

VPP6N0-S AGX 5G

Highly Integrated AI Server, Provide 275 TOPS and Expandability

YUAN
Visualize Intelligent Planet

Features

- Powered by NVIDIA® Jetson AGX Orin™ up to 275 TOPS
- 5G & 4K60 with Low Streaming Latency
- 2×PCIe Gen3×4
- 3×M.2 M Key / 1×M.2 E Key
- 2×USB3.2 Gen2
- CAN Bus / UART / I2C / SPI



Specifications

System		
CPU	NVIDIA Jetson AGX Orin™ 32GB 8-core Arm® Cortex®-A78AE v8.2 64-Bit CPU 2MB L2 + 4MB L3	NVIDIA Jetson AGX Orin™ 64GB 12-Core Arm® Cortex®-A78AE v8.2 64-Bit CPU 3MB L2 + 6MB L3
GPU	NVIDIA Jetson AGX Orin™ 32GB 1792-Core NVIDIA Ampere Architecture GPU with 56 Tensor Cores	NVIDIA Jetson AGX Orin™ 64GB 2048-Core NVIDIA Ampere Architecture GPU with 64 Tensor Cores
AI Performance	NVIDIA Jetson AGX Orin™ 32GB 200 TOPS	NVIDIA Jetson AGX Orin™ 64GB 275 TOPS
System Memory	NVIDIA Jetson AGX Orin™ 32GB 32GB LPDDR5	NVIDIA Jetson AGX Orin™ 64GB 64GB LPDDR5
Interface		
Storage	64GB eMMC 5.1 (On NVIDIA Jetson AGX Orin™ Module)	
Display Interface	2×HDMI2.0 1×DP <i>*Select 2 Video Output Port at Same Time</i>	
Ethernet	2×RJ45 for 10/100/1000Mbps Ethernet DHCP Client	
Expansion Slot	PCIe 1×PCIe Gen3×4 Slot(*) 1×PCIe Gen3×4 Slot(**) M.2 1×M.2 2230 E Key PCIe Gen4*1/USB2.0/SDIO Slot 1×M.2 2280 M Key PCIe Gen4×4 Slot 1×M.2 2280 M Key PCIe Gen4×4 Slot(*) 1×M.2 3080 M Key PCIe Gen4×4 Slot(**) * Please select either 1×PCIe Gen3×4 Slot or 1×M.2 2280 M Key PCIe Gen4×4 Slot to use ** Please select either 1×PCIe Gen3×4 Slot or 1×M.2 3080 M Key PCIe Gen4×4 Slot to use	
USB	2×USB3.2 Gen2 (Type-A) 2×USB3.2 Gen1 (Pin Header) 2×USB2.0 (Type-A)	
MIPI	16×MIPI CSI-2 Lanes (D-PHY 2.1, 4×4 3×4+2×2 2×4+4×2 1×4+5×2 6×2 MIPI Lanes, Support MIPI Camera, Capture Card)	
Audio	1×3.5mm Line In 1×3.5mm Line Out	
Perherial Communication	1×UART (Pin Header) 3×GPIO (Pin Header) 2×CAN Bus (Pin Header) 2×I2C (Pin Header) 1×I2S (Pin Header) 1×SPI (Pin Header) 3×PWM (Pin Header)	
Misc. Features	Firmware Upgradable AutoPower (Pin Header)	

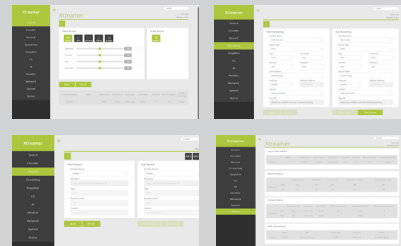
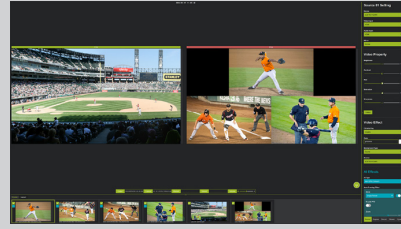
5G Feature

5G Mobility Network (Supports 5G / 4G / 3G SIM Module)	
5G	Sub-6 / SA / Non-SA
4G	LTE Cat20 / LTE FDD / LTE TDD
3G	HSPA+

Add-On Cards / SDK / Software

Video Feature					
	PCIe Model	Interface	Max. Resolution	Capture / Preview	
Capture Card (Optional)	SC710N4T HDMI2.0	4xHDMI2.0	4096x2160p@60/50fps	4:2:2 10Bit P210 4:2:0 10Bit P010 4:4:4 8Bit YV24 4:4:4 8Bit RGB32 / 24 4:2:2 8Bit YUY2 4:2:0 8Bit YV12, NV12	
	SC710N4T 12G-SDI	4x12G-SDI	4096x2160p@60/50fps		
	SC420N16 TVI	16xTVI / AHD	1920x1080p@30/25fps		
	SC420N8 GMSL2	8xGMSL2	1920x1080p@60/45/30fps		
	SC410N4 HDMI	4xHDMI	4096x2160p@30/25fps		
	SC410N4 6G-SDI	4x6G-SDI	4096x2160p@30/25fps		
	M.2 Model	Interface	Max. Resolution		
	SC710N1 M2 HDMI2.0	1xHDMI2.0	4096x2160p@60/50fps		
	SC710N1 M2 12G-SDI	1x12G-SDI	4096x2160p@60/50fps		
SC400N1 M2 HDV	1xDVI-I, 1xYPbPr, 1xVGA	1920x1080p@60/50fps			
Video Encode	NVIDIA Jetson AGX Orin™ 32GB		NVIDIA Jetson AGX Orin™ 64GB		
	AV1 (UHP) · 1x4K60 3x4K30 6x1080p60 12x1080p30 H.265 (UHP) · 1x4K60 3x4K30 6x1080p60 12x1080p30 H.264 (UHP) · 1x4K60 2x4K30 5x1080p60 11x1080p30		AV1 (UHP) · 2x4K60 4x4K30 8x1080p60 16x1080p30 H.265 (UHP) · 2x4K60 4x4K30 8x1080p60 16x1080p30 H.264 (UHP) · 1x4K60 3x4K30 7x1080p60 14x1080p30		
Video Decode	NVIDIA Jetson AGX Orin™ 32GB		NVIDIA Jetson AGX Orin™ 64GB		
	AV1 (Main Profile) · 1x8K30 2x4K60 4x4K30 7x1080p60 15x1080p30 H.265 (Main, Main10) · 1x8K30 2x4K60 4x4K30 9x1080p60 18x1080p30 H.264 (Baseline, Main, High) · 1x4K60 2x4K30 5x1080p60 11x1080p30 VP9 (Profile 0, Profile 2) · 1x4K60 3x4K30 7x1080p60 15x1080p30		AV1 (Main Profile) · 1x8K30 3x4K60 6x4K30 9x1080p60 18x1080p30 H.265 (Main, Main10) · 1x8K30 3x4K60 7x4K30 11x1080p60 22x1080p30 H.264 (Baseline, Main, High) · 1x4K60 3x4K30 6x1080p60 13x1080p30 VP9 (Profile 0, Profile 2) · 1x8K30 3x4K60 6x4K30 9x1080p60 18x1080p30		
SDK					
QCAP	Capture High Performance Renderer Image Snapshot Deinterlace, 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., Full NDI (*), NDI-HX (*), Dante AV-H (*) 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 Access Control Objects Detection Objects Segment Optical Character Recognition License Plate Recognition Customizable Video AI Functions Upon Request				

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

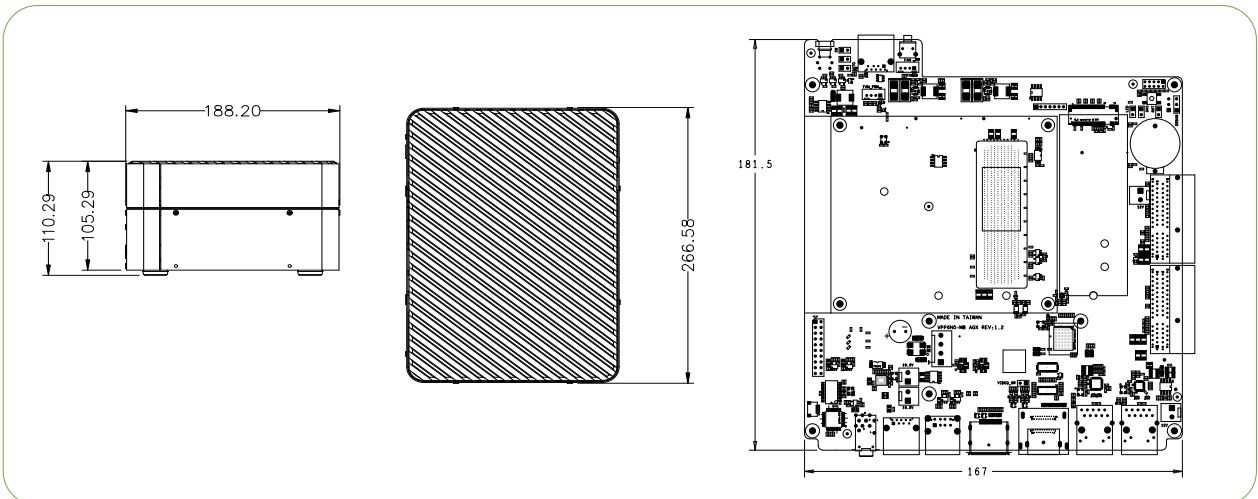


Environment

Development Environment	
OS	Ubuntu: 20.04
Kernel	5.10.104-tegra or Higher
BSP	Linux for Tegra(L4T) R35.1 or Higher
SDK	JetPack 5.0.2 or Higher
Environment	
Power Supply	DC input : 19V
Power Consumption	TBA
Operating Temperature	Standard Version: 0~60 °C with Airflow
Storage Temperature	-20~80 °C

Mechanical

- Dimension of case: 266.58mm×188.20mm×105.29mm
- Dimension of main Board: 181.5mm×167mm
- Weight: TBA



Assured Systems

Assured Systems is a leading technology company with over 1,500 regular clients in 80 countries, deploying over 85,000 systems to a diverse customer base in 12 years of business. We offer high-quality and innovative rugged computing, display, networking and data collection solutions to the embedded, industrial, and digital-out-of-home market sectors.

US

sales@assured-systems.com

Sales: +1 347 719 4508
Support: +1 347 719 4508

1309 Coffeen Ave
Ste 1200
Sheridan
WY 82801
USA

EMEA

sales@assured-systems.com

Sales: +44 (0)1785 879 050
Support: +44 (0)1785 879 050

Unit A5 Douglas Park
Stone Business Park
Stone
ST15 0YJ
United Kingdom

VAT Number: 120 9546 28
Business Registration Number: 07699660