

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	0.644	2479.712	2480.356	0.5	PASS

The image displays two screenshots of a Spectrum Analyzer interface, showing measurements for two different BLE signals: BLE_1M_Ant1_2402 (top) and BLE_1M_Ant1_2440 (bottom).

Top Screenshot: BLE_1M_Ant1_2402

- Center Frequency:** 2.40200000 GHz
- Span:** 4.00000000 MHz
- Start Freq:** 2.400000000 GHz
- Stop Freq:** 2.404000000 GHz
- CF Step:** 400.000 kHz
- Freq Offset:** 0 Hz
- X Axis Scale:** Log
- Signal Track:** Span Zoom
- Ref Lvl Offset:** 11.88 dB
- Ref Level:** 30.00 dBm
- ΔMkr3:** 640 kHz
- 0.03 dB**
- Marker Table:**

Mode	Trace	Scale	X	Y	Function	Function Width	Function Value
1	N	1	f	2.401 716 GHz	-9.093 dBm		
2	N	1	f	2.402 052 GHz	-3.274 dBm		
3	Δ1	1	f	(Δ)	640 kHz (Δ)	0.02526 dB	

Bottom Screenshot: BLE_1M_Ant1_2440

- Center Frequency:** 2.44000000 GHz
- Span:** 4.00000000 MHz
- Start Freq:** 2.438000000 GHz
- Stop Freq:** 2.442000000 GHz
- CF Step:** 400.000 kHz
- Freq Offset:** 0 Hz
- X Axis Scale:** Log
- Signal Track:** Span Zoom
- Ref Lvl Offset:** 11.72 dB
- Ref Level:** 30.00 dBm
- ΔMkr3:** 648 kHz
- 0.02 dB**
- Marker Table:**

Mode	Trace	Scale	X	Y	Function	Function Width	Function Value
1	N	1	f	2.439 712 GHz	-9.510 dBm		
2	N	1	f	2.440 052 GHz	-3.516 dBm		
3	Δ1	1	f	(Δ)	648 kHz (Δ)	0.01855 dB	



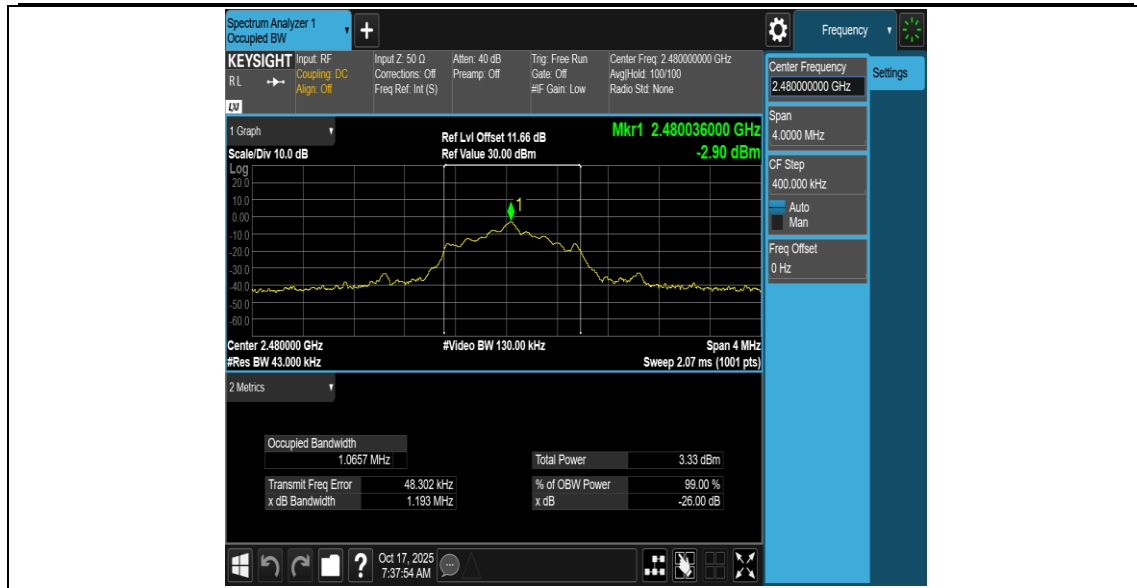
Appendix B: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.0650	2401.5135	2402.5785	---	---
		2440	1.0658	2439.5142	2440.5800	---	---
		2480	1.0657	2479.5155	2480.5812	---	---

Test Graphs



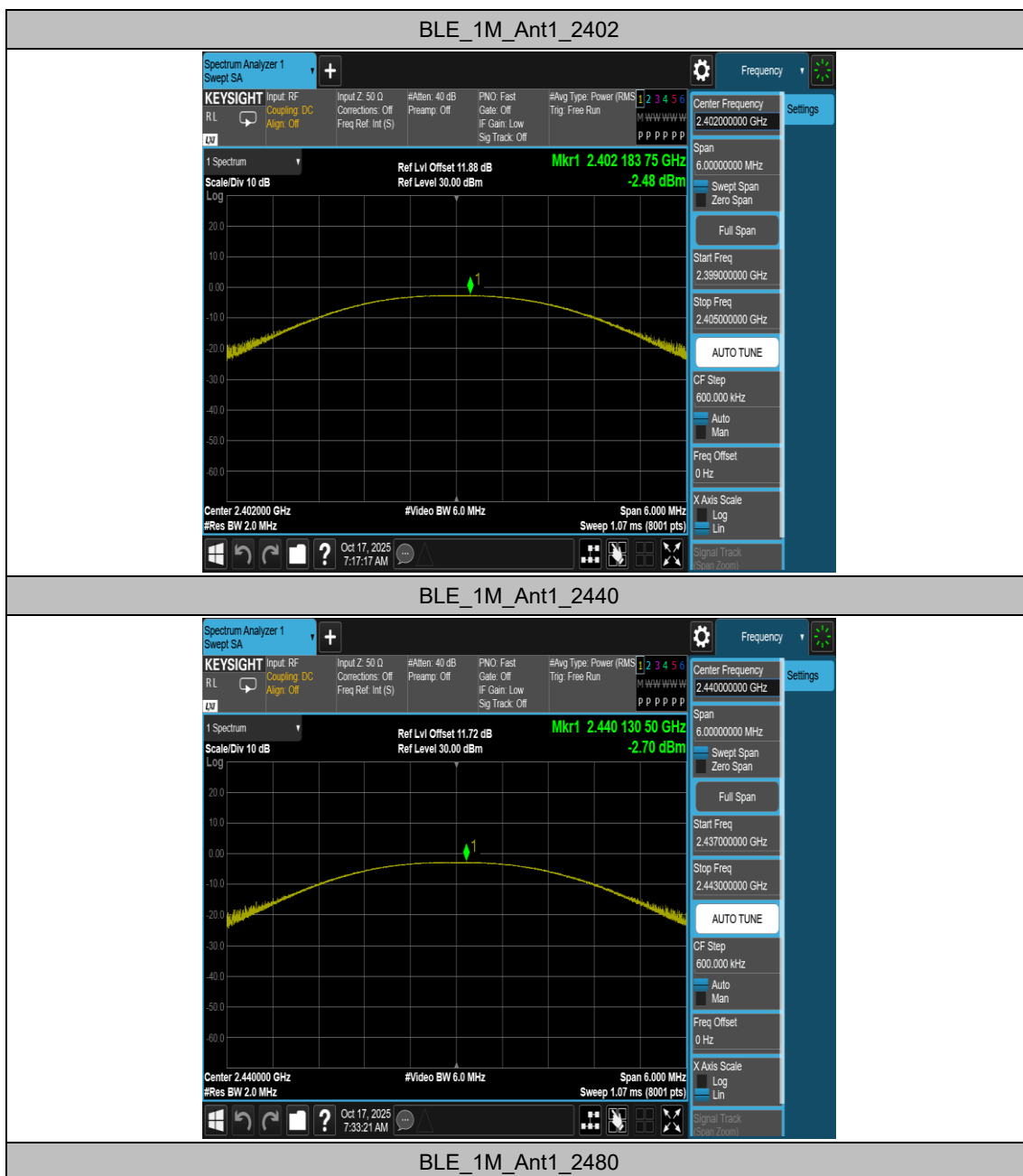


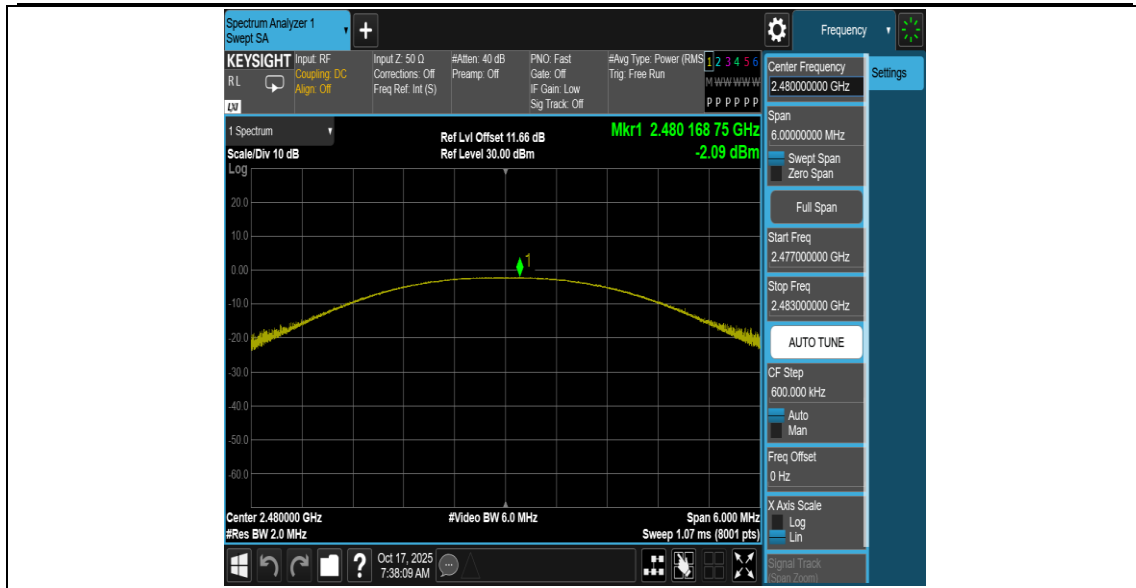
Appendix C: Maximum conducted output power

Test Result Peak

TestMode	Antenna	Frequency[MHz]	Conducted Peak Power[dBm]	Conducted Limit[dBm]	EIRP[dBm]	EIRP Limit[dBm]	Verdict
BLE_1M	Ant1	2402	-2.48	≤30	-2.48	≤36	PASS
		2440	-2.71	≤30	-2.71	≤36	PASS
		2480	-2.09	≤30	-2.09	≤36	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	-3.50	≤8.00	PASS
		2440	-4.24	≤8.00	PASS
		2480	-3.65	≤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	-3.10	-42.49	≤-23.1	PASS
		High	2480	-2.69	-46.8	≤-22.69	PASS

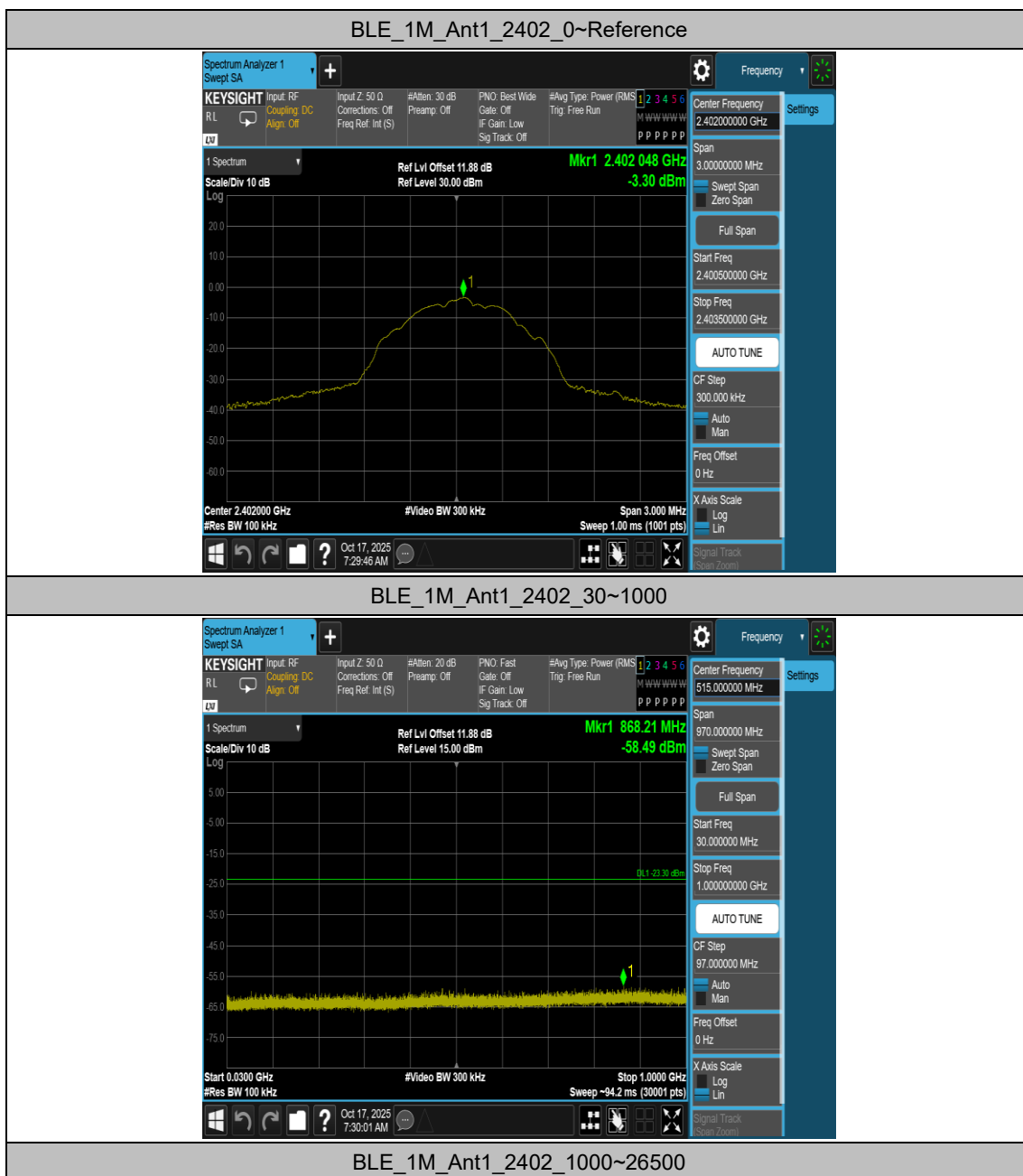


Appendix F: Conducted Spurious Emission

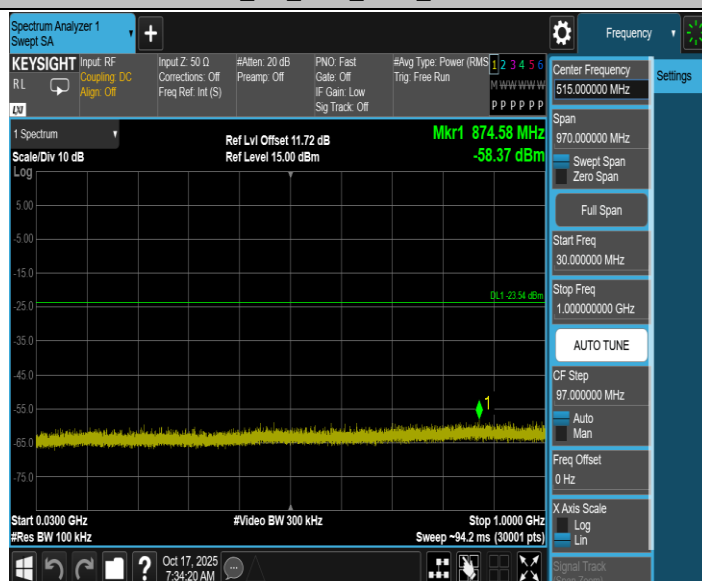
Test Result

TestMode	Antenna	Frequency [MHz]	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	-3.30	-3.30	---	PASS
			30~1000	-3.30	-58.5	≤-23.3	PASS
			1000~26500	-3.30	-50.27	≤-23.3	PASS
		2440	Reference	-3.54	-3.54	---	PASS
			30~1000	-3.54	-58.37	≤-23.54	PASS
			1000~26500	-3.54	-50.41	≤-23.54	PASS
		2480	Reference	-2.93	-2.93	---	PASS
			30~1000	-2.93	-58.1	≤-22.93	PASS
			1000~26500	-2.93	-49.57	≤-22.93	PASS

Test Graphs



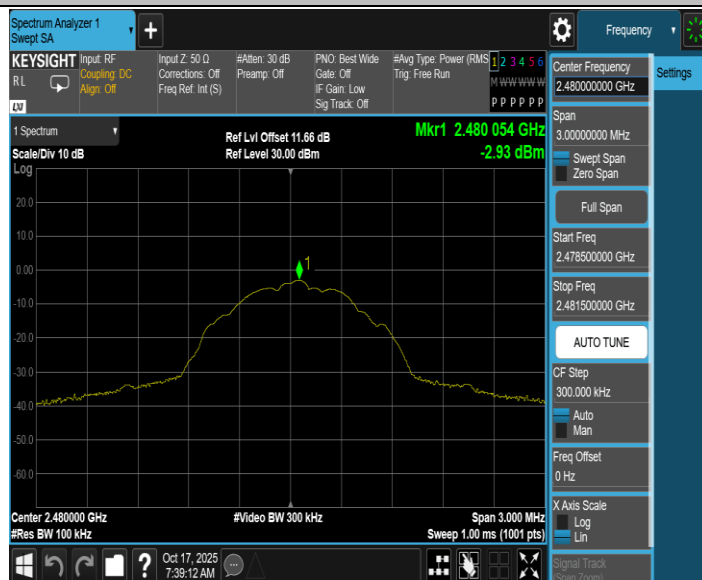

BLE_1M_Ant1_2440_0~Reference

BLE_1M_Ant1_2440_30~1000


BLE_1M_Ant1_2440_1000~26500



BLE_1M_Ant1_2480_0~Reference



BLE_1M_Ant1_2480_30~1000

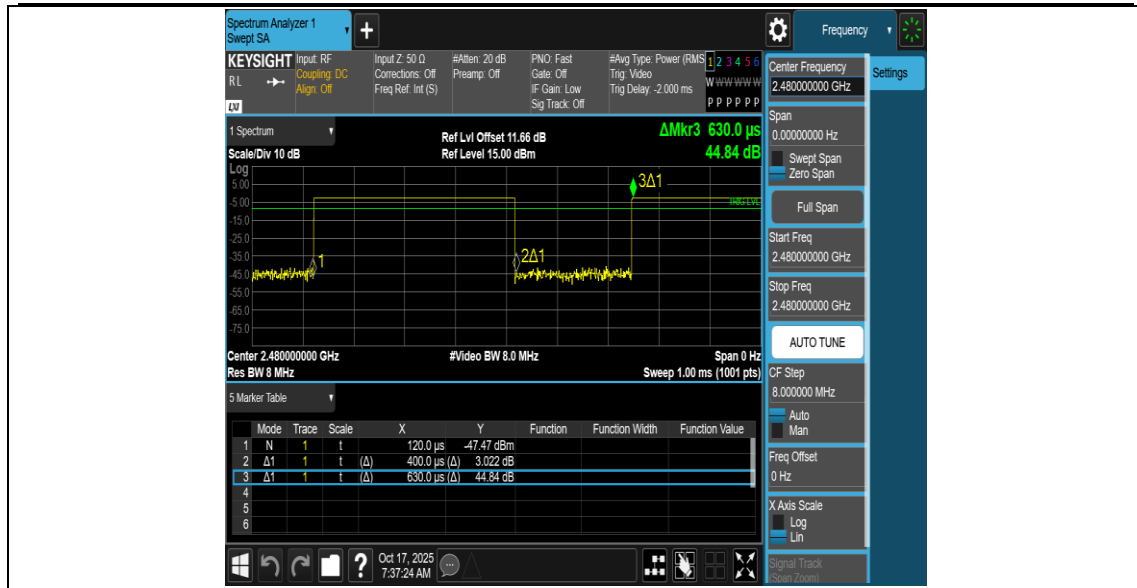
Appendix G: Duty Cycle

Test Result

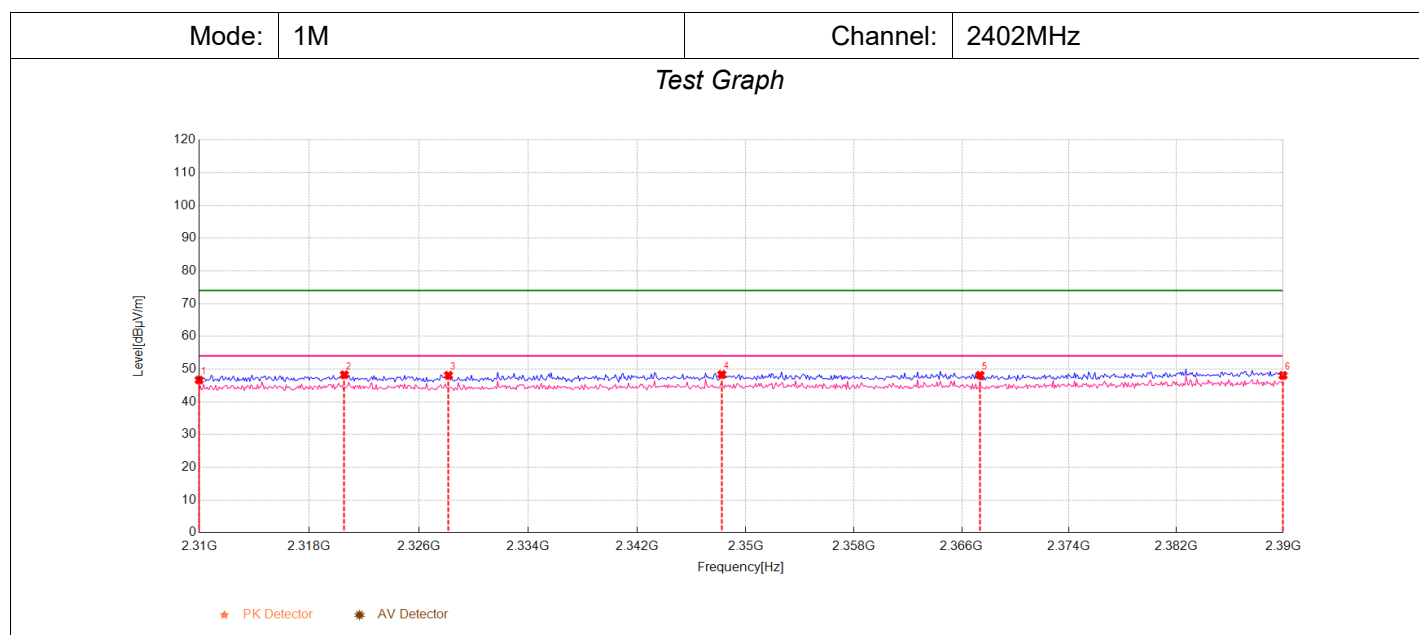
TestMode	Antenna	Frequency[MHz]	ON Time [ms]	Period [ms]	Duty Cycle [%]
BLE_1M	Ant1	2402	0.40	0.63	63.49
		2440	0.40	0.63	63.49
		2480	0.40	0.63	63.49

Test Graphs





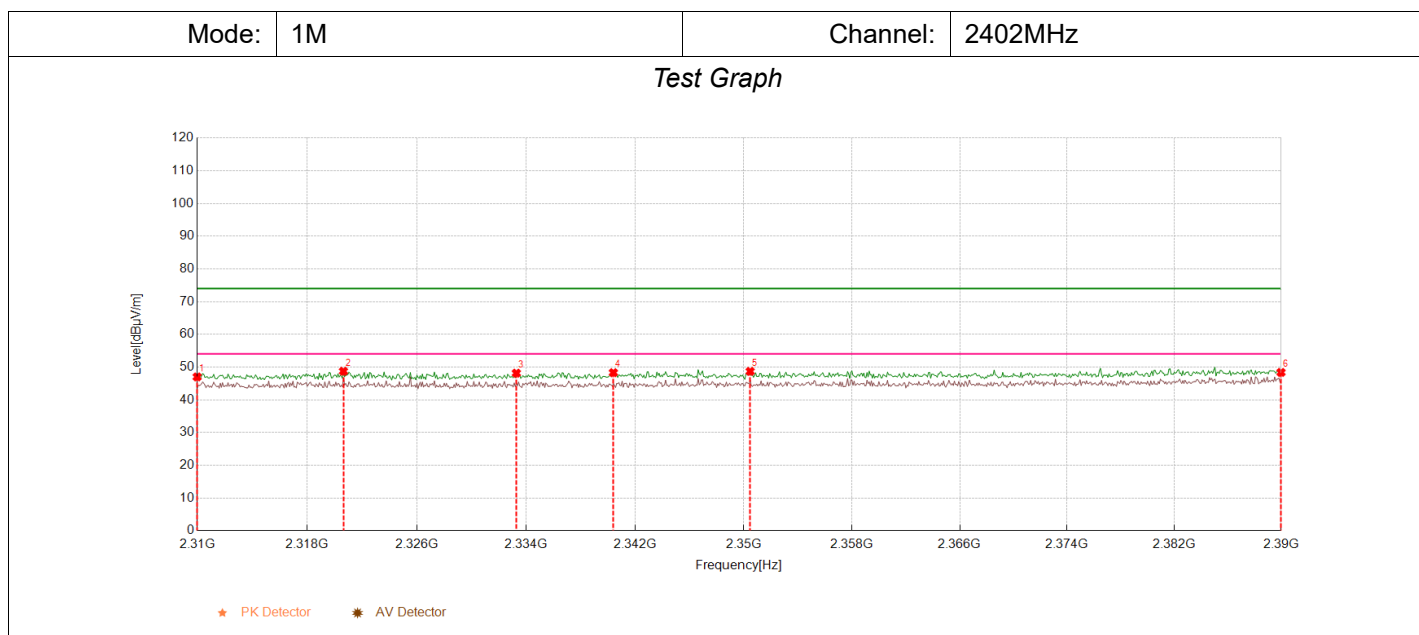
Appendix H: Restricted Band



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	39.68	46.64	6.96	74.00	27.36	150	227	PK	Horizontal	PASS
2	2320.5600	41.08	48.25	7.17	74.00	25.75	150	284	PK	Horizontal	PASS
3	2328.1600	40.94	48.09	7.15	74.00	25.91	150	72	PK	Horizontal	PASS
4	2348.2400	41.01	48.34	7.33	74.00	25.66	150	266	PK	Horizontal	PASS
5	2367.3600	40.66	48.12	7.46	74.00	25.88	150	135	PK	Horizontal	PASS
6	2390.0000	39.77	48.05	8.28	74.00	25.95	150	0	PK	Horizontal	PASS

Note:(1)Level=Reading+Factor

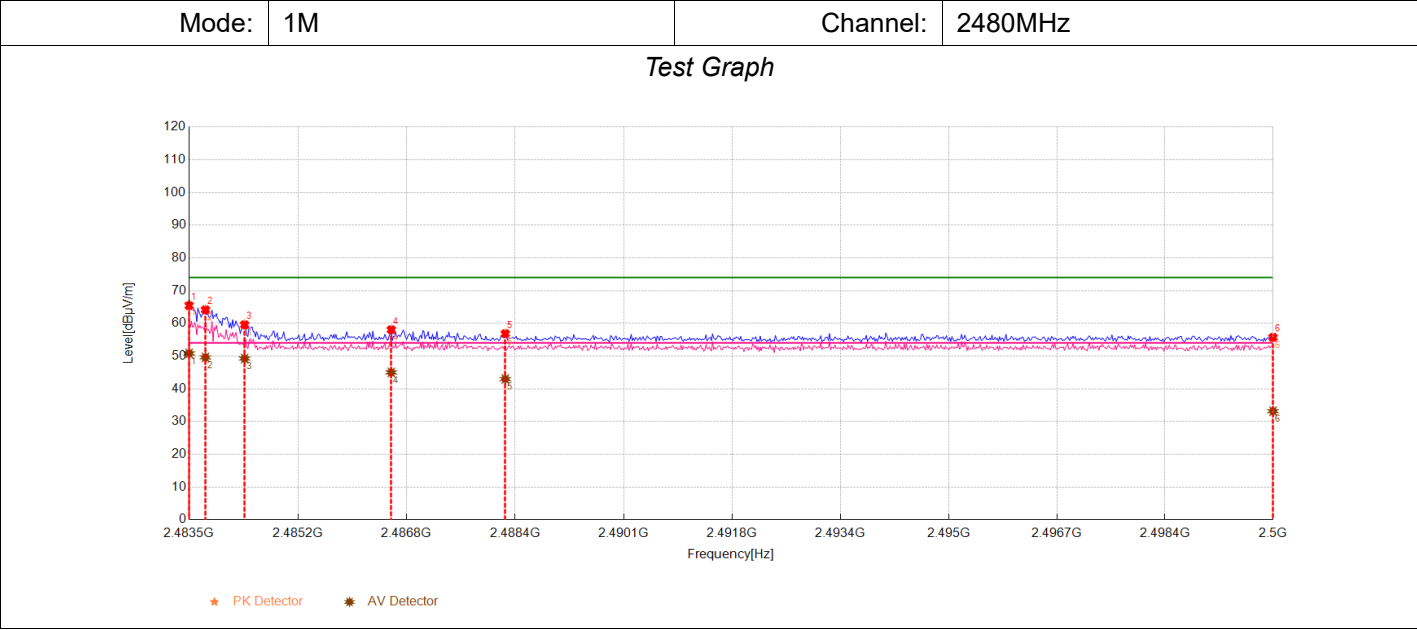
(2)Margin=Limit-Level



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	40.03	46.99	6.96	74.00	27.01	150	318	PK	Vertical	PASS
2	2320.6400	41.56	48.73	7.17	74.00	25.27	150	71	PK	Vertical	PASS
3	2333.2800	41.03	48.14	7.11	74.00	25.86	150	206	PK	Vertical	PASS
4	2340.4000	41.13	48.29	7.16	74.00	25.71	150	85	PK	Vertical	PASS
5	2350.4800	41.30	48.69	7.39	74.00	25.31	150	202	PK	Vertical	PASS
6	2390.0000	40.09	48.37	8.28	74.00	25.63	150	53	PK	Vertical	PASS

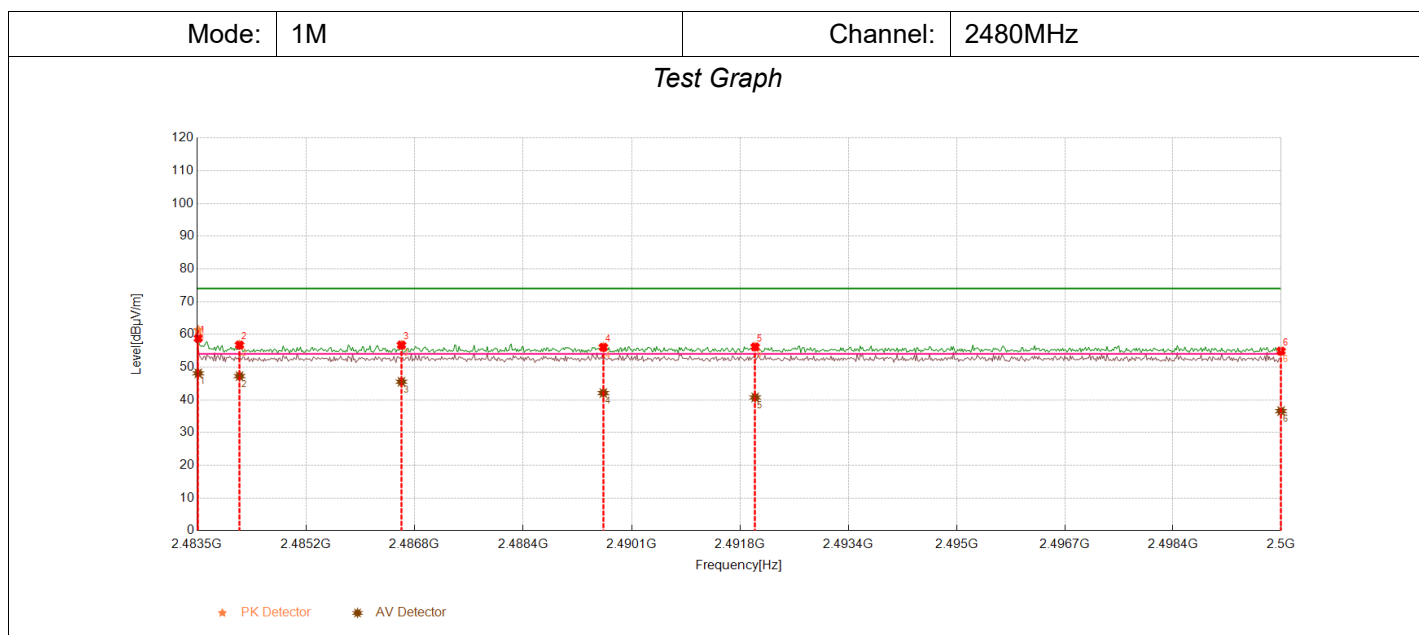
Note: (1) Level = Reading + Factor

(2) Margin = Limit - Level



Final Data List														
NO.	Frequency [MHz]	Factor [dB]	PK Reading [dBµV/m]	PK Value [dBµV/m]	PK Limit [dBµV/m]	PK Margin [dB]	AV Reading [dBµV/m]	AV Value [dBµV/m]	AV Limit [dBµV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity	Verdict
1	2483.5000	7.53	58.33	65.86	74.00	8.14	43.287	50.82	54.00	3.18	150	121.5	Horizontal	PASS
2	2483.7475	7.53	56.62	64.15	74.00	9.85	42.06	49.59	54.00	4.41	150	119	Horizontal	PASS
3	2484.3415	7.56	52.03	59.59	74.00	14.41	41.68	49.24	54.00	4.76	150	55	Horizontal	PASS
4	2486.5690	7.59	50.47	58.06	74.00	15.94	37.41	45.00	54.00	9.00	150	76	Horizontal	PASS
5	2488.3015	7.57	49.29	56.86	74.00	17.14	35.41	42.98	54.00	11.02	150	69	Horizontal	PASS
6	2500.0000	7.60	48.14	55.74	74.00	18.26	25.55	33.15	54.00	20.85	150	153	Horizontal	PASS

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

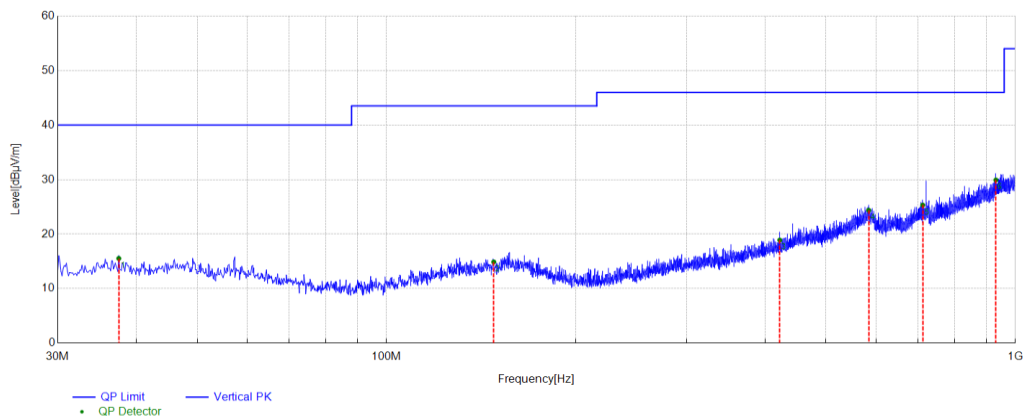


Final Data List														
NO.	Frequency [MHz]	Factor [dB]	PK Reading [dBμV/m]	PK Value [dBμV/m]	PK Limit [dBμV/m]	PK Margin [dB]	AV Reading [dBμV/m]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity	Verdict
1	2483.5165	7.53	53.75	61.28	74.00	12.72	40.547	48.08	54.00	5.92	150	134	Vertical	PASS
2	2484.1435	7.54	49.22	56.76	74.00	17.24	39.69	47.23	54.00	6.77	150	289	Vertical	PASS
3	2486.6020	7.59	49.16	56.75	74.00	17.25	37.93	45.52	54.00	8.48	150	334	Vertical	PASS
4	2489.6710	7.65	48.42	56.07	74.00	17.93	34.42	42.07	54.00	11.93	150	310	Vertical	PASS
5	2491.9810	7.65	48.52	56.17	74.00	17.83	33.07	40.72	54.00	13.28	150	289	Vertical	PASS
6	2500.0000	7.60	47.29	54.89	74.00	19.11	28.95	36.55	54.00	17.45	150	348	Vertical	PASS

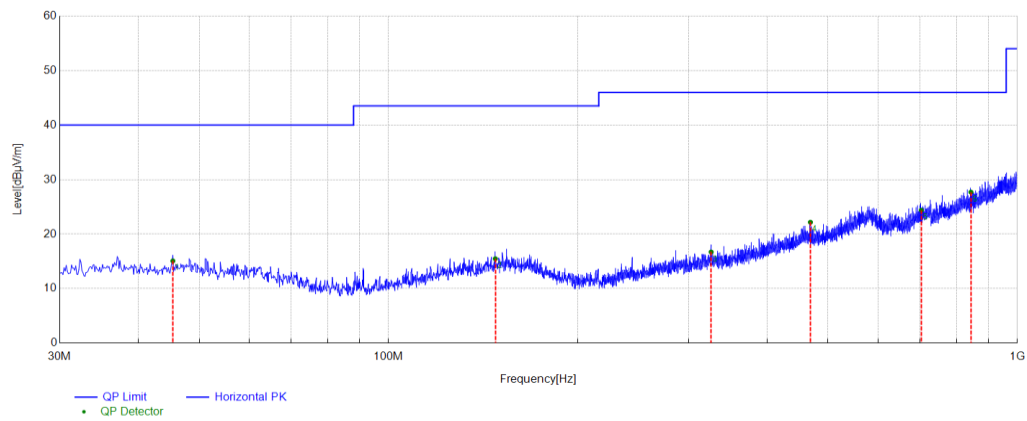
Note:(1)Level=Reading+Factor

(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	37.5175	-14.29	15.55	40.00	24.45	200	229	Vertical	PASS
2	148.0975	-14.25	14.90	43.50	28.60	200	160	Vertical	PASS
3	422.0012	-11.07	18.91	46.00	27.09	200	349	Vertical	PASS
4	584.4763	-7.16	24.39	46.00	21.61	200	100	Vertical	PASS
5	712.2737	-4.88	25.33	46.00	20.67	200	208	Vertical	PASS
6	931.1300	-0.10	29.93	46.00	16.07	200	82	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	45.3988	-14.15	15.09	40.00	24.91	100	273	Horizontal	PASS
2	147.8550	-14.26	15.50	43.50	28.00	200	206	Horizontal	PASS
3	325.8500	-13.21	16.73	46.00	29.27	200	229	Horizontal	PASS
4	468.6825	-9.89	22.19	46.00	23.81	200	37	Horizontal	PASS
5	703.3012	-4.95	24.39	46.00	21.61	200	150	Horizontal	PASS
6	843.5875	-2.57	27.71	46.00	18.29	200	99	Horizontal	PASS

Mode:	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	1339.2000	40.03	42.45	2.42	74.00	31.55	150	303	PK	Horizontal	PASS
2	1696.4000	41.32	44.94	3.62	74.00	29.06	150	120	PK	Horizontal	PASS
3	4804.5000	60.43	46.46	-13.97	74.00	27.54	150	360	PK	Horizontal	PASS
4	7206.0000	58.93	48.42	-10.51	74.00	25.58	150	115	PK	Horizontal	PASS
5	9368.2500	52.87	45.56	-7.31	74.00	28.44	150	115	PK	Horizontal	PASS
6	11290.5000	51.74	47.92	-3.82	74.00	26.08	150	226	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	1269.2000	39.95	42.57	2.62	74.00	31.43	150	153	PK	Vertical	PASS
2	1692.8000	39.64	43.17	3.53	74.00	30.83	150	321	PK	Vertical	PASS
3	4804.5000	56.79	42.82	-13.97	74.00	31.18	150	143	PK	Vertical	PASS
4	5776.5000	56.86	44.66	-12.20	74.00	29.34	150	323	PK	Vertical	PASS
5	7206.0000	55.29	44.78	-10.51	74.00	29.22	150	143	PK	Vertical	PASS
6	9419.2500	53.77	46.03	-7.74	74.00	27.97	150	234	PK	Vertical	PASS

Note:(1)Level=Reading+Factor

(2)Margin=Limit-Level

Mode:
2440MHz

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	1224.0000	39.97	42.45	2.48	74.00	31.55	150	72	PK	Horizontal	PASS
2	1687.2000	39.28	42.76	3.48	74.00	31.24	150	40	PK	Horizontal	PASS
3	4880.2500	59.33	45.65	-13.68	74.00	28.35	150	39	PK	Horizontal	PASS
4	7320.7500	61.31	51.17	-10.14	74.00	22.83	150	108	PK	Horizontal	PASS
5	9408.0000	52.91	45.32	-7.59	74.00	28.68	150	39	PK	Horizontal	PASS
6	11569.5000	50.42	47.49	-2.93	74.00	26.51	150	74	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	1338.8000	40.07	42.49	2.42	74.00	31.51	150	174	PK	Vertical	PASS
2	1893.6000	39.04	45.18	6.14	74.00	28.82	150	260	PK	Vertical	PASS
3	4880.2500	57.61	43.93	-13.68	74.00	30.07	150	151	PK	Vertical	PASS
4	7320.0000	57.63	47.50	-10.13	74.00	26.50	150	4	PK	Vertical	PASS
5	9363.7500	53.43	46.18	-7.25	74.00	27.82	150	221	PK	Vertical	PASS
6	11210.2500	51.31	47.71	-3.60	74.00	26.29	150	74	PK	Vertical	PASS

Note:(1)Level=Reading+Factor

(2)Margin=Limit-Level

Mode:	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	1248.4000	40.59	43.07	2.48	74.00	30.93	150	97	PK	Horizontal	PASS
2	1720.8000	39.16	43.16	4.00	74.00	30.84	150	341	PK	Horizontal	PASS
3	4960.5000	58.18	43.54	-14.64	74.00	30.46	150	321	PK	Horizontal	PASS
4	6367.5000	55.04	44.20	-10.84	74.00	29.80	150	78	PK	Horizontal	PASS
5	7440.7500	57.01	46.97	-10.04	74.00	27.03	150	78	PK	Horizontal	PASS
6	11306.2500	51.38	47.45	-3.93	74.00	26.55	150	252	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	1212.4000	39.72	42.25	2.53	74.00	31.75	150	172	PK	Vertical	PASS
2	1878.0000	38.73	44.87	6.14	74.00	29.13	150	91	PK	Vertical	PASS
3	3891.7500	57.95	41.58	-16.37	74.00	32.42	150	251	PK	Vertical	PASS
4	5172.0000	56.77	44.17	-12.60	74.00	29.83	150	148	PK	Vertical	PASS
5	6925.5000	55.41	44.64	-10.77	74.00	29.36	150	182	PK	Vertical	PASS
6	9405.7500	54.24	46.67	-7.57	74.00	27.33	150	113	PK	Vertical	PASS

Note:(1)Level=Reading+Factor

(2)Margin=Limit-Level