



1744-12-2L

Product Features

1744-12-2L is a compact embedded industrial motherboard based on Intel 12th / 13th Gen processors, designed for industrial control, IoT gateways, HMI systems, digital signage, commercial terminals, and edge computing applications. It integrates high-performance computing, DDR5 memory, PCIe 4.0 NVMe storage, dual LAN, multiple display outputs, serial communication, and wireless expansion in a compact form factor. With stable performance and flexible I/O, it is well suited for multi-display applications and long-term embedded deployment.

Application Scenarios



Embedded Terminal



IoT Gateway



Industrial Automation



Digital Signage

Processor	Product Collection	Intel 12th/13th Gen Processors	
	Sockets Supported	FCBGA1744	
Memory specifications	Memory Type	DDR5 SO-DIMM	
	Maximum Capacity	2x 32GB	
	Maximum Frequency	4800 MT/s	
Storage specifications	SATA	1*SATA 3.0 (6Gb/s)	
	M.2	1*M.2 Key-M 2280 (PCIe 4.0 x4)	
Extension interface	mPCIe	1*mPCIe	
Display functions	Port	1*DP/2*HD/1*USB-C	
	Pins	1*eDP	
	Chip	Intel Iris Xe Graphics	
Backplane I/O	Ethernet	2*RJ45	
	COM	2*DB9 COM	
	Display	1*DP/2*HD/1*USB-C	
	USB	4*USB-A 3.0, 2*USB-A 2.0	
	Button	1*Power Button	
	Audio	1*Jack Audio	
	Power supply	1*Jack DC 5.5/2.5mm	
Onboard I/O	SATA	1*SATA Data connector/1*SATA Power socket	
	SIM	1*SIM Card slots	
	Fan	1*CPU fan power socket	
	Pins		1*F_PANEL
			1*J_GPIO
Power supply mode	DC	12V	
Motherboard size	Specification	121.6*121.6 (mm)	
Work Environment	Temperature	-20~55°C	
	Humidity	5%~90% (Relative humidity, no condensation)	



H31F-1744-2L

Product Features

H31F-1744-2L is a compact embedded industrial computer based on Intel 12th / 13th Gen processors, designed for industrial control, IoT gateways, HMI systems, digital signage, commercial terminals, and edge computing applications. It combines DDR5 memory, PCIe 4.0 NVMe storage, dual LAN, multi-display output, serial communication, USB-C, and active cooling in a compact chassis. With reliable performance, flexible I/O, and efficient thermal design, it is suitable for compact deployment and long-term industrial or commercial operation.

Application Scenarios



Embedded Terminal



IoT Gateway



Industrial Automation



Digital Signage

Processor	Product Collection	Intel 12th/13th Gen Processors
	Sockets Supported	FCBGA1744
	Memory Type	DDR5 SO-DIMM
Memory specifications	Maximum Capacity	2x 32GB
	Maximum Frequency	4800 MT/s
	Storage specifications	SATA
Storage specifications	M.2	1*M.2 Key-M 2280 (PCIe 4.0 x4)
	Network features	Ethernet
Network features	Controller	1*Intel i219+1*Intel i226
	Front Panel	Power
Ethernet		2*RJ45
Front Panel	Display	1*DP/2*HD
	USB	1*USB-C, 2*USB-A 2.0
Interface	Button	1*Start or Restart
	USB	4*USB-A 3.0
Back Panel	Serial port	2*DB9 COM
	Audio	1*Jack Audio
	Antenna	2*Reserved
Extension interface	mPCIe	1*mPCIe
Cooling Method	Active, Cooling Fan, 1*Smart Chassis fan	
System Specifications	Chassis Size	178*126*56 (mm)
	Weight	Equipment Weight 1.25 KG; Package Weight 1.95 KG (including accessories)
Power Mode	DC	12V 7A(i3) /10A(i5/i7) or Higher
Work Environment	Temperature	0~50℃
	Humidity	5%~90% (Relative humidity, no condensation)