MIL6N0 IGX 700

Power by NVIDIA IGX Orin™ & RTX A6000 Ada
Provide 1705 TOPS of AI Computing

YUAN
Visualize Intelligent Planet

Features

- Powered by NVIDIA IGX Orin™ and NVIDIA® RTX A6000 Ada
- NVIDIA IGX Orin™ Motherboard
- Up to 1705 TOPS AI Performance
- Multi-view Support
- 2×100Gb QSFP28 Port, 2×1Gb RJ45 Port
- 4×USB3.2 Gen2

NVIDIA Partner

Specifications

System	
CPU	NVIDIA IGX Orin™ 12-core Arm® Cortex®-A78AE v8.2 64-Bit CPU 3MB L2 + 6MB L3
GPU	NVIDIA IGX Orin™ 2048-Core NVIDIA Ampere Architecture GPU with 64 Tensor Cores NVIDIA RTX A6000 Ada 48 GB GDDR6 Memory, 960 GB/s MemoryBandwidth 18176-Core NVIDIA Ampere Architecture GPU with 568 Tensor Cores
AI Performance	1705 TOPS
System Memory	Memory: 64GB LPDDR6
Interface	
Storage	64GB eMMC 5.1 (On NVIDIA IGX Orin™ Module)
Display Interface	1×DP1.4a 3×HDMI2.0
Ethernet	2×100Gb QSFP28 Port 2×RJ45 for 10/100/1000Mbps Ethernet DHCP Client
Expansion Slot	M.2 1×M.2 2230 E Key USB2.0/PCIe Gen2×1 Slot 1×M.2 2280 M Key PCIe Gen4×4 Slot
USB	4×USB3.2 Gen2 (Type-A) 1×USB3.2 Gen2 (Type-C)
Audio	1×3.5mm Line Out 1×3.5mm MIC in
Misc. Features	Firmware Upgradable

Key Points

GPU Support	
NVIDIA RTX A6000 Ada	V

Add-On Cards / SDK / Software

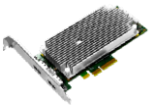
<table>
<tr><th colspan="6">Video Feature</th></tr>
<tr><td rowspan="7">Capture Card (Optional)</td><td>PCIe Model</td><td>Interface</td><td>Max. Resolution</td><td colspan="2">Capture / Preview</td></tr>
<tr><td>SC750N1-L HDMI2.1</td><td>1×HDMI2.1</td><td>7680×4320p@60/50fps</td><td colspan="2" rowspan="6">4:2:2 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</td></tr>
<tr><td>SC720N1-L DP1.4</td><td>1×DP1.4</td><td>7680×4320p@30/25fps</td></tr>
<tr><td>SC720N4 HDMI2.0</td><td>4×HDMI2.0</td><td>4096×2160p@60/50fps</td></tr>
<tr><td>SC720N4 12G-SDI</td><td>4×12G-SDI</td><td>4096×2160p@60/50fps</td></tr>
<tr><td>SC710N2-L HDMI2.0</td><td>2×HDMI2.0</td><td>4096×2160p@60/50fps</td></tr>
<tr><td>SC710N2 12G-SDI</td><td>2×12G-SDI, 8×3G-SDI</td><td>4096×2160p@60/50fps</td></tr>
<tr><td>Video Encode</td><td colspan="5">H.265 (HEVC)
1×8K30 | 3×4K60 | 7×4K30 | 14×1080p60 | 29×1080p30</td></tr>
<tr><td></td><td colspan="5">H.264
3×4K60 | 7×4K30 | 14×1080p60 | 29×1080p30</td></tr>
<tr><td>Video Decode</td><td colspan="5">H.265 (HEVC)
2×8K60 | 5×8K30 | 11×4K60 | 23×4K30 | 47×1080p60 | 94×1080p30</td></tr>
<tr><td></td><td colspan="5">H.264
6×4K60 | 12×4K30 | 24×1080p60 | 49×1080p30</td></tr>
<tr><th colspan="6">SDK</th></tr>
<tr><td rowspan="3">QCAP</td><td colspan="5">Capture
High Performance Renderer
Image Snapshot
Deinterlace, Alpha Blending Engine
Auto Signal Detection
2D/3D Video, Audio and VANC Streams Capture</td></tr>
<tr><td colspan="5">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</td></tr>
<tr><td colspan="5">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</td></tr>
<tr><td>QDEEP</td><td colspan="5">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</td></tr>
</table>

SC750N1-L HDMI2.1

SC720N1-L DP1.4a

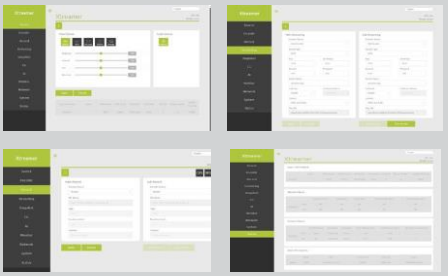
SC720N4 HDMI2.0

SC720N4 12G-SDI



SC710N2-L HDMI2.0

SC710N2 12G-SDI

Software (Optional)		
Stream Catcher Pro	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) R35.4.0 or Higher
SDK	TBA
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 main Board: 238.84mm×198.98mm