

# TS-207

## Military-grade Fanless IP65 Box PC for Transportation and Outdoor



### Features

- 11th Gen. Intel® Core™ U-Series Processors
- Advanced video surveillance with AI accelerator
- Fanless Operating on -40 ~70°C Temperature
- Support 4 Ports Gigabit Ethernet or PoE options\*
- IP65 Enclosures for demanding AIoT Applications
- Intelligent Vehicle Power Ignition Control
- E-Mark(13), EN50155 and MIL-STD810H Certified
- Remove Management Advantech WISE-DeviceOn



WISE-DeviceOn CE FCC

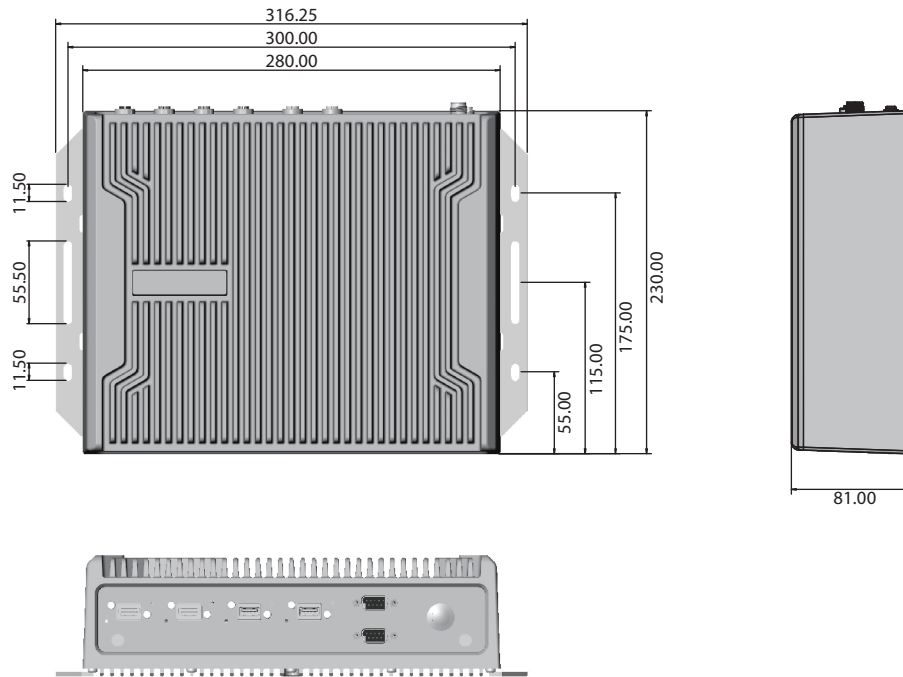
### Specifications

		TS-207-V5DAA1	TS-207-V2DNA1
Processor System	CPU	Intel i5-1145GRE	Intel Celeron 6305E
	Frequency	1.5/ 4.1 GHz (Max Turbo)	1.8 GHz
	L3 Cache	8 MB	4MB
	BIOS	AMI EFI 128 Mbit	
Memory	Technology	DDR4 Dual-channel memory, Up to 3200MT/S	DDR4 Dual-channel memory, Up to 3200MT/S
	Onboard memory	8GB	None
	SODIMM Memory	1x SO-DIMM socket (up to 32GB)	1x DDR4-3200 8GB DRAM
Graphics	Controller	Intel® Iris® Xe Graphics 1.30 GHz	Intel® Iris® Xe Graphics 1.25 GHz
	HW Acceleration	HW Encode: Supports AVC, MPEG-2, HEVC, and VP9. HW Decode: Supports Direct3D* 9 Video API (DXVA2), Direct3D12 Video API, Intel Media SDK, MFT (Media Foundation Transform) filters, Intel VA API	
	HDMI	2x HDMI 2.0b with 4Kx2K support at 48-60Hz/24bpp	
Audio	Main System	1x Pin header, Line-in, Line out, Mic-in (support by project)	
Ethernet	LAN (PoE)	4x M12 circular connectors with 10/100/1000 Mbps speed (IEEE802.3af PoE options with maximum power output of 60W. Support by project)	
I/O Interface	Serial Ports	2x DB-9 RS-232/422/485 with auto flow control	
	USB Interface	2x USB type-A 3.0 & 2.0 2x M12 circular with USB 2.0 support	
Other	Watchdog timer	255-level timer interval, setup by software	
	TPM	TPM2.0	
Expansion	mPCIe (MINIPCE2)	1x Full size mini PCIe slot (with PCIe Gen 1/USB 3.0, USB 2.0)	
	mPCIe/mSATA (MINIPCE1)	1x Full size mini PCIe slot (with PCIe Gen 1/USB 3.0, USB 2.0 & SATA)	
	M.2	1x M.2 2230 E key (with PCIe Gen 1, USB 2.0)	
Storage	mSATA	1x MSATA (leverage mSATA/mPCIe slot)	
	SATA	1x SATA-III (mounting kits, option)	
	Onboard NVMe SSD	Up to 32GB (support by project)	
Software Support	Microsoft Windows	Windows 10	
	Linux	Ubuntu 20.04 LTS	
Power Requirement	Power Input Voltage	In-Vehicle: +12/24V <sub>DC</sub> Railway: +24V <sub>DC</sub>	
	Vehicle Power Ignition	Selectable boot-up & shut-down voltage, on/off delay time	
	Power Consumption	Maximum load 52.82W with used +12V <sub>DC</sub> Idle mode (S0) 26.1W with used +12V <sub>DC</sub>	
	Isolation	1.5 KV Isolated	
Mechanical	Construction	Aluminum housing, Black	
	Mounting	Desk/Wall-mounting Din-Rail/VESA mounting by project based support	
	Dimensions (W x H x D)	280 x 81 x 230 mm (without wall-mounting) 316 x 81 x 230 mm (with wall-mounting)	
Environment	Operating Temperature	Standard: 0-60 °C Extended: -40-70 °C with air flow 0.7m/s (with extended temperature peripherals)	
	Storage Temperature	-40 ~ 85 °C (-40~185 °F)	
	Relative Humidity	95% @ 40 °C (non-condensing)	
	Sealing level	IP65 (work with option Amphenol waterproof cap and boot style hood to protect mating interfaces against water and dust incursion)	
	Vibration/Shock	IEC 60721-3-5 (Vehicle-5M3) MIL-STD-810H method 814.8 (Category 4. Trucks and trailer)	
Regulation	EMC	CE/FCC Class B	
	Safety	12V/ 24VDC: E-Mark (E13)* 24VDC: EN50155 and EN45545*	
	In-Vehicle Power	ISO7637-2 Lev.4	
Others	Warranty	3 years	
	Production	Made in Taiwan	

Note: Product based support. Please contact sales for details.

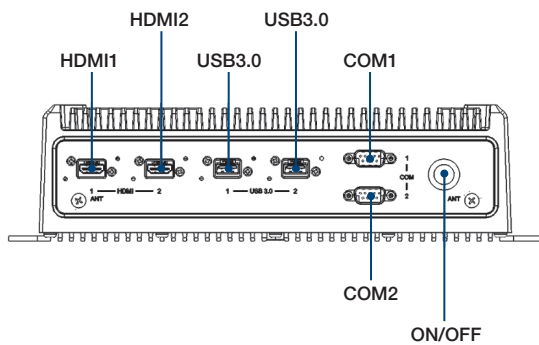
## Dimensions

Unit: mm

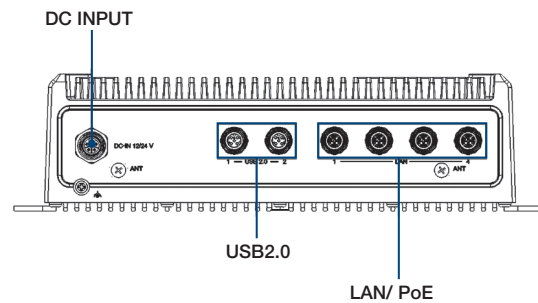


## External I/O Mechanical Layout/Drawing

Front Panel



Rear Panel



## Ordering Information

Part Number	Intel CPU	RAM	NVMe SSD	Display	GbE	USB	COM	Expansion	SIM Holder	Power Input	Operating Temperature
TS-207-V5DAA1	Intel i5-1145GRE, 4.1GHz	8GB	None*	2x HDMI	4x Ethernet/ PoE*	2 x USB3.0/ 2.0 2 x USB2.0 (M12)	2	2x mPCIe 1x M.2 2230	0	+12/24V <sub>dc</sub> : In-Vehicle	-40-70 °C
TS-207-V2DNA1	Intel Celeron 6305E, 1.8GHz	8GB	None*	2x HDMI	4x Ethernet/ PoE*	2 x USB3.0/ 2.0 2 x USB2.0 (M12)	2	2x mPCIe 1x M.2 2230	0	+12/24V <sub>dc</sub> : In-Vehicle	0-60 °C
N/A	Intel i5-1145GRE, 4.1GHz	8GB	None*	2x HDMI	4x Ethernet/ PoE*	2 x USB3.0/ 2.0 2 x USB2.0 (M12)	2	2x mPCIe 1x M.2 2230	0	+24V <sub>dc</sub> : Railway	-40-70 °C
N/A	Intel Celeron 6305E, 1.8GHz	8GB	None*	2x HDMI	4x Ethernet/ PoE*	2 x USB3.0/ 2.0 2 x USB2.0 (M12)	2	2x mPCIe 1x M.2 2230	0	+24V <sub>dc</sub> : Railway	0-60 °C

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## Packing List

Part Number	Description
-	1 x TS-207 Unit

## Embedded OS

Part Number	Description
968QW21VL0	Win 10 IoTEnt 2021 LTSC MulLg ORY OEI Value PKEA (license sticker)
20706WX1VS0040	img W10 21VL TS-207 64b 21H2 ENU

## Customer Support Services

Services	Description
Extended warranty	1-to-3 year extended warranty service
Conformal coating	Services for moisture, dust and corrosion resistance

## Optional Items

Part Number	Description
96PSA-A120W24T2-3	Power adapter A/D 100-240V 120W 24V C14 CORD
96PSA-A150W24T2-4	Power adapter A/D 100-240V 150W 24V C14 CORD
1700033565-01	Adapter cable for power adapter (M12 to terminal block)
1652001524	Terminal block 6p 5.00mm for power adapter
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
96PD-MUSBRAHD3241	Amphenol waterproof boot style hood for USB/HDMI connector
968AG00019	Amphenol waterproof cap for DB9/15 connector
1990023703S000	Amphenol waterproof cap for M12 male connector
1960106834N000, 1pc	SATA cable, SATA power and 2.5" HDD mounting kit
1700029224-01, 1pc	1x bracket for 2.5" HDD
1931000590, 2pcs	1x SATA cable and cable for 2.5" HDD
1930000686-11, 4pcs	10x screws
19350304A0, 4pcs	