AIR6N0-C-W NX

YUAN

Business Card Size AI Edge Motherboard

Features

- Powered by NVIDIA® Jetson Orin™ NX Super up to 157 / 117 TOPS
- Fanless Design
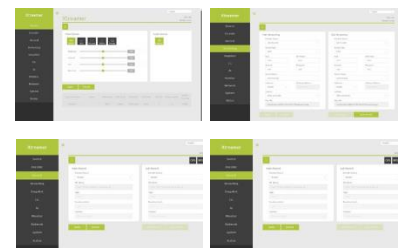- 2×M.2 Gen 4×2 M Key / Gen 4×1 E Key
- 1×USB3.2 Gen2
- 1×Mini DisplayPort

Specifications

System				
SOM	NVIDIA Jetson Orin™ NX 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
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)
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

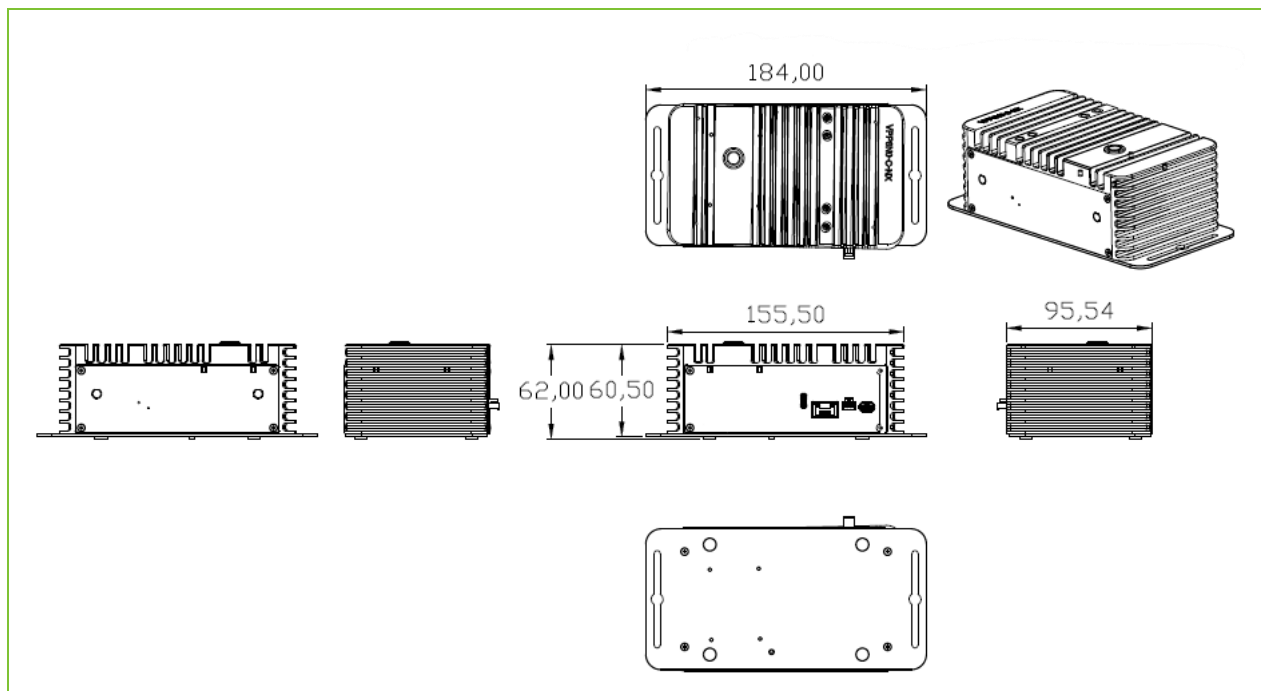### SDK / Software

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) 1×4K60 | 3×4K30 | 6×1080p60 | 12×1080p30 H.265 (UHP) 1×4K60 | 3×4K30 | 6×1080p60 | 12×1080p30 H.264 (UHP) 1×4K60 | 2×4K30 | 5×1080p60 | 11×1080p30		1080p30 supported by 1-2 CPU cores	
Video Decode	AV1 (Main Profile) 1×8K30 | 2×4K60 | 4×4K30 | 10×1080p60 | 20×1080p30 H.265 (Main, Main10) 1×8K30 | 2×4K60 | 4×4K30 | 9×1080p60 | 18×1080p30 H.264 (Baseline, Main, High) 1×4K60 | 2×4K30 | 5×1080p60 | 11×1080p30 VP9 (Profile 0, Profile 2) 1×4K60 | 3×4K30 | 7×1080p60 | 15×1080p30		AV1 (Main Profile) 1×4K60 | 2×4K30 | 5×1080p60 | 10×1080p30 H.265 (Main, Main10) 1×4K60 | 2×4K30 | 5×1080p60 | 11×1080p30 H.264 (Baseline, Main, High) 1×4K30 | 3×1080p60 | 7×1080p30 VP9 (Profile 0, Profile 2) 1×4K60 | 2×4K30 | 5×1080p60 | 10×1080p30	

SDK		

QCAP	Capture
	  High Performance Renderer
	  Image Snapshot
	  De-interlace, Alpha Blending Engine
	  Auto Signal Detection
	  2D/3D Video, Audio and VANC Streams Capture	

	Record
	  Encrypt / Sync / Clone / Recording
	  Time-Shifting / Rewind / Pre-Event / Recording
	  Multi-Streams (3D) Recording
	  Animation Transition Effect
	  Video Cropping, Scaling and Alpha Blending Engine	

	Stream
	  2D/3D Universal Stream Client
	  2D/3D Multi-Streams Stream Server
	  RTSP, RTMP, HLS, SRT, TS, WebRTC. NDI-HX (*), Full NDI (*)
	  Animation Transition Effect
	  Video Cropping, Scaling and Alpha Blending Engine
	  *Separate License Required	

QDEEP	AI SDK Integrated Multiple Algorithms and Deep-Learning Models in Various Fields of Applications
	  Face Recognition
	  Objects Detection
	  Objects Segment
	  Optical Character Recognition
	  License Plate Recognition
	  Customizable Video AI Functions Upon Request	

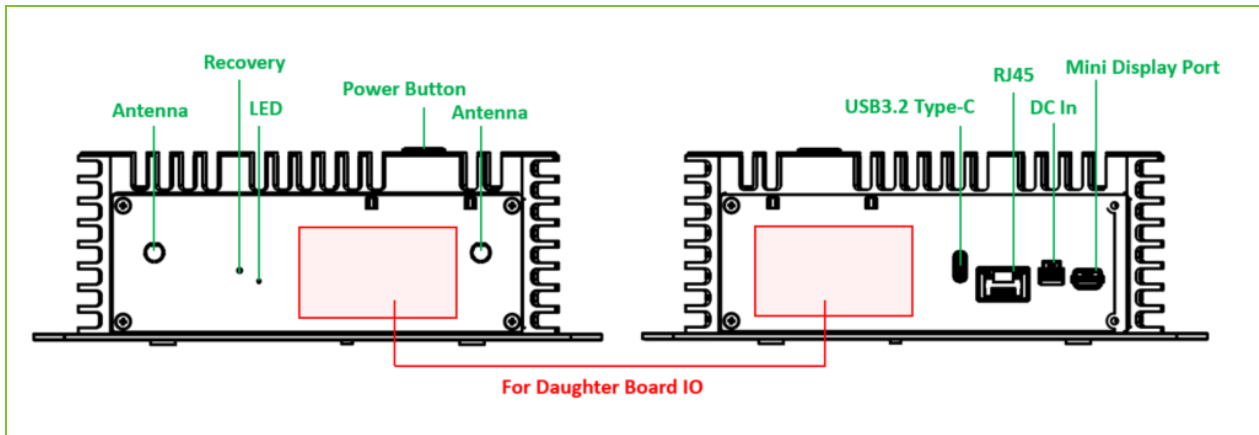| Software (Optional)		
Xtreamer	Web Based User Interface	
	Encode / Decode AV1, H.26X	
	Color Format Adjust 444 / 422 / 420, 10Bit / 8Bit Select	
	Record MP4, TS	

	Stream / Network
	  RTSP, RTMP, HLS, SRT, TS, WebRTC. NDI-HX (*), Full NDI (*)
	  *Separate License Required	

Mechanical

· Dimension: 155mm × 95.5mm × 60.5mm
· Weight: 837g

I/O Layout

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