

FCC Part 15B

Measurement and Test Report

For

Amelia World Corporation dba LINSAY

16340 West Dixie Highway, North Miami Beach, Florida

FCC ID: 2AAC3F7HD2CORENEW

Test Standards: FCC Part 15 Subpart B

Product Description: Tablet PC

Tested Model: F-7HD2CORE

Report No.: STR14048346I-2

Tested Date: 2014-04-23 to 2014-05-06

Issued Date: 2014-05-08

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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-7HD2CORE
Add Models:	/

Note: The test data is gathered from a production sample, provided by the manufacturer.

Technical Characteristics of EUT

Rated Voltage:	Operating: DC 3.7V battery, Charging: DC 5V/2A
Power Adapter Model:	PSYA05010US (Input: AC 100-240V, Output: DC 5V 2A)
Highest Internal Frequency:	1.5GHz
Lowest Internal Frequency:	32.768kHz
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 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 & Playing	Connect to Adapter
TM2	Downloading	Connected to PC

EUT Cable List and Details

Cable Description	Length (m)	Shielded/Unshielded	With / Without Ferrite
Adapter Cable	1.0	Unshielded	Without Ferrite
USB Cable	0.8	Unshielded	Without Ferrite
USB Patch Cord	0.15	Unshielded	Without Ferrite

Special Cable List and Details

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

Auxiliary Equipment List and Details

Description	Manufacturer	Model	Serial Number
TF Card	Kingston	4GB	/
Notebook	Lenovo	20007	EB12648265

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.

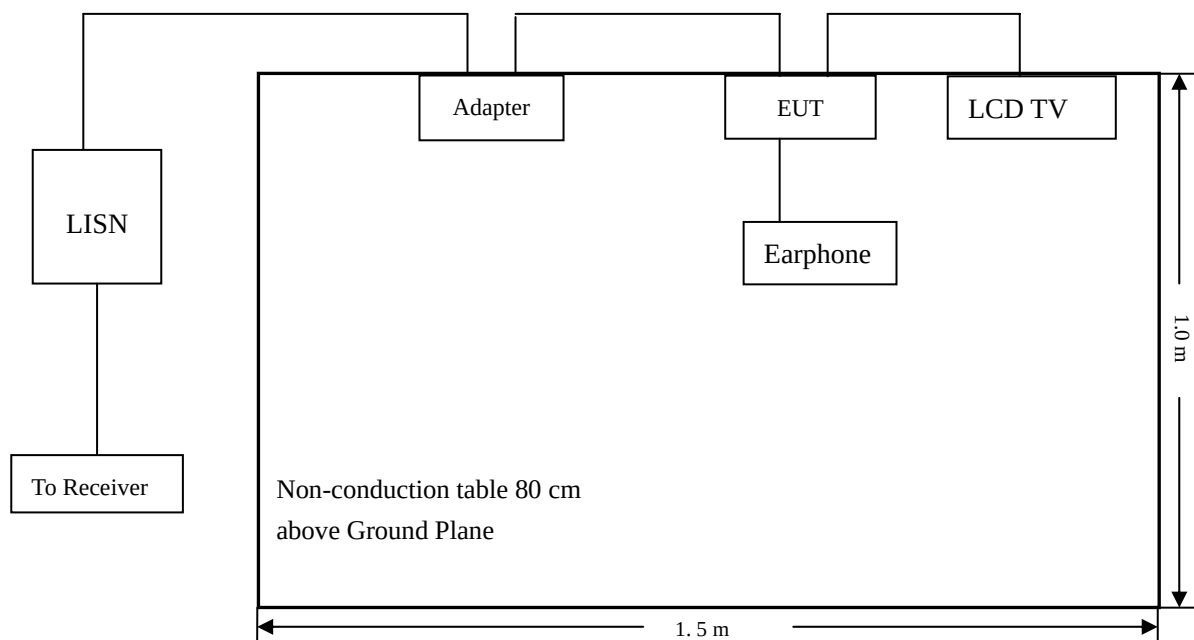
3.2 Test Equipment List and Details

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:

-4.94 dB at 0.2300 MHz in the Neutral mode, Peak detector, 0.15-30MHz

3.7 Conducted Emissions Test Data

Plot of Conducted Emissions Test Data

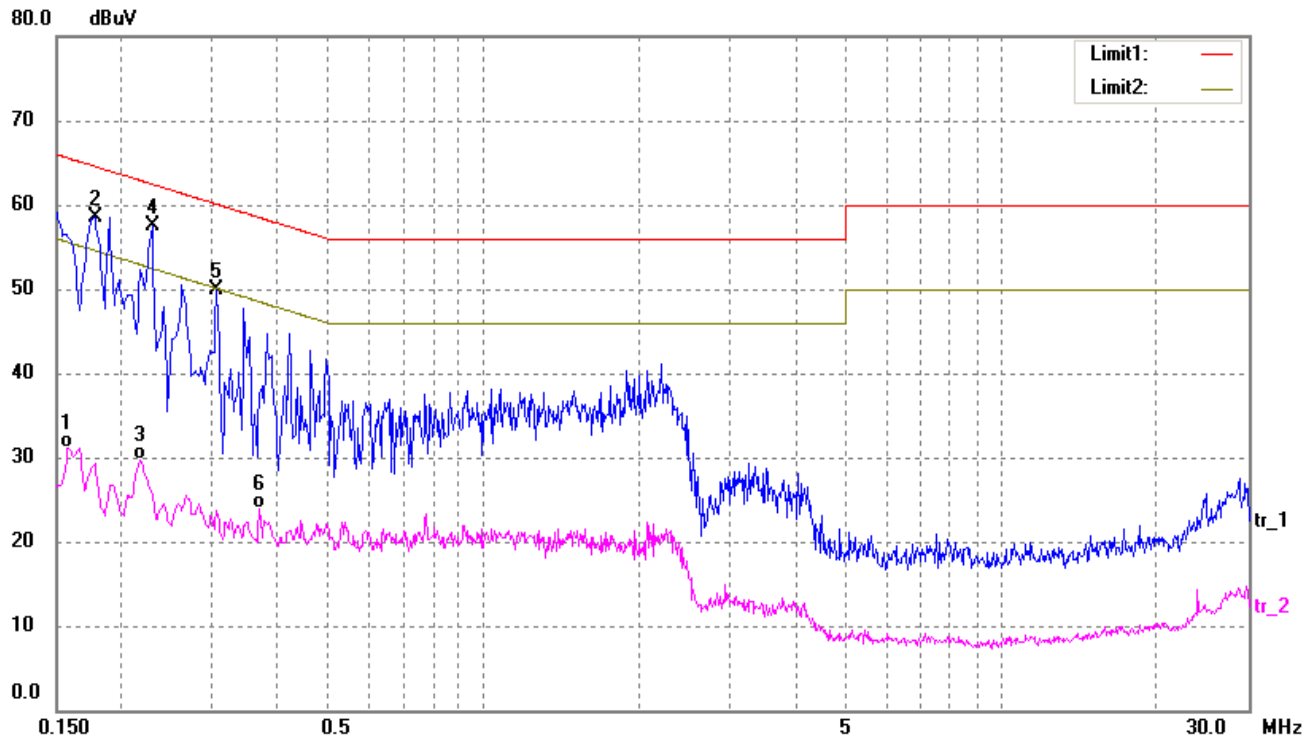
EUT: Tablet PC

Tested Model: TM1

Operating Condition: Charging & Playing

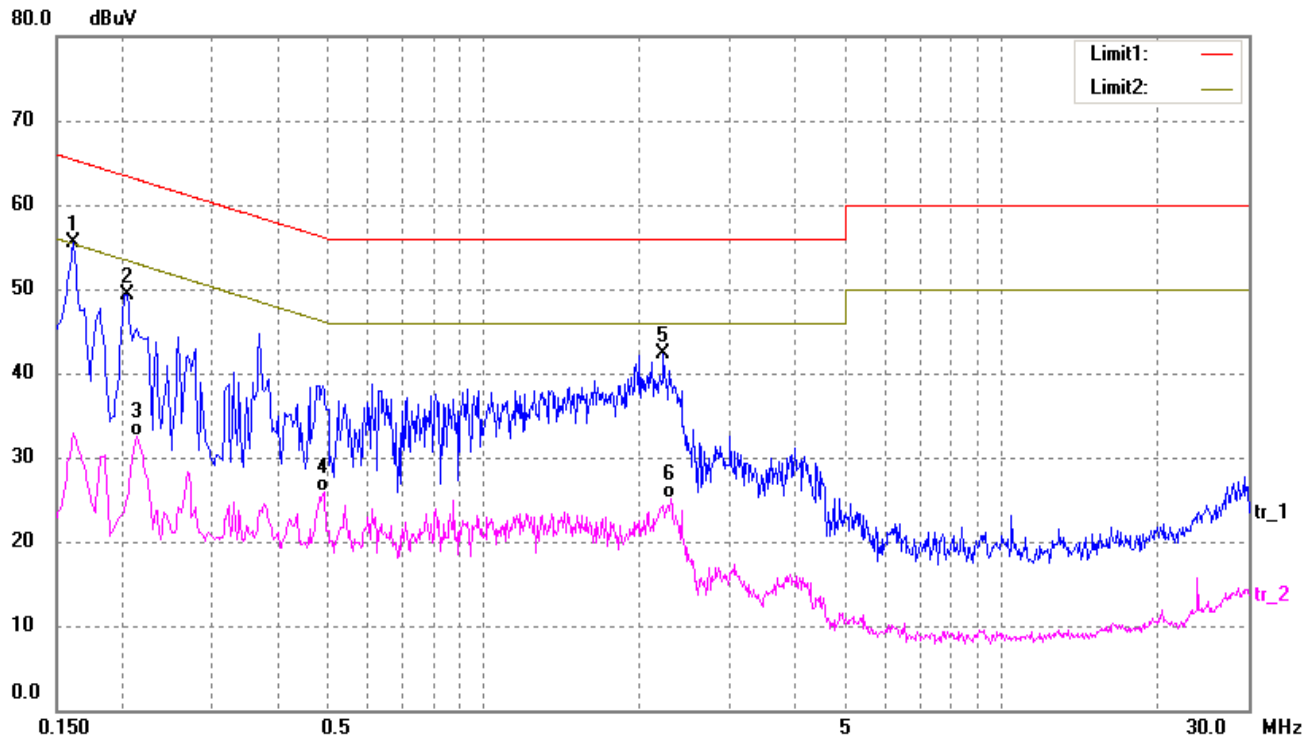
Comment: AC 120V/60Hz; adapter DC 5V

Test Specification: Neutral



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1580	21.68	9.50	31.18	55.57	-24.39	AVG
2	0.1780	48.98	9.50	58.48	64.58	-6.10	peak
3	0.2180	20.18	9.50	29.68	52.89	-23.21	AVG
4	0.2300	48.01	9.50	57.51	62.45	-4.94	peak
5	0.3060	40.32	9.50	49.82	60.08	-10.26	peak
6	0.3700	14.31	9.50	23.81	48.50	-24.69	AVG

Test Specification: Line



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1620	45.97	9.50	55.47	65.36	-9.89	peak
2	0.2060	39.75	9.50	49.25	63.37	-14.12	peak
3	0.2140	23.02	9.50	32.52	53.05	-20.53	AVG
4	0.4940	16.43	9.50	25.93	46.10	-20.17	AVG
5	2.2260	32.21	10.00	42.21	56.00	-13.79	peak
6	2.2980	15.16	10.00	25.16	46.00	-20.84	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 Equipment List and Details

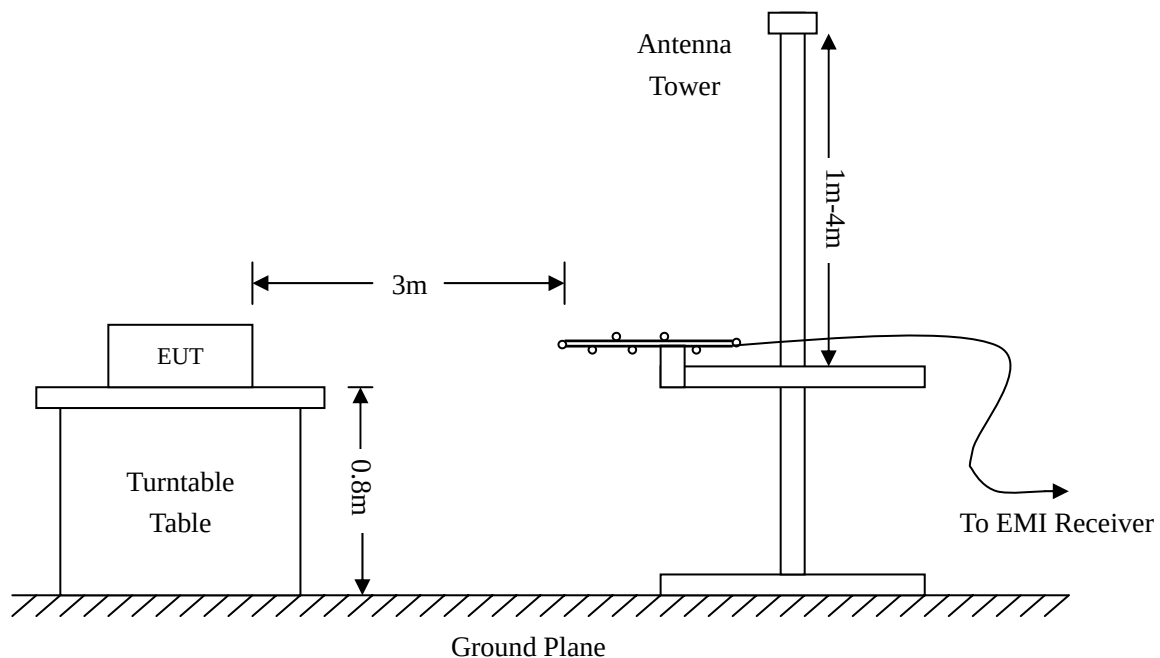
Description	Manufacturer	Model	Serial Number	Cal. Date	Due. Date
Spectrum Analyzer	R&S	FSP	836079/035	2013-05-07	2014-05-06
EMI Test Receiver	R&S	ESVB	825471/005	2013-05-07	2014-05-06
Pre-amplifier	Agilent	8447F	3113A06717	2013-05-07	2014-05-06
Pre-amplifier	Compliance Direction	PAP-0118	24002	2013-05-07	2014-05-06
Trilog Broadband Antenna	SCHWARZBECK	VULB9163	9163-333	2014-04-20	2015-04-19
Horn Antenna	ETS	3117	00086197	2014-04-20	2015-04-19
Loop Antenna	SCHWARZECK	HFRA 5165	9365	2014-04-20	2015-04-19

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:

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

The “**Margin**” column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of -6dB μ V means the emission is 6dB μ V 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:

-7.31 dB at 572.6144 MHz in the Horizontal polarization, TM1 mode, 9 kHz to 5 GHz, 3Meters

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

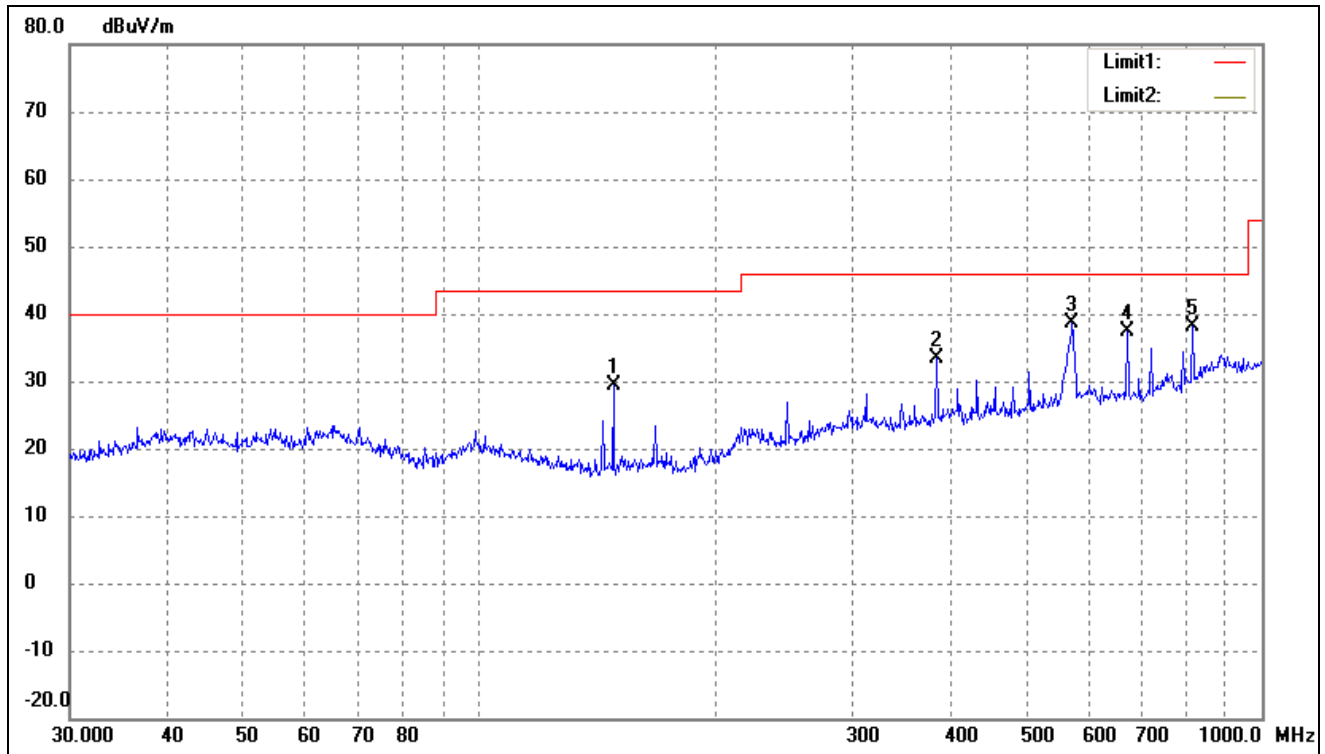
EUT: Tablet PC

Tested Model: F-7HD2CORE

Operating Condition: TM1

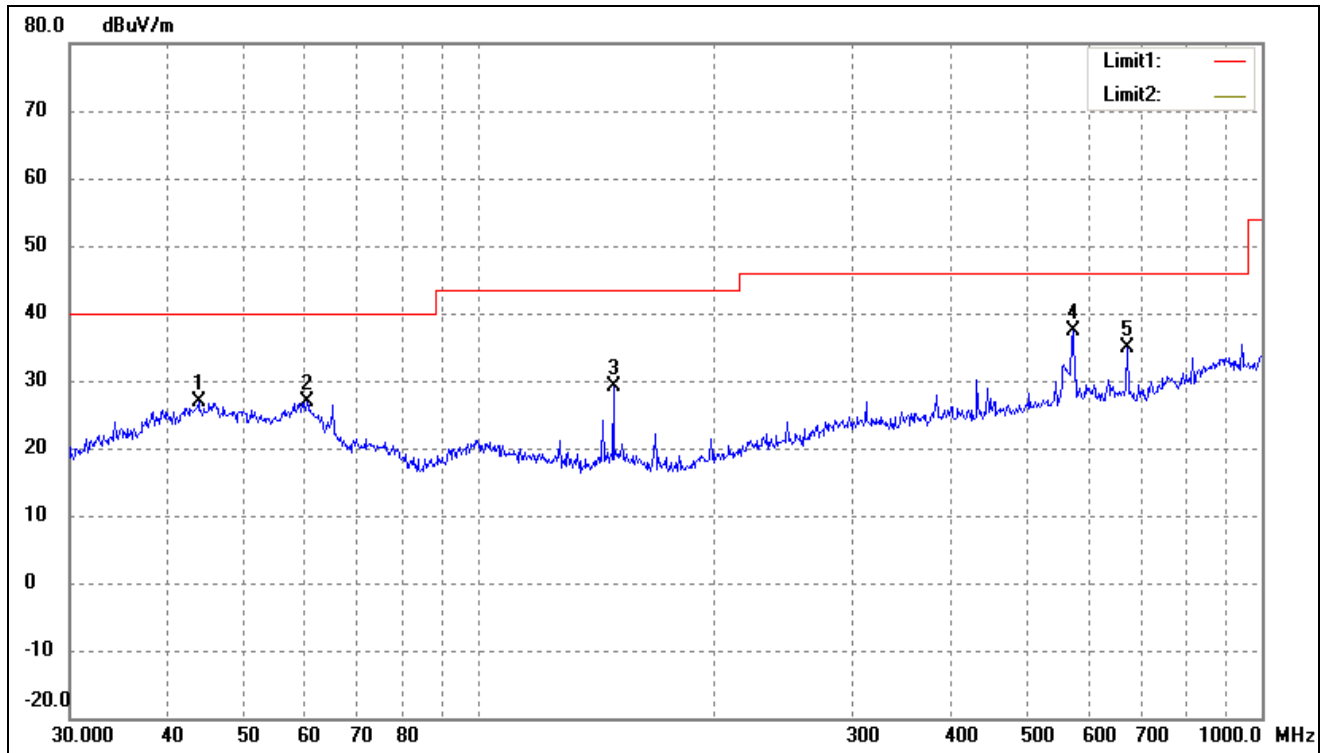
Comment: AC 120V/60Hz; adapter DC 5V

Test Specification: Horizontal



No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	148.4410	27.00	2.49	29.49	43.50	-14.01	235	100	peak
2	383.9318	24.06	9.38	33.44	46.00	-12.56	44	100	peak
3	572.6144	26.50	12.19	38.69	46.00	-7.31	79	100	peak
4	672.8445	25.27	12.22	37.49	46.00	-8.51	85	100	peak
5	815.9678	23.33	14.80	38.13	46.00	-7.87	124	100	peak

Test Specification: Vertical

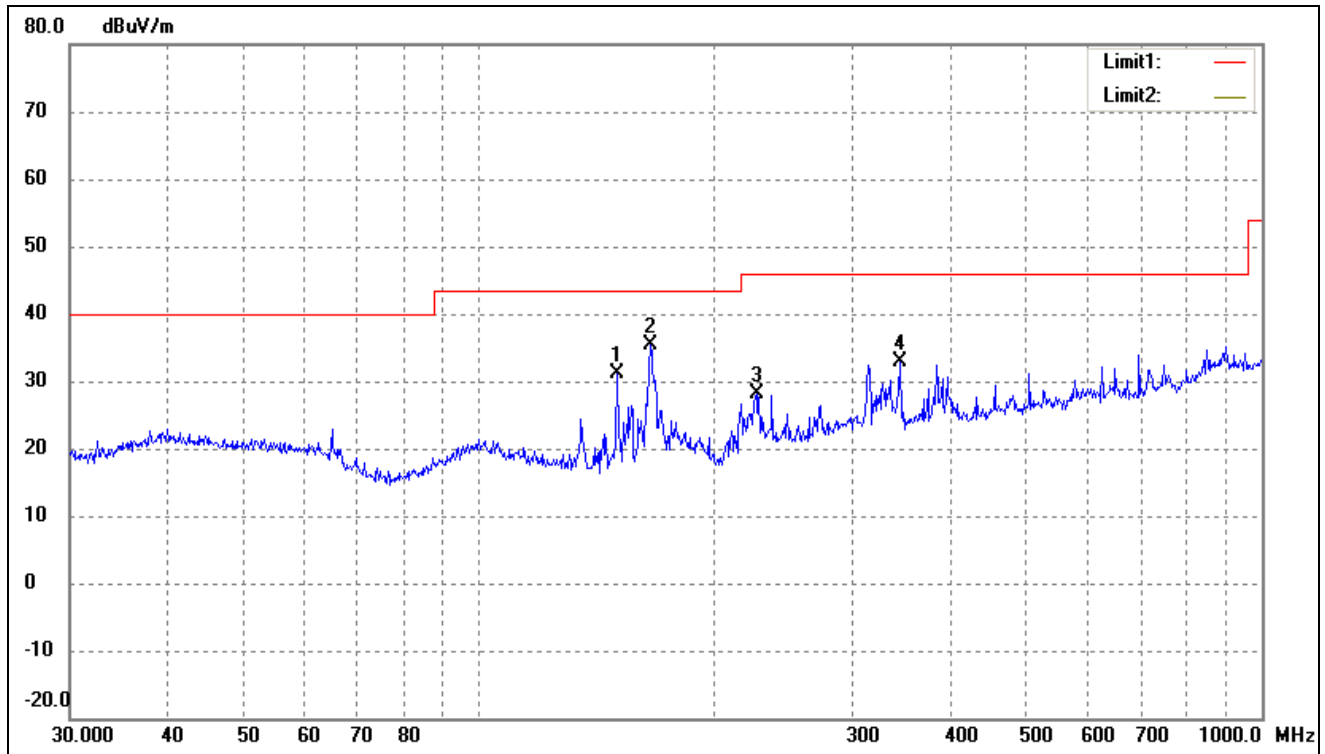


No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	Factor(dB)	(dBuV/m)	(dBuV/m)	(dB)	(°)	(cm)	
1	43.8119	18.79	8.12	26.91	40.00	-13.09	306	100	peak
2	60.2801	21.51	5.29	26.80	40.00	-13.20	54	100	peak
3	148.4410	26.58	2.49	29.07	43.50	-14.43	258	100	peak
4	574.6258	25.17	12.29	37.46	46.00	-8.54	162	100	peak
5	672.8445	22.06	12.87	34.93	46.00	-11.07	57	100	peak

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

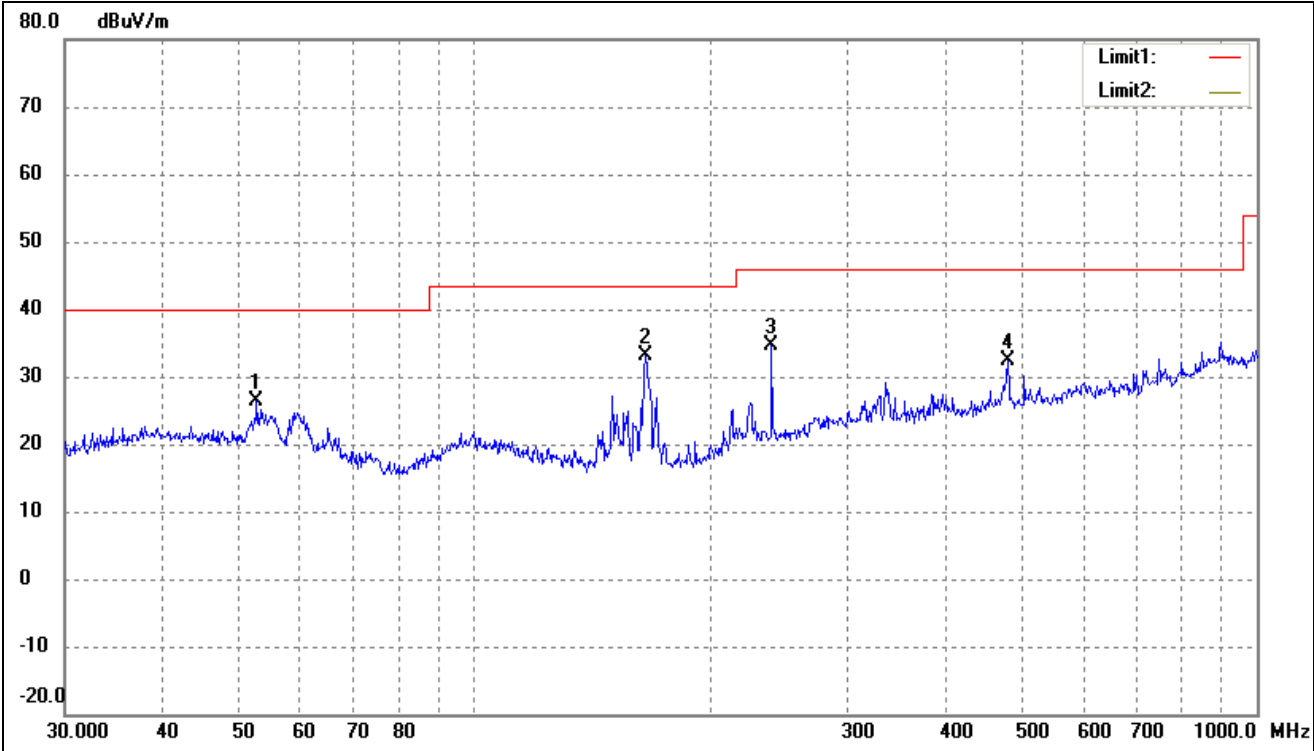
EUT: Tablet PC
 Tested Model: F-7HD2CORE
 Operating Condition: TM2
 Comment: Connected to PC

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	150.0108	28.53	2.50	31.03	43.50	-12.47	245	100	peak
2	165.4867	32.61	2.65	35.26	43.50	-8.24	15	100	peak
3	226.0994	22.59	5.48	28.07	46.00	-17.93	32	100	peak
4	345.5952	23.90	8.87	32.77	46.00	-13.23	54	100	peak

Test Specification: Vertical

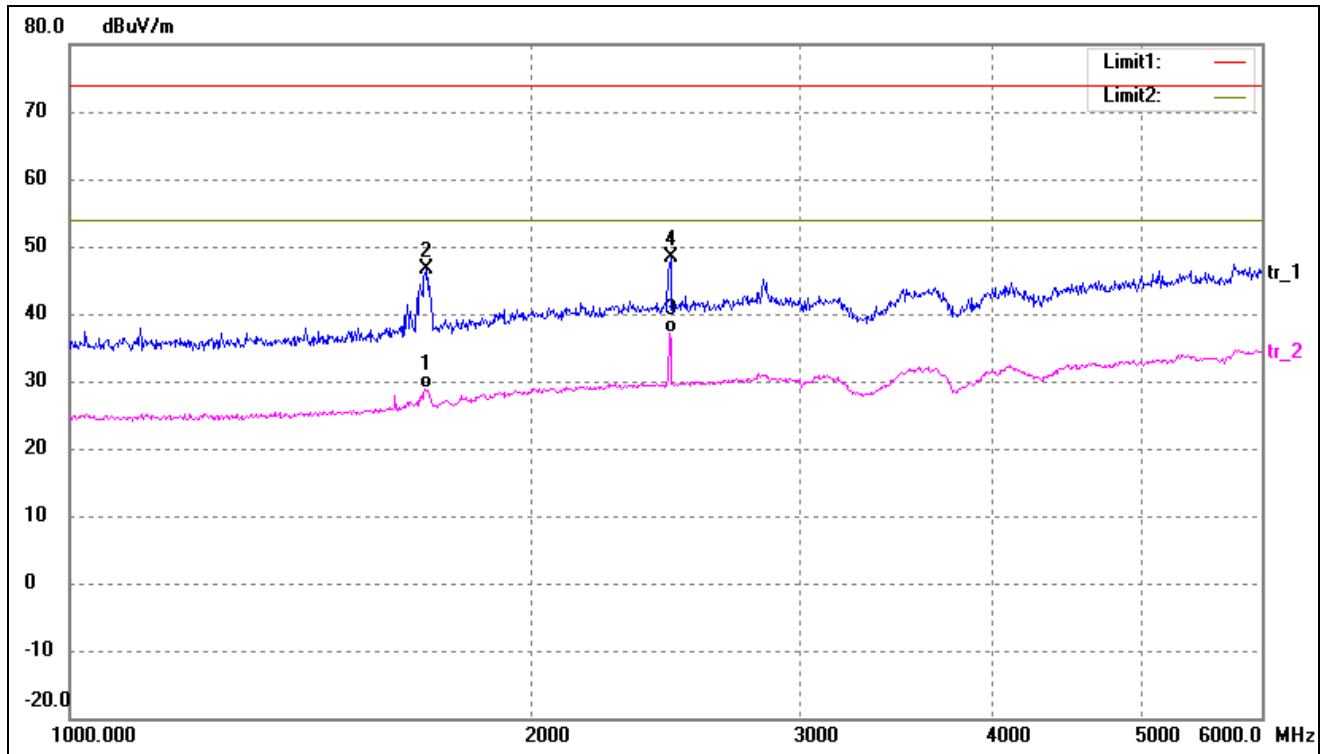


No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	Factor(dB)	(dBuV/m)	(dBuV/m)	(dB)	(°)	(cm)	
1	52.7600	20.26	6.02	26.28	40.00	-13.72	102	100	peak
2	165.4867	30.37	2.65	33.02	43.50	-10.48	154	100	peak
3	239.9874	28.34	6.33	34.67	46.00	-11.33	114	100	peak
4	480.5276	22.27	10.12	32.39	46.00	-13.61	111	100	peak

Plot of Radiated Emissions Test Data(Above 1GHz)

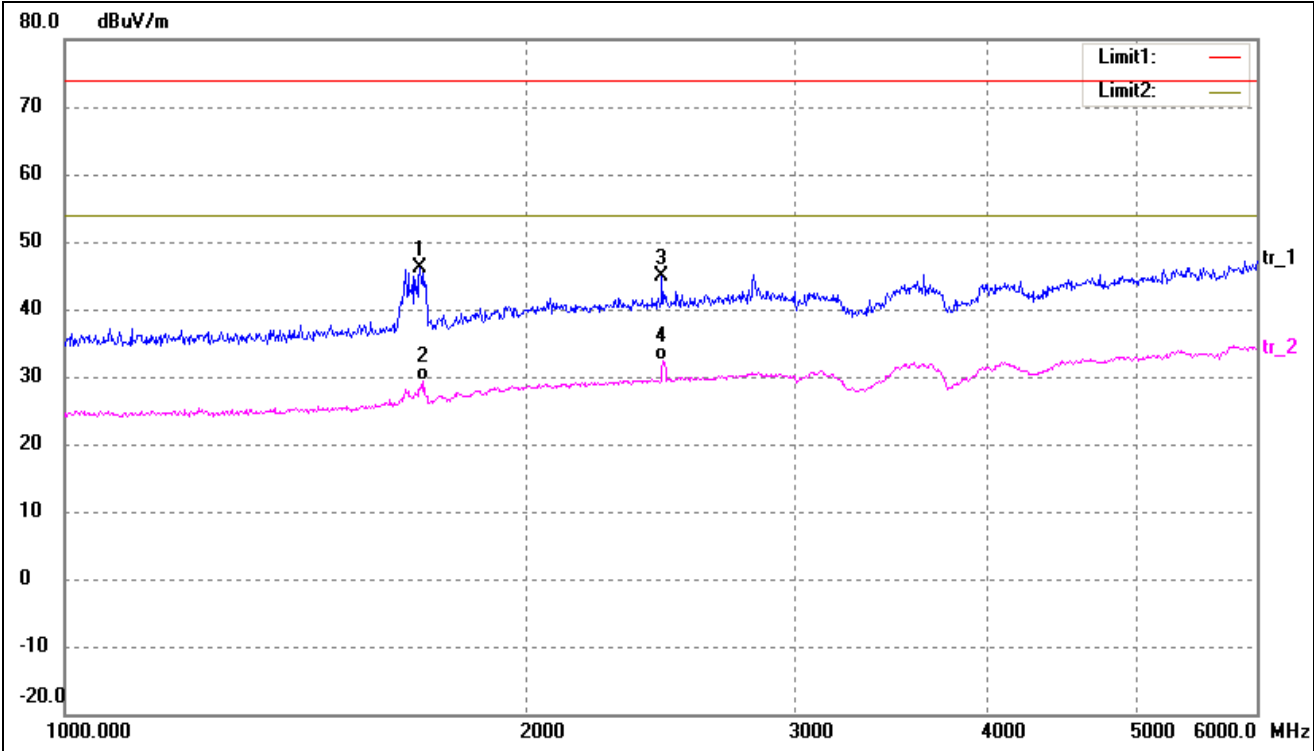
EUT: Tablet PC
Tested Model: F-7HD2CORE
Operating Condition: TM1
Comment: AC 120V/60Hz; Adapter DC 5V

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	1705.647	35.41	-6.46	28.95	54.00	-25.05	235	100	peak
2	1708.706	53.01	-6.44	46.57	74.00	-27.43	44	100	AVG
3	2462.692	40.48	-3.37	37.11	54.00	-16.89	79	100	peak
4	2467.108	51.69	-3.35	48.34	74.00	-25.66	85	100	AVG

Test Specification: Vertical

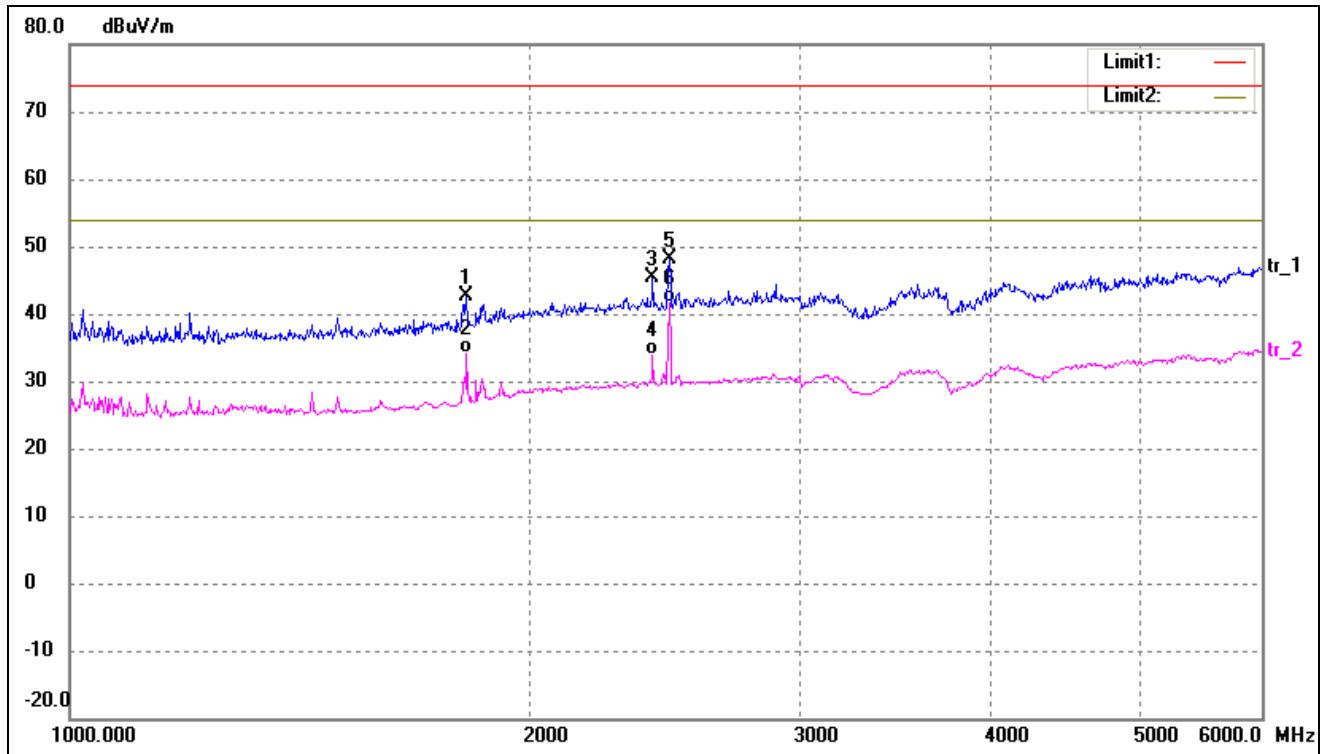


No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	Factor(dB)	(dBuV/m)	(dBuV/m)	(dB)	(°)	(cm)	
1	1705.647	52.69	-6.46	46.23	74.00	-27.77	306	100	peak
2	1714.840	35.67	-6.40	29.27	54.00	-24.73	54	100	AVG
3	2453.883	48.30	-3.38	44.92	74.00	-29.08	258	100	peak
4	2458.283	35.76	-3.38	32.38	54.00	-21.62	162	100	AVG

Plot of Radiated Emissions Test Data(Above 1G)

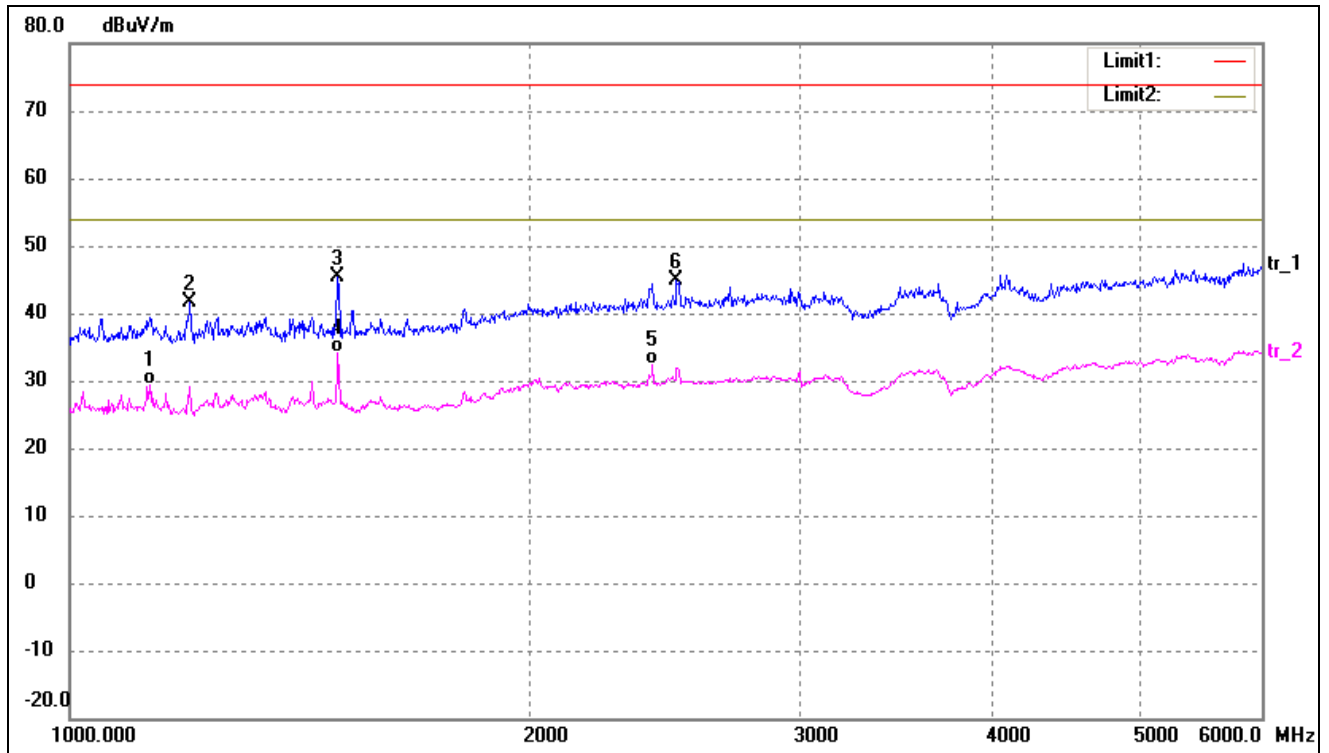
EUT: Tablet PC
 Tested Model: F-7HD2CORE
 Operating Condition: TM2
 Comment: Connected to PC

Test Specification: Horizontal



No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	1812.785	48.33	-5.71	42.62	74.00	-31.38	245	100	peak
2	1816.036	39.88	-5.69	34.19	54.00	-19.81	15	100	AVG
3	2401.684	48.88	-3.51	45.37	74.00	-28.63	32	100	peak
4	2401.684	37.29	-3.51	33.78	54.00	-20.22	54	100	AVG
5	2462.692	51.51	-3.37	48.14	74.00	-25.86	288	100	peak
6	2462.692	44.91	-3.37	41.54	54.00	-12.46	231	100	AVG

Test Specification: Vertical



No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	1127.551	38.09	-8.71	29.38	54.00	-24.62	0	100	AVG
2	1198.377	50.11	-8.56	41.55	74.00	-32.45	15	100	peak
3	1493.846	53.27	-7.92	45.35	74.00	-28.65	114	100	peak
4	1496.525	42.06	-7.90	34.16	54.00	-19.84	111	100	AVG
5	2401.684	35.84	-3.51	32.33	54.00	-21.67	254	100	AVG
6	2489.310	48.15	-3.31	44.84	74.00	-29.16	125	100	peak

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