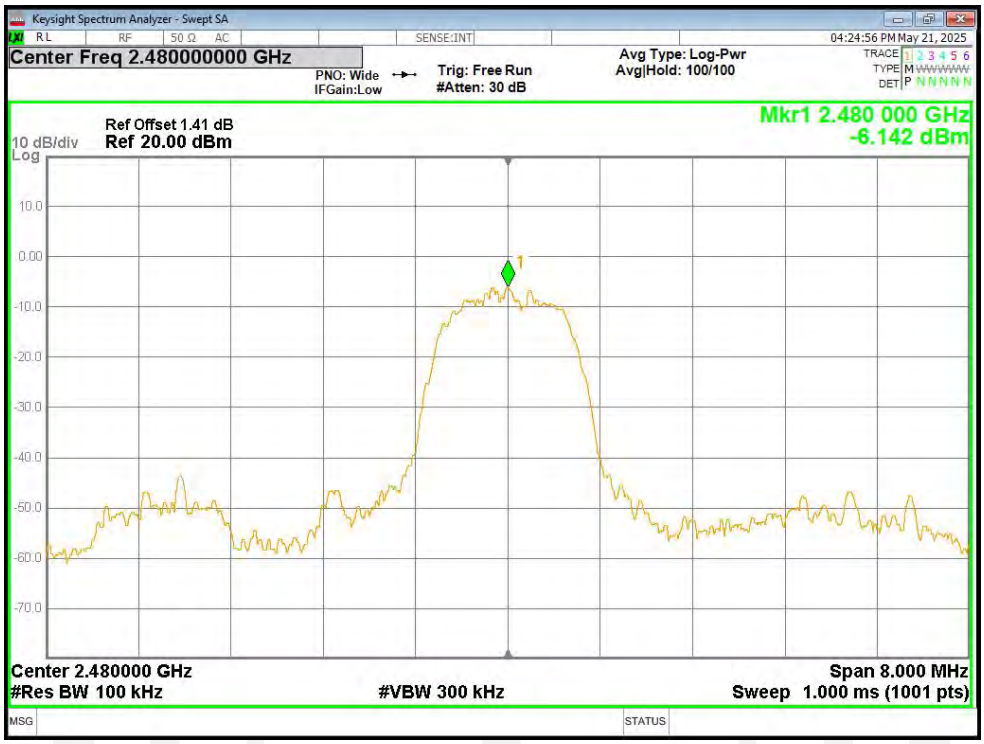
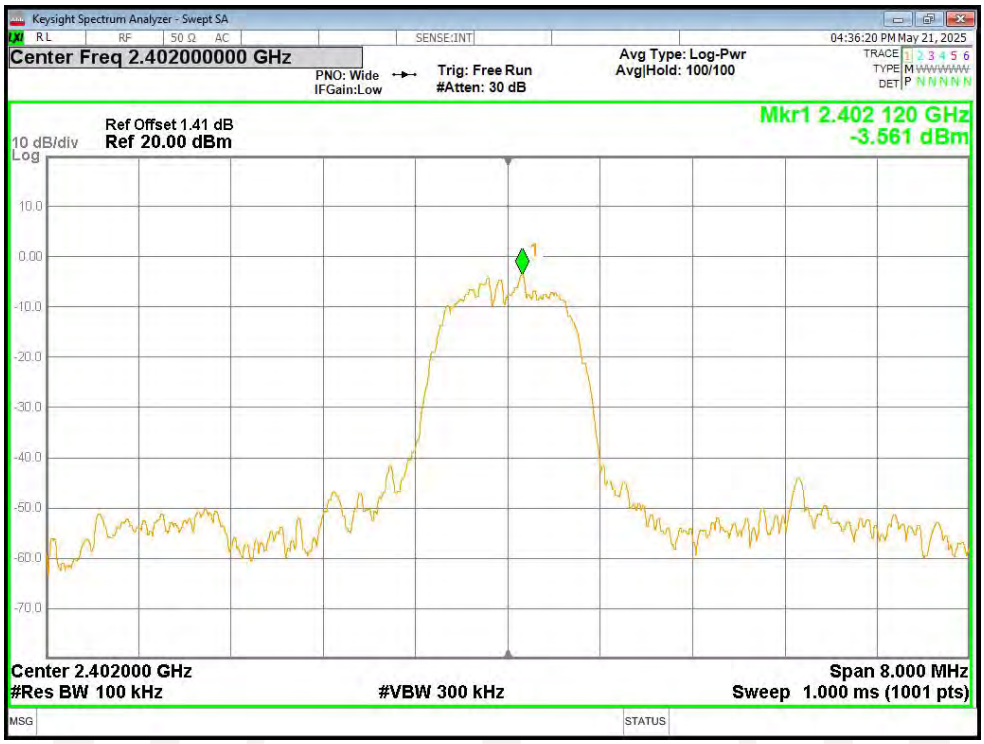
Band Edge NVNT 2-DH5 2480MHz Ant1 No-Hopping Ref

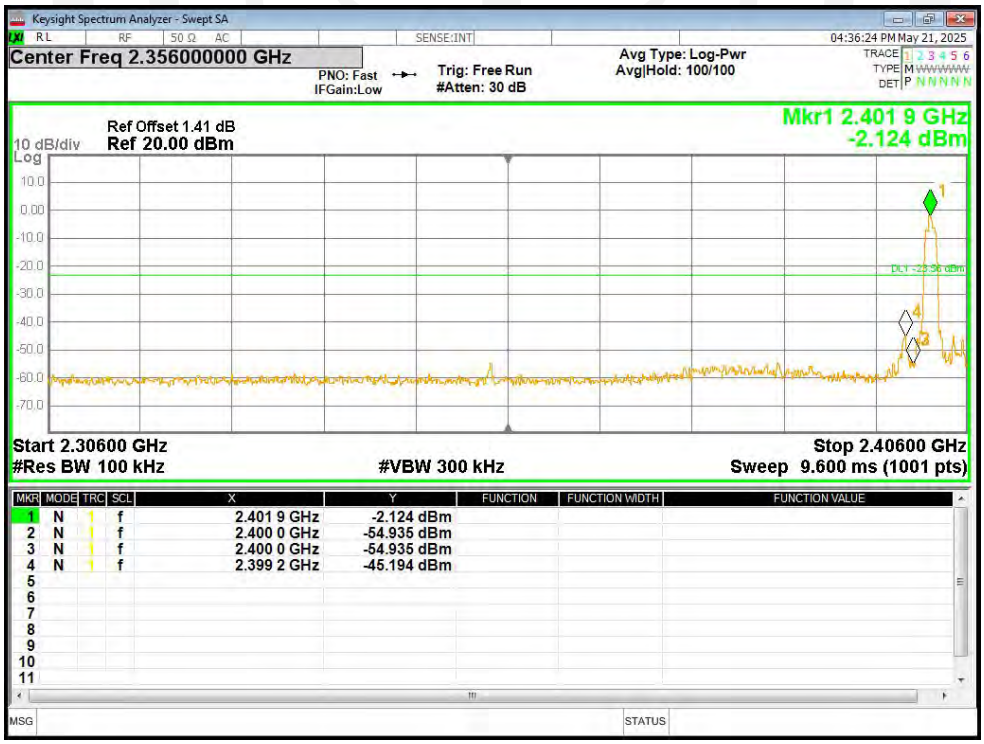


Band Edge NVNT 2-DH5 2480MHz Ant1 No-Hopping Emission

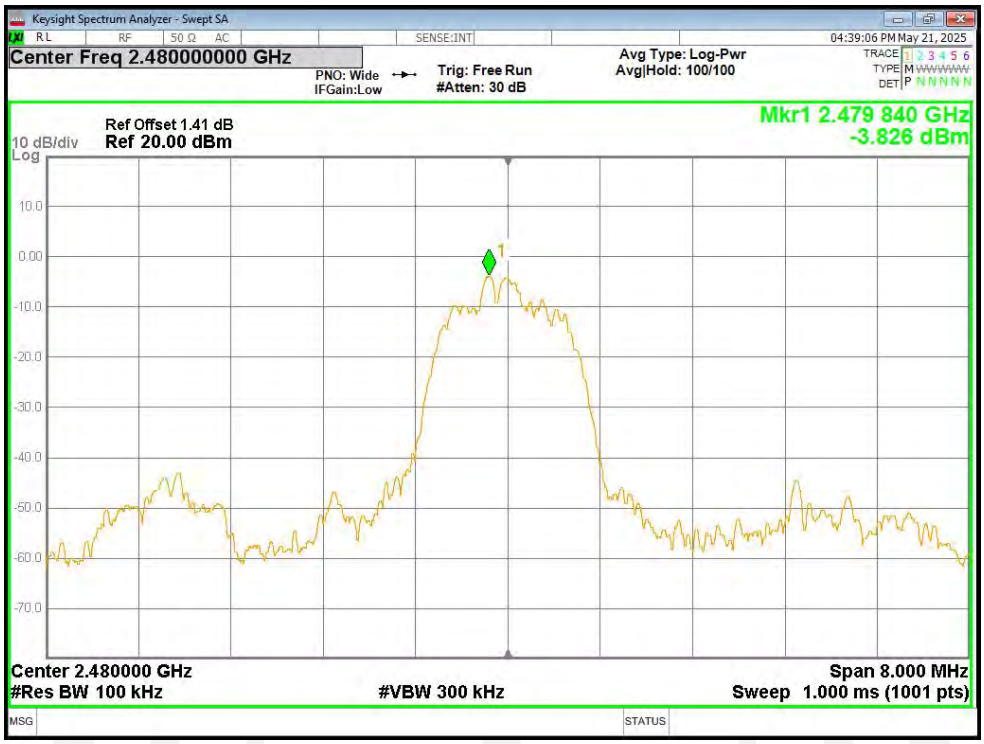
Band Edge NVNT 3-DH5 2402MHz Ant1 No-Hopping Ref



Band Edge NVNT 3-DH5 2402MHz Ant1 No-Hopping Emission



Band Edge NVNT 3-DH5 2480MHz Ant1 No-Hopping Ref



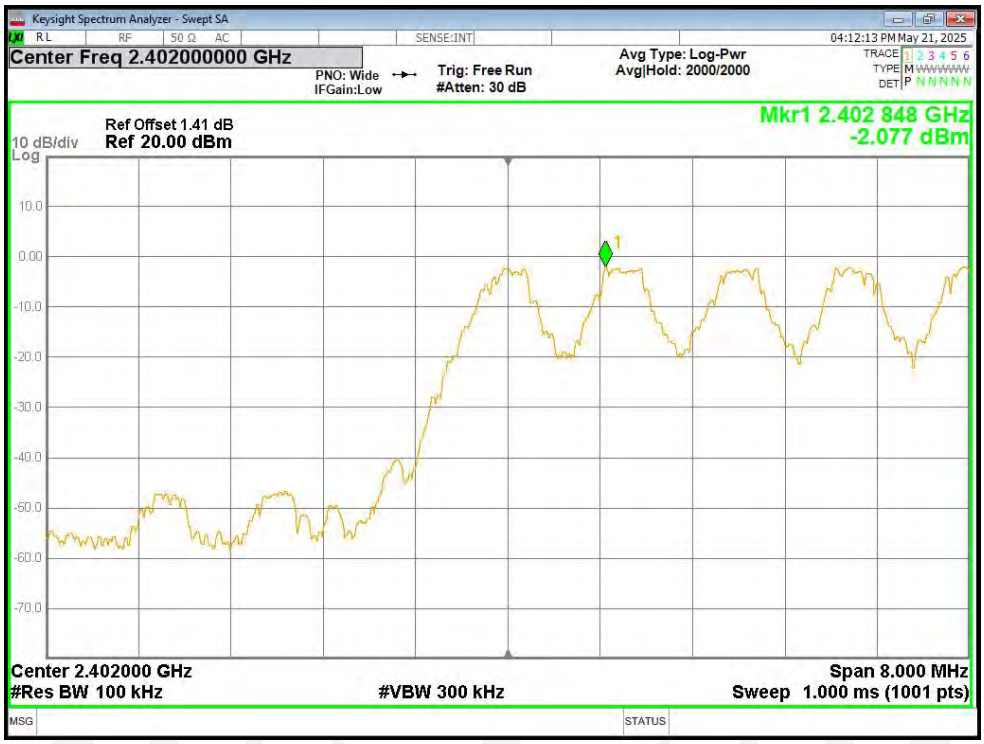
Band Edge NVNT 3-DH5 2480MHz Ant1 No-Hopping Emission

Band Edge(Hopping)

Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	Hopping	-51.59	-20	Pass
NVNT	1-DH5	2480	Ant1	Hopping	-44.54	-20	Pass
NVNT	2-DH5	2402	Ant1	Hopping	-50.94	-20	Pass
NVNT	2-DH5	2480	Ant1	Hopping	-43.7	-20	Pass
NVNT	3-DH5	2402	Ant1	Hopping	-52.82	-20	Pass
NVNT	3-DH5	2480	Ant1	Hopping	-47.75	-20	Pass

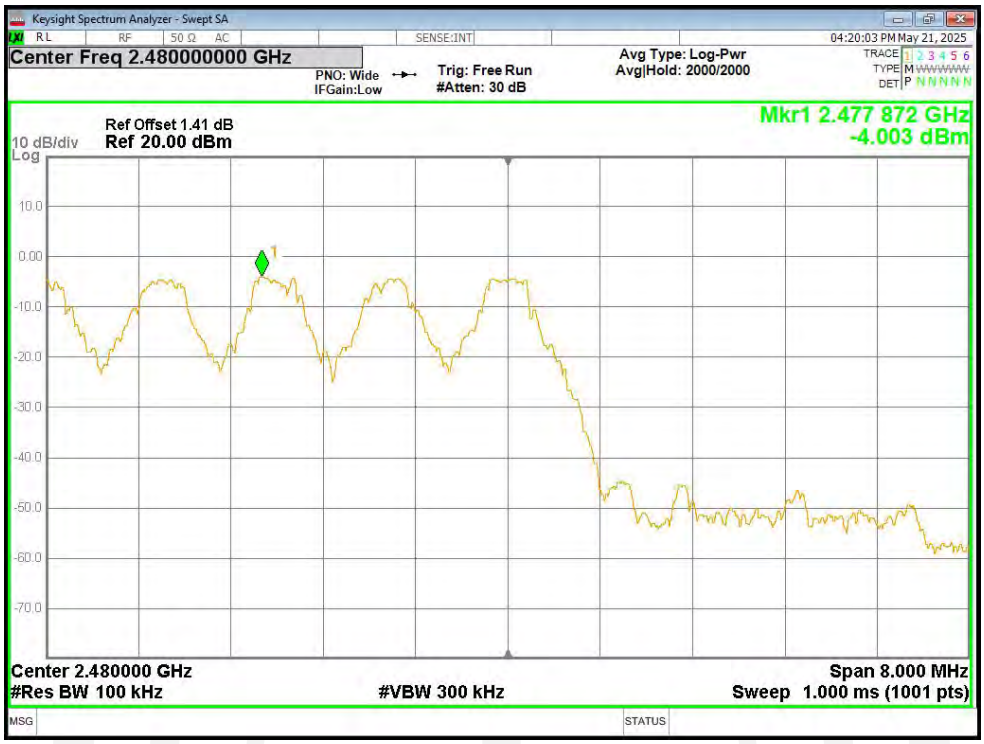
Test Graphs

Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant1 Hopping Ref



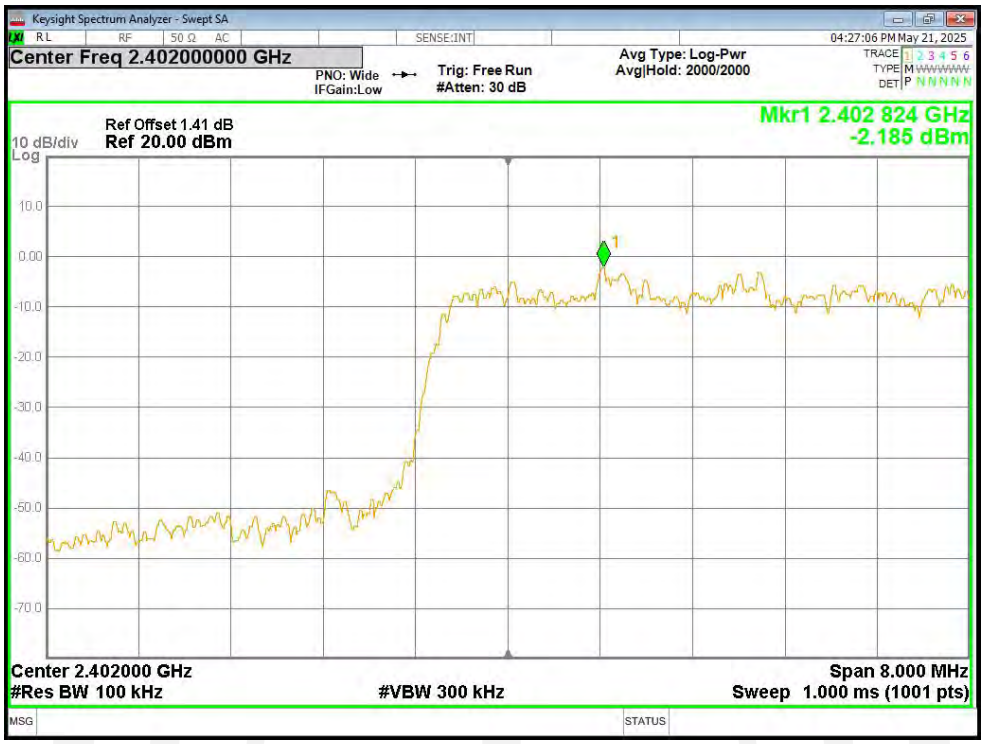
Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant1 Hopping Emission

Band Edge(Hopping) NVNT 1-DH5 2480MHz Ant1 Hopping Ref



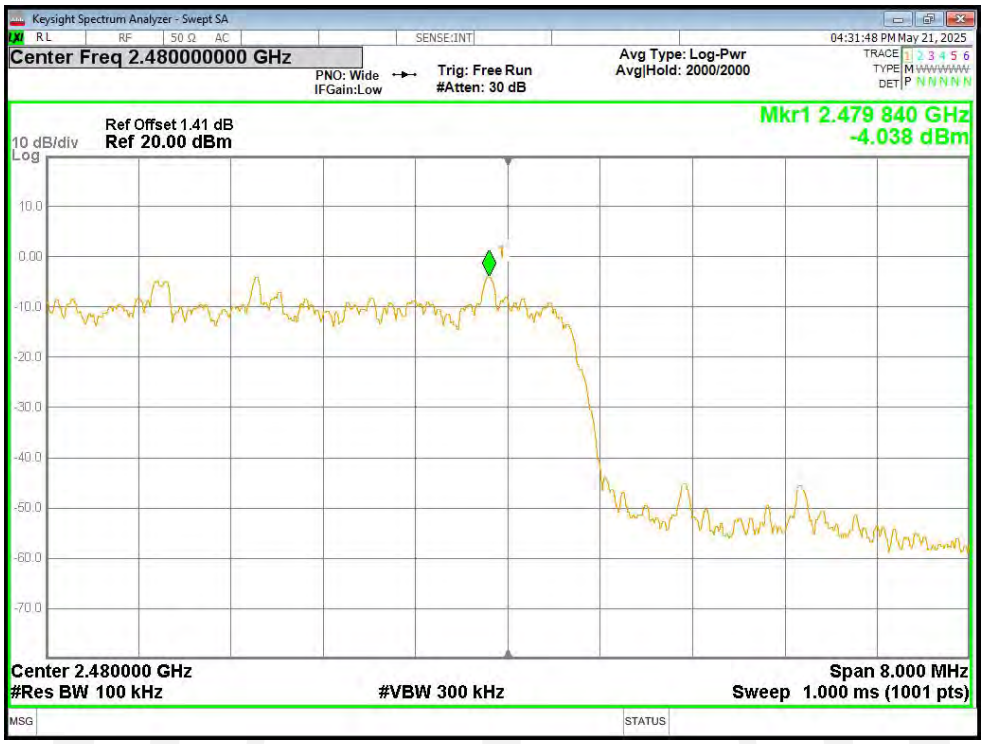
Band Edge(Hopping) NVNT 1-DH5 2480MHz Ant1 Hopping Emission

Band Edge(Hopping) NVNT 2-DH5 2402MHz Ant1 Hopping Ref

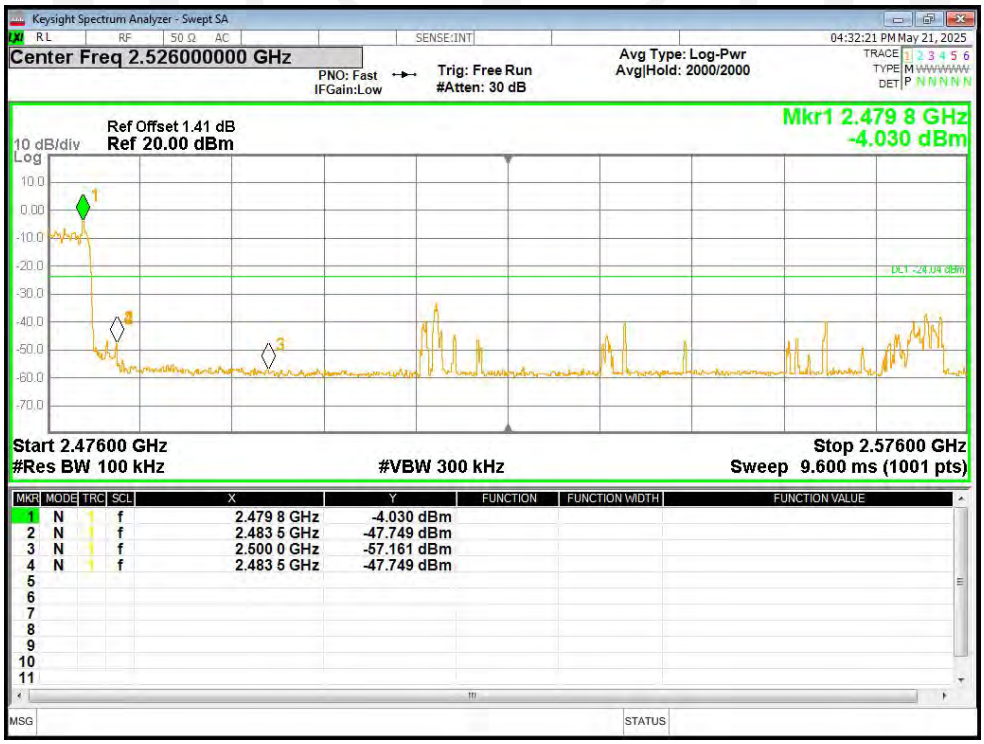


Band Edge(Hopping) NVNT 2-DH5 2402MHz Ant1 Hopping Emission

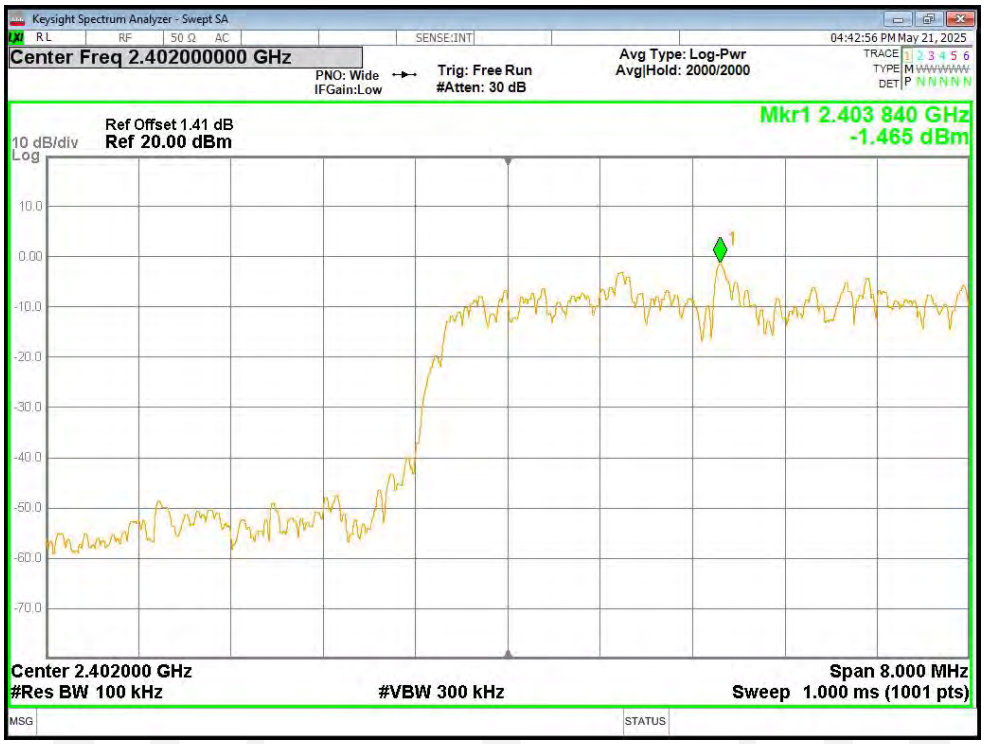
Band Edge(Hopping) NVNT 2-DH5 2480MHz Ant1 Hopping Ref



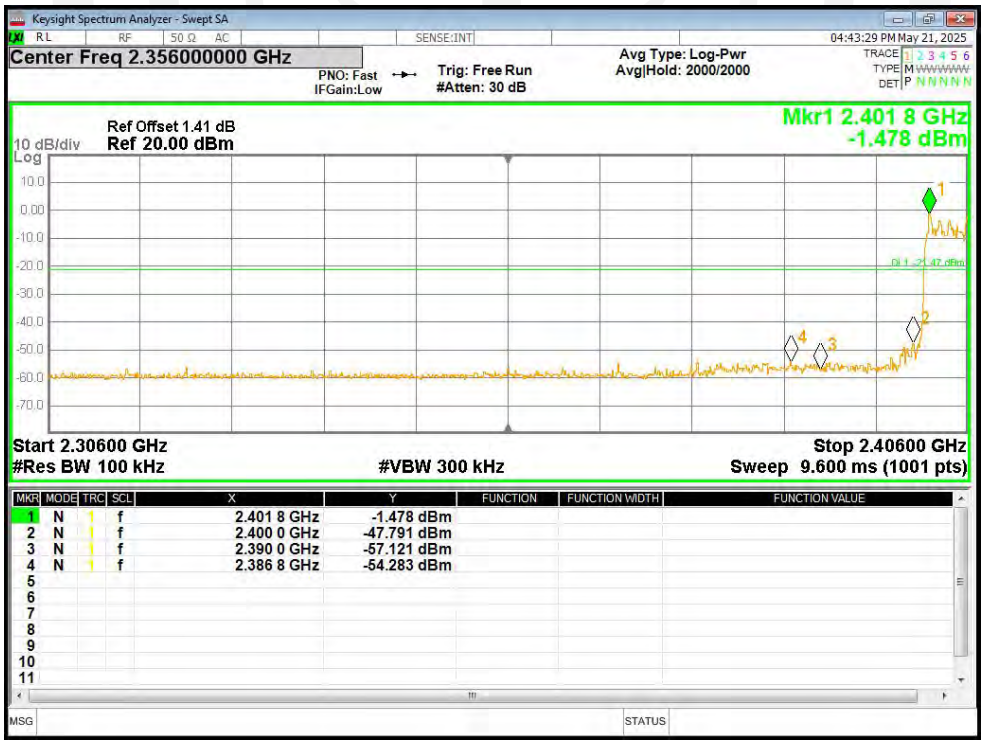
Band Edge(Hopping) NVNT 2-DH5 2480MHz Ant1 Hopping Emission



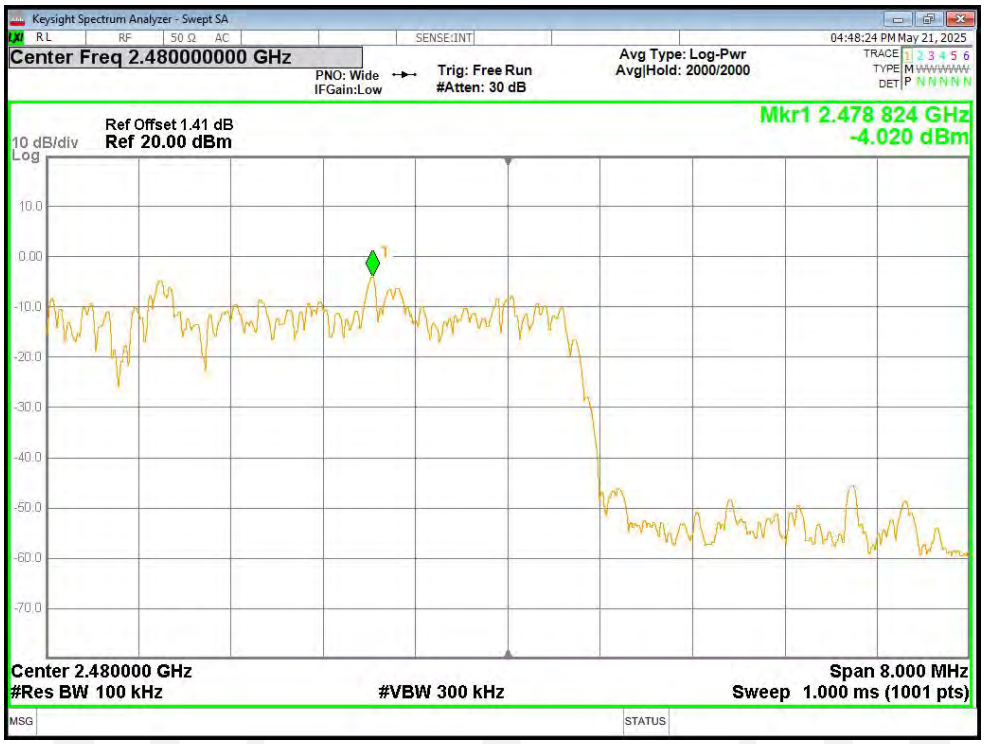
Band Edge(Hopping) NVNT 3-DH5 2402MHz Ant1 Hopping Ref



Band Edge(Hopping) NVNT 3-DH5 2402MHz Ant1 Hopping Emission



Band Edge(Hopping) NVNT 3-DH5 2480MHz Ant1 Hopping Ref



Band Edge(Hopping) NVNT 3-DH5 2480MHz Ant1 Hopping Emission

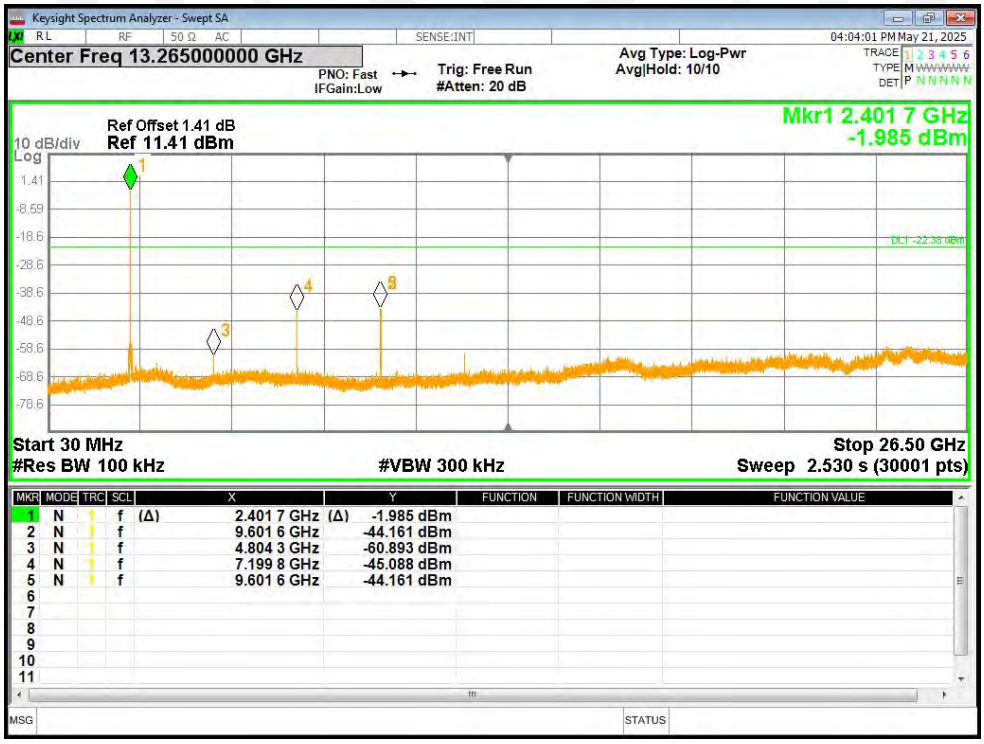
Conducted spurious emission: Pass

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	-41.78	-20	Pass
NVNT	1-DH5	2441	Ant1	-42.08	-20	Pass
NVNT	1-DH5	2480	Ant1	-38.16	-20	Pass
NVNT	2-DH5	2402	Ant1	-42.5	-20	Pass
NVNT	2-DH5	2441	Ant1	-41.36	-20	Pass
NVNT	2-DH5	2480	Ant1	-38.34	-20	Pass
NVNT	3-DH5	2402	Ant1	-42.49	-20	Pass
NVNT	3-DH5	2441	Ant1	-42.42	-20	Pass
NVNT	3-DH5	2480	Ant1	-38.28	-20	Pass

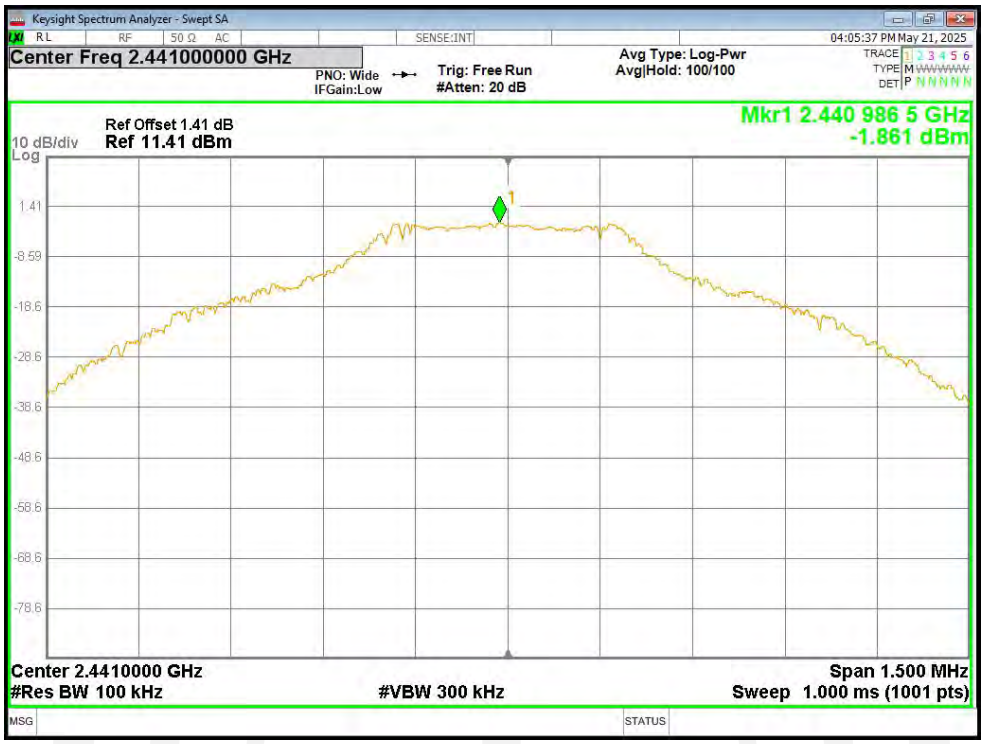
Test Graphs

Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Ref

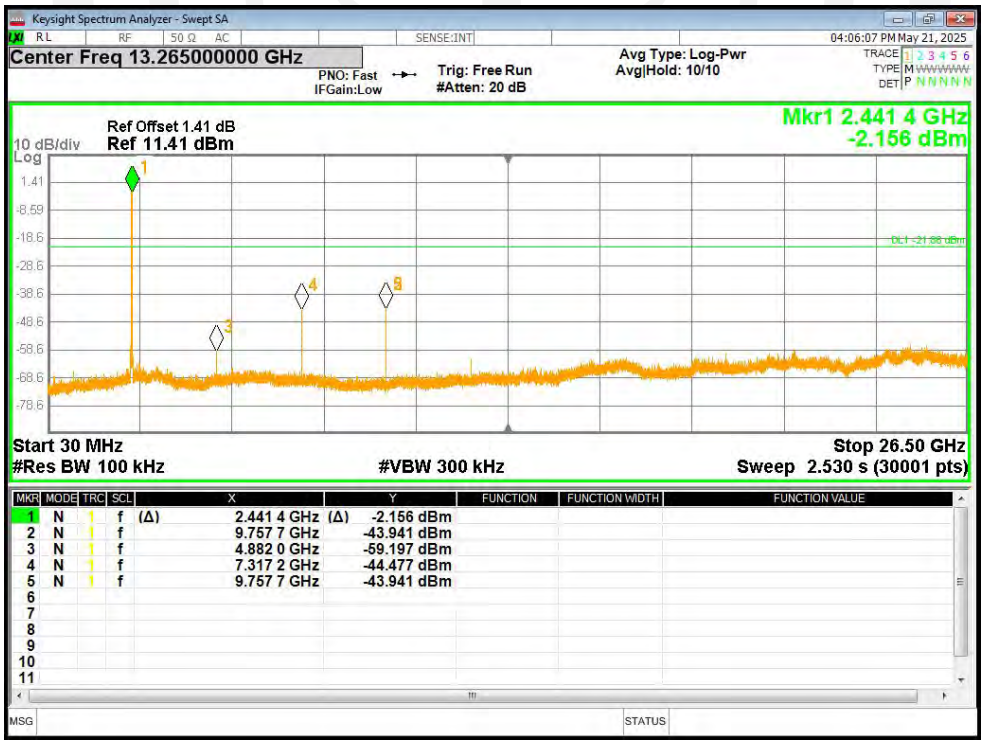
Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Emission



Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Ref

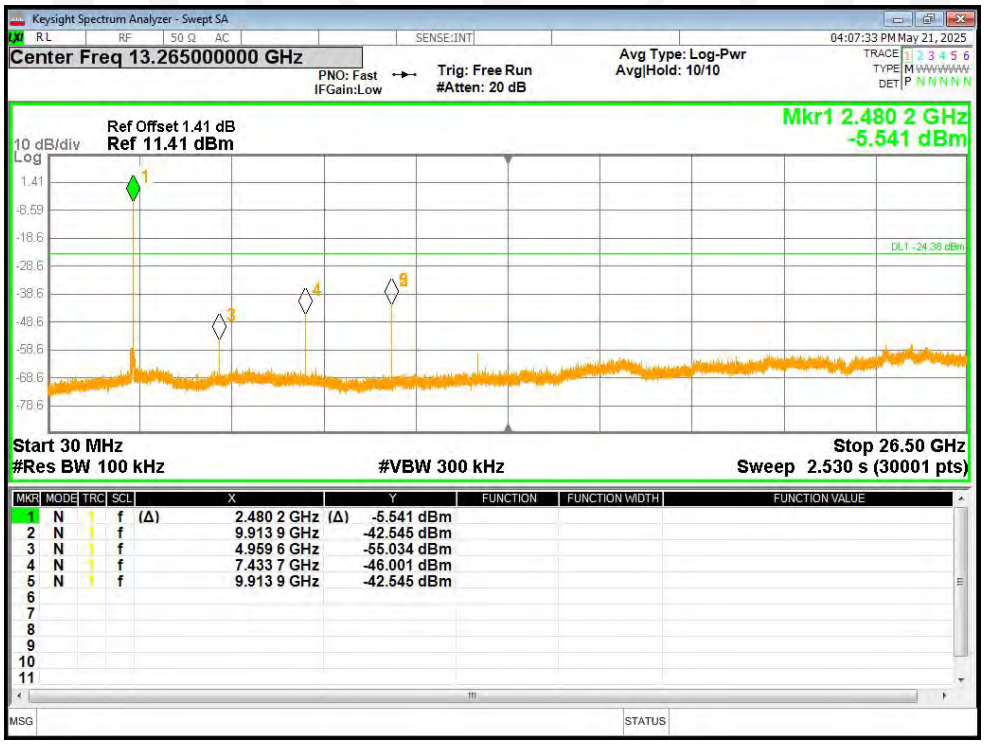


Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Emission



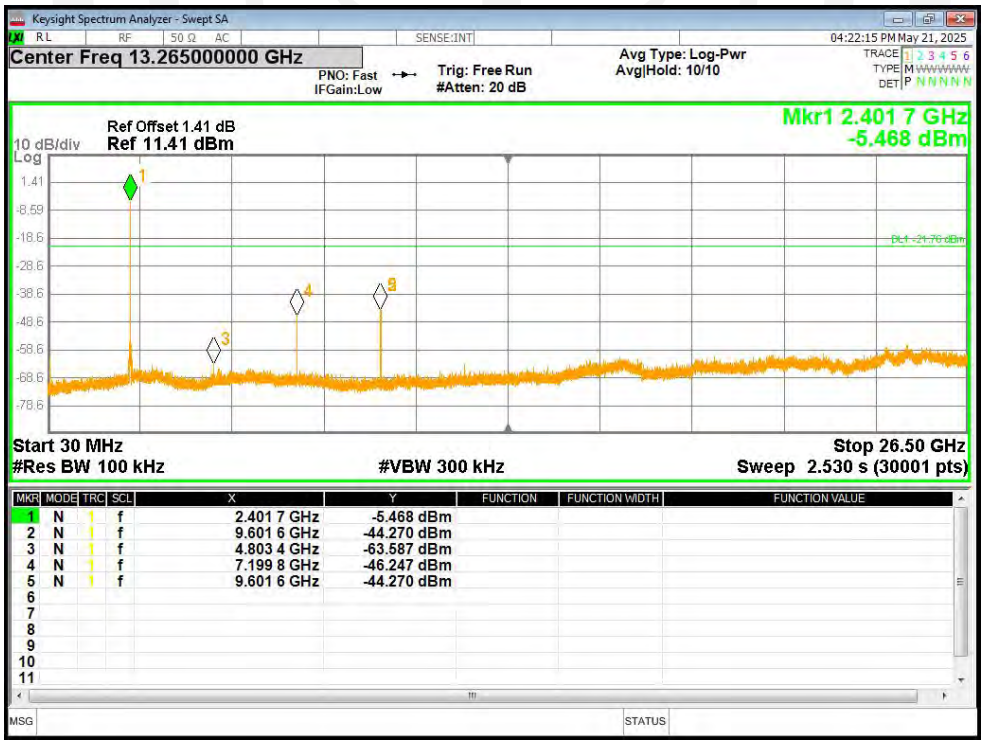
Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Ref

Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Emission



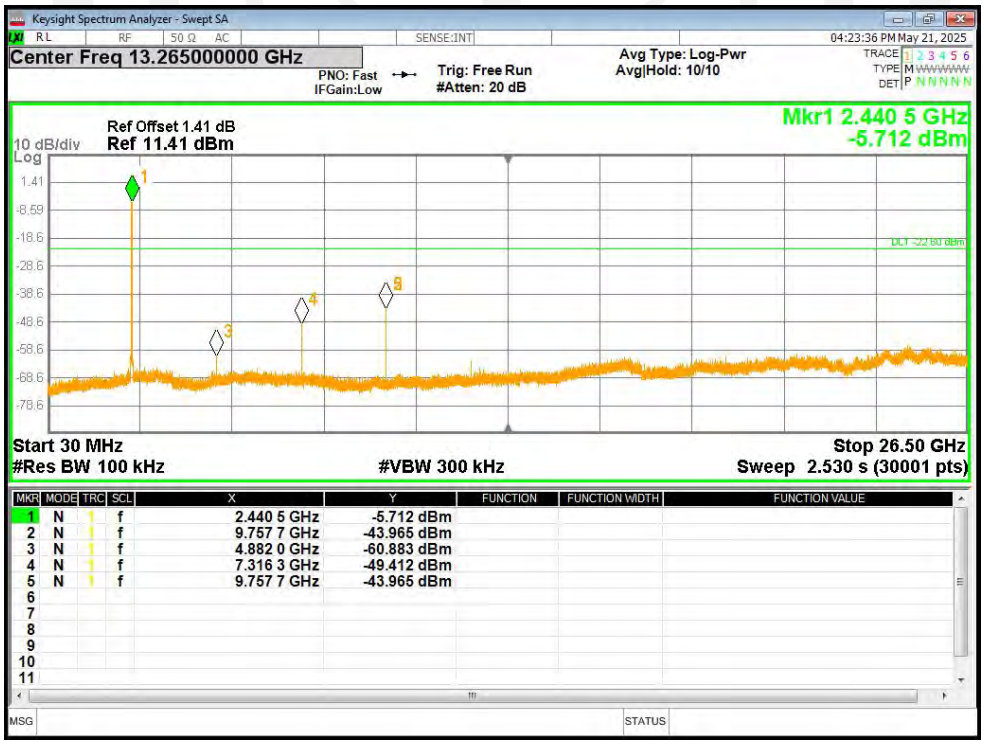
Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Ref

Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Emission



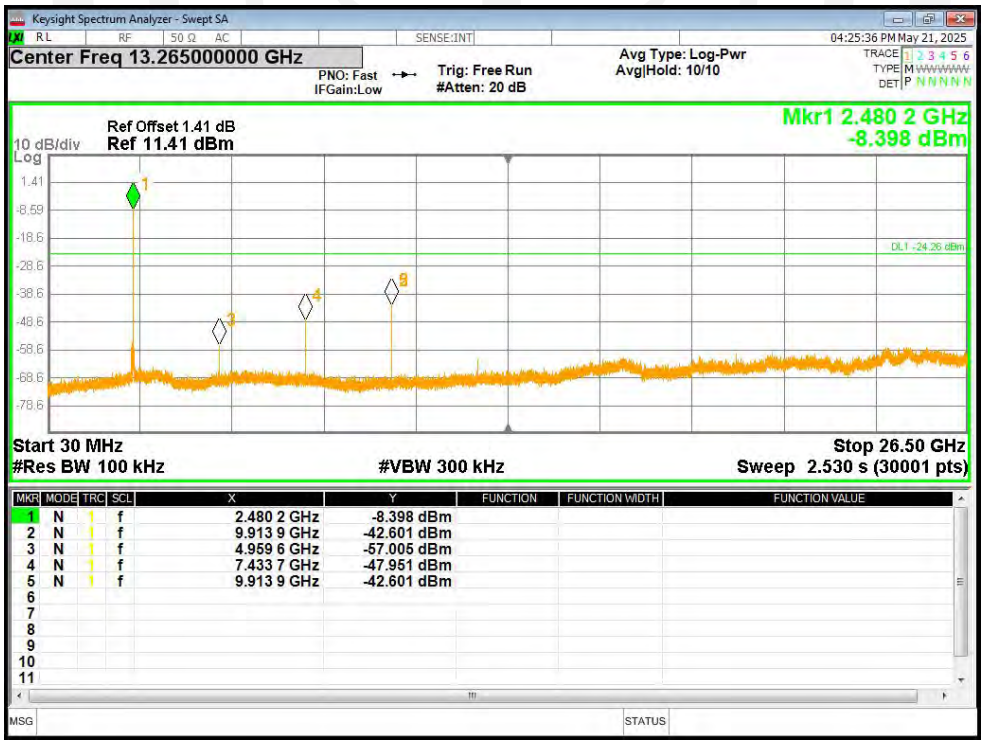
Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Ref

Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Emission



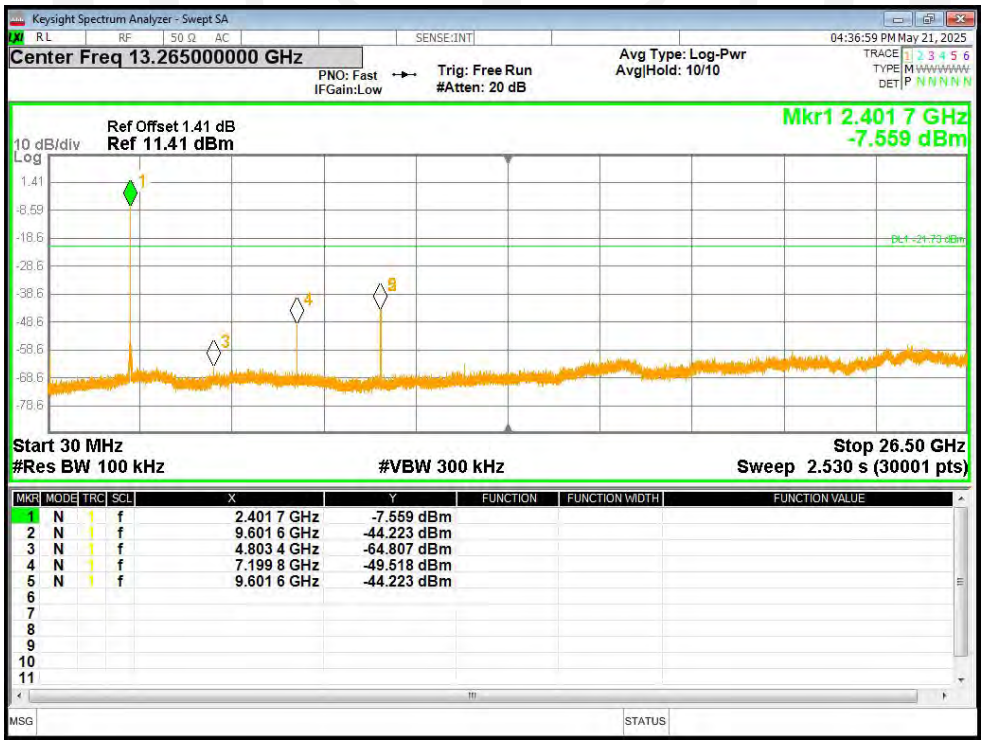
Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Ref

Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Emission



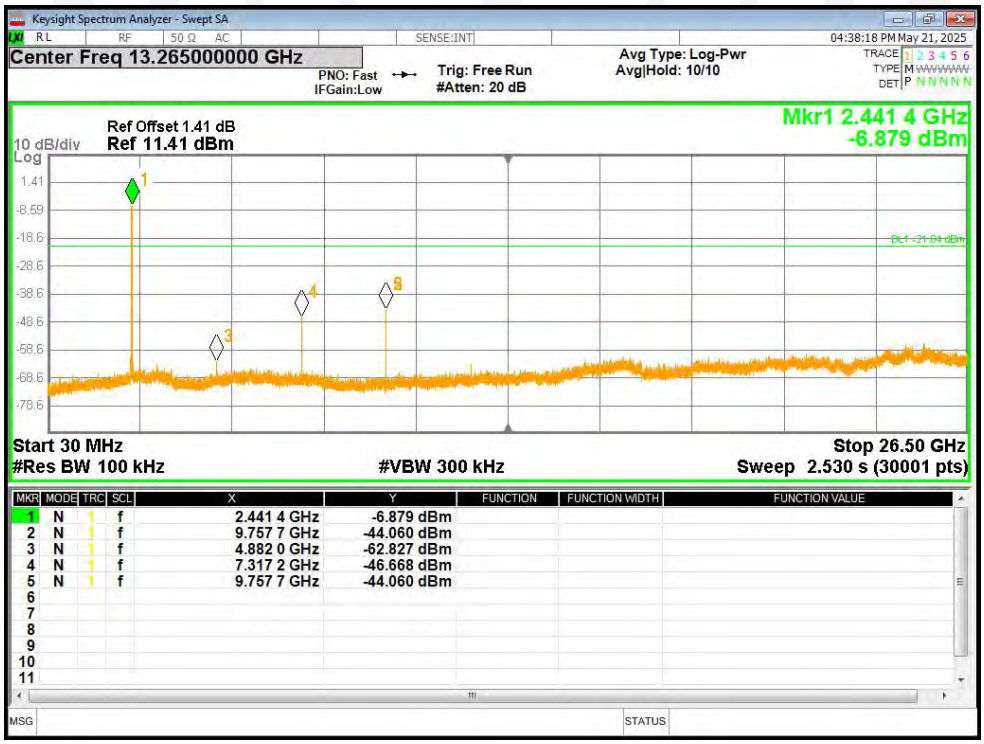
Tx. Spurious NVNT 3-DH5 2402MHz Ant1 Ref

Tx. Spurious NVNT 3-DH5 2402MHz Ant1 Emission



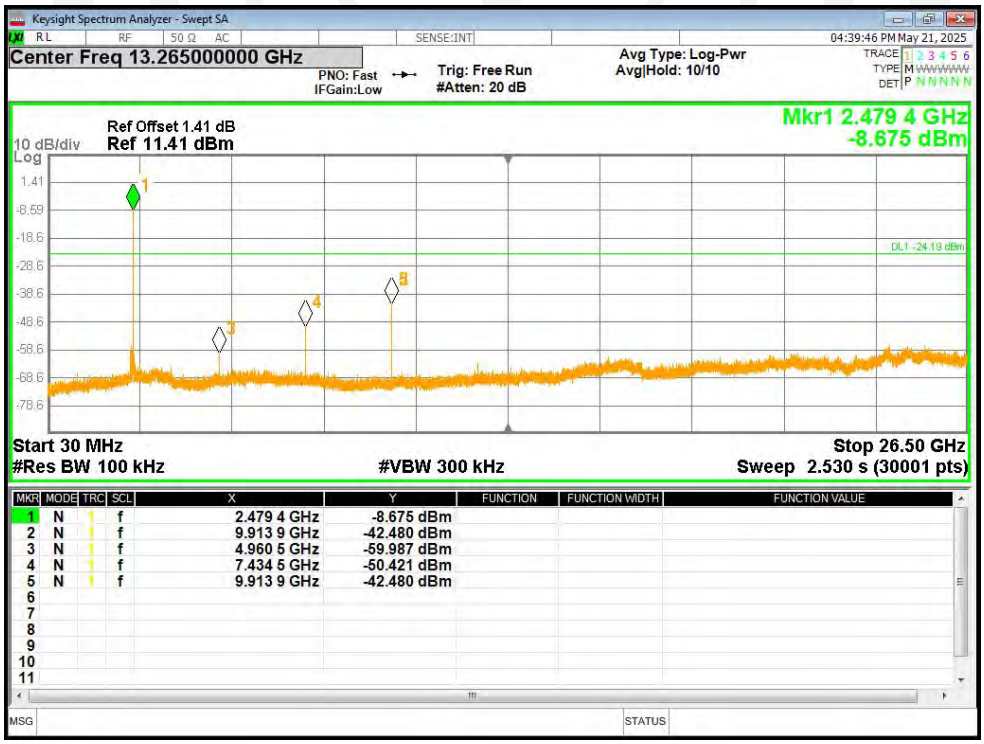
Tx. Spurious NVNT 3-DH5 2441MHz Ant1 Ref

Tx. Spurious NVNT 3-DH5 2441MHz Ant1 Emission



Tx. Spurious NVNT 3-DH5 2480MHz Ant1 Ref

Tx. Spurious NVNT 3-DH5 2480MHz Ant1 Emission



9. Radiated Emissions

9.1. 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])

RSS-GEN Restricted frequency band

Table 7 – Restricted frequency bands[Note 1]		
MHz	MHz	GHz
0.090 - 0.110	149.9 - 150.05	9.0 - 9.2
0.495 - 0.505	156.52475 - 156.52525	9.3 - 9.5
2.1735 - 2.1905	156.7 - 156.9	10.6 - 12.7
3.020 - 3.026	162.0125 - 167.17	13.25 - 13.4
4.125 - 4.128	167.72 - 173.2	14.47 - 14.5
4.17725 - 4.17775	240 – 285	15.35 - 16.2
4.20725 - 4.20775	322 - 335.4	17.7 - 21.4
5.677 - 5.683	399.9 - 410	22.01 - 23.12
6.215 - 6.218	608 - 614	23.6 - 24.0
6.26775 - 6.26825	960 - 1427	31.2 - 31.8
6.31175 - 6.31225	1435 - 1626.5	36.43 - 36.5

8.291 - 8.294	1645.5 - 1646.5	Above 38.6
8.362 - 8.366	1660 - 1710	
8.37625 - 8.38675	1718.8 - 1722.2	
8.41425 - 8.41475	2200 - 2300	
12.29 - 12.293	2310 - 2390	
12.51975 - 12.52025	2483.5 - 2500	
12.57675 - 12.57725	2655 - 2900	
13.36 - 13.41	3260 – 3267	
16.42 - 16.423	3332 - 3339	
16.69475 - 16.69525	3345.8 - 3358	
16.80425 - 16.80475	3500 - 4400	
25.5 - 25.67	4500 - 5150	
37.5 - 38.25	5350 - 5460	
73 - 74.6	7250 - 7750	
74.8 - 75.2	8025 – 8500	
108 – 138		

Note 1: Certain frequency bands listed in table 7 and in bands above 38.6 GHz are designated for licence-exempt applications. These frequency bands and the requirements that apply to related devices are set out in the 200 and 300 series of RSS.

15.209 Limit

FREQUENCY MHz	DISTANCE Meters	FIELD STRENGTHS LIMIT	
		μV/m	dB(μV)/m
0.009-0.490	300	2400/F(KHz)	/
0.490-1.705	30	24000/F(KHz)	/
1.705-30	30	30	29.5
30 ~ 88	3	100	40.0
88 ~ 216	3	150	43.5
216 ~ 960	3	200	46.0
960 ~ 1000	3	500	54.0
Above 1000	3	74.0 dB(μV)/m (Peak) 54.0 dB(μV)/m (Average)	

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

Table 5 – General field strength limits at frequencies above 30 MHz

Frequency (MHz)	Field strength (μV/m at 3 m)
30 – 88	100
88 – 216	150
216 – 960	200
Above 960	500

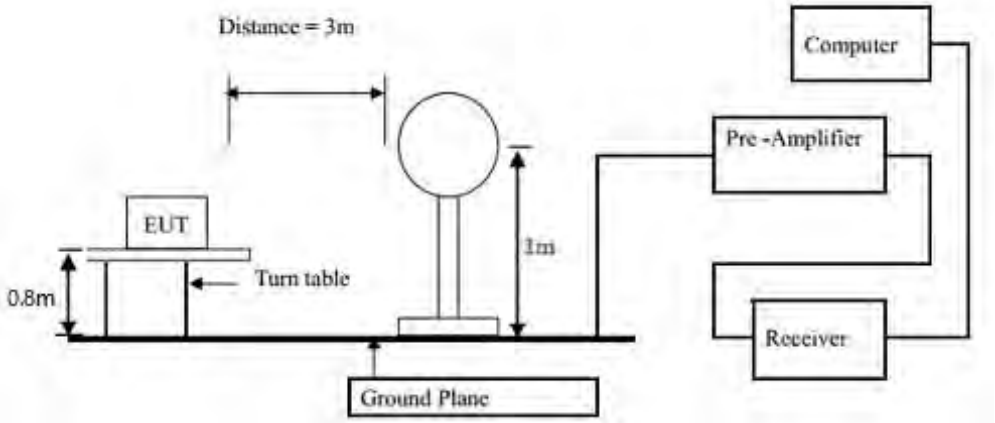
Table 6 – General field strength limits at frequencies below 30 MHz

Frequency	Magnetic field strength (H-Field) (μA/m)	Measurement distance (m)
9 - 490 kHz Note 1	6.37/F (F in kHz)	300
490 - 1705 kHz	63.7/F (F in kHz)	30
1.705 - 30 MHz	0.08	30

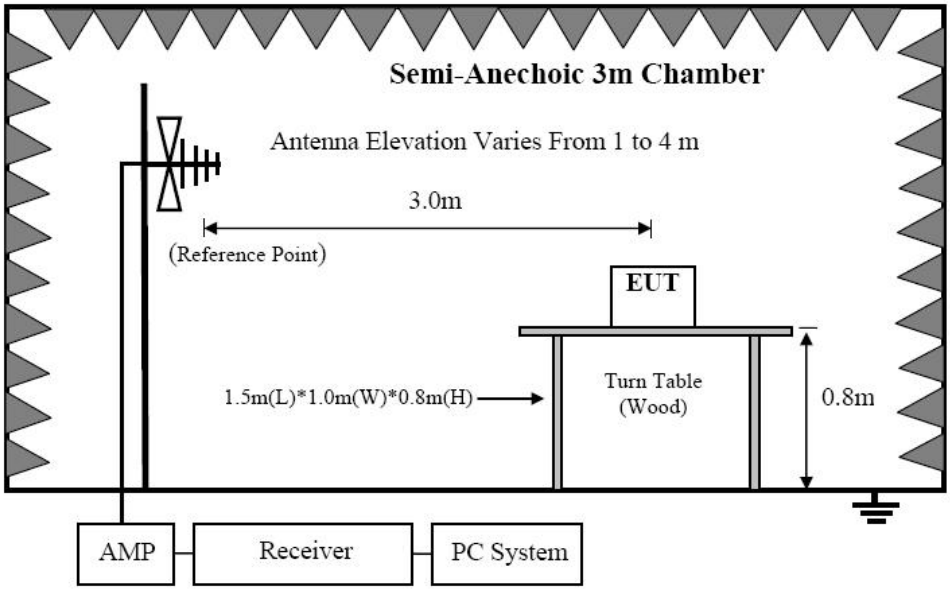
Note 1: The emission limits for the ranges 9-90 kHz and 110-490 kHz are based on measurements employing a linear average detector.

9.2. Block Diagram of Test setup

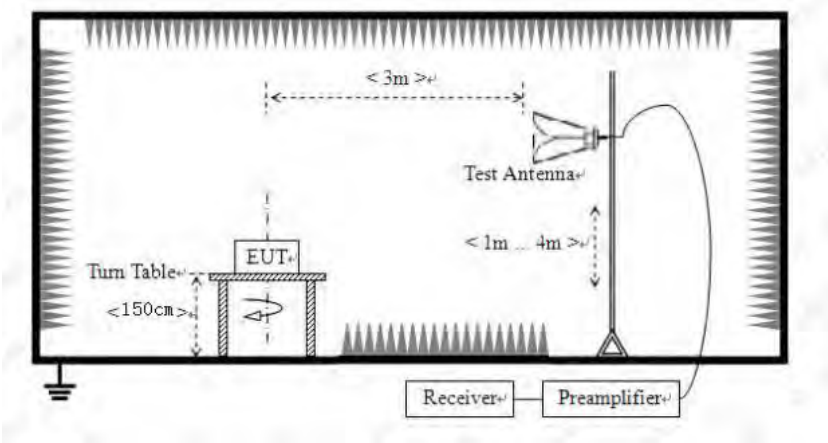
9.2.1 In 3m Anechoic Chamber Test Setup Diagram for below 30MHz



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



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



Note: For harmonic emissions test a appropriate high pass filter was inserted in the input port of AMP.

9.3. Test Procedure

(1) EUT was placed on a non-metallic table, 80 cm above the ground plane inside 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 C63.10:2013on 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 10Hz for Average measure.

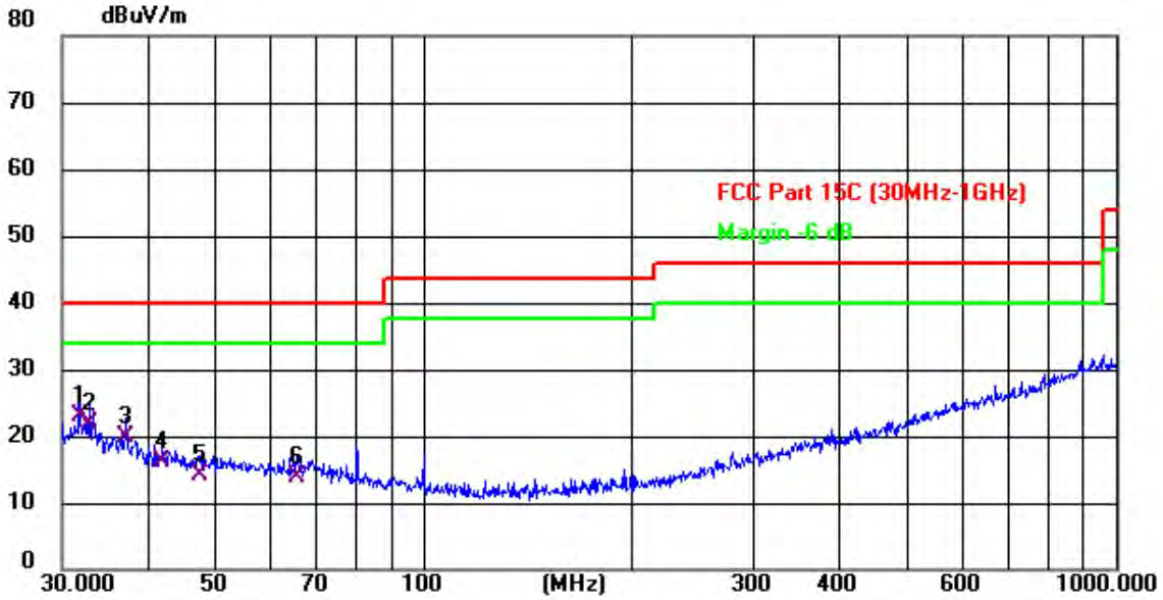
9.4. Test Results

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	:	2025.5.23	Temperature	:	24.7℃
Test Engineer	:	Felix Pang	Humidity	:	53.5%
Test Mode	:	8DPSK mode			
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 8DPSK mode, Middle Channel 2441MHz (DC 3.7 V) was listed in this report.

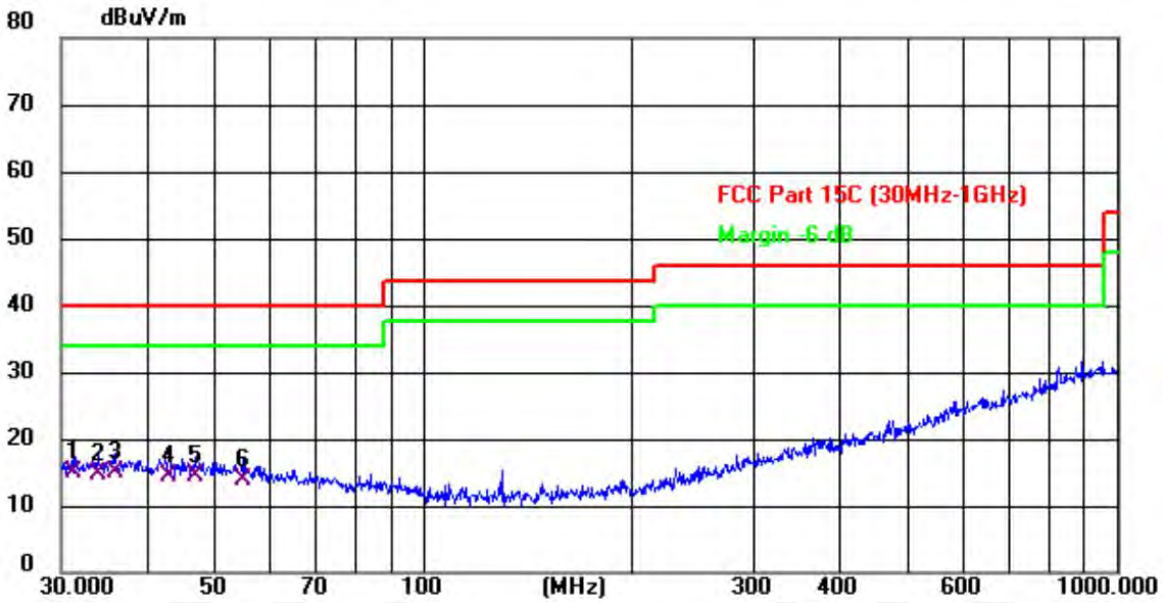
Polarization: Vertical



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	31.8427	38.90	-15.86	23.04	40.00	-16.96	QP
2	32.8636	37.64	-15.71	21.93	40.00	-18.07	QP
3	37.1550	34.91	-15.07	19.84	40.00	-20.16	QP
4	41.8595	30.82	-14.74	16.08	40.00	-23.92	QP
5	47.4917	29.09	-15.02	14.07	40.00	-25.93	QP
6	65.5727	30.47	-16.58	13.89	40.00	-26.11	QP

Note: 1.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 *	31.1797	30.87	-15.95	14.92	40.00	-25.08	QP
2	33.9173	30.13	-15.55	14.58	40.00	-25.42	QP
3	35.8746	30.12	-15.26	14.86	40.00	-25.14	QP
4	42.8997	29.34	-14.78	14.56	40.00	-25.44	QP
5	46.8302	29.31	-14.99	14.32	40.00	-25.68	QP
6	55.0274	29.64	-15.68	13.96	40.00	-26.04	QP

Note: 1.Level = Reading + Factor Margin = Level - Limit

From 1GHz to 25GHz:					
Test Date	:	2025.5.23	Temperature	:	24.7℃
Test Engineer	:	Felix Pang	Humidity	:	53.5%
Test Mode	:	GFSK, π/4 DQPSK, 8DPSK mode			
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	59.67	-13.25	46.42	74	-27.58	Peak
2	4804	V	47.76	-13.25	34.51	54	-19.49	Avg
3	7206	--	--	--	--	--	--	--
4	9608	--	--	--	--	--	--	--
5	4804	H	57.39	-13.25	44.14	74	-29.86	Peak
6	4804	H	48.64	-13.25	35.39	54	-18.61	Avg
7	7206	--	--	--	--	--	--	--
8	9608	--	--	--	--	--	--	--
Test Mode : GFSK TX Mid								
1	4882	V	59.74	-12.98	46.76	74	-27.24	Peak
2	4882	V	48.57	-12.98	35.59	54	-18.41	Avg
3	7323	--	--	--	--	--	--	--
4	9764	--	--	--	--	--	--	--
5	4882	H	58.25	-12.98	45.27	74	-28.73	Peak
6	4882	H	48.38	-12.98	35.4	54	-18.6	Avg
7	7323	--	--	--	--	--	--	--
8	9764	--	--	--	--	--	--	--
Test Mode : GFSK TX High								
1	4960	V	57.93	-12.7	45.23	74	-28.77	Peak
2	4960	V	48.86	-12.7	36.16	54	-17.84	Avg
3	7440	--	--	--	--	--	--	--
4	9920	--	--	--	--	--	--	--
5	4960	H	57.8	-12.7	45.1	74	-28.9	Peak
6	4960	H	48.59	-12.7	35.89	54	-18.11	Avg
7	7440	--	--	--	--	--	--	--
8	9920	--	--	--	--	--	--	--

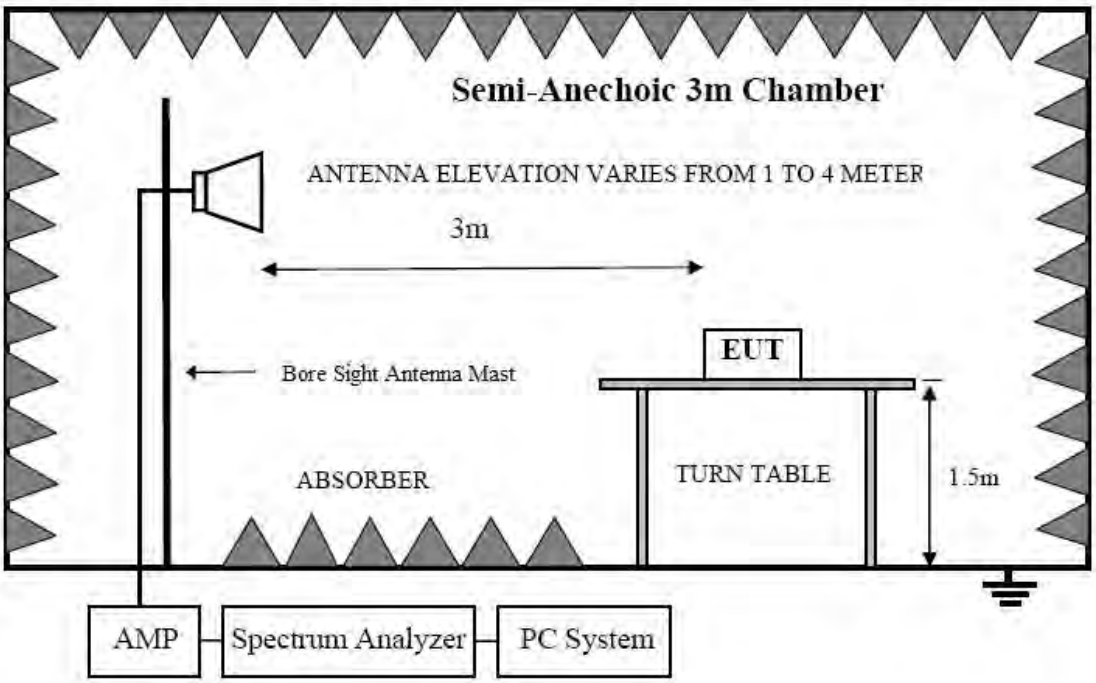
Note:
1. Means other frequency and mode comply with standard requirements and at least have 20dB margin.
2. Correct Factor=Cable Loss+ Antenna Factor-Amplifier Gain.
Result=Reading + Correct Factor. Margin= Result-Limit.

Test Mode : π/4 DQPSK TX Low								
No.	Freq MHz	Polarity	Reading (dBuV/m)	Correct Factor	Result (dBuV/m)	Limit (dBuV/m)	Margin	Remark
1	4804	V	59.28	-13.25	46.03	74	-27.97	Peak
2	4804	V	47.89	-13.25	34.64	54	-19.36	Avg
3	7206	--	--	--	--	--	--	--
4	9608	--	--	--	--	--	--	--
5	4804	H	58.21	-13.25	44.96	74	-29.04	Peak
6	4804	H	48.28	-13.25	35.03	54	-18.97	Avg
7	7206	--	--	--	--	--	--	--
8	9608	--	--	--	--	--	--	--
Test Mode : π/4 DQPSK TX Mid								
1	4882	V	59.26	-12.98	46.28	74	-27.72	Peak
2	4882	V	47.67	-12.98	34.69	54	-19.31	Avg
3	7323	--	--	--	--	--	--	--
4	9764	--	--	--	--	--	--	--
5	4882	H	57.39	-12.98	44.41	74	-29.59	Peak
6	4882	H	47.11	-12.98	34.13	54	-19.87	Avg
7	7323	--	--	--	--	--	--	--
8	9764	--	--	--	--	--	--	--
Test Mode : π/4 DQPSK TX High								
1	4960	V	57.8	-12.7	45.1	74	-28.9	Peak
2	4960	V	48.77	-12.7	36.07	54	-17.93	Avg
3	7440	--	--	--	--	--	--	--
4	9920	--	--	--	--	--	--	--
5	4960	H	59.02	-12.7	46.32	74	-27.68	Peak
6	4960	H	48.88	-12.7	36.18	54	-17.82	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	57.95	-13.25	44.7	74	-29.3	Peak
2	4804	V	47.42	-13.25	34.17	54	-19.83	Avg
3	7206	--	--	--	--	--	--	--
4	9608	--	--	--	--	--	--	--
5	4804	H	59.82	-13.25	46.57	74	-27.43	Peak
6	4804	H	48.38	-13.25	35.13	54	-18.87	Avg
7	7206	--	--	--	--	--	--	--
8	9608	--	--	--	--	--	--	--
Test Mode : 8DPSK TX Mid								
1	4882	V	59.7	-12.98	46.72	74	-27.28	Peak
2	4882	V	48.17	-12.98	35.19	54	-18.81	Avg
3	7323	--	--	--	--	--	--	--
4	9764	--	--	--	--	--	--	--
5	4882	H	59.11	-12.98	46.13	74	-27.87	Peak
6	4882	H	48.58	-12.98	35.6	54	-18.4	Avg
7	7323	--	--	--	--	--	--	--
8	9764	--	--	--	--	--	--	--
Test Mode : 8D PSK TX High								
1	4960	V	58.52	-12.7	45.82	74	-28.18	Peak
2	4960	V	47.22	-12.7	34.52	54	-19.48	Avg
3	7440	--	--	--	--	--	--	--
4	9920	--	--	--	--	--	--	--
5	4960	H	58.01	-12.7	45.31	74	-28.69	Peak
6	4960	H	47.4	-12.7	34.7	54	-19.3	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.Block Diagram of Test Setup



10.2.Test Limit

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)).

Please refer section RSS-GEN&15.247.

10.3.Test Procedure

Refer to ANSI C 63.10, Clause 6.10.

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

10.4.Test Results

Test Date	:	2025.5.23	Temperature	:	24.7℃
Test Engineer	:	Felix Pang	Humidity	:	53.5%
Test Results	:	**PASS**			

Frequency Range : **2310MHz~2410MHz**								
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	62.59	-20.45	42.14	74	-31.86	Peak
2	2390	H	--	-20.45	--	54	-11.86	Avg
3	2400	H	62.11	-20.41	41.7	74	-32.3	Peak
4	2400	H	--	-20.41	--	54	-12.3	Avg
1	2390	V	62.47	-20.45	42.02	74	-31.98	Peak
2	2390	V	--	-20.45	--	54	-11.98	Avg
3	2400	V	62.93	-20.41	42.52	74	-31.48	Peak
4	2400	V	--	-20.41	--	54	-11.48	Avg
Frequency Range : **2450MHz~2550MHz**								
Test Mode : GFSK TX 2480MHz								
1	2483.5	H	62.38	-20.15	42.23	74	-31.77	Peak
2	2483.5	H	--	-20.15	--	54	-11.77	Avg
1	2483.5	V	62.73	-20.15	42.58	74	-31.42	Peak
2	2483.5	V	--	-20.15	--	54	-11.42	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~2410MHz**								
Test Mode : π/4 DQPSK TX 2402MHz								
No.	Freq MHz	Polarity	Reading (dBuV/m)	Correct Factor	Result (dBuV/m)	Limit (dBuV/m)	Margin	Remark
1	2390	H	62.08	-20.45	41.63	74	-32.37	Peak
2	2390	H	--	-20.45	--	54	-12.37	Avg
3	2400	H	62.29	-20.41	41.88	74	-32.12	Peak
4	2400	H	--	-20.41	--	54	-12.12	Avg
1	2390	V	62.03	-20.45	41.58	74	-32.42	Peak
2	2390	V	--	-20.45	--	54	-12.42	Avg
3	2400	V	62.61	-20.41	42.2	74	-31.8	Peak
4	2400	V	--	-20.41	--	54	-11.8	Avg
Frequency Range : **2450MHz~2550MHz**								
Test Mode : π/4 DQPSK TX 2480MHz								
1	2483.5	H	62.35	-20.15	42.2	74	-31.8	Peak
2	2483.5	H	--	-20.15	--	54	-11.8	Avg
1	2483.5	V	62.17	-20.15	42.02	74	-31.98	Peak
2	2483.5	V	--	-20.15	--	54	-11.98	Avg

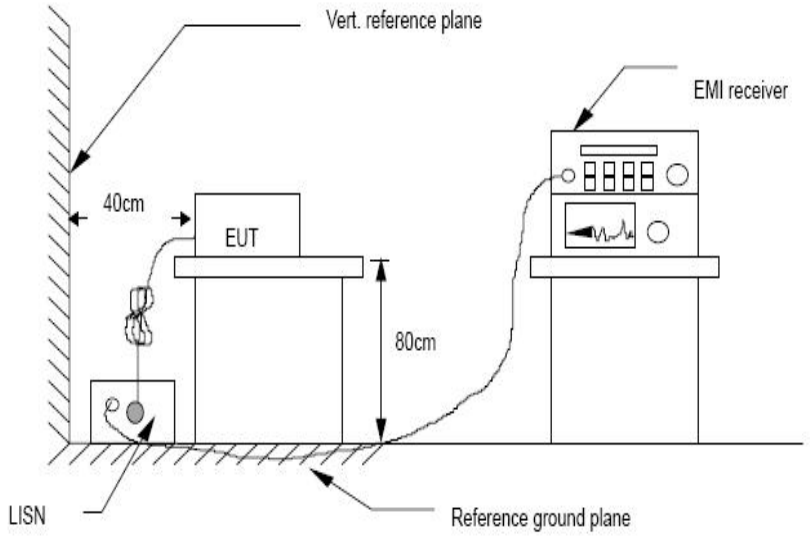
Note:
1. Means other frequency and mode comply with standard requirements and at least have 20dB margin.
2. Correct Factor=Cable Loss+ Antenna Factor-Amplifier Gain.
Result=Reading + Correct Factor. Margin= Result-Limit.
3. If the limits for the measurement with the average detector are met when using 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~2410MHz**								
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	62.57	-20.45	42.12	74	-31.88	Peak
2	2390	H	--	-20.45	--	54	-11.88	Avg
3	2400	H	62.99	-20.41	42.58	74	-31.42	Peak
4	2400	H	--	-20.41	--	54	-11.42	Avg
1	2390	V	62	-20.45	41.55	74	-32.45	Peak
2	2390	V	--	-20.45	--	54	-12.45	Avg
3	2400	V	62.23	-20.41	41.82	74	-32.18	Peak
4	2400	V	--	-20.41	--	54	-12.18	Avg
Frequency Range : **2450MHz~2550MHz**								
Test Mode : 8DPSK TX 2480MHz								
1	2483.5	H	62.53	-20.15	42.38	74	-31.62	Peak
2	2483.5	H	--	-20.15	--	54	-11.62	Avg
1	2483.5	V	62.06	-20.15	41.91	74	-32.09	Peak
2	2483.5	V	--	-20.15	--	54	-12.09	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.Block Diagram of Test Setup



11.2.Limit

Frequency	Maximum RF Line Voltage	
	Quasi-Peak Level dB(μV)	Average Level dB(μV)
150kHz ~ 500kHz	66 ~ 56*	56 ~ 46*
500kHz ~ 5MHz	56	46
5MHz ~ 30MHz	60	50

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

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

11.3.Test Procedure

(1) The EUT was placed on a non-metallic table, 80cm above the ground plane.

(2) Setup the EUT and simulator as shown in 10.1

(3) The EUT Power connected to the power mains through a power adapter and a line impedance stabilization network (L.I.S.N1). The other peripheral devices power cord connected to the power mains through a line impedance stabilization network (L.I.S.N2), this provided a 50-ohm coupling impedance for the EUT (Please refer to the block diagram of the test setup and photographs). Both sides of power line were checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipments and all of the interface cables were changed according to ANSI C63.10:2013on conducted Emission test.

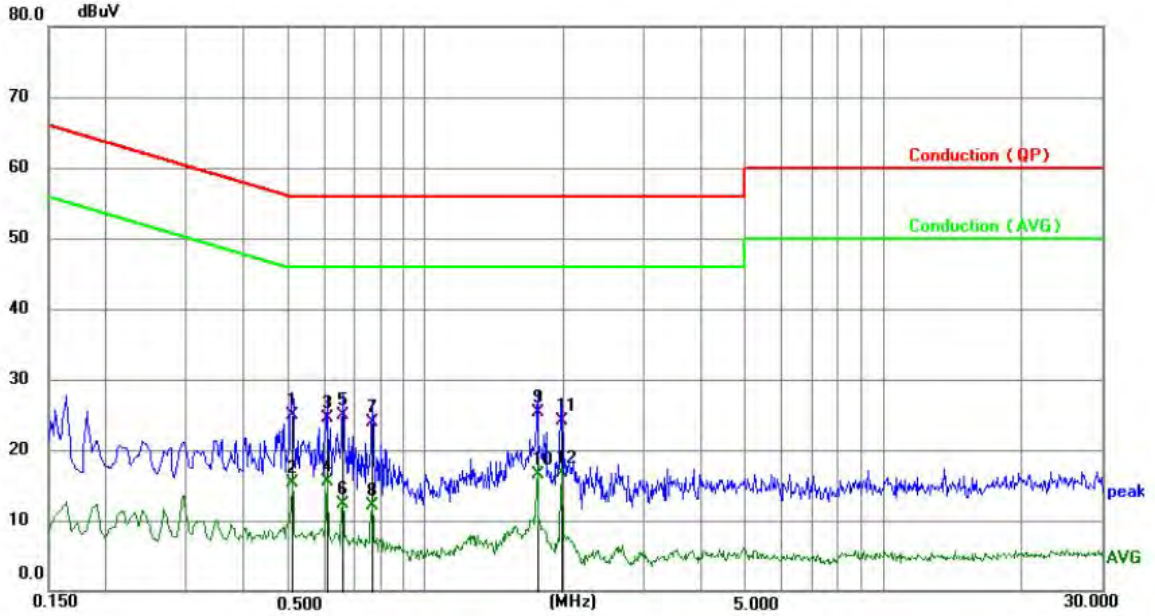
(4) The bandwidth of test receiver is set at 10KHz.

(5) The frequency range from 150 KHz to 30MHz is checked.

11.4.Test Results

Test Date	:	2025.5.24	Temperature	:	24.7℃
Test Engineer	:	Felix Pang	Humidity	:	53.5%
Test Mode	:	8DPSK mode			
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 8DPSK mode, Middle Channel 2441MHz (AC 120V/ 60Hz) was listed in this report.				

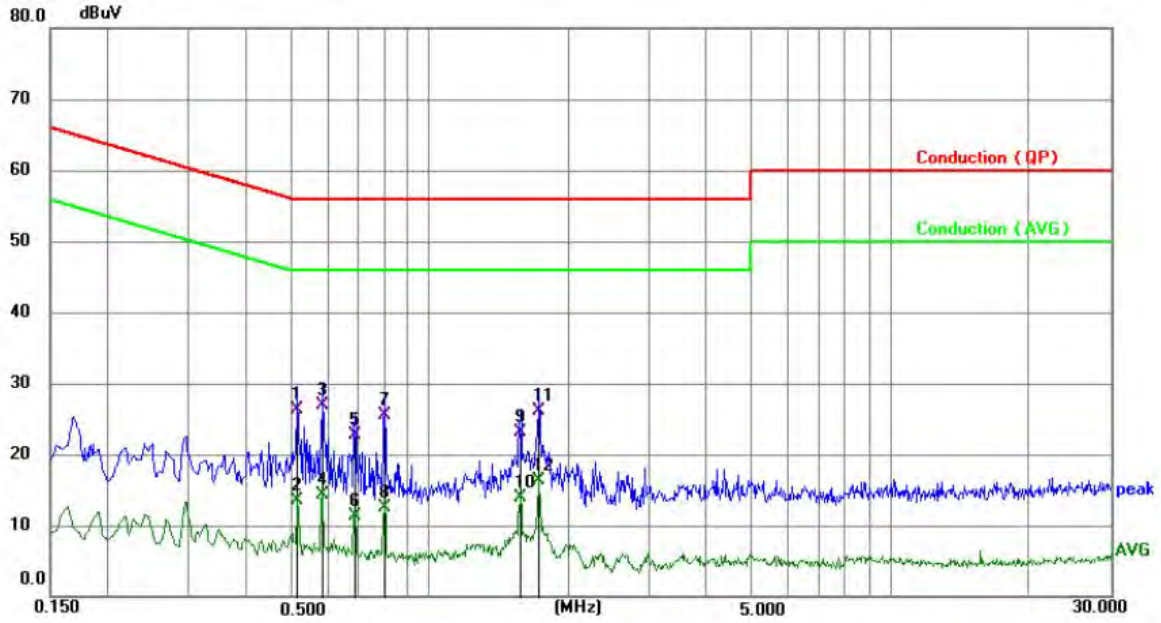
Polarization: L



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F	Remark
1	0.5100	14.96	10.02	24.98	56.00	-31.02	QP	P	
2	0.5100	5.21	10.02	15.23	46.00	-30.77	AVG	P	
3	0.6090	14.52	10.03	24.55	56.00	-31.45	QP	P	
4	0.6090	5.57	10.03	15.60	46.00	-30.40	AVG	P	
5	0.6584	14.82	10.03	24.85	56.00	-31.15	QP	P	
6	0.6584	2.31	10.03	12.34	46.00	-33.66	AVG	P	
7	0.7664	13.80	10.04	23.84	56.00	-32.16	QP	P	
8	0.7664	2.03	10.04	12.07	46.00	-33.93	AVG	P	
9	1.7564	15.18	10.06	25.24	56.00	-30.76	QP	P	
10	1.7564	6.49	10.06	16.55	46.00	-29.45	AVG	P	
11	1.9904	14.07	10.06	24.13	56.00	-31.87	QP	P	
12 *	1.9904	6.73	10.06	16.79	46.00	-29.21	AVG	P	

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

Polarization: N



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F	Remark
1	0.5144	16.21	10.02	26.23	56.00	-29.77	QP	P	
2	0.5144	3.45	10.02	13.47	46.00	-32.53	AVG	P	
3 *	0.5865	16.92	10.03	26.95	56.00	-29.05	QP	P	
4	0.5865	4.25	10.03	14.28	46.00	-31.72	AVG	P	
5	0.6854	12.64	10.03	22.67	56.00	-33.33	QP	P	
6	0.6854	1.33	10.03	11.36	46.00	-34.64	AVG	P	
7	0.7980	15.41	10.04	25.45	56.00	-30.55	QP	P	
8	0.7980	2.39	10.04	12.43	46.00	-33.57	AVG	P	
9	1.5720	13.07	10.06	23.13	56.00	-32.87	QP	P	
10	1.5720	3.90	10.06	13.96	46.00	-32.04	AVG	P	
11	1.7295	16.11	10.06	26.17	56.00	-29.83	QP	P	
12	1.7295	6.32	10.06	16.38	46.00	-29.62	AVG	P	

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

12. Frequency stability

12.1. Test limit

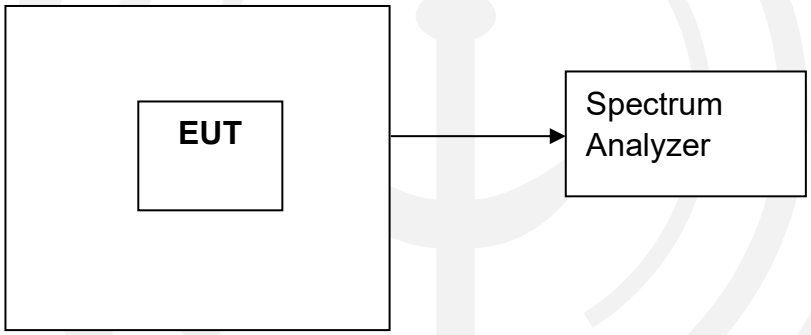
Please refer section RSS-Gen.

Regulation RSS-Gen If the frequency stability of the licence-exempt radio apparatus is not specified in the applicable RSS, the fundamental emissions of the radio apparatus should be kept within at least the central 80% of its permitted operating frequency band in order to minimize the possibility of out-of-band operation. In addition, its occupied bandwidth shall be entirely outside the restricted bands and the prohibited TV bands of 54-72 MHz, 76-88 MHz, 174-216 MHz, and 470-602 MHz, unless otherwise indicated.

12.2. Test Procedure

The following equipment are installed on the emission measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

12.3. Test Setup



Temperature controller

12.4. Test Results

Not Applicable.

13. Antenna Requirements

13.1.Limit

For intentional device, according to FCC 47 CFR Section 15.203 and RSS-GEN, 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. And according to FCC 47 CFR Section 15.247 (b), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

13.2.Result

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

14. Photos of test setup

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

15. Photos of EUT

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

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