AIoT9-H510   Standard Micro ATX industrial motherboard

With rich external interfaces and support for high-performance Intel Generation 10 and 11 CPUs, the AIoT9-H510 can be widely used in industries such as machine vision, automated production and inspection (e.g., Apple device production), bank security monitoring systems, intelligent building management systems (IBMS), integrated security management systems (ISMS), integrated traffic management systems (ITMS), workstations, insurance, and securities.
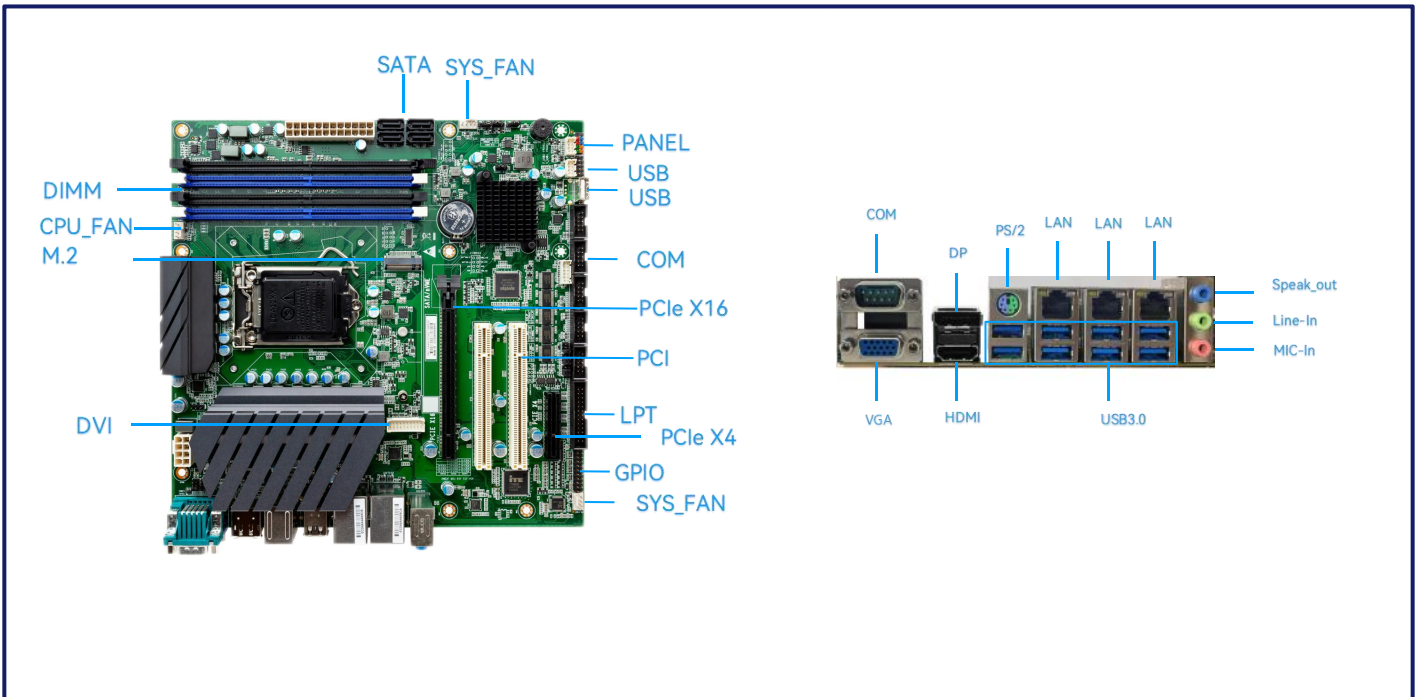

- Intel LGA1200 package 10th&11th generation i9/i7/i5/i3/G all series CPU
- AIoT9-H510 2, AIoT9-H510 W 4 DDR4 U-DIMM slots support up to 128GB
- PCIe x16, PCIe x4, 2 PCI expansion slots
- AIoT9-H510 supports 4,AIoT9-H510 W supports 8 USB3.2 Gen1 ports for connecting HD video devices
- Four display ports, AIoT9-H510 dual display, AIoT9-H510B triple display
- High Tg wide temperature PCB material to ensure wide temperature stability
- Industrial-grade port protection blocks static electricity and surges, protecting the system core stability and reliability
- AIoT9-H510 supports dual Intel, AIoT9-H510 W supports 3 Intel network chips
- Optimized interface and expansion slot layout effectively avoids business cards interfering with each other
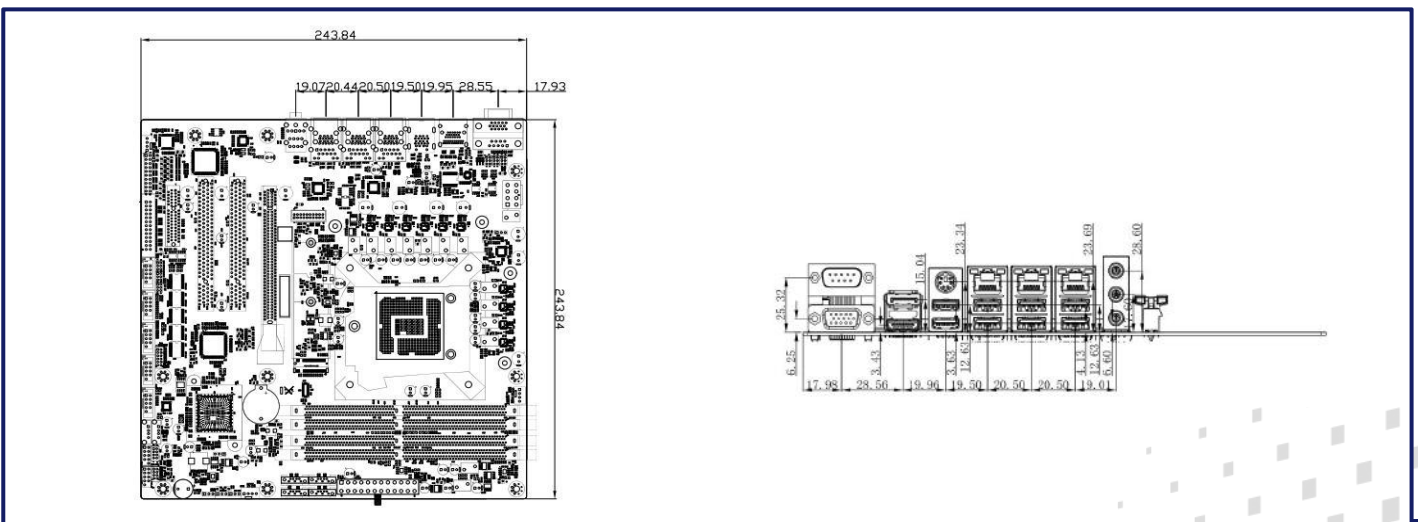
Specifications

CPU	Intel LGA1200 package Gen10&11 i9/i7/i5/i3/G full series CPU TDP up to 125WAIoT9-H510B can support Gen10&11 Xeon W series server CPUs
Chipsets	Intel® H510 with optional B560 chipset for high performance
Memory	AIoT0-H510, 2x single 32GB, up to 64GB According to the CPU supported memory specifications DDR4-2133/2400/2666/2933/3200
	AIoT0-H510B, 4x single 32GB maximum support 128GB, support ECC memory
Display controller	Intel CPU integrated display controller (depending on the CPU used)
Display interface	Quad display output VGA+DP+HDMI+DVI-D AIoT0-H510-dual display, AIoT0-H510B-triple display
Storage	4x SATA 3.0 (SATA1 no signal when SATA protocol SSD is inserted on M.2) 1x M.2 2242/2280 Key-M support SATA/Nvme adaptive
Audio	Rear IO supports MIC-In, Speaker-Out, Line-In three-hole audio
Ethernet	AIoT0-H510: 2, Intel High Speed Ethernet ports: i226 2.5Gb or i219 AIoT0-H510B: 3, Intel High Speed Ethernet ports: i226 2.5Gb or i219
USB	H510 rear I/O, 4x USB3.0, 4x USB2.0 rear I/O, 1x USB2.0 vertical insertion，2x USB2.0 pins H510B rear I/O 6x USB3.0, 2x USB2.0 rear I/O, 2x USB2.0 vertical insertion，2x USB2.0 pins
Parallel port	1x LPT print port
Serial port	6 serial ports (COM1&2 support RS232/422/485,COM3-6 support RS232)
Keyboard & Mouse Interface	1 PS/2 2-in-1 interface with two USB using 3-in-1 connectors
Digital I/O	1 x 16-bit digital I/O with isolation, power and ground provided, +5V level
eSPI	Provides one eSPI bus interface (2x6Pin wafer can be extended with four more RS232 or RS422/485 serial ports)
TPM interface	On-board encryption chip SLB9670 (SLB9672) supports TPM2.0 (default) / BOM optional TCM chip
Power supply	ATX power supply, support ATX/AT switch mode
Expansion Bus	1 x16 slot (PCIe3.0 for 10th generation CPUs, PCIe4.0 for 11th generation CPUs) 1 个 PCIe x4, 2 个 PCI (32bit) 1 个 M.2 2242/2280 Key-M, SATA/Nvme, adaptive
Operating temperature and Humidity	-10℃ ~ 60℃, relative humidity 0% ~ 90% no condensation, atmospheric pressure 85~105kPa
Non-operating	-40℃ ~ 85℃, relative humidity 0% ~ 90% no condensation, atmospheric pressure 85~105kPa
Watch Dog	255 levels of programmable seconds/minutes, supports timeout interrupt or system reset
BIOS	AMI UEFI BIOS
Operating System	Win10 x64, Win11 x64, Linux Ubuntu 20.04
PCB Size（LxW）	244mm X 244mm

Product view

Dimensions

Order Information

Model	Description
AIoT9-H510	H510,AIoT9-H510 V0.1,2DIMM,2LAN,4*USB3.0,6*USB2.0,2PCI,2PCIe,M.2
AIoT9-H510B	B560,AIoT9-H510 V0.1,4DIMM,3LAN,6*USB3.0,6*USB2.0,2PCI,2PCIe,M.2 nVME