

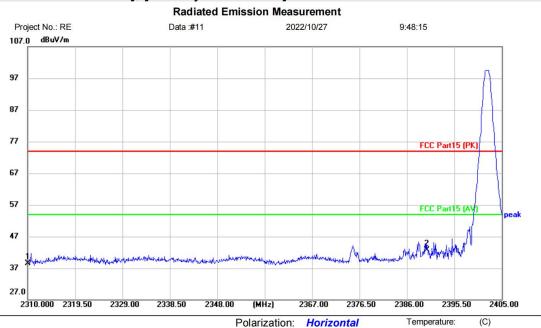
Humidity:

%RH

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#### 13.4 TEST DATA

# [TestMode: TX low channel]; [Polarity: Horizontal]



Limit: FCC Part15 (PK)

EUT: WIFI Module M/N: RW6852S-50B2 Mode: BLE1M-TX-L

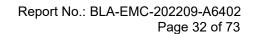
Note:

Site

No.	Mk.	Freq.		Correct Factor	Measure- ment		Over		
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment
1		2310.000	42.77	-4.27	38.50	74.00	-35.50	peak	
2	*	2390.000	46.53	-3.82	42.71	74.00	-31.29	peak	

Power:

\*:Maximum data x:Over limit !:over margin (Reference Only





# [TestMode: TX low channel]; [Polarity: Vertical]

#### **Radiated Emission Measurement** Project No.: RE Data :#12 2022/10/27 9:49:54 107.0 dBuV/m 97 87 77 FCC Part15 (PK) 67 57 FCC Part15 (AV 47 27.0 2310.000 2319.50 2329.00 2338.50 2348.00 (MHz) 2376.50 2405.00

Polarization:

Power:

Vertical

Temperature:

Humidity:

(C)

%RH

Limit: FCC Part15 (PK)

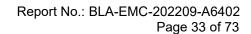
EUT: WIFI Module M/N: RW6852S-50B2 Mode: BLE1M-TX-L

Note:

Site

No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment
1	2310.000	42.83	-4.27	38.56	74.00	-35.44	peak	
2 *	2390.000	52.37	-3.82	48.55	74.00	-25.45	peak	

\*:Maximum data x:Over limit !:over margin \( \text{Reference Only}



Temperature:

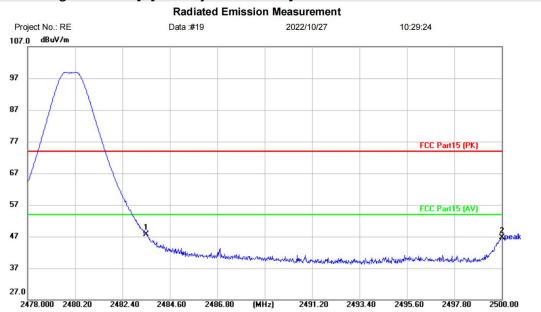
Humidity:

(C)

%RH



# [TestMode: TX high channel]; [Polarity: Horizontal]



Polarization: Horizontal

Limit: FCC Part15 (PK)

EUT: WIFI Module M/N: RW6852S-50B2 Mode: BLE1M-TX-H

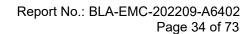
Note:

Site

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	2483.500	51.74	-3.96	47.78	74.00	-26.22	peak	
2		2500.000	50.67	-4.00	46.67	74.00	-27.33	peak	

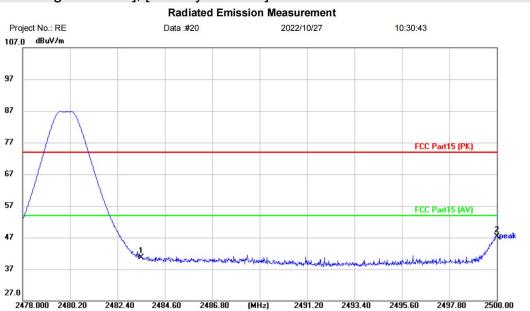
Power:

\*:Maximum data x:Over limit !:over margin \( \text{Reference Only}





[TestMode: TX high channel]; [Polarity: Vertical]



Polarization:

Power:

Vertical

Temperature:

Humidity:

(C)

%RH

Site Limit: FCC Part15 (PK)

EUT: WIFI Module M/N: RW6852S-50B2 Mode: BLE1M-TX-H

Note:

No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment		Over		
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment
1	2483.500	44.72	-3.96	40.76	74.00	-33.24	peak	
2 *	2500.000	51.40	-4.00	47.40	74.00	-26.60	peak	

\*:Maximum data x:Over limit !:over margin \( \text{Reference Only}



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#### 14 CONDUCTED SPURIOUS EMISSIONS

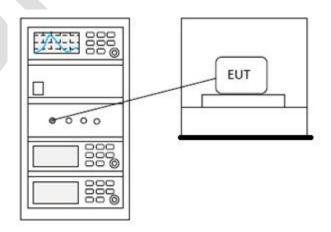
Test Standard	47 CFR Part 15, Subpart C 15.247				
Test Method	ANSI C63.10 (2013) Section 7.8.6 & Section 11.11				
Test Mode (Pre-Scan)	TX				
Test Mode (Final Test)	TX				
Tester	Jozu				
Temperature	25℃				
Humidity	60%				

#### **14.1 LIMITS**

Limit:

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

#### 14.2 BLOCK DIAGRAM OF TEST SETUP





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## 14.3 TEST DATA

Pass: Please Refer To Appendix: Appendix1 For Details





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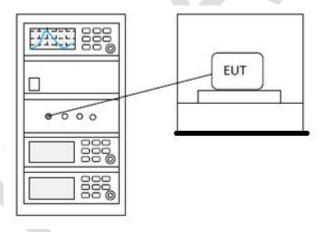
## 15 POWER SPECTRUM DENSITY

Test Standard	47 CFR Part 15, Subpart C 15.247				
Test Method	ANSI C63.10 (2013) Section 11.10.2				
Test Mode (Pre-Scan)	TX				
Test Mode (Final Test)	TX				
Tester	Jozu				
Temperature	25℃				
Humidity	60%				

#### **15.1 LIMITS**

**Limit:** | ≤8dBm in any 3 kHz band during any time interval of continuous transmission

#### 15.2 BLOCK DIAGRAM OF TEST SETUP



#### 15.3 TEST DATA

Pass: Please Refer To Appendix: Appendix1 For Details



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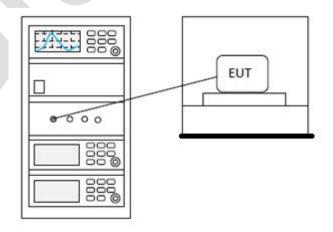
# **16 CONDUCTED PEAK OUTPUT POWER**

Test Standard	47 CFR Part 15, Subpart C 15.247				
Test Method	ANSI C63.10 (2013) Section 7.8.5				
Test Mode (Pre-Scan)	TX				
Test Mode (Final Test)	TX				
Tester	Jozu				
Temperature	25℃				
Humidity	60%				

#### **16.1 LIMITS**

Frequency range(MHz)	Output power of the intentional radiator(watt)			
	1 for ≥50 hopping channels			
902-928	0.25 for 25≤ hopping channels <50			
	1 for digital modulation			
	1 for ≥75 non-overlapping hopping channels			
2400-2483.5	0.125 for all other frequency hopping systems			
	1 for digital modulation			
	1 for frequency hopping systems and digital			
5725-5850	modulation			

# 16.2 BLOCK DIAGRAM OF TEST SETUP





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# 16.3 TEST DATA

Pass: Please Refer To Appendix: Appendix1 For Details





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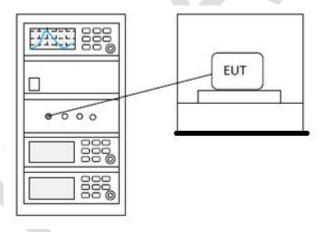
# 17 MINIMUM 6DB BANDWIDTH

Test Standard	47 CFR Part 15, Subpart C 15.247				
Test Method	ANSI C63.10 (2013) Section 11.8.1				
Test Mode (Pre-Scan)	TX				
Test Mode (Final Test)	TX				
Tester	Jozu				
Temperature	25℃				
Humidity	60%				

#### **17.1 LIMITS**

Limit:	≥500 kHz			
1311111100	_500 K112			

#### 17.2 BLOCK DIAGRAM OF TEST SETUP



## 17.3 TEST DATA

Pass: Please Refer To Appendix: Appendix1 For Details



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#### **18 ANTENNA REQUIREMENT**

Test Standard	47 CFR Part 15, Subpart C 15.247
Test Method	N/A

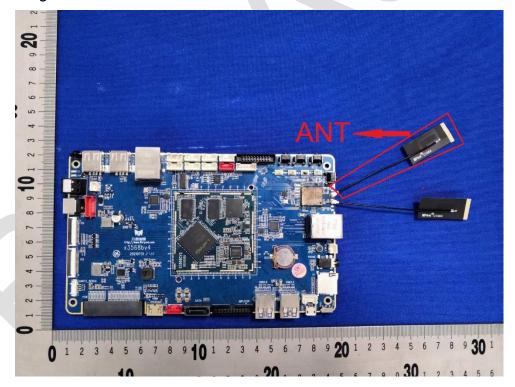
#### **18.1 CONCLUSION**

## Standard Requirement:

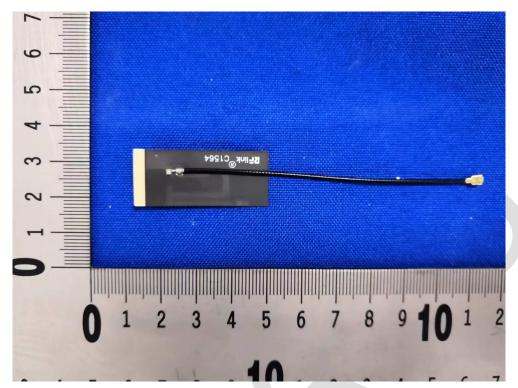
An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit permanently attached antenna or of an so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

#### EUT Antenna:

The best case gain of the antenna is 3.3dBi.









19 APPENDIX

Report No.: BLA-EMC-202209-A6402

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# Appendix1

#### **Maximum Conducted Output Power**

Condition	Mode	Frequency	Antenna	Conducted Power	Limit	Verdict
		(MHz)		(dBm)	(dBm)	
NVNT	BLE 1M	2402	Ant1	4.752	30	Pass
NVNT	BLE 1M	2442	Ant1	4.188	30	Pass
NVNT	BLE 1M	2480	Ant1	4	30	Pass
NVNT	BLE 2M	2402	Ant1	4.866	30	Pass
NVNT	BLE 2M	2442	Ant1	4.245	30	Pass
NVNT	BLE 2M	2480	Ant1	3.579	30	Pass

# Power NVNT BLE 1M 2402MHz Ant1





## Power NVNT BLE 1M 2442MHz Ant1



## Power NVNT BLE 1M 2480MHz Ant1





## Power NVNT BLE 2M 2402MHz Ant1



## Power NVNT BLE 2M 2442MHz Ant1





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## Power NVNT BLE 2M 2480MHz Ant1





#### -6dB Bandwidth

Condition	Mode	Frequency	Antenna	-6 dB Bandwidth	Limit -6 dB	Verdict
		(MHz)		(MHz)	Bandwidth (MHz)	
NVNT	BLE	2402	Ant1	0.667	0.5	Pass
	1M					
NVNT	BLE	2442	Ant1	0.662	0.5	Pass
	1M					
NVNT	BLE	2480	Ant1	0.65	0.5	Pass
	1M					
NVNT	BLE	2402	Ant1	1.248	0.5	Pass
	2M					
NVNT	BLE	2442	Ant1	1.12	0.5	Pass
	2M					
NVNT	BLE	2480	Ant1	1.23	0.5	Pass
	2M					

# -6dB Bandwidth NVNT BLE 1M 2402MHz Ant1

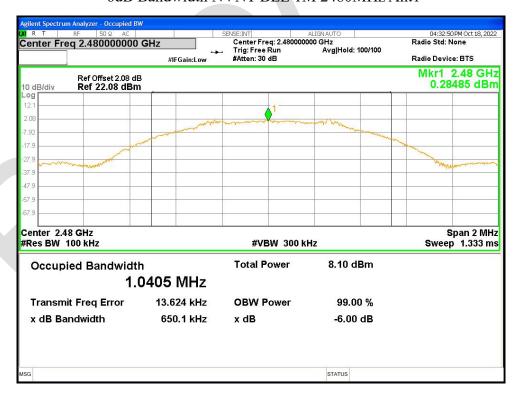




#### -6dB Bandwidth NVNT BLE 1M 2442MHz Ant1



# -6dB Bandwidth NVNT BLE 1M 2480MHz Ant1





-6dB Bandwidth NVNT BLE 2M 2402MHz Ant1



# -6dB Bandwidth NVNT BLE 2M 2442MHz Ant1





## -6dB Bandwidth NVNT BLE 2M 2480MHz Ant1





#### **Occupied Channel Bandwidth**

Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	BLE 1M	2402	Ant1	1.0297
NVNT	BLE 1M	2442	Ant1	1.0389
NVNT	BLE 1M	2480	Ant1	1.0280
NVNT	BLE 2M	2402	Ant1	2.0429
NVNT	BLE 2M	2442	Ant1	2.0477
NVNT	BLE 2M	2480	Ant1	2.0476

## OBW NVNT BLE 1M 2402MHz Ant1





## OBW NVNT BLE 1M 2442MHz Ant1



#### OBW NVNT BLE 1M 2480MHz Ant1





## OBW NVNT BLE 2M 2402MHz Ant1



#### OBW NVNT BLE 2M 2442MHz Ant1





## OBW NVNT BLE 2M 2480MHz Ant1





#### **Maximum Power Spectral Density Level**

Condition	Mode	Frequency (MHz)	Antenna	Max PSD (dBm)	Limit (dBm)	Verdict
NVNT	BLE 1M	2402	Ant1	-5.347	8	Pass
NVNT	BLE 1M	2442	Ant1	-5.99	8	Pass
NVNT	BLE 1M	2480	Ant1	-6.169	8	Pass
NVNT	BLE 2M	2402	Ant1	-5.508	8	Pass
NVNT	BLE 2M	2442	Ant1	-6.114	8	Pass
NVNT	BLE 2M	2480	Ant1	-6.849	8	Pass

# PSD NVNT BLE 1M 2402MHz Ant1





## PSD NVNT BLE 1M 2442MHz Ant1



## PSD NVNT BLE 1M 2480MHz Ant1





## PSD NVNT BLE 2M 2402MHz Ant1



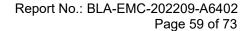
## PSD NVNT BLE 2M 2442MHz Ant1





## PSD NVNT BLE 2M 2480MHz Ant1



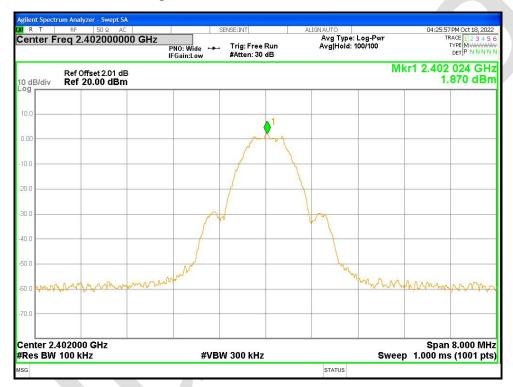




#### **Band Edge**

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE 1M	2402	Ant1	-57.57	-30	Pass
NVNT	BLE 1M	2480	Ant1	-57.16	-30	Pass
NVNT	BLE 2M	2402	Ant1	-56.55	-30	Pass
NVNT	BLE 2M	2480	Ant1	-57.21	-30	Pass

# Band Edge NVNT BLE 1M 2402MHz Ant1 Ref





# Band Edge NVNT BLE 1M 2402MHz Ant1 Emission



Band Edge NVNT BLE 1M 2480MHz Ant1 Ref

