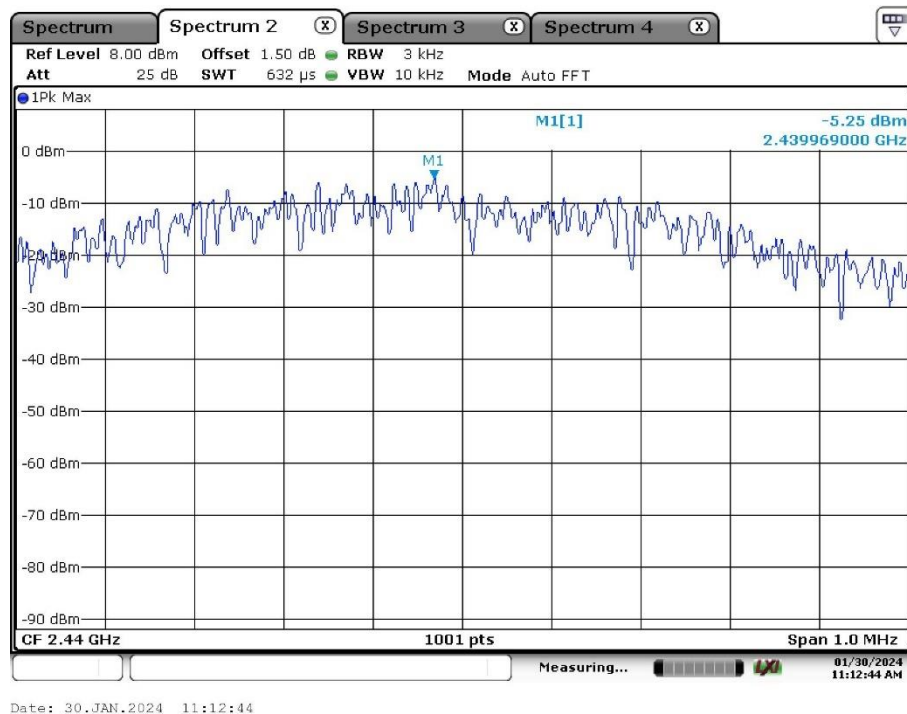
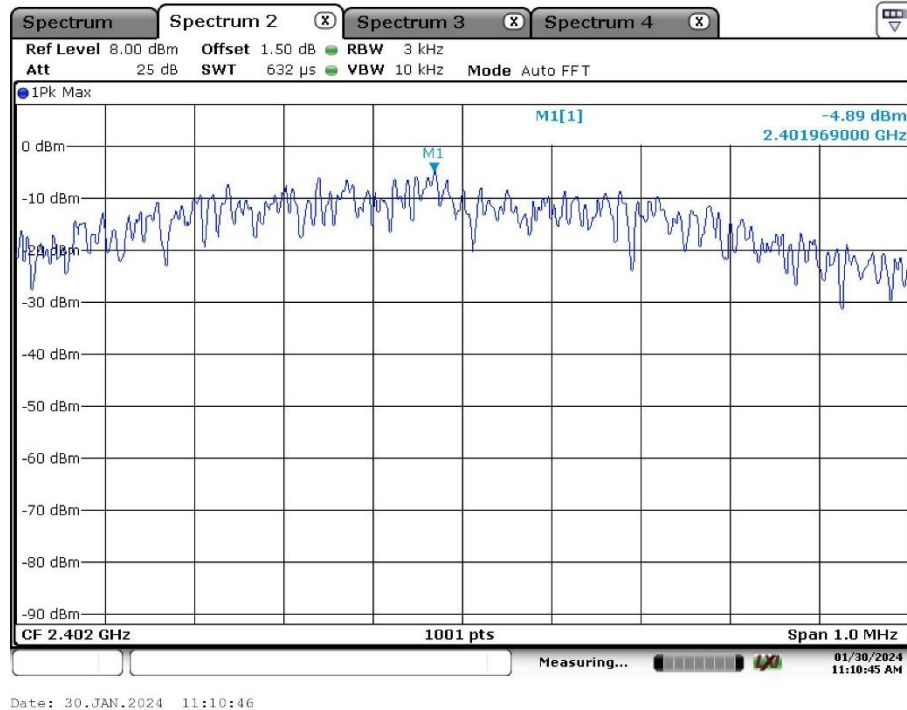


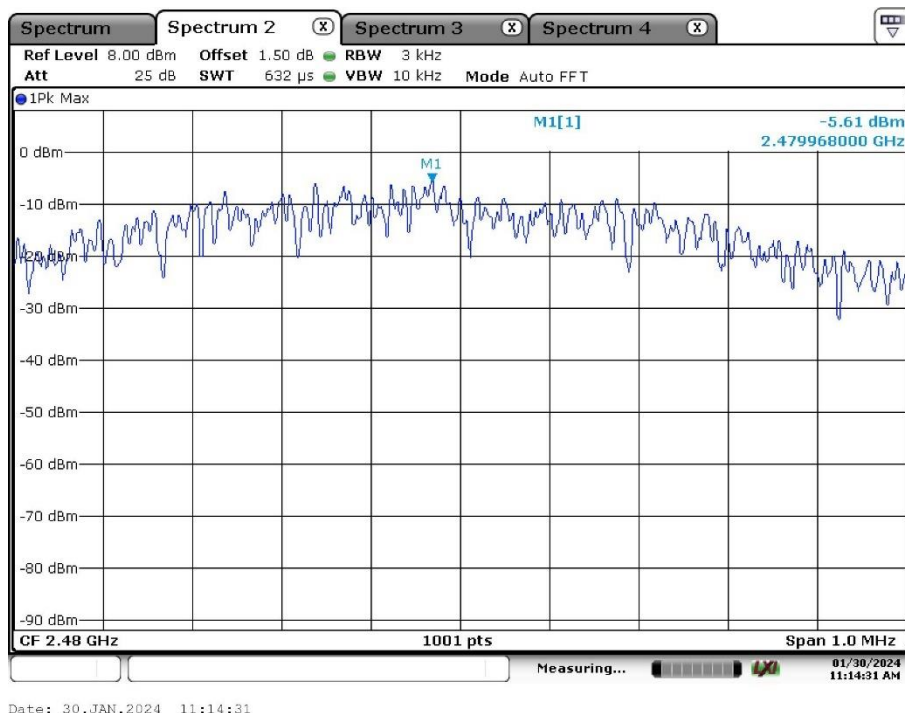
Appendix A: Test Results of Bluetooth Low Energy

APPENDIX A: TEST RESULTS OF BLUETOOTH LOW ENERGY	1
APPENDIX A.1: TEST RESULTS OF CONDUCTED POWER SPECTRAL DENSITY	2
<i>Bluetooth LE Mode, 1Mbps.....</i>	<i>2</i>
<i>Bluetooth LE Mode, 2Mbps.....</i>	<i>3</i>
APPENDIX A.2: TEST RESULTS OF 6dB BANDWIDTH	5
<i>Bluetooth LE Mode, 1Mbps.....</i>	<i>5</i>
<i>Bluetooth LE Mode, 2Mbps.....</i>	<i>8</i>
APPENDIX A.3: TEST RESULTS OF 99% BANDWIDTH.....	11
<i>Bluetooth LE Mode, 1Mbps.....</i>	<i>11</i>
<i>Bluetooth LE Mode, 2Mbps.....</i>	<i>14</i>
APPENDIX A.4: TEST RESULTS OF CONDUCTED SPURIOUS EMISSIONS MEASURED IN 100 kHz BANDWIDTH	17
<i>Bluetooth LE Mode, 1Mbps.....</i>	<i>17</i>
<i>Band Edge.....</i>	<i>17</i>
<i>Conducted Spurious Emission</i>	<i>18</i>
<i>Bluetooth LE Mode, 2Mbps.....</i>	<i>21</i>
<i>Band Edge.....</i>	<i>21</i>
<i>Conducted Spurious Emission</i>	<i>22</i>
APPENDIX A.5: TEST RESULTS OF RADIATED SPURIOUS EMISSIONS	25
<i>30 MHz - 1GHz</i>	<i>25</i>
<i>1GHz - 18GHz.....</i>	<i>27</i>
APPENDIX A.6: TEST RESULTS OF RADIATED EMISSIONS IN RESTRICTED BANDS.....	39
APPENDIX A.7: TEST PLOTS OF CONDUCTED EMISSION ON AC MAINS.....	47

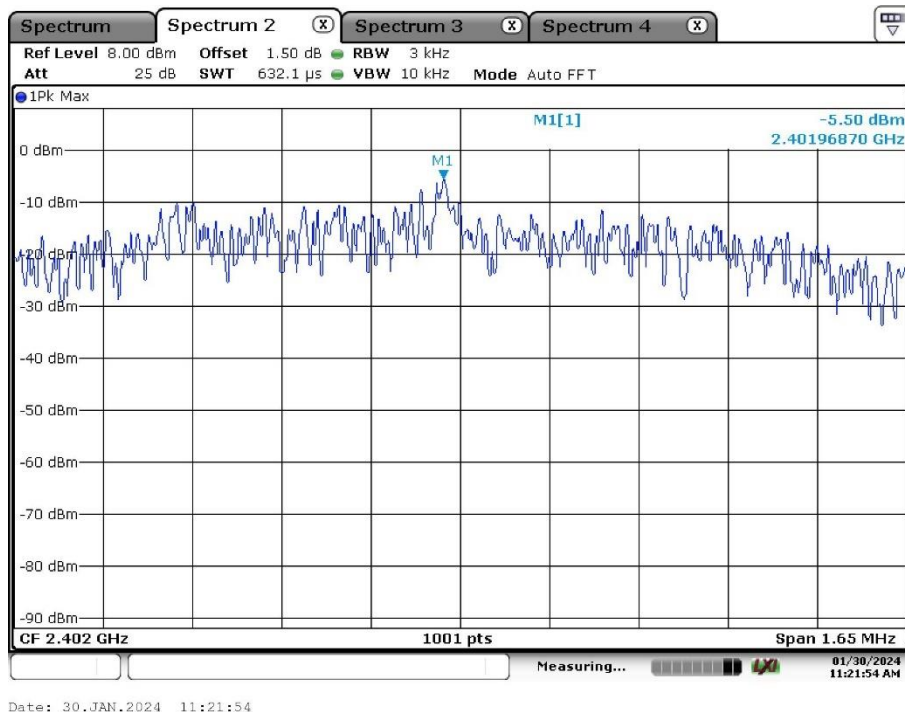
Appendix A.1: Test Results of Conducted Power Spectral Density

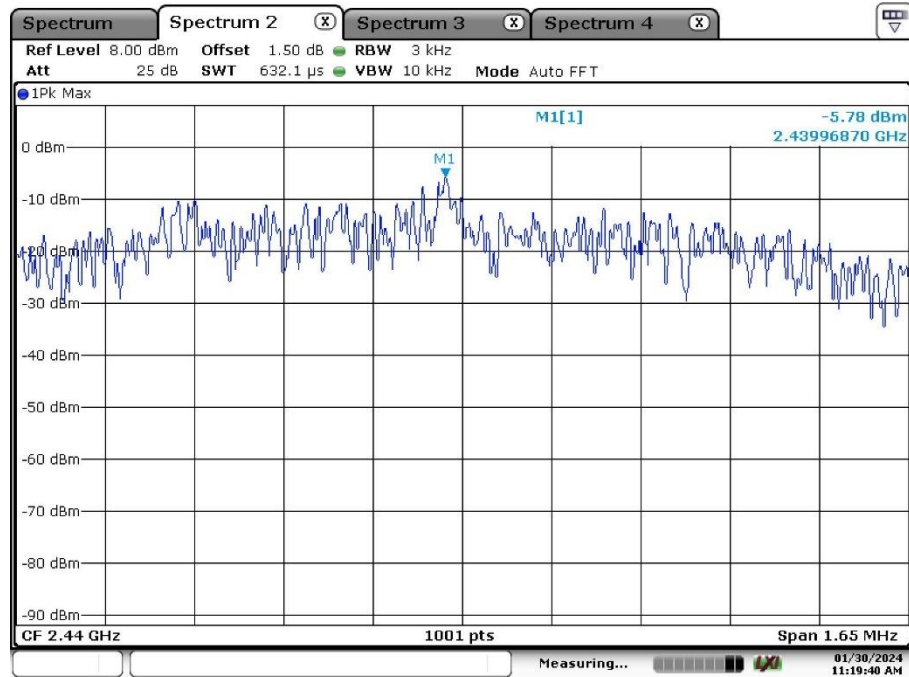
Bluetooth LE Mode, 1Mbps



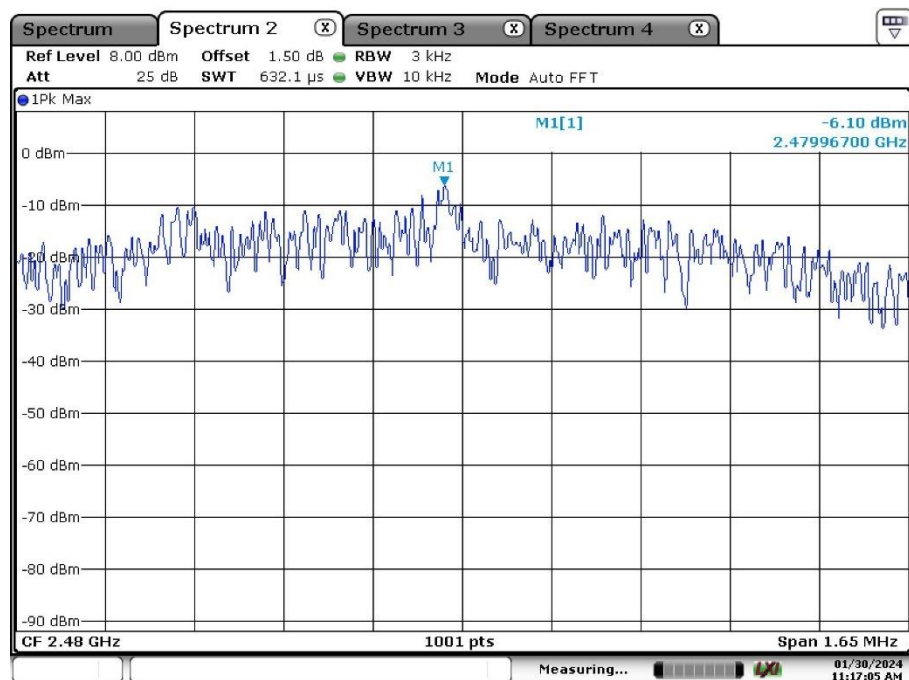


Bluetooth LE Mode, 2Mbps





Date: 30.JAN.2024 11:19:41



Date: 30.JAN.2024 11:17:05

Appendix A.2: Test Results of 6dB Bandwidth

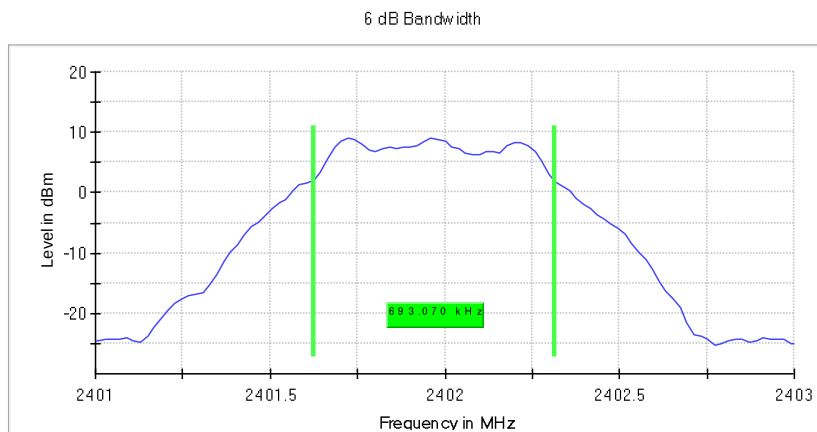
Bluetooth LE Mode, 1Mbps

6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2402.000000	0.693070	0.500000	---	2401.623762	2402.316832

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

DUT Frequency (MHz)	Max Level (dBm)	Result
2402.000000	9.0	PASS



RBW 100KHz, VBW 300KHz

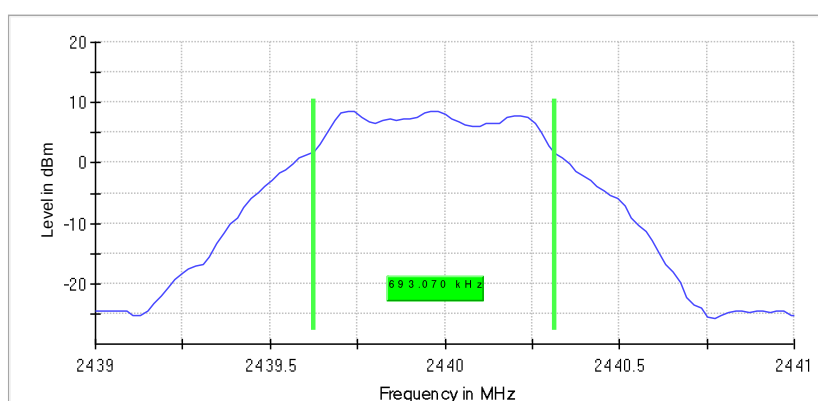
6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2440.000000	0.693070	0.500000	---	2439.623762	2440.316832

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

DUT Frequency (MHz)	Max Level (dBm)	Result
2440.000000	8.7	PASS

6 dB Bandwidth



RBW 100KHz, VBW 300KHz

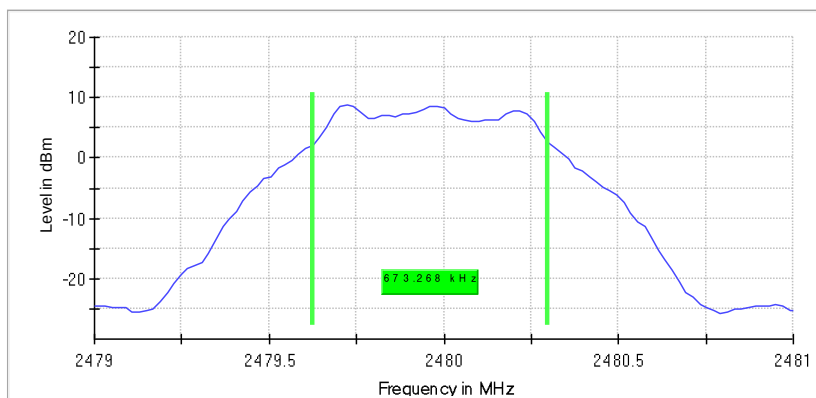
6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2480.000000	0.673268	0.500000	---	2479.623762	2480.297030

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

DUT Frequency (MHz)	Max Level (dBm)	Result
2480.000000	8.7	PASS

6 dB Bandwidth



RBW 100KHz, VBW 300KHz

Bluetooth LE Mode, 2Mbps

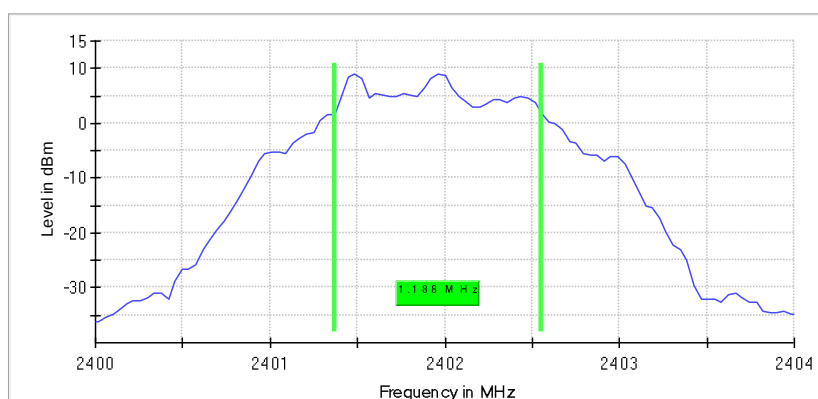
6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2402.000000	1.188118	0.500000	---	2401.366337	2402.554455

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

DUT Frequency (MHz)	Max Level (dBm)	Result
2402.000000	9.0	PASS

6 dB Bandwidth



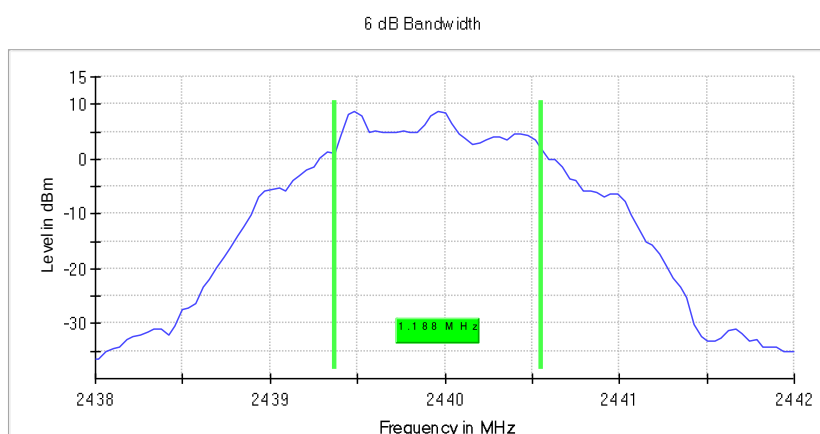
RBW 100KHz, VBW 300KHz

6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2440.000000	1.188118	0.500000	---	2439.366337	2440.554455

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

DUT Frequency (MHz)	Max Level (dBm)	Result
2440.000000	8.7	PASS



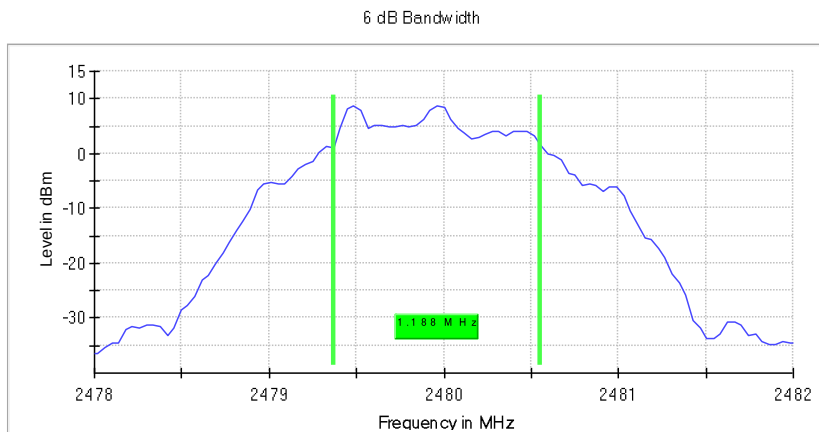
RBW 100KHz, VBW 300KHz

6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2480.000000	1.188118	0.500000	---	2479.366337	2480.554455

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

DUT Frequency (MHz)	Max Level (dBm)	Result
2480.000000	8.7	PASS



RBW 100KHz, VBW 300KHz

Appendix A.3: Test Results of 99% Bandwidth

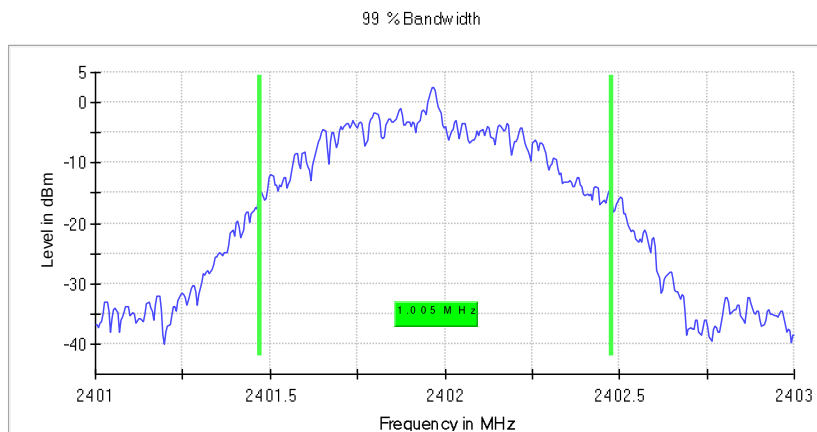
Bluetooth LE Mode, 1Mbps

99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2402.000000	1.005000	---	---	2401.472500	2402.477500

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

DUT Frequency (MHz)	Result
2402.000000	PASS



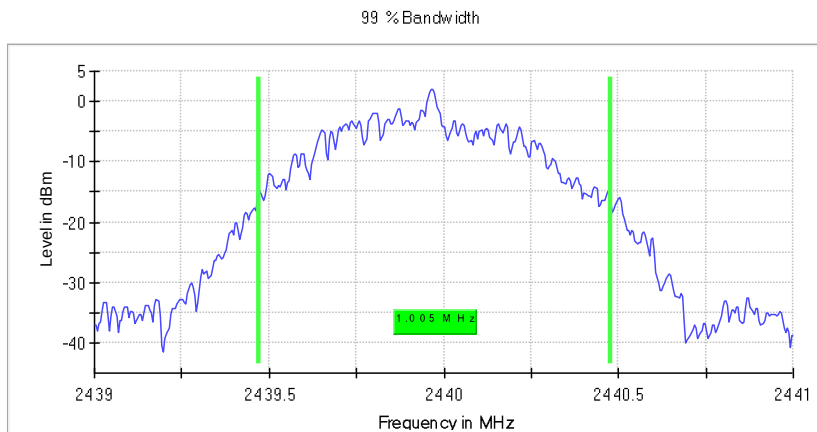
RBW 30KHz

99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2440.000000	1.005000	---	---	2439.472500	2440.477500

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

DUT Frequency (MHz)	Result
2440.000000	PASS



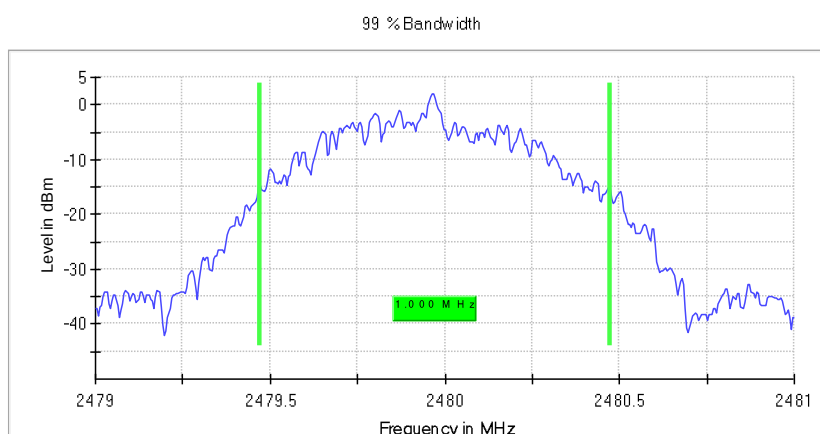
RBW 30KHz

99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2480.000000	1.000000	---	---	2479.472500	2480.472500

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

DUT Frequency (MHz)	Result
2480.000000	PASS



RBW 30KHz

Bluetooth LE Mode, 2Mbps

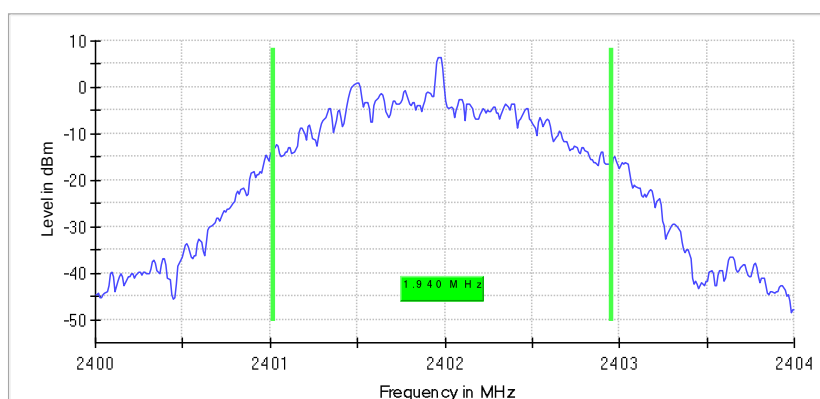
99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2402.000000	1.940000	---	---	2401.015000	2402.955000

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

DUT Frequency (MHz)	Result
2402.000000	PASS

99 % Bandwidth



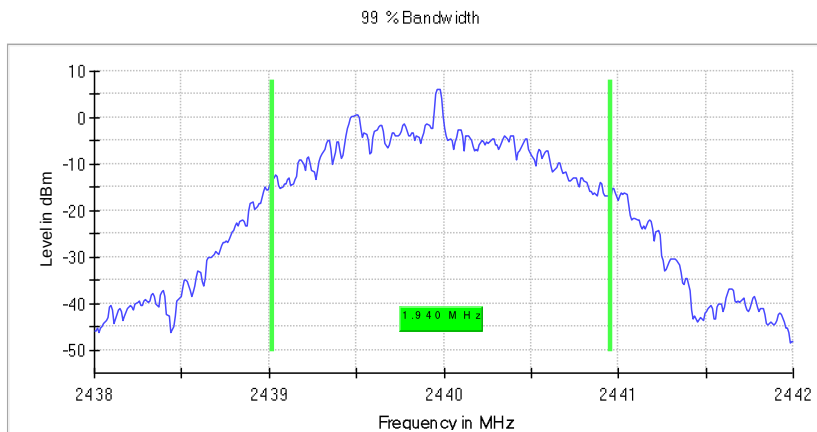
RBW 30KHz

99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2440.000000	1.940000	---	---	2439.015000	2440.955000

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

DUT Frequency (MHz)	Result
2440.000000	PASS



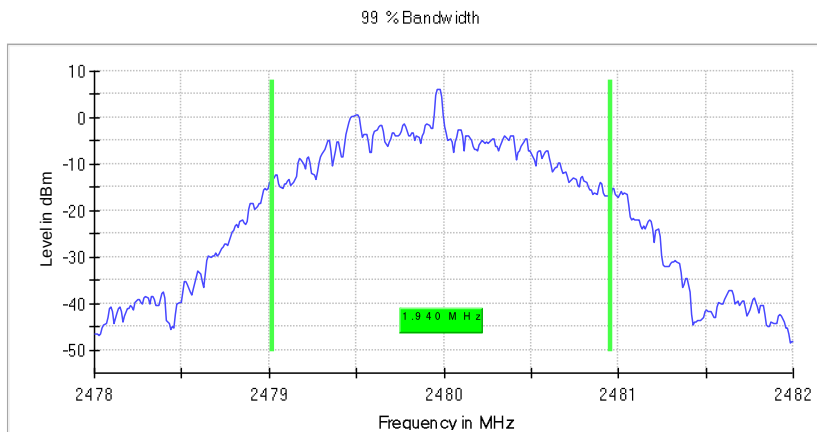
RBW 30KHz

99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2480.000000	1.940000	---	---	2479.015000	2480.955000

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

DUT Frequency (MHz)	Result
2480.000000	PASS



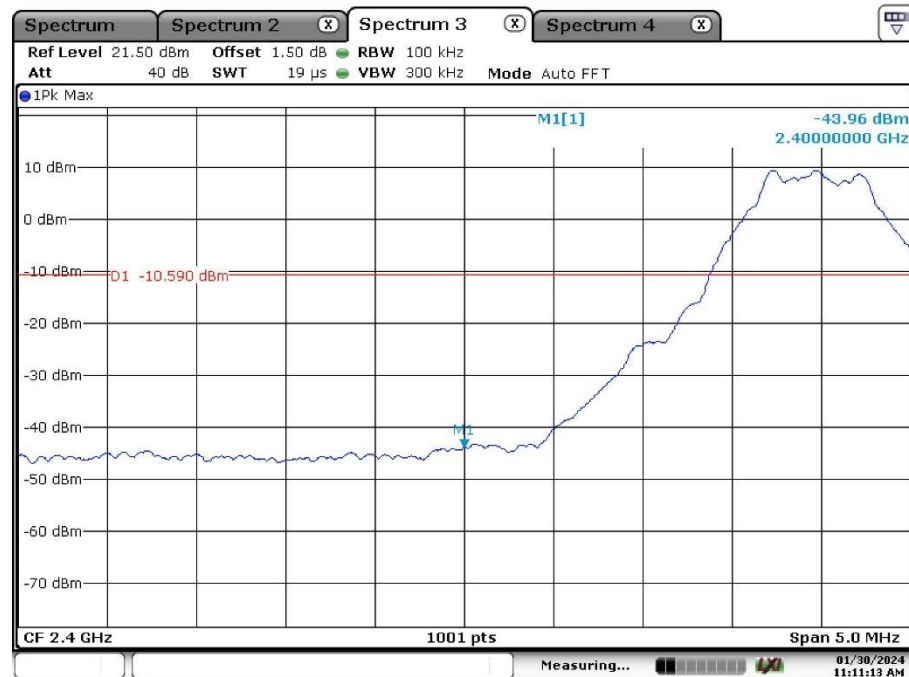
RBW 30KHz

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

Bluetooth LE Mode, 1Mbps

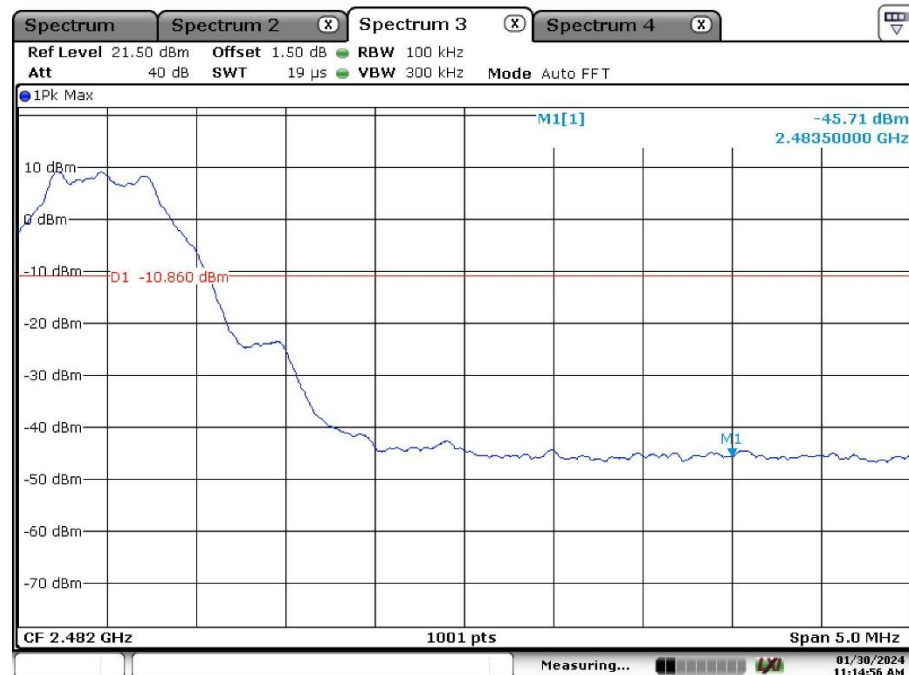
Band Edge

Low Channel



Date: 30.JAN.2024 11:11:14

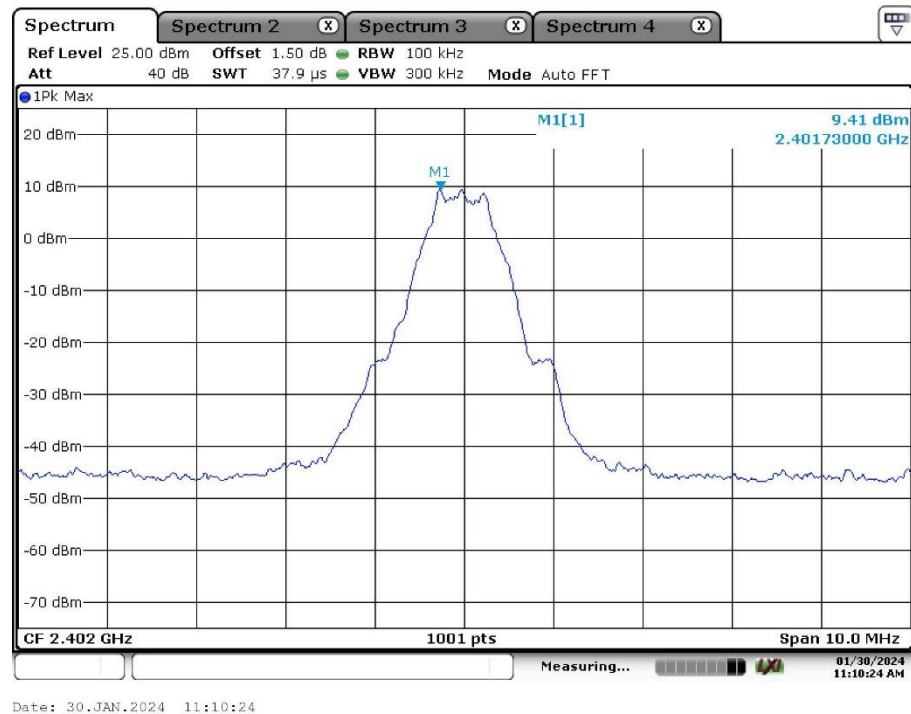
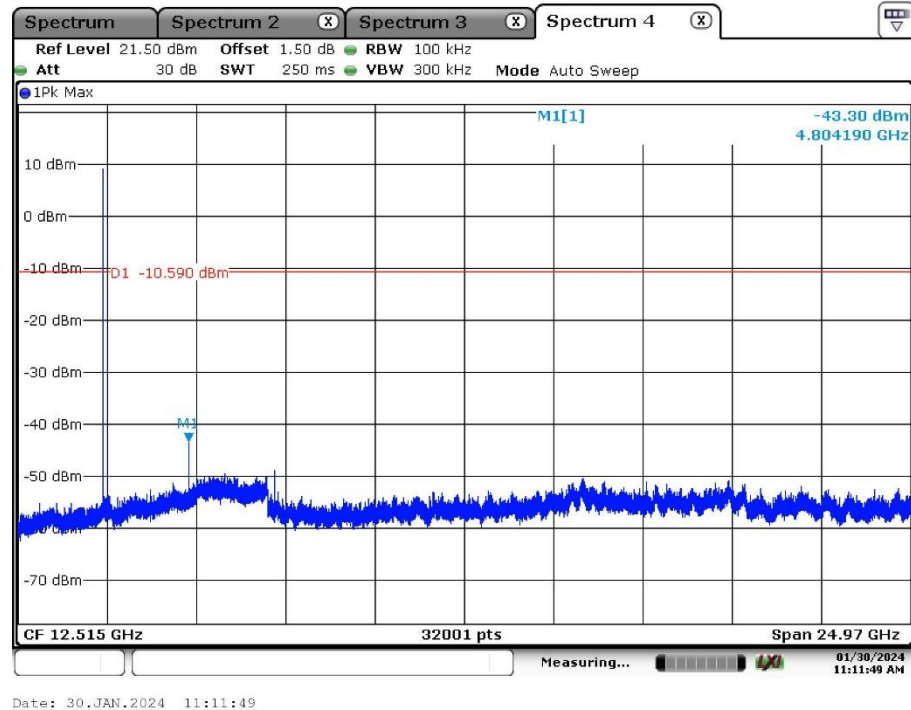
High Channel



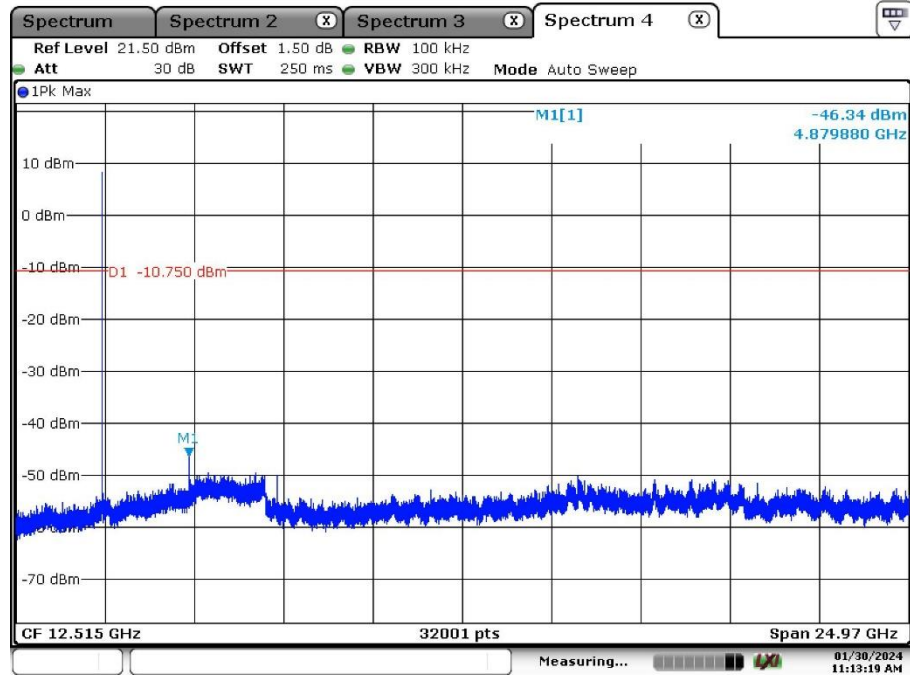
Date: 30.JAN.2024 11:14:57

Conducted Spurious Emission

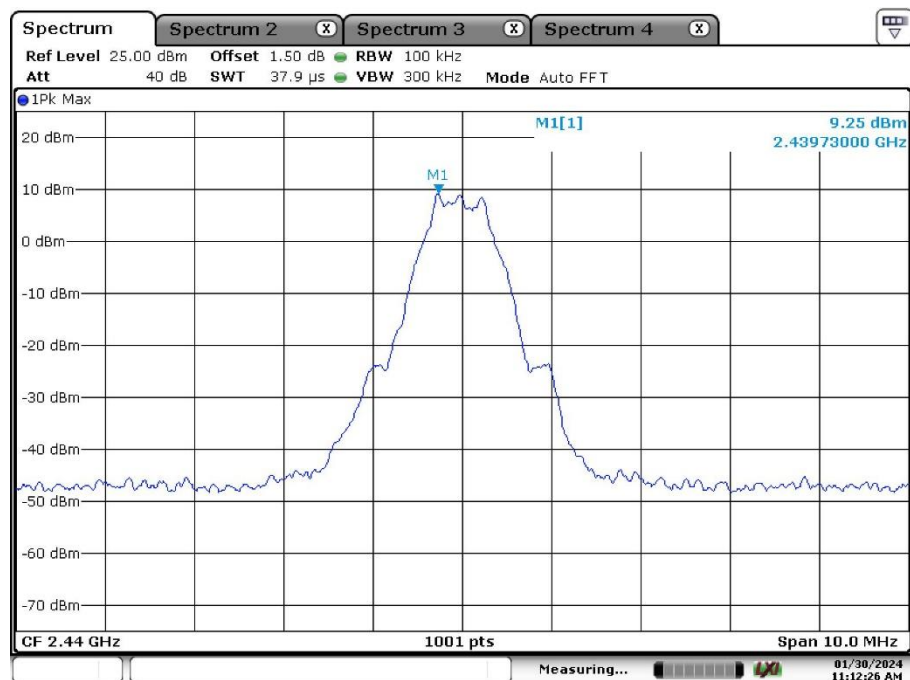
Low Channel:



Middle Channel:

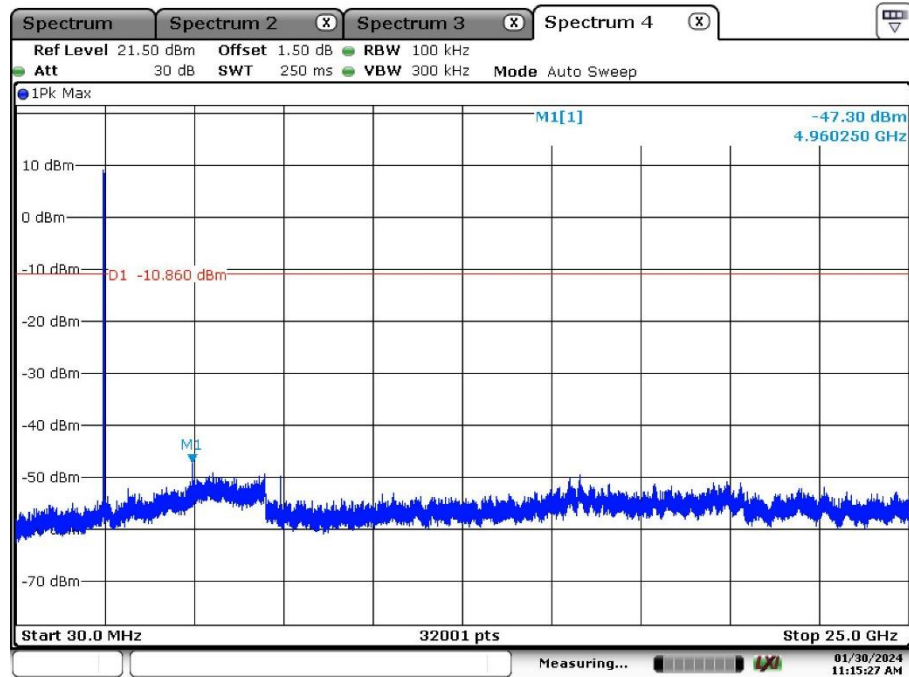


Date: 30.JAN.2024 11:13:19

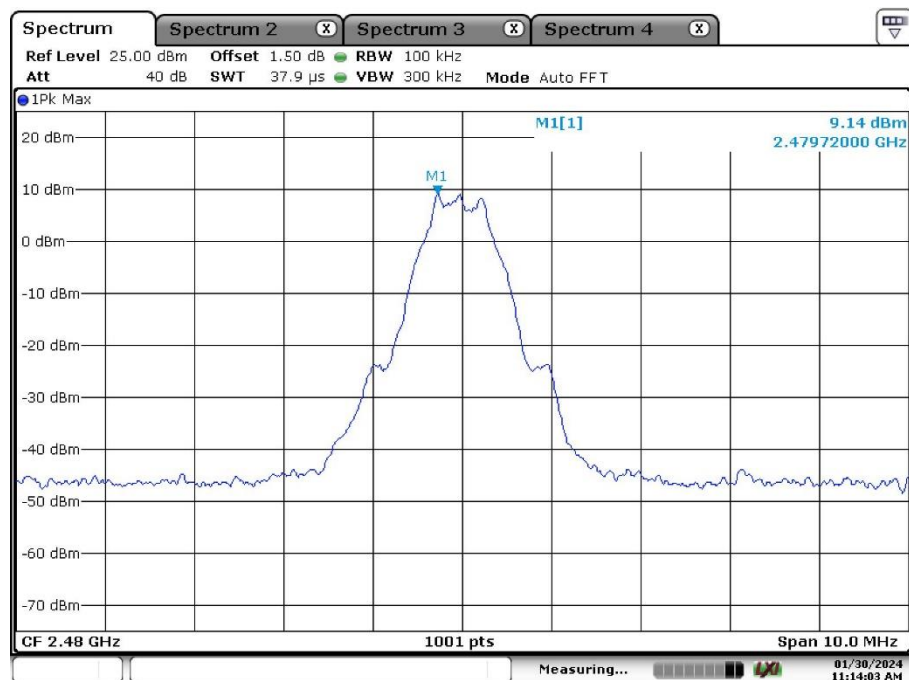


Date: 30.JAN.2024 11:12:27

High Channel:



Date: 30.JAN.2024 11:15:27

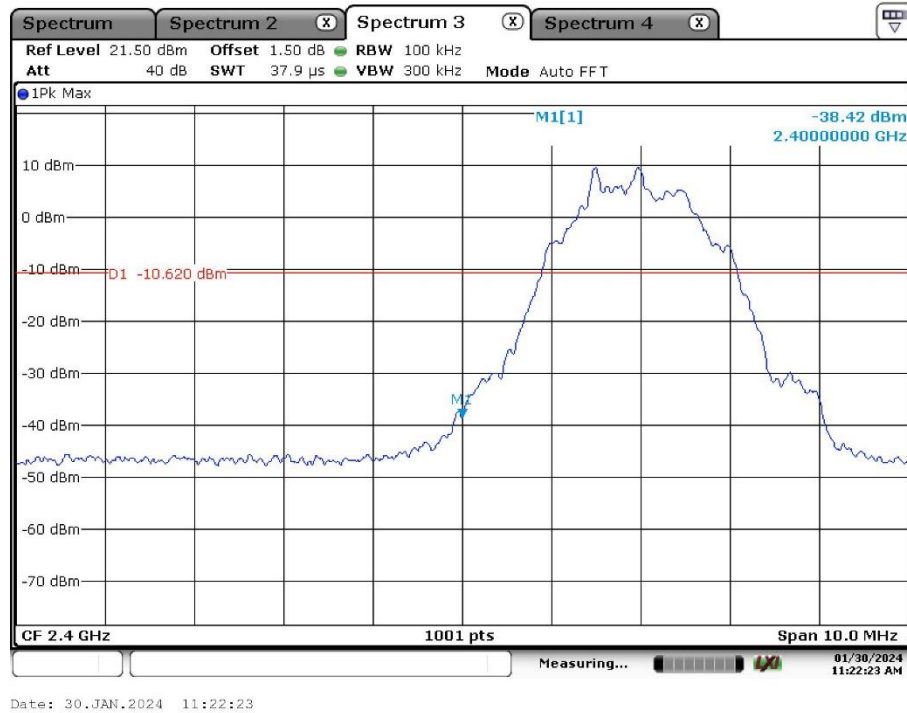


Date: 30.JAN.2024 11:14:03

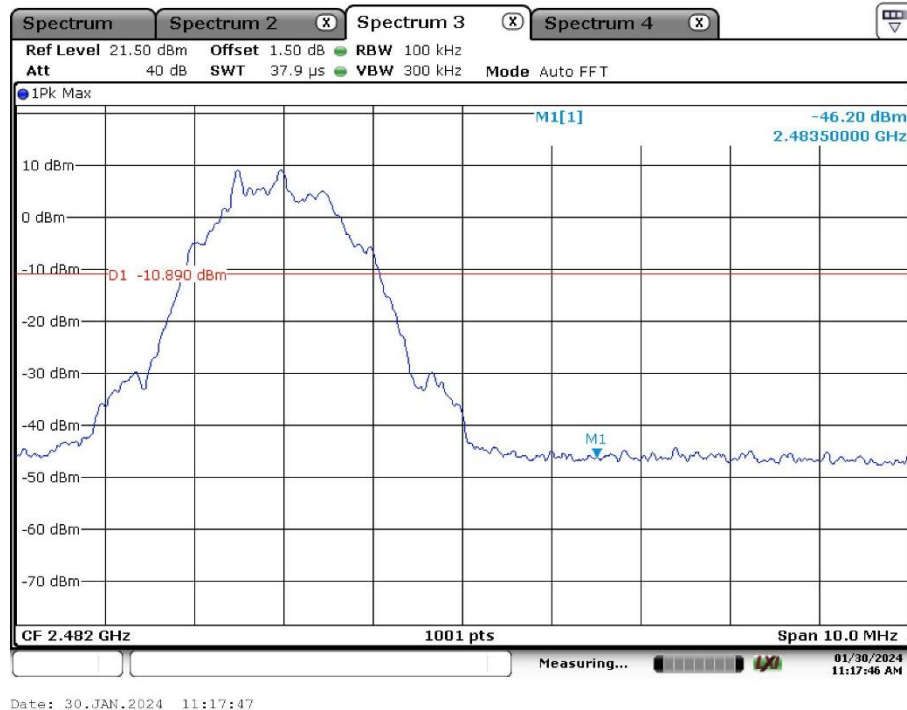
Bluetooth LE Mode, 2Mbps

Band Edge

Low Channel

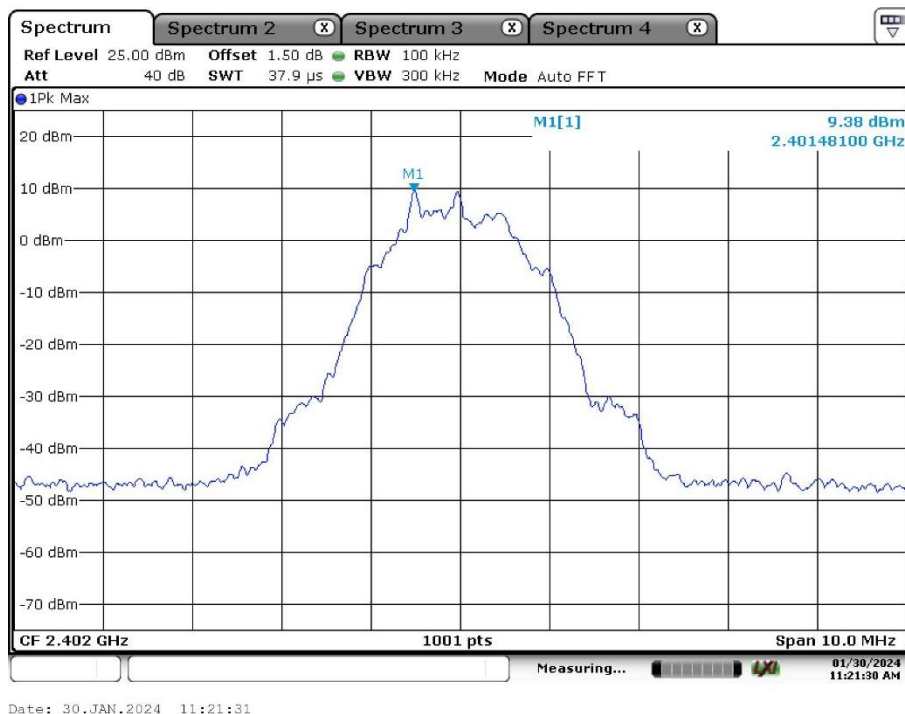
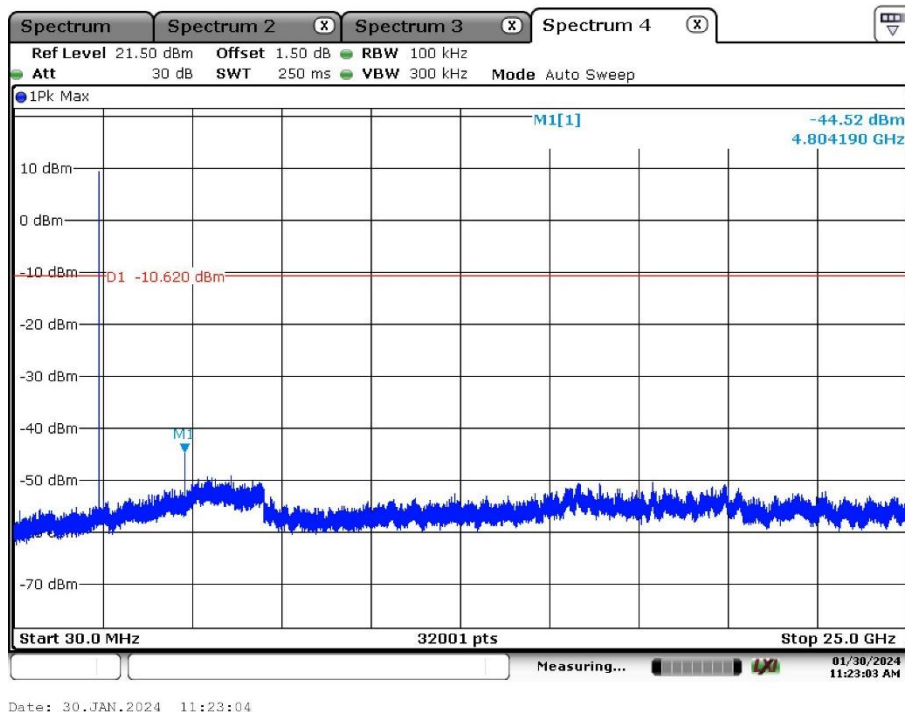


High Channel

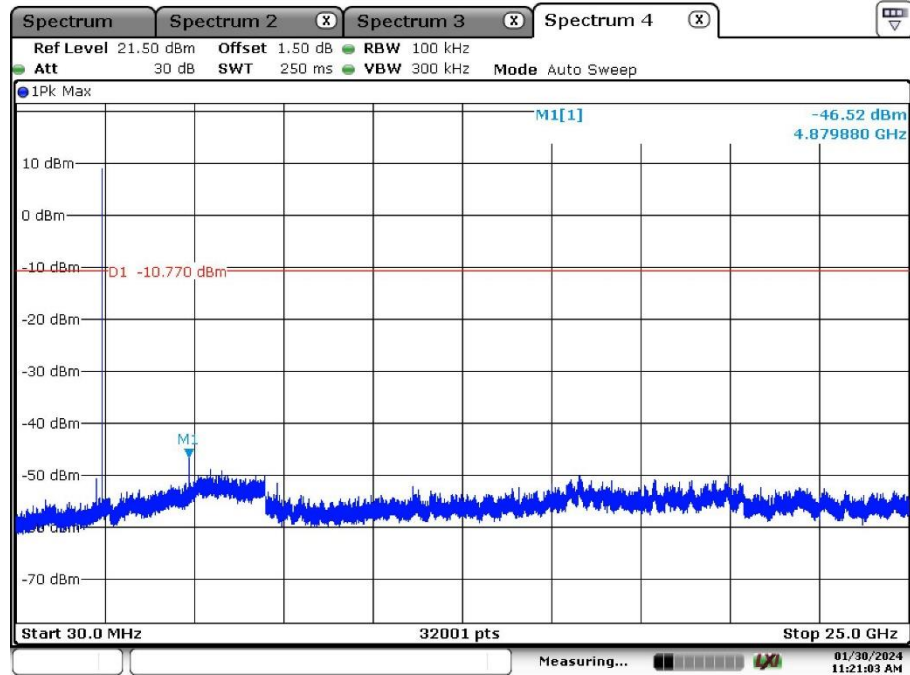


Conducted Spurious Emission

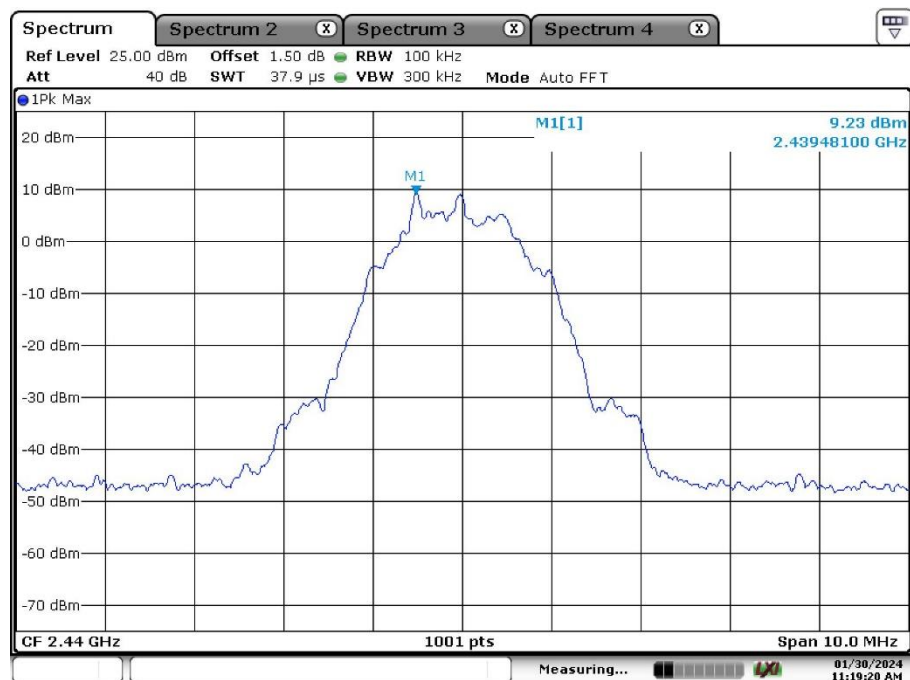
Low Channel:



Middle Channel:

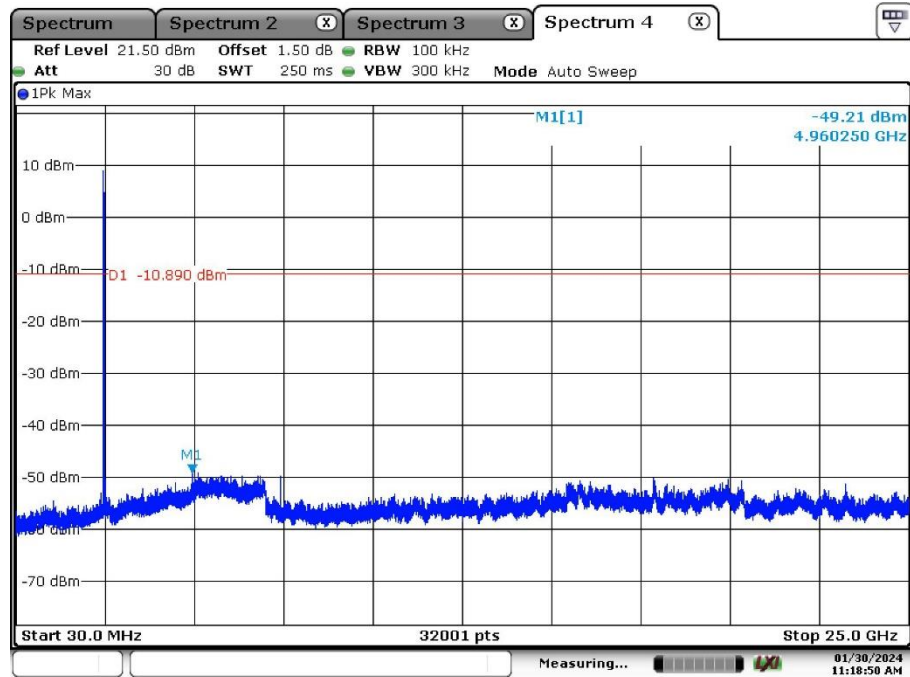


Date: 30.JAN.2024 11:21:04

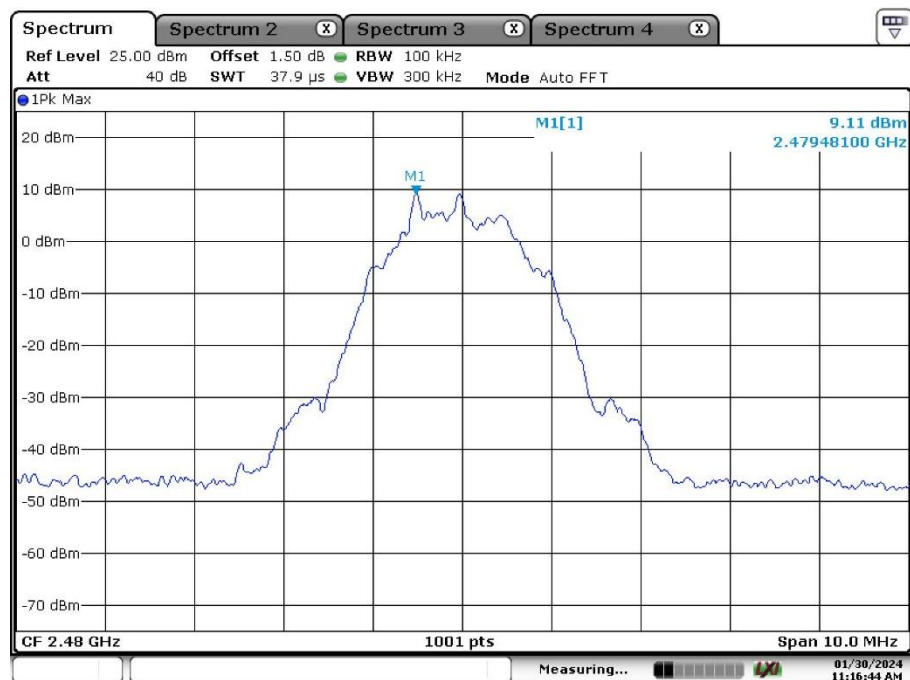


Date: 30.JAN.2024 11:19:21

High Channel:



Date: 30.JAN.2024 11:18:51



Date: 30.JAN.2024 11:16:45

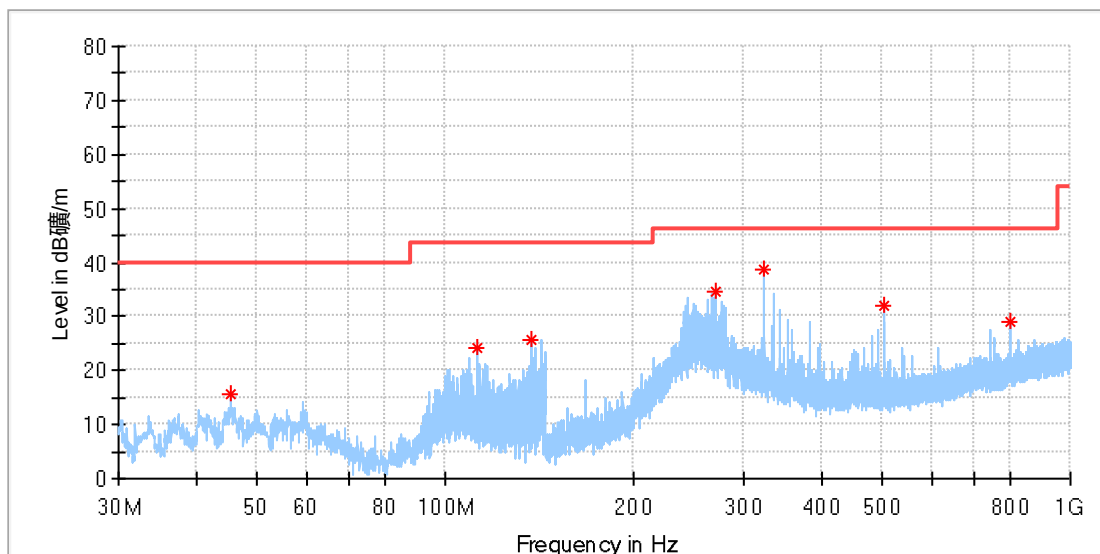
Appendix A.5: Test Results of Radiated Spurious Emissions

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:	Lenovo USB-A Bluetooth Audio Receiver Gen 2
Model:	LB310D
Test Mode:	BLE 1M_Mid channel
Order No/Sample No:	168456688/A003654750-001
Test Voltage:	DC 5V From USB
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247, RSS-247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

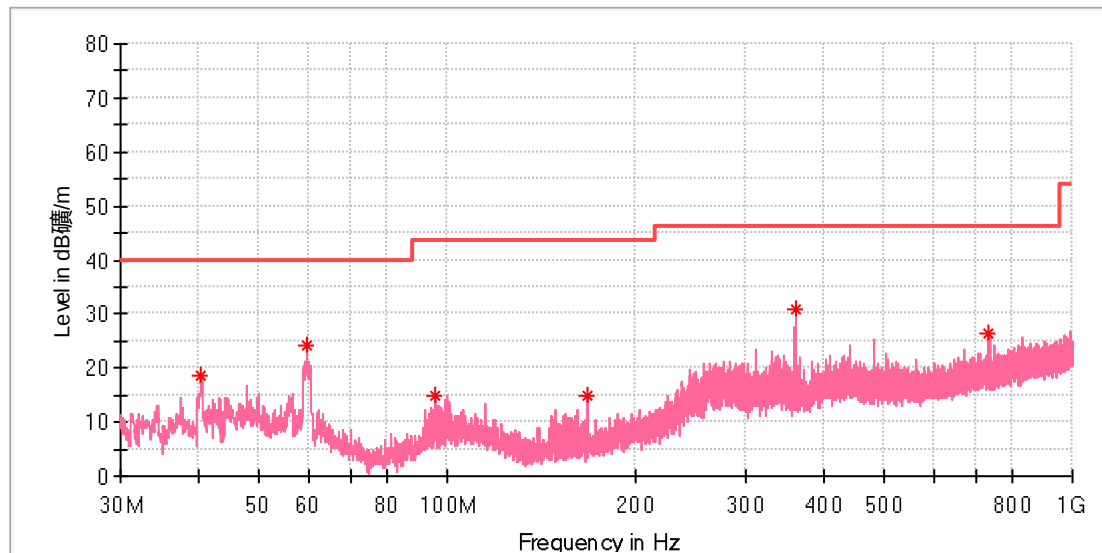
Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
45.482692	15.72	40.00	24.28	100.0	H	204.0	-19.1
112.487308	24.06	43.50	19.44	100.0	H	43.0	-19.7
137.670000	25.57	43.50	17.93	100.0	H	43.0	-22.5
271.492692	34.43	46.00	11.57	100.0	H	0.0	-17.2
324.171154	38.60	46.00	7.40	100.0	H	0.0	-15.9
503.919615	32.06	46.00	13.94	100.0	H	165.0	-12.2
803.798846	29.03	46.00	16.97	100.0	H	3.0	-6.7

Final_Result

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

EUT Information

EUT Name:	Lenovo USB-A Bluetooth Audio Receiver Gen 2
Model:	LB310D
Test Mode:	BLE 1M_Mid channel
Order No/Sample No:	168456688/A003654750-001
Test Voltage:	DC 5V From USB
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247, RSS-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)
40.296923	18.75	40.00	21.25	100.0	V	0.0	-20.3
59.622308	24.31	40.00	15.69	100.0	V	108.0	-19.2
95.400385	14.91	43.50	28.59	100.0	V	16.0	-20.0
168.001154	14.80	43.50	28.70	100.0	V	218.0	-21.7
359.949231	31.02	46.00	14.98	100.0	V	108.0	-15.0
731.981539	26.38	46.00	19.62	100.0	V	134.0	-7.9

Final_Result

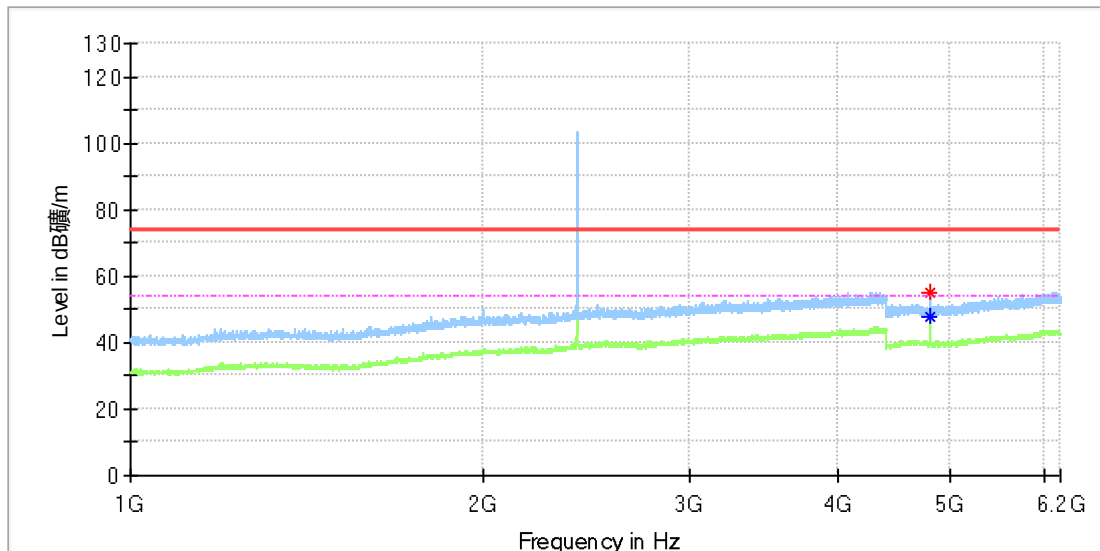
Frequency (MHz)	QuasiPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---		---	---

1GHz - 18GHz

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

EUT Information

EUT Name:	Lenovo USB-A Bluetooth Audio Receiver Gen 2
Model:	LB310D
Test Mode:	BLE 1M_Low channel
Order No/Sample No:	168456688/A003654750-001
Test Voltage:	DC 5V From USB
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247, RSS-247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

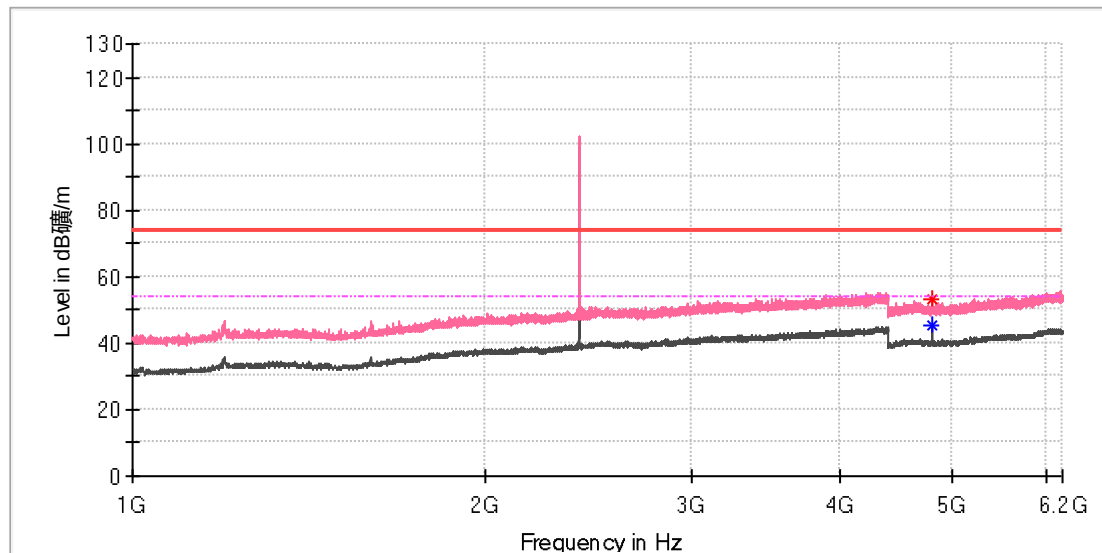
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4804.000000	55.17	---	74.00	18.83	150.0	H	353.0	11.8
4804.000000	---	47.83	54.00	6.17	150.0	H	353.0	11.8

Final_Result

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

EUT Information

EUT Name: Lenovo USB-A Bluetooth Audio Receiver Gen 2
Model: LB310D
Test Mode: BLE 1M_Low channel
Order No/Sample No: 168456688/A003654750-001
Test Voltage: DC 5V From USB
Remark: Temp 23 Humi:56%
Test Standard: FCC 15.247, RSS-247
Tested By: Kei Zhang
Reviewed By: Terry Yin



Critical_Freqs

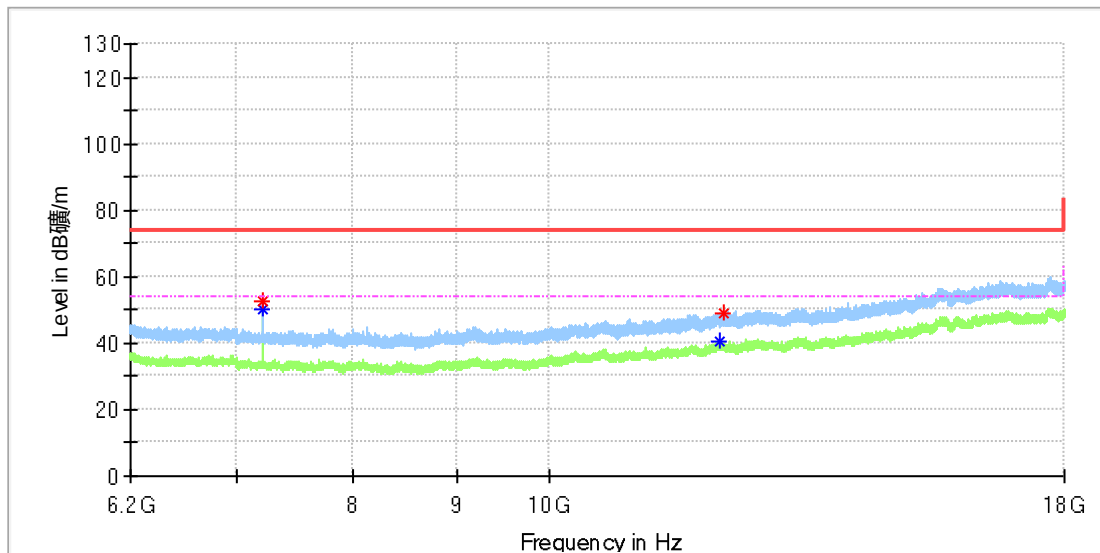
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4803.500000	53.33	---	74.00	20.67	150.0	V	102.0	11.8
4803.500000	---	45.23	54.00	8.77	150.0	V	102.0	11.8

Final_Result

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

EUT Information

EUT Name: Lenovo USB-A Bluetooth Audio Receiver Gen 2
Model: LB310D
Test Mode: BLE 1M_Low channel
Order No/Sample No: 168456688/A003654750-001
Test Voltage: DC 5V From USB
Remark: Temp 23 Humi:56%
Test Standard: FCC 15.247, RSS-247
Tested By: Kei Zhang
Reviewed By: Terry Yin



Critical_Freqs

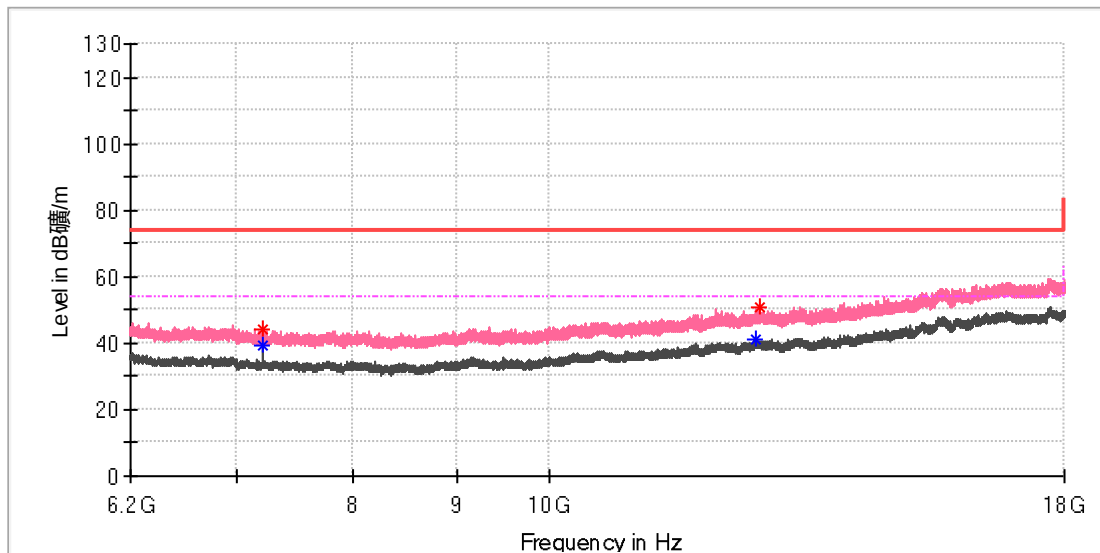
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7205.458333	52.85	---	74.00	21.15	150.0	H	246.0	8.8
7205.950000	---	50.41	54.00	3.59	150.0	H	246.0	8.8
12135.400000	---	40.21	54.00	13.79	150.0	H	163.0	14.3
12188.500000	49.19	---	74.00	24.81	150.0	H	343.0	14.6

Final_Result

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

EUT Information

EUT Name: Lenovo USB-A Bluetooth Audio Receiver Gen 2
Model: LB310D
Test Mode: BLE 1M_Low channel
Order No/Sample No: 168456688/A003654750-001
Test Voltage: DC 5V From USB
Remark: Temp 23 Humi:56%
Test Standard: FCC 15.247, RSS-247
Tested By: Kei Zhang
Reviewed By: Terry Yin



Critical_Freqs

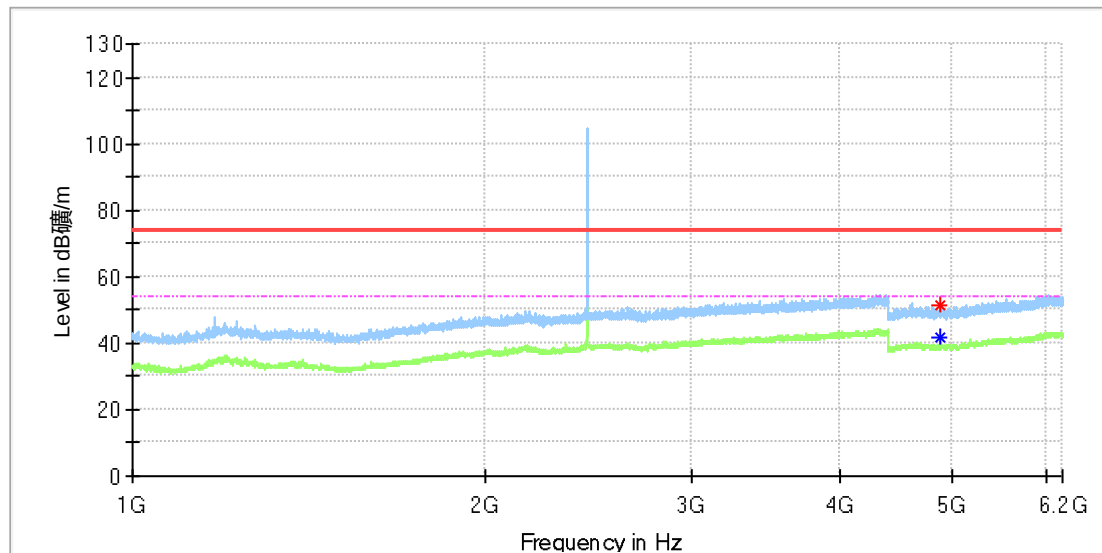
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7205.950000	44.15	---	74.00	29.85	150.0	V	17.0	8.8
7205.950000	---	39.51	54.00	14.49	150.0	V	17.0	8.8
12662.466667	---	41.17	54.00	12.83	150.0	V	17.0	15.0
12726.875000	50.69	---	74.00	23.31	150.0	V	162.0	15.2

Final_Result

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

EUT Information

EUT Name: Lenovo USB-A Bluetooth Audio Receiver Gen 2
Model: LB310D
Test Mode: BLE 1M_Mid channel
Order No/Sample No: 168456688/A003654750-001
Test Voltage: DC 5V From USB
Remark: Temp 23 Humi:56%
Test Standard: FCC 15.247, RSS-247
Tested By: Kei Zhang
Reviewed By: Terry Yin



Critical_Freqs

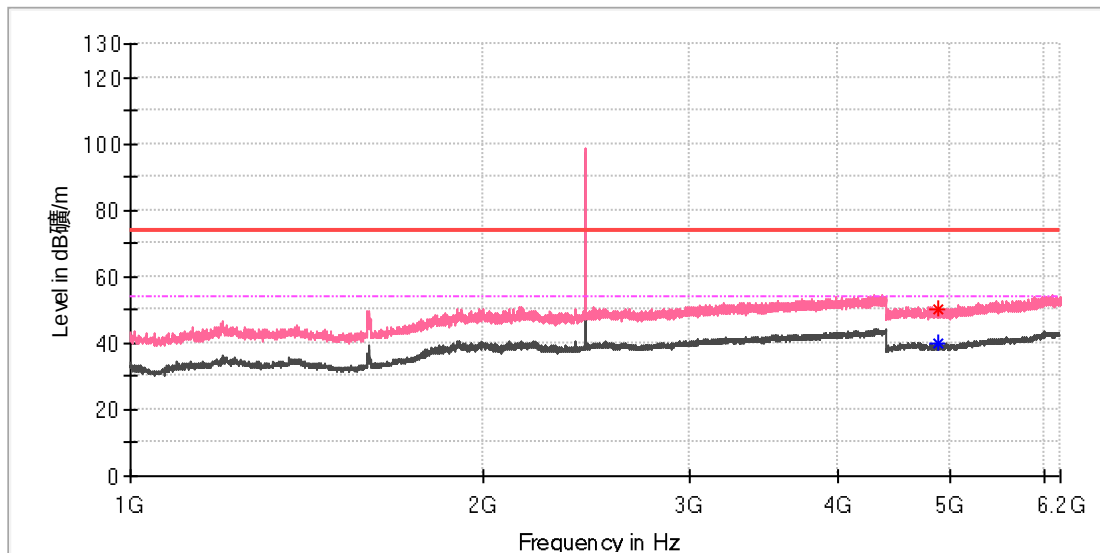
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4879.500000	---	41.82	54.00	12.18	150.0	H	341.0	11.8
4880.000000	51.28	---	74.00	22.72	150.0	H	341.0	11.8

Final_Result

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

EUT Information

EUT Name: Lenovo USB-A Bluetooth Audio Receiver Gen 2
Model: LB310D
Test Mode: BLE 1M_Mid channel
Order No/Sample No: 168456688/A003654750-001
Test Voltage: DC 5V From USB
Remark: Temp 23 Humi:56%
Test Standard: FCC 15.247, RSS-247
Tested By: Kei Zhang
Reviewed By: Terry Yin



Critical_Freqs

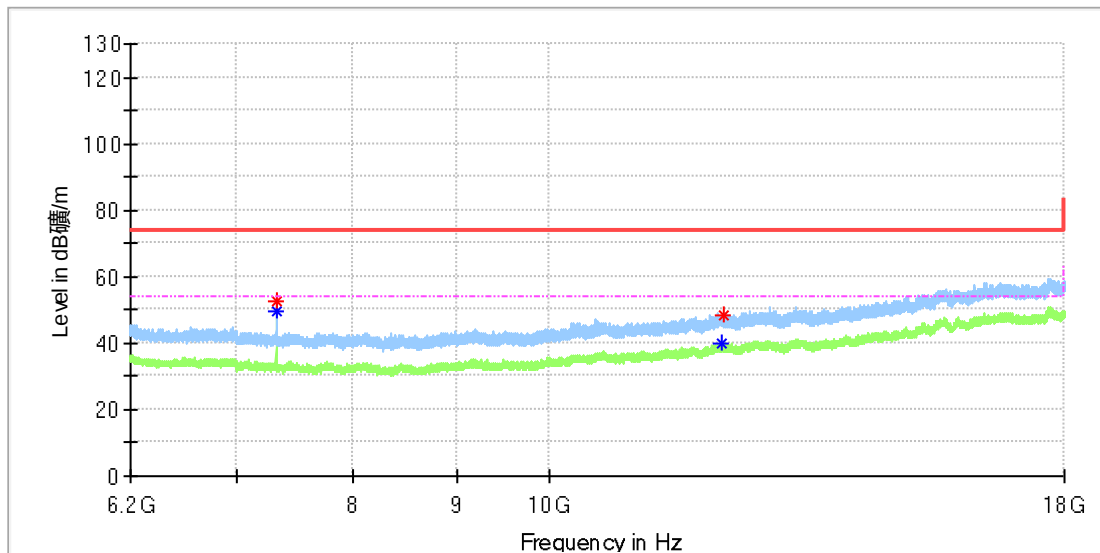
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4877.500000	50.47	---	74.00	23.53	150.0	V	21.0	11.8
4879.500000	---	39.64	54.00	14.36	150.0	V	1.0	11.8

Final_Result

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

EUT Information

EUT Name: Lenovo USB-A Bluetooth Audio Receiver Gen 2
Model: LB310D
Test Mode: BLE 1M_Mid channel
Order No/Sample No: 168456688/A003654750-001
Test Voltage: DC 5V From USB
Remark: Temp 23 Humi:56%
Test Standard: FCC 15.247, RSS-247
Tested By: Kei Zhang
Reviewed By: Terry Yin



Critical_Freqs

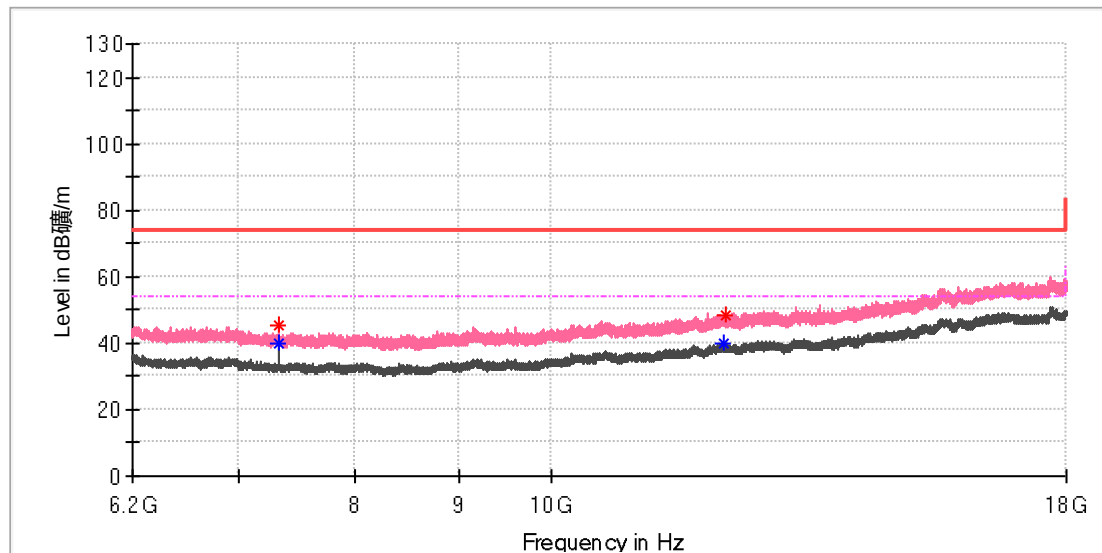
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7319.525000	---	49.45	54.00	4.55	150.0	H	240.0	8.2
7320.016667	52.77	---	74.00	21.23	150.0	H	240.0	8.2
12178.175000	---	40.01	54.00	13.99	150.0	H	205.0	14.6
12208.658333	48.63	---	74.00	25.37	150.0	H	303.0	14.7

Final_Result

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

EUT Information

EUT Name: Lenovo USB-A Bluetooth Audio Receiver Gen 2
Model: LB310D
Test Mode: BLE 1M_Mid channel
Order No/Sample No: 168456688/A003654750-001
Test Voltage: DC 5V From USB
Remark: Temp 23 Humi:56%
Test Standard: FCC 15.247, RSS-247
Tested By: Kei Zhang
Reviewed By: Terry Yin



Critical_Freqs

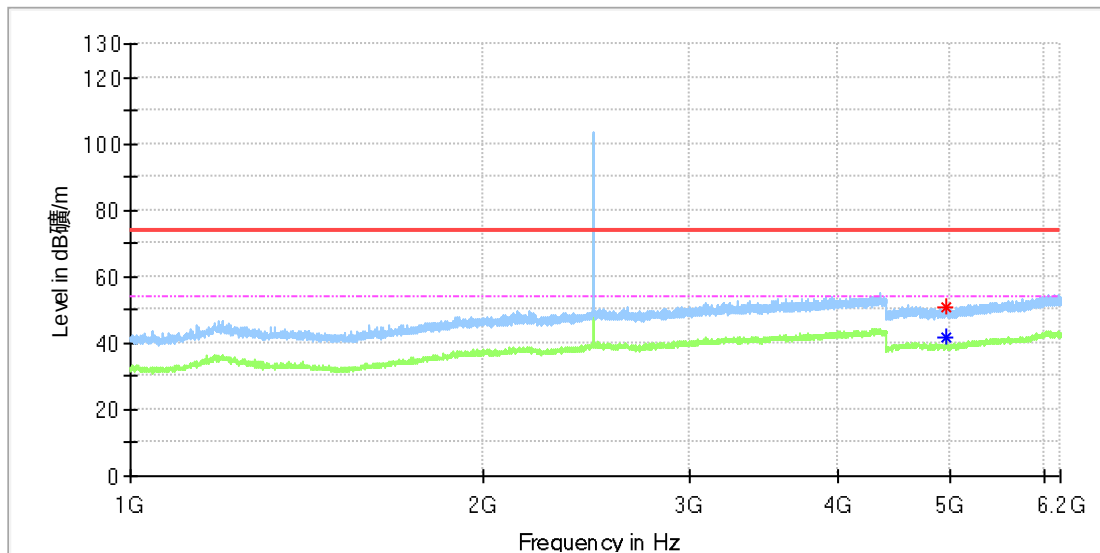
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7319.525000	45.32	---	74.00	28.68	150.0	V	354.0	8.2
7319.525000	---	39.61	54.00	14.39	150.0	V	354.0	8.2
12179.650000	---	39.98	54.00	14.02	150.0	V	182.0	14.6
12192.925000	48.15	---	74.00	25.85	150.0	V	46.0	14.6

Final_Result

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

EUT Information

EUT Name: Lenovo USB-A Bluetooth Audio Receiver Gen 2
Model: LB310D
Test Mode: BLE 1M_High channel
Order No/Sample No: 168456688/A003654750-001
Test Voltage: DC 5V From USB
Remark: Temp 23 Humi:56%
Test Standard: FCC 15.247, RSS-247
Tested By: Kei Zhang
Reviewed By: Terry Yin



Critical_Freqs

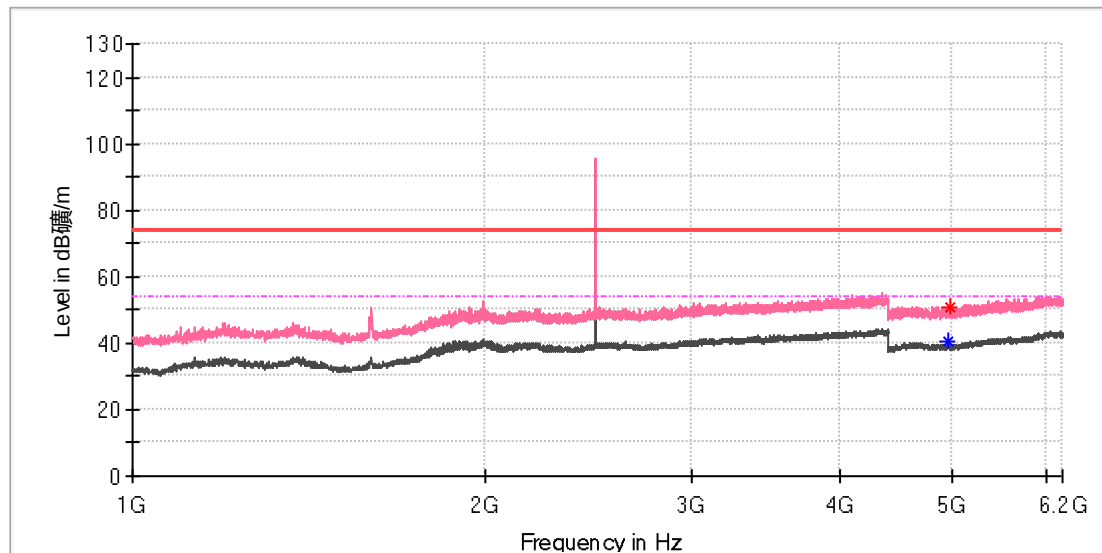
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4959.500000	51.05	---	74.00	22.95	150.0	H	26.0	11.8
4960.000000	---	41.94	54.00	12.06	150.0	H	216.0	11.8

Final_Result

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

EUT Information

EUT Name: Lenovo USB-A Bluetooth Audio Receiver Gen 2
Model: LB310D
Test Mode: BLE 1M_High channel
Order No/Sample No: 168456688/A003654750-001
Test Voltage: DC 5V From USB
Remark: Temp 23 Humi:56%
Test Standard: FCC 15.247, RSS-247
Tested By: Kei Zhang
Reviewed By: Terry Yin



Critical_Freqs

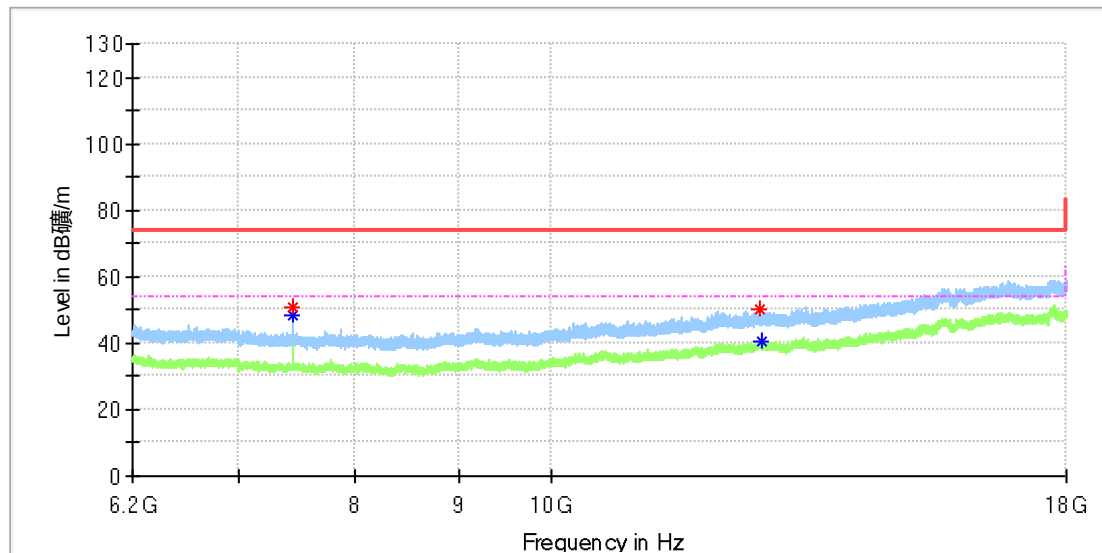
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4960.000000	---	40.44	54.00	13.56	150.0	V	2.0	11.8
4970.000000	50.99	---	74.00	23.01	150.0	V	63.0	11.8

Final_Result

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

EUT Information

EUT Name: Lenovo USB-A Bluetooth Audio Receiver Gen 2
Model: LB310D
Test Mode: BLE 1M_High channel
Order No/Sample No: 168456688/A003654750-001
Test Voltage: DC 5V From USB
Remark: Temp 23 Humi:56%
Test Standard: FCC 15.247, RSS-247
Tested By: Kei Zhang
Reviewed By: Terry Yin



Critical_Freqs

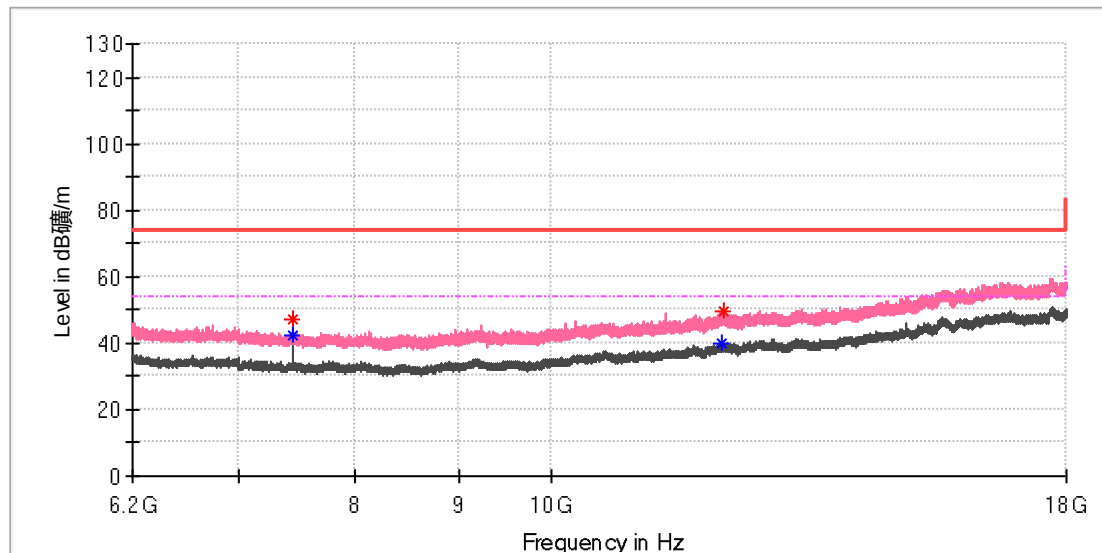
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7439.983333	---	48.15	54.00	5.85	150.0	H	232.0	8.4
7439.983333	50.66	---	74.00	23.34	150.0	H	232.0	8.4
12683.116667	50.02	---	74.00	23.98	150.0	H	108.0	15.1
12708.683333	---	40.48	54.00	13.52	150.0	H	167.0	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: Lenovo USB-A Bluetooth Audio Receiver Gen 2
Model: LB310D
Test Mode: BLE 1M_High channel
Order No/Sample No: 168456688/A003654750-001
Test Voltage: DC 5V From USB
Remark: Temp 23 Humi:56%
Test Standard: FCC 15.247, RSS-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	46.92	---	74.00	27.08	150.0	V	109.0	8.4
7439.983333	---	42.05	54.00	11.95	150.0	V	109.0	8.4
12159.000000	---	39.75	54.00	14.25	150.0	V	359.0	14.5
12182.108333	49.85	---	74.00	24.15	150.0	V	86.0	14.6

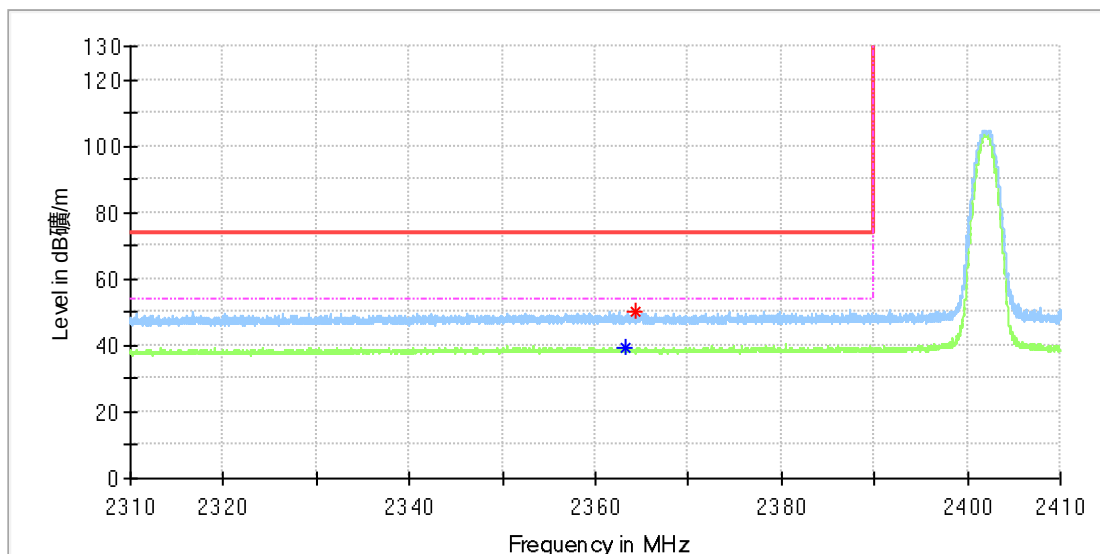
Final_Result

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:	Lenovo USB-A Bluetooth Audio Receiver Gen 2
Model:	LB310D
Test Mode:	BLE 1M_Low channel
Order No/Sample No:	168456688/A003654750-001
Test Voltage:	DC 5V From USB
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247, RSS-247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical Freqs

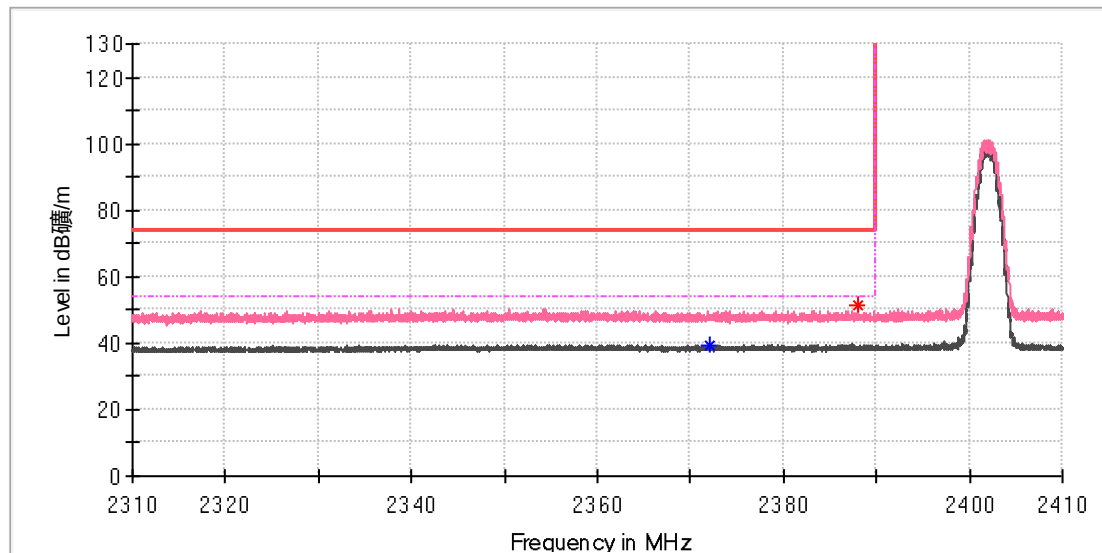
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2363.323530	---	39.15	54.00	14.85	150.0	H	80.0	6.9
2364.279412	49.99	---	74.00	24.01	150.0	H	94.0	6.9

Final Result

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

EUT Information

EUT Name:	Lenovo USB-A Bluetooth Audio Receiver Gen 2
Model:	LB310D
Test Mode:	BLE 1M_Low channel
Order No/Sample No:	168456688/A003654750-001
Test Voltage:	DC 5V From USB
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247, RSS-247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

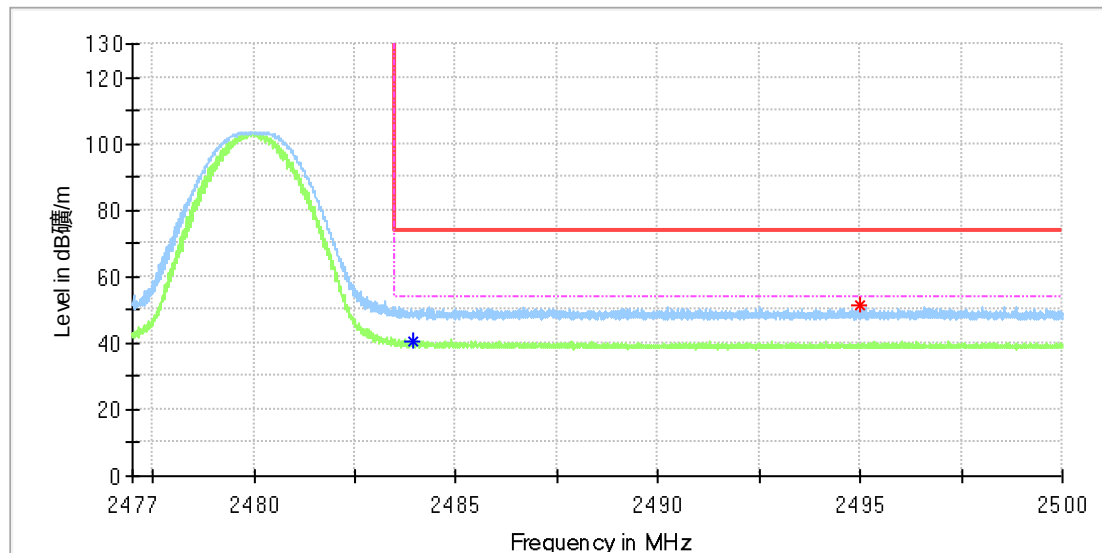
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2371.970588	---	39.48	54.00	14.52	150.0	V	254.0	6.9
2388.073529	51.38	---	74.00	22.62	150.0	V	106.0	7.0

Final_Result

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

EUT Information

EUT Name: Lenovo USB-A Bluetooth Audio Receiver Gen 2
Model: LB310D
Test Mode: BLE 1M_High channel
Order No/Sample No: 168456688/A003654750-001
Test Voltage: DC 5V From USB
Remark: Temp 23 Humi:56%
Test Standard: FCC 15.247, RSS-247
Tested By: Kei Zhang
Reviewed By: Terry Yin



Critical_Freqs

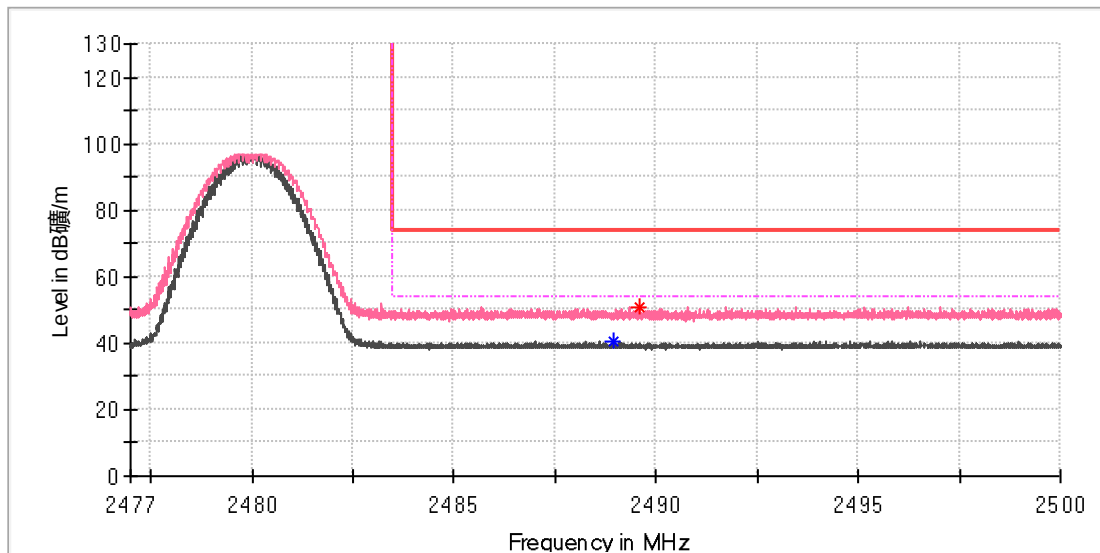
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2483.936765	---	40.76	54.00	13.24	150.0	H	332.0	7.4
2495.010294	51.32	---	74.00	22.68	150.0	H	197.0	7.4

Final_Result

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

EUT Information

EUT Name: Lenovo USB-A Bluetooth Audio Receiver Gen 2
Model: LB310D
Test Mode: BLE 1M_High channel
Order No/Sample No: 168456688/A003654750-001
Test Voltage: DC 5V From USB
Remark: Temp 23 Humi:56%
Test Standard: FCC 15.247, RSS-247
Tested By: Kei Zhang
Reviewed By: Terry Yin



Critical_Freqs

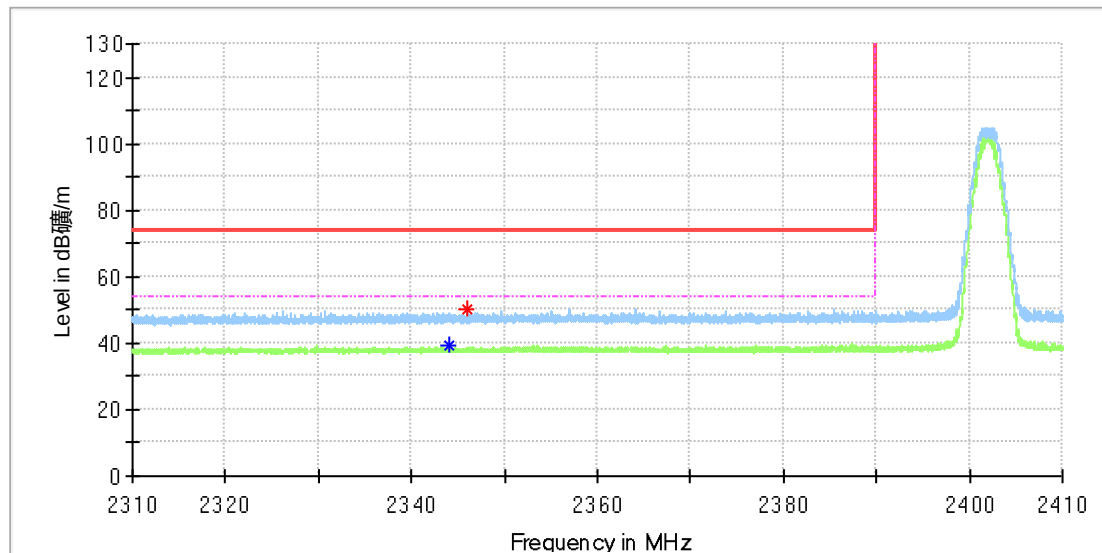
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2488.957353	---	40.59	54.00	13.41	150.0	V	104.0	7.4
2489.583824	51.00	---	74.00	23.00	150.0	V	300.0	7.4

Final_Result

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

EUT Information

EUT Name:	Lenovo USB-A Bluetooth Audio Receiver Gen 2
Model:	LB310D
Test Mode:	BLE 2M_Low channel
Order No/Sample No:	168456688/A003654750-001
Test Voltage:	DC 5V From USB
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247, RSS-247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

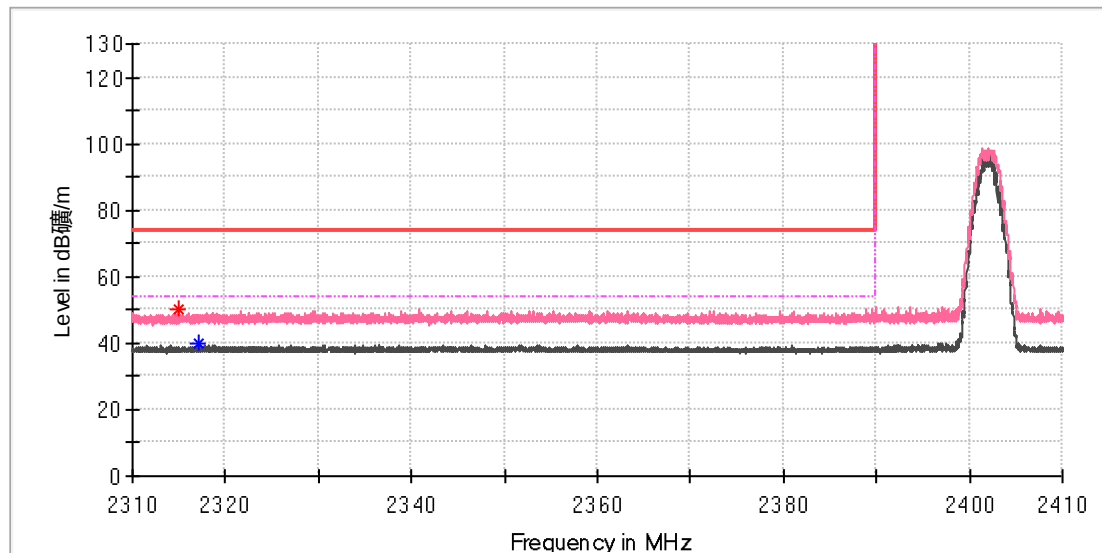
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2344.117647	---	39.18	54.00	14.82	150.0	H	165.0	6.9
2345.941177	50.41	---	74.00	23.59	150.0	H	74.0	6.9

Final_Result

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

EUT Information

EUT Name:	Lenovo USB-A Bluetooth Audio Receiver Gen 2
Model:	LB310D
Test Mode:	BLE 2M_Low channel
Order No/Sample No:	168456688/A003654750-001
Test Voltage:	DC 5V From USB
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247, RSS-247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

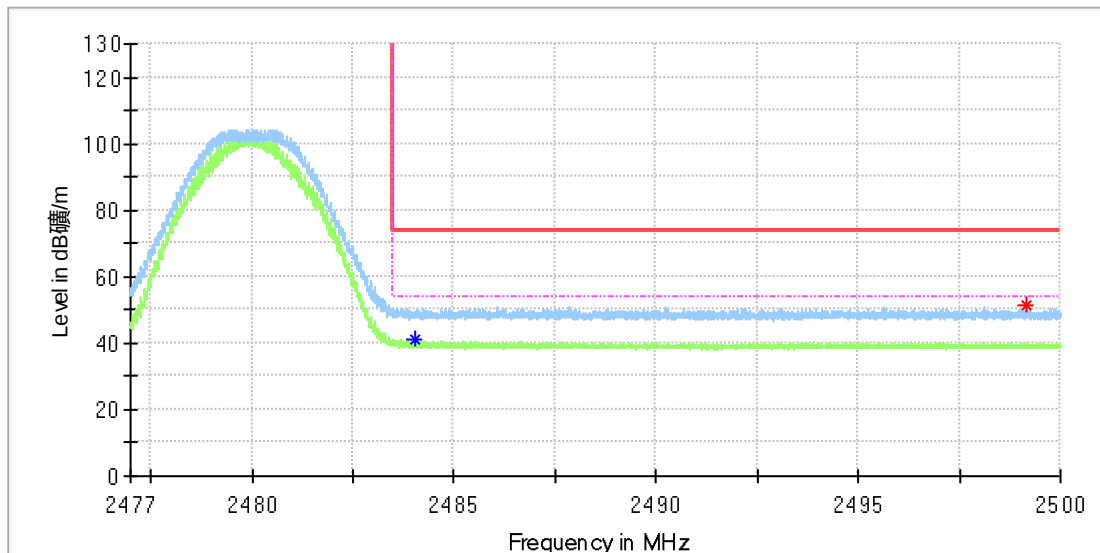
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2314.985294	50.07	---	74.00	23.93	150.0	V	194.0	6.5
2317.102941	---	39.71	54.00	14.29	150.0	V	180.0	6.6

Final_Result

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

EUT Information

EUT Name: Lenovo USB-A Bluetooth Audio Receiver Gen 2
Model: LB310D
Test Mode: BLE 2M_High channel
Order No/Sample No: 168456688/A003654750-001
Test Voltage: DC 5V From USB
Remark: Temp 23 Humi:56%
Test Standard: FCC 15.247, RSS-247
Tested By: Kei Zhang
Reviewed By: Terry Yin



Critical_Freqs

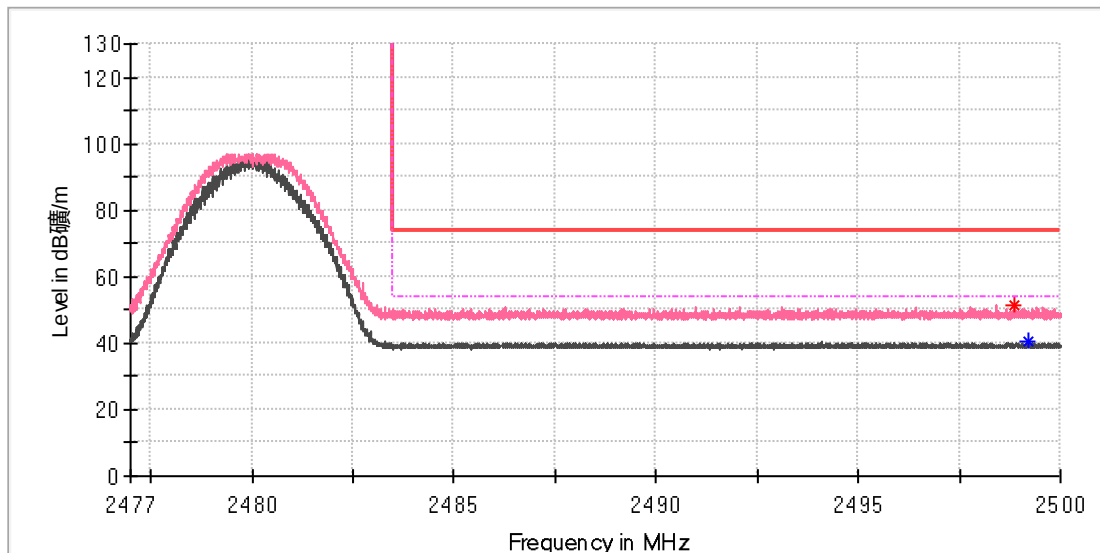
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2484.029412	---	41.19	54.00	12.81	150.0	H	351.0	7.4
2499.152941	51.30	---	74.00	22.70	150.0	H	146.0	7.4

Final_Result

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

EUT Information

EUT Name: Lenovo USB-A Bluetooth Audio Receiver Gen 2
Model: LB310D
Test Mode: BLE 2M_High channel
Order No/Sample No: 168456688/A003654750-001
Test Voltage: DC 5V From USB
Remark: Temp 23 Humi:56%
Test Standard: FCC 15.247, RSS-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)
2498.870588	51.68	---	74.00	22.32	150.0	V	75.0	7.4
2499.219118	---	40.40	54.00	13.60	150.0	V	167.0	7.4

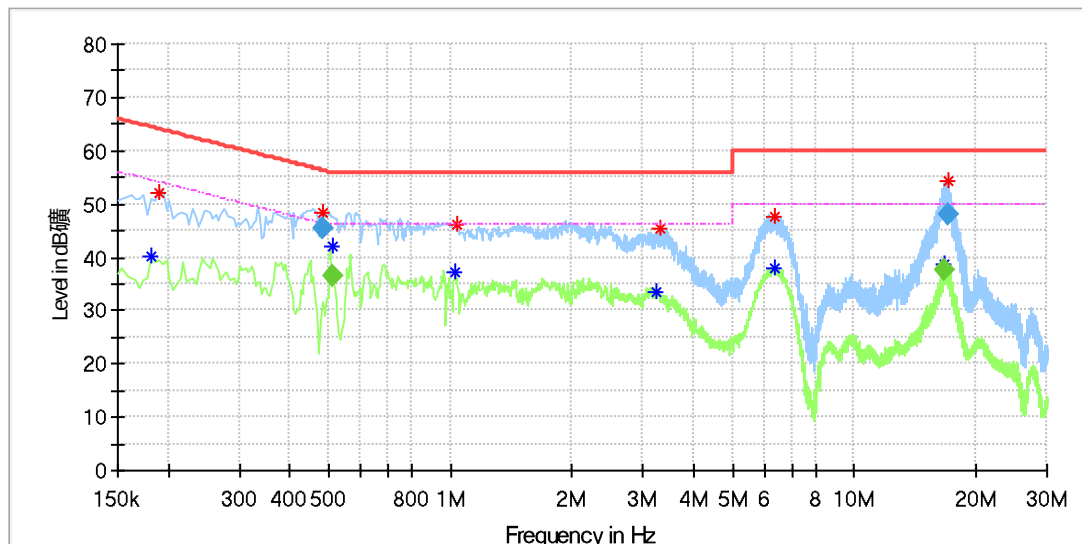
Final_Result

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

Appendix A.7: Test Plots of Conducted Emission on AC Mains

EUT Information

EUT Name	Lenovo USB-A Bluetooth Audio Receiver Gen 2
Order Number:	168456688
Model:	LB310D
Test Mode:	BT Link
Test Voltage:	AC 120V/60Hz
Test Standard:	FCC Part 15, RSS-247
Test By:/Review By:	Steven Lan/Gary Chen
Tem./Hum./Pressure:	21.3°C/50.8%/101kPa
Remark:	SR1



Critical Freqs

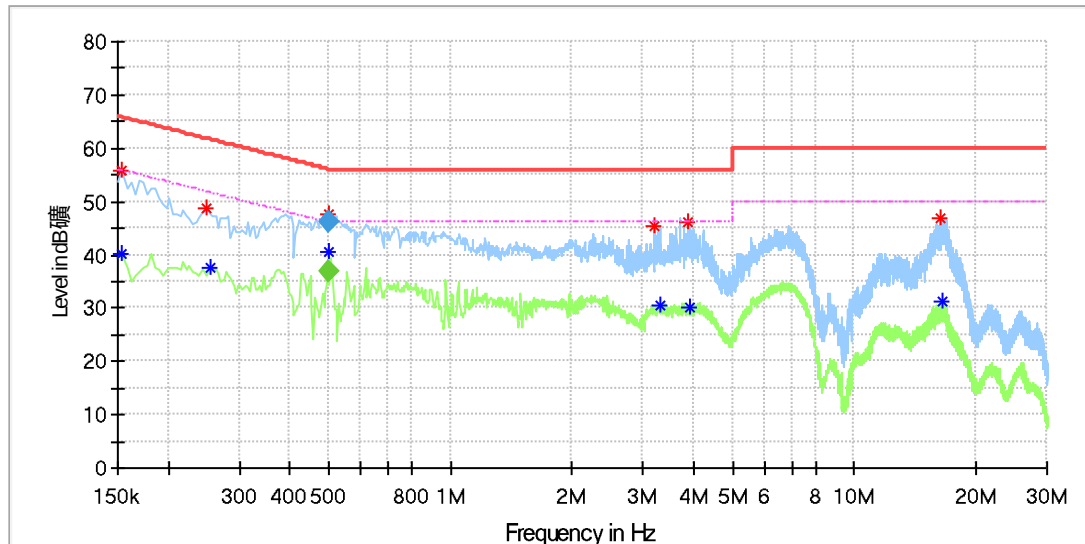
Frequency (MHz)	MaxPeak (dBμV)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Line	Corr. (dB)
0.182000	---	40.04	54.39	14.36	L1	9.7
0.190000	52.16	---	64.04	11.88	L1	9.8
0.484500	48.30	---	56.03	7.74	L1	9.9
0.512000	---	42.15	46.00	3.85	L1	9.9
1.032000	---	37.20	46.00	8.80	L1	9.7
1.044000	46.07	---	56.00	9.93	L1	9.7
3.220000	---	33.57	46.00	12.43	L1	9.9
3.312000	45.41	---	56.00	10.59	L1	9.9
6.324000	---	37.88	50.00	12.12	L1	9.9
6.328000	47.71	---	60.00	12.29	L1	9.9
16.782500	---	38.65	50.00	11.35	L1	10.3
17.050500	54.27	---	60.00	5.73	L1	10.3

Final Result

Frequency (MHz)	QuasiPeak (dBμV)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.484500	45.36	---	56.26	10.90	1000.0	9.000	L1	9.9
0.512000	---	36.36	46.00	9.64	1000.0	9.000	L1	9.9
16.782500	---	37.41	50.00	12.59	1000.0	9.000	L1	10.3
17.050500	47.99	---	60.00	12.01	1000.0	9.000	L1	10.3

EUT Information

EUT Name	Lenovo USB-A Bluetooth Audio Receiver Gen 2
Order Number:	168456688
Model:	LB310D
Test Mode:	BT Link
Test Voltage:	AC 120V/60Hz
Test Standard:	FCC Part 15, RSS-247
Test By:/Review By:	Steven Lan/Gary Chen
Tem./Hum./Pressure:	21.3°C/50.8%/101kPa
Remark:	SR1



Critical Freqs

Frequency (MHz)	MaxPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)
0.154000	---	40.20	55.78	15.59	N	9.8
0.154000	55.83	---	65.78	9.95	N	9.8
0.250000	48.60	---	61.76	13.15	N	9.7
0.254000	---	37.63	51.63	13.99	N	9.7
0.500000	---	40.64	46.00	5.36	N	9.7
0.500000	47.48	---	56.00	8.52	N	9.7
3.216000	45.36	---	56.00	10.64	N	10.0
3.292000	---	30.47	46.00	15.53	N	10.0
3.856000	45.96	---	56.00	10.04	N	10.0
3.900000	---	30.26	46.00	15.74	N	10.0
16.288000	46.74	---	60.00	13.26	N	10.2
16.600000	---	31.20	50.00	18.80	N	10.2

Final Result

Frequency (MHz)	QuasiPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.500000	---	36.97	46.00	9.03	1000.0	9.000	N	9.7
0.500000	46.04	---	56.00	9.96	1000.0	9.000	N	9.7