

AVA-5600

19" Rackmount Rugged, Fanless AIoT Platform for Real-time Video/Graphics Analytics

Features

- Intel® Core™ i7-7820EQ Processor and Mobile Intel® CM236 Chipset
- NVIDIA Quadro® GPU MXM 3.1 Type A/B module on PCIe x16
- 4x M12 GbE with PoE, 4x USB 3.0
- Rich Storage Options: 2.5" SATA 6.0 Gb/s drive bay, 1x M.2 2280 slot, 1x CFAST socket
- GNSS/3G/4G/WLAN support via 2x Mini PCIe slots and 2x USIM slots
- MVB/CAN bus support by Mini PCIe add-on module (BOM option)
- Nominal Voltage: 110VDC (EN50155 compliant)



Specifications

System

Processor

Quad-core Intel® Core™ i7-7820EQ Processor, 3.0GHz (formerly Kaby Lake)

Chipset

Mobile Intel® CM236 Chipset

Memory

16/32GB DDR4 2133 via SODIMM (max. 32GB supported)

BIOS

AMI UEFI

GPU

MXM module with NVIDIA® Quadro® Embedded RTX-5000, or P1000 by BOM option

Storage

- 2x 2.5" SATA 6.0 Gb/s drive bay
- 1x CFAST slot, externally accessible
- 1x M.2 2280 (SATA)

Display

- 1x DisplayPort with lockable design from MXM GPU, 4k support
- 1x DVI-I from Intel® processor

Connectivity

Ethernet

- 2x GbE RJ-45 (1x NIC, 1x PHY)
- 4x M12 X-coded GbE with PoE Class 2 (7W per port), 1.5kV isolation

USB

- 4x USB 3.0 Type A ports

Serial Ports

- 4x DB-9 COM with 2kVrms isolation

Digital I/O (optional)

4x isolated DI and 4x isolated DO via two DB-9 connectors, supported by add-on module (occupies one 2.5" drive space)

DI: 0-24V input voltage with 1500VDC isolation

DO: 3.3V-35VDC output voltage, 250mA/ch sink current, 1500VDC isolation

CAN/MVB (optional)

Supported by Mini PCIe module with two DB-9 outputs, by BOM option

Wireless

2x Mini PCIe card slots available for cellular modem or WLAN modules

Compliant to Mini PCIe Card Spec. Rev. 1.2 (PCIe and USB 2.0)

Each Mini PCIe slot supports one micro-SIM card

4x RP-SMA antenna connector cutouts

Internal Expansion I/O

2x full size Mini PCI Express slots

1x Type A/Type B MXM slot with BOM option for RTX-5000 and P1000

1x USB 2.0 wafer connector

External I/O

4x M12-X-coded GbE ports with PoE

4x DB-9 COM ports

2x RJ-45 GbE ports

1x DisplayPort

1x DVI-I port

4x USB 3.0 Type A ports

2x DB-9 +/-12V DC output sharing 40/60/100W (40W by default)

2x USIM slots

1x CFAST slot on rear side

2x 2.5" SATA drive bay on rear side

4x antenna cutouts reserved

Reset button

Power button

Specifications

• Miscellaneous

LEDs

1x diagnostic, 1x storage, 1x WDT, 3x user-defined

Battery

Coin cell CR2032, reverse charge protection

Board Management

ADLINK SEMA 3.0:

- Watch Dog
- Hardware monitor
- Runtime statistics

Power Supply

One 3-pin V+/NC/V- connector +110V DC by default

Power Consumption < 300W

• Mechanical

Dimensions

19", 2U, 448.2mm x 225.4mm x 98.4mm (WxDxH)

Weight

7kg

Mounting

Rack mount

• Environmental

Operating Temperature

EN 50155: 2017 Class OT3: -25°C to 70°C with NVIDIA P1000, RTX-3000

EN 50155: 2017 Class OT1: -25°C to 55°C with NVIDIA RTX-5000

Storage Temperature

-40°C to 85°C

IP Rating

IP4X

Humidity

10-90% RH operating, non-condensing

5-95% RH storage, EN 60068-2-30, EN 50155

Vibration

EN50155 standard, method EN61373:2010, Category 1 Class B

Shock

EN50155 standard, method EN61373:2010, Category 1 Class B

Safety

EN 50153

EN 50155

Fire Protection

EN 45545-2, HL3

EMC

EN 50121-3-2, EN50155

• Operating System

Windows 10

Ubuntu 18.04

AVA-5600

Ordering Information

- **AVA-5600/7820/16G/P1000**
2U 19" rackmount Fanless railway computer with Intel® Core™ i7-7820EQ, 16GB DDR4 and P1000 MXM, 2x DC 40W output
- **AVA-5600/7820/16G/RTX3000**
2U 19" rackmount Fanless railway computer with Intel® Core™ i7-7820EQ, 16GB DDR4 and RTX-3000 MXM, 2x DC 40W output
- **AVA-5600/7820/16G/RTX5000**
2U 19" rackmount Fanless railway computer with Intel® Core™ i7-7820EQ, 16GB DDR4 and RTX-5000 MXM, 2x DC 40W output

(conformal coating by request; external cables are excluded)

*Please contact your sales representative for RTX-5000 support condition

Optional Accessories

- Mini PCIe 3G/Wi-Fi/BT/GPS wireless kit
- Mini PCIe CAN bus kit

Mechanical Drawing

