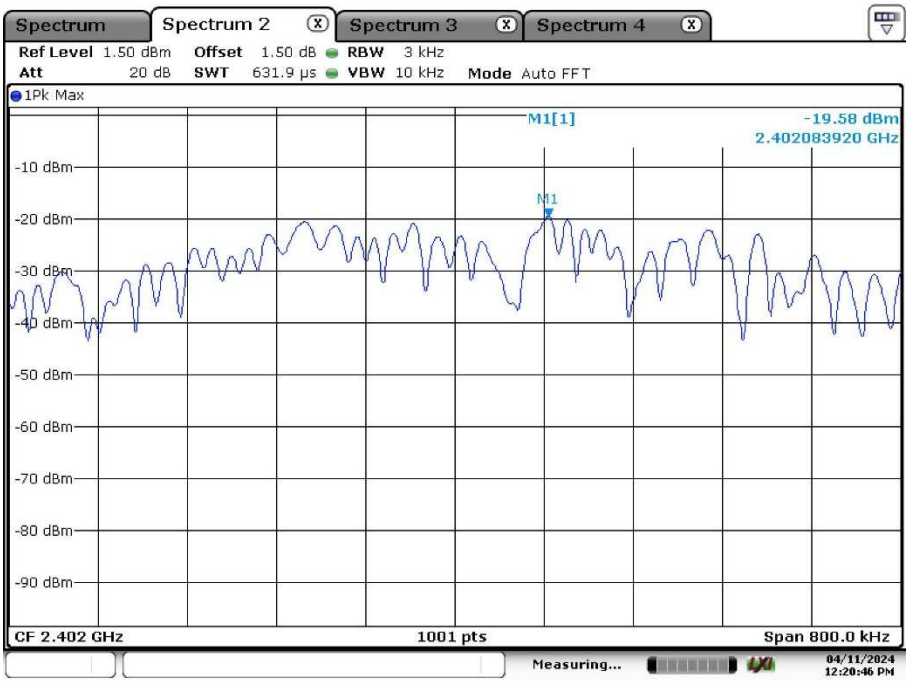
Appendix A: Test Results of Bluetooth Low Energy

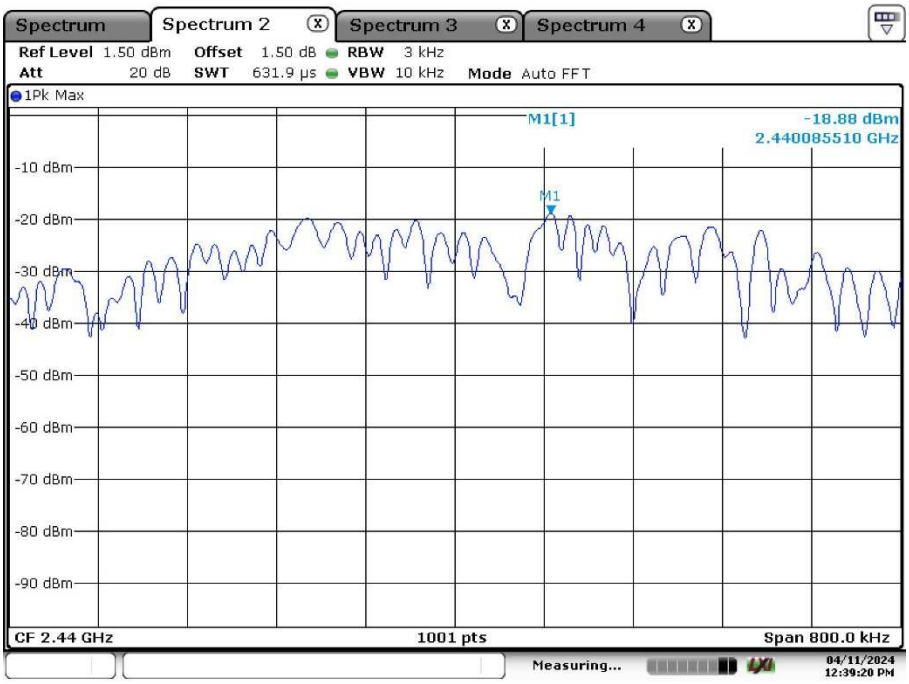
APPENDIX A: TEST RESULTS OF BLUETOOTH LOW ENERGY 1

APPENDIX A.1: TEST RESULTS OF CONDUCTED POWER SPECTRAL DENSITY 2
APPENDIX A.2: TEST RESULTS OF 6DB BANDWIDTH 4
APPENDIX A.3: TEST RESULTS OF 99% BANDWIDTH 7
APPENDIX A.4: TEST RESULTS OF CONDUCTED SPURIOUS EMISSIONS MEASURED IN 100 KHZ BANDWIDTH 10
Band Edge 10
Conducted Spurious Emission 11
APPENDIX A.5: TEST RESULTS OF RADIATED SPURIOUS EMISSIONS 14
30 MHz to 1GHz 14
1GHz-18GHz 16
APPENDIX A.6: TEST RESULTS OF RADIATED EMISSIONS IN RESTRICTED BANDS 28

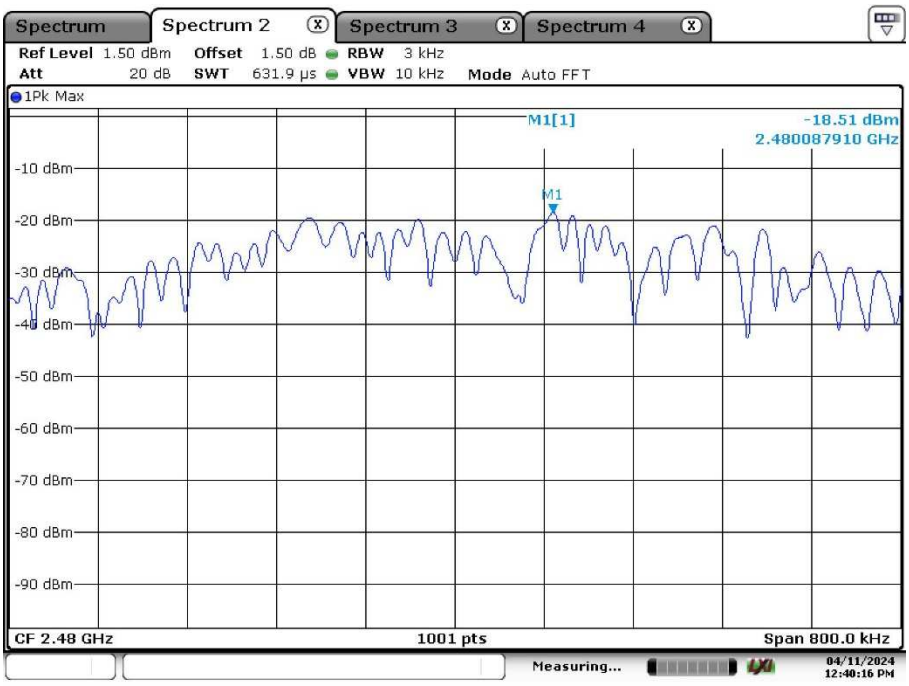
Appendix A.1: Test Results of Conducted Power Spectral Density



Date: 11.APR.2024 12:20:47



Date: 11.APR.2024 12:39:20



Date: 11.APR.2024 12:40:17

Appendix A.2: Test Results of 6dB Bandwidth

Minimum Emission Bandwidth 6 dB (2402 MHz; 20.000 dBm; 1 MHz)

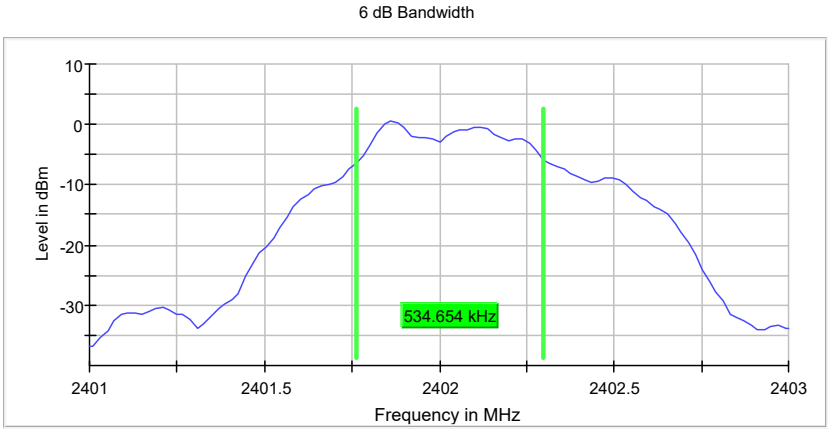
Test according to FCC title 47 part 15 §15.247(a), KDB 558074 D01 DTS Meas Guidance v04 and ANSI C63.10-2013

6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2402.000000	0.534654	0.500000	---	2401.762376	2402.297030

(continuation of the "6 dB Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Max Level (dBm)	Result
2402.000000	0.5	PASS



Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.40100 GHz	2.40100 GHz
Stop Frequency	2.40300 GHz	2.40300 GHz
Span	2.000 MHz	2.000 MHz
RBW	100.000 kHz	~ 100.000 kHz
VBW	300.000 kHz	~ 300.000 kHz
SweepPoints	101	~ 40
Sweeptime	18.938 µs	AUTO
Reference Level	-10.000 dBm	-10.000 dBm
Attenuation	10.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	FFT	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	9 / max. 150	max. 150
Stable	5 / 5	5
Max Stable Difference	0.05 dB	0.50 dB

Minimum Emission Bandwidth 6 dB (2440 MHz; 20.000 dBm; 1 MHz)

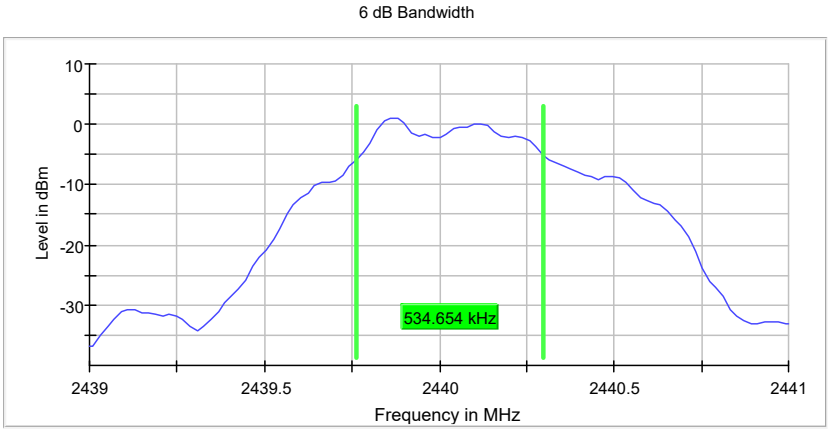
Test according to FCC title 47 part 15 §15.247(a), KDB 558074 D01 DTS Meas Guidance v04 and ANSI C63.10-2013

6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2440.000000	0.534654	0.500000	---	2439.762376	2440.297030

(continuation of the "6 dB Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Max Level (dBm)	Result
2440.000000	1.0	PASS



Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.43900 GHz	2.43900 GHz
Stop Frequency	2.44100 GHz	2.44100 GHz
Span	2.000 MHz	2.000 MHz
RBW	100.000 kHz	~ 100.000 kHz
VBW	300.000 kHz	~ 300.000 kHz
SweepPoints	101	~ 40
Sweeptime	18.938 µs	AUTO
Reference Level	-10.000 dBm	-10.000 dBm
Attenuation	10.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	FFT	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	9 / max. 150	max. 150
Stable	5 / 5	5
Max Stable Difference	0.01 dB	0.50 dB

Minimum Emission Bandwidth 6 dB (2480 MHz; 20.000 dBm; 1 MHz)

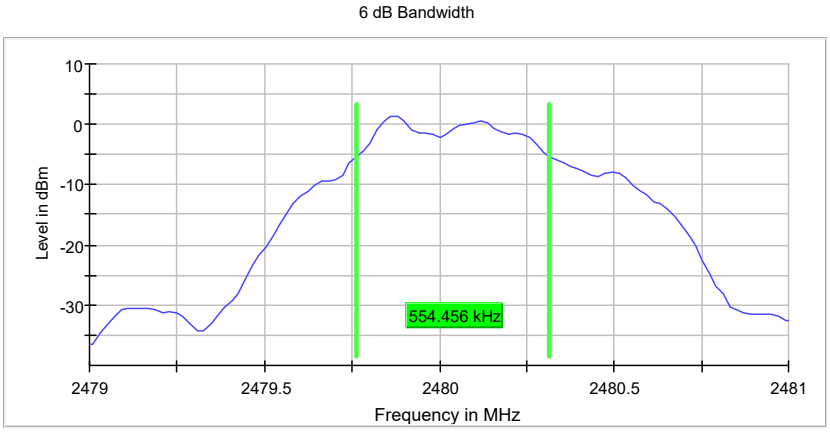
Test according to FCC title 47 part 15 §15.247(a), KDB 558074 D01 DTS Meas Guidance v04 and ANSI C63.10-2013

6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2480.000000	0.554456	0.500000	---	2479.762376	2480.316832

(continuation of the "6 dB Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Max Level (dBm)	Result
2480.000000	1.3	PASS



Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.47900 GHz	2.47900 GHz
Stop Frequency	2.48100 GHz	2.48100 GHz
Span	2.000 MHz	2.000 MHz
RBW	100.000 kHz	~ 100.000 kHz
VBW	300.000 kHz	~ 300.000 kHz
SweepPoints	101	~ 40
Sweeptime	18.938 µs	AUTO
Reference Level	-10.000 dBm	-10.000 dBm
Attenuation	10.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	FFT	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	8 / max. 150	max. 150
Stable	5 / 5	5
Max Stable Difference	0.00 dB	0.50 dB

Appendix A.3: Test Results of 99% Bandwidth

Occupied Channel Bandwidth 99% (2402 MHz; 20.000 dBm; 1 MHz)

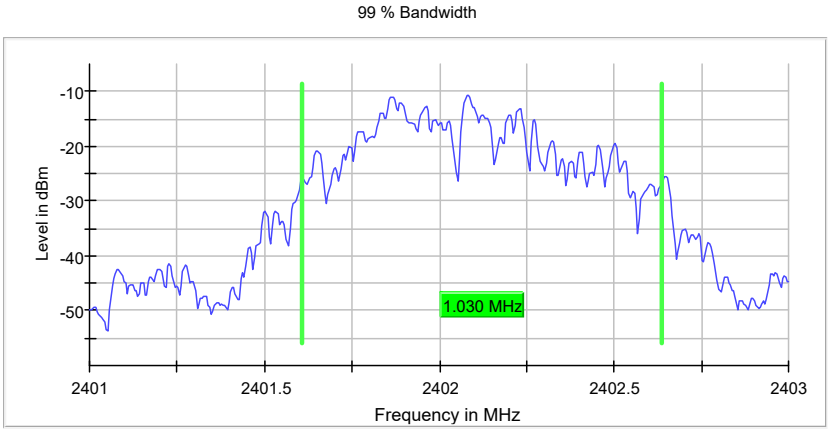
Test according to FCC title 47 part 15 §15.247(a), KDB 558074 D01 DTS Meas Guidance v04 and ANSI C63.10-2013

99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2402.000000	1.030000	---	---	2401.607500	2402.637500

(continuation of the "99 % Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Result
2402.000000	PASS



Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.40100 GHz	2.40100 GHz
Stop Frequency	2.40300 GHz	2.40300 GHz
Span	2.000 MHz	2.000 MHz
RBW	10.000 kHz	>= 10.000 kHz
VBW	30.000 kHz	>= 30.000 kHz
SweepPoints	400	~ 400
Sweeptime	189.648 µs	AUTO
Reference Level	-10.000 dBm	-10.000 dBm
Attenuation	10.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	FFT	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	7 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.22 dB	0.30 dB

Occupied Channel Bandwidth 99% (2440 MHz; 20.000 dBm; 1 MHz)

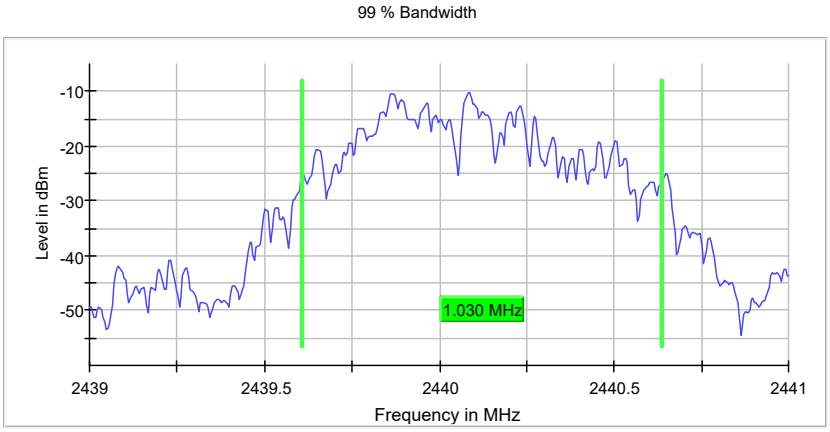
Test according to FCC title 47 part 15 §15.247(a), KDB 558074 D01 DTS Meas Guidance v04 and ANSI C63.10-2013

99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2440.000000	1.030000	---	---	2439.607500	2440.637500

(continuation of the "99 % Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Result
2440.000000	PASS



Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.43900 GHz	2.43900 GHz
Stop Frequency	2.44100 GHz	2.44100 GHz
Span	2.000 MHz	2.000 MHz
RBW	10.000 kHz	>= 10.000 kHz
VBW	30.000 kHz	>= 30.000 kHz
SweepPoints	400	~ 400
Sweeptime	189.648 µs	AUTO
Reference Level	-10.000 dBm	-10.000 dBm
Attenuation	10.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	FFT	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	8 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.27 dB	0.30 dB

Occupied Channel Bandwidth 99% (2480 MHz; 20.000 dBm; 1 MHz)

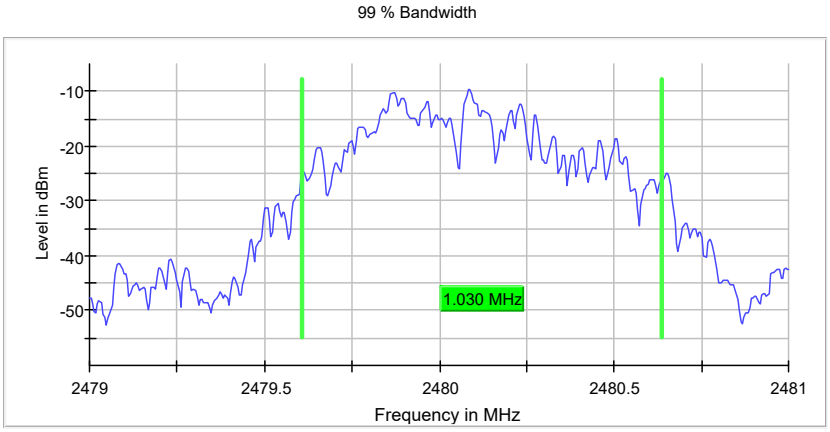
Test according to FCC title 47 part 15 §15.247(a), KDB 558074 D01 DTS Meas Guidance v04 and ANSI C63.10-2013

99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2480.000000	1.030000	---	---	2479.607500	2480.637500

(continuation of the "99 % Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Result
2480.000000	PASS



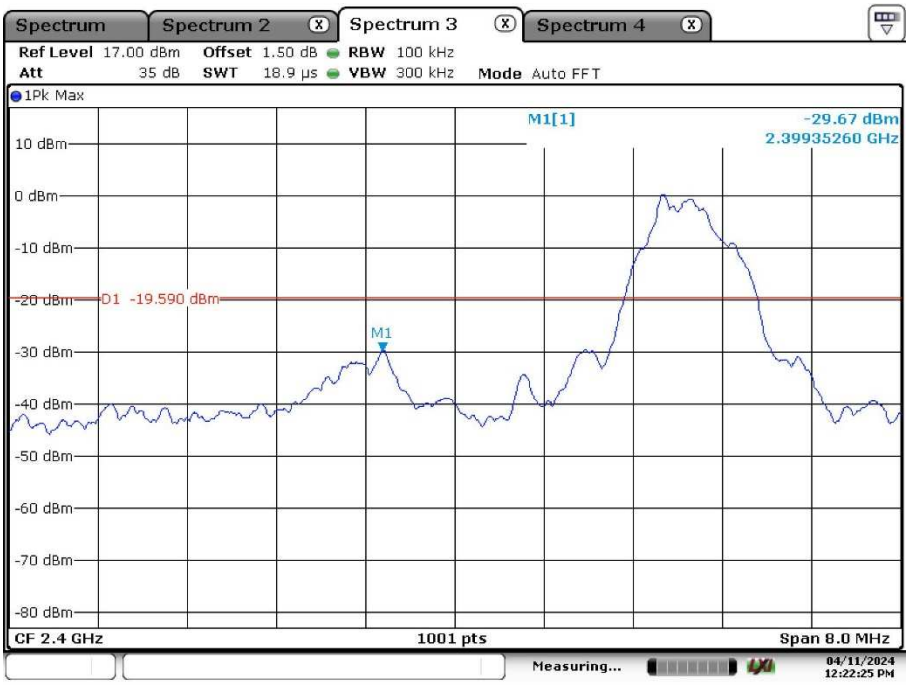
Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.47900 GHz	2.47900 GHz
Stop Frequency	2.48100 GHz	2.48100 GHz
Span	2.000 MHz	2.000 MHz
RBW	10.000 kHz	>= 10.000 kHz
VBW	30.000 kHz	>= 30.000 kHz
SweepPoints	400	~ 400
Sweeptime	189.648 µs	AUTO
Reference Level	-10.000 dBm	-10.000 dBm
Attenuation	10.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	FFT	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	12 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.13 dB	0.30 dB

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

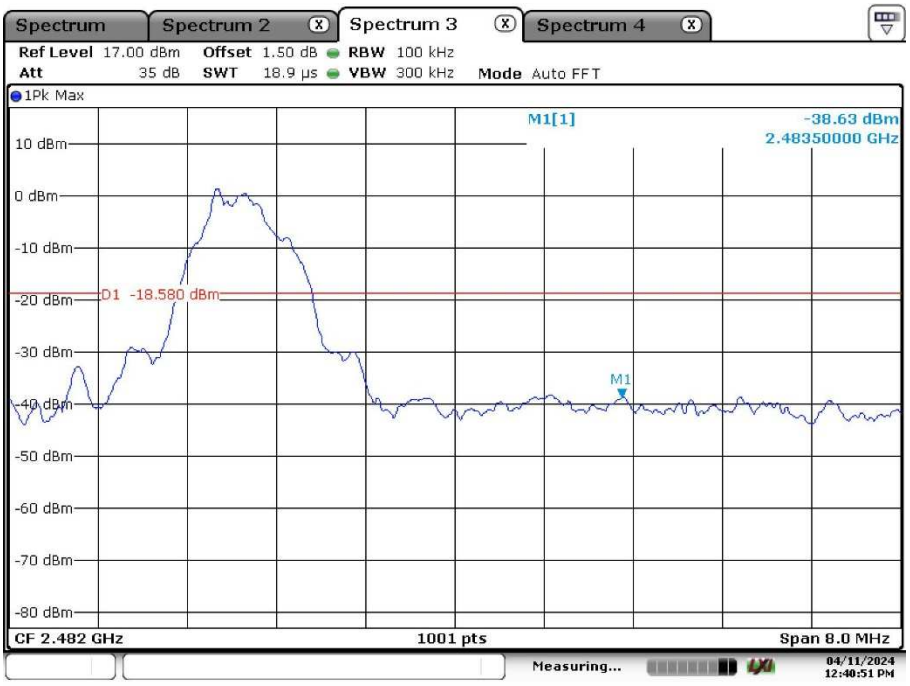
Band Edge

Low Channel:



Date: 11.APR.2024 12:22:25

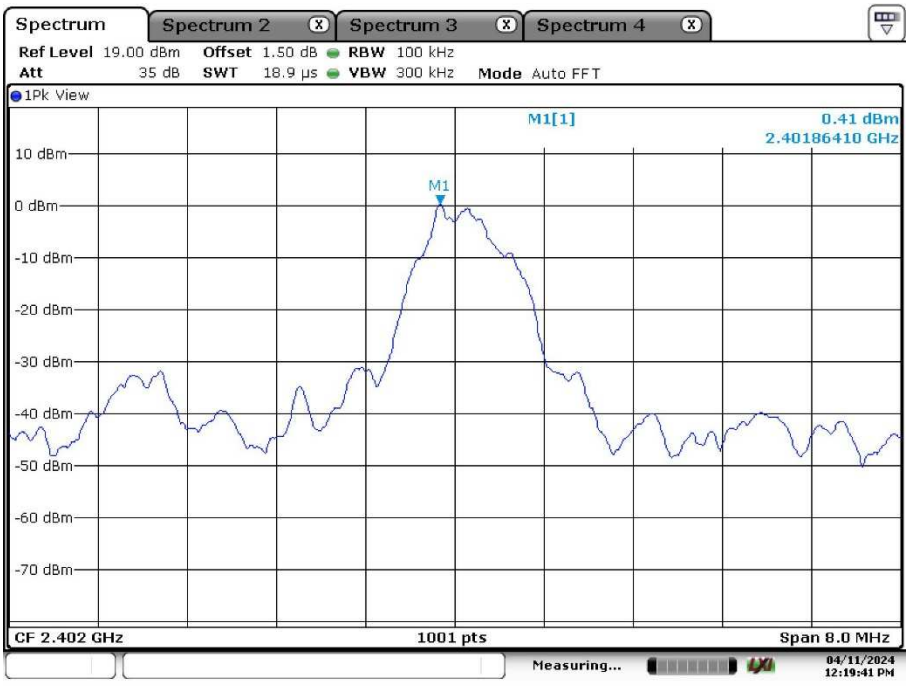
High Channel:



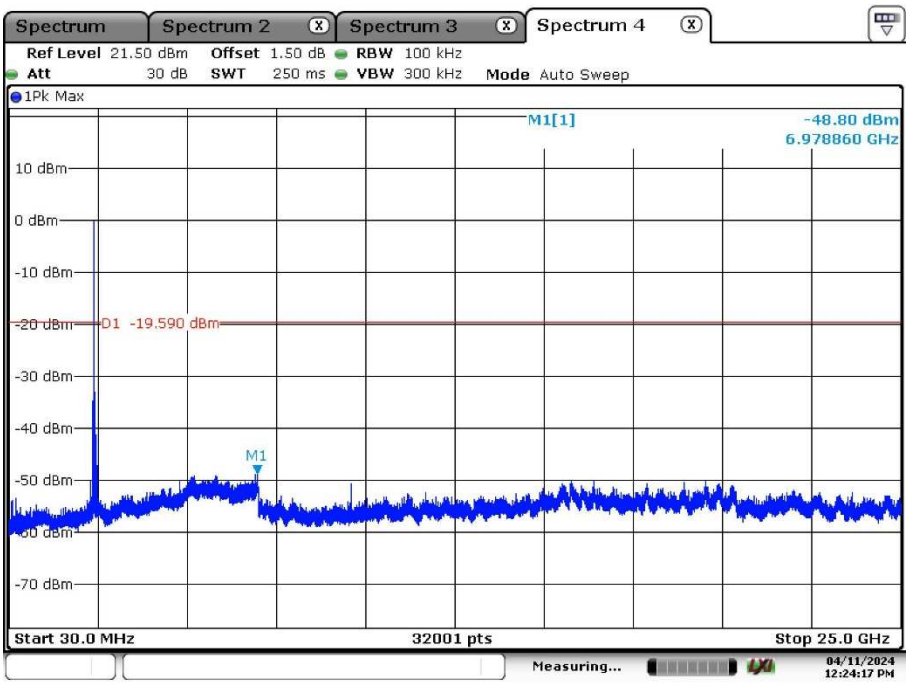
Date: 11.APR.2024 12:40:51

Conducted Spurious Emission

Low Channel:

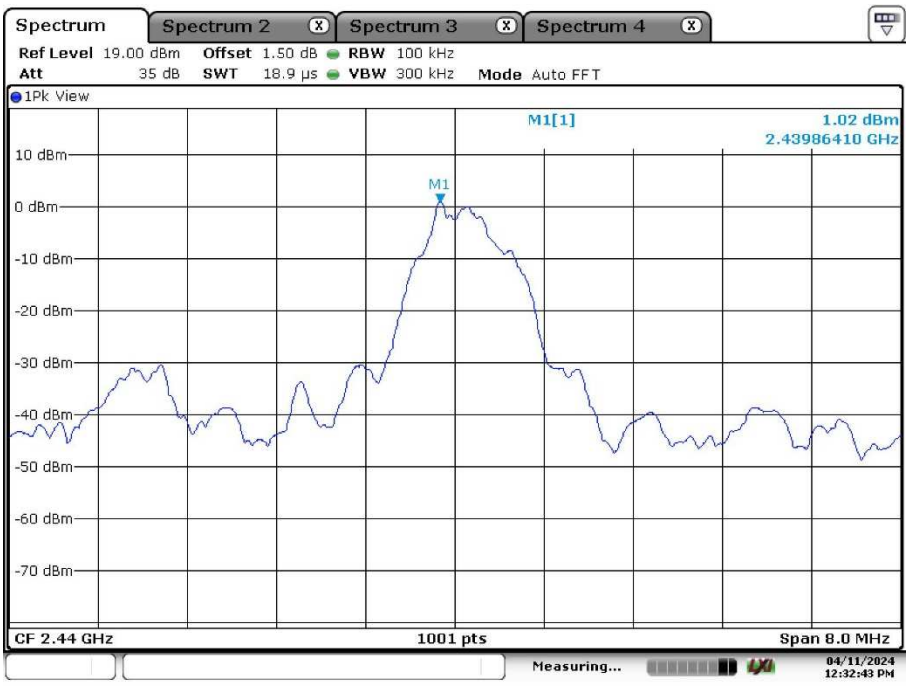


Date: 11.APR.2024 12:19:41

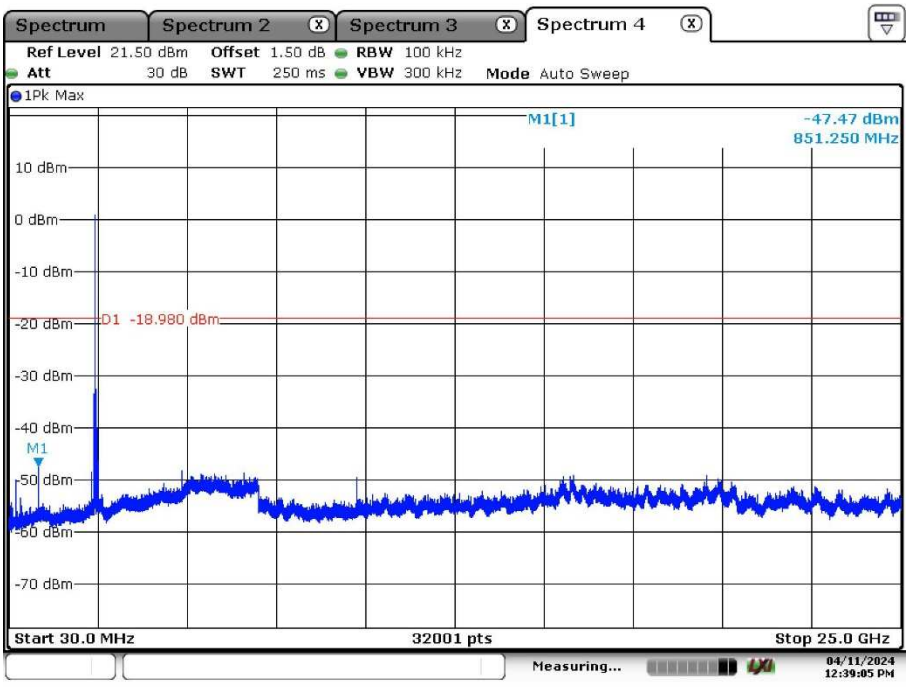


Date: 11.APR.2024 12:24:18

Middle Channel:

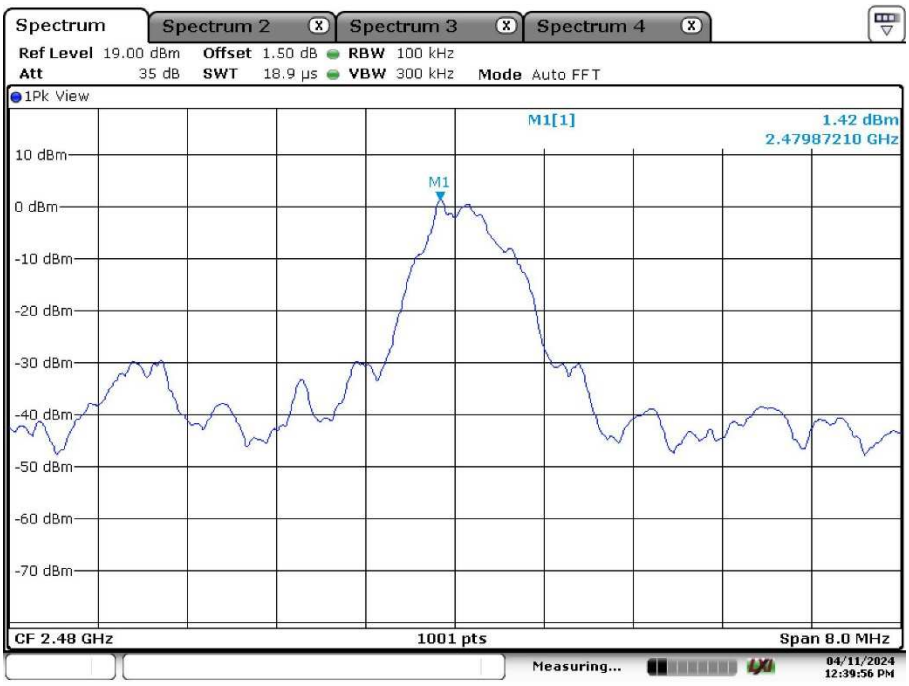


Date: 11.APR.2024 12:32:44

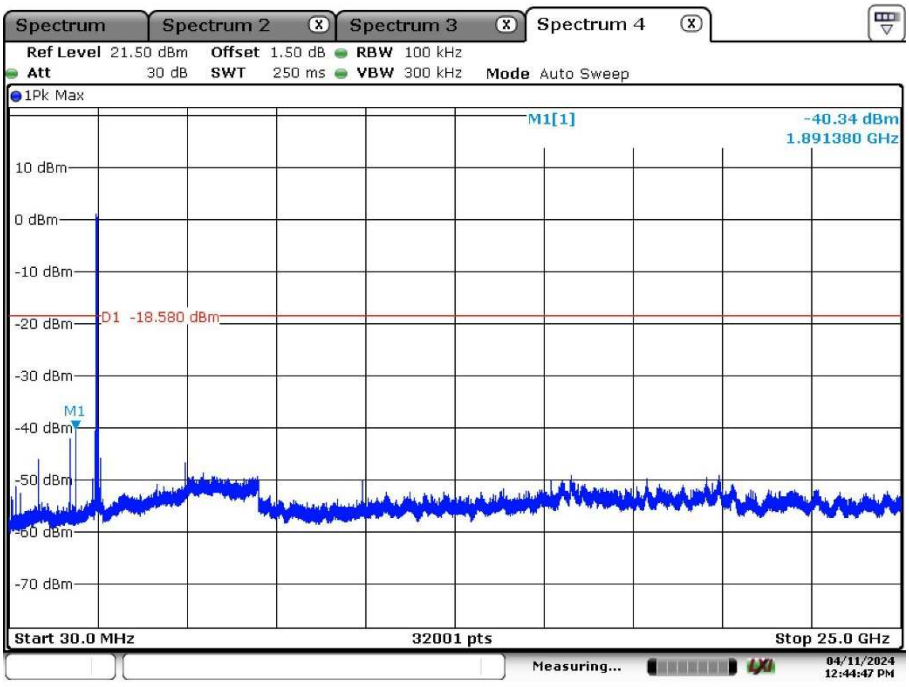


Date: 11.APR.2024 12:39:05

High Channel:



Date: 11.APR.2024 12:39:57



Date: 11.APR.2024 12:44:47

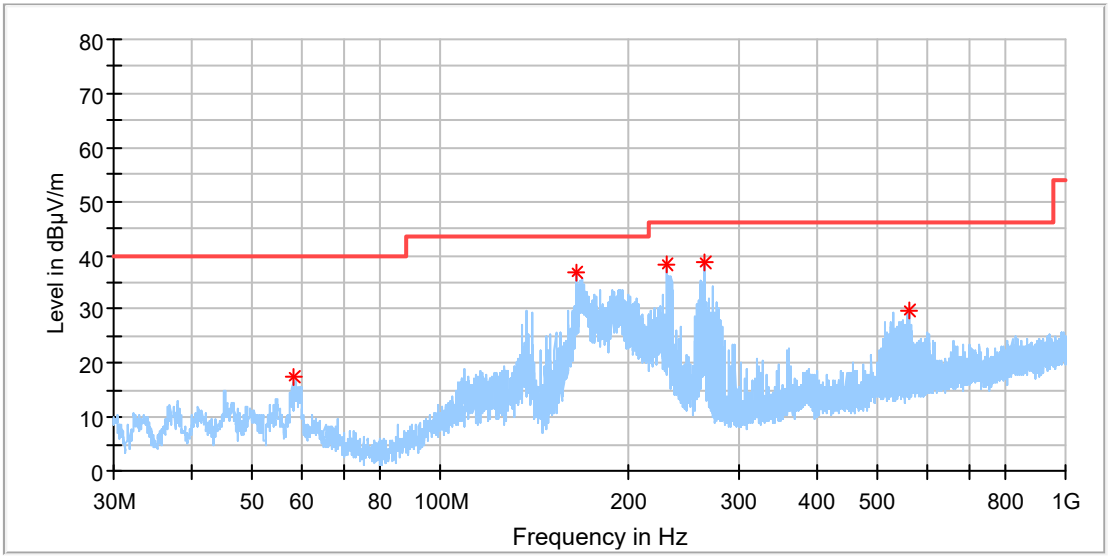
Appendix A.5: Test Results of Radiated Spurious Emissions

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 to 1GHz

EUT Information

EUT Name:	Robotic Pool Cleaner
Model:	Niya Sonar 50
Test Mode:	BLE 1M_Mid channel
Order No/Sample No:	168469372/A00367066-001
Test Voltage:	Battery
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Lich Chen
Reviewed By:	Terry Yin



Critical_Freqs

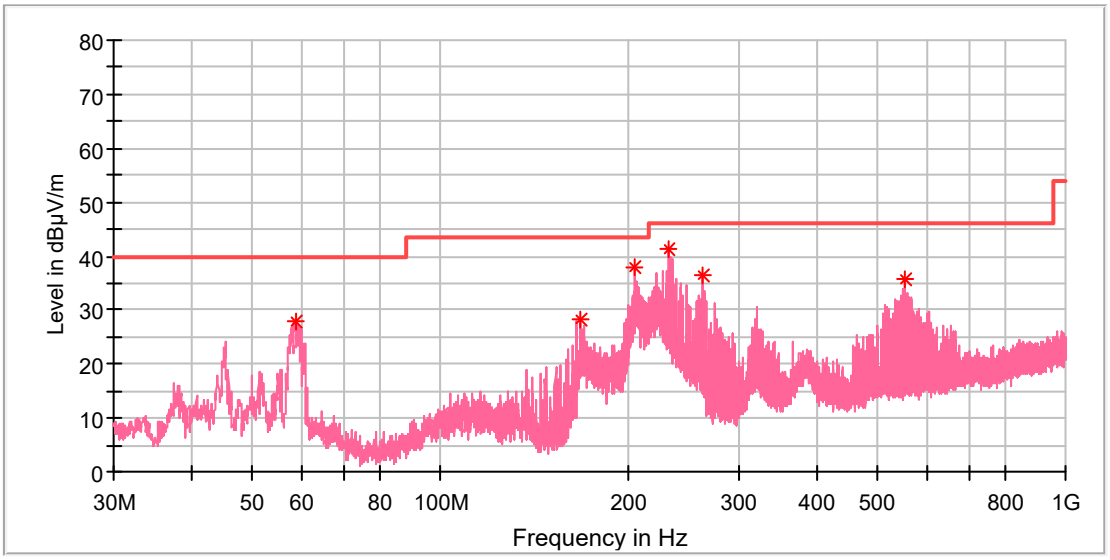
Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
58.503077	17.55	40.00	22.45	100.0	H	169.0	-19.1
165.613462	36.73	43.50	6.77	100.0	H	45.0	-21.8
229.596154	38.15	46.00	7.85	100.0	H	265.0	-18.4
264.814615	38.54	46.00	7.46	100.0	H	281.0	-17.4
562.418077	29.88	46.00	16.12	100.0	H	241.0	-10.9

Final_Result

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

EUT Information

EUT Name:	Robotic Pool Cleaner
Model:	Niya Sonar 50
Test Mode:	BLE 1M_Mid channel
Order No/Sample No:	168469372/A00367066-001
Test Voltage:	Battery
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Lich Chen
Reviewed By:	Terry Yin



Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
58.838846	27.77	40.00	12.23	100.0	V	216.0	-19.2
168.001154	28.18	43.50	15.32	100.0	V	313.0	-21.7
204.823846	37.94	43.50	5.56	100.0	V	255.0	-19.2
231.983846	41.17	46.00	4.83	100.0	V	112.0	-18.3
262.389615	36.34	46.00	9.66	100.0	V	10.0	-17.4
552.830000	35.54	46.00	10.46	100.0	V	305.0	-11.1

Final_Result

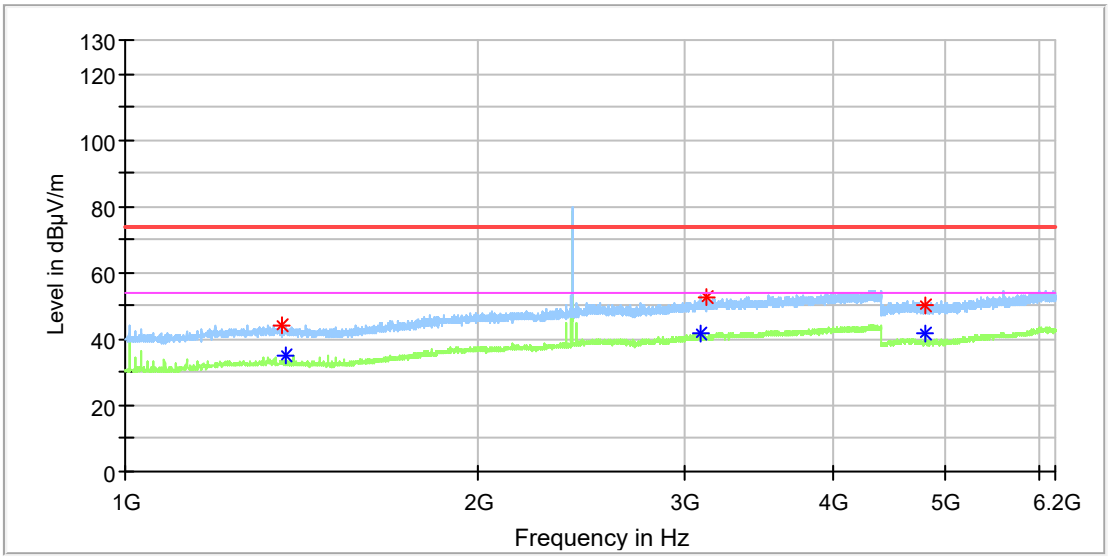
Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---		---	---

1GHz-18GHz

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

EUT Information

EUT Name:	Robotic Pool Cleaner
Model:	Niya Sonar 50
Test Mode:	BLE 1M_Low channel
Order No/Sample No:	168469372/A00367066-001
Test Voltage:	Battery
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Lich Chen
Reviewed By:	Terry Yin



Critical_Freqs

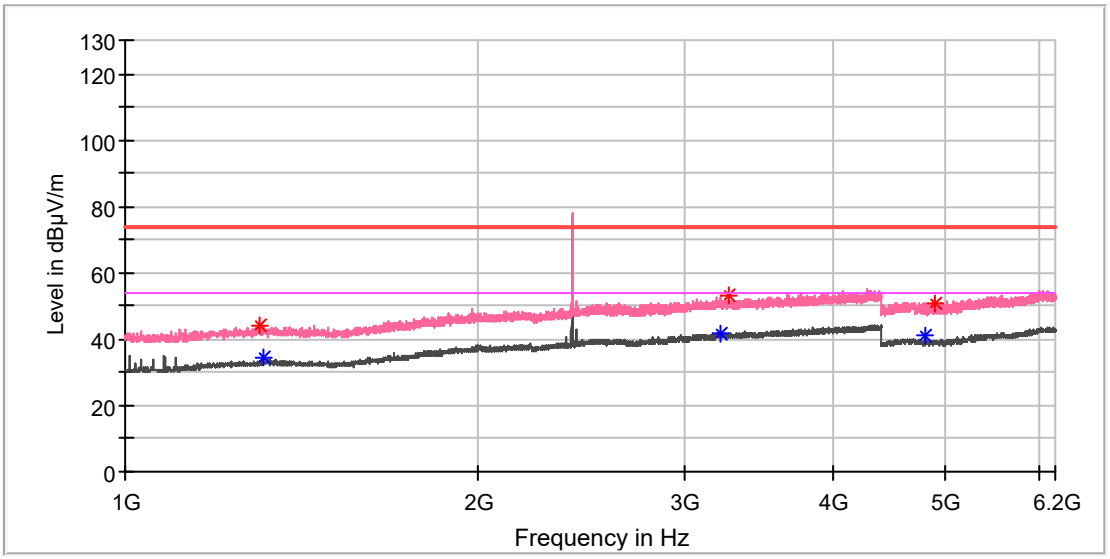
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1358.500000	44.27	---	74.00	29.73	150.0	H	262.0	2.0
1367.500000	---	34.81	54.00	19.19	150.0	H	318.0	2.0
3089.500000	---	41.65	54.00	12.35	150.0	H	228.0	8.7
3125.500000	52.78	---	74.00	21.22	150.0	H	228.0	8.6
4801.000000	---	41.56	54.00	12.44	150.0	H	232.0	11.8
4803.000000	50.07	---	74.00	23.93	150.0	H	92.0	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:	Robotic Pool Cleaner
Model:	Niya Sonar 50
Test Mode:	BLE 1M_Low channel
Order No/Sample No:	168469372/A00367066-001
Test Voltage:	Battery
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Lich Chen
Reviewed By:	Terry Yin



Critical_Freqs

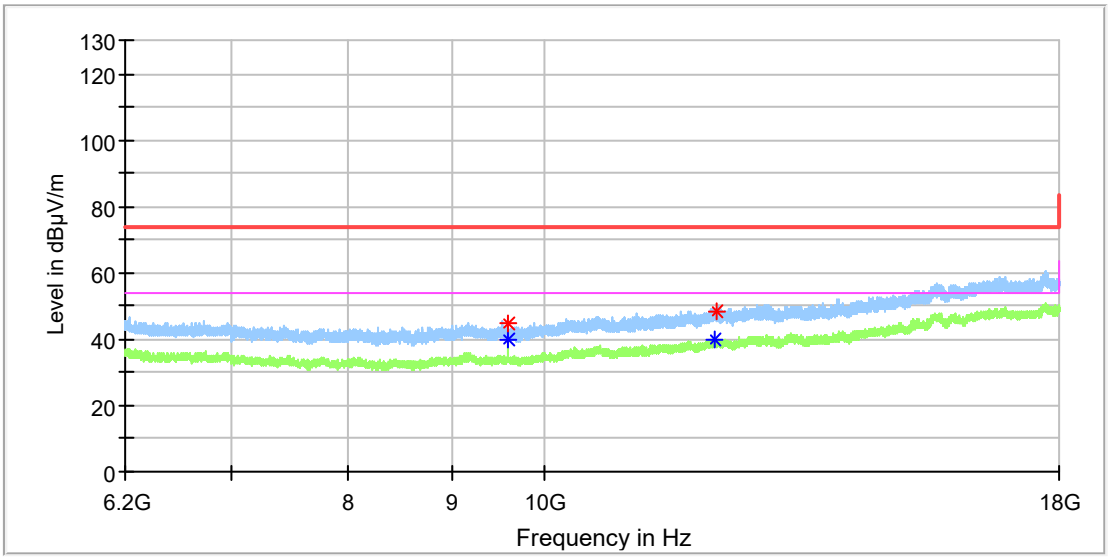
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1299.500000	44.29	---	74.00	29.71	150.0	V	352.0	1.9
1312.000000	---	34.17	54.00	19.83	150.0	V	219.0	2.0
3215.500000	---	41.99	54.00	12.01	150.0	V	234.0	8.6
3264.500000	53.16	---	74.00	20.84	150.0	V	292.0	8.5
4801.000000	---	40.89	54.00	13.11	150.0	V	270.0	11.8
4895.500000	51.02	---	74.00	22.98	150.0	V	193.0	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:	Robotic Pool Cleaner
Model:	Niya Sonar 50
Test Mode:	BLE 1M_Low channel
Order No/Sample No:	168469372/A00367066-001
Test Voltage:	Battery
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Lich Chen
Reviewed By:	Terry Yin



Critical_Freqs

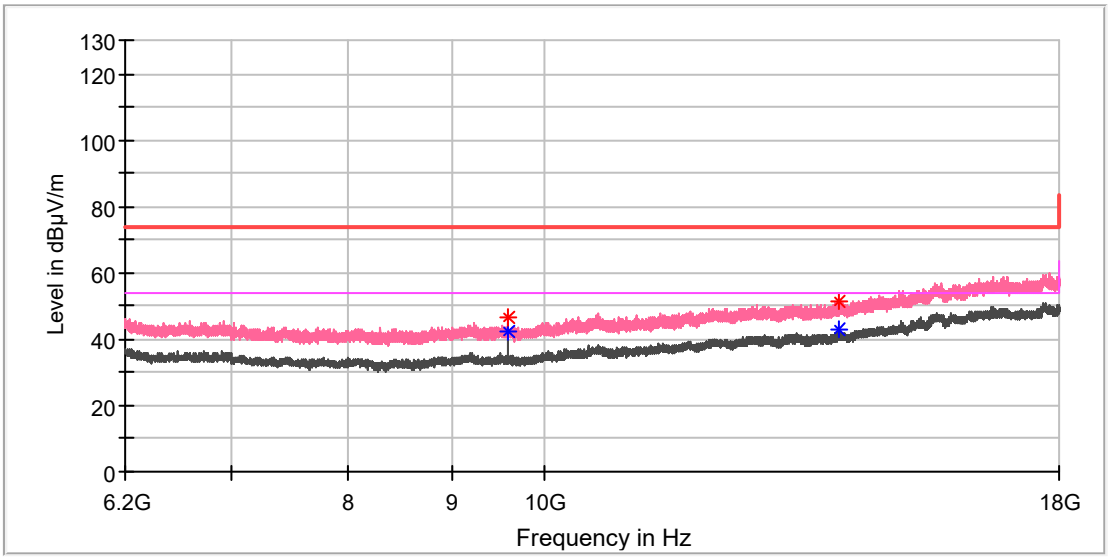
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
9602.333333	44.89	---	74.00	29.11	150.0	H	330.0	10.4
9602.825000	---	39.85	54.00	14.15	150.0	H	330.0	10.4
12135.400000	---	39.71	54.00	14.29	150.0	H	46.0	14.3
12166.375000	48.27	---	74.00	25.73	150.0	H	0.0	14.5

Final_Result

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

EUT Information

EUT Name:	Robotic Pool Cleaner
Model:	Niya Sonar 50
Test Mode:	BLE 1M_Low channel
Order No/Sample No:	168469372/A00367066-001
Test Voltage:	Battery
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Lich Chen
Reviewed By:	Terry Yin



Critical_Freqs

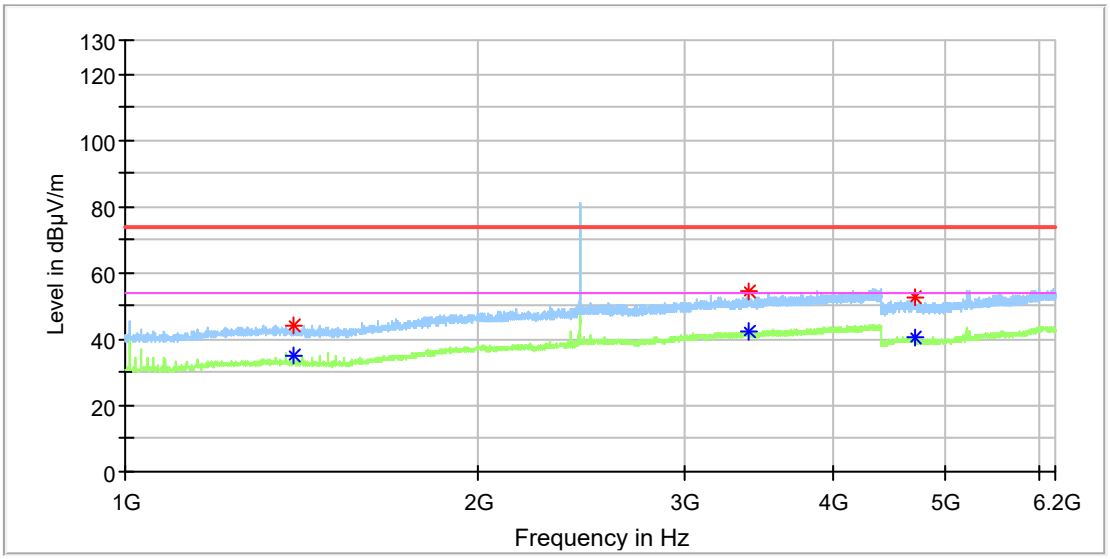
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
9602.333333	---	42.48	54.00	11.52	150.0	V	120.0	10.4
9602.333333	46.52	---	74.00	27.48	150.0	V	120.0	10.4
13999.308333	51.65	---	74.00	22.35	150.0	V	107.0	16.1
14009.141667	---	42.66	54.00	11.34	150.0	V	84.0	16.1

Final_Result

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

EUT Information

EUT Name:	Robotic Pool Cleaner
Model:	Niya Sonar 50
Test Mode:	BLE 1M_Mid channel
Order No/Sample No:	168469372/A00367066-001
Test Voltage:	Battery
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Lich Chen
Reviewed By:	Terry Yin



Critical_Freqs

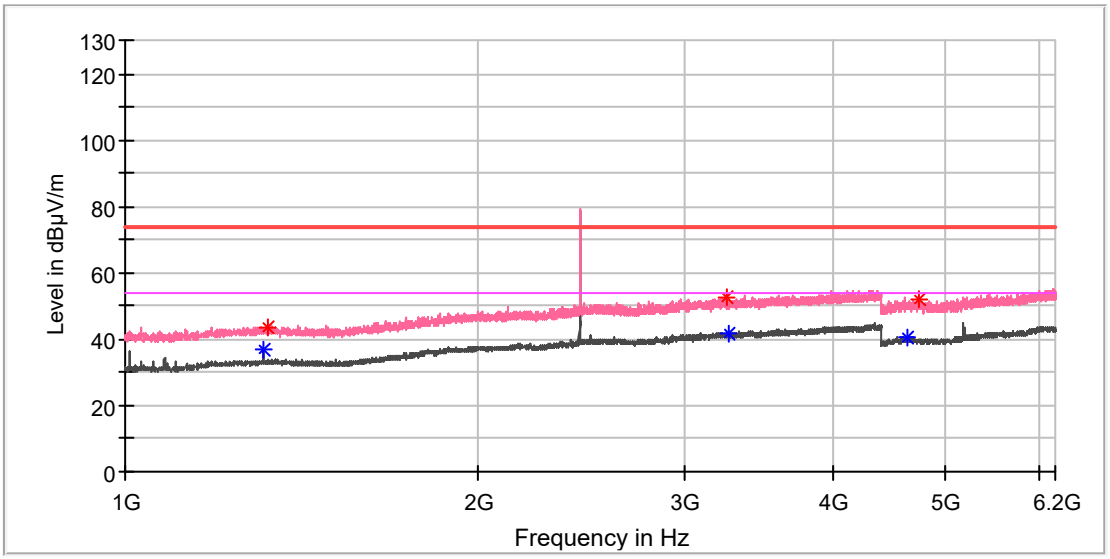
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1392.000000	---	35.27	54.00	18.73	150.0	H	116.0	1.7
1392.000000	44.42	---	74.00	29.58	150.0	H	116.0	1.7
3397.500000	54.16	---	74.00	19.84	150.0	H	46.0	8.7
3400.500000	---	42.18	54.00	11.82	150.0	H	1.0	8.7
4699.500000	---	40.50	54.00	13.50	150.0	H	354.0	12.0
4700.500000	52.37	---	74.00	21.63	150.0	H	115.0	12.0

Final_Result

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

EUT Information

EUT Name:	Robotic Pool Cleaner
Model:	Niya Sonar 50
Test Mode:	BLE 1M_Mid channel
Order No/Sample No:	168469372/A00367066-001
Test Voltage:	Battery
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Lich Chen
Reviewed By:	Terry Yin



Critical_Freqs

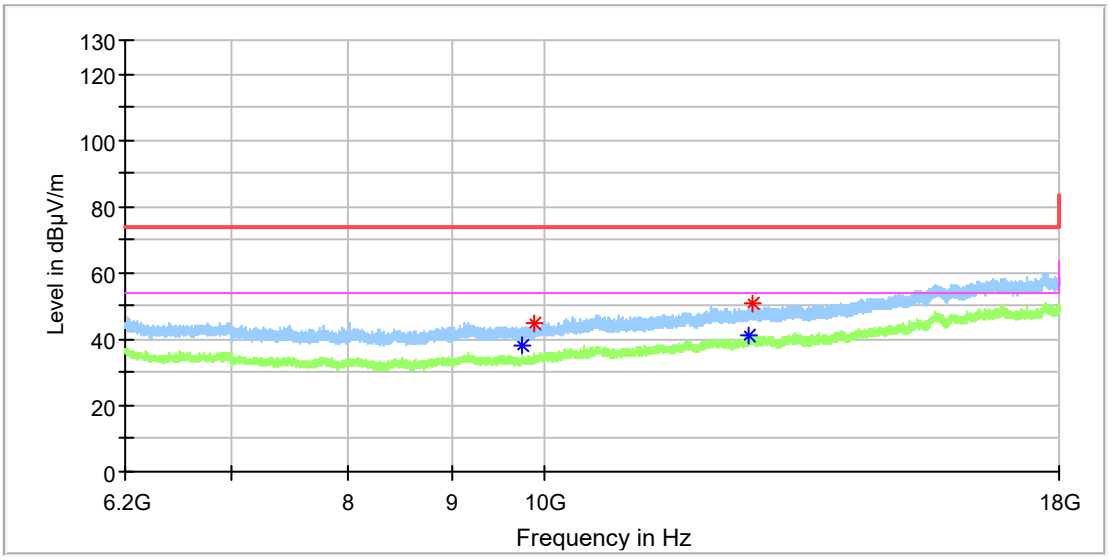
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1312.500000	---	36.84	54.00	17.16	150.0	V	264.0	2.0
1320.000000	43.48	---	74.00	30.52	150.0	V	256.0	2.0
3252.500000	52.71	---	74.00	21.29	150.0	V	183.0	8.5
3262.000000	---	41.75	54.00	12.25	150.0	V	10.0	8.5
4641.500000	---	40.48	54.00	13.52	150.0	V	260.0	12.0
4746.500000	51.96	---	74.00	22.04	150.0	V	116.0	11.9

Final_Result

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

EUT Information

EUT Name:	Robotic Pool Cleaner
Model:	Niya Sonar 50
Test Mode:	BLE 1M_Mid channel
Order No/Sample No:	168469372/A00367066-001
Test Voltage:	Battery
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Lich Chen
Reviewed By:	Terry Yin



Critical_Freqs

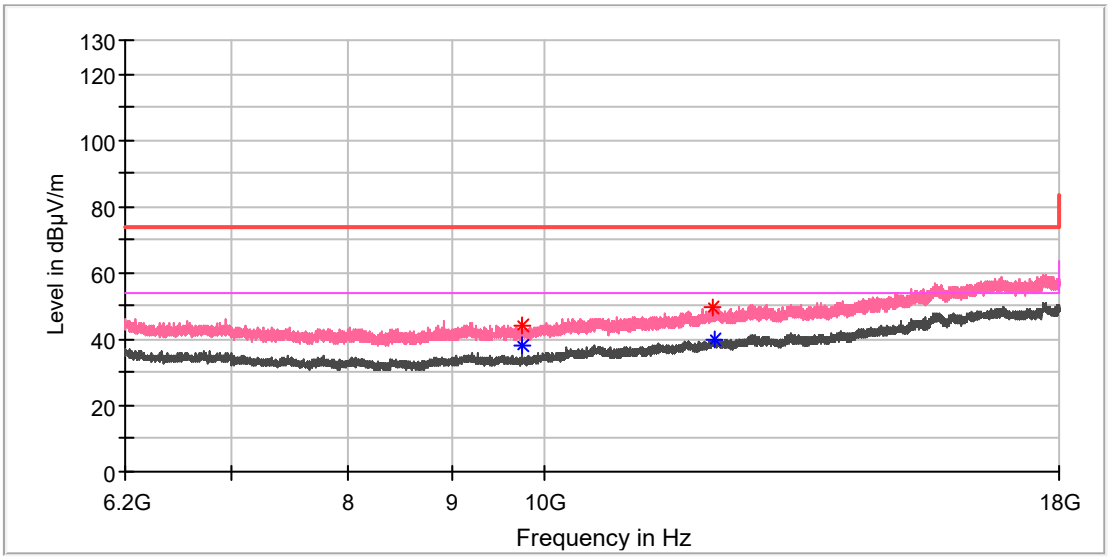
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
9754.258333	---	38.18	54.00	15.82	150.0	H	73.0	10.4
9881.108333	44.68	---	74.00	29.32	150.0	H	352.0	10.7
12631.491667	---	40.82	54.00	13.18	150.0	H	314.0	15.0
12696.883333	50.58	---	74.00	23.42	150.0	H	218.0	15.1

Final_Result

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

EUT Information

EUT Name:	Robotic Pool Cleaner
Model:	Niya Sonar 50
Test Mode:	BLE 1M_Mid channel
Order No/Sample No:	168469372/A00367066-001
Test Voltage:	Battery
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Lich Chen
Reviewed By:	Terry Yin



Critical_Freqs

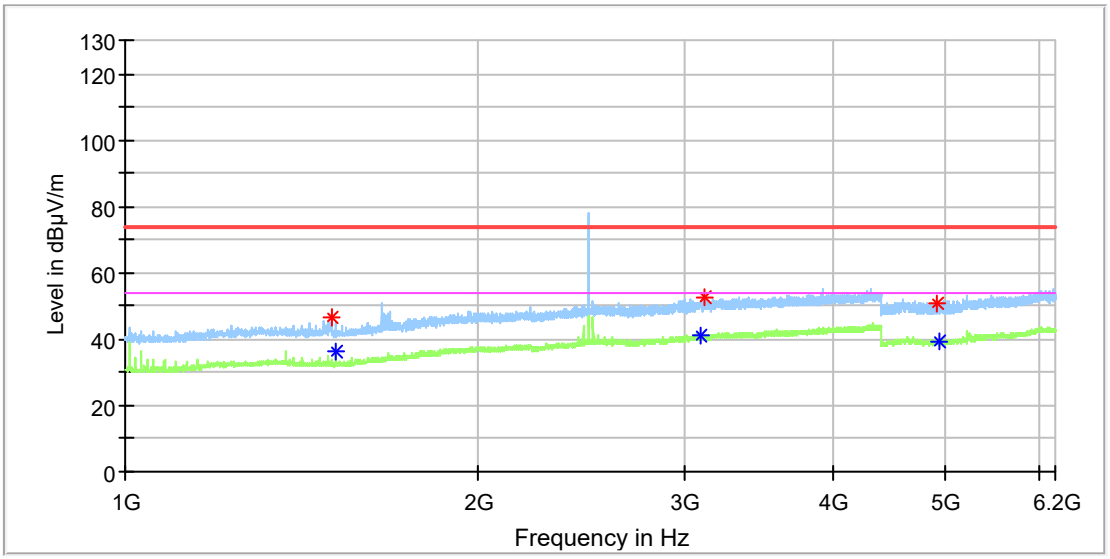
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
9754.258333	43.92	---	74.00	30.08	150.0	V	171.0	10.4
9754.258333	---	38.33	54.00	15.67	150.0	V	171.0	10.4
12116.225000	49.76	---	74.00	24.24	150.0	V	124.0	14.2
12156.050000	---	40.01	54.00	13.99	150.0	V	256.0	14.4

Final_Result

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

EUT Information

EUT Name:	Robotic Pool Cleaner
Model:	Niya Sonar 50
Test Mode:	BLE 1M_High channel
Order No/Sample No:	168469372/A00367066-001
Test Voltage:	Battery
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Lich Chen
Reviewed By:	Terry Yin



Critical_Freqs

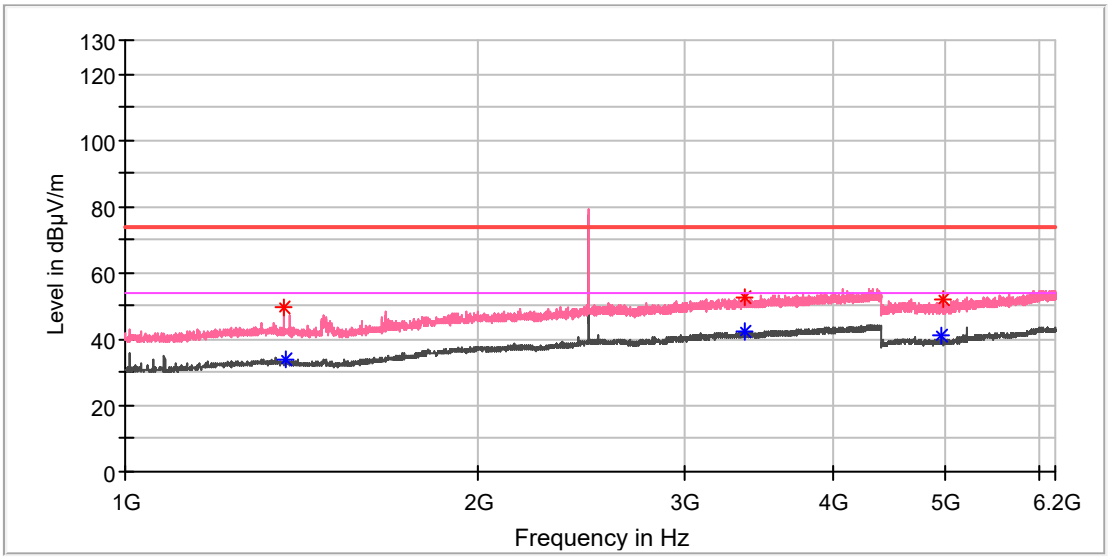
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1497.000000	46.85	---	74.00	27.15	150.0	H	286.0	1.2
1511.500000	---	36.16	54.00	17.84	150.0	H	221.0	1.3
3096.000000	---	41.08	54.00	12.92	150.0	H	320.0	8.7
3112.500000	52.53	---	74.00	21.47	150.0	H	343.0	8.6
4919.000000	50.68	---	74.00	23.32	150.0	H	125.0	11.8
4928.000000	---	39.45	54.00	14.55	150.0	H	112.0	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:	Robotic Pool Cleaner
Model:	Niya Sonar 50
Test Mode:	BLE 1M_High channel
Order No/Sample No:	168469372/A00367066-001
Test Voltage:	Battery
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Lich Chen
Reviewed By:	Terry Yin



Critical_Freqs

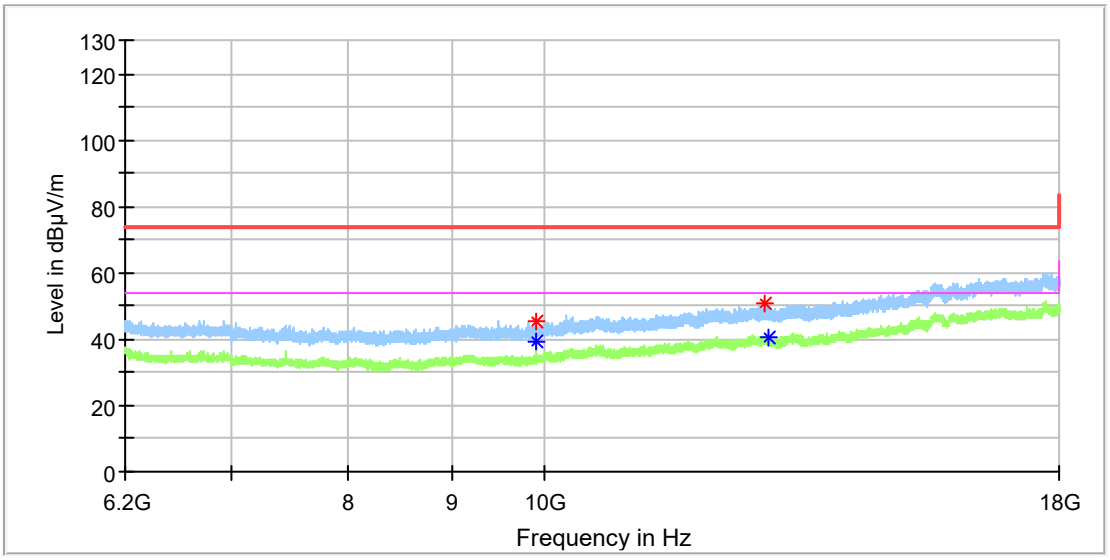
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1363.000000	49.40	---	74.00	24.60	150.0	V	353.0	2.0
1368.000000	---	33.84	54.00	20.16	150.0	V	215.0	2.0
3370.500000	52.46	---	74.00	21.54	150.0	V	146.0	8.6
3376.000000	---	42.21	54.00	11.79	150.0	V	20.0	8.6
4960.000000	---	41.19	54.00	12.81	150.0	V	218.0	11.8
4966.000000	51.77	---	74.00	22.23	150.0	V	223.0	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:	Robotic Pool Cleaner
Model:	Niya Sonar 50
Test Mode:	BLE 1M_High channel
Order No/Sample No:	168469372/A00367066-001
Test Voltage:	Battery
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Lich Chen
Reviewed By:	Terry Yin



Critical_Freqs

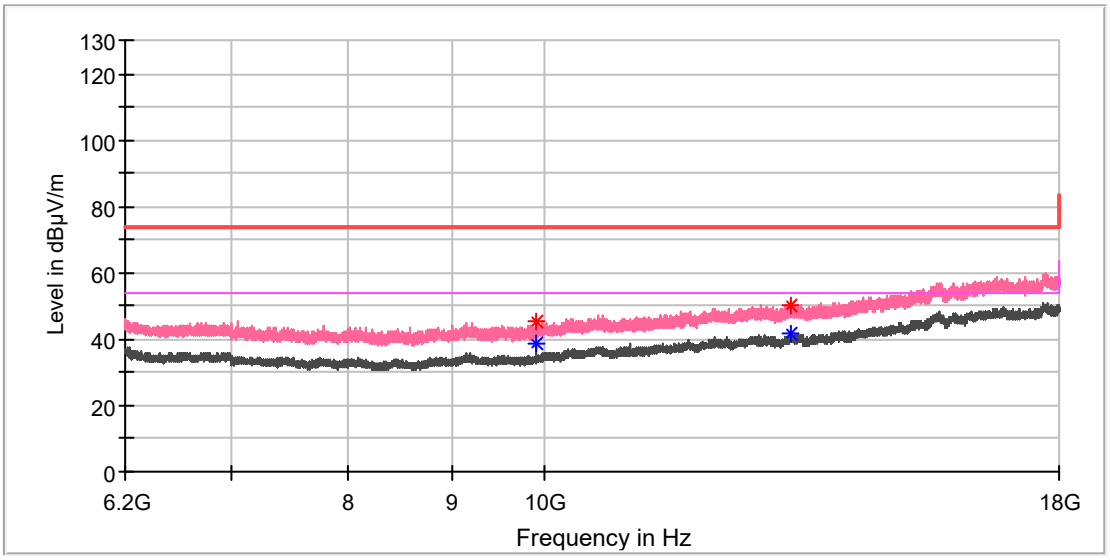
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
9914.541667	45.45	---	74.00	28.55	150.0	H	211.0	10.8
9914.541667	---	39.23	54.00	14.77	150.0	H	211.0	10.8
12863.558333	50.95	---	74.00	23.05	150.0	H	211.0	15.4
12932.391667	---	40.73	54.00	13.27	150.0	H	0.0	15.6

Final_Result

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

EUT Information

EUT Name:	Robotic Pool Cleaner
Model:	Niya Sonar 50
Test Mode:	BLE 1M_High channel
Order No/Sample No:	168469372/A00367066-001
Test Voltage:	Battery
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Lich Chen
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)
9914.541667	45.19	---	74.00	28.81	150.0	V	208.0	10.8
9914.541667	---	38.74	54.00	15.26	150.0	V	208.0	10.8
13254.925000	50.39	---	74.00	23.61	150.0	V	162.0	15.5
13260.333333	---	41.79	54.00	12.21	150.0	V	0.0	15.5

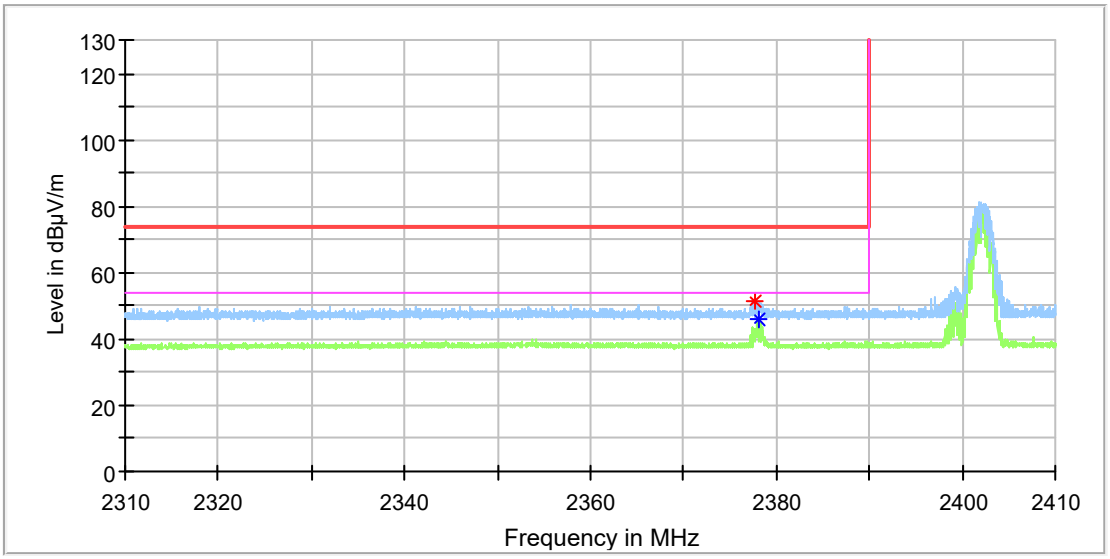
Final_Result

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

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

EUT Information

EUT Name:	Robotic Pool Cleaner
Model:	Niya Sonar 50
Test Mode:	BLE 1M_Low channel
Order No/Sample No:	168469372/A00367066-001
Test Voltage:	Battery
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Lich Chen
Reviewed By:	Terry Yin



Critical_Freqs

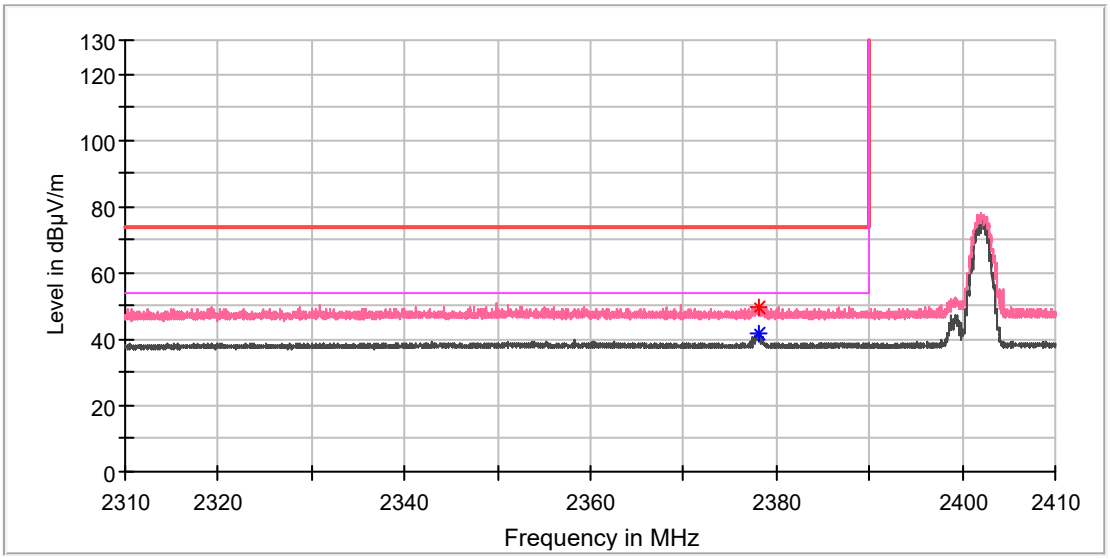
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2377.661765	51.17	---	74.00	22.83	150.0	H	168.0	6.9
2378.132353	---	45.69	54.00	8.31	150.0	H	146.0	6.9

Final_Result

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

EUT Information

EUT Name:	Robotic Pool Cleaner
Model:	Niya Sonar 50
Test Mode:	BLE 1M_Low channel
Order No/Sample No:	168469372/A00367066-001
Test Voltage:	Battery
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Lich Chen
Reviewed By:	Terry Yin



Critical_Freqs

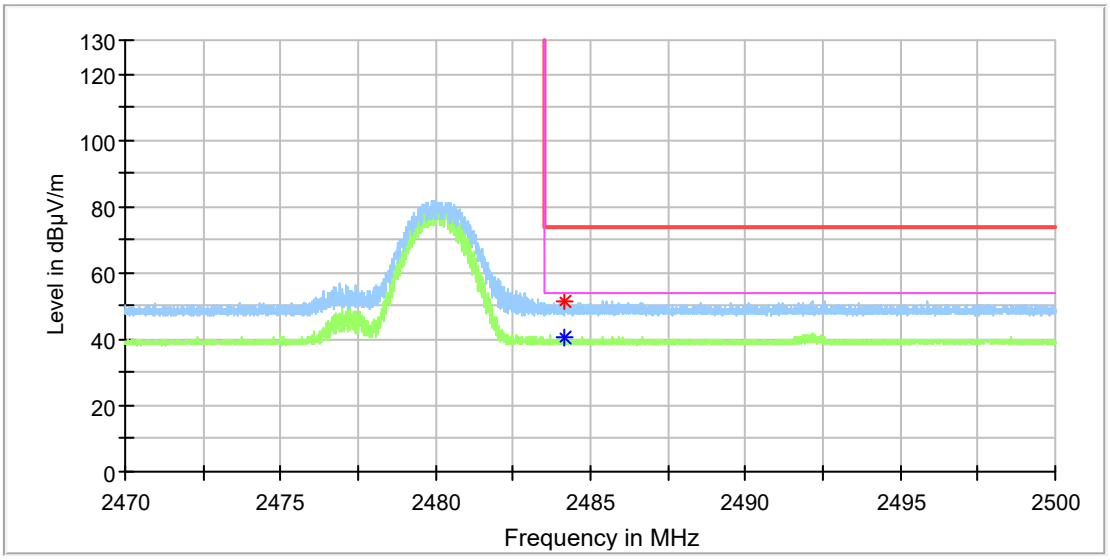
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2378.014706	49.43	---	74.00	24.57	150.0	V	212.0	6.9
2378.088235	---	41.72	54.00	12.28	150.0	V	62.0	6.9

Final_Result

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

EUT Information

EUT Name:	Robotic Pool Cleaner
Model:	Niya Sonar 50
Test Mode:	BLE 1M_High channel
Order No/Sample No:	168469372/A00367066-001
Test Voltage:	Battery
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Lich Chen
Reviewed By:	Terry Yin



Critical_Freqs

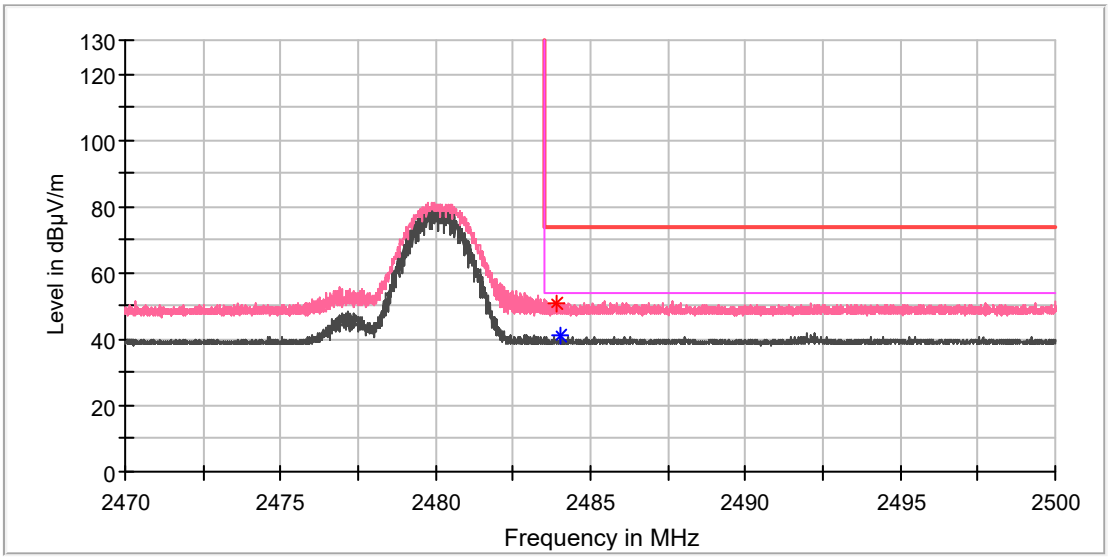
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2484.157353	51.51	---	74.00	22.49	150.0	H	160.0	7.4
2484.170588	---	40.37	54.00	13.63	150.0	H	33.0	7.4

Final_Result

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

EUT Information

EUT Name:	Robotic Pool Cleaner
Model:	Niya Sonar 50
Test Mode:	BLE 1M_High channel
Order No/Sample No:	168469372/A00367066-001
Test Voltage:	Battery
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Lich Chen
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)
2483.888235	50.73	---	74.00	23.27	150.0	V	290.0	7.4
2484.051471	---	41.05	54.00	12.95	150.0	V	214.0	7.4

Final_Result

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