Pandora Nano 4GB Super



Compact Edge Al

Features

- Powered by NVIDIA™ Jetson Orin™ Nano 4GB Super up to 34 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×Nano SIM Card Slot
- · 1×HDMI2.0





Specifications

System SOM Module NVIDIA Jetson Orin** Nano 4GB Super CPU 6-Core Arm*Cortex**-A78AE v8.2 64-Bit CPU 1.5MB L2 + 4MB L3 S12-Core NVIDIA Ampere Architecture GPU with 16 Tensor Cores All Performance 34 TOPS System Memory 4GB 64-bit LPDDRS 51GB/S Interface Storage Supports External NVMe Display Interface 1×HDMI2.0 2xR45 for 10/100/1000Mbps Ethernet DHCP Client 1-MM, 22280 M Key PCle Gen3×2 Slot (with Pre-Installed 128GB SSD) 1xM, 22280/3080 M Key PCle Gen3×3 Slot, Support SSD or Video Capture Cards 1xM, 22302/3052 B Key VBCle Gen3×1+USB2.0 Slot, Support WiFi Module. 1xM, 2 304/3052 B Key VBCle Gen3×1+USB2.0 Slot, Support WiFi Module. 1xM, 2 304/3052 B Key VBCle Gen3×2 Slot (support SSD or Video Capture Cards 1xM, 2 304/3052 B Key VBCle Gen3×1+USB2.0 Slot, Support WiFi Module. 1xM, 2 304/3052 B Key VBCle Gen3×1+USB2.0 Slot, Support WiFi Module. 1xM, 2 304/3052 B Key VBCle Gen3×1+USB2.0 Slot, Support SSD or Video Capture Cards 1xM, 2 304/3052 B Key VBCle Gen3×1+USB2.0 Slot, Support WiFi Module. USB 2xUSB3.3 Gen1 (Type- A) 1xUSB3.3 Gen1 (Type- C) (OTG) 2xUSB2.0 (Type-A) 1xUSB3.3 Gen1 (Type-C) (OTG) 2xUSB2.0 (Type-A) 1xUSB3.3 Gen1 (Type-C) (OTG) 2xUSB2.0 (Type-A) 1xUSB3.3 Gen1 (Type-C) (OTG) 2xUSB2.0 (Type-A) 1xUSB3.3 Gen1 (Type-C) (OTG) 2xUSB2.0 (Type-A) 1xUSB3.3 Gen1 (Type-C) (OTG) 2xUSB3.3 Gen1 (Type-C) (OTG)	Specifications		
GPU	System		
1.5MB L2 + 4MB L3 512-Core NVIDIA Ampere Architecture GPU with 16 Tensor Cores	SOM Module	NVIDIA Jetson Orin™ Nano 4GB Super	
S12-Core NVIDIA Ampere Architecture GPU with 16 Tensor Cores	CPU	6-Core Arm® Cortex®-A78AE v8.2 64-Bit CPU	
Al Performance		1.5MB L2 + 4MB L3	
System Memory 51GB/s Interface Storage Supports External NVMe Display Interface 1xHDMI2.0 Ethernet DHCP Client 1xM.2 2280 M Key PCle Gen3×2 Slot (with Pre-Installed 128GB SSD) 1xM.2 2280 M Key PCle Gen3×4 Slot, Support SSD or Video Capture Cards 1xM.2 2280 M Key PCle Gen3×4 Slot, Support SSD or Video Capture Cards 1xM.2 2280 M Key PCle Gen3×4 Slot, Support WiFi Module. 1xM.2 230 E Key PCle Gen3×1-USB2.0 Slot, Support WiFi Module. 1xM.2 230 E Key PCle Gen3×1-USB2.0 Slot, Support WiFi Module. 1xM.2 230 E Key DCle Gen3×1-USB2.0 Slot, Support WiFi Module. 2xUSB3.2 Gen2 (Type-A) 1xUSB3.2 Gen2 (Type-A) 1xUSB3.2 Gen2 (Type-C) (OTG) 2xUSB2.0 (Type-A) 1xUSB3.2 Gen2 (Type-C) (OTG) 2xUSB2.0 (Type-A) 1xUSB3.2 Gen2 (Type-C) (OTG) 2xUSB2.0 (Type-A) 1xUSB3.2 Gen2 (Type-C) (OTG) 2xUSB3.2 (Type-A) 1xUSB3.2 Gen2 (Type-C) (OTG) 2xUSB3.2 (Type-C) (OTG)	GPU	512-Core NVIDIA Ampere Architecture GPU with 16 Tensor Cores	
Interface Storage Supports External NVMe Display Interface 1×HDMI2.0 Ethernet 2×RJ45 for 10/100/1000Mbps Ethernet DHCP Client 1×M.2 2280 M Key PCIe Gen3×2 Slot (with Pre-Installed 128GB SSD) 1×M.2 2280/3080 M Key PCIe Gen3×4 Slot, Support SSD or Video Capture Cards 1×M.2 2280 E Key PCIe Gen3×4 Slot, Support SSD or Video Capture Cards 1×M.2 2230 E Key PCIe Gen3×1+USB2.0 Slot, Support WiFI Module. 1×M.2 2230 E Key PCIe Gen3×1+USB2.0 Slot, Support SG/4G Wireless Module USB 2×USB3.2 Gen2 (Type-A) 1×USB3.2 Gen2 (Type-C) (OTG) 2×USB2.0 (Type-A) 1×USB2.0	Al Performance	34 TOPS	
Storage Supports External NVMe Display Interface 1xHDM12.0 Ethernet 2xR45 for 10/100/1000Mbps Ethernet DHCP Client 1xM.2 2280 M Key PCIe Gen3x2 Slot (with Pre-Installed 128GB SSD) 1xM.2 2280 M Key PCIe Gen3x4 Slot, Support SSD or Video Capture Cards 1xM.2 2230 Key PCIe Gen3x4 Slot, Support WiFi Module. 1xM.2 2042/3052 B Key PCIe Gen3x4 Slot, Support WiFi Module. 1xM.2 3042/3052 B Key USB3.2 Gen1 Slot, Support SG/4G Wireless Module USB 2xUSB3.2 Gen2 (Type-A) 1xUSB3.2 Gen2 (Type-A) 2xUSB3.2 Gen2 (Type-A) Audio 1xLine In (3.5mm Phone Jack) 1xLine Out (3.5mm Phone Jack) 40 Pin Header 1xI2S 2xI3C 2xSPI 1xUART 3xGPIO 14 Pin Header 1xCAN Bus 1xUART with CTS/RTS 1xUART with CTS/RTS 1xUART for Debug 1xNano SIM Card Slot	System Memory		
Display Interface 1×HDMI2.0	Interface		
Ethernet 2×RJ45 for 10/100/1000Mbps Ethernet DHCP Client 1×M.2 2280 M Key PCle Gen3×2 Slot (with Pre-Installed 128GB SSD) 1×M.2 2280/3080 M Key PCle Gen3×4 Slot, Support SSD or Video Capture Cards 1×M.2 2230 E Key PCle Gen3×4 Slot, Support WiFi Module. 1×M.2 2304/3052 B Key USB3.2 Gen1 Slot, Support WiFi Module. 1×M.2 3042/3052 B Key USB3.2 Gen1 Slot, Support 5G/4G Wireless Module 2×USB3.2 Gen2 (Type-A) 1×USB3.2 Gen2 (Type-C) (OTG) 2×USB3.2 (Type-C) (OTG) 2×USB3.2 (Type-C) (OTG) 2×USB3.2 (Type-A) 1×Line In (3.5mm Phone Jack) 1×Line Out (3.5mm Phone Jack) 40 Pin Header 1×ISS 2×I2C 2×SPI 1×UART 3×GPIO 14 Pin Header 1×CAN Bus 1×UART for Debug 1×Nano SIM Card Slot	Storage	Supports External NVMe	
Expansion Slot 1 xM.2 2280 M Key PCle Gen3×2 Slot (with Pre-Installed 128GB SSD) 1 xM.2 2280/3080 M Key PCle Gen3×4 Slot, Support SSD or Video Capture Cards 1 xM.2 2230 E Key PCle Gen3×4 Slot, Support WiFi Module. 1 xM.2 3042/3052 B Key USB3.2 Gen1 Slot, Support SG/4G Wireless Module 2 xUSB3.2 Gen2 (Type-A) 1 xUSB3.2 Gen2 (Type-A) 2 xUSB3.2 Gen2 (Type-A) 3 xUSB3.2 Gen2 (Type-A) 4 xUSB3.2 Gen2 (Type-A) 5 xUSB3.2 Gen2 (Type-A) 6 xUSB3.2 Gen2 (Type-A) 7 xUSB3.2 Gen2 (Type-A) 8 xUSB3.2 Gen2 (Type-A) 8 xUSB3.2 Gen2 (Type-A) 1 xUSB3.2 Gen2 (Typ	Display Interface	1×HDMI2.0	
1xM.2 2280/3080 M Key PCIe Gen3x4 Slot, Support SSD or Video Capture Cards 1xM.2 2230 E Key PCIe Gen3x4 Slot, Support WiFi Module. 1xM.2 3042/3052 B Key USB3.2 Gen1 Slot, Support SG/4G Wireless Module USB	Ethernet		
Substituting Subs	Expansion Slot	1×M.2 2280/3080 M Key PCIe Gen3×4 Slot, Support SSD or Video Capture Cards 1×M.2 2230 E Key PCIe Gen3×1+USB2.0 Slot, Support WiFi Module.	
MIPI 8-Lane MIPI CSI-2 (D-PHY 2.1, Support MIPI Camera, Capture Card) 1×Line In (3.5mm Phone Jack) 1×Line Out (3.5mm Phone Jack) 40 Pin Header 1×12S 2×12C 2×SPI 1×UART 3×GPIO 14 Pin Header 1×CAN Bus 1×UART or Debug 1×Nano SIM Card Slot	USB	1×USB3.2 Gen2 (Type-C) (OTG)	
1×Line Out (3.5mm Phone Jack) 40 Pin Header 1× 2S 2× 2C 2×SP 1×UART 3×GPIO 14 Pin Header 1×CAN Bus 1×UART tor Debug 1×Nano SIM Card Slot	MIPI		
40 Pin Header 1×12S 2×12C 2×SPI 1×UART 3×GPIO 14 Pin Header 1×CAN Bus 1×UART with CTS/RTS 1×UART for Debug 1×Nano SIM Card Slot	Audio		
	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	
TPM Module (Optional)	Misc. Features	Firmware Upgradable	

Video Encode / Decode

Video Feature	
Video Encode	NVIDIA Jetson Orin™ Nano Super: 1080p30 supported by 1-2 CPU cores
Video Decode	NVIDIA Jetson Orin™ Nano Super: AV1 (Main Profile) 1×4K60 2×4K30 5×1080p60 10×1080p30 H.265 (Main, Main10) 1×4K60 2×4K30 5×1080p60 11×1080p30 H.264 (Baseline, Main, High) 1×4K30 3×1080p60 7×1080p30
	VP9 (Profile 0, Profile 2) 1×4K60 2×4K30 5×1080p60 11×1080p30

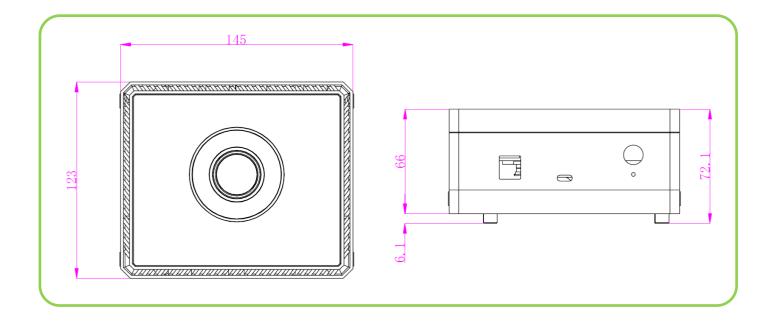
Environment

Development Environment		
JetPack	6.2 or Higher	
Environment		
Power Supply	DC input : 9~36V	
Power Consumption	Max: 27W	
Operating Temperature	Standard Version: 0~60 °C with Airflow	
Storage Temperature	-20~80 °C	

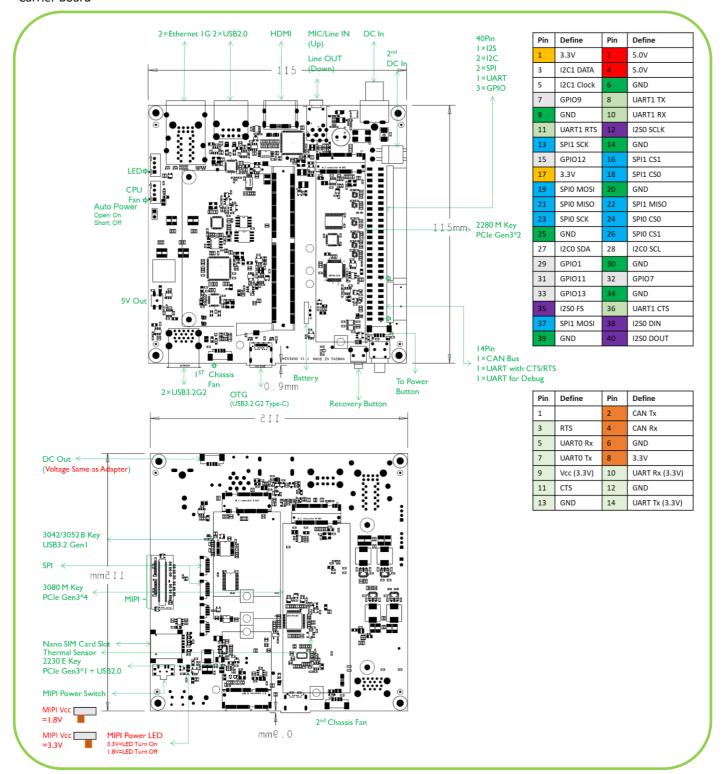
Mechanical

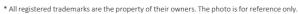
Dimension of case: 145mm×123mm×66mm
 Dimension of main Board: 115mm×115mm

· Weight: 470g



· Carrier Board





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