Z682FM v:1.0

ATX_ form factor, Based on Intel® Alder Lake_W680 chipset

Processor-**LGA1700** socket / **6**W TDP

ideal for embedded systems, edge computing, IoT devices.



Features

- CPU: LGA1700 12th~14th Intel® Core™ i3/i5/i7/i9 and Xeon
- Memory: Dual channel DIMM DDR5 up to 128GB
- Display: Intel® HD Graphics; VGA+4*HDMI displays
- Ethernet: 2* I210AT GbE Ports
- Storage: 8* SATA3.0; 1* M.2
- Expansion: 2* PCIE5.0 X16, 2* PCIE 4.0 X4, 1* PCIE 3.0 X4, 2* PCI
- Power: ATX

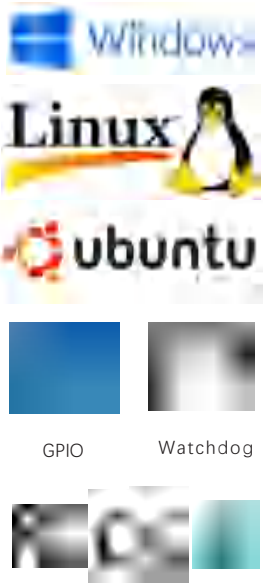
intel IoT Solutions Alliance
Industrial Solution Builders Specialist

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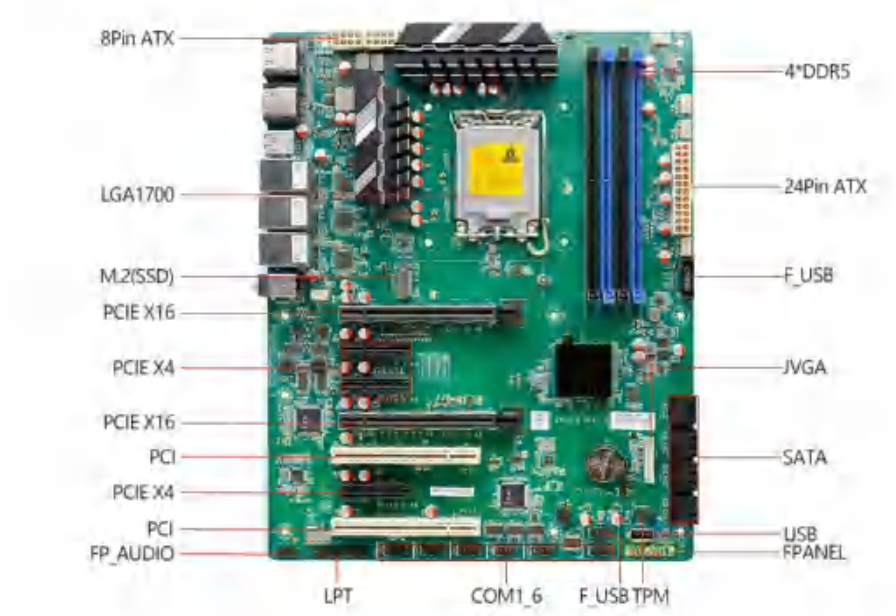
Introduction

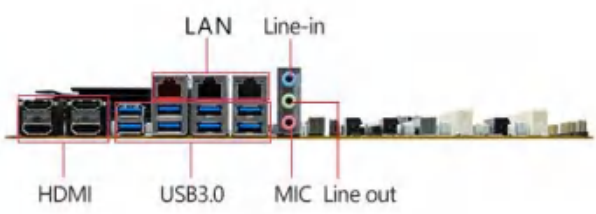
The Senbainno Z682FM is a high-performance ATX industrial motherboard based on the Intel W680 chipset. It supports 12th, 13th, and 14th generation Intel® Core™ i3/i5/i7/i9 ,Xeon processors (LGA1700). The board features four DDR5 DIMM slots, supporting memory speeds up to 5600MHz and a maximum capacity of 128GB. It integrates an Intel® HD graphics controller for high-performance display output, offering one VGA port and four HDMI ports. Networking capabilities include dual Intel® I210AT Gigabit Ethernet controllers, while storage options feature eight SATA 3.0 ports with transfer speeds up to 6Gbps. Additionally, it supports six RS-232 serial ports, with COM1 and COM2 configurable for RS-485/422 operation.

With powerful computing capabilities and robust integrated performance, the Senbainno Z682FM combines low power consumption with high performance, making it suitable for a wide range of industrial applications. It is ideal for use in industrial control, information systems, financial equipment, automated ticketing systems, automotive sectors, military applications, and various terminal markets.



I/O Interfaces



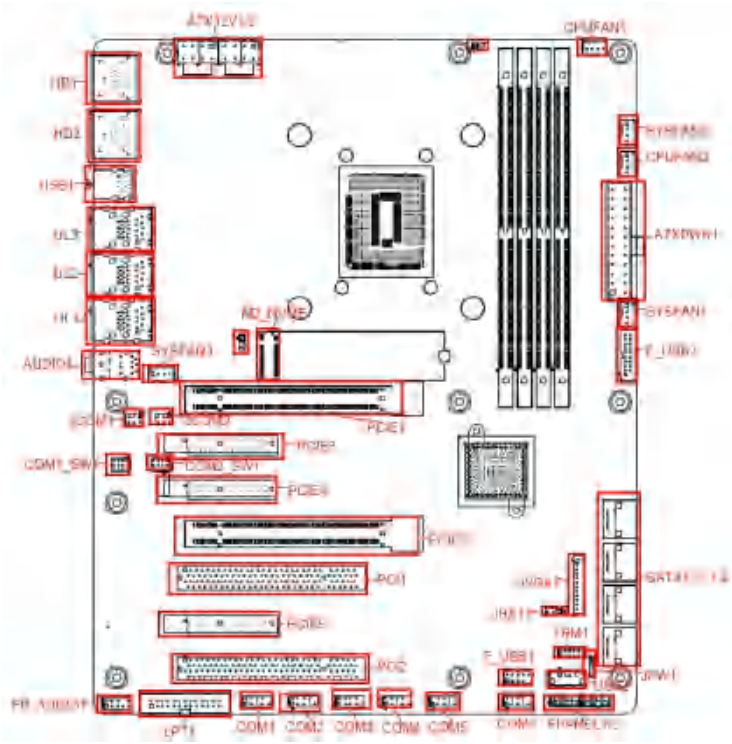


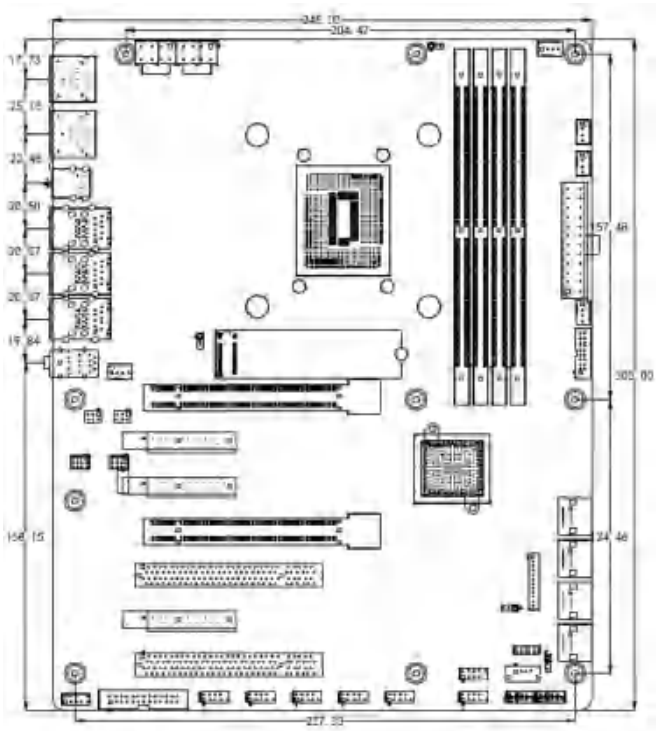
Specifications:

Model No.	Z682FM VER:1.0
Processor	Support LGA1700 12th/13th/14th Intel® Core™ i3/i5/i7/i9 processor
Chipset	Adopt Intel® W680 chipset
RAM	4* DDR5 DIMM memory slots, support dual-channel up to 5600MHz memory, up to 128GB, support ECC
Dispay	Integrated Intel®HD Graphics, support DirectX12.1, OpenGL4.5, support 4K display
	1* VGA , support the highest resolution of 1920X1200@60Hz
	4* HDMI1.4 , support the highest resolution of 4096x2160 @24Hz
Ethernet	2* Intel® I210AT Gigabit Ethernet Lan, support Wake_on_LAN/PXE function
	1* Intel ®I226LM Gigabit Ethernet Lan, support Wake_on_LAN/PXE/VPRO function
Storage	8* SATA3.0 hard disk interface, the transfer speed up to 6Gbps, support RAID 0,1,5,10
	1* M.2 slot, support M.2 Key M 2280 NVME PCIE X4 SSD
Audio	Onboard ALC897 7.1+2 vocal channels high fidelity audio controller,supports MIC/Line-out/Line-in
Expansion Slot	2* PCIE5.0 X16 (Actually an X8 signal)
	2* PCIE4.0 X4
	1* PCIE3.0 X4
	2* PCI
Rear I/O interface	4* HDMI1.4
	8* USB3.0 (Supports 2A current per port)
	3* RJ-45 Gigabit Ethernet Interface
	1* Three-layer audio interface, support Line-out, MICK, Line-in
Built-in I/O interface	2* USB2.0, 2*5pin
	1*Vertical USB2.0 interface
	2* USB3.0, 2*10pin
	1* Front panel audio interface (2*5pin)
	2* Front panel function button and indicator interface (2*5pin)
	1* 24pin ATX power socket, 2* 8pin ATX power socket
	1* JVGA interface, 1*12pin
	1* TPM, 2*6pin
	6* RS232, 2*5pin; COM1/2 support RS485/422
	1* LPT, 2*13pin
Fan interface	1* 4pin CPU smart fan connector, 3* 4pin system smart fan connector
BIOS	128Mb Flash ROM
Watchdog	Support hardware reset function (256 levels, 0~255 seconds)
OS	Windows 10/Windows 11/Linux
Power type	ATX 24Pin & 8pin power supply
Operating temperature	-20℃ ~ 60℃
Storage temperature	-20℃ ~ 70℃
Working humidity	5%-95% relative humidity, non-condensing
Size	305mm x 245mm (ATX)

*All specifications and photos are subject to change without notice

Interface Diagram





Ordering Info

No.	Model	Processor	South bridge	Memory	VGA	HDMI	LAN	USB	COM	RS485/RS422	Power
1	Z682FM VER:1.0	LGA1700	W680	4*DDR5	1	4	2*I210AT/1*I226LM	13	6	COM1/2	ATX

!! *For customized options, please consult regional sales. And please conrm the model name and description before purchasing.

*The model name and description might vary due to inventory changes.

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