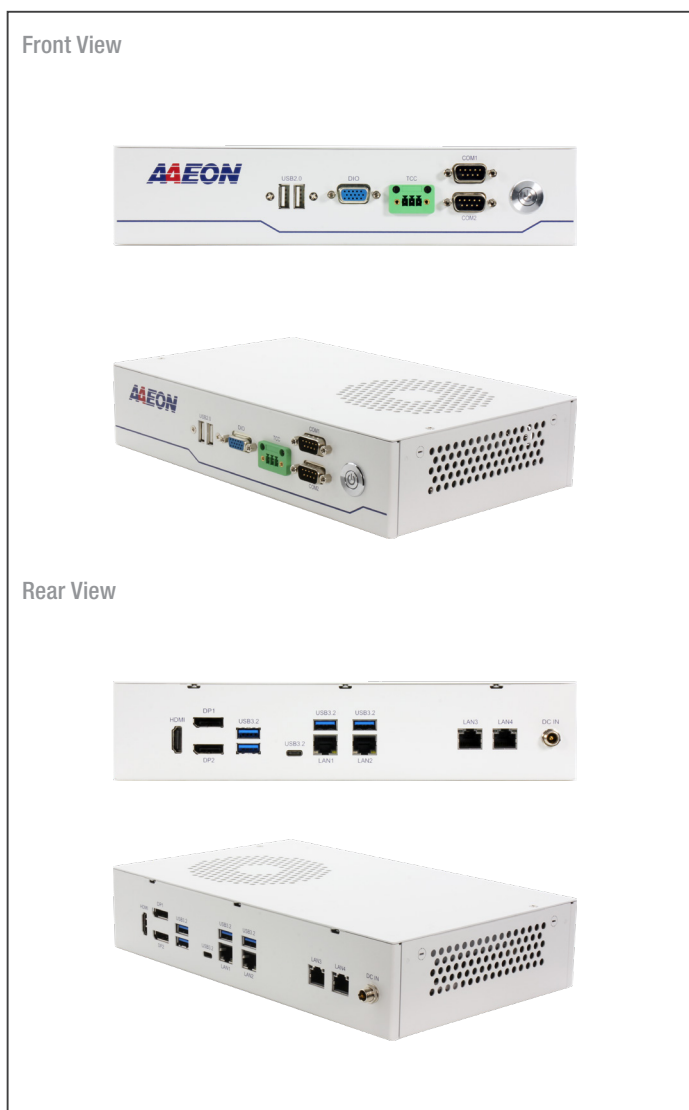


EPIC-ADS7-PUC

EPIC System with 12th Generation Intel® Core™ Processor



Features

- 12th Generation Intel® Core™ Processor (Socket Type)
- DDR5 4800, SODIMM x 2, up to 32GB
- DP 1.4a x 2, HDMI 2.0b x 1
- SATA 6Gb/s x 2
- 2.5 GbE x 1, GbE x 3
- USB 3.2 Gen 2x2 (Type-C) x 1, USB 3.2 Gen 2 x 4, USB 2.0 x 2
- M.2 3052 B-Key x 1, M.2 2280 M-Key x 1, M.2 2230 E-Key x 1
- COM Port x 2, GPIO 8-bit
- DC 12V-in

Display	
Controller	Intel® UHD Graphics 770 (i5 SKU and above) Intel® UHD Graphics 730 (i3 SKU) Intel® UHD Graphics 710 (Intel® Celeron® Processor G6900TE SKU)
LVDS/eDP	—
Display Interface	HDMI 2.0 x 1 up to 3840 x 2160 @60Hz DP1.4 x 2, up to 3840 x 2160 @60Hz
Multiple Display	Up to 3 Simultaneous Displays
Audio	
CODEC	—
Audio Interface	—
Speaker	—
External I/O	
Ethernet	Intel® I225-LM, 2.5GbE RJ-45 x 1 Intel® I219-LM, 1GbE RJ-45 x 1 Intel® I211-AT, 1GbE RJ-45 x 2 (Intel® I211-AT No PXE & active LED function support)
USB	USB3.2 Gen2/Gen1 x 4 (Gen2 Support for R680E & Q670Echipsets) USB Type-C x 1 (USB3.2 Gen2x2 (20Gbps), Support for R680E & Q670Echipsets)
Serial Port	—
Video	HDMI 2.0 x 1 up to 3840 x 2160 @60Hz DP1.4 x 2, up to 3840 x 2160 @60Hz
Internal I/O	
USB	USB 2.0 x 2
Serial Port	COM1 (RS232/422/485, support RI only) COM2 (RS232/422/485, support 5V/12V, RI)
Video	—
SATA	SATA 6Gb/s x 2 (2.5" SSD x 2 Only) +5V SATA Power Connector x 2
Audio	—
DIO/GPIO	GPIO 8 bits
SMBus/I2C	—
Touch	—
Fan	4 Pin Smart Fan
SIM	Nano SIM x 1 (R680E & Q670E only)
Front Panel	Power Button, Power LED
Others	TCC x 1 (R680E sku only)
Expansion	
Mini PCI-E/mSATA	—
M.2	M.2 2280 M-Key x 1 (PCIe 4.0 [x4] x 1, support by SKU) M.2 3052 B-Key x 1 (PCIe 3.0 [x2] + USB 3.0 or PCIe[x2] + USB 2.0 by SKU) M.2 2230 E-Key x 1 (PCIe 3.0 [x1] + USB 2.0) ***Please check HSIO function list for more details
Others	—
ENVIRONMENT & CERTIFICATION	
Operating Temperature	32°F ~ 122°F (0°C ~ 50°C) with 0.5m/sec air flow
Storage Temperature	-40°F ~ 185°F (-40°C ~ 85°C)
Operating Humidity	0% ~ 90% relative humidity, non-condensing
MTBF (Hours)	308,264
EMC	CE/FCC Class A

Specifications

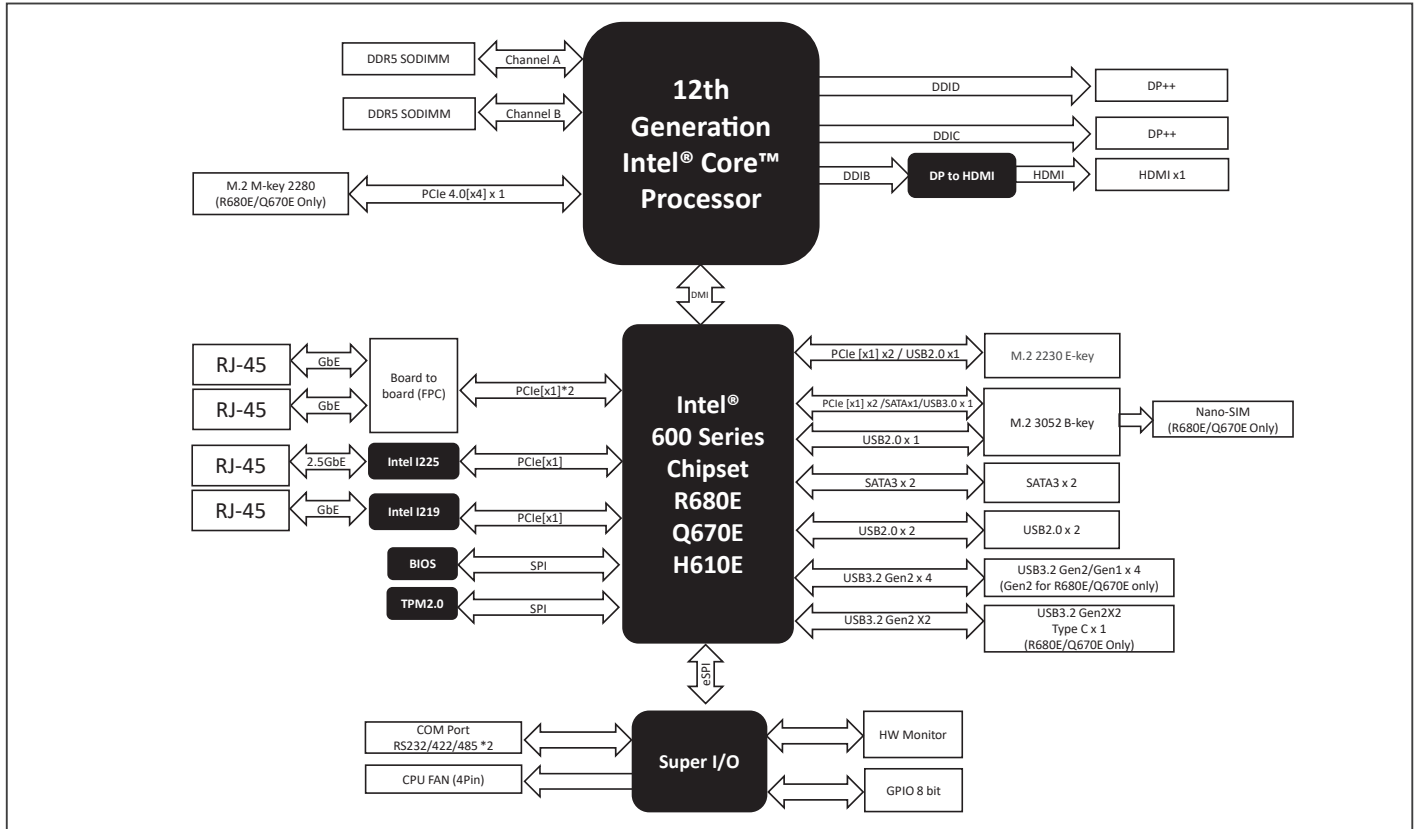
System	
Form Factor	EPIC System
CPU	12th Generation Intel® Core™ Processor (up to 35W/65W); Intel® Core™ i7-12700E (8PC+4EC/20T, 2.1 GHz, 65W) Intel® Core™ i7-12700TE (8PC+4EC/20T, 1.4 GHz, 35W) Intel® Core™ i5-12500E (6C/12T, 2.9 GHz, 65W) Intel® Core™ i5-12500TE (6C/12T, 1.9 GHz, 35W) Intel® Core™ i3-12100E (4C/8T, 3.2 GHz, 60W) Intel® Core™ i3-12100TE (4C/8T, 2.1 GHz, 35W) Intel® Celeron® Processor G6900TE (2C/2T, 2.4 GHz, 35W)
Chipset	Intel® 600 Series Chipset (R680E/Q670E/H610E)
Memory Type	DDR5 4800 Dual-Channel SODIMM (ECC support for R680E/Q670E sku)
BIOS	UEFI
Wake On Lan	Yes (Intel® I219-LM + I225-LM RJ-45 support only)
Watchdog Timer	255 Levels
Security	TPM 2.0
RTC Battery	Lithium Battery 3V/240mAh
Dimension	10.2" x 6.3" x 2.1" (260mm x 160mm x 55mm)
OS Support	Windows 10 (64bit) Ubuntu 20.04.1/Kernel 5.11.0-27-generic x86_64 or above
Power	
Power Requirement	+12V
Power Supply Type	AT/ATX
Connector	DC Jack Connector
Power Consumption	Intel® Core™ i7-12700E, DDR5 16GB x 2, 11.15A @12V, 133.8W (Typical) Intel® Core™ i7-12700E, DDR5 16GB x 2, 18.15A @12V, 217.8W (Max)

Packing List

- EPIC-ADS7-PUC x 1
- CPU Cooler Backplate x 2
- SATA Cable x 2
- SATA Power Cable x 2
- Screw, thermal pads and accessories kit x 1

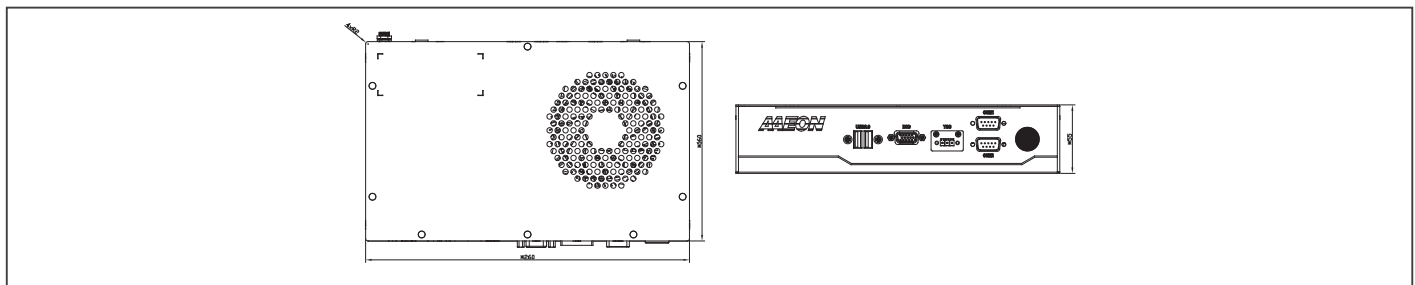
*(Please note that the packing list may be different based on sku, check order information or contact AAEON if any question.)

Block Diagram



Dimension

Unit: mm



HSIO Function Table Matrix

SKU	SKU	SATA 6Gb/s	USB 3.2 Gen 2 (Type-C) x 2	USB 3.2 (Type-A)	M.2 3052 B Key	M.2 2280 M Key	M.2 2230 E Key	Ethernet (RJ45)	TCC
R680E sku	DDR5 SODIMM x 2 (ECC Support)	Yes (2 ports)	Yes	Yes (4 ports, up to USB 3.2 Gen 2)	Yes (with Nano SIM) (PCIe[x1]+USB3)	Yes	Yes	{I225-LM(2.5GbE) x 1, I219-LM(GbE) x 1, I211-AT (GbE) x 2}	Yes
Q670E sku	DDR5 SODIMM x 2 (ECC Support)	Yes (2 ports)	Yes	Yes (4 ports, up to USB 3.2 Gen 2)	Yes (with Nano SIM) (PCIe[x1]+USB3)	Yes	Yes	{I225-LM (2.5GbE) x 1, I219-LM (GbE) x 1, I211-AT (GbE) x 2}	No
H610E sku	DDR5 SODIMM x 2 (Non-ECC Support)	Yes (2 ports)	No	Yes (4 ports, up to USB 3.2 Gen 1)	Yes (without Nano SIM) (PCIe[x2])	No	Yes	{I225-LM (2.5GbE) x 1, I219-LM (GbE) x 1, I211-AT (GbE) x 2}	No

Optional Accessories

Part Number	Description	QTY
1255X00063	AC/DC Adapter:150W,12V/12.5A,DC JACK W/Lock , Delta DPS-150AB-15J	1
1702031803	Power cord for EU	1
1702031802	Power cord for US	1
170203180J	Power cord for UK	1
170203180E	Power cord for Japan	1
170203180B	Power cord for China	1
1702031811	Power cord for Taiwan	1
EPIC-ADS7-FAN01	CPU Cooler for EPIC-ADS7	1

Ordering Information

Part Number	CPU	Memory	Display	Storage	LAN	USB	COM Port	Expansion	TPM	Power	Operating Temperature	Others
EPIC-ADS7-PUC-A11-0003	LGA1700 Socket Type (with Intel® R680E)	DDR5 SODIMM x 2	DP x 2, HDMI x 1	SATA 6.0 Gbps x 2	2.5GbE x 1, GbE x 3	USB 3.2 Type C x 1 USB 3.2 Gen 2 x 4 USB 2.0 x 2	RS232/422/485 x 2	M.2 3052 B-key x 1 (PCIe[x2]+ USB3), M.2 2280 M-key x 1 M.2 2230 E-key x 1	TPM 2.0	+12V in (DC Jack)	0°C ~ 50°C	NanoSIM x 1 TCC x 1 GPIO 8 bits
EPIC-ADS7-PUC-A11-0004	LGA1700 Socket Type (with Intel® H610E)	DDR5 SODIMM x 2(Non-ECC)	DP x 2, HDMI x 1	SATA 6.0 Gbps x 2	2.5GbE x 1, GbE x 3	USB 3.2 Gen 1 x 4 USB 2.0 x 2	RS232/422/485 x 2	M.2 3052 B-key x 1 (USB2.0 x 2 only), M.2 2230 E-key x 1	TPM 2.0	+12V in (DC Jack)	0°C ~ 50°C	GPIO 8 bits

*Note : EPIC-ADS7-PUC-A11-0003 & 0004 (Barebone) don't include CPU Cooler inside, please order EPIC-ADS7-FAN01 together with barebone to achieve the best performance.