

GENESYS-WHU6

GENE System with 8th Generation Intel® Core™ i7/i5/i3/Celeron® Processor SoC



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 2280 B-Key x 1, M.2 2230 E-Key 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) (Optional) COM2 (RS232/422/485, supports 5V/12V/RI) (Optional)
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 PCIe/mSATA	Full-size mSATA/mPCIe x 1 (Default mSATA, select by BIOS)
M.2	M.2 2280 B-Key x1 (PCIe x 2, SATA, USB2.0, selected by BIOS) M.2 2230 E-Key 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
Dimensions	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

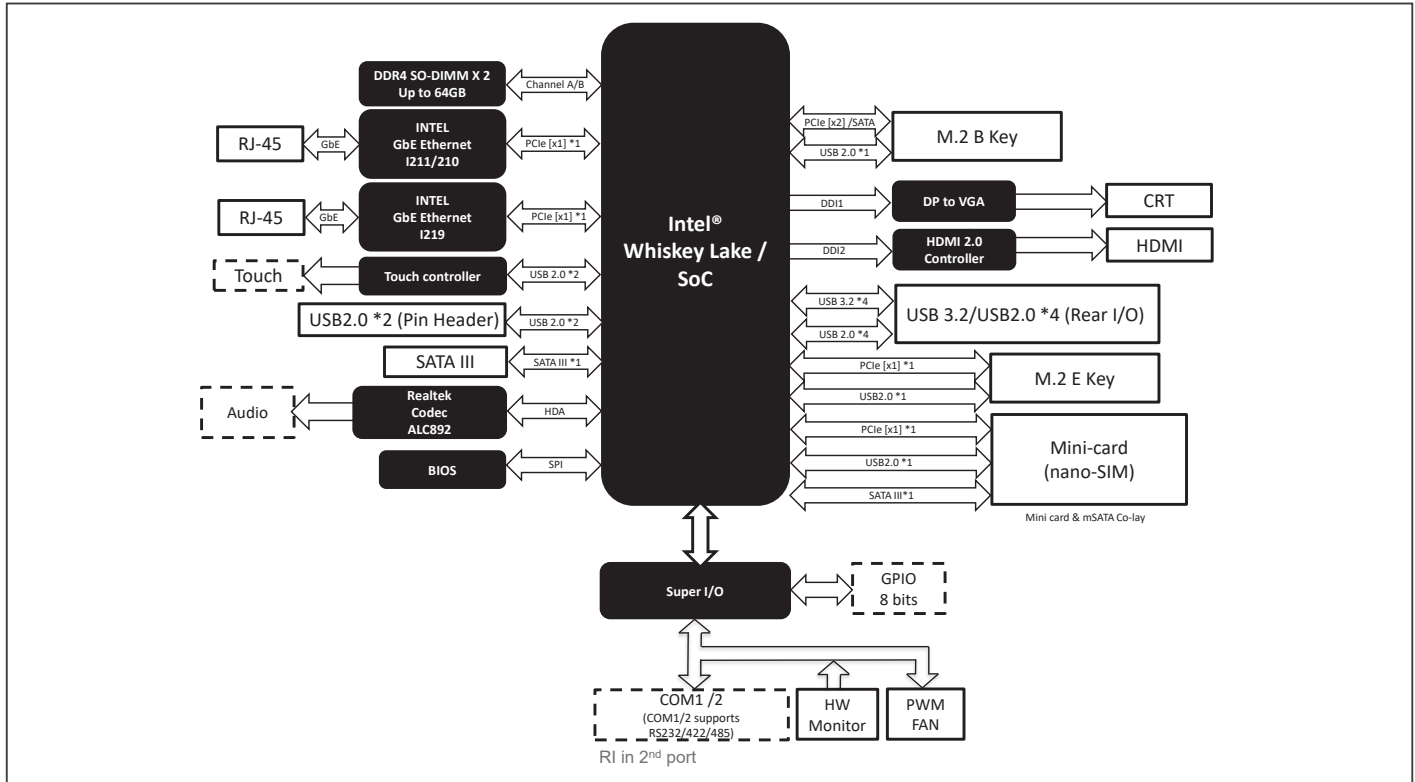
Packing List

Part Number	Description	QTY
GENESYS-WHU6	GENESYS-WHU6 GENE System	1

Optional Accessories

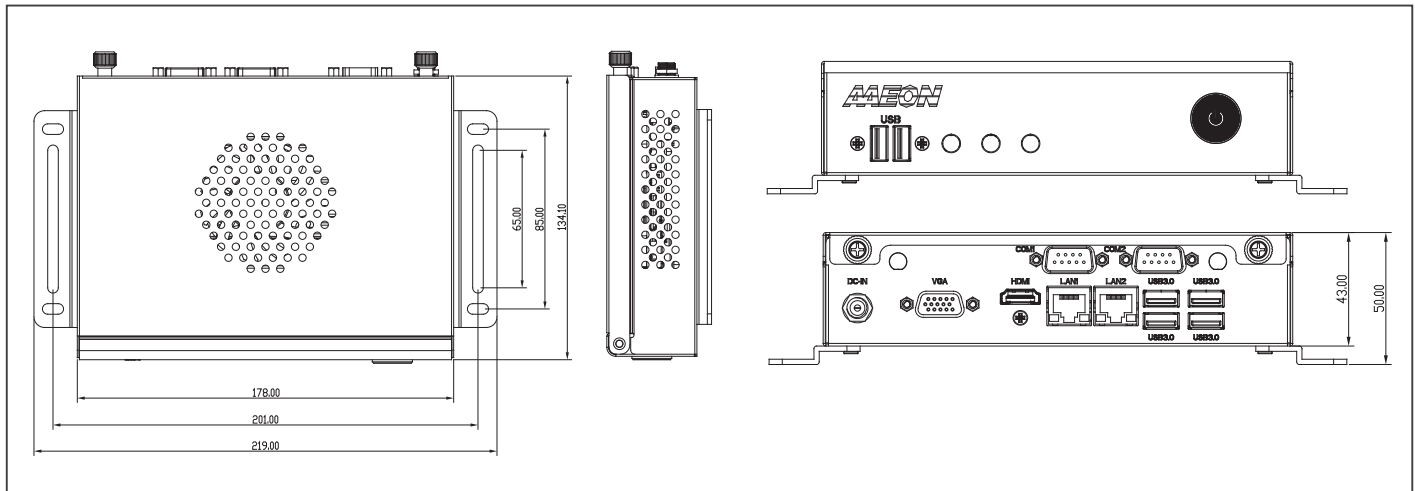
Part Number	Description	QTY
968D4004GN	(TF)DDR4.4GB,DDR4 SODIMM,2666MT/s,512Mx8,SAMSUNG, K4A4G085WX.260P.INNODISK.M4S0-4GSSNCIK-26	1
968D4008GW	(TF)DDR4.8GB,SODIMM,2666MT/s,260Pin,512Mx8 Samsung K4A4G085WX.InnoDisk.M4S0-8GSSOICK-26	1
968C256G22	2.5" SATA3 SSD,256GB,MLC.-10~80C.Transcend.TS256GSSD420K-AA	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
GENESYSM-ALL-WMT1	Wall Mount Kit. For GENESYS-WHU6	1
GENESYSM-ALL-VESA1	VESA Mount Kit. For GENESYS-WHU6	1

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)	GbE x 2	USB 3.2 Gen 2 x 4 USB 2.0 x 2	—	—	M.2 2280 B-Key M.2 2230 E-Key	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)	GbE x 2	USB 3.2 Gen 2 x 4 USB 2.0 x 2	—	—	M.2 2280 B-Key M.2 2230 E-Key	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)	GbE x 2	USB 3.2 Gen 2 x 4 USB 2.0 x 2	—	—	M.2 2280 B-Key M.2 2230 E-Key	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)	GbE x 2	USB 3.2 Gen 2 x 4 USB 2.0 x 2	—	—	M.2 2280 B-Key M.2 2230 E-Key	9 ~ 36V	0°C ~ 50°C	Nano SIM