Appendix B: Test Results of FCC 15B & ICES-003

APPENDIX B: TEST RESULTS OF FCC 15B & ICES-003 ..... **1**
APPENDIX B.1: TEST PLOTS OF RADIATED EMISSION, BELOW 1GHZ 2
BT+NB+Normal Operating+LED on (AC power) *2*
BT+NB+Normal Operating+LED on (Battery) *3*
BT+GPRS+Normal Operating+LED on(AC power) *4*
BT+GPRS+Normal Operating+LED on (Battery) *5*
BT+EMTC+Normal Operating+LED on (AC power) *6*
BT+EMTC+Normal Operating+LED on (Battery) *7*
APPENDIX B.2: TEST PLOTS OF RADIATED EMISSION, ABOVE 1GHZ 8
BT+NB+Normal Operating+LED on (AC power) *8*
BT+NB+Normal Operating+LED on (Battery) *10*
BT+GPRS+Normal Operating+LED on(AC power) *12*
BT+GPRS+Normal Operating+LED on (Battery) *14*
BT+EMTC+Normal Operating+LED on (AC power) *16*
BT+EMTC+Normal Operating+LED on (Battery) *18*
APPENDIX B.3: TEST PLOTS OF CONDUCTED EMISSIONS ON AC MAINS 20
BT+NB+Normal Operating+LED on *20*
BT+GPRS+Normal Operating+LED on *22*
BT+EMTC+Normal Operating+LED on *24*

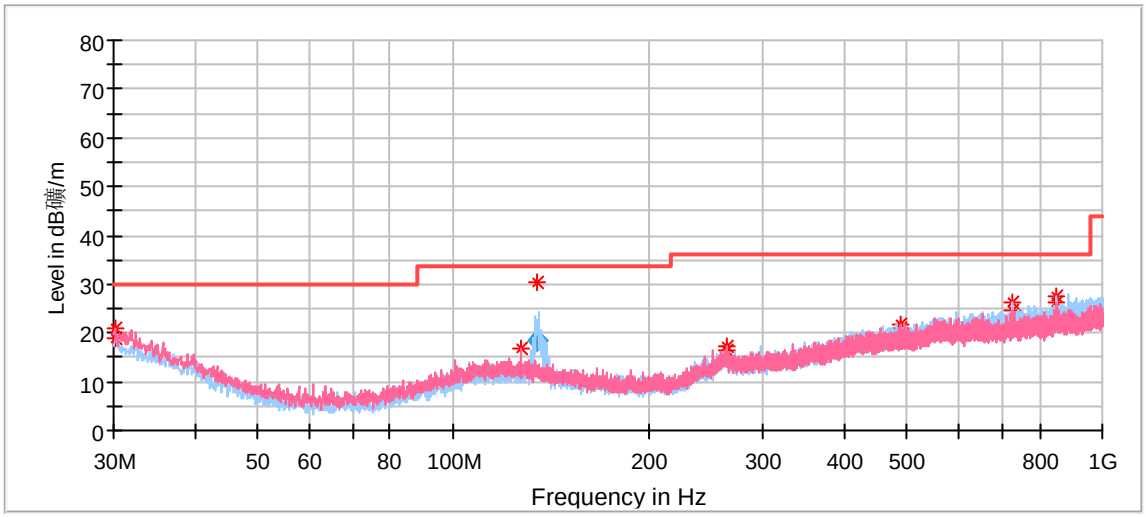
Appendix B.1: Test Plots of Radiated Emission, Below 1GHz

Note: The following illustration shows the limit that meet the FCC requirements, and these measured value also comply with IC requirements.

BT+NB+Normal Operating+LED on (AC power)

EUT Information

EUT Name:	Amazon Locker
Order Number:	168310149 50
Model:	ZL-ODIN-V1
Test Mode:	BT+NB+LED on+Normal Operating
Test Voltage:	AC 120V/60Hz
Test By:	Shower Dai
Review By:	Gary Chen
Remark:	10m Chamber



Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
30.107778	21.10	30.00	8.90	200.0	V	197.0	-4.8
30.269444	18.86	30.00	11.14	300.0	H	197.0	-11.5
127.269444	16.70	33.50	16.80	300.0	V	134.0	-11.5
134.340556	30.39	33.50	3.11	328.0	H	177.0	-17.4
264.039444	16.27	36.00	19.73	300.0	H	171.0	-13.9
264.093333	17.35	36.00	18.65	300.0	V	197.0	-9.4
487.840000	21.78	36.00	14.22	100.0	V	248.0	-6.0
488.810000	20.77	36.00	15.23	300.0	H	117.0	-10.1
728.723333	26.30	36.00	9.70	100.0	H	96.0	-7.1
728.777222	24.51	36.00	11.49	200.0	V	45.0	-4.1
852.560000	27.50	36.00	8.50	300.0	H	157.0	-5.3
852.613889	26.29	36.00	9.71	100.0	V	317.0	-2.9

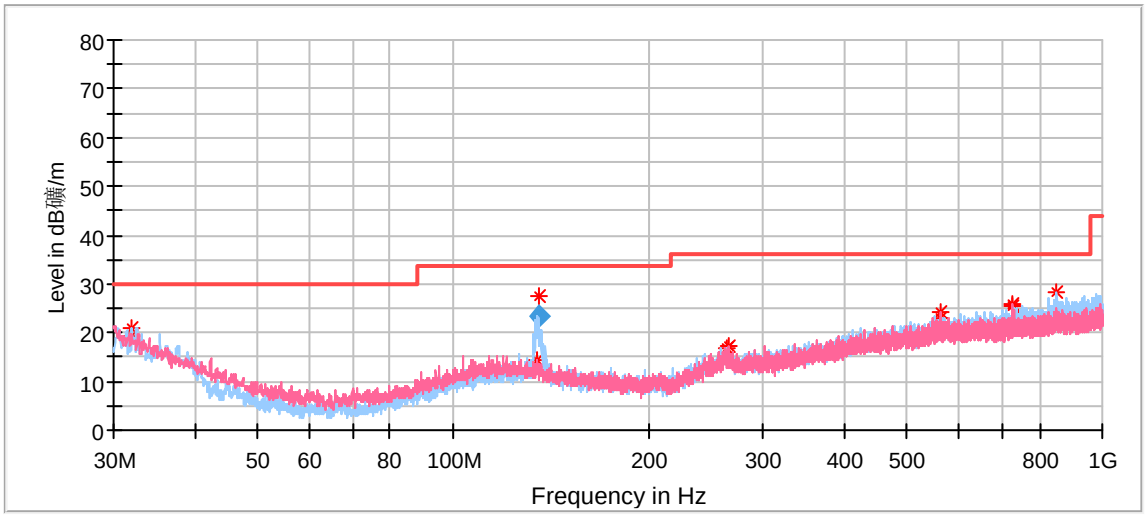
Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
134.340556	18.54	33.50	14.96	1000.0	120.000	328.0	H	177.0	-17.4

BT+NB+Normal Operating+LED on (Battery)

EUT Information

EUT Name:	Amazon Locker
Order Number:	168310149 50
Model:	ZL-ODIN-V1
Test Mode:	BT+NB+LED on+Normal Operating
Test Voltage:	Battery
Test By:	Shower Dai
Review By:	Gary Chen
Remark:	10m Chamber



Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
31.993889	20.81	30.00	9.19	200.0	H	0.0	-12.7
32.047778	19.29	30.00	10.71	200.0	V	101.0	-6.0
134.598333	14.32	33.50	19.18	300.0	V	159.0	-12.0
135.723333	27.37	33.50	6.13	350.0	H	166.0	-17.3
264.847778	16.95	36.00	19.05	200.0	H	346.0	-14.0
264.955556	17.05	36.00	18.95	300.0	V	218.0	-9.5
561.613889	24.29	36.00	11.71	200.0	V	218.0	-4.3
562.098889	22.86	36.00	13.14	100.0	H	270.0	-8.2
728.992778	25.75	36.00	10.25	200.0	V	294.0	-4.1
729.208333	25.35	36.00	10.65	300.0	H	11.0	-7.0
852.560000	28.46	36.00	7.54	100.0	H	7.0	-5.3
852.613889	24.64	36.00	11.36	300.0	V	150.0	-2.9

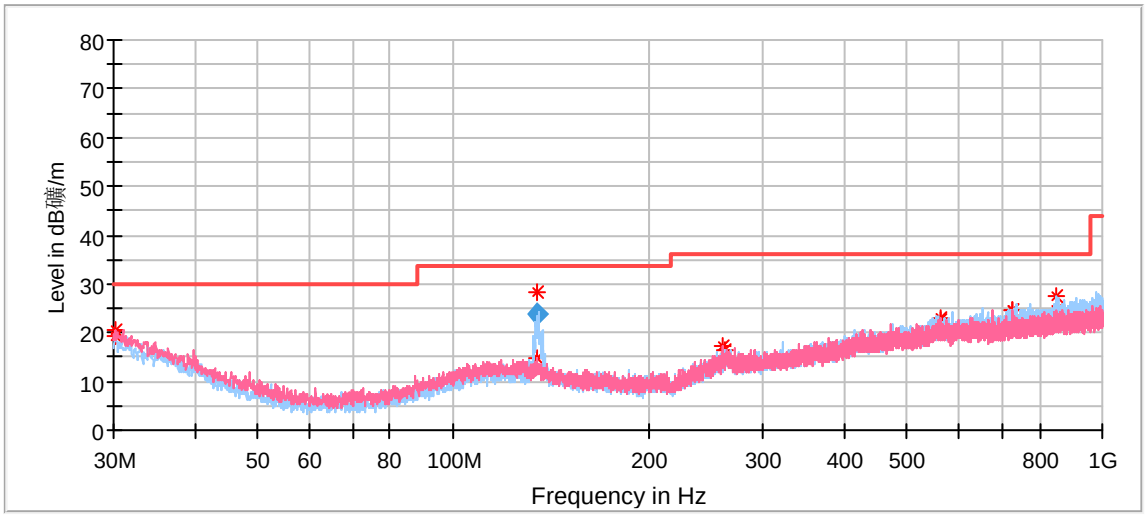
Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
135.723333	23.27	33.50	10.23	1000.0	120.000	350.0	H	166.0	-17.3

BT+GPRS+Normal Operating+LED on(AC power)

EUT Information

EUT Name:	Amazon Locker
Order Number:	168310149 50
Model:	ZL-ODIN-V1
Test Mode:	BT+GPRS+LED on+Normal Operating
Test Voltage:	AC 120V/60Hz
Test By:	Shower Dai
Review By:	Gary Chen
Remark:	10m Chamber



Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
30.107778	19.30	30.00	10.70	200.0	H	331.0	-11.4
30.161667	20.46	30.00	9.54	300.0	V	94.0	-4.8
134.382778	14.88	33.50	18.62	200.0	V	284.0	-12.0
134.660556	28.13	33.50	5.37	309.0	H	161.0	-17.4
260.913889	17.27	36.00	18.73	100.0	V	73.0	-9.5
262.207222	16.25	36.00	19.76	300.0	H	292.0	-13.9
563.338333	22.91	36.00	13.09	300.0	V	0.0	-4.3
563.553889	22.54	36.00	13.46	200.0	H	37.0	-8.2
729.154444	24.72	36.00	11.28	200.0	V	131.0	-4.1
729.208333	24.73	36.00	11.27	200.0	H	167.0	-7.0
852.560000	27.58	36.00	8.42	200.0	H	69.0	-5.3
852.613889	24.62	36.00	11.38	300.0	V	296.0	-2.9

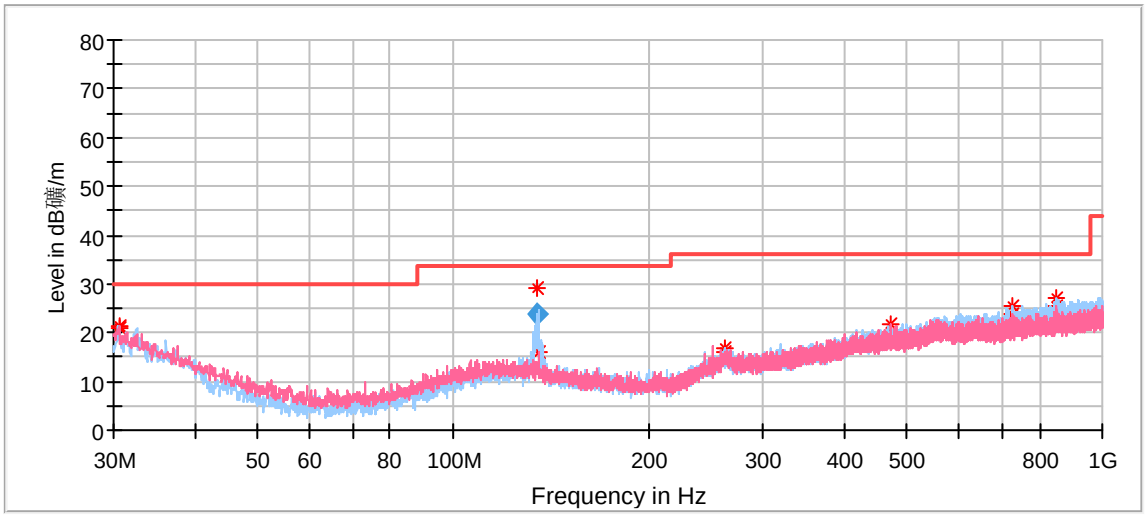
Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
134.660556	23.68	33.50	9.82	1000.0	120.000	309.0	H	161.0	-17.4

BT+GPRS+Normal Operating+LED on (Battery)

EUT Information

EUT Name:	Amazon Locker
Order Number:	168310149 50
Model:	ZL-ODIN-V1
Test Mode:	BT+GPRS+LED on+Normal Operating
Test Voltage:	Battery
Test By:	Shower Dai
Review By:	Gary Chen
Remark:	10m Chamber



Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
30.538889	21.51	30.00	8.49	300.0	H	2.0	-11.7
30.592778	20.96	30.00	9.04	300.0	V	74.0	-5.1
134.258889	29.18	33.50	4.32	350.0	H	167.0	-17.4
135.245000	15.99	33.50	17.51	100.0	V	165.0	-12.1
261.291111	16.99	36.00	19.01	300.0	H	350.0	-14.0
262.207222	16.17	36.00	19.83	300.0	V	282.0	-9.4
470.541667	19.97	36.00	16.03	200.0	H	118.0	-10.1
470.703333	21.79	36.00	14.21	200.0	V	167.0	-6.1
728.507778	23.95	36.00	12.05	200.0	V	242.0	-4.1
728.938889	25.39	36.00	10.61	300.0	H	34.0	-7.0
852.560000	25.24	36.00	10.76	200.0	V	70.0	-2.9
852.613889	27.01	36.00	8.99	100.0	H	242.0	-5.3

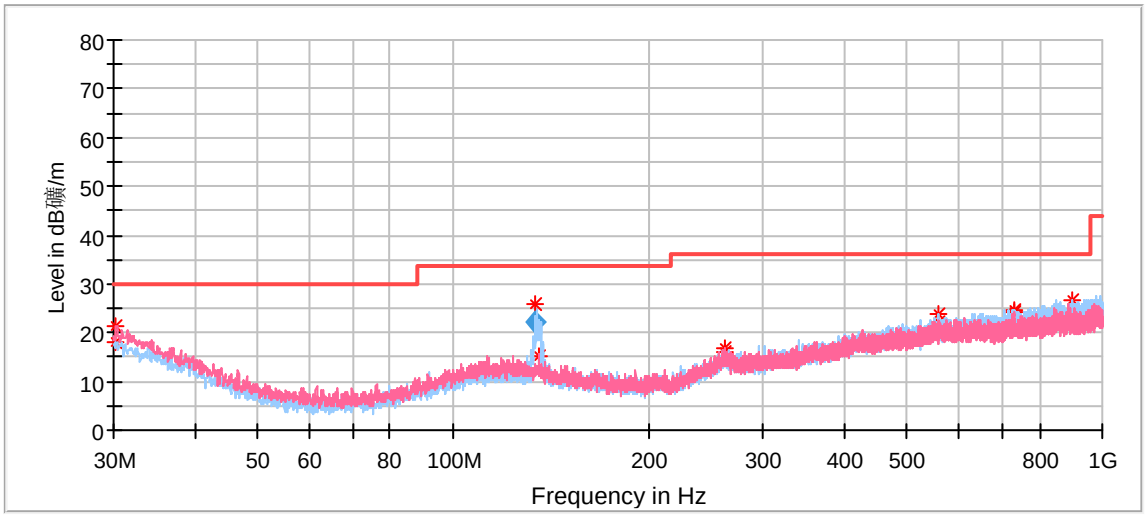
Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
134.258889	23.63	33.50	9.87	1000.0	120.000	350.0	H	167.0	-17.4

BT+EMTC+Normal Operating+LED on (AC power)

EUT Information

EUT Name:	Amazon Locker
Order Number:	168310149 50
Model:	ZL-ODIN-V1
Test Mode:	BT+EMTC+LED on+Normal Operating
Test Voltage:	AC 120V/60Hz
Test By:	Shower Dai
Review By:	Gary Chen
Remark:	10m Chamber



Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
30.215556	18.16	30.00	11.84	300.0	H	121.0	-11.5
30.269444	21.20	30.00	8.80	200.0	V	275.0	-4.9
133.989444	25.67	33.50	7.83	324.0	H	176.0	-17.3
135.568333	15.35	33.50	18.15	100.0	V	116.0	-12.1
261.668333	16.69	36.00	19.31	200.0	V	358.0	-9.4
261.722222	16.00	36.00	20.00	100.0	H	282.0	-13.9
559.081111	23.60	36.00	12.40	100.0	H	212.0	-8.2
559.620000	22.30	36.00	13.70	200.0	V	38.0	-4.3
729.855000	24.60	36.00	11.40	100.0	H	0.0	-7.0
729.908889	24.38	36.00	11.62	200.0	V	261.0	-4.0
899.066111	23.78	36.00	12.22	100.0	V	230.0	-2.6
900.197778	26.67	36.00	9.33	200.0	H	312.0	-4.8

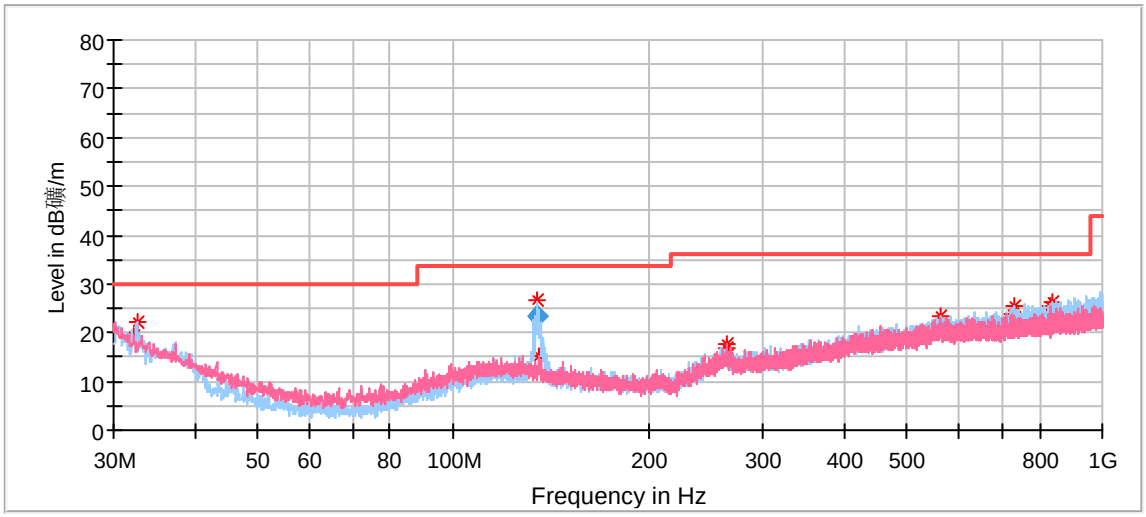
Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
133.989444	22.18	33.50	11.32	1000.0	120.000	324.0	H	176.0	-17.3

BT+EMTC+Normal Operating+LED on (Battery)

EUT Information

EUT Name:	Amazon Locker
Order Number:	168310149 50
Model:	ZL-ODIN-V1
Test Mode:	BT+EMTC+LED on+Normal Operating
Test Voltage:	Battery
Test By:	Shower Dai
Review By:	Gary Chen
Remark:	10m Chamber



Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
32.209444	19.16	30.00	10.84	100.0	V	321.0	-6.1
32.586667	22.03	30.00	7.97	100.0	H	164.0	-13.0
134.415556	26.47	33.50	7.03	319.0	H	175.0	-17.3
135.730000	15.17	33.50	18.33	100.0	V	56.0	-12.2
264.093333	17.47	36.00	18.53	200.0	V	25.0	-9.4
264.740000	16.93	36.00	19.07	100.0	H	255.0	-14.0
562.961111	21.86	36.00	14.14	100.0	V	56.0	-4.3
563.715556	23.25	36.00	12.75	100.0	H	138.0	-8.2
728.453889	23.89	36.00	12.11	100.0	V	101.0	-4.1
729.747222	25.26	36.00	10.74	100.0	H	142.0	-7.0
834.453333	25.44	36.00	10.56	200.0	V	78.0	-3.2
835.100000	26.37	36.00	9.63	300.0	H	286.0	-5.7

Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
134.415556	23.43	33.50	10.07	1000.0	120.000	319.0	H	175.0	-17.3

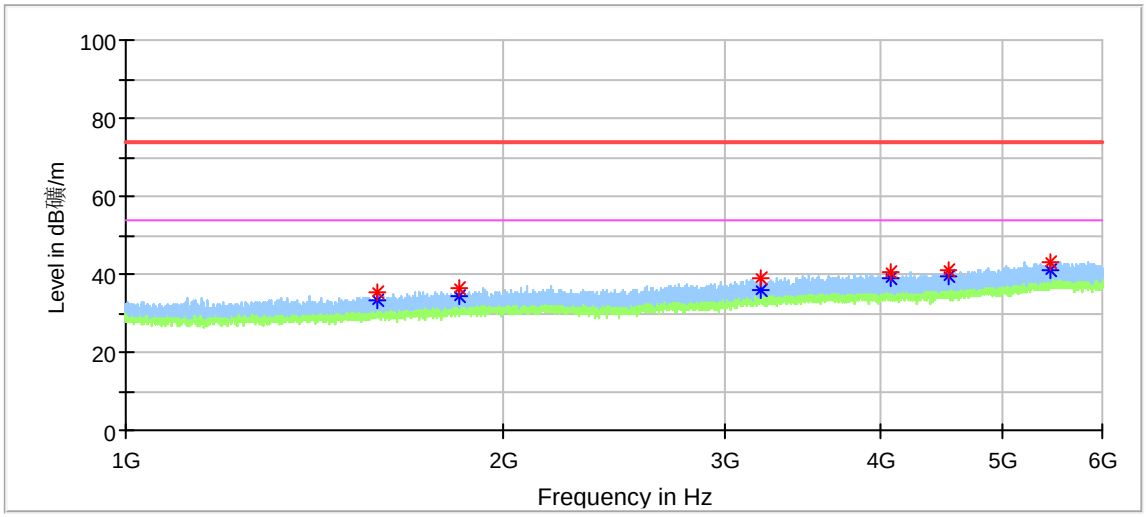
Appendix B.2: Test Plots of Radiated Emission, Above 1GHz

Note: Testing was carried out within frequency range 30MHz to the 5th harmonics. The measurement results above 6GHz were greater than 20dB below the limit, so only record the test result within the 30MHz to 6GHz.

BT+NB+Normal Operating+LED on (AC power)

EUT Information

EUT Name:	Amazon Locker
Order Number:	168310149 50
Model:	ZL-ODIN-V1
Test Mode:	BT+NB+LED on+Normal Operating
Test Voltage:	AC 120V/60Hz
Test By:	Shower Dai
Review By:	Gary Chen
Remark:	10M Chamber

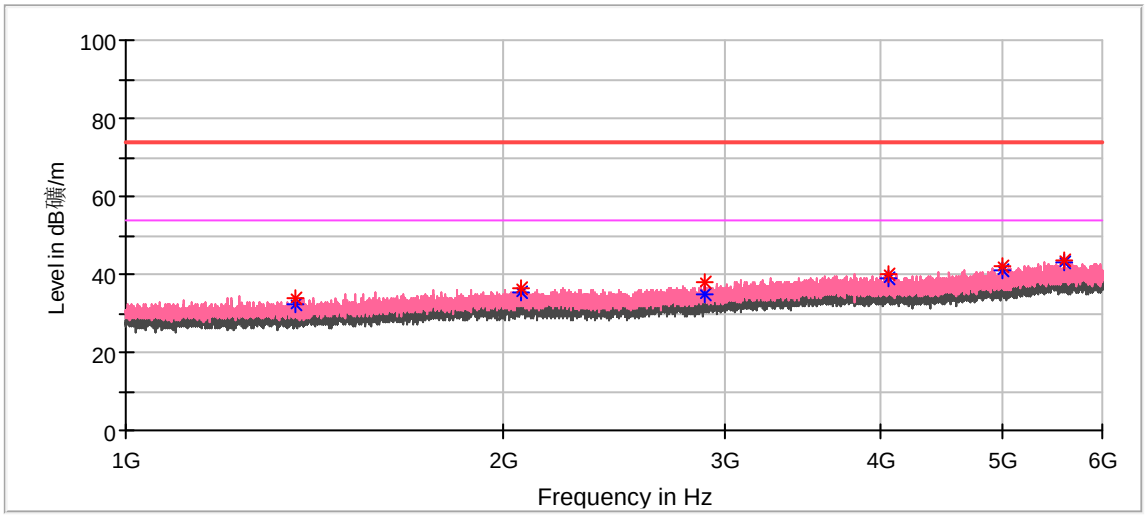


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m	Average (dBµV/m	Limit (dBµV/m	Margin	Height (cm)	Pol	Azimuth (deg)
1584.583333	---	33.18	54.00	20.82	100.0	H	326.0
1584.583333	35.35	---	74.00	38.65	100.0	H	326.0
1841.458333	---	34.50	54.00	19.50	200.0	H	186.0
1841.458333	36.48	---	74.00	37.52	200.0	H	186.0
3206.666667	---	35.78	54.00	18.22	200.0	H	196.0
3206.875000	39.18	---	74.00	34.82	200.0	H	196.0
4070.208333	---	38.76	54.00	15.24	200.0	H	350.0
4070.208333	40.57	---	74.00	33.43	200.0	H	350.0
4520.208333	---	39.45	54.00	14.55	200.0	H	126.0
4520.208333	41.24	---	74.00	32.76	200.0	H	126.0
5450.625000	---	40.81	54.00	13.19	200.0	H	105.0
5450.625000	43.20	---	74.00	30.80	200.0	H	105.0

EUT Information

EUT Name:	Amazon Locker
Order Number:	168310149 50
Model:	ZL-ODIN-V1
Test Mode:	BT+NB+LED on+Normal Operating
Test Voltage:	AC 120V/60Hz
Test By:	Shower Dai
Review By:	Gary Chen
Remark:	10M Chamber



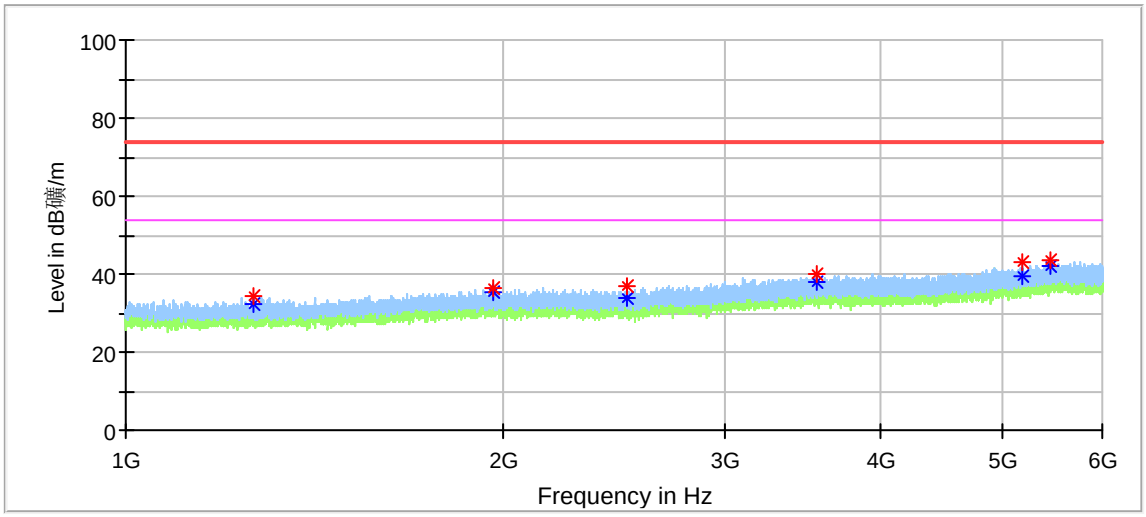
Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m	Average (dBµV/m	Limit (dBµV/m	Margin	Height (cm)	Pol	Azimuth (deg)
1365.416667	---	32.17	54.00	21.83	100.0	V	74.0
1365.416667	34.09	---	74.00	39.91	100.0	V	74.0
2065.000000	---	35.17	54.00	18.83	100.0	V	54.0
2065.000000	36.26	---	74.00	37.74	100.0	V	54.0
2895.208333	38.02	---	74.00	35.98	200.0	V	310.0
2896.250000	---	34.89	54.00	19.11	200.0	V	183.0
4047.083333	---	39.17	54.00	14.83	100.0	V	14.0
4047.083333	40.21	---	74.00	33.79	100.0	V	14.0
4998.333333	---	40.98	54.00	13.02	100.0	V	44.0
4998.333333	41.85	---	74.00	32.15	100.0	V	44.0
5587.500000	---	42.91	54.00	11.09	200.0	V	224.0
5587.500000	43.59	---	74.00	30.41	200.0	V	224.0

BT+NB+Normal Operating+LED on (Battery)

EUT Information

EUT Name:	Amazon Locker
Order Number:	168310149 50
Model:	ZL-ODIN-V1
Test Mode:	BT+NB+LED on+Normal Operating
Test Voltage:	Battery
Test By:	Shower Dai
Review By:	Gary Chen
Remark:	10M Chamber



Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m	Average (dBµV/m	Limit (dBµV/m	Margin	Height (cm)	Pol	Azimuth (deg)
1265.833333	---	32.43	54.00	21.57	100.0	H	82.0
1265.833333	34.26	---	74.00	39.74	100.0	H	82.0
1963.125000	---	35.34	54.00	18.66	100.0	H	29.0
1963.125000	36.32	---	74.00	37.68	100.0	H	29.0
2511.458333	---	34.04	54.00	19.96	100.0	H	118.0
2511.458333	36.68	---	74.00	37.32	100.0	H	118.0
3558.958333	---	37.73	54.00	16.27	100.0	H	318.0
3558.958333	40.04	---	74.00	33.96	100.0	H	318.0
5173.333333	42.96	---	74.00	31.04	100.0	H	64.0
5173.750000	---	39.60	54.00	14.40	100.0	H	0.0
5452.500000	---	42.30	54.00	11.70	100.0	H	0.0
5452.500000	43.35	---	74.00	30.65	100.0	H	0.0

Final_Result

Frequency (MHz)	MaxPeak (dBµV/m)	CAverage (dBµV/m	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)
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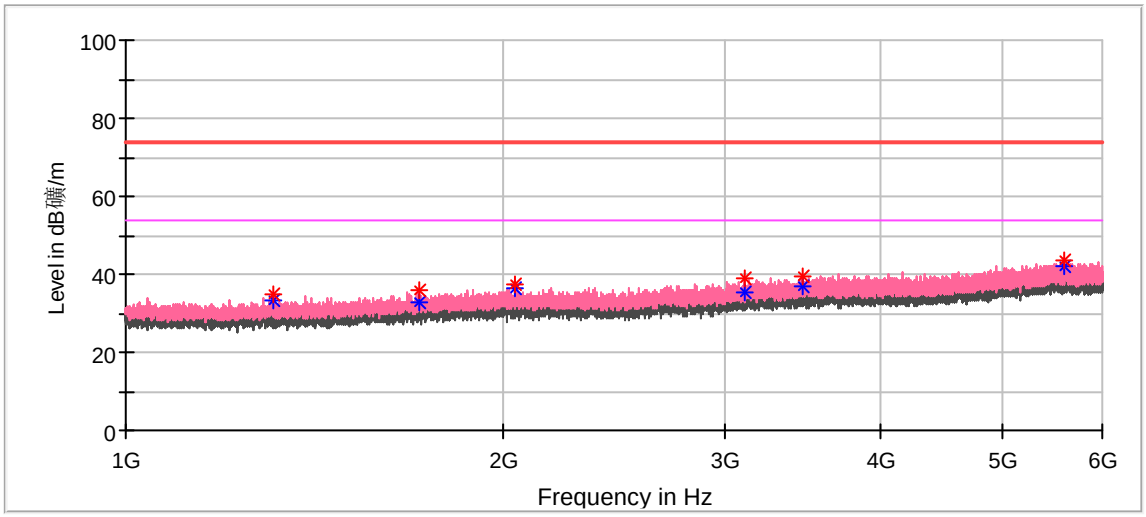
EUT Information

EUT Name:	Amazon Locker
Order Number:	168310149 50
Model:	ZL-ODIN-V1
Test Mode:	BT+NB+LED on+Normal Operating
Test Voltage:	Battery
Test By:	Shower Dai
Review By:	Gary Chen
Remark:	10M Chamber



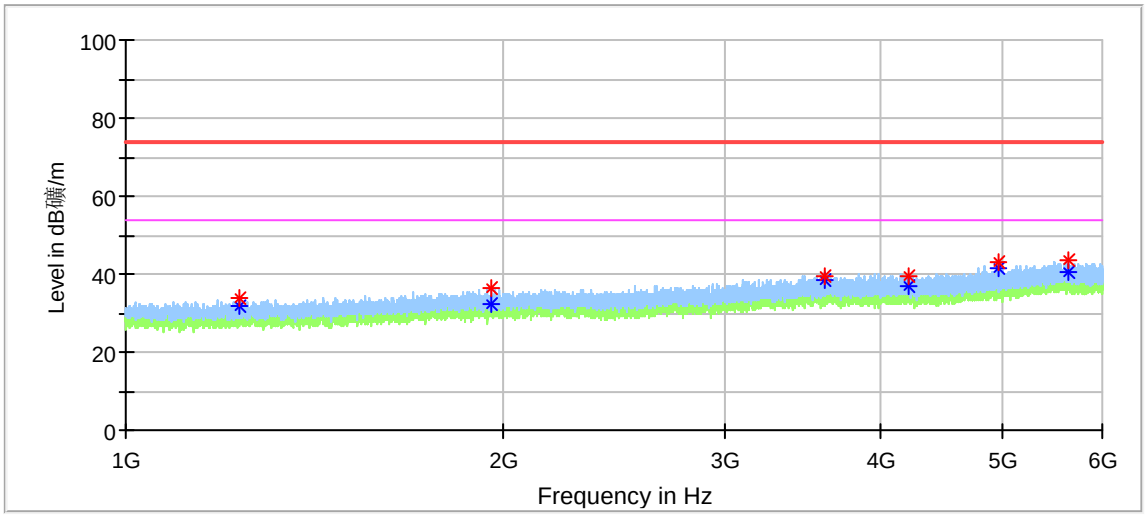
Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m	Average (dBµV/m	Limit (dBµV/m	Margin	Height (cm)	Pol	Azimuth (deg)
1311.041667	---	33.34	54.00	20.66	200.0	V	130.0
1311.041667	34.65	---	74.00	39.35	200.0	V	130.0
1713.958333	---	32.92	54.00	21.08	200.0	V	359.0
1713.958333	36.13	---	74.00	37.87	200.0	V	359.0
2041.250000	---	36.18	54.00	17.82	200.0	V	114.0
2041.250000	37.61	---	74.00	36.39	200.0	V	114.0
3108.333333	---	35.36	54.00	18.64	100.0	V	120.0
3108.333333	38.85	---	74.00	35.15	100.0	V	120.0
3467.916667	---	37.17	54.00	16.83	200.0	V	36.0
3467.916667	39.38	---	74.00	34.62	200.0	V	36.0
5605.000000	---	41.90	54.00	12.10	200.0	V	29.0
5605.000000	43.65	---	74.00	30.35	200.0	V	29.0

BT+GPRS+Normal Operating+LED on(AC power)

EUT Information

EUT Name:	Amazon Locker
Order Number:	168310149 50
Model:	ZL-ODIN-V1
Test Mode:	BT+GPRS+LED on+Normal Operating
Test Voltage:	AC 120V/60Hz
Test By:	Shower Dai
Review By:	Gary Chen
Remark:	10M Chamber

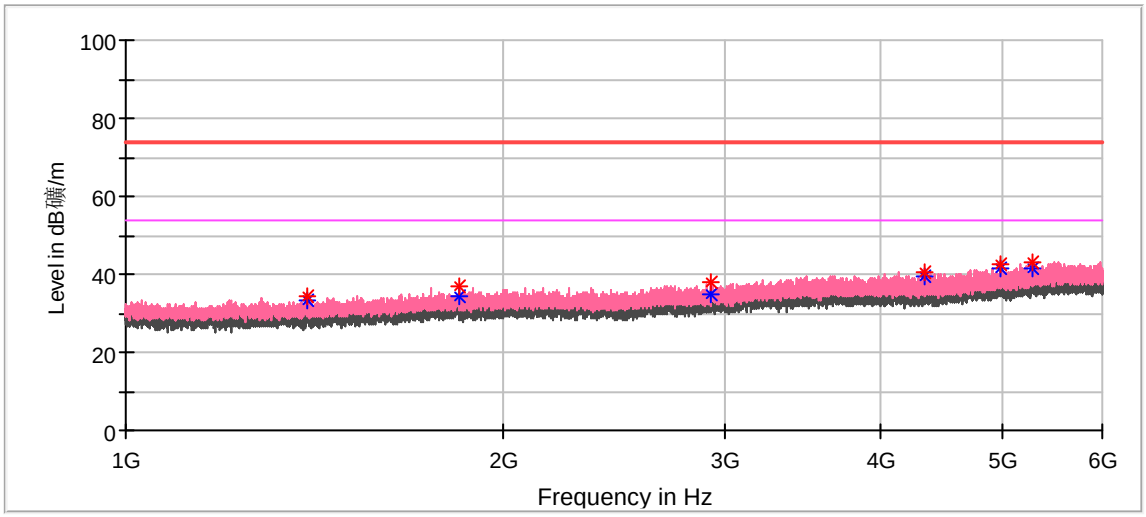


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m	Average (dBµV/m	Limit (dBµV/m	Margin	Height (cm)	Pol	Azimuth (deg)
1230.625000	---	31.92	54.00	22.08	100.0	H	226.0
1230.625000	33.59	---	74.00	40.41	200.0	H	226.0
1954.375000	36.31	---	74.00	37.69	100.0	H	135.0
1954.583333	---	32.49	54.00	21.51	100.0	H	135.0
3600.833333	---	38.27	54.00	15.73	200.0	H	99.0
3600.833333	39.37	---	74.00	34.63	200.0	H	99.0
4209.791667	---	36.94	54.00	17.06	200.0	H	0.0
4209.791667	39.54	---	74.00	34.46	200.0	H	0.0
4952.708333	---	41.38	54.00	12.62	200.0	H	231.0
4952.708333	43.23	---	74.00	30.77	200.0	H	231.0
5638.333333	---	40.44	54.00	13.56	200.0	H	346.0
5638.333333	43.35	---	74.00	30.65	200.0	H	346.0

EUT Information

EUT Name:	Amazon Locker
Order Number:	168310149 50
Model:	ZL-ODIN-V1
Test Mode:	BT+GPRS+LED on+Normal Operating
Test Voltage:	AC 120V/60Hz
Test By:	Shower Dai
Review By:	Gary Chen
Remark:	10M Chamber



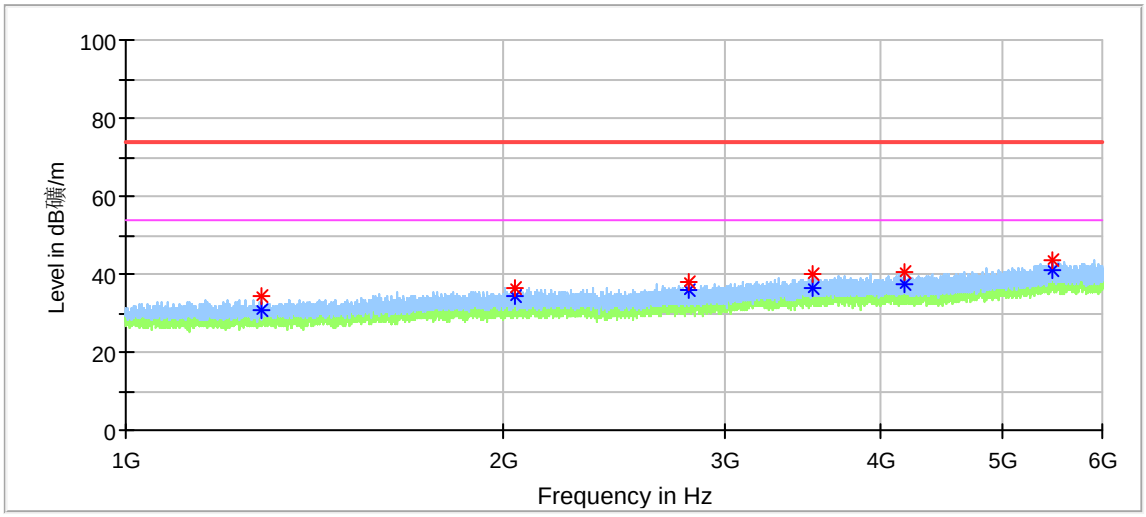
Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m	Average (dBµV/m	Limit (dBµV/m	Margin	Height (cm)	Pol	Azimuth (deg)
1397.083333	---	33.21	54.00	20.79	100.0	V	15.0
1397.083333	34.38	---	74.00	39.62	200.0	V	15.0
1842.916667	---	34.55	54.00	19.45	200.0	V	290.0
1842.916667	36.97	---	74.00	37.03	100.0	V	290.0
2930.625000	---	35.08	54.00	18.92	200.0	V	195.0
2930.625000	38.10	---	74.00	35.90	200.0	V	195.0
4329.166667	---	39.33	54.00	14.67	200.0	V	96.0
4329.166667	40.73	---	74.00	33.27	200.0	V	96.0
4983.958333	---	41.46	54.00	12.54	100.0	V	39.0
4983.958333	42.63	---	74.00	31.37	100.0	V	39.0
5286.666667	---	41.32	54.00	12.68	200.0	V	226.0
5286.666667	43.11	---	74.00	30.89	200.0	V	226.0

BT+GPRS+Normal Operating+LED on (Battery)

EUT Information

EUT Name:	Amazon Locker
Order Number:	168310149 50
Model:	ZL-ODIN-V1
Test Mode:	BT+GPRS+LED on+Normal Operating
Test Voltage:	Battery
Test By:	Shower Dai
Review By:	Gary Chen
Remark:	10M Chamber

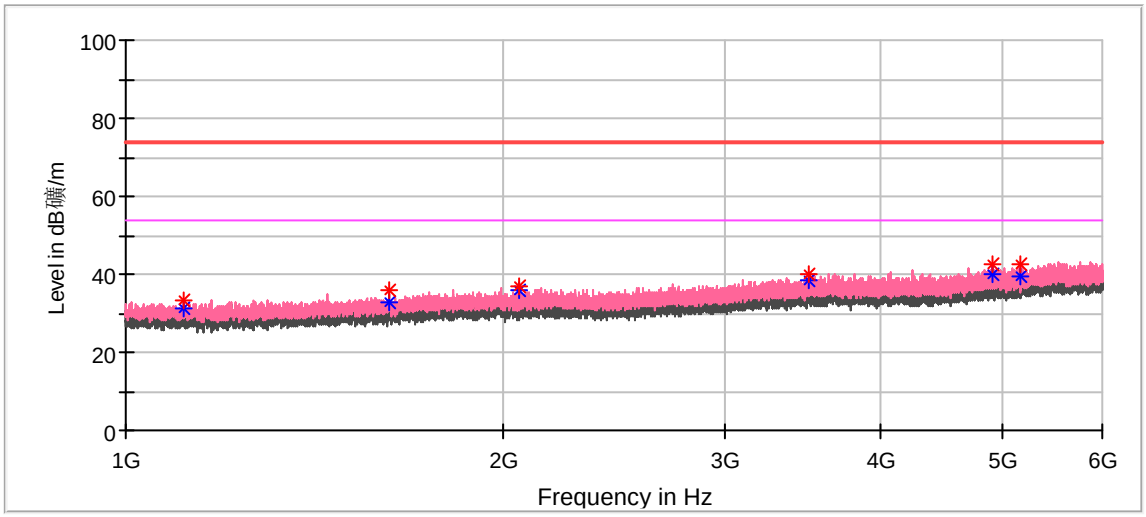


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m	Average (dBµV/m	Limit (dBµV/m	Margin	Height (cm)	Pol	Azimuth (deg)
1283.958333	---	30.94	54.00	23.06	100.0	H	268.0
1283.958333	34.38	---	74.00	39.62	100.0	H	268.0
2041.666667	---	34.61	54.00	19.39	200.0	H	291.0
2041.666667	36.61	---	74.00	37.39	200.0	H	291.0
2809.791667	---	35.91	54.00	18.09	200.0	H	140.0
2809.791667	37.82	---	74.00	36.18	200.0	H	140.0
3523.958333	---	36.49	54.00	17.51	200.0	H	4.0
3523.958333	39.98	---	74.00	34.02	100.0	H	4.0
4172.708333	---	37.61	54.00	16.39	200.0	H	274.0
4172.708333	40.53	---	74.00	33.47	200.0	H	274.0
5474.791667	---	40.93	54.00	13.07	100.0	H	44.0
5474.791667	43.41	---	74.00	30.59	100.0	H	44.0

EUT Information

EUT Name:	Amazon Locker
Order Number:	168310149 50
Model:	ZL-ODIN-V1
Test Mode:	BT+GPRS+LED on+Normal Operating
Test Voltage:	Battery
Test By:	Shower Dai
Review By:	Gary Chen
Remark:	10M Chamber



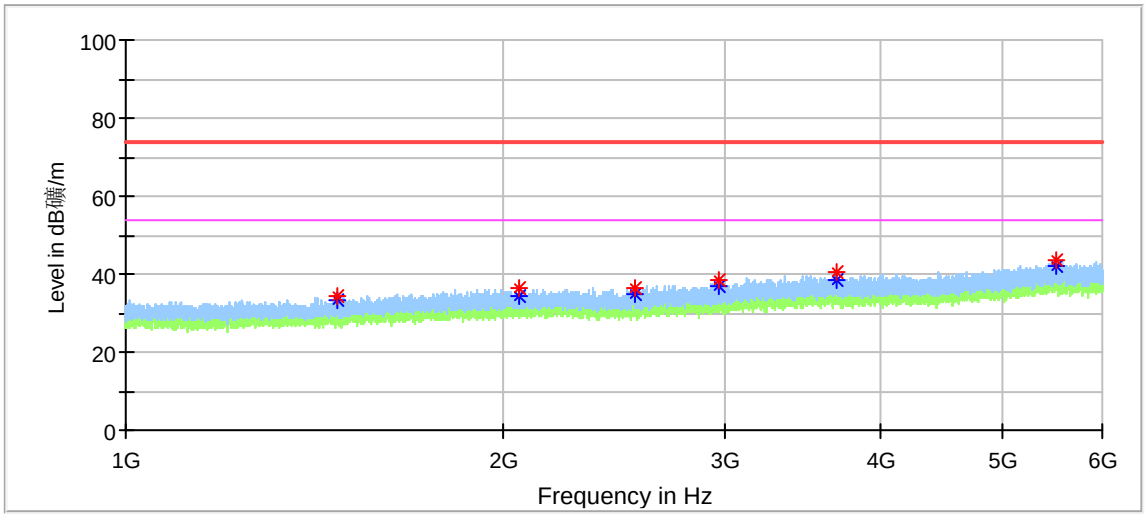
Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m	Average (dBµV/m	Limit (dBµV/m	Margin	Height (cm)	Pol	Azimuth (deg)
1111.458333	---	31.18	54.00	22.82	200.0	V	96.0
1111.458333	33.22	---	74.00	40.78	200.0	V	96.0
1621.666667	---	32.79	54.00	21.21	100.0	V	259.0
1621.666667	35.75	---	74.00	38.25	100.0	V	259.0
2055.416667	---	35.98	54.00	18.02	200.0	V	324.0
2055.416667	36.99	---	74.00	37.01	200.0	V	324.0
3496.875000	---	38.34	54.00	15.66	200.0	V	41.0
3496.875000	39.89	---	74.00	34.11	200.0	V	41.0
4896.666667	---	40.00	54.00	14.00	200.0	V	107.0
4896.666667	42.39	---	74.00	31.61	200.0	V	107.0
5172.500000	---	39.25	54.00	14.75	100.0	V	353.0
5172.500000	42.33	---	74.00	31.67	100.0	V	353.0

BT+EMTC+Normal Operating+LED on (AC power)

EUT Information

EUT Name:	Amazon Locker
Order Number:	168310149 50
Model:	ZL-ODIN-V1
Test Mode:	BT+EMTC+LED on+Normal Operating
Test Voltage:	AC 120V/60Hz
Test By:	Shower Dai
Review By:	Gary Chen
Remark:	10M Chamber

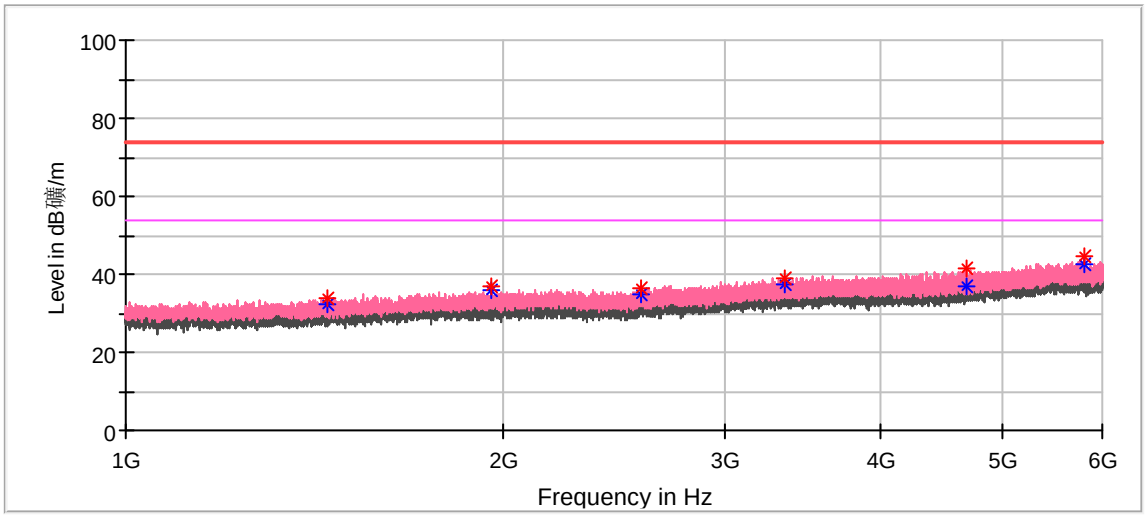


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m	Average (dBµV/m	Limit (dBµV/m	Margin	Height (cm)	Pol	Azimuth (deg)
1476.250000	---	33.49	54.00	20.51	200.0	H	31.0
1476.250000	34.56	---	74.00	39.44	200.0	H	31.0
2056.458333	---	34.33	54.00	19.67	200.0	H	11.0
2056.458333	36.42	---	74.00	37.58	200.0	H	11.0
2547.083333	---	34.91	54.00	19.09	100.0	H	16.0
2547.083333	36.65	---	74.00	37.35	200.0	H	16.0
2974.375000	---	37.15	54.00	16.85	200.0	H	150.0
2974.375000	38.42	---	74.00	35.58	200.0	H	150.0
3680.208333	---	38.22	54.00	15.78	200.0	H	84.0
3680.208333	40.43	---	74.00	33.57	200.0	H	84.0
5506.250000	---	42.02	54.00	11.98	100.0	H	258.0
5506.250000	43.68	---	74.00	30.32	100.0	H	258.0

EUT Information

EUT Name:	Amazon Locker
Order Number:	168310149 50
Model:	ZL-ODIN-V1
Test Mode:	BT+EMTC+LED on+Normal Operating
Test Voltage:	AC 120V/60Hz
Test By:	Shower Dai
Review By:	Gary Chen
Remark:	10M Chamber



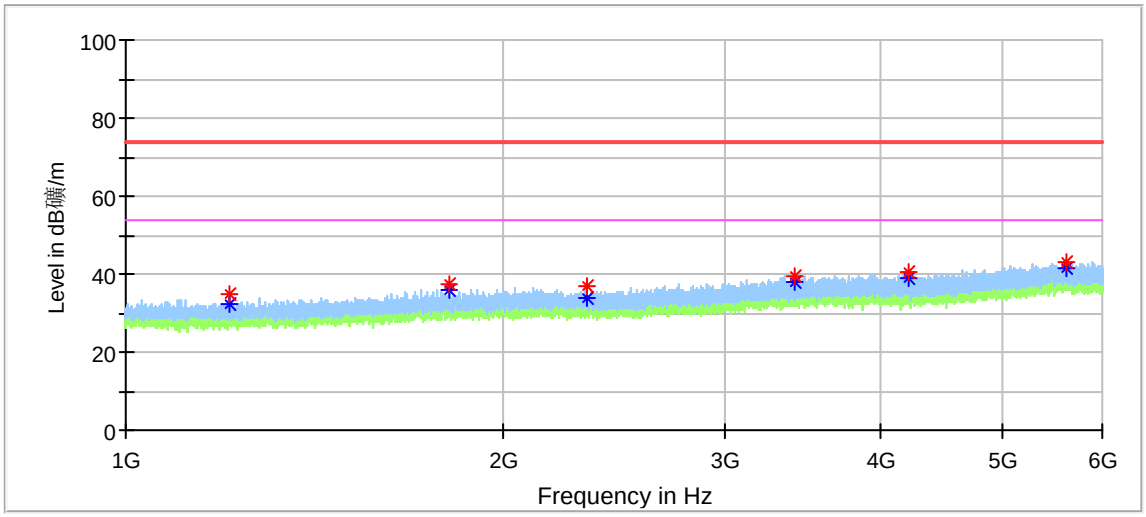
Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m	Average (dBµV/m	Limit (dBµV/m	Margin	Height (cm)	Pol	Azimuth (deg)
1445.208333	---	32.55	54.00	21.45	200.0	V	316.0
1445.208333	34.06	---	74.00	39.94	100.0	V	316.0
1958.333333	---	35.69	54.00	18.31	200.0	V	69.0
1958.333333	36.67	---	74.00	37.33	200.0	V	69.0
2575.833333	---	34.80	54.00	19.20	100.0	V	265.0
2575.833333	36.64	---	74.00	37.37	100.0	V	265.0
3346.666667	---	37.45	54.00	16.55	200.0	V	56.0
3346.666667	39.13	---	74.00	34.87	200.0	V	56.0
4670.208333	---	37.08	54.00	16.92	200.0	V	316.0
4670.416667	41.44	---	74.00	32.56	200.0	V	316.0
5805.833333	---	42.36	54.00	11.64	100.0	V	350.0
5805.833333	44.46	---	74.00	29.54	100.0	V	350.0

BT+EMTC+Normal Operating+LED on (Battery)

EUT Information

EUT Name:	Amazon Locker
Order Number:	168310149 50
Model:	ZL-ODIN-V1
Test Mode:	BT+EMTC+LED on+Normal Operating
Test Voltage:	Battery
Test By:	Shower Dai
Review By:	Gary Chen
Remark:	10M Chamber

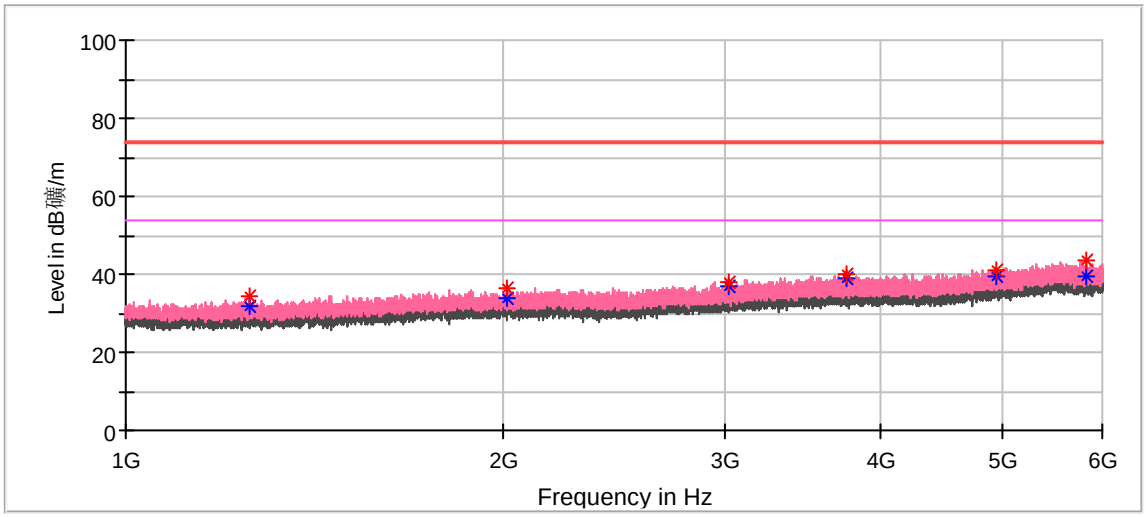


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m	Average (dBµV/m	Limit (dBµV/m	Margin	Height (cm)	Pol	Azimuth (deg)
1209.166667	---	32.08	54.00	21.92	100.0	H	52.0
1209.166667	34.64	---	74.00	39.36	100.0	H	52.0
1813.333333	---	35.72	54.00	18.28	200.0	H	155.0
1813.333333	37.27	---	74.00	36.73	200.0	H	155.0
2331.458333	---	33.81	54.00	20.19	200.0	H	160.0
2331.458333	37.14	---	74.00	36.86	200.0	H	160.0
3410.000000	---	38.06	54.00	15.94	200.0	H	57.0
3410.000000	39.33	---	74.00	34.67	100.0	H	57.0
4204.166667	---	38.93	54.00	15.07	200.0	H	52.0
4204.166667	40.67	---	74.00	33.33	200.0	H	52.0
5620.833333	---	41.52	54.00	12.48	200.0	H	2.0
5620.833333	43.24	---	74.00	30.76	200.0	H	2.0

EUT Information

EUT Name:	Amazon Locker
Order Number:	168310149 50
Model:	ZL-ODIN-V1
Test Mode:	BT+EMTC+LED on+Normal Operating
Test Voltage:	Battery
Test By:	Shower Dai
Review By:	Gary Chen
Remark:	10M Chamber



Critical_Freqs

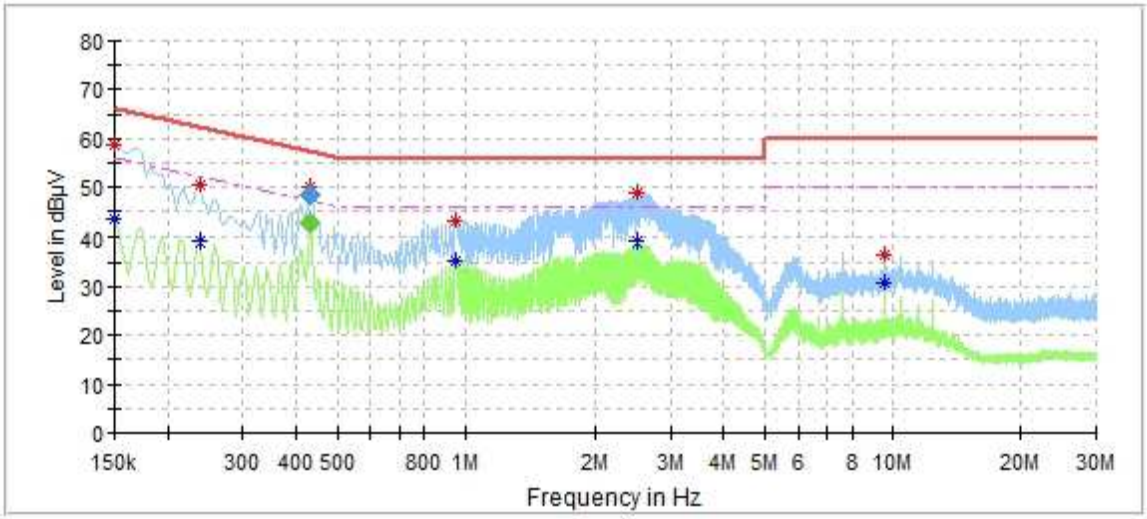
Frequency (MHz)	MaxPeak (dBµV/m	Average (dBµV/m	Limit (dBµV/m	Margin	Height (cm)	Pol	Azimuth (deg)
1254.791667	---	31.92	54.00	22.08	100.0	V	0.0
1254.791667	34.33	---	74.00	39.67	100.0	V	0.0
2013.541667	---	33.72	54.00	20.28	200.0	V	44.0
2013.541667	36.31	---	74.00	37.69	200.0	V	44.0
3026.458333	---	36.99	54.00	17.01	200.0	V	89.0
3026.458333	38.20	---	74.00	35.80	200.0	V	89.0
3752.916667	---	38.74	54.00	15.26	200.0	V	182.0
3752.916667	40.22	---	74.00	33.78	200.0	V	182.0
4946.458333	---	39.53	54.00	14.47	100.0	V	21.0
4946.458333	41.26	---	74.00	32.74	200.0	V	21.0
5820.000000	---	39.68	54.00	14.32	200.0	V	170.0
5820.208333	43.49	---	74.00	30.51	200.0	V	170.0

Appendix B.3: Test Plots of Conducted Emissions on AC Mains

BT+NB+Normal Operating+LED on

EUT Information

EUT Name:	Amazon Locker
Order No.:	168310149 50
Model:	ZL-ODIN-V1
Test Mode:	BT+NB+LED on+Normal Operating
Test Voltage:	AC 120V/60Hz
Test By:	Shower Dai
Review By:	Gary Chen
Remark:	SR1



Critical_Freqs

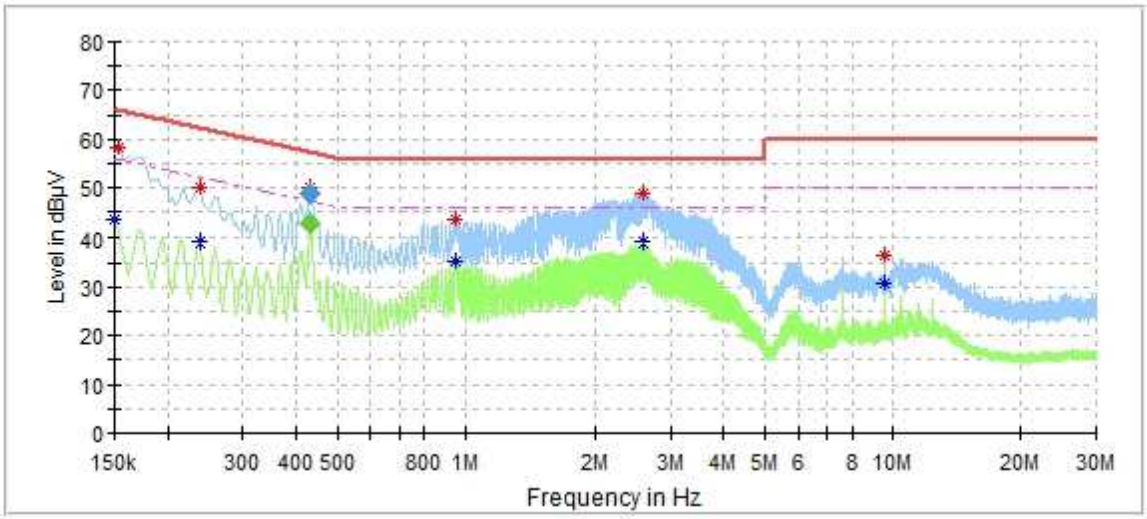
Frequency (MHz)	MaxPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)
0.150000	58.86	---	66.00	7.14	L1	9.60
0.150000	---	43.31	56.00	12.69	L1	9.60
0.238000	---	39.15	52.17	13.02	L1	9.60
0.238000	50.59	---	62.17	11.58	L1	9.60
0.432500	50.25	---	57.18	6.92	L1	9.70
0.432500	---	43.13	47.18	4.05	L1	9.70
0.952000	---	35.15	46.00	10.85	L1	9.71
0.952000	42.95	---	56.00	13.05	L1	9.71
2.512000	48.86	---	56.00	7.14	L1	9.82
2.512000	---	38.91	46.00	7.09	L1	9.82
9.520000	---	30.79	50.00	19.21	L1	10.01
9.520000	36.47	---	60.00	23.53	L1	10.01

Final_Result

Frequency (MHz)	QuasiPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.432500	---	42.79	47.21	4.41	200.0	9.000	L1	9.70
0.432500	48.61	---	57.21	8.60	200.0	9.000	L1	9.70

EUT Information

EUT Name:	Amazon Locker
Order No.:	168310149 50
Model:	ZL-ODIN-V1
Test Mode:	BT+NB+LED on+Normal Operating
Test Voltage:	AC 120V/60Hz
Test By:	Shower Dai
Review By:	Gary Chen
Remark:	SR1



Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)
0.150000	---	43.44	56.00	12.56	N	9.60
0.154000	58.35	---	65.78	7.43	N	9.60
0.238000	---	38.89	52.17	13.28	N	9.60
0.238000	49.98	---	62.17	12.19	N	9.60
0.432500	50.23	---	57.18	6.95	N	9.70
0.432500	---	43.09	47.18	4.09	N	9.70
0.948000	---	35.18	46.00	10.82	N	9.70
0.948000	43.32	---	56.00	12.68	N	9.70
2.580000	---	39.00	46.00	7.00	N	9.82
2.580000	49.01	---	56.00	6.99	N	9.82
9.520000	---	30.73	50.00	19.27	N	10.01
9.524000	36.44	---	60.00	23.56	N	10.01

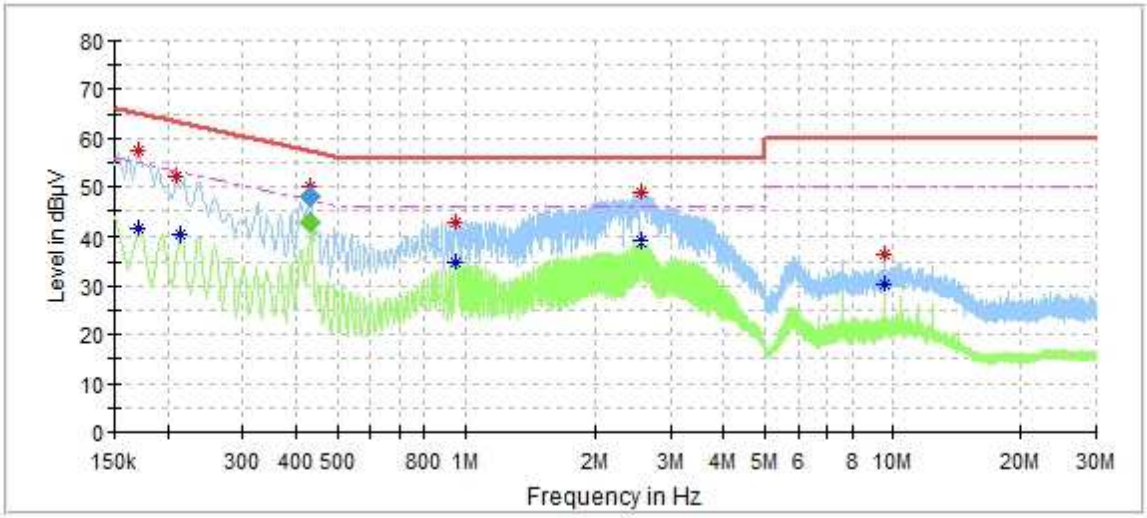
Final_Result

Frequency (MHz)	QuasiPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.432500	---	42.60	47.21	4.60	200.0	9.000	N	9.70
0.432500	48.69	---	57.21	8.51	200.0	9.000	N	9.70

BT+GPRS+Normal Operating+LED on

EUT Information

EUT Name:	Amazon Locker
Order No.:	168310149 50
Model:	ZL-ODIN-V1
Test Mode:	BT+GPRS+LED on+Normal Operating
Test Voltage:	AC 120V/60Hz
Test By:	Shower Dai
Review By:	Gary Chen
Remark:	SR1



Critical_Freqs

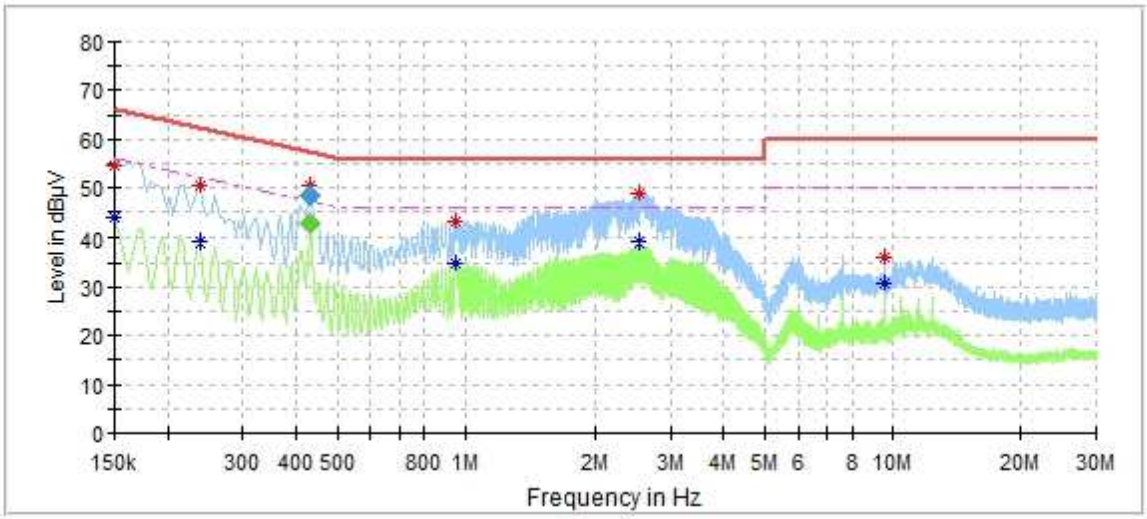
Frequency (MHz)	MaxPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)
0.170000	---	41.41	54.96	13.55	L1	9.60
0.170000	57.40	---	64.96	7.56	L1	9.60
0.210000	52.25	---	63.21	10.95	L1	9.60
0.214000	---	40.02	53.05	13.03	L1	9.60
0.432500	---	42.91	47.18	4.26	L1	9.70
0.432500	50.17	---	57.18	7.01	L1	9.70
0.948000	42.68	---	56.00	13.32	L1	9.71
0.952000	---	35.00	46.00	11.00	L1	9.71
2.556000	---	38.95	46.00	7.05	L1	9.82
2.556000	48.86	---	56.00	7.14	L1	9.82
9.520000	---	30.31	50.00	19.69	L1	10.01
9.520000	36.43	---	60.00	23.57	L1	10.01

Final_Result

Frequency (MHz)	QuasiPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.432500	---	42.60	47.21	4.60	200.0	9.000	L1	9.70
0.432500	48.19	---	57.21	9.01	200.0	9.000	L1	9.70

EUT Information

EUT Name:	Amazon Locker
Order No.:	168310149 50
Model:	ZL-ODIN-V1
Test Mode:	BT+GPRS+LED on+Normal Operating
Test Voltage:	AC 120V/60Hz
Test By:	Shower Dai
Review By:	Gary Chen
Remark:	SR1



Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)
0.150000	---	43.99	56.00	12.01	N	9.60
0.150000	54.75	---	66.00	11.25	N	9.60
0.238000	---	39.09	52.17	13.08	N	9.60
0.238000	50.29	---	62.17	11.87	N	9.60
0.432500	---	42.83	47.18	4.35	N	9.70
0.432500	50.46	---	57.18	6.71	N	9.70
0.948000	43.17	---	56.00	12.83	N	9.70
0.952000	---	34.97	46.00	11.03	N	9.70
2.532000	48.71	---	56.00	7.29	N	9.82
2.536000	---	38.98	46.00	7.02	N	9.82
9.524000	---	30.57	50.00	19.43	N	10.01
9.524000	36.25	---	60.00	23.75	N	10.01

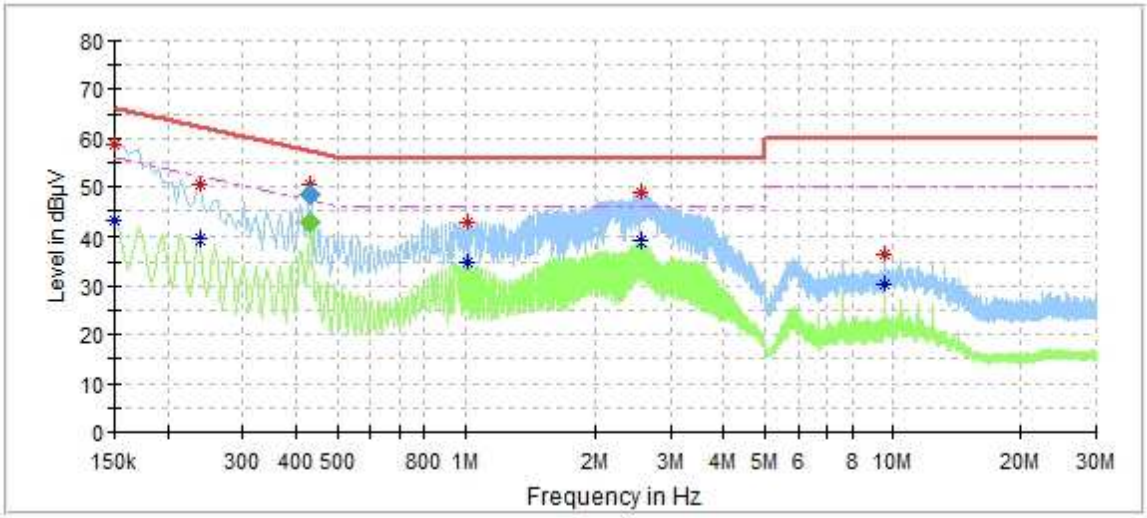
Final_Result

Frequency (MHz)	QuasiPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.432500	---	42.80	47.21	4.40	200.0	9.000	N	9.70
0.432500	48.52	---	57.21	8.69	200.0	9.000	N	9.70

BT+EMTC+Normal Operating+LED on

EUT Information

EUT Name:	Amazon Locker
Order No.:	168310149 50
Model:	ZL-ODIN-V1
Test Mode:	BT+EMTC+LED on+Normal Operating
Test Voltage:	AC 120V/60Hz
Test By:	Shower Dai
Review By:	Gary Chen
Remark:	SR1



Critical_Freqs

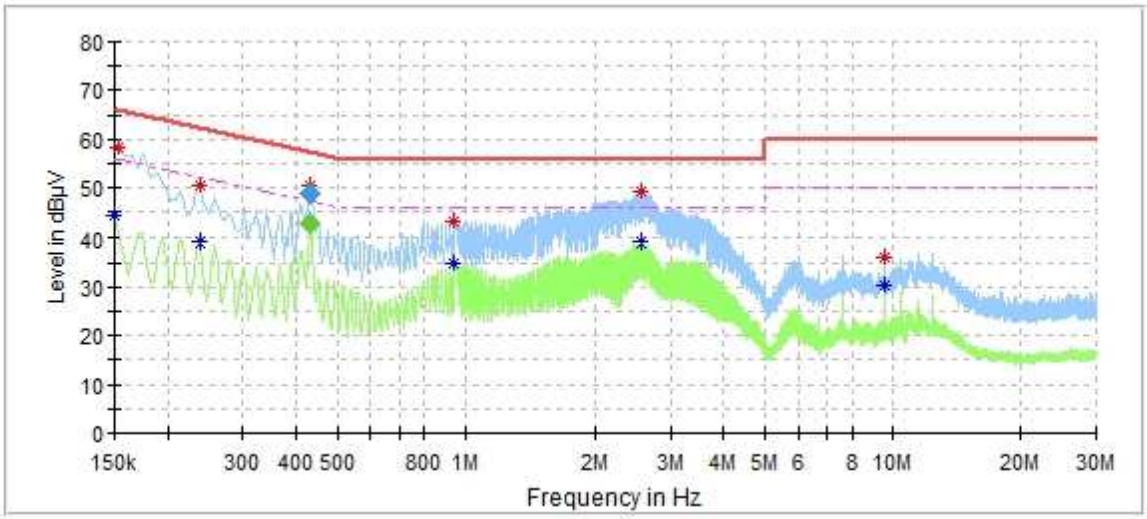
Frequency (MHz)	MaxPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)
0.150000	58.50	---	66.00	7.50	L1	9.60
0.150000	---	43.27	56.00	12.73	L1	9.60
0.238000	---	39.23	52.17	12.94	L1	9.60
0.238000	50.37	---	62.17	11.79	L1	9.60
0.432500	---	42.99	47.18	4.19	L1	9.70
0.432500	50.51	---	57.18	6.67	L1	9.70
1.008000	---	34.68	46.00	11.32	L1	9.71
1.008000	42.48	---	56.00	13.52	L1	9.71
2.556000	48.97	---	56.00	7.03	L1	9.82
2.556000	---	39.00	46.00	7.00	L1	9.82
9.520000	---	30.27	50.00	19.73	L1	10.01
9.524000	36.47	---	60.00	23.53	L1	10.01

Final_Result

Frequency (MHz)	QuasiPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.432500	---	42.81	47.21	4.40	200.0	9.000	L1	9.70
0.432500	48.42	---	57.21	8.79	200.0	9.000	L1	9.70

EUT Information

EUT Name:	Amazon Locker
Order No.:	168310149 50
Model:	ZL-ODIN-V1
Test Mode:	BT+EMTC+LED on+Normal Operating
Test Voltage:	AC 120V/60Hz
Test By:	Shower Dai
Review By:	Gary Chen
Remark:	SR1



Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)
0.150000	---	44.25	56.00	11.75	N	9.60
0.154000	58.16	---	65.78	7.62	N	9.60
0.238000	---	39.00	52.17	13.17	N	9.60
0.238000	50.62	---	62.17	11.54	N	9.60
0.432500	---	42.99	47.18	4.19	N	9.70
0.432500	50.50	---	57.18	6.67	N	9.70
0.944000	---	34.99	46.00	11.01	N	9.70
0.944000	43.11	---	56.00	12.89	N	9.70
2.556000	---	39.15	46.00	6.85	N	9.82
2.556000	49.36	---	56.00	6.64	N	9.82
9.520000	---	30.31	50.00	19.69	N	10.01
9.520000	35.94	---	60.00	24.06	N	10.01

Final_Result

Frequency (MHz)	QuasiPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.432500	---	42.58	47.21	4.63	200.0	9.000	N	9.70
0.432500	48.65	---	57.21	8.55	200.0	9.000	N	9.70