ASUS IoT PE2100N

Intelligent Edge AI system based on the
NVIDIA® Jetson™ AGX Orin™ platform

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Features

- Intelligent edge AI system with NVIDIA Jetson™ AGX Orin™
- Up to 275 TOPS of AI inference performance
- 1x GbE, 1x 10GbE and 4x IEEE 802.3af GbE PSE
- 3x slots for expansion
- Wide power input range, from 9 to 36 VDC

ASUS IoT PE2100N - Powerful edge AI system for intelligent applications

The ASUS IoT PE2100N is equipped with the NVIDIA® Jetson™ AGX Orin™ platform and offers an impressive AI inference performance of up to 275 TOPS. This edge AI system is ideal for demanding applications that require high computing power with efficient energy consumption. The PE2100N features a robust, fanless design that has been developed for operation in challenging environments. With an operating temperature range of -25 to 55 °C and a wide voltage range of 9 to 36 VDC, it is equipped for extreme operating conditions, such as those found in industry, smart cities or transportation.

Versatile I/O options and expandability

The ASUS IoT PE2100N offers versatile I/O options, including a 1 GbE port, a 10 GbE port and four IEEE 802.3af GbE PoE (Power over Ethernet) ports, which enable both data transmission and power supply via Ethernet. With three M.2 slots for extensions such as Wi-Fi, SSD and 4G/5G, the system can be flexibly adapted to the requirements of a wide range of applications.

Reliable performance with lower energy consumption

The ASUS IoT PE2100N is specifically designed for reliable operation with low power consumption, making it particularly attractive for applications in the field of intelligent automation and machine learning. The combination of high performance and energy efficiency ensures that your applications can be operated optimally and cost-effectively.

With its powerful hardware, robust design and versatile expansion options, the ASUS IoT PE2100N is the ideal choice for the development and operation of intelligent edge AI solutions.

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Specifications	ASUS IoT PE2100N Jetson AGX Orin 32GB	ASUS IoT PE2100N Jetson AGX Orin 64GB
SYSTEM		
CPU	8x Arm® Cortex® A78AE v8.2	12x Arm® Cortex® A78AE v8.2
SOM	NVIDIA Jetson™ AGX Orin™ 32GB	NVIDIA Jetson™ AGX Orin™ 64GB
GPU	NVIDIA Ampere GPU with 1792 cores and 56 TensorCores	NVIDIA Ampere GPU with 2048 cores and 64 TensorCores
RAM	Up to 32GB 256-bit LPDDR5	Up to 64GB 256-bit LPDDR5
TPM	Optional	
Watchdog	Yes, HW WDT	
Memory	eMMC 64GB	
Expansion	1x M.2 M-Key 2280, for M.2 SSD (PCIe, OS disk, size option) 1x M.2 E-Key 2230, for Wi Fi/BT (PCIe, USB 2.0) 1x M.2 B-Key 3042/3052, for 4G/5G (USB 2.0/3.0) 1x Micro SD 1x Micro SIM	
Operating System	Ubuntu Desktop	
INTERFACE		
Ethernet	1x RJ-45 10/100/1000 Mbit/s 1x RJ-45 10 Gbit/s 4x PoE RJ-45 10/100/1000 Mbps, (802.3af 15W/All ports, or 802.3at 30W/Port 1&2)	
USB	1x USB 3.2 Gen2, Type C 2x USB 3.2 Gen1, Type A 1x USB 2.0, Type C for OS Flash 1x USB 2.0, DB-15	
COM	1x RS-232, DB-9 1x RS-422/485, DB-9	
CANBus	2x CANBus 2.0b, DB-9	
Video	1x HDMI 2.0b, supports up to 3,840 x 2,160 @ 60 Hz	
GPIO	2x I2C & 1x SPI & 1x USB 2.0, DP-15 5x GPIO & 2x UART, DP-15	
ENVIRONMENTAL		
Power Supply	9 to 36 VDC, 4-pin DC socket	
Operating Temperature	-25 ~ 55°C	
Storage Temperature	-40° ~ 85°C	
Humidity	10 ~ 95% , non-condensing	
Dimensions	270 (W) x 80 (H) x 195 (D) mm	
Weight	4.2 kg	
Mounting	Wall mounting DIN rail (optional)	