

**AVerMedia**



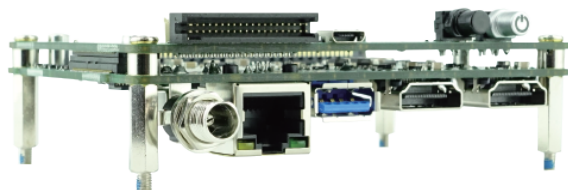
**PREFERRED  
SOLUTION  
PROVIDER**

# AVerAI EX731-AA00 Carrier Board

EX731-AA00-0000 carrier board provides 1x USB 3.0, 1x GbE, and 1x HDMI-out

It fully supports NVIDIA® Jetson™ TX1/TX2 modules

## Description



AVerMedia's EX731-AA00-0000 carrier board for NVIDIA® Jetson™ TX1/TX2 modules is designed for use in Smart Surveillance. This product provides a stackable compact design by following Pico-ITX dimension (100mm x 72mm, 3.9" x 2.8") and support EX731 daughter boards family to provide extra I/O, such as 4x USB3.1 Gen1, 4x Gigabit Ethernet RJ-45, 2x USB3.1 Gen1 + 2x Gigabit Ethernet RJ-45, 2x M.2 Key B+M slots, or 2x Mini-PCIe slots.

The AVerMedia's EX731-AA00-0000 design includes 1x HDMI-out (TX2 support 2x HDMI-out), 1x USB 3.0, 1x Gigabit Ethernet RJ-45, 1x USB OTG, 1x micro SD card slot, and 40 pins of GPIO expansion with 1x 3.3V UART, 1x I2C and 7x GPIOs.

This carrier is able to equip a customized chassis with active cooling system. It is one of the best compact Application Ready Platform by supporting NVIDIA® Jetson™ TX1/TX2 modules for you to capture dual 4Kp30 video inputs and run your edge computing algorithms for high-end video analysis application markets.

## Features

- Fully support NVIDIA® Jetson™ TX1/TX2 modules
- Compact PCB dimension: Pico-ITX, 100 mm x 72mm (3.9" x 2.8")
- 1x USB3.0 and 1x Gigabit Ethernet RJ-45
- 2x HDMI-out (TX1 supports 1x HDMI-out only)

## 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.

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## Specifications

Type	Carrier Board
NVIDIA GPU SoC Module Compatibility	NVIDIA® Jetson™ TX1/TX2 modules
Networking	1x GbE (RJ-45)
Display Output	TX1: 1x HDMI Type A, 4096 x 2160 at 60Hz TX2: 2x HDMI Type A, 3840 x 2160 at 60Hz
Temperature	Operating temperature -20°C ~ 70°C Storage temperature -40°C ~ 85°C Relative humidity 40 °C @ 95%, non-condensing
USB	1x external USB3.0 Type A (USB 3.2 Gen1x 1 )
Storage	1x micro-SD card
GPIO Expansion	1x 3.3V UART, 1x I2C, 7x GPIOs
Input Power	12V/5A
Buttons	Power and Recovery (each button has a RGB tri-color LED)
RTC Battery	Support RTC battery and Battery Life Monitoring by MCU
PCB/Electronics Mechanical Info	Pico-ITX , 100mm x 72mm (3.9" x 2.8") Weight: 149g
Certifications	CE, FCC,MSIP

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

## Optional

\* Daughter board needed for more functions.

CAN Bus	Yes
RS-485	Yes



### MSIP Class A Statement (Korea)

사용자안내문

이 기기는 업무용 환경에 사용될 목적으로 적합성평가를 받은 기기로서 가정용 환경에 사용하는 경우 전파간섭의 우려가 있습니다.

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".



## Assured Systems

Assured Systems is a leading technology company with over 1,500 regular clients in 80 countries, deploying over 85,000 systems to a diverse customer base in 12 years of business. We offer high-quality and innovative rugged computing, display, networking and data collection solutions to the embedded, industrial, and digital-out-of-home market sectors.

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