



# AEC-6X00 Series

NVIDIA® Jetson AGX Orin™ AI Embedded Computer



## Features

- Supports NVIDIA® Jetson AGX Orin™
- Support 2 x GbE + 4 x IEEE 802.3at GbE PoE+ ports (AEC-6200-32)
- Support 8 GMSL cameras (AEC-6100-32)
- 2 x RS-232/422/485, 5 x USB, 16 isolated DI/O, 2 x isolated CAN Bus
- HDMI 2.1, up to 8K@60 Hz
- DC 9~48V wide range power input & Ignition power control
- Operating Temperature -25°C ~ +70°C (TDP: 30W)

## System

|                |                                                                                                                                      |
|----------------|--------------------------------------------------------------------------------------------------------------------------------------|
| CPU            | 8-core Arm® Cortex®-A78AE v8.2 64-bit CPU                                                                                            |
| Memory         | 32GB LPDDR5 DRAM                                                                                                                     |
| GPU            | 1792-core NVIDIA Ampere™ architecture GPU with 56 Tensor Cores                                                                       |
| DL Accelerator | 2x NVDLA Engines                                                                                                                     |
| Storage        | 2 x M.2 Key M Socket (2280, PCIe x4)<br>1 x eMMC 5.1, 64GB<br>1 x Micro SD (External)                                                |
| LAN Chipset    | 2 x 10/100/1000 Base-T Ethernet GigE LAN, RJ45 Connector<br>4 x IEEE 802.3at (25.5W/48V) GigE PoE+ LAN, RJ45 Connector (AEC-6200-32) |

## I/O

|              |                                                                                                  |
|--------------|--------------------------------------------------------------------------------------------------|
| Serial Port  | 2 x RS-232/422/485 ports                                                                         |
| CAN Bus      | 2 x Isolated CAN Bus support CAN FD                                                              |
| USB Port     | 1 x USB 3.2 Gen 2, 4 x USB 3.1(5Gbps)                                                            |
| Micro USB    | 1 x Micro USB console debug port,<br>1 x Micro USB OS flash port                                 |
| DIO          | 16 Isolated DIO (8 DI, 8 DO)                                                                     |
| LAN          | 2 x 10/100/1000 Base-T Ethernet GigE LAN                                                         |
| PoE          | 4 x IEEE 802.3at (25.5W/48V) GigE PoE+ LAN, RJ45 Connector (AEC-6200-32)                         |
| SIM          | 2 x SIM Card Socket                                                                              |
| Expansion    | 1 x PCIe Gen4 x8 Slot, 1 x M.2 Key B Socket (3042/3052, USB3), M.2 Key E Socket (2230, PCIe/USB) |
| Video Port   | 1 x HDMI 2.1, up to 8K 60Hz                                                                      |
| Video Encode | 1x 4K @60, 3x 4K @30, 6x 1080p @60, 12x 1080p @30 (HEVC)                                         |
| Video Decode | 1x 8K @30, 2x 4K @60, 4x 4K @30, 9x 1080p @60, 18x 1080p @30 (HEVC)                              |
| GMSL         | 8 Fakra-Z connectors for GMSL 1/2 automotive cameras (AEC-6100-32)                               |

## Environmental

|                 |                                                                                |
|-----------------|--------------------------------------------------------------------------------|
| Operating Temp. | -25 ~ 70°C (-13 ~ 158°F) (TDP: 30W),<br>-25 ~ 55°C (-13 ~ 131°F) (TDP: 40/50W) |
| Storage Temp.   | -40 ~ 85°C (-40 ~ 185°F)                                                       |

|                    |                                                                |
|--------------------|----------------------------------------------------------------|
| Operating Humidity | 5 ~ 95% (non-condensing)                                       |
| Relative Humidity  | 95% @ 70°C                                                     |
| Shock              | Operating, MIL-STD-810G, Method 516.7, Procedure I             |
| Vibration          | Operating, MIL-STD-810G, Method 514.6, Procedure I, Category 4 |
| EMC                | CE,FCC, EN50155(TBA), EN50121-3-2 (TBA)                        |

## Power Requirement

|                  |                                             |
|------------------|---------------------------------------------|
| Power Input      | DC 9V ~ 48V                                 |
| Power Interface  | 3-pin Terminal Block : V+, V-, Frame Ground |
| Ignition Control | 16-mode Software Ignition Control           |
| Power Ignition   | 3-pin Terminal Block                        |

## Mechanical

|                        |                                                                      |
|------------------------|----------------------------------------------------------------------|
| LED                    | Power, SSD, 2 User Programmable                                      |
| Button                 | 1 x Power Button, 1 x Force Recovery Button,<br>1 x Reset Button     |
| Antenna                | 6 Antenna hole for WiFi/4G/5G/LTE/GPRS/<br>UMTS                      |
| Mounting               | Wallmount by mounting bracket,<br>DIN Rail and VESA Mount (Optional) |
| Weight                 | 3.8 Kg                                                               |
| Dimensions (W x D x H) | 260 mm x 182 mm x 69 mm                                              |

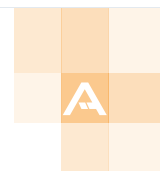
## OS Support

Linux / NVIDIA JetPack SDK

## Ordering Information

|             |                                                                                           |
|-------------|-------------------------------------------------------------------------------------------|
| AEC-6100-32 | Jetson AGX Orin 32GB, 2 x LAN, 8 x GMSL, 2 x serial, 16 x DIO(8 x DI, 8 x DO), 2 x CANbus |
| AEC-6200-32 | Jetson AGX Orin 32GB, 2 x LAN, 4 x PoE+, 2 x serial, 16 x DIO(8 x DI, 8 x DO), 2 x CANbus |

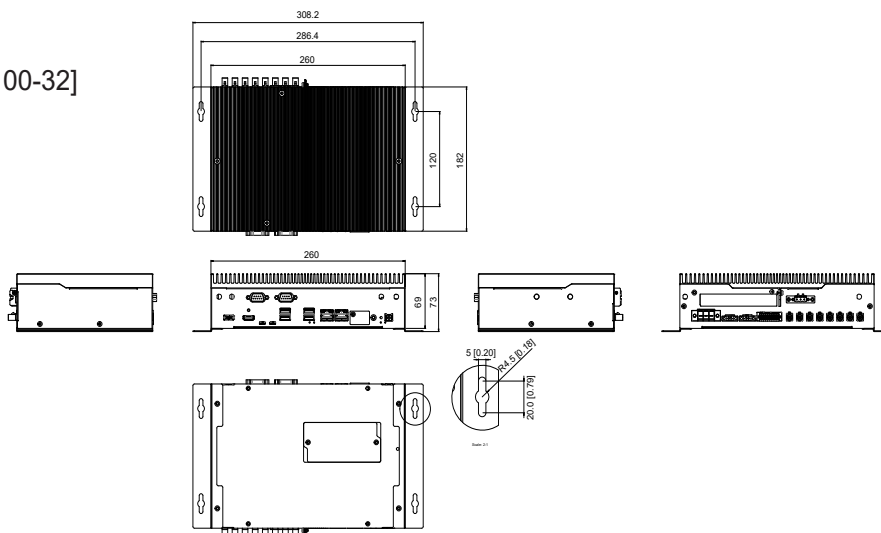




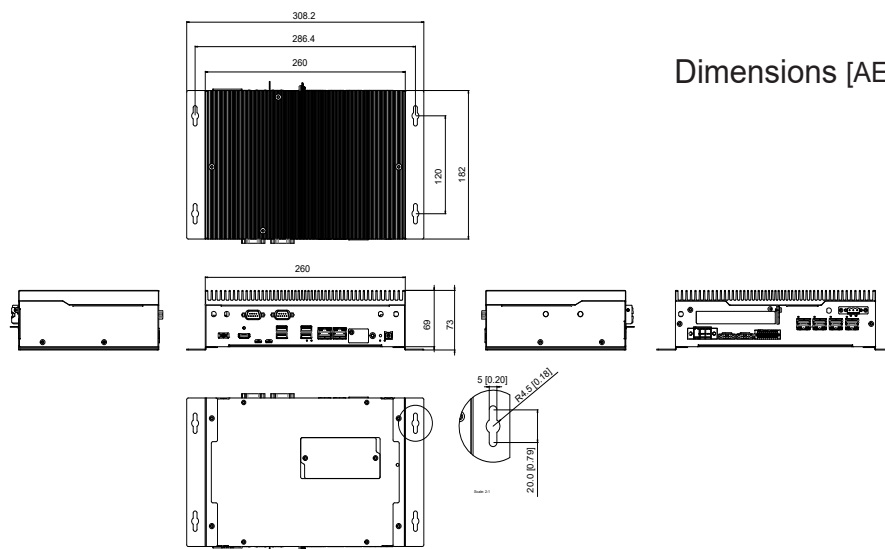
### Optional Accessories

|                       |                                                                                                       |
|-----------------------|-------------------------------------------------------------------------------------------------------|
| 160W AC-DC WT Adaptor | 160W, 24V, 85V AC to 264V AC Power Adapter with 3-pin Terminal Block, Wide Temperature -30°C to +70°C |
| 180W AC-DC Adaptor    | 180W, 24V, 90V AC to 264V AC Power Adapter with 3-pin Terminal Block                                  |
| 280W AC-DC WT Adaptor | 280W, 24V, 85V AC to 264V AC Power Adapter with 3-pin Terminal Block, Wide Temperature -30°C to +70°C |
| VESA Mount            | VESA Mounting Kit                                                                                     |
| DIN-RAIL              | DIN Rail and VESA Mounting Kit                                                                        |
| GMSL Camera Kit       | GMSL Camera with Fakra-Z connector                                                                    |
| M.2 Storage Module    | M.2 Key M/Key B PCIe Storage Module                                                                   |
| 5G Module             | 5G Module with Antenna                                                                                |
| 4G Module             | 4G/GPS Module with Antenna                                                                            |
| WiFi & Bluetooth      | WiFi & Bluetooth Module with Antenna                                                                  |

### Dimensions [AEC-6100-32]



### Dimensions [AEC-6200-32]



## Assured Systems

Assured Systems is a leading technology company with over 1,500 regular clients in 80 countries, deploying over 85,000 systems to a diverse customer base in 12 years of business. We offer high-quality and innovative rugged computing, display, networking and data collection solutions to the embedded, industrial, and digital-out-of-home market sectors.

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