

BCO-1000-EHL-20 Fanless Mini Computer With Intel® Celeron® J6413 Processor, 2x DP, 2x COM, 1x 2.5” SATA HDD Bay Getting Started Guide for AWS IoT Greengrass

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1 Document Information

Version	Date	Description
1.0	August 2023	Publish Document

2 Overview

2.1 Introduction

The BCO-1000-EHL-20 Series is an ultra-compact fanless mini computer that delivers unmatched durability and powerful computing performance for Industrial IoT and data telemetry at the edge. The latest BCO-1000-EHL Series delivers up to a 60% increase in overall performance over the previous generation BCO-1000-J1900 Series. The BCO-1000-EHL Series supports features with Intel® Celeron® J6413 Series (also known as Elkhart Lake), customizable I/O's, wireless mobile connectivity, and a hardened industrial grade design to meet the demands of intelligent IIoT at the edge. With heavier workloads, harsher environments, and more complex data to analyze, the BCO-1000-EHL is a proven fanless mini computer.

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/BCO-1000-EHL/DS_BCO-1000-EHL-20_Premio.pdf) to view the datasheet of BCO-1000-EHL-20.

3.2 Additional Hardware References

Please refer to the [BCO-1000-EHL-20](#) 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.