

APPLICATION FOR VERIFICATION
On Behalf of
IMC INTERNATIONAL INC.

7 inch 3G TABLET
Model No.: ROAD XT-71BG

FCC ID: 2ACI7-ROADXT-71BG

Prepared for : IMC INTERNATIONAL INC.
Address : 28E Jingang, xixiang, Bao an District, Shenzhen,
Guangdong Province, China
Prepared by : Accurate Technology Co., Ltd.
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Report No. : ATE20140929
Date of Test : Jun 04, 2014- Jun 25, 2014
Date of Report : Jun 25, 2014

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Test Report Declaration

Applicant : IMC INTERNATIONAL INC.

Manufacturer : IMC INTERNATIONAL INC.

EUT Description : 7 inch 3G TABLET

(A) MODEL NO.: ROAD XT-71BG

(B) Trade Name.: LOGIC

(C) POWER SUPPLY: DC 3.7V (Powered by battery) or AC 120V/60Hz
(Powered by adapter)

Measurement Procedure Used:

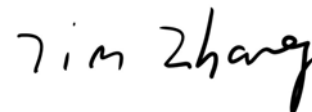
FCC Rules and Regulations Part 15 Subpart B Class B & ANSI C63.4: 2009

The device described above is tested by Accurate Technology Co., Ltd. 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 Accurate Technology Co., Ltd. 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 Accurate Technology Co., Ltd.

Date of Test : Jun 04, 2014-Jun 25, 2014

Prepared by :



(Tim.zhang, Engineer)

Approved & Authorized Signer :



(Sean, Manager)

1. TEST RESULTS SUMMARY

Test Items	Test Standard	Test Results
Power Line Conducted Emission	FCC Part 15 Subpart B	Pass
Radiated Emission	FCC Part 15 Subpart B	Pass

2. GENERAL INFORMATION

2.1.Product of Device (EUT)

Product	:	7 inch 3G TABLET
Model No.	:	ROAD XT-71BG
Applicant	:	IMC INTERNATIONAL INC.
Address	:	28E Jingang, xixiang,Bao an District, Shenzhen, Guangdong Province, China
Manufacturer	:	IMC INTERNATIONAL INC.
Address	:	28E Jingang, xixiang,Bao an District, Shenzhen, Guangdong Province, China
Power Supply	:	DC 3.7V (Powered by Battery) AC 120V/60Hz (Powered by Adapter)
Adapter	:	Model:DY-050150 Input: AC 100-240V 50/60Hz Output: 5.0V 1.5A
Date of sample received	:	Jun 04, 2014
Date of Test	:	Jun 04, 2014-Jun 25, 2014

2.2.Accessory and Auxiliary Equipment

N/A

2.3. Description of Test Facility

EMC Lab : Accredited by TUV Rheinland Shenzhen, May 10, 2004

Listed by FCC
The Registration Number is 253065
Listed by FCC
The Registration Number is 752051

Listed by Industry Canada
The Registration Number is 5077A-1
Listed by Industry Canada
The Registration Number is 5077A-2

Accredited by China National Accreditation Committee for
Laboratories
The Certificate Registration Number is L3193

Name of Firm : Accurate Technology Co., Ltd.
Site Location : F1, Bldg. A&D, Changyuan New Material Port, Keyuan
Rd., Science & Industry Park, Nanshan District, Shenzhen
518057, P.R. China

2.4. Measurement Uncertainty

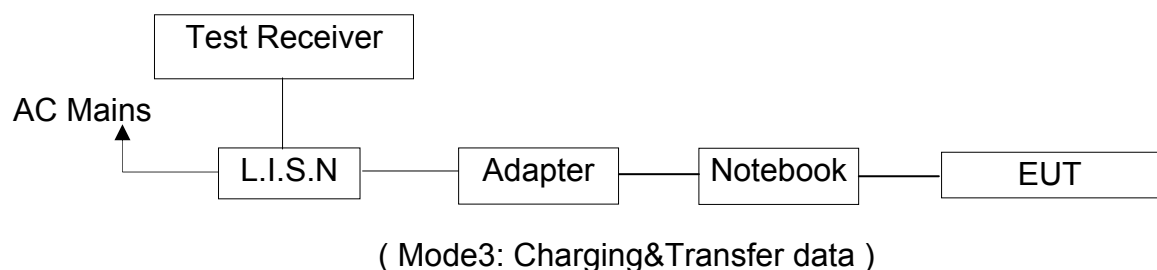
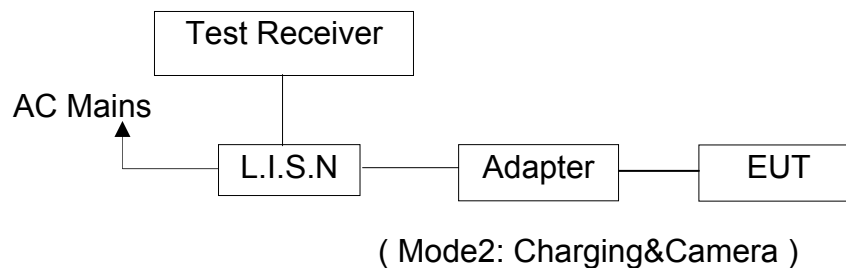
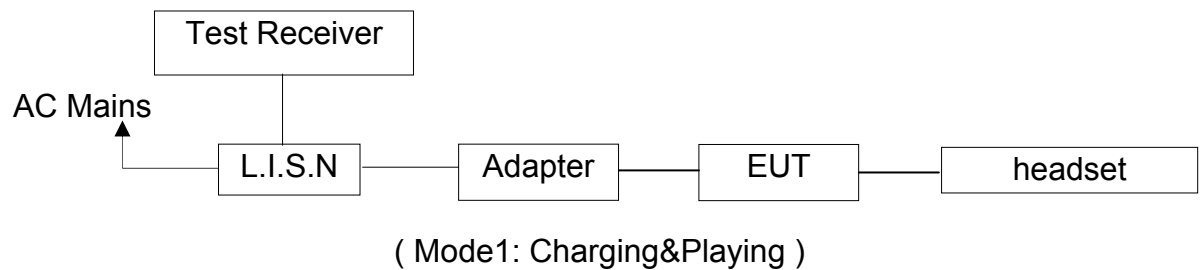
Conducted emission expanded uncertainty : U=2.23dB, k=2
Power disturbance expanded uncertainty : U=2.92dB, k=2
Radiated emission expanded uncertainty : U=3.08dB, k=2
(9kHz-30MHz)
Radiated emission expanded uncertainty : U=4.42dB, k=2
(30MHz-1000MHz)
Radiated emission expanded uncertainty : U=4.06dB, k=2
(Above 1GHz)

3. POWER LINE CONDUCTED MEASUREMENT

3.1. For Power Line Conducted Emission

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Test Receiver	Rohde & Schwarz	ESCS30	100307	Jan. 11, 2014	1 Year
2.	L.I.S.N.	Schwarzbeck	NLSK8126	8126431	Jan. 11, 2014	1 Year
3.	Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100815	Jan. 11, 2014	1 Year
4.	50Ω Coaxial Switch	Anritsu Corp	MP59B	6200283933	Jan. 11, 2014	1 Year
Expanded Uncertainty: U= 2.23dB, k=2						

3.2. Block Diagram of Test Setup



3.3. Power Line Conducted Emission Measurement Limits (Class B)

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—30.0	60	50

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

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

3.4. Configuration of EUT on Measurement

The 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.

3.5. Operating Condition of EUT

3.5.1. Setup the EUT and simulator as shown as Section 3.2.

3.5.2. Turn on the power of all equipment.

3.5.3. Let the EUT work in test mode and measure it.

3.6. Test Procedure

The EUT is put on the plane 0.8m high above the ground by insulating support and 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 lines 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 ANSI C63.4: 2009 on Conducted Emission Measurement.

The bandwidth of test receiver (R & S ESCS30) is set at 9kHz.

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

3.7. Power Line Conducted Emission Measurement Results

PASS.

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

Test mode : Charging+Playing								
MEASUREMENT RESULT: "IMC-F02_fin"								
6/7/2014 9:23AM								
Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE	
0.517062	36.20	10.7	56	19.8	QP	L1	GND	
0.933537	38.40	10.8	56	17.6	QP	L1	GND	
13.169925	32.20	11.3	60	27.8	QP	L1	GND	
MEASUREMENT RESULT: "IMC-F02_fin2"								
6/7/2014 9:23AM								
Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE	
0.191358	35.40	10.5	54	18.6	AV	L1	GND	
0.937272	27.60	10.8	46	18.4	AV	L1	GND	
25.549338	23.60	11.5	50	26.4	AV	L1	GND	
MEASUREMENT RESULT: "IMC-F01_fin"								
6/7/2014 9:21AM								
Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE	
0.192124	44.90	10.5	64	19.0	QP	N	GND	
0.933537	38.30	10.8	56	17.7	QP	N	GND	
13.222605	36.00	11.3	60	24.0	QP	N	GND	
MEASUREMENT RESULT: "IMC-F01_fin2"								
6/7/2014 9:21AM								
Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE	
0.190596	36.90	10.5	54	17.1	AV	N	GND	
0.933537	27.40	10.8	46	18.6	AV	N	GND	
26.273361	24.80	11.5	50	25.2	AV	N	GND	

Test mode : Charging+ Camera

MEASUREMENT RESULT: "IMC-F05_fin"

6/7/2014 3:34PM

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.447846	44.80	10.7	57	12.1	QP	L1	GND
2.743053	40.60	11.0	56	15.4	QP	L1	GND
5.717910	36.10	11.2	60	23.9	QP	L1	GND

MEASUREMENT RESULT: "IMC-F05_fin2"

6/7/2014 3:34PM

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.519130	29.20	10.7	46	16.8	AV	L1	GND
2.798355	28.60	11.0	46	17.4	AV	L1	GND
5.879946	25.90	11.2	50	24.1	AV	L1	GND

MEASUREMENT RESULT: "IMC-F06_fin"

6/7/2014 3:37PM

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.451436	46.00	10.7	57	10.8	QP	N	GND
1.761133	39.50	11.0	56	16.5	QP	N	GND
5.279139	36.50	11.2	60	23.5	QP	N	GND

MEASUREMENT RESULT: "IMC-F06_fin2"

6/7/2014 3:37PM

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.464229	28.30	10.7	47	18.3	AV	N	GND
2.843398	26.00	11.0	46	20.0	AV	N	GND
6.143900	24.20	11.2	50	25.8	AV	N	GND

Test mode : Charging+ Transfer data								
MEASUREMENT RESULT: "IMC-V002_fin"								
6/12/2014 10:58AM								
Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE	
0.158622	55.40	10.5	66	10.1	QP	L1	GND	
2.854771	31.90	11.0	56	24.1	QP	L1	GND	
5.279139	29.80	11.2	60	30.2	QP	L1	GND	
MEASUREMENT RESULT: "IMC-V002_fin2"								
6/12/2014 10:58AM								
Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE	
0.160533	39.60	10.5	55	15.8	AV	L1	GND	
2.074313	25.30	11.0	46	20.7	AV	L1	GND	
5.342742	24.10	11.2	50	25.9	AV	L1	GND	
MEASUREMENT RESULT: "IMC-V001_fin"								
6/12/2014 10:55AM								
Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE	
0.166406	55.90	10.5	65	9.2	QP	N	GND	
3.598543	28.10	11.1	56	27.9	QP	N	GND	
5.237158	28.20	11.2	60	31.8	QP	N	GND	
MEASUREMENT RESULT: "IMC-V001_fin2"								
6/12/2014 10:55AM								
Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE	
0.163769	41.40	10.5	55	13.9	AV	N	GND	
2.765041	24.60	11.0	46	21.4	AV	N	GND	
5.364113	22.10	11.2	50	27.9	AV	N	GND	

Note: During the test, Let the EUT and PC maintain the status of transfer data to each other

Emissions attenuated more than 20 dB below the permissible value are not reported.

The spectral diagrams are attached as below.

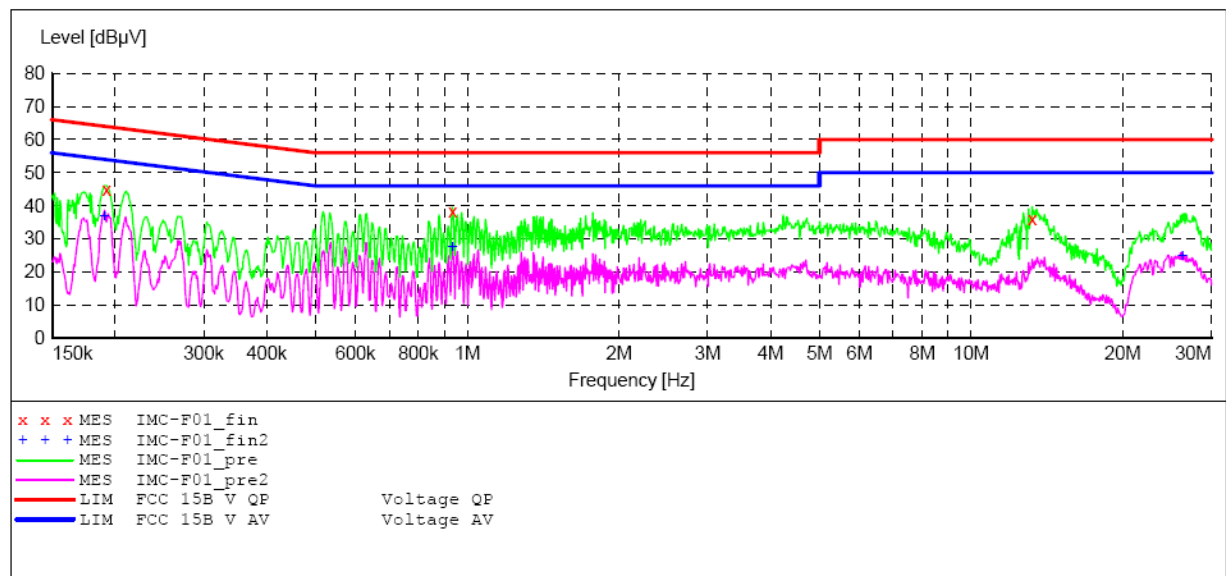
ACCURATE TECHNOLOGY CO., LTD

CONDUCTED EMISSION STANDARD FCC PART 15 B

EUT: 7" 3G TABLET M/N:ROAD XT-71BG
 Manufacturer: IMC
 Operating Condition: Charging&Playing
 Test Site: 1#Shielding Room
 Operator: Alen
 Test Specification: N 120V/60Hz
 Comment: Report No:ATE20140929
 Start of Test: 6/7/2014 / 9:19:16AM

SCAN TABLE: "V 150K-30MHz fin"

Short Description: _SUB_STD_VTERM2 1.70
 Start Stop Step Detector Meas. IF Transducer
 Frequency Frequency Width Time Bandw.
 150.0 kHz 30.0 MHz 4.5 kHz QuasiPeak 1.0 s 9 kHz NSLK8126 2008
 Average



MEASUREMENT RESULT: "IMC-F01_fin"

6/7/2014 9:21AM

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.192124	44.90	10.5	64	19.0	QP	N	GND
0.933537	38.30	10.8	56	17.7	QP	N	GND
13.222605	36.00	11.3	60	24.0	QP	N	GND

MEASUREMENT RESULT: "IMC-F01_fin2"

6/7/2014 9:21AM

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.190596	36.90	10.5	54	17.1	AV	N	GND
0.933537	27.40	10.8	46	18.6	AV	N	GND
26.273361	24.80	11.5	50	25.2	AV	N	GND

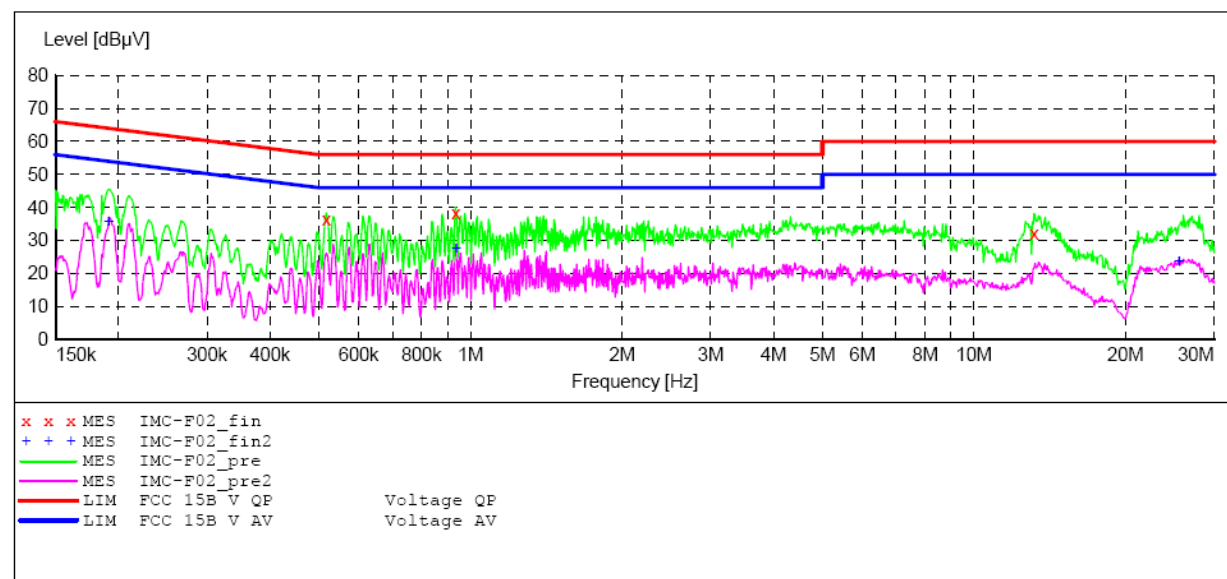
ACCURATE TECHNOLOGY CO., LTD

CONDUCTED EMISSION STANDARD FCC PART 15 B

EUT: 7" 3G TABLET M/N:ROAD XT-71BG
 Manufacturer: IMC
 Operating Condition: Charging&Playing
 Test Site: 1#Shielding Room
 Operator: Alen
 Test Specification: L 120V/60Hz
 Comment: Report No:ATE20140929
 Start of Test: 6/7/2014 / 9:21:47AM

SCAN TABLE: "V 150K-30MHz fin"

Short Description: _SUB_STD_VTERM2 1.70
 Start Stop Step Detector Meas. IF Transducer
 Frequency Frequency Width Time Bandw.
 150.0 kHz 30.0 MHz 4.5 kHz QuasiPeak 1.0 s 9 kHz NSLK8126 2008
 Average



MEASUREMENT RESULT: "IMC-F02_fin"

6/7/2014 9:23AM

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.517062	36.20	10.7	56	19.8	QP	L1	GND
0.933537	38.40	10.8	56	17.6	QP	L1	GND
13.169925	32.20	11.3	60	27.8	QP	L1	GND

MEASUREMENT RESULT: "IMC-F02_fin2"

6/7/2014 9:23AM

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.191358	35.40	10.5	54	18.6	AV	L1	GND
0.937272	27.60	10.8	46	18.4	AV	L1	GND
25.549338	23.60	11.5	50	26.4	AV	L1	GND

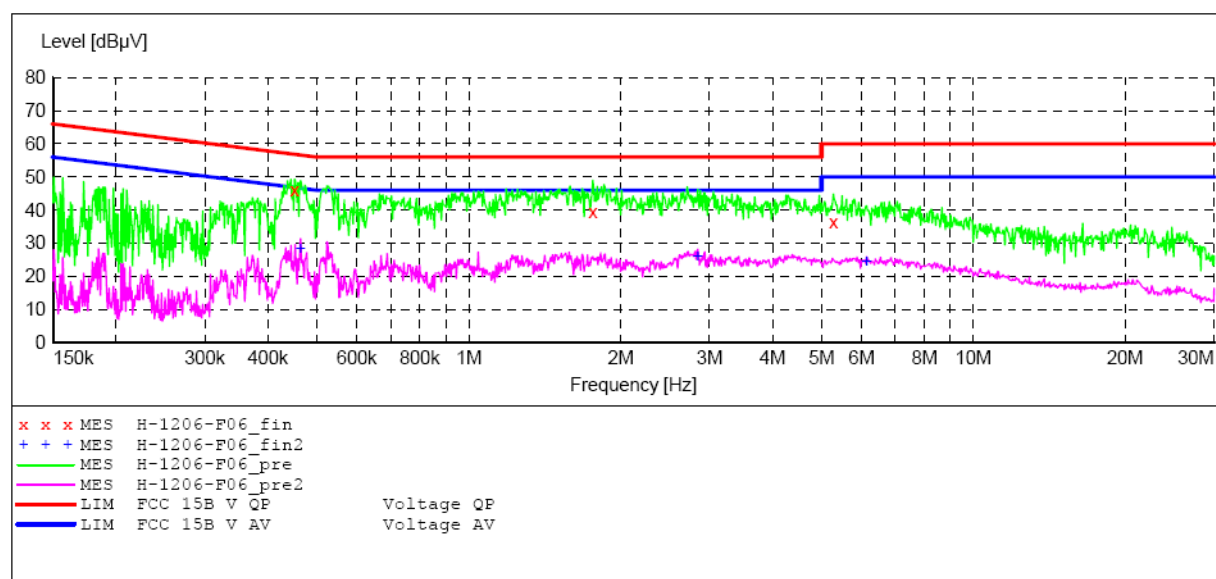
ACCURATE TECHNOLOGY CO., LTD

CONDUCTED EMISSION STANDARD FCC PART15B

EUT: 7" 3G TABLET M/N:ROAD XT-71BG
 Manufacturer: IMC
 Operating Condition: Camera
 Test Site: 1#Shielding Room
 Operator: Alen
 Test Specification: N 120V/60Hz
 Comment: Report NO:ATE2014929
 Start of Test: 6/7/2014 / 3:35:28PM

SCAN TABLE: "V 150K-30MHz fin"

Short Description: _SUB_STD_VTERM2 1.70
 Start Stop Step Detector Meas. IF Transducer
 Frequency Frequency Width Time Bandw.
 150.0 kHz 30.0 MHz 4.5 kHz QuasiPeak 1.0 s 9 kHz NSLK8126 2008
 Average



MEASUREMENT RESULT: "IMC-F06_fin"

6/7/2014 3:37PM

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.451436	46.00	10.7	57	10.8	QP	N	GND
1.761133	39.50	11.0	56	16.5	QP	N	GND
5.279139	36.50	11.2	60	23.5	QP	N	GND

MEASUREMENT RESULT: "IMC-F06_fin2"

6/7/2014 3:37PM

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.464229	28.30	10.7	47	18.3	AV	N	GND
2.843398	26.00	11.0	46	20.0	AV	N	GND
6.143900	24.20	11.2	50	25.8	AV	N	GND

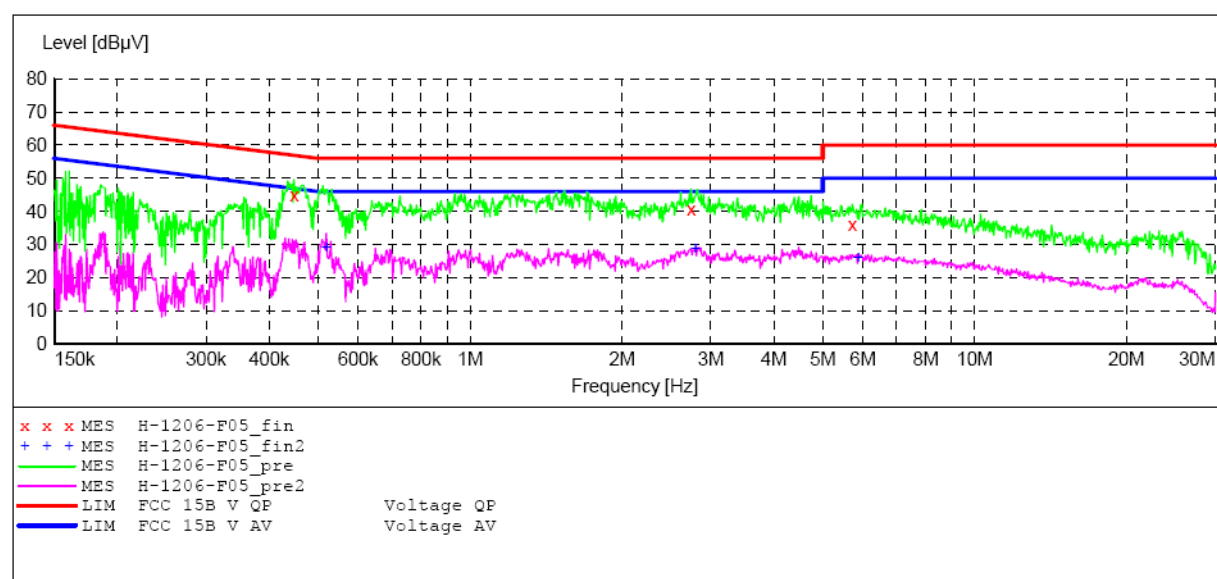
ACCURATE TECHNOLOGY CO., LTD

CONDUCTED EMISSION STANDARD FCC PART15B

EUT: 7" 3G TABLET M/N:ROAD XT-71BG
 Manufacturer: IMC
 Operating Condition: Camera
 Test Site: 1#Shielding Room
 Operator: Alen
 Test Specification: L 120V/60Hz
 Comment: Report NO:ATE2014929
 Start of Test: 6/7/2014 / 3:33:00PM

SCAN TABLE: "V 150K-30MHz fin"

Short Description: _SUB_STD_VTERM2 1.70
 Start Stop Step Detector Meas. IF Transducer
 Frequency Frequency Width Time Bandw.
 150.0 kHz 30.0 MHz 4.5 kHz QuasiPeak 1.0 s 9 kHz NSLK8126 2008
 Average



MEASUREMENT RESULT: "IMC-F05_fin"

6/7/2014 3:34PM

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.447846	44.80	10.7	57	12.1	QP	L1	GND
2.743053	40.60	11.0	56	15.4	QP	L1	GND
5.717910	36.10	11.2	60	23.9	QP	L1	GND

MEASUREMENT RESULT: "IMC-F05_fin2"

6/7/2014 3:34PM

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.519130	29.20	10.7	46	16.8	AV	L1	GND
2.798355	28.60	11.0	46	17.4	AV	L1	GND
5.879946	25.90	11.2	50	24.1	AV	L1	GND

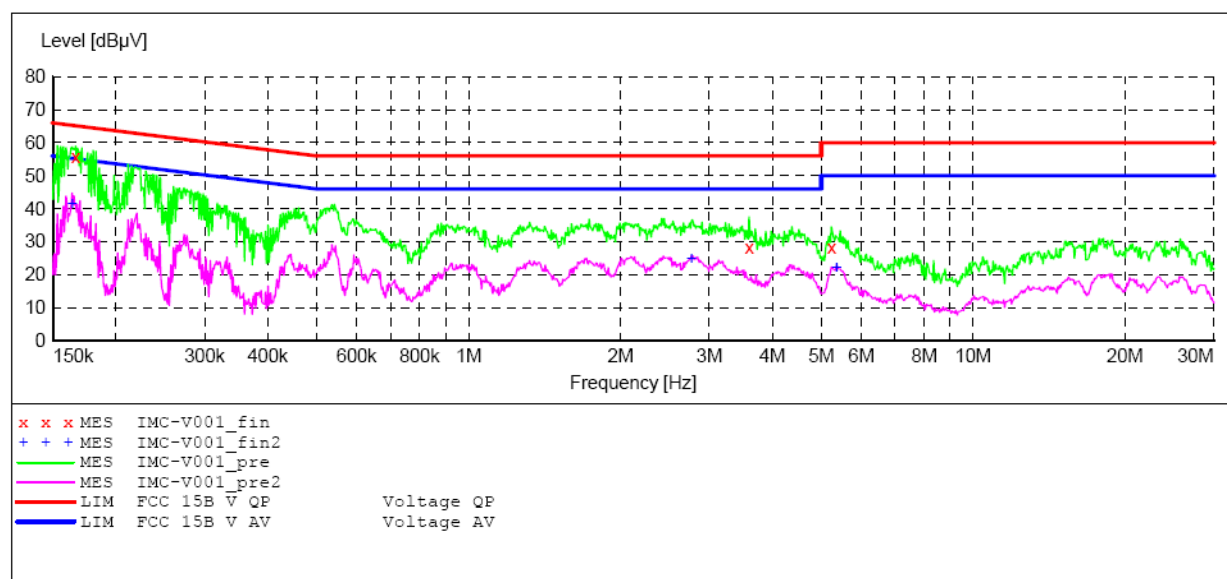
ACCURATE TECHNOLOGY CO., LTD

CONDUCTED EMISSION STANDARD FCC PART 15 B

EUT: 7" 3G TABLET M/N:ROAD XT-71BG
 Manufacturer: IMC
 Operating Condition: Transfer data
 Test Site: 1#Shielding Room
 Operator: Alen
 Test Specification: N 120V/60Hz
 Comment: Report No:ATE20140929
 Start of Test: 6/12/2014 / 10:40:25AM

SCAN TABLE: "V 150K-30MHz fin"

Short Description: _SUB_STD_VTERM2 1.70
 Start Stop Step Detector Meas. IF Transducer
 Frequency Frequency Width Time Bandw.
 150.0 kHz 30.0 MHz 4.5 kHz QuasiPeak 1.0 s 9 kHz NSLK8126 2008
 Average



MEASUREMENT RESULT: "IMC-V001_fin"

6/12/2014 10:55AM

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.166406	55.90	10.5	65	9.2	QP	N	GND
3.598543	28.10	11.1	56	27.9	QP	N	GND
5.237158	28.20	11.2	60	31.8	QP	N	GND

MEASUREMENT RESULT: "IMC-V001_fin2"

6/12/2014 10:55AM

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.163769	41.40	10.5	55	13.9	AV	N	GND
2.765041	24.60	11.0	46	21.4	AV	N	GND
5.364113	22.10	11.2	50	27.9	AV	N	GND

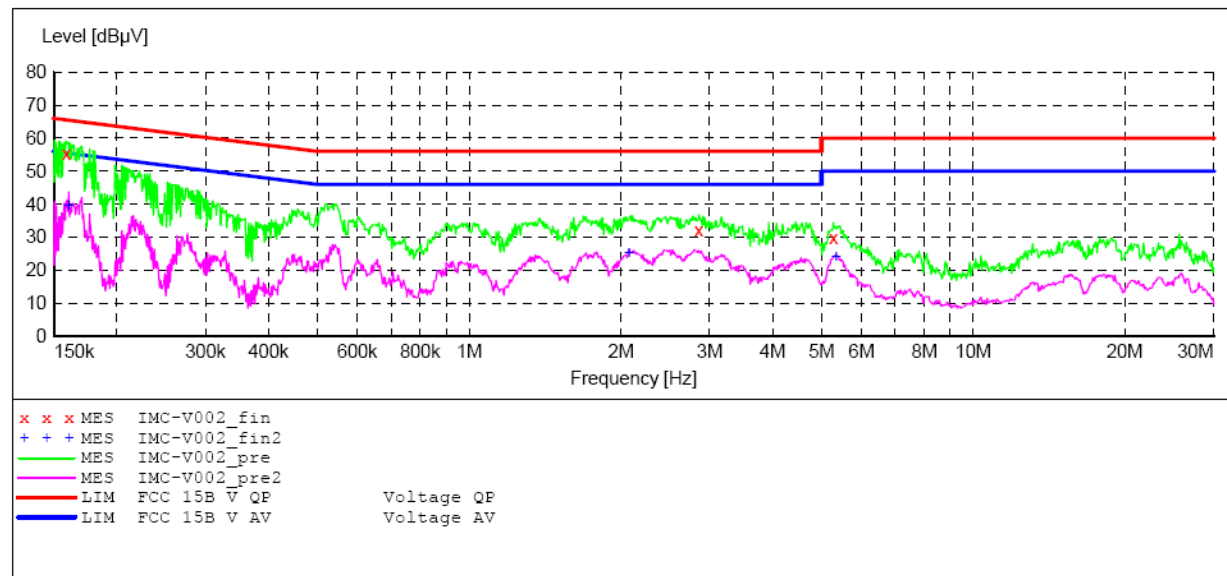
ACCURATE TECHNOLOGY CO., LTD

CONDUCTED EMISSION STANDARD FCC PART 15 B

EUT: 7" 3G TABLET M/N:ROAD XT-71BG
 Manufacturer: IMC
 Operating Condition: Transfer data
 Test Site: 1#Shielding Room
 Operator: Alen
 Test Specification: L 120V/60Hz
 Comment: Report No:ATE20140929
 Start of Test: 6/12/2014 / 10:56:08AM

SCAN TABLE: "V 150K-30MHz fin"

Short Description: _SUB_STD_VTERM2 1.70
 Start Stop Step Detector Meas. IF Transducer
 Frequency Frequency Width Time Bandw.
 150.0 kHz 30.0 MHz 4.5 kHz QuasiPeak 1.0 s 9 kHz NSLK8126 2008
 Average



MEASUREMENT RESULT: "IMC-V002_fin"

6/12/2014 10:58AM

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.158622	55.40	10.5	66	10.1	QP	L1	GND
2.854771	31.90	11.0	56	24.1	QP	L1	GND
5.279139	29.80	11.2	60	30.2	QP	L1	GND

MEASUREMENT RESULT: "IMC-V002_fin2"

6/12/2014 10:58AM

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.160533	39.60	10.5	55	15.8	AV	L1	GND
2.074313	25.30	11.0	46	20.7	AV	L1	GND
5.342742	24.10	11.2	50	25.9	AV	L1	GND

4. RADIATED EMISSION MEASUREMENT

4.1. For Radiated Emission Measurement

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum Analyzer	Agilent	E7405A	MY45115511	Jan. 11, 2014	1 Year
2.	Test Receiver	Rohde & Schwarz	ESCS30	100307	Jan. 11, 2014	1 Year
3.	Bilog Antenna	Schwarzbeck	VULB9163	9163-323	Jan. 15, 2014	1 Year
4.	Loop Antenna	Schwarzbeck	FMZB1516	1516131	Jan. 15, 2014	1 Year
5.	Horn Antenna	Schwarzbeck	BBHA9120D	9120D-655	Jan. 15, 2014	1 Year
6.	50 Coaxial Switch	Anritsu Corp	MP59B	6200506474	Jan. 11, 2014	1 Year
12.	Pre-Amplifier	Rohde & Schwarz	CBLU11835 40-01	3791	Jan. 11, 2014	1 Year

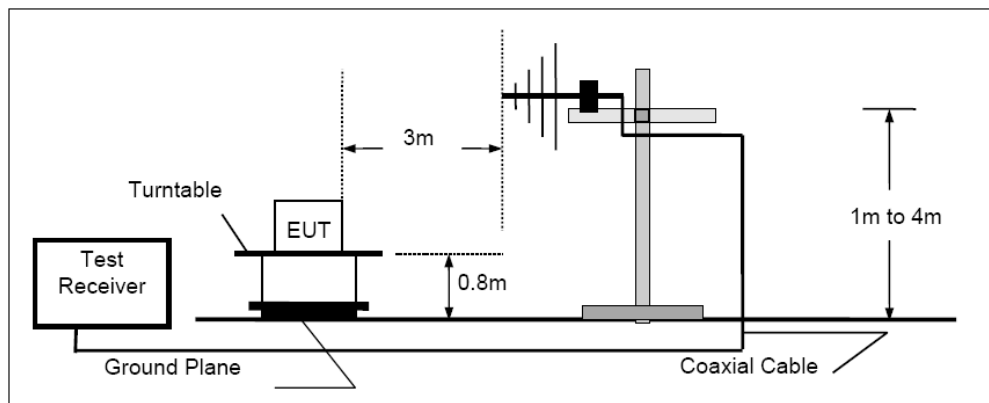
Expanded Uncertainty (9kHz-30MHz): U=3.08dB, k=2

Expanded Uncertainty (30MHz-1000MHz): U=4.42dB, k=2

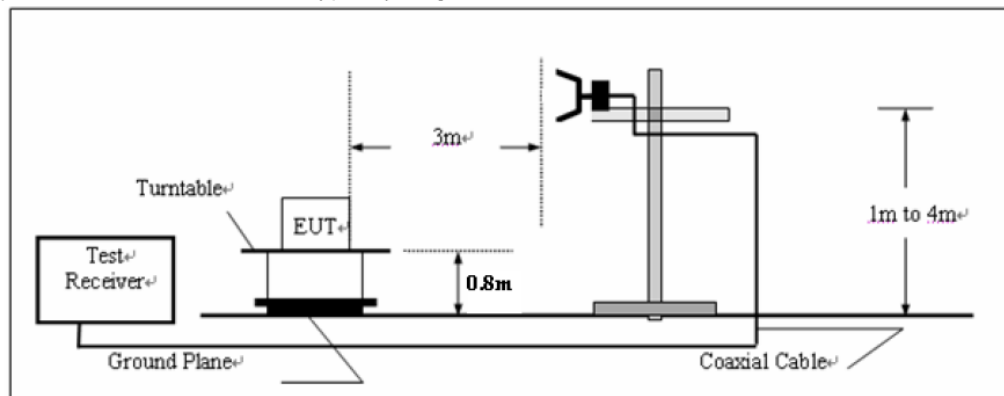
Expanded Uncertainty (Above 1GHz): U=4.06dB, k=2

4.2. TEST CONFIGURATION

(A) Radiated Emission Test Set-Up, Frequency below 1000MHz



(B) Radiated Emission Test Set-Up, Frequency above 1000MHz



4.3. Block Diagram of Test Setup

4.3.1. Block diagram of connection between the EUT and simulators



(Mode1: Charging&Playing)

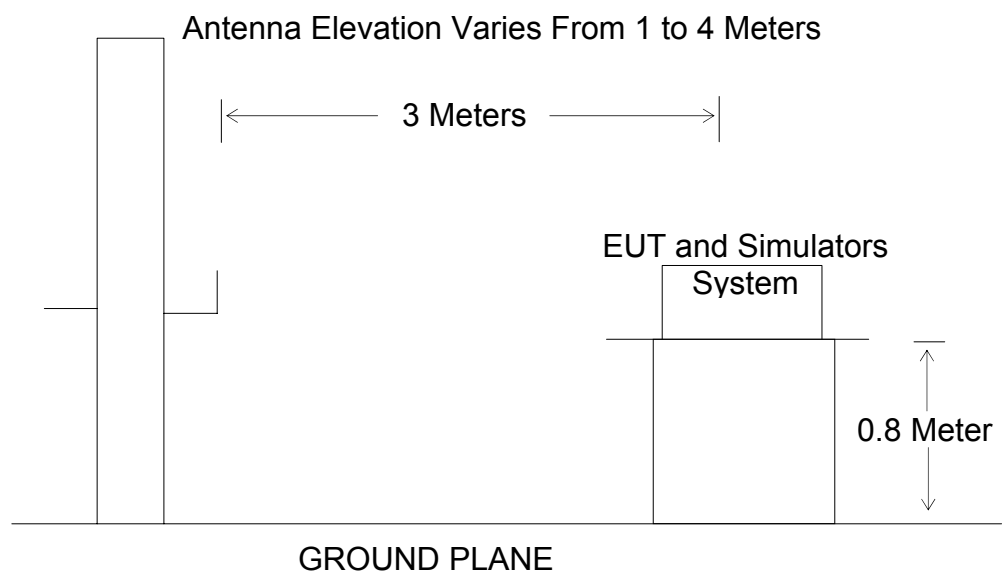


(Mode2: Charging&Camera)



(Mode3: Charging&Transfer data)

4.3.2. Anechoic Chamber Test Setup Diagram



4.4.Radiated Emission Limit (Class B)

Frequency MHz	Distance Meters	Field Strengths Limit	
		$\mu\text{V/m}$	$\text{dB}(\mu\text{V/m})$
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.			

4.5.EUT Configuration on Measurement

The equipment is 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.

4.6.Operating Condition of EUT

4.6.1.Setup the EUT and simulator as shown as Section 4.2.

4.6.2.Turn on the power of all equipment.

4.6.3.Let the EUT work in test mode and measure it.

4.7.Test Procedure

The EUT and its simulators are placed on a turntable, which is 0.8 meter high above ground. The turntable 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 an 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 (calibrated bilog 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.

For emission frequencies measured below 1GHz and above 1GHz, set the spectrum analyzer on a 100KHz and 1MHz resolution bandwidth respectively in the test process.

During the radiated emission test, the Spectrum Analyzer was set with the following configurations:

Frequency Band (MHz)	Function	Resolution bandwidth	Video Bandwidth
30 to 1000	Peak	100kHz	100kHz
Above 1000	Peak	1MHz	1MHz
	Average	1MHz	10Hz

Sample Calculation Example

The field strength is calculated by adding the Antenna Factor and Cable Factor, and subtracting the Amplifier Gain (if any) from the measured reading. For the limit is employed average value, therefore the peak value can be transferred to average value by subtracting the duty factor. The basic equation with a sample calculation is as follows:

$$\text{Peak} = \text{Reading} + \text{Corrected Factor}$$

where

Corr. Factor = Antenna Factor + Cable Factor - Amplifier Gain (if any)

And the average value is

$$\text{Average} = \text{Peak Value} + \text{Duty Factor or}$$

Set RBW = 1MHz, VBW = 10Hz.

Note:

If the measured frequencies are fall in the restricted frequency band, the limit employed must be quasi peak value when frequencies are below or equal to 1GHz. And the measuring instrument is set to quasi peak detector function.

4.8.Radiated Emission Noise Measurement Result

PASS.

Test mode : Charging+ Playing							
Horizontal	Below 1G						
	No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB) Detector
	1	144.8418	61.89	-23.69	38.20	43.50	-5.30 QP
	2	204.9550	59.32	-20.05	39.27	43.50	-4.23 QP
	3	400.4318	57.45	-15.63	41.82	46.00	-4.18 QP
	Above 1G						
	No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB) Detector
	1	1004.840	55.61	-10.78	44.83	74.00	-29.17 peak
	2	1085.544	58.38	-10.61	47.77	74.00	-26.23 peak
	3	1462.032	50.32	-9.79	40.53	74.00	-33.47 peak
Vertical	Below 1G						
	No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB) Detector
	1	87.7248	57.68	-21.62	36.06	40.00	-3.94 QP
	2	145.8611	63.35	-23.72	39.63	43.50	-3.87 QP
	3	204.9551	58.52	-20.05	38.47	43.50	-5.03 QP
	Above 1G						
	No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB) Detector
	1	1085.544	56.73	-10.61	46.12	74.00	-27.88 peak
	2	1099.611	58.21	-10.58	47.63	74.00	-26.37 peak
	3	1128.295	54.82	-10.52	44.30	74.00	-29.70 peak

Test mode : Charging+ Camera

Horizontal

Below 1G							
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	145.8611	59.36	-23.72	35.64	43.50	-7.86	QP
2	199.9856	58.97	-20.24	38.73	43.50	-4.77	QP
3	399.0302	55.32	-15.64	39.68	46.00	-6.32	QP
Above 1G							
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	1009.703	58.71	-10.78	47.93	74.00	-26.07	peak
2	1076.844	63.60	-10.64	52.96	74.00	-21.04	peak
3	1133.756	63.13	-10.50	52.63	74.00	-21.37	peak

Vertical

Below 1G							
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	86.8068	57.50	-21.60	35.90	40.00	-4.10	QP
2	144.3348	63.07	-23.67	39.40	43.50	-4.10	QP
3	200.6881	58.56	-20.22	38.34	43.50	-5.16	QP
Above 1G							
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	1063.068	62.26	-10.65	51.61	74.00	-22.39	peak
2	1075.112	62.97	-10.63	52.34	74.00	-21.66	peak
3	1085.544	61.43	-10.61	50.82	74.00	-23.18	peak

Test mode : Charging+ Transfer data								
Horizontal	Below 1G							
	No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
	1	144.8418	60.25	-23.69	36.56	43.50	-6.94	QP
	2	200.6880	59.01	-20.22	38.79	43.50	-4.71	QP
	3	375.9384	56.35	-15.81	40.54	46.00	-5.46	QP
	Above 1G							
	No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
	1	1011.330	58.76	-10.78	47.98	74.00	-26.02	peak
	2	1071.657	61.48	-10.64	50.84	74.00	-23.16	peak
	3	1101.383	61.95	-10.58	51.37	74.00	-22.63	peak
Vertical	Below 1G							
	No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
	1	87.4177	57.23	-21.61	35.62	40.00	-4.38	QP
	2	199.2855	59.12	-20.27	38.85	43.50	-4.65	QP
	3	379.9141	56.38	-15.78	40.60	46.00	-5.40	QP
	Above 1G							
	No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
	1	1012.959	59.62	-10.76	48.86	74.00	-25.14	peak
	2	1071.657	62.48	-10.64	51.84	74.00	-22.16	peak
	3	1101.383	62.67	-10.58	52.09	74.00	-21.91	peak

Note: During the test, Let the EUT and PC maintain the status of transfer data to each other

Below 1G



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Job No.: alen #4388

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 55 %

EUT: 7" 3G Tablet

Mode: Video Playing

Model: ROAD XT-71BG

Manufacturer: IMC

Polarization: Horizontal

Power Source: AC 120V/60Hz

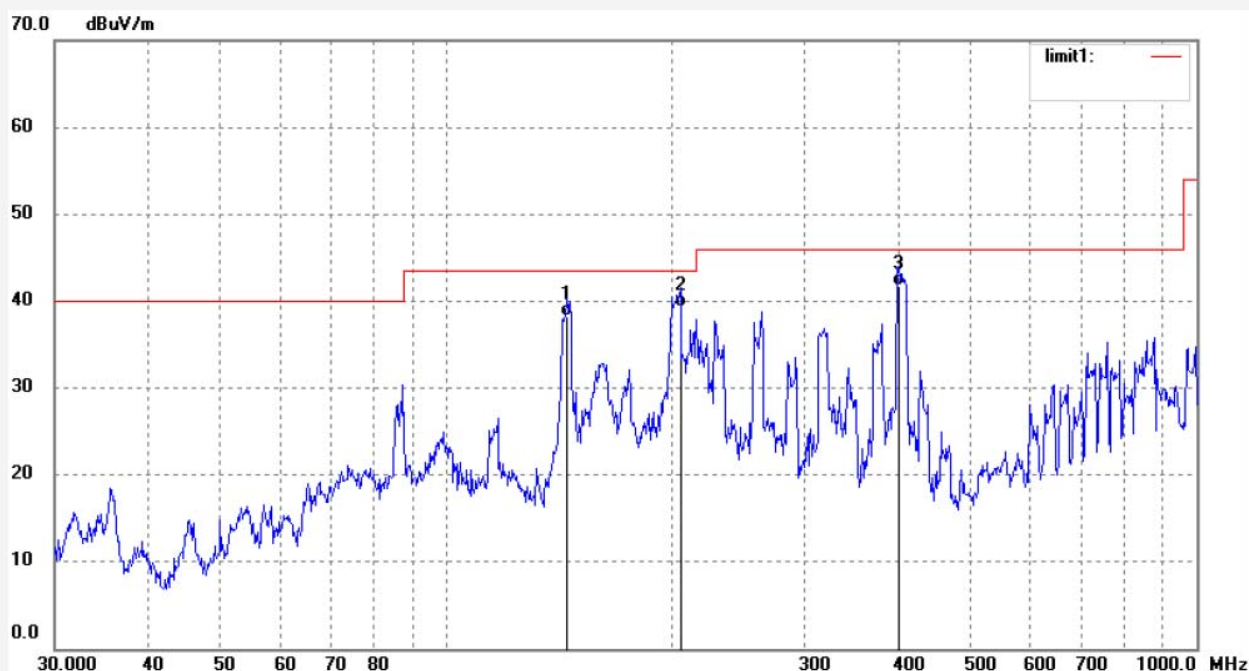
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Time: 11/05/42

Engineer Signature:

Distance: 3m

Note: Report No:ATE20140929



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	144.8418	61.89	-23.69	38.20	43.50	-5.30	QP			
2	204.9550	59.32	-20.05	39.27	43.50	-4.23	QP			
3	400.4318	57.45	-15.63	41.82	46.00	-4.18	QP			



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Site: 1# Chamber

Tel:+86-0755-26503290

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Job No.: alen #4389

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 55 %

EUT: 7" 3G Tablet

Mode: Video Playing

Model: ROAD XT-71BG

Manufacturer: IMC

Polarization: Vertical

Power Source: AC 120V/60Hz

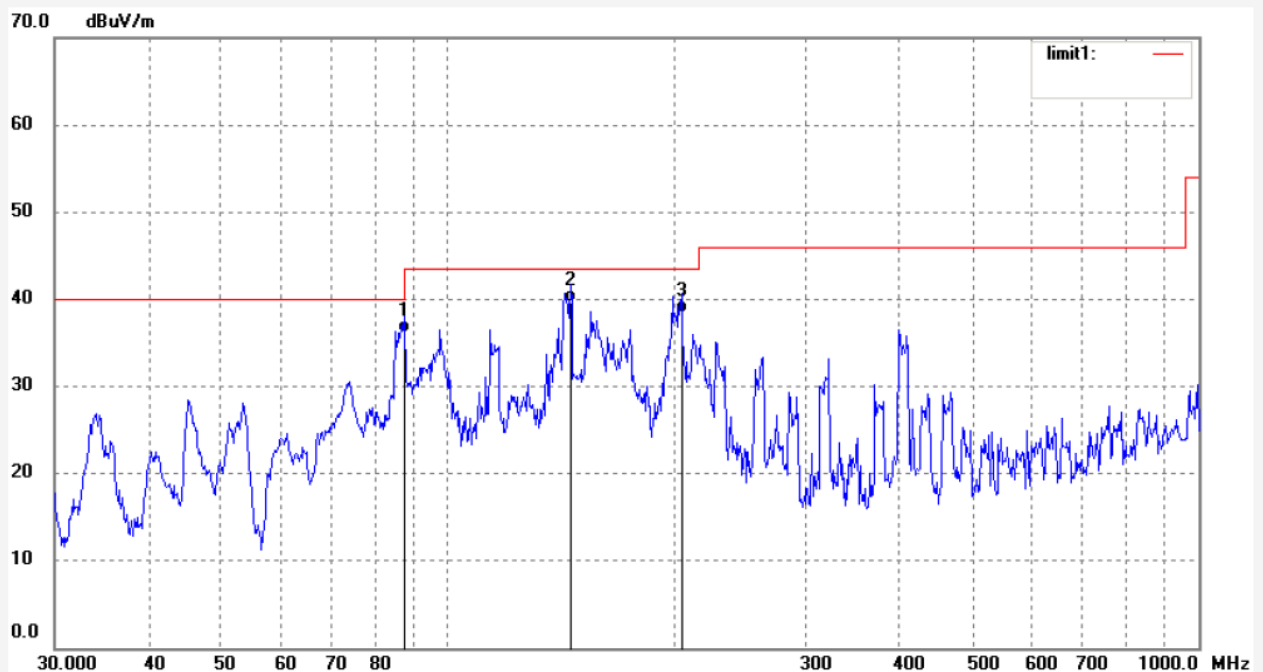
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Time: 11/06/27

Engineer Signature:

Distance: 3m

Note: Report No:ATE20140929



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	87.7248	57.68	-21.62	36.06	40.00	-3.94	QP			
2	145.8611	63.35	-23.72	39.63	43.50	-3.87	QP			
3	204.9551	58.52	-20.05	38.47	43.50	-5.03	QP			



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Site: 1# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: alen #4386

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 55 %

EUT: 7" 3G Tablet

Mode: Transfer data

Model: ROAD XT-71BG

Manufacturer: IMC

Polarization: Horizontal

Power Source: DC 5V

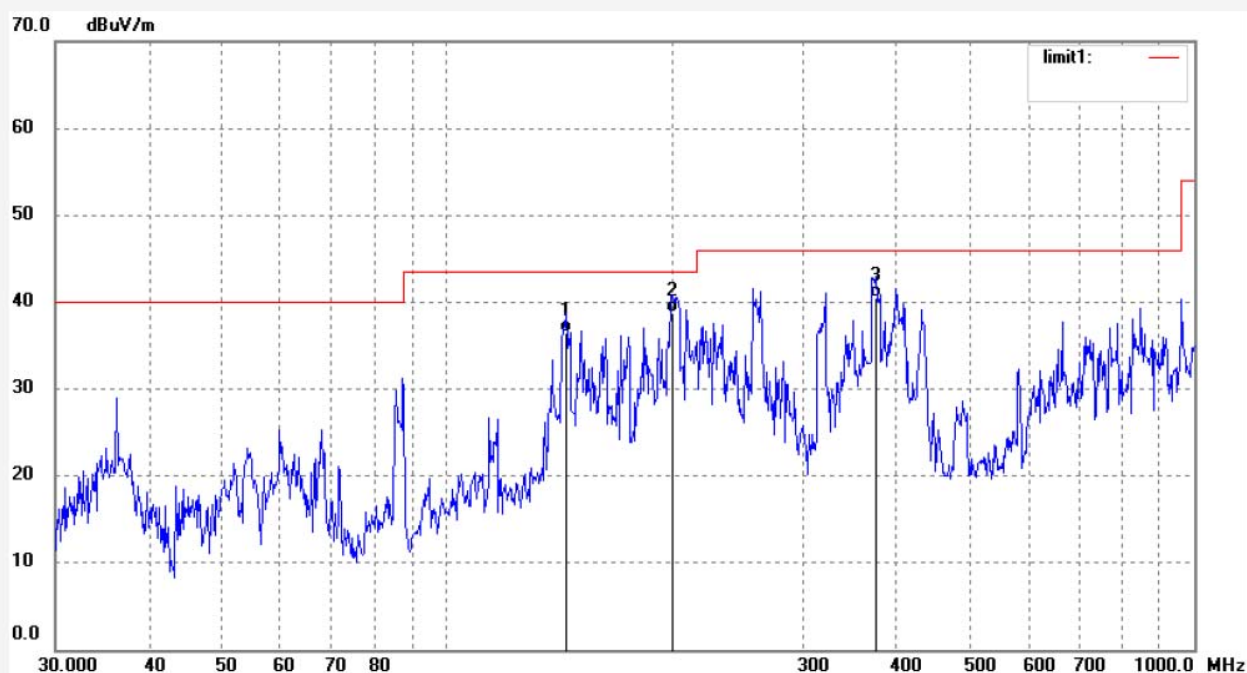
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Time: 10/52/24

Engineer Signature:

Distance: 3m

Note: Report No:ATE20140929



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	144.8418	60.25	-23.69	36.56	43.50	-6.94	QP			
2	200.6880	59.01	-20.22	38.79	43.50	-4.71	QP			
3	375.9384	56.35	-15.81	40.54	46.00	-5.46	QP			

Job No.: alen #4387

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 55 %

EUT: 7" 3G Tablet

Mode: Transfer data

Model: ROAD XT-71BG

Manufacturer: IMC

Polarization: Vertical

Power Source: AC 120V/60Hz

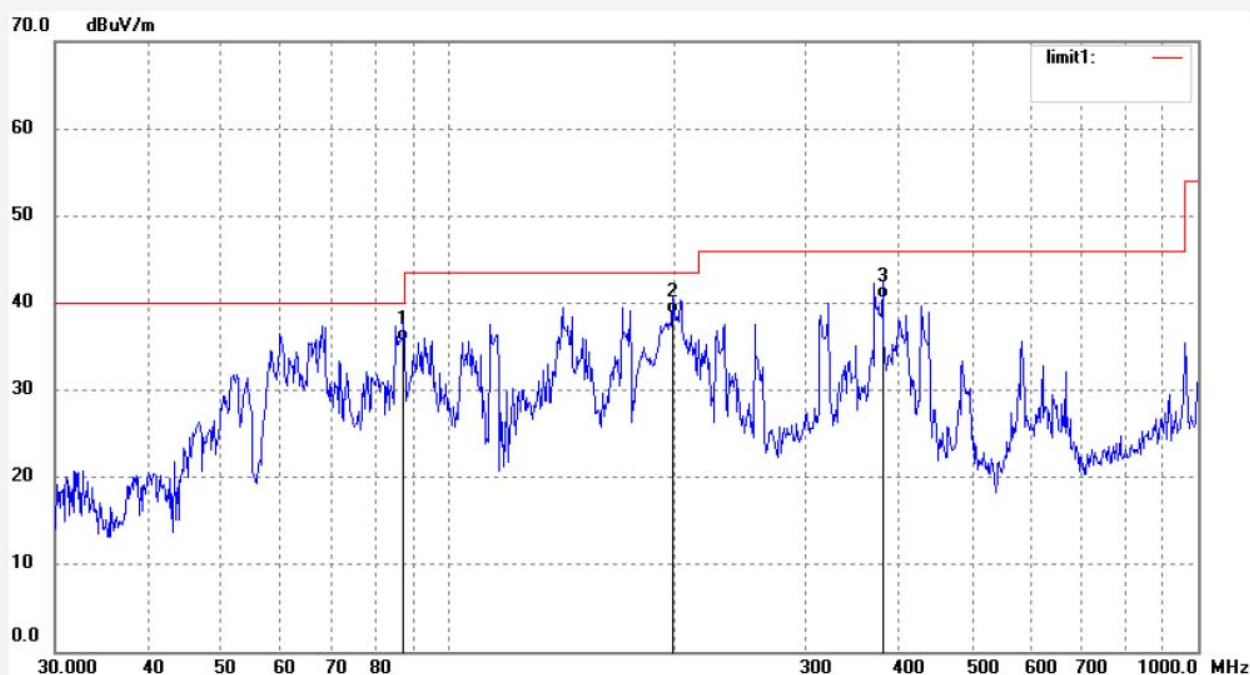
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Time: 10/53/32

Engineer Signature:

Distance: 3m

Note: Report No:ATE20140929



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	87.4177	57.23	-21.61	35.62	40.00	-4.38	QP			
2	199.2855	59.12	-20.27	38.85	43.50	-4.65	QP			
3	379.9141	56.38	-15.78	40.60	46.00	-5.40	QP			



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Site: 1# Chamber

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Job No.: alen #4391

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 55 %

EUT: 7" 3G Tablet

Mode: Camera

Model: ROAD XT-71BG

Manufacturer: IMC

Polarization: Horizontal

Power Source: AC 120V/60Hz

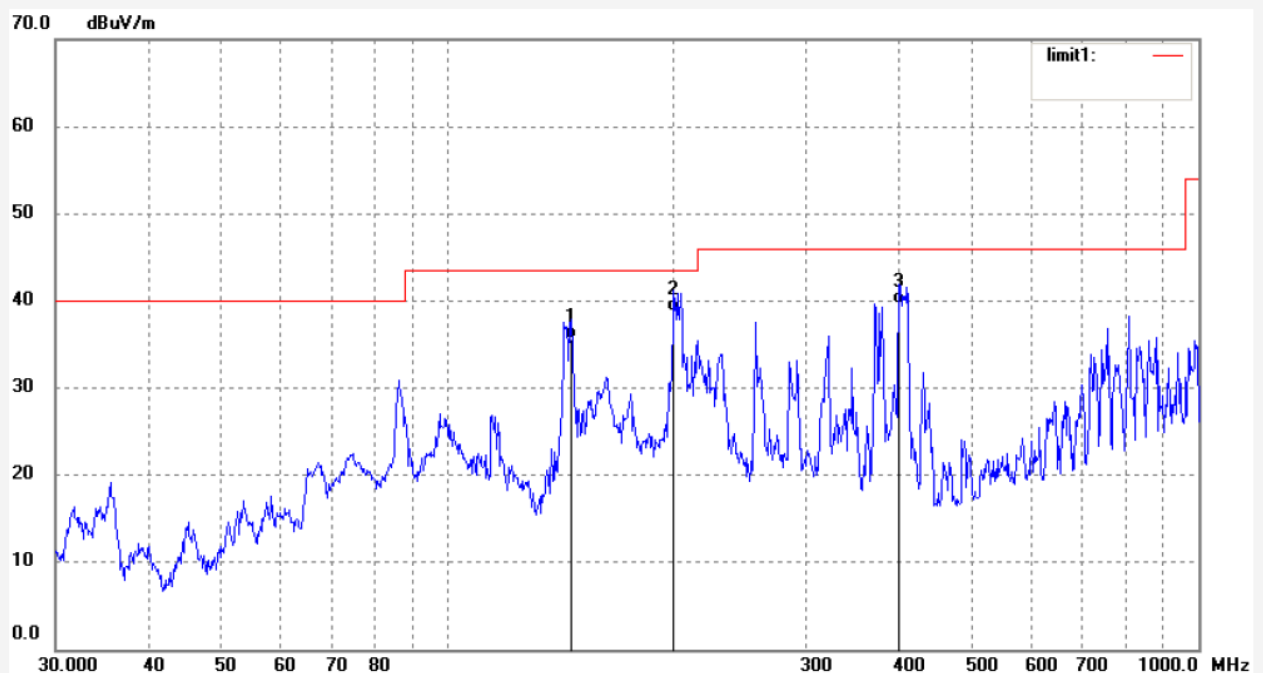
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Time: 11/10/01

Engineer Signature:

Distance: 3m

Note: Report No:ATE20140929



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	145.8611	59.36	-23.72	35.64	43.50	-7.86	QP			
2	199.9856	58.97	-20.24	38.73	43.50	-4.77	QP			
3	399.0302	55.32	-15.64	39.68	46.00	-6.32	QP			



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Job No.: alen #4390

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 55 %

EUT: 7" 3G Tablet

Mode: Camera

Model: ROAD XT-71BG

Manufacturer: IMC

Polarization: Vertical

Power Source: AC 120V/60Hz

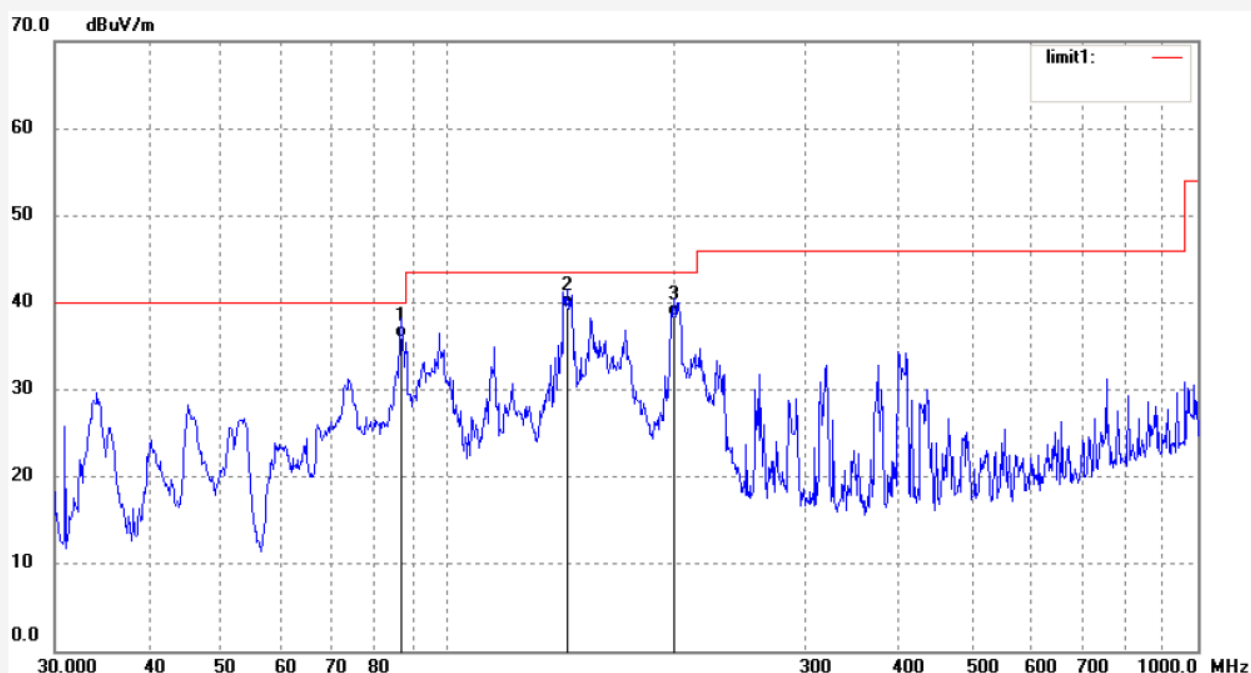
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Time: 11/08/38

Engineer Signature:

Distance: 3m

Note: Report No:ATE20140929



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	86.8068	57.50	-21.60	35.90	40.00	-4.10	QP			
2	144.3348	63.07	-23.67	39.40	43.50	-4.10	QP			
3	200.6881	58.56	-20.22	38.34	43.50	-5.16	QP			

Above 1G



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Job No.: alen #4376

Standard: FCC PK

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 55 %

EUT: 7" 3G Tablet

Mode: Video Playing

Model: ROAD XT-71BG

Manufacturer: IMC

Polarization: Horizontal

Power Source: AC 120V/60Hz

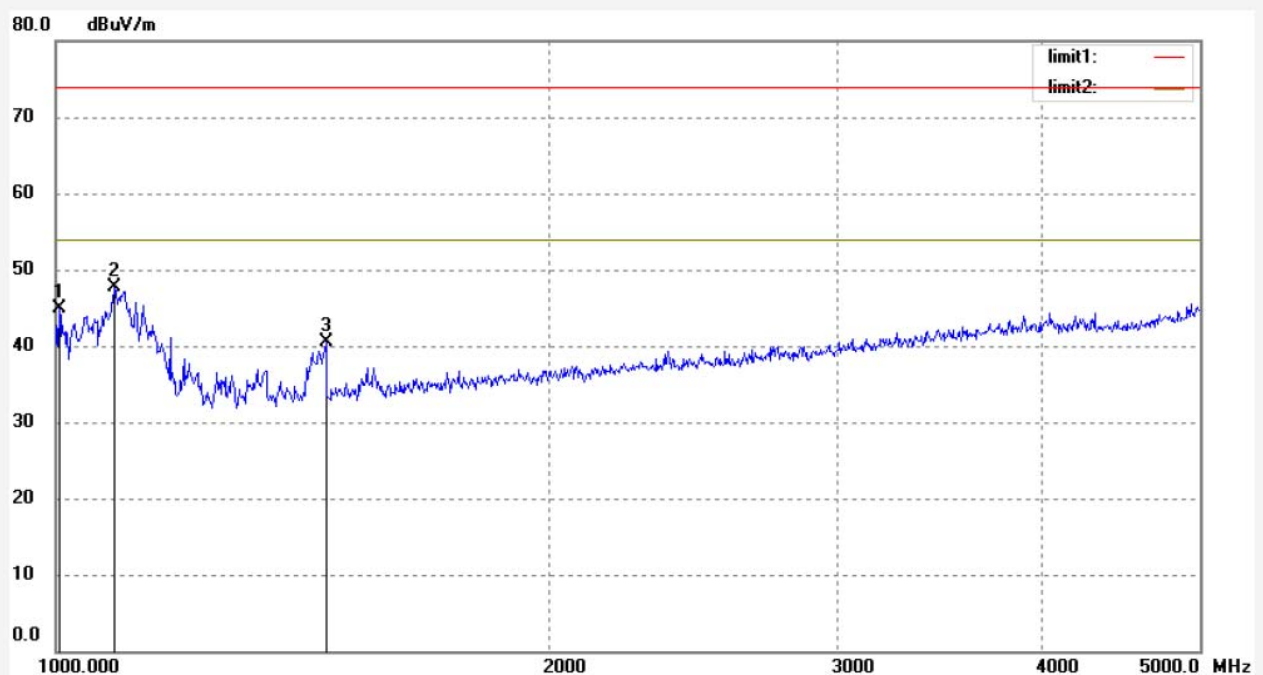
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Time: 10/40/41

Engineer Signature:

Distance: 3m

Note: Report No:ATE20140929



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	1004.840	55.61	-10.78	44.83	74.00	-29.17	peak			
2	1085.544	58.38	-10.61	47.77	74.00	-26.23	peak			
3	1462.032	50.32	-9.79	40.53	74.00	-33.47	peak			



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Job No.: alen #4377

Standard: FCC PK

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 55 %

EUT: 7" 3G Tablet

Mode: Video Playing

Model: ROAD XT-71BG

Manufacturer: IMC

Polarization: Vertical

Power Source: AC 120V/60Hz

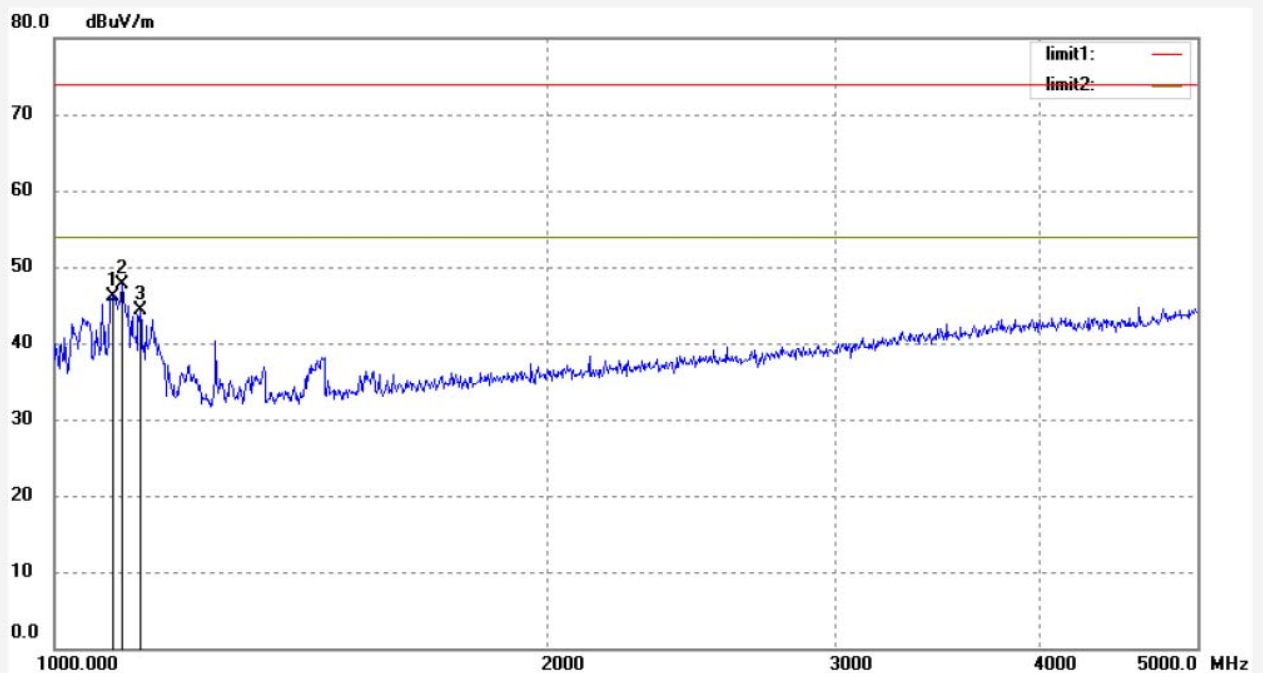
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Time: 10/41/37

Engineer Signature:

Distance: 3m

Note: Report No:ATE20140929



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	1085.544	56.73	-10.61	46.12	74.00	-27.88	peak			
2	1099.611	58.21	-10.58	47.63	74.00	-26.37	peak			
3	1128.295	54.82	-10.52	44.30	74.00	-29.70	peak			



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Site: 1# Chamber

Tel:+86-0755-26503290

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Job No.: alen #4380

Standard: FCC PK

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 55 %

EUT: 7" 3G Tablet

Mode: Transfer data

Model: ROAD XT-71BG

Manufacturer: IMC

Polarization: Horizontal

Power Source: DC 5V

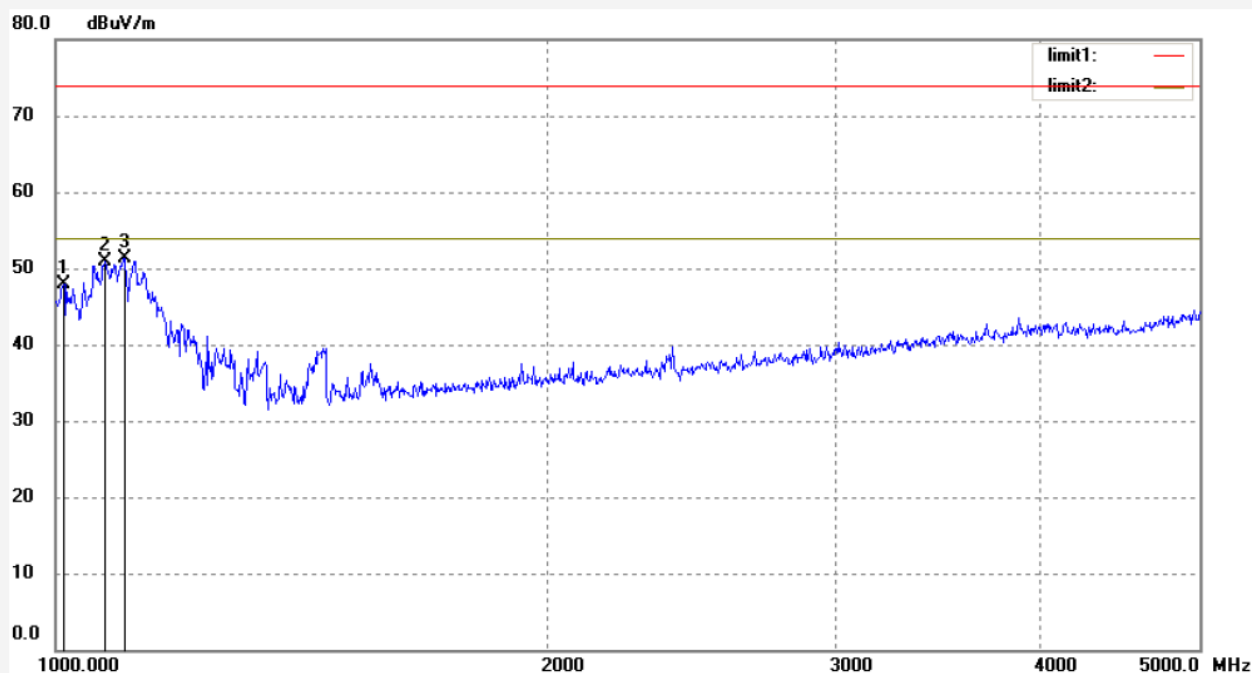
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Time: 10/45/37

Engineer Signature:

Distance: 3m

Note: Report No:ATE20140929



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	1011.330	58.76	-10.78	47.98	74.00	-26.02	peak			
2	1071.657	61.48	-10.64	50.84	74.00	-23.16	peak			
3	1101.383	61.95	-10.58	51.37	74.00	-22.63	peak			



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Site: 1# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: alen #4381

Standard: FCC PK

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 55 %

EUT: 7" 3G Tablet

Mode: Transfer data

Model: ROAD XT-71BG

Manufacturer: IMC

Polarization: Vertical

Power Source: DC 5V

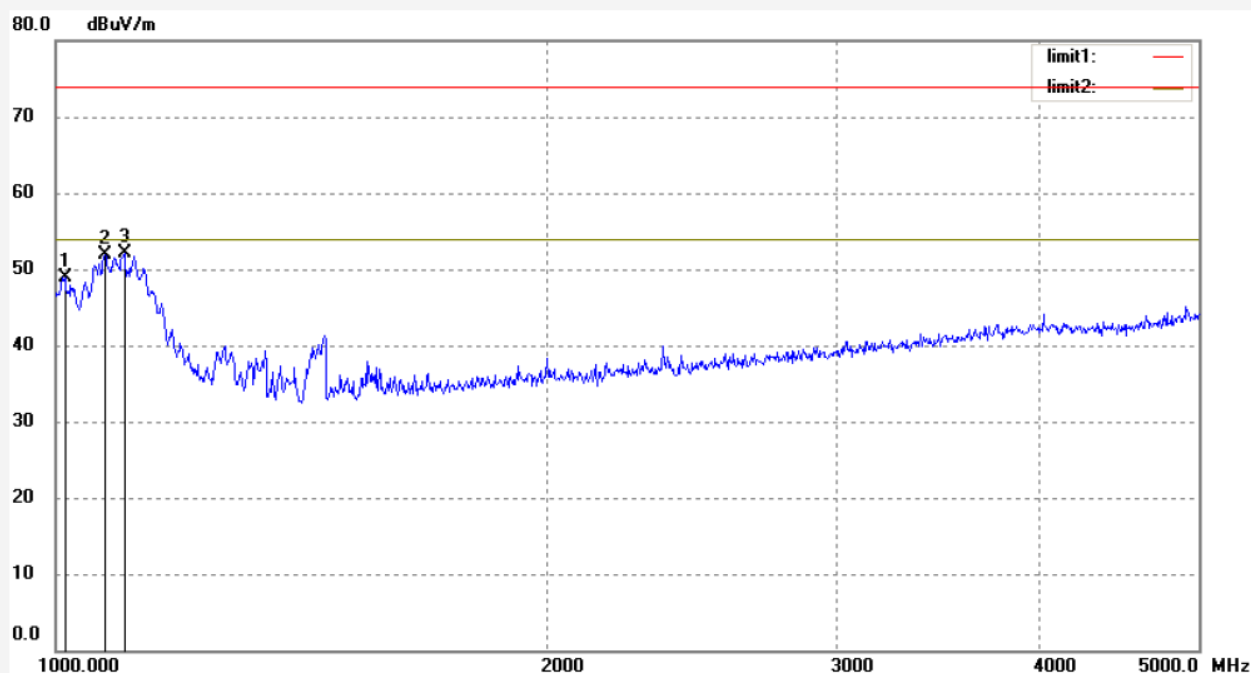
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Time: 10/46/44

Engineer Signature:

Distance: 3m

Note: Report No:ATE20140929



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	1012.959	59.62	-10.76	48.86	74.00	-25.14	peak			
2	1071.657	62.48	-10.64	51.84	74.00	-22.16	peak			
3	1101.383	62.67	-10.58	52.09	74.00	-21.91	peak			



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Site: 1# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: alen #4379

Standard: FCC PK

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 55 %

EUT: 7" 3G Tablet

Mode: Camera

Model: ROAD XT-71BG

Manufacturer: IMC

Polarization: Horizontal

Power Source: AC 120V/60Hz

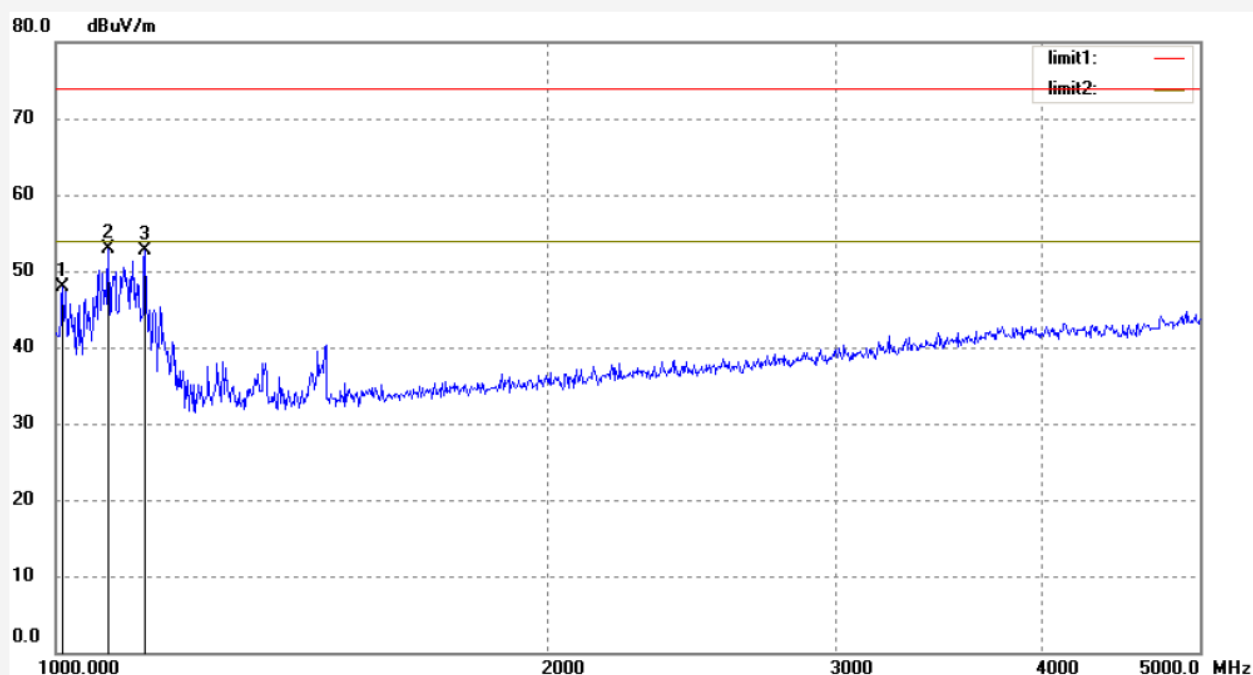
Date: 14/06/14/

Time: 10/44/09

Engineer Signature:

Distance: 3m

Note: Report No:ATE20140929



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	1009.703	58.71	-10.78	47.93	74.00	-26.07	peak			
2	1076.844	63.60	-10.64	52.96	74.00	-21.04	peak			
3	1133.756	63.13	-10.50	52.63	74.00	-21.37	peak			



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Job No.: alen #4378

Standard: FCC PK

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 55 %

EUT: 7" 3G Tablet

Mode: Camera

Model: ROAD XT-71BG

Manufacturer: IMC

Polarization: Vertical

Power Source: AC 120V/60Hz

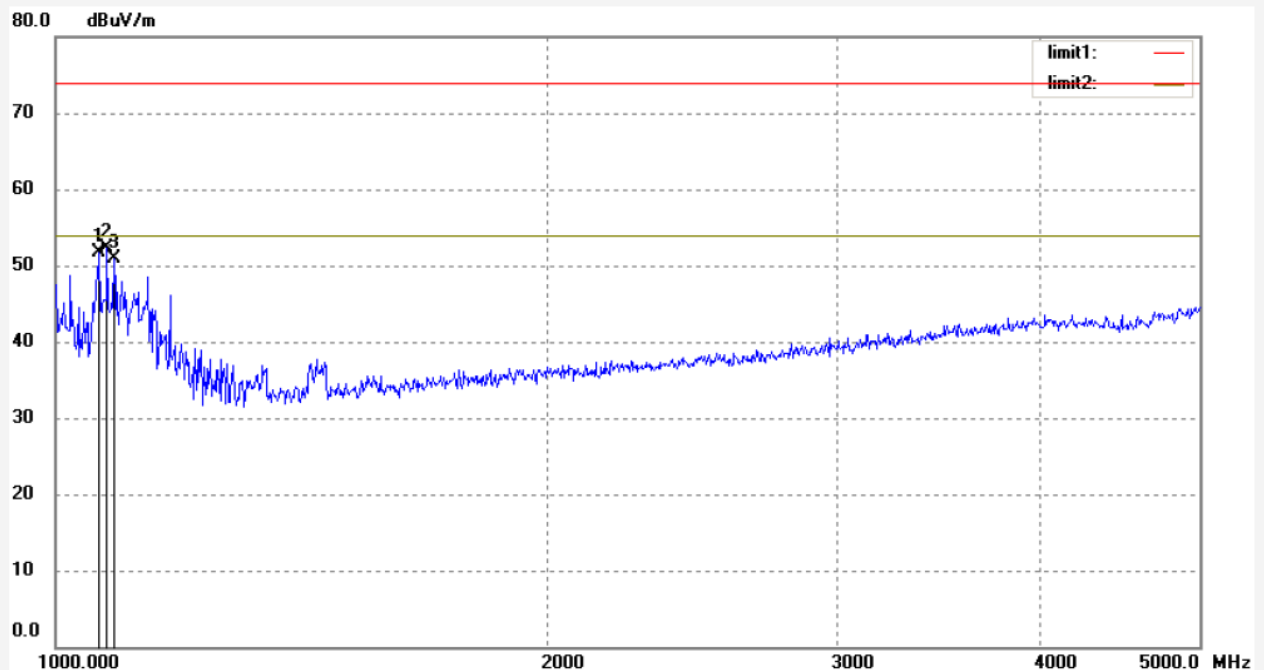
Date: 14/06/14/

Time: 10/42/53

Engineer Signature:

Distance: 3m

Note: Report No:ATE20140929



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	1063.068	62.26	-10.65	51.61	74.00	-22.39	peak			
2	1075.112	62.97	-10.63	52.34	74.00	-21.66	peak			
3	1085.544	61.43	-10.61	50.82	74.00	-23.18	peak			

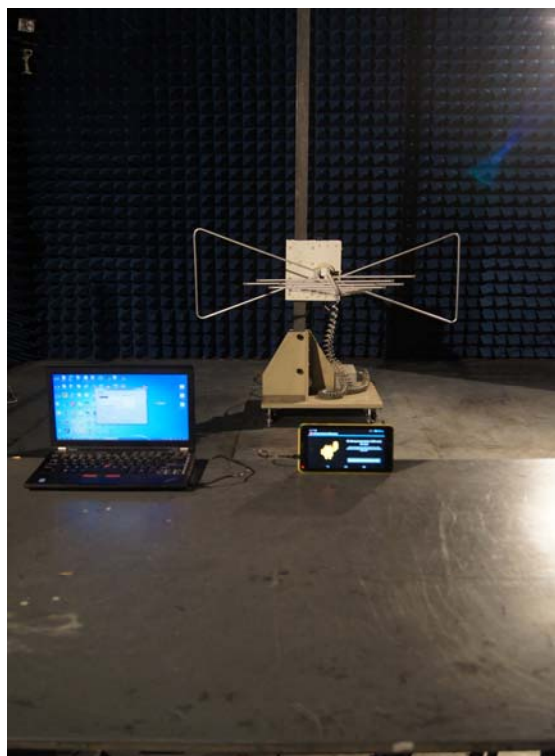
5. PHOTOGRAPHS

5.1.Photos of Radiated Measurement

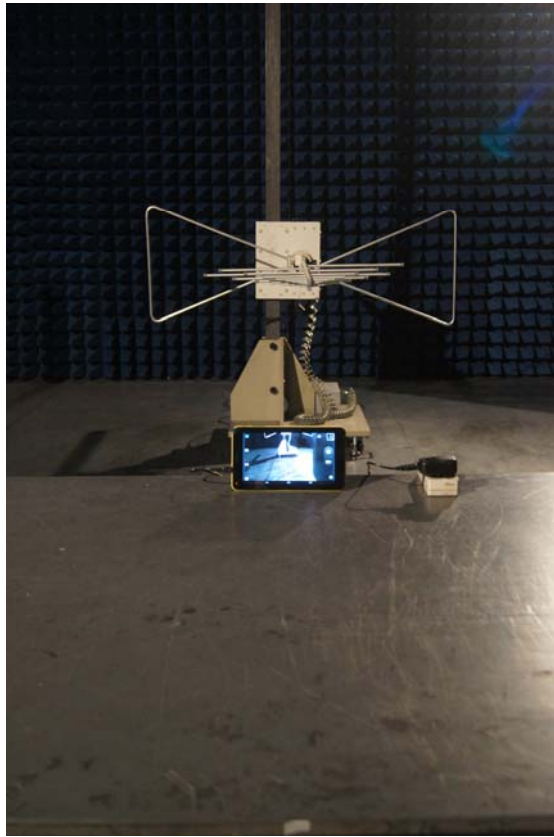
Playing mode(below 1GHz)



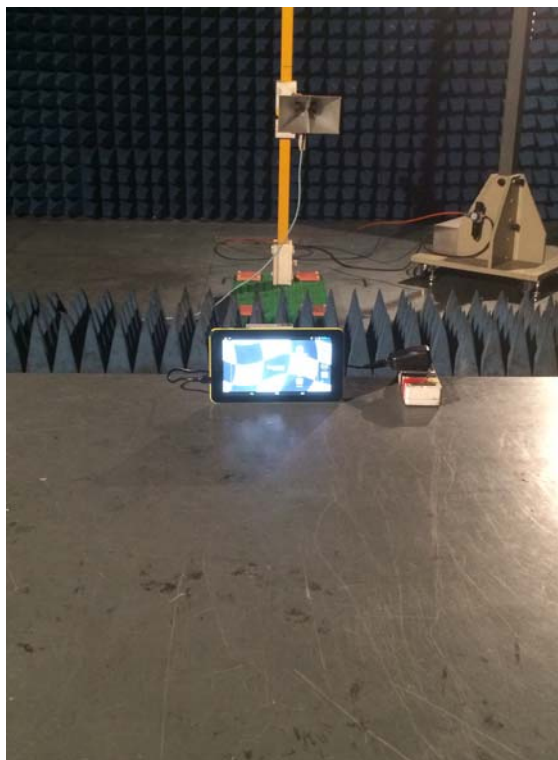
Transfer data mode(below 1GHz)



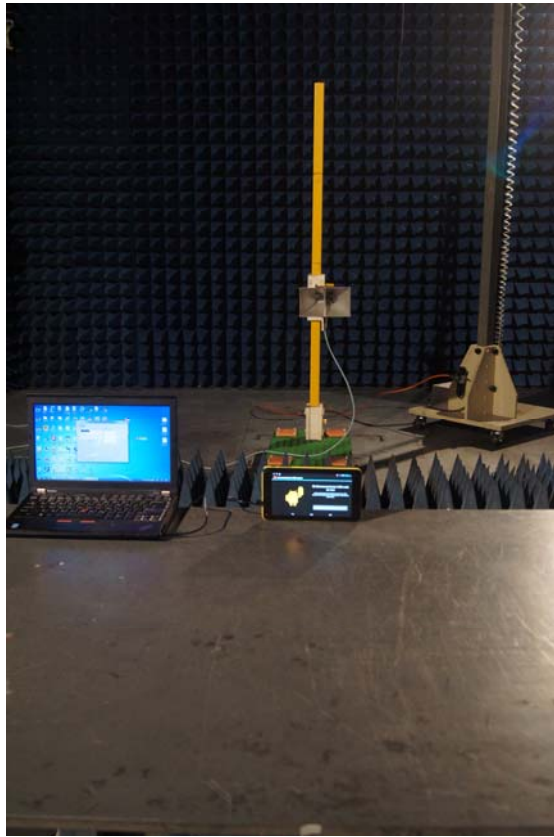
Camera mode(below 1GHz)



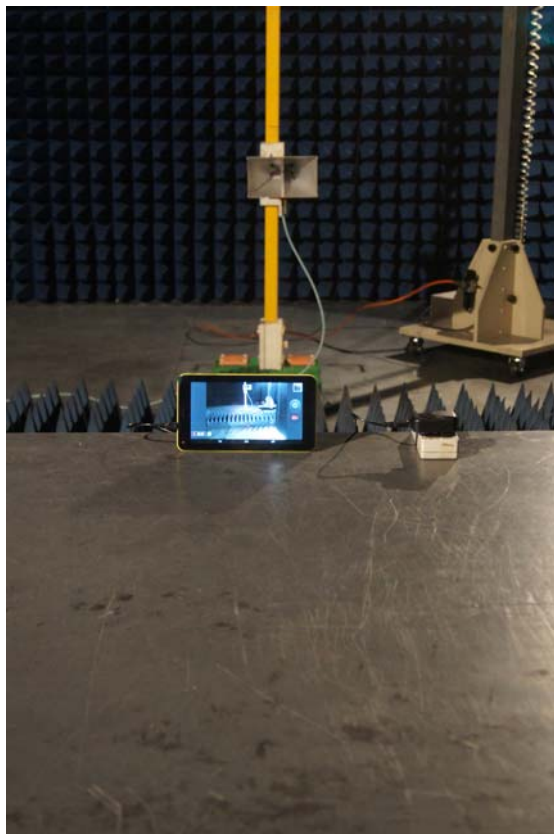
Playing mode(above 1GHz)



Transfer data mode(above 1GHz)



Camera mode(above 1GHz)



5.2. Photograph of set-up for Mains Terminal Disturbance Voltage Playing mode



Transfer data mode



Camera mode

