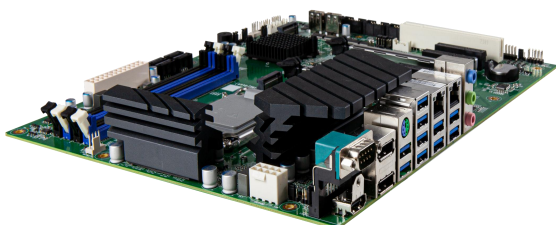


# AIoT0-W680D

## High performance ATX industrial motherboard



- Support LGA1700 packaged Gen12&13&14 i9/i7/i5/i3 CPUs
- Four DDR5 U-DIMM slots support maximum of 192GB
- 5\*PC1e expansion grooves can expand up to 22 stem network ports
- 10\*USB3.2 high-speed ports can connect to HD video devices
- 44 x / 4 SATA / 2 GbE / 14USB / 6COM / 1PC / 6 PCIe
- Using high Tg grade PCB boards to ensure wide temperature stability
- Industrial grade IO protection device, blocking ESD and surges, ensuring system stability and reliability
- Optimized interface and expansion layout effectively avoid interference and facilitate expansion for industry users
- Supports dual GPU card expansion, empowering AI and MV applications

## 01 Specifications

<b>CPU</b>	Support LGA1700 packaged Gen12&13&14 i9/i7/i5/i3 CPUs (not supporting G-series), TDP up to 125W, i5 and above support vPro
<b>Chipset</b>	Intel ® W680 chipset
<b>Memory</b>	4 * DDR5 U-DIMM memory slots, support dual channels, support ECC memory; With Gen.12 CPU support 2 * DDR5-4800 (black), 4 * DDR5-4000,single 32GB, maximum 128GB; With Gen.13&14 CPU support 2 * DDR5-5600 (black), 4 * DDR5-4000,single 48GB, maximum 192GB;
<b>Display controller</b>	Intel CPU Integrated display controller (depending on the assigned CPU)
<b>Display interface</b>	Four display output DP + DP + HDMI + DVI-D, support independent four display HDMI: 3840*2160@60Hz ; DP: 5120*2160@60Hz ; DVI-D: 1920*1080@60Hz
<b>Storage</b>	4 * SATA 3.0 (6 Gb/s) Ports, Support SATA Raid 0 / 1 / 5 / 10 2 * M.2 2242 / 2280 Key-M supports Nvme (M2-KEYM 2 supports SATA / Nvme adaptation)
<b>Audio</b>	The rear IO supports MIC-In, Speaker-Out, Line-In three-hole audio, with a reserved front panel audio pin F_Audio
<b>Network</b>	2 * Intel high-speed Ethernet ports: LAN1: i226-LM/V2.5Gb; LAN2: i219V
<b>USB</b>	10 rear IO USB3.2 Type A ( 2 * Gen2 , and 8 * Gen1 ) ; 4 internal USB ( 2 * USB 2.0 via header, 2 x USB 2.0 Type-A) Chassis front panel USB interface F_USB1 and F_USB2 , choose one from two
<b>Parallel/I<sup>2</sup>C/SMBus</b>	1 * parallel port
<b>Serial port</b>	6 serial port (COM1&2 supports RS232 / 422 / 485, COM3-6 supports RS232)
<b>Keyboard &amp; mouse</b>	1 PS/2 Keyboard & mouse via 2-in-1 connector on the rear IO
<b>Digital I/O</b>	16-bit band isolation digital I / O, providing power supply and ground, + 5V level
<b>LPC/eSPI</b>	1 eSPI bus
<b>TPM interface</b>	On board encryption chip SLB9670, supporting TPM2.0
<b>Power supply</b>	ATX power Socket, supports ATX/AT On/Off mode Chassis front panel FPANEL1 and FPANEL2 Pin-header , choose one from two
<b>Expansion bus</b>	2 * PCIe 5.0 x16 slot(x8 signal), maximum data bandwidth 32GB/s; 2 * PCIe 4.0 x4 slot, maximum data bandwidth 8GB/s 2 * PCIe 3.0 x4 slots, maximum data bandwidth 4GB/s 1 * Standard PCI slot (32bit)
<b>Operating temperature and humidity</b>	-10 °C~60 °C, relative humidity 0%~90%, no condensation, air pressure 85-105kPa
<b>Non-operating temperature and humidity</b>	-40 °C~85 °C, relative humidity 0%~90%, no condensation, air pressure 85~105kPa
<b>Watch Dog</b>	255-level programmable in the mode of seconds/minutes, supports timeout interrupt or system reset
<b>BIOS</b>	AMI UEFI BIOS
<b>Operating System</b>	Win10 x64, Win11 x64, Linux Ubuntu 22.04
<b>PCB dimensions (L*W)</b>	305mm X 244mm

