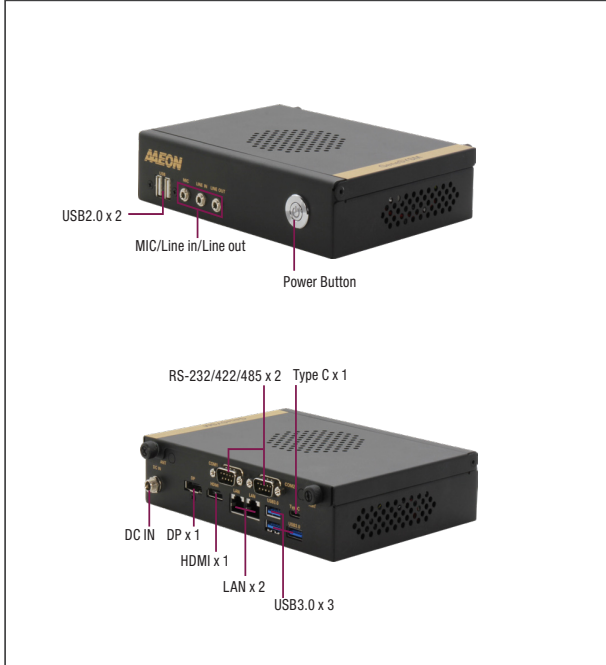


GENESYSM-RAP6

GENE System with 13th Generation Intel® Core™ i7/i5/i3 Processor SoC

GENE System



Features

- 13th Generation Intel® Core™ i7/i5/i3/U-series Processor SoC
- DDR5 4800, Dual Channel SODIMM x 2, up to 64GB
- 2.5GbE x 1, GbE x 1, SATA 6Gb/s x 1, GPIO x 8-bit
- USB 3.2 Gen 2 x 3, USB 2.0 x 2, USB Type C x 1, RS-232/422/485 x 2
- M.2 2280 M-Key x 1, M.2 2230 E-Key x 1, M.2 3052/3042/2242 B-Key x 1
- Wide DC Input 9-36V



Serial Port	COM1, COM2 (RS232/422/485, supports 5V/12V/5R)
Video	HDMI 2.1 x 1, DP 1.4 x 1
Internal I/O	
USB	—
Serial Port	—
Video	—
SATA	SATA 6.0 Gb/s x 1 +5V SATA Power Connector x 1
Audio	Audio Header x 1
DIO/GPIO	GPIO 8-bit
SMBus/I2C	SMBus/I2C x1 (Default: SMBus)
Touch	—
Fan	4pins Smart Fan x1
Sim	Nano SIM x 1
Front Panel	HDD LED, PWR LED, Power Button, Buzzer, Reset
Others	—
Expansion	
Mini PCIe/msATA	—
M.2	M.2 2280 M-Key x 1 (PCIe 4.0 [x4] x 1) M.2 3052/3042/2242 B-Key x 1 (PCIe 3.0 [x2]/SATA + USB3.2), Default: SATA(selected by BOM) M.2 2230 E-Key x 1 (PCIe 3.0 [x1] + USB2.0)
Others	—
Environment & Certification	
Operating Temp.	32°F ~ 122°F (0°C ~ 50°C) 0.5 m/s air flow
Storage Temp.	-40°F ~ 185°F (-40°C ~ 85°C)
Operating Humidity	0% ~ 90% relative humidity, non-condensing
MTBF (Hours)	338,172
EMC	CE/FCC Class A

Specifications

System	
Form Factor	3.5" SubCompact Board System
CPU	13th Generation Intel® Core™/U-series Processors: Intel® Core™ i7-1370PE (6PC+8EC/20T, 1.90 GHz, 28W) Intel® Core™ i5-1340PE (4PC+8EC/16T, 1.80 GHz, 28W) Intel® Core™ i3-1320PE (4PC+4EC/12T, 1.70 GHz, 28W)
Chipset	Integrated with Intel® SoC
Memory Type	DDR5 4800, Dual Channel SODIMM x 2, Max. 64GB, Non-ECC
BIOS	UEFI
Wake on LAN	Yes
Watchdog Timer	255 Levels
Security	TPM 2.0 (Optional)
RTC Battery	Lithium Battery 3V/240mAh
Dimensions	7.00" x 5.28" x 1.69" (178mm x 134.1mm x 43mm)
OS Support	Windows 10/11 (64bit) Ubuntu 22.04.2/5.19.0-32-generic
Power	
Power Requirement	+9-36V
Power Supply Type	ATX
Connector	DC Jack Connector
Power Consumption	Intel® Core™ i7-1370PE, DDR5 32GB x 2, 5.33A@ +12V (TYPICAL) Intel® Core™ i7-1370PE, DDR5 32GB x 2, 8.55A@ +12V (MAX)
Display	
Controller	Intel® Iris® Xe Graphics Intel® UHD Graphics
LVDS/eDP	—
Display Interface	HDMI 2.1 x 1, up to 8K x 4K@60Hz or 4K x 2K@120Hz DP 1.4 x 1, up to 7680 x 4320@60Hz 30bpp (support DP++) Type-C x 1 (USB 3.2 Gen 2, DP 1.4, PD 5W/3A)
Multiple Display	Up to 3 Simultaneous Displays
Audio	
Codec	Realtek ALC897
Audio Interface	Line-in/Line-out/MIC
Speaker	—
External I/O	
Ethernet	Intel® I219 1GbE, RJ-45 x 1 Intel® I226 2.5GbE, RJ-45 x 1
USB	USB 3.2 Gen 2 x 3 USB Type-C x 1 (USB 3.2 Gen 2, DP 1.4, PD 5W/3A) USB2.0 x 2

Packing List

Part Number	Description	QTY
GENESYSM-RAP6	GENESYSM-RAP6 GENE System	1

Optional Accessories

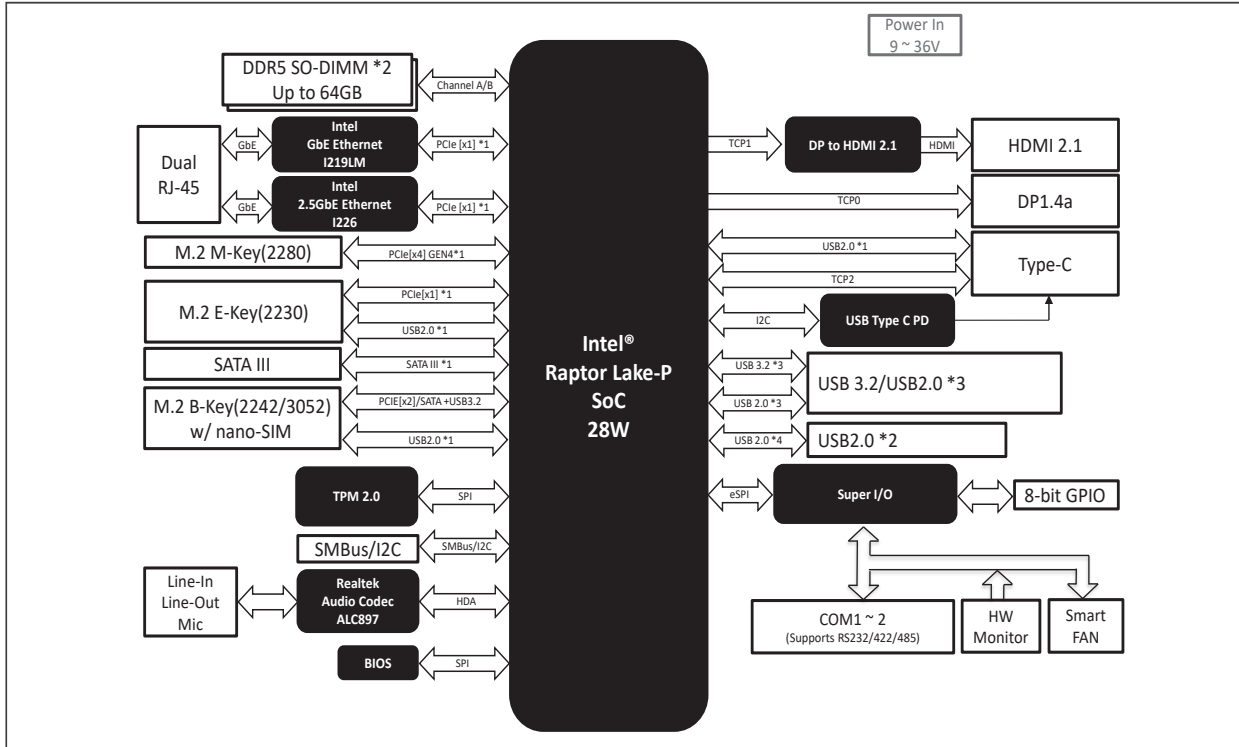
Part Number	Description	QTY
1702031802	Power Cord (US Type)	1
1702031803	Power Cord (Europe Type)	1
170203180E	Power Cord (Japan)	1
1255X00063	Power Adapter 12W/12.5A 150W w/Lock 180D.DELTA.DPS-150AB-15 J	1
GENESYSM-ADP6-HDD1	HDD Kit. For GENESYSM-ADP6	1
GENESYSM-ALL-VESA1	VESA Mount Kit. For GENESYSM-ADP6	1
GENESYSM-ALL-WMT1	Wall Mount Kit. For GENESYSM-ADP6	1

GENESYSM-RAP6

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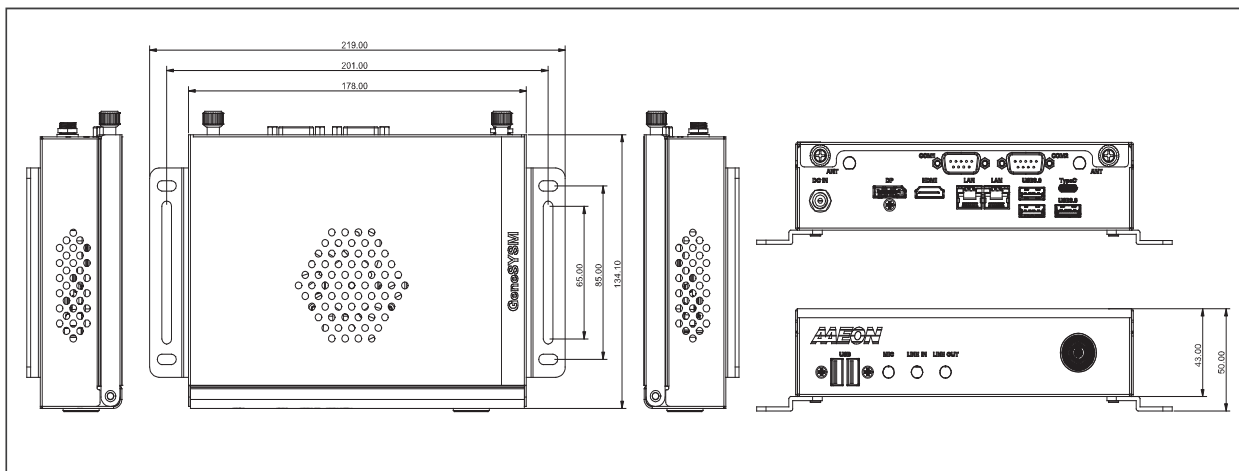
GENE System

Block Diagram



Dimension

Unit: mm



Ordering Information

Part Number	CPU	Fan/Fanless	Display	Storage	LAN	USB	RS-232/422/485	Expansion slot	TPM	Power	Operating Temp	Others
GENESYSM-RAP6-AT0-A001	i7-1370PE	Cooler	HDMI x 1 DP x 1 Type C DP x 1	SATA x 1	GbE x 1 2.5GbE x 1	USB 3.2 Gen 2 x 3 USB Type C x 1 USB 2.0 x 2	2	M.2 2280 M-Key x 1 M.2 3052 B-Key x 1 M.2 2230 E-Key x 1	2.0	9~36V	0~50°C	Nano SIM, GPIO, SMBUS, Audio
GENESYSM-RAP6-AT0-A002	i5-1340PE	Cooler	HDMI x 1 DP x 1 Type C DP x 1	SATA x 1	GbE x 1 2.5GbE x 1	USB 3.2 Gen 2 x 3 USB Type C x 1 USB 2.0 x 2	2	M.2 2280 M-Key x 1 M.2 3052 B-Key x 1 M.2 2230 E-Key x 1	2.0	9~36V	0~50°C	Nano SIM, GPIO, SMBUS, Audio
GENESYSM-RAP6-AT0-A003	i3-1320PE	Cooler	HDMI x 1 DP x 1 Type C DP x 1	SATA x 1	GbE x 1 2.5GbE x 1	USB 3.2 Gen 2 x 3 USB Type C x 1 USB 2.0 x 2	2	M.2 2280 M-Key x 1 M.2 3052 B-Key x 1 M.2 2230 E-Key x 1	2.0	9~36V	0~50°C	Nano SIM, GPIO, SMBUS, Audio

Assured Systems

Assured Systems is a leading technology company with over 1,500 regular clients in 80 countries, deploying over 85,000 systems to a diverse customer base in 12 years of business. We offer high-quality and innovative rugged computing, display, networking and data collection solutions to the embedded, industrial, and digital-out-of-home market sectors.

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