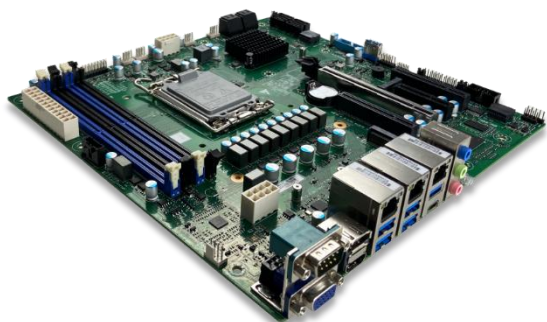# P13SWM-BMC

Entry-level server motherboard

P13SWM is a high-performance single-path server motherboard based on the Intel® W680 chipset for workstations, utilizing Intel's 12th/13th generation Core processors. It offers significant improvements in supporting device expandability and performance. This server motherboard can also provide ODM customization services for customers with personalized needs, making it the top choice for industry users to create a refined IT platform.
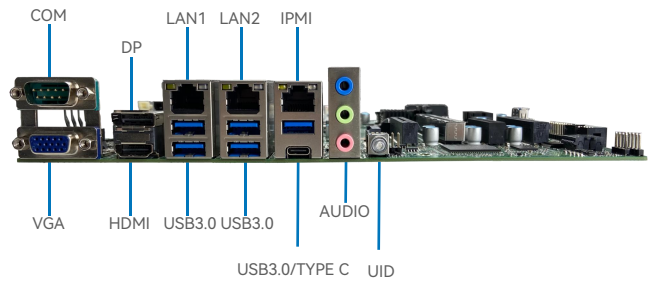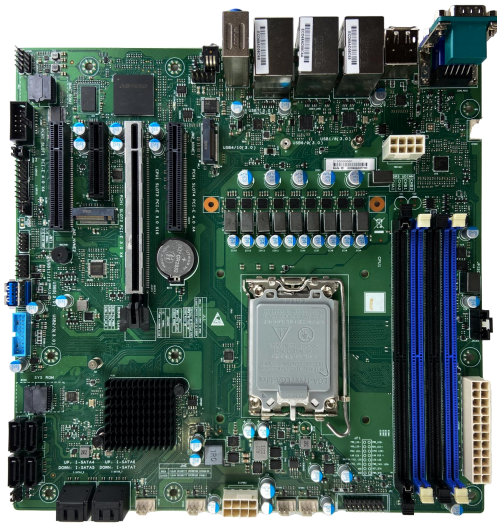

- Intel® high-performance workstation W680 chipset, supporting Intel 12th/13th generation processors
- 4 DDR5 UDIMM memory slots, supporting up to 128G of memory
- 1 standard PCIe 5.0 x16 (x16 slot), 2 standard PCIe 4.0 x4 (x8 slots), and 1 standard PCIe 3.0 x4 (x4 slot) for flexible expansion;
- 8 hard drives, with storage types supporting 6G SATAIII
- 2 Intel® 2.5G network interfaces and 1 network management interface
- USB3.0 for high-speed data backup to mobile storage;
- Supports IPMI and hardware monitoring, allowing remote monitoring of host power, voltage, temperature, fan, and other hardware operating statuses;
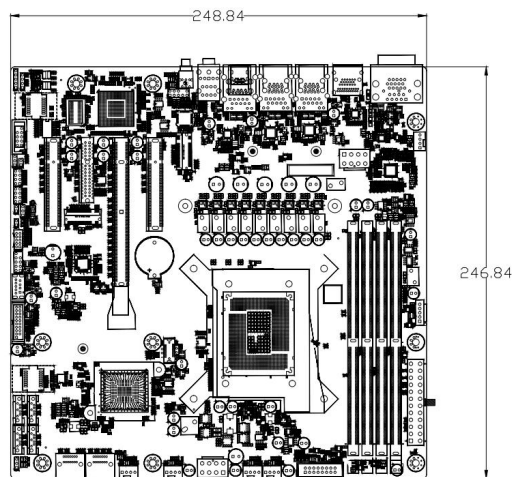
01

Specifications

System controller	CPU	ADL-S platform Intel 12th/13th generation Core processors
	Chipset	Intel® W680 chipset
	BIOS	AMI UEFI BIOS
Graphics card	Chip	ASPEED AST2600 BMC
	Interface	1 x VGA, 1 x DP, 1 x HDMI
Memory	Type	4 UDIMM memory slots; supports up to DDR5 4800/5600MT/s
	Capacity	Supports up to 128GB
	Memory Size	8G, 16G, 32G
Network	Controller	Intel i226 Enterprise Network Controller
	2.5G Network	2 x RJ-45 2.5GbE LAN ports, supporting 10/100/1000/2500Mbps
	IPMI	1 standard RJ45, 10/100/1000Mbps network interface
Storage	SATA	8 SATA3 6Gb/s ports, supporting Raid 0, 1, 5, 10
	M.2	1 M.2 2242/2280 port, supporting PCI-E 4.0 x4; 1 M.2 2280 port, supporting PCI-E 3.0 x4
Expansion Slots	PCIe Expansion	1 standard PCIe 5.0 x16 (x16 slot), 2 standard PCIe 4.0 x4 (x8 slots)
		1 standard PCIe 3.0 x4 (x4 slot)
I/O Ports	Back Panel I/O Ports	1 x IPMI management interface, 5 x USB 3.0 interfaces, 2 x RJ-45 2.5GbE LAN interfaces, 1 x Type-C interface
		1 x COM interface, 1 x UID switch (with LED light), 1 x audio interface, 1 x VGA interface, 1 x HDMI interface, 1 x DP interface
	Onboard I/O	1 x front COM pin header, 5 x 4-pin fan interfaces, 1 x chassis intrusion detection interface, 1 x Audio pin header (for front panel connection)
		1 x 24-pin power interface + 8-pin power interface + 8-pin reserved power interface
		1 x USB 3.0 pin header, supports up to 2 devices; 1 x USB 2.0 pin header, supports up to 2 devices; 1 x M.2 2242/2280 slot, supports PCI-E 4.0 x4; 1 x M.2 2280 slot, supports PCI-E 3.0 x4; 1 x USB3.0 Type A; 2 x GPIO pin headers
Dimensions	Dimensions	248.84mm*246.84mm
Temperature and Humidity Requirements	Operating Temp.	0~35 Celsius
	Operating Humidity	8%~90% non-condensing
	Storage Temp.	-40~70 Celsius
	Non-operating Humidity	5%~95% non-condensing

02 Product view

COM   LAN1   LAN2   IPMI

DP

VGA   HDMI   USB3.0 USB3.0   AUDIO

USB3.0/TYPE C   UID

03 Dimensions

248.84

246.84

04 Product Selection

Model	Product Configuration
P13SWM-BMC	Server motherboard P13SWM, AST2600, I226-LM, ALC897