

Project No.: TM-2112000081P
Report No.: TMWK2201000243KR

FCC ID: 2AAWQ-CAPRICA5UXL-2
IC: 11138A-CAPRICA5UXL

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Rev.: 05

RADIO TEST REPORT

FCC 47 CFR PART 15 SUBPART C

INDUSTRY CANADA RSS-247

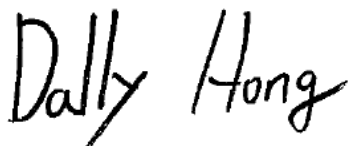
Test Standard	FCC Part 15.247 IC RSS-247 issue 2 and IC RSS-GEN issue 5
Product name	Play-Fi Wireless Module
Brand Name	XPERI
Model No.	Caprica5UXL-2
Test Result	Pass
Statements of Conformity	Determination of compliance is based on the results of the compliance measurement, not taking into account measurement 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:



Dally Hong
Sr. Engineer

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	September 14, 2023	Initial Issue	ALL	Doris Chu
01	October 6, 2023	See the following Note Rev. (01)	P.4, P.9, P.12, P.5, P.10	Doris Chu
02	October 20, 2023	See the following Note Rev. (02)	P.4	Doris Chu
03	November 20, 2023	See the following Note Rev. (03)	P.5	Doris Chu
04	November 28, 2023	See the following Note Rev. (04)	P.5	Doris Chu
05	December 8, 2023	See the following Note Rev. (05)	P.8	Doris Chu

Rev. (01)

1. Add serial number in section 1.1.
2. Add test methodology in section 1.8.
3. Modify remark 1 in section 3.2.
4. Modify Antenna connector to IPEX Connector in section 1.3.
5. Add 15.205 in FCC Standard in section 2.

Rev. (02)

1. Modify serial number in section 1.1.

Rev. (03)

1. Modify Antenna connector in section 1.3.

Rev. (04)

1. Modify Antenna connector in section 1.3.

Rev. (05)

1. Modify Conducted equipment list in section 1.6.

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APPENDIX 1 - PHOTOGRAPHS OF EUT		

1. GENERAL INFORMATION

1.1 EUT INFORMATION

Applicant	Phorus, Inc. 5220 Las Virgenes Road, Calabasas, California 91302, United States
Manufacturer	Phorus, Inc. 5220 Las Virgenes Road, Calabasas, California 91302, United States
Equipment	Play-Fi Wireless Module
Model Name	Caprica5UXL-2
Model Discrepancy	N/A
Brand Name	XPERI
Received Date	May 17, 2023
Date of Test	June 1 ~ July 5, 2023
Power Supply	Power from host device. (DC 3.3V)
HW Version	PVT-V03
SW Version	508.4.0.007
Serial number	C14-0000-0001

Remark:

1. For more details, please refer to the User's manual of the EUT.
2. 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 and RSS-GEN Table 1 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	Dipole Antenna / Gain: 5 dBi (*Worst) PIFA Antenna / Gain: 4.80 dBi
Antenna connector	Dipole Antenna: SMA Female PIFA Antenna: IPEX Compatible

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 and RSS-GEN 6.8.

1.4 MEASUREMENT UNCERTAINTY

PARAMETER	UNCERTAINTY
AC Powerline Conducted Emission	± 2.213 dB
Channel Bandwidth	± 2.7 %
RF output power (Power Meter + Power sensor)	± 0.243 dB
Power Spectral density	± 2.739 dB
Conducted Bandedge	± 2.739 dB
Conducted Spurious Emission	± 2.742 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	± 4.797 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.

☐ No. 12, Ln. 116, Wugong 3rd Rd., Wugu Dist., New Taipei City, Taiwan 24803

CAB identifier: TW1309

Test site	Test Engineer	Remark
AC Conduction Room	Tony Chao	-
Radiation	Tony Chao, Ray Li	-
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

RF Conducted Test Site					
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due
Power Sensor	Anritsu	MA2411B	1911386	2022-08-08	2023-08-07
Power Sensor	Anritsu	MA2411B	1911387	2022-08-08	2023-08-07
EXA Signal Analyzer	Keysight	N9010B	MY60242460	2023-02-20	2024-02-01
Power Meter	Anritsu	ML2496A	2136002	2022-11-24	2023-11-23
Attenuator	Mini-Circuits	BW-S10W2+	2	2022-12-13	2023-12-12
Software	Radio Test Software Ver. 21				

3M 966 Chamber Test Site					
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due
Horn Antenna	ETS LINDGREN	3116	00026370	2022-12-22	2023-12-21
Loop Antenna	COM-POWER	AL-130	121051	2023-05-23	2024-05-22
Preamplifier	EMEC	EM330	060609	2023-02-22	2024-02-21
Thermo-Hygro Meter	WISEWIND	1206	D07	2022-12-19	2023-12-18
PXA Signal Analyzer	Keysight Technologies	N9030B	MY62291089	2022-10-14	2023-10-13
Preamplifier	HP	8449B	3008A00965	2022-12-23	2023-12-22
Bi-Log Antenna	Sunol Sciences	JB3	A030105	2022-08-03	2023-08-02
Cable	Huber+Suhner	104PEA	20995+21000+182330	2023-02-22	2024-02-21
Horn Antenna	ETC	MCTD 1209	DRH13M02003	2023-01-12	2024-01-11
High Pass Filters	Titan Microwave	T04H30001800070S01	22011402-4	2022-06-29	2023-06-28
				2023-06-17	2024-06-16
Horn Antenna	SCHWARZBECK	BBHA9170	1047	2022-12-30	2023-12-29
Pre-Amplifier	EMCI	EMC184045SE	980860	2022-12-27	2023-12-26
Cable	EMCI	EMC101G	211010+211011+211012	2022-12-12	2023-12-11
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
Software	e3 V9-210616c				

AC Conducted Emissions Test Site					
Equipment	Manufacturer	Model	S/N	Cal Date	Cal Due
EMI Test Receiver	R&S	ESCI	100064	2023-06-07	2024-06-06
LISN	TESEQ	LN2-16N	22012	2023-03-08	2024-03-07
Cable	EMCI	CFD300-NL	CERF	2023-06-26	2024-06-25
Software	EZ-EMC(CCS-3A1-CE-WUGU)				

Remark:

- Each piece of equipment is scheduled for calibration once a year.
- 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						
No.	Equipment	Brand	Model	Series No.	FCC ID	IC
1	NB(E)	Lenovo	T460	N/A	N/A	N/A

1.8 TEST METHODOLOGY AND APPLIED STANDARDS

Test Mode

The EUT is connected to the laptop, and the test software (MP Tool) is used to set according to the test requirements (Modulation, Frequency, Power Setting...), so that the RF signal is continuously transmitted to perform the test.

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 662911, KDB 558074, RSS-247 Issue 2 and RSS-GEN Issue 5.

2. TEST SUMMARY

IC Standard Section	FCC Standard Section	Report Section	Test Item	Result
RSS-Gen 6.8	15.203	1.3	Antenna Requirement	Pass
RSS-GEN 8.8	15.207(a)	4.1	AC Conducted Emission	Pass
RSS-247(5.2)(a)	15.247(a)(2)	4.2	6 dB Bandwidth	Pass
RSS-GEN 6.7	-	4.2	Occupied Bandwidth (99%)	Pass
RSS-247(5.4)(d)	15.247(b)(3)	4.3	Output Power Measurement	Pass
RSS-247(5.2)(b)	15.247(e)	4.4	Power Spectral Density	Pass
RSS-247(5.5)	15.247(d)	4.5	Conducted Band Edge	Pass
RSS-247(5.5)	15.247(d)	4.5	Conducted Spurious Emission	Pass
RSS-GEN 8.9, 8.10	15.247(d) 15.205	4.6	Radiation Band Edge	Pass
RSS-GEN 8.9, 8.10	15.247(d) 15.205	4.6	Radiation Spurious Emission	Pass

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 : 2442MHz 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 Adapter (Dipole) Mode 2: EUT power by Adapter (PIFA)
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 Adapter (Dipole) Mode 2: EUT power by Adapter (PIFA)
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 Adapter (Dipole) Mode 2: EUT power by Adapter (PIFA)
Worst Mode	☒ Mode 1 ☒ Mode 2 ☐ Mode 3 ☐ Mode 4

Remark:

1. There are three types of EUT memory (ESMT, NANYA, MICRON), the worst of which is ESMT memory, and is recorded in the test report.
2. EUT pre-scanned in three axis ,X,Y, Z and two polarity, for radiated measurement. The worst case(Z-Plane) were recorded in this report
3. AC power line conducted emission and for below 1G radiation emission were performed the EUT transmit at the highest output power channel as worse case.

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3.3 EUT DUTY CYCLE

Temperature: 24.6°C

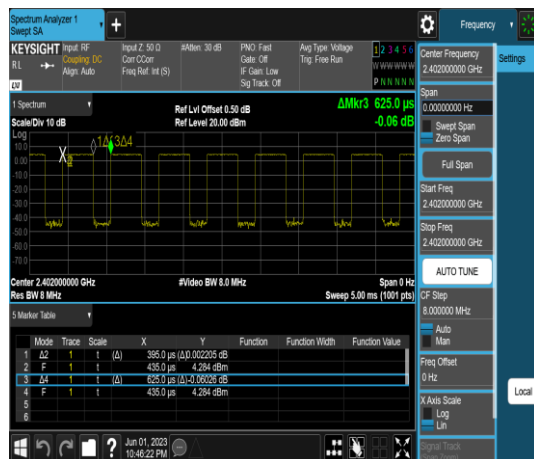
Test date: June 1, 2023

Humidity: 59% RH

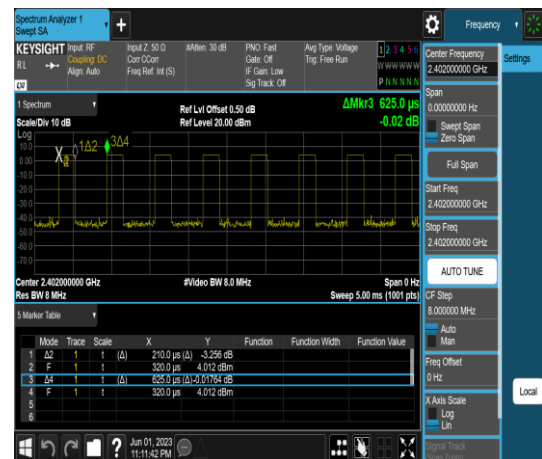
Tested by: Marco Chan

Duty Cycle				
Configuration	Duty Cycle (%) = Ton / (Ton+Toff)	Duty Factor (dB) = 10*log (1/Duty Cycle)	1/T (kHz)	VBW setting (kHz)
BLE 1M	63.20	1.99	2.53	3.00
BLE 2M	33.60	4.74	4.76	5.00

BLE-1Mbps



BLE-2Mbps



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4. TEST RESULT

4.1 AC POWER LINE CONDUCTED EMISSION

4.1.1 Test Limit

According to §15.207(a) and RSS-GEN section 8.8,

Frequency Range (MHz)	Limits(dB μ V)	
	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

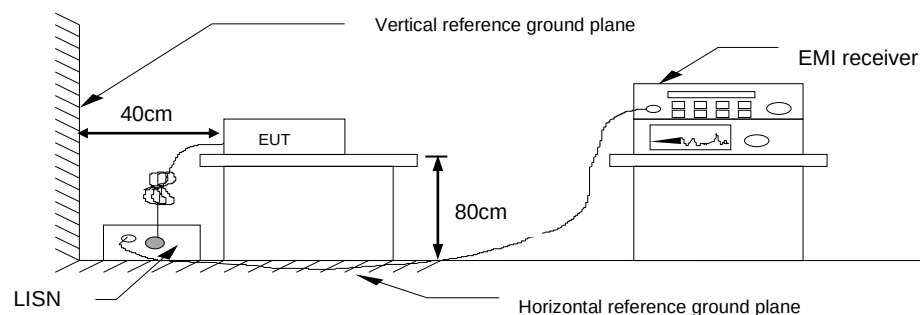
* Decreases with the logarithm of the frequency.

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

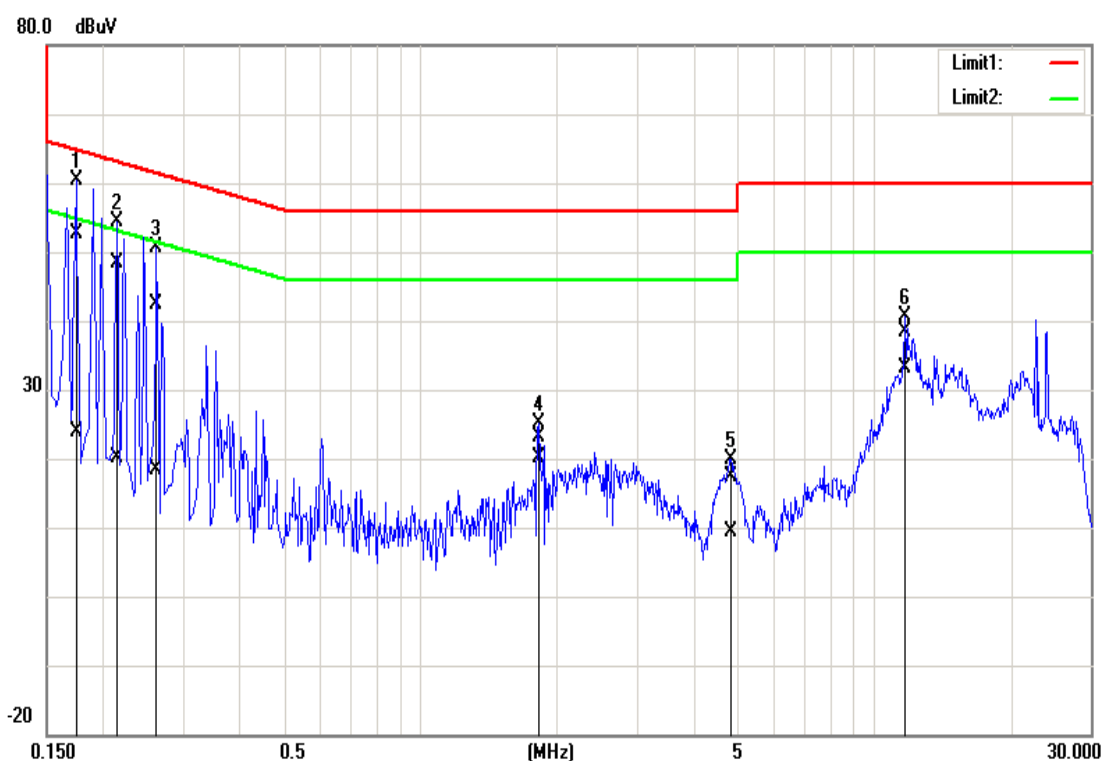


4.1.4 Test Result

Pass.

Test Data

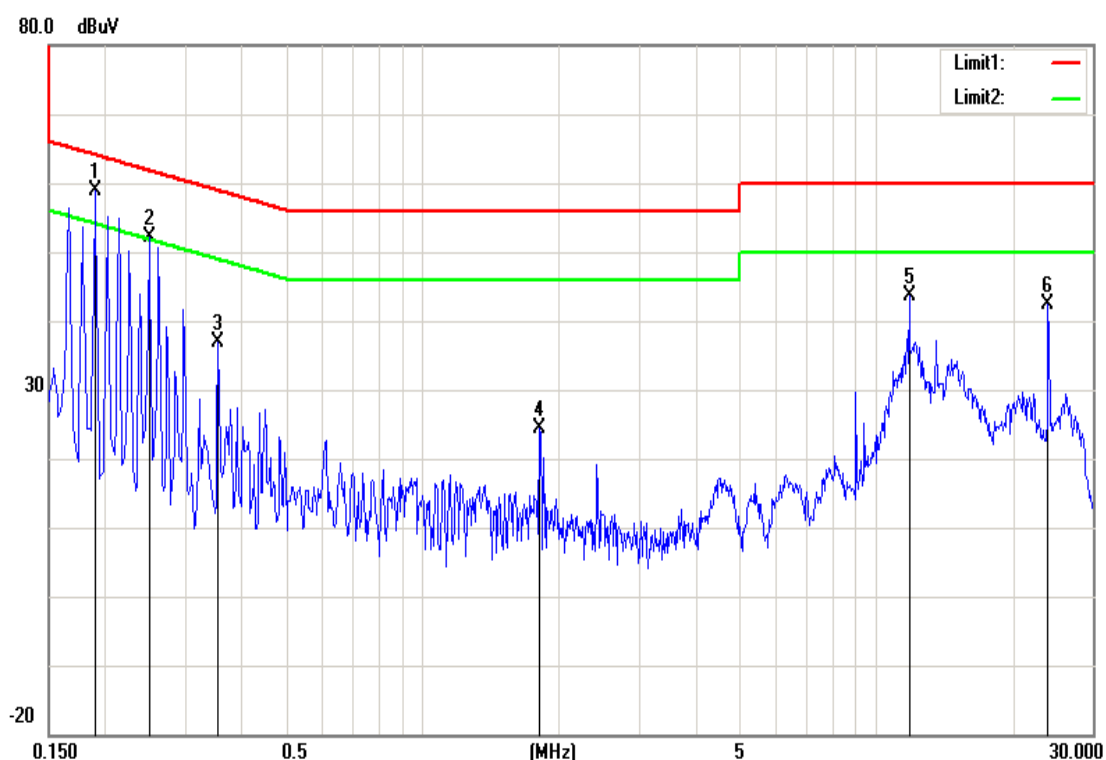
Test Mode:	Mode 1	Temp/Hum	24.3(°C)/ 52%RH
Phase:	Line	Test Date	July 5, 2023
Test Voltage:	120Vac, 60Hz	Test Engineer	Tony Chao



Frequency (MHz)	Quasi Peak reading (dBuV)	Average reading (dBuV)	Correction factor (dB)	Quasi Peak result (dBuV)	Average result (dBuV)	Quasi Peak limit (dBuV)	Average limit (dBuV)	Quasi Peak margin (dB)	Average margin (dB)	Remark
0.1740	52.45	23.84	0.15	52.60	23.99	64.77	54.77	-12.17	-30.78	Pass
0.2140	48.28	19.88	0.15	48.43	20.03	63.05	53.05	-14.62	-33.02	Pass
0.2620	42.25	18.15	0.15	42.40	18.30	61.37	51.37	-18.97	-33.07	Pass
1.8220	23.04	19.82	0.21	23.25	20.03	56.00	46.00	-32.75	-25.97	Pass
4.8420	16.99	9.17	0.27	17.26	9.44	56.00	46.00	-38.74	-36.56	Pass
11.7340	37.94	32.80	0.38	38.32	33.18	60.00	50.00	-21.68	-16.82	Pass

Note: 1. Correction factor = LISN loss + Cable loss.

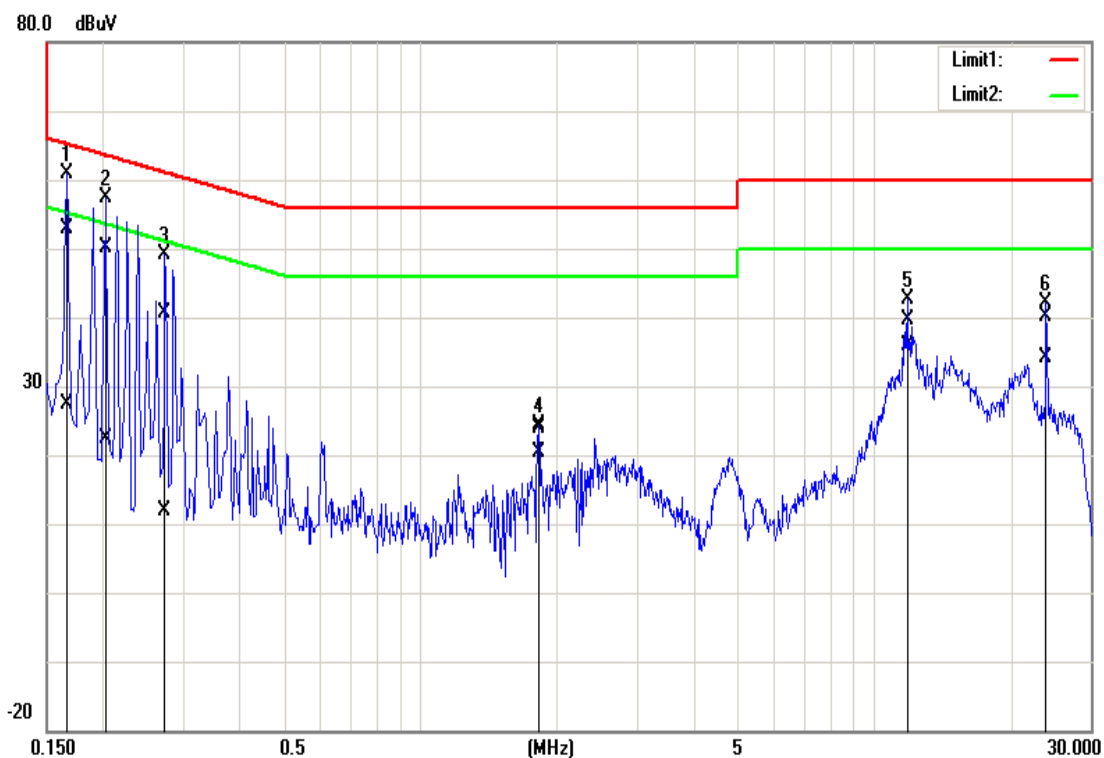
Test Mode:	Mode 1	Temp/Hum	24.3(°C)/ 52%RH
Phase:	Neutral	Test Date	July 5, 2023
Test Voltage:	120Vac, 60Hz	Test Engineer	Tony Chao



Frequency (MHz)	Quasi Peak reading (dBuV)	Average reading (dBuV)	Correction factor (dB)	Quasi Peak result (dBuV)	Average result (dBuV)	Quasi Peak limit (dBuV)	Average limit (dBuV)	Quasi Peak margin (dB)	Average margin (dB)	Remark
0.1900	51.25	23.04	0.19	51.44	23.23	64.04	54.04	-12.60	-30.81	Pass
0.2500	43.51	19.73	0.19	43.70	19.92	61.76	51.76	-18.06	-31.84	Pass
0.3540	27.08	8.19	0.19	27.27	8.38	58.87	48.87	-31.60	-40.49	Pass
1.8180	22.69	19.31	0.25	22.94	19.56	56.00	46.00	-33.06	-26.44	Pass
11.8140	41.22	37.90	0.41	41.63	38.31	60.00	50.00	-18.37	-11.69	Pass
23.9980	40.15	34.34	0.55	40.70	34.89	60.00	50.00	-19.30	-15.11	Pass

Note: 1. Correction factor = LISN loss + Cable loss.

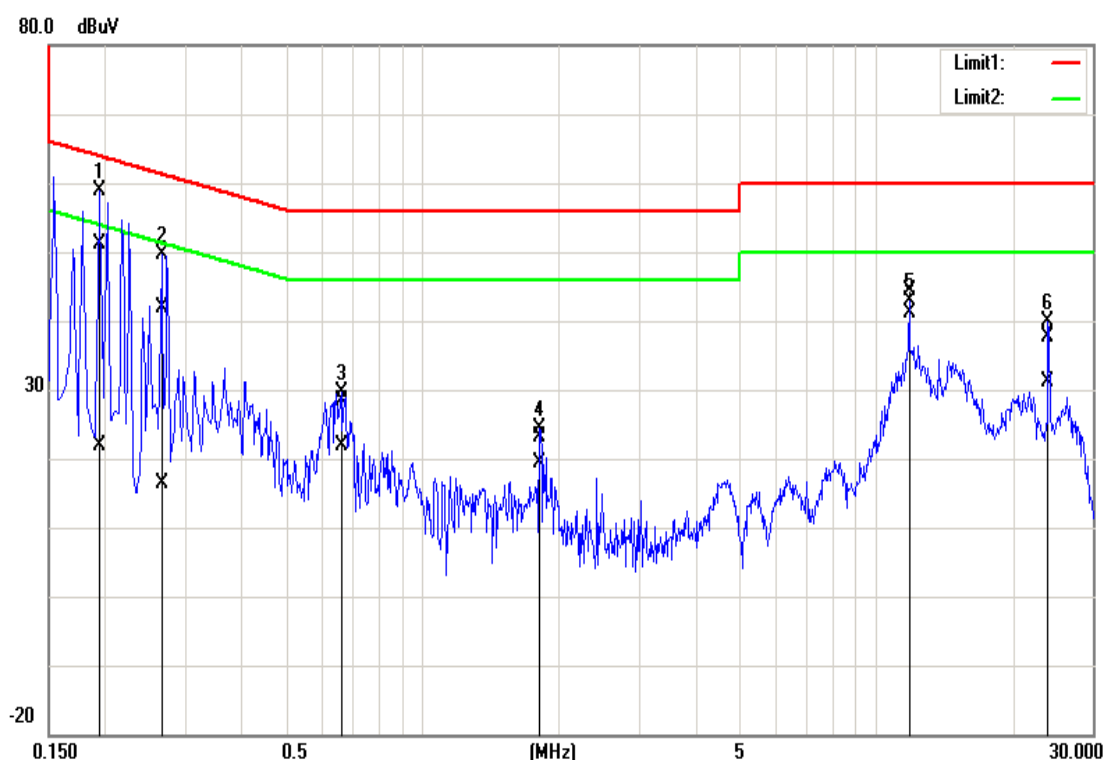
Test Mode:	Mode 2	Temp/Hum	24.3(°C)/ 52%RH
Phase:	Line	Test Date	July 5, 2023
Test Voltage:	120Vac, 60Hz	Test Engineer	Tony Chao



Frequency (MHz)	Quasi Peak reading (dBuV)	Average reading (d uV)	Correction factor (dB)	Quasi Peak result (dBuV)	Average result (dBuV)	Quasi Peak limit (dBuV)	Average limit (dBuV)	Quasi Peak margin (dB)	Average margin (dB)	Remark
0.1660	52.83	27.30	0.15	52.98	27.45	65.16	55.16	-12.18	-27.71	Pass
0.2020	50.06	22.11	0.15	50.21	22.26	63.53	53.53	-13.32	-31.27	Pass
0.2740	40.51	11.82	0.15	40.66	11.97	61.00	51.00	-20.34	-39.03	Pass
1.8220	23.72	20.23	0.21	23.93	20.44	56.00	46.00	-32.07	-25.56	Pass
11.8260	39.34	35.62	0.38	39.72	36.00	60.00	50.00	-20.28	-14.00	Pass
23.9980	39.69	33.67	0.56	40.25	34.23	60.00	50.00	-19.75	-15.77	Pass

Note: 1. Correction factor = LISN loss + Cable loss.

Test Mode:	Mode 2	Temp/Hum	24.3(°C)/ 52%RH
Phase:	Neutral	Test Date	July 5, 2023
Test Voltage:	120Vac, 60Hz	Test Engineer	Tony Chao



Frequency (MHz)	Quasi Peak reading (dBuV)	Average reading (dBuV)	Correction factor (dB)	Quasi Peak result (dBuV)	Average result (dBuV)	Quasi Peak limit (dBuV)	Average limit (dBuV)	Quasi Peak margin (dB)	Average margin (dB)	Remark
0.1940	50.86	21.62	0.19	51.05	21.81	63.86	53.86	-12.81	-32.05	Pass
0.2660	41.57	16.07	0.19	41.76	16.26	61.24	51.24	-19.48	-34.98	Pass
0.6620	28.30	21.57	0.19	28.49	21.76	56.00	46.00	-27.51	-24.24	Pass
1.8180	22.92	19.20	0.25	23.17	19.45	56.00	46.00	-32.83	-26.55	Pass
11.8180	44.01	40.68	0.41	44.42	41.09	60.00	50.00	-15.58	-8.91	Pass
24.0060	37.14	30.47	0.55	37.69	31.02	60.00	50.00	-22.31	-18.98	Pass

Note: 1. Correction factor = LISN loss + Cable loss.

4.2 6dB BANDWIDTH AND OCCUPIED BANDWIDTH (99%)

4.2.1 Test Limit

According to §15.247(a)(2) and RSS-247 section 5.2(a)

6 dB Bandwidth :

Limit	Shall be at least 500kHz
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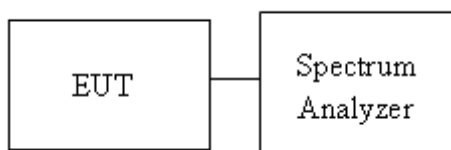
Occupied Bandwidth(99%) : For reporting purposes only.

4.2.2 Test Procedure

Test method Refer as ANSI C63.10: 2013,

1. The EUT RF output connected to the spectrum analyzer by RF cable.
2. Setting maximum power transmit of EUT.
3. SA set RBW =100KHz, VBW = 300KHz and Detector = Peak, to measurement 6dB Bandwidth.
4. SA set RBW = 1% ~ 5% OBW, VBW = three times the RBW and Detector = Peak, to measurement 99% Bandwidth.
5. Measure and record the result of 6 dB Bandwidth and 99% Bandwidth. in the test report.

4.2.3 Test Setup



4.2.4 Test Result

Temperature: 24.6°C

Test date: June 1, 2023

Humidity: 59% RH

Tested by: Marco Chan

Test mode: BLE-1Mbps mode / 2402-2480 MHz				
Channel	Frequency (MHz)	OBW (99%) (MHz)	6dB BW (MHz)	6dB limit (kHz)
Low	2402	1.0270	0.6661	≥500
Mid	2442	1.0211	0.6769	
High	2480	1.0224	0.6767	

Test mode: BLE-2Mbps mode / 2402-2480 MHz				
Channel	Frequency (MHz)	OBW (99%) (MHz)	6dB BW (MHz)	6dB limit (kHz)
Low	2402	2.0336	1.136	≥500
Mid	2442	2.0611	0.9599	
High	2480	2.0356	1.108	

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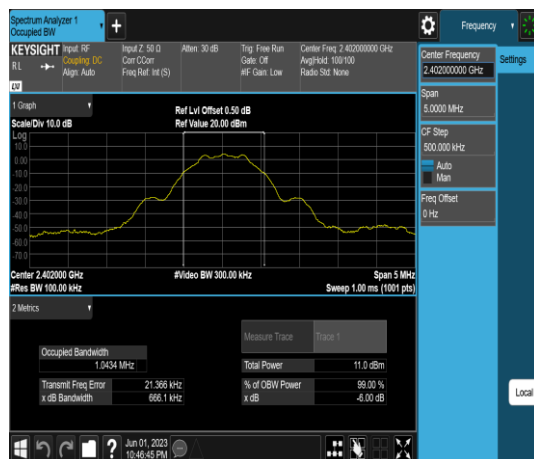
Rev.: 05

Test Data

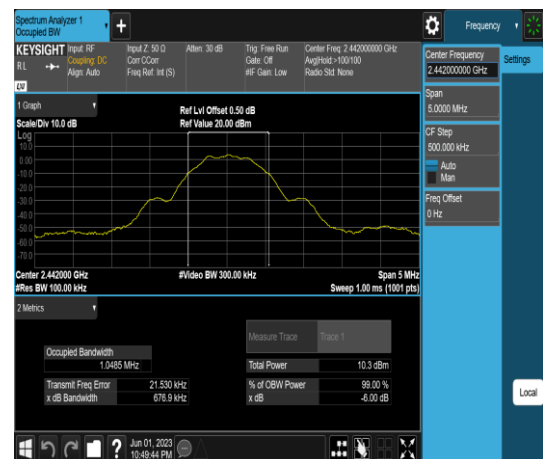
6dB BANDWIDTH

BLE-1Mbps mode

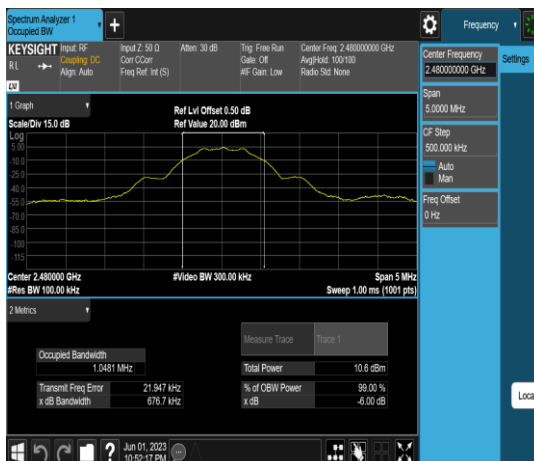
Low CH



Mid CH

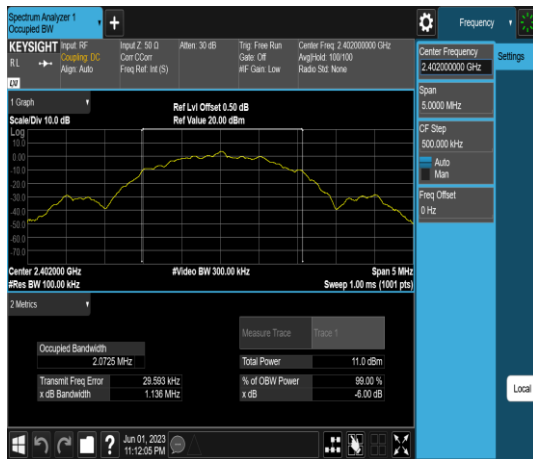


High CH

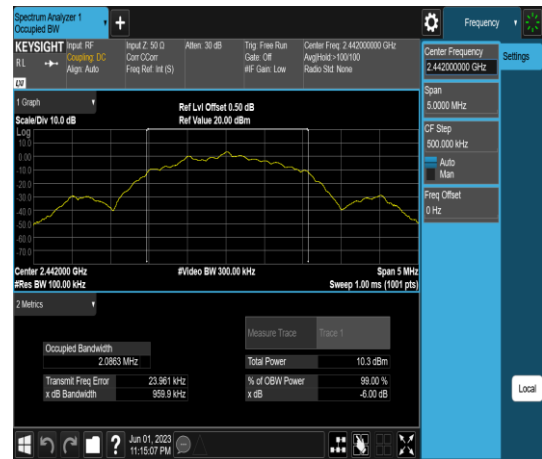


BLE-2Mbps mode

Low CH



Mid CH



High CH



Report No.: TMWK2201000243KR

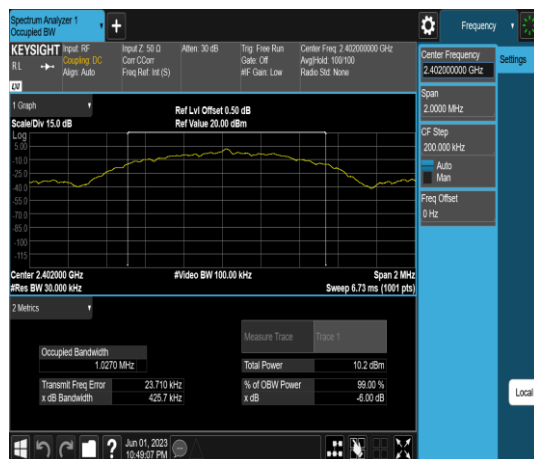
Rev.: 05

Test Data

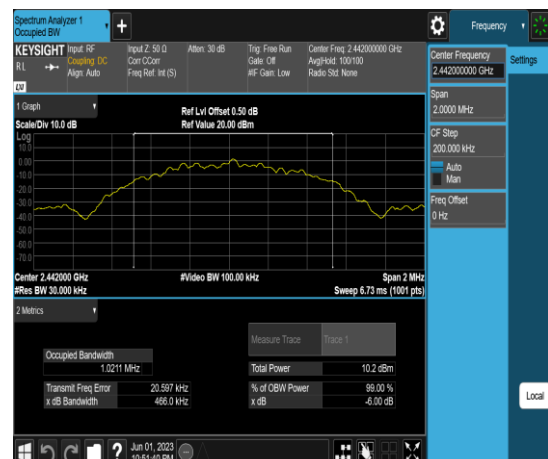
BANDWIDTH (99%)

BLE-1Mbps mode

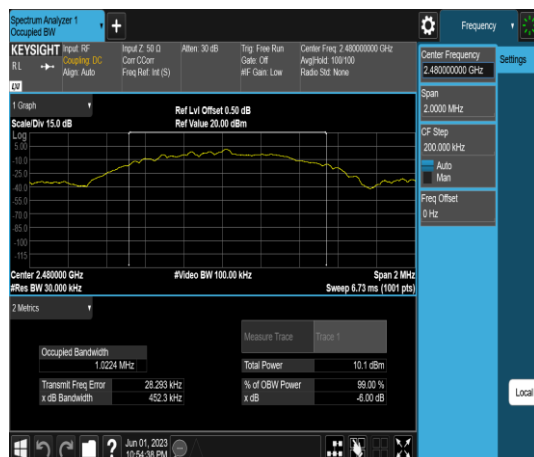
Low CH



Mid CH

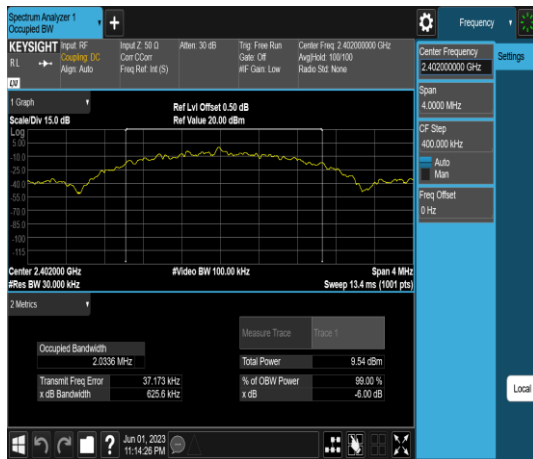


High CH



BLE-2Mbps mode

Low CH



Mid CH



High CH



4.3 OUTPUT POWER MEASUREMENT

4.3.1 Test Limit

According to §15.247(b)(3) and RSS-247 section 5.4(d)

Peak output power :

FCC

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,

IC

For DTSs employing digital modulation techniques operating in the bands 902-928 MHz and 2400-2483.5 MHz, the maximum peak conducted output power shall not exceed 1 W. The e.i.r.p. shall not exceed 4 W, except as provided in section 5.4(e), base on the use of antennas with directional gain not exceed 6 dBi If transmitting antennas of directional gain greater than 6dBi are used the peak output power the conducted output power from the intentional radiator shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. In case of point-to-point operation, the limit has to be reduced by 1dB for every 3 dB that the directional gain of the antenna exceeds 6 dBi.

Limit	☒ Antenna not exceed 6 dBi : 30dBm ☐ Antenna with DG greater than 6 dBi [Limit = 30 – (DG – 6)] ☐ Point-to-point operation
-------	---

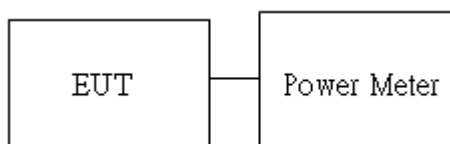
Average output power : For reporting purposes only.

4.3.2 Test Procedure

Test method Refer as ANSI C63.10:2013.

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 Peak output power and Average output power. in the test report.

4.3.3 Test Setup



4.3.4 Test Result

Temperature: 24.6°C

Test date: June 1, 2023

Humidity: 59% RH

Tested by: Marco Chan

Peak output power :

BLE 1M mode:

CH	Frequency (MHz)	Power set	Peak Power Output (dBm)	Required Limit (dBm)
Low	2402	default	4.02	30
Mid	2442	default	3.51	30
High	2480	default	3.94	30

BLE 2M mode:

CH	Frequency (MHz)	Power set	Peak Power Output (dBm)	Required Limit (dBm)
Low	2402	default	4.01	30
Mid	2442	default	3.49	30
High	2480	default	3.98	30

Average output power :

BLE 1M mode:

CH	Frequency (MHz)	Power set	Average Power Output (dBm)	Required Limit (dBm)
Low	2402	default	3.97	30
Mid	2442	default	3.45	30
High	2480	default	3.85	30

BLE 2M mode:

CH	Frequency (MHz)	Power set	Average Power Output (dBm)	Required Limit (dBm)
Low	2402	default	4.00	30
Mid	2442	default	3.47	30
High	2480	default	3.87	30

EIRP Power:
EIRP BLE 1M mode

CH	Frequency (MHz)	Power set	Avg. Output Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	Limit
Low	2402	default	3.97	5.00	8.97	4W= 36 dBm
Mid	2442	default	3.45	5.00	8.45	4W= 36 dBm
High	2480	default	3.85	5.00	8.85	4W= 36 dBm

EIRP BLE 2M mode

CH	Frequency (MHz)	Power set	Avg. Output Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	Limit
Low	2402	default	4.00	5.00	9.00	4W= 36 dBm
Mid	2442	default	3.47	5.00	8.47	4W= 36 dBm
High	2480	default	3.87	5.00	8.87	4W= 36 dBm

4.4 POWER SPECTRAL DENSITY

4.4.1 Test Limit

According to §15.247(e) and RSS-247 section 5.2(b)

For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

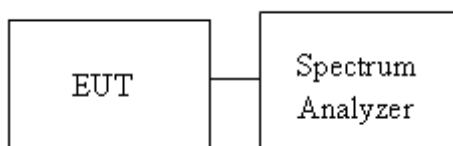
Limit	☒ Antenna not exceed 6 dBi : 8dBm ☐ Antenna with DG greater than 6 dBi [Limit = 8 – (DG – 6)] ☐ Point-to-point operation :
-------	---

4.4.2 Test Procedure

Test method Refer as ANSI C63.10:2013.

1. The EUT RF output connected to the spectrum analyzer by RF cable.
2. Setting maximum power transmit of EUT
3. SA set RBW = 3kHz, VBW = 10kHz, Span = 1.5 times DTS Bandwidth (6 dB BW), Detector = Peak, Sweep Time = Auto and Trace = Max hold.
4. The path loss and Duty Factor were compensated to the results for each measurement by SA.
5. Mark the maximum level.
6. Measure and record the result of power spectral density. in the test report.

4.4.3 Test Setup



4.4.4 Test Result

Temperature: 24.6°C

Test date: June 1, 2023

Humidity: 59% RH

Tested by: Marco Chan

BLE 1M mode

Frequency (MHz)	RF Power Density (dBm/3kHz)	Maximum Limit (dBm/3kHz)	Result
2402	-11.86	8	PASS
2442	-10.74	8	PASS
2480	-12.06	8	PASS

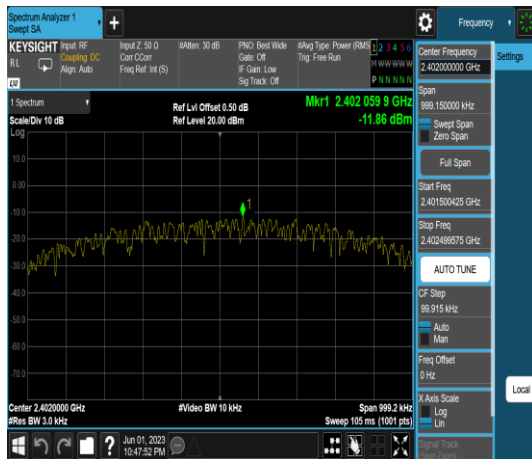
BLE 2M mode

Frequency (MHz)	RF Power Density (dBm/3kHz)	Maximum Limit (dBm/3kHz)	Result
2402	-14.31	8	PASS
2442	-13.47	8	PASS
2480	-12.62	8	PASS

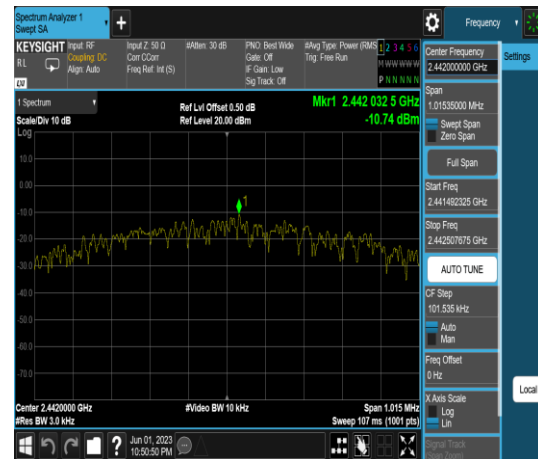
Test Data

BLE-1Mbps mode

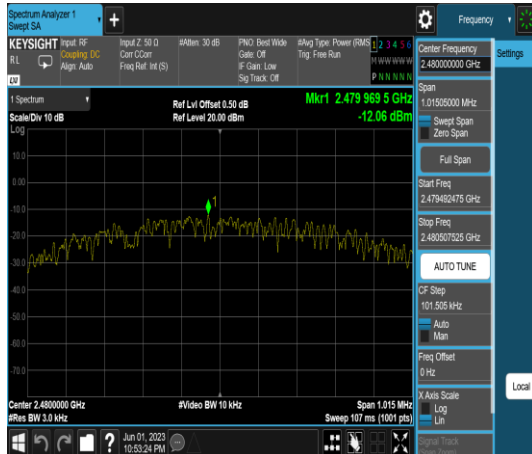
Low CH



Mid CH

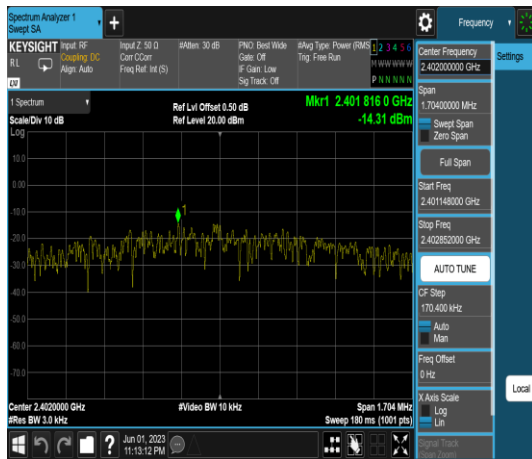


High CH

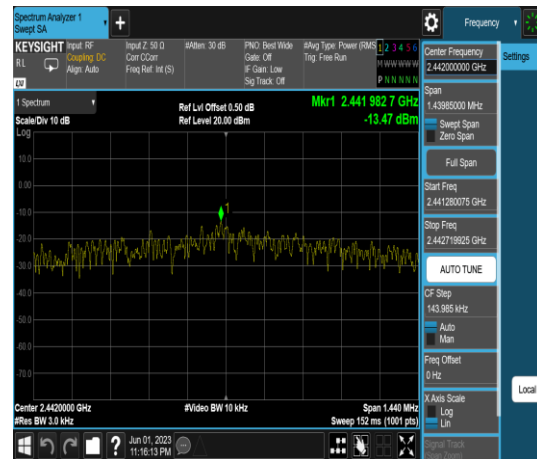


BLE-2Mbps mode

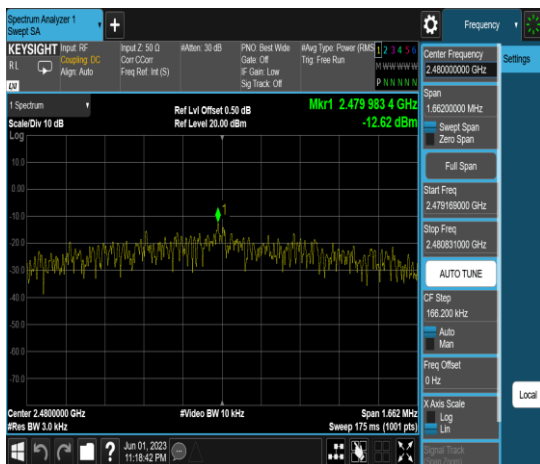
Low CH



Mid CH



High CH



4.5 CONDUCTED BAND EDGE AND SPURIOUS EMISSION

4.5.1 Test Limit

According to §15.247(d) and RSS-247 section 5.5

FCC: In any 100 kHz bandwidth outside the authorized frequency band,

Non-restricted bands shall be attenuated at least 20 dB/30 dB relative to the maximum PSD level in 100 kHz by RF conducted or a radiated measurement which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a).

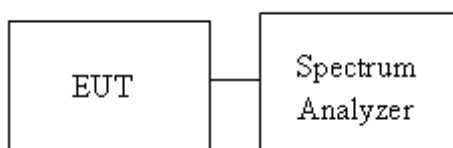
IC: In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated device is operating, the RF power that is produced shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided that the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of root-mean-square averaging over a time interval, as permitted under section 5.4(d), the attenuation required shall be 30 dB instead of 20 dB. Attenuation below the general field strength limits specified in RSS-Gen is not required.

4.5.2 Test Procedure

Test method Refer as ANSI C63.10:2013.

1. EUT RF output port connected to the SA by RF cable, and the path loss was compensated to result.
2. SA setting, RBW=100kHz, VBW=300kHz, Detector=Peak, Trace mode = max hold, SWT = Auto.
3. In any 100 kHz bandwidth outside the authorized frequency band, shall be attenuated at least 20 dB relative to the maximum in-band peak PSD level in 100 kHz when conducted power procedure is used. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, the attenuation required under this paragraph shall be 30 dB instead of 20 dB.

4.5.3 Test Setup



Report No.: TMWK2201000243KR

4.5.4 Test Result

Test Data

Temperature: 24.6°C

Test date: June 1, 2023

Humidity: 59% RH

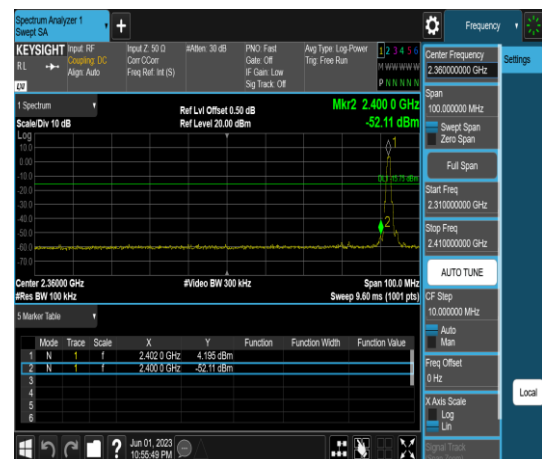
Tested by: Marco Chan

BLE-1Mbps mode Low CH

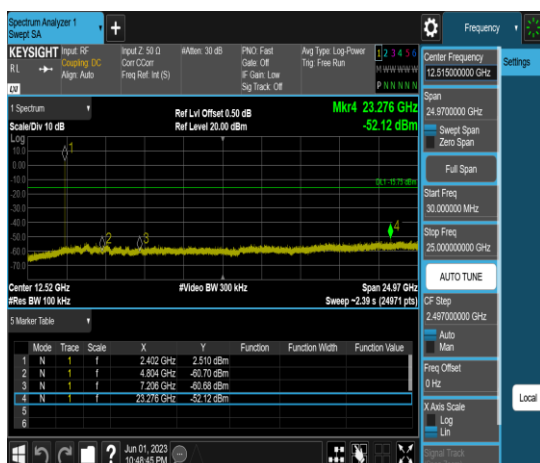
Reference Level



Band Edge

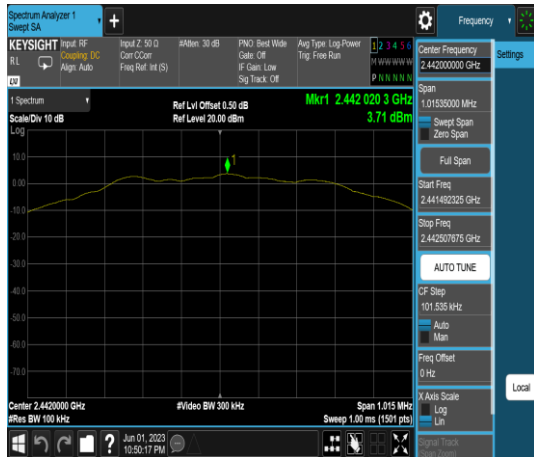


Spurious Emission 30MHz-25GHz

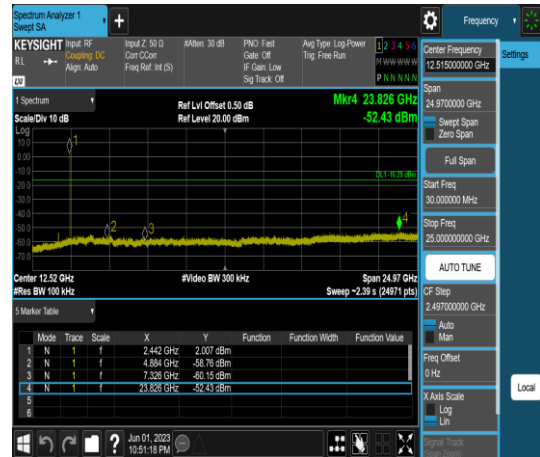


BLE-1Mbps mode Mid CH

Reference Level

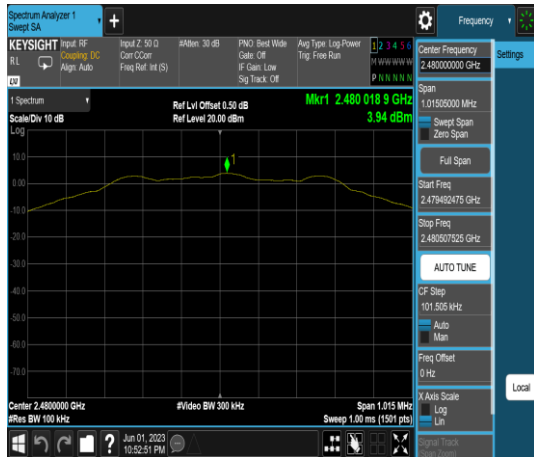


Spurious Emission 30MHz-25GHz



BLE-1Mbps mode High CH

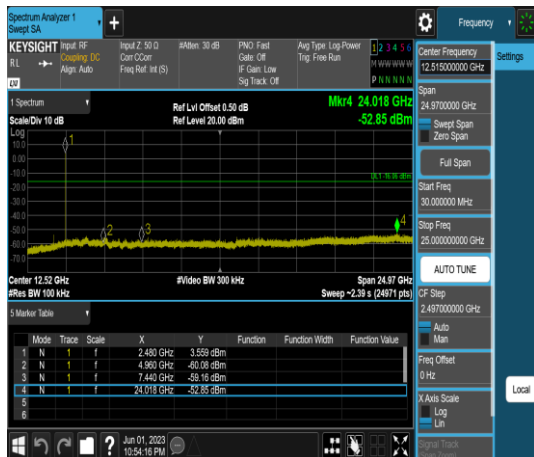
Reference Level



Band Edge

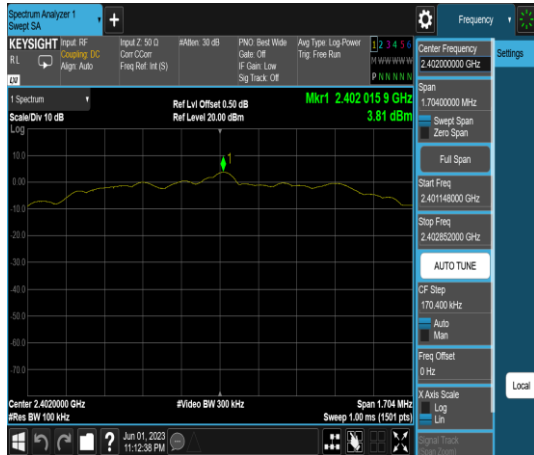


Spurious Emission 30MHz-25GHz

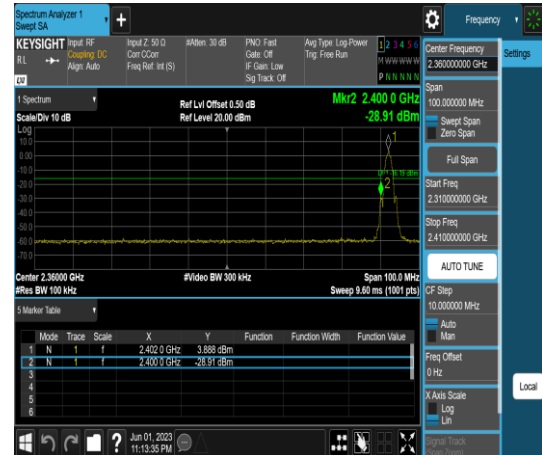


BLE-2Mbps mode Low CH

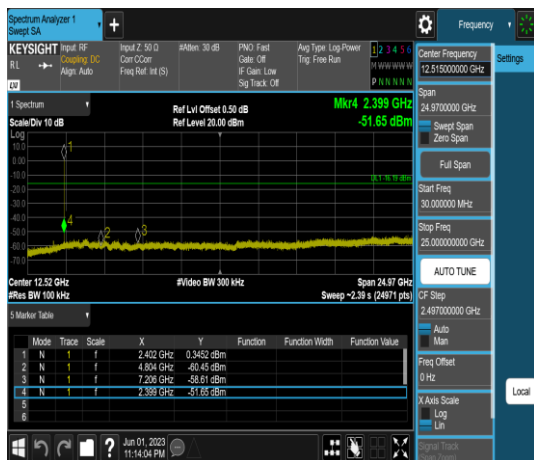
Reference Level



Band Edge



Spurious Emission 30MHz-25GHz

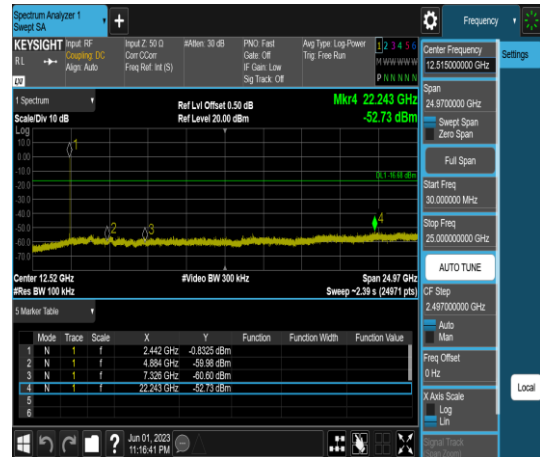


BLE-2Mbps mode Mid CH

Reference Level

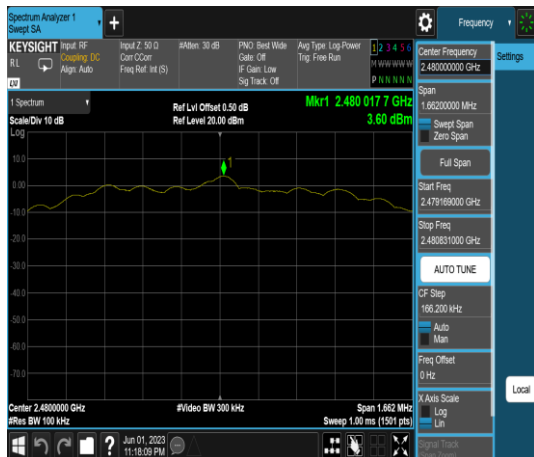


Spurious Emission 30MHz-25GHz



BLE-2Mbps mode High CH

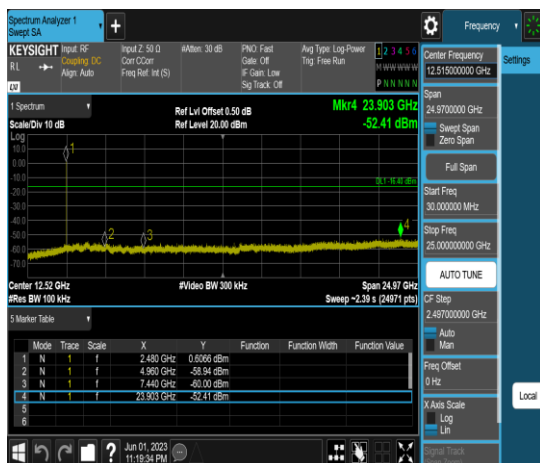
Reference Level



Band Edge



Spurious Emission 30MHz-25GHz



4.6 RADIATION BANDEDGE AND SPURIOUS EMISSION

4.6.1 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.

IC according to RSS-247 section 5.5, RSS-Gen, Section 8.9 and 8.10

RSS-Gen Table 3 and Table 5 – General Field Strength Limits for Transmitters and Receivers at Frequencies Above 30 MHz ^(Note)

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)

Note: Measurements for compliance with the limits in table 3 may be performed at distances other than 3 metres, in accordance with Section 6.6.

RSS-Gen Table 6: General Field Strength Limits for Transmitters at Frequencies Below 30 MHz (Transmit)

Frequency	Magnetic field strength (H-Field) (μA/m)	Measurement Distance (m)
9-490 kHz ^{Note}	6.37/F (F in kHz)	300
490-1,705 kHz	63.7/F (F in kHz)	30
1.705-30 MHz	0.08	30

Note: The emission limits for the ranges 9-90 kHz and 110-490 kHz are based on measurements employing a linear average detector.

4.6.2 Test Procedure

Test method Refer as ANSI C63.10:2013.

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.

Remark:

1. Although these tests were performed other than open area test site, adequate comparison measurements were confirmed against 30 m open are 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.
2. No emission found between lowest internal used/generated frequency to 30MHz (9kHz~30MHz).

3. The SA setting following :

- (1) Below 1G : RBW = 100kHz, VBW $\geq$ 3 RBW, Sweep = Auto, Detector = Peak, Trace = Max hold.
- (2) Above 1G :
 - (2.1) For Peak measurement : RBW = 1MHz, VBW $\geq$ 3 RBW, Sweep = Auto, Detector = Peak, Trace = Max hold.
 - (2.2) For Average measurement : RBW = 1MHz, VBW
 - *If Duty Cycle $\geq$ 98%, VBW=10Hz.
 - *If Duty Cycle < 98%, VBW=1/T.

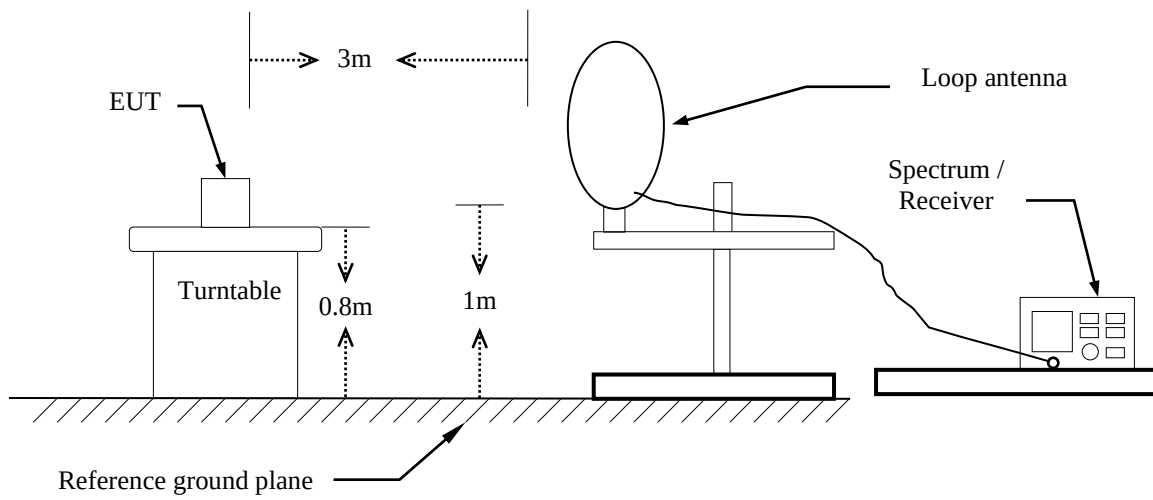
4. Data result

Actual FS=Spectrum Reading Level+Factor

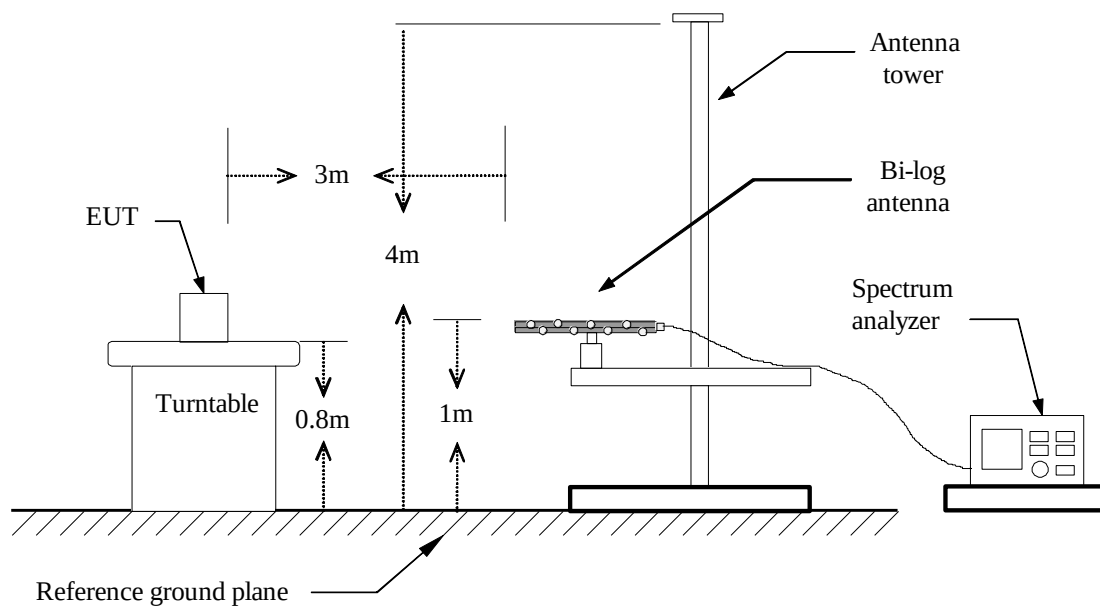
Margin=Actual FS- Limit

4.6.3 Test Setup

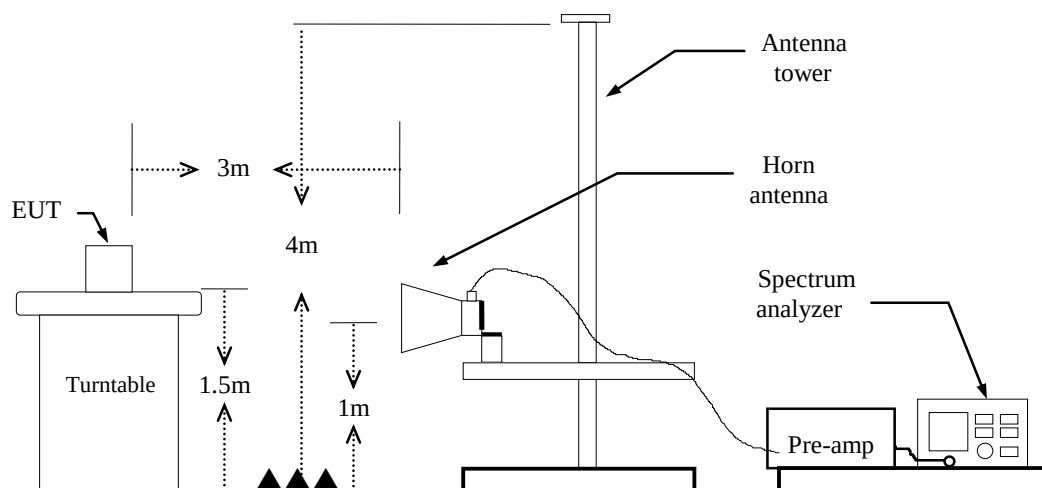
9kHz ~ 30MHz



30MHz ~ 1GHz



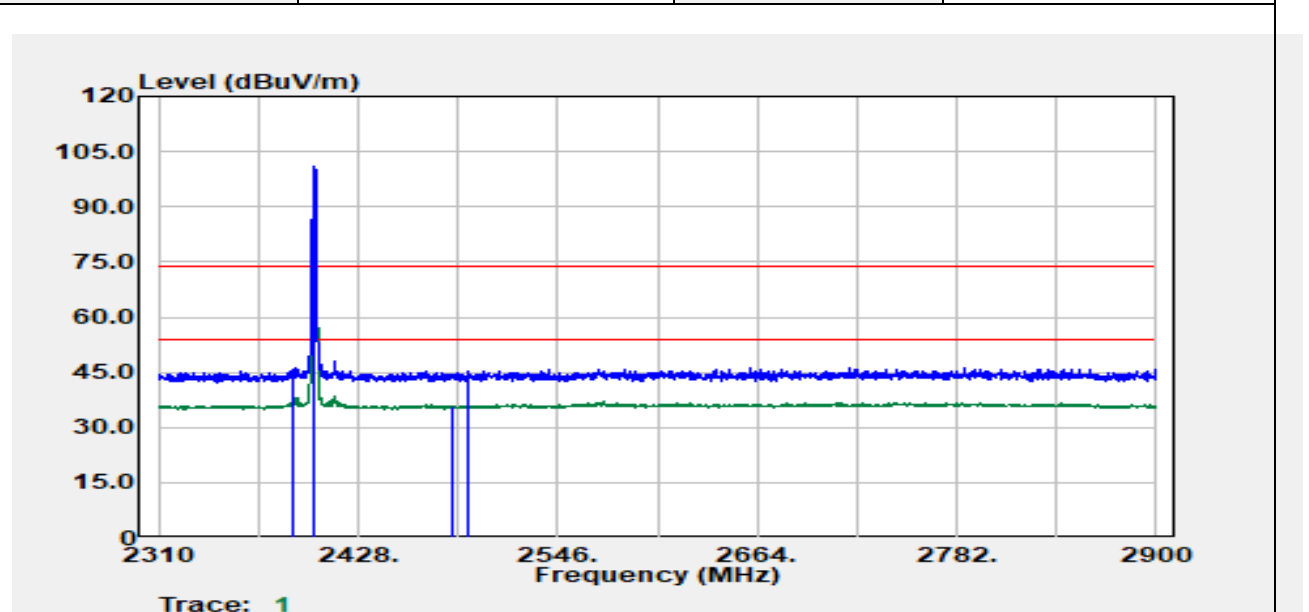
Above 1 GHz



4.6.4 Test Result

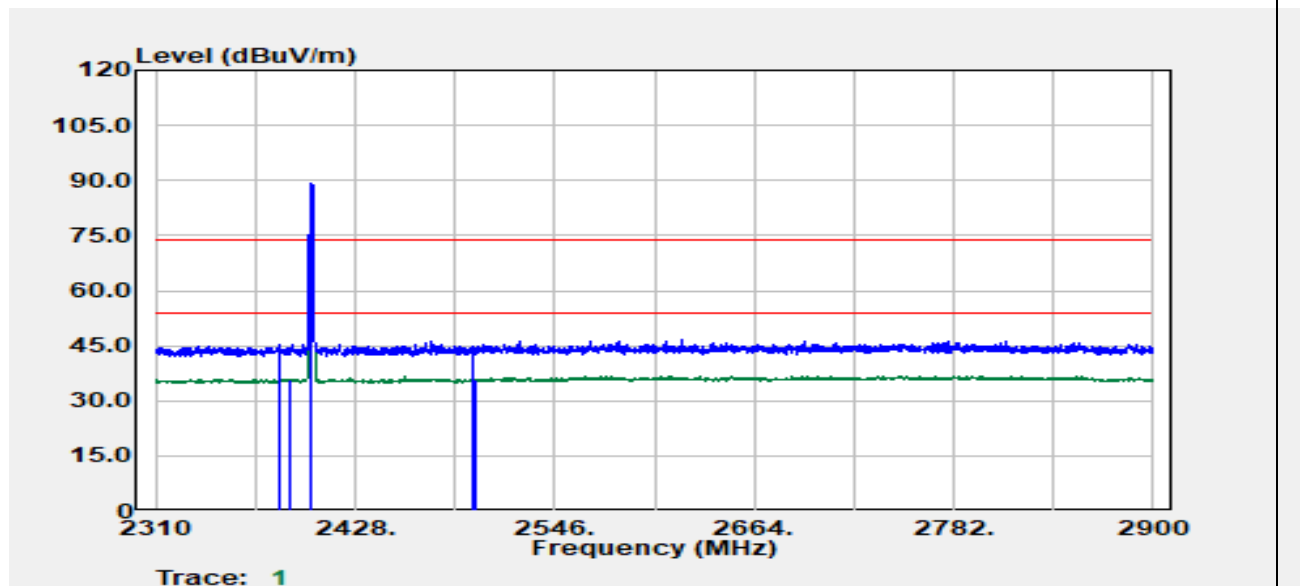
Band Edge Test Data

Test Mode:	Mode 1 BLE-1Mbps Low CH	Temp/Hum	23.1(°C) / 61%RH
Test Item	Band Edge	Test Date	June 17, 2023
Polarize	Vertical	Test Engineer	Tony Chao
Detector	Peak / Average		



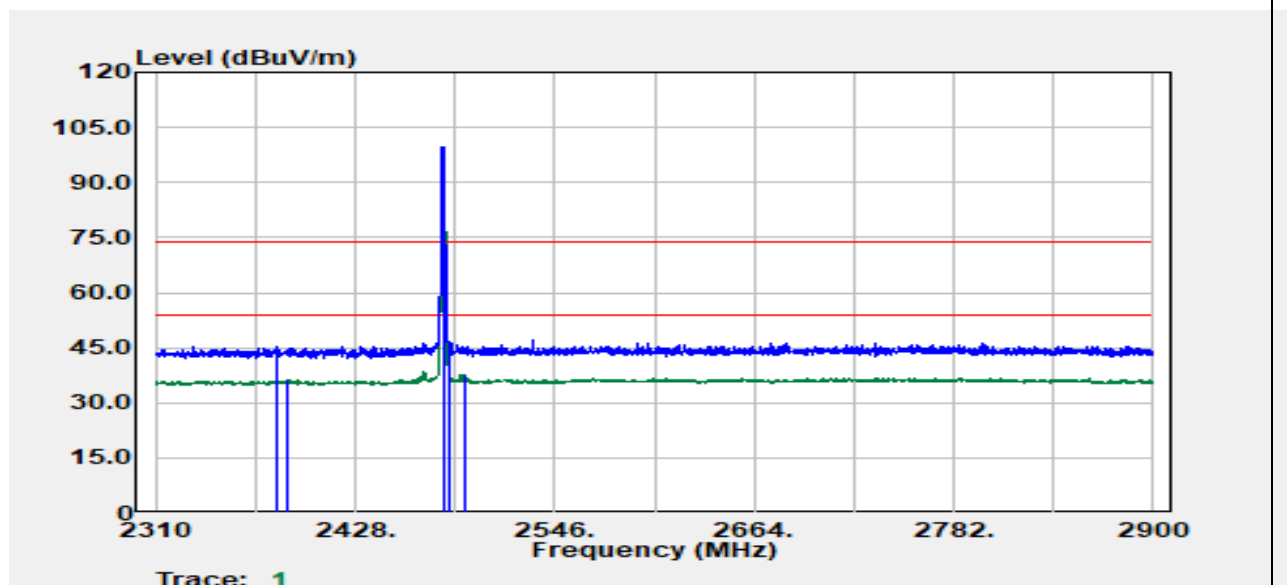
Freq. (MHz)	Detector Mode (PK/QP/AV)	Spectrum Reading Level (dBμV)	Factor (dB)	Actual FS (dBUV/m)	Limit @3m (dBUV/m)	Margin (dB)
2389.53	Peak	40.88	4.97	45.85	74.00	-28.15
2389.78	Average	33.70	4.97	38.68	54.00	-15.32
2402.00	Peak	96.22	4.79	101.00	--	--
2402.00	Average	95.69	4.79	100.48	--	--
2483.82	Average	30.73	5.26	36.00	54.00	-18.00
2493.58	Peak	39.83	5.27	45.10	74.00	-28.90

Test Mode:	Mode 1 BLE-1Mbps Low CH	Temp/Hum	23.1(°C) / 61%RH
Test Item	Band Edge	Test Date	June 17, 2023
Polarize	Horizontal	Test Engineer	Tony Chao
Detector	Peak / Average		



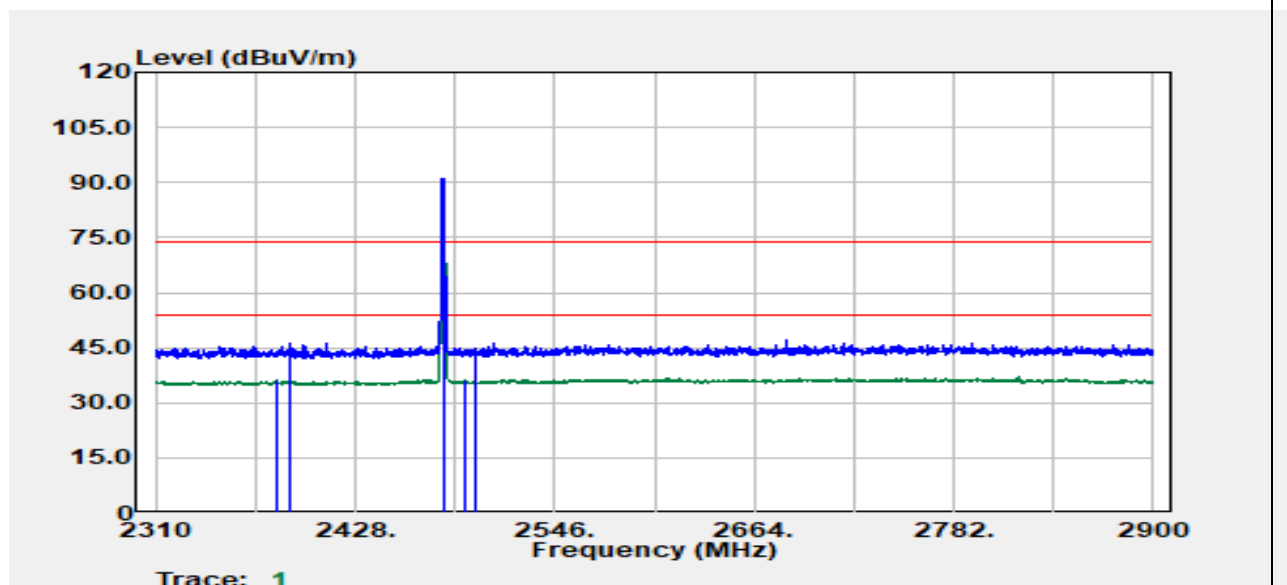
Freq. (MHz)	Detector Mode (PK/QP/AV)	Spectrum Reading Level (dBμV)	Factor (dB)	Actual FS (dBμV/m)	Limit @3m (dBμV/m)	Margin (dB)
2382.53	Peak	40.19	4.90	45.09	74.00	-28.91
2389.53	Average	30.96	4.97	35.93	54.00	-18.07
2402.00	Peak	84.58	4.79	89.37	--	--
2402.00	Average	84.03	4.79	88.82	--	--
2498.08	Peak	39.53	5.28	44.81	74.00	-29.19
2499.83	Average	30.54	5.28	35.82	54.00	-18.18

Test Mode:	Mode 1 BLE-1Mbps High CH	Temp/Hum	23.1(°C) / 61%RH
Test Item	Band Edge	Test Date	June 17, 2023
Polarize	Vertical	Test Engineer	Tony Chao
Detector	Peak / Average		



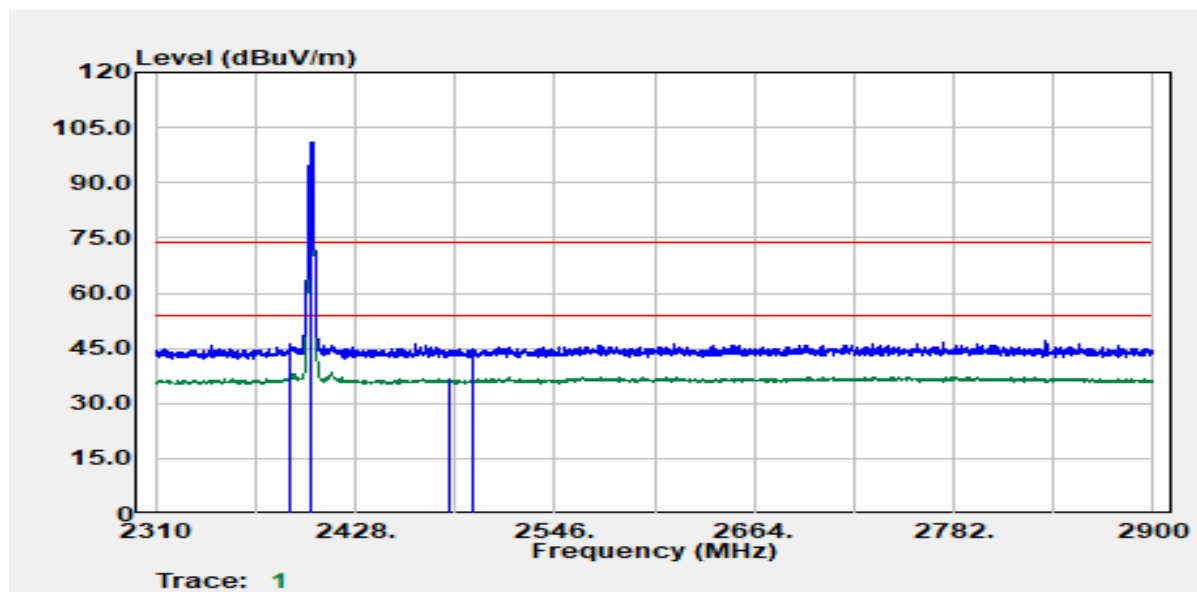
Freq. (MHz)	Detector Mode (PK/QP/AV)	Spectrum Reading Level (dBμV)	Factor (dB)	Actual FS (dBμV/m)	Limit @3m (dBμV/m)	Margin (dB)
2381.78	Peak	40.60	4.89	45.49	74.00	-28.51
2387.78	Average	31.49	4.95	36.44	54.00	-17.56
2480.00	Peak	94.56	5.26	99.82	--	--
2480.00	Average	94.01	5.26	99.27	--	--
2484.07	Peak	41.16	5.26	46.43	74.00	-27.57
2492.33	Average	32.51	5.27	37.79	54.00	-16.21

Test Mode:	Mode 1 BLE-1Mbps High CH	Temp/Hum	23.1(°C) / 61%RH
Test Item	Band Edge	Test Date	June 17, 2023
Polarize	Horizontal	Test Engineer	Tony Chao
Detector	Peak / Average		



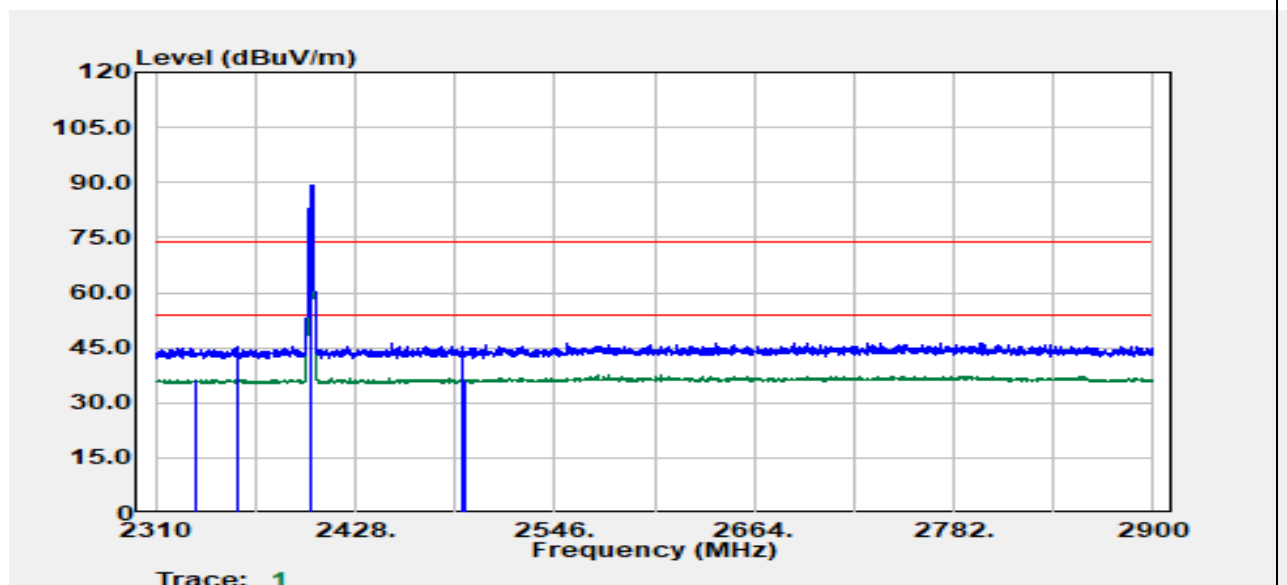
Freq. (MHz)	Detector Mode (PK/QP/AV)	Spectrum Reading Level (dBμV)	Factor (dB)	Actual FS (dBμV/m)	Limit @3m (dBμV/m)	Margin (dB)
2381.28	Average	31.17	4.89	36.06	54.00	-17.94
2389.53	Peak	41.33	4.97	46.30	74.00	-27.70
2480.00	Peak	85.91	5.26	91.17	--	--
2480.00	Average	85.41	5.26	90.67	--	--
2492.58	Average	30.76	5.27	36.03	54.00	-17.97
2499.83	Peak	39.50	5.28	44.78	74.00	-29.22

Test Mode:	Mode 1 BLE-2Mbps Low CH	Temp/Hum	23.1(°C) / 61%RH
Test Item	Band Edge	Test Date	June 17, 2023
Polarize	Vertical	Test Engineer	Tony Chao
Detector	Peak / Average		



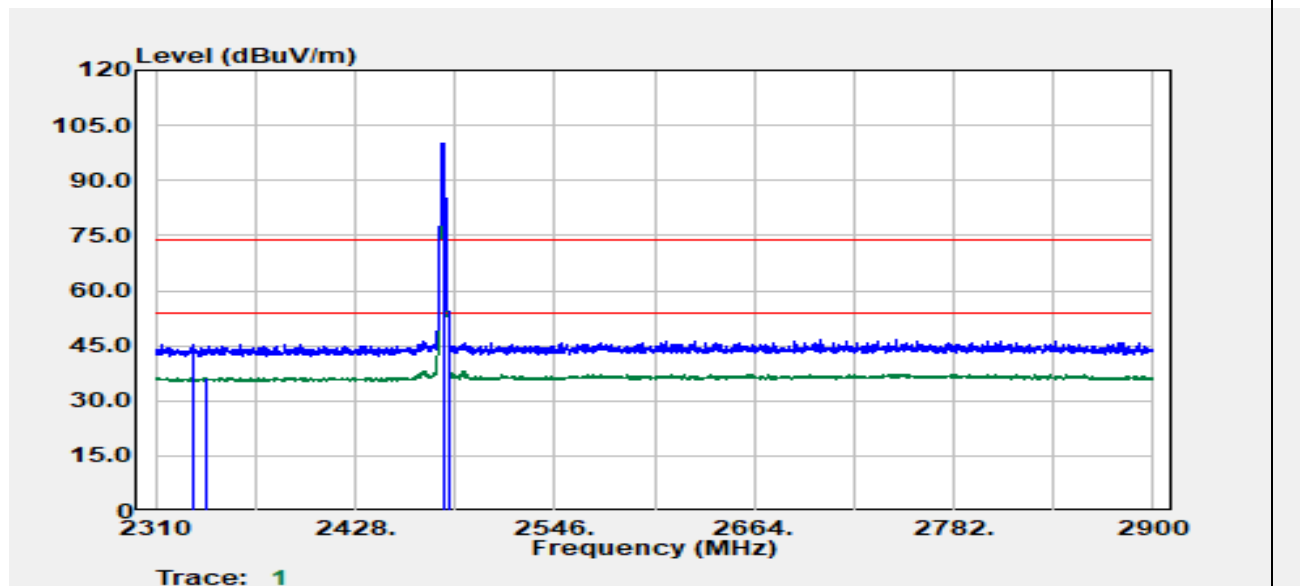
Freq. (MHz)	Detector Mode (PK/QP/AV)	Spectrum Reading Level (dBUV)	Factor (dB)	Actual FS (dBUV/m)	Limit @3m (dBUV/m)	Margin (dB)
2389.53	Peak	41.21	4.97	46.18	74.00	-27.82
2389.78	Average	33.28	4.97	38.25	54.00	-15.75
2402.00	Peak	96.20	4.79	100.98	--	--
2402.00	Average	94.50	4.79	99.29	--	--
2483.57	Average	31.39	5.26	36.65	54.00	-17.35
2498.33	Peak	39.61	5.28	44.89	74.00	-29.11

Test Mode:	Mode 1 BLE-2Mbps Low CH	Temp/Hum	23.1(°C) / 61%RH
Test Item	Band Edge	Test Date	June 17, 2023
Polarize	Horizontal	Test Engineer	Tony Chao
Detector	Peak / Average		



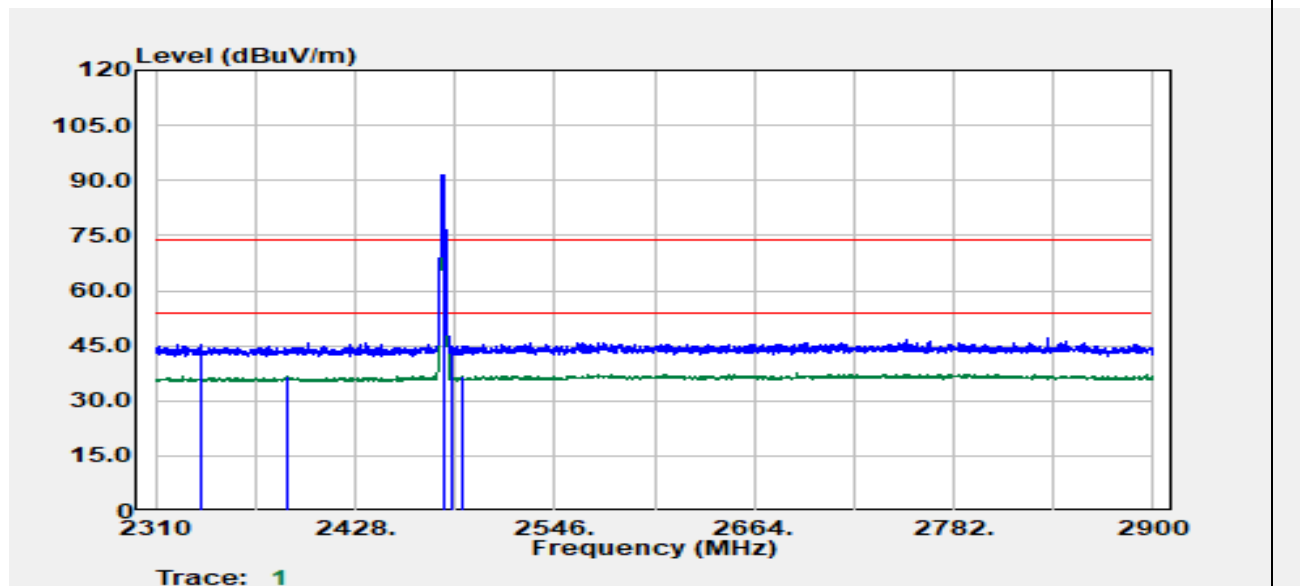
Freq. (MHz)	Detector Mode (PK/QP/AV)	Spectrum Reading Level (dBμV)	Factor (dB)	Actual FS (dBμV/m)	Limit @3m (dBμV/m)	Margin (dB)
2333.26	Average	31.62	4.77	36.39	54.00	-17.61
2359.02	Peak	40.20	4.88	45.08	74.00	-28.92
2402.00	Peak	84.53	4.79	89.32	--	--
2402.00	Average	82.78	4.79	87.57	--	--
2492.08	Peak	40.10	5.27	45.38	74.00	-28.62
2492.58	Average	31.12	5.27	36.40	54.00	-17.60

Test Mode:	Mode 1 BLE-2Mbps High CH	Temp/Hum	23.1(°C) / 61%RH
Test Item	Band Edge	Test Date	June 17, 2023
Polarize	Vertical	Test Engineer	Tony Chao
Detector	Peak / Average		



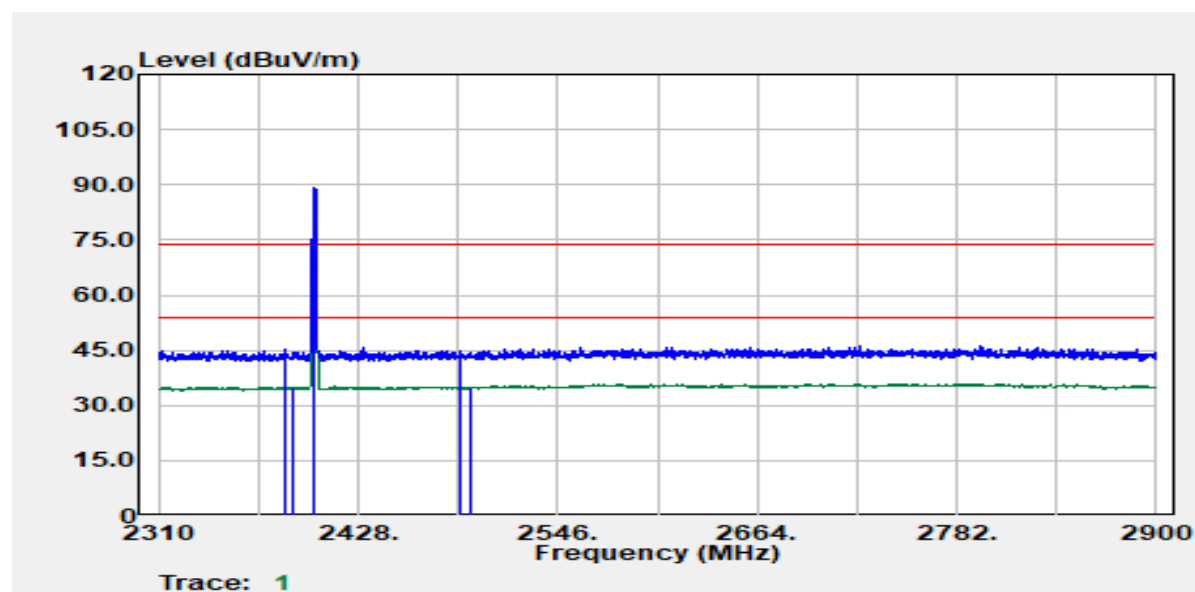
Freq. (MHz)	Detector Mode (PK/QP/AV)	Spectrum Reading Level (dBμV)	Factor (dB)	Actual FS (dBμV/m)	Limit @3m (dBμV/m)	Margin (dB)
2332.01	Peak	40.46	4.76	45.22	74.00	-28.78
2339.26	Average	31.59	4.84	36.43	54.00	-17.57
2480.00	Peak	94.84	5.26	100.10	--	--
2480.00	Average	92.96	5.26	98.22	--	--
2483.57	Peak	42.37	5.26	47.63	74.00	-26.37
2483.57	Average	35.60	5.26	40.87	54.00	-13.13

Test Mode:	Mode 1 BLE-2Mbps High CH	Temp/Hum	23.1(°C) / 61%RH
Test Item	Band Edge	Test Date	June 17, 2023
Polarize	Horizontal	Test Engineer	Tony Chao
Detector	Peak / Average		



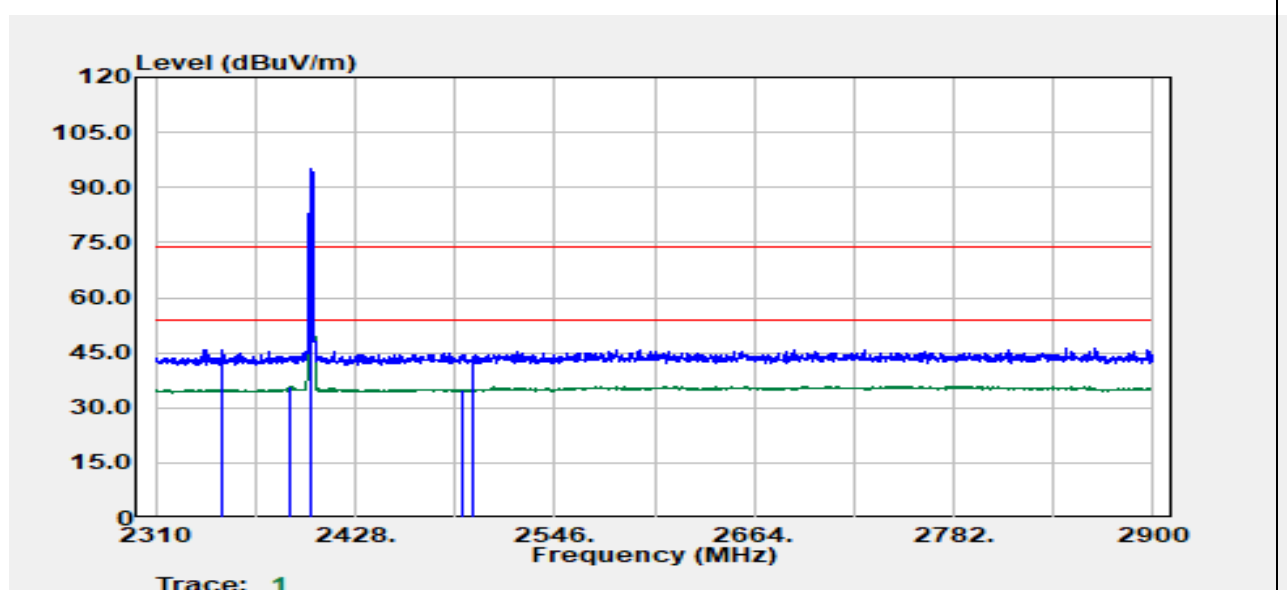
Freq. (MHz)	Detector Mode (PK/QP/AV)	Spectrum Reading Level (dBμV)	Factor (dB)	Actual FS (dBUV/m)	Limit @3m (dBUV/m)	Margin (dB)
2336.26	Peak	40.42	4.81	45.23	74.00	-28.77
2387.53	Average	31.88	4.95	36.83	54.00	-17.17
2480.00	Peak	86.07	5.26	91.33	--	--
2480.00	Average	84.22	5.26	89.48	--	--
2485.07	Peak	39.77	5.27	45.04	74.00	-28.96
2491.58	Average	31.47	5.27	36.74	54.00	-17.26

Test Mode:	Mode 2 BLE-1Mbps Low CH	Temp/Hum	23.1(°C) / 61%RH
Test Item	Band Edge	Test Date	June 17, 2023
Polarize	Vertical	Test Engineer	Tony Chao
Detector	Peak / Average		



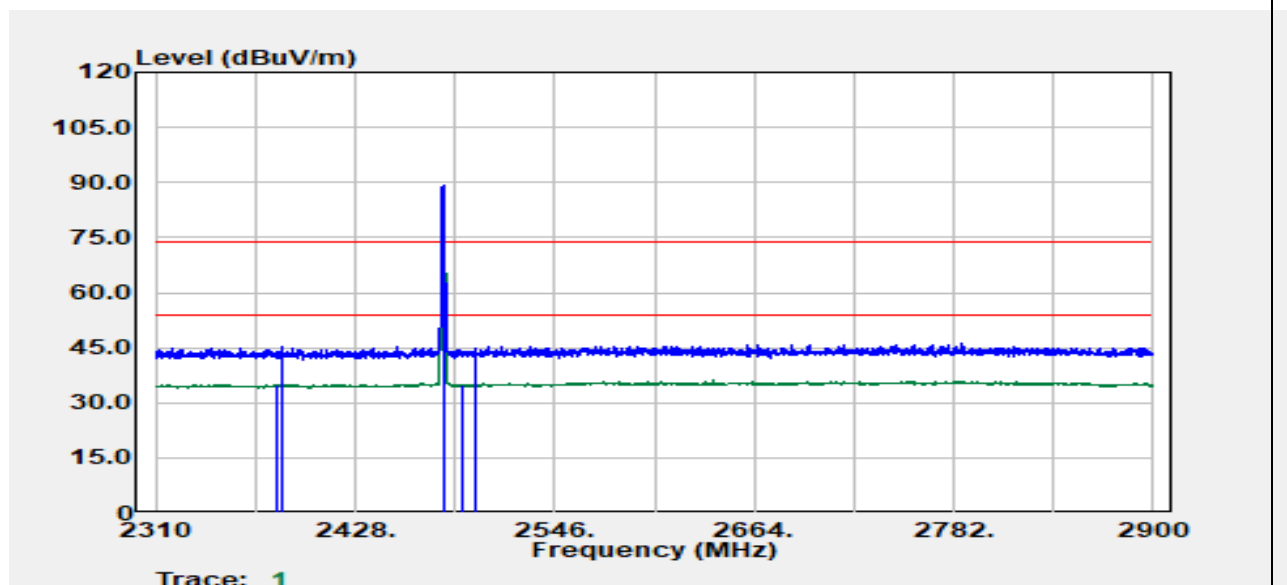
Freq. (MHz)	Detector Mode (PK/QP/AV)	Spectrum Reading Level (dBμV)	Factor (dB)	Actual FS (dBμV/m)	Limit @3m (dBμV/m)	Margin (dB)
2384.78	Peak	40.17	4.92	45.10	74.00	-28.90
2389.78	Average	30.04	4.97	35.01	54.00	-18.99
2402.00	Peak	84.60	4.79	89.38	--	--
2402.00	Average	83.98	4.79	88.77	--	--
2488.33	Peak	39.40	5.27	44.66	74.00	-29.34
2494.83	Average	29.81	5.27	35.08	54.00	-18.92

Test Mode:	Mode 2 BLE-1Mbps Low CH	Temp/Hum	23.1(°C) / 61%RH
Test Item	Band Edge	Test Date	June 17, 2023
Polarize	Horizontal	Test Engineer	Tony Chao
Detector	Peak / Average		



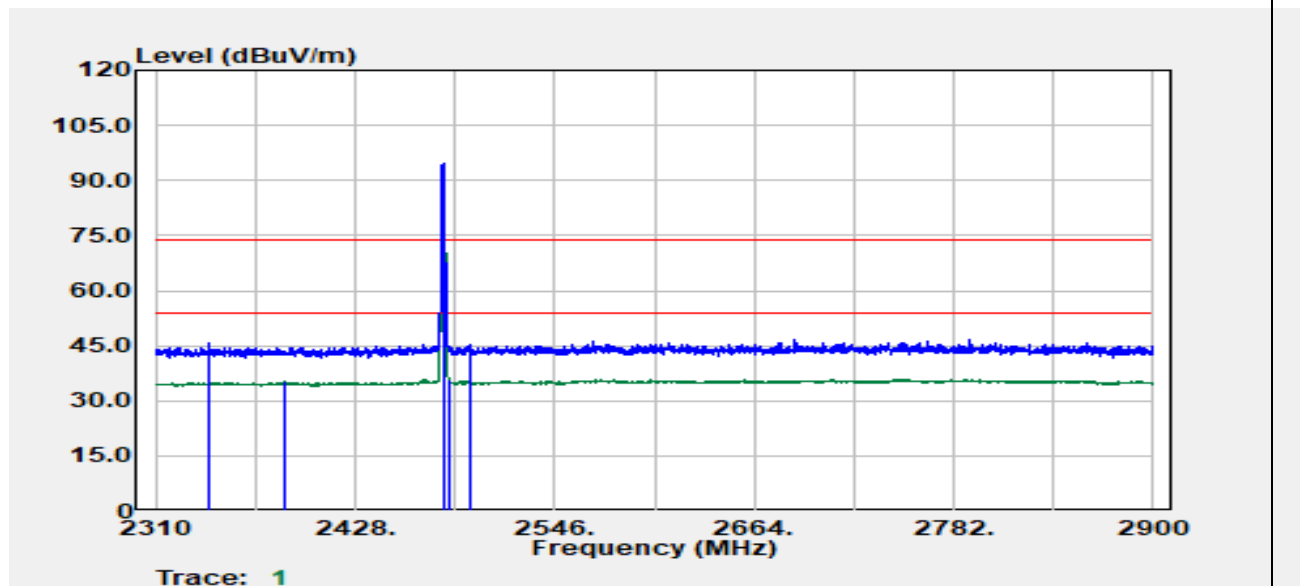
Freq. (MHz)	Detector Mode (PK/QP/AV)	Spectrum Reading Level (dBμV)	Factor (dB)	Actual FS (dBμV/m)	Limit @3m (dBμV/m)	Margin (dB)
2349.52	Peak	41.12	4.96	46.08	74.00	-27.92
2390.00	Average	30.86	4.98	35.83	54.00	-18.17
2402.00	Peak	90.37	4.79	95.16	--	--
2402.00	Average	89.73	4.79	94.52	--	--
2491.33	Average	29.79	5.27	35.06	54.00	-18.94
2497.83	Peak	39.02	5.28	44.29	74.00	-29.71

Test Mode:	Mode 2 BLE-1Mbps High CH	Temp/Hum	23.1(°C) / 61%RH
Test Item	Band Edge	Test Date	June 17, 2023
Polarize	Vertical	Test Engineer	Tony Chao
Detector	Peak / Average		



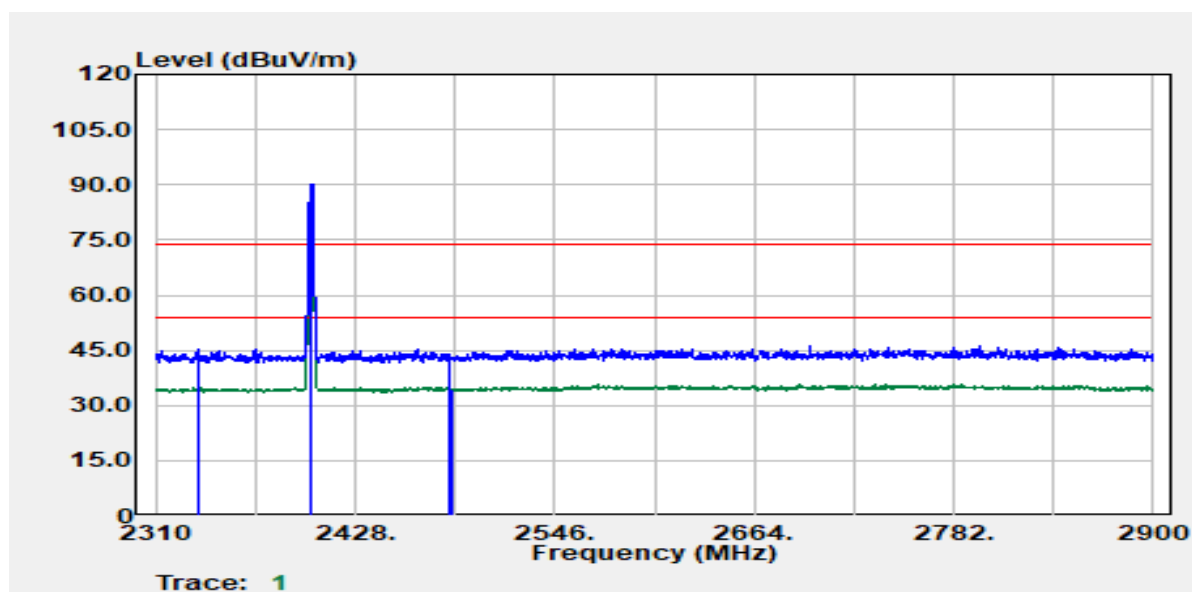
Freq. (MHz)	Detector Mode (PK/QP/AV)	Spectrum Reading Level (dBμV)	Factor (dB)	Actual FS (dBUV/m)	Limit @3m (dBUV/m)	Margin (dB)
2381.78	Average	30.13	4.89	35.02	54.00	-18.98
2384.03	Peak	40.28	4.92	45.19	74.00	-28.81
2480.00	Peak	83.83	5.26	89.09	--	--
2480.00	Average	83.21	5.26	88.47	--	--
2492.08	Average	29.79	5.27	35.06	54.00	-18.94
2498.83	Peak	39.64	5.28	44.91	74.00	-29.09

Test Mode:	Mode 2 BLE-1Mbps High CH	Temp/Hum	23.1(°C) / 61%RH
Test Item	Band Edge	Test Date	June 17, 2023
Polarize	Horizontal	Test Engineer	Tony Chao
Detector	Peak / Average		



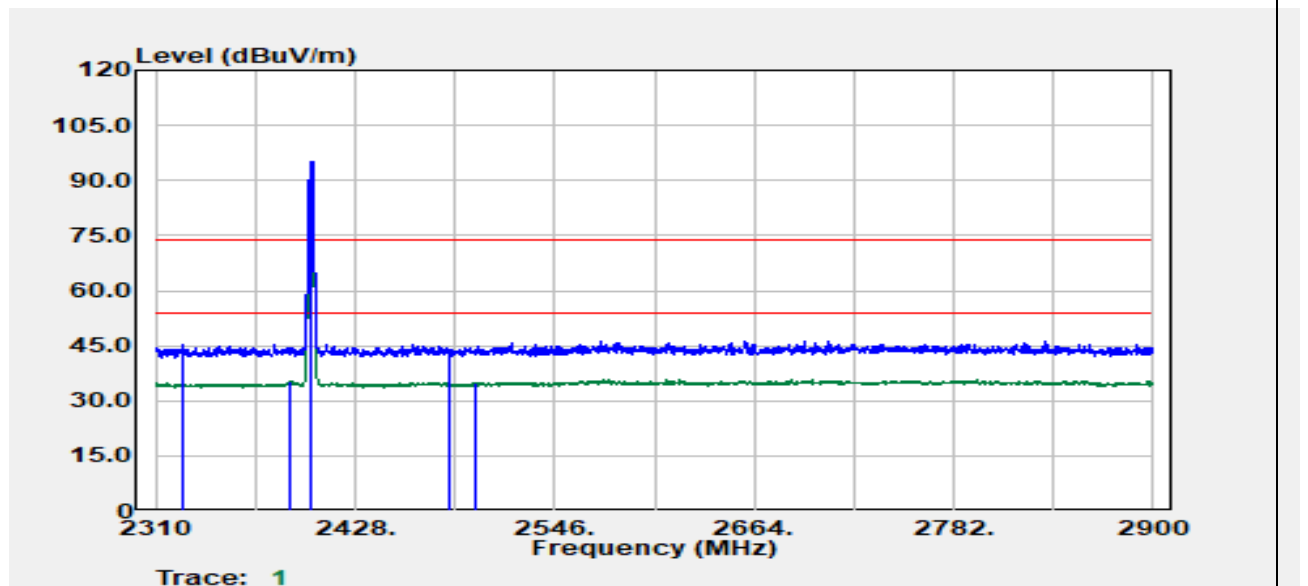
Freq. (MHz)	Detector Mode (PK/QP/AV)	Spectrum Reading Level (dBμV)	Factor (dB)	Actual FS (dBμV/m)	Limit @3m (dBμV/m)	Margin (dB)
2341.01	Peak	40.85	4.86	45.71	74.00	-28.29
2386.78	Average	30.16	4.94	35.10	54.00	-18.90
2480.00	Peak	89.18	5.26	94.44	--	--
2480.00	Average	88.59	5.26	93.85	--	--
2484.07	Average	30.28	5.26	35.55	54.00	-18.45
2496.08	Peak	40.15	5.28	45.42	74.00	-28.58

Test Mode:	Mode 2 BLE-2Mbps Low CH	Temp/Hum	23.1(°C) / 61%RH
Test Item	Band Edge	Test Date	June 17, 2023
Polarize	Vertical	Test Engineer	Tony Chao
Detector	Peak / Average		



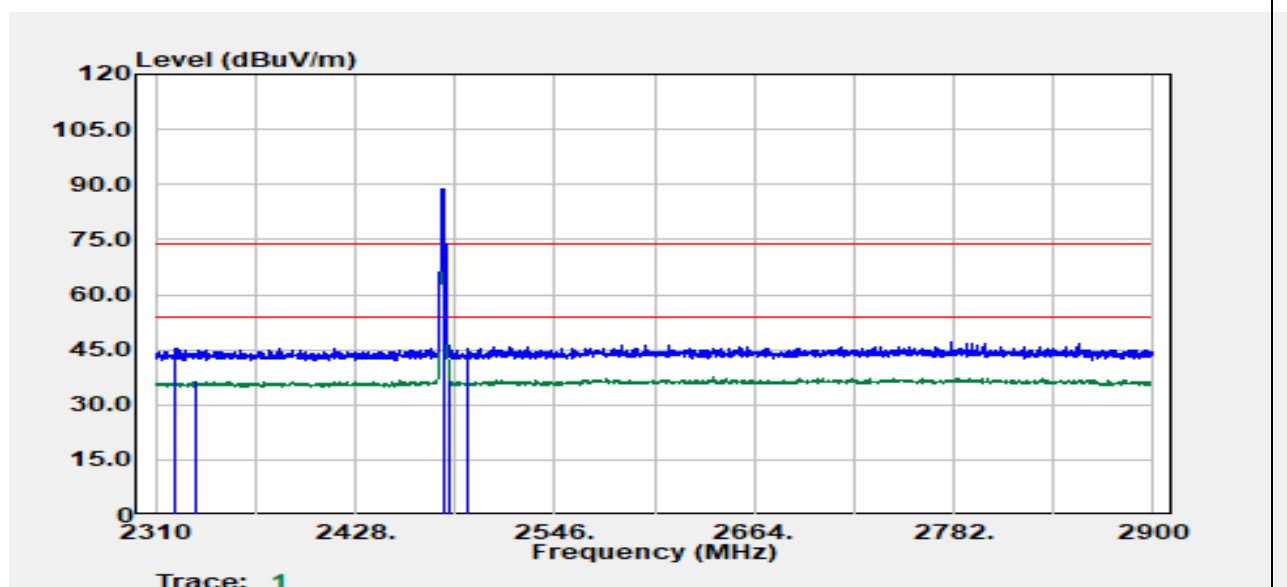
Freq. (MHz)	Detector Mode (PK/QP/AV)	Spectrum Reading Level (dBμV)	Factor (dB)	Actual FS (dBμV/m)	Limit @3m (dBμV/m)	Margin (dB)
2335.01	Peak	40.43	4.79	45.22	74.00	-28.78
2335.76	Average	30.02	4.80	34.82	54.00	-19.18
2402.00	Peak	85.23	4.79	90.02	--	--
2402.00	Average	83.07	4.79	87.86	--	--
2483.50	Peak	39.31	5.26	44.57	74.00	-29.43
2485.82	Average	29.35	5.27	34.61	54.00	-19.39

Test Mode:	Mode 2 BLE-2Mbps Low CH	Temp/Hum	23.1(°C) / 61%RH
Test Item	Band Edge	Test Date	June 17, 2023
Polarize	Horizontal	Test Engineer	Tony Chao
Detector	Peak / Average		



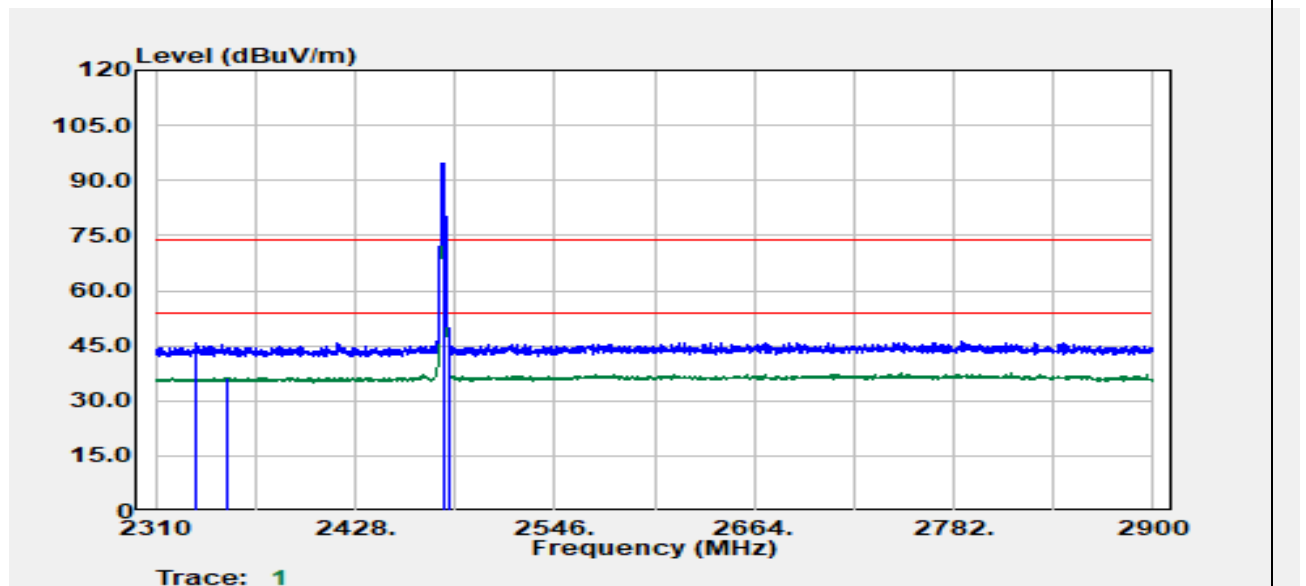
Freq. (MHz)	Detector Mode (PK/QP/AV)	Spectrum Reading Level (dBμV)	Factor (dB)	Actual FS (dBUV/m)	Limit @3m (dBUV/m)	Margin (dB)
2326.01	Peak	40.38	4.73	45.11	74.00	-28.89
2390.03	Average	30.41	4.98	35.39	54.00	-18.61
2402.00	Peak	90.51	4.79	95.29	--	--
2402.00	Average	88.29	4.79	93.08	--	--
2483.50	Peak	39.06	5.26	44.32	74.00	-29.68
2499.08	Average	29.57	5.28	34.85	54.00	-19.15

Test Mode:	Mode 2 BLE-2Mbps High CH	Temp/Hum	23.1(°C) / 61%RH
Test Item	Band Edge	Test Date	June 17, 2023
Polarize	Vertical	Test Engineer	Tony Chao
Detector	Peak / Average		



Freq. (MHz)	Detector Mode (PK/QP/AV)	Spectrum Reading Level (dBμV)	Factor (dB)	Actual FS (dBμV/m)	Limit @3m (dBμV/m)	Margin (dB)
2322.01	Peak	40.48	4.72	45.20	74.00	-28.80
2333.01	Average	31.90	4.77	36.66	54.00	-17.34
2480.00	Peak	83.54	5.26	88.80	--	--
2480.00	Average	81.68	5.26	86.94	--	--
2483.82	Average	31.47	5.26	36.74	54.00	-17.26
2494.33	Peak	39.82	5.27	45.09	74.00	-28.91

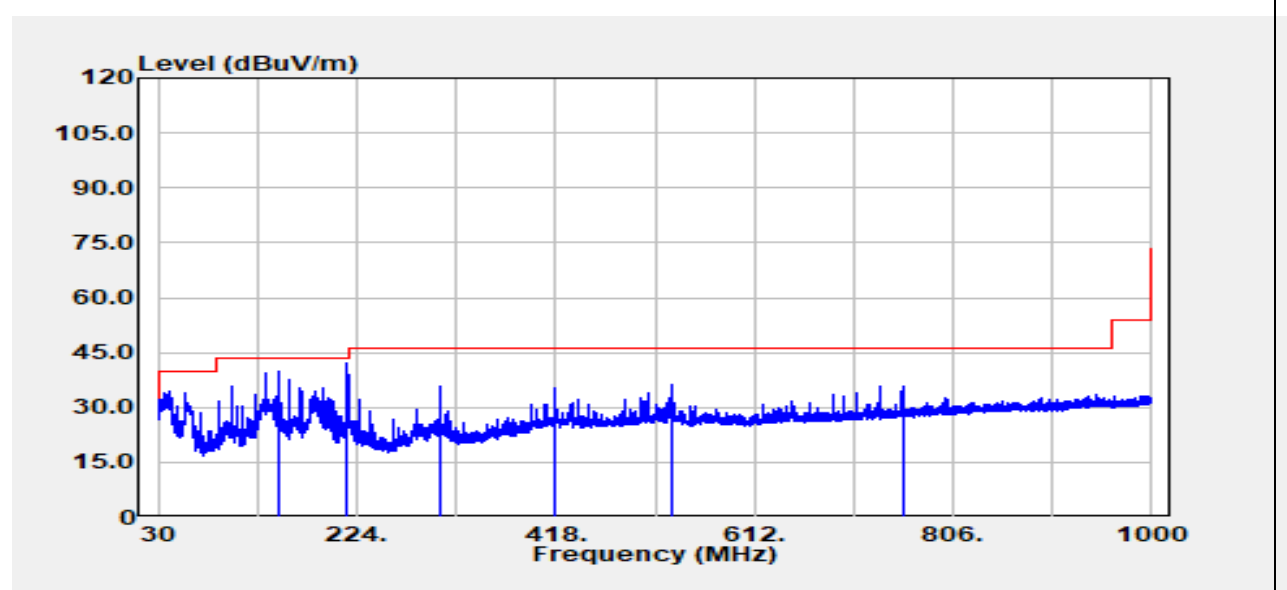
Test Mode:	Mode 2 BLE-2Mbps High CH	Temp/Hum	23.1(°C) / 61%RH
Test Item	Band Edge	Test Date	June 17, 2023
Polarize	Horizontal	Test Engineer	Tony Chao
Detector	Peak / Average		



Freq. (MHz)	Detector Mode (PK/QP/AV)	Spectrum Reading Level (dBμV)	Factor (dB)	Actual FS (dBμV/m)	Limit @3m (dBμV/m)	Margin (dB)
2334.51	Peak	41.06	4.79	45.85	74.00	-28.15
2352.52	Average	31.35	4.94	36.29	54.00	-17.71
2480.00	Peak	89.50	5.26	94.76	--	--
2480.00	Average	87.68	5.26	92.94	--	--
2483.57	Average	32.73	5.26	38.00	54.00	-16.00
2483.82	Peak	39.91	5.26	45.18	74.00	-28.82

Below 1G Test Data

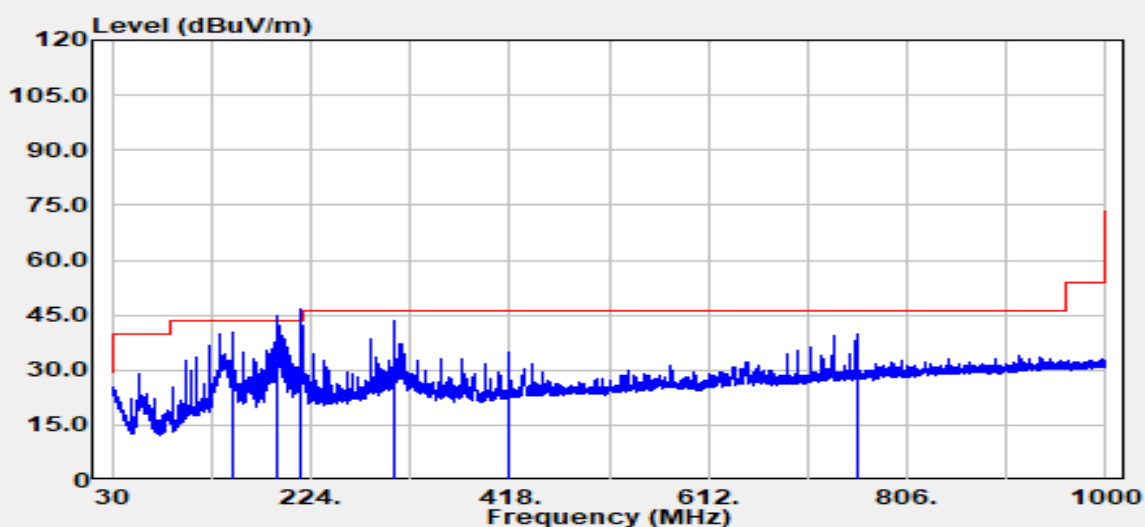
Test Mode:	Mode 1 BLE-2Mbps CH High	Temp/Hum	24.4(°C) / 57%RH
Test Item	30MHz-1GHz	Test Date	June 30, 2023
Polarize	Vertical	Test Engineer	Ray Li
Detector	Peak		



Freq. (MHz)	Detector Mode (PK/QP/AV)	Spectrum Reading Level (dBμV)	Factor (dB)	Actual FS (dBμV/m)	Limit @3m (dBμV/m)	Margin (dB)
146.76	Peak	49.96	-10.22	39.74	43.50	-3.76
214.54	Peak	53.86	-11.88	41.98	43.50	-1.52
304.87	Peak	44.15	-8.43	35.72	46.00	-10.28
417.76	Peak	40.37	-5.19	35.18	46.00	-10.82
532.22	Peak	39.13	-3.03	36.10	46.00	-9.90
756.41	Peak	35.04	0.76	35.80	46.00	-10.20

Note: No emission found between lowest internal used/generated frequency to 30MHz (9kHz~30MHz).

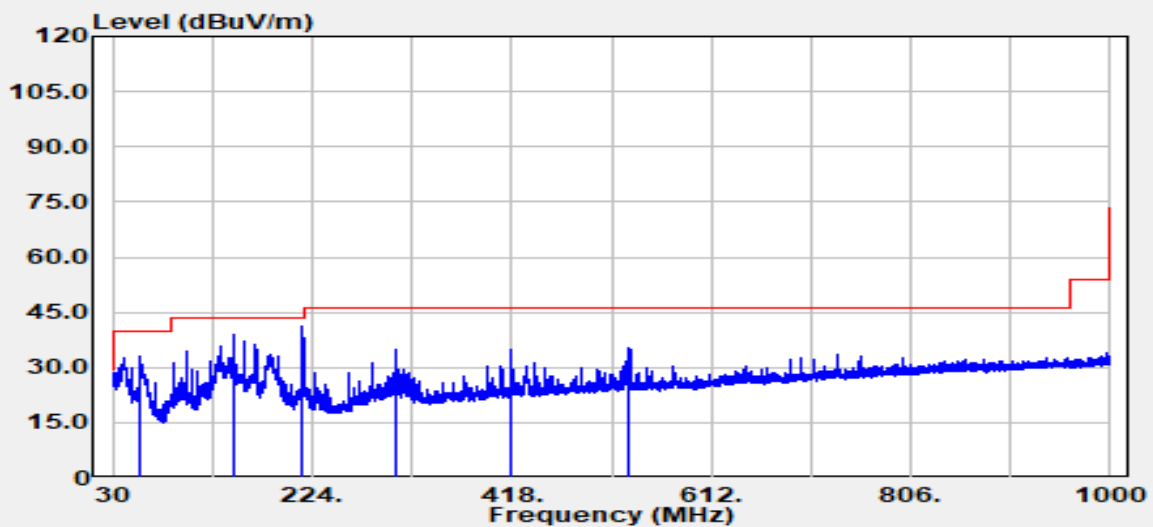
Test Mode:	Mode 1 BLE-2Mbps CH High	Temp/Hum	24.4(°C) / 57%RH
Test Item	30MHz-1GHz	Test Date	June 30, 2023
Polarize	Horizontal	Test Engineer	Ray Li
Detector	Peak		



Freq. (MHz)	Detector Mode (PK/QP/AV)	Spectrum Reading Level (dBμV)	Factor (dB)	Actual FS (dBμV/m)	Limit @3m (dBμV/m)	Margin (dB)
146.76	Peak	50.54	-10.22	40.32	43.50	-3.18
191.87	QP	49.96	-11.10	38.86	43.50	-4.64
214.54	QP	54.47	-11.88	42.58	43.50	-0.92
304.87	Peak	52.04	-8.43	43.61	46.00	-2.39
417.76	Peak	39.86	-5.19	34.66	46.00	-11.34
756.41	Peak	39.12	0.76	39.88	46.00	-6.12

Note: No emission found between lowest internal used/generated frequency to 30MHz (9kHz~30MHz).

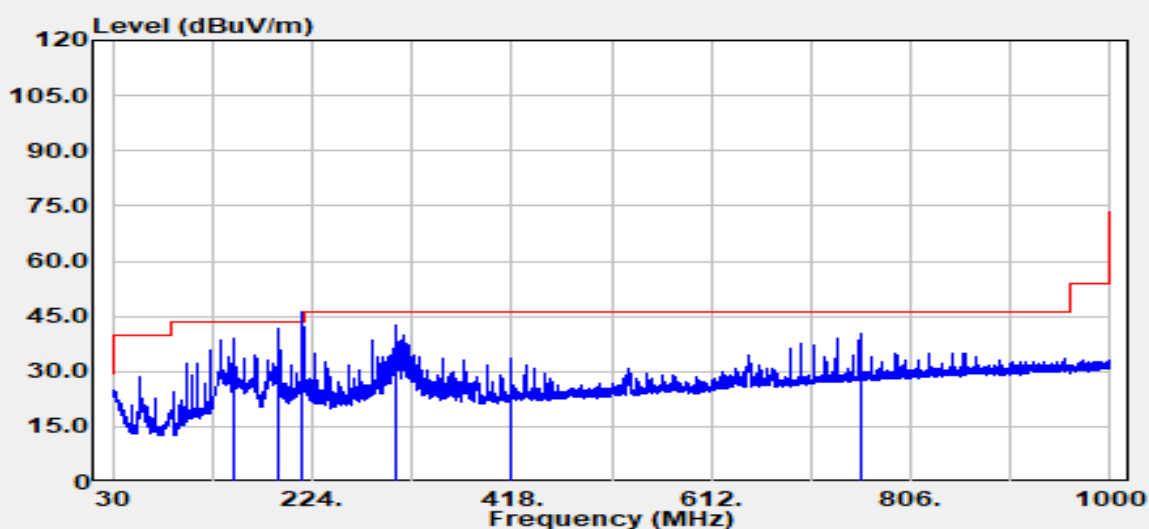
Test Mode:	Mode 2 BLE-2Mbps CH High	Temp/Hum	24.4(°C) / 57%RH
Test Item	30MHz-1GHz	Test Date	June 30, 2023
Polarize	Vertical	Test Engineer	Ray Li
Detector	Peak		



Freq. (MHz)	Detector Mode (PK/QP/AV)	Spectrum Reading Level (dBμV)	Factor (dB)	Actual FS (dBμV/m)	Limit @3m (dBμV/m)	Margin (dB)
56.43	Peak	49.18	-16.19	32.99	40.00	-7.01
146.76	Peak	49.00	-10.22	38.78	43.50	-4.72
214.54	Peak	53.23	-11.88	41.34	43.50	-2.16
304.87	Peak	43.14	-8.43	34.70	46.00	-11.30
417.76	Peak	40.21	-5.19	35.02	46.00	-10.98
532.70	Peak	38.24	-3.03	35.21	46.00	-10.79

Note: No emission found between lowest internal used/generated frequency to 30MHz (9kHz~30MHz).

Test Mode:	Mode 2 BLE-2Mbps CH High	Temp/Hum	24.4(°C) / 57%RH
Test Item	30MHz-1GHz	Test Date	June 30, 2023
Polarize	Horizontal	Test Engineer	Ray Li
Detector	Peak		

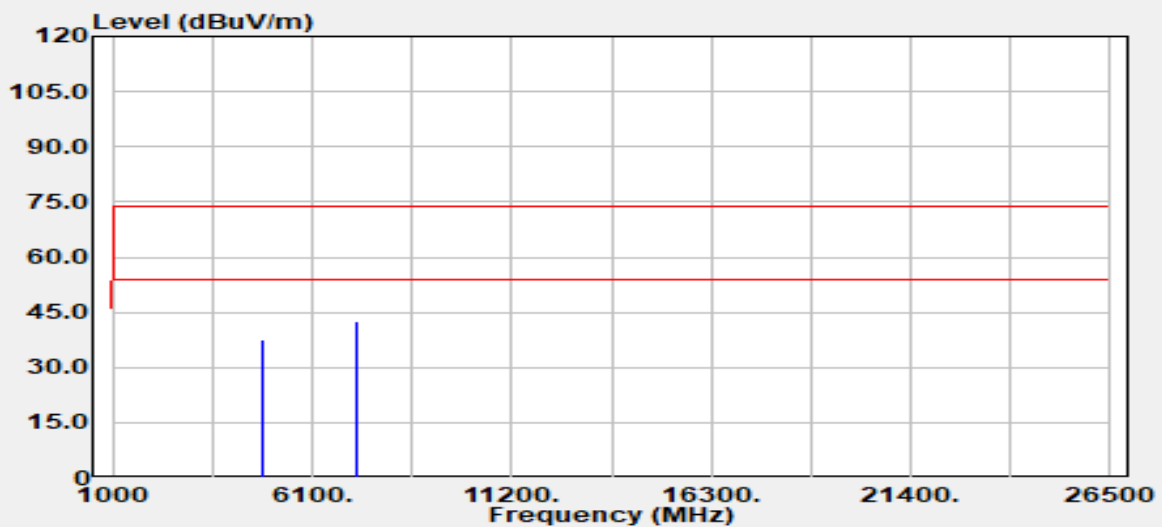


Freq. (MHz)	Detector Mode (PK/QP/AV)	Spectrum Reading Level (dBμV)	Factor (dB)	Actual FS (dBμV/m)	Limit @3m (dBμV/m)	Margin (dB)
146.76	Peak	49.27	-10.22	39.05	43.50	-4.45
191.99	Peak	52.65	-11.08	41.57	43.50	-1.93
214.54	QP	54.21	-11.88	42.32	43.50	-1.18
304.87	Peak	51.01	-8.43	42.57	46.00	-3.43
417.76	Peak	38.92	-5.19	33.73	46.00	-12.27
756.41	Peak	39.32	0.76	40.08	46.00	-5.92

Note: No emission found between lowest internal used/generated frequency to 30MHz (9kHz~30MHz).

Above 1G Test Data

Test Mode:	Mode 1 BLE-1Mbps Low CH	Temp/Hum	23.1(°C) / 61%RH
Test Item	Harmonic	Test Date	June 17, 2023
Polarize	Vertical	Test Engineer	Ray Li
Detector	Peak / Average	Test Mode	Mode 1

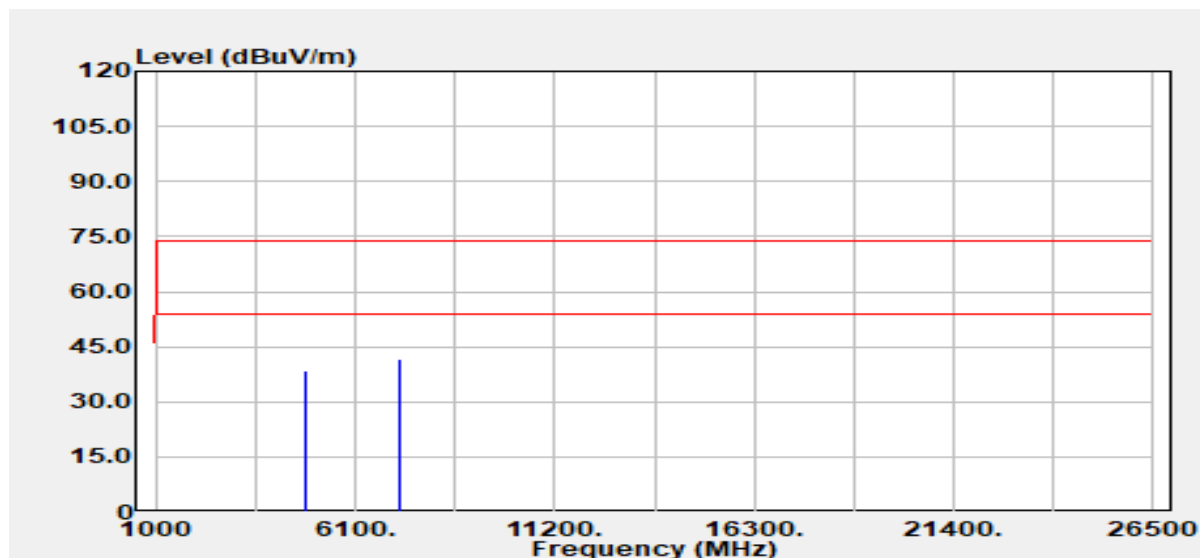


Freq. (MHz)	Detector Mode (PK/QP/AV)	Spectrum Reading Level (dBμV)	Factor (dB)	Actual FS (dBμV/m)	Limit @3m (dBμV/m)	Margin (dB)
4804.00	Peak	36.44	1.22	37.66	74.00	-36.34
4804.00	Average	27.92	1.22	29.14	54.00	-24.86
7206.00	Peak	34.92	7.75	42.68	74.00	-31.32
7206.00	Average	25.64	7.75	33.40	54.00	-20.60
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Test Mode:	Mode 1 BLE-1Mbps Low CH	Temp/Hum	23.1(°C) / 61%RH
Test Item	Harmonic	Test Date	June 17, 2023
Polarize	Horizontal	Test Engineer	Ray Li
Detector	Peak / Average	Test Mode	Mode 1

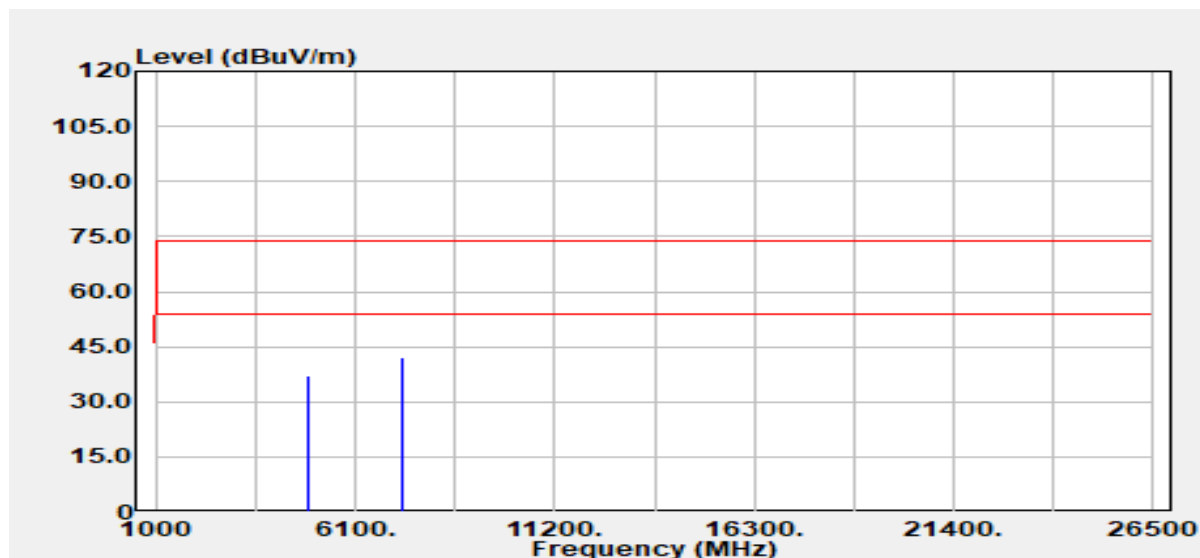


Freq. (MHz)	Detector Mode (PK/QP/AV)	Spectrum Reading Level (dBμV)	Factor (dB)	Actual FS (dBμV/m)	Limit @3m (dBμV/m)	Margin (dB)
4804.00	Peak	37.05	1.22	38.28	74.00	-35.72
4804.00	Average	29.55	1.22	30.77	54.00	-23.23
7206.00	Peak	33.85	7.75	41.61	74.00	-32.39
7206.00	Average	25.80	7.75	33.55	54.00	-20.45
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Test Mode:	Mode 1 BLE-1Mbps Mid CH	Temp/Hum	23.1(°C) / 61%RH
Test Item	Harmonic	Test Date	June 17, 2023
Polarize	Vertical	Test Engineer	Ray Li
Detector	Peak / Average	Test Mode	Mode 1

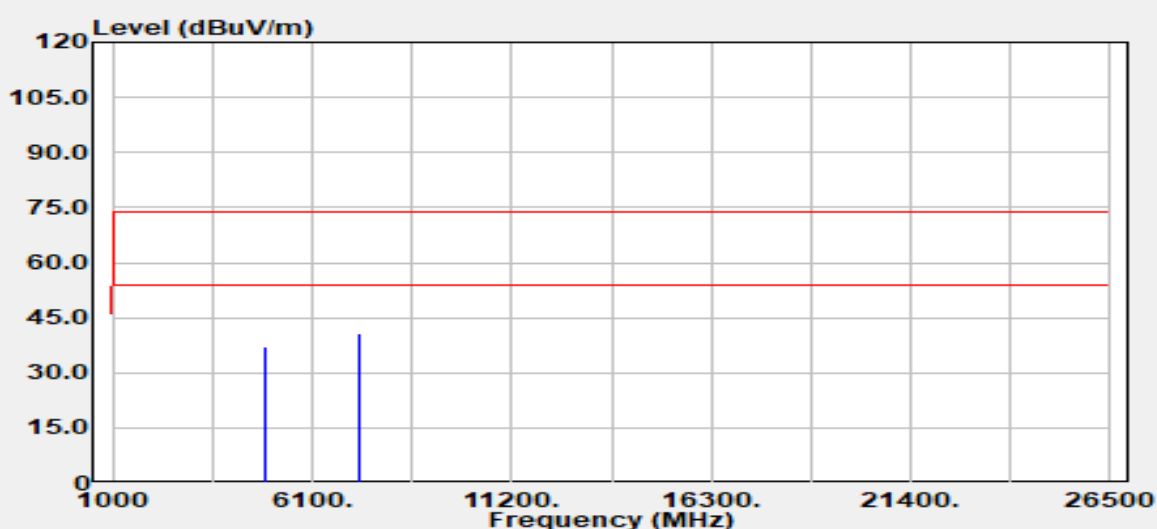


Freq. (MHz)	Detector Mode (PK/QP/AV)	Spectrum Reading Level (dBμV)	Factor (dB)	Actual FS (dBμV/m)	Limit @3m (dBμV/m)	Margin (dB)
4884.00	Peak	35.42	1.65	37.07	74.00	-36.93
4884.00	Average	27.53	1.65	29.18	54.00	-24.82
7326.00	Peak	34.42	7.70	42.13	74.00	-31.87
7326.00	Average	25.56	7.70	33.26	54.00	-20.74
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Test Mode:	Mode 1 BLE-1Mbps Mid CH	Temp/Hum	23.1(°C) / 61%RH
Test Item	Harmonic	Test Date	June 17, 2023
Polarize	Horizontal	Test Engineer	Ray Li
Detector	Peak / Average	Test Mode	Mode 1

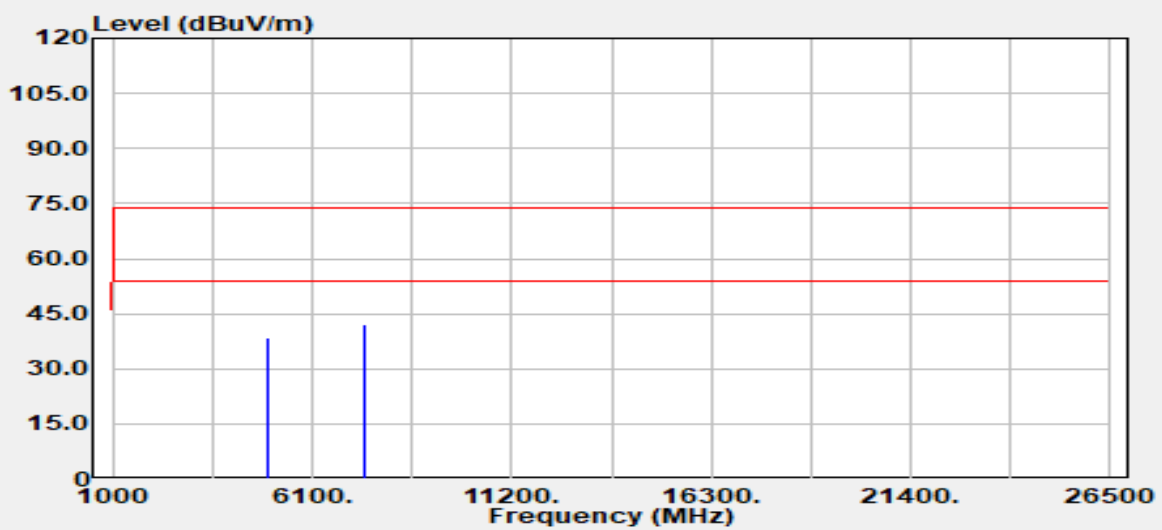


Freq. (MHz)	Detector Mode (PK/QP/AV)	Spectrum Reading Level (dBμV)	Factor (dB)	Actual FS (dBμV/m)	Limit @3m (dBμV/m)	Margin (dB)
4884.00	Peak	35.51	1.65	37.16	74.00	-36.84
4884.00	Average	27.41	1.65	29.06	54.00	-24.94
7326.00	Peak	33.28	7.70	40.98	74.00	-33.02
7326.00	Average	25.47	7.70	33.17	54.00	-20.83
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Test Mode:	Mode 1 BLE-1Mbps High CH	Temp/Hum	23.1(°C) / 61%RH
Test Item	Harmonic	Test Date	June 17, 2023
Polarize	Vertical	Test Engineer	Ray Li
Detector	Peak / Average	Test Mode	Mode 1

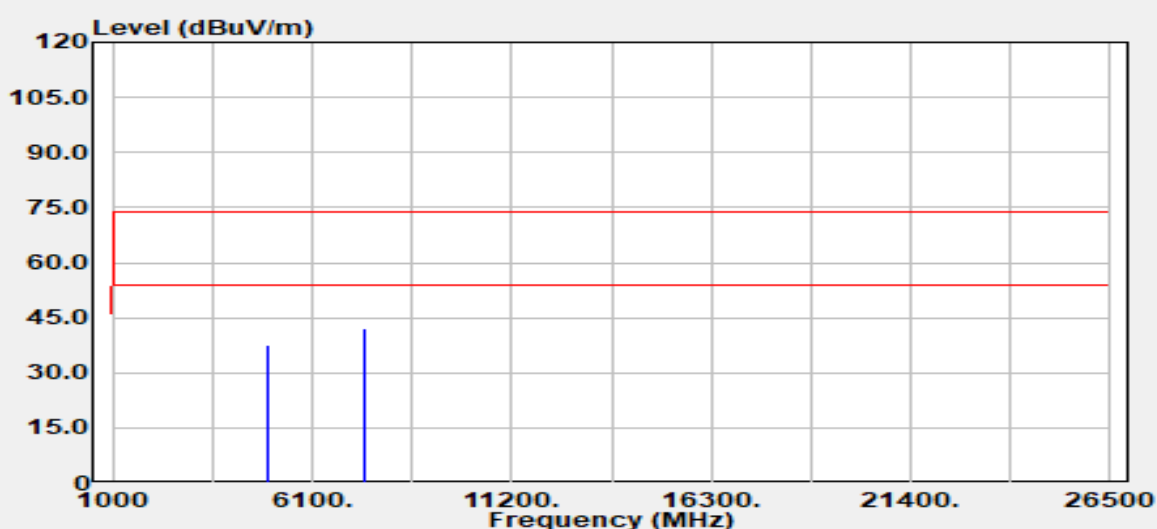


Freq. (MHz)	Detector Mode (PK/QP/AV)	Spectrum Reading Level (dBμV)	Factor (dB)	Actual FS (dBμV/m)	Limit @3m (dBμV/m)	Margin (dB)
4960.00	Peak	36.34	2.25	38.58	74.00	-35.42
4960.00	Average	27.50	2.25	29.75	54.00	-24.25
7440.00	Peak	34.29	7.64	41.93	74.00	-32.07
7440.00	Average	25.68	7.64	33.31	54.00	-20.69
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Test Mode:	Mode 1 BLE-1Mbps High CH	Temp/Hum	23.1(°C) / 61%RH
Test Item	Harmonic	Test Date	June 17, 2023
Polarize	Horizontal	Test Engineer	Ray Li
Detector	Peak / Average	Test Mode	Mode 1

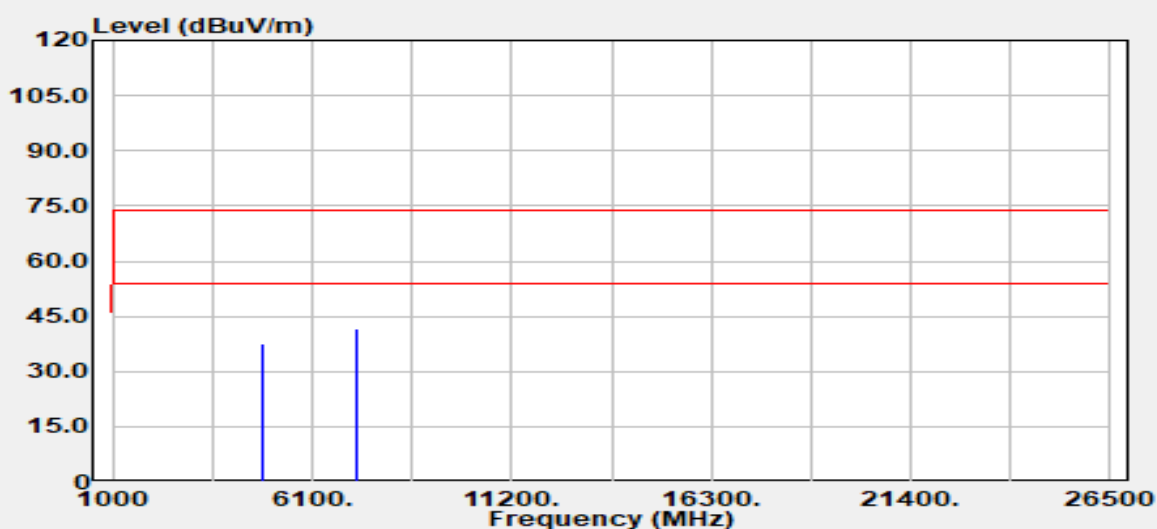


Freq. (MHz)	Detector Mode (PK/QP/AV)	Spectrum Reading Level (dBμV)	Factor (dB)	Actual FS (dBμV/m)	Limit @3m (dBμV/m)	Margin (dB)
4960.00	Peak	35.49	2.25	37.74	74.00	-36.26
4960.00	Average	27.31	2.25	29.56	54.00	-24.44
7440.00	Peak	34.30	7.64	41.94	74.00	-32.06
7440.00	Average	25.64	7.64	33.27	54.00	-20.73
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Test Mode:	Mode 1 BLE-2Mbps Low CH	Temp/Hum	23.1(°C) / 61%RH
Test Item	Harmonic	Test Date	June 17, 2023
Polarize	Vertical	Test Engineer	Ray Li
Detector	Peak / Average	Test Mode	Mode 1

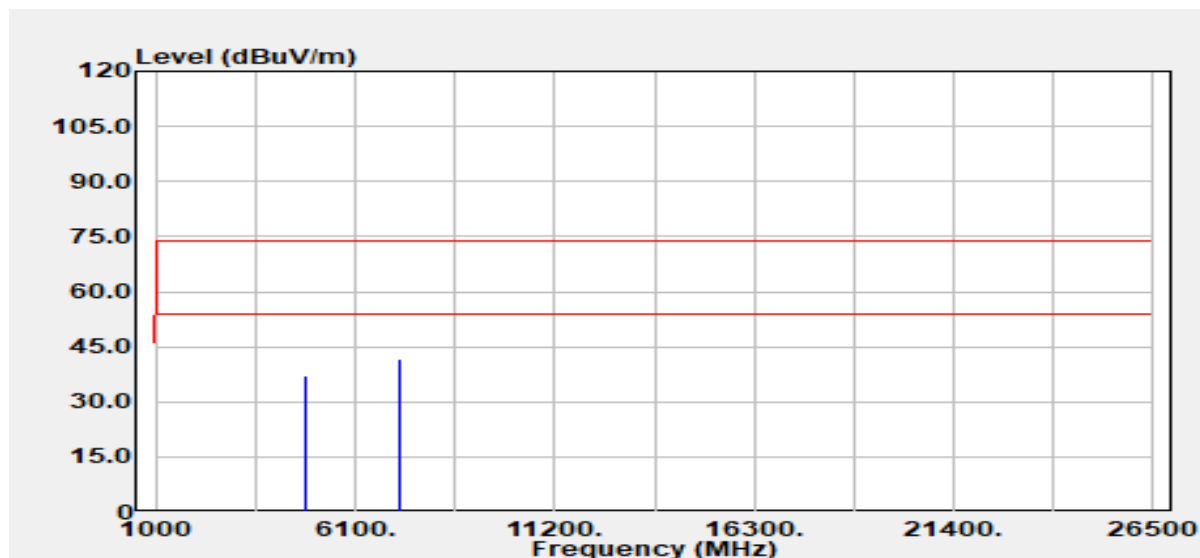


Freq. (MHz)	Detector Mode (PK/QP/AV)	Spectrum Reading Level (dBμV)	Factor (dB)	Actual FS (dBμV/m)	Limit @3m (dBμV/m)	Margin (dB)
4804.00	Peak	36.29	1.22	37.52	74.00	-36.48
4804.00	Average	28.42	1.22	29.64	54.00	-24.36
7206.00	Peak	33.83	7.75	41.58	74.00	-32.42
7206.00	Average	26.24	7.75	34.00	54.00	-20.00
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Test Mode:	Mode 1 BLE-2Mbps Low CH	Temp/Hum	23.1(°C) / 61%RH
Test Item	Harmonic	Test Date	June 17, 2023
Polarize	Horizontal	Test Engineer	Ray Li
Detector	Peak / Average	Test Mode	Mode 1

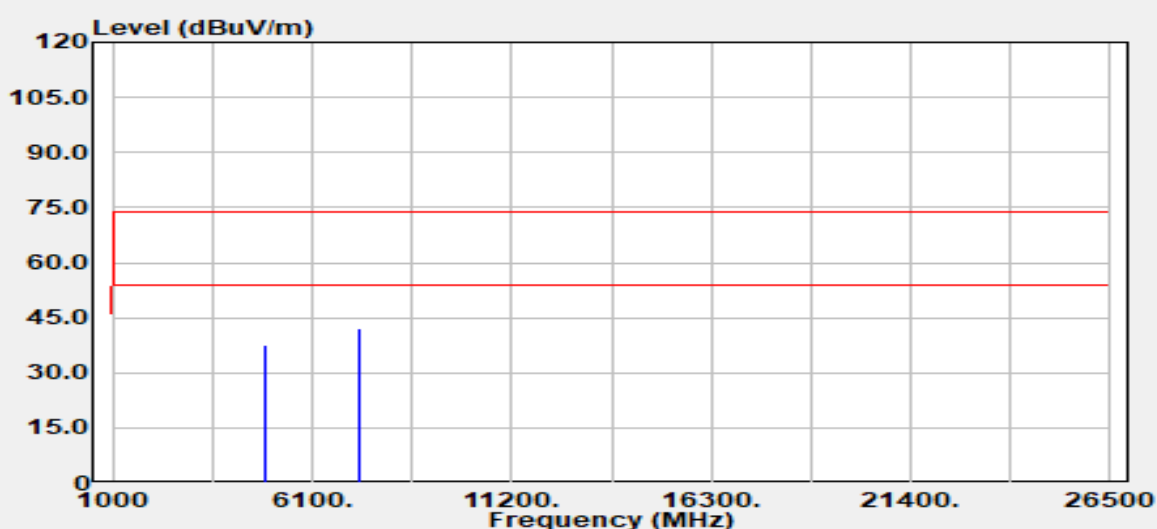


Freq. (MHz)	Detector Mode (PK/QP/AV)	Spectrum Reading Level (dBUV)	Factor (dB)	Actual FS (dBUV/m)	Limit @3m (dBUV/m)	Margin (dB)
4804.00	Peak	36.06	1.22	37.29	74.00	-36.71
4804.00	Average	28.53	1.22	29.75	54.00	-24.25
7206.00	Peak	33.87	7.75	41.62	74.00	-32.38
7206.00	Average	26.30	7.75	34.05	54.00	-19.95
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Test Mode:	Mode 1 BLE-2Mbps Mid CH	Temp/Hum	23.1(°C) / 61%RH
Test Item	Harmonic	Test Date	June 17, 2023
Polarize	Vertical	Test Engineer	Ray Li
Detector	Peak / Average	Test Mode	Mode 1

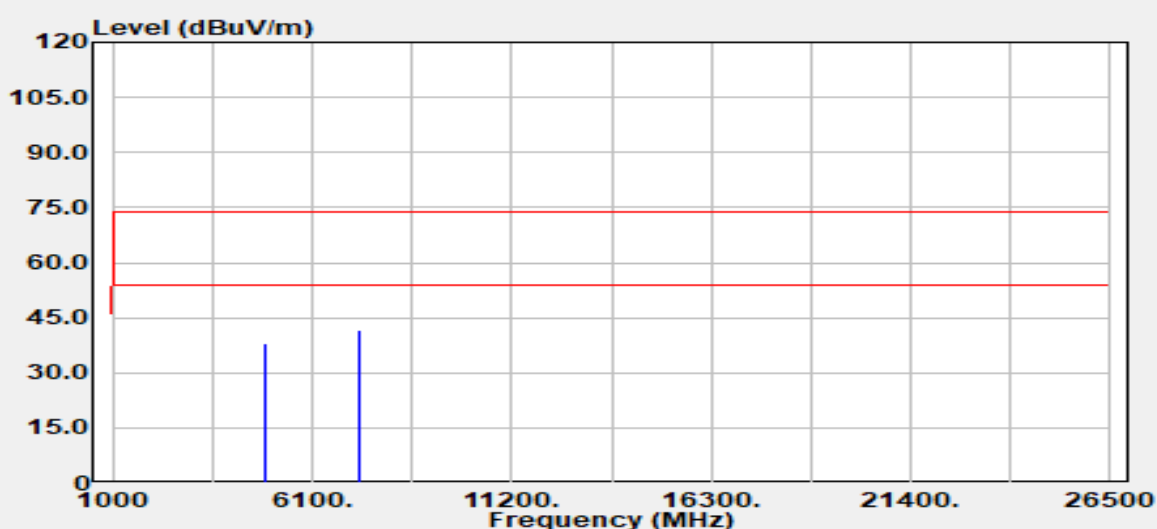


Freq. (MHz)	Detector Mode (PK/QP/AV)	Spectrum Reading Level (dBμV)	Factor (dB)	Actual FS (dBμV/m)	Limit @3m (dBμV/m)	Margin (dB)
4884.00	Peak	35.75	1.65	37.40	74.00	-36.60
4884.00	Average	28.15	1.65	29.80	54.00	-24.20
7326.00	Peak	34.29	7.70	41.99	74.00	-32.01
7326.00	Average	26.24	7.70	33.94	54.00	-20.06
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Test Mode:	Mode 1 BLE-2Mbps Mid CH	Temp/Hum	23.1(°C) / 61%RH
Test Item	Harmonic	Test Date	June 17, 2023
Polarize	Horizontal	Test Engineer	Ray Li
Detector	Peak / Average	Test Mode	Mode 1

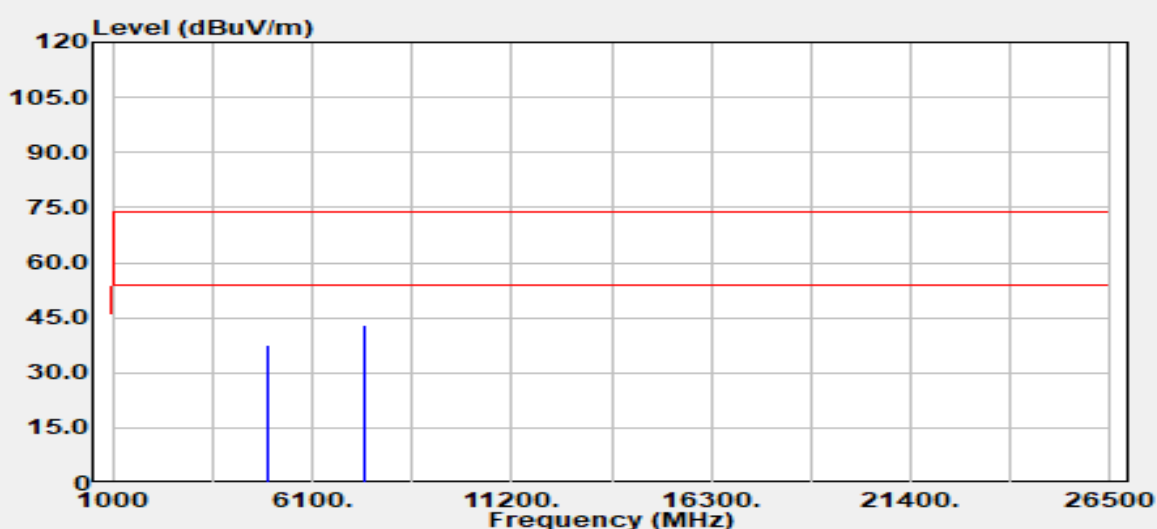


Freq. (MHz)	Detector Mode (PK/QP/AV)	Spectrum Reading Level (dBμV)	Factor (dB)	Actual FS (dBμV/m)	Limit @3m (dBμV/m)	Margin (dB)
4884.00	Peak	36.36	1.65	38.01	74.00	-35.99
4884.00	Average	28.14	1.65	29.79	54.00	-24.21
7326.00	Peak	33.93	7.70	41.63	74.00	-32.37
7326.00	Average	25.87	7.70	33.57	54.00	-20.43
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Test Mode:	Mode 1 BLE-2Mbps High CH	Temp/Hum	23.1(°C) / 61%RH
Test Item	Harmonic	Test Date	June 17, 2023
Polarize	Vertical	Test Engineer	Ray Li
Detector	Peak / Average	Test Mode	Mode 1

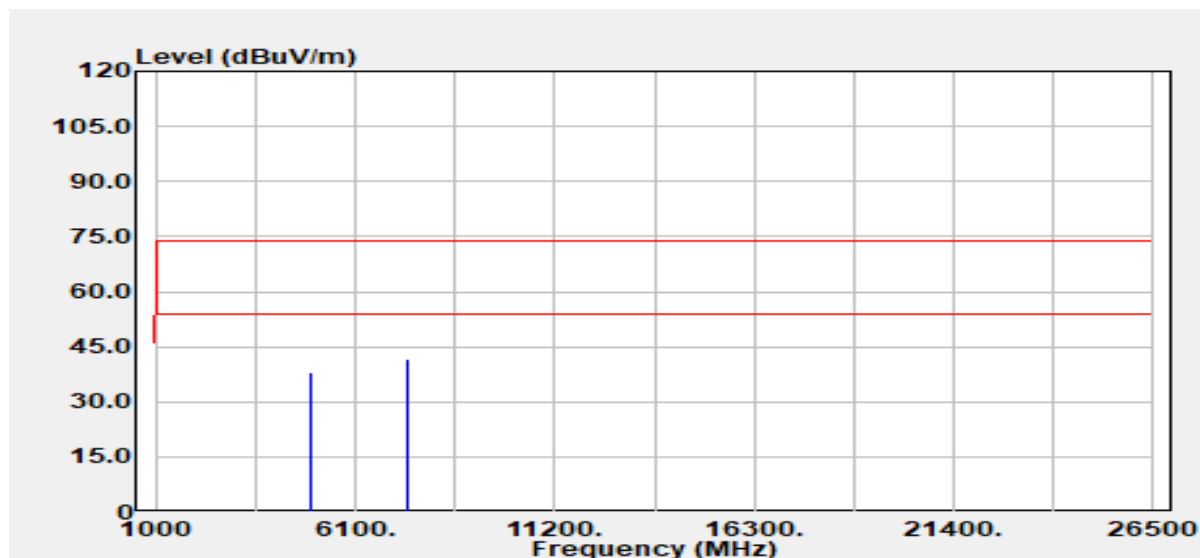


Freq. (MHz)	Detector Mode (PK/QP/AV)	Spectrum Reading Level (dBμV)	Factor (dB)	Actual FS (dBμV/m)	Limit @3m (dBμV/m)	Margin (dB)
4960.00	Peak	35.51	2.25	37.76	74.00	-36.24
4960.00	Average	27.64	2.25	29.88	54.00	-24.12
7440.00	Peak	35.45	7.64	43.09	74.00	-30.91
7440.00	Average	25.97	7.64	33.60	54.00	-20.40
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Test Mode:	Mode 1 BLE-2Mbps High CH	Temp/Hum	23.1(°C) / 61%RH
Test Item	Harmonic	Test Date	June 17, 2023
Polarize	Horizontal	Test Engineer	Ray Li
Detector	Peak / Average	Test Mode	Mode 1

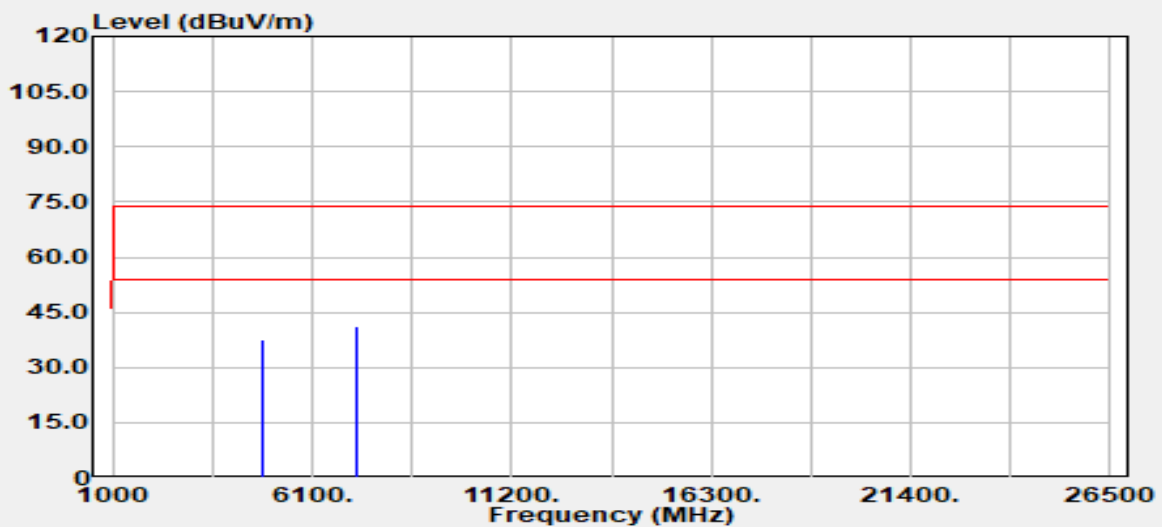


Freq. (MHz)	Detector Mode (PK/QP/AV)	Spectrum Reading Level (dBμV)	Factor (dB)	Actual FS (dBμV/m)	Limit @3m (dBμV/m)	Margin (dB)
4960.00	Peak	35.70	2.25	37.94	74.00	-36.06
4960.00	Average	27.72	2.25	29.97	54.00	-24.03
7440.00	Peak	34.03	7.64	41.67	74.00	-32.33
7440.00	Average	26.22	7.64	33.86	54.00	-20.14
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Test Mode:	Mode 2 BLE-1Mbps Low CH	Temp/Hum	23.1(°C) / 61%RH
Test Item	Harmonic	Test Date	June 17, 2023
Polarize	Vertical	Test Engineer	Tony Chao
Detector	Peak / Average	Test Mode	Mode 2

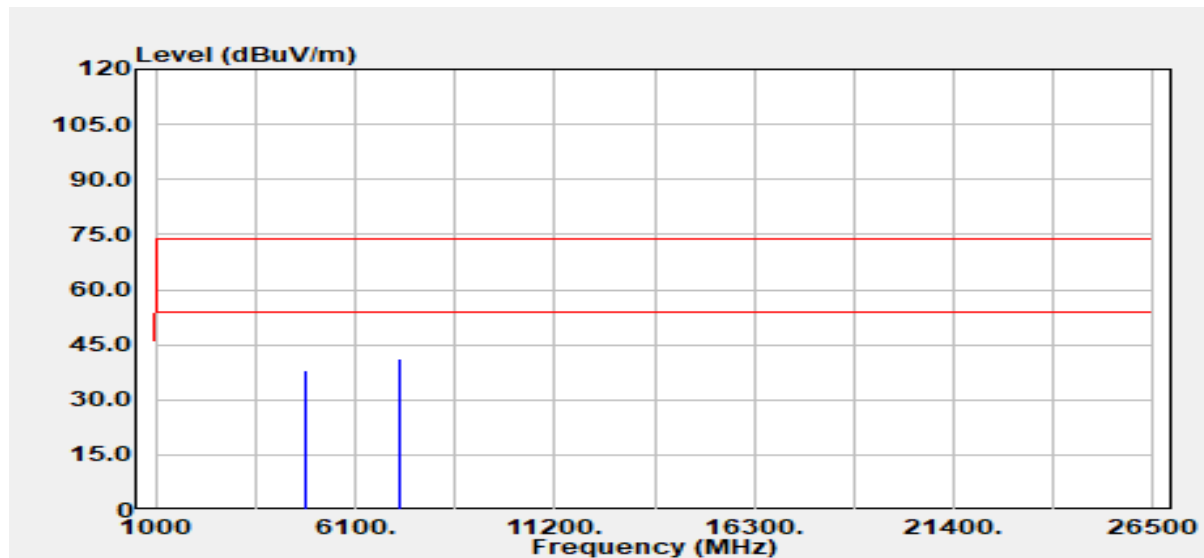


Freq. (MHz)	Detector Mode (PK/QP/AV)	Spectrum Reading Level (dBμV)	Factor (dB)	Actual FS (dBμV/m)	Limit @3m (dBμV/m)	Margin (dB)
4804.00	Peak	36.41	1.22	37.64	74.00	-36.36
4804.00	Average	29.49	1.22	30.71	54.00	-23.29
7206.00	Peak	33.48	7.75	41.23	74.00	-32.77
7206.00	Average	25.56	7.75	33.31	54.00	-20.69
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Test Mode:	Mode 2 BLE-1Mbps Low CH	Temp/Hum	23.1(°C) / 61%RH
Test Item	Harmonic	Test Date	June 17, 2023
Polarize	Horizontal	Test Engineer	Tony Chao
Detector	Peak / Average	Test Mode	Mode 2

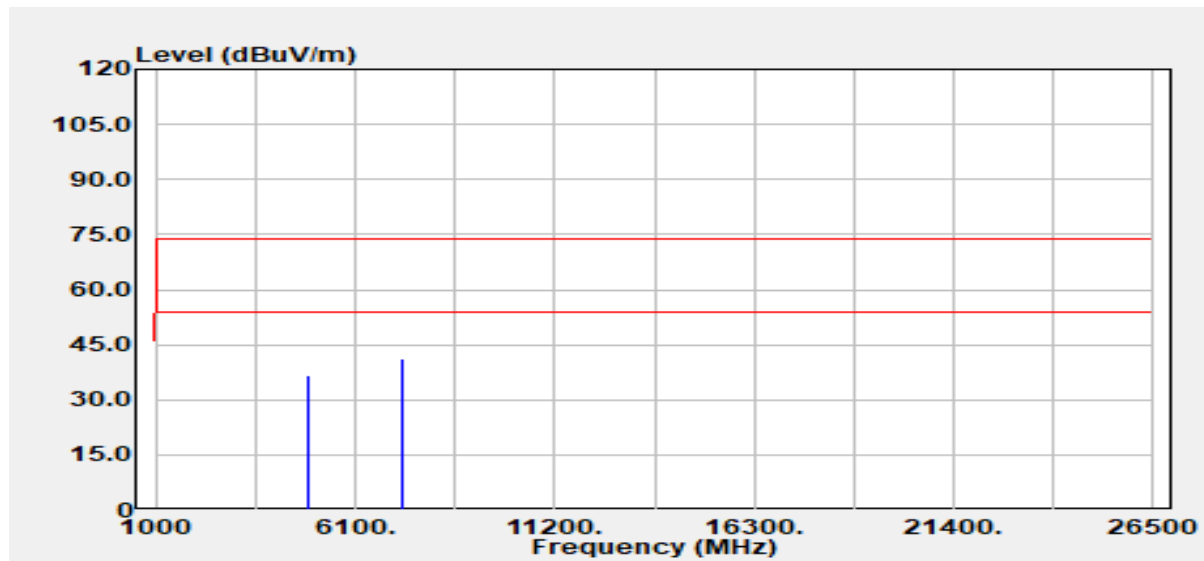


Freq. (MHz)	Detector Mode (PK/QP/AV)	Spectrum Reading Level (dBμV)	Factor (dB)	Actual FS (dBμV/m)	Limit @3m (dBμV/m)	Margin (dB)
4804.00	Peak	36.67	1.22	37.89	74.00	-36.11
4804.00	Average	28.08	1.22	29.30	54.00	-24.70
7206.00	Peak	33.46	7.75	41.22	74.00	-32.78
7206.00	Average	25.85	7.75	33.61	54.00	-20.39
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Test Mode:	Mode 2 BLE-1Mbps Mid CH	Temp/Hum	23.1(°C) / 61%RH
Test Item	Harmonic	Test Date	June 17, 2023
Polarize	Vertical	Test Engineer	Tony Chao
Detector	Peak / Average	Test Mode	Mode 2

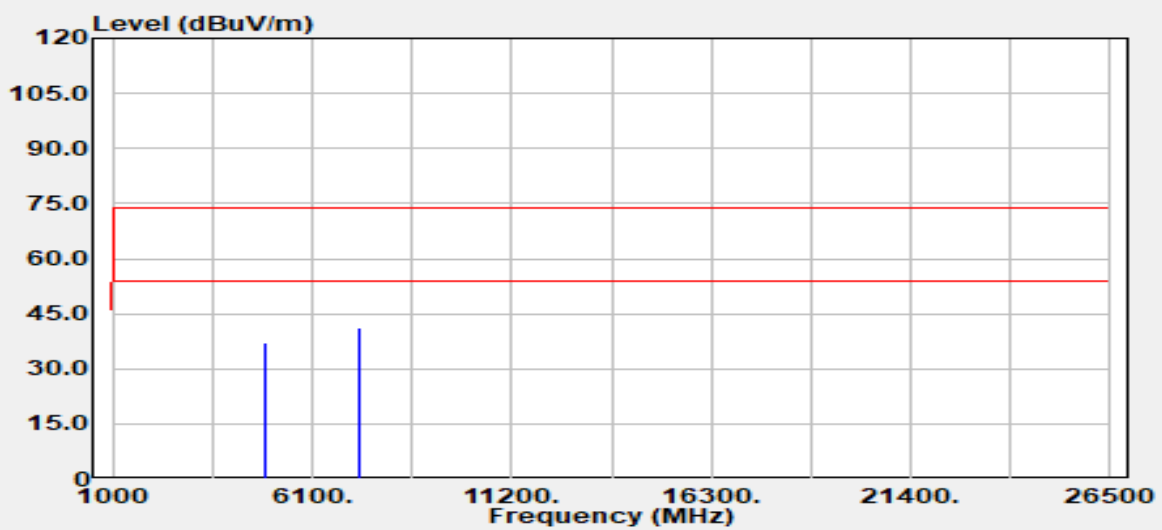


Freq. (MHz)	Detector Mode (PK/QP/AV)	Spectrum Reading Level (dBμV)	Factor (dB)	Actual FS (dBμV/m)	Limit @3m (dBμV/m)	Margin (dB)
4884.00	Peak	35.12	1.65	36.76	74.00	-37.24
4884.00	Average	27.72	1.65	29.37	54.00	-24.63
7326.00	Peak	33.36	7.70	41.06	74.00	-32.94
7326.00	Average	25.48	7.70	33.18	54.00	-20.82
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Test Mode:	Mode 2 BLE-1Mbps Mid CH	Temp/Hum	23.1(°C) / 61%RH
Test Item	Harmonic	Test Date	June 17, 2023
Polarize	Horizontal	Test Engineer	Tony Chao
Detector	Peak / Average	Test Mode	Mode 2

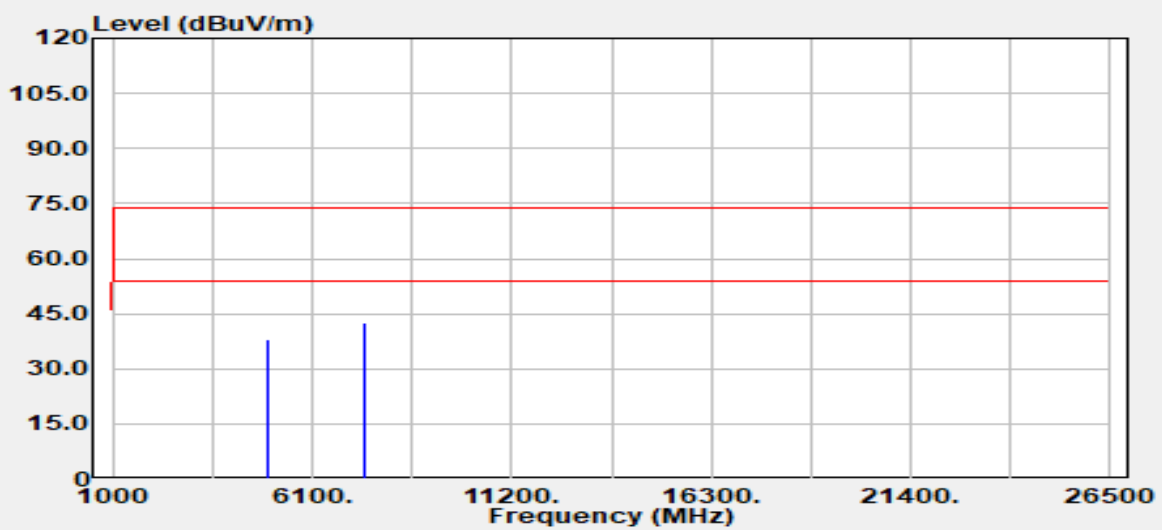


Freq. (MHz)	Detector Mode (PK/QP/AV)	Spectrum Reading Level (dBμV)	Factor (dB)	Actual FS (dBμV/m)	Limit @3m (dBμV/m)	Margin (dB)
4884.00	Peak	35.37	1.65	37.02	74.00	-36.98
4884.00	Average	27.37	1.65	29.02	54.00	-24.98
7326.00	Peak	33.69	7.70	41.39	74.00	-32.61
7326.00	Average	25.70	7.70	33.41	54.00	-20.59
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Test Mode:	Mode 2 BLE-1Mbps High CH	Temp/Hum	23.1(°C) / 61%RH
Test Item	Harmonic	Test Date	June 17, 2023
Polarize	Vertical	Test Engineer	Tony Chao
Detector	Peak / Average	Test Mode	Mode 2

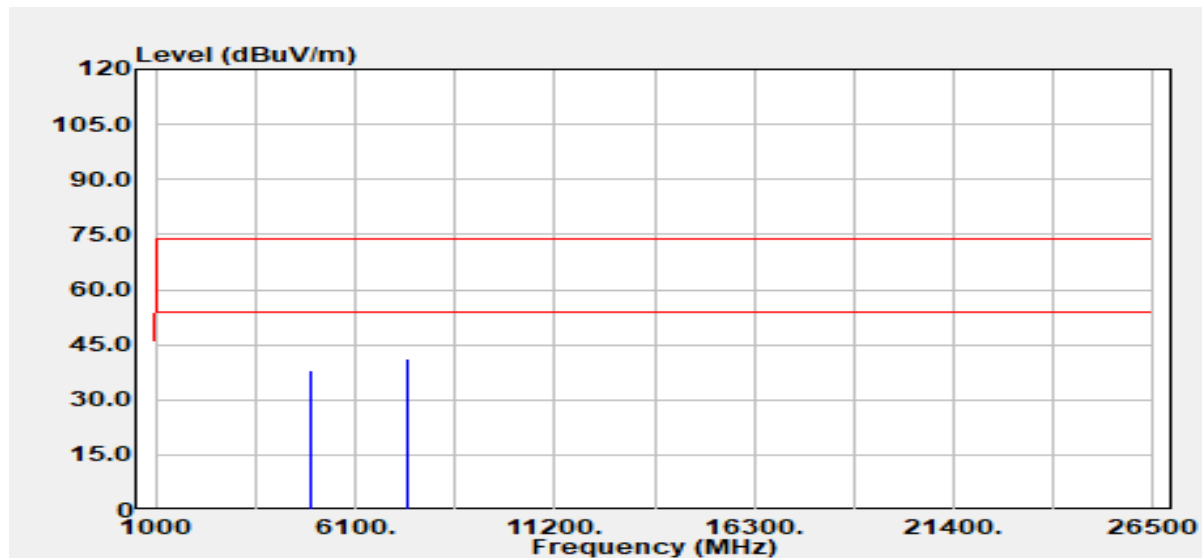


Freq. (MHz)	Detector Mode (PK/QP/AV)	Spectrum Reading Level (dBμV)	Factor (dB)	Actual FS (dBμV/m)	Limit @3m (dBμV/m)	Margin (dB)
4960.00	Peak	35.81	2.25	38.05	74.00	-35.95
4960.00	Average	27.18	2.25	29.43	54.00	-24.57
7440.00	Peak	35.02	7.64	42.66	74.00	-31.34
7440.00	Average	25.53	7.64	33.17	54.00	-20.83
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Test Mode:	Mode 2 BLE-1Mbps High CH	Temp/Hum	23.1(°C) / 61%RH
Test Item	Harmonic	Test Date	June 17, 2023
Polarize	Horizontal	Test Engineer	Tony Chao
Detector	Peak / Average	Test Mode	Mode 2

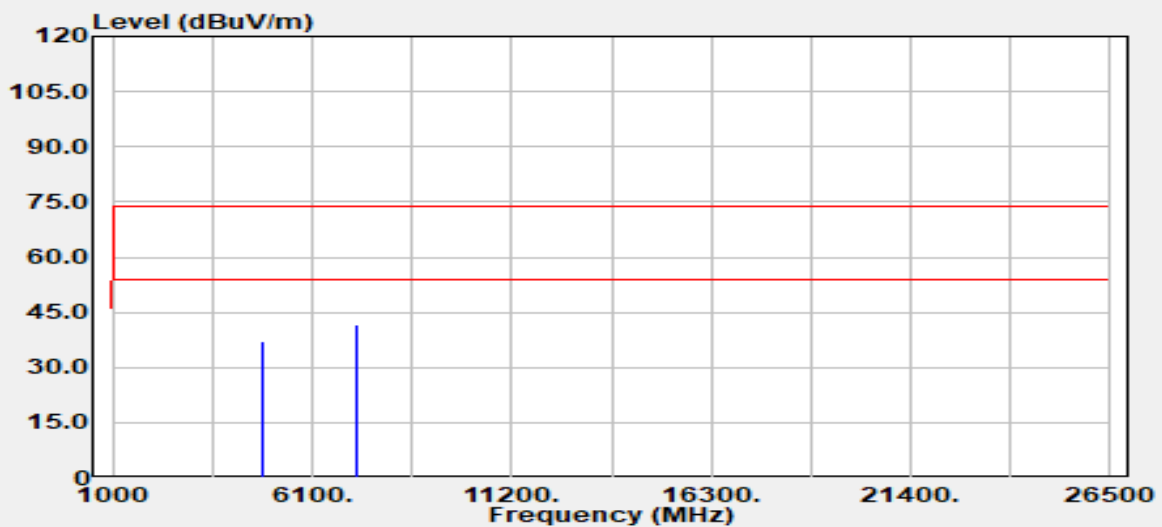


Freq. (MHz)	Detector Mode (PK/QP/AV)	Spectrum Reading Level (dBμV)	Factor (dB)	Actual FS (dBμV/m)	Limit @3m (dBμV/m)	Margin (dB)
4960.00	Peak	35.87	2.25	38.12	74.00	-35.88
4960.00	Average	27.28	2.25	29.53	54.00	-24.47
7440.00	Peak	33.52	7.64	41.15	74.00	-32.85
7440.00	Average	25.56	7.64	33.20	54.00	-20.80
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Test Mode:	Mode 2 BLE-2Mbps Low CH	Temp/Hum	23.1(°C) / 61%RH
Test Item	Harmonic	Test Date	June 17, 2023
Polarize	Vertical	Test Engineer	Tony Chao
Detector	Peak / Average	Test Mode	Mode 2

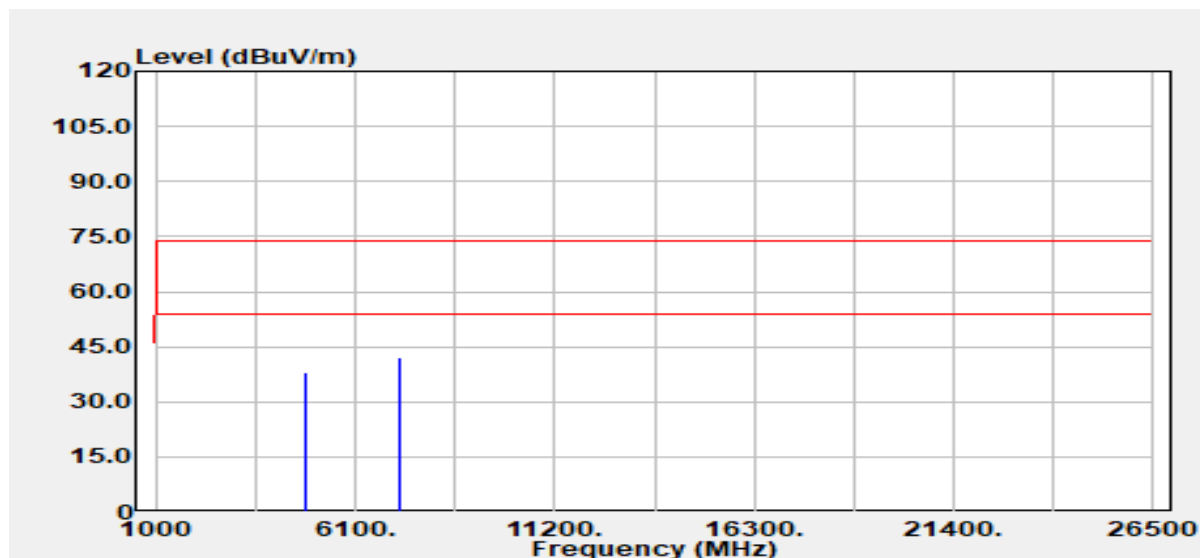


Freq. (MHz)	Detector Mode (PK/QP/AV)	Spectrum Reading Level (dBUV)	Factor (dB)	Actual FS (dBUV/m)	Limit @3m (dBUV/m)	Margin (dB)
4804.00	Peak	35.91	1.22	37.13	74.00	-36.87
4804.00	Average	29.35	1.22	30.57	54.00	-23.43
7206.00	Peak	33.98	7.75	41.74	74.00	-32.26
7206.00	Average	26.19	7.75	33.94	54.00	-20.06
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Test Mode:	Mode 2 BLE-2Mbps Low CH	Temp/Hum	23.1(°C) / 61%RH
Test Item	Harmonic	Test Date	June 17, 2023
Polarize	Horizontal	Test Engineer	Tony Chao
Detector	Peak / Average	Test Mode	Mode 2

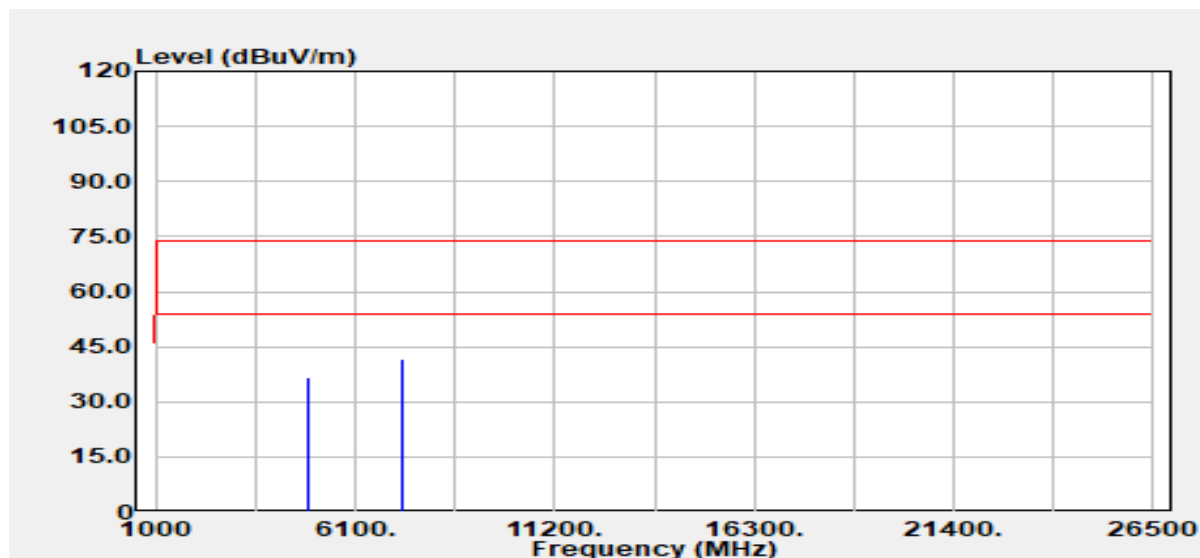


Freq. (MHz)	Detector Mode (PK/QP/AV)	Spectrum Reading Level (dBμV)	Factor (dB)	Actual FS (dBμV/m)	Limit @3m (dBμV/m)	Margin (dB)
4804.00	Peak	36.64	1.22	37.86	74.00	-36.14
4804.00	Average	29.07	1.22	30.29	54.00	-23.71
7206.00	Peak	34.36	7.75	42.11	74.00	-31.89
7206.00	Average	26.23	7.75	33.98	54.00	-20.02
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Test Mode:	Mode 2 BLE-2Mbps Mid CH	Temp/Hum	23.1(°C) / 61%RH
Test Item	Harmonic	Test Date	June 17, 2023
Polarize	Vertical	Test Engineer	Tony Chao
Detector	Peak / Average	Test Mode	Mode 2

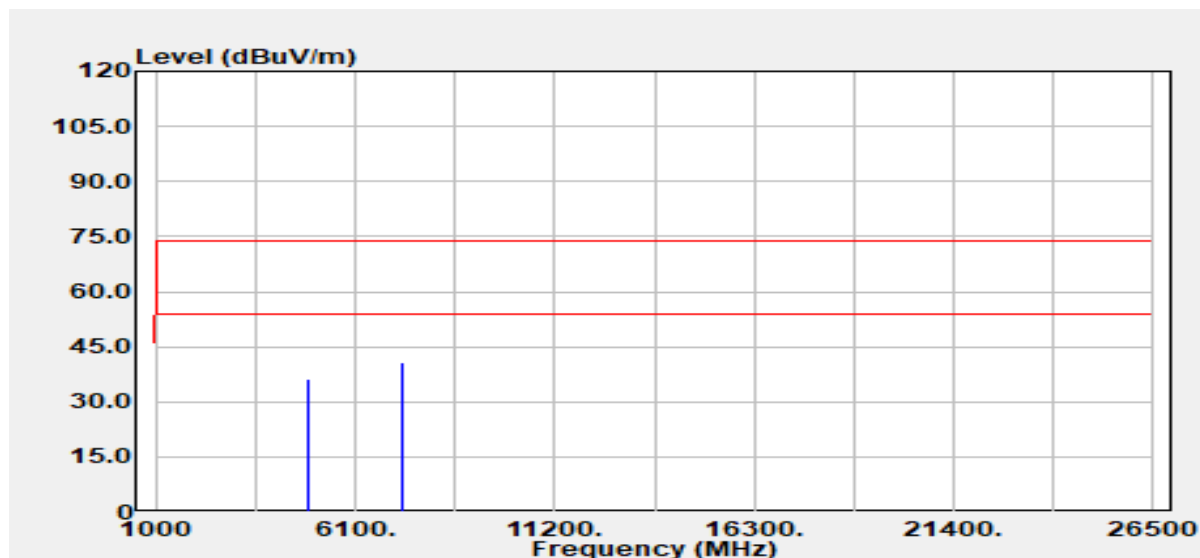


Freq. (MHz)	Detector Mode (PK/QP/AV)	Spectrum Reading Level (dBμV)	Factor (dB)	Actual FS (dBμV/m)	Limit @3m (dBμV/m)	Margin (dB)
4884.000	Peak	34.87	1.65	36.52	74.00	-37.48
4884.000	Average	28.15	1.65	29.80	54.00	-24.20
7326.000	Peak	34.04	7.70	41.74	74.00	-32.26
7326.000	Average	25.95	7.70	33.65	54.00	-20.35
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Test Mode:	Mode 2 BLE-2Mbps Mid CH	Temp/Hum	23.1(°C) / 61%RH
Test Item	Harmonic	Test Date	June 17, 2023
Polarize	Horizontal	Test Engineer	Tony Chao
Detector	Peak / Average	Test Mode	Mode 2

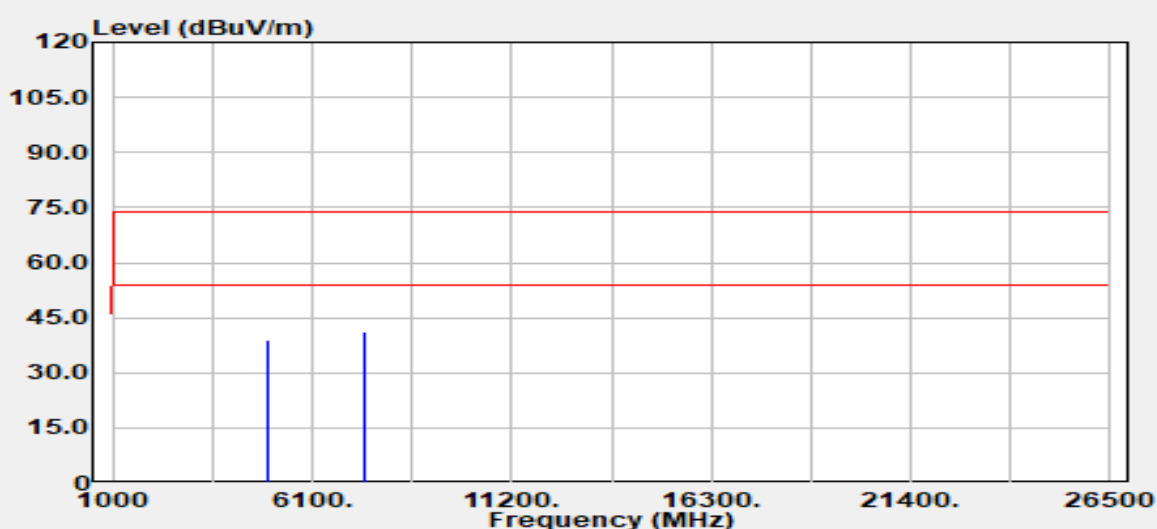


Freq. (MHz)	Detector Mode (PK/QP/AV)	Spectrum Reading Level (dBμV)	Factor (dB)	Actual FS (dBμV/m)	Limit @3m (dBμV/m)	Margin (dB)
4884.000	Peak	34.67	1.65	36.32	74.00	-37.68
4884.000	Average	28.29	1.65	29.94	54.00	-24.06
7326.000	Peak	32.87	7.70	40.58	74.00	-33.42
7326.000	Average	26.14	7.70	33.84	54.00	-20.16
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Test Mode:	Mode 2 BLE-2Mbps High CH	Temp/Hum	23.1(°C) / 61%RH
Test Item	Harmonic	Test Date	June 17, 2023
Polarize	Vertical	Test Engineer	Tony Chao
Detector	Peak / Average	Test Mode	Mode 2

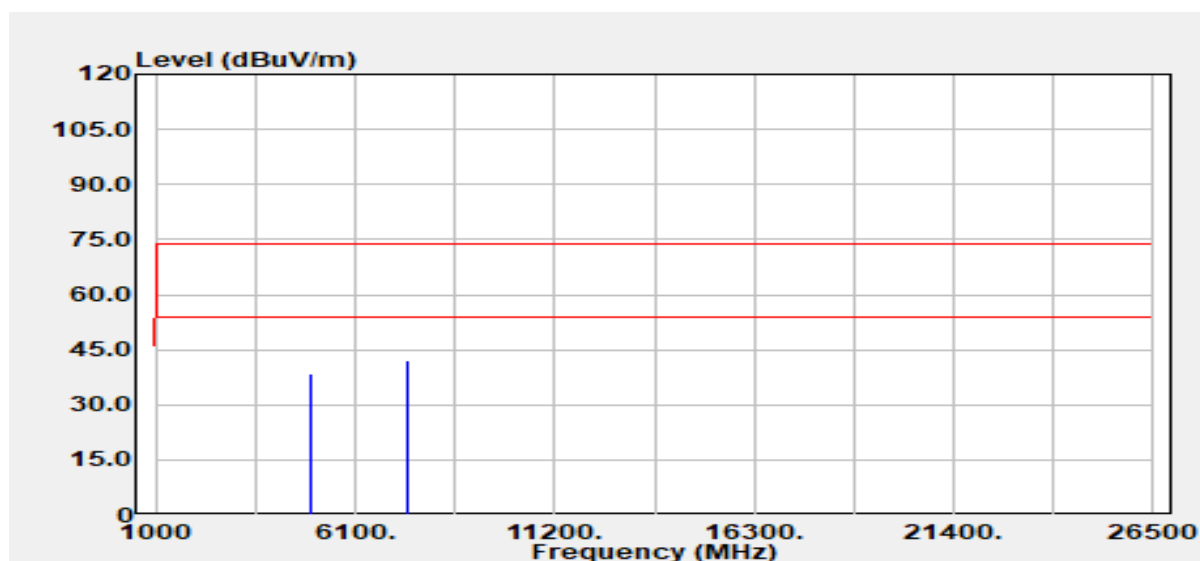


Freq. (MHz)	Detector Mode (PK/QP/AV)	Spectrum Reading Level (dBμV)	Factor (dB)	Actual FS (dBμV/m)	Limit @3m (dBμV/m)	Margin (dB)
4960.00	Peak	36.52	2.25	38.76	74.00	-35.24
4960.00	Average	27.83	2.25	30.08	54.00	-23.92
7440.00	Peak	33.50	7.64	41.14	74.00	-32.86
7440.00	Average	26.12	7.64	33.75	54.00	-20.25
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Test Mode:	Mode 2 BLE-2Mbps High CH	Temp/Hum	23.1(°C) / 61%RH
Test Item	Harmonic	Test Date	June 17, 2023
Polarize	Horizontal	Test Engineer	Tony Chao
Detector	Peak / Average	Test Mode	Mode 2



Freq. (MHz)	Detector Mode (PK/QP/AV)	Spectrum Reading Level (dBμV)	Factor (dB)	Actual FS (dBμV/m)	Limit @3m (dBμV/m)	Margin (dB)
4960.00	Peak	36.28	2.25	38.52	74.00	-35.48
4960.00	Average	28.06	2.25	30.31	54.00	-23.69
7440.00	Peak	34.41	7.64	42.05	74.00	-31.95
7440.00	Average	26.05	7.64	33.68	54.00	-20.32
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

--End of Test Report--