



2049NP-12-6L

Product Features

This motherboard is a high-performance embedded network platform based on Intel Core Ultra processors Series 1. Designed in a compact 120x 130 mm form factor, it combines advanced CPU performance, DDR5 memory, PCIe 4.0 storage, and six Intel 2.5GbE ports, making it suitable for modern firewall appliances, SD-WAN gateways, edge computing systems, and industrial network devices.

Application Scenarios



Edge AI Computing



Firewall and UTM



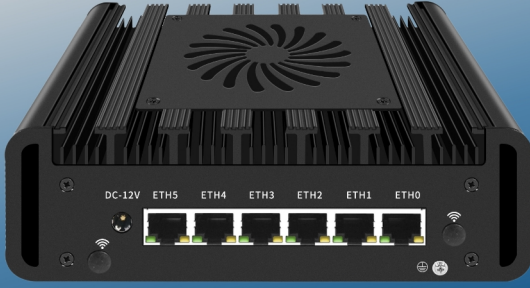
Portable Server



Industrial IoT Gateway

Processor	Product Collection	Intel Core Ultra processors (Series 1)
	Sockets Supported	FCBGA2049
	Memory Type	DDR5 SO-DIMM
Memory specifications	Maximum Capacity	2x 64GB
	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)
Network features	Ethernet	6*2.5GbE
	Controller	6*Intel I226V
Extension interface	M.2 Key-E	1*M.2 Key-E 2230 (USB 2.0+CNVi signal)
	mPCIe	1*mPCIe (PCIe 4.0 x1 +USB signal)
Display functions	Port	1*DP/1*HD/1*USB-C
	Chip	Intel Graphics
Backplane I/O	USB	4*USB-A 3.0, 1*USB-C
	Display	1*DP/1*HD
	Console	1*RJ45 COM
	LAN	6*RJ45
Onboard I/O	SIM	1*SIM Card socket
	Fan	1*CPU_FAN power socket
	Power supply	1*Jack DC 5.5/2.5mm
	SATA	1*SATA Data connector/1*SATA Power socket
Onboard I/O	SIM	1*SIM Card slots
	Fan	1*CPU_FAN
	Pin	1*_F_USB2.0

		1*J_GPIO
		1*F_Panel
Power supply mode	DC	12V
Motherboard size	Specification	120*130 (mm)
Work Environment	Temperature	-20~55℃
	Humidity	5%~90% (Relative humidity, no condensation)



H31F-2049NP -6L

Product Features

H31F-2049NP-6L is a compact high-performance network appliance powered by Intel Core Ultra processors Series 1. Designed for firewall, SD-WAN, edge computing, and industrial network applications, it integrates 6× Intel 2.5GbE LAN ports, DDR5 memory, PCIe 4.0 NVMe storage, and flexible wireless expansion in a compact metal chassis. With an active cooling design and smart chassis fan, the H31F-2049NP-6L is better suited for continuous workloads and sustained network traffic, providing stable thermal performance in long-term deployments.

Application Scenarios



Edge AI Computing



Cybersecurity



Portable Server



Industrial IoT Gateway

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	Memory Type	DDR5 SO-DIMM		
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	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)		
Network features	Ethernet	6*2.5GbE		
	Controller	6*Intel I226V		
Extension interface	M.2 Key-E	1*M.2 Key-E 2230		
	mPCIe	1*mPCIe		
Interface	Front Panel	Ethernet	6*RJ45	
		Power	1*Jack DC_IN	
		Antenna hole	Reserved	
	Back Panel	SIM	1*SIM card slot	
		USB	4*USB-A 3.0, 1*USB-C	
		Button	1*Start or Restart button	
		Console	1*RJ45 COM	
	Display	1*HD/1*DP		
	Antenna hole	Reserved		
	Cooling Method	Active, Cooling Fan, 1*Smart Chassis fan		
System Specifications	Chassis Size	177*125*54 (mm)		
	Weight	Equipment Weight 1.25 KG; Package Weight 1.95 KG (including accessories)		
Power Mode	DC	12V		
Work Environment	Temperature	0~50℃		
	Humidity	5%~90% (Relative humidity, no condensation)		