FCC Part 15B
Measurement and Test Report

For

SHENZHEN ALLDOCUBE TECHNOLOGY AND SCIENCE CO., LTD

2F/17Building, Pingshan Industrial Park, Middle of Liuxian Road, Xili Town,

Nanshan District, Shenzhen, China.

FCC ID: 2AAGQ-U35GT

Test Standards:	FCC Part 15 Subpart B
Product Description:	Tablet PC
Tested Model:	U35GT
Report No.:	STR13068142I -2
Tested Date:	2013-06-30 to 2013-06-29
Issued Date:	2013-07-02
Tested By:	Daniel Liu / Engineer
Reviewed By:	Lahm Peng / EMC Manager
Approved & Authorized By:	Jandy so / PSQ Manager

Prepared By:

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1. GENERAL INFORMATION

1.1 Product Description for Equipment Under Test (EUT)

Client Information

Applicant:	SHENZHEN ALLDOUBE TECHNOLOGY AND SCIENCE CO.,LTD
Address of applicant:	2F/17Building,Pingshan Industrial Park,Middle of Liuxian Road,Xili Town, Nanshan District, Shenzhen, China.
Manufacturer:	SHENZHEN ALLDOUBE TECHNOLOGY AND SCIENCE CO.,LTD
Address of manufacturer:	2F/17Building,Pingshan Industrial Park,Middle of Liuxian Road,Xili Town, Nanshan District, Shenzhen, China.

General Description of EUT	
Product Name:	Tablet PC
Trade Name:	Smartbook
Model No.:	U35GT
Adding Model(s):	S7904
Note: The test data is gathered from a production sample, provided by the manufacturer. The other model listed in the report has different appearance only of U35GT without circuit and electronic construction changed, declared by the manufacturer	

Technical Characteristics of EUT	
Rated Voltage:	Charging: DC 5V, Battery: 3.7V
Rated Current:	2A
Power Adaptor Model:	P1-5.2, Input: 100-240 50/60Hz,0.5A Output: DC 5V,2A
Highest Internal Frequency:	1.6 GHz
Classification of ITE:	Class B
Support Interface:	Earphone Port, Micro USB Port,HDMI Port

1.2 Test Standards

The following report is prepared on behalf of the SHENZHEN ALLDOCUBE TECHNOLOGY AND SCIENCE 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.: 994117**
  SEM.Test Compliance Services 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 994117.

- **Industry Canada (IC) Registration No.: 7673A**
  The 3m Semi-anechoic chamber of SEM.Test Compliance Services Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 7673A.

- **CNAS Registration No.: L4062**
  Shenzhen SEM.Test Electronics Service 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 3/F, Jinbao Commerce Building, Xin’an Fanshen 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 & Playing	Charging & Color Bar with 1kHz Video
TM2	Downloading	Reading &writing
TM3	HDMI	HDMI Connect to Display

EUT Cable List and Details

Cable Description	Length (M)	Shielded/Unshielded	With Core/Without Core
Ear Phone Cable	1.0	Unshielded	Without Core
HDMI Cable	2.5	Shielded	Without Core

Auxiliary Equipment List and Details

Description	Manufacturer	Model	Serial Number
Notebook	Lenove	E23	/

Special Cable List and Details

Cable Description	Length (M)	Shielded/Unshielded	With Core/Without Core
USB Cable	1.0	Shielded	Without Core

2. SUMMARY OF TEST RESULTS

FCC Rules	Description of Test Item	Result
§ 15.107 (a)	Conducted Emissions	Compliant
§ 15.109 (a)	Radiated Emissions	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.

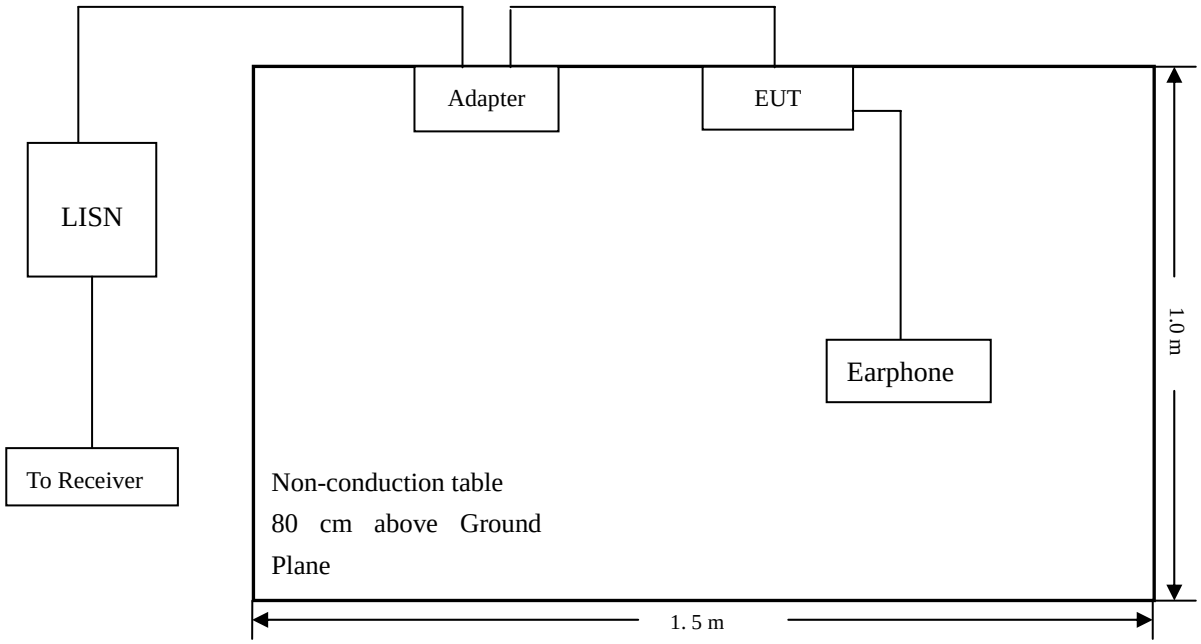
3.2 Test Equipment List and Details

Description	Manufacturer	Model	Serial Number	Cal. Date	Due. Date
EMI Test Receiver	Rohde & Schwarz	ESPI	101611	2013-05-07	2014-05-06
L.I.S.N	Schwarz beck	NSLK8126	8126-224	2013-05-07	2014-05-06
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100911	2013-05-07	2014-05-06

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:

-3.06 dB at 0.162MHz in the **Neutral** mode**, QP** detector, **0.15-30MHz**

3.7 Conducted Emissions Test Data

Plot of Conducted Emissions Test Data

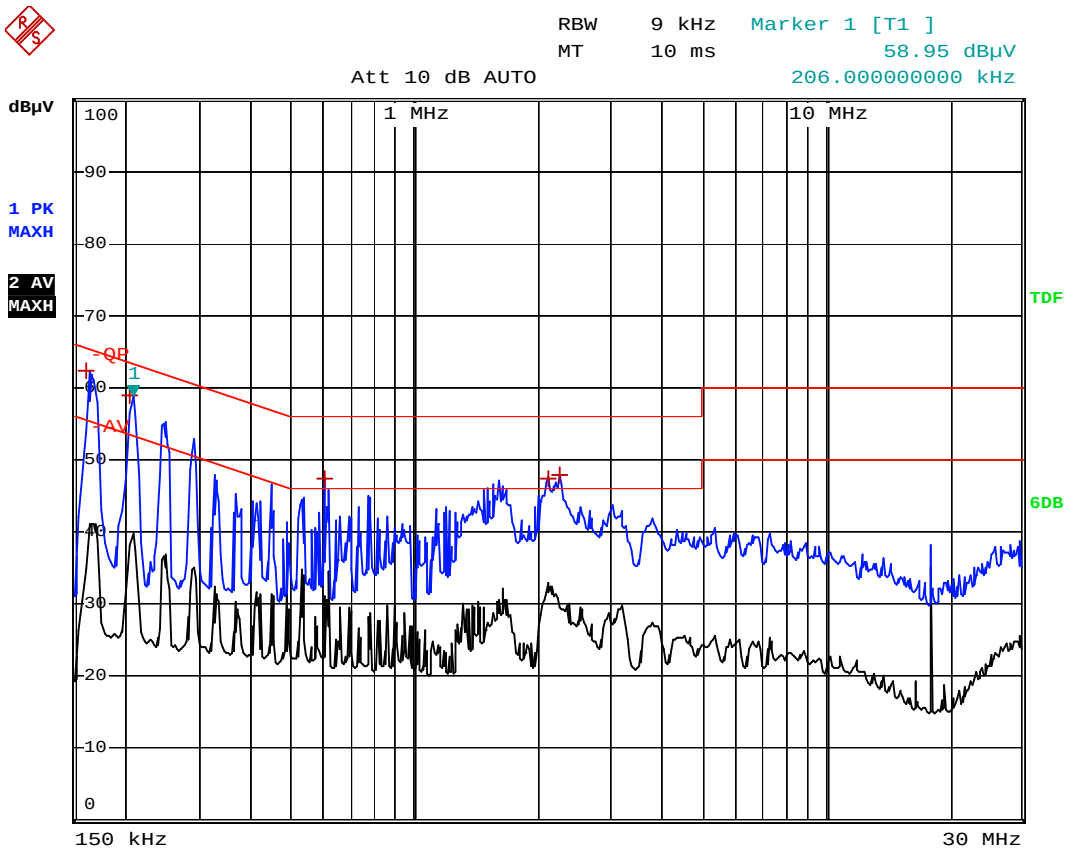
EUT: *Tablet PC*

Tested Model: *U25GT*

Operating Condition: *Charging & Color Bar with 1kHz Video*

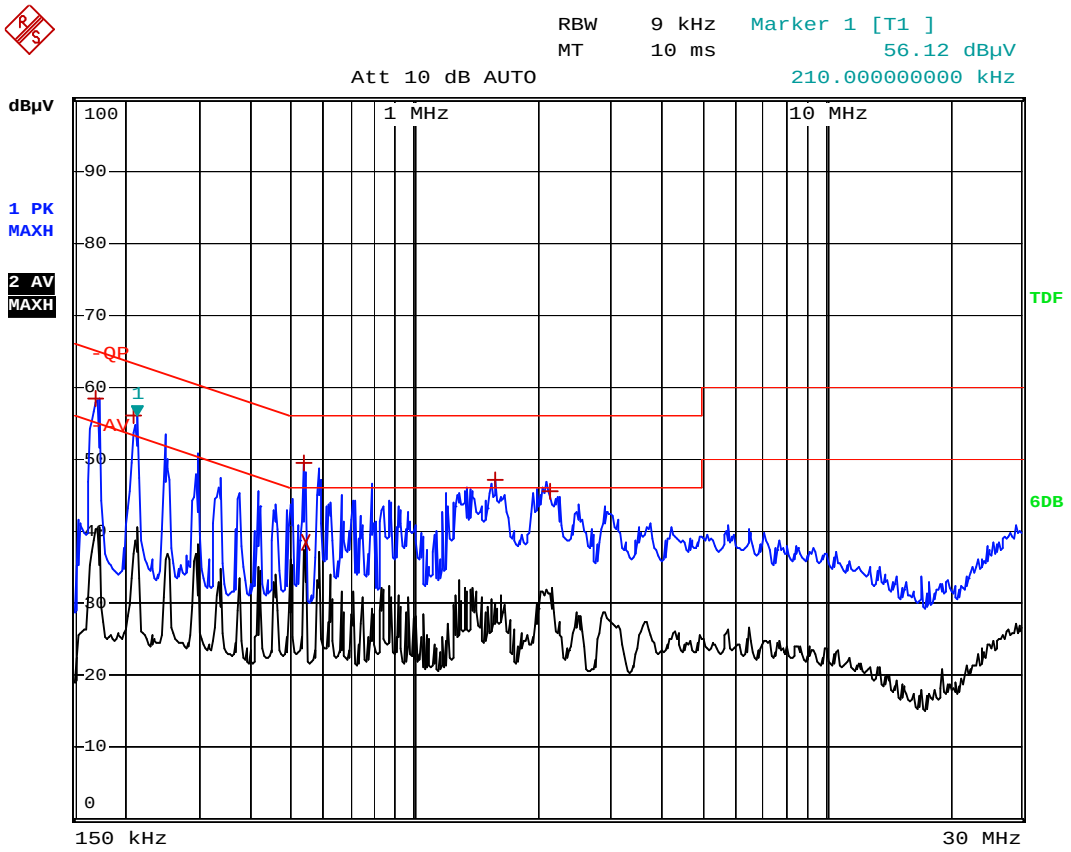
Comment: *AC 120V/60Hz*

Test Specification: *Neutral*



EDIT PEAK LIST (Prescan Results)			
Trace1:	-QP		
Trace2:	-AV		
Trace3:	---		
TRACE	FREQUENCY	LEVEL dBµV	DELTA LIMIT dB
1 Max Peak	162 kHz	62.29	-3.06
1 Max Peak	206 kHz	58.94	-4.41
1 Max Peak	606 kHz	47.33	-8.66
1 Max Peak	2.114 MHz	47.42	-8.57
1 Max Peak	2.25 MHz	47.78	-8.21

Test Specification: *Line*



EDIT PEAK LIST (Prescan Results)			
Trace1:	-QP		
Trace2:	-AV		
Trace3:	---		
TRACE	FREQUENCY	LEVEL dBµV	DELTA LIMIT dB
1 Max Peak	170 kHz	58.47	-6.48
1 Max Peak	210 kHz	56.11	-7.08
1 Max Peak	538 kHz	49.40	-6.59
2 Average	542 kHz	38.49	-7.50
1 Max Peak	1.57 MHz	47.04	-8.95
1 Max Peak	2.134 MHz	45.59	-10.40

4. RADIATED EMISSION

4.1 Measurement Uncertainty

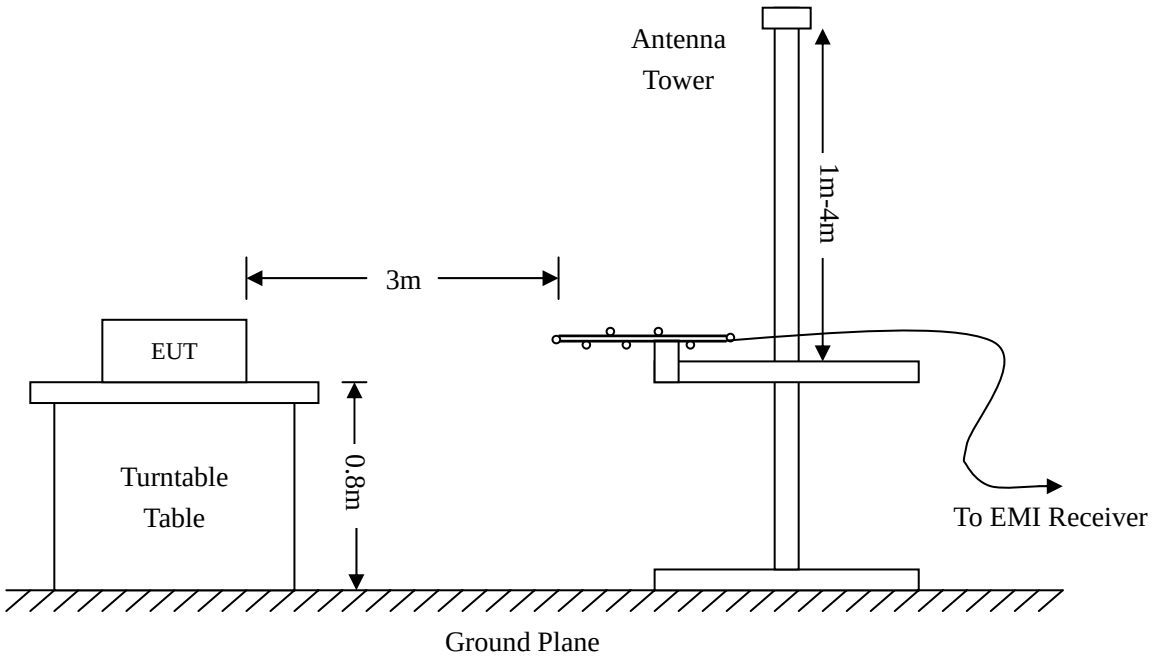
Base on NIS 81, The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of any radiation emissions measurement is ± 5.10 dB.

4.2 Test Equipment List and Details

Description	Manufacturer	Model	Serial Number	Cal. Date	Due. Date
Spectrum Analyzer	R&S	FSP	836079/035	2013-05-07	2014-05-06
EMI Test Receiver	R&S	ESVB	825471/005	2013-05-07	2014-05-06
Pre-amplifier	Agilent	8447F	3113A06717	2013-05-07	2014-05-06
Pre-amplifier	Compliance Direction	PAP-0118	24002	2013-05-07	2014-05-06
Trilog Broadband Antenna	SCHWARZBECK	VULB9163	9163-333	2013-04-20	2014-04-19
Horn Antenna	ETS	3117	00086197	2013-04-20	2014-04-19
Loop Antenna	SCHWARZECK	HFRA 5165	9365	2013-04-20	2014-04-19

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

During the radiated emission test for above 1GHz, the test receiver was set with the following configurations:

For peak detector:
RBW = 1000kHz, VBW = 3000kHz, Sweep Time = Auto

For average detector:
RBW = 1000kHz, VBW = 10Hz, Sweep Time = Auto

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:

-2.87 dB at **67.2022MHz** in the **Vertical** polarization, **Charging &Playing Mode**, **9 kHz** to **8 GHz**, **3Meters**

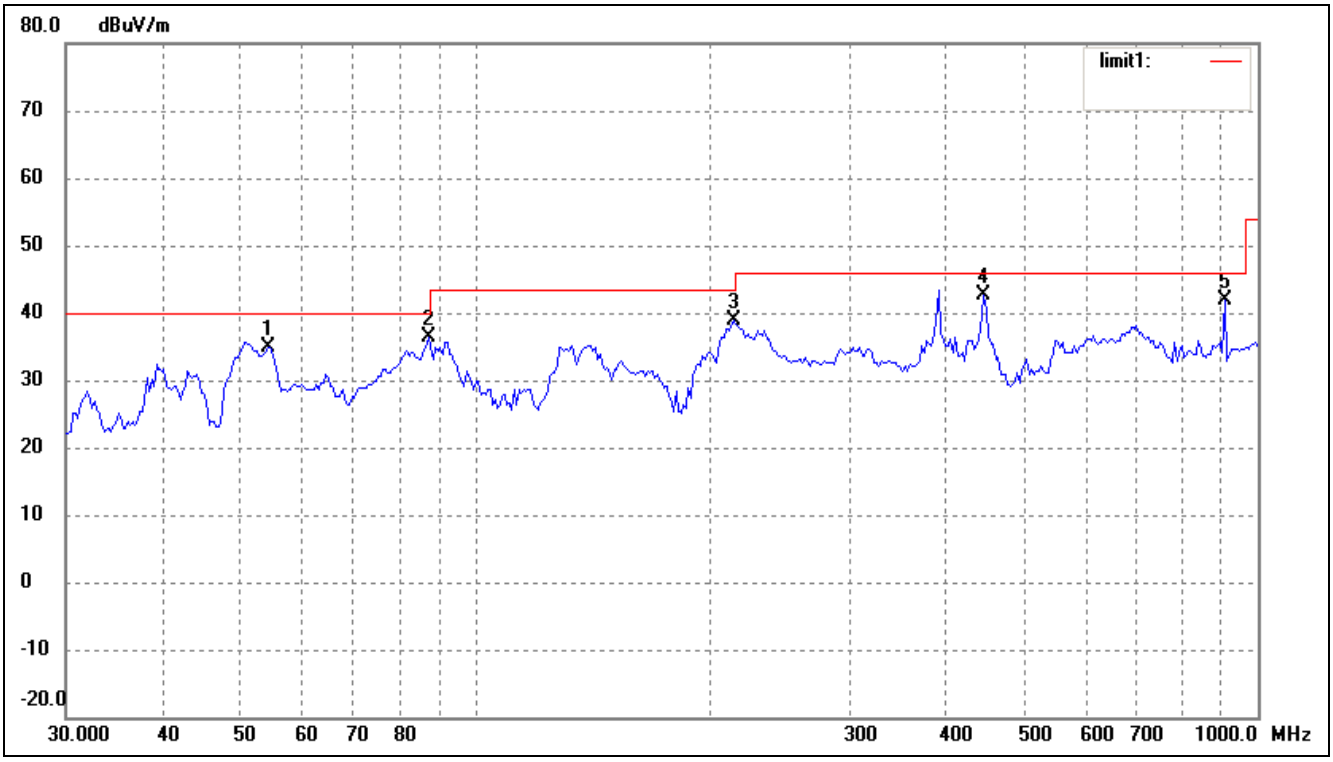
-1.83 dB at **724.2611 MHz** in the **Horizontal** polarization, **Downloading Mode, 9 kHz** to **8 GHz**, **3Meters**

-2.62 dB at **647.3854 MHz** in the **Vertical** polarization, **HDMI Mode, 9 kHz** to **8 GHz**, **3Meters**

Plot of Radiated Emissions Test Data

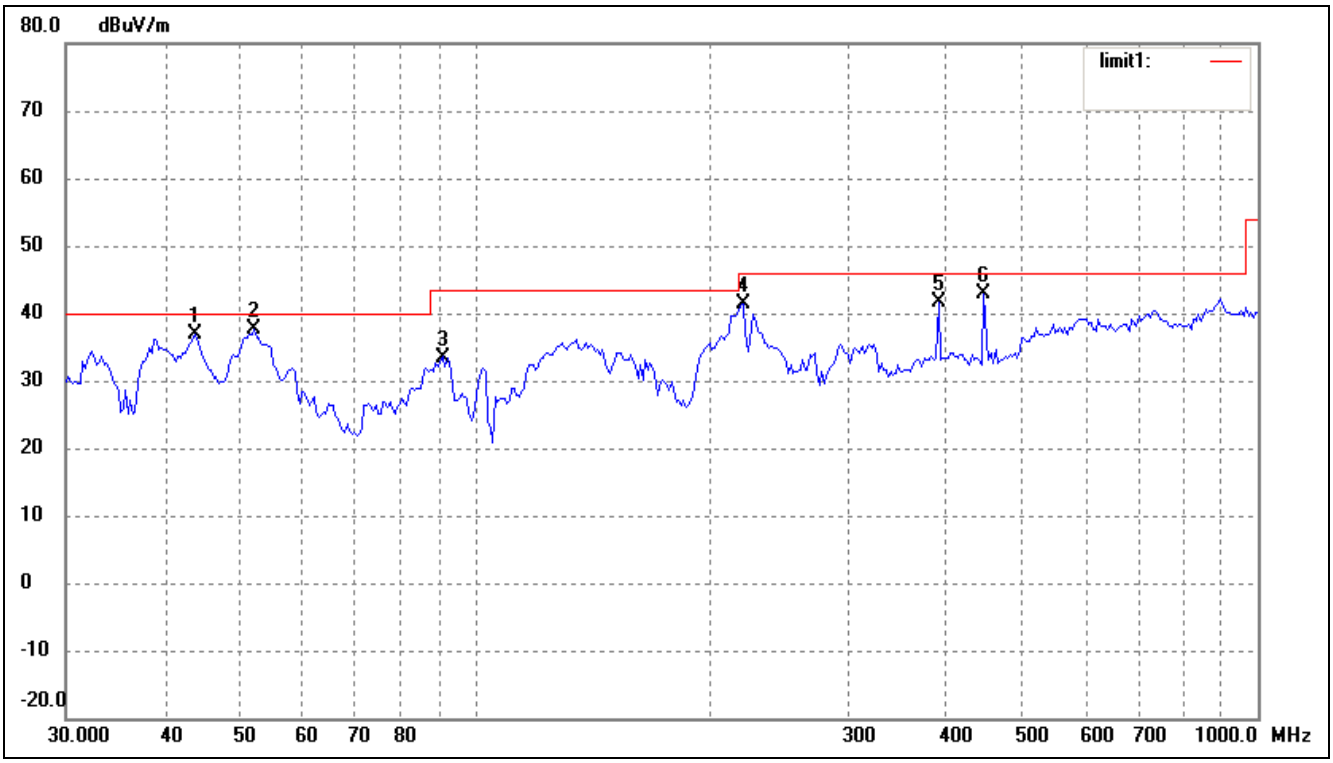
EUT: *Tablet PC*
Tested Model: *U35GT*
Operating Condition: *Charging & playing*
Comment: *Playing Color Bar with 1kHz Video from TF card*

Test Specification: *Horizontal*



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(•)	(cm)	
1	54.4516	16.99	17.96	34.95	40.00	-5.05	264	100	peak
2	87.1117	21.10	15.31	36.41	40.00	-3.59	113	200	peak
3	213.7634	22.03	16.93	38.96	43.50	-4.54	287	100	peak
4	446.4141	20.39	22.32	42.71	46.00	-3.29	185	200	peak
5	906.4824	16.34	25.59	41.93	46.00	-4.07	164	100	peak

Test Specification: *Vertical*

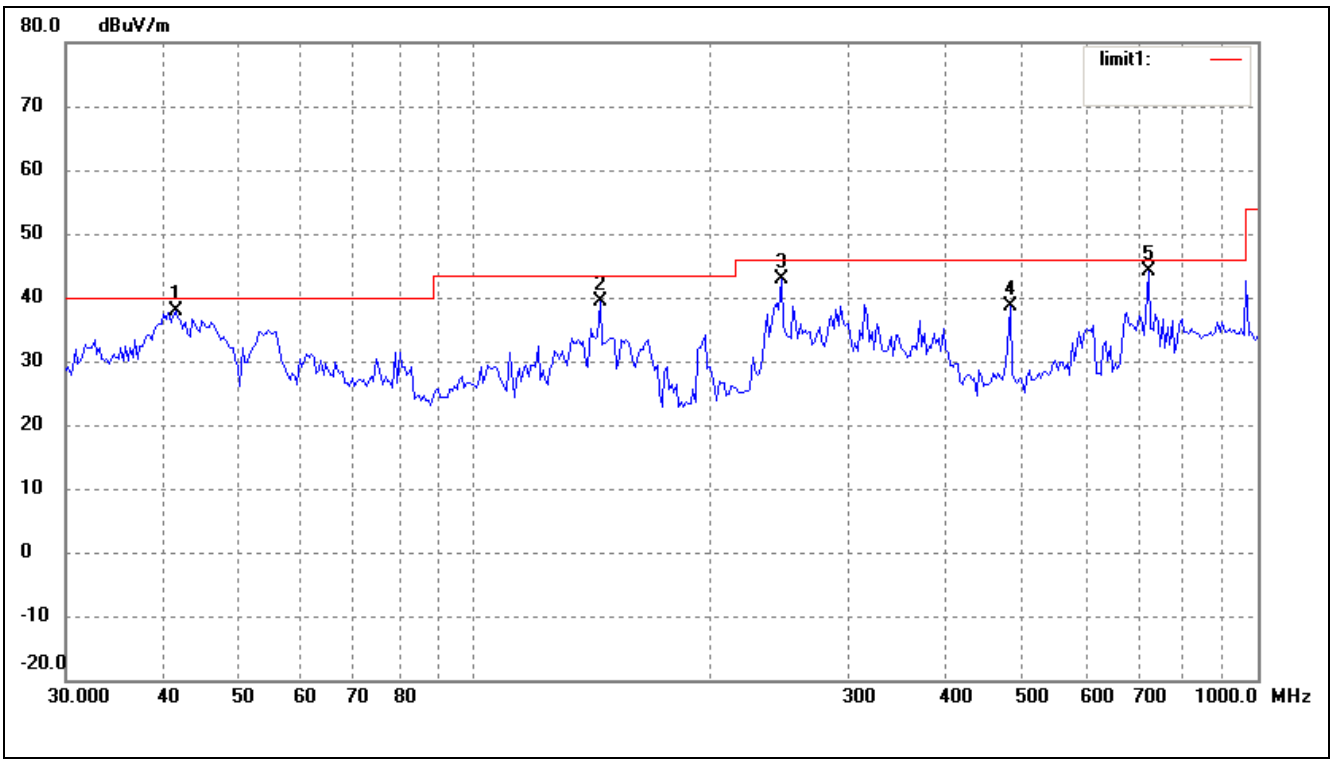


No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	Db/m	(dBuV/m)	(dBuV/m)	(Db)	(•)	(cm)	
1	67.2022	33.71	3.42	37.13	40.00	-2.87	240	100	peak
2	101.6443	29.87	6.67	36.54	43.50	-6.96	187	100	peak
3	162.6106	35.68	3.66	39.34	43.50	-4.16	220	100	peak
4	301.4223	28.29	10.20	38.49	46.00	-7.51	359	100	peak
5	827.4933	25.73	16.98	42.71	46.00	-3.29	321	100	peak
6	43.8119	16.61	20.30	36.91	40.00	-3.09	273	100	peak

Plot of Radiated Emissions Test Data

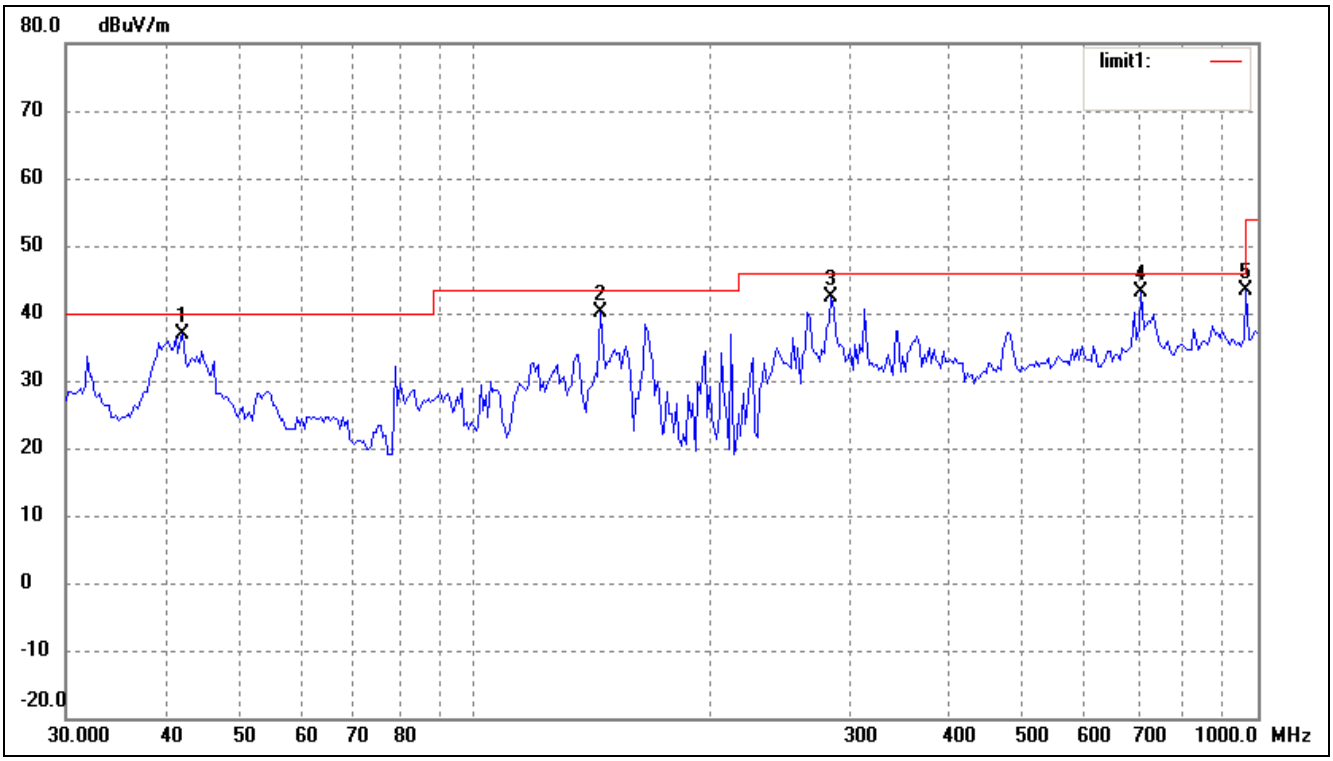
EUT: *Tablet PC*
Tested Model: *U35GT*
Operating Condition: *Downloading*
Comment: *Connect to PC*

Test Specification: *Horizontal*



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (•)	Height (cm)	Remark
1	41.4215	16.95	21.02	37.97	40.00	-2.03	272	100	peak
2	144.3348	24.38	15.02	39.40	43.50	-4.10	179	100	peak
3	245.9509	24.44	18.51	42.95	46.00	-3.05	275	200	peak
4	482.2156	16.19	22.33	38.52	46.00	-7.48	113	200	peak
5	724.2611	19.03	25.14	44.17	46.00	-1.83	288	100	peak

Test Specification: *Vertical*

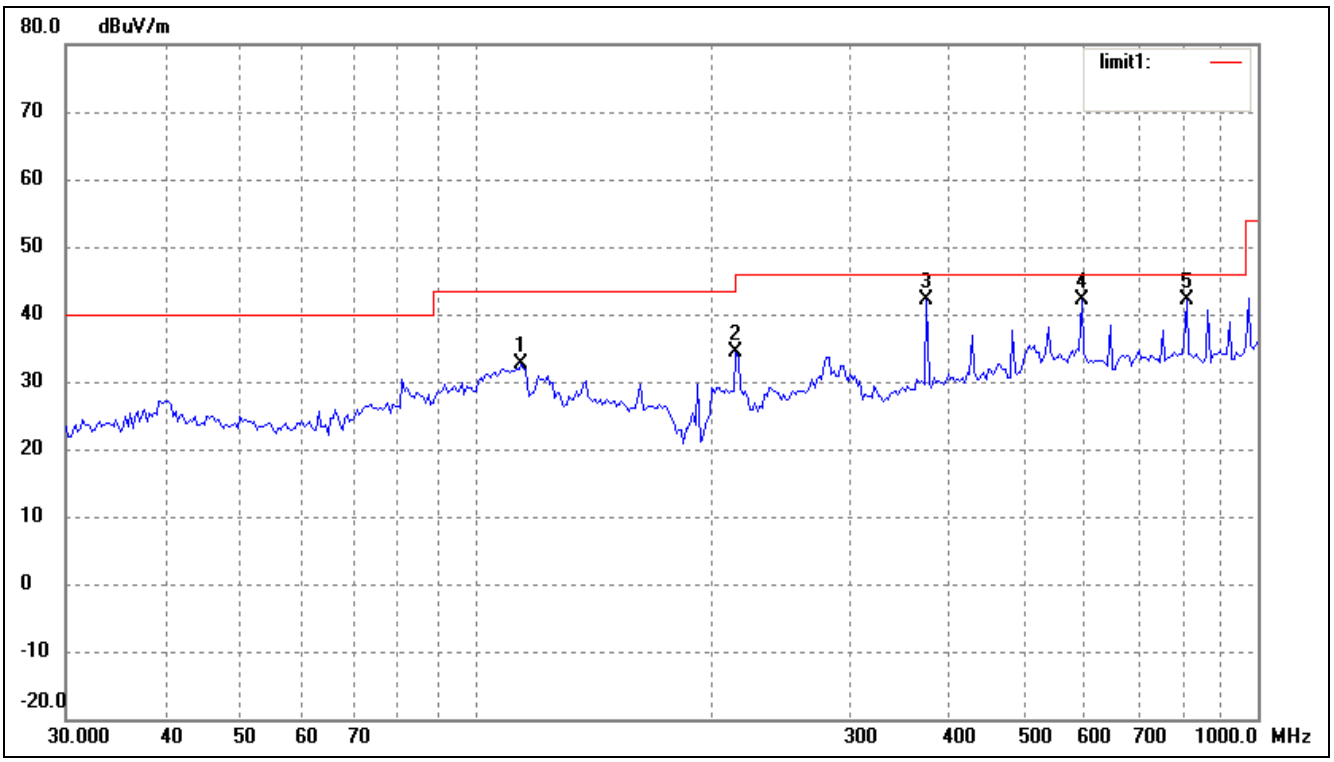


No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(•)	(cm)	
1	42.3022	16.19	20.75	36.94	40.00	-3.06	134	100	peak
2	144.3348	25.06	15.02	40.08	43.50	-3.42	228	100	peak
3	284.9767	21.70	20.73	42.43	46.00	-3.57	162	100	peak
4	709.1823	18.57	24.54	43.11	46.00	-2.89	247	200	peak
5	965.5421	19.19	24.21	43.40	54.00	-10.60	319	200	peak

Plot of Radiated Emissions Test Data

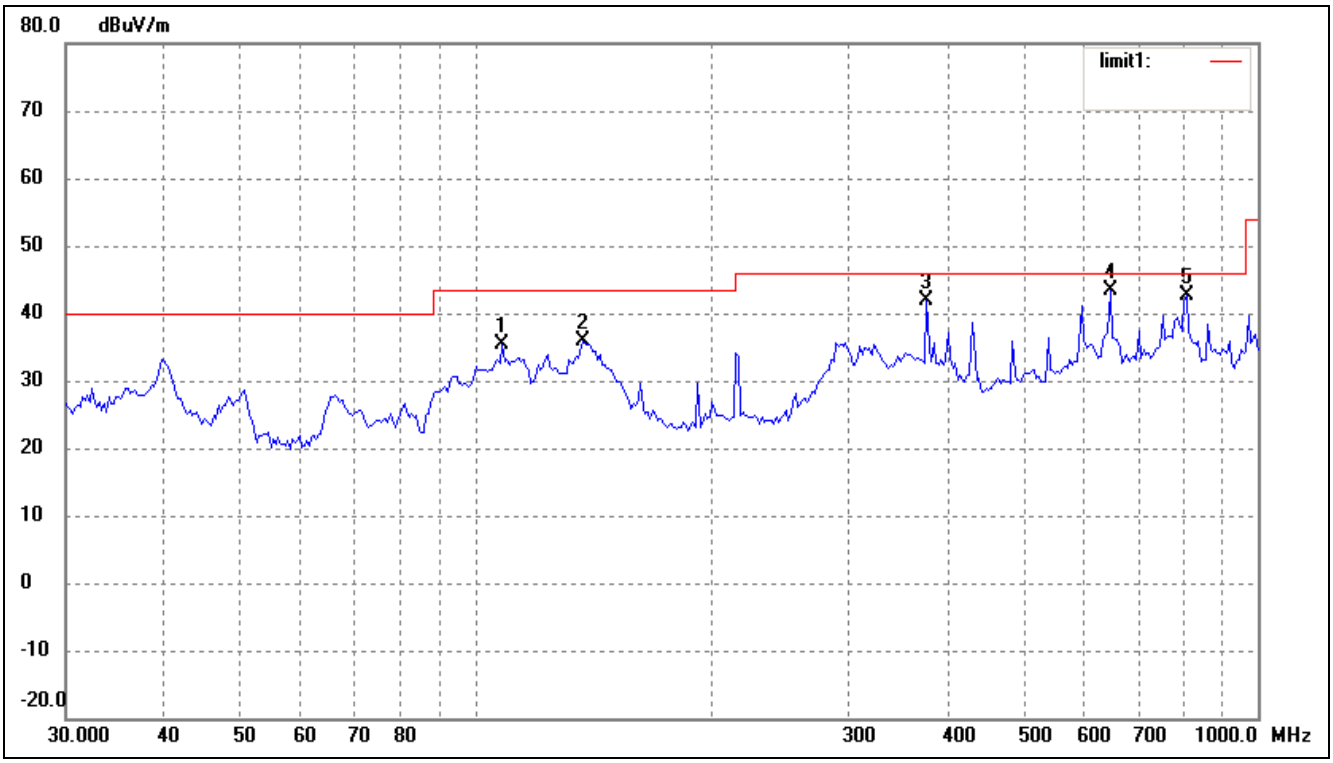
EUT: *Tablet PC*
Tested Model: *U35GT*
Operating Condition: *HDMI*
Comment: *HDMI Connect to Display*

Test Specification: *Horizontal*



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(•)	(cm)	
1	114.5146	27.26	5.41	32.67	43.50	-10.83	254	100	peak
2	215.2676	28.87	5.61	34.48	43.50	-9.02	112	200	peak
3	377.2590	31.38	10.64	42.02	46.00	-3.98	297	100	peak
4	595.1327	27.44	14.63	42.07	46.00	-3.93	185	200	peak
5	810.2653	25.59	16.56	42.15	46.00	-3.85	163	100	peak

Test Specification: *Vertical*



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	Db/m	(dBuV/m)	(dBuV/m)	(Db)	(•)	(cm)	
1	108.2667	29.31	6.02	35.33	43.50	-8.17	241	100	peak
2	137.4200	32.41	3.58	35.99	43.50	-7.51	167	100	peak
3	377.2590	31.25	10.64	41.89	46.00	-4.11	210	100	peak
4	647.3854	28.22	15.16	43.38	46.00	-2.62	359	100	peak
5	810.2653	26.12	16.56	42.68	46.00	-3.32	322	100	peak

Note: Testing is carried out with frequency rang 9kHz to the 8GHz, 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.

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