

NEAR T7X

5581 FP4 TFLOPS of AI Computing by NVIDIA Blackwell Architecture

YUAN
Visualize Intelligent Planet

Features

- Powered by NVIDIA IGX Thor™ and NVIDIA® RTX Pro 6000 Blackwell MAXQ Workstation
- NVIDIA IGX Thor™ Motherboard
- Up to 5581 FP4 TFLOPS AI Performance
- 2×100Gb QSFP28 Port, 2×1Gb RJ45 Port
- 1×PCIe Gen5×8
- 4×USB3.2 Gen2 Type-A, 1×USB3.2 Gen2 Type-C
- Holoscan Sensor Bridge Support



Specifications

System	
CPU	NVIDIA IGX Thor™ 14-core Arm® Neoverse V3AE
GPU	NVIDIA IGX Thor™ 2560-Core NVIDIA Blackwell Architecture GPU with 96 5 th Gen Tensor Cores RTX Pro 6000 Blackwell Max-Q Workstation 96 GB GDDR7 Memory, 1792 GB/s Memory Bandwidth 24064-Core NVIDIA Blackwell Architecture GPU
AI Performance	5581 FP4 TFLOPS
System Memory	Memory: 128GB LPDDR5X
Interface	
Storage	4×SATA
Display Interface	4×DP1.4a
Ethernet	2×100Gb QSFP28 Port 2×RJ45 for 10/100/1000Mbps Ethernet DHCP Client
Expansion Slot	PCIe 1×PCIe Gen5×16 Slot (With 8 PCIe Lanes) M.2 1×M.2 2230 E Key USB2.0/PCIe Gen2×1 Slot 1×M.2 2280 M Key PCIe Gen5×2 Slot
USB	4×USB3.2 Gen2 (Type-A) 1×USB3.2 Gen2 (Type-C)
MIPI	16×MIPI CSI Lanes (Support MIPI Camera, Capture Card)
Audio	1×3.5mm Line Out 1×3.5mm MIC in
Perherial Communication	4×COM Port (Pin Header) 1×GPIO (Pin Header) CAN Bus (Pin Header)
Misc. Features	Firmware Upgradable

Key Points

GPU Support	
NVIDIA RTX Pro 6000 Blackwell MAXQ Workstation	V

Add-On Cards / SDK / Software

Video Feature							
	PCIe Model	Interface	Max. Resolution	Capture / Preview			
Capture Card (Optional)	SC750N1-L HDMI2.1	1×HDMI2.1	7680×4320p@60/50fps	4:2:2 10Bit P210			
	SC720N1-L DP1.4	1×DP1.4	7680×4320p@30/25fps	4:2:0 10Bit P010			
	SC720N4 HDMI2.0	4×HDMI2.0	4096×2160p@60/50fps	4:4:4 8Bit YV24			
	SC720N4 12G-SDI	4×12G-SDI	4096×2160p@60/50fps	4:4:4 8Bit RGB32 / 24			
	SC710N2-L HDMI2.0	2×HDMI2.0	4096×2160p@60/50fps	4:2:2 8Bit YUY2			
	SC710N2 12G-SDI	2×12G-SDI, 8×3G-SDI	4096×2160p@60/50fps	4:2:0 8Bit YV12, NV12			
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						



SC750N1-L HDMI2.1



SC720N1-L DP1.4a



SC720N4 HDMI2.0



SC720N4 12G-SDI



SC710N2-L HDMI2.0



SC710N2 12G-SDI

Software (Optional)

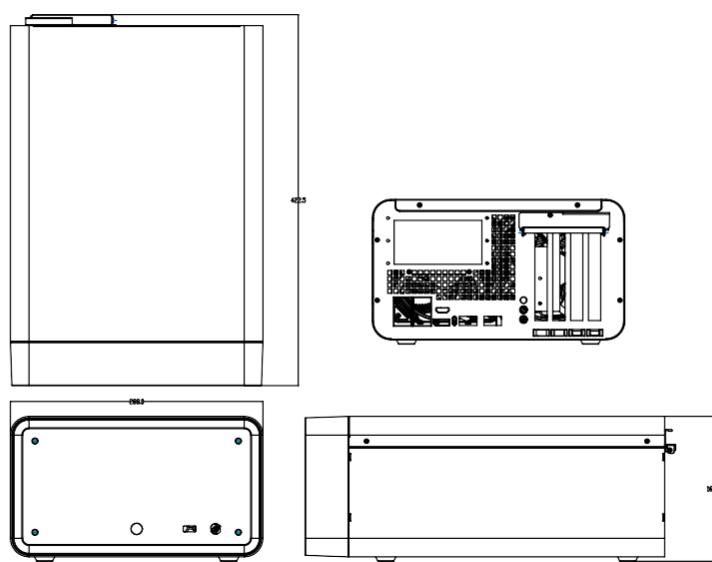
Stream Catcher Pro	<p>Capture</p> <p>Auto Signal Detection</p> <p>Deinterlace, OSD, Color Adjustment</p> <p>Image Snapshot</p> <p>Animation Transform Effect for PGM</p>	
	<p>Record</p> <p>AV1, H.26X</p> <p>MP4, TS</p> <p>Multi-Stream Recording</p> <p>Schedule Recording</p>	
	<p>Stream</p> <p>Multi-Streams Stream Server</p> <p>RTSP, RTMP, HLS, SRT, TS, WebRTC., Full NDI (*), NDI-HX (*), Dante AV-H (*)</p> <p>*Separate License Required</p>	
Xtreamer	<p>Web Based User Interface</p>	
	<p>Encode / Decode</p> <p>AV1, H.26X</p>	
	<p>Color Format Adjust</p> <p>444 / 422 / 420, 10Bit / 8Bit Select</p>	
	<p>Record</p> <p>MP4, TS</p>	
	<p>Stream / Network</p> <p>RTSP, RTMP, HLS, SRT, TS, WebRTC., Full NDI (*), NDI-HX (*), Dante AV-H (*)</p> <p>*Separate License Required</p>	

Environment

Development Environment	
IGX-SW	1.0 or Higher
Environment	
Power Supply	100-240V
Power Consumption	TBA
Operating Temperature	Standard Version: 5~45 °C with Airflow
Storage Temperature	-20~85 °C

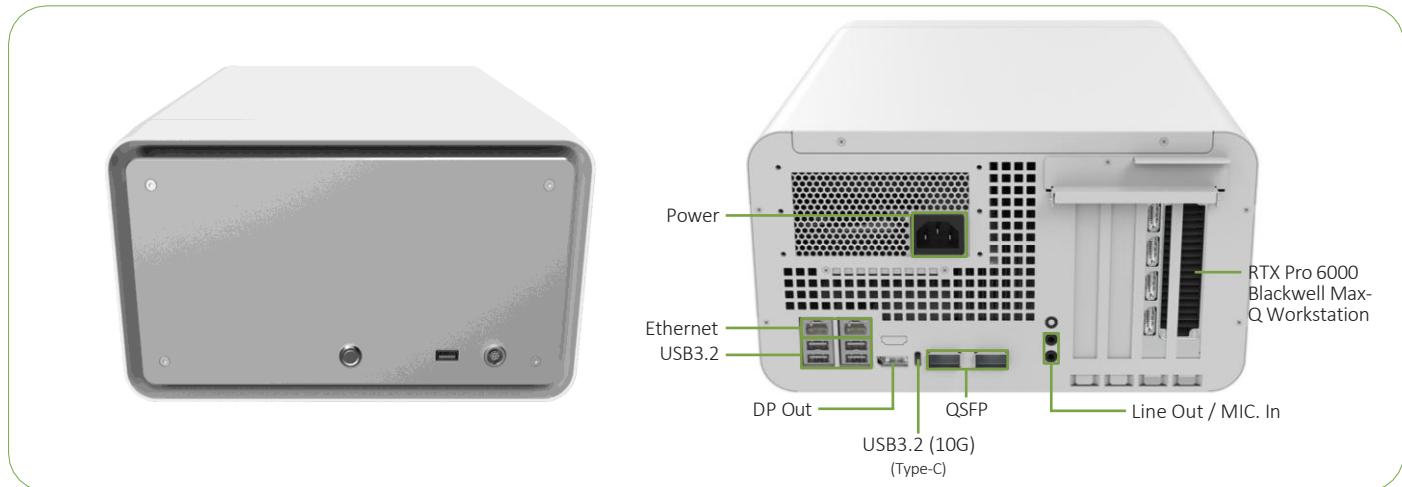
Mechanical

- Dimension of case: 288mm×380mm×160mm
- Dimension of main Board: 238.84mm×198.98mm
- Weight: TBA



I/O Layout

- Case



* All registered trademarks are the property of their owners. The photo is for reference only.

* Technology License Patent Royalty. Supplier (YUAN Technology Ltd.) as an OEM vendor is not responsible for any royalties applied to the Models and collected by any patent or trade mark holders or his exclusive, non-exclusive.



Licensees or representatives such as MPEGLA, Dolby, Thomson, Sisvel, H.264, MPEG4 and any other natural or legal person. All concerning royalties of patents and trade marks will be paid or negotiated with the above mentioned owner by you. In case of any patent or trademark infringement you are responsible for all necessary processes and costs. You accept and acknowledge that all prices of Models offered by supplier are exclusive of any royalties, charges or license fees for any patents in any countries or areas.