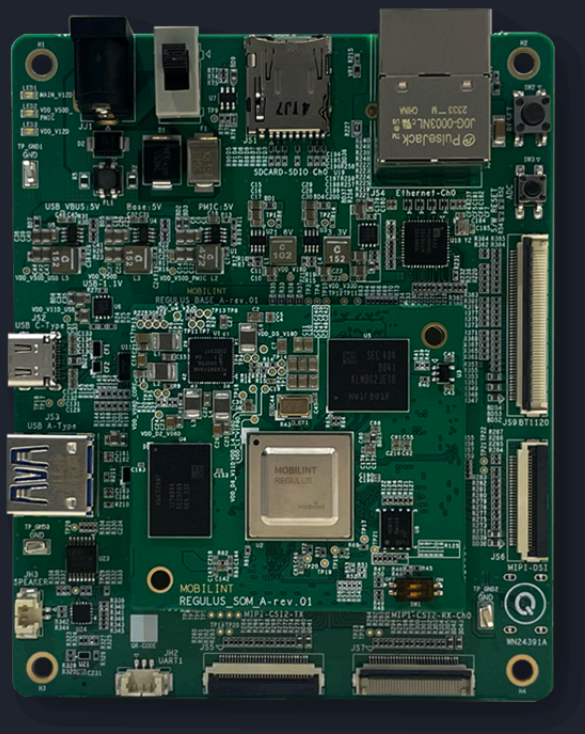
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REGULUS AI EVK

Product User Guide



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

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TABLE OF CONTENTS

1 INTRODUCTION

User Guide Information 03

Product Overview 04

Detailed Specifications 05

2 HARDWARE & SETUP

Component Names 06

Installation Instructions 07

Software 08

3 SAFETY INFORMATION

Installation Precautions 09

Operating Precautions 09

User Guide Information

This user guide explains the installation and operation of the Mobilint REGULUS AI EVK. 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

Development Board for High-Performance On-Device AI

The REGULUS AI EVK (Evaluation Kit) is a development and evaluation kit built on the REGULUS AI SoC (System on Chip), providing a comprehensive platform for developing and benchmarking high-performance on-device AI applications.

Integrating a Quad-core ARM CPU, a powerful ISP, high-efficiency AI processor, and rich connectivity interfaces, including MIPI-CSI, USB, Ethernet, and UART, REGULUS AI EVK functions as a complete independent system operating at an astonishing sub-8 W power envelope.

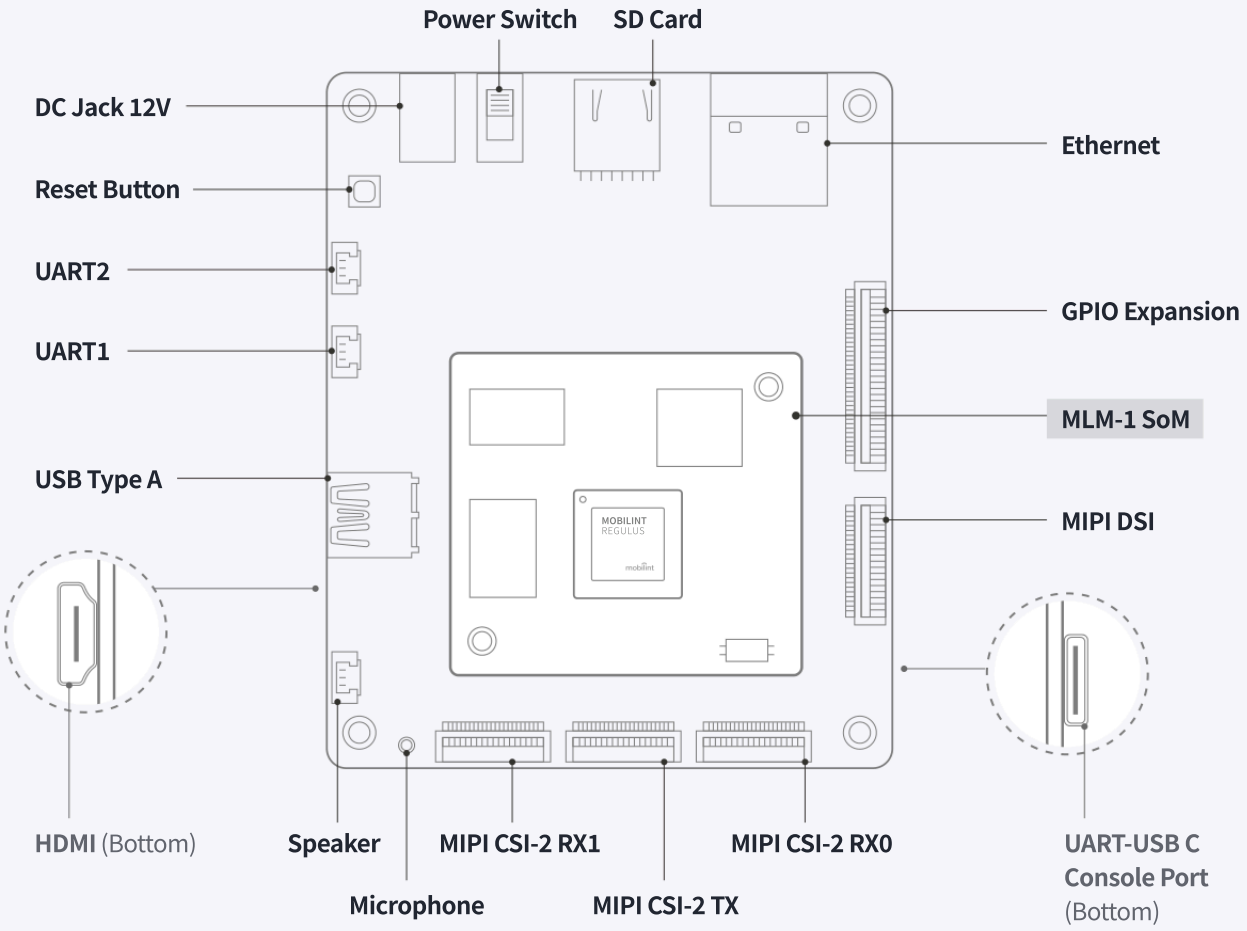
Detailed Specifications

Product Name	REGULUS AI EVK
NPU	REGULUS AI SoC
Performance	20 TOPS*
TDP	8 W
CPU	Quad-core ARM Cortex-A53, ARM Cortex-M0+
Memory Type	LPDDR4X
Memory Capacity	Up to 8 GB
Memory Speed	Up to 4,266 Mbps
Storage	• 32 GB eMMC 5.1 • microSD Card Slot • 256 MB Dual/Quad SPI NOR Flash
Data Interfaces	• **Ethernet:** 2 × 1GbE (RJ-45) • **USB:** 1 × USB 3.1 Type-A • **Audio:** 2 × I2S (Speaker Out, Mic In) • **Debug Port:** 1 × USB Type-C (UART) • **Debug Connector:** 1 × 12-pin JTAG Connector • **Camera Input:** 2 × MIPI CSI-2 RX, 1 × BT.1120 • **Display Output:** 1 × MIPI CSI-2 TX, 1 × MIPI DSI
Multimedia Capabilities	**Video Codec** • MJPEG Encoder/Decoder (4K @ 120 FPS) • H.264/5 Encoder/Decoder (4K @ 60 FPS) **Image Signal Processing (ISP)** • Supports ISP (Up to 8M @ 60 FPS)

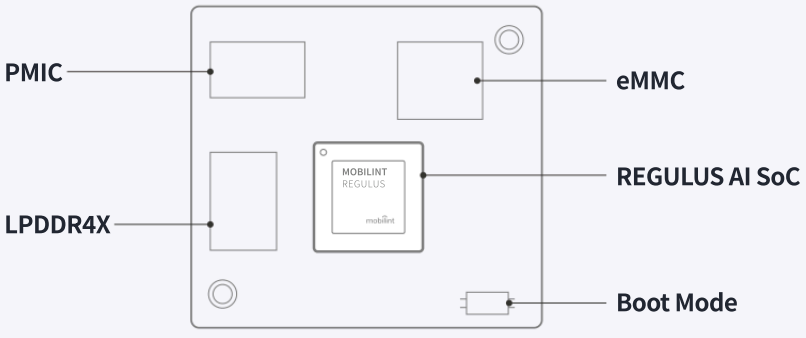
* TOPS based on INT4

Component Names

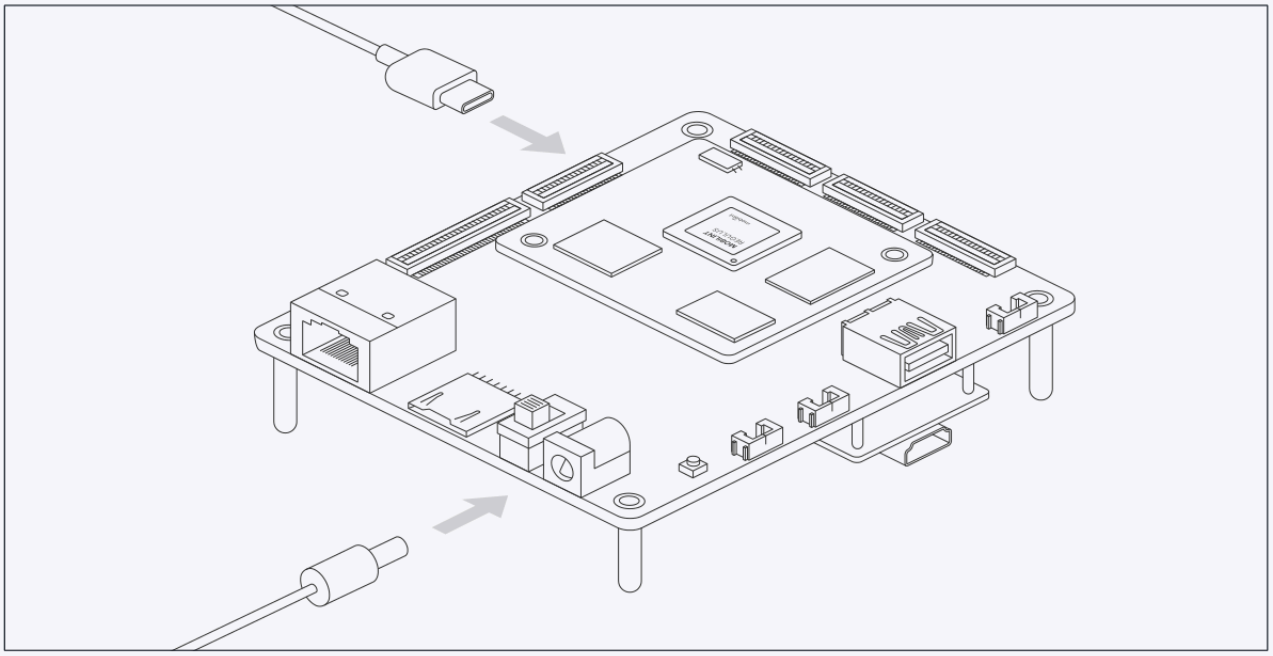
- **REGULUS AI EVK**



- **MLM-1 SoM**



Installation Instructions



1 Check the Package Contents.

The REGULUS AI EVK includes a development board with the SoM pre-installed and a power adapter.
Use the included 12V DC power adapter. Do not use power adapters with other voltage ratings.

2 Prepare a USB Type-A to USB Type-C cable, and connect it to the UART USB Type-C console port located on the bottom of the board.

3 Connect the other end of the cable to a USB Type-A port on the host PC.

It is recommended that the host PC be powered off before making the connection.

4 Connect the power cable to the board, and then turn on the host PC.

REGULUS boots immediately when the power switch is turned on,
allowing you to easily test development applications from the connected host PC.

Installation Video https://youtu.be/srnKqKsvbws?si=fwgg7ukN99242R0A

⚠ 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.
- 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.
- 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.

Mobilint Technical Support

- contact@mobilint.com

Mobilint Website

- www.mobilint.com

Mobilint Locations

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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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