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ELECTROMAGNETIC EMISSIONS CLASS II & IV PERMISSIVE CHANGE REPORT





Applicant: Acer Incorporated

8F., No. 88, Sec. 1, Xintai 5th Rd., Xizhi, New Taipei City

22181, Taiwan (R.O.C)

Manufacturer: Compal Electronics, Inc.

No. 581 & 581-1, Ruiguang Road Neihu District Taipei, 11492

Taiwan

Product Name: WiFi 6E BT 5.2 M.2 2230 Module

Brand Name: acer

Model No.: QCNFA765

Report Number: E2/2022/30008

FCC ID HLZQCNFA765

IC: 1754F-QCNFA765

Issue Date: Apr. 15, 2022

Date of Test: Mar. 10, 2022~Mar. 28, 2022

Date of EUT Received: Dec. 17, 2021

Approved By

Jay Lin

We hereby certify that:

The above equipment was tested by SGS Taiwan Ltd. Central RF Lab The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.10:2013 and the energy emitted by the sample EUT comply with FCC rule part §15.247, ISED RSS-247.

The results of this report relate only to the sample identified in this report.

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Revision History							
Report Number	Revision	Description	Issue Date	Revised By	Remark		
E2/2022/30008	00	Original.	Apr. 15, 2022	Yi-Shan Tsai			

Note:

1 . The remark "*" indicates modification of the report upon requests from certification

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GENERAL INFORMATION

1.1 **Product Description**

Product Name:	WiFi 6E BT 5.2 M.2 2230 Module
Brand Name:	acer
Model No.:	QCNFA765
EUT Series No.:	N8QGYWW003206067443400
Power Supply:	15.4Vdc from Rechargeable Lithium Ion Battery Pack 19.5Vdc from AC/DC Adapter

1.2 **RF Specification**

Radio Technology:	BLE
Frequency Range:	2402 – 2480MHz
Channel number:	40 channels
Modulation type:	GFSK

1.3 **Antenna Designation**

Antenna Type	Supplier	Main / Aux	Antenna Part No.	Freq. (MHz)	Peak Antenna Gain (dBi)
PIFA	WNC	Aux	81EABS15.G08 (DC33002NJ10)	2402~2480	0.1

Note:

- Pre-scanned was done on the above antennas, measurements were demonstrated by using the antenna with the highest gain as the worst case scenarios.
- Antenna information is provided by the applicant.

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1.4 Test Methodology of Applied Standards

FCC Part 15, Subpart C §15.247 FCC KDB 558074 D01 DTS Meas. Guidance v05r02 RSS-247 issue 2 Feb. 2017 RSS-Gen Issue 5, Amendment 2, February 2021 ANSI C63.10:2013

1.5 **Test Facility**

Laboratory	Test Site Address	Test Site Name	FCC Designa- tion number	IC CAB identifier
		SAC 1		
		SAC 3		
		Conduction 1		
	No.134, Wu Kung Road, New Taipei	Conducted 1		
	Industrial Park, Wuku District, New	Conducted 2	TW0027	
	Taipei City, Taiwan.	Conducted 3		
		Conducted 4		
		Conducted 5		
SGS Taiwan Ltd.		Conducted 6		
Central RF Lab.		Conduction C		TW3702
(TAF code 3702)		SAC C		
(1A1 Code 3702)		SAC D		
		SAC G		
	No 2 Koji 1et Pd. Cujeben District	Conducted A		
	No.2, Keji 1st Rd., Guishan District, Taoyuan City, Taiwan 333	Conducted B TW0028 Conducted C		
	ladydair City, Taiwair 555			
		Conducted D		
		Conducted E]	
		Conducted F		
		Conducted G		

Note: Test site name is remarked on the equipment list in each section of this report as an indication where measurements occurred in specific test site and address.

1.6 Special Accessories

There are no special accessories used while test was conducted.

1.7 Equipment Modifications

There was no modification incorporated into the EUT.

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SYSTEM TEST CONFIGURATION

2.1 EUT Configuration

The EUT configuration for testing is installed on RF field strength measurement to meet the Commissions requirement and operating in a manner which intends to maximize its emission characteristics in a continuous normal application.

2.2 EUT Exercise

An engineering test mode (software/firmware) that applicant provided was utilized to manipulate the EUT into transmit, selection of the test channel, and modulation scheme.

2.3 Test Procedure

2.3.1 **Radiated Emissions**

The EUT is a placed on a turn table. For emissions testing at or below 1 GHz, the table height shall be 0.8 m above the reference ground plane. For emission measurements above 1 GHz, the table height shall be 1.5 m. The turn table shall rotate 360 degrees to determine the position of maximum emission level. EUT is set 3m away from the receiving antenna which varied from 1m to 4m to find out the highest emission. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical. In order to find out the max, emission, the relative positions of this transmitter (EUT) was rotated through three orthogonal axes and measurement procedures for electric field radiated emissions above 1 GHz the EUT measurement is to be made "while keeping the antenna in the 'cone of radiation' from that area and pointed at the area both in azimuth and elevation, with polarization oriented for maximum response." is still within the 3dB illumination BW of the measurement antenna.

2.4 **Measurement Results Explanation Example**

2.4.1 Radiated Emission Test Sites For Measurements From 9 kHz To 30 MHz

Radiated emission below 30MHz is measured in a 9m*6m*6m semi-anechoic chamber, the measurements correspond to those obtained at an open-field test site.

There is a comparison data of both open-field test site and semi-Anechoic chamber, and the result came out very similar.

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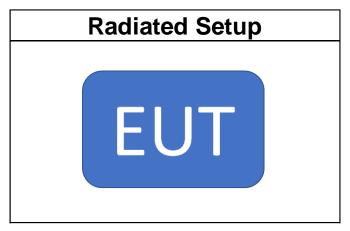
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2.5 **Test Configuration**



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3 SUMMARY OF TEST RESULTS

FCC Rules	ISED Rules	Description Of Test	Result
§15.247(d) §15.209	RSS-247 §5.5 RSS-Gen §8.9	Radiated Spurious Emission	Compliant

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4 DESCRIPTION OF TEST MODES

4.1 Operated in 2400 ~ 2483.5MHz Band

ITEM	FREQUENCY	ITEM	FREQUENCY	ITEM	FREQUENCY
1	2402 MHz	15	2430 MHz	29	2458 MHz
2	2404 MHz	16	2432 MHz	30	2460 MHz
3	2406 MHz	17	2434 MHz	31	2462 MHz
4	2408 MHz	18	2436 MHz	32	2464 MHz
5	2410 MHz	19	2438 MHz	33	2466 MHz
6	2412 MHz	20	2440 MHz	34	2468 MHz
7	2414 MHz	21	2442 MHz	35	2470 MHz
8	2416MHz	22	2444 MHz	36	2472 MHz
9	2418 MHz	23	2446 MHz	37	2474 MHz
10	2420 MHz	24	2448 MHz	38	2476 MHz
11	2422 MHz	25	2450 MHz	39	2478 MHz
12	2424 MHz	26	2452 MHz	40	2480 MHz
13	2426 MHz	27	2454 MHz		
14	2428 MHz	28	2456 MHz		

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The Worst Test Modes and Channel Details

- 1. The EUT has been tested under operating condition.
- 2. Test program used to control the EUT for staying in continuous transmitting and receiving mode is programmed.
- 3. The field strength of radiated emission was measured as the EUT positioned in different orthogonal planes (E1/E2/H) based on actual usage of the EUT to pre-scan the emissions for determining the worst case scenario.
- 4. Investigation has been done on all the possible configurations for searching the worst

RADIATED EMISSION TEST (BELOW 1 GHz)								
MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION	DATA RATE (Mbps)				
Bluetooth LE	0 to 39	19	GFSK	1				
	RADIATED EN	MISSION TEST (ABOV	E 1 GHz)					
MODE AVAILABLE TESTED MODULATION DATA RA (Mbps)								
Bluetooth LE	0 to 39	0,19,39	GFSK	1				
Bluetooth LE	0 to 39	0,19,39	GFSK	2				

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MEASUREMENT UNCERTAINTY

Radiated Spurious Emission Measurement Uncertainty						
	+/-	2.57	dB	9kHz~30MHz		
Polarization: Vertical	+/-	4.85	dB	30MHz - 1000MHz		
Polarization, vertical	+/-	4.45	dB	1GHz - 18GHz		
	+/-	4.24	dB	18GHz - 40GHz		
	+/-	2.57	dB	9kHz~30MHz		
Polarization: Horizontal	+/-	4.37	dB	30MHz - 1000MHz		
Folarization: Horizontal	+/-	4.45	dB	1GHz - 18GHz		
	+/-	4.24	dB	18GHz - 40GHz		

Note:

- 1. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.
- 2. The conformity assessment statement in this report is based solely on the test results, measurement uncertainty is excluded.



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6 SPURIOUS EMISSION MEASUREMENT

6.1 Standard Applicable

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. In addition, radiated emissions which fall in the restricted bands must also comply with the §15.209 and RSS-Gen §8.9 Table 5 and 6 limit as below.

And according to §15.33(a) (1) & RSS-Gen §6.13.2.a for an intentional radiator operates below 10GHz, the frequency range of measurements: to the tenth harmonic of the highest fundamental frequency or to 40GHz, whichever is lower.

Frequency (MHz)	Field strength (microvolts/meter)	Distance (meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

Note:

1. The lower limit shall apply at the transition frequencies.

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6.2 Measurement Equipment Used

Radiated Emission Test Site: SAC G								
EQUIPMENT TYPE	MFR	MODEL NUM- BER	SERIAL NUM- BER	LAST CAL.	CAL DUE.			
Broadband Antenna	SCHWARZ- BECK	VULB 9168	1206	02/15/2022	02/14/2023			
Horn Antenna	Schwarzbeck	BBHA9170	184	12/16/2021	12/15/2022			
Horn Antenna	RF SPIN	DRH18-E	210105A18E	04/09/2021	04/08/2022			
Loop Antenna	ETS.LIND- GREN	6502	143303	05/07/2021	05/06/2022			
3m Site NSA	SGS	966 chamber G	N/A	03/30/2021	03/29/2022			
3m Site NSA	SGS	966 chamber G	N/A	03/30/2022	03/29/2023			
Spectrum Analyzer	KEYSIGHT	N9010A	MY51440113	07/13/2021	07/12/2022			
Test Software	audix	e3	E3 20923 SGS Ver.9 (C)	N.C.R	N.C.R			
Pre-Amplifier	EMC Instru- ments	EMC184045B	980135	10/27/2021	10/26/2022			
Pre-Amplifier	EMC Instru- ments	EMC330N	980781	03/15/2021	03/14/2022			
Pre-Amplifier	EMC Instru- ments	EMC330N	980781	03/15/2022	03/14/2023			
Pre-Amplifier	EMC Instru- ments	EMC118A45SE	980815	03/15/2021	03/14/2022			
Pre-Amplifier	EMC Instru- ments	EMC118A45SE	980815	03/15/2022	03/14/2023			
Attenuator	Marvelous	MVE2213-10	RF05	11/18/2021	11/17/2022			
Highpass Filter	WI	WHKX10-2624- 3200-1800- 80SS	1	05/10/2021	05/09/2022			
Highpass Filter	WI	WHKX10-6090- 7000-17000- 80SS	1	05/10/2021	05/09/2022			
Coaxial Cable	EMC Instru- ments	EMCCFD400- NM-NM-8000- 5000-2000	210216 \ 210217 \ 210218	03/15/2021	03/14/2022			

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Coaxial Cable	EMC Instru- ments	EMCCFD400- NM-NM-8000- 5000-2000	210216 · 210217 · 210218	03/15/2022	03/14/2023
Coaxial Cable	EMC Instru- ments	EMC104-SM- SM-8000-5000- 5000	210219 \ 210220 \ 210221	03/15/2021	03/14/2022
Coaxial Cable	EMC Instru- ments	EMC104-SM- SM-8000-5000- 5000	210219 \ 210220 \ 210221	03/15/2022	03/14/2023
Coaxial Cable	EMC Instru- ments	EMC105-NM- NM-5000- 15000	210224 · 210306	03/15/2021	03/14/2022
Coaxial Cable	EMC Instru- ments	EMC105-NM- NM-5000- 15000	210224 · 210306	03/15/2022	03/14/2023

NOTE: N.C.R refers to Not Calibrated Required.

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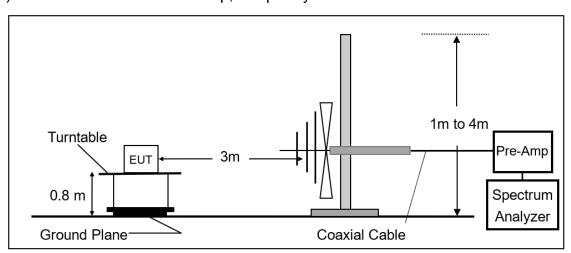
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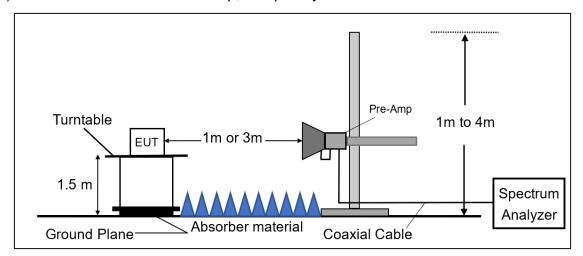
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Test SET-UP 6.3

(A) Radiated Emission Test Set-Up, Frequency From 30MHz to 1000MHz.



(B) Radiated Emission Test Set-Up, Frequency Above 1GHz.



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6.4 Measurement Procedure

- 1. The testing follows the Measurement Procedure of FCC KDB 558074 D01 DTS Meas. Guidance.
- 2. The EUT was placed on a turn table with 0.8m for frequency< 1GHz and 1.5m for frequency> 1GHz above ground plane.
- 3. The turn table shall rotate 360 degrees to determine the position of maximum emission level.
- 4.EUT is set 3m away from the receiving antenna which varied from 1m to 4m to find out the highest emissions.
- 5. Set the spectrum analyzer as RBW=100 kHz and VBW=300 kHz for Peak Detector (PK) at frequency between 30MHz and 1 GHz.
- 6. Use receiver mode as RBW=120 kHz for Quasi-peak (QP) at frequency between 30MHz and 1 GHz.
- 7. Set the spectrum analyzer as RBW=1 MHz, VBW=3 MHz for Peak Detector at frequency above 1 GHz.
- 8. Set the spectrum analyzer as RBW=1 MHz, VBW=10 Hz (Duty cycle > 98%) or VBW ≥ 1/T (Duty cycle < 98%) for Average Detector at frequency above 1 GHz.
- 9. When measurement procedures for electric field radiated emissions above 1 GHz the EUT measurement is to be made "while keeping the antenna in the 'cone of radiation' from that area and pointed at the area both in azimuth and elevation, with polarization oriented for maximum response." is still within the 3dB illumination BW of the measurement antenna.
- 10. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
- 11. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical. On spectrum, change spectrum mode in linear display mode, and reduce VBW = 10Hz if average reading is measured.
- 12. Repeat above procedures until all default test channel measured were complete.



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6.5 **Field Strength Calculation**

The field strength is calculated by adding the Antenna Factor and Cable Factor and subtracting the Amplifier Gain and Duty Cycle Correction Factor (if any) from the measured reading. The basic equation with a sample calculation is as follows:

$$FS = RA + AF + CL - AG$$

Where FS = Field Strength

CL = Cable Attenuation Factor (Cable Loss)

RA = Reading Amplitude

AG = Amplifier Gain

AF = Antenna Factor

The limit of the emission level is expressed in dBuV/m, which converts 20*log(uV/m)

Actual $FS(dB\mu V/m) = SPA$. Reading level(dB μV) + Factor(dB)

Factor(dB) = Antenna Factor(dBµV/m) + Cable Loss(dB) – Pre_Amplifier Gain(dB)

6.6 Test Results of Radiated Spurious Emissions from 9 kHz to 30 MHz

The low frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit per 15.31(o) & RSS-GEN §6.13.2 was not reported.

Measurement Result:

Note: Refer to next page spectrum analyzer data chart and tabular data sheets.

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6.7.1 **Radiated Spurious Emission**

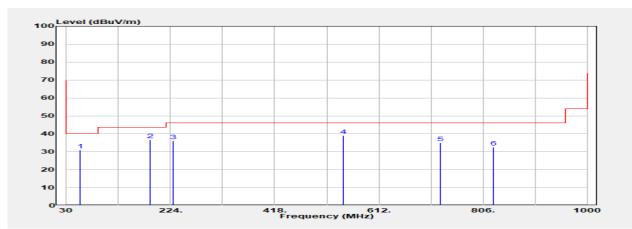
Report Number Test Site :SAC G :E2/2022/30008

Operation Mode :BLE 1M **Test Date** :2022-03-23

Test Frequency :2440 MHz Temp./Humi. :20.5/70

Test Mode :TX CH MID Antenna Pol. :Vertical

EUT Pol :NB Plane Engineer :Quentin Liu



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBμ̈V	dB	dBµV/m	dBµV/m	dB
56.190	Peak	44.15	-13.32	30.83	40.00	-9.17
186.170	Peak	51.80	-15.19	36.61	43.50	-6.89
228.850	Peak	51.74	-15.76	35.98	46.00	-10.02
545.070	Peak	46.28	-7.13	39.14	46.00	-6.86
727.430	Peak	37.68	-2.66	35.02	46.00	-10.98
825.400	Peak	34.41	-2.00	32.42	46.00	-13.58

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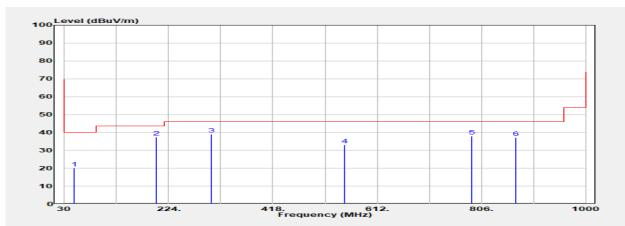
Report Number Test Site :SAC G :E2/2022/30008

Operation Mode :BLE 1M **Test Date** :2022-03-23

Test Frequency :2440 MHz Temp./Humi. :20.5/70

Test Mode :TX CH MID Antenna Pol. :Horizontal

EUT Pol :Quentin Liu :NB Plane Engineer



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBμV/m	dB
47.460	Peak	33.03	-12.89	20.14	40.00	-19.86
200.720	Peak	53.58	-16.24	37.35	43.50	-6.15
303.540	Peak	51.39	-12.36	39.03	46.00	-6.97
551.860	Peak	39.92	-6.85	33.07	46.00	-12.93
787.570	Peak	40.25	-2.40	37.85	46.00	-8.15
870.990	Peak	37.77	-0.72	37.05	46.00	-8.95

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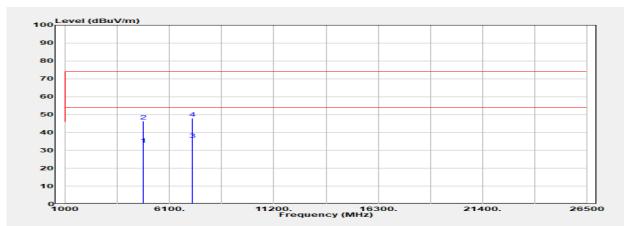
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Report Number :E2/2022/30008 Test Site :SAC G

:BLE 1M Operation Mode **Test Date** :2022-03-23

Test Frequency :2402 MHz Temp./Humi. :20.5/70 Test Mode :TX CH LOW Antenna Pol. :Vertical

EUT Pol :NB Plane :Quentin Liu Engineer



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμ̈V	dB	dBµV/m	dBµV/m	dB
4804.000	Average	30.09	3.14	33.23	54.00	-20.77
4804.000	Peak	43.31	3.14	46.45	74.00	-27.55
7206.000	Average	28.70	7.22	35.92	54.00	-18.08
7206.000	Peak	40.67	7.22	47.89	74.00	-26.11

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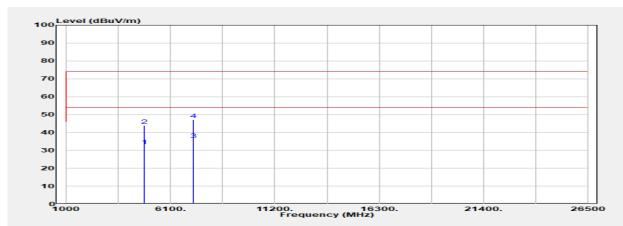
Report Number :E2/2022/30008 Test Site :SAC G

:BLE 1M Operation Mode **Test Date** :2022-03-23

Test Frequency :2402 MHz Temp./Humi. :20.5/70

Test Mode :TX CH LOW Antenna Pol. :Horizontal

EUT Pol :NB Plane :Quentin Liu Engineer



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμ̈V	dB	dBµV/m	dBµV/m	dB
4804.000	Average	29.40	3.14	32.54	54.00	-21.46
4804.000	Peak	40.66	3.14	43.80	74.00	-30.20
7206.000	Average	28.86	7.22	36.07	54.00	-17.93
7206.000	Peak	39.99	7.22	47.21	74.00	-26.79

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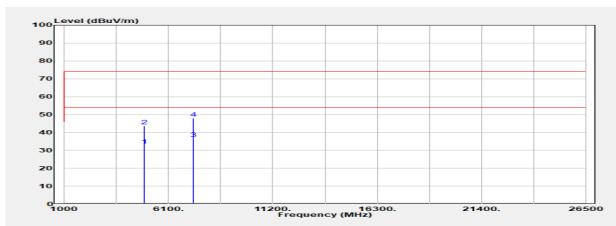
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Report Number :E2/2022/30008 Test Site :SAC G

:BLE 1M Operation Mode **Test Date** :2022-03-23

Test Frequency :2440 MHz Temp./Humi. :20.5/70 Test Mode :TX CH MID Antenna Pol. :Vertical

EUT Pol :NB Plane :Quentin Liu Engineer



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμ̈V	dB	dBµV/m	dBµV/m	dB
4880.000	Average	29.56	3.33	32.89	54.00	-21.11
4880.000	Peak	40.23	3.33	43.56	74.00	-30.44
7320.000	Average	28.84	7.66	36.50	54.00	-17.50
7320.000	Peak	40.31	7.66	47.97	74.00	-26.03

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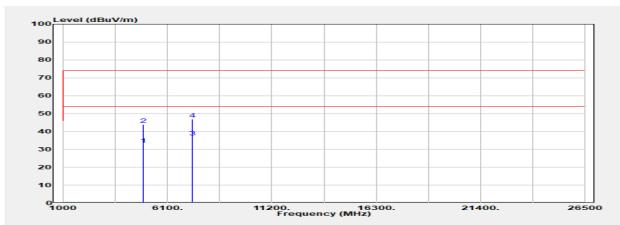
Report Number :E2/2022/30008 Test Site :SAC G

:BLE 1M Operation Mode **Test Date** :2022-03-23

Test Frequency :2440 MHz Temp./Humi. :20.5/70

Test Mode :TX CH MID Antenna Pol. :Horizontal

EUT Pol :NB Plane :Quentin Liu Engineer



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBµV/m	dB
4880.000	Average	29.53	3.33	32.86	54.00	-21.14
4880.000	Peak	40.49	3.33	43.82	74.00	-30.18
7320.000	Average	29.13	7.66	36.78	54.00	-17.22
7320.000	Peak	39.24	7.66	46.90	74.00	-27.10

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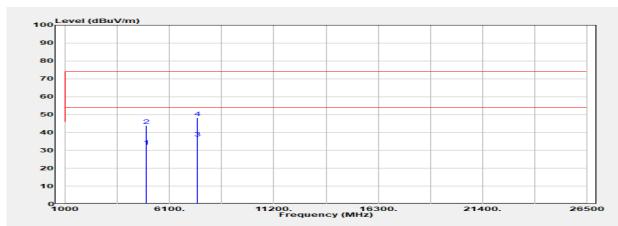
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Report Number :E2/2022/30008 Test Site :SAC G

:BLE 1M Operation Mode **Test Date** :2022-03-23

Test Frequency :2480 MHz Temp./Humi. :20.5/70 Test Mode :TX CH HIGH Antenna Pol. :Vertical

EUT Pol :NB Plane :Quentin Liu Engineer



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
4960.000	Average	28.83	3.42	32.25	54.00	-21.75
4960.000	Peak	40.44	3.42	43.86	74.00	-30.14
7440.000	Average	28.75	8.11	36.86	54.00	-17.14
7440.000	Peak	40.16	8.11	48.27	74.00	-25.73

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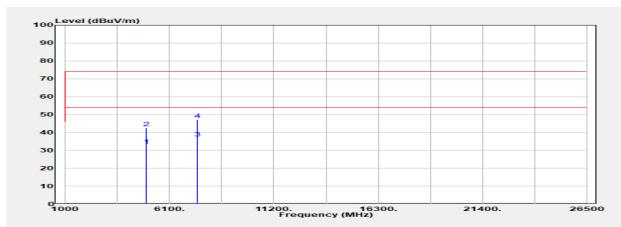
Report Number :E2/2022/30008 Test Site :SAC G

:BLE 1M Operation Mode **Test Date** :2022-03-23

Test Frequency :2480 MHz Temp./Humi. :20.5/70

Test Mode :TX CH HIGH Antenna Pol. :Horizontal

EUT Pol :Quentin Liu :NB Plane Engineer



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμ̈V	dB	dBµV/m	dBµV/m	dB
4960.000	Average	29.32	3.42	32.74	54.00	-21.26
4960.000	Peak	39.05	3.42	42.47	74.00	-31.53
7440.000	Average	28.77	8.11	36.88	54.00	-17.12
7440.000	Peak	39.07	8.11	47.18	74.00	-26.82

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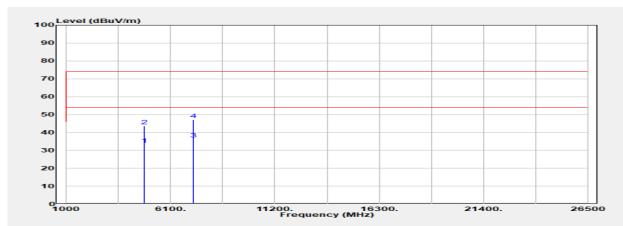
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Report Number :E2/2022/30008 Test Site :SAC G

:BLE 2M Operation Mode **Test Date** :2022-03-23

Test Frequency :2402 MHz Temp./Humi. :20.5/70 Test Mode :TX CH LOW Antenna Pol. :Vertical

EUT Pol :NB Plane :Quentin Liu Engineer



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμ̈V	dB	dBµV/m	dBµV/m	dB
4804.000	Average	30.23	3.14	33.36	54.00	-20.64
4804.000	Peak	40.58	3.14	43.72	74.00	-30.28
7206.000	Average	29.00	7.22	36.22	54.00	-17.78
7206.000	Peak	39.88	7.22	47.10	74.00	-26.90

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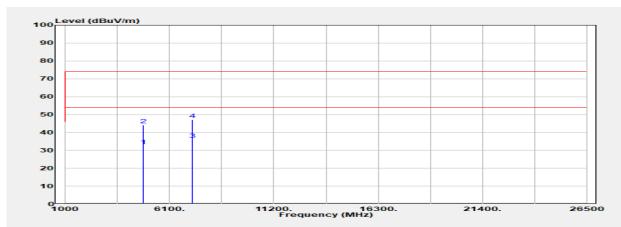
Report Number :E2/2022/30008 Test Site :SAC G

:BLE 2M Operation Mode **Test Date** :2022-03-23

Test Frequency :2402 MHz Temp./Humi. :20.5/70

Test Mode :TX CH LOW Antenna Pol. :Horizontal

EUT Pol :NB Plane :Quentin Liu Engineer



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμ̈V	dB	dBµV/m	dBµV/m	dB
4804.000	Average	29.48	3.14	32.61	54.00	-21.39
4804.000	Peak	41.02	3.14	44.16	74.00	-29.84
7206.000	Average	28.92	7.22	36.14	54.00	-17.86
7206.000	Peak	39.90	7.22	47.12	74.00	-26.88

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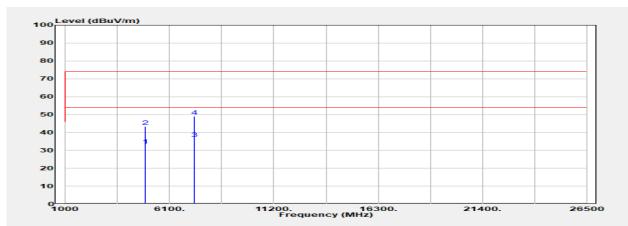
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Report Number :E2/2022/30008 Test Site :SAC G

:BLE 2M Operation Mode **Test Date** :2022-03-23

Test Frequency :2440 MHz Temp./Humi. :20.5/70 Test Mode :TX CH MID Antenna Pol. :Vertical

EUT Pol :NB Plane :Quentin Liu Engineer



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBµV/m	dB
4880.000	Average	29.36	3.33	32.70	54.00	-21.30
4880.000	Peak	39.94	3.33	43.27	74.00	-30.73
7320.000	Average	29.02	7.66	36.68	54.00	-17.32
7320.000	Peak	41.32	7.66	48.98	74.00	-25.02

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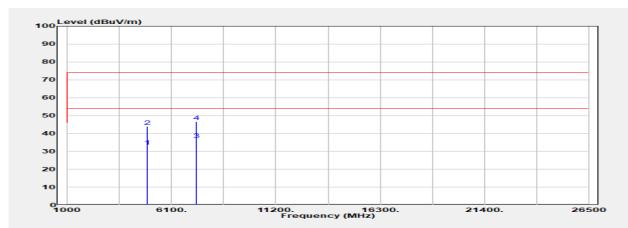
Report Number :E2/2022/30008 Test Site :SAC G

:BLE 2M Operation Mode **Test Date** :2022-03-23

Test Frequency :2440 MHz Temp./Humi. :20.5/70

Test Mode :TX CH MID Antenna Pol. :Horizontal

EUT Pol :NB Plane :Quentin Liu Engineer



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBµV/m	dB
4880.000	Average	29.53	3.33	32.86	54.00	-21.14
4880.000	Peak	40.65	3.33	43.98	74.00	-30.02
7320.000	Average	28.80	7.66	36.46	54.00	-17.54
7320.000	Peak	38.90	7.66	46.56	74.00	-27.44

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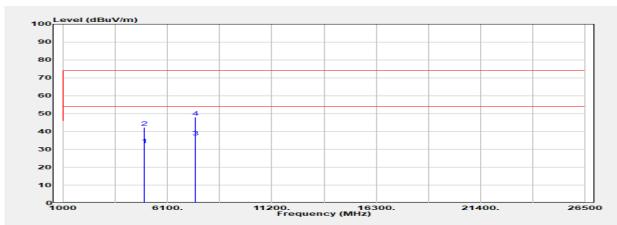
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Report Number Test Site :SAC G :E2/2022/30008

:BLE 2M Operation Mode **Test Date** :2022-03-23

Test Frequency :2480 MHz Temp./Humi. :20.5/70 Test Mode :TX CH HIGH Antenna Pol. :Vertical

EUT Pol :NB Plane :Quentin Liu Engineer



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBµV/m	dB
4960.000	Average	28.97	3.42	32.39	54.00	-21.61
4960.000	Peak	38.90	3.42	42.32	74.00	-31.68
7440.000	Average	28.74	8.11	36.85	54.00	-17.15
7440.000	Peak	39.87	8.11	47.98	74.00	-26.02

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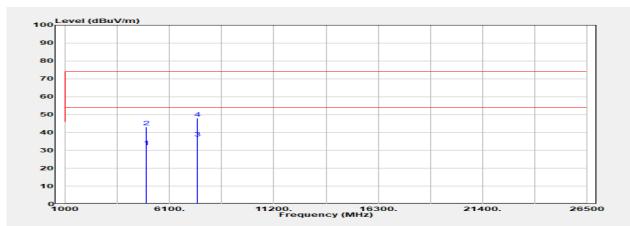
Report Number :E2/2022/30008 Test Site :SAC G

:BLE 2M Operation Mode **Test Date** :2022-03-23

Test Frequency :2480 MHz Temp./Humi. :20.5/70

Test Mode :TX CH HIGH Antenna Pol. :Horizontal

EUT Pol :NB Plane :Quentin Liu Engineer



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
4960.000	Average	28.65	3.42	32.07	54.00	-21.93
4960.000	Peak	39.60	3.42	43.02	74.00	-30.98
7440.000	Average	28.79	8.11	36.90	54.00	-17.10
7440.000	Peak	39.88	8.11	47.99	74.00	-26.01

~ End of Report ~

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