

TEST REPORT

Application No.: KSCR2509002199AT
FCC ID: 2BHTAAIH-2541
Applicant: SYNLAN TECHNOLOGY PTE. LTD.
Address of Applicant: 7 TEMASEK BOULEVARD, #29-01D, SUNTEC TOWER ONE, SINGAPORE 038987
Manufacturer: SYNLAN TECHNOLOGY PTE. LTD.
Address of Manufacturer: 7 TEMASEK BOULEVARD, #29-01D, SUNTEC TOWER ONE, SINGAPORE 038987
Factory: Ganzhou Ouxiang Electronics Co., Ltd
Address of Factory: No. 66, Baokuang Road, Shangou Industrial Park, Yudu County, Ganzhou City, Jiangxi Province, P.R. China
Equipment Under Test (EUT):
EUT Name: iFLYTEK AI Translation Earbuds
Model No.: AIH-2541
Trade Mark: iFLYTEK
Standard(s) : 47 CFR Part 15, Subpart C 15.247
Date of Receipt: 2025-09-29
Date of Test: 2025-10-26 to 2025-10-29
Date of Issue: 2025-11-10

Test Result:	Pass*
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* In the configuration tested, the EUT complied with the standards specified above.

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Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.



Revision Record			
Version	Description	Date	Remark
00	Original	2025-11-10	/

Authorized for issue by:			
Tested By		Damon Zhou	
		Damon_Zhou/Project Engineer	
Approved By		Terry Hou	
		Terry Hou /Reviewer	

2 Test Summary

Radio Spectrum Technical Requirement				
Item	Standard	Method	Requirement	Result
Antenna Requirement	47 CFR Part 15, Subpart C 15.247	N/A	47 CFR Part 15, Subpart C 15.203 & 15.247(b)(4)	Pass

Radio Spectrum Matter Part				
Item	Standard	Method	Requirement	Result
Radiated Emissions which fall in the restricted bands	47 CFR Part 15, Subpart C 15.247	ANSI C63.10 (2020) Section 6.10.5	47 CFR Part 15, Subpart C 15.205 & 15.209	Pass
Radiated Spurious Emissions Below 1GHz		ANSI C63.10 (2020) Section 6.4,6.5	47 CFR Part 15, Subpart C 15.205 & 15.209	Pass
Radiated Spurious Emissions Above 1GHz		ANSI C63.10 (2020) Section 6.6	47 CFR Part 15, Subpart C 15.205 & 15.209	Pass
Conducted Average Output Power		ANSI C63.10 (2020) Section 11.9.2	47 CFR Part 15, Subpart C 15.247(b)(3)	Pass
Minimum 6dB Bandwidth		ANSI C63.10 (2020) Section 11.8.1	47 CFR Part 15, Subpart C 15.247a(2)	Pass
Power Spectrum Density		ANSI C63.10 (2020) Section 11.10.3	47 CFR Part 15, Subpart C 15.247(e)	Pass
Conducted Band Edges Measurement		ANSI C63.10 (2020) Section 6.10.4	47 CFR Part 15, Subpart C 15.247(d)	Pass
Conducted Spurious Emissions		ANSI C63.10 (2020) Section 11.11	47 CFR Part 15, Subpart C 15.247(d)	Pass

3 Contents

	Page
1 COVER PAGE	1
2 Test Summary	3
3 Contents.....	4
4 General Information.....	5
4.1 Details of E.U.T.	5
4.2 Power level setting using in test:	5
4.3 Description of Support Units	5
4.4 Measurement Uncertainty	6
4.5 Test Location	7
4.6 Test Facility	7
4.7 Deviation from Standards.....	7
4.8 Abnormalities from Standard Conditions.....	7
5 Equipment List	8
6 Radio Spectrum Technical Requirement.....	9
6.1 Antenna Requirement	9
7 Radio Spectrum Matter Test Results	10
7.1 Radiated Emissions which fall in the restricted bands	10
7.2 Radiated Spurious Emissions Below 1GHz	29
7.3 Radiated Spurious Emissions Above 1GHz.....	33
7.4 Conducted Average Output Power	59
7.5 Minimum 6dB Bandwidth.....	61
7.6 Power Spectrum Density	62
7.7 Conducted Band Edges Measurement	63
7.8 Conducted Spurious Emissions	65
8 Test Setup Photo	67
9 EUT Constructional Details (EUT Photos).....	67
10 Appendix.....	68

4 General Information

4.1 Details of E.U.T.

Power supply:	Charging case battery model:543332PN3 Rated Capacity: 800mAh Nominal Energy: 3.04Wh Limited Charge Voltage: 4.35V Earbud Battery model:79213PF4 Rated Capacity: 100mAh Nominal Energy: 0.39Wh Nominal Voltage: 3.85V Limited Charge Voltage: 4.4V
Operation Frequency:	2402MHz to 2480MHz
Modulation Type:	GFSK
Number of Channels:	40
Channel Spacing:	2MHz
Antenna Type:	PIFA Antenna
Antenna Gain:	Left earbud:2.63dBi; (Provided by the manufacturer) Right earbud; 2.40dBi; (Provided by the manufacturer)

4.2 Power level setting using in test:

Channel	BLE	BLE
	1M	2M
0	3	3
19	3	3
39	3	3

4.3 Description of Support Units

Description	Manufacturer	Model No.	Serial No.
Notebook	Lenovo	/	/

4.4 Measurement Uncertainty

No.	Item	Measurement Uncertainty
1	Radio Frequency	8.4×10^{-8}
2	Timeout	2s
3	Duty Cycle	0.37%
4	Occupied Bandwidth	3%
5	RF Conducted Power	0.6dB
6	RF Power Density	2.9dB
7	Conducted Spurious Emissions	0.75dB
8	RF Radiated Power	5.2dB (Below 1GHz)
		5.9dB (Above 1GHz)
9	Radiated Spurious Emission Test	4.2dB (Below 30MHz)
		4.5dB (30MHz-1GHz)
		5.1dB (1GHz-18GHz)
		5.4dB (Above 18GHz)
10	Temperature Test	1°C
11	Humidity Test	3%
12	Supply Voltages	1.5%
13	Time	3%
Note: The measurement uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.		

4.5 Test Location

All tests were performed at:

Compliance Certification Services (Kunshan) Inc.

No.10 Weiye Rd, Innovation park, Eco&Tec, Development Zone, Kunshan City, Jiangsu, China.

Tel: +86 512 5735 5888 Fax: +86 512 5737 0818

No tests were sub-contracted.

Note:

1. SGS is not responsible for wrong test results due to incorrect information (e.g., max. internal working frequency, antenna gain, cable loss, etc) is provided by the applicant. (If applicable).
2. SGS is not responsible for the authenticity, integrity and the validity of the conclusion based on results of the data provided by applicant. (If applicable).
3. Sample source: sent by customer.

4.6 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

- **A2LA**

Compliance Certification Services (Kunshan) Inc. is accredited by the American Association for Laboratory Accreditation (A2LA). Certificate No. 2541.01.

- **FCC**

Compliance Certification Services (Kunshan) Inc. has been recognized as an accredited testing laboratory. Designation Number: CN1172.

- **ISED**

Compliance Certification Services (Kunshan) Inc. has been recognized by Innovation, Science and Economic Development Canada (ISED) as an accredited testing laboratory. Company Number: 2324E

- **VCCI**

The 3m and 10m Semi-anechoic chamber and Shielded Room of Compliance Certification Services (Kunshan) Inc. has been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-20134, R-11600, C-11707, T-11499, G-10216 respectively.

4.7 Deviation from Standards

None

4.8 Abnormalities from Standard Conditions

None

5 Equipment List

RF Conducted Test						
1	Spectrum Analyzer	Keysight	N9020A	KUS1911E004-2	07/09/2025	07/08/2026
2	Spectrum Analyzer	Keysight	N9020A	KUS2001M001-2	07/09/2025	07/08/2026
3	Spectrum Analyzer	Keysight	N9030B	KSEM021-1	01/15/2025	01/14/2026
4	Signal Generator	R&S	SMBV100B	KSEM032	02/19/2025	02/18/2026
5	Signal Generator	R&S	SMW200A	KSEM020-1	07/09/2025	07/08/2026
6	Signal Generator	Agilent	N5182A	KUS2001M001-1	07/08/2025	07/07/2026
7	Signal Generator	Agilent	E8257C	KS301066	07/22/2025	07/21/2026
8	Radio Communication Test Station	Anritsu	MT8000A	KSEM001-1	07/09/2025	07/08/2026
9	Radio Communication Analyzer	Anritsu	MT8821C	KSEM002-1	02/19/2025	02/18/2026
10	Universal Radio Communication Tester	R&S	CMW500	KUS1911E004-1	07/08/2025	07/07/2026
11	Switcher	TST	FY562	KUS2001M001-4	01/15/2025	01/14/2026
12	Conducted Test Cable	Thermax	RF01-RF04	CZ301111-CZ301120	01/14/2025	01/13/2026
13	Temp. / Humidity Chamber	TERCHY	MHK-120AK	KS301190	07/15/2025	07/14/2026
14	Temperature & Humidity Recorder	Renke Control	RS-WS-N01-6J	KSEM024-5	02/26/2025	02/25/2026
15	Software	BST	TST-PASS	/	NCR	NCR
RF Radiated Test						
1	Spectrum Analyzer	R&S	FSV40	KUS1806E003	07/09/2025	07/08/2026
2	Universal Radio Communication Tester	R&S	CMW500	KSEM009-1	02/18/2025	02/17/2026
3	Signal Generator	Agilent	E8257C	KS301066	07/22/2025	07/21/2026
4	Loop Antenna (9KHz-30MHz)	COM-POWER	AL-130R	KUS1806E001	07/11/2025	07/10/2026
5	Bilog Antenna (30MHz-1GHz)	TESEQ	CBL 6112D	KUS1806E005	07/12/2025	07/11/2026
6	Horn-antenna(1-18GHz)	Schwarzbeck	BBHA9120D	KS301079	03/23/2024	03/22/2026
7	Horn Antenna(18-40GHz)	Schwarzbeck	BBHA9170	CZ301058	01/07/2024	01/06/2026
8	Amplifier(30MHz~1GHz)	TST	LNA009100G30	KSEM061	01/15/2025	01/14/2026
9	Amplifier(400MHz~8GHz)	TST	LNA004080G30	KSEM062	01/15/2025	01/14/2026
10	Amplifier(1GHz~18GHz)	TST	LNA010180G45	KSEM039	07/09/2025	07/08/2026
11	Amplifier(18~40GHz)	TST	LNA180400G40	KSEM038	07/09/2025	07/08/2026
12	Temperature & Humidity Recorder	Renke Control	RS-WS-N01-6J	KSEM024-4	02/26/2025	02/25/2026
13	Software	Faratronic	EZ EMC-v 3A1	/	NCR	NCR
14	Software	ESE	E3_V 6.111221a	/	NCR	NCR

6 Radio Spectrum Technical Requirement

6.1 Antenna Requirement

6.1.1 Test Requirement:

47 CFR Part 15, Subpart C 15.203 & 15.247(b)(4)

6.1.2 Conclusion

Standard Requirement:

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

15.247(b) (4) requirement:

The conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

EUT Antenna:

The antenna is PIFA Antenna on the main PCB and no consideration of replacement. The best case gain of the Left earbud: 2.63dBi; Right earbud; 2.40dBi

Antenna location: Refer to internal photo.

7 Radio Spectrum Matter Test Results

7.1 Radiated Emissions which fall in the restricted bands

Test Requirement 47 CFR Part 15, Subpart C 15.205 & 15.209

Test Method: ANSI C63.10 (2020) Section 6.10.5

Measurement Distance: 3M

Limit:

Frequency(MHz)	Field strength(microvolts/meter)	Measurement distance(meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

Remark: The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90kHz, 110-490kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation.

7.1.1 E.U.T. Operation

Operating Environment:

Temperature: 23.6 °C

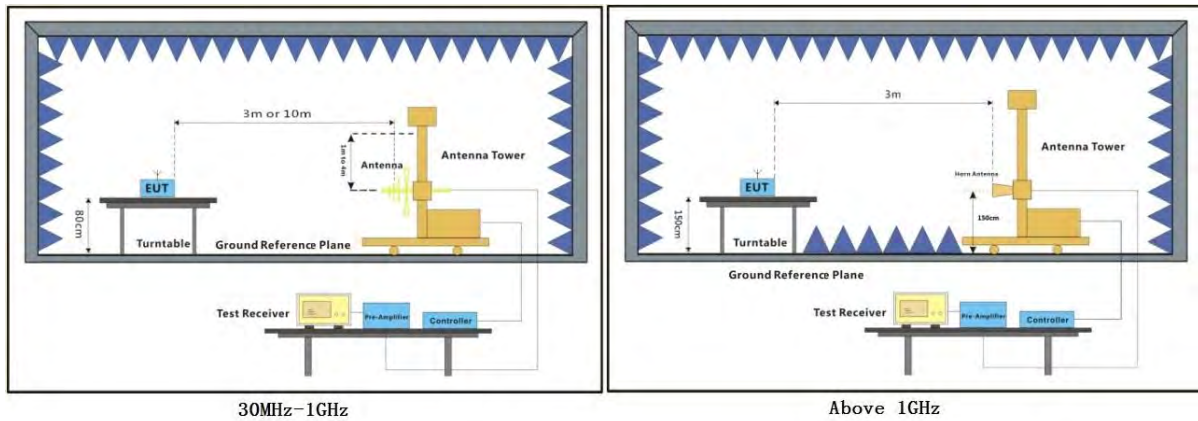
Humidity: 45.8 % RH

Atmospheric Pressure: 1010 mbar

7.1.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	02	TX mode(1Mbps)_Keep the EUT in continuously transmitting mode with GFSK modulation.
Final test	03	TX mode(2Mbps)_Keep the EUT in continuously transmitting mode with GFSK modulation.

7.1.3 Test Setup Diagram



7.1.4 Measurement Procedure and Data

- a. For below 1GHz, the EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 or 10 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. For above 1GHz, the EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter fully-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- c. The EUT was set 3 or 10 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- d. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- e. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- f. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- g. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.
- h. Test the EUT in the lowest channel, the middle channel, the Highest channel.
- i. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.
- j. Repeat above procedures until all frequencies measured was complete.

Remark 1: $\text{Level} = \text{Read Level} + \text{Cable Loss} + \text{Antenna Factor} - \text{Preamp Factor}$

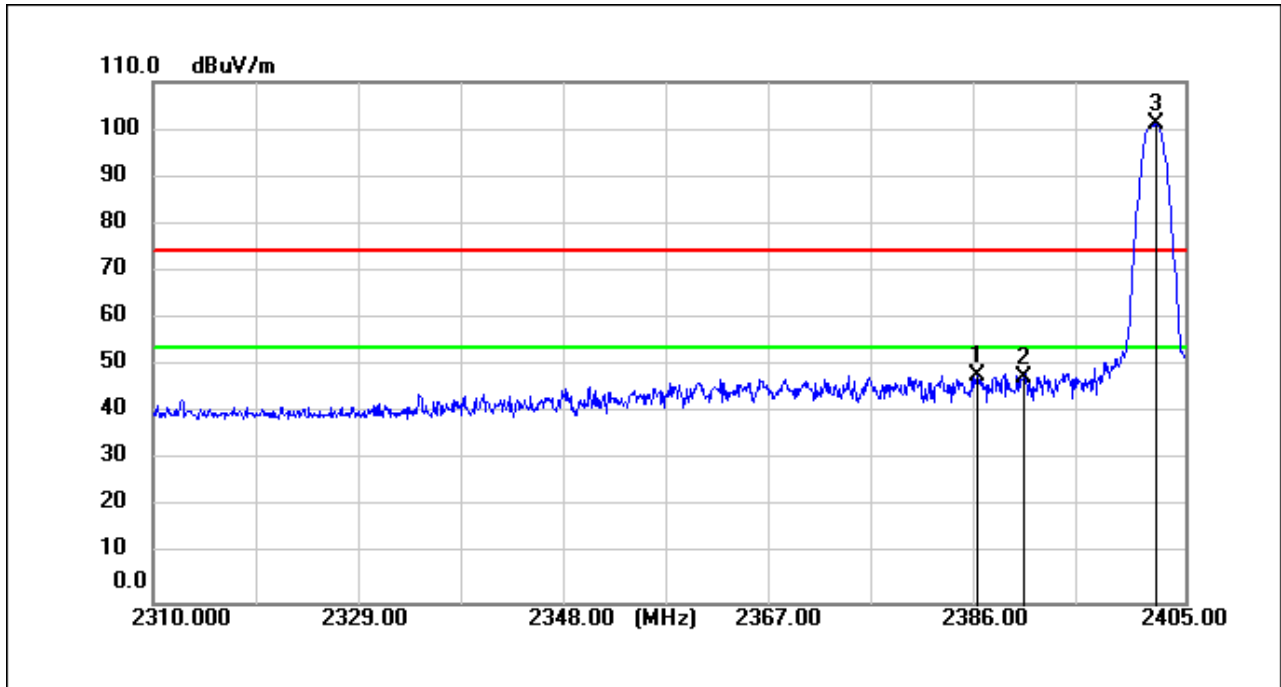
Remark 2: For frequencies above 1GHz, the field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. For the emissions whose peak level is lower than the average limit, only the peak measurement is shown in the report.

Remark 3: The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 3MHz for Peak detection (PK) and Average detection (AV) at frequency above 1GHz.

Remark 4: For fundamental and harmonic signal measurement, the resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is $\geq 1/T$ (Duty cycle $< 98\%$) or 10Hz (Duty cycle $\geq 98\%$) for Average detection (AV) at frequency above 1GHz.

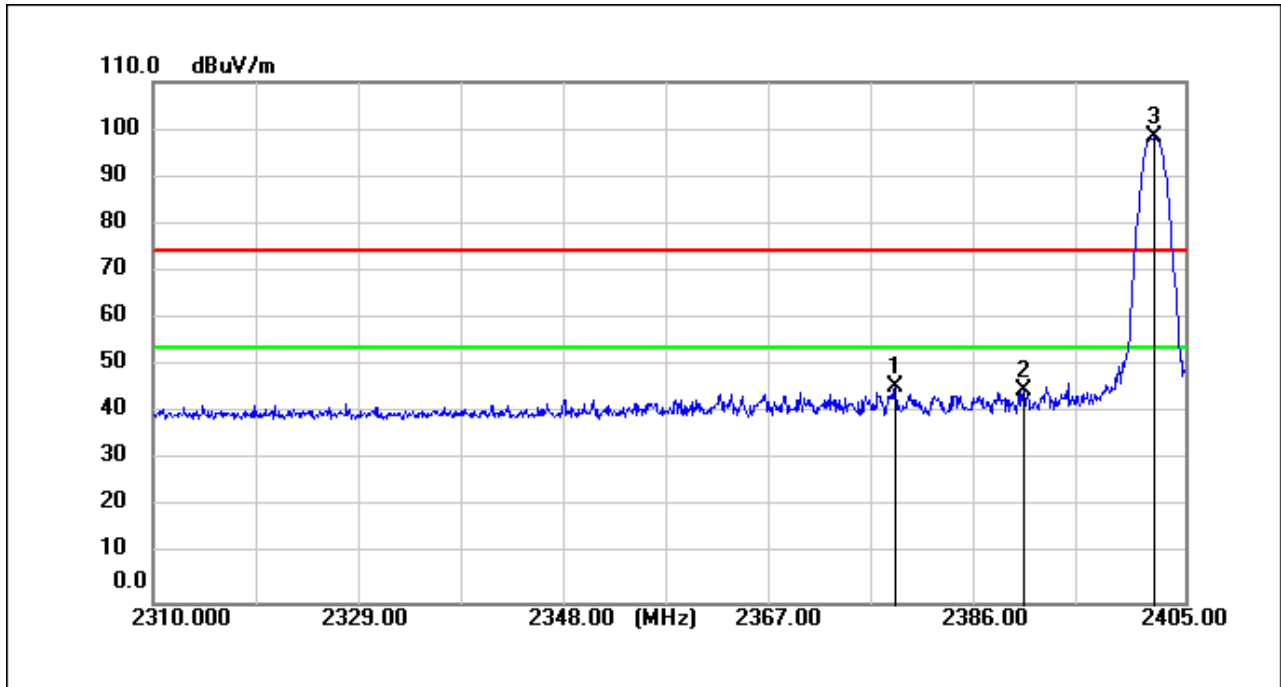
Left earbud

BLE_1M_TX_CH_00_Horizontal_Peak

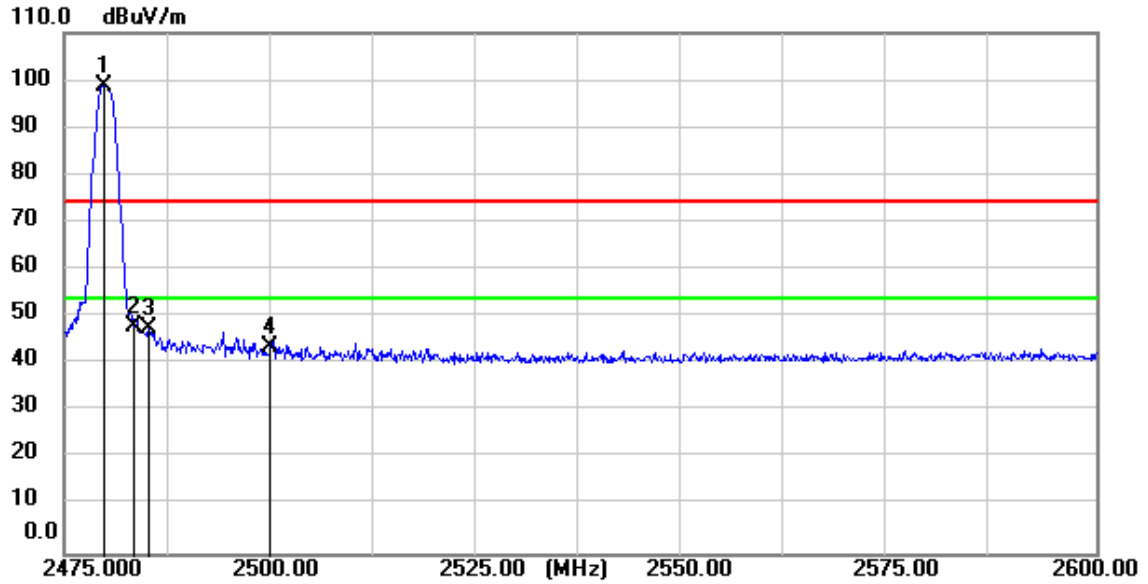


No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2385.905	50.44	-2.14	48.30	74.00	-25.70	peak
2	2390.000	50.04	-2.13	47.91	74.00	-26.09	peak
3	2402.340	103.05	-2.06	100.99	74.00	26.99	peak

BLE_1M_TX_CH_00_Vertical_Peak

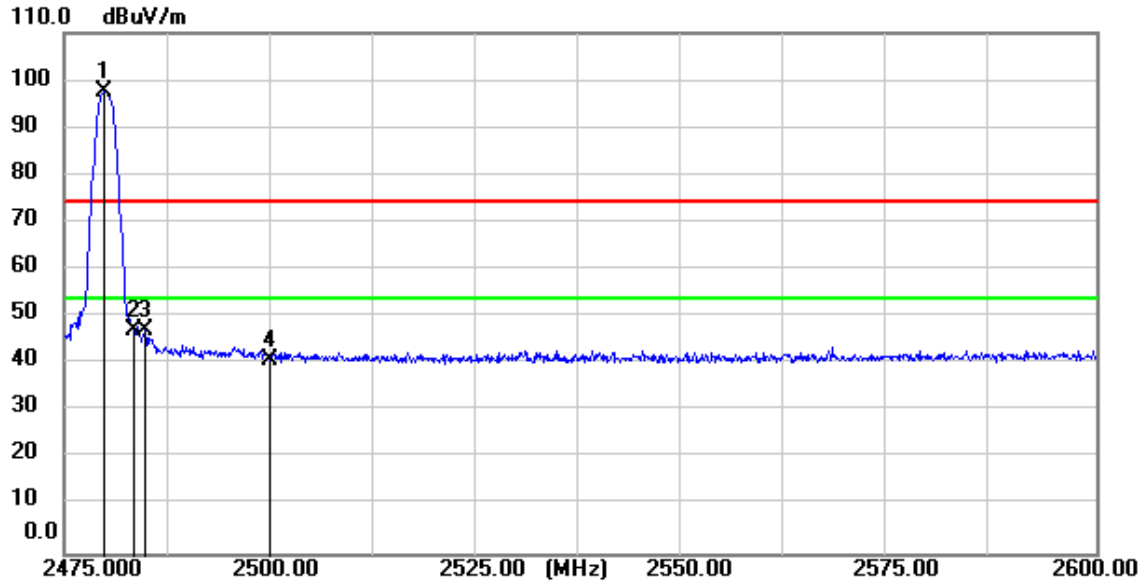


BLE_1M_TX_CH_39_Horizontal



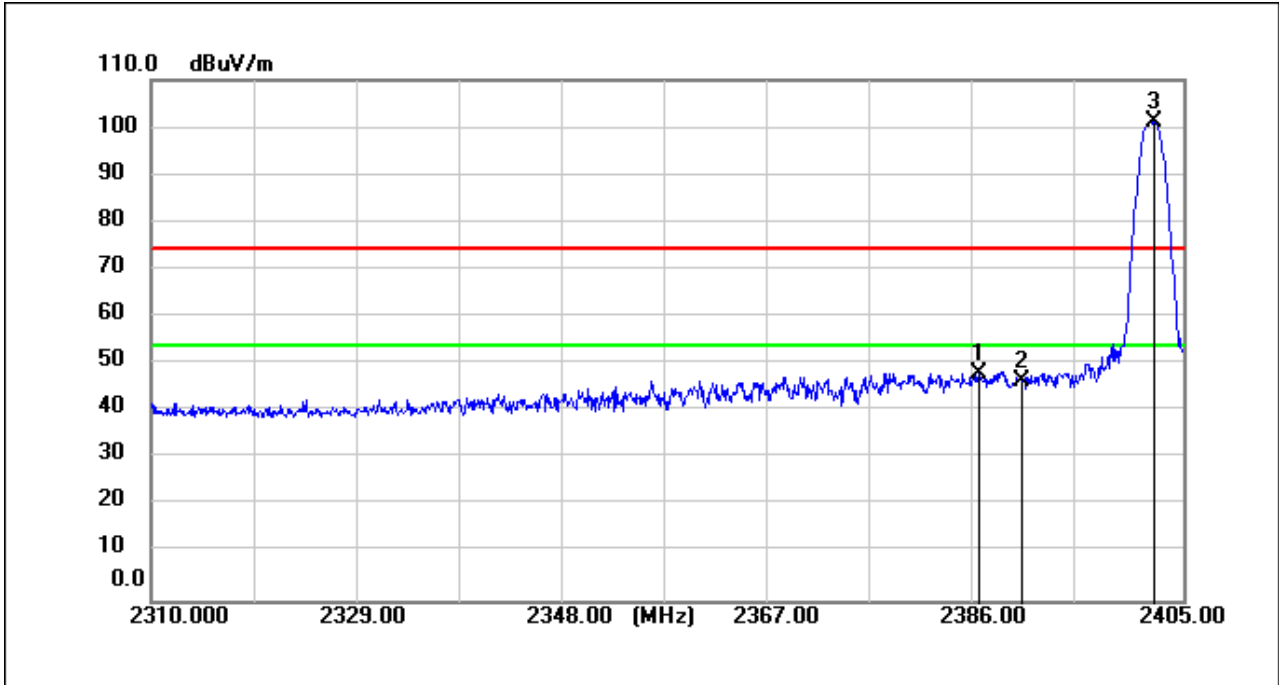
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2479.875	100.50	-1.66	98.84	74.00	24.84	peak
2	2483.500	49.81	-1.64	48.17	74.00	-25.83	peak
3	2485.250	49.40	-1.62	47.78	74.00	-26.22	peak
4	2500.000	45.47	-1.55	43.92	74.00	-30.08	peak

BLE_1M_TX_CH_39_Vertical



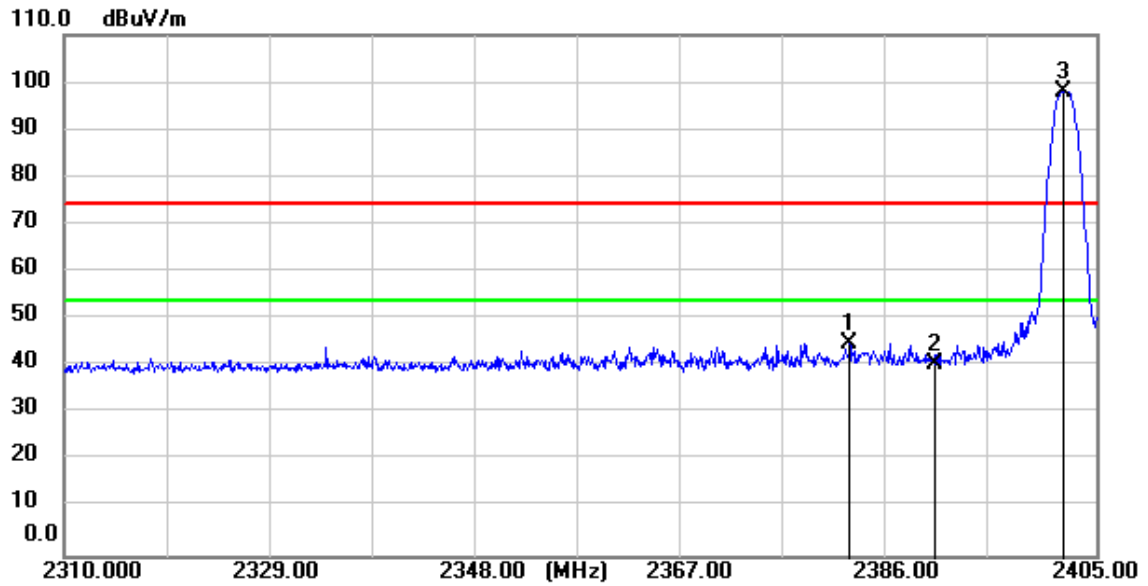
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2479.750	99.19	-1.66	97.53	74.00	23.53	peak
2	2483.500	49.16	-1.64	47.52	74.00	-26.48	peak
3	2484.875	48.85	-1.63	47.22	74.00	-26.78	peak
4	2500.000	42.75	-1.55	41.20	74.00	-32.80	peak

BLE_2M_TX_CH_00_Horizontal_Peak



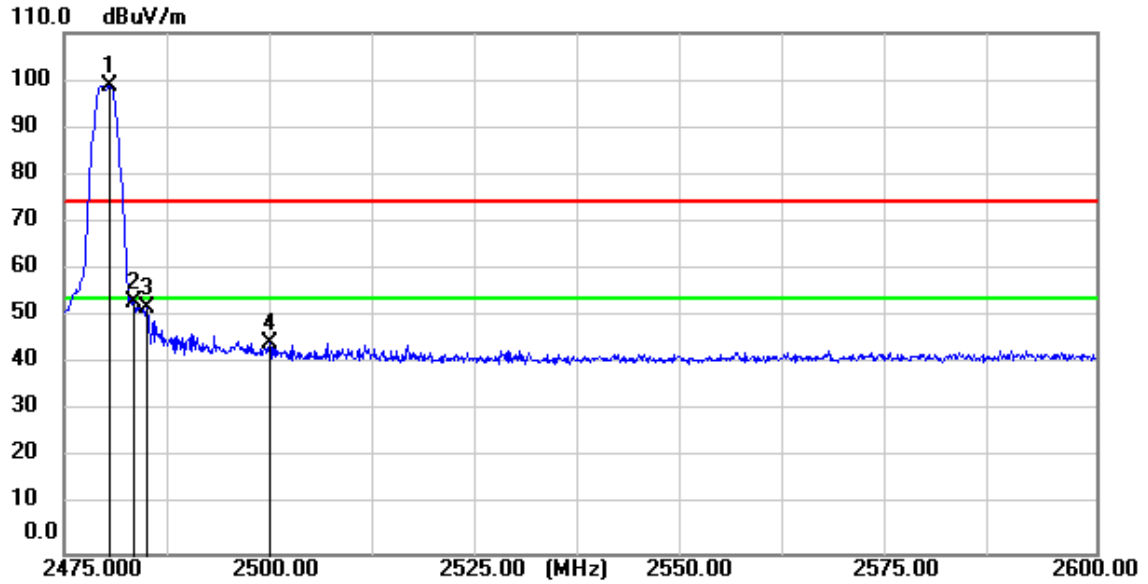
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2386.285	50.27	-2.14	48.13	74.00	-25.87	peak
2	2390.000	48.74	-2.13	46.61	74.00	-27.39	peak
3	2402.340	103.08	-2.06	101.02	74.00	27.02	peak

BLE_2M_TX_CH_00_Vertical



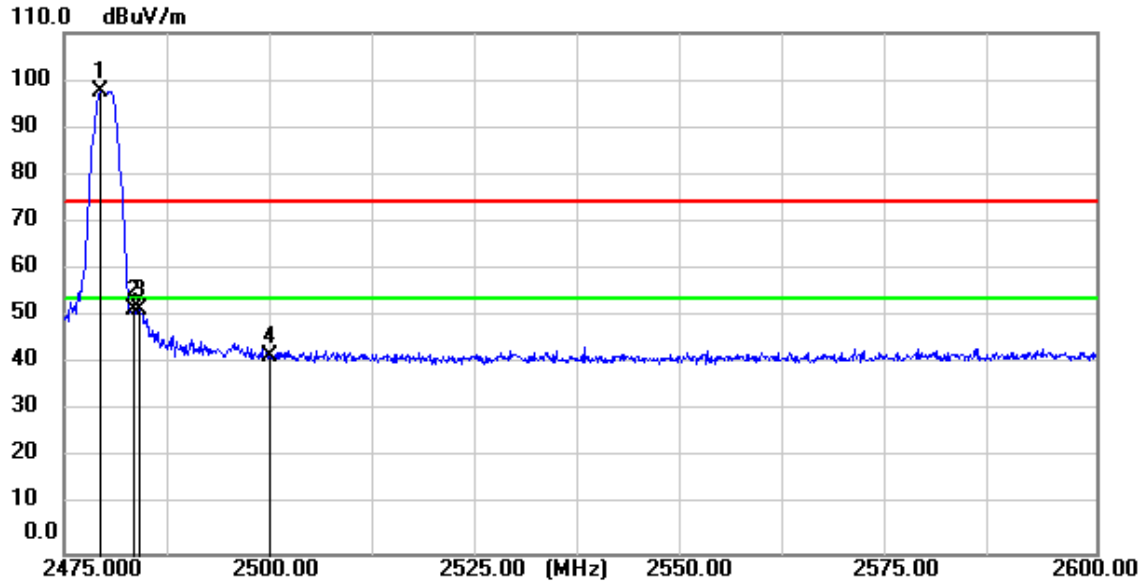
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2382.295	47.21	-2.17	45.04	74.00	-28.96	peak
2	2390.000	42.98	-2.13	40.85	74.00	-33.15	peak
3	2401.960	100.22	-2.07	98.15	74.00	24.15	peak

BLE_2M_TX_CH_39_Horizontal_Peak



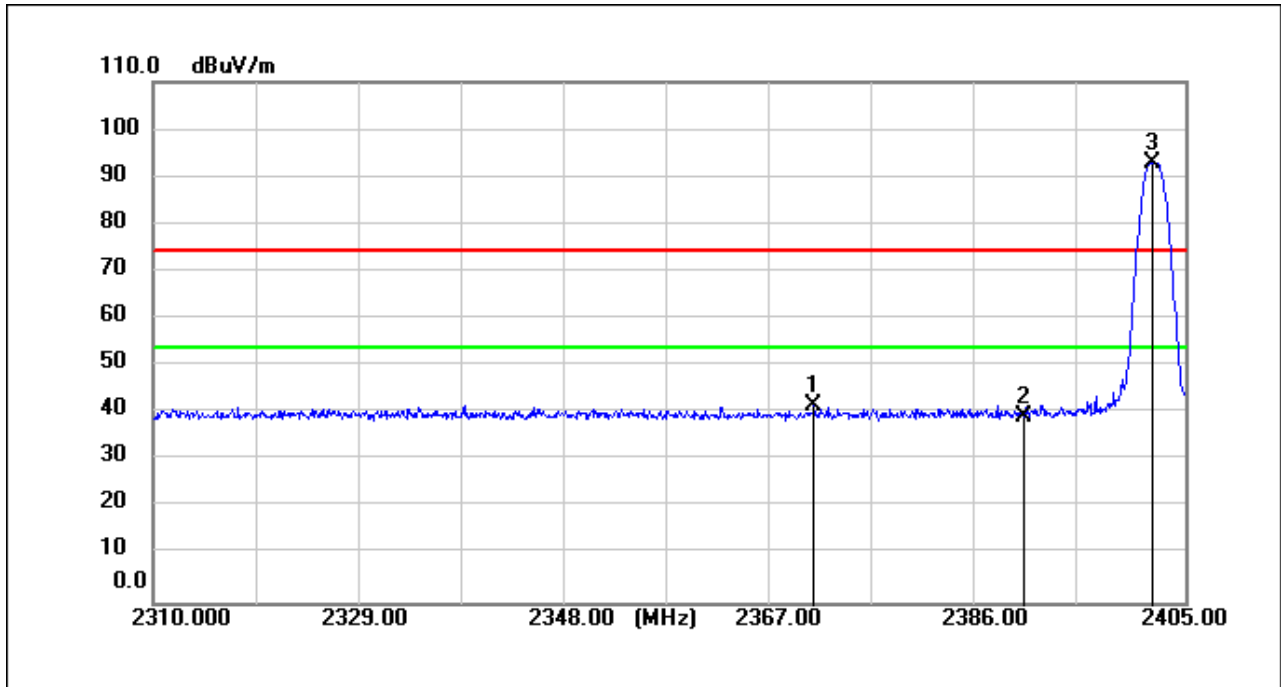
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2480.500	100.52	-1.65	98.87	74.00	24.87	peak
2	2483.500	54.68	-1.64	53.04	74.00	-20.96	peak
3	2485.000	53.81	-1.63	52.18	74.00	-21.82	peak
4	2500.000	46.21	-1.55	44.66	74.00	-29.34	peak

BLE_2M_TX_CH_39_Vertical

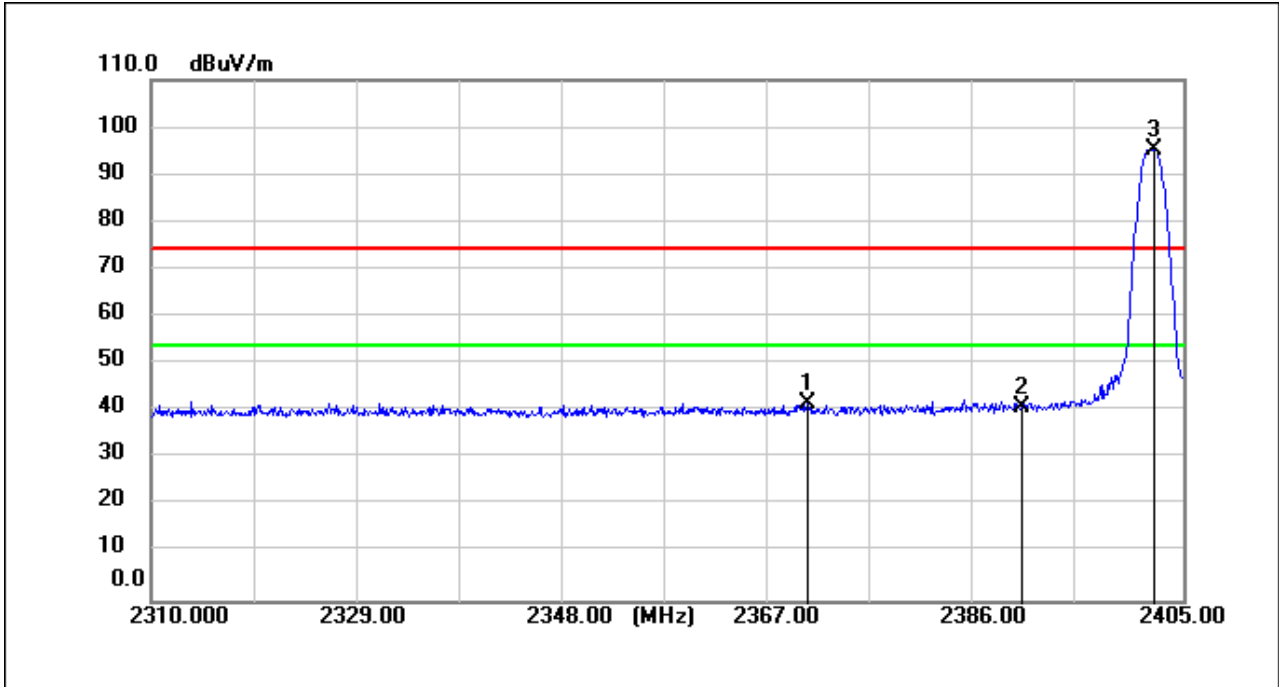


Right earbud

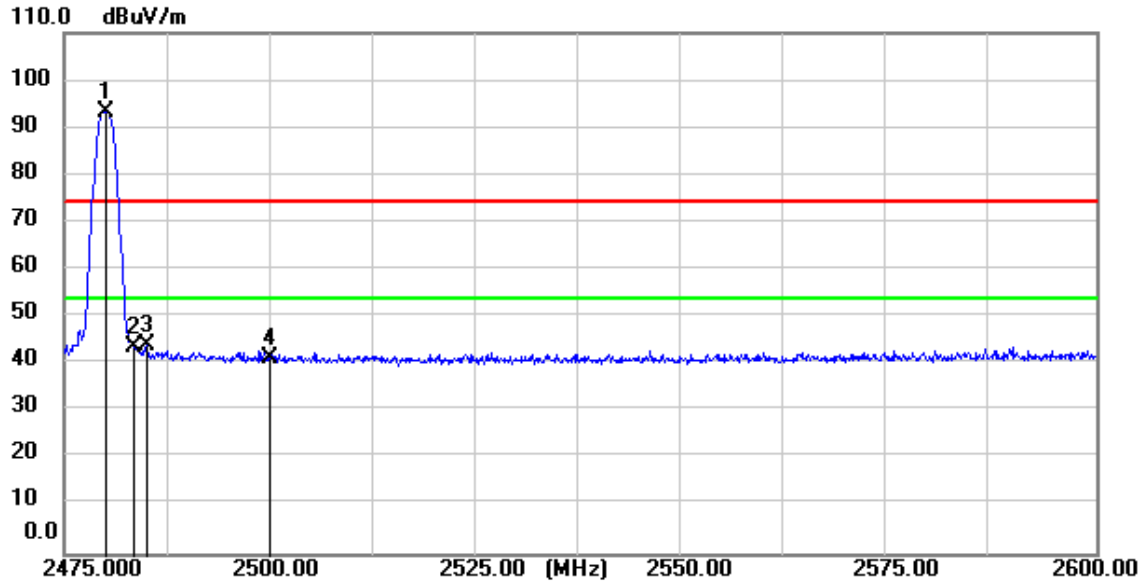
BLE_1M_TX_CH_00_Horizontal_Peak



BLE_1M_TX_CH_00_Vertical_Peak

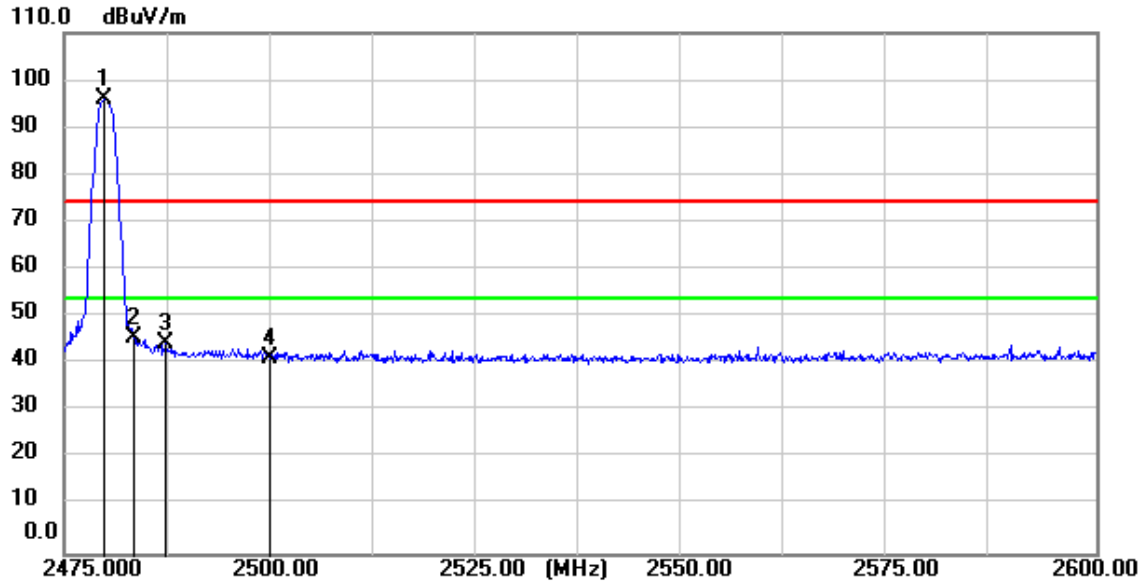


BLE_1M_TX_CH_39_Horizontal



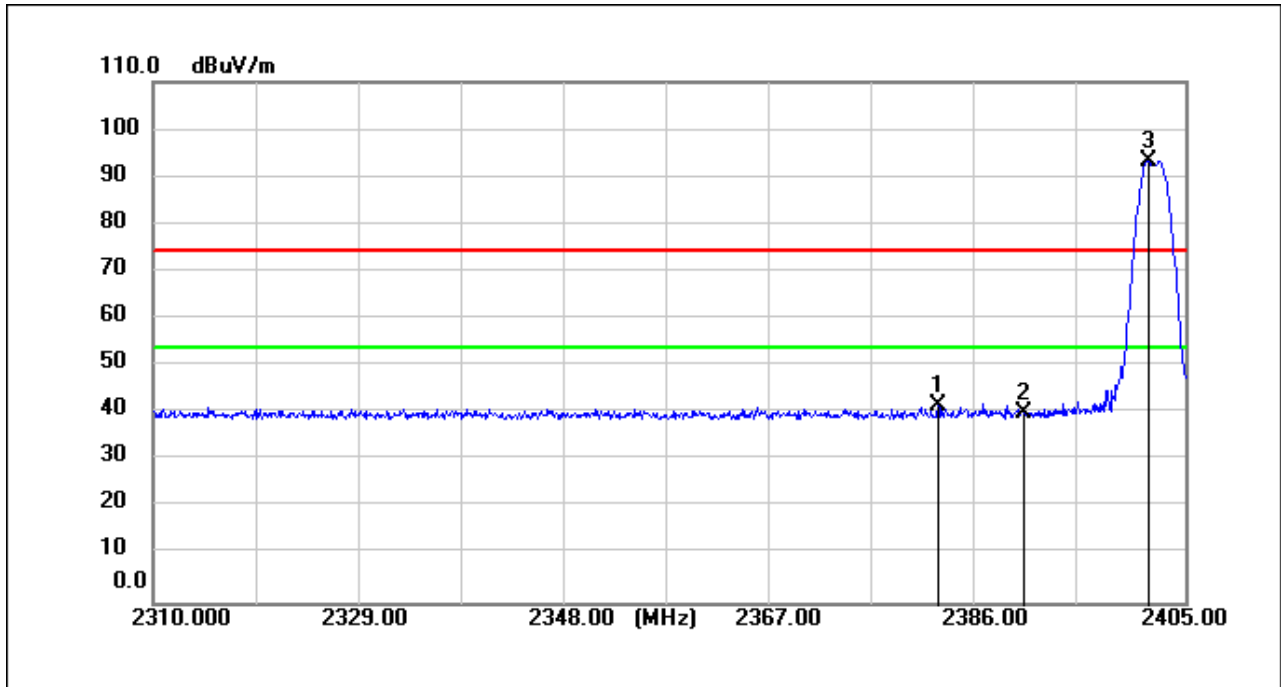
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2480.125	95.03	-1.65	93.38	74.00	19.38	peak
2	2483.500	45.29	-1.64	43.65	74.00	-30.35	peak
3	2485.000	45.83	-1.63	44.20	74.00	-29.80	peak
4	2500.000	42.91	-1.55	41.36	74.00	-32.64	peak

BLE_1M_TX_CH_39_Vertical



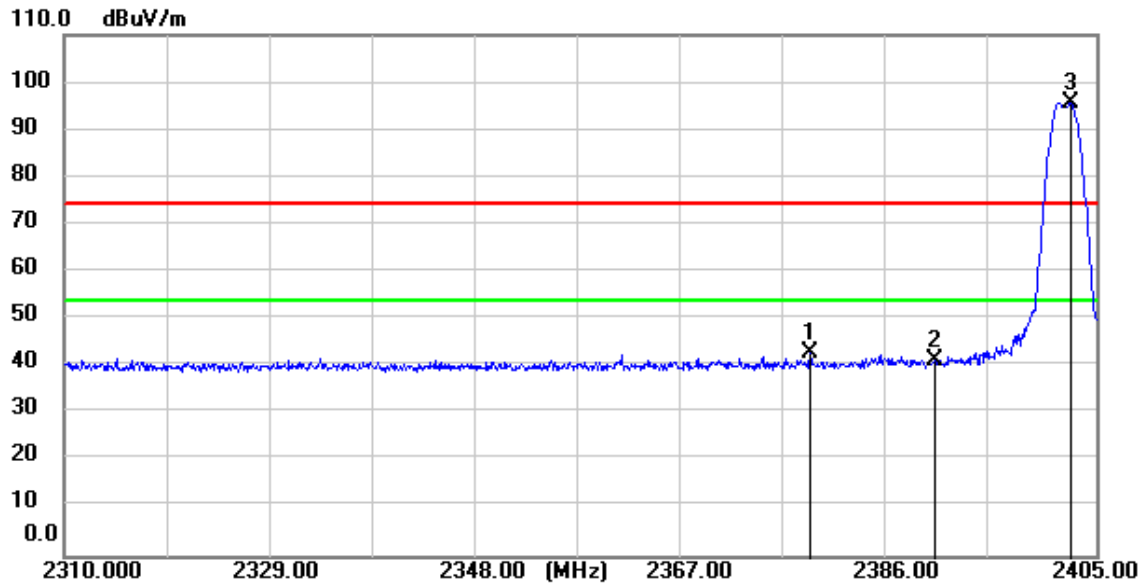
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2479.875	97.59	-1.66	95.93	74.00	21.93	peak
2	2483.500	47.40	-1.64	45.76	74.00	-28.24	peak
3	2487.375	46.08	-1.61	44.47	74.00	-29.53	peak
4	2500.000	42.94	-1.55	41.39	74.00	-32.61	peak

BLE_2M_TX_CH_00_Horizontal_Peak



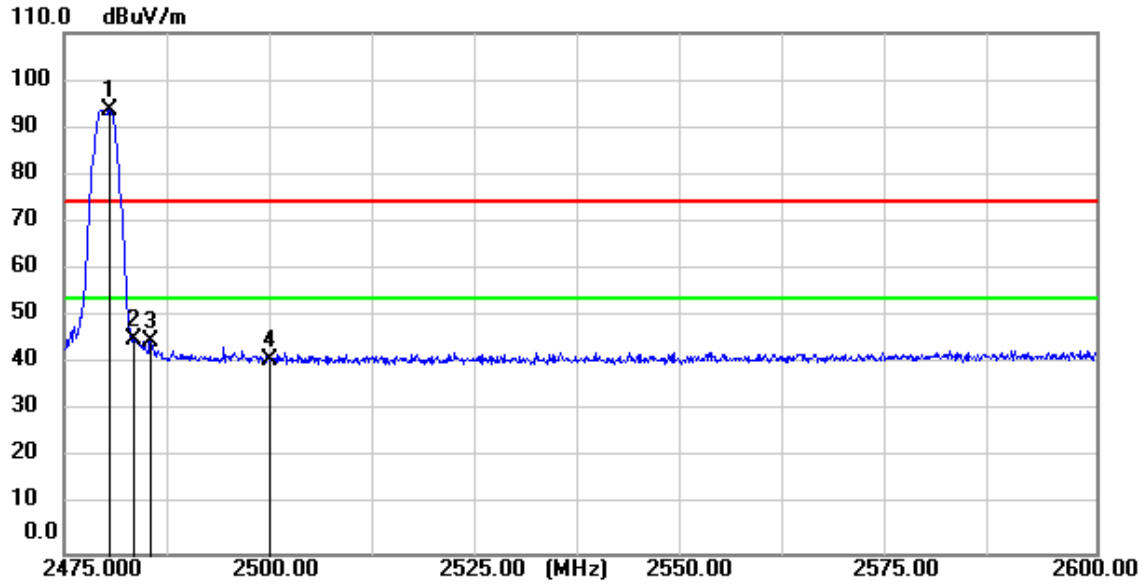
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2382.200	43.83	-2.17	41.66	74.00	-32.34	peak
2	2390.000	42.59	-2.13	40.46	74.00	-33.54	peak
3	2401.580	95.31	-2.07	93.24	74.00	19.24	peak

BLE_2M_TX_CH_00_Verical



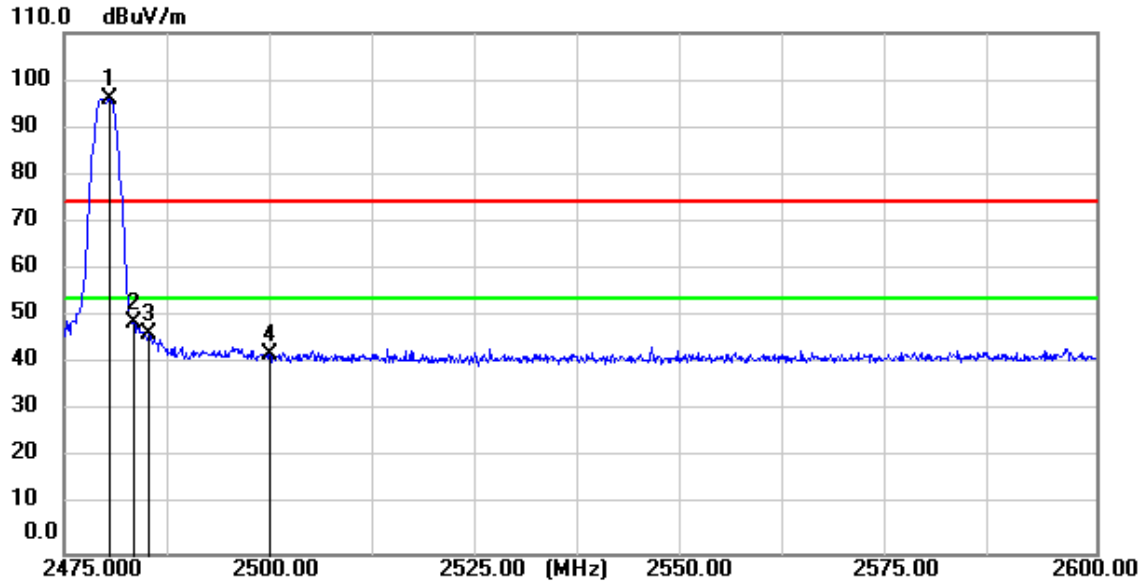
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2378.685	45.24	-2.18	43.06	74.00	-30.94	peak
2	2390.000	43.52	-2.13	41.39	74.00	-32.61	peak
3	2402.625	97.69	-2.06	95.63	74.00	21.63	peak

BLE_2M_TX_CH_39_Horizontal_Peak



No.	Frequency (MHz)	Reading (dBuV)	Correction factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2480.500	95.24	-1.65	93.59	74.00	19.59	peak
2	2483.500	47.12	-1.64	45.48	74.00	-28.52	peak
3	2485.500	46.42	-1.62	44.80	74.00	-29.20	peak
4	2500.000	42.74	-1.55	41.19	74.00	-32.81	peak

BLE_2M_TX_CH_39_Vertical



7.2 Radiated Spurious Emissions Below 1GHz

Test Requirement 47 CFR Part 15, Subpart C 15.205 & 15.209

Test Method: ANSI C63.10 (2020) Section 6.4,6.5

Measurement Distance: 3M

Limit:

Frequency(MHz)	Field strength(microvolts/meter)	Measurement distance(meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100	3
88-216	150	3
216-960	200	3
960-1000	500	3

7.2.1 E.U.T. Operation

Operating Environment:

Temperature: 23.6 °C

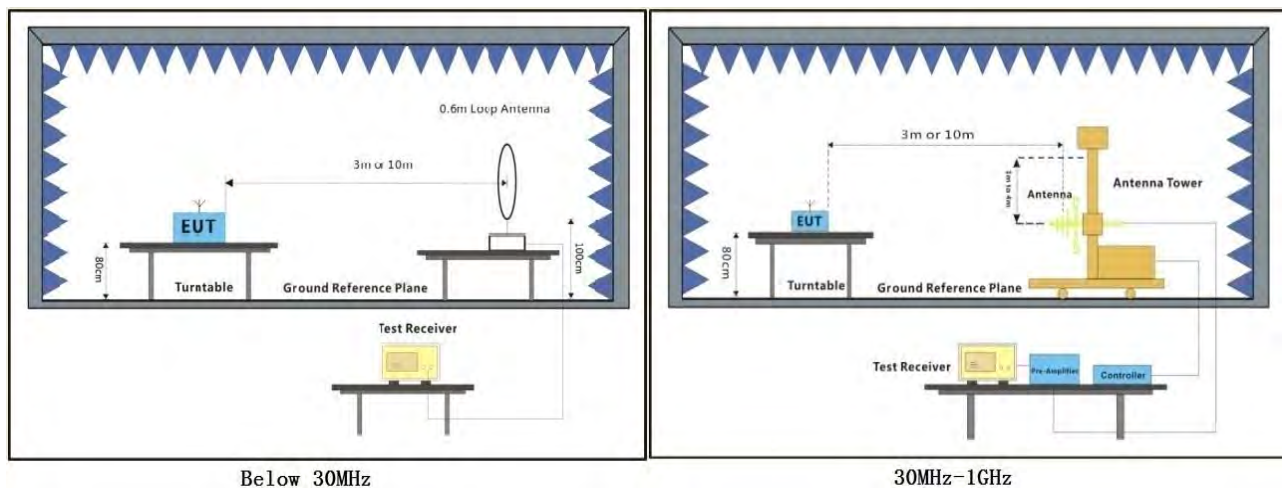
Humidity: 45.8 % RH

Atmospheric Pressure: 1010 mbar

7.2.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	02	TX mode(1Mbps)_Keep the EUT in continuously transmitting mode with GFSK modulation.

7.2.3 Test Setup Diagram



7.2.4 Measurement Procedure and Data

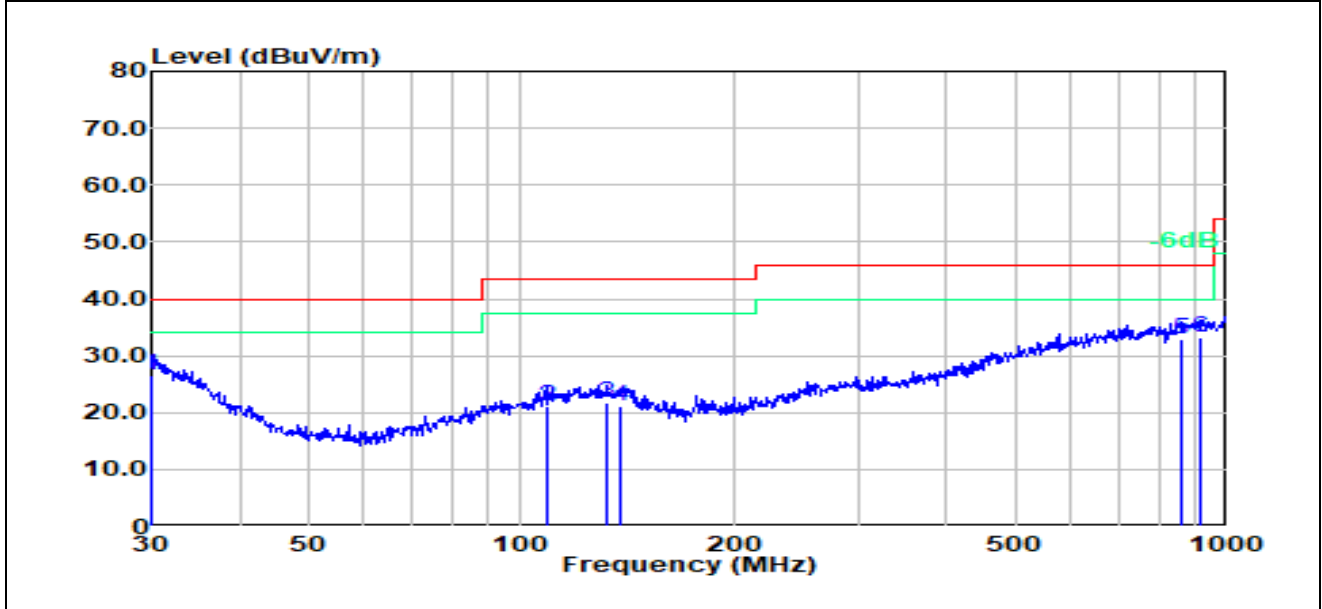
- a. For below 1GHz, the EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using quasi-peak method as specified and then reported in a data sheet.
- g. Test the EUT in the lowest channel, the middle channel, the Highest channel.
- h. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.
- i. Repeat above procedures until all frequencies measured was complete.

Remark:

1. $\text{Level} = \text{Read Level} + \text{Cable Loss} + \text{Antenna Factor} - \text{Preamp Factor}$
2. Scan from 9kHz to 30MHz, the disturbance below 30MHz was very low. The points marked on above plots are the highest emissions could be found when testing, so only above points had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported.

Test Mode: 02; Polarity: Horizontal

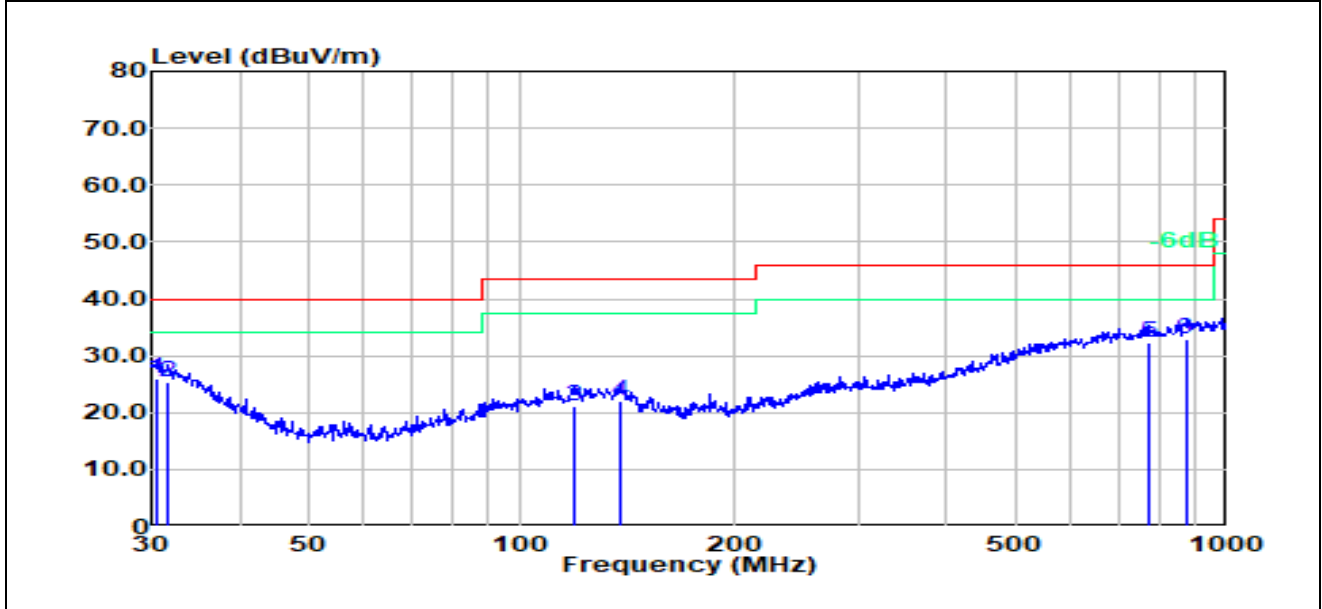
Test Data :



No.	Frequency (MHz)	Reading (dBUV)	Correct Factor(dB/m)	Result (dBUV/m)	Limit (dBUV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	30.11	1.41	25.04	26.45	40.00	-13.55	100	64	QP
2	108.65	1.78	19.34	21.12	43.50	-22.38	100	267	QP
3	132.22	1.58	20.10	21.68	43.50	-21.82	100	64	QP
4	138.39	0.52	20.50	21.02	43.50	-22.48	100	204	QP
5	863.06	2.28	30.75	33.03	46.00	-12.97	100	217	QP
6	919.29	1.99	31.27	33.26	46.00	-12.74	100	133	QP

Test Mode: 02; Polarity: Vertical

Test Data :



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	30.53	1.32	24.70	26.02	40.00	-13.98	100	58	QP
2	31.73	1.85	23.60	25.45	40.00	-14.55	100	23	QP
3	119.44	0.94	20.25	21.19	43.50	-22.31	100	250	QP
4	137.90	1.47	20.55	22.02	43.50	-21.48	100	133	QP
5	776.88	1.88	30.30	32.18	46.00	-13.82	100	223	QP
6	872.18	2.01	31.01	33.02	46.00	-12.98	100	10	QP

7.3 Radiated Spurious Emissions Above 1GHz

Test Requirement 47 CFR Part 15, Subpart C 15.205 & 15.209

Test Method: ANSI C63.10 (2020) Section 6.6

Measurement Distance: 3M

Limit:

Frequency(MHz)	Field strength(microvolts/meter)	Measurement distance(meters)
Above 1000	500	3

7.3.1 E.U.T. Operation

Operating Environment:

Temperature: 23.6 °C

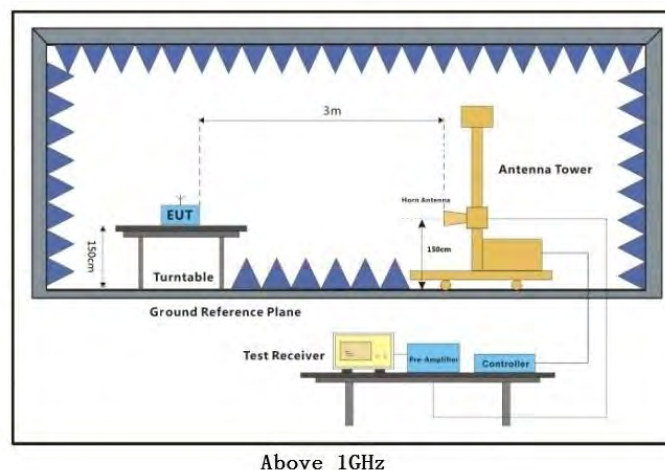
Humidity: 45.8 % RH

Atmospheric Pressure: 1010 mbar

7.3.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	02	TX mode(1Mbps)_Keep the EUT in continuously transmitting mode with GFSK modulation.
Final test	03	TX mode(2Mbps)_Keep the EUT in continuously transmitting mode with GFSK modulation.

7.3.3 Test Setup Diagram



7.3.4 Measurement Procedure and Data

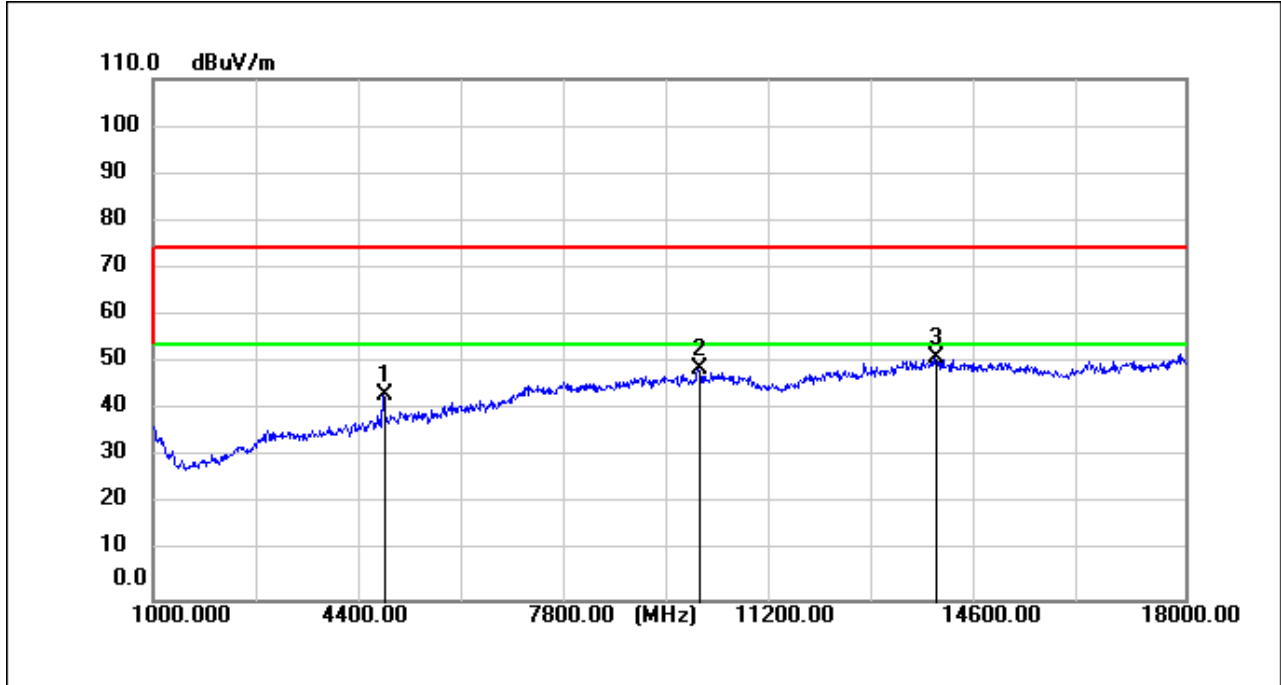
- a. For above 1GHz, the EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak or average method as specified and then reported in a data sheet.
- g. Test the EUT in the lowest channel, the middle channel, the Highest channel.
- h. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.
- i. Repeat above procedures until all frequencies measured was complete.

Remark:

1. Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor
2. Scan from 1GHz to 25GHz, the disturbance above 18GHz was very low. The points marked on above plots are the highest emissions could be found when testing, so only above points had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported.
3. As shown in this section, for frequencies above 1GHz, the field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. For the emissions whose peak level is lower than the average limit, only the peak measurement is shown in the report.
- 4: The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 3MHz for Peak detection (PK) and Average detection (AV) at frequency above 1GHz.
- 5:For fundamental and harmonic signal measurement, the resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is $\geq 1/T$ (Duty cycle<98%) or 10Hz (Duty cycle $\geq$ 98%) for Average detection (AV) at frequency above 1GHz.

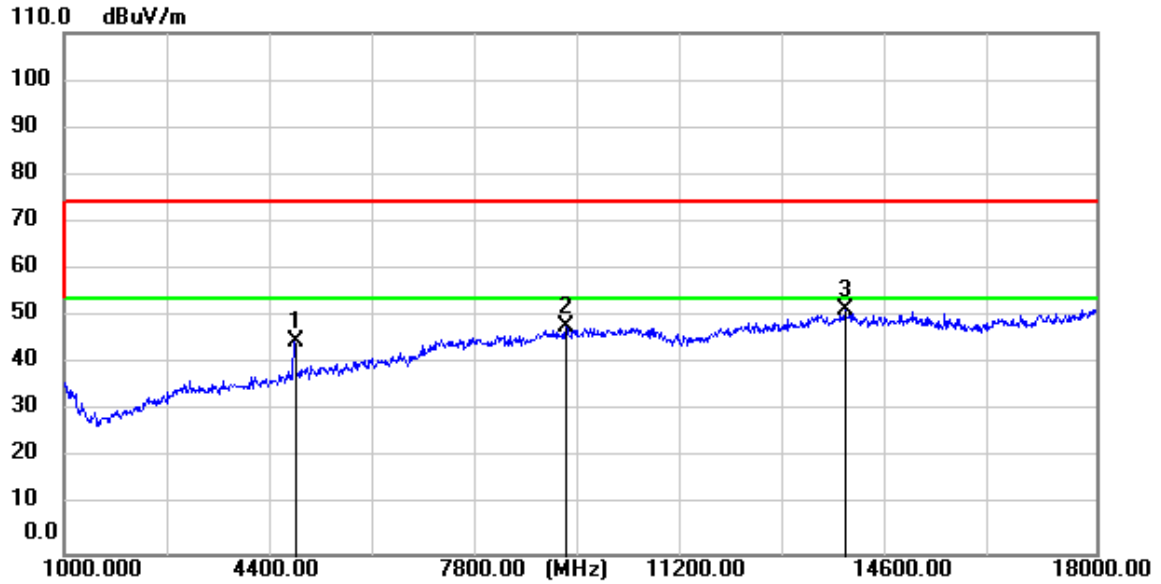
Left earbud

BLE_1M_TX_CH_00_Horizontal



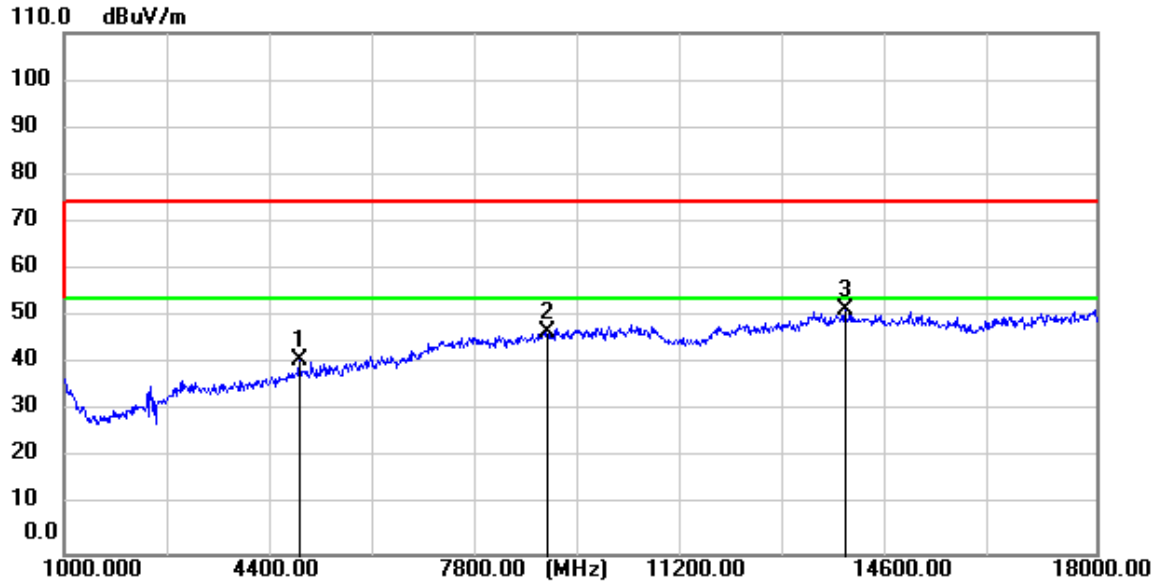
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4804.600	61.15	-17.90	43.25	74.00	-30.75	peak
2	9988.750	55.52	-6.62	48.90	74.00	-25.10	peak
3	13893.650	54.57	-3.44	51.13	74.00	-22.87	peak

BLE_1M_TX_CH_00_Verical



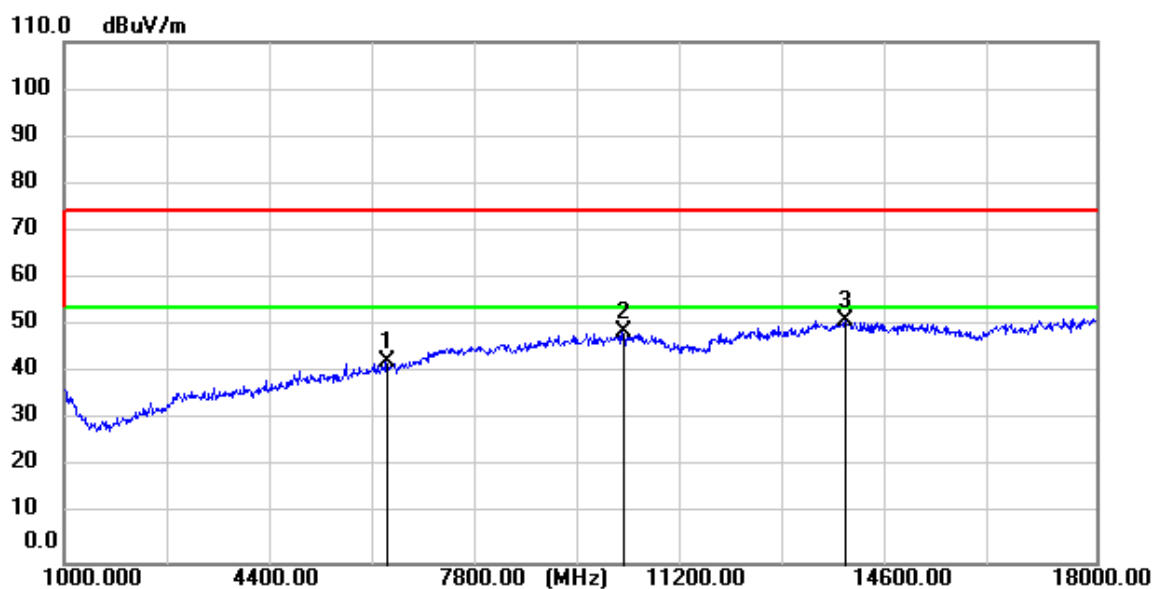
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4803.750	62.95	-17.90	45.05	74.00	-28.95	peak
2	9272.200	55.98	-7.77	48.21	74.00	-25.79	peak
3	13876.650	54.96	-3.47	51.49	74.00	-22.51	peak

BLE_1M_TX_CH_19_Horizontal

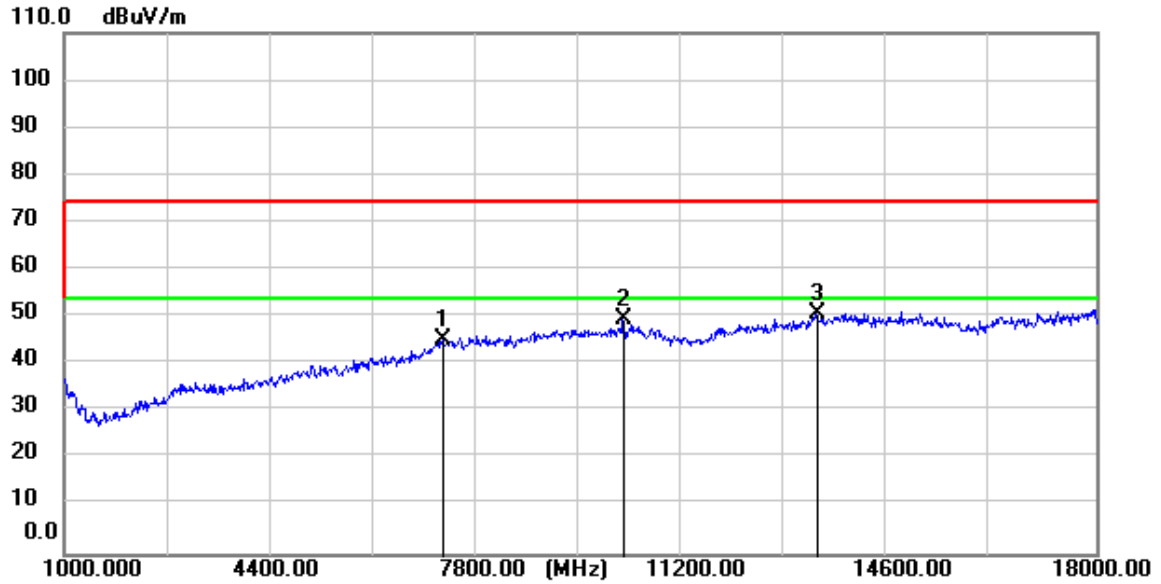


No.	Frequency (MHz)	Reading (dBuV)	Correction factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4879.400	58.61	-17.57	41.04	74.00	-32.96	peak
2	8941.550	55.33	-8.35	46.98	74.00	-27.02	peak
3	13881.750	55.14	-3.46	51.68	74.00	-22.32	peak

BLE_1M_TX_CH_19_Vertical

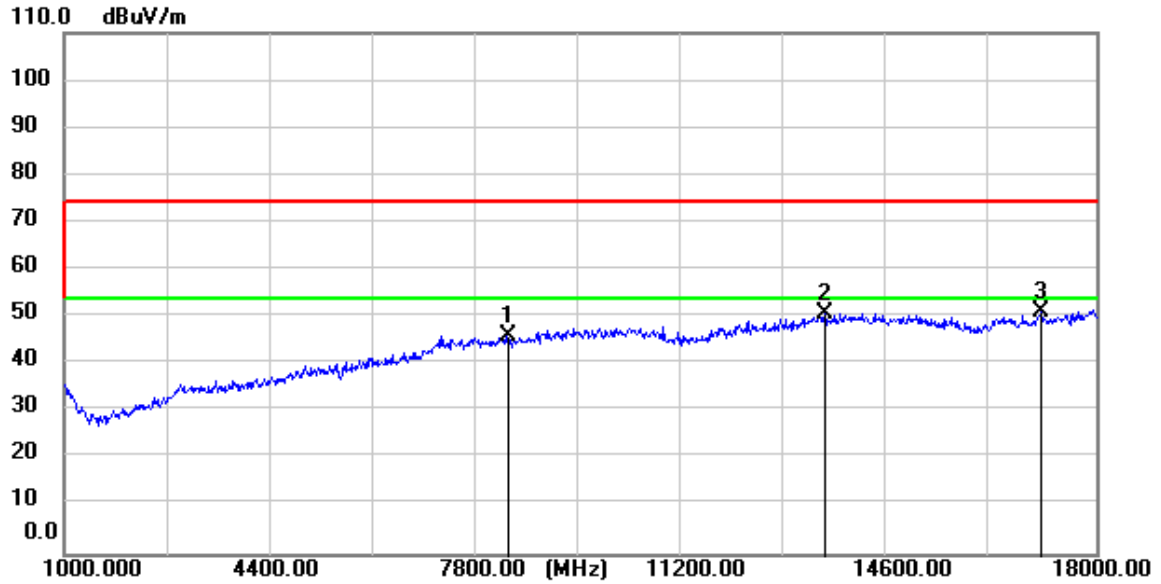


BLE_1M_TX_CH_39_Horizontal



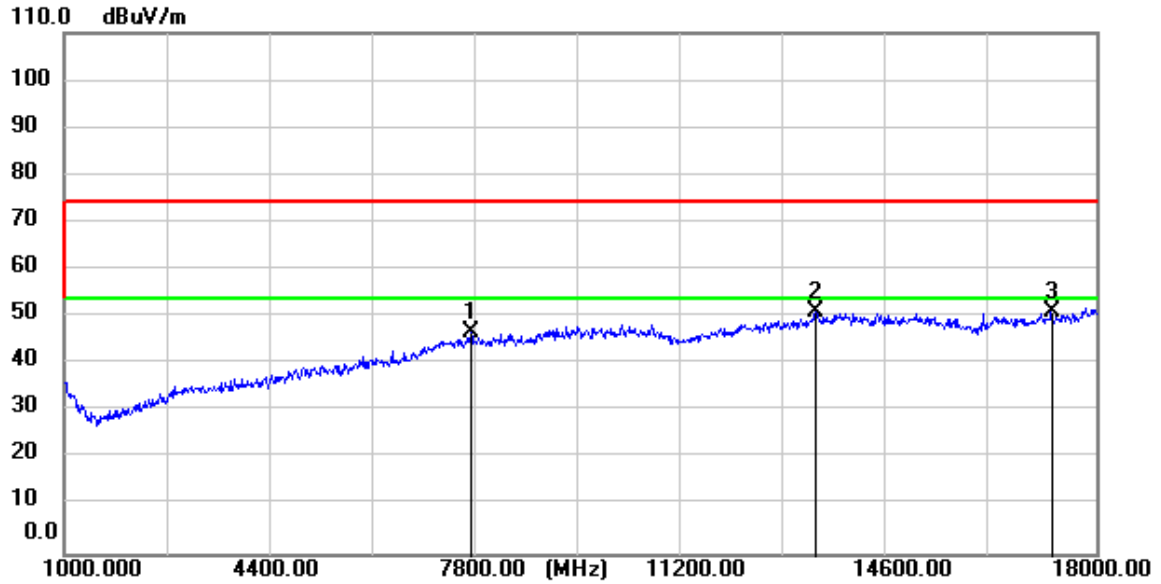
No.	Frequency (MHz)	Reading (dBuV)	Correction factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	7239.850	55.78	-10.50	45.28	74.00	-28.72	peak
2	10212.300	56.10	-6.38	49.72	74.00	-24.28	peak
3	13404.900	54.94	-4.06	50.88	74.00	-23.12	peak

BLE_1M_TX_CH_39_Verical



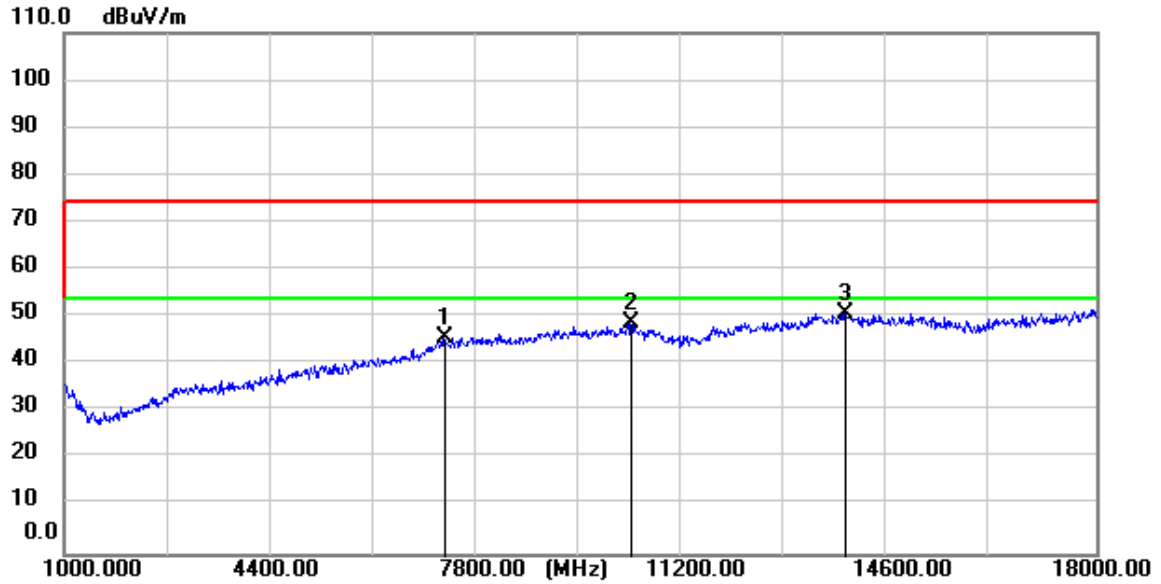
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	8307.450	55.82	-9.60	46.22	74.00	-27.78	peak
2	13538.350	54.78	-3.81	50.97	74.00	-23.03	peak
3	17099.000	52.75	-1.59	51.16	74.00	-22.84	peak

BLE_2M_TX_CH_00_Horizontal



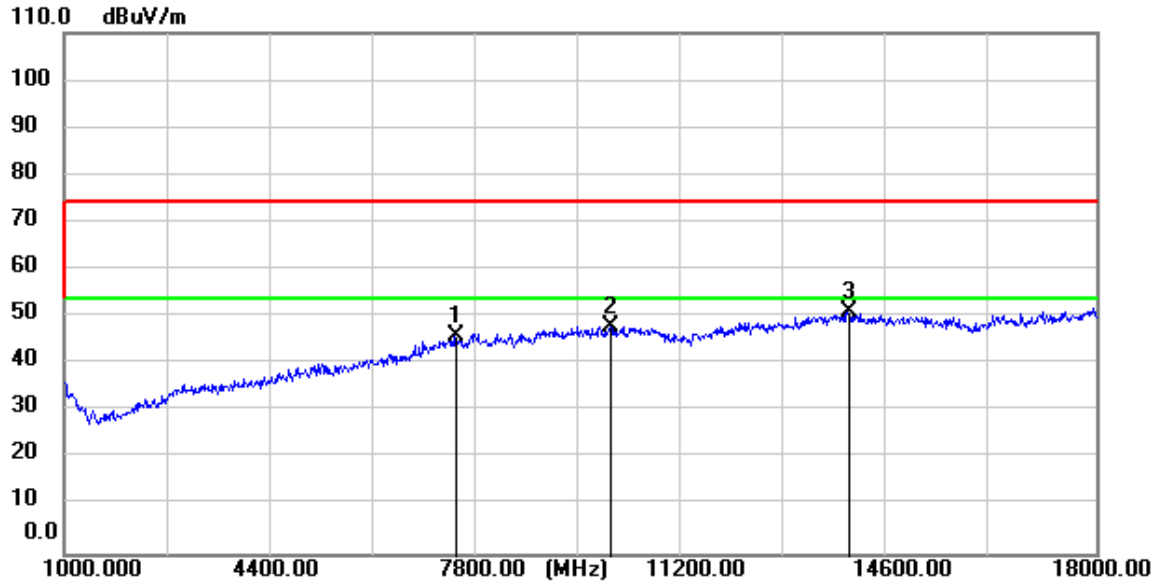
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	7708.200	56.80	-9.86	46.94	74.00	-27.06	peak
2	13383.650	55.37	-4.11	51.26	74.00	-22.74	peak
3	17262.200	52.52	-1.44	51.08	74.00	-22.92	peak

BLE_2M_TX_CH_00_Vertical



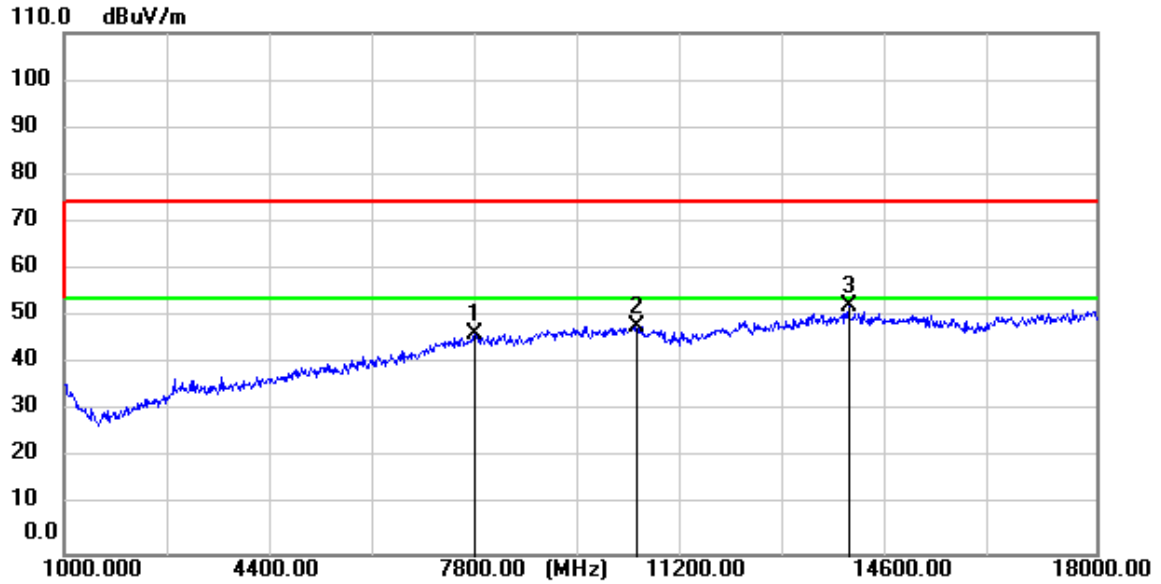
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	7264.500	56.25	-10.45	45.80	74.00	-28.20	peak
2	10326.200	55.12	-6.27	48.85	74.00	-25.15	peak
3	13874.950	54.33	-3.47	50.86	74.00	-23.14	peak

BLE_2M_TX_CH_19_Horizontal



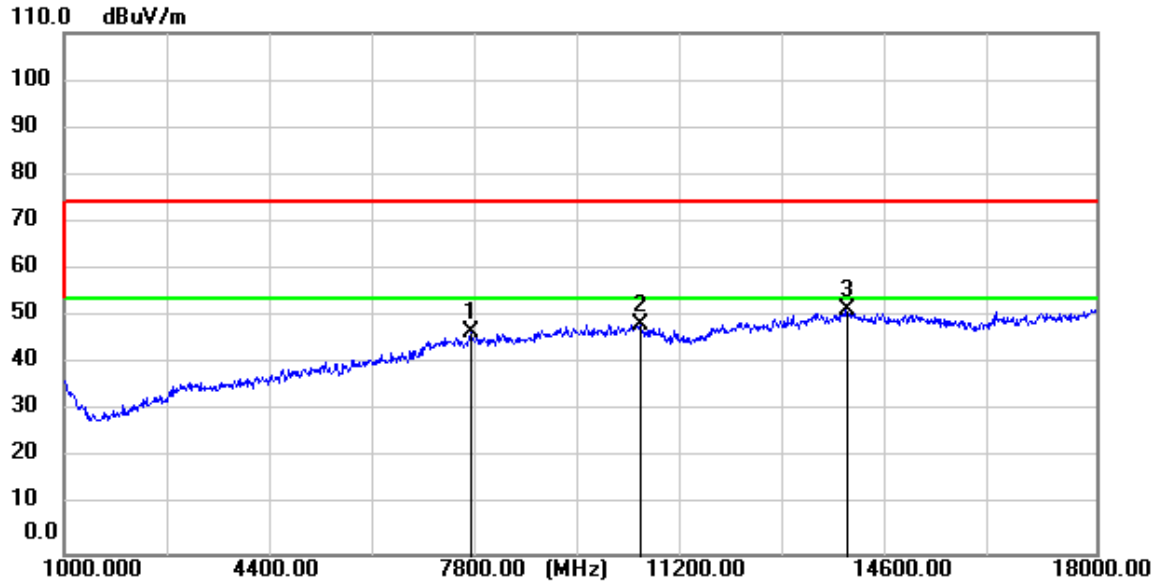
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	7459.150	56.15	-10.03	46.12	74.00	-27.88	peak
2	9998.100	54.65	-6.60	48.05	74.00	-25.95	peak
3	13918.300	54.79	-3.43	51.36	74.00	-22.64	peak

BLE_2M_TX_CH_19_Vertical



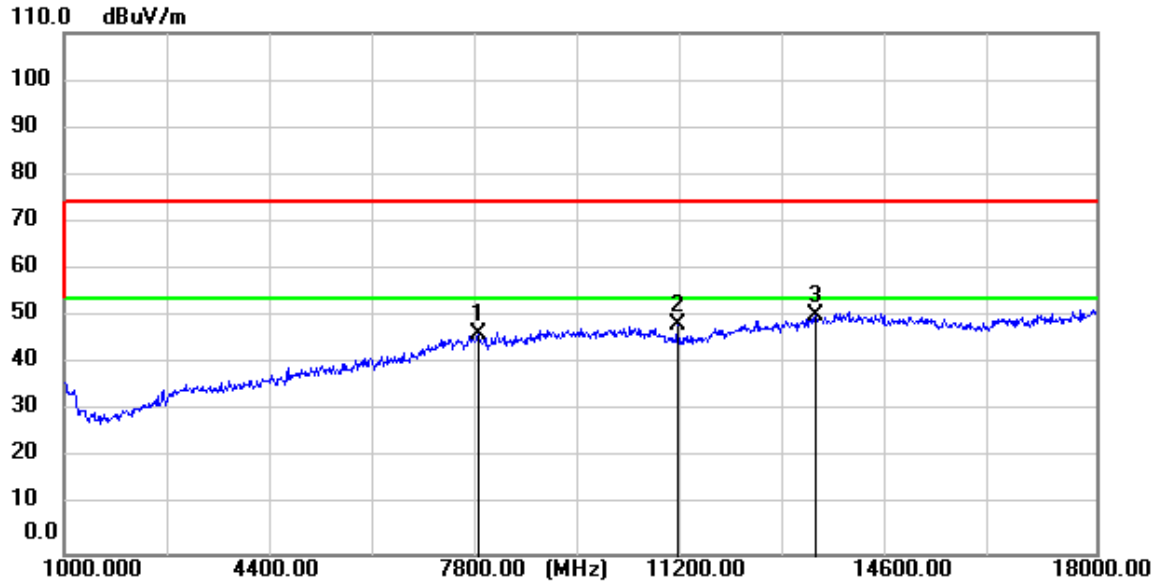
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	7766.000	56.23	-9.83	46.40	74.00	-27.60	peak
2	10425.650	54.23	-6.17	48.06	74.00	-25.94	peak
3	13934.450	55.81	-3.41	52.40	74.00	-21.60	peak

BLE_2M_TX_CH_39_Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correction factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	7711.600	56.86	-9.85	47.01	74.00	-26.99	peak
2	10496.200	54.75	-6.10	48.65	74.00	-25.35	peak
3	13896.200	54.93	-3.44	51.49	74.00	-22.51	peak

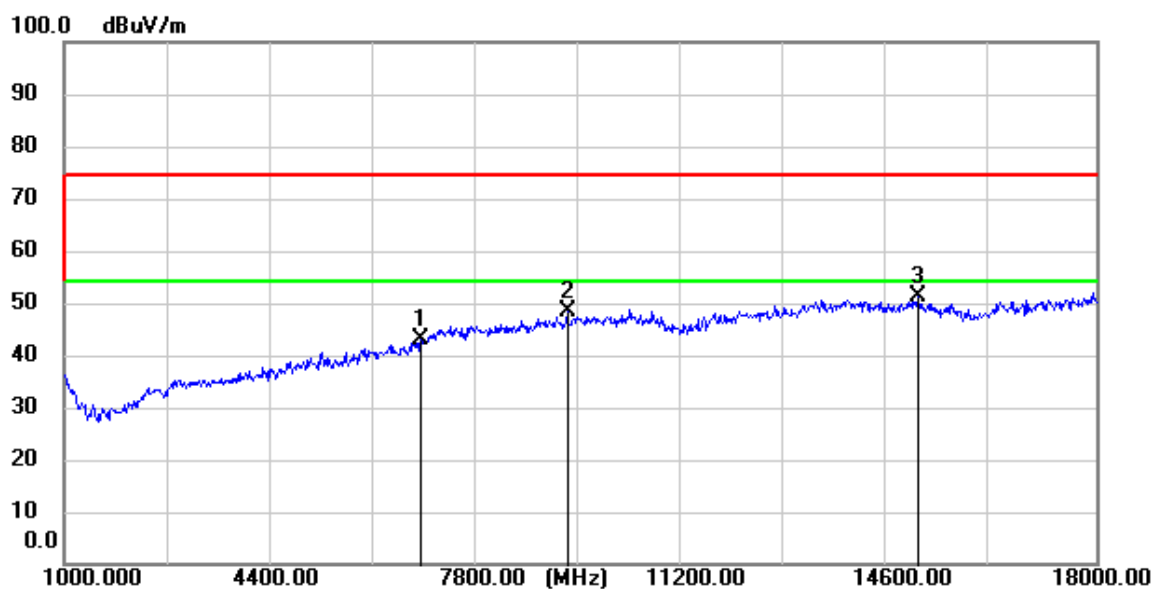
BLE_2M_TX_CH_39_Vertical



No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	7823.800	56.49	-9.81	46.68	74.00	-27.32	peak
2	11098.000	54.56	-6.01	48.55	74.00	-25.45	peak
3	13379.400	54.44	-4.12	50.32	74.00	-23.68	peak

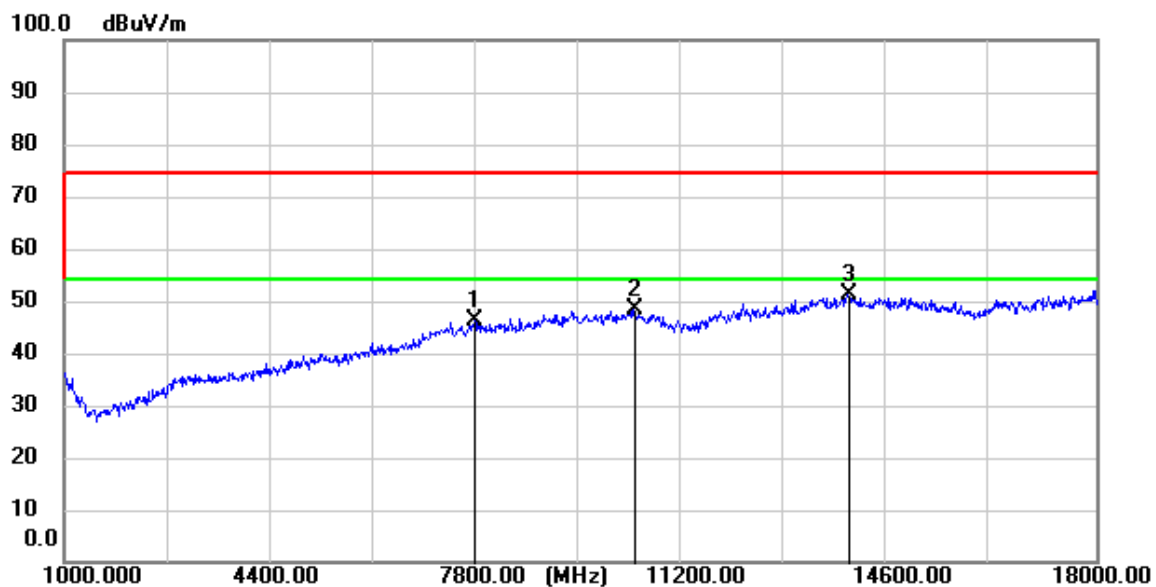
Right earbud

BLE_1M_TX_CH_00_Horizontal



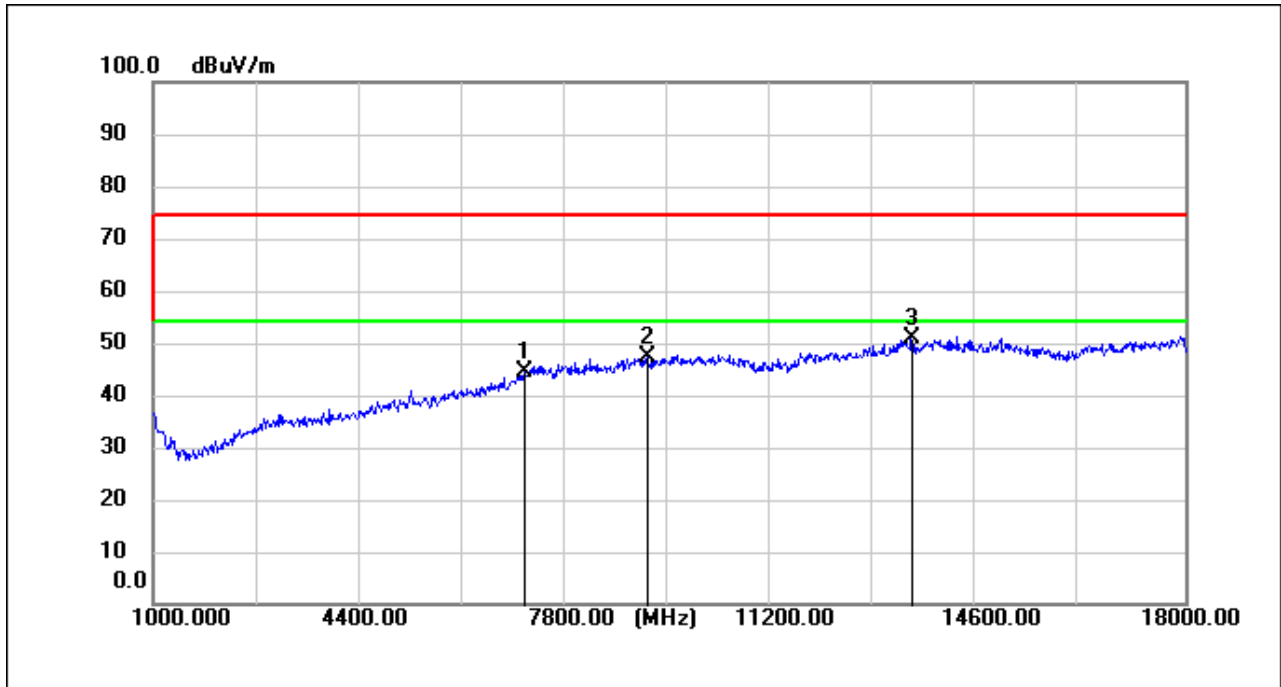
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	6865.000	54.58	-11.54	43.04	74.00	-30.96	peak
2	9297.700	55.96	-7.73	48.23	74.00	-25.77	peak
3	15062.400	54.81	-3.68	51.13	74.00	-22.87	peak

BLE_1M_TX_CH_00_Vertical



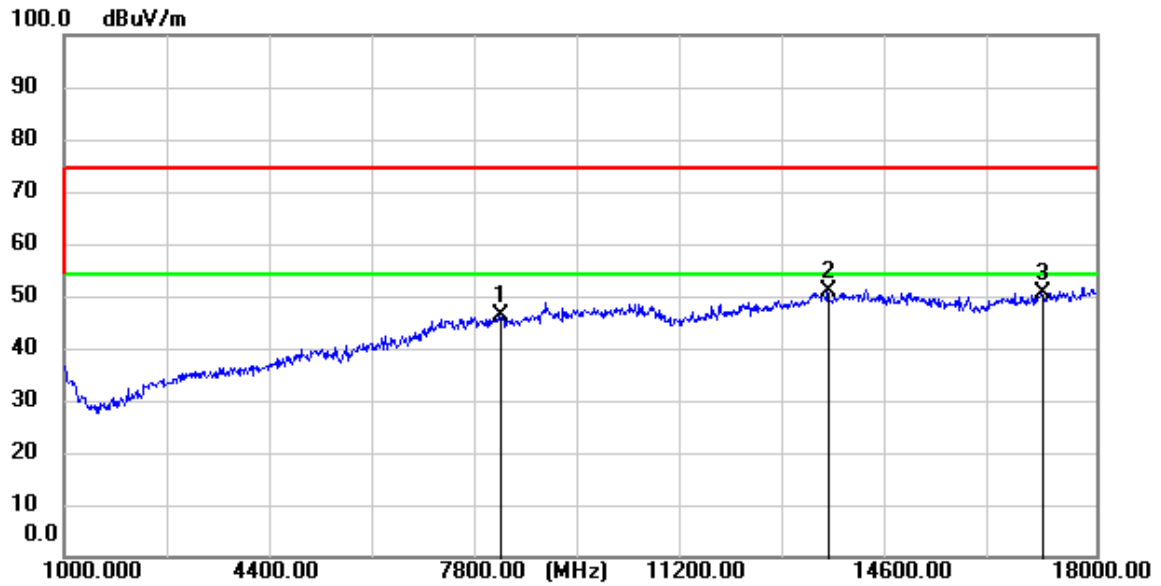
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	7766.000	56.01	-9.83	46.18	74.00	-27.82	peak
2	10385.700	54.45	-6.21	48.24	74.00	-25.76	peak
3	13905.550	54.69	-3.44	51.25	74.00	-22.75	peak

BLE_1M_TX_CH_19_Horizontal



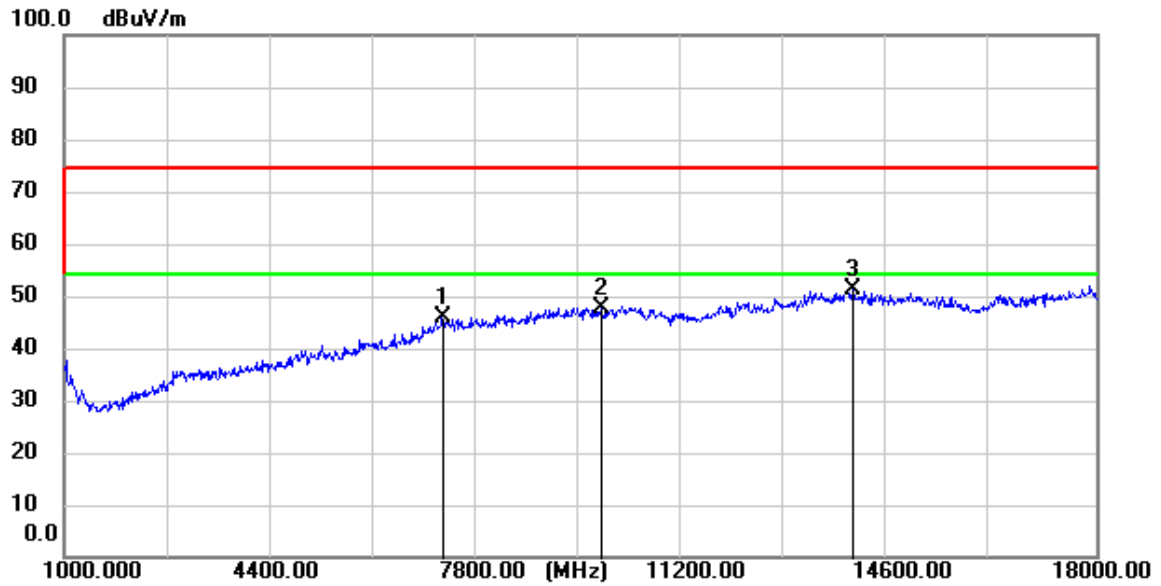
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	7132.750	55.19	-10.73	44.46	74.00	-29.54	peak
2	9157.450	55.42	-7.94	47.48	74.00	-26.52	peak
3	13478.850	54.61	-3.89	50.72	74.00	-23.28	peak

BLE_1M_TX_CH_19_Vertical



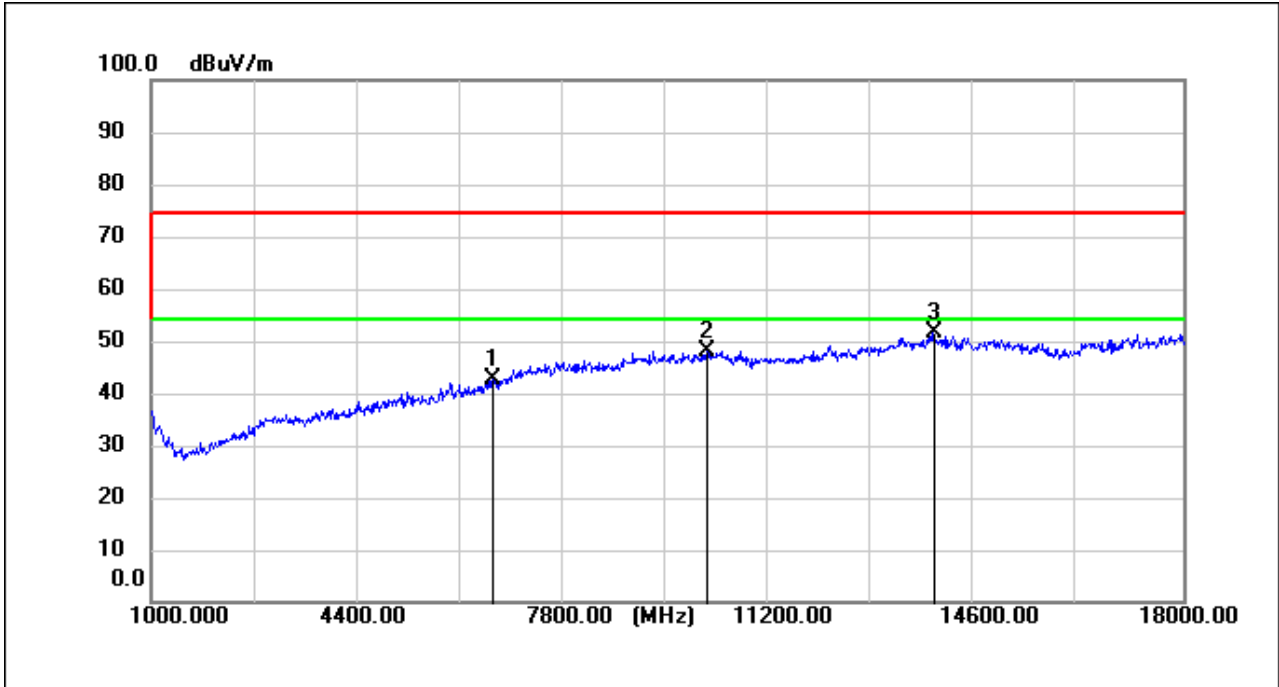
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	8189.300	56.04	-9.65	46.39	74.00	-27.61	peak
2	13594.450	54.62	-3.75	50.87	74.00	-23.13	peak
3	17110.050	52.28	-1.58	50.70	74.00	-23.30	peak

BLE_1M_TX_CH_39_Horizontal



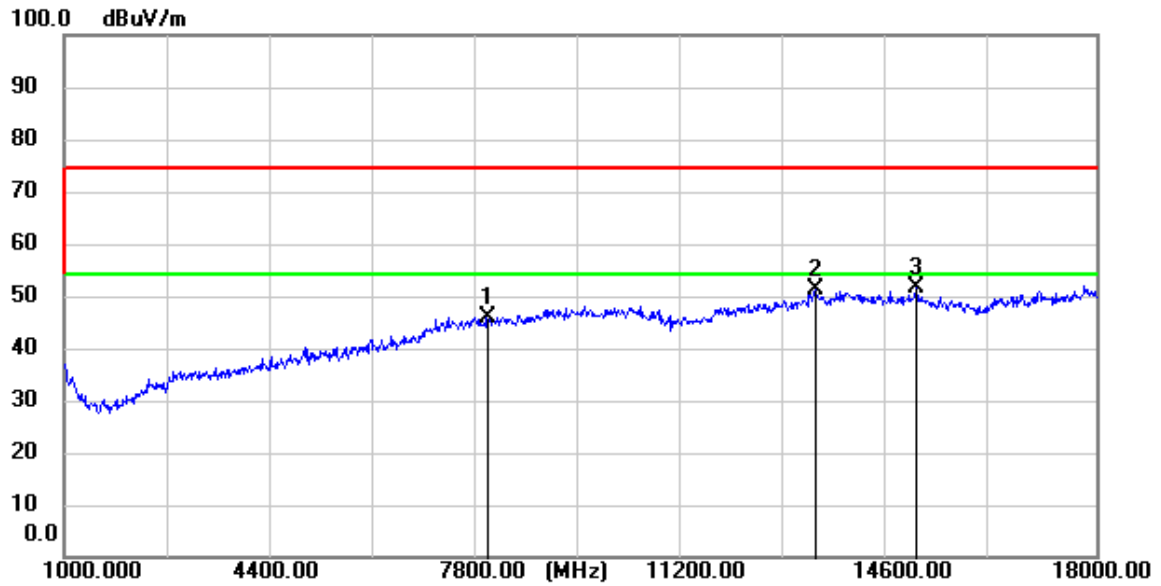
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	7234.750	56.32	-10.51	45.81	74.00	-28.19	peak
2	9846.800	54.64	-6.85	47.79	74.00	-26.21	peak
3	13988.000	54.60	-3.35	51.25	74.00	-22.75	peak

BLE_1M_TX_CH_39_Vertical



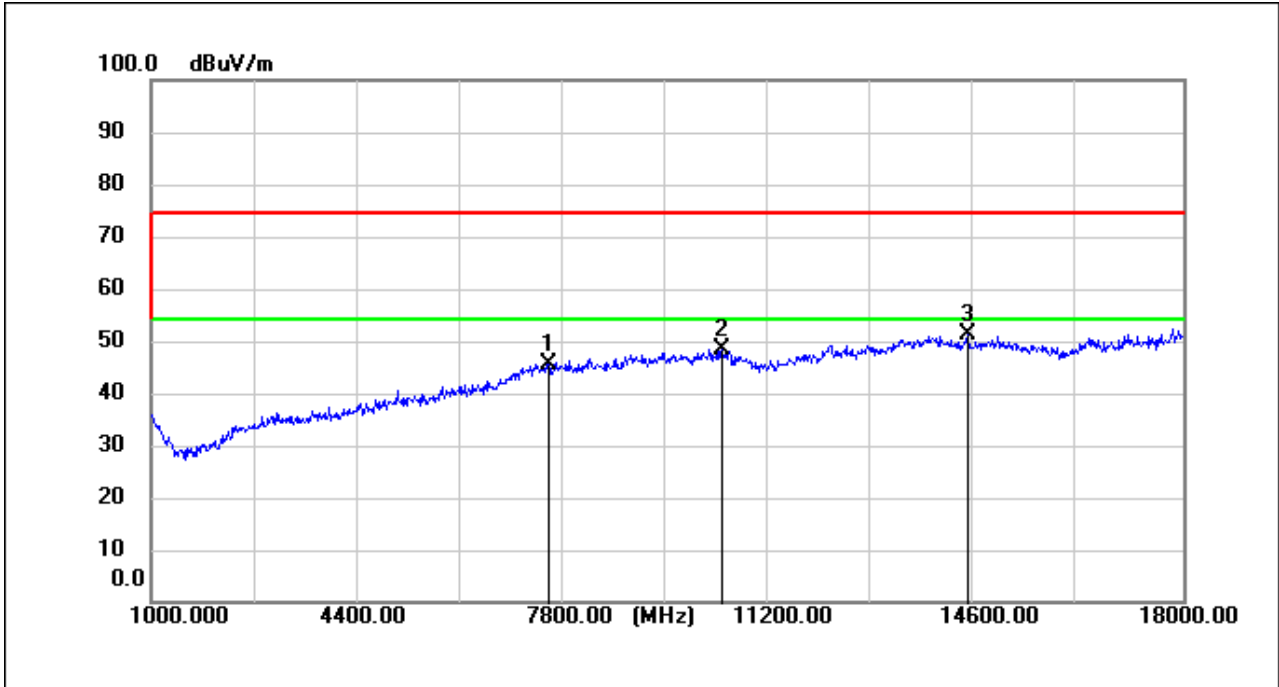
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	6632.950	55.26	-12.43	42.83	74.00	-31.17	peak
2	10149.400	54.53	-6.45	48.08	74.00	-25.92	peak
3	13893.650	55.01	-3.44	51.57	74.00	-22.43	peak

BLE_2M_TX_CH_00_Horizontal



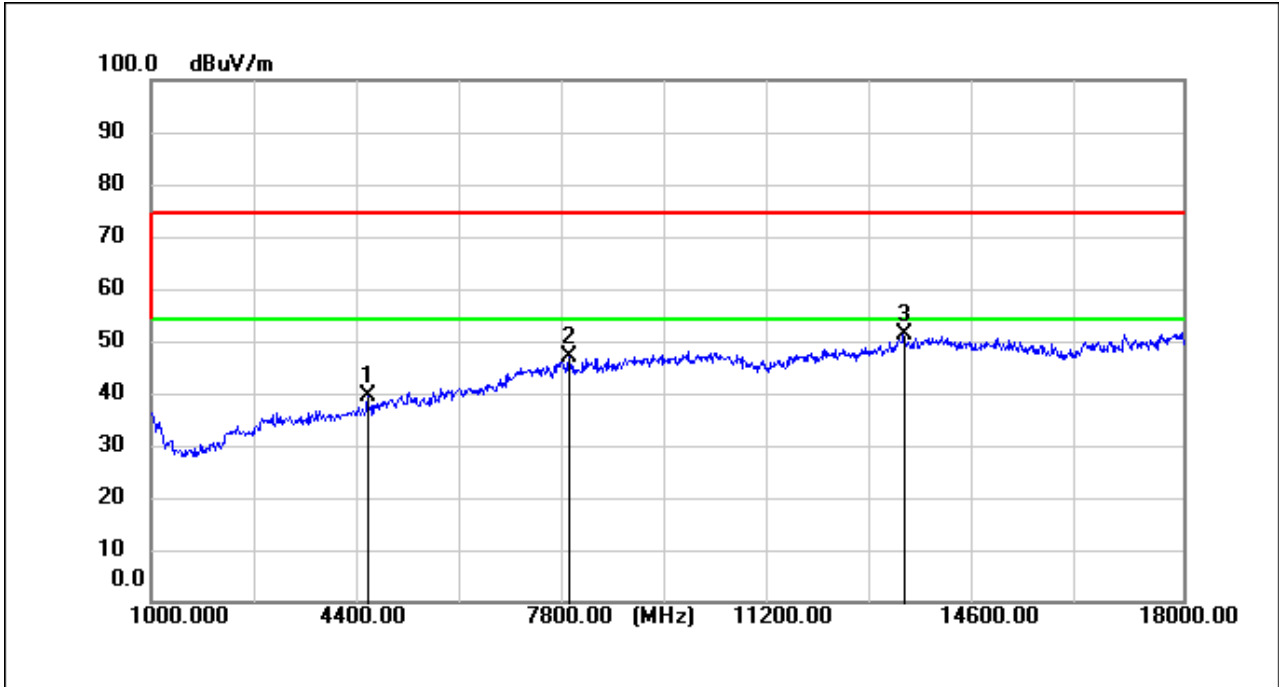
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	7960.650	55.56	-9.76	45.80	74.00	-28.20	peak
2	13381.950	55.48	-4.11	51.37	74.00	-22.63	peak
3	15042.000	55.43	-3.66	51.77	74.00	-22.23	peak

BLE_2M_TX_CH_00_Vertical



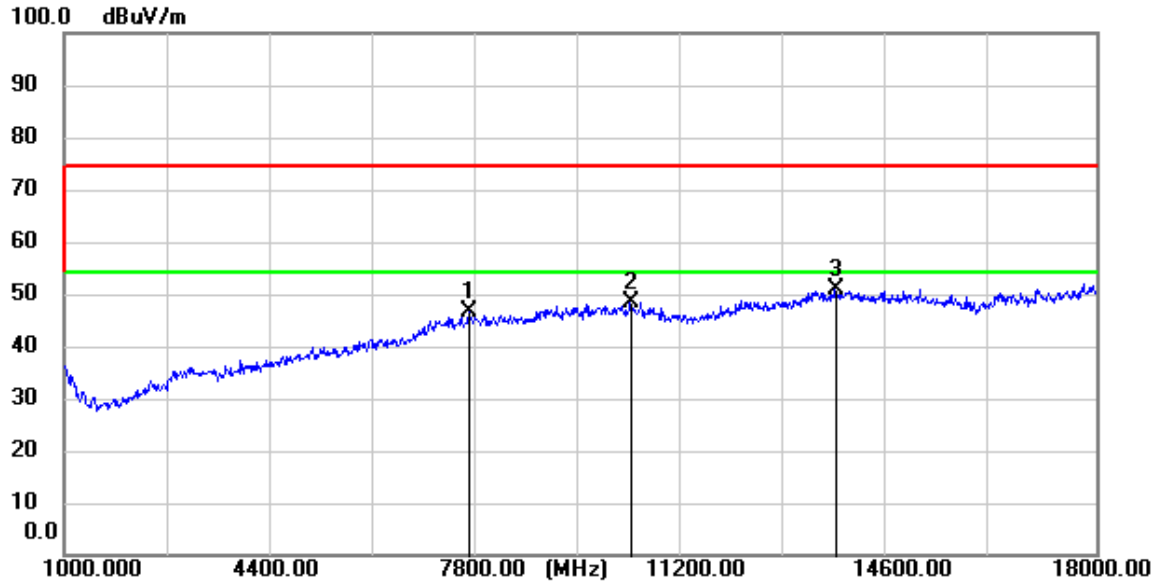
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	7533.100	55.57	-9.93	45.64	74.00	-28.36	peak
2	10418.000	54.66	-6.18	48.48	74.00	-25.52	peak
3	14463.150	55.06	-3.75	51.31	74.00	-22.69	peak

BLE_2M_TX_CH_19_Horizontal



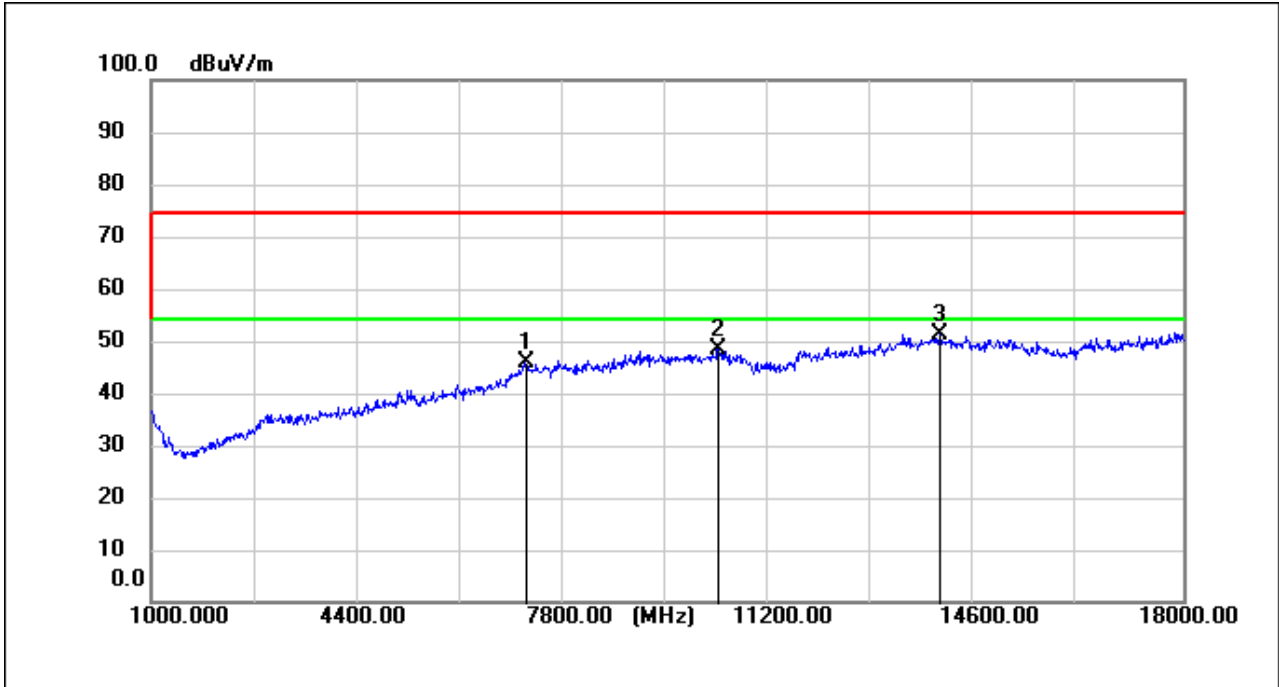
No.	Frequency (MHz)	Reading (dBuV)	Correction factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4577.650	58.48	-18.91	39.57	74.00	-34.43	peak
2	7894.350	56.77	-9.78	46.99	74.00	-27.01	peak
3	13398.100	55.35	-4.08	51.27	74.00	-22.73	peak

BLE_2M_TX_CH_19_Vertical



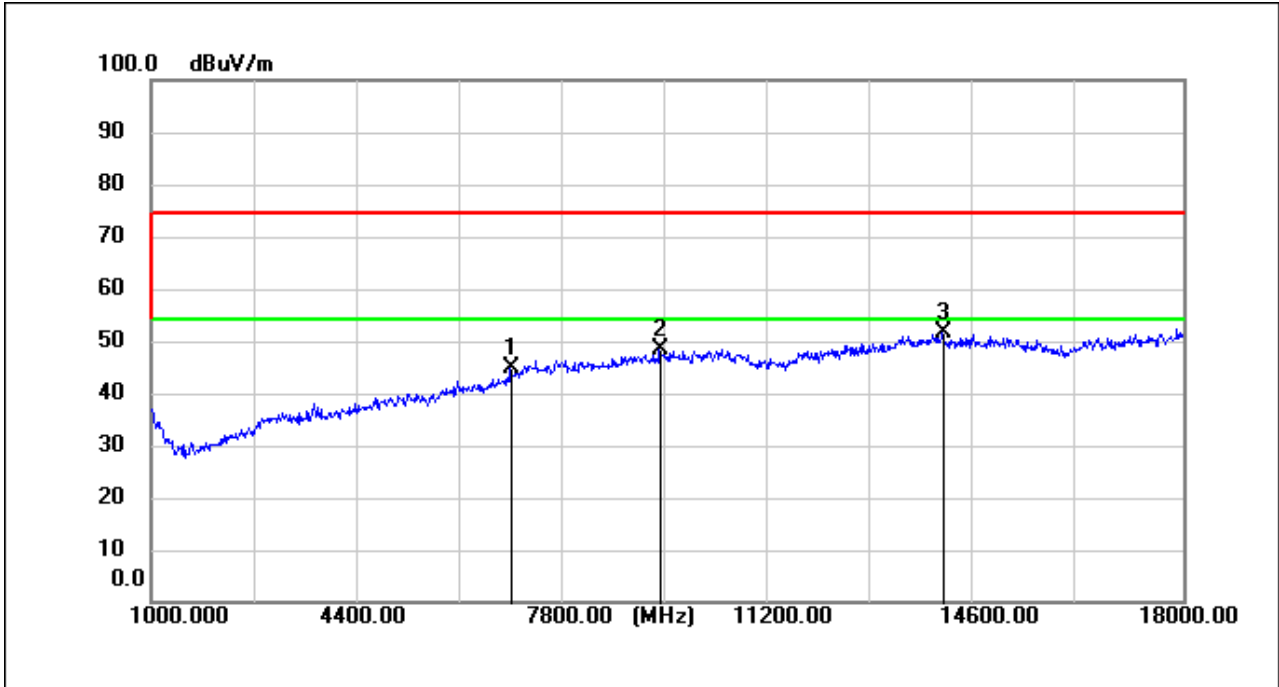
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	7678.450	56.37	-9.87	46.50	74.00	-27.50	peak
2	10316.850	54.80	-6.28	48.52	74.00	-25.48	peak
3	13707.500	54.39	-3.63	50.76	74.00	-23.24	peak

BLE_2M_TX_CH_39_Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	7156.550	56.54	-10.68	45.86	74.00	-28.14	peak
2	10327.050	54.71	-6.27	48.44	74.00	-25.56	peak
3	13991.400	54.48	-3.35	51.13	74.00	-22.87	peak

BLE_2M_TX_CH_39_Vertical



No.	Frequency (MHz)	Reading (dBuV)	Correction factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	6927.050	56.16	-11.29	44.87	74.00	-29.13	peak
2	9377.600	56.03	-7.61	48.42	74.00	-25.58	peak
3	14045.800	54.88	-3.38	51.50	74.00	-22.50	peak

7.4 Conducted Average Output Power

Test Requirement 47 CFR Part 15, Subpart C 15.247(b)(3)

Test Method: ANSI C63.10 (2020) Section 11.9.2

Limit:

Frequency range(MHz)	Output power of the intentional radiator(watt)
902-928	1 for ≥ 50 hopping channels
	0.25 for $25 \leq$ hopping channels < 50
	1 for digital modulation
2400-2483.5	1 for ≥ 75 non-overlapping hopping channels
	0.125 for all other frequency hopping systems
	1 for digital modulation
5725-5850	1 for frequency hopping systems and digital modulation

7.4.1 E.U.T. Operation

Operating Environment:

Temperature: 25.9 °C

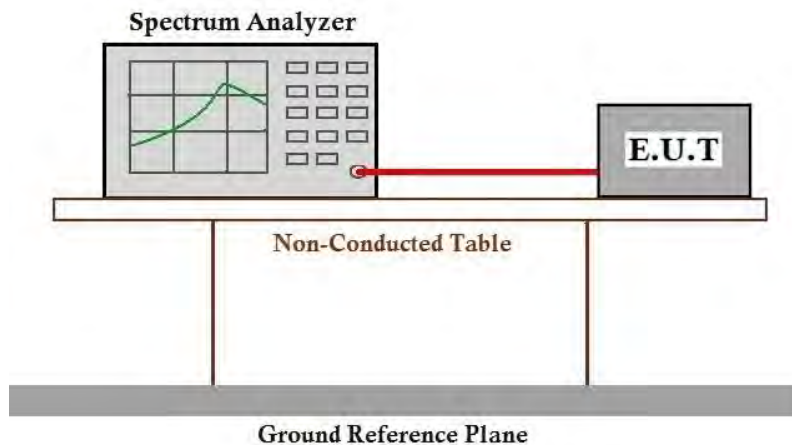
Humidity: 46.5 % RH

Atmospheric Pressure: 1010 mbar

7.4.1 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	02	TX mode(1Mbps)_Keep the EUT in continuously transmitting mode with GFSK modulation.
Final test	03	TX mode(2Mbps)_Keep the EUT in continuously transmitting mode with GFSK modulation.

7.4.2 Test Setup Diagram





Report No.: KSCR250900219902

Page: 60 of 123

7.4.3 Measurement Procedure and Data

Note: Since the verify power the same operating range bandwidth and smaller power can be covered by the higher power.

Please Refer to Appendix for Details

7.5 Minimum 6dB Bandwidth

Test Requirement 47 CFR Part 15, Subpart C 15.247a(2)

Test Method: ANSI C63.10 (2020) Section 11.8.1

Limit:

≥500 kHz

7.5.1 E.U.T. Operation

Operating Environment:

Temperature: 25.9 °C

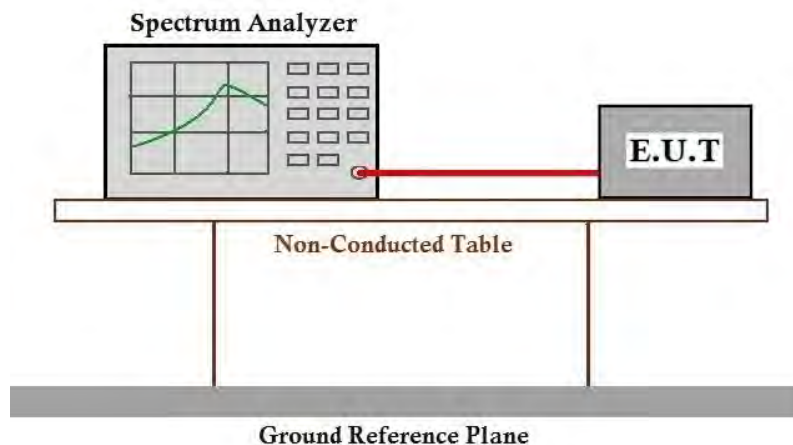
Humidity: 46.5 % RH

Atmospheric Pressure: 1010 mbar

7.5.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	02	TX mode(1Mbps)_Keep the EUT in continuously transmitting mode with GFSK modulation.
Final test	03	TX mode(2Mbps)_Keep the EUT in continuously transmitting mode with GFSK modulation.

7.5.3 Test Setup Diagram



7.5.4 Measurement Procedure and Data

Please Refer to Appendix for Details

7.6 Power Spectrum Density

Test Requirement 47 CFR Part 15, Subpart C 15.247(e)

Test Method: ANSI C63.10 (2020) Section 11.10.3

Limit:

≤8dBm in any 3 kHz band during any time interval of continuous transmission

7.6.1 E.U.T. Operation

Operating Environment:

Temperature: 25.9 °C

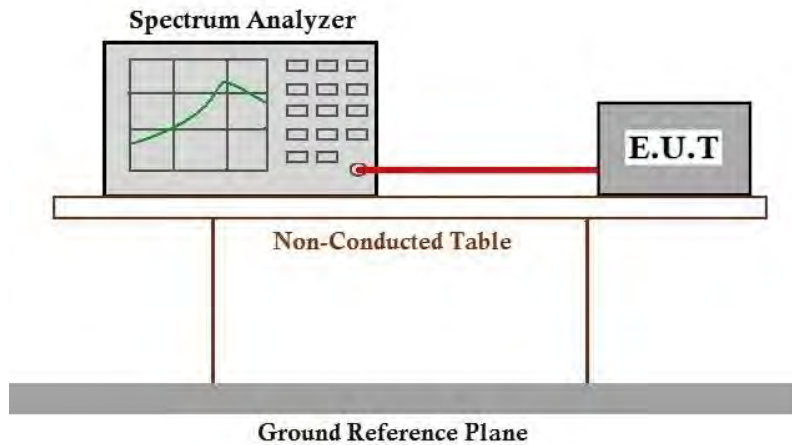
Humidity: 46.5 % RH

Atmospheric Pressure: 1010 mbar

7.6.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	02	TX mode(1Mbps)_Keep the EUT in continuously transmitting mode with GFSK modulation.
Final test	03	TX mode(2Mbps)_Keep the EUT in continuously transmitting mode with GFSK modulation.

7.6.3 Test Setup Diagram



7.6.4 Measurement Procedure and Data

Please Refer to Appendix for Details

7.7 Conducted Band Edges Measurement

Test Requirement 47 CFR Part 15, Subpart C 15.247(d)

Test Method: ANSI C63.10 (2020) Section 6.10.4

Limit:

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions 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) (see §15.205(c)).

7.7.1 E.U.T. Operation

Operating Environment:

Temperature: 25.9 °C

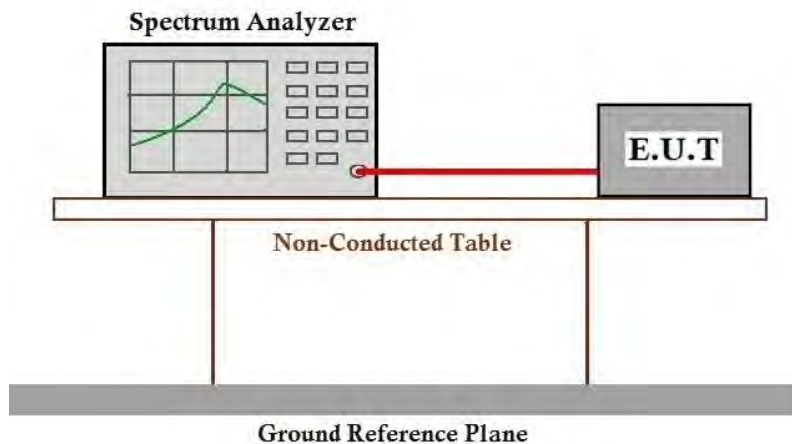
Humidity: 46.5 % RH

Atmospheric Pressure: 1010 mbar

7.7.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	02	TX mode(1Mbps)_Keep the EUT in continuously transmitting mode with GFSK modulation.
Final test	03	TX mode(2Mbps)_Keep the EUT in continuously transmitting mode with GFSK modulation.

7.7.3 Test Setup Diagram





Report No.: KSCR250900219902

Page: 64 of 123

7.7.4 Measurement Procedure and Data

Please Refer to Appendix for Details

7.8 Conducted Spurious Emissions

Test Requirement 47 CFR Part 15, Subpart C 15.247(d)

Test Method: ANSI C63.10 (2020) Section 11.11

Limit:

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions 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) (see §15.205(c)).

7.8.1 E.U.T. Operation

Operating Environment:

Temperature: 25.9 °C

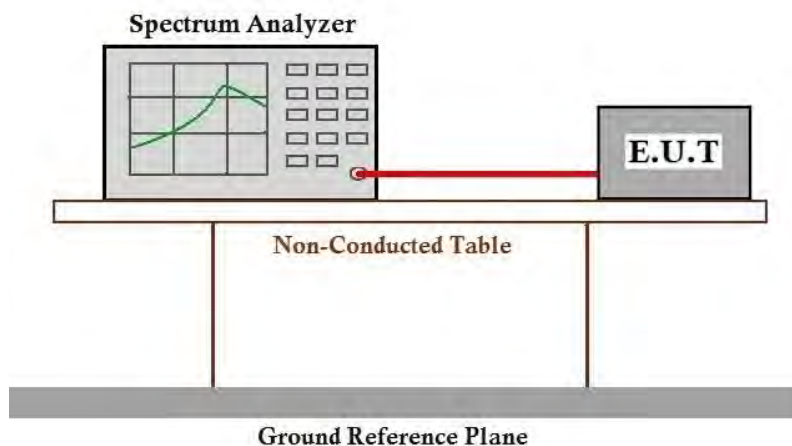
Humidity: 46.5 % RH

Atmospheric Pressure: 1010 mbar

7.8.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	02	TX mode(1Mbps)_Keep the EUT in continuously transmitting mode with GFSK modulation.
Final test	03	TX mode(2Mbps)_Keep the EUT in continuously transmitting mode with GFSK modulation.

7.8.3 Test Setup Diagram





Report No.: KSCR250900219902

Page: 66 of 123

7.8.4 Measurement Procedure and Data

Please Refer to Appendix for Details



Report No.: KSCR250900219902

Page: 67 of 123

8 Test Setup Photo

Refer to Appendix - Test Setup Photo for KSCR2509002199AT

9 EUT Constructional Details (EUT Photos)

Refer to Appendix_Photographs of EUT Constructional Details for KSCR2509002199AT



10 Appendix

Left Earbud

1. Duty Cycle

1.1 Test Result

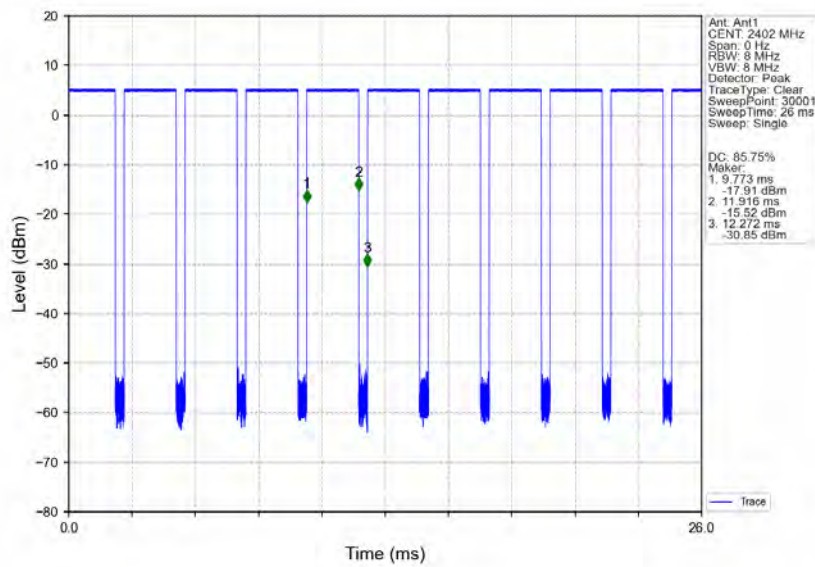
1.1.1 Ant1

Ant1							
Mode	TX Type	Frequency (MHz)	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
1M	SISO	2402	2.143	2.499	85.75	0.67	0.03
		2440	2.143	2.500	85.72	0.67	0.03
		2480	2.143	2.500	85.72	0.67	0.03
2M	SISO	2402	1.086	1.875	57.92	2.37	0.03
		2440	1.086	1.875	57.92	2.37	0.03
		2480	1.086	1.875	57.92	2.37	0.03

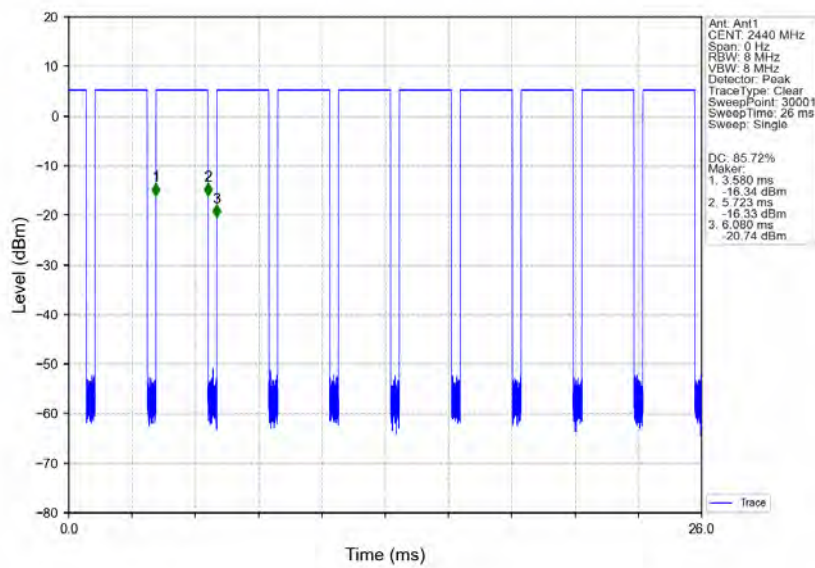
1.2 Test Graph

1.2.1 Ant1

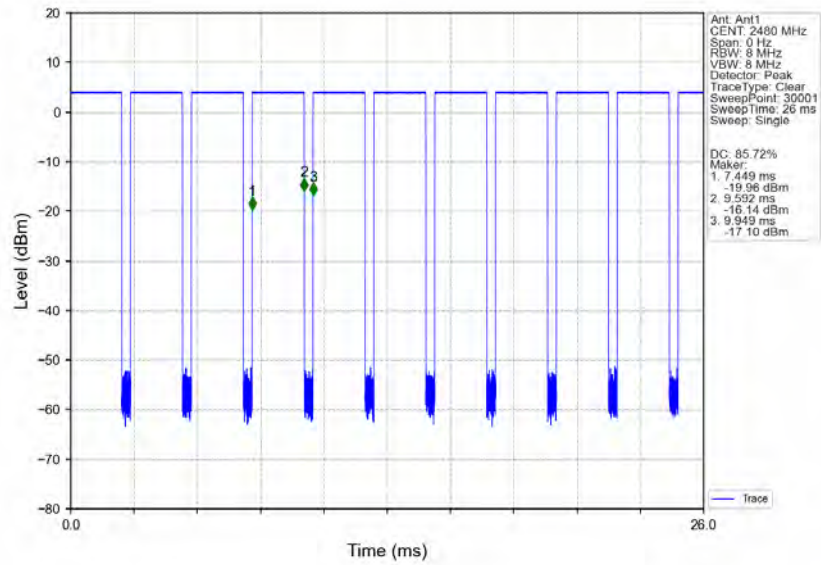
1M_LCH_2402MHz_Ant1_NTNV



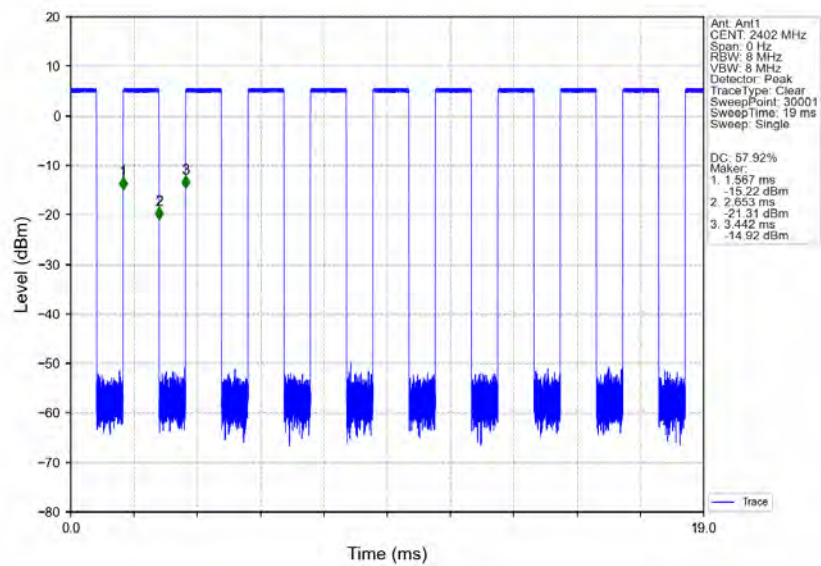
1M_MCH_2440MHz_Ant1_NTNV



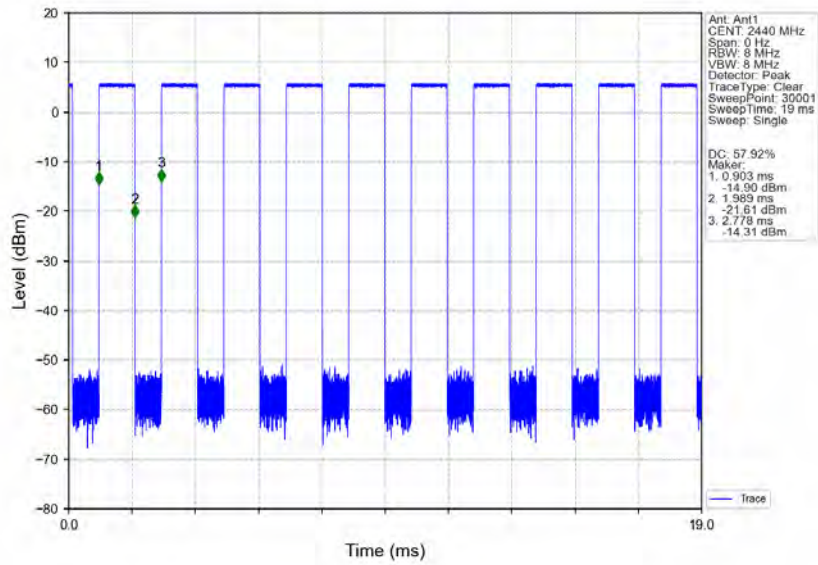
1M_HCH_2480MHz_Ant1_NTNV



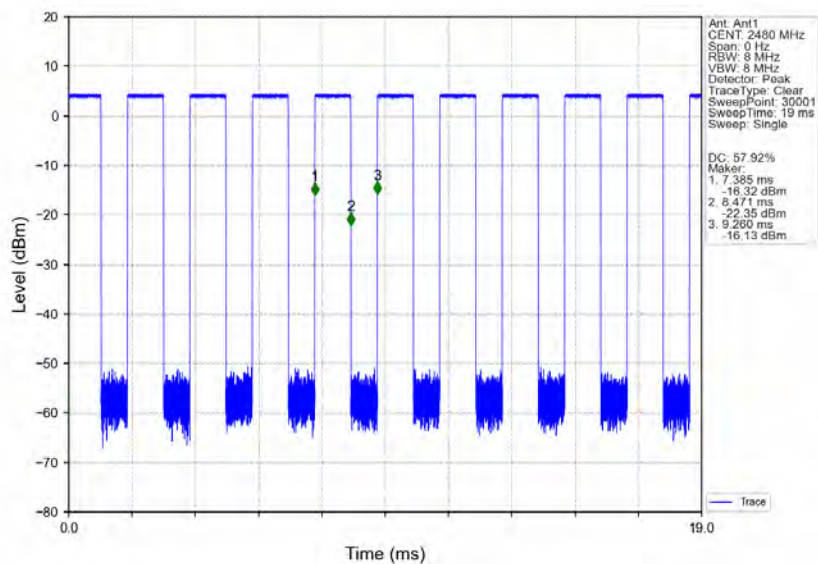
2M_LCH_2402MHz_Ant1_NTNV



2M_MCH_2440MHz_Ant1_NTNV



2M_HCH_2480MHz_Ant1_NTNV





2. Bandwidth

2.1 Test Result

2.1.1 OBW

Mode	TX Type	Frequency (MHz)	ANT	99% Occupied Bandwidth (MHz)		Verdict
				Result	Limit	
1M	SISO	2402	1	1.025	/	Pass
		2440	1	1.026	/	Pass
		2480	1	1.028	/	Pass
2M	SISO	2402	1	2.001	/	Pass
		2440	1	1.991	/	Pass
		2480	1	1.999	/	Pass

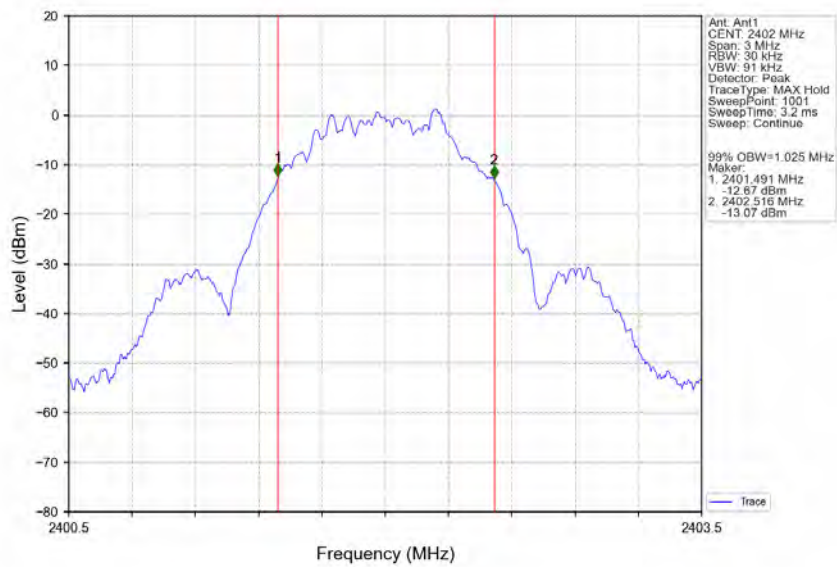
2.1.2 6dB BW

Mode	TX Type	Frequency (MHz)	ANT	6dB Bandwidth (MHz)		Verdict
				Result	Limit	
1M	SISO	2402	1	0.664	≥ 0.5	Pass
		2440	1	0.664	≥ 0.5	Pass
		2480	1	0.671	≥ 0.5	Pass
2M	SISO	2402	1	1.255	≥ 0.5	Pass
		2440	1	1.259	≥ 0.5	Pass
		2480	1	1.261	≥ 0.5	Pass

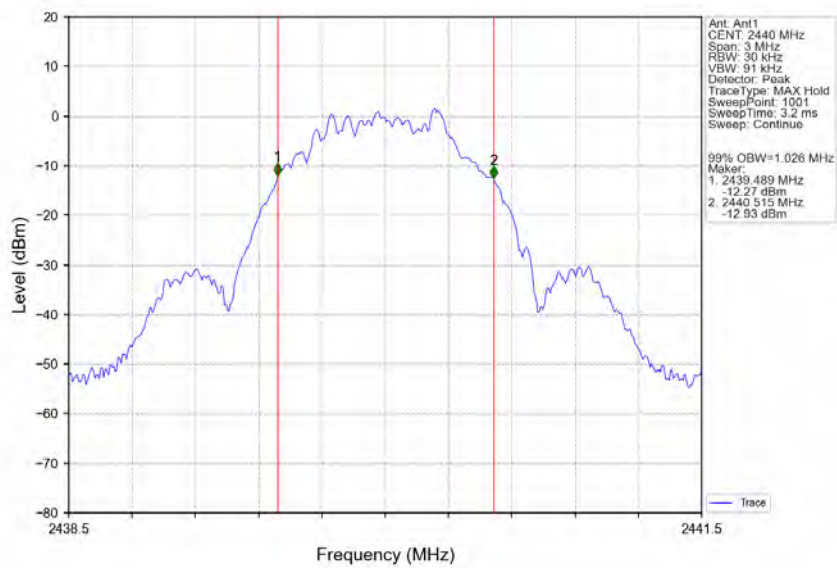
2.2 Test Graph

2.2.1 OBW

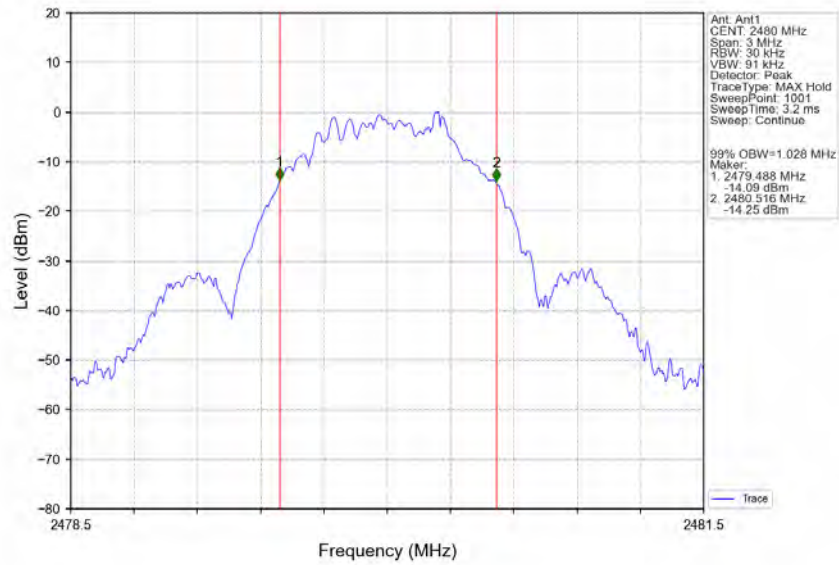
1M_LCH_2402MHz_Ant1_NTNV



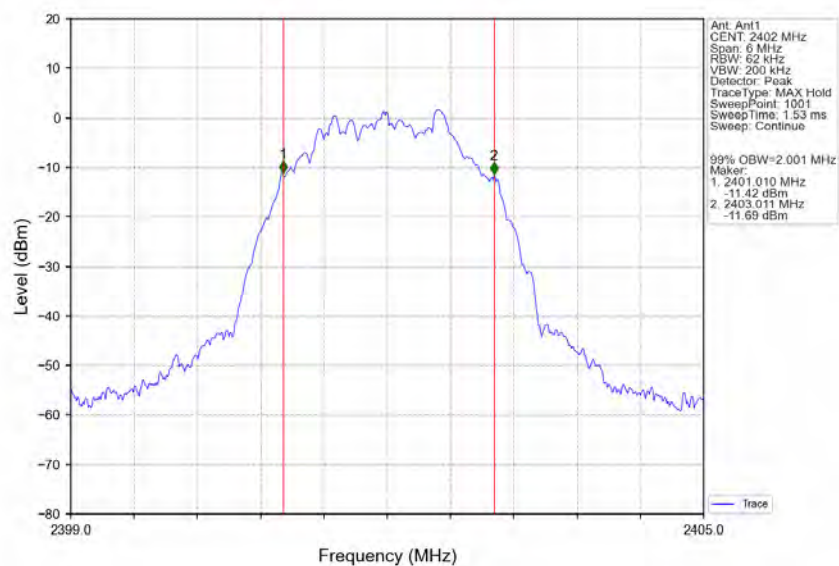
1M_MCH_2440MHz_Ant1_NTNV



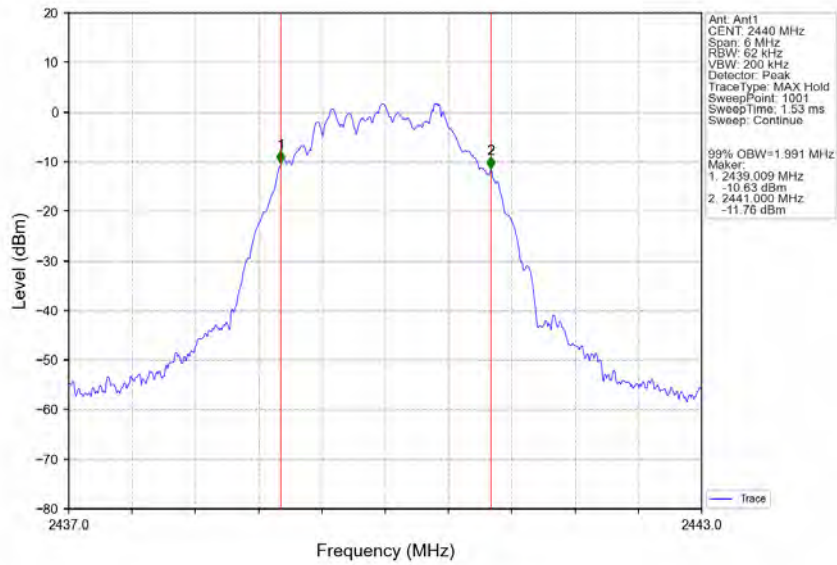
1M_HCH_2480MHz_Ant1_NTNV



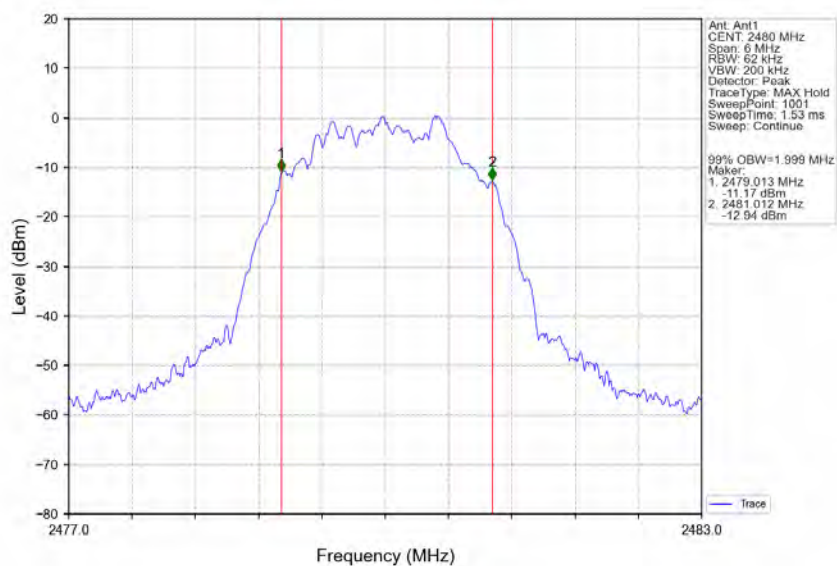
2M_LCH_2402MHz_Ant1_NTNV



2M_MCH_2440MHz_Ant1_NTNV

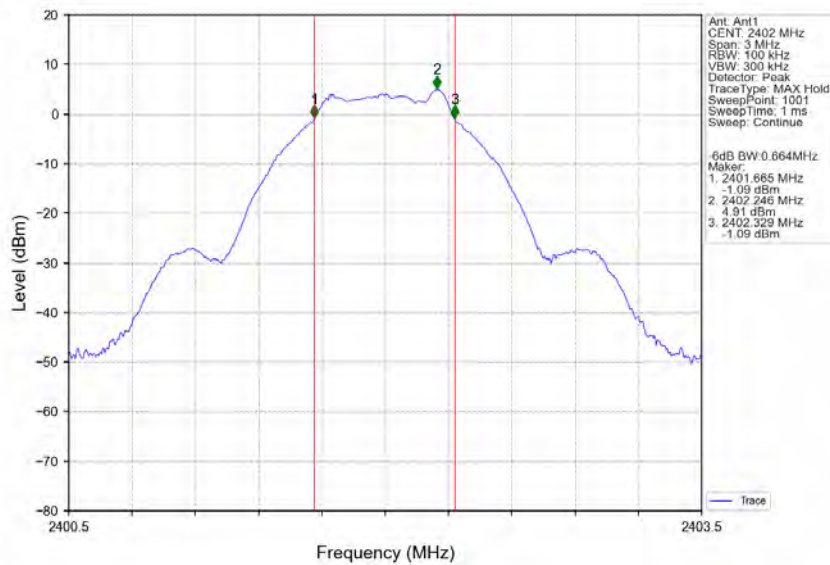


2M_HCH_2480MHz_Ant1_NTNV

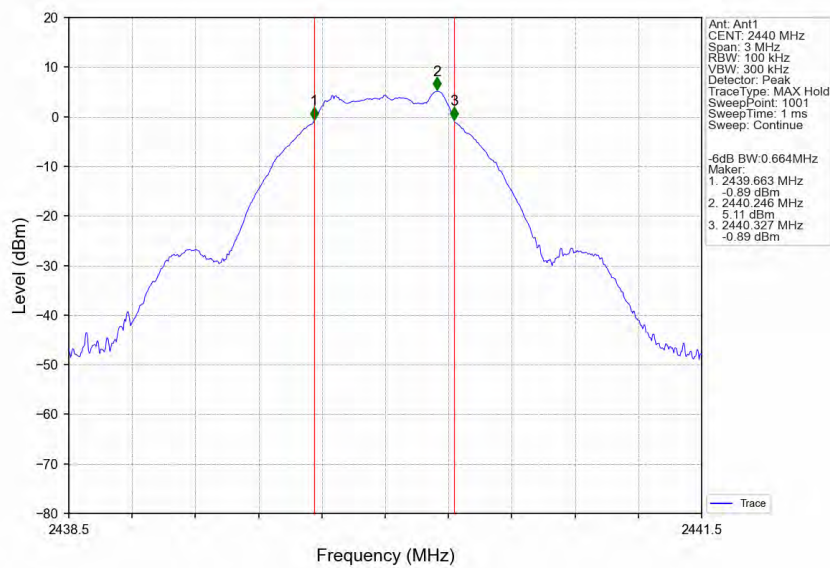


2.2.2 6dB BW

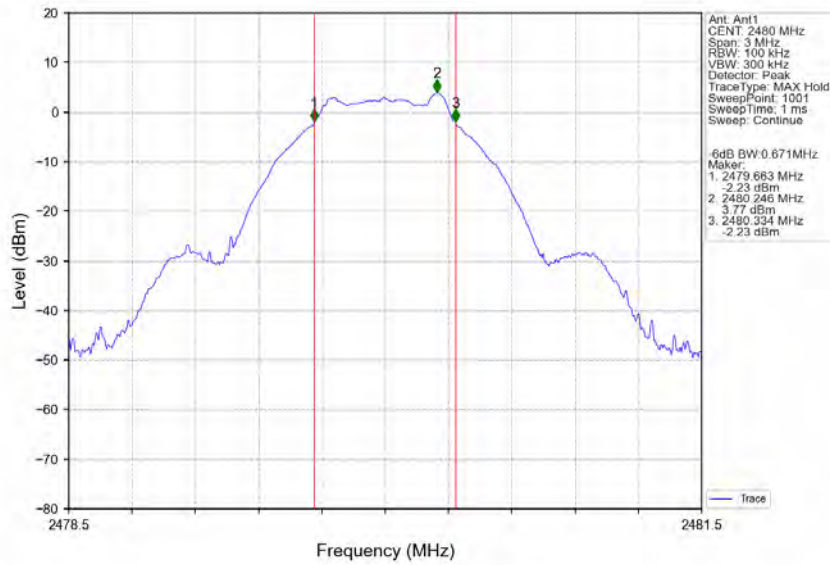
1M_LCH_2402MHz_Ant1_NTNV



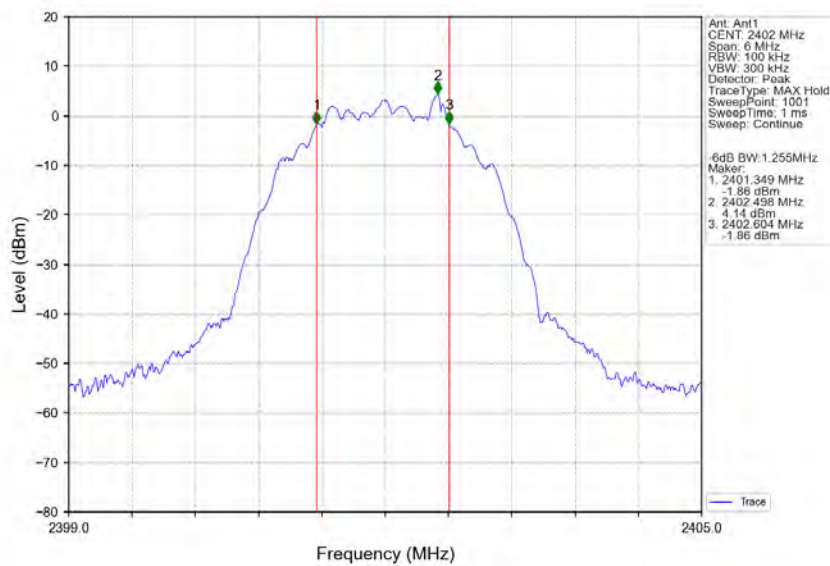
1M_MCH_2440MHz_Ant1_NTNV



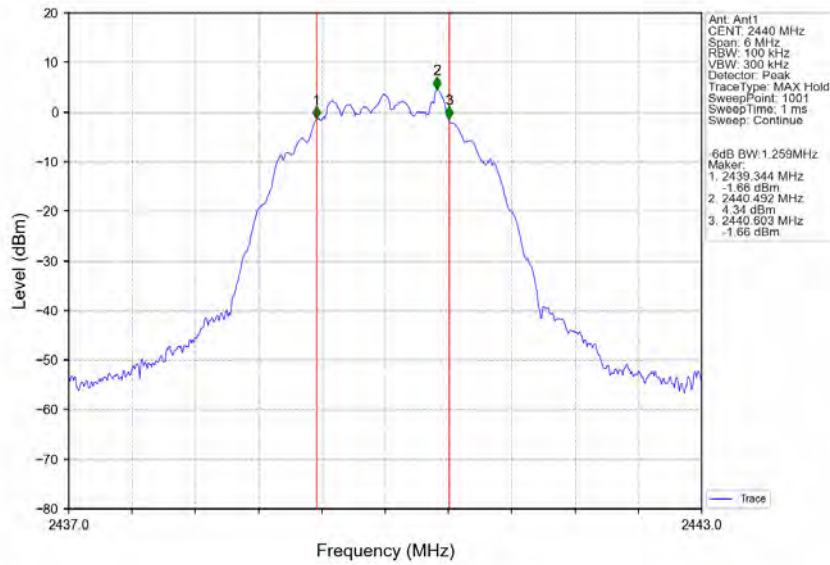
1M_HCH_2480MHz_Ant1_NTNV



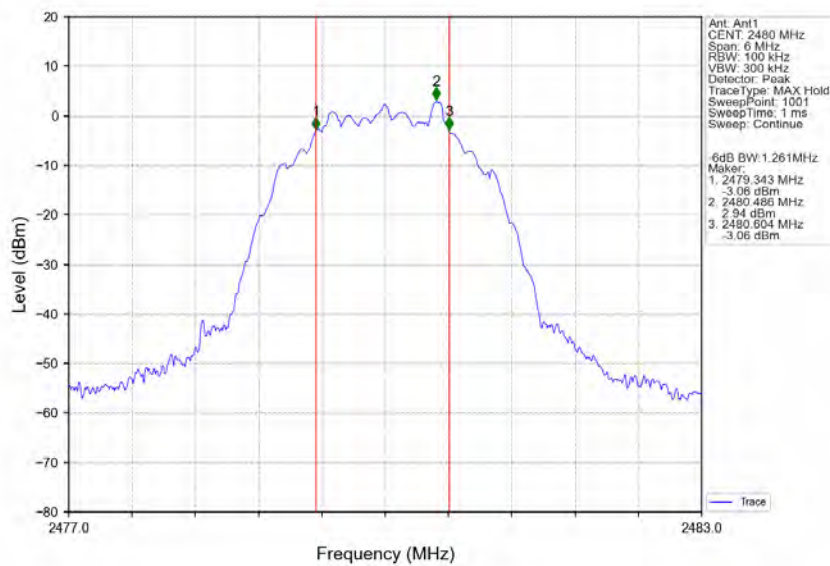
2M_LCH_2402MHz_Ant1_NTNV



2M_MCH_2440MHz_Ant1_NTNV



2M_HCH_2480MHz_Ant1_NTNV





3. Maximum Conducted Output Power

3.1 Test Result

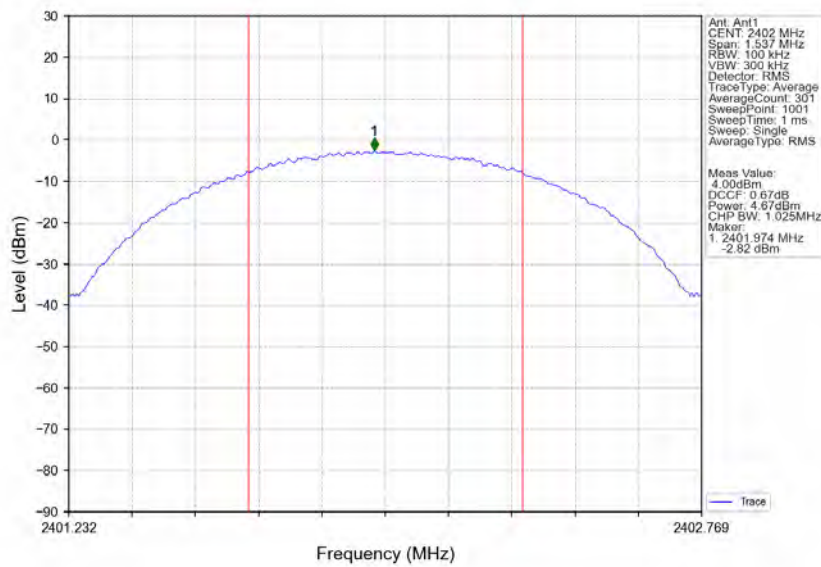
3.1.1 Power

Mode	TX Type	Frequency (MHz)	Maximum Average Conducted Output Power (dBm)		Verdict
			ANT1	Limit	
1M	SISO	2402	4.67	<=30	Pass
		2440	5.07	<=30	Pass
		2480	3.62	<=30	Pass
2M	SISO	2402	4.72	<=30	Pass
		2440	4.91	<=30	Pass
		2480	3.31	<=30	Pass
Note1: Antenna Gain: Ant1: 2.63dBi;					

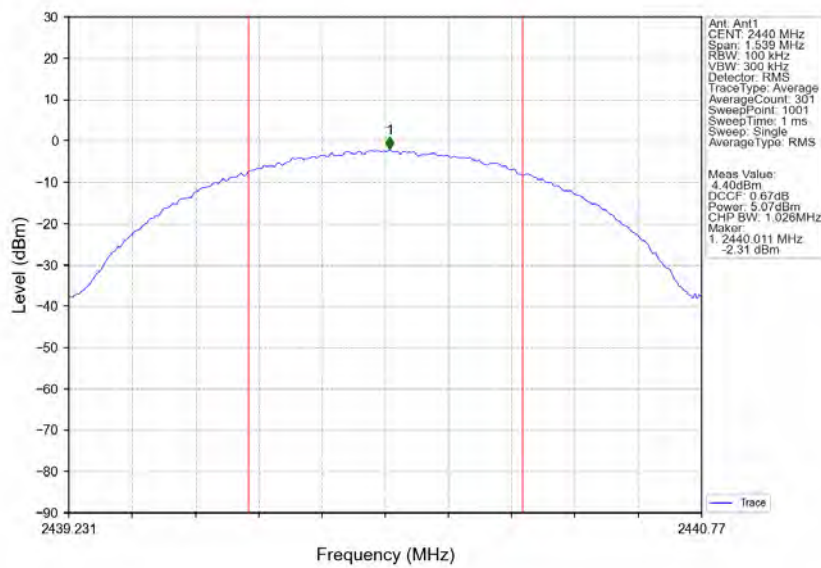
3.2 Test Graph

3.2.1 Power

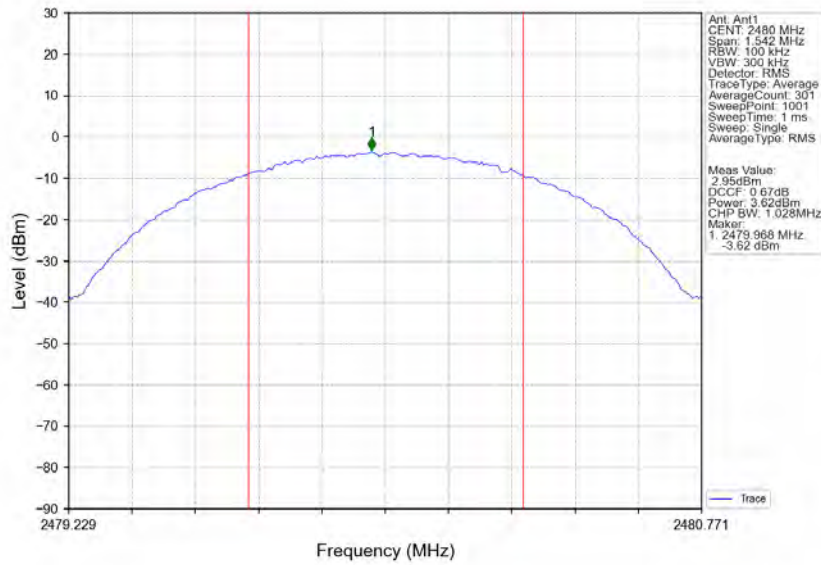
1M_LCH_2402MHz_Ant1_NTNV



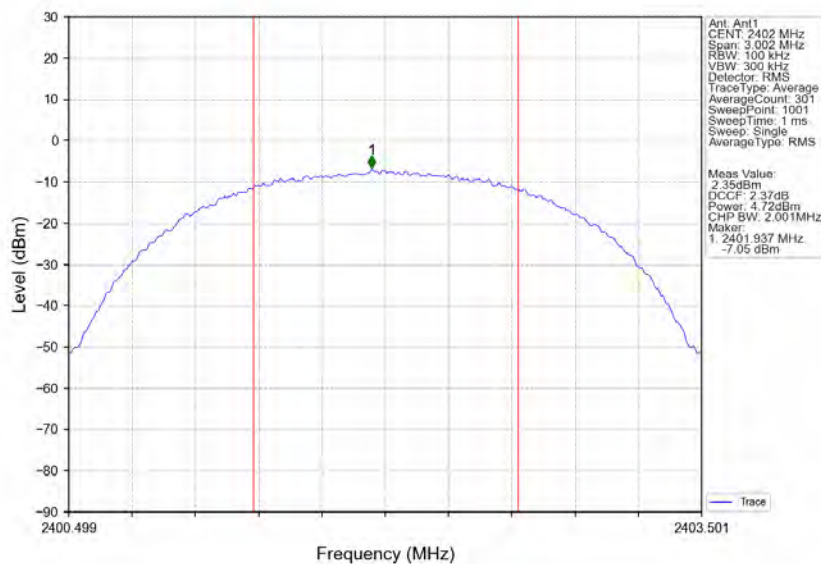
1M_MCH_2440MHz_Ant1_NTNV



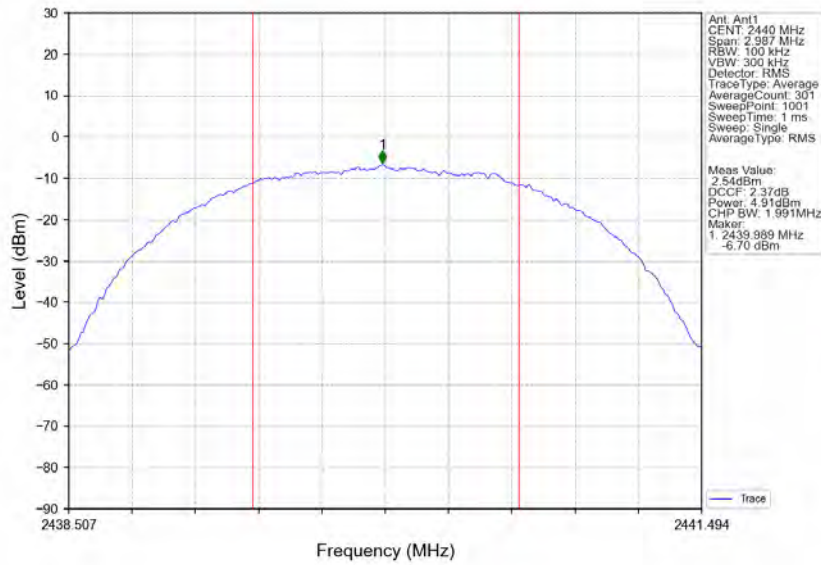
1M_HCH_2480MHz_Ant1_NTNV



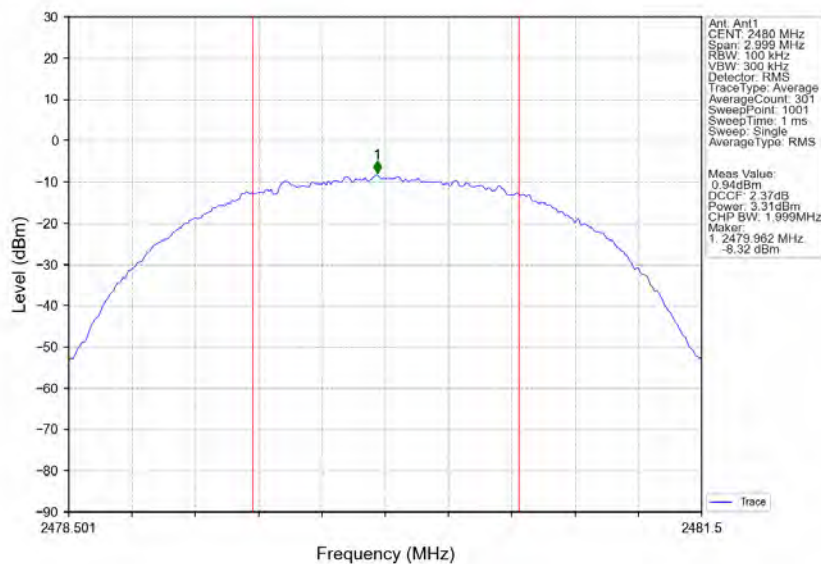
2M_LCH_2402MHz_Ant1_NTNV



2M_MCH_2440MHz_Ant1_NTNV



2M_HCH_2480MHz_Ant1_NTNV





4. Maximum Power Spectral Density

4.1 Test Result

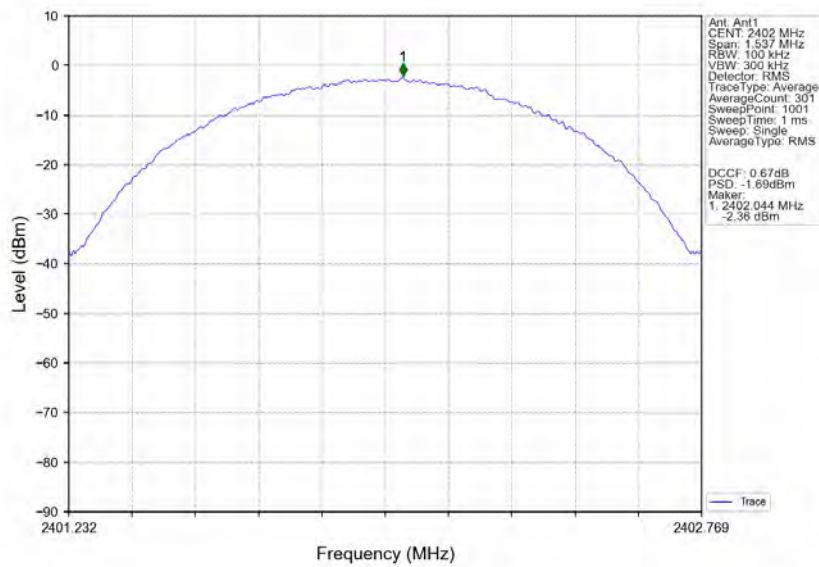
4.1.1 PSD

Mode	TX Type	Frequency (MHz)	Maximum PSD (dBm)		Verdict
			ANT1	Limit	
1M	SISO	2402	-1.69	<=8	Pass
		2440	-1.65	<=8	Pass
		2480	-3.20	<=8	Pass
2M	SISO	2402	-4.98	<=8	Pass
		2440	-5.17	<=8	Pass
		2480	-6.00	<=8	Pass
Note1: Antenna Gain: Ant1: 2.63dBi;					

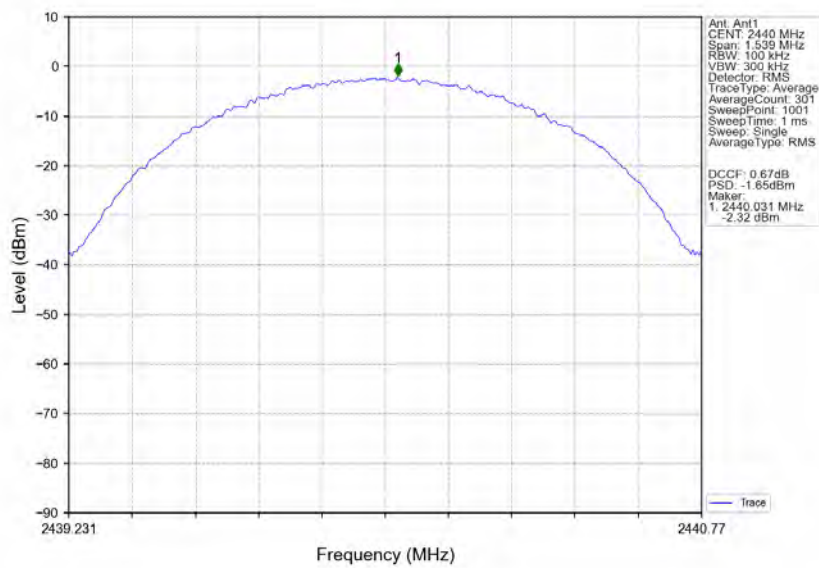
4.2 Test Graph

4.2.1 PSD

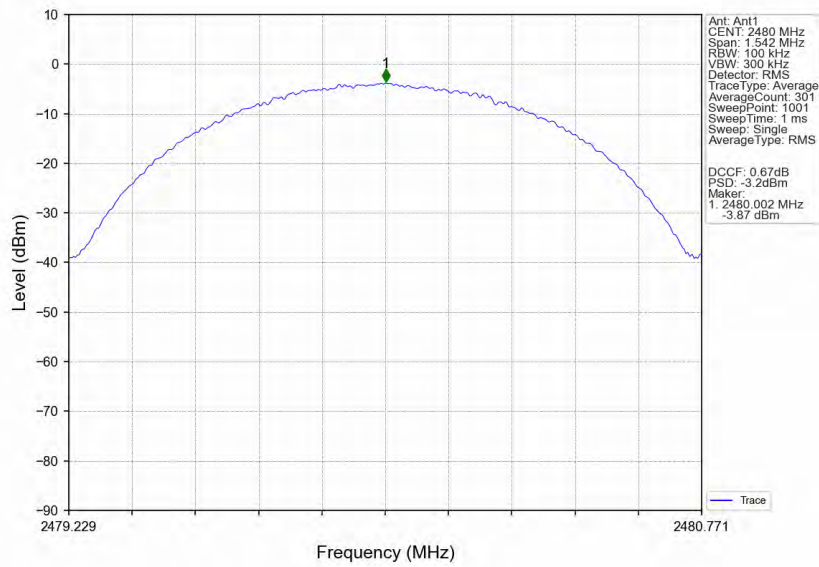
1M_LCH_2402MHz_Ant1_NTNV



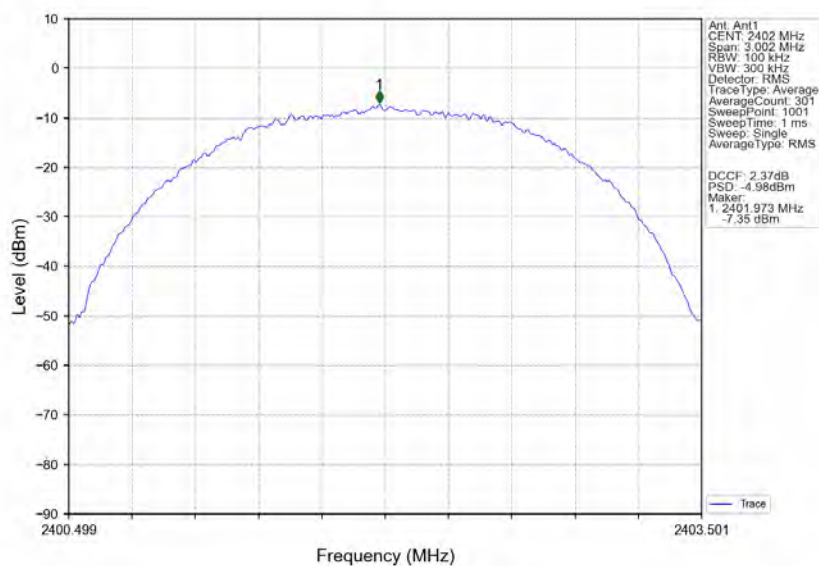
1M_MCH_2440MHz_Ant1_NTNV



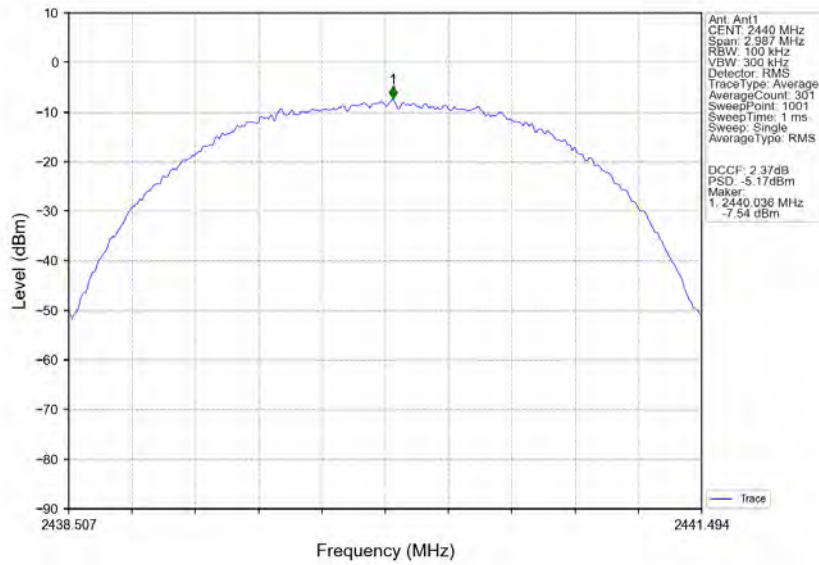
1M_HCH_2480MHz_Ant1_NTNV



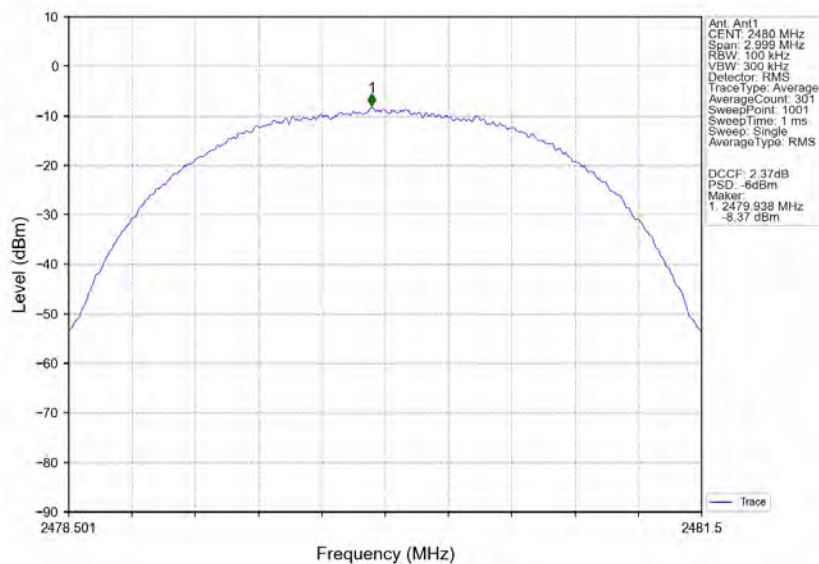
2M_LCH_2402MHz_Ant1_NTNV



2M_MCH_2440MHz_Ant1_NTNV



2M_HCH_2480MHz_Ant1_NTNV





5. Unwanted Emissions In Non-restricted Frequency Bands

5.1 Test Result

5.1.1 Ref

Mode	TX Type	Frequency (MHz)	ANT	Level of Reference (dBm)
1M	SISO	2402	1	4.89
		2440	1	5.10
		2480	1	3.76
2M	SISO	2402	1	4.03
		2440	1	4.23
		2480	1	2.87

Note1: Refer to FCC Part 15.247 (d) and ANSI C63.10 (2020), the channel contains the maximum PSD level was used to establish the reference level.

5.1.2 CSE

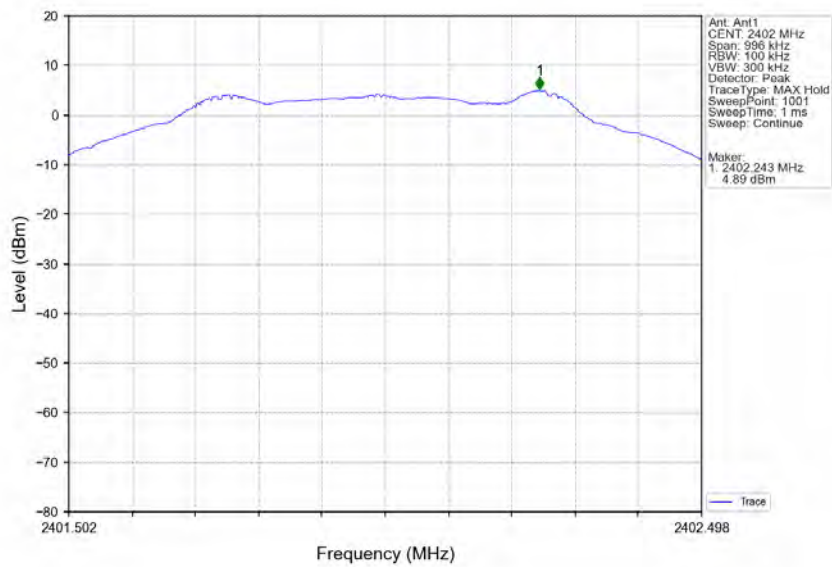
Mode	TX Type	Frequency (MHz)	ANT	Level of Reference (dBm)	Limit (dBm)	Verdict
1M	SISO	2402	1	5.10	-24.90	Pass
		2440	1	5.10	-24.90	Pass
		2480	1	5.10	-24.90	Pass
2M	SISO	2402	1	4.23	-25.77	Pass
		2440	1	4.23	-25.77	Pass
		2480	1	4.23	-25.77	Pass

Note1: Refer to FCC Part 15.247 (d) and ANSI C63.10 (2020), the channel contains the maximum PSD level was used to establish the reference level.

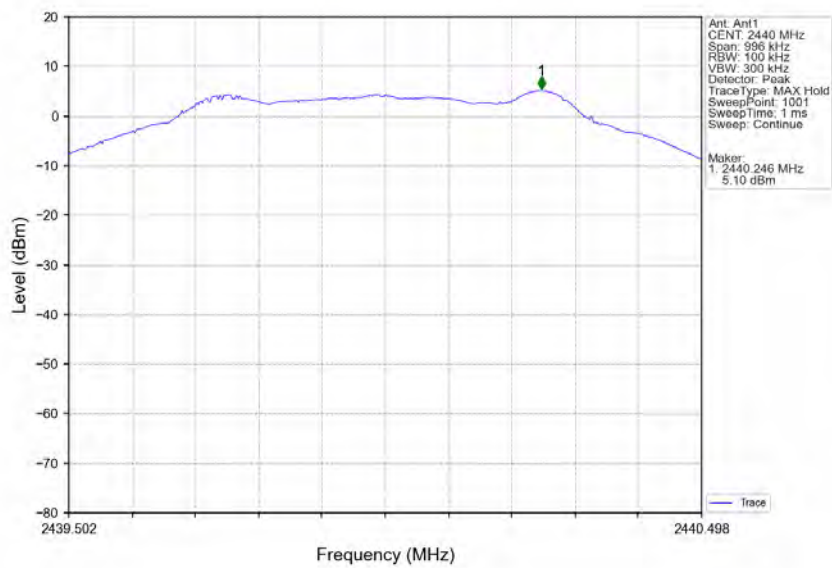
5.2 Test Graph

5.2.1 Ref

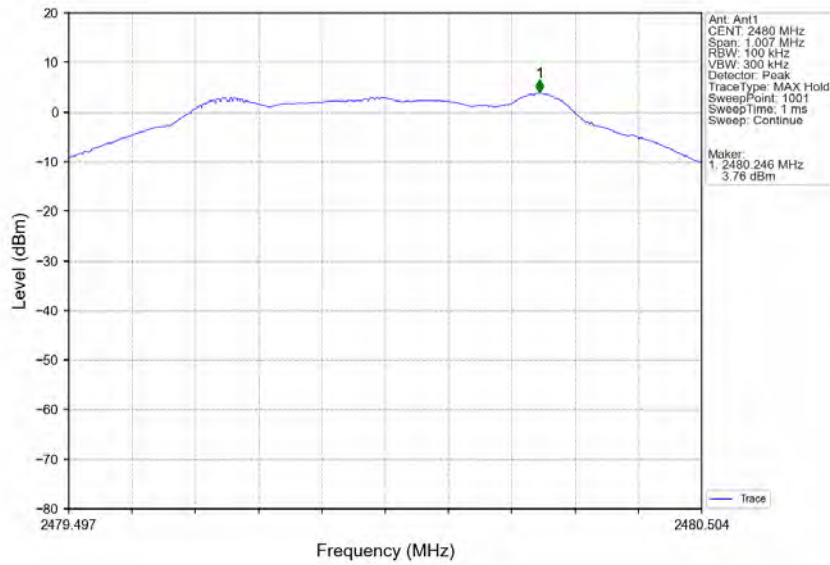
1M_LCH_2402MHz_Ant1_NTNV



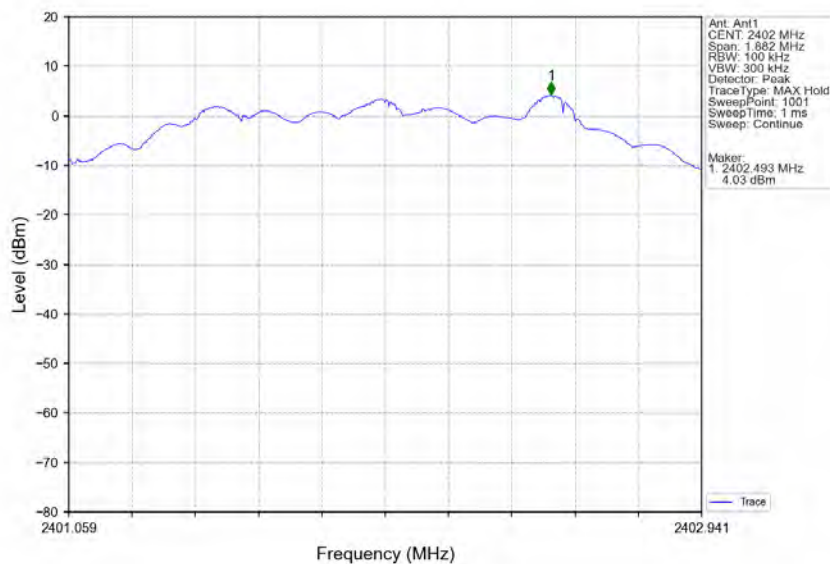
1M_MCH_2440MHz_Ant1_NTNV



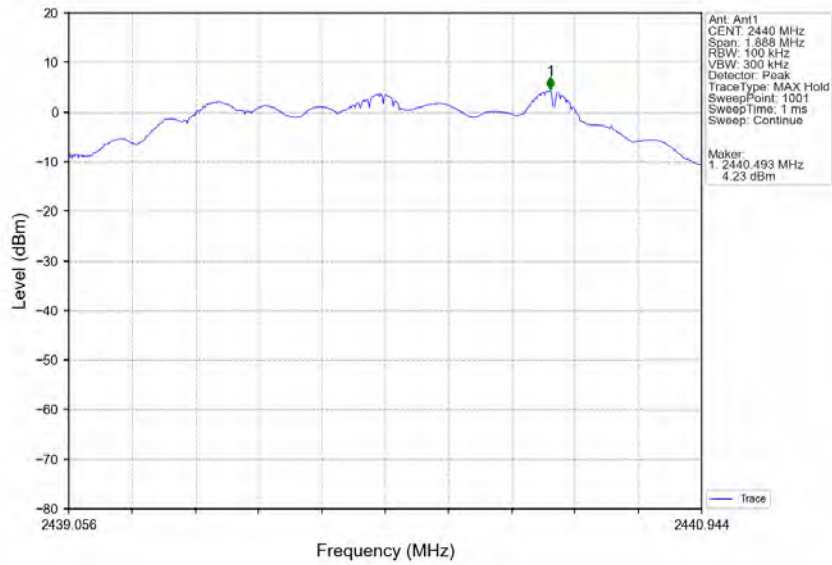
1M_HCH_2480MHz_Ant1_NTNV



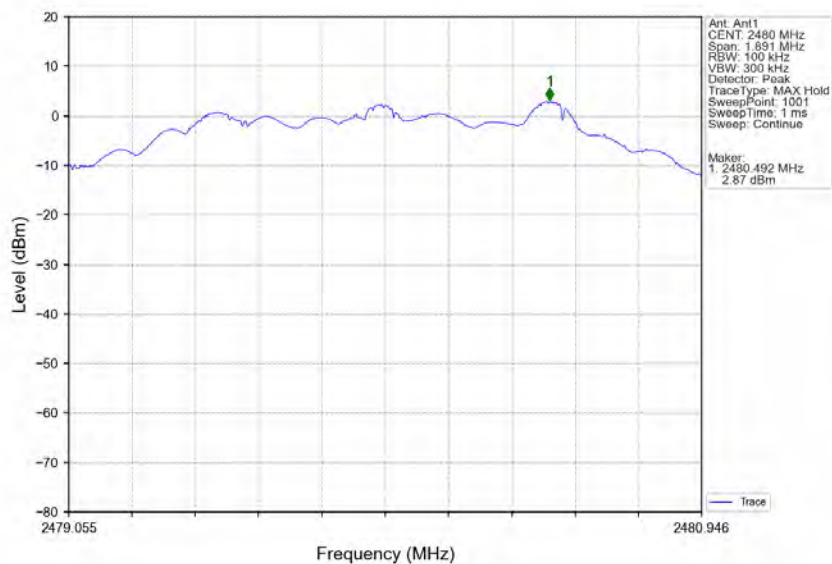
2M_LCH_2402MHz_Ant1_NTNV



2M_MCH_2440MHz_Ant1_NTNV

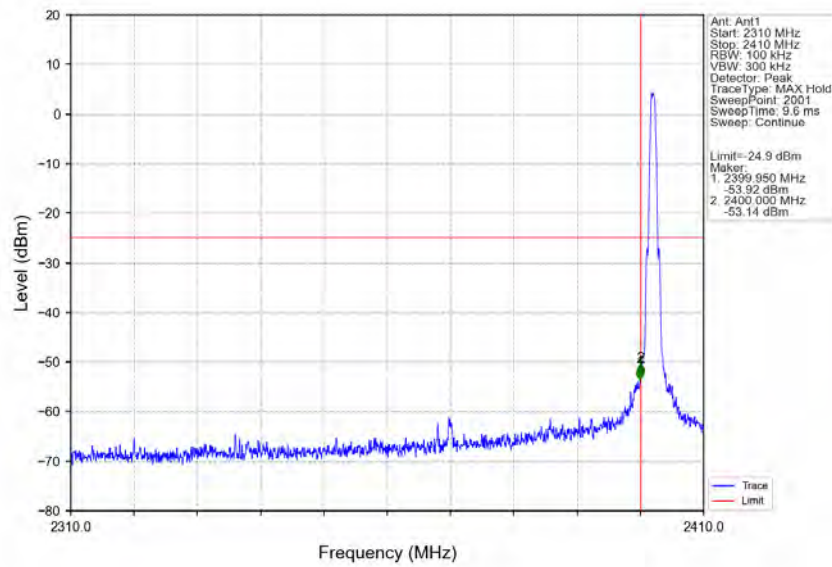


2M_HCH_2480MHz_Ant1_NTNV

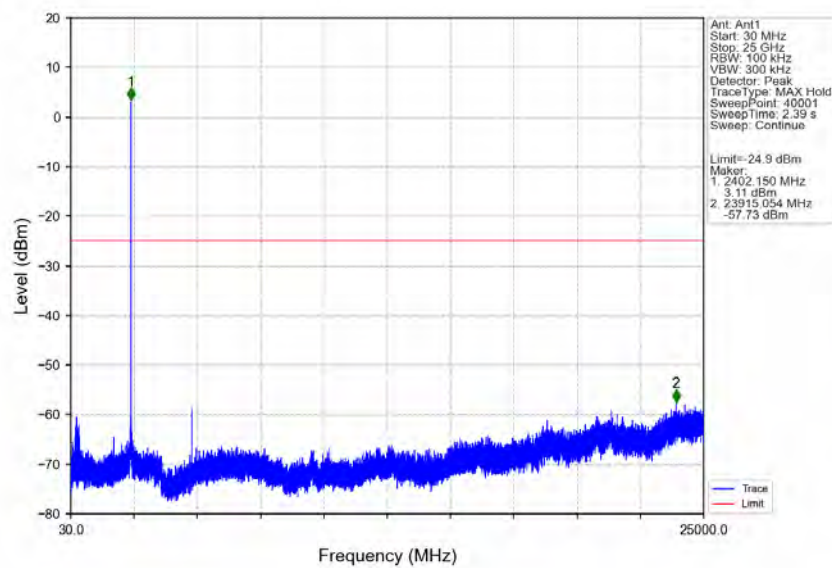


5.2.2 CSE

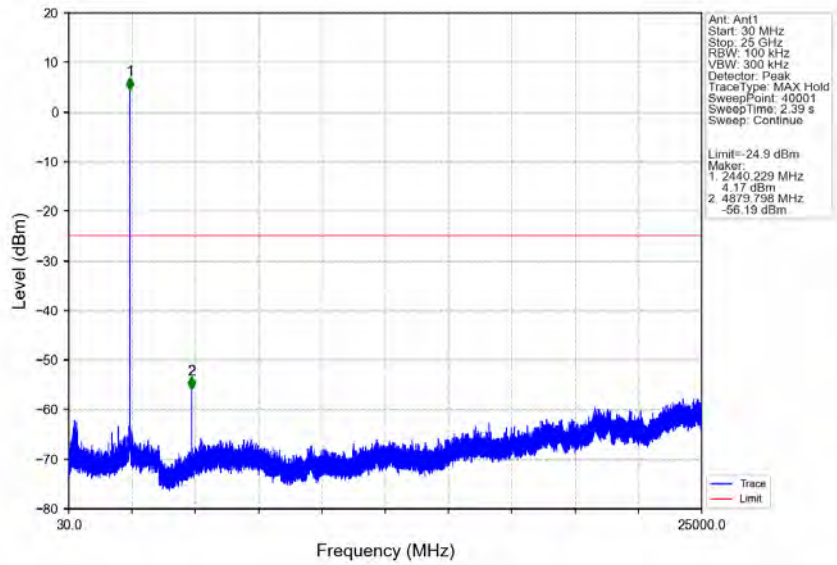
1M_LCH_2402MHz_Ant1_NTNV



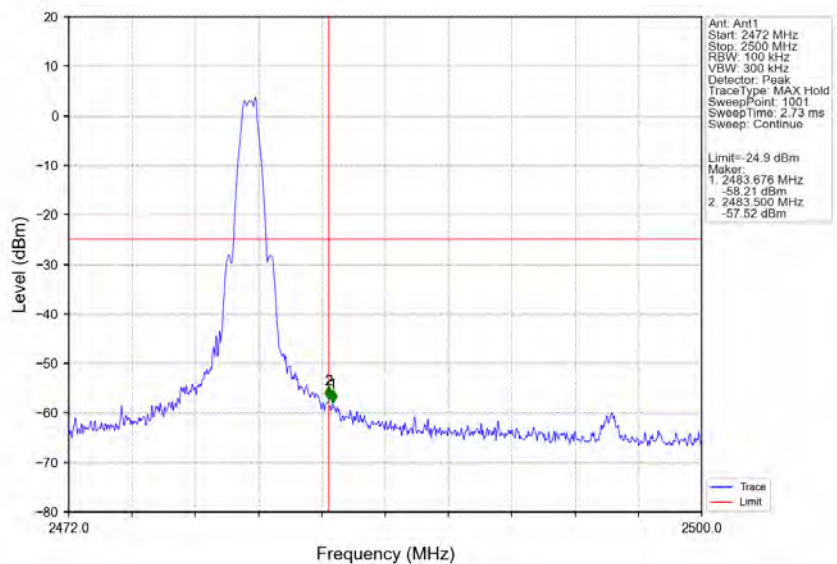
1M_LCH_2402MHz_Ant1_NTNV



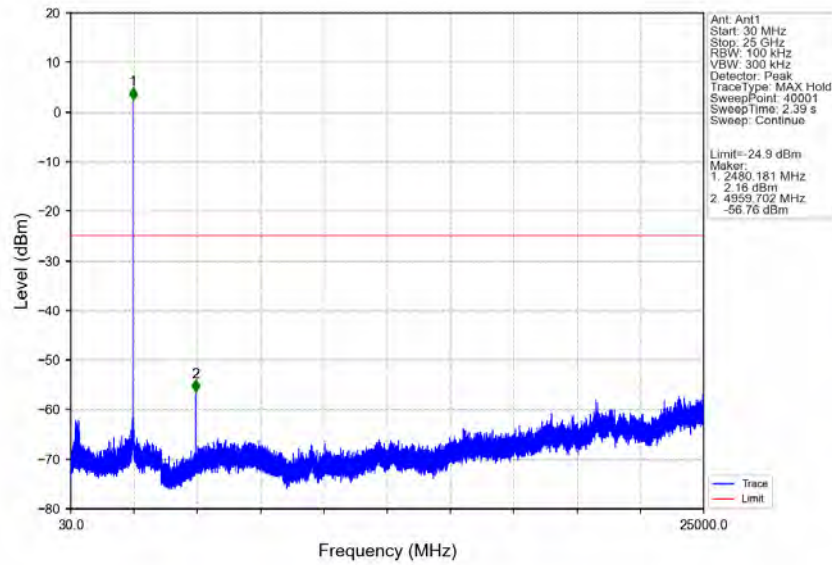
1M_MCH_2440MHz_Ant1_NTNV



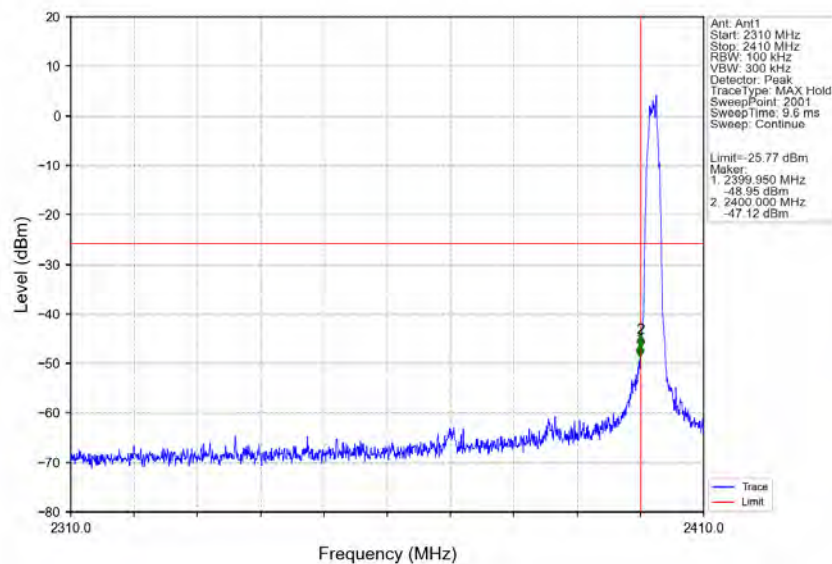
1M_HCH_2480MHz_Ant1_NTNV



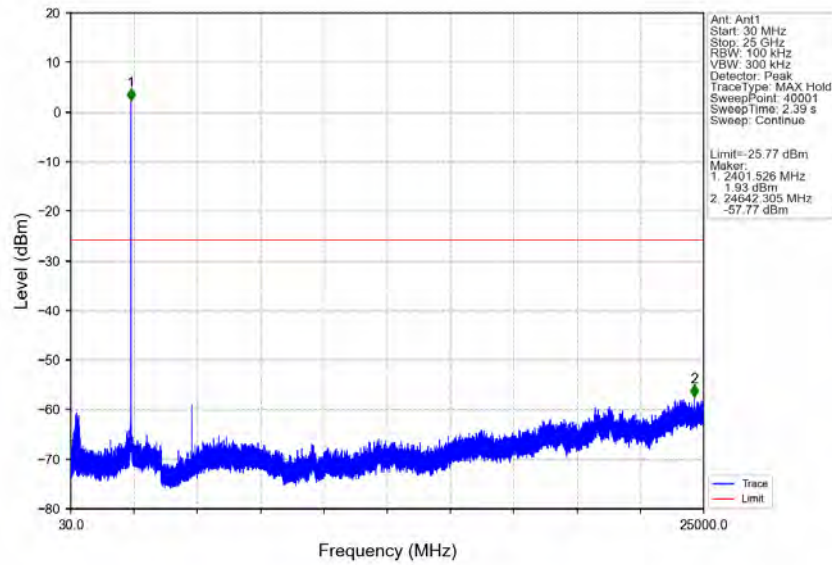
1M_HCH_2480MHz_Ant1_NTNV



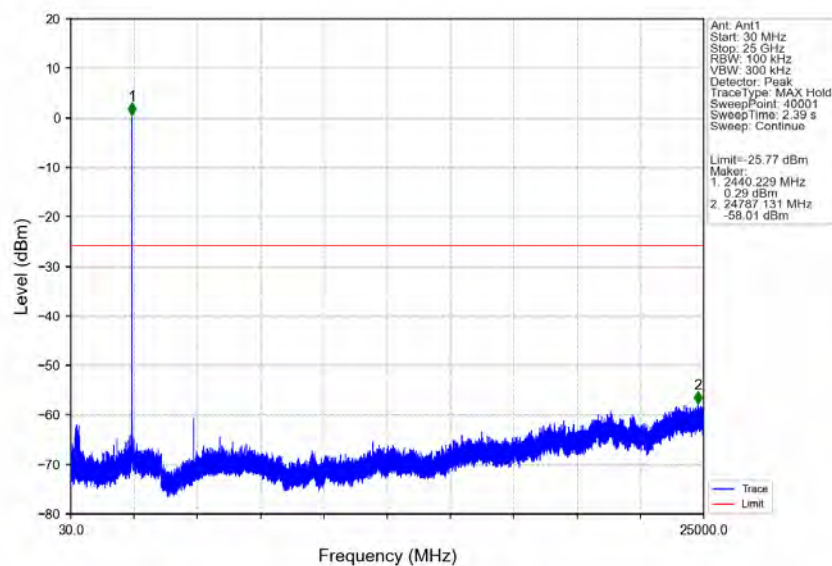
2M_LCH_2402MHz_Ant1_NTNV



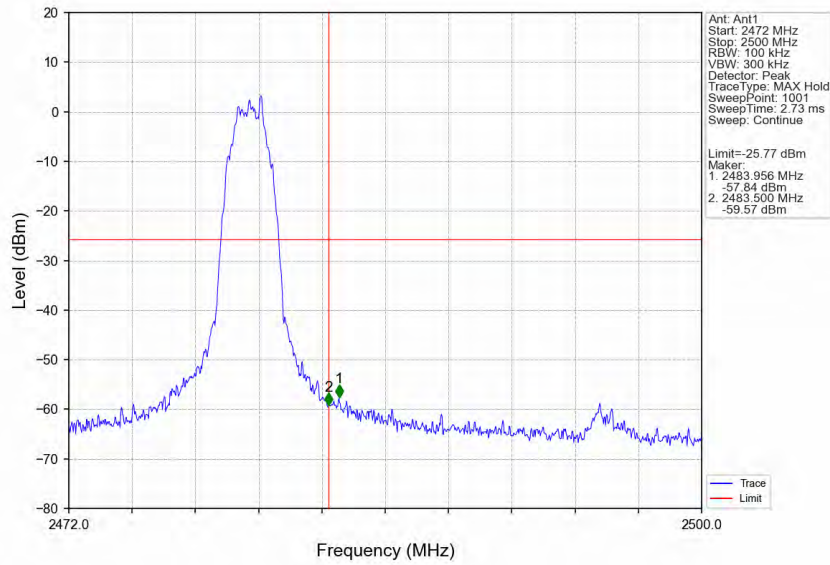
2M_LCH_2402MHz_Ant1_NTNV



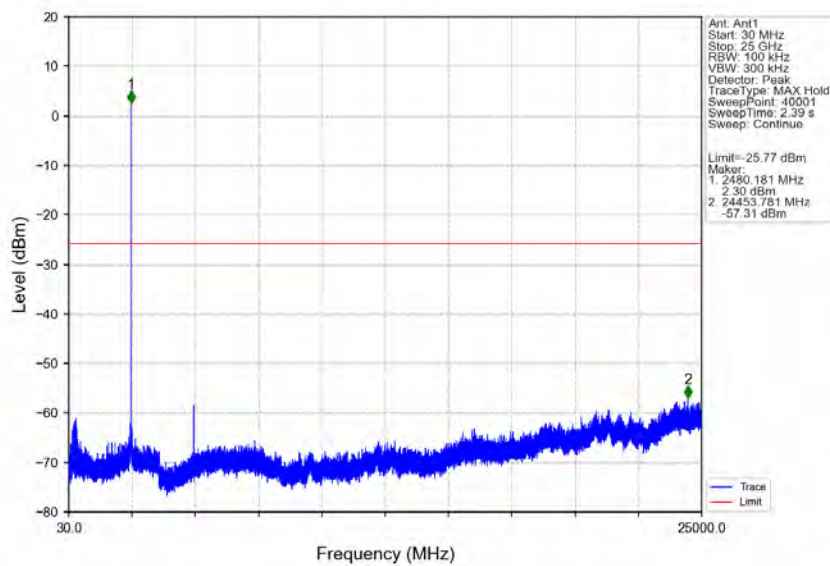
2M_MCH_2440MHz_Ant1_NTNV



2M_HCH_2480MHz_Ant1_NTNV



2M_HCH_2480MHz_Ant1_NTNV





Right Earbud

1. Duty Cycle

1.1 Test Result

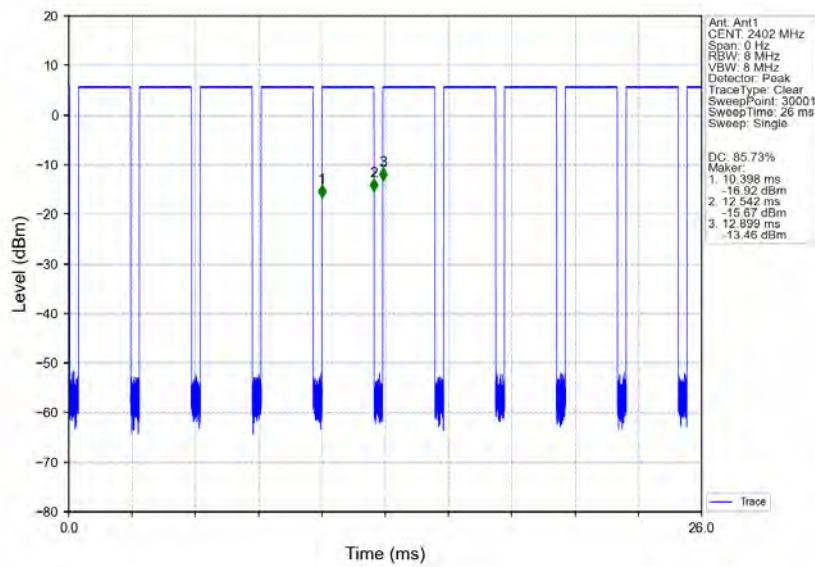
1.1.1 Ant1

Ant1							
Mode	TX Type	Frequency (MHz)	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
1M	SISO	2402	2.144	2.501	85.73	0.67	0.03
		2440	2.144	2.500	85.76	0.67	0.03
		2480	2.143	2.500	85.72	0.67	0.03
2M	SISO	2402	1.086	1.875	57.92	2.37	0.03
		2440	1.086	1.874	57.95	2.37	0.03
		2480	1.086	1.874	57.95	2.37	0.03

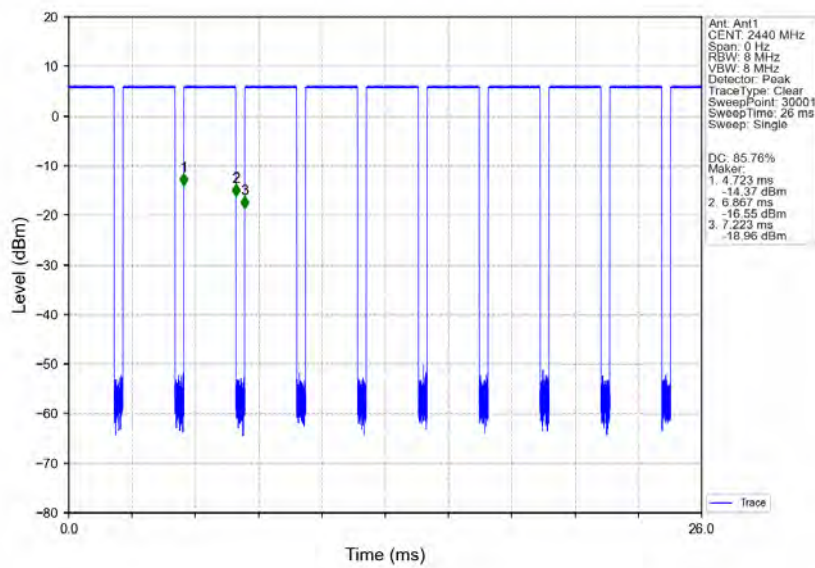
1.2 Test Graph

1.2.1 Ant1

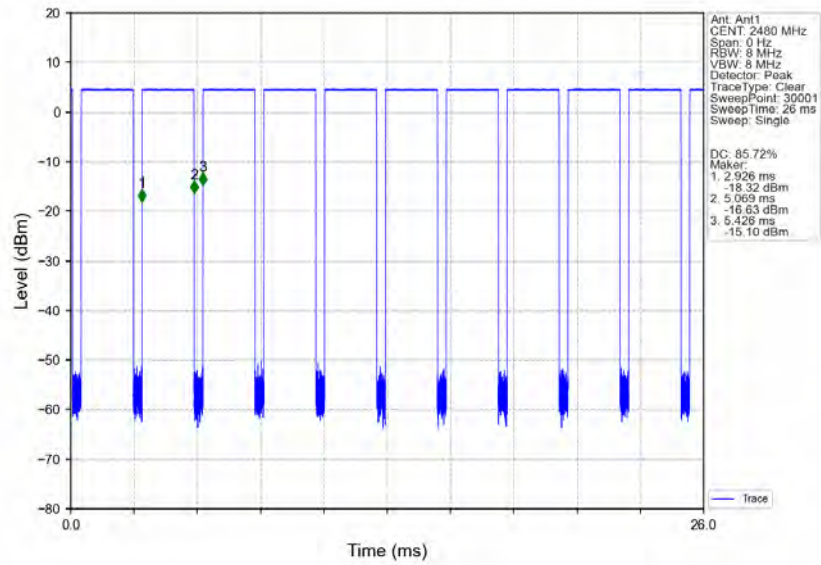
1M_LCH_2402MHz_Ant1_NTNV



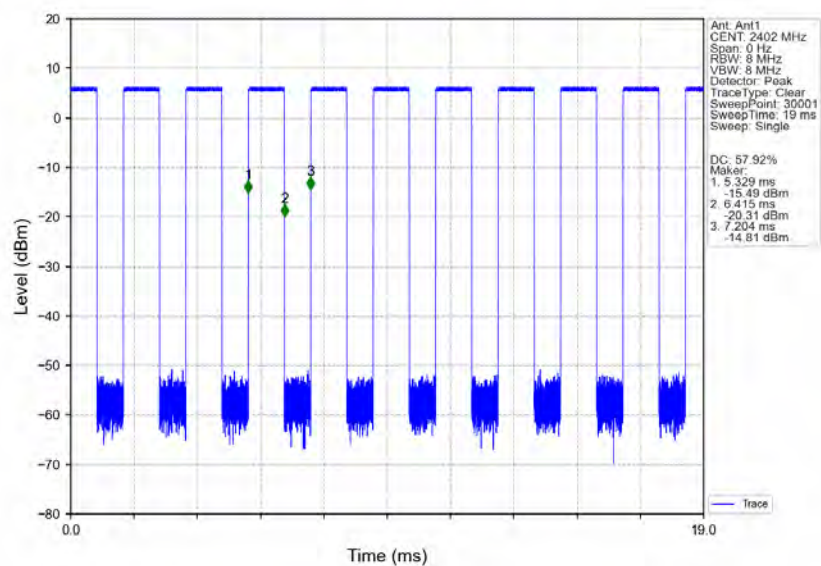
1M_MCH_2440MHz_Ant1_NTNV



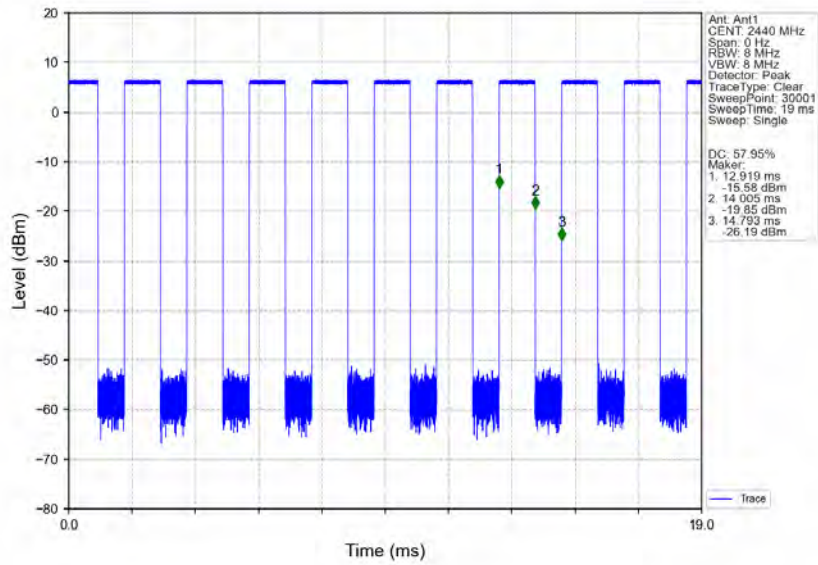
1M_HCH_2480MHz_Ant1_NTNV



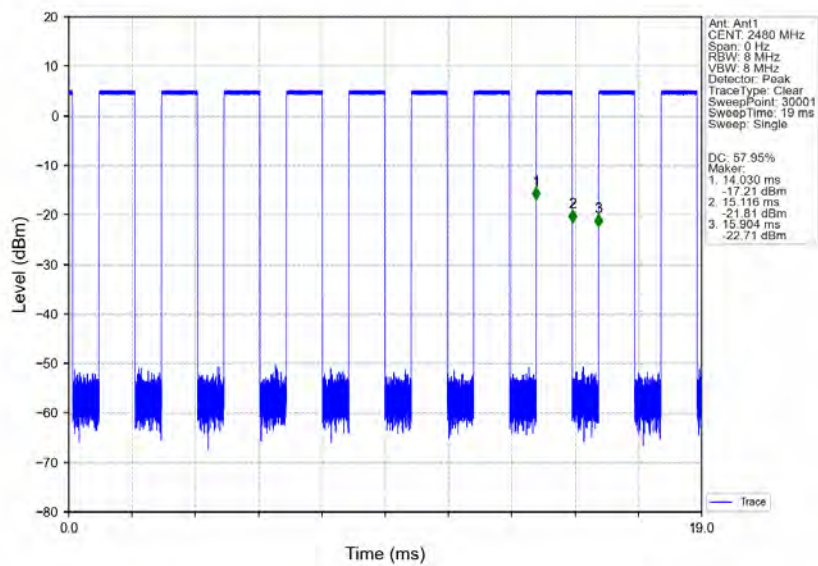
2M_LCH_2402MHz_Ant1_NTNV



2M_MCH_2440MHz_Ant1_NTNV



2M_HCH_2480MHz_Ant1_NTNV





2. Bandwidth

2.1 Test Result

2.1.1 OBW

Mode	TX Type	Frequency (MHz)	ANT	99% Occupied Bandwidth (MHz)		Verdict
				Result	Limit	
1M	SISO	2402	1	1.025	/	Pass
		2440	1	1.027	/	Pass
		2480	1	1.025	/	Pass
2M	SISO	2402	1	2.005	/	Pass
		2440	1	1.987	/	Pass
		2480	1	1.996	/	Pass

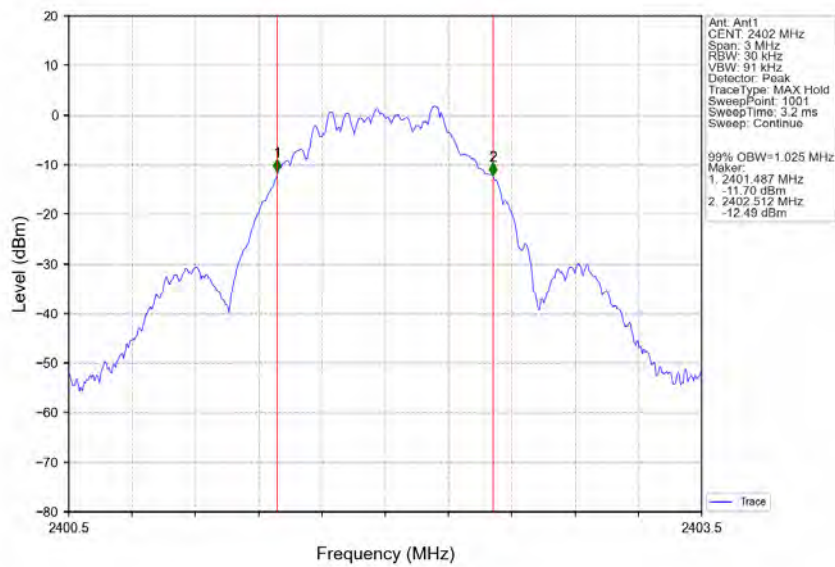
2.1.2 6dB BW

Mode	TX Type	Frequency (MHz)	ANT	6dB Bandwidth (MHz)		Verdict
				Result	Limit	
1M	SISO	2402	1	0.666	≥ 0.5	Pass
		2440	1	0.664	≥ 0.5	Pass
		2480	1	0.665	≥ 0.5	Pass
2M	SISO	2402	1	1.260	≥ 0.5	Pass
		2440	1	1.259	≥ 0.5	Pass
		2480	1	1.253	≥ 0.5	Pass

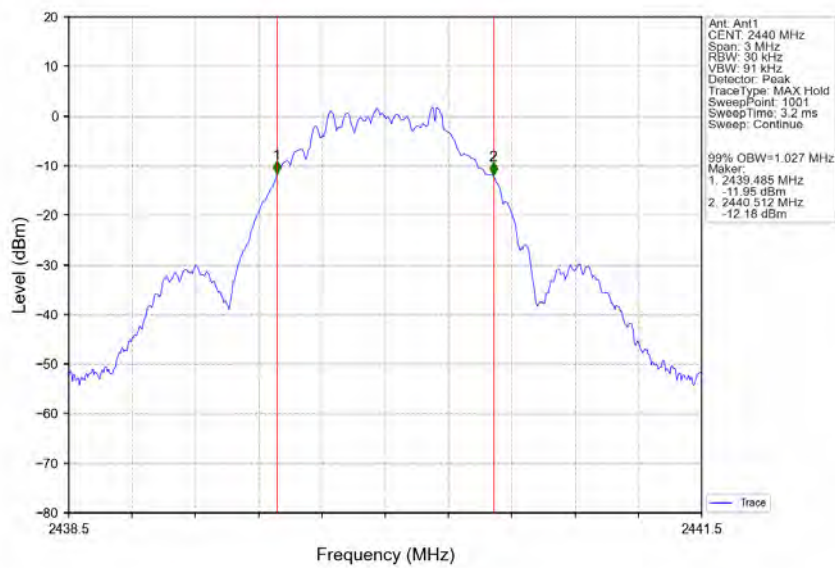
2.2 Test Graph

2.2.1 OBW

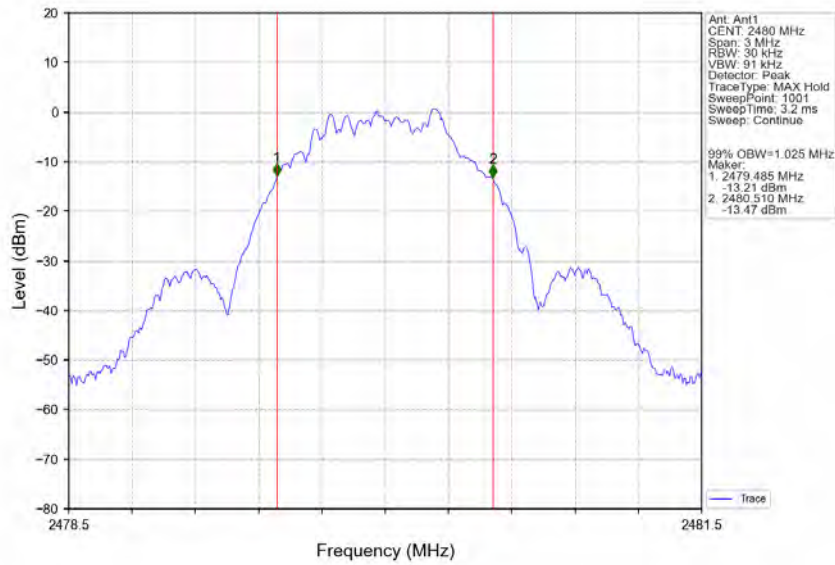
1M_LCH_2402MHz_Ant1_NTNV



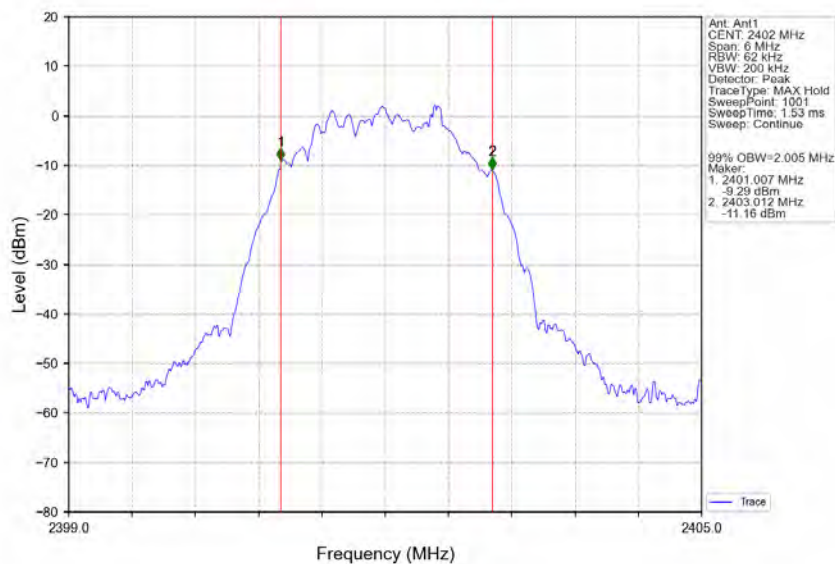
1M_MCH_2440MHz_Ant1_NTNV



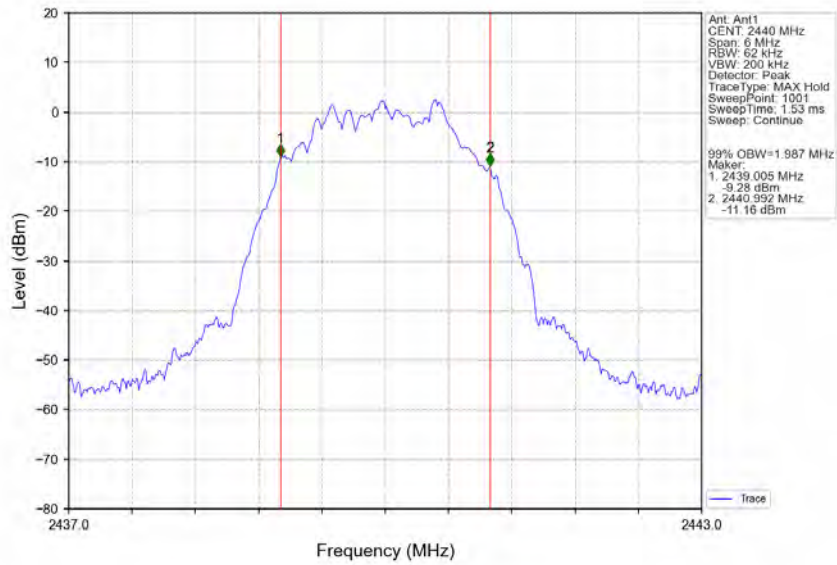
1M_HCH_2480MHz_Ant1_NTNV



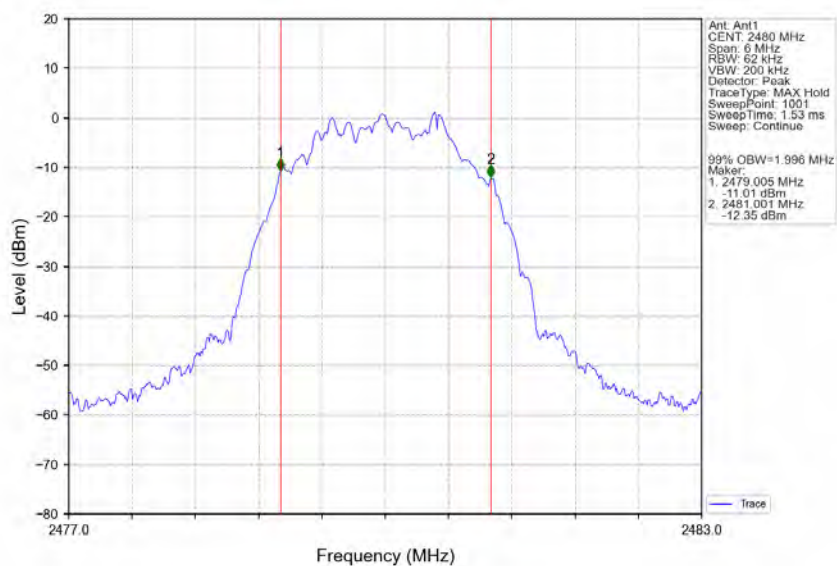
2M_LCH_2402MHz_Ant1_NTNV



2M_MCH_2440MHz_Ant1_NTNV

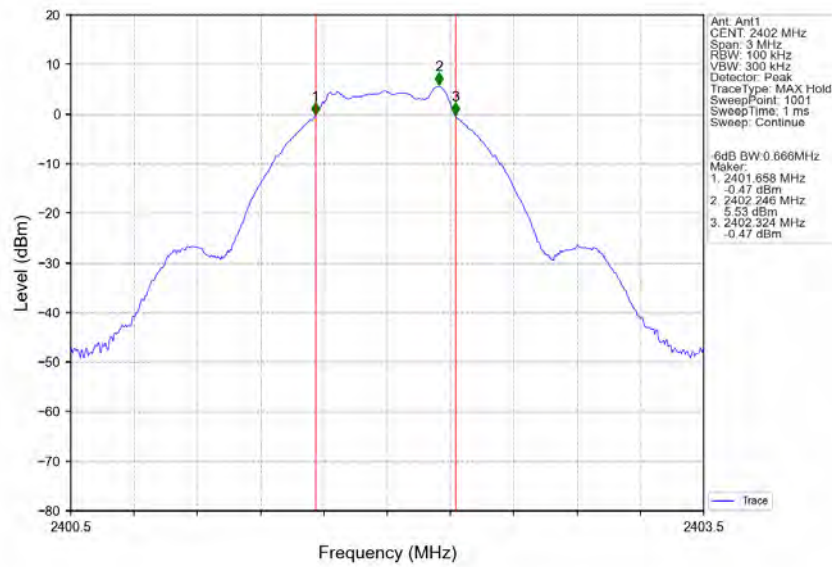


2M_HCH_2480MHz_Ant1_NTNV

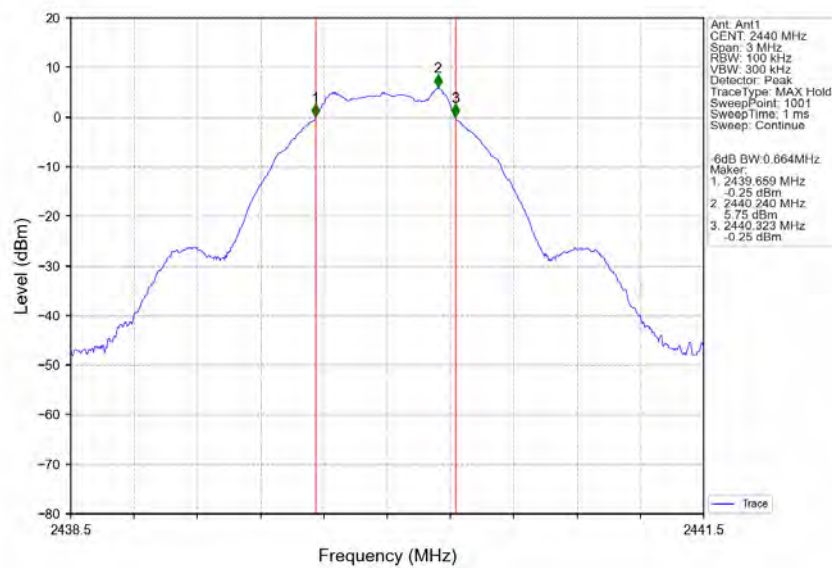


2.2.2 6dB BW

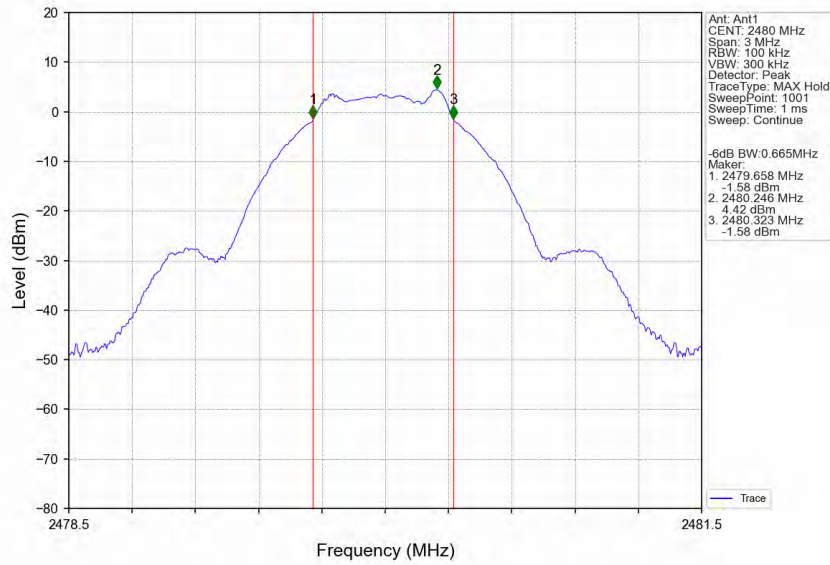
1M_LCH_2402MHz_Ant1_NTNV



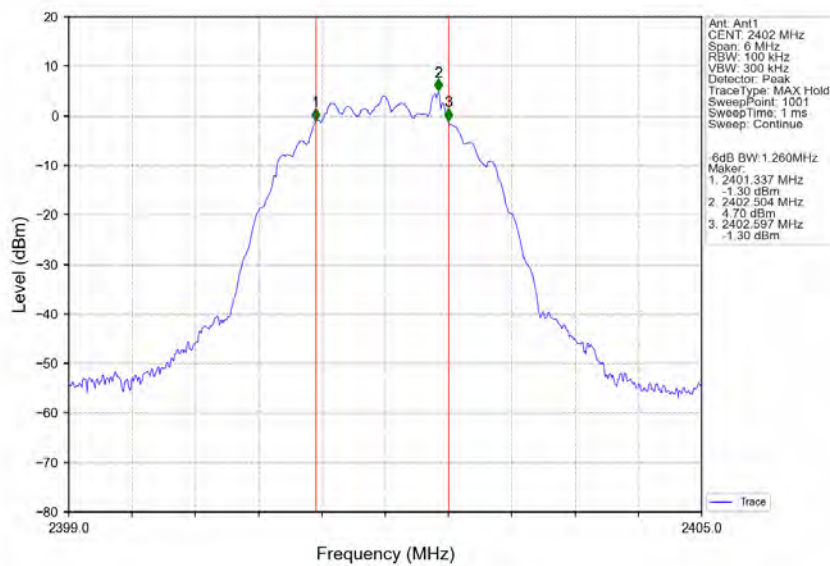
1M_MCH_2440MHz_Ant1_NTNV



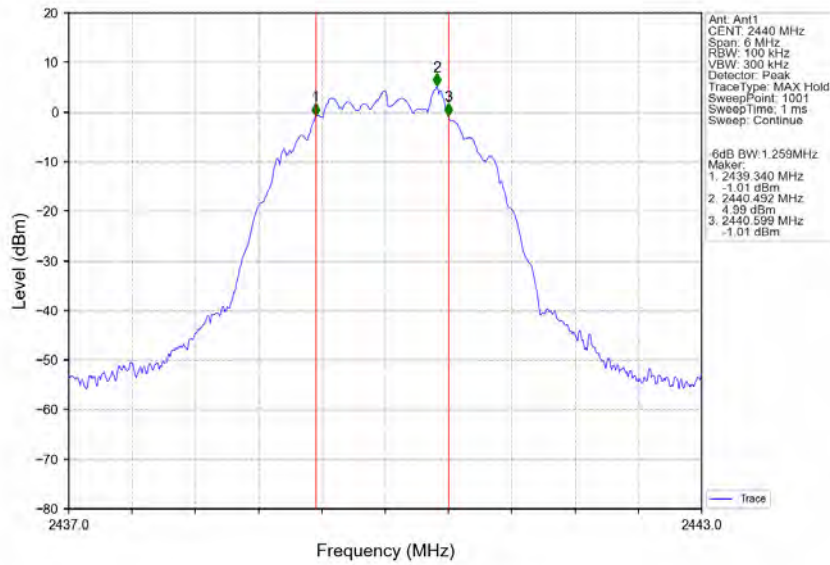
1M_HCH_2480MHz_Ant1_NTNV



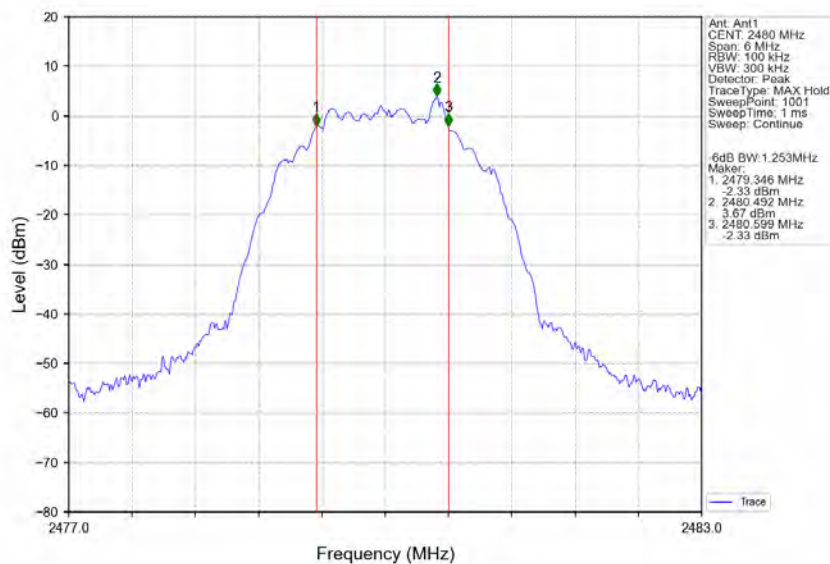
2M_LCH_2402MHz_Ant1_NTNV



2M_MCH_2440MHz_Ant1_NTNV



2M_HCH_2480MHz_Ant1_NTNV





3. Maximum Conducted Output Power

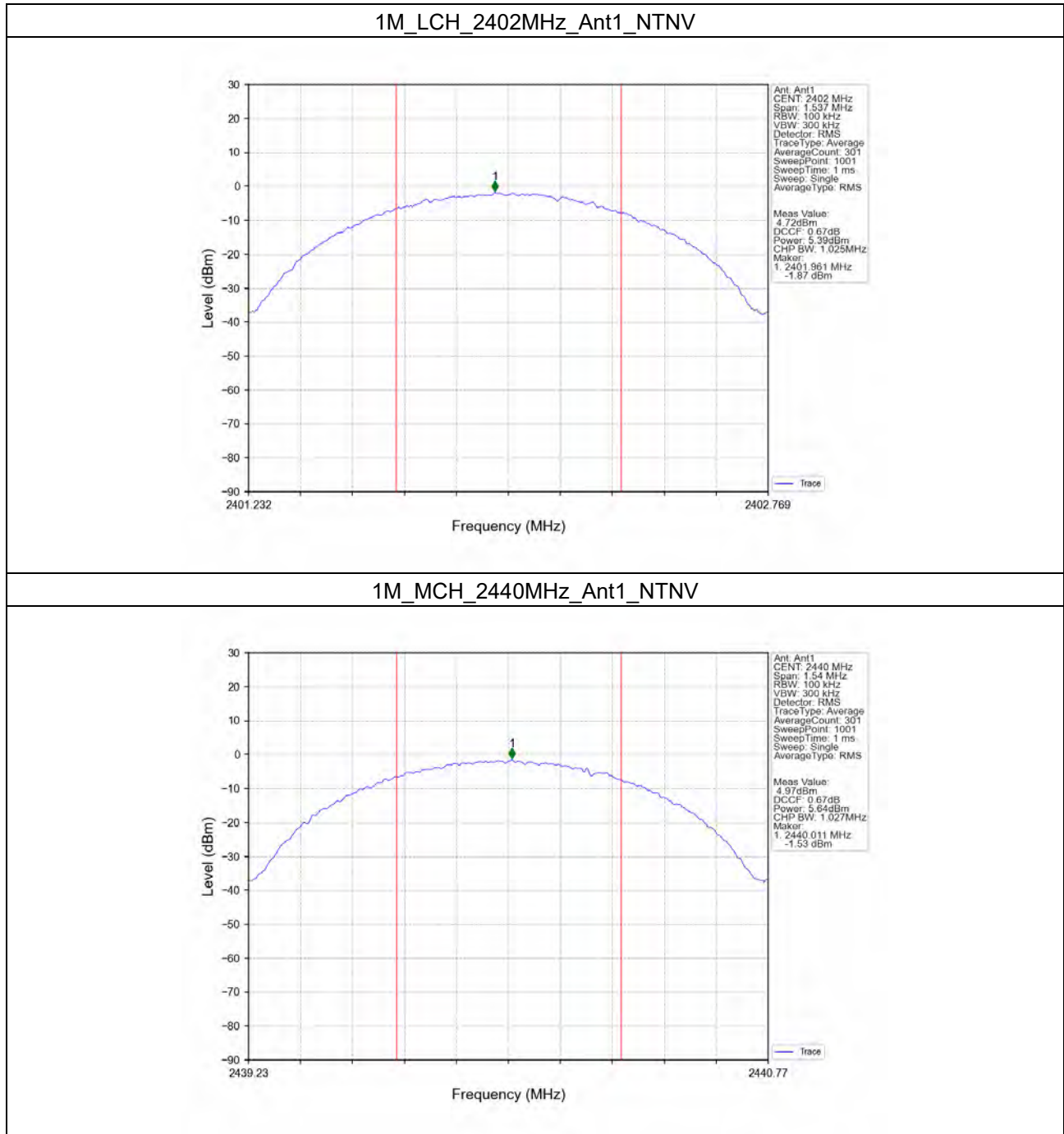
3.1 Test Result

3.1.1 Power

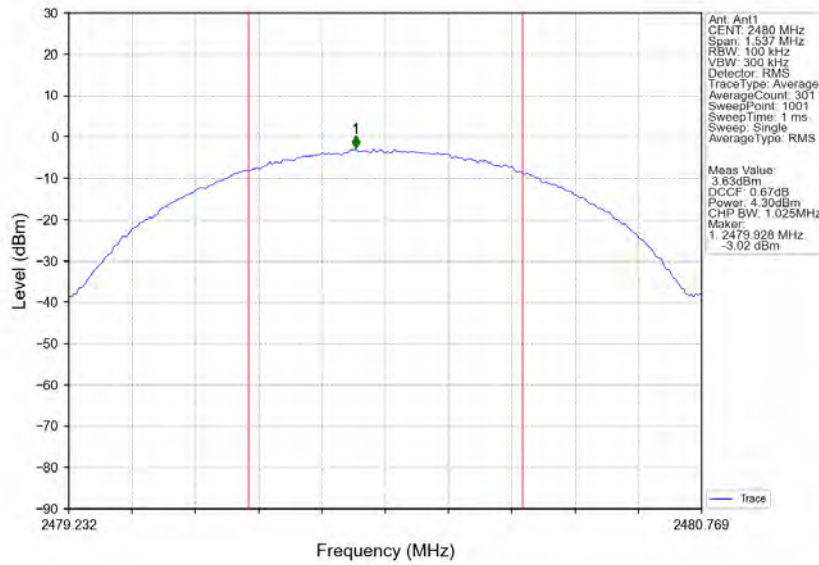
Mode	TX Type	Frequency (MHz)	Maximum Average Conducted Output Power (dBm)		Verdict
			ANT1	Limit	
1M	SISO	2402	5.39	<=30	Pass
		2440	5.64	<=30	Pass
		2480	4.30	<=30	Pass
2M	SISO	2402	5.41	<=30	Pass
		2440	5.39	<=30	Pass
		2480	4.21	<=30	Pass
Note1: Antenna Gain: Ant1: 2.40dBi;					

3.2 Test Graph

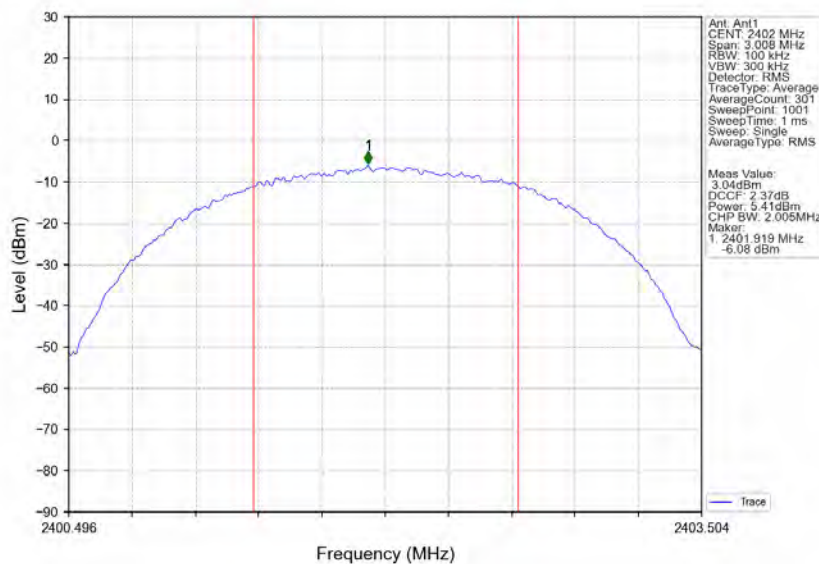
3.2.1 Power



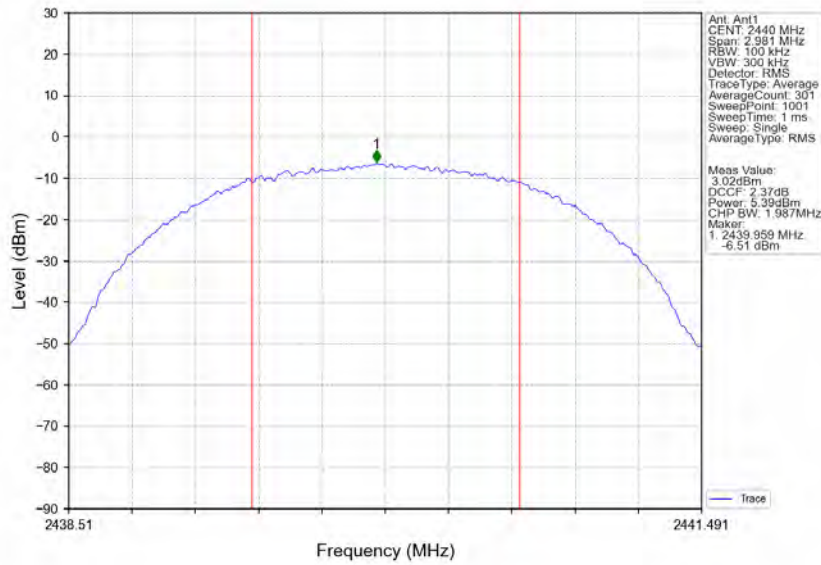
1M_HCH_2480MHz_Ant1_NTNV



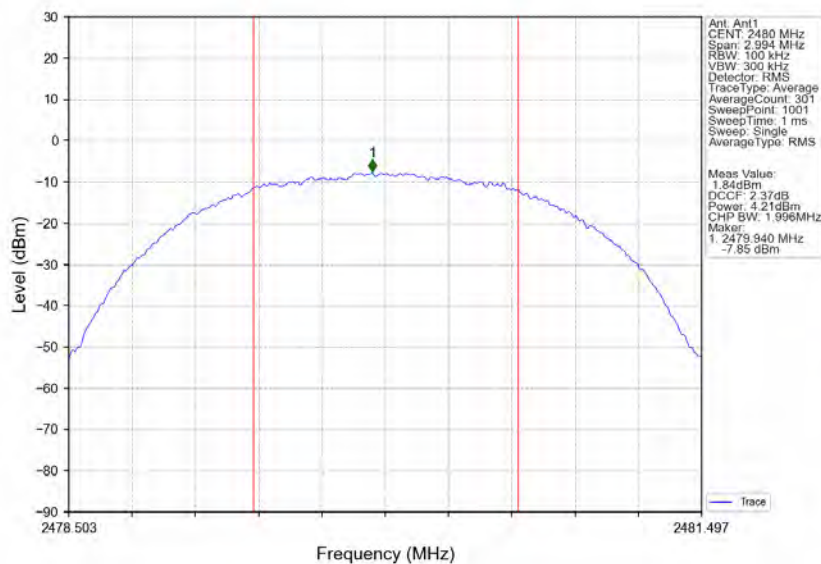
2M_LCH_2402MHz_Ant1_NTNV



2M_MCH_2440MHz_Ant1_NTNV



2M_HCH_2480MHz_Ant1_NTNV





4. Maximum Power Spectral Density

4.1 Test Result

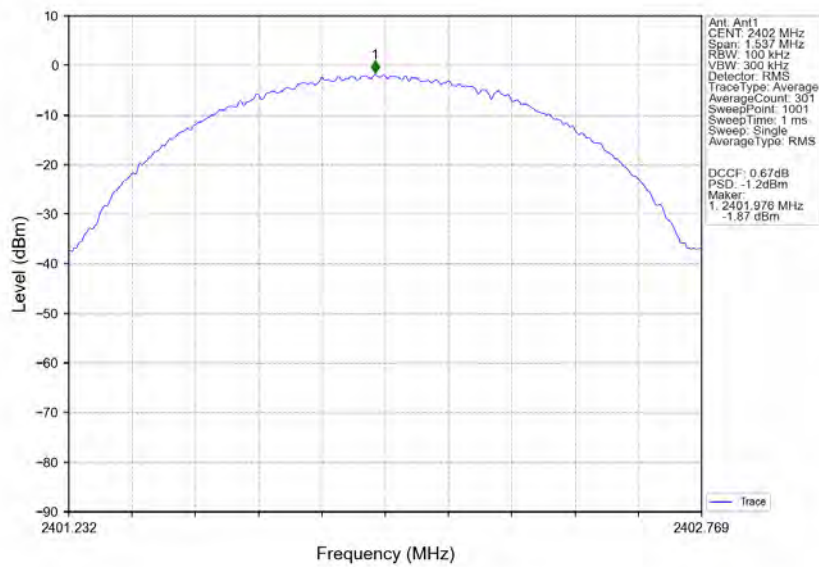
4.1.1 PSD

Mode	TX Type	Frequency (MHz)	Maximum PSD (dBm)		Verdict
			ANT1	Limit	
1M	SISO	2402	-1.20	<=8	Pass
		2440	-1.25	<=8	Pass
		2480	-2.34	<=8	Pass
2M	SISO	2402	-4.35	<=8	Pass
		2440	-3.87	<=8	Pass
		2480	-4.73	<=8	Pass
Note1: Antenna Gain: Ant1: 2.40dBi;					

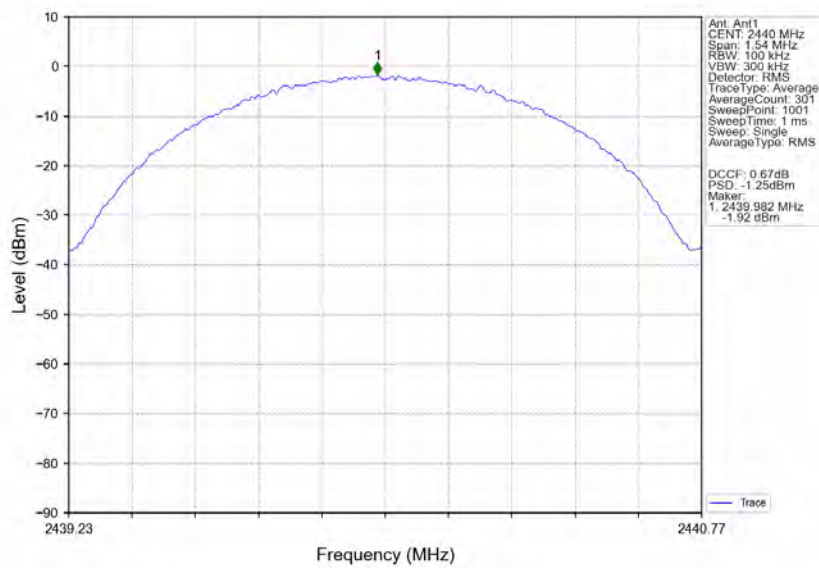
4.2 Test Graph

4.2.1 PSD

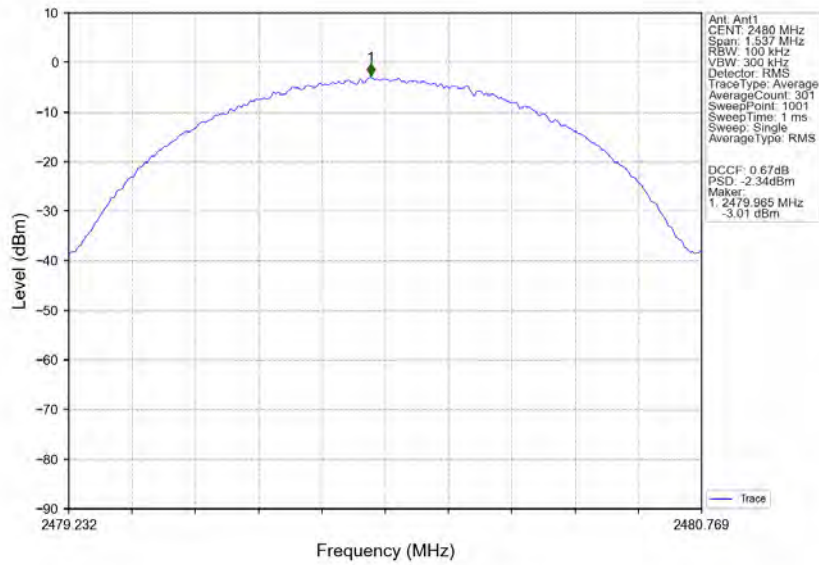
1M_LCH_2402MHz_Ant1_NTNV



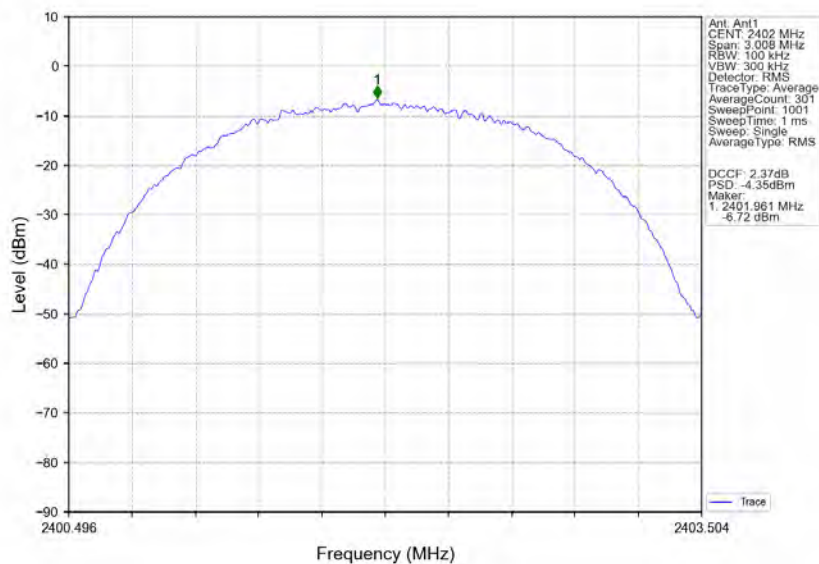
1M_MCH_2440MHz_Ant1_NTNV



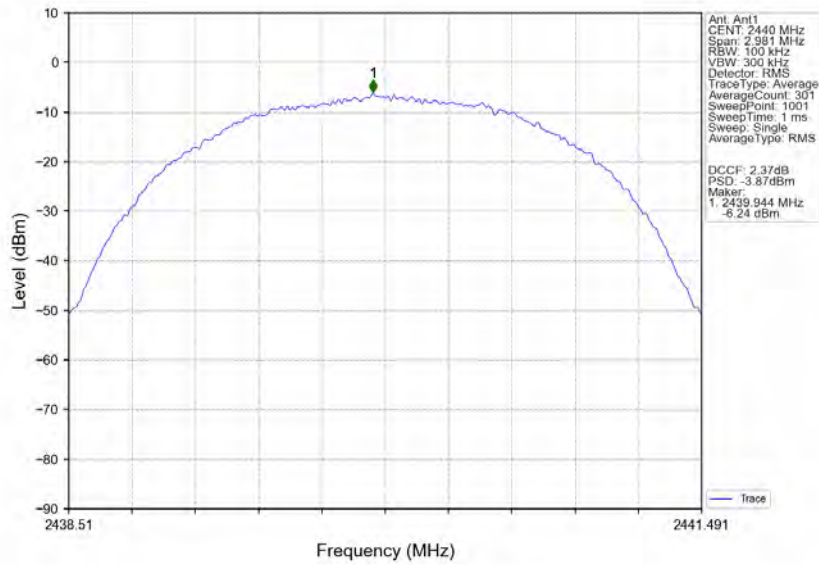
1M_HCH_2480MHz_Ant1_NTNV



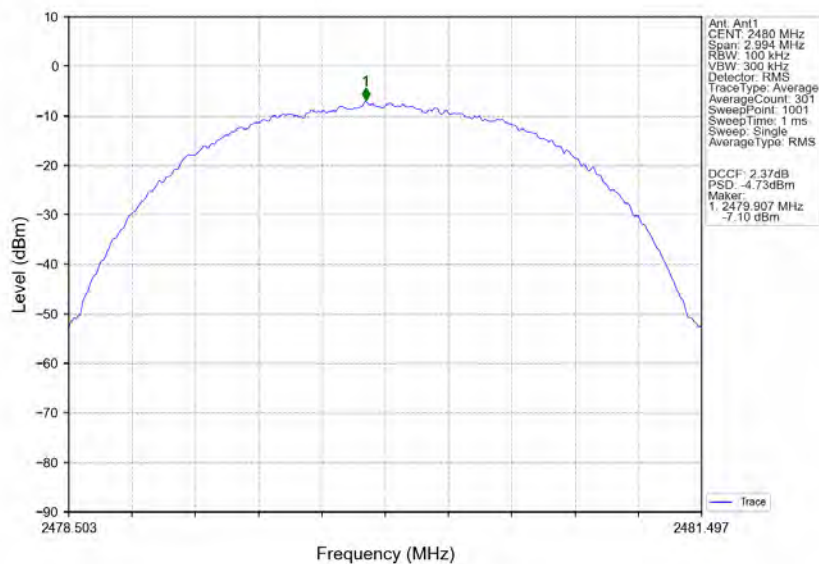
2M_LCH_2402MHz_Ant1_NTNV



2M_MCH_2440MHz_Ant1_NTNV



2M_HCH_2480MHz_Ant1_NTNV





5. Unwanted Emissions In Non-restricted Frequency Bands

5.1 Test Result

5.1.1 Ref

Mode	TX Type	Frequency (MHz)	ANT	Level of Reference (dBm)
1M	SISO	2402	1	5.53
		2440	1	5.75
		2480	1	4.42
2M	SISO	2402	1	4.65
		2440	1	4.88
		2480	1	3.52

Note1: Refer to FCC Part 15.247 (d) and ANSI C63.10 (2020), the channel contains the maximum PSD level was used to establish the reference level.

5.1.2 CSE

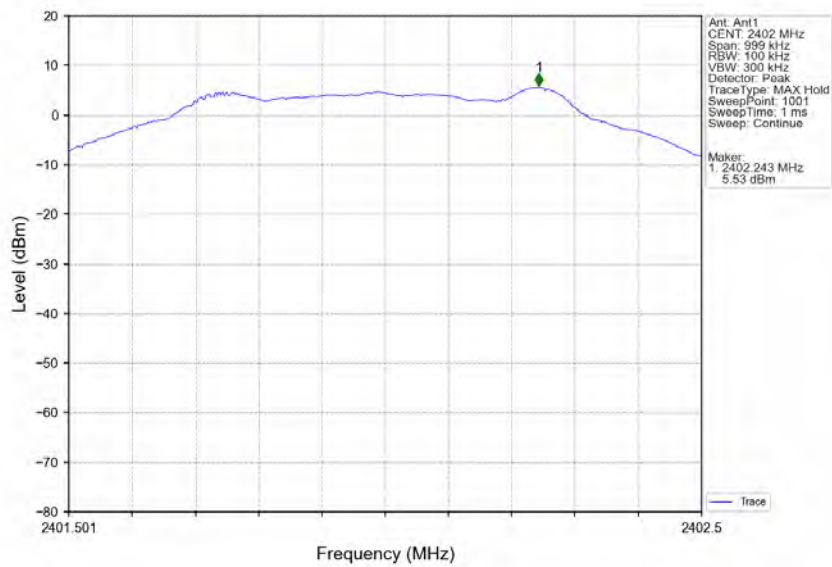
Mode	TX Type	Frequency (MHz)	ANT	Level of Reference (dBm)	Limit (dBm)	Verdict
1M	SISO	2402	1	5.75	-24.25	Pass
		2440	1	5.75	-24.25	Pass
		2480	1	5.75	-24.25	Pass
2M	SISO	2402	1	4.88	-25.12	Pass
		2440	1	4.88	-25.12	Pass
		2480	1	4.88	-25.12	Pass

Note1: Refer to FCC Part 15.247 (d) and ANSI C63.10 (2020), the channel contains the maximum PSD level was used to establish the reference level.

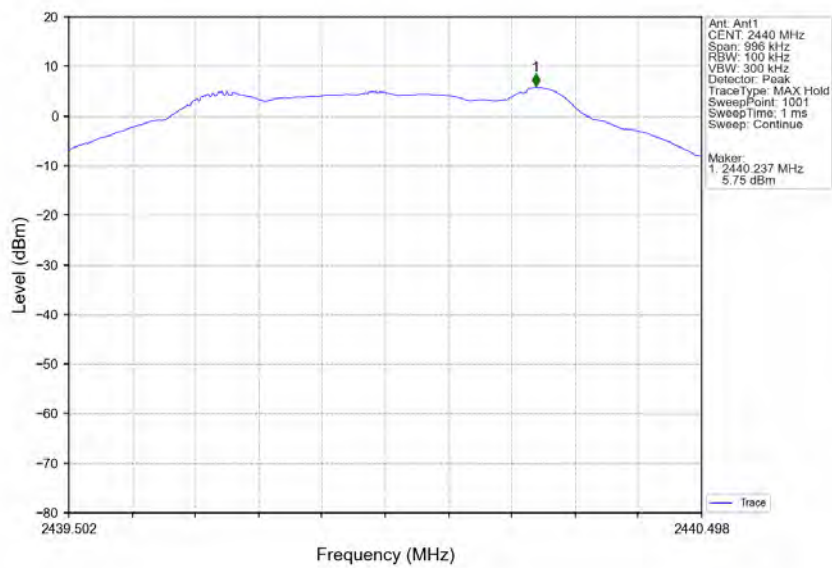
5.2 Test Graph

5.2.1 Ref

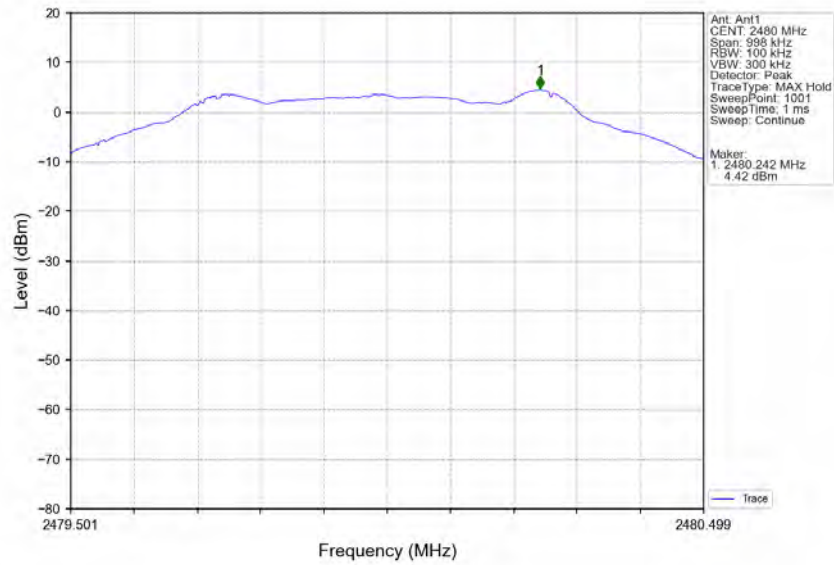
1M_LCH_2402MHz_Ant1_NTNV



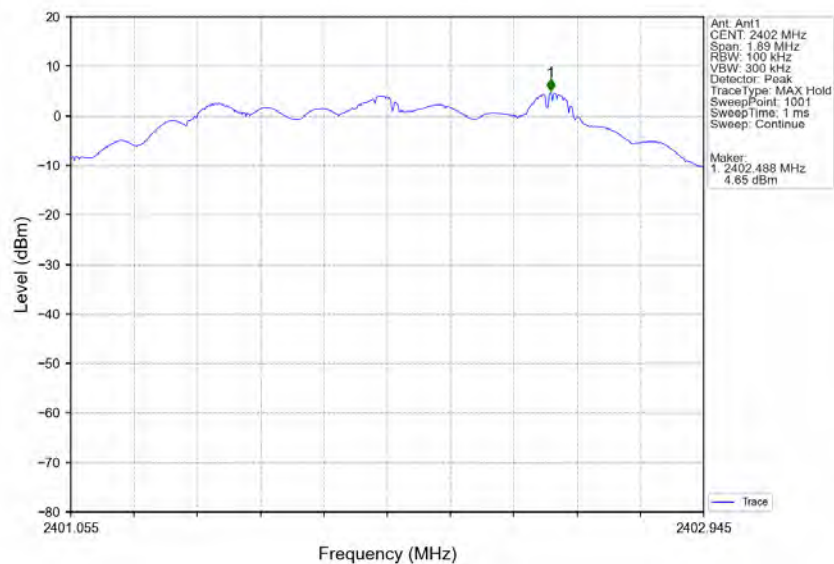
1M_MCH_2440MHz_Ant1_NTNV



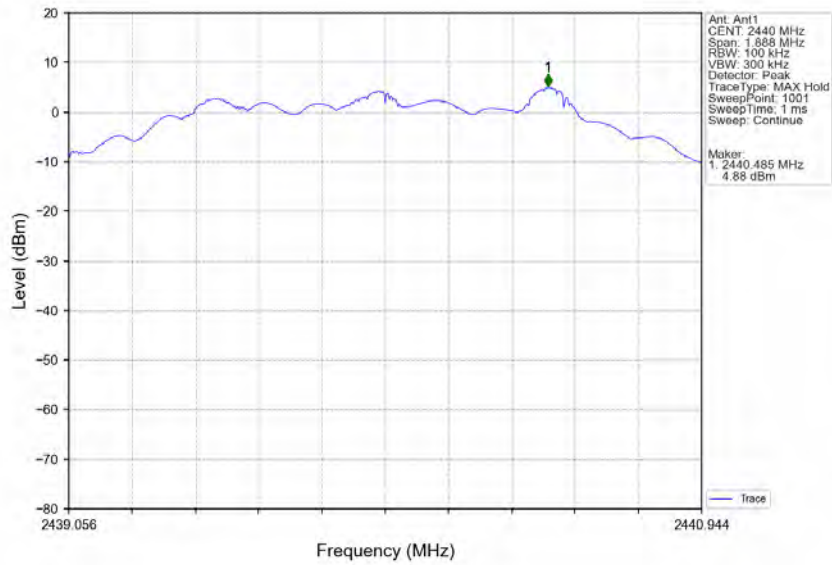
1M_HCH_2480MHz_Ant1_NTNV



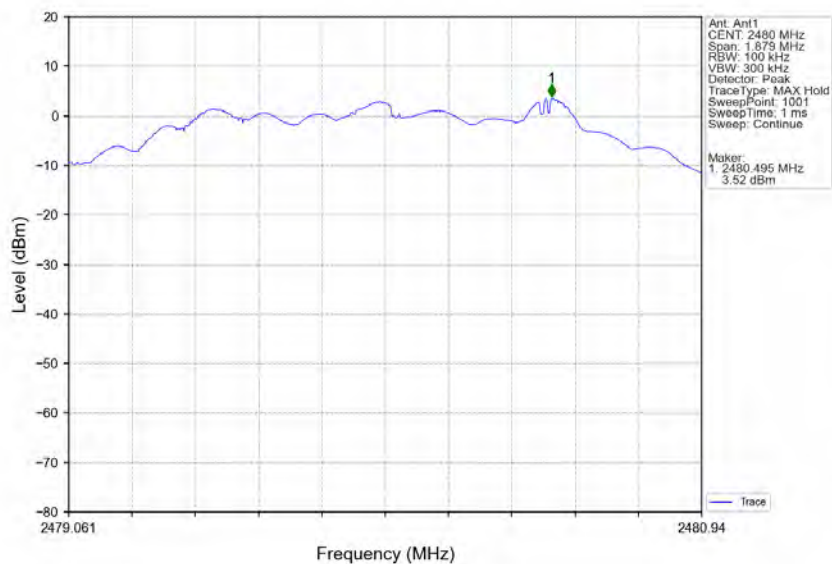
2M_LCH_2402MHz_Ant1_NTNV



2M_MCH_2440MHz_Ant1_NTNV

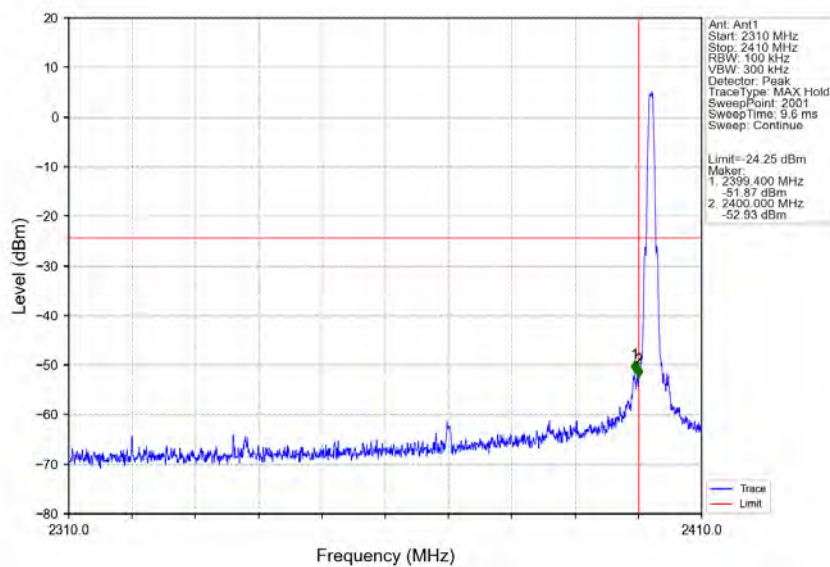


2M_HCH_2480MHz_Ant1_NTNV

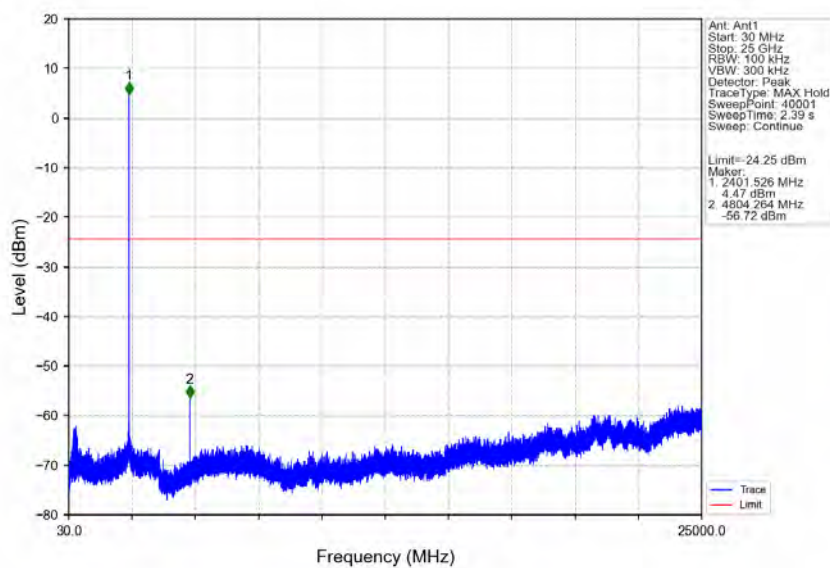


5.2.2 CSE

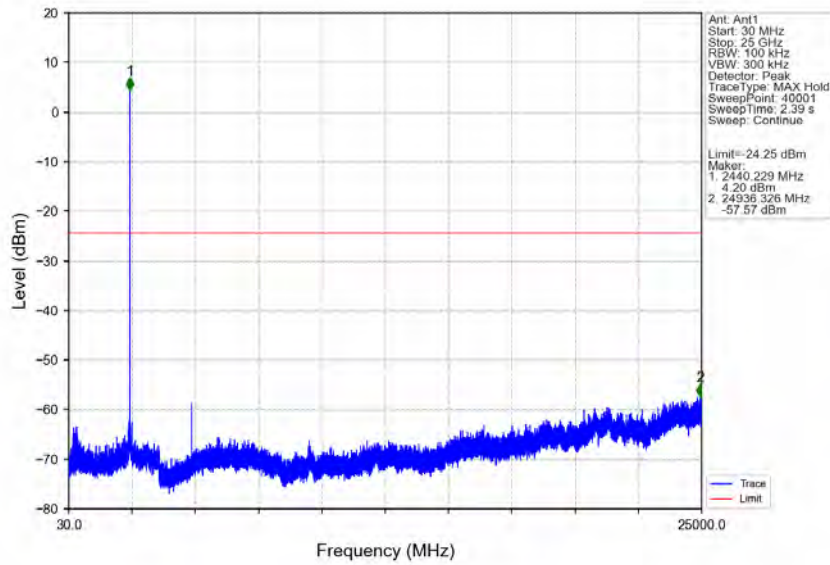
1M_LCH_2402MHz_Ant1_NTNV



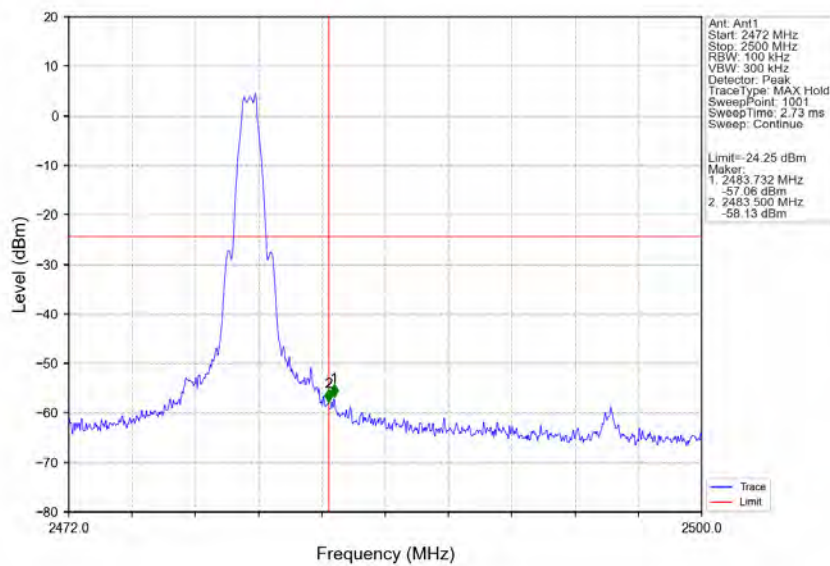
1M_LCH_2402MHz_Ant1_NTNV



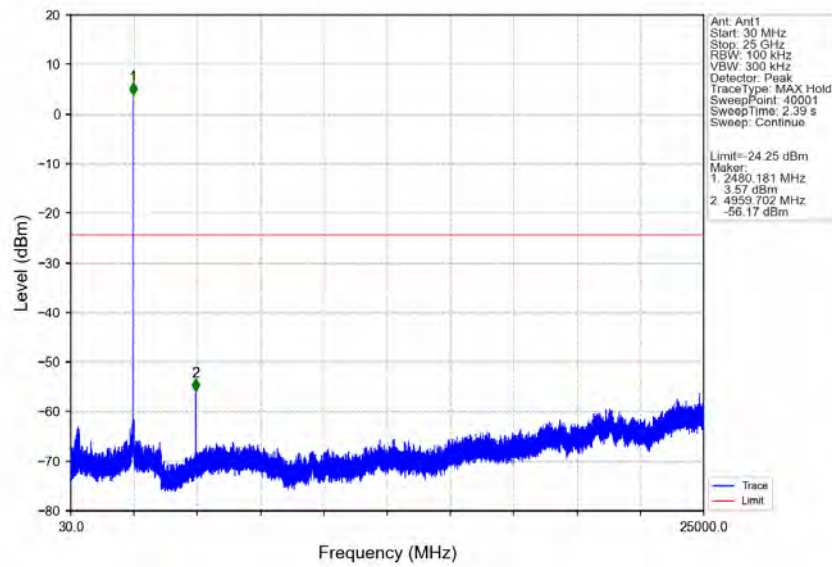
1M_MCH_2440MHz_Ant1_NTNV



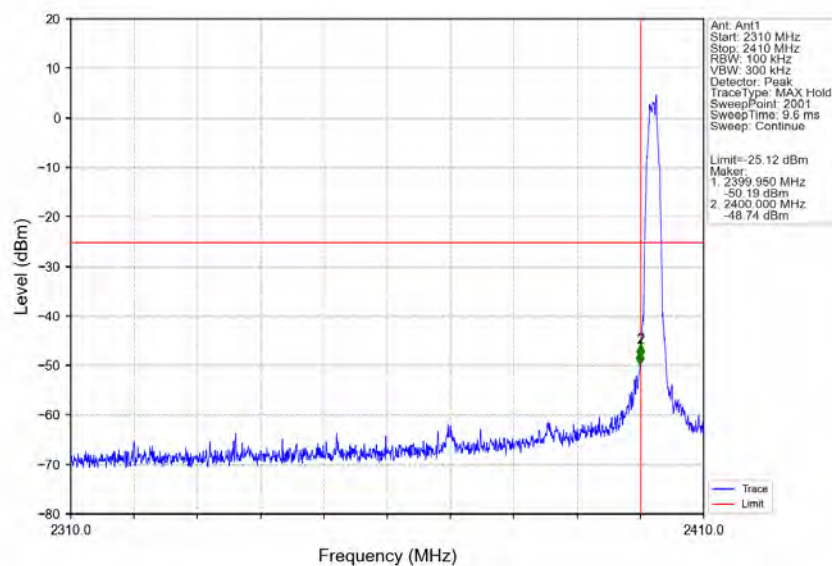
1M_HCH_2480MHz_Ant1_NTNV



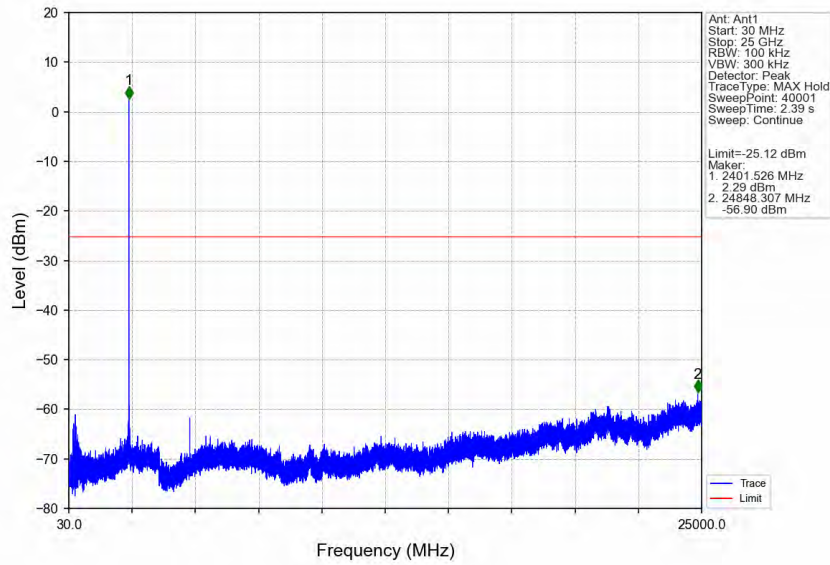
1M_HCH_2480MHz_Ant1_NTNV



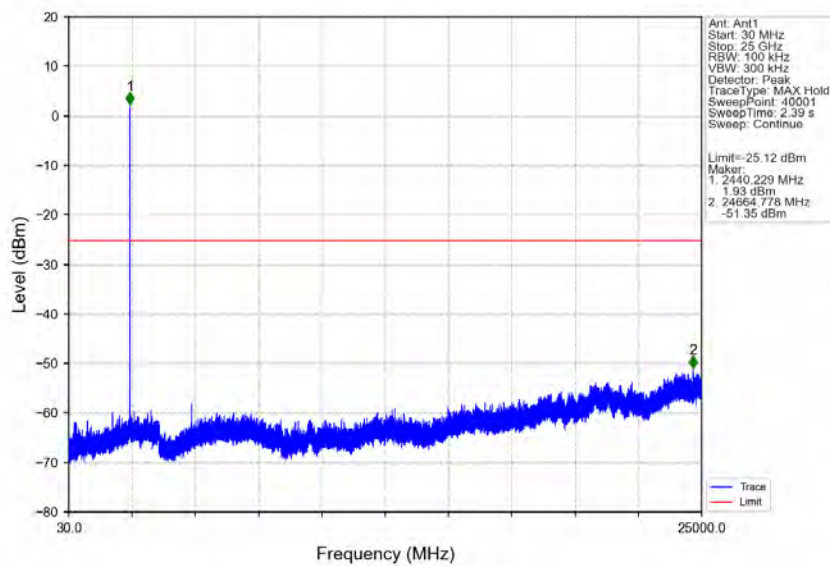
2M_LCH_2402MHz_Ant1_NTNV



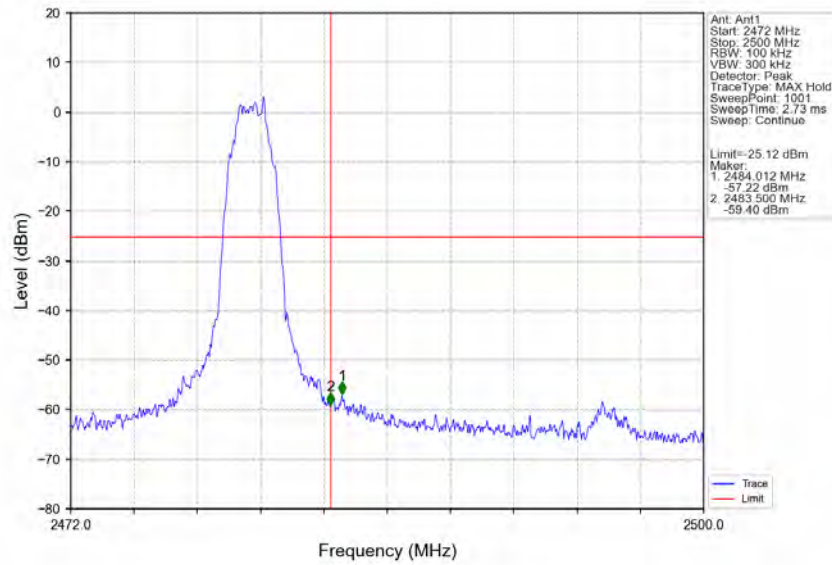
2M_LCH_2402MHz_Ant1_NTNV



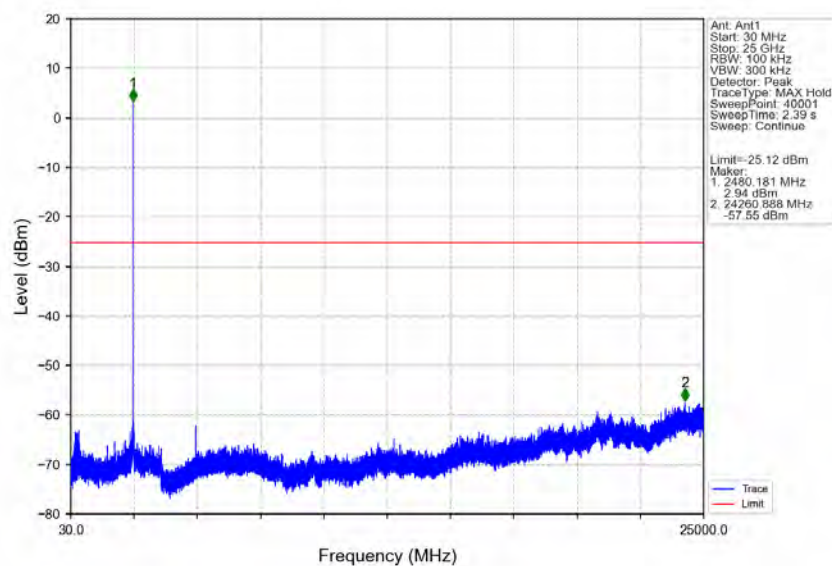
2M_MCH_2440MHz_Ant1_NTNV



2M_HCH_2480MHz_Ant1_NTNV



2M_HCH_2480MHz_Ant1_NTNV



- End of the Report -