ASSURED SYSTEMS

AIR6N0-C NX

YUAN

Business Card Size AI Edge Motherboard

Features

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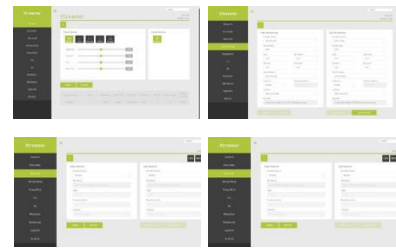- 2×M.2 Gen 4×2 M Key / Gen 4×1 E Key
- 1×USB3.2 Gen2
- 1×Mini DisplayPort

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			
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			

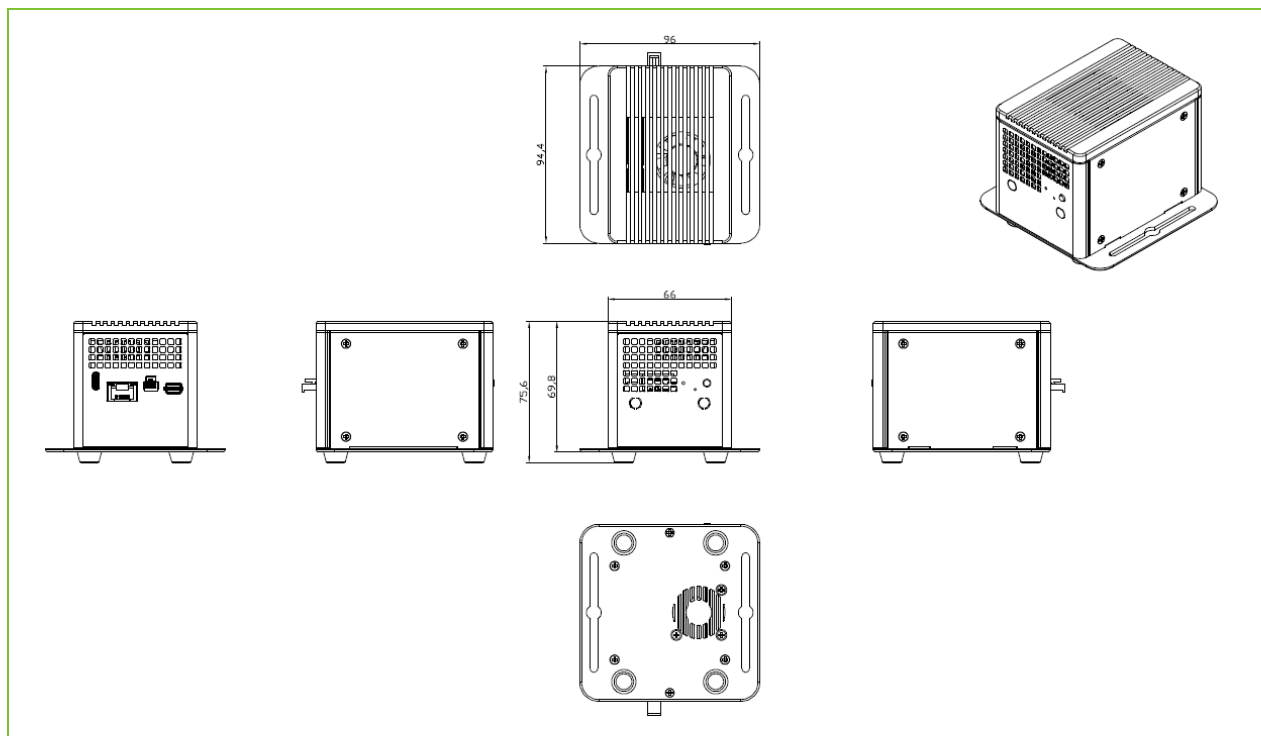## SDK / Software

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	

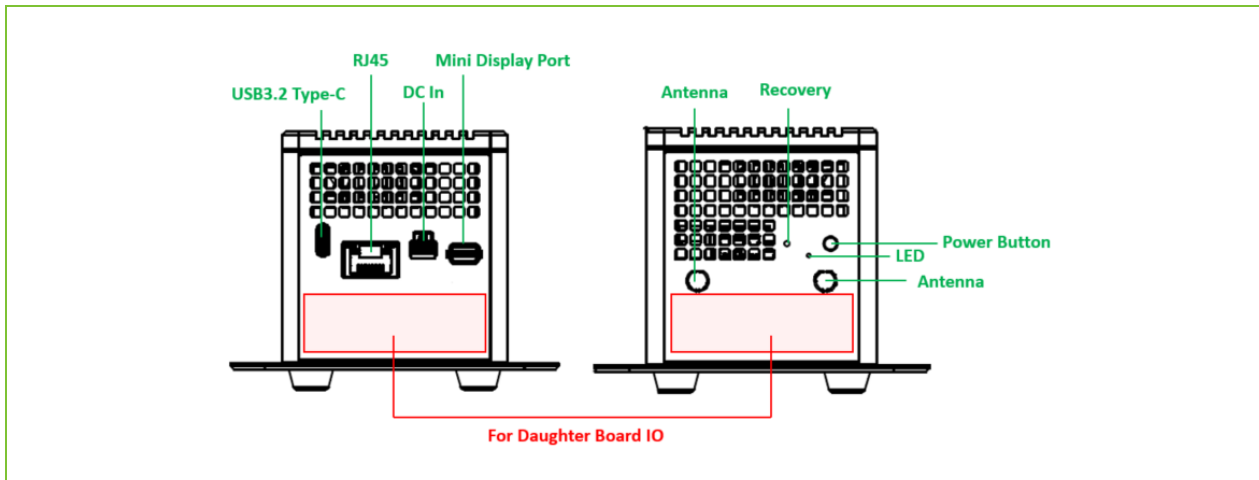| SDK		

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: 94.4 mm × 66 mm × 69.8mm
· Weight: 398g

I/O Layout

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