

GENESYS-WHU6

3.5" SubCompact Board System with 8th Generation Intel® Core™ i7/i5/i3/Celeron® Processor SoC

SubCompact Board System



Features

- Intel® Core™ i7/i5/i3/Celeron Processor SoC
- Non-ECC DDR4 SODIMM Slot x 2, up to 64GB
- VGA x 1, HDMI 2.0 x 1
- GbE x 2, SATA III x 1
- USB 3.2 Gen 2 x 4 (Up to Gen 2), RS-232/422/485 x 2
- Full size mSATA/mPCIe Slot x 1 (With Nano-SIM)
- M.2 B Key 2280 x 1, M.2 E Key 2230 x 1
- Wide DC Input 9-36V (Optional: 12V Only)



INTERNAL I/O	
USB	USB 2.0 x 2
SERIAL PORT	COM1(RS232/422/485, supports RI) COM2 (RS232/422/485, supports 5V/12V/RI)
VIDEO	—
SATA	SATA III x 1 +5V SATA Power Connector x 1
AUDIO	Audio Header x 1 (optional)
DIO/GPIO	—
SMBus/I2C	I2C/ SMBus x 1 (Default: I2C)
Touch	—
FAN	DC Fan x 1 (optional: Smart Fan)
SIM	Nano SIM x 1
Front Panel	PWR LED, Power Button
Others	—
EXPANSION	
Mini PCI-E/mSATA	Full-size mSATA/mPCIe x 1 (Default mSATA, select by BIOS)
M.2	B-Key 2280 x 1 (PCIe x 2, SATA, USB2.0, selected by BIOS) E-Key 2230 x 1 (PCIe, USB2.0)
Others	—
ENVIRONMENT & CERTIFICATION	
OPERATING TEMP	32°F ~ 122°F (0°C ~ 50°C)
STORAGE TEMP	-40°F ~ 185°F (-40°C ~ 85°C)
OPERATING HUMIDITY	0% ~ 90% relative humidity, non-condensing
MTBF (HOURS)	354,194
EMC	CE/FCC Class A

Specifications

SYSTEM	
FORM FACTOR	3.5" SubCompact Board System
CPU	Intel® 8th Generation Core™ i7/i5/i3/Celeron SoC i7-8665UE (4C/8T, 1.7GHz, up to 4.4GHz, TDP 15W) i5-8365UE (4C/8T, 1.6GHz, up to 4.1GHz, TDP 15W) i3-8145UE (2C/4T, 2.2GHz, up to 3.9GHz, TDP 15W) Celeron® 4305UE (2C/2T, 2GHz, TDP 15W)
CHIPSET	Integrated with Intel® SoC
MEMORY TYPE	DDR4 up to 2400MHz Dual Channel, SODIMM x 2, up to 64GB, Non-ECC
BIOS	UEFI
WAKE ON LAN	Yes
WATCHDOG TIMER	255 Levels
SECURITY	—
RTC Battery	Lithium Battery 3V/240mAh
DIMENSION	7.00" x 5.28" x 1.69" (178mm x 134.1mm x 43mm)
OS Support	Windows 10 (64bit) Linux Ubuntu 21.04.0/Kernel 5.1
POWER	
POWER REQUIREMENT	+9-36V (Optional: +12V)
POWER SUPPLY TYPE	ATX
CONNECTOR	DC Jack Connector
POWER CONSUMPTION	Intel® i7-8665UE, DDR4 2400 MHz 16GB, 2.8A@ +12V(Typical)
DISPLAY	
CONTROLLER	Intel® UHD Graphics 610/620
LVDS/eDP	—
Display Interface	HDMI2.0a x 1 VGA x 1
Multiple Display	Up to 2 Simultaneous Displays
AUDIO	
CODEC	Realtek ALC897/892
AUDIO INTERFACE	Line-in/Line-out/MIC(Optional)
Speaker	—
EXTERNAL I/O	
ETHERNET	Intel® i210/i211 & i219, 10/100/1000Base, RJ-45 x2
USB	USB 3.2 Gen2 x4
SERIAL PORT	—
VIDEO	HDMI2.0a x 1, VGA x 1

Packing List

- GENESYS-WHU6

Optional Accessories

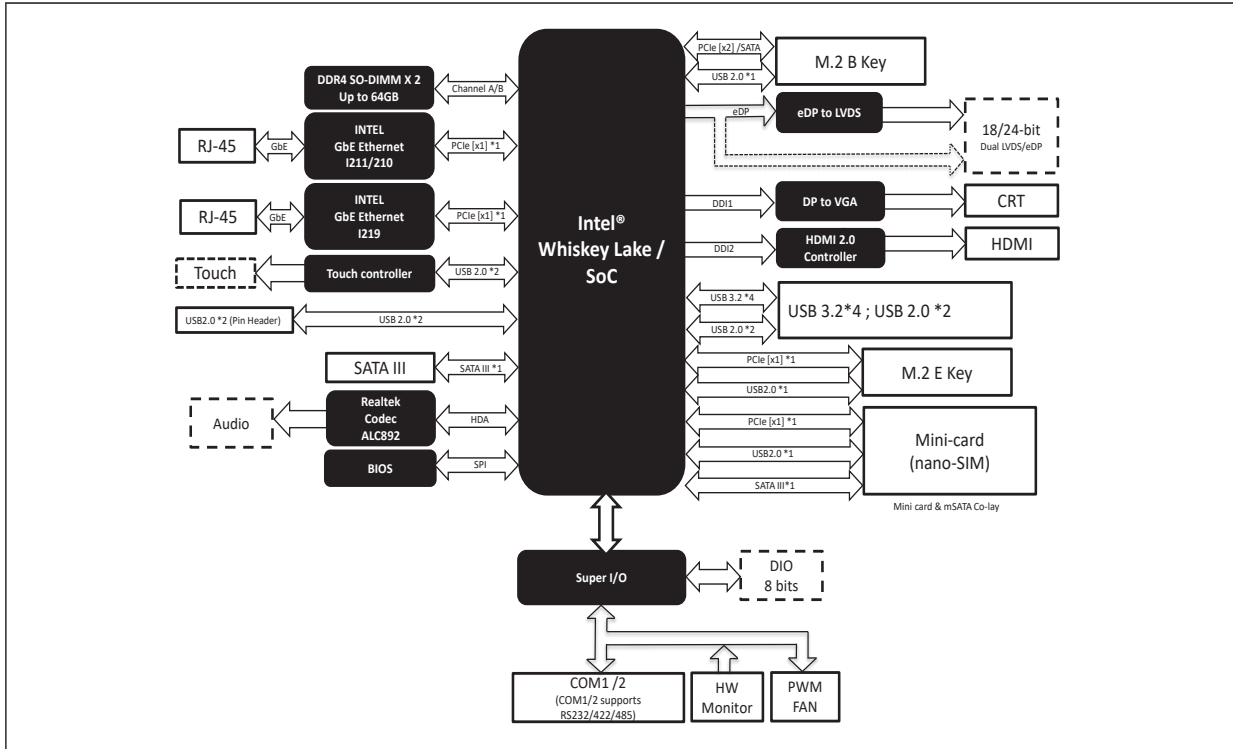
Part Number	Description	QTY
968D4004GN	(TF)DDR4.4GB,DDR4 SODIMM.2666MT/s.512Mx8.SAMSUNG.K4A4G085WX.260P.INNODISK.M4S0-4GSSNCK-26	1
968D4008GW	(TF)DDR4.8GB,DDR4 SODIMM.2666MT/s.260Pin.512Mx8 Samsung K4A4G085WX.InnoDisk.M4S0-8GSSOCHK-26	1
968C256G22	2.5" SATA3 SSD.256GB,MLC.-10~80C.Transcend.TS256GSSD420K-AA	1
968C512G06	2.5" SATA3 SSD.512GB,MLC.-10~80C.Transcend.TS512GSSD420K-AA	1
125530060Z	Power Adapter. 12V.5A.60W. FSP060-DHAN3	1
1255300960	Power Adapter. 12V.5A.96W. FSP096-DHAN3	1
1702031802	Power Cord (US)	1
1702031803	Power Cord (Europe)	1
170203180E	Power Cord (Japan)	1
GENESYS-WHU6-HDD1	HDD Kit. For GENESYS-WHU6	1
GENESYS-WHU6-WMT1	Wall Mount Kit. For GENESYS-WHU6	1
GENESYS-WHU6-VESA1	VESA Mount Kit. For GENESYS-WHU6	1

GENESYS-WHU6

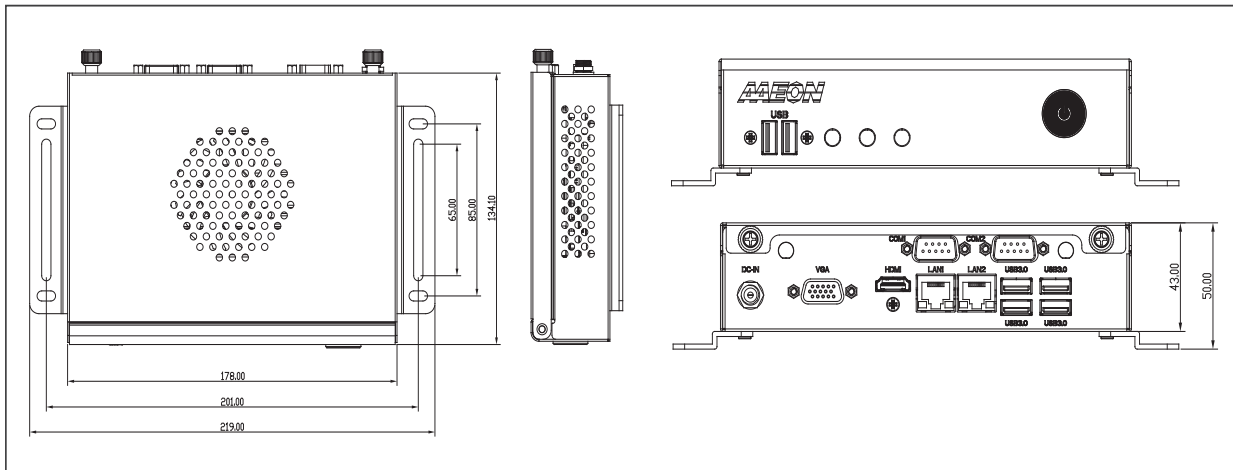
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SubCompact Board System

Block Diagram



Dimension Unit: mm



Ordering Information

Part Number	CPU	Fan/Fanless	Display	Storage	LAN	USB	RS-232	RS-232/422/485	Expansion Slot	Power	Power Temp	Others
GENESYS-WHU6-A11-0001	i3-8145UE	Cooler	VGA x 1 HDMI x 1	mSATA/mPCIe x 1 (Full size) M.2 B key 2280 x 1	GbE x 2	USB 3.2 Gen 2 x 4 USB 2.0 x 2	—	2	M.2 E key 2230 x 1	9 ~ 36V	0°C ~ 50°C	Nano SIM
GENESYS-WHU6-A11-0002	i5-8365UE	Cooler	VGA x 1 HDMI x 1	mSATA/mPCIe x 1 (Full size) M.2 B key 2280 x 1	GbE x 2	USB 3.2 Gen 2 x 4 USB 2.0 x 2	—	2	M.2 E key 2230 x 1	9 ~ 36V	0°C ~ 50°C	Nano SIM
GENESYS-WHU6-A11-0003	i7-8665UE	Cooler	VGA x 1 HDMI x 1	mSATA/mPCIe x 1 (Full size) M.2 B key 2280 x 1	GbE x 2	USB 3.2 Gen 2 x 4 USB 2.0 x 2	—	2	M.2 E key 2230 x 1	9 ~ 36V	0°C ~ 50°C	Nano SIM
GENESYS-WHU6-A11-0004	4305UE	Cooler	VGA x 1 HDMI x 1	mSATA/mPCIe x 1 (Full size) M.2 B key 2280 x 1	GbE x 2	USB 3.2 Gen 2 x 4 USB 2.0 x 2	—	2	M.2 E key 2230 x 1	9 ~ 36V	0°C ~ 50°C	Nano SIM

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