

Pandora NX 8GB

YUAN
Visualize Intelligent Planet

Compact Edge AI

Features

- Powered by NVIDIA™ Jetson Orin™ NX up to 70 TOPS
- Compact Size: 145mm×123mm×66mm
- 4×M.2, 8 Lanes MIPI CSI-2, and I2C / UART / GPIO / CAN Bus
- 2×USB3.2 Gen2, 2×USB2.0
- 1×HDMI2.0



Specifications

System	
SOM Module	NVIDIA Jetson Orin™ NX 8GB
CPU	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
AI Performance	70 TOPS
System Memory	8GB 128-bit LPDDR5 102.4GB/s
Interface	
Storage	Supports External NVMe
Display Interface	1×HDMI2.0
Ethernet	2×RJ45 for 10/100/1000Mbps Ethernet DHCP Client
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 WiFi Module. 1×M.2 3042/3052 B Key USB3.2 Gen2 Slot, Support 5G/4G Wireless Module
USB	2×USB3.2 Gen2 (Type-A) 1×USB3.2 Gen2 (Type-C) (OTG) 2×USB2.0 (Type-A)
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 1×I2S 2×I2C 2×SPI 1×UART 3×GPIO 14 Pin Header 1×CAN Bus 1×UART with CTS/RTS 1×UART for Debug
Misc. Features	Firmware Upgradable TPM Module (Optional)

Video Encode / Decode

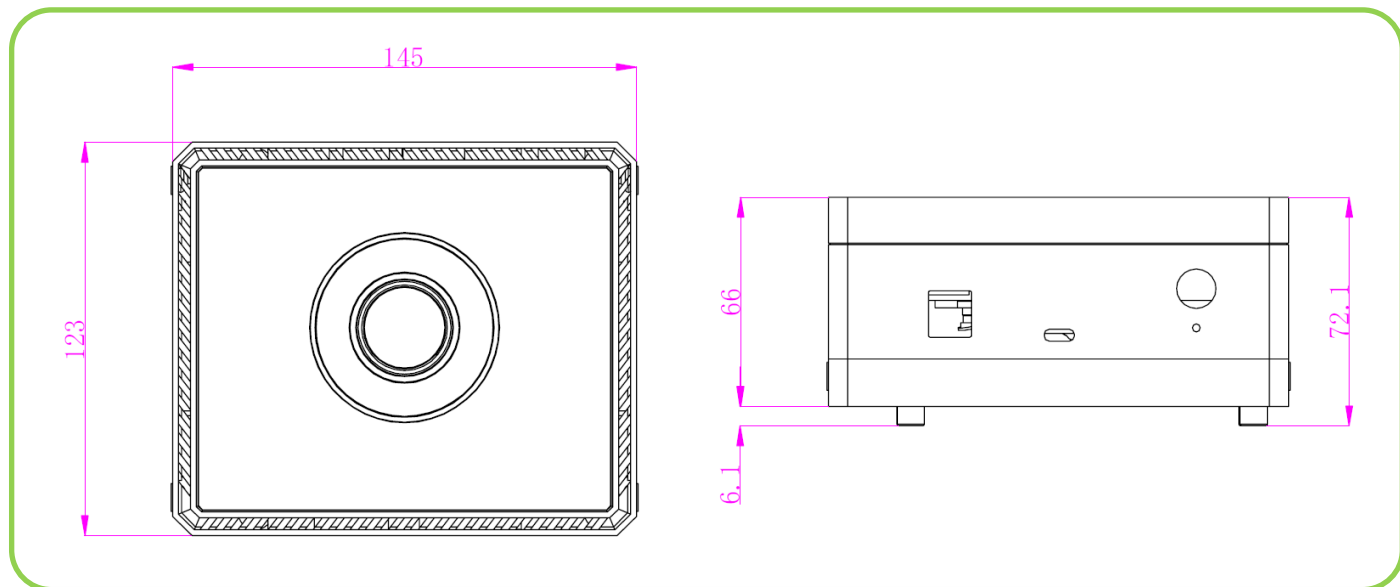
Video Feature	
Video Encode	NVIDIA Jetson Orin™ NX : AV1 (UHP) 1×4K60 3×4K30 6×1080p60 12×1080p30
	H.265 (UHP) 1×4K60 3×4K30 6×1080p60 12×1080p30
Video Decode	H.264 (UHP) 1×4K60 2×4K30 5×1080p60 11×1080p30
	NVIDIA Jetson Orin™ NX: AV1 (Main Profile) 1×8K30 2×4K60 4×4K30 10×1080p60 20×1080p30
	H.265 (Main, 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

Environment

Development Environment	
OS	Ubuntu: 20.04
Kernel	5.10.104-tegra or Higher
BSP	Linux for Tegra(L4T) R35.3.1 or Higher
SDK	JetPack 5.1.1 or Higher
Environment	
Power Supply	DC input : 9~24V
Power Consumption	Max: 27W
Operating Temperature	Standard Version: 0~60° C with Airflow
Storage Temperature	-20~80° C

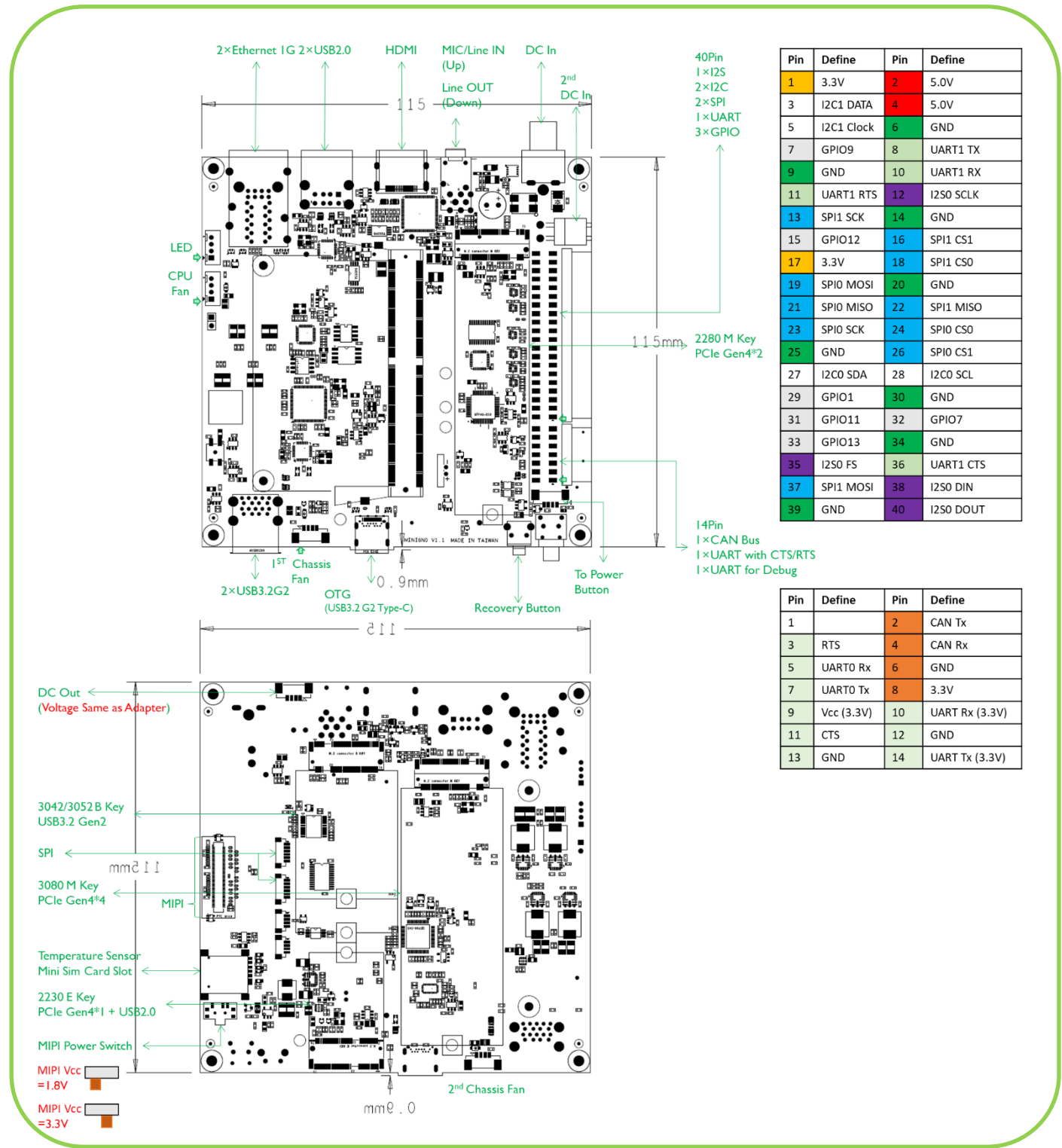
Mechanical

- Dimension of case: 145mm×123mm×66mm
- Dimension of main Board: 115mm×115mm
- Weight: 470g



I/O Layout

Carrier Board



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