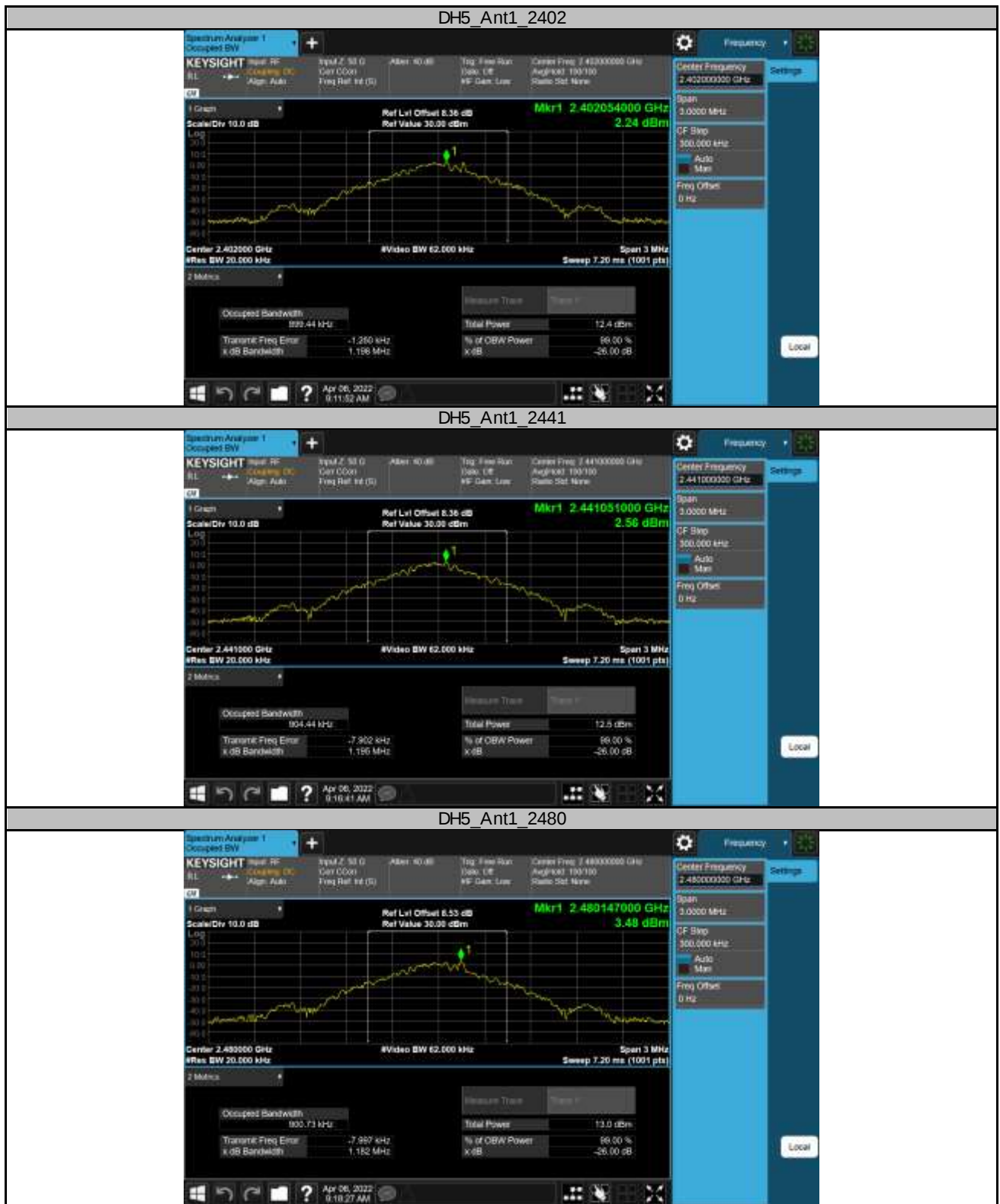


Appendix B: Test Results of Bluetooth BDR/EDR mode

APPENDIX B: TEST RESULTS OF BLUETOOTH BDR/EDR MODE.....	1
APPENDIX B.1: TEST RESULTS OF 99% BANDWIDTH.....	2
APPENDIX B.2: TEST RESULTS OF 20dB BANDWIDTH	5
APPENDIX B.3: TEST RESULTS OF CARRIER FREQUENCY SEPARATION.....	8
APPENDIX B.4: TEST RESULTS OF NUMBER OF HOPPING FREQUENCY.....	9
APPENDIX B.5: TEST RESULTS OF TIME OF OCCUPANCY	10
APPENDIX B.6: TEST RESULTS OF CONDUCTED SPURIOUS EMISSIONS MEASURED IN 100 kHz BANDWIDTH.....	15
<i>Conducted Spurious Emission</i>	<i>15</i>
<i>Band Edge</i>	<i>22</i>
APPENDIX B.7: TEST RESULTS OF RADIATED SPURIOUS EMISSIONS	25
30MHz - 1GHz.....	25
1GHz - 18GHz.....	27
APPENDIX B.8: TEST RESULTS OF RADIATED EMISSIONS IN RESTRICTED BANDS.....	39

Appendix B.1: Test Results of 99% Bandwidth

TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.89944	2401.549	2402.448	---	PASS
		2441	0.90444	2440.540	2441.444	---	PASS
		2480	0.90073	2479.542	2480.442	---	PASS
3DH5	Ant1	2402	1.2590	2401.358	2402.617	---	PASS
		2441	2.2443	2439.552	2441.797	---	PASS
		2480	1.3308	2479.326	2480.656	---	PASS



3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480



Appendix B.2: Test Results of 20dB Bandwidth

TestMode	Antenna	Channel	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.954	2401.517	2402.471	---	PASS
		2441	0.951	2440.517	2441.468	---	PASS
		2480	0.942	2479.529	2480.471	---	PASS
3DH5	Ant1	2402	1.299	2401.340	2402.639	---	PASS
		2441	1.317	2440.322	2441.639	---	PASS
		2480	1.314	2479.322	2480.636	---	PASS

DH5_Ant1_2402



DH5_Ant1_2441



DH5_Ant1_2480



3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480



Appendix B.3: Test Results of Carrier Frequency Separation

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant1	Hop	1.116	≥0.954	PASS
3DH5	Ant1	Hop	1.006	≥0.878	PASS

DH5_Ant1_Hop



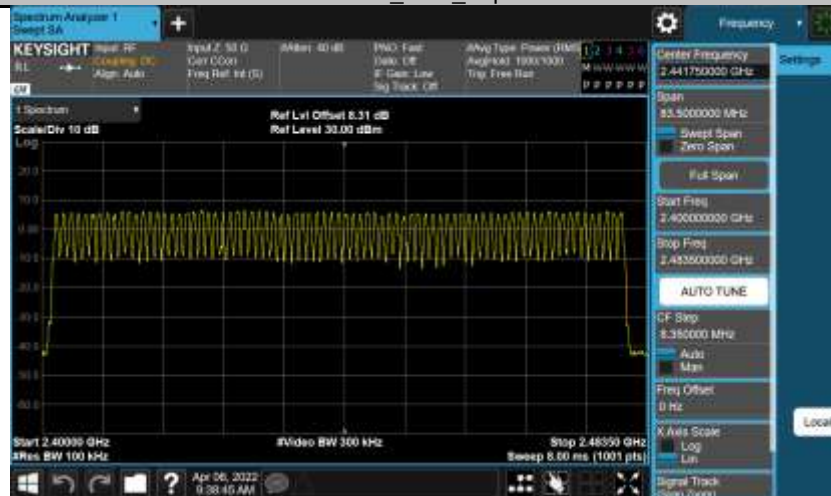
3DH5_Ant1_Hop



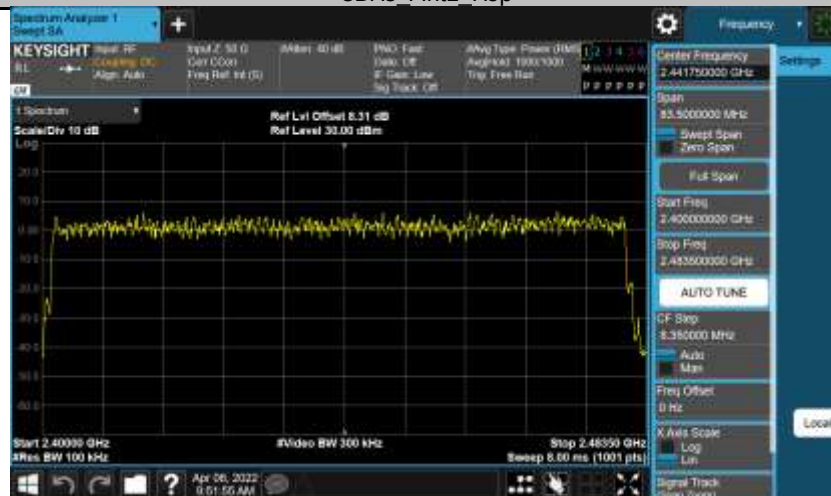
Appendix B.4: Test Results of Number of Hopping Frequency

TestMode	Antenna	Channel	Result[Num]	Limit[Num]	Verdict
DH5	Ant1	Hop	79	≥15	PASS
3DH5	Ant1	Hop	79	≥15	PASS

DH5_Ant1_Hop



3DH5_Ant1_Hop



Appendix B.5: Test Results of Time of Occupancy

TestMode	Antenna	Channel	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH1	Ant1	Hop	0.38	311	0.119	≤0.4	PASS
DH3	Ant1	Hop	1.64	156	0.255	≤0.4	PASS
DH5	Ant1	Hop	2.89	118	0.34	≤0.4	PASS
3DH1	Ant1	Hop	0.39	309	0.12	≤0.4	PASS
3DH3	Ant1	Hop	1.64	158	0.259	≤0.4	PASS
3DH5	Ant1	Hop	2.89	102	0.295	≤0.4	PASS

DH1_Ant1_Hop



DH3_Ant1_Hop





DH5_Ant1_Hop



3DH1_Ant1_Hop



3DH3_Ant1_Hop





3DH5_Ant1_Hop



Appendix B.6: Test Results of Conducted Spurious Emissions Measured in 100 kHz Bandwidth

Conducted Spurious Emission

TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	4.98	4.98	---	PASS
			30~1000	4.98	-62.95	≤-15.02	PASS
			1000~26500	4.98	-54.26	≤-15.02	PASS
		2441	Reference	5.38	5.38	---	PASS
			30~1000	5.38	-62.47	≤-14.62	PASS
			1000~26500	5.38	-54.65	≤-14.62	PASS
		2480	Reference	5.59	5.59	---	PASS
			30~1000	5.59	-62.21	≤-14.41	PASS
			1000~26500	5.59	-53.9	≤-14.41	PASS
3DH5	Ant1	2402	Reference	3.02	3.02	---	PASS
			30~1000	3.02	-63.1	≤-16.98	PASS
			1000~26500	3.02	-52.84	≤-16.98	PASS
		2441	Reference	4.10	4.10	---	PASS
			30~1000	4.10	-63.23	≤-15.9	PASS
			1000~26500	4.10	-53.34	≤-15.9	PASS
		2480	Reference	4.78	4.78	---	PASS
			30~1000	4.78	-62.24	≤-15.22	PASS
			1000~26500	4.78	-53.45	≤-15.22	PASS

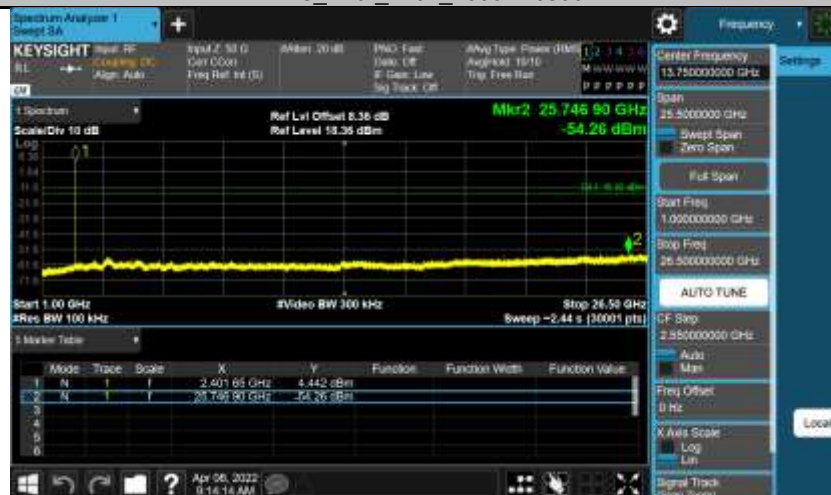
DH5_Ant1_2402_0-Reference



DH5_Ant1_2402_30-1000



DH5_Ant1_2402_1000-26500



DH5_Ant1_2441_0-Reference



DH5_Ant1_2441_30-1000



DH5_Ant1_2441_1000-26500



DH5_Ant1_2480_0-Reference



DH5_Ant1_2480_30-1000



DH5_Ant1_2480_1000-26500



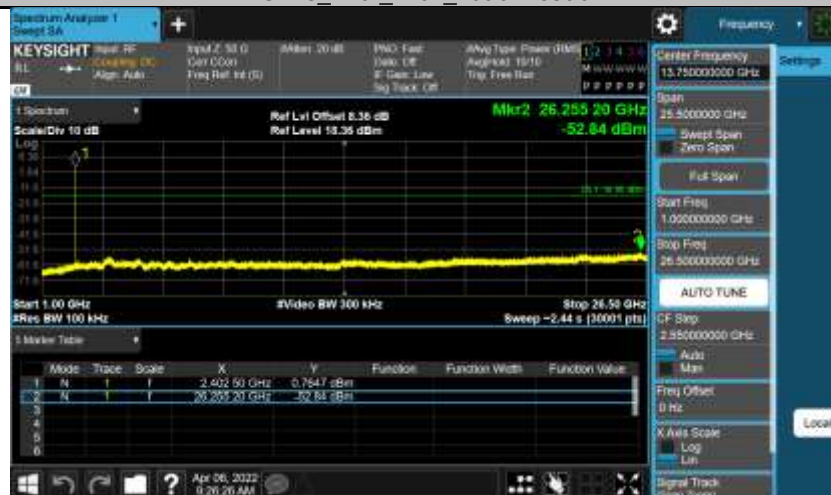
3DH5_Ant1_2402_0~Reference



3DH5_Ant1_2402_30~1000



3DH5_Ant1_2402_1000~26500



3DH5_Ant1_2441_0~Reference



3DH5_Ant1_2441_30~1000



3DH5_Ant1_2441_1000~26500



3DH5_Ant1_2480_0~Reference



3DH5_Ant1_2480_30~1000



3DH5_Ant1_2480_1000~26500



Band Edge

TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	5.65	-51.06	≤-14.35	PASS
		High	2480	6.11	-50.58	≤-13.89	PASS
		Low	Hop_2402	5.58	-49.98	≤-14.42	PASS
		High	Hop_2480	6.51	-49.84	≤-13.49	PASS
3DH5	Ant1	Low	2402	4.52	-35.52	≤-15.48	PASS
		High	2480	6.78	-45.42	≤-13.22	PASS
		Low	Hop_2402	2.53	-50.13	≤-17.47	PASS
		High	Hop_2480	5.53	-50	≤-14.47	PASS

DH5_Ant1_Low_2402



DH5_Ant1_High_2480



DH5_Ant1_Low_Hop_2402



DH5_Ant1_High_Hop_2480



3DH5_Ant1_Low_2402



3DH5_Ant1_High_2480



3DH5_Ant1_Low_Hop_2402



3DH5_Ant1_High_Hop_2480



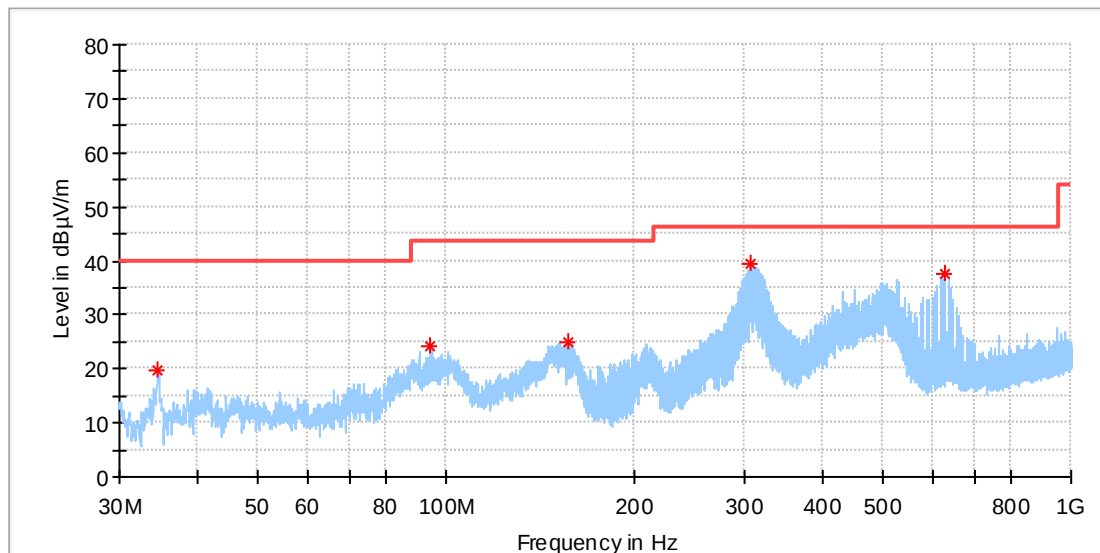
Appendix B.7: Test Results of Radiated Spurious Emissions

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.

30MHz - 1GHz

EUT Information

EUT Name:	ELAN 12" Touch Panel User Interface
Model:	ITP-12
Test Mode:	BR_DH5_Mid channel
Order No/Sample No:	168362723/A003230744-008
Test Voltage:	120V/60Hz
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

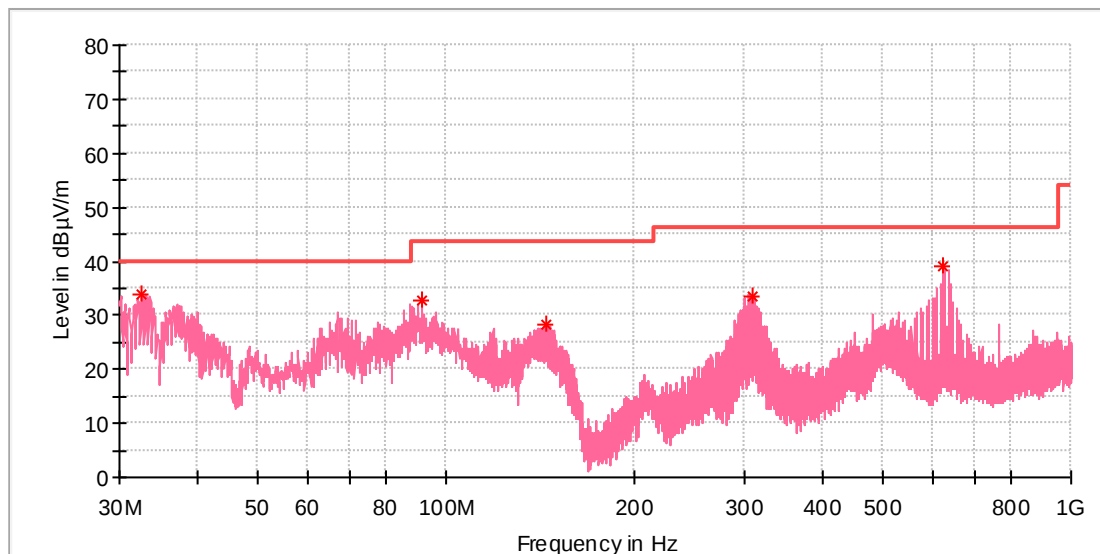
Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
34.588846	19.74	40.00	20.26	100.0	H	238.0	-22.4
94.020000	24.30	43.50	19.20	100.0	H	288.0	-20.3
156.398462	24.91	43.50	18.59	100.0	H	112.0	-22.2
307.308077	39.41	46.00	6.59	100.0	H	161.0	-16.4
629.758462	37.42	46.00	8.58	100.0	H	321.0	-9.7

Final_Result

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

EUT Information

EUT Name: ELAN 12" Touch Panel User Interface
Model: ITP-12
Test Mode: BR_DH5_Mid channel
Order No/Sample No: 168362723/A003230744-008
Test Voltage: 120V/60Hz
Remark: Temp 23 Humi:56%
Test Standard: FCC 15.247
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)
32.611539	33.91	40.00	6.09	100.0	V	49.0	-22.9
91.259231	32.58	43.50	10.92	100.0	V	33.0	-21.0
144.795769	28.29	43.50	15.21	100.0	V	0.0	-22.6
308.464615	33.62	46.00	12.38	100.0	V	0.0	-16.4
623.602692	38.98	46.00	7.02	100.0	V	81.0	-9.8

Final_Result

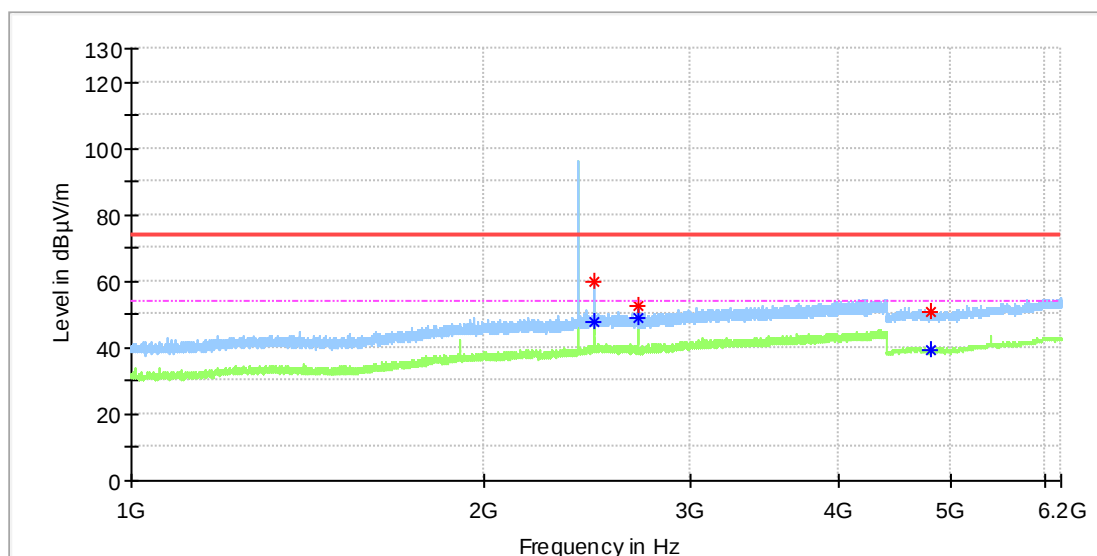
Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---	---	---	---

1GHz - 18GHz

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

EUT Information

EUT Name:	ELAN 12" Touch Panel User Interface
Model:	ITP-12
Test Mode:	BR_DH5_Low channel
Order No/Sample No:	168362723/A003230744-008
Test Voltage:	120V/60Hz
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical Freqs

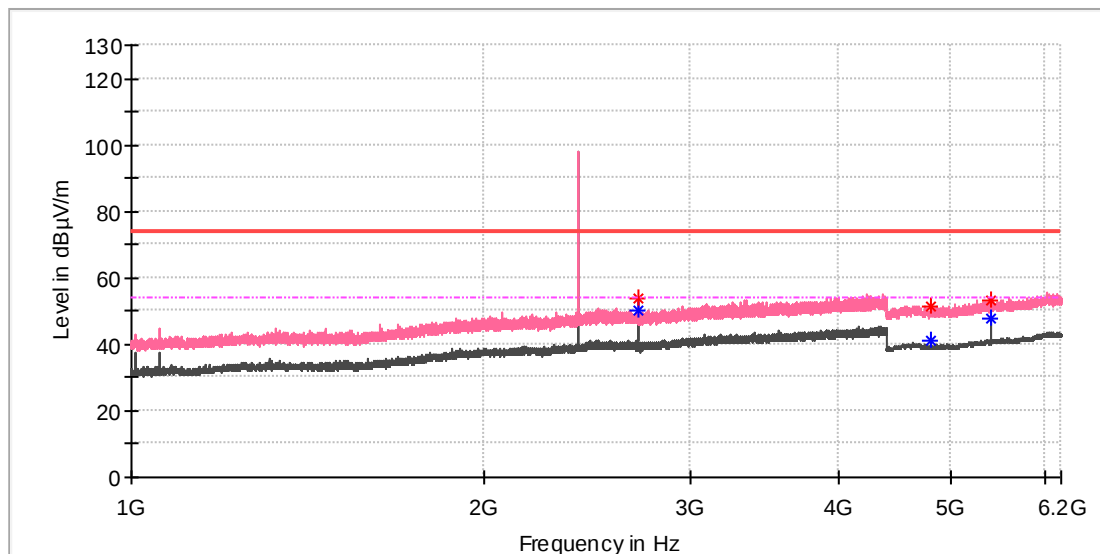
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2476.790000	59.84	---	74.00	14.16	100.0	H	0.0	7.4
2477.980000	---	47.59	54.00	6.41	100.0	H	0.0	7.4
2700.170000	---	49.11	54.00	4.89	100.0	H	106.0	7.5
2700.340000	52.85	---	74.00	21.15	100.0	H	94.0	7.5
4811.000000	50.49	---	74.00	23.51	100.0	H	346.0	11.8
4811.000000	---	39.47	54.00	14.53	100.0	H	346.0	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:	ELAN 12" Touch Panel User Interface
Model:	ITP-12
Test Mode:	BR_DH5_Low channel
Order No/Sample No:	168362723/A003230744-008
Test Voltage:	120V/60Hz
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
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Critical_Freqs

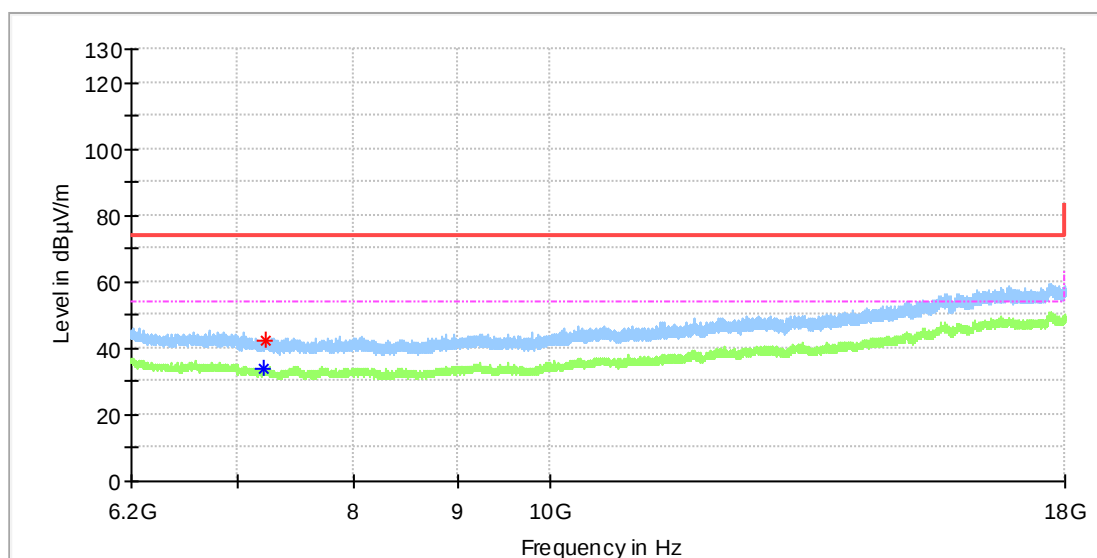
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2699.660000	53.78	---	74.00	20.22	100.0	V	147.0	7.5
2699.830000	---	50.43	54.00	3.57	100.0	V	147.0	7.5
4804.000000	---	41.09	54.00	12.91	100.0	V	141.0	11.8
4808.000000	51.22	---	74.00	22.78	100.0	V	230.0	11.8
5399.500000	53.51	---	74.00	20.49	100.0	V	148.0	13.5
5400.000000	---	47.60	54.00	6.40	100.0	V	148.0	13.5

Final_Result

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

EUT Information

EUT Name:	ELAN 12" Touch Panel User Interface
Model:	ITP-12
Test Mode:	BR_DH5_Low channel
Order No/Sample No:	168362723/A003230744-008
Test Voltage:	120V/60Hz
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

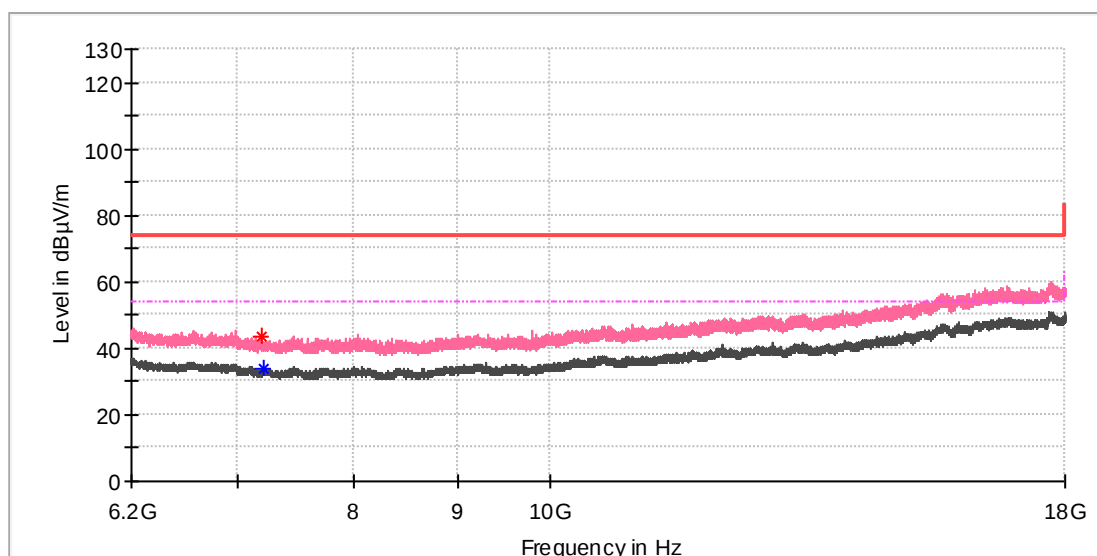
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7207.425000	---	33.71	54.00	20.29	100.0	H	323.0	8.8
7224.633333	42.48	---	74.00	31.52	100.0	H	129.0	8.7

Final Result

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

EUT Information

EUT Name:	ELAN 12" Touch Panel User Interface
Model:	ITP-12
Test Mode:	BR_DH5_Low channel
Order No/Sample No:	168362723/A003230744-008
Test Voltage:	120V/60Hz
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

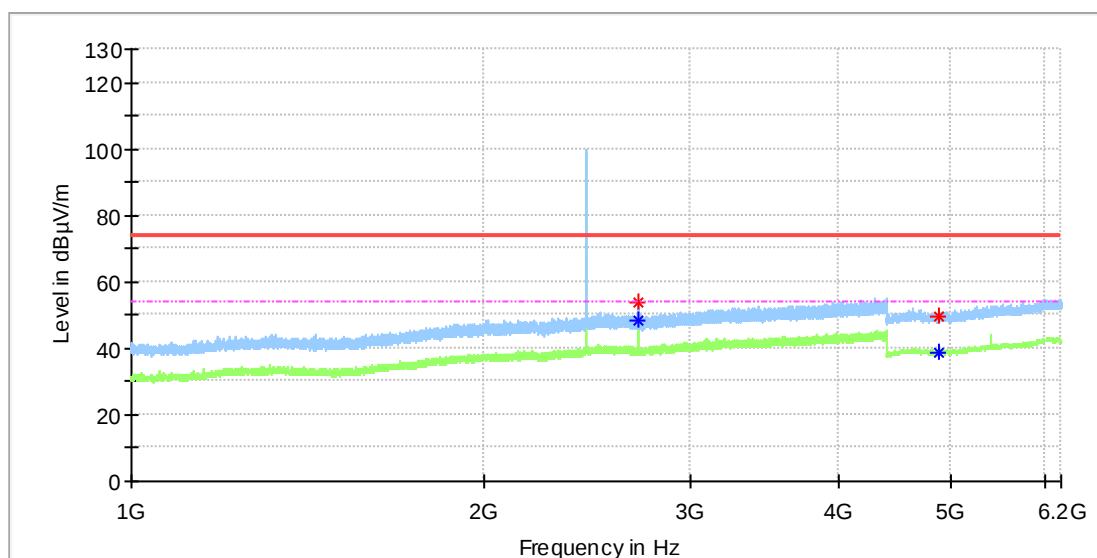
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7201.033333	43.41	---	74.00	30.59	100.0	V	301.0	8.8
7208.900000	---	33.66	54.00	20.34	100.0	V	187.0	8.8

Final Result

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

EUT Information

EUT Name: ELAN 12" Touch Panel User Interface
 Model: ITP-12
 Test Mode: BR_DH5_Mid channel
 Order No/Sample No: 168362723/A003230744-008
 Test Voltage: 120V/60Hz
 Remark: Temp 23 Humi:56%
 Test Standard: FCC 15.247
 Tested By: Kei Zhang
 Reviewed By: Terry Yin



Critical_Freqs

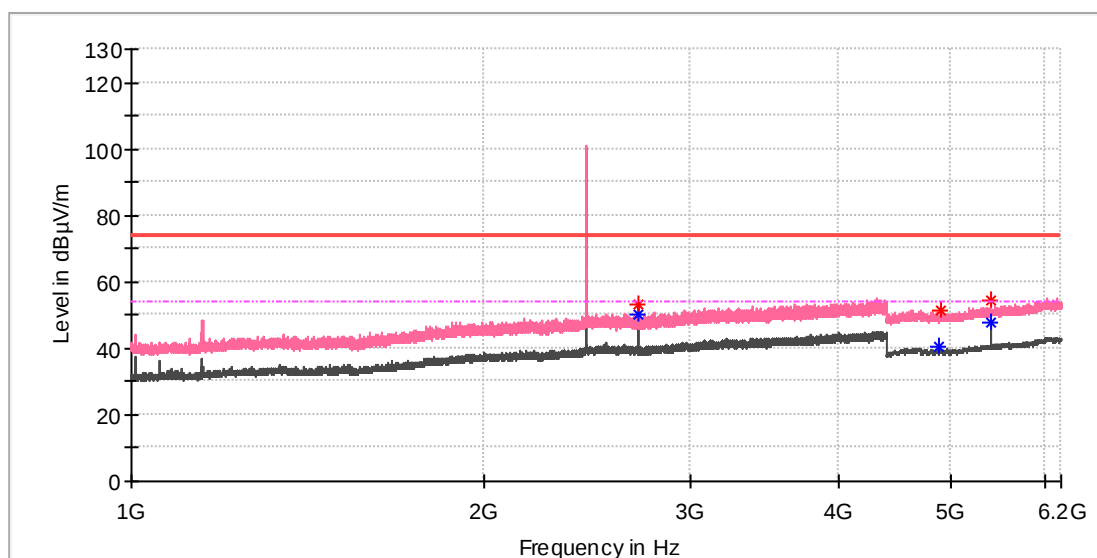
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2700.170000	---	48.61	54.00	5.39	100.0	H	99.0	7.5
2700.510000	53.61	---	74.00	20.39	100.0	H	99.0	7.5
4878.000000	---	38.82	54.00	15.18	100.0	H	128.0	11.8
4879.000000	49.74	---	74.00	24.26	100.0	H	80.0	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:	ELAN 12" Touch Panel User Interface
Model:	ITP-12
Test Mode:	BR_DH5_Mid channel
Order No/Sample No:	168362723/A003230744-008
Test Voltage:	120V/60Hz
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

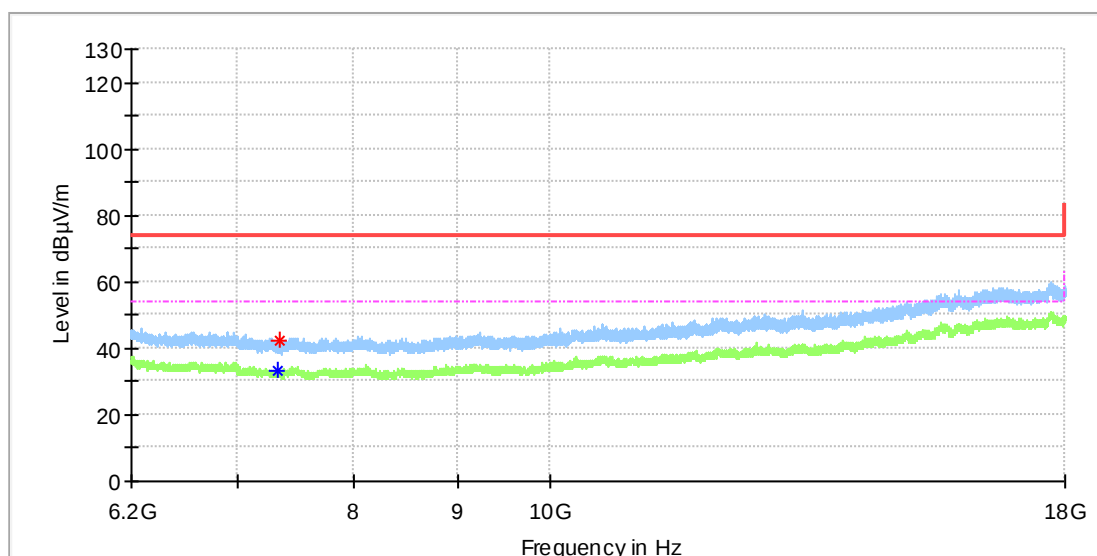
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2700.000000	53.29	---	74.00	20.72	100.0	V	144.0	7.5
2700.340000	---	49.95	54.00	4.05	100.0	V	144.0	7.5
4881.500000	---	40.46	54.00	13.54	100.0	V	149.0	11.8
4905.500000	51.47	---	74.00	22.53	100.0	V	155.0	11.8
5400.000000	54.46	---	74.00	19.54	100.0	V	155.0	13.5
5400.000000	---	47.81	54.00	6.19	100.0	V	155.0	13.5

Final_Result

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

EUT Information

EUT Name:	ELAN 12" Touch Panel User Interface
Model:	ITP-12
Test Mode:	BR_DH5_Mid channel
Order No/Sample No:	168362723/A003230744-008
Test Voltage:	120V/60Hz
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

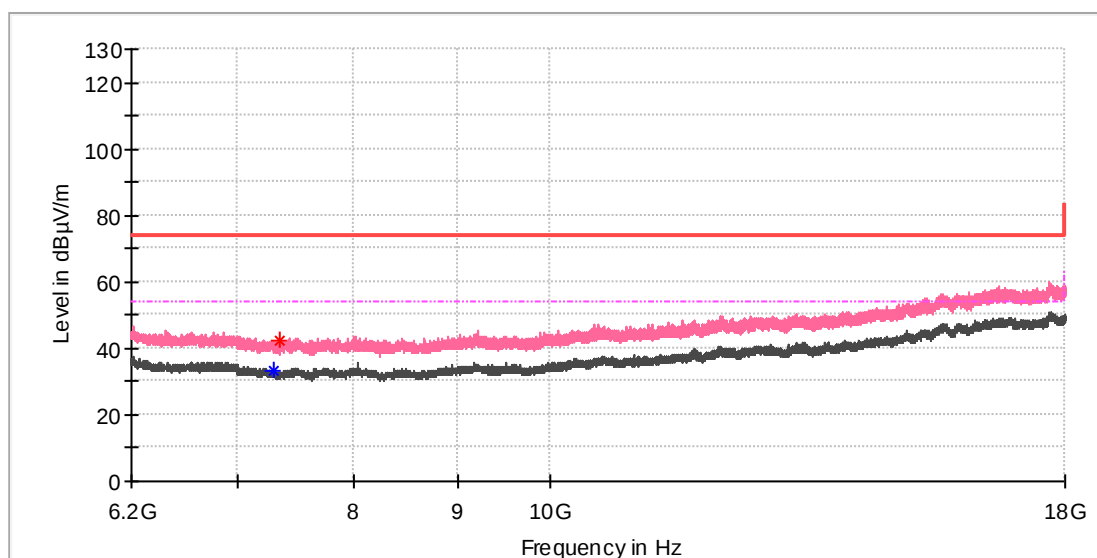
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7329.850000	---	33.11	54.00	20.89	100.0	H	90.0	8.1
7339.683333	42.40	---	74.00	31.60	100.0	H	0.0	8.1

Final Result

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

EUT Information

EUT Name:	ELAN 12" Touch Panel User Interface
Model:	ITP-12
Test Mode:	BR_DH5_Mid channel
Order No/Sample No:	168362723/A003230744-008
Test Voltage:	120V/60Hz
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

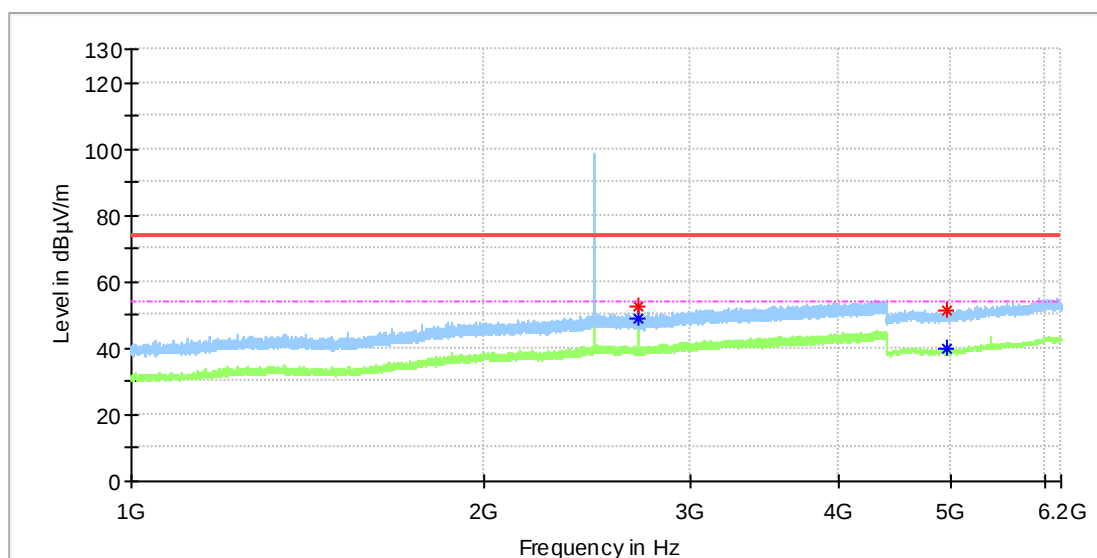
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7287.566667	---	33.49	54.00	20.51	100.0	V	0.0	8.4
7335.750000	42.17	---	74.00	31.83	100.0	V	32.0	8.1

Final Result

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

EUT Information

EUT Name: ELAN 12" Touch Panel User Interface
 Model: ITP-12
 Test Mode: BR_DH5_High channel
 Order No/Sample No: 168362723/A003230744-008
 Test Voltage: 120V/60Hz
 Remark: Temp 23 Humi:56%
 Test Standard: FCC 15.247
 Tested By: Kei Zhang
 Reviewed By: Terry Yin



Critical_Freqs

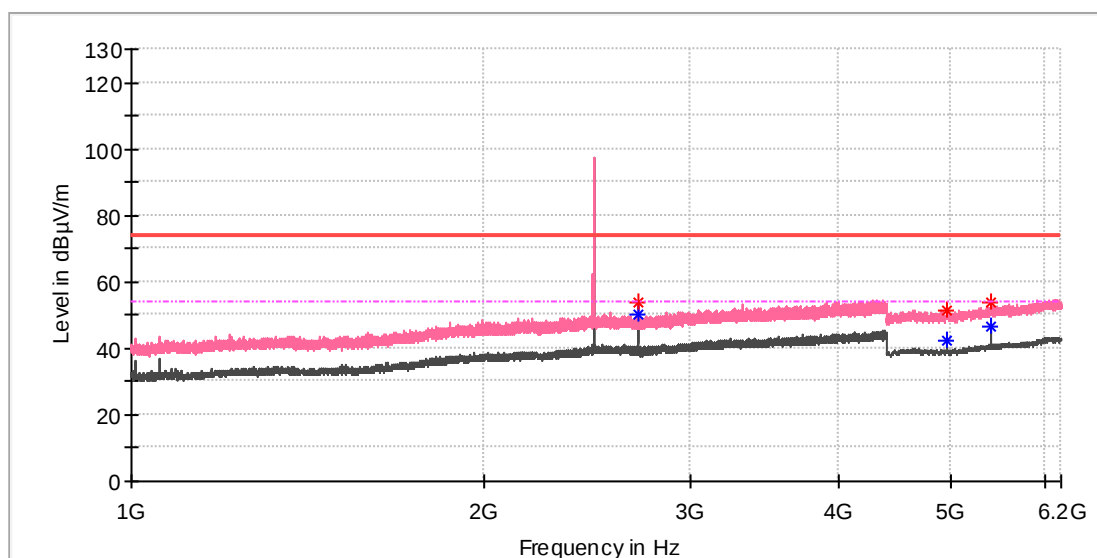
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2700.000000	---	48.97	54.00	5.03	100.0	H	94.0	7.5
2700.170000	52.59	---	74.00	21.41	100.0	H	94.0	7.5
4959.500000	---	39.63	54.00	14.37	100.0	H	9.0	11.8
4961.000000	51.10	---	74.00	22.90	100.0	H	190.0	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: ELAN 12" Touch Panel User Interface
 Model: ITP-12
 Test Mode: BR_DH5_High channel
 Order No/Sample No: 168362723/A003230744-008
 Test Voltage: 120V/60Hz
 Remark: Temp 23 Humi:56%
 Test Standard: FCC 15.247
 Tested By: Kei Zhang
 Reviewed By: Terry Yin



Critical_Freqs

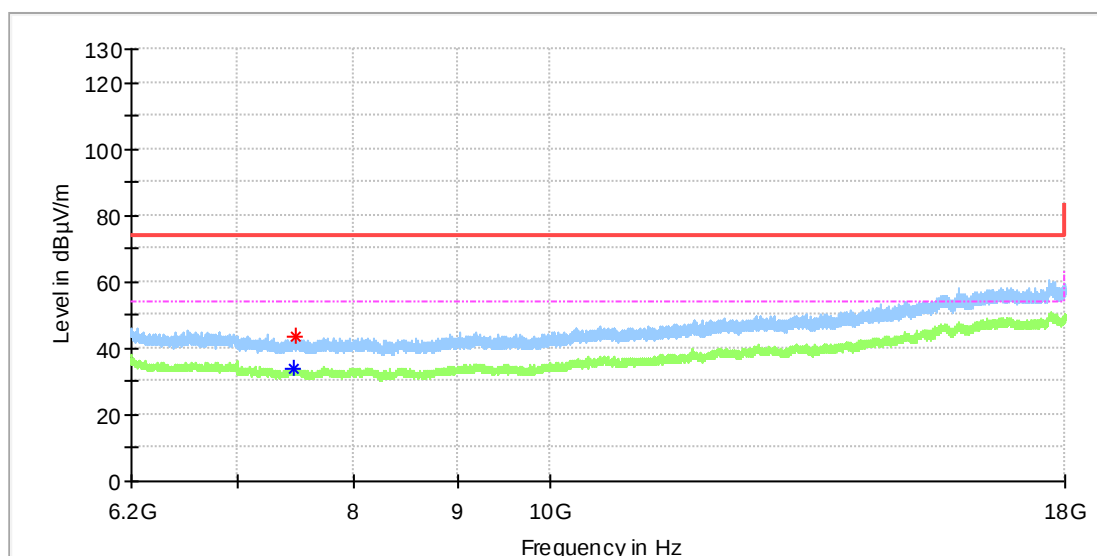
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2700.000000	---	50.40	54.00	3.60	100.0	V	147.0	7.5
2700.170000	53.75	---	74.00	20.25	100.0	V	147.0	7.5
4960.000000	---	42.50	54.00	11.50	100.0	V	152.0	11.8
4960.500000	51.14	---	74.00	22.86	100.0	V	160.0	11.8
5400.000000	---	46.54	54.00	7.46	100.0	V	152.0	13.5
5400.500000	53.57	---	74.00	20.43	100.0	V	124.0	13.5

Final_Result

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

EUT Information

EUT Name:	ELAN 12" Touch Panel User Interface
Model:	ITP-12
Test Mode:	BR_DH5_High channel
Order No/Sample No:	168362723/A003230744-008
Test Voltage:	120V/60Hz
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

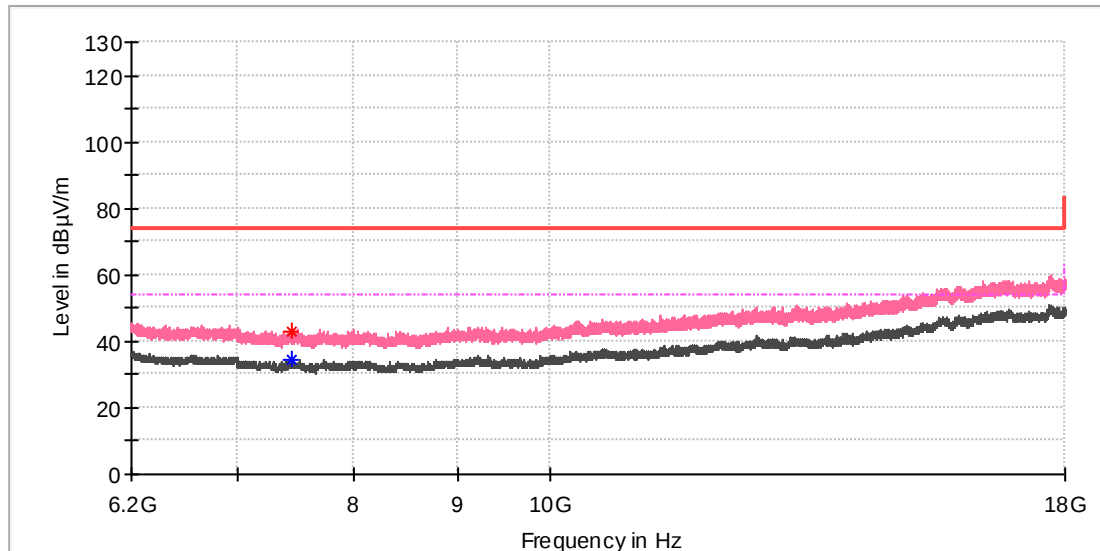
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7459.158333	---	34.13	54.00	19.87	100.0	H	61.0	8.5
7471.450000	43.50	---	74.00	30.50	100.0	H	25.0	8.6

Final Result

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

EUT Information

EUT Name:	ELAN 12" Touch Panel User Interface
Model:	ITP-12
Test Mode:	BR_DH5_High channel
Order No/Sample No:	168362723/A003230744-008
Test Voltage:	120V/60Hz
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
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)
7444.408333	42.70	---	74.00	31.30	100.0	V	0.0	8.5
7452.766667	---	34.45	54.00	19.55	100.0	V	31.0	8.5

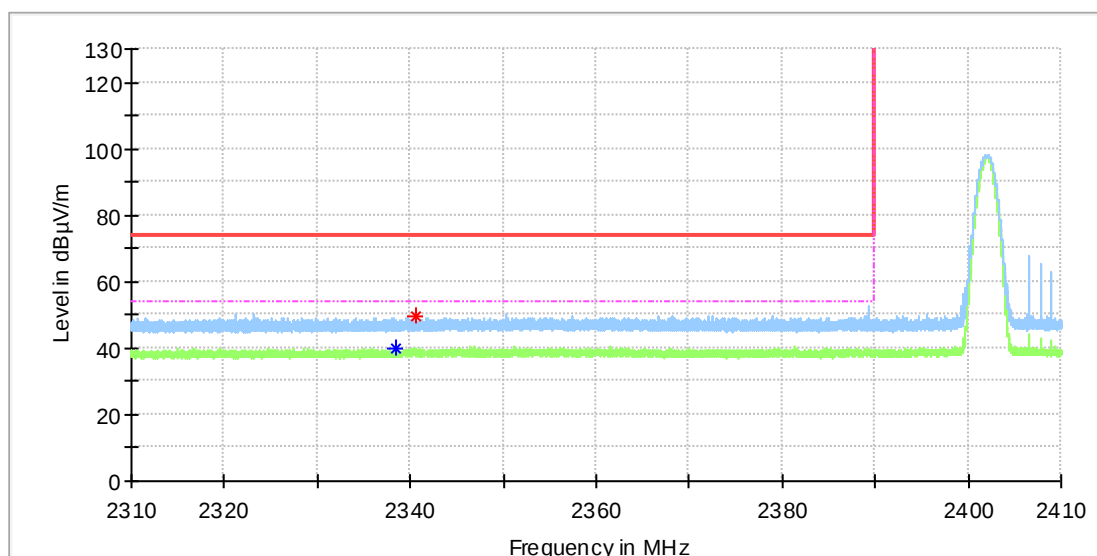
Final Result

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

Appendix B.8: Test Results of Radiated Emissions in Restricted Bands

EUT Information

EUT Name:	ELAN 12" Touch Panel User Interface
Model:	ITP-12
Test Mode:	BR_DH5_Low channel
Order No/Sample No:	168362723/A003230744-008
Test Voltage:	120V/60Hz
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

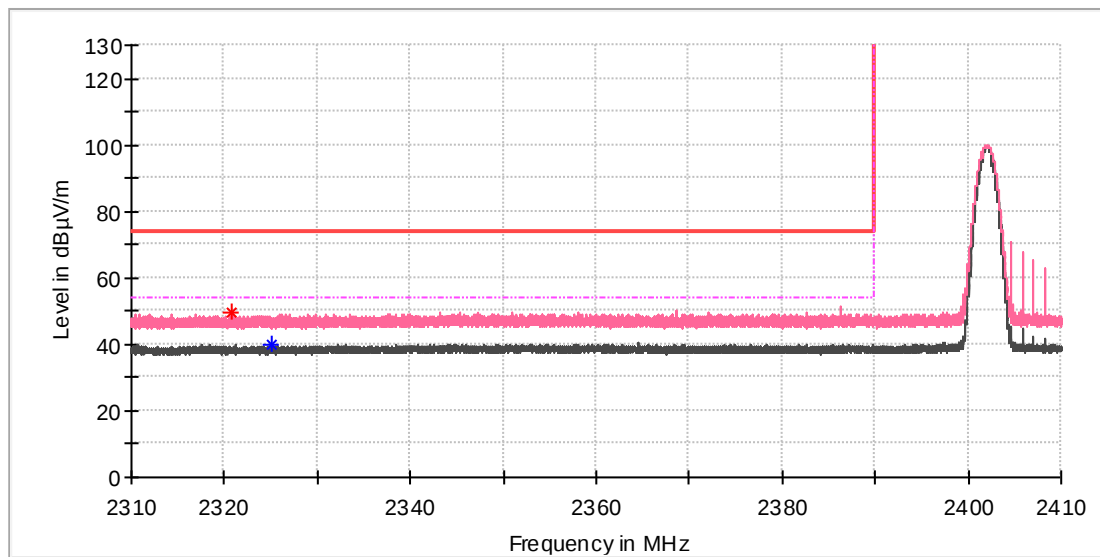
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2338.500000	---	39.66	54.00	14.34	100.0	H	329.0	6.8
2340.510000	49.67	---	74.00	24.33	100.0	H	284.0	6.8

Final Result

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

EUT Information

EUT Name:	ELAN 12" Touch Panel User Interface
Model:	ITP-12
Test Mode:	BR_DH5_Low channel
Order No/Sample No:	168362723/A003230744-008
Test Voltage:	120V/60Hz
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

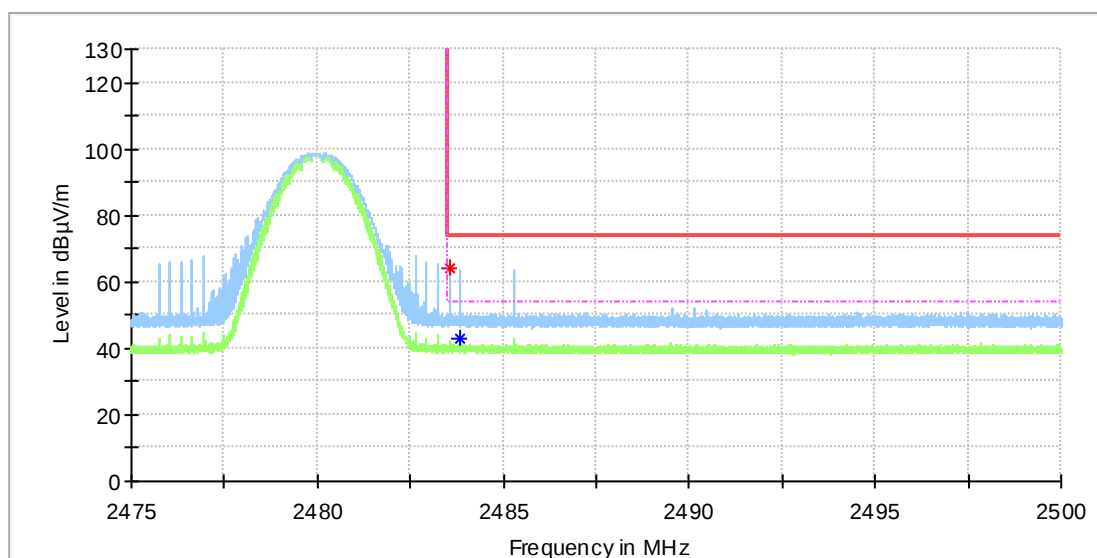
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2320.790000	49.78	---	74.00	24.22	100.0	V	48.0	6.6
2325.010000	---	40.07	54.00	13.93	100.0	V	82.0	6.6

Final Result

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

EUT Information

EUT Name:	ELAN 12" Touch Panel User Interface
Model:	ITP-12
Test Mode:	BR_DH5_High channel
Order No/Sample No:	168362723/A003230744-008
Test Voltage:	120V/60Hz
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

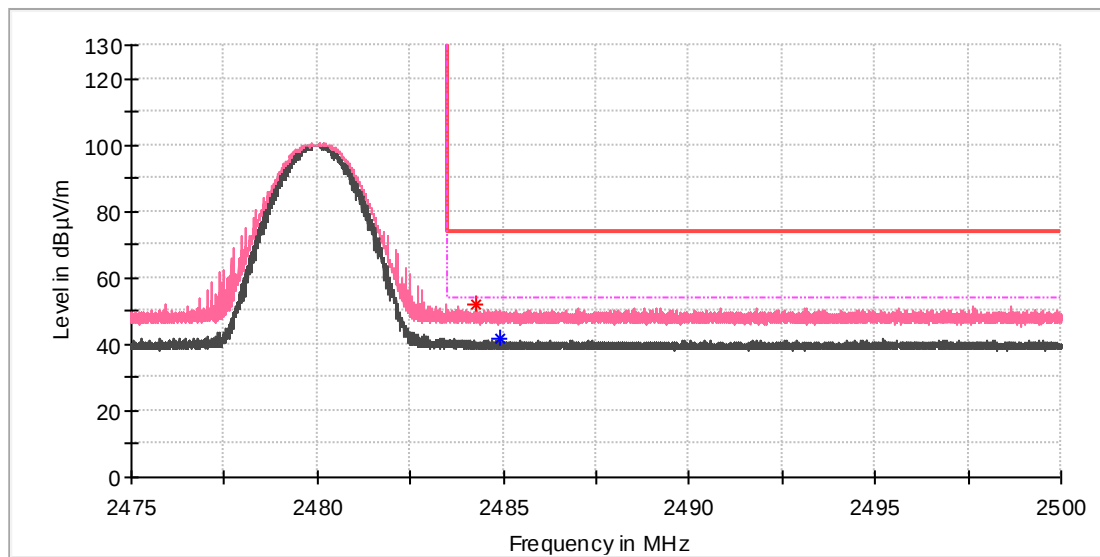
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2483.541250	64.15	---	74.00	9.85	100.0	H	160.0	7.4
2483.845000	---	43.16	54.00	10.84	100.0	H	160.0	7.4

Final Result

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

EUT Information

EUT Name:	ELAN 12" Touch Panel User Interface
Model:	ITP-12
Test Mode:	BR_DH5_High channel
Order No/Sample No:	168362723/A003230744-008
Test Voltage:	120V/60Hz
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
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)
2484.288750	51.87	---	74.00	22.13	100.0	V	223.0	7.4
2484.888750	---	41.81	54.00	12.19	100.0	V	137.0	7.4

Final Result

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

Appendix C: Test Results of Bluetooth Low Energy

APPENDIX C: TEST RESULTS OF BLUETOOTH LOW ENERGY.....	1
APPENDIX C.1: TEST RESULTS OF CONDUCTED POWER SPECTRAL DENSITY	2
APPENDIX C.2: TEST RESULTS OF 6dB BANDWIDTH	3
APPENDIX C.3: TEST RESULTS OF 99% BANDWIDTH.....	4
APPENDIX C.4: TEST RESULTS OF CONDUCTED SPURIOUS EMISSIONS MEASURED IN 100 kHz BANDWIDTH.....	5
<i>Conducted Spurious Emission</i>	<i>5</i>
<i>Band Edge.....</i>	<i>9</i>
APPENDIX C.5: TEST RESULTS OF RADIATED SPURIOUS EMISSIONS	10
<i>30 MHz to 1GHz.....</i>	<i>10</i>
<i>1GHz-18GHz.....</i>	<i>12</i>
APPENDIX C.6: TEST RESULTS OF RADIATED EMISSIONS IN RESTRICTED BANDS	24

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

TestMode	Antenna	Channel	Result[dBm/3-100 kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-9.46	≤8.00	PASS
		2440	-9.17	≤8.00	PASS
		2480	-8.93	≤8.00	PASS

BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480



Appendix C.2: Test Results of 6dB Bandwidth

TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.672	2401.648	2402.320	0.5	PASS
		2440	0.680	2439.656	2440.336	0.5	PASS
		2480	0.684	2479.636	2480.320	0.5	PASS

BLE_1M Ant1_2402



BLE_1M Ant1_2440



BLE_1M Ant1_2480



Appendix C.3: Test Results of 99% Bandwidth

TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.0614	2401.466	2402.527	---	---
		2440	1.0609	2439.469	2440.530	---	---
		2480	1.0535	2479.465	2480.519	---	---

BLE_1M Ant1_2402



BLE_1M Ant1_2440



BLE_1M Ant1_2480



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

Conducted Spurious Emission

TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	3.34	3.34	---	PASS
			30~1000	3.34	-63.09	≤-16.66	PASS
			1000~26500	3.34	-52.61	≤-16.66	PASS
		2440	Reference	2.90	2.90	---	PASS
			30~1000	2.90	-62.52	≤-17.1	PASS
			1000~26500	2.90	-52.91	≤-17.1	PASS
		2480	Reference	3.13	3.13	---	PASS
			30~1000	3.13	-62.22	≤-16.87	PASS
			1000~26500	3.13	-53.47	≤-16.87	PASS

BLE 1M Ant1 2402 0-Reference



BLE 1M Ant1 2402 30-1000



BLE_1M_Ant1_2402_1000~26500



BLE_1M_Ant1_2440_0~Reference



BLE_1M_Ant1_2440_30~1000



BLE_1M_Ant1_2440_1000~26500



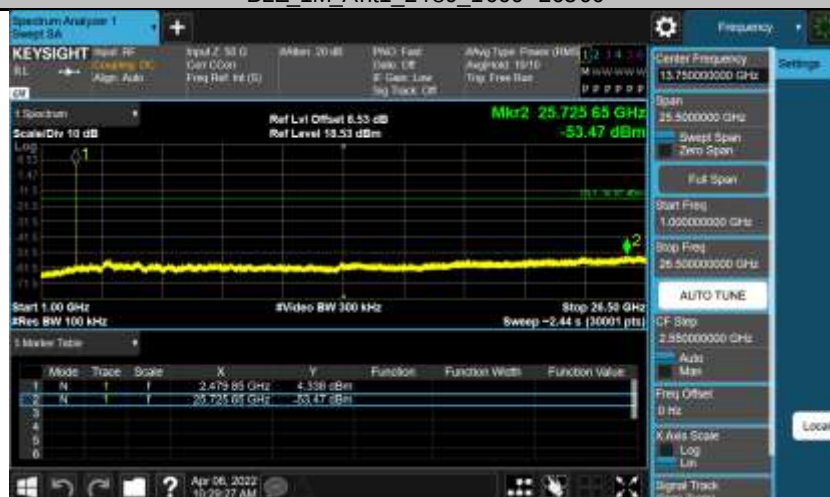
BLE_1M_Ant1_2480_0-Reference



BLE_1M_Ant1_2480_30-1000



BLE_1M_Ant1_2480_1000~26500



Band Edge

TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	3.84	-49.6	≤-16.16	PASS
		High	2480	4.30	-48.17	≤-15.7	PASS

BLE_1M_Ant1_Low_2402



BLE_1M_Ant1_High_2480



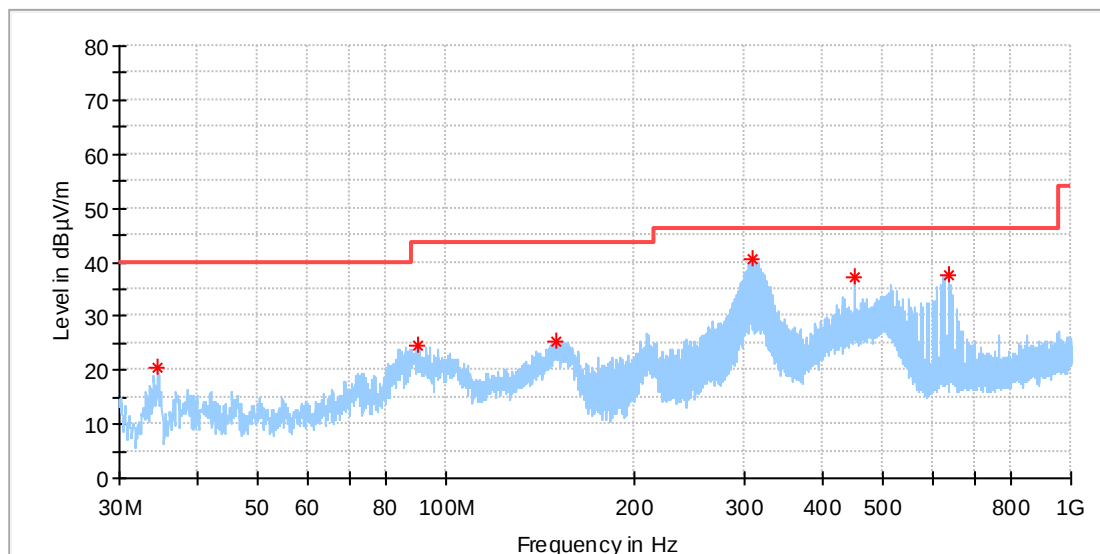
Appendix C.5: Test Results of Radiated Spurious Emissions

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

30 MHz to 1GHz

EUT Information

EUT Name:	ELAN 12" Touch Panel User Interface
Model:	ITP-12
Test Mode:	BLE_Mid channel
Order No/Sample No:	168362723/A003230744-008
Test Voltage:	120V/60Hz
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
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)
34.551539	20.64	40.00	19.36	100.0	H	179.0	-22.4
90.401154	24.52	43.50	18.98	100.0	H	49.0	-21.2
149.906923	25.42	43.50	18.08	100.0	H	258.0	-22.5
309.509231	40.52	46.00	5.48	100.0	H	13.0	-16.4
450.010000	37.29	46.00	8.71	100.0	H	304.0	-13.3
635.914231	37.74	46.00	8.26	100.0	H	327.0	-9.6

Final_Result

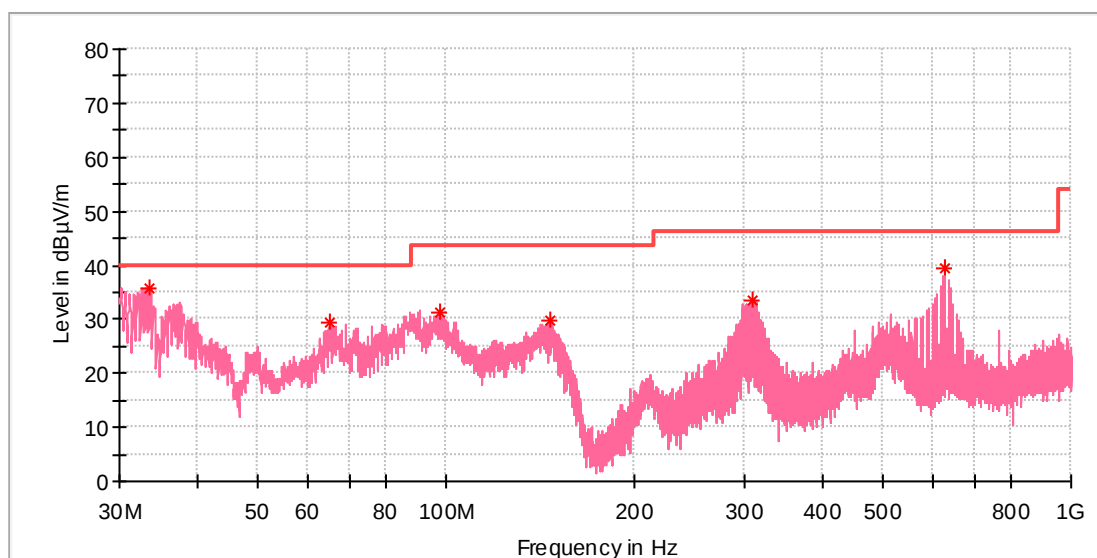
Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---	---	---	---

Prüfbericht - Produkte

Test Report - Products

EUT Information

EUT Name: ELAN 12" Touch Panel User Interface
 Model: ITP-12
 Test Mode: BLE_Mid channel
 Order No/Sample No: 168362723/A003230744-008
 Test Voltage: 120V/60Hz
 Remark: Temp 23 Humi:56%
 Test Standard: FCC 15.247
 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)
33.618846	35.84	40.00	4.16	100.0	V	0.0	-22.7
65.181154	29.52	40.00	10.48	100.0	V	0.0	-20.5
97.788077	31.37	43.50	12.13	100.0	V	90.0	-19.6
146.661154	29.68	43.50	13.82	100.0	V	0.0	-22.6
309.546539	33.48	46.00	12.52	100.0	V	13.0	-16.4
629.758462	39.55	46.00	6.45	100.0	V	71.0	-9.7

Final_Result

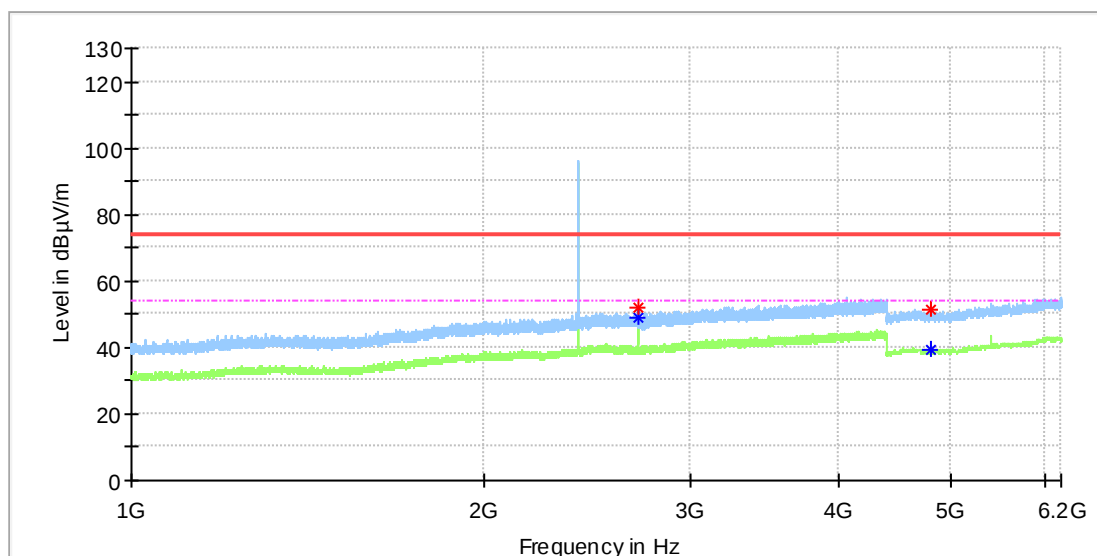
Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---	---	---	---

1GHz-18GHz

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

EUT Information

EUT Name:	ELAN 12" Touch Panel User Interface
Model:	ITP-12
Test Mode:	BLE_Low channel
Order No/Sample No:	168362723/A003230744-008
Test Voltage:	120V/60Hz
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

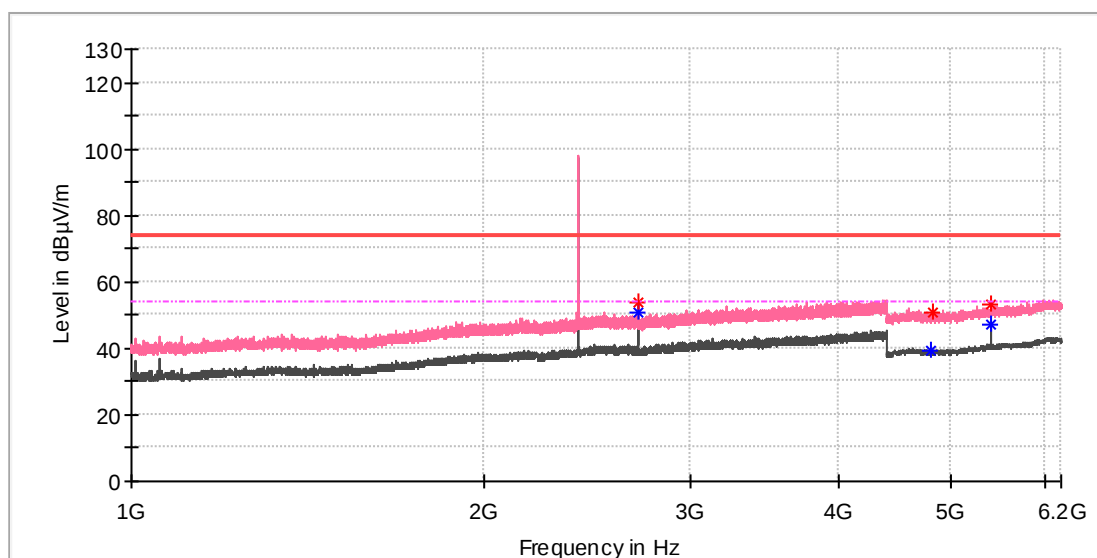
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2700.170000	52.27	---	74.00	21.73	100.0	H	94.0	7.5
2700.170000	---	49.23	54.00	4.77	100.0	H	94.0	7.5
4803.500000	---	39.21	54.00	14.79	100.0	H	17.0	11.8
4807.000000	51.36	---	74.00	22.64	100.0	H	172.0	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:	ELAN 12" Touch Panel User Interface
Model:	ITP-12
Test Mode:	BLE_Low channel
Order No/Sample No:	168362723/A003230744-008
Test Voltage:	120V/60Hz
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

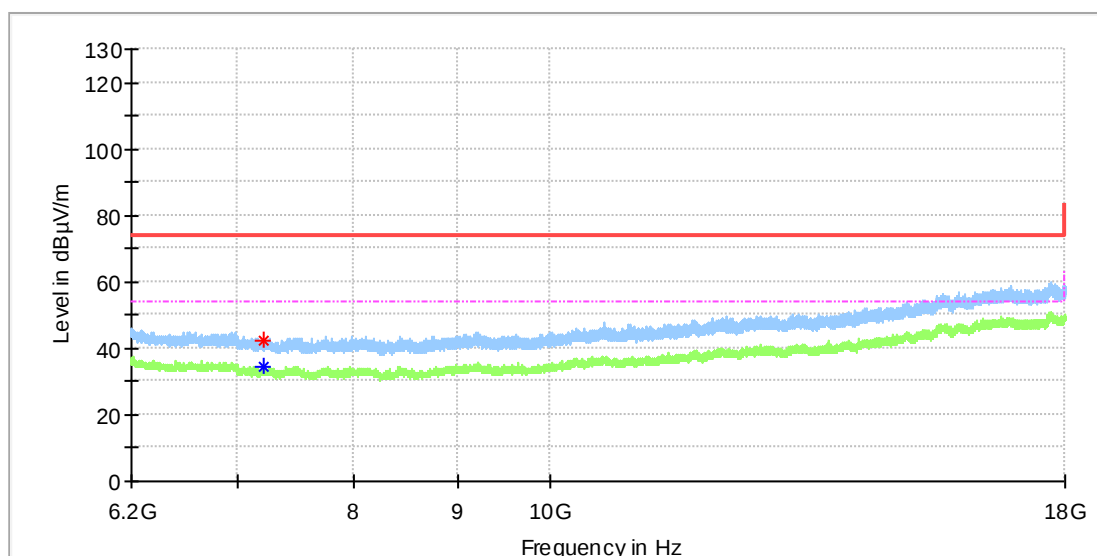
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2700.170000	---	50.81	54.00	3.19	100.0	V	138.0	7.5
2700.340000	53.69	---	74.00	20.31	100.0	V	149.0	7.5
4801.500000	---	39.33	54.00	14.67	100.0	V	179.0	11.8
4813.000000	50.59	---	74.00	23.41	100.0	V	292.0	11.8
5400.500000	53.21	---	74.00	20.79	100.0	V	158.0	13.5
5400.500000	---	46.94	54.00	7.06	100.0	V	158.0	13.5

Final_Result

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

EUT Information

EUT Name:	ELAN 12" Touch Panel User Interface
Model:	ITP-12
Test Mode:	BLE_Low channel
Order No/Sample No:	168362723/A003230744-008
Test Voltage:	120V/60Hz
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

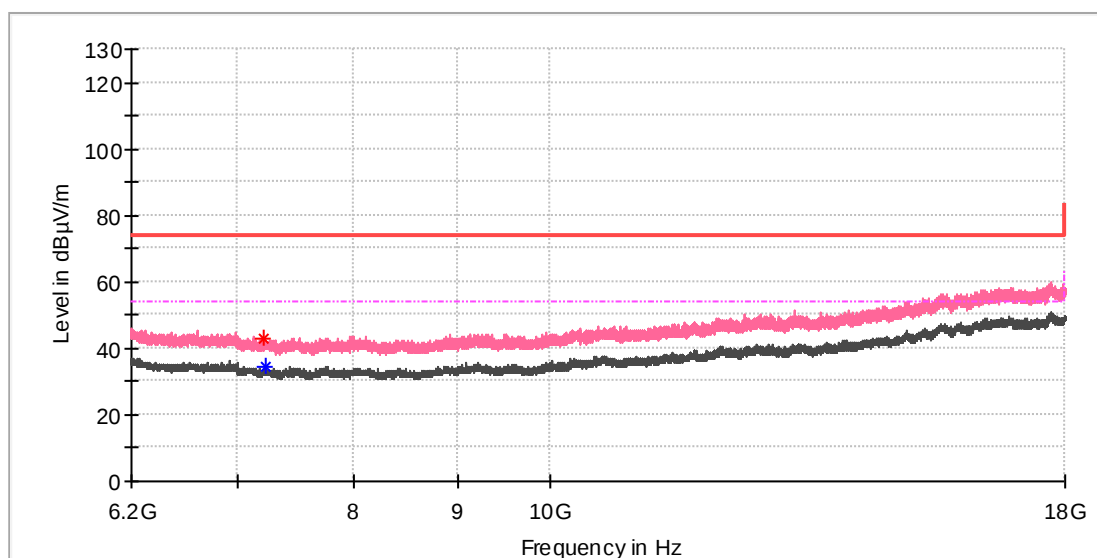
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7206.933333	---	34.22	54.00	19.78	100.0	H	72.0	8.8
7211.850000	42.44	---	74.00	31.56	100.0	H	0.0	8.7

Final Result

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

EUT Information

EUT Name:	ELAN 12" Touch Panel User Interface
Model:	ITP-12
Test Mode:	BLE_Low channel
Order No/Sample No:	168362723/A003230744-008
Test Voltage:	120V/60Hz
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

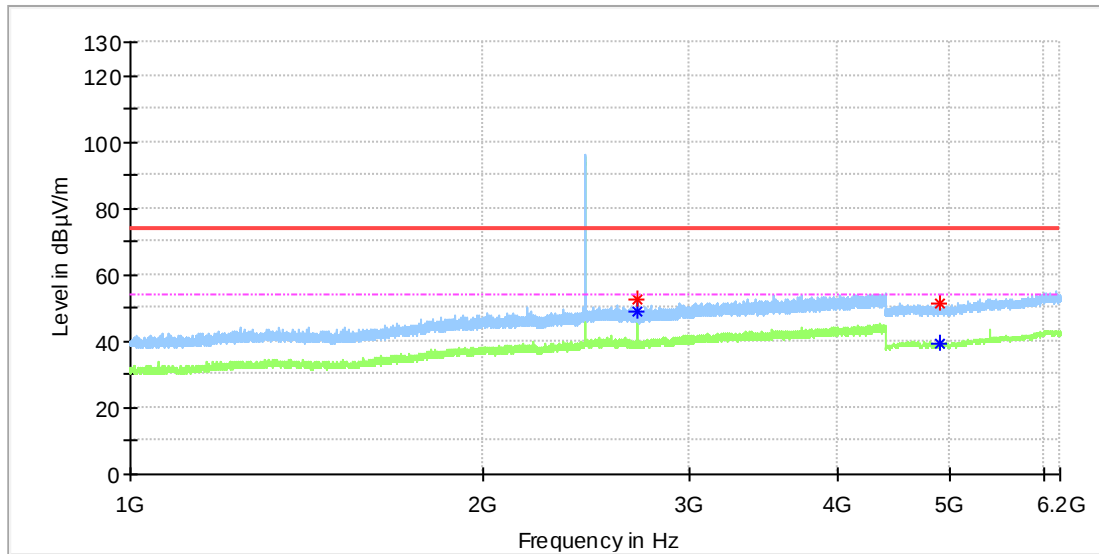
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7206.441667	42.64	---	74.00	31.36	100.0	V	53.0	8.8
7219.225000	---	34.42	54.00	19.58	100.0	V	339.0	8.7

Final Result

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

EUT Information

EUT Name: ELAN 12" Touch Panel User Interface
Model: ITP-12
Test Mode: BLE_Mid channel
Order No/Sample No: 168362723/A003230744-008
Test Voltage: 120V/60Hz
Remark: Temp 23 Humi:56%
Test Standard: FCC 15.247
Tested By: Kei Zhang
Reviewed By: Terry Yin



Critical_Freqs

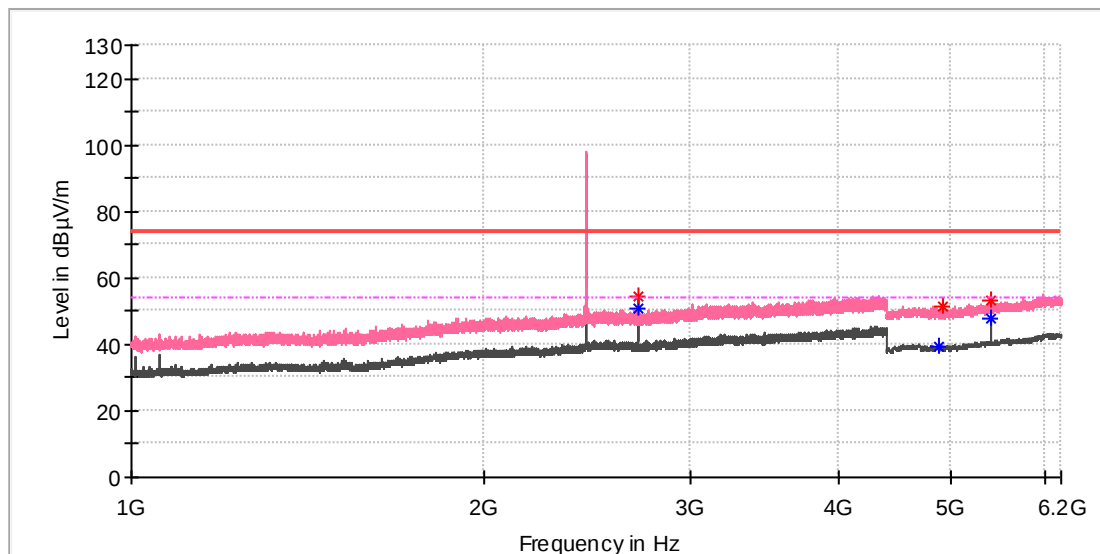
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2700.000000	---	48.94	54.00	5.06	100.0	H	100.0	7.5
2700.340000	52.81	---	74.00	21.19	100.0	H	100.0	7.5
4899.500000	---	39.41	54.00	14.59	100.0	H	309.0	11.8
4905.000000	51.53	---	74.00	22.47	100.0	H	174.0	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:	ELAN 12" Touch Panel User Interface
Model:	ITP-12
Test Mode:	BLE_Mid channel
Order No/Sample No:	168362723/A003230744-008
Test Voltage:	120V/60Hz
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

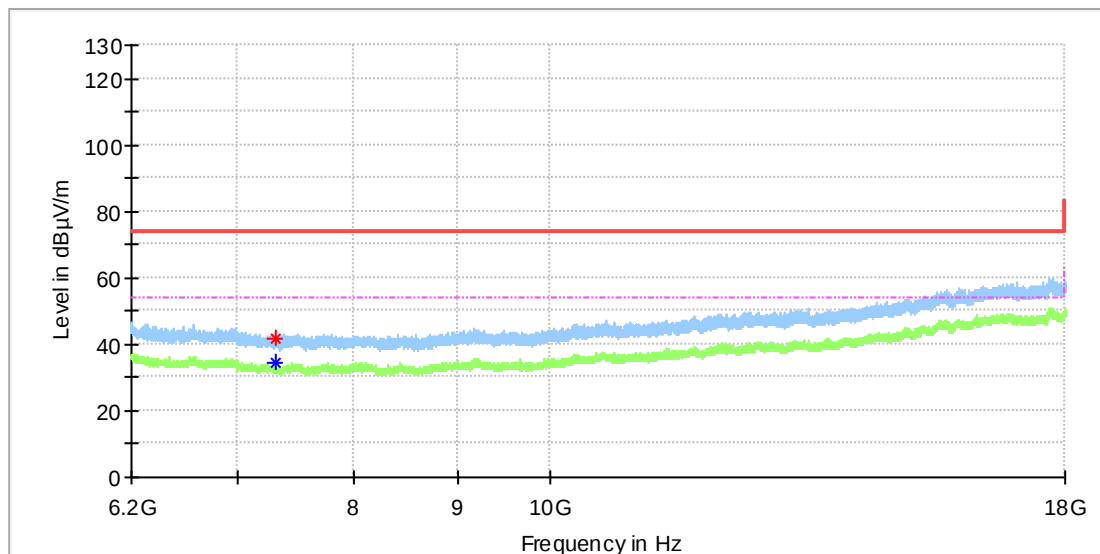
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2700.000000	54.18	---	74.00	19.82	100.0	V	144.0	7.5
2700.170000	---	50.78	54.00	3.22	100.0	V	144.0	7.5
4872.000000	---	39.35	54.00	14.65	100.0	V	265.0	11.8
4909.500000	51.14	---	74.00	22.86	100.0	V	204.0	11.8
5399.500000	52.99	---	74.00	21.01	100.0	V	155.0	13.5
5400.000000	---	47.52	54.00	6.48	100.0	V	149.0	13.5

Final_Result

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

EUT Information

EUT Name:	ELAN 12" Touch Panel User Interface
Model:	ITP-12
Test Mode:	BLE_Mid channel
Order No/Sample No:	168362723/A003230744-008
Test Voltage:	120V/60Hz
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

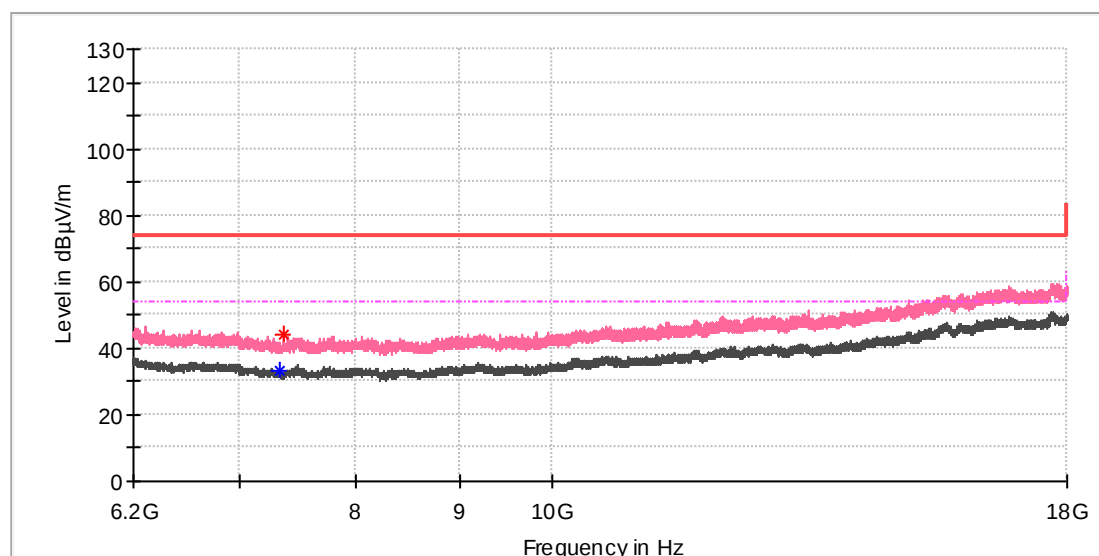
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7317.558333	---	34.23	54.00	19.77	100.0	H	158.0	8.2
7318.050000	41.63	---	74.00	32.37	100.0	H	158.0	8.2

Final Result

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

EUT Information

EUT Name:	ELAN 12" Touch Panel User Interface
Model:	ITP-12
Test Mode:	BLE_Mid channel
Order No/Sample No:	168362723/A003230744-008
Test Voltage:	120V/60Hz
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

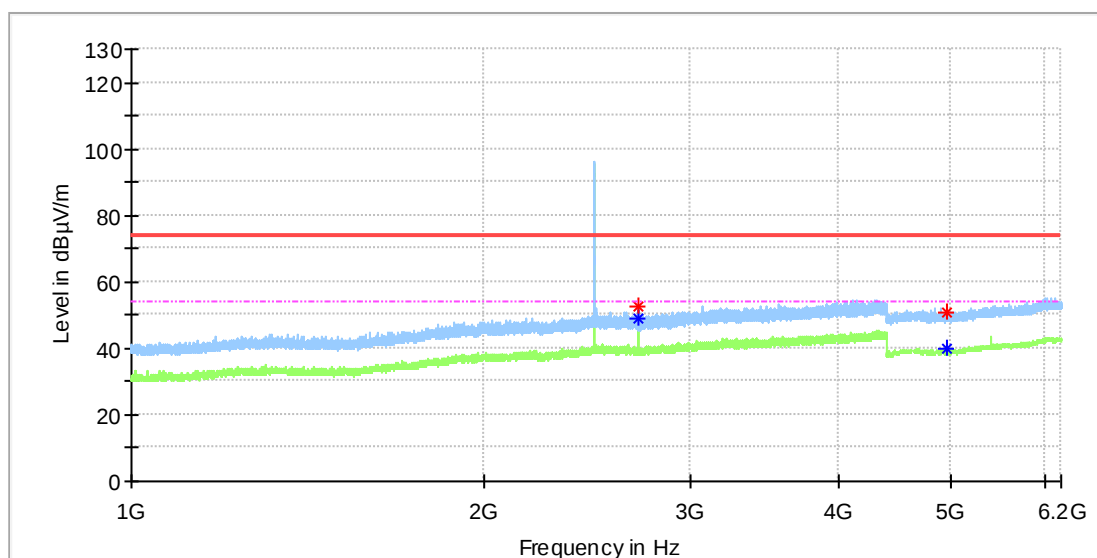
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7322.966667	---	33.15	54.00	20.85	100.0	V	240.0	8.2
7361.316667	44.02	---	74.00	29.98	100.0	V	10.0	8.2

Final Result

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

EUT Information

EUT Name: ELAN 12" Touch Panel User Interface
Model: ITP-12
Test Mode: BLE_High channel
Order No/Sample No: 168362723/A003230744-008
Test Voltage: 120V/60Hz
Remark: Temp 23 Humi:56%
Test Standard: FCC 15.247
Tested By: Kei Zhang
Reviewed By: Terry Yin



Critical_Freqs

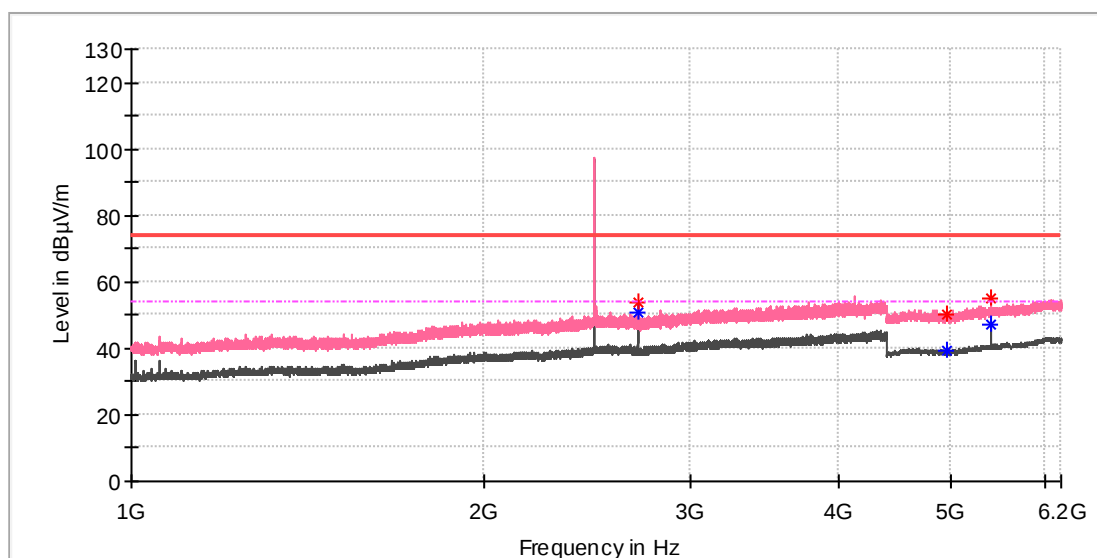
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2700.170000	52.33	---	74.00	21.67	100.0	H	96.0	7.5
2700.170000	---	49.22	54.00	4.78	100.0	H	96.0	7.5
4951.500000	---	39.61	54.00	14.39	100.0	H	56.0	11.8
4961.000000	51.00	---	74.00	23.00	100.0	H	34.0	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:	ELAN 12" Touch Panel User Interface
Model:	ITP-12
Test Mode:	BLE_High channel
Order No/Sample No:	168362723/A003230744-008
Test Voltage:	120V/60Hz
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

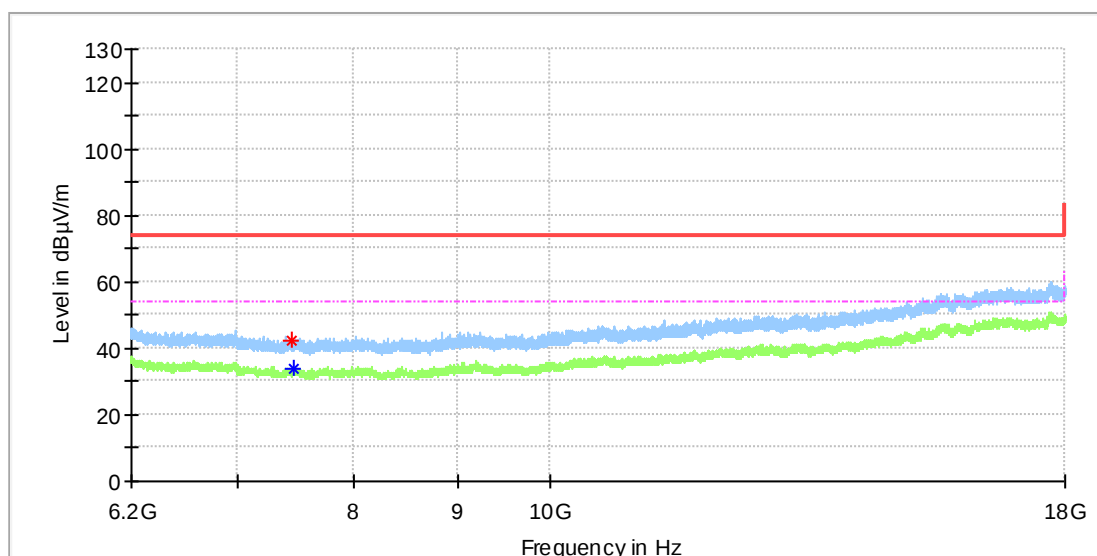
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2700.000000	53.70	---	74.00	20.30	100.0	V	145.0	7.5
2700.000000	---	50.63	54.00	3.37	100.0	V	145.0	7.5
4960.000000	50.38	---	74.00	23.62	100.0	V	149.0	11.8
4960.000000	---	39.34	54.00	14.66	100.0	V	149.0	11.8
5400.000000	---	47.23	54.00	6.77	100.0	V	156.0	13.5
5400.500000	55.05	---	74.00	18.95	100.0	V	156.0	13.5

Final_Result

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

EUT Information

EUT Name:	ELAN 12" Touch Panel User Interface
Model:	ITP-12
Test Mode:	BLE_High channel
Order No/Sample No:	168362723/A003230744-008
Test Voltage:	120V/60Hz
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

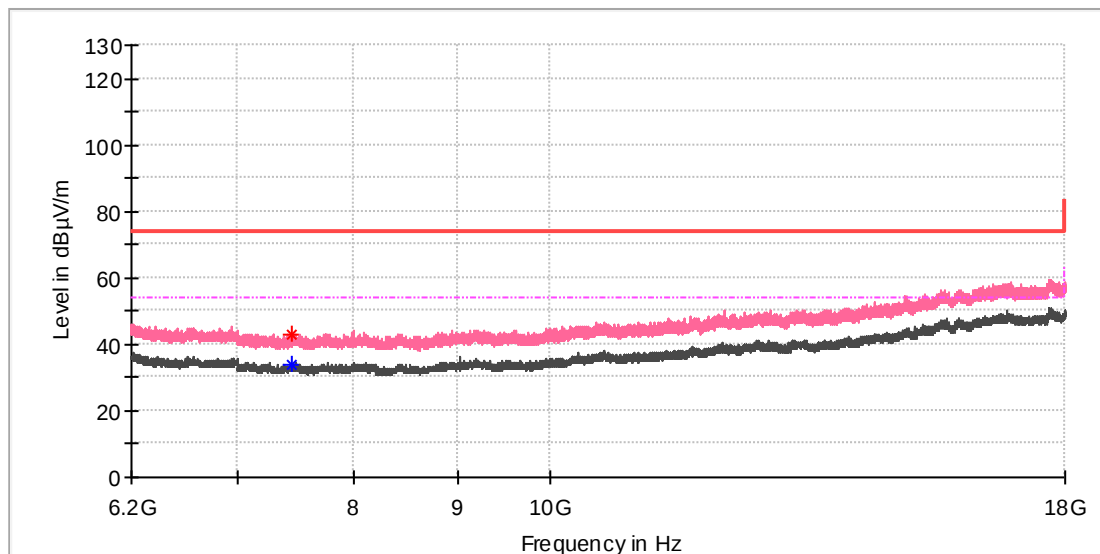
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7445.391667	42.09	---	74.00	31.91	100.0	H	268.0	8.5
7459.158333	---	33.95	54.00	20.05	100.0	H	59.0	8.5

Final Result

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

EUT Information

EUT Name:	ELAN 12" Touch Panel User Interface
Model:	ITP-12
Test Mode:	BLE_High channel
Order No/Sample No:	168362723/A003230744-008
Test Voltage:	120V/60Hz
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
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)
7450.800000	42.90	---	74.00	31.10	100.0	V	225.0	8.5
7452.275000	---	33.96	54.00	20.04	100.0	V	251.0	8.5

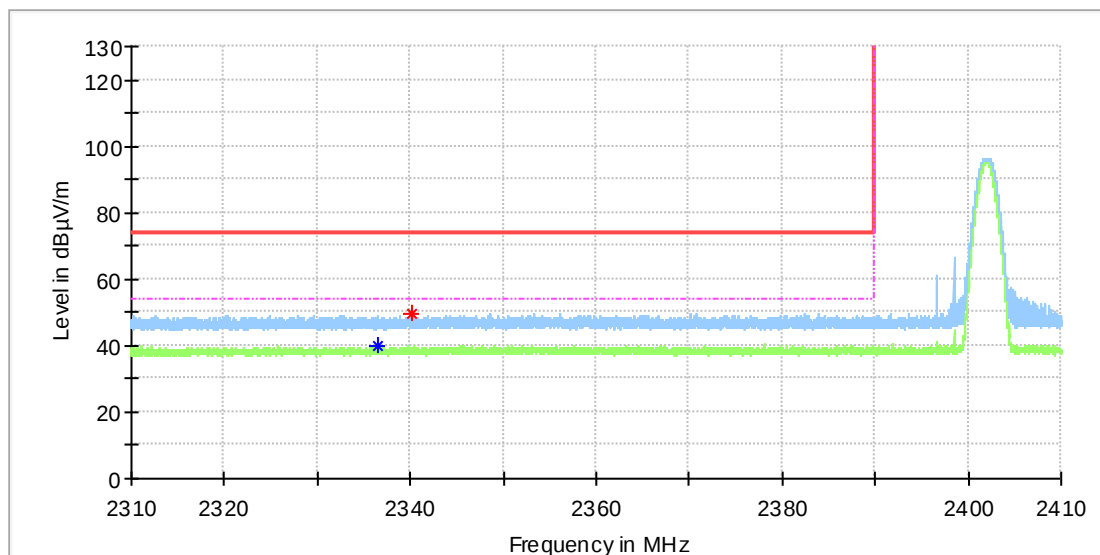
Final Result

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

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

EUT Information

EUT Name:	ELAN 12" Touch Panel User Interface
Model:	ITP-12
Test Mode:	BLE_Low channel
Order No/Sample No:	168362723/A003230744-008
Test Voltage:	120V/60Hz
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical Freqs

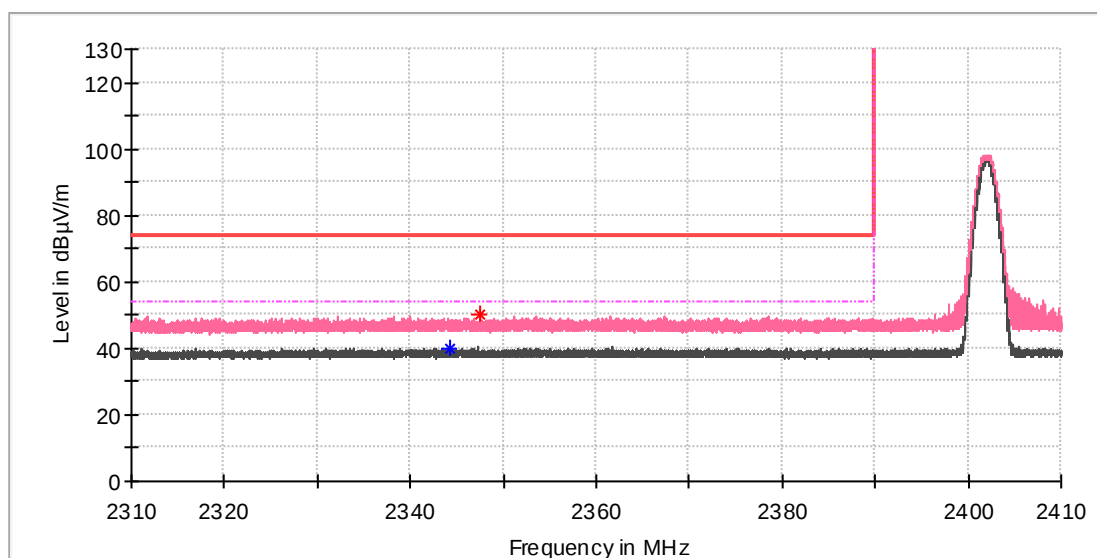
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2336.600000	---	39.89	54.00	14.11	100.0	H	248.0	6.8
2340.210000	49.66	---	74.00	24.34	100.0	H	0.0	6.8

Final Result

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

EUT Information

EUT Name:	ELAN 12" Touch Panel User Interface
Model:	ITP-12
Test Mode:	BLE_Low channel
Order No/Sample No:	168362723/A003230744-008
Test Voltage:	120V/60Hz
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

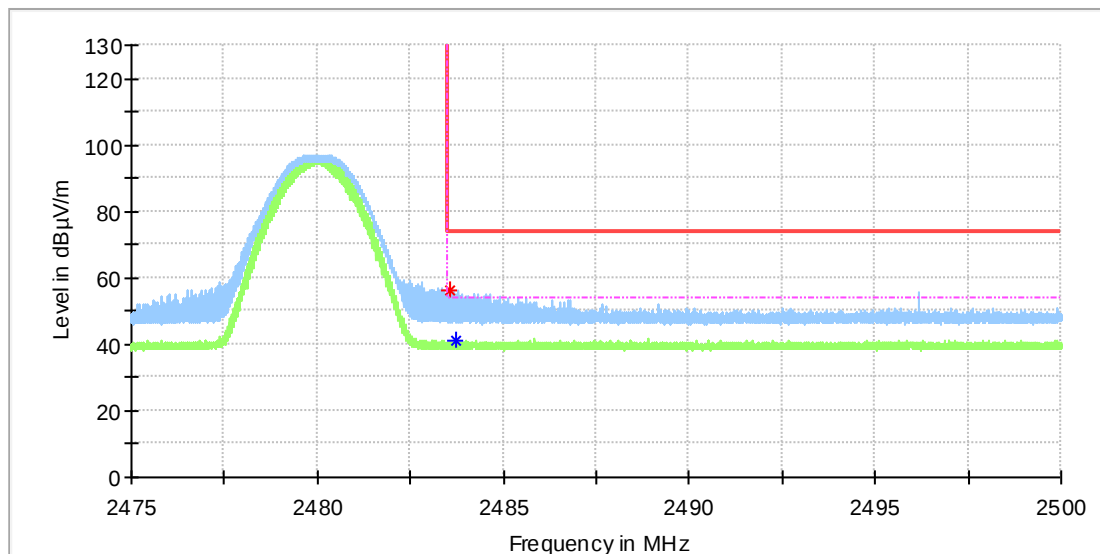
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2344.180000	---	40.00	54.00	14.00	100.0	V	68.0	6.9
2347.435000	50.17	---	74.00	23.83	100.0	V	161.0	6.9

Final Result

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

EUT Information

EUT Name:	ELAN 12" Touch Panel User Interface
Model:	ITP-12
Test Mode:	BLE_High channel
Order No/Sample No:	168362723/A003230744-008
Test Voltage:	120V/60Hz
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

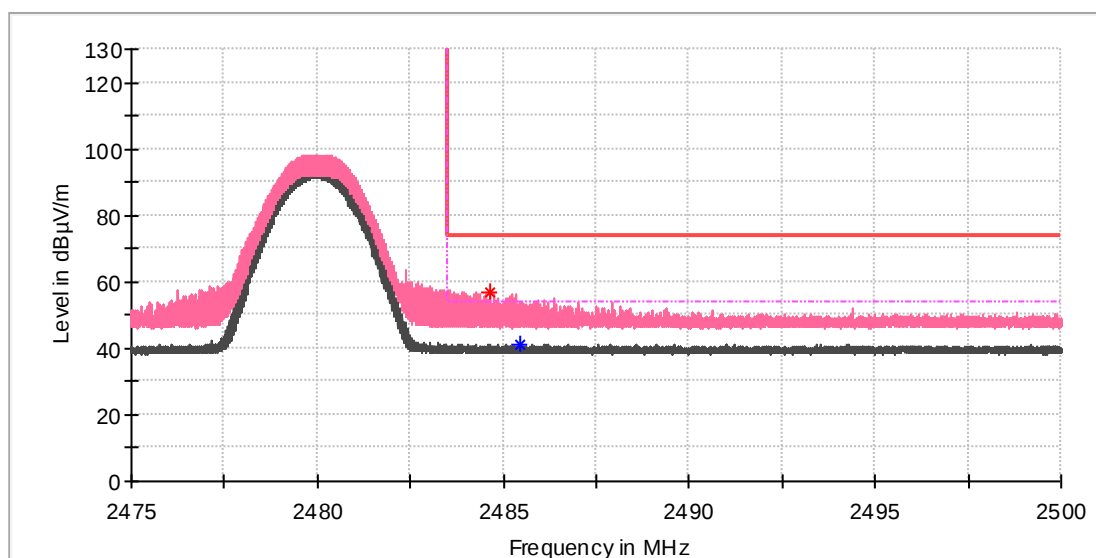
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2483.573750	56.49	---	74.00	17.51	100.0	H	231.0	7.4
2483.705000	---	40.91	54.00	13.09	100.0	H	344.0	7.4

Final Result

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

EUT Information

EUT Name:	ELAN 12" Touch Panel User Interface
Model:	ITP-12
Test Mode:	BLE_High channel
Order No/Sample No:	168362723/A003230744-008
Test Voltage:	120V/60Hz
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
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)
2484.630000	57.09	---	74.00	16.91	100.0	V	207.0	7.4
2485.440000	---	41.19	54.00	12.81	100.0	V	207.0	7.4

Final Result

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

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

APPENDIX D: TEST RESULTS OF FCC 15B & ICES-003.....	1
APPENDIX D.1: TEST PLOTS OF RADIATED EMISSION, BELOW 1GHz.....	2
<i>Wi-fi connection with Camera and Trumpet on</i>	<i>2</i>
<i>Bluetooth connection</i>	<i>4</i>
APPENDIX D.2: TEST PLOTS OF RADIATED EMISSION, ABOVE 1GHz	6
<i>Wi-fi connection with Camera and Trumpet on</i>	<i>6</i>
<i>Bluetooth connection</i>	<i>8</i>

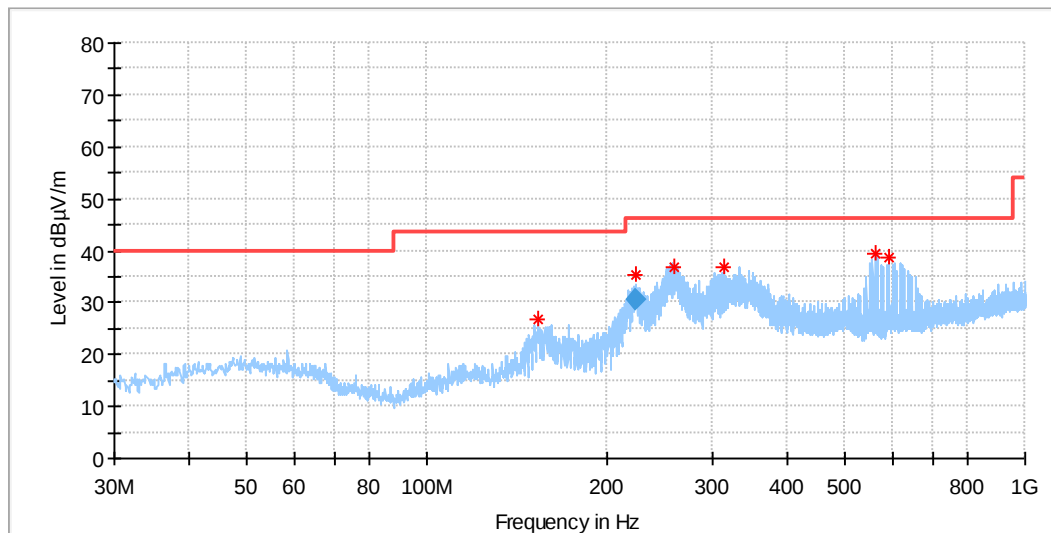
Appendix D.1: Test Plots of Radiated Emission, Below 1GHz

Note: 1. The following illustration shows the limit that meet the FCC requirements, and these measured value also comply with IC requirements. 2. This testing was carried out on all operation modes, but only the worst case was presented in this report.

Wi-fi connection with Camera and Trumpet on

EUT Information

EUT Name:	ELAN 12" Touch Panel User Interface
Order No:	168362723 120
Model:	ITP-12
Test Mode:	Wireless communication (wifi)
Test Voltage:	AC 120V, 60Hz
Test By:	Kevin Zhou
Review By:	Gary Chen
Tem./Hum./Pressure:	24.7°C/52%/101kPa



Critical_Freqs

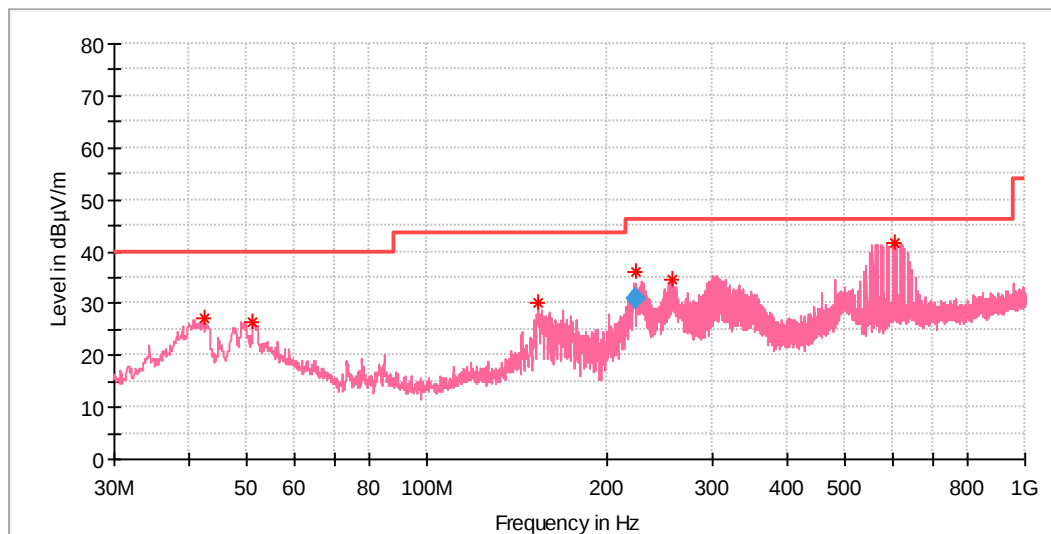
Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
153.190000	26.69	43.50	16.81	200.0	H	129.0	21.1
223.495000	35.36	46.00	10.64	100.0	H	149.0	18.7
259.017000	36.90	46.00	9.10	100.0	H	166.0	19.8
314.016000	36.66	46.00	9.34	100.0	H	130.0	21.8
562.142000	39.45	46.00	6.55	200.0	H	256.0	26.5
592.891000	38.76	46.00	7.24	200.0	H	262.0	27.5

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)
223.495000	30.37	46.00	15.63	1000.0	120.000	100.0	H	149.0	18.7

EUT Information

EUT Name: ELAN 12" Touch Panel User Interface
Order No: 168362723 120
Model: ITP-12
Test Mode: Wireless communication (wifi)
Test Voltage: AC 120V, 60Hz
Test By: Kevin Zhou
Review By: Gary Chen
Tem./Hum./Pressure: 24.7°C/52%/101kPa



Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
42.319000	27.05	40.00	12.95	100.0	V	257.0	20.1
51.146000	26.46	40.00	13.54	100.0	V	252.0	20.8
153.578000	30.24	43.50	13.26	100.0	V	88.0	21.2
223.843000	36.09	46.00	9.91	100.0	V	0.0	18.7
256.883000	34.64	46.00	11.36	200.0	V	91.0	19.6
605.210000	41.86	46.00	4.14	200.0	V	192.0	27.9

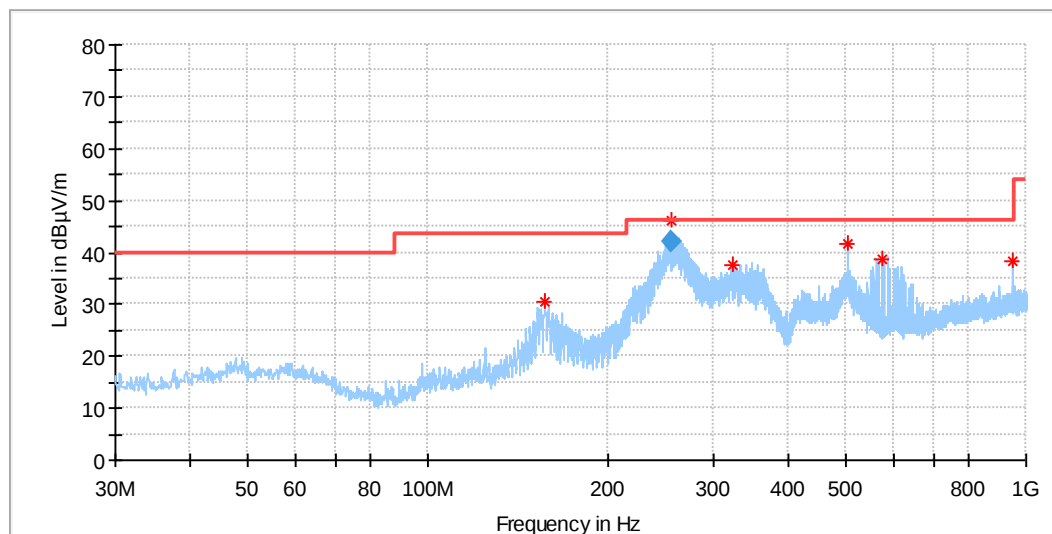
Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
223.843000	30.82	46.00	15.18	1000.0	120.000	100.0	V	0.0	18.7

Bluetooth connection

EUT Information

EUT Name: ELAN 12" Touch Panel User Interface
 Order No: 168362723 120
 Model: ITP-12
 Test Mode: Play music through Bluetooth
 Test Voltage: AC 120V, 60Hz
 Test By: Kevin Zhou
 Review By: Gary Chen
 Tem./Hum./Pressure: 24.7°C/52%/101kPa



Critical_Freqs

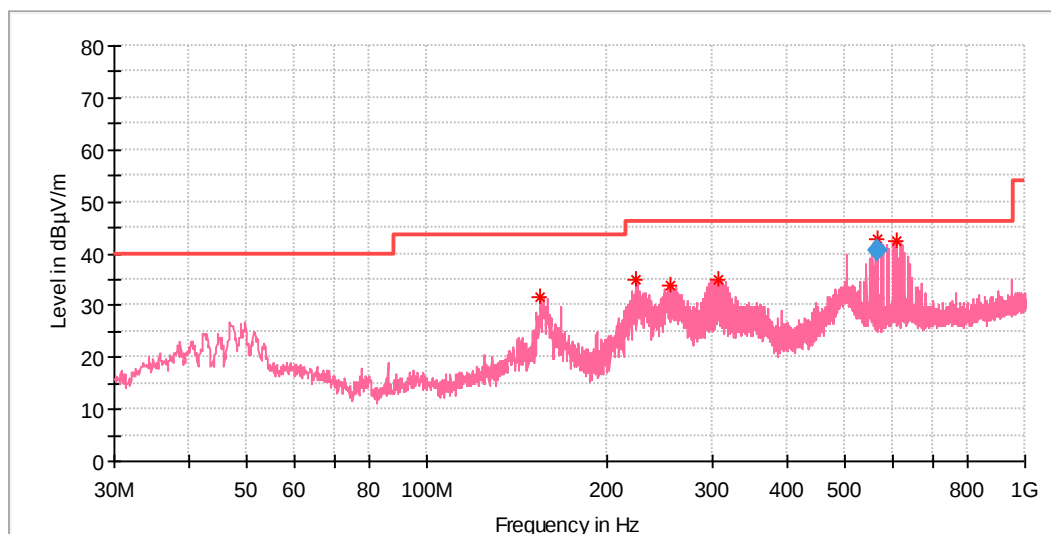
Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
156.973000	30.58	43.50	12.92	200.0	H	213.0	21.5
255.739000	46.30	46.00	-0.30	100.0	H	176.0	19.5
323.619000	37.75	46.00	8.25	100.0	H	180.0	21.7
503.942000	41.80	46.00	4.20	200.0	H	37.0	25.6
574.461000	38.60	46.00	7.40	200.0	H	271.0	26.3
951.985000	38.23	46.00	7.77	100.0	H	144.0	32.0

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)
255.739000	42.08	46.00	3.92	1000.0	120.000	100.0	H	176.0	19.5

EUT Information

EUT Name: ELAN 12" Touch Panel User Interface
Order No: 168362723 120
Model: ITP-12
Test Mode: Play music through Bluetooth
Test Voltage: AC 120V, 60Hz
Test By: Kevin Zhou
Review By: Gary Chen
Tem./Hum./Pressure: 24.7°C/52%/101kPa



Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
155.033000	31.60	43.50	11.90	100.0	V	28.0	21.4
222.739000	34.94	46.00	11.06	100.0	V	117.0	18.7
255.719000	34.04	46.00	11.96	200.0	V	251.0	19.5
307.420000	34.85	46.00	11.15	200.0	V	134.0	21.4
568.290000	42.88	46.00	3.12	100.0	V	212.0	26.3
611.321000	42.47	46.00	3.53	100.0	V	204.0	27.7

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)
568.290000	40.58	46.00	5.42	1000.0	120.000	100.0	V	212.0	26.3

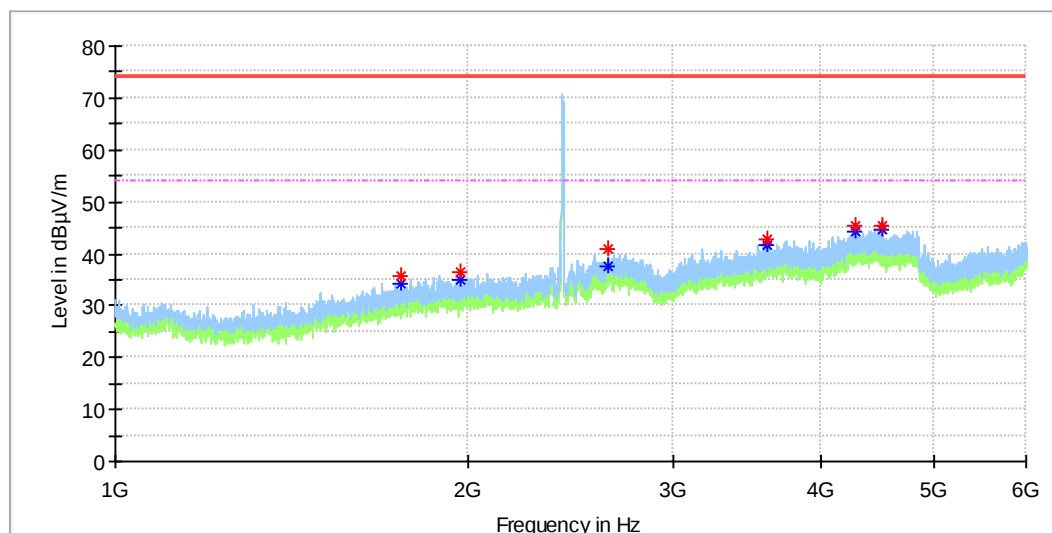
Appendix D.2: Test Plots of Radiated Emission, Above 1GHz

Note: 1. 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. 2. The highest waveform in the figure is Fundamental and/or harmonics frequency.

Wi-fi connection with Camera and Trumpet on

EUT Information

EUT Name:	ELAN 12" Touch Panel User Interface
Order No:	168362723 120
Model:	ITP-12
Test Mode:	Wireless communication (wifi)
Test Voltage:	AC 120V, 60Hz
Test By:	Kevin Zhou
Review By:	Gary Chen
Tem./Hum./Pressure:	24.7°C/52%/101kPa

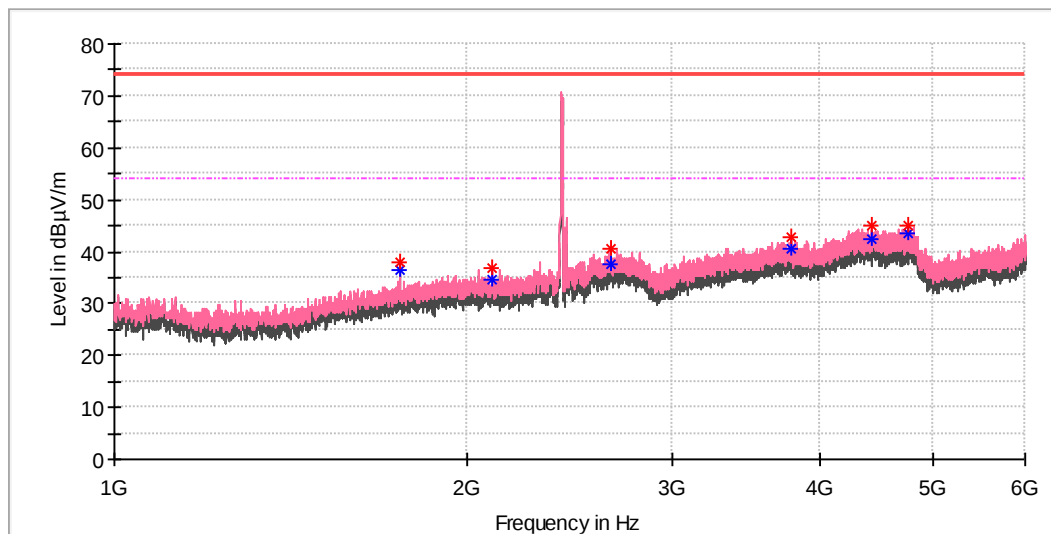


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1752.000000	---	34.30	54.00	19.70	100.0	H	332.0	-8.8
1752.000000	35.82	---	74.00	38.18	100.0	H	332.0	-8.8
1970.000000	36.29	---	74.00	37.71	100.0	H	259.0	-7.6
1970.000000	---	35.00	54.00	19.00	100.0	H	259.0	-7.6
2637.000000	---	37.44	54.00	16.56	100.0	H	105.0	-3.4
2637.000000	40.81	---	74.00	33.19	100.0	H	105.0	-3.4
3602.000000	---	41.63	54.00	12.37	100.0	H	166.0	-0.6
3602.000000	42.95	---	74.00	31.05	100.0	H	166.0	-0.6
4295.500000	45.27	---	74.00	28.73	100.0	H	194.0	2.2
4295.500000	---	44.30	54.00	9.70	100.0	H	194.0	2.2
4520.000000	---	44.63	54.00	9.37	100.0	H	244.0	2.1
4520.000000	45.45	---	74.00	28.55	100.0	H	244.0	2.1

EUT Information

EUT Name: ELAN 12" Touch Panel User Interface
Order No: 168362723 120
Model: ITP-12
Test Mode: Wireless communication (wifi)
Test Voltage: AC 120V, 60Hz
Test By: Kevin Zhou
Review By: Gary Chen
Tem./Hum./Pressure: 24.7°C/52%/101kPa



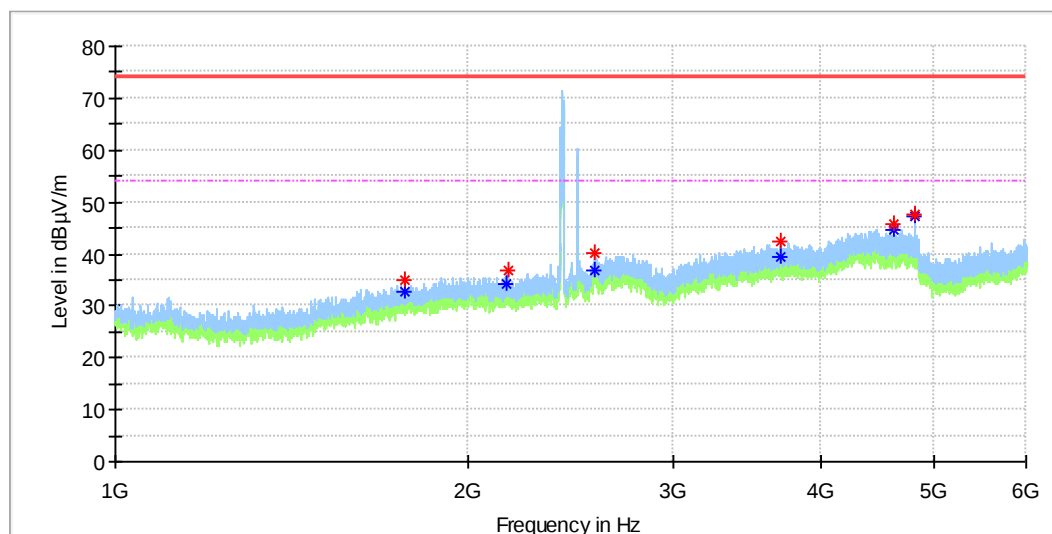
Critical Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1752.000000	---	36.34	54.00	17.66	100.0	V	213.0	-8.8
1752.000000	37.86	---	74.00	36.14	100.0	V	213.0	-8.8
2100.000000	37.02	---	74.00	36.98	100.0	V	228.0	-7.5
2100.500000	---	34.44	54.00	19.56	100.0	V	228.0	-7.5
2656.000000	---	37.57	54.00	16.43	100.0	V	332.0	-3.2
2656.000000	40.48	---	74.00	33.52	100.0	V	332.0	-3.2
3789.000000	---	40.39	54.00	13.61	100.0	V	0.0	0.0
3789.000000	42.76	---	74.00	31.24	100.0	V	0.0	0.0
4443.500000	---	42.33	54.00	11.67	100.0	V	100.0	1.9
4443.500000	45.00	---	74.00	29.00	100.0	V	100.0	1.9
4764.000000	---	43.37	54.00	10.63	100.0	V	68.0	2.9
4764.000000	44.86	---	74.00	29.14	100.0	V	68.0	2.9

Bluetooth connection

EUT Information

EUT Name: ELAN 12" Touch Panel User Interface
Order No: 168362723 120
Model: ITP-12
Test Mode: Play music through Bluetooth
Test Voltage: AC 120V, 60Hz
Test By: Kevin Zhou
Review By: Gary Chen
Tem./Hum./Pressure: 24.7°C/52%/101kPa

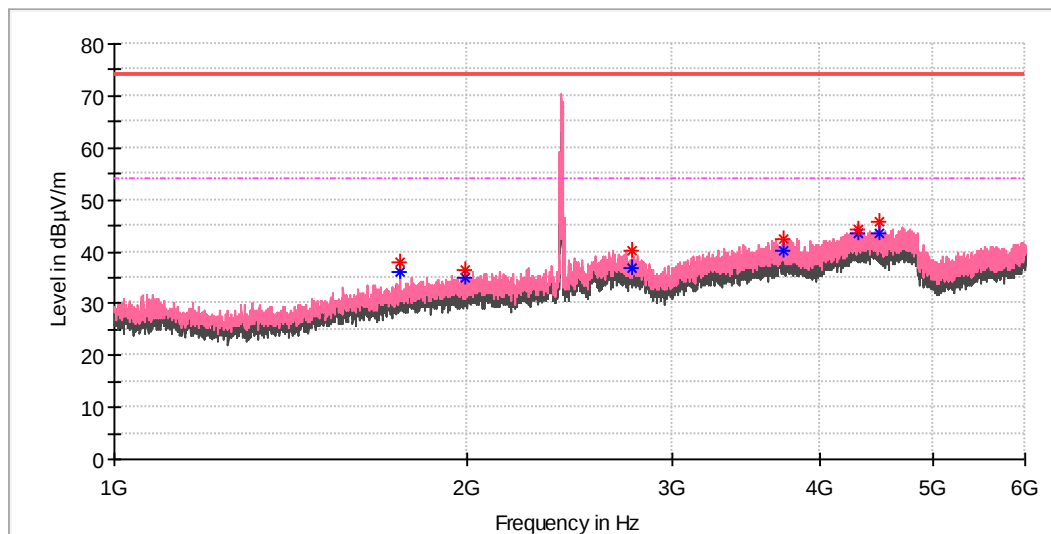


Critical Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1769.500000	---	32.80	54.00	21.20	100.0	H	194.0	-8.7
1769.500000	34.93	---	74.00	39.07	100.0	H	194.0	-8.7
2162.500000	---	34.10	54.00	19.90	100.0	H	346.0	-7.4
2163.000000	36.69	---	74.00	37.31	100.0	H	346.0	-7.4
2571.500000	---	37.00	54.00	17.00	100.0	H	278.0	-3.9
2572.000000	40.08	---	74.00	33.92	100.0	H	189.0	-3.9
3695.500000	---	39.44	54.00	14.56	100.0	H	273.0	0.2
3695.500000	42.49	---	74.00	31.51	100.0	H	273.0	0.2
4627.000000	---	44.74	54.00	9.26	100.0	H	185.0	2.1
4627.000000	45.67	---	74.00	28.33	100.0	H	185.0	2.1
4824.500000	---	47.19	54.00	6.81	100.0	H	166.0	2.0
4824.500000	47.60	---	74.00	26.40	100.0	H	166.0	2.0

EUT Information

EUT Name: ELAN 12" Touch Panel User Interface
Order No: 168362723 120
Model: ITP-12
Test Mode: Play music through Bluetooth
Test Voltage: AC 120V, 60Hz
Test By: Kevin Zhou
Review By: Gary Chen
Tem./Hum./Pressure: 24.7°C/52%/101kPa



Critical Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1752.000000	---	35.99	54.00	18.01	100.0	V	156.0	-8.8
1752.000000	38.01	---	74.00	35.99	100.0	V	156.0	-8.8
1997.000000	---	35.03	54.00	18.97	100.0	V	73.0	-7.4
1997.000000	36.62	---	74.00	37.38	100.0	V	73.0	-7.4
2769.500000	---	36.94	54.00	17.06	100.0	V	288.0	-3.4
2769.500000	40.10	---	74.00	33.90	100.0	V	288.0	-3.4
3730.000000	---	40.16	54.00	13.84	100.0	V	27.0	0.2
3730.000000	42.57	---	74.00	31.43	100.0	V	27.0	0.2
4318.500000	---	43.36	54.00	10.64	100.0	V	346.0	2.2
4318.500000	44.39	---	74.00	29.61	100.0	V	346.0	2.2
4509.500000	---	43.36	54.00	10.64	100.0	V	256.0	2.1
4509.500000	45.93	---	74.00	28.07	100.0	V	256.0	2.1