

TEST REPORT

CERTIFICATE OF CONFORMITY

Standard: 47 CFR FCC Part 15, Subpart C (Section 15.247)
47 CFR FCC Part 15, Subpart E (Section 15.407)

Report No.: RFBBUI-WTW-P22031043B

FCC ID: TX2-RTL8852B

Model No.: RTL8852B

Received Date: 2022/10/25

Issued Date: 2022/10/31

Applicant: Realtek Semiconductor Corp.

Address: No. 2, Innovation Road II, Hsinchu Science Park, Hsinchu 300, Taiwan

Issued By: Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
Hsin Chu Laboratory

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Test Location: E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300, Taiwan

FCC Registration / 723255 / TW2022

Designation Number:

Approved by: _____

May Chen / Manager

Date: _____

2022/10/31

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Prepared by : Vivian Huang / Specialist

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Release Control Record

Issue No.	Description	Date Issued
RFBBUI-WTW-P22031043B	Original release.	2022/10/31

1 Certificate

Product: 11ax RTL8852B M.2 1216 Combo module

Brand: REALTEK

Test Model: RTL8852B

Sample Status: Engineering sample

Applicant: Realtek Semiconductor Corp.

Standard: 47 CFR FCC Part 15, Subpart C (Section 15.247)
47 CFR FCC Part 15, Subpart E (Section 15.407)

The above equipment has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's RF characteristics under the conditions specified in this report.

2 General Information

2.1 General Description

Product	11ax RTL8852B M.2 1216 Combo module
Brand	REALTEK
Test Model	RTL8852B
Status of EUT	Engineering sample
Power Supply Rating	3.3Vdc from host equipment
Modulation Type	For WLAN: CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM 256QAM for OFDM in 11ac mode and VHT in 2.4GHz 1024QAM for OFDMA in 11ax mode For BT-EDR: GFSK, $\pi/4$ -DQPSK, 8DPSK For BT-LE: GFSK
Modulation Technology	For WLAN: DSSS, OFDM, OFDMA For BT-EDR: FHSS For BT-LE: DTS
Transfer Rate	For WLAN: 802.11b: up to 11 Mbps 802.11a/g: up to 54 Mbps 802.11n: up to 300 Mbps VHT: up to 400 Mbps 802.11ac: up to 866.7 Mbps 802.11ax: up to 1201 Mbps For BT-EDR: up to 3 Mbps For BT-LE: up to 2 Mbps
Operating Frequency	For WLAN: 2.4GHz: 2412 ~ 2472 MHz 5GHz: 5180 ~ 5240 MHz, 5260 ~ 5320 MHz, 5500 ~ 5720 MHz, 5745 ~ 5825 MHz 5.9GHz: 5835 ~ 5885 MHz For BT: 2402 ~ 2480 MHz
Number of Channel	For WLAN: 2.4GHz: 802.11b, 802.11g, 802.11n (HT20), VHT20, 802.11ax (HE20): 13 802.11n (HT40), VHT40, 802.11ax (HE40): 9 5GHz: 802.11a, 802.11n (HT20), 802.11ac (VHT20), 802.11ax (HE20): 25 802.11n (HT40), 802.11ac (VHT40), 802.11ax (HE40): 12 802.11ac (VHT80), 802.11ax (HE80): 6 5.9GHz: 802.11a, 802.11n (HT20), 802.11ac (VHT20), 802.11ax (HE20): 3 802.11n (HT40), 802.11ac (VHT40), 802.11ax (HE40): 2 802.11ac (VHT80), 802.11ax (HE80): 1 For BT-EDR: 79 For BT-LE: 40

Note:

1. This report is issued as a supplementary report to BV CPS report as below test report:

Function	Report No.
WLAN_2.4GHz	RFBBUI-WTW-P22031043
WLAN_5GHz	RFBBUI-WTW-P22031043-1
WLAN_5.9GHz	RFBBUI-WTW-P22031043-4
BT-EDR	RFBBUI-WTW-P22031043-2
BT-LE	RFBBUI-WTW-P22031043-3
DFS	RFBBUI-WTW-P22031043-5
Transmit Simultaneously	RFBBUI-WTW-P22031043-6

2. New antenna was added. According to the judgment on the EUT specification, the new antenna has the same characteristics and type under the same frequency band except the gain is smaller than the original application, so the highest gain evaluated in the original reports was for the final test.
3. The above EUT information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or user's manual.

2.2 Antenna Description of EUT

1. The antenna information is listed as below.

Original

Ant. Set	RF Chain No.	Brand	Model	Ant. Net Gain (dBi)	Frequency Range (GHz)	Ant. Type	Connector Type	Cable Length (mm)
1	Chain 0	ARISTOTLE	RFA-27-JP326-MHF4300	3.5	2.4~2.4835	PIFA	i-pex(MHF)	300
				5	5.15~5.85			
				5	5.875~7.125			
	Chain 1	ARISTOTLE	RFA-27-JP326-MHF4300	3.5	2.4~2.4835	PIFA	i-pex(MHF)	300
				5	5.15~5.85			
				5	5.875~7.125			
2	Chain 0	ARISTOTLE	RFA-27-C38H1-MHF4300	3	2.4~2.4835	Dipole	i-pex(MHF)	300
				5	5.15~5.85			
				5	5.875~7.125			
	Chain 1	ARISTOTLE	RFA-27-C38H1-MHF4300	3	2.4~2.4835	Dipole	i-pex(MHF)	300
				5	5.15~5.85			
				5	5.875~7.125			
Newly								
Ant. Set	RF Chain No.	Brand	Model	Ant. Net Gain (dBi)	Frequency Range (GHz)	Ant. Type	Connector Type	Cable Length (mm)
3	Chain 0	REALTEK	RTK-ANT-0021	3.4	2.4~2.4835	PIFA	Ipex4	300
				4.8	5.15~5.85			
				4.1	5.875~7.125			
	Chain 1	REALTEK	RTK-ANT-0021	3.4	2.4~2.4835	PIFA	Ipex4	300
				4.8	5.15~5.85			
				4.1	5.875~7.125			

* Detail antenna specification please refer to antenna datasheet and/or antenna measurement report.

Appendix – Information of the Testing Laboratories

We, Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch, were founded in 1988 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are FCC recognized accredited test firms and accredited according to ISO/IEC 17025.

If you have any comments, please feel free to contact us at the following:

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The address and road map of all our labs can be found in our web site also.

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