

# Mediatek C4X Dev Kit for AVS

V1.0.1



# Revision History

This table describes the changes to the specification.

Revision	Date	Author	Reason
V1.0.0	2019/05/24	Una	Creation
V1.0.1	2019/12/11	Una	Add spec.

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# 1. Introduction

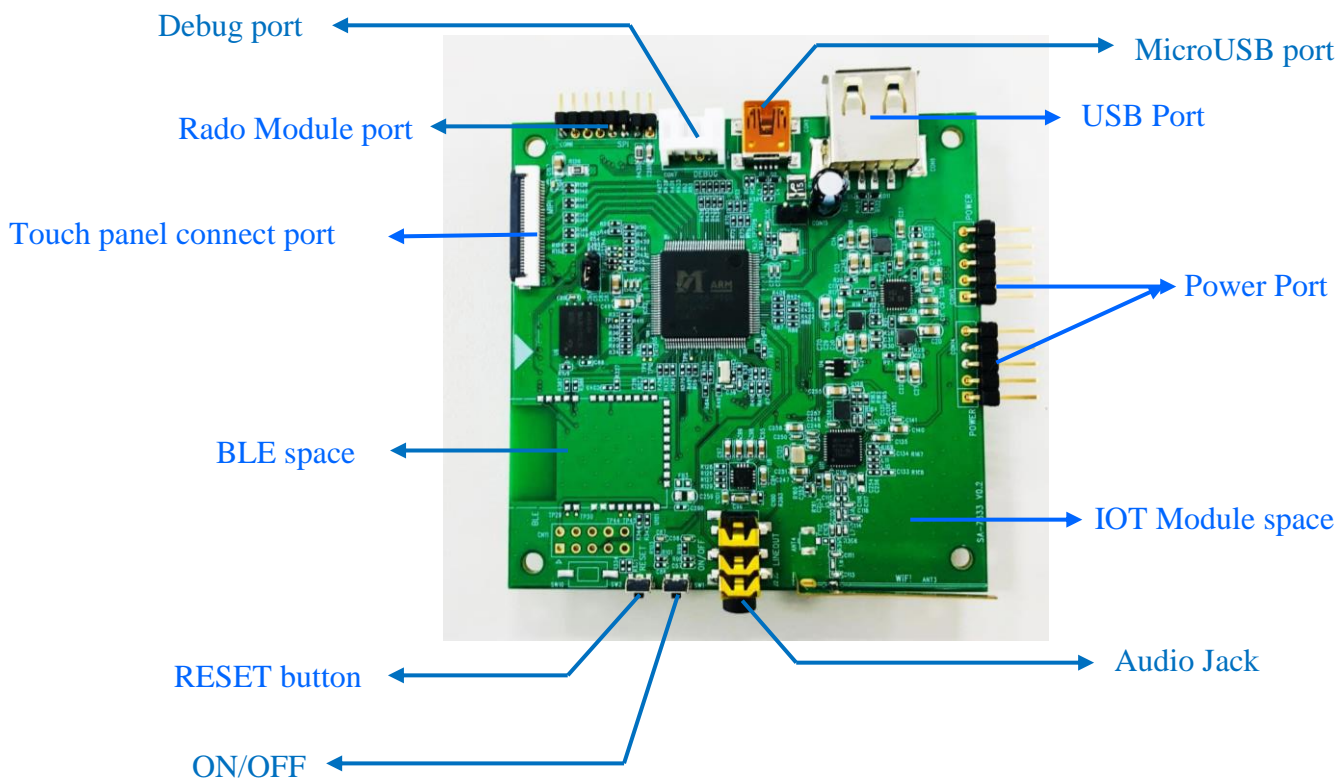
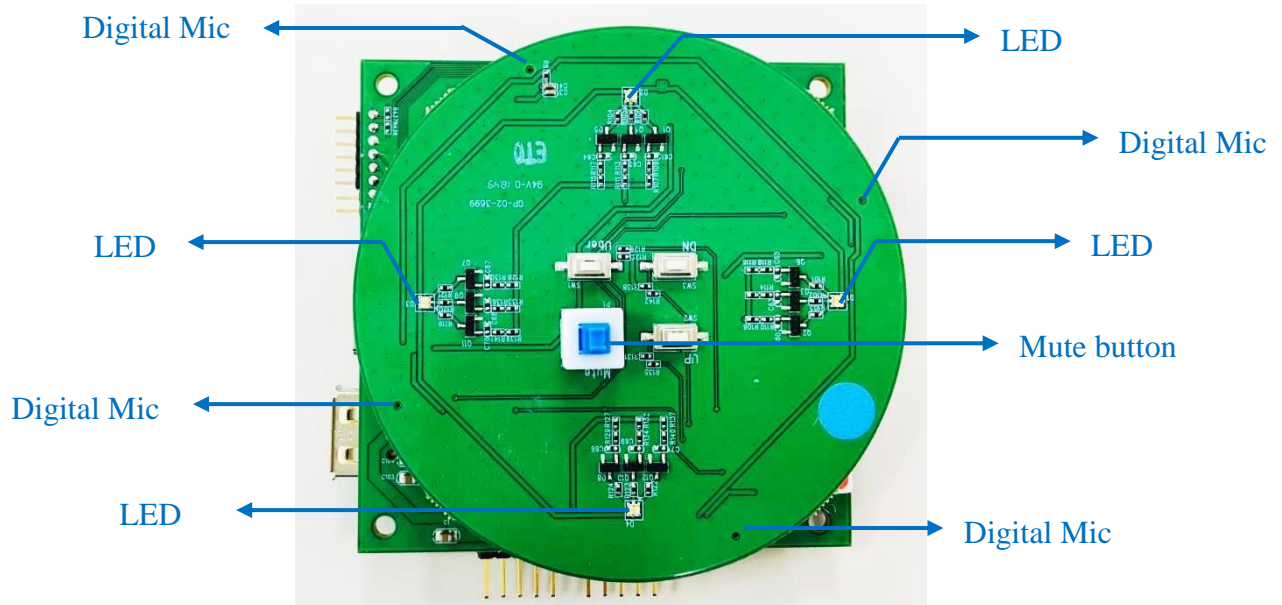
Mediatek C4X Dev Kit for Amazon AVS built complete reference solutions for AVS, provide developer creating AVS system products.

This dev kit is a highly integrated, cost-effective and high-performance solution for voice assistant applications, also support for an LCD module with touch panel and a battery module.

## 2. Key Features

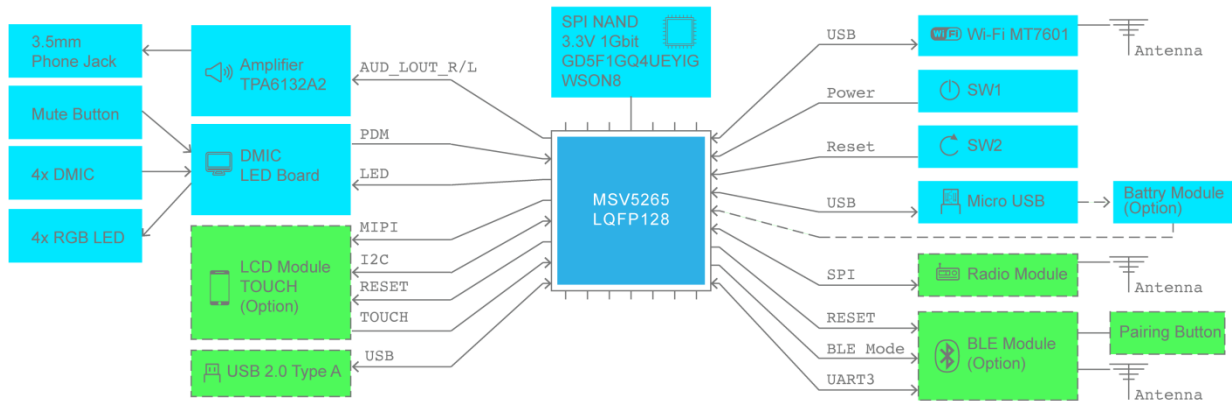
- Low cost Bom
- Far-Field Voice Recognition with Amazon 'Alexa'
- Support 4 Digital Microphones inputs
- Support analog Microphone inputs
- High-Quality Scaling Engine and Video interface
- 5-inch LCD via MIPI LCM, 128MB Flash, 256MB Memory
- Qualified by Amazon-runs Amazon Free Embedded Linux
- Easy implementation into any application.
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### 3. I/O definition



ITEM	Description
Mute button	Mute function
LED	Total 4 LED Blue light: working Red light: Mute
MIC	4 Digital MIC
USB Port	Add extra WiFi dongle or USB storage
MicroUSB port	Connect power adapter
Debug port	Connect consul cable to debug
DAB Module port	Add DAB Module
Touch panel connect port	Connect Touch panel
BLE space	Add BLE module
RESET button	Press Reset button to reset
ON/OFF	Power ON/OFF
Power Port	Add power battery
IOT Module space	Add IOT Module
Audio Jack	Connect Audio speaker

## 4. Block Diagram



## 5. Specifications

The following is the specification for the Mediatek C4X AVS Dev Kit.

Processor	MSV 5265 Coretx-A7 Dual-Core With 4500 Dmips
Wifi	MT7601 Support 802.11b/G/N
DRAM Memory	Embedded DRAM memory 256MB
	Support DDR3 data rate up to 2133MHz
	Support DRAM self-refresh mode
Power management	Three power modes: off, standby, active
	Four power-on events: Reset, ON/OFF button, RTC alarm, Charger plug-in
Hardware decoder	Support ITU-T H.264
	Support Resolution Up To 1080p@60fps
	Support max. bitrate of 62.5Mbps
Hardware JPEG decoder	Support Formats: 422/411/420/444/422t
	Support Scaling Down Ratios: 1/2x1/2, 1/4x1/4, 1/8x1/8
I/O interface	USB 2.0 *1 for add extra USB device
	Mini USB*1 charge port
	Debug port*1
	3.5mm Audio jack*1
	FPCB port*1for connect with touch panel
Audio interface	Support stereo analog line out
	Support four digital Microphone inputs
	Support dual stereo I2S transceivers
Video interface	Support TTL RGB 565 dither function
	Support single-link 8-bit LVDS output
	Support MIPI DSI TX up to 2560x1440@60fps
Scaling Engine	2/4-line vertical scaling for different use cases
	1:1 scaling and bypass mode
	Support panel resolution up to 1440p60
INPUT POWER	DC 5V/2A



GPIO	Seven PWMs share with GPIO
UART	One faster UARTs with flow control.
I2C	Three I2C master interface

## 6. Accessories and Optional

- **Accessories**
  - Power adapter x1
  - Debug cable x1
- **Optional**
  - LCD module (Touch panel)
  - Battery module ( include 18650 battery)