

RCO-6000-RPL-2 Industrial Computer w/ LGA 1700 for Intel 12/13th Gen CPU & R680E PCH, 2x PCIe Getting Started Guide for AWS IoT Greengrass

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1 Document Information

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1.0	December 2023	Publish Document

2 Overview

2.1 Introduction

The RCO-6000-RPL-2 Series AI Edge Inference Computer incorporates advanced performance with Intel's 13th 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.

2.2 About AWS IoT Greengrass

To learn more about AWS IoT Greengrass, see [how it works](#) and [what's new](#).

3 Hardware Description

3.1 DataSheet

Click on this link (https://premio.blob.core.windows.net/premio/uploads/resource/datasheet/RCO-6000-RPL/DS_RCO-6000-RPL-2_Premio.pdf) to view the datasheet of RCO-6000-RPL-2.

3.2 Additional Hardware References

Please refer to the [RCO-6000-RPL-2](#) device page for more product details

3.3 User Provided Items

Not applicable.

3.4 3rd Party Purchasable Items

Not applicable.

4 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 2.25 or greater

5 Set up your Hardware

Please refer to the device [user's manual](#) for the hardware setup.

6 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>

7 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

8 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.

9 Install AWS IoT Greengrass

Refer to the instructions on how to install AWS IoT Greengrass Core:

<https://docs.aws.amazon.com/greengrass/v2/developerguide/install-greengrass-core-v2.html>

You can download the latest version of the AWS IoT Greengrass Core from this location:

<https://d2s8p88vqu9w66.cloudfront.net/releases/greengrass-nucleus-latest.zip>

Alternatively, you can download a specific version of the AWS IoT Greengrass Core software from the location below. Replace version with the version you wish to download:

<https://d2s8p88vqu9w66.cloudfront.net/releases/greengrass-version.zip>

10 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>

10.1 Deploy your component

Follow the instructions online at [Deploy your Component](#) to deploy and verify that your component is running.

11 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.