



FCC TEST REPORT

FCC ID: V3K-E486

Product Name:	Laptop Computer
Trademark:	N/A
Model Number:	E486 E550
Prepared For:	Shenzhen Hasee Computer Co., Ltd
Address:	Hasee Industrial Park, Bantian, Longgang, Shenzhen, China
Prepared By:	Shenzhen BCTC Technology Co., Ltd.
Address:	NO.101, Yousong Road, Longhua New District, Shenzhen, Guangdong, P.R.China
Report No.:	BCTC-FY161105489-3E



TABLE OF CONTENT

Test Report Declaration	Page
1. GENERAL INFORMATION.....	4
1.1. Description of Device (EUT).....	4
1.2. Tested System Details.....	4
1.3. Test Uncertainty.....	4
1.4. Test Facility.....	5
2. TEST INSTRUMENT USED.....	6
3. CONDUCTED EMISSION AT THE MAINS TERMINALS TEST.....	7
3.1. Block Diagram Of Test Setup.....	7
3.2. Test Standard.....	7
3.3. Power Line Conducted Emission Limit.....	7
3.4. EUT Configuration on Test.....	7
3.5. Operating Condition of EUT.....	7
3.6. Test Procedure.....	8
3.7. Test Result.....	8
4. RADIATION EMISSION TEST.....	13
4.1. Block Diagram of Test Setup.....	13
4.2. Test Standard.....	13
4.3. Radiation Limit.....	13
4.4. EUT Configuration on Test.....	13
4.5. Operating Condition of EUT.....	13
4.6. Test Procedure.....	14
4.7. Test Result.....	14
5. EUT PHOTOGRAPHS.....	23
6. EUT TEST PHOTOGRAPHS.....	24



Shenzhen BCTC Technology Co., Ltd.

Applicant : Shenzhen Hasee Computer Co., Ltd.
Address : Hasee Industrial Park, Bantian, Longgang, Shenzhen, China
Manufacturer : Shenzhen Hasee Computer Co., Ltd.
Address : Hasee Industrial Park, Bantian, Longgang, Shenzhen, China
EUT : Laptop Computer
Trademark: : N/A
Model Number : E486
 : E550
Test Date : Nov. 18 - Nov. 23, 2016
Date of Report : Nov. 23, 2016
Test Result: : The equipment under test was found to be compliance with the requirements of the standards applied.

Test Procedure Used:

FCC Part 15 B

ANSI C63.4:2014

Testing Engineer :

Eric Yang

Reviewer
(Supervisor) :

Simon Wang

Approved &
Authorized
Signer(Manager) :



This test report is based on a single evaluation of one sample of above mentioned products. It is not permitted to be duplicated in extracts without written approval of Shenzhen BCTC Technology Co., Ltd.



1. GENERAL INFORMATION

1.1. Description of Device (EUT)

EUT : Laptop Computer

Trademark : N/A

Model Number : E486
E550

Model Difference : All the same, Only model name is different and outlook color.

Power Supply : Adapter : Input: AC 120V/60Hz Output: DC 19V/2A
Battery: DC 10.8V 4400mAh

Work Frequency : 1.3GHz

Note: E486 was selected as the test model and the datas have been recorded in this report.

1.2. Tested System Details

Equipment	Mfr/Brand	Model/Type No.	Series No.	Note
LCD TV	Guanjie	T3250MD	/	/
U-Disk	/	8GB	/	/

1.3. Test Uncertainty

Conducted Emission : $\pm 2.66\text{dB}$
Uncertainty

Radiated Emission Uncertainty : $\pm 4.26\text{dB}$



1.4. Test Facility

Site Description

Name of Firm : Shenzhen BCTC Technology Co., Ltd.

Site Location : NO.101, Yousong Road, Longhua New District,
Shenzhen, Guangdong, P.R.China

Lab Qualifications : Certificated by Industry Canada
Registration No.: 12655A
Date of registration: January 19, 2015

Certificated by FCC, USA
Registration No.: 187086
Date of registration: November 28, 2014

Certificated by CNAS China
Registration No.: CNAS L6046
Date of registration: February 3, 2013



2. TEST INSTRUMENT USED

For Conducted Emission at the mains terminals Test

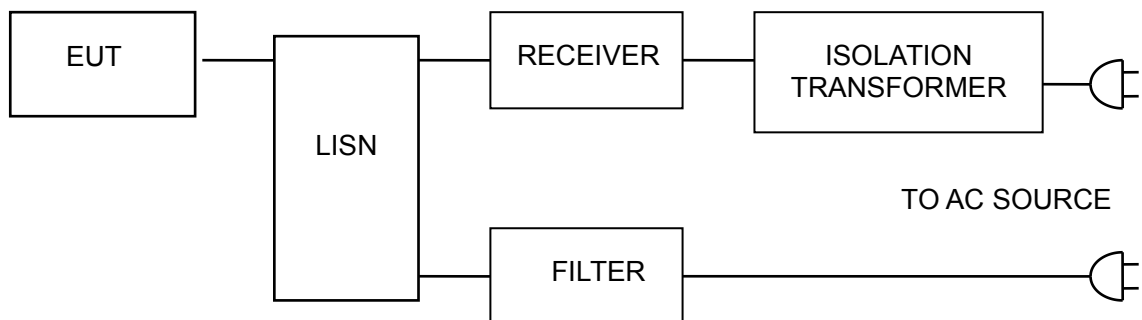
Conducted Emission Test (A --- site)					
Equipment	Manufacturer	Model#	Serial#	Last Cal.	Next Cal.
843 Shielded Room	ChengYu	843 Room	843	Aug. 25, 2016	Aug. 24, 2017
EMI Receiver	R&S	ESCI	101421	Aug. 27, 2016	Aug. 26, 2017
LISN	Schwarzbeck	NSLK8127	8127739	Sep. 07, 2016	Sep. 06, 2017
Attenuator	R&S	ESH3-Z2	BCTC021E	Aug. 25, 2016	Aug. 24, 2017
843 Cable 1#	FUJIKURA	843C1#	001	Aug. 25, 2016	Aug. 24, 2017

For Radiated Emission Test

Radiation Emission Test (966 chamber)					
Equipment	Manufacturer	Model#	Serial#	Last Cal.	Next Cal.
966 chamber	ChengYu	966 Room	966	Aug. 25, 2016	Aug. 24, 2017
Spectrum Analyzer	Agilent	E4407B	MY45109572	Aug. 27, 2016	Aug. 26, 2017
Amplifier	Schwarzbeck	BBV9743	9743-119	Aug. 25, 2016	Aug. 24, 2017
Amplifier	Schwarzbeck	BBV9718	9718-270	Aug. 25, 2016	Aug. 24, 2017
Log-periodic Antenna	Schwarzbeck	VULB9160	VULB9160-3369	Sep. 07, 2016	Sep. 06, 2017
EMI Receiver	R&S	ESCI	101421	Aug. 27, 2016	Aug. 26, 2017
Horn Antenna	Schwarzbeck	BBHA9120D	9120D-1275	Aug. 25, 2016	Aug. 24, 2017
966 Cable 1#	CHENGYU	966	004	Aug. 25, 2016	Aug. 24, 2017
966 Cable 2#	CHENGYU	966	003	Aug. 25, 2016	Aug. 24, 2017

3. CONDUCTED EMISSION AT THE MAINS TERMINALS TEST

3.1. Block Diagram Of Test Setup



3.2. Test Standard

FCC PART 15 B

3.3. Power Line Conducted Emission Limit

Frequency MHz	Limits dB(μ V)	
	Quasi-peak Level	Average Level
0.15 ~ 0.50	66 ~ 56*	56 ~ 46*
0.50 ~ 5.00	56	46
5.00 ~ 30.00	60	50

Notes: 1. *Decreasing linearly with logarithm of frequency.

2. The lower limit shall apply at the transition frequencies.

3.4. EUT Configuration on Test

The following equipments are installed on conducted emission test to meet FCC PART 15 B requirement and operating in a manner which tends to maximize its emission characteristics in a normal application.

3.5. Operating Condition of EUT

3.5.1 Setup the EUT and simulators as shown in Section 3.1.

3.5.2 Turn on the power of all equipments.

3.5.3 Let the EUT work in test modes and test it.



3.6. Test Procedure

The EUT is put on the ground and connected to the AC mains through a Artificial Mains Network (AMN). This provided a 50ohm coupling impedance for the tested equipments. Both sides of AC line are checked to find out the maximum conducted emission levels according to the **FCC PART 15 B** regulations during conducted emission test.

The bandwidth of the test receiver (R&S Test Receiver ESCI) is set at 10KHz.

The frequency range from 150 KHz to 30 MHz is investigated.

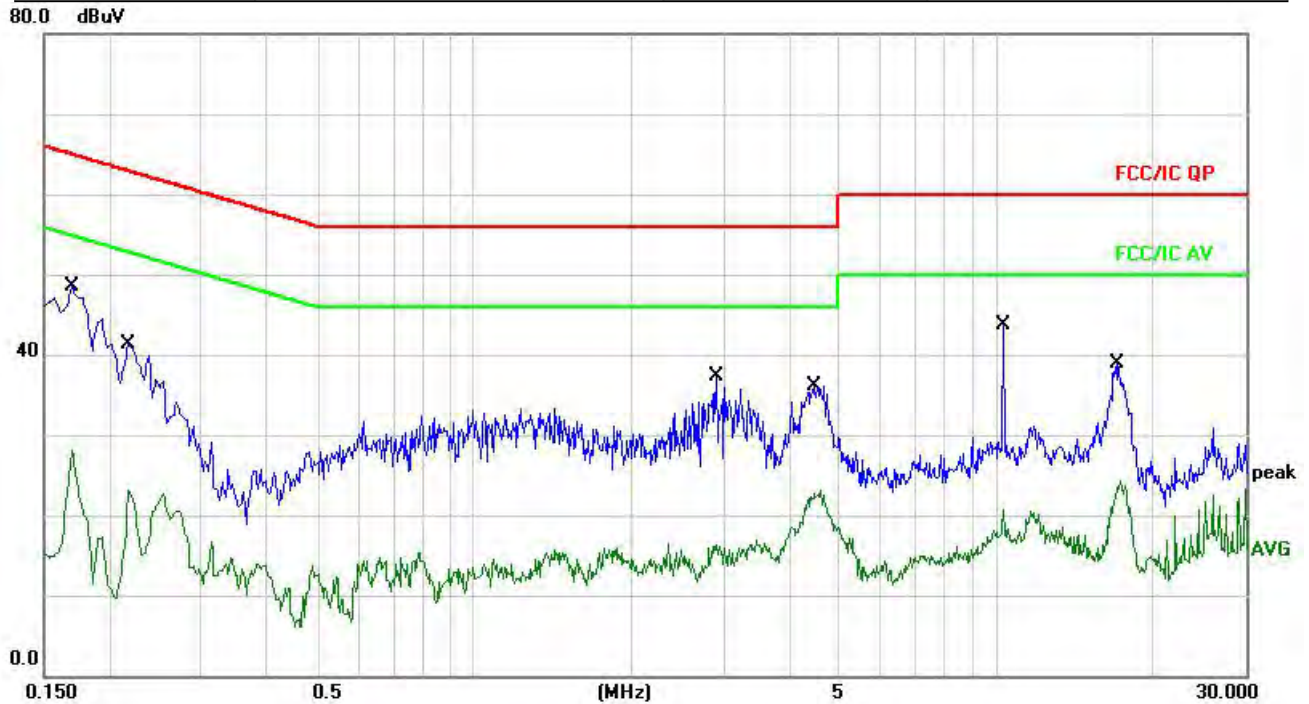
3.7. Test Result

PASS

Please refer to the following page.



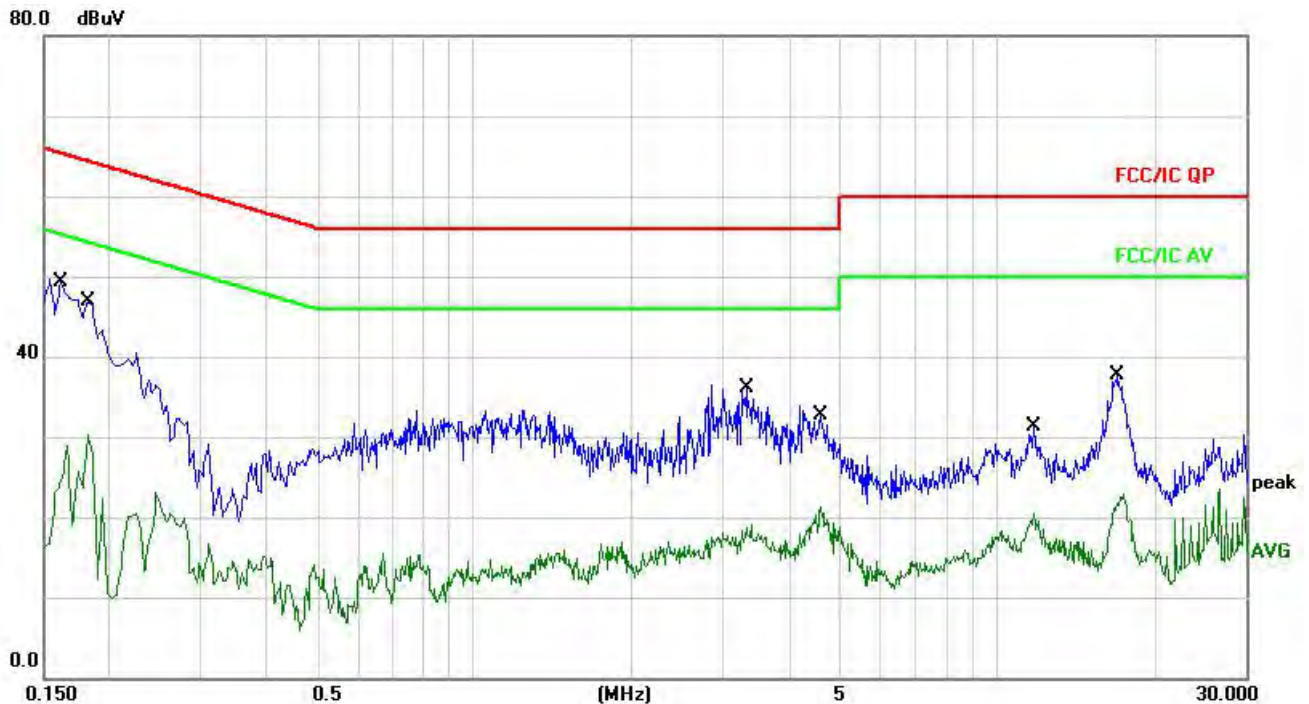
Temperature:	25 °C	Relative Humidity:	54%
Pressure:	1010hPa	Phase :	L
Test Voltage :	Input: AC120V/60Hz Output: DC 19V/2A	Test Mode:	Charging&USB &HDMI LCD TV



No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over		
		MHz	Level	Factor	ment			Detector	Comment
			dBuV	dB	dBuV	dBuV	dB		
1		0.1700	38.85	9.66	48.51	64.96	-16.45	QP	
2		0.1700	18.40	9.66	28.06	54.96	-26.90	AVG	
3		0.2180	31.62	9.65	41.27	62.89	-21.62	QP	
4		0.2180	13.36	9.65	23.01	52.89	-29.88	AVG	
5		2.9140	27.51	9.72	37.23	56.00	-18.77	QP	
6		2.9140	6.61	9.72	16.33	46.00	-29.67	AVG	
7		4.4699	26.43	9.73	36.16	56.00	-19.84	QP	
8		4.4699	13.38	9.73	23.11	46.00	-22.89	AVG	
9	*	10.3260	33.90	9.83	43.73	60.00	-16.27	QP	
10		10.3260	10.78	9.83	20.61	50.00	-29.39	AVG	
11		17.0220	29.06	9.89	38.95	60.00	-21.05	QP	
12		17.0220	14.37	9.89	24.26	50.00	-25.74	AVG	



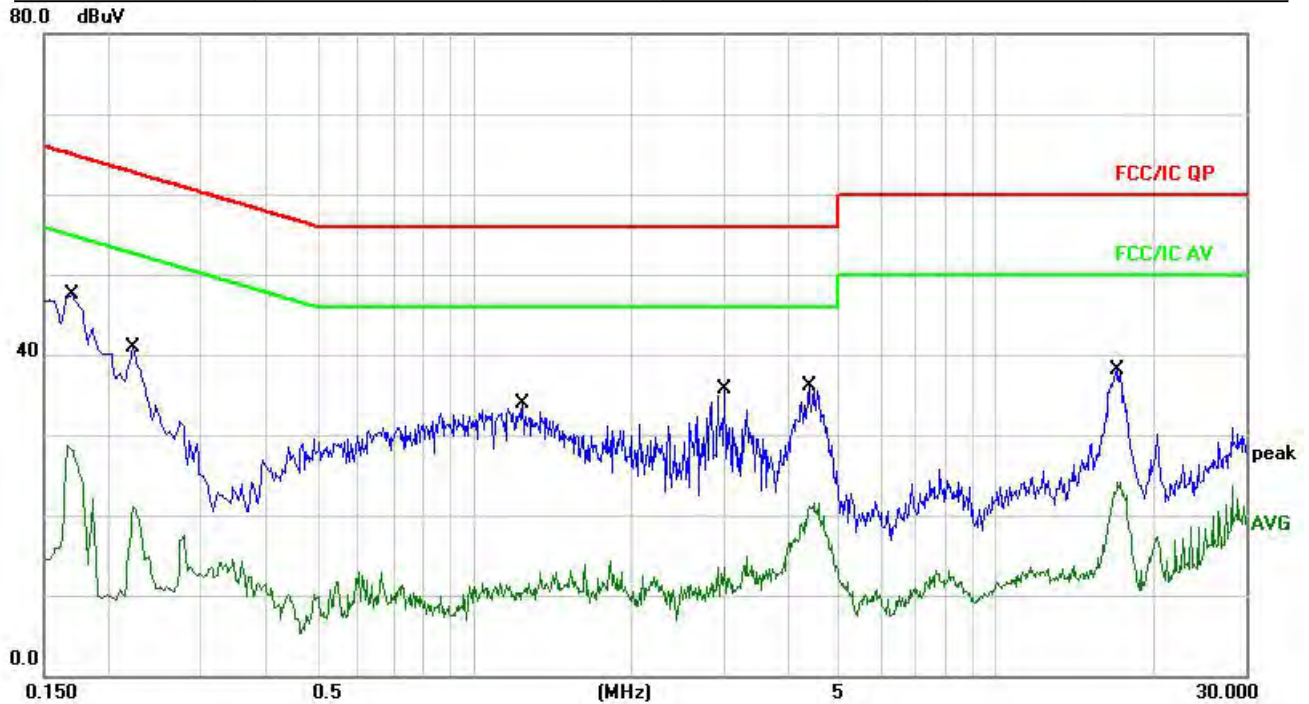
Temperature:	25 °C	Relative Humidity:	54%
Pressure:	1010hPa	Phase :	N
Test Voltage :	Input: AC120V/60Hz Output: DC 19V/2A	Test Mode:	Charging&USB Playing &HDMI LCD TV



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	*	0.1620	39.54	9.67	49.21	65.36	-16.15	QP	
2		0.1620	19.14	9.67	28.81	55.36	-26.55	AVG	
3		0.1819	37.28	9.66	46.94	64.39	-17.45	QP	
4		0.1819	20.57	9.66	30.23	54.39	-24.16	AVG	
5		3.3180	26.32	9.72	36.04	56.00	-19.96	QP	
6		3.3180	9.35	9.72	19.07	46.00	-26.93	AVG	
7		4.6020	23.00	9.73	32.73	56.00	-23.27	QP	
8		4.6020	11.48	9.73	21.21	46.00	-24.79	AVG	
9		11.7820	21.40	9.82	31.22	60.00	-28.78	QP	
10		11.7820	10.59	9.82	20.41	50.00	-29.59	AVG	
11		17.1060	27.81	9.89	37.70	60.00	-22.30	QP	
12		17.1060	12.96	9.89	22.85	50.00	-27.15	AVG	



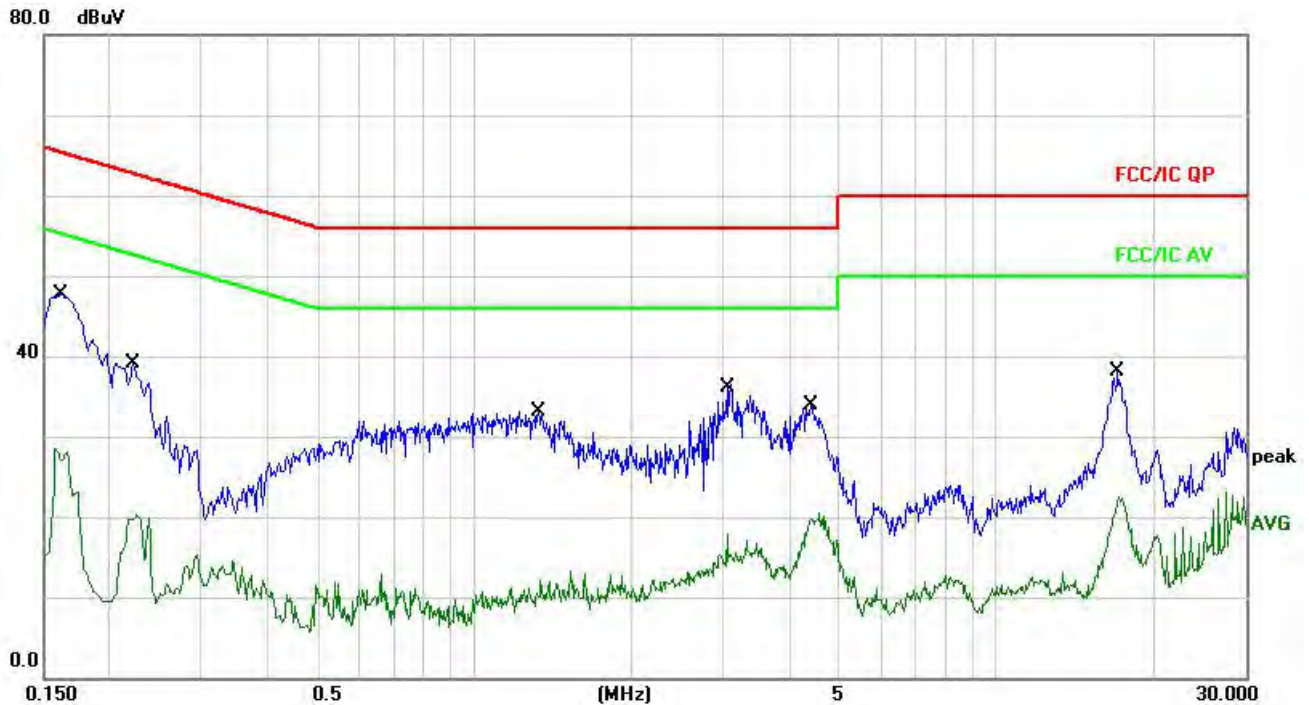
Temperature:	25 °C	Relative Humidity:	54%
Pressure:	1010hPa	Phase :	L
Test Voltage :	Input: AC120V/60Hz Output: DC 19V/2A	Test Mode:	Charging&Data Downloading



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector Comment
1	*	0.1700	37.81	9.66	47.47	64.96	-17.49	QP
2		0.1700	18.97	9.66	28.63	54.96	-26.33	AVG
3		0.2220	31.20	9.65	40.85	62.74	-21.89	QP
4		0.2220	11.40	9.65	21.05	52.74	-31.69	AVG
5		1.2380	24.19	9.69	33.88	56.00	-22.12	QP
6		1.2380	1.26	9.69	10.95	46.00	-35.05	AVG
7		3.0100	26.02	9.72	35.74	56.00	-20.26	QP
8		3.0100	3.80	9.72	13.52	46.00	-32.48	AVG
9		4.3820	26.34	9.73	36.07	56.00	-19.93	QP
10		4.3820	11.79	9.73	21.52	46.00	-24.48	AVG
11		17.1020	28.16	9.89	38.05	60.00	-21.95	QP
12		17.1020	14.27	9.89	24.16	50.00	-25.84	AVG



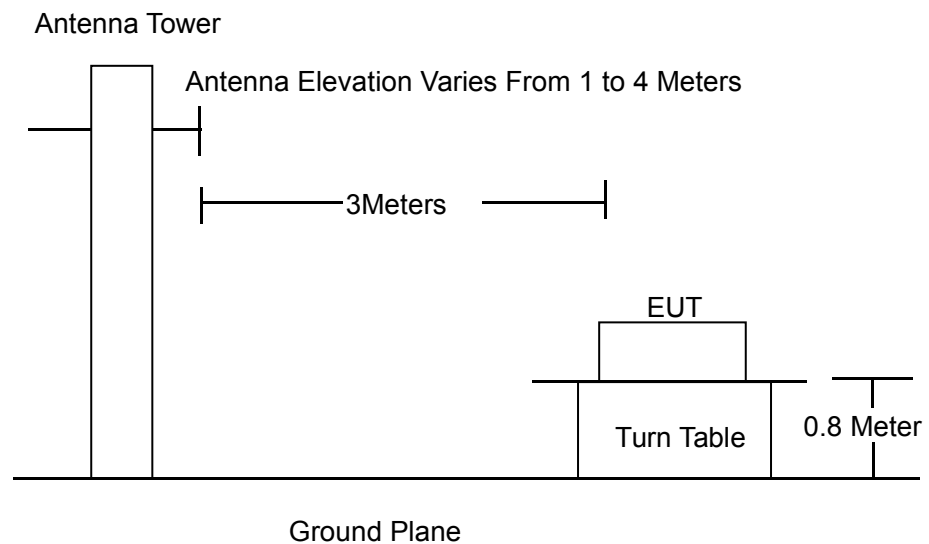
Temperature:	25 °C	Relative Humidity:	54%
Pressure:	1010hPa	Phase :	N
Test Voltage :	Input: AC120V/60Hz Output: DC 19V/2A	Test Mode:	Charging&Data Downloading



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	*	0.1620	38.03	9.67	47.70	65.36	-17.66	QP	
2		0.1620	18.83	9.67	28.50	55.36	-26.86	AVG	
3		0.2220	29.36	9.65	39.01	62.74	-23.73	QP	
4		0.2220	10.01	9.65	19.66	52.74	-33.08	AVG	
5		1.3300	23.35	9.70	33.05	56.00	-22.95	QP	
6		1.3300	2.35	9.70	12.05	46.00	-33.95	AVG	
7		3.0460	26.79	9.72	36.51	56.00	-19.49	QP	
8		3.0460	8.10	9.72	17.82	46.00	-28.18	AVG	
9		4.4300	24.08	9.73	33.81	56.00	-22.19	QP	
10		4.4300	10.77	9.73	20.50	46.00	-25.50	AVG	
11		17.0220	28.14	9.89	38.03	60.00	-21.97	QP	
12		17.0220	12.59	9.89	22.48	50.00	-27.52	AVG	

4. RADIATION EMISSION TEST

4.1. Block Diagram of Test Setup



4.2. Test Standard

FCC PART 15 B

4.3. Radiation Limit

FREQUENCY (MHz)	DISTANCE (Meters)	FIELD STRENGTHS LIMITS (dB μ V/m)
30 ~ 88	3	40.0
88 ~ 216	3	43.5
216 ~ 960	3	46.0
960 ~ 1000	3	54.0

4.4. EUT Configuration on Test

The FCC PART 15 B regulations test method must be used to find the maximum emission during radiated emission test.

The configuration of EUT is the same as used in conducted emission test. Please refer to Section 2.2.

4.5. Operating Condition of EUT

Same as conducted emission test, which is listed in Section 2.2 except the test set up replaced as Section 4.1.



4.6. Test Procedure

The EUT and its simulators are placed on a turned table that is 0.8 meter above the ground. The turned table can rotate 360 degrees to determine the position of the maximum emission level. The EUT is set 3 meters away from the receiving antenna that is mounted on the antenna tower. The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level. Broadband antenna (calibrated biconical and log periodical antenna) is used as receiving antenna. Both horizontal and vertical polarization of the antenna is set on test. In order to find the maximum emission levels, the interface cable must be manipulated according to FCC PART 15 B on radiated emission test.

The bandwidth setting on the field strength meter (R&S Test Receiver ESCI) is set at 120KHz below 1GHz, set at 1MHz above 1GHz

The frequency range from 30MHz to 1000MHz is checked.

The highest frequency of the internal sources of the EUT was below 1.3GHz, so the measurement was only made up to 6GHz.

4.7. Test Result

PASS

Please refer to the following page.



Radiation Emission Test Data(30MHz~1GHz)

Temperature:	24.5 °C	Relative Humidity:	54%
Pressure:	1009hPa	Phase :	Horizontal
Test Voltage :	Input: AC120V/60Hz Output: DC 19V/2A	Test Mode:	Charging&USB Playing &HDMI LCD TV



No. Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
	MHz	dBuV	dB	dBuV/m	dB/m	dB	cm	degree	Comment
1	56.3948	45.49	-15.49	30.00	40.00	-10.00	peak		
2	72.0843	51.30	-19.71	31.59	40.00	-8.41	peak		
3	93.4402	49.64	-17.46	32.18	43.50	-11.32	peak		
4	197.2001	52.63	-15.87	36.76	43.50	-6.74	peak		
5	266.6089	47.05	-13.18	33.87	46.00	-12.13	peak		
6 *	900.1474	40.60	0.70	41.30	46.00	-4.70	peak		



Radiation Emission Test Data(30MHz~1GHz)

Temperature:	24.5 °C	Relative Humidity:	54%
Pressure:	1009hPa	Phase :	Vertical
Test Voltage :	Input: AC120V/60Hz Output: DC 19V/2A	Test Mode:	Charging&USB Playing &HDMI LCD TV



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dB/m	Over dB	Antenna Height cm	Table Degree degree	Comment
1		39.1616	48.85	-15.99	32.86	40.00	-7.14	peak		
2		55.6094	46.98	-15.28	31.70	40.00	-8.30	peak		
3	*	72.0843	52.68	-19.71	32.97	40.00	-7.03	peak		
4		93.4402	50.76	-17.46	33.30	43.50	-10.20	peak		
5		304.6099	45.76	-12.00	33.76	46.00	-12.24	peak		
6		848.0563	37.79	-0.33	37.46	46.00	-8.54	peak		



Radiation Emission Test Data(30MHz~1GHz)

Temperature:	24.5 °C	Relative Humidity:	54%
Pressure:	1009hPa	Phase :	Horizontal
Test Voltage :	Input: AC120V/60Hz Output: DC 19V/2A	Test Mode:	Charging&data downloading



No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over	Antenna	Table	
		MHz	Level	Factor	ment			Height	Degree	
			dBuV	dB	dBuV/m	dB/m	dB	cm	degree	Comment
1		36.8953	43.87	-16.66	27.21	40.00	-12.79	peak		
2		95.7622	53.02	-17.10	35.92	43.50	-7.58	peak		
3	*	198.5880	51.84	-15.74	36.10	43.50	-7.40	peak		
4		308.9126	49.58	-11.92	37.66	46.00	-8.34	peak		
5		360.4476	42.79	-10.40	32.39	46.00	-13.61	peak		
6		962.1623	37.48	1.43	38.91	54.00	-15.09	peak		



Radiation Emission Test Data(30MHz~1GHz)

Temperature:	24.5 °C	Relative Humidity:	54%
Pressure:	1009hPa	Phase :	Vertical
Test Voltage :	Input: AC120V/60Hz Output: DC 19V/2A	Test Mode:	Charging&data downloading

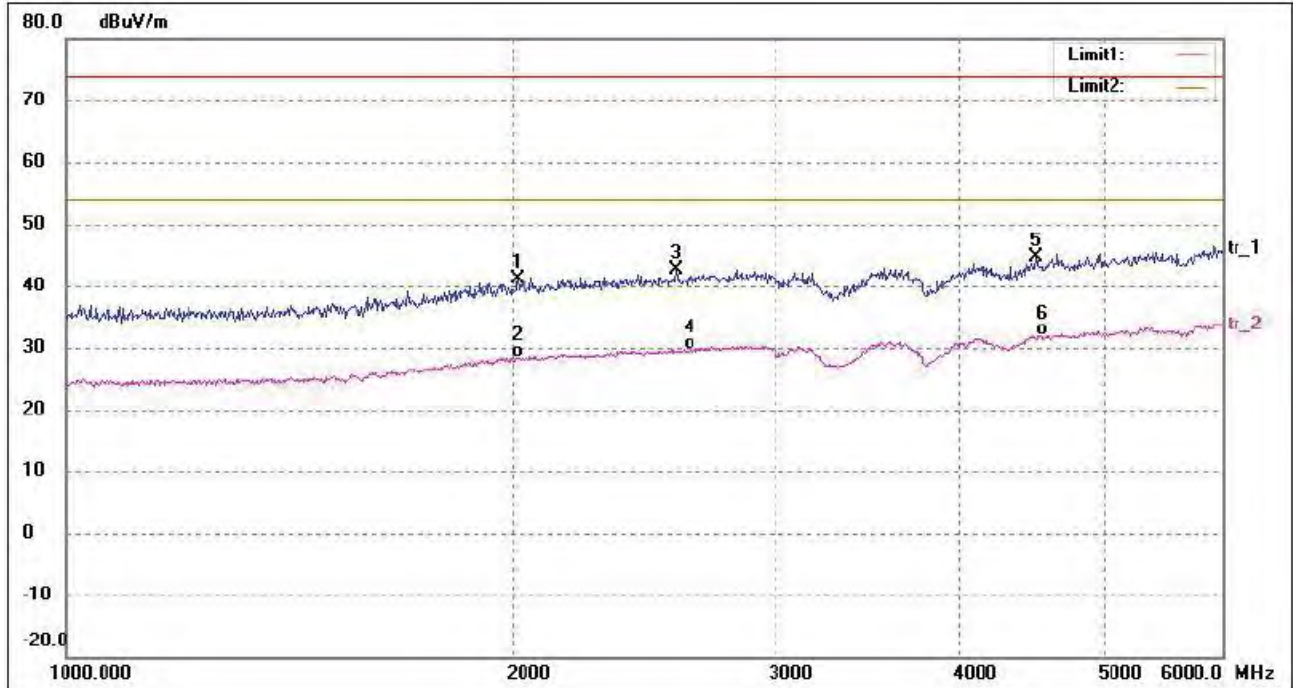


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dB/m	dB	cm	degree	Comment
1	*	39.9942	55.93	-15.81	40.12	40.00	0.12	peak		
2	!	96.4362	56.38	-17.06	39.32	43.50	-4.18	peak		
3		160.3456	49.89	-18.99	30.90	43.50	-12.60	peak		
4		239.9874	45.65	-14.12	31.53	46.00	-14.47	peak		
5		301.4224	43.40	-12.07	31.33	46.00	-14.67	peak		
6	!	893.8567	39.50	0.61	40.11	46.00	-5.89	peak		



Radiation Emission Test Data(1GHz~6GHz)

Temperature:	24.5 °C	Relative Humidity:	54%
Pressure:	1009hPa	Phase :	Horizontal
Test Voltage :	Input: AC120V/60Hz Output: DC 19V/2A	Test Mode:	Charging&USB Playing &HDMI LCD TV

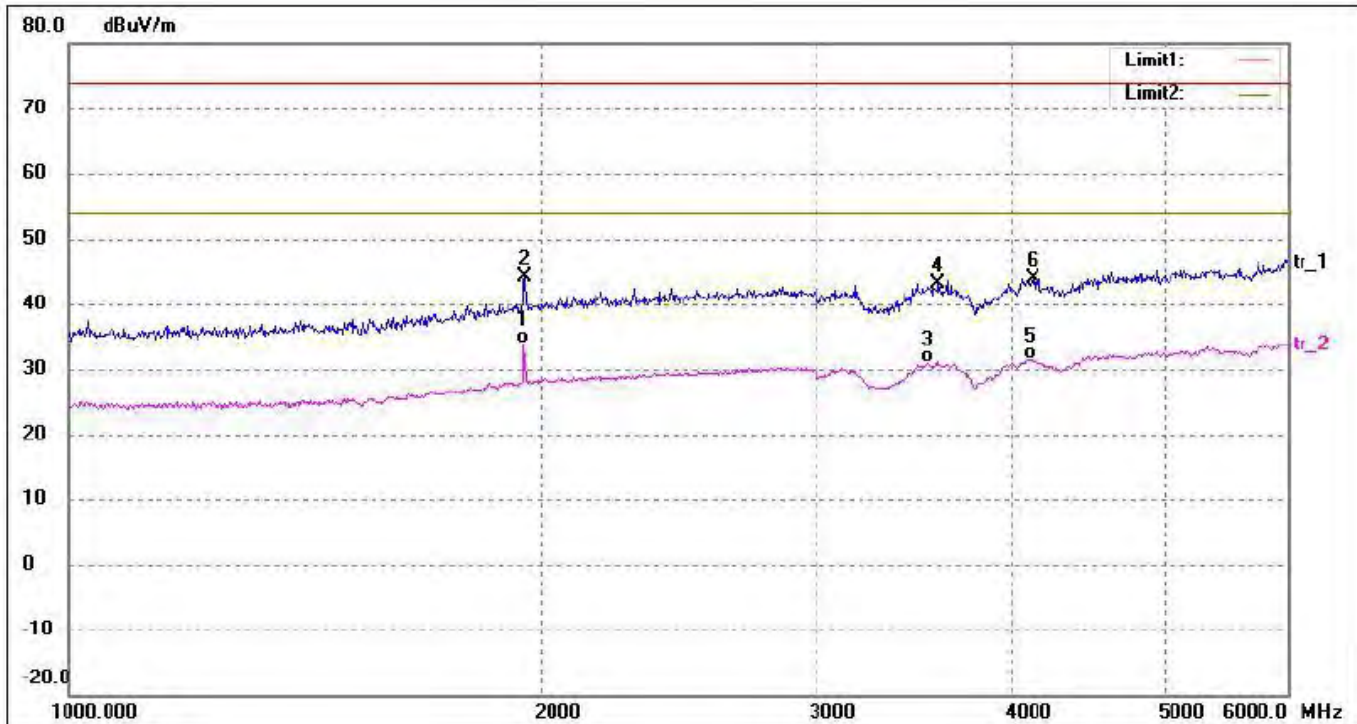


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Detector
1	2011.310	45.49	-4.39	41.10	74.00	-32.90	102	100	peak
2	2011.310	32.81	-4.39	28.42	54.00	-25.58	145	100	AVG
3	2570.903	45.92	-3.18	42.74	74.00	-31.26	136	100	peak
4	2626.779	32.61	-3.09	29.52	54.00	-24.48	185	100	AVG
5	4496.441	44.61	0.08	44.69	74.00	-29.31	165	100	peak
6*	4528.783	31.85	0.13	31.98	54.00	-22.02	110	100	AVG



Radiation Emission Test Data(1GHz~6GHz)

Temperature:	24.5 °C	Relative Humidity:	54%
Pressure:	1009hPa	Phase :	Vertical
Test Voltage :	Input: AC120V/60Hz Output: DC 19V/2A	Test Mode:	Charging&USB Playing &HDMI LCD TV

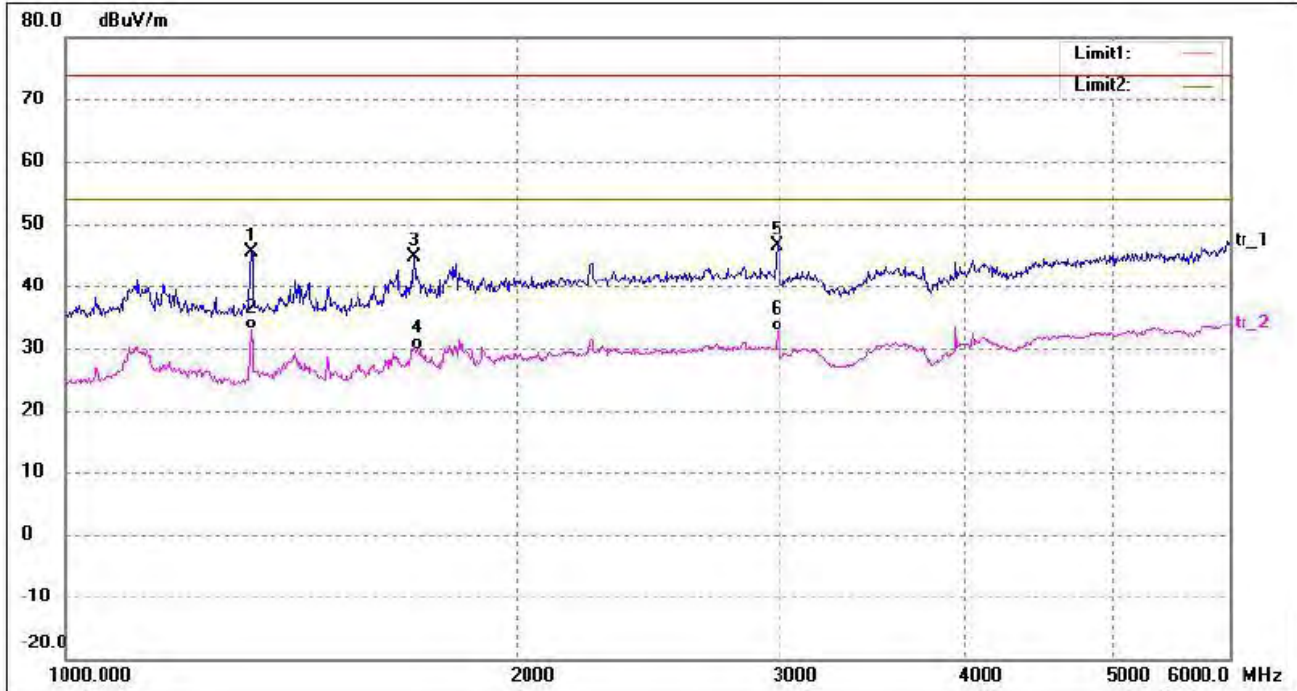


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Detector
1*	1950.969	38.74	-4.80	33.94	54.00	-20.06	145	100	AVG
2	1954.468	48.89	-4.73	44.16	74.00	-29.84	120	100	peak
3	3536.687	32.38	-1.52	30.86	54.00	-23.14	136	100	AVG
4	3587.747	44.51	-1.47	43.04	74.00	-30.96	189	100	peak
5	4103.772	32.05	-0.59	31.46	54.00	-22.54	158	100	AVG
6	4125.890	44.35	-0.50	43.85	74.00	-30.15	225	100	peak



Radiation Emission Test Data(1GHz~6GHz)

Temperature:	24.5 °C	Relative Humidity:	54%
Pressure:	1009hPa	Phase :	Horizontal
Test Voltage :	Input: AC120V/60Hz Output: DC 19V/2A	Test Mode:	Charging&data downloading

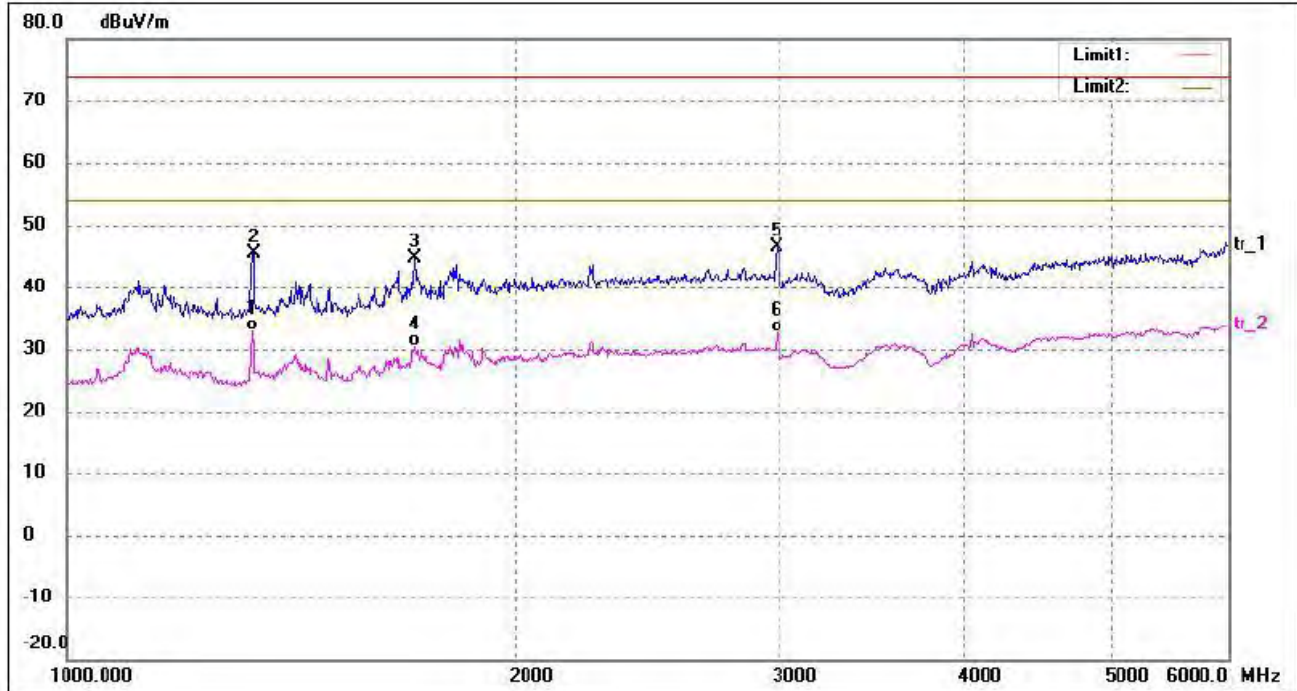


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Detector
1	1329.615	53.58	-8.27	45.31	74.00	-28.69	102	100	peak
2*	1329.615	41.06	-8.27	32.79	54.00	-21.21	145	100	AVG
3	1708.706	51.11	-6.44	44.67	74.00	-29.33	178	100	peak
4	1724.082	35.94	-6.34	29.60	54.00	-24.40	195	100	AVG
5	2988.480	49.00	-2.56	46.44	74.00	-27.56	165	100	peak
6	2988.480	35.10	-2.56	32.54	54.00	-21.46	201	100	AVG



Radiation Emission Test Data(1GHz~6GHz)

Temperature:	24.5 °C	Relative Humidity:	54%
Pressure:	1009hPa	Phase :	Vertical
Test Voltage :	Input: AC120V/60Hz Output: DC 19V/2A	Test Mode:	Charging&data downloading



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Detector
1*	1329.615	41.06	-8.27	32.79	54.00	-21.21	145	100	AVG
2	1332.000	53.63	-8.29	45.34	74.00	-28.66	178	100	peak
3	1708.706	51.11	-6.44	44.67	74.00	-29.33	165	100	peak
4	1708.706	36.89	-6.44	30.45	54.00	-23.55	125	100	AVG
5	2988.480	49.00	-2.56	46.44	74.00	-27.56	178	100	peak
6	2988.480	35.10	-2.56	32.54	54.00	-21.46	102	100	AVG

5. EUT PHOTOGRAPHS

EUT Photo 1



EUT Photo 2

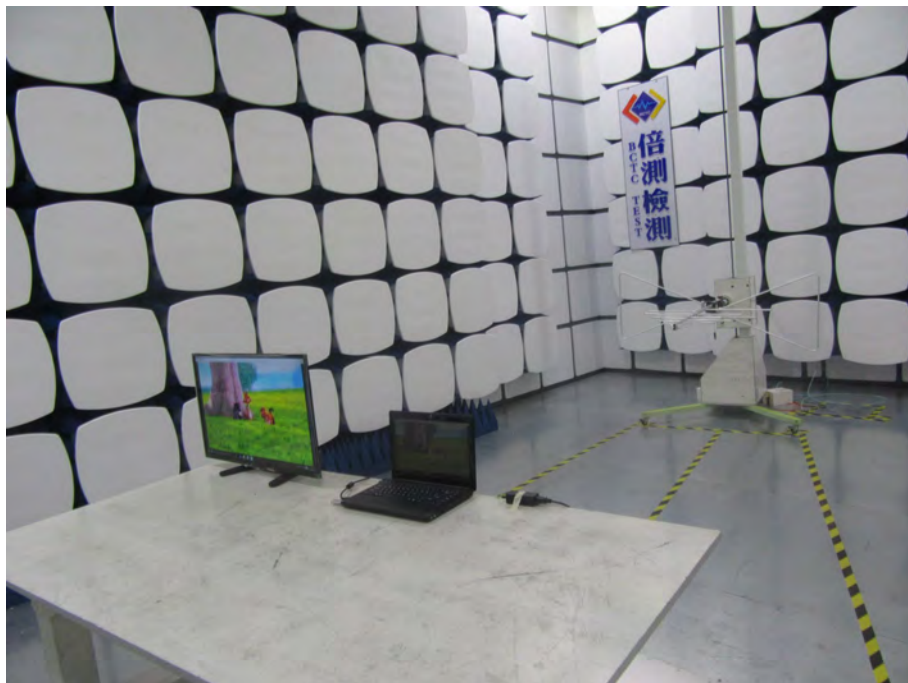


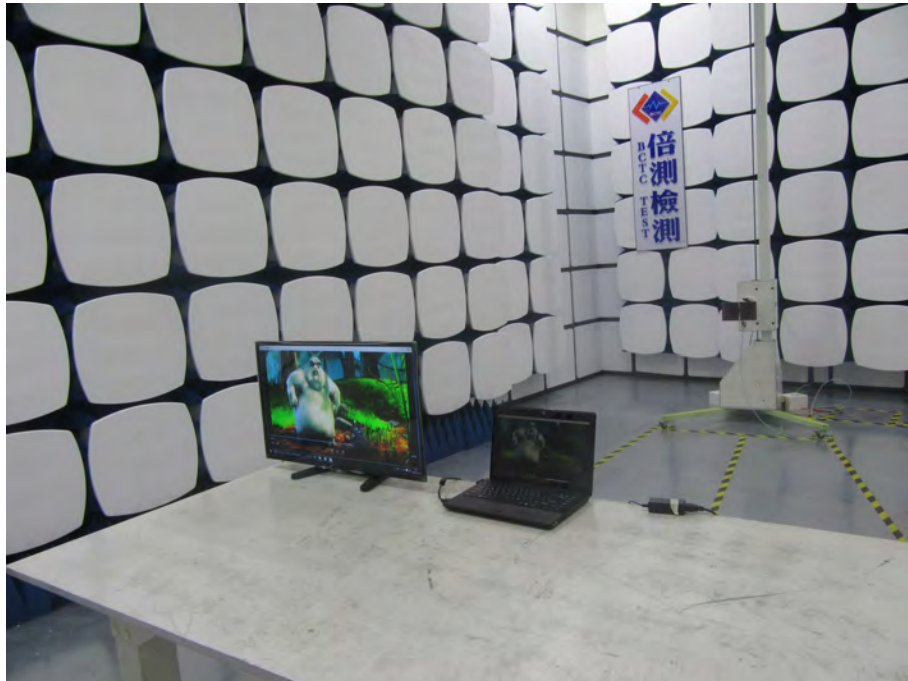
6. EUT TEST PHOTOGRAPHS

CE



RE





***** END OF REPORT *****