VCO-6000-RPL-4-2PWR Machine Vision Computer w/ LGA 1700 for Intel 12/13th Gen CPU & R680E PCH, 3x PCIe, 4x Expansion Slots, 2x Power Input Getting Started Guide for AWS IoT Greengrass

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1 Document Information

Version	Date	Description
1.0	December 2023	Publish Document

2 Overview

2.1 Introduction

Designed with Intel® 12th / 13th Gen. Intel® Core™ processors, the VCO-6000-RPL-4-2PWR Series deliver robust performance, high reliability, and unmatched functionality for industrial machine vision applications. Advanced passive cooling technology and resiliance against severe physical conditions offer both durability and reliability in industrial environments. Available rich, multi-functional I/O interfaces offer easy plug and play installation for other devices. Designed for rugged operation in manufacturing plants, the VCO-6000-RPL-4-2PWR Series are ideal for industrial machine vision applications requiring high-performance for inspection, guidance and identification.

Premio Machine Vision Computers certified for AWS IoT Greengrass enable powerful processing and image analysis of vision data peripherals like high-speed sensors and cameras. The combined solution delivers intensive accuracy to deployments leveraging visual data. "

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/data-sheet/VCO-6000-RPL/DS_VCO-6000-RPL-4-2PWR_Premio.pdf) to view the datasheet of VCO-6000-RPL-4-2PWR.

3.2 Additional Hardware References

Please refer to the VCO-6000-RPL-4-2PWR 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.