

Appendix B: Test Results of Bluetooth LE - Bluetooth Chip1

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Appendix B.1: Test Results of Conducted Power Spectral Density

Test Result

TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-8.42	≤8.00	PASS
		2440	-8.00	≤8.00	PASS
		2480	-8.40	≤8.00	PASS
BLE_2M	Ant1	2402	-8.65	≤8.00	PASS
		2440	-8.22	≤8.00	PASS
		2480	-8.71	≤8.00	PASS

Test Graphs

BLE 1M Ant1 2402



BLE 1M Ant1 2440



BLE 1M Ant1 2480



BLE 2M Ant1 2402



BLE 2M Ant1 2440



BLE 2M Ant1 2480



Appendix B.2: Test Results of 6dB Bandwidth

Test Result

TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.656	2401.680	2402.336	0.5	PASS
		2440	0.660	2439.676	2440.336	0.5	PASS
		2480	0.644	2479.684	2480.328	0.5	PASS
BLE_2M	Ant1	2402	1.064	2401.484	2402.548	0.5	PASS
		2440	1.068	2439.464	2440.532	0.5	PASS
		2480	1.040	2479.428	2480.468	0.5	PASS

Test Graphs

BLE 1M Ant1_2402



BLE 1M Ant1_2440



BLE 1M Ant1_2480



Appendix B.3: Test Results of 99% Bandwidth

Test Result

TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.0303	2401.4932	2402.5235	---	PASS
		2440	1.0140	2439.5010	2440.5150	---	PASS
		2480	1.0281	2479.4958	2480.5239	---	PASS
BLE_2M	Ant1	2402	2.0330	2401.0021	2403.0351	---	PASS
		2440	2.0026	2439.0131	2441.0157	---	PASS
		2480	2.0224	2479.0043	2481.0267	---	PASS

Test Graphs

BLE 1M Ant1_2402



BLE 1M Ant1_2440



BLE 1M Ant1_2480



BLE 2M Ant1 2402



BLE 2M Ant1 2440



BLE 2M Ant1 2480



Appendix B.4: Test Results of Band Edge Measurements

Test Result

TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	2.07	-47.28	≤ -17.93	PASS
		High	2480	2.02	-50.84	≤ -17.98	PASS
BLE_2M	Ant1	Low	2402	2.10	-30.82	≤ -17.90	PASS
		High	2480	1.95	-49.17	≤ -18.05	PASS

Test Graphs

BLE 1M Ant1 Low 2402



BLE 1M Ant1 High 2480



BLE 2M Ant1 Low 2402



BLE 2M Ant1 High 2480



Appendix B.5: Test Results of Conducted Spurious Emission

Test Result

TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	2.00	2.00	---	PASS
			30~1000	2.00	-47.98	≤-18	PASS
			1000~26500	2.00	-39.03	≤-18	PASS
		2440	Reference	2.61	2.61	---	PASS
			30~1000	2.61	-48.6	≤-17.39	PASS
			1000~26500	2.61	-39.07	≤-17.39	PASS
		2480	Reference	1.81	1.81	---	PASS
			30~1000	1.81	-47.97	≤-18.19	PASS
			1000~26500	1.81	-38.52	≤-18.19	PASS
BLE_2M	Ant1	2402	Reference	2.05	2.05	---	PASS
			30~1000	2.05	-48.72	≤-17.95	PASS
			1000~26500	2.05	-39.27	≤-17.95	PASS
		2440	Reference	2.69	2.69	---	PASS
			30~1000	2.69	-48.36	≤-17.31	PASS
			1000~26500	2.69	-38.4	≤-17.31	PASS
		2480	Reference	1.91	1.91	---	PASS
			30~1000	1.91	-47.16	≤-18.09	PASS
			1000~26500	1.91	-38.82	≤-18.09	PASS

Test Graphs

BLE 1M Ant1 2402 0~Reference



BLE 1M Ant1 2402 30~1000



BLE 1M Ant1 2402 1000~26500



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



BLE 1M Ant1 2480 1000~26500



BLE 2M Ant1 2402 0~Reference



BLE 2M Ant1 2402 30~1000



BLE 2M Ant1 2402 1000~26500



BLE 2M Ant1 2440 0~Reference



BLE 2M Ant1 2440 30~1000



BLE 2M Ant1 2440 1000~26500



BLE 2M Ant1 2480 0~Reference



BLE 2M Ant1 2480 30~1000



BLE 2M Ant1 2480 1000~26500



Appendix B.6: Test Results of Radiated Spurious Emissions

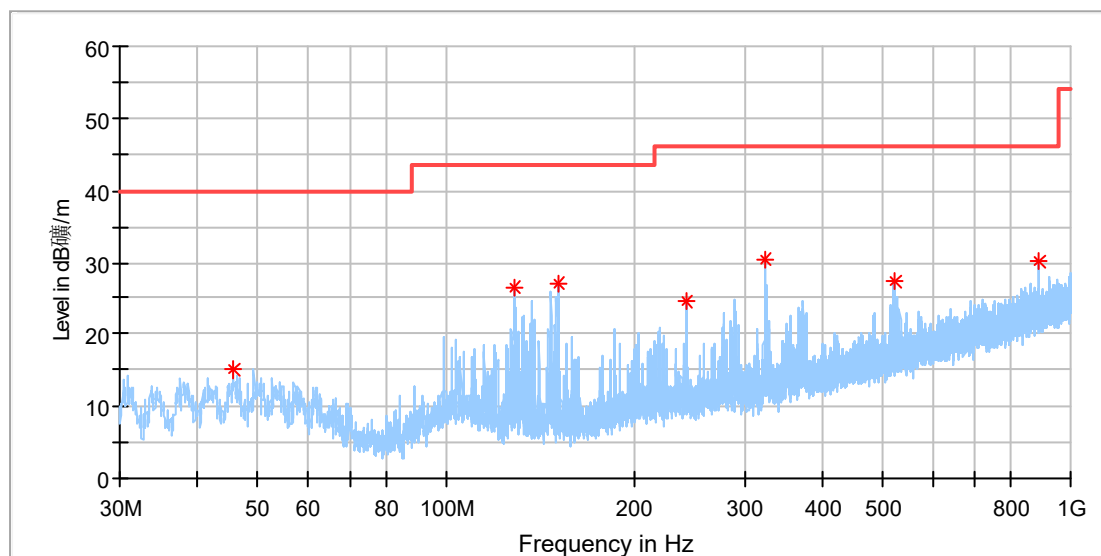
Note:

- 1) This testing was carried out on different modulations, but only the worst case was presented in this report.
- 2) Testing was carried out within frequency range 9kHz to the tenth harmonics. The measurement results below 30MHz and 18GHz - 26.5GHz were greater than 20dB below the limit, so only the radiated spurious emissions from 30MHz to 18GHz were reported.

30 MHz - 1GHz

EUT Information

EUT Name:	Bluetooth Speaker
Model:	X4i
Test Mode:	BLE 1M_Mid channel
Order No/Sample No:	168514196/A003881759-003
Test Voltage:	Battery
Remark:	Temp 24 Humi:50%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical Freqs

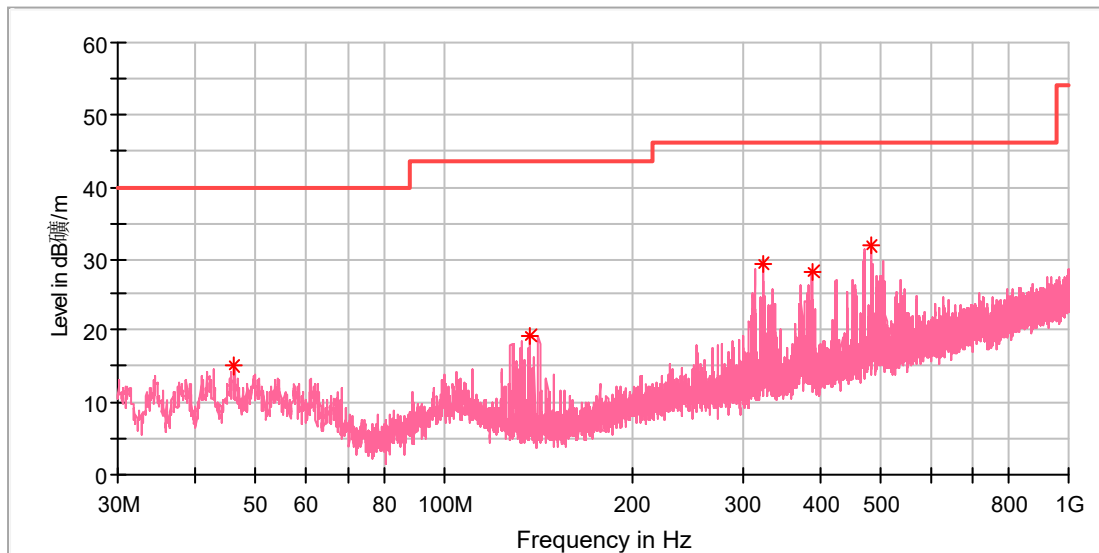
Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
45.743846	15.01	40.00	24.99	100.0	H	4.0	-18.8
128.081923	26.48	43.50	17.02	100.0	H	270.0	-21.7
151.436539	27.01	43.50	16.49	100.0	H	19.0	-22.2
242.131539	24.66	46.00	21.34	100.0	H	119.0	-17.6
322.231154	30.46	46.00	15.54	100.0	H	111.0	-15.6
521.342308	27.22	46.00	18.78	100.0	H	0.0	-11.4
890.986923	30.26	46.00	15.74	100.0	H	310.0	-4.9

Final Result

Frequency (MHz)	QuasiPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---	---	---	---

EUT Information

EUT Name: Bluetooth Speaker
Model: X4i
Test Mode: BLE 1M_Mid channel
Order No/Sample No: 168514196/A003881759-003
Test Voltage: Battery
Remark: Temp 24 Humi:50%
Test Standard: FCC 15.247
Tested By: Kei Zhang
Reviewed By: Terry Yin



Critical Freqs

Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
46.191539	15.14	40.00	24.86	100.0	V	240.0	-18.7
137.595385	19.36	43.50	24.14	100.0	V	104.0	-22.3
322.119231	29.18	46.00	16.82	100.0	V	26.0	-15.6
387.295769	28.05	46.00	17.95	100.0	V	335.0	-14.1
481.012692	31.72	46.00	14.28	100.0	V	208.0	-12.1

Final Result

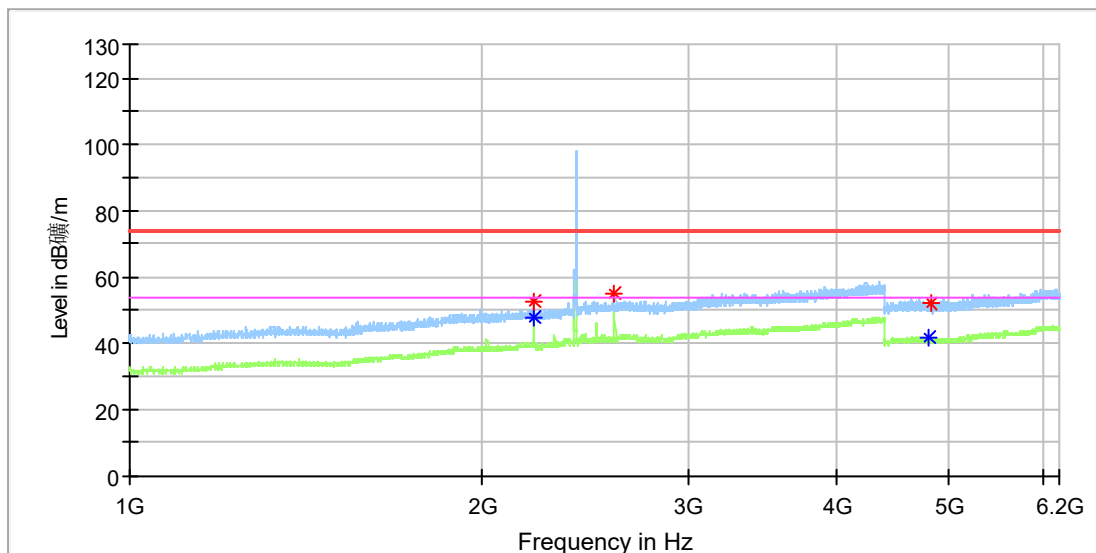
Frequency (MHz)	QuasiPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---	---	---	---

1GHz - 18GHz

Note: The highest waveform in the figure is Bluetooth Fundamental.

EUT Information

EUT Name:	Bluetooth Speaker
Model:	X4i
Test Mode:	BLE 1M_Low channel
Order No/Sample No:	168514196/A003881759-003
Test Voltage:	Battery
Remark:	Temp 24 Humi:50%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

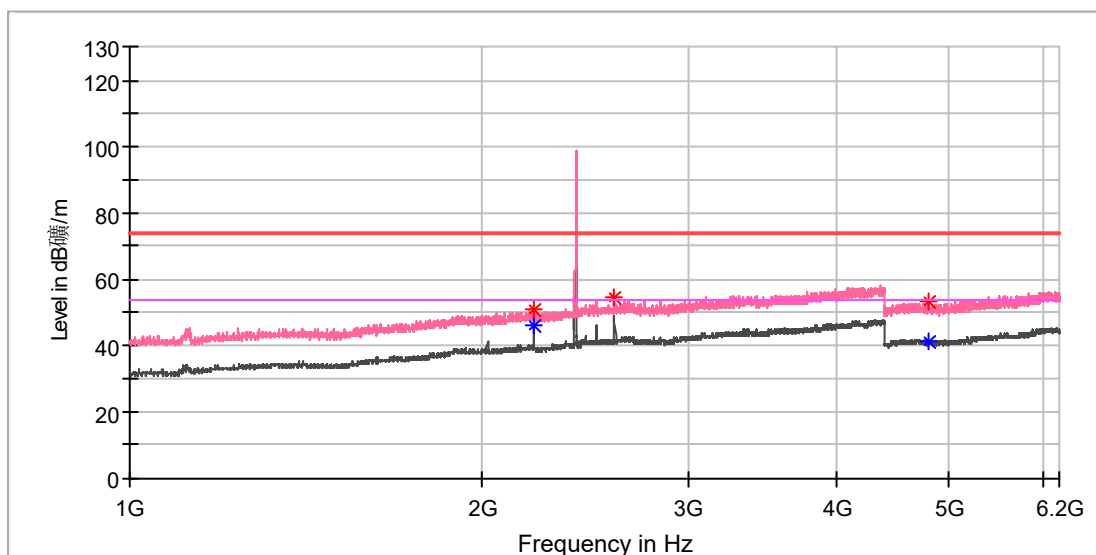
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2209.500000	52.63	---	74.00	21.37	150.0	H	244.0	7.8
2210.000000	---	47.85	54.00	6.15	150.0	H	244.0	7.9
2594.000000	55.03	---	68.20	13.17	150.0	H	262.0	9.5
4803.500000	---	41.47	54.00	12.53	150.0	H	317.0	13.3
4821.500000	52.27	---	74.00	21.73	150.0	H	351.0	13.3

Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---	---	---	---

EUT Information

EUT Name: Bluetooth Speaker
Model: X4i
Test Mode: BLE 1M_Low channel
Order No/Sample No: 168514196/A003881759-003
Test Voltage: Battery
Remark: Temp 24 Humi:50%
Test Standard: FCC 15.247
Tested By: Kei Zhang
Reviewed By: Terry Yin



Critical Freqs

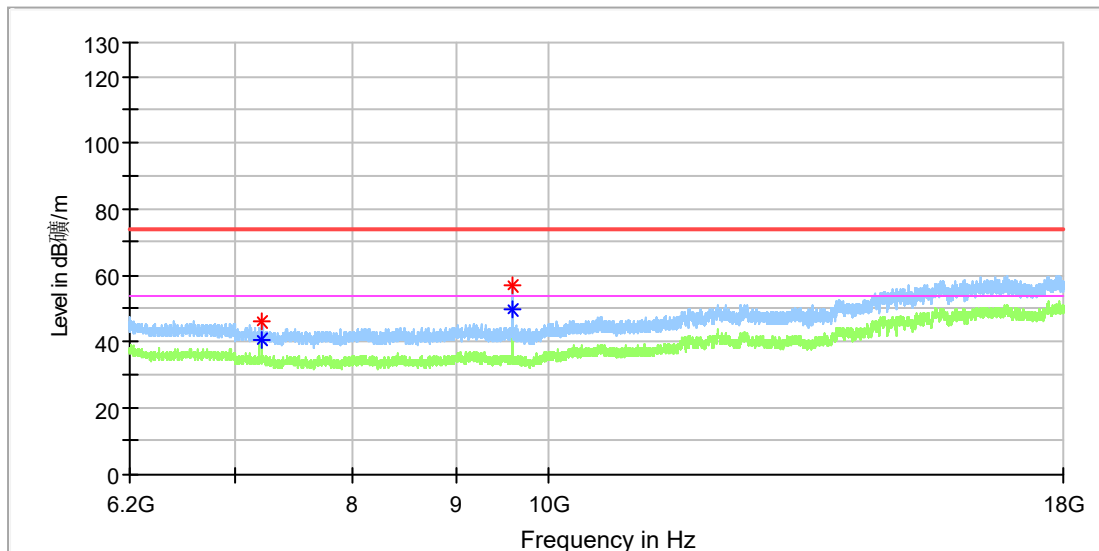
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2210.000000	50.67	---	74.00	23.33	150.0	V	194.0	7.9
2210.000000	---	45.94	54.00	8.06	150.0	V	194.0	7.9
2594.000000	54.22	---	68.20	13.98	150.0	V	95.0	9.5
4805.000000	---	41.01	54.00	12.99	150.0	V	66.0	13.3
4806.000000	53.31	---	74.00	20.69	150.0	V	329.0	13.3

Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---		---	---

EUT Information

EUT Name:	Bluetooth Speaker
Model:	X4i
Test Mode:	BLE 1M_Low channel
Order No/Sample No:	168514196/A003881759-003
Test Voltage:	Battery
Remark:	Temp 24 Humi:50%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical Freqs

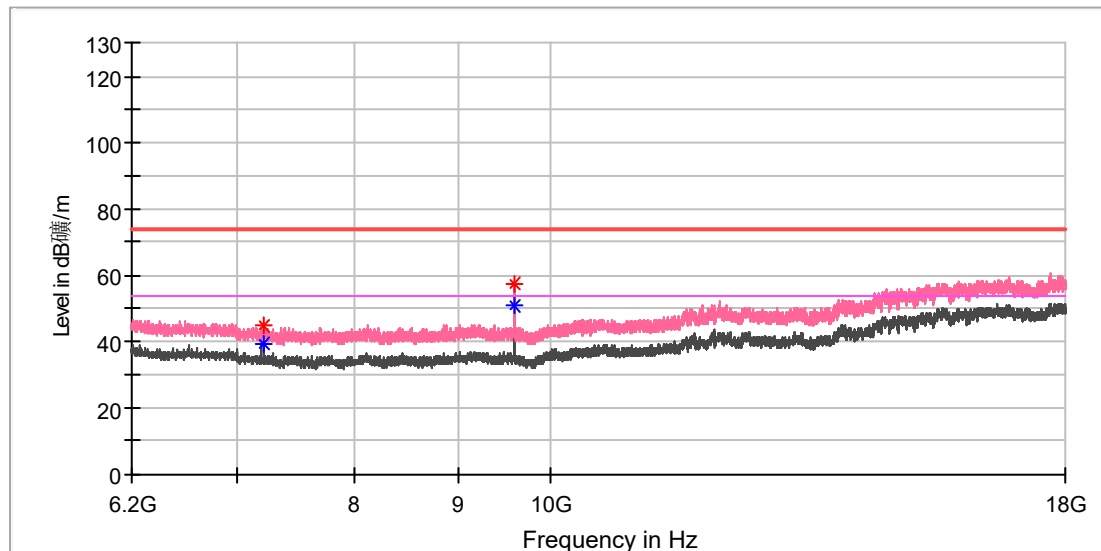
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7205.950000	46.11	---	74.00	27.89	150.0	H	158.0	8.8
7205.950000	---	40.46	54.00	13.54	150.0	H	158.0	8.8
9601.350000	---	49.37	54.00	4.63	150.0	H	158.0	10.4
9601.841667	56.87	---	74.00	17.13	150.0	H	158.0	10.4

Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---	---	---	---

EUT Information

EUT Name: Bluetooth Speaker
Model: X4i
Test Mode: BLE 1M_Low channel
Order No/Sample No: 168514196/A003881759-003
Test Voltage: Battery
Remark: Temp 24 Humi:50%
Test Standard: FCC 15.247
Tested By: Kei Zhang
Reviewed By: Terry Yin



Critical Freqs

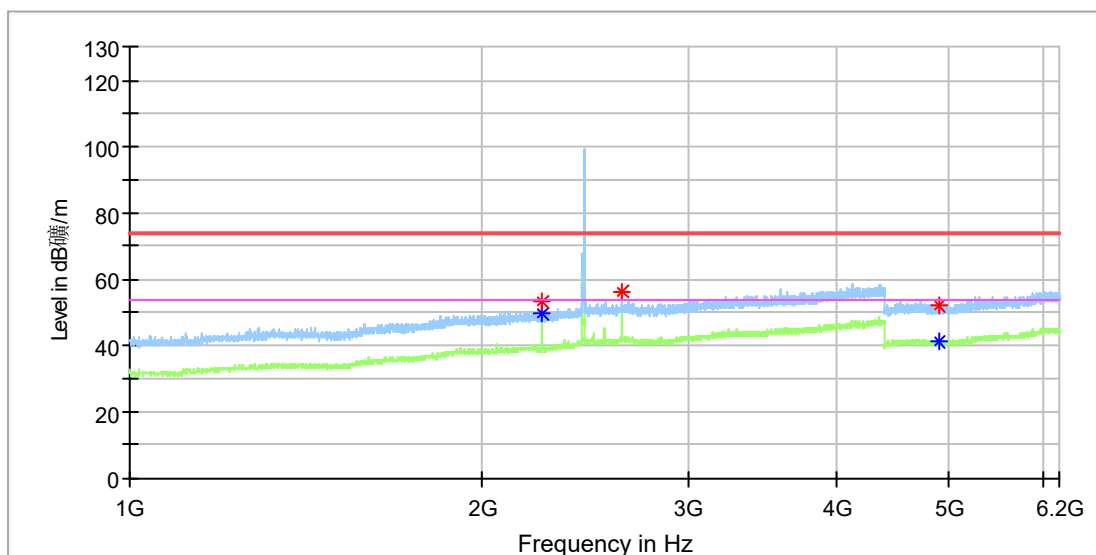
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7205.458333	44.86	---	74.00	29.14	150.0	V	171.0	8.8
7205.458333	---	39.26	54.00	14.74	150.0	V	171.0	8.8
9601.841667	57.55	---	74.00	16.45	150.0	V	182.0	10.4
9602.825000	---	50.51	54.00	3.49	150.0	V	182.0	10.4

Final Result

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---	---	---	---

EUT Information

EUT Name: Bluetooth Speaker
Model: X4i
Test Mode: BLE 1M_Mid channel
Order No/Sample No: 168514196/A003881759-003
Test Voltage: Battery
Remark: Temp 24 Humi:50%
Test Standard: FCC 15.247
Tested By: Kei Zhang
Reviewed By: Terry Yin



Critical Freqs

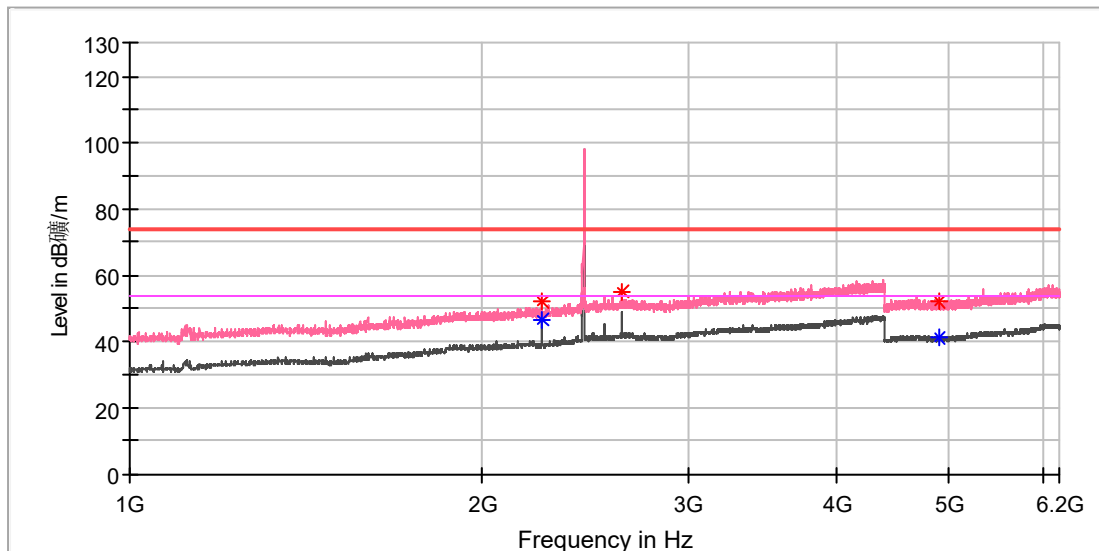
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2248.000000	---	49.70	54.00	4.30	150.0	H	257.0	8.0
2248.000000	53.22	---	74.00	20.78	150.0	H	257.0	8.0
2632.000000	56.05	---	68.20	12.15	150.0	H	263.0	9.9
4892.500000	52.02	---	74.00	21.98	150.0	H	270.0	13.3
4901.500000	---	41.25	54.00	12.75	150.0	H	323.0	13.3

Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---	---	---	---

EUT Information

EUT Name: Bluetooth Speaker
Model: X4i
Test Mode: BLE 1M_Mid channel
Order No/Sample No: 168514196/A003881759-003
Test Voltage: Battery
Remark: Temp 24 Humi:50%
Test Standard: FCC 15.247
Tested By: Kei Zhang
Reviewed By: Terry Yin



Critical Freqs

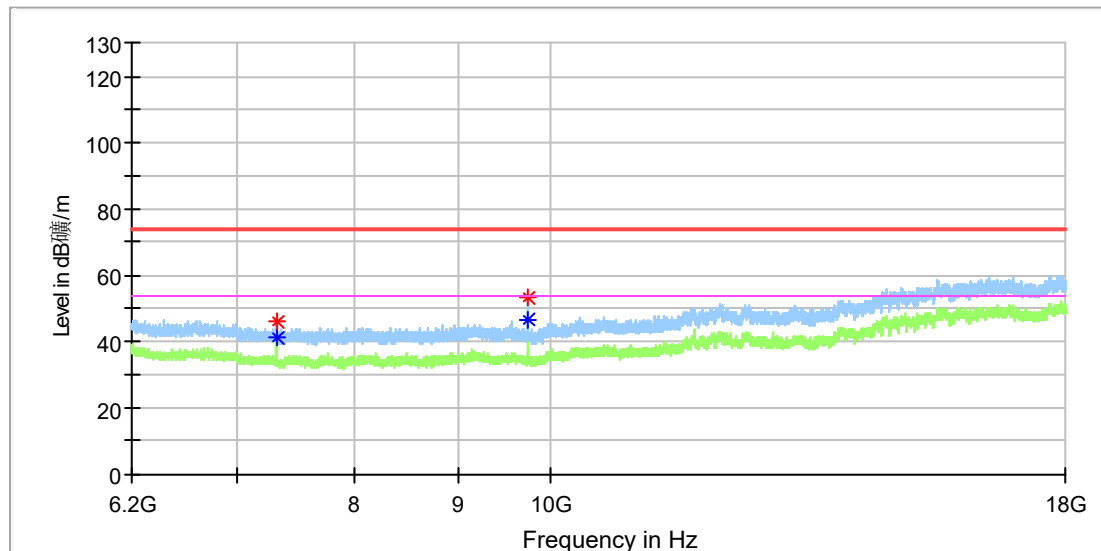
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2248.000000	51.72	---	74.00	22.28	150.0	V	33.0	8.0
2248.000000	---	46.28	54.00	7.72	150.0	V	33.0	8.0
2632.000000	54.86	---	68.20	13.34	150.0	V	248.0	9.9
4896.000000	52.21	---	74.00	21.79	150.0	V	182.0	13.3
4900.000000	---	41.02	54.00	12.98	150.0	V	264.0	13.3

Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---		---	---

EUT Information

EUT Name: Bluetooth Speaker
Model: X4i
Test Mode: BLE 1M_Mid channel
Order No/Sample No: 168514196/A003881759-003
Test Voltage: Battery
Remark: Temp 24 Humi:50%
Test Standard: FCC 15.247
Tested By: Kei Zhang
Reviewed By: Terry Yin



Critical Freqs

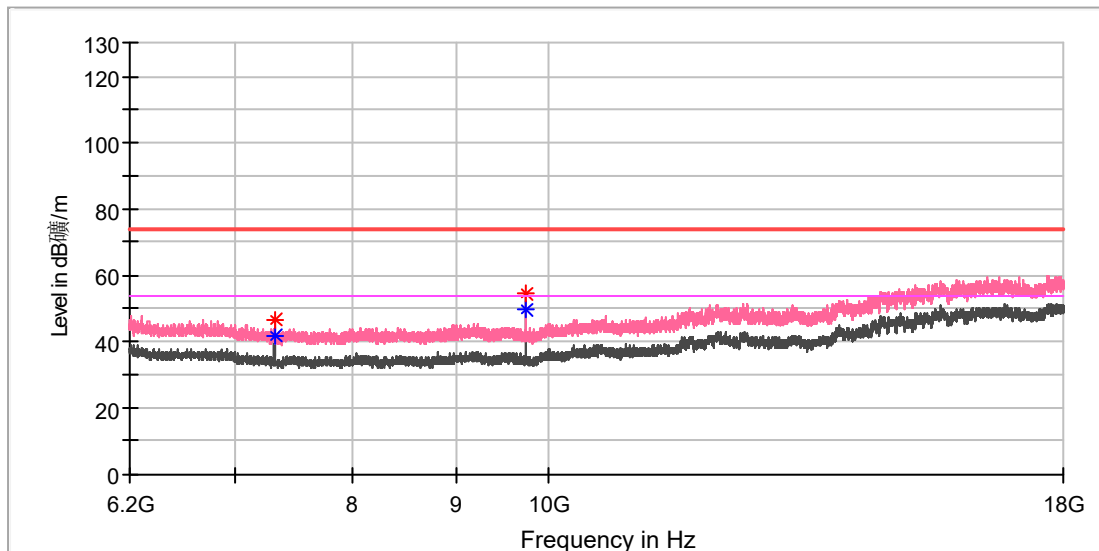
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7319.525000	---	41.19	54.00	12.81	150.0	H	176.0	8.2
7320.016667	45.74	---	74.00	28.26	150.0	H	142.0	8.2
9753.275000	---	46.45	54.00	7.55	150.0	H	166.0	10.4
9753.766667	53.31	---	74.00	20.70	150.0	H	166.0	10.4

Final Result

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---	---	---	---

EUT Information

EUT Name:	Bluetooth Speaker
Model:	X4i
Test Mode:	BLE 1M_Mid channel
Order No/Sample No:	168514196/A003881759-003
Test Voltage:	Battery
Remark:	Temp 24 Humi:50%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical Freqs

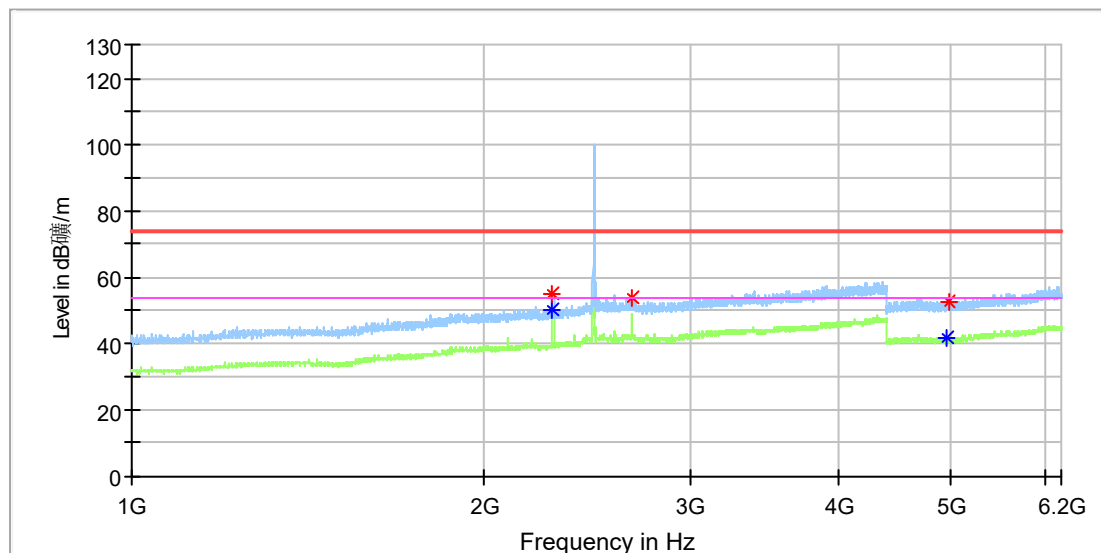
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7319.525000	46.69	---	74.00	27.31	150.0	V	169.0	8.2
7320.016667	---	41.57	54.00	12.43	150.0	V	182.0	8.2
9754.258333	---	49.68	54.00	4.32	150.0	V	182.0	10.4
9754.258333	54.52	---	74.00	19.48	150.0	V	182.0	10.4

Final Result

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---		---	---

EUT Information

EUT Name: Bluetooth Speaker
Model: X4i
Test Mode: BLE 1M_High channel
Order No/Sample No: 168514196/A003881759-003
Test Voltage: Battery
Remark: Temp 24 Humi:50%
Test Standard: FCC 15.247
Tested By: Kei Zhang
Reviewed By: Terry Yin



Critical Freqs

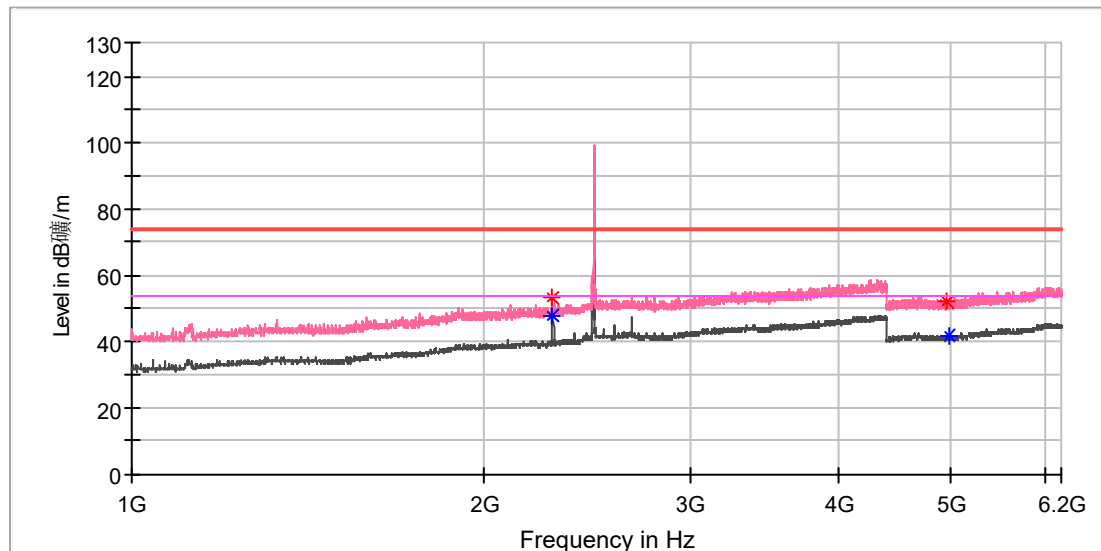
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2287.500000	---	50.15	54.00	3.85	150.0	H	247.0	8.0
2288.000000	55.15	---	74.00	18.85	150.0	H	117.0	8.0
2672.500000	53.85	---	68.20	14.35	150.0	H	240.0	10.2
4957.500000	---	41.78	54.00	12.22	150.0	H	126.0	13.3
4976.000000	52.40	---	74.00	21.60	150.0	H	101.0	13.3

Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---		---	---

EUT Information

EUT Name: Bluetooth Speaker
Model: X4i
Test Mode: BLE 1M_High channel
Order No/Sample No: 168514196/A003881759-003
Test Voltage: Battery
Remark: Temp 24 Humi:50%
Test Standard: FCC 15.247
Tested By: Kei Zhang
Reviewed By: Terry Yin



Critical Freqs

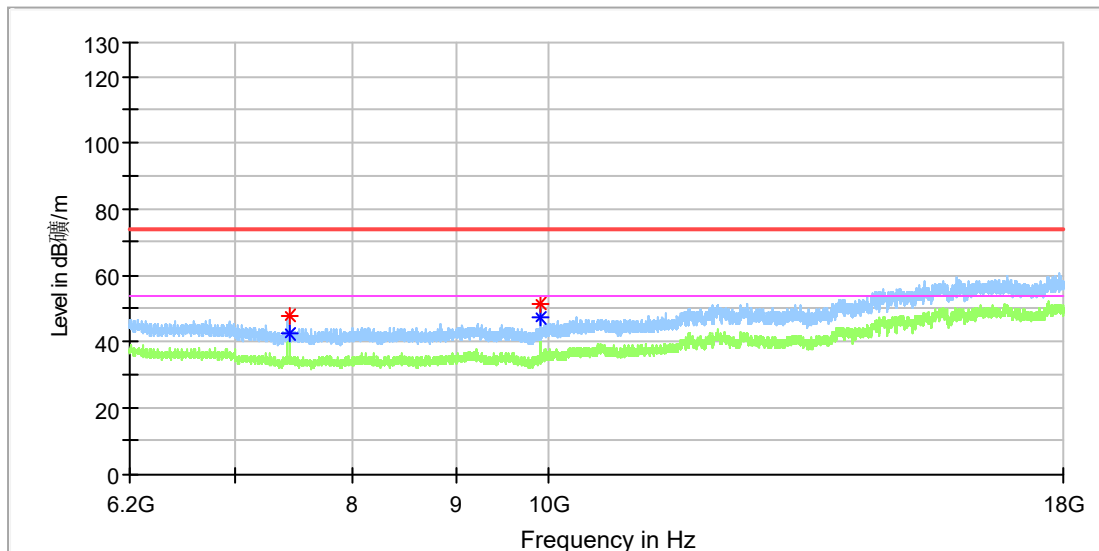
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2288.000000	---	47.84	54.00	6.16	150.0	V	191.0	8.0
2288.000000	53.09	---	74.00	20.91	150.0	V	191.0	8.0
4958.000000	52.25	---	74.00	21.75	150.0	V	152.0	13.3
4967.500000	---	41.82	54.00	12.18	150.0	V	9.0	13.3

Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---		---	---

EUT Information

EUT Name:	Bluetooth Speaker
Model:	X4i
Test Mode:	BLE 1M_High channel
Order No/Sample No:	168514196/A003881759-003
Test Voltage:	Battery
Remark:	Temp 24 Humi:50%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical Freqs

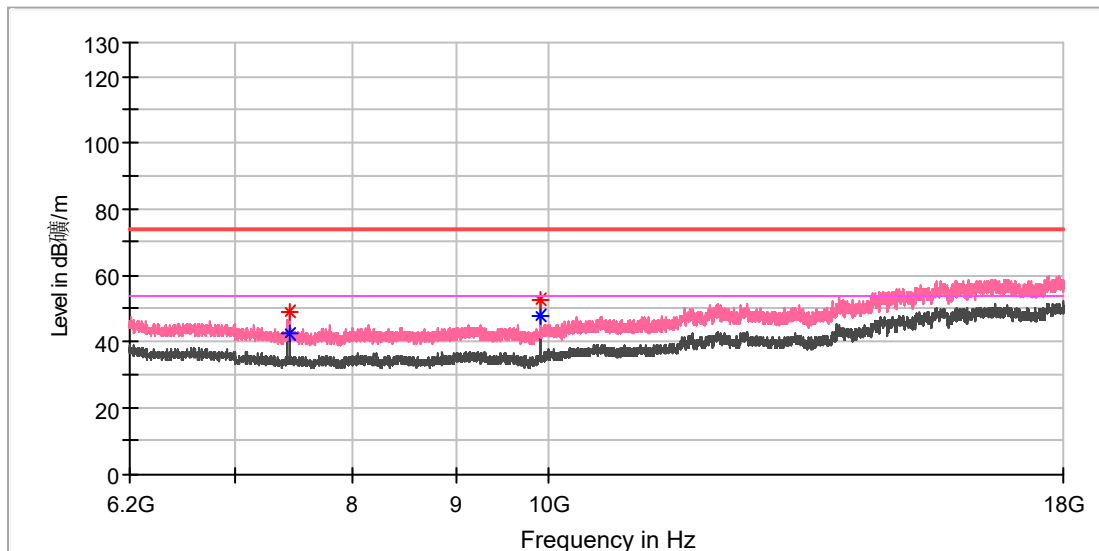
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7439.491667	47.78	---	74.00	26.22	150.0	H	159.0	8.4
7439.983333	---	42.36	54.00	11.64	150.0	H	268.0	8.4
9914.050000	51.56	---	74.00	22.44	150.0	H	170.0	10.8
9914.541667	---	47.25	54.00	6.75	150.0	H	170.0	10.8

Final Result

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---	---	---	---

EUT Information

EUT Name: Bluetooth Speaker
Model: X4i
Test Mode: BLE 1M_High channel
Order No/Sample No: 168514196/A003881759-003
Test Voltage: Battery
Remark: Temp 24 Humi:50%
Test Standard: FCC 15.247
Tested By: Kei Zhang
Reviewed By: Terry Yin



Critical Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7439.000000	49.20	---	74.00	24.80	150.0	V	174.0	8.4
7439.491667	---	42.18	54.00	11.82	150.0	V	163.0	8.4
9914.050000	52.42	---	74.00	21.58	150.0	V	186.0	10.8
9914.541667	---	47.90	54.00	6.10	150.0	V	186.0	10.8

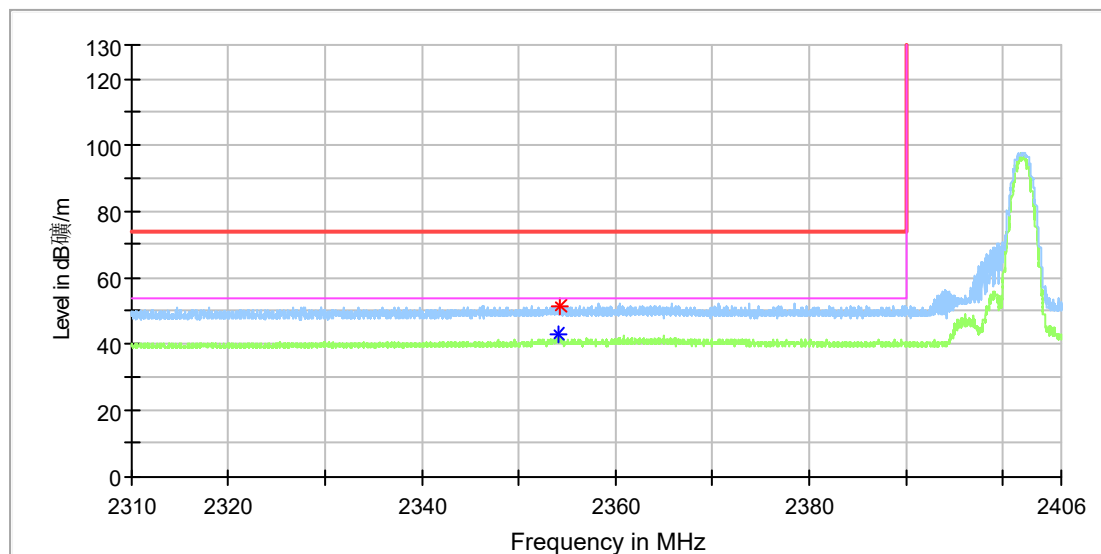
Final Result

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---	---	---	---

Appendix B.7: Test Results of Radiated Emissions in Restricted Bands

EUT Information

EUT Name: Bluetooth Speaker
Model: X4i
Test Mode: BLE 1M_Low channel
Order No/Sample No: 168514196/A003881759-003
Test Voltage: Battery
Remark: Temp 24 Humi:50%
Test Standard: FCC 15.247
Tested By: Kei Zhang
Reviewed By: Terry Yin



Critical Freqs

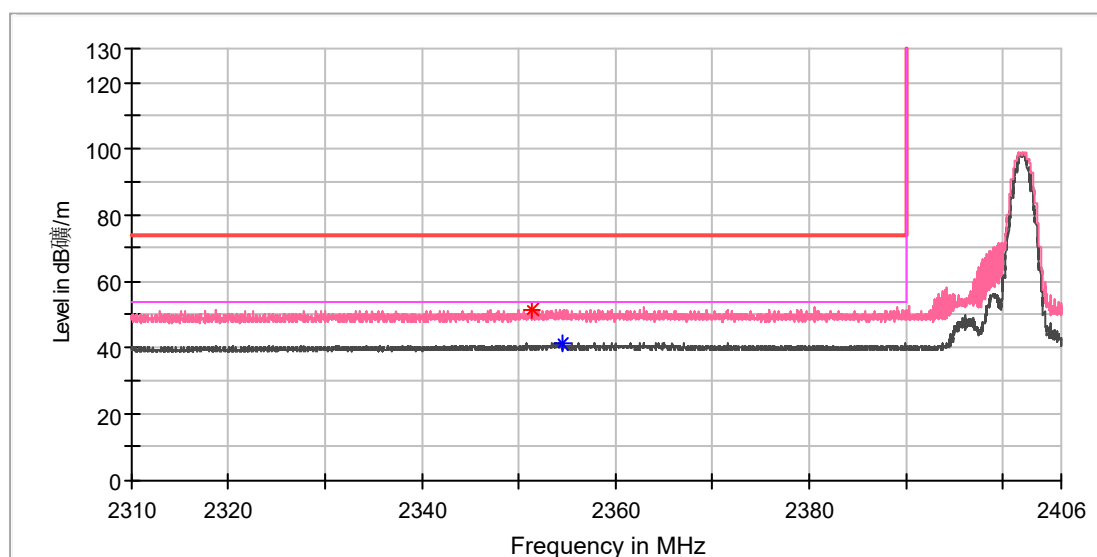
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2354.161765	---	42.63	54.00	11.37	150.0	H	198.0	8.5
2354.250000	51.44	---	74.00	22.56	150.0	H	198.0	8.5

Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---		---	---

EUT Information

EUT Name:	Bluetooth Speaker
Model:	X4i
Test Mode:	BLE 1M_Low channel
Order No/Sample No:	168514196/A003881759-003
Test Voltage:	Battery
Remark:	Temp 24 Humi:50%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical Freqs

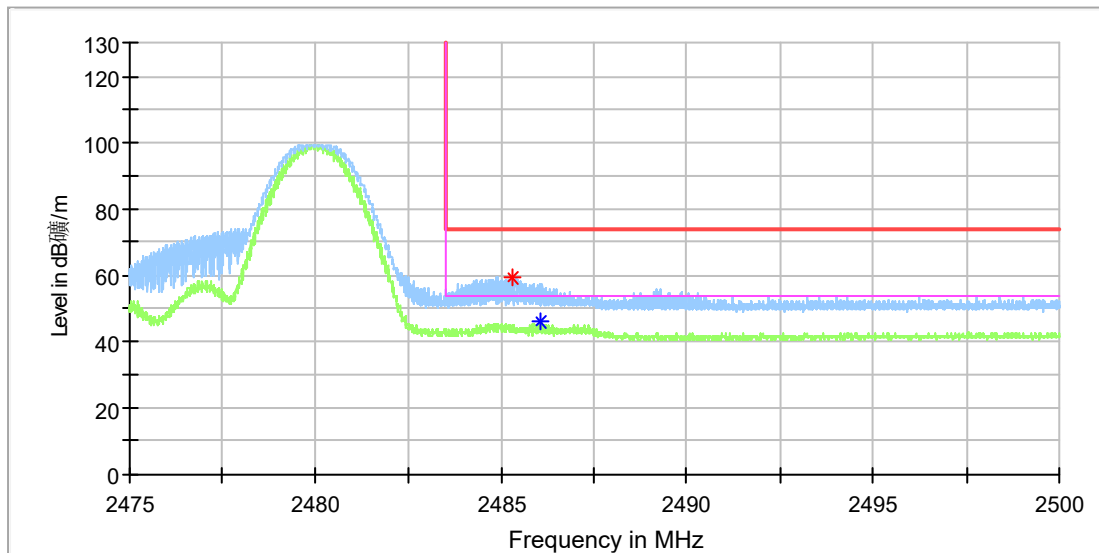
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2351.367647	51.63	---	74.00	22.37	150.0	V	224.0	8.5
2354.558824	---	41.40	54.00	12.60	150.0	V	49.0	8.5

Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---		---	---

EUT Information

EUT Name:	Bluetooth Speaker
Model:	X4i
Test Mode:	BLE 1M_High channel
Order No/Sample No:	168514196/A003881759-003
Test Voltage:	Battery
Remark:	Temp 24 Humi:50%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical Freqs

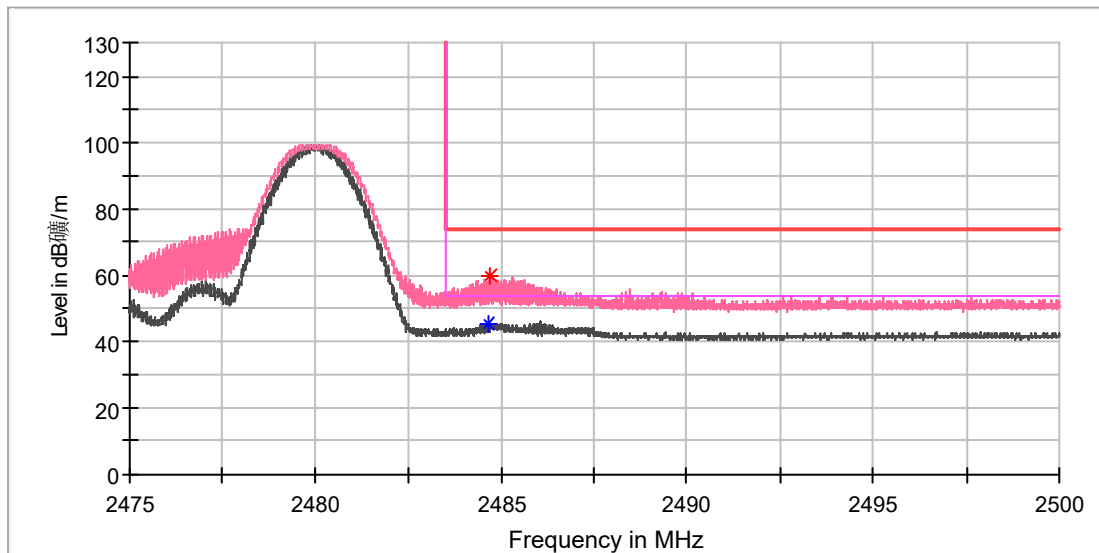
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2485.297794	59.51	---	74.00	14.49	150.0	H	206.0	9.0
2486.058824	---	46.00	54.00	8.00	150.0	H	206.0	9.0

Final Result

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---		---	---

EUT Information

EUT Name:	Bluetooth Speaker
Model:	X4i
Test Mode:	BLE 1M_High channel
Order No/Sample No:	168514196/A003881759-003
Test Voltage:	Battery
Remark:	Temp 24 Humi:50%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical Freqs

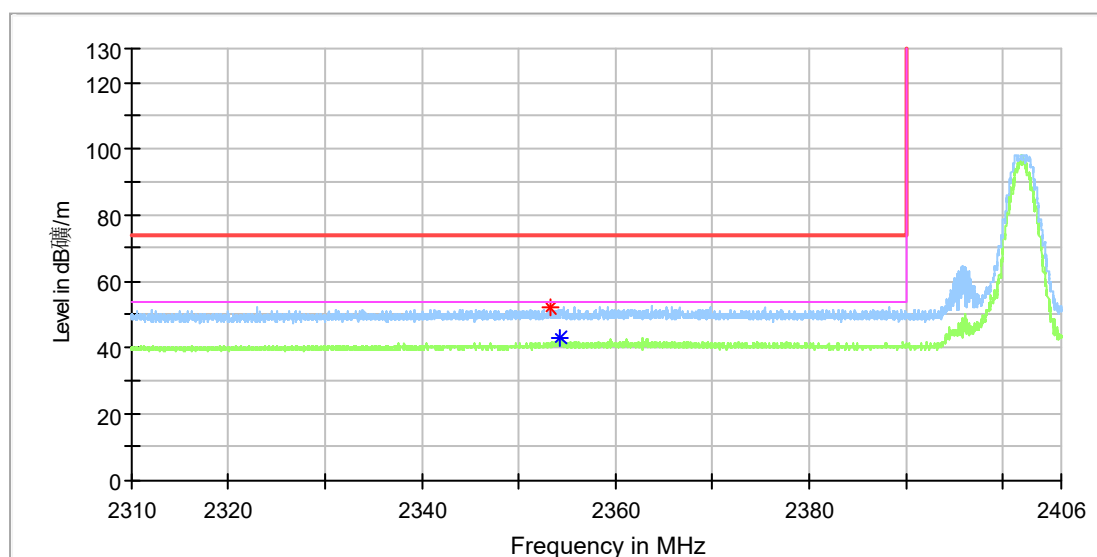
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2484.647059	---	45.62	54.00	8.38	150.0	V	209.0	9.0
2484.691177	59.71	---	74.00	14.29	150.0	V	63.0	9.0

Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---		---	---

EUT Information

EUT Name:	Bluetooth Speaker
Model:	X4i
Test Mode:	BLE 2M_Low channel
Order No/Sample No:	168514196/A003881759-003
Test Voltage:	Battery
Remark:	Temp 24 Humi:50%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical Freqs

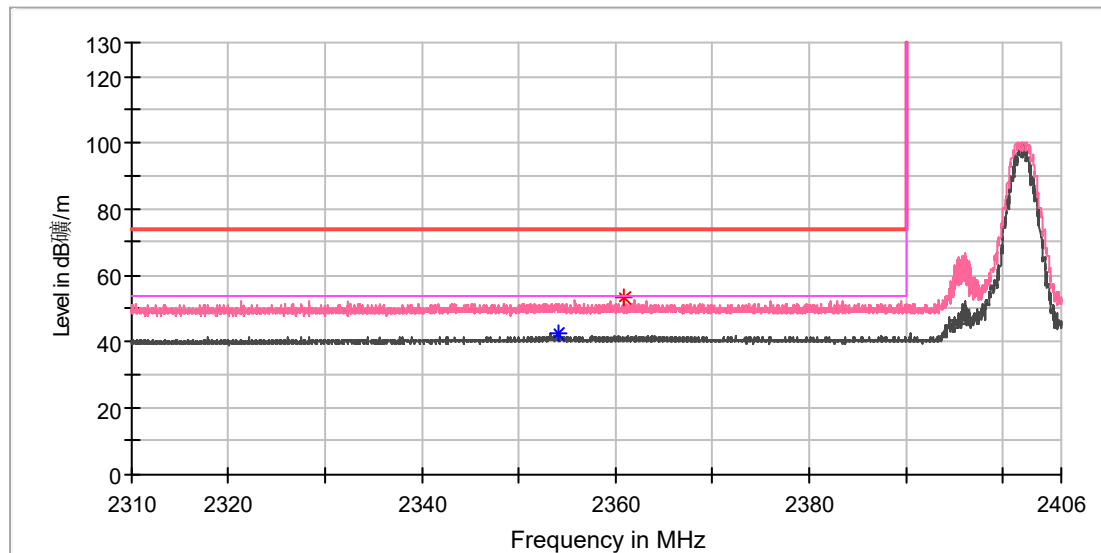
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2353.235294	51.95	---	74.00	22.05	150.0	H	199.0	8.5
2354.191177	---	42.74	54.00	11.26	150.0	H	199.0	8.5

Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---		---	---

EUT Information

EUT Name:	Bluetooth Speaker
Model:	X4i
Test Mode:	BLE 2M_Low channel
Order No/Sample No:	168514196/A003881759-003
Test Voltage:	Battery
Remark:	Temp 24 Humi:50%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical Freqs

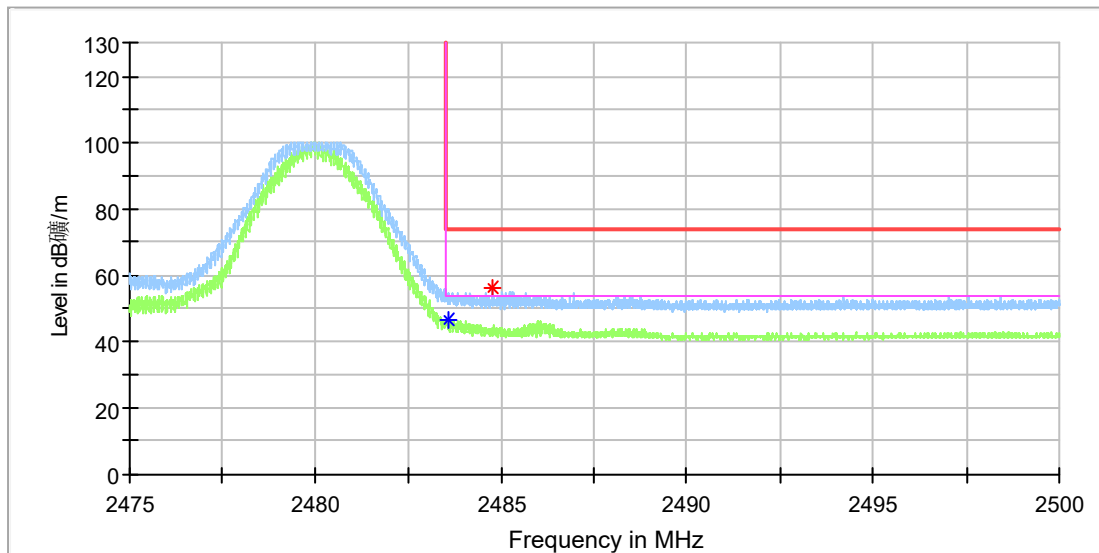
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2354.102941	---	42.37	54.00	11.63	150.0	V	184.0	8.5
2360.882353	53.22	---	74.00	20.78	150.0	V	177.0	8.5

Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---		---	---

EUT Information

EUT Name:	Bluetooth Speaker
Model:	X4i
Test Mode:	BLE 2M_High channel
Order No/Sample No:	168514196/A003881759-003
Test Voltage:	Battery
Remark:	Temp 24 Humi:50%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical Freqs

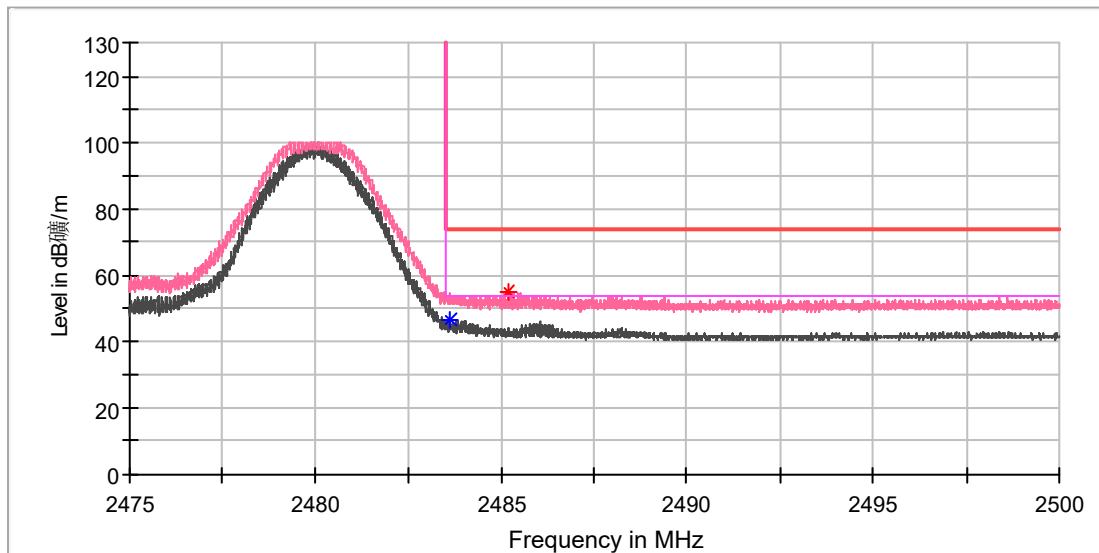
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2483.591912	---	46.34	54.00	7.66	150.0	H	196.0	9.0
2484.742647	56.24	---	74.00	17.76	150.0	H	203.0	9.0

Final Result

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---		---	---

EUT Information

EUT Name:	Bluetooth Speaker
Model:	X4i
Test Mode:	BLE 2M_High channel
Order No/Sample No:	168514196/A003881759-003
Test Voltage:	Battery
Remark:	Temp 24 Humi:50%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical Freqs

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2483.613971	---	46.60	54.00	7.40	150.0	V	102.0	9.0
2485.191177	55.24	---	74.00	18.76	150.0	V	208.0	9.0

Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---		---	---

Appendix C: Test Results of Bluetooth LE - Bluetooth Chip2

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Appendix C.1: Test Results of Conducted Power Spectral Density

Test Result

TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-10.37	≤8.00	PASS
		2440	-9.08	≤8.00	PASS
		2480	-8.92	≤8.00	PASS
BLE_2M	Ant1	2402	-12.35	≤8.00	PASS
		2440	-11.10	≤8.00	PASS
		2480	-11.06	≤8.00	PASS

Test Graphs

BLE 1M Ant1 2402



BLE 1M Ant1 2440



BLE 1M Ant1 2480



BLE 2M Ant1 2402



BLE 2M Ant1 2440



BLE 2M Ant1 2480



Appendix C.2: Test Results of 6dB Bandwidth

Test Result

TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.676	2401.672	2402.348	0.5	PASS
		2440	0.648	2439.696	2440.344	0.5	PASS
		2480	0.640	2479.700	2480.340	0.5	PASS
BLE_2M	Ant1	2402	1.096	2401.428	2402.524	0.5	PASS
		2440	1.132	2439.444	2440.576	0.5	PASS
		2480	1.084	2479.476	2480.560	0.5	PASS

Test Graphs

BLE 1M Ant1_2402



BLE 1M Ant1_2440



BLE 1M Ant1_2480



BLE 2M Ant1 2402



BLE 2M Ant1 2440



BLE 2M Ant1 2480



Appendix C.3: Test Results of 99% Bandwidth

Test Result

TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.0312	2401.5155	2402.5467	---	PASS
		2440	1.0358	2439.5103	2440.5461	---	PASS
		2480	1.0428	2479.5086	2480.5514	---	PASS
BLE_2M	Ant1	2402	2.0506	2401.0118	2403.0624	---	PASS
		2440	2.0592	2439.0079	2441.0671	---	PASS
		2480	2.0706	2479.0104	2481.0810	---	PASS

Test Graphs

BLE 1M Ant1_2402



BLE 1M Ant1_2440



BLE 1M Ant1_2480



BLE 2M Ant1 2402



BLE 2M Ant1 2440



BLE 2M Ant1 2480



Appendix C.4: Test Results of Band Edge Measurements

Test Result

TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	5.71	-43.32	≤-14.29	PASS
		High	2480	5.80	-51.09	≤-14.20	PASS
BLE_2M	Ant1	Low	2402	3.67	-30.14	≤-16.33	PASS
		High	2480	6.17	-52.06	≤-13.83	PASS

Test Graphs

BLE 1M Ant1 Low 2402



BLE 1M Ant1 High 2480



BLE 2M Ant1 Low 2402



BLE 2M Ant1 High 2480



Appendix C.5: Test Results of Conducted Spurious Emission

Test Result

TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	4.86	4.86	---	PASS
			30~1000	4.86	-47.48	≤-15.14	PASS
			1000~26500	4.86	-17.74	≤-15.14	PASS
		2440	Reference	6.25	6.25	---	PASS
			30~1000	6.25	-48.06	≤-13.75	PASS
			1000~26500	6.25	-17.76	≤-13.75	PASS
		2480	Reference	6.11	6.11	---	PASS
			30~1000	6.11	-47.76	≤-13.89	PASS
			1000~26500	6.11	-17.78	≤-13.89	PASS
BLE_2M	Ant1	2402	Reference	5.23	5.23	---	PASS
			30~1000	5.23	-48.31	≤-14.77	PASS
			1000~26500	5.23	-39.91	≤-14.77	PASS
		2440	Reference	6.33	6.33	---	PASS
			30~1000	6.33	-47.84	≤-13.67	PASS
			1000~26500	6.33	-40.46	≤-13.67	PASS
		2480	Reference	6.39	6.39	---	PASS
			30~1000	6.39	-46.8	≤-13.61	PASS
			1000~26500	6.39	-39.8	≤-13.61	PASS

Test Graphs

BLE 1M Ant1 2402 0~Reference



BLE 1M Ant1 2402 30~1000



BLE 1M Ant1 2402 1000~26500





BLE 1M Ant1 2480 0~Reference



BLE 1M Ant1 2480 30~1000



BLE 1M Ant1 2480 1000~26500



BLE 2M Ant1 2402 0~Reference



BLE 2M Ant1 2402 30~1000



BLE 2M Ant1 2402 1000~26500



BLE 2M Ant1 2440 0~Reference



BLE 2M Ant1 2440 30~1000



BLE 2M Ant1 2440 1000~26500



BLE 2M Ant1 2480 0~Reference



BLE 2M Ant1 2480 30~1000



BLE 2M Ant1 2480 1000~26500



Appendix C.6: Test Results of Radiated Spurious Emissions

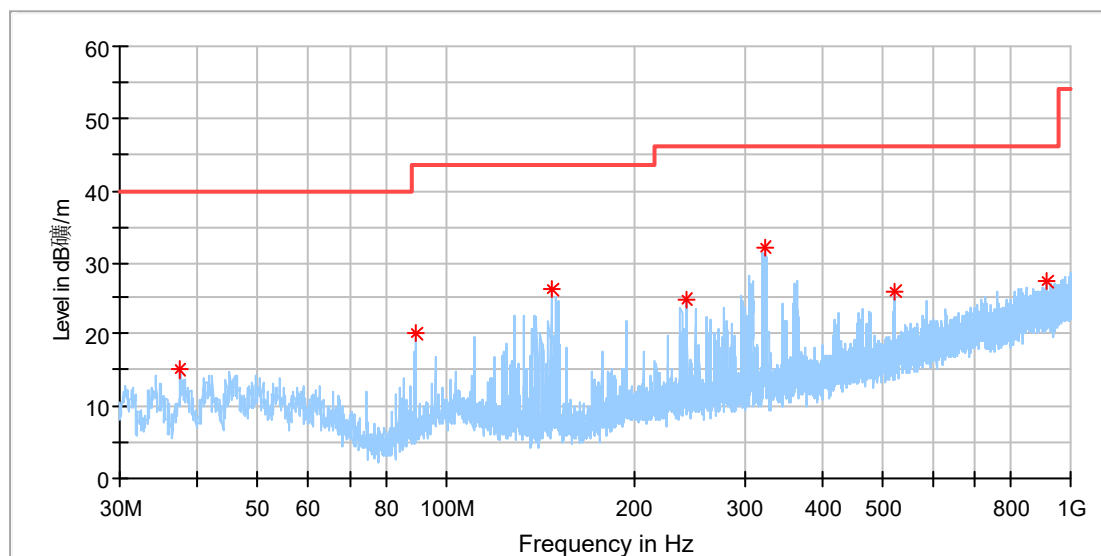
Note:

- 1) This testing was carried out on different modulations, but only the worst case was presented in this report.
- 2) Testing was carried out within frequency range 9kHz to the tenth harmonics. The measurement results below 30MHz and 18GHz - 26.5GHz were greater than 20dB below the limit, so only the radiated spurious emissions from 30MHz to 18GHz were reported.

30 MHz - 1GHz

EUT Information

EUT Name:	Bluetooth Speaker
Model:	X4i
Test Mode:	BLE 1M_Mid channel
Order No/Sample No:	168514196/A003881759-003
Test Voltage:	Battery
Remark:	Temp 24 Humi:50%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical Freqs

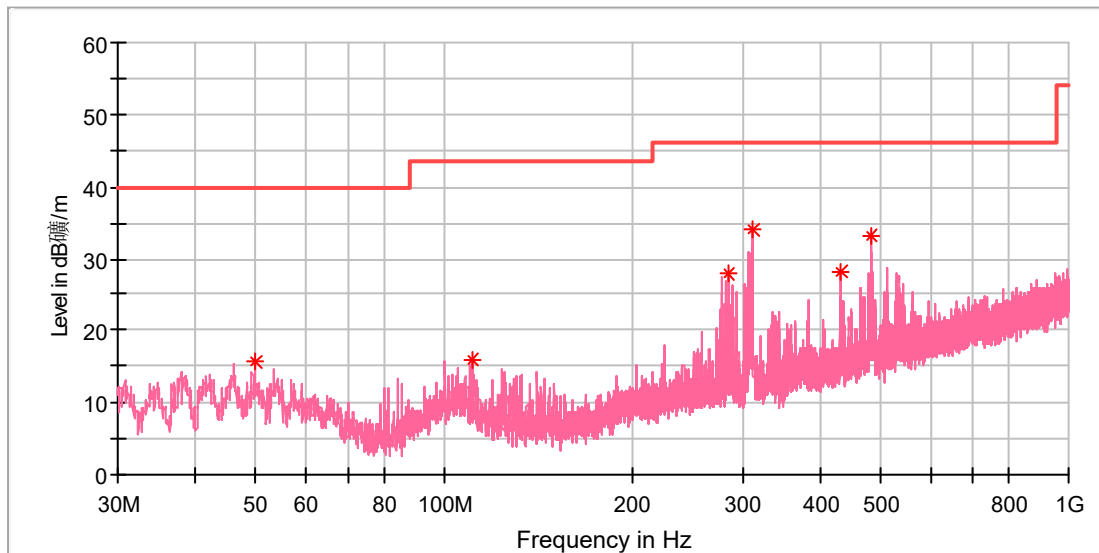
Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
37.573462	15.03	40.00	24.97	100.0	H	0.0	-21.0
89.655000	20.09	43.50	23.41	100.0	H	28.0	-21.2
147.295385	26.19	43.50	17.31	100.0	H	19.0	-22.3
242.131539	24.95	46.00	21.05	100.0	H	264.0	-17.6
322.268462	32.02	46.00	13.98	100.0	H	159.0	-15.6
521.379615	26.06	46.00	19.94	100.0	H	0.0	-11.4
916.766539	27.38	46.00	18.62	100.0	H	273.0	-4.6

Final Result

Frequency (MHz)	QuasiPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---	---	---	---

EUT Information

EUT Name:	Bluetooth Speaker
Model:	X4i
Test Mode:	BLE 1M_Mid channel
Order No/Sample No:	168514196/A003881759-003
Test Voltage:	Battery
Remark:	Temp 24 Humi:50%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical Freqs

Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
49.959615	15.58	40.00	24.42	100.0	V	179.0	-18.4
110.845769	15.99	43.50	27.51	100.0	V	54.0	-19.3
285.856154	28.00	46.00	18.00	100.0	V	4.0	-16.6
311.374615	34.07	46.00	11.93	100.0	V	156.0	-16.0
430.945769	28.20	46.00	17.80	100.0	V	172.0	-13.1
480.900769	33.12	46.00	12.88	100.0	V	289.0	-12.1

Final Result

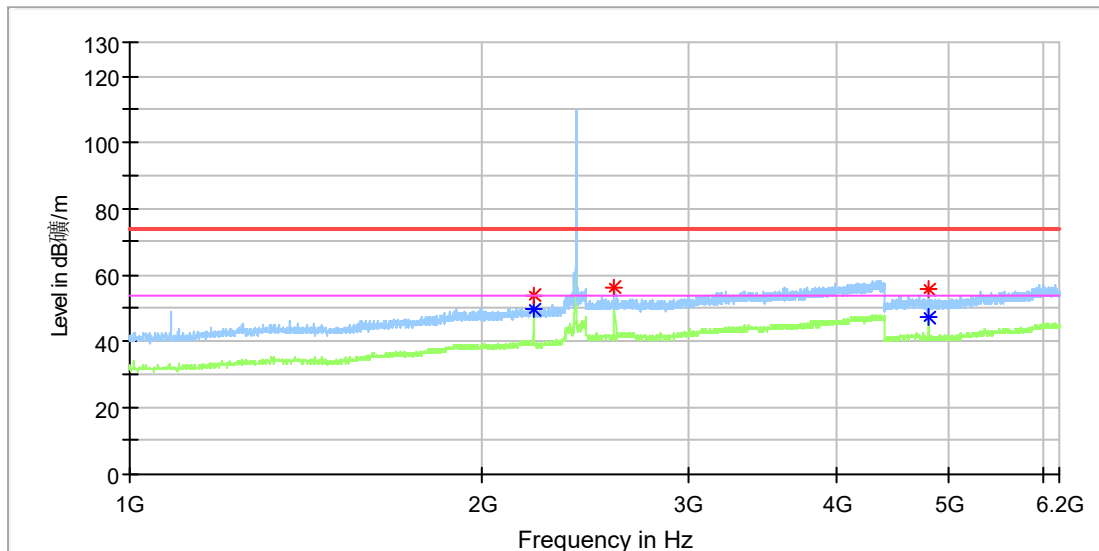
Frequency (MHz)	QuasiPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---		---	---

1GHz - 18GHz

Note: The highest waveform in the figure is Bluetooth Fundamental.

EUT Information

EUT Name:	Bluetooth Speaker
Model:	X4i
Test Mode:	BLE 1M_Low channel
Order No/Sample No:	168514196/A003881759-003
Test Voltage:	Battery
Remark:	Temp 24 Humi:50%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

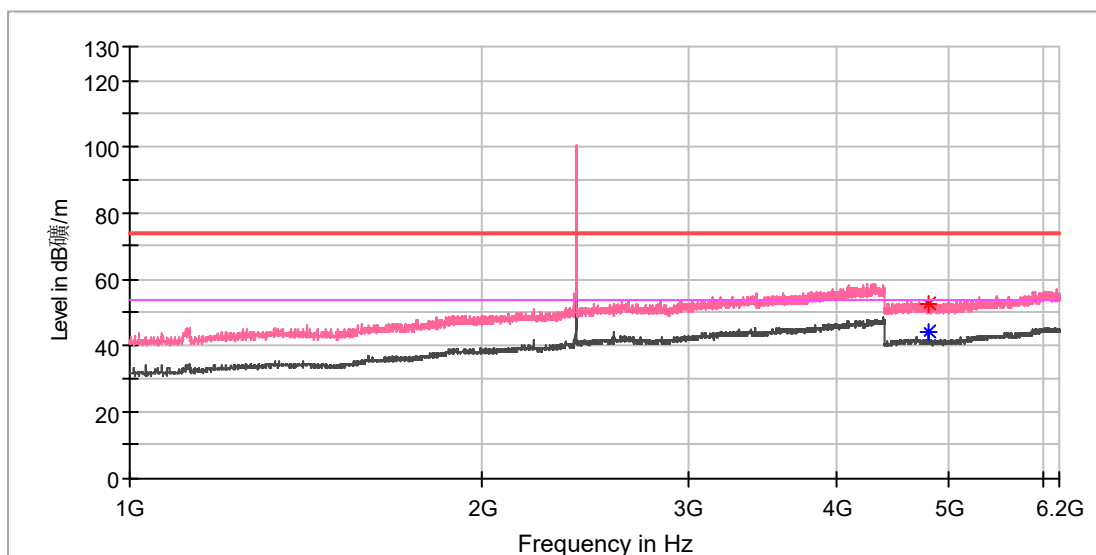
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2210.000000	54.08	---	74.00	19.92	150.0	H	120.0	7.9
2210.000000	---	49.65	54.00	4.35	150.0	H	120.0	7.9
2594.000000	56.25	---	68.20	11.95	150.0	H	107.0	9.5
4803.500000	55.33	---	74.00	18.67	150.0	H	112.0	13.3
4804.000000	---	47.14	54.00	6.86	150.0	H	112.0	13.3

Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---	---	---	---

EUT Information

EUT Name: Bluetooth Speaker
Model: X4i
Test Mode: BLE 1M_Low channel
Order No/Sample No: 168514196/A003881759-003
Test Voltage: Battery
Remark: Temp 24 Humi:50%
Test Standard: FCC 15.247
Tested By: Kei Zhang
Reviewed By: Terry Yin



Critical Freqs

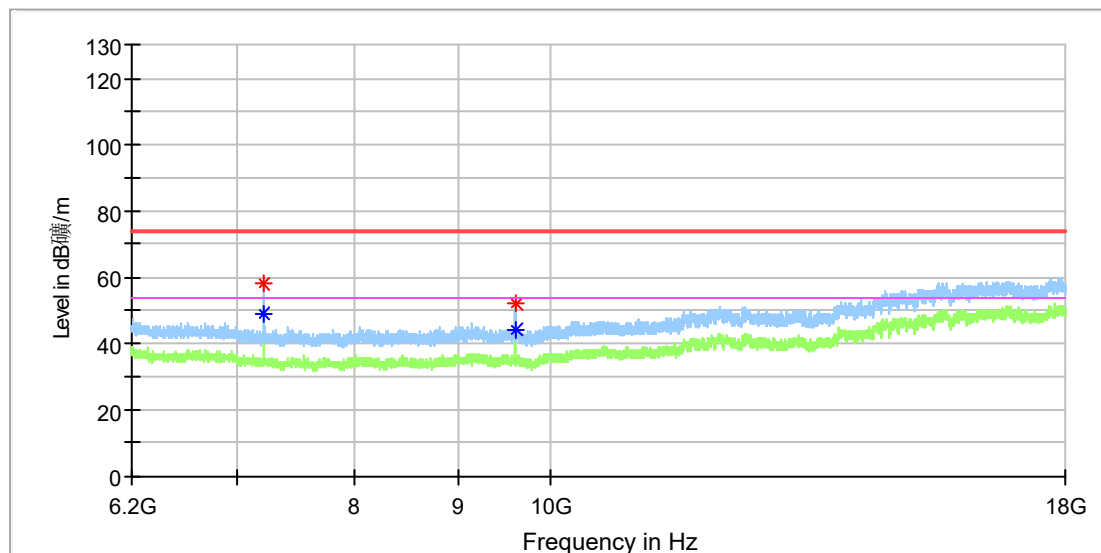
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4804.000000	52.86	---	74.00	21.14	150.0	V	117.0	13.3
4804.000000	---	44.39	54.00	9.61	150.0	V	117.0	13.3

Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---		---	---

EUT Information

EUT Name: Bluetooth Speaker
Model: X4i
Test Mode: BLE 1M_Low channel
Order No/Sample No: 168514196/A003881759-003
Test Voltage: Battery
Remark: Temp 24 Humi:50%
Test Standard: FCC 15.247
Tested By: Kei Zhang
Reviewed By: Terry Yin



Critical Freqs

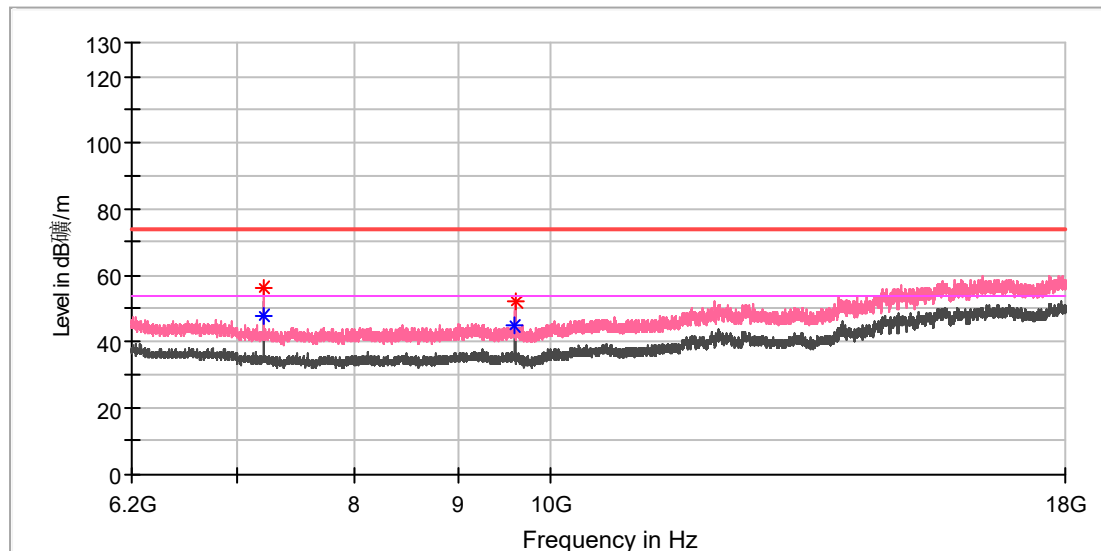
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7205.950000	58.17	---	74.00	15.83	150.0	H	0.0	8.8
7206.933333	---	49.02	54.00	4.98	150.0	H	0.0	8.8
9608.233333	52.01	---	74.00	21.99	150.0	H	213.0	10.4
9608.725000	---	44.44	54.00	9.56	150.0	H	213.0	10.4

Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---	---	---	---

EUT Information

EUT Name: Bluetooth Speaker
Model: X4i
Test Mode: BLE 1M_Low channel
Order No/Sample No: 168514196/A003881759-003
Test Voltage: Battery
Remark: Temp 24 Humi:50%
Test Standard: FCC 15.247
Tested By: Kei Zhang
Reviewed By: Terry Yin



Critical Freqs

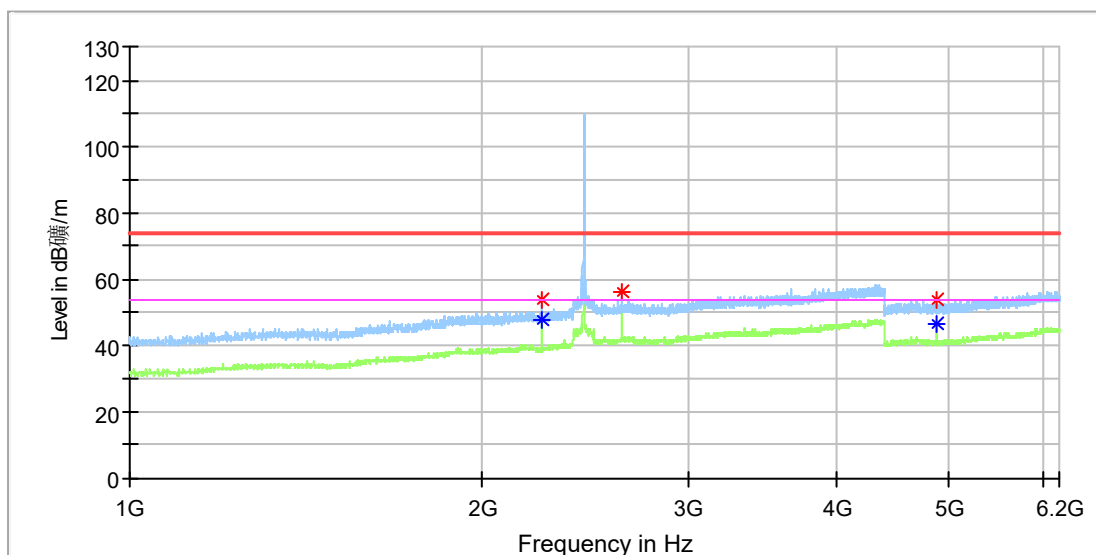
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7204.966667	---	47.85	54.00	6.15	150.0	V	159.0	8.8
7205.458333	56.46	---	74.00	17.54	150.0	V	331.0	8.8
9607.250000	---	44.87	54.00	9.13	150.0	V	307.0	10.4
9608.233333	52.10	---	74.00	21.90	150.0	V	307.0	10.4

Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---		---	---

EUT Information

EUT Name: Bluetooth Speaker
Model: X4i
Test Mode: BLE 1M_Mid channel
Order No/Sample No: 168514196/A003881759-003
Test Voltage: Battery
Remark: Temp 24 Humi:50%
Test Standard: FCC 15.247
Tested By: Kei Zhang
Reviewed By: Terry Yin



Critical Freqs

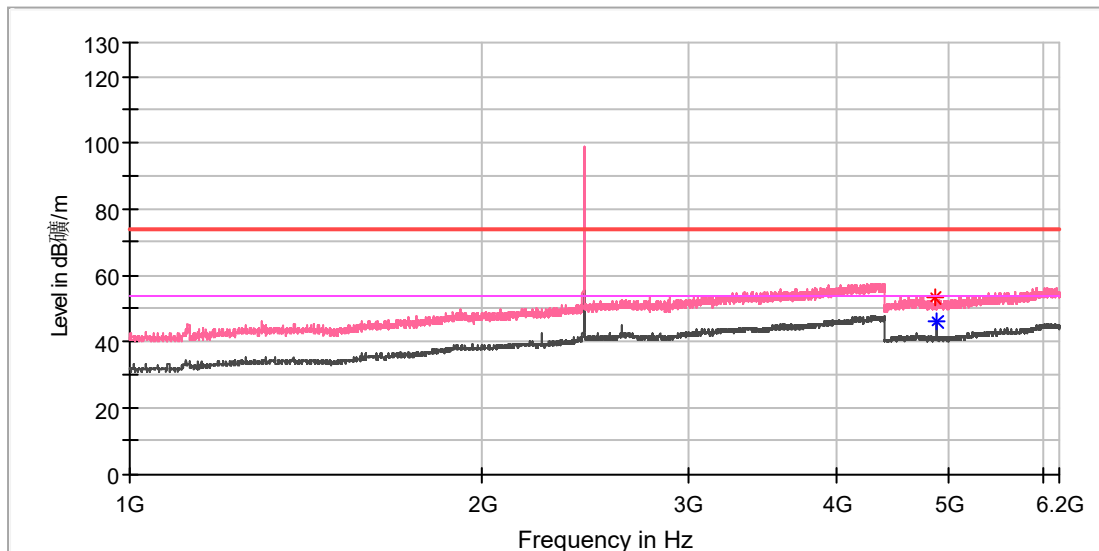
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2247.500000	---	47.99	54.00	6.01	150.0	H	115.0	8.0
2247.500000	53.62	---	74.00	20.38	150.0	H	115.0	8.0
2632.000000	55.99	---	68.20	12.21	150.0	H	115.0	9.9
4879.500000	53.79	---	74.00	20.21	150.0	H	112.0	13.3
4880.000000	---	46.48	54.00	7.52	150.0	H	112.0	13.3

Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---	---	---	---

EUT Information

EUT Name:	Bluetooth Speaker
Model:	X4i
Test Mode:	BLE 1M_Mid channel
Order No/Sample No:	168514196/A003881759-003
Test Voltage:	Battery
Remark:	Temp 24 Humi:50%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical Freqs

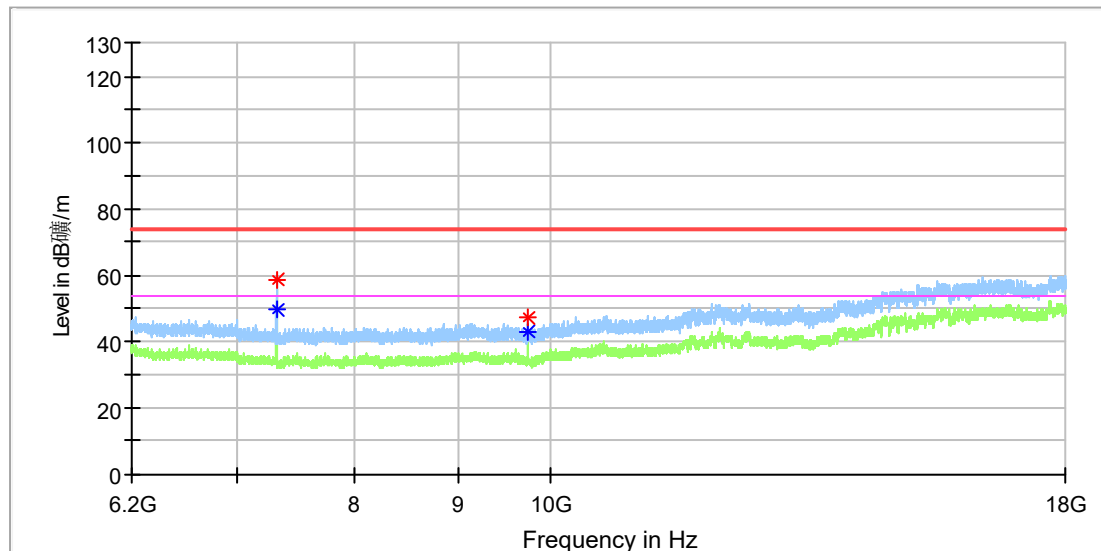
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4861.500000	53.25	---	74.00	20.75	150.0	V	157.0	13.3
4880.000000	---	46.09	54.00	7.91	150.0	V	246.0	13.3

Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---		---	---

EUT Information

EUT Name: Bluetooth Speaker
Model: X4i
Test Mode: BLE 1M_Mid channel
Order No/Sample No: 168514196/A003881759-003
Test Voltage: Battery
Remark: Temp 24 Humi:50%
Test Standard: FCC 15.247
Tested By: Kei Zhang
Reviewed By: Terry Yin



Critical Freqs

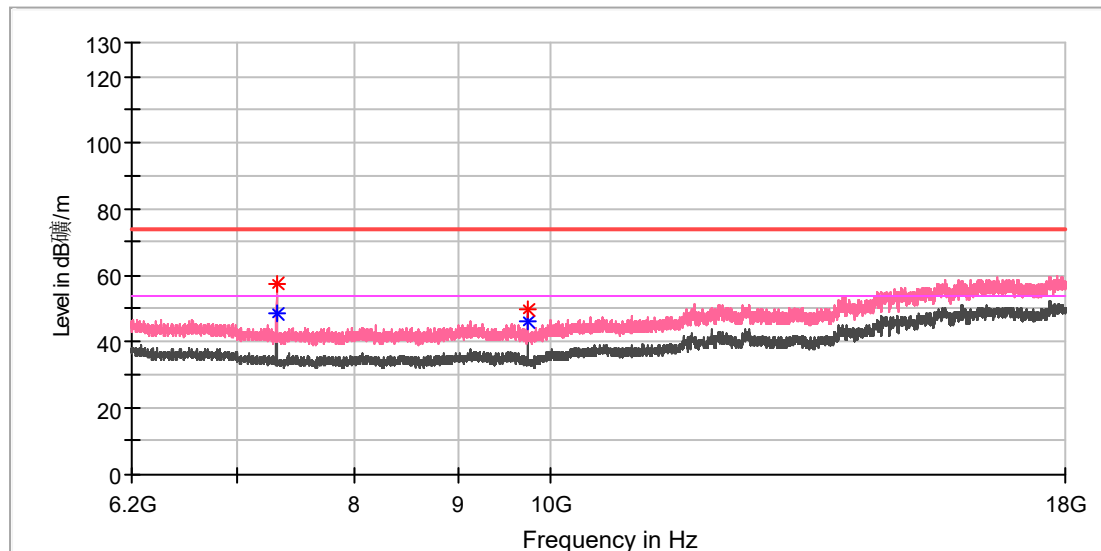
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7320.016667	58.95	---	74.00	15.05	150.0	H	0.0	8.2
7321.000000	---	49.30	54.00	4.70	150.0	H	359.0	8.2
9759.666667	---	43.11	54.00	10.89	150.0	H	124.0	10.4
9760.158333	47.28	---	74.00	26.72	150.0	H	264.0	10.4

Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---	---	---	---

EUT Information

EUT Name: Bluetooth Speaker
Model: X4i
Test Mode: BLE 1M_Mid channel
Order No/Sample No: 168514196/A003881759-003
Test Voltage: Battery
Remark: Temp 24 Humi:50%
Test Standard: FCC 15.247
Tested By: Kei Zhang
Reviewed By: Terry Yin



Critical Freqs

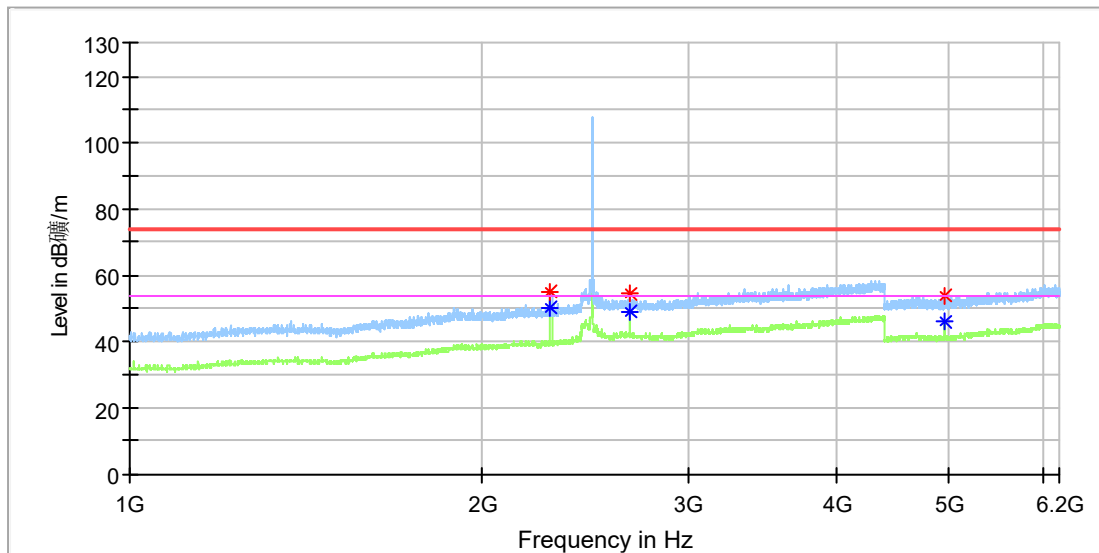
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7319.033333	---	48.47	54.00	5.53	150.0	V	278.0	8.2
7319.525000	57.23	---	74.00	16.77	150.0	V	278.0	8.2
9759.666667	---	46.17	54.00	7.83	150.0	V	143.0	10.4
9760.158333	49.73	---	74.00	24.27	150.0	V	143.0	10.4

Final Result

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---		---	---

EUT Information

EUT Name: Bluetooth Speaker
Model: X4i
Test Mode: BLE 1M_High channel
Order No/Sample No: 168514196/A003881759-003
Test Voltage: Battery
Remark: Temp 24 Humi:50%
Test Standard: FCC 15.247
Tested By: Kei Zhang
Reviewed By: Terry Yin



Critical Freqs

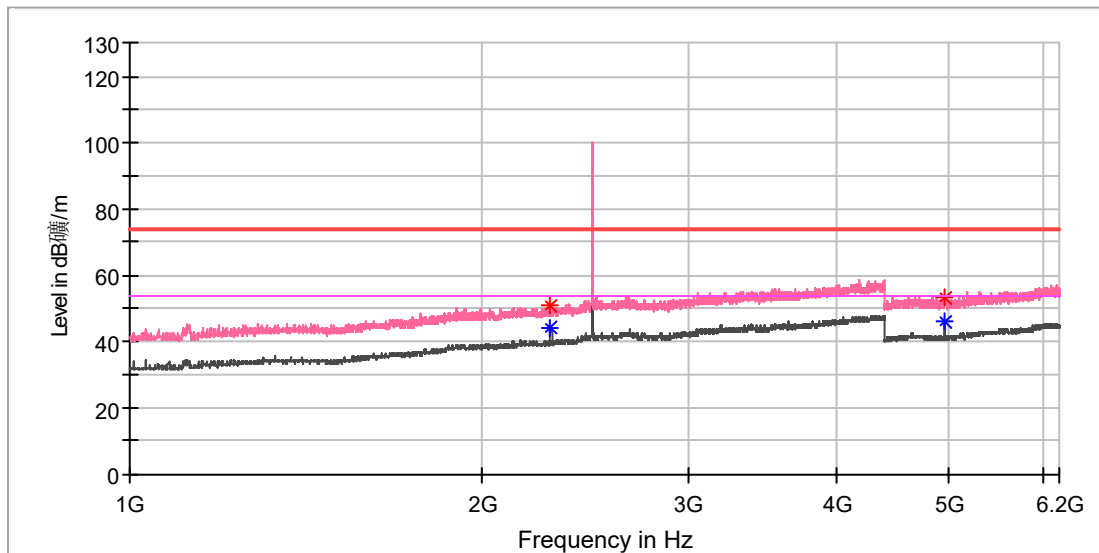
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2287.500000	---	50.49	54.00	3.51	150.0	H	116.0	8.0
2287.500000	55.29	---	74.00	18.71	150.0	H	116.0	8.0
2672.000000	54.47	---	74.00	19.53	150.0	H	123.0	10.2
2672.000000	---	49.26	54.00	4.74	150.0	H	123.0	10.2
4960.000000	53.77	---	74.00	20.23	150.0	H	114.0	13.3
4960.000000	---	45.85	54.00	8.15	150.0	H	114.0	13.3

Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---		---	---

EUT Information

EUT Name: Bluetooth Speaker
Model: X4i
Test Mode: BLE 1M_High channel
Order No/Sample No: 168514196/A003881759-003
Test Voltage: Battery
Remark: Temp 24 Humi:50%
Test Standard: FCC 15.247
Tested By: Kei Zhang
Reviewed By: Terry Yin



Critical Freqs

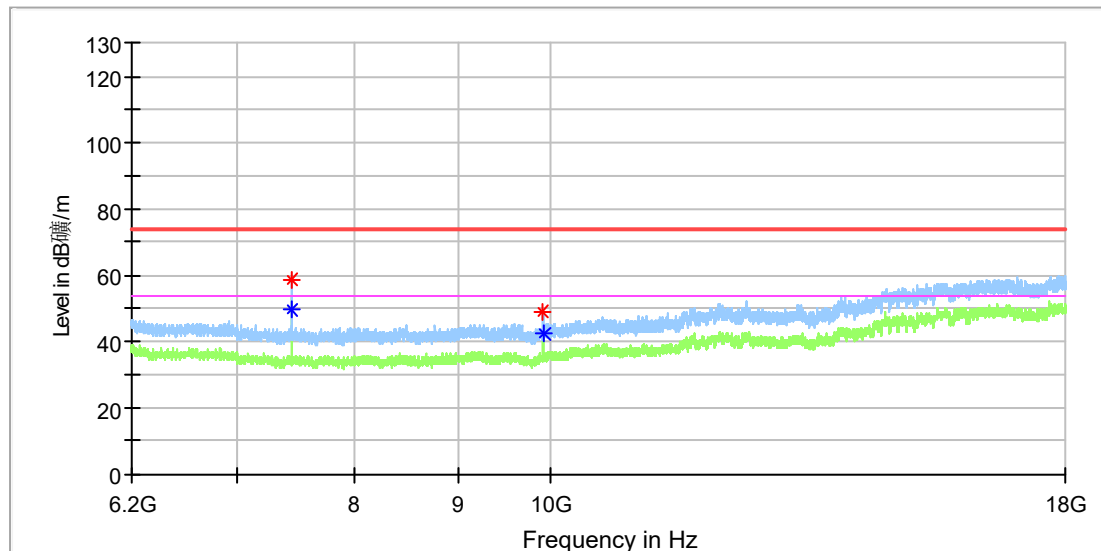
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2287.500000	50.72	---	74.00	23.28	150.0	V	90.0	8.0
2288.000000	---	44.41	54.00	9.59	150.0	V	77.0	8.0
4959.500000	53.32	---	74.00	20.68	150.0	V	243.0	13.3
4960.000000	---	46.14	54.00	7.86	150.0	V	237.0	13.3

Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---	---	---	---

EUT Information

EUT Name: Bluetooth Speaker
Model: X4i
Test Mode: BLE 1M_High channel
Order No/Sample No: 168514196/A003881759-003
Test Voltage: Battery
Remark: Temp 24 Humi:50%
Test Standard: FCC 15.247
Tested By: Kei Zhang
Reviewed By: Terry Yin



Critical Freqs

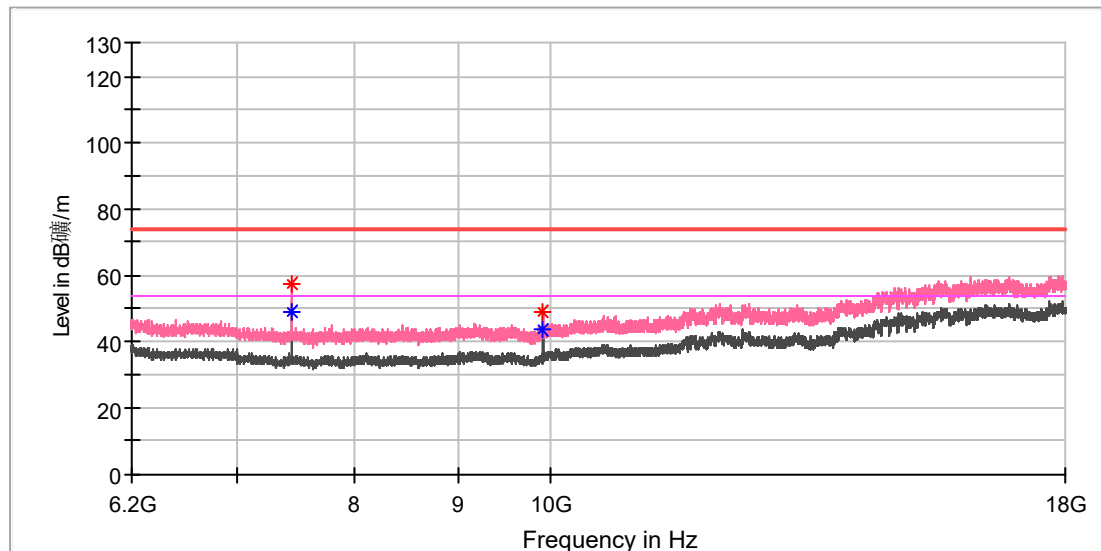
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7439.983333	58.51	---	74.00	15.49	150.0	H	125.0	8.4
7440.966667	---	49.28	54.00	4.72	150.0	H	125.0	8.4
9919.950000	49.26	---	74.00	24.74	150.0	H	257.0	10.8
9920.441667	---	42.62	54.00	11.38	150.0	H	147.0	10.8

Final Result

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---		---	---

EUT Information

EUT Name: Bluetooth Speaker
Model: X4i
Test Mode: BLE 1M_High channel
Order No/Sample No: 168514196/A003881759-003
Test Voltage: Battery
Remark: Temp 24 Humi:50%
Test Standard: FCC 15.247
Tested By: Kei Zhang
Reviewed By: Terry Yin



Critical Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7438.508333	---	48.69	54.00	5.31	150.0	V	243.0	8.4
7439.491667	57.17	---	74.00	16.83	150.0	V	243.0	8.4
9919.458333	---	43.61	54.00	10.39	150.0	V	210.0	10.8
9919.950000	48.95	---	74.00	25.05	150.0	V	210.0	10.8

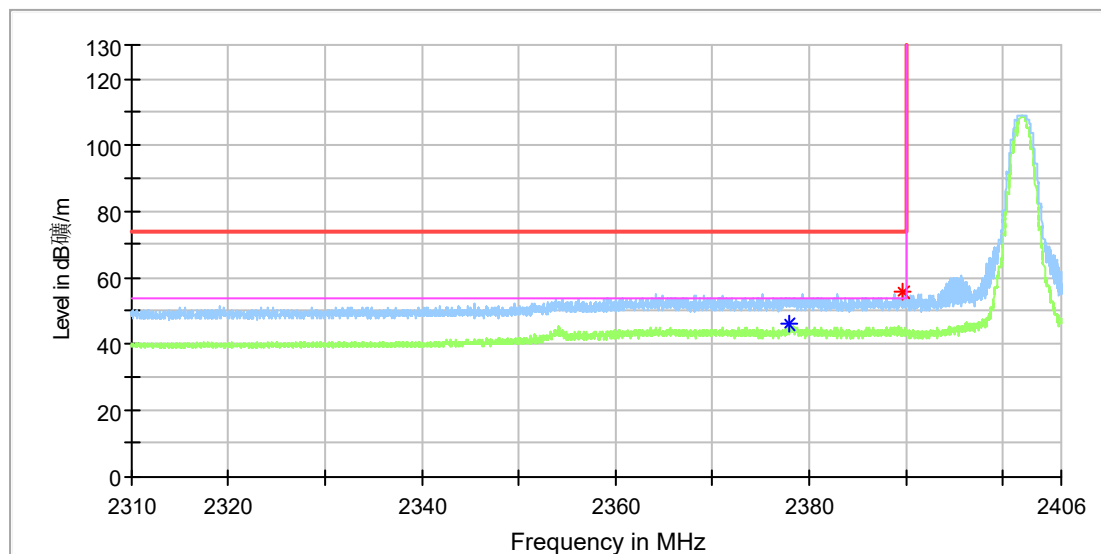
Final Result

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
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Appendix C.7: Test Results of Radiated Emissions in Restricted Bands

EUT Information

EUT Name: Bluetooth Speaker
Model: X4i
Test Mode: BLE 1M_Low channel
Order No/Sample No: 168514196/A003881759-003
Test Voltage: Battery
Remark: Temp 24 Humi:50%
Test Standard: FCC 15.247
Tested By: Kei Zhang
Reviewed By: Terry Yin



Critical Freqs

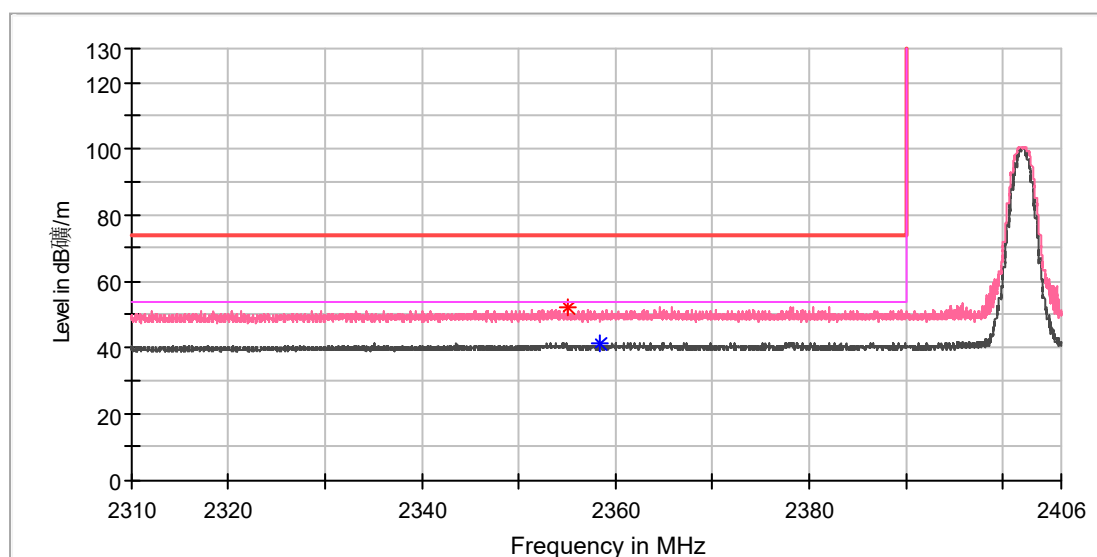
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2377.955882	---	46.17	54.00	7.83	150.0	H	102.0	8.5
2389.617647	55.37	---	74.00	18.63	150.0	H	136.0	8.5

Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---		---	---

EUT Information

EUT Name:	Bluetooth Speaker
Model:	X4i
Test Mode:	BLE 1M_Low channel
Order No/Sample No:	168514196/A003881759-003
Test Voltage:	Battery
Remark:	Temp 24 Humi:50%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical Freqs

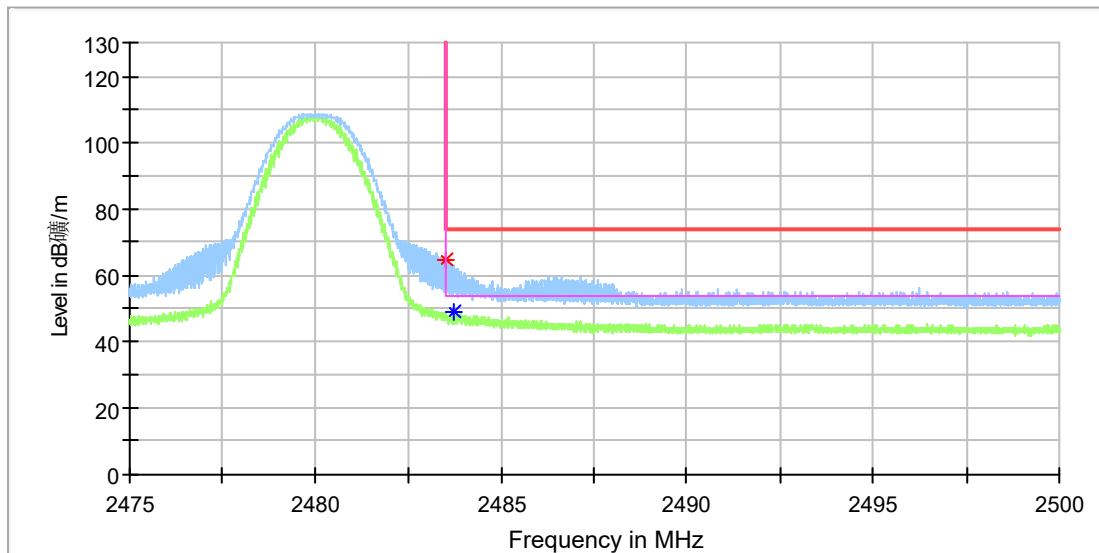
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2355.191177	51.80	---	74.00	22.20	150.0	V	212.0	8.5
2358.323530	---	41.36	54.00	12.64	150.0	V	70.0	8.5

Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---		---	---

EUT Information

EUT Name:	Bluetooth Speaker
Model:	X4i
Test Mode:	BLE 1M_High channel
Order No/Sample No:	168514196/A003881759-003
Test Voltage:	Battery
Remark:	Temp 24 Humi:50%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical Freqs

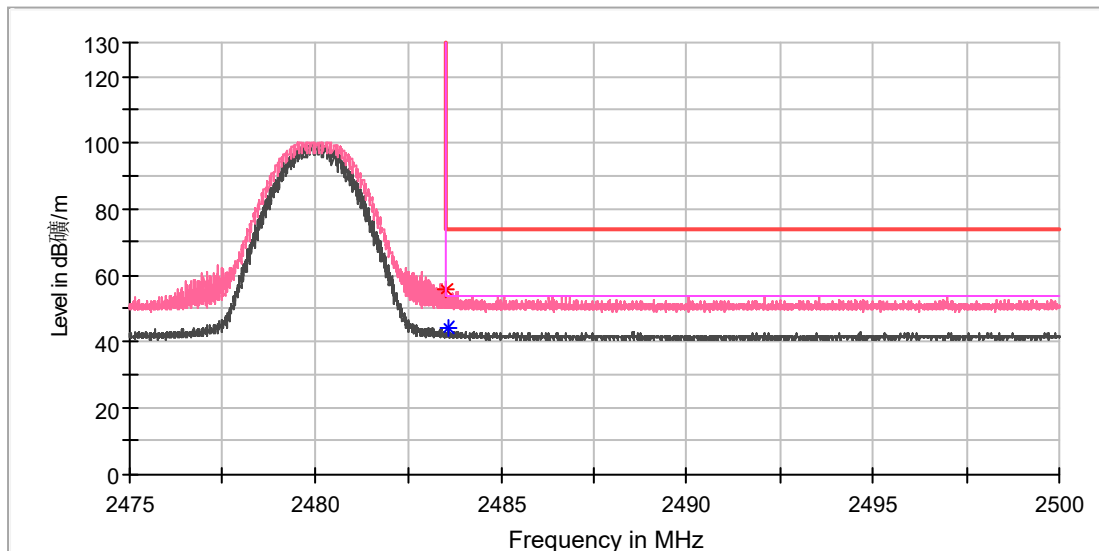
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2483.525735	64.45	---	74.00	9.55	150.0	H	113.0	9.0
2483.713235	---	48.71	54.00	5.29	150.0	H	94.0	9.0

Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---		---	---

EUT Information

EUT Name:	Bluetooth Speaker
Model:	X4i
Test Mode:	BLE 1M_High channel
Order No/Sample No:	168514196/A003881759-003
Test Voltage:	Battery
Remark:	Temp 24 Humi:50%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical Freqs

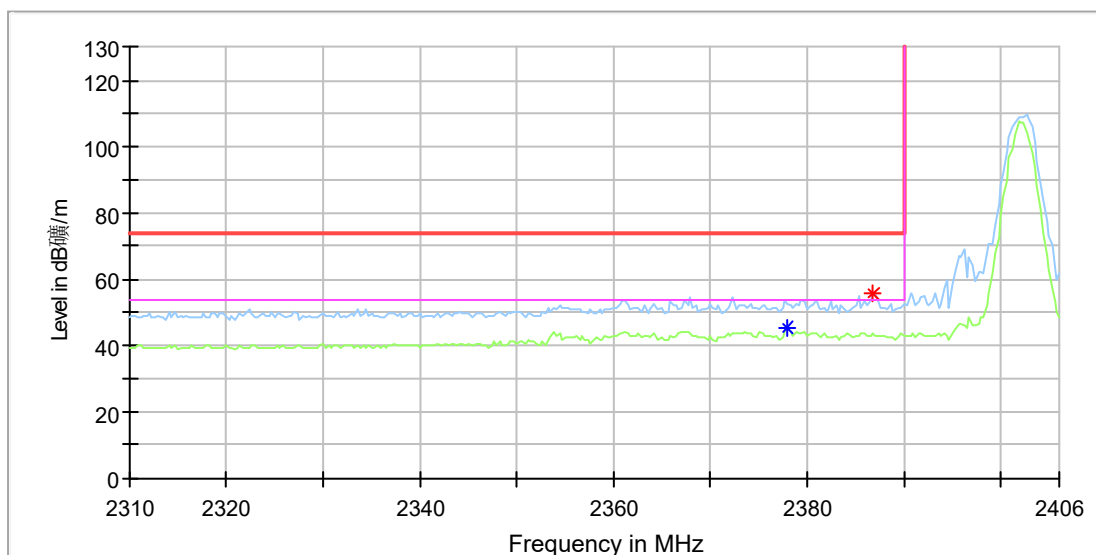
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2483.536765	55.60	---	74.00	18.40	150.0	V	74.0	9.0
2483.588235	---	44.00	54.00	10.00	150.0	V	83.0	9.0

Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---		---	---

EUT Information

EUT Name:	Bluetooth Speaker
Model:	X4i
Test Mode:	BLE 2M_Low channel
Order No/Sample No:	168514196/A003881759-003
Test Voltage:	Battery
Remark:	Temp 24 Humi:50%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical Freqs

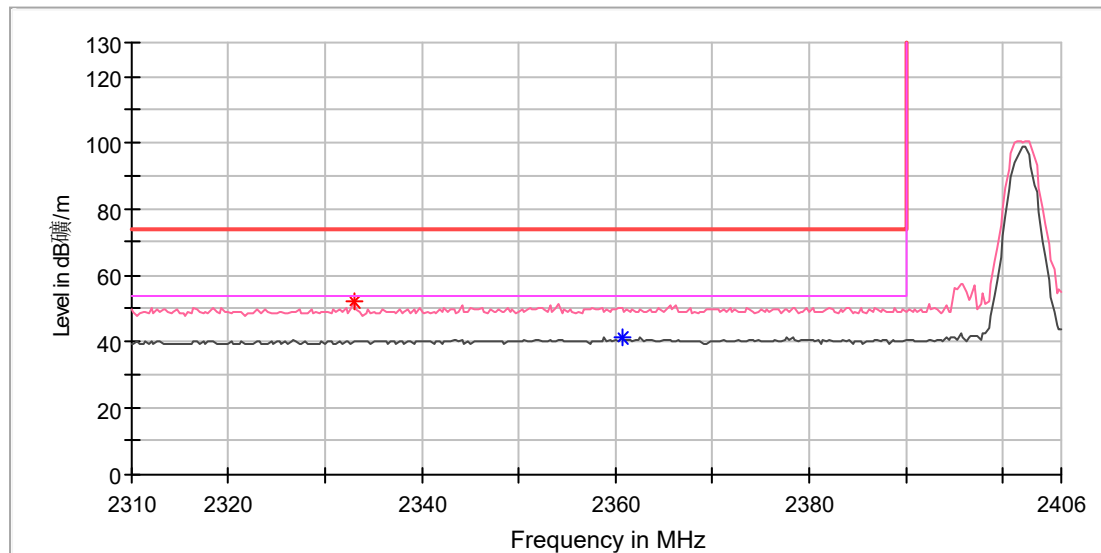
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2377.941177	---	45.19	54.00	8.81	150.0	H	128.0	8.5
2386.764706	55.91	---	74.00	18.09	150.0	H	117.0	8.5

Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---		---	---

EUT Information

EUT Name:	Bluetooth Speaker
Model:	X4i
Test Mode:	BLE 2M_Low channel
Order No/Sample No:	168514196/A003881759-003
Test Voltage:	Battery
Remark:	Temp 24 Humi:50%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical Freqs

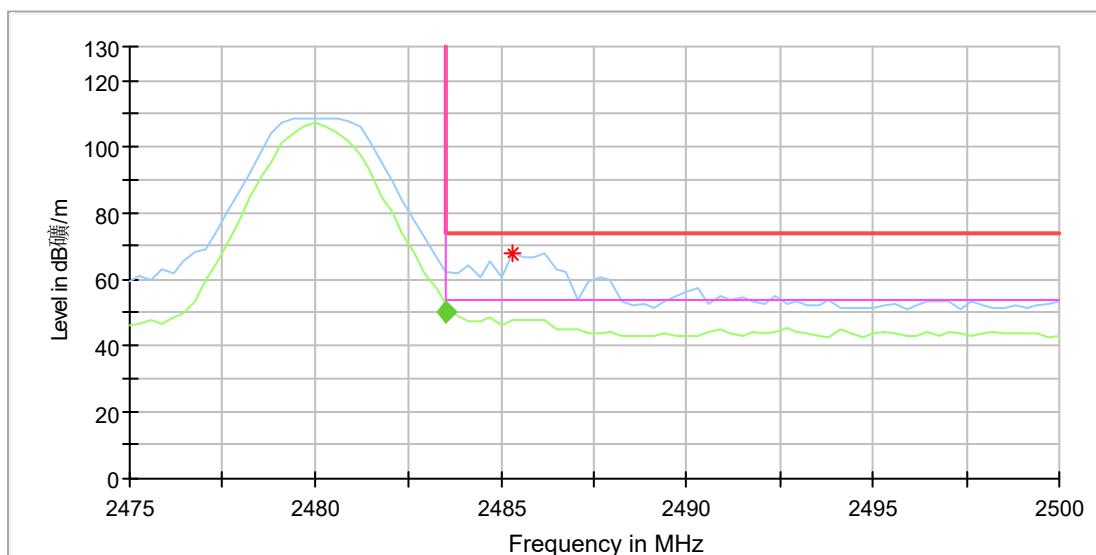
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2332.941177	51.97	---	74.00	22.03	150.0	V	11.0	8.3
2360.588235	---	41.02	54.00	12.98	150.0	V	83.0	8.5

Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---		---	---

EUT Information

EUT Name:	Bluetooth Speaker
Model:	X4i
Test Mode:	BLE 2M_High channel
Order No/Sample No:	168514196/A003881759-003
Test Voltage:	Battery
Remark:	Temp 24 Humi:50%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical Freqs

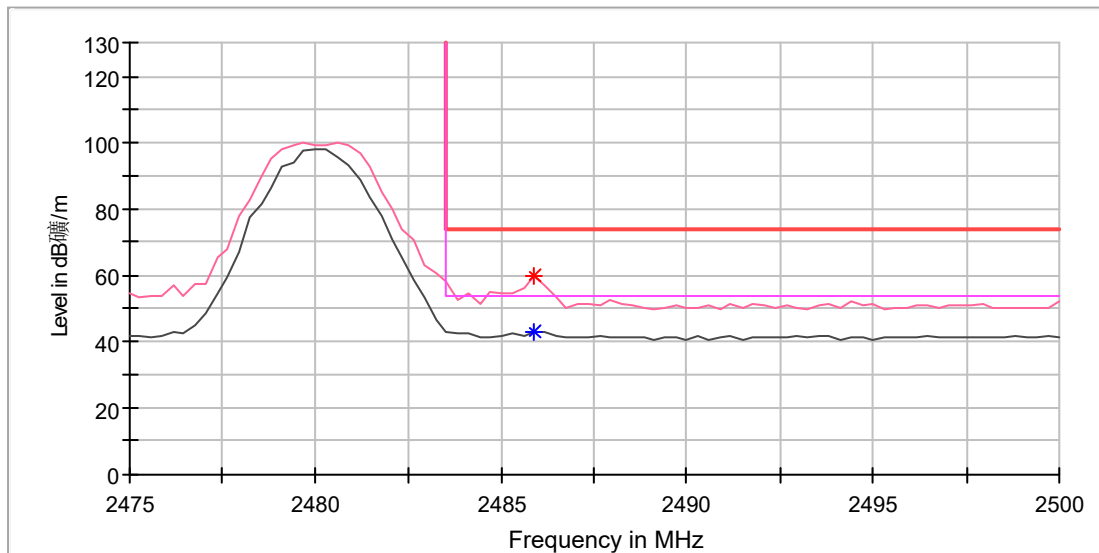
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2485.294118	67.77	---	74.00	6.23	150.0	H	93.0	9.0

Final Result

Frequency (MHz)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2483.529412	49.92	54.00	4.08	145.0	H	116.0	9.0

EUT Information

EUT Name:	Bluetooth Speaker
Model:	X4i
Test Mode:	BLE 2M_High channel
Order No/Sample No:	168514196/A003881759-003
Test Voltage:	Battery
Remark:	Temp 24 Humi:50%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical Freqs

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2485.882353	59.80	---	74.00	14.20	150.0	V	77.0	9.0
2485.882353	---	43.22	54.00	10.78	150.0	V	77.0	9.0

Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---		---	---