AVerMedia

NVIDIA PREFERRED SOLUTION PROVIDER

AVerAI EA713-AAMN Carrier Board

EA713-AAMN-0000 carrier board provides 2x M.2 or 4x mPCIe slots alternatively

It fully supports NVIDIA® Jetson AGX Xavier™ module



Features

- Fully support NVIDIA® Jetson AGX Xavier™ module
- 4x Mini-PCIe or 2x M.2 Key M 2280 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, 1x 4Kp60 HDMI output
- 1x USB 2.0 Micro-B for BSP installation only , 1x micro SD
- 1x CAN bus, 1x RS-485, 1x Mic-in, 1x Speaker-out
- 40 pins: 1x UART, 2x I2C, 5x GPIO,and 1 x CAN (W/O transceiver)
- Operating temperature: -40°C ~ 85°C
- Carrier board dimension:
  W:170mm x L:220mm x H: 38.5mm (6.69"x8.66"x1.52")

Description

AVerMedia EA713-AAMN-0000 carrier board fully supports NVIDIA® Jetson AGX Xavier™ module which aims it at AI centric use cases for edge computing such as robotics and industrial automation within W:170mm x L:220mm x H:38.5mm dimension.

EA713-AAMN-0000 carrier board provides 4x Mini-PCIe and 2x M.2 Key M 2280 slots alternatively for Xavier to receive various video inputs by using AVerMedia's capture cards.

These 4x Mini-PCIe and 2x M.2 Key M 2280 slots share PCIe Gen2 x4 lanes, so EA713-AAMN-0000 can provide three different combinations for developers to install video capture cards alternatively, such as 4x mPCIe slots, 2x M.2 Key M 2280 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.

EA713-AAMN-0000 carrier board provides 2x GbE, and 2x USB 3.0 for Xavier to connect various IP cameras and USB 3.0 cameras. General purpose I/O are ready for developers to use such as 1x 4Kp60 HDMI output, 1x USB 2.0 Micro-B for BSP installation only, 1x micro SD, 1x Mic-in, and 1x Speaker-out, 1x CAN bus, 1x RS-485. It also provides 40 pins of GPIO expansion: 1x UART, 2x I2C, and 5x GPIO 1x CAN for Xavier to communicate with the external devices.

This highly integrated edge computer is a well prepared application ready platform for developers to overcome the challenges timely and easily.

Embedded Vision Solutions for NVIDIA Jetson

AVerMedia offers 3 categories of Embedded Vision Solutions for AI 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/Tegra/AGX Xavier/Xavier NX carrier boards.
- Standard and customized Nano/Tegra/AGX Xavier/Xavier NX application-ready systems.
- Software design service of Linux BSP, driver, OpenCV, VisionWorks, and cuDNN.

Why AVerMedia

- As NVIDIA® PREFERRED solution provider, AVerMedia gets the direct support from NVIDIA. We are able to offer technical support in 24 hours to help your project success.
- Support full range of NVIDIA Jetson modules, including Nano, Tegra, 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 65°C/149°F operating temperature in the No-Air-Flow environment for fanless system designed by using AVerCooler technologies.
- Provide flexible user-configured security to protect the SW.

AVerAI EA713-AAMN Carrier Board

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It fully supports NVIDIA® Jetson AGX Xavier™ module

Specifications

Type	Carrier Board
NVIDIA GPU SoC Module Compatibility	NVIDIA® Jetson AGX Xavier™ module
Networking	2x GbE (RJ-45)
Display Output	1x HDMI type A, maximum resolution: 3840x2160 at 60Hz
Temperature	Operating Temperature -40°C ~ 85°C Storage Temperature -40°C ~ 85°C Relative Humidity 40 °C @ 95%, Non-Condensing
USB	1x USB 2.0 Micro-B for BSP installation only 2x USB 3.0 Type-A (USB3.2 Gen1x 1)
Storage	32GB eMMC 5.1
RS-485	1x RS-485
CAN bus	1x CAN bus with transceiver
GPIO Expansion	40 pins: 1x UART, 2x I2C, 5x GPIO, 1x CAN (W/O transceiver)
User Expansion	1x M.2 Key E 2230 for Wi-Fi module 1x M.2 Key M 2280 for NVMe (PCIe Gen4x 4) 2x M.2 Key M 2280 (PCIe Gen2x 2) or 4x mPCIe Gen2 x1
Input Power	12V/5A
Buttons	Power and Recovery
RTC Battery	Support RTC battery and Battery Life Monitoring by MCU
PCB/Electronics Mechanical Info Mechanical Info	W:170mm x L:220mm x H: 38.5mm (6.69"x8.66"x1.52") Weight: 269.6g
Certifications	CE, FCC, MSIP

Compatible Cards











Model Name		CM311-H	C353	C353W	C351	C351W	CN311-H	CN312SW
Host Interface		PCIe Gen2 x1	PCIe Gen1 x1		PCIe Gen1 x1		PCIe Gen2 x2	PCIe Gen2 x2
Max Input Resolution		1920x1080 60fps	1920x1080 60fps		NTSC/PAL		4096x2160 30fps	2048x1080 60fps
Max Record Resolution		1920x1080 60fps	1920x1080 30fps		NTSC/PAL		4096x2160 30fps	1920x1080 60fps
Channel No.		1	1		4		1	2
H/W Encode			●					
Audio Interface		HDMI embedded	HDMI embedded		RL (RCA)		HDMI embedded	SDI embedded
Video Interface	SDI							●
	HDMI	●	●				●	
	DVI		●					
	VGA		●					
	Composite				●			
Color Depth/Precision		8 bit	8 bit				8 / 10 bit	8 bit
Color Format		YUY2, YUYV	YUY2		YUY2		YUY2, YUYV	YUY2, YUYV
Operating Temperature		0°C~50°C	0°C~55°C	-40°C~85°C	0°C~55°C	-40°C~85°C	0°C~40°C	-20°C~70°C
Dimensions (LxW) mm		50.95x30	50.95x30		50.95x30		22x80	22x80

* All specifications are subject to change without prior notice.

R-R-AVM-EA713-AAMN

MSIP Class A Statement (Korea)
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This equipment has been tested for compliance with the intended use in a commercial environment. If the equipment is used in a domestic environment, it may cause radio interference.
※ 사용자 안내문은 "업무용 방송통신기자재"에만 적용한다.
※ User's Guide applies only to "Commercial Broadcasting Communication Equipment".

RoHS 2 COMPLIANT

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Version 1.5 2020/06/19
Type : Carrier board
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