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# **ELECTROMAGNETIC EMISSIONS COMPLIANCE CLASS II & IV** PERMISSIVE CHANGE REPORT





**Applicant:** MediaTek Inc.

No. 1, Dusing 1st Rd., Hsinchu Science Park Hsinchu City

30078, Taiwan

**Product Name:** 2TX 11ax (WiFi6E) BW160 + BT/BLE Combo Card

**Brand Name:** MediaTek

MT7922A22M Model No.:

**Model Difference:** N/A

**Report Number:** ER/2021/C0062

FCC ID RAS-MT7922A22M

IC: 7542A-MT7922A22M

February 11, 2022 Issue Date:

December 21, 2021 ~ January 12, 2022 Date of Test:

Date of EUT Received: December 9, 2021

Tet Lu

Approved By

### 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 Rem							
ER/2021/C0062	00	Original.	February 11, 2022	Karen Huang			

### Note:

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

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## **GENERAL INFORMATION**

### 1.1 **Product description of Host**

Product Name:	Notebook Computer	
Brand Name:	acer	
FCC Model No.:	N22C1	
IC Model No.:	AN515-46	
Model Difference:	N/A	
Hardware Version:	N/A	
Firmware Version:	N/A	
Power Supply:	15.4Vdc	

### 1.2 **RF Specification**

Radio Technology:	BT BR+EDR
Channel number:	79 channels
Modulation type:	GFSK + π/4DQPSK + 8DPSK
Frequency Range:	2.402GHz – 2.480GHz
Dwell Time:	≦ 0.4s

### 1.3 **Antenna Designation**

Antenna Type	Main / Aux	Freq.	Peak Antenna Gain (dBi)
PIFA	Aux	2.4GHz	0.1

### Note:

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 KDB 558074 D01 v05r02 DSS Meas. Guidance RSS-247 issue 2 Feb. 2017 RSS-Gen Issue 5, Amendment 2, February 2021 ANSI C63.10:2013

### **Test Facility** 1.5

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		TW3702			
		Conducted 4					
		Conducted 5					
SGS Taiwan Ltd.		Conducted 6					
Central RF Lab.		Conduction C					
(TAF code 3702)		SAC 1 SAC 3 Conduction 1 Conducted 1 Conducted 2 Conducted 3 Conducted 4 Conducted 5 Conducted 6		1003702			
(IAI Code 3/02)		SAC D					
	No 2 Koji 1st Pd. Cujshan District						
	No.2, Keji 1st Rd., Guishan District, Taoyuan City, Taiwan 333	Conducted B	TW0028				
	ladyuan Gity, Talwan 333	Conducted C					
		Conducted D	1				
		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 is no special accessory 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.

### **Measurement Results Explanation Example** 2.4

### 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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### 2.5 **Configuration of Tested System**

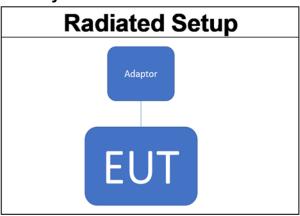


Table 2-1 Equipment Used in Tested System

l	Radiated Emission Test Site: SAC 3						
ĺ	SERIAL LAST CAL BUE						
	EQUIPMENT TYPE	MFR	MODEL NUMBER	NUMBER	LAST CAL.	CAL DUE.	
	Test Software	audix	e3	Ver. 9 210322	N.C.R	N.C.R	
ĺ	A do nto n	LITEON	DA 1221 00	KP330030041	NI / A	NI / A	
	Adaptor	LITEON	PA-1331-99	39003E4PE01	N/A	N/A	

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## **SUMMARY OF TEST RESULTS**

FCC Rules	IC 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

79 channels are provided for Bluetooth

79 channels are provided for Bluetooth							
ITEM	FREQUENCY	ITEM	FREQUENCY	ITEM	FREQUENCY	ITEM	FREQUENCY
1	2402 MHz	21	2422 MHz	41	2442 MHz	71	2462 MHz
2	2403 MHz	22	2423 MHz	42	2443 MHz	72	2463 MHz
3	2404 MHz	23	2424 MHz	43	2444 MHz	73	2464 MHz
4	2405 MHz	24	2425 MHz	44	2445 MHz	74	2465 MHz
5	2406 MHz	25	2426 MHz	45	2446 MHz	75	2466 MHz
6	2407 MHz	26	2427 MHz	46	2447 MHz	76	2467 MHz
7	2408 MHz	27	2428 MHz	47	2448 MHz	77	2468 MHz
8	2409 MHz	28	2429 MHz	48	2449 MHz	78	2469 MHz
9	2410 MHz	29	2430 MHz	49	2450 MHz	79	2470 MHz
10	2411 MHz	30	2431 MHz	50	2451 MHz	70	2471 MHz
11	2412 MHz	31	2432 MHz	51	2452 MHz	71	2472 MHz
12	2413 MHz	32	2433 MHz	52	2453 MHz	72	2473 MHz
13	2414 MHz	33	2434 MHz	53	2454 MHz	73	2474 MHz
14	2415 MHz	34	2435 MHz	54	2455 MHz	74	2475 MHz
15	2416 MHz	35	2436 MHz	55	2456 MHz	75	2476 MHz
16	2417 MHz	36	2437 MHz	56	2457 MHz	76	2477 MHz
17	2418 MHz	37	2438 MHz	57	2458 MHz	77	2478 MHz
18	2419 MHz	38	2439 MHz	58	2459 MHz	78	2479 MHz
19	2420 MHz	39	2440 MHz	59	2460 MHz	79	2480 MHz
20	2421 MHz	40	2441 MHz	60	2461 MHz		

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### 4.2 The Worst Test Modes and Channel Details

- The EUT has been tested under operating condition.
- Test program used to control the EUT for staying in continuous transmitting and receiving mode is programmed.
- Investigation has been done on all the possible configurations for searching the worst case. 3

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION	PACKET TYPE
RADIATED EMISSION TEST (BELOW 1 GHz)				
Bluetooth	0 to 78	39	8-DPSK	3DH5
RADIATED EMISSION TEST (ABOVE 1				
Bluetooth	0 to 78	0,39,78	GFSK 8-DPSK	DH5/3DH5

Note: 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.

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## **MEASUREMENT UNCERTAINTY**

Test Items	l	<b>Incertai</b> r	nty
AC Power Line Conducted Emission	+/-	2.34	dB
Output Power measurement	+/-	1	dB
Emission Bandwidth	+/-	1.53	Hz
Undesignable radiated emission measurement	+/-	1.68	dB
Frequency Separation	+/-	1.53	Hz
Number of hopping frequency	+/-	1.53	Hz
Time of Occupancy	+/-	1.53	Hz
Temperature	+/-	0.4	°C
Humidity	+/-	3.5	%
DC / AC Power Source	+/-	1	%

Radiated Spurious Emission Measurement Uncertainty				
Polarization: Vertical	+/-	2.64	dB	9kHz~30MHz
	+/-	4.93	dB	30MHz - 1000MHz
	+/-	4.81	dB	1GHz - 18GHz
	+/-	4.52	dB	18GHz - 40GHz
Polarization: Horizontal	+/-	2.64	dB	9kHz~30MHz
	+/-	4.45	dB	30MHz - 1000MHz
	+/-	4.81	dB	1GHz - 18GHz
	+/-	4.52	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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### RADIATED BANDEDGE AND 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 limit as below. And according to §15.33(a) (1), 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:

The lower limit shall apply at the transition frequencies.

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## 6.2 Measurement Equipment Used

Weasurement	Radiated Emission Test Site: SAC 3								
EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL.	CAL DUE.				
Horn Antenna	SCHWARZBECK	ВВНА9170	184	12/16/2021	12/15/2022				
Horn Antenna	SCHWARZBECK	BBHA9120D	1441	09/27/2021	09/26/2022				
Bi-log Antenna	SCHWARZBECK	VULB9168	378	08/20/2021	08/19/2022				
Loop Antenna	ETS.LINDGREN	6502	148045	09/29/2021	09/28/2022				
PXA Spectrum Analyzer	Agilent	N9030A	MY53120760	04/27/2021	04/26/2022				
EMI Test Receiver	R&S	ESCI 7	100759	08/26/2021	08/25/2022				
Pre-Amplifier	HP	8449B	3008A00578	12/16/2021	12/15/2022				
Pre-Amplifier	EMC Instruments	EMC184045B	980135	10/27/2021	10/26/2022				
Pre-Amplifier	HP	8447D	2944A07676	12/16/2021	12/15/2022				
Attenuator	Mini-Circuit	BW-S10W2+	4	12/14/2021	12/13/2022				
Filter 2400-2483.5 MHz	EWT	EWT-14-0166	M1	12/14/2021	12/13/2022				
High Pass Filter	WI	WHKX4.0/18G- 10SS	22	12/14/2021	12/13/2022				
Coaxial Cable	Huber Suhner	SUCOFLEX 102	MY2636/2	12/16/2021	12/15/2022				
Coaxial Cable	Huber Suhner	SUCOFLEX 104	340057/4	12/16/2021	12/15/2022				
Coaxial Cable	Huber Suhner	SUCOFLEX 104PEA	800052/2	12/16/2021	12/15/2022				
Coaxial Cable	Huber Suhner	SUCOFLEX 102	MY2621/2	12/16/2021	12/15/2022				
Coaxial Cable	Huber Suhner	SUCOFLEX 102	MY2617/2	12/16/2021	12/15/2022				
Coaxial Cable	Huber Suhner	SUCOFLEX 102	MY2630/2	12/16/2021	12/15/2022				
Coaxial Cable	Huber Suhner	SUCOFLEX 102	MY22962/2	12/16/2021	12/15/2022				
Site Cal	SGS	SAC 3	N/A	01/01/2022	12/31/2022				

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

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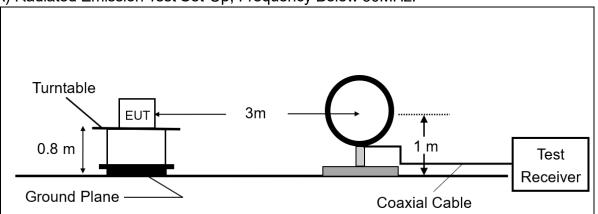
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 t (886-2) 2299-3279
 f (886-2) 2298-0488
 www.sgs.com.tw



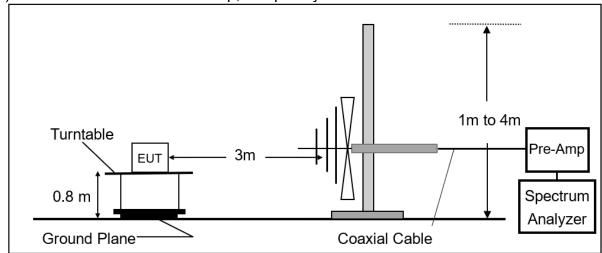
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### 6.3 **Test SET-UP**

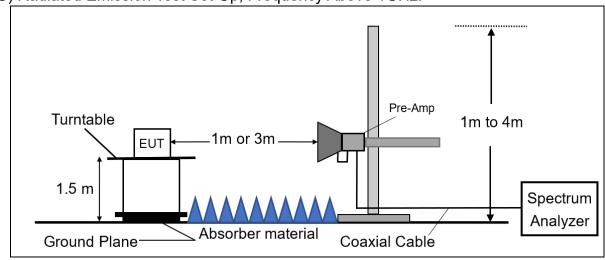
(A) Radiated Emission Test Set-Up, Frequency Below 30MHz.



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



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



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#### 6.4 **Measurement Procedure**

#### 6.4.1 Radiated Emission

- 1. The testing follows the Measurement Procedure of ANSI C63.10:2013.
- 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
- 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 $\mu V$ ) + Factor(dB)  $Factor(dB) = Antenna\ Factor(dB\mu V/m) + Cable\ Loss(dB) - Pre\_Amplifier\ Gain(dB)$ 

### 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.

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#### 6.7 **Measurement Result:**

## **Radiated Spurious Emission:**

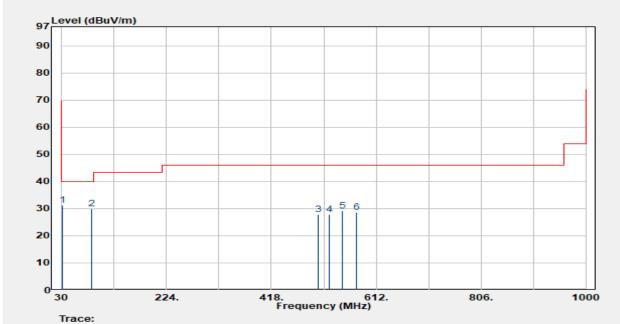
Report Number :ER/2021/C0062 Test Site :SAC 3

Operation Mode Test Date :2022-01-08 :EDR 3M

Test Frequency :2441 MHz Temp./Humi. :20.8/56

Test Mode :Tx CH Mid Antenna Pol. :Vertical

**EUT Pol** :NB Plane Engineer :Jack Liu



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBμV/m	dBµV/m	dB
31.940	QP	40.35	-8.94	31.41	40.00	-8.59
85.290	Peak	43.30	-13.27	30.04	40.00	-9.96
505.300	QP	30.12	-2.25	27.87	46.00	-18.13
525.670	QP	29.30	-1.42	27.88	46.00	-18.12
549.920	QP	30.58	-1.43	29.15	46.00	-16.85
576.110	QP	30.35	-1.59	28.76	46.00	-17.24

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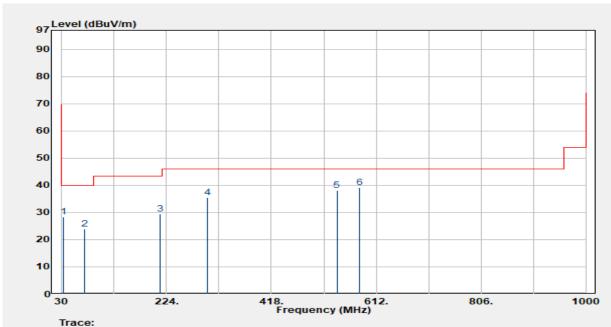
Report Number Test Site :SAC 3 :ER/2021/C0062

Operation Mode :EDR 3M Test Date :2022-01-08

Test Frequency :2441 MHz Temp./Humi. :20.8/56

Test Mode :Tx CH Mid Antenna Pol. :Horizontal

**EUT Pol** :NB Plane Engineer :Jack Liu



II ucc.						
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
33.880	Peak	37.42	-9.05	28.36	40.00	-11.64
71.710	Peak	34.47	-10.50	23.97	40.00	-16.03
211.390	Peak	38.80	-9.44	29.36	43.50	-14.14
299.660	Peak	41.33	-5.90	35.43	46.00	-10.57
539.250	Peak	39.24	-1.22	38.02	46.00	-7.98
581.930	Peak	40.65	-1.46	39.19	46.00	-6.81

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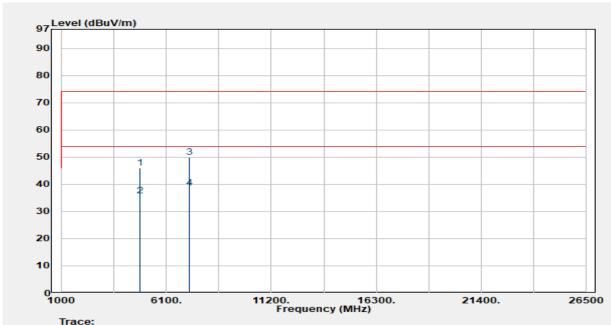
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Test Site :SAC 3 Report Number :ER/2021/C0062

Operation Mode :BR **Test Date** :2022-01-08

Test Frequency :2402 MHz Temp./Humi. :20.8/56

Test Mode :Tx CH Low Antenna Pol. :Vertical **EUT Pol** :NB Plane Engineer :Jack Liu



Trace:						
Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin
	Mode	Reading Level		FS	@3m	
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBµV/m	dB
4804.000	Peak	38.85	7.27	46.12	74.00	-27.88
4804.000	Average	28.43	7.27	35.70	54.00	-18.30
7206.000	Peak	36.02	13.98	50.00	74.00	-24.00
7206.000	Average	24.56	13.98	38.54	54.00	-15.46

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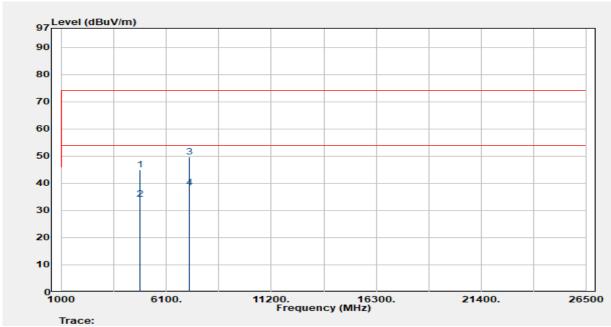
Report Number Test Site :SAC 3 :ER/2021/C0062

Operation Mode :BR **Test Date** :2022-01-08

Test Frequency :2402 MHz Temp./Humi. :20.8/56

Test Mode :Tx CH Low Antenna Pol. :Horizontal

**EUT Pol** :NB Plane :Jack 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
4804.000	Peak	37.64	7.27	44.91	74.00	-29.09
4804.000	Average	26.97	7.27	34.24	54.00	-19.76
7206.000	Peak	35.62	13.98	49.60	74.00	-24.40
7206.000	Average	24.50	13.98	38.48	54.00	-15.52

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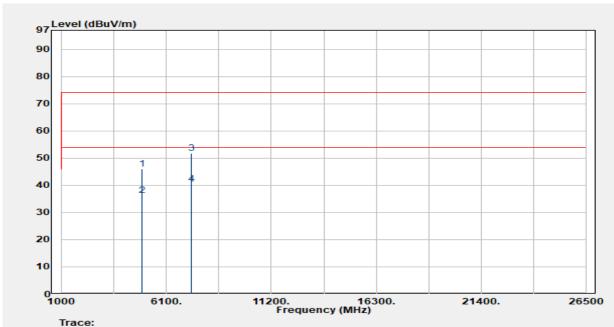
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Test Site :SAC 3 Report Number :ER/2021/C0062

Operation Mode :BR Test Date :2022-01-08

:2441 MHz Test Frequency Temp./Humi. :20.8/56 Test Mode :Tx CH Mid Antenna Pol. :Vertical

**EUT Pol** :NB Plane Engineer :Jack Liu



II acc.						
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBµV/m	dB
4882.000	Peak	38.43	7.59	46.02	74.00	-27.98
4882.000	Average	28.58	7.59	36.17	54.00	-17.83
7323.000	Peak	36.38	15.41	51.79	74.00	-22.21
7323.000	Average	25.05	15.41	40.46	54.00	-13.54

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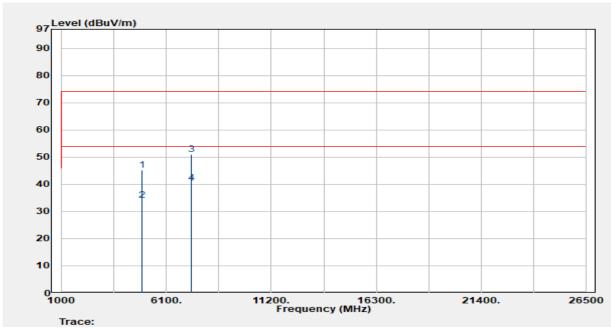
Test Site :SAC 3 Report Number :ER/2021/C0062

Operation Mode :BR **Test Date** :2022-01-08

:2441 MHz Test Frequency Temp./Humi. :20.8/56

Test Mode :Tx CH Mid Antenna Pol. :Horizontal

**EUT Pol** :NB Plane :Jack Liu Engineer



mace.						
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBµV/m	dB
4882.000	Peak	37.66	7.59	45.25	74.00	-28.75
4882.000	Average	26.61	7.59	34.20	54.00	-19.80
7323.000	Peak	35.46	15.41	50.87	74.00	-23.13
7323.000	Average	24.96	15.41	40.37	54.00	-13.63

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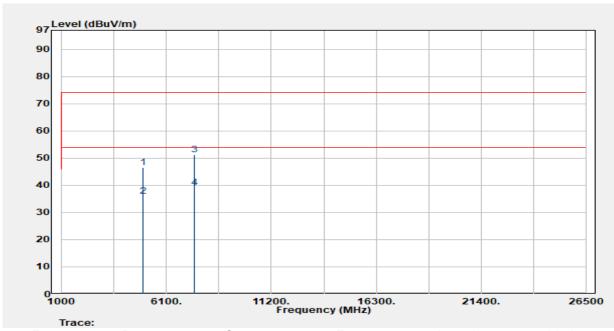
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Test Site :SAC 3 Report Number :ER/2021/C0062

Operation Mode :BR **Test Date** :2022-01-08

:2480 MHz Test Frequency Temp./Humi. :20.8/56 Test Mode :Tx CH High Antenna Pol. :Vertical

**EUT Pol** :NB Plane Engineer :Jack Liu



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	Peak	38.71	7.93	46.64	74.00	-27.36
4960.000	Average	28.04	7.93	35.97	54.00	-18.03
7440.000	Peak	36.94	14.28	51.22	74.00	-22.78
7440.000	Average	24.99	14.28	39.27	54.00	-14.73

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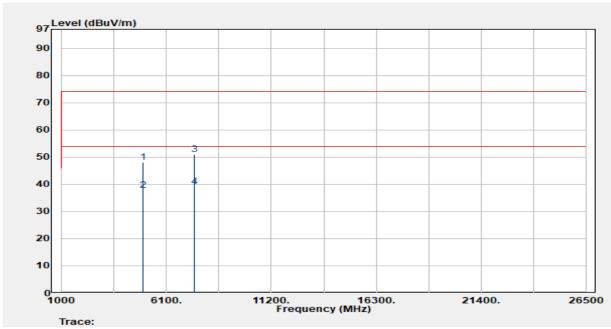
Test Site :SAC 3 Report Number :ER/2021/C0062

Operation Mode :BR **Test Date** :2022-01-08

Test Frequency :2480 MHz Temp./Humi. :20.8/56

Test Mode :Tx CH High Antenna Pol. :Horizontal

**EUT Pol** :NB Plane :Jack Liu Engineer



	mace.						
	Freq.	Detector Mode	Spectrum	Factor	Actual FS	Limit	Margin
			Reading Level			@3m	
	MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBµV/m	dB
_			•				
	4960.000	Peak	40.15	7.93	48.08	74.00	-25.92
	4960.000	Average	29.92	7.93	37.85	54.00	-16.15
	7440.000	Peak	36.69	14.28	50.97	74.00	-23.03
	7440.000	Average	24.98	14.28	39.26	54.00	-14.74

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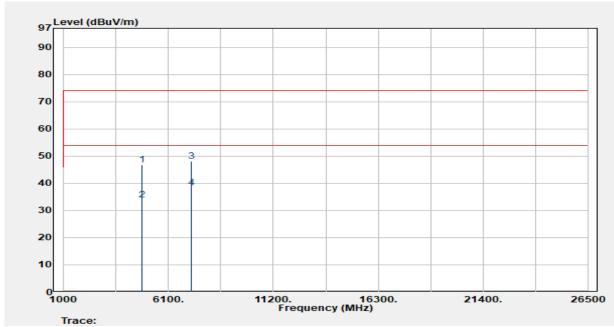
Test Site :SAC 3 Report Number :ER/2021/C0062

Operation Mode :EDR 3M **Test Date** :2022-01-08

Test Frequency :2402 MHz Temp./Humi. :20.8/56

Test Mode :Tx CH Low Antenna Pol. :Vertical

**EUT Pol** :NB Plane Engineer :Jack Liu



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
4804.000	Peak	39.46	7.27	46.73	74.00	-27.27
4804.000	Average	26.61	7.27	33.88	54.00	-20.12
7206.000	Peak	34.18	13.98	48.16	74.00	-25.84
7206.000	Average	24.52	13.98	38.50	54.00	-15.50

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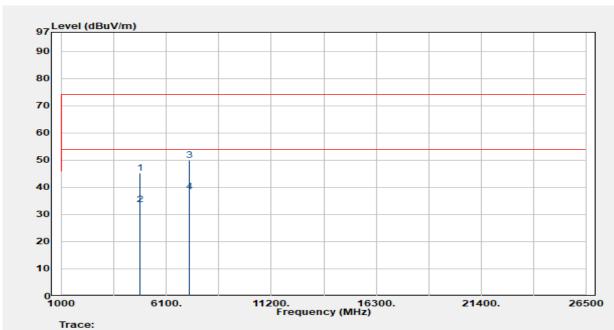
Test Site :SAC 3 Report Number :ER/2021/C0062

Operation Mode :EDR 3M **Test Date** :2022-01-08

Test Frequency :2402 MHz Temp./Humi. :20.8/56

Test Mode :Tx CH Low Antenna Pol. :Horizontal

**EUT Pol** :NB Plane :Jack 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
4804.000	Peak	37.90	7.27	45.17	74.00	-28.83
4804.000	Average	26.32	7.27	33.59	54.00	-20.41
7206.000	Peak	35.87	13.98	49.85	74.00	-24.15
7206.000	Average	24.47	13.98	38.45	54.00	-15.55

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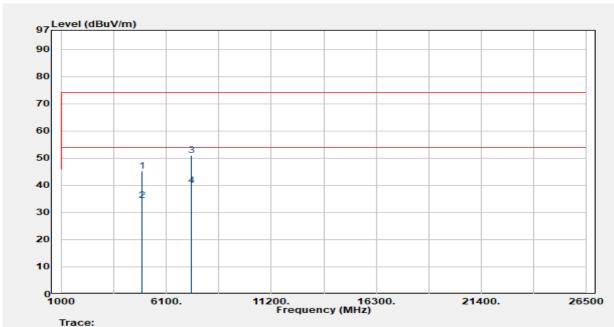
Test Site :SAC 3 Report Number :ER/2021/C0062

Operation Mode :EDR 3M **Test Date** :2022-01-08

Test Frequency :2441 MHz Temp./Humi. :20.8/56

Test Mode :Tx CH Mid Antenna Pol. :Vertical

**EUT Pol** :NB Plane Engineer :Jack Liu



mace.						
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBµV/m	dB
4882.000	Peak	37.65	7.59	45.24	74.00	-28.76
4882.000	Average	26.78	7.59	34.37	54.00	-19.63
7323.000	Peak	35.71	15.41	51.12	74.00	-22.88
7323.000	Average	24.60	15.41	40.01	54.00	-13.99

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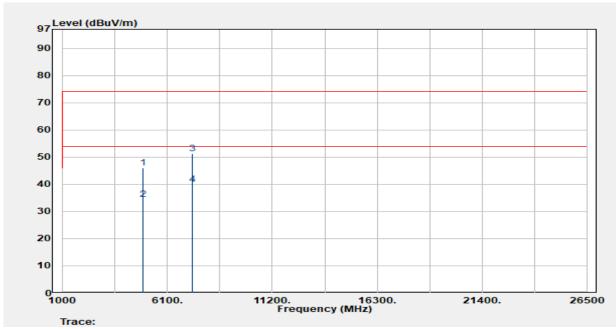
Test Site :SAC 3 Report Number :ER/2021/C0062

Operation Mode :EDR 3M **Test Date** :2022-01-08

Test Frequency :2441 MHz Temp./Humi. :20.8/56

Test Mode :Tx CH Mid Antenna Pol. :Horizontal

**EUT Pol** :NB Plane :Jack 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
4882.000	Peak	38.34	7.59	45.93	74.00	-28.07
4882.000	Average	26.73	7.59	34.32	54.00	-19.68
7323.000	Peak	35.80	15.41	51.21	74.00	-22.79
7323.000	Average	24.50	15.41	39.91	54.00	-14.09

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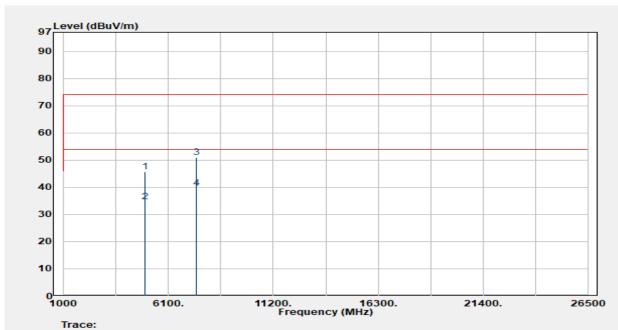
Test Site :SAC 3 Report Number :ER/2021/C0062

Operation Mode :EDR 3M **Test Date** :2022-01-08

Test Frequency :2480 MHz Temp./Humi. :20.8/56

Test Mode :Tx CH High Antenna Pol. :Vertical

**EUT Pol** :NB Plane Engineer :Jack Liu



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	Peak	37.81	7.93	45.74	74.00	-28.26
4960.000	Average	26.74	7.93	34.67	54.00	-19.33
7440.000	Peak	36.60	14.28	50.88	74.00	-23.12
7440.000	Average	25.45	14.28	39.73	54.00	-14.27

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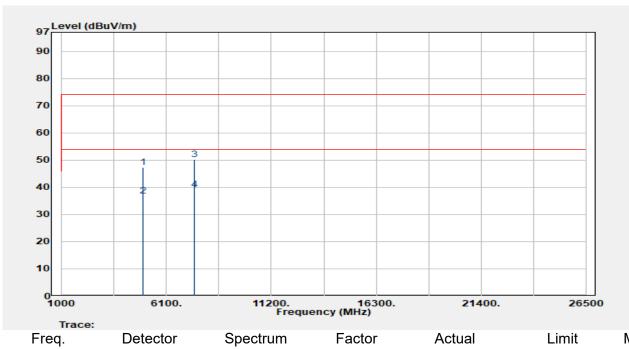
Test Site :SAC 3 Report Number :ER/2021/C0062

Operation Mode :EDR 3M **Test Date** :2022-01-08

Test Frequency :2480 MHz Temp./Humi. :20.8/56

Test Mode :Tx CH High Antenna Pol. :Horizontal

**EUT Pol** :NB Plane :Jack Liu Engineer



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dΒμV/m	dB
4960.000	Peak	39.30	7.93	47.23	74.00	-26.77
4960.000	Average	28.87	7.93	36.80	54.00	-17.20
7440.000	Peak	35.99	14.28	50.27	74.00	-23.73
7440.000	Average	24.99	14.28	39.27	54.00	-14.73

### ~ End of Report ~

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