

# Pandora NX 16GB

YUAN  
Visualize Intelligent Planet

## Compact Edge AI

### Features

- Powered by NVIDIA™ Jetson Orin™ NX up to 100 TOPS
- Compact Size: 121mm×145mm×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	
CPU	NVIDIA Jetson Orin™ NX 16GB 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
AU Performance	NVIDIA Jetson Orin™ NX 16GB 100 TOPS
System Memory	NVIDIA Jetson Orin™ NX 16GB 16GB LPDDR5
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 or Pin Header ) 1×Line Out ( 3.5mm or Pin Header )
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

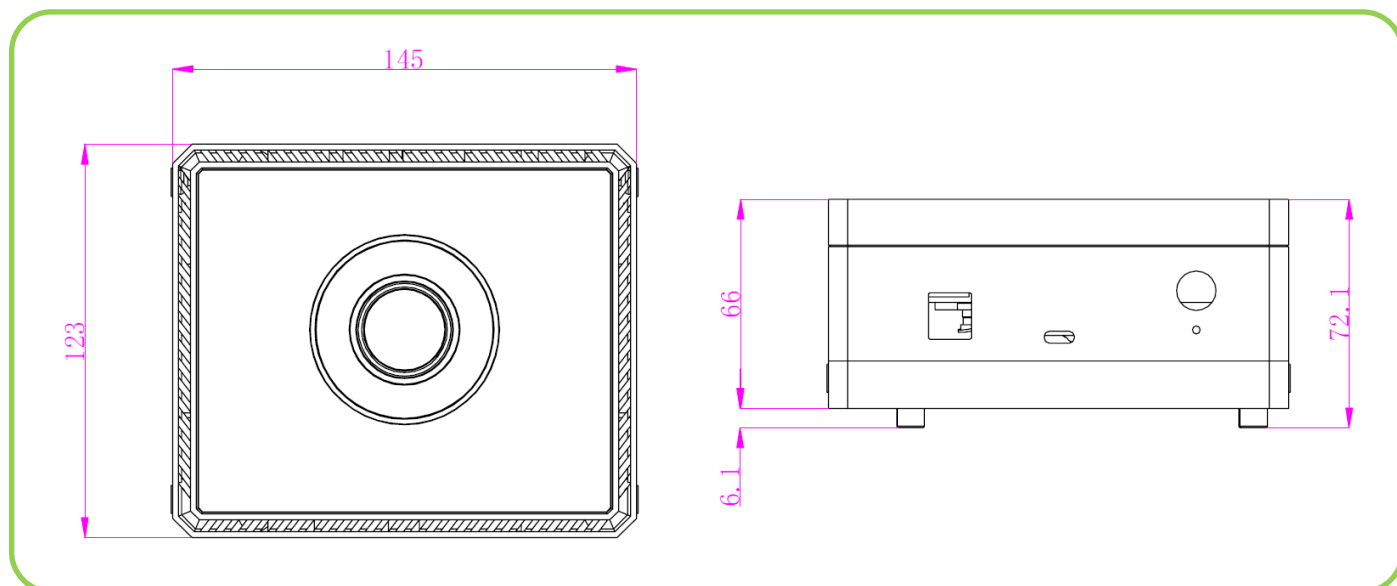
Video Feature	
Video Encode	NVIDIA Jetson Orin™ NX : AV1 ( UHP ) 1×4K60   3×4K30   6×1080p60   12×1080p30
	H.265 ( UHP ) 1×4K60   3×4K30   6×1080p60   12×1080p30
Video Decode	H.264 ( UHP ) 1×4K60   2×4K30   5×1080p60   11×1080p30
	NVIDIA Jetson Orin™ NX : AV1 ( Main Profile ) 1×8K30   2×4K60   4×4K30   9×1080p60   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: 34.2W
Operating Temperature	Standard Version: 0~60 °C with Airflow
Storage Temperature	-20~80 °C

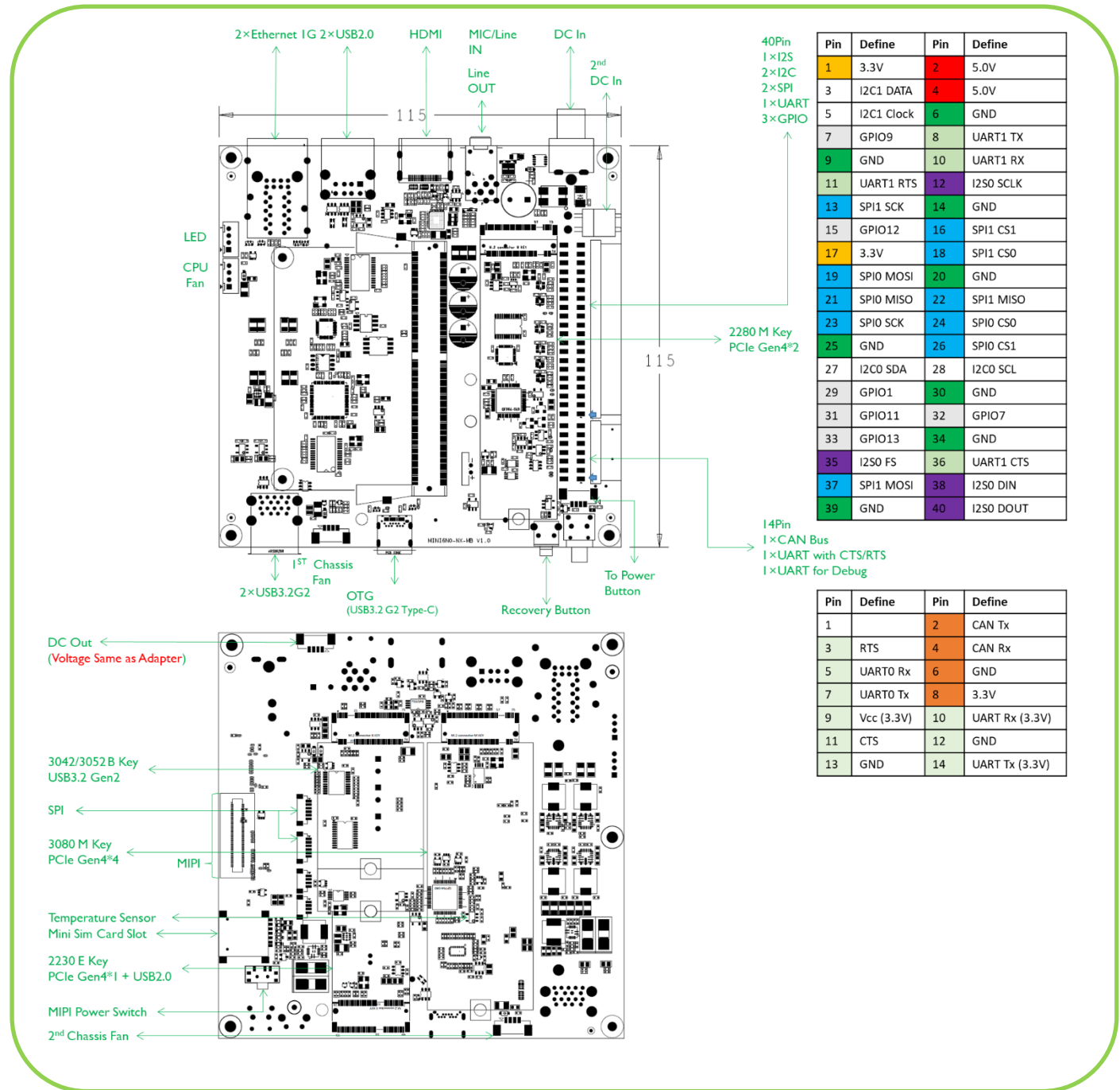
## Mechanical

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



# I/O Layout

## Carrier Board



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