AIEdge-X®500

Industrial AI Computer Powered by 8th/9th Gen Intel® Core™ Processor, with Large Storage and Optional NVIDIA Graphics Card

Main Features

- LGA1151 socket for 8th/9th Gen Intel® Core™ processor (35W/65W/95W*)
  - * If 95W CPU is desired, please select P/N: 10W20X50001X0
- 4 x 2.5 inch HDD/SSD slot, supports RAID 0/1/5/10
- Expandable PCIe x16/PCIe x4/PCI slots, perfect for graphics cards
- Suitable for all kinds of AI applications
- 1 x Intel® I219-LM GbE PHY and 1 x Intel® I211 Gigabit Ethernet Controller
- Supports Intel® AMT

Product Overview

Powered by an 8th/9th Gen Intel® Core™ processor, the AIEdge-X®500 GPU-enhanced edge PC handles powerful multimedia content. Its reliable platform is also ideal for video acquisition, offering a full-height, full-length PCIe x16 expansion slot that's designed to host different cards, such as frame grabbers and powerful graphics cards, including the NVIDIA RTX 3090. One PCI slot and one PCIe x4 for add-on cards are also available. Not only does the AIEdge-X®500 offer stunning visuals for image projections and meets the demands of heavy imaging workloads, the expandable computer is also ideal for AI machine/deep learning, image optimization, machine vision, and other AI applications. The high-end PC additionally supports HDMI display, LAN ports, and USB 3.0 ports, while its four 2.5-inch HDD/SSD slots are perfect for AI applications requiring substantial storage.

Specifications

CPU Support
- Support following listed processor

Generation	Socket Type	CPU	Smart Cache	Cores	Threads	Base Frequency	TDP
8th Coffee Lake	FCLGA1151	i3-8100T	6M	4	4	3.1GHz	35W
8th Coffee Lake	FCLGA1151	i5-8500T	9M	6	6	2.1GHz	35W
8th Coffee Lake	FCLGA1151	i7-8700T	12M	6	12	2.4GHz	35W
9th Coffee Lake Refresh	FCLGA1151	i3-9100TE	6M	4	4	2.2GHz	35W
9th Coffee Lake Refresh	FCLGA1151	i5-9500TE	9M	6	6	2.2GHz	35W
9th Coffee Lake Refresh	FCLGA1151	i7-9700TE	12M	8	8	1.8GHz	35W
8th Coffee Lake	FCLGA1151	i3-8300	8M	4	4	3.7GHz	65W
8th Coffee Lake	FCLGA1151	i5-8500	9M	6	6	3.0GHz	65W
8th Coffee Lake	FCLGA1151	i7-8700	12M	6	12	3.2GHz	65W
9th Coffee Lake Refresh	FCLGA1151	i3-9300	8M	4	4	3.7GHz	65W
9th Coffee Lake Refresh	FCLGA1151	i5-9500	9M	6	6	3.0GHz	65W
9th Coffee Lake Refresh	FCLGA1151	i7-9700	9M	8	8	3.0GHz	65W
8th Coffee Lake	FCLGA1151	i7-9700K	12M	8	8	3.6GHz	95W
8th Coffee Lake	FCLGA1151	i9-9900K	16M	8	16	3.6GHz	95W

Chipset
- Intel® PCH Q370

Graphics
- Intel® HD Graphics 630 series

AIEdge-X® Series   NEXCOM

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System Architecture
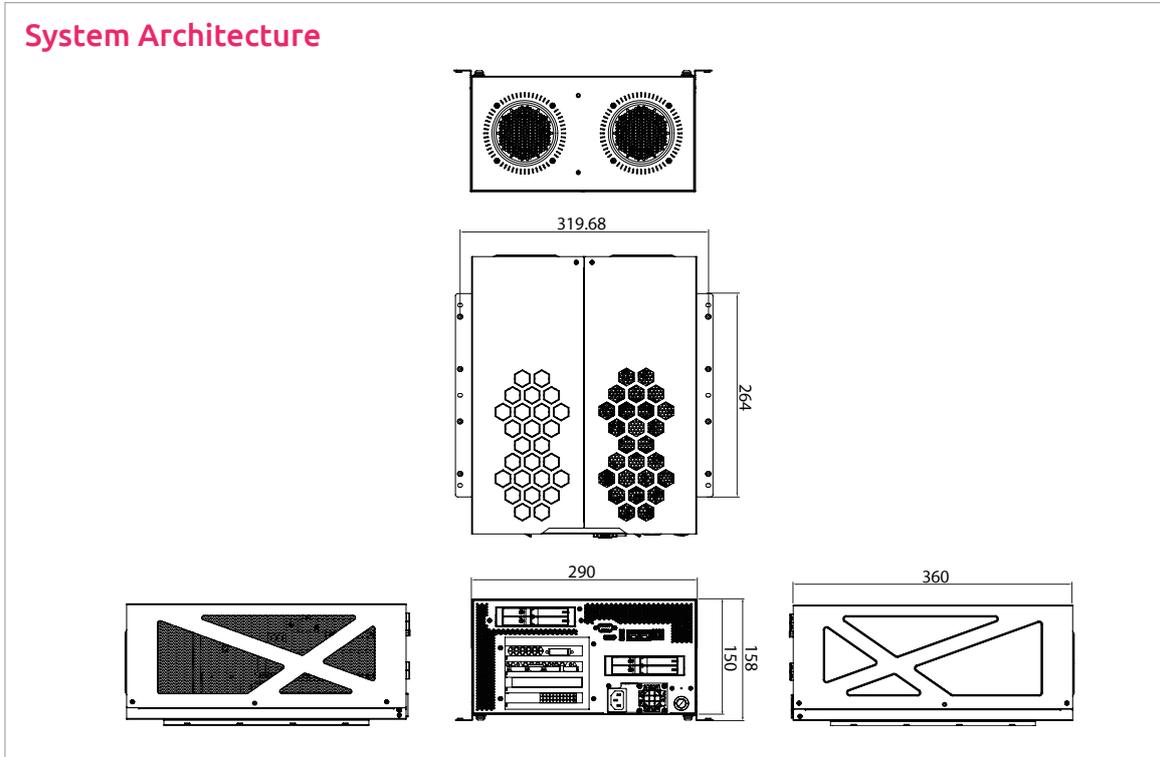
Main Memory
* 2 x 260-pin SO-DIMM sockets, supports DDR4 2400/2666 non-ECC, unbuffered memory up to 64G (single socket max. 32GB)

I/O Interface – Internal
* 3 x COM, supports RS232
* 2 x USB 3.1 via box header
* 6 x USB 2.0 via JST connector
* 8-Channel GPIO

I/O Interface – Front
* 1 x Power button with LED
* 1 x Reset button
* 1 x HDMI 2.0
* 2 x USB 3.0
* 1 x USB 2.0
* 2 x RJ45 with LEDs for Gigabit LAN (Intel® I219-LM GbE PHY and Intel® I211 Gigabit Ethernet controller)
* 1 x COM4, supports RS232/422/485

Graphics & Display
* Intel® UHD Graphics 630 (internal)
* Optional NVIDIA graphics card display via PCIe x16 (up to RTX 3090)

Graphics Card Dimensions
* Supports up to 327 x 140 x 55.6 mm card dimensions (350W GPU)

Storage
* 4 x SATA 2.5" HDD/SSD with RAID 0/1/5/10
* M.2 2280 Key M (SATA/PCIe)

Expansion
* 1 x PCIe x16 slot
* 1 x PCIe x4 slot
* 1 x PCI slot

Power Supply
* 1 x internal 800W ATX power supply
* Input: 100VAC to 240VAC

* Output: +12VDC
* Supports AT/ATX via jumper setting (default: ATX)

Environment
* Operating temperature: 0℃ to 45℃ (active cooling design)
* Storage temperature: -20℃ to 80℃
* Humidity: 10 to 90% (non-condensing)
* Shock protection: 50G peak acceleration, 11ms according to IEC60068-2-27
* Vibration protection:
  Random: 2Grms @ 5~500 Hz, IEC60068-2-64 (with SSD)
  Sinusoidal: 2G @ 5~500 Hz, IEC60068-2-6 (with SSD)

Certifications
* CE Approval
* FCC Class A
* LVD

Dimensions
* 360mm x 290mm x 150mm (L x W x H)

Operating System Support
* Win10/Linux

Ordering Information

* **AIEdge-X®500 (P/N: 10W20X5000X0)**
  Industrial AI Computer powered by 8th/9th Gen Intel® Core™ processor with large storage and optional NVIDIA graphics card, supporting up to 65W CPU

* **AIEdge-X®500 (P/N: 10W20X50001X0)**
  Industrial AI Computer Powered by 8th/9th Gen Intel® Core™ Processor with large storage and optional NVIDIA graphics card, supporting up to 95W CPU

* **AIBooster®-X8 (P/N: 10E000AIB00X0)**
  Intel® Movidius™ Myriad™ X VPU PCIe deep learning accelerator card with heatsink and bracket

We reserve the right to change specifications and product descriptions at any time without prior notice.

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