

# AIEdge-X<sup>®</sup> 300-VPU

Industrial AI Computing System at the Edge  
Powered by Intel<sup>®</sup> 8th/9th Gen. Intel<sup>®</sup> Core<sup>™</sup> CPU



**Main Features**

- Supports 8th/9th Gen Intel<sup>®</sup> Core<sup>™</sup> i5/i7/i9 and socket type processor up to 65W
- PCIe slot supports PCIe x16 graphics card up to 160W
- Validated with Intel<sup>®</sup> Movidius<sup>™</sup> Myriad<sup>™</sup> X VPU
- Support optional M.2 module for Wi-Fi and flash storage
- Support 1 x SATA 2.5" HDD/SSD or 1 x 3.5" HDD/SSD

## Product Overview

Powered by the 8th/9th generation Intel<sup>®</sup> Core<sup>™</sup> processor, the AIEdge-X300-VPU enhanced edge PC that can handle powerful multimedia content. In addition, it includes one expansion slot for graphics card that supports NEXCOM AIBooster<sup>®</sup>-X8 VPU, not only does it offer stunning visuals for image projecting, it is also optimal for AI machine/deep learning. The AIEdge-X300 engages "calls to action" with virtual interactions in order to increase product interest and dwell time.

NEXCOM AIBooster<sup>®</sup>-X8 card adopts Intel<sup>®</sup> Vision Accelerator Design technology to provide deep neural network inference for fast, accurate video analytics. Intel<sup>®</sup> Movidius<sup>™</sup> VPU is capable of operation on customizable complex networks and network layers with high compute, resulting in industry-leading performance. In AIBooster<sup>®</sup>-X8, 8 pcs of Intel<sup>®</sup> Movidius<sup>™</sup> VPU are used to generate a dramatically high performance on supporting ecosystem solutions for high-quality image processing, computer vision and deep neural networks.

## Specifications

### CPU Support

- Socket LGA1151, Intel<sup>®</sup> 8/9th Generation Core<sup>™</sup> i9/i7/i5/i3 processor, 14nm process

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
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	i3-9100TE	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
9th Coffee Lake Refresh	FCLGA1151	i9-9900T	16M	8	16	2.1GHz	35W

### Chipset

- Intel<sup>®</sup> PCH Q370

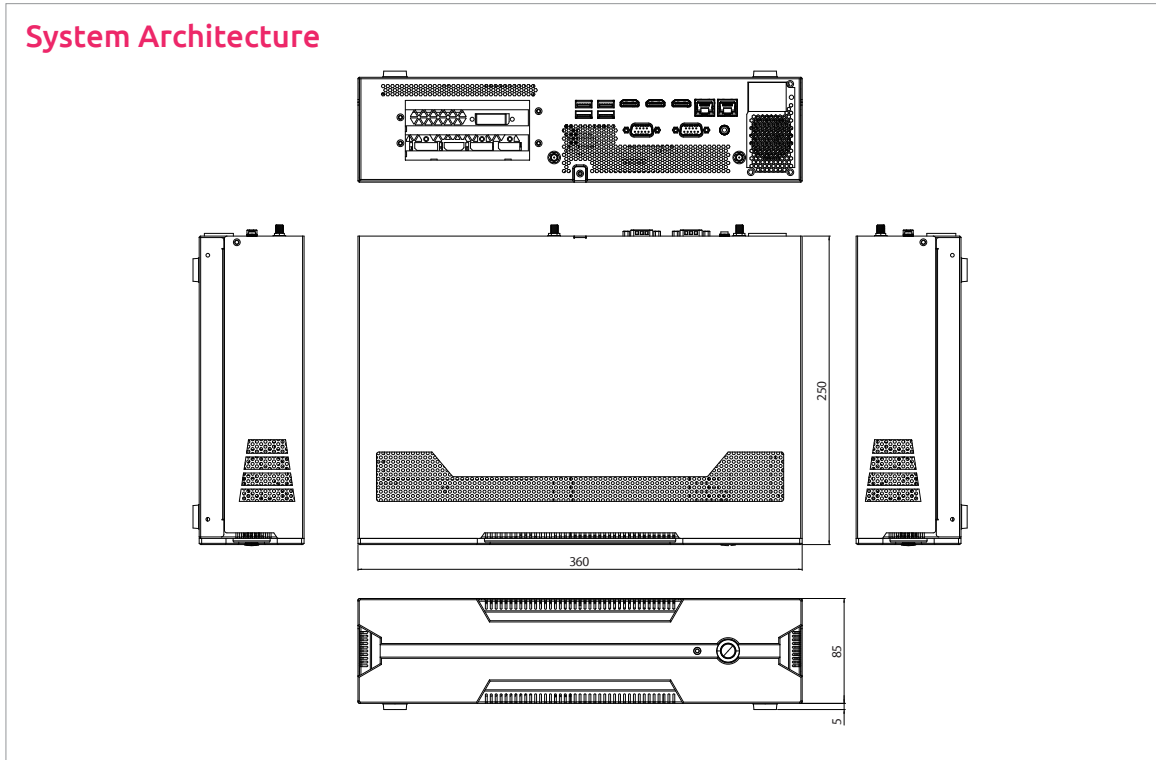
### Graphics

- Supports Intel<sup>®</sup> AIBooster<sup>®</sup>-X8 (VPU optional)

www.nexcom.com



## System Architecture



### Main Memory

- 2 x 260-pin SO-DIMM sockets Support DDR4-2400/2666 MHz non ECC, un-buffered memory up to 32G (single socket max 16GB)

### Internal I/O

- 2 x RS232 COM port box header
- 8 Channels GPIO pin header
- 4 x USB 2.0 pin header
- 1 x SATA connector

### I/O Interface

- 1 x Power button with LED
- 1 x HDD LED
- 2 x Antenna hole
- 3 x HDMI 2.0
- 4 x USB 3.0
- 2 x RJ45 with LEDs for Gigabit LAN (Intel® I219-LM/I211-AT)
- 1 x COM 1 port RS232/RS422/RS485
- 1 x COM 2 port RS232
- 1 x Audio line-out

### Storage

- 1 x SATA 2.5" HDD/SSD or 1 x 3.5" HDD/SSD
- 1 x M.2 2280 Key M SSD with SATA/PCIe signal

### Expansion

- PCIe x16 Gen 3 slot (2 slot space available for graphics card)
- 1 x M.2 2230 Key E supporting Wi-Fi module

### Power Supply

- 1 x 500W Flex ATX power supply

### Environment

- Operating temperature: 0°C to 45°C
- Storage temperature: -20°C to 80°C
- Humidity: 10% to 90% (non-condensing)

### Certification

- CE (EMC EN55032 + EN55024)
- FCC Class A (EMI Part 15B)
- LVD

### Dimensions

- 360mm (W) x 250mm (D) x 85mm (H)

### Operating System Support

- Win10/Linux

## Ordering Information

### Barebone

- **AIEdge-X®300-VPU (P/N: TBC)**  
Industrial AI computing system at the edge powered by Intel® 8th/9th Gen. Intel® Core™ CPU

### Optional

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

## Assured Systems

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