# 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
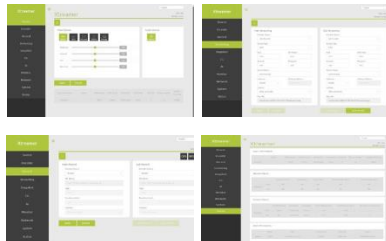- 1×USB3.2 Gen2
- 1×Mini DisplayPort

NVIDIA Partner

### Specifications

| System | | | | |
|---|---|---|---|---|
| SOM | NVIDIA Jetson Orin™ NX 16GB Super | NVIDIA Jetson Orin™ NX 8GB Super | NVIDIA Jetson Orin™ Nano 8GB Super | NVIDIA Jetson Orin™ Nano 4GB Super |
| CPU | 8-Core Arm® Cortex®-A78AE v8.2 64-Bit CPU 2MB L2 + 4MB L3 | 6-Core Arm® Cortex®-A78AE v8.2 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 Architecture GPU with 32 Tensor Cores | 512-core NVIDIA Ampere Architecture GPU with 16 Tensor Cores |
| AI Performance | 157 TOPS | 117 TOPS | 67 TOPS | 34 TOPS |
| System Memory | 16GB 128-bit LPDDR5 102.4GB/s | 8GB 128-bit LPDDR5 102.4GB/s | 8GB 128-bit LPDDR5 102 GB/s | 4GB 64-bit LPDDR5 51 GB/s |
| **Interface** | | | | |
| Storage | Supports External NVMe 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 ) 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 1×USB2.0 4×GPIO 1×I2C

6 Pin Wafer 1×UART (*)

4 Pin Header 5V / 3A

8 Pin Phoenix Connector 1×GPIO 1×RS232 (*) 1×I2C

2×6 Pin Header 3×GPIO 1×RS485 1×I2C

* 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 | 4×TVI |

## SDK / Software

| Video Feature | | | | |
|---|---|---|---|---|
| SOM | NVIDIA Jetson Orin™ NX 16GB Super | NVIDIA Jetson Orin™ NX 8GB Super | NVIDIA Jetson Orin™ Nano 8GB Super | NVIDIA Jetson Orin™ Nano 4GB Super |
| Video Encode | AV1 ( UHP )<br>1×4K60 \| 3×4K30 \| 6×1080p60 \| 12×1080p30<br><br>H.265 ( UHP )<br>1×4K60 \| 3×4K30 \| 6×1080p60 \| 12×1080p30<br><br>H.264 ( UHP )<br>1×4K60 \| 2×4K30 \| 5×1080p60 \| 11×1080p30 | | 1080p30 supported by 1-2 CPU cores | |
| Video Decode | AV1 ( Main Profile )<br>1×8K30 \| 2×4K60 \| 4×4K30 \| 10×1080p60 \| 20×1080p30<br><br>H.265 ( Main, Main10 )<br>1×8K30 \| 2×4K60 \| 4×4K30 \| 9×1080p60 \| 18×1080p30<br><br>H.264 ( Baseline, Main, High )<br>1×4K60 \| 2×4K30 \| 5×1080p60 \| 11×1080p30<br><br>VP9 ( Profile 0, Profile 2 )<br>1×4K60 \| 3×4K30 \| 7×1080p60 \| 15×1080p30 | | AV1 ( Main Profile )<br>1×4K60 \| 2×4K30 \| 5×1080p60 \| 10×1080p30<br><br>H.265 ( Main, Main10 )<br>1×4K60 \| 2×4K30 \| 5×1080p60 \| 11×1080p30<br><br>H.264 ( Baseline, Main, High )<br>1×4K30 \| 3×1080p60 \| 7×1080p30<br><br>VP9 ( Profile 0, Profile 2 )<br>1×4K60 \| 2×4K30 \| 5×1080p60 \| 10×1080p30 | |
| **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<br><br>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<br><br>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<br><br>Encode / Decode<br>  AV1, H.26X<br><br>Color Format Adjust<br>  444 / 422 / 420, 10Bit / 8Bit Select<br><br>Record<br>  MP4, TS<br><br>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<br>Record<br>    AV1, H.26X<br>    MP4, TS<br>    Multi-Stream Recording<br>    Schedule Recording<br>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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