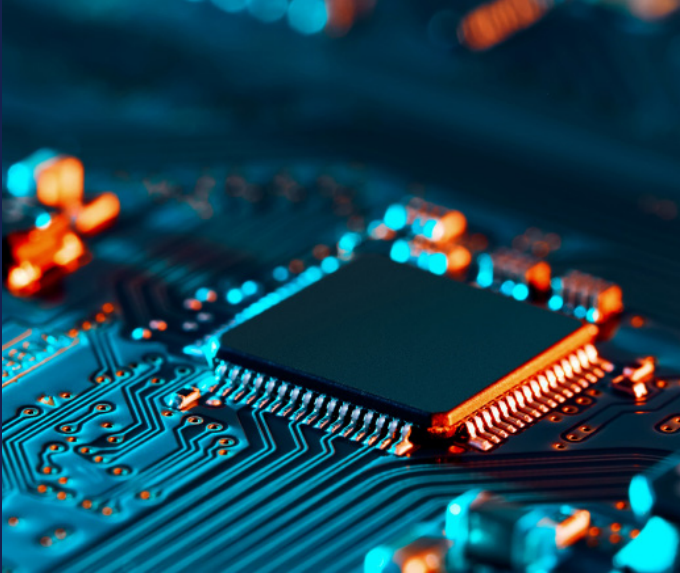


Expandable AI Box PC



BMX-P820

14th Gen Intel® Core™ i7/i5/i3 Processor (35W/65W) CPU Barebone System

The BMX-P820 is built to deliver high-performance computing with efficiency, reliability, and flexibility for demanding industrial AI workloads. It supports 14th Gen Intel® Core™ processors, enabling robust processing power for advanced AI acceleration and image analysis applications. The system features a low-noise thermal design that maintains operating noise levels below 40 dB, even during extended periods of high-performance operation, significantly enhancing user comfort.

In addition, the BMX-P820 offers highly flexible expansion capabilities, enabling customized configurations to meet diverse industrial requirements. Whether optimizing for performance-intensive AI workloads, low-noise environments, or rapid integration of specialized I/O modules, the system provides a scalable and adaptable foundation for modern edge and industrial computing environments.



Expandable AI Box PC featuring multiple expansion slots, enabling scalable performance for AI computing and edge applications.

Intel Products and Technologies

Accelerating AI and Analytics at the Edge



Intel® Core™ Processors



Intel® Iris Xe Graphics



Intel® Ethernet



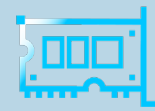
OpenVINO™ Toolkit

Key Features

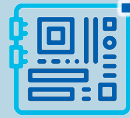
Empowered by Intel.



High-Performance Computing



Rich I/O and PCIE Slot Design



Compatible with Mini-ITX Motherboard



Tower ATX PC Design

Avalue BMX-P820



intel ai

Intel® AI Edge Systems

Product Specifications

CPU	14th Gen Intel® Core™ processors
Graphics	1 x HDMI 1.4b 4K@30Hz, 2 x DP++ 1.4a 4K@60Hz
Memory	Two 262-pin DDR5 4800MHz SO-DIMM socket, supports up to 64GB Max. (non ECC only)
Storage	1 x PCIe x16 (Gen4), 1 x M.2 M-Key 2242/2280 NVMe (PCIe x4 + SATA III), 1 x M.2 E-Key 2230 with CNVi Support (PCIe x1 + USB 2.0), 3 x SATA III
Wireless Network	Supports M.2 E-Key 2230 with CNVi (for Wi-Fi module integration)
LAN	1 x Intel® Ethernet Connection I219-LM; 1 x Intel® Ethernet Controller I226-V 2.5 Gigabit
Operating / Storage Temp.	0°C ~ 40°C with 0.5m/s air flow / -30 ~ 70C°
Dimension (W x D x H)	185mm x 309mm x 354mm
OS	Windows 10, Windows 11, Linux
I/O Options	4 x USB 3.2 Gen1 x 1; 4 x USB 2.0 Type-A; 3 x Audio (Mic in and Line out for Rear IO, Mic in/Line out for Front IO)

Learn More

[Avalue BMX-P820](#)

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