

Appendix B: Test Results

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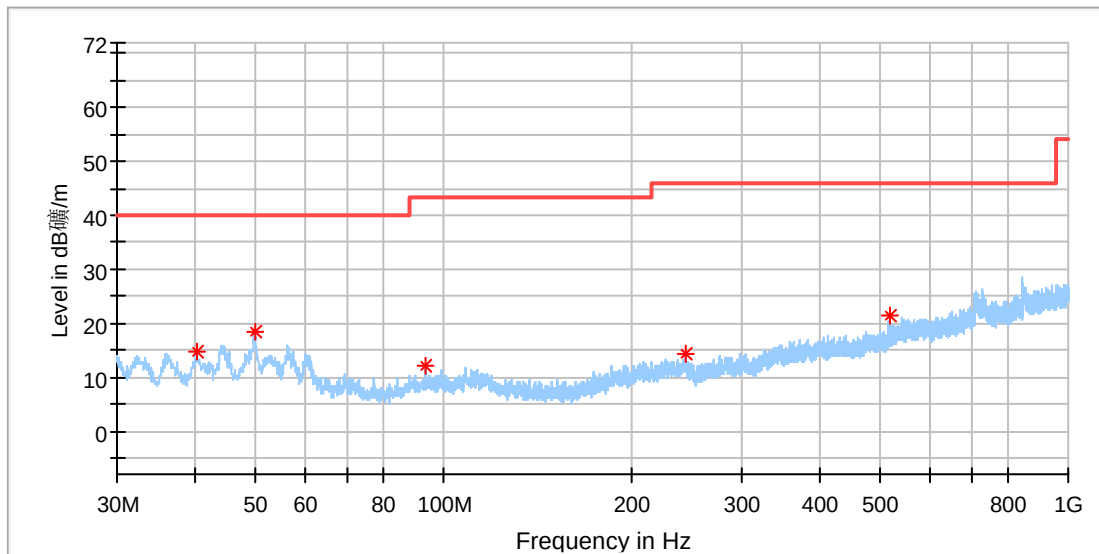
Note: The testing was carried out within frequency range 9kHz to the tenth harmonics. The measurement results below 30MHz and 18GHz to 26.5GHz were greater than 20dB below the limit, so only the radiated spurious emissions from 30MHz to 18GHz were reported.

Appendix B.1: Field strength of fundamental & harmonics

30MHz - 1GHz

EUT Information

EUT Name:	Lenovo Go Essential Travel Mouse
Model:	MB601W
Test Mode:	2.4G-SRD_2402MHz
Test Voltage::	Battery
Remark:	Temp 22 Humi:50%
Test Standard:	FCC 15.249
Tested By:	Alano Qu
Reviewed By:	Terry Yin

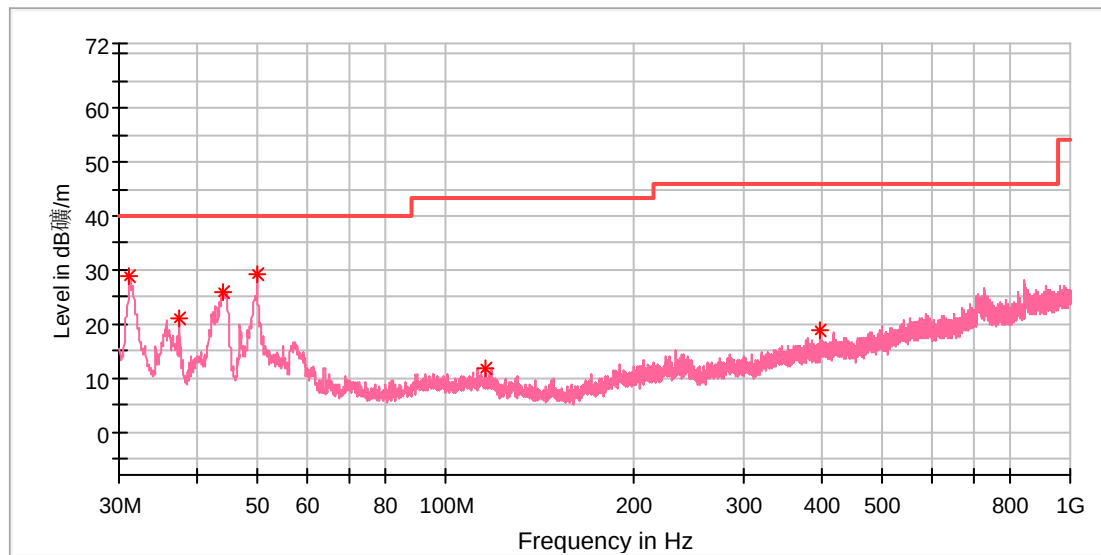


Critical Freqs

Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
40.185000	14.81	40.00	25.19	100.0	H	354.0	-20.4
49.982000	18.51	40.00	21.49	100.0	H	0.0	-18.6
93.729000	12.16	43.50	31.34	100.0	H	163.0	-20.4
243.400000	14.25	46.00	31.75	100.0	H	23.0	-17.9
517.570500	21.26	46.00	24.74	100.0	H	59.0	-11.9

EUT Information

EUT Name: Lenovo Go Essential Travel Mouse
Model: MB601W
Test Mode: 2.4G-SRD_2402MHz
Test Voltage:: Battery
Remark: Temp 22 Humi:50%
Test Standard: FCC 15.249
Tested By: Alano Qu
Reviewed By: Terry Yin

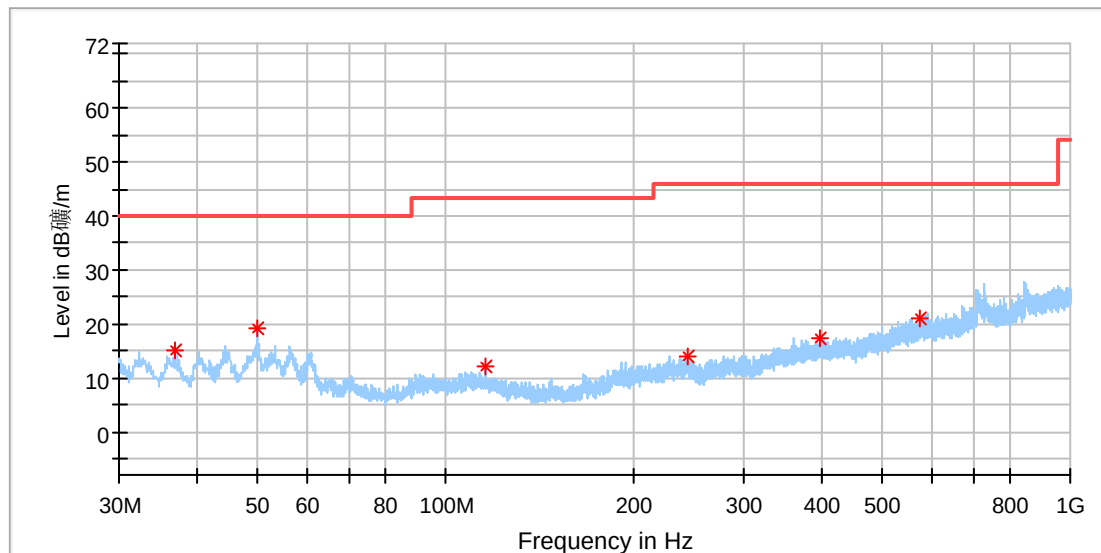


Critical_Freqs

Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
31.212500	28.69	40.00	11.31	100.0	V	0.0	-23.1
37.517500	20.93	40.00	19.07	100.0	V	5.0	-21.2
44.016500	25.96	40.00	14.04	100.0	V	244.0	-19.3
49.982000	29.21	40.00	10.79	100.0	V	208.0	-18.6
115.554000	11.77	43.50	31.73	100.0	V	0.0	-20.2
396.611500	18.66	46.00	27.34	100.0	V	318.0	-14.2

EUT Information

EUT Name: Lenovo Go Essential Travel Mouse
Model: MB601W
Test Mode: 2.4G-SRD_2480MHz
Test Voltage:: Battery
Remark: Temp 22 Humi:50%
Test Standard: FCC 15.249
Tested By: Alano Qu
Reviewed By: Terry Yin

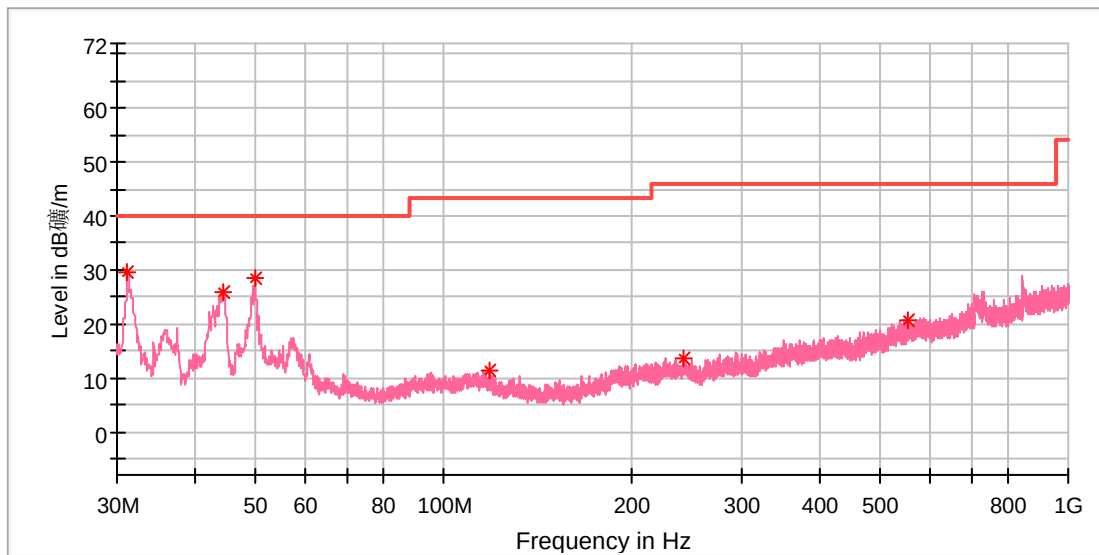


Critical Freqs

Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
36.984000	15.07	40.00	24.93	100.0	H	72.0	-21.5
49.982000	19.09	40.00	20.91	100.0	H	355.0	-18.6
115.602500	11.96	43.50	31.54	100.0	H	318.0	-20.2
243.497000	13.88	46.00	32.12	100.0	H	125.0	-17.9
398.648500	17.30	46.00	28.70	100.0	H	72.0	-14.1
573.442500	21.10	46.00	24.90	100.0	H	289.0	-10.7

EUT Information

EUT Name: Lenovo Go Essential Travel Mouse
Model: MB601W
Test Mode: 2.4G-SRD_2480MHz
Test Voltage:: Battery
Remark: Temp 22 Humi:50%
Test Standard: FCC 15.249
Tested By: Alano Qu
Reviewed By: Terry Yin



Critical_Freqs

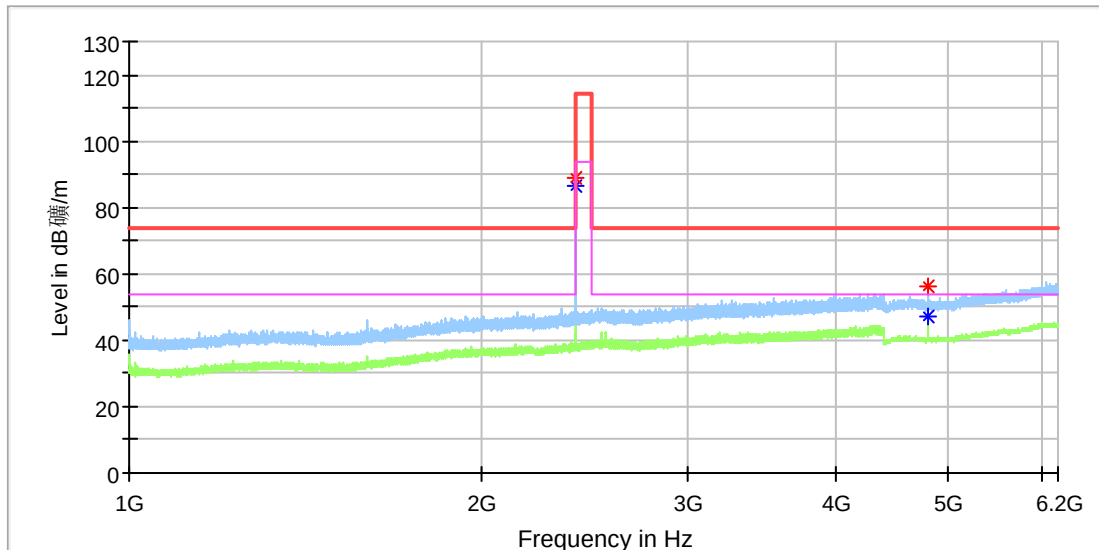
Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
31.212500	29.58	40.00	10.42	100.0	V	95.0	-23.1
44.404500	25.78	40.00	14.22	100.0	V	0.0	-19.3
49.982000	28.49	40.00	11.51	100.0	V	133.0	-18.6
118.755000	11.53	43.50	31.97	100.0	V	49.0	-20.8
242.963500	13.64	46.00	32.36	100.0	V	125.0	-17.9
552.490500	20.71	46.00	25.29	100.0	V	29.0	-11.1

1GHz - 18GHz

Note: The highest waveform in the figure is 2.4GHz Fundamental.

EUT Information

EUT Name:	Lenovo Go Essential Travel Mouse
Model:	MB601W
Test Mode:	2.4G-SRD_2402MHz
Test Voltage::	Battery
Remark:	Temp 23 Humi:48%
Test Standard:	FCC 15.249
Tested By:	Alano Qu
Reviewed By:	Terry Yin

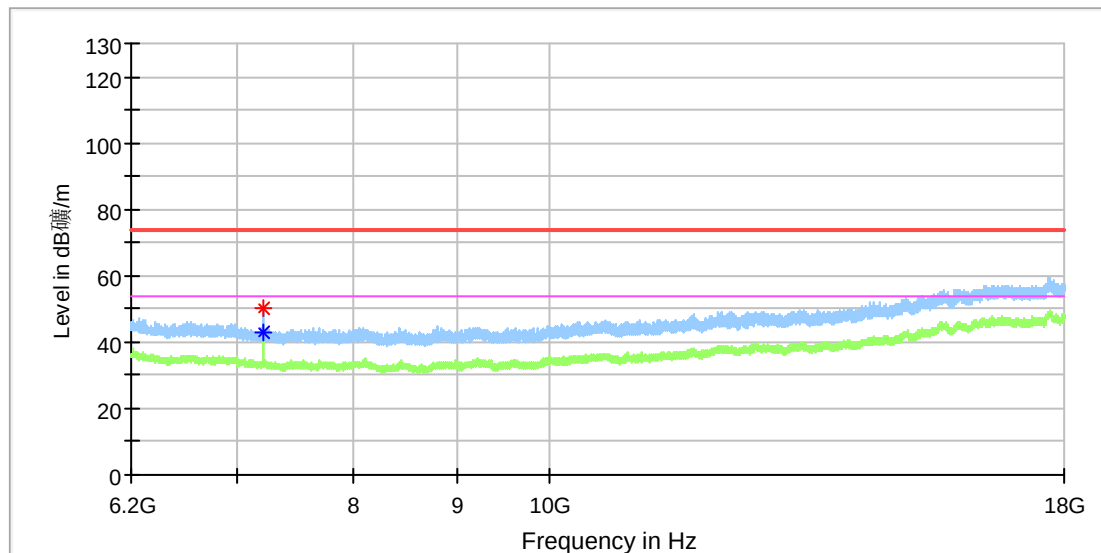


Critical Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2401.480000	88.81	---	114.00	25.19	100.0	H	252.0	7.0
2402.330000	---	86.41	94.00	7.59	100.0	H	285.0	7.0
4803.000000	56.42	---	74.00	17.58	100.0	H	274.0	11.8
4803.500000	---	47.28	54.00	6.72	100.0	H	106.0	11.8

EUT Information

EUT Name: Lenovo Go Essential Travel Mouse
Model: MB601W
Test Mode: 2.4G-SRD_2402MHz
Test Voltage:: Battery
Remark: Temp 23 Humi:48%
Test Standard: FCC 15.249
Tested By: Alano Qu
Reviewed By: Terry Yin

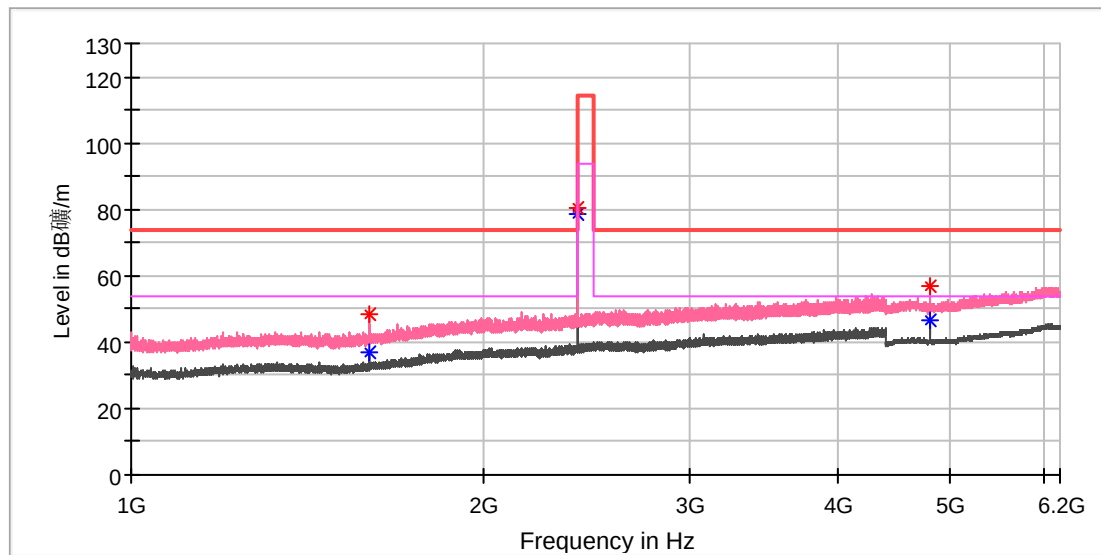


Critical_Freqs

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7204.475000	50.46	---	74.00	23.54	100.0	H	306.0	8.8
7206.933333	---	42.89	54.00	11.11	100.0	H	306.0	8.8

EUT Information

EUT Name: Lenovo Go Essential Travel Mouse
Model: MB601W
Test Mode: 2.4G-SRD_2402MHz
Test Voltage:: Battery
Remark: Temp 23 Humi:48%
Test Standard: FCC 15.249
Tested By: Alano Qu
Reviewed By: Terry Yin

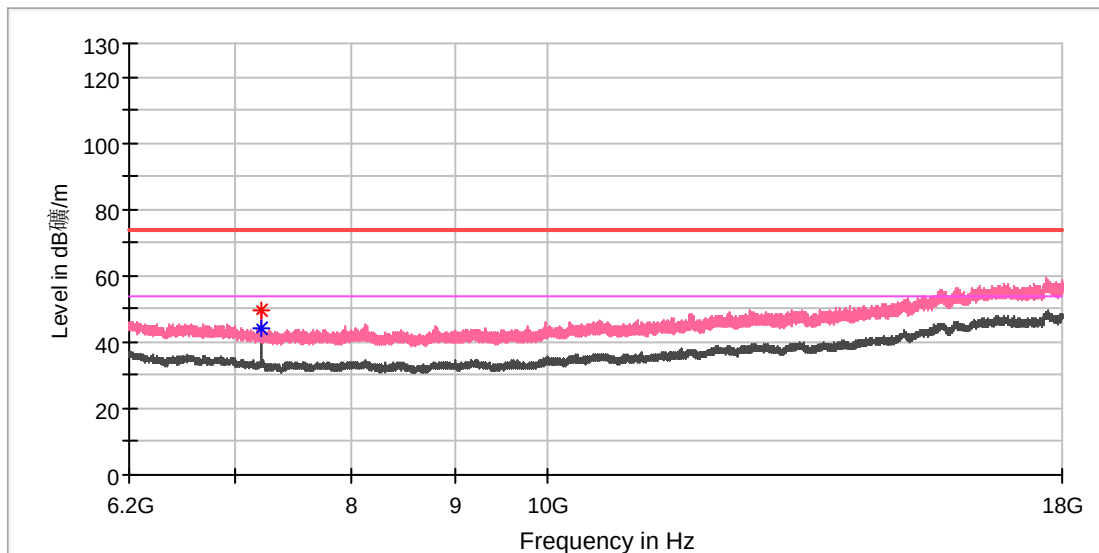


Critical_Freqs

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1599.080000	48.54	---	74.00	25.46	100.0	V	225.0	2.1
1599.080000	---	36.94	54.00	17.06	100.0	V	225.0	2.1
2401.650000	80.29	---	114.00	33.71	100.0	V	307.0	7.0
2401.650000	---	78.36	94.00	15.64	100.0	V	307.0	7.0
4803.000000	---	46.79	54.00	7.21	100.0	V	190.0	11.8
4803.500000	56.74	---	74.00	17.26	100.0	V	85.0	11.8

EUT Information

EUT Name:	Lenovo Go Essential Travel Mouse
Model:	MB601W
Test Mode:	2.4G-SRD_2402MHz
Test Voltage::	Battery
Remark:	Temp 23 Humi:48%
Test Standard:	FCC 15.249
Tested By:	Alano Qu
Reviewed By:	Terry Yin

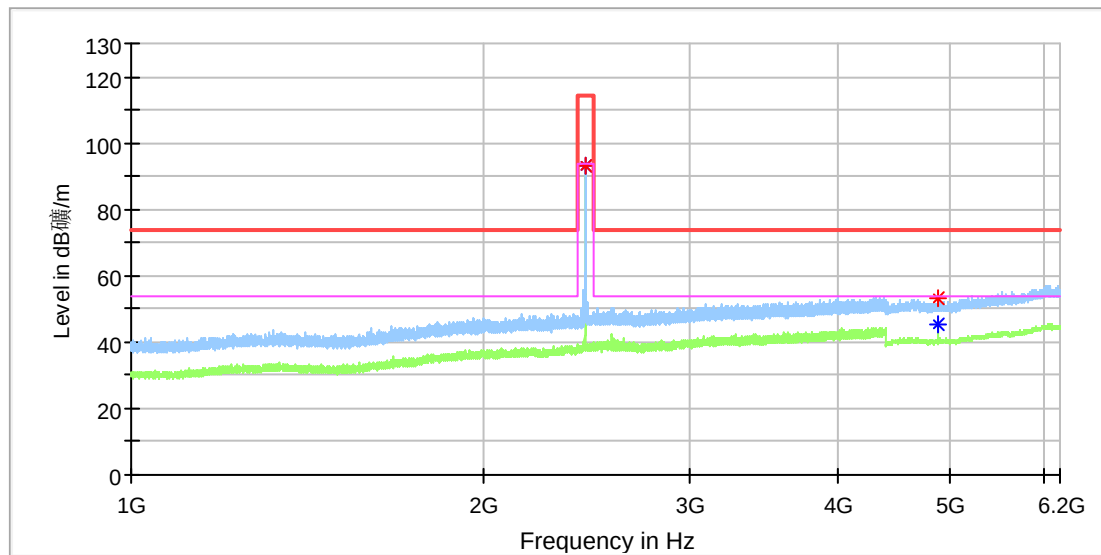


Critical_Freqs

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7205.458333	---	44.34	54.00	9.66	100.0	V	77.0	8.8
7206.933333	49.44	---	74.00	24.56	100.0	V	164.0	8.8

EUT Information

EUT Name: Lenovo Go Essential Travel Mouse
Model: MB601W
Test Mode: 2.4G-SRD_2440MHz
Test Voltage:: Battery
Remark: Temp 23 Humi:48%
Test Standard: FCC 15.249
Tested By: Alano Qu
Reviewed By: Terry Yin

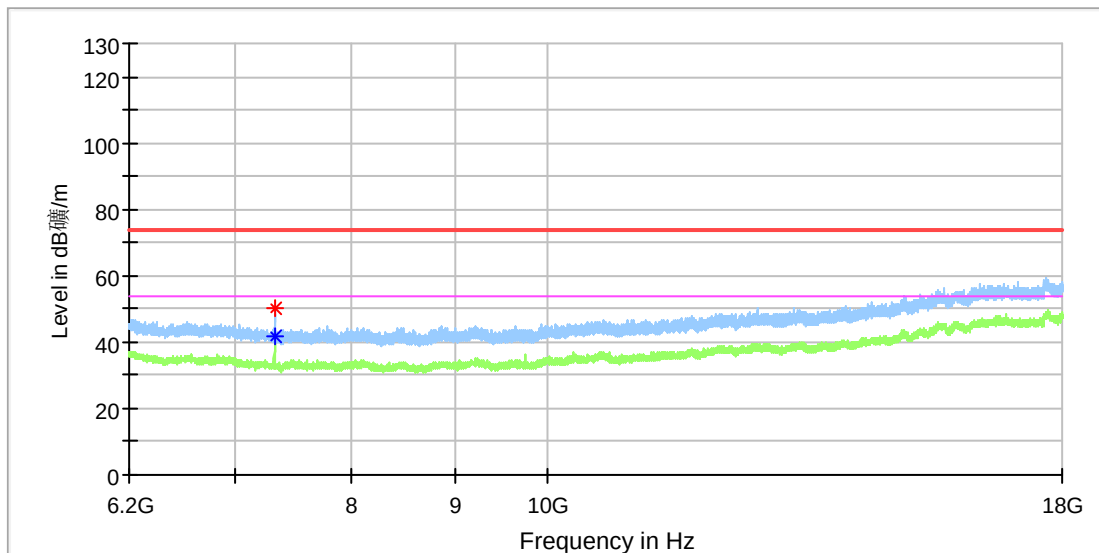


Critical Freqs

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2440.070000	---	92.90	94.00	1.10	100.0	H	132.0	7.4
2440.410000	93.36	---	114.00	20.64	100.0	H	132.0	7.4
4879.000000	53.37	---	74.00	20.63	100.0	H	224.0	11.8
4879.000000	---	45.13	54.00	8.87	100.0	H	224.0	11.8

EUT Information

EUT Name: Lenovo Go Essential Travel Mouse
Model: MB601W
Test Mode: 2.4G-SRD_2440MHz
Test Voltage:: Battery
Remark: Temp 23 Humi:48%
Test Standard: FCC 15.249
Tested By: Alano Qu
Reviewed By: Terry Yin

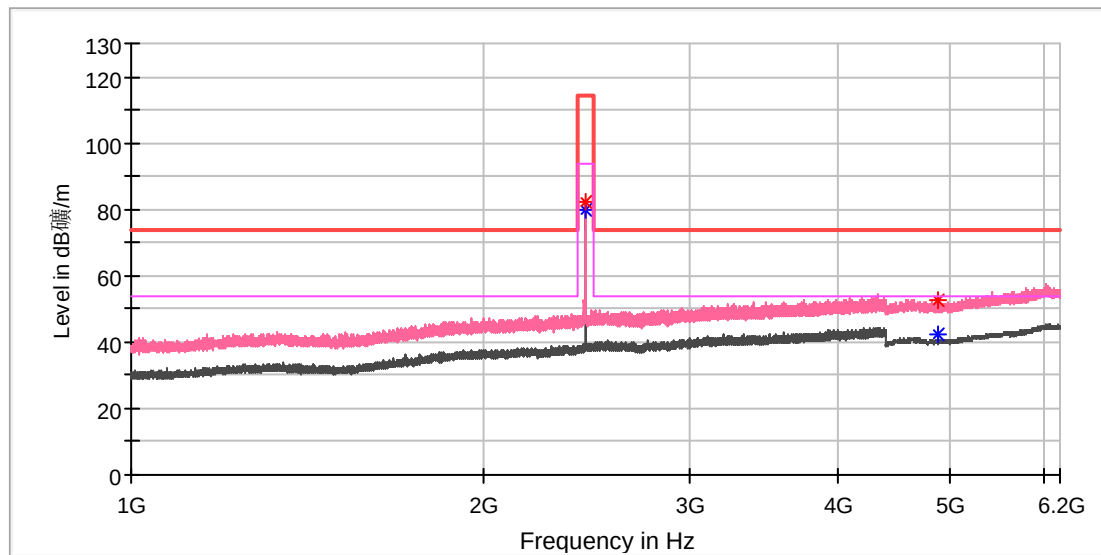


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7319.525000	---	41.74	54.00	12.26	100.0	H	332.0	8.2
7321.000000	49.97	---	74.00	24.03	100.0	H	332.0	8.2

EUT Information

EUT Name: Lenovo Go Essential Travel Mouse
Model: MB601W
Test Mode: 2.4G-SRD_2440MHz
Test Voltage:: Battery
Remark: Temp 23 Humi:48%
Test Standard: FCC 15.249
Tested By: Alano Qu
Reviewed By: Terry Yin

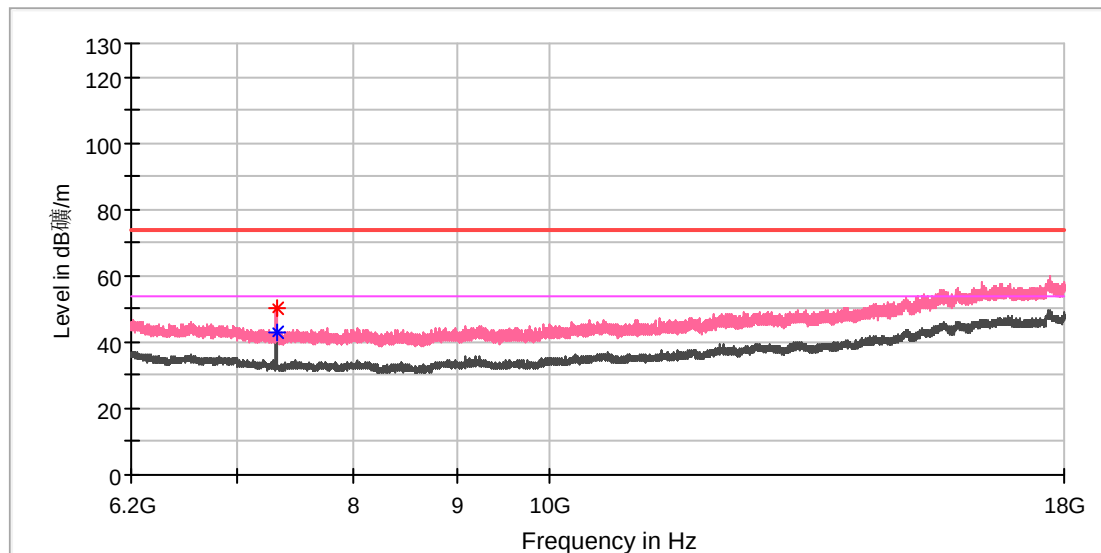


Critical_Freqs

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2439.730000	---	79.99	94.00	14.01	100.0	V	185.0	7.4
2440.920000	82.13	---	114.00	31.87	100.0	V	341.0	7.4
4878.500000	---	42.62	54.00	11.38	100.0	V	256.0	11.8
4880.500000	52.60	---	74.00	21.40	100.0	V	222.0	11.8

EUT Information

EUT Name: Lenovo Go Essential Travel Mouse
Model: MB601W
Test Mode: 2.4G-SRD_2440MHz
Test Voltage:: Battery
Remark: Temp 23 Humi:48%
Test Standard: FCC 15.249
Tested By: Alano Qu
Reviewed By: Terry Yin

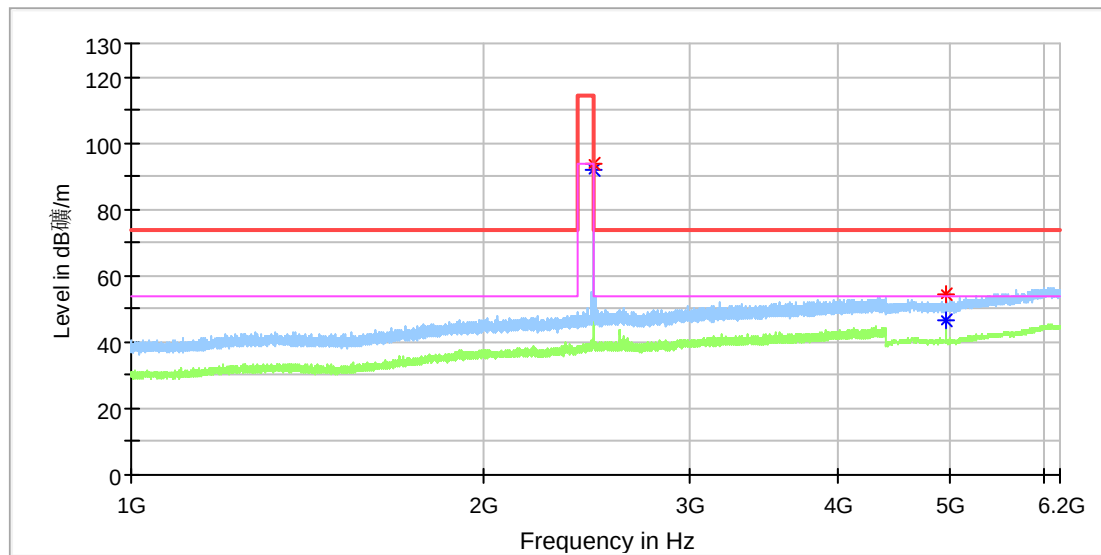


Critical Freqs

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7318.541667	---	43.00	54.00	11.00	100.0	V	200.0	8.2
7321.000000	50.12	---	74.00	23.88	100.0	V	177.0	8.2

EUT Information

EUT Name: Lenovo Go Essential Travel Mouse
Model: MB601W
Test Mode: 2.4G-SRD_2480MHz
Test Voltage:: Battery
Remark: Temp 23 Humi:48%
Test Standard: FCC 15.249
Tested By: Alano Qu
Reviewed By: Terry Yin

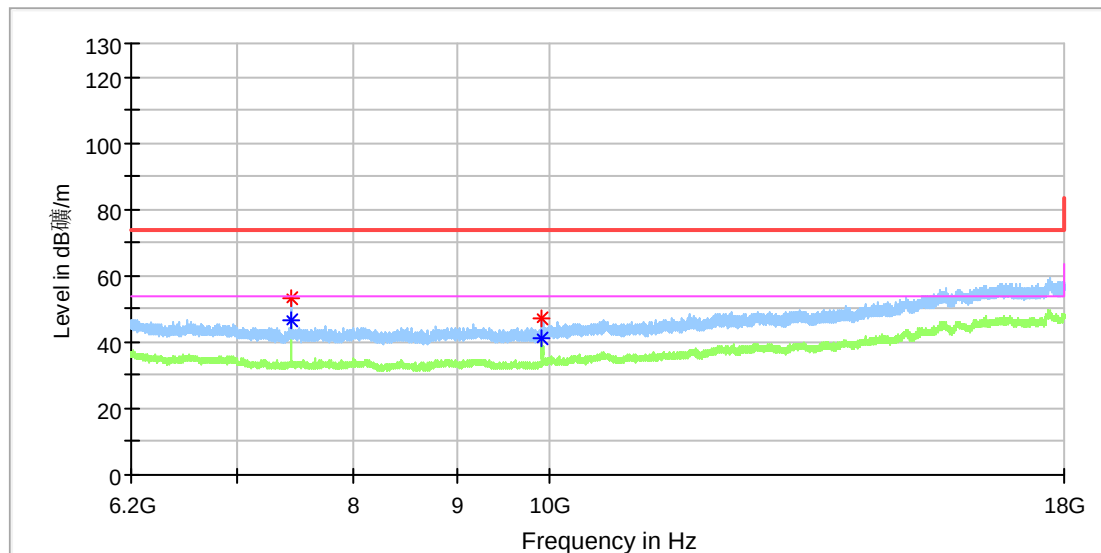


Critical Freqs

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2480.190000	---	91.79	94.00	2.21	100.0	H	134.0	7.4
2480.360000	93.50	---	114.00	20.50	100.0	H	134.0	7.4
4960.000000	54.60	---	74.00	19.40	100.0	H	140.0	11.8
4960.500000	---	46.51	54.00	7.49	100.0	H	140.0	11.8

EUT Information

EUT Name: Lenovo Go Essential Travel Mouse
Model: MB601W
Test Mode: 2.4G-SRD_2480MHz
Test Voltage:: Battery
Remark: Temp 23 Humi:48%
Test Standard: FCC 15.249
Tested By: Alano Qu
Reviewed By: Terry Yin

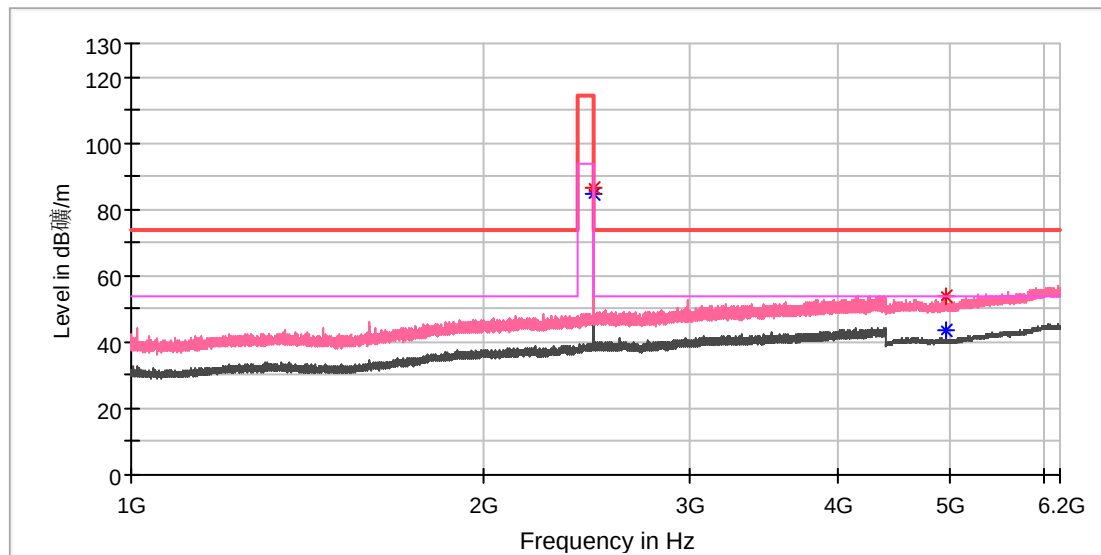


Critical Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7438.508333	---	46.45	54.00	7.55	100.0	H	34.0	8.4
7441.458333	53.17	---	74.00	20.83	100.0	H	34.0	8.4
9917.983333	47.10	---	74.00	26.90	100.0	H	117.0	10.8
9917.983333	---	40.95	54.00	13.05	100.0	H	117.0	10.8

EUT Information

EUT Name: Lenovo Go Essential Travel Mouse
Model: MB601W
Test Mode: 2.4G-SRD_2480MHz
Test Voltage:: Battery
Remark: Temp 23 Humi:48%
Test Standard: FCC 15.249
Tested By: Alano Qu
Reviewed By: Terry Yin

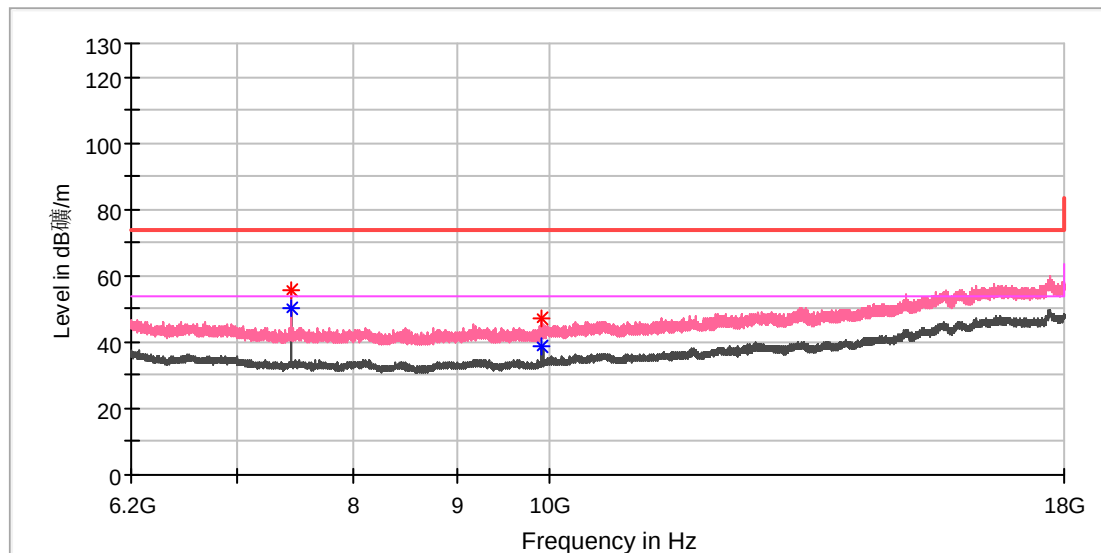


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2479.510000	86.47	---	114.00	27.53	100.0	V	128.0	7.4
2479.680000	---	84.61	94.00	9.39	100.0	V	128.0	7.4
4960.000000	53.63	---	74.00	20.37	100.0	V	344.0	11.8
4960.000000	---	43.50	54.00	10.50	100.0	V	344.0	11.8

EUT Information

EUT Name: Lenovo Go Essential Travel Mouse
Model: MB601W
Test Mode: 2.4G-SRD_2480MHz
Test Voltage:: Battery
Remark: Temp 23 Humi:48%
Test Standard: FCC 15.249
Tested By: Alano Qu
Reviewed By: Terry Yin

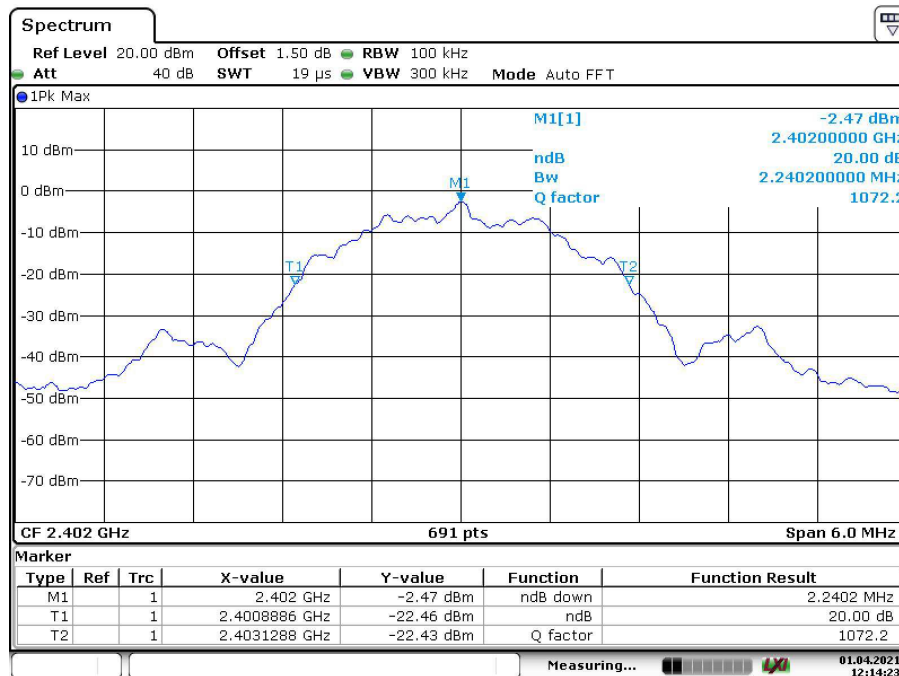


Critical Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7438.508333	55.90	---	74.00	18.10	100.0	V	314.0	8.4
7440.966667	---	49.97	54.00	4.03	100.0	V	285.0	8.4
9917.983333	47.36	---	74.00	26.64	100.0	V	258.0	10.8
9917.983333	---	38.73	54.00	15.27	100.0	V	258.0	10.8

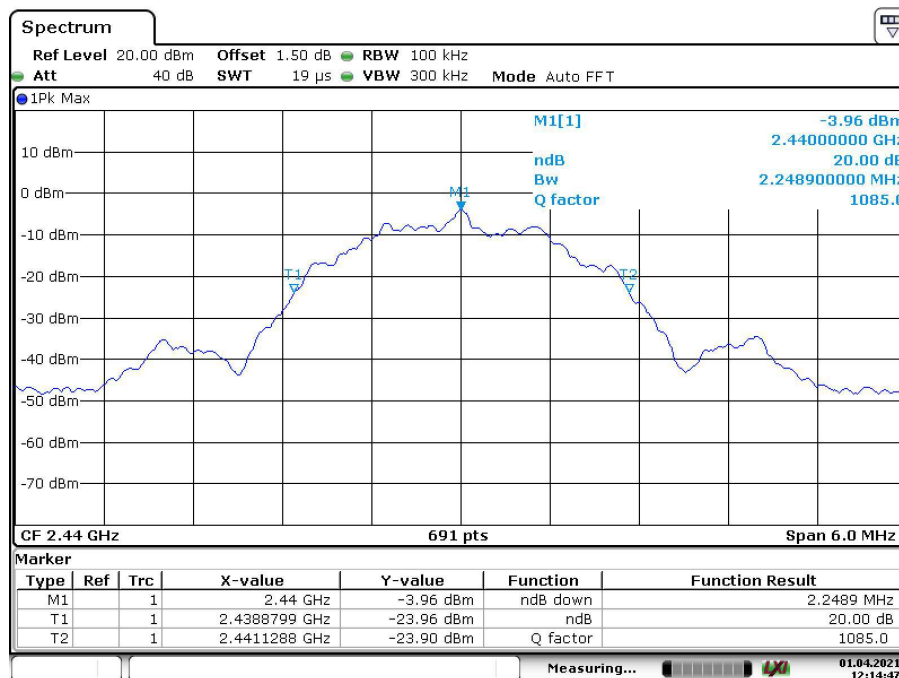
Appendix B.2: Test Results of 20dB Bandwidth

2402MHz



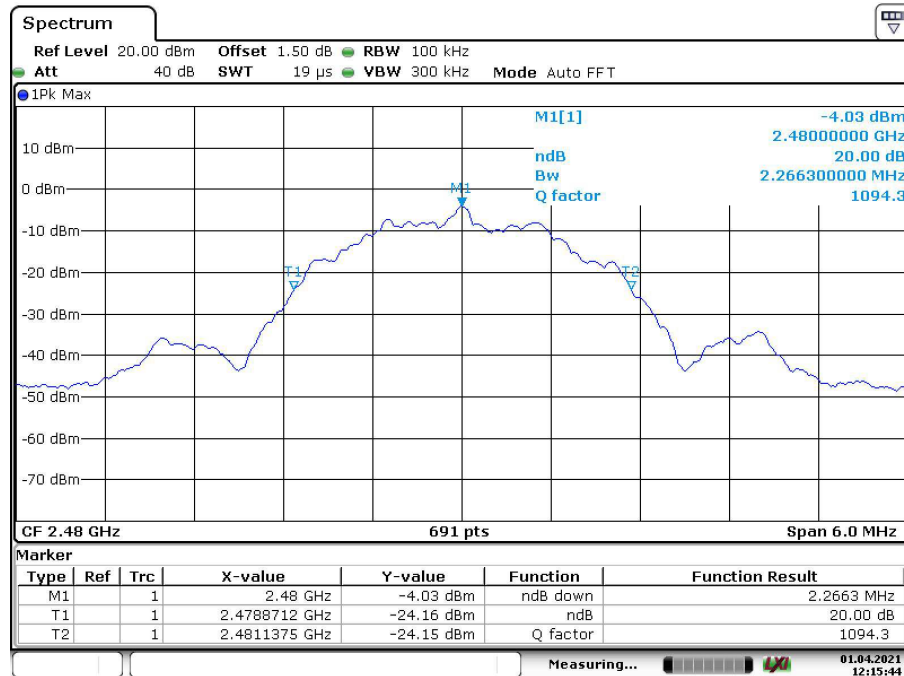
Date: 1.APR.2021 12:14:24

2440MHz



Date: 1.APR.2021 12:14:47

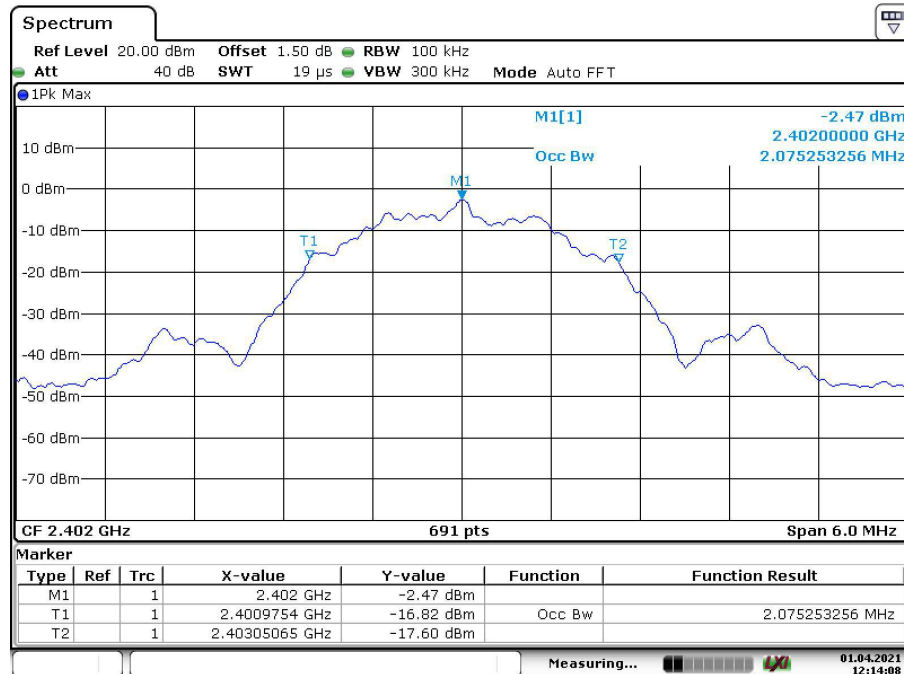
2480MHz



Date: 1.APR.2021 12:15:45

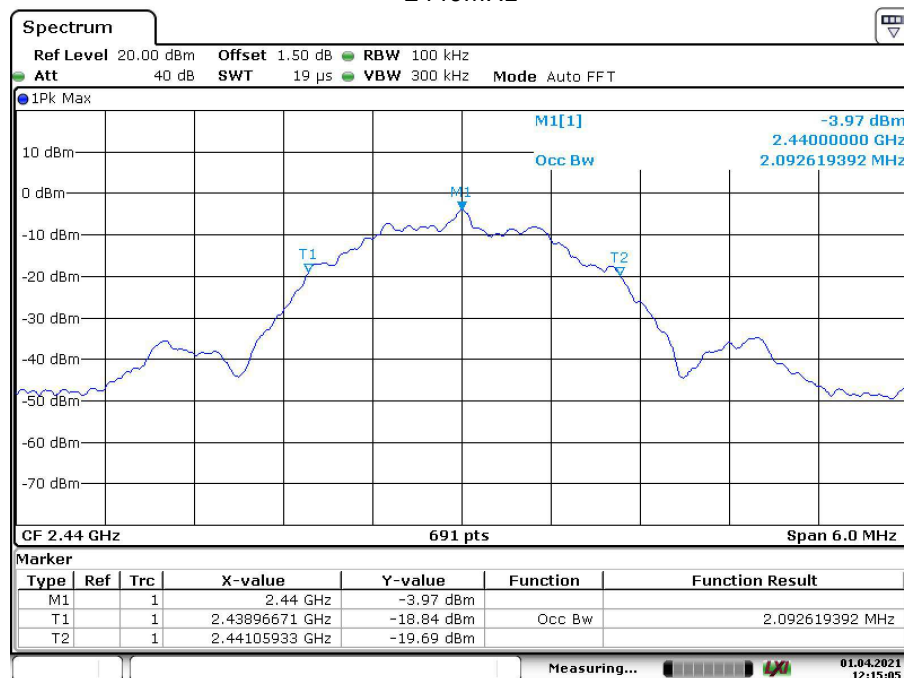
Appendix B.3: Test Results of 99% Bandwidth

2402MHz



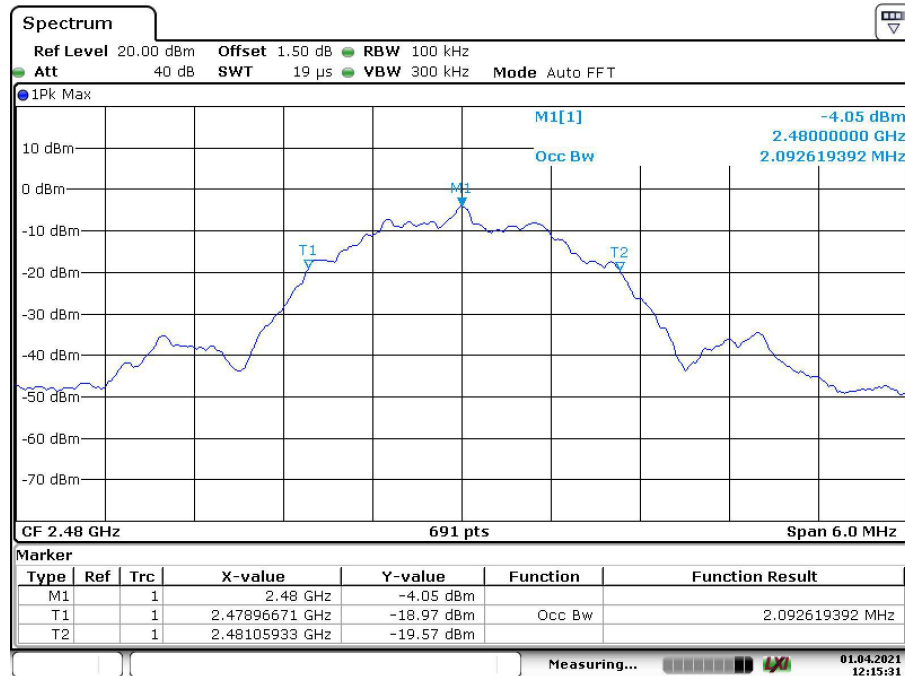
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2440MHz



Date: 1.APR.2021 12:15:05

2480MHz

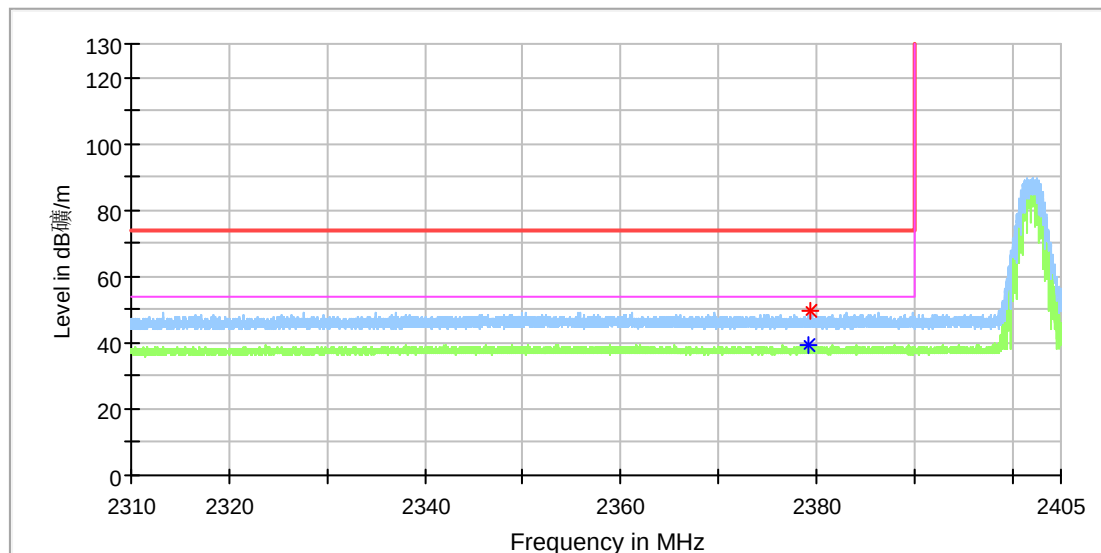


Date: 1.APR.2021 12:15:31

Appendix B.4: Band Edge

EUT Information

EUT Name:	Lenovo Go Essential Travel Mouse
Model:	MB601W
Test Mode:	2.4G-SRD_2402MHz
Test Voltage::	Battery
Remark:	Temp 23 Humi:48%
Test Standard:	FCC 15.249
Tested By:	Alano Qu
Reviewed By:	Terry Yin

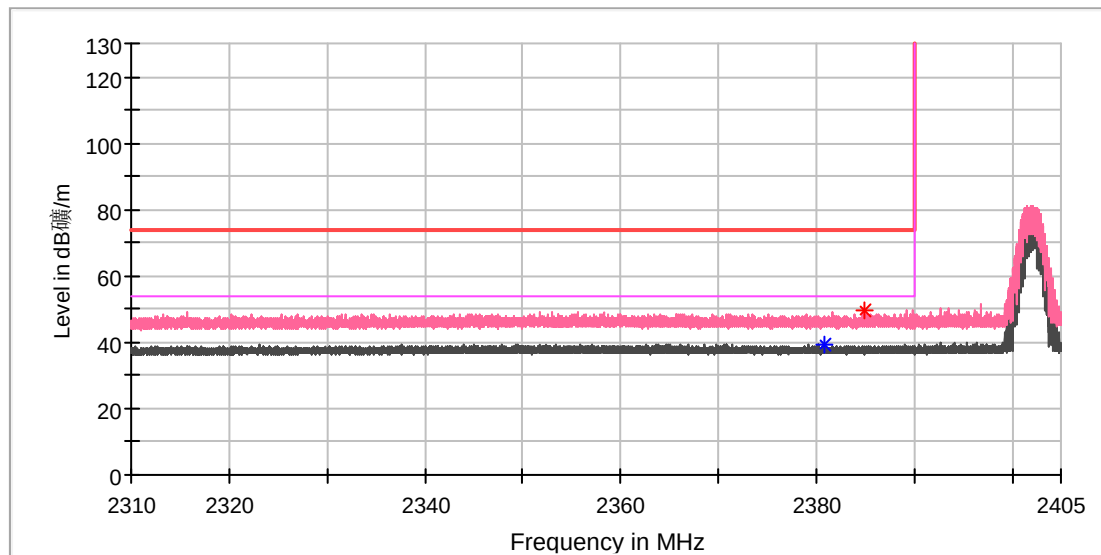


Critical Freqs

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2379.207500	---	39.20	54.00	14.80	100.0	H	54.0	7.0
2379.473500	49.47	---	74.00	24.53	100.0	H	65.0	7.0

EUT Information

EUT Name: Lenovo Go Essential Travel Mouse
Model: MB601W
Test Mode: 2.4G-SRD_2402MHz
Test Voltage:: Battery
Remark: Temp 23 Humi:48%
Test Standard: FCC 15.249
Tested By: Alano Qu
Reviewed By: Terry Yin

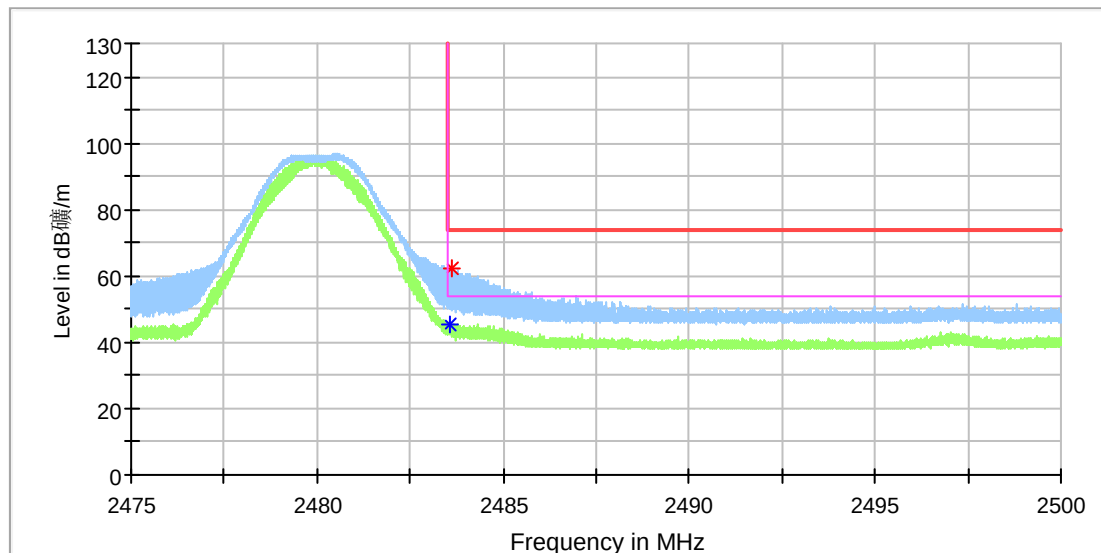


Critical_Freqs

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2380.908000	---	39.33	54.00	14.67	100.0	V	70.0	7.0
2384.926500	49.77	---	74.00	24.23	100.0	V	92.0	7.0

EUT Information

EUT Name:	Lenovo Go Essential Travel Mouse
Model:	MB601W
Test Mode:	2.4G-SRD_2480MHz
Test Voltage::	Battery
Remark:	Temp 23 Humi:48%
Test Standard:	FCC 15.249
Tested By:	Alano Qu
Reviewed By:	Terry Yin

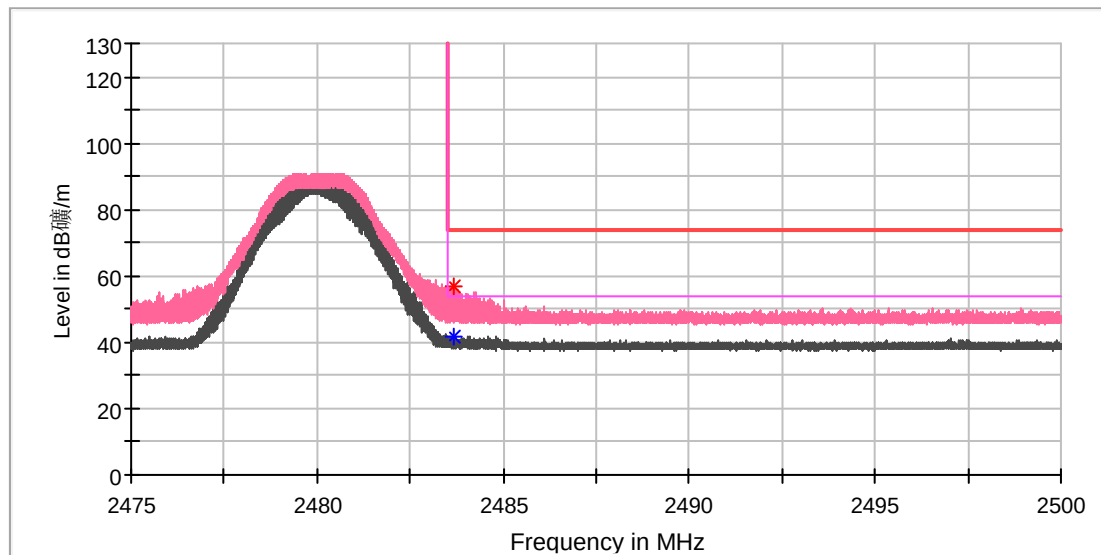


Critical Freqs

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2483.562500	---	45.43	54.00	8.57	100.0	H	283.0	7.4
2483.606250	62.32	---	74.00	11.68	100.0	H	303.0	7.4

EUT Information

EUT Name:	Lenovo Go Multi-Device Mouse
Model:	MB601W
Test Mode:	2.4G-SRD_2480MHz
Test Voltage::	Battery
Remark:	Temp 23 Humi:48%
Test Standard:	FCC 15.249
Tested By:	Alano Qu
Reviewed By:	Terry Yin



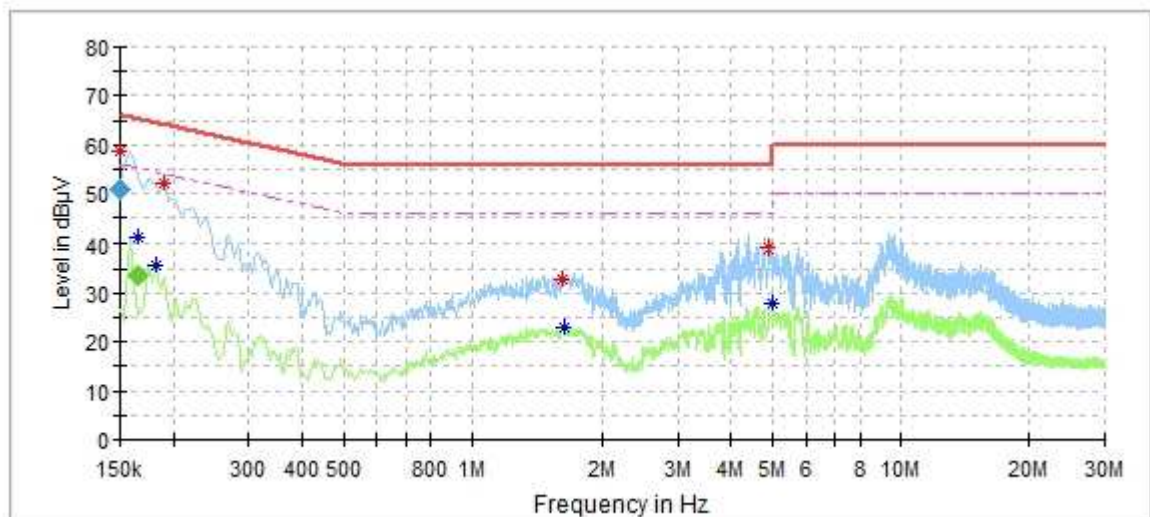
Critical_Freqs

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2483.658750	56.99	---	74.00	17.01	100.0	V	258.0	7.4
2483.700000	---	41.56	54.00	12.44	100.0	V	111.0	7.4

Appendix B.5: Test Plots of Conducted Emission on AC Mains

EUT Information

EUT Name:	Lenovo Go Essential Travel Mouse
Order No.:	168306700 700
Model:	MB601W
Test Mode:	Charging by PC USB Port
Test Voltage:	AC 120V/60Hz
Test By:	Jianhua Lu
Review By:	Gary Chen
Remark:	SR1



Critical_Freqs

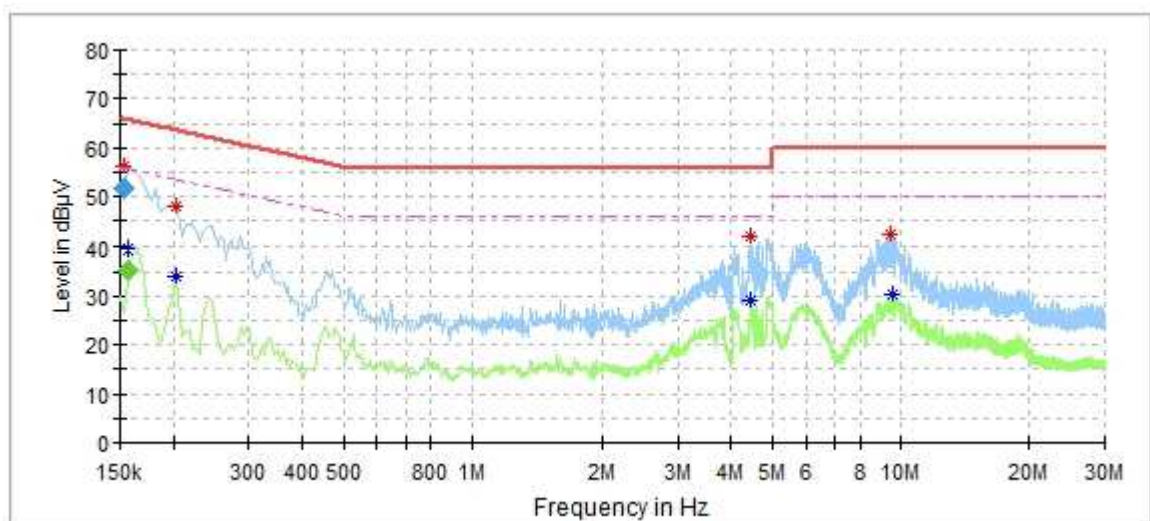
Frequency (MHz)	MaxPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)
0.150000	58.63	---	65.57	6.94	L1	10
0.166000	---	41.20	55.57	14.36	L1	10
0.182000	---	35.71	54.39	18.69	L1	10
0.190000	52.10	---	64.04	11.93	L1	10
1.612000	32.72	---	56.00	23.28	L1	10
1.620000	---	22.80	46.00	23.20	L1	10
4.876000	38.88	---	56.00	17.12	L1	10
4.976000	---	27.88	46.00	18.12	L1	10

Final_Result

Frequency (MHz)	QuasiPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.150000	51.04	---	66.00	14.96	200.0	9.000	L1	10
0.166000	---	33.80	55.16	21.35	200.0	9.000	L1	10

EUT Information

EUT Name: Lenovo Go Essential Travel Mouse
Order No.: 168306700 700
Model: MB601W
Test Mode: Charging by PC USB Port
Test Voltage: AC 120V/60Hz
Test By: Jianhua Lu
Review By: Gary Chen
Remark: SR1



Critical Freqs

Frequency (MHz)	MaxPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)
0.154000	56.09	---	65.57	9.48	N	10
0.156500	---	39.27	55.16	15.89	N	10
0.202000	---	34.25	53.53	19.27	N	10
0.202000	48.13	---	63.53	15.40	N	10
4.456000	---	29.14	46.00	16.86	N	10
4.460000	41.93	---	56.00	14.07	N	10
9.500000	42.32	---	60.00	17.68	N	10
9.528000	---	30.44	50.00	19.57	N	10

Final Result

Frequency (MHz)	QuasiPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.154000	51.82	---	65.78	13.97	200.0	9.000	N	10
0.156500	---	35.40	55.65	20.25	200.0	9.000	N	10