IPC-1U420-H610

1U Rackmount Industrial Computer | Intel 12th/13th/14th Gen i9/i7/i5/i3/G CPU

Product Features

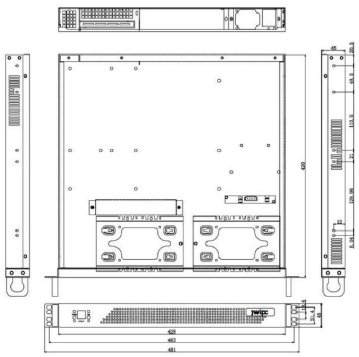


- •Compatible with ATX, Micro-ATX and Mini-ITX industrial motherboards.
- •Supports either 2 × 3.5-inch HDD bays or 2 × 2.5-inch SSD bays.
- •One full-height horizontal PCI/PCIe expansion slot.
- •Optional 150 W–500 W Flex 1U power supply.
- •Includes three 4020 fans for effective cooling and quiet operation.
- •Industrial-grade design for harsh environments, including vibration, contamination, dust and extreme temperatures.

I/O Layout and Chassis Dimensions







Chassis: 430 × 45 × 420 mm (W × H × D)

© JWIPC Inc. All Rights Reserved.

Specifications

IPC-1U420-H610

System

Processor	LGA1700; supports 12th/13th/14th Gen i9/i7/i5/i3/G CPUs; TDP 65 W.
Chipset	Intel® H610.
BIOS	AMI UEFI BIOS.
Graphics	Intel CPU integrated graphics controller (varies by installed CPU).
Memory	2 × 288-pin DDR4 UDIMM slots; up to 32 GB per DIMM, 64 GB total. DDR4-2133/2400/2666/2933/3200, depending on CPU.

I/O Interface

USB	4 × USB 3.0; 6 × USB 2.0.
COM	6 serial ports: COM1/2 support RS-232/422/485; COM3–6 support RS-232. Five ports require PCIe breakout.
LED	Power LED; HDD LED.

Expansion

PCIe / PCI / M.2	1 full-height horizontal PCI/PCIe expansion slot.

Display

Interface	Three display outputs: DP + HDMI + VGA; supports independent triple-display mode.

Storage

Storage Device	4 × SATA 3.0 (6 Gb/s) ports; 1 × M.2 2242/2280 Key-M for NVMe x2 SSD.
Drive Bay	Supports 2 × 3.5-inch HDDs or 2 × 2.5-inch SSDs.

Audio

Audio Codec	Realtek ALC897.
Audio Interface	Rear I/O: MIC-In, Speaker-Out and Line-In; onboard front-panel audio header F_Audio.

Ethernet

LAN	2 Intel high-speed Ethernet ports: LAN1 i226-V; LAN2 i219V.

Power

Power Input	Flex power supply.

Other

OS Supports	Windows 10 x64, Windows 11 x64, Linux Ubuntu 22.04.
Watchdog Timer	255-level programmable seconds/minutes; supports timeout interrupt or system reset.
TPM	Onboard security chip SLB9670; supports TPM 2.0.
System Fan	3 × 4020 fans.

Physical Parameters

Dimensions	430 × 45 × 420 mm (W × H × D).
Weight	5 kg.
Mounting	Desk / Rackmount.

Operating Environment

Operating Temp.	0°C to 45°C.
Storage Temp.	−40°C to 55°C.
Humidity	Operating: 20%–80% RH; non-operating: 20%–93% RH (40°C).
Shock	Operating: 1 Grms @ 5–500 Hz; non-operating: 2 Grms @ 5–500 Hz.
Vibration	3 axes; 10 G (11 ms half-sine wave); 3 times per axis.

© JWIPC Inc. All Rights Reserved.

Ordering Information and Accessories

IPC-1U420-H610

Ordering Information

Model	PCH	Power	Display	SATA	LAN	USB3	USB2	COM	PCIe / PCI
IPC-1U420	H610	150–500 W	3	2	2	4	6	1	1

Packing List

Accessory No.	Description
400302612900	IPC-1U420 chassis
400302613100	IPC-1U420 packaging material, including power cord; Chinese standard; 1.5 m; IEC-style connector; black.

Optional Accessories

DDR4 8G	DDR4 8 GB, 2666 MHz, UDIMM	**SSD 1TB**	1 TB, 2.5-inch, SATA 6 Gb/s
DDR4 16G	DDR4 16 GB, 3200 MHz, UDIMM	**HDD 1TB**	1 TB, 64 M, SATA 6 Gb/s, 3.5-inch, 5400 rpm
DDR4 32G	DDR4 32 GB, 3200 MHz, UDIMM	**HDD 2TB**	2 TB, 256 M, SATA 6 Gb/s, 3.5-inch, 7200 rpm
SSD 256GB	256 GB, 2.5-inch, SATA 6 Gb/s	**HDD 4TB**	4 TB, 256 M, SATA III, 3.5-inch, 7200 rpm
SSD 512GB	512 GB, 2.5-inch, SATA 6 Gb/s	**HDD 10TB**	10 TB, 256 M, SATA 6 Gb/s, 3.5-inch, 7200 rpm

© JWIPC Inc. All Rights Reserved.