# AIEdge-X®300-VPU

Industrial AI Computing System at the Edge

Powered by Intel® 8th/9th Gen. Intel® Core™ CPU





## Main Features

- Supports 8th/9th Gen Intel® Core™ i5/i7/i9 and socket type processor up to 65W
- PCIe slot supports PCIe x16 graphics card up to 160W
- Validated with Intel® Movidius™ Myriad™ 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® Core™ processor, the AIEdge-X®300-VPU enhanced edge PC that can handle powerful multimedia content. In addition, it includes one expansion slot for graphics card that supports NEXCOM AIBooster®-X8 VPU, not only does it offer stunning visuals for image projecting, it is also optimal for AI machine/deep learning. The AIEdge-X®300 engages "calls to action" with virtual interactions in order to increase product interest and dwell time.

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

## Specifications

### CPU Support

- Socket LGA1151, Intel® 8/9th Generation Core™ 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® PCH Q370

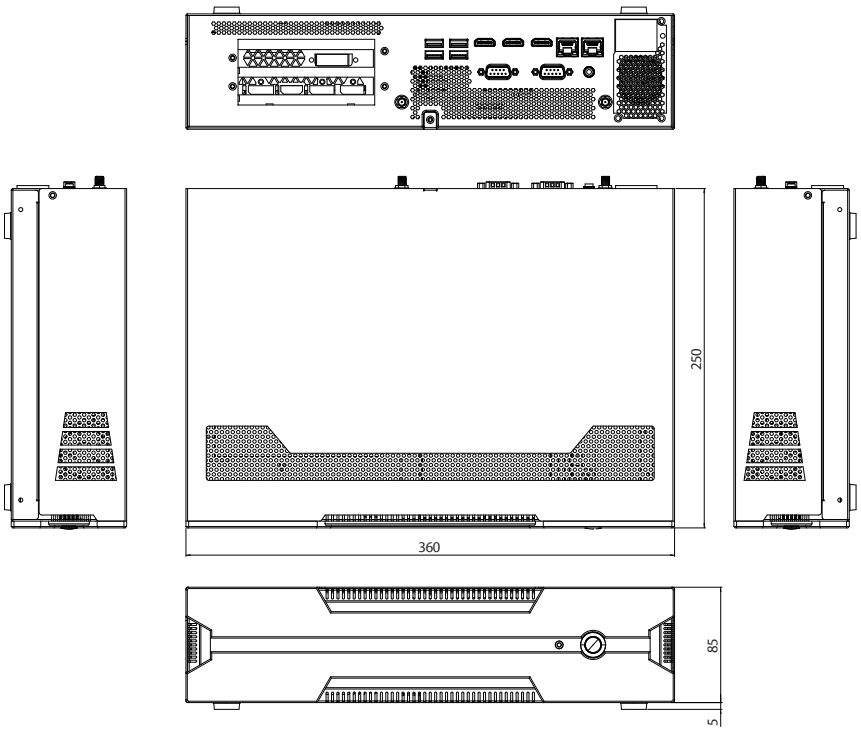
### Graphics

- Supports Intel® AIBooster®-X8 (VPU optional)



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## 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


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

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