

W680I-EM-A

ITX, LGA 1700 Socket for 12th Gen. CPU, W680 Chipset, DDR5 2*SO-DIMM
1*PCIe Gen 5.0 x16 slot, DP*3, HDMI, 2*M.2 slot, USB 3.2 Gen2 port *4, USB Type C

Features

- Support up to 65W Intel® 12th /13th /14th Gen. CPU
- Dual DDR5 SO-DIMM
- Support PCIe Gen 5 *16 slot
- Up to four displays: DP*3/HDMI
- M.2 M key, M.2 E key
- Up to 7-year longevity supply



Specifications

Processor System	CPU	LGA1700 for Intel® 12 th /13 th /14 th Gen. Core™ i9/ i7/ i5/ i3/ Pentium® /Celeron® Processors Max. 65W TDP
	Chipset	Intel® W680 Chipset
Memory	Technology	Up to DDR5 4800 MHz
	Max.	2 x 32GB (Total 64GB)
	Socket	2 x SO-DIMM
Display	Display Port	3, Supports DP 1.4, up to 8K resolution
	HDMI	1
	eDP/LVDS	1 x Header (Support either eDP or LVDS ; switched by BIOS)
Expansion Slot	PCIe	1 x PCIe 5.0 x16 Slot (Bifurcation Support: 16x to 8x+8x)
	M.2	1 x M.2 E key, Type 2230 for WIFI/BT device (PCIe & CNVi) 1 x M.2 M key, Type 2242/2260/2280 (PCIe x4 & SATA mode)
Ethernet	Speed	10/100/1000/2500 Mbps
	Controller	1 x Intel® i210AT (co-lay i211AT), 1 x Intel® I225LM (Intel vPro supported)
	Teaming	Yes
	Connector	2 x RJ-45
Audio	Codec	Realtek ALC897 High Definition Audio
	Connector	Line-Out, Line-In
Storage	SATA port	4 x SATA Gen 3.0, Up to 6Gb/s, Support RAID 0,1,5,10
Rear I/O	Display Port	3
	HDMI	1
	USB3.2 Gen2	3 (2*Type A, 1*Type C)
	USB3.2 Gen1	1 (Type A)
	USB2.0	4 (Type A)
	Ethernet	2 x RJ45
	Serial Port	1 (RS232/422/485)
	Audio jack	2
	PS/2	1 x Keyboard, 1x Mouse

Specifications

Internal Connector	Serial Port Header	4 x COM Header (1 x RS232/422/485, 3 x RS232)
	USB3.2 Gen1	1 x USB3.2 Gen1 Stick Connector 1 x Header Support Additional 2 x USB3.2 Gen1 Ports
	USB2.0	1 x Header Support Additional 2 x USB2.0 Ports
	CPU Fan/ Chassis Fan	1 x Header (PWM Mode) / 1 x Header (PWM Mode)
	Disable ME	1 x Header
	LVDS/ eDP selection	1 x Header
	Panel SW	1 x Header
	Front Panel Audio (AAFP)	1 x Header
	System Panel	1 x Header (10-1 Pin)
	SP/DIF	1 x Header
	Chassis Intrusion	1 x Header
	Speaker	1 x Header
	Clear CMOS	1 x Header
	LPC Debug	1 x Header
	GPIO	1 x Header (8 Bit)
H/W	YES	
TPM	1 x SPI TPM header	
IAMT/vPRO	Yes	
Power Type	ATX	
	12V DC-IN (supported by additional cable)	
Microsoft Windows	Windows® 10 (64bit)	
Linux	Ubuntu, RedHat Enterprise, Fedora Workstation, OpenSUSE	
Operating Temperature	0~60° C	
Non-Operating Temperature	-40~85° C	
Relative Humidity	5%~95%	
Form Factor	Mini-ITX, 170 x 170 mm	
Safety	CE (CLASS B), FCC (CLASS B)	

Block diagrams

