

Project No: TM-2403000388P
Report No.: TMWK2406001982KR

FCC ID: 2BG7FSCALE2251

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RADIO TEST REPORT

FCC 47 CFR PART 15 SUBPART C (CLASS II PERMISSIVE CHANGE)

Test Standard	FCC Part 15.247
Product name	Module
Brand Name	N/A
Model No.	SKI.WB921AU.1
Test Result	Pass
Statements of Conformity	Determination of compliance is based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

The test Result was tested by Compliance Certification Services Inc. The test data, data evaluation, test procedures, and equipment configurations shown in this report were given in ANSI C63.10: 2013 and compliance standards.

The test results of this report relate only to the tested sample (EUT) identified in this report.

The test Report of full or partial shall not copy. Without written approval of Compliance Certification Services Inc. (Wugu Laboratory)

Approved by:

Sehni, Hu

Sehni Hu
Supervisor

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

除非另有說明，此報告結果僅對測試之樣品負責，同時此樣品僅保留90天。本報告未經本公司書面許可，不可部份複製。

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Revision History

Rev.	Issue Date	Revisions	Effect Page	Revised By
00	February 7, 2025	Initial Issue	ALL	Peggy Tsai
01	February 13, 2025	See the following Note Rev. (01)	P.14, A-3	Peggy Tsai

Note:

Rev. (01)

1. Added EUT duty cycle in section 3.3.
2. Modify Conducted Emission Set Up Photo.

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1. GENERAL INFORMATION

1.1 EUT INFORMATION

Applicant	D'Crypt Pte Ltd 11 Bishan Street 21, #06-01, Singapore 573943
Manufacturer	Pronology Services Inc 6F, NO. 48, Wu-Chuan Rd., Wu-Ku Industrial Park New Taipei City.
Equipment	Module
Model No.	SKI.WB921AU.1
Model Discrepancy	N/A
Brand Name	N/A
Host Equipment	Secure Computing Anywhere
Host Model	SCA-LE
Host Brand Name	Secure Computing Anywhere
Received Date	March 27, 2024
Date of Test	May 23 ~ June 18, 2024
Power Supply	Power from 9Vdc (Typical: USB Type C)
Class II Permissive Change	1. Request approval for mobile category specific host, host model number –SCA-LE with antenna, model number: AYP6P-100034 (WiFi MAIN Antenna), AYP6P-100035 (WiFi AUX Antenna) and AYP6P-100036 (BT Antenna). 2. When modules are migrated to the host, BT1 antenna is not connected and is disabled by default. Other RF functions remain unchanged. RF output power and Radiation emissions were performed to verify RF compliance.

Remark:

- For more details, please refer to the User's manual of the EUT.
- Disclaimer: Antenna information is provided by the applicant, test results of this report are applicable to the sample EUT received.

1.2 EUT CHANNEL INFORMATION

Frequency Range	2402MHz-2480MHz
Modulation Type	GFSK for BLE 1 Mbps GFSK for BLE 2 Mbps
Number of channels	40 Channels

Remark:

Refer as ANSI C63.10: 2013 clause 5.6.1 Table 4 for test channels

Number of frequencies to be tested		
Frequency range in which device operates	Number of frequencies	Location in frequency range of operation
☐ 1 MHz or less	1	Middle
☐ 1 MHz to 10 MHz	2	1 near top and 1 near bottom
☒ More than 10 MHz	3	1 near top, 1 near middle, and 1 near bottom

1.3 ANTENNA INFORMATION

Antenna Specification	☒ PIFA ☐ PCB ☐ Dipole ☐ Coils
Antenna Gain	Gain: 1.69 dBi
Brand / Model	AWAN / AYP6P-100036

Notes:

1. The antenna(s) of the EUT are permanently attached and there are no provisions for connection to an external antenna. So the EUT complies with the requirements of §15.203.

1.4 MEASUREMENT UNCERTAINTY

PARAMETER	UNCERTAINTY
AC Powerline Conducted Emission	± 2.213 dB
RF output power (Power Meter + Power sensor)	± 0.243 dB
Radiated Emission_9kHz-30MHz	± 3.761 dB
Radiated Emission_30MHz-200MHz	± 3.473 dB
Radiated Emission_200MHz-1GHz	± 3.946 dB
Radiated Emission_1GHz-6GHz	± 3.797 dB
Radiated Emission_6GHz-18GHz	± 4.803 dB
Radiated Emission_18GHz-26GHz	± 3.459 dB
Radiated Emission_26GHz-40GHz	± 3.297 dB

Remark:

1. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k=2$
2. ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report.

1.5 FACILITIES AND TEST LOCATION

All measurement facilities used to collect the measurement data are located at

☒ No.11, Wugong 6th Rd., Wugu Dist., New Taipei City, Taiwan.

CAB identifier: TW1309

Test site	Test Engineer	Remark
AC Conduction Room	Ben Yang	-
Radiation	Tony Chao 、 Ray Li 、 Czerny Lin	-
RF Conducted	Marco Chan	-

Remark: The lab has been recognized as the FCC accredited lab. under the KDB 974614 D01 and is listed in the FCC public Access Link (PAL) database, FCC Registration No. :444940, the FCC Designation No.:TW1309

1.6 INSTRUMENT CALIBRATION

Conducted FCC/IC/NCC ALL					
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due
Power Sensor	Anritsu	MA2411B	1911387	2023-07-25	2024-07-24
Power Meter	Anritsu	ML2496A	2136002	2023-11-16	2024-11-15
EXA Signal Analyzer	Keysight	N9030B	MY62291089	2023-10-13	2024-10-12
Software	Radio Test Software Ver. 21				

966A Radiated					
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due
Signal Analyzer	KEYSIGHT	N9010A	MY54200716	2023-10-13	2024-10-12
Thermo-Hygro Meter	WISEWIND	1206	D07	2023-12-08	2024-12-07
Active Loop Antenna	SCHWARZBEC K	FMZB 1513-60	1513-60-028	2023-12-13	2024-12-12
Bi-Log Antenna	Sunol Sciences	JB3	A030105	2023-08-08	2024-08-07
Preamplifier	EMEC	EM330	060609	2024-02-21	2025-02-20
Cable	Huber+Suhner	104PEA	20995+21000+182330	2024-02-21	2025-02-20
Horn Antenna	ETC	MCTD 1209	DRH13M02003	2023-12-28	2024-12-27
Preamplifier	HP	8449B	3008A00965	2023-12-22	2024-12-21
Cable	EMCI	EMC101G	221213+221011+221012	2023-10-17	2024-10-16
Attenuator	Mini-Circuits	BW-S9W5	BWS9W5-09-966A-01	2024-02-07	2025-02-06
High Pass Filters	Titan Microwave	T04H30001800 070S01	22011402-4	2023-06-17	2024-06-16
Horn Antenna	SCHWARZBEC K	BBHA9170	1047	2023-12-13	2024-12-12
Pre-Amplifier	EMCI	EMC184045SE	980860	2023-12-12	2024-12-11
Turn Table	CCS	CC-T-1F	N/A	N.C.R	N.C.R
Controller	CCS	CC-C-1F	N/A	N.C.R	N.C.R
Antenna Tower	CCS	CC-A-1F	N/A	N.C.R	N.C.R
Site Validation	CCS	966A	N/A	2023-07-10	2024-07-09
Software	e3 V9-210616c				

Remark:

- Each piece of equipment is scheduled for calibration once a year.
- N.C.R. = No Calibration Required.

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AC Mains Conduction					
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due
EMI Test Receiver	R&S	ESCI	101073	2023-07-06	2024-07-05
LISN	TESEQ	LN2-16N	22012	2024-02-29	2025-02-27
Cable	EMCI	CFD300-NL	CERF	2023-06-27	2024-06-26
Software	e3 V6-110812				

Remark:

1. Each piece of equipment is scheduled for calibration once a year.
2. N.C.R. = No Calibration Required.

1.7 SUPPORT AND EUT ACCESSORIES EQUIPMENT

EUT Accessories Equipment						
No.	Equipment	Brand	Model	Series No.	FCC ID	IC
	N/A					

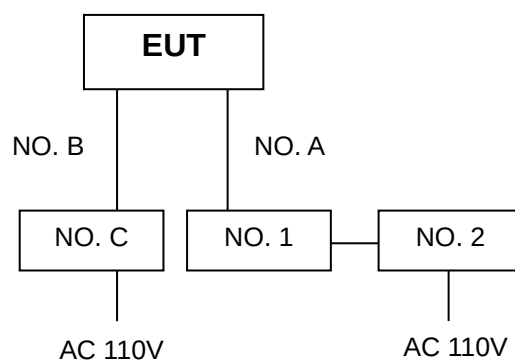
Support Equipment (Conducted)						
No.	Equipment	Brand	Model	Series No.	FCC ID	IC
1	NB(B)	Lenovo	T470	N/A	N/A	N/A

Support Equipment (Conduction)						
No.	Equipment	Brand	Model	Series No.	FCC ID	IC
1	NB(D)	Lenovo	ThinkPad X260	N/A	N/A	N/A
2	Adapter	Lenovo	ADLX45DLC3A	N/A	N/A	N/A
A	USB Cable	N/A	N/A	N/A	N/A	N/A
B	USB Test Cable	N/A	N/A	N/A	N/A	N/A
C	Adapter	MI	MDY-13-EG	N/A	N/A	N/A

Support Equipment (RSE)						
No.	Equipment	Brand	Model	Series No.	FCC ID	IC
1	NB(D)	Lenovo	ThinkPad X260	N/A	N/A	N/A
2	Adapter	Lenovo	ADLX45DLC3A	N/A	N/A	N/A
A	USB Cable	N/A	N/A	N/A	N/A	N/A
B	USB HUB	UGREEN	CM136	N/A	N/A	N/A
C	Adapter	MI	MDY-13-EG	N/A	N/A	N/A

1.8 TEST SETUP DIAGRAM

RSE:



1.9 TEST PROGRAM

The EUT connection corresponds to the surrounding fixture control board.

This EUT uses "MediaTek BT Tool v.1.2" software to set the frequency, modulation, and power to allow the sample to continuously transmit.

1.10 TEST METHODOLOGY AND APPLIED STANDARDS

The test methodology, setups and results comply with all requirements in accordance with ANSI C63.10:2013, FCC Part 2, FCC Part 15.247, KDB 558074.

2. TEST SUMMARY

FCC Standard Section	Report Section	Test Item	Result
15.203	1.3	Antenna Requirement	Pass
15.207(a)	4.1	AC Conducted Emission	Pass
15.247(b)(3)	4.2	Output Power Measurement	Pass
15.247(d) 15.205	4.3	Radiation Band Edge	Pass
15.247(d) 15.209 15.205	4.3	Radiation Spurious Emission	Pass

Note:

The host antenna is of a different type than originally approved , RF output power was reduced compared to the original application, so conducted performance in the intended frequency bands is expected to be lower than measured in the original modular approval. However, radiation performance will be fully evaluated for product compliance.

3. DESCRIPTION OF TEST MODES

3.1 THE WORST MODE OF OPERATING CONDITION

Operation mode	BLE Mode (1Mbps) BLE Mode (2Mbps)
Test Channel Frequencies	1.Lowest Channel : 2402MHz 2.Middle Channel : 2440MHz 3.Highest Channel : 2480MHz

Remark:

1. EUT pre-scanned data rate of output power for each mode, the worst data rate were recorded in this report.

3.2 THE WORST MODE OF MEASUREMENT

AC Power Line Conducted Emission	
Test Condition	AC Power line conducted emission for line and neutral
Power supply Mode	Mode 1: EUT Power by 9Vdc (Typical: USB Type C)
Worst Mode	☒ Mode 1 ☐ Mode 2 ☐ Mode 3 ☐ Mode 4

Radiated Emission Measurement Above 1G	
Test Condition	Radiated Emission Above 1G
Power supply Mode	Mode 1: EUT Power by 9Vdc (Typical: USB Type C)
Worst Mode	☒ Mode 1 ☐ Mode 2 ☐ Mode 3 ☐ Mode 4
Worst Position	☐ Placed in fixed position. ☒ Placed in fixed position at X-Plane (E2-Plane) ☐ Placed in fixed position at Y-Plane (E1-Plane) ☐ Placed in fixed position at Z-Plane (H-Plane)

Radiated Emission Measurement Below 1G	
Test Condition	Radiated Emission Below 1G
Power supply Mode	Mode 1: EUT Power by 9Vdc (Typical: USB Type C)
Worst Mode	☒ Mode 1 ☐ Mode 2 ☐ Mode 3 ☐ Mode 4

Remark:

1. The worst mode was record in this test report.
2. AC power line conducted emission were performed the EUT transmit at the highest output power channel as worse case.
3. EUT pre-scanned in three axis ,X,Y, Z and two polarity, for radiated measurement. The worst case(X-Plane) were recorded in this report.

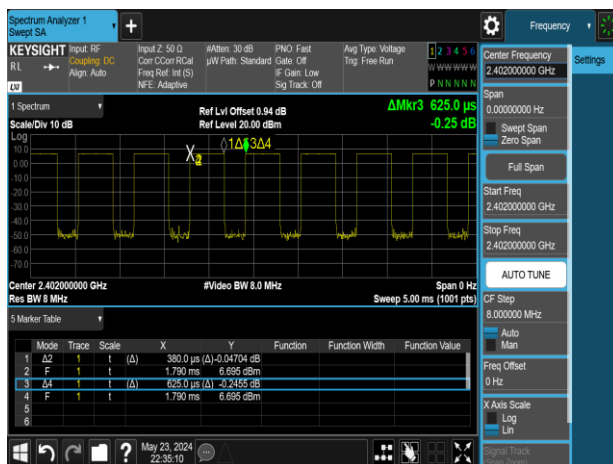
3.3 EUT DUTY CYCLE

Temperature: 20.3 ~ 22.8°C
Humidity: 60 ~ 62% RH

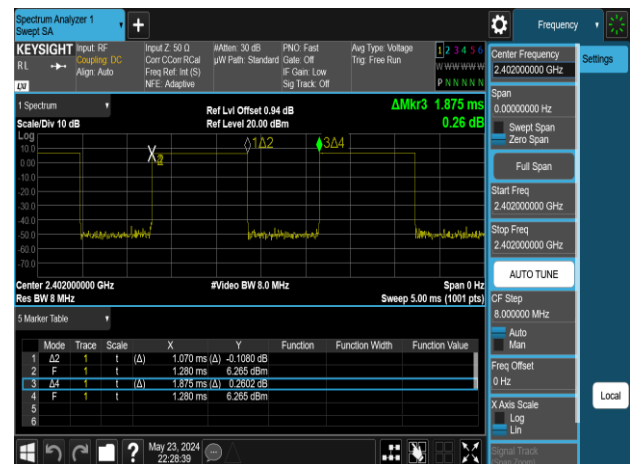
Test date: May 23 ~ 24, 2024
Tested by: Marco Chan

	Duty Cycle (%) = Ton / (Ton+Toff)	Duty Factor (dB) = 10*log (1/Duty Cycle)	1/T (kHz)	VBW setting (kHz)
BLE 1M	60.80	2.16	2.63	3.00
BLE 2M	57.07	2.44	0.93	1.00

BLE_1M_LowCH00-2402



BLE_2M_LowCH00-2402



4. TEST RESULT

4.1 AC POWER LINE CONDUCTED EMISSION

4.1.1 Test Limit

According to §15.207(a),

Frequency Range (MHz)	Limits(dBμV)	
	Quasi-peak	Average
0.15 to 0.50	66 to 56*	56 to 46*
0.50 to 5	56	46
5 to 30	60	50

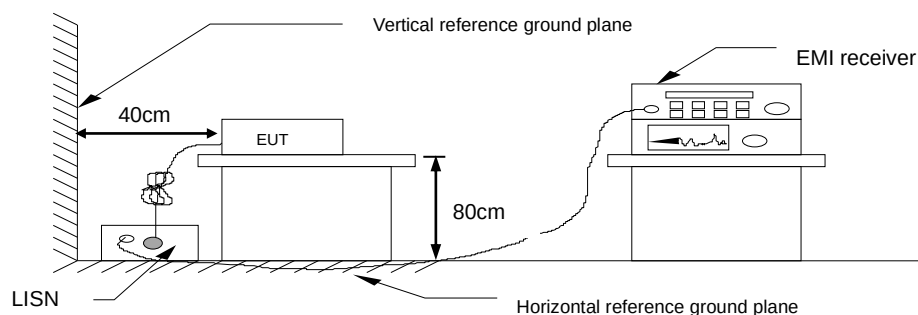
* Decreases with the logarithm of the frequency.

4.1.2 Test Procedure

Test method Refer as ANSI C63.10: 2013 clause 6.2,

1. The EUT was placed above horizontal ground plane and 0.4m above vertical ground plane
2. EUT connected to the line impedance stabilization network (LISN)
3. Receiver set RBW of 9kHz and Detector Peak, and note as quasi-peak and average.
4. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
5. Recorded Line for Neutral and Line.

4.1.3 Test Setup



4.1.4 Test Result

Pass.

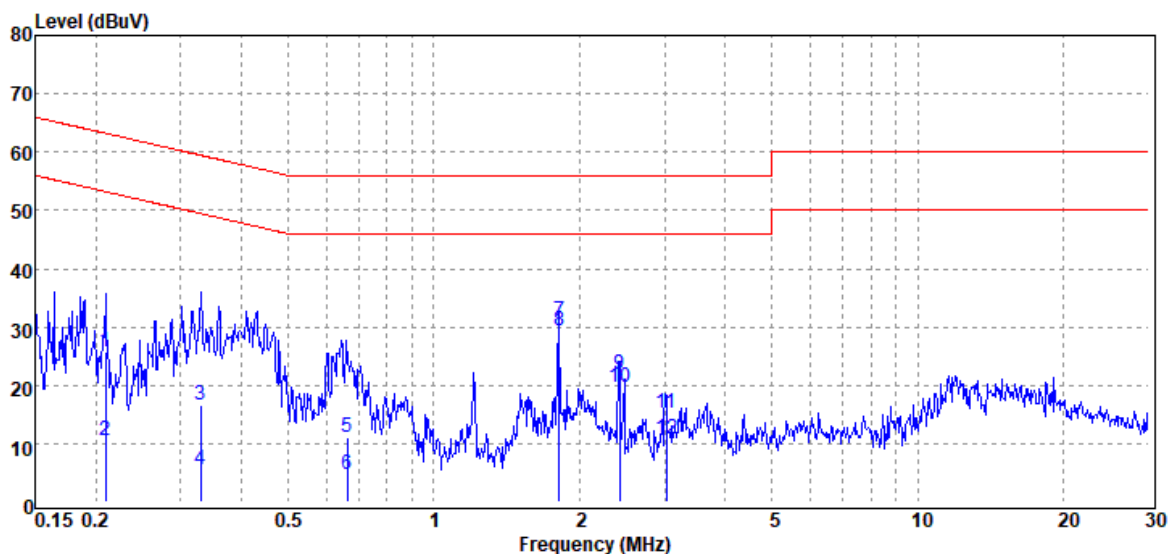
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Test Data

Project No : TM-2403000388P
Operation Mode : BLE
Test Chamber : Conduction
Probe : LINE
Note :

Test Date : 2024-06-11
Temp./Humi. : 23.4°C / 54%
Engineer : Ben Yang
Test Voltage : AC 120V/60Hz



Freq. MHz	Detector Mode PK/QP/AV	Spectrum Read Level dBμV	Factor dB	Actual FS dBμV	Limit dBμV	Margin dB
0.210	QP	25.56	0.15	25.71	63.21	-37.50
0.210	Average	10.42	0.15	10.57	53.21	-42.64
0.330	QP	16.40	0.15	16.55	59.44	-42.89
0.330	Average	5.42	0.15	5.57	49.44	-43.87
0.663	QP	10.79	0.16	10.95	56.00	-45.05
0.663	Average	4.57	0.16	4.73	46.00	-41.27
1.813	QP	30.68	0.21	30.89	56.00	-25.11
1.813	Average	29.16	0.21	29.37	46.00	-16.63
2.420	QP	21.77	0.24	22.01	56.00	-33.99
2.420	Average	19.53	0.24	19.77	46.00	-26.23
3.022	QP	15.02	0.24	15.26	56.00	-40.74
3.022	Average	10.57	0.24	10.81	46.00	-35.19

Note: 1. Actual FS= Spectrum Read Level + Factor

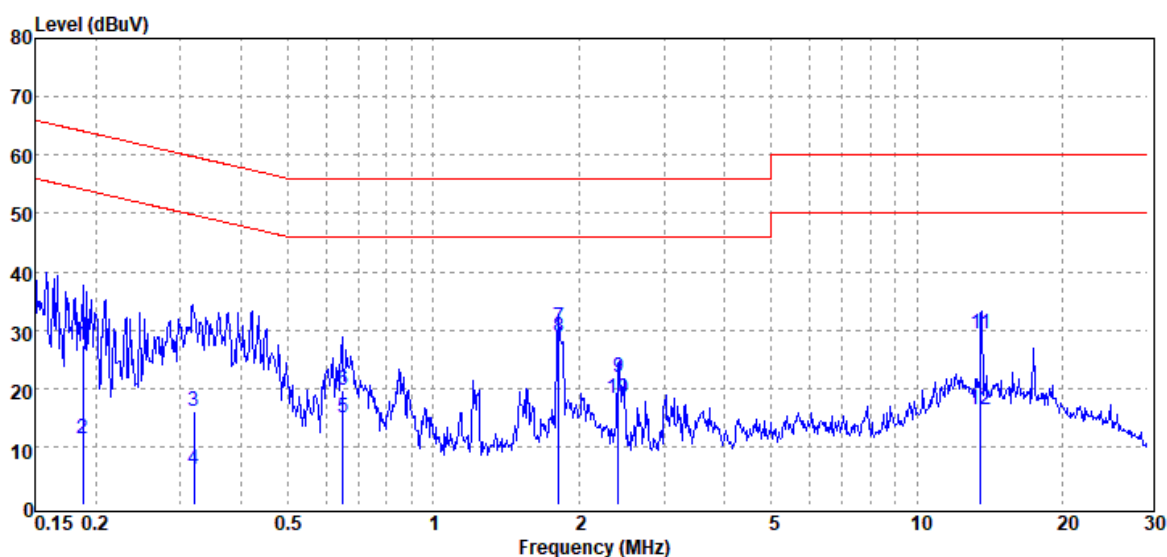
Note: 2. Margin= Actual FS - Limit

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Project No : TM-2403000388P
Operation Mode : BLE
Test Chamber : Conduction
Probe : NEUTRAL
Note :

Test Date : 2024-06-11
Temp./Humi. : 23.4°C / 54%
Engineer : Ben Yang
Test Voltage : AC 120V/60Hz



Freq. MHz	Detector Mode PK/QP/AV	Spectrum Read Level dBμV	Factor dB	Actual FS dBμV	Limit dBμV	Margin dB
0.189	QP	27.26	0.19	27.45	64.10	-36.65
0.189	Average	11.30	0.19	11.49	54.10	-42.61
0.320	QP	15.90	0.19	16.09	59.71	-43.62
0.320	Average	5.86	0.19	6.05	49.71	-43.66
0.651	QP	14.84	0.21	15.05	56.00	-40.95
0.651	Average	19.47	0.21	19.68	46.00	-26.32
1.814	QP	30.28	0.25	30.53	56.00	-25.47
1.814	Average	28.48	0.25	28.73	46.00	-17.27
2.416	QP	21.53	0.28	21.81	56.00	-34.19
2.416	Average	18.08	0.28	18.36	46.00	-27.64
13.560	QP	28.99	0.44	29.43	60.00	-30.57
13.560	Average	15.87	0.44	16.31	50.00	-33.69

Note: 1. Actual FS= Spectrum Read Level + Factor

Note: 2. Margin= Actual FS - Limit

4.2 OUTPUT POWER MEASUREMENT

4.2.1 Test Limit

According to §15.247(b)(3),

Output power :

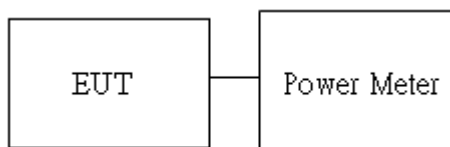
For systems using digital modulation in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands: 1 Watt. As an alternative to a peak power measurement, compliance with the 1 Watt limit can be based on a measurement of the maximum conducted output power. Maximum Conducted Output Power is defined as the total transmit power delivered to all antennas and antenna elements averaged across all symbols in the signaling alphabet when the transmitter is operating at its maximum power control level. Power must be summed across all antennas and antenna elements. The average must not include any time intervals during which the transmitter is off or is transmitting at a reduced power level. If multiple modes of operation are possible (e.g., alternative modulation methods), the maximum conducted output power is the highest total transmit power occurring in any mode.

4.2.2 Test Procedure

Test method Refer as KDB 558074 D01

1. The EUT RF output connected to the power meter by RF cable.
2. Setting maximum power transmit of EUT.
3. The path loss was compensated to the results for each measurement.
4. Measure and record the result of Average output power. in the test report.

4.2.3 Test Setup



4.2.4 Test Result

Temperature: 20.3 ~ 22.8°C
Humidity: 60 ~ 62% RH

Test date: May 23 ~ 24, 2024
Tested by: Marco Chan

BLE 1M mode:

CH	Frequency (MHz)	Power Setting	Avg. Output Power (dBm)	Required Limit (dBm)
Low	2402	7	6.52	30
Mid	2440	7	6.41	30
High	2480	7	6.49	30

BLE 2M mode:

CH	Frequency (MHz)	Power set	Avg. Output Power (dBm)	Required Limit (dBm)
Low	2402	7	6.67	30
Mid	2440	7	6.62	30
High	2480	7	6.65	30

Note: Measured by power meter, cable loss 0 dB + Duty cycle factor has been offsetted to the power meter for Avg.

4.3 RADIATION BANDEDGE AND SPURIOUS EMISSION

4.3.1 Test Limit

FCC according to §15.247(d), §15.209 and §15.205,

In any 100 kHz bandwidth outside the authorized frequency band, all harmonic and spurious must be least 20 dB below the highest emission level with the authorized frequency band. Radiation emission which fall in the restricted bands must also follow the FCC section 15.209 as below limit in table.

Below 30 MHz

Frequency	Field Strength (microvolts/m)	Magnetic H-Field (microamperes/m)	Measurement Distance (metres)
9-490 kHz	2,400/F (F in kHz)	2,400/F (F in kHz)	300
490-1,705 kHz	24,000/F (F in kHz)	24,000/F (F in kHz)	30
1.705-30 MHz	30	N/A	30

Above 30 MHz

Frequency (MHz)	Field Strength microvolts/m at 3 metres (watts, e.i.r.p.)	
	Transmitters	Receivers
30-88	100 (3 nW)	100 (3 nW)
88-216	150 (6.8 nW)	150 (6.8 nW)
216-960	200 (12 nW)	200 (12 nW)
Above 960	500 (75 nW)	500 (75 nW)

Remark:

Although these tests were performed other than open area test site, adequate comparison measurements were confirmed against 30 m open area test site. Therefore sufficient tests were made to demonstrate that the alternative site produces results that correlate with the ones of tests made in an open field based on KDB 414788.

4.3.2 Test Procedure

1. The EUT is placed on a turntable, Above 1 GHz is 1.5m and below 1 GHz is 0.8m above ground plane. The EUT Configured un accordance with ANSI C63.10: 2013, and the EUT set in a continuous mode.

2. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level. And EUT is set 3m away from the receiving antenna, which is scanned from 1m to 4m above the ground plane to find out the highest emissions. Measurement are made polarized in both the vertical and the horizontal positions with antenna.

3. Span shall wide enough to full capture the emission measured. The SA from 9KHz to 26.5GHz set to the low, Mid and High channels with the EUT transmit.

4. No emission found between lowest internal used/generated frequency to 30MHz (9KHz~30MHz).

Radiated emission below 30MHz is measured in a 9m*6m*6m semi-ane choic 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.

5. The SA setting following :

(1) Below 30MHz :

(1.1) 9KHz-490KHz : RBW=200Hz / VBW=1kHz / Sweep=AUTO

(1.2) 490KHz-30MHz : RBW=10kHz / VBW=30kHz / Sweep=AUTO

(2) 30MHz to 1GHz : RBW = 100kHz, VBW $\geq 3 \times$ RBW, Sweep = Auto,

Detector = Peak, Trace = Max hold.

(3) Above 1GHz :

(3.1) For Peak measurement : RBW = 1MHz, VBW $\geq 3 \times$ RBW, Sweep = Auto, Detector = Peak, Trace = Max hold.

(3.2) For Average measurement : RBW = 1MHz, VBW

·If Duty Cycle $\geq 98\%$, VBW=10Hz.

·If Duty Cycle $< 98\%$, VBW=1/T.

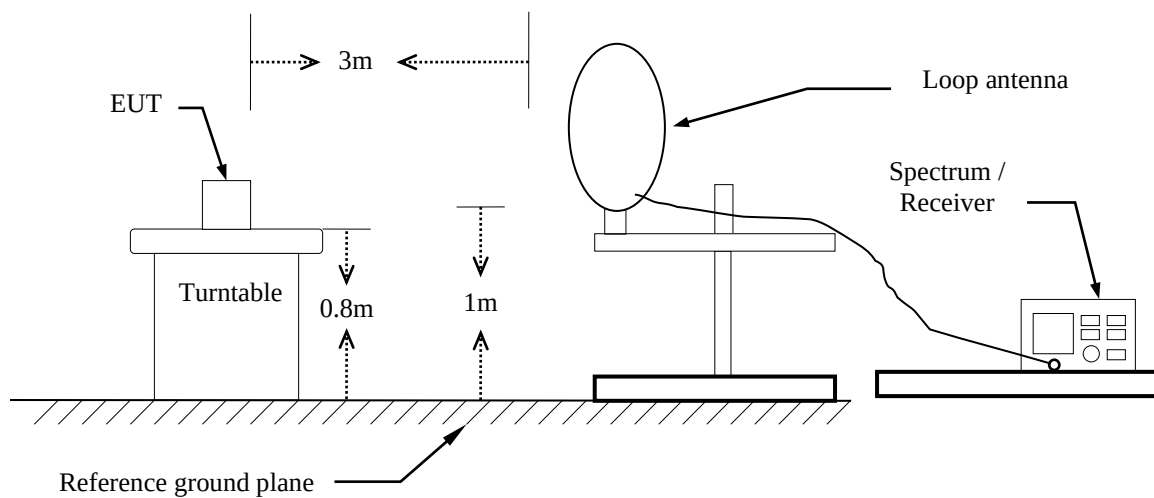
6. Data result :

Actual FS=Spectrum Reading Level + Factor

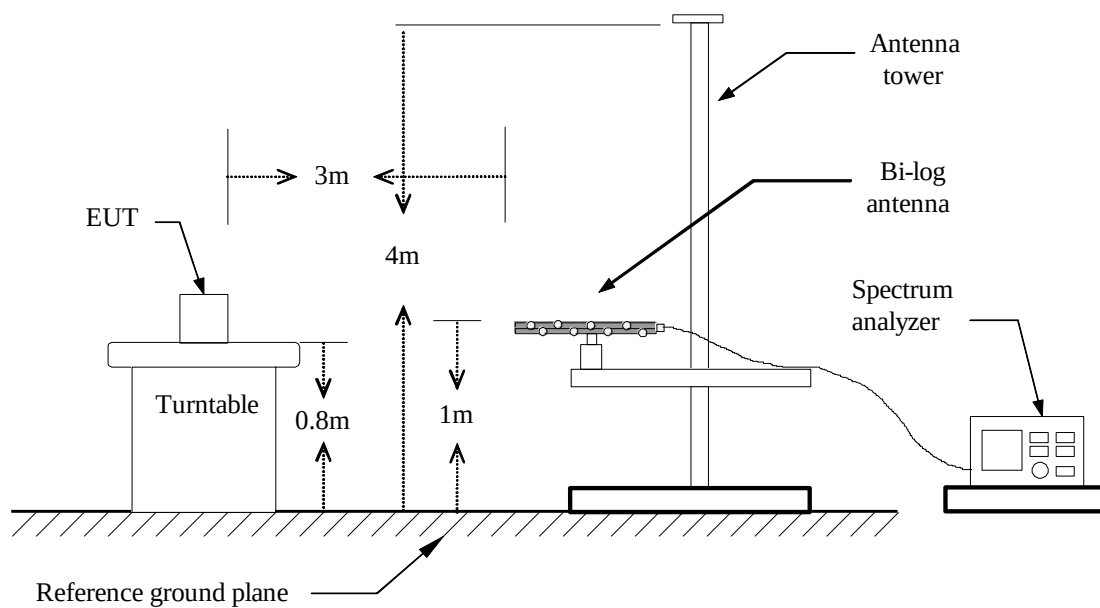
Margin=Actual FS- Limit

4.3.3 Test Setup

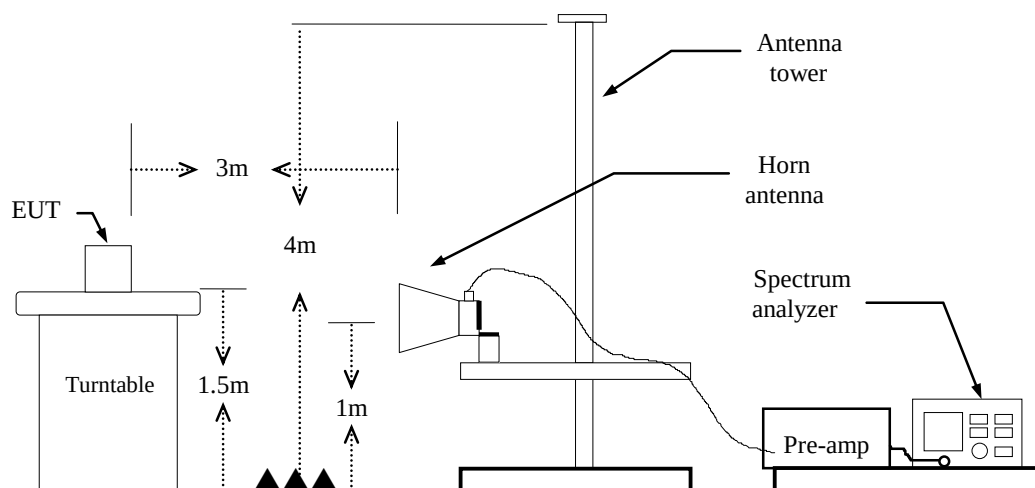
9kHz ~ 30MHz



30MHz ~ 1GHz



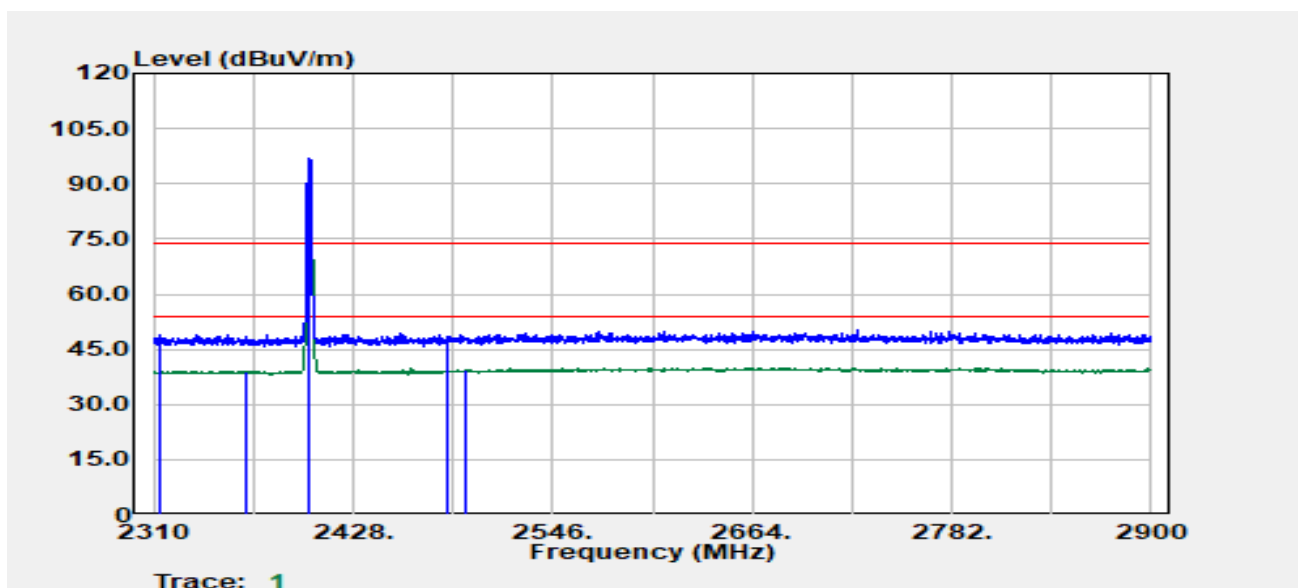
Above 1 GHz



4.3.4 Test Result

Band Edge Test Data

Project No	:TM-2403000388P	Test Date	:2024-06-03
Operation Band	:BLE_1M	Temp./Humi.	:24.4/59
Frequency	:2402 MHz	Antenna Pol.	:VERTICAL
Operation Mode	:Bandedge	Engineer	:Tony Chao
EUT Pol	:E2	Test Chamber	: 966A
Setting	:		



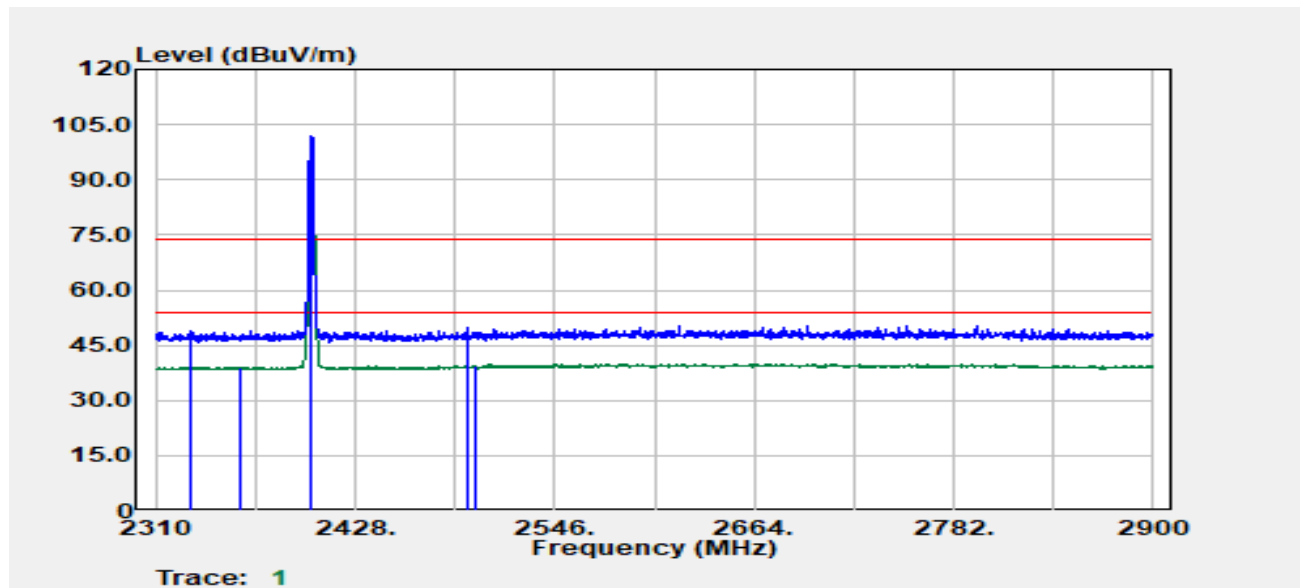
Freq. MHz	Detector Mode PK/QP/AV	Spectrum Read Level dBμV	Factor dB	Actual FS dBμV/m	Limit dBμV/m	Margin dB
2313.50	Peak	42.88	6.14	49.02	74.00	-24.98
2364.27	Average	32.88	6.21	39.09	54.00	-14.91
2402.00	Peak	90.74	6.29	97.03	--	--
2402.00	Average	90.47	6.29	96.77	--	--
2483.50	Peak	42.27	6.71	48.98	74.00	-25.02
2494.33	Average	32.50	6.82	39.32	54.00	-14.68

Project No: TM-2403000388P
Report No.: TMWK2406001982KR

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Rev. 01

Project No :TM-2403000388P
Operation Band :BLE_1M
Frequency :2402 MHz
Operation Mode :Bandedge
EUT Pol :E2
Setting :

Test Date :2024-06-03
Temp./Humi. :24.4/59
Antenna Pol. :HORIZONTAL
Engineer :Tony Chao
Test Chamber : 966A

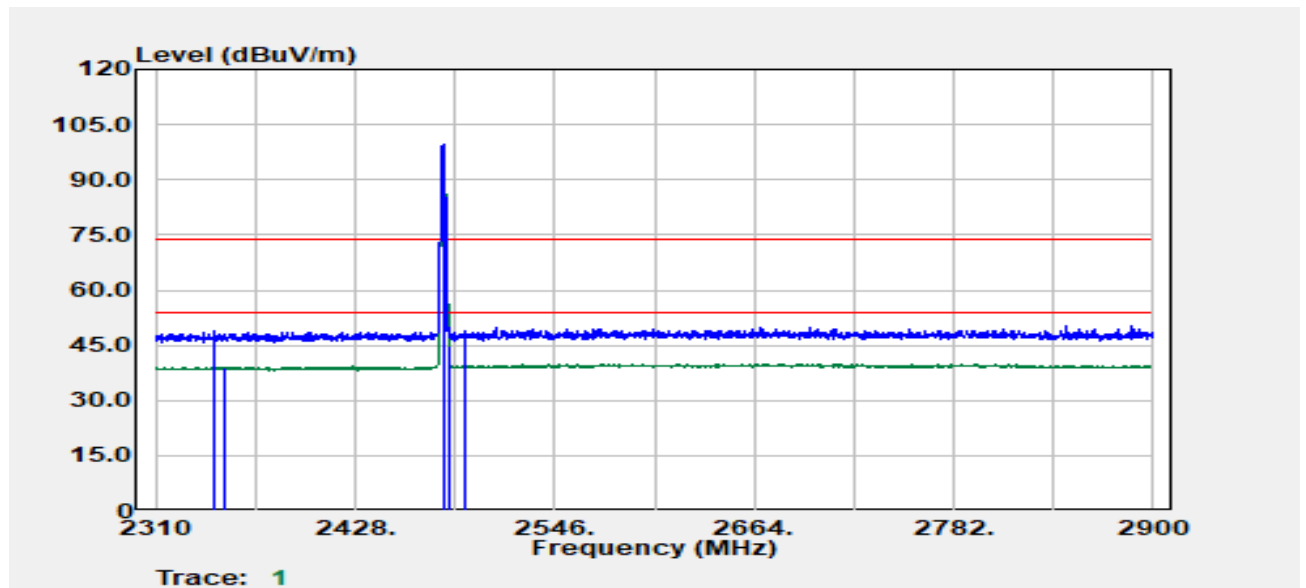


Freq. MHz	Detector Mode PK/QP/AV	Spectrum Read Level dBμV	Factor dB	Actual FS dBUV/m	Limit dBUV/m	Margin dB
2330.01	Peak	42.78	6.18	48.96	74.00	-25.04
2359.52	Average	32.87	6.25	39.11	54.00	-14.89
2402.00	Peak	95.63	6.29	101.93	--	--
2402.00	Average	95.39	6.29	101.68	--	--
2494.08	Peak	42.79	6.82	49.61	74.00	-24.39
2498.58	Average	32.59	6.83	39.43	54.00	-14.57

Project No: TM-2403000388P
Report No.: TMWK2406001982KR

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Project No	:TM-2403000388P	Test Date	:2024-06-03
Operation Band	:BLE_1M	Temp./Humi.	:24.4/59
Frequency	:2480 MHz	Antenna Pol.	:VERTICAL
Operation Mode	:Bandedge	Engineer	:Tony Chao
EUT Pol	:E2	Test Chamber	: 966A
Setting	:		



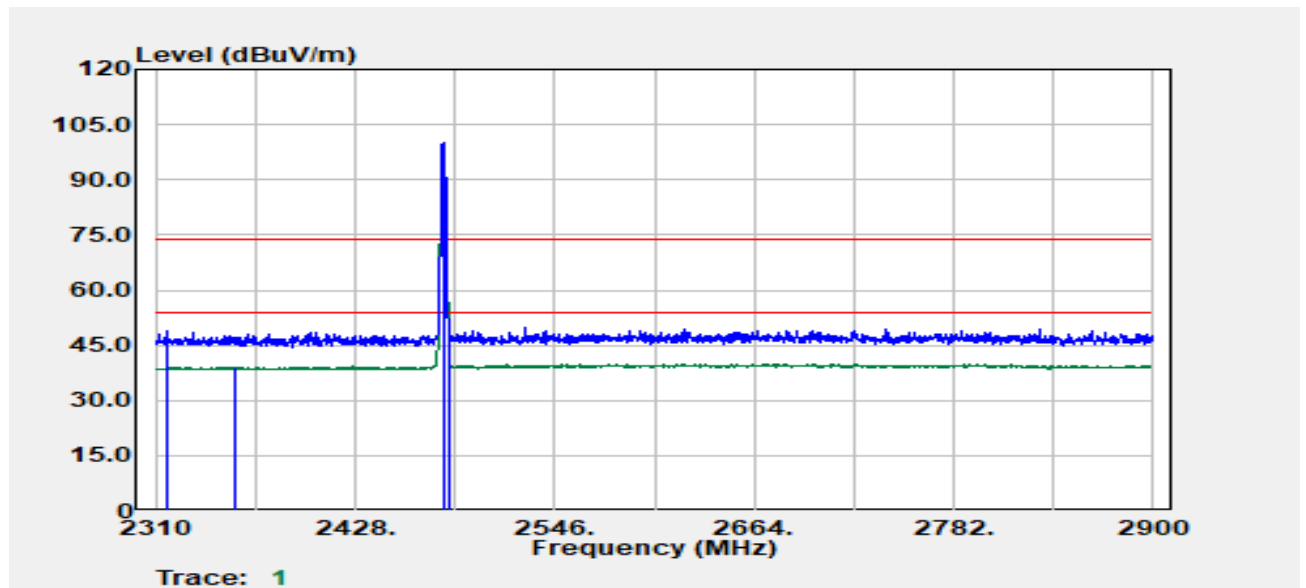
Freq. MHz	Detector Mode PK/QP/AV	Spectrum Read Level dBμV	Factor dB	Actual FS dBUV/m	Limit dBUV/m	Margin dB
2344.26	Peak	42.54	6.17	48.71	74.00	-25.29
2350.27	Average	32.84	6.24	39.08	54.00	-14.92
2480.00	Peak	92.76	6.67	99.43	--	--
2480.00	Average	92.55	6.67	99.21	--	--
2483.57	Average	38.04	6.72	44.76	54.00	-9.24
2492.58	Peak	42.14	6.81	48.95	74.00	-25.05

Project No: TM-2403000388P
Report No.: TMWK2406001982KR

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Project No :TM-2403000388P
Operation Band :BLE_1M
Frequency :2480 MHz
Operation Mode :Bandedge
EUT Pol :E2
Setting :

Test Date :2024-06-03
Temp./Humi. :24.4/59
Antenna Pol. :HORIZONTAL
Engineer :Tony Chao
Test Chamber : 966A



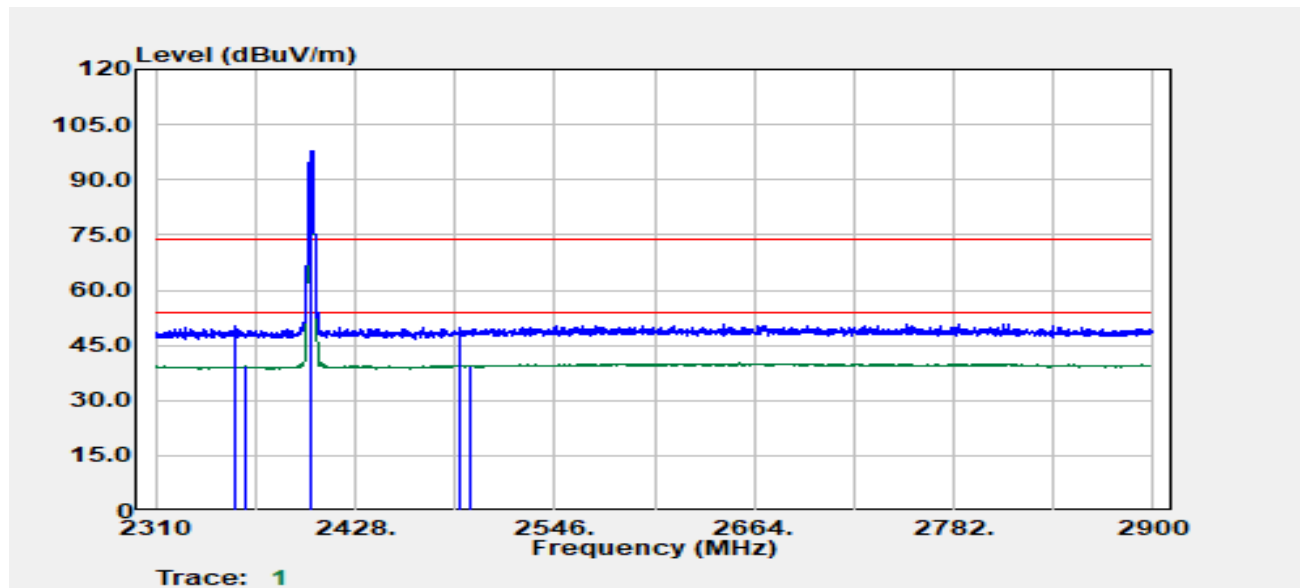
Freq. MHz	Detector Mode PK/QP/AV	Spectrum Read Level dBμV	Factor dB	Actual FS dBUV/m	Limit dBUV/m	Margin dB
2316.25	Peak	43.07	6.15	49.22	74.00	-24.78
2357.27	Average	32.72	6.25	38.97	54.00	-15.03
2480.00	Peak	93.52	6.67	100.19	--	--
2480.00	Average	93.31	6.67	99.97	--	--
2483.57	Average	38.56	6.72	45.27	54.00	-8.73
2484.07	Peak	42.31	6.72	49.03	74.00	-24.97

Project No: TM-2403000388P
Report No.: TMWK2406001982KR

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Rev. 01

Project No :TM-2403000388P
Operation Band :BLE 2M
Frequency :2402 MHz
Operation Mode :Bandedge
EUT Pol :E2
Setting :

Test Date :2024-06-03
Temp./Humi. :24.4/59
Antenna Pol. :VERTICAL
Engineer :Ray Li
Test Chamber : 966A



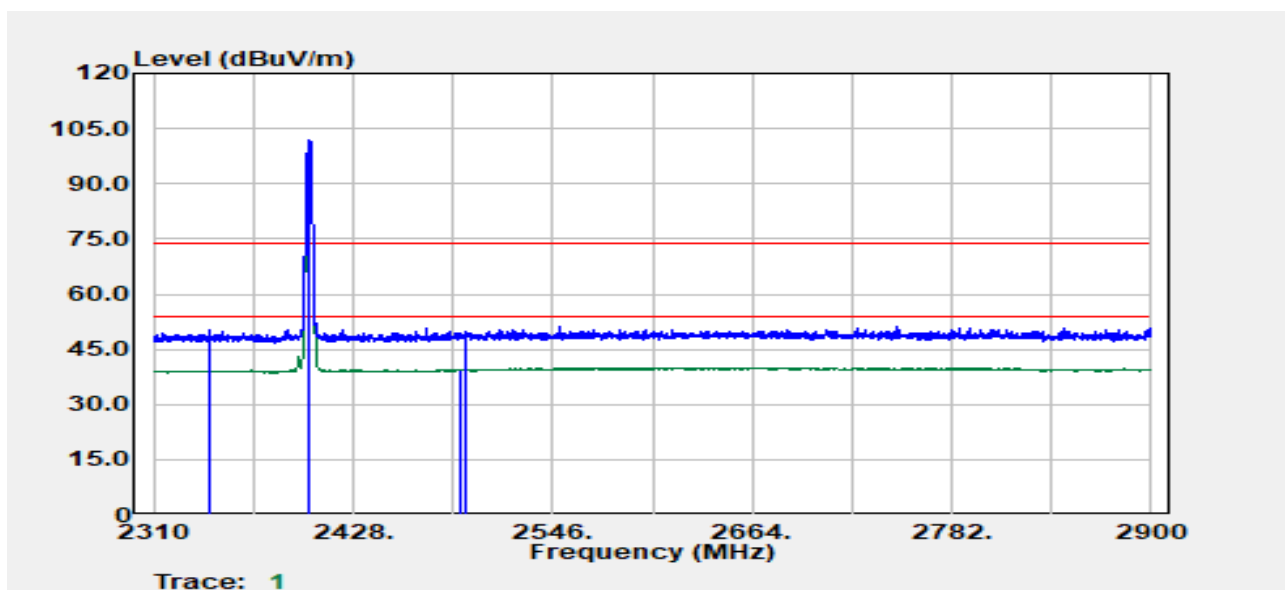
Freq. MHz	Detector Mode PK/QP/AV	Spectrum Read Level dBμV	Factor dB	Actual FS dBμV/m	Limit dBμV/m	Margin dB
2356.27	Peak	43.83	6.25	50.08	74.00	-23.92
2363.02	Average	32.97	6.22	39.20	54.00	-14.80
2402.00	Peak	91.59	6.29	97.89	--	--
2402.00	Average	90.44	6.29	96.74	--	--
2490.58	Peak	42.89	6.81	49.70	74.00	-24.30
2495.33	Average	32.63	6.82	39.46	54.00	-14.54

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Rev. 01

Project No :TM-2403000388P
Operation Band :BLE 2M
Frequency :2402 MHz
Operation Mode :Bandedge
EUT Pol :E2
Setting :

Test Date :2024-06-03
Temp./Humi. :24.4/59
Antenna Pol. :HORIZONTAL
Engineer :Ray Li
Test Chamber : 966A



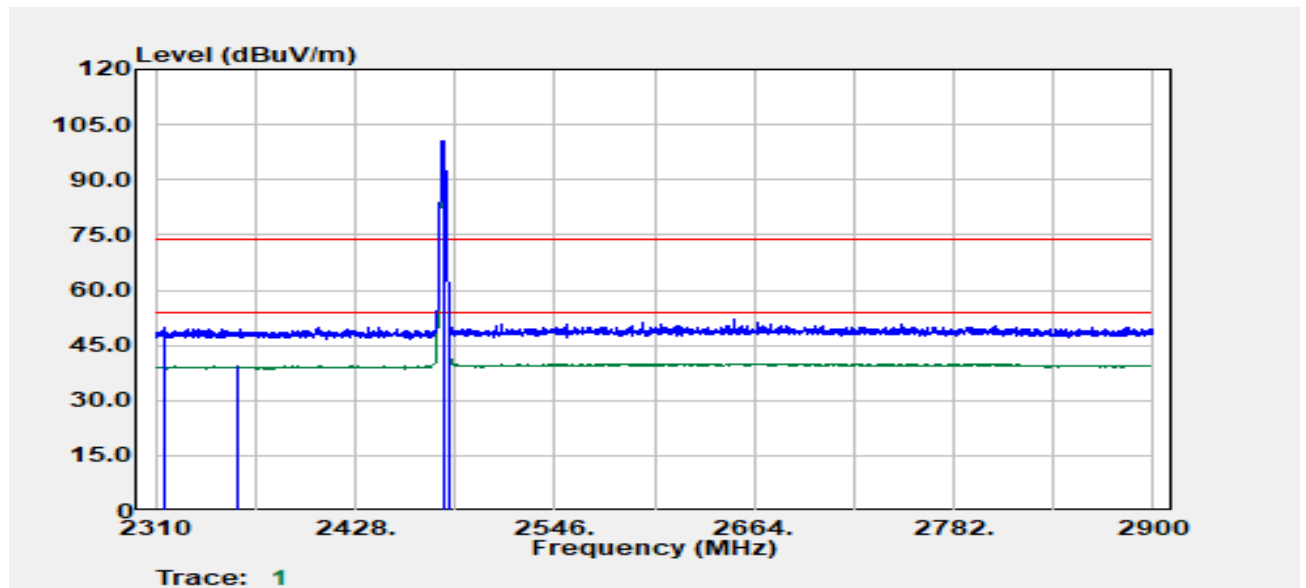
Freq. MHz	Detector Mode PK/QP/AV	Spectrum Read Level dBμV	Factor dB	Actual FS dBμV/m	Limit dBμV/m	Margin dB
2342.76	Peak	43.96	6.15	50.11	74.00	-23.89
2343.01	Average	33.18	6.15	39.33	54.00	-14.67
2402.00	Peak	95.37	6.29	101.67	--	--
2402.00	Average	94.17	6.29	100.47	--	--
2490.83	Average	32.71	6.81	39.51	54.00	-14.49
2493.83	Peak	43.12	6.82	49.93	74.00	-24.07

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Report No.: TMWK2406001982KR

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Project No :TM-2403000388P
Operation Band :BLE 2M
Frequency :2480 MHz
Operation Mode :Bandedge
EUT Pol :E2
Setting :

Test Date :2024-06-03
Temp./Humi. :24.4/59
Antenna Pol. :VERTICAL
Engineer :Ray Li
Test Chamber : 966A



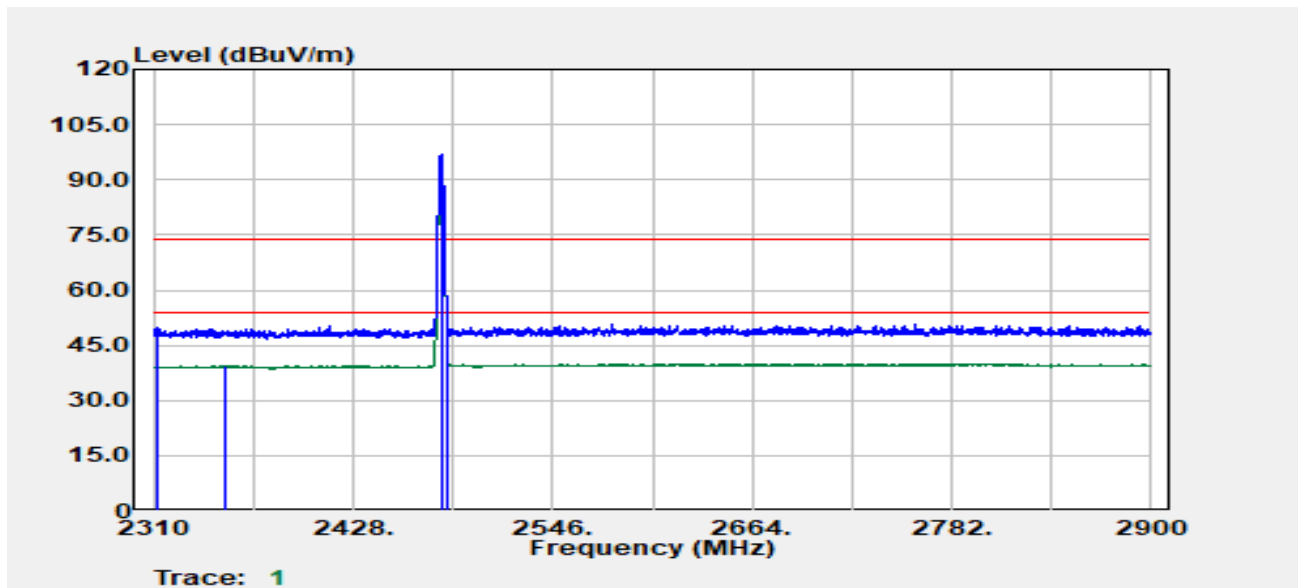
Freq. MHz	Detector Mode PK/QP/AV	Spectrum Read Level dBμV	Factor dB	Actual FS dBμV/m	Limit dBμV/m	Margin dB
2314.75	Peak	43.66	6.14	49.80	74.00	-24.20
2358.27	Average	32.97	6.25	39.22	54.00	-14.78
2480.00	Peak	94.05	6.67	100.72	--	--
2480.00	Average	92.85	6.67	99.52	--	--
2483.57	Peak	46.50	6.72	53.22	74.00	-20.78
2483.57	Average	43.42	6.72	50.13	54.00	-3.87

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Rev. 01

Project No :TM-2403000388P
Operation Band :BLE 2M
Frequency :2480 MHz
Operation Mode :Bandedge
EUT Pol :E2
Setting :

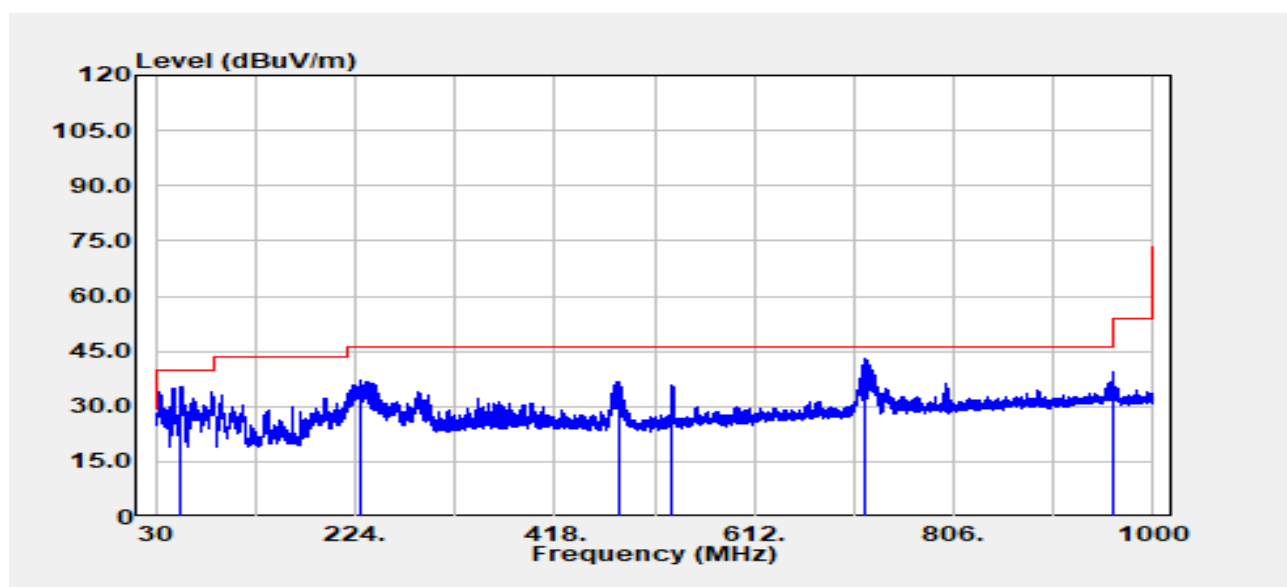
Test Date :2024-06-03
Temp./Humi. :24.4/59
Antenna Pol. :HORIZONTAL
Engineer :Ray Li
Test Chamber : 966A



Freq. MHz	Detector Mode PK/QP/AV	Spectrum Read Level dBμV	Factor dB	Actual FS dBμV/m	Limit dBμV/m	Margin dB
2311.50	Peak	43.74	6.13	49.87	74.00	-24.13
2352.77	Average	33.17	6.24	39.41	54.00	-14.59
2480.00	Peak	90.04	6.67	96.70	--	--
2480.00	Average	88.76	6.67	95.43	--	--
2483.57	Peak	43.83	6.72	50.55	74.00	-23.45
2483.57	Average	39.94	6.72	46.65	54.00	-7.35

TX Test Data

Project No	:TM-2403000388P	Test Date	:2024-06-07
Operation Band	:BLE 2M	Temp./Humi.	:23.9/62
Frequency	:2480 MHz	Antenna Pol.	:VERTICAL
Operation Mode	:TX	Engineer	:Czerny Lin
EUT Pol	:E2	Test Chamber	: 966A
Setting	:		



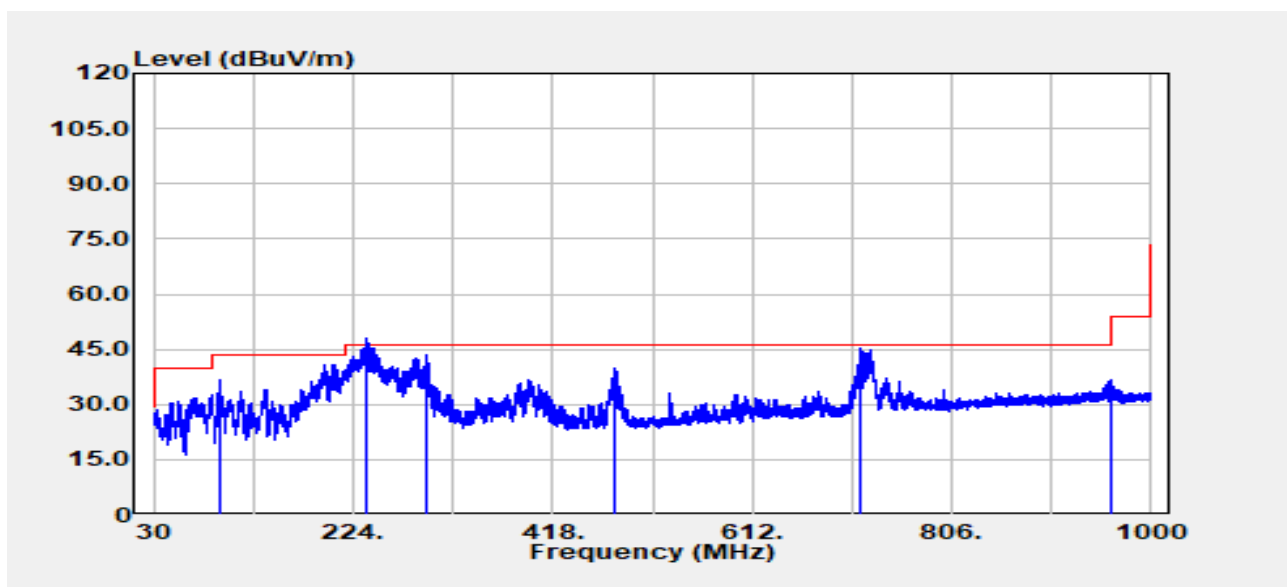
Freq. MHz	Detector Mode PK/QP/AV	Spectrum Read Level dBμV	Factor dB	Actual FS dBμV/m	Limit dBμV/m	Margin dB
54.37	Peak	51.31	-15.89	35.42	40.00	-4.58
228.73	Peak	48.34	-11.35	36.99	46.00	-9.01
479.96	Peak	40.25	-3.42	36.83	46.00	-9.17
531.49	Peak	38.65	-2.96	35.70	46.00	-10.30
720.03	Peak	42.49	0.36	42.85	46.00	-3.15
960.11	Peak	35.86	3.65	39.51	54.00	-14.49

Project No: TM-2403000388P
Report No.: TMWK2406001982KR

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Project No :TM-2403000388P
Operation Band :BLE 2M
Frequency :2480 MHz
Operation Mode :TX
EUT Pol :E2
Setting :

Test Date :2024-06-07
Temp./Humi. :23.9/62
Antenna Pol. :HORIZONTAL
Engineer :Czerny Lin
Test Chamber : 966A

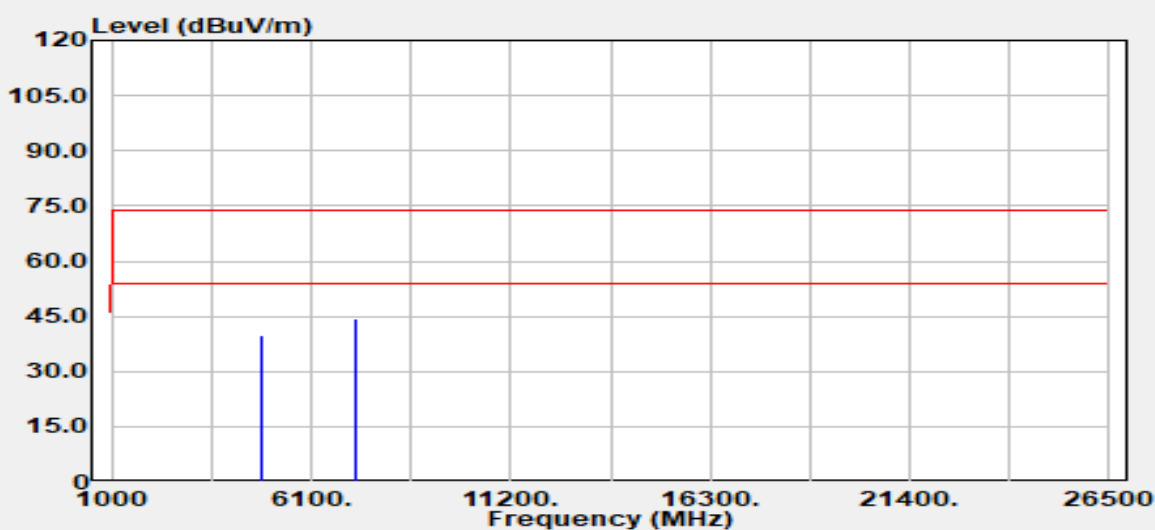


Freq. MHz	Detector Mode PK/QP/AV	Spectrum Read Level dBμV	Factor dB	Actual FS dBμV/m	Limit dBμV/m	Margin dB
93.54	Peak	51.09	-14.43	36.66	43.50	-6.84
237.94	QP	54.81	-10.72	44.09	46.00	-1.91
294.33	Peak	52.34	-8.72	43.62	46.00	-2.38
477.90	Peak	43.21	-3.52	39.69	46.00	-6.31
717.85	Peak	44.80	0.35	45.15	46.00	-0.85
961.44	Peak	32.89	3.64	36.53	54.00	-17.47

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Report No.: TMWK2406001982KR

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Project No	:TM-2403000388P	Test Date	:2024-06-03
Operation Band	:BLE 1M	Temp./Humi.	:24.4/59
Frequency	:2402 MHz	Antenna Pol.	:Vertical
Operation Mode	:TX	Engineer	:Ray Li
EUT Pol	:E2	Test Chamber	: 966A
Setting	:		

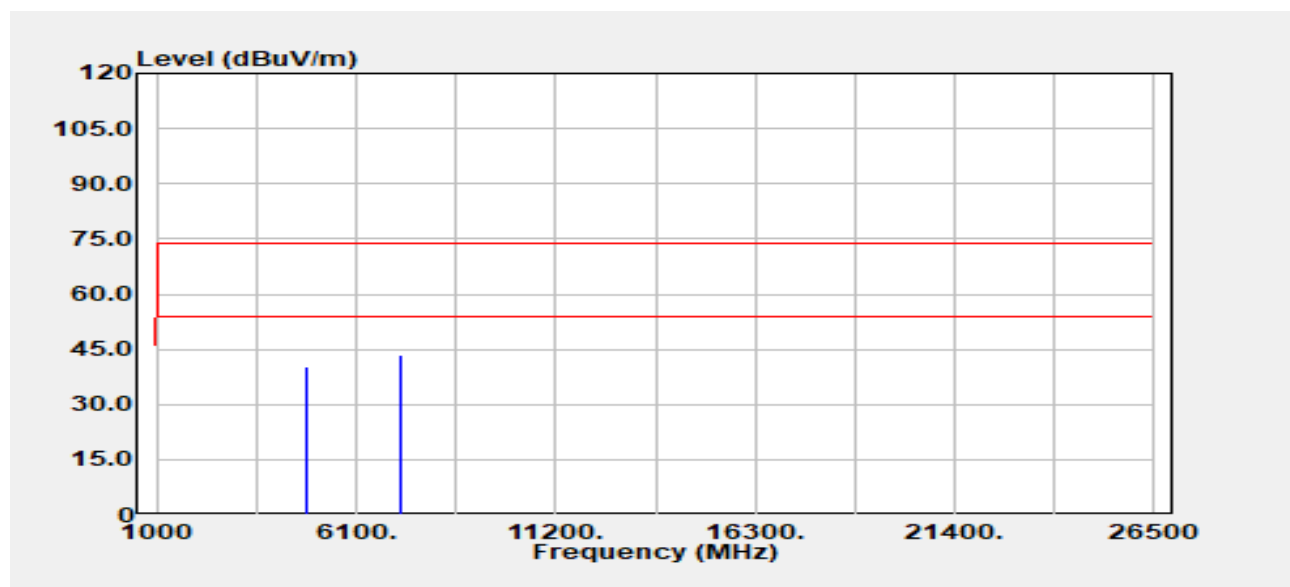


Freq. MHz	Detector Mode PK/QP/AV	Spectrum Read Level dBμV	Factor dB	Actual FS dBμV/m	Limit dBμV/m	Margin dB
4804.00	Peak	37.53	2.23	39.76	74.00	-34.24
4804.00	Average	31.21	2.23	33.43	54.00	-20.57
7206.00	Peak	35.40	9.01	44.41	74.00	-29.59
7206.00	Average	27.15	9.01	36.16	54.00	-17.84

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Project No	:TM-2403000388P	Test Date	:2024-06-03
Operation Band	:BLE 1M	Temp./Humi.	:24.4/59
Frequency	:2402 MHz	Antenna Pol.	:Horizontal
Operation Mode	:TX	Engineer	:Ray Li
EUT Pol	:E2	Test Chamber	: 966A
Setting	:		

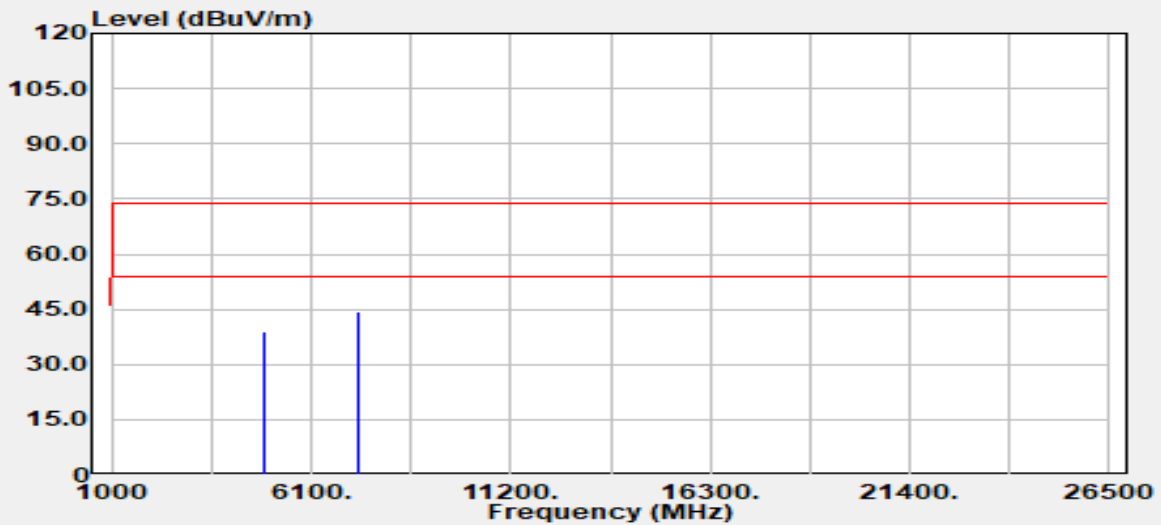


Freq. MHz	Detector Mode PK/QP/AV	Spectrum Read Level dBμV	Factor dB	Actual FS dBμV/m	Limit dBμV/m	Margin dB
4804.00	Peak	37.89	2.23	40.12	74.00	-33.88
4804.00	Average	30.13	2.23	32.35	54.00	-21.65
7206.00	Peak	34.52	9.01	43.53	74.00	-30.47
7206.00	Average	26.95	9.01	35.96	54.00	-18.04

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Project No	:TM-2403000388P	Test Date	:2024-06-03
Operation Band	:BLE 1M	Temp./Humi.	:24.4/59
Frequency	:2440 MHz	Antenna Pol.	:Vertical
Operation Mode	:TX	Engineer	:Ray Li
EUT Pol	:E2	Test Chamber	: 966A
Setting	:		

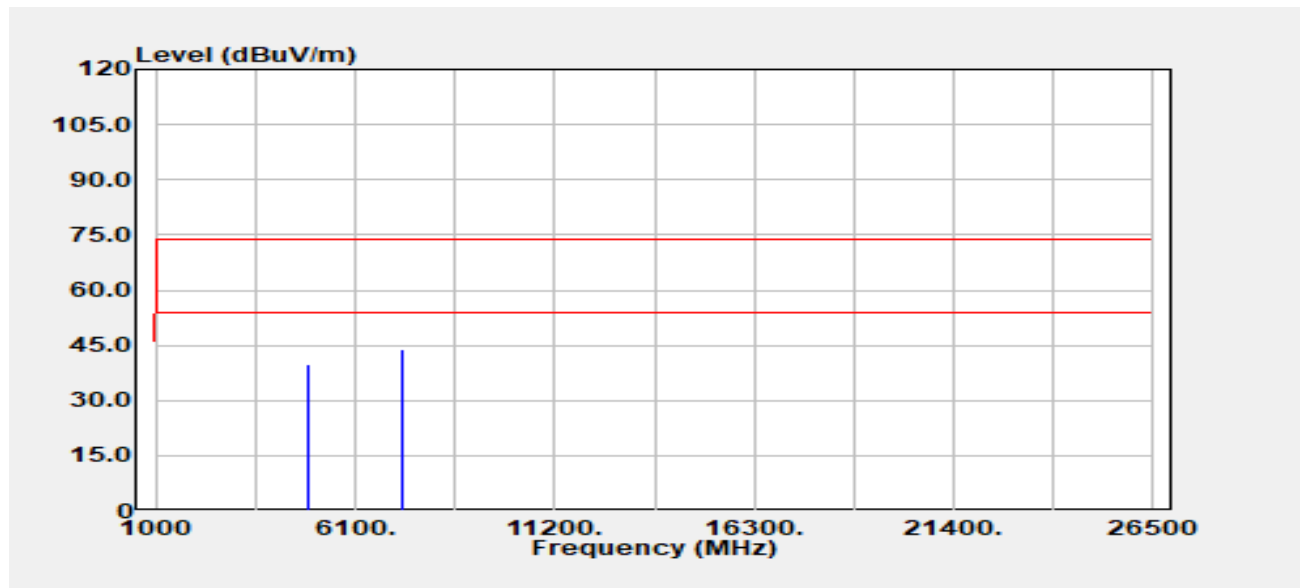


Freq. MHz	Detector Mode PK/QP/AV	Spectrum Read Level dBμV	Factor dB	Actual FS dBμV/m	Limit dBμV/m	Margin dB
4880.00	Peak	36.37	2.55	38.91	74.00	-35.09
4880.00	Average	29.65	2.55	32.19	54.00	-21.81
7320.00	Peak	35.34	8.96	44.29	74.00	-29.71
7320.00	Average	27.15	8.96	36.11	54.00	-17.89

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Rev. 01

Project No	:TM-2403000388P	Test Date	:2024-06-03
Operation Band	:BLE 1M	Temp./Humi.	:24.4/59
Frequency	:2440 MHz	Antenna Pol.	:Horizontal
Operation Mode	:TX	Engineer	:Ray Li
EUT Pol	:E2	Test Chamber	: 966A
Setting	:		



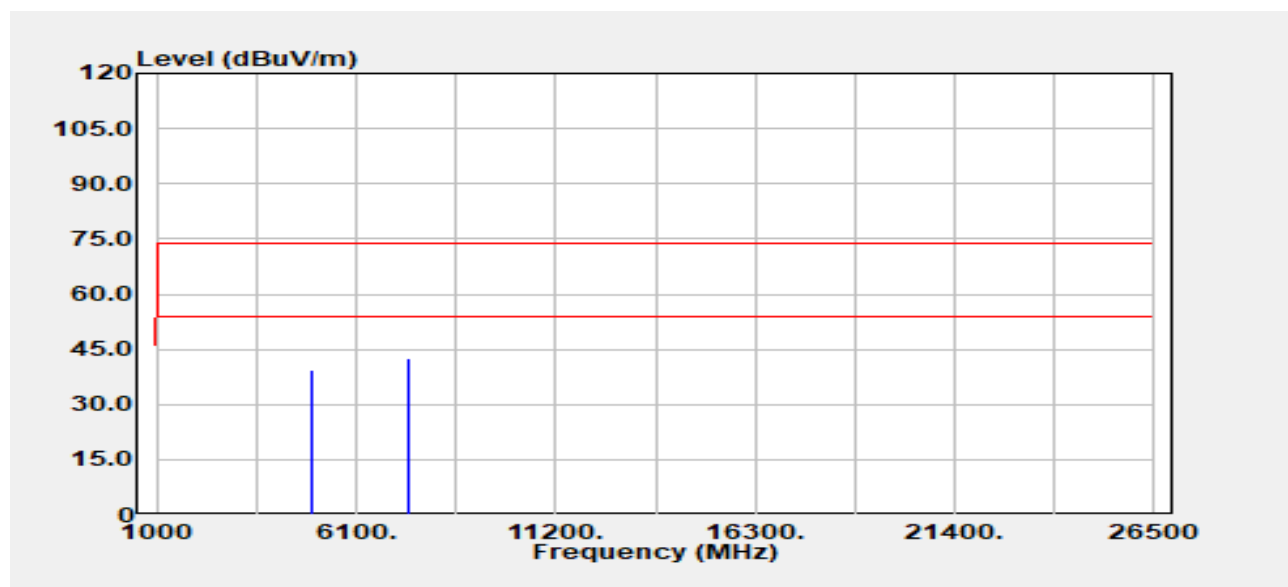
Freq. MHz	Detector Mode PK/QP/AV	Spectrum Read Level dBμV	Factor dB	Actual FS dBμV/m	Limit dBμV/m	Margin dB
4880.00	Peak	37.24	2.55	39.79	74.00	-34.21
4880.00	Average	28.26	2.55	30.80	54.00	-23.20
7320.00	Peak	35.07	8.96	44.03	74.00	-29.97
7320.00	Average	27.30	8.96	36.26	54.00	-17.74

Project No: TM-2403000388P
Report No.: TMWK2406001982KR

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Rev. 01

Project No :TM-2403000388P
Operation Band :BLE 1M
Frequency :2480 MHz
Operation Mode :TX
EUT Pol :E2
Setting :

Test Date :2024-06-03
Temp./Humi. :24.4/59
Antenna Pol. :Vertical
Engineer :Ray Li
Test Chamber : 966A

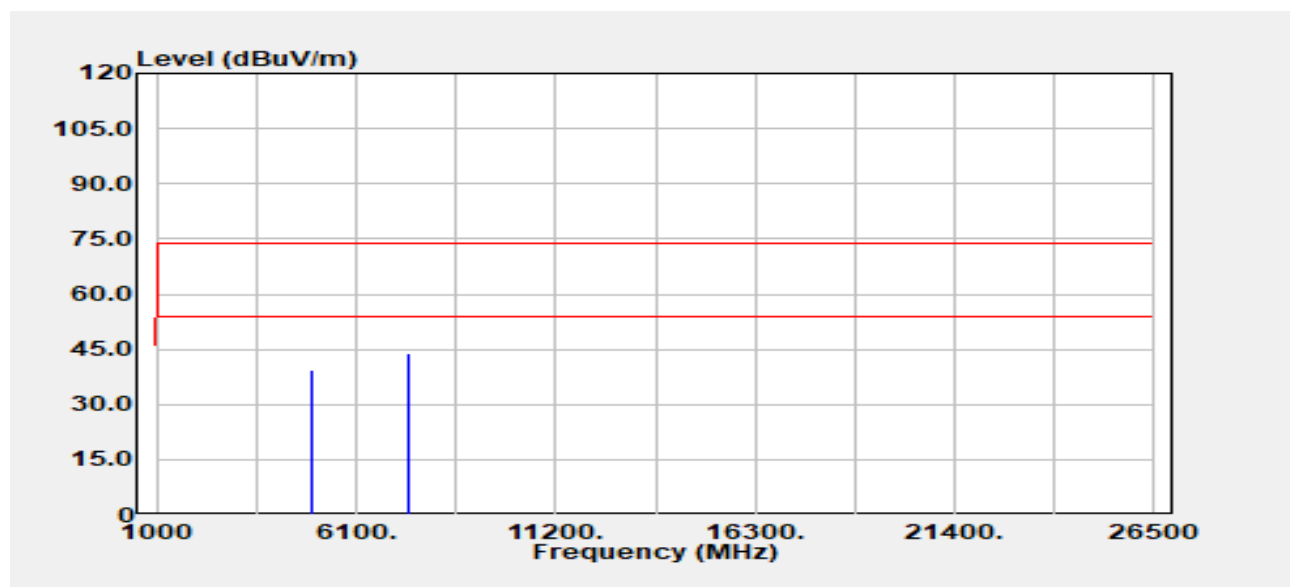


Freq. MHz	Detector Mode PK/QP/AV	Spectrum Read Level dBμV	Factor dB	Actual FS dBμV/m	Limit dBμV/m	Margin dB
4960.00	Peak	36.39	3.21	39.61	74.00	-34.39
4960.00	Average	28.64	3.21	31.86	54.00	-22.14
7440.00	Peak	33.60	8.92	42.52	74.00	-31.48
7440.00	Average	27.05	8.92	35.97	54.00	-18.03

Project No: TM-2403000388P
Report No.: TMWK2406001982KR

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Rev. 01

Project No	:TM-2403000388P	Test Date	:2024-06-03
Operation Band	:BLE 1M	Temp./Humi.	:24.4/59
Frequency	:2480 MHz	Antenna Pol.	:Horizontal
Operation Mode	:TX	Engineer	:Ray Li
EUT Pol	:E2	Test Chamber	: 966A
Setting	:		



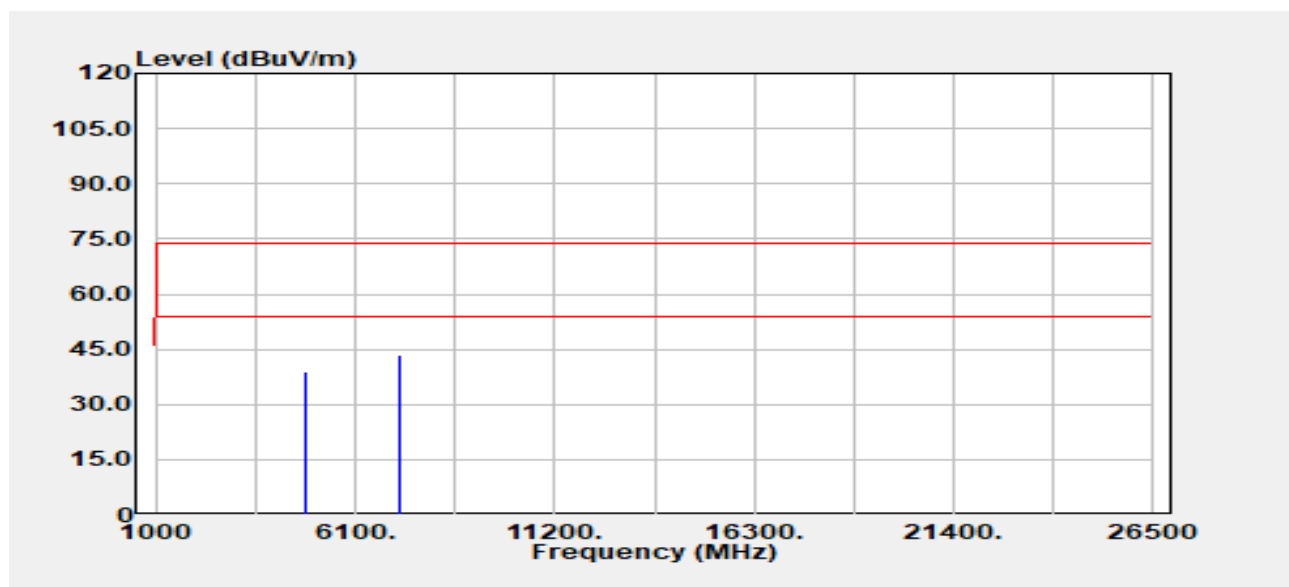
Freq. MHz	Detector Mode PK/QP/AV	Spectrum Read Level dBμV	Factor dB	Actual FS dBμV/m	Limit dBμV/m	Margin dB
4960.00	Peak	36.00	3.21	39.21	74.00	-34.79
4960.00	Average	27.82	3.21	31.03	54.00	-22.97
7440.00	Peak	35.06	8.92	43.98	74.00	-30.02
7440.00	Average	27.02	8.92	35.94	54.00	-18.06

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Project No :TM-2403000388P
Operation Band :BLE 2M
Frequency :2402 MHz
Operation Mode :TX
EUT Pol :E2
Setting :

Test Date :2024-06-03
Temp./Humi. :24.4/59
Antenna Pol. :Vertical
Engineer :Ray Li
Test Chamber : 966A

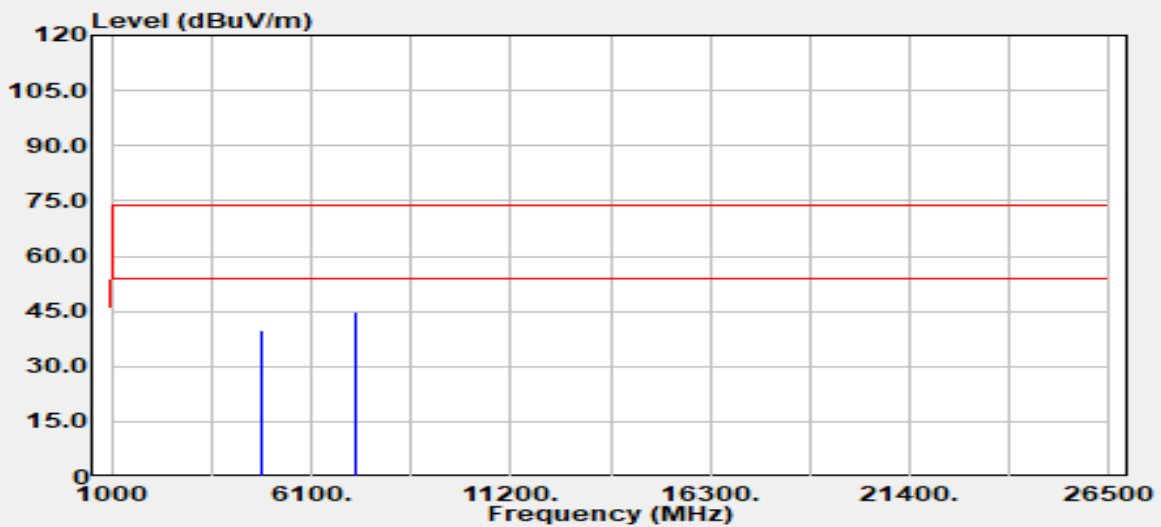


Freq. MHz	Detector Mode PK/QP/AV	Spectrum Read Level dBμV	Factor dB	Actual FS dBμV/m	Limit dBμV/m	Margin dB
4804.00	Peak	36.76	2.23	38.98	74.00	-35.02
4804.00	Average	29.92	2.23	32.14	54.00	-21.86
7206.00	Peak	34.66	9.01	43.68	74.00	-30.32
7206.00	Average	26.20	9.01	35.21	54.00	-18.79

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Report No.: TMWK2406001982KR

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Rev. 01

Project No	:TM-2403000388P	Test Date	:2024-06-03
Operation Band	:BLE 2M	Temp./Humi.	:24.4/59
Frequency	:2402 MHz	Antenna Pol.	:Horizontal
Operation Mode	:TX	Engineer	:Ray Li
EUT Pol	:E2	Test Chamber	: 966A
Setting	:		



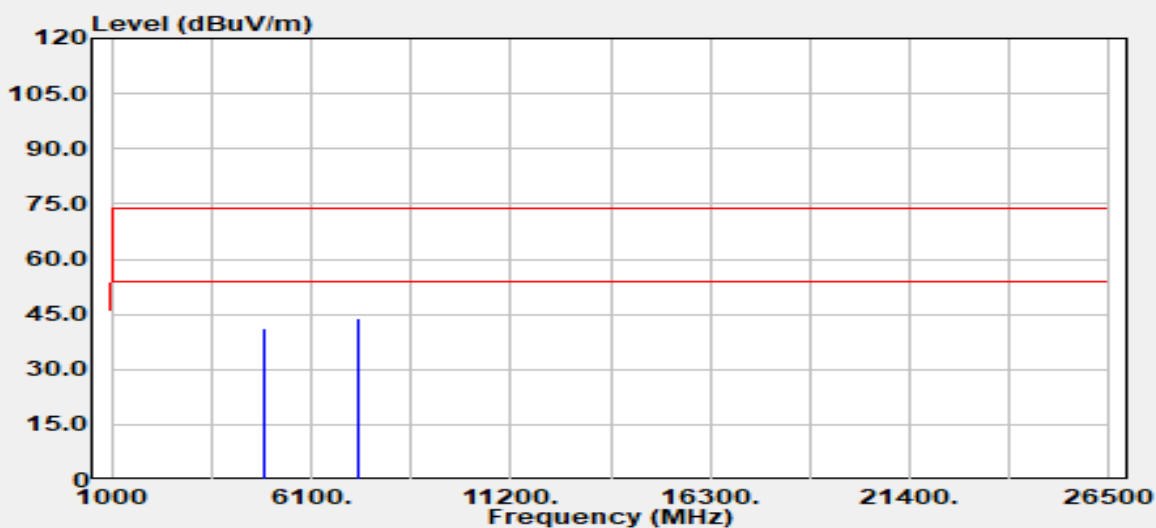
Freq. MHz	Detector Mode PK/QP/AV	Spectrum Read Level dBμV	Factor dB	Actual FS dBμV/m	Limit dBμV/m	Margin dB
4804.00	Peak	37.68	2.23	39.91	74.00	-34.09
4804.00	Average	29.41	2.23	31.63	54.00	-22.37
7206.00	Peak	35.67	9.01	44.68	74.00	-29.32
7206.00	Average	26.27	9.01	35.29	54.00	-18.71

Project No: TM-2403000388P
Report No.: TMWK2406001982KR

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Rev. 01

Project No :TM-2403000388P
Operation Band :BLE 2M
Frequency :2440 MHz
Operation Mode :TX
EUT Pol :E2
Setting :

Test Date :2024-06-03
Temp./Humi. :24.4/59
Antenna Pol. :Vertical
Engineer :Ray Li
Test Chamber : 966A

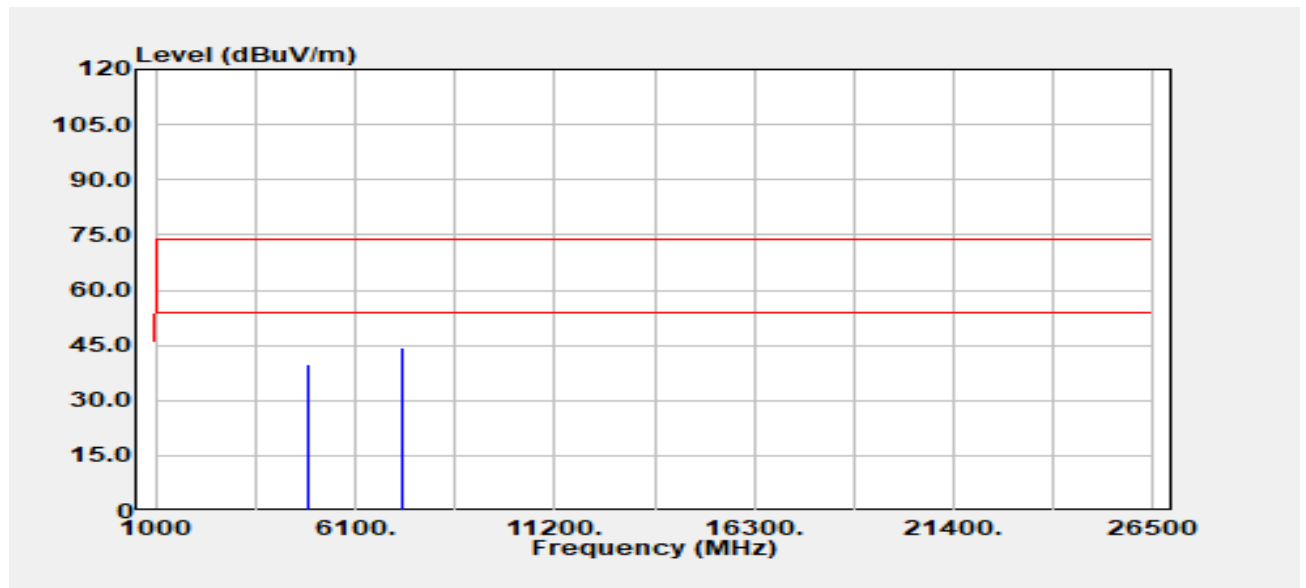


Freq. MHz	Detector Mode PK/QP/AV	Spectrum Read Level dBμV	Factor dB	Actual FS dBμV/m	Limit dBμV/m	Margin dB
4880.00	Peak	38.77	2.55	41.32	74.00	-32.68
4880.00	Average	27.49	2.55	30.04	54.00	-23.96
7320.00	Peak	34.75	8.96	43.71	74.00	-30.29
7320.00	Average	26.50	8.96	35.46	54.00	-18.54

Project No: TM-2403000388P
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Rev. 01

Project No	:TM-2403000388P	Test Date	:2024-06-03
Operation Band	:BLE 2M	Temp./Humi.	:24.4/59
Frequency	:2440 MHz	Antenna Pol.	:Horizontal
Operation Mode	:TX	Engineer	:Ray Li
EUT Pol	:E2	Test Chamber	: 966A
Setting	:		



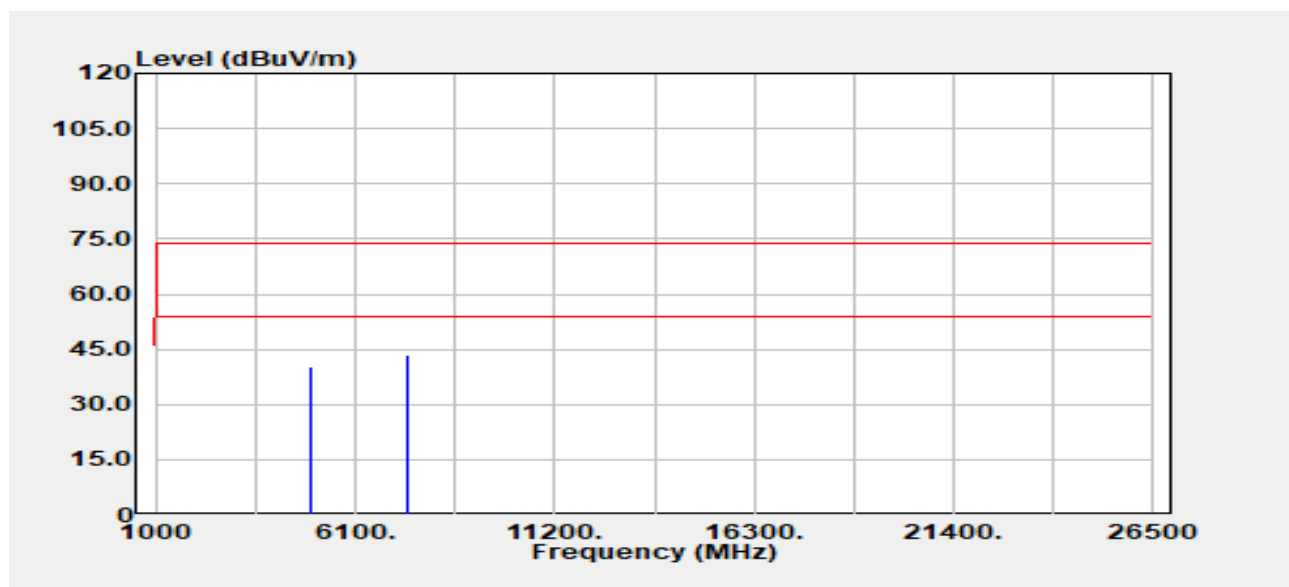
Freq. MHz	Detector Mode PK/QP/AV	Spectrum Read Level dBμV	Factor dB	Actual FS dBμV/m	Limit dBμV/m	Margin dB
4880.00	Peak	37.49	2.55	40.04	74.00	-33.96
4880.00	Average	27.59	2.55	30.14	54.00	-23.86
7320.00	Peak	35.42	8.96	44.38	74.00	-29.62
7320.00	Average	26.49	8.96	35.45	54.00	-18.55

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Rev. 01

Project No :TM-2403000388P
Operation Band :BLE 2M
Frequency :2480 MHz
Operation Mode :TX
EUT Pol :E2
Setting :

Test Date :2024-06-03
Temp./Humi. :24.4/59
Antenna Pol. :Vertical
Engineer :Ray Li
Test Chamber : 966A



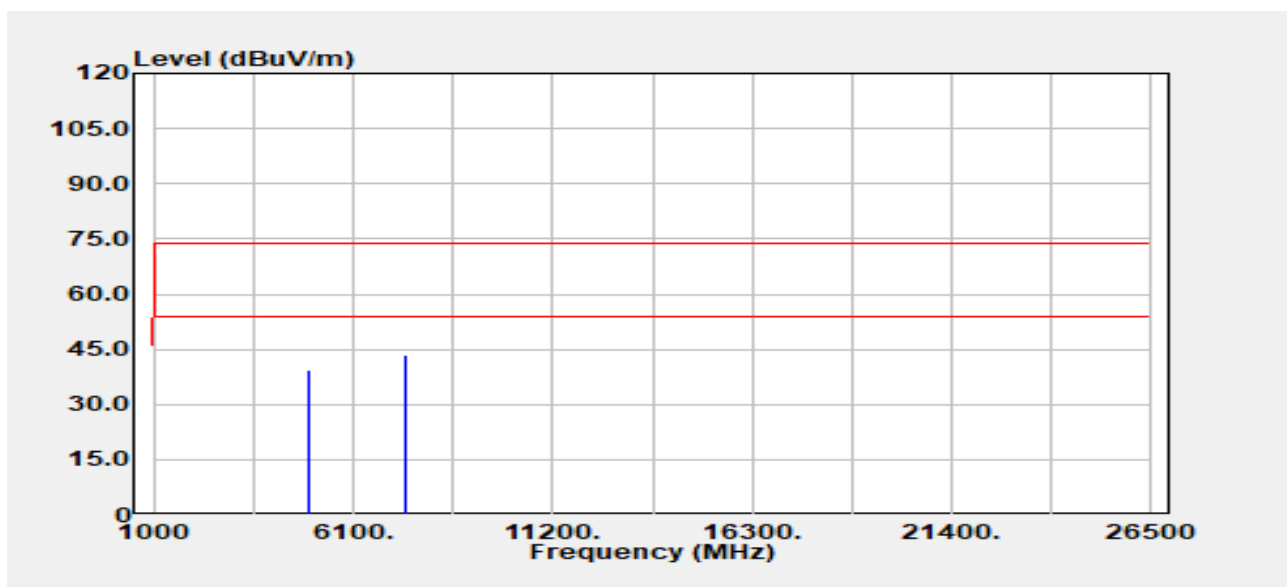
Freq. MHz	Detector Mode PK/QP/AV	Spectrum Read Level dBμV	Factor dB	Actual FS dBμV/m	Limit dBμV/m	Margin dB
4960.00	Peak	37.28	3.21	40.49	74.00	-33.51
4960.00	Average	27.72	3.21	30.93	54.00	-23.07
7440.00	Peak	34.49	8.92	43.41	74.00	-30.59
7440.00	Average	26.09	8.92	35.01	54.00	-18.99

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Rev. 01

Project No :TM-2403000388P
Operation Band :BLE 2M
Frequency :2480 MHz
Operation Mode :TX
EUT Pol :E2
Setting :

Test Date :2024-06-03
Temp./Humi. :24.4/59
Antenna Pol. :Horizontal
Engineer :Ray Li
Test Chamber : 966A



Freq. MHz	Detector Mode PK/QP/AV	Spectrum Read Level dBμV	Factor dB	Actual FS dBμV/m	Limit dBμV/m	Margin dB
4960.00	Peak	36.25	3.21	39.46	74.00	-34.54
4960.00	Average	27.01	3.21	30.22	54.00	-23.78
7440.00	Peak	34.47	8.92	43.39	74.00	-30.61
7440.00	Average	26.14	8.92	35.06	54.00	-18.94

--End of Test Report--