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Microsemi Corporation (Nasdaq: MSCC) offers a comprehensive portfolio of semiconductor and system solutions for aerospace & defense, communications, data center and industrial markets. Products include high-performance and radiation-hardened analog mixed-signal integrated circuits, FPGAs, SoCs and ASICs; power management products; timing and synchronization devices and precise time solutions, setting the world's standard for time; voice processing devices; RF solutions; discrete components; enterprise storage and communication solutions, security technologies and scalable anti-tamper products; Ethernet solutions; Power-over-Ethernet ICs and midspans; as well as custom design capabilities and services. Microsemi is headquartered in Aliso Viejo, California and has approximately 4,800 employees globally. Learn more at www.microsemi.com.

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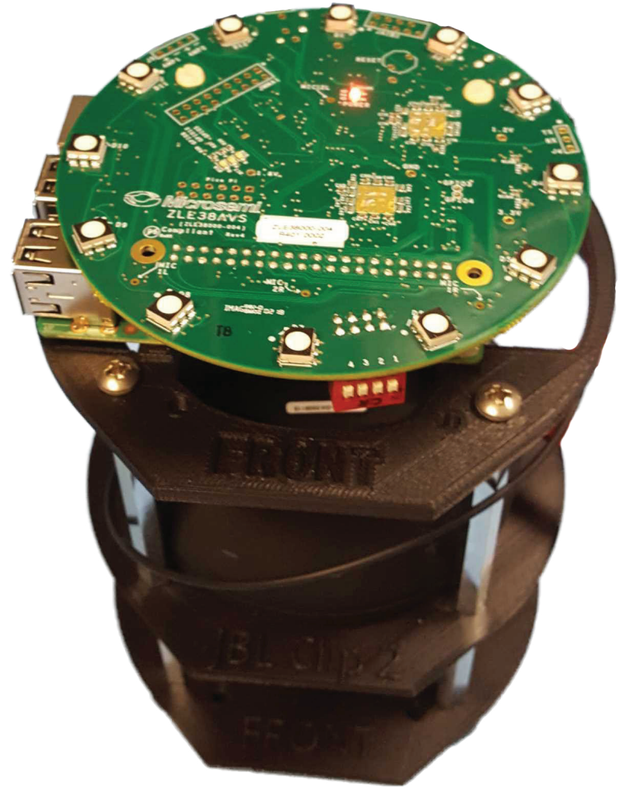
Microsemi AcuEdge™ Development Kit for Amazon AVS ZLK38AVS2 Quickstart Card

Kit Contents

Quantity	Description
1	ZLE38000-004 Evaluation Board Rev 401
1	Pillar (plastic stand) and hardware assembly
1	Raspberry Pi 3
1	32 GB micro SD Card
1	JBL Clip2 Speaker
1	5 V, 2 A micro USB power supply
1	This quickstart card



Overview

Microsemi AcuEdge™ Development Kit for Amazon AVS is engineered to help you evaluate voice-enabled front-end audio systems for your Alexa-enabled products. This kit features Microsemi's ZL38063 voice processor powered by Microsemi's proprietary AcuEdge™ technology for front-end audio clean-up and Sensory's TrulyHandsFree™ "Alexa" wake-word engine. Options for one, two, or three microphone configurations allow testing for a variety of applications and environments.

Hardware Assembly Instructions

1. Mount Raspberry Pi 3 to the top ring with four nylon screws, two nylon standoffs, and two nylon nuts. The circuit board should align with the 40-pin expansion header toward the front of the ring. The nuts go to either side of the expansion header and the standoffs go opposite to provide stability.
2. Using the outermost holes, mount base using four rubber feet, four metal screws, and four short metal standoffs.
3. Place center ring (marked JBL Clip 2) on the male threaded ends of the short metal standoffs. Mount the four long metal standoffs.
4. Place the JBL Clip2 Speaker facing down in the center ring. The speaker will fit snugly in this position.
5. Using remaining four metal screws, mount the top ring to the long metal standoffs.
6. Mount the ZLE38000-004 Rev 401 circuit board on to the Raspberry Pi board's 40-pin expansion header, using the remaining two nylon screws to secure.
7. Plug the speaker cord into the 3.5 mm audio jack of the ZLE38000-004.
8. Follow the below instructions to load the software image onto the SD card. When complete, insert SD card into Raspberry Pi and power the Raspberry Pi from the included 5 V, 2 A supply.

Software Installation

A pre-configured SD card image can be downloaded from the ZLK38AVS GitHub project page:
https://github.com/Microsemi/ZLK38AVS#important-considerations

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Quickstart Card

Additional Documentation

Located in the "/ZLK38AVS/docs" directory on the Raspberry Pi 3 after installation is completed:

- Microsemi_ZLK38AVS_Quickstart.pdf: This Quickstart card
- Microsemi_ZLK38AVS_ProductBrief.pdf: Kit product brief
- Microsemi_ZL38063_ProductBrief.pdf: Microphone Array ASR-assist Audio Processor description

Support

To learn more about Microsemi and its development kit, visit:
https://www.microsemi.com/products/audio-processing/audio-processing-partners

To learn more about Amazon Alexa Voice Service and access the Amazon AVS API reference guide, visit:
https://developer.amazon.com/alexa-voice-service/

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