AI Computer

Discover Generative AI at the Edge

PANDORA



Features

- NVIDIA Jetson Orin™ Nano 8GB Super up to 67 TOPS
- 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, 1 x Nano SIM Card Slot
- 1xHDMI 1.4
- Built-in RTC rechargeable lithium battery

Powered by
NVIDIA Jetson Orin™ Nano Super Developer kit

Specification

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	67 TOPS
System Memory	8GB 128-bit LPDDR5, total 102 GB/s
Part Number	A003FV1P1

Interface

Storage	Supports External NVMe	
Display Interface	1×HDMI1.4	
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 1×I2S 2×I2C 2×SPI 1×UART 3×GPIO	14 Pin Header 1xCAN Bus 1xUART with CTS/RTS 1×UART for Debug
Misc. Features	Firmware Upgradable	

Video Encode/Decode

Video Encode	NVIDIA Jetson Orin™ Nano Super:
	1080p30 supported by 1-2 CPU cores
Video Decode	NVIDIA Jetson Orin™ Nano Super:
	AV1 (Main Profile) 1x4K60 | 2x4K30 | 5x1080p60 | 10x1080p30
	H.265 (Main, Main10) 1x4K60 | 2x4K30 | 5x1080p60 | 11x1080p30
	H.264 (Baseline, Main, High) 1x4K30 | 3x1080p60 | 7x1080p30
	VP9 (Profile 0, Profile 2) 1x4K60 | 2x4K30 | 5x1080p60 | 11x1080p30

Environment

Power Supply	DC input : 9~36V
Power Consumption	Max: 43.5W
Operating Temperature	Standard Version: 0~60°C with Airflow
Storage Temperature	-20~80°C

For detailed instructions, check the QR code.
www.palit.com/pandora

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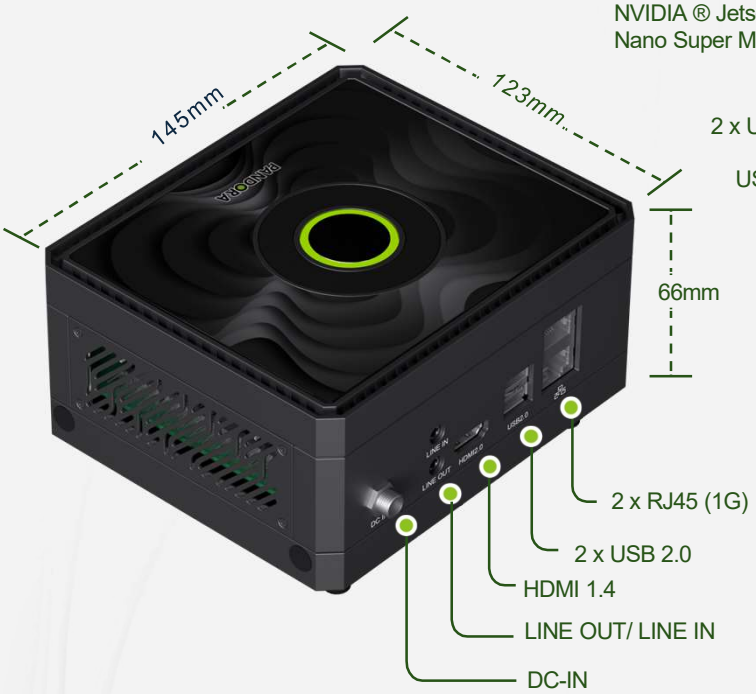
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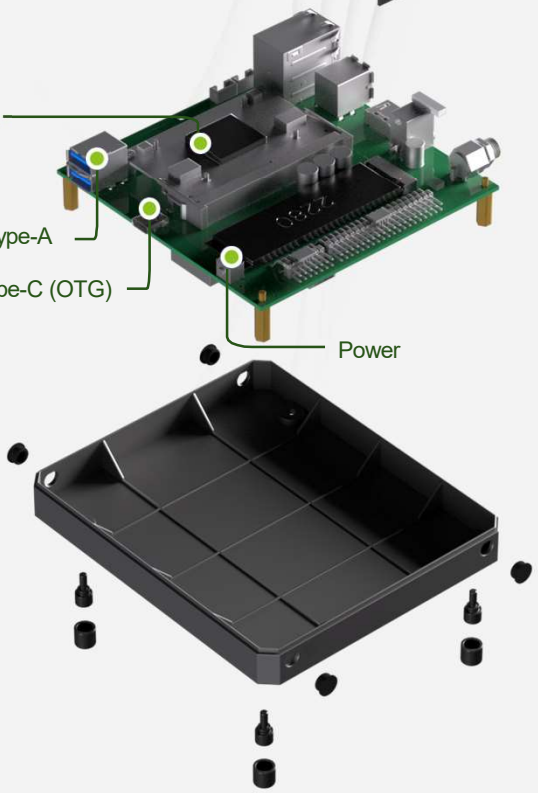
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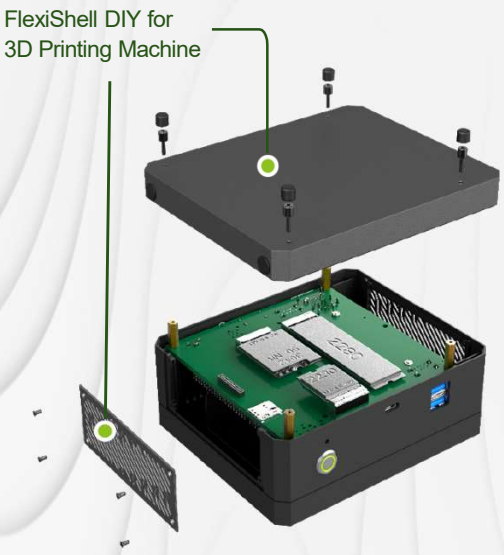


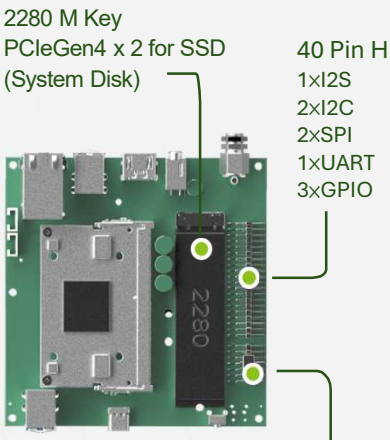
Mechanical

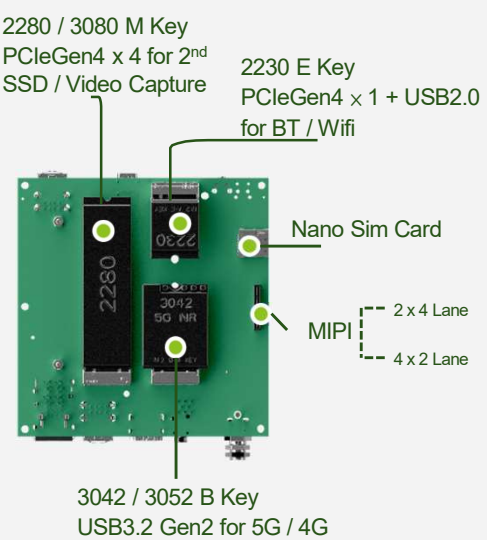
Dimension of Main Board	115mm × 115mm
Dimension of System	145mm × 123mm × 66mm
Weight	470g









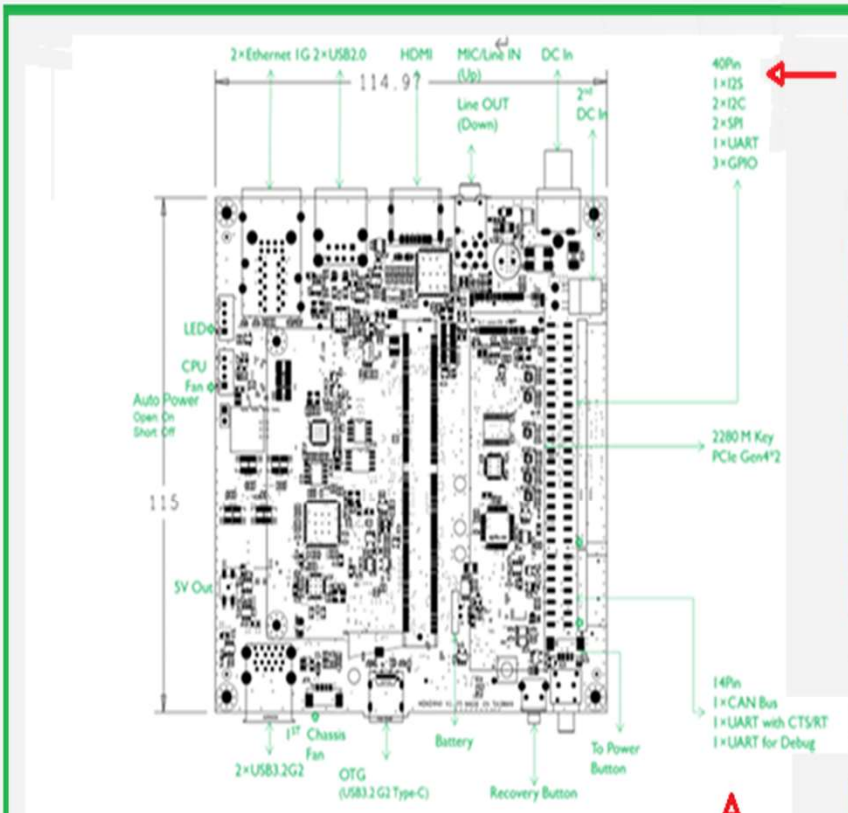


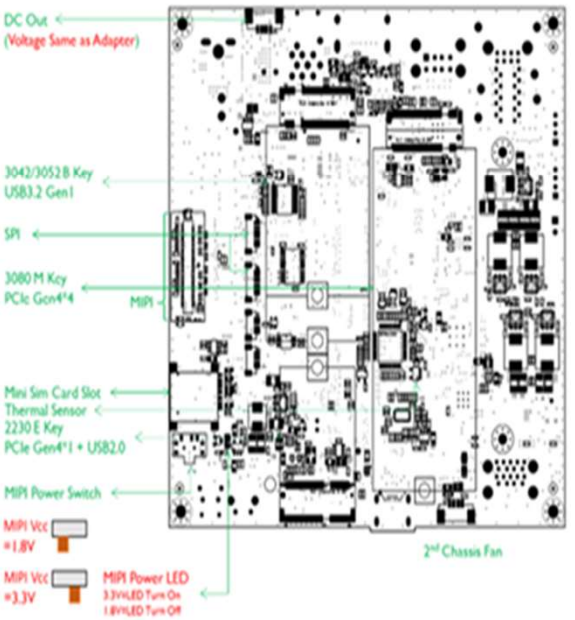
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I/O Layout

Carrier Board	115mm × 115mm





Pin	Define		Pin	Define	
1	3.3V		2	5.0V	
3	I2C1 DATA	I2C8_DAT	4	5.0V	
5	I2C1 Clock	I2C8_CLK	6	GND	
7	GPIO9	GPIO3_PAC.06	8	UART1 TX	UA3_TXD
9	GND		10	UART1 RX	UA3_RXD
11	UART1 RTS	GPIO3_PR.04	12	I2S0 SCLK	GPIO3_PH.07
13	SPI1 SCK	GPIO3_PY.00	14	GND	
15	GPIO12	GPIO3_PN.01	16	SPI1 CS1	GPIO3_PY.04
17	3.3V		18	SPI1 CS0	GPIO3_PY.03
19	SPI0 MOSI	GPIO3_PZ.05	20	GND	
21	SPI0 MISO	GPIO3_PZ.04	22	SPI1 MISO	GPIO3_PY.01
23	SPI0 SCK	GPIO3_PZ.03	24	SPI0 CS0	GPIO3_PZ.06
25	GND		26	SPI0 CS1	GPIO3_PZ.07
27	I2C0 SDA	I2C2_DAT	28	I2C0 SCL	I2C2_CLK
29	GPIO1	GPIO3_PQ.05	30	GND	
31	GPIO11	GPIO3_PQ.06	32	GPIO7	NV_THERM_FAN_TACH0
33	GPIO13	GPIO3_PH.00	34	GND	
35	I2S0 FS	GPIO3_PI.02	36	UART1 CTS	GPIO3_PR.05
37	SPI1 MOSI	GPIO3_PY.02	38	I2S0 DIN	GPIO3_PI.01
39	GND		40	I2S0 DOUT	GPIO3_PI.00

Pin	Define		Pin	Define	
1			2	CAN Tx	CAN0_DOUT
3	RTS	UB3_RTS	4	CAN Rx	CAN0_DIN
5	UART0 Rx	UB3_RXD	6	GND	
7	UART0 Tx	UB3_TXD	8	3.3V	
9	Vcc (3.3V)		10	UART Rx (3.3V)	UC3_RXD
11	CTS	UB3_CTS	12	GND	
13	GND		14	UART Tx (3.3V)	UC3_TXD

**** All GPIO's Block voltage is 3.3Vdc ****

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