Premio RCO-6000 AI Edge Inference Computer Instructions

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Contents

Document Information

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Overview

1. **Introduction**
   The RCO-6000-CML-2-2B15M Series AI Edge Inference Computer incorporates advanced performance with Intel's 10th Generation Core processors, an advanced GPU accelerator, and expandable, hot-swappable NVMe SSDs with its modular EDGEBoost Nodes. As processing power shifts away from resources in the cloud, deployments in remote and mobile environments require ruggedized systems that can withstand exposure to environmental factors such as dust, debris, shock, vibration, and extreme temperatures. Premio's AI Edge Inference Computers are tested and validated to ensure reliable performance amid deployments in the harshest environmental settings.
2. **About AWS IoT Greengrass**
   To learn more about AWS IoT Greengrass, see how it works and what's new.

Hardware Description

1. **Data Sheet**

Click on this link **https://premio.blob.core.windows.net/premio/uploads/resource/data- sheet/RCO-6000-CML/DS_RCO-6000-CML-2-2B15M_Premio.pdf** to view the datasheet of RCO-6000-CML-2-2B15M.

2. **Additional Hardware References**

   Please refer to the **RCO-6000-CML-2-2B15M** device page for more product details

3. **User Provided Items**

   Not applicable.

4. **3rd Party Purchasable Items**

   Not applicable.

Set up your Development Environment

AWS IoT Greengrass supports both Windows and Linux: **https://docs.aws.amazon.com/greengrass/v2/developerguide/operating-system-feature- support-matrix.html**.

Please refer to the developer guide for the required tools and proper setup: **https://docs.aws.amazon.com/greengrass/v2/developerguide/what-is-iot- greengrass.html**

It is recommended to install the following tools/SDKs:

- Java Runtime Environment (JRE) version 8 or greater
- Java Development Kit (JDK) Amazon Corretto 11 (https://aws.amazon.com/corretto/) or OpenJDK 11 (**https://openjdk.java.net/**)
- GNU C Library (**https://www.gnu.org/software/libc/**); (glibc) version 25 or greater

Set up your Hardware

Please refer to the device **user's manual** for the hardware setup.

Setup your AWS account and Permissions

Refer to the online AWS documentation at Set up your AWS Account: **https://docs.aws.amazon.com/iot/latest/developerguide/setting-up.html**

Follow the steps outlined below to create your account and user to get started:

- Sign up for an AWS account: https://docs.aws.amazon.com/iot/latest/developerguide/setting-up.html#aws-registration
- Create a user and grant it the proper permissions: https://docs.aws.amazon.com/iot/latest/developerguide/setting-up.html#create-iam-user
- Open the AWS IoT console: **https://docs.aws.amazon.com/iot/latest/developerguide/setting-up.html#iot-console- signin**

Create Resources in AWS IoT

Refer to the instructions on how to create AWS IoT resource: **https://docs.aws.amazon.com/iot/latest/developerguide/create-iot-resources.html**

Follow the steps outlined in these sections to provision resources for your device:

- Create an AWS IoT Policy
- Create a thing object

Install the AWS Command Line Interface

To install the AWS CLI on your host machine, refer to the instructions: **https://docs.aws.amazon.com/cli/latest/userguide/getting-started-install.html**
Installing the CLI is required to complete the instructions in this guide. Once you have installed AWS CLI, configure it per the instructions: **https://docs.aws.amazon.com/cli/latest/userguide/cli-configure-quickstart.html#cli- configure-quickstart-config**

Set the appropriate values for access key ID, secret access key, and AWS Region based on your AWS account. You can set Output format to “json” if you prefer.

Install AWS IoT Greengrass

Follow the online guide to ***Install with automatic provisioning***. Refer to the instructions in the following steps:

Set up the device environment

Provide AWS credentials to the device. For development environments, you can use the option “Use long-term credentials from an IAM User”. An example of how to do this is shown below:

export AWS_ACCESS_KEY_ID=<the access key id for your user>

export AWS_SECRET_ACCESS_KEY=<the secret access key for your user>

Download the AWS IoT Greengrass Core software **Install the AWS IoT Greengrass Core software**

Create a Hello World Component

In AWS IoT Greengrass v2, components can be created on the edge device and uploaded to the cloud, or vice versa.

To create, deploy, test, update and manage a simple component on your device, follow the instructions under the section “To Create a Hello World Component”:
https://docs.aws.amazon.com/greengrass/v2/developerguide/getting-started.html

To upload the component to the cloud, follow the instructions under the section “Upload Your Component”:
https://docs.aws.amazon.com/greengrass/v2/developerguide/upload-first- component.html

Deploy your component

Follow the instructions online at **Deploy your Component** to deploy and verify that your component is running.

Troubleshooting

For AWS IoT Greengrass general troubleshooting tips, please refer to:

https://docs.aws.amazon.com/greengrass/v2/developerguide/troubleshooting.html

For device specific troubleshooting guide, please contact us directly at techsupport@premioinc.com.

Documents / Resources

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	Premio RCO-6000 AI Edge Inference Computer [pdf] Instructions RCO-6000-CML-2-4B7M, RCO-6000 AI Edge Inference Computer, RCO-6000, AI Edge Inferenc e Computer, Inference Computer, Computer

References

- OpenJDK Download - Corretto - AWS
- OpenJDK
- User Manual