Appendix B: Test Results of Bluetooth BDR/EDR

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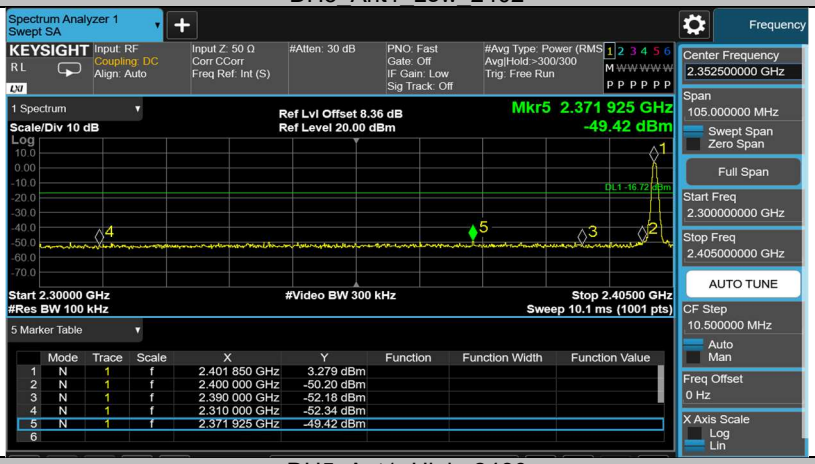
Appendix B.1: Test Results of Conducted Spurious Emissions Measured in 100 kHz Bandwidth

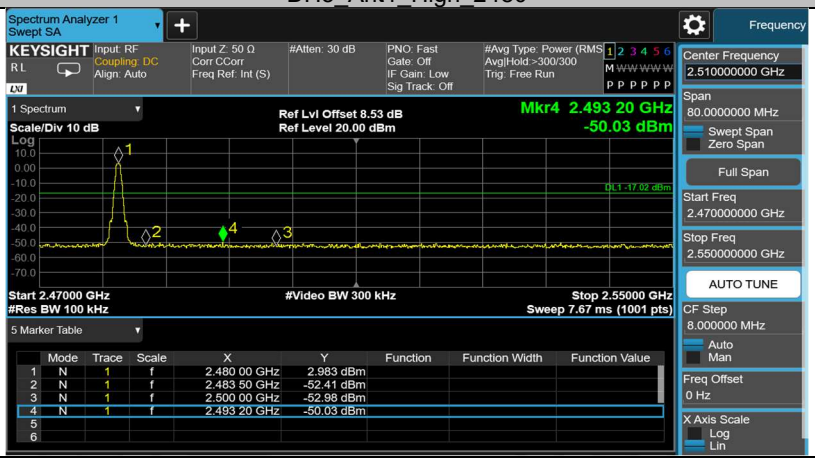
Band Edge

TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	3.28	-49.42	≤-16.72	PASS
		High	2480	2.98	-50.04	≤-17.02	PASS
		Low	Hop_2402	2.39	-50.54	≤-17.61	PASS
		High	Hop_2480	2.59	-50.08	≤-17.41	PASS
3DH5	Ant1	Low	2402	3.00	-50.38	≤-17	PASS
		High	2480	2.93	-50.21	≤-17.07	PASS
		Low	Hop_2402	-2.56	-49.58	≤-22.56	PASS
		High	Hop_2480	-1.04	-50.19	≤-21.04	PASS

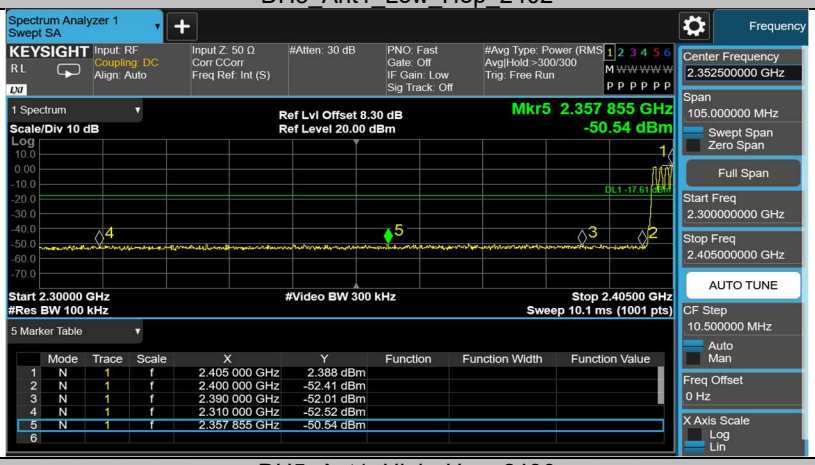
DH5_Ant1_Low_2402



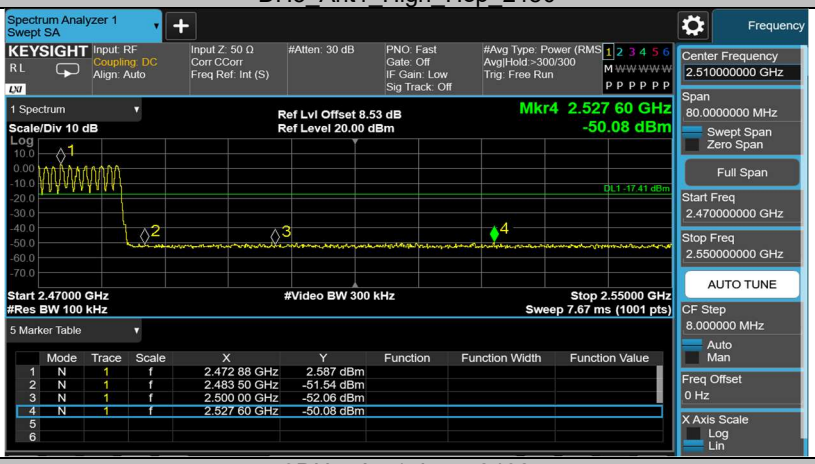
DH5_Ant1_High_2480



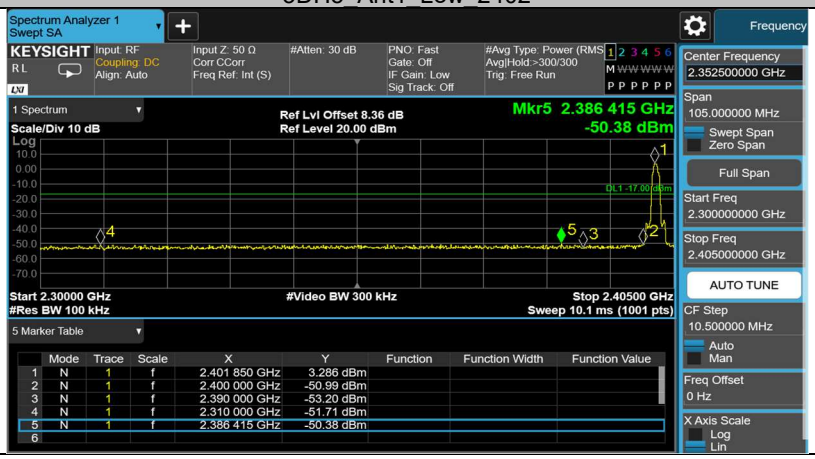
DH5_Ant1_Low_Hop_2402



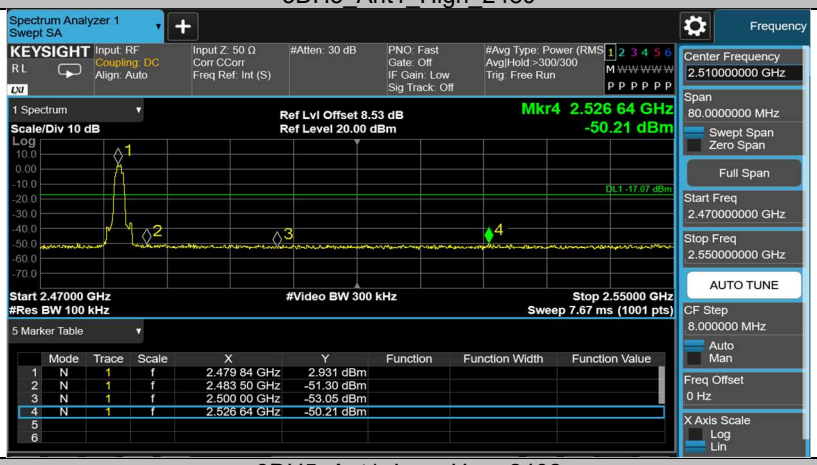
DH5_Ant1_High_Hop_2480



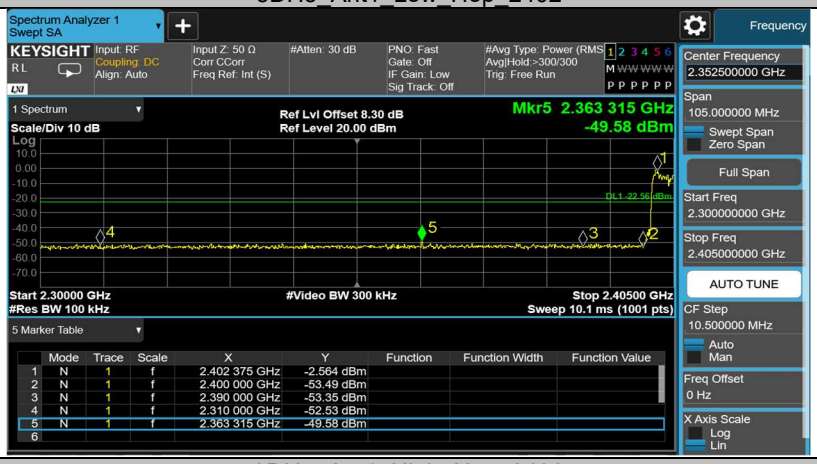
3DH5_Ant1_Low_2402



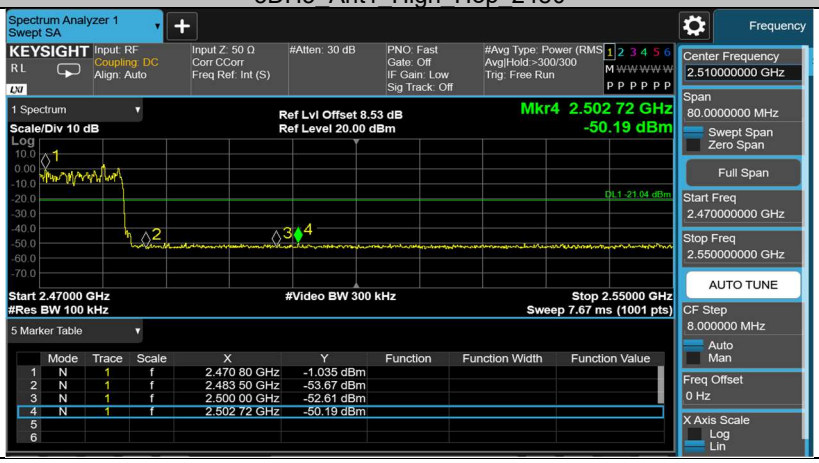
3DH5_Ant1_High_2480



3DH5_Ant1_Low_Hop_2402



3DH5_Ant1_High_Hop_2480



Note: 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.

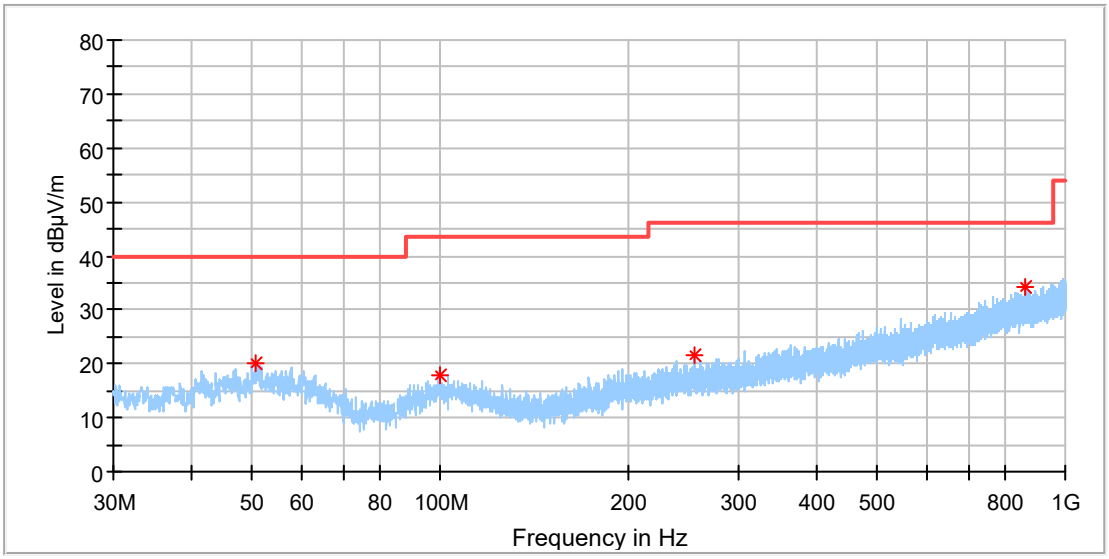
Appendix B.2: Test Results of Radiated Spurious Emissions

Note: This testing was carried out on different modulations, but only the worst case was presented in this report.

30MHz - 1GHz

EUT Information

EUT Name:	Bluetooth Speaker
Model:	M02
Test Mode:	BR_DH5_Mid channel
Order No/Sample No:	168334216/A003201415-002
Test Voltage:	AC 120V, 60Hz
Remark:	Temp 23 Humi:58%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

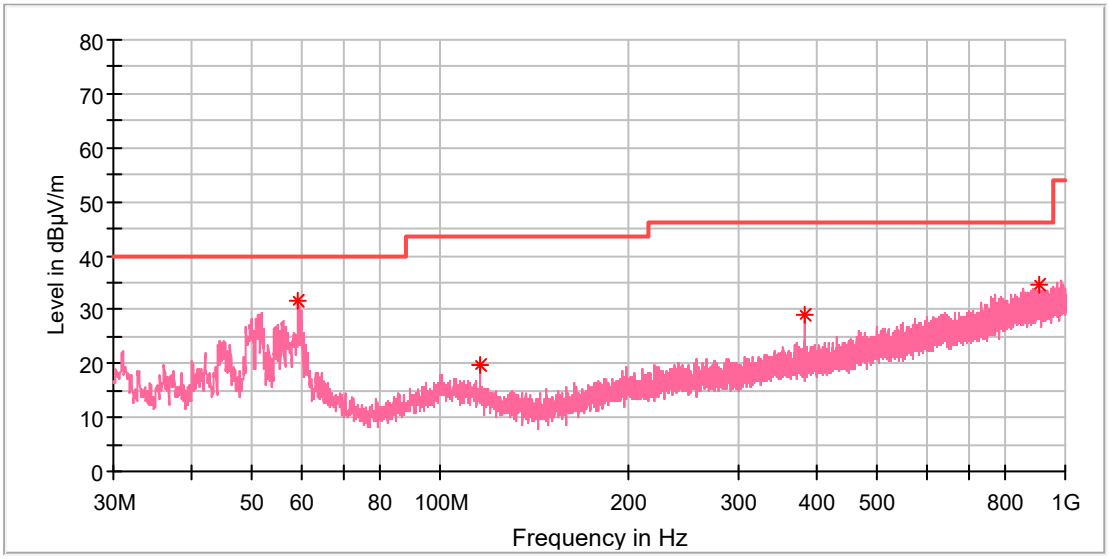
Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
50.661000	20.13	40.00	19.87	100.0	H	0.0	-18.3
99.791500	18.01	43.50	25.49	100.0	H	191.0	-19.0
255.864500	21.72	46.00	24.28	100.0	H	15.0	-17.1
860.853500	34.13	46.00	11.87	100.0	H	344.0	-5.3

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:	M02
Test Mode:	BR_DH5_Mid channel
Order No/Sample No:	168334216/A003201415-002
Test Voltage:	AC 120V, 60Hz
Remark:	Temp 23 Humi:58%
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)
59.148500	31.81	40.00	8.19	100.0	V	262.0	-18.9
115.602500	19.55	43.50	23.95	100.0	V	199.0	-19.9
383.953000	29.19	46.00	16.81	100.0	V	351.0	-14.1
911.293500	34.57	46.00	11.43	100.0	V	0.0	-4.9

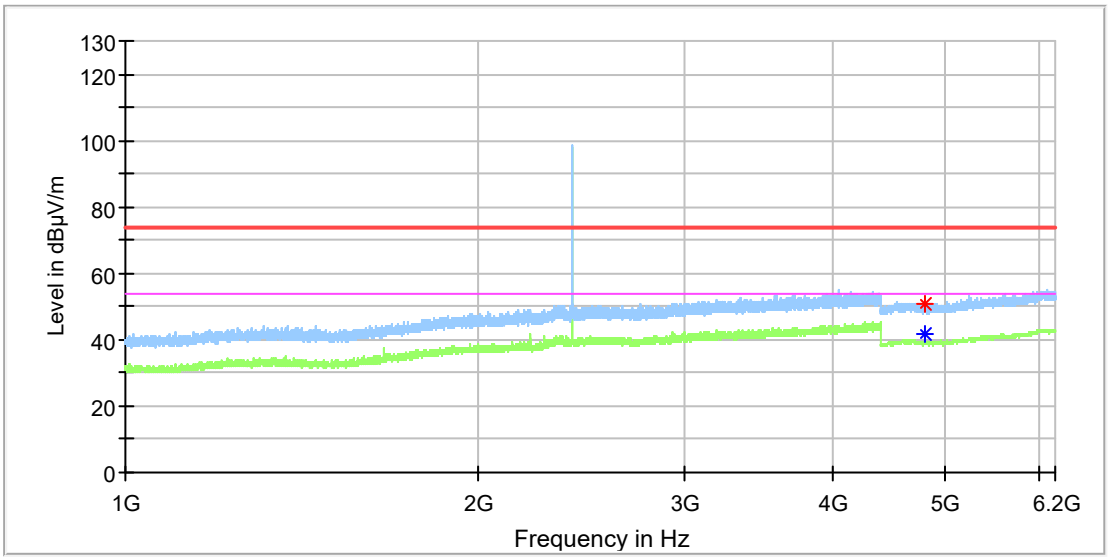
Final_Result

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:	M02
Test Mode:	BR_DH5_Low channel
Order No/Sample No:	168334216/A003183556-002
Test Voltage:	AC 120V, 60Hz
Remark:	Temp 23 Humi:58%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

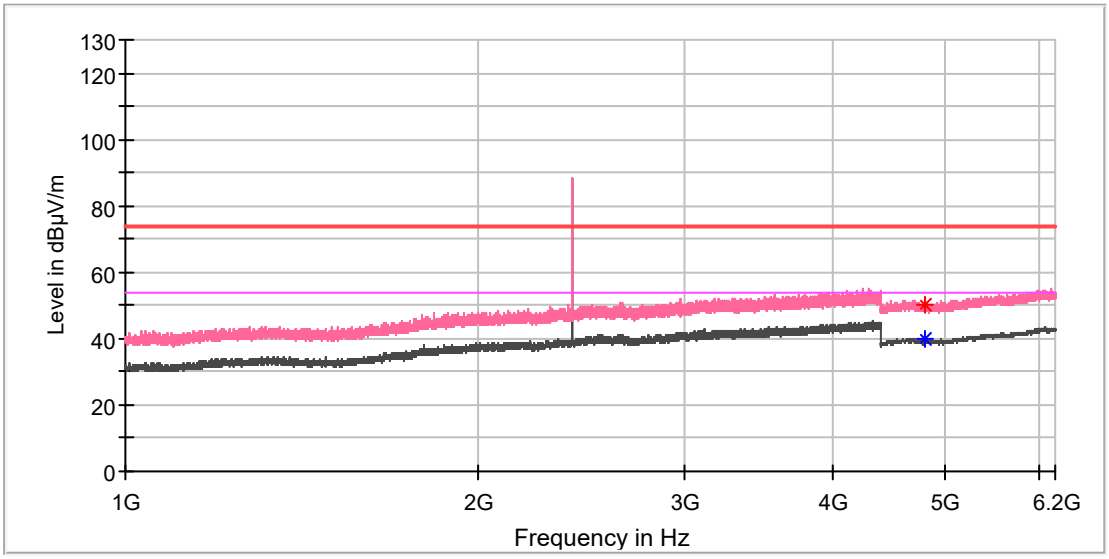
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4803.500000	50.99	---	74.00	23.01	100.0	H	342.0	11.8
4804.000000	---	41.65	54.00	12.35	100.0	H	115.0	11.8

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:	M02
Test Mode:	BR_DH5_Low channel
Order No/Sample No:	168334216/A003183556-002
Test Voltage:	AC 120V, 60Hz
Remark:	Temp 23 Humi:58%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

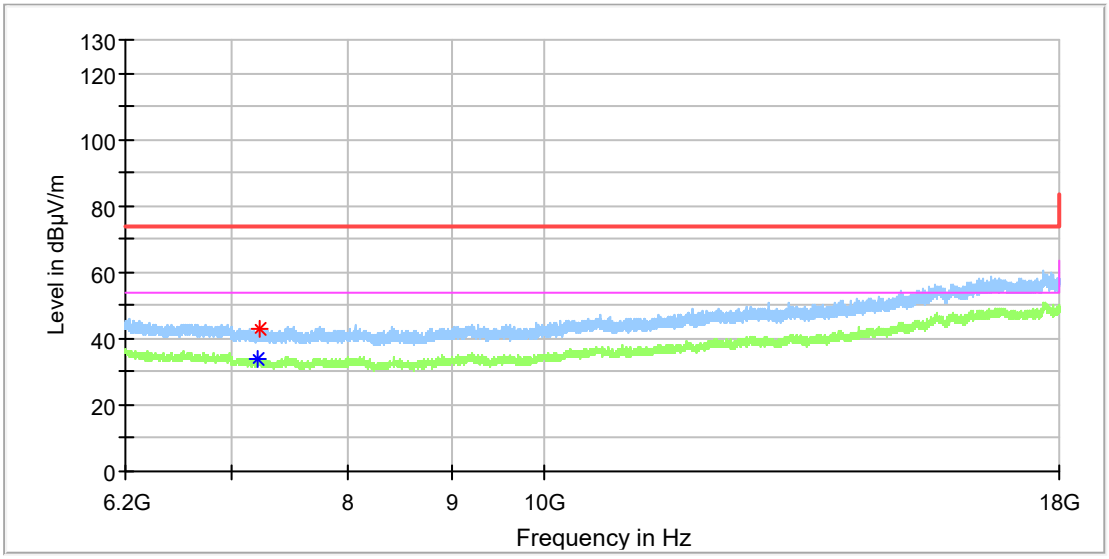
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4803.500000	---	40.06	54.00	13.94	100.0	V	225.0	11.8
4810.500000	50.31	---	74.00	23.69	100.0	V	260.0	11.8

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:	M02
Test Mode:	BR_DH5_Low channel
Order No/Sample No:	168334216/A003183556-002
Test Voltage:	AC 120V, 60Hz
Remark:	Temp 23 Humi:58%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

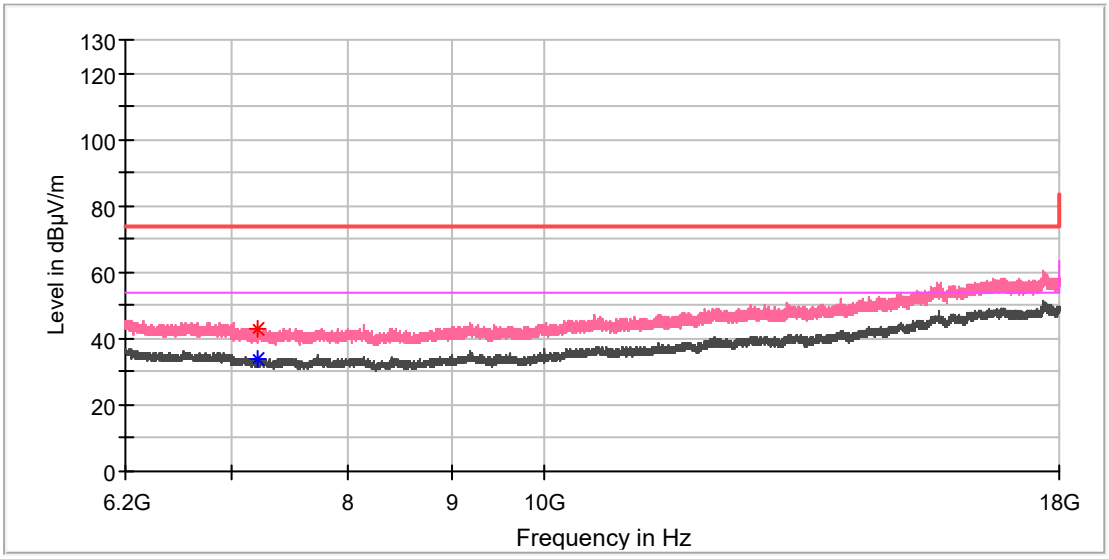
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7209.391667	---	33.64	54.00	20.36	100.0	H	1.0	8.8
7226.108333	42.82	---	74.00	31.18	100.0	H	22.0	8.7

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:	M02
Test Mode:	BR_DH5_Low channel
Order No/Sample No:	168334216/A003183556-002
Test Voltage:	AC 120V, 60Hz
Remark:	Temp 23 Humi:58%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

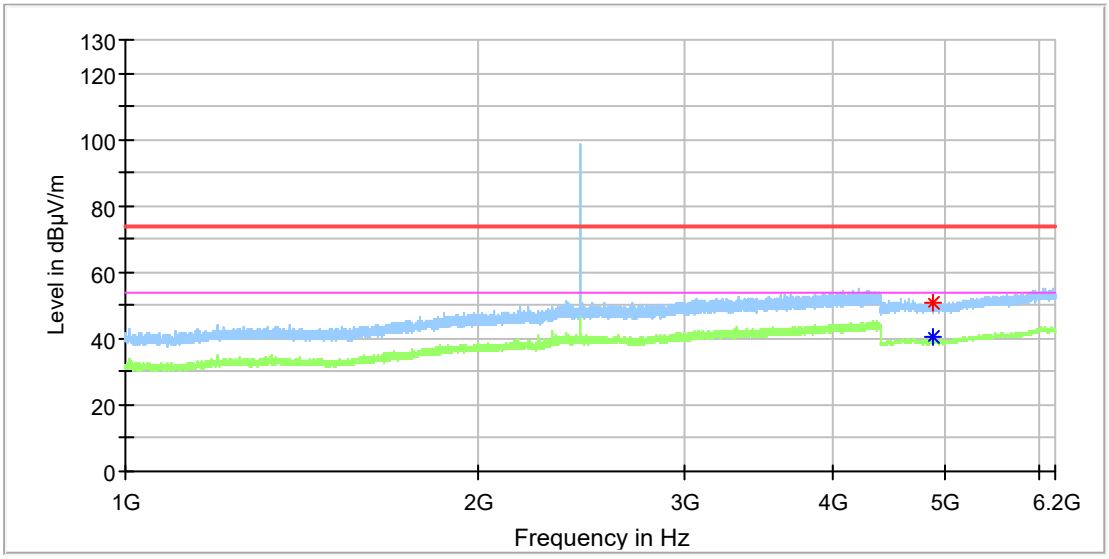
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7204.966667	42.77	---	74.00	31.23	100.0	V	256.0	8.8
7205.950000	---	33.76	54.00	20.24	100.0	V	184.0	8.8

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:	M02
Test Mode:	BR_DH5_Mid channel
Order No/Sample No:	168334216/A003183556-002
Test Voltage:	AC 120V, 60Hz
Remark:	Temp 23 Humi:58%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

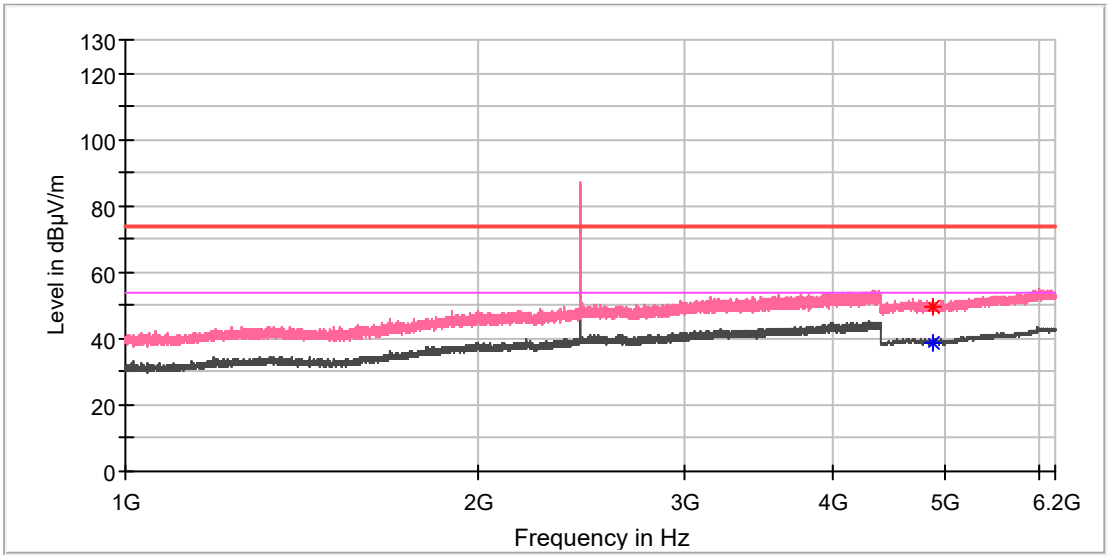
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4882.000000	---	40.66	54.00	13.34	100.0	H	184.0	11.8
4883.500000	50.69	---	74.00	23.31	100.0	H	170.0	11.8

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:	M02
Test Mode:	BR_DH5_Mid channel
Order No/Sample No:	168334216/A003183556-002
Test Voltage:	AC 120V, 60Hz
Remark:	Temp 23 Humi:58%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

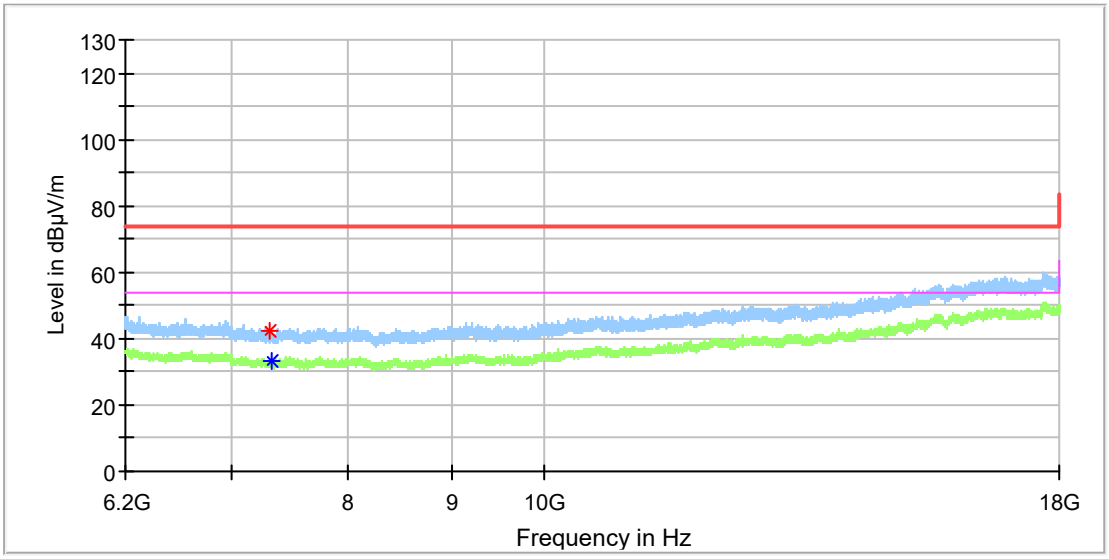
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4883.000000	---	38.81	54.00	15.19	100.0	V	57.0	11.8
4884.000000	49.86	---	74.00	24.14	100.0	V	262.0	11.8

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:	M02
Test Mode:	BR_DH5_Mid channel
Order No/Sample No:	168334216/A003183556-002
Test Voltage:	AC 120V, 60Hz
Remark:	Temp 23 Humi:58%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

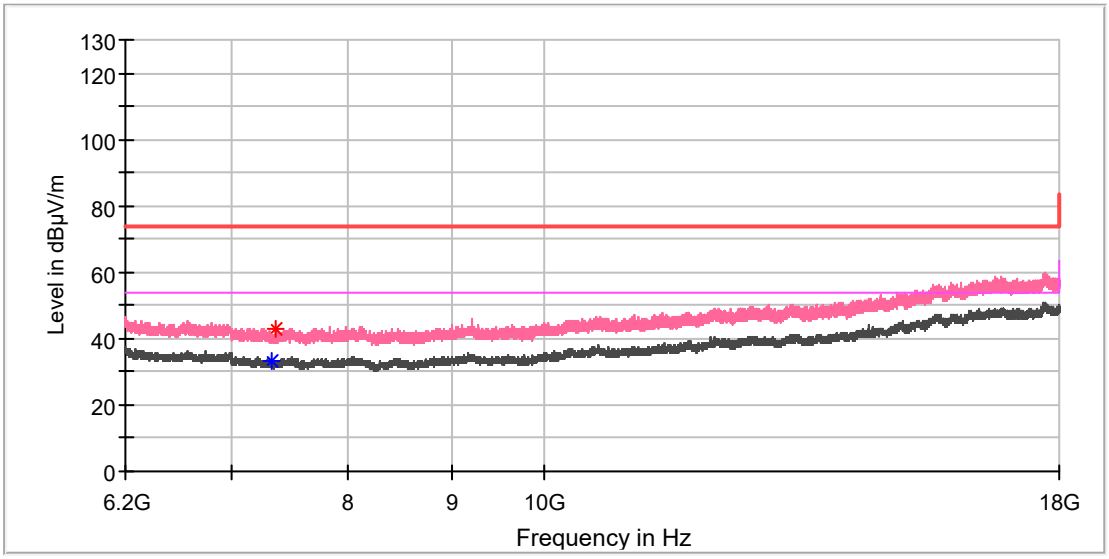
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7314.116667	42.36	---	74.00	31.64	100.0	H	0.0	8.2
7321.491667	---	33.33	54.00	20.67	100.0	H	236.0	8.2

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:	M02
Test Mode:	BR_DH5_Mid channel
Order No/Sample No:	168334216/A003183556-002
Test Voltage:	AC 120V, 60Hz
Remark:	Temp 23 Humi:58%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

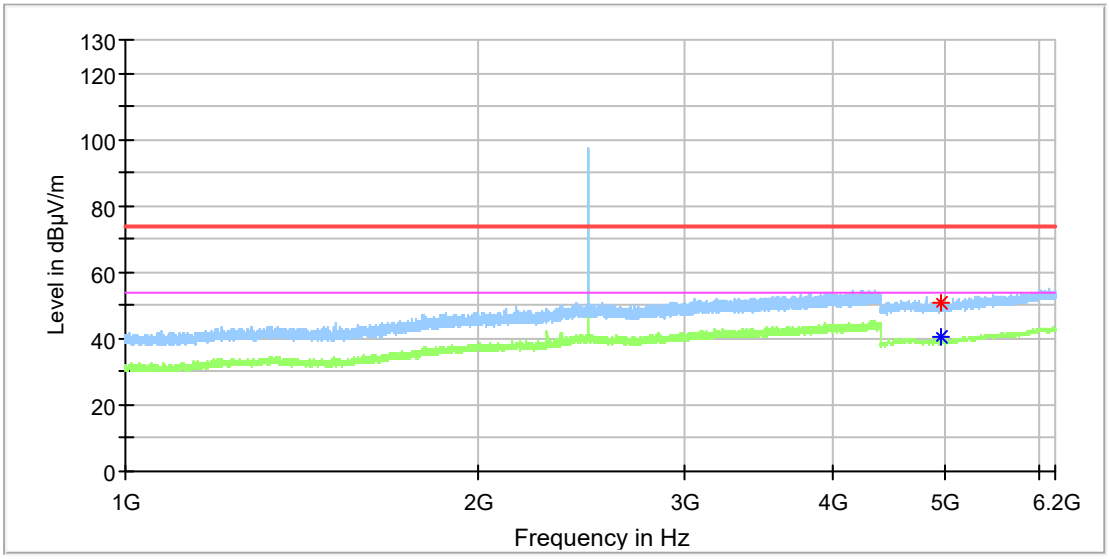
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7328.375000	---	33.13	54.00	20.88	100.0	V	8.0	8.1
7354.925000	43.18	---	74.00	30.82	100.0	V	106.0	8.1

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:	M02
Test Mode:	BR_DH5_High channel
Order No/Sample No:	168334216/A003183556-002
Test Voltage:	AC 120V, 60Hz
Remark:	Temp 23 Humi:58%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

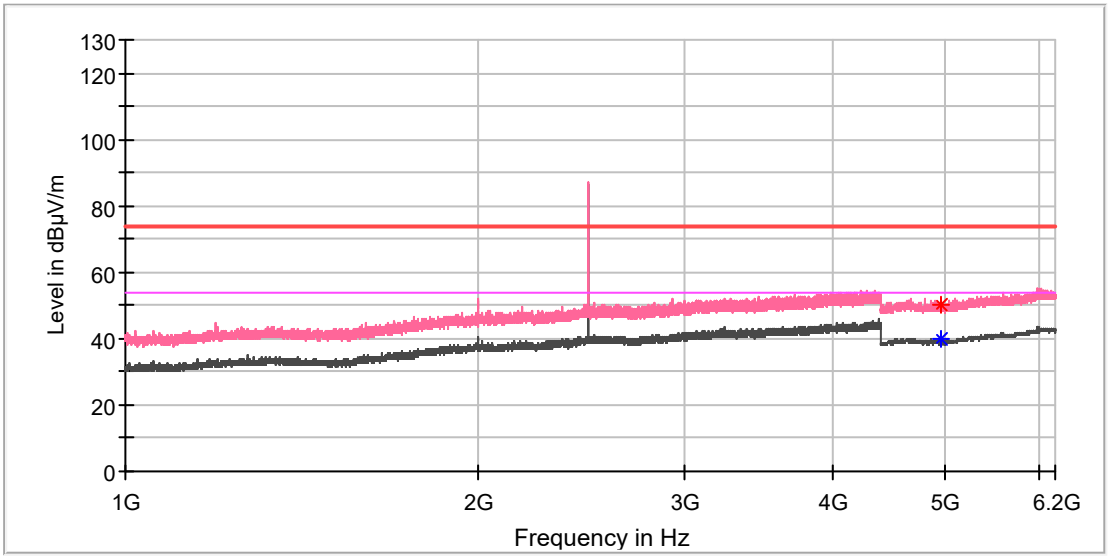
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4951.500000	50.50	---	74.00	23.50	100.0	H	28.0	11.8
4959.500000	---	40.42	54.00	13.58	100.0	H	277.0	11.8

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:	M02
Test Mode:	BR_DH5_High channel
Order No/Sample No:	168334216/A003183556-002
Test Voltage:	AC 120V, 60Hz
Remark:	Temp 23 Humi:58%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

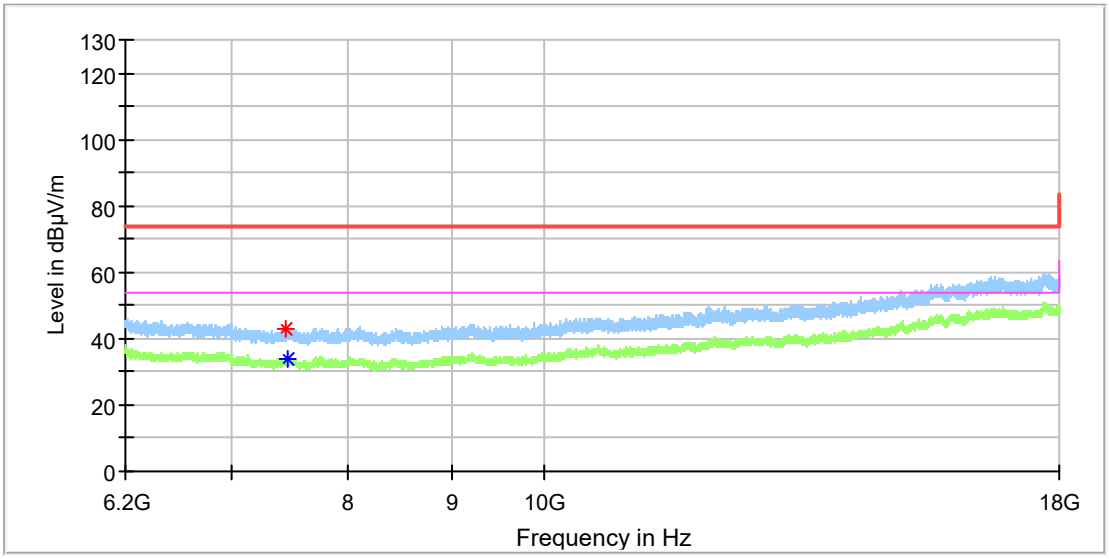
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4958.000000	50.08	---	74.00	23.93	100.0	V	281.0	11.8
4959.500000	---	39.62	54.00	14.38	100.0	V	89.0	11.8

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:	M02
Test Mode:	BR_DH5_High channel
Order No/Sample No:	168334216/A003183556-002
Test Voltage:	AC 120V, 60Hz
Remark:	Temp 23 Humi:58%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

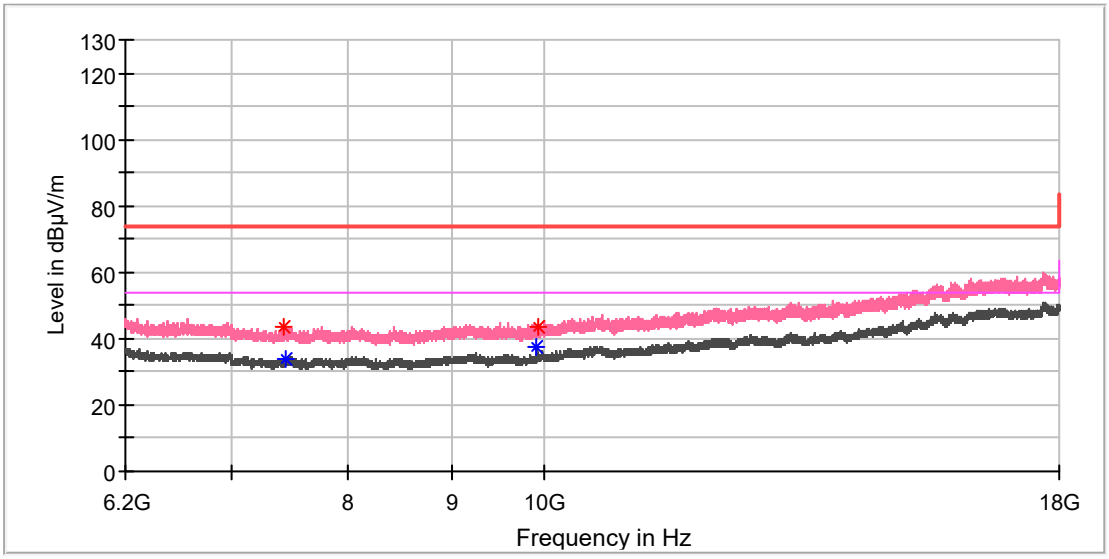
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7444.408333	43.02	---	74.00	30.98	100.0	H	56.0	8.5
7458.666667	---	34.03	54.00	19.97	100.0	H	82.0	8.5

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:	M02
Test Mode:	BR_DH5_High channel
Order No/Sample No:	168334216/A003183556-002
Test Voltage:	AC 120V, 60Hz
Remark:	Temp 23 Humi:58%
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)
7422.775000	43.56	---	74.00	30.44	100.0	V	342.0	8.4
7441.458333	---	34.06	54.00	19.94	100.0	V	329.0	8.4
9919.950000	---	37.75	54.00	16.25	100.0	V	80.0	10.8
9920.441667	43.34	---	74.00	30.66	100.0	V	80.0	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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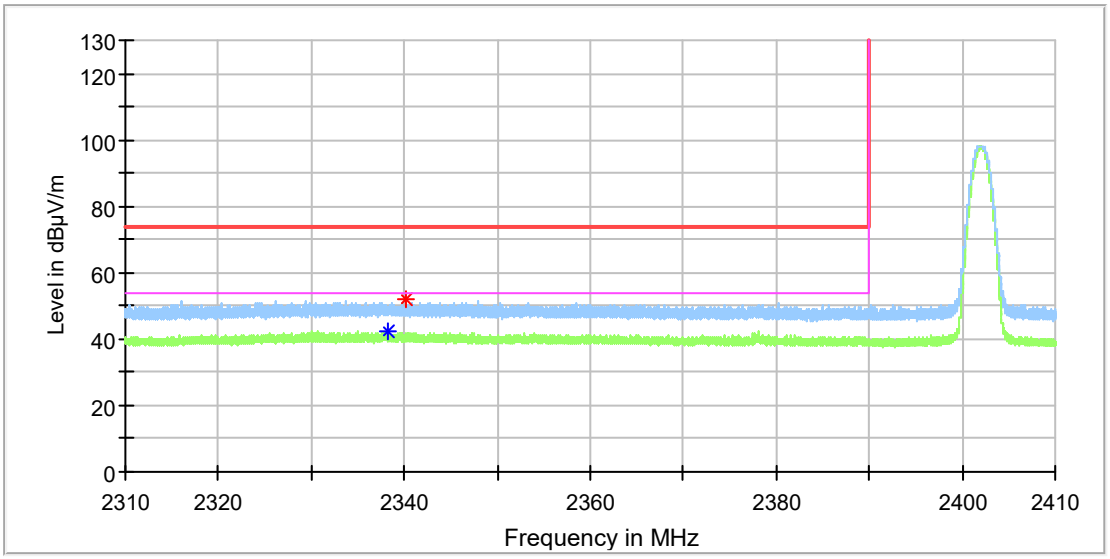
Appendix B.3: Test Results of Radiated Emissions in Restricted Bands

EUT Information

EUT Name:	Bluetooth Speaker
Model:	M02
Test Mode:	BR_DH5_Low channel
Order No/Sample No:	168334216/A003183556-002
Test Voltage:	AC 120V, 60Hz
Remark:	Temp 23 Humi:58%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

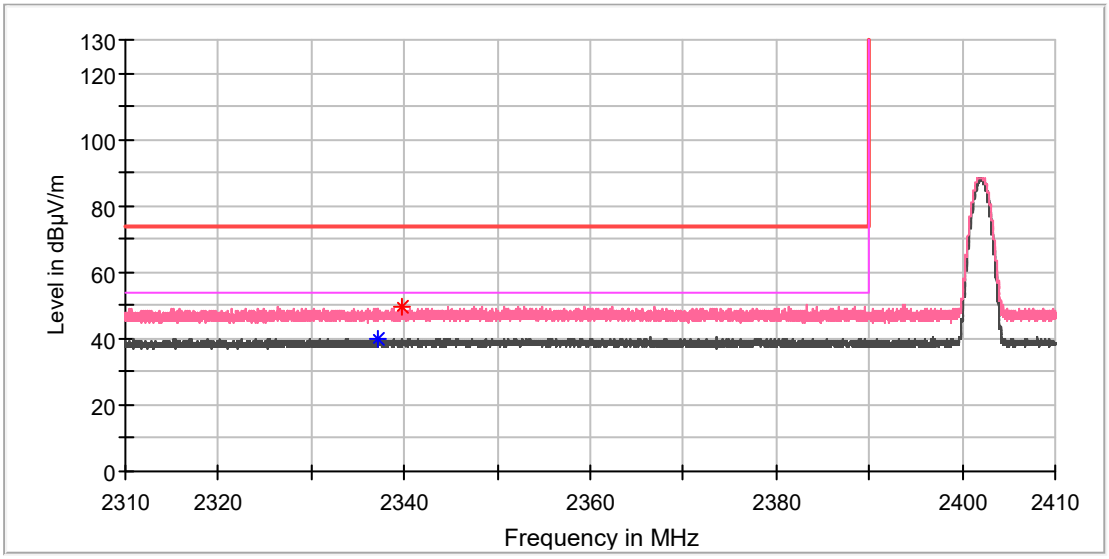
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2338.190000	---	42.35	54.00	11.65	100.0	H	0.0	6.8
2340.080000	52.00	---	74.00	22.00	100.0	H	100.0	6.8

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:	M02
Test Mode:	BR_DH5_Low channel
Order No/Sample No:	168334216/A003183556-002
Test Voltage:	AC 120V, 60Hz
Remark:	Temp 23 Humi:58%
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)
2337.175000	---	39.81	54.00	14.19	100.0	V	144.0	6.8
2339.805000	49.51	---	74.00	24.49	100.0	V	3.0	6.8

Final_Result

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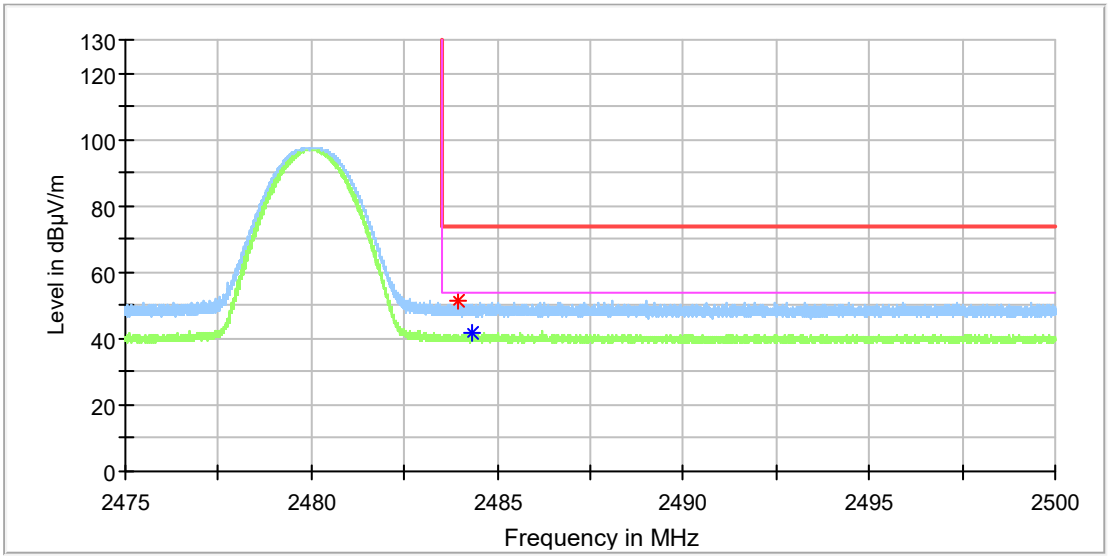
EUT Information

EUT Name:	Bluetooth Speaker
Model:	M02
Test Mode:	BR_DH5_High channel
Order No/Sample No:	168334216/A003183556-002
Test Voltage:	AC 120V, 60Hz
Remark:	Temp 23 Humi:58%
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)
2483.918750	51.21	---	74.00	22.79	100.0	H	279.0	7.4
2484.307500	---	41.80	54.00	12.20	100.0	H	352.0	7.4

Final_Result

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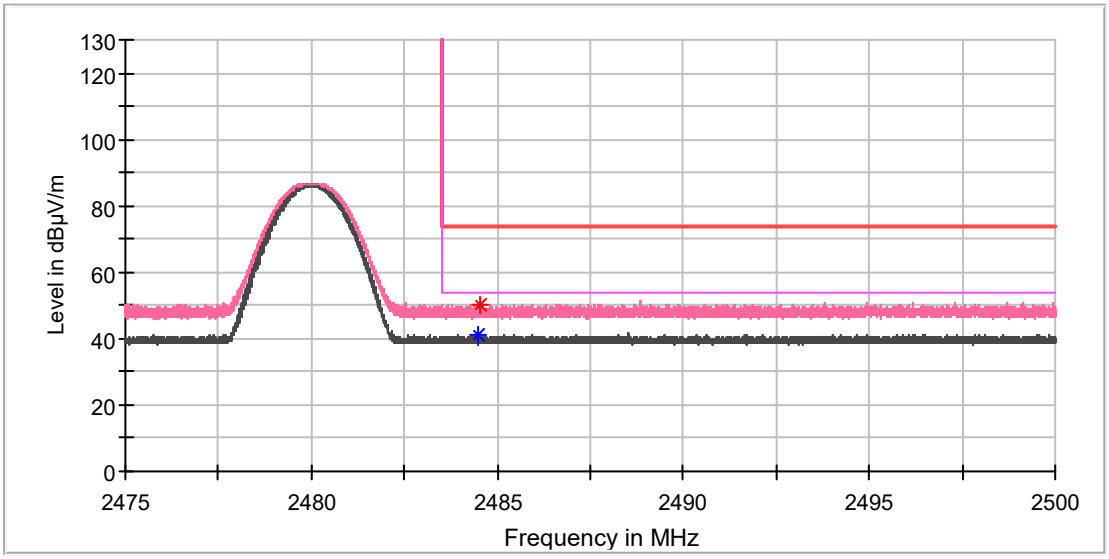
EUT Information

EUT Name:	Bluetooth Speaker
Model:	M02
Test Mode:	BR_DH5_High channel
Order No/Sample No:	168334216/A003183556-002
Test Voltage:	AC 120V, 60Hz
Remark:	Temp 23 Humi:58%
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)
2484.468750	---	40.82	54.00	13.18	100.0	V	44.0	7.4
2484.552500	50.41	---	74.00	23.59	100.0	V	32.0	7.4

Final_Result

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