

FCC TEST REPORT
On Behalf of
Cheng Fong International Limited

Tablet PC
Model No.: TBQC1063B

Prepared for : Cheng Fong International Limited
Address : Rm 19HG, HangDu Building, HuaFu Road, Fu Tian District,
Shenzhen, China
Tel: 0755-61627636
Fax: 0755-61627608

Prepared By : Anbotech Compliance Laboratory Limited
Address : 1/F, 1 /Building, SEC Industrial Park, No. 4 Qianhai Road,
Nanshan District, Shenzhen, 518054, China
Tel: (86) 755-26066544
Fax: (86) 755-26014772

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TEST REPORT VERIFICATION

Applicant : Cheng Fong International Limited
Manufacturer : Cheng Fong International Limited
EUT : Tablet PC
Model No. : TBQC1063B
Rating : DC 5V
Trade Mark : N.A.

Measurement Procedure Used:

FCC Rules and Regulations Part 15 Subpart B 2011 & FCC / ANSI C63.4-2009

The device described above is tested by Anbotek Compliance Laboratory Limited To determine the maximum emission levels emanating from the device. The maximum emission levels are compared to the FCC Part 15 Subpart B Class B limits both radiated and conducted emissions. The measurement results are contained in this test report and Anbotek Compliance Laboratory Limited Is assumed full responsibility for the accuracy and completeness of these measurements. Also, this report shows that the Equipment Under Test (EUT) is to be technically compliant with the FCC requirements.

This report applies to above tested sample only. This report shall not be reproduced in part without written approval of Anbotek Compliance Laboratory Limited

Date of Test : Apr. 27~ May 10, 2013

Prepared by :

Barak Ban

(Engineer/ Barak Ban)

Reviewer :

Sally Zhang

(Project Manager/ Sally Zhang)

Approved & Authorized Signer :

Tom. Chen

(Manager/ Tom Chen)

1. GENERAL INFORMATION

1.1. Description of Device (EUT)

Description : Tablet PC

Model Number : TBQC1063B

Test Power Supply : DC 5V

Applicant : Cheng Fong International Limited

Address : Rm 19HG, HangDu Building, HuaFu Road, Fu Tian District, Shenzhen, China

Manufacturer : Cheng Fong International Limited

Address : Rm 19HG, HangDu Building, HuaFu Road, Fu Tian District, Shenzhen, China

Date of Sample received : Apr. 27, 2013

Date of Test : Apr. 27~ May 10, 2013

1.2. Auxiliary Equipment Used during Test

PC	: Manufacturer: DELL M/N: OPTIPLEX 380 S/N: 1J63X2X CE , FCC: DOC
MONITOR	: Manufacturer: DELL M/N: E170Sc S/N: CN-00V539-64180-055-0UPS CE , FCC: DOC
KEYBOARD	: Manufacturer: DELL M/N: SK-8115 S/N: CN-0DJ313-71616-06C-02XN CE , FCC: DOC Cable: 1m, unshielded
MOUSE	: Manufacturer: DELL M/N: M-UARDEL7 S/N: N/A CE , FCC: DOC Cable: 1m, unshielded
Power Line	Non-Shielded, 1.5m
VGA Cable	: Non-Shielded, 1.5m
Network Cable	: Non-Shielded, 1.5m

2. POWER LINE CONDUCTED MEASUREMENT

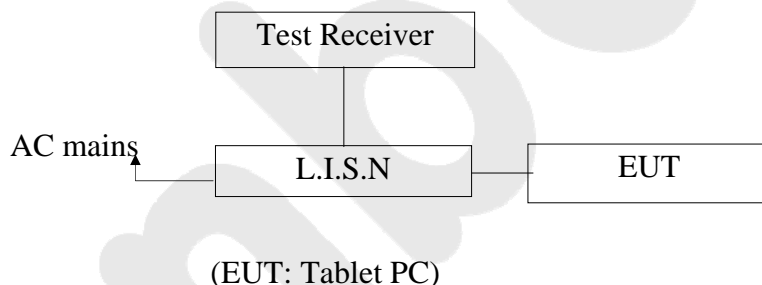
2.1. Test Equipment

The following test equipments are used during the power line conducted measurement:

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	EMI Receiver	Rohde & Schwarz	ESCI	100627	Nov. 12, 2012	1 Year
2.	LISN	SchwarzBeck	NSLK 8126	8126377	May 19, 2012	1 Year
3.	RF Switching Unit	Compliance Direction	RSU-M2	38303	May 19, 2012	1 Year
4.	EMI Test Software ES-K1	Rohde & Schwarz	N/A	N/A	N/A	N/A

2.2. Block Diagram of Test Setup

2.2.1. Block diagram of connection between the EUT and simulators



2.3. Power Line Conducted Emission Measurement Limits (FCC Part 15

Class B)

Frequency MHz	Limits dB(μV)	
	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.

2.4. Configuration of EUT on Measurement

The following equipments are installed on Power Line Conducted Emission Measurement to meet the commission requirement and operating regulations in a manner which tends to maximize its emission characteristics in a normal application.

EUT : Tablet PC
Model Number : TBQC1063B
Applicant : Cheng Fong International Limited

2.5. Operating Condition of EUT

- 2.5.1. Setup the EUT and simulator as shown as Section 2.2.
- 2.5.2. Turn on the power of all equipment.
- 2.5.3. Let the EUT work measure it.

2.6. Test Procedure

The EUT system is connected to the power mains through a line impedance stabilization network (L.I.S.N.). This provides a 50ohm coupling impedance for the EUT system. Please refer the block diagram of the test setup and photographs. Both sides of AC line are checked to find out the maximum conducted emission. In order to find the maximum emission levels, the relative positions of equipment and all of the interface cables shall be changed according to FCC ANSI C63.4-2009 on Conducted Emission Measurement.

The bandwidth of test receiver (ESCI) set at 9KHz.

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

The test result are reported on Section 2.7.

2.7. Power Line Conducted Emission Measurement Results

PASS.

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

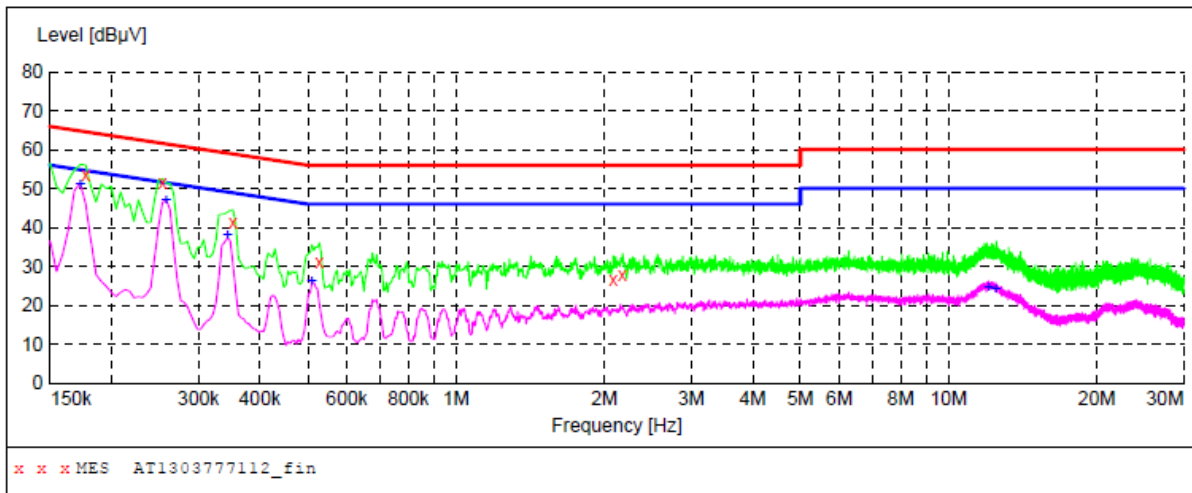
The test curves are shown in the following pages.

CONDUCTED EMISSION TEST DATA

EUT: Tablet PC M/N:TBQC1063B
Operating Condition: USB Charging and Playing
Test Site: 1# Shielded Room
Operator: Barak Ban
Test Specification: DC 5V Via adapter
Comment: L
Tem:25°C Hum:50%

SCAN TABLE: "Voltage (150K~30M) FIN"

Short Description: 150K-30M Disturbance Voltages



MEASUREMENT RESULT: "AT1303777112_fin"

4/28/2013 4:00PM

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.177000	53.70	20.1	65	10.9	QP	L1	GND
0.253500	51.50	20.1	62	10.1	QP	L1	GND
0.352500	41.50	20.1	59	17.4	QP	L1	GND
0.528000	31.10	20.1	56	24.9	QP	L1	GND
2.084500	26.70	20.3	56	29.3	QP	L1	GND
2.179000	27.70	20.3	56	28.3	QP	L1	GND

MEASUREMENT RESULT: "AT1303777112_fin2"

4/28/2013 4:00PM

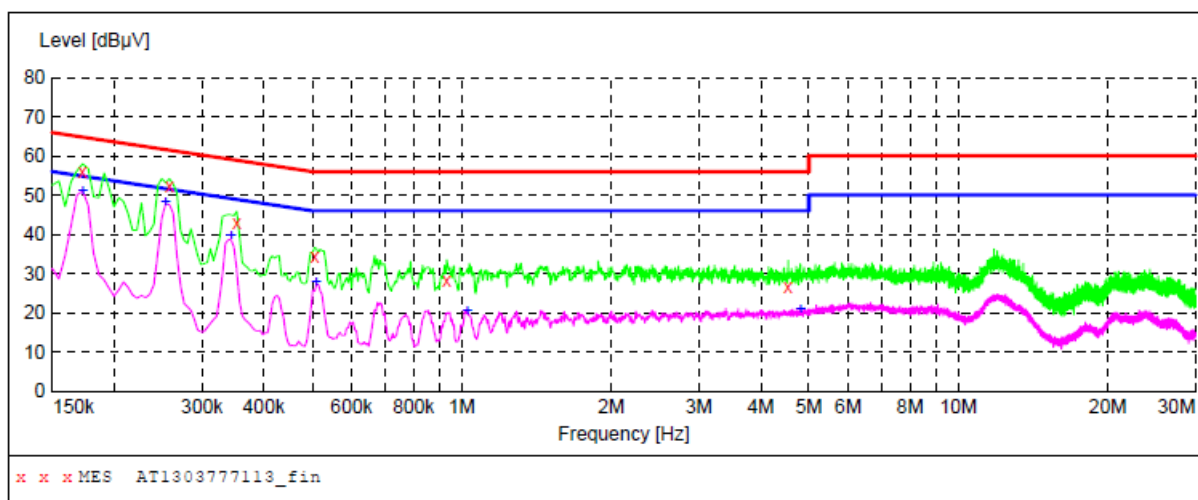
Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.172500	51.30	20.1	55	3.7	AV	L1	GND
0.258000	47.00	20.1	52	4.5	AV	L1	GND
0.343500	37.90	20.1	49	11.2	AV	L1	GND
0.510000	26.30	20.1	46	19.7	AV	L1	GND
12.047500	24.70	20.6	50	25.3	AV	L1	GND
12.452500	24.20	20.7	50	25.8	AV	L1	GND

CONDUCTED EMISSION TEST DATA

EUT: Tablet PC M/N:TBQC1063B
Operating Condition: USB Charging and Playing
Test Site: 1# Shielded Room
Operator: Barak Ban
Test Specification: DC 5V Via adapter
Comment: N
Tem:25°C Hum:50%

SCAN TABLE: "Voltage (150K~30M) FIN"

Short Description: 150K-30M Disturbance Voltages



MEASUREMENT RESULT: "AT1303777113_fin"

4/28/2013 4:03PM

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.172500	55.90	20.1	65	8.9	QP	N	GND
0.258000	52.30	20.1	62	9.2	QP	N	GND
0.352500	43.10	20.1	59	15.8	QP	N	GND
0.505500	34.30	20.1	56	21.7	QP	N	GND
0.933000	28.20	20.1	56	27.8	QP	N	GND
4.541500	26.40	20.5	56	29.6	QP	N	GND

MEASUREMENT RESULT: "AT1303777113_fin2"

4/28/2013 4:03PM

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.172500	51.10	20.1	55	3.9	AV	N	GND
0.253500	48.40	20.1	52	3.6	AV	N	GND
0.343500	39.50	20.1	49	9.6	AV	N	GND
0.510000	27.70	20.1	46	18.3	AV	N	GND
1.027000	20.40	20.2	46	25.6	AV	N	GND
4.807000	20.70	20.5	46	25.3	AV	N	GND

3. RADIATED EMISSION MEASUREMENT

3.1. Test Equipment

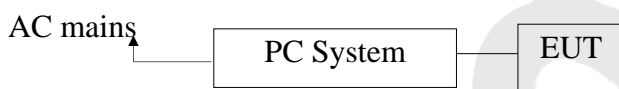
The following test equipments are used during the radiated emission measurement:

3.1.1. For Anechoic Chamber

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
7	EMI Test Receiver	Rohde & Schwarz	ESCI	100627	Nov. 12, 2012	1 Year
8	Trilog Broadband Antenna	Schwarzbeck	VULB9163	VULB 9163-289	May 17, 2012	1 Year
9	Pre-amplifier	Compliance Direction	PAP-0203	22008	May 19, 2012	1 Year
10	EMI Test Software	SHURPLE	N/A	N/A	N/A	N/A

3.2. Block Diagram of Test Setup

3.2.1. Block diagram of connection between the EUT and simulators

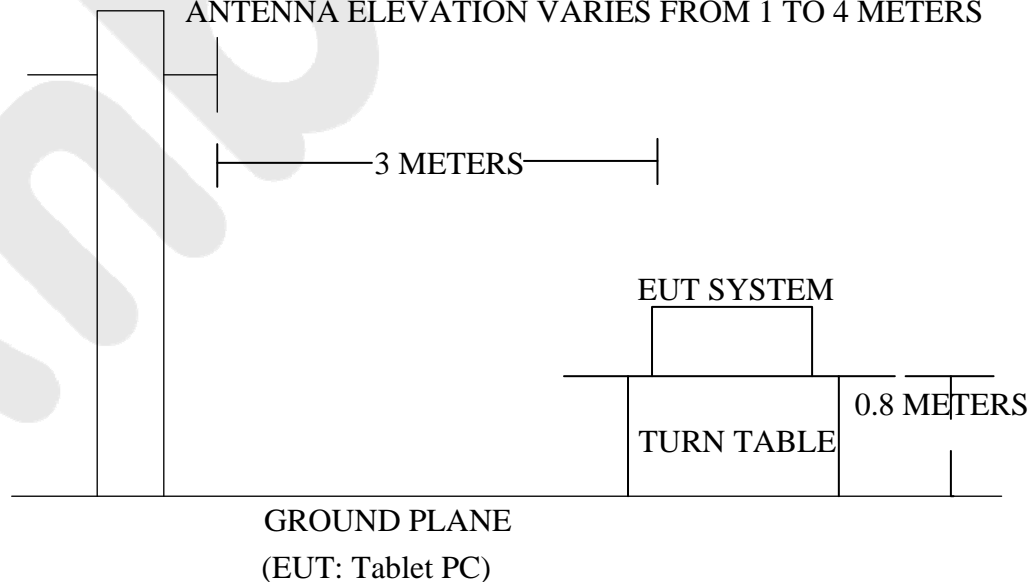


(EUT: Tablet PC)

3.2.2. Anechoic Chamber Test Setup Diagram

ANTENNA TOWER

ANTENNA ELEVATION VARIES FROM 1 TO 4 METERS



3.3. Radiated Emission Limit (Subpart B Class B)

FREQUENCY MHz	DISTANCE Meters	FIELD STRENGTHS LIMIT	
		$\mu\text{V/m}$	$\text{dB}(\mu\text{V})/\text{m}$
30~88	3	100	40.0
88~216	3	150	43.5
216~960	3	200	46.0
960~1000	3	500	54.0

- Remark :
- (1) Emission level $(\text{dB})\mu\text{V} = 20 \log \text{Emission level } \mu\text{V/m}$
 - (2) The smaller limit shall apply at the cross point between two frequency bands.
 - (3) Distance is the distance in meters between the measuring instrument, antenna and the closest point of any part of the device or system.

3.4. EUT Configuration on Measurement

The following equipments are installed on Radiated Emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

EUT : Tablet PC
Model Number : TBQC1063B
Applicant : Cheng Fong International Limited

3.5. Operating Condition of EUT

3.5.1. Setup the EUT as shown in Section 3.2.

3.5.2. Let the EUT work measure it.

3.6. Test Procedure

EUT and its simulators are placed on a turn table, which is 0.8 meter high above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. EUT is set 3.0 meters away from the receiving antenna, which is mounted on a antenna tower. The antenna can be moved up and down between 1.0 meter and 4 meters to find out the maximum emission level. Broadband antenna (Trilog Broadband Antenna) is used as receiving antenna. Both horizontal and vertical polarizations of the antenna are set on measurement. In order to find the maximum emission levels, all of the interface cables must be manipulated according to ANSI C63.4-2009 on radiated emission measurement.

The bandwidth of the EMI test receiver (ESPI) is set at 120kHz.

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

The test mode (USB Charging and Playing, Communication) is tested in chamber and all the test results are listed in Section 3.7.

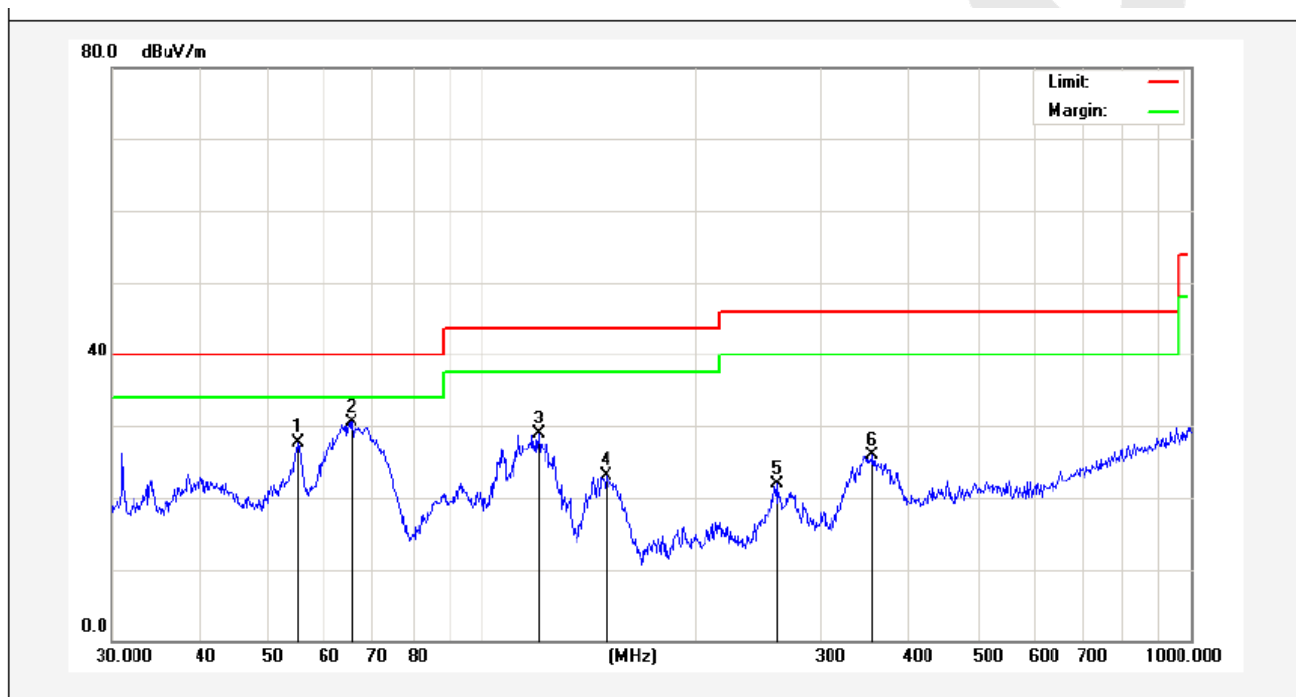
3.7. Radiated Emission Measurement Results

PASS.

The test curves are shown in the following pages.

Job No.:	AT13037771	Polarization:	Horizontal
Standard:	(RE)FCC PART15 B _3m	Power Source:	AC 120V/60Hz
Test item:	Radiation Test	Date:	2012/05/02
Temp.(C)/Hum.(%RH):	24.3(C)/55%RH	Time:	11:26:21
EUT:	Tablet PC	Test By:	Barak Ban
Model:	TBQC1063B	Distance:	3m

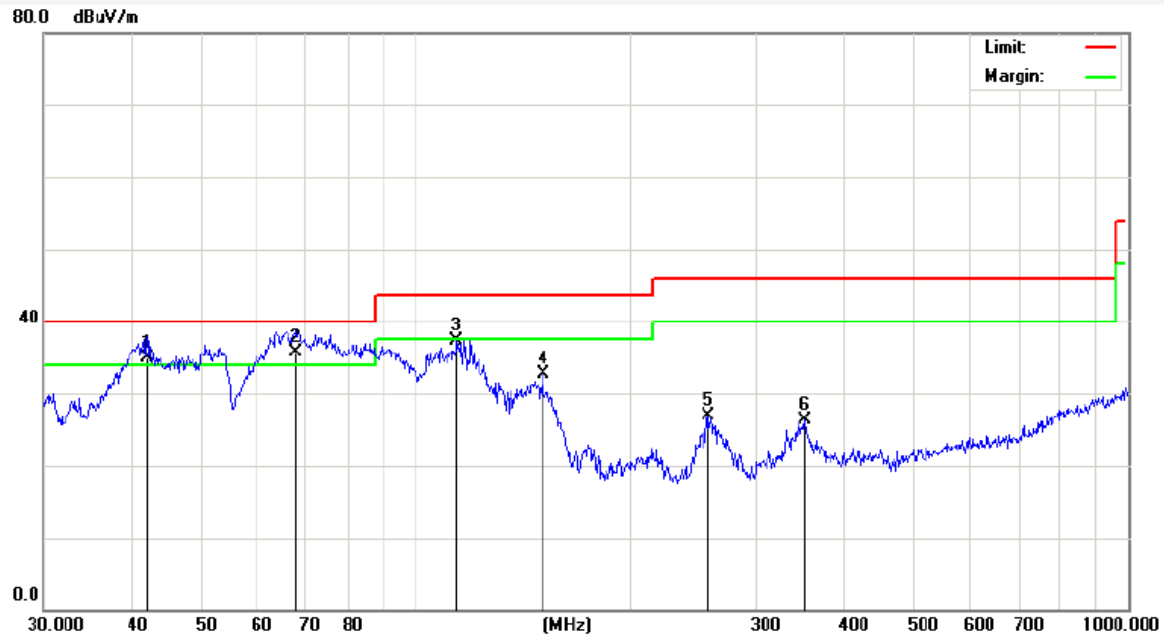
Note: USB Charging and Playing



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/)	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	54.8348	42.56	-14.91	27.65	40.00	-12.35	peak			
2	65.3432	48.12	-17.61	30.51	40.00	-9.49	peak			
3	119.8556	50.25	-21.32	28.93	43.50	-14.57	peak			
4	149.4857	46.39	-23.34	23.05	43.50	-20.45	peak			
5	260.1444	40.93	-18.99	21.94	46.00	-24.06	peak			
6	355.4273	39.77	-13.82	25.95	46.00	-20.05	peak			

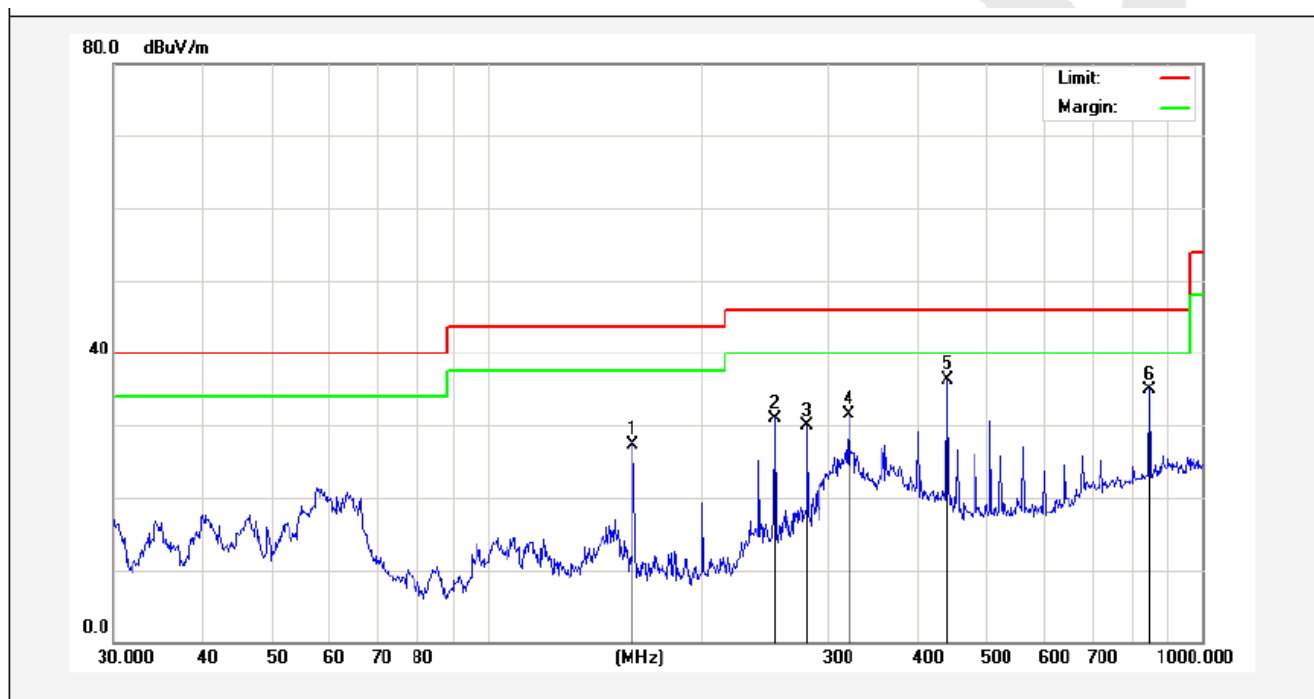
Job No.:	AT1303777I	Polarization:	Vertical
Standard:	(RE)FCC PART15 B _3m	Power Source:	AC 120V/60Hz
Test item:	Radiation Test	Date:	2012/05/02
Temp.(C)/Hum.(%RH):	24.3(C)/55%RH	Time:	12:29:35
EUT:	Tablet PC	Test By:	Barak Ban
Model:	TBQC1063B	Distance:	3m

Note: USB Charging and Playing



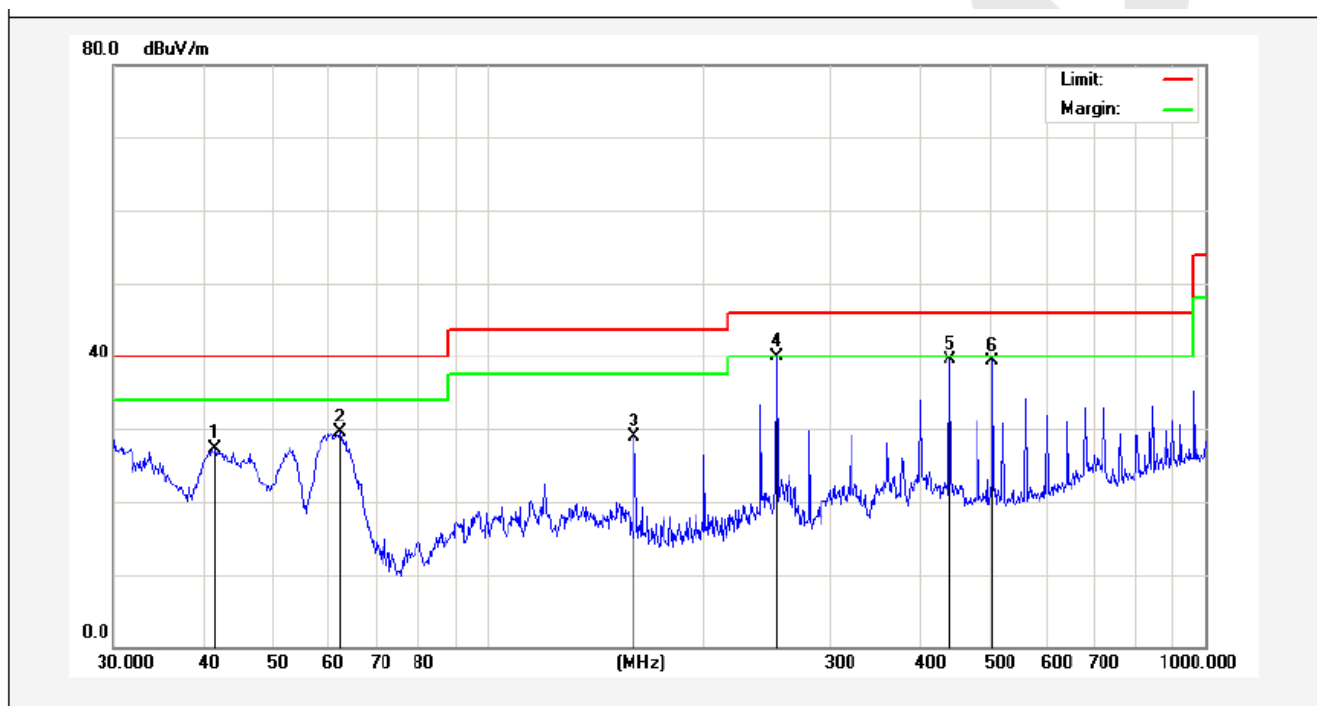
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/)	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	41.8596	46.04	-11.09	34.95	40.00	-5.05	QP	100	0	
2	67.9128	54.39	-18.73	35.66	40.00	-4.34	QP	100	360	
3	114.1138	53.22	-15.92	37.30	43.50	-6.20	peak			
4	150.5378	51.12	-18.33	32.79	43.50	-10.71	peak			
5	256.5211	40.99	-14.01	26.98	46.00	-19.02	peak			
6	351.7079	39.28	-12.92	26.36	46.00	-19.64	peak			

Job No.:	AT1303777I	Polarization:	Horizontal
Standard:	(RE)FCC PART15 B _3m	Power Source:	DC 5V
Test item:	Radiation Test	Date:	2012/05/02
Temp.(C)/Hum.(%RH):	24.3(C)/55%RH	Time:	11:34:05
EUT:	Tablet PC	Test By:	Barak Ban
Model:	TBQC1063B	Distance:	3m
Note:	Communication		



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/)	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	159.7844	58.79	-31.49	27.30	43.50	-16.20	peak			
2	252.0627	58.06	-27.15	30.91	46.00	-15.09	peak			
3	280.0237	56.67	-26.73	29.94	46.00	-16.06	peak			
4	319.9370	55.27	-23.77	31.50	46.00	-14.50	peak			
5	440.1963	57.03	-20.68	36.35	46.00	-9.65	peak			
6	842.1295	47.74	-12.76	34.98	46.00	-11.02	peak			

Job No.:	AT13037771	Polarization:	Vertical
Standard:	(RE)FCC PART15 B _3m	Power Source:	DC 5V
Test item:	Radiation Test	Date:	2012/05/02
Temp.(C)/Hum.(%RH):	24.3(C)/55%RH	Time:	11:37:21
EUT:	Tablet PC	Test By:	Barak Ban
Model:	TBQC1063B	Distance:	3m
Note:	Communication		



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/)	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	41.5670	52.02	-24.80	27.22	40.00	-12.78	peak			
2	61.9951	55.65	-26.19	29.46	40.00	-10.54	peak			
3	159.7844	55.37	-26.49	28.88	43.50	-14.62	peak			
4	252.0627	62.46	-22.54	39.92	46.00	-6.08	peak			
5	440.1963	59.12	-19.69	39.43	46.00	-6.57	peak			
6	504.7062	58.52	-19.14	39.38	46.00	-6.62	peak			

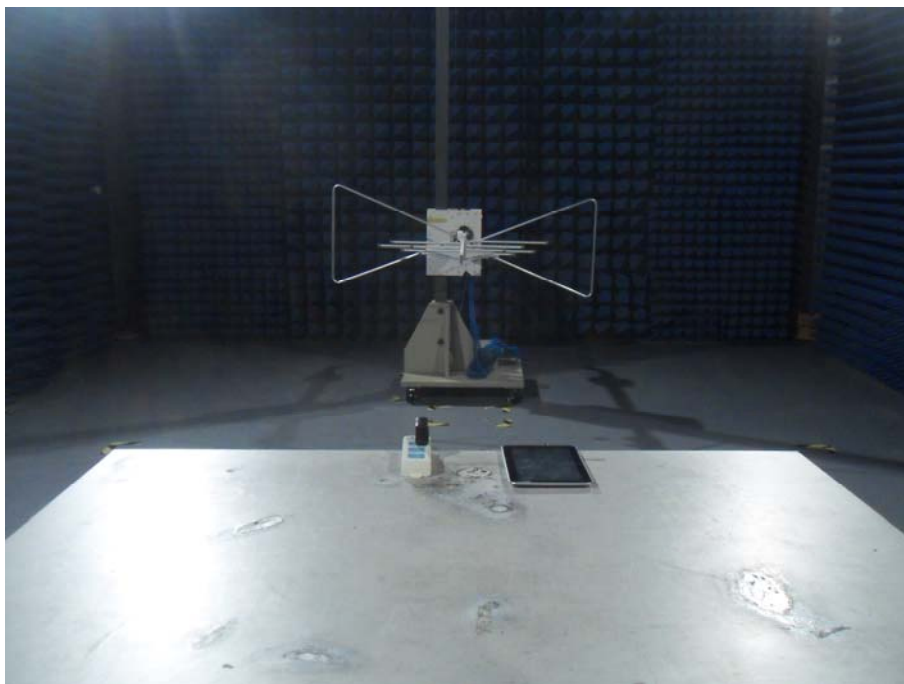
4. PHOTOGRAPH

4.1. Photo of Power Line Conducted Emission Test



4.2. Photo of Radiated Emission Test





Appendix I (External Photos)

Figure 1
The EUT-Overall View



Figure 2
The EUT-Front View



Figure 3
The EUT-Back View



Figure 4
The EUT-Port View



Appendix II (Internal Photos)

Figure 5
The EUT-Inside View



Figure 6
The EUT-Inside View



Figure 7
PCB of the EUT-Front View



Figure 8
PCB of the EUT-Back View

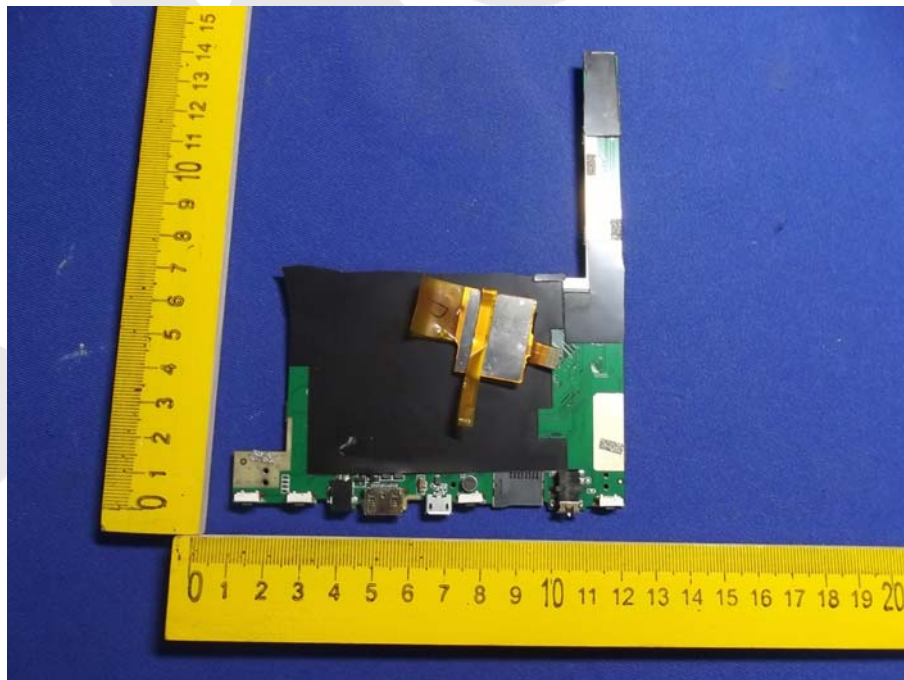


Figure 9
PCB of the EUT-Front View



Figure 10
PCB of the EUT-Battery View

