AVerMedia

Tegra PC (EX731-AA)
Embedded Vision Solutions based on NVIDIA Jetson TX1/TX2

Features

- Operate with NVIDIA Tegra X1/X2 module

- 2 HDMI outputs
- 1 USB 3.0
- 1 RJ45 for Giga Ethernet

- Compact design with Pico-ITX (100 mm x 72mm)

- Extension daughter board has
    - 2 M.2 B+M
    - RS485
    - Audio Mic in

- TX2 support CAN Bus

- Suitable for applications of robotics, UAV, UGV, AOI, medical image, and other video-enabled equipment for automation, AI, and deep learning
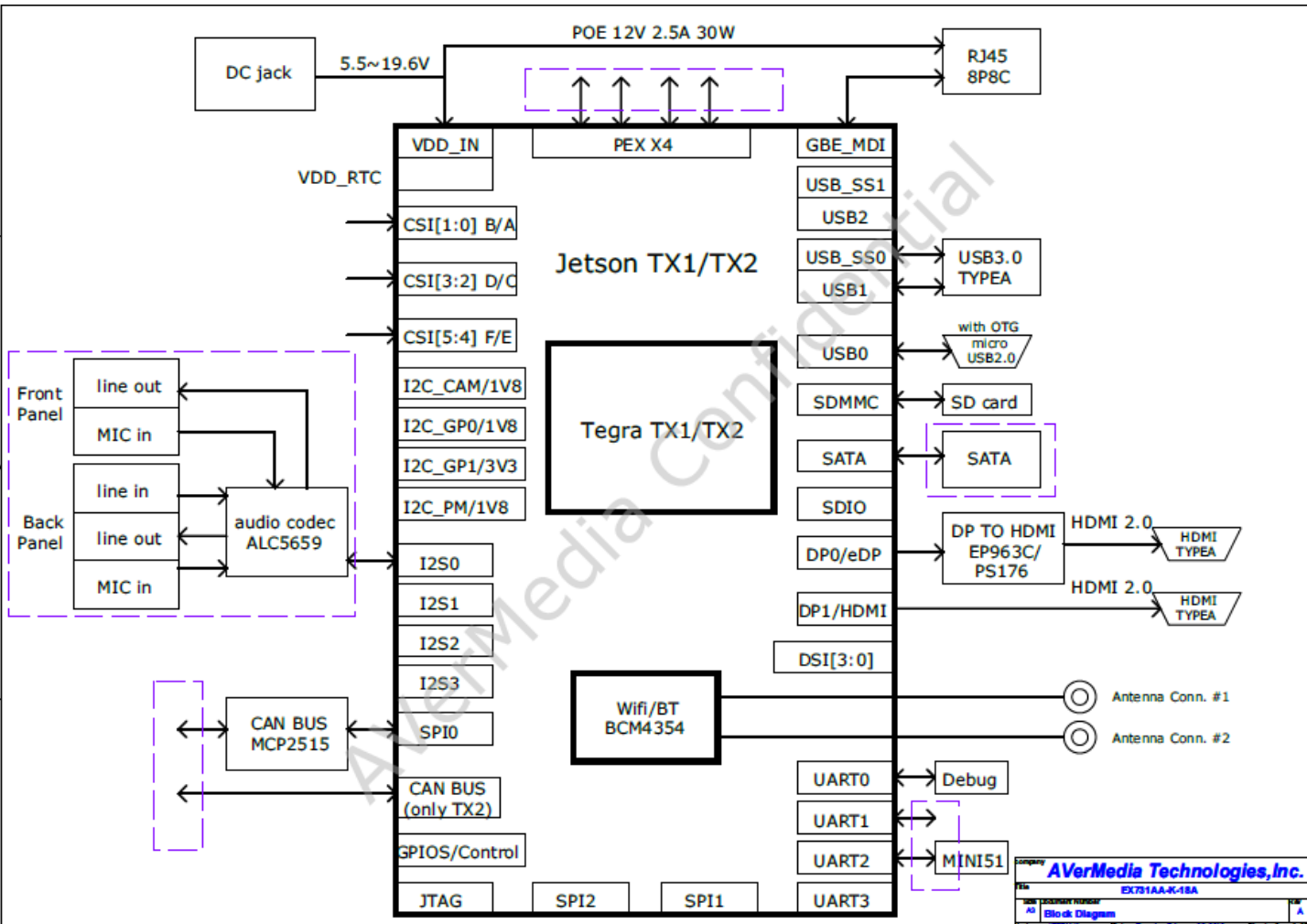
Specifications

Support Module	NVIDIA Tegra X1/X2 Module
Video Interface	1x HDMI Out Type A, 4096 x 2160 p60
Storage	1x micro SD card
LAN Port	1x RJ-45 for Gigabyte Ethernet
Buttons	Power on/off, Reset, Recovery
USB3.0	1x USB3.0 Type A
Other Interface	1 x UART, 1 x SPI, 1 x I2S, 1x I2C, 7 GPIOs
TX2 only	2nd HDMI Out Type A, 4096 x 2160 p60
Power Supply	+12VDC/5A
Battery Power	Support with power management
Operating Temperature	0°C ~ +55°C (standard version); -10°C ~ +70°C (with fan module)
Operating Humidity	10% ~ 90% (RH)
Storage Temperature	-10°C ~ +85°C
Dimension	Pico-ITX, 100mm x 72mm (3.9" x 2.8")

TX1 and TX2 Comparison

	Jetson TX1	Jetson TX2
GPU	256-core Maxwell	256-core Pascal
CPU	Quad Core ARM Cortex A57	Dual Core NVIDIA Denver 2.0 + Quad Core ARM Cortex A57
Memory	4GB 64-bit LPDDR4, 25.6 GB/s	8GB 128-bit LPDDR4, 58.4 GB/s
Storage	16 GB e.MMC	32GB e.MMC
Wi-Fi	802.11 b/g/n/ac 2x2 MIMO	802.11 b/g/n/ac 2x2 MIMO
Bluetooth	Bluetooth 4.1	Bluetooth 4.1
Ethernet	Gigabit Ethernet	Gigabit Ethernet
HDMI 2.0 a/b	1x	2x
Video Encode	Up to 2160p, 30 fps	Up to 2160p, 60 fps
Video Decode	Up to 2160p, 60 fps	Up to 2160p, 60 fps
Mechanical	50mm x 87mm, 400-pin board to board connector	50mm x 87mm, 400-pin board to board connector

Block Diagram

Perspective View