

A203 Mini PC

Nvidia Jetson Xavier NX

Take supercomputer performance to the edge.



Small Size. Small Price. Big AI Discoveries.

A203 Mini PC is a powerful and extremely small intelligent edge computer to bring modern AI to the edge, the smaller form factor than the Jetson NX Developer Kit delivers the same AI power for up to 21 TOPs. For smart cities, security, industrial automation, smart factories, and other edge AI solution providers, A203 Industrial Mini PC combines exceptional AI performance, and sufficient storage with a rich set of IOs— HDMI, 2x USB3s, RS232, I2Cs, and GPIOs, supports operating range from -20°C to 80°C for AI embedded industrial and functional safety applications in a power-efficient, small form factor.

Seeed is a reseller of NVIDIA embedded systems and a preferred partner of the NVIDIA Jetson ecosystem for edge AI. Explore more carrier boards, full system devices, customization services, use cases, and developer tools at Seeed Jetson Ecosystem!



Interface

Interface	Specification
Network	1 x Gigabit Ethernet Connector (10/100/1000)
Video Output	1 x HDMI 2.0 (TYPE A)
USB	2x USB 3.0 Type A (Integrated USB 2.0)/1x USB 3.0/USB 2.0 Micro-AB
M.2 KEY E PCIE	1x PCIE 2242 SIZE
M.2 KEY M	1x M.2 KEY M (NVMe SSD)
Serial	1x CAN
Camera	1x CSI CAMERA
Misc.	1x I2S(3.3V Level);2x I2C Link (+3.3V I/O);5x GPIO;1x UART;2x SPI
Power Requirements	+9V to +19V DC Input @ 3A

KEY FEATURES

Processor	NVIDIA Jetson Xavier NX
AI Performance	21 TOPS (INT8)
GPU	384-core NVIDIA Volta™ GPU with 48 Tensor Cores
GPU Max Freq	1100 MHz
CPU	6-core NVIDIA Carmel ARM®v8.2 64-bit CPU 6MB L2 + 4MB L3
CPU Max Freq	2-core @ 1900MHz 4/6-core @ 1400Mhz
Memory	8 GB 128-bit LPDDR4x @ 1866MHz 59.7GB/s
Storage	16 GB eMMC 5.1
Power	10W 15W 20W
PCIe	1x1 (PCIe Gen3, Root Port) + 1x4 (PCIe Gen4, Root Port & Endpoint)
CSI Camera	Up to 6 cameras (36 via virtual channels) 12 lanes MIPI CSI-2 D-PHY 1.2 (up to 30 Gbps)
Video Encode	2x 4K60 4x 4K30 10x 1080p60 22x 1080p30 (H.265) 2x 4K60 4x 4K30 10x 1080p60 20x 108p30 (H.264)
Video Decode	2x 8K30 6x 4K60 12x 4K30 22x 1080p60 44x 1080p30 (H.265) 2x 4K60 6x 4K30 10x 1080p60 22x 1080p30 (H.264)
Display	2 multi-mode DP 1.4/eDP 1.4/HDMI 2.0 No DSI support
DL Accelerator	2x NVDLA v1
Vision Accelerator	2x PVA v1
Networking	10/100/1000 BASE-T Ethernet

Figure 1