

IPC-320

Getting Started Guide for AWS IoT Greengrass

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1 Document information

1.1 Document revision history

Date	Version	Description
2023/9/1	V01	First release

1.2 Applicable operating systems for this guide

This guide is applied to the IPC-320 system with an Intel processor and an operating system to run AWS Greengrass.

2 Overview

Advantech’s IPC-320 is a compact tower IPC powered by 12th/13th Gen Intel® Core™ i processors, product keeping 7.7liters of space make it ideal for in-cabinet installation. With exclusive thermal design, IPC-320 has the advantage of low noise operation (34dB acoustics under 100% workloads)

3 Hardware description

3.1 Datasheet

[IPC-320 datasheet](#)

If you have problem access the link above, go to [Advantech IPC-320 product page](#), click the “Datasheet “ button for datasheet download.

3.2 Standard kit contents

Default Packing List

- IPC-320 (default with 250W power supply)
- AIMB-308 x 1
- One pair of mounting brackets
- One bag of screws for motherboard / HDD&SSD installation
- SATA power cable for storage x 1
- SATA data cable x 1

For more detail, please visit Advantech website – [IPC-320 page](#).

3.3 User provided items

Other accessories for ordering

- Blower cooler
- Fan kit
- Intrusion switch cable

3.4 3rd party purchasable items

None

4 Set up your development environment

4.1 Tools installation (IDEs, Toolchains, SDKs)

As an industrial PC, the development environment for this device should be determined by the user based on its intended use.

5 Set up device hardware

Please refer to link below for all the manuals of IPC-320, including IPC-320 user manual and AIMB-308 start up manual.

[IPC-320 manual](#)

If you have problem access the link above, go to [Advantech IPC-320 product page](#), click the “Documents & Downloads “ button for all the product manuals download.

6 About AWS IoT Greengrass

To learn more about AWS IoT Greengrass, see [How AWS IoT Greengrass works](#) and [What's new in AWS IoT Greengrass Version 2](#).

7 Greengrass prerequisites

If you do not have an existing AWS account and user, refer to the online AWS documentation at Set up your AWS Account (<https://docs.aws.amazon.com/iot/latest/developerguide/setting-up.html>).

To get started, follow the steps outlined in the sections below:

- Sign up for an AWS account (<https://docs.aws.amazon.com/iot/latest/developerguide/setting-up.html#aws-registration>)
- Create an administrative user (<https://docs.aws.amazon.com/iot/latest/developerguide/setting-up.html#create-an-admin>)
- Open the AWS IoT console (<https://docs.aws.amazon.com/iot/latest/developerguide/setting-up.html#iot-console-signin>)

Pay special attention to the Notes.

8 Install AWS IoT Greengrass

Follow the online guide to Install with automatic provisioning (<https://docs.aws.amazon.com/greengrass/v2/developerguide/quick-installation.html>). 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>
```

Note: Production environment should use temporary credentials.

- [Download the AWS IoT Greengrass Core software](#)
- [Install the AWS IoT Greengrass Core software](#)

9 Create a “Hello World” component

9.1 Create the component on your edge device

Follow the instructions online under the section Develop and test a component on your device (<https://docs.aws.amazon.com/greengrass/v2/developerguide/create-first-component.html>) to create a simple component on your device.

9.2 Upload the “Hello World” component

Follow the instructions online at Create your component in the AWS IoT Greengrass service (<https://docs.aws.amazon.com/greengrass/v2/developerguide/upload-first-component.html>) to upload your component to the cloud, where it can be deployed to other devices as needed.

9.3 Deploy your component

Follow the instructions online at Deploy your component (<https://docs.aws.amazon.com/greengrass/v2/developerguide/deploy-first-component.html>) to deploy and verify that your component is running.

10 Troubleshooting

If you meet problem with the IPC-320 system, please contact our AE team (email: AE.ISG.ACL@advantech.com) with your questions and doubts, Advantech AE team would help you clarify and solve the issue.