

8. Out-of-band Emissions

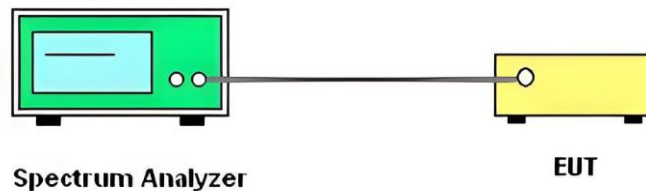
8.1. Test Limits

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 FCC Part 15.209(a) is not required.

8.2. Test Procedure

Conducted spurious emissions shall be measured for the transmit frequency, per 5.5 and 5.6, and at the maximum transmit powers. Connect the primary antenna port through an attenuator to the spectrum analyzer input; in the results, account for all losses between the unlicensed wireless device output and the spectrum analyzer. The instrument shall span 30 MHz to 10 times the operating frequency in GHz, with a resolution bandwidth of 100 kHz, video bandwidth of 300 kHz, and a coupled sweep time with a peak detector. The band 30 MHz to the highest frequency may be split into smaller spans, as long as the entire spectrum is covered.

8.3. Test Setup



8.4. Test Results

PASS.

The test results are listed in next pages.

Band Edge: Pass

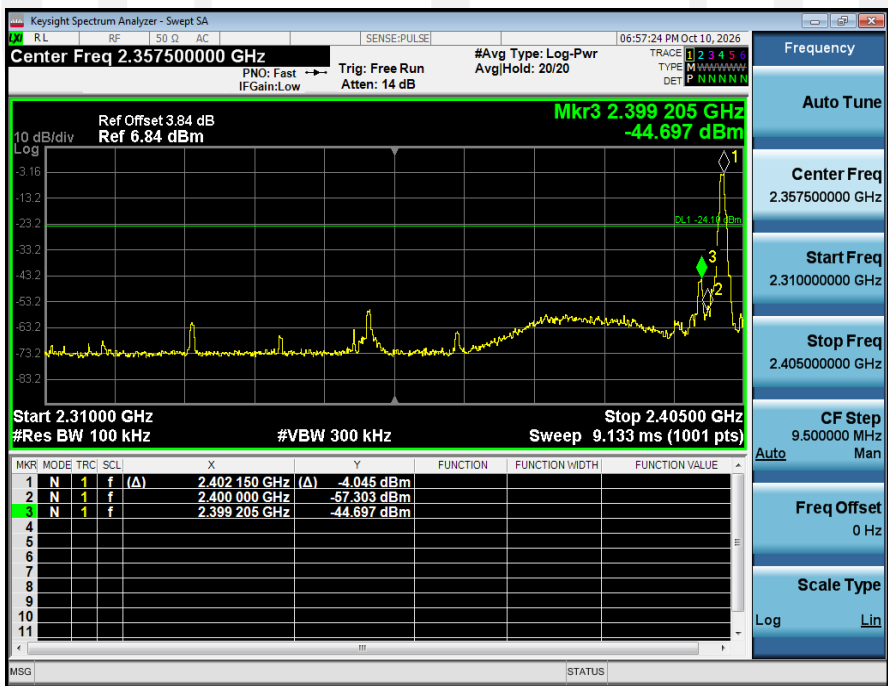
Condition	Antenna	Modulation	TX Mode	Ref_level(dBm)	Bandedge MAX.Value (dBm)	Limit(dBm)	Result
NVNT	ANT1	1-DH1	2402.00	-4.103	-44.697	-24.103	Pass
NVNT	ANT1	1-DH1	Hopping_LCH	-3.763	-45.808	-23.763	Pass
NVNT	ANT1	1-DH1	2480.00	-3.712	-55.484	-23.712	Pass
NVNT	ANT1	1-DH1	Hopping_HCH	-3.396	-55.588	-23.396	Pass
NVNT	ANT1	2-DH1	2402.00	-4.013	-44.968	-24.013	Pass
NVNT	ANT1	2-DH1	Hopping_LCH	-3.730	-45.004	-23.730	Pass
NVNT	ANT1	2-DH1	2480.00	-3.625	-55.213	-23.625	Pass
NVNT	ANT1	2-DH1	Hopping_HCH	-3.291	-56.751	-23.291	Pass
NVNT	ANT1	3-DH1	2402.00	-3.903	-44.733	-23.903	Pass
NVNT	ANT1	3-DH1	Hopping_LCH	-3.619	-44.856	-23.619	Pass
NVNT	ANT1	3-DH1	2480.00	-3.587	-55.130	-23.587	Pass
NVNT	ANT1	3-DH1	Hopping_HCH	-3.360	-56.775	-23.360	Pass



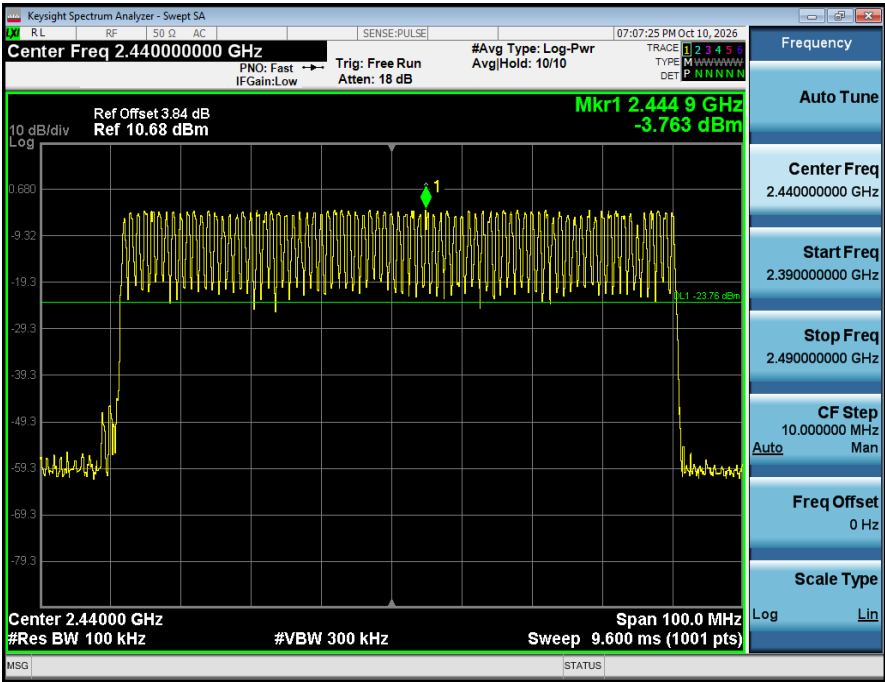
1_Reference_Level_NVNT_ANT1_1-DH1_2402_00



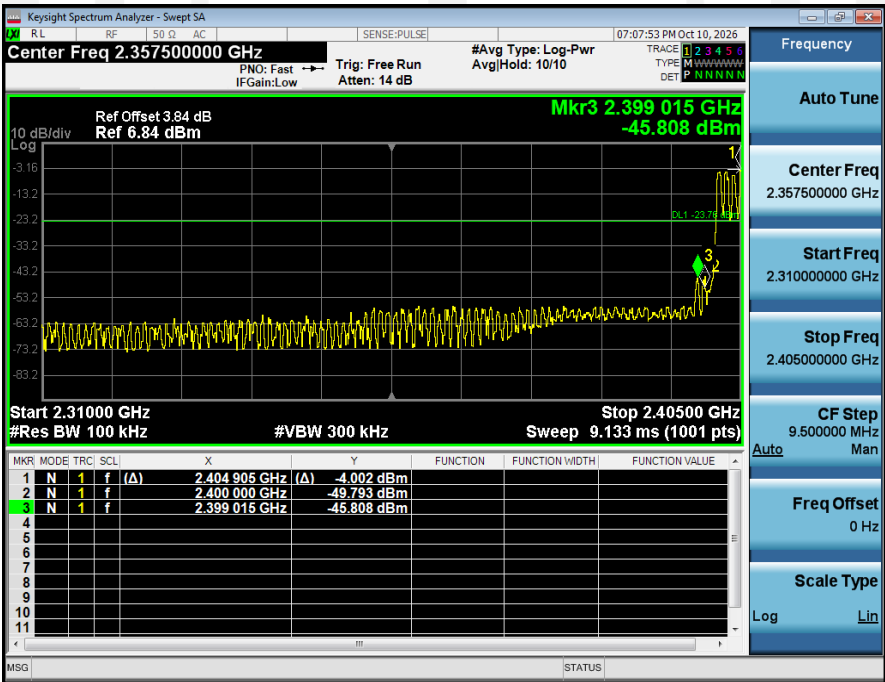
2_Bandedge_NVNT_ANT1_1-DH1_2402_00



1_Reference_Level_Hopping_NVNT_ANT1_1-DH1_Hopping



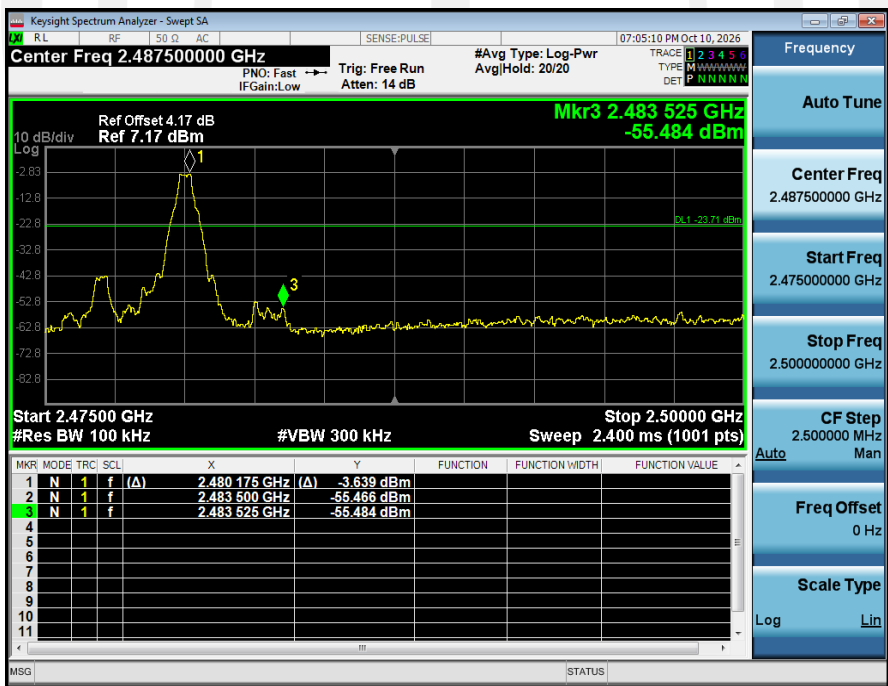
2_Band_Edge_(Hopping)_NVNT_ANT1_1-DH1_Hopping



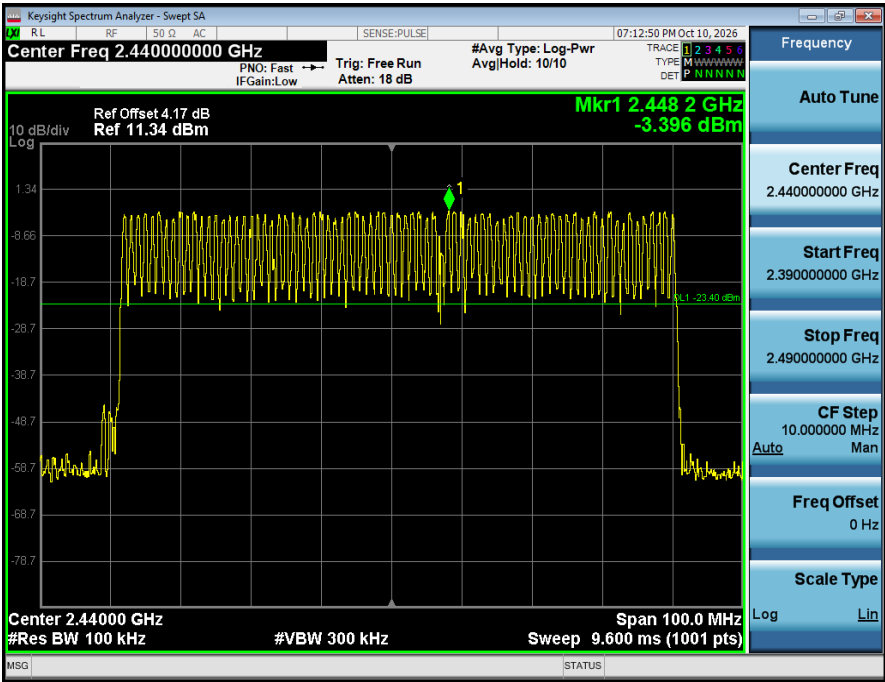
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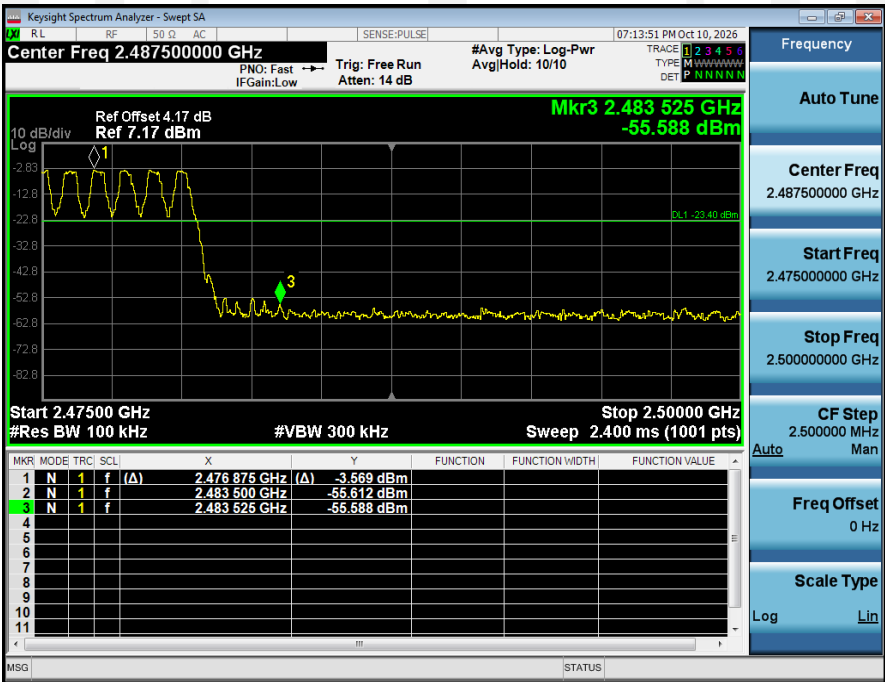
2_Bandedge_NVNT_ANT1_1-DH1_2480_00



1_Reference_Level_Hopping_NVNT_ANT1_1-DH1_Hopping



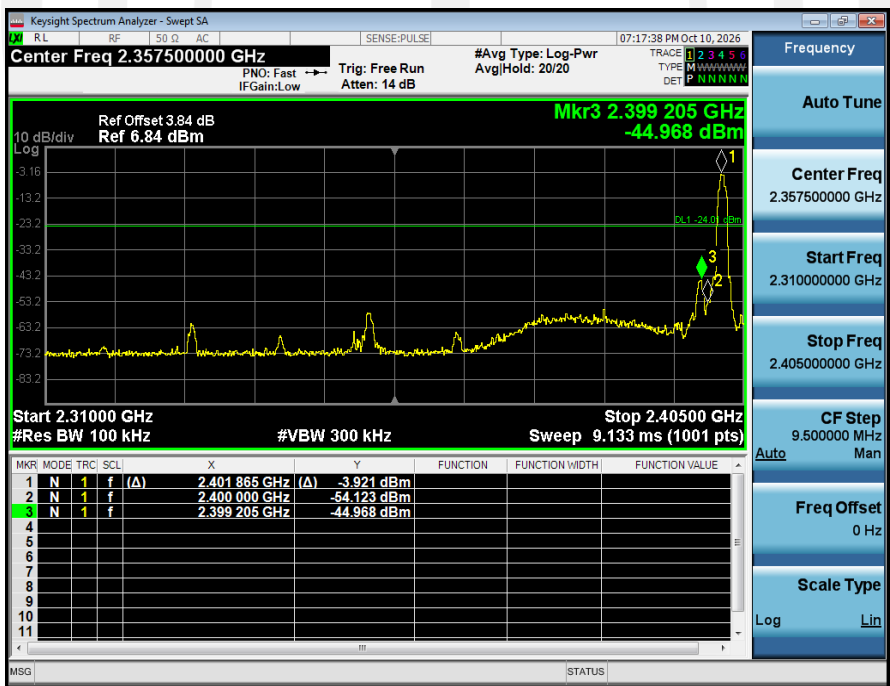
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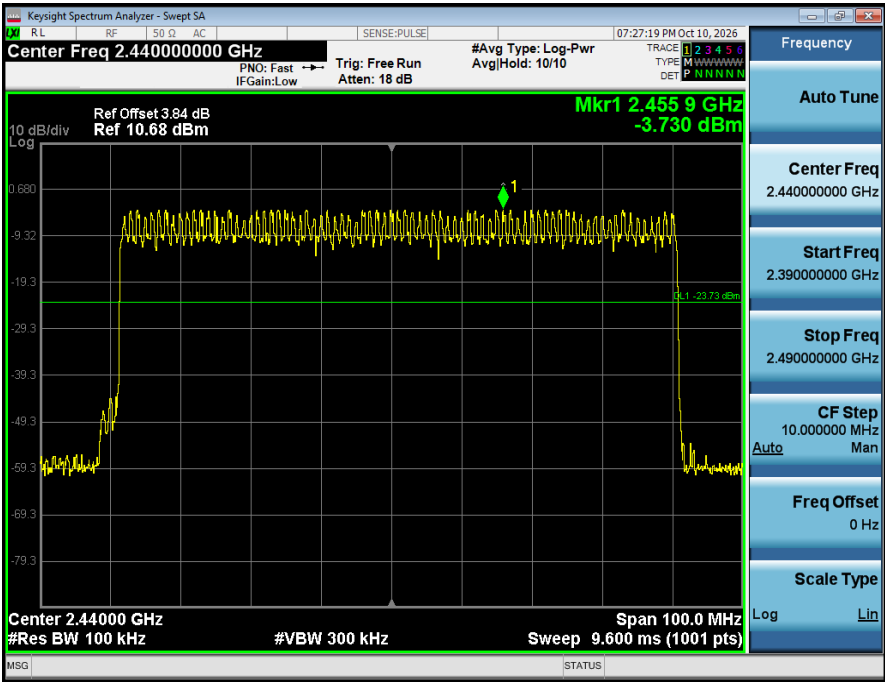
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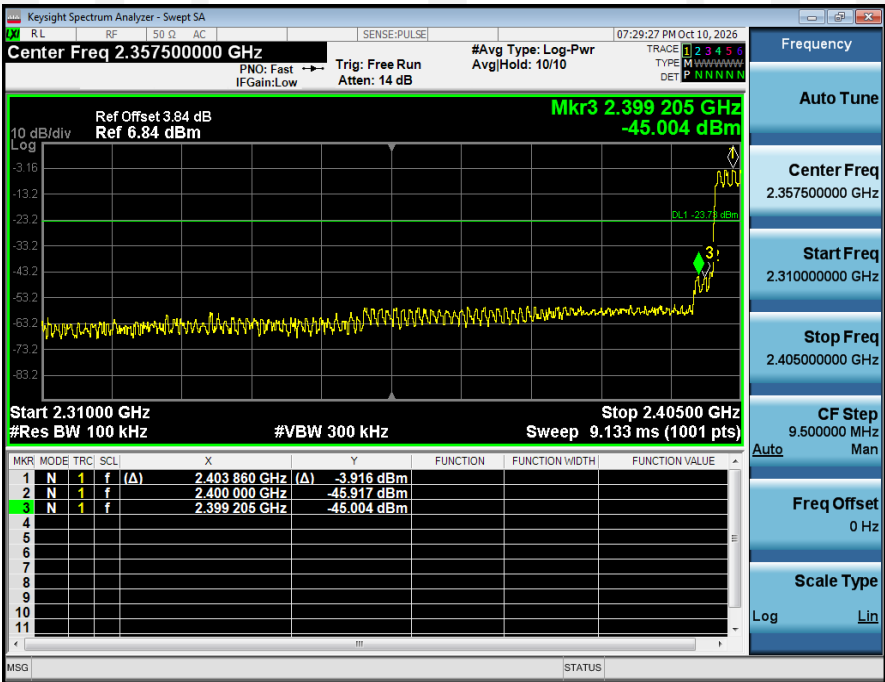
2_Bandedge_NVNT_ANT1_2-DH1_2402_00



1_Reference_Level_Hopping_NVNT_ANT1_2-DH1_Hopping



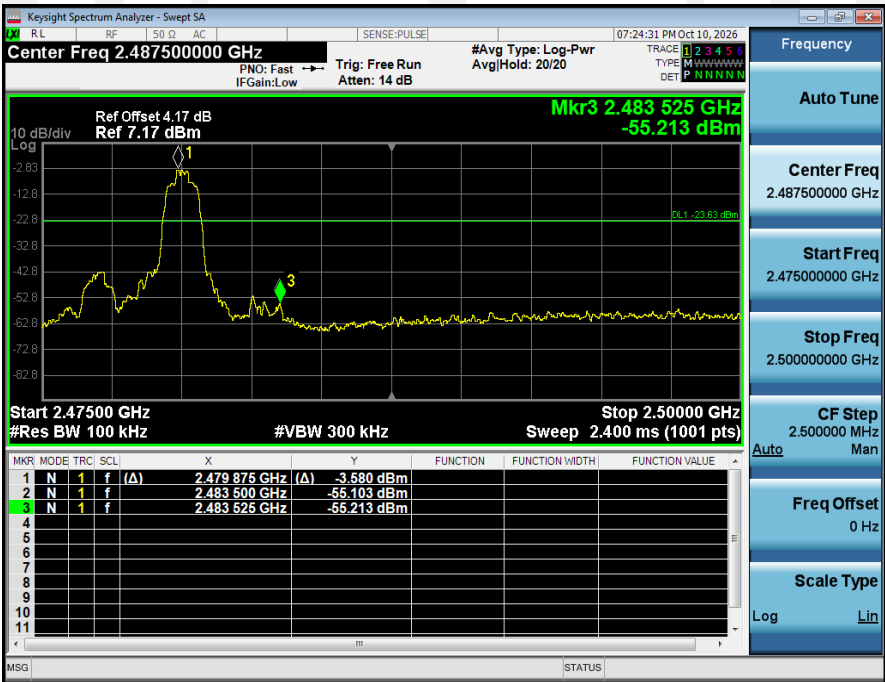
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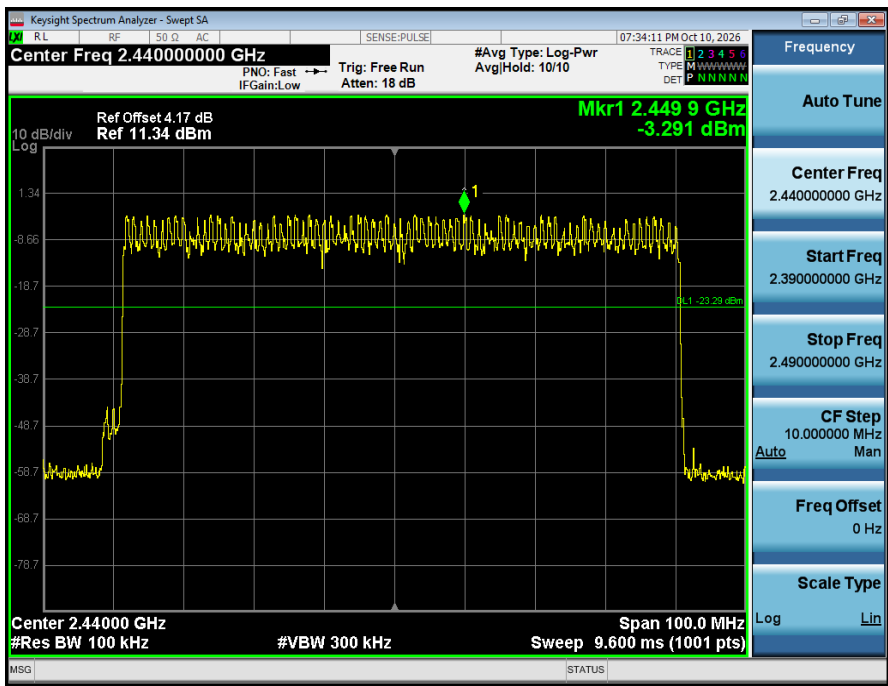
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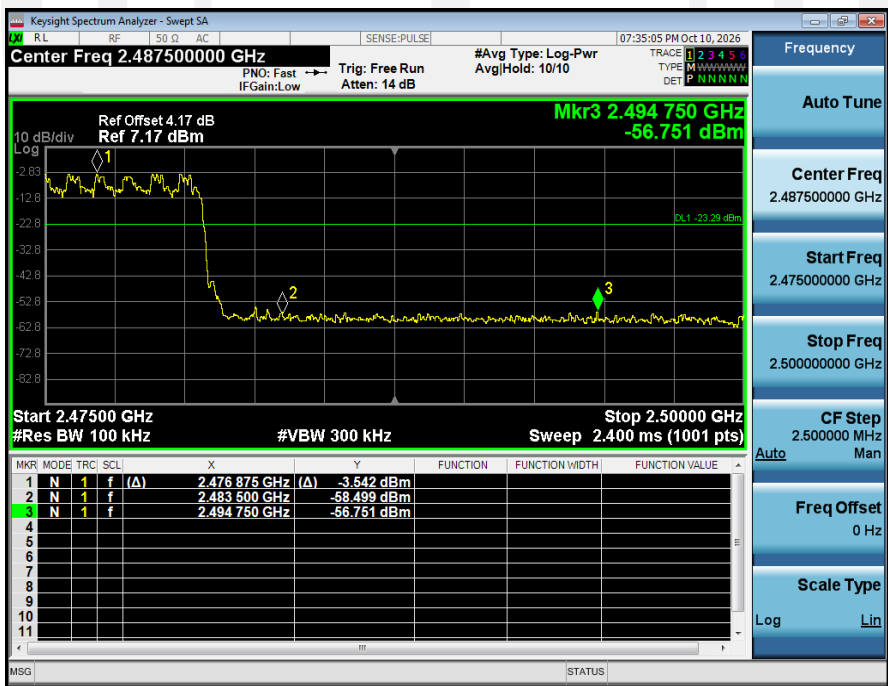
2_Bandedge_NVNT_ANT1_2-DH1_2480_00



1_Reference_Level_Hopping_NVNT_ANT1_2-DH1_Hopping



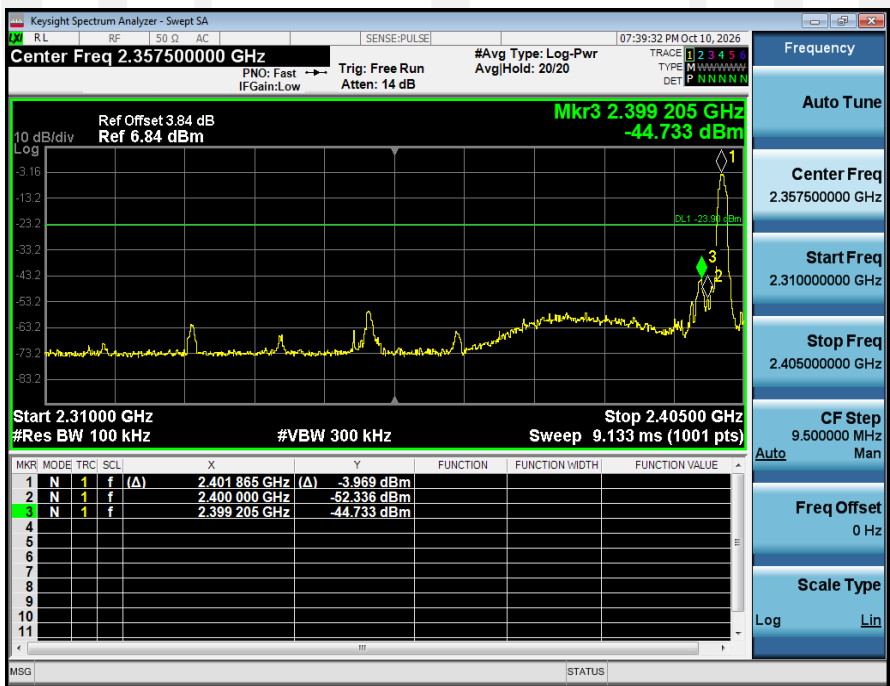
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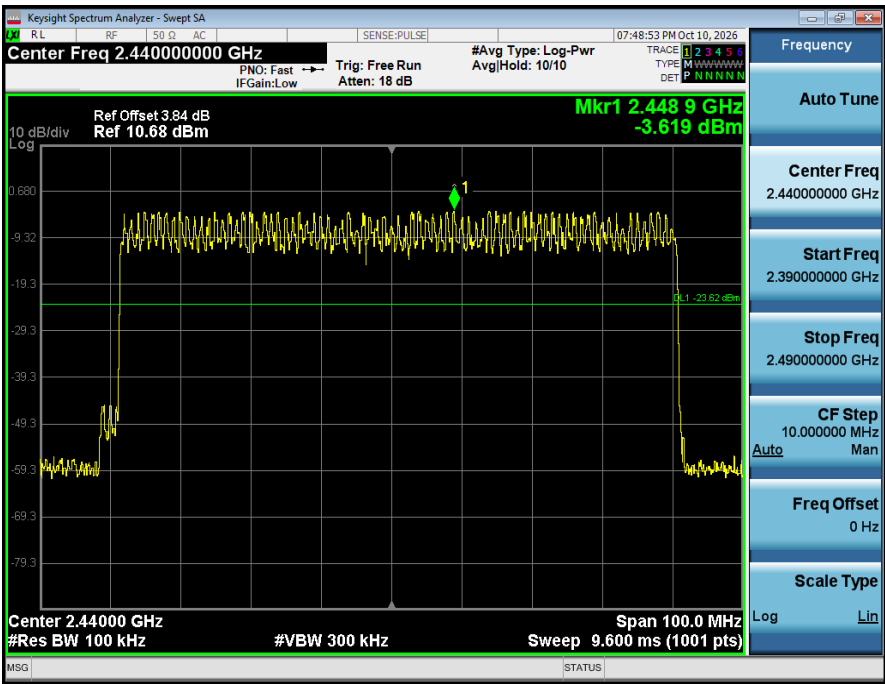
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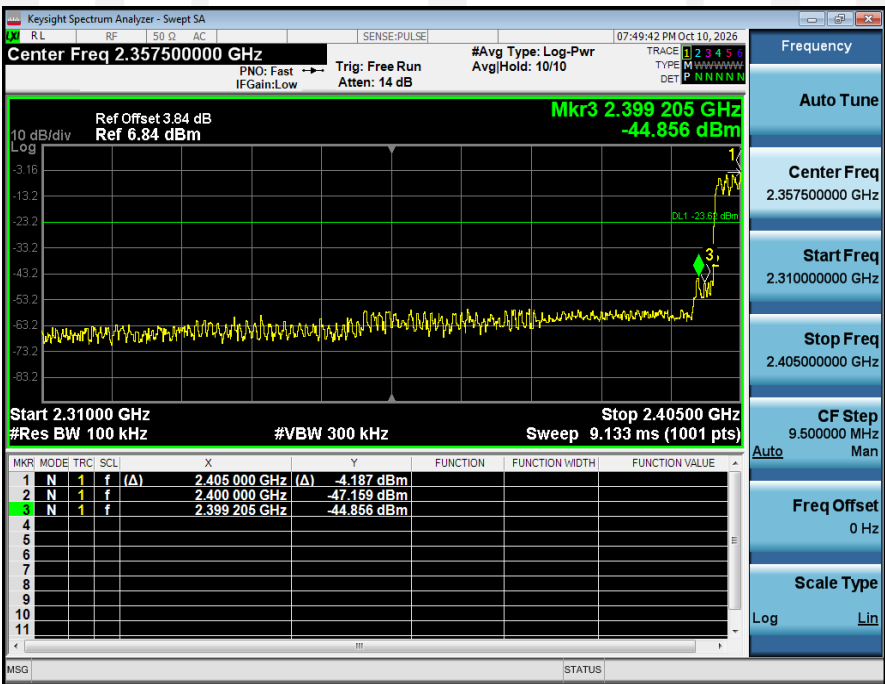
2_Bandedge_NVNT_ANT1_3-DH1_2402_00



1_Reference_Level_Hopping_NVNT_ANT1_3-DH1_Hopping



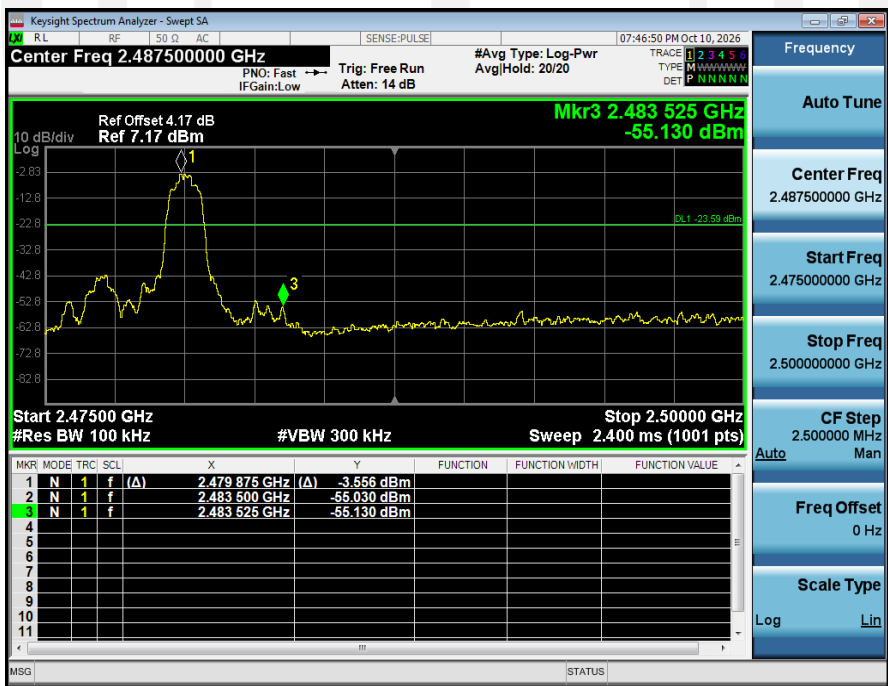
2_Band_Edge_(Hopping)_NVNT_ANT1_3-DH1_Hopping



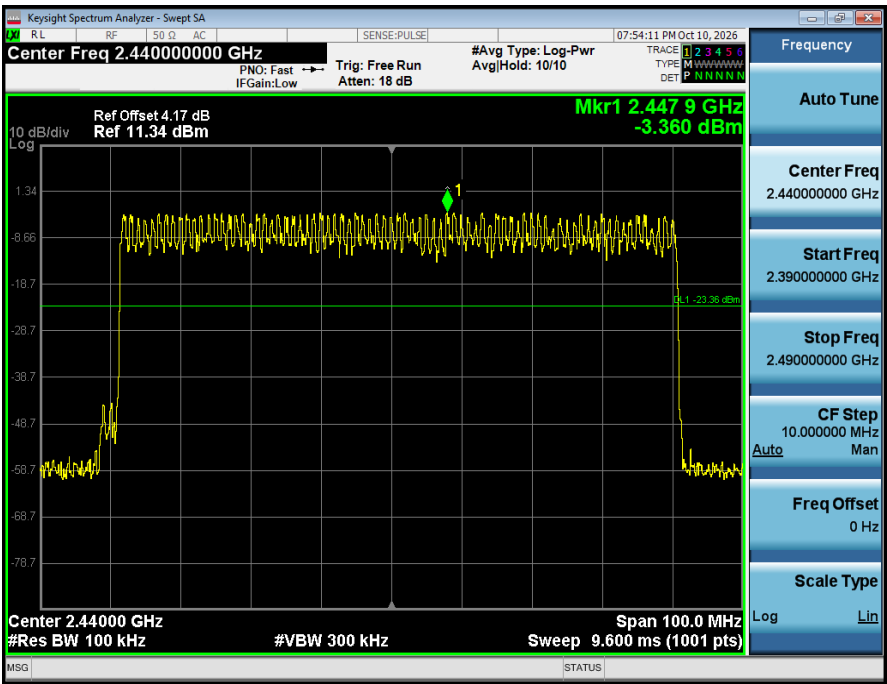
1_Reference_Level_NVNT_ANT1_3-DH1_2480_00



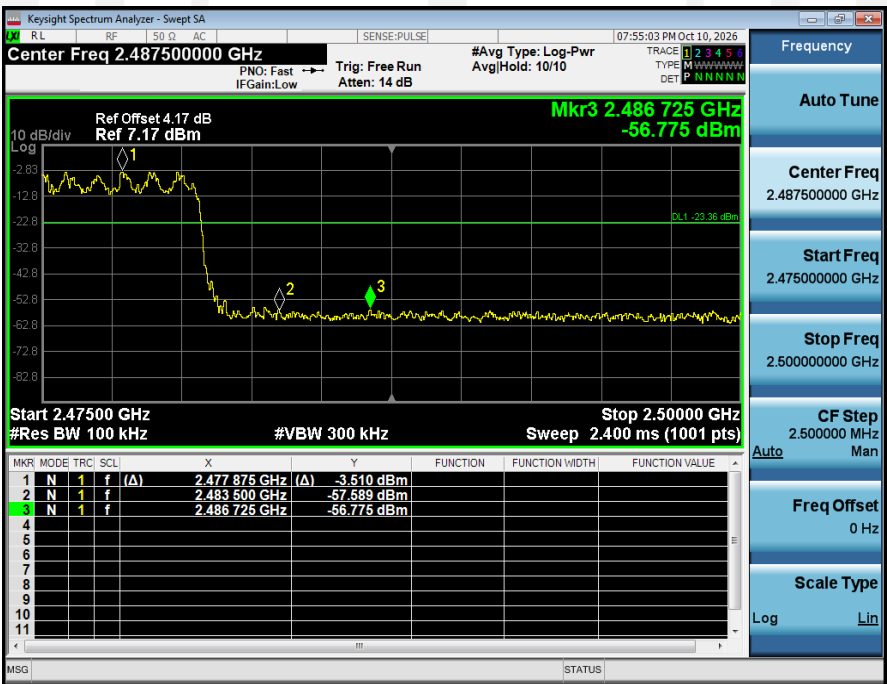
2_Bandedge_NVNT_ANT1_3-DH1_2480_00



1_Reference_Level_Hopping_NVNT_ANT1_3-DH1_Hopping



2_Band_Edge_(Hopping)_NVNT_ANT1_3-DH1_Hopping



Conducted spurious emission: Pass

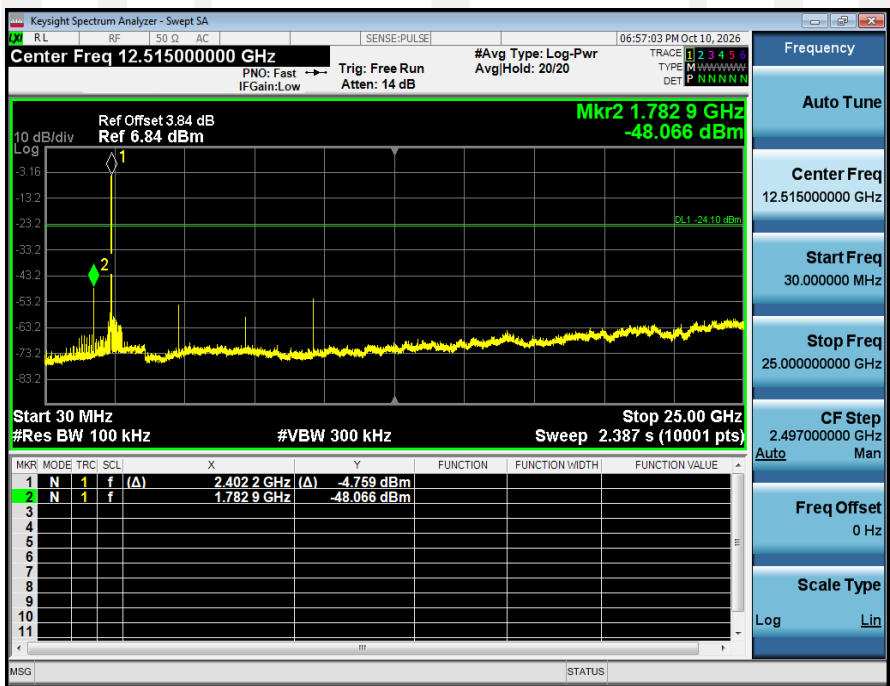
Condition	Antenna	Modulation	TX Mode	Ref_level(dBm)	Spurious MAX.Value(dBm)	Limit(dBm)	Result
NVNT	ANT1	1-DH1	2402.00	-4.103	-48.066	-24.103	Pass
NVNT	ANT1	1-DH1	2441.00	-3.606	-44.739	-23.606	Pass
NVNT	ANT1	1-DH1	2480.00	-3.712	-49.780	-23.712	Pass
NVNT	ANT1	2-DH1	2402.00	-4.013	-48.327	-24.013	Pass
NVNT	ANT1	2-DH1	2441.00	-3.554	-50.452	-23.554	Pass
NVNT	ANT1	2-DH1	2480.00	-3.625	-49.616	-23.625	Pass
NVNT	ANT1	3-DH1	2402.00	-3.903	-47.581	-23.903	Pass
NVNT	ANT1	3-DH1	2441.00	-3.482	-40.230	-23.482	Pass
NVNT	ANT1	3-DH1	2480.00	-3.587	-44.505	-23.587	Pass



1_Reference_Level_NVNT_ANT1_1-DH1_2402_00



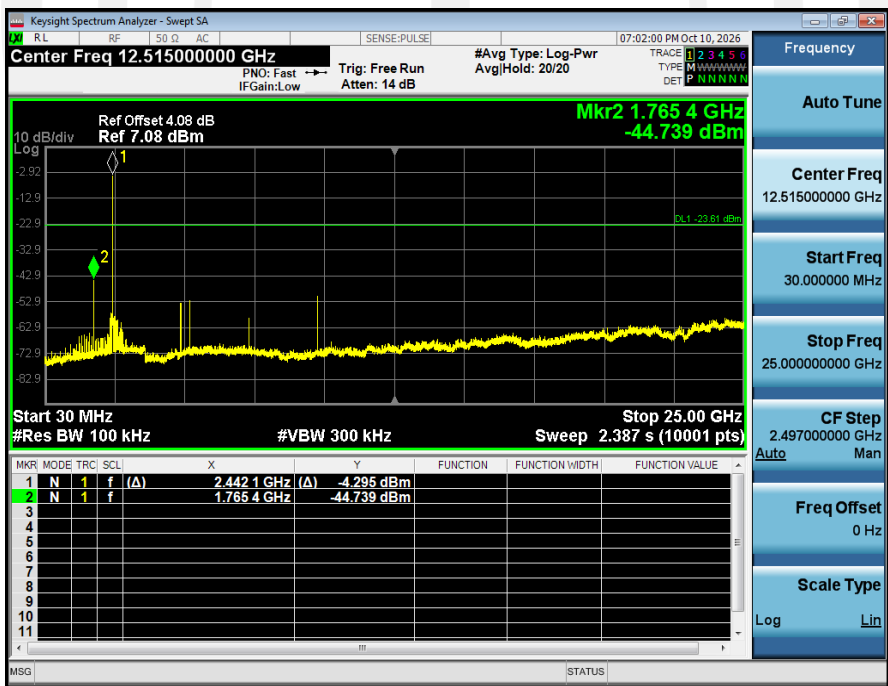
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1_Reference_Level_NVNT_ANT1_1-DH1_2441_00



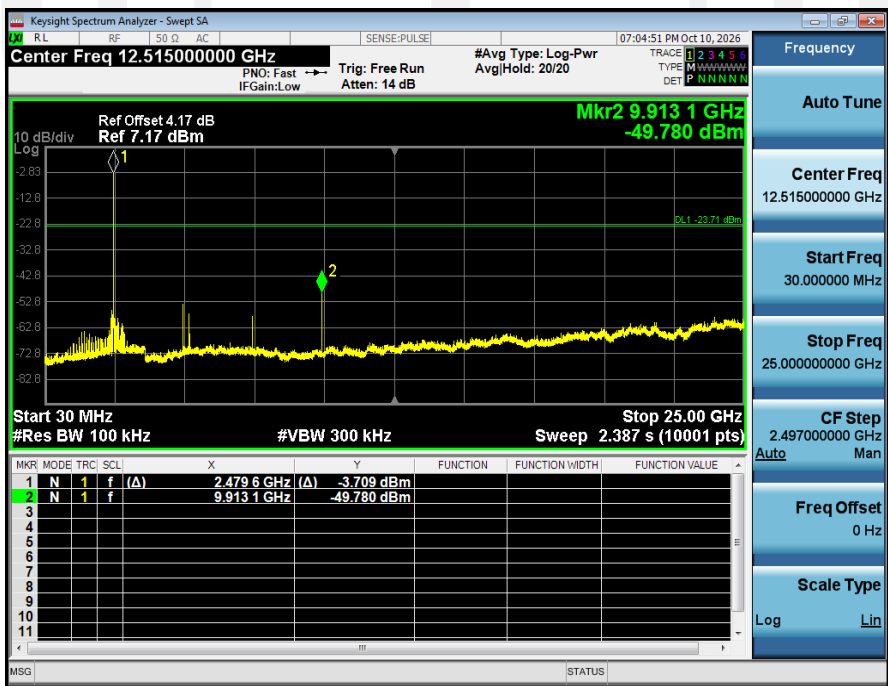
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1_Reference_Level_NVNT_ANT1_1-DH1_2480_00



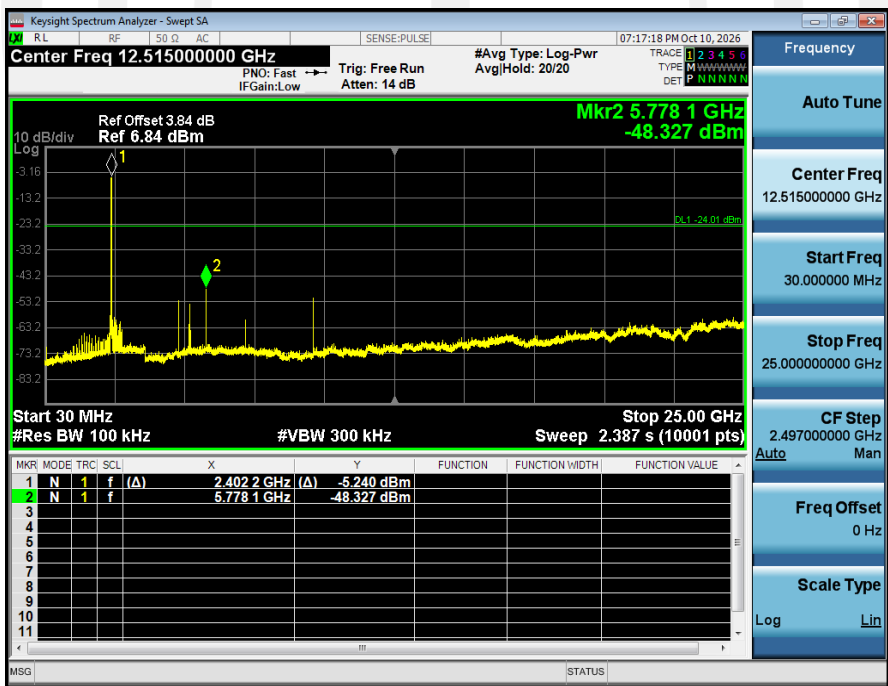
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1_Reference_Level_NVNT_ANT1_2-DH1_2402_00



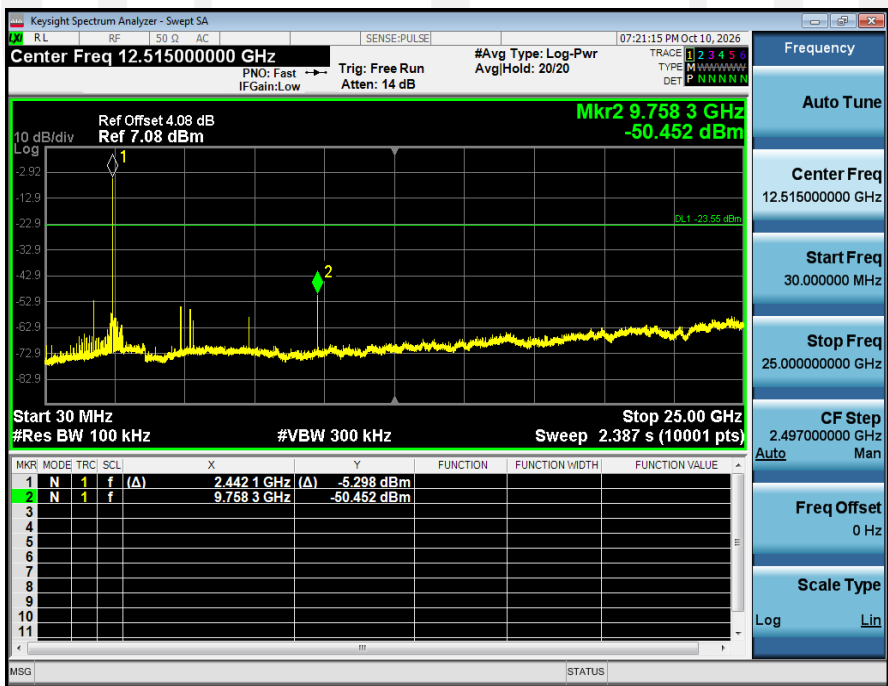
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1_Reference_Level_NVNT_ANT1_2-DH1_2441_00



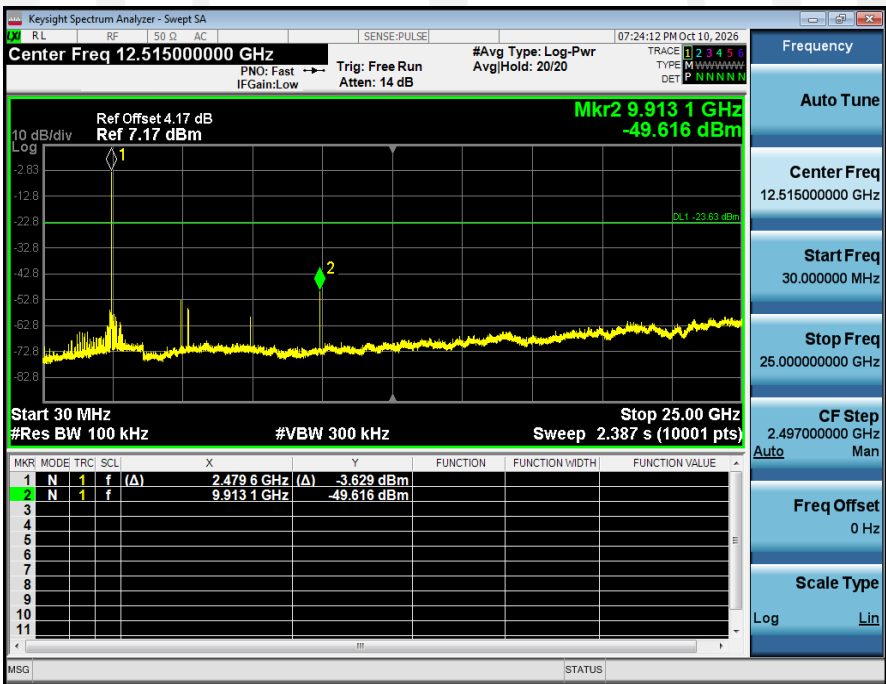
2_Spurious_Emissions_NVNT_ANT1_2-DH1_2441_00



1_Reference_Level_NVNT_ANT1_2-DH1_2480_00



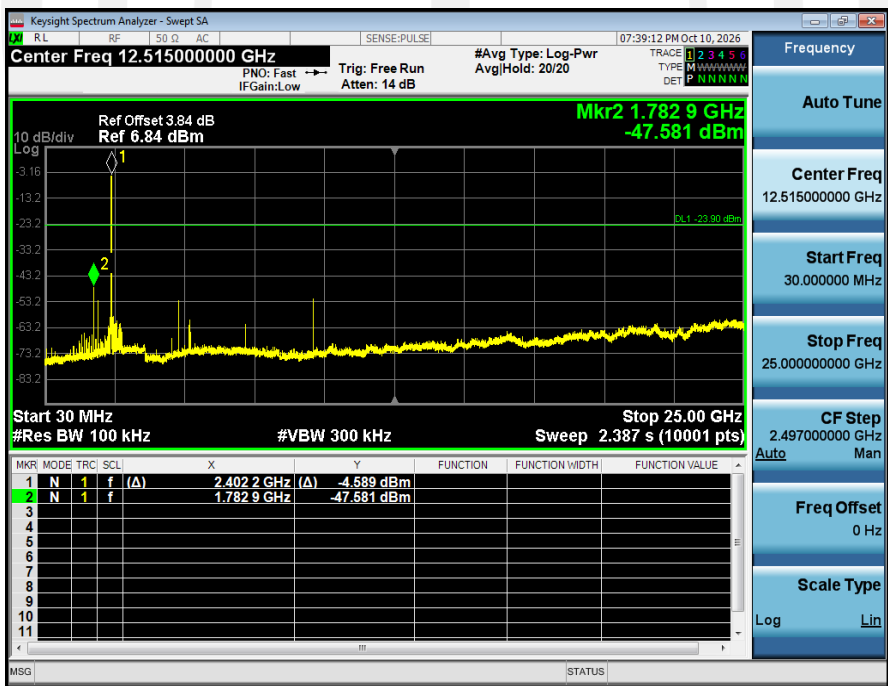
2_Spurious_Emissions_NVNT_ANT1_2-DH1_2480_00



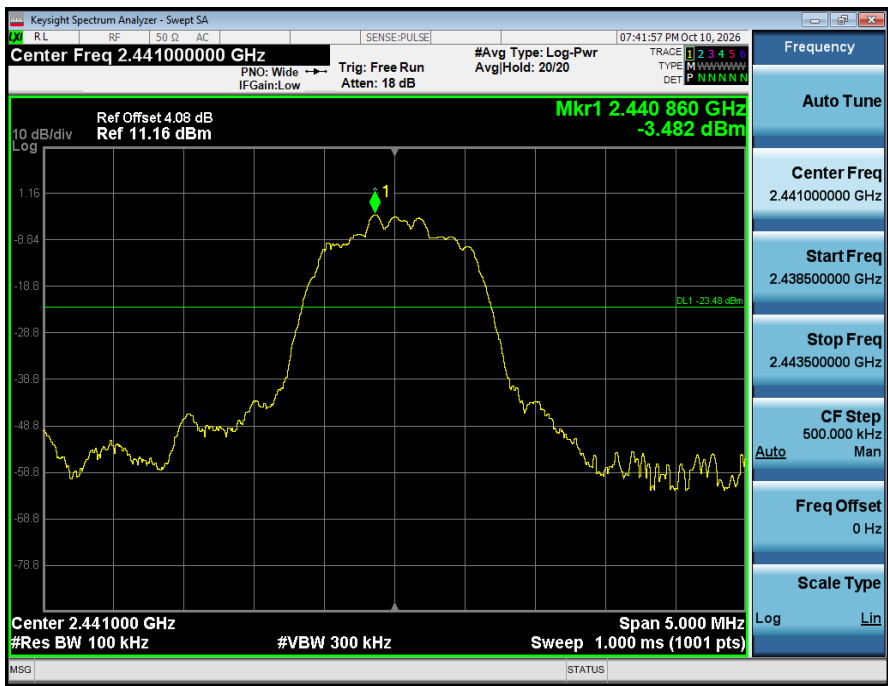
1_Reference_Level_NVNT_ANT1_3-DH1_2402_00



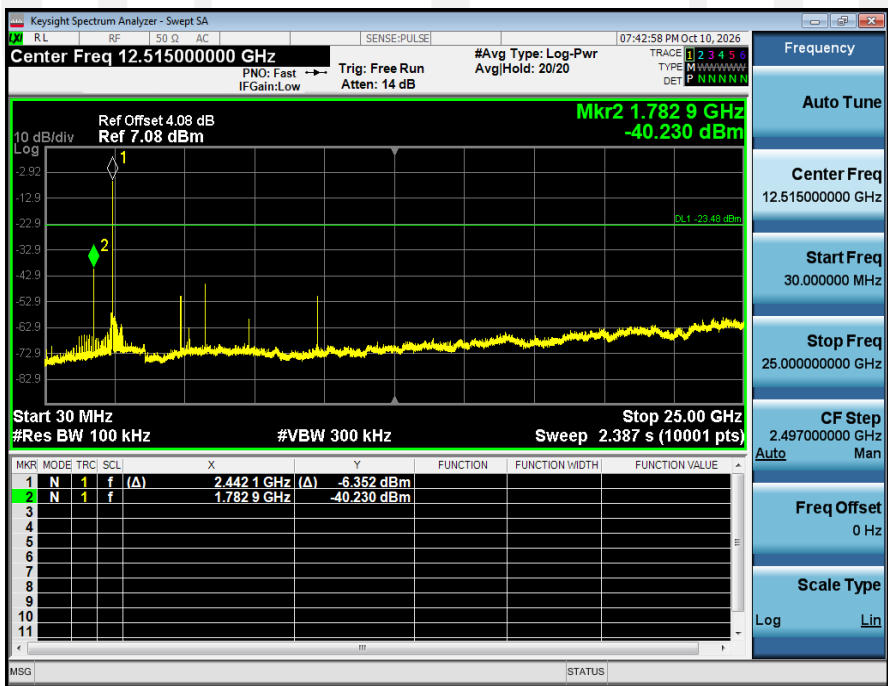
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1_Reference_Level_NVNT_ANT1_3-DH1_2441_00



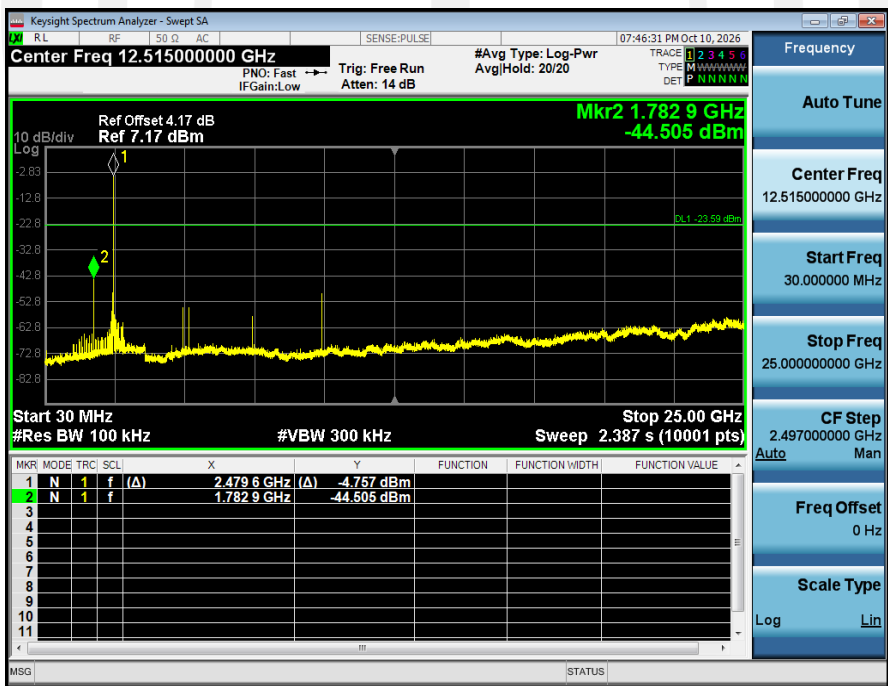
2_Spurious_Emissions_NVNT_ANT1_3-DH1_2441_00



1_Reference_Level_NVNT_ANT1_3-DH1_2480_00



2_Spurious_Emissions_NVNT_ANT1_3-DH1_2480_00



9. Spurious Emission

9.1. Test Limits

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

Note: The peak limit is 20 dB higher than the average limit

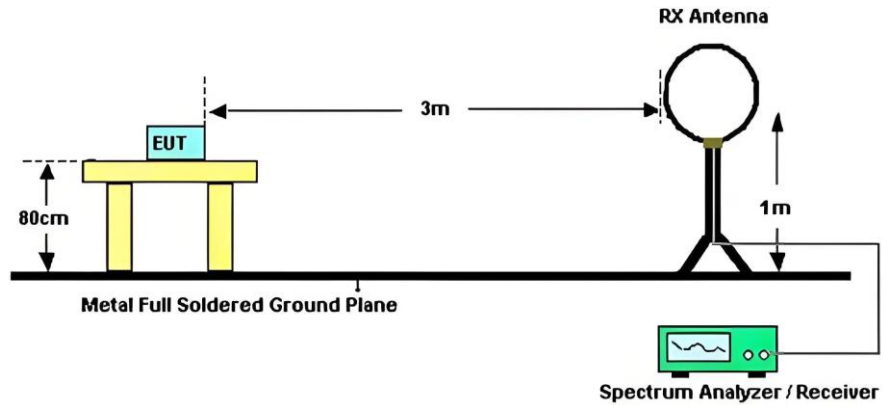
All the emissions appearing within 15.205 restricted frequency bands shall not exceed the limits shown in 15.209, all the other emissions shall be at least 20dB below the fundamental emissions, or comply with 15.209 limits.

15.205 Restricted frequency band

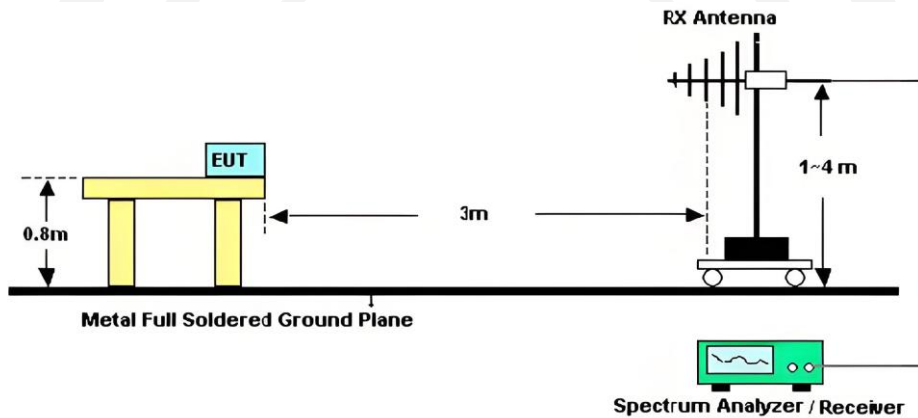
MHz	MHz	MHz	GHz
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
¹ 0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52475 - 156.52525	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.7 - 156.9	2690 - 2900	22.01 - 23.12
8.41425 - 8.41475	162.0125 - 167.17	3260 - 3267	23.6 - 24.0
12.29 - 12.293	167.72 - 173.2	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	240 - 285	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	322 - 335.4	3600 - 4400	(²)

9.2. Block Diagram of Test setup

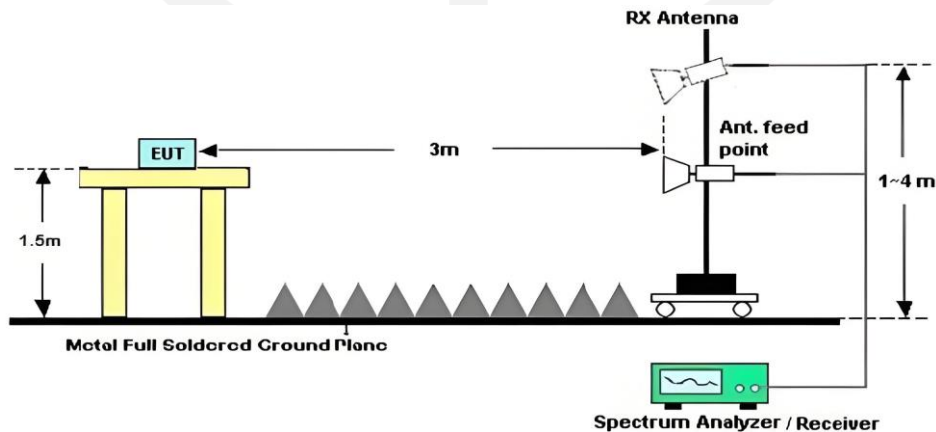
a. In 3m Anechoic Chamber Test Setup Diagram for below 30MHz



b. In 3m Anechoic Chamber Test Setup Diagram for below 1GHz



c. In 3m Anechoic Chamber Test Setup Diagram for frequency above 1GHz



9.3. Test Procedure

- (1) The test equipment is placed on a non-metallic tabletop. For false radiation emission tests below 1G, the distance between the equipment and the ground surface is 80 cm; for false radiation emission tests above 1G, the distance is 1.5 meters. The equipment is situated within a semi-anechoic chamber.
- (2) Setup EUT and simulator
- (3) Test antenna was located 3m from the EUT on an adjustable mast. Below pre-scan procedure was first performed in order to find prominent radiated emissions.
 - (a) Change work frequency or channel of device if practicable.
 - (b) Change modulation type of device if practicable.
 - (c) Rotated EUT though three orthogonal axes to determine the attitude of EUT arrangement produces highest emissions
- (4) Spectrum frequency from 9KHz to 25GHz (tenth harmonic of fundamental frequency) was investigated
- (5) For final emissions measurements at each frequency of interest, the EUT were rotated and the antenna height was varied between 1m and 4m in order to maximize the emission. Measurements in both horizontal and vertical polarities were made and the data was recorded. In order to find the maximum emission, the relative positions of equipments and all of the interface cables were changed according to ANSI C63.10-2020+Cor.1-2023 on Radiated Emission test.
- (6) For emissions above 1GHz, both Peak and Average level were measured with Spectrum Analyzer, and the RBW is set at 1MHz, VBW is set at 3MHz for Peak measure; RBW is set at 1MHz, VBW is set at 3MHz for Average measure.

Test setup information:

9KHz~150KHz	RBW 200Hz	VBW 1KHz
150KHz~30MHz	RBW 9KHz	VBW 30KHz
30MHz~1GHz	RBW 120KHz	VBW 300KHz
Above1GHz	RBW 1MHz	VBW 3MHz

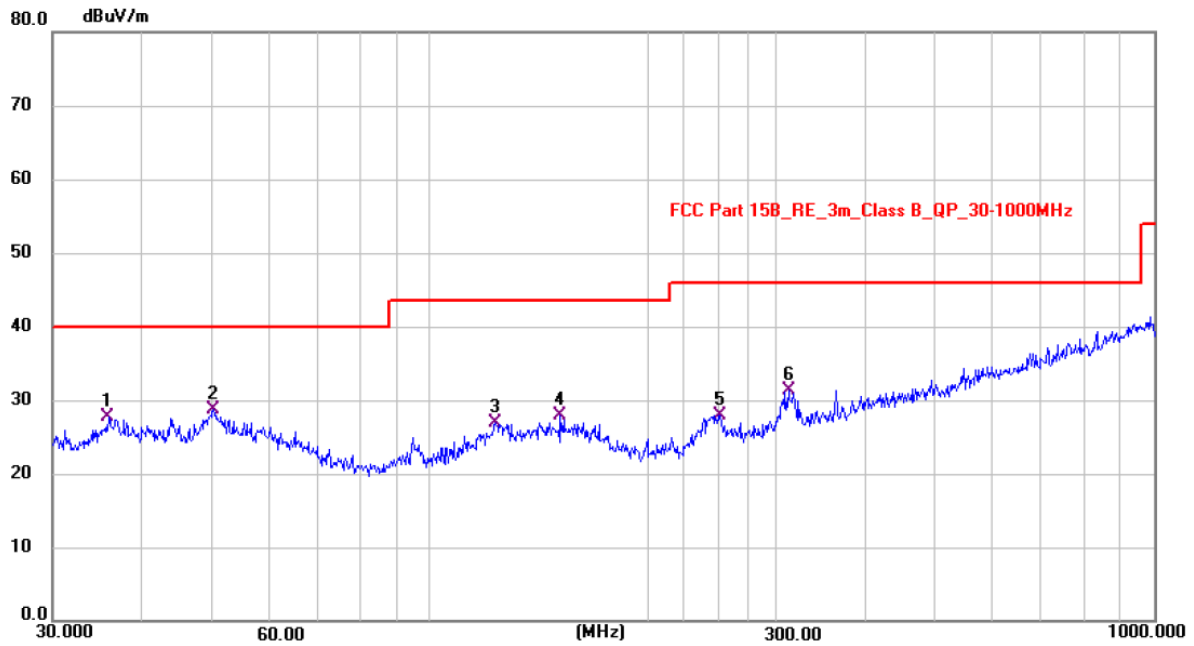
9.4. Test Results

We have scanned from 9kHz to the 10th harmonic of the EUT's highest frequency.

Detailed information please see the following page.

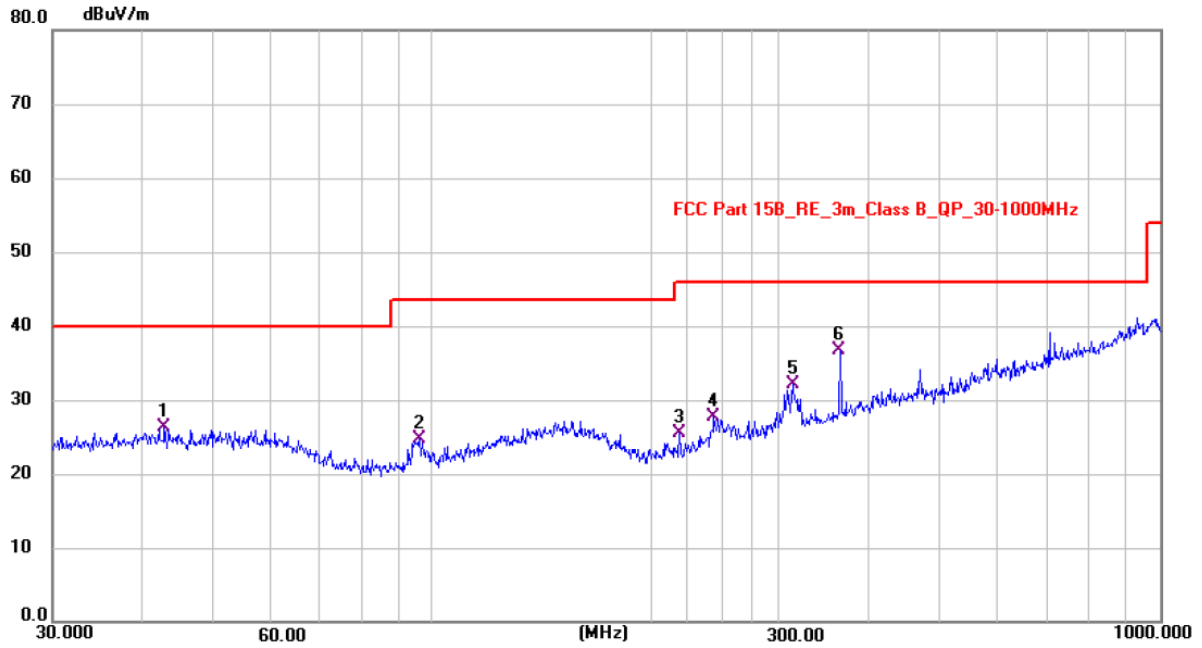
From 9KHz to 30MHz:	
Test Date : 2026.10.14	Temperature : 26°C
Test Engineer : Felix Pang	Humidity : 54%
Test Mode : GFSK mode	
Test Voltage : AC 120V/60Hz	
Test Results : PASS	
Note:	The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

From 30MHz to 1000MHz:	
Test Date : 2026.10.14	Temperature : 26°C
Test Engineer : Felix Pang	Humidity : 54%
Test Mode : GFSK mode	
Test Voltage : AC 120V/60Hz	
Test Results : PASS	
Note:	1. The test results are listed in next pages. 2. If the limits for the measurement with the average detector are met when using a receiver with a peak detector, the test unit shall be deemed to meet both limits and the measurement with the average detector and quasi-peak detector need not be carried out. 3. All modes have been tested, and only worst data of GFSK mode, Channel 2402MHz was listed in this report.

Polarization: Vertical

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	35.9849	14.08	13.70	27.78	40.00	-12.22	QP
2 *	50.1225	15.04	13.73	28.77	40.00	-11.23	QP
3	123.0495	13.51	13.36	26.87	43.50	-16.63	QP
4	151.5307	12.77	15.21	27.98	43.50	-15.52	QP
5	251.8419	14.45	13.54	27.99	46.00	-18.01	QP
6	312.8643	15.80	15.50	31.30	46.00	-14.70	QP

Note: Level = Reading + Factor Margin = Level - Limit

Polarization: Horizontal

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	42.8058	12.19	14.08	26.27	40.00	-13.73	QP
2	96.0144	14.07	10.68	24.75	43.50	-18.75	QP
3	218.8834	13.18	12.26	25.44	46.00	-20.56	QP
4	243.4839	14.40	13.34	27.74	46.00	-18.26	QP
5	313.2760	16.67	15.51	32.18	46.00	-13.82	QP
6 *	364.0999	19.82	16.85	36.67	46.00	-9.33	QP

Note: Level = Reading + Factor Margin = Level - Limit

From 1GHz to 25GHz:	
Test Date : 2026.10.14	Temperature : 26℃
Test Engineer : Felix Pang	Humidity : 54%
Test Mode : GFSK, $\pi/4$ DQPSK, 8DPSK mode	
Test Voltage : DC 3.7V	
Test Results : PASS	
Note:	1. The test results are listed in next pages. 2. If the limits for the measurement with the average detector are met when using a receiver with a peak detector, the test unit shall be deemed to meet both limits and the measurement with the average detector and quasi-peak detector need not be carried out. 3. If the limits for the measurement with the average detector are met when using a receiver with a quasi-peak detector, the test unit shall be deemed to meet both limits and the measurement with the average detector need not be carried out.

Test Mode : GFSK TX Low								
No.	Freq MHz	Polarity	Reading (dBuV/m)	Correct Factor	Result (dBuV/m)	Limit (dBuV/m)	Margin	Remark
1	4804	V	56.80	-13.25	43.55	74.00	-30.45	Peak
2	4804	V	47.84	-13.25	34.59	54.00	-19.41	Avg
3	7206	--	--	--	--	--	--	--
4	9608	--	--	--	--	--	--	--
5	4804	H	58.04	-13.25	44.79	74.00	-29.21	Peak
6	4804	H	44.92	-13.25	31.67	54.00	-22.33	Avg
7	7206	--	--	--	--	--	--	--
8	9608	--	--	--	--	--	--	--
Test Mode : GFSK TX Mid								
1	4882	V	57.21	-12.98	44.23	74.00	-29.77	Peak
2	4882	V	46.66	-12.98	33.68	54.00	-20.32	Avg
3	7323	--	--	--	--	--	--	--
4	9764	--	--	--	--	--	--	--
5	4882	H	54.68	-12.98	41.70	74.00	-32.30	Peak
6	4882	H	47.71	-12.98	34.73	54.00	-19.27	Avg
7	7323	--	--	--	--	--	--	--
8	9764	--	--	--	--	--	--	--
Test Mode : GFSK TX High								
1	4960	V	59.98	-12.70	47.28	74.00	-26.72	Peak
2	4960	V	48.29	-12.70	35.59	54.00	-18.41	Avg
3	7440	--	--	--	--	--	--	--
4	9920	--	--	--	--	--	--	--
5	4960	H	57.37	-12.70	44.67	74.00	-29.33	Peak
6	4960	H	45.20	-12.70	32.50	54.00	-21.50	Avg
7	7440	--	--	--	--	--	--	--
8	9920	--	--	--	--	--	--	--
Note:	1. Means other frequency and mode comply with standard requirements and at least have 20dB margin. 2. Correct Factor=Cable Loss+ Antenna Factor-Amplifier Gain. Result=Reading + Correct Factor. Margin= Result-Limit.							

Test Mode : $\pi/4$ DQPSK TX Low								
No.	Freq MHz	Polarity	Reading (dBuV/m)	Correct Factor	Result (dBuV/m)	Limit (dBuV/m)	Margin	Remark
1	4804	V	60.09	-13.25	46.84	74.00	-27.16	Peak
2	4804	V	49.71	-13.25	36.46	54.00	-17.54	Avg
3	7206	--	--	--	--	--	--	--
4	9608	--	--	--	--	--	--	--
5	4804	H	56.12	-13.25	42.87	74.00	-31.13	Peak
6	4804	H	47.87	-13.25	34.62	54.00	-19.38	Avg
7	7206	--	--	--	--	--	--	--
8	9608	--	--	--	--	--	--	--
Test Mode : $\pi/4$ DQPSK TX Mid								
1	4882	V	57.52	-12.98	44.54	74.00	-29.46	Peak
2	4882	V	49.39	-12.98	36.41	54.00	-17.59	Avg
3	7323	--	--	--	--	--	--	--
4	9764	--	--	--	--	--	--	--
5	4882	H	57.02	-12.98	44.04	74.00	-29.96	Peak
6	4882	H	46.97	-12.98	33.99	54.00	-20.01	Avg
7	7323	--	--	--	--	--	--	--
8	9764	--	--	--	--	--	--	--
Test Mode : $\pi/4$ DQPSK TX High								
1	4960	V	58.27	-12.70	45.57	74.00	-28.43	Peak
2	4960	V	48.04	-12.70	35.34	54.00	-18.66	Avg
3	7440	--	--	--	--	--	--	--
4	9920	--	--	--	--	--	--	--
5	4960	H	55.44	-12.70	42.74	74.00	-31.26	Peak
6	4960	H	46.62	-12.70	33.92	54.00	-20.08	Avg
7	7440	--	--	--	--	--	--	--
8	9920	--	--	--	--	--	--	--
Note:	1. Means other frequency and mode comply with standard requirements and at least have 20dB margin. 2. Correct Factor=Cable Loss+ Antenna Factor-Amplifier Gain. Result=Reading + Correct Factor. Margin= Result-Limit.							

Test Mode : 8DPSK TX Low								
No.	Freq MHz	Polarity	Reading (dBuV/m)	Correct Factor	Result (dBuV/m)	Limit (dBuV/m)	Margin	Remark
1	4804	V	57.49	-13.25	44.24	74.00	-29.76	Peak
2	4804	V	49.79	-13.25	36.54	54.00	-17.46	Avg
3	7206	--	--	--	--	--	--	--
4	9608	--	--	--	--	--	--	--
5	4804	H	55.49	-13.25	42.24	74.00	-31.76	Peak
6	4804	H	48.36	-13.25	35.11	54.00	-18.89	Avg
7	7206	--	--	--	--	--	--	--
8	9608	--	--	--	--	--	--	--
Test Mode : 8DPSK TX Mid								
1	4882	V	56.57	-12.98	43.59	74.00	-30.41	Peak
2	4882	V	47.51	-12.98	34.53	54.00	-19.47	Avg
3	7323	--	--	--	--	--	--	--
4	9764	--	--	--	--	--	--	--
5	4882	H	58.14	-12.98	45.16	74.00	-28.84	Peak
6	4882	H	45.62	-12.98	32.64	54.00	-21.36	Avg
7	7323	--	--	--	--	--	--	--
8	9764	--	--	--	--	--	--	--
Test Mode : 8D PSK TX High								
1	4960	V	56.59	-12.70	43.89	74.00	-30.11	Peak
2	4960	V	49.64	-12.70	36.94	54.00	-17.06	Avg
3	7440	--	--	--	--	--	--	--
4	9920	--	--	--	--	--	--	--
5	4960	H	57.49	-12.70	44.79	74.00	-29.21	Peak
6	4960	H	45.90	-12.70	33.20	54.00	-20.80	Avg
7	7440	--	--	--	--	--	--	--
8	9920	--	--	--	--	--	--	--
Note: 1. Means other frequency and mode comply with standard requirements and at least have 20dB margin. 2. Correct Factor=Cable Loss+ Antenna Factor-Amplifier Gain. Result=Reading + Correct Factor. Margin= Result-Limit.								

10. Band Edge Test

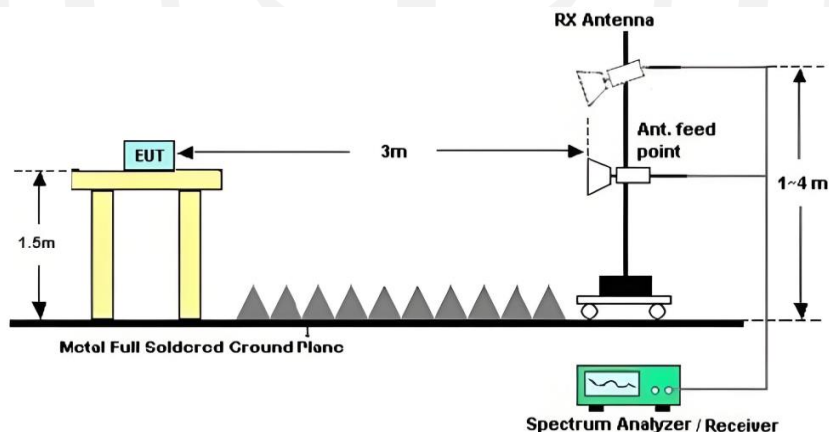
10.1. Test Limit

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)).

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

** Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this part, e.g., §§ 15.231 and 15.241

10.2. Block Diagram of Test Setup



10.3. Test Procedure

ANSI C63.10-2020+Cor.1-2023 section 6.10.5.2

All restriction band and non- restriction band have been tested, only worse case is reported.

Details see the KDB558074 D01 Meas Guidance v05r02

1. Put the EUT on a 1.5m high table, power on the EUT. Emissions were scanned and measured rotating the EUT to 360 degrees, Find the maximum Emission
2. Check the spurious emissions out of band.
3. RBW 1MHz, VBW 3MHz, peak detector for peak value, RBW 1MHz, VBW 3MHz, RMS detector for AV value.

10.4. Test Results

Test Date	: 2026.10.14	Temperature	: 26℃
Test Engineer	: Felix Pang	Humidity	: 54%
Test Results	: PASS		

Frequency Range : 2310MHz~2390MHz								
Test Mode : GFSK TX 2402MHz								
No.	Freq MHz	Polarity	Reading (dBuV/m)	Correct Factor	Result (dBuV/m)	Limit (dBuV/m)	Margin	Remark
1	2390	H	59.53	-20.45	39.08	74.00	-34.92	Peak
2	2390	H	--	-20.45	--	54.00	--	Avg
1	2390	V	61.19	-20.45	40.74	74.00	-33.26	Peak
2	2390	V	--	-20.45	--	54.00	--	Avg
Frequency Range : 2483.5MHz~2550MHz								
Test Mode : GFSK TX 2480MHz								
1	2483.5	H	62.68	-20.15	42.53	74.00	-31.47	Peak
2	2483.5	H	--	-20.15	--	54.00	--	Avg
1	2483.5	V	63.79	-20.15	43.64	74.00	-30.36	Peak
2	2483.5	V	--	-20.15	--	54.00	--	Avg
Note:	1. Means other frequency and mode comply with standard requirements and at least have 20dB margin. 2. Correct Factor=Cable Loss+ Antenna Factor-Amplifier Gain. Result=Reading + Correct Factor. Margin= Result-Limit. 3. If the limits for the measurement with the average detector are met when using a receiver with a peak detector, the test unit shall be deemed to meet both limits and the measurement with the average detector need not be carried out.							

Frequency Range : 2310MHz~2390MHz								
Test Mode : $\pi/4$ DQPSK TX 2402MHz								
No.	Freq MHz	Polarity	Reading (dBuV/m)	Correct Factor	Result (dBuV/m)	Limit (dBuV/m)	Margin	Remark
1	2390	H	59.27	-20.45	38.82	74.00	-35.18	Peak
2	2390	H	--	-20.45	--	54.00	--	Avg
1	2390	V	62.42	-20.45	41.97	74.00	-32.03	Peak
2	2390	V	--	-20.45	--	54.00	--	Avg
Frequency Range : 2483.5MHz~2550MHz								
Test Mode : $\pi/4$ DQPSK TX 2480MHz								
1	2483.5	H	62.86	-20.15	42.71	74.00	-31.29	Peak
2	2483.5	H	--	-20.15	--	54.00	--	Avg
1	2483.5	V	64.89	-20.15	44.74	74.00	-29.26	Peak
2	2483.5	V	--	-20.15	--	54.00	--	Avg
Note: 1. Means other frequency and mode comply with standard requirements and at least have 20dB margin. 2. Correct Factor=Cable Loss+ Antenna Factor-Amplifier Gain. Result=Reading + Correct Factor. Margin= Result-Limit. 3. If the limits for the measurement with the average detector are met when using a receiver with a peak detector, the test unit shall be deemed to meet both limits and the measurement with the average detector need not be carried out.								

Frequency Range : 2310MHz~2390MHz								
Test Mode : 8DPSK TX 2402MHz								
No.	Freq MHz	Polarity	Reading (dBuV/m)	Correct Factor	Result (dBuV/m)	Limit (dBuV/m)	Margin	Remark
1	2390	H	61.04	-20.45	40.59	74.00	-33.41	Peak
2	2390	H	--	-20.15	--	54.00	--	Avg
1	2390	V	63.40	-20.45	42.95	74.00	-31.05	Peak
2	2390	V	--	-20.15	--	54.00	--	Avg
Frequency Range : 2483.5MHz~2550MHz								
Test Mode : 8DPSK TX 2480MHz								
1	2483.5	H	60.62	-20.15	40.47	74.00	-33.53	Peak
2	2483.5	H	--	-20.15	--	54.00	--	Avg
1	2483.5	V	65.28	-20.15	45.13	74.00	-28.87	Peak
2	2483.5	V	--	-20.15	--	54.00	--	Avg
Note: 1. Means other frequency and mode comply with standard requirements and at least have 20dB margin. 2. Correct Factor=Cable Loss+ Antenna Factor-Amplifier Gain. Result=Reading + Correct Factor. Margin= Result-Limit. 3. If the limits for the measurement with the average detector are met when using a receiver with a peak detector, the test unit shall be deemed to meet both limits and the measurement with the average detector need not be carried out.								

11. Power Line Conducted Emissions

11.1. Test Limits

Frequency (MHz)	Limits dB(μV)	
	Quasi-peak Level	Average Level
0.15 -0.50	66 -56*	56 - 46*
0.50 -5.00	56	46
5.00 -30.00	60	50

Notes: 1. *Decreasing linearly with logarithm of frequency.

2. The lower limit shall apply at the transition frequencies.

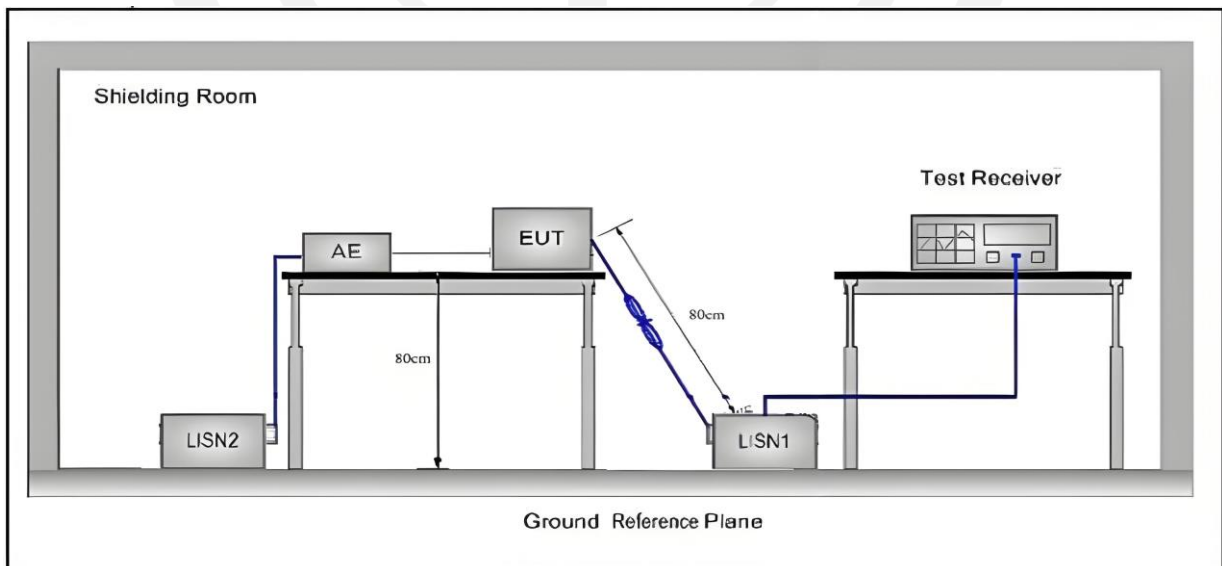
3. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.

11.2. Test Procedure

The EUT is put on the plane 0.8m high above the ground by insulating support and is connected to the power mains through a line impedance stabilization network (L.I.S.N.). This provides a 50ohm coupling impedance for the EUT system. Please refer the block diagram of the test setup and photographs. Both sides of AC lines are checked to find out the maximum conducted emission. In order to find the maximum emission levels, the relative positions of equipment and all of the interface cables shall be changed according to ANSI C63.10-2020+Cor.1-2023 on Conducted Emission Measurement.

The bandwidth of test receiver is set at 9 kHz.

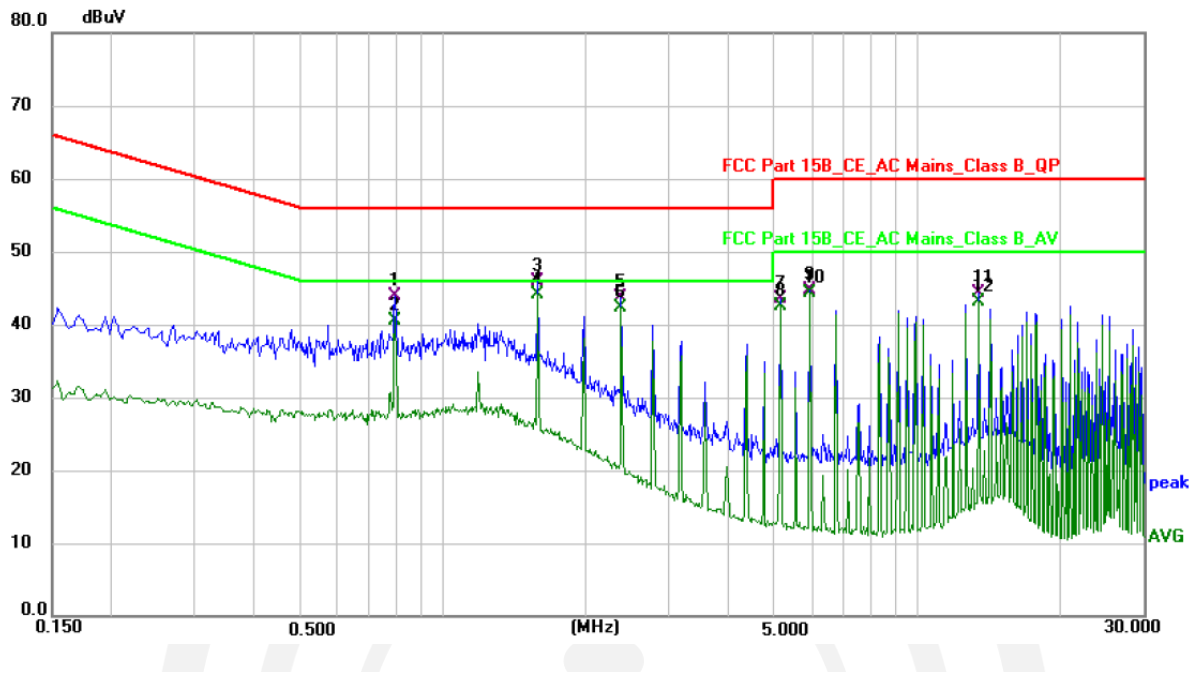
11.3. Test Setup



11.4. Test Results

Test Date	: 2026.10.14	Temperature	: 24℃
Test Engineer	: Felix Pang	Humidity	: 56%
Test Mode	: GFSK mode		
Test voltage	: AC 120V/60Hz		
Test Results	: PASS		
Note:	1. The test results are listed in next pages.		
	2. If the limits for the measurement with the average detector are met when using a receiver with a peak detector, the test unit shall be deemed to meet both limits and the measurement with the average detector and quasi-peak detector need not be carried out.		
	3. If the limits for the measurement with the average detector are met when using a receiver with a quasi-peak detector, the test unit shall be deemed to meet both limits and the measurement with the average detector need not be carried out.		
	4. All modes have been tested, and only worst data of GFSK mode, Channel 2402MHz was listed in this report.		

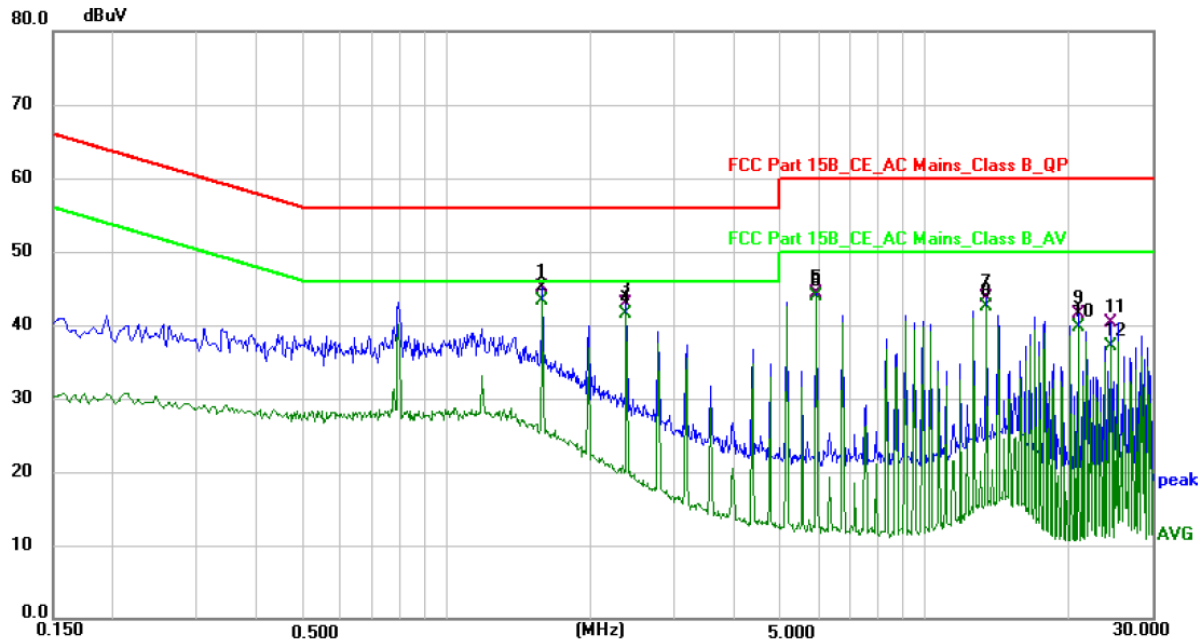
Polarization: L



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.7940	34.40	9.53	43.93	56.00	-12.07	QP
2	0.7940	30.91	9.53	40.44	46.00	-5.56	AVG
3	1.5859	35.95	9.86	45.81	56.00	-10.19	QP
4 *	1.5859	34.25	9.86	44.11	46.00	-1.89	AVG
5	2.3780	33.79	9.90	43.69	56.00	-12.31	QP
6	2.3780	32.42	9.90	42.32	46.00	-3.68	AVG
7	5.1540	33.77	9.71	43.48	60.00	-16.52	QP
8	5.1540	32.89	9.71	42.60	50.00	-7.40	AVG
9	5.9500	34.98	9.75	44.73	60.00	-15.27	QP
10	5.9500	34.49	9.75	44.24	50.00	-5.76	AVG
11	13.4860	34.56	9.74	44.30	60.00	-15.70	QP
12	13.4860	33.28	9.74	43.02	50.00	-6.98	AVG

Note: Level = Reading + Factor, Margin = Level - Limit

Polarization: N



Note: Level = Reading + Factor, Margin = Level - Limit

12. Antenna Requirements

12.1.Limit

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 shall be considered sufficient to comply with the provisions of this Section. 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.

12.2.Result

The EUT antenna is PCB antenna. It complies with the standard requirement.



13. Photos of test setup

Reference to the **appendix I Test Setup Photo** for details.

14. Photos of EUT

Reference to the **appendix II external photos** and **appendix III internal photos** for details.

----- END OF REPORT-----

