NX215B/TN115B/NO115B Box PC
NVIDIA® Jetson Xavier™ NX/ TX2 NX/ NANO module

For Smart Retail, Smart Security and Smart City Applications

Overview

AVerMedia’s AI Box PC NX215B/TN115B/ NO115B equip powerful NVIDIA® Jetson Xavier™ NX/TX2 NX/NANO modules. This efficient system-on-module (SoM) opens new worlds of embedded IoT applications with full analytic capabilities.

NX215B/ TN115B/ NO115B are designed for the industry applications with spatial concern and feature a rich assortment of I/O ports for rapid AI-based solution development and seamless deployment as required by demanding business applications.

AVerMedia supports businesses of all sizes and offers customizable BSP services, flexible MoQ, in addition to NVIDIA’s JetPack™ SDK.

Enterprise-Leading Features

- Embedded NVIDIA® Jetson Xavier™ NX/ TX2 NX/NANO module
- 2 x 2 Lane MIPI CSI-2 MIPI Camera input (internal)
- 1 x 4 Lane MIPI CSI-2 MIPI Camera Input (internal)
- 2 x M.2. for WiFi, SSD and Capture card
- 2 x GbE RJ-45, 20-pins expansion header
- 3 x USB 3.0 (1xinternal), 2 x 4Kp60 HDMI outputs
- 1 x micro-SD card slot
- Dimension: W: 126mm x L: 96mm x H: 74mm

The AVerMedia Advantage

Video Processing Technology

AVerMedia understands that each business has a unique set of requirements that requires professional expertise and support. With AVerMedia, you are guaranteed to work with a proven global leader in video processing technology (200+ video capturing & streaming patents) with decades of experience processing multiple video signals for countless award-winning products.

Flexibility & Reliability

A global leader that supports businesses of all sizes with comprehensive customization services (i.e., HW/PCB/BSP/etc.), flexible MoQ while ensuring a high-quality design and stable product. And for projects requiring additional security, we can provide customizable encryption hardware to support your privacy needs.

Dedicated After-Sales Support

By partnering with us, a dedicated NVIDIA® ELITE Partner, our support-driven team offers prompt after-sales support so that your company stays focused on what matters most, customer acquisition.
### Application

Powered by NVIDIA’s Jetson SoM, this power efficient SoM enables AI calculations and predictions on the edge of the network for applications such as driver safety and cost efficiency relationships. An expansive amount of interface options are available supporting AHD, IP, MIPI, etc., and is suitable for multiple scenarios requiring camera flexibility. And for various locations of installment the fanless design combined with optimized thermal chassis ensures full loading through a large temperature range.

### AVerMedia Ecosystem

We provide a rich ecosystem of partners to support your growth with the ability to help search for new business partners for your unique project. Our verified partner ecosystem maintains the highest level of experience and professionalism, while offering hardware, software and strategic services. No matter the size or level of experience, if you are looking to accelerate your growth, we have the resources to make it happen.

### Expandability

In addition to the default selection of interfaces, frame grabbers can be added for expanded functionality.

<table>
<thead>
<tr>
<th>Model</th>
<th>Host Interface</th>
<th>Video Interface</th>
<th>Max Input Resolution</th>
</tr>
</thead>
<tbody>
<tr>
<td>CN312MW</td>
<td>M.2 M key 2280</td>
<td>1x SDI; 1x HDMI</td>
<td>2Kp60 in (SDI) 1920 x 1200 p60 in (HDMI) 1080p out</td>
</tr>
<tr>
<td>CN312SW</td>
<td>M.2 M key 2280</td>
<td>2x SDI</td>
<td>2Kp60 in - 1080p out</td>
</tr>
</tbody>
</table>

### Interface Diagram

**Front left**
- 1x USB 2.0 Micro-B
- 1x micro-SD card slot
- DC IN
- 2 x GbE RJ-45
- 2 x USB 3.0
- 2 x HDMI
- Power Button (Recovery)

**Front right**
- 2 x I2C
- 1 x UART
- 4 x GPIOs
- 1 x CAN
- DCIN ATX 4pin 12-24V
NX215B/TN115B/NO115B Box PC

NVIDIA® Jetson Xavier™ NX/ TX2 NX/ NANO module

### Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>NX215B</th>
<th>TN115B</th>
<th>NO115B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>Box PC</td>
<td>Box PC</td>
<td>Box PC</td>
</tr>
<tr>
<td>NVIDIA GPU SoC Module Compatibility</td>
<td>NVIDIA® Jetson Xavier™ NX module</td>
<td>NVIDIA® Jetson TX2 NX module</td>
<td>NVIDIA® Jetson NANO module</td>
</tr>
<tr>
<td>Networking</td>
<td>2x GbE RJ-45</td>
<td>1xM.2. key E 2230 for wifi</td>
<td>2x GbE RJ-45</td>
</tr>
<tr>
<td>Display Output</td>
<td>2x HDMI 2.0 (3840 x 2160 at 60Hz)</td>
<td>1x HDMI 2.0 (3840 x 2160 at 60Hz)</td>
<td></td>
</tr>
<tr>
<td>Temperature</td>
<td>Operating temperature (based on module and usage)</td>
<td>Storage temperature -40°C ~ 85°C</td>
<td>Relative humidity 40 °C @ 95%, Non-Condensing</td>
</tr>
<tr>
<td>MIPI Camera Inputs (Internal)</td>
<td>2x 2 lane MIPI CSI-2, 15 pin FPC 1mm Pitch Connector</td>
<td>1x 4 lane MIPI CSI-2, 36 pin FPC 0.5mm Pitch Connector</td>
<td></td>
</tr>
<tr>
<td>USB</td>
<td>1x USB 2.0 Micro-B for recovery</td>
<td>3x USB 3.0 Type-A (2 x in the Front ; 1 x inside the Box PC)</td>
<td></td>
</tr>
<tr>
<td>Storage</td>
<td>1x micro-SD card slot</td>
<td></td>
<td>1x M.2. key M 2280 for NVMe or Capture card</td>
</tr>
<tr>
<td>Expansion Header</td>
<td>20 pins: 2x I2C, 1x UART, 4x GPIOs, 1xCAN (EU terminal block)</td>
<td></td>
<td>20 pins: 2x I2C, 1x UART, 4x GPIOs(EU terminal block)</td>
</tr>
<tr>
<td>Input Power</td>
<td>DC in JACK on board &amp; ATX 4pin</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power Cord</td>
<td>12V/5A, 12V~24V is recommended.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fan Module</td>
<td>Fanless solution</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Buttons</td>
<td>Power and Recovery</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RTC Battery</td>
<td>Support RTC battery and Battery Life Monitoring by MCU</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PCB/Electronics Mechanical Info</td>
<td>W: 126mm (W) x 96mm (L) x 74mm (H)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weight: 1kg</td>
<td></td>
<td></td>
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<tr>
<td>Certifications</td>
<td>CE, FCC, KC</td>
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</tbody>
</table>

### Optional Accessories

**MIPI Camera**

For 15 pin MIPI connector:

1. raspberry pi camera v2
2. Manufacturer: APPRO.PHO
   - B-04: IMX179 (8M) MIPI, 1080P (30fps)
   - C-04: IMX290 (2M) MIPI, 1080P (30fps)
   - C-05: IMX290 (2M) +ISP (YUV), 1080P (30fps)

For 36 pin MIPI connector:

1. Manufacturer: APPRO.PHO
   - B-03: IMX334 (4K) MIPI, 4K (30fps)
   - A-06: IMX334 (4K) V-by-One® HS x1, 4K (30fps)

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