

FCC Part 15B

Measurement and Test Report

For

Amelia World Corporation dba LINSAY

16340 West Dixie Highway, North Miami Beach, Florida

FCC ID: 2AAC3F-10HD2CORE

Test Standards: FCC Part 15 Subpart B

Product Description: Tablet PC

Tested Model: F-10HD2CORE

Report No.: STR13118378I-2

Tested Date: 2013-12-02 to 2013-12-20

Issued Date: 2013-12-21

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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 SEM.Test Compliance Service Co., Ltd

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1. GENERAL INFORMATION

1.1 Product Description for Equipment Under Test (EUT)

Client Information

Applicant: Amelia World Corporation dba LINSAY
Address of applicant: 16340 West Dixie Highway, North Miami Beach, Florida

Manufacturer: Amelia World Corporation dba LINSAY
Address of manufacturer: 16340 West Dixie Highway, North Miami Beach, Florida

General Description of EUT	
Product Name:	Tablet PC
Trade Name:	LINSAY
Model No.:	F-10HD2CORE
Note: The test data is gathered from a production sample, provided by the manufacturer.	

Technical Characteristics of EUT	
Rated Voltage:	DC 3.7V
Power Adaptor:	Model:FY0502000 Input 100-240V, 50/60Hz, Output DC 5V
Highest Internal Frequency:	1GHz
Lowest Internal Frequency:	32.768 kHz
Classification of ITE:	Class B

1.2 Test Standards

The following report is prepared on behalf of the Amelia World Corporation dba LINSAY 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 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	1kHz Audio & Video playing
TM2	Downloading	Connect to PC

EUT Cable List and Details

Cable Description	Length (m)	Shielded/Unshielded	With / Without Ferrite
DC Cable	1.2	Unshielded	With Ferrite

Special Cable List and Details

Cable Description	Length (m)	Shielded/Unshielded	With / Without Ferrite
Earphone	1.0	Unshielded	Without Ferrite
USB Cable	1.0	Shielded	With Ferrite

Auxiliary Equipment List and Details

Description	Manufacturer	Model	Serial Number
Notebook	Lenovo	E23	/

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.

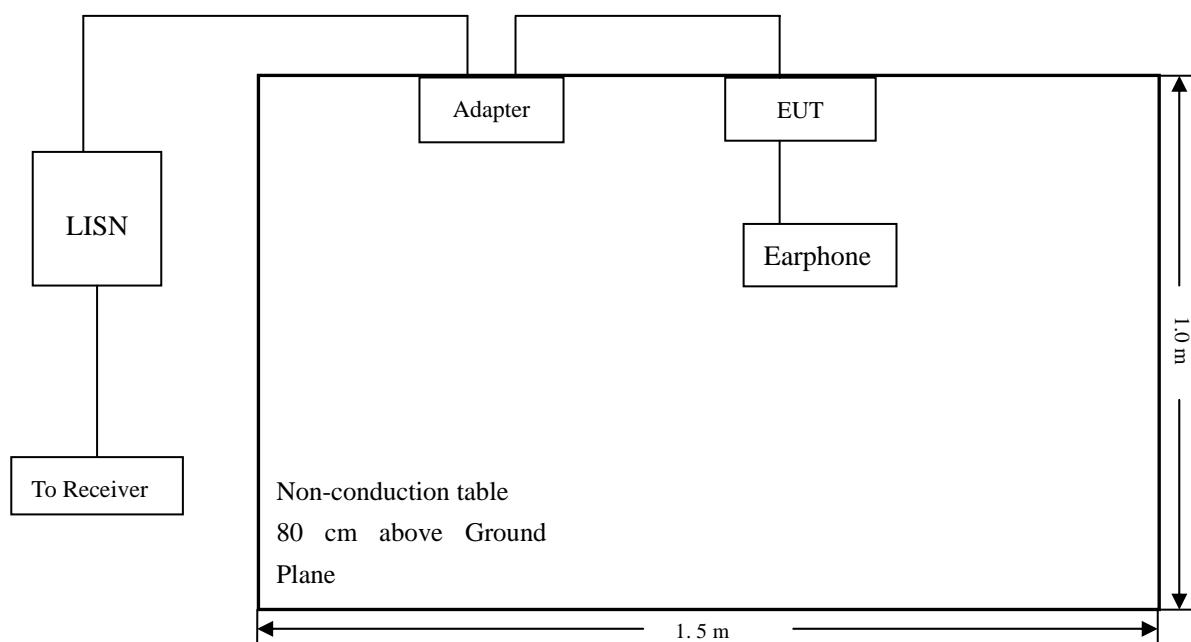
3.2 Test Equipment List and Details

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 Test Receiver Setup

During the conducted emission test, the test receiver was set with the following configurations:

Start Frequency 150 kHz
Stop Frequency..... 30 MHz
Sweep Speed Auto
IF Bandwidth..... 10 kHz
Quasi-Peak Adapter Bandwidth 9 kHz
Quasi-Peak Adapter Mode Normal

3.7 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:

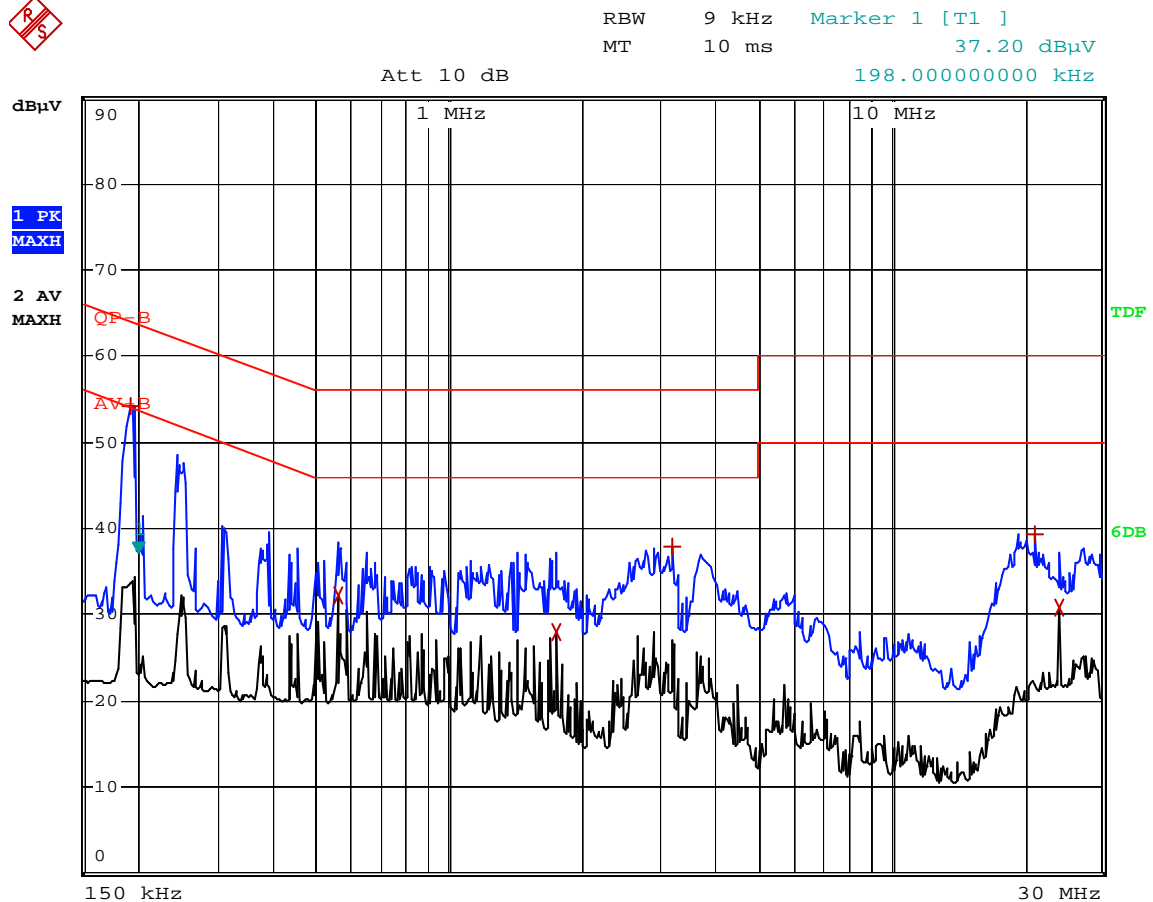
-6.46 dB at 0.194 MHz in the Line mode, Pk detector, 0.15-30MHz

3.8 Conducted Emissions Test Data

Plot of Conducted Emissions Test Data

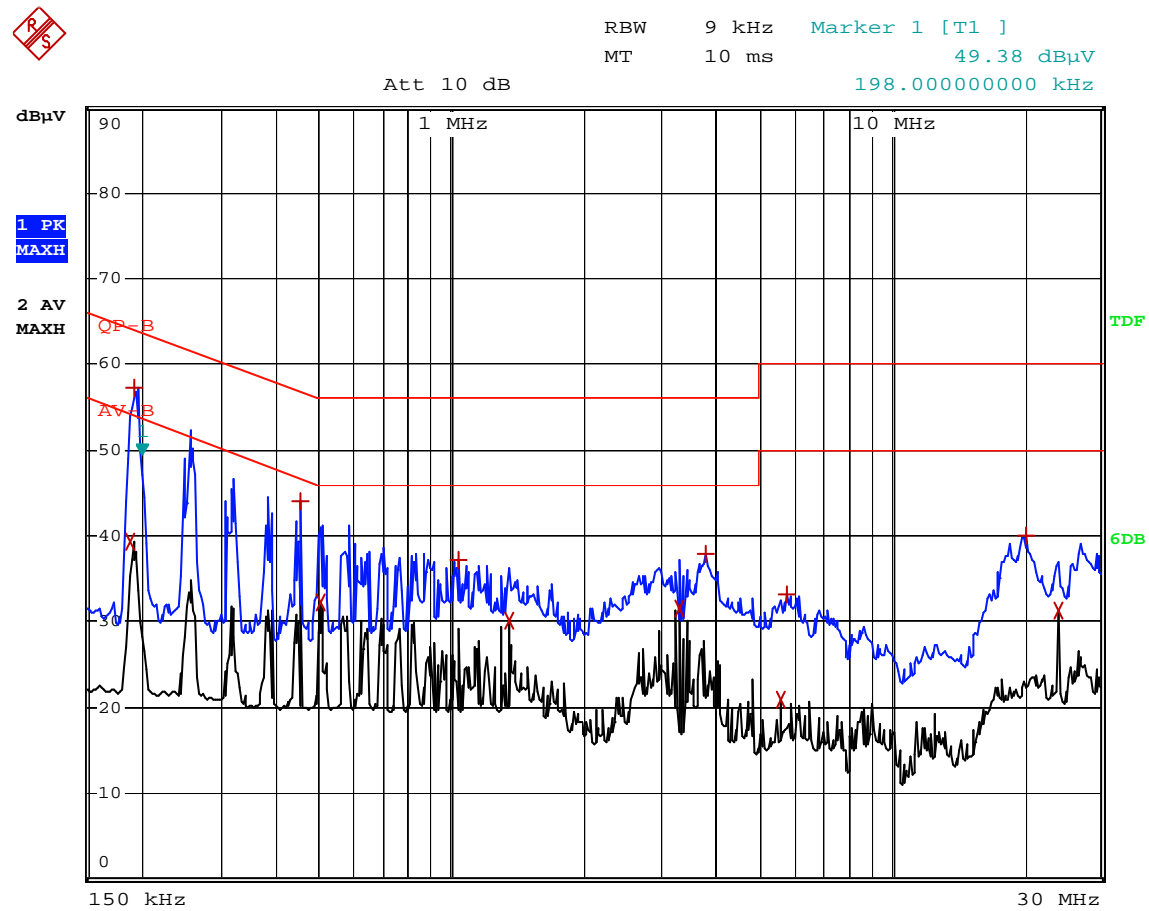
EUT: Tablet PC
Tested Model: F-10HD2CORE
Operating Condition: Charging&Playing&Wi-Fi Transmitting
Comment: Input AC 120V/60Hz, Output DC 5V

Test Specification: Neutral

**EDIT PEAK LIST (Prescan Results)**

Trace1:	QP-B		
Trace2:	AV-B		
Trace3:	---		
TRACE	FREQUENCY	LEVEL dBμV	DELTA LIMIT dB
1 Max Peak	194 kHz	54.27	-9.58
2 Average	562 kHz	32.13	-13.87
2 Average	1.754 MHz	28.07	-17.92
1 Max Peak	3.186 MHz	37.86	-18.13
1 Max Peak	21.194 MHz	39.25	-20.74
2 Average	23.998 MHz	30.94	-19.06

Test Specification: Line



EDIT PEAK LIST (Prescan Results)			
Trace1:	QP-B		
Trace2:	AV-B		
Trace3:	---		
TRACE	FREQUENCY	LEVEL dBμV	DELTA LIMIT dB
2 Average	190 kHz	39.23	-14.80
1 Max Peak	194 kHz	57.39	-6.46
1 Max Peak	454 kHz	44.12	-12.68
2 Average	502 kHz	32.27	-13.72
1 Max Peak	1.038 MHz	37.25	-18.75
2 Average	1.362 MHz	30.03	-15.96
2 Average	3.31 MHz	31.47	-14.52
1 Max Peak	3.79 MHz	37.83	-18.16
2 Average	5.646 MHz	20.83	-29.16
1 Max Peak	5.79 MHz	33.27	-26.72
1 Max Peak	20.202 MHz	39.98	-20.01
2 Average	23.998 MHz	31.23	-18.76

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 Equipment List and Details

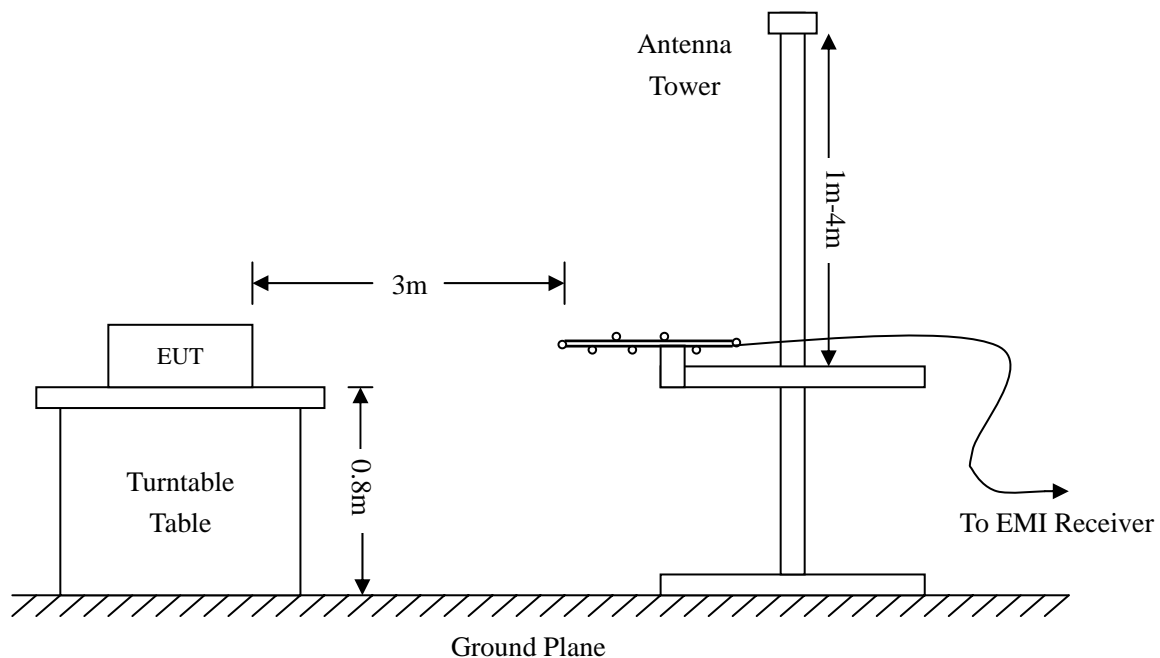
Description	Manufacturer	Model	Serial Number	Cal. Date	Due. Date
Spectrum Analyzer	R&S	FSP	836079/035	2013-05-07	2014-05-06
EMI Test Receiver	R&S	ESVB	825471/005	2013-05-07	2014-05-06
Pre-amplifier	Agilent	8447F	3113A06717	2013-05-07	2014-05-06
Pre-amplifier	Compliance Direction	PAP-0118	24002	2013-05-07	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.



Frequency :9kHz-30MHz

RBW=10KHz,

VBW =30KHz

Sweep time= Auto

Trace = max hold

Detector function = peak

Frequency :30MHz-1GHz

RBW=120KHz,

VBW=300KHz

Sweep time= Auto

Trace = max hold

Detector function = peak, QP

Frequency :Above 1GHz

RBW=1MHz,

VBW=3MHz(Peak), 10Hz(AV)

Sweep time= Auto

Trace = max hold

Detector function = peak, AV

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:

$$\text{Corr. Ampl.} = \text{Indicated Reading} - \text{Corr. Factor}$$

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:

$$\text{Margin} = \text{Corr. Ampl.} - \text{FCC Part 15.109(a) Limit}$$

4.6 Environmental Conditions

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

4.7 Summary of Test Results/Plots

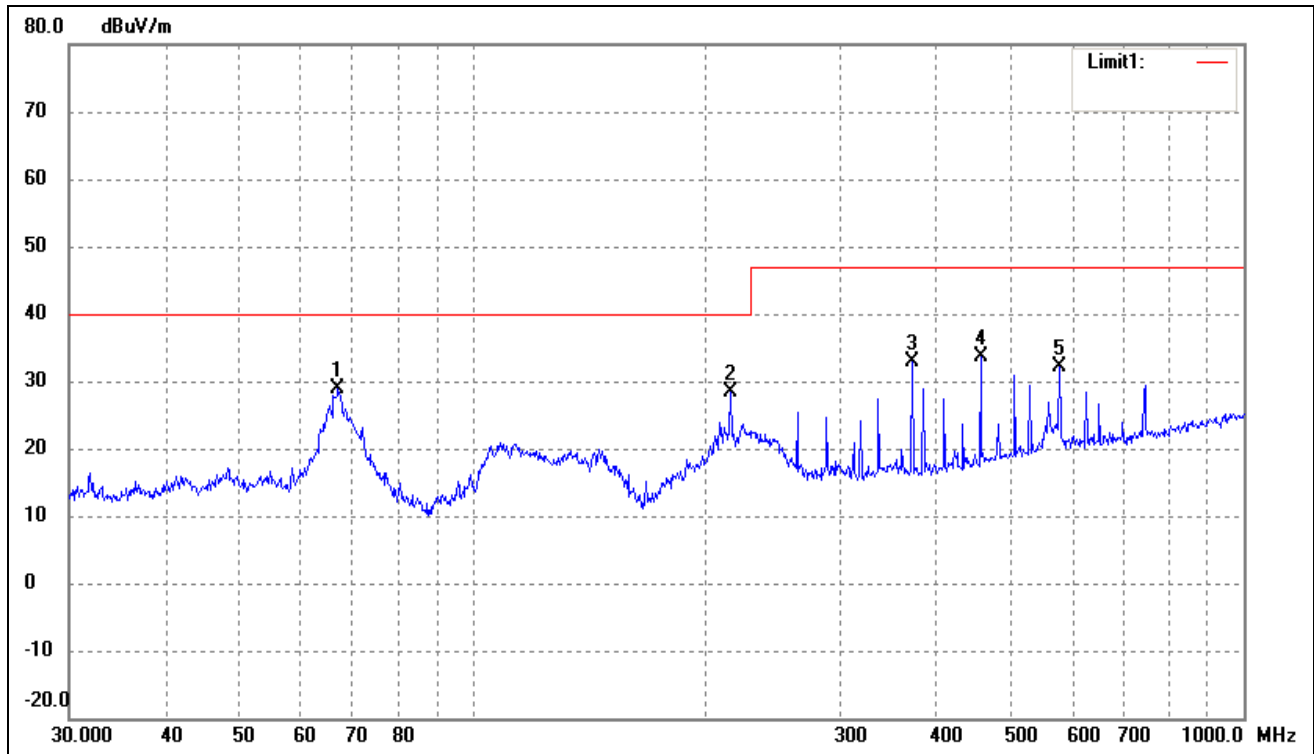
According to the data, the EUT complied with the FCC Part 15.109(a) rule, and had the worst margin of:

-2.80 dB at 283.9791 MHz in the Horizontal polarization, Downloading mode, 9 kHz to 5 GHz, 3Meters

Plot of Radiated Emissions Test Data

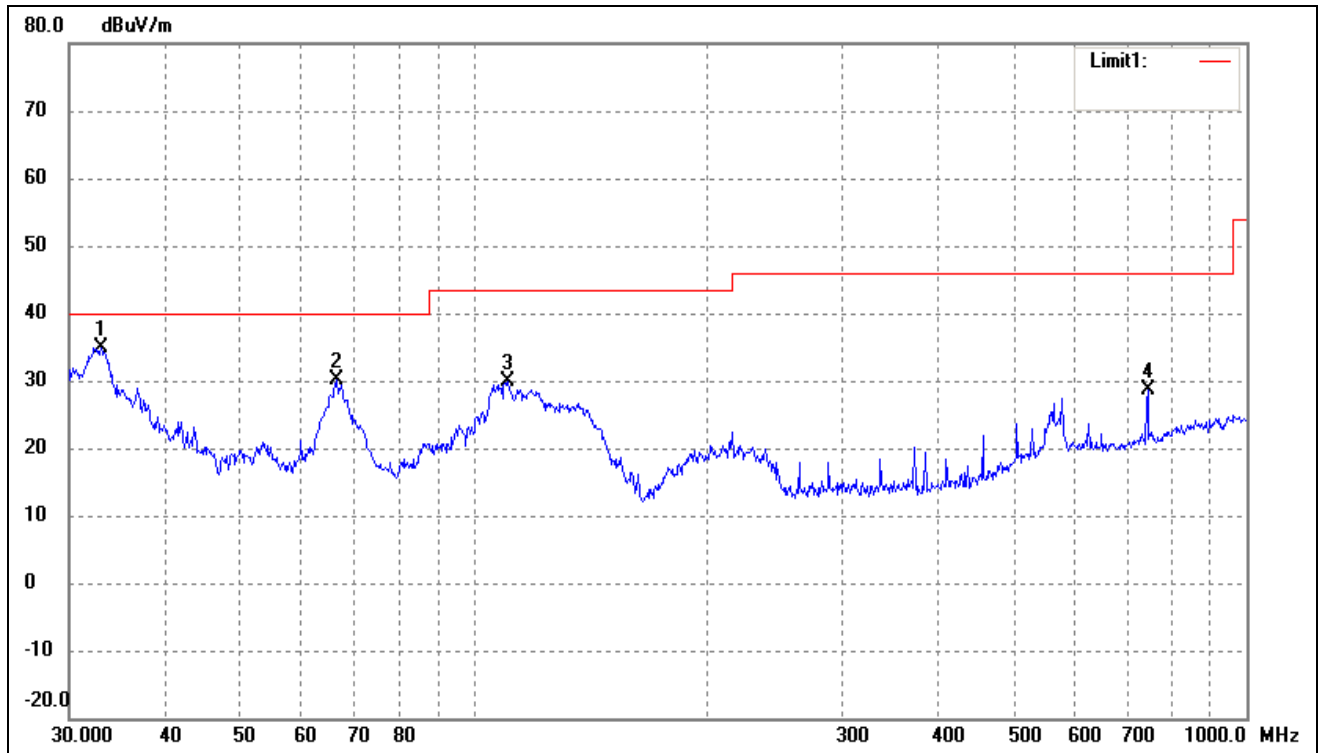
EUT: Tablet PC
 Tested Model: F-10HD2CORE
 Operating Condition: Charging and Playing
 Comment: AC 120V/60Hz; Adapter DC 5V

Test Specification: Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Detector
1*	66.9669	40.11	-11.14	28.97	40.00	-11.03	147	100	peak
2	216.0240	38.98	-10.61	28.37	40.00	-11.63	226	100	peak
3	372.0045	39.63	-6.71	32.92	47.00	-14.08	360	100	peak
4	455.9058	38.84	-5.18	33.66	47.00	-13.34	332	100	peak
5	576.6443	34.93	-2.74	32.19	47.00	-14.81	100	100	peak

Test Specification: Vertical

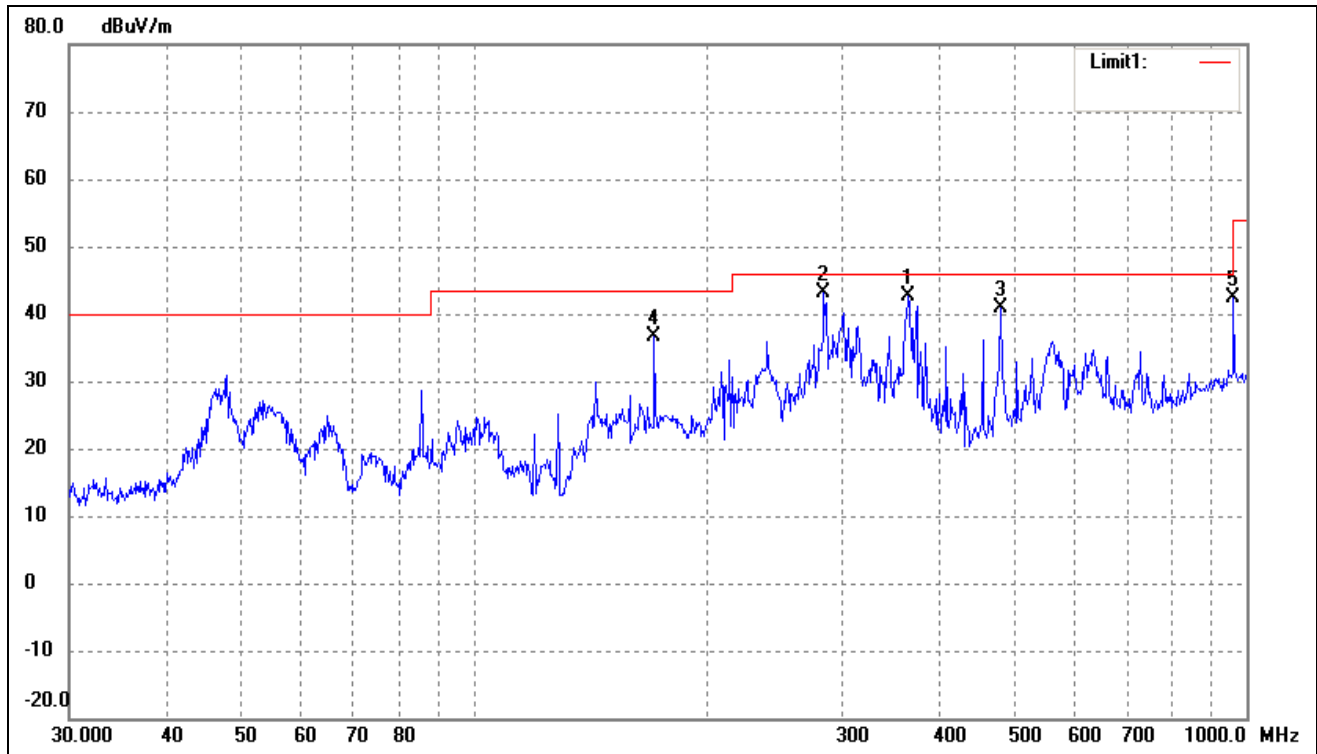


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Detector
1*	32.9791	45.97	-10.99	34.98	40.00	-5.02	182	100	peak
2	66.4989	41.14	-10.93	30.21	40.00	-9.79	337	100	peak
3	110.5687	40.68	-10.74	29.94	43.50	-13.56	168	100	peak
4	744.8661	29.41	-0.74	28.67	46.00	-17.33	225	100	peak

Plot of Radiated Emissions Test Data

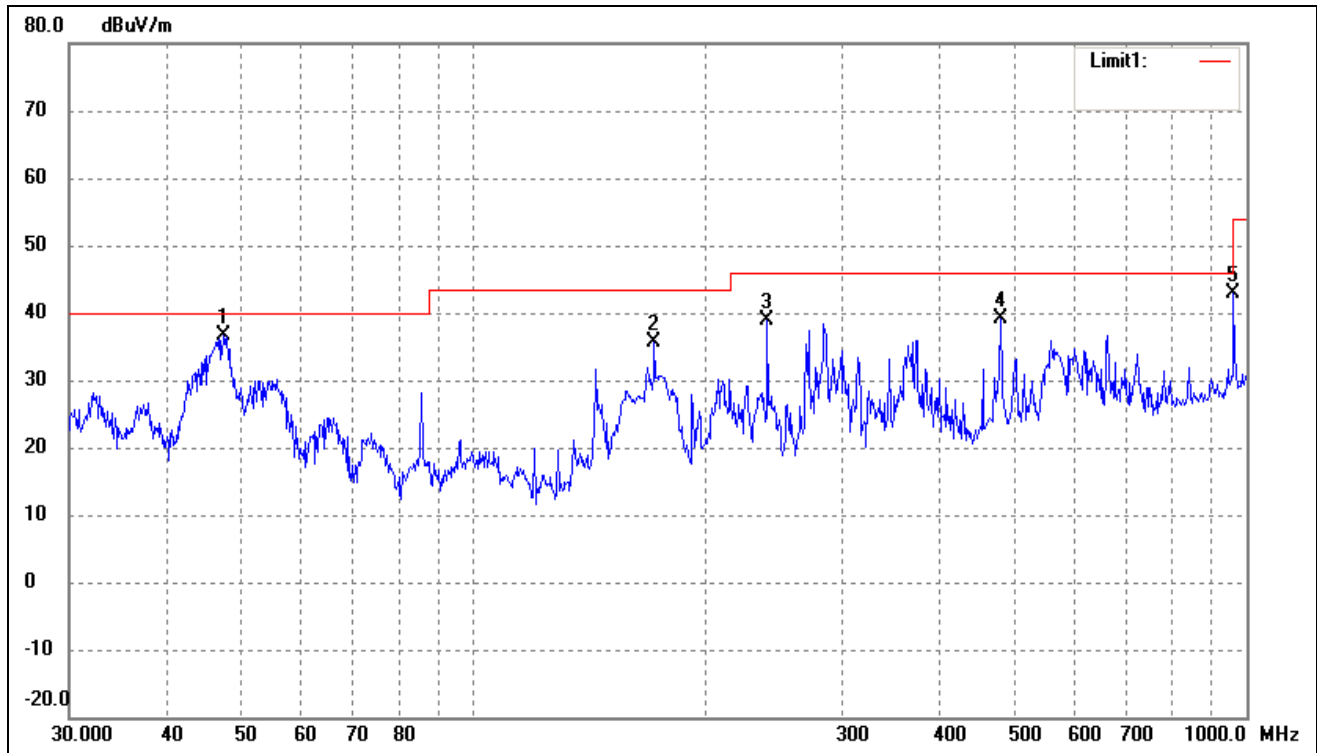
EUT: Tablet PC
 Tested Model: F-10HD2CORE
 Operating Condition: Downloading
 Comment: Connected to PC

Test Specification: Horizontal



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Detector
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(°)	(cm)	
1	364.2595	46.62	-3.96	42.66	46.00	-3.34	147	100	peak
2*	283.9791	49.79	-6.59	43.20	46.00	-2.80	180	100	peak
3	480.5276	42.46	-1.55	40.91	46.00	-5.09	226	100	peak
4	171.3925	48.38	-11.74	36.64	43.50	-6.86	360	100	peak
5	962.1621	36.25	6.12	42.37	54.00	-11.63	336	100	peak

Test Specification: Vertical



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Detector
1*	47.4917	44.02	-7.45	36.57	40.00	-3.43	247	100	peak
2	171.3925	47.32	-11.74	35.58	43.50	-7.92	226	100	peak
3	239.9874	46.59	-7.79	38.80	46.00	-7.20	278	100	peak
4	480.5276	40.67	-1.55	39.12	46.00	-6.88	60	100	peak
5	962.1622	36.87	6.12	42.99	54.00	-11.01	116	100	peak

Note: Testing is carried out with frequency rang 9kHz to 5GHz, which above 9kHz to 30MHz and above 1GHz spurious are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

*: Maximum data for every polarization:

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