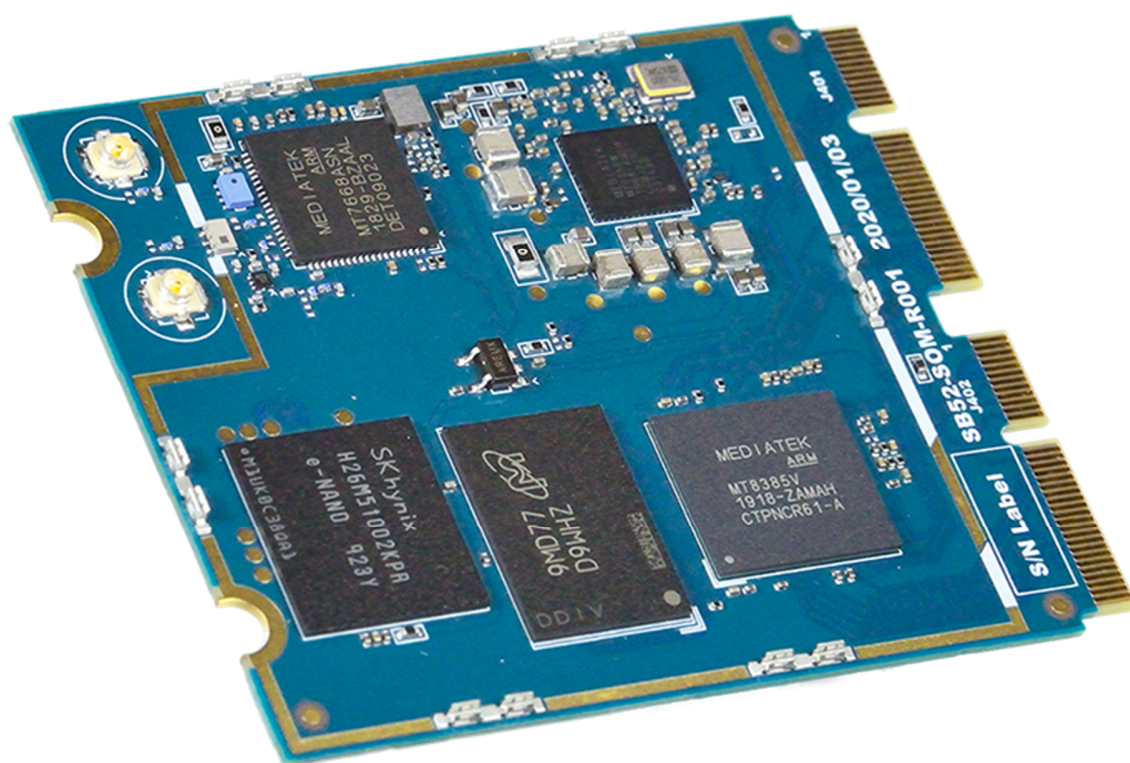


SB52 SOM

Datasheet





Revisions History

Date	Version Number	Document Changes
2020/04/24	0.0	Initial Draft

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1 Overview

1.1 General Information

SB52 SOM is a high-performance System on Module(SOM) designed based on the i500 processor from MediaTek. The i500 device, with integrated Bluetooth, FM, WLAN, and GPS modules, is a highly integrated baseband platform incorporating application processing subsystems. The chip integrates ARM® Cortex-A73/A53 MPCore operating up to 2GHz and powerful multi-standard video codec.

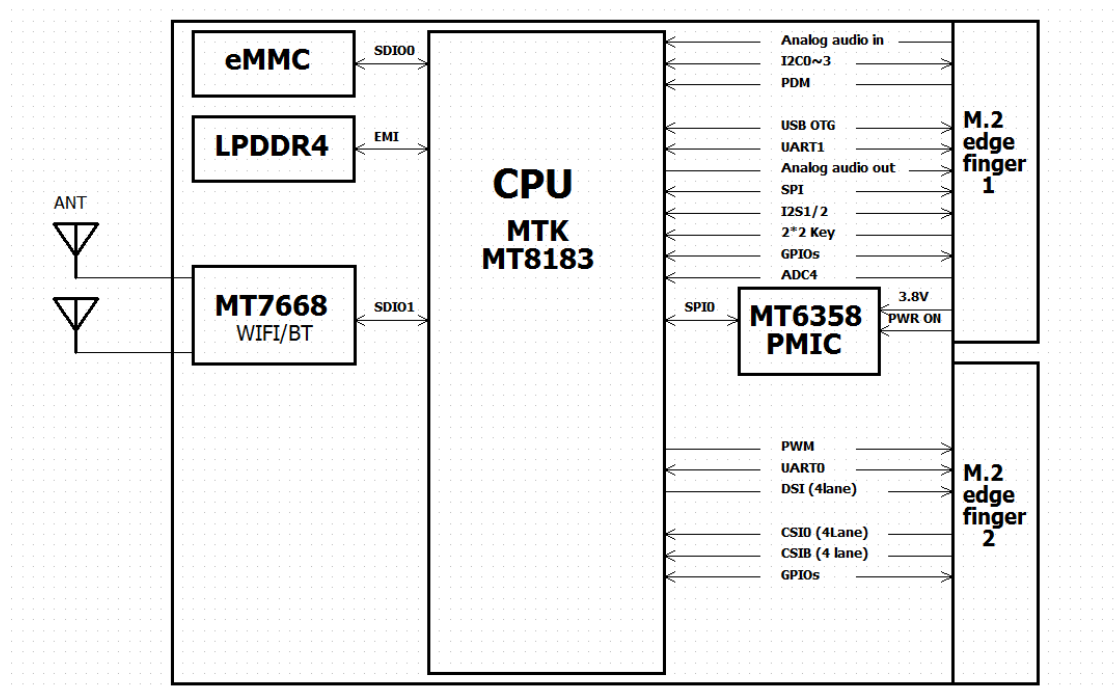
The application processor, a multi-core ARM® Cortex-A73, ARM® Cortex-A53 MPCore equipped with the NEON engine offers processing power necessary to support the latest OpenOS along with its demanding applications such as web browsing, email, GPS navigation, and games. All are viewed on a high-resolution touch screen display with graphics enhanced by the 2D and 3D graphics acceleration. The multi-standard video accelerator and an advanced audio subsystem are also integrations and services such as streaming and encoders.

SB52 also embodies wireless communication devices, including WLAN and Bluetooth. The RF part is built-in MT7668 chip which can support dual-band(2.4GHz and 5GHz) single-stream 802.11 a/b/g/n/ac. It also supports a single antenna sharing 2.4 GHz antenna for Bluetooth, WLAN, and 5GHz antenna for WLAN.

SB52 SOM offers a wide range of interfaces - GPIOs, I2S, I2C, SPI, DSI, CSI, ADC, UART, USB, AUDIO out, PWM.

1.2 Architecture and Block Diagram

Figure 1-1 SB52 SOM Block Diagram



1.3 Feature Summary

- MTK i500 CPU
- 2GB LPDDR4X RAM
- 16GB eMMC
- 1 x MIPI DSI (4 data lanes)
- 2 x MIPI CSI (4 data lanes)
- Wi-Fi 802.11 a/b/g/n/ac, MIMO (MT7668)
- Bluetooth 5 (MT7668)
- 1 x USB 2.0 OTG
- Serial interfaces (4 x I2C, 2 x UART, 1 x SPI, 2 x I2S)
- GPIOs pin-mux with serial interfaces
- Earphone interface, R/L channel output and microphone input
- 1x ADC