TEST REPORT

To:	TOPSEED TECHNOLOGY CORP
Address:	9 9F-3, No. 16, Jain Ba Rd., Chung Ho City, Taipei Hsien, 23511 TAIWAN

Manufacturer or Supplier	DongGuan Topseed Electronics Co.,Ltd
Location	Xizhong Road, XiTou Country, Houjie Town, DongGuan City, Guangdong, China, 523952
Product	Charge Dock
Model	HSTNH-T12C
Additional Model & Model Difference	See Item 2.1
Tested Sample	Engineering sample
Date of tests	May 23~ 25, 2011

The submitted sample of the above equipment has been tested for according to following European Directive **-** Electromagnetic directive 2004/108/EC and the tests have been carried out according to the requirements of the following standards:

☒ **FCC Part 15, Subpart C:2009**

CONCLUSION: The submitted sample was found to COMPLY with the test requirement

Prepared by Jade Yang Specialist / EMC Department	Approved by Sam Tung Manager / EMC Department
	 Date: May 26, 2011

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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
Original release	N/A	May 26, 2011

1 SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: FCC Part 15, Subpart C			
Standard Section	**Test Item**	**Result**	**Remark**
15.207	Conducted Emission Test	PASS	Meets Class B Limit Minimum passing margin is –2.80 dB at 0.66563 MHz
15.209	Radiated Emission Test (30MHz ~ 1GHz)	PASS	Meets Class B Limit Minimum passing margin is –14.86 dB at 736.00 MHz

1.1 MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

MEASUREMENT	FREQUENCY	UNCERTAINTY
Conducted emissions	150kHz ~ 30MHz	+/-2.56 dB
Radiated emissions	9kHz ~30MHz	+/-3.58 dB
Radiated emissions	30MHz ~ 1GHz	+/-3.58 dB

2 GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

PRODUCT	Charge Dock
MODEL NO.	HSTNH-T12C
POWER SUPPLY	AC 120V/60Hz
DATA CABLE SUPPLIED	N/A
ADAPTOR	Serial No:110300267 I/P: 100-240V 0.4A 50/60Hz O/P: DC 5V 2A
OPERATING FREQUENCY	120kHz~150kHz

Note:

1. For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.

2.2 DESCRIPTION OF TEST MODES

The EUT was tested under the following modes:

FOR ALL TEST:

✧ Charging mode

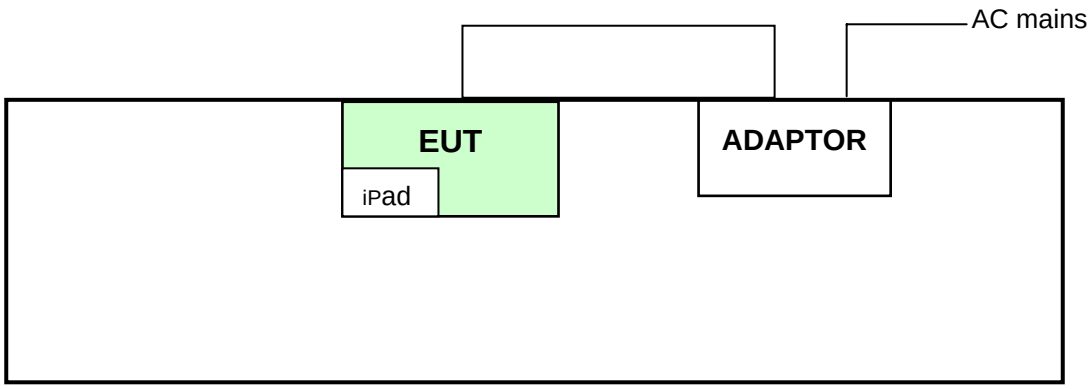
2.3 DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

2.3.1 FOR EMISSION TEST

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	IPAD	HP	N/A	N/A	N/A

TEST CONFIGURATION



3 EMISSION TEST

3.1 CONDUCTED EMISSION MEASUREMENT

3.1.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT

TEST STANDARD: FCC Part 15, Subpart C (Section: 15.207)

FREQUENCY (MHz)	Class A (dBuV)		Class B (dBuV)	
	Quasi-peak	Average	Quasi-peak	Average
0.15 - 0.5	79	66	66 - 56	56 - 46
0.50 - 5.0	73	60	56	46
5.0 - 30.0	73	60	60	50

NOTES: (1) The lower limit shall apply at the transition frequencies.
(2) The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50 MHz.
(3) All emanations from a class A/B digital device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified above.

3.1.2 TEST INSTRUMENTS

Equipment	Model No.	Serial No.	Last Cal.	Next Cal.
EMI Test Receiver	ESCS30	100199	May 30,10	May 30,11
Artificial Mains Network	ESH3-Z5	100317	May 30,10	May 30,11
Artificial Mains Network (AUX)	ENV216	101173	Oct.16,10	Oct.16,11
Pulse Limiter	ESH3-Z2	100168	May 2,11	May 2,12

NOTE: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to CEPREI/CHINA and NIM/CHINA.

2. The test was performed in Conduction 843.

3.1.3 TEST PROCEDURE

The basic test procedure was in accordance with ANSI C63.4 (section 7).

a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.

b. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.

c. The frequency range from 150 kHz to 30 MHz was searched. Emission levels under (Limit - 20dB) were not recorded.

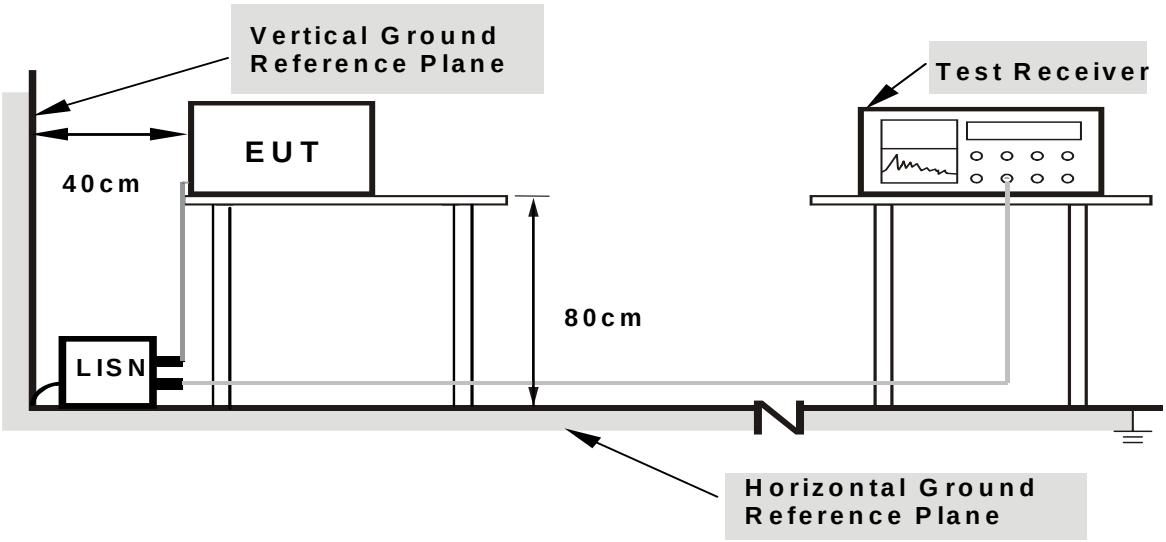
NOTE:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. Margin value = Emission level - Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value.

3.1.4 DEVIATION FROM TEST STANDARD

No deviation

3.1.5 TEST SETUP



Note: 1.Support units were connected to second LISN.
2.Both of LISNs (AMN) are 80cm from EUT and at least 80cm from other units and other metal planes support units.

3.1.6 EUT OPERATING CONDITIONS

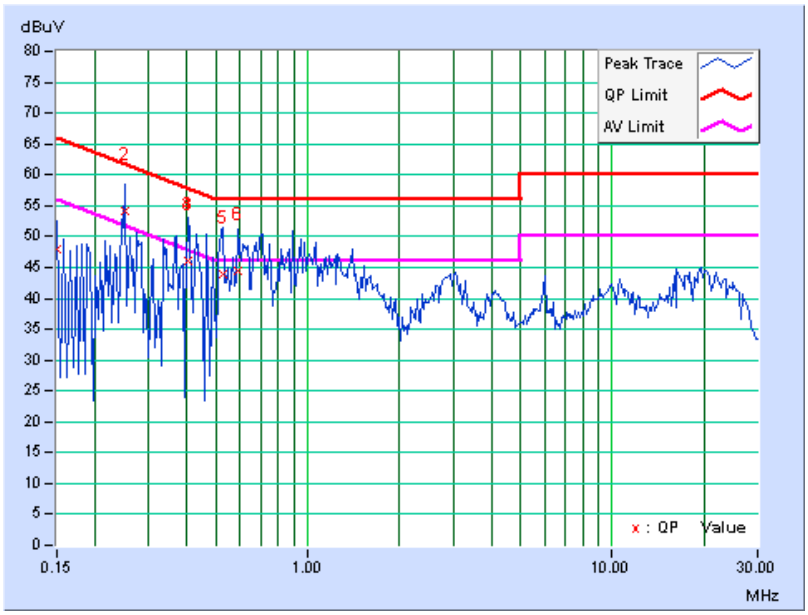
a. Turned on the power of all equipment.
b. EUT was operated according to the type used was description in manufacturer’s specifications or the User's Manual.

3.1.7 TEST RESULTS

TEST MODE	Charging		
INPUT POWER	120Vac, 60 Hz	6dB BANDWIDTH	9 kHz
ENVIRONMENTAL CONDITIONS	25 deg. C, 55% RH, 101.51 kPa	TESTED BY: David	

PHASE OF POWER: LINE (L)										
No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15000	9.64	38.26	21.70	47.90	31.34	66.00	56.00	-18.10	-24.66
2	0.25156	9.60	44.50	30.24	54.10	39.84	61.71	51.71	-7.61	-11.87
3	0.40391	9.48	36.46	20.98	45.94	30.46	57.77	47.77	-11.83	-17.31
4	0.40391	9.48	36.68	21.02	46.16	30.50	57.77	47.77	-11.61	-17.27
5	0.52500	9.45	34.45	21.59	43.90	31.04	56.00	46.00	-12.10	-14.96
6	0.58750	9.54	34.85	21.80	44.39	31.34	56.00	46.00	-11.61	-14.66

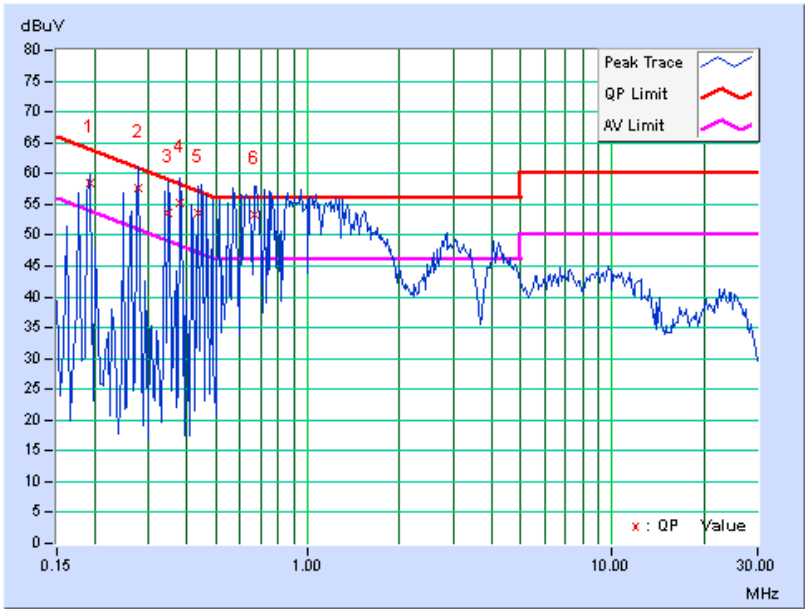
REMARKS: The emission levels of other frequencies were very low against the limit.



TEST MODE	Charging		
INPUT POWER	120Vac, 60 Hz	6dB BANDWIDTH	9 kHz
ENVIRONMENTAL CONDITIONS	25 deg. C, 55% RH, 101.51 kPa	TESTED BY: David	

PHASE OF POWER: NEUTRAL (N)										
No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.19297	9.63	48.80	29.52	58.43	39.15	63.91	53.91	-5.48	-14.76
2	0.27891	9.57	48.06	28.92	57.63	38.49	60.85	50.85	-3.22	-12.36
3	0.34922	9.52	44.10	21.71	53.62	31.23	58.98	48.98	-5.36	-17.75
4	0.38047	9.50	45.66	25.31	55.16	34.81	58.27	48.27	-3.11	-13.46
5	0.43516	9.46	44.21	22.39	53.67	31.85	57.15	47.15	-3.49	-15.31
6	**0.66563**	**9.65**	**43.55**	**24.13**	**53.20**	**33.78**	**56.00**	**46.00**	**-2.80**	**-12.22**

REMARKS: The emission levels of other frequencies were very low against the limit.



3.2 RADIATED EMISSION MEASUREMENT

3.2.1 LIMITS OF RADIATED EMISSION MEASUREMENT

TEST STANDARD: FCC Part 15, Subpart C (Section: 15.209)

FREQUENCIES (MHz)	FIELD STRENGTH (microvolts/meter)	MEASUREMENT DISTANCE (meters)
0.009 ~ 0.490	2400 / F(kHz)	300
0.490 ~ 1.705	24000 / F(kHz)	30
1.705 ~ 30.0	30	30
30 ~ 88	100	3
88 ~ 216	150	3
216 ~ 960	200	3
Above 960	500	3

Note: (1) The lower limit shall apply at the transition frequencies.

(2) Emission level (dBuV/m) = 20 log Emission level (uV/m).

(3) All emanation from a class A/B digital device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified above.

3.2.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Spectrum Analyzer	E7405A	MY45118807	May 30,10	May 30,11
Spectrum Analyzer	E4446A	MY46180622	Apr. 25,11	Apr. 25,12
EMI Test Receiver	ESVS10	841431/004	May 30,10	May 30,11
Loop antenna	ZA30900A	0708	Nov.09,10	Nov.09,11
Bilog Antenna	CBL 6111D	25758	Nov.22,10	Nov.22,11
10m Semi-anechoic Chamber	21.4m*12.1m*8.8m	NSEMC006	May 2,11	May 2,12
RF Cable	IMRO-400	10m Cable 1#10m	May 2,11	May 2,12
RF Cable	IMRO-400	10m Cable 2#3m	May 2,11	May 2,12
Signal Amplifier	8447D	2944A11174	May 2,11	May 2,12

NOTE: 1. The calibration interval of the above test instruments is 12 months. And the calibrations are traceable to CEPREI/CHINA and NIM/CHINA.
2. The test was performed in 10m Chamber.

3.2.3 TEST PROCEDURE

The basic test procedure was in accordance with ANSI C63.4 (section 12).

a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 10 meters Semi-anechoic chamber room. The table was rotated 360 degrees to determine the position of the highest radiation.

b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

c. The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

e. The test-receiver system was set to average detect function and specified bandwidth with maximum hold mode when the test frequency is below 30MHz.

f. The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.

g. The test-receiver system was set to peak and average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz.

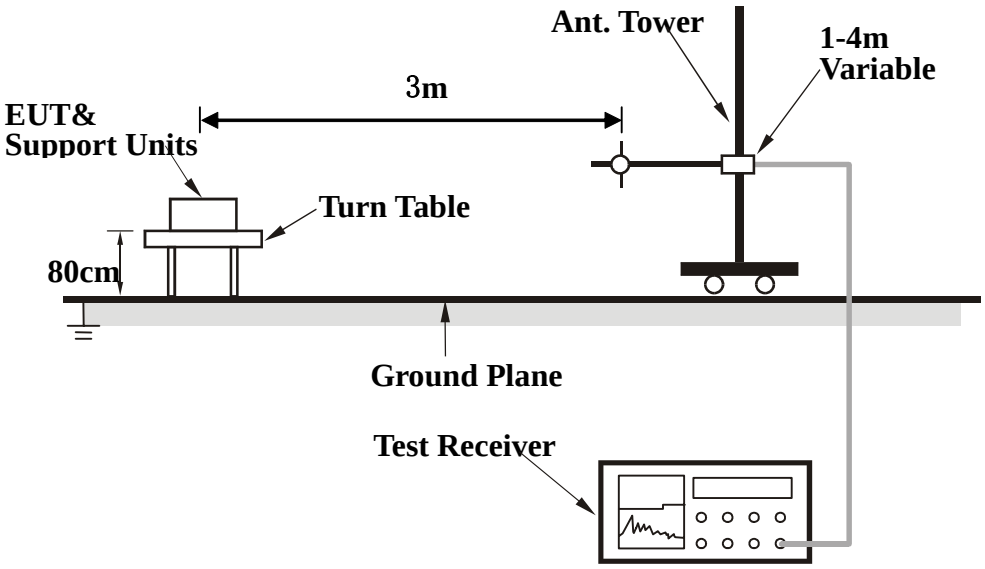
NOTE:

1. The resolution bandwidth of test receiver/spectrum analyzer is 10kHz for Average detection (AV) at frequency below 30MHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
3. The resolution bandwidth is 1MHz and video bandwidth of test receiver/spectrum analyzer is 3MHz for Peak detection at frequency above 1GHz. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz for Average detection (AV) at frequency above 1GHz.
4. For measurement of frequency above 1000 MHz, the EUT was set 3 meters away from the receiver antenna.
5. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
6. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
7. Margin value = Emission level – Limit value.

3.2.4 DEVIATION FROM TEST STANDARD

No deviation

3.2.5 TEST SETUP



3.2.6 EUT OPERATING CONDITIONS

Same as item 3.1.6.

3.2.7 TEST RESULTS

TEST MODE	Charging	**FREQUENCY RANGE**	9kHz-2MHz
INPUT POWER	120Vac, 60 Hz	**DETECTOR FUNCTION & RESOLUTION BANDWIDTH**	Quasi-Peak, 10kHz Average 10kHz
ENVIRONMENTAL CONDITIONS	25 deg. C, 55% RH, 101.51 kPa	**TESTED BY**: David	

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
No.	Freq. (KHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	120	68.58 PK	106.00	-37.42	100	10	43.26 PK	25.32
2	240	63.34 PK	100.00	-36.66	100	34	40.09 PK	23.25
3	360	57.38 PK	96.40	-39.02	100	16	34.87 PK	22.51
4	480	51.03 PK	93.90	-41.97	100	260	29.51 PK	21.52
5	600	48.83 PK	72.00	-23.17	100	240	27.64 PK	21.19
6	1063	49.61 PK	67.00	-17.39	100	360	28.53 PK	21.08

REMARKS: The emission levels of other frequencies were very low against the limit.

TEST MODE	Charging	**FREQUENCY RANGE**	9kHz-2MHz
INPUT POWER	120Vac, 60 Hz	**DETECTOR FUNCTION & RESOLUTION BANDWIDTH**	Quasi-Peak, 10kHz Average 10kHz
ENVIRONMENTAL CONDITIONS	25 deg. C, 55% RH, 101.51 kPa	**TESTED BY**: David	

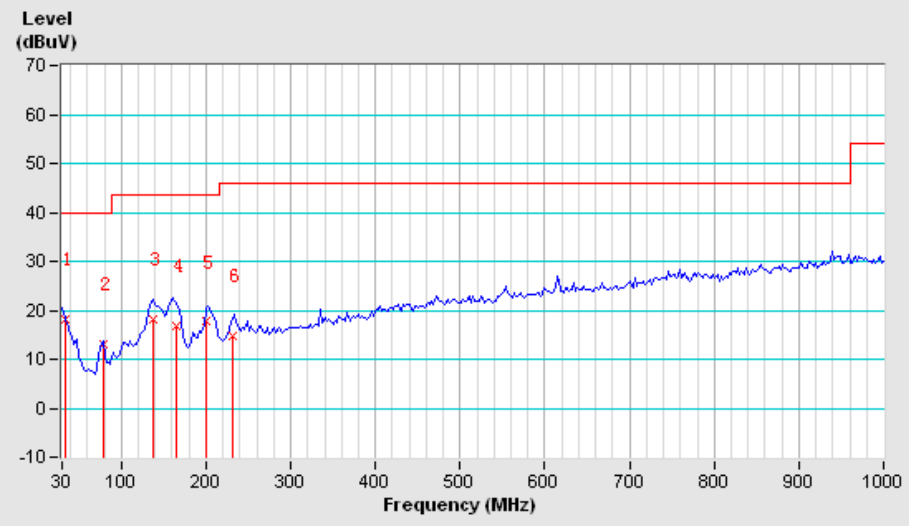
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
No.	Freq. (KHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	120	59.41 PK	106.00	-46.59	100	94	34.09 PK	25.32
2	240	57.76 PK	100.00	-42.24	100	102	34.51 PK	23.25
3	360	53.59 PK	96.40	-42.81	100	161	31.08 PK	22.51
4	480	50.14 PK	93.90	-43.76	100	196	28.62 PK	21.52
5	600	43.67 PK	72.00	-28.33	100	212	22.48 PK	21.19
6	1084	42.68 PK	67.00	-24.32	100	308	21.67 PK	21.01

REMARKS: The emission levels of other frequencies were very low against the limit.

TEST MODE	Charging	**FREQUENCY RANGE**	30-1000MHz
INPUT POWER	120Vac, 60 Hz	**DETECTOR FUNCTION & RESOLUTION BANDWIDTH**	Quasi-Peak, 120kHz
ENVIRONMENTAL CONDITIONS	25 deg. C, 55% RH, 101.51 kPa	**TESTED BY**: David	

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	34.85	18.14	40.00	-21.86	120	0	0.70	17.44
2	78.52	13.02	40.00	-26.98	123	25	5.26	7.76
3	136.78	18.16	43.50	-25.34	189	20	5.25	12.91
4	165.20	16.93	43.50	-26.57	189	200	5.87	11.06
5	199.25	17.63	43.50	-25.87	300	152	8.20	9.43
6	231.00	14.80	46.00	-31.20	254	256	3.50	11.30

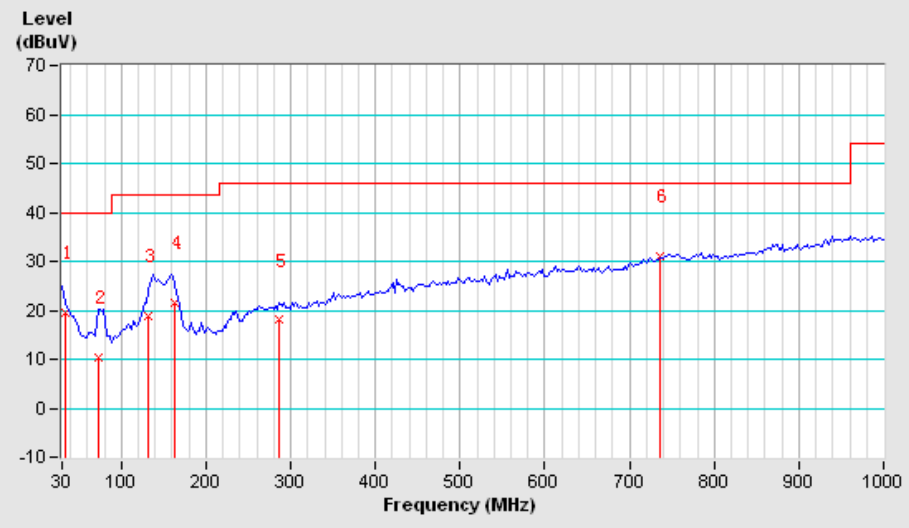
REMARKS: The emission levels of other frequencies were very low against the limit.



TEST MODE	Charging	**FREQUENCY RANGE**	30-1000MHz
INPUT POWER	120Vac, 60 Hz	**DETECTOR FUNCTION & RESOLUTION BANDWIDTH**	Quasi-Peak, 120kHz
ENVIRONMENTAL CONDITIONS	25 deg. C, 55% RH, 101.51 kPa	**TESTED BY**: David	

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	34.85	19.54	40.00	-20.46	210	200	2.10	17.44
2	73.00	10.30	40.00	-29.70	300	210	3.60	6.70
3	131.50	18.96	43.50	-24.54	210	200	6.25	12.71
4	163.00	21.47	43.50	-22.03	300	210	10.20	11.27
5	286.30	18.01	46.00	-27.99	210	200	3.50	14.51
6	**736.00**	**31.14**	**46.00**	**-14.86**	**300**	**210**	**6.20**	**24.94**

REMARKS: The emission levels of other frequencies were very low against the limit.



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4 APPENDIX A – MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB

No any modifications were made to the EUT by the lab during the test.

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