

# PICO-WHU4-SEMI

Pico-ITX Embedded Barebone with 8th Generation Intel® Core™ i7/i5/i3/Celeron® U-Series Processor SoC

Front View



Rear View



## Features

- 8th Intel® Core™ i7/i5/i3/Celeron Processor SoC
- Non-ECC DDR4 SODIMM Slot x 1, up to 32GB
- Dual HDMI ports (HDMI 1.4b), GbE x 2
- SATA 6.0 Gb/s x 1, support 2.5" SSD
- Full size mSATA/mPCIe x 1 (Select by BIOS), M.2 2230 (E key) x 1
- USB 3.2 Gen 2 x 2, USB 2.0 x 2
- RS-232/422/485 x 2 (Optional)
- Lockable DC 12V



Display	
Chipset	Intel® SoC
Video Output	HDMI 1.4
Touch	—
I/O	
Storage/SSD	SATA 6.0Gb/s x 1, (5V Power) mini-PCIe(Full) x 1 (PCIe[x1]x1, USB3.2/2.0, SATA)
USB Port	USB 3.2 Gen 2 x 2 (Rear IO) USB 2.0 x 2 (Via cable to Rear IO)
Serial Port	RS-232/422/485 x 2 (Optional)
Audio	—
Expansion Slot	—
Certification	
Certification	CE, FCC

## Specifications

System	
Form Factor	PICO-ITX
Processor	Intel® 8th Generation Core™ i7/i5/i3/Celeron SoC i7-8665UE (4C, 1.7GHz, up to 4.4GHz) i5-8365UE (4C, 1.6GHz, up to 4.1GHz) i3-8145UE (2C, 2.2GHz, up to 3.9GHz) Celeron® 4305UE (2C, 2GHz)
System Memory	DDR4 2400MHz SODIMM x 1, Max. 32 GB
Chipset	Intel® SOC
Ethernet	Realtek 8111G Gigabit Ethernet 10/100/1000Mbps, RJ-45 x2
BIOS	UEFI only
Wake on LAN	Yes
Watchdog Timer	255 Level
Expansion Interface	2230 M.2 E-Key x 1 (for WIFI/BT, PCIe/USB signal only) SMBUS/I2C/LPC/eSPI x 1
Power Requirement	Normal: +12V
Power Supply Type	Lockable
Power Consumption	i7-8665UE @ DDR4 16GB, 12V@2.23A
System Size	5.9" x 3.94" x 2.36" (150mm x 100mm x 60mm)
Gross Weight	982g (including packing) 635g (excluding packing)
Operation Temp.	32°F ~ 122°F (0°C ~ 50°C) without airflow 0.5m/s for SSD SKU
Storage Temperature	-40°F ~ 176°F (-40°C ~ 80°C)
Humidity	0% ~ 90% relative humidity, non-condensing
MTBF	298,762

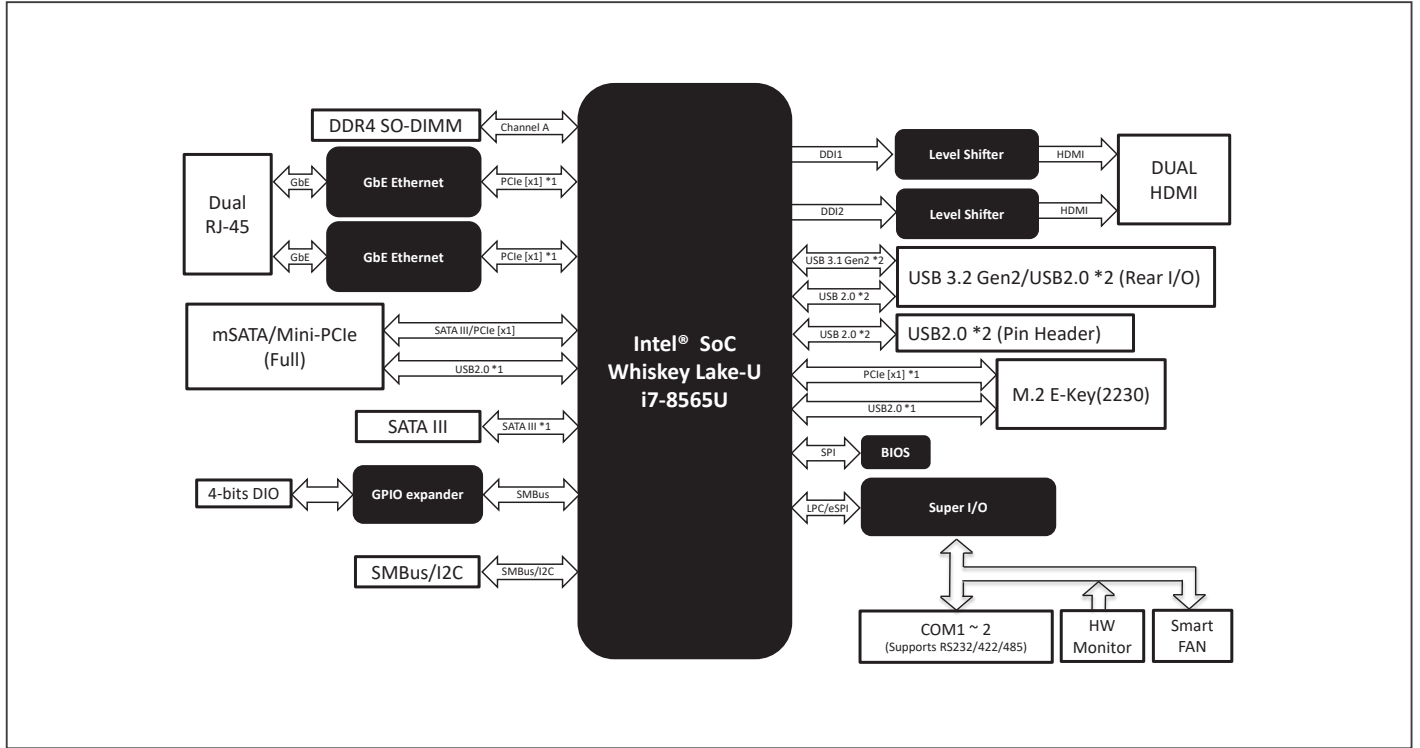
## Packing List

- PICO-WHU4-SEMI

## Optional Accessories

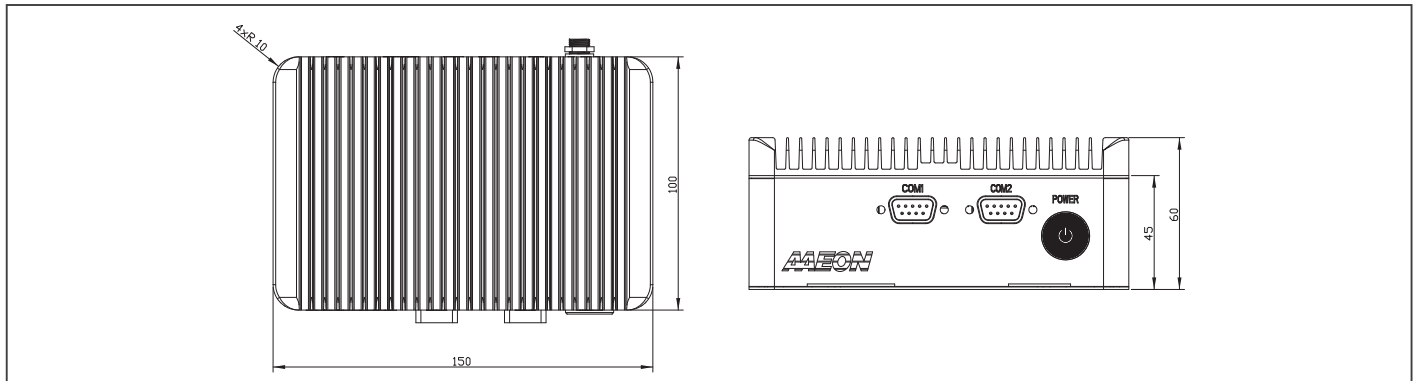
Part Number	Description	Qty.
1701200102	(TF)SERIAL Cable.WL1010H-2*10P 1.0mm Housing.Dual DB9(M).10cm	1
125530060Z	Power Adapter 12V/5A 60W FSP060-DHAN3	1
1255300960	Power Adapter 12V/8A 96W FSP096-AHAN3	1
1702031802	Power Cord (US Type)	1
1702031803	Power Cord (Europe Type)	1
170203180E	Power Cord (Japan)	1
PICO-WHU4-SEMI-VESA1	PICO-WHU4-SEMI VESA bracket kit	1
PICO-WHU4-SEMI-WMT1	PICO-WHU4-SEMI Wallmount bracket kit	1

### Block Diagram



### Dimension

Unit: mm



### Ordering Information

Part Number	CPU	Memory	Thermal	Display	Storage	LAN	USB	RS-232/422/485	Expansion Slot	Power	Power Temp
PICO-WHU4-SEMI-A11-S001	Celeron 4305UE	DDR4 Socket	w/Cooler	HDMI x 2	SATAIII x 1 mSATA (Full size) x 1	GbE x 2	USB 3.2 Gen 2 x 2 (Rear) USB 2.0 x 2 (Via cable to Rear IO)	Optional	M.2 2230 (E Key) x 1	+12V (ATX)	0°C ~ 60°C
PICO-WHU4-SEMI-A11-S002	i3-8145UE	DDR4 Socket	w/Cooler	HDMI x 2	SATAIII x 1 mSATA (Full size) x 1	GbE x 2	USB 3.2 Gen 2 x 2 (Rear) USB 2.0 x 2 (Via cable to Rear IO)	Optional	M.2 2230 (E Key) x 1	+12V (ATX)	0°C ~ 60°C
PICO-WHU4-SEMI-A11-S003	i5-8365UE	DDR4 Socket	w/Cooler	HDMI x 2	SATAIII x 1 mSATA (Full size) x 1	GbE x 2	USB 3.2 Gen 2 x 2 (Rear) USB 2.0 x 2 (Via cable to Rear IO)	Optional	M.2 2230 (E Key) x 1	+12V (ATX)	0°C ~ 60°C
PICO-WHU4-SEMI-A11-S004	i7-8665UE	DDR4 Socket	w/Cooler	HDMI x 2	SATAIII x 1 mSATA (Full size) x 1	GbE x 2	USB 3.2 Gen 2 x 2 (Rear) USB 2.0 x 2 (Via cable to Rear IO)	Optional	M.2 2230 (E Key) x 1	+12V (ATX)	0°C ~ 60°C
PICO-WHU4-SEMI-A11-S005	i7-8665UE	8GB DDR4 2400Mhz SODIMM	w/Cooler	HDMI x 2	SATAIII x 1 mSATA (Full size) x 1	GbE x 2	USB 3.2 Gen 2 x 2 (Rear) USB 2.0 x 2 (Via cable to Rear IO)	2	M.2 2230 (E Key) x 1	+12V (ATX)	0°C ~ 60°C