

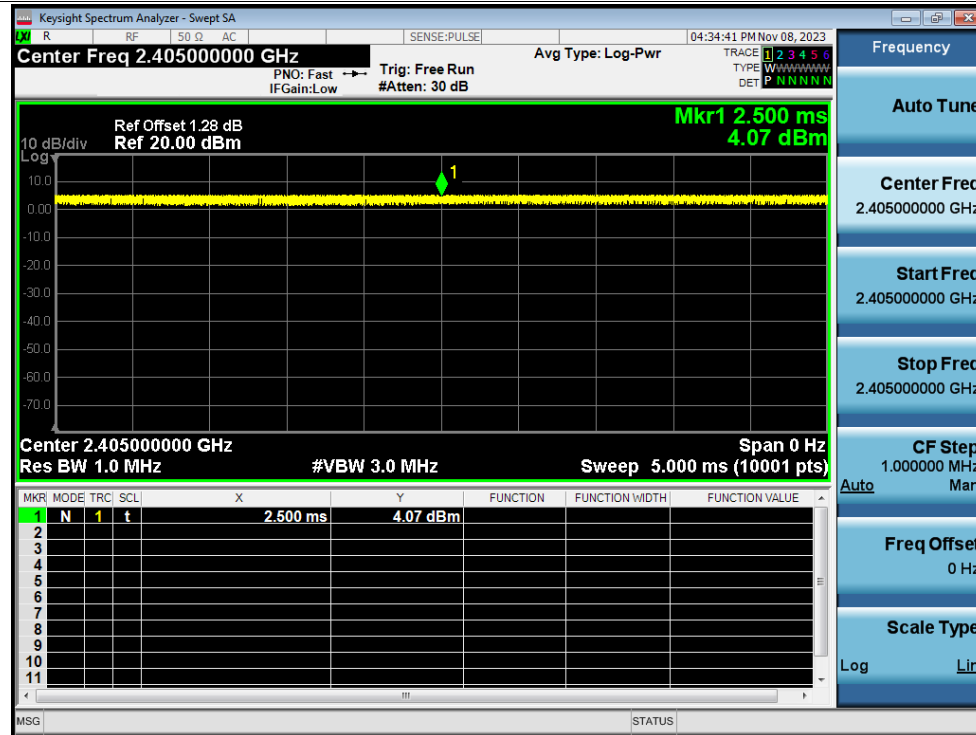
Appendix A

Duty Cycle

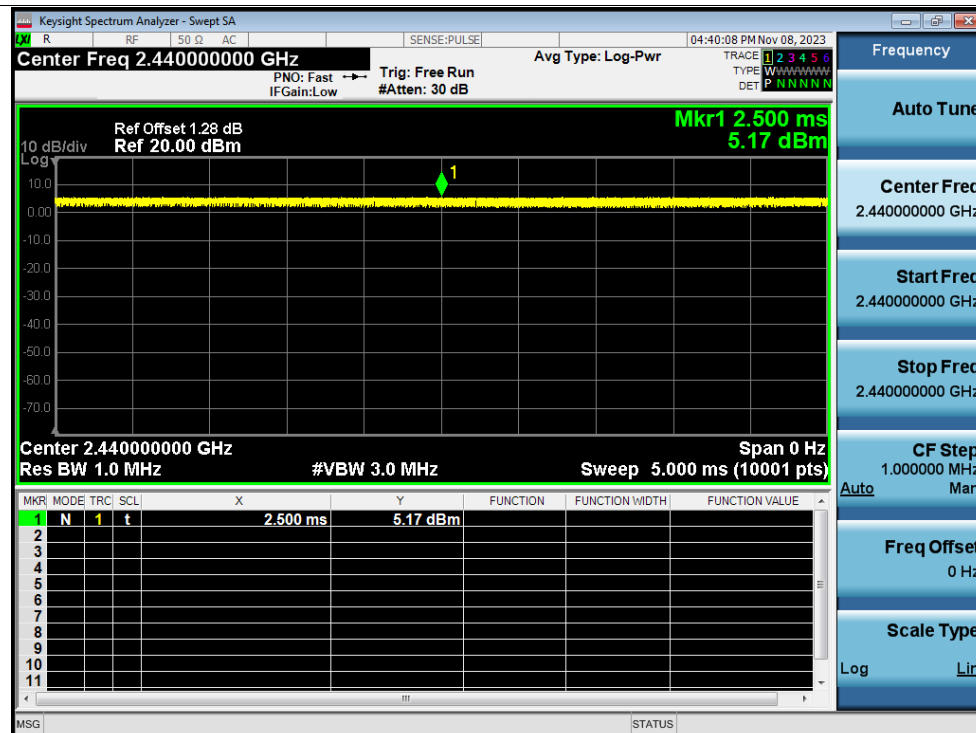
Condition	Mode	Frequency (MHz)	Antenna	On Time (ms)	Period (ms)	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)	Final settingFor VBW (kHz)
NVNT	Zigbee	2405	Ant1	0	0	100	0	0	1
NVNT	Zigbee	2440	Ant1	0	0	100	0	0	1
NVNT	Zigbee	2480	Ant1	0	0	100	0	0	1

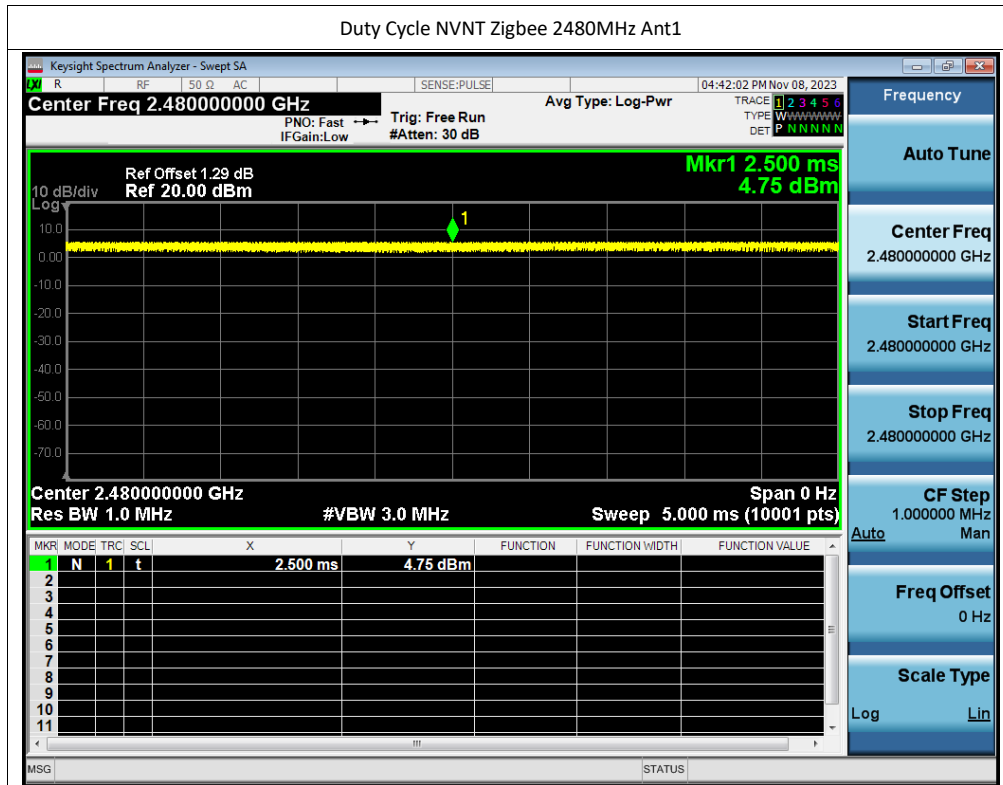
Test Graphs

Duty Cycle NVNT Zigbee 2405MHz Ant1



Duty Cycle NVNT Zigbee 2440MHz Ant1



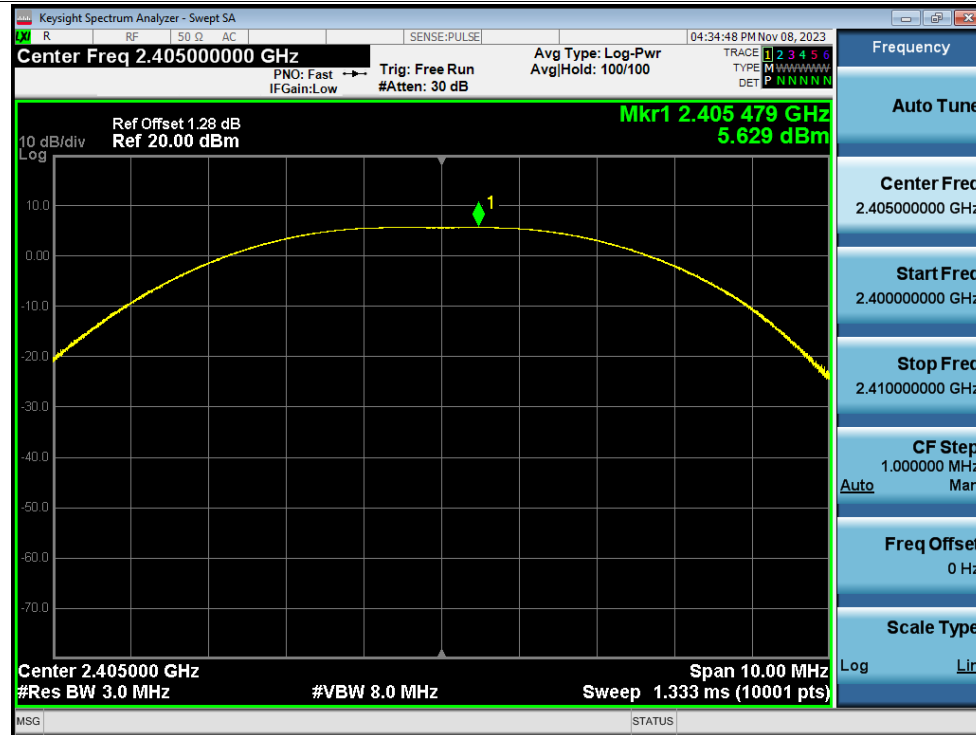


Maximum Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	Zigbee	2405	Ant1	5.63	0	5.63	30	Pass
NVNT	Zigbee	2440	Ant1	5.82	0	5.82	30	Pass
NVNT	Zigbee	2480	Ant1	6	0	6	30	Pass

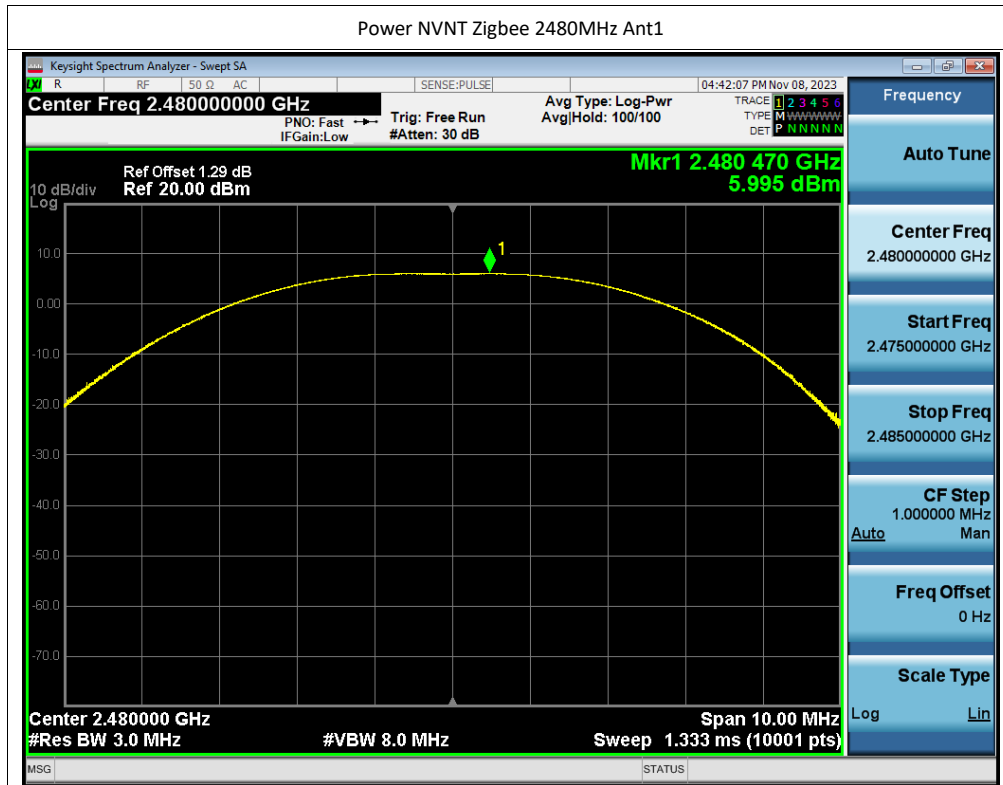
Test Graphs

Power NVNT Zigbee 2405MHz Ant1



Power NVNT Zigbee 2440MHz Ant1



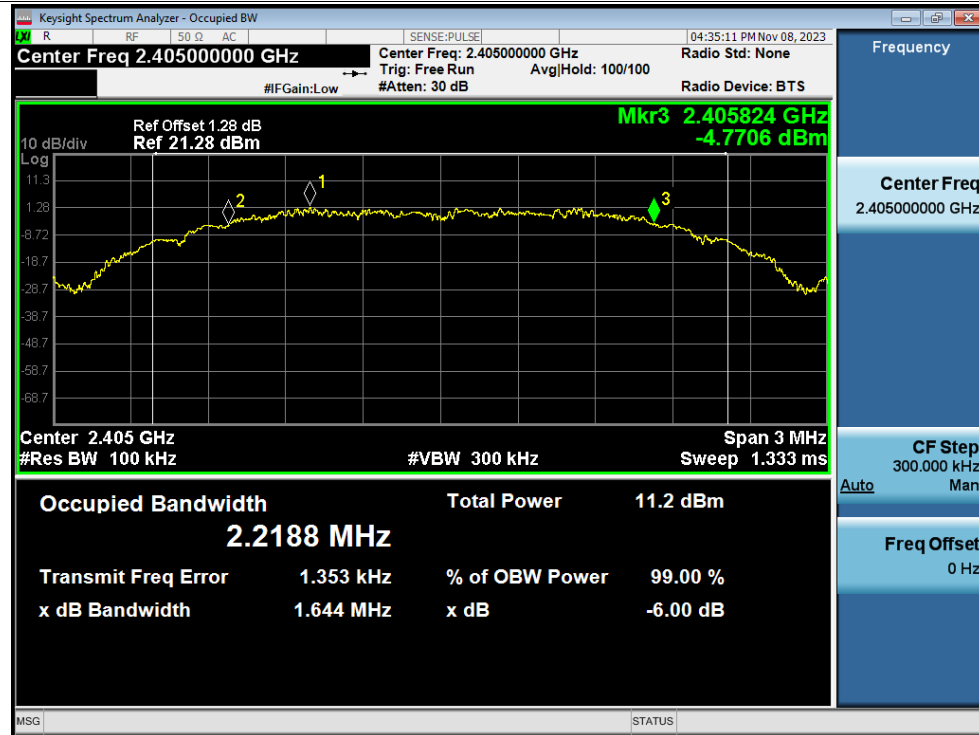


-6dB Bandwidth

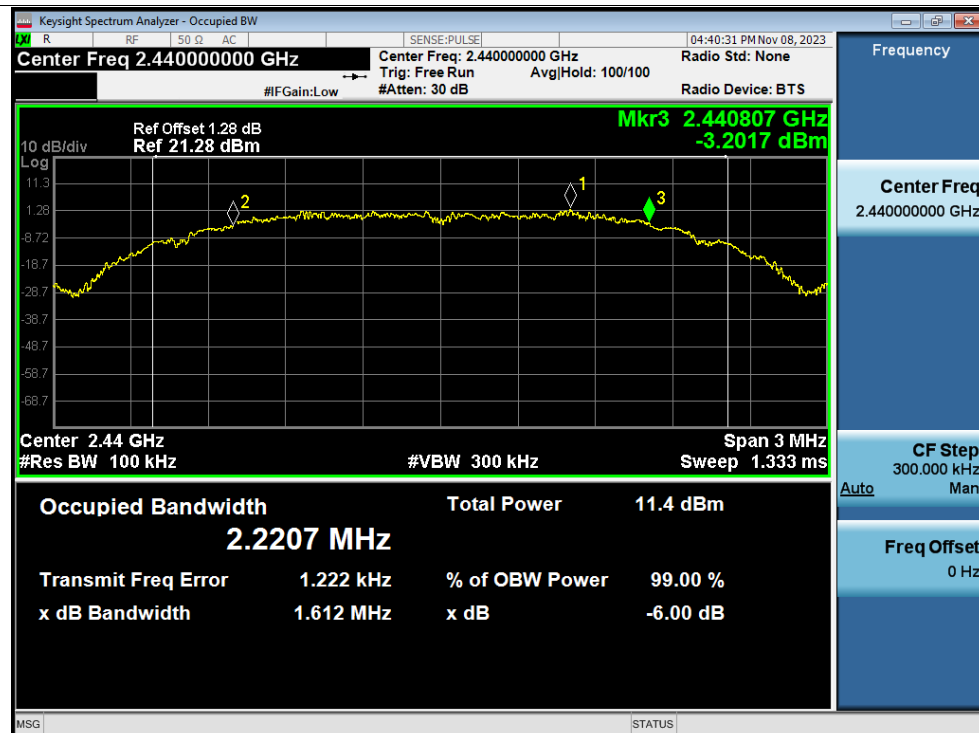
Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	Zigbee	2405	Ant1	1.644	0.5	Pass
NVNT	Zigbee	2440	Ant1	1.612	0.5	Pass
NVNT	Zigbee	2480	Ant1	1.626	0.5	Pass

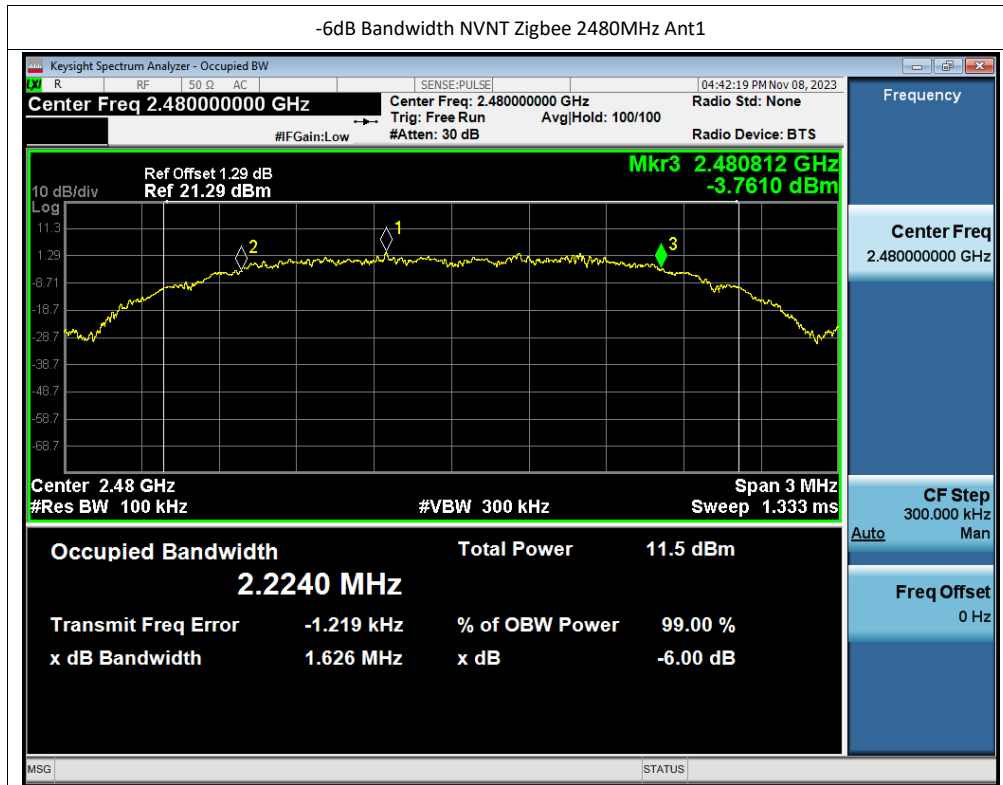
Test Graphs

-6dB Bandwidth NVNT Zigbee 2405MHz Ant1



-6dB Bandwidth NVNT Zigbee 2440MHz Ant1



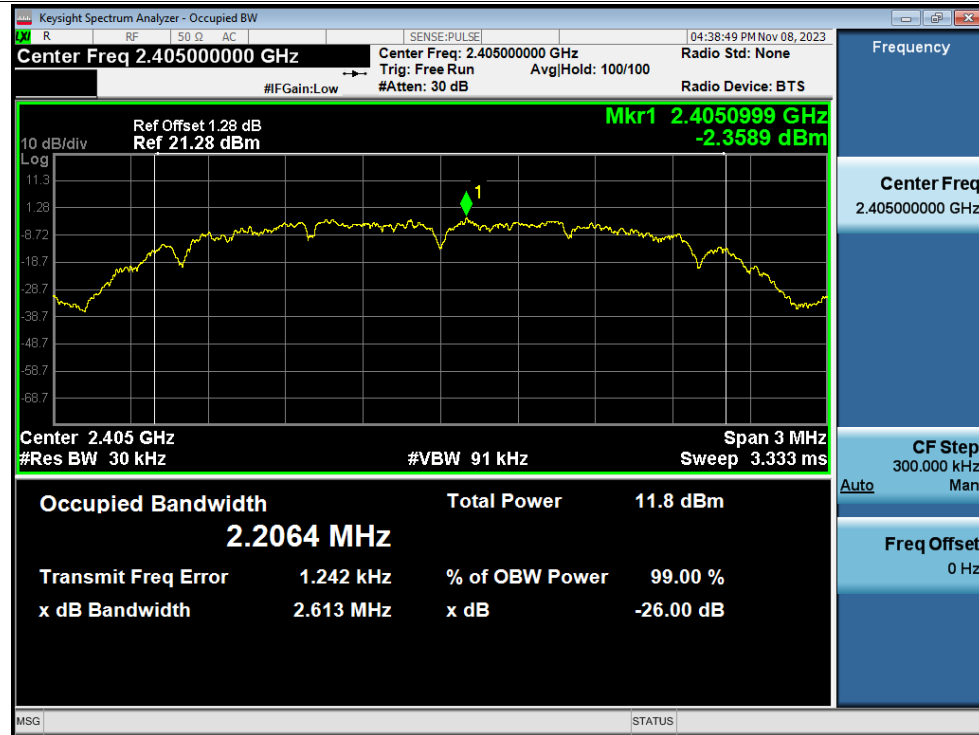


Occupied Channel Bandwidth

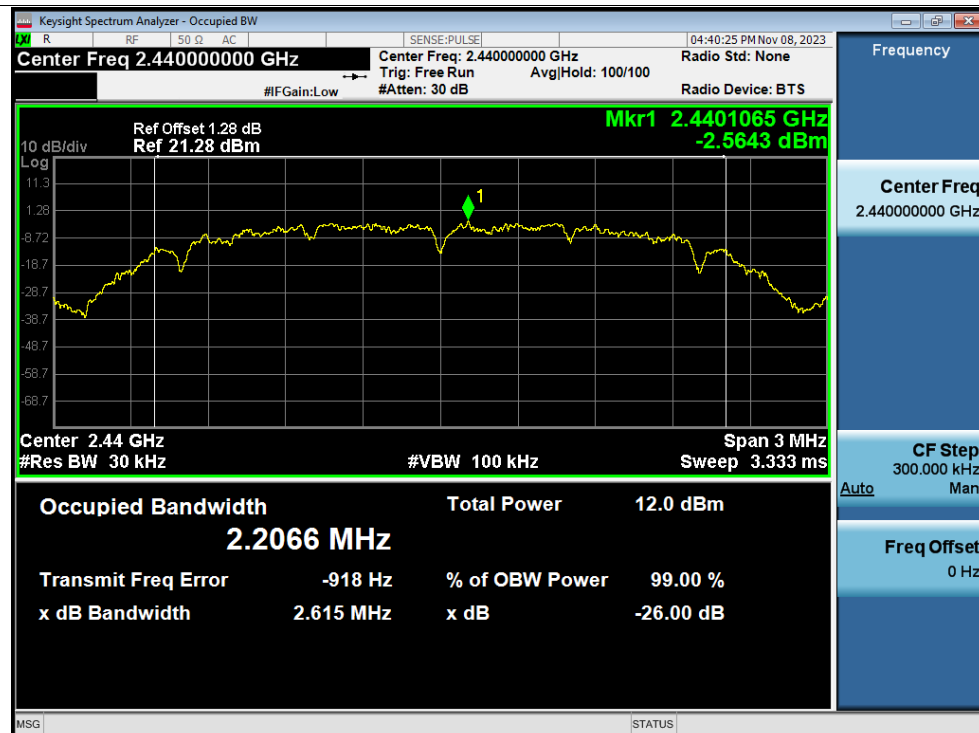
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	Zigbee	2405	Ant1	2.206
NVNT	Zigbee	2440	Ant1	2.207
NVNT	Zigbee	2480	Ant1	2.209

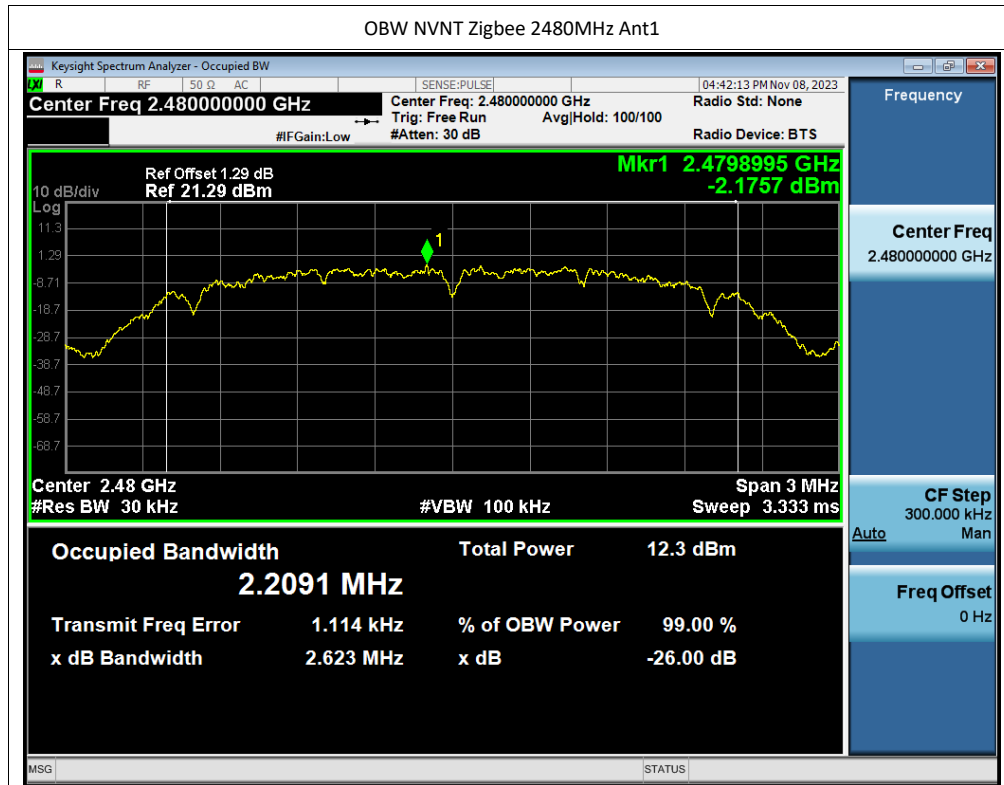
Test Graphs

OBW NVNT Zigbee 2405MHz Ant1



OBW NVNT Zigbee 2440MHz Ant1





Maximum Power Spectral Density Level

Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm/3kHz)	Duty Factor (dB)	Total PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
NVNT	Zigbee	2405	Ant1	-10.79	0	-10.79	8	Pass
NVNT	Zigbee	2440	Ant1	-9.74	0	-9.74	8	Pass
NVNT	Zigbee	2480	Ant1	-9.62	0	-9.62	8	Pass

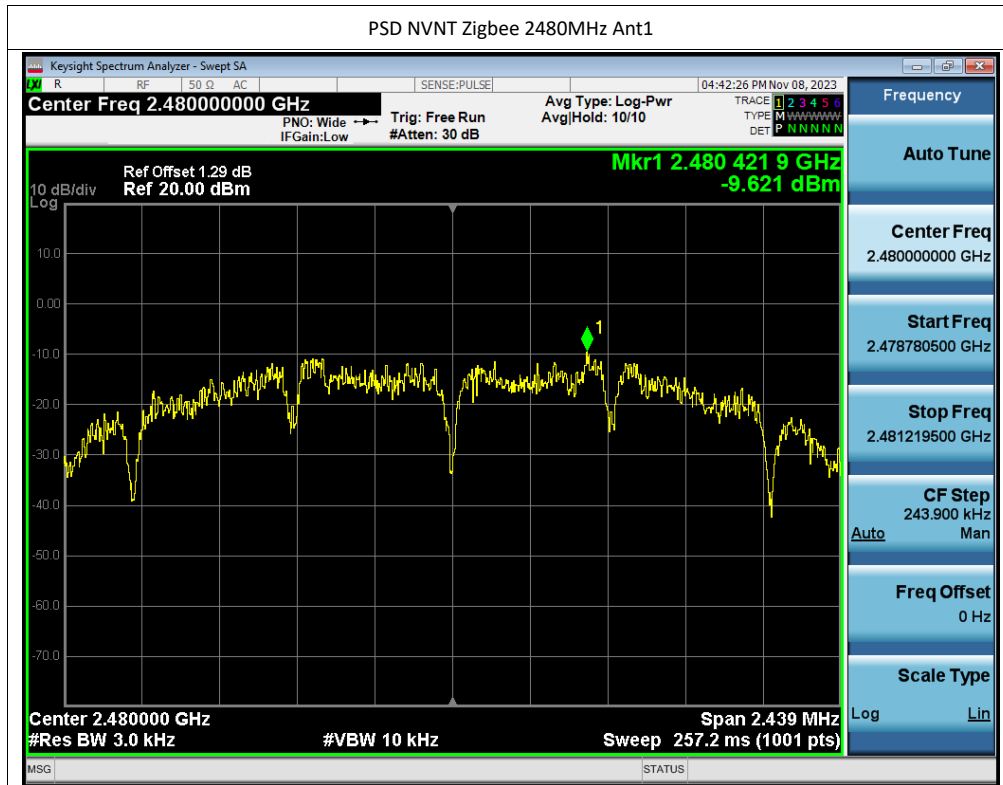
Test Graphs

PSD NVNT Zigbee 2405MHz Ant1



PSD NVNT Zigbee 2440MHz Ant1



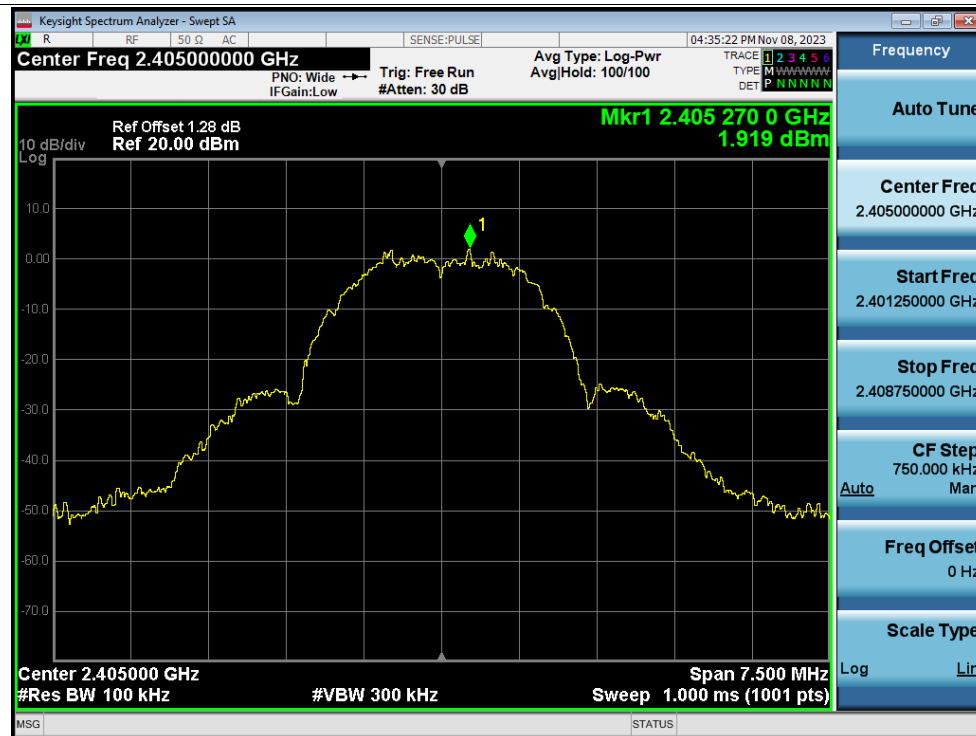


Band Edge

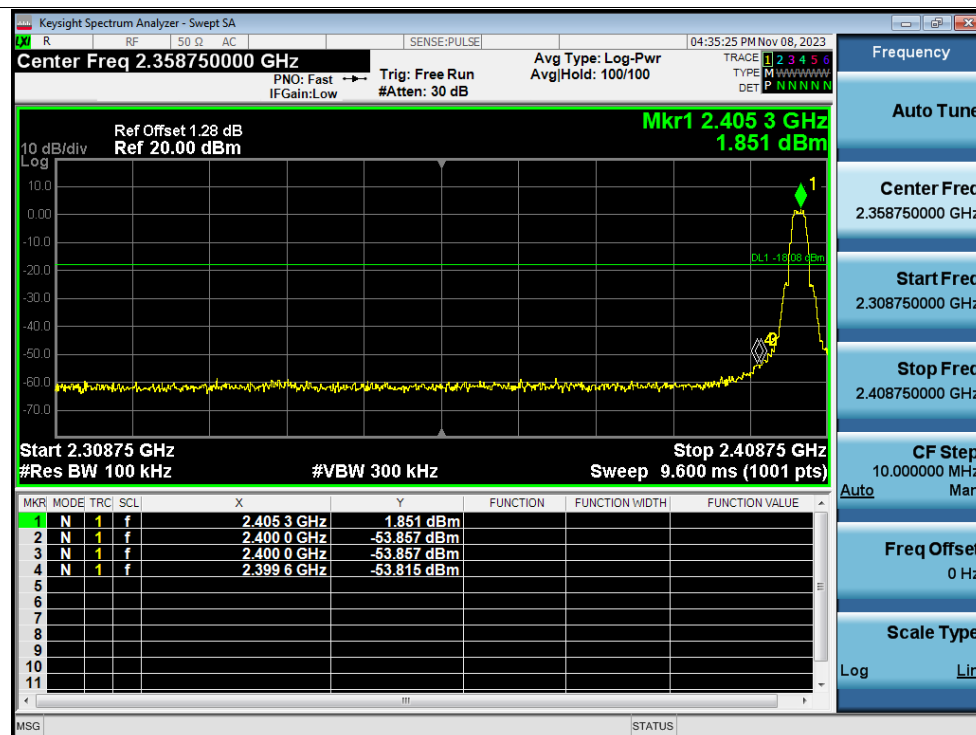
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	Zigbee	2405	Ant1	-55.73	-20	Pass
NVNT	Zigbee	2480	Ant1	-49.48	-20	Pass

Test Graphs

Band Edge NVNT Zigbee 2405MHz Ant1 Ref



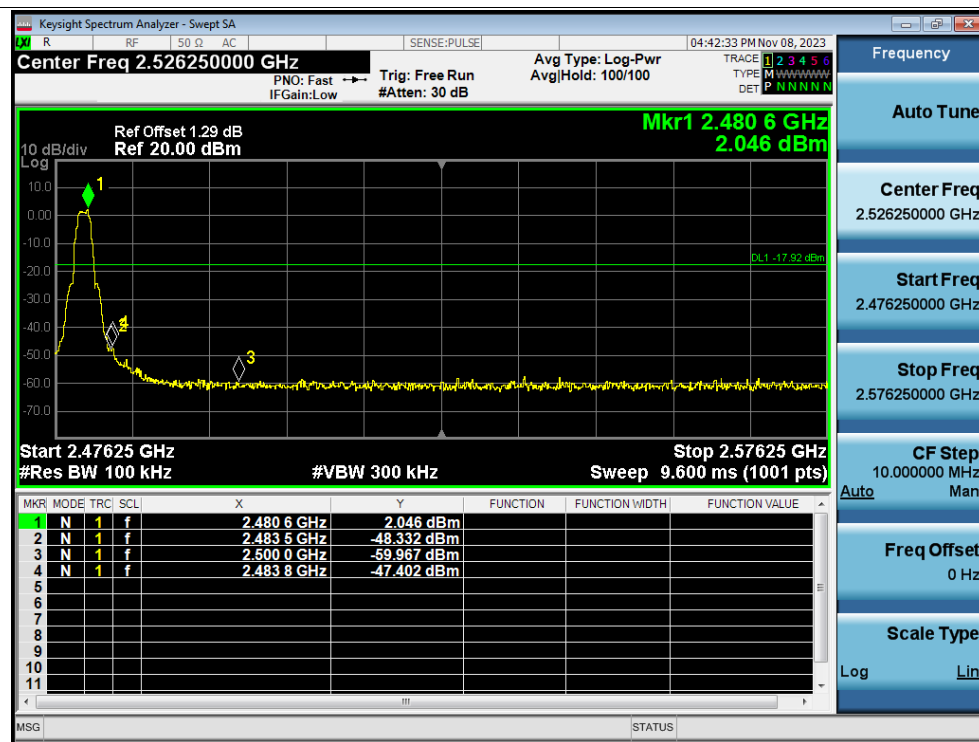
Band Edge NVNT Zigbee 2405MHz Ant1 Emission



Band Edge NVNT Zigbee 2480MHz Ant1 Ref



Band Edge NVNT Zigbee 2480MHz Ant1 Emission



Conducted RF Spurious Emission

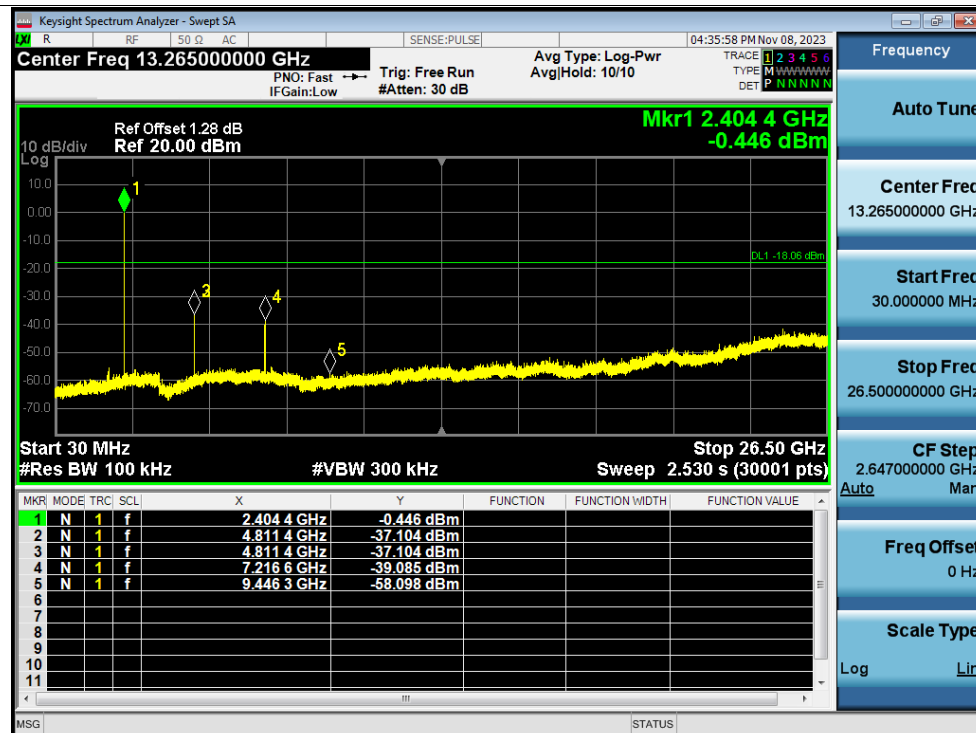
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	Zigbee	2405	Ant1	-39.04	-20	Pass
NVNT	Zigbee	2440	Ant1	-41.3	-20	Pass
NVNT	Zigbee	2480	Ant1	-41.25	-20	Pass

Test Graphs

Tx. Spurious NVNT Zigbee 2405MHz Ant1 Ref



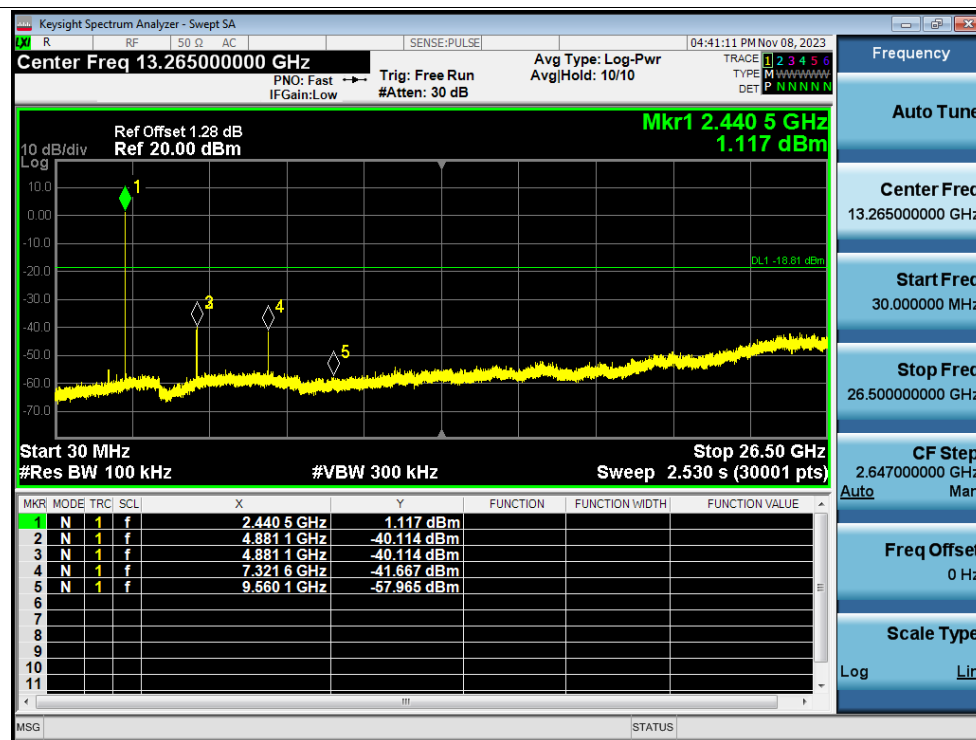
Tx. Spurious NVNT Zigbee 2405MHz Ant1 Emission



Tx. Spurious NVNT Zigbee 2440MHz Ant1 Ref



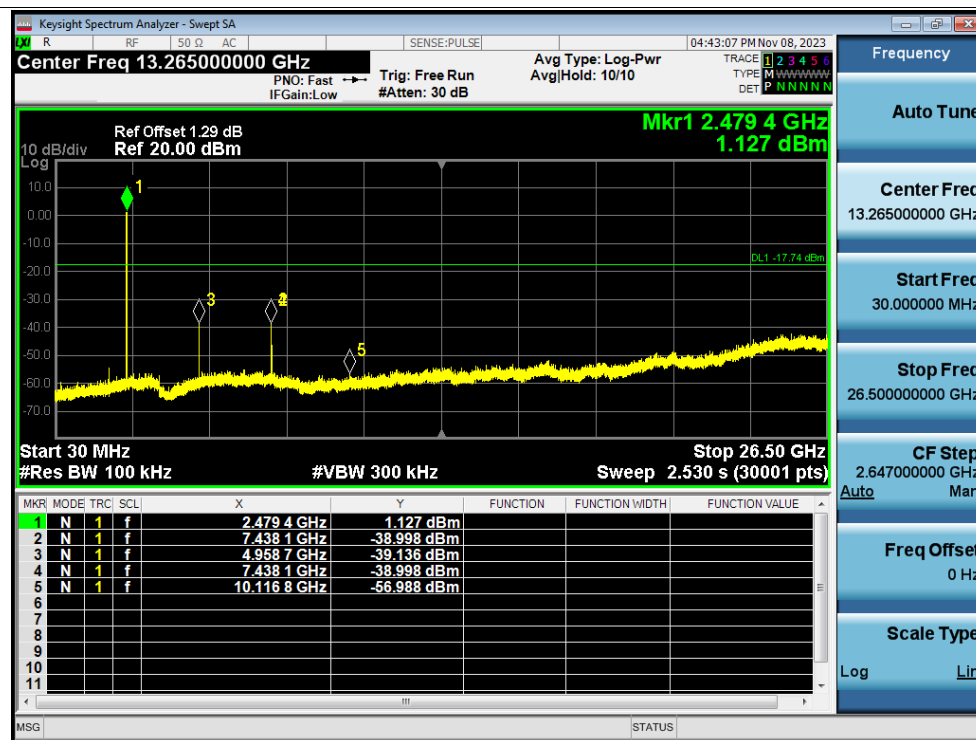
Tx. Spurious NVNT Zigbee 2440MHz Ant1 Emission



Tx. Spurious NVNT Zigbee 2480MHz Ant1 Ref



Tx. Spurious NVNT Zigbee 2480MHz Ant1 Emission

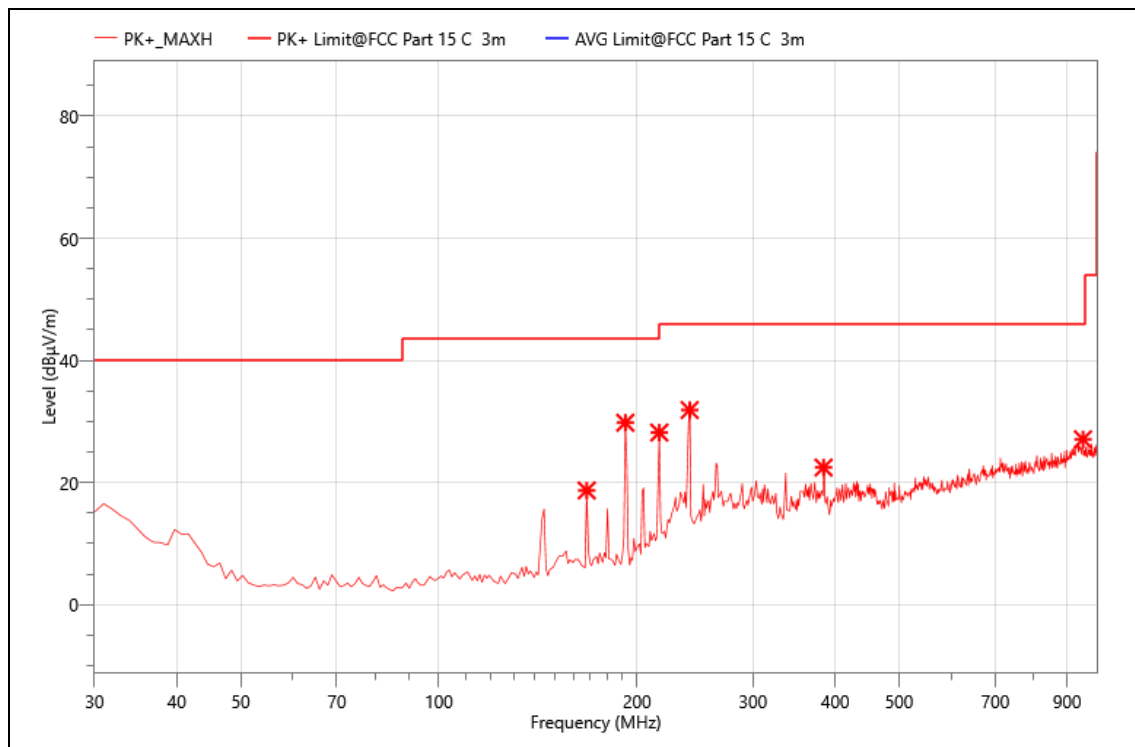


RADIATED TEST RESULTS

The data of the mode (2405MHz) are recorded in the following pages.

The worst result as bellow:

EUT :	Smart Motion Sensor
MN:	M1-E
Mode:	Zigbee 2405
Power:	DC 3V
TE:	Vier
Date	2024/01/22
T/A/P	24.5°C/54.0%/101Kpa



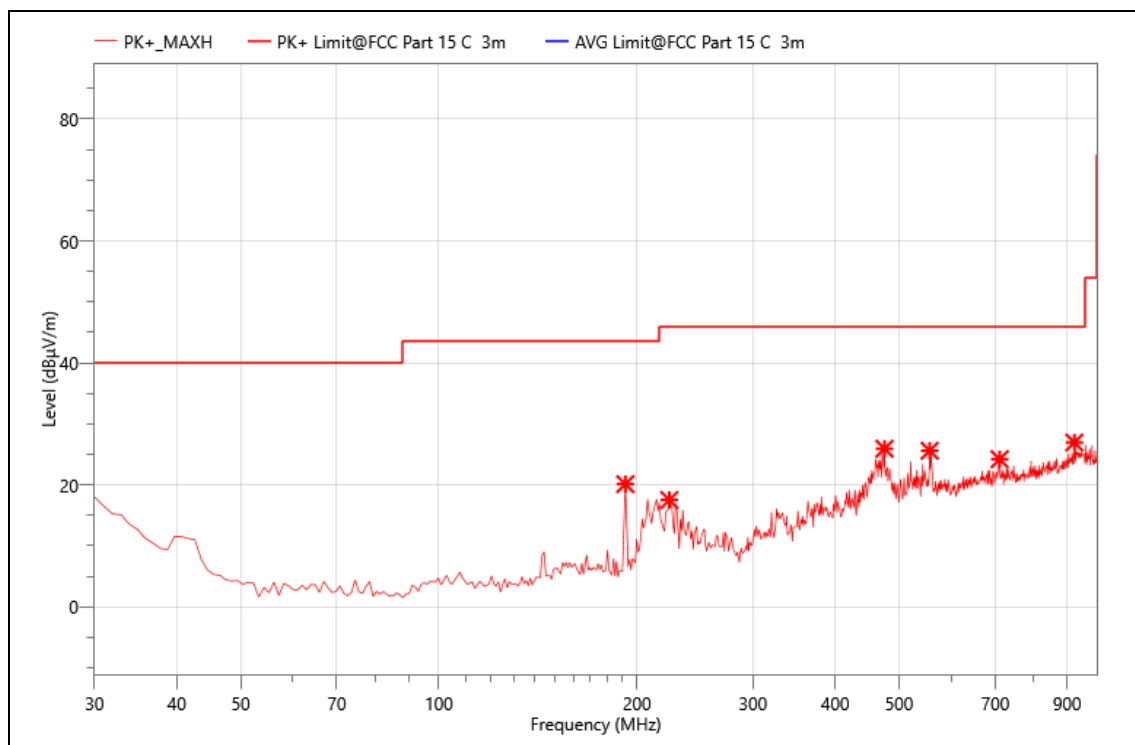
Critical_Freqs

No.	Freq. (MHz)	Reading (dBμV)	Meas. (dBμV/m)	Limit (dBμV/m)	Margin (dBμV/m)	Det.	Pol.	Corr. (dB)
1	167.740	41.40	18.70	43.50	24.80	PK+	H	-22.7
2	191.990	52.37	29.80	43.50	13.70	PK+	H	-22.57
3	216.240	49.14	28.19	46.00	17.81	PK+	H	-20.95
4	240.490	51.47	31.88	46.00	14.12	PK+	H	-19.59
5	384.050	37.14	22.46	46.00	23.54	PK+	H	-14.68
6	951.500	30.56	27.09	46.00	18.91	PK+	H	-3.47

Note: 1. Meas. = Reading + Corr.

2. Margin= Limit - Meas.

EUT :	Smart Motion Sensor
MN:	M1-E
Mode:	Zigbee 2405
Power:	DC 3V
TE:	Vier
Date	2024/01/22
T/A/P	24.5°C/54.0%/101Kpa



Critical_Freqs

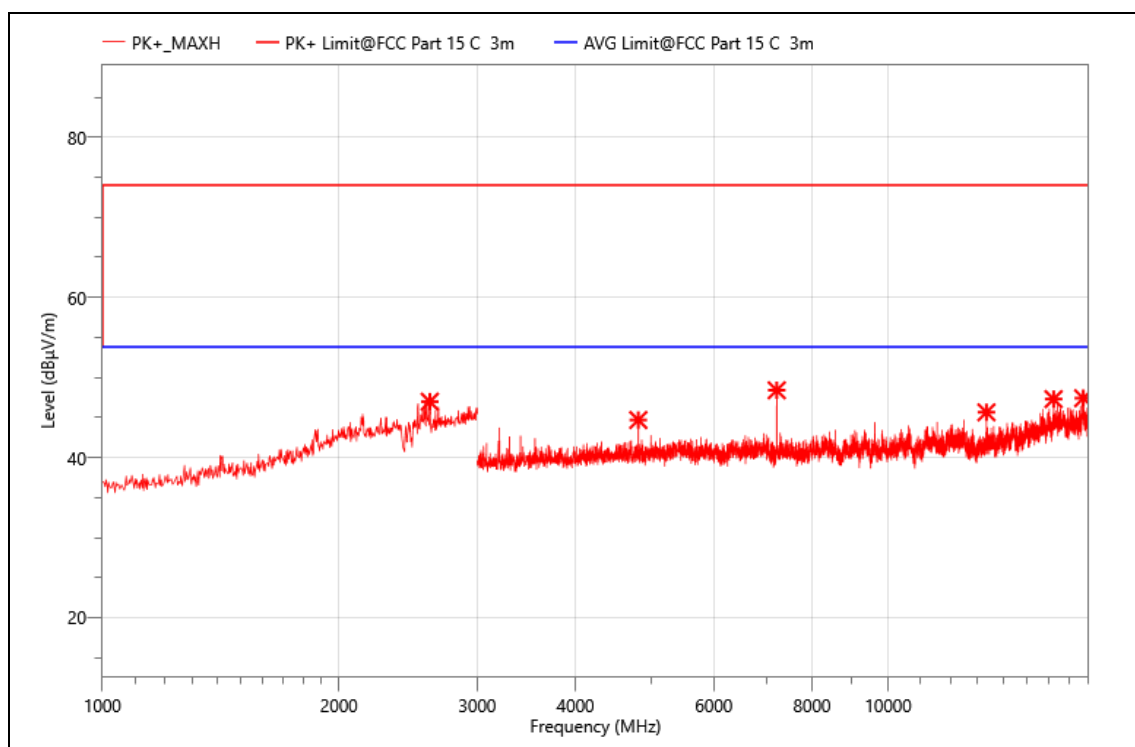
No.	Freq. (MHz)	Reading (dBµV)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dBµV/m)	Det.	Pol.	Corr. (dB)
1	191.990	42.70	20.13	43.50	23.37	PK+	V	-22.57
2	224.000	38.13	17.53	46.00	28.47	PK+	V	-20.6
3	475.230	39.18	25.93	46.00	20.07	PK+	V	-13.25
4	556.710	35.70	25.61	46.00	20.39	PK+	V	-10.09
5	710.940	31.31	24.22	46.00	21.78	PK+	V	-7.09
6	923.370	30.27	26.95	46.00	19.05	PK+	V	-3.32

Note: 1. Meas. = Reading + Corr.

2. Margin= Limit - Meas.

Above 1000MHz~10th Harmonics:

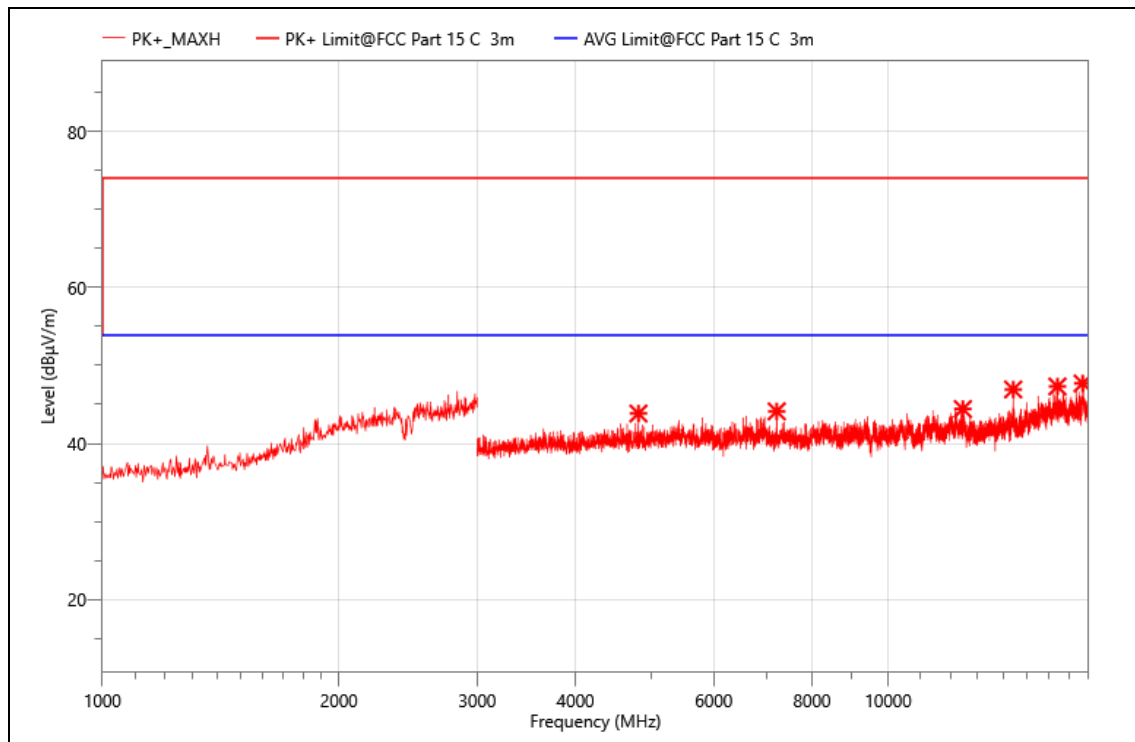
EUT :	Smart Motion Sensor
MN:	M1-E
Mode:	Zigbee 2405
Power:	DC 3V
TE:	Vier
Date	2024/01/22
T/A/P	24.5°C/54.0%/101Kpa



Critical_Freqs

No.	Freq. (MHz)	Reading (dBμV)	Corr. (dB)	Meas. (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Det.	Pol.
1	2610.000	55.24	-8.26	46.98	74.00	27.02	PK+	V
2	4809.000	56.06	-11.37	44.69	74.00	29.31	PK+	V
3	7213.500	56.40	-8	48.40	74.00	25.60	PK+	V
4	13339.500	50.09	-4.44	45.65	74.00	28.35	PK+	V
5	16239.000	48.04	-0.74	47.30	74.00	26.70	PK+	V
6	17712.000	47.49	-0.08	47.41	74.00	26.59	PK+	V

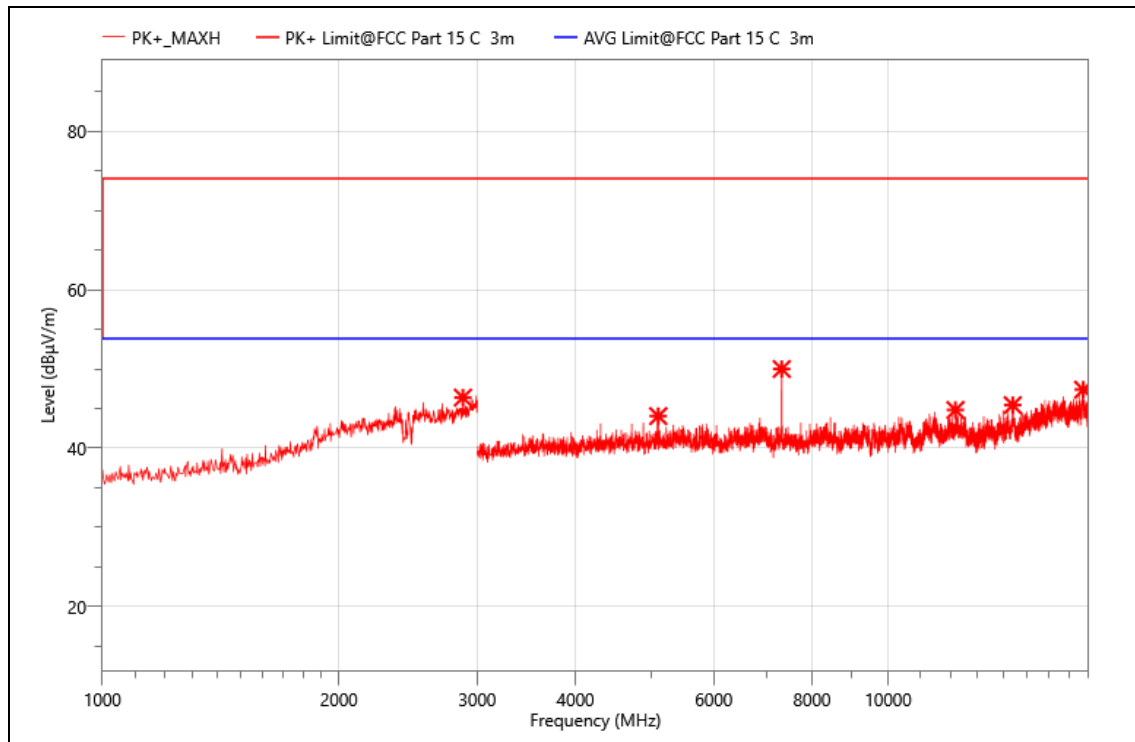
EUT :	Smart Motion Sensor
MN:	M1-E
Mode:	Zigbee 2405
Power:	DC 3V
TE:	Vier
Date	2024/01/22
T/A/P	24.5°C/54.0%/101Kpa



Critical_Freqs

No.	Freq. (MHz)	Reading (dBµV)	Corr. (dB)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Det.	Pol.
1	4810.500	55.23	-11.38	43.85	74.00	30.15	PK+	H
2	7213.500	52.13	-8	44.13	74.00	29.87	PK+	H
3	12447.000	49.37	-4.94	44.43	74.00	29.57	PK+	H
4	14428.500	50.24	-3.31	46.93	74.00	27.07	PK+	H
5	16423.500	48.67	-1.36	47.31	74.00	26.69	PK+	H
6	17683.500	47.44	0.27	47.71	74.00	26.29	PK+	H

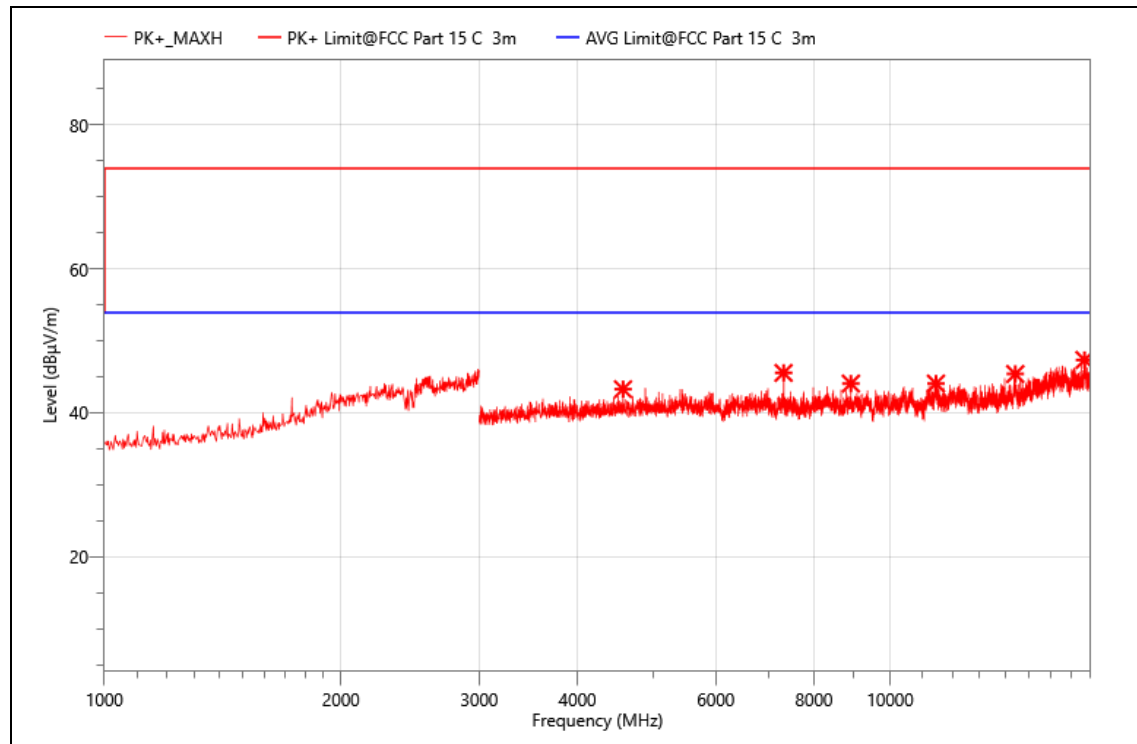
EUT :	Smart Motion Sensor
MN:	M1-E
Mode:	Zigbee 2440
Power:	DC 3V
TE:	Vier
Date	2024/01/22
T/A/P	24.5°C/54.0%/101Kpa



Critical_Freqs

No.	Freq. (MHz)	Reading (dBµV)	Corr. (dB)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Det.	Pol.
1	2876.000	54.65	-8.27	46.38	74.00	27.62	PK+	V
2	5098.500	54.45	-10.41	44.04	74.00	29.96	PK+	V
3	7321.500	57.90	-7.91	49.99	74.00	24.01	PK+	V
4	12181.500	49.56	-4.75	44.81	74.00	29.19	PK+	V
5	14407.500	48.85	-3.42	45.43	74.00	28.57	PK+	V
6	17713.500	47.49	-0.11	47.38	74.00	26.62	PK+	V

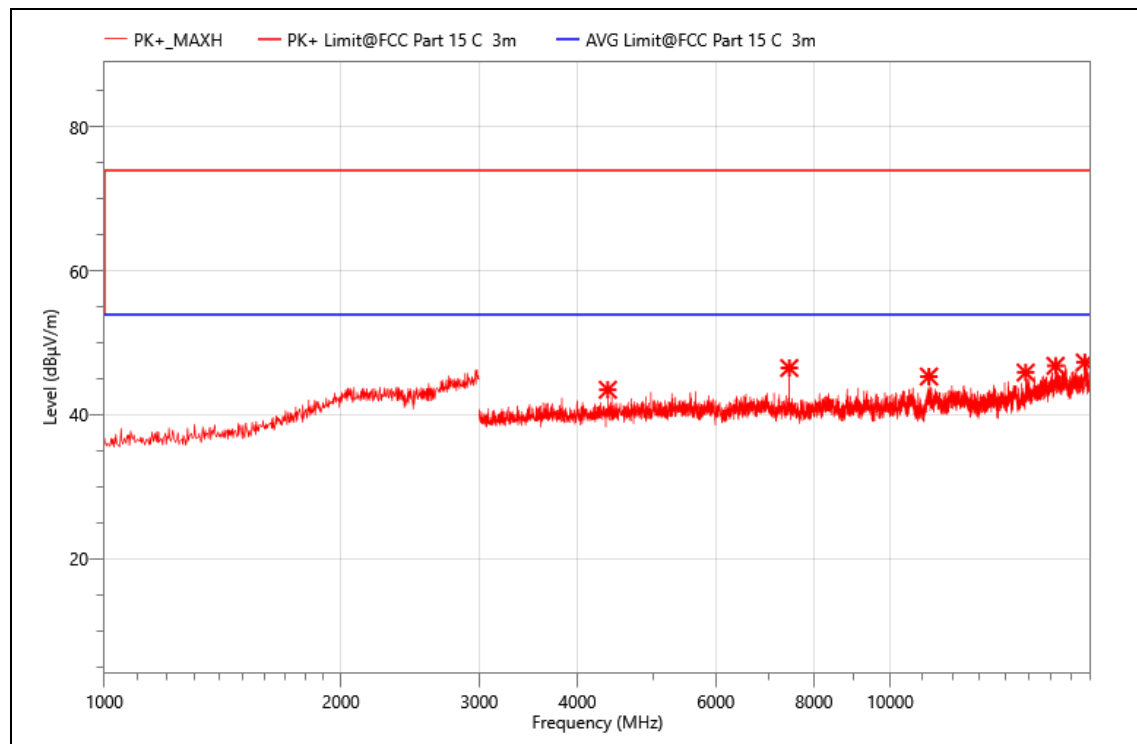
EUT :	Smart Motion Sensor
MN:	M1-E
Mode:	Zigbee 2440
Power:	DC 3V
TE:	Vier
Date	2024/01/22
T/A/P	24.5°C/54.0%/101Kpa



Critical_Freqs

No.	Freq. (MHz)	Reading (dBµV)	Corr. (dB)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Det.	Pol.
1	4572.000	55.09	-11.8	43.29	74.00	30.71	PK+	H
2	7318.500	53.37	-7.82	45.55	74.00	28.45	PK+	H
3	8913.000	51.88	-7.81	44.07	74.00	29.93	PK+	H
4	11437.500	48.55	-4.48	44.07	74.00	29.93	PK+	H
5	14431.500	48.71	-3.31	45.40	74.00	28.60	PK+	H
6	17676.000	47.04	0.31	47.35	74.00	26.65	PK+	H

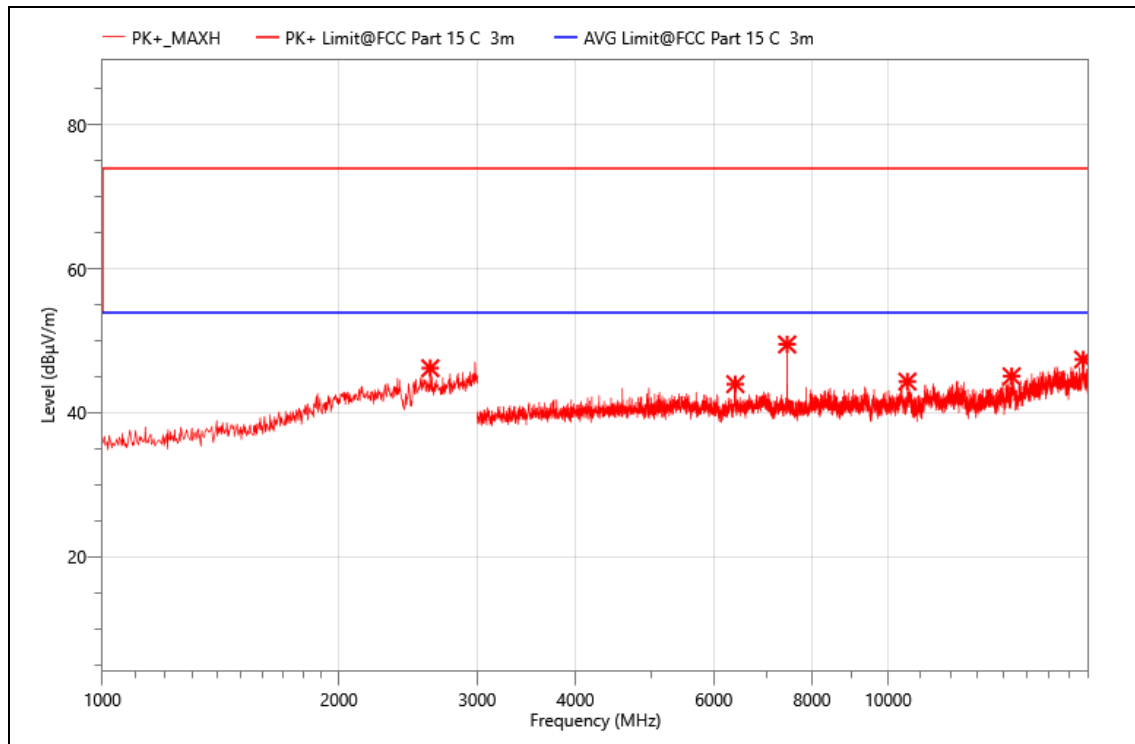
EUT :	Smart Motion Sensor
MN:	M1-E
Mode:	Zigbee 2480
Power:	DC 3V
TE:	Vier
Date	2024/01/22
T/A/P	24.5°C/54.0%/101Kpa



Critical_Freqs

No.	Freq. (MHz)	Reading (dBµV)	Corr. (dB)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Det.	Pol.
1	4372.500	55.56	-12.07	43.49	74.00	30.51	PK+	H
2	7441.500	54.49	-7.98	46.51	74.00	27.49	PK+	H
3	11205.000	49.66	-4.34	45.32	74.00	28.68	PK+	H
4	14877.000	48.45	-2.57	45.88	74.00	28.12	PK+	H
5	16239.000	47.55	-0.74	46.81	74.00	27.19	PK+	H
6	17694.000	47.07	0.21	47.28	74.00	26.72	PK+	H

EUT :	Smart Motion Sensor
MN:	M1-E
Mode:	Zigbee 2480
Power:	DC 3V
TE:	Vier
Date	2024/01/22
T/A/P	24.5°C/54.0%/101Kpa



Critical_Freqs

No.	Freq. (MHz)	Reading (dBμV)	Corr. (dB)	Meas. (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Det.	Pol.
1	2614.000	54.53	-8.33	46.20	74.00	27.80	PK+	V
2	6390.000	51.97	-7.98	43.99	74.00	30.01	PK+	V
3	7438.500	57.46	-7.95	49.51	74.00	24.49	PK+	V
4	10581.000	49.57	-5.22	44.35	74.00	29.65	PK+	V
5	14364.000	48.21	-3.13	45.08	74.00	28.92	PK+	V
6	17712.000	47.50	-0.08	47.42	74.00	26.58	PK+	V

Other harmonics emissions are lower than 20dB below the allowable limit.

Note: (1) All Readings are Peak Value.

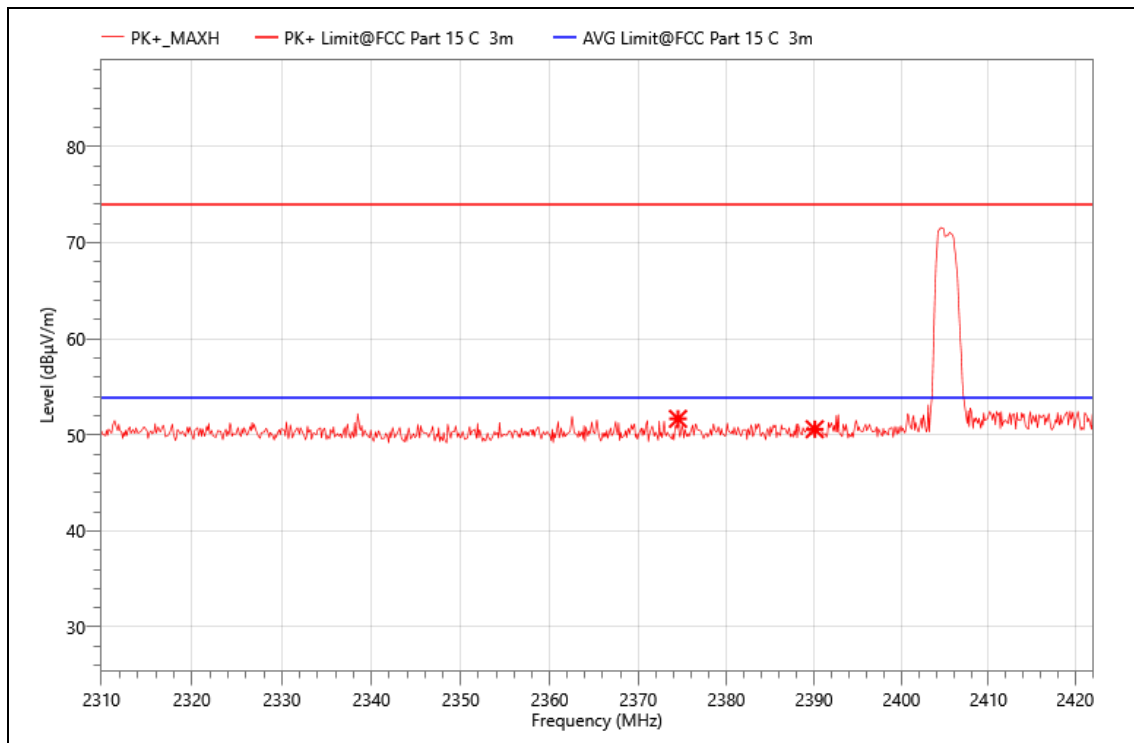
(2) [Margin=Limit-Meas.]; [Meas.=Reading+Corr.]

(3)The average measurement was not performed when the peak measured data under the limit of average detection.

(4) Measuring frequencies from 1GHz to 25GHz.

Band edge:

EUT :	Smart Motion Sensor
MN:	M1-E
Mode:	Zigbee 2405
Power:	DC 3V
TE:	Vier
Date	2024/01/22
T/A/P	24.5°C/54.0%/101Kpa

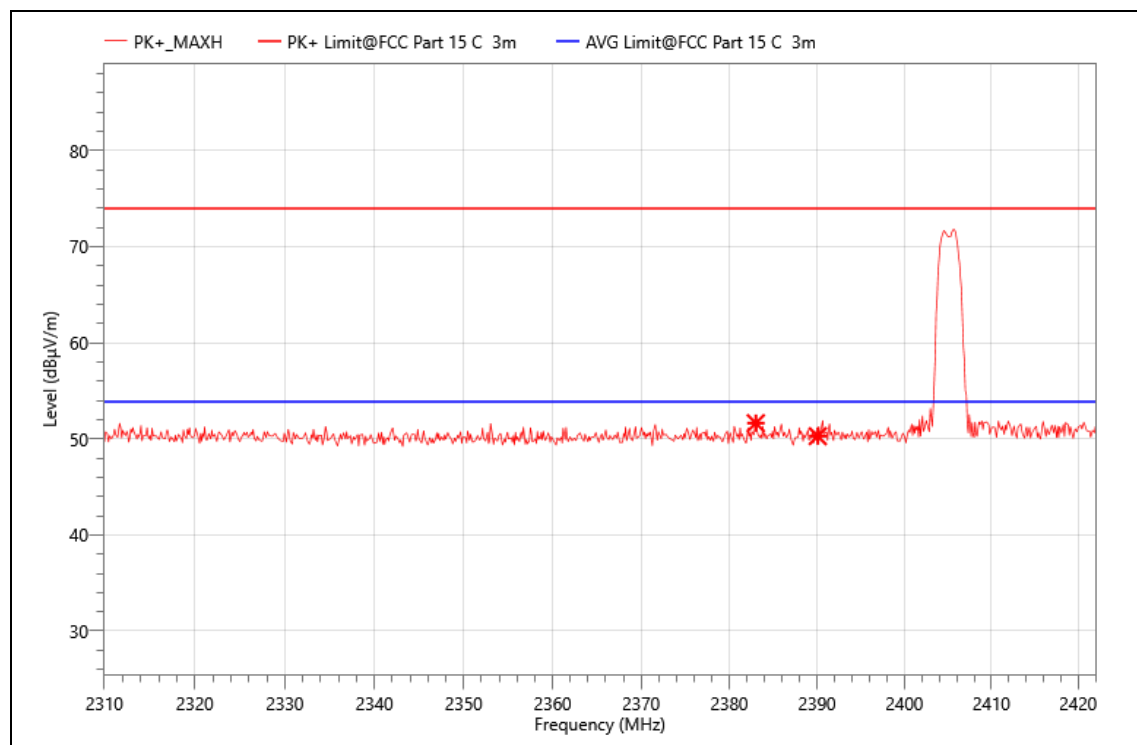


Critical_Freqs

No.	Freq. (MHz)	Reading (dBµV)	Corr. (dB)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Det.	Pol.
1	2374.512	25.77	25.9	51.67	74.00	22.33	PK+	H
2	2390.080	24.63	25.96	50.59	74.00	23.41	PK+	H

Note : [Margin=Limit-Meas.]; [Meas.=Reading+Corr.]

EUT :	Smart Motion Sensor
MN:	M1-E
Mode:	Zigbee 2405
Power:	DC 3V
TE:	Vier
Date	2024/01/22
T/A/P	24.5°C/54.0%/101Kpa

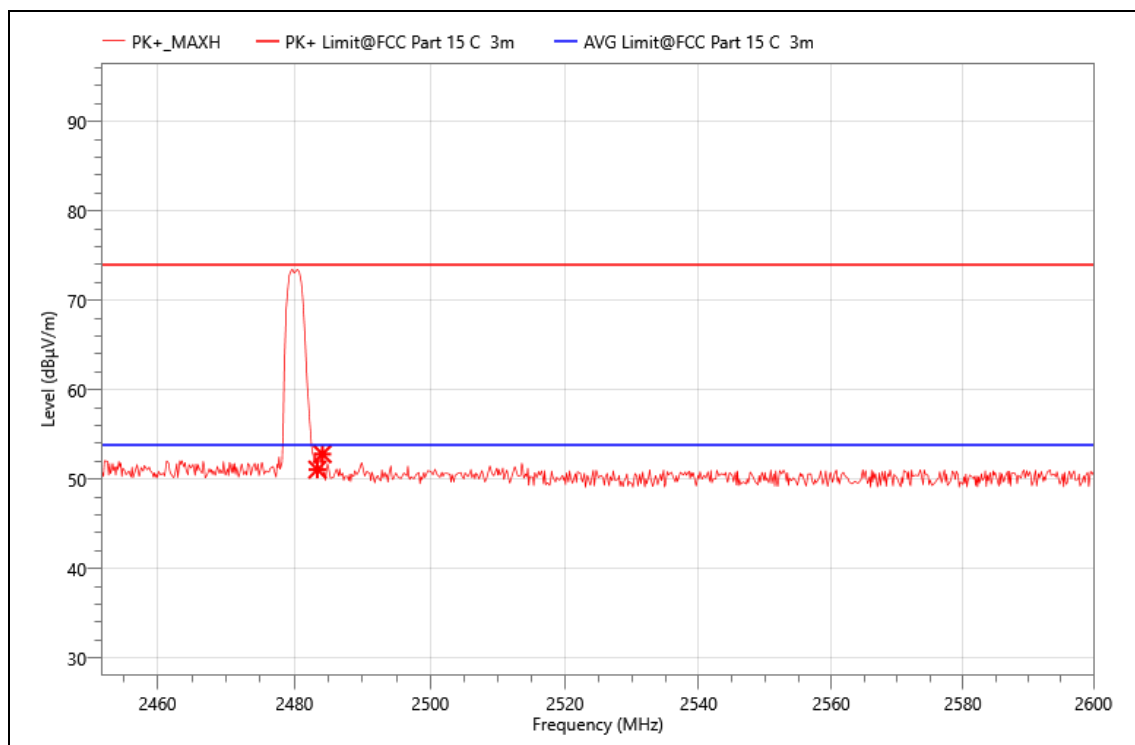


Critical_Freqs

No.	Freq. (MHz)	Reading (dBµV)	Corr. (dB)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Det.	Pol.
1	2383.024	25.71	25.93	51.64	74.00	22.36	PK+	V
2	2390.080	24.32	25.96	50.28	74.00	23.72	PK+	V

Note : [Margin=Limit-Meas.]; [Meas.=Reading+Corr.]

EUT :	Smart Motion Sensor
MN:	M1-E
Mode:	Zigbee 2480
Power:	DC 3V
TE:	Vier
Date	2024/01/22
T/A/P	24.5°C/54.0%/101Kpa

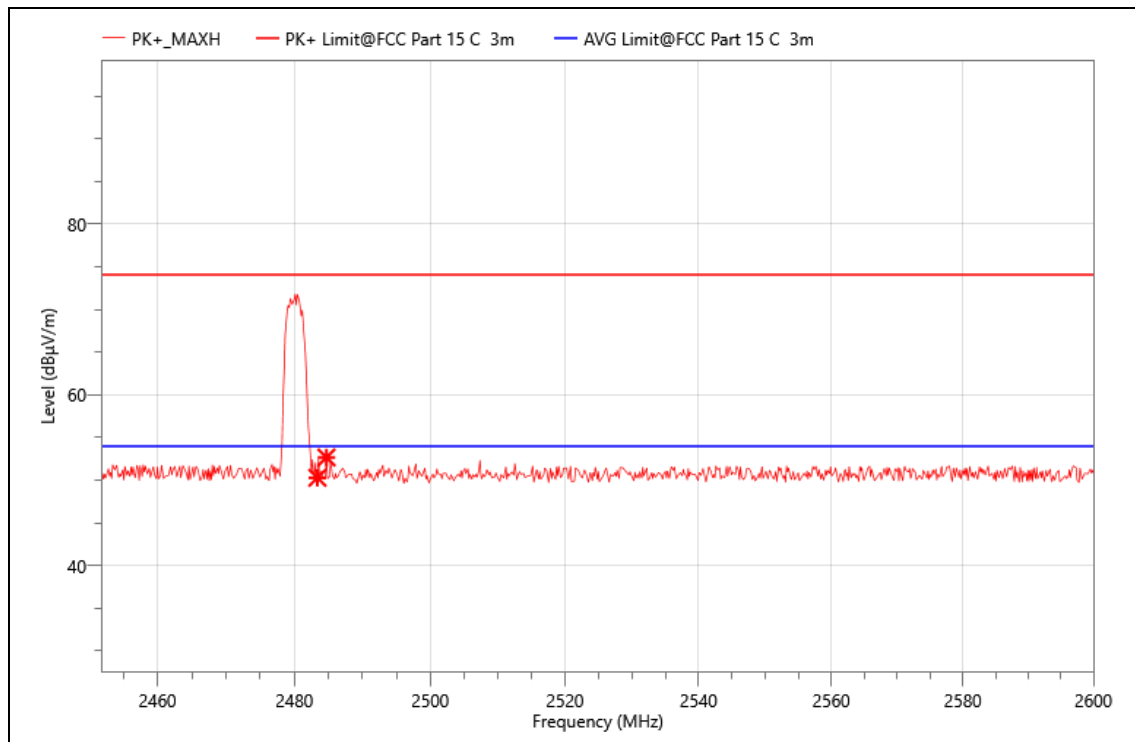


Critical_Freqs

No.	Freq. (MHz)	Reading (dBµV)	Corr. (dB)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Det.	Pol.
1	2483.376	25.36	25.71	51.07	74.00	22.93	PK+	V
2	2484.116	27.09	25.71	52.80	74.00	21.20	PK+	V

Note : [Margin=Limit-Meas.]; [Meas.=Reading+Corr.]

EUT :	Smart Motion Sensor
MN:	M1-E
Mode:	Zigbee 2480
Power:	DC 3V
TE:	Vier
Date	2024/01/22
T/A/P	24.5°C/54.0%/101Kpa



Critical_Freqs

No.	Freq. (MHz)	Reading (dBµV)	Corr. (dB)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Det.	Pol.
1	2483.376	24.58	25.71	50.29	74.00	23.71	PK+	H
2	2484.708	26.96	25.71	52.67	74.00	21.33	PK+	H

Note : [Margin=Limit-Meas.]; [Meas.=Reading+Corr.]