FCC Part 15B
Measurement and Test Report

For

USA111 INC.

5885 Green Pointe Dr. Suite B, Groveport, Ohio, United States

43125

FCC ID: 2ADOV-W181

Test Rule(s):	FCC Part 15 Subpart B
Product Description:	Tablet PC
Tested Model:	W181
Report No.:	STR15108046I-4
Tested Date:	2015-10-12 to 2015-10-23
Issued Date:	2015-10-23
Tested By:	Jason Su / 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:	USA111 INC.
Address of applicant:	5885 Green Pointe Dr. Suite B, Groveport, Ohio, United States 43125
Manufacturer:	Allland Networking Co., Ltd.
Address of manufacturer:	Fourth Floor, #B Building, Weiyulong Industrial Park, Xuegang North Road #16, Bantian Street, Longgang District, Shenzhen

General Description of EUT	
Product Name:	Tablet PC
Trade Name:	/
Model No.:	W181
Adding Model(s):	W27, W38, W20, W21, W19, W22, X18, X181, X11, X19, X27, X30, W171
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 W181, but the circuit and the electronic construction do not change, declared by the manufacturer.	

Technical Characteristics of EUT	
Rated Voltage:	Battery DC 3.7V
Battery Capacity:	3500mAh
Rated Power:	/
Power Adapter Model:	JHD-AP012U-050200AA Input: AC 100-240V Output: DC 5V/2A
Lowest Internal Frequency:	32.768KHz
Highest Internal Frequency:	1.83GHz
Classification of ITE:	Class B

1.2 Test Standards

The following report is prepared on behalf of the USA111 INC. 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 C63.4-2014, 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 HDMI Playing	
TM2	OTG Playing	

EUT Cable List and Details

Cable Description	Length (M)	Shielded/Unshielded	With Core/Without Core
DC Cable	1.15	Unshielded	Without Ferrite

Auxiliary Equipment List and Details

Description	Manufacturer	Model	Serial Number
Display	DELL	U2410f	50642P246601H(B) ZL

Special Cable List and Details

Cable Description	Length (M)	Shielded/Unshielded	With Core/Without Core
HDMI Cable	1.2	Shielded	With Ferrite
Earphone Cable	1.2	Unshielded	Without Ferrite
OTG Cable	0.15	Shielded	Without Ferrite

1.6 Test Equipment List and Details

Description	Manufacturer	Model	Serial Number	Cal Date	Due Date
Spectrum Analyzer	Agilent	E4407B	MY41440400	2015-06-17	2016-06-16
Spectrum Analyzer	Rohde & Schwarz	FSP	836079/035	2015-06-17	2016-06-16
EMI Test Receiver	Rohde & Schwarz	ESVB	825471/005	2015-06-17	2016-06-16
Amplifier	Agilent	8447F	3113A06717	2015-06-17	2016-06-16
Amplifier	C&D	PAP-1G18	2002	2015-06-17	2016-06-16
Broadband Antenna	Schwarz beck	VULB9163	9163-333	2015-06-17	2016-06-16
Horn Antenna	ETS	3117	00086197	2015-06-17	2016-06-16
Loop Antenna	Schwarz beck	FMZB 1516	9773	2015-06-17	2016-06-16
EMI Test Receiver	Rohde & Schwarz	ESPI	101611	2015-06-17	2016-06-16
L.I.S.N	Schwarz beck	NSLK8126	8126-224	2015-06-17	2016-06-16
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100911	2015-06-17	2016-06-16

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

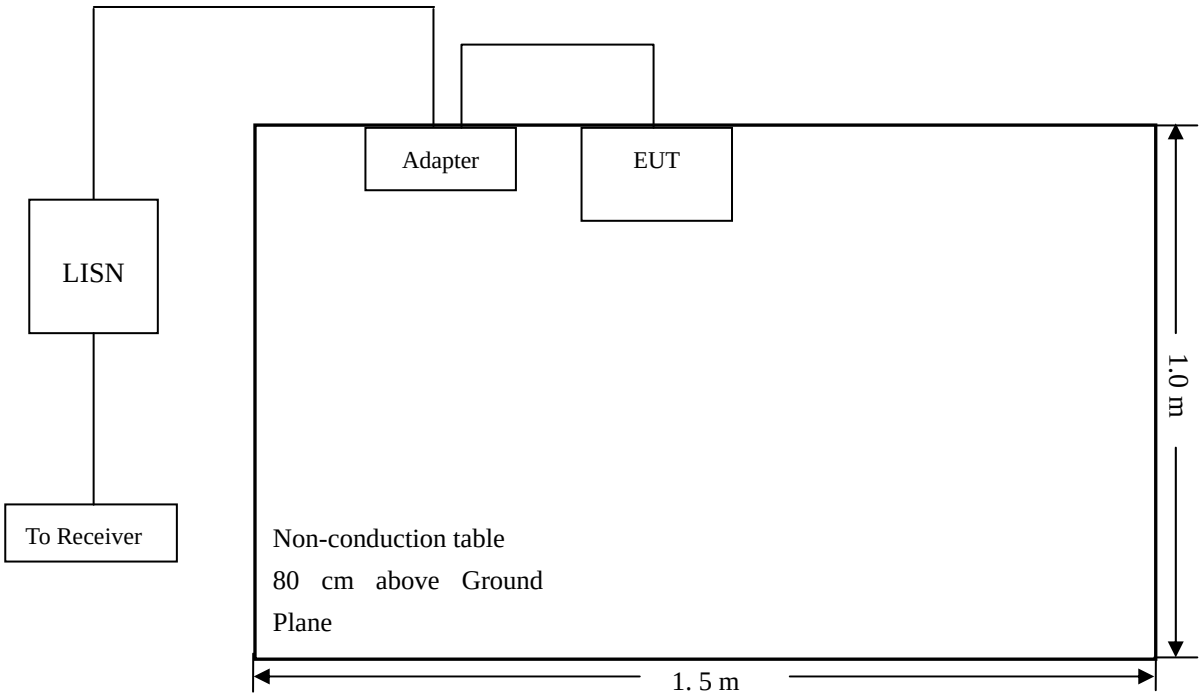
3.1 Measurement Uncertainty

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 Procedure

Test is conducting under the description of ANSI C63.4-2014, 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.

3.3 Basic Test Setup Block Diagram



3.4 Environmental Conditions

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

3.5 Summary of Test Results/Plots

According to the data in section 3.6, the EUT complied with the FCC Part 15.107(a) Conducted margin for a Class B device, with the *worst* margin reading of:

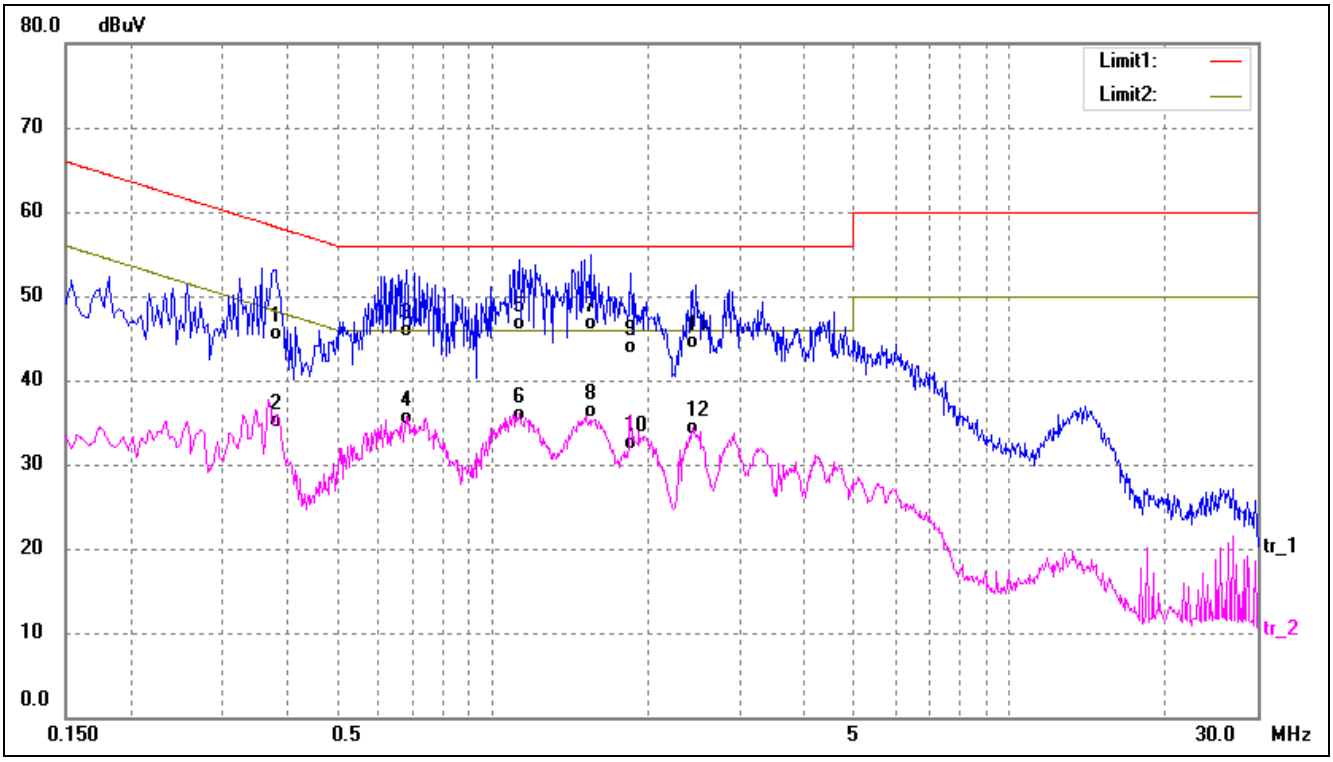
-4.04 dB at 0.3700 MHz in the **Line** mode**, AVG** detector, **0.15-30MHz**

3.6 Conducted Emissions Test Data

Plot of Conducted Emissions Test Data

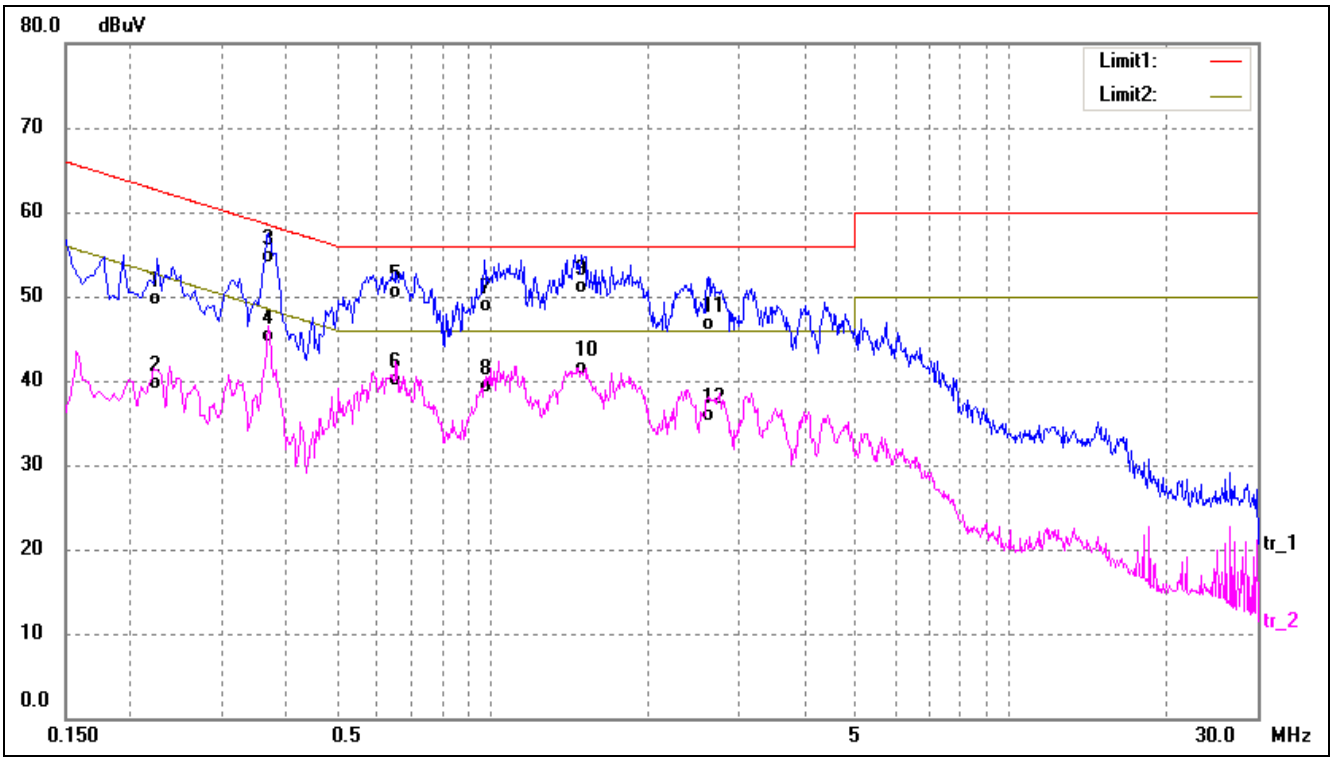
EUT: *Tablet PC*
Tested Model: *W181*
Operating Condition: *Charging And HDMI Playing*
Comment: *Adapter DC 5V*

Test Specification: *Neutral*



No.	Frequency	Reading	Correct	Result	Limit	Margin	Detector
	(MHz)	(dBuV)	(dB/m)	(dBuV)	(dBuV)	(dB)	
1	0.3820	32.13	12.50	44.63	58.24	-13.61	QP
2	0.3820	21.75	12.50	34.25	48.24	-13.99	AVG
3	0.6860	32.44	12.69	45.13	56.00	-10.87	QP
4	0.6860	22.04	12.69	34.73	46.00	-11.27	AVG
5	1.1300	32.99	13.00	45.99	56.00	-10.01	QP
6	1.1300	22.11	13.00	35.11	46.00	-10.89	AVG
7	1.5500	32.97	13.00	45.97	56.00	-10.03	QP
8	1.5500	22.47	13.00	35.47	46.00	-10.53	AVG
9	1.8500	30.07	13.00	43.07	56.00	-12.93	QP
10	1.8500	18.74	13.00	31.74	46.00	-14.26	AVG
11	2.4780	30.73	13.00	43.73	56.00	-12.27	QP
12	2.4780	20.59	13.00	33.59	46.00	-12.41	AVG

Test Specification: *Line*



No.	Frequency	Reading	Correct	Result	Limit	Margin	Detector
	(MHz)	(dBuV)	(dB/m)	(dBuV)	(dBuV)	(dB)	
1	0.2260	36.44	12.50	48.94	62.60	-13.66	QP
2	0.2260	26.46	12.50	38.96	52.60	-13.64	AVG
3	0.3700	41.32	12.50	53.82	58.50	-4.68	QP
4	0.3700	31.96	12.50	44.46	48.50	-4.04	AVG
5	0.6540	37.01	12.65	49.66	56.00	-6.34	QP
6	0.6540	26.61	12.65	39.26	46.00	-6.74	AVG
7	0.9660	35.21	12.97	48.18	56.00	-7.82	QP
8	0.9660	25.59	12.97	38.56	46.00	-7.44	AVG
9	1.4940	37.39	13.00	50.39	56.00	-5.61	QP
10	1.4940	27.78	13.00	40.78	46.00	-5.22	AVG
11	2.6100	32.85	13.00	45.85	56.00	-10.15	QP
12	2.6100	22.02	13.00	35.02	46.00	-10.98	AVG

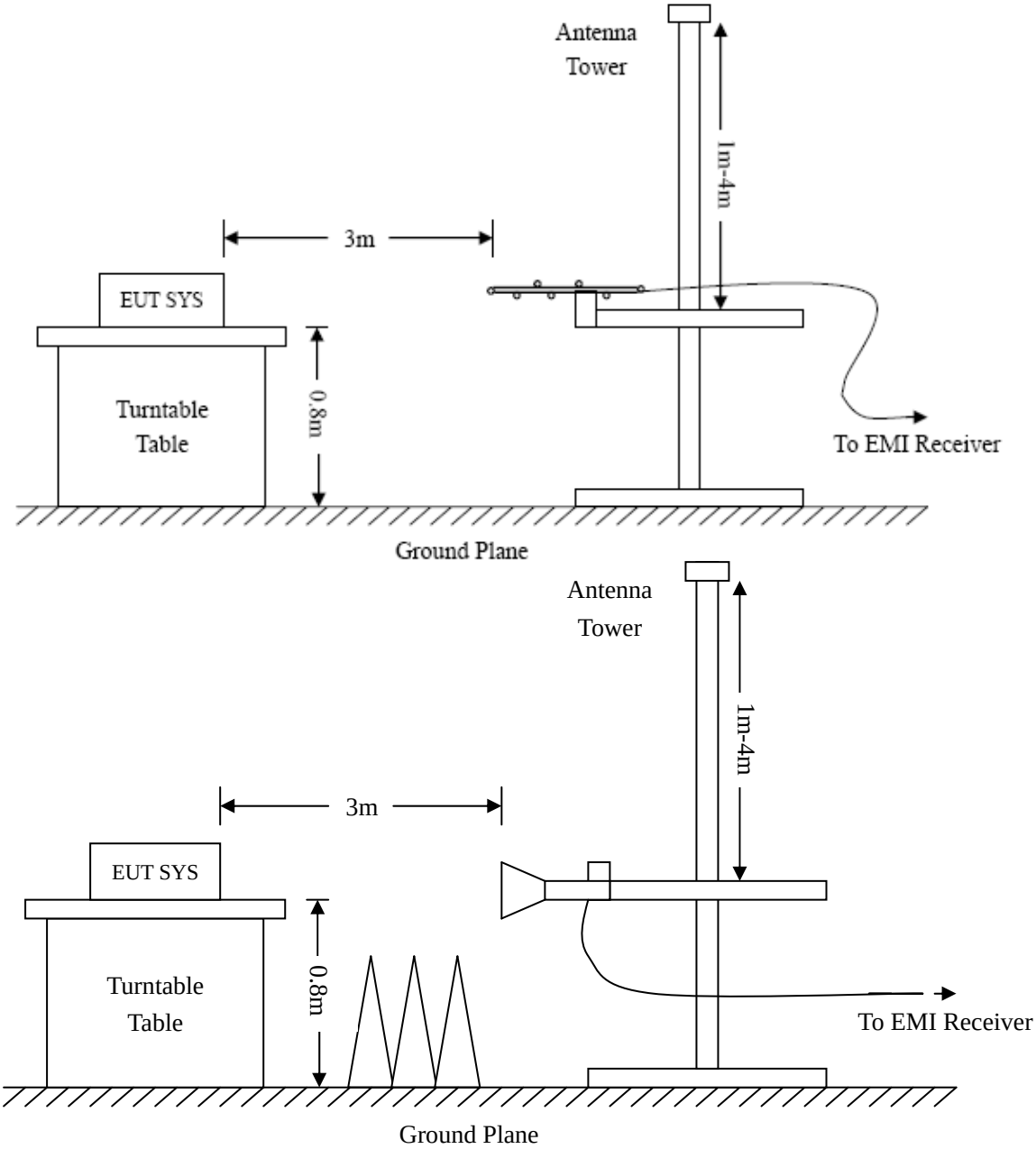
4. Radiated Emissions

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 Procedure

The setup of EUT is according with per ANSI C63.4-2014 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.



4.3 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

4.4 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

4.5 Environmental Conditions

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

4.6 Summary of Test Results/Plots

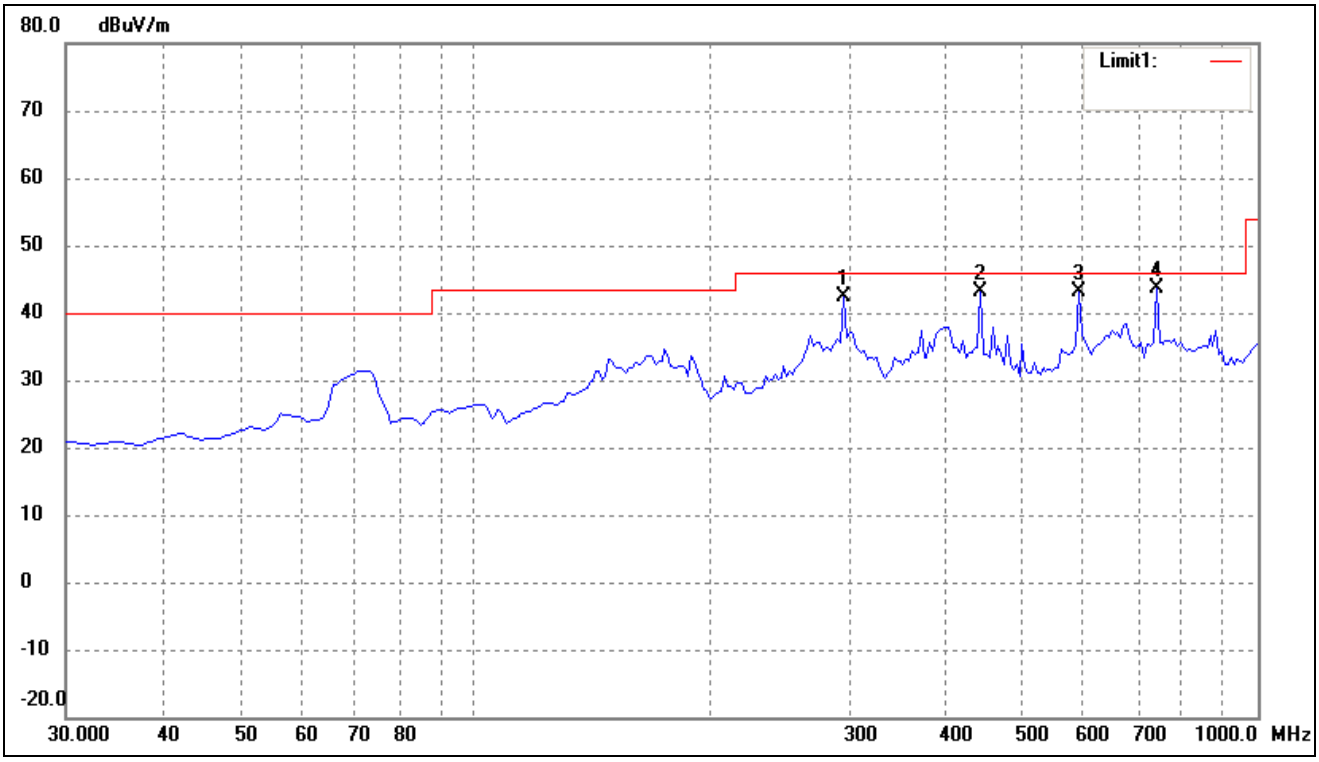
According to the data, the EUT complied with the FCC Part 15.109(a) rule, and had the worst margin of:

-2.10 dB at **742.9500 MHz** in the **Vertical** polarization, **9 kHz** to **10 GHz**, **3Meters**

Plot of Radiated Emissions Test Data

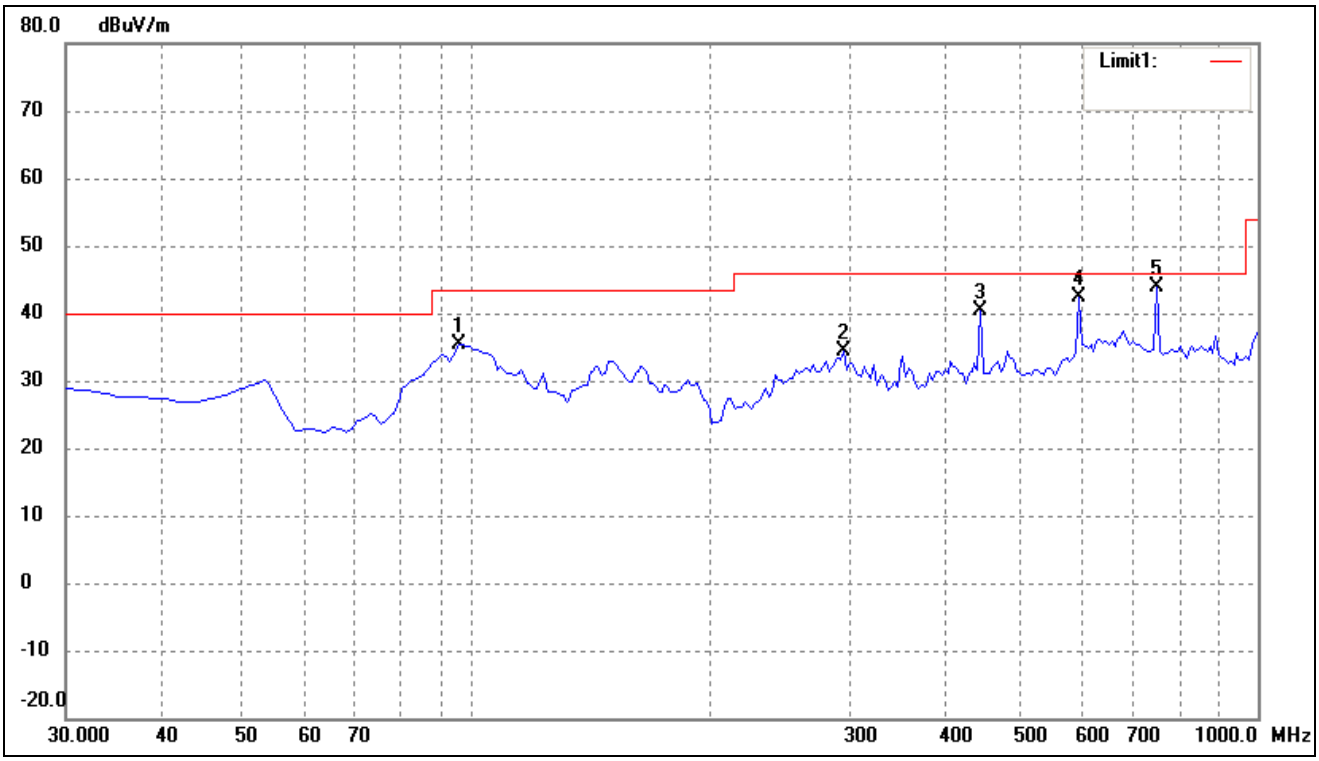
EUT: *Tablet PC*
Tested Model: *W181*
Operating Condition: *Charging And HDMI Playing*
Comment: *Adapter DC 5V*

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	296.7500	30.42	12.05	42.47	46.00	-3.53	89	100	QP
2	444.6750	30.11	13.14	43.25	46.00	-2.75	156	100	QP
3	592.6000	25.27	17.93	43.20	46.00	-2.80	65	100	QP
4	742.9500	24.09	19.42	43.51	46.00	-2.49	119	100	QP

Test Specification: *Vertical*

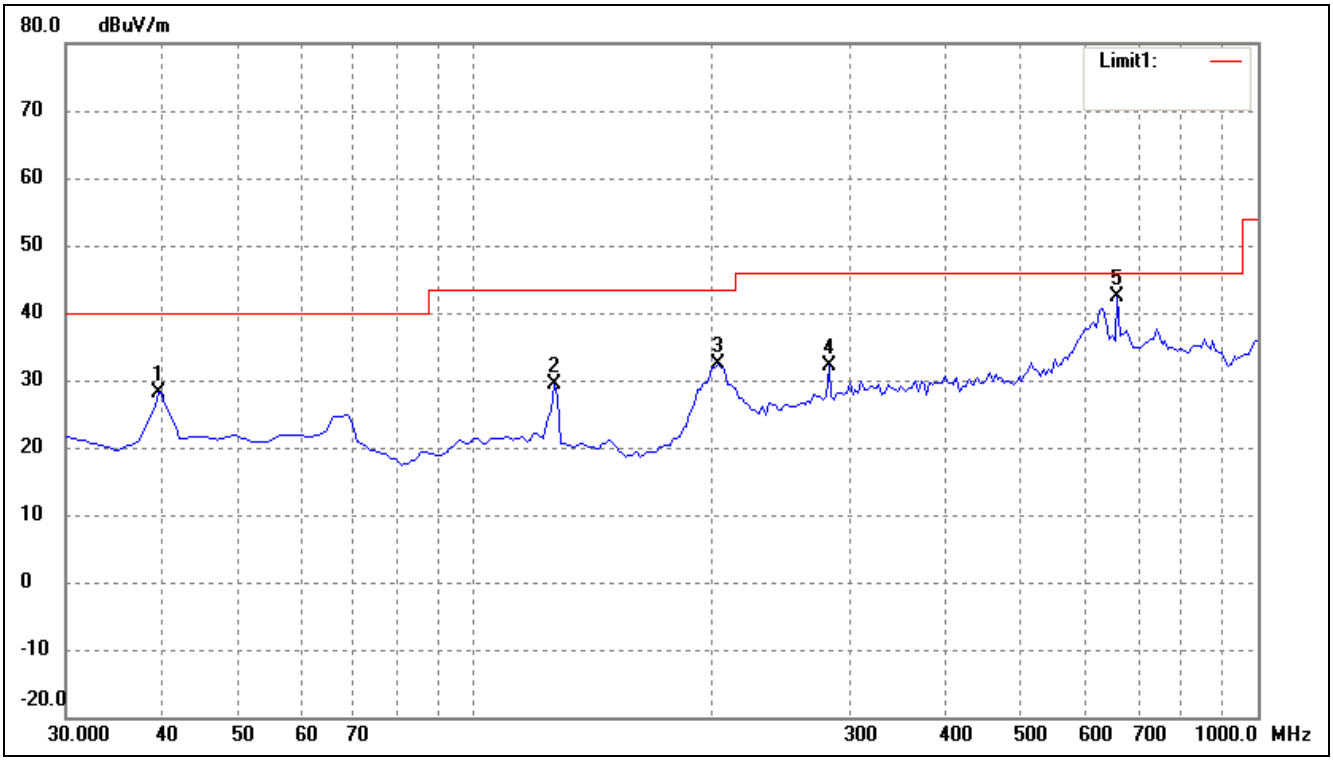


No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	Factor(dB)	(dBuV/m)	(dBuV/m)	(dB)	(•)	(cm)	
1	95.4749	31.02	4.44	35.46	43.50	-8.04	58	100	QP
2	296.7500	22.28	12.05	34.33	46.00	-11.67	168	100	QP
3	444.6750	27.16	13.14	40.30	46.00	-5.70	126	100	QP
4	592.6000	24.38	17.93	42.31	46.00	-3.69	265	100	QP
5	742.9500	24.48	19.42	43.90	46.00	-2.10	201	100	QP

Plot of Radiated Emissions Test Data

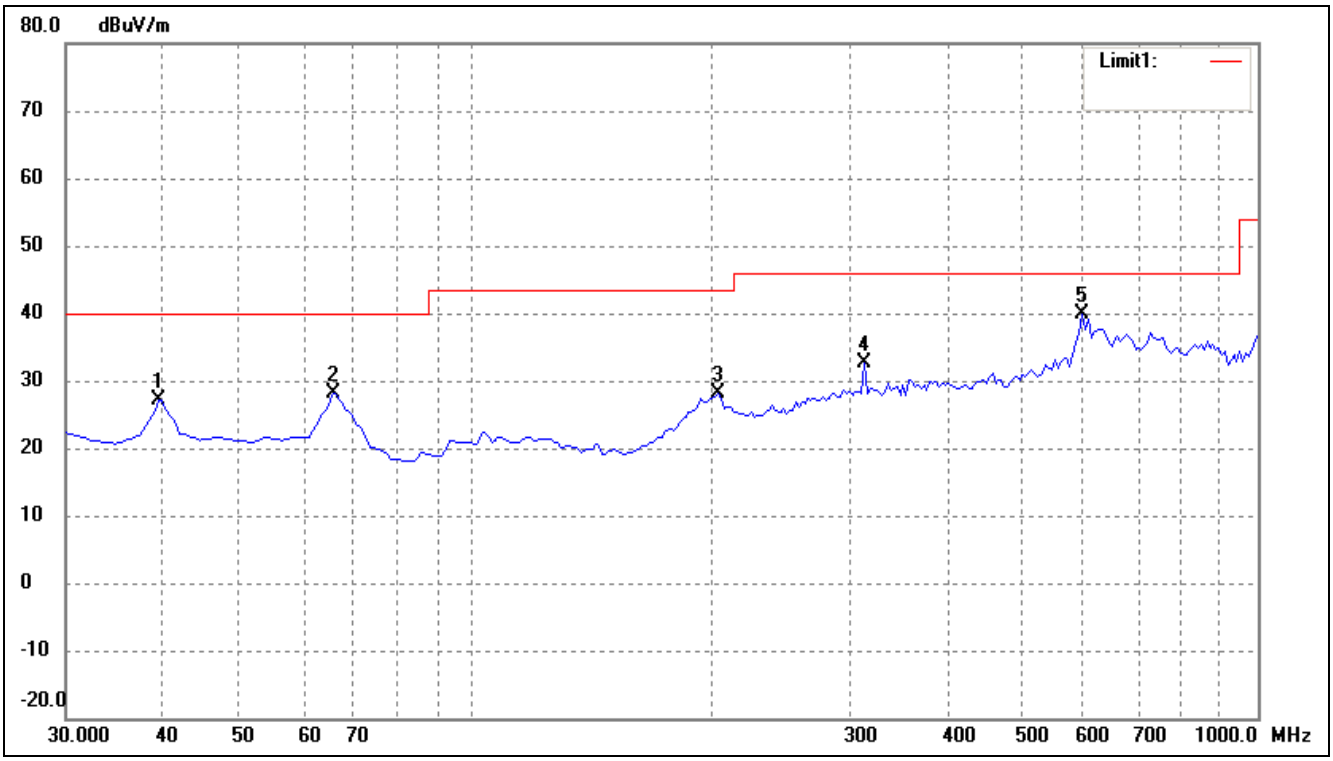
EUT: *Tablet PC*
Tested Model: *W181*
Operating Condition: *OTG Playing*
Comment: *Battery DC3.7V*

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	39.7000	22.98	5.20	28.18	40.00	-11.82	129	100	QP
2	127.0000	24.83	4.46	29.29	43.50	-14.21	269	100	QP
3	204.6000	27.76	4.70	32.46	43.50	-11.04	65	100	QP
4	284.6250	20.57	11.57	32.14	46.00	-13.86	155	100	QP
5	665.3500	23.97	18.43	42.40	46.00	-3.60	91	100	QP

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	39.7000	21.98	5.20	27.18	40.00	-12.82	91	100	QP
2	66.3750	24.12	3.99	28.11	40.00	-11.89	159	100	QP
3	204.6000	23.41	4.70	28.11	43.50	-15.39	97	100	QP
4	316.1500	20.45	12.27	32.72	46.00	-13.28	115	100	QP
5	599.8750	20.50	19.30	39.80	46.00	-6.20	52	100	QP

Note: Testing is carried out with frequency rang 9kHz to the 10GHz, 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 *******