

TEST REPORT

Application No.: KSCR2606001417AT
FCC ID: 2BHGF-0235CCUY
Applicant: KeyLife International Technology Limited
Address of Applicant: Workshop 7, 6th Floor Core 45, No. 43 Tsun Yip Street, Kowloon, HONG KONG
Manufacturer: KeyLife International Technology Limited
Address of Manufacturer: Workshop 7, 6th Floor Core 45, No. 43 Tsun Yip Street, Kowloon, HONG KONG
Equipment Under Test (EUT):
EUT Name: Indoor Wi-Fi Dual-lens PT Camera
Model No.: P312A-M33F44D, P312A-M55F44D, P312A XXXXXXXX XXXXXXXX
XXXXXXXX XXXXXXXX, P312A-XXXXXXXX-XXXXXXXX-XXXXXXXX-
XXXXXXXX (where X may be '0-9' 'A-Z' 'a-z' '-' or blank; '-' is option) ♣
♣ Please refer to section 2 of this report which indicates which model was
actually tested and which were electrically identical.
Standard(s) : 47 CFR Part 15, Subpart C 15.247
Date of Receipt: 2026-06-11
Date of Test: 2026-06-20 to 2026-07-03
Date of Issue: 2026-07-03

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	2026-07-03	/

Authorized for issue by:			
Prepared By		Maker Qi	
		Maker_Qi/Project Engineer	
Approved By		Terry Hou	
		Terry Hou /Reviewer	

2 Test Summary

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

Radio Spectrum Matter Part					
Item	Standard	Method	Requirement	Result	Test Lab*
Conducted Emissions at AC Power Line (150kHz-30MHz)	47 CFR Part 15, Subpart C 15.247	ANSI C63.10 (2020) Section 6.2	47 CFR Part 15, Subpart C 15.207	Pass	B
Radiated Emissions which fall in the restricted bands		ANSI C63.10 (2020) Section 6.10.5 & 11.12	47 CFR Part 15, Subpart C 15.205 & 15.209	Pass	B
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	B
Radiated Spurious Emissions Above 1GHz		ANSI C63.10 (2020) Section 6.6 & 11.12	47 CFR Part 15, Subpart C 15.205 & 15.209	Pass	B
Maximum Conducted Output Power		ANSI C63.10 (2020) Section 11.9.2	47 CFR Part 15, Subpart C 15.247(b)(3)	Pass	A
Minimum 6dB Bandwidth		ANSI C63.10 (2020) Section 11.8.1	47 CFR Part 15, Subpart C 15.247a(2)	Pass	A
Power Spectral Density		ANSI C63.10 (2020) Section 11.10.3	47 CFR Part 15, Subpart C 15.247(e)	Pass	A
Conducted Band Edges Measurement		ANSI C63.10 (2020) Section 6.10.4	47 CFR Part 15, Subpart C 15.247(d)	Pass	A
Conducted Spurious Emissions		ANSI C63.10 (2020) Section 11.11	47 CFR Part 15, Subpart C 15.247(d)	Pass	A

* Conducted Emissions at AC Power Line (150kHz-30MHz), Radiated Emissions which fall in the restricted bands, Radiated Spurious Emissions Below 1GHz and Radiated Spurious Emissions Above 1GHz by Test Lab B(SGS-CSTC Standards Technical Services (Suzhou) Co., Ltd.) execution, The remaining items are Lab A(Compliance Certification Services (Kunshan) Inc.) execution.

Declaration of EUT Family Grouping:

Note: There are series models mentioned in this report, and they are identical in electrical and electronic characters. Only the model P312A-M33F44D was tested since their differences as below:

The P312A-M33F44D and P312A-M55F44D Pro differ in the sensor board and lens. All other models differ only in software.

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4 General Information

4.1 Details of E.U.T.

Power supply:	AC/DC Adapter1: Model: TPA-141A050150UU01 Input: 100~240V~,50-60Hz,0.3A Output: 5V/1.5A AC/DC Adapter2: Model: S010-1A050150VUU Input: 100~240V~,50-60Hz,0.3A Output: 5V/1.5A
Operation Frequency:	2402MHz to 2480MHz
Modulation Type:	GFSK
Number of Channels:	40
Channel Spacing:	2MHz
Antenna Type:	WIFI iron antenna
Antenna Gain:	3.94dBi (Provided by the manufacturer)

Remark: The EUT has two different types of adapters: the Power Adapter1 (TPA-141A050150UU01) and the Power Adapter2 (S010-1A050150VUU), both of which were pre-tested. Power Adapter1 is identified as the worst case, and only the worst results are reflected in the report.

4.2 Description of Support Units

Description	Manufacturer	Model No.	Serial No.
Notebook	LENOVO	K27	EB24537645

4.3 Measurement Uncertainty

Lab A:

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.		

Lab B:

No.	Item	Measurement Uncertainty
1	Radio Frequency	$\pm 7.25 \times 10^{-8}$
2	Duty cycle	$\pm 0.37\%$
3	Occupied Bandwidth	$\pm 3\%$
4	Conduction emission	$\pm 3.0\text{dB}$ (150kHz to 30MHz)
5	RF conducted power	$\pm 0.75\text{dB}$
6	RF power density	$\pm 2.84\text{dB}$
7	Conducted Spurious emissions	$\pm 0.75\text{dB}$
8	RF Radiated power	$\pm 1.56\text{dB}$ (9KHz-30MHz)
		$\pm 4.80\text{dB}$ (30MHz-1GHz)
		$\pm 4.80\text{dB}$ (1GHz-18GHz)
		$\pm 4.80\text{dB}$ (18GHz-40GHz)
9	Temperature test	$\pm 1^\circ\text{C}$
10	Humidity test	$\pm 3\%$
11	Supply voltages	$\pm 1\%$
12	Time	$\pm 3\%$

Remark:

The U_{lab} (lab Uncertainty) is less than $U_{\text{CISPR/ETSI}}$ (CISPR/ETSI Uncertainty), so the test results

- compliance is deemed to occur if no measured disturbance level exceeds the disturbance limit;
- non-compliance is deemed to occur if any measured disturbance level exceeds the disturbance limit.

4.4 Test Location

Lab A:

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

Lab B:

SGS-CSTC Standards Technical Services (Suzhou) Co., Ltd.

South of No. 6 Plant, No. 1, Runsheng Road, Suzhou Industrial Park, Suzhou Area, China (Jiangsu)
Pilot Free Trade Zone

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.

4.5 Test Facility

Lab A:

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

- **A2LA (Certificate No. 2541.01)**

Compliance Certification Services (Kunshan) Inc. is accredited by the American Association for Laboratory Accreditation (A2LA).

- **FCC (Designation Number: CN1172)**

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

- **ISED (CAB Identifier: CN0072)**

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 (Member No:1938)**

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.

Lab B:

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

- **A2LA (Certificate No. 6336.01)**

SGS-CSTC Standards Technical Services (Suzhou) Co., Ltd. is accredited by the American Association for Laboratory Accreditation (A2LA).

- **FCC (Designation Number: CN1312)**

SGS-CSTC Standards Technical Services (Suzhou) Co., Ltd. has been recognized as an accredited testing laboratory. Test Firm Registration Number: 717327

- **ISED (CAB Identifier: CN0120)**

SGS-CSTC Standards Technical Services (Suzhou) Co., Ltd. has been recognized by Innovation, Science and Economic Development Canada (ISED) as an accredited testing laboratory.

Company Number: 27594

4.6 Deviation from Standards

None

4.7 Abnormalities from Standard Conditions

None

5 Equipment List

Lab A:

Item	Equipment	Manufacturer	Model	Inventory No	Cal Date	Cal. Due Date
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	12/17/2025	12/16/2026
4	Signal Generator	R&S	SMBV100B	KSEM032	12/17/2025	12/16/2026
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	12/17/2025	12/16/2026
10	Universal Radio Communication Tester	R&S	CMW500	KUS1911E004-1	07/08/2025	07/07/2026
11	Switcher	TST	FY562	KUS2001M001-4	12/17/2025	12/16/2026
12	Conducted Test Cable	Thermax	RF01-RF04	CZ301111-CZ301120	12/17/2025	12/16/2026
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	12/30/2025	12/29/2026
15	Software	BST	TST-PASS	/	NCR	NCR

Lab B:

Item	Equipment	Manufacturer	Model	Inventory No	Cal Date	Cal. Due Date
Conducted Emission at Mains Terminals						
1	EMI Test Receive	R&S	ESR7	SUWI-01-10-01	2026/1/14	2027/1/13
2	LISN	R&S	ENV216	SUWI-01-19-03	2026/4/22	2027/4/21
3	LISN	Schwarzbeck	ENV216	SUWI-01-19-04	2026/4/22	2027/4/21
4	Test Software	Tonscend	JS32-CE 4.0.0.2	SUWI-02-09-05	NCR	NCR
5	Test Cable	Tonscend	NA	SUWI-01-03-04	2026/4/22	2027/4/21
RF Radiated Test						
1	Semi-Anechoic Chamber	Brilliant-emc	N/A	SUWI-04-02-01	2026/6/9	2029/6/8
2	Signal Analyzer	ROHDE&SCHWARZ	FSW43	SUWI-01-02-04	2026/1/14	2027/1/13
3	Signal Analyzer	KEYSIGHT	N9020A	SUWI-01-02-07	2025/11/20	2026/11/19
4	Test receiver	ROHDE&SCHWARZ	ESR7	SUWI-01-10-01	2026/1/14	2027/1/13
5	Signal Generator	ROHDE&SCHWARZ	SMW100A	SUWI-01-18-01	2026/1/14	2027/1/13
6	Receiving antenna	SCHWRZBECK MESS-ELEKTRONIK	VULB 9168	SUWI-01-11-04	2025/11/29	2027/11/28
7	Receiving antenna	SCHWRZBECK MESS-ELEKTRONIK	BBHA 9120D	SUWI-01-11-02	2025/5/7	2027/5/6
8	Receiving antenna	SCHWRZBECK MESS-ELEKTRONIK	BBHA 9170	SUWI-01-11-03	2025/5/7	2027/5/6
9	Active Loop Antenna	SCHWRZBECK MESS-ELEKTRONIK	FMZB 1519B	SUWI-01-21-01	2025/5/7	2027/5/6
10	Amplifier	Tonscend	TAP9K3G40	SUWI-01-14-01	2026/1/14	2027/1/13
11	Amplifier	Tonscend	TAP01018050	SUWI-01-14-02	2026/1/14	2027/1/13
12	Amplifier	Tonscend	TAP18040048	SUWI-01-14-03	2026/1/14	2027/1/13
13	Wideband Radio Communication Tester	Anritsu	MT8820C	SUWI-01-26-01	2025/8/25	2026/8/24
14	Wideband Radio Communication Tester	Anritsu	MT8821C	SUWI-01-26-03	2025/8/25	2026/8/24
15	Wideband Radio Communication Tester	ROHDE&SCHWARZ	CMW500	SUWI-01-16-09	2025/8/26	2026/8/25
16	Radio Communication Analyzer	StarPoint	SP9500E	SUWI-01-28-06	2025/11/21	2026/11/20
17	Signal Generator	ROHDE&SCHWARZ	SMB100A	SUWI-01-08-01	2026/1/14	2027/1/13
18	DC Power Supply	HYELEC	HY3005B	SUWI-01-18-01	2026/1/14	2027/1/13
19	Temperature and humidity meter	MingGao	TH101B	SUWI-01-01-05	2026/2/11	2027/2/10
20	Measurement Software	Tonscend	JS32-RE 4.0.0.0	SUWI-02-09-06	NCR	NCR
21	RF Control unit	Tonscend	JS0806-1	SUWI-02-20-01	NCR	NCR
22	RFCables	Tonscend	NA	SUWI-01-03-02	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 Iron sheet antenna and no consideration of replacement. The best case gain of the antenna is 3.94dBi.

Antenna location: Refer to internal photo.

7 Radio Spectrum Matter Test Results

7.1 Conducted Emissions at AC Power Line (150kHz-30MHz)

Test Requirement 47 CFR Part 15, Subpart C 15.207

Test Method: ANSI C63.10 (2020) Section 6.2

Limit:

Frequency of emission(MHz)	Conducted limit(dBμV)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

*Decreases with the logarithm of the frequency.

Detector: Peak for pre-scan (9kHz resolution bandwidth) 0.15M to 30MHz

7.1.1 E.U.T. Operation

Operating Environment:

Temperature: 28.1 °C

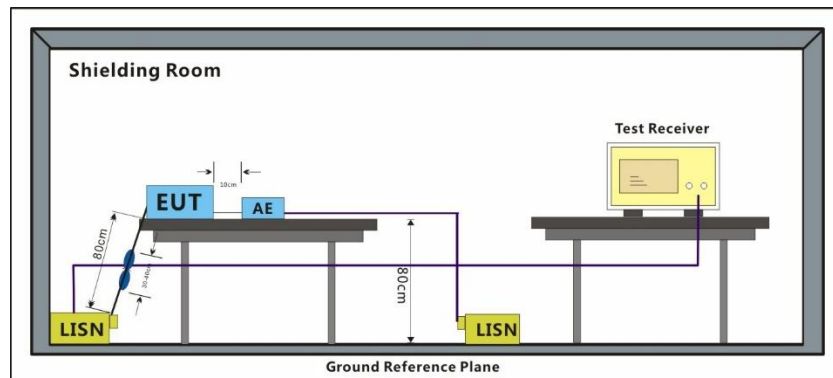
Humidity: 59.6 % RH

Atmospheric Pressure: 1010 mbar

7.1.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	01	TX mode_Keep the EUT in continuously transmitting mode with GFSK modulation.

7.1.3 Test Setup Diagram

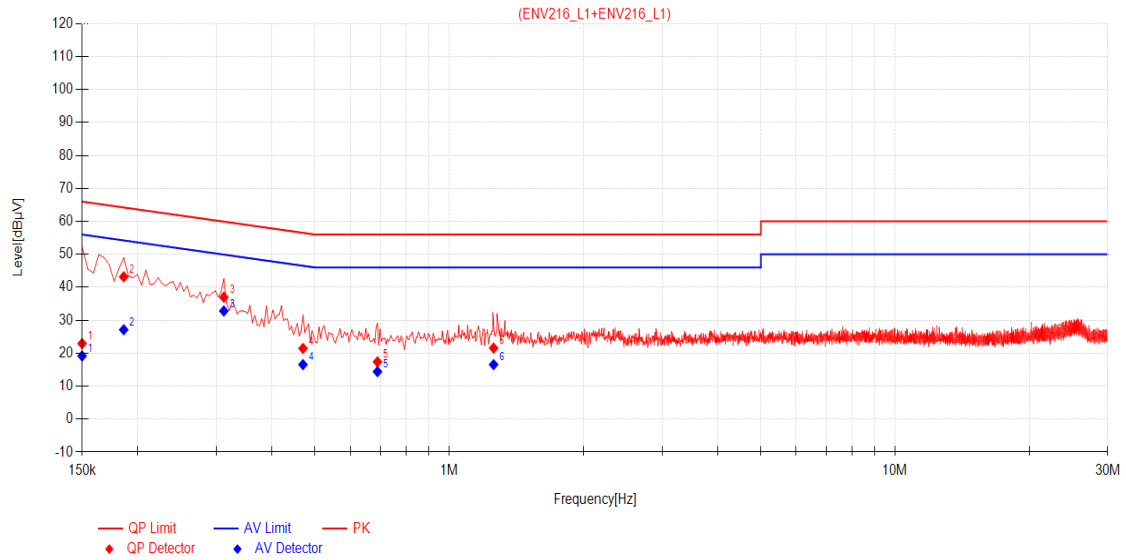


7.1.4 Measurement Procedure and Data

- 1) The mains terminal disturbance voltage test was conducted in a shielded room.
- 2) The EUT was connected to AC power source through a LISN 1 (Line Impedance Stabilization Network) which provides a 50ohm/50μH + 5ohm linear impedance. The power cables of all other units of the EUT were connected to a second LISN 2, which was bonded to the ground reference plane in the same way as the LISN 1 for the unit being measured. A multiple socket outlet strip was used to connect multiple power cables to a single LISN provided the rating of the LISN was not exceeded.
- 3) The tabletop EUT was placed upon a non-metallic table 0.8m above the ground reference plane. And for floor-standing arrangement, the EUT was placed on the horizontal ground reference plane.
- 4) The test was performed with a vertical ground reference plane. The rear of the EUT shall be 0.4 m from the vertical ground reference plane. The vertical ground reference plane was bonded to the horizontal ground reference plane. The LISN 1 was placed 0.8 m from the boundary of the unit under test and bonded to a ground reference plane for LISNs mounted on top of the ground reference plane. This distance was between the closest points of the LISN 1 and the EUT. All other units of the EUT and associated equipment was at least 0.8 m from the LISN 2.
- 5) In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10 on conducted measurement.

Remark: Level=Read Level+ Cable Loss+ LISN Factor

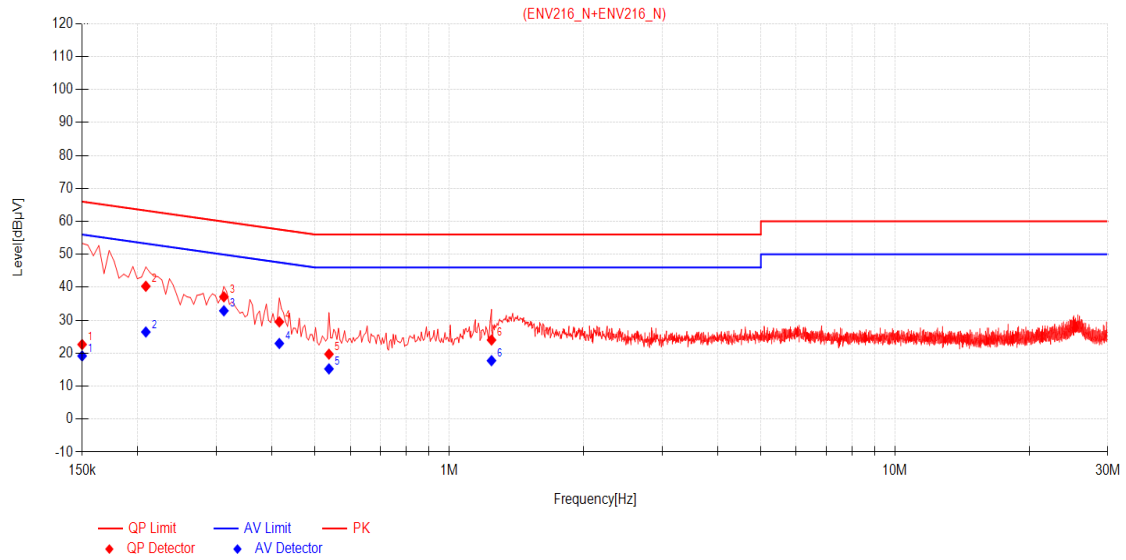
Test Mode: 01; Line: Live line



Final Data List

NO.	Frequency [MHz]	Factor [dB]	QP Reading [dBμV]	QP Value [dBμV]	QP Limit [dBμV]	QP Margin [dB]	AV Reading [dBμV]	AV Value [dBμV]	AV Limit [dBμV]	AV Margin [dB]	Verdict
1	0.1500	9.96	12.98	22.94	66.00	43.06	9.19	19.15	56.00	36.85	PASS
2	0.1860	9.96	33.22	43.18	64.21	21.03	17.17	27.13	54.21	27.08	PASS
3	0.3120	9.97	27.04	37.01	59.92	22.91	22.84	32.81	49.92	17.11	PASS
4	0.4695	9.94	11.52	21.46	56.52	35.06	6.60	16.54	46.52	29.98	PASS
5	0.6900	9.94	7.45	17.39	56.00	38.61	4.47	14.41	46.00	31.59	PASS
6	1.2570	9.93	11.64	21.57	56.00	34.43	6.61	16.54	46.00	29.46	PASS

Test Mode: 01; Line: Neutral Line



Final Data List											
NO.	Frequency [MHz]	Factor [dB]	QP Reading [dBμV]	QP Value [dBμV]	QP Limit [dBμV]	QP Margin [dB]	AV Reading [dBμV]	AV Value [dBμV]	AV Limit [dBμV]	AV Margin [dB]	Verdict
1	0.1500	9.96	12.69	22.65	66.00	43.35	9.20	19.16	56.00	36.84	PASS
2	0.2085	9.97	30.33	40.30	63.26	22.96	16.46	26.43	53.26	26.83	PASS
3	0.3120	9.97	27.14	37.11	59.92	22.81	22.90	32.87	49.92	17.05	PASS
4	0.4155	9.94	19.56	29.50	57.54	28.04	13.01	22.95	47.54	24.59	PASS
5	0.5370	9.91	9.81	19.72	56.00	36.28	5.34	15.25	46.00	30.75	PASS
6	1.2435	9.91	14.09	24.00	56.00	32.00	7.83	17.74	46.00	28.26	PASS

7.2 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 & 11.12

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.

7.2.1 E.U.T. Operation

Operating Environment:

Temperature: 25.2 °C

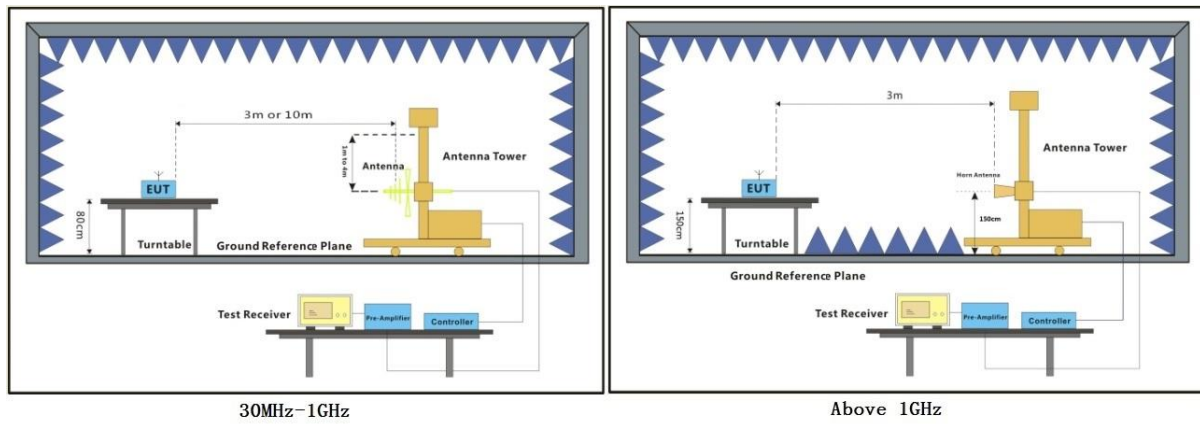
Humidity: 48.3 % RH

Atmospheric Pressure: 1010 mbar

7.2.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	01	TX mode_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 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.

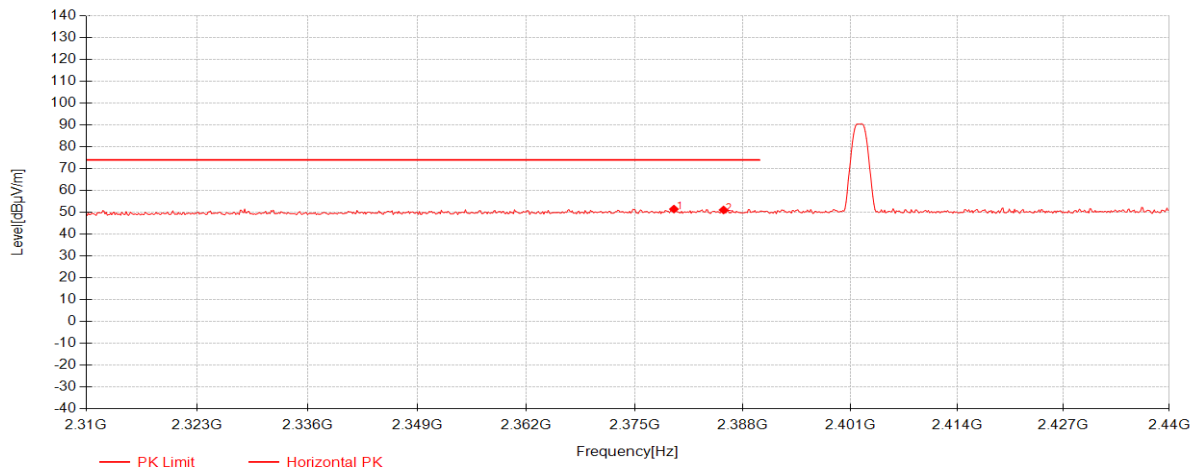
Remark 1: $\text{Level} = \text{Read Level} + \text{Cable Loss} + \text{Antenna Factor} - \text{Preamp Factor}$

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.

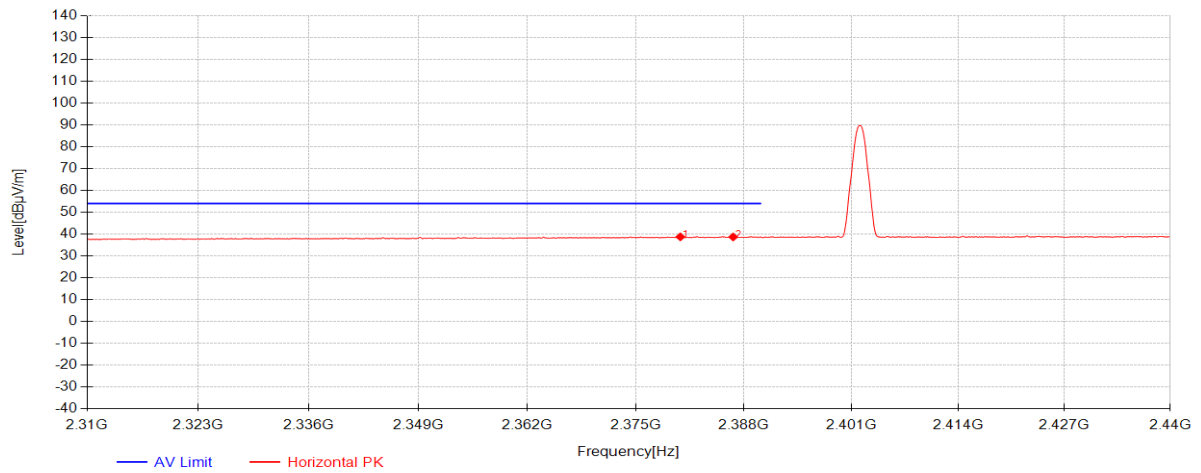
Remark 4: For fundamental and harmonic signal measurement, the resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is $\geq 1/T$ (Duty cycle $< 98\%$) or 10Hz (Duty cycle $\geq 98\%$) for Average detection (AV) at frequency above 1GHz.

BLE_1M_TX_CH_00_Horizontal_Peak



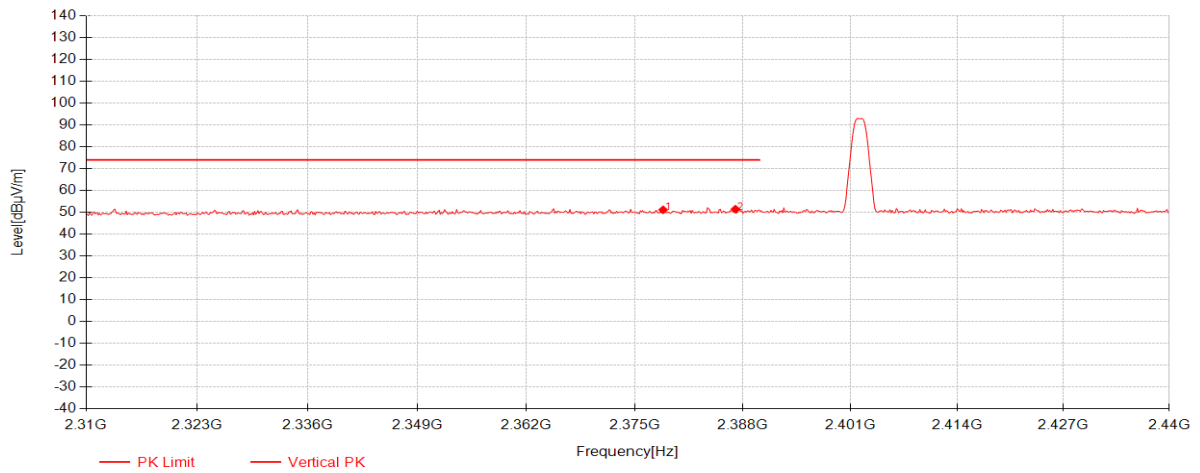
Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	2379.68	47.83	27.54	-23.88	51.49	74.00	22.51	Horizontal
2	2385.66	47.36	27.59	-23.87	51.08	74.00	22.92	Horizontal

BLE_1M_TX_CH_00_Horizontal_Average



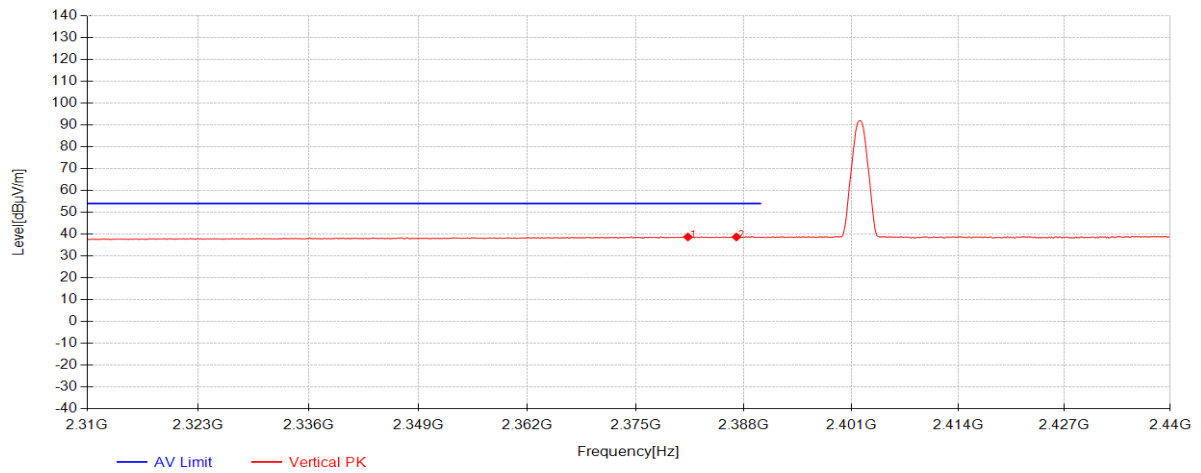
Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	2380.33	35.10	27.54	-23.88	38.77	54.00	15.23	Horizontal
2	2386.7	34.99	27.59	-23.87	38.71	54.00	15.29	Horizontal

BLE_1M_TX_CH_00_Vertical_Peak



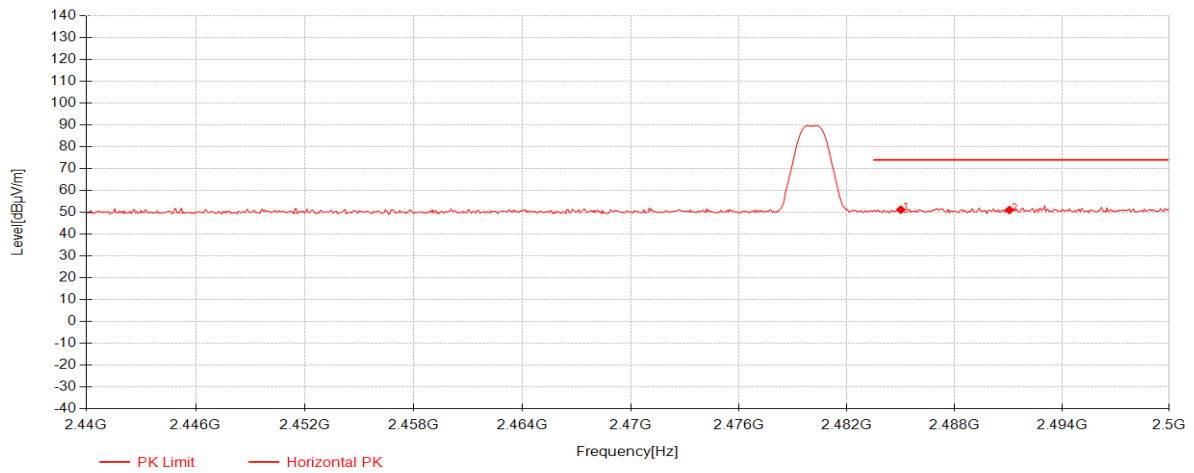
Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	2378.38	47.49	27.53	-23.88	51.14	74.00	22.86	Vertical
2	2387.09	47.69	27.60	-23.87	51.42	74.00	22.58	Vertical

BLE_1M_TX_CH_00_Vertical_Average



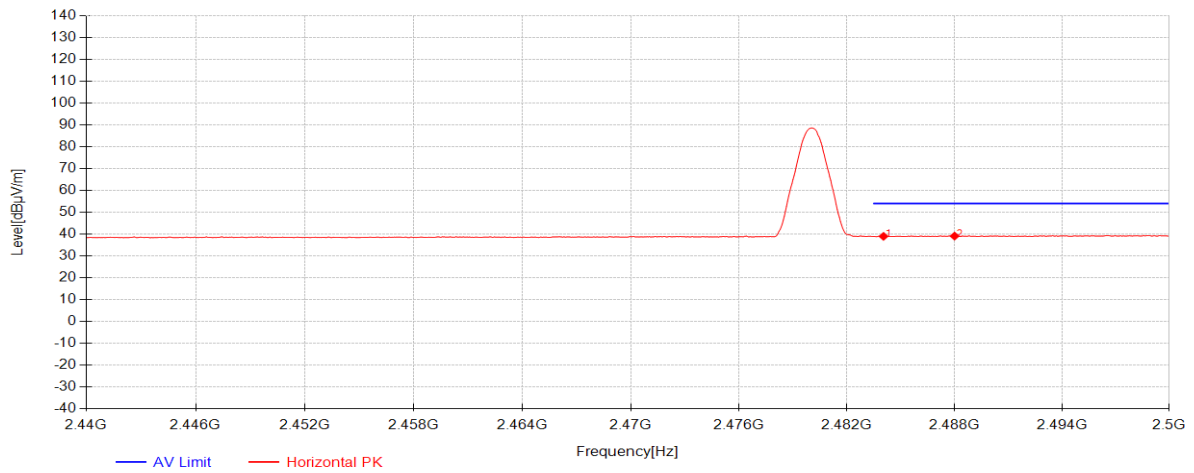
Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	2381.24	35.03	27.55	-23.88	38.70	54.00	15.30	Vertical
2	2387.09	34.98	27.60	-23.87	38.71	54.00	15.29	Vertical

BLE_1M_TX_CH_39_Horizontal_Peak



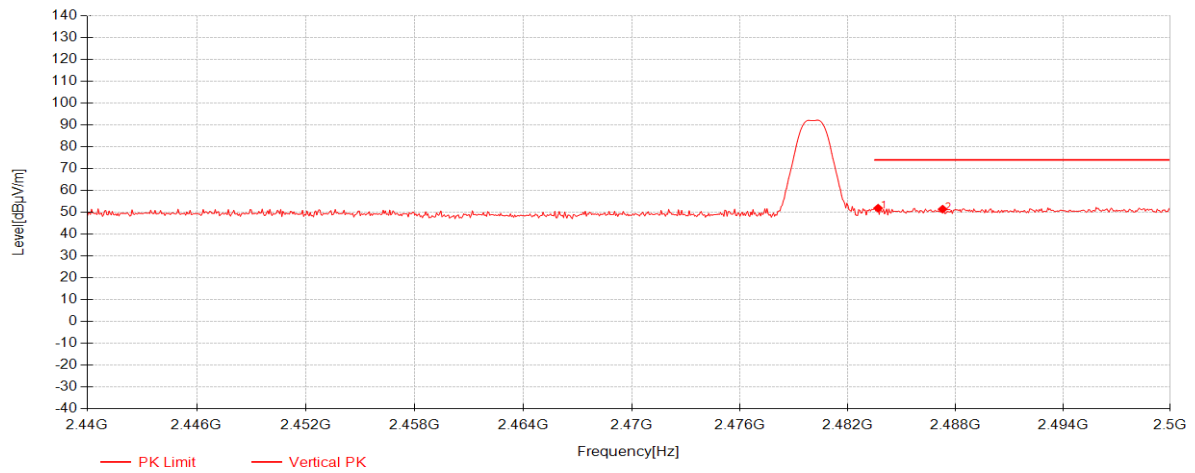
Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	2485	46.93	27.90	-23.64	51.19	74.00	22.81	Horizontal
2	2491.06	46.77	27.90	-23.62	51.05	74.00	22.95	Horizontal

BLE_1M_TX_CH_39_Horizontal_Average



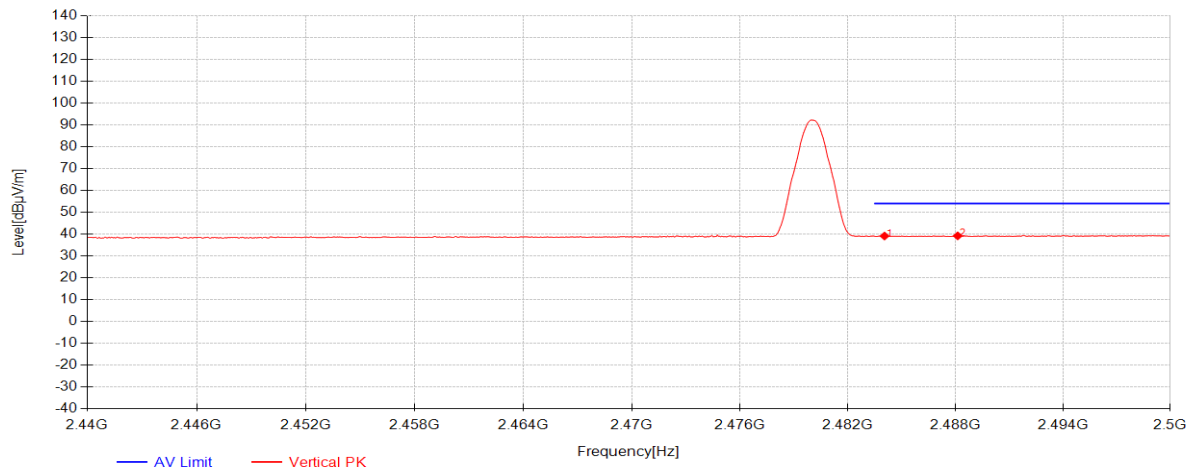
Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	2484.04	34.73	27.90	-23.64	38.99	54.00	15.01	Horizontal
2	2488	34.84	27.90	-23.63	39.11	54.00	14.89	Horizontal

BLE_1M_TX_CH_39_Vertical_Peak



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	2483.68	47.64	27.90	-23.64	51.90	74.00	22.10	Vertical
2	2487.28	47.18	27.90	-23.63	51.45	74.00	22.55	Vertical

BLE_1M_TX_CH_39_Veritical_Average



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	2484.04	34.88	27.90	-23.64	39.14	54.00	14.86	Vertical
2	2488.12	34.94	27.90	-23.63	39.21	54.00	14.79	Vertical

7.3 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

Limit:

Frequency (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)	Field strength (dBμV/m@3m)
0.009-0.490	2400/F(kHz)	300	128.5 to 93.8
0.490-1.705	24000/F(kHz)	30	73.8 to 62.9
1.705-30.0	30	30	69.60
30-88	100	3	40.0
88-216	150	3	43.5
216-960	200	3	46.0
960-1000	500	3	54.0

Note : The above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90 kHz, 110-490 kHz. Radiated emission limits in these two bands are based on measurements employing an average detector.

7.3.1 E.U.T. Operation

Operating Environment:

Temperature: 25.2 °C

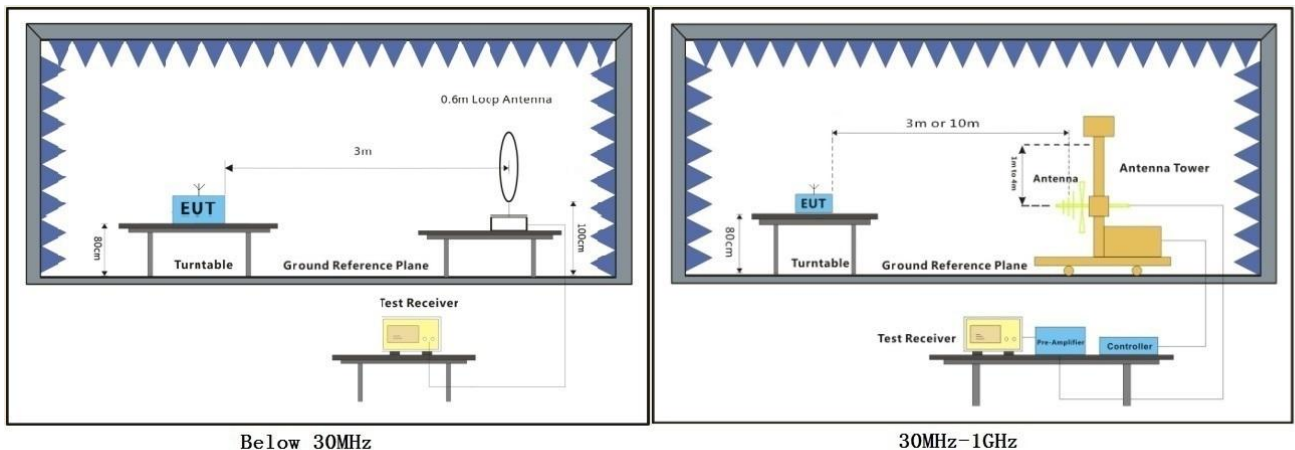
Humidity: 48.3 % RH

Atmospheric Pressure: 1010 mbar

7.3.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	01	TX mode_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 below 1GHz, the EUT was placed on the top of a rotating table 0.8m above the ground at a semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3m or 10m away from the interference-receiving antenna, which was mounted on the variable-height antenna tower.
- c. The antenna height is varied from 1m to 4m 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 1m to 4m (for the test frequency of below 30MHz, the antenna was tuned to heights 1m) 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.

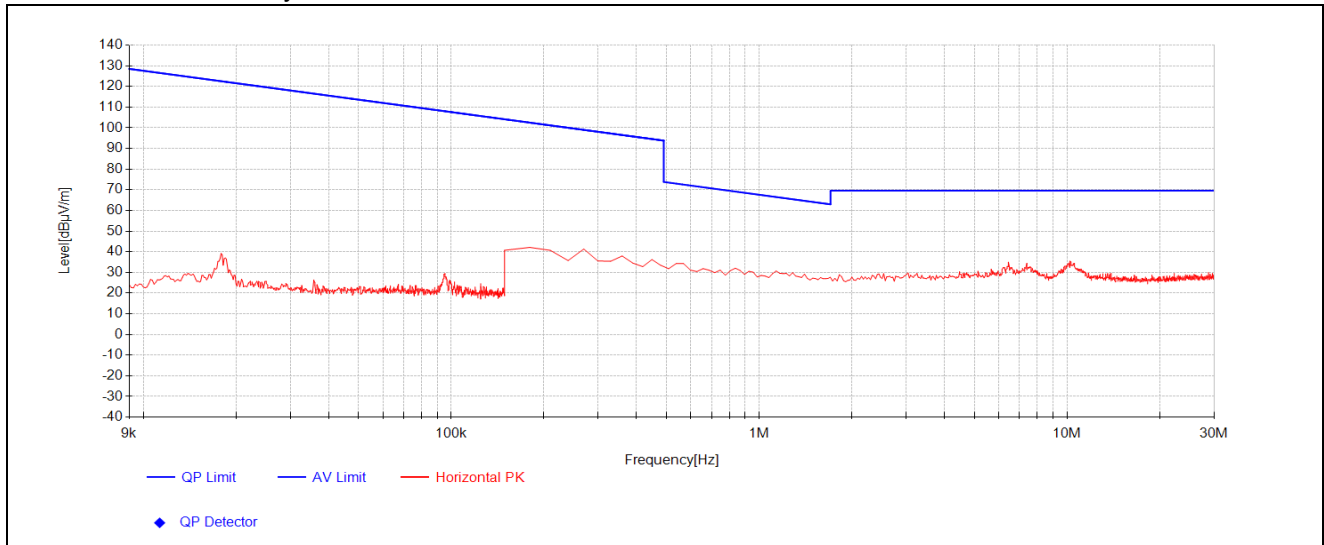
Remark:

1. For below 30MHz, Regulatory limits are specified as magnetic field strength ($\mu\text{A/m}$) at 300 m or 30 m, while the test data are measured at 3m and expressed in $\text{dB}\mu\text{V/m}$. Therefore, distance correction factor (+80dB, the conversion formulas are as follows: $(40\log_{10}(300/3))$ or +40dB the conversion formulas are as follows: $(40\log_{10}(30/3))$).

Unit conversion ($\mu\text{A/m}$ convert to $\text{dB}\mu\text{V/m}$ equivalent) were applied, The calculation relationships are defined as follows: $\text{dB}\mu\text{A/m}=20\log_{10}(\mu\text{A/m})$ and $\text{dB}\mu\text{A/m}=\text{dB}\mu\text{V/m}-51.5$.

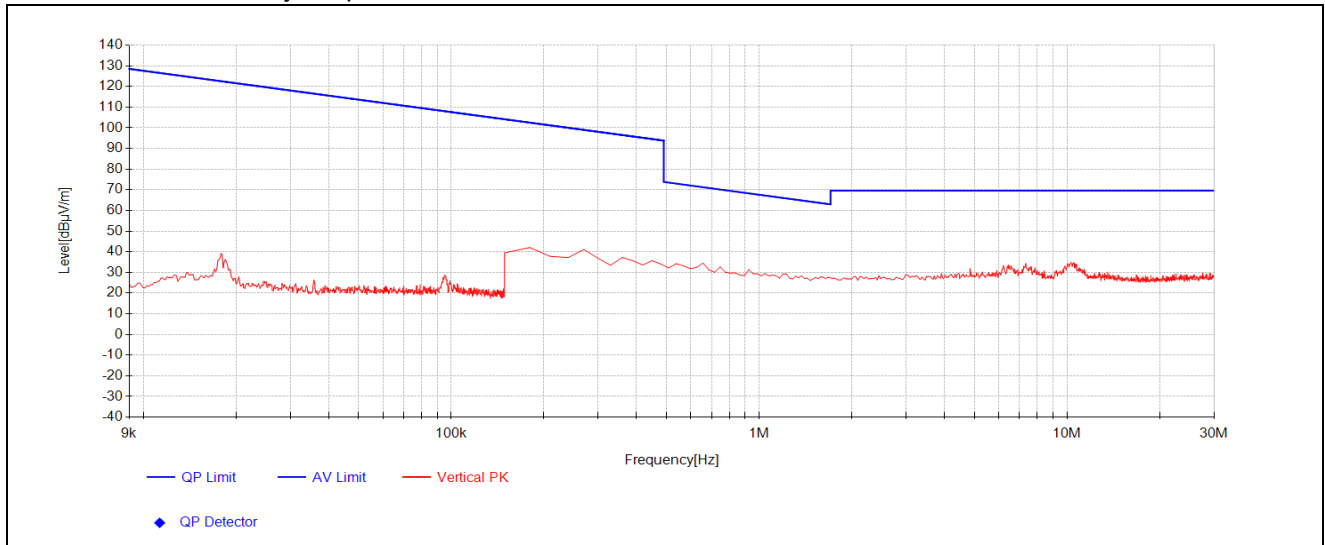
These formulas are used to convert magnetic field strength from $\mu\text{A/m}$ to $\text{dB}\mu\text{A/m}$ and to derive the corresponding magnetic field level from an electric field value expressed in $\text{dB}\mu\text{V/m}$. so that the limit lines shown in this report represent the equivalent 3 m E field limits, allowing direct comparison with the measurement results.

Test Mode: 01; Polarity: Coaxial



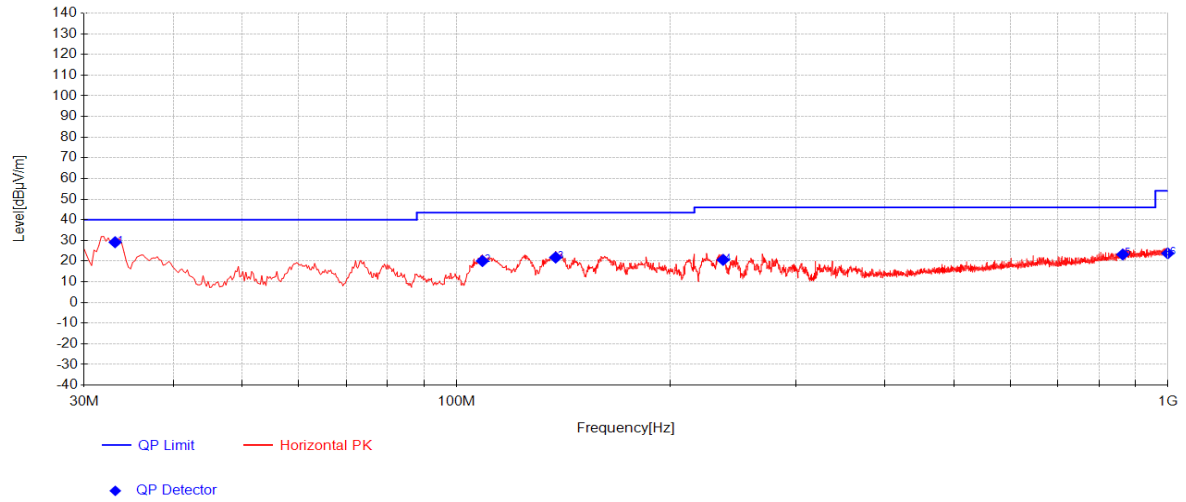
Margin more than 20dB

Test Mode: 01; Polarity: Coplanar



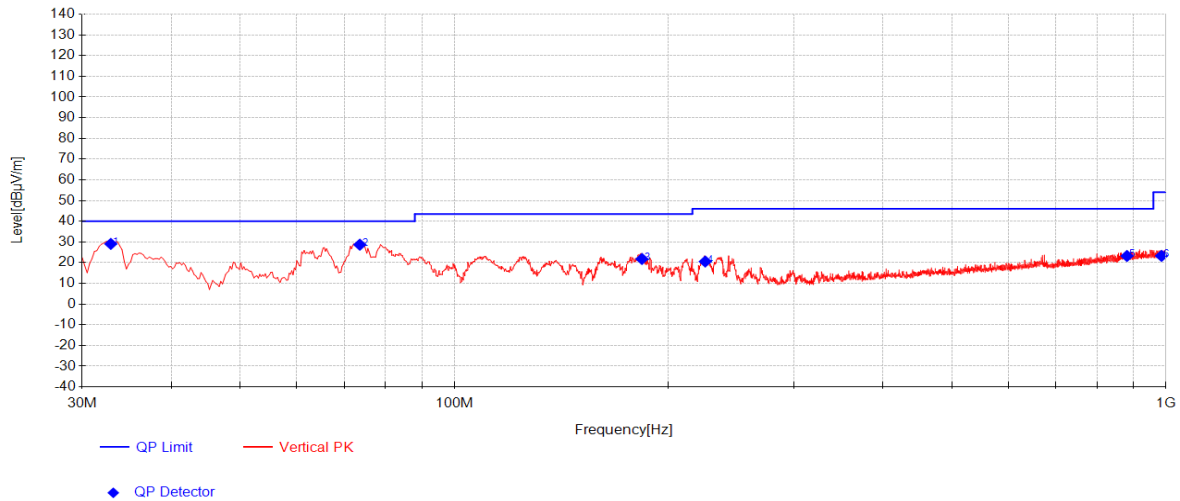
Margin more than 20dB

Test Mode: 01; Polarity: Horizontal



Final Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	QP Value [dBμV/m]	QP Limit [dBμV/m]	QP Margin [dB]	Polarity
1	33.1525	50.43	12.69	-33.98	29.14	40.00	10.86	Horizontal
2	108.8125	42.87	10.21	-33.01	20.08	43.50	23.42	Horizontal
3	137.9125	41.99	12.57	-32.78	21.78	43.50	21.72	Horizontal
4	237.095	40.98	11.68	-32.05	20.61	46.00	25.39	Horizontal
5	863.9575	28.75	23.20	-28.73	23.21	46.00	22.79	Horizontal
6	999.2725	27.06	24.49	-27.81	23.75	54.00	30.25	Horizontal

Test Mode: 01; Polarity: Vertical



Final Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	QP Value [dBμV/m]	QP Limit [dBμV/m]	QP Margin [dB]	Polarity
1	32.91	50.38	12.67	-33.98	29.07	40.00	10.93	Vertical
2	73.65	52.2	9.87	-33.39	28.68	40.00	11.32	Vertical
3	183.5025	43.61	10.54	-32.36	21.79	43.50	21.71	Vertical
4	225.2125	41.88	10.79	-32.12	20.55	46.00	25.45	Vertical
5	881.4175	28.44	23.44	-28.67	23.21	46.00	22.79	Vertical
6	985.6925	26.82	24.39	-27.94	23.27	54.00	30.73	Vertical

7.4 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 & 11.12

Limit:

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

7.4.1 E.U.T. Operation

Operating Environment:

Temperature: 25.2 °C

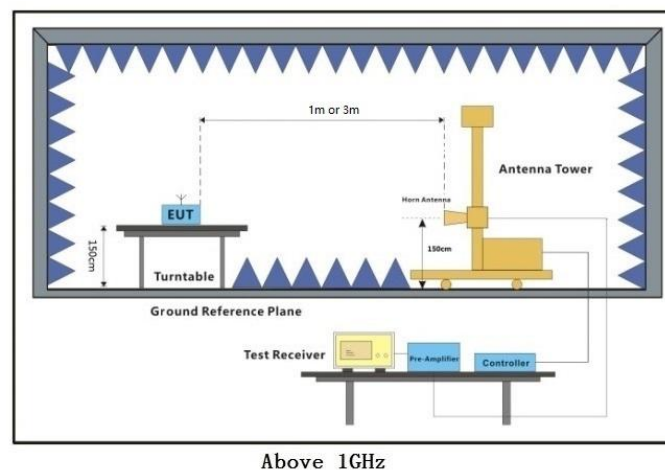
Humidity: 48.3 % RH

Atmospheric Pressure: 1010 mbar

7.4.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	01	TX mode(1Mbps)_Keep the EUT in continuously transmitting mode with GFSK modulation.
Final test	02	TX mode(2Mbps)_Keep the EUT in continuously transmitting mode with GFSK modulation.

7.4.3 Test Setup Diagram



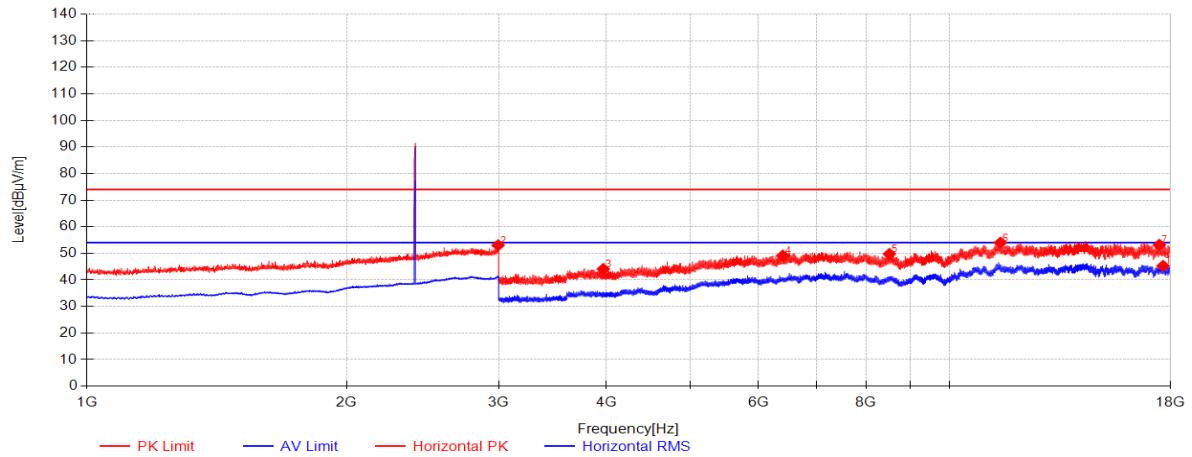
7.4.4 Measurement Procedure and Data

- a. For above 1GHz, the EUT was placed on the top of a rotating table 1.5m above the ground at a 3m fully-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation. The EUT was set 3m away from the interference-receiving antenna from 1GHz to 18GHz, and 1m away from the interference-receiving antenna above 18GHz.
- b. The interference-receiving antenna was mounted on the variable-height antenna tower, with its boresight facing the EUT throughout the test.
- c. The antenna height is varied from 1m to 4m 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 1m to 4m 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. Test the EUT in the lowest channel, the middle channel, the Highest channel.
- g. 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.
- h. Repeat above procedures until all frequencies measured was complete.

Remark:

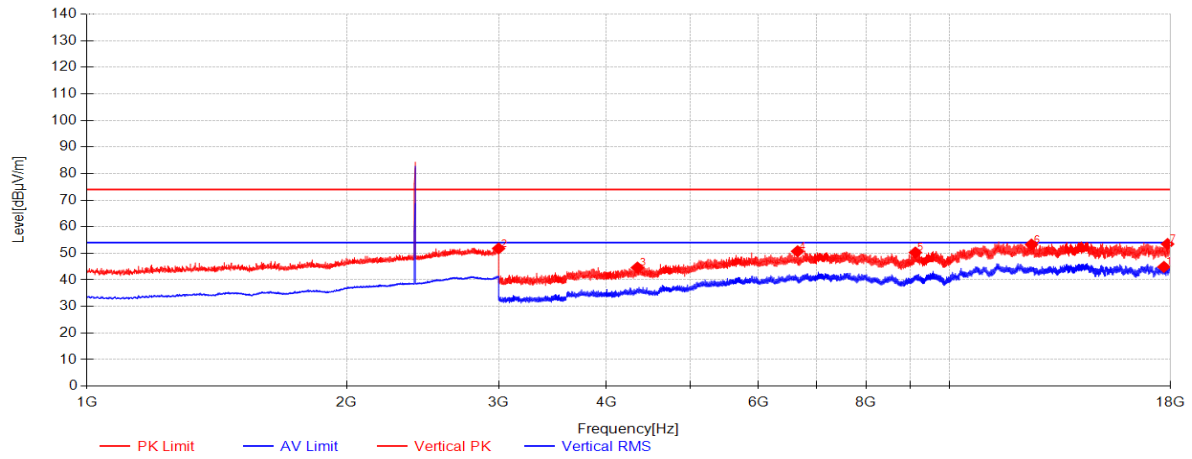
1. $\text{Level} = \text{Read Level} + \text{Cable Loss} + \text{Antenna Factor} - \text{Preamp Factor}$
2. Scan from 18GHz to 10th harmonic of the highest frequency or 40 GHz, whichever is lower, the disturbance above 18GHz was very low. The points marked on above plots are the highest emissions could 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 disturbance above 18GHz was investigated while operating in BLE 1/2M mode, however, As the peak emissions of the EUT were found to be lower than the applicable average limits, only the worst case test plots are provided in this report. it was determined that 2402MHz operation for BLE 1M modulation produced the worst emissions. So the emissions produced from other operation are not recorded in report.

BLE_1M_TX_CH_00_Horizontal



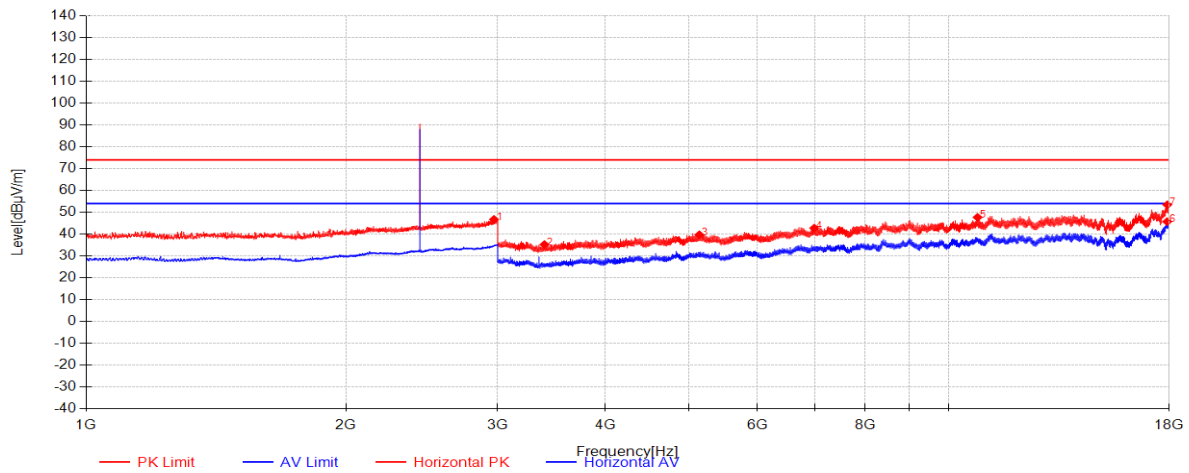
Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	17668.50	44.05	44.90	-43.68	45.27	54.00	8.73	Horizontal
2	2995.00	40.71	28.85	-16.55	53.01	74.00	20.99	Horizontal
3	3965.63	57.89	29.67	-43.47	44.09	74.00	29.91	Horizontal
4	6403.88	55.44	34.01	-40.30	49.15	74.00	24.85	Horizontal
5	8510.63	53.23	36.82	-40.27	49.78	74.00	24.22	Horizontal
6	11445.75	53.98	40.55	-40.53	54.00	74.00	20.00	Horizontal
7	17493.00	52.46	44.48	-43.74	53.20	74.00	20.80	Horizontal

BLE_1M_TX_CH_00_Vertical



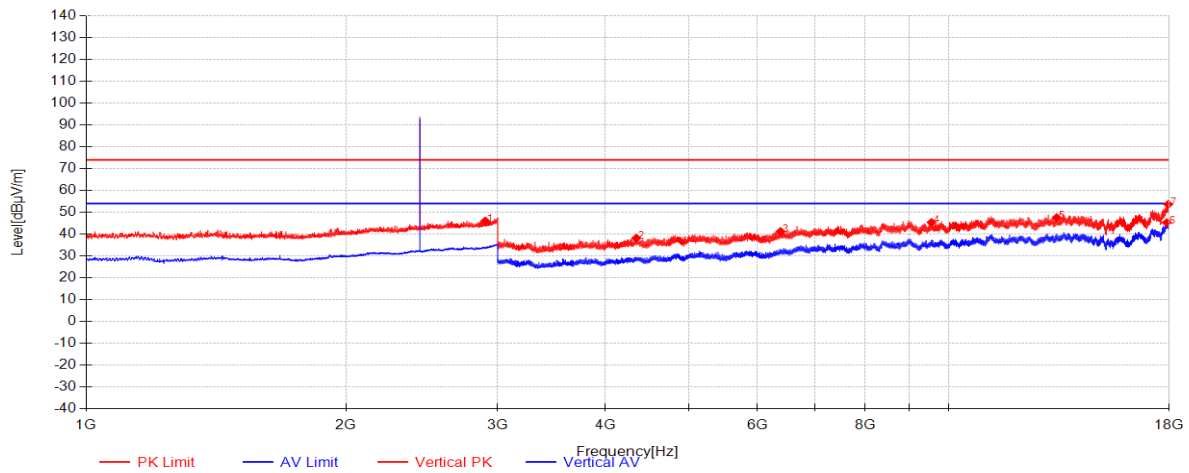
Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	17707.88	43.85	44.95	-43.93	44.87	54.00	9.13	Vertical
2	2999.00	39.46	28.89	-16.54	51.81	74.00	22.19	Vertical
3	4344.38	57.25	30.06	-42.70	44.61	74.00	29.39	Vertical
4	6662.25	56.18	35.10	-40.53	50.75	74.00	23.25	Vertical
5	9122.63	53.42	37.35	-40.49	50.28	74.00	23.72	Vertical
6	12435.75	54.02	39.43	-40.16	53.29	74.00	20.71	Vertical
7	17881.50	52.62	45.99	-45.13	53.48	74.00	20.52	Vertical

BLE_1M_TX_CH_19_Horizontal



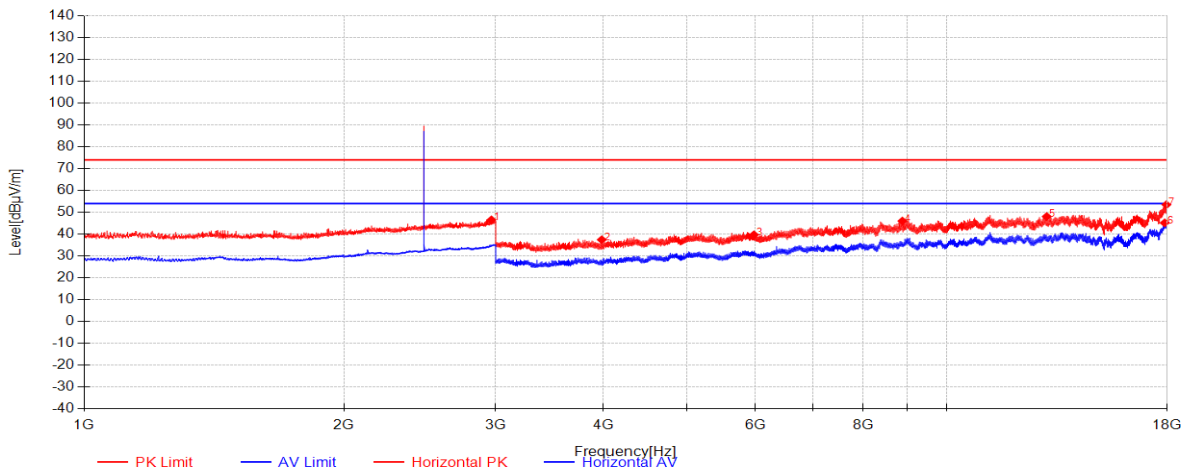
Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	2970	40.08	29.52	-22.85	46.75	74.00	27.25	Horizontal
2	3397.875	52.66	29.50	-46.92	35.24	74.00	38.76	Horizontal
3	5139.375	52.24	33.29	-45.83	39.70	74.00	34.30	Horizontal
4	6981.375	51.27	36.04	-44.56	42.75	74.00	31.25	Horizontal
5	10797	46.93	38.99	-38.23	47.69	74.00	26.31	Horizontal
6	17908.5	37.80	42.64	-34.72	45.72	54.00	8.28	Horizontal
7	17917.125	45.60	42.69	-34.81	53.47	74.00	20.53	Horizontal

BLE_1M_TX_CH_19_Verical



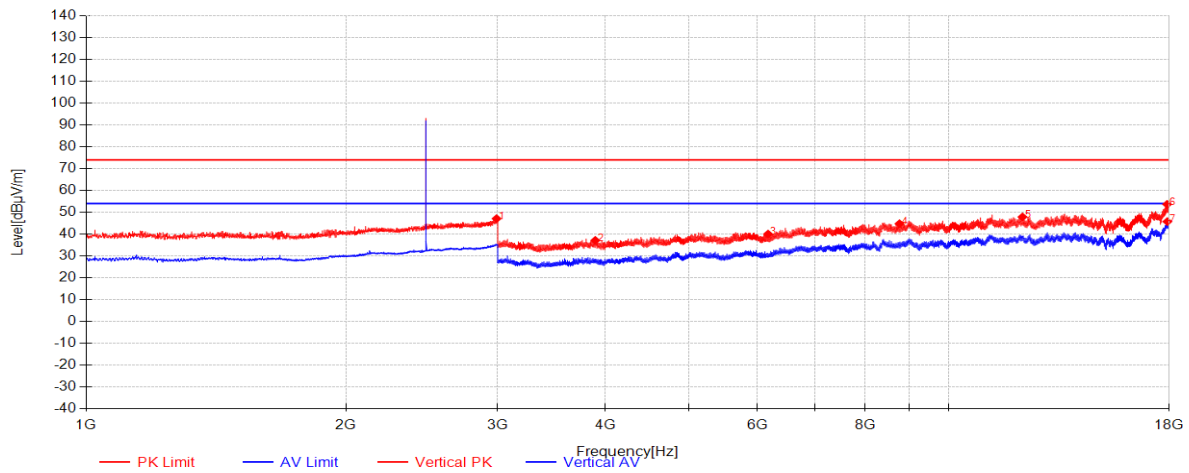
Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	2901.5	40.18	28.81	-22.94	46.05	74.00	27.95	Vertical
2	4342.875	52.59	32.01	-46.39	38.21	74.00	35.79	Vertical
3	6383.25	51.53	34.93	-45.22	41.24	74.00	32.76	Vertical
4	9547.875	48.03	38.40	-41.01	45.41	74.00	28.59	Vertical
5	13335.375	45.92	39.84	-38.16	47.60	74.00	26.40	Vertical
6	17887.5	37.72	42.51	-34.93	45.30	54.00	8.70	Vertical
7	17961	46.05	42.91	-35.28	53.68	74.00	20.32	Vertical

BLE_1M_TX_CH_39_Horizontal



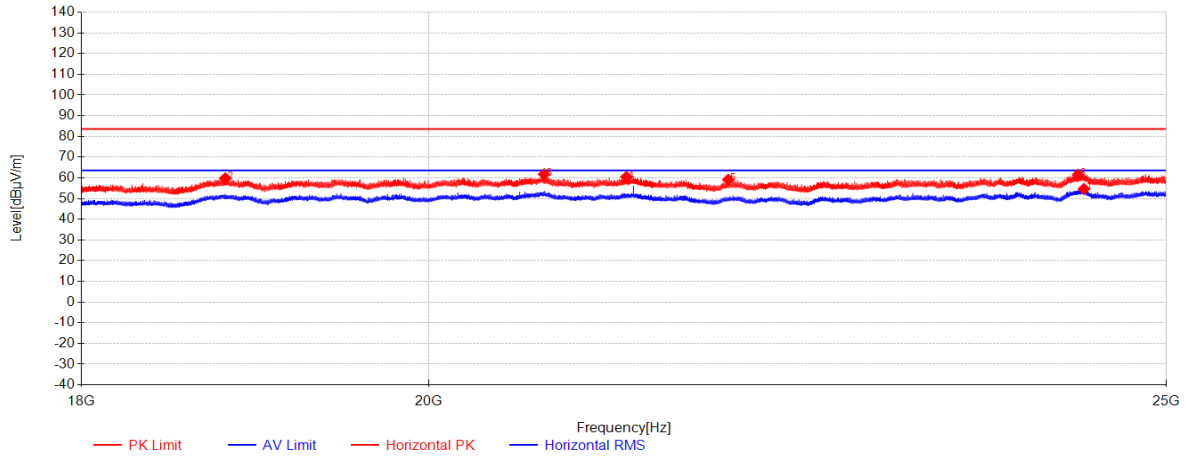
Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	2965.5	39.95	29.45	-22.85	46.54	74.00	27.46	Horizontal
2	3981	53.49	31.01	-47.06	37.44	74.00	36.56	Horizontal
3	5975.25	51.63	34.20	-46.13	39.70	74.00	34.30	Horizontal
4	8881.875	49.69	37.80	-41.48	46.01	74.00	27.99	Horizontal
5	13056.375	45.83	39.69	-37.44	48.08	74.00	25.92	Horizontal
6	17887.125	37.59	42.51	-34.94	45.16	54.00	8.84	Horizontal
7	17968.875	45.92	42.94	-35.36	53.50	74.00	20.50	Horizontal

BLE_1M_TX_CH_39_Verical



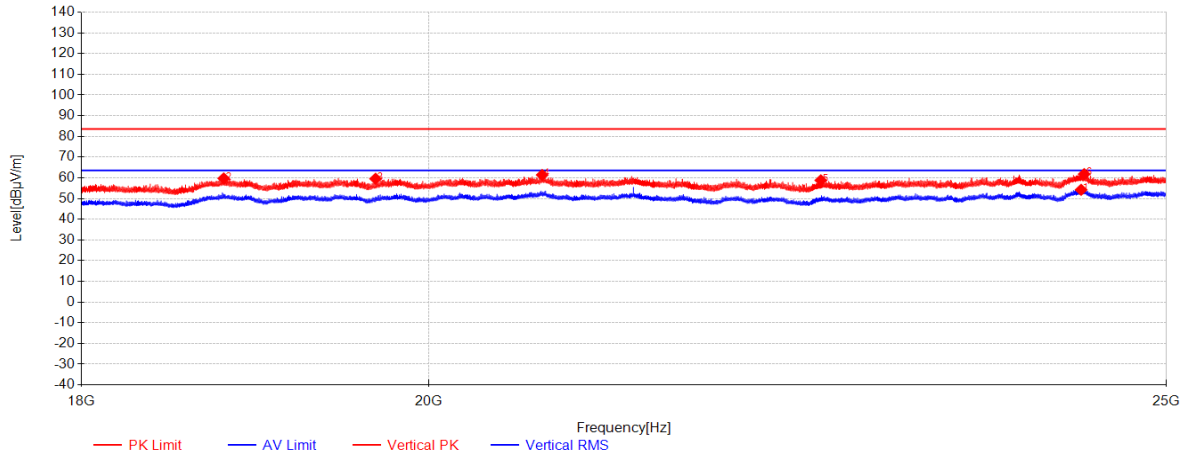
Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	2991	40.08	29.86	-22.82	47.11	74.00	26.89	Vertical
2	3891.75	52.98	30.65	-46.50	37.13	74.00	36.87	Vertical
3	6172.125	51.82	34.46	-46.23	40.05	74.00	33.95	Vertical
4	8766.75	48.59	38.03	-41.85	44.77	74.00	29.23	Vertical
5	12173.625	45.86	39.15	-37.12	47.88	74.00	26.12	Vertical
6	17907	45.75	42.64	-34.70	53.68	74.00	20.32	Vertical
7	17916.375	37.88	42.68	-34.80	45.76	54.00	8.24	Vertical

BLE_1M_TX_CH_00_Horizontal



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	24386.975	39.23	39.38	-23.97	54.64	63.54	8.90	Horizontal
2	18802.2	49.96	38.18	-28.35	59.79	83.54	23.75	Horizontal
3	20708.825	49.66	38.35	-26.31	61.70	83.54	21.84	Horizontal
4	21231.55	48.71	38.04	-26.31	60.44	83.54	23.10	Horizontal
5	21896.55	47.89	37.57	-26.36	59.11	83.54	24.43	Horizontal
6	24343.575	46.36	39.37	-24.22	61.51	83.54	22.03	Horizontal

BLE_1M_TX_CH_00_Vertical



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	24366.15	38.93	39.37	-24.09	54.22	63.54	9.32	Vertical
2	18793.625	49.88	38.17	-28.34	59.71	83.54	23.83	Vertical
3	19677.9	49.27	38.67	-28.39	59.55	83.54	23.99	Vertical
4	20696.4	49.36	38.35	-26.32	61.39	83.54	22.15	Vertical
5	22518.85	46.90	37.81	-25.92	58.79	83.54	24.75	Vertical
6	24388.725	46.39	39.38	-23.96	61.81	83.54	21.73	Vertical

7.5 Maximum Conducted 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

7.5.1 E.U.T. Operation

Operating Environment:

Temperature: 28.1 °C

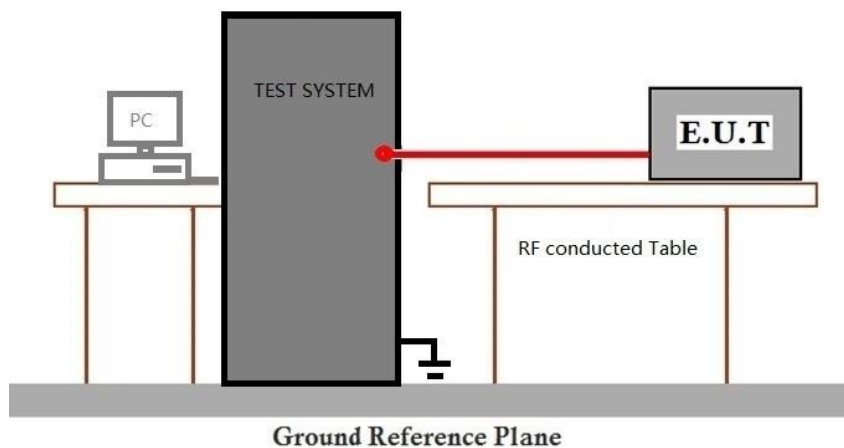
Humidity: 59.6 % RH

Atmospheric Pressure: 1010 mbar

7.5.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	01	TX mode_Keep the EUT in continuously transmitting mode with GFSK modulation.

7.5.3 Test Setup Diagram



7.5.4 Measurement Procedure and Data

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



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Please Refer to Appendix for Details

7.6 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

7.6.1 E.U.T. Operation

Operating Environment:

Temperature: 28.1 °C

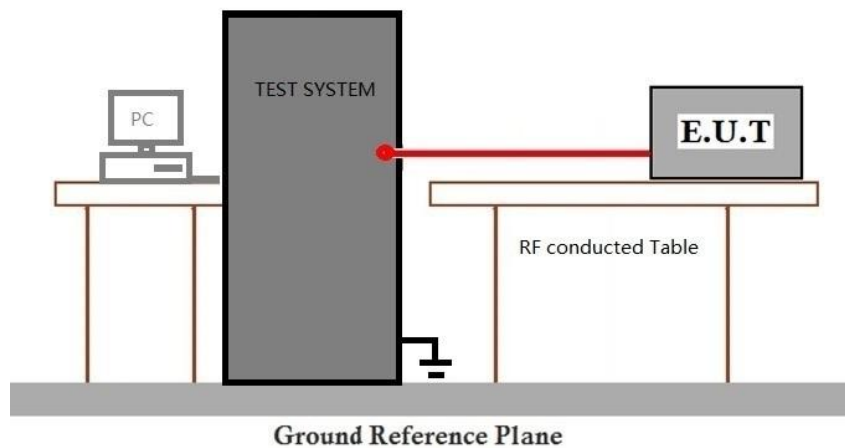
Humidity: 59.6 % RH

Atmospheric Pressure: 1010 mbar

7.6.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	01	TX mode_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 Power Spectral 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

7.7.1 E.U.T. Operation

Operating Environment:

Temperature: 28.1 °C

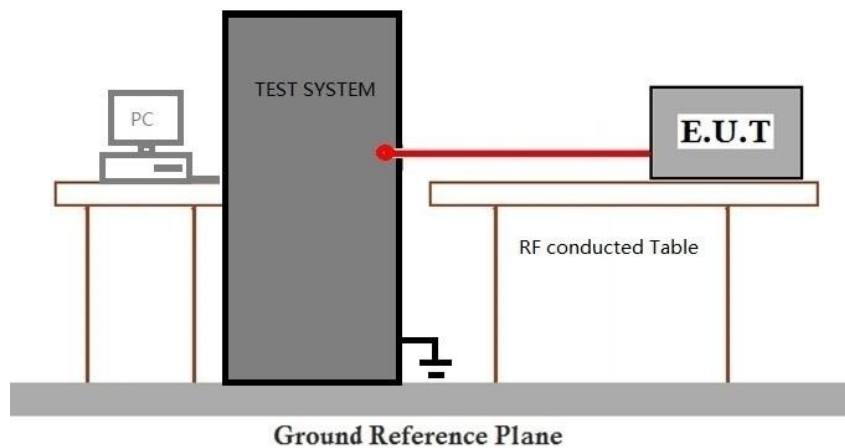
Humidity: 59.6 % RH

Atmospheric Pressure: 1010 mbar

7.7.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	01	TX mode_Keep the EUT in continuously transmitting mode with GFSK modulation.

7.7.3 Test Setup Diagram



7.7.4 Measurement Procedure and Data

Please Refer to Appendix for Details

7.8 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)).

7.8.1 E.U.T. Operation

Operating Environment:

Temperature: 28.1 °C

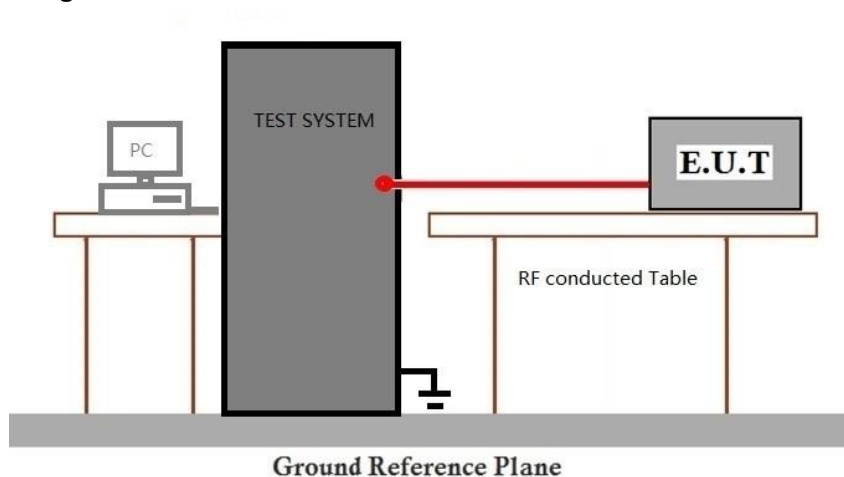
Humidity: 59.6 % RH

Atmospheric Pressure: 1010 mbar

7.8.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	01	TX mode_Keep the EUT in continuously transmitting mode with GFSK modulation.

7.8.3 Test Setup Diagram



7.8.4 Measurement Procedure and Data

Please Refer to Appendix for Details

7.9 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)).

7.9.1 E.U.T. Operation

Operating Environment:

Temperature: 28.1 °C

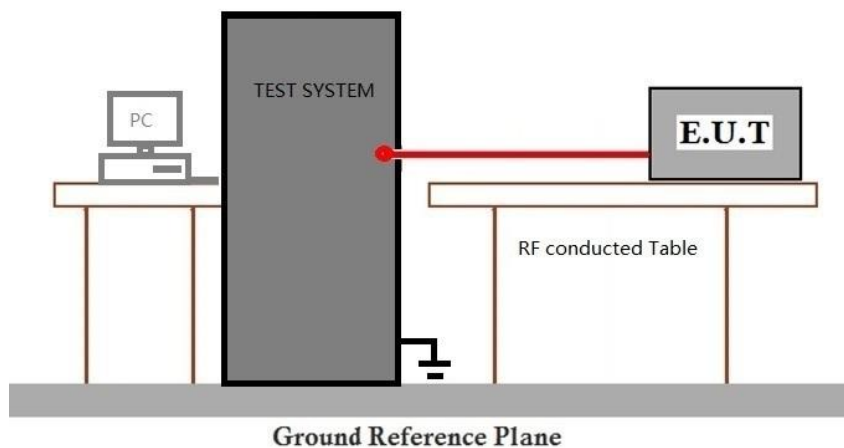
Humidity: 59.6 % RH

Atmospheric Pressure: 1010 mbar

7.9.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	01	TX mode_Keep the EUT in continuously transmitting mode with GFSK modulation.

7.9.3 Test Setup Diagram



7.9.4 Measurement Procedure and Data

Please Refer to Appendix for Details

8 Test Setup Photo

Refer to Appendix - Test Setup Photo for KSCR2606001417AT

9 EUT Constructional Details (EUT Photos)

Refer to Appendix_Photographs of EUT Constructional Details for KSCR2606001417AT

10 Appendix

1. Duty Cycle

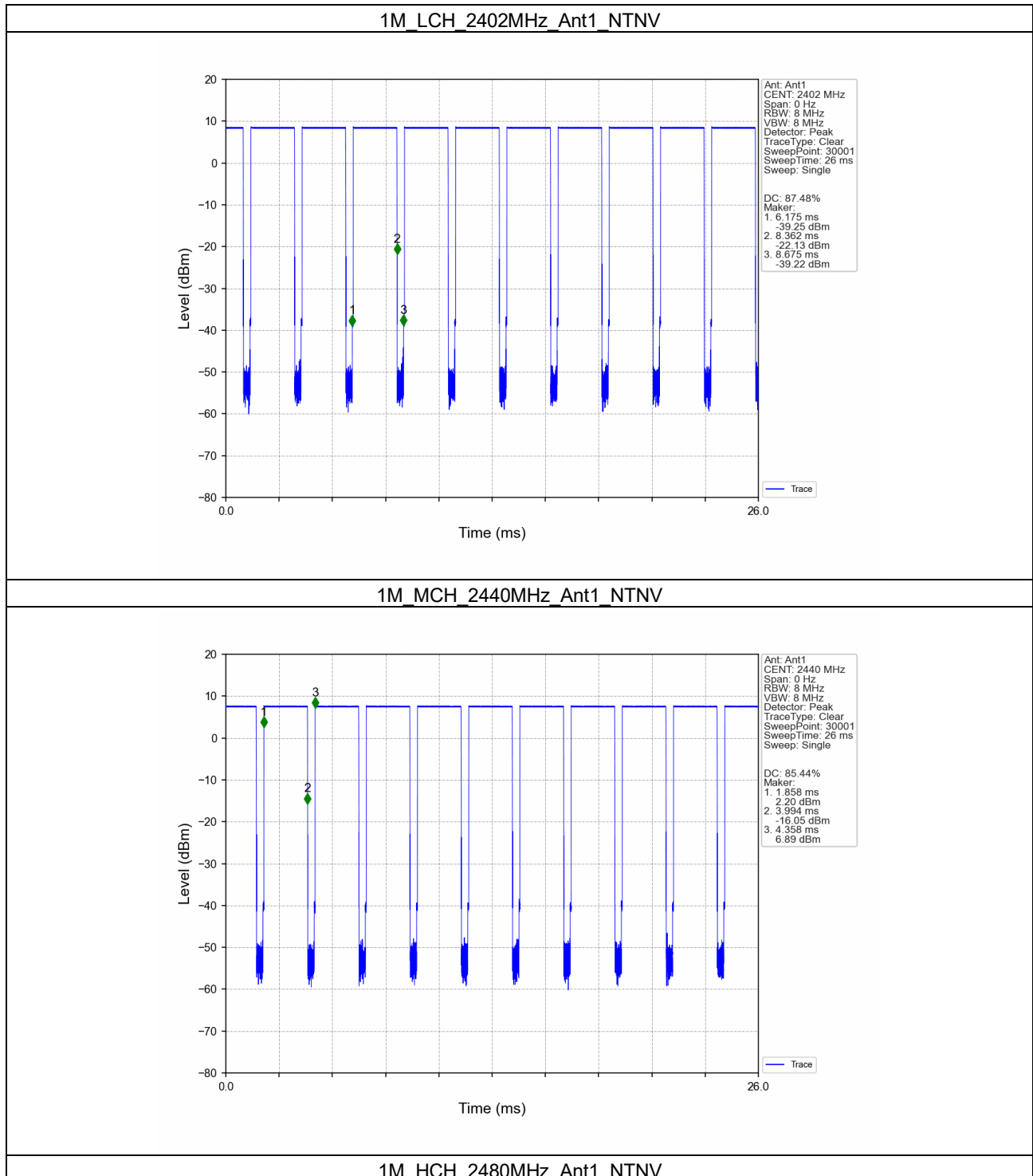
1.1 Test Result

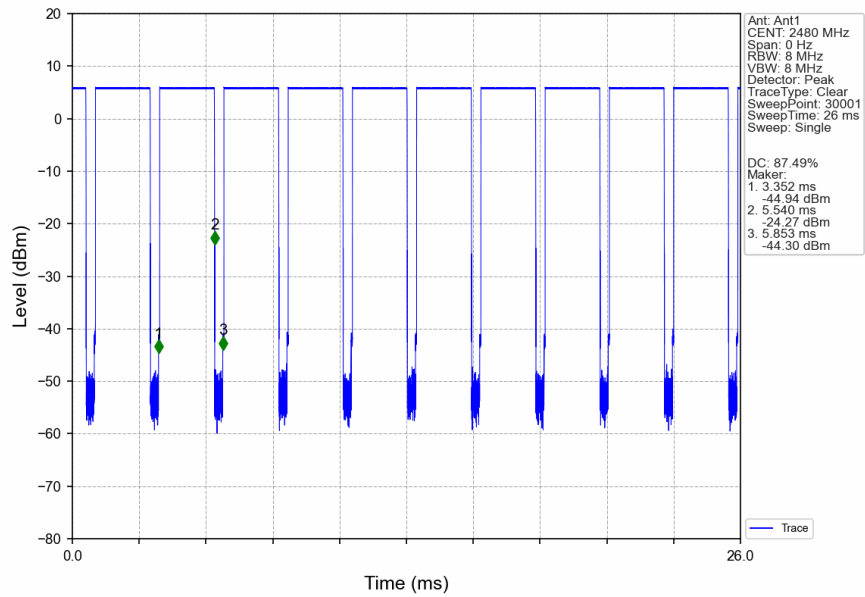
1.1.1 Ant1

Ant1							
Mode	TX Type	Frequency (MHz)	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
1M	SISO	2402	2.187	2.500	87.48	0.58	0.03
		2440	2.136	2.500	85.44	0.68	0.03
		2480	2.188	2.501	87.49	0.58	0.03
2M	SISO	2402	1.065	1.875	56.80	2.46	0.03
		2440	1.065	1.875	56.80	2.46	0.03
		2480	1.065	1.875	56.80	2.46	0.03

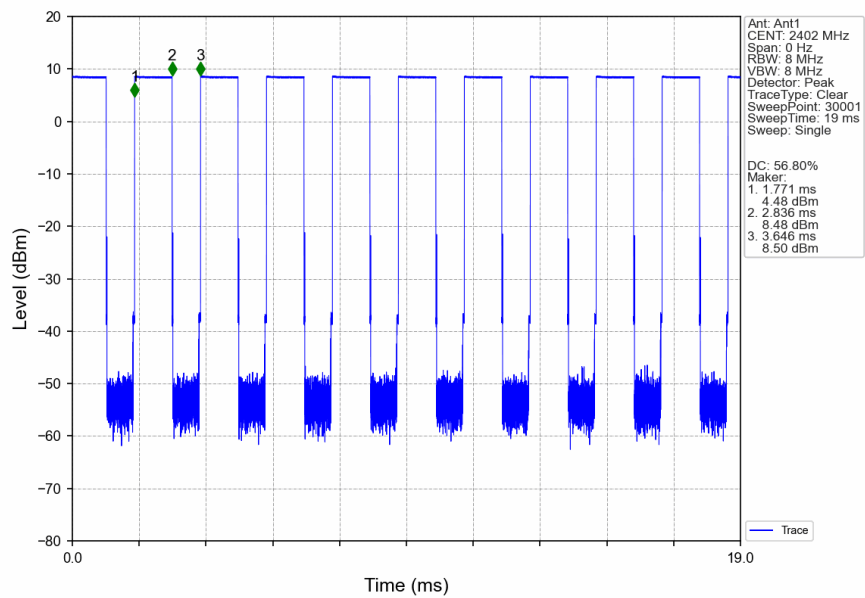
1.2 Test Graph

1.2.1 Ant1

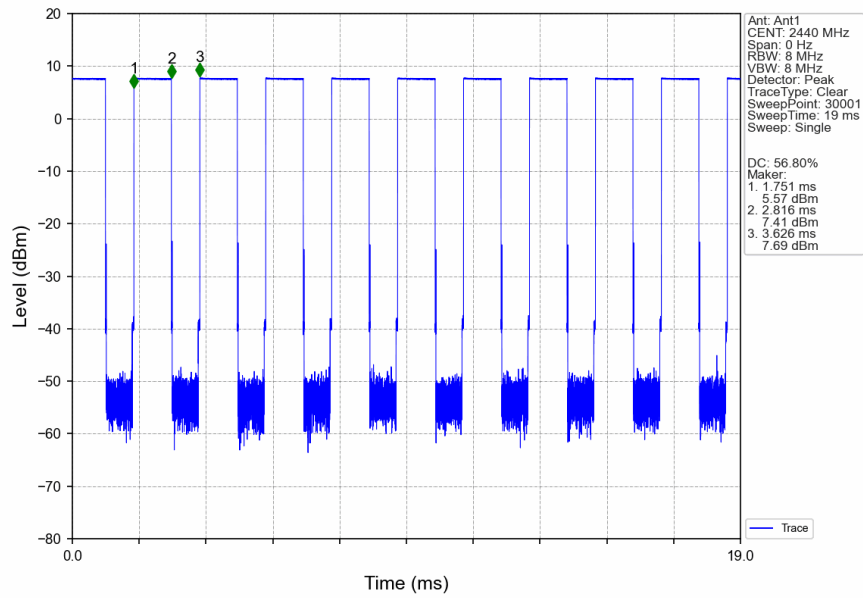




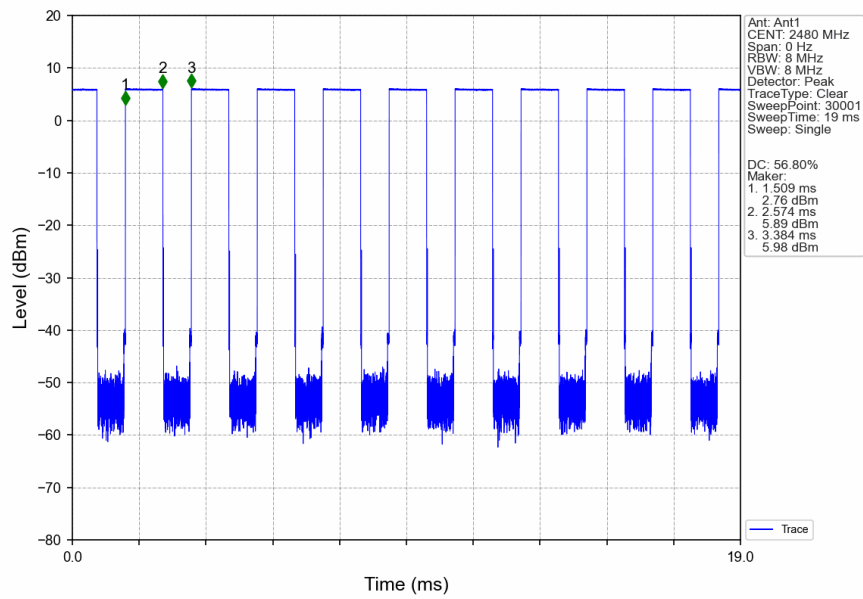
2M LCH 2402MHz Ant1 NTN



2M_MCH_2440MHz_Ant1_NTNV



2M_HCH_2480MHz_Ant1_NTNV



2. Bandwidth

2.1 Test Result

2.1.1 OBW

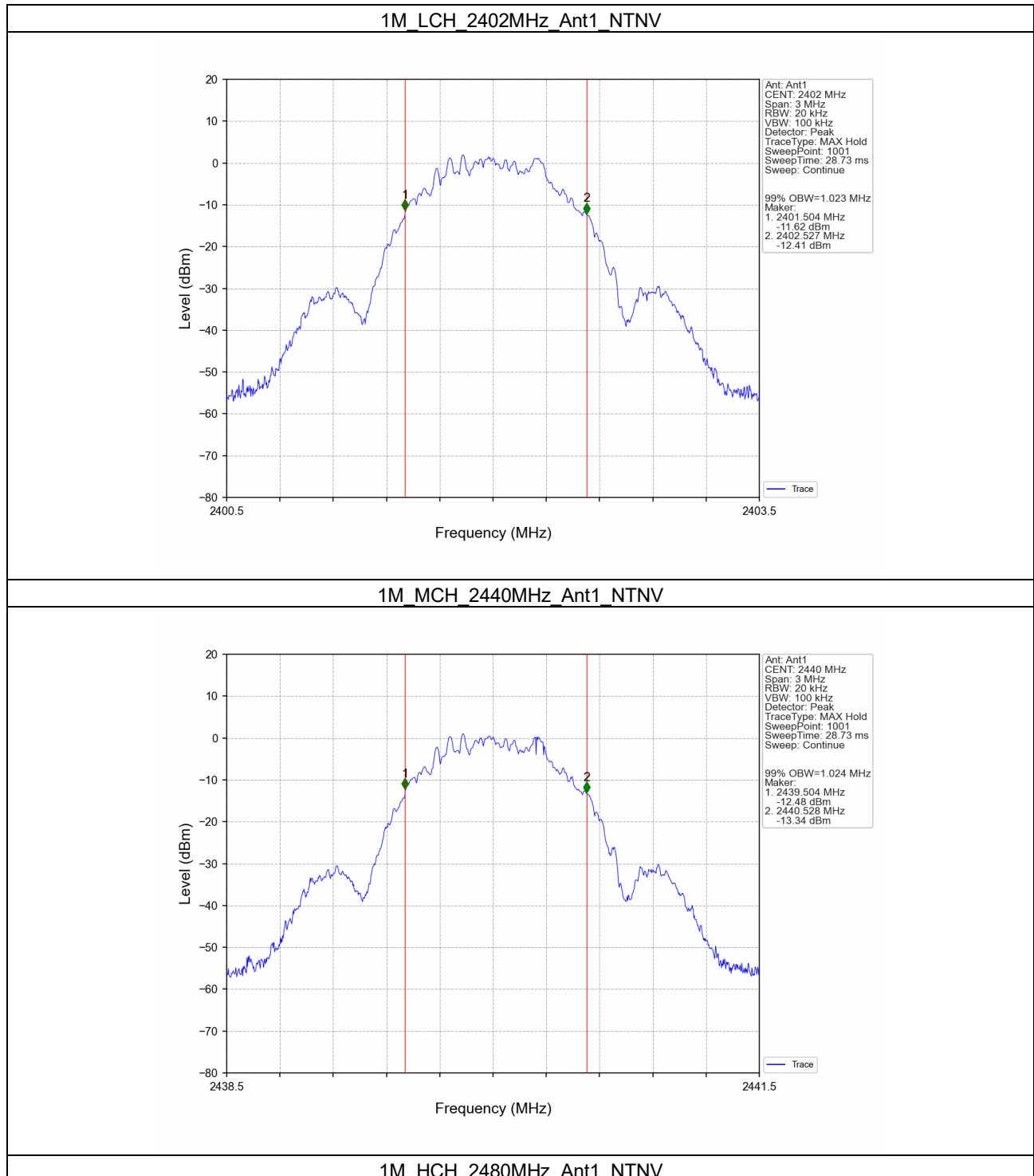
Mode	TX Type	Frequency (MHz)	ANT	99% Occupied Bandwidth (MHz)		Verdict
				Result	Limit	
1M	SISO	2402	1	1.023	/	Pass
		2440	1	1.024	/	Pass
		2480	1	1.024	/	Pass
2M	SISO	2402	1	2.048	/	Pass
		2440	1	2.051	/	Pass
		2480	1	2.052	/	Pass

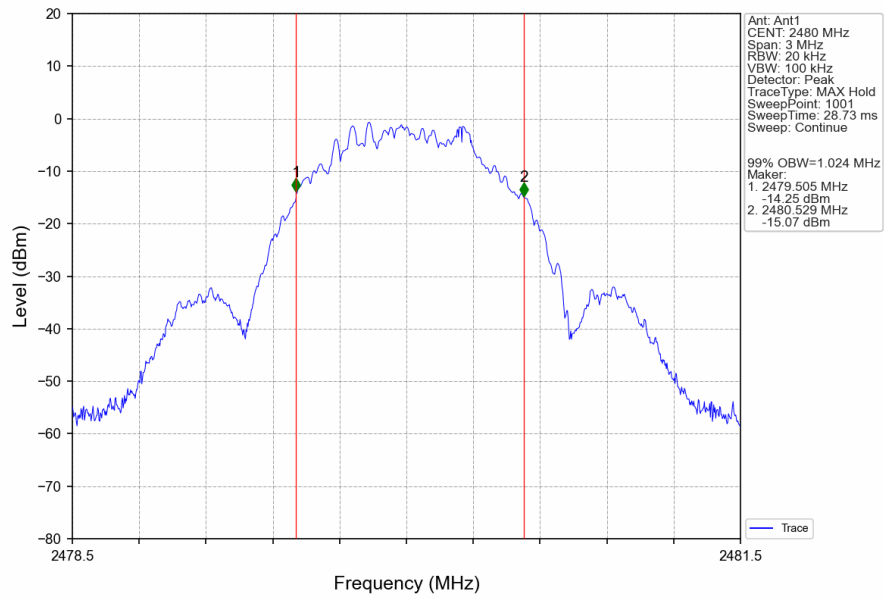
2.1.2 6dB BW

Mode	TX Type	Frequency (MHz)	ANT	6dB Bandwidth (MHz)		Verdict
				Result	Limit	
1M	SISO	2402	1	0.664	≥ 0.5	Pass
		2440	1	0.667	≥ 0.5	Pass
		2480	1	0.664	≥ 0.5	Pass
2M	SISO	2402	1	1.207	≥ 0.5	Pass
		2440	1	1.202	≥ 0.5	Pass
		2480	1	1.203	≥ 0.5	Pass

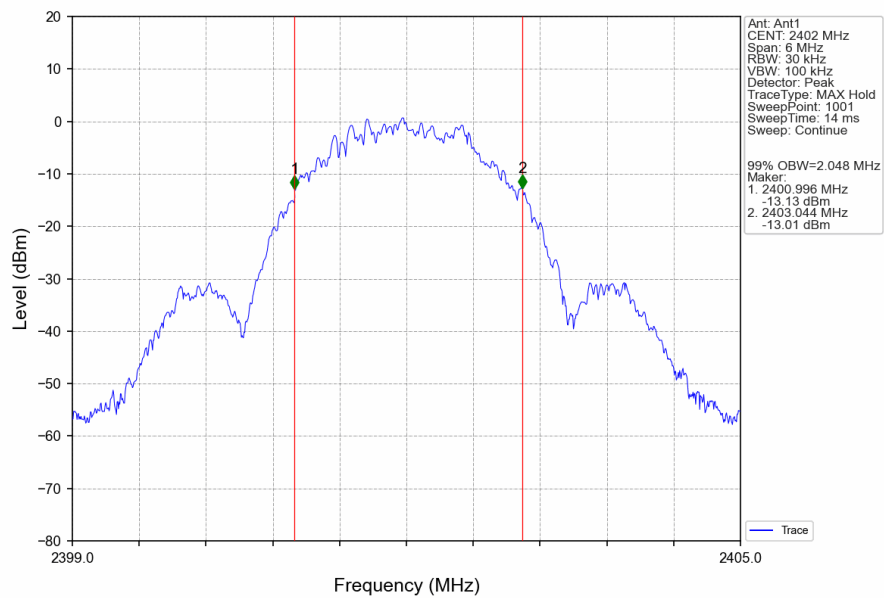
2.2 Test Graph

2.2.1 OBW

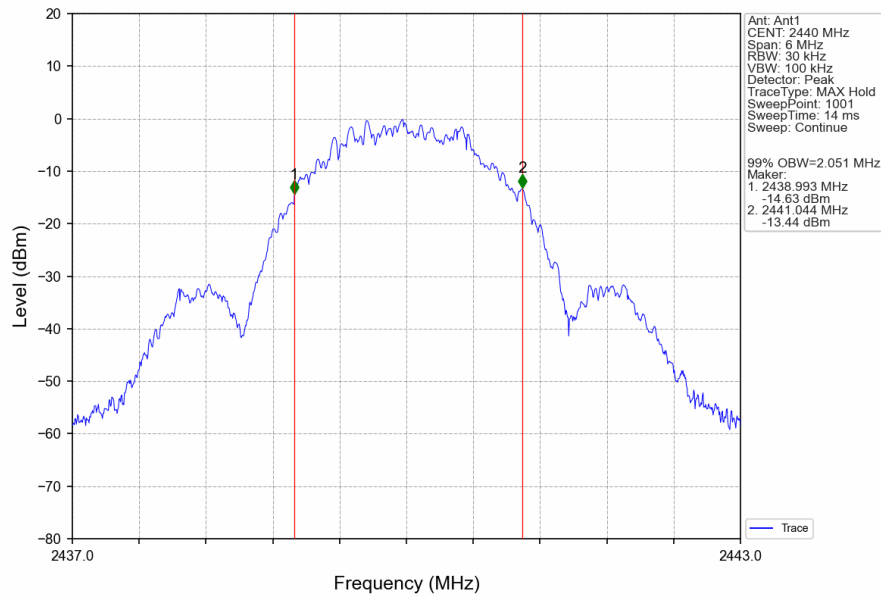




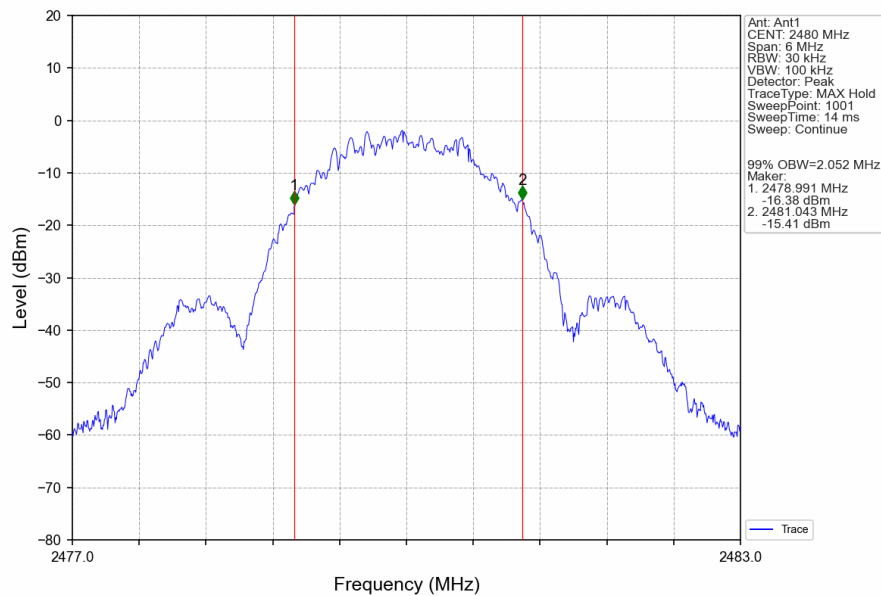
2M LCH 2402MHz Ant1 NTN



2M_MCH_2440MHz_Ant1_NTNV

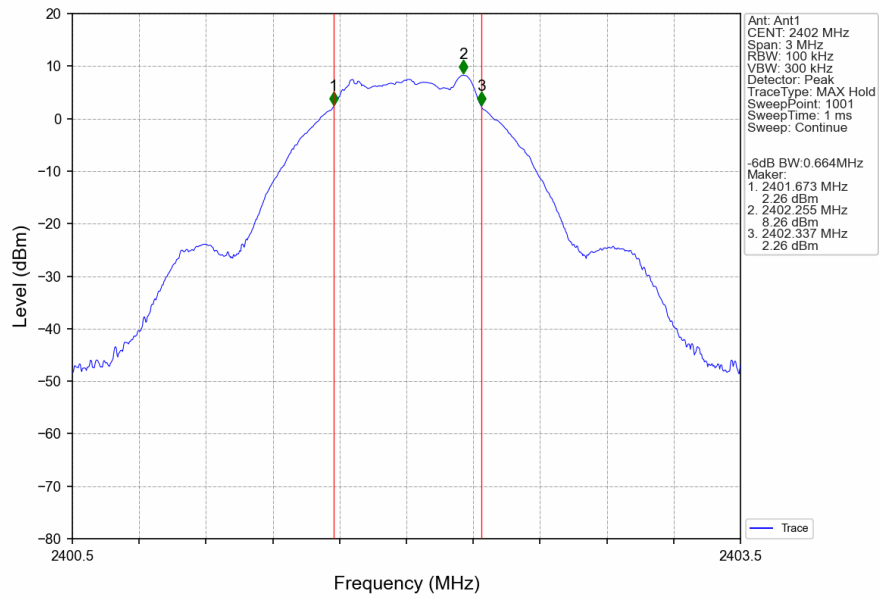


2M_HCH_2480MHz_Ant1_NTNV

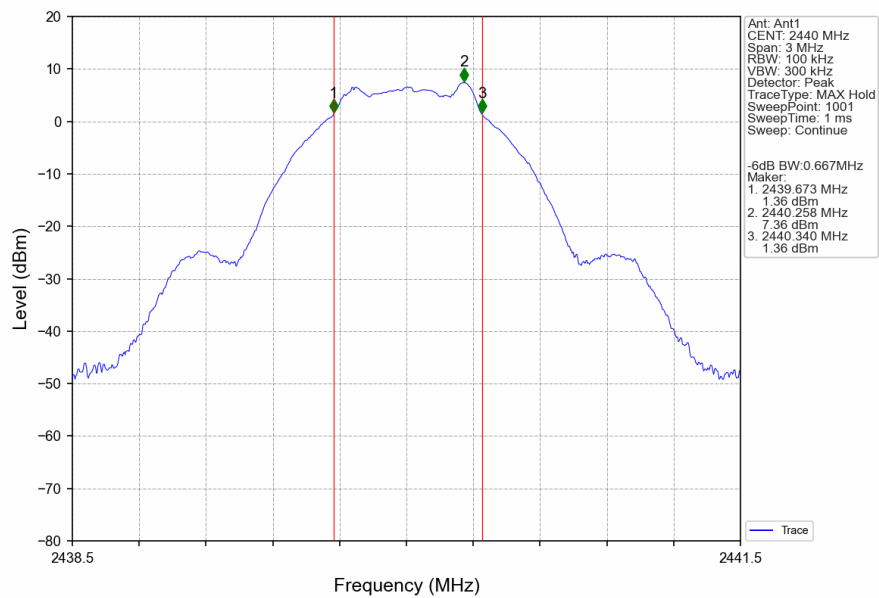


2.2.2 6dB BW

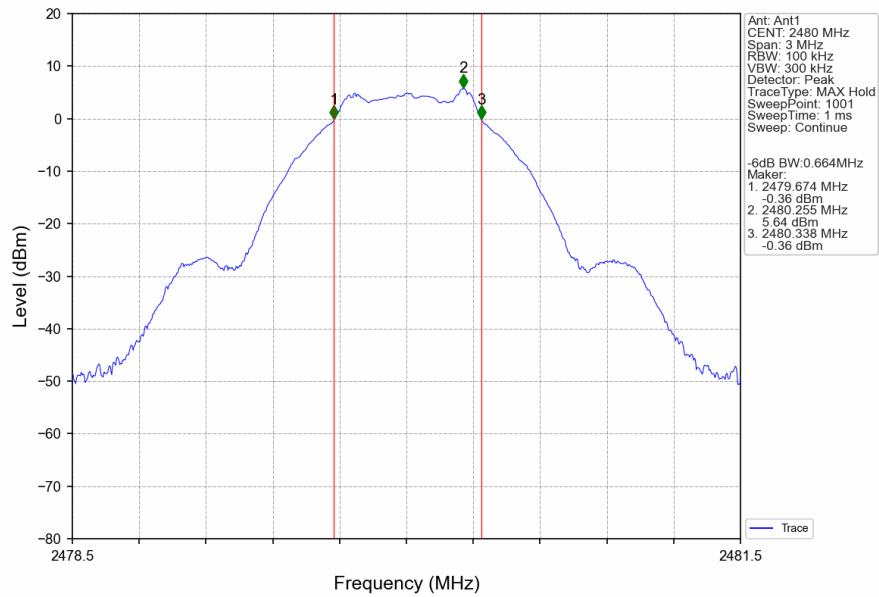
1M_LCH_2402MHz_Ant1_NTNV



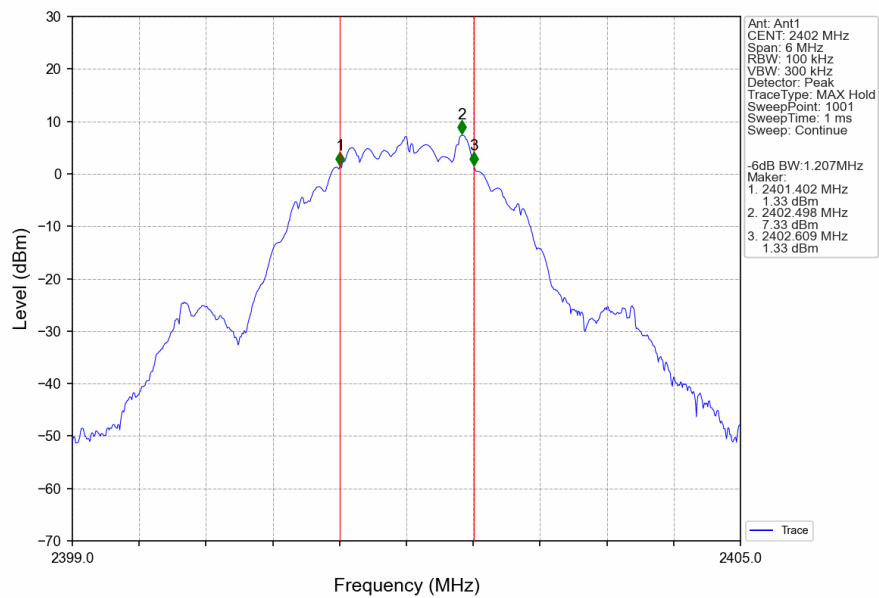
1M MCH 2440MHz Ant1 NTN



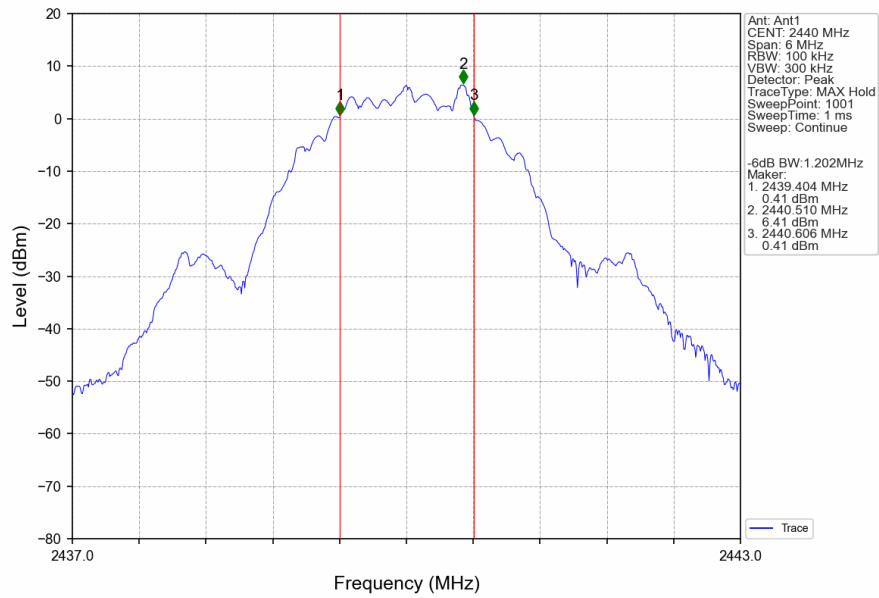
1M HCH 2480MHz Ant1 NTN



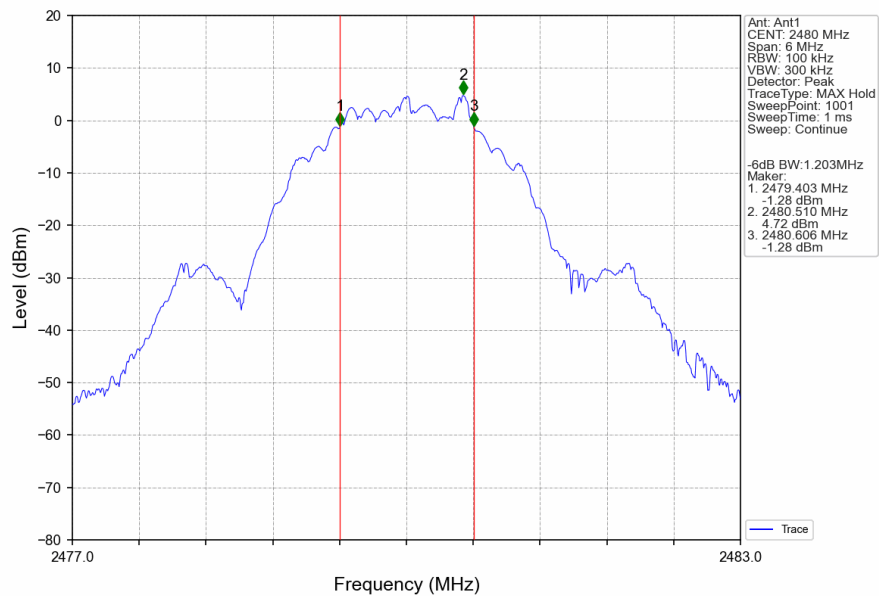
2M LCH_2402MHz_Ant1_NTNV



2M_MCH_2440MHz_Ant1_NTNV



2M_HCH_2480MHz_Ant1_NTNV



3. Maximum Conducted Output Power

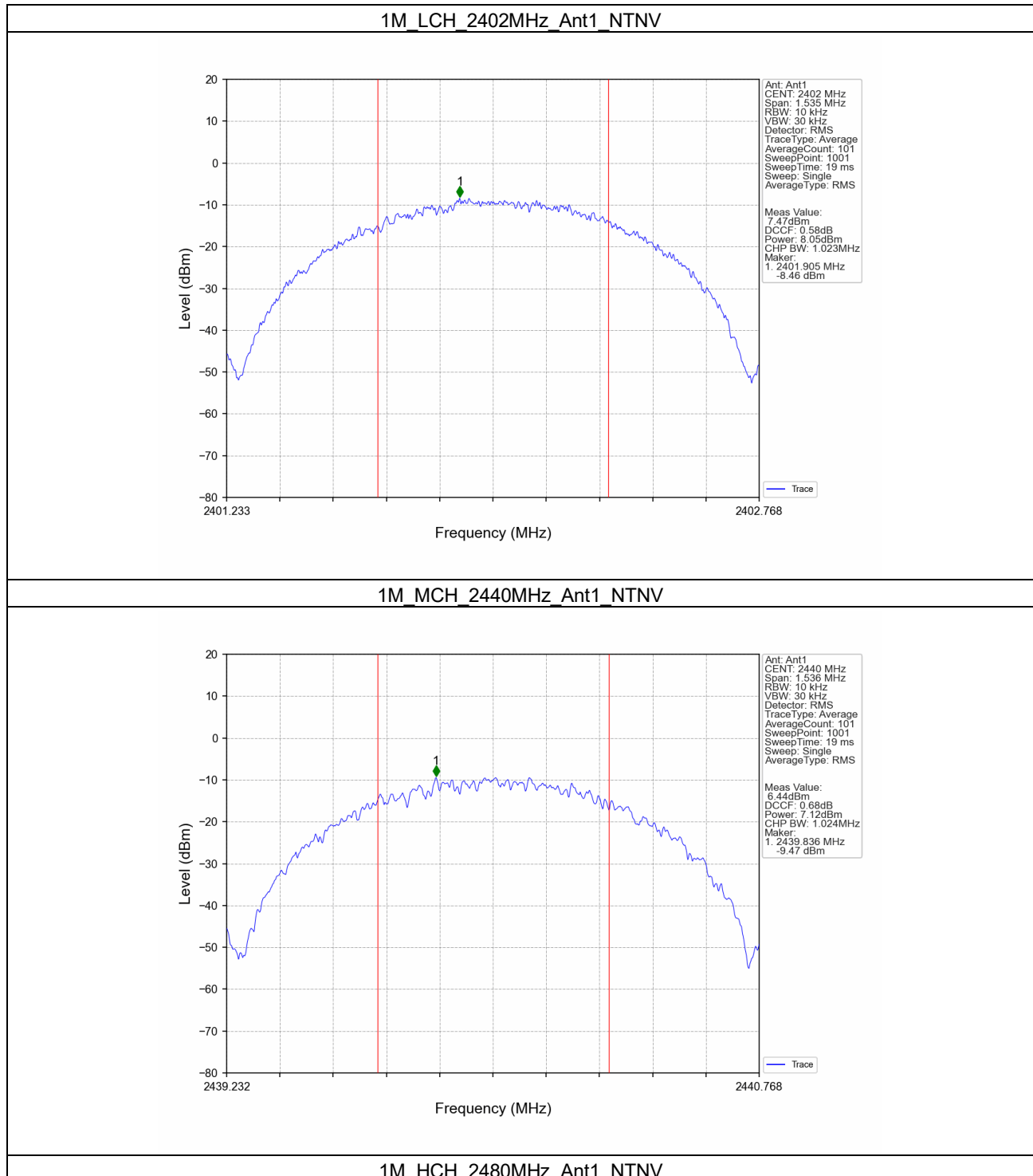
3.1 Test Result

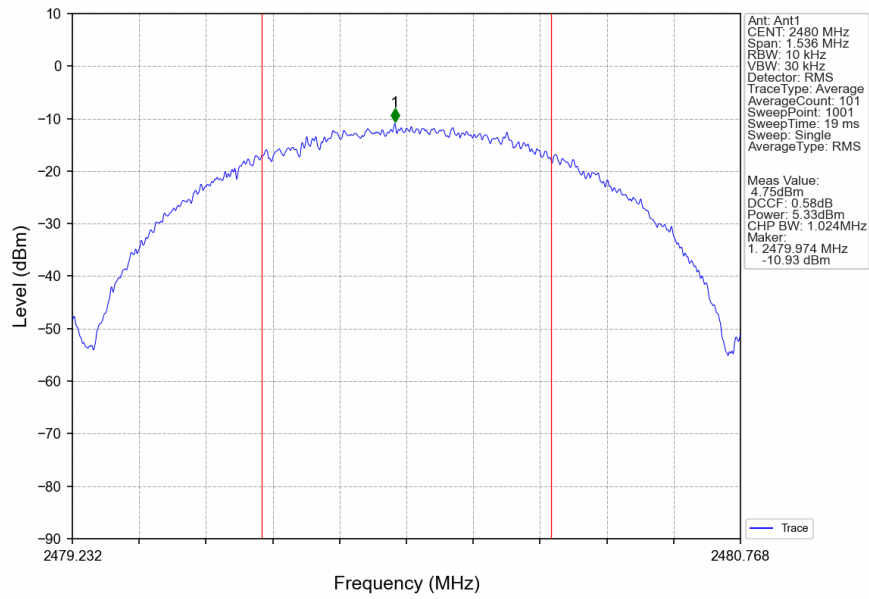
3.1.1 Power

Mode	TX Type	Frequency (MHz)	Maximum Average Conducted Output Power (dBm)		Verdict
			ANT1	Limit	
1M	SISO	2402	8.05	<=30	Pass
		2440	7.12	<=30	Pass
		2480	5.33	<=30	Pass
2M	SISO	2402	8.26	<=30	Pass
		2440	7.25	<=30	Pass
		2480	5.58	<=30	Pass
Note1: Antenna Gain: Ant1: 3.94dBi;					

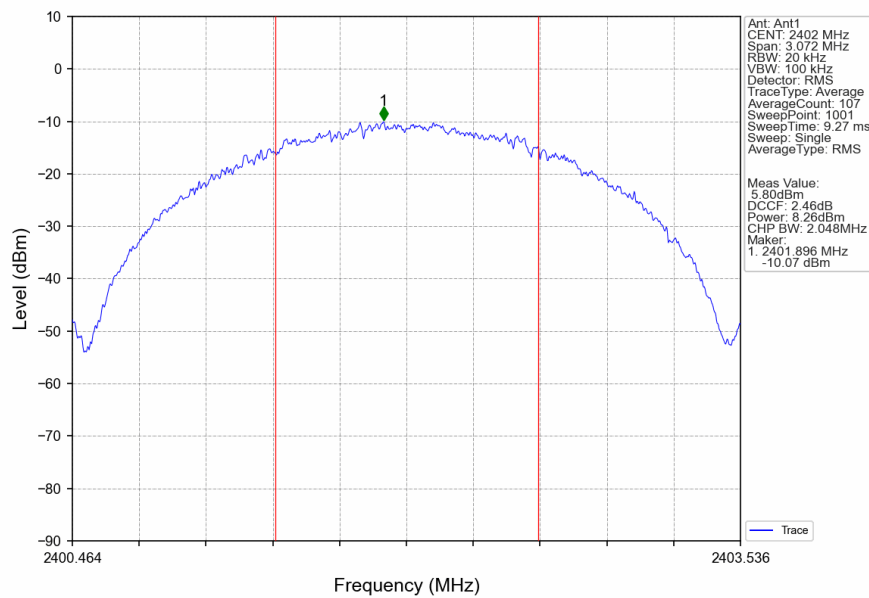
3.2 Test Graph

3.2.1 Power

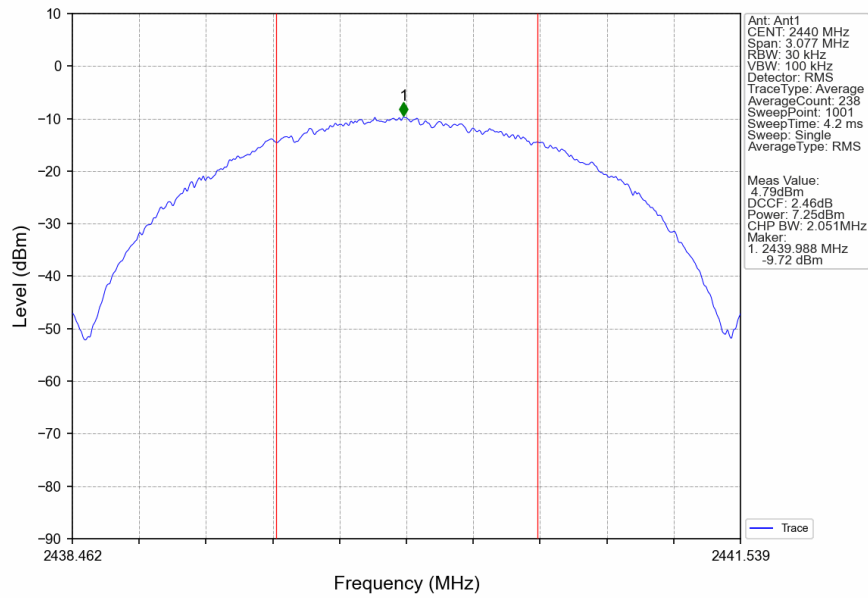




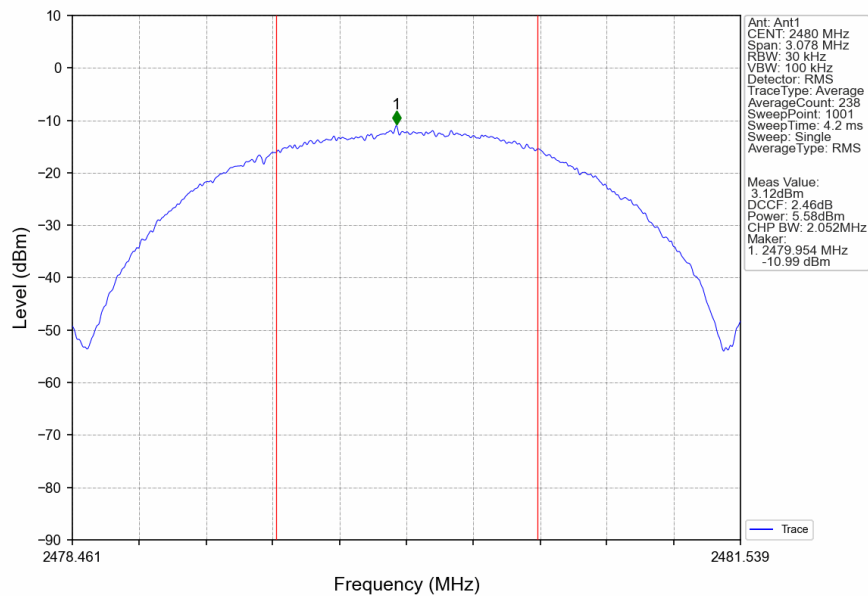
2M LCH 2402MHz Ant1 NTN



2M_MCH_2440MHz_Ant1_NTNV



2M_HCH_2480MHz_Ant1_NTNV



4. Maximum Power Spectral Density

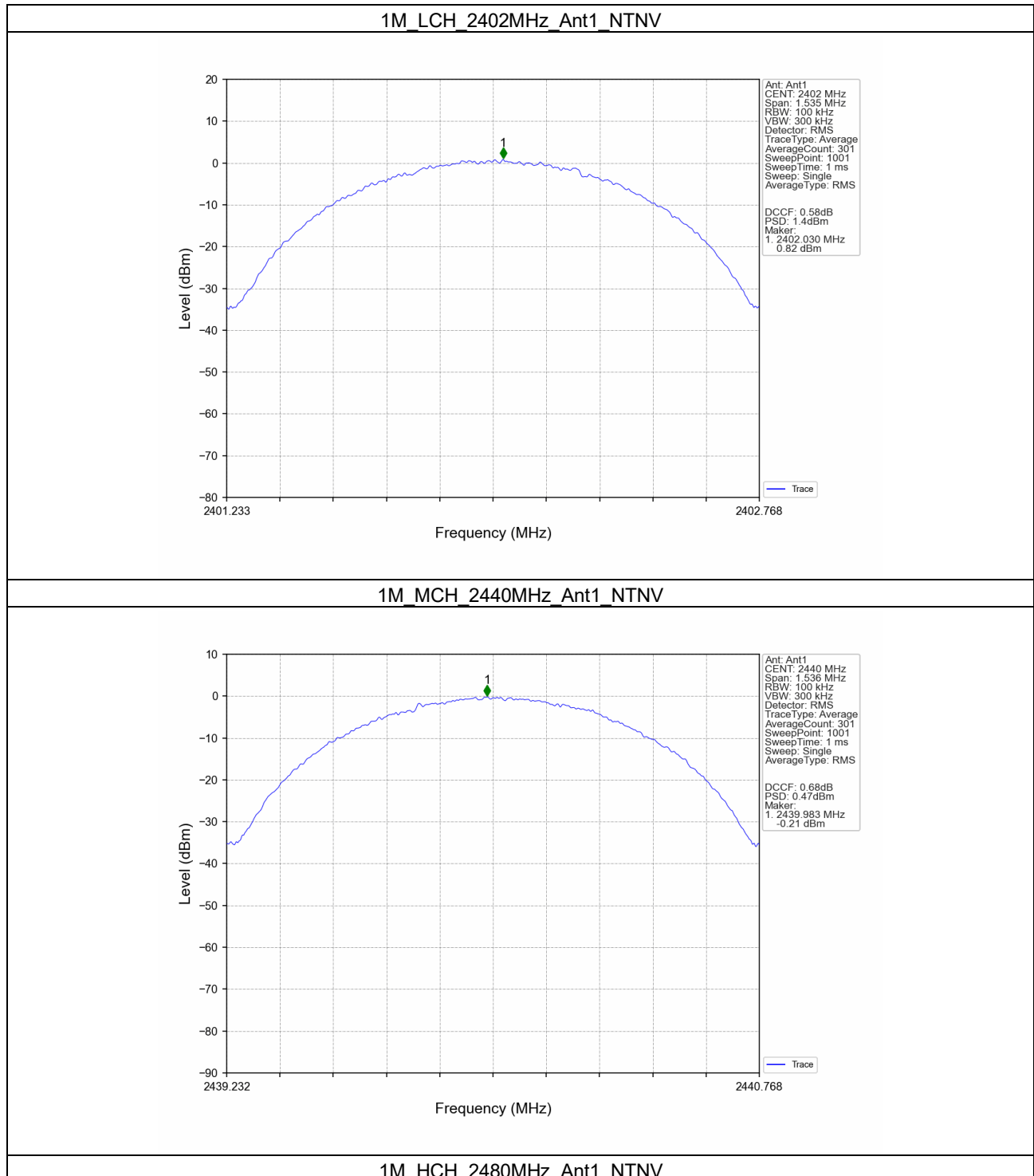
4.1 Test Result

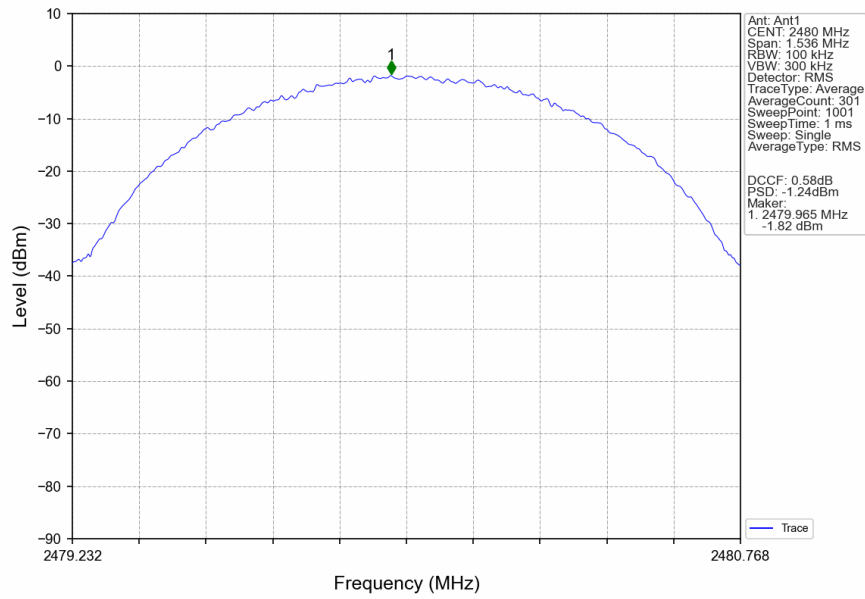
4.1.1 PSD

Mode	TX Type	Frequency (MHz)	Maximum PSD (dBm)		Verdict
			ANT1	Limit(dBm/3kHz)	
1M	SISO	2402	1.40dBm/100kHz	<=8	Pass
		2440	0.47dBm/100kHz	<=8	Pass
		2480	-1.24dBm/100kHz	<=8	Pass
2M	SISO	2402	-0.83dBm/100kHz	<=8	Pass
		2440	-1.85dBm/100kHz	<=8	Pass
		2480	-3.69dBm/100kHz	<=8	Pass
Note1: Antenna Gain: Ant1: 3.94dBi;					

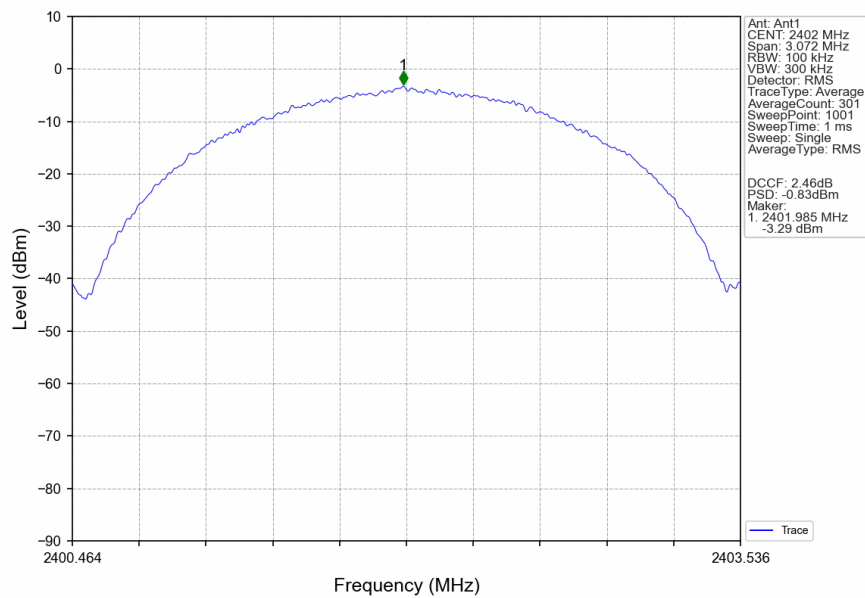
4.2 Test Graph

4.2.1 PSD

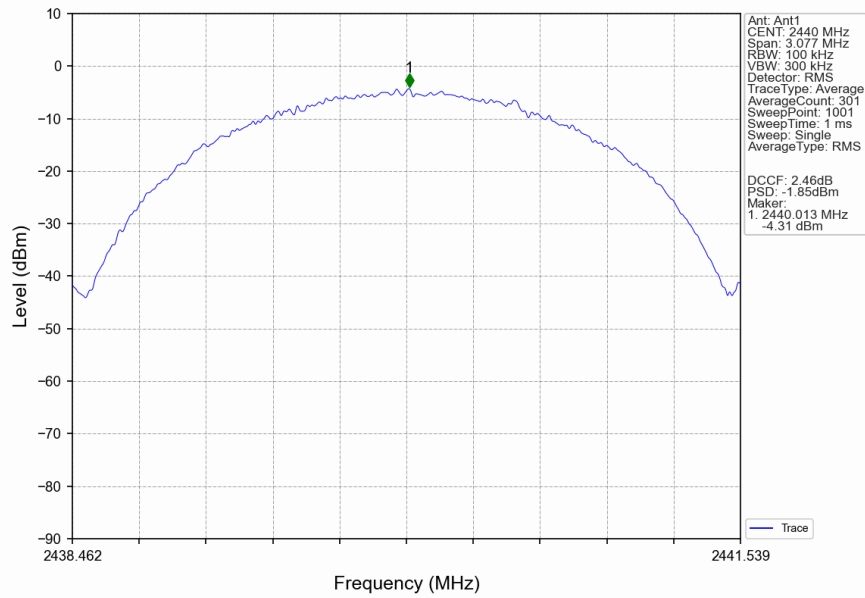




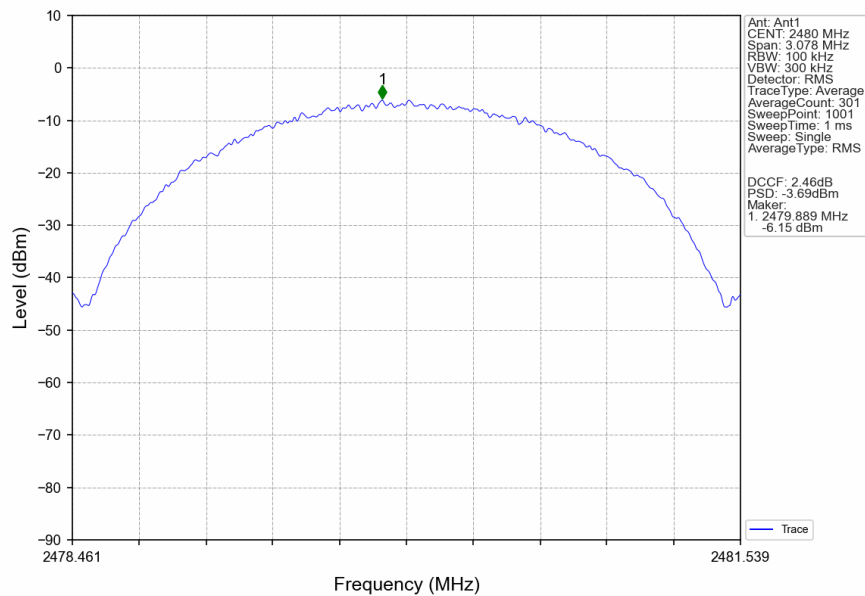
2M LCH 2402MHz Ant1 NTN



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

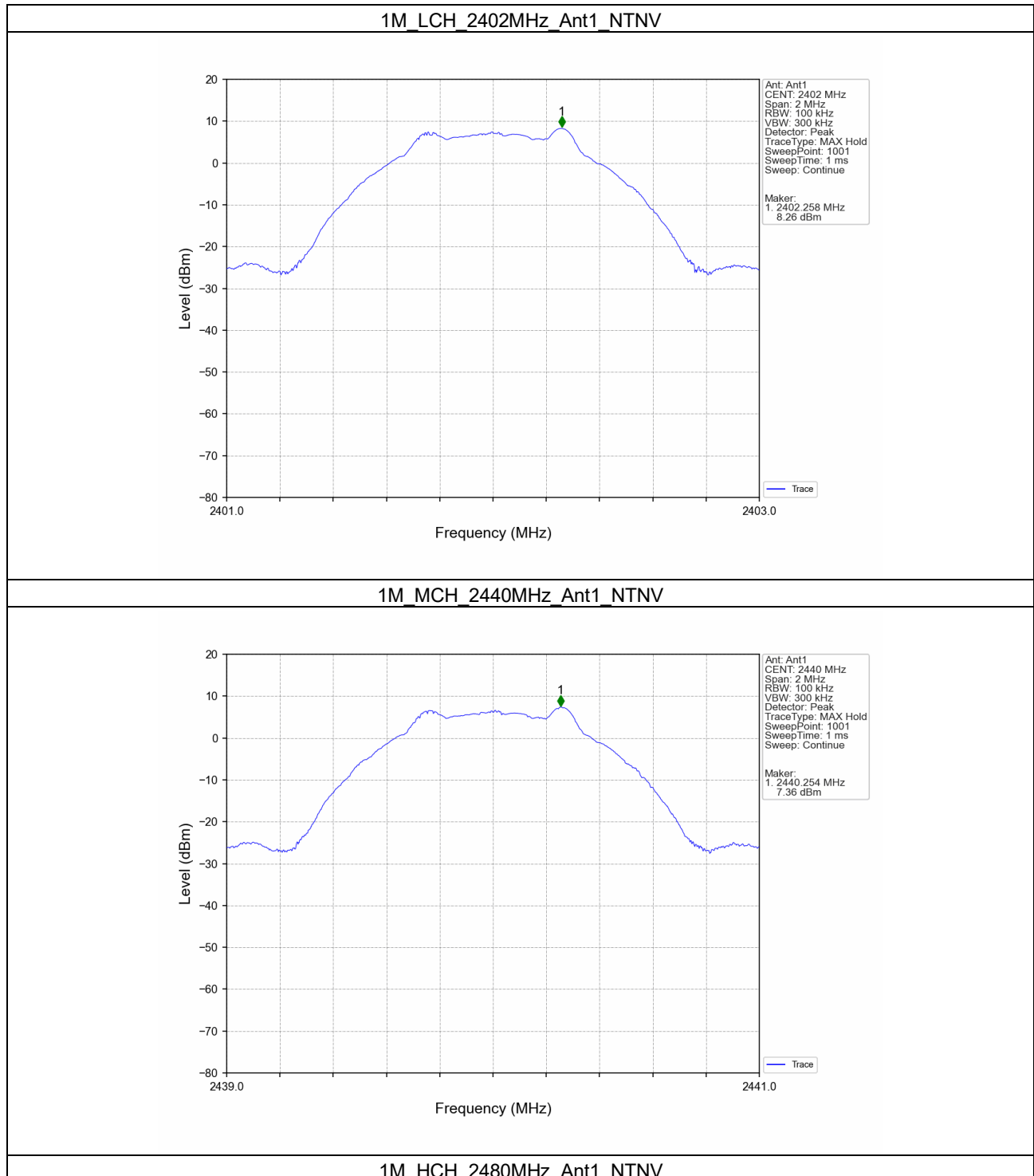
Mode	TX Type	Frequency (MHz)	ANT	Level of Reference (dBm)
1M	SISO	2402	1	8.26
		2440	1	7.36
		2480	1	5.64
2M	SISO	2402	1	7.27
		2440	1	6.39
		2480	1	4.70

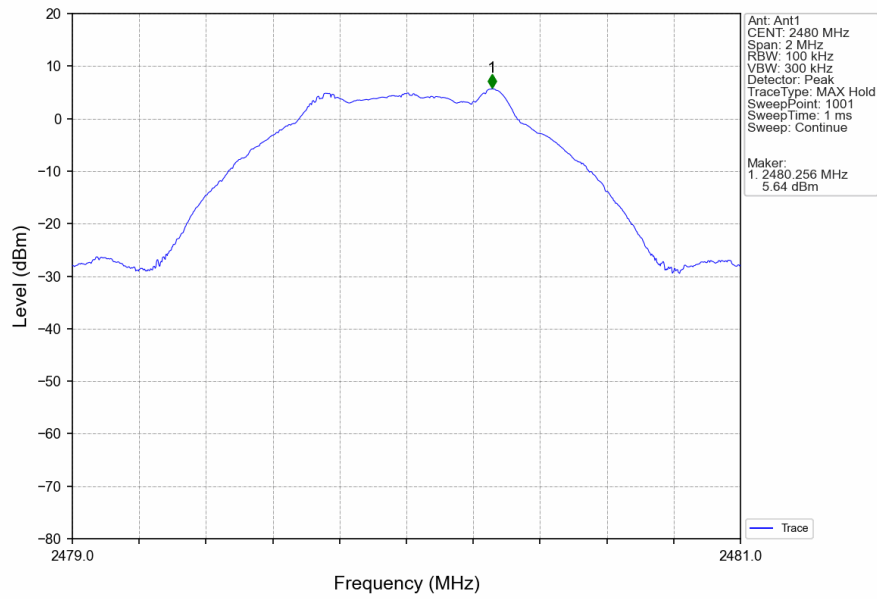
5.1.2 CSE

Mode	TX Type	Frequency (MHz)	ANT	Level of Reference (dBm)	Limit (dBm)	Verdict
1M	SISO	2402	1	8.26	-21.74	Pass
		2440	1	8.26	-21.74	Pass
		2480	1	8.26	-21.74	Pass
2M	SISO	2402	1	7.27	-22.73	Pass
		2440	1	7.27	-22.73	Pass
		2480	1	7.27	-22.73	Pass

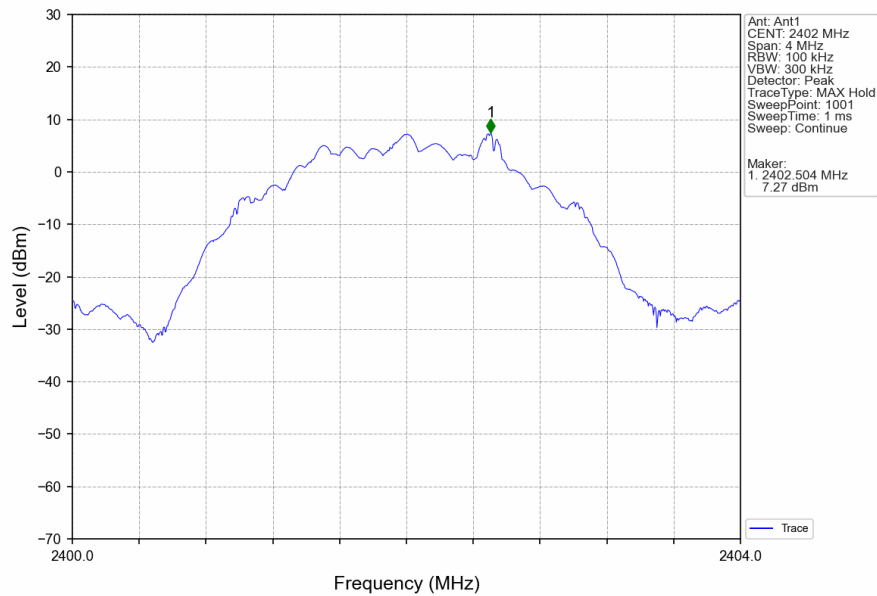
5.2 Test Graph

5.2.1 Ref

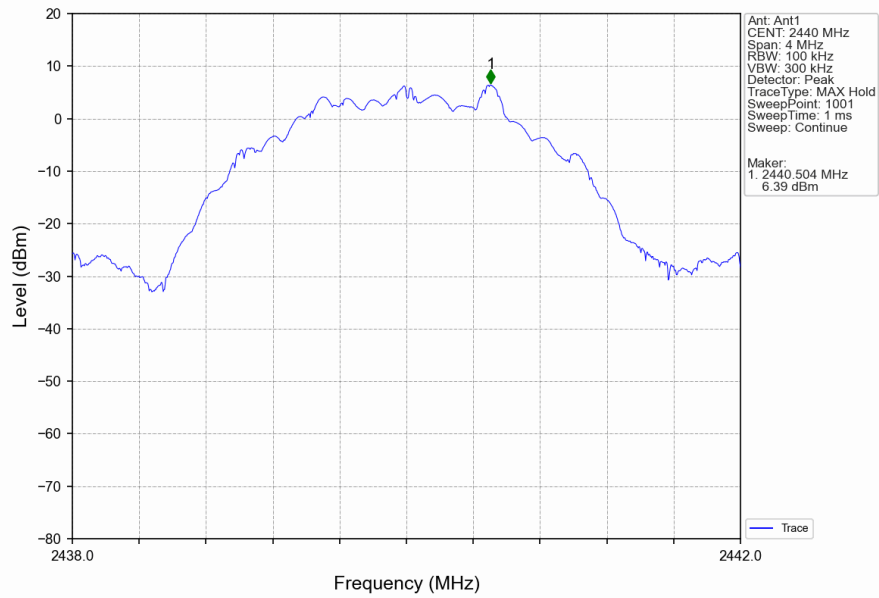




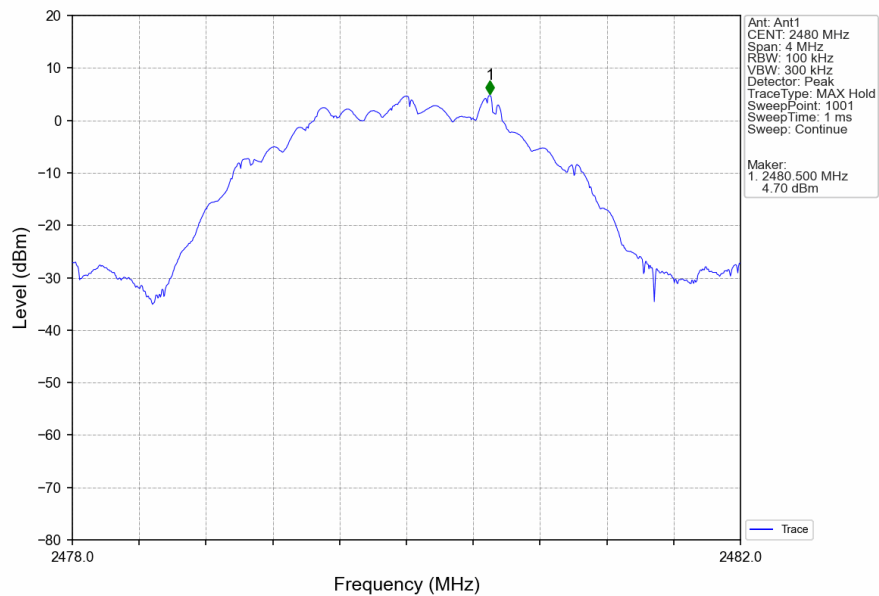
2M LCH 2402MHz Ant1 NTN



2M_MCH_2440MHz_Ant1_NTNV

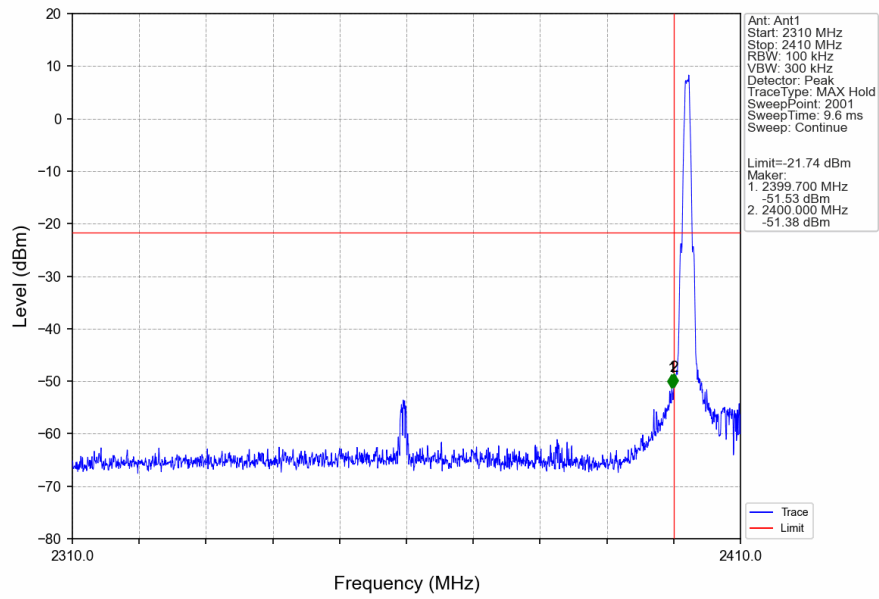


2M_HCH_2480MHz_Ant1_NTNV

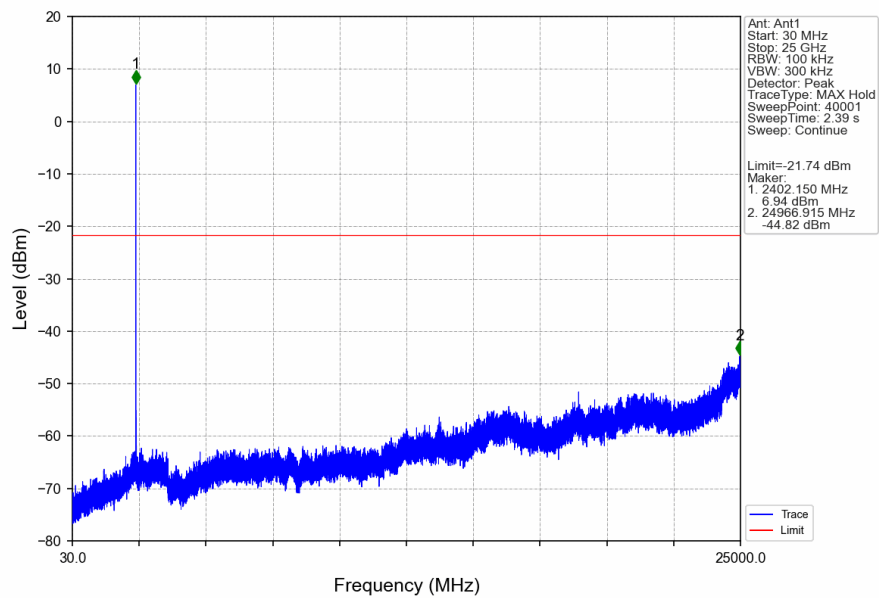


5.2.2 CSE

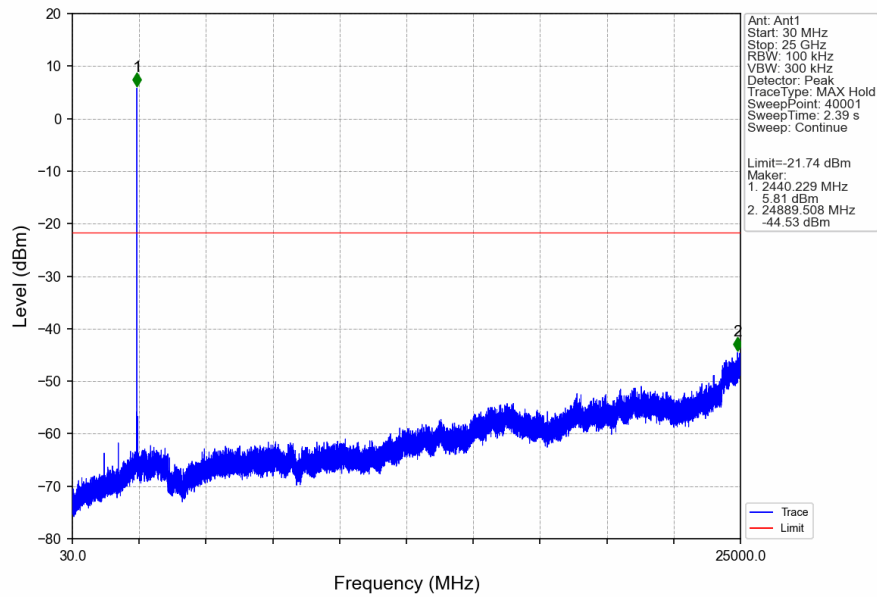
1M_LCH_2402MHz_Ant1_NTNV



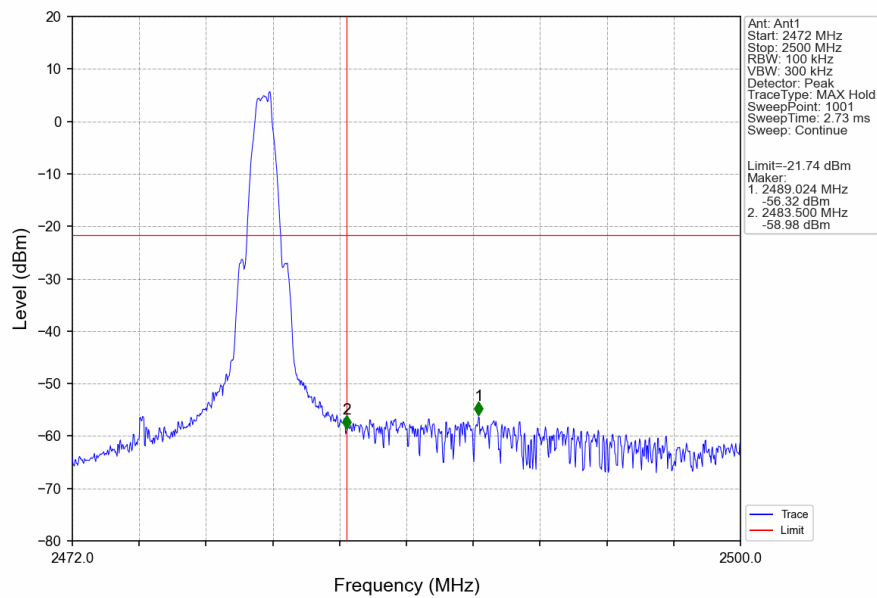
1M LCH 2402MHz Ant1 NTN



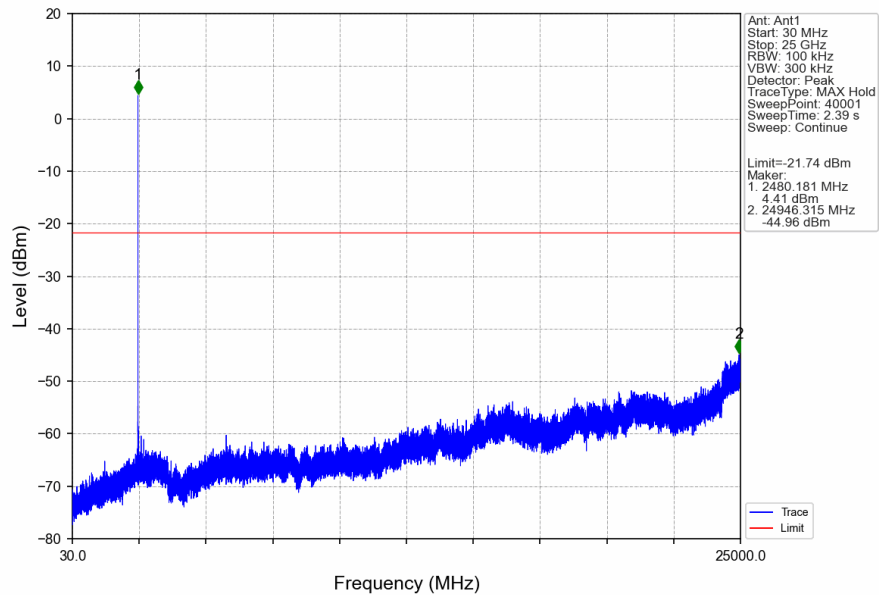
1M MCH 2440MHz Ant1 NTN



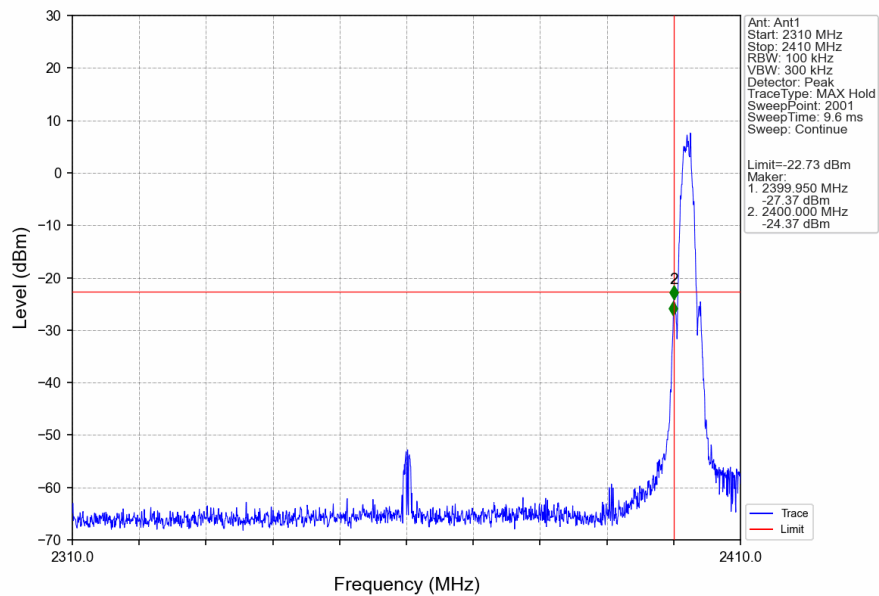
1M_HCH_2480MHz_Ant1_NTNV



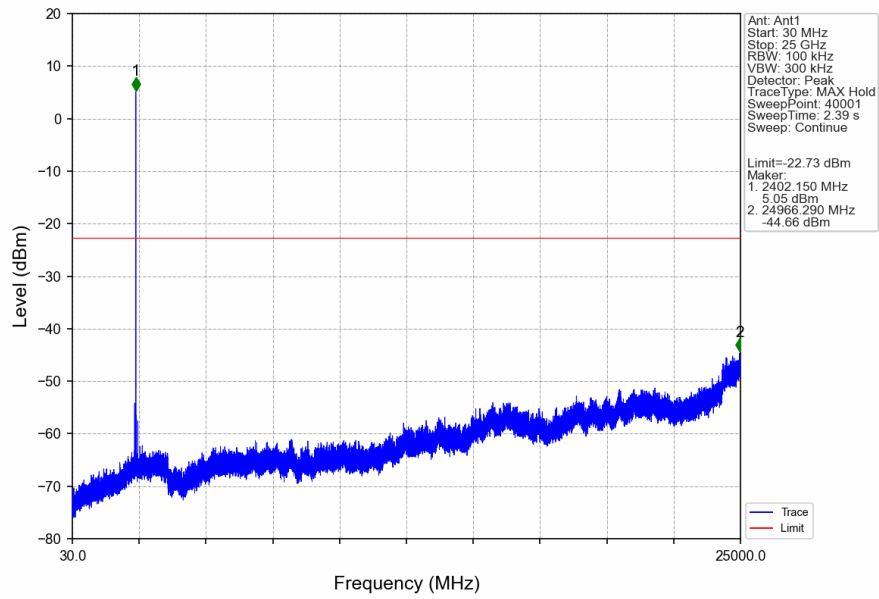
1M_HCH_2480MHz_Ant1_NTNV



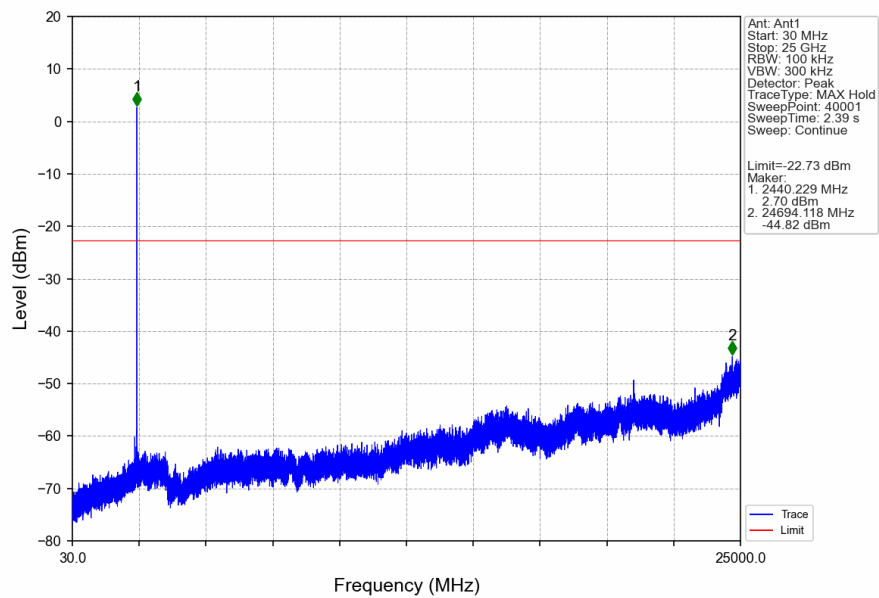
2M_LCH_2402MHz_Ant1_NTNV



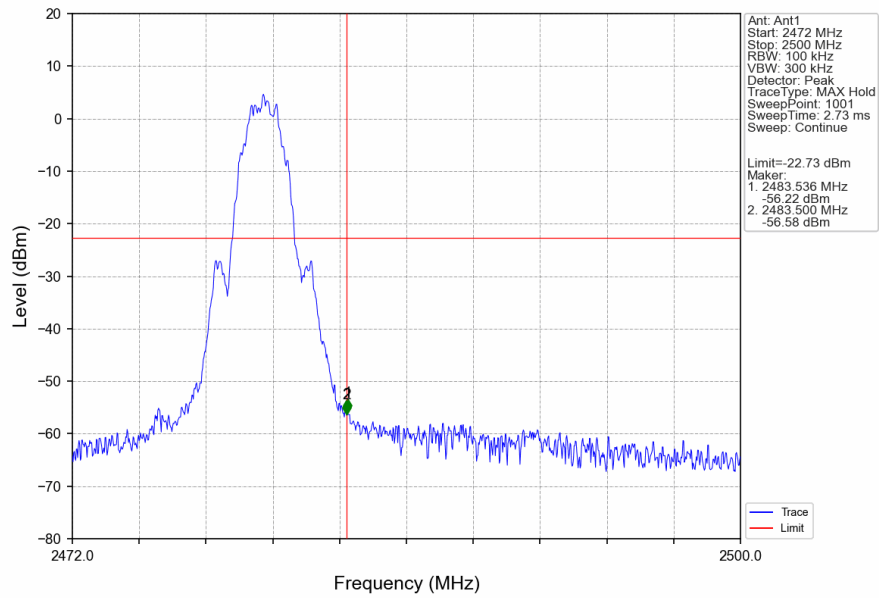
2M_LCH_2402MHz_Ant1_NTNV



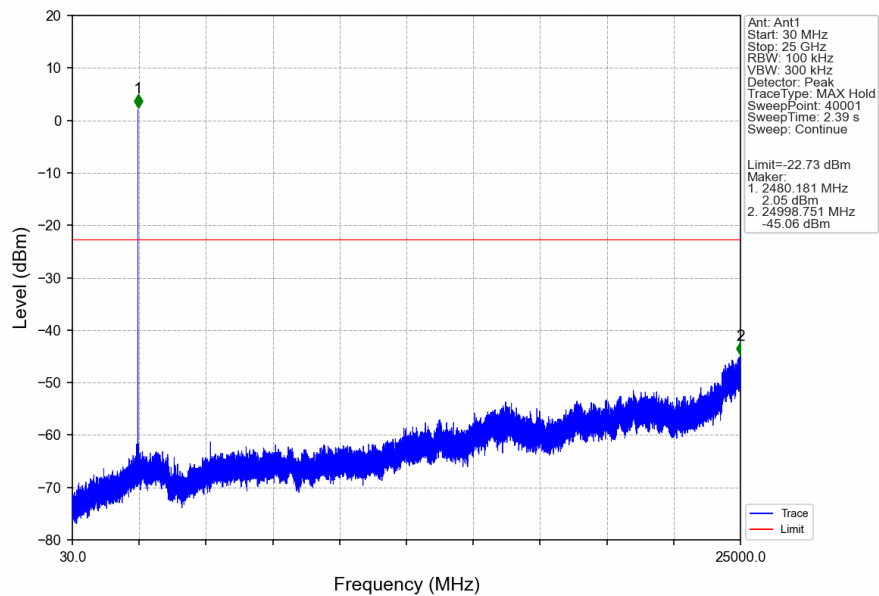
2M_MCH_2440MHz_Ant1_NTNV



2M_HCH_2480MHz_Ant1_NTNV



2M_HCH_2480MHz_Ant1_NTNV



- End of the Report -