EN

MLA100 PCIe Card

Product User Guide



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

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User Guide Information

This user guide explains how to install and operate the Mobilint MLA100 PCIe Card. If you cannot find the information you need in this guide, please contact Mobilint Technical Support.

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

Product Overview

High-Performance AI Accelerator for Edge Servers and Industrial Computing
MLA100 PCIe Card is a leading-edge AI accelerator powered by Mobilint's flagship AI chip, ARIES. Designed to overcome the thermal and power limitations of traditional GPUs, MLA100 delivers server-class inference performance in a compact, low-power form factor.

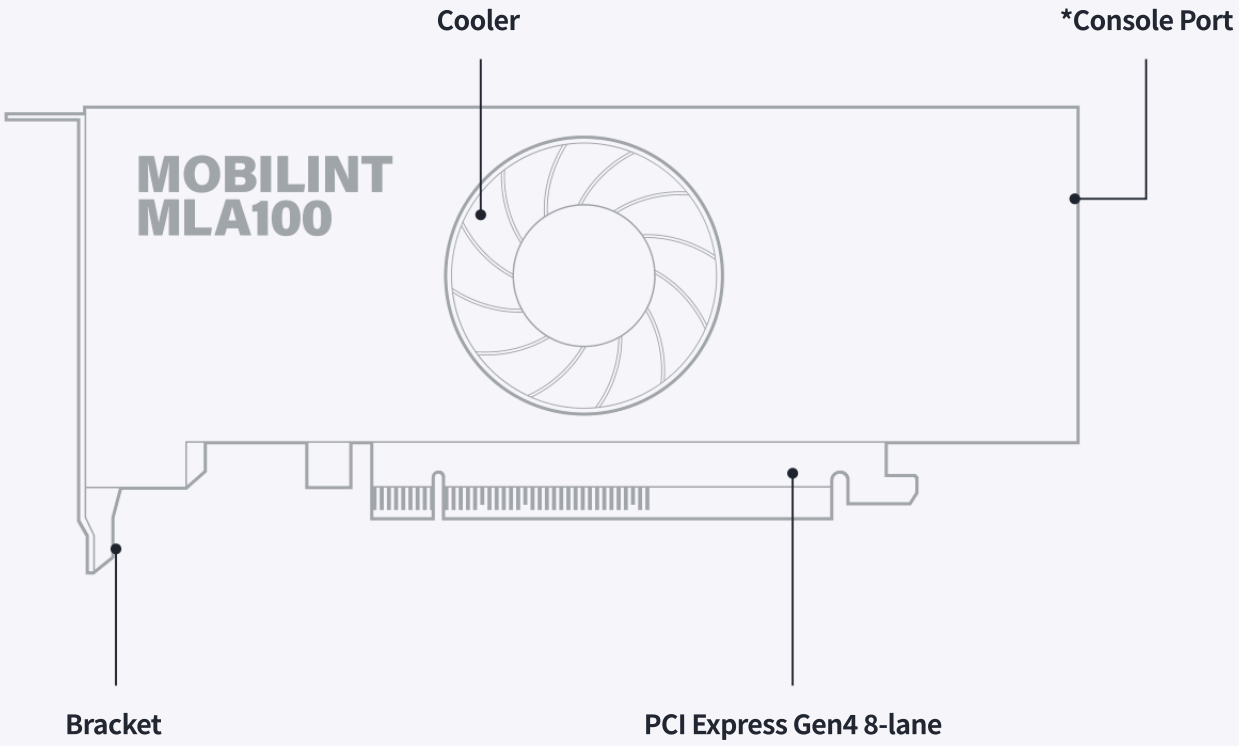
It is a plug-and-play solution that allows existing industrial PCs and edge servers to run complex deep learning models – from the latest vision models to transformers and LLMs.

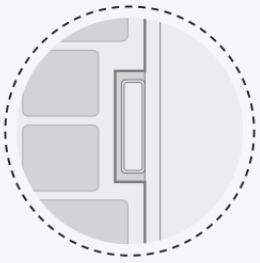
Detailed Specifications

Product Name	AI Accelerator PCIe Card
Model Name	MLA100 PCIe Card
NPU	ARIES
Performance	160 TOPS*
NPU Frequency	1.25GHz
NPU Cores	8
Memory Type	LPDDR4X
Memory Capacity	16 GB / 32 GB
Memory Bandwidth	66.7 GB/s
Flash Memory	32 MB
Host Interface	PCI Express Gen4 8-lane
UART	1 Port
LED Indicators	2 ea (Power, Heartbeat)
Supported OS	Linux, Windows
Supported Frameworks	PyTorch, TensorFlow, TFLite, ONNX, Keras
TDP	25 W
Input Voltage	DC +12 V
Cooling System	Heatsink, Fan cooling
Dimensions (mm)	167.6 (L) × 68.9 (W) × 14.4 (H)
Weight (g)	225

* TOPS based on INT4

Component Names

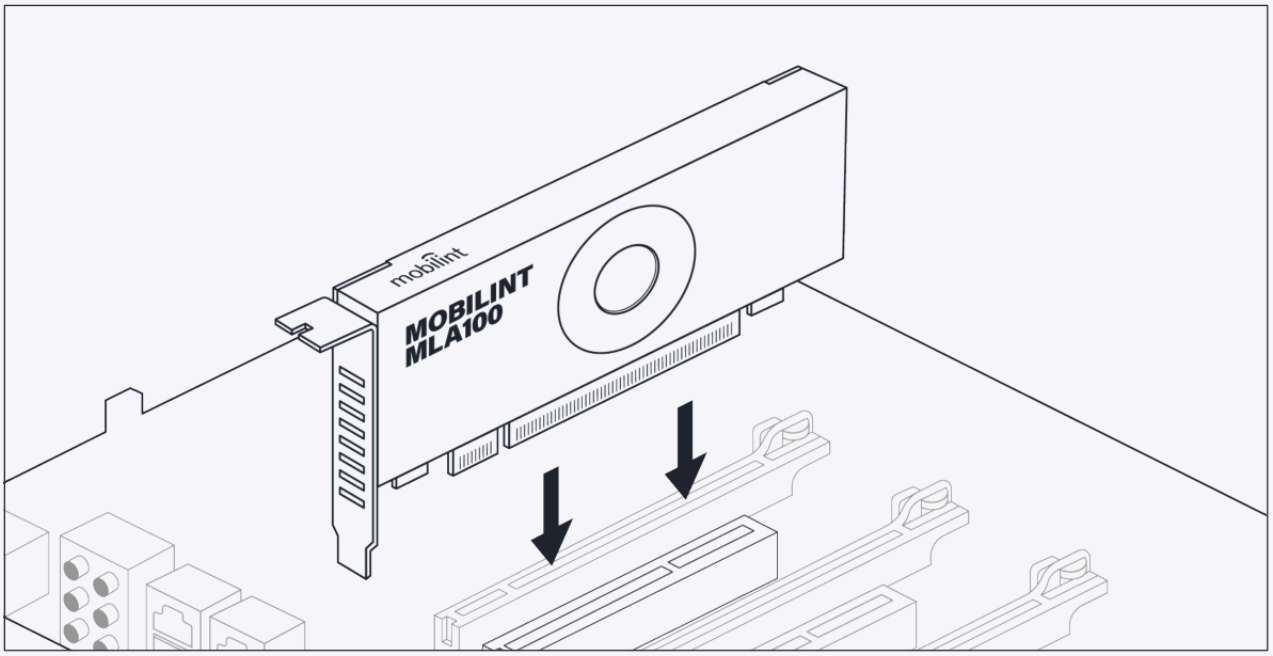




***Console Port**

This port is used by Mobilint engineers for product inspection and maintenance.

Installation Instructions



1 Turn off the power and unplug the power cord.

Please ensure that the system power cable is disconnected before installing or removing the product.

2 Open the chassis and locate the motherboard.

3 Insert the product into the PCIe slot until fully seated.

If a card is already installed, remove it. Align the product with the PCIe 8-lane slot and press it down vertically and gently. Make sure it is firmly seated in the slot.

4 Close the chassis and connect the power cord.

Installation Video https://youtu.be/D7DaadhwaMw?si=CkEpy0aYElvjgERJ

⚠ 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.
- Before installing the product, discharge any static electricity from your body by touching the metal frame inside the powered-off system.
- Handle the product by its edges to avoid contact with circuitry or the PCIe connector.
- Ensure that clothing or accessories do not come in contact with electronic components.

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.
RoHS	**RoHS (European Union and selected countries)** Restricts the use of hazardous substances (e.g., lead, mercury) in electrical and electronic equipment.

For more information on certifications and standards,
please contact Mobilint Technical Support: tech-support@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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