

NVIDIA GPU and Intel® Xeon® AI Computing Platform for Autonomous Drive Applications

Datasheet

AVA-3510-GEN1



Features

- Intel® Xeon® E processor / Intel® Core™ i7-9700E
- NVIDIA Turing™ (NVIDIA Quadro RTX 5000) GPU module
- Customizable ignition setting
- Isolated CAN
- 2x 10GbE, 5x GbE
- 2x USB 3.0 lockable, 2x USB 2.0
- 1x M.2 NVMe M key 2280 (PCIe)
- 1x Mini PCIe for LTE or Wi-Fi module
- 2x 2.5" HDD tray
- 9-36 VDC input

Ordering Information

AVA-3510 Gen1 - Xeon	AVA-3510 Gen1 with top Fan, Xeon 2278 GE, DDR4 64G ECC, M.2 256G x1, RTX-5000, CAN x1, Ignition, DC 9-36V
AVA-3510 Gen1 - i7	AVA-3510 Gen1 with top Fan, i7-9700E, DDR4 32G ECC, M.2 256G x1, RTX-5000, CAN x1, Ignition, DC 9-36V

Optional Accessories

AC/DC Power adapter	330W, AC/DC adapter, 24V/13.75A (P/N: 31-62179-0000-A0)
LTE Module	SIMCOM, SIM7600E-H PCIE LTE Module kit (91-95328-100E)
WiFi module	Intel® Wireless-AC 9260 M.2 2230, Dual-Band 2x2 Wi-Fi + Bluetooth 5 kit (P/N: 91-95328-000E)
SSD	2.5" SATA 256G (P/N: 29-42N00-6090-A0DE)

Specifications

Model Name	AVA-3510 Gen1 - Xeon	AVA-3510 Gen1 - i7
System Core		
Processor	Intel® Xeon® Processor 2278GE Coffee Lake Refresh	Intel® Core™ i7-9700E Coffee Lake Refresh
Base Freq.	3.3 GHz	2.6 GHz
MAX Turbo Freq.	4.7 GHz	4.4 GHz
Chipset	Intel® PCH C246	
Graphic	NVIDIA® Quadro® Embedded RTX5000, MXM 3.1 type B+, 82 x 110mm, PCIe x16 Gen3	NVIDIA® Quadro® Embedded RTX5000, MXM 3.1 type B+, 82 x 110mm, PCIe x16 Gen3
Memory	Dual channel 32G DDR4-2666 SODIMM socket, up to 64G	Dual channel 16G DDR4-2666 SODIMM socket, up to 32G
Display	2 x DP and 1 x DP++	
Storage Devices		
M.2	Default: NVMe M.2 M key 2280 256G (PCIe)	
2.5" SATA	Option: 2.5" SATA 256G, up to 2 x 2.5" SATA	
External I/O Interface (CONN)		
Ethernet	2x 10 GbE (X550, no support WOL), 4x 1G GbE (i210T), 1x 1G GbE (I219 PHY), 5x RJ45, support wake on LAN	
Serial Port	2x DB9: COM1/2: RS-232/422/485	
USB 2.0	2 port / support 1A, type-A connector x2	
USB 3.1	2 port / 2x GEN1, type -A connector x2	
DIO	2x DB9 con: 4 DI + 4 DO	
Internal I/O Interface		
Mini PCIe	2 x full size: Default: 1xCAN BUS Module, Option: 1x LTE Module or Wifi Module	
USIM	1 x USIM Slot (4G/LTE)	
MXM Slot	Default: PCIe x16 (For EGX-MXM-RTX5000)	
CAN	FARO FP900	
Mechanical		
Dimensions	335(W)mm x 225.1(D)mm x 95(H)mm	
Mounting	Wall Mount	
Color	Black	
Power requirements		
DC Input	9~36V DC IN on MB with Ignition	
AC/DC Power Adapter	Optional: 330W, AC/DC adapter, 24V/13.75A	
Fail reset	Hardware reset button	
Power Button	1x power On/Off button	
Extendable PWR switch	Power box-header	
Battery	CMOS Battery Holder BR2032	
Environmental		
Operating Temperature	Standard: -10°C to 55°C	
Operating Humidity	EN 50125-1, compliance EN 60068-2-78	
Storage Temperature	-40°C to +70°C	
Vibration	MIL-STD-810H METHOD 514.8, Procedure I, Category 4, Table 514.8C-I, Figure 514.8C-2 Common carrier (US highway truck vibration exposure).	
Shock	Operating MIL-STD-810H, Method 516.8, Procedure I	
ESD	Contact +/- 4KV, Air +/- 8KV	
EMC	CE/ FCC Class A, according to EN 55024 & EN 55032 ISO 7637-2 & SAE J1113-11 (Nice to have)	
Safety	CE-LVD	
Operating System		
Linux	Ubuntu 20.04	

Mechanical Overview

