AVerMedia

NVIDIA — **ELITE PARTNER**

AVerAI AG411B Box PC

AG411B Box PC supports 2x M.2 and 3x mPCIe slots alternatively
It equips NVIDIA® Jetson AGX Xavier™ 32GB module

Introduction

AVerMedia AVerAI Box PC AG411B equips NVIDIA® Jetson AGX Xavier™ 32GB module and is focused on AI-centric use cases for edge computing such as heavy industry and industrial automation requiring wide input voltage operation. AG411B is easy to use with expandible I/O ports on one side.

AG411B Box PC provides a mix-and-match choice of 2x M.2 Key M 2280 and 3x mPCIe slots to receive various video inputs through AVerMedia's capture cards.

These 2x M.2 Key M 2280 and 3x mPCIe slots share PCIe Gen2 x4 lanes, so the AG411B Box PC can provide different combinations for developers to install video capture cards, such as 2x M.2 Key M 2280 slots, 3x mPCIe slots, and 2x mPCIe slots with 1x M.2 Key M 2280 slot.

By using AVerMedia's extended video capture cards, Xavier is able to receive HDMI, VGA, SDI, composite video inputs, and even dual 4Kp30 HDMI video inputs for different application scenarios.

This robust and high-performance edge computer enables quick deployment so developers can timely overcome challenges.

Features

- Embedded NVIDIA® Jetson AGX Xavier™ 32GB module
- 2x M.2 Key M 2280 or 3x mPCIe alternatively
- 1x M.2 Key E 2230 for Wi-Fi module
- 1x M.2 Key M 2280 for NVMe
- 2x GbE, 2x USB 3.0, 2x 4Kp60 HDMI output
- 1x CAN bus with transceiver
- Wide input voltage: 12~54V DC Input
- Easy to use with expansion I/O on one side.
- Operating temperature: -10°C ~ 60°C
- Dimension: W: 214mm x L: 240mm x H: 89mm

Embedded Vision Solutions for NVIDIA Jetson

AVerMedia offers 3 categories of Embedded Vision Solutions for deep learning application on the edge devices, with the support of NVIDIA Jetson family, battery power, HDMI/VGA/3G-SDI/Composite video sources, and the direct technical support for developers.

- Standard and customized of Nano/TX2 NX/Tegra/Xavier NX/AGX Xavier carrier boards
- Standard and customized Nano/TX2 NX/Tegra/Xavier NX/AGX Xavier application-ready systems
- Software design service of Linux BSP, driver, OpenCV, VisionWorks, and cuDNN.

Why AVerMedia

- As an NVIDIA® ELITE partner, AVerMedia receives direct support from NVIDIA. We offer technical support in 24 hours to support your project's success.
- Support full range of NVIDIA Jetson modules, including Nano, Tegra, Xavier NX, and AGX Xavier.
- Support various video input sources from IP camera, USB camera, MIPI camera, and capture cards supporting HDMI/VGA/3G-SDI/Composite video sources.
- Provide customization services of HW, PCB, chassis, BSP, driver, and UX/UI/ID/ME design.
- Supports 60°C/140°F operating temperature for fanless system.
- Provide flexible user-configured security to protect the SW.

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Specifications

Model	AG411B
Type	Box PC
NVIDIA GPU SoC Module Compatibility	NVIDIA® Jetson AGX Xavier™ 32GB module
Networking	2x GbE RJ-45
Display Output	2x HDMI 2.0, maximum resolution: 3840 x 2160 at 60Hz
Temperature	Operating temperature -10°C~60°C Storage temperature -40°C ~ 85°C Relative humidity 40 °C @ 95%, Non-Condensing
USB	2x USB 3.1 Type-A 3x USB 2.0 (one is on side)
Storage	32GB eMMC 5.1
RS-485	1x RS-485
CAN bus	1x CAN bus with transceiver
External Expansion on side	40 pins: 1x UART, 2x 12C, 1x CAN (W/O transceiver), 5x GPIO OTG: 1x USB 2.0 Micro-B for RNDIS Storage: 1x micro-SD card slot Recovery button 1xUSB 2.0
DIP Switch Expansion on side	Auto power on enable/Disable FAN PWM on enable/Disable RS485 Terminal ON/OFF CAN Bus Terminal ON/OFF
Internal Expansion	1 x M.2 Key E 2230 for Wi-Fi module (PCIe Gen4x 1) 1 x M.2 Key M 2280 for NVMe (PCIe Gen4x 4) 2 x M.2 Key M 2280 (PCIe Gen2x 4) or 3x mPCIe Gen2 x1 1 x SATA
Input Power	DC Jack and ATX 4 pin (54V/2.78A)
Buttons	Power and Recovery (Power button with green LED)
RTC Battery	Support RTC battery and Battery Life Monitoring by MCU
Chassis Dimension/ Weight	W: 214mm x L: 240mm x H: 89mm Weight: 4Kg
Certifications	CE, FCC

*All specifications are subject to change without prior notice.

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External I/O on side

Expansion Header	40 pins: 1x UART, 2x 12C, 1x CAN (W/O transceiver), 5x GPIO
OTG	1x USB 2.0 Micro-B for RNDIS
Storage	1x micro-SD card slot
Button	Recovery button for BSP installation
DIP Switch Expansion	1. Auto power on enable/Disable (External) 2. FAN PWM on enable/Disable (External) 3. RS485 Terminal ON/OFF (External) 4. CAN Bus Terminal ON/OFF (External)
USB	1x USB 2.0
ATX 4-Pin Input Power	DC IN Plug (12-54V)

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Compatible Cards

Model Name	CN311-H	CN312SW	CN312MN
Host Interface	PCIe Gen2 x2	PCIe Gen2 x4	PCIe Gen2 x 4
Max Input Resolution	4096x2160 30fps	2048x1080 60fps	2048x1080 60fps
Max Record Resolution	4096x2160 30fps	1920x1080 60fps	1920x1080 60fps
Channel No.	1	2	2
H/W Encode			
Audio Interface	HDMI embedded	SDI embedded	SDI embedded HDMI embedded
Video Interface — SDI		●	●
Video Interface — HDMI	●		●
Video Interface — DVI			
Video Interface — VGA			
Video Interface — Composite			
Color Depth/Precision	8 / 10bit	8 bit	8 bit
Color Format	YUY2, YUYV	YUY2, YUYV	YUY2, YUYV
Operating Temperature	0°C~40°C	-20°C~70°C	0°C~40°C
Dimensions (LxW) mm	22x80	22x80	22x80

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