

Appendix B: Test Results of Bluetooth LE

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

TestMode	Antenna	Channel	Result [dBm/3-100kHz]	Limit [dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-8.63	≤8.00	PASS
		2440	-8.59	≤8.00	PASS
		2480	-9.02	≤8.00	PASS



Appendix B.2: Test Results of 6dB Bandwidth

TestMode	Antenna	Channel	DTS BW [MHz]	FL [MHz]	FH [MHz]	Limit [MHz]	Verdict
BLE_1M	Ant1	2402	0.696	2401.632	2402.328	0.5	PASS
		2440	0.660	2439.652	2440.312	0.5	PASS
		2480	0.676	2479.652	2480.328	0.5	PASS



Appendix B.3: Test Results of 99% Bandwidth

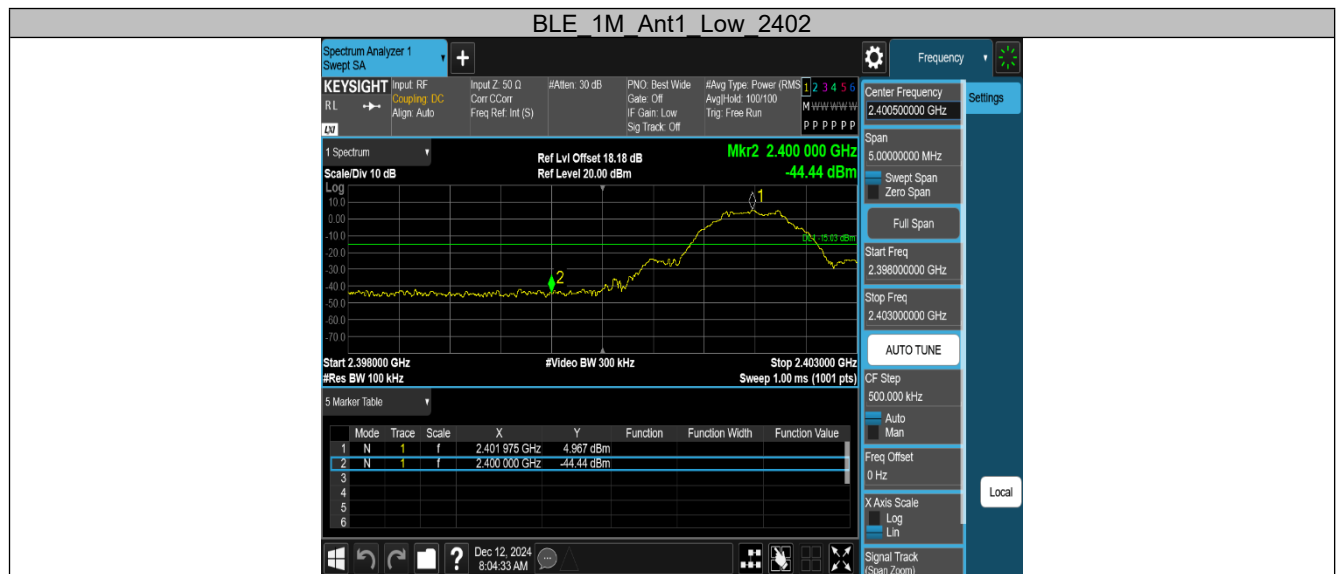
TestMode	Antenna	Channel	OCB [MHz]	FL [MHz]	FH [MHz]	Limit [MHz]	Verdict
BLE_1M	Ant1	2402	1.0653	2401.4566	2402.5219	---	PASS
		2440	1.0593	2439.4542	2440.5135	---	PASS
		2480	1.0669	2479.4530	2480.5199	---	PASS



Appendix B.4: Test Results of Conducted Spurious Emissions Measured in 100 kHz Bandwidth

Band Edge

TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
BLE_1M	Ant1	Low	2402	4.97	-44.44	≤-15.03	PASS
		High	2480	4.58	-44.11	≤-15.42	PASS



Conducted Spurious Emission

TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
BLE_1M	Ant1	2402	Reference	4.52	4.52	---	PASS
			30~1000	4.52	-41.11	≤-15.48	PASS
			1000~26500	4.52	-33.05	≤-15.48	PASS
		2440	Reference	4.32	4.32	---	PASS
			30~1000	4.32	-41.83	≤-15.68	PASS
			1000~26500	4.32	-33.03	≤-15.68	PASS
		2480	Reference	4.37	4.37	---	PASS
			30~1000	4.37	-42.29	≤-15.63	PASS
			1000~26500	4.37	-32.46	≤-15.63	PASS



BLE_1M_Ant1_2440_0~Reference



BLE_1M_Ant1_2440_30~1000



BLE_1M_Ant1_2440_1000~26500





Appendix B.5: Test Results of Radiated Spurious Emissions

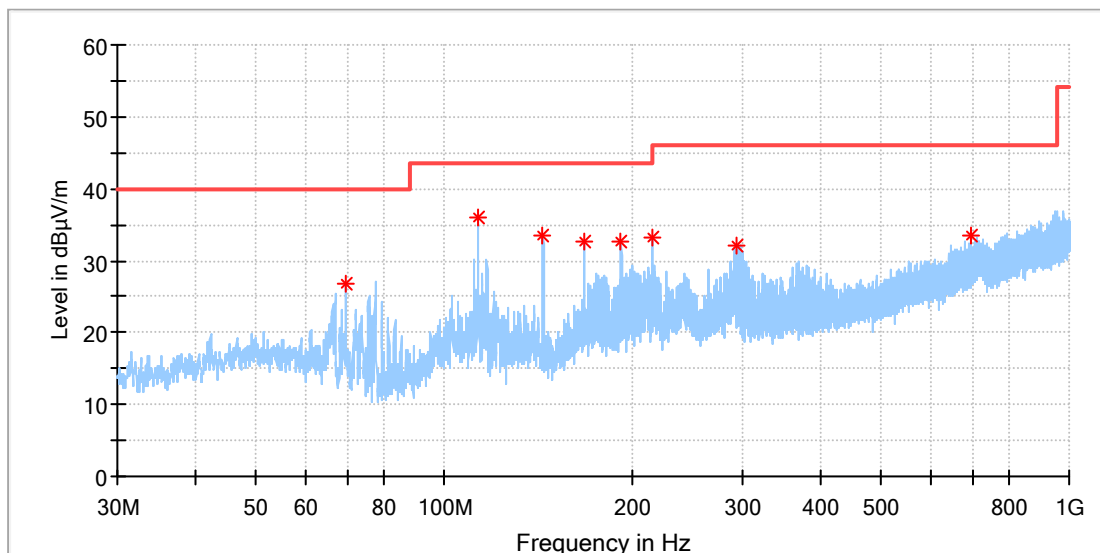
Note:

- 1) 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:	CORDLESS ROBOTIC POOL CLEANER
Model:	PRX9
Test Mode:	BLE 1M_Mid channel
Order No/Sample No:	168513747/A003916704-001
Test Voltage::	Battery
Remark:	Temp 23 Humi:53%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical Freqs

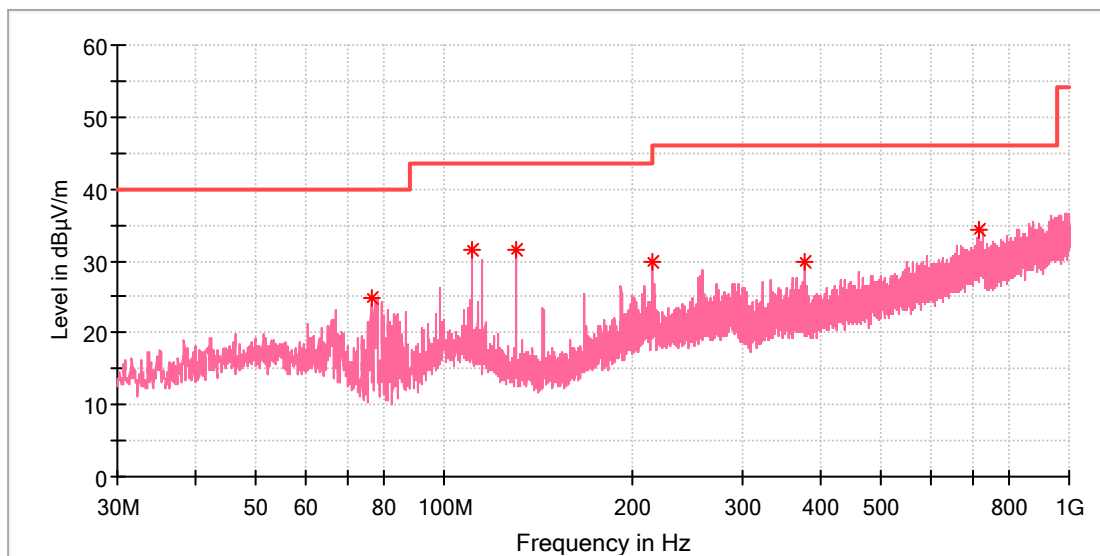
Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
69.620769	26.70	40.00	13.30	100.0	H	331.0	-21.8
113.420000	35.96	43.50	7.54	100.0	H	119.0	-19.6
144.012308	33.44	43.50	10.06	100.0	H	5.0	-22.4
168.038462	32.63	43.50	10.87	100.0	H	168.0	-21.4
192.027308	32.52	43.50	10.98	100.0	H	192.0	-19.5
216.016154	33.22	46.00	12.78	100.0	H	359.0	-18.7
294.698077	32.09	46.00	13.91	100.0	H	155.0	-16.4
695.494615	33.36	46.00	12.64	100.0	H	36.0	-8.0

Final Result

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

EUT Information

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Model: PRX9
Test Mode: BLE 1M_Mid channel
Order No/Sample No: 168513747/A003916704-001
Test Voltage:: Battery
Remark: Temp 23 Humi:53%
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)
76.485385	24.88	40.00	15.12	100.0	V	18.0	-23.5
110.733846	31.52	43.50	11.98	100.0	V	253.0	-19.3
130.283077	31.45	43.50	12.05	100.0	V	262.0	-22.0
216.016154	29.92	46.00	16.08	100.0	V	151.0	-18.7
376.066154	29.82	46.00	16.18	100.0	V	354.0	-14.3
718.215000	34.34	46.00	11.66	100.0	V	143.0	-7.6

Final_Result

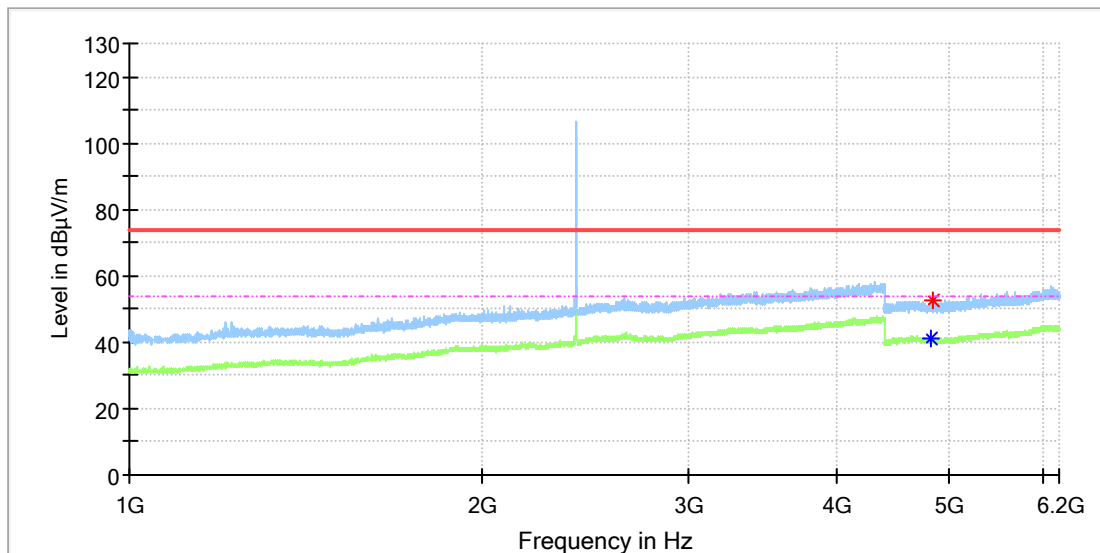
Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---		---	---

1GHz - 18GHz

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

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Order No/Sample No:	168513747/A003916704-001
Test Voltage::	Battery
Remark:	Temp 23 Humi:53%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical Freqs

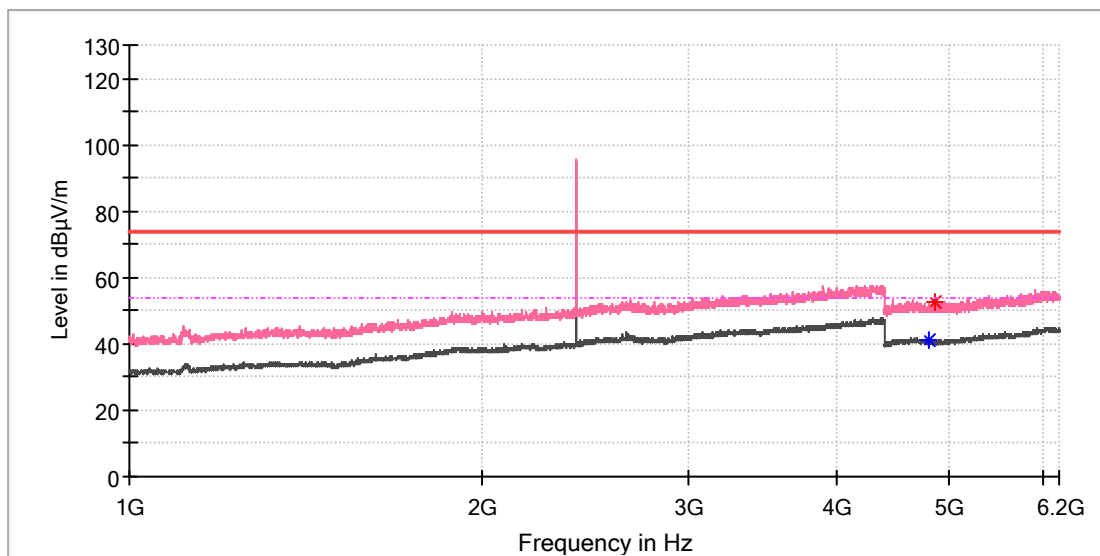
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4815.500000	---	41.04	54.00	12.96	150.0	H	358.0	13.3
4831.000000	52.88	---	74.00	21.12	150.0	H	196.0	13.3

Final Result

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

EUT Information

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Order No/Sample No: 168513747/A003916704-001
Test Voltage:: Battery
Remark: Temp 23 Humi:53%
Test Standard: FCC 15.247
Tested By: Kei Zhang
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Critical_Freqs

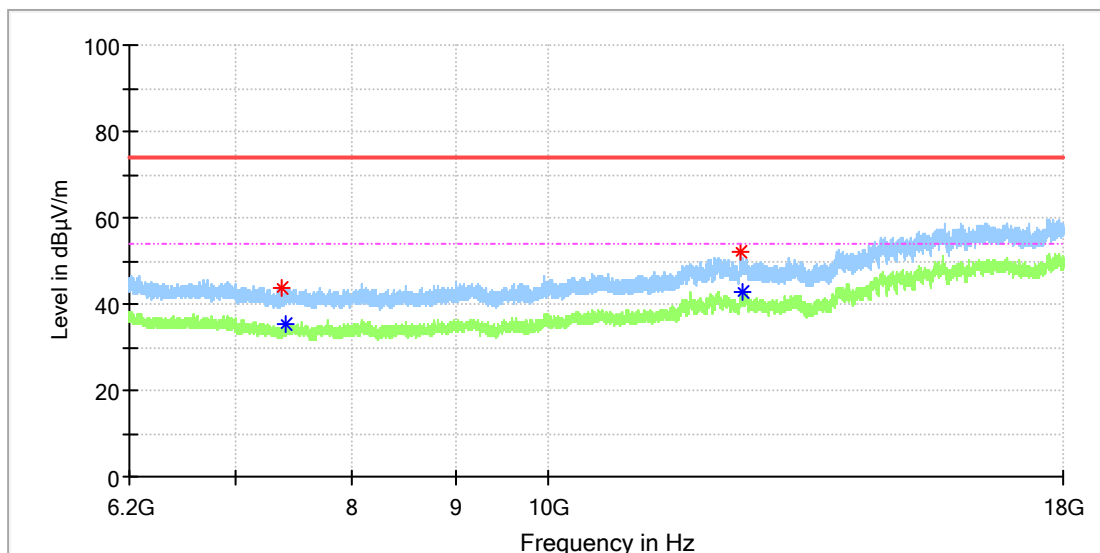
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4807.500000	---	41.25	54.00	12.75	150.0	V	253.0	13.3
4855.000000	52.79	---	74.00	21.21	150.0	V	284.0	13.3

Final_Result

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

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Test Standard: FCC 15.247
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Critical_Freqs

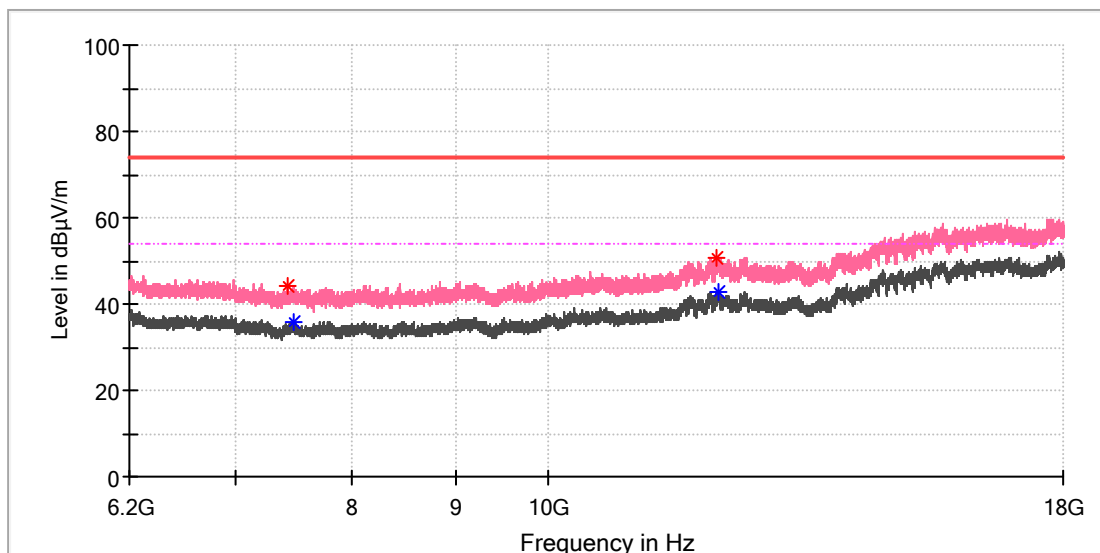
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7380.491667	43.80	---	74.00	30.20	150.0	H	347.0	8.2
7412.941667	---	35.25	54.00	18.75	150.0	H	225.0	8.3
12463.833333	52.17	---	74.00	21.83	150.0	H	258.0	16.2
12469.733333	---	42.84	54.00	11.16	150.0	H	301.0	16.1

Final_Result

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

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Test Voltage:: Battery
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Test Standard: FCC 15.247
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Critical_Freqs

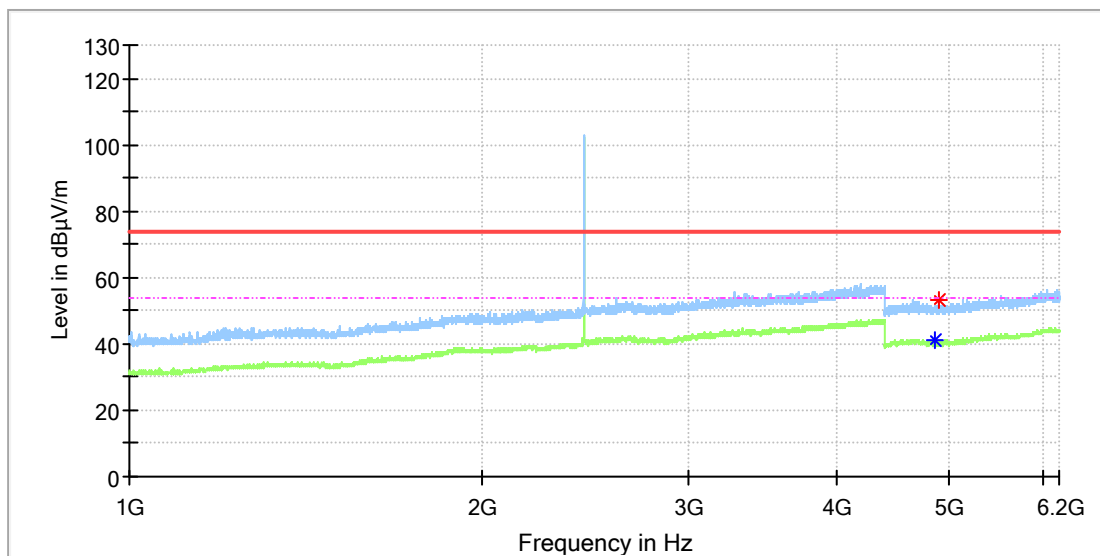
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7424.741667	44.41	---	74.00	29.59	150.0	V	330.0	8.4
7475.875000	---	35.65	54.00	18.35	150.0	V	142.0	8.6
12116.225000	50.67	---	74.00	23.33	150.0	V	0.0	15.9
12136.875000	---	43.02	54.00	10.98	150.0	V	48.0	16.4

Final_Result

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

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Test Standard:	FCC 15.247
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Critical_Freqs

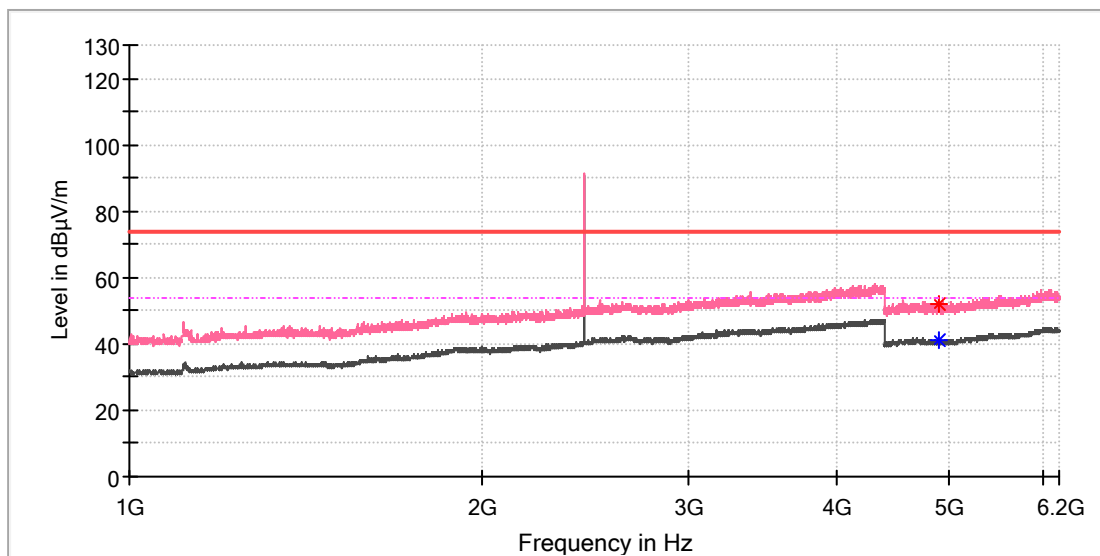
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4858.500000	---	40.97	54.00	13.03	150.0	H	147.0	13.3
4905.500000	53.43	---	74.00	20.57	150.0	H	89.0	13.3

Final_Result

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

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Test Voltage:: Battery
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Critical_Freqs

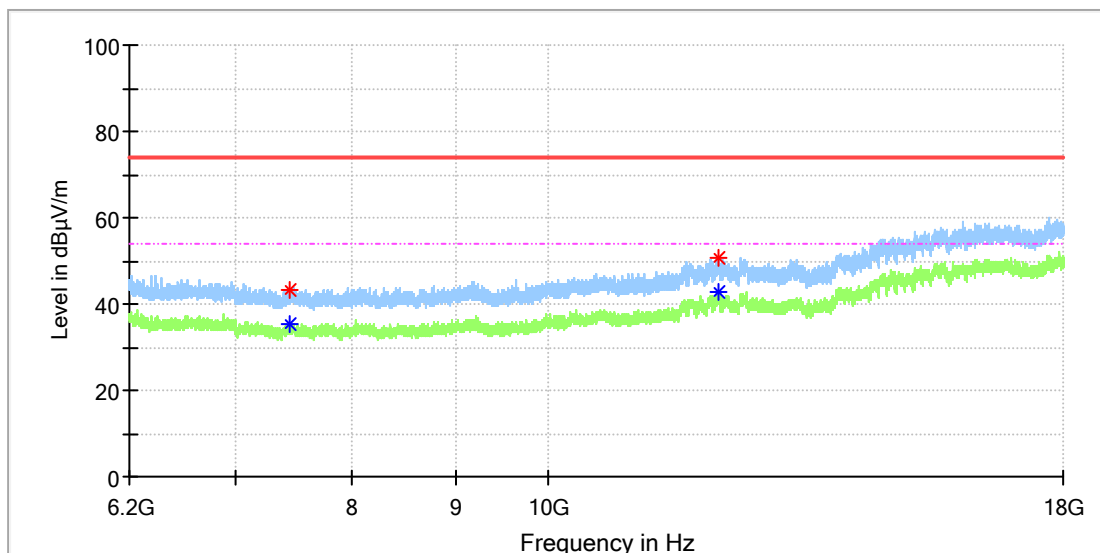
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4901.500000	---	41.16	54.00	12.84	150.0	V	212.0	13.3
4902.000000	52.05	---	74.00	21.95	150.0	V	114.0	13.3

Final_Result

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

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Test Voltage:: Battery
Remark: Temp 23 Humi:53%
Test Standard: FCC 15.247
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Critical_Freqs

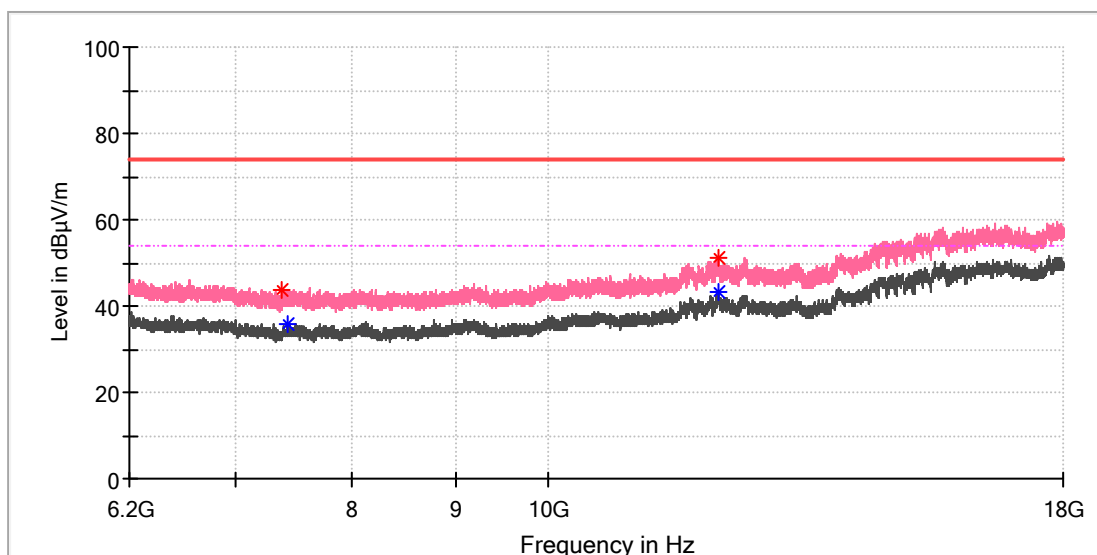
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7441.950000	43.31	---	74.00	30.69	150.0	H	343.0	8.4
7442.933333	---	35.37	54.00	18.63	150.0	H	103.0	8.5
12139.825000	---	42.96	54.00	11.04	150.0	H	331.0	16.5
12145.233333	50.49	---	74.00	23.51	150.0	H	128.0	16.6

Final_Result

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

EUT Information

EUT Name: CORDLESS ROBOTIC POOL CLEANER
Model: PRX9
Test Mode: BLE 1M_Mid channel
Order No/Sample No: 168513747/A003916704-001
Test Voltage:: Battery
Remark: Temp 23 Humi:53%
Test Standard: FCC 15.247
Tested By: Kei Zhang
Reviewed By: Terry Yin



Critical_Freqs

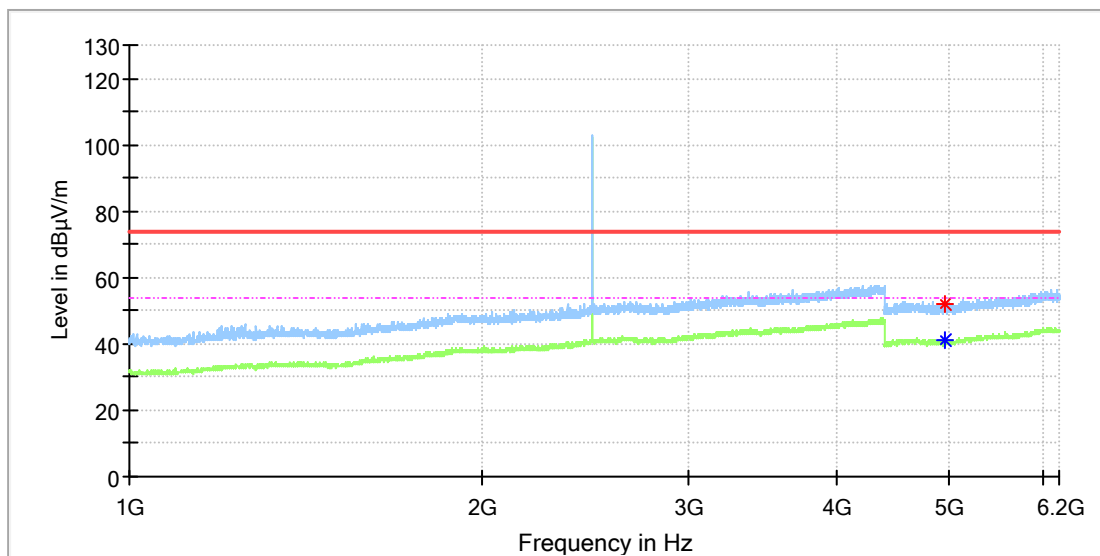
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7381.966667	43.94	---	74.00	30.06	150.0	V	141.0	8.2
7429.166667	---	35.74	54.00	18.26	150.0	V	331.0	8.4
12141.791667	---	43.43	54.00	10.57	150.0	V	73.0	16.5
12144.741667	51.31	---	74.00	22.69	150.0	V	84.0	16.6

Final_Result

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

EUT Information

EUT Name:	CORDLESS ROBOTIC POOL CLEANER
Model:	PRX9
Test Mode:	BLE 1M_High channel
Order No/Sample No:	168513747/A003916704-001
Test Voltage::	Battery
Remark:	Temp 23 Humi:53%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

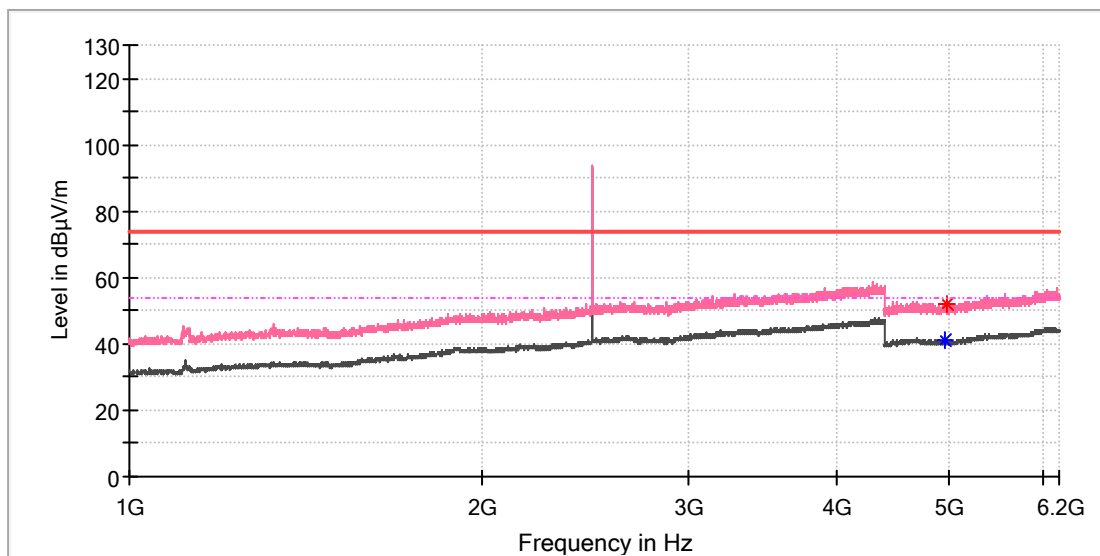
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4952.000000	---	41.01	54.00	12.99	150.0	H	32.0	13.3
4956.000000	52.25	---	74.00	21.75	150.0	H	148.0	13.3

Final_Result

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

EUT Information

EUT Name: CORDLESS ROBOTIC POOL CLEANER
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Order No/Sample No: 168513747/A003916704-001
Test Voltage:: Battery
Remark: Temp 23 Humi:53%
Test Standard: FCC 15.247
Tested By: Kei Zhang
Reviewed By: Terry Yin



Critical_Freqs

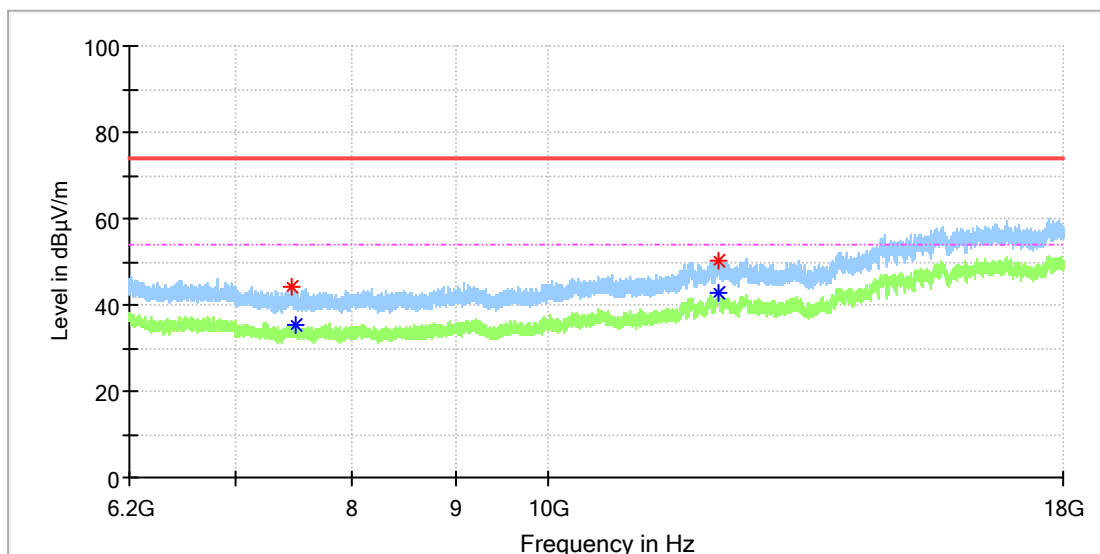
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4963.000000	---	41.09	54.00	12.91	150.0	V	216.0	13.3
4976.500000	51.71	---	74.00	22.29	150.0	V	6.0	13.3

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 Name:	CORDLESS ROBOTIC POOL CLEANER
Model:	PRX9
Test Mode:	BLE 1M_High channel
Order No/Sample No:	168513747/A003916704-001
Test Voltage::	Battery
Remark:	Temp 23 Humi:53%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

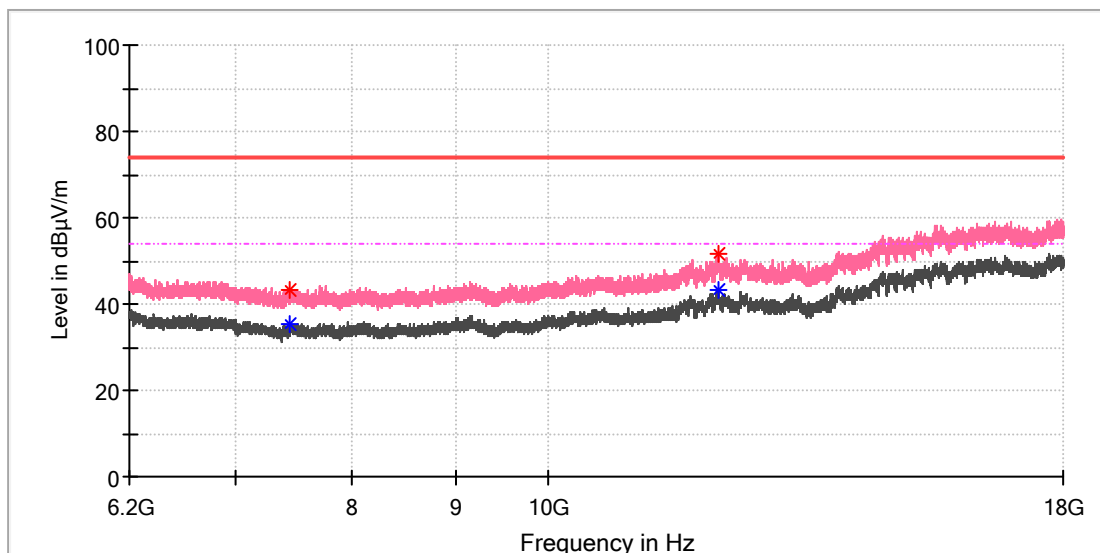
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7454.733333	44.41	---	74.00	29.59	150.0	H	238.0	8.5
7502.916667	---	35.50	54.00	18.50	150.0	H	238.0	8.7
12147.691667	50.28	---	74.00	23.72	150.0	H	201.0	16.7
12149.658333	---	42.70	54.00	11.30	150.0	H	259.0	16.7

Final_Result

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

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Order No/Sample No: 168513747/A003916704-001
Test Voltage:: Battery
Remark: Temp 23 Humi:53%
Test Standard: FCC 15.247
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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	43.31	---	74.00	30.69	150.0	V	46.0	8.4
7439.983333	---	35.51	54.00	18.49	150.0	V	148.0	8.4
12142.283333	51.43	---	74.00	22.57	150.0	V	171.0	16.5
12144.741667	---	43.22	54.00	10.78	150.0	V	194.0	16.6

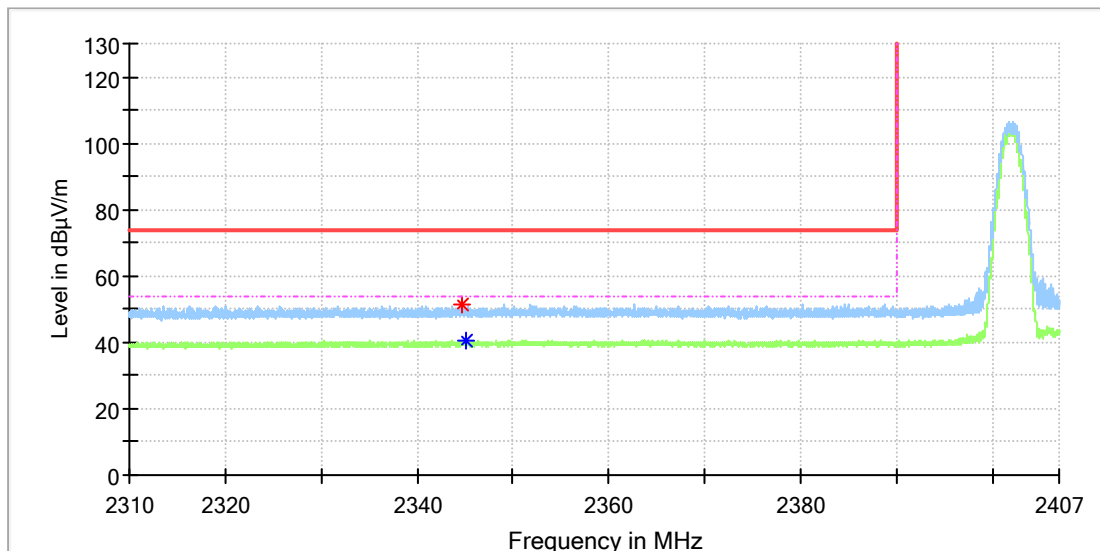
Final_Result

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

Appendix B.6: Test Results of Radiated Emissions in Restricted Bands

EUT Information

EUT Name:	CORDLESS ROBOTIC POOL CLEANER
Model:	PRX9
Test Mode:	BLE 1M_Low channel
Order No/Sample No:	168513747/A003916704-001
Test Voltage::	Battery
Remark:	Temp 23 Humi:53%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

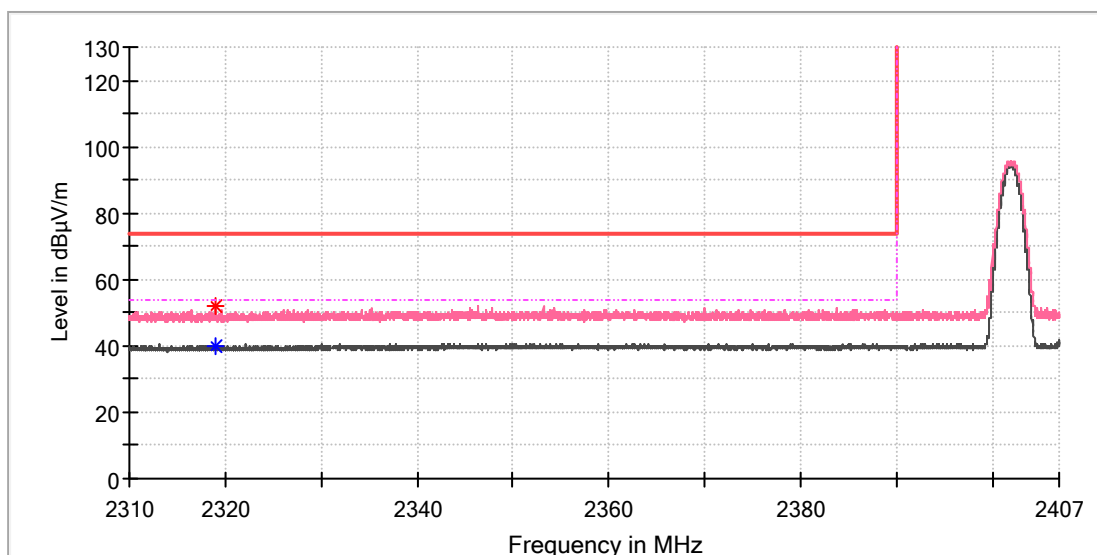
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2344.706030	51.14	---	74.00	22.86	150.0	H	87.0	8.4
2345.019853	---	40.75	54.00	13.25	150.0	H	353.0	8.4

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:	CORDLESS ROBOTIC POOL CLEANER
Model:	PRX9
Test Mode:	BLE 1M_Low channel
Order No/Sample No:	168513747/A003916704-001
Test Voltage::	Battery
Remark:	Temp 23 Humi:53%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

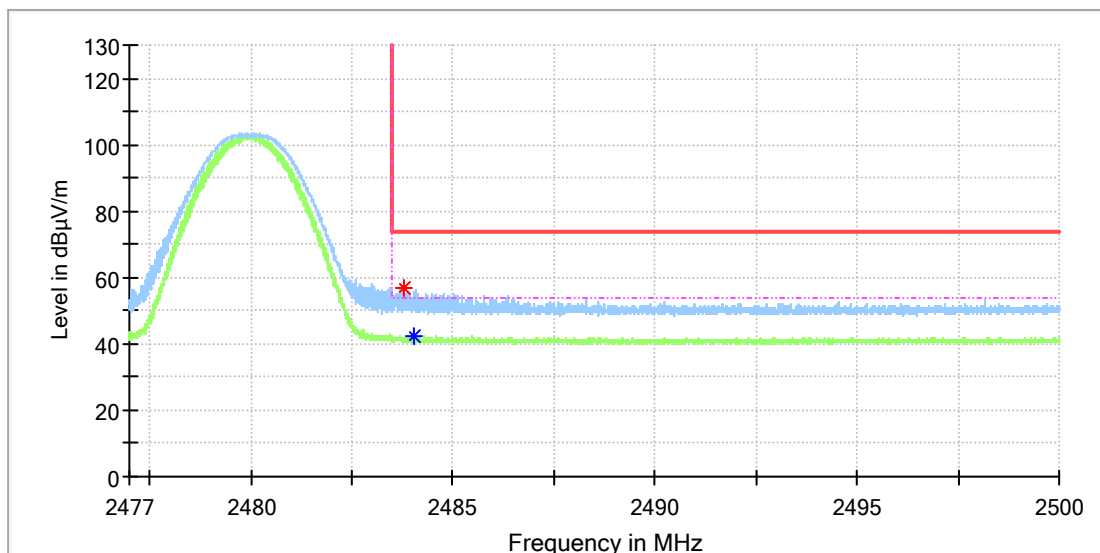
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2318.986765	---	39.71	54.00	14.29	150.0	V	116.0	8.2
2319.058088	51.72	---	74.00	22.28	150.0	V	3.0	8.2

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:	CORDLESS ROBOTIC POOL CLEANER
Model:	PRX9
Test Mode:	BLE 1M_High channel
Order No/Sample No:	168513747/A003916704-001
Test Voltage::	Battery
Remark:	Temp 23 Humi:53%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

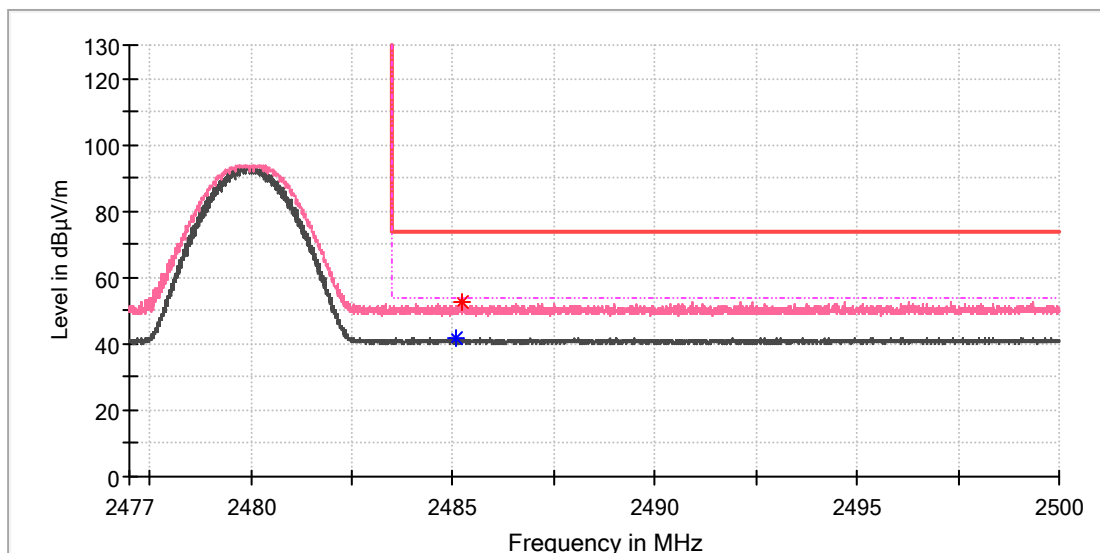
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2483.768088	56.80	---	74.00	17.20	150.0	H	104.0	9.0
2484.055588	---	42.48	54.00	11.52	150.0	H	284.0	9.0

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:	CORDLESS ROBOTIC POOL CLEANER
Model:	PRX9
Test Mode:	BLE 1M_High channel
Order No/Sample No:	168513747/A003916704-001
Test Voltage::	Battery
Remark:	Temp 23 Humi:53%
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)
2485.083824	---	41.59	54.00	12.41	150.0	V	2.0	9.0
2485.225882	52.35	---	74.00	21.65	150.0	V	117.0	9.0

Final_Result

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