HDD/SSD SATA 6Gb/s bays (support RAID 0/1/5/10), with LED indicators 1 x NGFF M.2 (2280) M Key slot (supports NVMe SSD)
	WLAN	802.11ac, 2.4/5 GHz (by M.2 2230 optional)
Wireless Communication	Bluetooth	Bluetooth v5.1 (optional)
	WWAN and GNSS	M.23052 LTE (by M.2 3052 optional)
I/O Interface & Buttons	I/O Interface & Buttons	1 x DP 1 x HDMI 3 x 2.5GbE LAN 6 x USB 3.2 Gen 1 Type-A 2 x RS-232 DB-9 1 x Mic in 1 x Line out 1 x AC inlet 4 x SMA Power button with power LED (power on = blue) AT/ATX mode switch Reset button
	TPM	Intel PTT from CPU
Expansions	Expansion Slots	2 x PCIe 3.0 x8 2 x PCIe 3.0 x4 1 x M.2 B-Key 3042/52 socket (with SIM card slot, supporting 5G/LTE; supports PCIe 3.0 x1 & USB 3.2 Gen 1) 1 x M.2 M-Key 2280 socket (supports PCIe 3.0 x4)
Thermal	Thermal Solution	3 x System fan, 1 x CPU fan
Power	Power Supply	ATX power supply, AC input - 350W power input - Input: 90VAC ~ 264VAC, 50/60Hz - Output (max.): 3.3V@14A, 5V@16A, 12V@29A, -12V@0.3A
Watchdog Timer		Software programmable 1 ~ 255 sec/min, system reset
Construction	Chassis Construction	Metal
	Mounting	Wall mount / Rack mount
	Color	Black
	Dimensions (LxWxH) (mm)	357 x 230 x 88
	Weight	4.1 kg/7.2 kg
Environmental	Operating Temperature	-10°C ~ 50°C
	Storage Temperature	-20°C ~ 60°C
	Operating Humidity	5% ~ 95%, non-condensing
	Operating Vibration	5~17Hz, 0.1 double amplitude displacement 17 ~ 640Hz 1.5G acceleration peak to peak
	Operating Shock	10G acceleration part to part (11ms)
	Safety/EMC	CE/FCC

Fully Integrated I/O



Dimensions (Unit: mm)



FLEX-BX210-Q470

Ordering Information

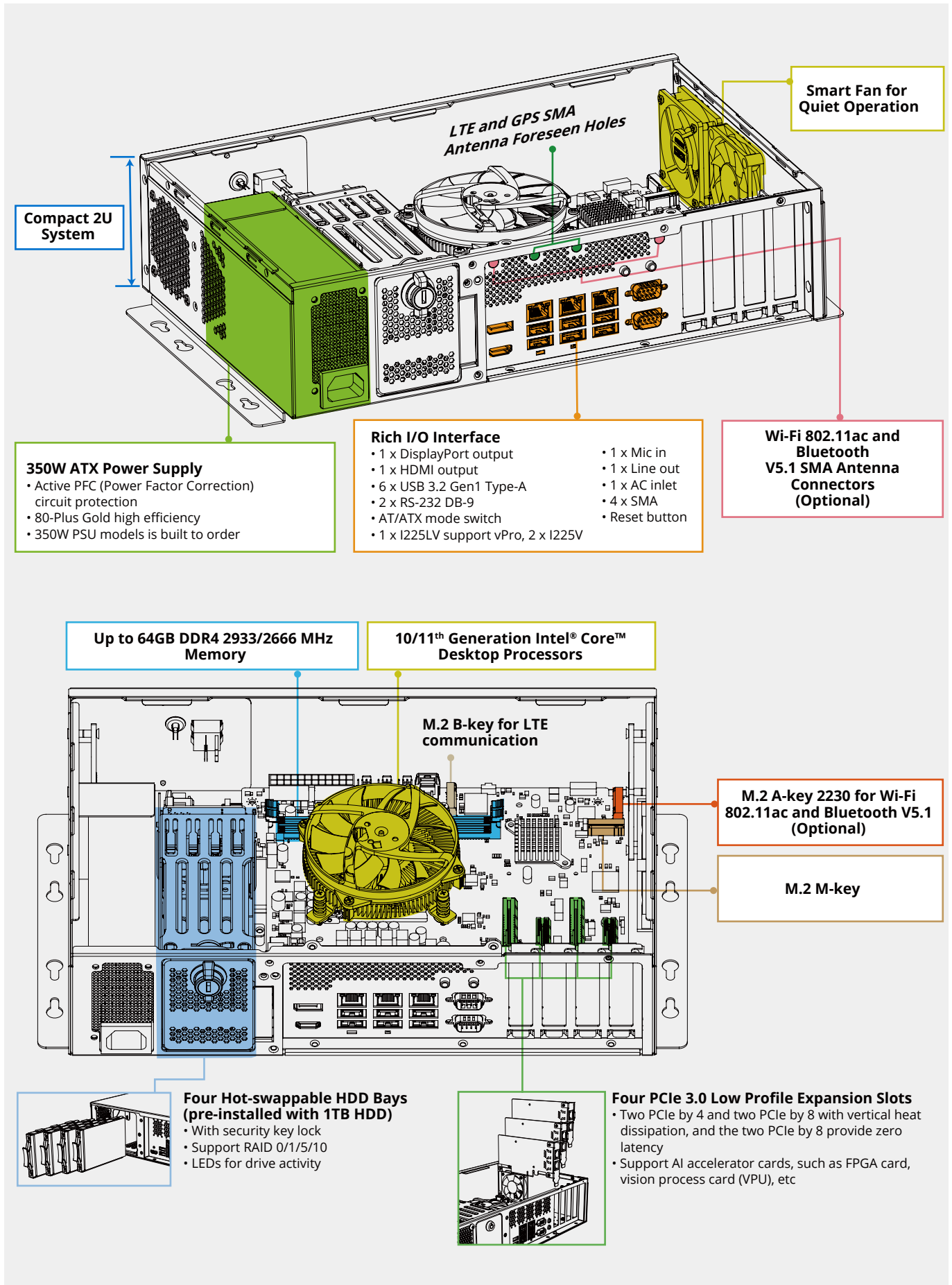
Part No.	Description
FLEX-BX210-Q470/35-R20	Barebone, 2U AI Modular BOX PC, Intel® COMET Lake, Q470 chipset, 2 x PCIe x4 and 2 x PCIe x8 slots, 4x HDD bay, w/o CPU, 350W PSU, R20
FLEX-BX210-Q470-i3C-R20	2U Modular box PC, Intel® 10 th Generation Core™ i3-10320 3.8 GHz (up to 4.6 GHz, 4-core, TDP 65W), 8GB DDR4 pre-installed memory, 350W PSU, R20
FLEX-BX210-Q470-i5C-R20	2U Modular box PC, Intel® 10 th Generation Core™ i5-10500TE 2.3 GHz (up to 3.7 GHz, 6-core, TDP 35W), 8GB DDR4 pre-installed memory, 350W PSU, R20
FLEX-BX210-Q470-i7D-R20	2U Modular box PC, Intel® 10 th Generation Core™ i7-10700TE 2.0 GHz (up to 4.4 GHz, 8-core, TDP 35W), 16GB DDR4 pre-installed memory, TPM 2.0, 350W PSU, R20
FLEX-BX210-Q470-i9D-R20	2U Modular box PC, Intel® 10 th Generation Core™ i9-10900TE 1.8 GHz (up to 4.5 GHz, 10-core, TDP 35W), 16GB DDR4 pre-installed memory, 350W PSU, R20

Packing List

1 x Mounting bracket

1 x Power cord

Hardware Features



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. "TANK" is a model name for a series of IEI ruggedize embedded box products.

Ruggedized Solution



■ TANK XM81 Series

Multiple Expansion Slot

- 2 x 2.5GbE ports
- Multiple USB ports and serial ports
- Wide range temperature
- Low power consumption



■ TANK-XM81/600 Series

Multiple Serial Port

- Multiple expansion slot
- Multiple internal expansion boards for flexible selection
- Support multiple types storage device

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	Model
Desktop	Alder Lake-S	TANK-XM811-R680E
	Comet Lake	TANK-XM810-Q470
	Coffee Lake/ Coffee Lake-R	TANK-880-Q370
	Skylake/ Kaby Lake	TANK-870-Q170 TANK-870e-H110 TANK-871-Q170

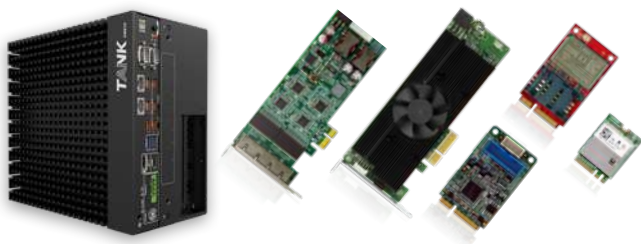
A Variety of Applications

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.



Multiple Expansion Slots

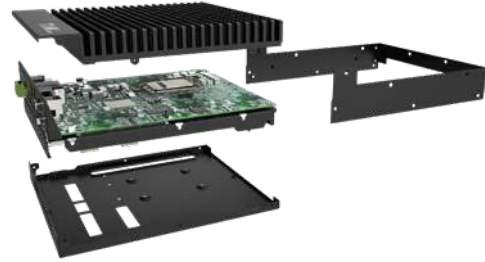
The TANK Series integrates multiple expansion such as PCIe/PCI slots and PCIe Mini / M.2 card slots. Users could install the card they need such as graphics card, capture card, I/O card, PoE card or AI accelerator card to enhance system function and performance, and it allows system to be customized, upgraded and repaired for faster time to market.



Key Features

Modular Design, Easy to Install

The mainboard is secured to the support bracket to prevent PCB from bending or warping. The three-layer structure consisting of heat spreader, mainboard and baseboard makes it easier to install CPU, memory and HDD, compared with the former TANK series.



Flexible Expansion

Different expansion requirements can be met. Dual-slot and four-slot SKUs are provided for selection. Customers can choose the type of expansion slot according to their needs.



Support High-performance Graphics Card

With IEI power board, it can support 3060 and other advanced graphics cards.

Maximum length of graphics card supported: 350mm

*Specified power adapter is required.

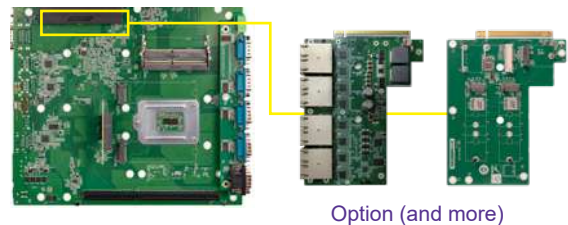
NVIDIA 3060

*Support advanced graphics card



Modular Board Design

It supports various optional modules, such as M.2 expansion card, 8-port PoE expansion card, etc.



Option (and more)

Support 35W & 65W CPU

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.

Operating temperature:

With 35w CPU: (or 65W CPU PL1 & PL2, default 35W)	-20°C ~ 60°C
With 65w CPU:	-20°C ~ 50°C

Industrial Automation System



Model Name		TANK-XM811	TANK-XM810	TANK-880-Q370
Chassis	Color	Black C	Black C	Black C + Silver
	Dimensions (WxDxH) (mm)	230.6 x 256.04 x 76.2	230.6 x 256.04 x 76.2	169 x 255.2 x 225
	System Fan	Fanless	Fanless	Fanless
	Chassis Construction	Extruded aluminum alloys	Extruded aluminum alloys	Extruded aluminum alloys
Motherboard	CPU	12 th Gen Intel® Core™ CPU 35/65W Intel® Core™ i5-12500TE 1.9 GHz (up to 4.3 GHz, 6-core, 35W TDP) Intel® Core™ i7-12700TE 1.4 GHz (up to 4.6 GHz, 12-core, 35W TDP)	10/11 th Gen Intel® Core™ CPU 35/65W Intel® Core™ i3-10320 3.8 GHz (up to 4.6 GHz, quad-core, 65W TDP) Intel® Core™ i5-10500TE 2.3 GHz (up to 3.7 GHz, 6-core, 35W TDP) Intel® Core™ i7-10700TE 2.0 GHz (up to 4.4 GHz, 8-core, 35W TDP)	8 th Gen Intel® Core™ CPU & Intel® Core™ i7-9700TE 1.8 GHz (up to 3.8 GHz, 8-core, TDP 35W) Intel® Core™ i5-9500TE 2.2 GHz (up to 3.6 GHz, 6-core, TDP 35W)
	Chipset	R680E	Q470/Q470E	Intel® Q370
	System Memory	2 x SO-DIMM DDR4 3200 MHz (8GB pre-installed) (up to 64GB)	2 x SO-DIMM DDR4 2933 MHz (up to 64GB)	2 x SO-DIMM DDR4 2666/ 2400 MHz (8GB pre-installed) (up to 64GB)
IPMI	iRIS Solution	N/A	N/A	N/A
Storage	Hard Drive	1 x 2.5" SATA 6Gb/s HDD/SSD bay	1 x 2.5" SATA 6Gb/s HDD/SSD bay	4 x 2.5" SATA 6Gb/s HDD/SSD bay (RAID 0/1/5/10 support)
	USB	8 x USB 3.2 Gen 2 (10Gb/s)	6 x USB 3.2 Gen 2 (10Gb/s) 2 x USB 2.0	6 x USB 3.2 Gen 1
I/O Interfaces	Ethernet	2 x RJ-45 2 x I225V 2.5GbE (colay I225LM)	2 x RJ-45 2 x I225V 2.5GbE (colay I225LM)	3 x RJ-45: 1 x GbE by Intel® I219 2 x GbE by Intel® I210
	COM Port	2 x RS-232/422/485, 4 x RS-232	2 x RS-232/422/485, 4 x RS-232	3 x RS-232/422/485 with AFC (DB-9 with 2.5kV isolation)
	Digital I/O	12-bit Digital I/O (6-in/6-out) DB15	12-bit Digital I/O (6-in/6-out) DB15	8-bit Digital I/O (4-in/ 4-out)
	Display	1 x DP++ 1 x HDMI	1 x DP++ 1 x HDMI	1 x HDMI (up to 3840x2160@30Hz) 1 x DP (up to 4096x2304@60Hz)
	Audio	N/A	N/A	1 x Line-out, 1 x Mic-in
	Wireless	1 x 802.11a/b/g/n/ac (optional)	1 x 802.11a/b/g/n/ac (optional)	1 x 802.11a/b/g/n/ac (optional)
	TPM	Support Intel® PTT function	Support Intel® PTT function	1 x TPM 2.0 (2 x 10 pin) (optional)
	PCle Mini	Optional	Optional	1 x Full-size (PCle/ USB 2.0/ SATA)
Expansions	M.2	1 x 2280 M-key (PCle x4) 1 x 2230 A-key (USB+PCle x1, supports vPRO)	2 x 2280 M-key (PCle x2)	1 x 2230 A-key (PCle x2/USB 2.0) 2 x 2280 M-key (PCle x2)
	Backplane	Optional	Optional	1 x PCle x16 1 x PCle x1 2 x PCle x4
	Power Input	12 ~ 28V DC	12 ~ 28V DC	DC Jack: 9 ~ 36V DC Terminal Block: 9 ~ 36V DC
Power	Power Consumption	12V @ 8.8A (Intel® Core™ i9-12900TE with 16GB memory)	12V @ 8A (Intel® Core™ i9-10900TE with 8GB memory)	19V@3.6A (Intel® Core™ i7-8700T with 8GB memory)
	Internal Power Connector	N/A	N/A	12V@10A
Reliability	Mounting	Wall mount	Wall mount	Wall mount
	Operating Temperature	-20°C ~ -60°C with air flow (SSD) 10% ~ 95% non-condensing	-20°C ~ -60°C with air flow (SSD) 10% ~ 95% non-condensing	-20°C ~ 60°C with air flow (SSD) 10% ~ 95% non-condensing
	Operating Shock	Half-sine wave shock 5G, 11ms 100 shocks per axis (SSD)	Half-sine wave shock 5G, 11ms 100 shocks per axis (SSD)	Half-sine wave shock 5G, 11ms 100 shocks per axis (SSD)
	Operating Vibration	MIL-STD-810G 514.6C-1 (with SSD)	MIL-STD-810G 514.6C-1 (with SSD)	MIL-STD-810G 514.6C-1 (SSD)
	Weight (Net/Gross)	3.33 kg/3.7 kg	3.2 kg/3.5 kg	5.4 kg/8.45 kg
	Safety/EMC	CE/FCC	CE/FCC	CE/FCC
OS	Supported OS	Windows 10 / Windows 11 IoT Enterprise/ Linux	Windows 10 / Windows 11 IoT Enterprise/ Linux	Microsoft Windows 10 / Windows 11 / Linux

Industrial Automation System



Model Name		TANK-871-Q170	TANK-870-Q170
Chassis	Color	Black C + Silver	Black C + Silver
	Dimensions (WxDxH) (mm)	82.2 x 255.2 x 204	2-slot: 121.5 x 255.2 x 205 4-slot: 154.8 x 255.2 x 205
	System Fan	Fanless	Fanless
	Chassis Construction	Extruded aluminum alloys	Extruded aluminum alloys
Motherboard	CPU	7 th Gen Intel® Core™ CPU & Intel® Core™ i7-6700TE 2.4 GHz (up to 3.4 GHz, quad-core, TDP 35) Intel® Core™ i5-6500TE 2.3 GHz (up to 3.3 GHz, quad-core, TDP 35)	
	Chipset	Intel® Q170	Intel® Q170
	System Memory	2 x SO-DIMM DDR4 2666 (4GB pre-installed) (up to 32GB)	2 x SO-DIMM DDR4 2666 (4GB pre-installed) (up to 32GB)
IPMI	iRIS Solution	1 x iRIS-2400 (optional)	1 x iRIS-2400 (optional)
Storage	Hard Drive	2 x 2.5" SATA 6Gb/s HDD/SSD bay (RAID 0/1 support)	2 x 2.5" SATA 6Gb/s HDD/SSD bay (RAID 0/1 support)
I/O Interfaces	USB	4 x USB 3.2 Gen 1 4 x USB 2.0	4 x USB 3.2 Gen 1 4 x USB 2.0
	Ethernet	2 x RJ-45: LAN1: GbE by Intel® I219LM LAN2 (iRIS): GbE by Intel® I210	2 x RJ-45: LAN1: GbE by Intel® I219LM LAN2 (iRIS): GbE by Intel® I210
	COM Port	2 x RS-232/422/485 with AFC (DB-9) 4 x RS-232 (2 x RJ-45, 2 x DB-9 with 2.5kV isolation)	2 x RS-232/422/485 with AFC (DB-9) 4 x RS-232 (2 x RJ-45, 2 x DB-9 with 2.5kV isolation)
	Digital I/O	8-bit Digital I/O (4-in/ 4-out)	8-bit Digital I/O (4-in/ 4-out)
	Display	1 x VGA (up to 1920 x 1200@60Hz) 1 x HDMI/DP (up to 3840x2160@30Hz/4096x2304@60Hz) 1 x iDP (optional)	1 x VGA (up to 1920 x 1200@60Hz) 1 x HDMI/DP (up to 3840x2160@30Hz/4096x2304@60Hz) 1 x iDP (optional)
	Audio	1 x Line-out, 1 x Mic-in	1 x Line-out, 1 x Mic-in
	Wireless	1 x 802.11 a/b/g/n/ac (optional)	1 x 802.11 a/b/g/n/ac (optional)
	TPM	1 x TPM 2.0 (2 x 10 pin) (optional)	1 x TPM 2.0 (2 x 10 pin) (optional)
Expansions	PCIe Mini	1 x Half-size (PCIe/ USB 2.0) 1 x Full-size (PCIe/ USB 2.0/ SATA)	1 x Half-size (PCIe/ USB 2.0) 1 x Full-size (PCIe/ USB 2.0/ SATA)
	M.2	N/A	N/A
	Backplane	N/A	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 Mini (PCIe/USB 2.0) 4-slot model: 1 x PCIe x16, 3 x PCI, 1 x Full-size PCIe Mini (PCIe/ USB 2.0)
Power	Power Input	DC Jack: 9 ~ 36V DC Terminal Block: 9 ~ 36V DC	DC Jack: 9 ~ 36V DC Terminal Block: 9 ~ 36V DC
	Power Consumption	19W@3.68 A (Intel® Core™ i7-6700TE with 8 GB memory)	19W@3.68 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
	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	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
	Operating Shock	Half-sine wave shock 5G, 11ms, 100 shocks per axis (SSD)	Half-sine wave shock 5G, 11ms, 100 shocks per axis (SSD)
	Operating Vibration	MIL-STD-810G 514.6 C-1 (SSD)	MIL-STD-810G 514.6 C-1 (SSD)
	Weight (Net/Gross)	3.5 kg/4.5 kg	2-slot: 4.2 kg/6.3 kg 4-slot: 4.5 kg/6.5 kg
	Safety/EMC	CE/FCC/KC	CE/FCC/KC
OS	Supported OS	Microsoft® Windows® 8 Embedded, Microsoft® Windows® Embedded Standard 7 E, Microsoft® Windows® 10 IoT Enterprise	

Industrial Automation System



Model Name		TANK-870e-H110	TANK-610-BW
Chassis	Color	Dark silver purple + Silver	Black C + Silver
	Dimensions (WxDxH) (mm)	132.6 x 255.2 x 190	184 x 200.6 x 58.2
	System Fan	Fanless	Fanless
	Chassis Construction	Extruded aluminum alloys	Extruded aluminum alloys
Motherboard	CPU	7 th Gen Intel® Core™ CPU & Intel® Core™ i7-6700TE 2.4 GHz (up to 3.4 GHz, quad-core, TDP 35) Intel® Core™ i5-6500TE 2.3 GHz (up to 3.3 GHz, quad-core, TDP 35)	Intel® Celeron® N3160 1.6 GHz (up to 2.24 GHz, quad-core, TDP 6W)
	Chipset	Intel® H110	SoC
	System Memory	2 x SO-DIMM DDR4 2666 (4GB pre-installed)(up to 32GB)	2 x DDR3L SO-DIMM (2GB pre-installed)(up to 8GB)
Storage	Hard Drive	2 x 2.5" SATA 6Gb/s HDD/SSD bay	1 x 2.5" SATA 6Gb/s HDD/SSD Bay
I/O Interfaces	USB	4 x USB 3.2 Gen1	4 x USB 3.2 Gen1
	Ethernet	2 x RJ-45: 2 x GbE by RTL8111G	2 x RJ-45: 2 x GbE by Intel® I210
	COM Port	2 x RS-232/422/485 with AFC (DB-9 with 2.5kV isolation)	2 x RS-232/422/485 with AFC 6 x RS-232
	Digital I/O	N/A	N/A
	Display	1 x VGA (up to 1920 x 1200@60Hz) 1 x HDMI (up to 3840 x 2160@30Hz)	1 x VGA (up to 1920 x 1200@60Hz) 1 x HDMI (up to 3840 x 2160@30Hz)
	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/ac (optional)	1 x 802.11a/b/g/n/ac (optional)
	TPM	N/A	N/A
Expansions	PCIe Mini	1 x Full-size (PCIe/ USB 2.0) 1 x Full-size (PCIe/ USB 2.0/ SATA)	1 x Half-size (PCIe/USB 2.0) 1 x Full-size (PCIe/SATA)
	M.2	N/A	N/A
	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	N/A
Power	Power Input	DC Jack: 9 ~ 36V DC Terminal Block: 9 ~ 36V DC	DC Jack: 9 ~ 36V DC Terminal Block: 9 ~ 36V DC
	Power Consumption	19V@3.44A (Intel® Core™ i7-6700TE with 8GB memory)	12V@1.49A (Intel® Celeron® N3160 with 4GB DDR3L memory)
Reliability	Mounting	Wall mount & Din Rail	Wall mount, VESA 100
	Operating Temperature	-20°C ~ 50°C with air flow (SSD), 10% ~ 95% non-condensing	-40°C ~ 60°C with air flow(SSD), 10% ~ 95% non-condensing
	Operating Shock	Half-sine wave shock 5G, 11ms, 100 shocks per axis (SSD)	Half-sine wave shock 5G, 11ms, 100 shocks per axis (SSD)
	Operating Vibration	MIL-STD-810G 514.6C-1 (SSD)	MIL-STD-810G 514.6C-1 (SSD)
	Weight (Net/Gross)	2.8 kg/4.3 kg	2.2 kg/3 kg
	Safety/EMC	CE/FCC/KC	CE/FCC/KC
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

TANK-XM811

- High-Performance 12th Generation Intel® Core™ Processor
- Fanless Embedded Computer

Preliminary

Features

- Supported CPUs:
Intel® Core™ i5-12500TE 1.9 GHz (up to 4.3 GHz, 6-core, 35W TDP)
Intel® Core™ i7-12700TE 1.4 GHz (up to 4.6 GHz, 12-core, 35W TDP)
- 2 x 2.5G Ethernet ports
- Multiple USB ports and serial ports
- Multiple internal expansion boards for flexible selection
- Various optional backplanes and chassis
- CE/FCC compliant

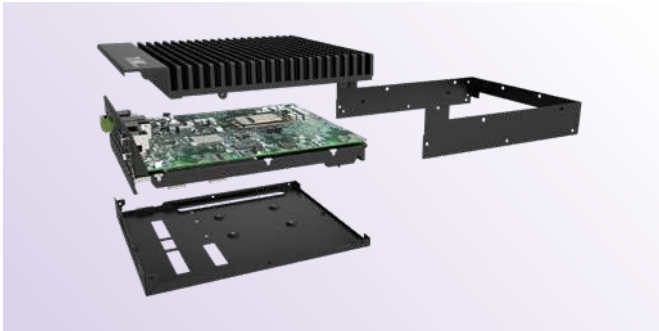


Specifications

Model Name		TANK-XM811
Chassis	Color	Black C
	Dimensions (WxDxH) (mm)	230.6 x 256.04 x 76.2
	System Fan	Fanless
	Chassis Construction	Extruded aluminum alloys
Motherboard	CPU	12 th Gen Intel® Core™ CPU 35/65W TDP Intel® Core™ i5-12500TE 1.9 GHz (up to 4.3 GHz, 6-core, 35W TDP) Intel® Core™ i7-12700TE 1.4 GHz (up to 4.6 GHz, 12-core, 35W TDP)
	Chipset	R680E
	Memory	2 x SO-DIMM DDR4 3200 (8GB pre-installed) (up to 64GB)
Storage	HDD Bay	1 x 2.5" SATA 6Gb/s HDD/SSD bay
I/O Interfaces	Ethernet	2 x RJ-45, 2 x I225V 2.5GbE (colay I225LM)
	USB 3.2 Gen 2 (10Gb/s)	8
	COM	2 x RS-232/422/485, 4 x RS-232
	Digital I/O	12-bit (6-in/6-out) DB15
	Display Interface	1 x DP++, 1 x HDMI
Internal Expansions	M.2	1 x 2280 M-key (PCIe x4) 1 x 2230 A-key (USB+PCIe x1, supports vPRO)
	Expansion Backplane	Optional
Power	Power Input	12 ~ 28V DC
	Remote Power	1 x 2-pin
	Power Consumption	12V @ 8.8A (Intel® Core™ i9-12900TE with 16GB memory)
Reliability	Mounting	Wall mount
	Operating Temperature	-20°C ~ 60°C with air flow (CPU TDP35W & SSD) -20°C ~ 50°C with air flow (CPU TDP65W & SSD), 10% ~ 95% non-condensing
	Storage Temperature	-40°C ~ 85°C, 10% ~ 95%, non-condensing
	Operating Shock	Half-sine wave shock 5G, 11ms, 100 shocks per axis (SSD)
	Operating Vibration	MIL-STD-810G 514.6C-1 (with SSD)
	Weight (Net/Gross)	3.33/3.7 kg
	Safety / EMC	CE/FCC
	Watchdog Timer	Programmable 1 ~ 255 sec/min
OS	Supported OS	Windows® 10/11 IoT Enterprise/ Linux

Modular Design, Easy to Install

The mainboard is secured to the support bracket to prevent PCB from bending or warping. The three-layer structure consisting of heat spreader, mainboard and baseboard makes it easier to install CPU, memory and HDD, compared with the former TANK series.



Support High-performance Graphics Card

With IEI power board, it can support 3060 and other advanced graphics cards.

Maximum length of graphics card supported: 350mm

*Specified power adapter is required.

NVIDIA 3060

*Support advanced graphics card



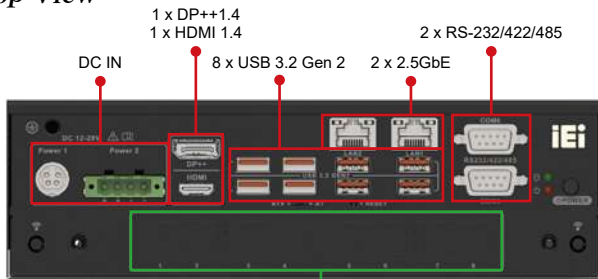
Flexible Expansion

Different expansion requirements can be met. Dual-slot and four-slot SKUs are provided for selection. Customers can choose the type of expansion slot according to their needs.



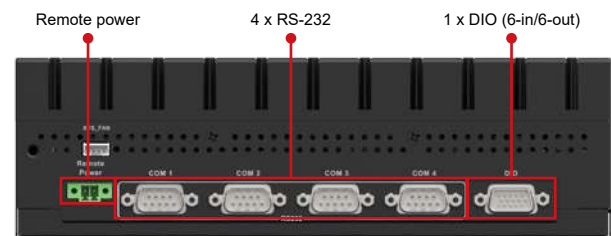
Fully Integrated I/O

Top View



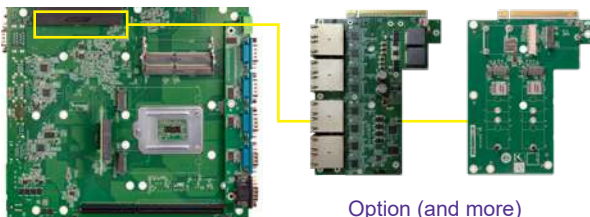
For Expansion IO Board

Front View



Modular Board Design

It supports various optional modules, such as M.2 expansion card, 8-port PoE expansion card, etc.



Option (and more)

Expansion IO Board

GPOE-XM81-8P-R10 I/O expansion module for TANK 81 series, 8 x 2.5G LAN with PoE

TXIOB-XM81-A-R10 I/O expansion module for TANK 81 series, 2 x M.2 B Key, 1 x M.2 A Key, 1 x PCIe Mini

Support 35W & 65W CPU

Operating temperature:

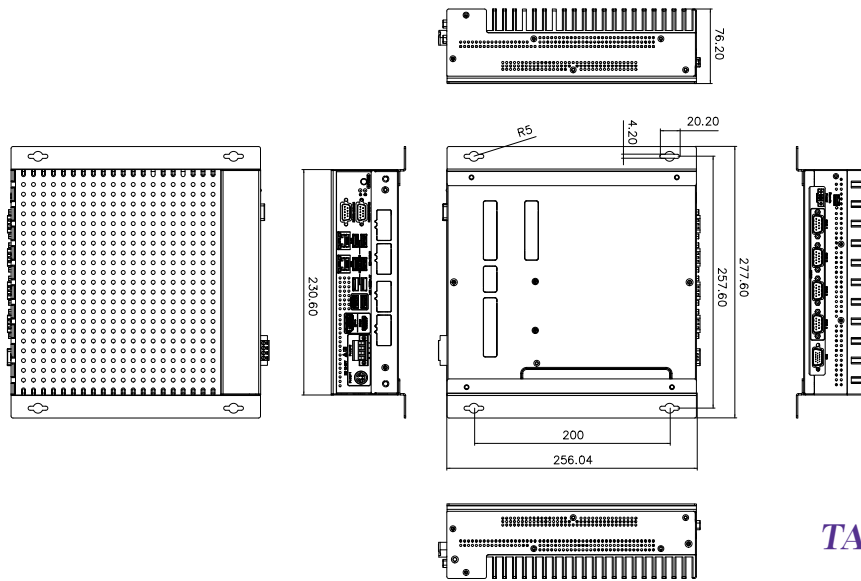
With 35w CPU (or 65W CPU PL1 & PL2, default 35W):

-20°C ~ 60°C

With 65w CPU:

-20°C ~ 50°C

Dimensions (Unit: mm)



Ordering Information

Model	Description
TANK-XM811-i5AC-R10	Ruggedized Fanless Embedded System with Intel® Core™ i5, 8GB RAM, 1 x HDMI, 1 x DP++, 12~28V DC and RoHS
TANK-XM811-i7AC-R10	Ruggedized Fanless Embedded System with Intel® Core™ i7, 8GB RAM, 1 x HDMI, 1 x DP++, 12~28V DC and RoHS

Options

Part No.	Description
EMB-WIFI-KIT02I3-R10	2T2R M.2 wifi module kit for embedded system, IEEE802.11a/b/g/n/ac/ax, 1 x M.2 AE Key Wireless LAN & Bluetooth 5.2; Intel; AX210. NGWG Module, 2 x RF cable, 2 x Antenna; RoHS
63040-010180-200-RS	Adapter Power; FSP; FSP180-ABAN3; 9NA1804008; Active PFC; Vin: 90~264VAC; 180W; Dim: 75.6*151.3*25.4mm; Plug=6.5mm; Cable=1500mm; Erp(NO LOAD 0.5W); Vout: 19VDC; Din 4Pin/lock; CCL; RoHS
32000-000002-RS	European power cord

Optional Expansion Backplane

Part No.	Description
TXCBP-XM81-2A-R10	Expansion backplane module for TANK 81 Series, 2 slot, 1 x PCIe x16 & 1 x PCIe x4
TXCBP-XM81-2B-R10	Expansion backplane module for TANK 81 Series, 2 slot, 2 x PCIe x8
TXCBP-XM81-4A-R10	Expansion backplane module for TANK 81 Series, 4 slot, 1 x PCIe x16 & 2 x PCIe x4 & 1 x PCIe x1 w/ external power supply
TXCBP-XM81-4B-R10	Expansion backplane module for TANK 81 Series, 4 slot, 2 x PCIe x8 & 2 x PCIe x4 w/ external power supply
TXCBP-XM81-4C-R10	Expansion backplane module for TANK 81 Series, 4 slot, 1 x PCIe x16 & 2 x PCIe x4 & 1 x PCIe x4
TXCBP-XM81-G1-PW-R10	Expansion backplane module for TANK 81 Series, 4 slot, 1 x PCIe x16 & 1 x PCIe x4 w/ external power supply
TXCBP-XM81-G2-PW-R10	Expansion backplane module for TANK 81 Series, 6 slot, 2 x PCIe x8 & 2 x PCIe x4 w/ external power supply
IDD-X1228150-R10*	Extended Power Board for TANK-XM81 Series, 150W DC/DC 12-28V input 12V output

* For expansion cards (graphics cards, accelerator cards) that require independent power supply to provide independent power supply, it must be equipped with a Backplane with W/external power supply function.

Optional Expansion Chassis

Part No.	Description
TXC-XM81-3S-R10	3-slot expansion chassis for TANK 81 Series
TXC-XM81-4S-R10	4-slot expansion chassis for TANK 81 Series
TXC-XM81-G1-R10	One GPU expansion chassis for TANK 81 Series
TXC-XM81-G2-R10	Dual GPU expansion chassis for TANK 81 Series

Optional Internal Expansion Boards

Part No.	Description
GPOE-XM81-8P-R10	I/O expansion module for TANK 81 Series, 8 x 2.5G LAN with PoE
TXIOB-XM81-A-R10	I/O expansion module for TANK 81 Series, 2 x M.2 B Key, 1 x M.2 A Key, 1 x PCIe Mini

Packing List

1 x Screw pack

1 x Power cable

1 x Mounting bracket

TANK-XM810

- High-Performance 10th /11th Generation Intel® Core™ Processor
- Fanless Embedded Computer

New

Features

- Supported CPUs:
Intel® Core™ i3-10320 3.8 GHz (up to 4.6 GHz, quad-core, 65W TDP)
Intel® Core™ i5-10500TE 2.3 GHz (up to 3.7 GHz, 6-core, 35W TDP)
Intel® Core™ i7-10700TE 2.0 GHz (up to 4.4 GHz, 8-core, 35W TDP)
- 2 x 2.5GbE ports
- Multiple USB ports and serial ports
- Multiple internal expansion boards for flexible selection
- Various optional backplanes and chassis
- CE/FCC compliant

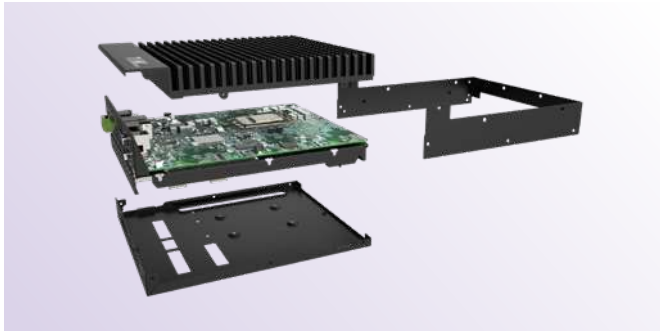


Specifications

Model Name		TANK-XM810
Chassis	Color	Black C
	Dimensions (WxDxH) (mm)	230.6 x 256.04 x 76.2
	System Fan	Fanless
	Chassis Construction	Extruded aluminum alloys
Motherboard	CPU	10/11 th Gen Intel® Core™ CPU TDP 35/65W Intel® Core™ i3-10320 3.8 GHz (up to 4.6 GHz, quad-core, 65W TDP) Intel® Core™ i5-10500TE 2.3 GHz (up to 3.7 GHz, 6-core, 35W TDP) Intel® Core™ i7-10700TE 2.0 GHz (up to 4.4 GHz, 8-core, 35W TDP)
	Chipset	Q470/Q470E
	Memory	2 x SO-DIMM DDR4 2933 MHz (up to 64GB)
	HDD Bay	1 x 2.5" SATA 6Gb/s HDD/SSD bay
I/O Interfaces	Ethernet	2 x RJ-45, 2 x I225V 2.5GbE (colay I225LM)
	USB 2.0	2
	USB 3.2 Gen 2 (10Gb/s)	6
	COM	2 x RS-232/422/485, 4 x RS-232
	Digital I/O	12-bit (6-in/6-out) DB15
	Display Interface	1 x DP++, 1 x HDMI
Internal Expansions	M.2	2 x 2280 M-key (PCIe x2)
	Expansion Backplane	Optional
Power	Power Input	12 ~ 28V DC
	Remote Power	1 x 2-pin
	Power Consumption	12V @ 8A (Intel® Core™ i9-10900TE with 8GB memory)
Reliability	Mounting	Wall mount
	Operating Temperature	-20°C ~ 60°C with air flow (CPU TDP35W & SSD) -20°C ~ 50°C with air flow (CPU TDP65W & SSD), 10% ~ 95% non-condensing
	Storage Temperature	-40°C ~ 85°C, 10% ~ 95%, non-condensing
	Operating Shock	Half-sine wave shock 5G, 11ms, 100 shocks per axis (SSD)
	Operating Vibration	MIL-STD-810G 514.6C-1 (with SSD)
	Weight (Net/Gross)	3.2/3.5 kg
	Safety / EMC	CE/FCC
	Watchdog Timer	Programmable 1 ~ 255 sec/min
OS	Supported OS	Windows® 10/11 IoT Enterprise/ Linux

Modular Design, Easy to Install

The mainboard is secured to the support bracket to prevent PCB from bending or warping. The three-layer structure consisting of heat spreader, mainboard and baseboard makes it easier to install CPU, memory and HDD, compared with the former TANK series.



Support High-performance Graphics Card

With IEI power board, it can support 3060 and other advanced graphics cards.

Maximum length of graphics card supported: 350mm

*Specified power adapter is required.

NVIDIA 3060

*Support advanced graphics card



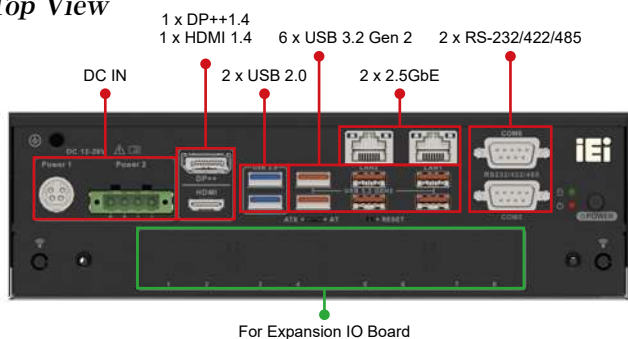
Flexible Expansion

Different expansion requirements can be met. Dual-slot and four-slot SKUs are provided for selection. Customers can choose the type of expansion slot according to their needs.

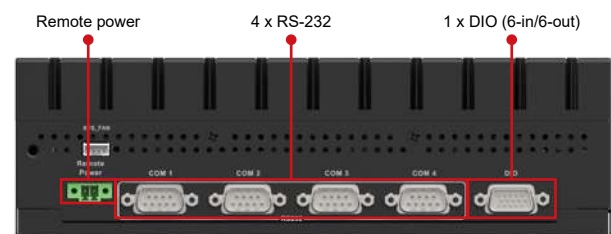


Fully Integrated I/O

Top View

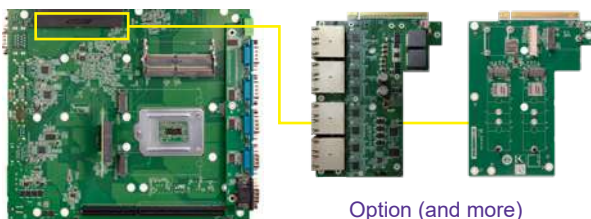


Front View



Modular Board Design

It supports various optional modules, such as M.2 expansion card, 8-port PoE expansion card, etc.



Option (and more)

Expansion IO Board

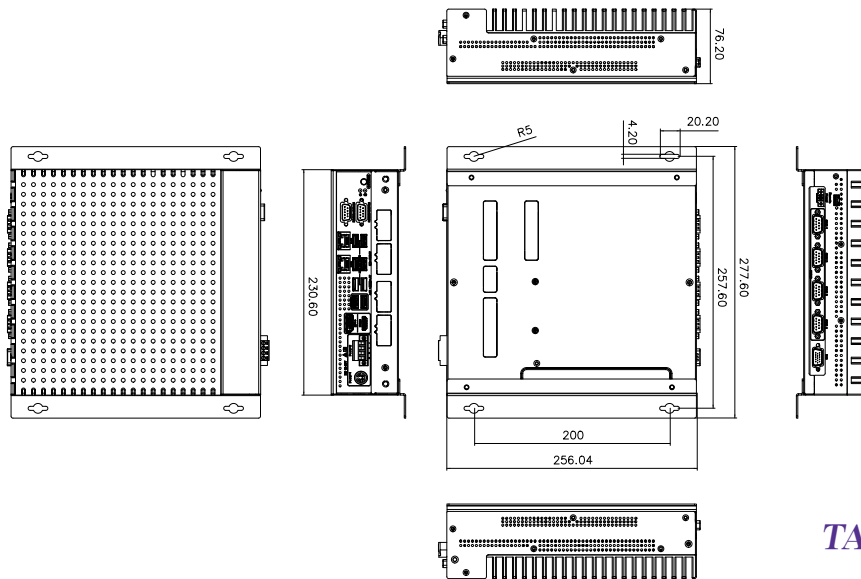
GPOE-XM81-8P-R10	I/O expansion module for TANK 81 series, 8 x 2.5G LAN with PoE
TXIOB-XM81-A-R10	I/O expansion module for TANK 81 series, 2 x M.2 B Key, 1 x M.2 A Key, 1 x PCIe Mini

Support 35W & 65W CPU

Operating temperature:

With 35w CPU (or 65W CPU PL1 & PL2, default 35W):	-20°C ~ 60°C
With 65w CPU:	-20°C ~ 50°C

Dimensions (Unit: mm)



Ordering Information

Part No.	Description
TANK-XM810-i3BC-R10	Ruggedized Fanless Embedded System with Intel® Core™ i3-10320 3.8 GHz, (up to 4.6 GHz, 4-core, TDP 65W), 8GB DDR4 pre-installed memory, 1xHDMI, 1xDP++, 12~28V DC and RoHS
TANK-XM810-i5AC-R10	Ruggedized Fanless Embedded System with Intel® Core™ i5-10500TE 2.3 GHz, (up to 3.7 GHz, 6-core, TDP 35W), 8GB DDR4 pre-installed memory, 1xHDMI, 1xDP++, 12~28V DC and RoHS
TANK-XM810-i7AC-R10	Ruggedized Fanless Embedded System with Intel® Core™ i7-10700TE 2.0 GHz, (up to 4.4 GHz, 8-core, TDP 35W), 8GB DDR4 pre-installed memory, 1xHDMI, 1xDP++, 12~28V DC and RoHS

Options

Part No.	Description
EMB-WIFI-KIT02I3-R10	2T2R M.2 wifi module kit for embedded system, IEEE802.11a/b/g/n/ac/ax, 1 x M.2 AE Key Wireless LAN & Bluetooth 5.2; Intel; AX210.NGWS Module, 2 x RF cable, 2 x Antenna; RoHS
63040-010180-200-RS	Adapter Power; FSP; FSP180-ABAN3; 9NA1804008; Active PFC; Vin: 90~264VAC; 180W; Dim: 75.6*151.3*25.4mm; Plug=6.5mm; Cable=1500mm; Erp(NO LOAD 0.5W); Vout: 19VDC; Din 4Pin/lock; CCL; RoHS
32000-000002-RS	European power cord

Optional Expansion Backplane

Part No.	Description
TXCBP-XM81-2A-R10	Expansion backplane module for TANK 81 Series, 2 slot, 1 x PCIe x16 & 1 x PCIe x4
TXCBP-XM81-2B-R10	Expansion backplane module for TANK 81 Series, 2 slot, 2 x PCIe x8
TXCBP-XM81-4A-R10	Expansion backplane module for TANK 81 Series, 4 slot, 1 x PCIe x16 & 2 x PCIe x4 & 1 x PCIe x1 w/ external power supply
TXCBP-XM81-4B-R10	Expansion backplane module for TANK 81 Series, 4 slot, 2 x PCIe x8 & 2 x PCIe x4 w/ external power supply
TXCBP-XM81-4C-R10	Expansion backplane module for TANK 81 Series, 4 slot, 1 x PCIe x16 & 2 x PCI & 1 x PCIe x4
TXCBP-XM81-G1-PW-R10	Expansion backplane module for TANK 81 Series, 4 slot, 1 x PCIe x16 & 1 x PCIe x4 w/ external power supply
TXCBP-XM81-G2-PW-R10	Expansion backplane module for TANK 81 Series, 6 slot, 2 x PCIe x8 & 2 x PCIe x4 w/ external power supply
IDD-X1228150-R10*	Extended Power Board for TANK-XM81 Series, 150W DC/DC 12-28V input 12V output

* For expansion cards (graphics cards, accelerator cards) that require independent power supply to provide independent power supply, it must be equipped with a Backplane with W/external power supply function.

Optional Expansion Chassis

Part No.	Description
TXC-XM81-3S-R10	3-slot expansion chassis for TANK 81 Series
TXC-XM81-4S-R10	4-slot expansion chassis for TANK 81 Series
TXC-XM81-G1-R10	One GPU expansion chassis for TANK 81 Series
TXC-XM81-G2-R10	Dual GPU expansion chassis for TANK 81 Series

Optional Internal Expansion Boards

Part No.	Description
GPOE-XM81-8P-R10	I/O expansion module for TANK 81 Series, 8 x 2.5G LAN with PoE
TXIOB-XM81-A-R10	I/O expansion module for TANK 81 Series, 2 x M.2 B Key, 1 x M.2 A Key, 1 x PCIe Mini

Packing List

1 x Screw pack

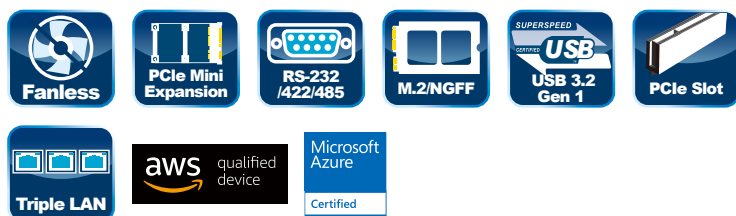
1 x Power cable

TANK-880-Q370

- High-Performance 8th/9th Generation Intel® Core™ Processor
- Fanless Embedded Computer

Features

- 8th/9th Gen Intel® Core™ processor platform with Intel® Q370 chipset and DDR4 memory
- Dual independent displays with high resolution support
- Rich high-speed I/O interfaces
- On-board internal power connector for providing power to add-on cards
- Four accessible 2.5" HDD/SSD SATA 6 Gb/s bay (with RAID 0/1/5/10 support)
- Great flexibility for hardware expansion

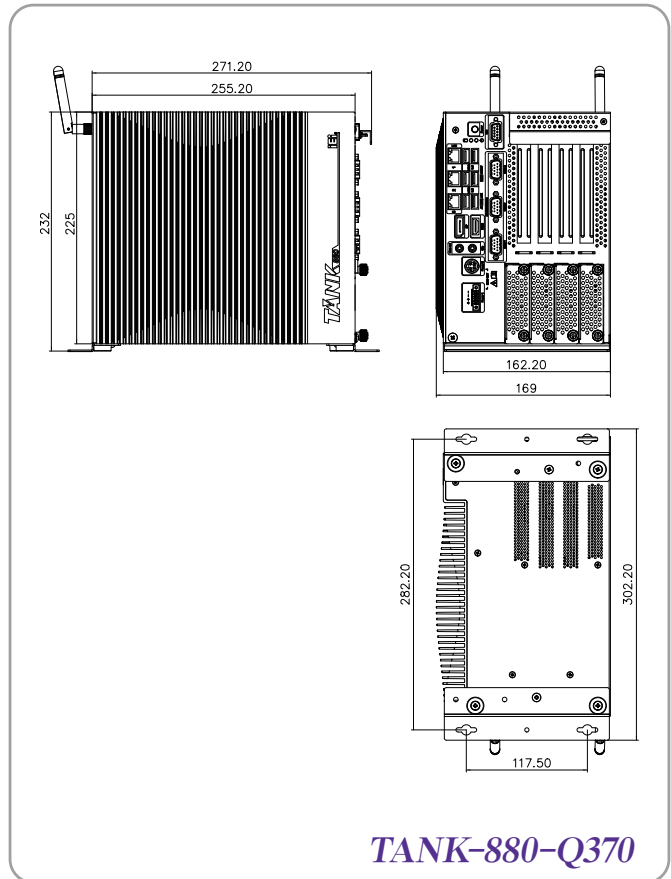
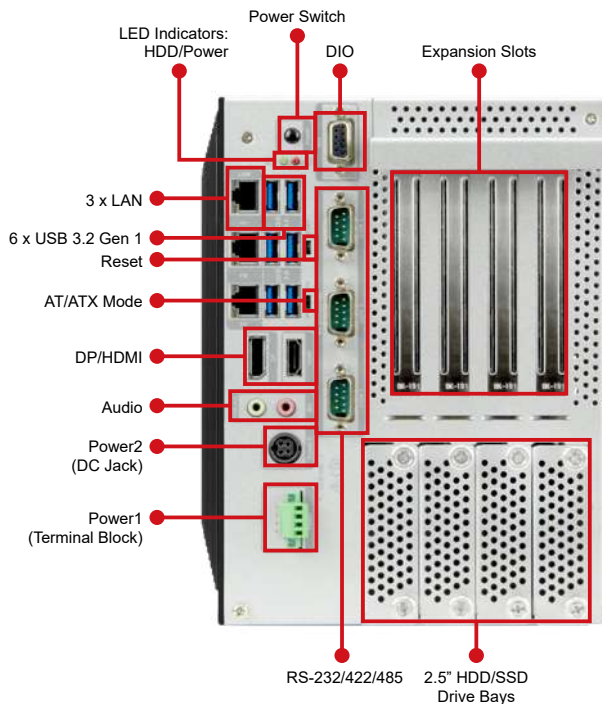


Specifications

Model Name		TANK-880-Q370
Chassis	Color	Black C + Silver
	Dimensions(WxDxH) (mm)	169 x 255.2 x 225
	System Fan	Fanless
	Chassis Construction	Extruded aluminum alloys
Motherboard	CPU	8 th Gen Intel® Core™ CPU & Intel® Core™ i7-9700TE 1.8 GHz (up to 3.8 GHz, 8-core, TDP 35W) Intel® Core™ i5-9500TE 2.2 GHz (up to 3.6 GHz, 6-core, TDP 35W)
	Chipset	Intel® Q370
	System Memory	2 x SO-DIMM DDR4 2666/2400 (8GB pre-installed)(up to 64GB)
Storage	Hard Drive	4 x 2.5" HDD/SSD SATA 6Gb/s bay (with RAID 0/1/5/10 support)
I/O Interfaces	USB	6 x USB 3.2 Gen 1
	Ethernet	3 x RJ-45: 1 x GbE by Intel® I219 2 x GbE by Intel® I210
	COM Port	3 x RS-232/422/485 with AFC (DB-9 with 2.5kV isolation)
	Digital I/O	8-bit Digital I/O (4-in/ 4-out)
	Display	1 x HDMI 1.4b (up to 3840 x 2160@30Hz) 1 x DP (up to 4096 x 2304@60Hz)
	Audio	1 x Line-out, 1 x Mic-in
	TPM 2.0	1 x TPM 2.0 (2 x 10 pin)(optional)
	PCle Mini	1 x Full-size (PCle/ USB 2.0/ SATA)
Expansions	M.2	1 x 2230 A-key (PCle x2/USB 2.0) 2 x 2280 M-key (PCle x2)
	Backplane	1 x PCle by 16, 1 x PCle by 1, 2 x PCle by 4
Power	Power Input	DC Jack: 9 ~ 36V DC Terminal Block: 9 ~ 36V DC
	Power Consumption	19W @ 5.4A (Intel® Core™ i7-9700TE with 8GB memory)
	Internal Power Output	12V @ up to 10A
Reliability	Mounting	Wall mount
	Operating Temperature	-20°C ~ 60°C with air flow (SSD), 10% ~ 95% non-condensing
	Storage Temperature	-40°C ~ 85°C with air flow (SSD), 10% ~ 95% non-condensing
	Operating Shock	Half-sine wave shock 5G, 11ms, 100 shocks per axis (SSD)
	Operation Vibration	MIL-STD-810G 514.6C-1 (SSD)
	Weight (Net/Gross)	5.4 kg/8.45 kg
	Safety / EMC	CE/FCC
	Watchdog timer	Programmable 1 ~ 255 sec/min
OS	Supported OS	Microsoft Windows 10 / Windows 11, Linux

Fully Integrated I/O

Dimensions (Unit: mm)



Ordering Information

Part No.	Description
TANK-880-Q370-i7R/8G/4A-R10	Ruggedized fanless embedded system with Intel® i7-9700TE 1.8 GHz, (up to 3.8 GHz, 8-core, TDP 35W), 8GB DDR4 pre-installed memory, 1 x PCIe by 16 & 2 x PCIe by 4 & 1 x PCIe by 1 expansion, HDMI/DP, 9 ~ 36V DC, RoHS
TANK-880-Q370-i5R/8G/4A-R10	Ruggedized fanless embedded system with Intel® i5-9500TE 2.2 GHz, (up to 3.6 GHz, 6-core, TDP 35W), 8GB DDR4 pre-installed memory, 1 x PCIe by 16 & 2 x PCIe by 4 & 1 x PCIe by 1 expansion, HDMI/DP, 9 ~ 36V DC, RoHS

Options

Part No.	Description
Wi-Fi Module	27319-000009-RS* Wireless LAN Module; Wireless LAN & Bluetooth M.2 Module; Sparklan; R9701810011; IEEE802.11a/b/g/n/ac; 2.412 GHz~2.4835 GHz, 5.15 GHz~5.85 GHz; M.2 2230;; 3.3V; 22*30*2.15mm; QCNFA364A; QCA6174A-5; 2x2 MIMO; Dual Band; WCBN808A-Q2; CCL; CCL; RoHS
Antenna	32505-000900-100-RS* External Antenna; WLAN; RG 178; 108MM; TANK-700-QM67-R10; PEAK GAIN 2.0DBI; Exceltek; 2.4-2.5 GHz/5.15-5.85 GHz; REVERSE SMA PLUG; RoHS
RF Cable	32501-004000-100-RS* RF; RF CABLE; LINE DIAMETER: 0.81mm; 250MM;; 50Ω; Sparklan; 0-6 GHz; VSWR≤1.3; I-PEX MHF-4 Plug; REVERSE SMA JACK; NUT x 1; WASHER x 1;; RoHS
Adapter	63040-010150-700-RS Adapter Power; FSP; FSP150-ABAN3; 9NA1504811; Active PFC; Vin: 90 ~ 264VAC; 150W; Dim: 75.6*151.3*25.4mm; Plug=6.5mm; Cable=1500mm; Erp(NO LOAD 0.15W); Vout: 19VDC; Din 4Pin/lock; CCL; RoHS
Power Cord	32000-000002-RS European power cord
TPM 2.0 Module	TPM-IN02-R20 20-pin Infineon TPM2.0 module, software management tool, firmware v5.5
System Fan	31100-000440-RS FAN; +12V; 4PIN; Everflow; 92*92*25mm; 3600RPM; TWO BALL BEARING; LINE LENGTH: 180MM; 4.4+/-0.3MM; F129025BU; F129025BUAFW30 aR; AXIAL FAN; WITH FRAME; 73.29CFM; 11.4~12.6V; 44dB; 70000hur; TUV, UL, CE; CCL; RoHS
OS: Windows Embedded 10	TANK-880-Q370-W10E64-H-R10 OS Image with Windows® Embedded Standard 10 E High End 64-bit 2019 for TANK-880-Q370-i7 Series, with DVD-ROM, RoHS
OS: Windows Embedded 10	TANK-880-Q370-W10E64-V-R10 OS Image with Windows® Embedded Standard 10 E Value 64-bit 2019 for TANK-880-Q370-i5 Series, with DVD-ROM, RoHS

* Each Wi-Fi module needs two antennas and two RF cables to fully support Wi-Fi function.

Packing List

1 x Chassis Screw	1 x Wall Mount Bracket
-------------------	------------------------

TANK-871-Q170

- High-Performance 6th/7th Generation Intel® Core™ Processor
- Fanless Embedded Computer

Features

- 6th/7th 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
- IEI iRIS-2400 solution

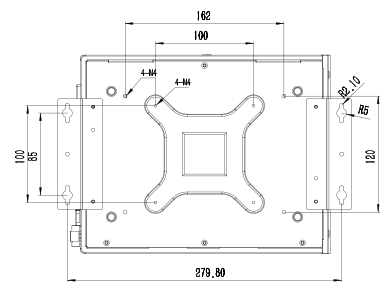
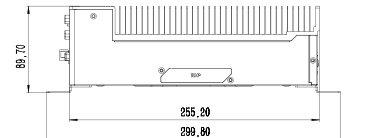
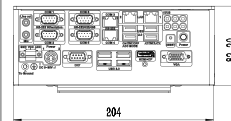
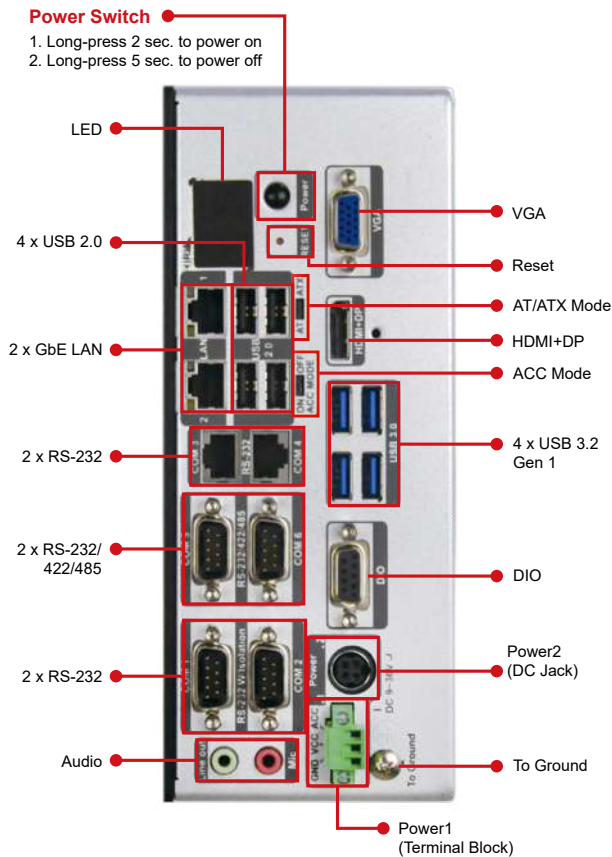


Specifications

Model Name		TANK-871-Q170
Chassis	Color	Black C + Silver
	Dimensions (WxDxH) (mm)	82.2 x 255.2 x 204
	System Fan	Fanless
	Chassis Construction	Extruded aluminum alloy
Motherboard	CPU	7 th Gen Intel® Core™ CPU & Intel® Core™ i7-6700TE 2.4 GHz (up to 3.4 GHz, quad-core, TDP 35) Intel® Core™ i5-6500TE 2.3 GHz (up to 3.3 GHz, quad-core, TDP 35)
	Chipset	Intel® Q170
	System Memory	2 x SO-DIMM DDR4 2133 (4GB pre-installed) (up to 32GB)
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	4 x USB 3.2 Gen 1 4 x USB 2.0
	Ethernet	2 x RJ-45: LAN1: GbE by Intel® I219LM LAN2 (iRIS): GbE by Intel® I210
	COM Port	2 x RS-232/422/485 with AFC (DB-9) 4 x RS-232 (2 x RJ-45, 2 x DB-9 with 2.5kV isolation)
	Digital I/O	8-bit Digital I/O (4-in/ 4-out)
	Display	1 x VGA (up to 1920 x 1200@60Hz) 1 x HDMI/DP (up to 3840 x 2160@30Hz /4096×2304@60Hz) 1 x iDP (optional)
	Audio	1 x Line-out, 1 x Mic-in
	Wireless	1 x 802.11a/b/g/n/ac (optional)
	TPM	1 x TPM 2.0 (2 x 10 pin) (optional)
Expansions	PCIe Mini	1 x Half-size (PCIe/ USB 2.0) 1 x Full-size (PCIe/ USB 2.0/ SATA)
Power	Power Input	DC Jack: 9 ~ 36V DC Terminal Block: 9 ~ 36V DC
	Power Consumption	19W@3.68A (Intel® Core™ i7-6700TE with 8GB memory)
Reliability	Mounting	Wall mount
	Operating Temperature/Humidity	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/Humidity	-40°C ~ 85°C with air flow (SSD), 10% ~ 95% non-condensing
	Operating Shock	Half-sine wave shock 5G, 11ms, 100 shocks per axis (SSD)
	Operating Vibration	MIL-STD-810G 514.6 C-1 (SSD)
	Weight (Net/Gross)	3.5 kg/4.5 kg
	Safety/EMC	CE/FCC/KC
OS	Supported OS	Microsoft® Windows® 8 Embedded, Microsoft® Windows® Embedded Standard 7 E, Microsoft® Windows® 10 IoT Enterprise

Fully Integrated I/O

Dimensions (Unit: mm)



TANK-871-Q170

Ordering Information

Part No.	Description
TANK-871-Q170i-i7/4G-R10	Ruggedized fanless embedded system with Intel® Core™ i7-6700TE 2.4 GHz (up to 3.4 GHz, quad core, TDP 35W), 4GB DDR4 pre-installed memory, VGA/HDMI+DP/iDP, iRIS-2400 optional, 9 ~ 36V DC, RoHS
TANK-871-Q170i-i5/4G-R10	Ruggedized fanless embedded system with Intel® Core™ i5-6500TE 2.3 GHz (up to 3.3 GHz, quad core, TDP 35W), 4GB DDR4 pre-installed memory, VGA/HDMI+DP/iDP, iRIS-2400 optional, 9 ~ 36V DC, RoHS

Options

Part No.	Description
32000-000002-RS	European power cord
63040-010120-300-RS	Adapter Power;FSP;FSP120-AHAN3;9NA1206708;Active PFC;Vin:90 ~ 264VAC;120W;Dim:75.6*151.3*25.4mm;Plug=6.5mm;Cable=1500mm;Erp(NO LOAD 0.15W);Vout:12VDC;Din 4Pin/lock;CCL;RoHS
iRIS-2400-R10	IPMI 2.0 adapter card with AST2400 BMC chip for DDR3 SO-DIMM socket interface
EMB-WIFI-KIT01-R20	1T1R wifi module kit for embedded system, IEEE802.11a/b/g/n/ac WiFi with Bluetooth 4.0/3.0+HS, 1 x wifi module, 2 x 250mm RF cable, 2 x Antenna, 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
TANK-870-Q170-W10E64-H-R10	OS Image with Windows® Embedded Standard 10 E High End 64-bit for TANK-870-Q170-i7 Series, with DVD-ROM, RoHS
TANK-870-Q170-W10E64-V-R10	OS Image with Windows® Embedded Standard 10 E Value 64-bit for TANK-870-Q170-i5 Series, with DVD-ROM, RoHS
TPM-IN02-R20	20-pin Infineon TPM2.0 module, software mangement tool, firmware v5.5

Packing List

1 x Chassis Screw

1 x Mounting Bracket

TANK-870-Q170

- High-Performance 6th/7th Generation Intel® Core™ Processor
- Fanless Embedded Computer

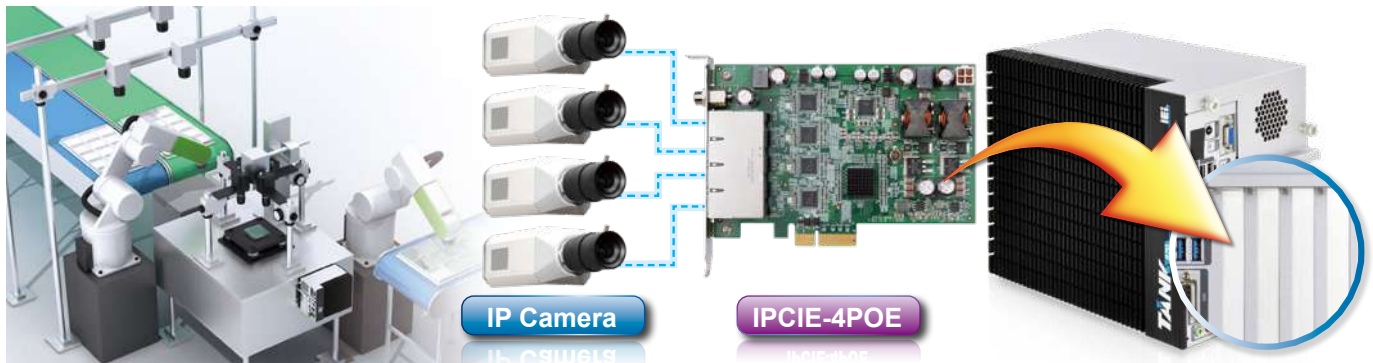
Features

- 6th/7th 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

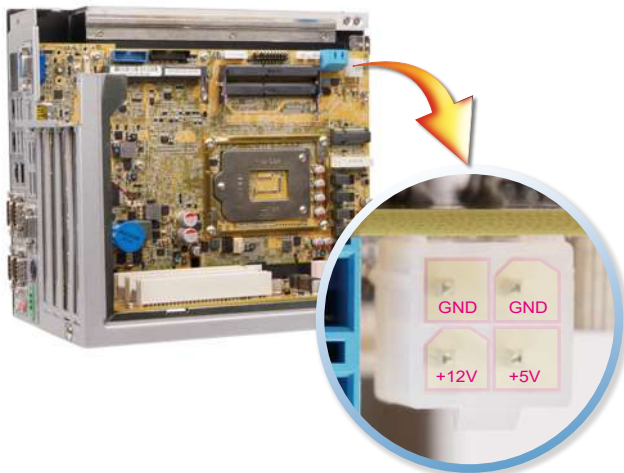
The TANK-870-Q170 integrated with IEI PoE Ethernet port expansion card can be used as a surveillance system for factory and public security. IEI PoE expansion card can support up to four PoE IEEE802.3af ports (max. 15.4 W per port) by PCIe x4.



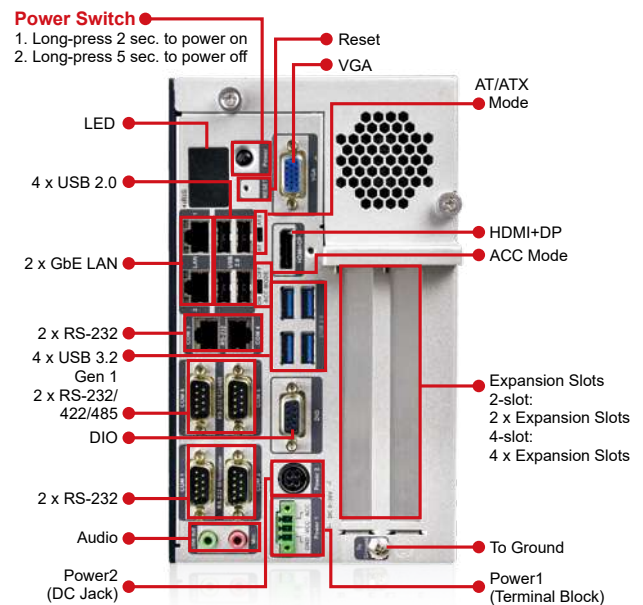
5V@3A or 12V@3A

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



Flexible Expansion Interface

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

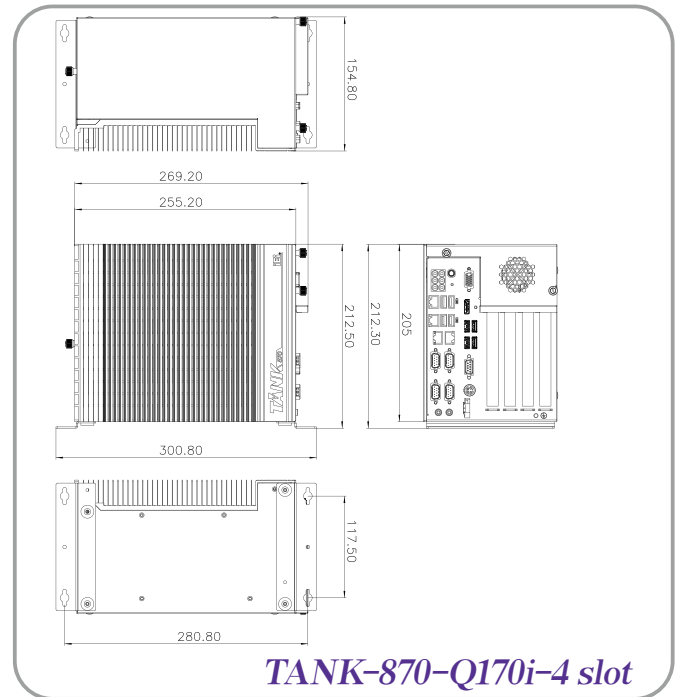
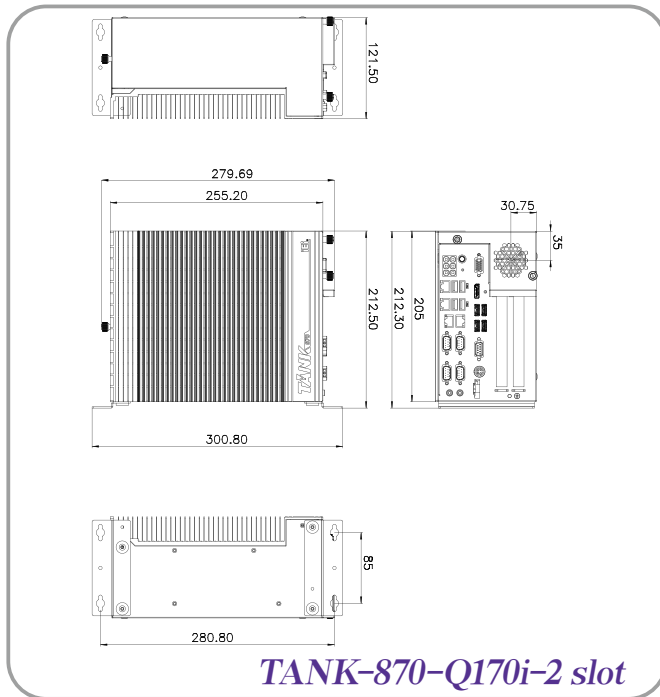
* The expansions described above are provided by the backplanes

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	7 th Gen Intel® Core™ CPU & Intel® Core™ i7-6700TE 2.4 GHz (up to 3.4 GHz, quad-core, TDP 35) Intel® Core™ i5-6500TE 2.3 GHz (up to 3.3 GHz, quad-core, TDP 35)
	Chipset	Intel® Q170
	System Memory	2 x SO-DIMM DDR4 2133 (4GB pre-installed)(up to 32GB)
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	4 x USB 3.2 Gen 1 4 x USB 2.0
	Ethernet	2 x RJ-45: LAN1: GbE by Intel® I219LM LAN2 (iRIS): GbE by Intel® I210
	COM Port	2 x RS-232/422/485 with AFC (DB-9) 4 x RS-232 (2 x RJ-45, 2 x DB-9 with 2.5kV isolation)
	Digital I/O	8-bit Digital I/O (4-in/ 4-out)
	Display	1 x VGA (up to 1920 x 1200@60Hz) 1 x HDMI/DP (up to 3840 x 2160@30Hz /4096 x 2304@60Hz) 1 x iDP (optional)
	Audio	1 x Line-out, 1 x Mic-in
	Wireless	1 x 802.11 a/b/g/n/ac (optional)
	TPM	1 x TPM 2.0 (2 x 10 pin) (optional)
Expansions	PCIe Mini	1 x Half-size (PCIe/ USB 2.0) 1 x Full-size (PCIe/ USB 2.0/ SATA)*
	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 Mini (PCIe/ USB 2.0)
Power	Power Input	DC Jack: 9 ~ 36V DC Terminal Block: 9 ~ 36V DC
	Power Consumption	19V@3.68A (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 (SSD)
	Operating Vibration	MIL-STD-810G 514.6 C-1 (SSD)
	Weight (Net/Gross)	2-slot: 4.2 kg/6.3 kg 4-slot: 4.5 kg/6.5 kg
	Safety/EMC	CE/FCC/KC
OS	Supported OS	Microsoft® Windows® 8 Embedded, Microsoft® Windows® Embedded Standard 7 E, Microsoft® Windows® 10 IoT Enterprise

* TANK-870-Q170-QGW has no Full-size PCIe mini slot

Dimensions (Unit: mm)



Ordering Information

Part No.	Description
TANK-870-Q170i-i5/4G/2A-R11	Ruggedized fanless embedded system with Intel® Core™ i5-6500TE 2.3 GHz (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-R11	Ruggedized fanless embedded system with Intel® Core™ i5-6500TE 2.3 GHz (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-R11	Ruggedized fanless embedded system with Intel® Core™ i5-6500TE 2.3 GHz (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-i7/4G/2A-R11	Ruggedized fanless embedded system with Intel® Core™ i7-6700TE 2.4 GHz (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-R11	Ruggedized fanless embedded system with Intel® Core™ i7-6700TE 2.4 GHz (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-R11	Ruggedized fanless embedded system with Intel® Core™ i7-6700TE 2.4 GHz (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

Options

Part No.	Description
32000-000002-RS	European power cord
63040-010120-300-RS	Adapter Power;FSP;FSP120-AHAN3;9NA1206708;Active PFC;Vin:90 ~ 264VAC;120W;Dim:75.6*151.3*25.4mm;Plug=6.5mm;Cable=1500mm;Erp(NO LOAD 0.15W);Vout:12VDC;Din 4Pin/lock;CCL;RoHS
63040-010150-700-RS	Adapter Power;FSP;FSP150-ABAN3;9NA1504811;Active PFC;Vin:90 ~ 264VAC;150W;Dim:75.6*151.3*25.4mm;Plug=6.5mm;Cable=1500mm;Erp(NO LOAD 0.15W);Vout:19VDC;Din 4Pin/lock;CCL;RoHS
iRIS-2400-R10	IPMI 2.0 adapter card with AST2400 BMC chip for DDR3 SO-DIMM socket interface
EMB-FAN-KIT02-R10	Fan Module;MODIFY 31100-000272-RS;+12V DC;4PIN;40*40*15mm ;STANDARD;;FD124015LB2W3;; L= 400mm MOLEX 5051-04P P=2.54;CCL;RoHS
EMB-WIFI-KIT01-R20	1T1R wifi module kit for embedded system, IEEE802.11a/b/g/n/ac WiFi with Bluetooth 4.0/3.0+HS, 1 x wifi module, 2 x 250mm 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
TANK-870-Q170-W10E64-H-R10	OS Image with Windows® Embedded Standard 10 E High End 64-bit for TANK-870-Q170-i7 Series, with DVD-ROM, RoHS
TANK-870-Q170-W10E64-V-R10	OS Image with Windows® Embedded Standard 10 E Value 64-bit for TANK-870-Q170-i5 Series, with DVD-ROM, RoHS
TPM-IN02-R20	20-pin Infineon TPM2.0 module, software mangement tool, firmware v5.5

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

Packing List

1 x Chassis Screw	1 x Mounting Bracket	2 x RJ-45 to COM Port Cable
-------------------	----------------------	-----------------------------

TANK-870e-H110

- High-Performance 6th/7th Generation Intel® Core™ Processor
- Fanless Embedded Computer

Features

- 6th/7th 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



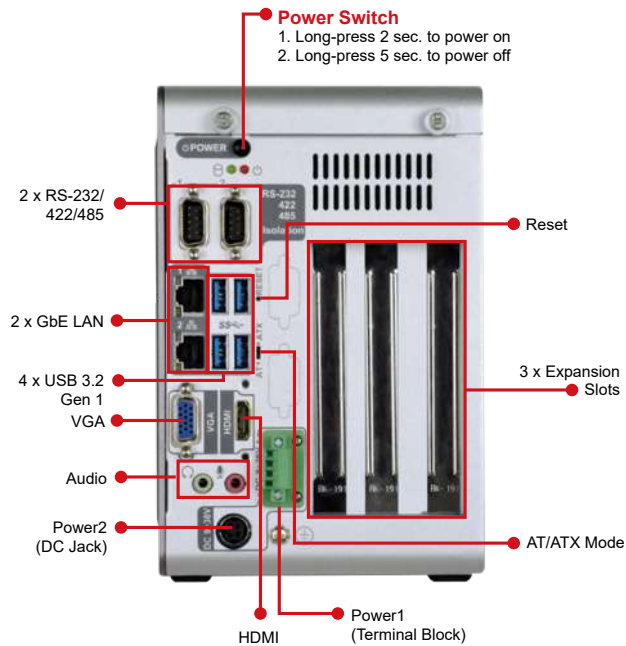
Specifications

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	7 th Gen Intel® Core™ CPU & Intel® Core™ i5-6500TE 2.3 GHz (up to 3.3 GHz, quad-core, TDP 35)
	Chipset	Intel® H110
	System Memory	2 x SO-DIMM DDR4 2133 (4GB pre-installed)(up to 32GB)
Storage	Hard Drive	2 x 2.5" SATA 6Gb/s HDD/SSD bay
I/O Interfaces	USB	4 x USB 3.2 Gen 1
	Ethernet	2 x RJ-45: 2 x GbE by RTL8119I
	COM Port	2 x RS-232/422/485 with AFC (DB-9 with 2.5kV isolation)
	Display	1 x VGA (up to 1920 x 1200@60Hz) 1 x HDMI (up to 3840 x 2160@30Hz)
	Audio	1 x Line-out, 1 x Mic-in
	Wireless	1 x 802.11a/b/g/n/ac (optional)
Expansions	PCIe Mini	1 x Full-size (PCIe/ USB 2.0) 1 x Full-size (PCIe/ USB 2.0/ SATA)
	Backplane	3A: 1 x PCIe x16, 2 x PCI 3B: 1 x PCIe x16, 1 x PCIe x4, 1 x PCI
Power	Power Input	DC Jack: 9 ~ 36V DC Terminal Block: 9 ~ 36V DC
	Power Consumption	19 V@3.44 A (Intel® Core™ i7-6700TE with 8 GB memory)
	Internal Power Connector	5V@3A or 12V@3A
Reliability	Mounting	Wall mount & DIN Rail
	Operating Temperature	i5-6500TE -20°C ~ 60°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 (SSD)
	Operating Vibration	MIL-STD-810G 514.6C-1 (SSD)
	Weight (Net/Gross)	4.2 kg/6.3 kg
	Safety/EMC	CE/FCC/KC
OS	Supported OS	Microsoft® Windows® 8 Embedded, Microsoft® Windows® Embedded Standard 7 E, Microsoft® Windows® 10 IoT Enterprise

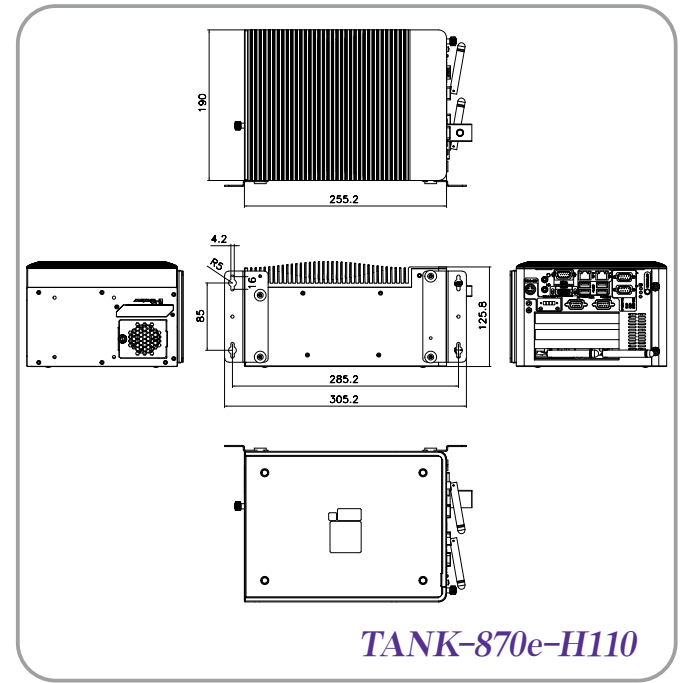
Versatile Expansion Interface

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

Fully Integrated I/O



Dimensions (Unit: mm)



Ordering Information

Part No.	Description
TANK-870e-H110-i5/4G/3A-R11	Ruggedized fanless embedded system with Intel® Core i5-6500TE 2.3 GHz, (up to 3.3 GHz, quad core, TDP 35W), 4GB DDR4 pre-installed memory, 1 x PCIe by 16 & 2 x PCI expansion, VGA/HDMI, 9 ~ 36V DC, RoHS
TANK-870e-H110-i5/4G/3B-R11	Ruggedized fanless embedded system with Intel® Core i5-6500TE 2.3 GHz, (up to 3.3 GHz, quad core, TDP 35W), 4GB DDR4 pre-installed memory, 1 x PCIe by 16 & 1 x PCIe by 1 & 1 x PCI expansion, VGA/HDMI, 9 ~ 36V DC, RoHS

Options

Part No.	Description
32000-000002-RS	European power cord
63040-010120-300-RS	Adapter Power;FSP;FSP120-AHAN3;9NA1206708;Active PFC;Vin:90 ~ 264VAC;120W;Dim:75.6*151.3*25.4mm;Plug=6.5mm;Cable=1500mm;Erp(NO LOAD 0.15W);Vout:12VDC;Din 4Pin/lock;CCL;RoHS
EMB-FAN-KIT02-R10	Fan Module;MODIFY 31100-000272-RS;+12V DC;4PIN;40*40*15mm ;STANDARD;;FD124015LB2W3; L= 400mm MOLEX 5051-04P P=2.54;CCL;RoHS
EMB-WIFI-KIT11-R20	1T1R wifi module kit for embedded system, IEEE802.11a/b/g/n/ac WiFi with Bluetooth 4.0/3.0+HS, 1 x wifi module, 2 x 400mm RF cable, 2 x Antenna, RoHS
DK-75-R10	DIN mount kit adapter for VESA-75
TANK-870e-H110-WES7E64-R10	OS Image with Windows® Embedded Standard 7 E 64-bit for TANK-870e-H110 Series, with DVD-ROM, RoHS
TANK-870e-H110-W10E64-V-R10	OS Image with Windows® Embedded Standard 10 E Value 64-bit for TANK-870e-H110-i5 Series, with DVD-ROM, RoHS

Packing List

1 x Chassis Screw	1 x Mounting Bracket
-------------------	----------------------

TANK-610-BW

Fanless Embedded System

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 2.5" SATA storage device
- Wide range temperature



Specifications

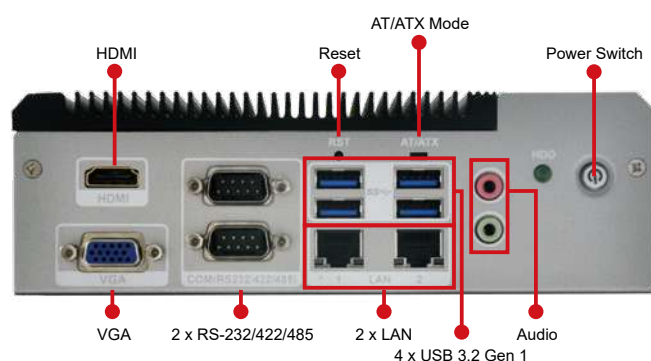
Model Name		TANK-610-BW
Chassis	Color	Black C + Silver
	Dimensions (WxDxH) (mm)	184 x 200.6 x 58.2
	System Fan	Fanless
	Chassis Construction	Extruded aluminum alloy
Motherboard	CPU	Intel® Celeron® N3160 1.6 GHz (up to 2.24 GHz, quad-core, TDP 6W)
	Chipset	SoC
	System Memory	2 x DDR3L SO-DIMM (2GB pre-installed)(up to 8GB)
Storage	Hard Drive	1 x 2.5" SATA 6Gb/s HDD/SSD Bay
I/O Interfaces	USB	4 x USB 3.2 Gen1
	Ethernet	2 x RJ-45: 2 x GbE by Intel® I210
	COM Port	2 x RS-232/422/485 with AFC 6 x RS-232
	Display	1 x VGA (up to 1920 x 1200@60Hz) 1 x HDMI (up to 3840 x 2160@30Hz)
	Audio	1 x Line-out, 1 x Mic-in
	Wireless	1 x 802.11a/b/g/n/ac (optional)
	Expansions	1 x Half-size (PCIe/USB 2.0) 1 x Full-size (PCIe/SATA)
Power	Power Input	DC Jack: 9 ~ 36V DC Terminal Block: 9 ~ 36V 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 with air flow (SSD), 10% ~ 95% non-condensing
	Operating Shock	Half-sine wave shock 5G, 11ms, 100 shocks per axis (SSD)
	Operating Vibration	MIL-STD-810G 514.6C-1 (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

Various Applications

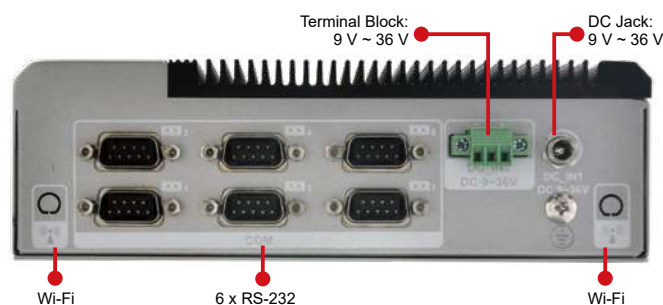


Fully Integrated I/O

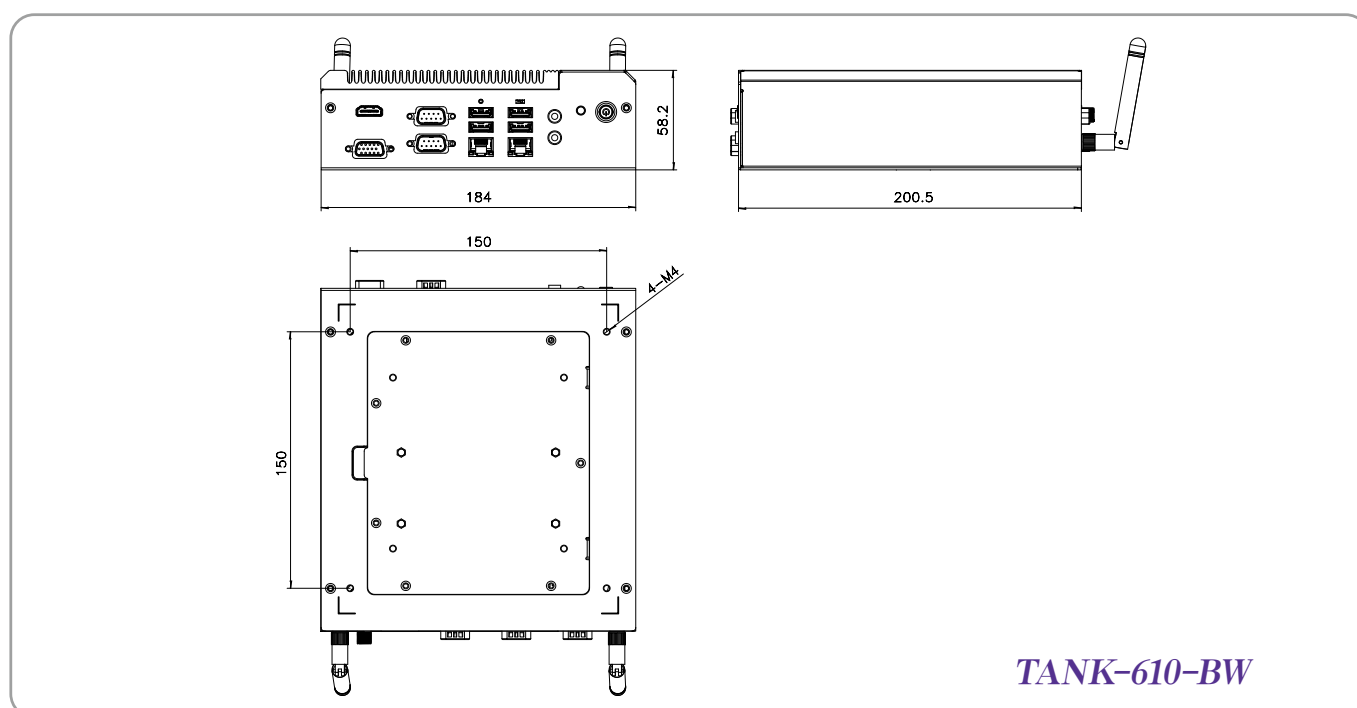
Front View



Rear View



Dimensions (Unit: mm)



TANK-610-BW

Ordering Information

Part No.	Description
TANK-610-BW-N3/2G-R10	Fanless wide temperature embedded system with Intel® Celeron® N3160 1.6 GHz, (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 3.2 Gen 1 (5Gb/s), VGA/HDMI, dual Intel® PCIe GbE, RoHS

Options

Part No.	Description
AFLWK-19	VESA 100 mount kit
EMB-WIFI-KIT11-R20	1T1R wifi module kit for embedded system, IEEE802.11a/b/g/n/ac WiFi with Bluetooth 4.0/3.0+HS, 1 x wifi module, 2 x 350mm RF cable, 2 x Antenna, RoHS
TANK-610-BW-WES7E64-R10	OS Image with Windows® Embedded Standard 7 E 64-bit for TANK-610 BW Series, with DVD-ROM, RoHS, R10
DK-100-R10	VESA 100 to DIN-Rail mounting kit

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	

DIN-Rail Embedded System



Model Name		DRPC-W-TGL-U	DRPC-W-JL	DRPC-W-EHL
Chassis	Color	Black		
	Dimensions (WxDxH)(mm)	176 x 116 x 67.8	176 x 116 x 60.8	
	System Fan	Fanless		
	Chassis Construction	Extruded aluminum alloys		
Motherboard	CPU	Intel® Core™ i7-1185G7E 1.8 GHz (up to 4.4 GHz, quad-core, TDP 15W) Intel® Core™ i5-1145G7E 1.5 GHz (up to 4.1 GHz, quad-core, TDP 15W) Intel® Core™ i3-1115G4E 2.2 GHz (up to 3.9 GHz, dual-core, TDP 15W) Intel® Celeron® 6305 1.8 GHz (dual-core, TDP 15W)	Intel® Jasper Lake Celeron® N5105 2.0 GHz (up to 2.9 GHz, quad-core, TDP=10W)	Intel® Atom® 6000 series (Elkhart Lake platform) Intel® Celeron® J6412 2.0 GHz (up to 2.6 GHz, quad-core, TDP=10W)
	Chipset	SoC		
	System Memory	1 x DDR4 3200 MHz SO-DIMM (up to 32GB)	1 x DDR4 2933 MHz SO-DIMM (up to 16GB)	Onboard LPDDR4 8G (up to 16GB)
Storage	Hard Drive	1 x 2.5" SATA 6Gb/s HDD bay		
	eMMC	N/A	N/A	N/A
	Micro SD	N/A	N/A	N/A
I/O Interfaces	USB	4 x USB 3.2	2 x USB 3.2	2 x USB 3.2
	Ethernet	3 x 2.5GbE	3 x 2.5GbE	2 x 2.5GbE
	COM Port	2 x RS-232/422/485 (optional)	2 x RS-232 (optional)	2 x RS-232/422/485 (optional)
	Digital I/O	1 x 12-bit digital I/O (optional)		
	Display	1 x DP, 2 x HDMI	1 x DP, 1 x HDMI	1 x DP, 1 x HDMI
	Wireless	Optional		
	TPM	Intel PTT		
	Other	1 x Power button, 1 x Reset button, 1 x Power LED, 1 x HDD LED, 1 x System fan connector		
Expansions	PCIe Mini	N/A	N/A	N/A
	M.2	1 x M.2 2230 A key slot for Wi-Fi & BT 1 x M.2 2242/3052 B key slot for 5G (PCIe x2) 1 x M.2 2240/3040 B key slot (only for IEI M.2 eDP/LVDS module)	1 x M.2 2230 A key slot 1 x M.2 3042/2280 B key slot for 5G, w/ SIM slot (PCIe)	1 x M.2 2230 A key slot for Wi-Fi & BT 1 x M.2 2242/3052 B key slot for 5G (PCIe x2) 1 x M.2 2240/3040 B key slot (only for IEI M.2 eDP/LVDS module)
	Backplane	N/A	N/A	N/A
Power	Power Input	12V DC		
	Power Consumption	12V@4.1A (Intel® i5-1145G7E with 8GB DDR4 memory)	12V@2.45A (Intel® N5105 with 16GB DDR4 memory)	12V@2.5A (Intel® J6412 with 4GB DDR4 memory)
	Remote PWR	N/A	N/A	N/A
Reliability	Mounting	DIN-Rail		
	Operating Temperature	-20°C ~ 60°C with airflow, 10% ~ 95% non-condensing		
	Storage Temperature	-30°C ~ 85°C, 10% ~ 95% non-condensing		
	Operating Shock	Half-sine wave shock 5G, 11ms, 3 shocks per axis		
	Operating Vibration	MIL-STD-810F 514.5C-2		
	Weight (Net/ Gross)	0.98/1.2 kg	0.91/1.16 kg	0.92/1.16 kg
	Safety/EMC	CE/ FCC		
	Watchdog Timer	Programmable 1 ~ 255 sec/min		
OS	Supported OS	Microsoft® Windows 10 / 11, Linux		

DIN-Rail Embedded System




Model Name		DRPC-240-TGL-U	DRPC-230-ULT5
Chassis	Color	Black	Black & Silver
	Dimensions (WxDxH)(mm)	81 x 150 x 190	Non-slot: 81 x 150 x 190 One-slot: 127 x 150 x 190
	System Fan	Fanless	Fanless
	Chassis Construction	Extruded aluminum alloy	Extruded aluminum alloy
Motherboard	CPU	Intel® Celeron® 6305 1.8 GHz (dual-core, TDP 15W) Intel® Core™ i5-1145G7E 1.5 GHz (up to 4.1 GHz, quad-core, TDP 15W) Intel® Core™ i7-1185G7E 1.8 GHz (up to 4.4 GHz, quad-core, TDP 15W)	Intel® Core™ i5-8365UE 1.6 GHz (up to 4.1 GHz, quad-core, TDP 15W) Intel® Celeron® 4205U 1.8 GHz (dual-core, TDP 15W)
	Chipset	SoC	SoC
	System Memory	2 x SO-DIMM DDR4 3200 MHz (8 GB pre-installed) (up to 64GB) Support in-band ECC	2 x SO-DIMM DDR4 2400 MHz (8GB pre-installed) (up to 64GB)
Storage	Hard Drive	1 x 2.5" SATA 6Gb/s HDD/SSD bay	1 x 2.5" SATA 6Gb/s HDD/SSD bay
	eMMC	N/A	N/A
	Micro SD	N/A	N/A
I/O Interfaces	USB	2 x USB 3.2 Gen 2 2 x USB 2.0	i5 model: 6 x USB 3.2 Gen 2 Celeron model: 4 x USB 3.2 Gen 2, 2 x USB 2.0
	Ethernet	4 x RJ-45: 1 x 2.5 GbE by Intel® I225LM 3 x 2.5 GbE by Intel® I225V (colay I225LM) * Support optional PoE af module	3 x RJ-45: 1 x GbE by Intel® I219 2 x GbE by Intel® I210
	COM Port	2 x RS-422/485 with AFC (DB-9, with 2.5kV isolation) 2 x RS-232 (DB-9, with 2.5kV isolation)	4 x RS-232/422/485 with AFC (DB9) 2 x RS-232 (RJ-45)
	Digital I/O	12-bit Digital I/O (6-in/ 6-out)	8-bit Digital I/O (4-in/ 4-out)(pin header)
	Display	1 x HDMI (up to 3840 x 2160@30Hz) 1 x DP++ (up to 4096 x 2304@60Hz)	1 x HDMI (up to 3840 x 2160@30Hz) 1 x DP (up to 4096 x 2304@60Hz)
	Wireless	1 x 802.11a/b/g/n/ac (optional)	1 x 802.11a/b/g/n/ac (optional)
	TPM	Support Intel PTT	1 x TPM 2.0 (2 x 10 pin)(optional)
	Other	1 x Power button, 1 x Reset button, 1 x AT/ATX switch, 1 x Power LED (green), 1 x HDD LED (yellow), 4-pin external system fan connector	1 x Power button, 1 x Reset button, 1 x AT/ATX switch, 1 x Power LED (green), 1 x HDD LED (yellow)
Expansions	PCIe Mini	N/A	1 x Full-size with SIM card slot (PCIe/USB 3.0/SATA)
	M.2	1 x 2230 A-key (PCIe x1/USB 2.0) 1 x 3042/52/80 B-key (PCIe x2/USB 3.0/USB 2.0)	i5 model: 1 x 2230 A-key (PCIe x1/USB 2.0) Celeron model: 1 x 2230 A-key (PCIe x1)
	Backplane	1 x PCIe Gen 3 x4	One-slot: 1 x PCIe Gen 3 x4, 1 x USB 2.0
Power	Power Input	Terminal block: 12 ~ 28V DC	Terminal block: 12 ~ 24V DC
	Power Consumption	12V @ 6.98A (Intel® Core™ i5-1145G7E with 8GB memory)	12V @ 4.98A (Intel® Core™ i5-8365UE with 8GB memory)
	Remote PWR	N/A	N/A
Reliability	Mounting	DIN-Rail	DIN-Rail
	Operating Temperature	-20°C ~ 60°C with air flow (SSD), 10% ~ 95% non-condensing	-20°C ~ 60°C with air flow, 10% ~ 95% non-condensing
	Storage Temperature	-40°C ~ 85°C, 10% ~ 95% non-condensing	-40°C ~ 85°C with air flow (SSD), 10% ~ 95% non-condensing
	Operating Shock	Half-sine wave shock 5G, 11ms, 100 shocks per axis (SSD)	Half-sine wave shock 5G, 11ms, 100 shocks per axis (SSD)
	Operating Vibration	MIL-STD-810G 514.6C-1 (SSD)	MIL-STD-810G 514.6C-1 (SSD)
	Weight (Net/ Gross)	2.15/ 2.5 kg	Non-slot: 2.9 kg/ 3.2 kg One-slot: 3.2 kg/ 3.5 kg
	Safety/EMC	CE/ FCC	CE/ FCC
	Watchdog Timer	Programmable 1 ~ 255 sec/min	Programmable 1 ~ 255 sec/min
OS	Supported OS	Microsoft Windows 10 / Windows 11, Linux	Microsoft Windows 10 / Windows 11, Linux

DIN-Rail Embedded System



Model Name		DRPC-130-AL	DRPC-120-BT
Chassis	Color	Black	Black
	Dimensions (WxDxH) (mm)	58.75 x 130 x 174	74.08 x 140 x 171.5
	System Fan	Fanless	Fanless
	Chassis Construction	Extruded aluminum alloy	Extruded aluminum alloy
Motherboard	CPU	Intel® Atom® x5-E3930 1.3 GHz (up to 1.8 GHz, dual-core, TDP 6.5W)	Intel® Atom® E3845 1.91 GHz (quad-core, TDP 10W)
	Chipset	SoC	SoC
	System Memory	1 x SO-DIMM DDR3L 1333/1600 (4GB pre-installed) (up to 8GB)	1 x SO-DIMM DDR3L 1066 (2GB pre-installed) (up to 8GB)
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 3Gb/s HDD/SSD bay
	eMMC	1 x eMMC 5.0 (optional, up to 32GB)	N/A
I/O Interfaces	USB	4 x USB 3.2 Gen 1	2 x USB 3.2 Gen 1 2 x USB 2.0
	Ethernet	2 x RJ-45: 2 x GbE by Intel® I211	2 x RJ-45: 1 x GbE by Intel® I211 1 x GbE by Intel® I210
	COM Port	4 x RS-232/422/485 with AFC (DB9)	2 x RS-232/422/485 with AFC (DB9 with 3kV isolation) 2 x RS-232 (DB9 with 3kV isolation)
	Digital I/O	8-bit Digital I/O (4-in/ 4-out)	8-bit Digital I/O (4-in/ 4-out)
	CAN-bus	1 x Port support two CAN-bus (DB9 with 2.5kV isolation)	N/A
	Display	2 x HDMI (up to 3840 x 2160@30Hz)	1 x HDMI (up to 1920 x 1200@60Hz) 1 x VGA (up to 1920 x 1200@60Hz)
	Wireless	1 x 802.11a/b/g/n/ac (optional)	1 x 802.11a/b/g/n/ac (optional)
	TPM	1 x TPM 2.0 (2 x 10 pin) (optional)	N/A
	Motor Connector	N/A	N/A
	Other	1 x Power button, 1 x Reset button, 1 x AT/ATX switch, 1 x Power LED (green), 1 x HDD LED (yellow)	1 x Power button, 1 x Reset button, 1 x AT/ATX switch
Expansions	PCIe Mini	1 x Half-size (PCIe/USB 2.0) 1 x Full-size (PCIe/USB 2.0/SATA)	1 x Half-size (PCIe) 1 x Full-size (PCIe/USB 2.0/SATA)
	M.2	N/A	N/A
Power	Power Input	Terminal block: 12 ~ 24V DC	Terminal block: 9 ~ 30V DC
	Power Consumption	12V @ 2.88 A (Intel® Atom® x5-E3930 with 4GB memory)	12V @ 2.1 A (Intel® Atom® E3845 with 2GB memory)
	Remote PWR	Terminal block: PSON	N/A
Reliability	Mounting	DIN-Rail	DIN-Rail
	Operating Temperature	-20°C ~ 60°C with air flow (SSD), 10% ~ 95% non-condensing	-20°C ~ 60°C with air flow (SSD), 10% ~ 95% non-condensing
	Storage Temperature	-40°C ~ 85°C with air flow (SSD), 10% ~ 95% non-condensing	-40°C ~ 85°C with air flow (SSD), 10% ~ 95% non-condensing
	Operating Shock	Half-sine wave shock 5G, 11ms, 100 shocks per axis (SSD)	Half-sine wave shock 5G, 11ms, 100 shocks per axis (SSD)
	Operating Vibration	MIL-STD-810G 514.6C-1 (SSD)	MIL-STD-810G 514.6C-1 (SSD)
	Weight (Net/ Gross)	1.4 kg/ 2.5 kg	1.4 kg/ 2.5 kg
	Safety/EMC	CE/ FCC	CE/ FCC
	Watchdog Timer	Programmable 1 ~ 255 sec/min	Programmable 1 ~ 255 sec/min
OS	Supported OS	Microsoft® Windows 10, Linux	Microsoft® 8, Microsoft® Windows® Embedded Standard 7 E

DRPC-W-TGL-U

■ Fanless DIN-Rail Embedded System

■ Tiger Lake 11th Gen Intel® Celeron™ Solution (up to 4 cores)

Preliminary



Features

- Supported CPU:
 - Intel® Core™ i7-1185G7E 1.8 GHz (up to 4.4 GHz, quad-core, TDP 15W)
 - Intel® Core™ i5-1145G7E 1.5 GHz (up to 4.1 GHz, quad-core, TDP 15W)
 - Intel® Core™ i3-1115G4E 2.2 GHz (up to 3.9 GHz, dual-core, TDP 15W)
 - Intel® Celeron™ 6305 1.8 GHz (dual-core, TDP 15W)
- Support dual independent display
- 2 x 2.5GbE ports
- 1 x M.2 A Key
- 1 x M.2 B Key (with SIM card slot)

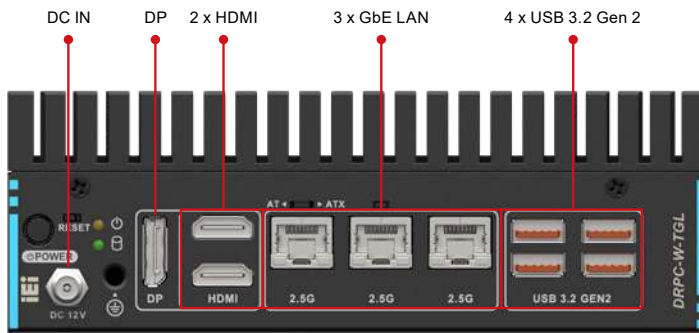


External fan module

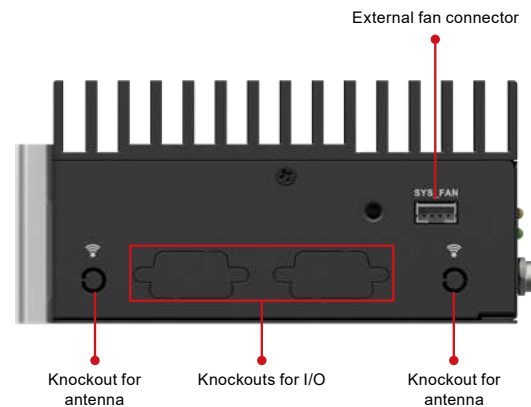
Specifications

Model Name		DRPC-W-TGL-U-i7C-R10	DRPC-W-TGL-U-i5C-R10	DRPC-W-TGL-U-i3C-R10	DRPC-W-TGL-U-CC-R10
Chassis	Color	Black			
	Dimensions (WxDxH) (mm)	176 x 116 x 67.8			
	System Fan	Fanless			
	Chassis Construction	Extruded aluminum alloys			
Motherboard	CPU	Intel® Core™ i7-1185G7E 1.8 GHz (up to 4.4 GHz, quad-core, TDP 15W)	Intel® Core™ i5-1145G7E 1.5 GHz (up to 4.1 GHz, quad-core, TDP 15W)	Intel® Core™ i3-1115G4E 2.2 GHz (up to 3.9 GHz, dual-core, TDP 15W)	Intel® Celeron™ 6305 1.8 GHz (dual-core, TDP 15W)
	Chipset	SoC			
	Memory	1x DDR4 3200MHz SO-DIMM (pre-installed 8GB) (up to 32GB)			
Storage	HDD Bay	1 x 2.5" SATA 6Gb/s HDD bay			
IO Interfaces	USB	4 x USB 3.2			
	LAN	3 x 2.5GbE			
	Display	1 x DP, 2 x HDMI			
	Others	1 x Power button, 1 x Reset button, 1 x Power LED, 1 x HDD LED, 1 x System fan connector			
Internal Expansions	PCIe Mini	N/A			
	M.2	1 x M.2 A Key 2230 for WIFI & BT (optional) 1 x M.2 B Key (PCIe x2) 3042/3052 w/SIM slot for 5G (optional)			
Power	Power Input	12V DC			
	Power Consumption	12V@4.1A (Intel i5-1145G7E With 8GB DDR4 Memory)			
Reliability	Mounting	DIN-Rail			
	Operating Temperature	-20°C ~ 60°C with airflow, 10% ~ 95% non-condensing			
	Storage Temperature	-30°C ~ 85°C, 10% ~ 95% non-condensing			
	Operating Shock	Half-sine wave shock 5G, 11ms, 3 shocks per axis			
	Operating Vibration	MIL-STD-810F 514.5C-2			
	Weight (Net/Gross)	0.98/1.2 Kg			
	Safety/EMC	CE/FCC			
	Watchdog Timer	Programmable 1 ~ 255 sec/min			
OS	Supported OS	Microsoft® Windows 10 / 11, Linux			

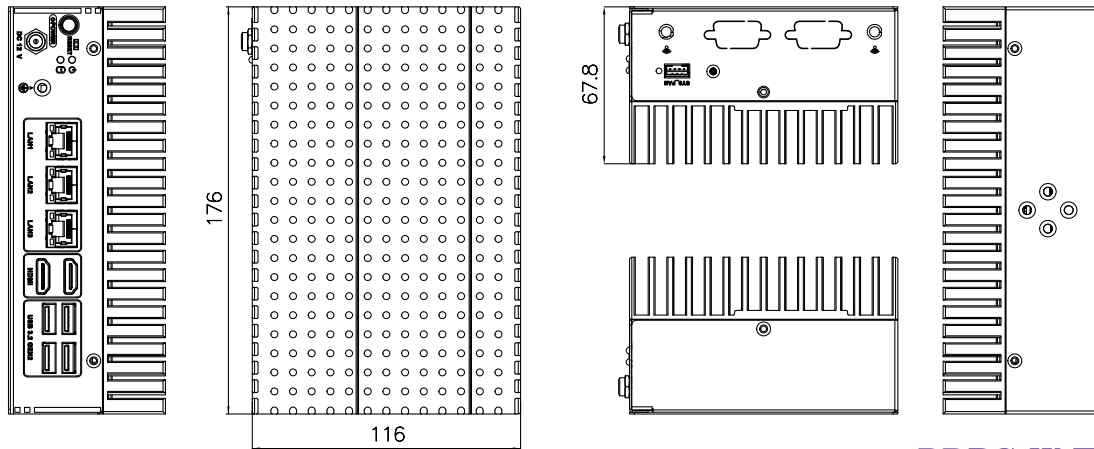
Front View



Top View



Dimensions (Unit: mm)



DRPC-W-TGL-U

Ordering Information

Part No.	Description
DRPC-W-TGL-U-CC-R10	Fanless System with Intel® Tiger Lake-U Celeron™6305 1.8 GHz (dual core, TDP 15W), 3 x 2.5GbE Lan, 1 x HDMI, 1 x DP, 8GB memory pre-installed, 12V DC, RoHS
DRPC-W-TGL-U-i3C-R10	Fanless System with Intel® Core™ Tiger Lake-U i3-1115G4E 2.2 GHz(quad core, TDP 15W), 3 x 2.5GbE Lan, 1 x HDMI, 1 x DP, 8GB memory pre-installed, 12V DC, RoHS
DRPC-W-TGL-U-i5C-R10	Fanless System with Intel® Core™ i5-1145G7E up to 4.1 GHz TDP 28/15/12W, 3 x 2.5GbE Lan, 1 x HDMI, 1 x DP, 8GB memory pre-installed, 12V DC, RoHS
DRPC-W-TGL-U-i7C-R10	Fanless System with Intel® Tiger Lake-U i7-1185G7E 1.8 GHz (quad core, TDP 15W), 3 x 2.5GbE Lan, 1 x HDMI, 1 x DP, 8GB memory pre-installed, 12V DC, RoHS

Options

Item	Part No.	Description
Adapter	63040-010060-211-RS	Adapter Power;FSP;FSP060-DHAN3;9NA0608097;;Vin:90~264VAC;60W;Dim:62.0*110*31.5mm;Plug=7.5mm;Cable=1200mm;Erp(NO LOAD 0.21W);Vout:12VDC;Φ2.5/Φ5.5/lock;CCL;RoHS
Wifi Kit	EMB-WIFI-KIT02I3-R10	2T2R M.2 wifi module kit for embedded system, IEEE802.11a/b/g/n/ac/ax, 1 x M.2 AE Key Wireless LAN & Bluetooth 5.2;Intel;AX210.NGWWG Module, 2 x RF cable, 2 x Antenna; RoHs
Fan Kit	SF-DRPC-W-R10	External fan for DRPC-W Series
COM Cable	32205-002700-200-RS	FLAT CABLE;RS-232/422/485;RS-232 CABLE;2;200MM;28AWG;300V;;(A)D-SUB 9P MALE;(B)DU PONT 2*5P P=2.0 FEAMLE;:::ONE PCS PKG W/ LABEL;32200-000049-RS SUBSTITUTE;;Wins Precision;RoHS

Packing List

1 x DIN-rail mounting kit	1 x Screw pack	1 x SATA cable with power cable
---------------------------	----------------	---------------------------------

DRPC-W-JL

- Fanless DIN-Rail Embedded System
- Jasper Lake Intel® Celeron™ Solution (up to 4 cores)

New


Features

- Supported CPU:
Intel® N5105 2.0 GHz (up to 2.9 GHz, quad-core, TDP 10W)
- Support dual independent display
- 3 x 2.5GbE ports
- 1 x M.2 A Key
- 1 x M.2 B Key (with SIM card slot)



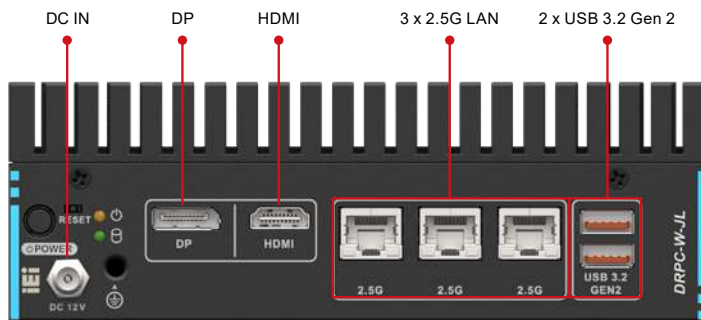
External fan module

Specifications

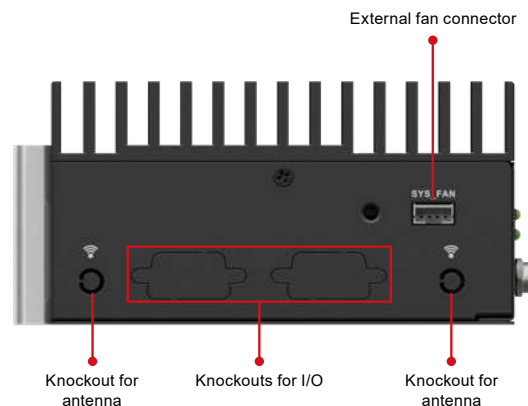
Model Name		DRPC-W-JL
Chassis	Color	Black
	Dimensions (WxDxH) (mm)	176 x 116 x 60.8
	System Fan	Fanless
	Chassis Construction	Extruded aluminum alloys
Motherboard	CPU	Intel® Celeron® N5105 2.0 GHz (up to 2.9 GHz, quad-core, TDP 10W)
	Chipset	SoC
	Memory	1 x DDR4 2933 MHz SO-DIMM (pre-installed 8GB) (up to 16GB)
Storage	HDD Bay	1 x 2.5" SATA 6Gb/s HDD bay
IO Interfaces	USB	2 x USB 3.2
	LAN	3 x 2.5GbE
	Display	1 x DP 1 x HDMI
	Others	1 x Power button, 1 x Reset button, 1 x Power LED, 1 x HDD LED, 1 x System fan connector
Internal Expansions	PCIe Mini	N/A
	M.2	1 x M.2 A Key 2230 for WIFI & BT (optional) 1 x M.2 B Key (PCIe x2) 2242/2280 w/SIM slot for 5G (optional)
Power	Power Input	12V DC
	Power Consumption	12V@2.45A (Intel N5105 with 16GB DDR4 memory)
Reliability	Mounting	DIN-Rail
	Operating Temperature	-20°C ~ 60°C with airflow, 10% ~ 95% non-condensing
	Storage Temperature	-30°C ~ 85°C, 10% ~ 95% non-condensing
	Operating Shock	Half-sine wave shock 5G, 11ms, 3 shocks per axis
	Operating Vibration	MIL-STD-810F 514.5C-2
	Weight (Net/Gross)	0.91/1.16 kg
	Safety/EMC	CE/FCC
	Watchdog Timer	Programmable 1 ~ 255 sec/min
OS	Supported OS	Microsoft® Windows 10 / 11, Linux

Fully Integrated I/O

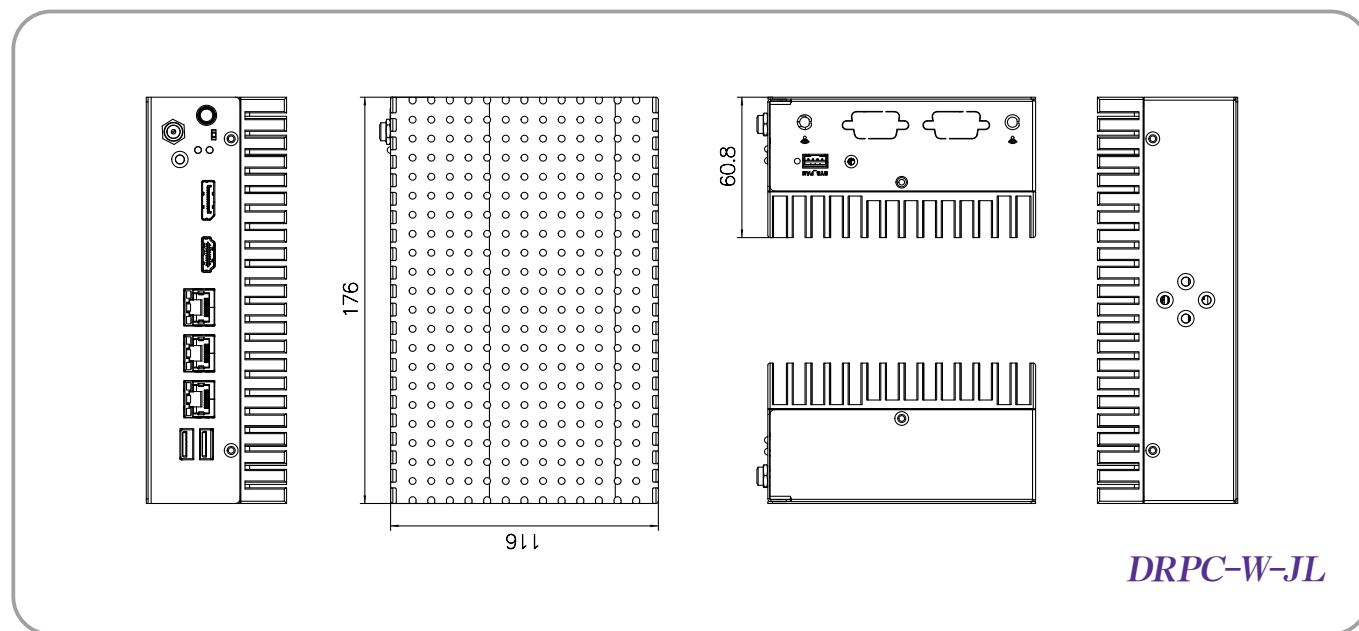
Front View



Top View



Dimensions (Unit: mm)



Ordering Information

Part No.	Description
DRPC-W-JL-NC-R10	Fanless System with Intel® Celeron™ N5105 up to 2.9 GHz TDP 10W, 3 x 2.5GbE Lan, 1 x HDMI, 1 x DP, 8GB memory pre-installed, 12V DC, RoHS

Options

Item	Part No.	Description
Adapter	63040-010060-211-RS	Adapter Power; FSP: FSP060-DHAN3; 9NA0608097; Vin: 90~264VAC; 60W; Dim: 62.0*110*31.5mm; Plug=7.5mm; Cable=1200mm; Erp(NO LOAD 0.21W); Vout: 12VDC; Φ2.5/Φ5.5/lock; CCL; RoHS
Wifi Kit	EMB-WIFI-KIT0213-R10	2T2R M.2 wifi module kit for embedded system, IEEE802.11a/b/g/n/ac/ax, 1 x M.2 AE Key Wireless LAN & Bluetooth 5.2; Intel; AX210.NGWW Module, 2 x RF cable, 2 x Antenna; RoHS
Fan Kit	SF-DRPC-W-R10	External fan for DRPC-W Series
COM Cable	32005-003500-200-RS	ROUND CABLE; RS-232/422/485; RS-232 CABLE; 2.250MM; 26AWG; (A) D-SUB 9P MALE+HEXAGONAL SCREW; (B) MOLEX 51021-0900 P=1.25; Wins Precision; RoHS

Packing List

1 x DIN-rail mounting kit	1 x Screw pack	1 x SATA cable with power cable
---------------------------	----------------	---------------------------------

DRPC-W-EHL

- Fanless DIN-Rail Embedded System
- Elkhart Lake Intel® Celeron™ Solution (up to 4 cores)

Preliminary



Features

- Supported CPU:
Intel® Celeron™ J6412 2.0 GHz (up to 2.6 GHz, quad-core, TDP 10W)
- Support dual independent display
- 2 x 2.5GbE ports
- 1 x M.2 A Key
- 1 x M.2 B Key (with SIM card slot)



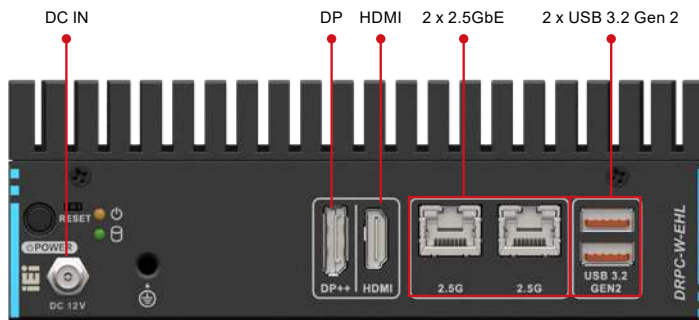
External fan module

Specifications

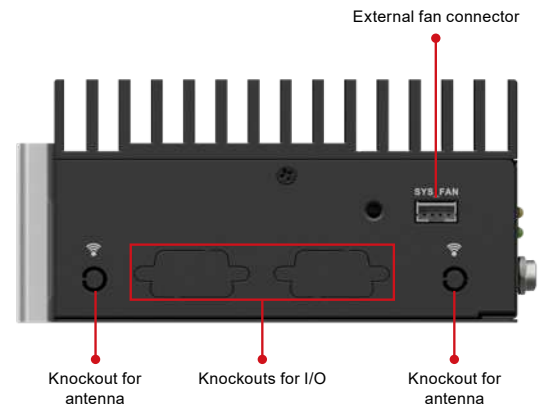
Model Name		DRPC-W-EHL
Chassis	Color	Black
	Dimensions (WxDxH) (mm)	176 x 116 x 60.8
	System Fan	Fanless
	Chassis Construction	Extruded aluminum alloys
Motherboard	CPU	Intel® Celeron® J6412 2.0 GHz (up to 2.6 GHz, quad-core, TDP 10W)
	Chipset	SoC
	Memory	Onboard LPDDR4X 3200MHz 8G (up to 16GB)
Storage	HDD Bay	1 x 2.5" SATA 6Gb/s HDD bay
IO Interfaces	USB	2 x USB 3.2
	LAN	2 x 2.5GbE
	Display	1 x DP 1 x HDMI
	Others	1 x Power button, 1 x Reset button, 1 x Power LED, 1 x HDD LED, 1 x System fan connector
Internal Expansions	PCIe Mini	N/A
	M.2	1 x M.2 A Key 2230 for WIFI & BT (optional) 1 x M.2 B Key (PCIe x2) 3042 w/SIM slot for 5G (optional)
Power	Power Input	12V DC
	Power Consumption	12V@2.5A (Intel J6412 With 4GB DDR4 Memory)
Reliability	Mounting	DIN-Rail
	Operating Temperature	-20°C ~ 60°C with airflow, 10% ~ 95% non-condensing
	Storage Temperature	-30°C ~ 85°C, 10% ~ 95% non-condensing
	Operating Shock	Half-sine wave shock 5G, 11ms, 3 shocks per axis
	Operating Vibration	MIL-STD-810F 514.5C-2
	Weight (Net/Gross)	0.92/1.16 Kg
	Safety/EMC	CE/FCC
	Watchdog Timer	Programmable 1 ~ 255 sec/min

Fully Integrated I/O

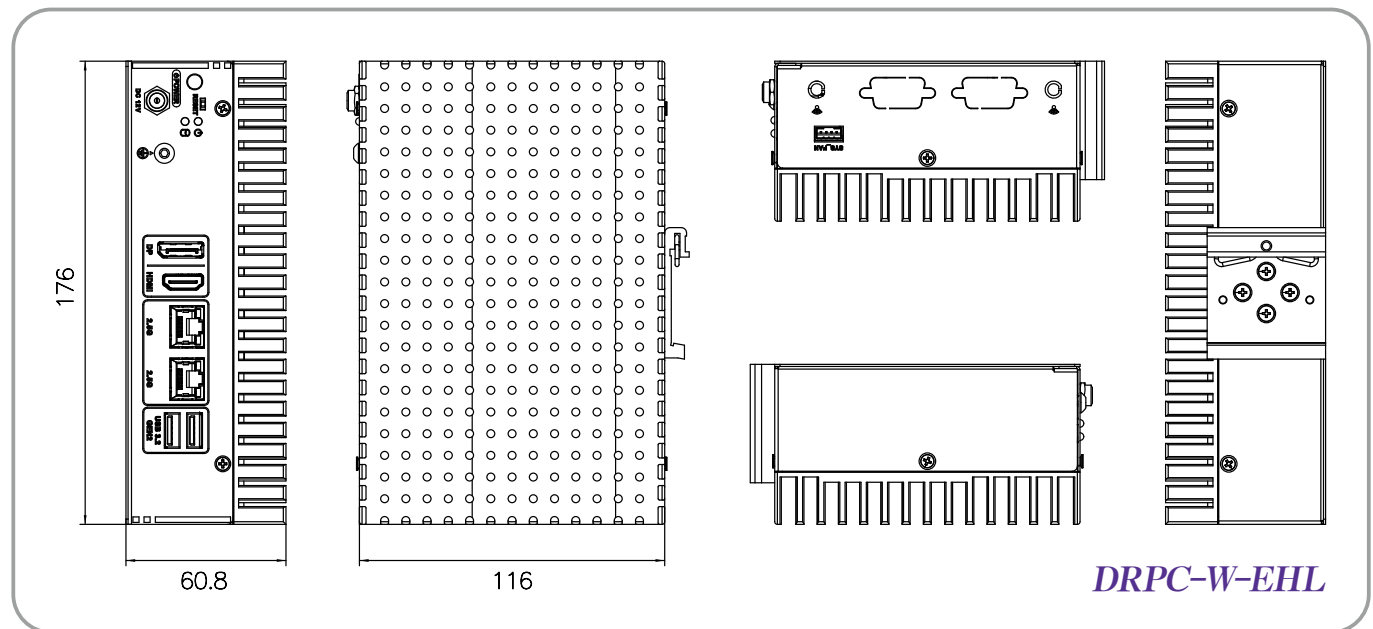
Front View



Top View



Dimensions (Unit: mm)



Ordering Information

Part No.	Description
DRPC-W-EHL-JC-R10	Fanless System with Intel® Celeron® J6412 up to 2.6 GHz TDP 10W, 2 x 2.5GbE Lan, 1 x HDMI, 1 x DP, 1 x 2.5" SATA HDD bay, 8GB memory pre-installed, 12V DC, RoHS

Options

Item	Part No.	Description
Adapter	63040-010060-211-RS	Adapter Power;FSP;FSP060-DHAN3;9NA0608097;;Vin:90~264VAC;60W;Dim:62.0*110*31.5mm;Plug=7.5mm;Cable=1200mm;Erp(NO LOAD 0.21W);Vout:12VDC;Φ2.5/Φ5.5/lock;CCL;RoHS
Wifi Kit	EMB-WIFI-KIT0213-R10	2T2R M.2 wifi module kit for embedded system, IEEE802.11a/b/g/n/ac/ax, 1 x M.2 AE Key Wireless LAN & Bluetooth 5.2;Intel;AX210.NGWS Module, 2 x RF cable, 2 x Antenna; RoHS
Fan Kit	SF-DRPC-W-R10	External fan for DRPC-W Series
COM Cable	32005-003500-200-RS	ROUND CABLE;RS-232/422/485;RS-232 CABLE;2;250MM;26AWG;(A)D-SUB 9P MALE+HEXAGONAL SCREW;(B) MOLEX 51021-0900 P=1.25;Wins Precision;RoHS

Packing List

1 x DIN-rail mounting kit

1 x Screw pack

1 x SATA cable with power cable

DRPC-240-TGL-U

■ Fanless DIN-Rail Embedded System
■ Tiger Lake 11th Gen Intel® Core™
Solution (up to 4 cores)

New

Features

- Supported CPUs:
Intel® Celeron® 6305 1.8 GHz (dual-core, 15W TDP)
Intel® Core™ i5-1145G7E 1.5 GHz (up to 4.1 GHz, quad-core, 15W TDP)
Intel® Core™ i7-1185G7E 1.8 GHz (up to 4.4 GHz, quad-core, 15W TDP)
- 4 x 2.5GbE ports, supporting PoE (optional)
- Two RS-232 & two RS-422/485 (with 2.5kV isolation)
- CE/FCC compliant



Specifications

Model Name		DRPC-240-TGL-U-i7CS-R10	DRPC-240-TGL-U-i5CS-R10	DRPC-240-TGL-U-CCS-R10
Chassis	Color	Black		
	Dimensions (WxDxH) (mm)	81 x 150 x 190		
	System Fan	Fanless		
	Chassis Construction	Extruded aluminum alloys		
Motherboard	CPU	Intel® Core™ i7-1185G7E 1.8 GHz (up to 4.4 GHz, quad-core, TDP 15W)	Intel® Core™ i5-1145G7E 1.5 GHz (up to 4.1 GHz, quad-core, TDP 15W)	Intel® Celeron® 6305 1.8 GHz (dual-core, TDP 15W)
	Chipset	SoC		
	BIOS	BIOS		
	Memory	2 x SO-DIMM DDR4 3200 MHz (8 GB pre-installed) (up to 64GB) Support in-band ECC		
Storage	HDD Bay	1 x 2.5" SATA 6Gb/s HDD/SSD bay		
I/O Interfaces	USB	2 x USB 3.2 Gen 2 2 x USB 2.0		
	Ethernet	4 x RJ-45: 1 x 2.5GbE by Intel® I225LM 3 x 2.5GbE by Intel® I225V (colay I225LM) * Support optional PoE af module		
	Port	2 x RS-422/485 with AFC (DB-9, with 2.5kV isolation) 2 x RS-232 (DB-9, with 2.5kV isolation)		
	Digital I/O	12-bit Digital I/O (6-in/ 6-out)		
	Display	1 x HDMI (up to 3840 x 2160@30Hz) 1 x DP++ (up to 4096 x 2304@60Hz)		
	Wireless	1 x 802.11a/b/g/n/ac (optional)		
	TPM	Support Intel PTT		
	Others	1 x Power button, 1 x Reset button, 1 x AT/ATX switch, 1 x Power LED (green), 1 x HDD LED (yellow), 4-pin external system fan connector		
	M.2	1 x 2230 A-key (PCIe x1/USB 2.0) 1 x 3042/52/80 B-key (PCIe x2/USB 3.0/USB 2.0)		
Expansions	Backplane	1 x PCIe Gen 3 x4 (optional)		
Power	Power Input	Terminal block: 12 ~ 28V DC		
	Power Consumption	12V @ 6.98A (Intel® Core™ i5-1145G7E with 8GB memory)		
Reliability	Mounting	DIN-Rail		
	Operating Temperature	-20°C ~ 60°C with air flow (SSD), 10% ~ 95% non-condensing		
	Storage Temperature	-40°C ~ 85°C, 10% ~ 95% non-condensing		
	Operating Shock	Half-sine wave shock 5G, 11ms, 100 shocks per axis (SSD)		
	Operating Vibration	MIL-STD-810G 514.6C-1 (SSD)		
	Weight (Net/Gross)	2.15/2.5 kg		
	Safety/EMC	CE/ FCC		
	Watchdog Timer	Programmable 1 ~ 255 sec/min		
OS	Supported OS	Microsoft® Windows 10 / Windows 11, Linux		

Built-in 11th Gen Intel® CPU

It is powered by 11th Gen Intel® Core™ i7/i5 or Celeron® processor (FCBGA 1449) to unleash optimal performance and multitasking capability.

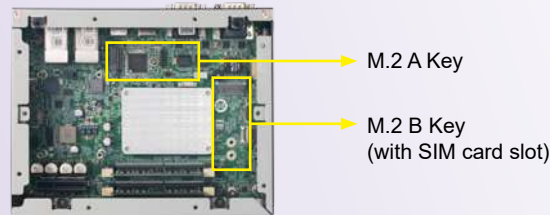
Built-in Intel® I225-LM (V) 2.5GbE Controllers

Four RJ-45 Ethernet ports on the I/O panel through Intel® I225-V GbE controllers provide up to 2.5G network transmission rate, and support optional PoE modules.

USB 3.2 Gen 2 Ports, up to 10Gb/s

Internal M.2 Expansion

The system motherboard has one M.2 A key slot and one M.2 B key slot. The A key slot supports Wi-Fi or Bluetooth expansion; the B key slot (with SIM card holder) can support 4G modules or accelerator cards.

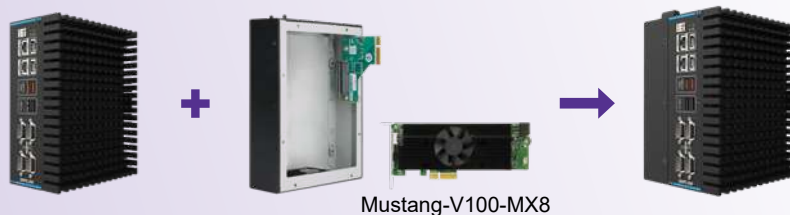


Optional PoE Module



Support Chassis Expansion

The expansion chassis provides one PCIe x4 slot for IEI Mustang accelerator card.

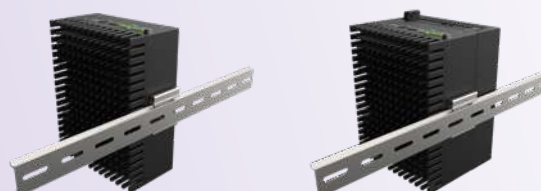


External Fan

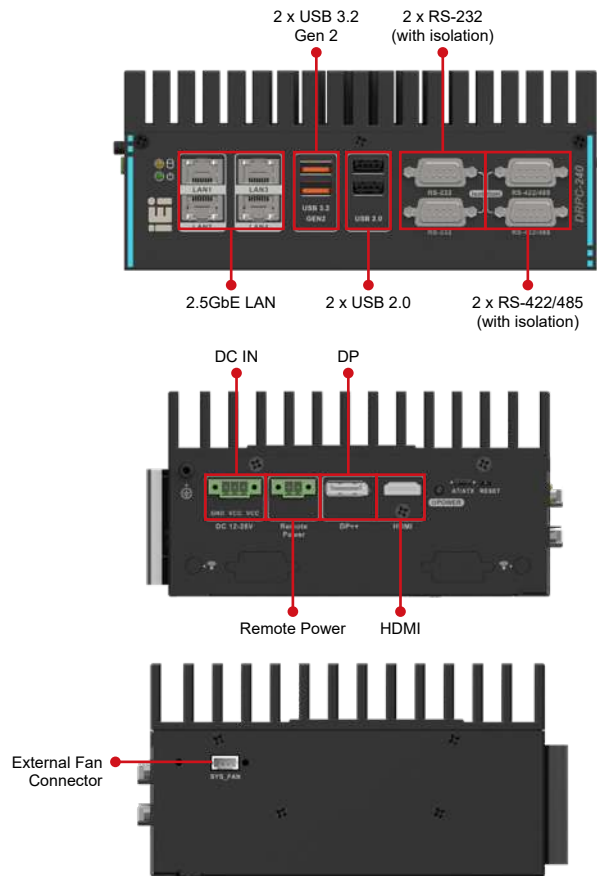
Installing an external fan helps to increase system performance in harsh environment.



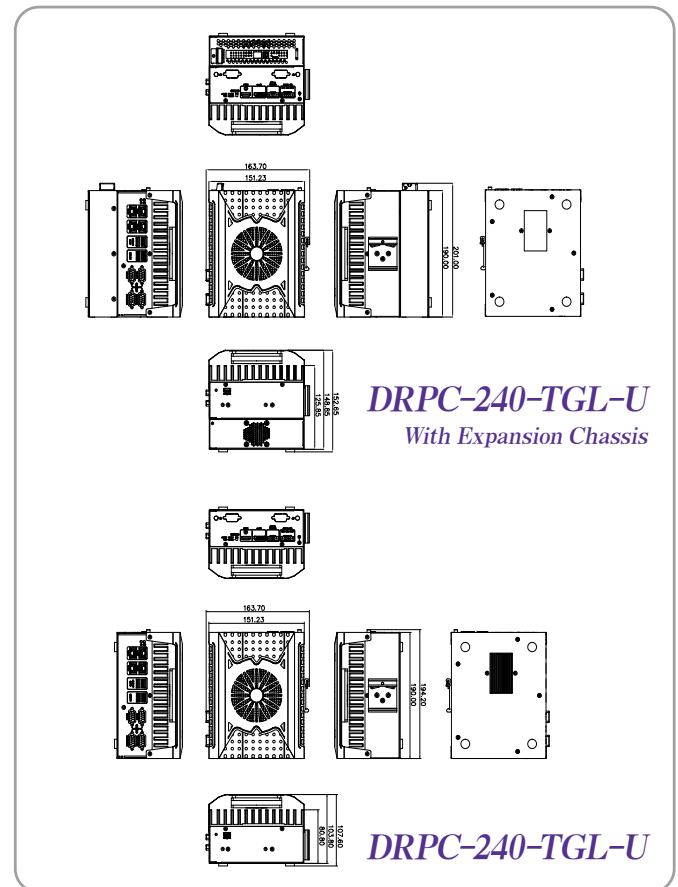
Support DIN-rail Mount



Fully Integrated I/O



Dimensions (Unit: mm)



Ordering Information

Part No.	Description
DRPC-240-TGL-U-CCS-R10	Fanless embedded system, Intel® Tiger Lake-U Celeron® 6305 1.8 GHz (dual core, TDP 15W), 8GB DDR4 pre-installed memory, HDMI/DP++, 4 x 2.5GbE LAN, 4 x COM, DIO, 12~28V DC and RoHS
DRPC-240-TGL-U-i5CS-R10	Fanless embedded system, Intel® Tiger Lake-U i5-1145G7E 1.5 GHz (quad core, TDP 15W), 8GB DDR4 pre-installed memory, HDMI/DP++, 4 x 2.5GbE LAN, 4 x COM, DIO, 12~28V DC and RoHS
DRPC-240-TGL-U-i7CS-R10	Fanless embedded system, Intel® Tiger Lake-U i7-1185G7E 1.8 GHz (quad core, TDP 15W), 8GB DDR4 pre-installed memory, HDMI/DP++, 4 x 2.5GbE LAN, 4 x COM, DIO, 12~28V DC and RoHS

Options

Part No.	Description
EMB-WIFI-KIT02I3-R10	2T2R M.2 wifi module kit for embedded system, IEEE802.11a/b/g/n/ac/ax, 1 x M.2 AE Key Wireless LAN & Bluetooth 5.2; Intel; AX210.NGWG Module, 2 x RF cable, 2 x Antenna; RoHS
GPOE-DRPC-240-R10 ¹	PoE power module for DRPC-240 only
SF-DRPC-240-R10	External fan for DRPC-240 only
TXC-DRPC-240-1S-R10	DRPC-240 Series 1 Slot Expansion Chassis with Riser Card
32031-000600-100-RS	ROUND CABLE; DIO CABLE;; 2; 150mm; 28AWG; 300V; (A)D-SUB 15P MALE; (B)DU PONT 2*7P P=2.0 FEMALE; Wins Precision; C24210815-0; RoHS
32205-003800-300-RS	FLAT CABLE; RS-232/422/485; RS-422/485 CABLE; 2; 200MM; 28AWG; (A)D-SUB 9PIN MALE; (B)JST PHR-4 P=2.0; ONE PCS PKG W/ LABEL; Wins Precision; RoHS
32702-000400-200-RS	POWER CORD; EUROPEAN CODE(VDE); 2; 1800MM;; (A)PLUG: SH-025(16A/250V); (B)CONNECTOR: C5(SM112, 2.5A/250V); Self-Man; CCL; RoHS
41019-2312C2-00-HF	HOLDER; FAN FILTER BRACKET; NCT processing formation; DRPC-240-ULT6; PAINTING; PMS Black C; 41019-2312XX;; NCT(N); SECC; VER:00; CCL; Halogen Free
32102-054800-100-RS	WIRE CABLE; POWER CABLE;; 2; 200mm; 18AWG; 300V; (A)POWER DIN 4P FEMALE; (B)TERMINAL BLOCK-3P P=3.5; Wins Precision; C24210816-0; RoHS
63040-010230-000-RS	Adapter Power; FSP; FSP220-ABAN2; 9NA2200401; Active PFC; Vin: 90~264VAC; 220W; Cable=1500mm; Erp(NO LOAD 0.5W); Vout: 19VDC; Din 4Pin; CCL; RoHS
63040-010120-300-RS ²	Adapter Power; FSP; FSP120-AHAN3; 9NA1206708; Active PFC; Vin: 90~264VAC; 120W; Dim: 75.6*151.3*25.4mm; Plug=6.5mm; Cable=1500mm; Erp(NO LOAD 0.15W); Vout: 12VDC; Din 4Pin/lock; CCL; RoHS
Mustang-V100-MX8-R11 ³	Computing Accelerator Card with 8 x Movidius Myriad X MA2485 VPU. PCIe Gen 2 x4 interface. RoHS

¹ For the PoE module, it is suggested to use a 180W (or above) power adapter (63040-010230-000-RS 220W is recommended).

² The power adapter must be used with the 32102-054800-100-RS power cable.

³ For IEI Mustang accelerator card, it is suggested to use a 180W (or above) power adapter (63040-010230-000-RS 220W is recommended), and the Mustang can only be used in the dual-layer model.

Packing List

1 x DIN-Rail mounting kit	1 x Screw pack	1 x Terminal block
---------------------------	----------------	--------------------

DRPC-230-ULT5

■ Fanless DIN-Rail Embedded System

■ Whiskey Lake 8th Gen Intel® Core™ Solution (up to 4 cores)



Features

- Intel® Core™ i5-8365UE/ Celeron® 4305UE Processor
- Triple GbE LAN Ports
- Multiple USB 3.2 Gen 2 (10Gb/s)
- Multiple COM Ports
- Modularized Flexible Expansion



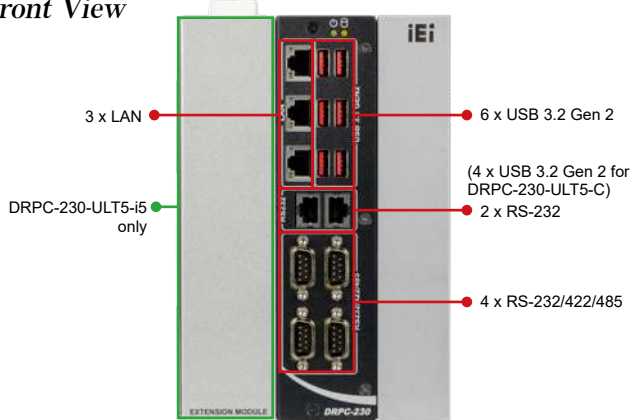
Specifications

Model Name		DRPC-230-ULT5-i5/S	DRPC-230-ULT5-i5	DRPC-230-ULT5-CE/S
Chassis	Color	Black & Silver		
	Dimensions (WxDxH)	81 x 150 x 190	127 x 150 x 190	81 x 150 x 190
	System Fan	Fanless		
	Chassis Construction	Extruded aluminum alloy		
Motherboard	CPU	Intel® Core™ i5-8365UE 1.6 GHz (up to 4.1 GHz, quad-core, TDP 15W)		Intel® Celeron® 4305UE 2 GHz (dual-core, TDP 15W)
	Chipset	SoC		
	System Memory	2 x SO-DIMM DDR4 2400 (8GB pre-installed) (up to 64GB)		
Storage	Hard Drive	1 x 2.5" SATA 6Gb/s HDD/SSD bay		
I/O Interfaces	USB	6 x USB 3.2 Gen 2		4 x USB 3.2 Gen 2 2 x USB 2.0
	Ethernet	3 x RJ-45: 1 x GbE by Intel® I219 2 x GbE by Intel® I210		
	COM Port	4 x RS-232/422/485 with AFC (DB9) 2 x RS-232 (RJ-45)		
	Digital I/O	8-bit Digital I/O (4-in/ 4-out)(pin header)		
	Display	1 x HDMI (up to 3840 x 2160@30Hz) 1 x DP (up to 4096 x 2304@60Hz)		
	Wireless	1 x 802.11a/b/g/n/ac (optional)		
	TPM	1 x TPM 2.0 (2 x 10 pin)(optional)		
	Other	1 x Power button, 1 x Reset button, 1 x AT/ATX switch, 1 x Power LED (green), 1 x HDD LED (yellow)		
Expansions	PCIe Mini	1 x Full-size with SIM card slot (PCIe/USB 3.0/SATA)		
	M.2	1 x 2230 A-key (PCIe x1/USB 2.0)		1 x 2230 A-key (PCIe x1)
	Backplane	-	1 x PCIe Gen 3 x4, 1 x USB 2.0	-
Power	Power Input	Terminal block: 12 ~ 24V DC (Reserved internal 40W power with 12V DC output)		
	Power Consumption	12V @ 4.98A (Intel® Core™ i5-8365UE with 8GB memory)		
Reliability	Mounting	DIN-Rail		
	Operating Temperature	-20°C ~ 70°C with air flow (SSD), 10% ~ 95% non-condensing*		
	Storage Temperature	-40°C ~ 85°C with air flow (SSD), 10% ~ 95% non-condensing		
	Operating Shock	Half-sine wave shock 5G, 11ms, 100 shocks per axis (SSD)		
	Operating Vibration	MIL-STD-810G 514.6C-1 (SSD)		
	Weight (Net/Gross)	2.9 kg/ 3.2 kg	3.2 kg/ 3.5 kg	2.9 kg/ 3.2 kg
	Safety/EMC	CE/ FCC		
	Watchdog Timer	Programmable 1 ~ 255 sec/min		
OS	Supported OS	Microsoft Windows 10 / Windows 11, Linux		

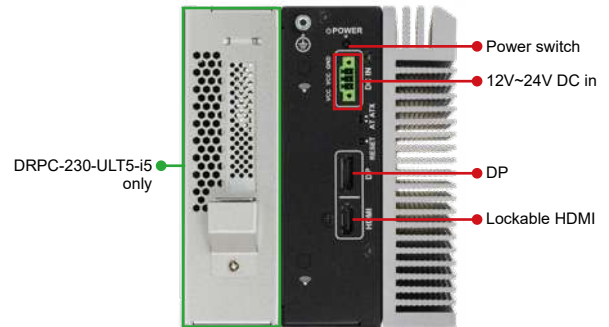
* CPU can remain high performance and run at or above its base frequency without any thermal throttling under 60°C.

Fully Integrated I/O

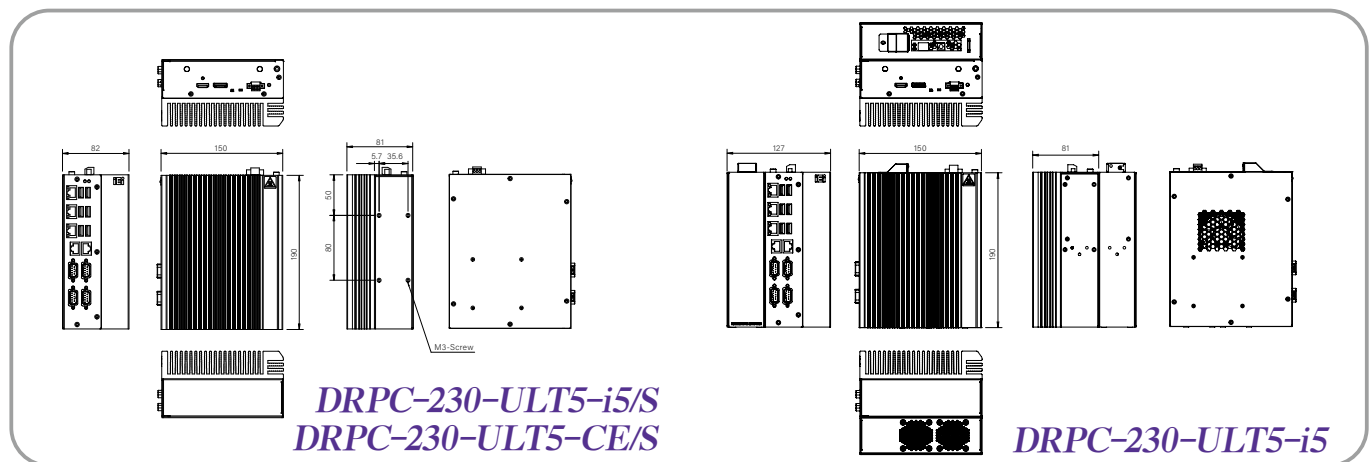
Front View



Top View



Dimensions (Unit: mm)



Ordering Information

Part No.	Description
DRPC-230-ULT5-i5/8G/S-R11	Fanless embedded system, Intel® Whiskey Lake i5-8365UE 1.6 GHz (quad core, TDP 15W), 8GB DDR4 pre-installed memory, HDMI/DP, 3 PCIe GbE, 6 COM, 12~24V DC and RoHS
DRPC-230-ULT5-i5/8G-R11	Fanless embedded system, Intel® Whiskey Lake i5-8365UE 1.6 GHz (quad core, TDP 15W), 8GB DDR4 pre-installed memory, HDMI/DP, 3 PCIe GbE, 6 COM, 12~24V DC, PCIe x4 expansion layer and RoHS
DRPC-230-ULT5-CE/8G/S-R11	Fanless embedded system, Intel® Whiskey Lake Celeron® 4305UE 2 GHz (dual core, TDP 15W), 8GB DDR4 pre-installed memory, HDMI/DP, 3 PCIe GbE LAN, 6 COM, 12~24V DC and RoHS

Options

Item	Part No.	Description
Adapter ¹	63040-010060-211-RS	Adapter Power;FSP:FSP060-DHAN3;9NA0608097;;Vin:90~264VAC;60W;Dim:62.0*110*31.5mm;Plug=7.5mm;Cable=1200mm;Erp(NO LOAD 0.21W);Vout:12VDC;Φ2.5/Φ5.5/lock;CCL;RoHS
Adapter ^{1/2}	63040-010096-230-RS	Adapter Power;FSP:FSP096-AHAN3;9NA0961412 ;Active PFC;Vin:90~264VAC;96W;Dim:75.6 x 151.3 x 25.4mm;Plug=7.5mm;Cable=1500mm;Erp(NO LOAD 0.15W);Vout:12VDC;Φ2.5/Φ5.5/lock;CCL;RoHS
Power cable ¹	32102-026500-100-RS	WIRE CABLE;POWER CABLE;;2;200MM;18AWG;(A)DC JACK 5.5 x 2.5, NUT+WASHER;(B)TERMINAL BLOCK:3P P=3.5;SHANGHAI YING YU;RoHS
Power cord	32000-000002-RS	European power cord
RJ-45 to D-SUB cable	32005-004600-200-RS	ROUND CABLE;RS-232/422/485;RS-232 CABLE;2;300MM;26AWG;(A)D-SUB 9P MALE+4#40 Screw;(B)RJ-45 8P8C PLUG, Iron+Sheathed;Wins Precision;RoHS
Wifi module ³	27319-000009-RS	Wireless LAN Module;Wireless LAN & Bluetooth M.2 Module;Sparklan;R9701810011;IEEE802.11a/b/g/n/ac;2.412 GHz~2.4835 GHz, 5.15 GHz~5.85 GHz;M.2 2230;;3.3V;22 x 30 x 2.15mm;QCNFA364A;QCA6174A-5;2x2 MIMO;Dual Band;WCBN808A-Q2;CCL;RoHS
Antenna ³	32505-000900-100-RS	External Antenna;WLAN;RG 178;108MM;TANK-700-QM67-R10;PEAK GAIN 2.0DBI;Exceltek;2.4-2.5 GHz/5.15-5.85 GHz;REVERSE SMA PLUG;RoHS
RF cable ³	32501-004000-100-RS	RF;RF CABLE;LINE DIAMETER:0.81mm;250MM;50Ω;Sparklan;0-6 GHz;VSWR≤1.3;I-PEX MHF-4 Plug;REVERSE SMA JACK;NUT x 1;WASHER x 1;RoHS
TPM Module	TPM-IN03-R10	20-pin Infineon SPI TPM 2.0 module, software mangement tool, firmware V7.63
System fan ⁴	31100-000365-RS	FAN;+12V;4PIN;YEN SUN;40 x 40 x 10mm;6500RPM;TWO BALL BEARING;LINE LENGTH:150MM;3.4/-0.1MM;FD124010HB;FD124010HB-NBG(ZW7T);AXIAL FAN;WITH FRAME;6.599CFM;7~13.2V;29dB;75000hur;UL, CUL, TUV;CCL;RoHS
Accelerator cards ⁴	Mustang-V100-MX8 Mustang-V100-MX4	Computing Accelerator Card with 8 x Movidius Myriad X MA2485 VPU, PCIe Gen 2 x 4 interface, RoHS Computing Accelerator Card with 4 x Intel® Movidius™ Myriad™ X MA2485 VPU, PCIe Gen 2 x 2 interface, RoHS
OS: Windows Embedded 10	DRPC-230-ULT5-W10E64-V-R10	OS Image with Windows® Embedded Standard 10 E Value 64-bit 2019 for DRPC-230-ULT5 Series, with DVD-ROM, RoHS

¹ It is required to order Power Cable together with Adapter for power usage² Please select 96W adapter if intend to add accelerator cards³ Each Wi-Fi module needs two antennas and two RF cables to fully support Wi-Fi function⁴ Only applicable for DRPC-230-ULT5-i5/8G-R10

Packing List

1 x Din-rail mounting kit

1 x Screw kit

DRPC-130-AL

■ Fanless DIN-Rail Embedded System

■ Intel® Atom® x5-E3930 1.3 GHz (up to 1.8 GHz) Solution



Features

- Intel® Atom® x5-E3930 1.3 GHz (up to 1.8 GHz)
- DDR3L 1.35V SO-DIMM supported
- Serial, CAN bus and digital I/O interface

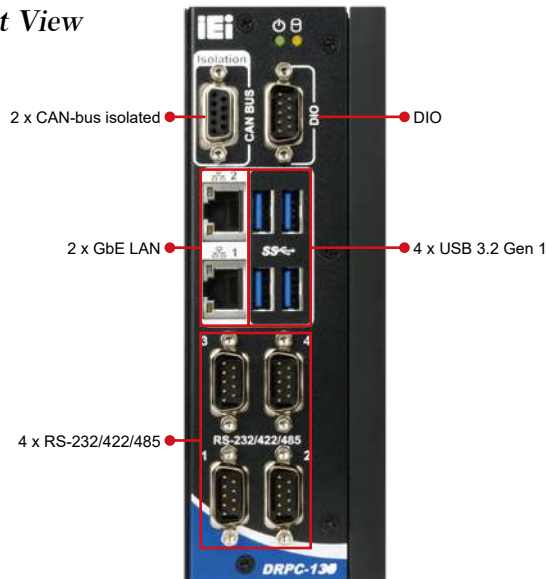


Specifications

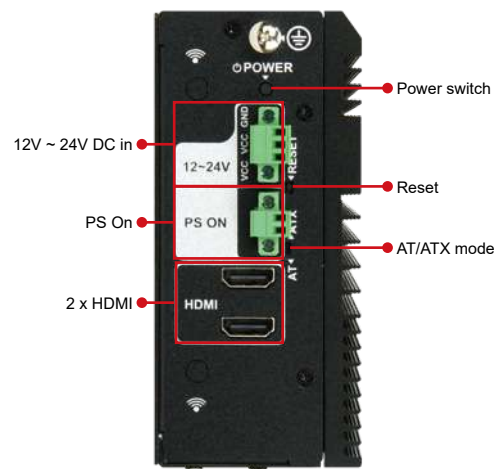
Model Name		DRPC-130-AL
Chassis	Color	Black
	Dimensions (WxDxH) (mm)	58.75 x 130 x 174
	System Fan	Fanless
	Chassis Construction	Extruded aluminum alloy
Motherboard	CPU	Intel® Atom® x5-E3930 1.3 GHz (up to 1.8 GHz, dual-core, TDP 6.5W)
	Chipset	SoC
	System Memory	1 x SO-DIMM DDR3L 1333/1600 (up to 8GB)
Storage	Hard Drive	1 x 2.5" SATA 6Gb/s HDD/SSD bay
	eMMC	1 x eMMC 5.0 (optional, up to 32GB)
I/O Interfaces	USB	4 x USB 3.2 Gen 1
	Ethernet	2 x RJ-45: 2 x GbE by Intel® I211
	COM Port	4 x RS-232/422/485 with AFC (DB9)
	Digital I/O	8-bit Digital I/O (4-in/ 4-out)
	CAN-bus	1 x port support two CAN-bus (DB9 with 2.5kV isolation)
	Display	2 x HDMI (up to 3840 x 2160@30Hz)
	Wireless	1 x 802.11a/b/g/n/ac (optional)
	TPM	1 x TPM 2.0 (2 x 10 pin)(optional)
	Other	1 x Power Button, 1 x Reset Button, 1 x AT/ATX Switch, 1 x LED for Power (Green), 1 x LED for HDD (Yellow)
Expansions	PCIe Mini	1 x Half-size (PCIe/USB 2.0) 1 x Full-size (PCIe/USB 2.0/SATA)
Power	Power Input	Terminal block: 12 ~ 24V DC
	Power Consumption	12V @ 2.88 A (Intel® Atom® x5-E3930 with 4GB memory)
	Remote PWR	Terminal block: PSON
Reliability	Mounting	DIN-Rail
	Operating Temperature	-20°C ~ 60°C with air flow (SSD), 10% ~ 95% non-condensing
	Storage Temperature	-40°C ~ 85°C with air flow (SSD), 10% ~ 95% non-condensing
	Operating Shock	Half-sine wave shock 5G, 11ms, 100 shocks per axis (SSD)
	Operating Vibration	MIL-STD-810G 514.6C-1 (SSD)
	Weight (Net/Gross)	1.4 kg/ 2.5 kg
	Safety/EMC	CE/ FCC
	Watchdog Timer	Programmable 1 ~ 255 sec/min
OS	Supported OS	Microsoft® Windows 10, Linux

Fully Integrated I/O

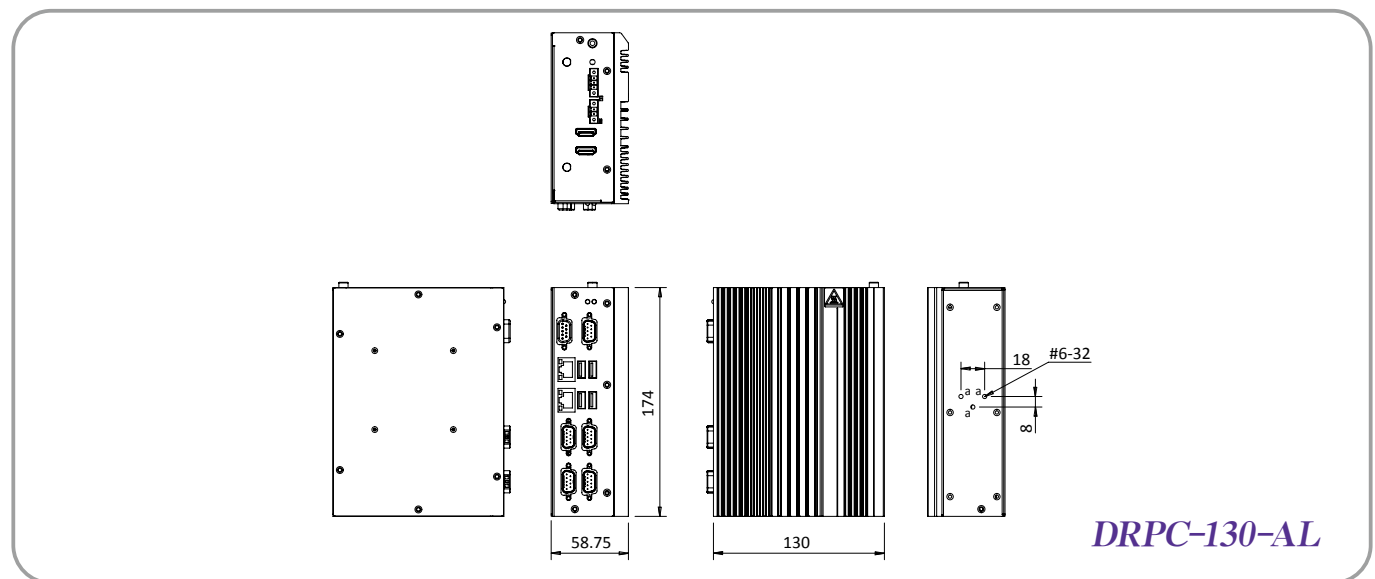
Front View



Top View



Dimensions (Unit: mm)



DRPC-130-AL

Ordering Information

Part No.	Description
DRPC-130-AL-E1-R11	Fanless embedded system, Intel® Apollo Lake x5-E3930 1.3 GHz (up to 1.8 GHz, dual core), two HDMI, 8-bit DIO, CAN-Bus, COM, 12~24V DC and RoHS
DRPC-130-AL-E1/4GB-R11	Fanless embedded system, Intel® Apollo Lake x5-E3930 1.3 GHz (up to 1.8 GHz, dual core), 4GB DDR3L pre-installed memory, two HDMI, 8-bit DIO, CAN-Bus, COM, 12~24V DC and RoHS

Options

Item	Part No.	Description
Adapter*	63040-010036-210-RS	Adapter Power; FSP; FSP060-DHAN3; 9NA0608010; Vin: 90~264VAC; 60W; Dim: 62.0*110*31.5mm; Plug=7.5mm; Cable=1200mm; Erp(NO LOAD 0.21W); Vout: 12VDC; Φ2.5/Φ5.5/lock; CCL; RoHS
Power Cable*	32102-026500-100-RS	WIRE CABLE; POWER CABLE; 2; 200MM; 18AWG; (A) DC JACK 5.5X2.5, NUT+WASHER ; (B) TERMINAL BLOCK: 3P P=3.5; SHANGHAI YING YU; RoHS
Power Cord	32702-000400-200-RS	European power cord
Wireless Kit	EMB-WIFI-KIT01-R20	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, 2 x 250mm RF cable, 2 x Antenna, RoHS
TPM Module	TPM-IN02-R20	20-pin Infineon TPM2.0 module, software management tool, firmware v5.5
DIN-Rail Mounting Kit	DK-DRPC-R10	Rugged DIN-rail mounting kit for DRPC series only
OS: Windows Embedded 10	DRPC-130-W10E64-E-R10	OS Image with Windows® 10 IoT Enterprise Entry 64-bit for DRPC-130-AL Series, with DVD-ROM, RoHS

*It is required to order Power Cable together with Adapter for power usage

Packing List

1x Din-rail mounting kit	1 x Screw kit
--------------------------	---------------

DRPC-120-BT

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



Features

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



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.



1 x 2.5" SATA 6Gb/s
HDD/SSD Bay

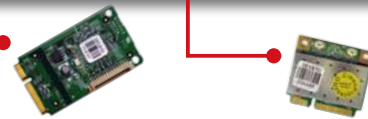


DDR3 SO-DIMM memory



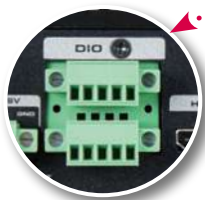
Full-size PCIe Mini

Half-size PCIe Mini



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-120 series provides the best components for generating less heat, while maintaining high system performance. With the fanless design, the DRPC-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.

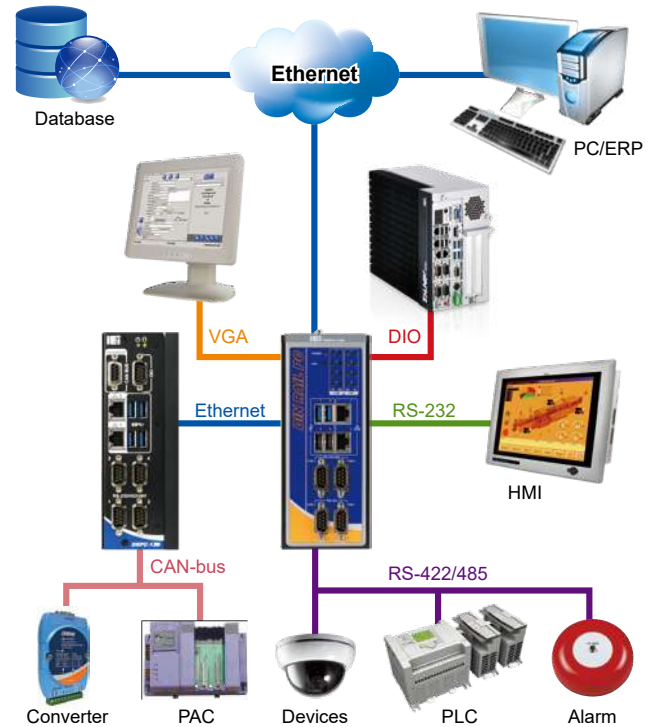
DIN Rail Standard

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.



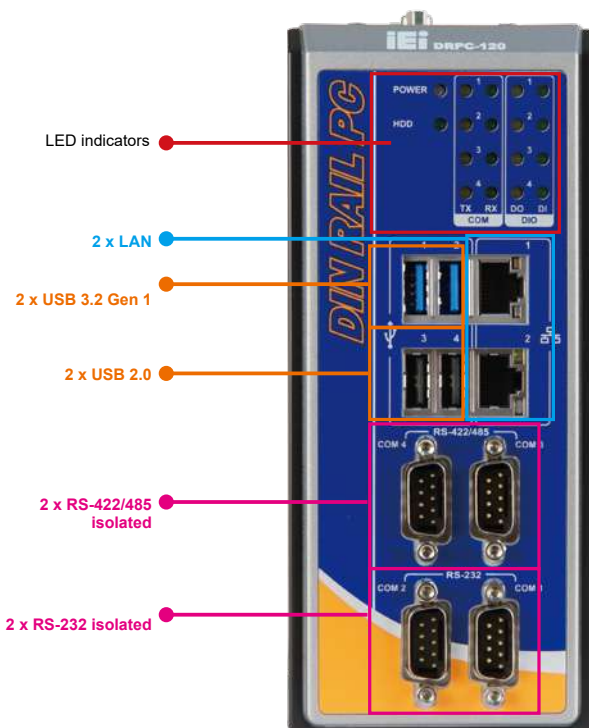
Communication Gateway

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

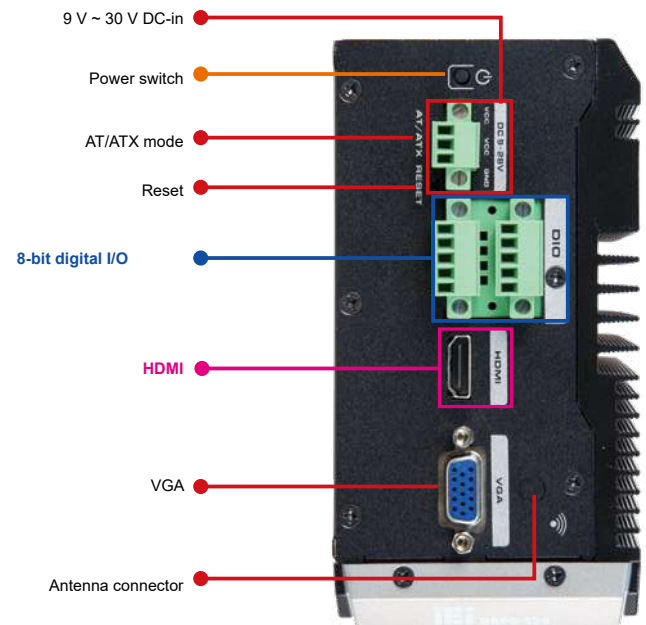


Fully Integrated I/O

Front View



Top Side View



Specifications

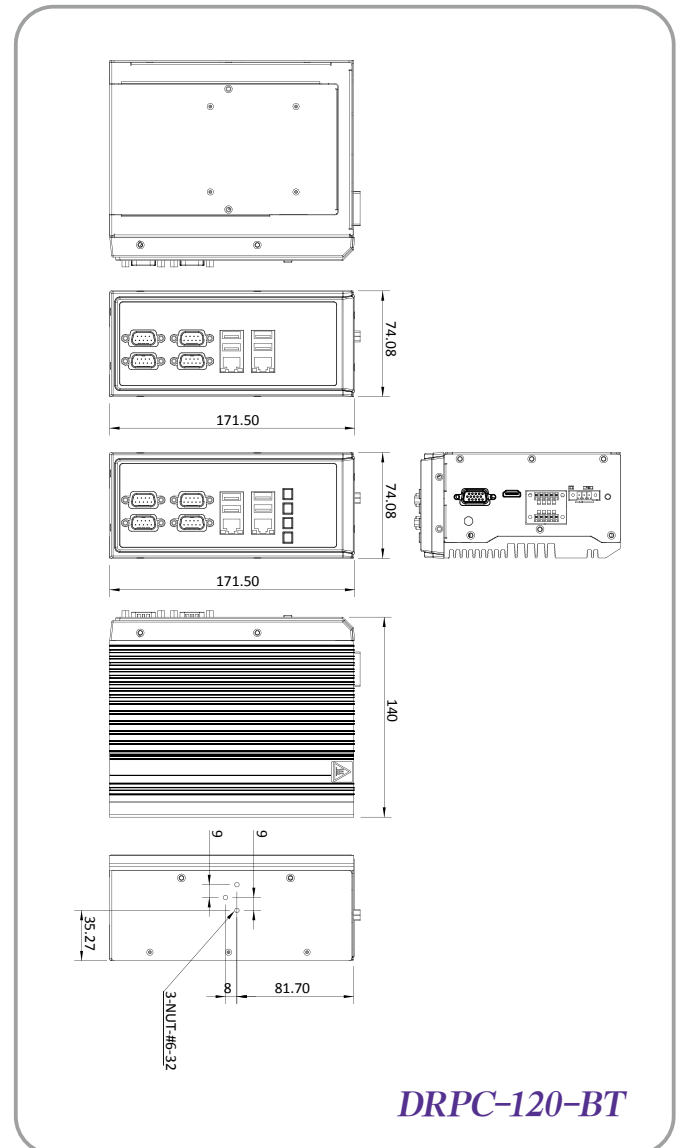
Model Name		DRPC-120-BT
Chassis	Color	Black
	Dimensions (WxDxH) (mm)	74.08 x 140 x 171.5
	System Fan	Fanless
	Chassis Construction	Extruded aluminum alloy
Motherboard	CPU	Intel® Atom® E3845 1.91 GHz (quad-core, TDP 10W)
	Chipset	SoC
	System Memory	1 x SO-DIMM DDR3L 1066 (up to 8GB)
IPMI	iRIS Solution	1 x iRIS-2400 (optional)
Storage	Hard Drive	1 x 2.5" SATA 3Gb/s HDD/SSD bay
I/O Interfaces	USB	2 x USB 3.2 Gen 1 2 x USB 2.0
	Ethernet	2 x RJ-45: 1 x GbE by Intel® I211 1 x GbE by Intel® I210
	COM Port	2 x RS-232/422/485 with AFC (DB9 with 3kV isolation*) 2 x RS-232 (DB9 with 3kV isolation*)
	Digital I/O	8-bit Digital I/O (4-in/ 4-out)
	Display	1 x HDMI (up to 1920 x 1200@60Hz) 1 x VGA (up to 1920 x 1200@60Hz)
	Wireless	1 x 802.11a/b/g/n/ac (optional)
	Other	1 x Power Button, 1 x Reset Button, 1 x AT/ATX Switch
Expansions	PCIe Mini	1 x Half-size (PCIe) 1 x Full-size (PCIe/USB 2.0/SATA)
	Power Input	Terminal block: 9 ~ 30V DC
Power	Power Consumption	12V @ 2.1A (Intel® Atom® E3845 with 2GB memory)
Reliability	Mounting	DIN-Rail
	Operating Temperature	-20°C ~ 60°C with air flow (SSD), 10% ~ 95% non-condensing
	Storage Temperature	-40°C ~ 85°C with air flow (SSD), 10% ~ 95% non-condensing
	Operating Shock	Half-sine wave shock 5G, 11ms, 100 shocks per axis (SSD)
	Operating Vibration	MIL-STD-810G 514.6C-1 (SSD)
	Weight (Net/ Gross)	1.4 kg/ 2.5 kg
	Safety/EMC	CE/ FCC
OS	Watchdog Timer	Programmable 1 ~ 255 sec/min
	Supported OS	Microsoft® 8, Microsoft® Windows® Embedded Standard 7 E

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

Ordering Information

Part No.	Description
DRPC-120-BTI-E5-LED/2G-R11	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 ~ 28 V DC, LED indicators, R11, RoHS

Dimensions (Unit: mm)



Options

Item	Part No.	Description
Adapter*	63040-010036-210-RS	Adapter Power;FSP;FSP060-DHAN3;9NA0 608010;Vin:90~264VAC;60W;Dim:62.0*110 *31.5mm;Plug=7.5mm;Cable=1200mm;Erp (NO LOAD 0.21W);Vout:12VDC;Φ2.5/Φ5.5/ lock;CCL;RoHS
Power Cable*	32102-026500-100-RS	WIRE CABLE;POWER CABLE;;2;200MM;18AWG;(A)DC JACK 5.5X2.5, NUT+WASHER ,(B)TERMINAL BLOCK;3P P=3.5;SHANGHAI YING YU;RoHS
Power Cord	32702-000400-200-RS	European power cord
Wireless Kit	EMB-WIFI-KIT01-R20	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, 2 x 250mm RF cable, 2 x Antenna, RoHS
DIN-Rail Mounting Kit	DK-DRPC-R10	Rugged DIN-rail mounting kit for DRPC series only
OS: Windows Embedded 7	DRPC-120-WES7E-R10 (CD-ROM)	OS Image with Windows® Embedded Standard 7 E for DRPC-120 Series, CDROM, RoHS

*It is required to order Power Cable together with Adapter for power usage

Packing List

1 x Screw kit	1 x Mounting bracket
1 x SATA cable & SATA power cable	

Compact Size Embedded System



Model Name		ITG-100-AL	ulBX-250-BW
Chassis	Color	Blue & Silver	Black
	Dimensions (WxDxH) (mm)	Single layer: 137 x 102.8 x 36.2 Dual layer: 137 x 102.8 x 56.2	137 x 102.8 x 52
	System Fan	Fanless	Fanless
	Chassis Construction	Extruded aluminum alloy	Extruded aluminum alloy
Motherboard	CPU	Intel® Atom® x5-E3930 1.3 GHz (up to 1.8 GHz, dual-core, TDP 6.5W)	Intel® Celeron® N3160 1.6 GHz (up to 2.24 GHz, quad-core, TDP 6W)
	Chipset	SoC	SoC
	System Memory	1 x SO-DIMM DDR3L 1600/1867 (2GB pre-installed)(up to 8GB)	1 x SO-DIMM DDR3L 1600 (2GB pre-installed)(up to 8GB)
Storage	Hard Drive	1 x 2.5" SATA 6Gb/s HDD/SSD bay	1 x 2.5" SATA 6Gb/s HDD/SSD bay
	SATADOM	N/A	N/A
	eMMC	1 x eMMC5.0 (up to 32GB)(optional)	N/A
	Micro SD	1 x Micro SD slot (optional)	N/A
I/O Interfaces	USB	2 x USB 3.2 Gen 1 2 x USB 2.0 (optional)	4 x USB 3.2 Gen 1
	Ethernet	2 x RJ-45: 2 x GbE by Intel® I211	2 x RJ-45: 2 x GbE by Intel® I211
	COM Port	2 x RS-232/422/485 with AFC (DB9/RJ-45) 2 x RS-232 (optional)	2 x RS-232/422/485 with AFC (RJ-45)
	Digital I/O	8-bit Digital I/O (4-in/ 4-out)(optional)	N/A
	Display	1 x VGA (up to 1920 x 1080@60Hz)	1 x HDMI (up to 3840 x 2160@30Hz) 1 x VGA (up to 1920 x 1080@60Hz)
	Audio	N/A	1 x Line-out, 1 x Line-in
	Wireless	1 x 802.11a/b/g/n/ac (optional)	1 x 802.11a/b/g/n/ac (optional)
	Other	1 x Power Button, 1 x Reset Button, 1 x AT/ATX Switch, 1 x LED for Power (Green), 1 x LED for HDD (Yellow)	1 x Power Button, 1 x Reset Button, 1 x AT/ATX Switch, 1 x LED for HDD (Green)
Expansions	PCIe Mini	1 x Full-size (PCIe/USB 2.0/SATA)	1 x Full-size (PCIe/USB 2.0/SATA)
	M.2	1 x 2230 A-key (PCIe x 1/USB 2.0)	N/A
Power	Power Input	Terminal block: 12 V DC	DC Jack: 12V DC
	Power Consumption	12V @ 1A (Intel® Atom® E3930 with 2GB memory)	12V @ 2A (Intel® Celeron® N3160 with 2GB memory)
Reliability	Mounting	DIN-Rail/ Wall-mount	Wall-mount/ VESA 75
	Operating Temperature	-20°C ~ 60°C with air flow (SSD), 10% ~ 95% noncondensing	-20°C ~ 60°C with air flow (SSD), 10% ~ 95% non-condensing
	Storage Temperature	-30°C ~ 70°C with air flow (SSD), 10% ~ 90% non-condensing	-20°C ~ 80°C with air flow (SSD), 10% ~ 90% non-condensing
	Operating Shock	Half-sine wave shock 5G, 11ms, 100 shocks per axis (SSD)	Half-sine wave shock 5G, 11ms, 100 shocks per axis (SSD)
	Operating Vibration	MIL-STD-810G 514.6C-1 (SSD)	MIL-STD-810G 514.6C-1 (SSD)
	Weight (Net/ Gross)	Single layer: 0.67g/ 1.03 kg Dual layer: 0.86g/ 1.22 kg	470g/ 1.4 kg
	Safety/EMC	CE/ FCC	CE/ FCC
	Watchdog Timer	Programmable 1 ~ 255 sec/min	Programmable 1 ~ 255 sec/min
OS	Supported OS	Microsoft Windows 10 / Windows 11, Linux	Microsoft® Windows 8, Microsoft® Embedded Standard 7 E

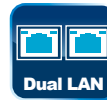
ITG-100-AL

- Ultra Compact Size
- Fanless DIN-Rail Embedded System
- Intel® Atom® x5-E3930 1.3 GHz (up to 1.8 GHz) Solution



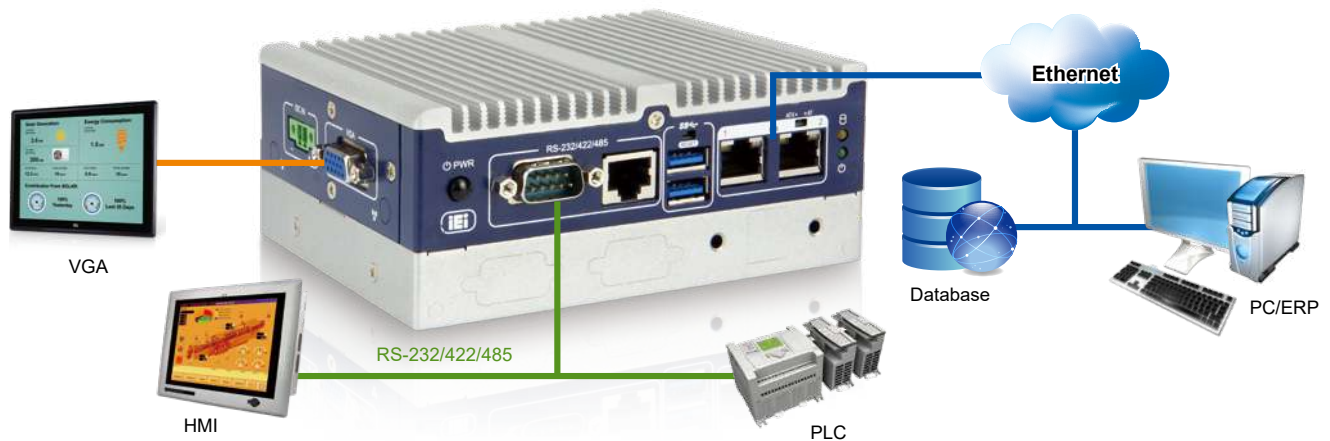
Features

- Intel® Atom® x5-E3930 1.3 GHz (up to 1.8 GHz)
- Two GbE LAN ports
- Two RS-232/422/485
- Full-size PCIe Mini slot and M.2 A-key slot for expansion



Intelligent Gateway

The ITG-100-AL equips with basic I/O ports and supports a wide range of operating temperature, making it suitable for acting the role as a data collection gateway in smart factory environments.



A Wide Range of Applications

Given its practical features, the ITG-100-AL can be applied to a variety of application fields, such as military, industrial automation, and traffic control.

Military

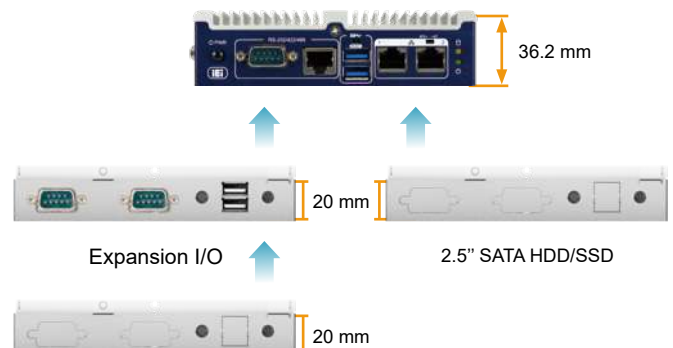
Industrial Automation

Traffic control



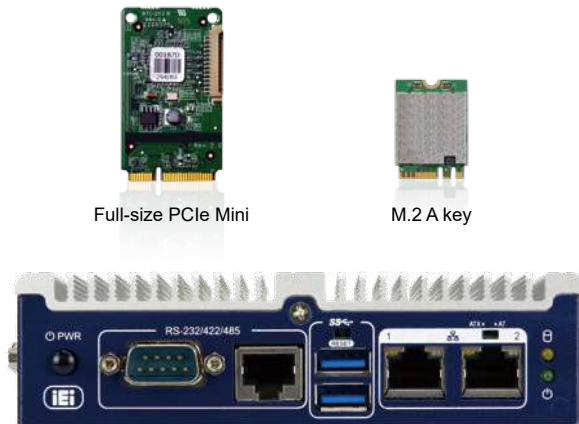
Multi-layer Feature

Additional block layers can be assembled to achieve I/O interface expansion and data storage requirement. With choices of adding a 2.5" SATA HDD/SSD bay, a knockout-hole layer with selectable I/O interface, or both of above-mentioned options, the ITG-100-AL could be modularized to what best fit users' preferences and still remaining its compact size.



Functionality Expansions

In order to respond the demand of adding more functions to the system, the ITG-100-AL is designed with a full-size PCIe Mini slot reserved for 3G/4G and a M.2 A-key slot reserved for Wi-Fi to provide function expansions with easy access.



Ultra-compact Size

Space limitation is one of the constraints commonly seen in today's industrial environment. Under tight restrictions, the ITG-100-AL not only provides palm-sized design to meet the space requirement, but also comes with adequate basic I/O interfaces for various applications.

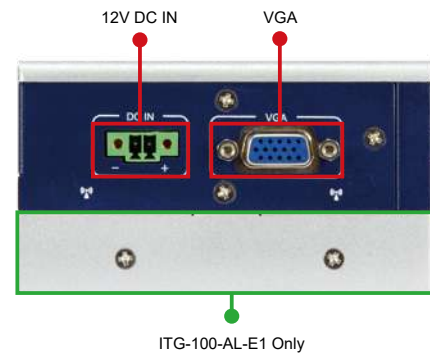
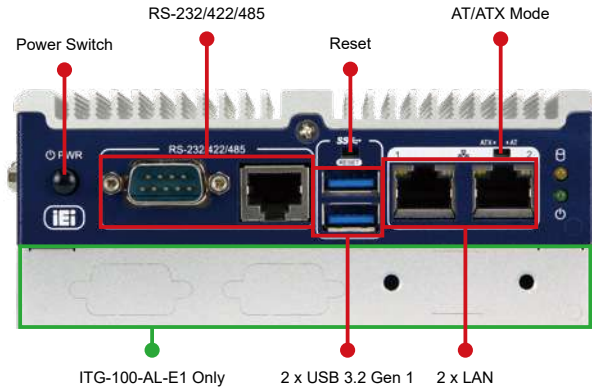


Specifications

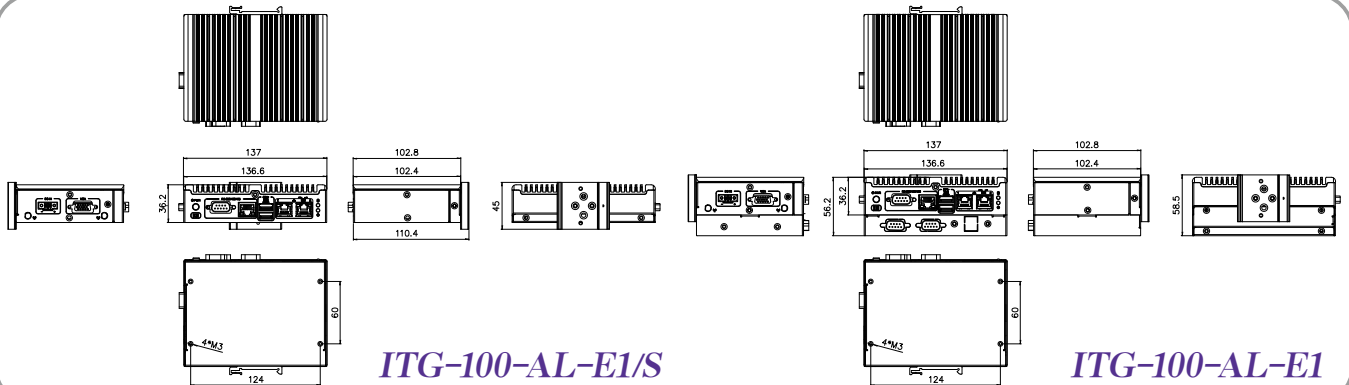
Model Name		ITG-100-AL
Chassis	Color	Blue & Silver
	Dimensions (WxDxH) (mm)	Single layer: 137 x 102.8 x 36.2 Dual layer: 137 x 102.8 x 56.2
	System Fan	Fanless
	Chassis Construction	Extruded aluminum alloy
Motherboard	CPU	Intel® Atom® x5-E3930 1.3 GHz (up to 1.8 GHz, dual-core, TDP 6.5W)
	Chipset	SoC
	System Memory	1 x SO-DIMM DDR3L 1600/1867 (2GB pre-installed)(up to 8GB)
Storage	Hard Drive	1 x 2.5" SATA 6Gb/s HDD/SSD bay
	eMMC	1 x eMMC5.0 (up to 32GB)(optional)
	Micro SD	1 x Micro SD slot (optional)
I/O Interfaces	USB	2 x USB 3.2 Gen 1 2 x USB 2.0 (optional)
	Ethernet	2 x RJ-45: 2 x GbE by Intel® I211
	COM Port	2 x RS-232/422/485 with AFC (DB9/RJ-45) 2 x RS-232 (optional)
	Digital I/O	8-bit Digital I/O (4-in/ 4-out)(optional)
	Display	1 x VGA (up to 1920 x 1080@60Hz)
	Wireless	1 x 802.11a/b/g/n/ac (optional)
	Other	1 x Power Button, 1 x Reset Button, 1 x AT/ATX Switch, 1 x LED for Power (Green), 1 x LED for HDD (Yellow)
	PCIe Mini	1 x Full-size (PCIe/USB 2.0/SATA)
Expansions	M.2	1 x 2230 A-key (PCIe x 1/USB 2.0)
	Power Input	Terminal block: 12 V DC (9 ~ 36V DC BOM optional) ¹
Power	Power Consumption	12V @ 1A (Intel® Atom® E3930 with 2GB memory)
	Mounting	DIN-Rail/ Wall-mount
Reliability	Operating Temperature	-20°C ~ 60°C with air flow (SSD), 10% ~ 95% non-condensing
	Storage Temperature	-30°C ~ 70°C with air flow (SSD), 10% ~ 90% non-condensing
	Operating Shock	Half-sine wave shock 5G, 11ms, 100 shocks per axis (SSD)
	Operating Vibration	MIL-STD-810G 514.6C-1 (SSD)
	Weight (Net/Gross)	Single layer: 0.67 g/ 1.03 kg Dual layer: 0.86 g/ 1.22 kg
	Safety/EMC	CE/ FCC
	Watchdog Timer	Programmable 1 ~ 255 sec/min
	Supported OS	Microsoft Windows 10 / Windows 11, Linux

1. By order production, MOQ:100

Fully Integrated I/O



Dimensions (Unit: mm)



Ordering Information

Part No.	Description
ITG-100-AL-E1/S-R10	Fanless embedded system, Intel® Apollo Lake x5-E3930 1.3 GHz (up to 1.8 GHz, dual core), VGA, M.2, COM, 12V DC and RoHS
ITG-100-AL-E1/2GB-S-R10	Fanless embedded system, Intel® Apollo Lake x5-E3930 1.3 GHz (up to 1.8 GHz, dual core), 2GB DDR3L pre-installed memory, VGA, M.2, COM, 12V DC and RoHS
ITG-100-AL-E1-R10	Fanless embedded system, Intel® Apollo Lake x5-E3930 1.3 GHz (up to 1.8 GHz, dual core), VGA, M.2, COM, 12V DC, flexible I/O expansion and RoHS
ITG-100-AL-E1/2GB-R10	Fanless embedded system, Intel® Apollo Lake x5-E3930 1.3 GHz (up to 1.8 GHz, dual core), 2GB DDR3L pre-installed memory, VGA, M.2, COM, 12V DC, flexible I/O expansion and RoHS

Options

Item	Part No.	Description
4GB Memory	79B00-G004-XXX-RS*	DDR3L (204 PIN);4GB;1.35V;0° ~ 85°;RoHS
8GB Memory	79B00-G008-XXX-RS*	DDR3L (204 PIN);8GB;1.35V;0° ~ 85°;RoHS
Wi-Fi Module	27319-000009-RS**	Wireless LAN Module;Wireless LAN & Bluetooth M.2 Module;Sparklan;R9701810011;IEEE802.11a/b/g/n/ac;2.412 GHz~2.4835 GHz, 5.15 GHz~5.85 GHz;M.2 2230;;3.3V;22*30*2.15mm;QCNFA364A;QCA6174A-5;2x2 MIMO;Dual Band;WCBN808A-Q2;CCL;CCL;RoHS
Antenna	32505-000900-100-RS**	External Antenna;WLAN;RG 178;108MM;TANK-700-QM67-R10;PEAK GAIN 2.0DBI;Excetek;2.4-2.5 GHz/5.15-5.85 GHz;REVERSE SMA PLUG;RoHS
RF Cable	32501-004000-100-RS**	RF;RF CABLE;LINE DIAMETER:0.81mm;250MM;;50Ω;Sparklan;0-6 GHz;VSWR≤1.3;I-PEX MHF-4 Plug;REVERSE SMA JACK;NUT*1;WASHER*1;;RoHS
DIO Cable	32231-000300-100-RS	FLAT CABLE;DIO CABLE;;2;50MM;28AWG;(A)D-SUB 9P FEMALE;(B)DU PONT 2*5P P=2.0 FEMALE, RoHS
COM Cable	32205-007500-200-RS	FLAT CABLE;RS-232/422/485;COM CABLE;;2;50mm;28AWG;(A)D-SUB 9P MALE;(B)DU PONT 2*5P P=2.0 FEMALE, RoHS
USB Cable	32001-000800-300-RS***	ROUND CABLE;USB CABLE;;2;150MM;28AWG;(A)DOUBLE LAYER USB A TYPE FEMALE(WITH EAR);(B)DU PONT 2*4P P=2.0 FEMALE, RoHS
HDD Drive Bay	ITG-HB-R10***	HDD Bay for ITG-100 only
Exp. Chassis	ITG-EXP-R10	Expansion Chassis for ITG-100 only
Adapter	63040-010036-210-RS****	Adapter Power;FSP;FSP036-RHBN3;9NA0362707;;Vin:90 ~ 264VAC;36W;Dim:37.8*89.8*27.0mm;Plug=7.5mm;Cable=1500mm;Erp(NO LOAD 0.075W);Vout:12VDC;Φ2.5/Φ5.5/lock;CCL;RoHS
Power Cable	32102-045700-100-RS ****	WIRE CABLE;POWER CABLE;;2;200mm;18AWG;(A)DC JACK 5.5*2.5;(B)TERMINAL BLOCK 2P P=3.5 180°, RoHS
Power Cord	32702-000400-200-RS	European power cord
OS:Windows Embedded 10	ITG-100-W10E64-E-R10	OS Image with Windows® 10 IoT Enterprise Entry 64-bit for ITG-100-AL Series, with DVD-ROM, RoHS

* It is just a general P/N. Please contact your sales representatives to assist you in ordering.

** Each Wi-Fi module needs two antennas and two RF cables to fully support Wi-Fi function.

*** This USB cable cannot be used at the layer where the HDD drive bay is located.

**** It is required to order Power Cable together with Adapter for power usage.

Packing List

1 x SATA cable & SATA power cable (for ITG-100-AL-E1 only)	1 x Screw kit	1 x Mounting bracket	1 x RJ-45 to DB-9 COM port cable
---	---------------	----------------------	----------------------------------

uIBX-250-BW

Ultra Compact Size

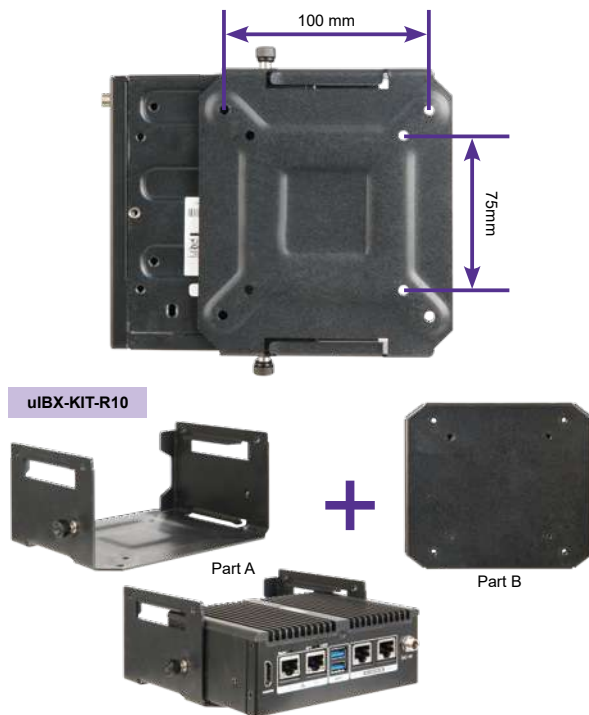


Features

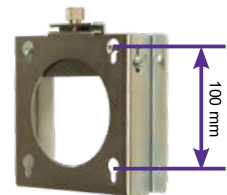
- Fanless system with Intel® Celeron® N3160 processor
- Dual display
- Two RS-232/422/485
- Full-size PCIe Mini slot for expansion
- Four USB 3.2 Gen 1 (5Gb/s) ports
- Two GbE LAN ports



Smart Mounting Design

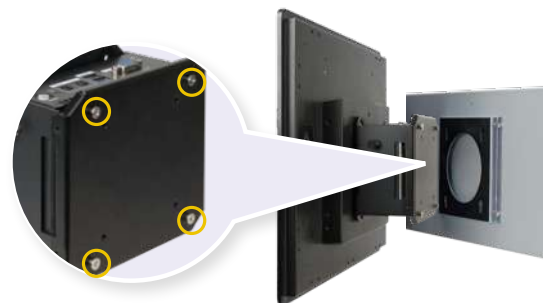


A. Wall mount



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 part A of the uIBX-KIT on the back of the monitor compliant with VESA 75/100.

Step.2



Assemble the uIBX-250 and the part B of the uIBX-KIT. Then, it can be mounted onto any devices with VESA 75/100 interface.

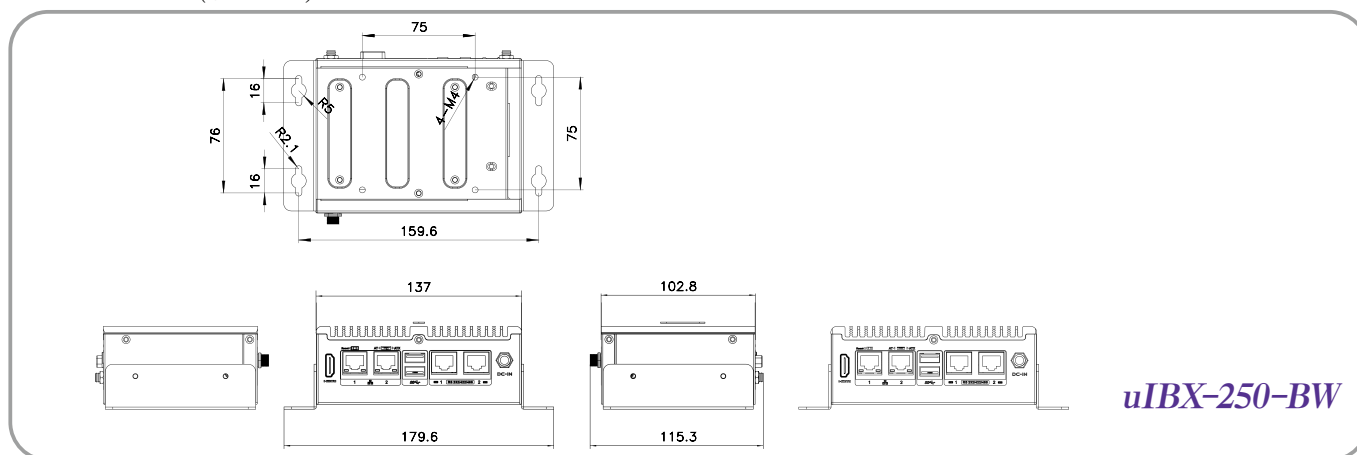


The position of the uIBX-250 could be adjusted to best fit your applications. Space can be greatly saved by mounting on the back of monitor.

Specifications

Model Name		ulBX-250-BW
Chassis	Color	Black
	Dimensions (WxDxH) (mm)	137 x 102.8 x 52
	System Fan	Fanless
	Chassis Construction	Extruded aluminum alloy
Motherboard	CPU	Intel® Celeron® N3160 1.6 GHz (up to 2.24 GHz, quad-core, 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	4 x USB 3.2 Gen 1
	Ethernet	2 x RJ-45: 2 x GbE by Intel® I211
	COM Port	2 x RS-232/422/485 with AFC (RJ-45)
	Display	1 x HDMI (up to 3840 x 2160@30Hz) 1 x VGA (up to 1920 x 1080@60Hz)
	Audio	1 x Line-out, 1 x Line-in
	Wireless	1 x 802.11a/b/g/n/ac (optional)
	Other	1 x Power Button, 1 x Reset Button, 1 x AT/ATX Switch, 1 x LED for HDD (Green)
Expansions	PCIe Mini	1 x Full-size (PCIe/USB 2.0/SATA)
Power	Power Input	DC Jack: 12V DC
	Power Consumption	12V @ 2A (Intel® Celeron® N3160 with 2GB memory)
Reliability	Mounting	Wall-mount/ VESA 75
	Operating Temperature	-20°C ~ 60°C with air flow (SSD), 10% ~ 95% non-condensing
	Storage Temperature	-20°C ~ 80°C with air flow (SSD), 10% ~ 90% non-condensing
	Operating Shock	Half-sine wave shock 5G, 11ms, 100 shocks per axis (SSD)
	Operating Vibration	MIL-STD-810G 514.6C-1 (SSD)
	Weight (Net/Gross)	470g/ 1.4 kg
	Safety/EMC	CE/ FCC
	Watchdog Timer	Programmable 1 ~ 255 sec/min
OS	Supported OS	Microsoft® Windows 8, Microsoft® Embedded Standard 7 E

Dimensions (Unit: mm)



Ordering Information

Part No.	Description
ulBX-250-BW-N3/2G-R21	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, 12V DC, with RS-232/422/485, USB 3.2 Gen 1 (5Gb/s), VGA/HDMI, dual Intel® PCIe GbE, RoHS

Options

Part No.	Description
EMB-WIFI-KIT01-R20	1T1R Wi-Fi module kit for embedded system, IEEE802.11a/b/g/n/ac WiFi with Bluetooth 4.0/3.0+HS, 1 x Wi-Fi module, 2 x 250mm RF cable, 2 x Antenna, RoHS
DK-75-R10	VESA 75 to DIN-Rail mounting kit
ulBX-KIT-R10	ulBX smart mounting kit for monitor and stand
ulBX-250-BW-WES7E64-R10	OS image with Windows® Embedded Standard 7 E 64-bit for ulBX-250, DVD-ROM, RoHS

Packing List

1 x Power Adapter	1 x Mounting Bracket	2 x RS-232/422/485 Round Cable
-------------------	----------------------	--------------------------------

Digital Signage Solution



IDS Series

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 it in digital signage and video wall applications.

Key Features

■ Ultra HD

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

- 3 x HDMI 3840 x 2160 @30Hz



■ Thin Appearance

The minimum dimension of IDS-310 is 137 x 102.8 x 38.1 (mm) which can be installed in a limited space and saves more space.



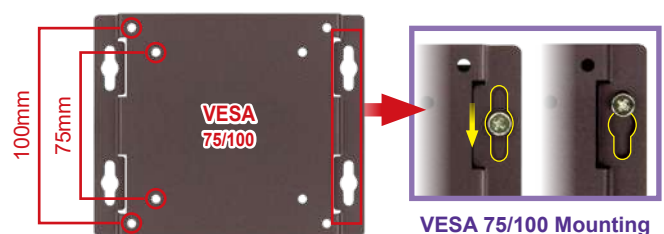
■ Hardware Expansion

The M.2 A-key & PCIe Mini slots are reserved for Wi-Fi, 3G/4G or mSATA modules, and also support SATADOM for storage to achieve flexible application. Users can quickly replace the modules inside by simply opening the bottom panel of the chassis. Such a design can produce huge benefits for those who need quick response and efficient services.



■ Mounting Method

The series has passed shock and vibration test based on the MIL-STD-810G standard.



Digital Signage Embedded System



Model Name		IDS-310-AL-N1	IDS-310-AL-J1
Chassis	Color	Brown & Silver	Brown & Silver
	Dimensions (WxDxH)(mm)	137 x 102.8 x 38.1	137 x 102.8 x 52.1
	System Fan	Fanless	Fanless
	Chassis Construction	Extruded aluminum alloy	Extruded aluminum alloy
Motherboard	CPU	Intel® Celeron® N3350 1.1 GHz (up to 2.4 GHz, dual-core, TDP 6W)	Intel® Celeron® J3455 1.5 GHz (up to 2.3 GHz, quad-core, TDP 10W)
	Chipset	SoC	SoC
	System Memory	1 x SO-DIMM DDR3L (4GB pre-installed)(up to 8GB)	1 x SO-DIMM DDR3L (4GB pre-installed)(up to 8GB)
Storage	Hard Drive	1 x SATA 6Gb/s connector	1 x SATA 6Gb/s connector
	Micro SD	1 x Micro SD slot (optional)	1 x Micro SD slot (optional)
I/O Interfaces	USB	3 x USB 3.2 Gen 1	3 x USB 3.2 Gen 1
	Ethernet	2 x RJ-45: 2 x GbE by RTL8111	2 x RJ-45: 2 x GbE by RTL8111
	RS-232/422/485	1 x RS-232/422/485 with AFC	1 x RS-232/422/485 with AFC
	Display	3 x HDMI 1.4b (3840 x 2160@30Hz)	3 x HDMI 1.4b (3840 x 2160@30Hz)
	Audio	1 x Line-out, 1 x Mic-in	1 x Line-out, 1 x Mic-in
	Wireless	1 x 802.11 a/b/g/n/ac (optional)	1 x 802.11 a/b/g/n/ac (optional)
	TPM	Optional	Optional
Expansions	PCIe Mini	1 x Full-size with SIM card slot (PCIe/USB 2.0/SATA)	1 x Full-size with SIM card slot (PCIe/USB 2.0/SATA)
	M.2	1 x 2230 A-key (PCIe x1/USB 2.0)	1 x 2230 A-key (PCIe x1/USB 2.0)
Power	Power Input	DC Jack: 12V DC	DC Jack: 12V DC
	Power Consumption	12V @ 1.9A (Intel® Celeron® N3350 with 4GB memory)	12V @ 2.2A (Intel® Celeron® J3455 with 4GB memory)
Reliability	Mounting	VESA 75/100/Wall mount (optional)	VESA 75/100/Wall mount (optional)
	Operating Temperature	-20°C ~ 60°C with air flow (mSATA), 10% ~ 95% non-condensing	-20°C ~ 60°C with air flow (mSATA), 10% ~ 95% non-condensing
	Storage Temperature	-30°C ~ 80°C with air flow, 10% ~ 90% non-condensing	-30°C ~ 80°C with air flow, 10% ~ 90% non-condensing
	Operating Shock	Half-sine wave shock 5G, 11ms, 100 shocks per axis (mSATA)	Half-sine wave shock 5G, 11ms, 100 shocks per axis (mSATA)
	Operation Vibration	MIL-STD-810G 514.6C-1 (mSATA)	MIL-STD-810G 514.6C-1 (mSATA)
	Weight (Net/ Gross)	680g/1.4 kg	950g/1.7 kg
	Safety / EMC	CE/FCC Class A/BSMI	CE/FCC Class A/BSMI
	Watchdog timer	Programmable 1~255 sec/min	Programmable 1~255 sec/min
OS	Supported OS	Microsoft® Windows® 10, Linux	Microsoft® Windows® 10, Linux

IDS-310-AL

■ Digital Signage System

■ Ultra Compact Size

Features

- Triple HDMI displays up to 4K resolution
- Two GbE LAN ports
- Full-size PCIe Mini slot and M.2 A-key slot for expansion



Specifications

Model Name		IDS-310-AL-N1	IDS-310-AL-J1
Chassis	Color	Brown & Silver	
	Dimensions (WxDxH)(mm)	137 x 102.8 x 38.1	137 x 102.8 x 52.1
	System Fan	Fanless	
	Chassis Construction	Extruded aluminum alloys	
Motherboard	CPU	Intel® Celeron® N3350 1.1 GHz (up to 2.4 GHz, dual-core, TDP 6W)	Intel® Celeron® J3455 1.5 GHz (up to 2.3 GHz, quad-core, TDP 10W)
	Chipset	SOC	
	System Memory	1 x SO-DIMM DDR3L (4GB pre-installed)(up to 8GB)	
Storage	Hard Drive	1 x SATA 6Gb/s connector	
	Micro SD	1 x Micro SD slot (optional)	
I/O Interfaces	USB	3 x USB 3.2 Gen 1	
	Ethernet	2 x RJ-45: 2 x GbE by RTL8111	
	COM Port	1 x RS-232/422/485 with AFC	
	Display	3 x HDMI 1.4b (3840x2160@30Hz) ^{1,2}	
	Audio	1 x Line-out, 1 x Mic-in	
	Wireless	1 x 802.11 a/b/g/n/ac (optional)	
	TPM	1 x TPM 2.0 (optional)	
Expansions	PCIe Mini	1 x Full-size with SIM card slot (PCIe/USB 2.0/SATA)	
	M.2	1 x 2230 A-key (PCIe x1/USB 2.0)	
Power	Power Input	DC Jack: 12V DC (9 ~ 36V DC BOM optional) ³	
	Power Consumption	12V @ 1.9A (Intel® Celeron® N3350 with 4GB memory)	12V @ 2.2A (Intel® Celeron® J3455 with 4GB memory)
Reliability	Mounting	VESA 75/100/Wall mount(optional)	
	Operating Temperature	-20°C ~ 60°C with air flow (mSATA), 10% ~ 95% non-condensing	
	Storage Temperature	-30°C ~ 80°C with air flow (mSATA), 10% ~ 95% non-condensing	
	Operating Shock	Half-sine wave shock 5G, 11ms, 100 shocks per axis (mSATA)	
	Operation Vibration	MIL-STD-810G 514.6C-1 (mSATA)	
	Weight (Net/Gross)	680 g / 1.4 kg	950 g / 1.7 kg
	Safety / EMC	CE/FCC Class A/BSMI	
	Watchdog Timer	Programmable 1 ~ 255 sec/min	
OS	Supported OS	Microsoft® Windows® 10, Linux	

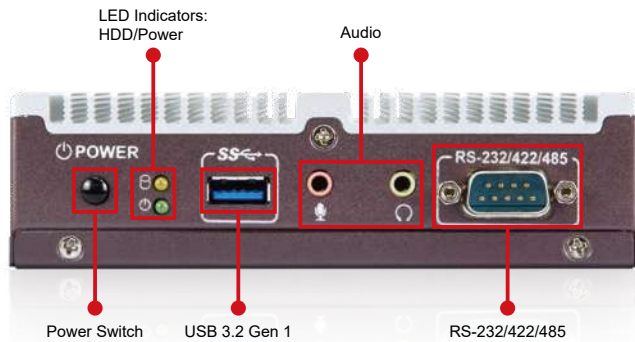
1. Due to chipset limitation, audio is not supported over the HDMI3 connector.

2. Fully support of triple 4K display output may vary in different system environment setting. Contact an IEI sales representative for detailed information.

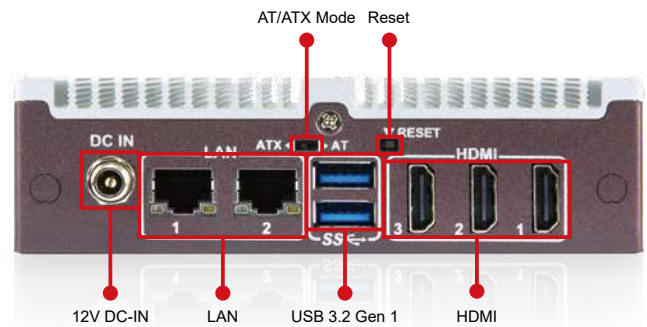
3. By order production, MOQ:100

Fully Integrated I/O

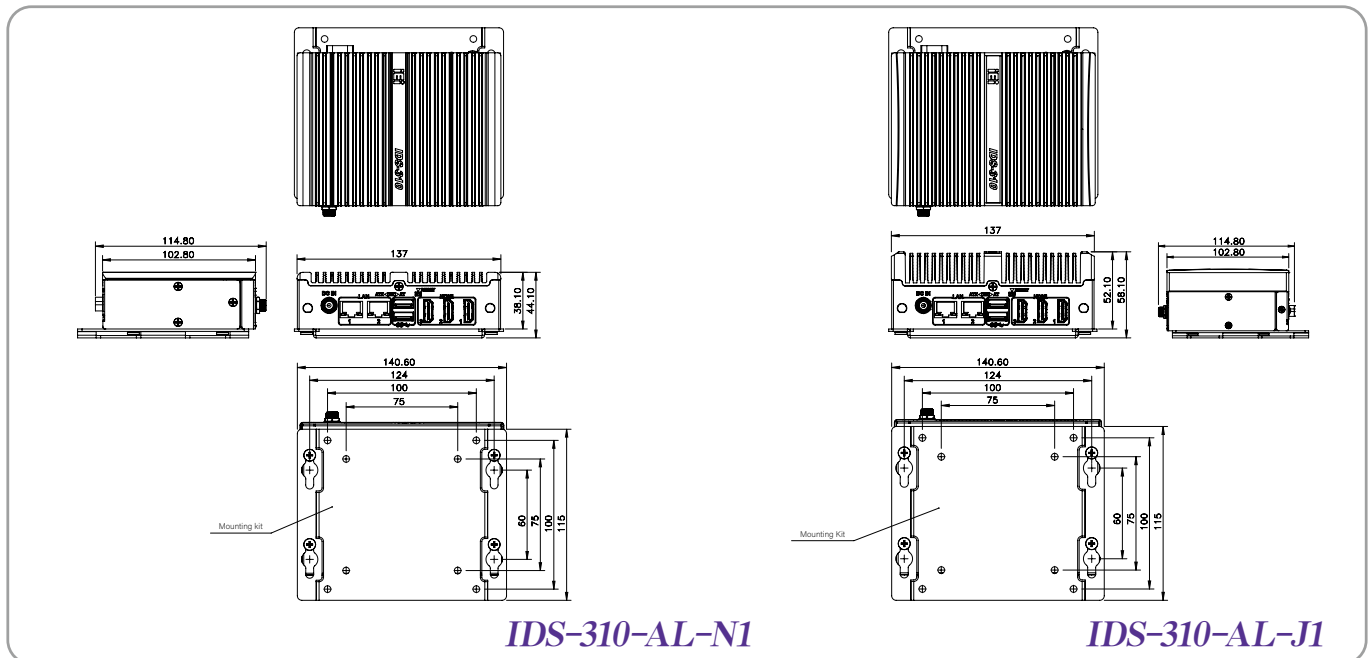
Front View



Rear View



Dimensions (Unit: mm)



Ordering Information

Part No.	Description
IDS-310-AL-J1/4GB-R10	Fanless embedded system with Intel® Celeron® J3455 1.5 GHz (up to 2.3 GHz, quad core, TDP 10W), pre-installed 4GB DDR3L memory, triple HDMI display, 12V DC and RoHS
IDS-310-AL-N1/4GB-R10	Fanless embedded system with Intel® Celeron® N3350 1.1 GHz (up to 2.4 GHz, dual core, TDP 6W), pre-installed 4GB DDR3L memory, triple HDMI display, 12V DC and RoHS

Options

Part No.		Description
Wi-Fi Module	27319-000009-RS*	Wireless LAN Module;Wireless LAN & Bluetooth M.2 Module;Sparklan;R9701810011;IEEE802.11a/b/g/n/ac;2.412 GHz~2.4835 GHz, 5.15 GHz~5.85 GHz;M.2 2230;;3.3V;22*30*2.15mm;QCNFA364A;QCA6174A-5;2x2 MIMO;Dual Band;WCBN808A-Q2;CCL;CCL;RoHS
Antenna	32505-000900-100-RS*	External Antenna;WLAN;RG 178;108MM;TANK-700-QM67-R10;PEAK GAIN 2.0DBI;Exceltek;2.4-2.5 GHz/5.15-5.85 GHz;REVERSE SMA PLUG;RoHS
RF Cable	32501-004000-100-RS*	RF;RF CABLE;LINE DIAMETER:0.81mm;250MM;;50Ω;Sparklan;0-6 GHz;VSWR≤1.3;I-PEX MHF-4 Plug;REVERSE SMA JACK;NUT x 1;WASHER x 1;;RoHS
OS: Windows Embedded 10	IDS-310-AL-W10E64-E-R10	OS Image with Windows® 10 IoT Enterprise Entry 64-bit 2019 for IDS-310-AL Series, with DVD-ROM, RoHS

* Each Wi-Fi module needs two antennas and two RF cables to fully support Wi-Fi function.

Packing List

1 x VESA 75/100 Mounting Kit	1 x Power Adapter	1x Power Cord
------------------------------	-------------------	---------------



WWW.AILINK.COM.TW



秉誠智能科技
AILink Intelligent Technology