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MLX-A1 Edge AI Box

Product User Guide



To ensure your safety and convenience,
please read the user guide.

mobilint

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User Guide Information

This user guide explains the installation and operation of the Mobilint MLX-A1 Edge AI Box. If you cannot find the necessary information in this guide, please contact Mobilint Technical Support.

Technical Inquiries	discuss.mobilint.com
	tech-support@mobilint.com

Product Overview

The All-in-One Powerhouse for Industrial and Desktop AI

MLX-A1 Edge AI Box is a compact, standalone AI system designed to bring high-performance inference to the absolute edge. Powered by the ARIES NPU (via MLA100 MXM) and an Intel® Core™ i5 processor, it is a fully self-contained system that eliminates the need for cloud connectivity or external GPUs.

Whether deployed on a factory floor or a researcher's desk, the MLX-A1 provides a secure, private, and low-latency environment for running the latest vision, speech, and multimodal AI models, including Large Language Models (LLMs), directly on the device.

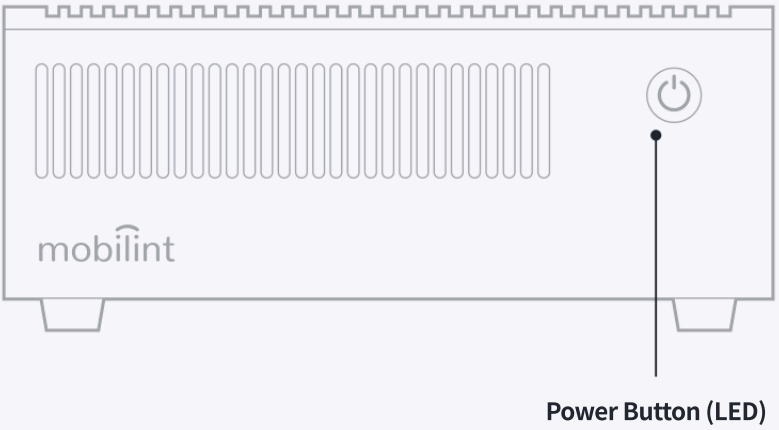
Detailed Specifications

Product Name	MLX-A1
Model Name	MLX-A1 Edge AI Box
NPU	ARIES (via MLA100 MXM)
Performance	160 TOPS*
NPU Frequency	1.25 GHz
NPU Cores	8
CPU	Intel® Core™ i5-13600HE
GPU	Intel® Iris® Xe Graphics
Memory Type	DDR5 SO-DIMM
Memory Capacity	32GB (2 × 16GB)
Flash Memory	512 GB NVMe 2280
Ethernet (LAN)	3 × 2.5 Gbps
LED Indicators	1 (Power LED)
Preloaded SW	Linux or Windows (Optional), Mobilint SDK qb
Supported Frameworks	PyTorch, TensorFlow, TFLite, ONNX, Keras
BIOS	AMI EFI 256 Mbit (SPI)
TDP	70 W
Power Input	19.5 V DC, 230 W Max
HDMI Output	4,096 × 2,304 @ 60Hz (HDMI 2.1)
Operating Temperature	−20°C to 60°C (0.5m/s air flow)
Dimensions (mm)	178 (L) × 116 (W) × 67 (H)
Weight (kg)	1.3 kg (2.9 lb)

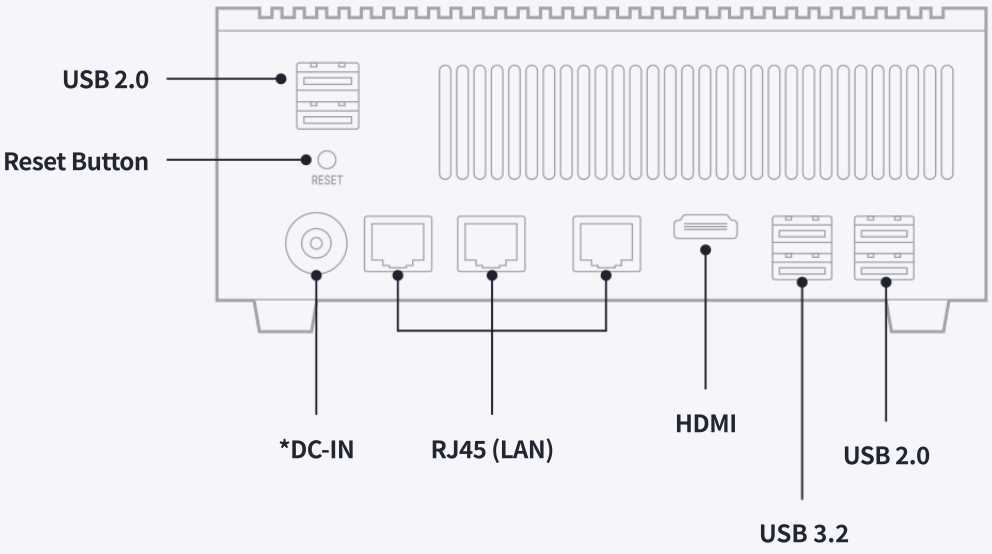
* TOPS based on INT4

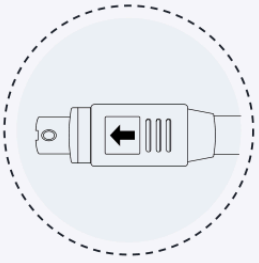
Component Names

- **Front I/O**



- **Rear I/O**

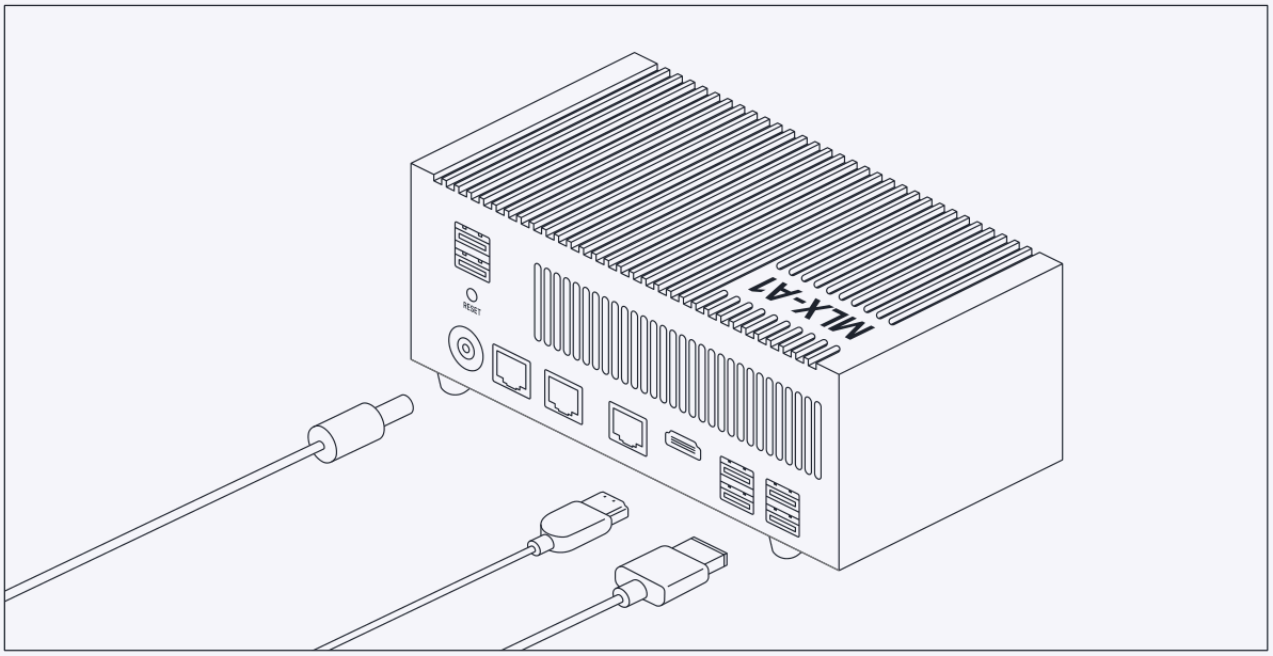




***DC-IN: 4-pin DIN Power Connector**

Insert the DC-IN power connector ensuring the arrow (←) faces downward to prevent product damage from incorrect installation.

Installation Instructions



1 Choose a location to install the MLX-A1.

Make sure the system power cable is disconnected before installing or removing the product.

2 Connect input/output devices, such as a monitor (HDMI), keyboard, mouse, and a camera if needed, along with a LAN (Ethernet) cable to the MLX-A1.

3 Press the power button to turn on the MLX-A1.

The MLX-A1 comes pre-installed with the OS, as well as the drivers and runtime modules for the Mobilint SDK qb. It is ready to use immediately after booting.

4 Connect additional devices and equipment as needed.

Installation Video https://youtu.be/z4mpbFNbkZE?si=z597nDRP4m4fv1ec

⚠ Insert the DC-IN power connector ensuring the arrow (←) faces downward to prevent product damage from incorrect installation.

⚠ Disconnecting the product while it is running a task, such as AI model inference, may cause errors, data loss, or device malfunction. Disconnect the device only after all tasks have completely ended.

Mobilint Software

Mobilint SDK qb is provided through the official support channel, where guidance on how to use the software is also available. For inquiries, you can receive answers through the Mobilint technical support channel (discuss.mobilint.com).

Technical Inquiries	discuss.mobilint.com
	tech-support@mobilint.com

Installation Precautions

- The installation image above is for reference only. Actual installation may vary depending on the system environment.
- Disconnecting the product while it is running a task, such as AI model inference, may cause errors, data loss, or device malfunction. Disconnect the device only after all tasks have completely ended.
- Before connecting, check that each interface port is the right way up and the connector is inserted in the correct location to prevent damage.

Operating Precautions

- Do not connect or disconnect the product while the system is powered on.
- Keep your hands, tools, or cables away from the fan while it is in operation. Ensure the fan has come to a complete stop before removing the product.
- Do not disassemble or modify the product without proper guidance. This may result in product damage, electric shock, or other unexpected hazards.
- Do not touch the product with wet hand(s) to prevent electric shock.
- Operating the product in environments with high humidity or insufficient ventilation may reduce its lifespan. Ensure that water or other liquids do not come in contact with the product, as this may cause serious damage.
- Keep the product in its storage packaging box when not in use.

Certification Status

	**KC (South Korea)** Verifies compliance with electromagnetic compatibility (EMC) and product standards.
	**CE (European Union)** Verifies compliance with EU safety, health, environmental, and consumer protection standards.
	**FCC (United States)** Verifies compliance with electromagnetic compatibility (EMC) and product standards.
	**VCCI (Japan)** Verifies compliance with electromagnetic interference (EMI) and usage regulations.
	**BSMI (Taiwan)** Verifies compliance with electromagnetic compatibility (EMC) and product safety regulations.

For details on certifications and standards,
please contact the Mobilint user forum (discuss.mobilint.com).

Mobilint Technical Inquiries

- discuss.mobilint.com
- tech-support@mobilint.com

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- www.mobilint.com

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This user guide is subject to change without prior notice due to product improvements or version updates.

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