AVerMedia

NVIDIA PREFERRED SOLUTION PROVIDER

AVerAI EX713-AAM2

Carrier for NVIDIA® Jetson™ TX2/TX1



Description

AVerMedia's EX713-AAM2 Carrier for NVIDIA® Jetson™ TX1/TX2 is designed for using in Intelligent Video Analysis. This product provides dual ports of mPCIe Gen2 x1 to support AVerMedia's Mini-PCIe capture cards, such as C353 for 1080p60 HDMI/VGA input, CM313B for 1080p60 3G-SDI input, and C351 for 4-channels SD composite inputs. These two mPCIe slots also support mPCIe Ethernet and EtherCAT cards for industrial motion control applications.

The AVerMedia's EX713-AAM2 design includes 2x HDMI-out, 2x external USB 3.0, 2x internal USB 3.0, 1x Gigabit Ethernet RJ-45, 1x USB OTG, 1x SD card slot, 1x SATA, 2x mPCIe, and 40 pins of GPIO expansion with 1x 3.3V UART, 1x SPI, 1x I2S, 1x I2C, and 7x GPIOs.

This carrier follows Mini-ITX dimension (170mm x 170mm, 6.7" x 6.7") to support Mini-ITX chassis and 1U server chassis. It is one of the best Application Ready Platform by supporting NVIDIA® Jetson™ TX1/TX2 for you to run the edge computing algorithm and start developing your potential market.

Features

- Support NVIDIA® Jetson™ TX2/TX1
- PCB dimension: Mini-ITX, 170 mm x 170 mm (6.7" x 6.7")
- 2x full-height mPCIe slots (TX2 only supports 1x mPCIe)
- 2x HDMI-out (TX2 only supports 1x HDMI-out)
- Battery power for uninterrupted power system
- Support AVerMedia's mPCIe capture cards for HDMI/VGA/SDI/Composite signal

Embedded Vision Solutions for NVIDIA Jetson

AVerMedia offers 5 categories of Embedded Vision Solutions for deep learning application on the edge devices, with the support of battery power and HDMI/VGA/3G-SDI/Composite video sources and the direct technical support for developers.

- Standard and customized TK1 modules and carrier boards
- Standard and customized TX1/TX2/TX2i/AGX Xavier/Nano carrier boards
- Standard and customized TK1 single boards
- Standard and customized TK1 and TX1/TX2/TX2i/AGX Xavier/Nano application-ready systems
- Software design service of Linux BSP, driver, OpenCV, VisionWorks, and cuDNN.

Why AVerMedia

- Innovative, patented passive cooling thermal designs for No-Air-Flow environment: AVerCooler, WaveFin, and Surfax.
- Full customization ability with our in-house HW and SW development teams.
- Timely support from NVIDIA® as we are a NVIDIA® Jetson Preferred Partner.
- Stable supply as we are a financially sound company.

AVerAI EX713-AAM2

Carrier for NVIDIA® Jetson™ TX2/TX1

Specifications

Type	Carrier Board
NVIDIA GPU SoC Module Compatibility	NVIDIA® NVIDIA® Jetson™ TX2/TX1
Networking	1x GbE (RJ-45)
Display Output	2x HDMI type A, maximum resolution: 4096 x 2160 at 60Hz (TX2 only supports 1x HDMI-out)
Temperature	Operating Temperature 0°C ~ 55°C Storage Temperature -40°C ~ 85°C Relative Humidity 40 °C @ 95%, Non-Condensing
USB	2x external USB3.0 Type A (USB3.2 Gen1x 1) 2x internal USB3.0 (USB3.2 Gen1x 1)
Storage	1x SATA 3Gb/s and SATA Power, 1x SD card
GPIO Expansion	40 pins: 1x 3.3V UART, 1x I2C, 1x I2S, 1x SPI, and 7x GPIOs
User Expansion	2x full-height mPCIe (TX2 only supports 1x mPCIe)
Input Power	12V/5A
Buttons	Power, Reset, Recovery, and Sleep buttons
PCB/Electronics Mechanical Info	Mini-ITX , 170mm x 170mm (6.7" x 6.7") Weight: 200.8g
Certifications	CE, FCC

Compatible Cards







Model Name		CM311-H	C353	C353W	C351	C351W
Host Interface		PCIe Gen2 x1	PCIe Gen1 x1		PCIe Gen1 x1	
Max Input Resolution		1920x1080 60fps	1920x1080 60fps		NTSC/PAL	
Max Record Resolution		1920x1080 60fps	1920x1080 30fps		NTSC/PAL	
Channel No.		1	1		4	
H/W Encode			●			
Audio Interface		HDMI embedded	HDMI embedded		RL (RCA)	
Video Interface	SDI					
	HDMI	●	●			
	DVI		●			
	VGA		●			
	Composite				●	
Color Depth/Precision		8 bit	8 bit			
Color Format		IYU2, YUY2, UYVY, UYVY RGB565, RGB555, RGB24	YUY2,YV12 RGB24		YUY2	
Operating Temperature		0°C~50°C	0°C~55°C	-40°C~85°C	0°C~55°C	-40°C~85°C
Dimensions (LxW) mm		50.95x30	50.95x30		50.95x30	

* All specifications are subject to change without prior notice.

RoHS 2 COMPLIANT

AVerMedia

©2019 by AVerMedia Technologies, Inc. All rights reserved.
No part of this document may be reproduced or transmitted in any form, or by any means (Electronic, mechanical, photocopy, recording, or otherwise) without prior written permission of AVerMedia Technologies. Information in this document is subject to change without notice. Made in Taiwan
Version 1.1 2019/07/24