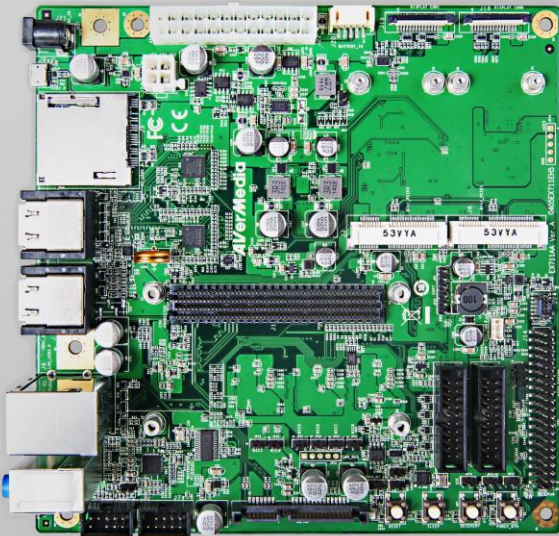


# EX711-AA (Preliminary)

## Tegra TX1 Carrier Board with Multiple Video Sources Support



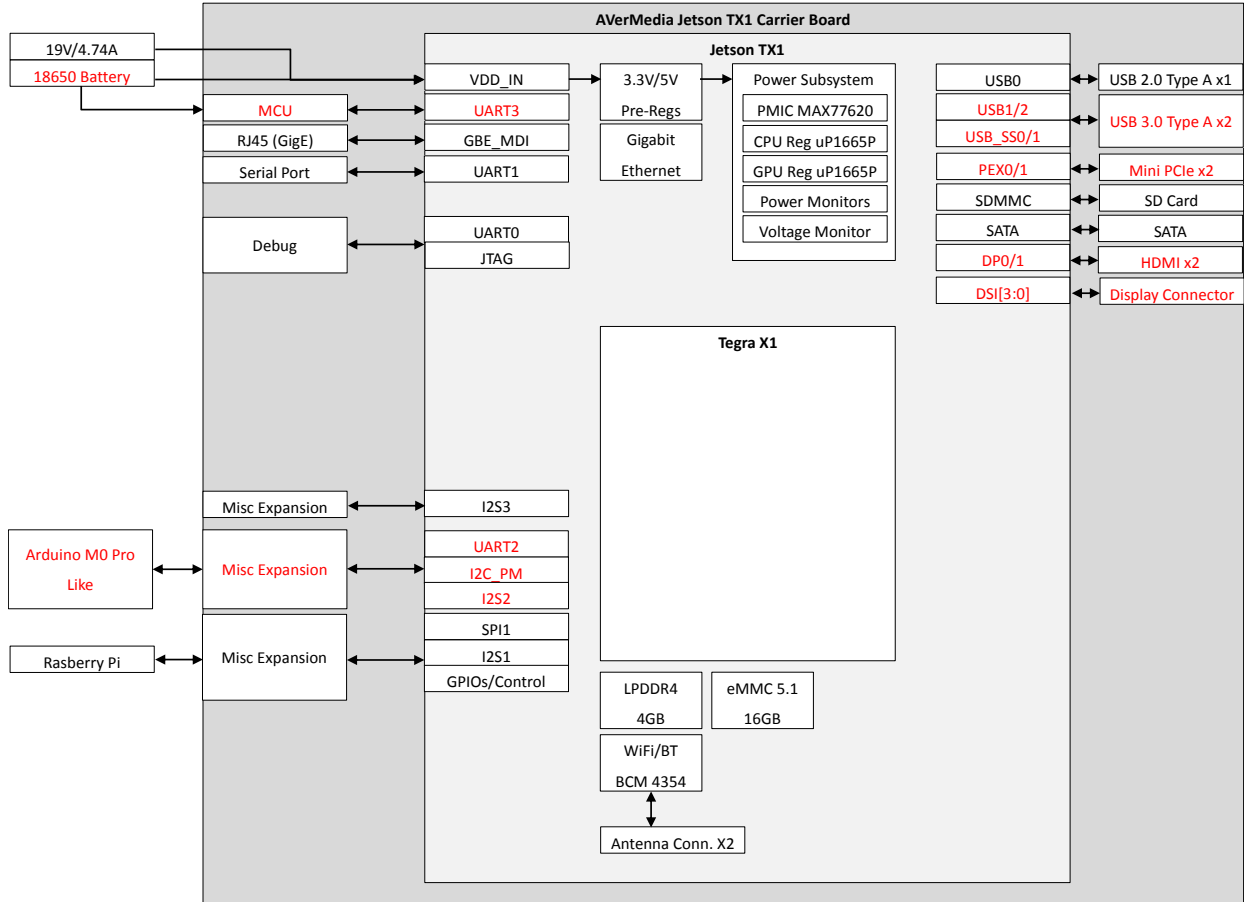
### Features

- Operate with NVIDIA Tegra X1 module to build up a high performance Tegra X1 system
- On-board 2 full-height Mini PCIe slots to provide the expandability of connecting AVerMedia Mini-PCIe frame grabbers C353, CM313B, and C351 for audio/video capturing, encoding, and post processing
- Built-in 2 HDMI to MIPI converters and 2 USB 3.0
- Battery power, I<sup>2</sup>S, Arduino interface, and Raspberry Pi support
- Design with Mini-ITX (170 mm x 170mm) form factors for flexible system configuration
- Suitable for applications of robotics, UAV, UGV, AOI, medical image, and other video-enabled equipment for automation, AI, and deep learning

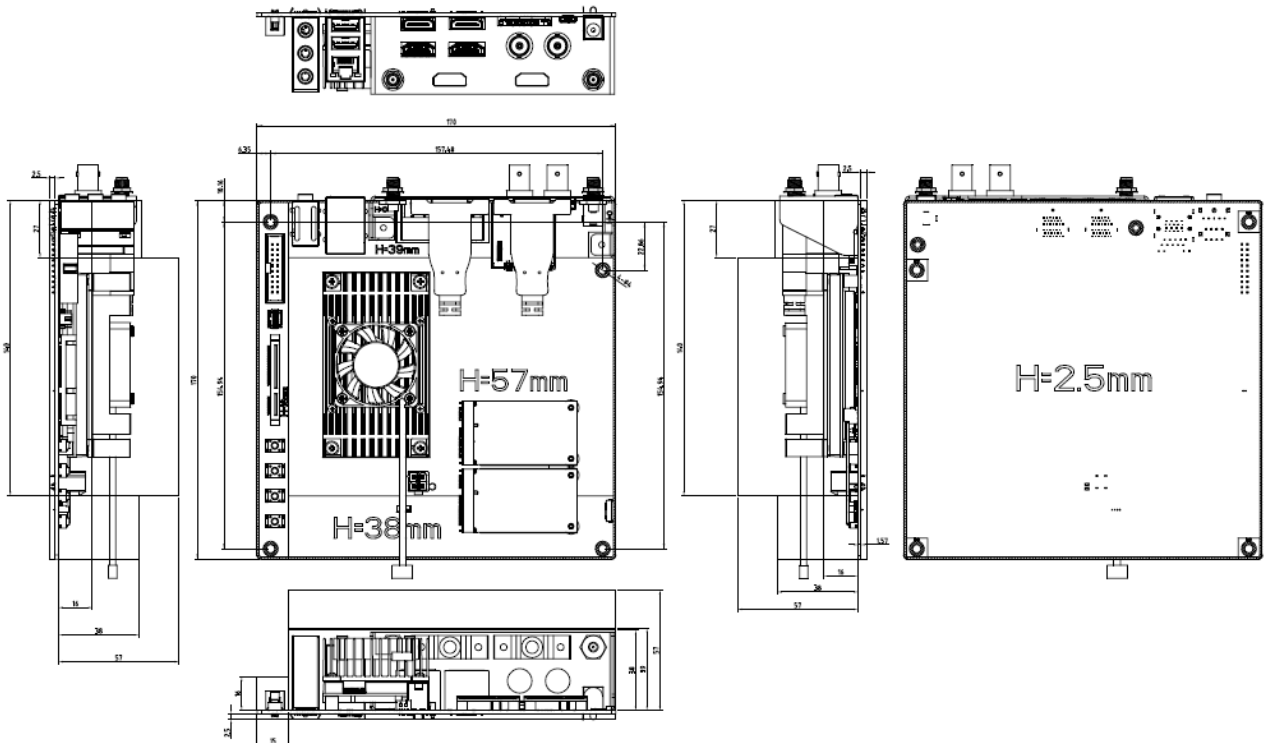
### Specifications

<b>Support Module</b>	NVIDIA Tegra X1 Module
<b>Video Interface</b>	2x HDMI Out Type A, 4096 x 2160 p60
<b>Storage</b>	1x SATA 3Gb/s and SATA Power, 1x SD card
<b>LAN Port</b>	1x RJ-45 for Gigabyte Ethernet
<b>Buttons</b>	Power on/off, Reset, Force Recovery
<b>Multiple PCI Express and USB3.0</b>	2x Full-height Mini-PCI Express and 2x USB3.0 Type A
<b>USB2.0</b>	1x USB2.0 Micro-B
<b>Camera Connection Supported by AVerMedia frame grabber</b>	HDMI, VGA, 3G-SDI, and Composite
<b>Arduino</b>	I2C and SPI
<b>Other Interface</b>	UART 0 (3.3V TTL) - debug port 6 pin (with RTS and CTS) UART 2 (3.3V TTL) - 4 pin 1x SPI (3.3V) - 9 pin (one SPI bus plus two select lines) 1x I2C (3.3V) - 4 pin 1x 4-pin FAN connector JTAG header - 9 pin extra 40 pin connector
<b>Power Supply</b>	+12VDC/5A
<b>Battery Power</b>	Support with power management
<b>Operating Temperature</b>	0°C ~ +55°C (standard version)
<b>Operating Humidity</b>	10% ~ 90% (RH)
<b>Storage Temperature</b>	-25°C ~ +105°C
<b>Dimension</b>	Mini-ITX, 170mm x 170mm

## Block Diagram



## Dimensions



## Perspective View

