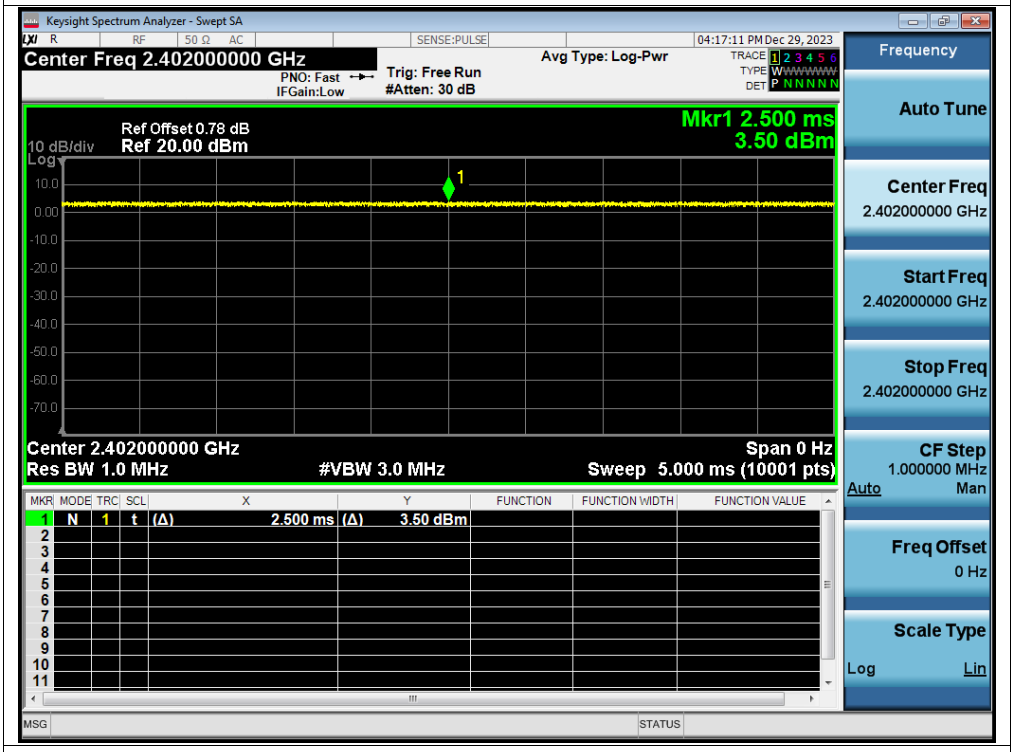
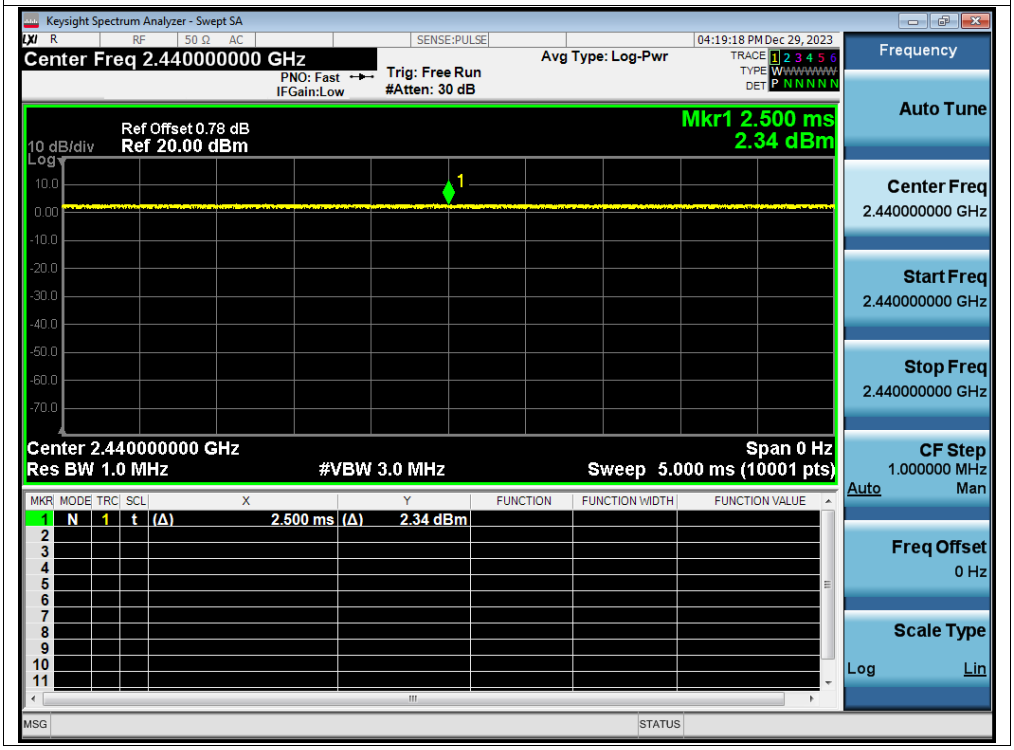
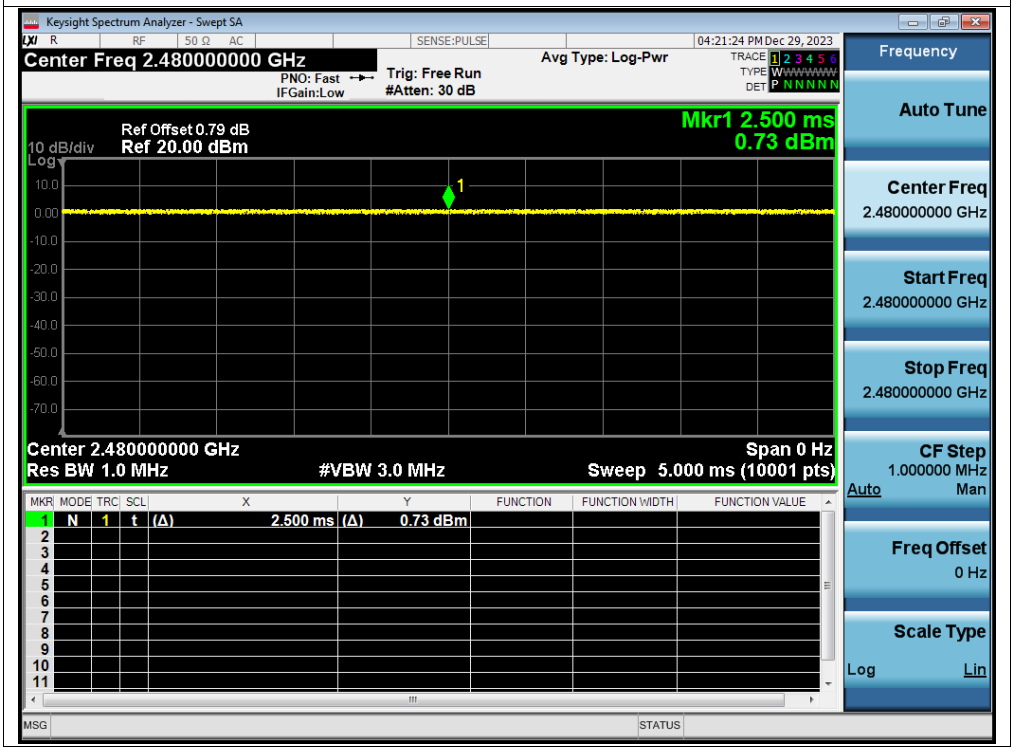
Appendix A

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	BLE 1M	2402	Ant1	0	0	100	0	0	1
NVNT	BLE 1M	2440	Ant1	0	0	100	0	0	1
NVNT	BLE 1M	2480	Ant1	0	0	100	0	0	1

Test Graphs
Duty Cycle NVNT BLE 1M 2402MHz Ant1

Duty Cycle NVNT BLE 1M 2440MHz Ant1


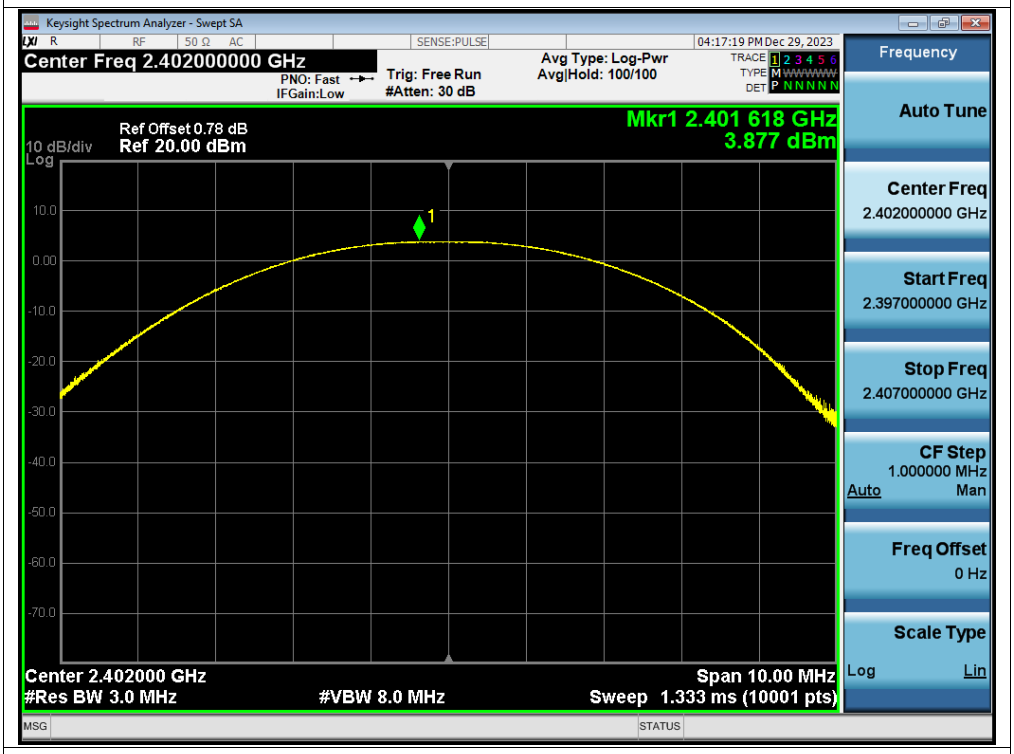
Duty Cycle NVNT BLE 1M 2480MHz Ant1



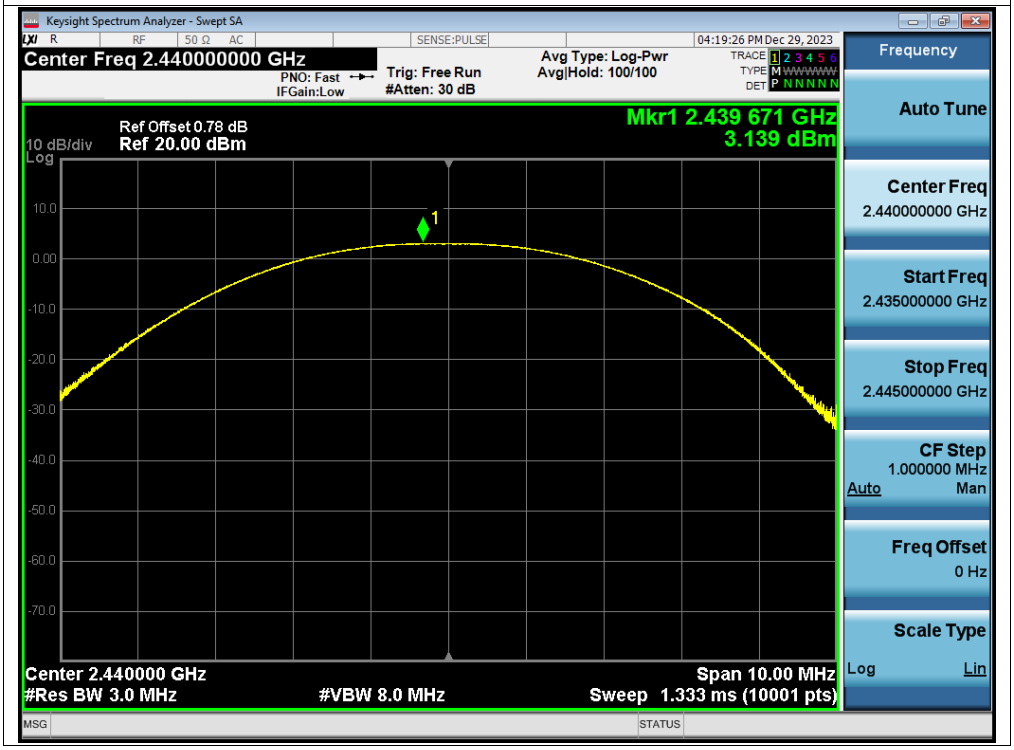
Maximum Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	BLE 1M	2402	Ant1	3.88	0	3.88	30	Pass
NVNT	BLE 1M	2440	Ant1	3.14	0	3.14	30	Pass
NVNT	BLE 1M	2480	Ant1	1.57	0	1.57	30	Pass

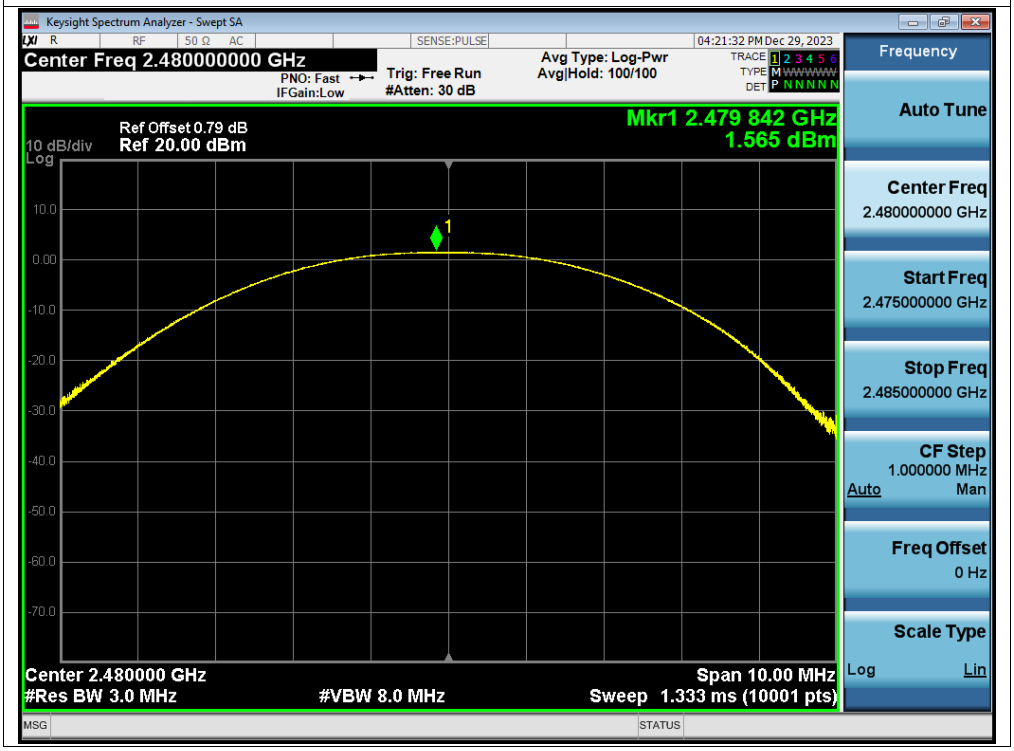
Test Graphs
Power NVNT BLE 1M 2402MHz Ant1



Power NVNT BLE 1M 2440MHz Ant1



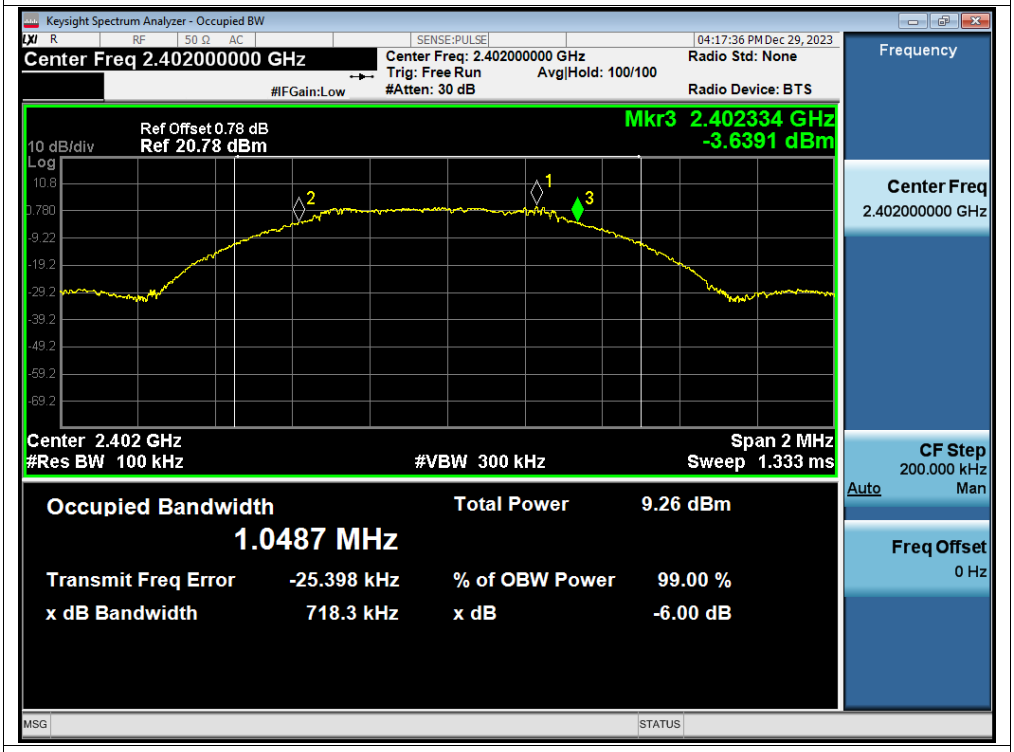
Power NVNT BLE 1M 2480MHz Ant1



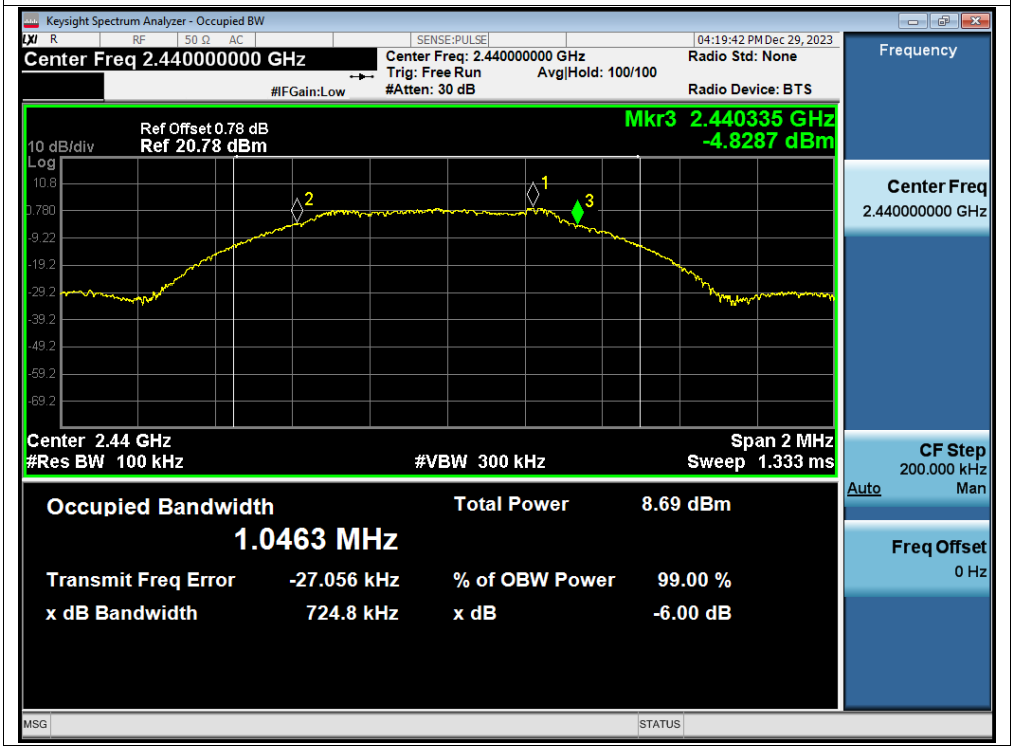
-6dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	BLE 1M	2402	Ant1	0.72	0.5	Pass
NVNT	BLE 1M	2440	Ant1	0.72	0.5	Pass
NVNT	BLE 1M	2480	Ant1	0.73	0.5	Pass

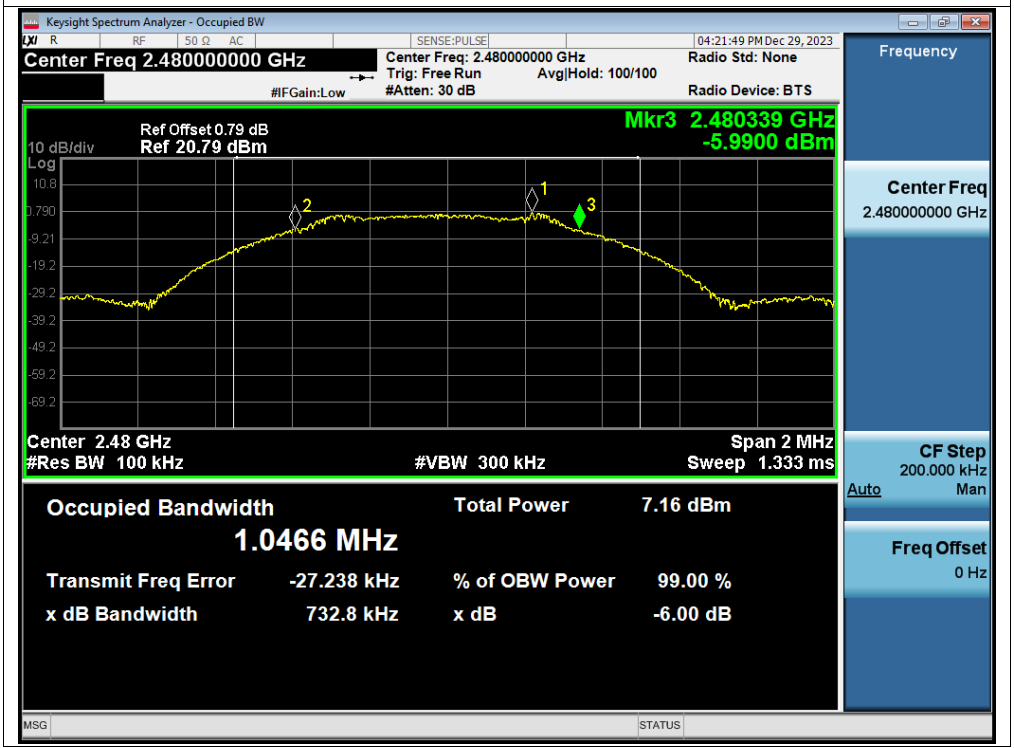
Test Graphs
-6dB Bandwidth NVNT BLE 1M 2402MHz Ant1



-6dB Bandwidth NVNT BLE 1M 2440MHz Ant1



-6dB Bandwidth NVNT BLE 1M 2480MHz Ant1

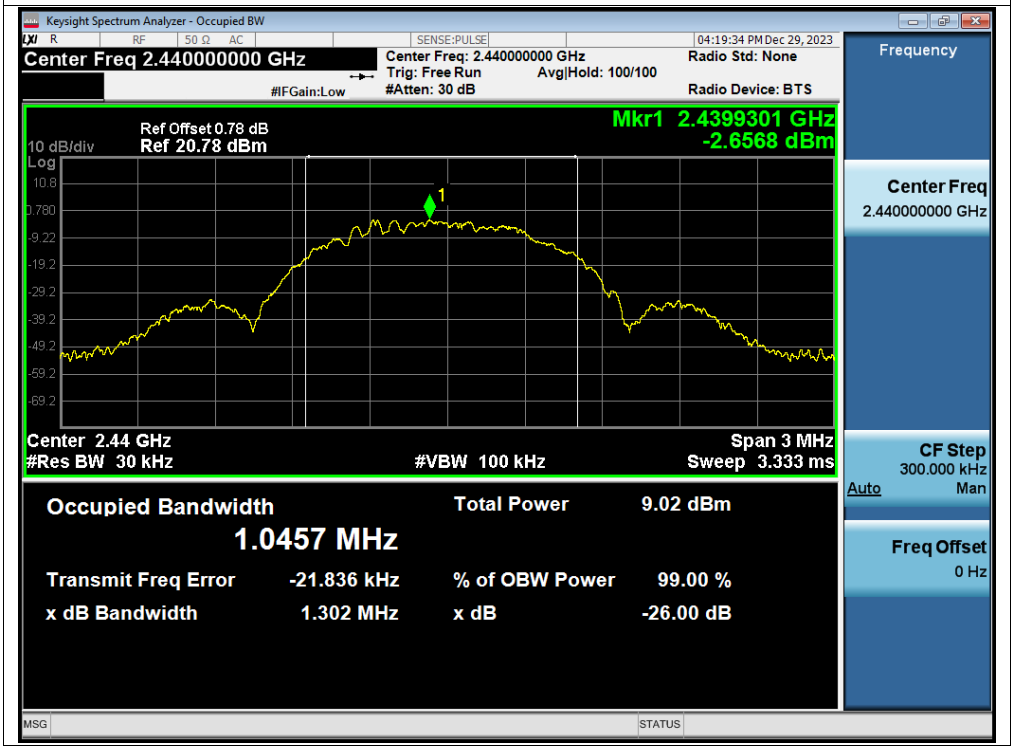


Occupied Channel Bandwidth

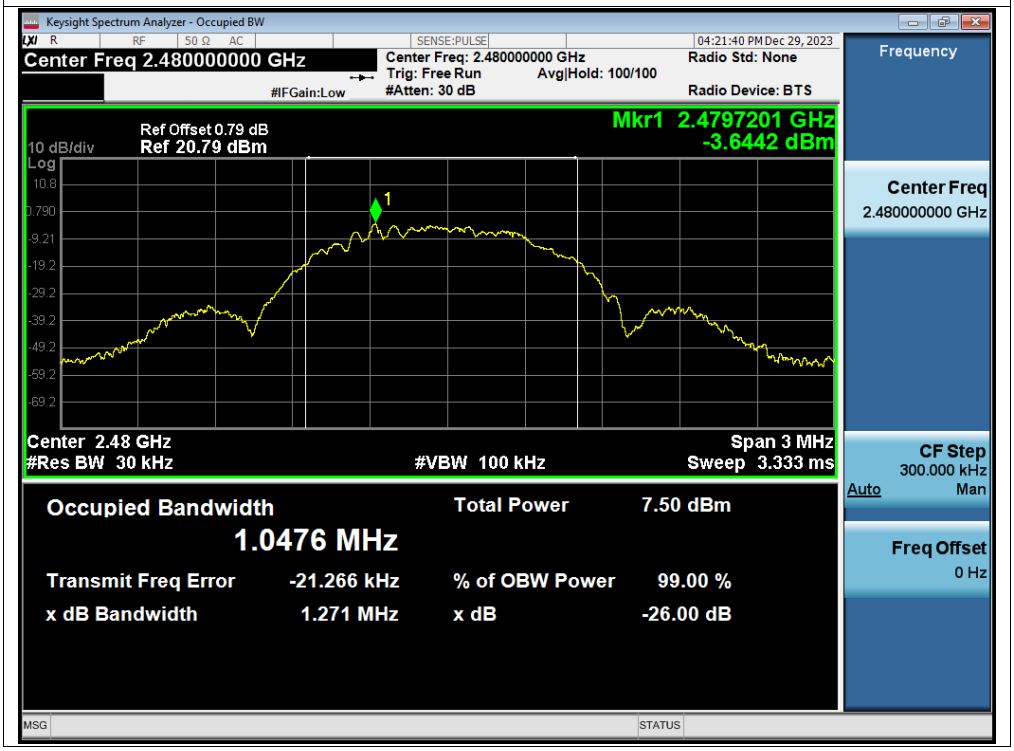
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	BLE 1M	2402	Ant1	1.044
NVNT	BLE 1M	2440	Ant1	1.046
NVNT	BLE 1M	2480	Ant1	1.048

Test Graphs
OBW NVNT BLE 1M 2402MHz Ant1

OBW NVNT BLE 1M 2440MHz Ant1



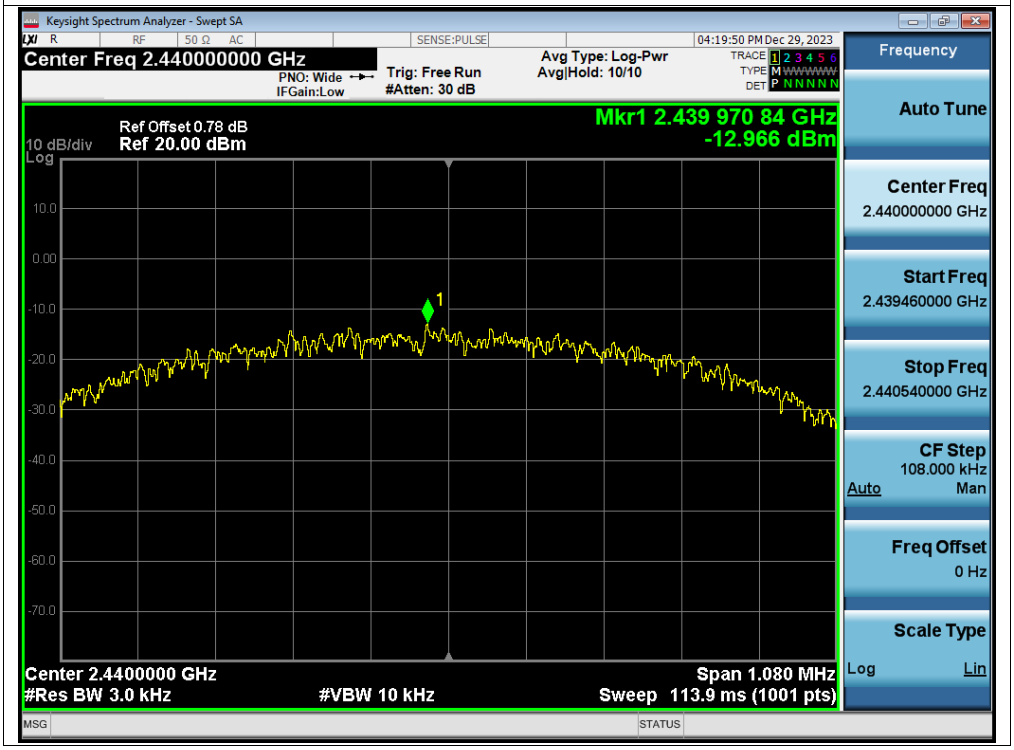
OBW NVNT BLE 1M 2480MHz Ant1



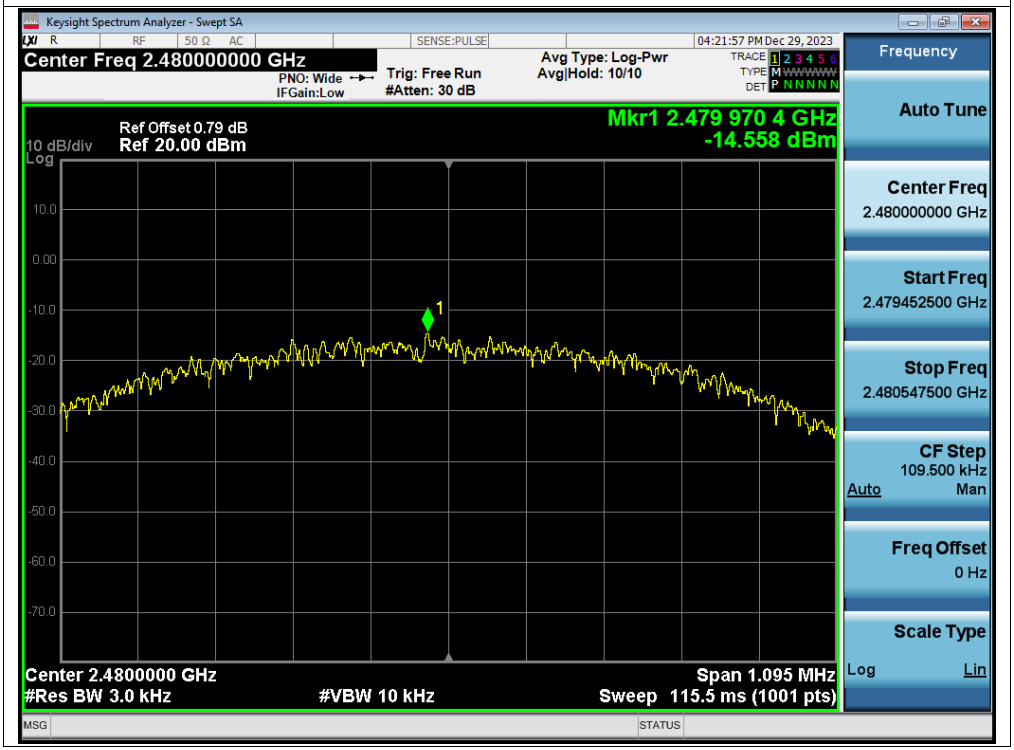
Maximum Power Spectral Density Level

Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm/3kHz)	Duty Factor (dB)	Total PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
NVNT	BLE 1M	2402	Ant1	-12.37	0	-12.37	8	Pass
NVNT	BLE 1M	2440	Ant1	-12.97	0	-12.97	8	Pass
NVNT	BLE 1M	2480	Ant1	-14.56	0	-14.56	8	Pass

Test Graphs
PSD NVNT BLE 1M 2402MHz Ant1

PSD NVNT BLE 1M 2440MHz Ant1


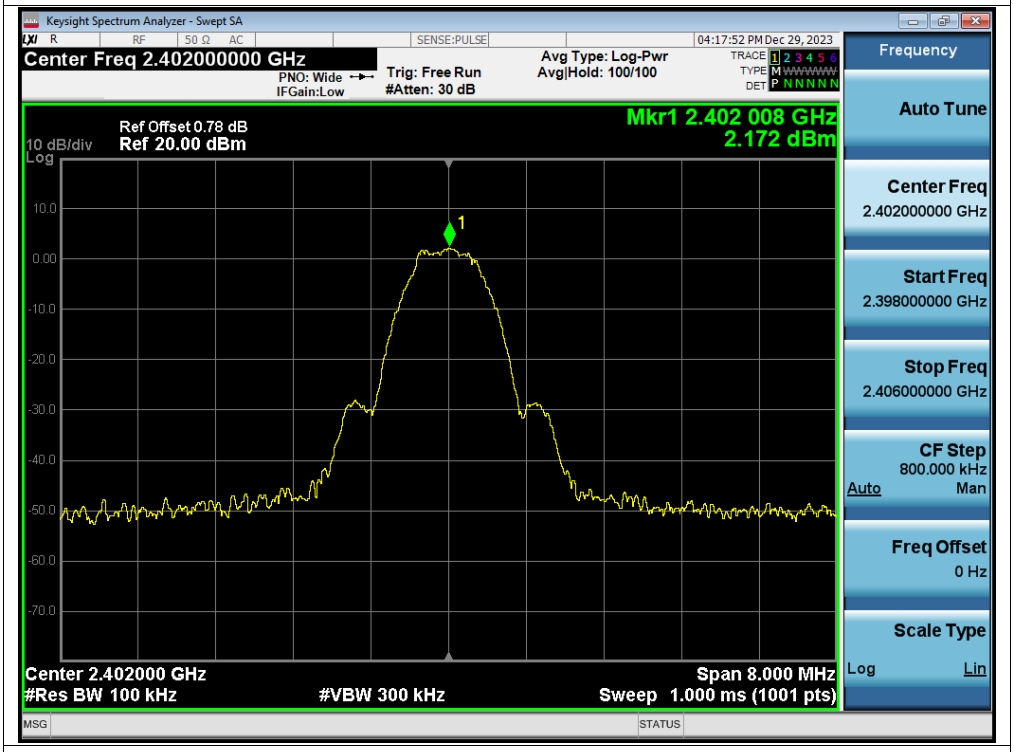
PSD NVNT BLE 1M 2480MHz Ant1



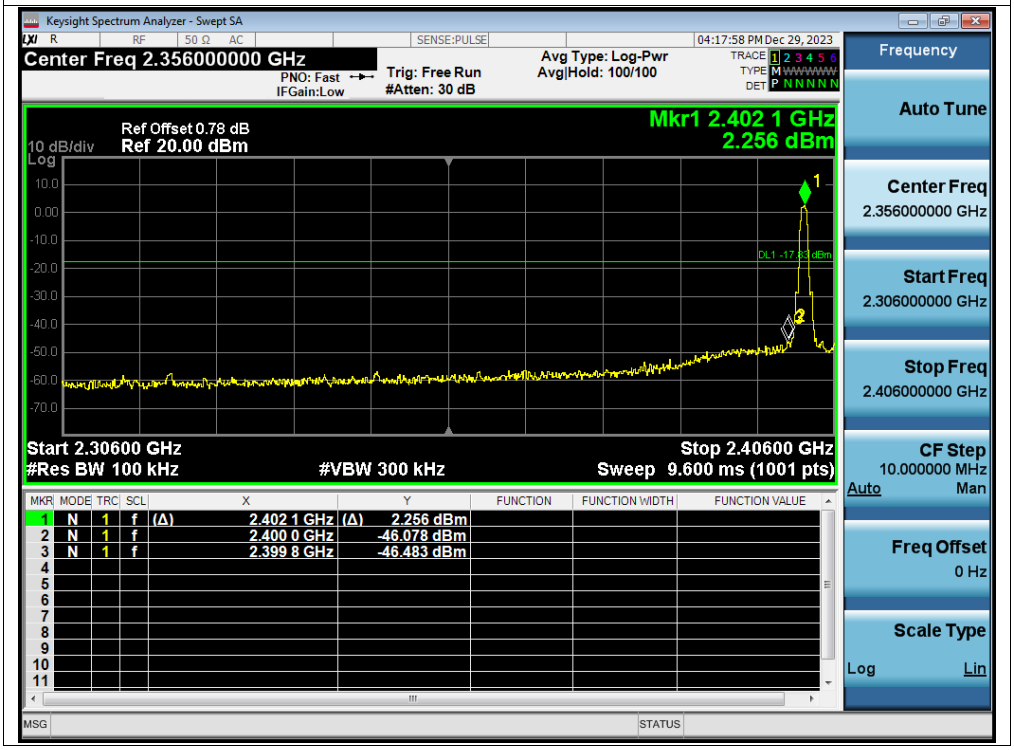
Band Edge

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE 1M	2402	Ant1	-48.25	-20	Pass
NVNT	BLE 1M	2480	Ant1	-49.07	-20	Pass

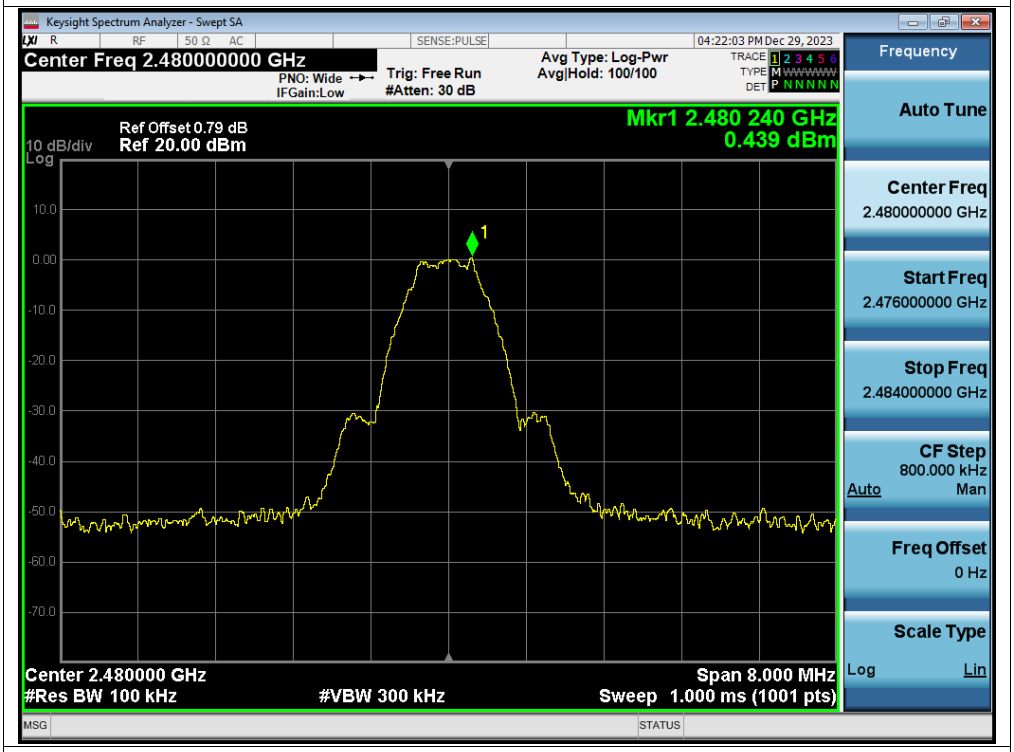
Test Graphs
Band Edge NVNT BLE 1M 2402MHz Ant1 Ref



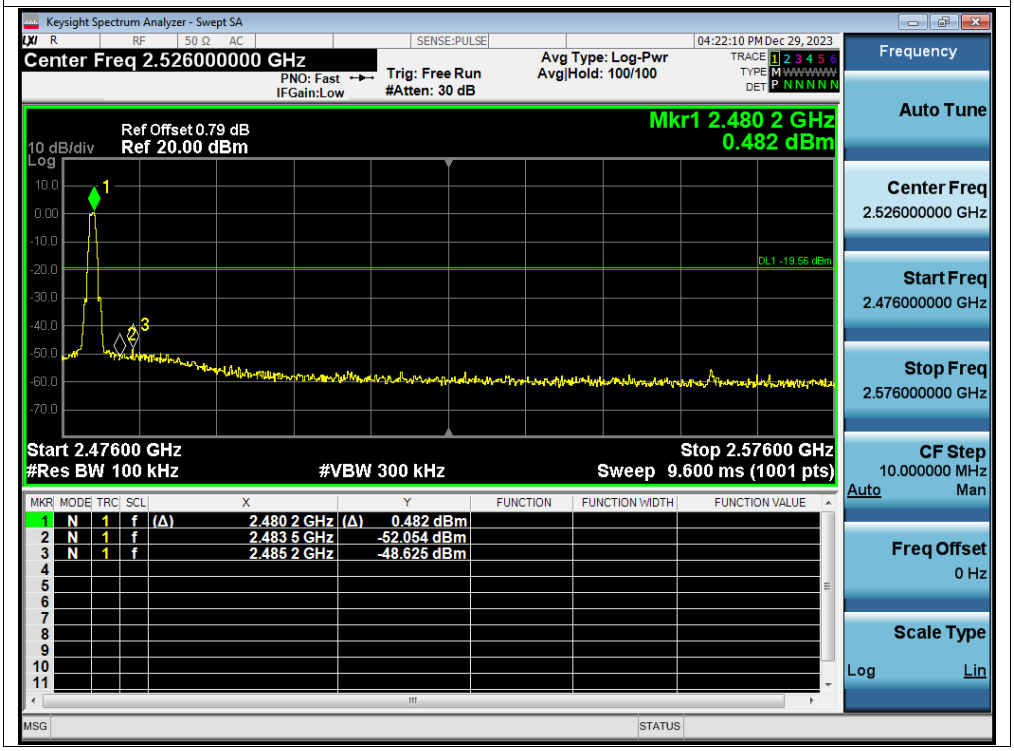
Band Edge NVNT BLE 1M 2402MHz Ant1 Emission



Band Edge NVNT BLE 1M 2480MHz Ant1 Ref



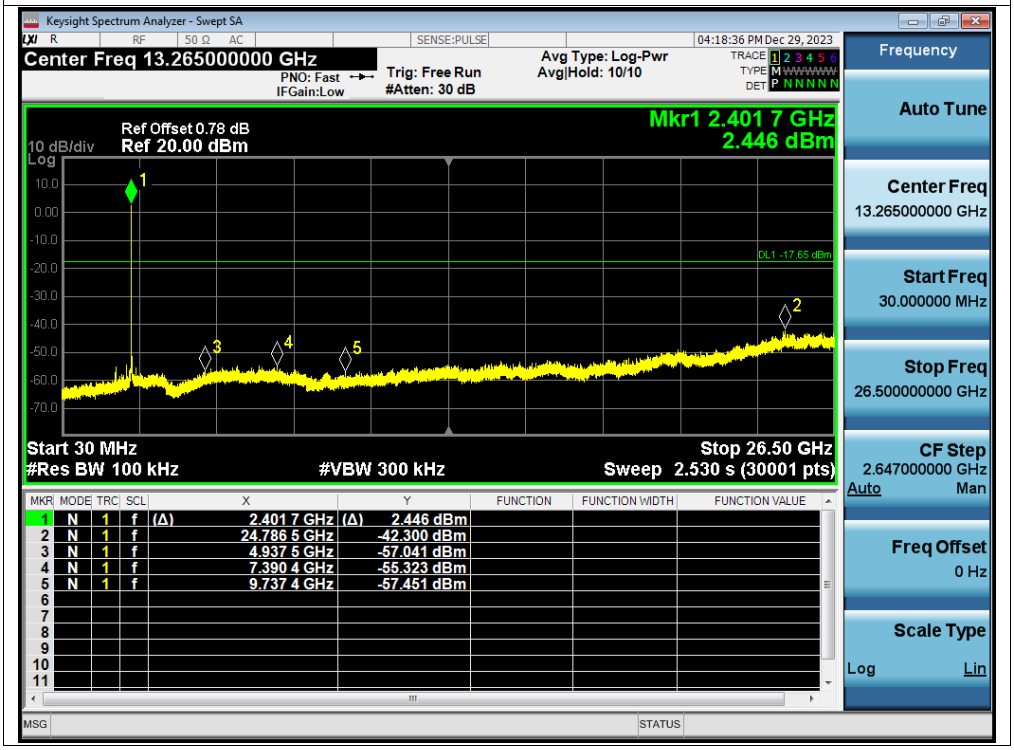
Band Edge NVNT BLE 1M 2480MHz Ant1 Emission



Conducted RF Spurious Emission

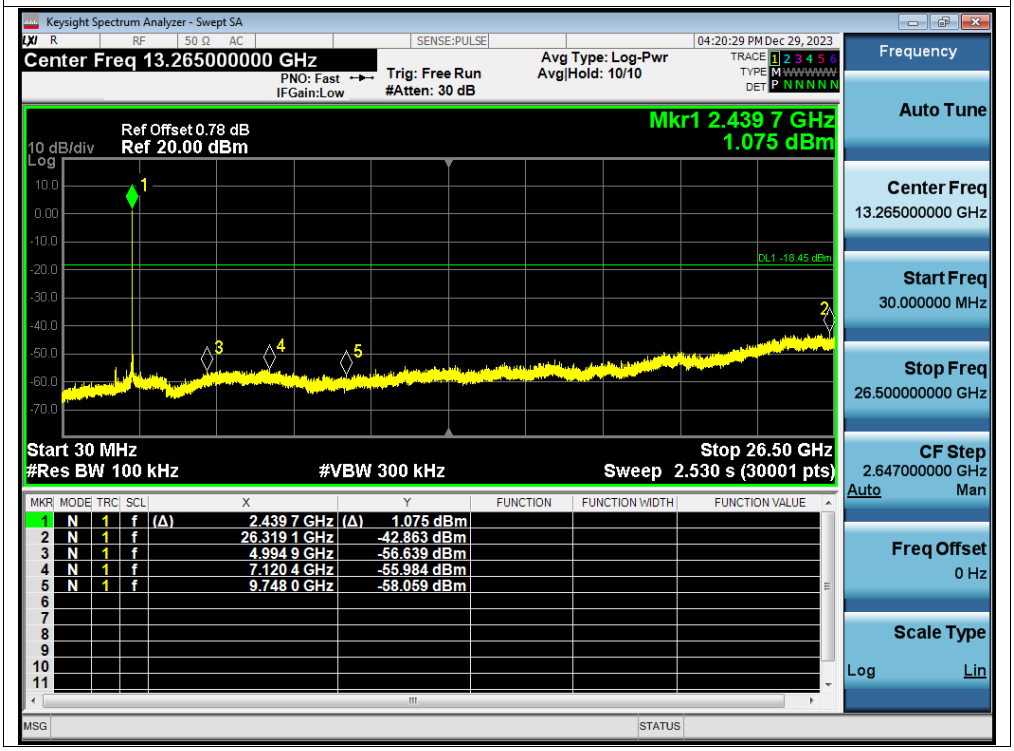
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE 1M	2402	Ant1	-44.65	-20	Pass
NVNT	BLE 1M	2440	Ant1	-44.41	-20	Pass
NVNT	BLE 1M	2480	Ant1	-42.65	-20	Pass

Test Graphs
Tx. Spurious NVNT BLE 1M 2402MHz Ant1 Ref

Tx. Spurious NVNT BLE 1M 2402MHz Ant1 Emission


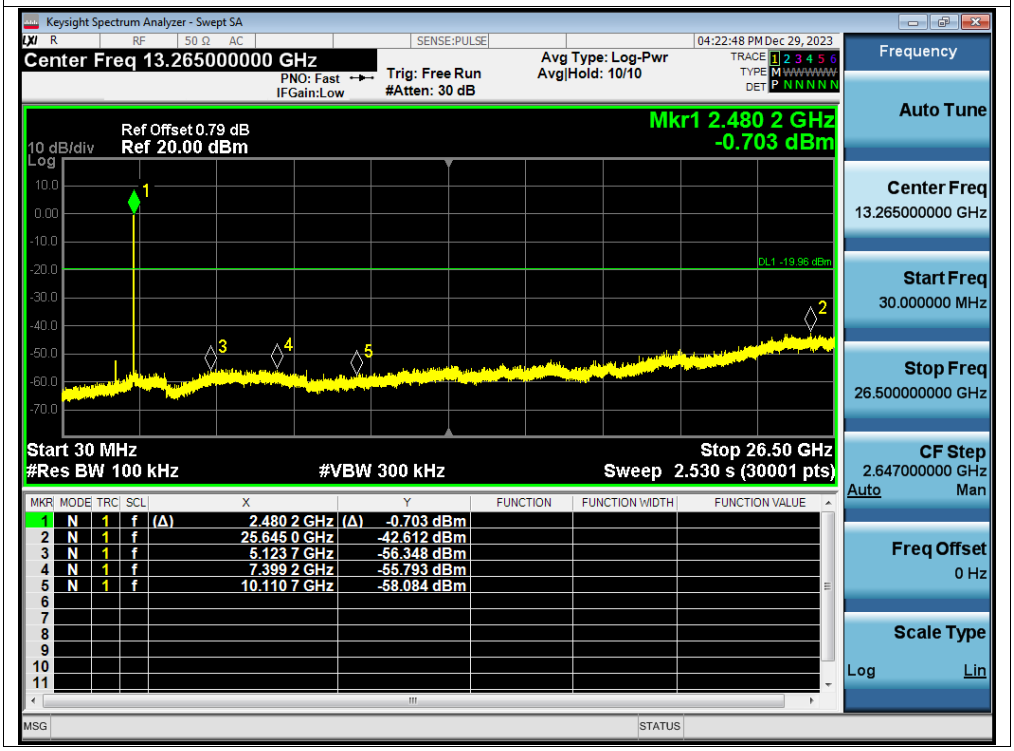
Tx. Spurious NVNT BLE 1M 2440MHz Ant1 Ref

Tx. Spurious NVNT BLE 1M 2440MHz Ant1 Emission



Tx. Spurious NVNT BLE 1M 2480MHz Ant1 Ref

Tx. Spurious NVNT BLE 1M 2480MHz Ant1 Emission

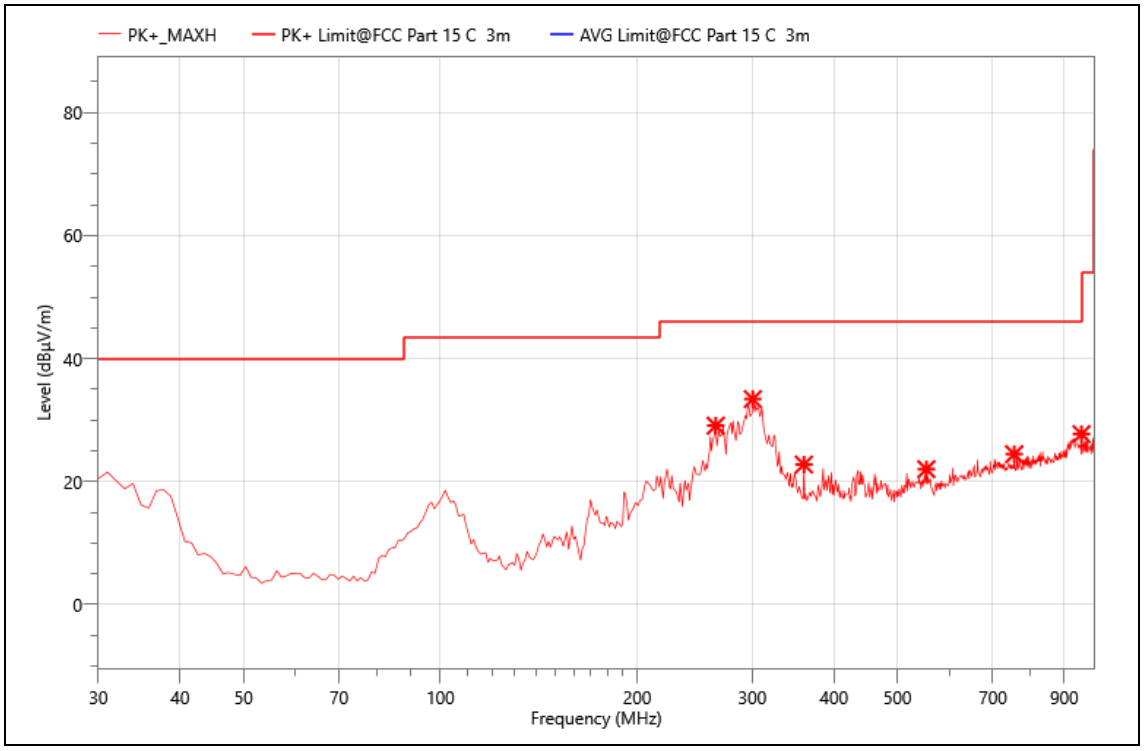


RADIATED TEST RESULTS

The data of the mode (BLE 1M 2402) are recorded in the following pages.

The worst result as bellow:

EUT :	Macy FM RGB+Wifi
MN:	FM-MAWT-BL
Mode:	BLE 2402
Power:	AC 120V/60Hz
TE:	Vier
Date	2024/01/02
T/A/P	24℃/49%/101Kpa

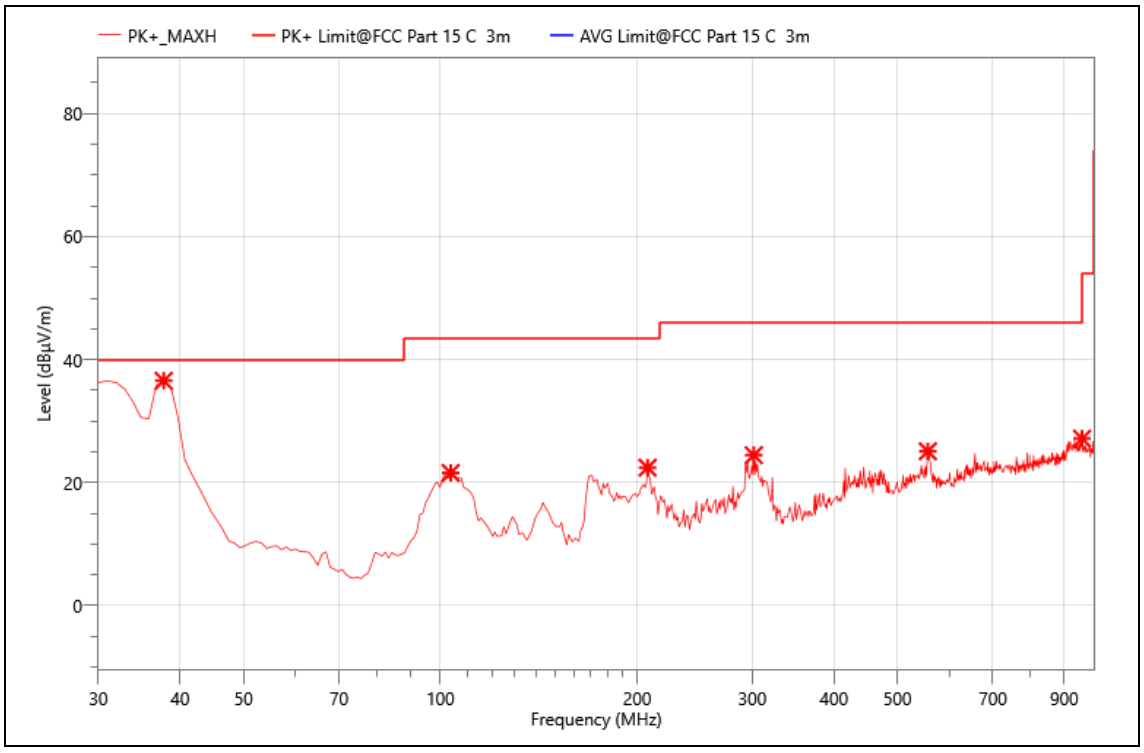


Critical_Freqs

No.	Freq. (MHz)	Reading (dBµV)	Corr. (dB)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Det.	Pol.
1	263.770	47.43	-18.32	29.11	46.00	16.89	PK+	H
2	300.630	52.26	-18.83	33.43	46.00	12.57	PK+	H
3	359.800	38.67	-15.88	22.79	46.00	23.21	PK+	H
4	553.800	31.95	-9.92	22.03	46.00	23.97	PK+	H
5	754.590	31.79	-7.32	24.47	46.00	21.53	PK+	H
6	956.350	31.44	-3.71	27.73	46.00	18.27	PK+	H

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

EUT :	Macy FM RGB+Wifi
MN:	FM-MAWT-BL
Mode:	BLE 2402
Power:	AC 120V/60Hz
TE:	Vier
Date	2024/01/02
T/A/P	24℃/49%/101Kpa



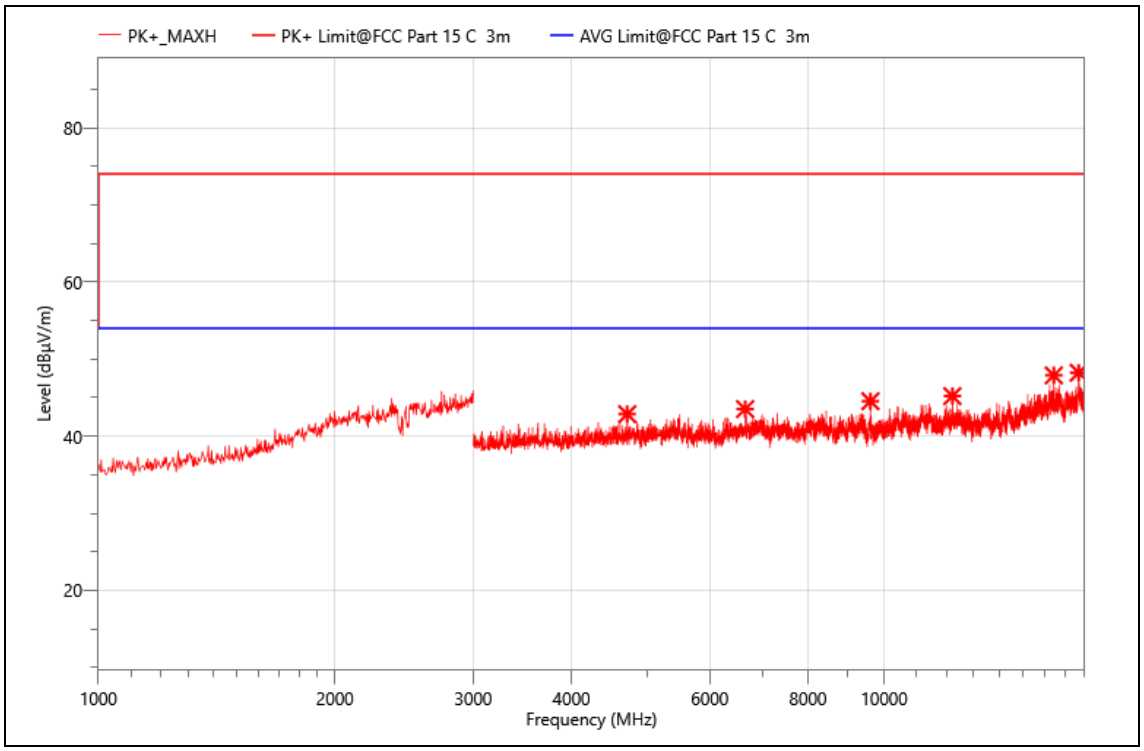
Critical_Freqs

No.	Freq. (MHz)	Reading (dBµV)	Corr. (dB)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Det.	Pol.
1	37.760	55.33	-18.76	36.57	40.00	3.43	PK+	V
2	103.720	45.25	-23.67	21.58	43.50	21.92	PK+	V
3	207.510	43.94	-21.5	22.44	43.50	21.06	PK+	V
4	301.600	43.25	-18.78	24.47	46.00	21.53	PK+	V
5	556.710	35.20	-10.09	25.11	46.00	20.89	PK+	V
6	958.290	30.95	-3.79	27.16	46.00	18.84	PK+	V

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

Above 1000MHz~10th Harmonics:

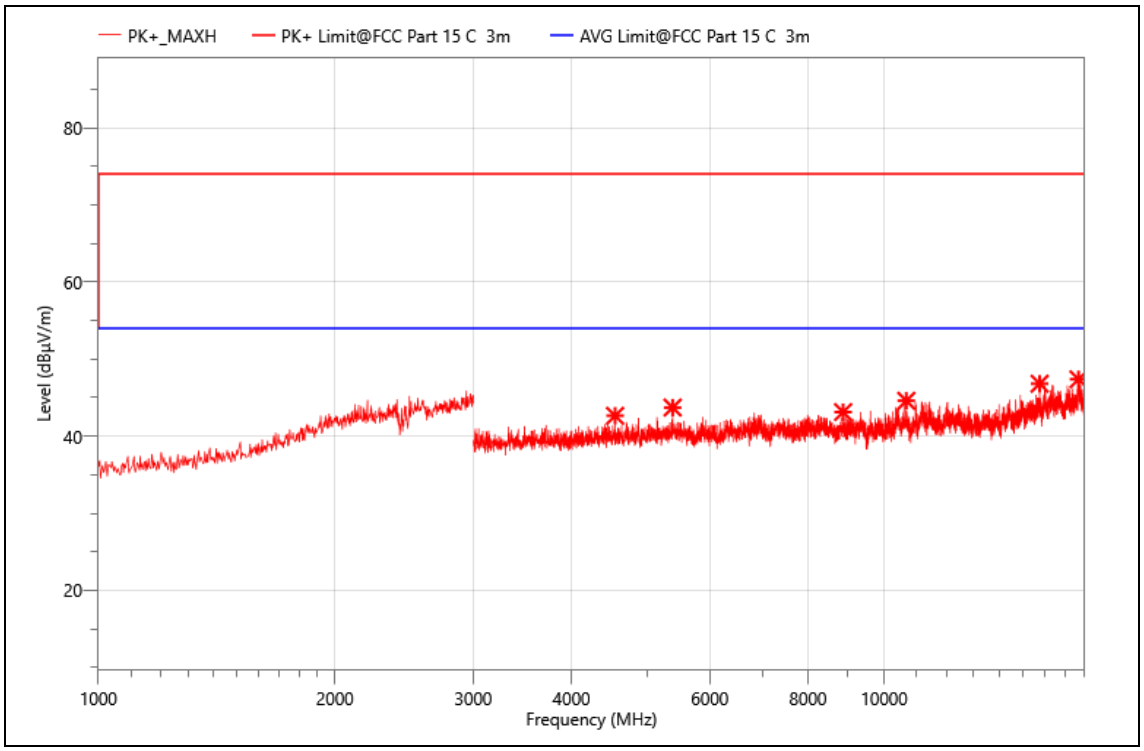
EUT :	Macy FM RGB+Wifi
MN:	FM-MAWT-BL
Mode:	BLE 2402
Power:	AC 120V/60Hz
TE:	Vier
Date	2024/01/02
T/A/P	24℃/49%/101Kpa



Critical_Freqs

No.	Freq. (MHz)	Reading (dBµV)	Corr. (dB)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Det.	Pol.
1	4710.000	54.39	-11.53	42.86	74.00	31.14	PK+	H
2	6655.500	51.74	-8.22	43.52	74.00	30.48	PK+	H
3	9607.500	51.60	-7.06	44.54	74.00	29.46	PK+	H
4	12214.500	49.64	-4.44	45.20	74.00	28.80	PK+	H
5	16441.500	49.53	-1.64	47.89	74.00	26.11	PK+	H
6	17686.500	47.98	0.25	48.23	74.00	25.77	PK+	H

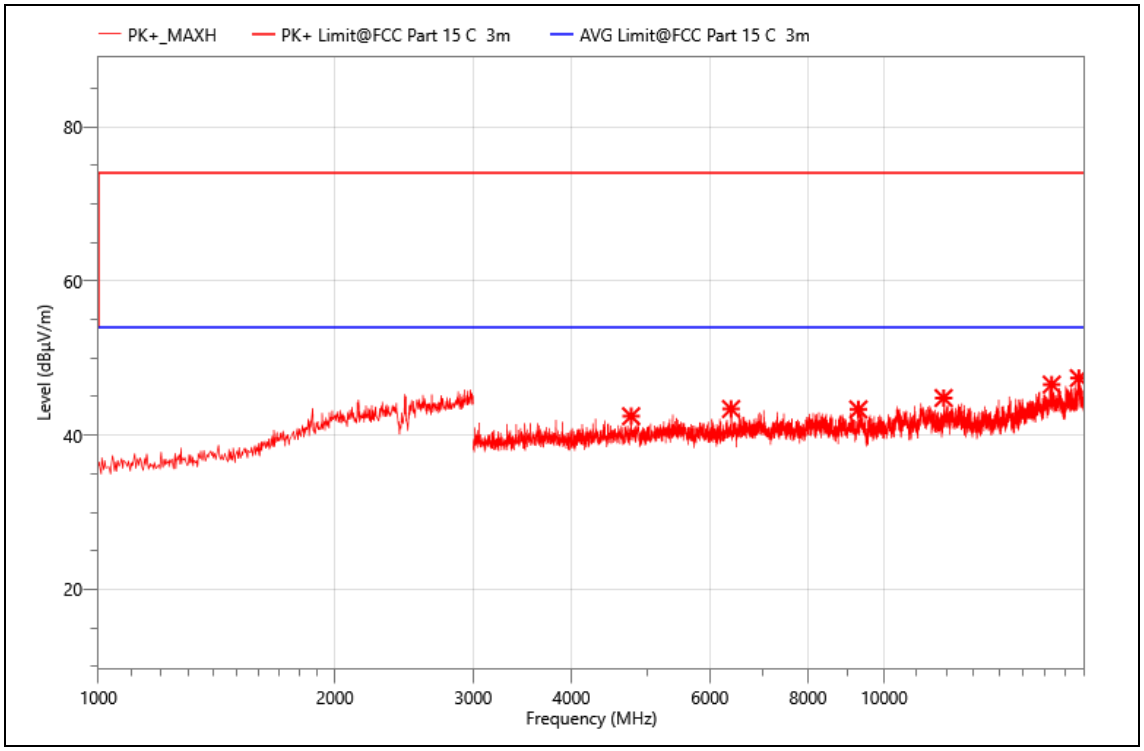
EUT :	Macy FM RGB+Wifi
MN:	FM-MAWT-BL
Mode:	BLE 2402
Power:	AC 120V/60Hz
TE:	Vier
Date	2024/01/02
T/A/P	24℃/49%/101Kpa



Critical_Freqs

No.	Freq. (MHz)	Reading (dBµV)	Corr. (dB)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Det.	Pol.
1	4545.000	54.62	-11.97	42.65	74.00	31.35	PK+	V
2	5380.500	52.78	-9.06	43.72	74.00	30.28	PK+	V
3	8868.000	50.92	-7.79	43.13	74.00	30.87	PK+	V
4	10672.500	49.68	-5.09	44.59	74.00	29.41	PK+	V
5	15774.000	49.10	-2.29	46.81	74.00	27.19	PK+	V
6	17676.000	47.07	0.31	47.38	74.00	26.62	PK+	V

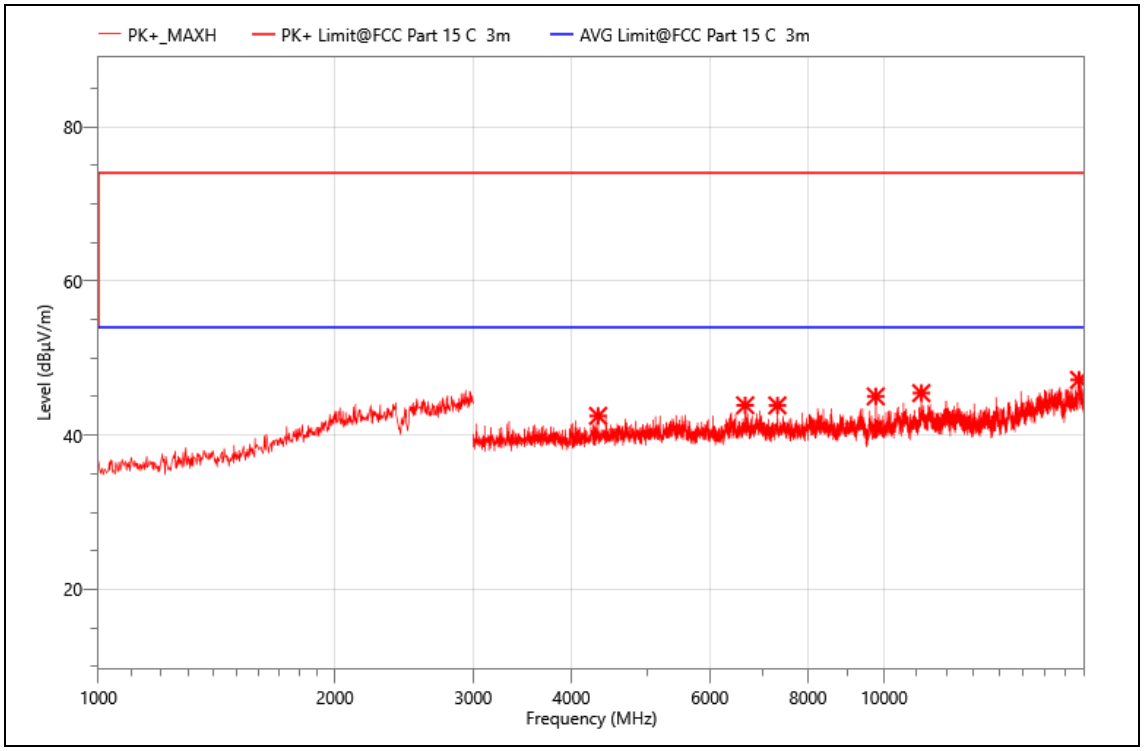
EUT :	Macy FM RGB+Wifi
MN:	FM-MAWT-BL
Mode:	BLE 2440
Power:	AC 120V/60Hz
TE:	Vier
Date	2024/01/02
T/A/P	24℃/49%/101Kpa



Critical_Freqs

No.	Freq. (MHz)	Reading (dBµV)	Corr. (dB)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Det.	Pol.
1	4764.000	53.81	-11.35	42.46	74.00	31.54	PK+	V
2	6385.500	51.31	-7.91	43.40	74.00	30.60	PK+	V
3	9274.500	50.59	-7.24	43.35	74.00	30.65	PK+	V
4	11905.500	49.20	-4.38	44.82	74.00	29.18	PK+	V
5	16341.000	48.36	-1.79	46.57	74.00	27.43	PK+	V
6	17694.000	47.19	0.21	47.40	74.00	26.60	PK+	V

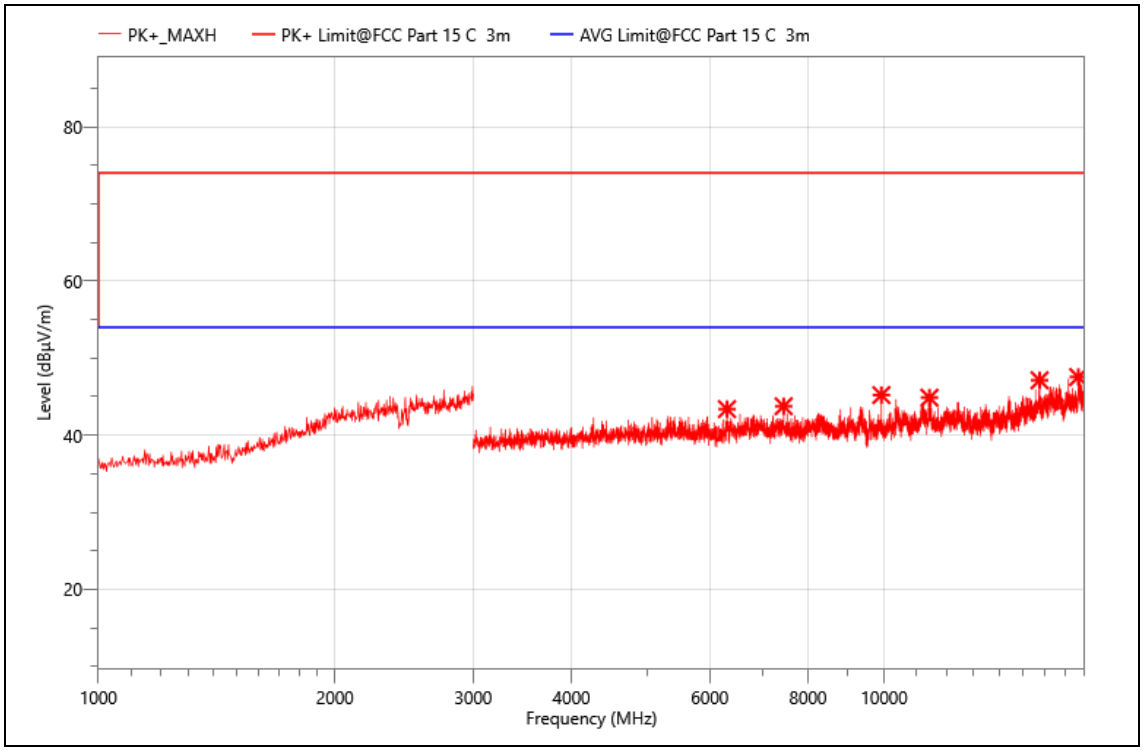
EUT :	Macy FM RGB+Wifi
MN:	FM-MAWT-BL
Mode:	BLE 2440
Power:	AC 120V/60Hz
TE:	Vier
Date	2024/01/02
T/A/P	24℃/49%/101Kpa



Critical_Freqs

No.	Freq. (MHz)	Reading (dBµV)	Corr. (dB)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Det.	Pol.
1	4324.500	54.85	-12.35	42.50	74.00	31.50	PK+	H
2	6655.500	52.10	-8.22	43.88	74.00	30.12	PK+	H
3	7314.000	51.55	-7.69	43.86	74.00	30.14	PK+	H
4	9759.000	51.91	-6.87	45.04	74.00	28.96	PK+	H
5	11152.500	49.72	-4.26	45.46	74.00	28.54	PK+	H
6	17704.500	47.10	0.08	47.18	74.00	26.82	PK+	H

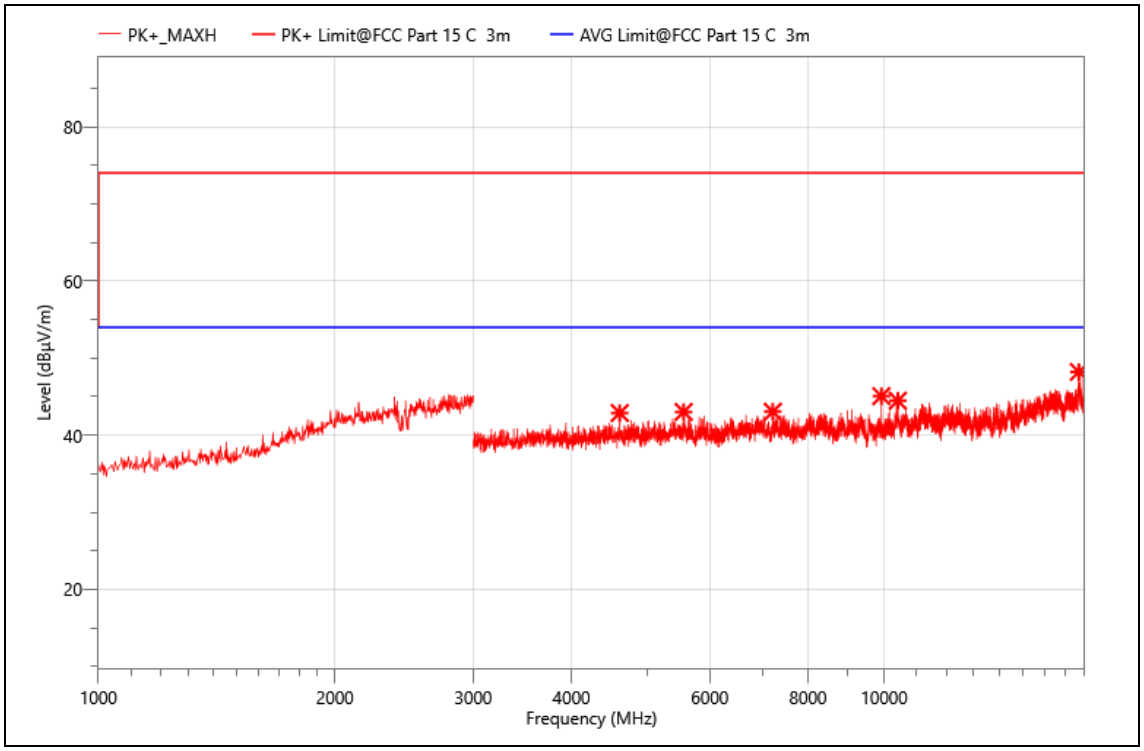
EUT :	Macy FM RGB+Wifi
MN:	FM-MAWT-BL
Mode:	BLE 2480
Power:	AC 120V/60Hz
TE:	Vier
Date	2024/01/02
T/A/P	24℃/49%/101Kpa



Critical_Freqs

No.	Freq. (MHz)	Reading (dBµV)	Corr. (dB)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Det.	Pol.
1	6310.500	50.95	-7.56	43.39	74.00	30.61	PK+	H
2	7449.000	51.82	-8.06	43.76	74.00	30.24	PK+	H
3	9919.500	51.56	-6.35	45.21	74.00	28.79	PK+	H
4	11421.000	49.37	-4.5	44.87	74.00	29.13	PK+	H
5	15772.500	49.41	-2.28	47.13	74.00	26.87	PK+	H
6	17664.000	47.37	0.17	47.54	74.00	26.46	PK+	H

EUT :	Macy FM RGB+Wifi
MN:	FM-MAWT-BL
Mode:	BLE 2480
Power:	AC 120V/60Hz
TE:	Vier
Date	2024/01/02
T/A/P	24℃/49%/101Kpa



Critical_Freqs

No.	Freq. (MHz)	Reading (dBµV)	Corr. (dB)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Det.	Pol.
1	4608.000	54.52	-11.64	42.88	74.00	31.12	PK+	V
2	5557.500	52.43	-9.41	43.02	74.00	30.98	PK+	V
3	7216.500	51.07	-8.02	43.05	74.00	30.95	PK+	V
4	9919.500	51.42	-6.35	45.07	74.00	28.93	PK+	V
5	10408.500	50.00	-5.52	44.48	74.00	29.52	PK+	V
6	17691.000	47.98	0.23	48.21	74.00	25.79	PK+	V

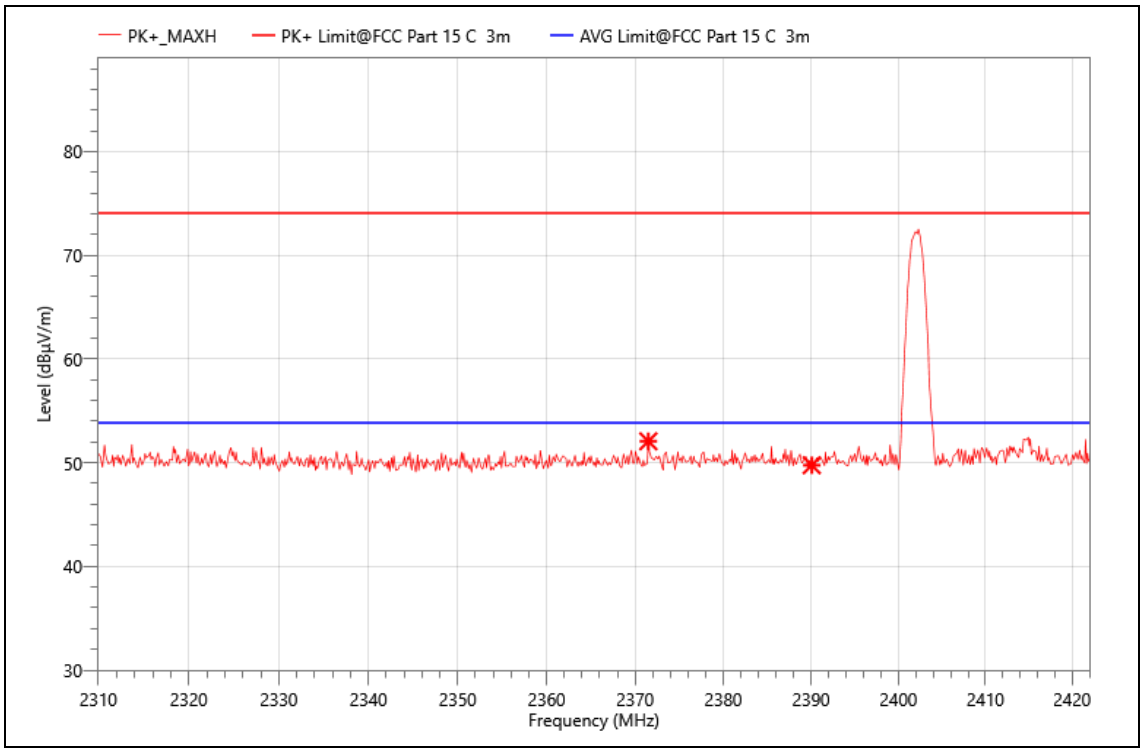
No others harmonics emissions are higher than 20 dB below the limits of 47 CFR Part 15.247.

Note:

1. [Margin=Limit-Meas.]; [Meas.=Reading+Corr.]
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.
5. Measuring frequencies from 1GHz to 25GHz.

Band edge:

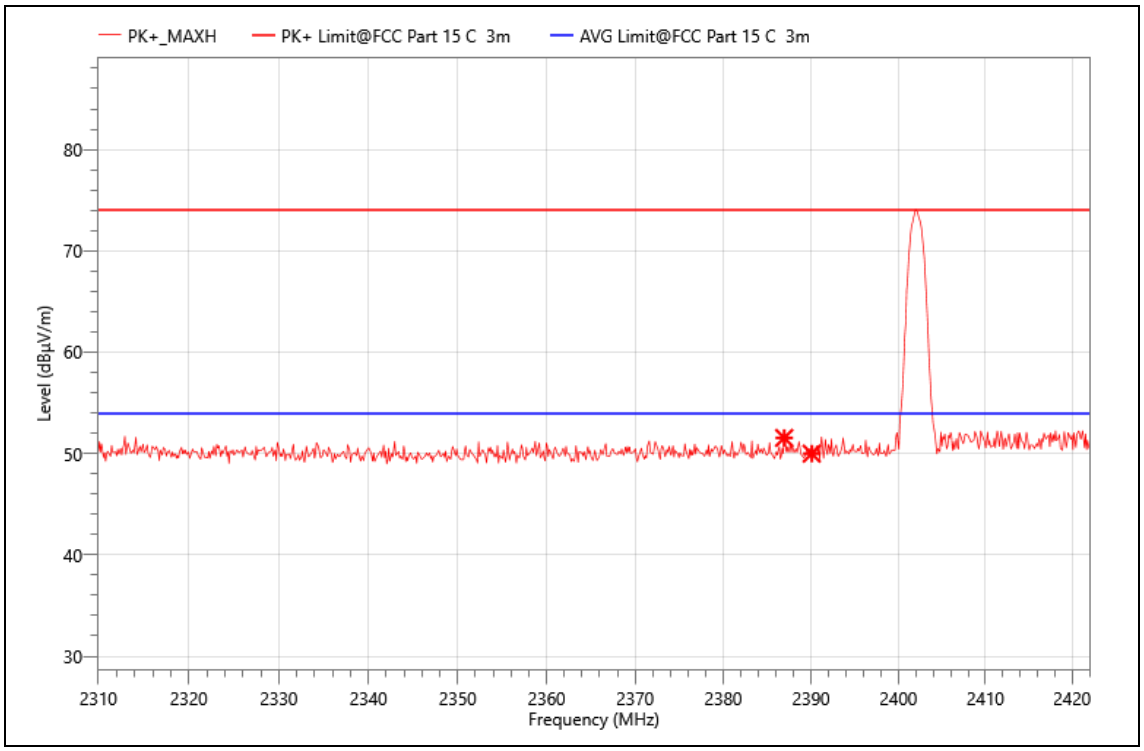
EUT :	Macy FM RGB+Wifi
MN:	FM-MAWT-BL
Mode:	BLE 2402
Power:	AC 120V/60Hz
TE:	Vier
Date	2024/01/02
T/A/P	24℃/49%/101Kpa



Critical_Freqs

No.	Freq. (MHz)	Reading (dBµV)	Corr. (dB)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Det.	Pol.
1	2371.488	26.20	25.87	52.07	74.00	21.93	PK+	V
2	2390.080	23.80	25.96	49.76	74.00	24.24	PK+	V

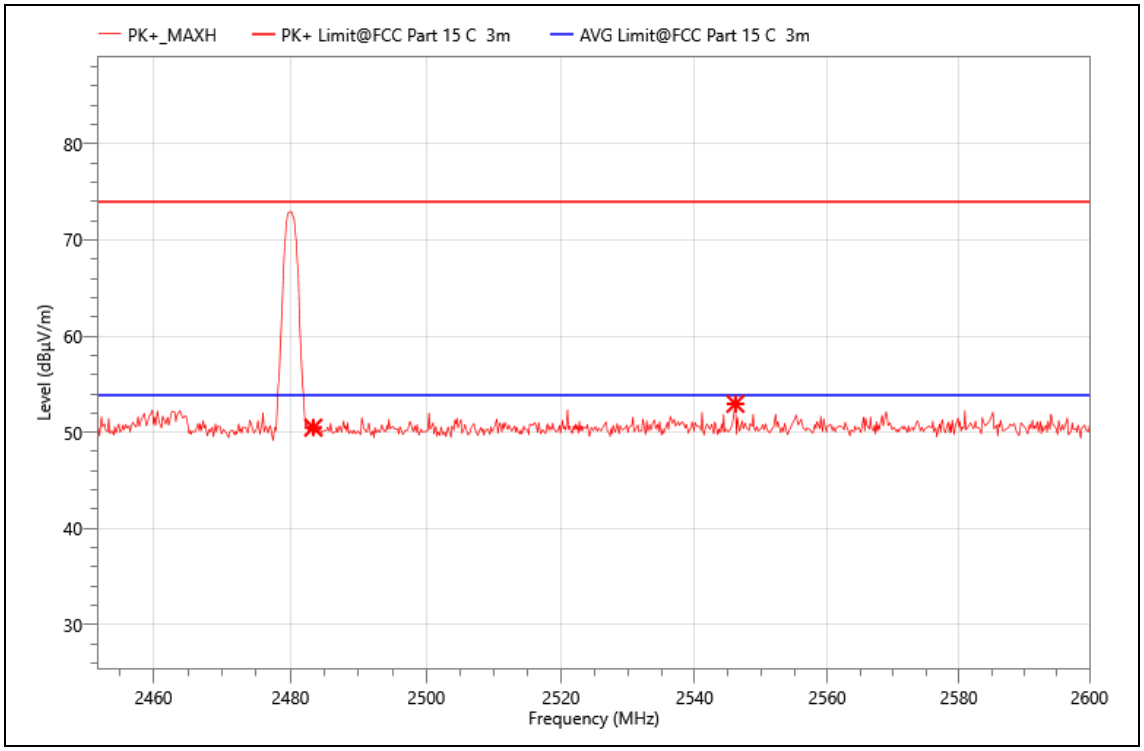
EUT :	Macy FM RGB+Wifi
MN:	FM-MAWT-BL
Mode:	BLE 2402
Power:	AC 120V/60Hz
TE:	Vier
Date	2024/01/02
T/A/P	24℃/49%/101Kpa



Critical_Freqs

No.	Freq. (MHz)	Reading (dBµV)	Corr. (dB)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Det.	Pol.
1	2386.944	25.60	25.94	51.54	74.00	22.46	PK+	H
2	2390.080	24.03	25.96	49.99	74.00	24.01	PK+	H

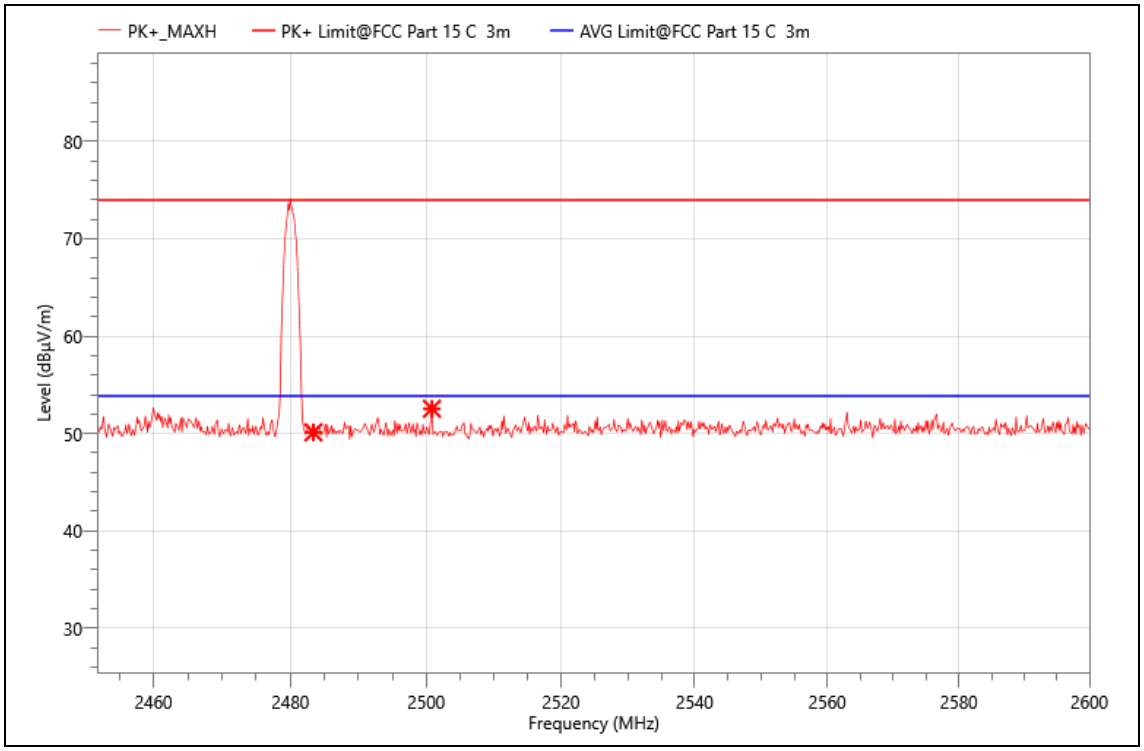
EUT :	Macy FM RGB+Wifi
MN:	FM-MAWT-BL
Mode:	BLE 2480
Power:	AC 120V/60Hz
TE:	Vier
Date	2024/01/02
T/A/P	24℃/49%/101Kpa



Critical_Freqs

No.	Freq. (MHz)	Reading (dBµV)	Corr. (dB)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Det.	Pol.
1	2483.376	24.78	25.71	50.49	74.00	23.51	PK+	V
2	2546.128	27.11	25.85	52.96	74.00	21.04	PK+	V

EUT :	Macy FM RGB+Wifi
MN:	FM-MAWT-BL
Mode:	BLE 2480
Power:	AC 120V/60Hz
TE:	Vier
Date	2024/01/02
T/A/P	24℃/49%/101Kpa



Critical_Freqs

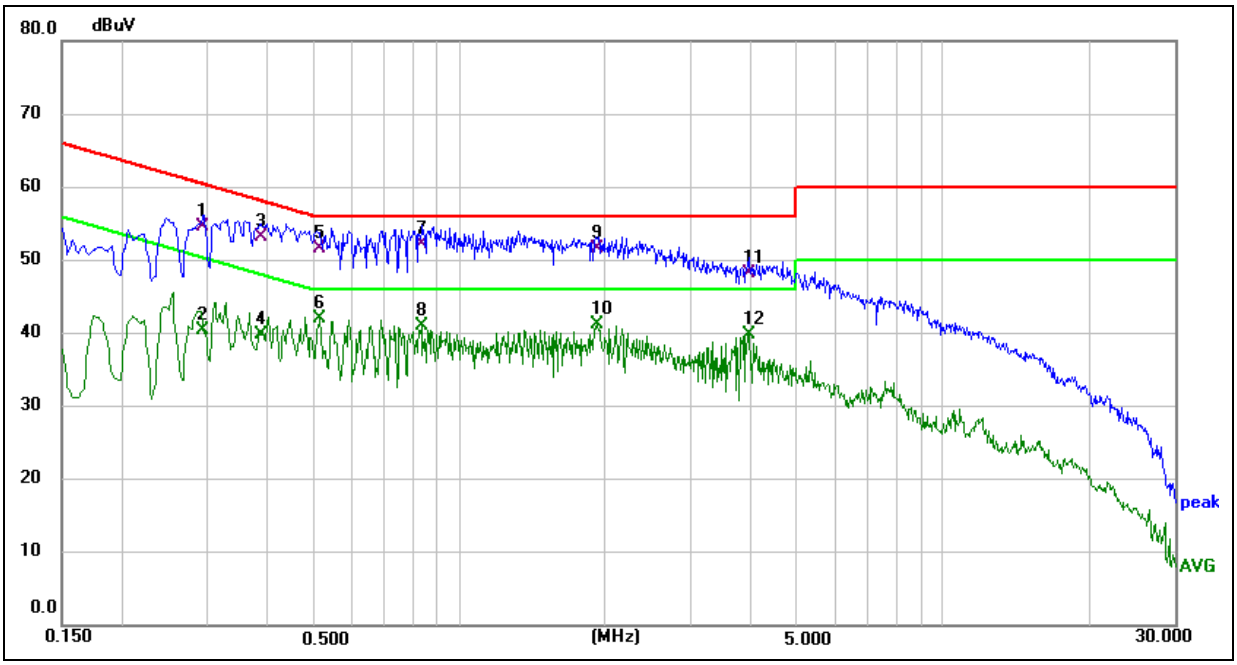
No.	Freq. (MHz)	Reading (dBµV)	Corr. (dB)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Det.	Pol.
1	2483.376	24.41	25.71	50.12	74.00	23.88	PK+	H
2	2500.840	26.77	25.78	52.55	74.00	21.45	PK+	H

Note:

1. [Margin=Limit-Meas.]; [Meas.=Reading+Corr.]
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

AC POWER LINE CONDUCTED EMISSIONS

LINE L1 RESULTS (BLE 1M 2402)

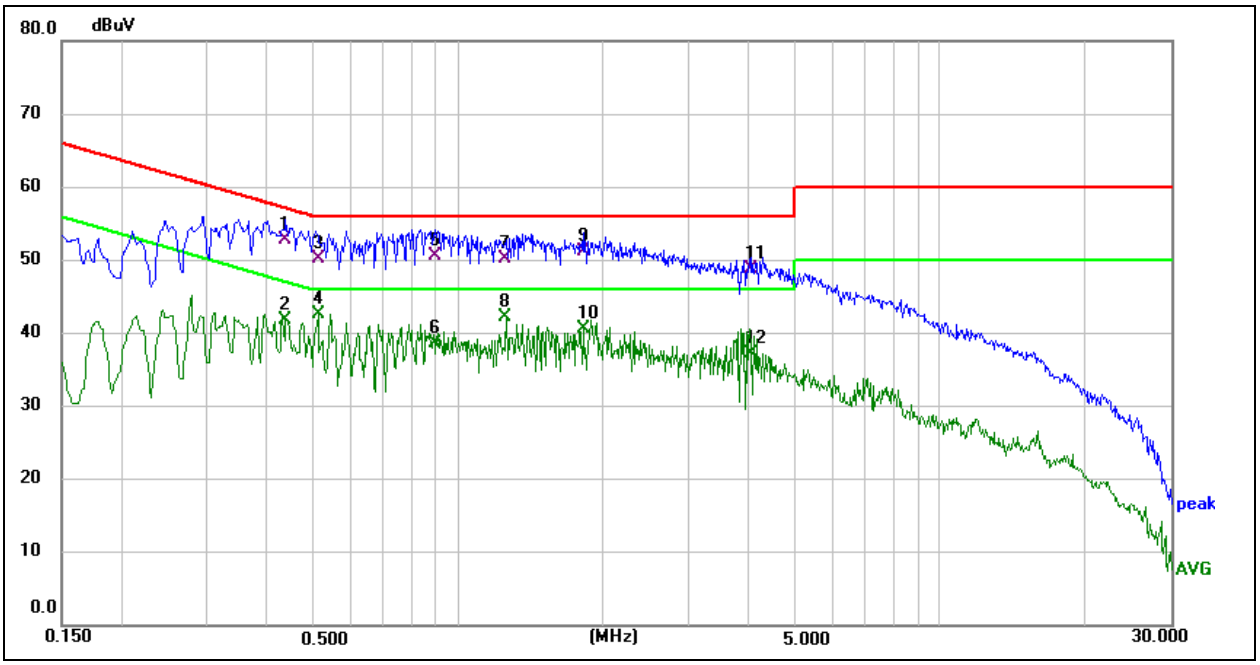


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dB)	
1	0.2940	43.53	10.97	54.50	60.41	-5.91	QP
2	0.2940	29.51	10.97	40.48	50.41	-9.93	AVG
3	0.3860	41.91	11.19	53.10	58.15	-5.05	QP
4	0.3860	28.58	11.19	39.77	48.15	-8.38	AVG
5	0.5140	40.18	11.42	51.60	56.00	-4.40	QP
6	0.5140	30.60	11.42	42.02	46.00	-3.98	AVG
7 *	0.8340	41.79	10.41	52.20	56.00	-3.80	QP
8	0.8340	30.56	10.41	40.97	46.00	-5.03	AVG
9	1.9260	41.07	10.43	51.50	56.00	-4.50	QP
10	1.9260	30.67	10.43	41.10	46.00	-4.90	AVG
11	3.9620	37.74	10.46	48.20	56.00	-7.80	QP
12	3.9620	29.34	10.46	39.80	46.00	-6.20	AVG

Note: 1. Result = Reading +Correct Factor.

2. If QP Result complies with AV limit, AV Result is deemed to comply with AV limit.

LINE N RESULTS (BLE 1M 2402)



Phase: N

No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dB)	
1	0.4380	41.59	11.21	52.80	57.10	-4.30	QP
2	0.4380	30.66	11.21	41.87	47.10	-5.23	AVG
3	0.5100	38.85	11.35	50.20	56.00	-5.80	QP
4 *	0.5100	31.26	11.35	42.61	46.00	-3.39	AVG
5	0.8900	40.25	10.35	50.60	56.00	-5.40	QP
6	0.8900	28.29	10.35	38.64	46.00	-7.36	AVG
7	1.2579	39.75	10.35	50.10	56.00	-5.90	QP
8	1.2579	31.75	10.35	42.10	46.00	-3.90	AVG
9	1.8140	40.74	10.36	51.10	56.00	-4.90	QP
10	1.8140	30.33	10.36	40.69	46.00	-5.31	AVG
11	4.0580	38.40	10.40	48.80	56.00	-7.20	QP
12	4.0580	26.71	10.40	37.11	46.00	-8.89	AVG

Note: 1. Result = Reading +Correct Factor.

2. If QP Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. All test modes had been tested, only the worst data record in the report.