



1744NP-12-4L

Product Features

The 1744NP-12-4L is a high-performance embedded motherboard equipped with 12th/13th Generation Intel Pentium/Core processors, dual-channel DDR4 memory, and four 2.5GbE Ethernet ports. It delivers exceptional computing and networking performance in a compact Nano-ITX form factor. Its extensive expansion interfaces and wide operating temperature make it ideal for network security, edge computing, IoT gateways, and industrial applications.

Application Scenarios



Network Security Gateway



Edge IoT Gateway



Small Virtualization Platform



Embedded Solutions

Processor	Product Collection	Intel 12th/13th Gen Processors
	Sockets Supported	FCBGA1744
Memory specifications	Memory type	DDR4 SO-DIMM
	Maximum capacity	2x 32GB
	Maximum frequency	3200 MT/s
Storage specifications	SATA	1*SATA 3.0 (6Gb/s)
	M.2	1*M.2 Key-M 2280
Network features	Ethernet	4*2.5GbE
	Controller	4*Intel I226V
Extension interface	mPCIe	1*mPCIe
Display functions	Port	1*DP/1*HD
	Chip	Intel UHD Graphics
Backplane I/O	USB	4*USB-A 3.0
	Display	1*DP/1*HD
	COM	1*RJ45 COM RS232
	LAN	4*RJ45
	SIM	1*SIM Card slot
Onboard I/O	Power supply	1*Jack DC 5.5/2.5mm
	SATA	1*SATA Data connector/1*SATA Power socket
	SIM	1*SIM Card slots
	Fan	1*CPU_FAN

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



G31S-1744 NP-4L

Product Features

The G31S-1744NP-4L is a fanless embedded device based on the Intel Alder Lake series processors, designed for network security, IoT gateway, and edge computing applications. Its metal chassis and passive cooling ensure low power consumption, stable performance, and silent operation. Equipped with 4x 2.5G Ethernet ports, 1x SIM card slot, and a variety of expansion interfaces, the device delivers flexible and reliable networking and computing capabilities in a compact package.

Application Scenarios



Network Security Gateway



Edge IoT Gateway



Small Virtualization Platform



Embedded Solutions

Processor	Product Collection	Intel 12th/13th Gen Processors
	Sockets Supported	FCBGA1744
Memory specifications	Memory type	DDR4 SO-DIMM
	Maximum capacity	2x 32GB
	Maximum frequency	3200 MT/s
Storage specifications	SATA	1*SATA 3.0 (6Gb/s)
	M.2	1*M.2 Key-M 2280
Interface	Ethernet	4*RJ45
	Front Panel	Console 1*RJ45 COM
	Power	1*Jack DC_IN
	USB	4*USB-A 3.0
	Display	1*HD/1*DP
	Back Panel	SIM 1*SIM Card slot
	Antenna hole	2*Reserved
Extension interface	mPCIe	1*mPCIe
Cooling Method	Passive Cooling, Fanless (Need air flow)	
System Specifications	Chassis Size	178*126*55 (mm)
	Weight	Equipment Weight 1.15 KG; Package Weight 1.75 KG (including accessories)
Power Mode	DC	12V 7A or Higher
Work Environment	Temperature	0~50°C
	Humidity	5%~90% (Relative humidity, no condensation)



G31F-1744 NP-4L

Product Features

The G31F-1744NP-4L is a high-performance network appliance designed for network security, edge computing, and IoT applications. Equipped with optional Intel 12th/13th Generation processors, it offers 4x 2.5Gb Ethernet ports, a reserved SIM card slot, and a wide range of expansion slots. With intelligent temperature-controlled fans and a metal chassis, it delivers powerful computing power and stable 24/7 operation.

Application Scenarios



Network Security Gateway



Edge IoT Gateway



Small Virtualization Platform



Embedded Solutions

Processor	Product Collection	Intel 12th/13th Gen Processors
	Sockets Supported	FCBGA1744
Memory specifications	Memory type	DDR4 SO-DIMM
	Maximum capacity	2x 32GB
Storage specifications	Maximum frequency	3200 MT/s
	SATA	1*SATA 3.0 (6Gb/s)
Interface	M.2	1*M.2 Key-M 2280
	Ethernet	4*RJ45
Front Panel	Console	1*RJ45 COM
	Power	1*Jack DC_IN
Back Panel	USB	4*USB-A 3.0
	Display	1*HD/1*DP
SIM		1*SIM Card slot
	Antenna hole	2*Reserved
Extension interface	mPCIe	1*mPCIe
Cooling Method	Active Cooling, 1*Chassis fan	
System Specifications	Chassis Size	178*126*56 (mm)
	Weight	Equipment Weight 1.25 KG; Package Weight 1.85 KG (including accessories)
Power Mode	DC	12V 7A (Pentium/i3)/10A (i5/i7)
Work Environment	Temperature	0~50°C
	Humidity	5%~90% (Relative humidity, no condensation)