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ELECTROMAGNETIC EMISSIONS COMPLIANCE REPORT





Applicant: MediaTek Inc.

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

30078, Taiwan

Manufacturer: 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

Model No.: MT7922A22M

Model Difference: N/A

Report Number: TERF2309002325ER

FCC ID **RAS-MT7922A22M**

Date of EUT Received: September 22, 2023

Date of Test: September 23, 2023~October 25, 2023

Issue Date: December 6, 2023

Approved By_

Men Lay

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.

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		
TERF2309002325ER	00	Original.	November 20, 2023	Susan Lin			
TERF2309002325ER	01	 Update applicant and manufacturer Add module information Add duty cycle 	December 4, 2023	Susan Lin	*		
TERF2309002325ER	02	 Update summary of test results Update chapter 4.2 tested channel 	December 6, 2023	Susan Lin	*		

Note:

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

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GENERAL INFORMATION

1.1 **Product Description**

	OTV 44 av. (MICICE) DW4CO (DT/DLE Comba Comb
Product Name:	2TX 11ax (WiFi6E) BW160+BT/BLE Combo Card
Brand Name:	MediaTek
Model No.:	MT7922A22M
Product Name of Host:	Cooling X
Brand Name of Host:	Be Excellent line
Model No. of Host:	ASP-CXA9-N86CN
Model Difference:	N/A
Hardware Version:	N/A
Firmware Version:	N/A
EUT Series No.:	ASPCXA9N86CNR11231500010
Power Supply:	230V AC
Test Software (Name/Version):	Media Tek BT Tool/W2104

1.2 **RF Specification**

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

1.3 **Antenna Designation**

Antenna Type	Antenna No.	Freq. (MHz)	Peak Antenna Gain (dBi)
DIEA	ANT1	2402~2480	2.2
PIFA	ANT2	2402~2480	1.85

Note:

- 1. Pre-scanned was done on the above antennas, measurements were demonstrated by using the antenna with the highest gain as the worst case scenarios.
- 2. 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 15.247 Meas Guidance v05r02 ANSI C63.10:2013

1.5 **Test Facility**

Laboratory	Test Site Address	Test Site Name	FCC Designa- tion number	IC CAB
		SAC 1		
		SAC 2		
		SAC 3		
	No 404 Mark and Barat New Triad	Conduction 1		
	No.134, Wu Kung Road, New Taipei	Conducted 1	TW0007	TW3702
	Industrial Park, Wuku District, New	Conducted 2	TW0027	
	Taipei City, Taiwan.	Conducted 3	-	
		Conducted 4		
SGS Taiwan Ltd. Central RF Lab. (TAF code 3702)		Conducted 5		
		Conducted 6		
		Conduction C		
		SAC C	_	
		SAC D	TW0028	
		SAC G		
	No.2, Keji 1st Rd., Guishan District,	Conducted A		
	Taoyuan City, Taiwan 333	Conducted B		
	raoyuan ony, raiwan 555	Conducted C		
		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.

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1.7 **Equipment Modifications**

There was no modification incorporated into the EUT.

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2 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 Conducted Test (RF)

The active antenna port of the unlicensed wireless device is connected to the spectrum analyzer with attenuator to protect the instrumentation. If a second antenna port is available, it is tested at one operating frequency, with other port(s) appropriately terminated, to verify it has similar output characteristics as the fully tested port.

2.3.2 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.

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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.

2.4.2 For all conducted test items:

The offset level is set in the spectrum analyzer to compensate the RF cable loss and attenuation factor between EUT conducted port and spectrum analyzer. With the offset compensation, the spectrum analyzer reading level is exactly EUT RF output level.

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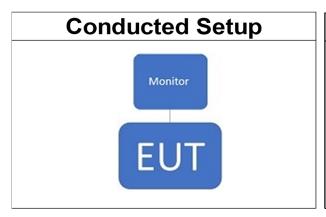
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2.5 Test Configuration





2.6 Control Unit(s)

Conducted Emission Test Site: Conducted 1						
EQUIPMENT TYPE	MENT TYPE MFR MODEL NUMBER SERIAL NUMBER LAST CAL. CAL DUE.					
Monitor	ViewSonic	VS17427	VFZ204560533	N/A	N/A	

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3 SUMMARY OF TEST RESULTS

FCC Rules	Description Of Test	Result
-	Duty Cycle Measurement	-
§15.247(d) §15.209	Radiated Spurious Emission	Compliant

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4 DESCRIPTION OF TEST MODES

4.1 Operating Frequencies

ITEM	FREQUENCY	ITEM	FREQUENCY	ITEM	FREQUENCY
0	2402 MHz	14	2430 MHz	28	2458 MHz
1	2404 MHz	15	2432 MHz	29	2460 MHz
2	2406 MHz	16	2434 MHz	30	2462 MHz
3	2408 MHz	17	2436 MHz	31	2464 MHz
4	2410 MHz	18	2438 MHz	32	2466 MHz
5	2412 MHz	19	2440 MHz	33	2468 MHz
6	2414 MHz	20	2442 MHz	34	2470 MHz
7	2416MHz	21	2444 MHz	35	2472 MHz
8	2418 MHz	22	2446 MHz	36	2474 MHz
9	2420 MHz	23	2448 MHz	37	2476 MHz
10	2422 MHz	24	2450 MHz	38	2478 MHz
11	2424 MHz	25	2452 MHz	39	2480 MHz
12	2426 MHz	26	2454 MHz		
13	2428 MHz	27	2456 MHz		

4.2 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 radiation 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 case.

CONDUCTED TEST							
MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION	DATA RATE (Mbps)			
Bluetooth LE	0 to 39	0	GFSK	1			
Bluetooth LE	0 to 39	0	GFSK	2			

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TRANSMIT RADIATED EMISSION TEST (BELOW 1 GHz)						
MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION	DATA RATE (Mbps)		
Bluetooth LE	0 to 39	19	GFSK	1		
	TRANSMIT RADIATED EMISSION TEST (ABOVE 1 GHz)					
MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION	DATA RATE (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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5 MEASUREMENT UNCERTAINTY

Radiated Spurious Emission Measurement Uncertainty					
	+/-	2.8	dB	9kHz~30MHz	
Polarization: Vertical	+/-	4.82	dB	30MHz - 1000MHz	
Polarization, vertical	+/-	4.37	dB	1GHz - 18GHz	
	+/-	4.21	dB	18GHz - 40GHz	
	+/-	2.8	dB	9kHz~30MHz	
 Polarization: Horizontal	+/-	4.54	dB	30MHz - 1000MHz	
FUIAIIZALIUII. MUIIZUIILAI	+/-	4.37	dB	1GHz - 18GHz	
	+/-	4.21	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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MEASUREMENT EQUIPMENT USED

6.1 **Conducted Measurement**

Conducted Emission Test Site: Conducted 1								
EQUIPMENT TYPE	PMENT TYPE MFR MODEL NUMBER SERIAL NUMBER LAST CAL. CAL DUE.							
EXA Spectrum Analyzer	KEYSIGHT	N9010B	MY59071571	06/07/2023	06/06/2024			
Test Software	SGS	Radio Test Software	Ver. 21	N.C.R	N.C.R			
Power Meter	Anritsu	ML2496A	1242004	10/26/2022	10/25/2023			
Power Sensor	Anritsu	MA2411B	1207365	10/26/2022	10/25/2023			
Power Sensor	Anritsu	MA2411B	1207368	10/26/2022	10/25/2023			
DC Block	Mini-Circuits	BLK-18-S+	1	12/13/2022	12/12/2023			

6.2 **Radiated Measurement**

	Radiated Emission Test Site: SAC 1								
EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL.	CAL DUE.				
Loop Antenna	ETS.LINDGREN	6502	148045	10/13/2023	10/12/2024				
Horn Antenna	RF SPIN	DRH0844	LE2D05A0844	07/03/2023	07/02/2024				
Horn Antenna	SCHWARZBECK	BBHA9120D	D803	12/30/2022	12/29/2023				
Bi-log Antenna	TESEO	CBL 6112D	35242 & AT-N0555	12/27/2022	12/26/2023				
EXA Spectrum Analyzer	KEYSIGHT	N9010B	MY60242081	10/17/2023	10/16/2024				
Test Software	Audix	e3	Ver. 9.210616	N.C.R	N.C.R				
EMI Test Receiver	R&S	ESR 7	102525	02/18/2023	02/17/2024				
Site Cal	SGS	SAC 1	N/A	08/31/2023	08/30/2024				
Pre-Amplifier	EMCI	EMC184045B	980135	08/31/2023	08/30/2024				
Pre-Amplifier	HP	8447D	2944A09469	08/31/2023	08/30/2024				
Pre-Amplifier	EMCI	EMC118A45SEE	980933	07/31/2023	07/30/2024				
Bandreject Filter 2400-2483.5	EWT	EWT-14-0166	M1	12/13/2022	12/12/2023				
4GHz High Pass Filter	WI	WHKX4.0/18G- 10SS	22	12/13/2022	12/12/2023				
Coaxial Cables	Huber Suhner	SUCOFLEX 102	RX Cable 18G-40G MY2630/2+805062 /2	08/31/2023	08/30/2024				
Coaxial Cable	EMCI	EMC104-SM-SM- 8000+EMC106-SM- SM-7600	RX Cable 9K- 18G(160125+15081 7)	09/12/2023	09/11/2024				

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

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7 DUTY CYCLE MEASUREMENT

7.1 Standard Applicable:

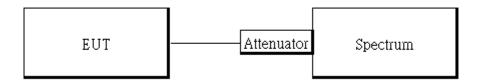
7.1.1 Duty Cycle

Pre-analysis Check: While conducting average power measurement, duty cycle of each mode shall be checked to ensure its duty cycle in order to compensate for the loss due to insufficient ratio of duty cycle.

All duty cycle is pre-scanned, and result as obtained below shows only the most representative ones where duty cycle is conducted as the given transmission with given virtual operation that expresses the percentage.

7.2 Test Setup

7.2.1 Duty Cycle



7.3 Measurement Procedure:

7.3.1 Duty Cycle

- 1. Place the EUT on the table and set it in transmitting mode.
- 2. Set span = Zero
- 3. RBW = 8MHz, VBW = 8MHz,
- 4. Detector = Peak

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7.4 Duty Factor:

	Duty Cycle (%) = Ton / (Ton+Toff)	Duty Factor (dB) =10*log (1/Duty Cycle)	1/T (kHz)	VBW setting (kHz)
BLE 1M	61.60	2.10	2.60	3.00
BLE 2M	31.20	5.06	5.13	6.00

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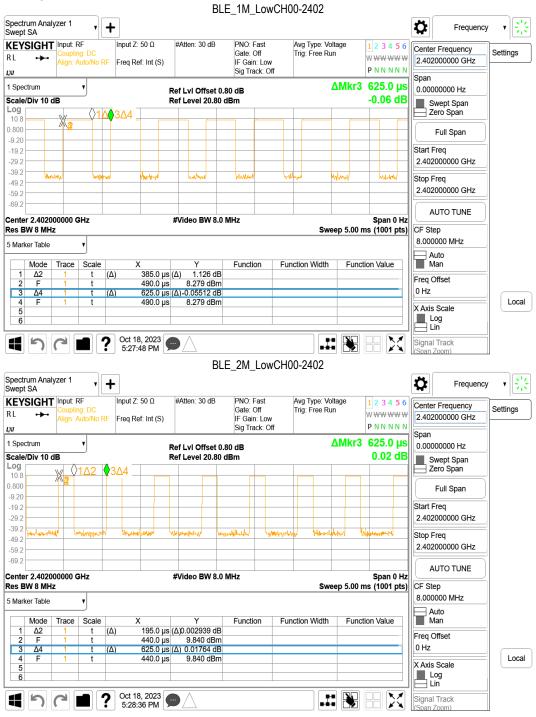
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RADIATED BANDEDGE AND SPURIOUS EMISSION MEASUREMENT

8.1 **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.

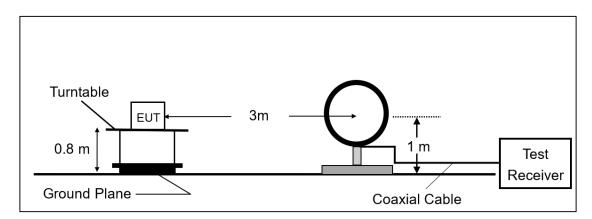
And according to §15.33(a) (1) for an intentional radiator operates below 10GHz, the frequency range of measurements: to the tenth harmonic of the highest fundamental frequency or to 40GHz, whichever is lower.

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.

8.2 **Test Setup**

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



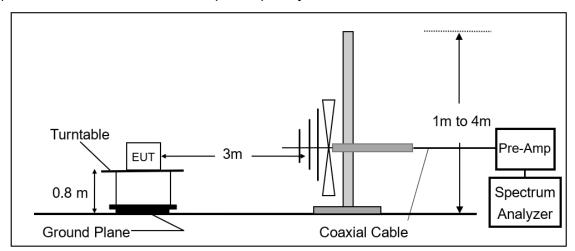
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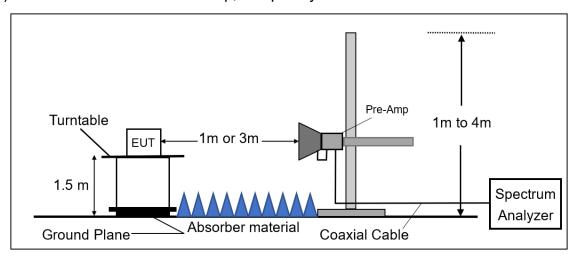


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(B) Radiated Emission Test Set-Up, Frequency From 30MHz to 1000MHz.



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



8.3 Measurement Procedure

- 1. The testing follows the Measurement Procedure of FCC KDB 558074 D01 DTS Meas. Guidance.
- 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.

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- 7. Set the spectrum analyzer as RBW=1 MHz, VBW=3 MHz for Maximum Emission Measurements 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 Emission Measurements 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.
- 12. Repeat above procedures until all default test channel measured were complete.

8.4 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 μ V/m) + Cable Loss(dB) – Pre Amplifier Gain(dB)

8.5 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) was not reported.

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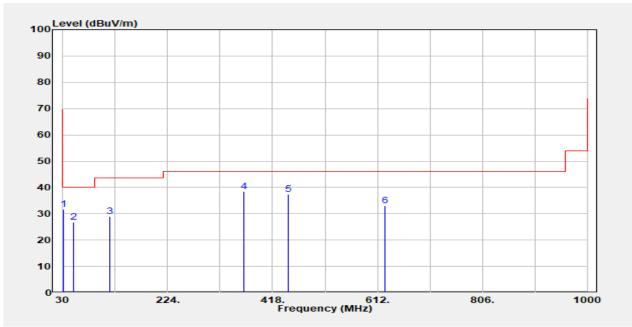
8.6 Measurement Result:

8.6.1 Radiated Spurious Emission

Report Number :TERF2309002325ER Test Site :SAC 1

Operation Mode :BLE 1M Test Date :2023-10-24 Test Frequency :2440 MHz Temp./Humi. :23.5 $^{\circ}$ C/58% Test Mode :Tx Antenna Pol. :VERTICAL

EUT Pol :H Plane Engineer :WJ Lin



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBμV/m	dB
30.97	QP	37.54	-5.82	31.72	40.00	-8.28
50.37	Peak	43.32	-16.56	26.76	40.00	-13.24
117.30	Peak	40.93	-11.86	29.07	43.50	-14.43
365.62	QP	46.37	-7.89	38.48	46.00	-7.52
447.10	QP	43.61	-6.26	37.35	46.00	-8.65
625.58	Peak	36.98	-3.96	33.02	46.00	-12.98

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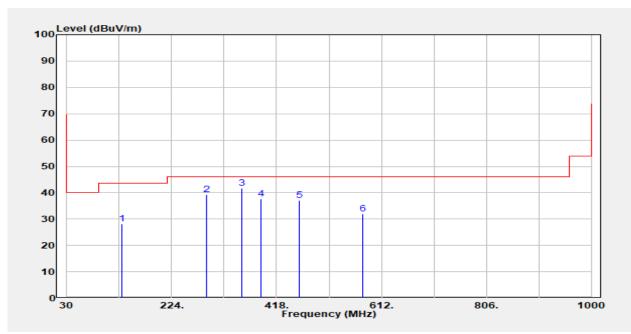
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Report Number **Test Site** :SAC 1 :TERF2309002325ER

Operation Mode Test Date :BLE 1M :2023-10-24 **Test Frequency** Temp./Humi. :2440 MHz :23.5°C/58%

Test Mode :Tx Antenna Pol. :HORIZONTAL

EUT Pol :WJ Lin :H Plane Engineer



Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin
	Mode	Reading Level		FS	@3m	
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBμV/m	dB
131.85	Peak	40.40	-12.17	28.22	43.50	-15.28
288.02	Peak	48.82	-9.55	39.27	46.00	-6.73
353.98	QP	49.68	-7.94	41.74	46.00	-4.26
389.87	QP	45.27	-7.50	37.77	46.00	-8.23
459.71	Peak	43.32	-6.16	37.16	46.00	-8.84
577.08	Peak	35.85	-3.98	31.87	46.00	-14.13

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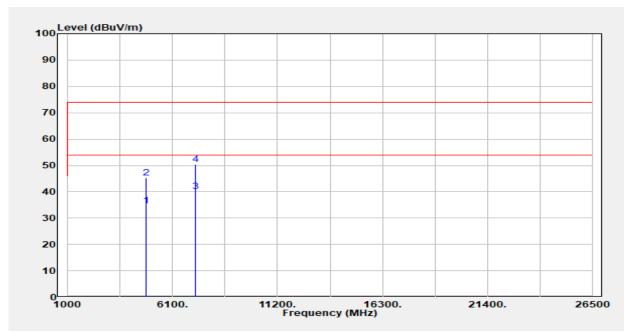
Report Number :TERF2309002325ER Test Site :SAC 1

Operation Mode :BLE 1M Test Date :2023-10-25

Test Frequency :2402 MHz Temp./Humi. :23.8℃/55%

Test Mode :Tx Antenna Pol. :Vertical

EUT Pol :H Plane Engineer :WJ Lin



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
						_
4804.00	Average	32.50	2.28	34.78	54.00	-19.22
4804.00	Peak	43.05	2.28	45.33	74.00	-28.67
7206.00	Average	32.64	7.41	40.05	54.00	-13.95
7206.00	Peak	43.13	7.41	50.54	74.00	-23.46

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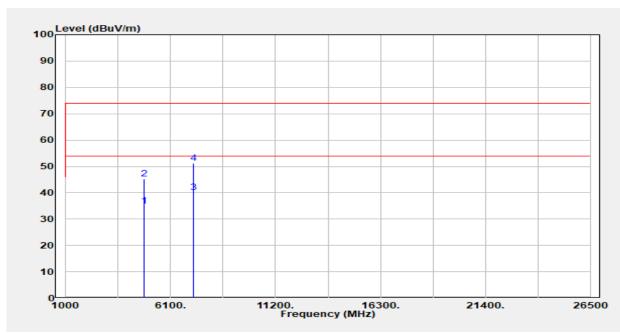
Report Number :TERF2309002325ER Test Site :SAC 1

Operation Mode :BLE 1M Test Date :2023-10-25

Test Frequency :2402 MHz Temp./Humi. :23.8℃/55%

Test Mode :Tx Antenna Pol. :Horizontal

EUT Pol :H Plane Engineer :WJ Lin



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBμV/m	dB
4804.00	Average	32.73	2.28	35.01	54.00	-18.99
4804.00	Peak	43.05	2.28	45.33	74.00	-28.67
7206.00	Average	32.61	7.41	40.02	54.00	-13.98
7206.00	Peak	43.86	7.41	51.27	74.00	-22.73

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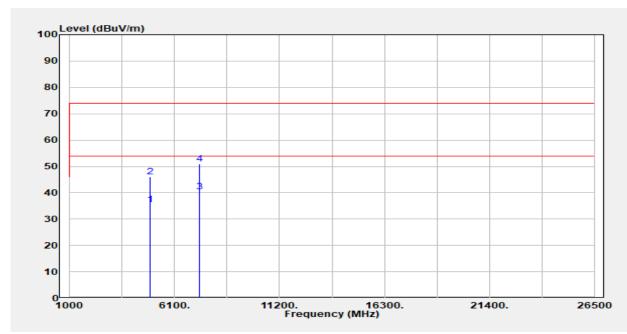
Report Number **Test Site** :SAC 1 :TERF2309002325ER

Operation Mode Test Date :BLE 1M :2023-10-25

Test Frequency Temp./Humi. :23.8°C/55% :2440 MHz

Test Mode :Tx Antenna Pol. :Vertical

EUT Pol :H Plane :WJ Lin Engineer



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBμV/m	dB
4880.00	Average	33.16	2.45	35.62	54.00	-18.38
4880.00	Peak	43.64	2.45	46.10	74.00	-27.90
7320.00	Average	32.93	7.51	40.44	54.00	-13.56
7320.00	Peak	43.49	7.51	51.00	74.00	-23.00

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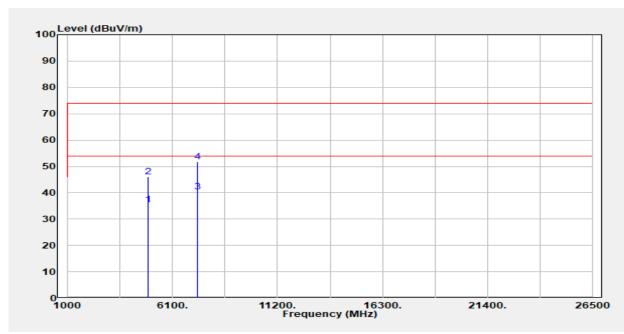
Report Number **Test Site** :SAC 1 :TERF2309002325ER

Operation Mode Test Date :BLE 1M :2023-10-25

Test Frequency Temp./Humi. :2440 MHz :23.8°C/55%

Test Mode :Tx Antenna Pol. :Horizontal

EUT Pol :H Plane :WJ Lin Engineer



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBμV/m	dBμV/m	dB
4880.00	Average	32.99	2.45	35.45	54.00	-18.55
4880.00	Peak	43.69	2.45	46.15	74.00	-27.85
7320.00	Average	32.86	7.51	40.37	54.00	-13.63
7320.00	Peak	44.24	7.51	51.75	74.00	-22.25

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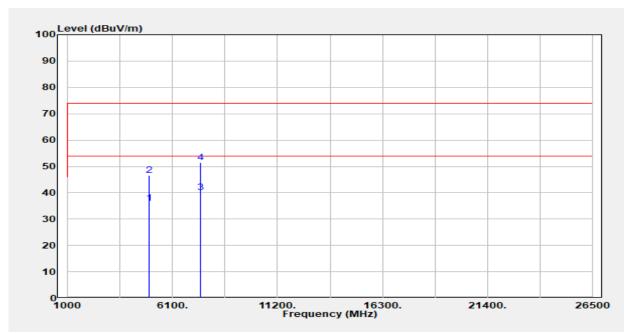
Report Number **Test Site** :SAC 1 :TERF2309002325ER

Operation Mode Test Date :BLE 1M :2023-10-25

Test Frequency Temp./Humi. :23.8°C/55% :2480 MHz

Test Mode :Tx Antenna Pol. :Vertical

EUT Pol :H Plane :WJ Lin Engineer



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBμV/m	dBμV/m	dB
4960.00	Average	33.53	2.61	36.14	54.00	-17.86
4960.00	Peak	43.98	2.61	46.59	74.00	-27.41
7440.00	Average	32.53	7.63	40.16	54.00	-13.84
7440.00	Peak	43.96	7.63	51.59	74.00	-22.41

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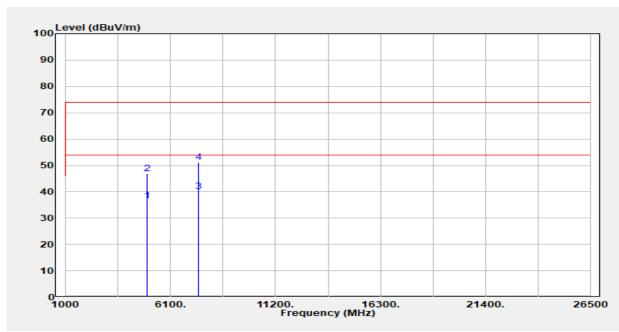
Report Number :TERF2309002325ER Test Site :SAC 1

Operation Mode :BLE 1M Test Date :2023-10-25

Test Frequency :2480 MHz Temp./Humi. :23.8℃/55%

Test Mode :Tx Antenna Pol. :Horizontal

EUT Pol :H Plane Engineer :WJ Lin



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
4960.00	Average	33.98	2.61	36.59	54.00	-17.41
4960.00	Peak	44.17	2.61	46.78	74.00	-27.22
7440.00	Average	32.58	7.63	40.21	54.00	-13.79
7440.00	Peak	43.62	7.63	51.25	74.00	-22.75

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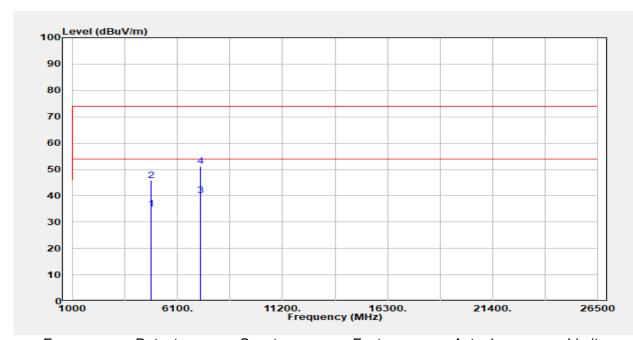
Report Number **Test Site** :SAC 1 :TERF2309002325ER

Operation Mode Test Date :BLE 2M :2023-10-25

Test Frequency Temp./Humi. :23.8°C/55% :2402 MHz

Test Mode :Tx Antenna Pol. :Vertical

EUT Pol :H Plane :WJ Lin Engineer



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
4804.00	Average	32.70	2.28	34.98	54.00	-19.02
4804.00	Peak	43.49	2.28	45.77	74.00	-28.23
7206.00	Average	32.82	7.41	40.23	54.00	-13.77
7206.00	Peak	43.78	7.41	51.19	74.00	-22.81

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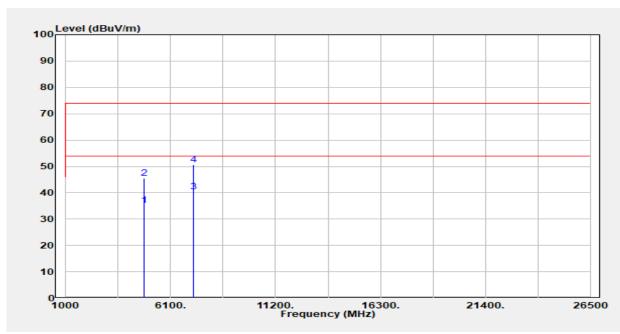
Report Number :TERF2309002325ER Test Site :SAC 1

Operation Mode :BLE 2M Test Date :2023-10-25

Test Frequency :2402 MHz Temp./Humi. :23.8℃/55%

Test Mode :Tx Antenna Pol. :Horizontal

EUT Pol :H Plane Engineer :WJ Lin



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
4804.00	Average	32.89	2.28	35.17	54.00	-18.83
4804.00	Peak	43.23	2.28	45.51	74.00	-28.49
7206.00	Average	32.90	7.41	40.31	54.00	-13.69
7206.00	Peak	43.23	7.41	50.64	74.00	-23.36

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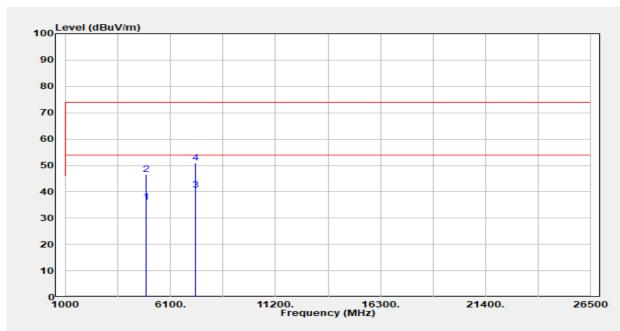
Report Number **Test Site** :SAC 1 :TERF2309002325ER

Operation Mode Test Date :BLE 2M :2023-10-25

Test Frequency Temp./Humi. :23.8°C/55% :2440 MHz

Test Mode :Tx Antenna Pol. :Vertical

EUT Pol :H Plane :WJ Lin Engineer



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBμV/m	dB
						_
4880.00	Average	33.46	2.45	35.91	54.00	-18.09
4880.00	Peak	44.24	2.45	46.69	74.00	-27.31
7320.00	Average	33.22	7.51	40.73	54.00	-13.27
7320.00	Peak	43.36	7.51	50.87	74.00	-23.13

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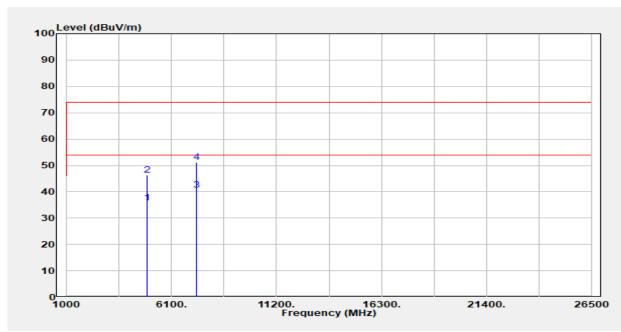
Report Number :TERF2309002325ER Test Site :SAC 1

Operation Mode :BLE 2M Test Date :2023-10-25

Test Frequency :2440 MHz Temp./Humi. :23.8℃/55%

Test Mode :Tx Antenna Pol. :Horizontal

EUT Pol :H Plane Engineer :WJ Lin



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
4880.00	Average	33.40	2.45	35.85	54.00	-18.15
4880.00	Peak	44.00	2.45	46.45	74.00	-27.55
7320.00	Average	33.09	7.51	40.60	54.00	-13.40
7320.00	Peak	43.60	7.51	51.11	74.00	-22.89

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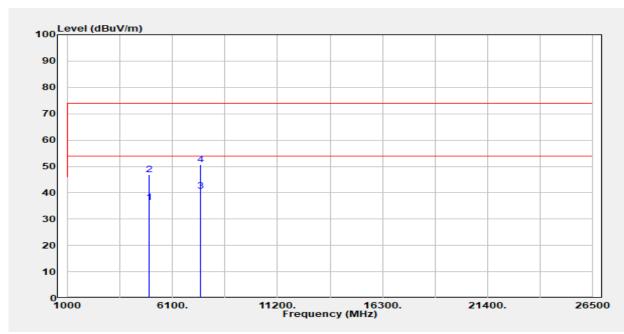
Report Number **Test Site** :SAC 1 :TERF2309002325ER

Operation Mode Test Date :BLE 2M :2023-10-25

Test Frequency Temp./Humi. :23.8°C/55% :2480 MHz

Test Mode :Tx Antenna Pol. :Vertical

EUT Pol :H Plane :WJ Lin Engineer



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBμV/m	dBμV/m	dB
4960.00	Average	33.77	2.61	36.38	54.00	-17.62
4960.00	Peak	44.37	2.61	46.98	74.00	-27.02
7440.00	Average	32.90	7.63	40.53	54.00	-13.47
7440.00	Peak	42.98	7.63	50.61	74.00	-23.39

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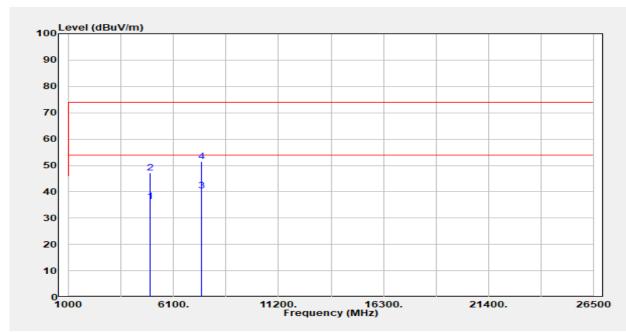
Report Number :TERF2309002325ER Test Site :SAC 1

Operation Mode :BLE 2M Test Date :2023-10-25

Test Frequency :2480 MHz Temp./Humi. :23.8℃/55%

Test Mode :Tx Antenna Pol. :Horizontal

EUT Pol :H Plane Engineer :WJ Lin



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
4960.00	Average	33.60	2.61	36.21	54.00	-17.79
4960.00	Peak	44.63	2.61	47.24	74.00	-26.76
7440.00	Average	32.82	7.63	40.45	54.00	-13.55
7440.00	Peak	43.75	7.63	51.38	74.00	-22.62

~ End of Report ~

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