

Radicom Research, Inc.

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www.radi.com**WiFi 6E M2 PCIe combo BT 5.2 Module – RBW8852C**

The RBW8852C WiFi 6E M2 PCIe module with external antenna integrates an ARM processor, RF and can fully support with 802.11a/b/g/n/ac/ax protocol at the same time with latest Bluetooth technology 5.2 for a breakthrough in high performance with WiFi 6E triband frequencies at 2.4GHz, 5GHz & 6GHz.

Featuring a self-contained WiFi subsystem, streamlined and simple connectivity and complete software development environment, the RBW8852C allows OEM integrators to incorporate WiFi wireless technology into a broad range.

The RBW8852C is designed to support 2 spatial streams concurrently (2T2R, or 2x2) in MU-MIMO mode with a standard M2 A/E key 2230 form factor that with M2 Adaptor pre-integrated and no extra work required for platform design.

Supporting Microsoft Windows 10, the OS supports with both x86 platform and ARM based platform*.



RBW8852C

Features:

- M.2 2230 AE Key form factor
- High speed wireless connection, WIFI 6E
- Low power consumption and high performance
- Fully qualified Bluetooth 5.2
- Solid design with external antenna diversity
- Antenna: 2 x IPEX MHF4 connectors
- Operating Frequency: 802.11ax/ac/a/b/g/n ISM Band
 - 2.412GHz~2.484GHz
 - 5.150GHz~5.850GHz
 - 5.925GHz~7.125GHz
 - *Subject to local regulations
- Host Interface WLAN: PCIe, Bluetooth: USB
- Continue TX Power Consumption: 860 mA
- Continue RX Power Consumption: 450 mA
- Environmental Operating Voltage: DC 3.3V
- Environmental Temperature Range:
 - 0 ~ 70°C (Operating Temp.) -40 ~ 85°C (Storage Temp.)
- Humidity (Non-Condensing):
 - 5 ~ 90% (Both Operating & Storage Humidity)
- Size: 30mm(L) x 22mm(W) x 2.24mm(H)
- Weight: 2.5g
- Driver: Windows 10 & Linux
 - Recommended Kernel 5.4+
- Security: 64/128-bits WEP, WPA, WPA2, WPA3, 802.1x
- WiFi Band: 2.4GHz, 5GHz & 6GHz

Application:

- Tablet
- Notebook
- Advertising machine
- OTT Box
- Doorbell / Smart TV
- Wireless storage
- Printer
- POS machine
- Vehicle mounted front
- Rear Terminal UAV Robot

Support:

- IEEE 802.11i (WPA, WPA2). IEEE802.11a/b/g/n/ac/ax
- M.2 AE Key, PCIe, WiFi+BT, Combo, WiFi 6E Wireless LAN & Bluetooth 5.2
- 802.11b DSSS (DBPSK, DQPSK, CCK)
- 802.11g OFDM (BPSK, QPSK, 16-QAM, 64-QAM)
- 802.11n OFDM (BPSK, QPSK, 16-QAM, 64-QAM)
- 802.11a OFDM (BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM)
- 802.11ac OFDM (BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM)
- 802.11ax OFDMA (BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM, 1024-QAM)
- Bluetooth Header: GFSK
- Payload 2M: $\pi/4$ -DQPSK
- Payload 3M: 8-DPSK
- FCC/IC/CE Pending
- RoHS 3 compliant