



## Description

AVerMedia's AVerAI EN713-AAE9-0000 carrier board of NVIDIA® Jetson Nano™ (version B01)/Xavier NX module is designed as an A.I. NVR (Network Video Recorder) for intelligent surveillance system.

This product provides 8-channel PoE (PSE) ports for IP cameras, a SATA port for storage, 1x mPCIe, 2x USB 3.0, 1x microphone-in, 1x speaker-out, 1x RS-485 and 20-pin GPIO expansion header (1x UART, 2x I2C, 5x GPIOs), and 1x HDMI 2.0 out.

Benefiting from the Jetson Nano™ (version B01)/Xavier NX module and Astro SDK, it can simultaneously decode and analyze 8-channel 1080p30 IP camera video inputs.

AVerAI EN713-AAE9-0000 carrier board is designed as an application ready platform for multiple applications to improve the performance, flexibility and time to market. With EN713-AAE9-0000, software developers not only can deploy their deep learning software on this system but also can market their software on this carrier board as a complete solution. This can greatly help simplify the efforts and processes of the system integration in launching their A.I. solution into the market faster.

## Features

- Fully supports NVIDIA® Jetson Nano™ (version B01)/Xavier NX module
- 8x 10/100 MbE with PoE
- 1x GbE, 2x USB 3.0, 1x 4Kp60 HDMI-out
- 20-pin with 1x UART, 2x I2C, 5x GPIO
- 1x RS-485 (3 pins) and 1x Micro-B USB 2.0 for recovery only
- 1x mPCIe (USB 2.0 for LTE module)
- Operating temperature: 0°C~70°C

## 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 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.

## AI Carrier Board

### Specifications

Type	Carrier Board
NVIDIA GPU SoC Module Compatibility	NVIDIA® Jetson Nano™ (version B01)/Xavier NX module
Networking	1x GbE RJ-45 8x 10/100 MbE RJ-45 with PoE (PSE) The first two ports support 802.3 AT 30W and total power budget is 90W
Display Output	1x HDMI 2.0a/b Type-A supports maximum resolution 3840x2160 at 60Hz
Temperature	Operating temperature 0°C~70°C Storage temperature -40°C ~ 85°C Relative humidity 40 °C @ 95%, Non-Condensing
USB	1x USB 2.0 Micro-B for recovery only 2x USB 3.0 Type-A (USB 3.2 Gen1 x 1)
Storage	16GB e.MMC v5.1
GPIO Expansion	1x 3.3V UART, 2x I2C, 5x GPIOs
User Expansion	1x mPCIe (IEEE 802.11a/b/g/n/ac dual-band 2x2 MIMO (Optional) (Host Interface: USB 2.0)
RS-485	1x RS-485 Pluggable Terminal Block (3 pins)
SATA Rev. 3.1	1x SATA Rev. 3.1
Audio	1x Mic-in, 1x Speaker-out
Input Power	54V/2.78A
Buttons	Power and Recovery (Each button has a RGB tri-color LED)
RTC Battery	Support RTC battery and Battery Life Monitoring by MCU
Dimension/ Weight	W: 170mm x L: 170mm x H: 41.0mm (6.69" x 6.69" x 1.61") Weight:235.8g
Certifications	CE, FCC

\* All specifications are subject to change without prior notice.

