

SXA-6412

Intel® Elkhart Lake J6412 Processor based Fanless Mini PC
with 3HDMI, 4USB, PoE



Features

- Intel® Elkhart Lake J6412 Processor
- Dual-channel DDR4 SO-DIMM memory up to 64GB
- Intel® UHD Graphics with triple HDMI 2.0 outputs
- Dual Gigabit Ethernet ports (2× RTL8111H), PoE input supported
- Storage options: M.2 Key M (NVMe/SATA), M.2 Key B (SATA)
- Expansion: M.2 Key E for Wi-Fi
- Rich I/O: 4× USB 3.2, GPIO, I²C, wired control
- Power options: PoE input or 19V DC-IN (not simultaneous)
- Wide-temperature design (-20°C to 60°C) with passive cooling



Introduction

The SXA-6412V20 is a compact, fanless mini PC powered by the Intel® Celeron® J6412 processor, engineered for high reliability, silent operation, and efficient performance. Supporting up to 64GB of dual-channel DDR4 memory and equipped with Intel® UHD Graphics, it delivers seamless multi-display output via three HDMI 2.0 ports.

Designed for digital signage, industrial automation, and edge computing, the system integrates dual Gigabit Ethernet ports with Power over Ethernet (PoE), four USB 3.2 ports, GPIO, I²C, and wired control. With wide-temperature tolerance from -20°C to 60°C and robust passive cooling, the SXA-6412 provides dependable performance in demanding environments. Compatible with Windows 10/11 64-bit and Linux 64-bit, it offers maximum flexibility for industrial and commercial deployments.



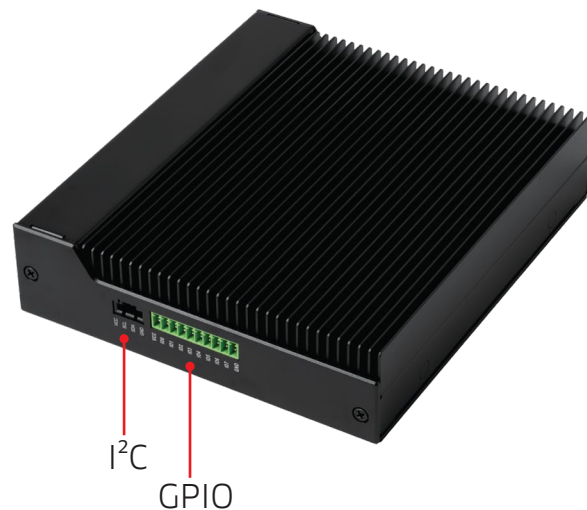
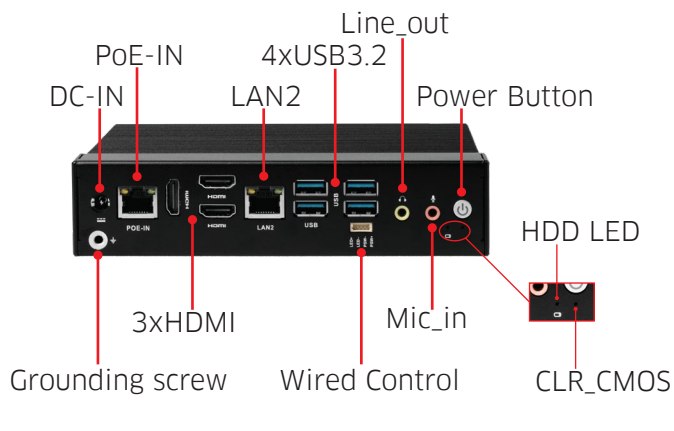
H/W Monitor



Watchdog



I/O Interfaces

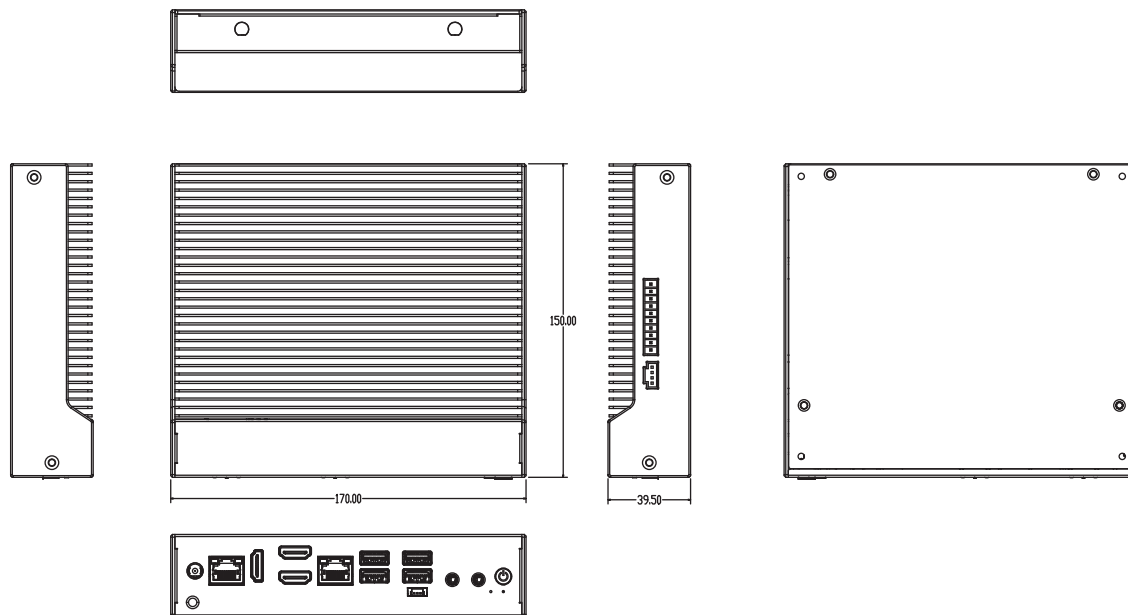


Technical Specifications

Processor	CPU	Celeron J6412
	Cores/Threads	4C/4T
	Base Frequency	2.00GHz
	Burst Frequency	2.60GHz
	Cache	1.5 MB L2 Cache
	TDP	10W
	BIOS	AMI UEFI BIOS
Memory	Type	Dual Channel SO-DIMM DDR4
	Max. Capacity	64GB
Display	GPU	Intel® UHD Graphics for 10th Gen Intel® Processors
	Display via	3x HDMI2.0
Ethernet	Controller	2x Realtek RTL8111H
	Max. Speed	10/100/1000Mbps
	Interface	2x RJ45
	Wake on LAN	Yes
Audio	Audio Codec	CONEXANT HD CX20632
	Interface	1xLine-out, 1xMic-in.
Storage	M.2_N/S	1x M.2 Key M for 2280 NVMe/SATA SSD (PCIe X2 signal)
	M.2_S	1x M.2 Key B for 2280 SATA SSD
Expansion	M.2_E	1x M.2 Key E for WiFi and Bluetooth
Other I/O	USB3.2	4
	GPIO	8-bit
	I ² C	1
	Wired Control	1
	Power Button	1
	TPM	Onboard, optional
Dimension	Size	170 mm x 150mm x 39.5 mm
Weight	N.W.	~945g (Barebone)
Power	Standard Port	PoE input or 19V DC-in
		PoE and DC-IN cannot be used simultaneously
Temperature	Operating Temp.	- 20°C to 60°C
	Storage Temp.	- 40°C to 80°C
Cooling Method		Passive
Operating System		Windows 10/11 64bit, Linux 64bit

* All specifications and photos are subject to change without notice.

Dimension (in mm)



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