

KNERON-KN330P-001

# KNE0330 Plus Specification

KNE0330 Plus

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## Overview

The KNEO330 Plus is an edge computing-based AI server developed by Kneron™ Inc., specifically designed for efficiently processing large-scale language model tasks such as GPT. Below are its key features and advantages:

## Features

### 1. Edge Computing Capabilities:

- Supports running large-scale AI models at the edge, reducing reliance on cloud computing resources.
- Delivers low-latency, high-efficiency inference capabilities, ideal for real-time applications.
- Equipped with Kneron's proprietary NPU (Neural Network Processor) to optimize AI model execution efficiency.
- Supports multiple deep learning frameworks and models, including the GPT series.

### 2. Energy Efficiency and Cost Optimization:

- Reduces cloud computing costs through edge processing.
- Hardware design prioritizes power optimization, suitable for deployment in energy-constrained environments.

### 3. Security:

- Edge computing eliminates data uploads, safeguarding data privacy and model security.

## Advantages

- **Low Latency:** Process data at the edge to reduce transmission time.
- **Efficient Deployment:** Supports localized deployment without reliance on remote cloud services.
- **Dynamic External Data Updates:** To maintain data freshness, Kneron's solution supports asynchronous file updates and refreshes embedded representations, ensuring users receive the latest and most accurate information.
- **Preload knowledge bases relevant to the application domain to reduce hallucinations and lower user requirements for engineering background.**
- **Implement keyword blocking to prevent erroneous responses**

## Hardware Specifications

| Items                 | Description  |
|-----------------------|--|
| Product Name          | KNEO330 Plus Edge GPT Server<br>Edge Computing AI Inference Server, supporting GPT model operation   |
| CPU                   | Intel® i5 10 cores 16 threads 4.6GHz or higher   |
| NPU                   | Kneron™ embedded KNEO series NPU   |
| AI Computing Power    | 400 TOPS equivalent  |
| LLM Support           | Kneron™ LLM model inside.<br>Token size: 16K   |
| Memory                | 32GB DDR4  |
| Storage               | 2TB NVMe SSD   |
| Power Supply          | 100-240V 50/60Hz, Max 850W   |
| Operating System      | Ubuntu Linux   |
| Dimensions            | 428 x 350 x 89mm (rack mount 2U)   |
| Cooling System        | <ul style="list-style-type: none"> <li>• Air cooling (fan)</li> <li>• Heat dissipation design: <ul style="list-style-type: none"> <li>◦ High-efficiency fan module</li> <li>◦ Aluminum heat sink</li> </ul> </li> </ul>  |
| Operating Temperature | 0°C to 40°C  |
| Indicator lights      | <ul style="list-style-type: none"> <li>• Power Input</li> <li>• Hard Drive Access</li> </ul>   |
| External Interfaces   | <p>Front Panel:</p> <ul style="list-style-type: none"> <li>• Power Switch*1</li> <li>• System Reset Button*1</li> <li>• USB2 TYPE A *2</li> </ul> <p>Rear Panel:</p> <ul style="list-style-type: none"> <li>• Power Cable Jack*1</li> <li>• USB TYPE C *1</li> <li>• USB3.2 TYPE A *4</li> <li>• Gigabit Ethernet Port*1 (RJ45)</li> <li>• HDMI *1</li> <li>• Audio Input/Output Ports <ul style="list-style-type: none"> <li>◦ MIC *1</li> <li>◦ LINE OUT*</li> <li>◦ SPDIF *1</li> </ul> </li> </ul> |

