

AI Computer



Discover Generative AI at the Edge

PANDORA

Features

- Powered by NVIDIA® Jetson Orin™ NX SUPER
- Compact Size : 145mm x 123mm x 66mm
- 4xM.2, 8 Lanes MIPI CSI-2, and I2C / UART / GPIO / CAN Bus
- 2xUSB3.2 Gen2, 2 x USB2.0
- 1xHDMI2.0



Specification

CPU	NVIDIA Jetson Orin™ NX 8GB SUPER 6-Core Arm® Cortex®-A78AE v8.2 64-Bit CPU 1.5MB L2 + 4MB L3	NVIDIA Jetson Orin™ NX 16GB SUPER 8-Core Arm® Cortex®-A78AE v8.2 64-Bit CPU 2MB L2 + 4MB L3
GPU	1024-Core NVIDIA Ampere Architecture GPU with 32 Tensor Cores	
AI Performance	117 / 58 TOPS (Sparse / Dense)	157 / 78 TOPS (Sparse / Dense)
System Memory	8GB 128-bit LPDDR5, total 102.4 GB/s bandwidth	16GB 128-bit LPDDR5, total 102.4 GB/s bandwidth
Part Number	A001FV1P1	A002FV1P1

Interface

Storage	Supports External NVMe	
Display Interface	1×HDMI2.0	
Ethernet	2×RJ45 for 10/100/1000Mbps Ethernet DHCP Client	
USB	2×USB3.2 Gen2 (Type-A) 1×USB3.2 Gen2 (Type-C) (OTG) 2×USB2.0 (Type-A)	
Expansion Slot	1×M.2 2280 M Key PCIe Gen4×2 Slot (with Pre-Installed 128GB SSD) 1×M.2 2280/3080 M Key PCIe Gen4×4 Slot, Support SSD or Video Capture Cards 1×M.2 2230 E Key PCIe Gen4×1+USB2.0 Slot, Support Wi-Fi Module 1×M.2 3042/3052 B Key USB3.2 Gen1 Slot, Support 5G/4G Wireless Module	
MIPI	8-Lane MIPI CSI-2 (D-PHY 2.1, Support MIPI Camera, Capture Card)	
Audio	1×Line In (3.5mm Phone Jack) 1×Line Out (3.5mm Phone Jack)	
Peripheral Communication	40 Pin Header	14 Pin Header
	1×I2S 2×I2C 2×SPI 1×UART 3×GPIO	1xCAN Bus 1xUART with CTS/RTS 1×UART for Debug
Misc. Features	Firmware Upgradable TPM Module (Optional)	

Video Encode/Decode

Video Encode	AV1 (UHP)
	1×4K60 3×4K30 6×1080p60 12×1080p30
	H.265 (UHP)
	1×4K60 3×4K30 6×1080p60 12×1080p30
Video Decode	H.264 (UHP)
	1×4K60 2×4K30 5×1080p60 11×1080p30
	AV1 (Main Profile)
	1×8K30 2×4K60 4×4K30 10×1080p60 20×1080p30
Video Decode	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
Video Decode	VP9 (Profile 0, Profile 2)
	1×4K60 3×4K30 7×1080p60 15×1080p30

Environment

OS	Ubuntu: 22.04
Kernel	5.15.148-tegra or Higher
BSP	Linux for Tegra (L4T) R36.4 or Higher
SDK	JetPack 6.1.1 or Higher
Power Supply	DC input : 12~36V
Power Consumption	8GB Max: 42W / 16GB Max: 49.2W
Operating Temperature	Standard Version: 0~60°C with Airflow
Storage Temperature	-20~80°C

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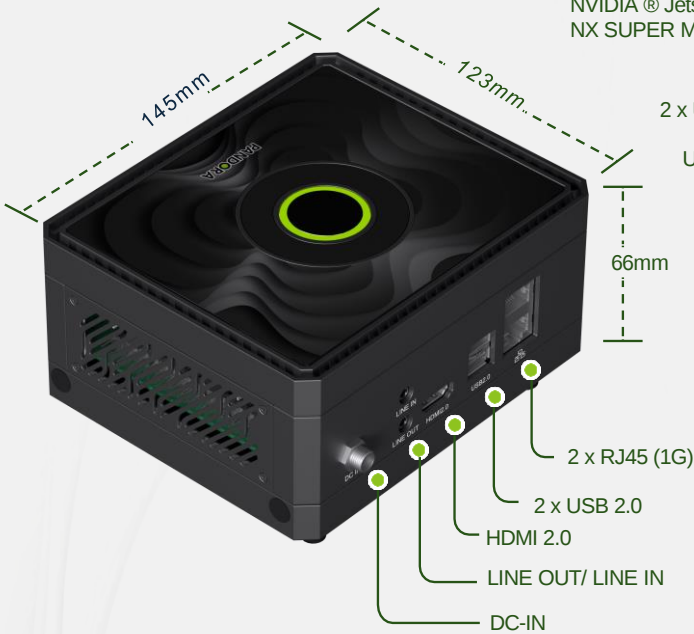
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Mechanical

Dimension of Main Board	115mm × 115mm
Dimension of System	145mm × 123mm × 66mm
Weight	470g



NVIDIA® Jetson Orin™
NX SUPER Module

2 x USB 3.0 Type-A

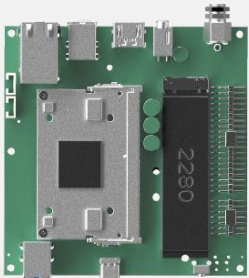
USB 3.0 Type-C (OTG)

SSD (JetPack SDK 6.1.1)

Power



2280 M Key
PCIeGen4 x 2 for SSD
(System Disk)



40 Pin Header
1xI2S
2xI2C
2xSPI
1xUART
3xGPIO

2280 / 3080 M Key
PCIeGen4 x 4 for 2nd
SSD / Video Capture



14 Pin Header
1xCAN Bus
1xUART with CTS/RTS
1xUART for Debug

