

# AIR6N0-C-MB NX 4×TVI

YUAN

## Card Size AI Edge with Multi AIoT Expansion

### Features

- Powered by NVIDIA® Jetson Orin™ NX Super up to 157 / 117 TOPS
- Business Card Size
- 4×TVI In
- 2×M.2, Gen 4×2 M Key / Gen 4×1 E Key
- 1×USB3.2 Gen2
- 1×Mini DisplayPort



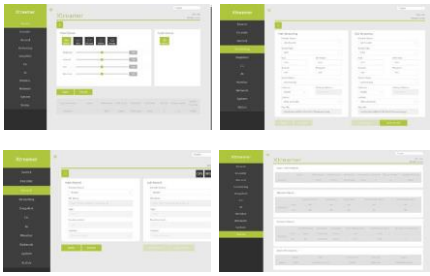
### Specifications

| System                   |  |  |   |  |
|--------------------------|--|--|---|--|
| SOM                      | NVIDIA Jetson Orin™ NX<br>16GB Super   | NVIDIA Jetson Orin™ NX<br>8GB Super                            | NVIDIA Jetson Orin™ Nano<br>8GB Super                               | NVIDIA Jetson Orin™ Nano<br>4GB Super                              |
| CPU                      | 8-Core Arm® Cortex®-A78AE v8.2<br>64-Bit CPU 2MB L2 + 4MB L3   | 6-Core Arm® Cortex®-A78AE v8.2<br>64-Bit CPU 1.5MB L2 + 4MB L3 | 6-Core Arm® Cortex®-A78AE v8.2 64-Bit CPU 1.5MB L2 + 4MB L3         |  |
| GPU                      | 1024-Core NVIDIA Ampere Architecture GPU with 32 Tensor Cores  |  | 1024-core NVIDIA Ampere<br>Architecture GPU<br>with 32 Tensor Cores | 512-core NVIDIA Ampere<br>Architecture GPU<br>with 16 Tensor Cores |
| AI Performance           | 157 TOPS   | 117 TOPS   | 67 TOPS   | 34 TOPS  |
| System Memory            | 16GB 128-bit LPDDR5<br>102.4GB/s   | 8GB 128-bit LPDDR5<br>102.4GB/s                                | 8GB 128-bit LPDDR5<br>102 GB/s                                      | 4GB 64-bit LPDDR5<br>51 GB/s                                       |
| Interface                |  |  |   |  |
| Storage                  | Supports External NVMe<br>1×Micro SD Card Slot   |  |   |  |
| Display Interface        | 1×Mini DP1.4   |  |   |  |
| Ethernet                 | 1×RJ45 for 10/100/1000Mbps Ethernet ( DHCP Client )  |  |   |  |
| Expansion Slot           | 1×M.2 2230 M Key PCIe Gen4×2 Slot ( Nano: Gen3×2 )<br>1×M.2 2230 E Key PCIe Gen4×1 Slot ( Nano: Gen3×1 )   |  |   |  |
| USB                      | 1×USB3.2 Gen2 ( Type-C )   |  |   |  |
| MIPI                     | 8 MIPI CSI-2 Lanes ( D-PHY 2.1, Support MIPI Camera, Capture Card )  |  |   |  |
| Peripheral Communication | 10 Pin Header<br>1×USB2.0<br>4×GPIO<br>1×I2C<br><br>6 Pin Wafer<br>1×UART (*)<br><br>4 Pin Header<br>5V / 3A<br><br>8 Pin Phoenix Connector<br>1×GPIO<br>1×RS232 (*)<br>1×I2C<br><br>2×6 Pin Header<br>3×GPIO<br>1×RS485<br>1×I2C<br><br>* Please select either RS232 of 8 Pin Phoenix Connector or UART of 6 Pin Wafer to use |  |   |  |
| Misc. Features           | Firmware Upgradable  |  |   |  |
| Development Environment  |  |  |   |  |
| JetPack                  | 6.2 or Higher  |  |   |  |
| Environment              |  |  |   |  |
| Power Supply             | DC input : 12~36V  |  |   |  |
| Power Consumption        | TBA  |  |   |  |
| Operating Temperature    | 0~60 `C with Airflow   |  |   |  |
| Storage Temperature      | -20~80 `C  |  |   |  |
| Certification            | CE, FCC  |  |   |  |

## Key Points

| Video Feature |       |
|---------------|-------|
| Input         | 4xTVI |

## SDK / Software

| Video Feature       |  |                                     |   |                                       |
|---------------------|--|-------------------------------------|---|---------------------------------------|
| SOM                 | NVIDIA Jetson Orin™ NX<br>16GB Super   | NVIDIA Jetson Orin™ NX<br>8GB Super | NVIDIA Jetson Orin™ Nano<br>8GB Super   | NVIDIA Jetson Orin™ Nano<br>4GB Super |
| Video Encode        | AV1 ( UHP )<br>1x4K60   3x4K30   6x1080p60   12x1080p30  |                                     | 1080p30 supported by 1-2 CPU cores  |                                       |
|                     | H.265 ( UHP )<br>1x4K60   3x4K30   6x1080p60   12x1080p30  |                                     |   |                                       |
|                     | H.264 ( UHP )<br>1x4K60   2x4K30   5x1080p60   11x1080p30  |                                     |   |                                       |
| Video Decode        | AV1 ( Main Profile )<br>1x8K30   2x4K60   4x4K30   10x1080p60   20x1080p30   |                                     | AV1 ( Main Profile )<br>1x4K60   2x4K30   5x1080p60   10x1080p30                      |                                       |
|                     | H.265 ( Main, Main10 )<br>1x8K30   2x4K60   4x4K30   9x1080p60   18x1080p30  |                                     | H.265 ( Main, Main10 )<br>1x4K60   2x4K30   5x1080p60   11x1080p30                    |                                       |
|                     | H.264 ( Baseline, Main, High )<br>1x4K60   2x4K30   5x1080p60   11x1080p30   |                                     | H.264 ( Baseline, Main, High )<br>1x4K30   3x1080p60   7x1080p30                      |                                       |
|                     | VP9 ( Profile 0, Profile 2 )<br>1x4K60   3x4K30   7x1080p60   15x1080p30   |                                     | VP9 ( Profile 0, Profile 2 )<br>1x4K60   2x4K30   5x1080p60   10x1080p30              |                                       |
| SDK                 |  |                                     |   |                                       |
| QCAP                | Capture<br>High Performance Renderer<br>Image Snapshot<br>De-interlace, Alpha Blending Engine<br>Auto Signal Detection<br>2D/3D Video, Audio and VANC Streams Capture  |                                     |   |                                       |
|                     | Record<br>Encrypt / Sync / Clone / Recording<br>Time-Shifting / Rewind / Pre-Event / Recording<br>Multi-Streams ( 3D ) Recording<br>Animation Transition Effect<br>Video Cropping, Scaling and Alpha Blending Engine   |                                     |   |                                       |
|                     | Stream<br>2D/3D Universal Stream Client<br>2D/3D Multi-Streams Stream Server<br>RTSP, RTMP, HLS, SRT, TS, WebRTC. NDI-HX (*), Full NDI (*)<br>Animation Transition Effect<br>Video Cropping, Scaling and Alpha Blending Engine<br>*Separate License Required               |                                     |   |                                       |
| QDEEP               | AI SDK Integrated Multiple Algorithms and Deep-Learning Models in Various Fields of Applications<br>Face Recognition<br>Objects Detection<br>Objects Segment<br>Optical Character Recognition<br>License Plate Recognition<br>Customizable Video AI Functions Upon Request |                                     |   |                                       |
| Software (Optional) |  |                                     |   |                                       |
| Xtreamer            | Web Based User Interface   |                                     |  |                                       |
|                     | Encode / Decode<br>AV1, H.26X  |                                     |   |                                       |
|                     | Color Format Adjust<br>444 / 422 / 420, 10Bit / 8Bit Select  |                                     |   |                                       |
|                     | Record<br>MP4, TS  |                                     |   |                                       |
|                     | Stream / Network<br>RTSP, RTMP, HLS, SRT, TS, WebRTC. NDI-HX (*), Full NDI (*)<br>*Separate License Required   |                                     |   |                                       |

| Software (Optional) |   |
|---------------------|---|
| SCP                 | Capture<br>Auto Signal Detection<br>Deinterlace, OSD, Color Adjustment<br>Image Snapshot<br>Animation Transform Effect for PGM    |
|                     | Record<br>AV1, H.26X<br>MP4, TS<br>Multi-Stream Recording<br>Schedule Recording   |
|                     | Stream<br>Multi-Streams Stream Server<br>RTSP, RTMP, HLS, SRT, TS, WebRTC, Full NDI (*), NDI-HX(*)<br>* Separate License Required |



## Mechanical

- Dimension: 90mm × 55mm
- Weight: 181g ( With SOM and Fan )

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