

ADLINK AVA-3501

Rugged Computing Platform for the World's First Head-to-Head Self-Driving Race – the Indy Autonomous Challenge

Features

- Intel® Xeon® 9th Gen with server grade Intel® C246 chipset
- Optional NVIDIA Quadro RTX 8000
- Ubuntu 20.04
- **Apex.OS** certified and supported
- 64GB DDR4, dual SODIMMs
- Rich I/O: 2x DP++, 1x DVI-I, 3x GbE, 8-channel Digital IO
- 2x USB 3.1 Gen2, 1x USB 3.1 Gen1, 3x USB 2.0
- Enhanced storage:
 - 3TB of Samsung 970 EVO Plus NVME M.2 SSDs
 - 2x 512GB hot swappable 2.5" SSD SATA 6 Gb/s system drives
- 6x CAN channels
- 2x 40GbE QSFP+
- Supports full length RTX 4000, GPUs
- Optional AC/DC PSU

Software Support

- Linux Ubuntu 20.04 (pre-installed)
- Linux Ubuntu 18.04



ADLINK AWA-3501

Specifications

Model	AWA-3501
System Core	
Processor	Intel® Xeon® E-2278GE, 80W TDP
Cores	8
Base Freq.	3.3 GHz
Turbo Freq.	4.7 GHz
Chipset	Intel® C246 Chipset
Memory	64GB, dual DDR4 SODIMMs, 2400MHz
Display	2x DP++, 1x DVI-I
I/O Interfaces	
Ethernet	3x Intel® GbE: 2x i211AT + 1x i219 Intel® AMT support
CAN	4x CAN channels from M.2
USB	2x USB 3.1 Gen 2, 1x USB 3.1 Gen 1, 3x USB 2.0, 1x internal USB 2.0 dongle
Audio	Line-out, Mic-in (optional: speaker-out)
Mini PCIe	1x full size (USB 2.0 + PCIe)
M.2	1x socket, key B+M, 2280/3042: USB 3.1 Gen 1, SATA 6 Gb/s, PCIe x2
USIM	2 (1 for Mini PCIe, 1 for M.2)
DI/O	8-ch DI, 8-ch DO
I ² C	2 (3.3V & 5V)
TPM 2.0	Supported
Expansion Slots	2x PCIe x16 for full length PEG e.g. NVIDIA RTX8000 111mm high × 267mm long, dual slots (note that in the IAC configuration 1x of these PCIe x16 slots is occupied by another card) 2x CAN channels, 2x 40GbE QSFP+ Intel® Ethernet Server Adapter XL710-QDA2 (Physical: 2x PCIe x16, 2x PCIe x8, 1x PCIe x4; Signal: 2x PCIe x8, 2x PCIe x4, 1x PCIe x1)
Storage Devices	
2.5" SATA	4x external swappable trays (supports RAID 0, 1, 5, 10)
CFast	1x Type II
Mechanical	
Dimensions (WxDxH)	210 x 210 x 350 mm (8.27" x 8.27" x 13.8")
Weight	3KG
Mounting	Wall mount
Power Supply	
DC Input	24 VDC
Environmental	
Operating Temperature	Standard: 0°C to 50°C
Storage Temperature	-40°C to 85°C (-40°F to 185°F) excluding storage
Humidity	~95% @ 40°C (104°F) non-condensing
Vibration	Operating: 3 Grms, 5-500 Hz, 3 axes (w/ SSD/CFast) Operating: 0.3 Grms, 5-500 Hz, 3 axes (w/ HDD)
Shock	Operating: 30 Grms, half sine 11ms duration (w/ SSD/CFast)
ESD	Contact ±4KV, Air ±8KV
EMC	EN61000-6-4/-2, CE, FCC Class A
Safety	UL/cUL, CB, CCC