

# TS-206

## In-Vehicle Fanless Box PC 6th Gen. Intel® Core i7/ i5 Full HD NVR w/4 PoE Ports



### Features

- 6th Gen Intel® Core i7-6600U 2.6GHz/i5-6300U 2.4GHz SoC
- 4 PoE Ports for Mainstream IP Cameras
- Intelligent Power Ignition for Vehicle
- Removable 2.5" drive bay
- Diversity Communication WWAN, WLAN Abilities
- 12/24V<sub>DC</sub> with E-Mark certification



WISE-DeviceOn



### Specifications

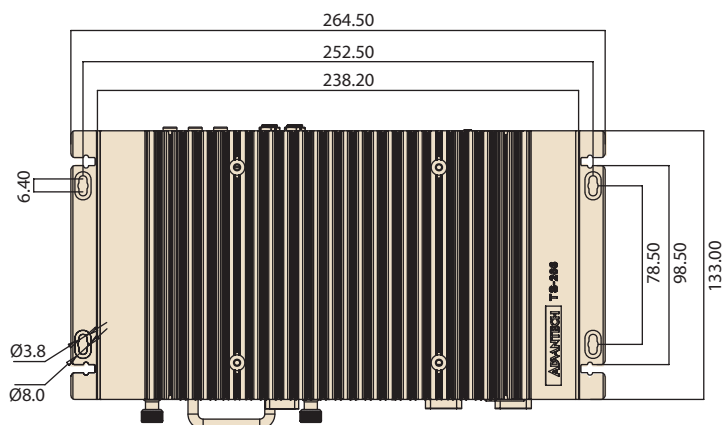
		TS-206-U6A1E	TS-206-U4A1E	
Processor System	CPU	Intel® Core i7-6600U Dual Core	Intel® Core i5-6300U Dual Core	
	Frequency	2.6 GHz	2.4 GHz	
	L3 Cache	4 MB	3 MB	
	BIOS	AMI EFI 128 Mbit		
Memory	Technology	DDR3L 1600 MHz		
	Max. Capacity	16GB		
	Socket	2 x 204-pin SO-DIMM		
Graphics	Chipset	HD Graphics 520		
	Graphic Engine	DirectX 12, DirectX 11.3, OpenGL 4.4, and OpenCL 2.1 Full AVC/VC1/MPEG2 HW Decode		
	VGA	1920 x 1200@60Hz or 2048 x 1152@60Hz with reduced blanking		
	HDMI	Lockable HDMI connector, up to 4K at 24 Hz		
Audio	Main System	Realtek ALC888S, High Definition Audio (HD), Line-in, Line out, Mic-in		
Ethernet	LAN #1	10/100/1000 Mbps Intel® I219LM		
	LAN #2	10/100/1000 Mbps Intel® I210-IT		
I/O Interface	Power over Ethernet, PoE	4 x 10/100 Mbps -4ports full-load, IEEE802.3af Class2(7Watt) -2ports full-load, IEEE802.3af Class3(15.4Watt)	N/A	
	Serial Ports	2x non-isolated RS-232/422/485 with auto flow control	2x isolated RS-232/422/485 with auto flow control (3KV isolation) 2x non-isolated RS-232/422/485 with auto flow control	
	CANBus	Option, 2ch CANBus 2.0A/B (1xCOM will be replaced)		
	USB Interface	2 x USB 2.0 & 2 x USB3.0		
	GPIO		6 x DI & 2 x DO w/ 3KV isolation Input Voltage: 0 to 30 V <sub>DC</sub> , Output Current: Max. 500 mA per channel On-state Voltage: 24 V <sub>DC</sub> nominal, open collector to 30 V <sub>DC</sub>	
Other	Watchdog timer	255-level timer interval, setup by software		
	TPM	TPM2.0		
Expansion	Mini PCIe #1	Full-size Mini PCIe w/SIM holder (PCIe, USB interface)		
	Mini PCIe #2	Full-size Mini PCIe (PCIe, USB, SATA interface)		
	Mini PCIe #3/4	2 x Full-size Mini PCIe w/SIM holders (USB interface)		
Storage	2.5" Drive Bay	1 x removable 2.5" drive bay (Standard 9.5mm height, 15mm height support by project)		
	mSATA	Leverage MiniPCIe #2 slot		
Software Support	Microsoft Windows	WES7, Windows7, Windows 10, Ubuntu 20.04 LTS		
	Linux	Support by project		
Power Requirement	Power Input Voltage	12/24V <sub>DC</sub> with E-Mark certification		
	Vehicle Power Ignition	Selectable boot-up & shut-down voltage, on/off delay time		
	Power Consumption	26W (Typical), 76W (Max)	26W (Typical), 46W (Max)	
	Isolation	1.5 KV Isolated		

## Specifications (Cont.)

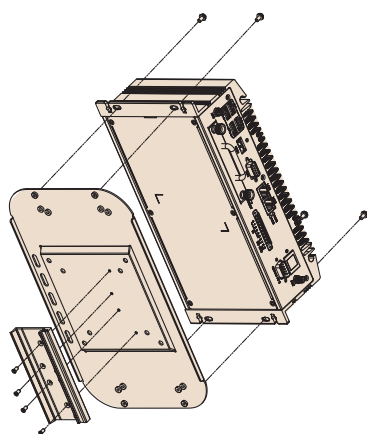
Mechanical	Construction	Aluminum housing, Black
	Mounting	Desk/Wall-mounting Din-Rail/VESA mounting by option
	Dimensions (W x H x D)	264.5 x 75.1 x 133.0 mm (10.41" x 2.96" x 5.24")
Environment	Operating Temperature	With extended temperature peripherals:-20 ~ 55/60 °C with 0.7m/s air flow
	Storage Temperature	-40 ~ 85 °C (-40~185 °F)
	Relative Humidity	95% @ 40 °C (non-condensing)
	Vibration/Shock	With mSATA/SSD: IEC 60721-3-5 Class 5M3
Regulation	EMC	CE/FCC Class A, CCC, BSMI
	Safety	UL, CCC, BSMI, E-Mark(E13) (No RED certification)
	In-Vehicle Power	ISO7637-2 Lev.4

## Dimensions

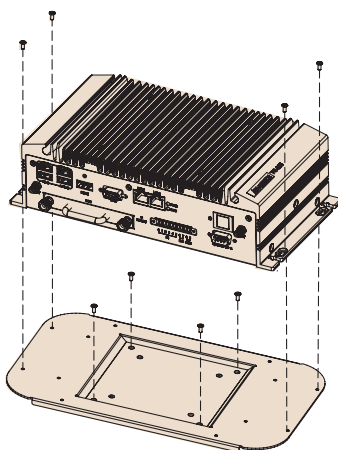
Unit: mm



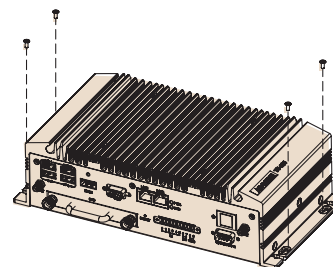
**DIN Rail**



**VESA mount**

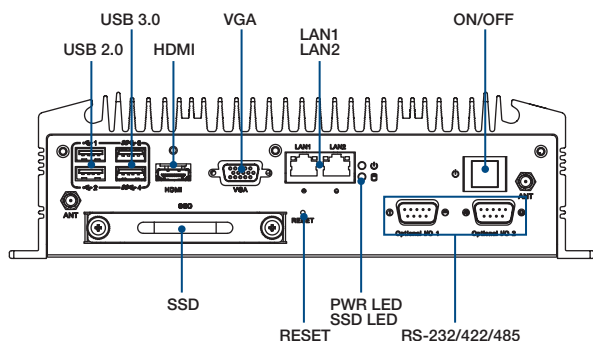


**Wall mount**

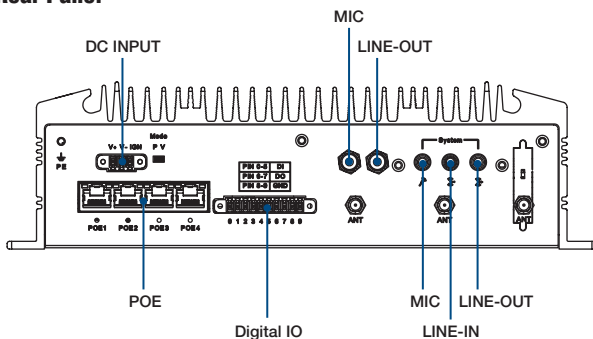


**TS-206-U6A1E External I/O Mechanical Layout/Drawing**

**Front Panel**

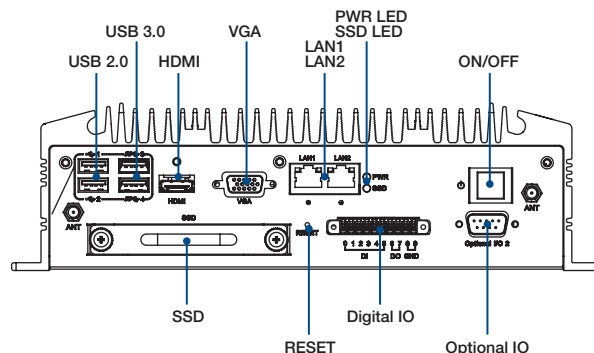


**Rear Panel**

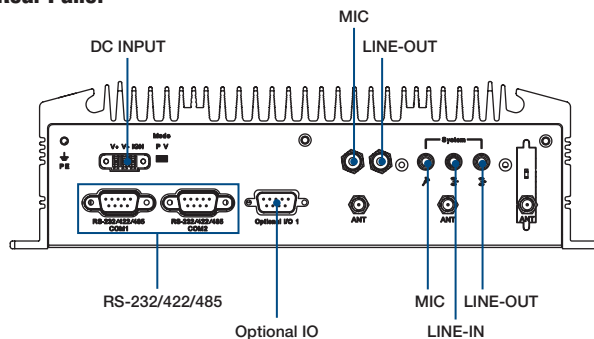


**TS-206-U4A1E External I/O Mechanical Layout/Drawing**

**Front Panel**



**Rear Panel**



**Ordering Information**

Part Number	Intel CPU	RAM	2.5" Drive	mSATA	Display	GbE	PoE	USB	DIO	COM	MiniPCIe	SIM Holder	Power Input	Operating Temperature
TS-206-U6A1E	Intel® Core i7 6600U 2.6 GHz	Up to 16GB	1	1	1 x HDMI 1 x VGA	2	4	2 x USB2.0 2 x USB3.0	6Di 2Do	2	4 x Full Size	3	12/24Vdc	-20 ~ 55 °C
TS-206-U4A1E	Intel® Core i5-6300U 2.4 GHz						N/A			4				-20 ~ 60 °C

Note: Intel Celeron 3955U is supported by request

**Packing List**

Part Number	Description
-	1 x TS-206 Unit
-	1 x Driver/Utility CD/Manual
-	1 x User Manual (Simplified Chinese)
1652000049	3-pole phoenix power block 3.81mm
1652003235	10-Pin DIO plug in block

**Embedded OS**

Part Number	Description
20706WE7PS0026	TS-206, WES7P 64bit OS
20706WX9HS0124	TS-206-U6A1E, Win10 IoT Ent 2019 High-end LTSC 64bit. English
20706WX9VS0128	TS-206-U4A1E, Win10 IoT Ent 2019 Value LTSC 64bit. English

**Optional Items**

Part Number	Description
96PSA-A120W24T2-3	AC to DC adapter 24V 120W
96PSA-A150W24T2-4	AC to DC adapter 24V 150W
1702002600	Power Cable 3-pin 180cm, USA type
1702002605-02	Power Cable 3-pin 183cm, Europe type
1700018704	Power Cable 3-pin 183cm, UK type
EMCB-200U-MP01E	SQC CANBus Full-size, 2-Ch, USB I/F
1700024379-01	CanBus internal cable, 2-Ch, For TS-206-U4A1E
1700024380-01	CanBus internal cable, 2-Ch, For TS-206-U6A1E
AMK-V004E	VESA mounting kit
AMK-R004E	DIN-rail mounting kit