ASUS IoT PE1101N

Intelligent Edge AI system based on the
NVIDIA® Jetson™ Orin™ NX or Nano platform

Features

- Intelligent edge AI system with NVIDIA Jetson™ Orin™ NX or Nano
- Up to 100 TOPS of AI inference performance
- 2x M.2 slots for expansions
- Ultra-compact and fanless design
- Wide power input range, from 12 to 24 VDC

ASUS IoT PE1101N: Compact and powerful edge AI system for demanding applications

The ASUS IoT PE1101N is an intelligent edge AI system based on the NVIDIA® Jetson™ Orin™ NX or Orin™ Nano platform. With an impressive AI inference performance of up to 100 TOPS, this compact system offers powerful computing capabilities for modern AI applications. It is ideal for scenarios where high processing power and low power consumption are required.

Robust and fanless design for challenging environments

The PE1101N features a rugged, fanless design that is optimized for operation in demanding environments. Thanks to its ultra-compact format, the system is particularly space-saving while supporting a wide operating temperature range of -25 to 55 °C and a flexible voltage range of 12 to 24 VDC. These features make it ideal for applications in industry, transportation and smart cities.

Versatile expansion options

With two M.2 slots for expansion, the ASUS IoT PE1101N allows flexible customization to meet various requirements. Expansion options include Wi-Fi, SSD and 4G/5G connectivity, allowing the system to be customized to specific application needs.

The PE1101N not only offers strong performance, but also efficient power management. The combination of powerful hardware and low energy consumption ensures that your intelligent edge AI applications can be operated reliably and economically.

With its powerful NVIDIA Jetson™ Orin™ NX or Orin™ Nano platform, robust design and flexible expansion options, the ASUS IoT PE1101N is the perfect solution for modern edge AI applications that require the highest performance in a compact and reliable format.

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A ONE STOP SYSTEMS COMPANY

Specifications	ASUS IoT PE1101N Jetson Orin Nano 4GB	ASUS IoT PE1101N Jetson Orin Nano 8GB	ASUS IoT PE1101N Jetson Orin NX 8GB	ASUS IoT PE1101N Jetson Orin NX 16GB
SYSTEM				
CPU	6x Arm® Cortex® A78AE v8.2			8x Arm® Cortex® A78AE v8.2
SOM	NVIDIA Jetson™ Orin™ Nano 4GB	NVIDIA Jetson™ Orin™ Nano 8GB	NVIDIA Jetson™ Orin™ NX 8GB	NVIDIA Jetson™ Orin™ NX 16GB
GPU	NVIDIA Ampere GPU with 512 cores and 16 TensorCores	NVIDIA Ampere GPU with 1024 cores and 32 TensorCores		
RAM	Up to 4GB 64-bit LPDDR5	Up to 8GB 128-bit LPDDR5	Up to 8GB 128-bit LPDDR5	Up to 16GB 128-bit LPDDR5
Watchdog	Yes, HW WDT			
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			
USB	2x USB 3.2 Gen2, Type A 1x USB 2.0, Type C for OS Flash			
CANBus	1x CANBus 2.0b, DB-9			
Video	1x HDMI 1.4a, supports up to 3,840 x 2,160 @ 30 Hz		1x HDMI 2.0b, supports up to 3,840 x 2,160 @ 60 Hz	
GPIO	1x HDMI 2.0b, supports up to 3,840 x 2,160 @ 60 Hz			
ENVIRONMENTAL				
Power Supply	12 to 24 VDC, 2-pin DC socket			
Operating Temperature	-25 ~ 55°C (with 0.5 m/s air flow)			
Storage Temperature	-40° ~ 85°C			
Humidity	10 ~ 95% , non-condensing			
Dimensions	120 (W) x 90 (H) x 72 (D) mm			
Weight	0.95 kg			
Mounting	Wall mounting DIN rail (optional)			