

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

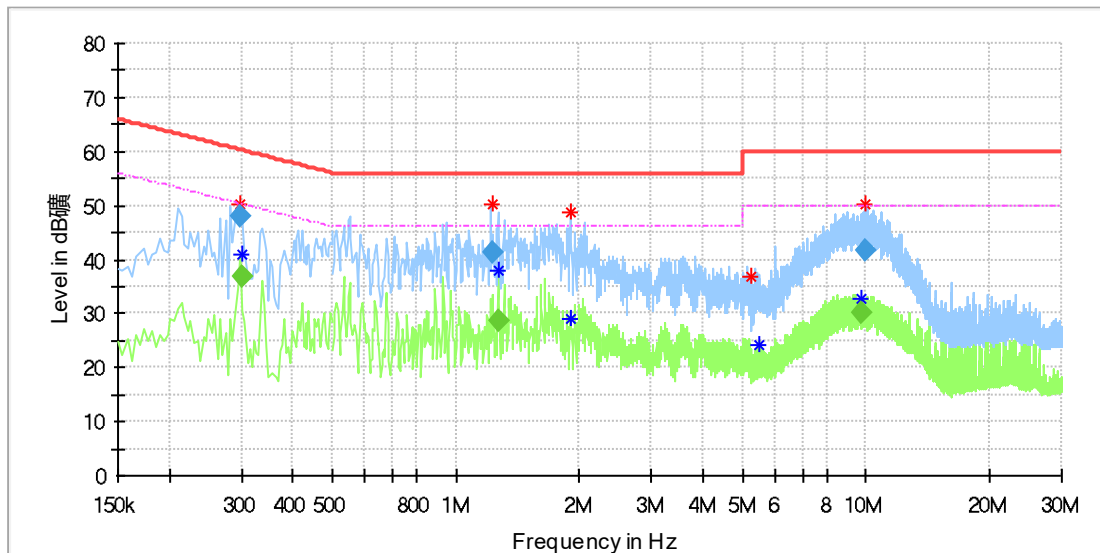
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## Appendix C.1: Test Plots of Conducted Emission on AC Mains

Normal work (EUT direct connect to Laptop by LAN port of Wi-Fi Router)

### EUT Information

EUT Name:	Control Extender
Order No:	168327991
Model:	EL-IO-200
Test Voltage:	AC 120V/60Hz
Test By:	Richard Lin
Review By:	Gary Chen
Remark:	SR1



### Critical Freqs

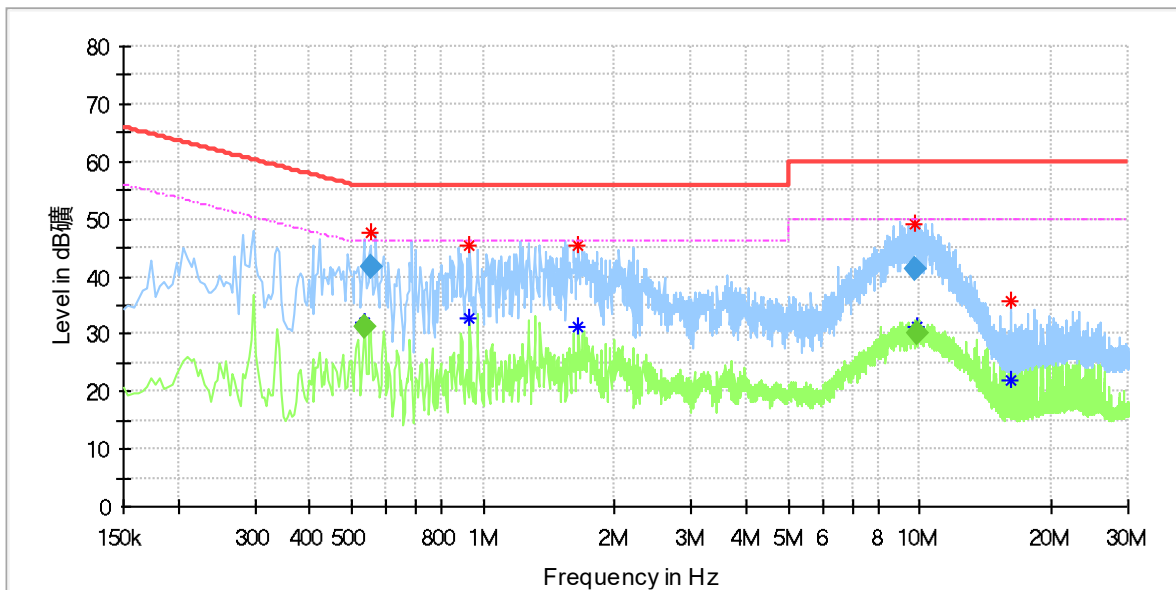
Frequency (MHz)	MaxPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)
0.296500	50.18	---	60.30	10.11	L1	9.6
0.300500	---	40.94	50.30	9.35	L1	9.6
1.222500	50.18	---	56.00	5.82	L1	9.7
1.278500	---	38.02	46.00	7.98	L1	9.7
1.896000	48.87	---	56.00	7.13	L1	9.8
1.912000	---	29.10	46.00	16.90	L1	9.8
5.228000	36.75	---	60.00	23.25	L1	10.0
5.492000	---	24.30	50.00	25.70	L1	10.0
9.766500	---	32.67	50.00	17.33	L1	10.0
10.002500	50.18	---	60.00	9.82	L1	10.0

### Final Result

Frequency (MHz)	QuasiPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.296500	48.07	---	60.34	12.27	1000.0	9.000	L1	9.6
0.300500	---	36.85	50.23	13.38	1000.0	9.000	L1	9.6
1.222500	41.45	---	56.00	14.55	1000.0	9.000	L1	9.7
1.278500	---	28.81	46.00	17.19	1000.0	9.000	L1	9.7
9.766500	---	30.08	50.00	19.92	1000.0	9.000	L1	10.0
10.002500	41.65	---	60.00	18.35	1000.0	9.000	L1	10.0

## EUT Information

EUT Name:	Control Extender
Order No:	168327991
Model:	EL-IO-200
Test Voltage:	AC 120V/60Hz
Test By:	Richard Lin
Review By:	Gary Chen
Remark:	SR1



## Critical\_Freqs

Frequency (MHz)	MaxPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)
0.534500	---	32.11	46.00	13.89	N	9.7
0.554500	47.73	---	56.00	8.27	N	9.7
0.932000	---	32.81	46.00	13.19	N	9.7
0.932000	45.29	---	56.00	10.71	N	9.7
1.648000	45.35	---	56.00	10.65	N	9.7
1.652000	---	31.13	46.00	14.87	N	9.7
9.717500	49.18	---	60.00	10.82	N	10.0
9.877500	---	31.27	50.00	18.73	N	10.0
16.172000	---	22.11	50.00	27.89	N	10.2
16.228000	35.56	---	60.00	24.44	N	10.2

## Final\_Result

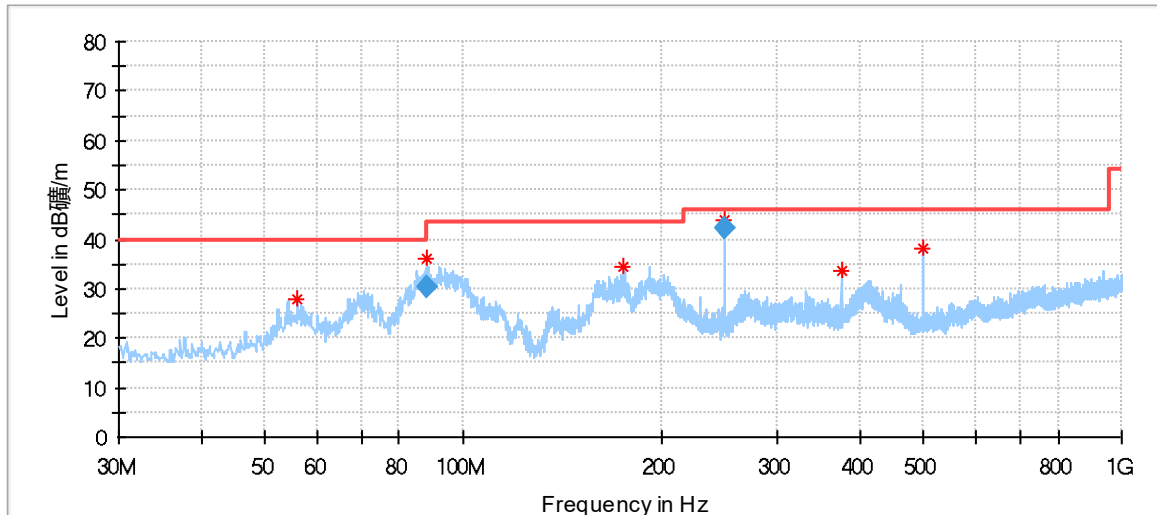
Frequency (MHz)	QuasiPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.534500	---	31.18	46.00	14.82	1000.0	9.000	N	9.7
0.554500	41.52	---	56.00	14.48	1000.0	9.000	N	9.7
9.717500	41.44	---	60.00	18.56	1000.0	9.000	N	10.0
9.877500	---	30.08	50.00	19.92	1000.0	9.000	N	10.0

## Appendix C.2: Test Plots of Radiated Emission, Below 1GHz

Normal work

### EUT Information

EUT Name:	Control Extender
Model:	EL-IO-200
Order No:	168327991
Test Mode:	Normal work (EUT direct connect to Laptop by LAN port of WiFi Router )
Test Voltage:	AC 120V/60Hz
Test By:	Richard Lin
Review By:	Gary Chen
Remark:	3m Chamber



### Critical Freqs

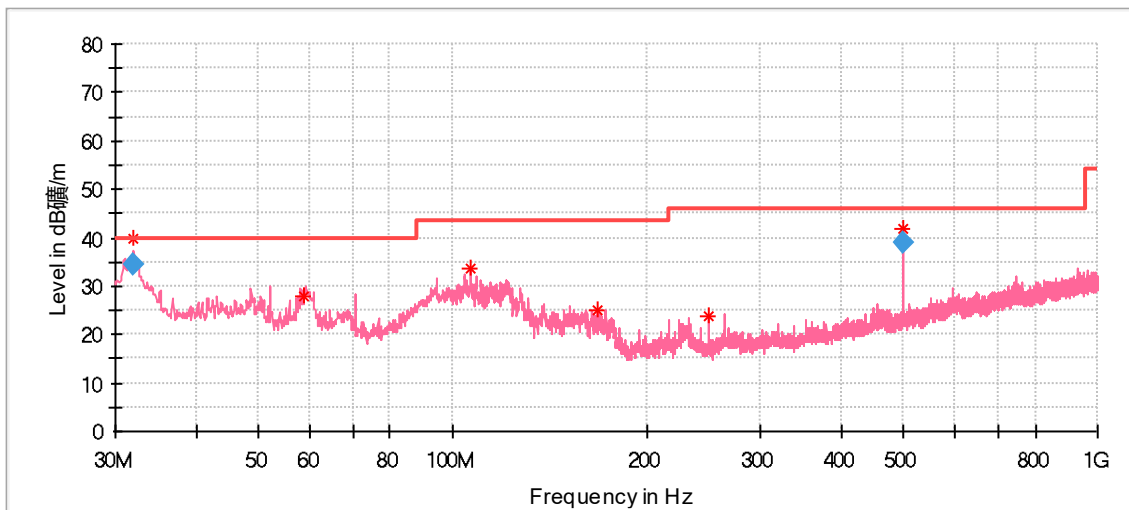
Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
56.093000	27.85	40.00	12.15	200.0	H	96.0	21.2
87.969000	36.07	40.00	5.69	200.0	H	166.0	15.2
175.597000	34.28	43.50	9.22	200.0	H	20.0	20.4
250.016000	43.80	46.00	3.64	100.0	H	58.0	18.9
375.029000	33.65	46.00	12.35	100.0	H	45.0	22.8
499.965000	38.09	46.00	7.91	100.0	H	284.0	25.6

### 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)
87.969000	30.38	40.00	9.62	1000.0	120.000	200.0	H	166.0	15.2
250.016000	42.25	46.00	3.75	1000.0	120.000	100.0	H	58.0	18.9

## EUT Information

EUT Name: Control Extender  
 Model: EL-IO-200  
 Order No: 168327991  
 Test Mode: Normal work (EUT direct connect to Laptop by LAN port of WiFi Router )  
 Test Voltage: AC 120V/60Hz  
 Test By: Richard Lin  
 Review By: Gary Chen  
 Remark: 3m Chamber



## Critical\_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
32.057000	39.76	40.00	2.78	100.0	V	90.0	17.8
58.906000	28.01	40.00	11.99	100.0	V	183.0	21.2
106.727000	33.81	43.50	9.69	100.0	V	191.0	17.6
168.128000	25.00	43.50	18.50	100.0	V	0.0	21.5
249.996000	23.92	46.00	22.08	200.0	V	40.0	18.9
499.985000	41.84	46.00	5.94	100.0	V	121.0	25.6

## Final\_Result

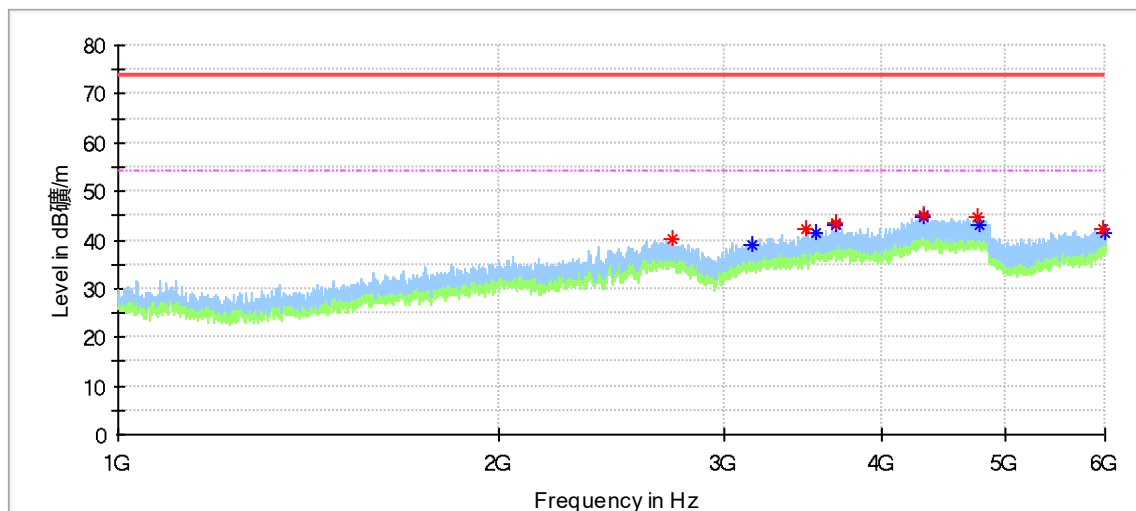
Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
32.057000	34.66	40.00	5.34	1000.0	120.000	100.0	V	90.0	17.8
499.985000	39.12	46.00	6.88	1000.0	120.000	100.0	V	121.0	25.6

### Appendix C.3: Test Plots of Radiated Emission, Above 1GHz

Normal Working

#### EUT Information

EUT Name:	Control Extender
Model:	EL-IO-200
Order No:	168327991
Test Mode:	Normal work (EUT direct connect to Laptop by LAN port of WiFi Router )
Test Voltage:	AC 120V/60Hz
Test By:	Richard Lin
Review By:	Gary Chen
Remark:	3m Chamber

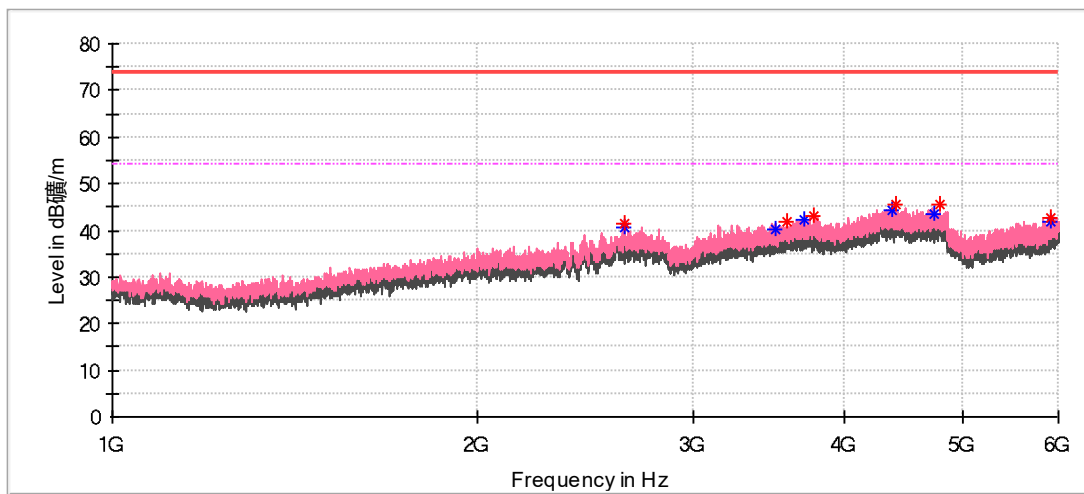


#### Critical Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
3485.000000	42.13	---	74.00	31.87	100.0	H	0.0	-1.1
3687.000000	43.68	---	74.00	30.32	100.0	H	0.0	0.2
3687.000000	---	43.26	54.00	10.74	100.0	H	0.0	0.2
4309.000000	---	44.57	54.00	9.43	100.0	H	71.0	2.2
4309.000000	45.13	---	74.00	28.87	100.0	H	71.0	2.2
5970.500000	42.44	---	74.00	31.56	100.0	H	80.0	2.2
4770.500000	---	43.19	54.00	10.81	100.0	H	132.0	2.8
3548.500000	---	41.53	54.00	12.47	100.0	H	155.0	-0.8
5998.000000	---	41.28	54.00	12.72	100.0	H	160.0	2.5
4753.500000	44.88	---	74.00	29.12	100.0	H	183.0	2.9
3157.500000	---	38.94	54.00	15.06	100.0	H	316.0	-2.6
2733.500000	40.34	---	74.00	33.66	100.0	H	352.0	-3.3

## EUT Information

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 Order No: 168327991  
 Test Mode: Normal work (EUT direct connect to Laptop by LAN port of WiFi Router )  
 Test Voltage: AC 120V/60Hz  
 Test By: Richard Lin  
 Review By: Gary Chen  
 Remark: 3m Chamber



## Critical Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
3706.500000	---	42.12	54.00	11.88	100.0	V	0.0	0.3
4794.500000	45.71	---	74.00	28.29	100.0	V	4.0	2.5
4385.000000	---	44.35	54.00	9.65	100.0	V	56.0	2.0
2641.500000	41.24	---	74.00	32.76	100.0	V	114.0	-3.3
2641.500000	---	40.45	54.00	13.55	100.0	V	114.0	-3.3
4411.500000	45.36	---	74.00	28.64	100.0	V	178.0	1.9
5908.000000	---	41.84	54.00	12.16	100.0	V	198.0	1.6
5908.000000	42.72	---	74.00	31.28	100.0	V	198.0	1.6
3777.000000	42.88	---	74.00	31.12	100.0	V	202.0	0.1
4747.500000	---	43.32	54.00	10.68	100.0	V	227.0	2.9
3587.000000	41.87	---	74.00	32.13	100.0	V	231.0	-0.7
3507.000000	---	40.38	54.00	13.62	100.0	V	304.0	-1.0

Note: It verified that only noise-floor found above 6GHz, and not reported.