ACCREDITED
Test Lab
Cert 2951.01

TEST REPORT

Applicant	CT Asia
Address:	Unit 01, 15/F, Seaview Centre, 139-141 Hoi bun road, Kwun Tong, Kowloon, Hongkong

Manufacturer or Supplier	Shenzhen Tinno Mobile Technology Corp.
Address	4/F., H-3 Building, OCT Eastern Industrial park. No.1 Xiangshan East Road, Nanshan District, Shenzhen, P.R. China
Product:	Mobile Phone
Brand Name:	Blu
Model:	Tank
Date of tests:	Sep. 25 ~ Oct. 10, 2012

The submitted sample of the above equipment has been tested for according to the requirements of the following standards:

☒ **FCC Part 15, Subpart B, Class B**

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

Tesed by Endy Li Project Engineer / EMC Department	Approved by Sam Tung Manager/ EMC Department
Endy Li	Date: Oct, 11, 2012

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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
Original release	N/A	Oct. 10, 2012

1 SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: FCC Part 15, Subpart B			
Standard Section	**Test Item**	**Result**	**Remark**
15.107	Conducted Emission Test	PASS	Meet the requirement of limit. Minimum passing margin is --14.76dB at 0.43579MHz.
15.109	Radiated Emission Test (30MHz ~ 1GHz)	PASS	Meets Class B Limit Minimum passing margin is -4.86dB at 204.60MHz
	Radiated Emission Test (1GHz ~ 13GHz)	PASS	Meets Class B Limit Minimum passing margin is -5.40dB at 5505.00MHz

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	+/-2.94 dB
Radiated emissions	30MHz ~ 1GHz	+/-3.64 dB
	1GHz~ 18GHz	+/-2.2 dB

2 GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

PRODUCT	Mobile Phone
MODEL NO.	Tank
POWER SUPPLY	5.0Vdc (adapter or host equipment) ; 3.7Vdc (battery)
I/O PORTS	USB Port
DATA CABLE SUPPLIED	USB Cable: Shielded, Detachable, 1.0m Earphone Cable: Unshielded, Detachable, 1.0m
THE HIGHEST OPERATING FREQUENCY	2.5GHz

NOTE:

1 The EUT was powered by the following adapter:

ADAPTER	
BRAND:	BLU
MODEL:	US-01-001
INPUT:	AC 100 - 240V, 50/60Hz 150mA
OUTPUT:	DC 5V, 500mA
DC LINE:	1.0 METER, DETACHABLE , SHIELDED CABLE.

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

3 For the test results, the EUT had been tested with all conditions. But only the worst case was showed in test report.

2.2 DESCRIPTION OF TEST MODES

The EUT was tested under the following mode.And the final worst mode is marked in boldface and recorded in this report.

For conducted emission test:

Mode 1	**GSM 850 Idle+BT Idle+Battery+Adapter+USB Cable+ Camera**
Mode 2	GSM1900 Idle+BT Idle+Battery+Adapter+USB Cable+ MPEG4
Mode 3	GSM 850 Idle+BT Idle+Battery+USB Link

For radiated emission test:

Mode 1	GSM 850 Idle+BT Idle+Battery+Adapter+USB Cable+ Camera
Mode 2	GSM1900 Idle+BT Idle+Battery+Earphone+MPEG4
Mode 3	**GSM 850 Idle+BT Idle+Battery+USB Link**

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.

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	Laptop PC	DELL	5P2PM2X	12400120329	N/A
2	BT Earphone	Jabra	GNM-OTE4	004WWA0678	BCE-OTE4A
3	Printer	Hp	Laserjet1300	N/A	N/A
4	Mouse	Hp	M-UAE96	265986-011	N/A

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	AC Line: Unshielded, Detachable 0.8m, DC Line: Unshielded, Undetachable 1.8m.
2	N/A
3	AC Line: Unshielded, Detachable 1.5m, USB Line: Unshielded, Detachable 1.5m.
4	USB Line: Unshielded, Undetachable 1.5m.

3 EMISSION TEST

3.1 CONDUCTED EMISSION MEASUREMENT

3.1.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT

FREQUENCY OF EMISSION (MHz)	CONDUCTED LIMIT (dBμV)	
	Quasi-peak	Average
0.15 ~ 0.5	66 to 56	56 to 46
0.5 ~ 5	56	46
5 ~ 30	60	50

NOTE: 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 0.50MHz.

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

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
EMI Test Receiver Rohde&Schwarz	ESU 26	100005	May 15,12	May 14,13
Artificial Mains Network Rohde&Schwarz	ENV216	101173	May 15,12	May 14,13
Pulse Limiter	Rohde&Schwarz	ESH3-Z2	May 15,12	May 14,13
Impedance Stabilization Network	TESEQ	ISN T800	Oct.10,12	Oct.09,13
Test software	ADT_Cond_V7.3.7	N/A	N/A	N/A

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 Dongguan Shielded Room 553.

3.1.3 TEST PROCEDURES

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.

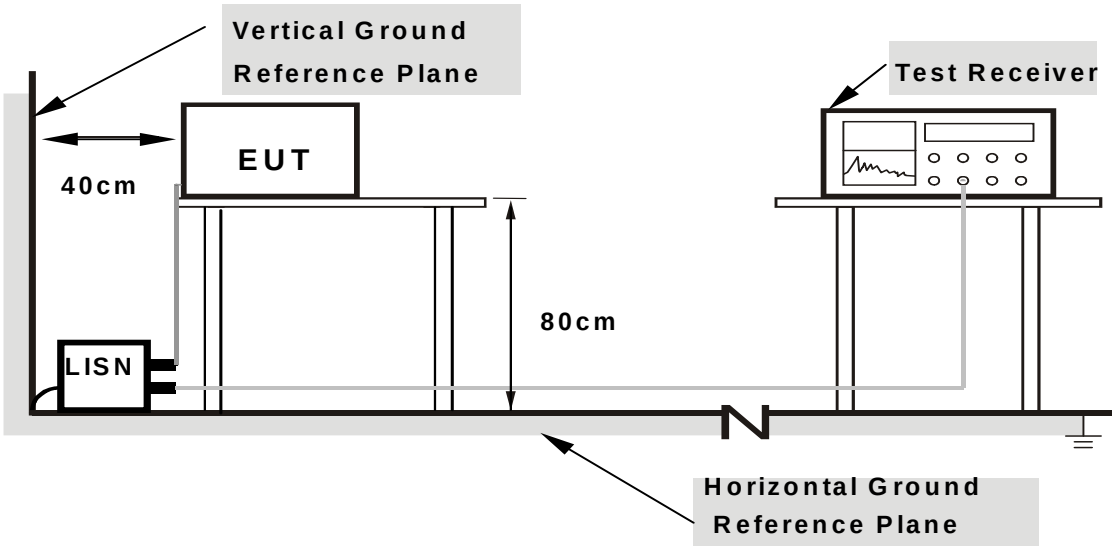
c. The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) was not recorded.

NOTE: All modes of operation were investigated and the worst-case emissions are reported.

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 80 cm from EUT and at least 80 from other units and other metal planes

For the actual test configuration, please refer to the attached file (Test Setup Photo).

3.1.6 EUT OPERATING CONDITIONS

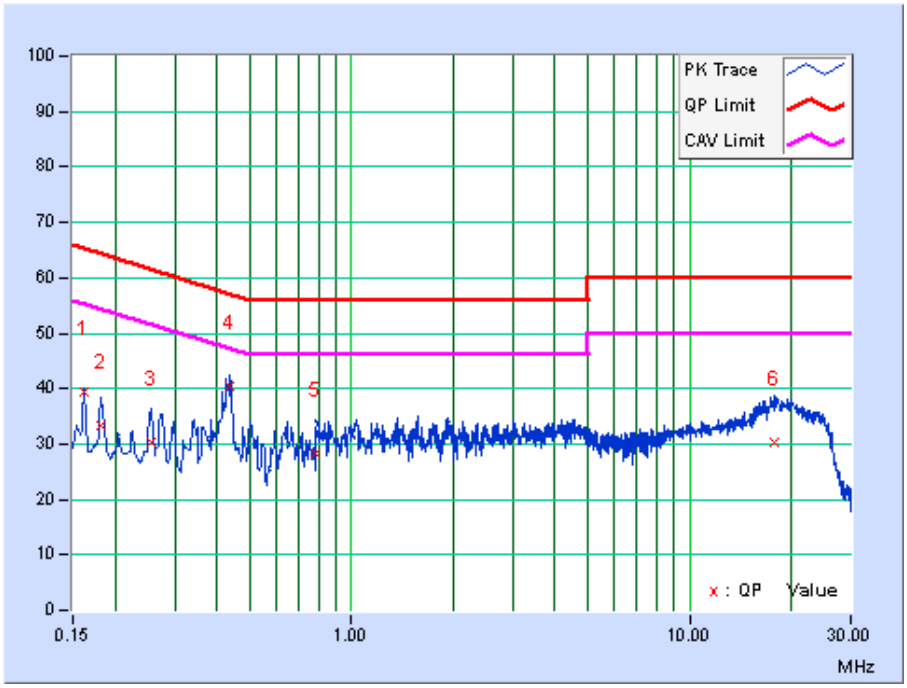
a. Turned on the power and connected of all equipment.
b. EUT was operated according to the type used was description in manufacturer's specifications or the User's Manual.

3.1.7 TEST RESULTS

TEST MODE	Mode 1	**6DB BANDWIDTH**	9 kHz
TEST VOLTAGE	DC 5V From Adapter Input AC 120V/60Hz	**PHASE**	Line (L)
ENVIRONMENTAL CONDITIONS	25deg. C, % 55RH	**TESTED BY**	Breeze

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	0.16173	10.61	28.65	16.57	39.26	27.18	65.37	55.37	-26.11	-28.19
2	0.18122	10.54	22.67	14.36	33.21	24.90	64.43	54.43	-31.22	-29.53
3	0.25526	10.43	19.73	12.81	30.16	23.24	61.58	51.58	-31.43	-28.35
4	**0.43579**	**10.31**	**30.06**	**22.07**	**40.37**	**32.38**	**57.14**	**47.14**	**-16.77**	**-14.76**
5	0.78733	10.11	18.28	7.97	28.39	18.08	56.00	46.00	-27.61	-27.92
6	17.84666	10.18	20.27	11.26	30.45	21.44	60.00	50.00	-29.55	-28.56

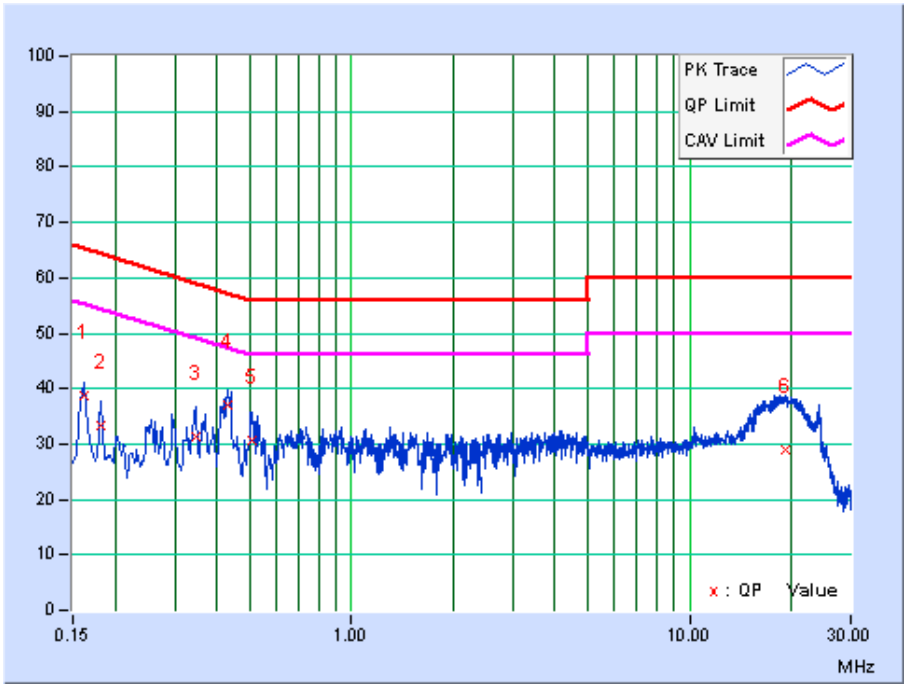
REMARKS: The emission levels of other frequencies were very low against the limit.



TEST MODE	Mode 1	**6DB BANDWIDTH**	9 kHz
TEST VOLTAGE	DC 5V From Adapter Input AC 120V/60Hz	**PHASE**	Neutral (N)
ENVIRONMENTAL CONDITIONS	25deg. C, % 55RH	**TESTED BY**	Breeze

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	0.16181	10.67	27.97	15.79	38.64	26.46	65.37	55.37	-26.74	-28.92
2	0.18128	10.51	22.77	13.73	33.28	24.24	64.43	54.43	-31.15	-30.19
3	0.34550	10.41	20.74	13.57	31.15	23.98	59.07	49.07	-27.92	-25.09
4	0.43122	10.44	26.67	18.33	37.11	28.77	57.23	47.23	-20.11	-18.45
5	0.50972	10.45	20.32	11.46	30.77	21.91	56.00	46.00	-25.23	-24.09
6	19.24644	10.17	18.69	12.67	28.86	22.84	60.00	50.00	-31.14	-27.16

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 B (Section: 15.109)

FREQUENCY (MHz)	Class A (at 10m)		Class B (at 3m)	
	uV/m	dBuV/m	uV/m	dBuV/m
30 – 88	90	39.1	100	40.0
88 – 216	150	43.5	150	43.5
216 – 960	210	46.4	200	46.0
960 – 1000	300	49.5	500	54.0

FREQUENCY RANGE OF RADIATED MEASUREMENT
(For unintentional radiators)

Highest frequency generated or Upper frequency of measurement used in the device or on which the device operates or tunes (MHz)	Range (MHz)
Below 1.705	30
1.705 – 108	1000
108 – 500	2000
500 – 1000	5000
Above 1000	5th harmonic of the highest frequency or 40 GHz, whichever is lower

LIMIT OF RADIATED EMISSION OF FCC PART 15, SUBPART B FOR FREQUENCY ABOVE 1000 MHz

FREQUENCY (MHz)	Class A (dBuV/m) (at 3m)		Class B (dBuV/m) (at 3m)	
	PEAK	AVERAGE	PEAK	AVERAGE
Above 1000	80.0	60.0	74.0	54.0

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

For frequency below 1G

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
Spectrum Analyzer	Agilent	E4446A	MY46180622	May. 2,12	May. 1,13
EMI Test Receiver	Rohde&Schwarz	ESVD	847398/003	May 15,12	May 14,13
Bilog Antenna	Teseq	CBL 6111D	27089	Jul. 16,12	Jul. 15,13
10m Semi-anechoic Chamber	CHANGLING	21.4m*12.1m*8.8m	NSEMC006	Mar 24,12	Mar 23,13
Pre-Amplifier (20MHz-3GHz)	EMCI	EMC 330	980095	Nov 7,11	Nov 7,12
Test Software	ADT	ADT_Radiated_V7.6.15	N/A	N/A	N/A

For frequency above 1G

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
Horn Antenna	EMCO	3117	00062558	Oct.19,11	Oct.19,12
Horn Antenna	EMCO	3117	00085519	Nov. 7,11	Nov. 7,12
Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170242	Jan. 1,11	Jan. 1,13
Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170147	Feb. 18,11	Feb. 18,13
Spectrum Analyzer	Agilent	E4446A	MY46180622	May. 2,12	May. 1,13
Pre-Amplifier (100MHz-26.5GHz)	Agilent	8449B	3008A00409	May 31,12	May 30,13
Pre-Amplifier (18GHz-40GHz)	EMCI	EMC 184045	980102	Nov. 7,11	Nov. 7,12
Test Software	ADT	ADT_Radiated_V7.6.15	N/A	N/A	N/A

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 Dongguan Chamber 10m.

3. The horn antenna are used only for the measurement of emission frequency above 1GHz if tested.

3.2.3 TEST PROCEDURE

The basic test procedure was in accordance with ANSI C63.4:2009 (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 quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.

f. 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:

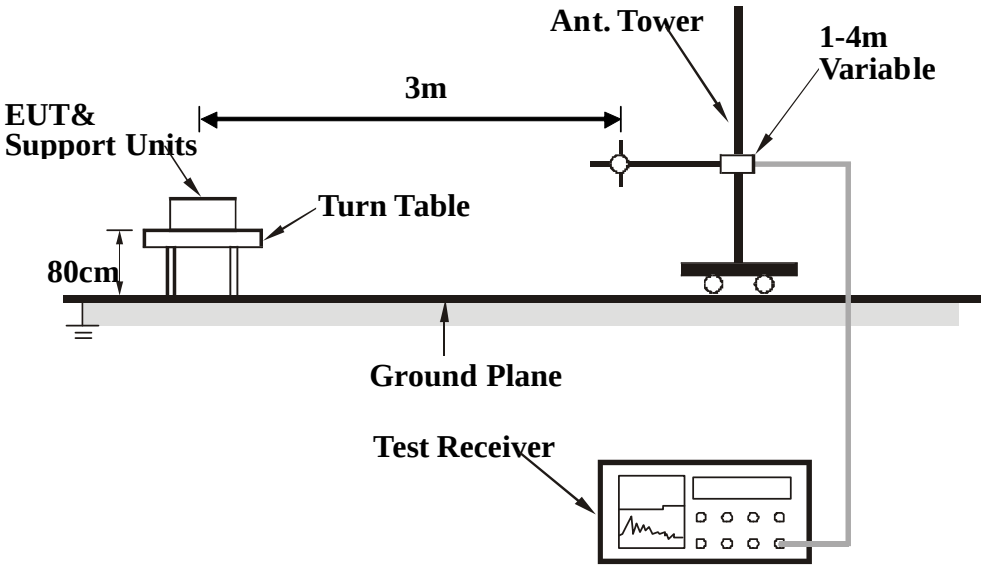
1. The resolution bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth is 1MHz and video bandwidth of test receiver/spectrum analyzer is 3MHz for Peak detection at frequency above 1GHz. The resolution bandwidth of test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

3.2.4 DEVIATION FROM TEST STANDARD

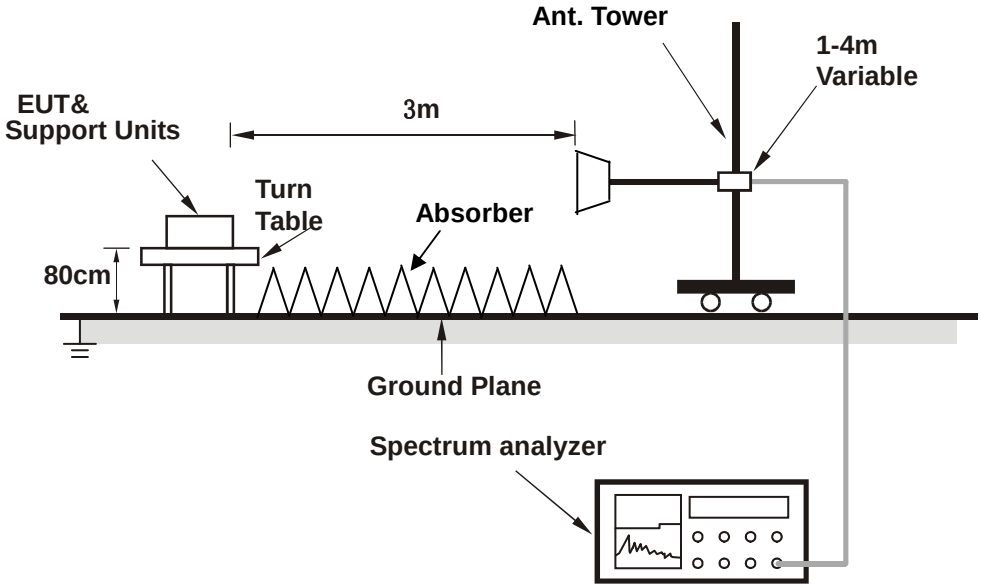
No deviation

3.2.5 TEST SETUP

<Frequency Range below 1GHz>



<Frequency Range above 1GHz>



3.2.6 EUT OPERATING CONDITIONS

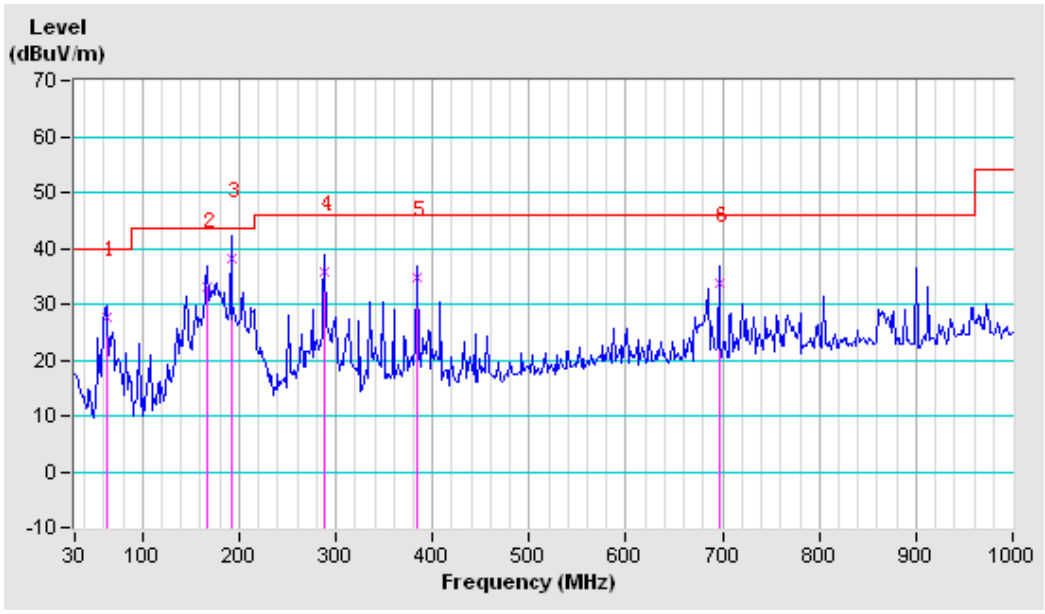
Same as item 3.1.6.

3.2.7 TEST RESULTS (BELOW 1GHz)

TEST MODE	Mode 3	FREQUENCY RANGE	30-1000MHz
TEST VOLTAGE	DC 5V From PC Input AC 120V/60Hz	DETECTOR FUNCTION & RESOLUTION BANDWIDTH	Quasi-Peak, 120kHz
ENVIRONMENTAL CONDITIONS	26deg. C, 53% RH	TESTED BY: Endy Xie	

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 10 M								
No.	Freq. (MHz)	Correction Factor (dB/m)	Raw Value (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)
1	62.33	7.66	20.04	27.70	40.00	-12.30	200.00	82.00
2	167.42	11.16	21.74	32.90	43.50	-10.60	200.00	278.00
3	191.67	10.26	27.89	38.15	43.50	-5.35	187.00	14.00
4	288.67	14.85	20.93	35.78	46.00	-10.22	159.00	0.00
5	384.05	17.19	17.72	34.91	46.00	-11.09	200.00	156.00
6	696.07	23.37	10.49	33.86	46.00	-12.14	200.00	179.00

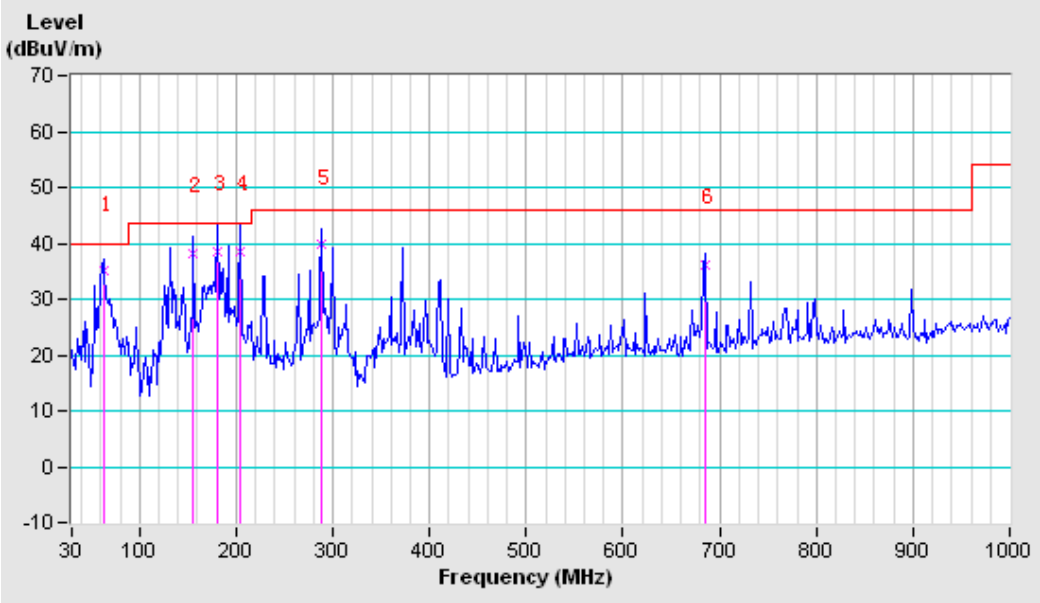
REMARKS: The emission levels of other frequencies were very low against the limit.



TEST MODE	Mode 3	**FREQUENCY RANGE**	30-1000MHz
TEST VOLTAGE	DC 5V From PC Input AC 120V/60Hz	**DETECTOR FUNCTION & RESOLUTION BANDWIDTH**	Quasi-Peak, 120kHz
ENVIRONMENTAL CONDITIONS	26deg. C, 53% RH	**TESTED BY**: Endy Xie	

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 10 M								
No.	Freq. (MHz)	Correction Factor (dB/m)	Raw Value (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)
1	62.33	7.66	27.29	34.95	40.00	-5.05	100.00	59.00
2	156.10	11.87	26.33	38.20	43.50	-5.30	100.00	85.00
3	180.35	10.41	28.06	38.47	43.50	-5.03	100.00	108.00
4	**204.60**	**10.48**	**28.16**	**38.64**	**43.50**	**-4.86**	**100.00**	**133.00**
5	288.67	14.85	24.85	39.70	46.00	-6.30	100.00	164.00
6	684.75	23.28	12.81	36.09	46.00	-9.91	100.00	202.00

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



3.2.8 TEST RESULTS (ABOVE 1GHz)

TEST MODE	Mode 3	**FREQUENCY RANGE**	1000-13000MHz
TEST VOLTAGE	DC 5V From PC Input AC 120V/60Hz	**DETECTOR FUNCTION & RESOLUTION BANDWIDTH**	AV/Peak, 1MHz
ENVIRONMENTAL CONDITIONS	26deg. C, 53% RH	**TESTED BY**: Endy Xie	

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
No.	Freq. (MHz)	Correction Factor (dB/m)	Raw Value (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)
1	2246.67 PK	35.14	20.15 PK	55.29 PK	74 PK	-18.71 PK	100.00	171.00
2	2247.00 AV	35.14	5.70 AV	40.84 AV	54.00 AV	-13.16 AV	100.00	175.00
3	3748.00 AV	44.92	-0.88 AV	44.04 AV	54.00 AV	-9.96 AV	100.00	72.00
4	3748.33 PK	44.92	11.63 PK	56.55 PK	74 PK	-17.45 PK	100.00	68.00
5	4938.00 AV	49.22	-1.25 AV	47.97 AV	54 AV	-6.03 AV	100.00	10.00
6	4938.33 PK	49.22	10.35 PK	59.57 PK	74 PK	-14.43 PK	100.00	360.00
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
No.	Freq. (MHz)	Correction Factor (dB/m)	Raw Value (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)
1	2246.67 PK	35.14	20.15 PK	55.29 PK	74.00 PK	-18.71 PK	100.00	18.00
2	2247.00 AV	35.14	6.62 AV	41.76 AV	54.00 AV	-12.24 AV	100.00	25.00
3	3748.00 AV	44.92	-0.66 AV	44.26 AV	54.00 AV	-9.74 AV	100.00	92.00
4	3748.33 PK	44.92	10.36 PK	55.28 PK	74.00 PK	-18.72 PK	100.00	89.00
5	5505.00 PK	50.55	8.92 PK	59.47 PK	74.00 PK	-14.53 PK	100.00	0.00
6	**5505.00 AV**	**50.55**	**-1.95 AV**	**48.6 AV**	**54.00 AV**	**-5.40 AV**	**100.00**	**5.00**

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

4 PHOTOGRAPHS OF THE TEST CONFIGURATION

See test setup photo.

5 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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