FCC Part 15B
Measurement and Test Report

For

SHENZHEN BESING ELECTRONICS CO., LTD

3/F, 3 BLOCK, DONGLONGXING INDUSTRIAL VILLAGE,

LONGHUA TOWN, SHENZHEN CITY, CHINA

FCC ID: 2ADGZ-ICBM-7FLA

FCC Rule(s):	FCC Part 15 Subpart B
Product Description:	7'' TABLET
Tested Model:	ICBM-7FLA
Report No.:	STR14118120I-4
Tested Date:	2014-11-21 to 2014-12-03
Issued Date:	2014-12-03
Tested By:	Mark chen / Engineer
Reviewed By:	Lahm Peng / EMC Manager
Approved & Authorized By:	Jandy So / PSQ Manager

Prepared By:

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Note: This test report is limited to the above client company and the product model only. It may not be duplicated without prior permitted by Shenzhen SEM.Test Technology Co., Ltd.

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1. GENERAL INFORMATION

1.1 Product Description for Equipment Under Test (EUT)

Client Information

Applicant:	SHENZHEN BESING ELECTRONICS CO., LTD
Address of applicant:	3/F, BLOCK, DONGLONGXING INDUSTRIAL VILLAGE, LONGHUA TOWN, SHENZHEN CITY, CHINA
Manufacturer:	SHENZHEN BESING ELECTRONICS CO., LTD
Address of manufacturer:	3/F, BLOCK, DONGLONGXING INDUSTRIAL VILLAGE, LONGHUA TOWN, SHENZHEN CITY, CHINA

General Description of EUT	
Product Name:	7''TABLET
Trade Name:	Samy
Model No.:	ICBM-7FLA
Adding Model(s):	TABLET 7.6
Note: The test data is gathered from a production sample, provided by the manufacturer. The appearance of others models listed in the report is different from main-test model ICBM-7FLA, but the circuit and the electronic construction do not change, declared by the manufacturer.	

Technical Characteristics of EUT	
Rated Voltage:	120V/60Hz
Rated Current:	2A
Rated Power:	10mW
Power Adapter Model:	/
Lowest Internal Frequency:	32.768KHz
Classification of ITE:	Class B

1.2 Test Standards

The following report is prepared on behalf of the SHENZHEN BESING ELECTRONICS CO., LTD in accordance with Part 2, Subpart J, and Part 15, Subparts A and B of the Federal Communication Commissions rules.

The objective is to determine compliance with FCC Part 15, Subpart B, and section 15.205, 15.107, and 15.109 rules.

Maintenance of compliance is the responsibility of the manufacturer. Any modification of the product, which result in lowering the emission, should be checked to ensure compliance has been maintained.

1.3 Test Methodology

All measurements contained in this report were conducted with ANSI C63.4-2003, American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the range of 9 kHz to 40 GHz.

1.4 Test Facility

FCC – Registration No.: 934118

Shenzhen SEM.Test Technology Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files and the Registration is 934118.

Industry Canada (IC) Registration No.: 11464A

The 3m Semi-anechoic chamber of Shenzhen SEM.Test Technology Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 11464A.

CNAS Registration No.: L4062

Shenzhen SEM.Test Technology Co., Ltd. is a testing organization accredited by China National Accreditation Service for Conformity Assessment (CNAS) according to ISO/IEC 17025. The accreditation certificate number is L4062. All measurement facilities used to collect the measurement data are located at 1/F, Building A, Hongwei Industrial Park, Liuxian 2nd Road, Bao'an District, Shenzhen, P.R.C (518101).

1.5 EUT Setup and Operation Mode

The equipment under test (EUT) was configured to measure its highest possible emission level. The test modes were adapted according to the operation manual for use, more detailed description as follows:

Test Mode List:

Test Mode	Description	Remark
TM1	Charging and Playing	With HDMI output
TM2	Downloading	Connect to PC
TM3	Camera	/

EUT Cable List and Details

Cable Description	Length (M)	Shielded/Unshielded	With Core/Without Core
AC Adaptor	0.9	Unshielded	Without Core
USB Cable	0.8	Unshielded	Without Core

Auxiliary Equipment List and Details

Description	Manufacturer	Model	Serial Number
TF Card	Kingston	4GB	/
Notebook	Lenovo	E10	/
Display	Dell	U2410F	/
Earphone	/	/	/

Special Cable List and Details

Cable Description	Length (M)	Shielded/Unshielded	With Core/Without Core
HDMI Line	0.8	Unshielded	Without Core

2. SUMMARY OF TEST RESULTS

Description of Test	Result
§15.107 (a) Conducted Emission	Compliant
§15.109(a) Radiated Emission	Compliant

N/A: not applicable

3. CONDUCTED EMISSIONS

3.1 Measurement Uncertainty

Base on NIS 81, The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of any conducted emissions measurement is ± 2.88 dB.

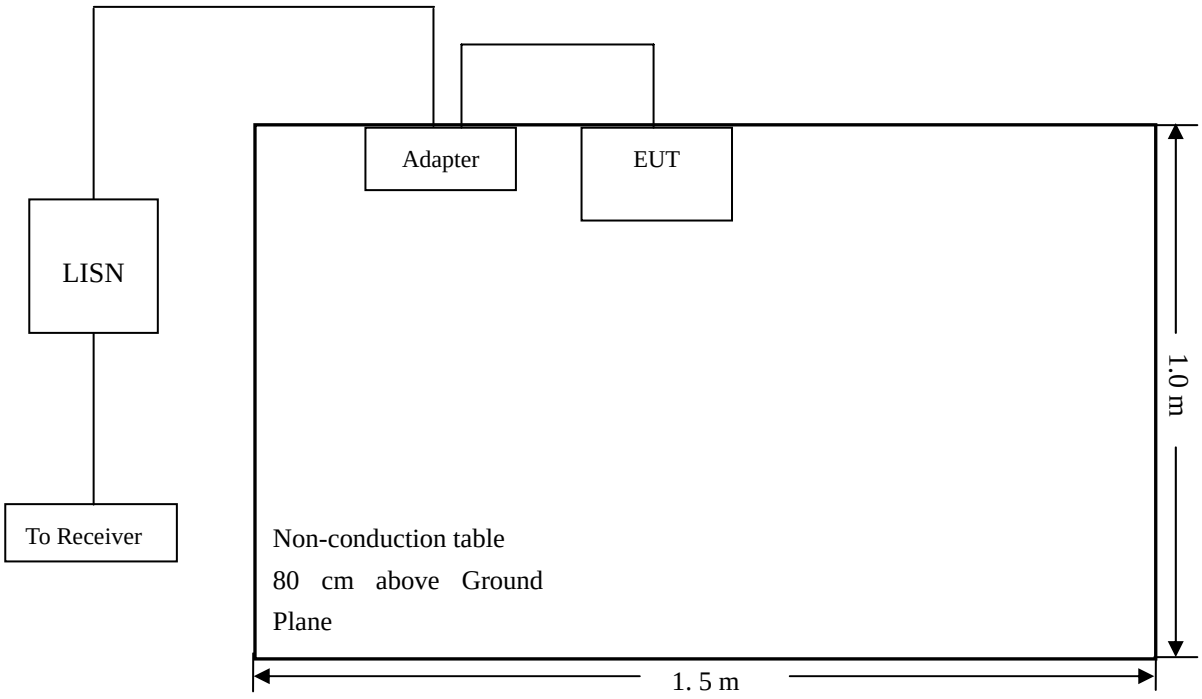
3.2 Test Equipment List and Details

Description	Manufacturer	Model	Serial Number	Cal. Date	Due. Date
EMI Test Receiver	Rohde & Schwarz	ESPI	101611	2014-05-28	2015-05-27
L.I.S.N	Schwarz beck	NSLK8126	8126-224	2014-05-28	2015-05-27
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100911	2014-05-28	2015-05-27

3.3 Test Procedure

Test is conducting under the description of ANSI C63.4-2003, American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the range of 9 kHz to 40 GHz.

3.4 Basic Test Setup Block Diagram



3.5 Environmental Conditions

Temperature:	23 °C
Relative Humidity:	52%
ATM Pressure:	1011 mbar

3.6 Summary of Test Results/Plots

According to the data in section 3.7, the EUT complied with the FCC Part 15.107(a) Conducted margin for a Class B device, with the *worst* margin reading of:

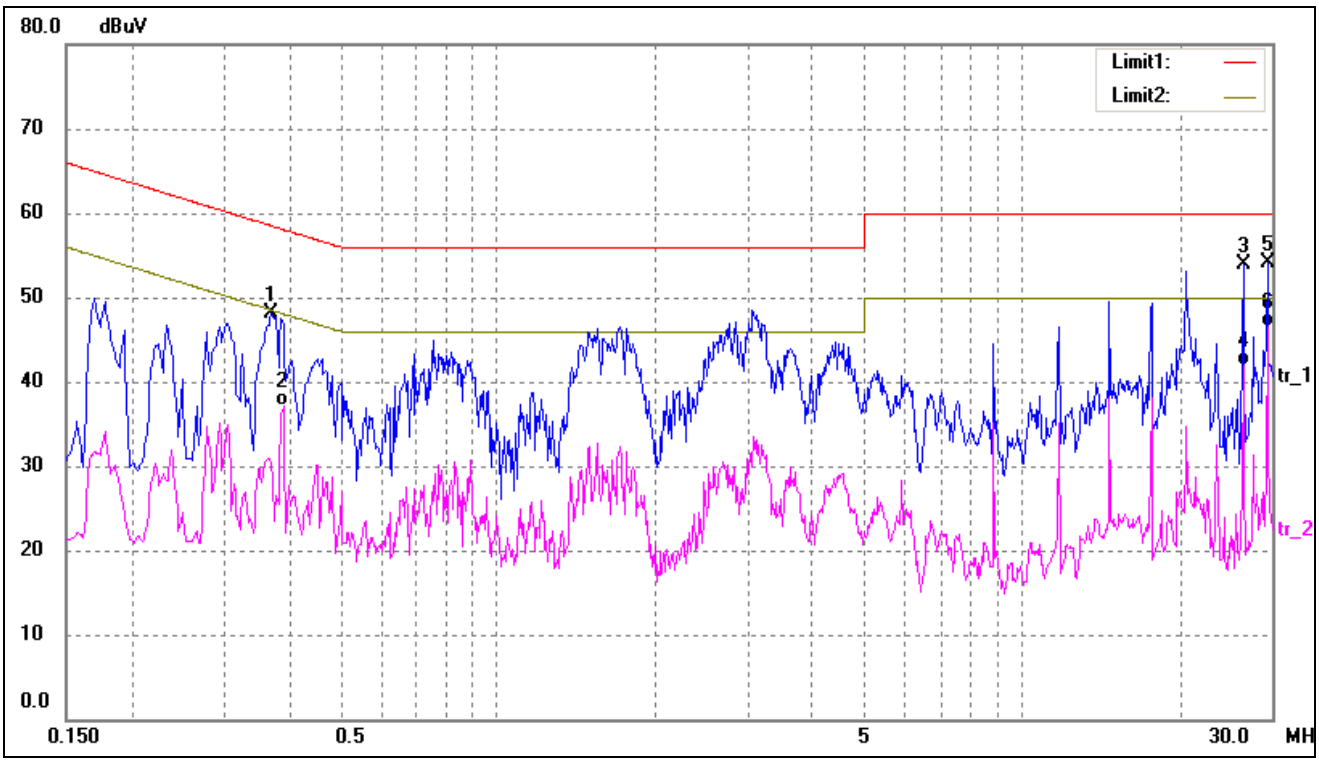
-3.47 dB at **29.4700** in the **Neutral**, **Peak** detector, 0.15-30MHz

3.7 Conducted Emissions Test Data

Plot of Conducted Emissions Test Data

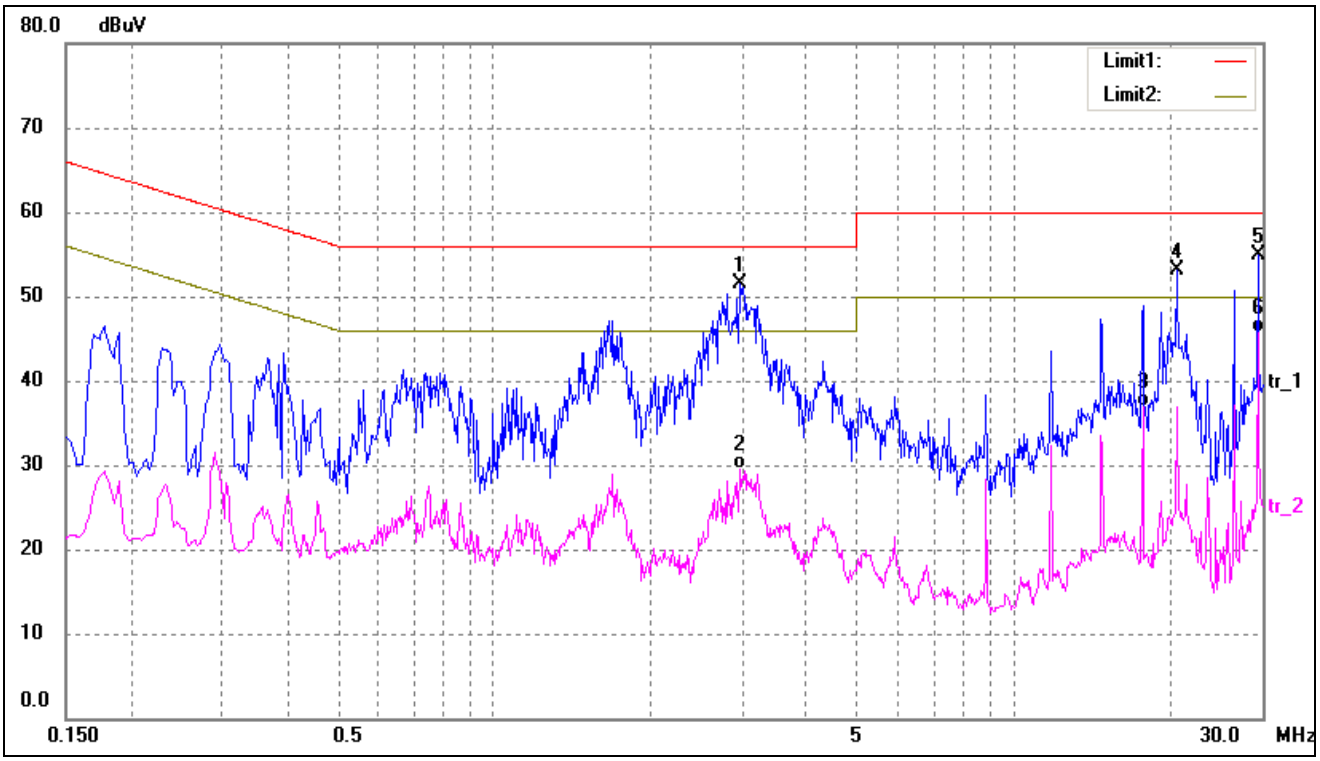
EUT: *7" TABLET*
Tested Model: *ICBM-7FLA*
Operating Condition: *Charging and Playing*
Comment: *AC120V/60Hz; Adapter DC 5V*

Test Specification: *Neutral*



No.	Frequency	Reading	Correct	Result	Limit	Margin	Detector
	(MHz)	(dBuV)	(dB/m)	(dBuV)	(dBuV)	(dB)	
1	0.3700	38.69	9.50	48.19	58.50	-10.31	peak
2	0.3900	27.56	9.50	37.06	48.06	-11.00	AVG
3	26.5220	40.83	13.00	53.83	60.00	-6.17	peak
4	26.5220	28.84	13.00	41.84	50.00	-8.16	AVG
5	29.4700	41.03	13.00	54.03	60.00	-5.97	peak
6	29.4700	33.53	13.00	46.53	50.00	-3.47	AVG

Test Specification: *Line*



No.	Frequency	Reading	Correct	Result	Limit	Margin	Detector
	(MHz)	(dBuV)	(dB/m)	(dBuV)	(dBuV)	(dB)	
1	2.9620	41.45	10.00	51.45	56.00	-4.55	peak
2	2.9620	19.57	10.00	29.57	46.00	-16.43	AVG
3	17.6900	25.33	11.54	36.87	50.00	-13.13	AVG
4	20.5620	41.03	12.00	53.03	60.00	-6.97	peak
5	29.4940	41.98	13.00	54.98	60.00	-5.02	peak
6	29.4940	32.74	13.00	45.74	50.00	-4.26	AVG

4. RADIATED EMISSION

4.1 Measurement Uncertainty

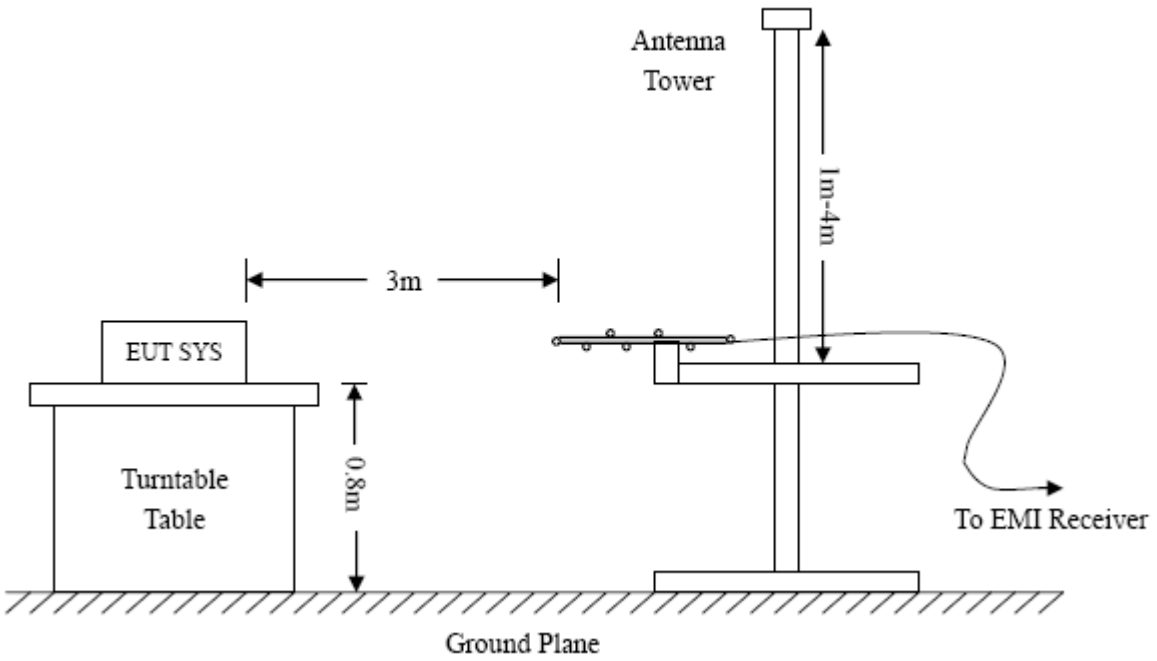
Base on NIS 81, The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of any radiation emissions measurement is ± 5.10 dB.

4.2 Test Equipment List and Details

Description	Manufacturer	Model	Serial Number	Cal. Date	Due. Date
Spectrum Analyzer	R&S	FSP	836079/035	2014-05-28	2015-05-27
EMI Test Receiver	R&S	ESVB	825471/005	2014-05-28	2015-05-27
Pre-amplifier	Agilent	8447F	3113A06717	2014-05-28	2015-05-27
Pre-amplifier	Compliance Direction	PAP-0118	24002	2014-05-28	2015-05-27
Trilog Broadband Antenna	SCHWARZBECK	VULB9163	9163-333	2014-05-24	2015-05-23
Horn Antenna	ETS	3117	00086197	2014-05-24	2015-05-23
Loop Antenna	SCHWARZECK	HFRA 5165	9365	2014-05-24	2015-05-23

4.3 Test Procedure

The setup of EUT is according with per ANSI C63.4-2003 measurement procedure. The specification used was with the FCC Part 15.109 Limit.
The external I/O cables were draped along the test table and formed a bundle 30 to 40 cm long in the middle.
The spacing between the peripherals was 10 cm.



4.4 Test Receiver Setup

Frequency :9kHz-30MHz	Frequency :30MHz-1GHz	Frequency :Above 1GHz
RBW=10KHz,	RBW=120KHz,	RBW=1MHz,
VBW =30KHz	VBW=300KHz	VBW=3MHz(Peak), 10Hz(AV)
Sweep time= Auto	Sweep time= Auto	Sweep time= Auto
Trace = max hold	Trace = max hold	Trace = max hold
Detector function = peak	Detector function = peak, QP	Detector function = peak, AV

4.5 Corrected Amplitude & Margin Calculation

The Corrected Amplitude is calculated by adding the Antenna Factor and the Cable Factor, and subtracting the Amplifier Gain from the Amplitude reading. The basic equation is as follows:

Corr. Ampl. = Indicated Reading – Corr. Factor

The "**Margin**" column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of -6dBμV means the emission is 6dBμV below the maximum limit for a Class B device. The equation for margin calculation is as follows:

Margin = Corr. Ampl. – FCC Part 15.109(a) Limit

4.6 Environmental Conditions

Temperature:	23 °C
Relative Humidity:	55 %
ATM Pressure:	1011 mbar

4.7 Summary of Test Results/Plots

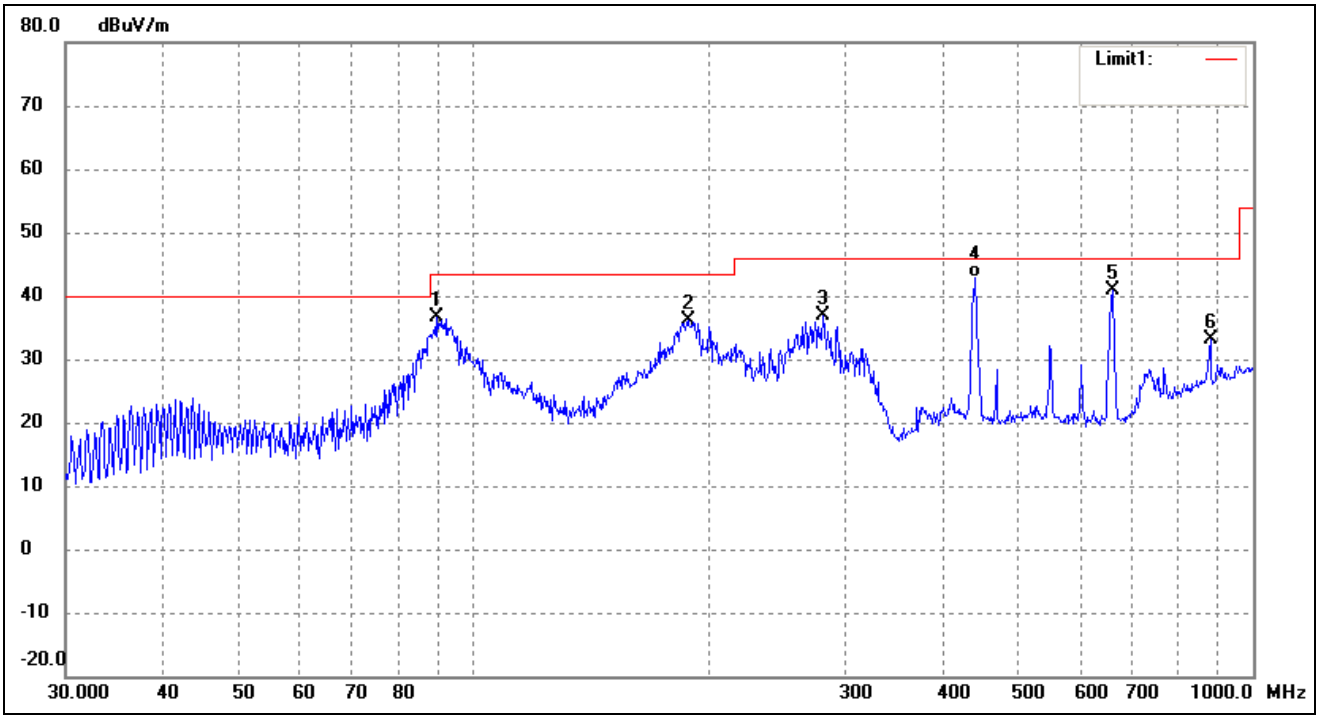
According to the data, the EUT complied with the FCC Part 15.109(a) rule, and had the worst margin of:

-3.11 dB at **440.1963 MHz** in the **Horizontal** polarization, **30 MHz** to **1 GHz**, **3Meters**

Plot of Radiated Emissions Test Data (30MHz to 1GHz)

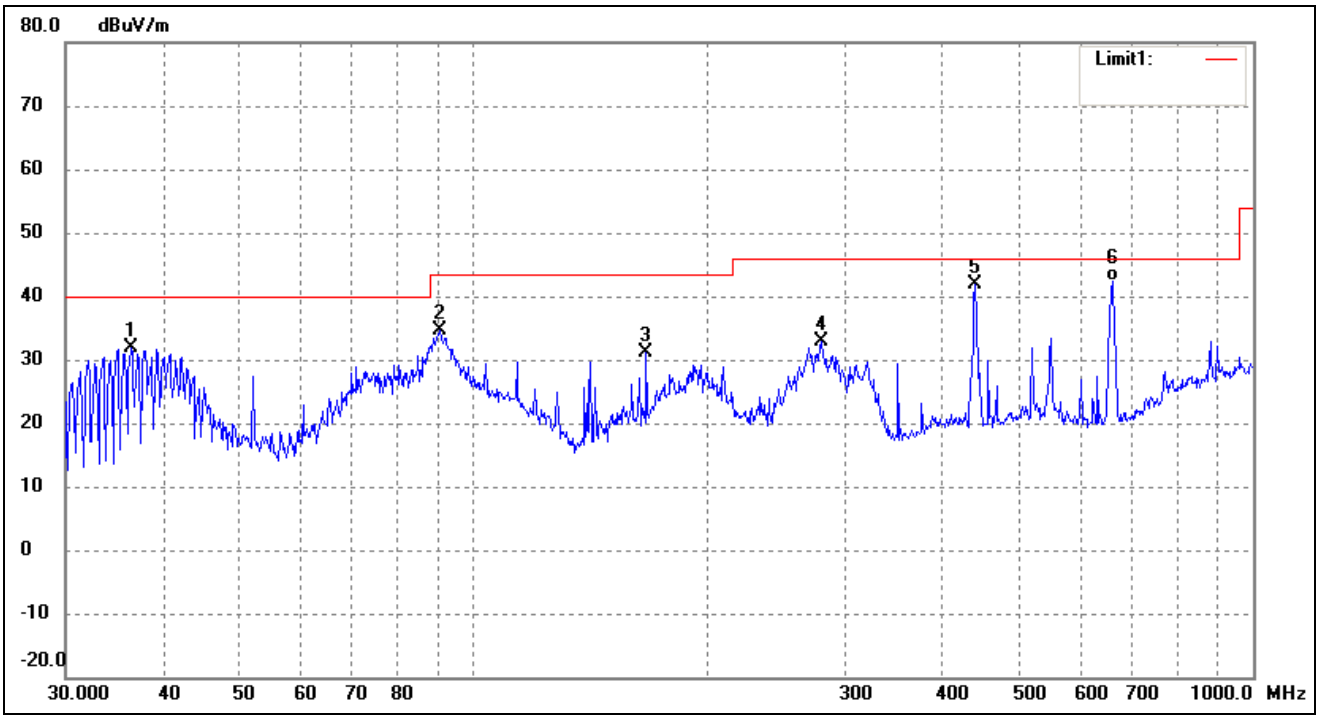
EUT: *7" TABLET*
Tested Model: *ICBM-7FLA*
Operating Condition: *Charging and Playing*
Comment: *AC 120V/60Hz; Adapter DC 5V*

Test Specification: *Horizontal*



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	Factor(dB)	(dBuV/m)	(dBuV/m)	(dB)	(•)	(cm)	
1	89.5900	47.94	-11.28	36.66	43.50	-6.84	124	100	peak
2	188.4125	46.26	-10.22	36.04	43.50	-7.46	149	100	peak
3	281.0075	43.66	-6.67	36.99	46.00	-9.01	155	100	peak
4*	440.1963	45.16	-2.27	42.89	46.00	-3.11	176	100	QP
5	661.1505	41.98	-1.07	40.91	46.00	-5.09	184	100	peak
6	881.4067	28.22	4.82	33.04	46.00	-12.96	201	100	peak

Test Specification: *Vertical*

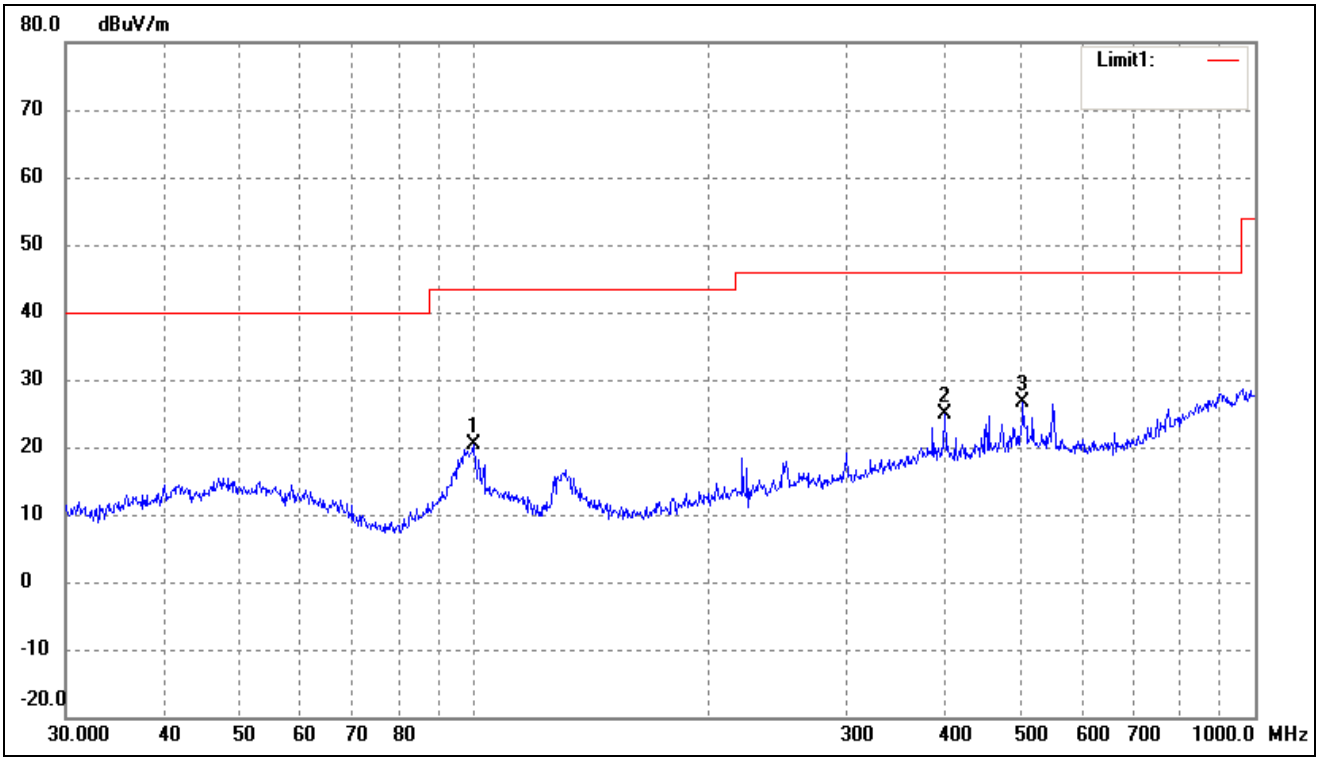


No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	Factor(dB)	(dBuV/m)	(dBuV/m)	(dB)	(•)	(cm)	
1	36.3814	41.43	-9.52	31.91	40.00	-8.09	107	100	peak
2	90.5374	45.82	-11.07	34.75	43.50	-8.75	147	100	peak
3	166.6514	43.09	-12.01	31.08	43.50	-12.42	158	100	peak
4	280.0238	39.62	-6.69	32.93	46.00	-13.07	164	100	peak
5	440.1963	44.10	-2.27	41.83	46.00	-4.17	194	100	peak
6*	661.1505	40.47	1.93	42.40	46.00	-3.60	221	100	QP

Plot of Radiated Emissions Test Data

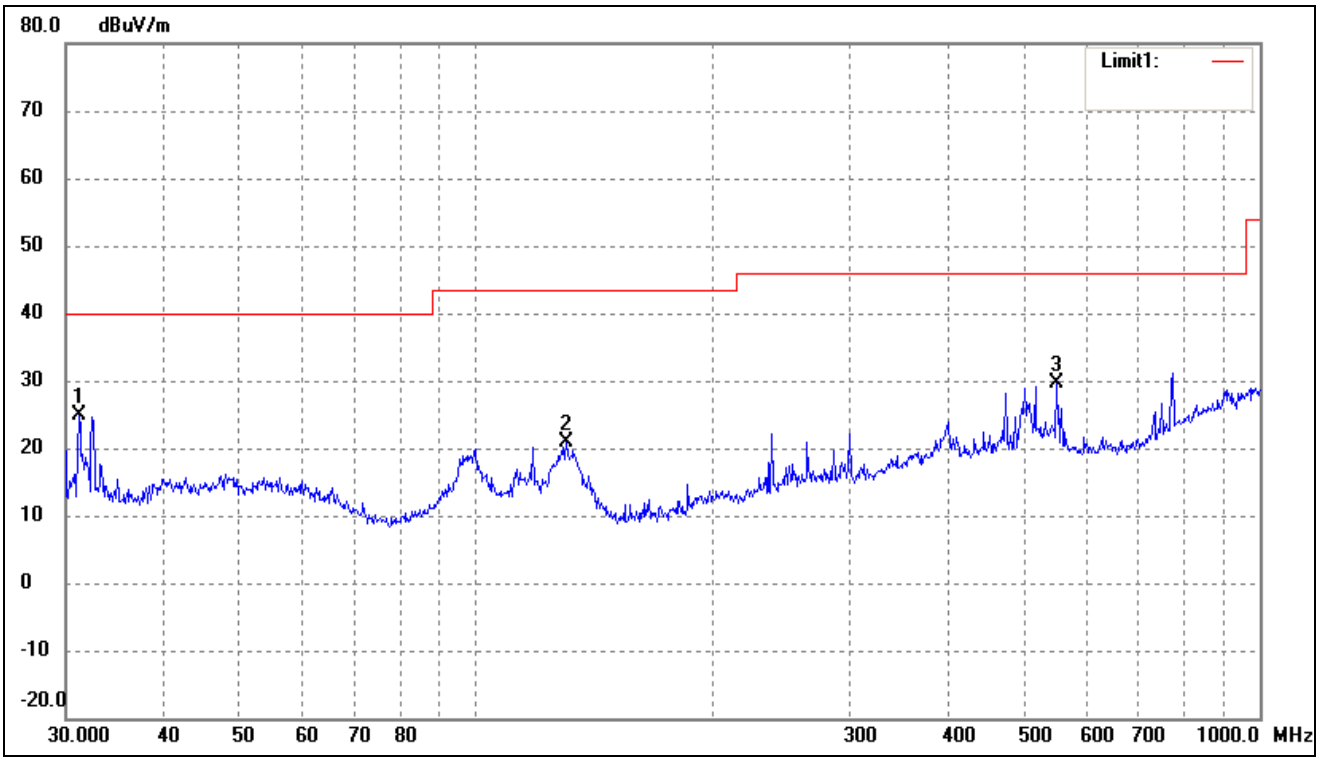
EUT: *7" TABLET*
Tested Model: *ICBM-7FLA*
Operating Condition: *Downloading*
Comment: *Battery:3.7V*

Test Specification: *Horizontal*



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	Factor(dB)	(dBuV/m)	(dBuV/m)	(dB)	(•)	(cm)	
1	99.8777	30.06	-9.58	20.48	43.50	-23.02	102	100	peak
2	400.4319	27.79	-2.92	24.87	46.00	-21.13	148	100	peak
3	504.7062	27.76	-1.15	26.61	46.00	-19.39	159	100	peak

Test Specification: *Vertical*

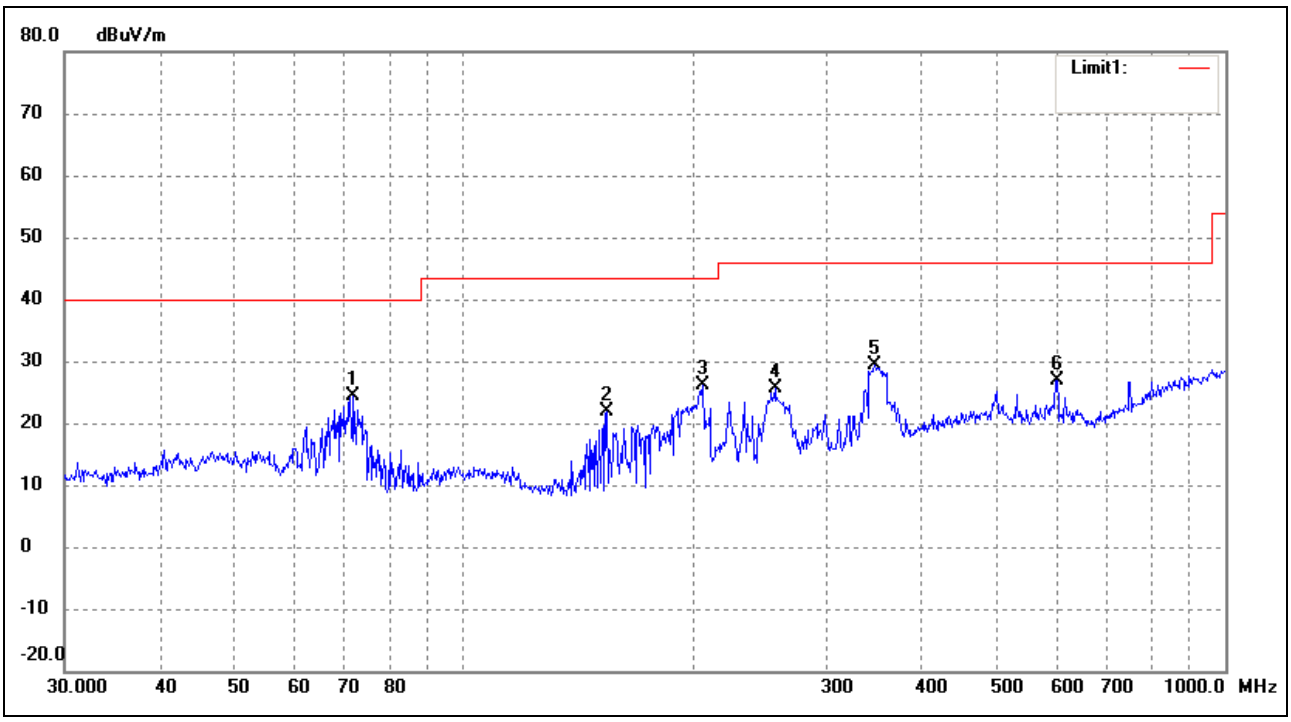


No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	Factor(dB)	(dBuV/m)	(dBuV/m)	(dB)	(•)	(cm)	
1	31.1798	35.54	-10.60	24.94	40.00	-15.06	105	100	peak
2	130.3789	33.59	-12.76	20.83	43.50	-22.67	167	100	peak
3	550.9480	29.50	0.16	29.66	46.00	-16.34	188	100	peak

Plot of Radiated Emissions Test Data

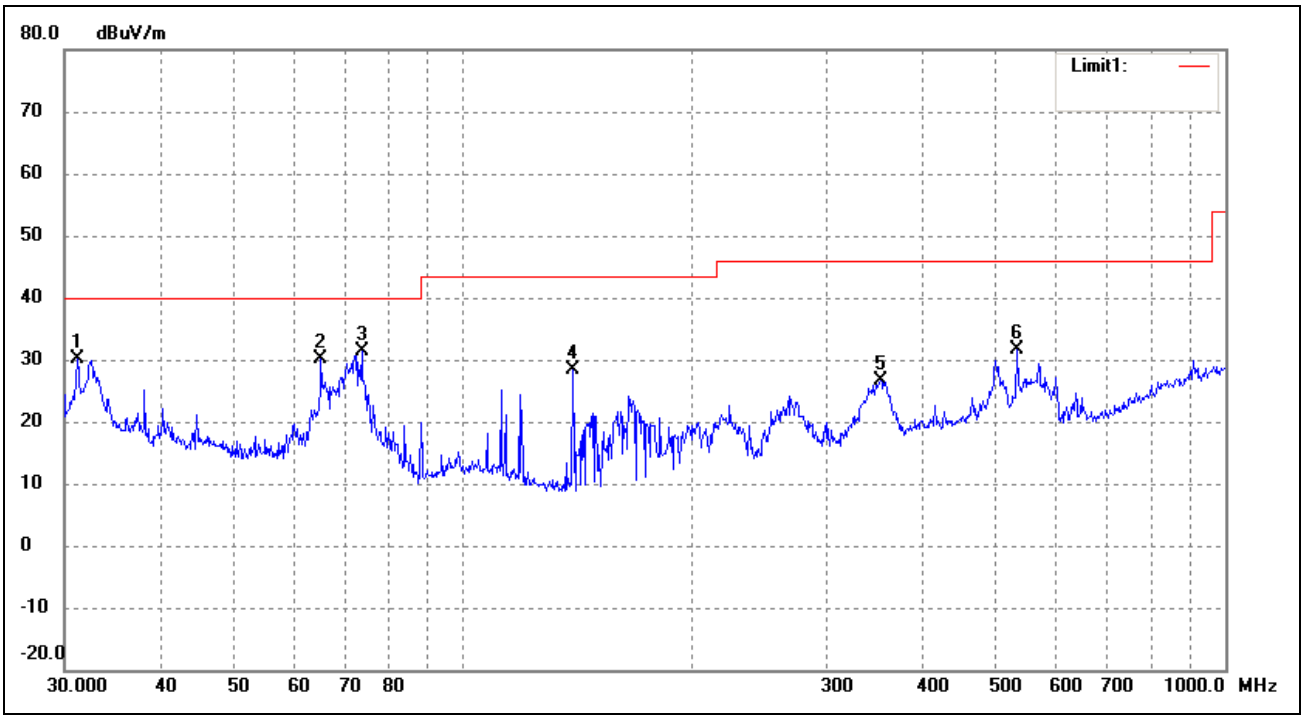
EUT: *7" TABLET*
Tested Model: *ICBM-7FLA*
Operating Condition: *Camera*
Comment: *Battery:3.7V*

Test Specification: *Horizontal*



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Detector
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	( )	(cm)	
1*	71.8320	36.67	-12.26	24.41	40.00	-15.59	102	100	peak
2	154.2786	34.63	-12.69	21.94	43.50	-21.56	114	100	peak
3	206.3976	35.04	-9.01	26.03	43.50	-17.47	127	100	peak
4	256.5211	32.80	-7.29	25.51	46.00	-20.49	166	100	peak
5	346.8092	33.76	-4.34	29.42	46.00	-16.58	184	100	peak
6	601.4265	28.69	-1.84	26.85	46.00	-19.15	201	100	peak

Test Specification: *Vertical*



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Detector
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	( )	(cm)	
1	31.1798	40.67	-10.60	30.07	40.00	-9.93	114	100	peak
2	65.1145	39.95	-9.86	30.09	40.00	-9.91	127	100	peak
3*	73.6170	44.29	-12.80	31.49	40.00	-8.51	149	100	peak
4	139.3613	41.45	-13.13	28.32	43.50	-15.18	166	100	peak
5	352.9434	30.73	-4.21	26.52	46.00	-19.48	184	100	peak
6	531.9635	31.83	-0.32	31.51	46.00	-14.49	201	100	peak

Note: Testing is carried out with frequency rang 9kHz to the 5GHz, which above 1GHz is close to the noise base even antenna close up to 1meter distance according the measurement of ANSI C63.4.

The measurements greater than 20dB below the limit from 9kHz to 30MHz and test data are not provided.

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