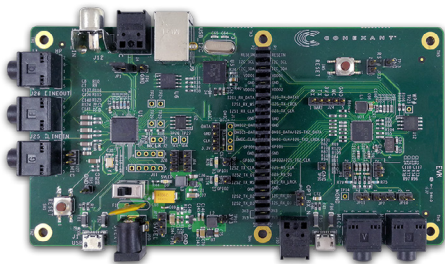


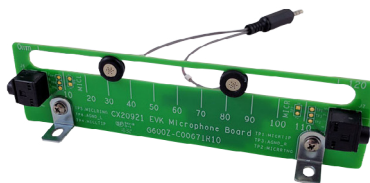
Synaptics NXP 2MIC AVS Dev Kit - Arrow Sales Brief

# Arrow Kit for Amazon AVS with Synaptics 2Mic and NXP i.MX7D

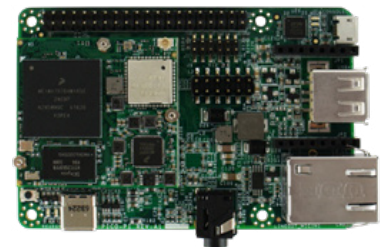
The Synaptics NXP 2Mic AVS Dev Kit is the complete solution to expedite development of Alexa Home Products. The kit consists of a **Synaptics AudioSmart™ 2-Mic Development Kit** for Amazon Alexa Voice Service (AVS) and a **PICO-PI-IMX7 development board** with the NXP i.MX 7D processor. The kit outputs a fully functioning Amazon AVS prototype that uses the Synaptics AudioSmart™ 2-Mic Development Kit as an audio front end, and the PICO-PI-IMX7 i.MX 7D development board as the processor handling wake word recognition and interface to Amazon’s AVS service.



Synaptics CX20921 Evaluation Board



Synaptics 2 Microphone Module



NXP PICO-PI-IMX7

## Key Features

1. Cost-effective hands-free voice interaction with technology to detect and cancel noise from all directions
2. Detects the Alexa wake word during music playback or voice prompts
3. High-dynamic range analog-to-digital converters (ADC) optimized for hands-free voice applications
4. Integrated voice trigger function
5. NXP i.MX7 applications processors - based on the ARM Cortex-A7 and Cortex-M4 processors
6. Wi-Fi 802.11ac and Bluetooth version 4.0 wireless connectivity
7. 512 MB DDR3, 4GB eMMC storage

## Applications

- > Home Smart appliance
- > Home Gateway/Controller
- > Lighting
- > Speaker/Sound Bar
- > Telepresence
- > Thermostat

### AudioSmart™ 2-Mic Development Kit for Amazon AVS

The Synaptics AudioSmart™ 2-Mic Development Kit for Amazon AVS features Synaptics's CX20921 Voice Input Processor with embedded hands-free voice processing technology and preloaded Alexa™ wake words. The kit is designed to help manufacturers and developers quickly and easily build smart home device prototypes that offer an ideal voice user experience.

The Synaptics hands-free voice input processor system captures the user's voice from anywhere within the room, separates the voice commands from music and voice prompts being played out of the device, even with background noise present, and provides a clean audio signal to the speech recognition engine. This solution ensures that the speech recognition engine hears only the user's command, and nothing else - providing consistent accuracy and an ideal end-user experience.

### NXP PICO-PI-IMX7

The PICO-PI-IMX7 is a 2-part development board consisting of a System-on-Module (SoM) and a carrier baseboard and optimized for the Internet-of-Things (IoT). The PICO-IMX7 SoM is a purpose-built, small footprint hardware platform and adds a number of additional high-speed signals such as RMII LAN, USB and 24-bit TTL Display.

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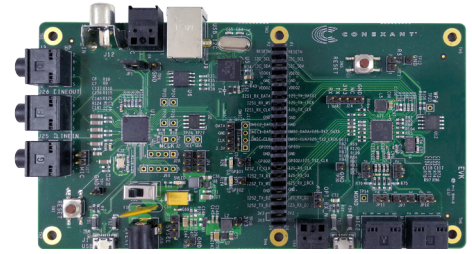
#### Ordering Information

Part # SYNAPTICS NXP 2MIC AVS

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#### Documentation

- > Synaptics AudioSmart™ 2-Mic Development Kit
- > PICO-PI-IMX7 Development Board



#### AudioSmart™ 2-Mic Kit Includes

- > CX20921 Evaluation Board
- > Microphone module with two omnidirectional mics
- > Microphone holder board
- > Stereo 3.5mm male-to-male audio cable
- > Micro-USB cable
- > Type A to Type B USB cable
- > Cable assembly
- > Power supply, +5V



#### PICO-PI-IMX7 Kit Includes

- > Processor: NXP i.MX7 based on ARM Cortex-A7 and Cortex-M4 processors
- > DDR3: 512MB
- > eMMC storage: 4GB
- > Wireless module: Wi-Fi 802.11ac and Bluetooth version 4.0
- > NXP SGTL5000 Audio Codec
- > Gigabit Ethernet support

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#### In Person

Please contact your local Arrow account manager or (855) 326-4757

#### Online

[www.arrow.com](http://www.arrow.com)

