



QUICK START GUIDE

Apollo3 Blue Plus Voice-on-SPOT

Ultra-Low Power Apollo SoC Family

A-SOCA3P-QSGA02EN v1.0



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Revision History

Revision	Date	Description
1.0	December 6, 2022	Document initial public release

Reference Documents

Document ID	Description
A-SOCA3P-UGNA01EN	Apollo3 Blue Plus Voice-on-SPOT User's Guide

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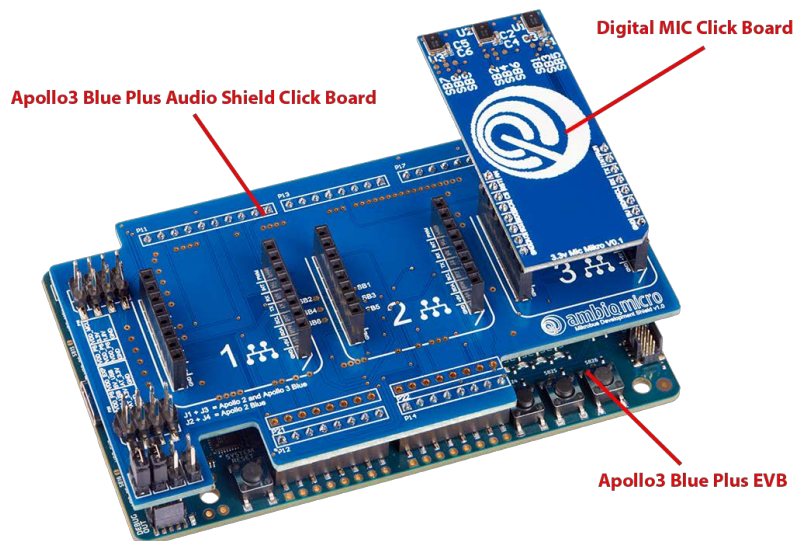
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Apollo3 Blue Plus Voice-on-SPOT Evaluation Kit

1.1 Hardware

- Apollo3 Blue Plus EVB
- Apollo3 Blue Plus Audio Shield Click Board
- Digital MIC Click Board

Figure 1-1: Apollo3 Blue Plus Voice-on-SPOT Kit



1.2 Software

- Ambiq Voice-on-SPOT SDK: **AmbiqSuite-VoS_v1.3.0_Light.7z**
- Ambiq Voice-on-SPOT SDK add-ons:
 - DSPC TalkTo add-on: **VoS_add-on_DSPC AWE_v1.3.0.7z**
 - Sensory THF add-on: **VoS_add-on_Sensory THF_v1.3.0.7z**

SECTION

2

Alexa Voice Service Demo

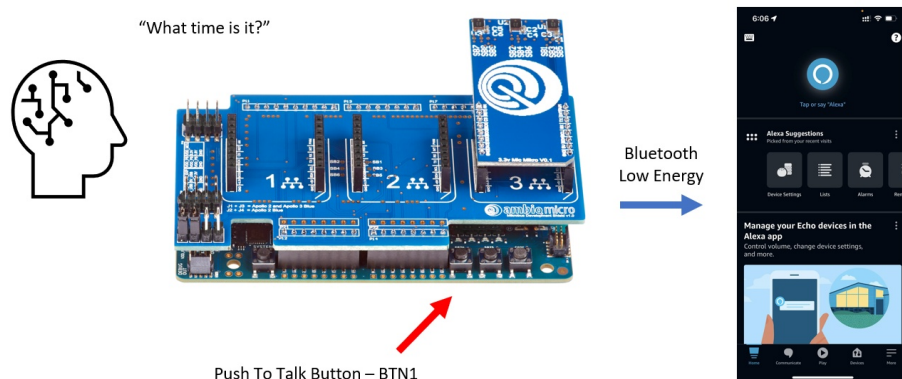
2.1 Light Version

Use the following to try the light version demo using the MEMSensing Digital MIC Click Board:

NOTE: The light version supports Push to Talk for user utterance transfer.

1. Build **vos** example with target "Light":
`vos/boards/apollo3p_evb/examples/vos`
2. Make sure the default setting is for DMIC (Slot 0).
3. Download binary to the Apollo3 Blue Plus EVB using Segger J-Flash Lite or download from IDEs (e.g., IAR, Keil).
4. Reset and connect with the Alexa app (e.g., iOS, Android).
5. Open the Alexa app, select **Device, Add Device**, then select **Headphones**.
6. Connect to **VoS-xxx-AMA-xxx**.
7. Push **BTN1** button on the Apollo3 Blue Plus EVB.
8. Ask a question or command (e.g., "what time is it?", "what's the weather in NY?")

Figure 2-1: Light Version Demo



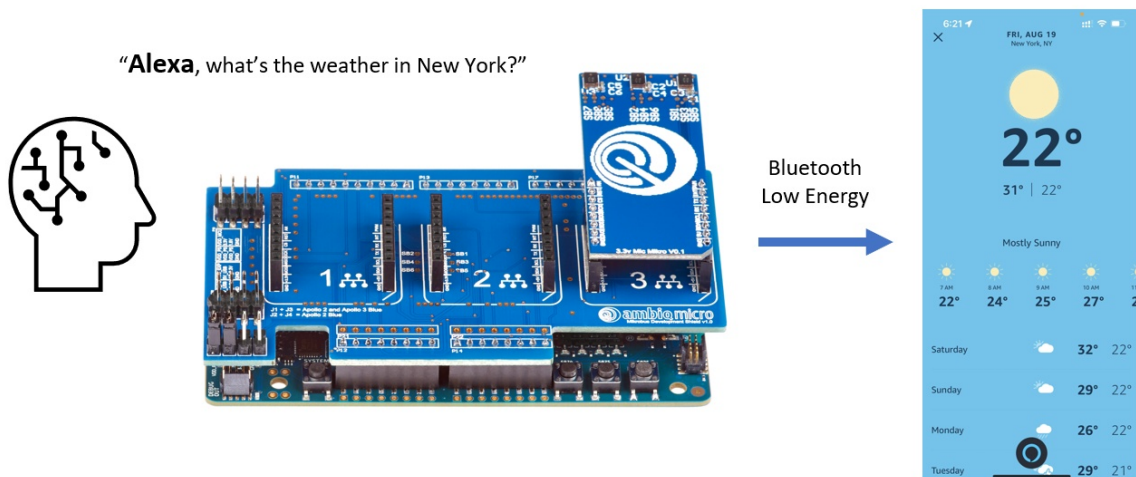
2.2 Always-on Listening (Wake Word Detection) - Sensory TrulyHandsFree (THF) Engine

Use the following to try the always-on listening (wake word detection) Sensory THF engine demo:

NOTE: In order to support wake word detection, you must have the Sensory THF add-on package.

1. Extract and overwrite files to the VoS SDK root folder.
2. Build **vos** example with build target "THF":
`vos/boards/apollo3p_evb/examples/vos`
3. Make sure the default setting is for DMIC (Slot 0).
4. Download binary to Apollo3 Blue Plus EVB using Segger J-Flash Lite or download from IDEs (e.g., IAR, Keil).
5. Reset and connect with Alexa app (e.g., iOS, Android).
6. Open the Alexa app, select **Device, Add Device**, then select **Headphones**.
7. Connect to **VoS-xxx-AMA-xxx**.
8. Ask a question or command (e.g., "**Alexa**, what time is it?", "**Alexa**, what's the weather in New York?")

Figure 2-2: Always-on Listening (Wake Word Detection) - Sensory THF Engine



For additional information regarding the VoS SDK, refer to the *Apollo3 Blue Plus Voice-on-SPOT Kit Reference Design*.



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