

Appendix A: DTS Bandwidth

Test Result

TestMode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.640	2401.716	2402.356	0.5	PASS
		2440	0.648	2439.712	2440.360	0.5	PASS
		2480	0.640	2479.720	2480.360	0.5	PASS

The top screenshot shows the Spectrum Analyzer interface for BLE_1M_Ant1_2402. The center frequency is 2.4020000 GHz. The span is 4.000 MHz. The scale is 10 dB. The resolution bandwidth is 100 kHz. The video bandwidth is 300 kHz. The sweep rate is 1.00 ms (1001 pts). The reference level is 30.00 dBm. The reference level offset is 11.88 dB. The peak is at 640 kHz with a 0.33 dB offset. The marker table shows three markers: 1 (N, f, 2.401716 GHz, -8.113 dBm), 2 (N, f, 2.402052 GHz, -2.225 dBm), and 3 (Δf, f, 640 kHz (Δ), 0.3339 dB).

The bottom screenshot shows the Spectrum Analyzer interface for BLE_1M_Ant1_2440. The center frequency is 2.4400000 GHz. The span is 4.000 MHz. The scale is 10 dB. The resolution bandwidth is 100 kHz. The video bandwidth is 300 kHz. The sweep rate is 1.00 ms (1001 pts). The reference level is 30.00 dBm. The reference level offset is 11.72 dB. The peak is at 648 kHz with a 0.22 dB offset. The marker table shows three markers: 1 (N, f, 2.439712 GHz, -8.444 dBm), 2 (N, f, 2.440040 GHz, -2.472 dBm), and 3 (Δf, f, 648 kHz (Δ), 0.2248 dB).



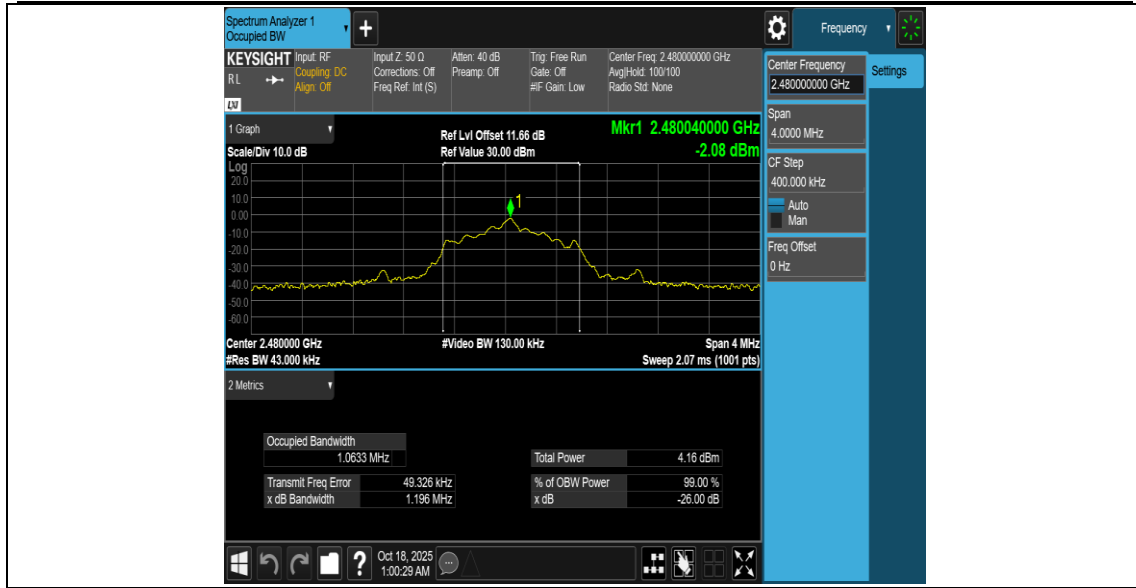
Appendix B: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.0620	2401.5172	2402.5792	---	---
		2440	1.0619	2439.5175	2440.5794	---	---
		2480	1.0633	2479.5177	2480.5810	---	---

Test Graphs



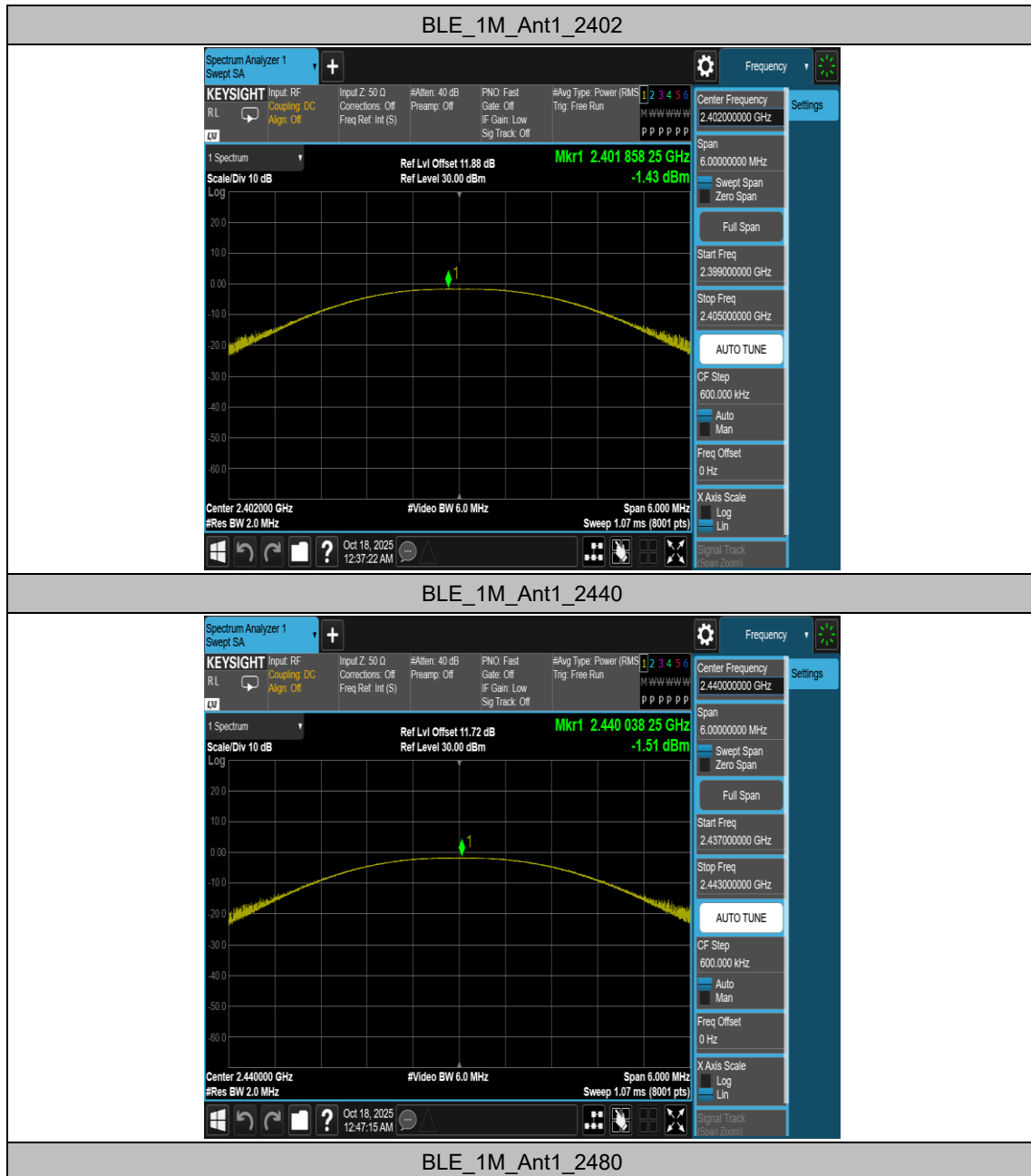


Appendix C: Maximum conducted output power

Test Result Peak

TestMode	Antenna	Frequency[MHz]	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
BLE_1M	Ant1	2402	-1.43	≤30	PASS
		2440	-1.51	≤30	PASS
		2480	-1.19	≤30	PASS

Test Graphs Peak





Appendix D: Maximum power spectral density

Test Result

TestMode	Antenna	Frequency[MHz]	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-3.20	≤8.00	PASS
		2440	-3.33	≤8.00	PASS
		2480	-2.88	≤8.00	PASS

Test Graphs





Appendix E: Band edge measurements

Test Result

TestMode	Antenna	ChName	Frequency [MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	-1.98	-41.22	≤-21.98	PASS
		High	2480	-1.67	-47.04	≤-21.67	PASS

Test Graphs

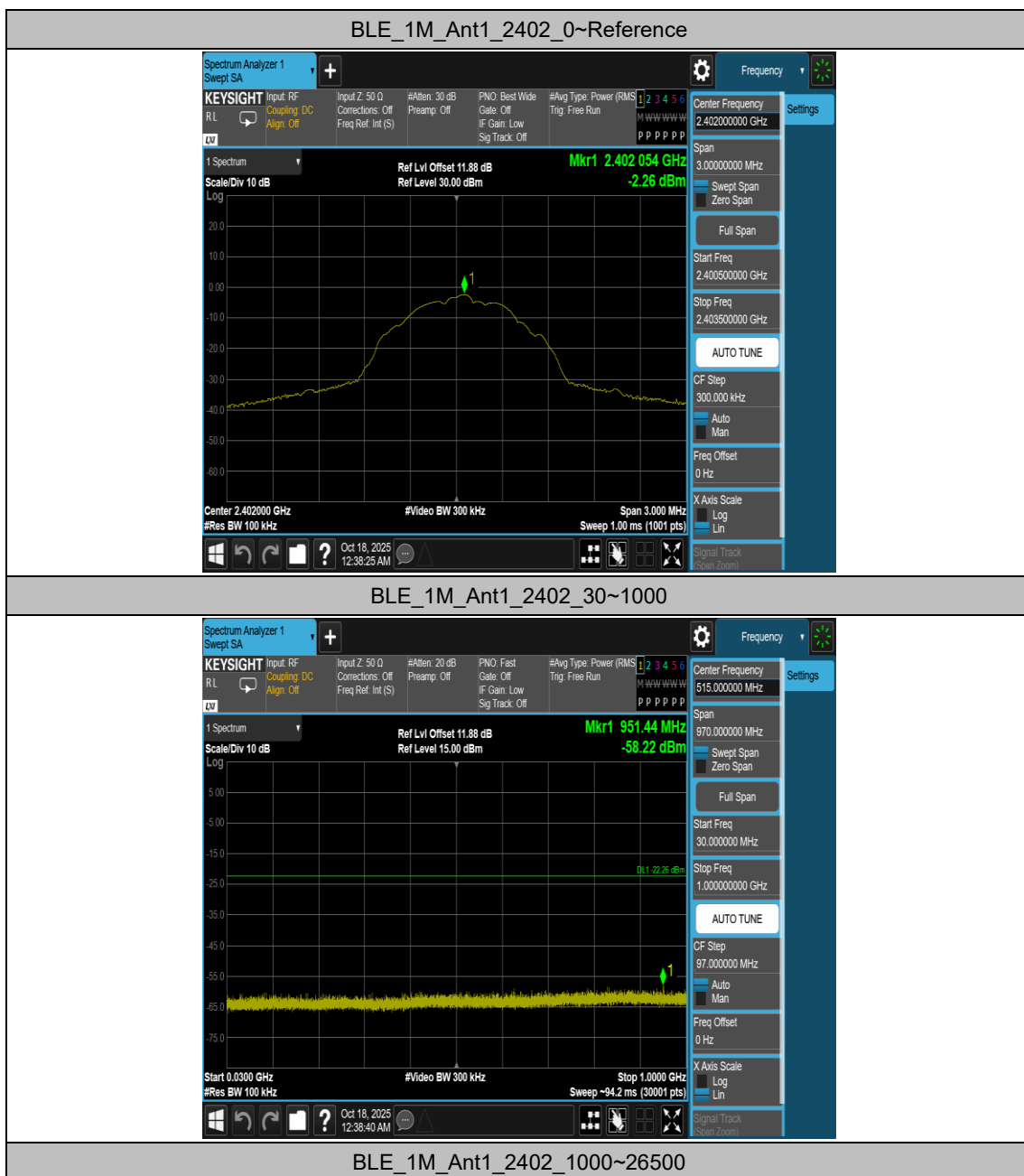


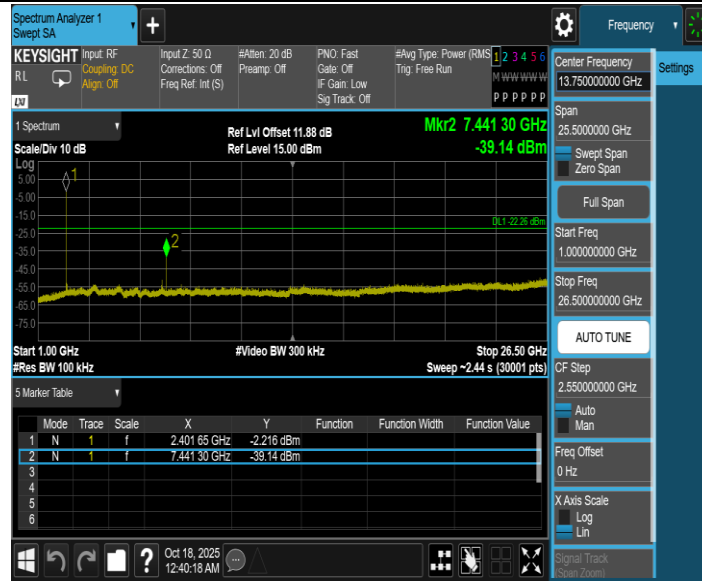
Appendix F: Conducted Spurious Emission

Test Result

TestMode	Antenna	Frequency[MHz]	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	-2.26	-2.26	---	PASS
			30~1000	-2.26	-58.22	≤-22.26	PASS
			1000~26500	-2.26	-39.14	≤-22.26	PASS
		2440	Reference	-2.39	-2.39	---	PASS
			30~1000	-2.39	-58.48	≤-22.39	PASS
			1000~26500	-2.39	-43.79	≤-22.39	PASS
		2480	Reference	-1.94	-1.94	---	PASS
			30~1000	-1.94	-58.73	≤-21.94	PASS
			1000~26500	-1.94	-47.15	≤-21.94	PASS

Test Graphs

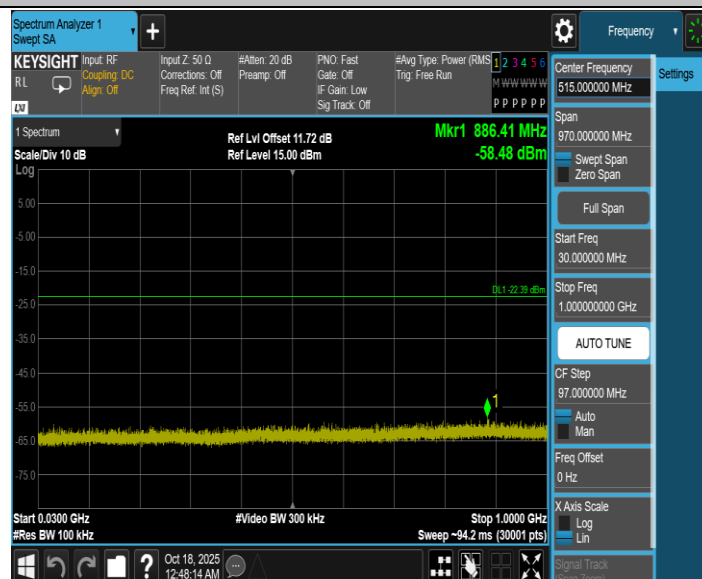




BLE_1M_Ant1_2440_0~Reference



BLE_1M_Ant1_2440_30~1000



BLE_1M_Ant1_2440_1000~26500

BLE_1M_Ant1_2480_0~Reference

BLE_1M_Ant1_2480_30~1000



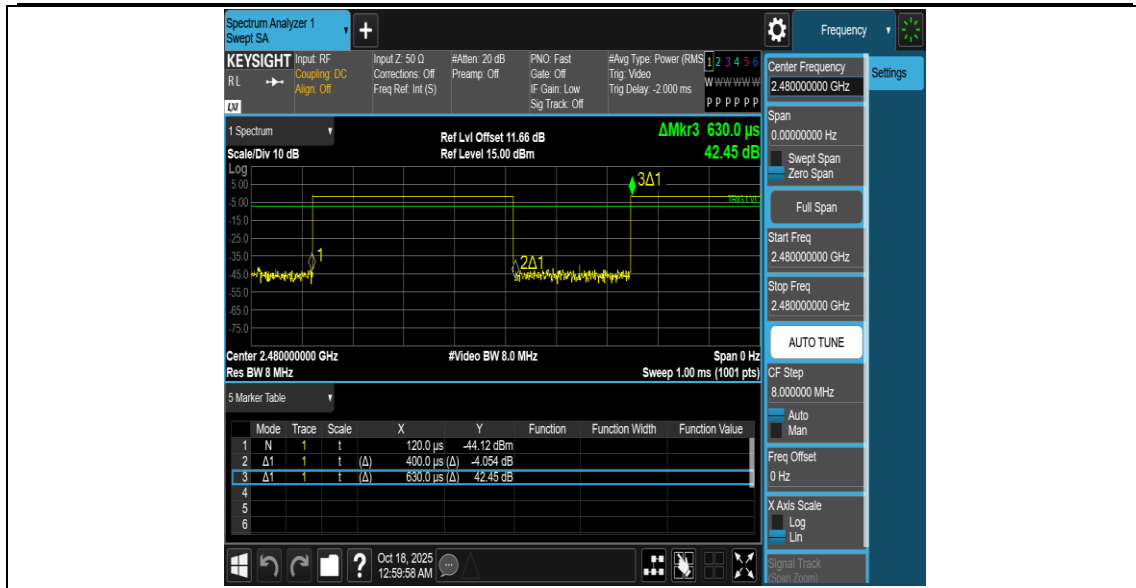
Appendix G: Duty Cycle

Test Result

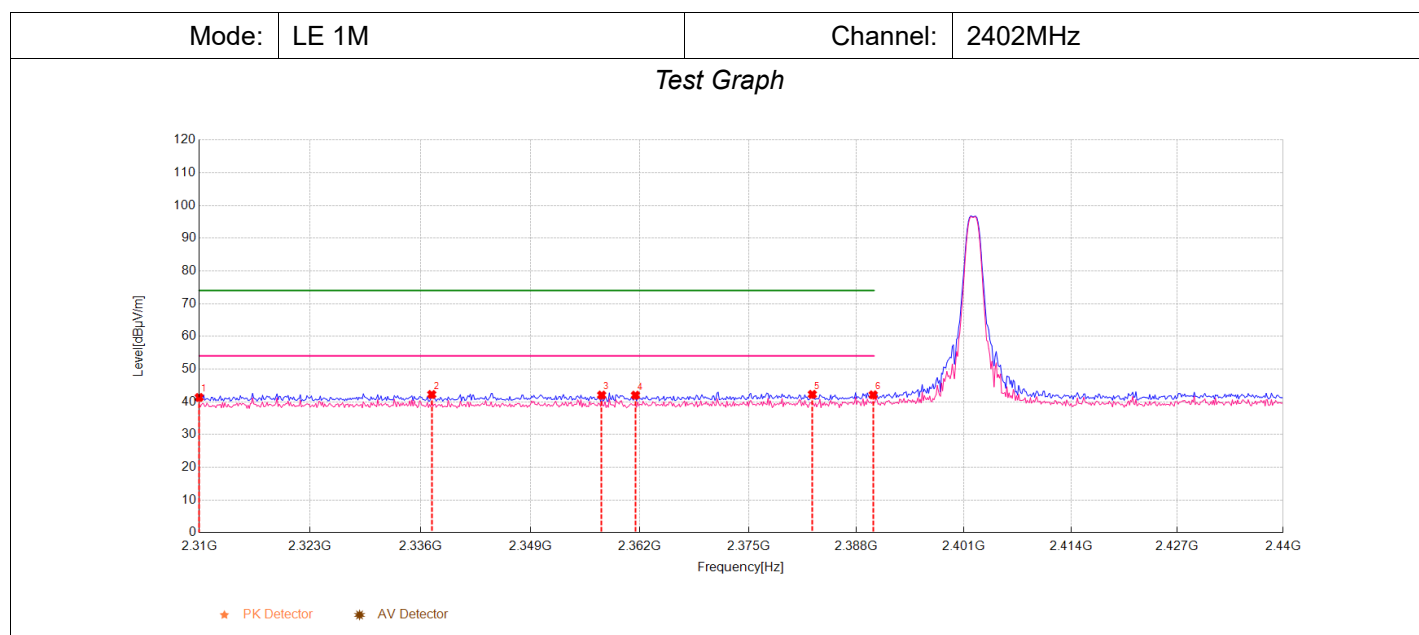
TestMode	Antenna	Frequency[MHz]	ON Time [ms]	Period [ms]	Duty Cycle [%]
BLE_1M	Ant1	2402	0.40	0.63	63.49
		2440	0.40	0.63	63.49
		2480	0.40	0.63	63.49

Test Graphs





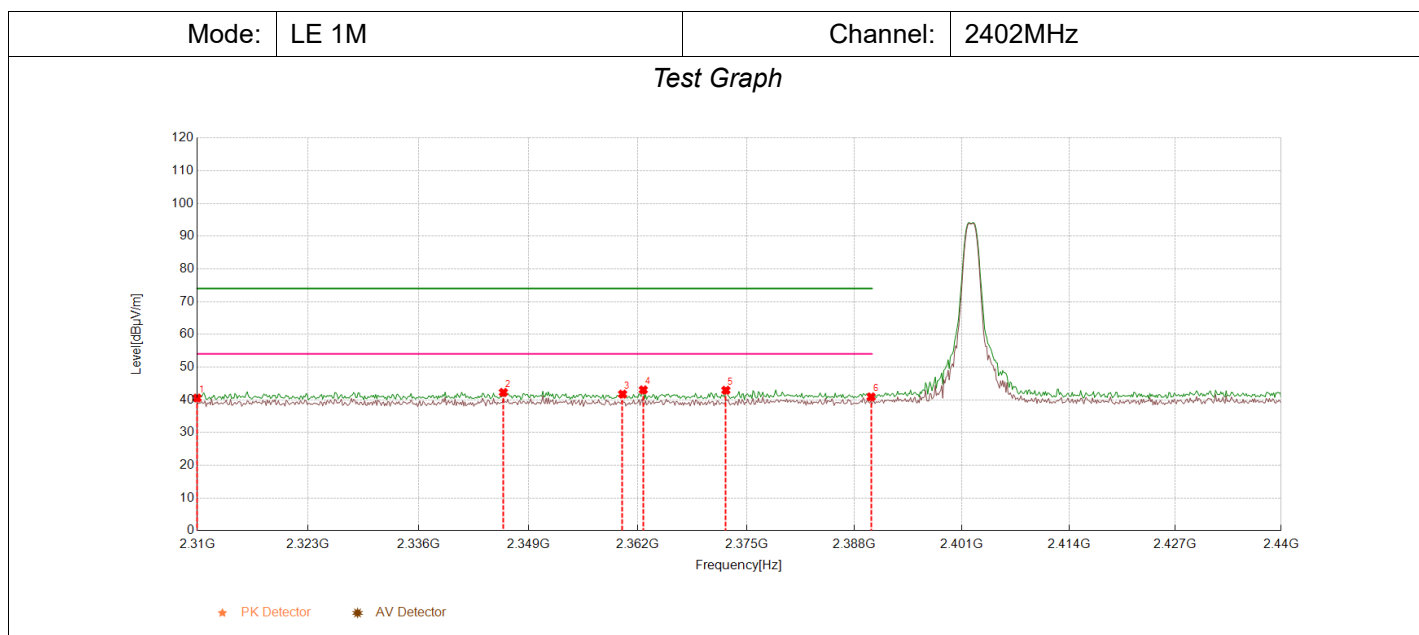
Appendix H: Restricted Band



Suspected Data List											
NO.	Frequency [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Det	Polarity	Verdict
1	2310.0000	38.65	41.32	2.67	74.00	32.68	150	89	PK	Horizontal	PASS
2	2337.3000	39.43	42.24	2.81	74.00	31.76	150	165	PK	Horizontal	PASS
3	2357.4500	39.10	42.05	2.95	74.00	31.95	150	291	PK	Horizontal	PASS
4	2361.4800	39.09	42.01	2.92	74.00	31.99	150	189	PK	Horizontal	PASS
5	2382.6700	39.25	42.27	3.02	74.00	31.73	150	187	PK	Horizontal	PASS
6	2390.0000	39.17	42.12	2.95	74.00	31.88	150	314	PK	Horizontal	PASS

Note:(1)Level=Reading+Factor

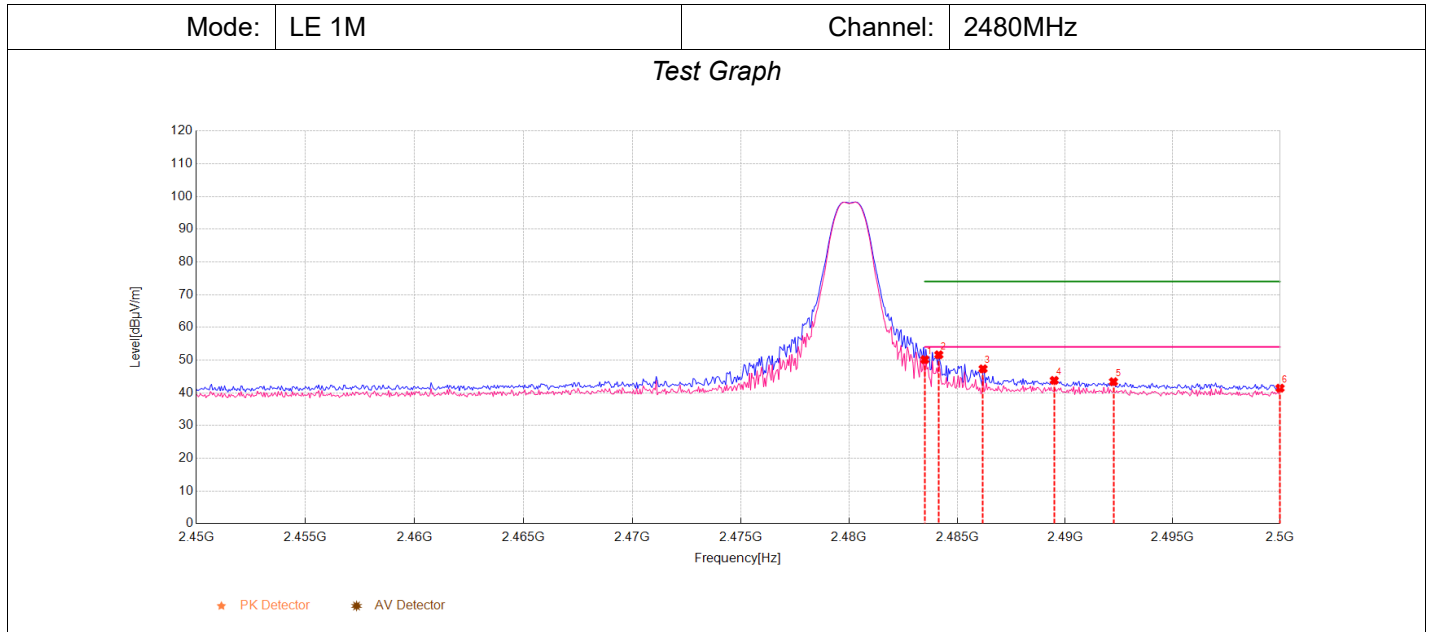
(2)Margin=Limit-Level



Suspected Data List											
NO.	Frequency [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Det	Polarity	Verdict
1	2310.0000	37.87	40.54	2.67	74.00	33.46	150	46	PK	Vertical	PASS
2	2346.0100	39.28	42.25	2.97	74.00	31.75	150	234	PK	Vertical	PASS
3	2360.1800	38.78	41.73	2.95	74.00	32.27	150	286	PK	Vertical	PASS
4	2362.6500	40.14	43.04	2.90	74.00	30.96	150	24	PK	Vertical	PASS
5	2372.5300	39.90	42.91	3.01	74.00	31.09	150	144	PK	Vertical	PASS
6	2390.0000	37.96	40.91	2.95	74.00	33.09	150	324	PK	Vertical	PASS

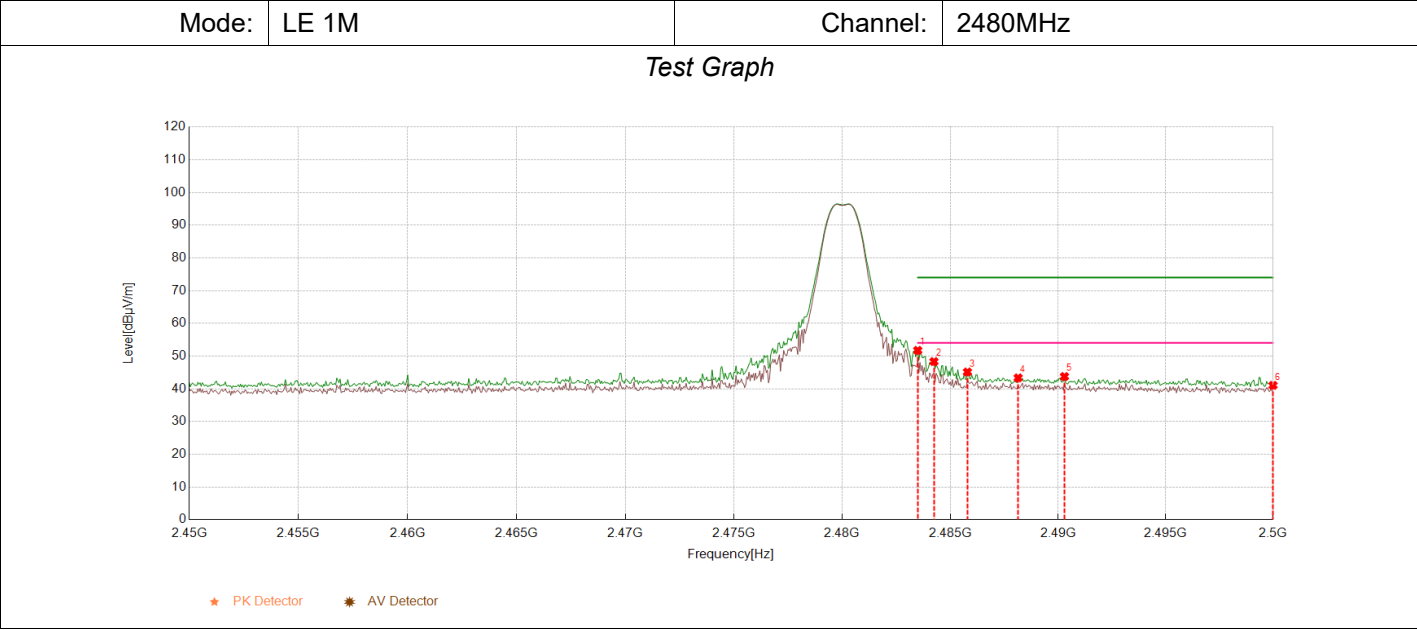
Note:(1)Level=Reading+Factor

(2)Margin=Limit-Level



Suspected Data List											
NO.	Frequency [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Det	Polarity	Verdict
1	2483.5000	46.67	50.13	3.46	74.00	23.87	150	206	PK	Horizontal	PASS
2	2484.1500	48.14	51.61	3.47	74.00	22.39	150	198	PK	Horizontal	PASS
3	2486.2000	43.84	47.32	3.48	74.00	26.68	150	203	PK	Horizontal	PASS
4	2489.5000	40.23	43.79	3.56	74.00	30.21	150	191	PK	Horizontal	PASS
5	2492.2500	39.82	43.38	3.56	74.00	30.62	150	196	PK	Horizontal	PASS
6	2500.0000	37.91	41.41	3.50	74.00	32.59	150	218	PK	Horizontal	PASS

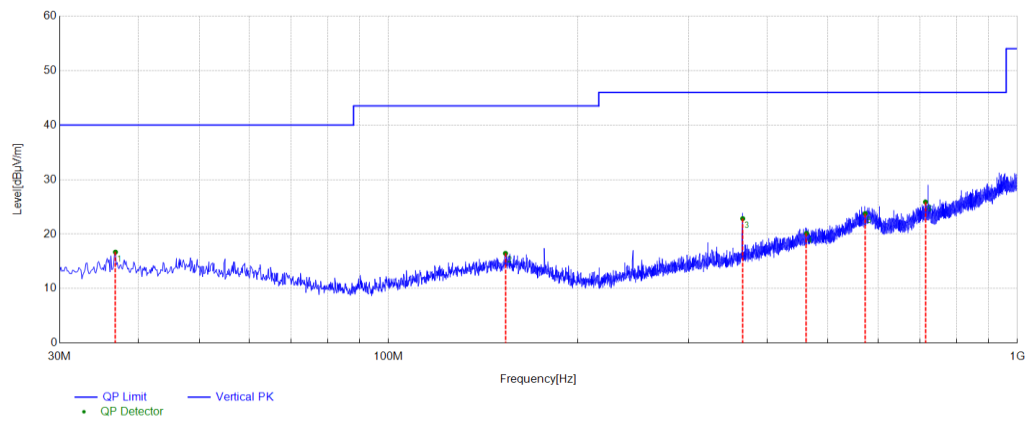
Note:(1)Level=Reading+Factor
(2)Margin=Limit-Level



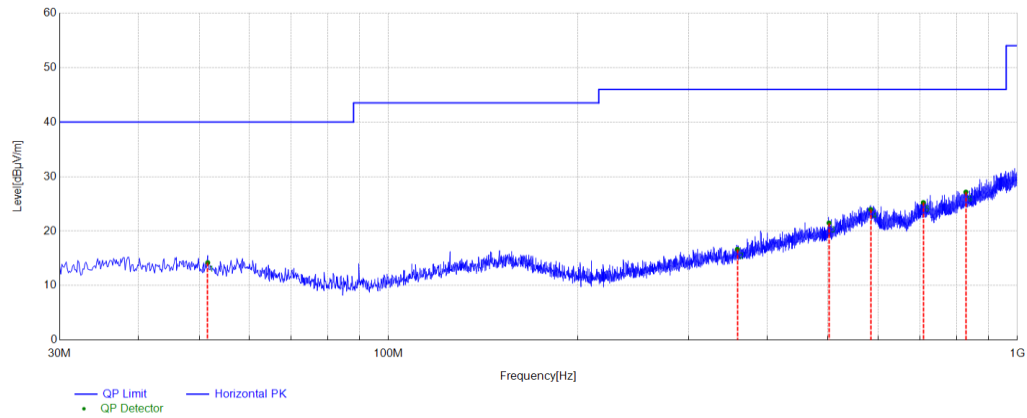
Suspected Data List											
NO.	Frequency [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Det	Polarity	Verdict
1	2483.5000	48.28	51.74	3.46	74.00	22.26	150	58	PK	Vertical	PASS
2	2484.2500	44.83	48.31	3.48	74.00	25.69	150	58	PK	Vertical	PASS
3	2485.8000	41.66	45.14	3.48	74.00	28.86	150	316	PK	Vertical	PASS
4	2488.1500	39.87	43.34	3.47	74.00	30.66	150	58	PK	Vertical	PASS
5	2490.3000	40.19	43.75	3.56	74.00	30.25	150	58	PK	Vertical	PASS
6	2500.0000	37.55	41.05	3.50	74.00	32.95	150	10	PK	Vertical	PASS

Note:(1)Level=Reading+Factor
 (2)Margin=Limit-Level

Appendix I: Spurious emissions



Final Data List									
NO.	Freq. [MHz]	Factor [dB/m]	QP Value [dBμV/m]	QP Limit [dBμV/m]	QP Margin [dB]	Height [cm]	Angle [°]	Polarity	Verdict
1	36.7900	-14.31	16.72	40.00	23.28	200	352	Vertical	PASS
2	153.4325	-14.03	16.49	43.50	27.01	100	204	Vertical	PASS
3	365.7412	-12.78	22.85	46.00	23.15	100	105	Vertical	PASS
4	462.0138	-9.82	20.15	46.00	25.85	200	64	Vertical	PASS
5	572.8362	-7.68	23.79	46.00	22.21	200	62	Vertical	PASS
6	714.3350	-4.87	25.90	46.00	20.10	100	293	Vertical	PASS



Final Data List

NO.	Freq. [MHz]	Factor [dB/m]	QP Value [dBμV/m]	QP Limit [dBμV/m]	QP Margin [dB]	Height [cm]	Angle [°]	Polarity	Verdict
1	51.5825	-14.52	14.22	40.00	25.78	200	122	Horizontal	PASS
2	358.7088	-12.87	16.68	46.00	29.32	200	215	Horizontal	PASS
3	501.6625	-9.78	21.51	46.00	24.49	200	303	Horizontal	PASS
4	584.4763	-7.16	23.97	46.00	22.03	200	217	Horizontal	PASS
5	708.6362	-4.89	25.25	46.00	20.75	100	192	Horizontal	PASS
6	828.0675	-2.51	27.18	46.00	18.82	100	114	Horizontal	PASS

Mode:	LE 1M-2402MHz
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Suspected Data List

NO.	Frequency [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Det	Polarity	Verdict
1	1223.2000	39.49	38.98	-0.51	74.00	35.02	150	141	PK	Horizontal	PASS
2	1748.4000	40.68	41.44	0.76	74.00	32.56	150	305	PK	Horizontal	PASS
3	4530.0000	55.79	39.59	-16.20	74.00	34.41	150	304	PK	Horizontal	PASS
4	6003.5000	55.85	44.28	-11.57	74.00	29.72	150	138	PK	Horizontal	PASS
5	7703.0000	53.07	44.74	-8.33	74.00	29.26	150	190	PK	Horizontal	PASS
6	11903.5000	49.58	47.91	-1.67	74.00	26.09	150	205	PK	Horizontal	PASS

Suspected Data List

NO.	Frequency [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Det	Polarity	Verdict
1	1271.2000	39.38	38.93	-0.45	74.00	35.07	150	135	PK	Vertical	PASS
2	1712.8000	44.83	45.53	0.70	74.00	28.47	150	222	PK	Vertical	PASS
3	3988.0000	58.61	41.10	-17.51	74.00	32.90	150	153	PK	Vertical	PASS
4	6338.5000	53.43	42.91	-10.52	74.00	31.09	150	85	PK	Vertical	PASS
5	7994.0000	52.83	45.32	-7.51	74.00	28.68	150	197	PK	Vertical	PASS
6	9524.5000	51.10	46.43	-4.67	74.00	27.57	150	353	PK	Vertical	PASS

Note:(1)Level=Reading+Factor

(2)Margin=Limit-Level

Mode:	LE 1M-2440MHz
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Suspected Data List

NO.	Frequency [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Det	Polarity	Verdict
1	1376.4000	40.15	39.80	-0.35	74.00	34.20	150	278	PK	Horizontal	PASS
2	1727.0000	43.25	43.90	0.65	74.00	30.10	150	82	PK	Horizontal	PASS
3	4969.5000	55.31	41.80	-13.51	74.00	32.20	150	352	PK	Horizontal	PASS
4	6369.0000	53.15	42.74	-10.41	74.00	31.26	150	132	PK	Horizontal	PASS
5	8024.5000	52.49	45.01	-7.48	74.00	28.99	150	139	PK	Horizontal	PASS
6	11156.5000	49.57	46.80	-2.77	74.00	27.20	150	299	PK	Horizontal	PASS

Suspected Data List

NO.	Frequency [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Det	Polarity	Verdict
1	1333.8000	40.22	39.69	-0.53	74.00	34.31	150	160	PK	Vertical	PASS
2	1665.4000	40.51	40.91	0.40	74.00	33.09	150	297	PK	Vertical	PASS
3	5326.0000	56.01	42.58	-13.43	74.00	31.42	150	134	PK	Vertical	PASS
4	6599.0000	53.89	43.96	-9.93	74.00	30.04	150	28	PK	Vertical	PASS
5	8141.5000	52.75	45.13	-7.62	74.00	28.87	150	164	PK	Vertical	PASS
6	9267.0000	51.57	46.68	-4.89	74.00	27.32	150	217	PK	Vertical	PASS

Note:(1)Level=Reading+Factor

(2)Margin=Limit-Level

Mode:	LE 1M-2480MHz
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Suspected Data List

NO.	Frequency [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Det	Polarity	Verdict
1	1307.0000	39.27	38.93	-0.34	74.00	35.07	150	357	PK	Horizontal	PASS
2	1645.6000	39.95	40.32	0.37	74.00	33.68	150	357	PK	Horizontal	PASS
3	3997.0000	56.53	38.74	-17.79	74.00	35.26	150	71	PK	Horizontal	PASS
4	5052.0000	53.96	41.09	-12.87	74.00	32.91	150	85	PK	Horizontal	PASS
5	6272.5000	55.01	44.41	-10.60	74.00	29.59	150	92	PK	Horizontal	PASS
6	8221.0000	52.16	45.07	-7.09	74.00	28.93	150	185	PK	Horizontal	PASS

Suspected Data List

NO.	Frequency [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Det	Polarity	Verdict
1	1448.0000	39.21	39.12	-0.09	74.00	34.88	150	60	PK	Vertical	PASS
2	1647.0000	39.36	39.75	0.39	74.00	34.25	150	42	PK	Vertical	PASS
3	4346.5000	56.78	39.69	-17.09	74.00	34.31	150	131	PK	Vertical	PASS
4	5203.5000	54.43	41.46	-12.97	74.00	32.54	150	17	PK	Vertical	PASS
5	7018.5000	54.29	44.81	-9.48	74.00	29.19	150	205	PK	Vertical	PASS
6	9249.0000	51.40	46.67	-4.73	74.00	27.33	150	77	PK	Vertical	PASS

Note:(1)Level=Reading+Factor

(2)Margin=Limit-Level