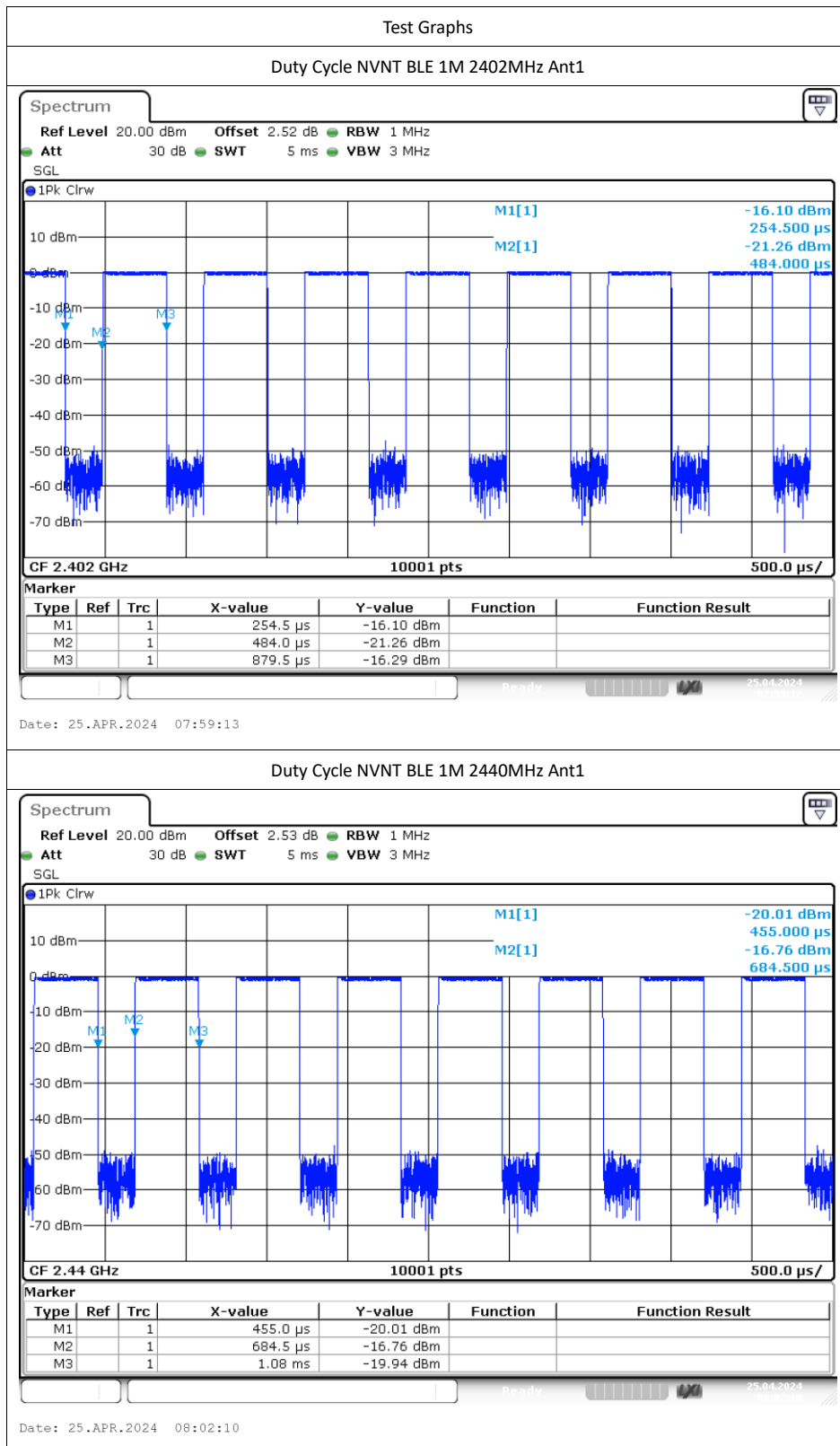
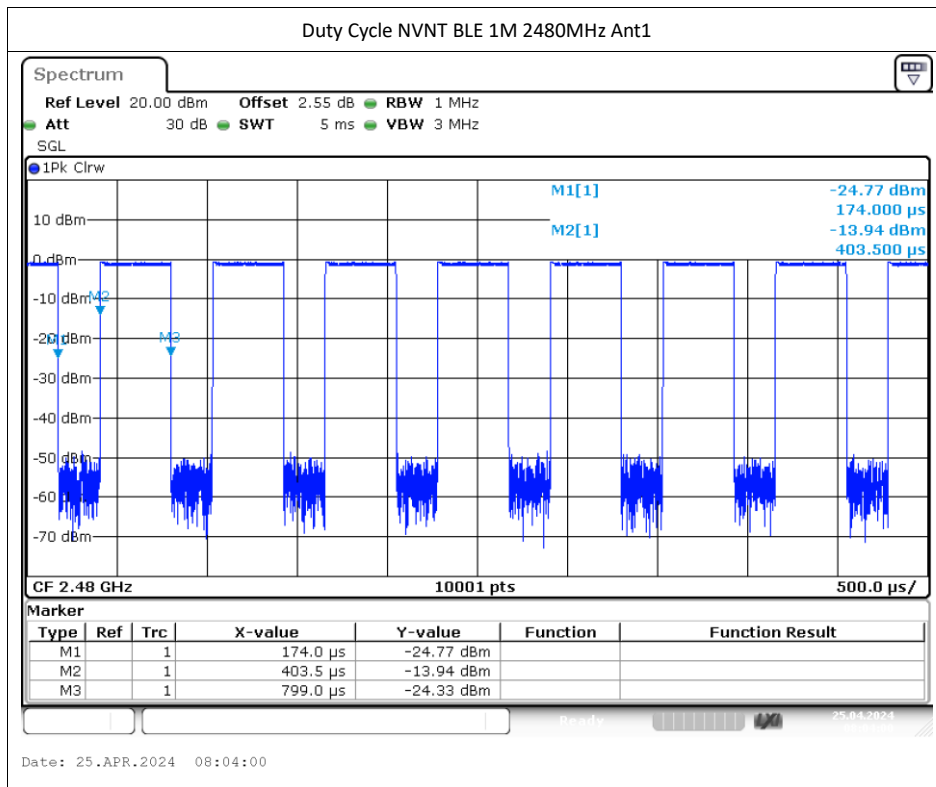


Appendix A

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	0.4	0.63	63.49	1.97	2.53	1
NVNT	BLE 1M	2440	Ant1	0.4	0.63	63.49	1.97	2.53	1
NVNT	BLE 1M	2480	Ant1	0.4	0.63	63.49	1.97	2.53	1

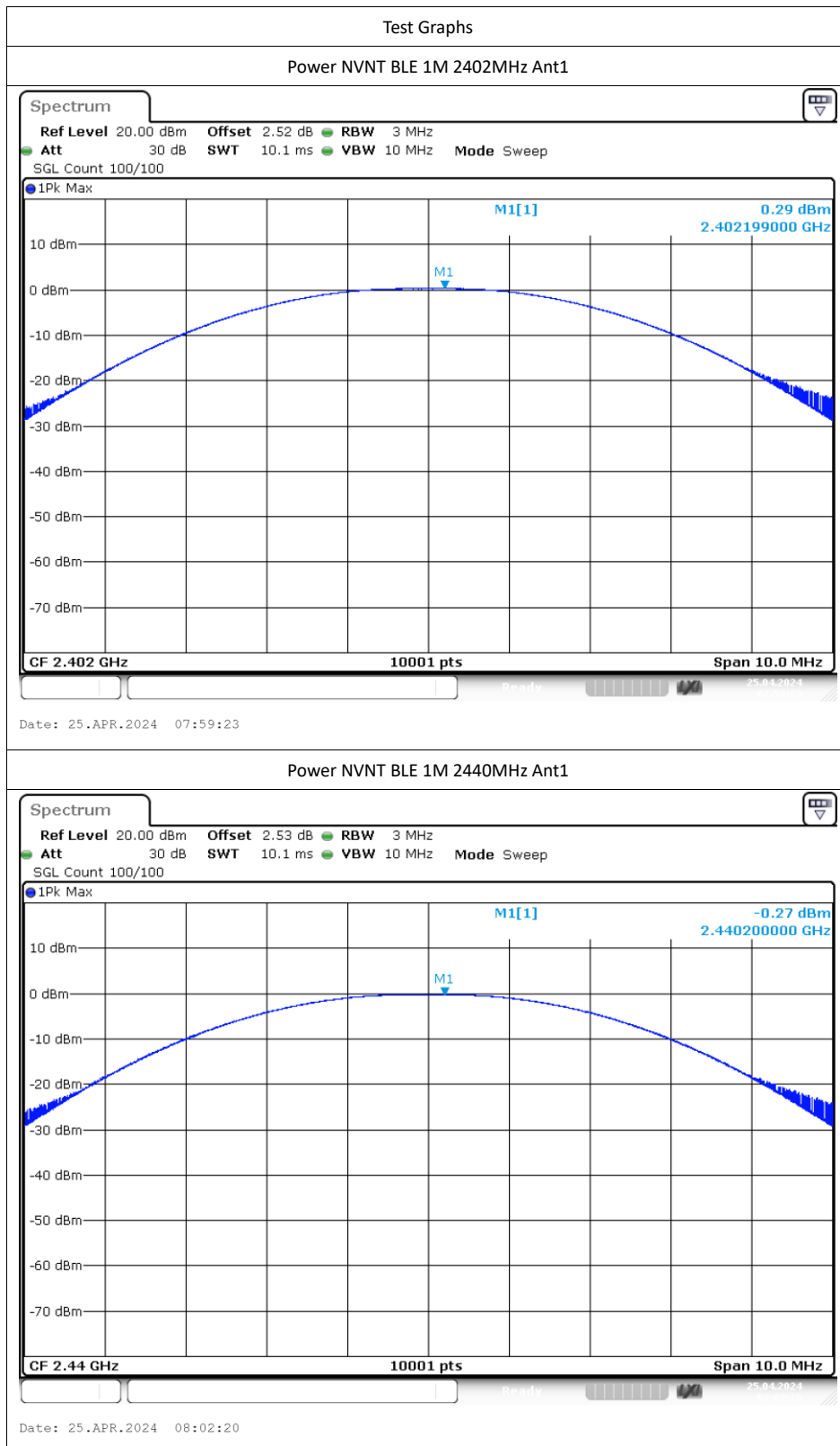


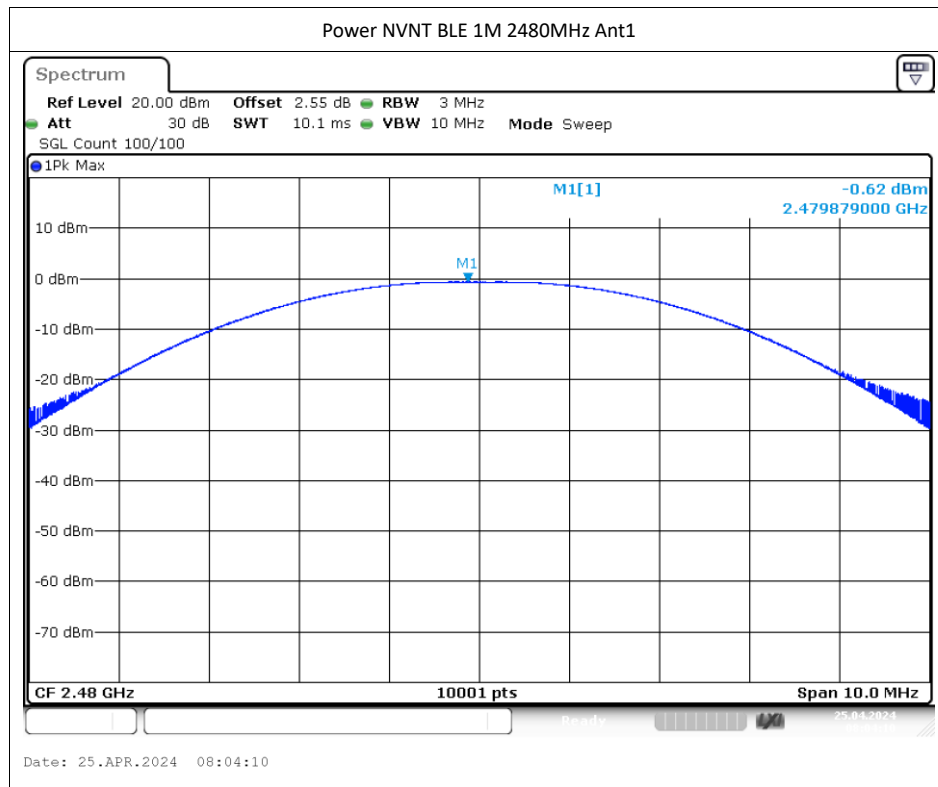


Maximum Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	BLE 1M	2402	Ant1	0.29	30	Pass
NVNT	BLE 1M	2440	Ant1	-0.27	30	Pass
NVNT	BLE 1M	2480	Ant1	-0.62	30	Pass

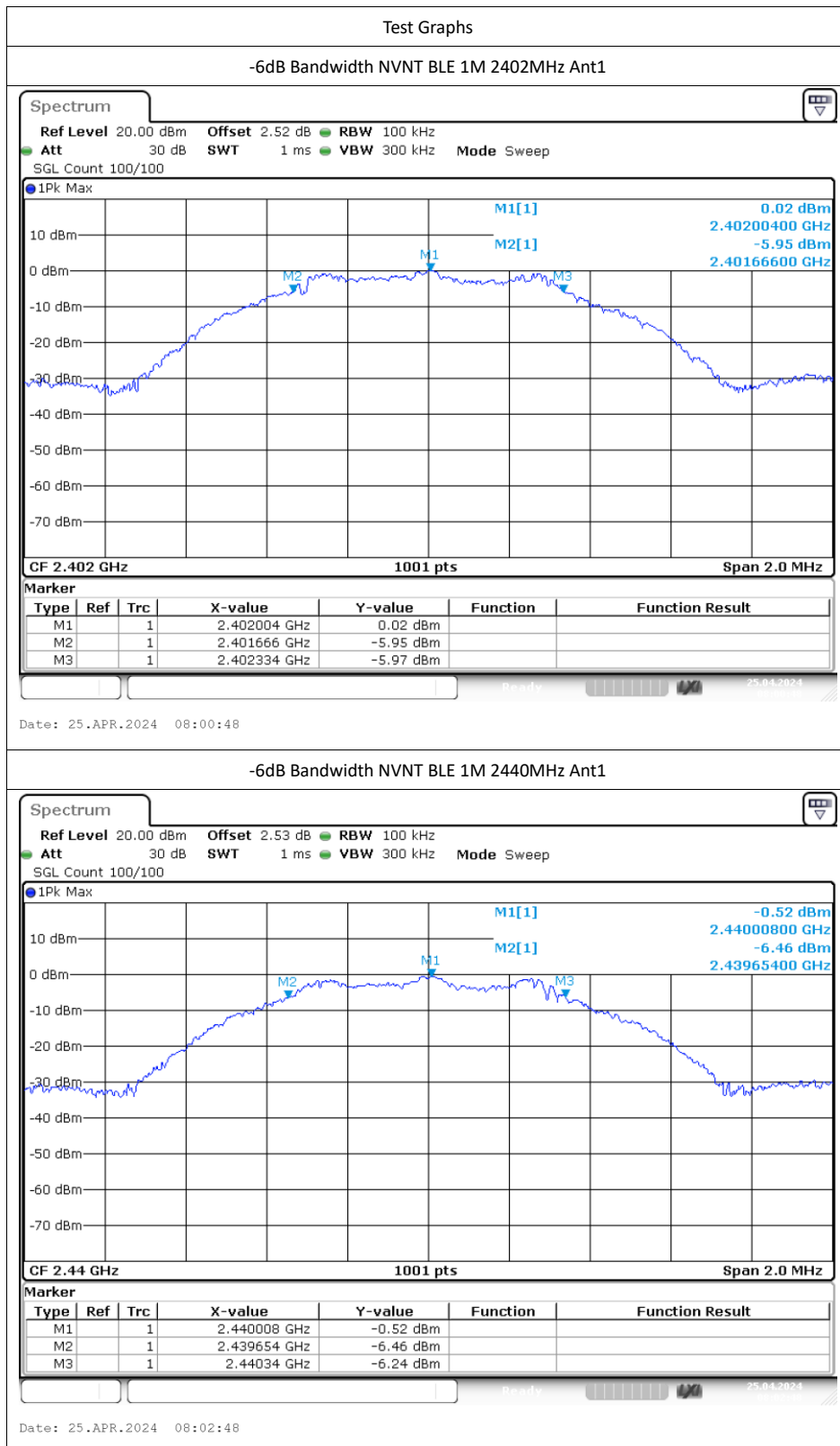
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Antenna Gain (dBi)	E.i.r.p. (dBm)	Limit (dBm)	Verdict
NVNT	BLE 1M	2402	Ant1	0.29	-10.29	-10.00	36.02	Pass
NVNT	BLE 1M	2440	Ant1	-0.27	-10.29	-10.56	36.02	Pass
NVNT	BLE 1M	2480	Ant1	-0.62	-10.29	-10.91	36.02	Pass

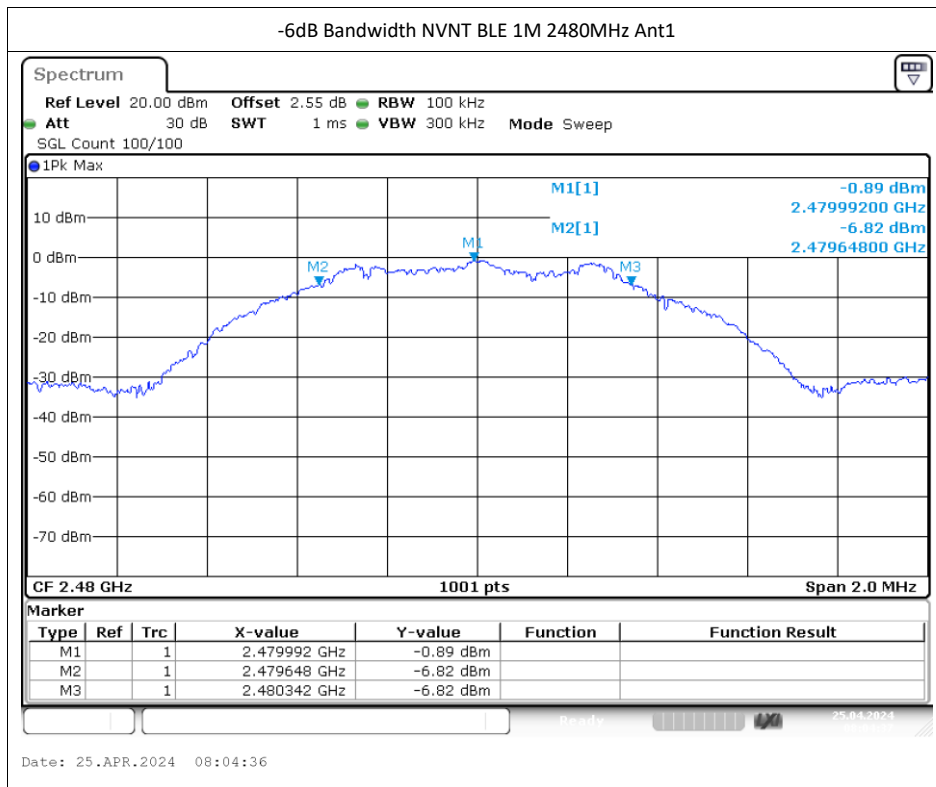




-6dB Bandwidth

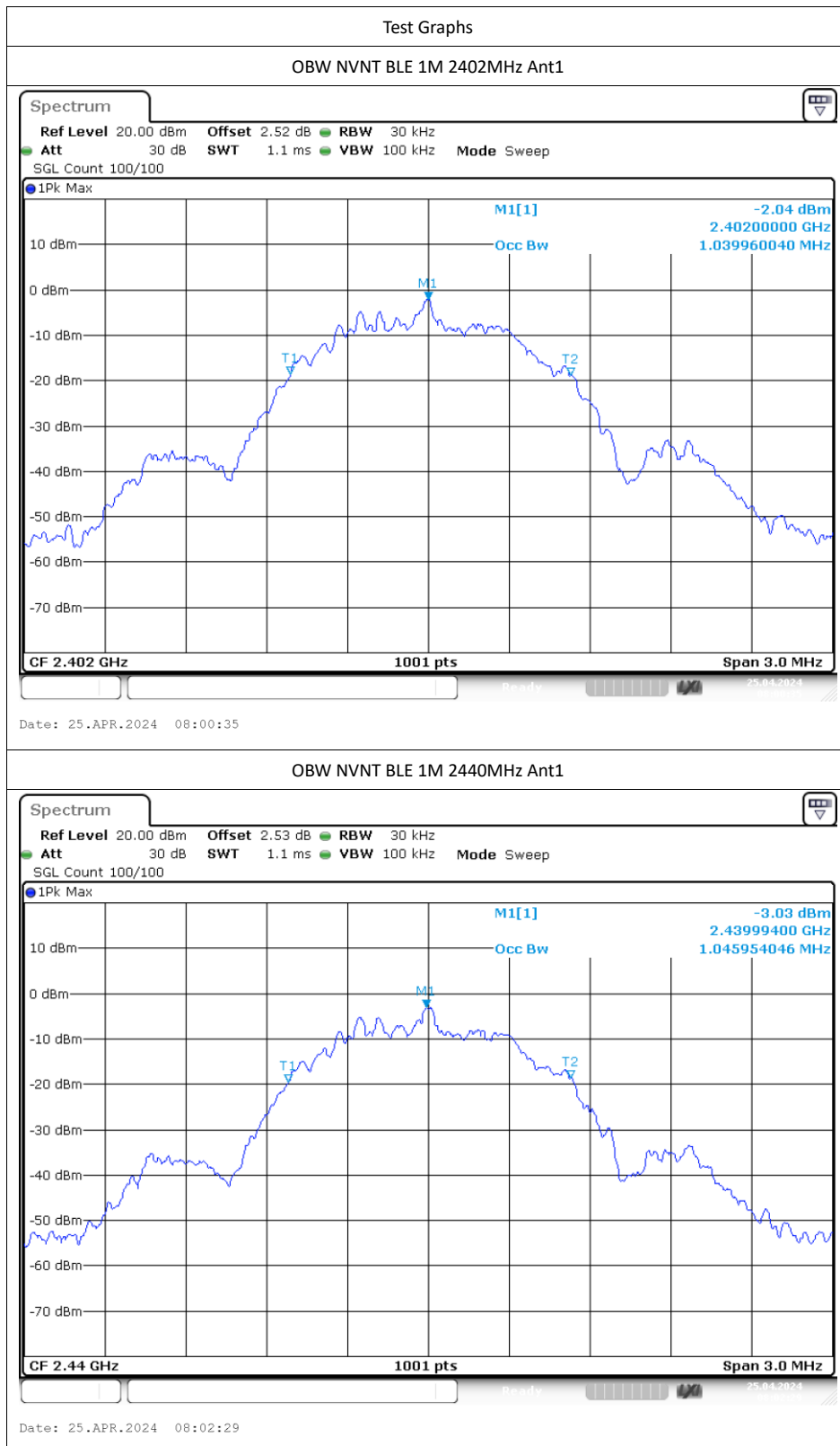
Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	BLE 1M	2402	Ant1	0.67	0.5	Pass
NVNT	BLE 1M	2440	Ant1	0.69	0.5	Pass
NVNT	BLE 1M	2480	Ant1	0.69	0.5	Pass

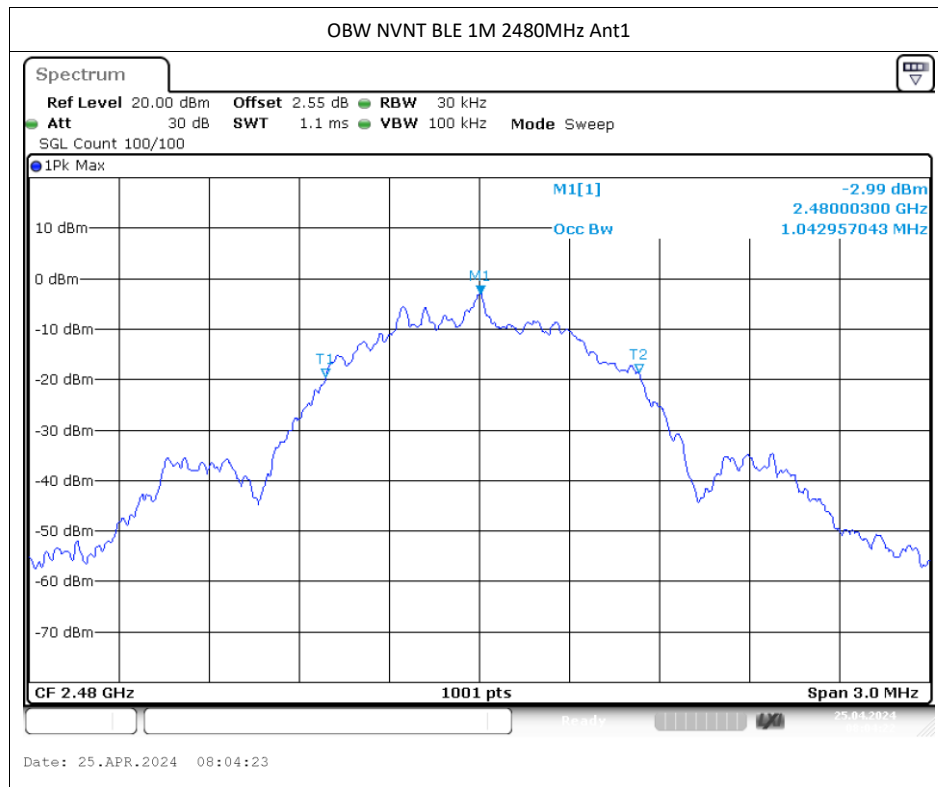




Occupied Channel Bandwidth

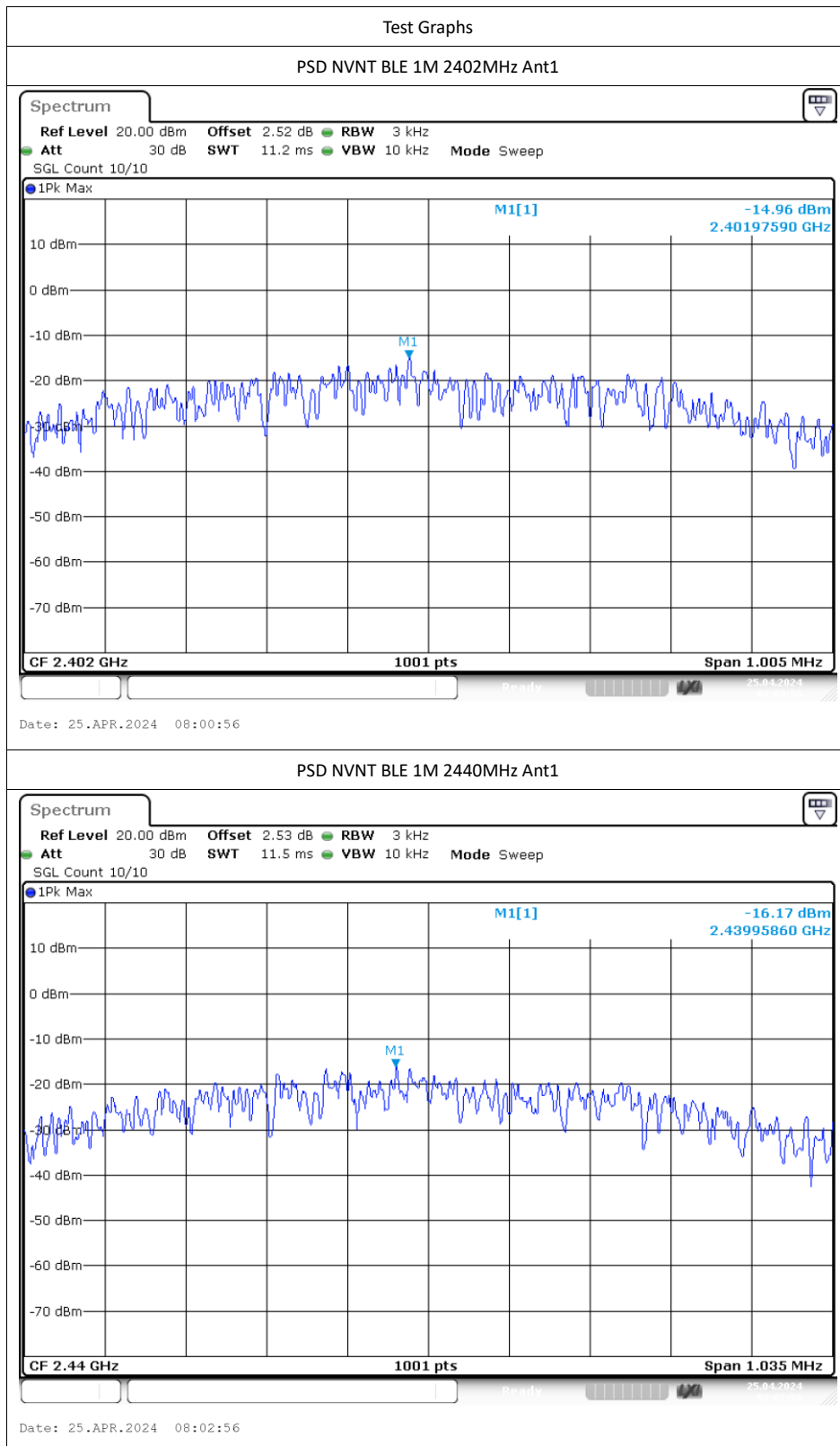
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	BLE 1M	2402	Ant1	1.04
NVNT	BLE 1M	2440	Ant1	1.046
NVNT	BLE 1M	2480	Ant1	1.043

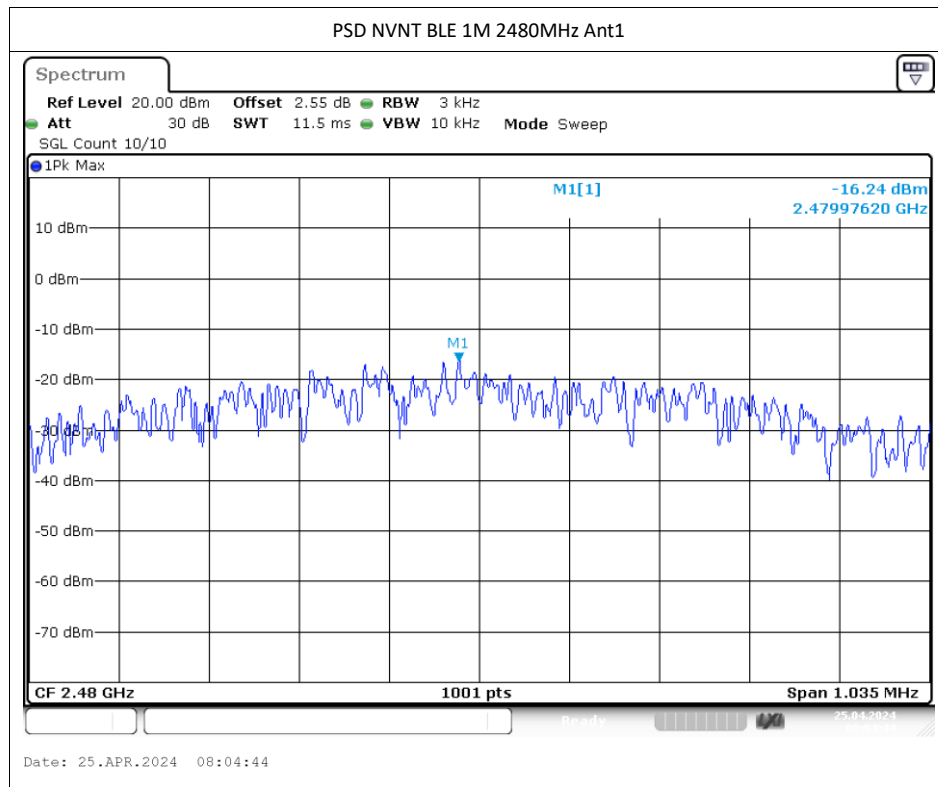




Maximum Power Spectral Density Level

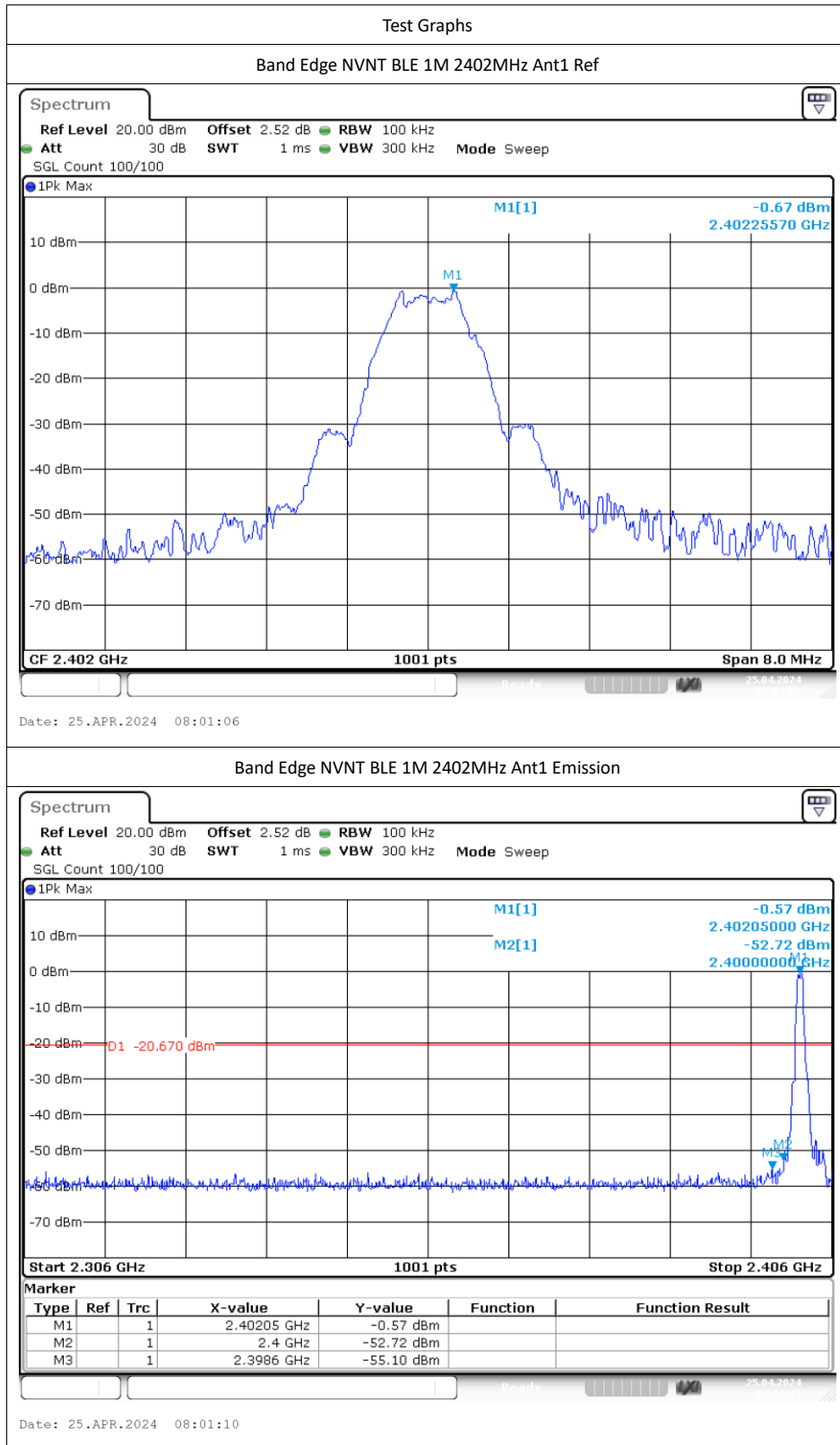
Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm/3kHz)	Duty Factor (dB)	Total PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
NVNT	BLE 1M	2402	Ant1	-14.96	0	-14.96	8	Pass
NVNT	BLE 1M	2440	Ant1	-16.17	0	-16.17	8	Pass
NVNT	BLE 1M	2480	Ant1	-16.24	0	-16.24	8	Pass

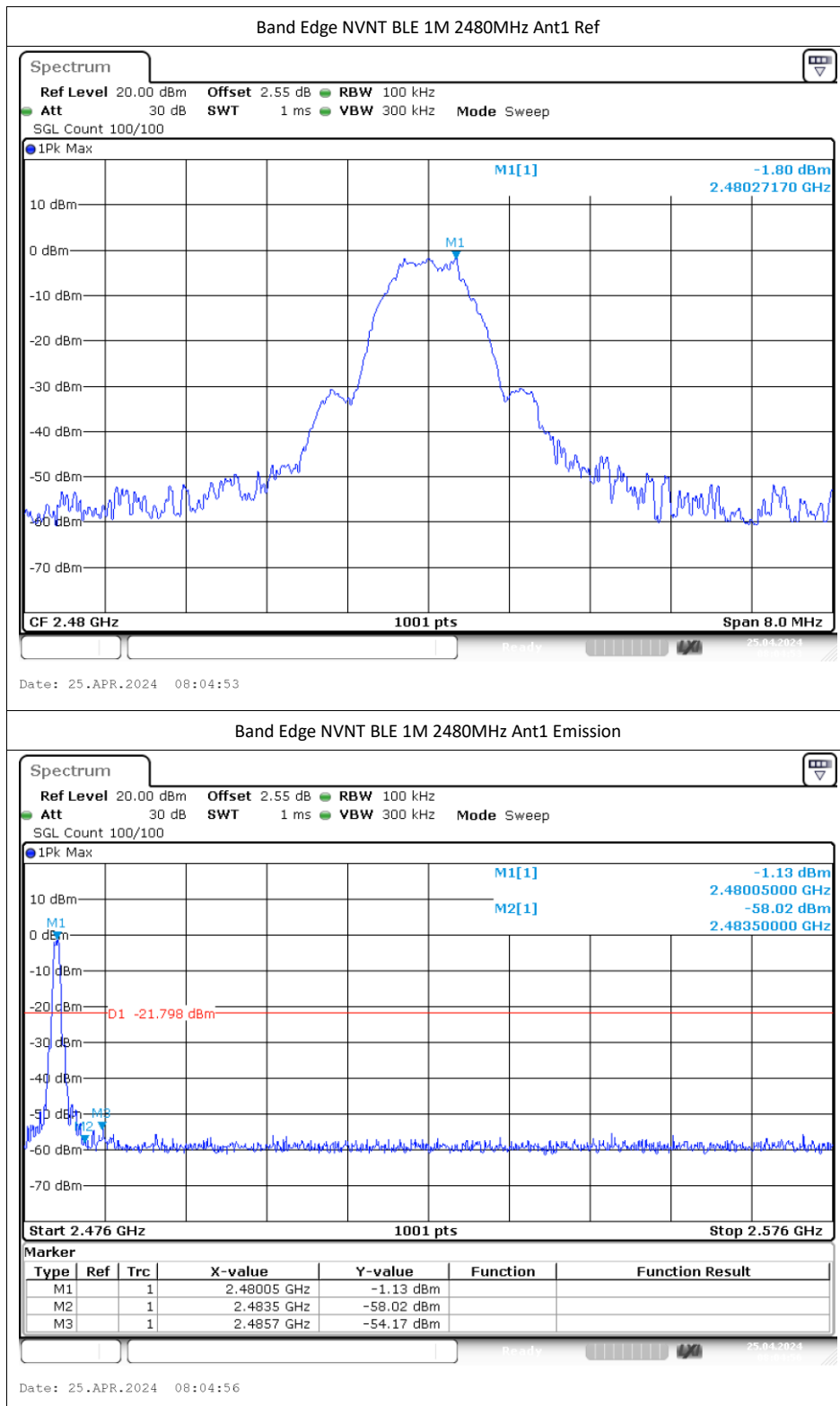




Band Edge

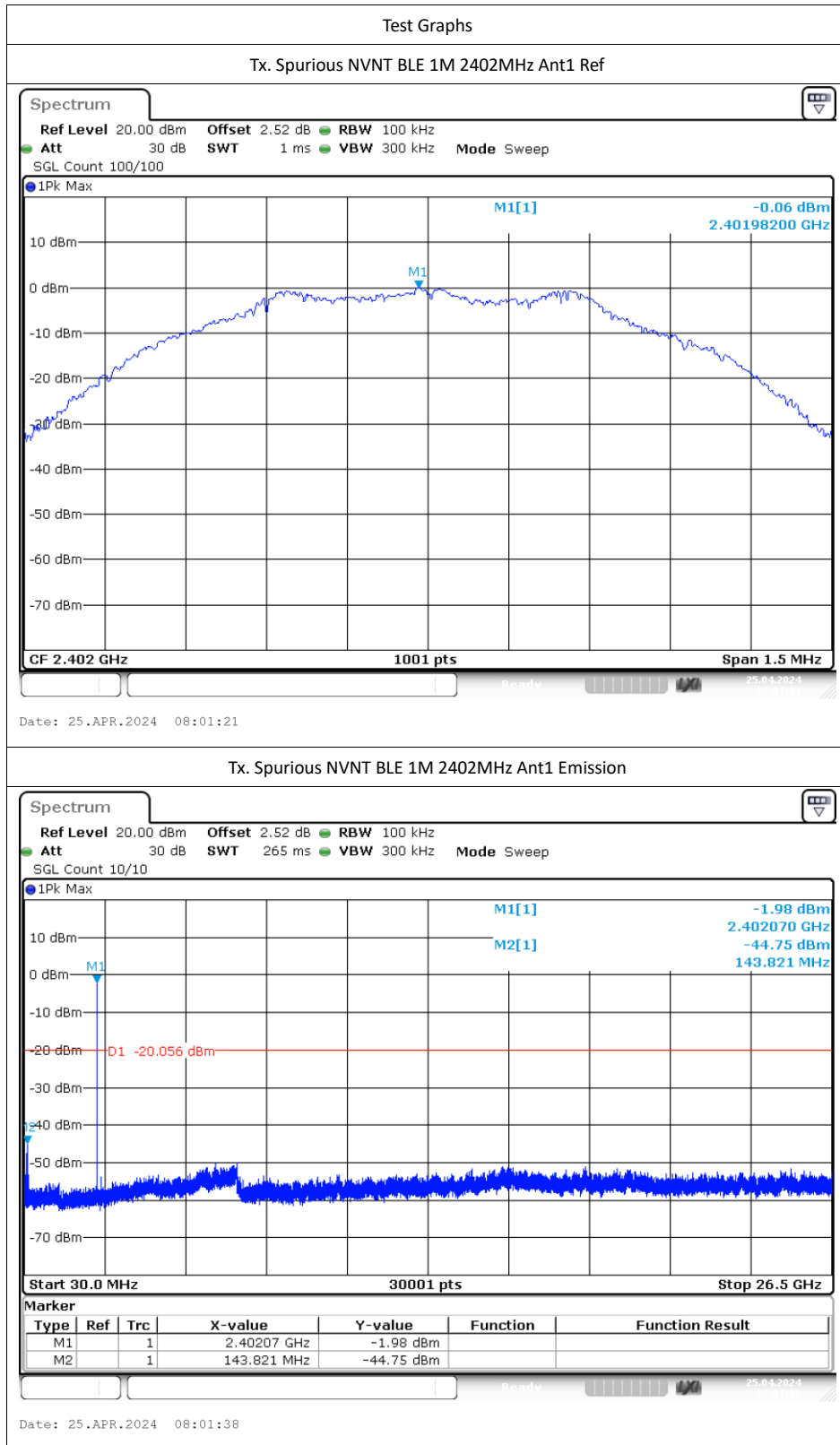
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE 1M	2402	Ant1	-52.05	-20	Pass
NVNT	BLE 1M	2480	Ant1	-52.37	-20	Pass

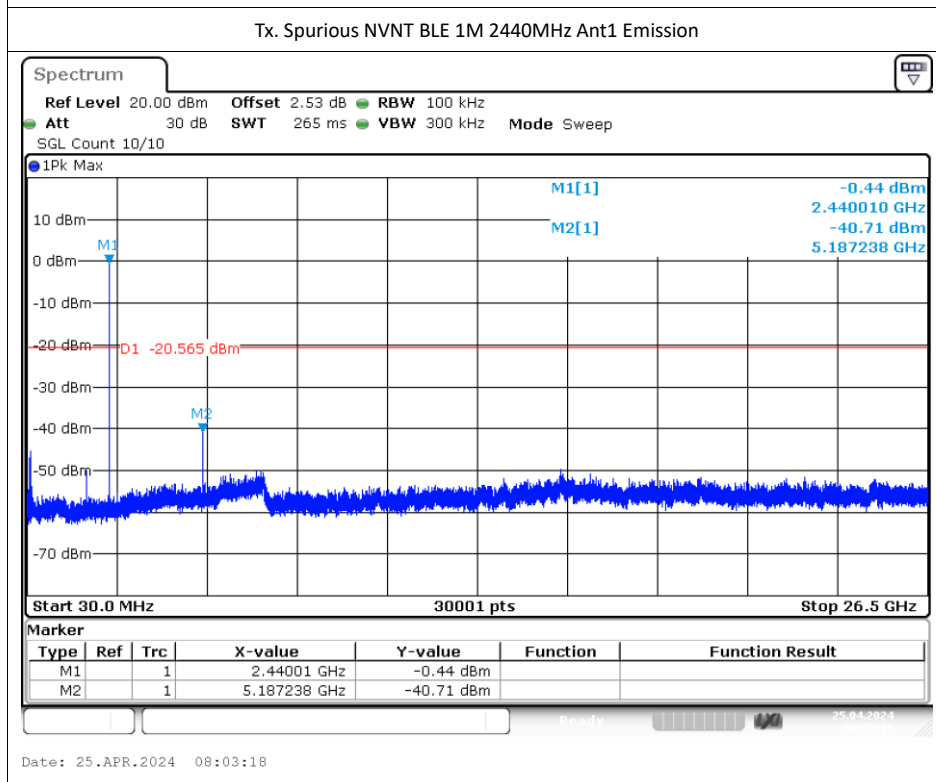
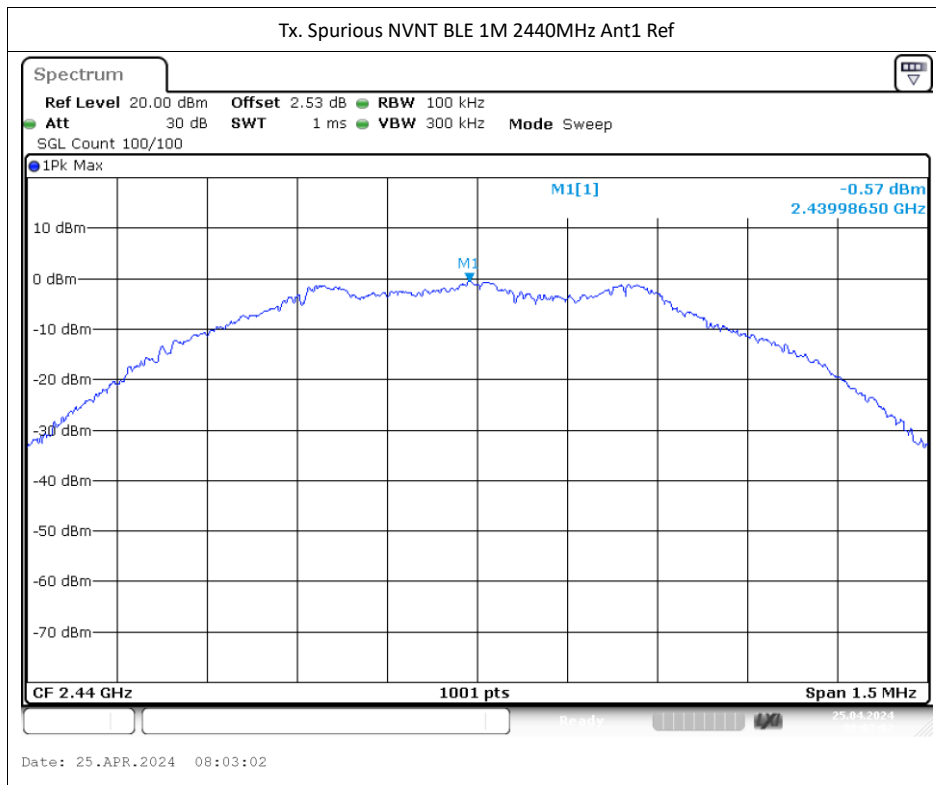


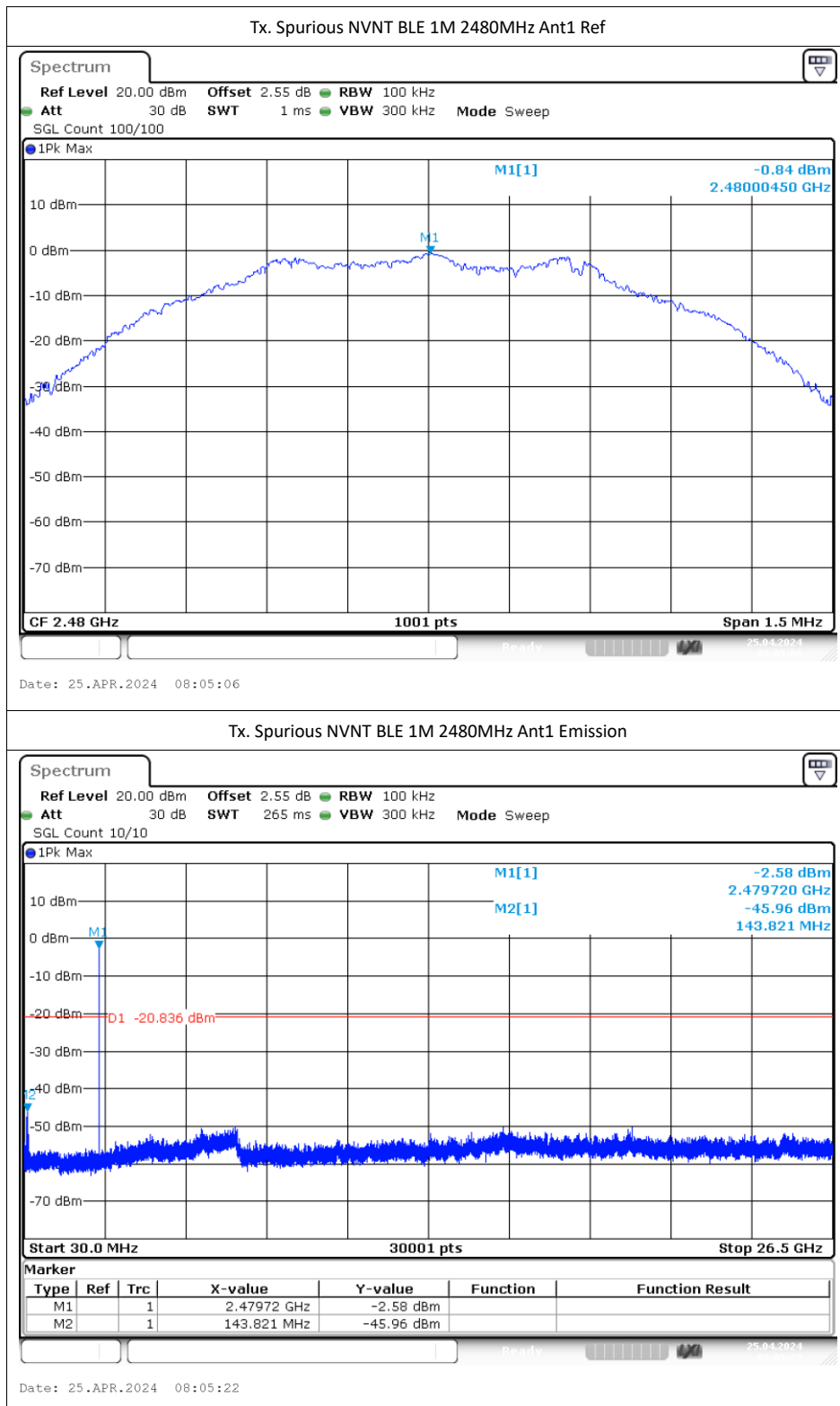


Conducted RF Spurious Emission

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE 1M	2402	Ant1	-44.69	-20	Pass
NVNT	BLE 1M	2440	Ant1	-40.14	-20	Pass
NVNT	BLE 1M	2480	Ant1	-45.12	-20	Pass





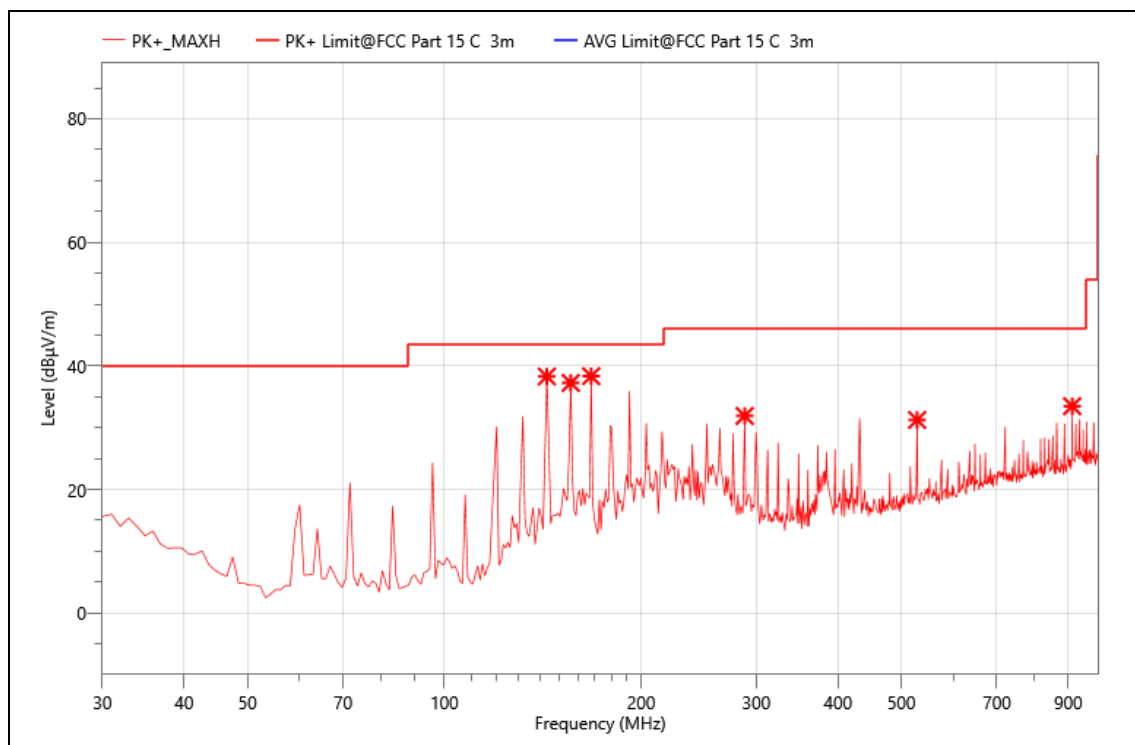


RADIATED TEST RESULTS

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

The worst result as bellow:

EUT :	Cabinet lock
MN:	D6PN-30-0B
Mode:	BLE1M-2402
Power:	DC 12V
TE:	Berny
Date	2024/4/24
T/A/P	24.9°C/53%/101Kpa

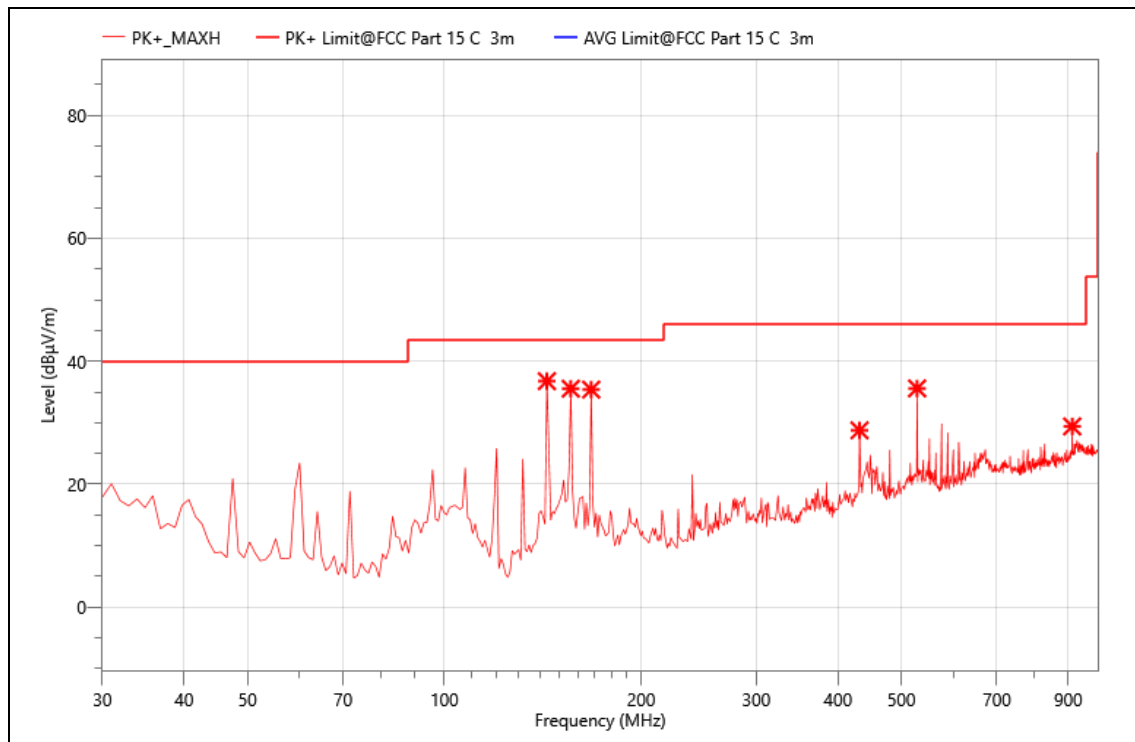


Critical_Freqs

No.	Freq. (MHz)	Reading (dBμV)	Corr. (dB)	Meas. (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Det.	Pol.
1	143.490	61.81	-23.52	38.29	43.50	5.21	PK+	H
2	156.100	58.49	-21.24	37.25	43.50	6.25	PK+	H
3	167.740	61.04	-22.7	38.34	43.50	5.16	PK+	H
4	288.020	51.39	-19.48	31.91	46.00	14.09	PK+	H
5	528.580	42.05	-10.79	31.26	46.00	14.74	PK+	H
6	912.700	37.65	-4.17	33.48	46.00	12.52	PK+	H

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

EUT :	Cabinet lock
MN:	D6PN-30-0B
Mode:	BLE1M-2402
Power:	DC 12V
TE:	Berny
Date	2024/4/24
T/A/P	24.9°C/53%/101Kpa

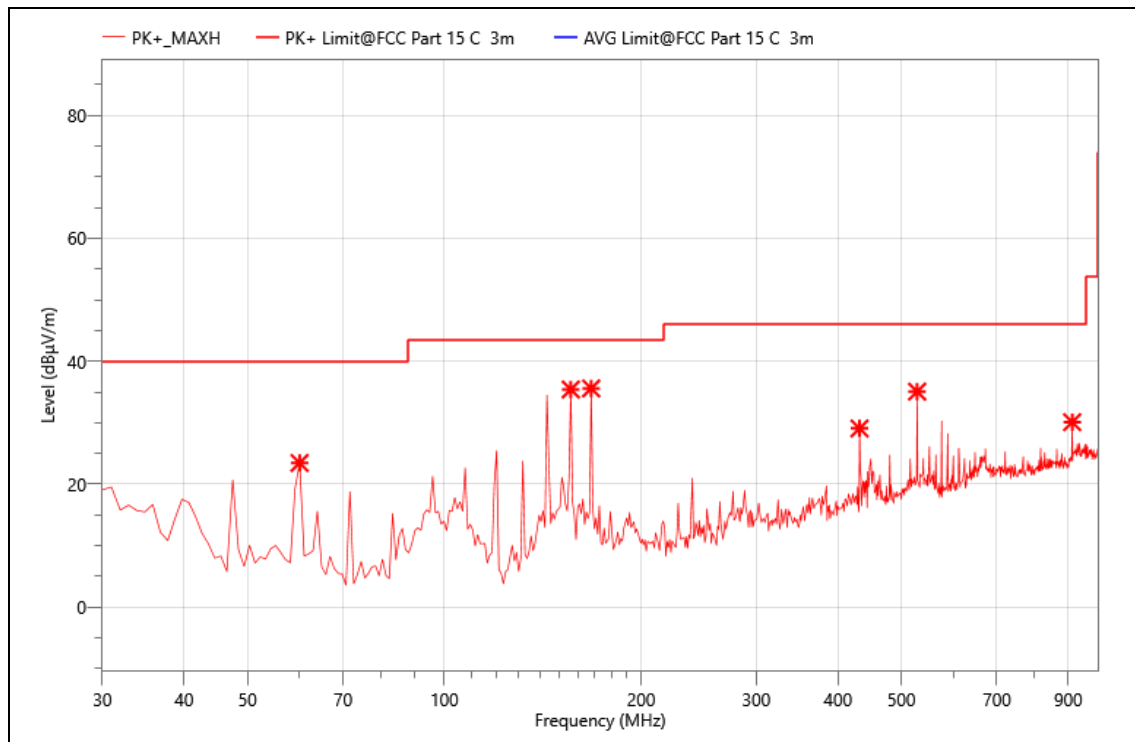


Critical_Freqs

No.	Freq. (MHz)	Reading (dBµV)	Corr. (dB)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Det.	Pol.
1	143.490	60.29	-23.52	36.77	43.50	6.73	PK+	V
2	156.100	56.79	-21.24	35.55	43.50	7.95	PK+	V
3	167.740	58.10	-22.7	35.40	43.50	8.10	PK+	V
4	431.580	42.93	-14.16	28.77	46.00	17.23	PK+	V
5	528.580	46.38	-10.79	35.59	46.00	10.41	PK+	V
6	912.700	33.58	-4.17	29.41	46.00	16.59	PK+	V

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

EUT :	Cabinet lock
MN:	D6PN-20-0P
Mode:	BLE1M-2402
Power:	DC 12V
TE:	Berny
Date	2024/4/24
T/A/P	24.9°C/53%/101Kpa

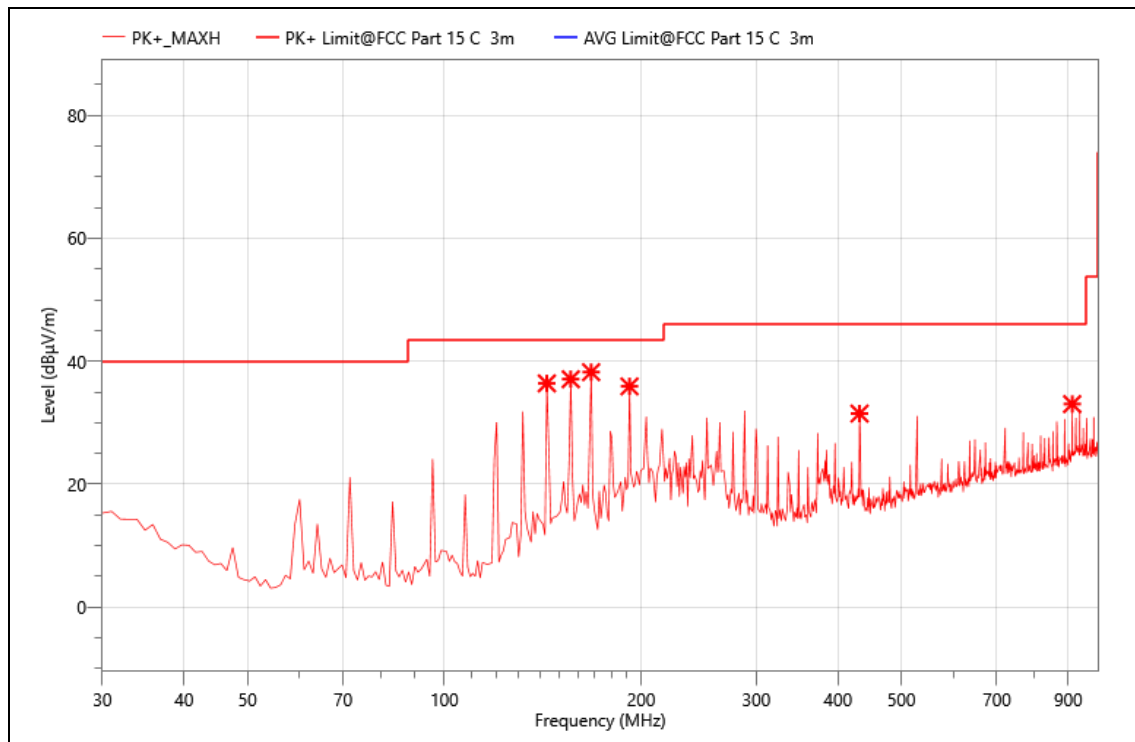


Critical_Freqs

No.	Freq. (MHz)	Reading (dBμV)	Corr. (dB)	Meas. (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Det.	Pol.
1	60.070	47.95	-24.49	23.46	40.00	16.54	PK+	V
2	156.100	56.65	-21.24	35.41	43.50	8.09	PK+	V
3	167.740	58.29	-22.7	35.59	43.50	7.91	PK+	V
4	431.580	43.24	-14.16	29.08	46.00	16.92	PK+	V
5	528.580	45.86	-10.79	35.07	46.00	10.93	PK+	V
6	912.700	34.27	-4.17	30.10	46.00	15.90	PK+	V

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

EUT :	Cabinet lock
MN:	D6PN-20-0P
Mode:	BLE1M-2402
Power:	DC 12V
TE:	Berny
Date	2024/4/24
T/A/P	24.9°C/53%/101Kpa



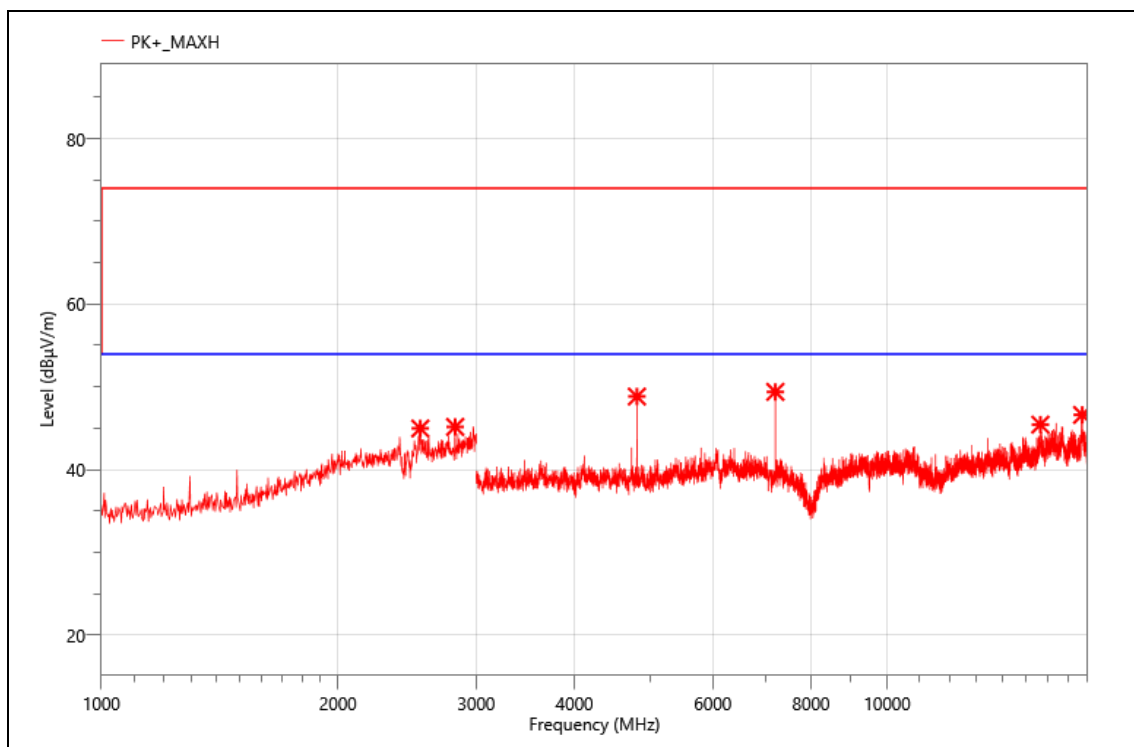
Critical_Freqs

No.	Freq. (MHz)	Reading (dBμV)	Corr. (dB)	Meas. (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Det.	Pol.
1	143.490	59.93	-23.52	36.41	43.50	7.09	PK+	H
2	156.100	58.33	-21.24	37.09	43.50	6.41	PK+	H
3	167.740	60.94	-22.7	38.24	43.50	5.26	PK+	H
4	191.990	58.49	-22.57	35.92	43.50	7.58	PK+	H
5	431.580	45.66	-14.16	31.50	46.00	14.50	PK+	H
6	912.700	37.21	-4.17	33.04	46.00	12.96	PK+	H

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

Above 1000MHz~10th Harmonics:

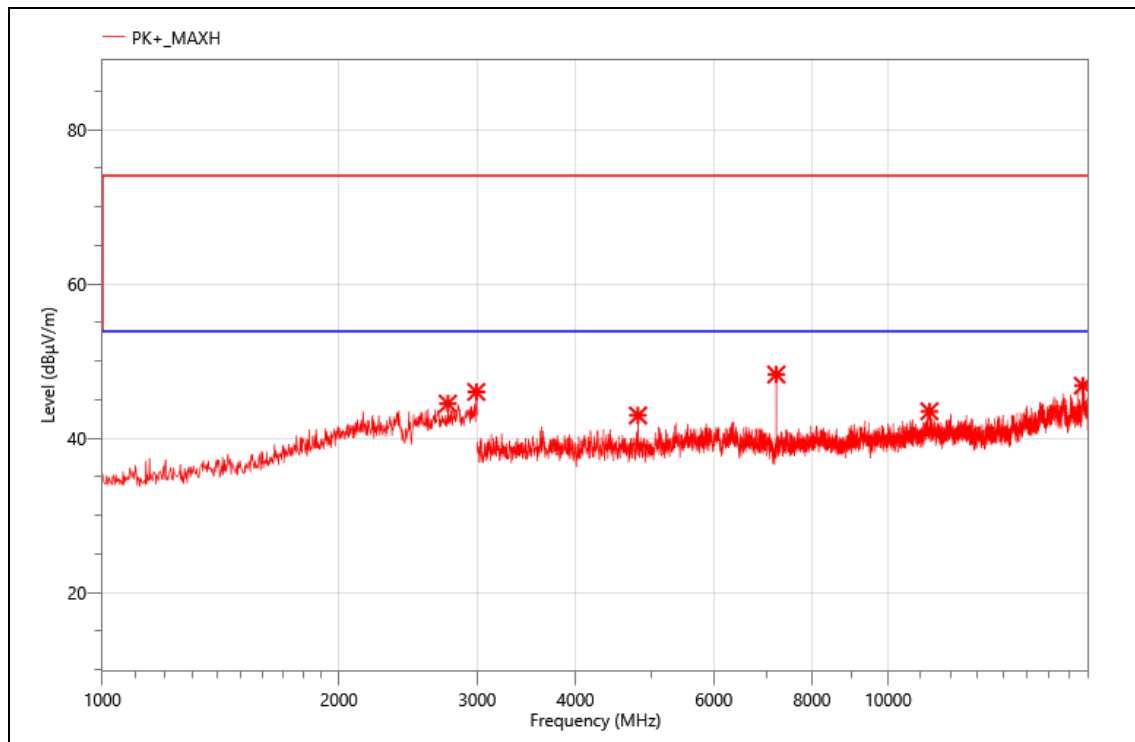
EUT :	Cabinet lock
MN:	D6PN-30-0B
Mode:	BLE1M-2402
Power:	DC 12V
TE:	Berny
Date	2024/4/24
T/A/P	24.9°C/53%/101Kpa



Critical_Freqs

No.	Freq. (MHz)	Reading (dBµV)	Corr. (dB)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Det.	Pol.
1	2546.000	53.24	-8.27	44.97	74.00	29.03	PK+	H
2	2820.000	53.18	-8.02	45.16	74.00	28.84	PK+	H
3	4803.000	60.17	-11.34	48.83	74.00	25.17	PK+	H
4	7206.000	57.39	-8	49.39	74.00	24.61	PK+	H
5	15669.000	47.63	-2.19	45.44	74.00	28.56	PK+	H
6	17710.500	46.66	-0.05	46.61	74.00	27.39	PK+	H

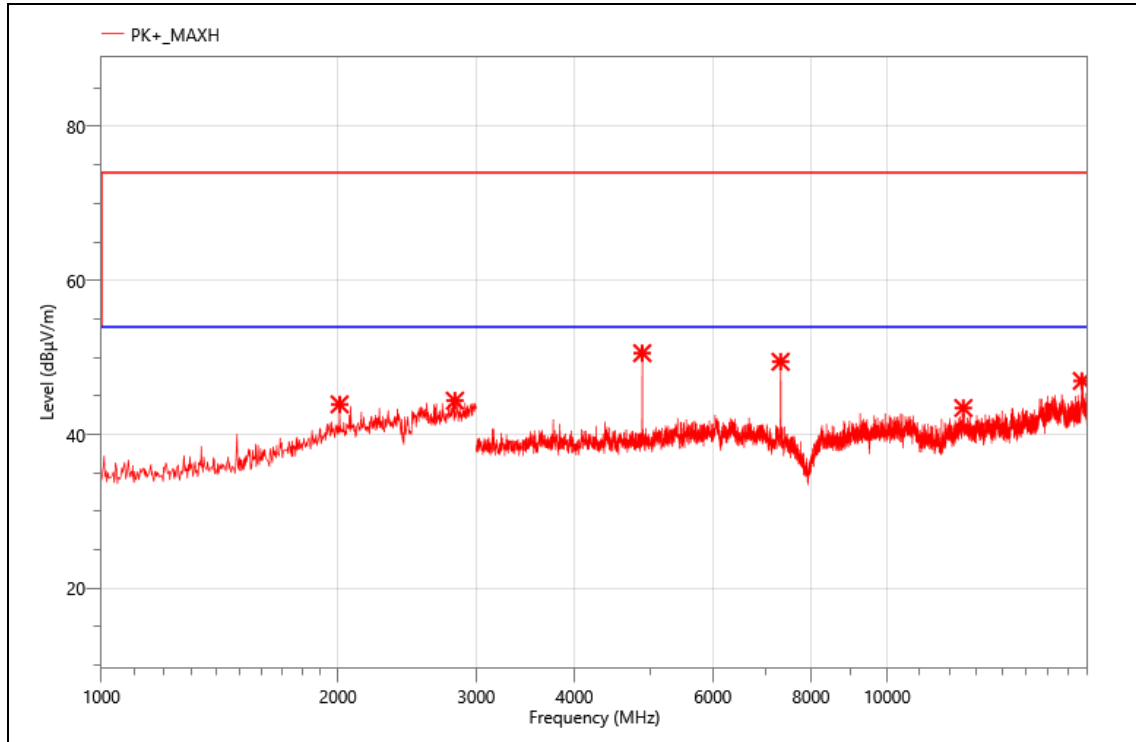
EUT :	Cabinet lock
MN:	D6PN-30-0B
Mode:	BLE1M-2402
Power:	DC 12V
TE:	Berny
Date	2024/4/24
T/A/P	24.9°C/53%/101Kpa



Critical_Freqs

No.	Freq. (MHz)	Reading (dBµV)	Corr. (dB)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Det.	Pol.
1	2752.000	52.55	-8.07	44.48	74.00	29.52	PK+	V
2	2992.000	52.99	-6.99	46.00	74.00	28.00	PK+	V
3	4804.500	54.29	-11.34	42.95	74.00	31.05	PK+	V
4	7206.000	56.25	-8	48.25	74.00	25.75	PK+	V
5	11286.000	47.68	-4.2	43.48	74.00	30.52	PK+	V
6	17694.000	46.60	0.21	46.81	74.00	27.19	PK+	V

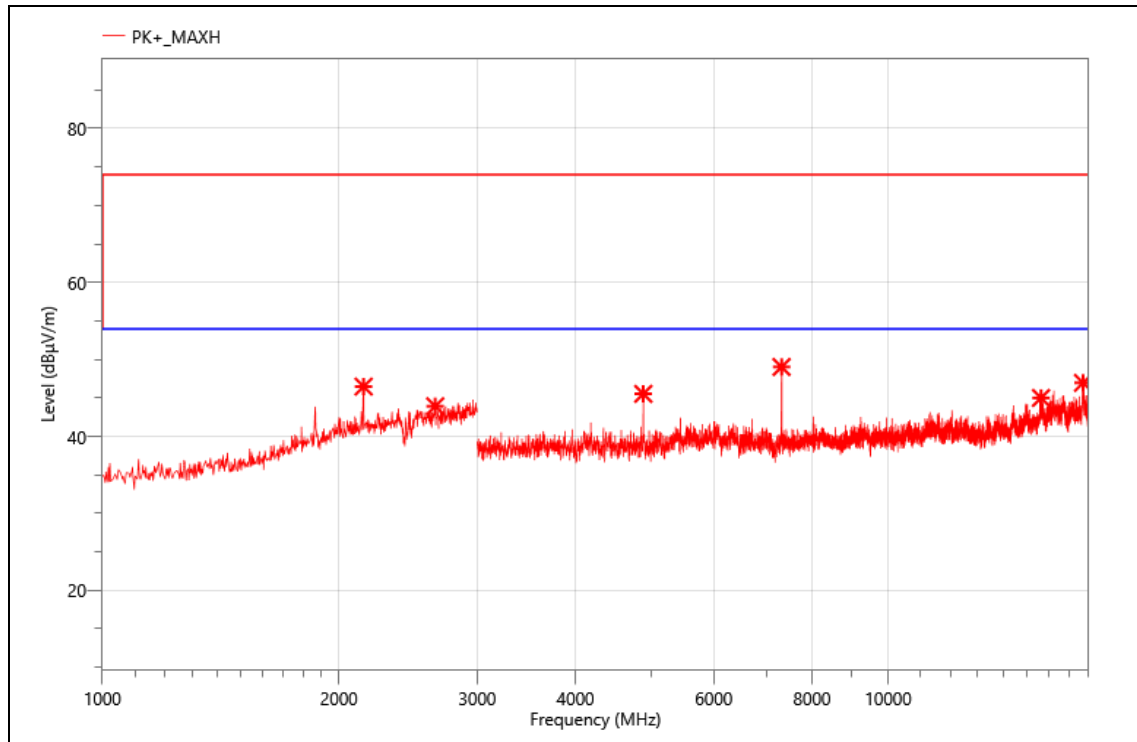
EUT :	Cabinet lock
MN:	D6PN-30-0B
Mode:	BLE1M-2440
Power:	DC 12V
TE:	Berny
Date	2024/4/24
T/A/P	24.9°C/53%/101Kpa



Critical_Freqs

No.	Freq. (MHz)	Reading (dBμV)	Corr. (dB)	Meas. (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Det.	Pol.
1	2010.000	52.99	-9.08	43.91	74.00	30.09	PK+	H
2	2818.000	52.45	-8.07	44.38	74.00	29.62	PK+	H
3	4879.500	61.70	-11.14	50.56	74.00	23.44	PK+	H
4	7318.500	57.26	-7.82	49.44	74.00	24.56	PK+	H
5	12504.000	47.80	-4.37	43.43	74.00	30.57	PK+	H
6	17697.000	46.75	0.2	46.95	74.00	27.05	PK+	H

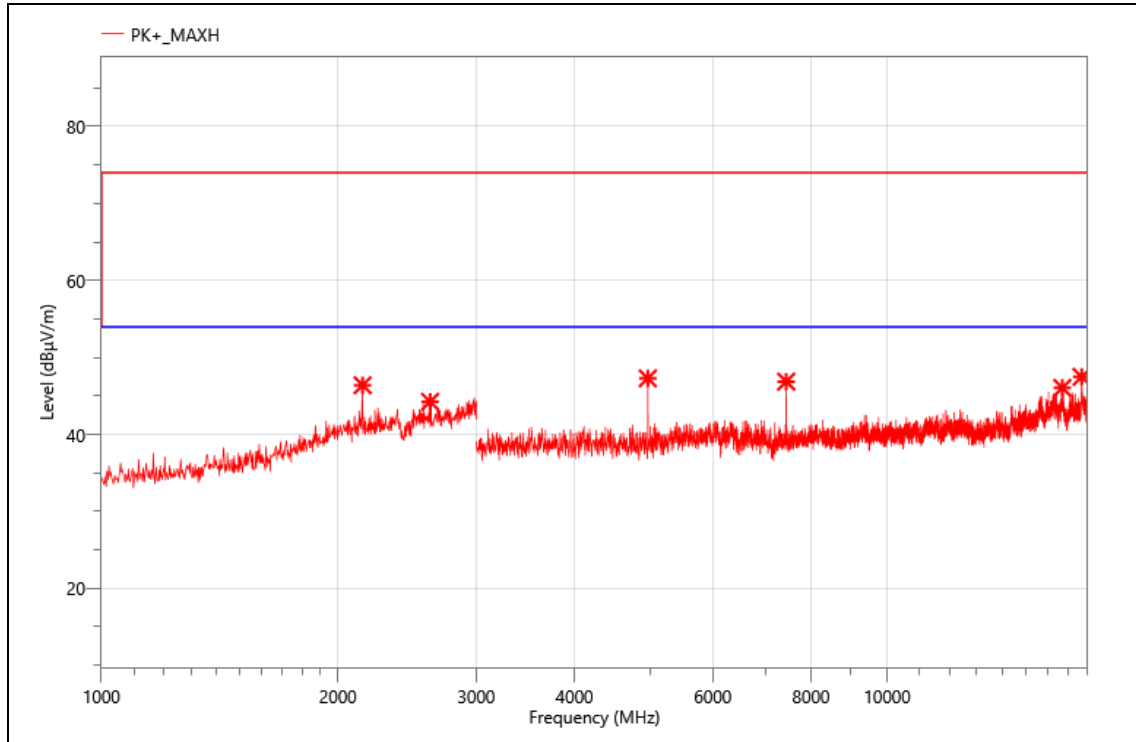
EUT :	Cabinet lock
MN:	D6PN-30-0B
Mode:	BLE1M-2440
Power:	DC 12V
TE:	Berny
Date	2024/4/24
T/A/P	24.9°C/53%/101Kpa



Critical_Freqs

No.	Freq. (MHz)	Reading (dBµV)	Corr. (dB)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Det.	Pol.
1	2150.000	55.53	-9.05	46.48	74.00	27.52	PK+	V
2	2652.000	52.67	-8.74	43.93	74.00	30.07	PK+	V
3	4879.500	56.67	-11.14	45.53	74.00	28.47	PK+	V
4	7318.500	56.85	-7.82	49.03	74.00	24.97	PK+	V
5	15654.000	47.06	-2.06	45.00	74.00	29.00	PK+	V
6	17703.000	46.85	0.11	46.96	74.00	27.04	PK+	V

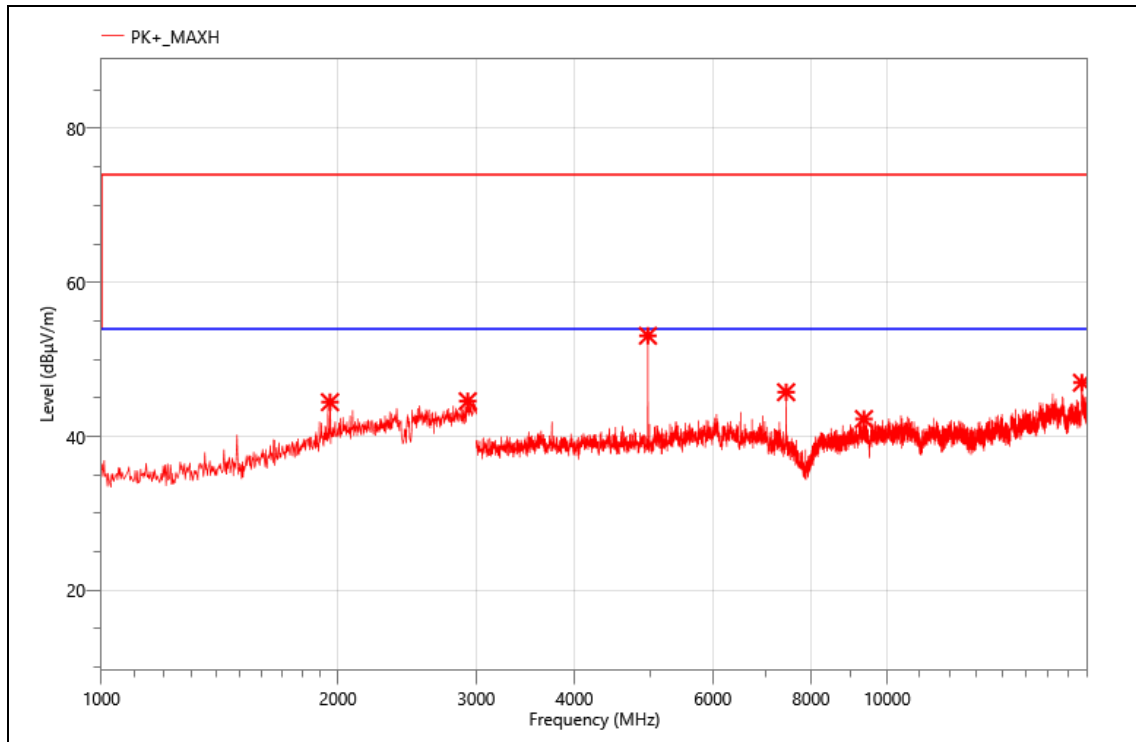
EUT :	Cabinet lock
MN:	D6PN-30-0B
Mode:	BLE1M-2480
Power:	DC 12V
TE:	Berny
Date	2024/4/24
T/A/P	24.9°C/53%/101Kpa



Critical_Freqs

No.	Freq. (MHz)	Reading (dBμV)	Corr. (dB)	Meas. (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Det.	Pol.
1	2150.000	55.44	-9.05	46.39	74.00	27.61	PK+	V
2	2620.000	52.68	-8.43	44.25	74.00	29.75	PK+	V
3	4959.000	58.64	-11.35	47.29	74.00	26.71	PK+	V
4	7440.000	54.82	-7.96	46.86	74.00	27.14	PK+	V
5	16711.500	46.86	-0.81	46.05	74.00	27.95	PK+	V
6	17682.000	47.20	0.28	47.48	74.00	26.52	PK+	V

EUT :	Cabinet lock
MN:	D6PN-30-0B
Mode:	BLE1M-2480
Power:	DC 12V
TE:	Berny
Date	2024/4/24
T/A/P	24.9°C/53%/101Kpa



Critical_Freqs

No.	Freq. (MHz)	Reading (dBµV)	Corr. (dB)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Det.	Pol.
1	1954.000	53.97	-9.52	44.45	74.00	29.55	PK+	H
2	2926.000	52.15	-7.57	44.58	74.00	29.42	PK+	H
3	4960.500	64.42	-11.34	53.08	74.00	20.92	PK+	H
4	7438.500	53.70	-7.95	45.75	74.00	28.25	PK+	H
5	9343.500	49.48	-7.22	42.26	74.00	31.74	PK+	H
6	17700.000	46.80	0.18	46.98	74.00	27.02	PK+	H

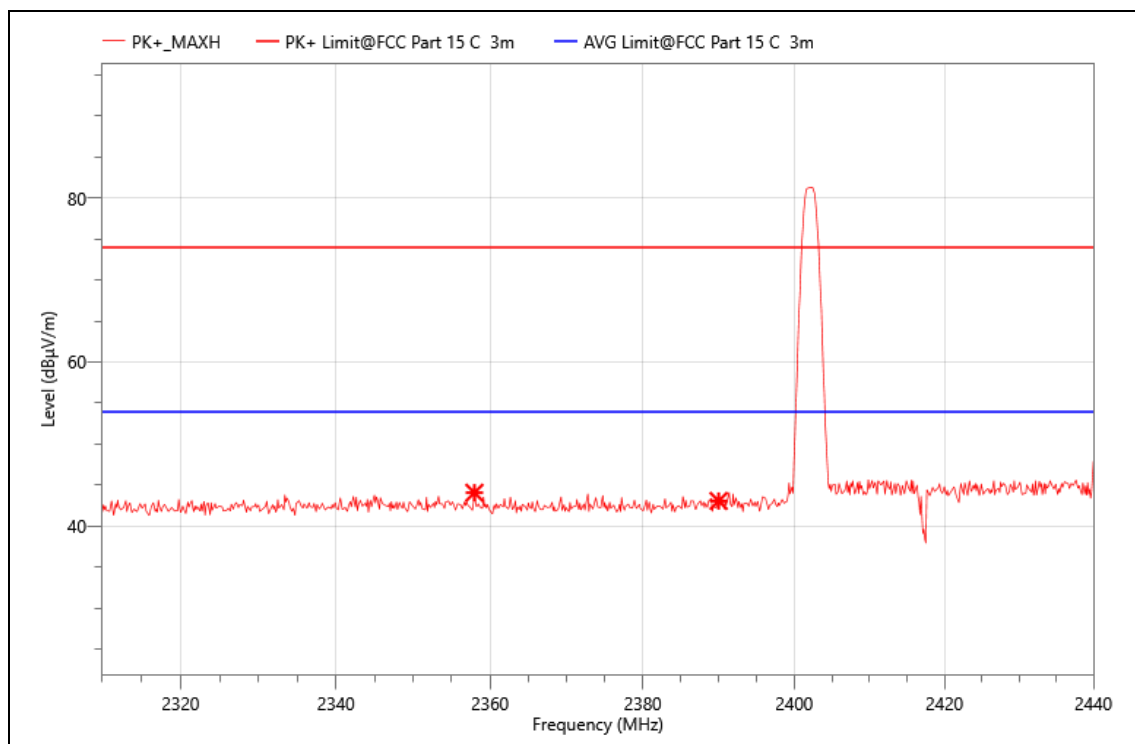
No others harmonics emissions are higher than 20 dB below the limits of 47 CFR Part 15.247.

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:

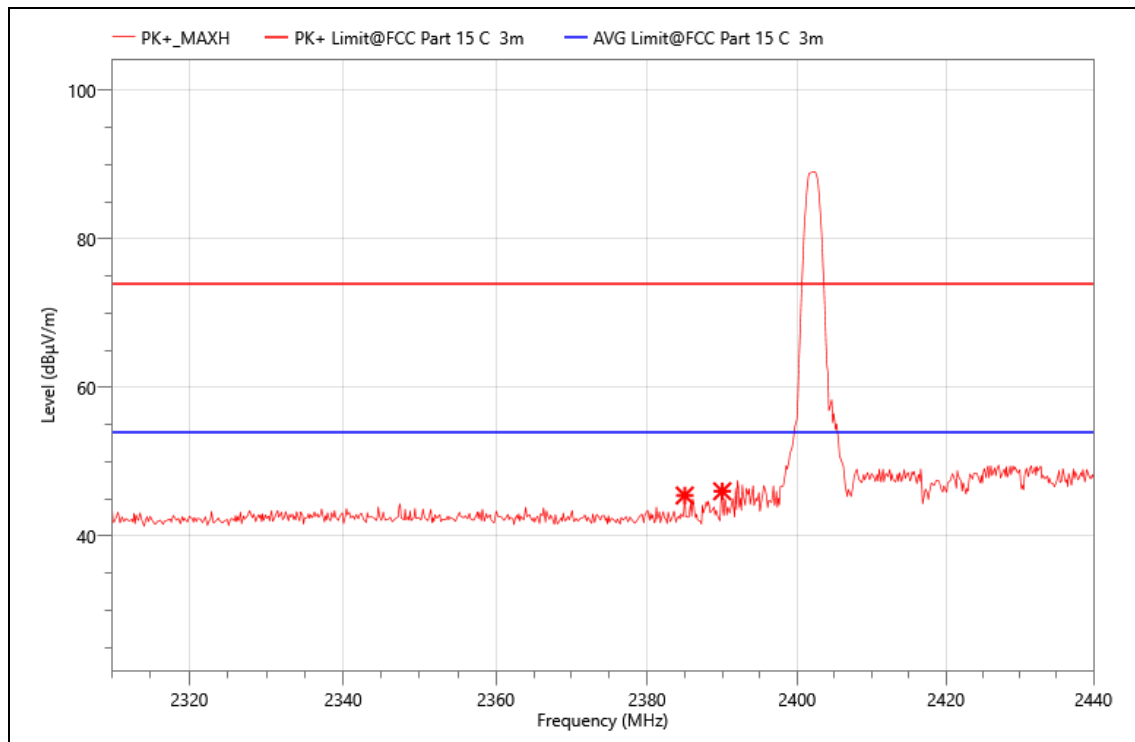
EUT :	Cabinet lock
MN:	D6PN-30-0B
Mode:	BLE1M-2402
Power:	DC 12V
TE:	Berny
Date	2024/4/24
T/A/P	24.9°C/53%/101Kpa



Critical_Freqs

No.	Freq. (MHz)	Reading (dBµV)	Corr. (dB)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Det.	Pol.
1	2357.970	21.32	22.74	44.06	74.00	29.94	PK+	V
2	2390.000	20.34	22.72	43.06	74.00	30.94	PK+	V

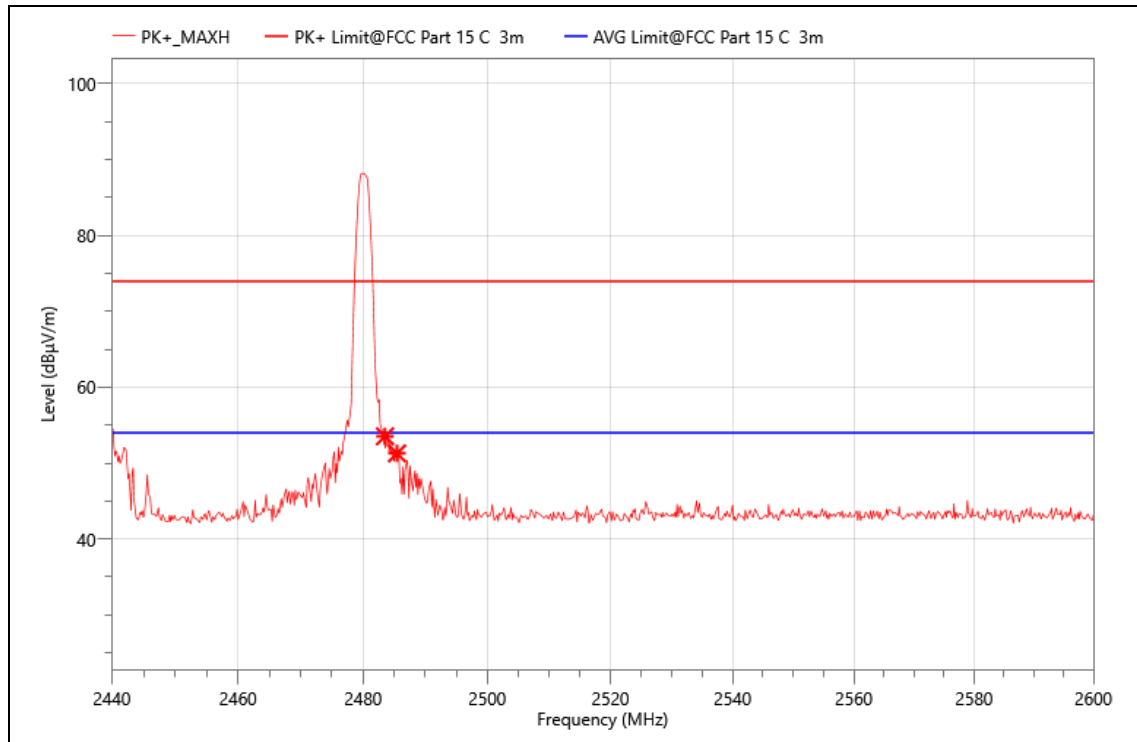
EUT :	Cabinet lock
MN:	D6PN-30-0B
Mode:	BLE1M-2402
Power:	DC 12V
TE:	Berny
Date	2024/4/24
T/A/P	24.9°C/53%/101Kpa



Critical_Freqs

No.	Freq. (MHz)	Reading (dBµV)	Corr. (dB)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Det.	Pol.
1	2385.010	22.83	22.62	45.45	74.00	28.55	PK+	H
2	2390.000	23.30	22.72	46.02	74.00	27.98	PK+	H

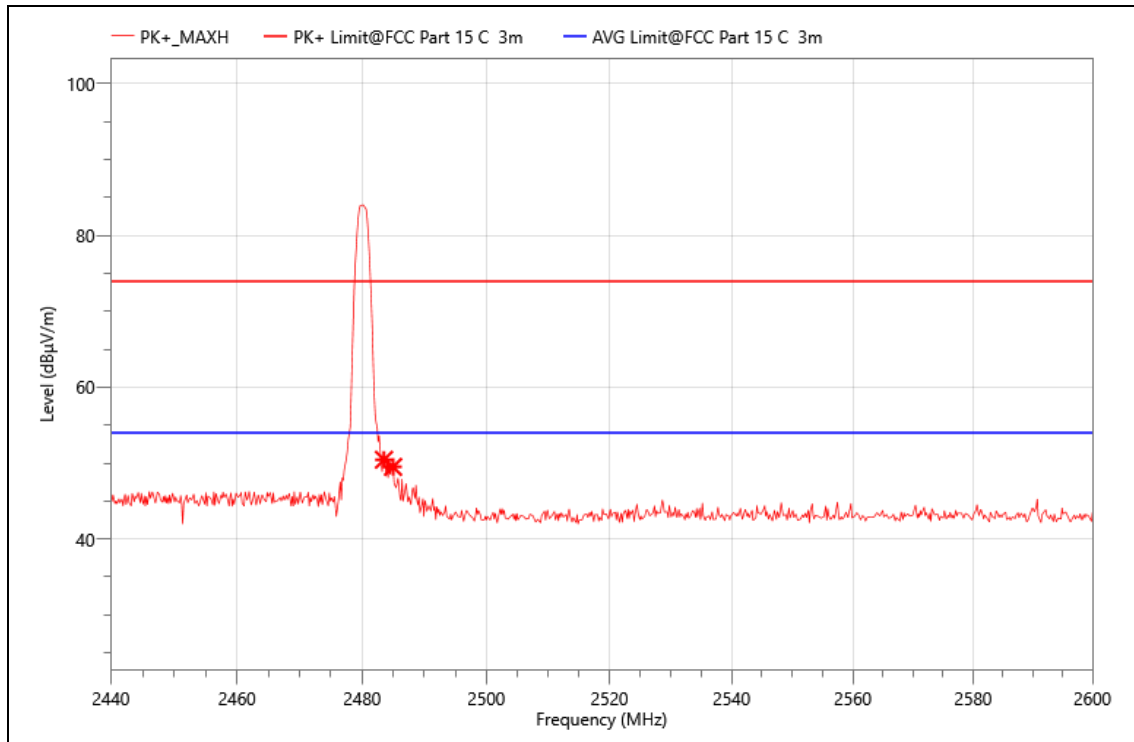
EUT :	Cabinet lock
MN:	D6PN-30-0B
Mode:	BLE1M-2480
Power:	DC 12V
TE:	Berny
Date	2024/4/24
T/A/P	24.9°C/53%/101Kpa



Critical_Freqs

No.	Freq. (MHz)	Reading (dBμV)	Corr. (dB)	Meas. (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Det.	Pol.
1	2483.500	30.38	23.15	53.53	74.00	20.47	PK+	H
2	2485.440	28.14	23.14	51.28	74.00	22.72	PK+	H

EUT :	Cabinet lock
MN:	D6PN-30-0B
Mode:	BLE1M-2480
Power:	DC 12V
TE:	Berny
Date	2024/4/24
T/A/P	24.9°C/53%/101Kpa



Critical_Freqs

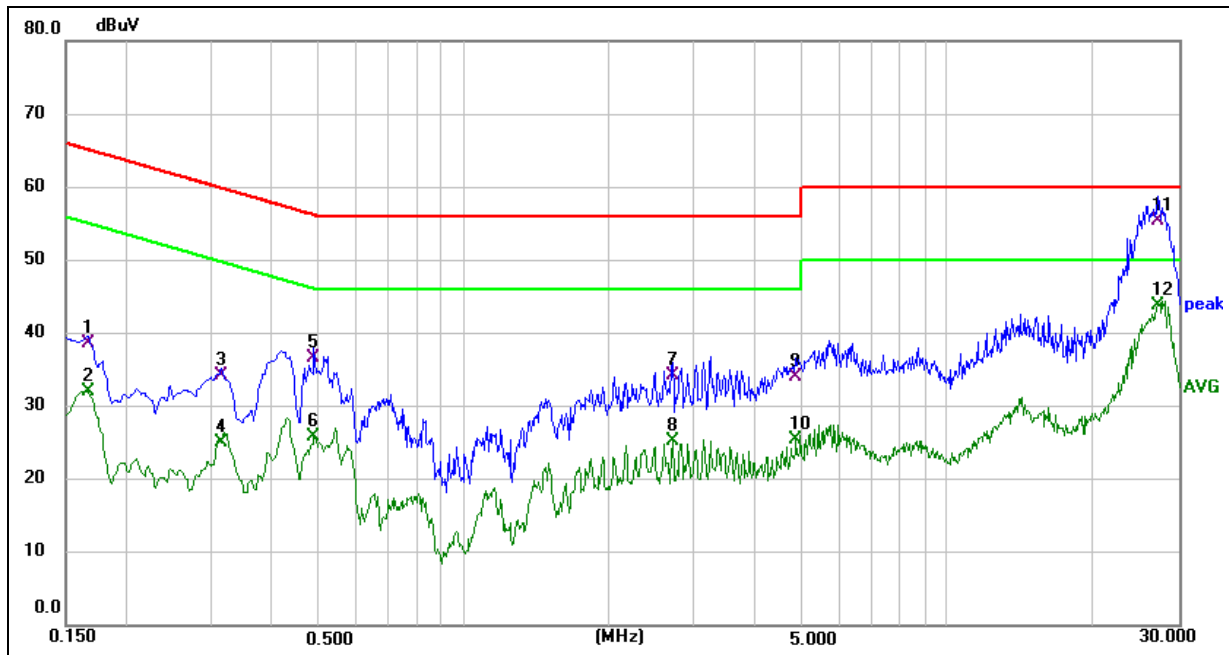
No.	Freq. (MHz)	Reading (dBµV)	Corr. (dB)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Det.	Pol.
1	2483.500	27.29	23.15	50.44	74.00	23.56	PK+	V
2	2484.960	26.35	23.15	49.50	74.00	24.50	PK+	V

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.

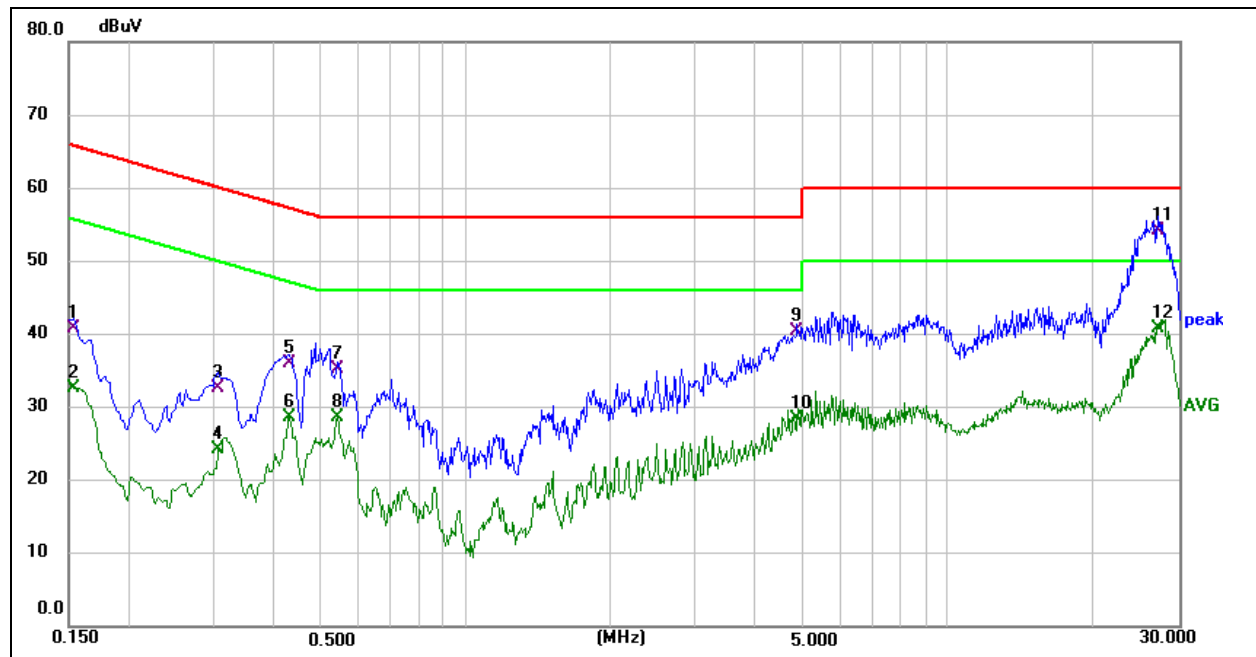
AC POWER LINE CONDUCTED EMISSIONS

LINE L1 RESULTS (Model: D6PN-30-0B, BLE 1M 2402)



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dB)	
1	0.1660	28.44	10.26	38.70	65.16	-26.46	QP
2	0.1660	21.74	10.26	32.00	55.16	-23.16	AVG
3	0.3140	23.44	10.86	34.30	59.86	-25.56	QP
4	0.3140	14.23	10.86	25.09	49.86	-24.77	AVG
5	0.4900	25.76	10.84	36.60	56.17	-19.57	QP
6	0.4900	15.02	10.84	25.86	46.17	-20.31	AVG
7	2.7020	24.13	10.07	34.20	56.00	-21.80	QP
8	2.7020	15.11	10.07	25.18	46.00	-20.82	AVG
9	4.8500	23.83	10.27	34.10	56.00	-21.90	QP
10	4.8500	15.15	10.27	25.42	46.00	-20.58	AVG
11 *	27.2700	39.73	15.57	55.30	60.00	-4.70	QP
12	27.2700	28.28	15.57	43.85	50.00	-6.15	AVG

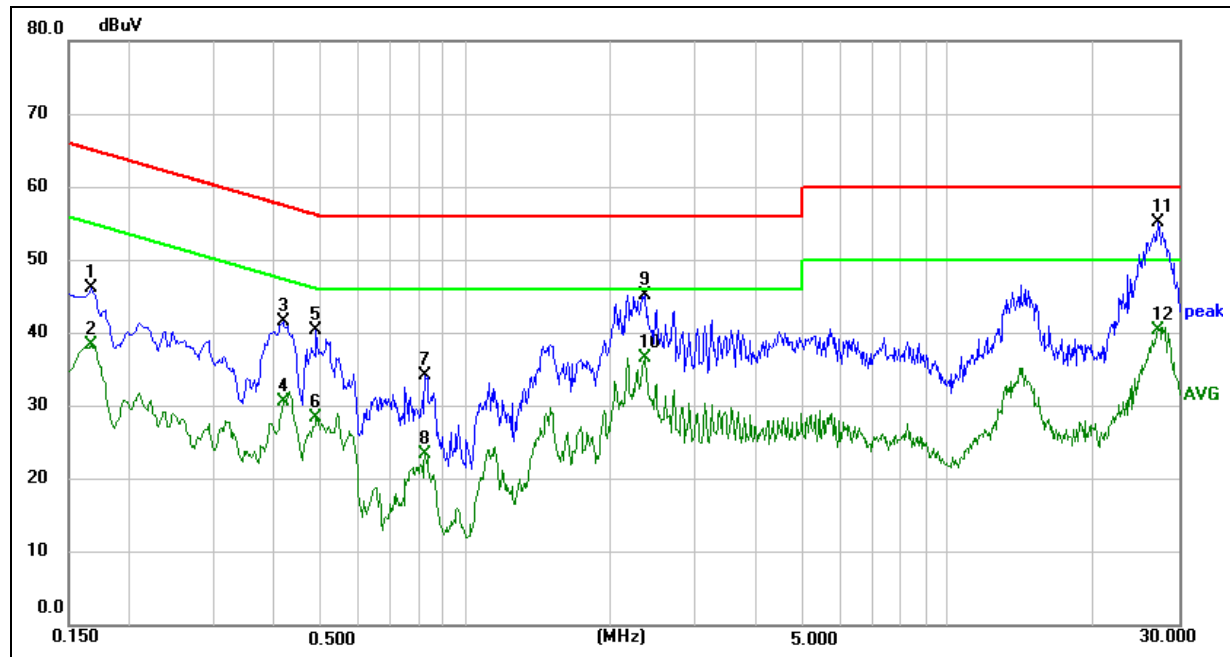
LINE N RESULTS (Model: D6PN-30-0B, BLE 1M 2402)



Phase: N

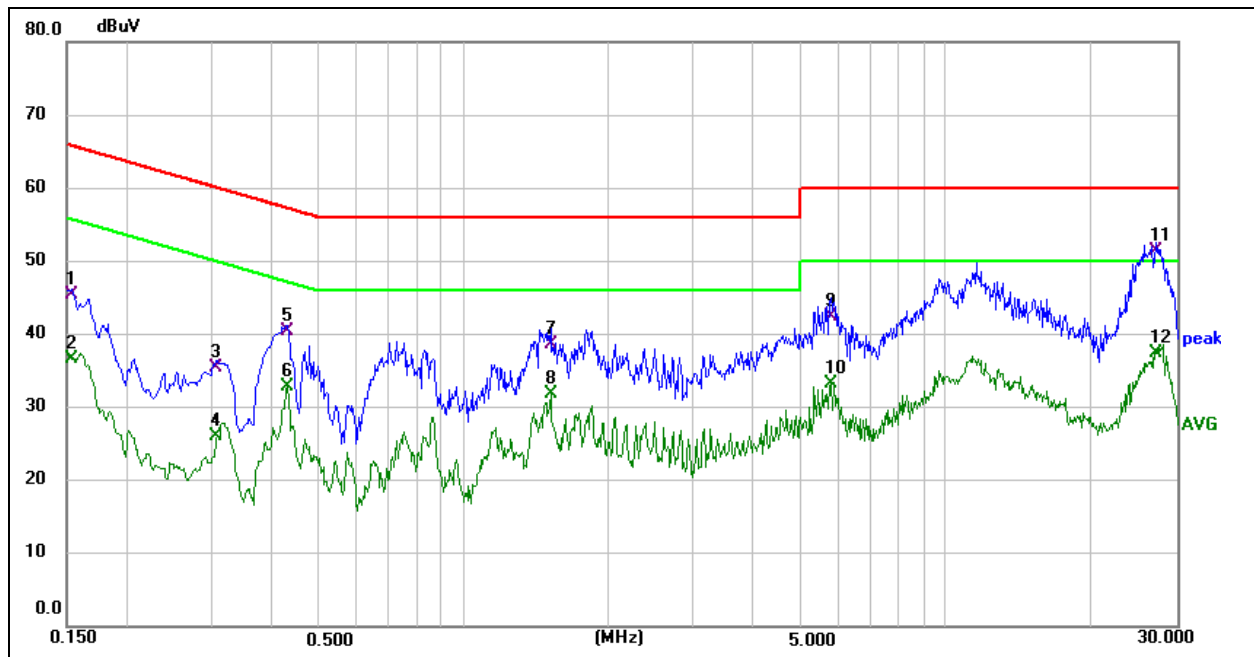
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1539	30.34	10.36	40.70	65.79	-25.09	QP
2	0.1539	22.26	10.36	32.62	55.79	-23.17	AVG
3	0.3060	22.03	10.67	32.70	60.08	-27.38	QP
4	0.3060	13.53	10.67	24.20	50.08	-25.88	AVG
5	0.4300	25.07	10.93	36.00	57.25	-21.25	QP
6	0.4300	17.79	10.93	28.72	47.25	-18.53	AVG
7	0.5420	24.25	11.05	35.30	56.00	-20.70	QP
8	0.5420	17.51	11.05	28.56	46.00	-17.44	AVG
9	4.8659	29.99	10.41	40.40	56.00	-15.60	QP
10	4.8659	17.92	10.41	28.33	46.00	-17.67	AVG
11 *	27.2380	38.80	15.40	54.20	60.00	-5.80	QP
12	27.2380	25.43	15.40	40.83	50.00	-9.17	AVG

LINE L1 RESULTS (Model: D6PN-20-0P, BLE 1M 2402)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1660	35.83	10.26	46.09	65.16	-19.07	QP
2	0.1660	28.24	10.26	38.50	55.16	-16.66	AVG
3	0.4170	30.59	11.02	41.61	57.51	-15.90	QP
4	0.4170	19.66	11.02	30.68	47.51	-16.83	AVG
5	0.4900	29.64	10.84	40.48	56.17	-15.69	QP
6	0.4900	17.52	10.84	28.36	46.17	-17.81	AVG
7	0.8260	24.17	10.12	34.29	56.00	-21.71	QP
8	0.8260	13.29	10.12	23.41	46.00	-22.59	AVG
9	2.3540	35.08	10.10	45.18	56.00	-10.82	QP
10	2.3540	26.41	10.10	36.51	46.00	-9.49	AVG
11 *	27.2700	39.66	15.57	55.23	60.00	-4.77	QP
12	27.2700	24.78	15.57	40.35	50.00	-9.65	AVG

LINE N RESULTS (Model: D6PN-20-0P, BLE 1M 2402)



Phase: N

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1539	35.04	10.36	45.40	65.79	-20.39	QP
2	0.1539	26.26	10.36	36.62	55.79	-19.17	AVG
3	0.3082	24.85	10.65	35.50	60.02	-24.52	QP
4	0.3082	15.43	10.65	26.08	50.02	-23.94	AVG
5	0.4300	29.37	10.93	40.30	57.25	-16.95	QP
6	0.4300	21.79	10.93	32.72	47.25	-14.53	AVG
7	1.5140	28.57	10.13	38.70	56.00	-17.30	QP
8	1.5140	21.66	10.13	31.79	46.00	-14.21	AVG
9	5.7500	31.66	10.64	42.30	60.00	-17.70	QP
10	5.7500	22.57	10.64	33.21	50.00	-16.79	AVG
11 *	27.2380	35.90	15.40	51.30	60.00	-8.70	QP
12	27.2380	21.93	15.40	37.33	50.00	-12.67	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.