
Radxa Wireless Module A8

an M.2 WiFi6 and BT5.2 Combo Module

Draft 0.8



Radxa Computer

2022-08-04

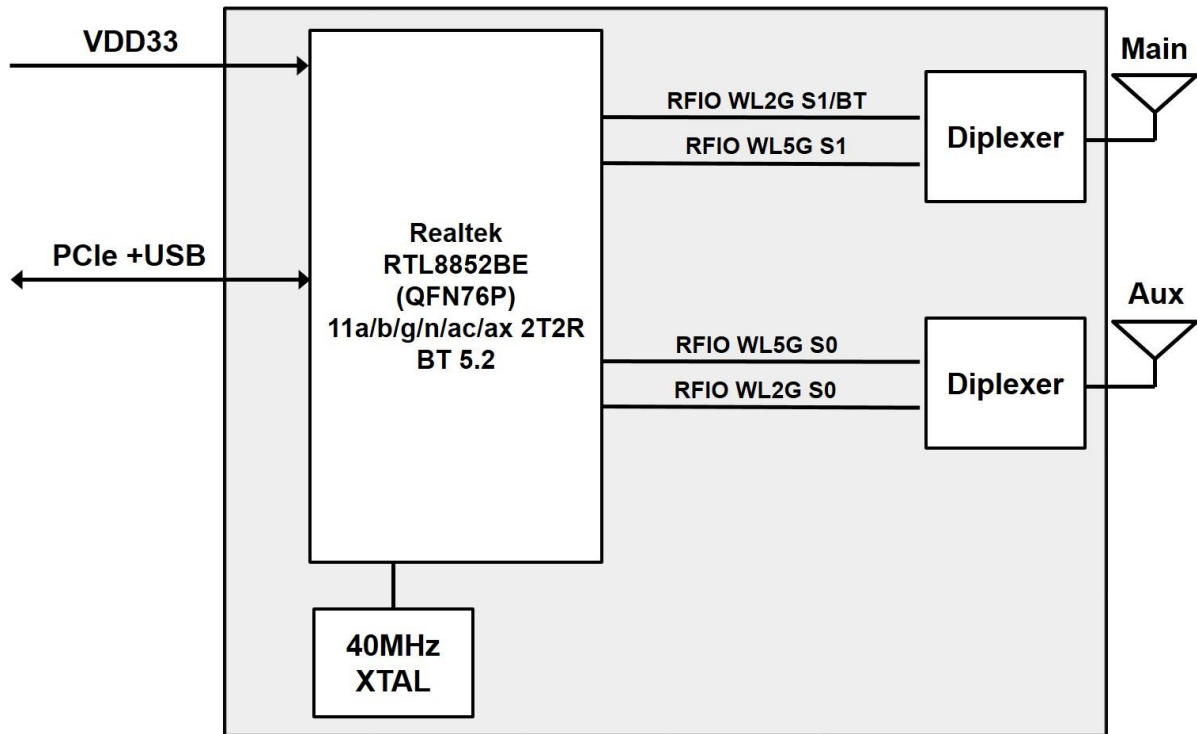
1 Introduction

Radxa Wireless Module A8 is a standard M.2 2230 Wireless Module based on Realtek RTL8852BE, a highly integrated single-chip that support 2-stream 802.11ax solutions with multi-user MIMO (Multiple-Input, Multiple-Output) with Wireless LAN (WLAN) PCI Express network interface controller with integrated Bluetooth 5 USB interface controller. It combines a WLAN MAC, a 2T2R capable WLAN baseband, and RF in a single chip.

2 Features

- IEEE 802.11a/b/g/n/ac/ax compatible WLAN
- Support Bluetooth 5 system (BT 5.2 Logo Compliant)
- Complete 802.11n MIMO solution for 2.4GHz and 5GHz band
- Maximum PHY data rate up to 286.8 Mbps using 20MHz bandwidth, 573.5Mbps using 40MHz bandwidth, and 1201Mbps using 80MHz bandwidth
- Backward compatible with 802.11a/b/g devices while operating at 802.11n data rates
- Backward compatible with 802.11a/n/ac devices while operating at 802.11ax data rates
- Compliance with Windows operating system host-implemented FIPS 140-2 security requirements
- Support 20/40/80MHz 5GHz
- supports WLAN-Bluetooth coexistence
- supports low power Bluetooth
- Support Bluetooth 5 system (BT 5.2 Logo Compliant)
- Compatible with Bluetooth v2.1+EDR

3 Block Diagram

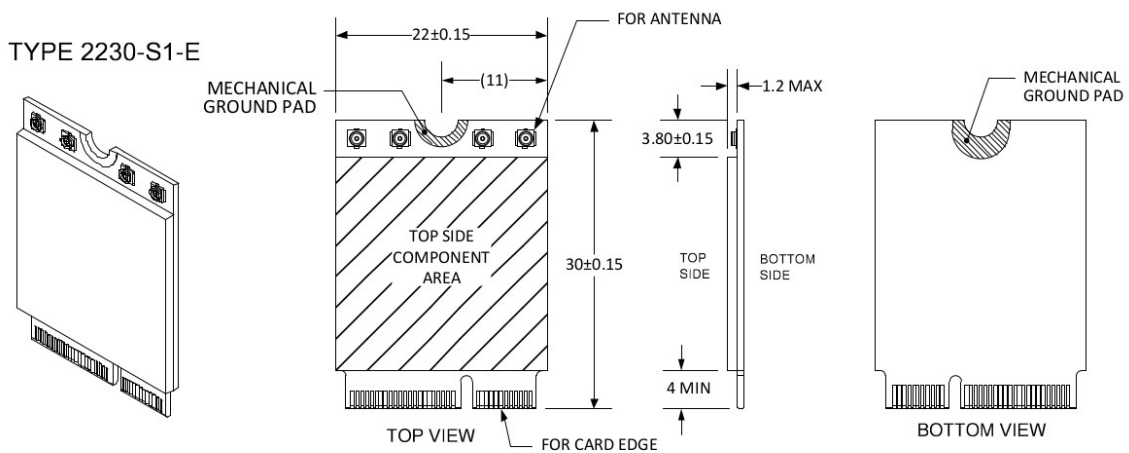


4 Specifications

Features	Description
Name	Radxa Wireless Module A8
Product Description	IEEE 802.11a/b/g/n/ac/ax Wireless LAN 2T2R and Bluetooth 5.2 Combo Module (M.2 2230)
Chipset	RTL8852BE
Host Interface	Wi-Fi: PCIe BT: USB
Dimension	22mm x 30mm x 2.25mm
Form Factor	M.2 2230 E Key
Antenna	I-PEX MHF4 Connector Receptacle (20449) ANT1(Main): WiFi/Bluetooth TX/RX ANT2(AUX): WiFi TX/RX

Features	Description
Operating Temperature	0 to +70°C
Weight	3g

5 Dimensions



6 Compatible Single Board Computers

- Radxa ROCK 3A
- Radxa ROCK 5B

7 Availability

Radxa guarantees availability of the Radxa Wireless Module A8 until at least September 2029.

8 Support

For support please see the hardware documentation section of the [Radxa Wiki](#) website and post questions to the [Radxa forum](#).