

FCC Part 15B Measurement and Test Report

For

Amelia World Corporation dba LINSAY

16340 West Dixie Highway, North Miami Beach, Florida

FCC ID: 2AAC310XHD4CORE

Test Standards: FCC Part 15 Subpart B

Product Description: Tablet PC

Tested Model: F-10XHD4Core

Report No.: STR13058330I-2

Tested Date: 2013-05-24 to 2013-06-20

Issued Date: 2013-06-24

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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-10XHD4Core
Adding Model(s):	/
<i>Note: The test data is gathered from a production sample, provided by the manufacturer.</i>	

Technical Characteristics of EUT	
Rated Voltage:	DC 3.7V battery
Rated Current:	/
Rated Power:	/
Power Adapter Model:	ZFXPA02000050 Input: AC 100-240V/0.5A; Output: DC 5V/2.5A
Highest Internal Frequency:	1GHz
Lowest Internal Frequency:	32.768kHz
Classification of ITE:	Class B
Support Interface:	USB 2.0

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.: 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	Playing + HDMI output	Color Bar with 1kHz Audio (Read TF card)
TM2	Playing + HDMI output	Color Bar with 1kHz Audio (Read Memory)
TM3	Downloading	Test Software: CT3
TM4	/	/

EUT Cable List and Details

Cable Description	Length (M)	Shielded/Unshielded	With Core/Without Core
Power Cable	1.7	Unshielded	Without Core
USB Cable	1.0	Shielded	Without Core

Auxiliary Equipment List and Details

Description	Manufacturer	Model	Serial Number
Monitor	DELL	U2713H	/
Notebook	IBM	E10	/

Special Cable List and Details

Cable Description	Length (M)	Shielded/Unshielded	With Core/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.

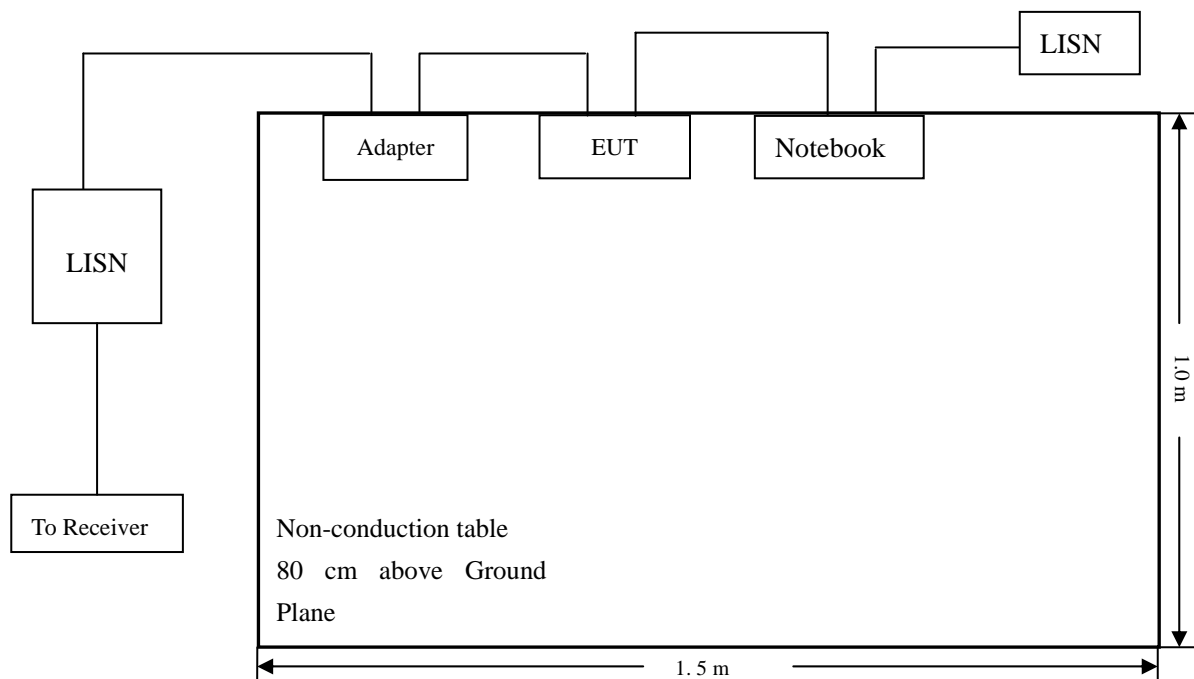
3.2 Test Equipment List and Details

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:

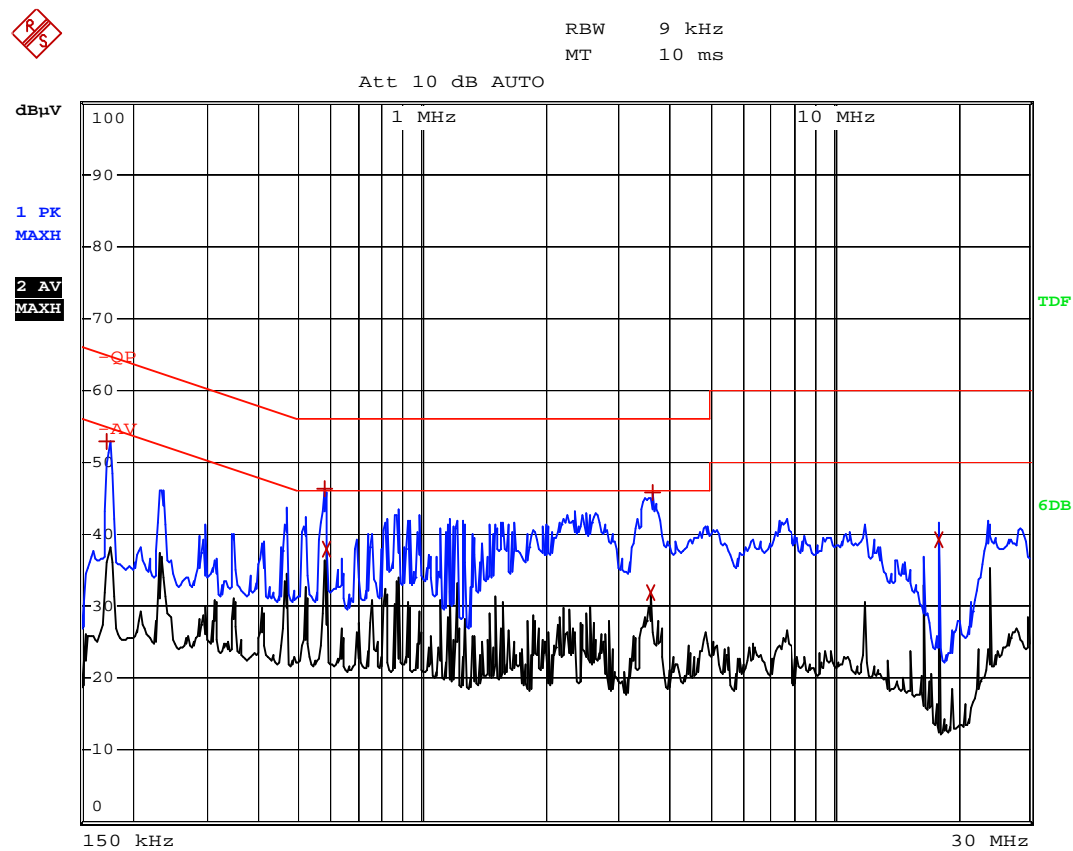
-8.10 dB at **0.582 MHz** in the **Neutral, Average** detector, 0.15-30MHz

3.7 Conducted Emissions Test Data

Plot of Conducted Emissions Test Data

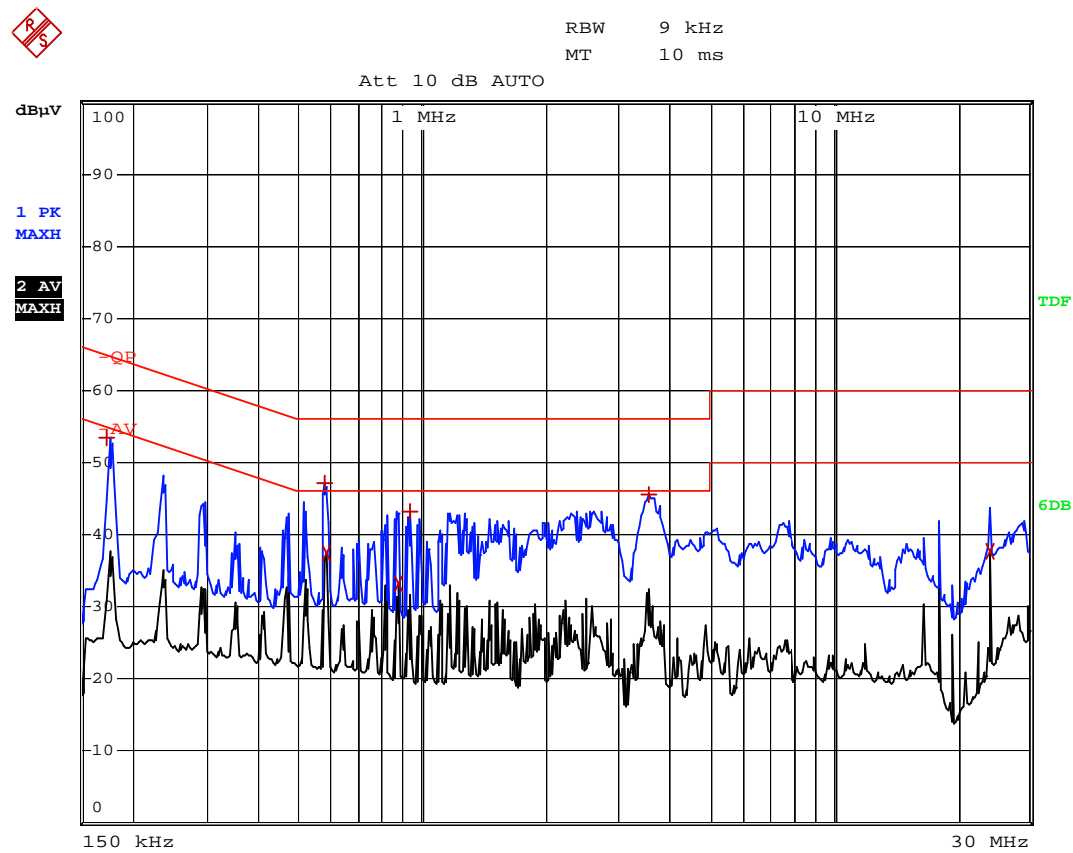
EUT: Tablet PC
Tested Model: F-10XHD4Core
Operating Condition: TM1
Comment: AC 120V/60Hz; Adapter DC 5V

Test Specification: Neutral



EDIT PEAK LIST (Prescan Results)			
Trace1:	-QP		
Trace2:	-AV		
Trace3:	---		
TRACE	FREQUENCY	LEVEL dBµV	DELTA LIMIT dB
1 Max Peak	174 kHz	52.90	-11.85
1 Max Peak	578 kHz	46.22	-9.77
2 Average	582 kHz	37.89	-8.10
2 Average	3.598 MHz	31.91	-14.09
1 Max Peak	3.65 MHz	45.89	-10.10
2 Average	17.982 MHz	39.21	-10.78

Test Specification: Line



EDIT PEAK LIST (Prescan Results)			
Trace1:	-QP		
Trace2:	-AV		
Trace3:	---		
TRACE	FREQUENCY	LEVEL dBμV	DELTA LIMIT dB
1 Max Peak	174 kHz	53.44	-11.32
1 Max Peak	578 kHz	46.99	-9.00
2 Average	582 kHz	37.40	-8.59
2 Average	878 kHz	33.14	-12.85
1 Max Peak	930 kHz	43.18	-12.82
1 Max Peak	3.57 MHz	45.45	-10.54
2 Average	23.978 MHz	37.75	-12.24

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

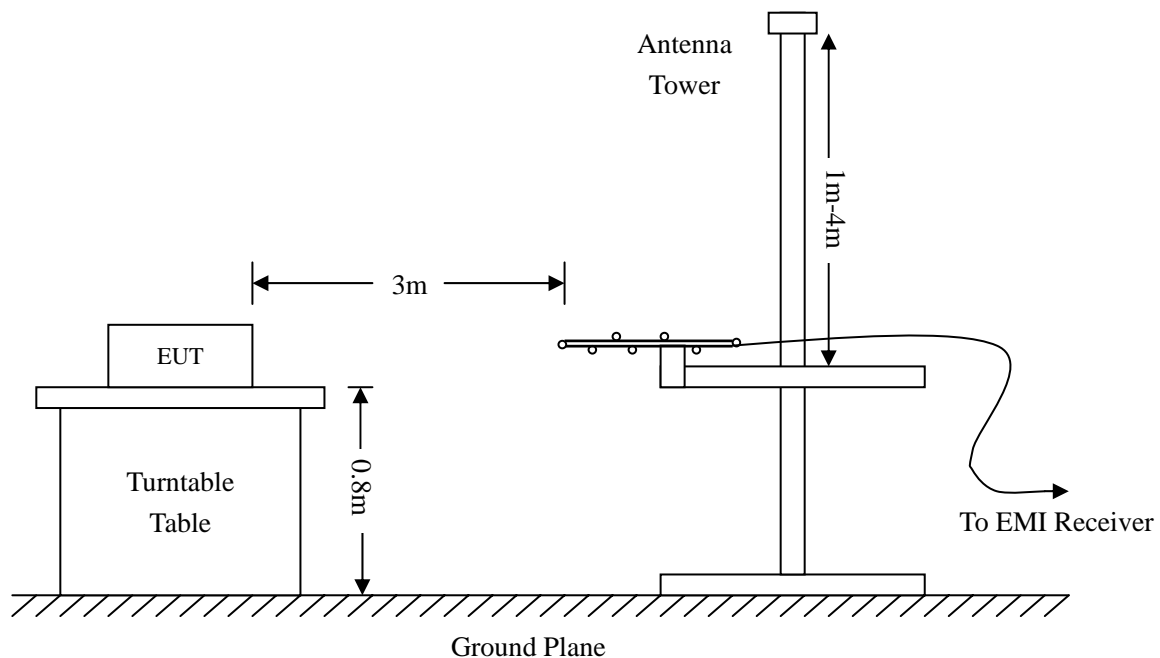
Description	Manufacturer	Model	Serial Number	Cal. Date	Due. Date
Spectrum Analyzer	R&S	FSP	836079/035	2013-05-07	2014-05-06
EMI Test Receiver	R&S	ESVB	825471/005	2013-05-07	2014-05-06
Pre-amplifier	Agilent	8447F	3113A06717	2013-05-07	2014-05-06
Pre-amplifier	Compliance Direction	PAP-0118	24002	2013-05-07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



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:

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

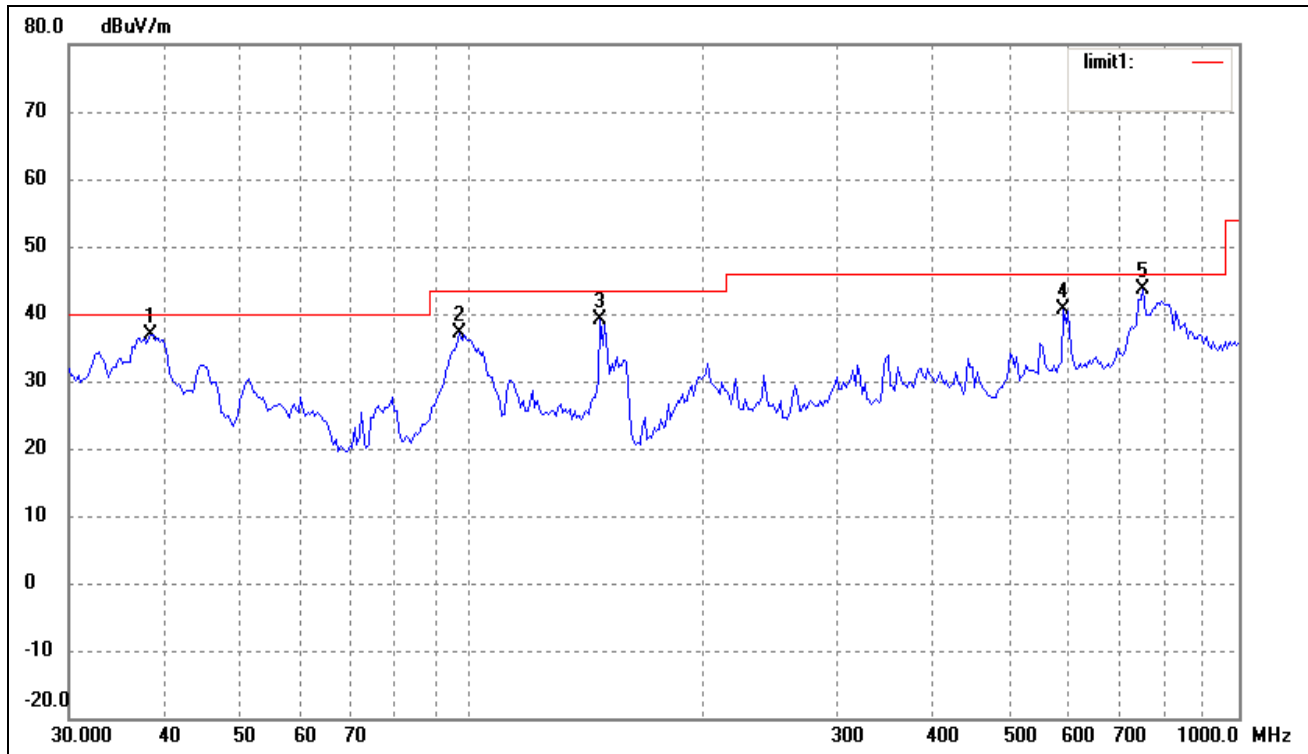
4.6 Environmental Conditions

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

4.7 Summary of Test Results/Plots

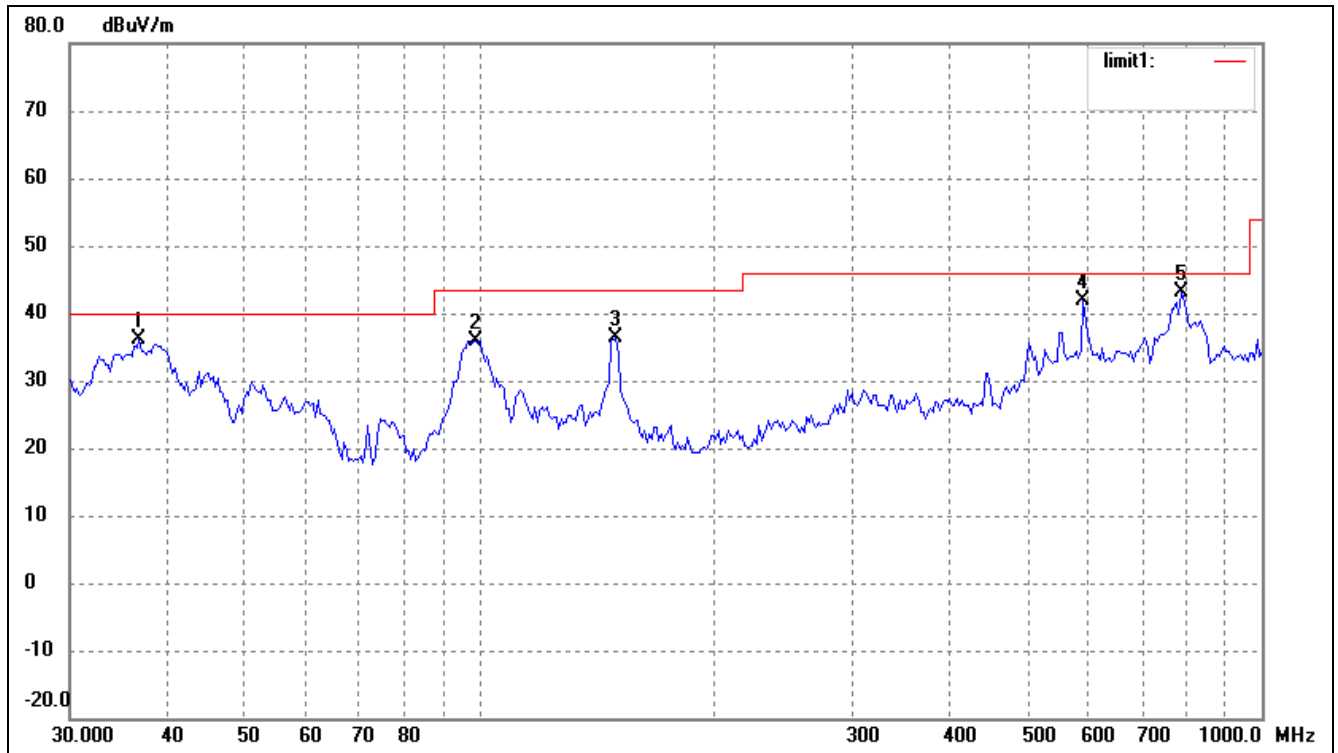
According to the data, the EUT complied with the FCC Part 15.109(a) rule, and had the worst margin of:

-2.38 dB at 750.1083 MHz in the Horizontal polarization, TM2, 9 kHz to 6 GHz, 3Meters

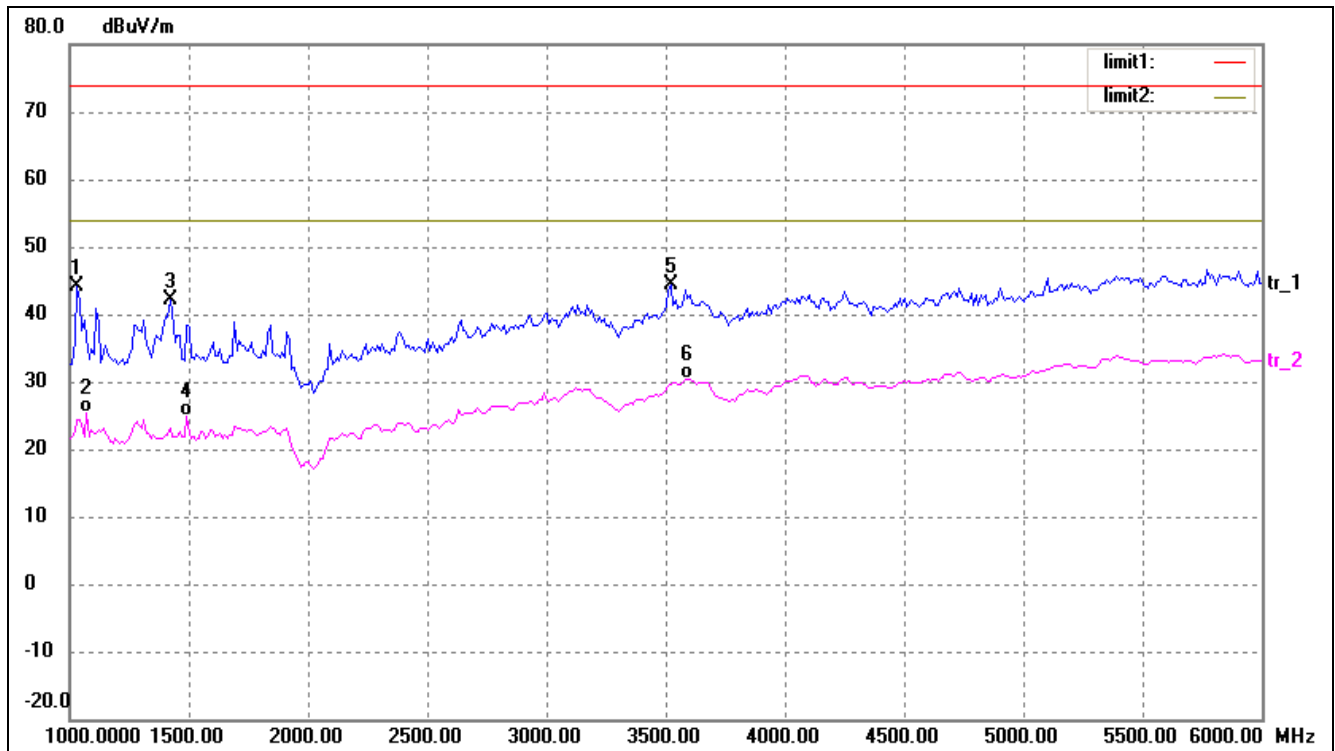
Plot of Radiated Emissions Test Data (Below 1GHz)EUT: *Tablet PC*Tested Model: *F-10XHD4Core*Operating Condition: *TM1*Comment: *AC 120V/60Hz; Adapter DC 5V*Test Specification: *Horizontal*

No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	Factor(dB)	(dBuV/m)	(dBuV/m)	(dB)	(°)	(cm)	
1	38.3462	27.49	9.42	36.91	40.00	-3.09	51	100	peak
2	96.7749	31.06	6.04	37.10	43.50	-6.40	308	100	peak
3	147.4036	35.52	3.52	39.04	43.50	-4.46	120	100	peak
4	599.9737	26.06	14.50	40.56	46.00	-5.44	359	100	peak
5	750.1083	25.84	17.78	43.62	46.00	-2.38	359	100	peak

Test Specification: Vertical

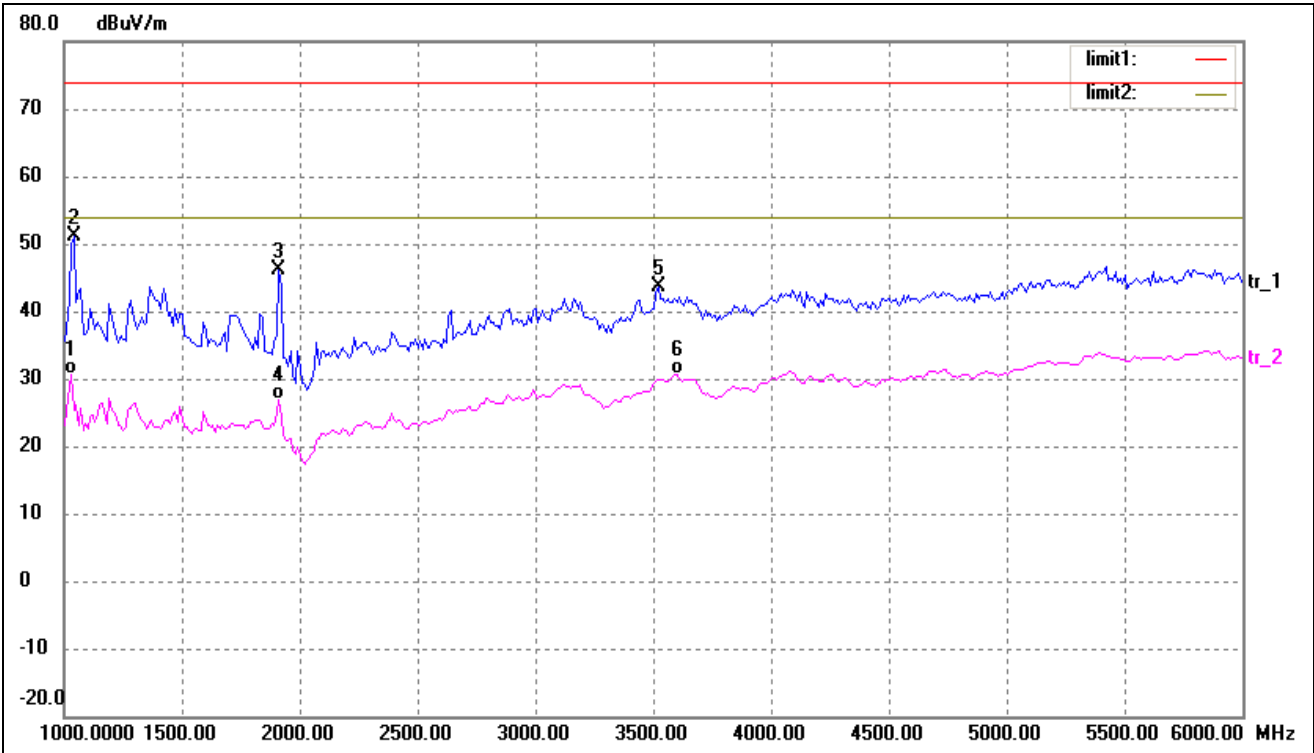


No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	36.7662	26.90	9.16	36.06	40.00	-3.94	215	100	peak
2	98.8326	29.33	6.55	35.88	43.50	-7.62	26	100	peak
3	149.4857	32.83	3.55	36.38	43.50	-7.12	44	100	peak
4	590.9737	27.45	14.50	41.95	46.00	-4.05	24	100	peak
5	787.8513	27.06	15.96	43.02	46.00	-2.98	245	100	peak

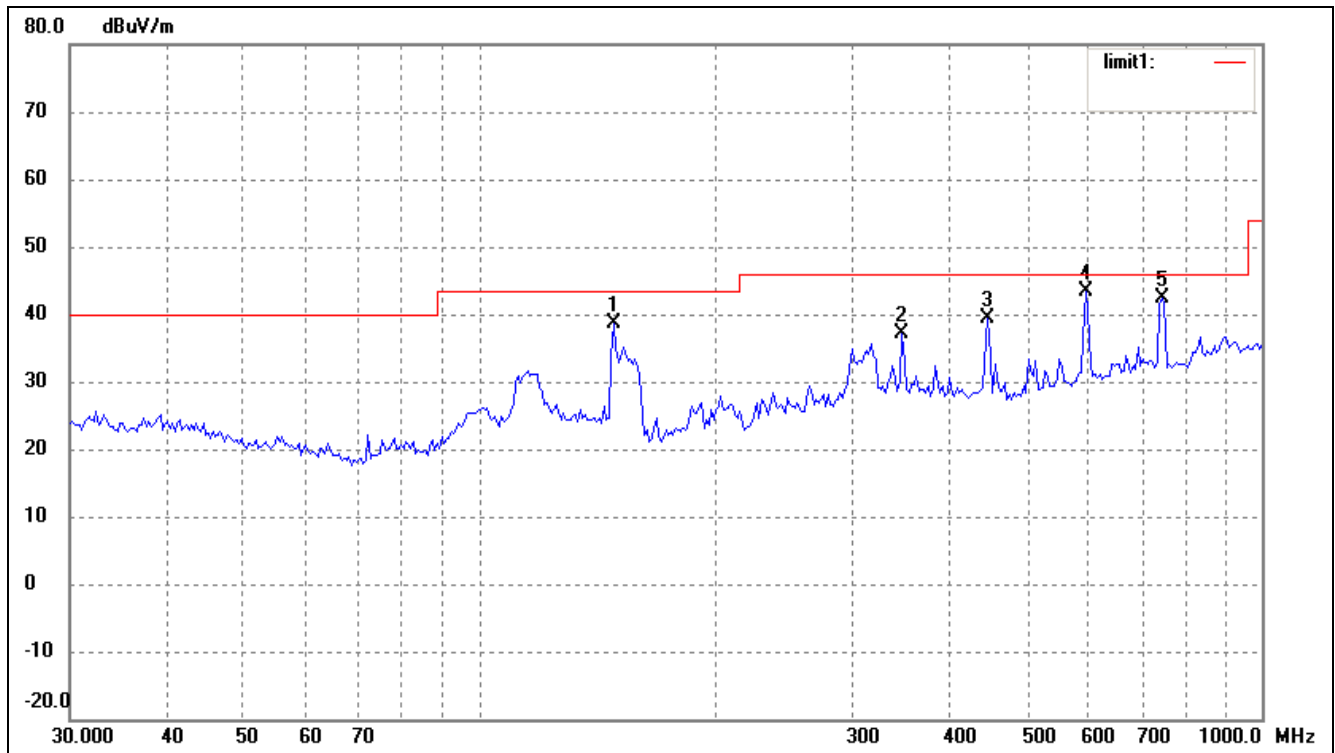
Plot of Radiated Emissions Test Data (Above 1GHz)*EUT:* Tablet PC*Tested Model:* F-10XHD4Core*Operating Condition:* TM1*Comment:* AC 120V/60Hz; Adapter DC 5V*Test Specification:* Horizontal

No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	1030.000	60.01	-15.82	44.19	74.00	-29.81	359	200	peak
2	1070.000	41.07	-15.70	25.37	54.00	-28.63	359	200	AVG
3	1420.000	56.87	-14.72	42.15	74.00	-31.85	359	200	peak
4	1490.000	39.35	-14.53	24.82	54.00	-29.18	359	200	AVG
5	3520.000	50.79	-6.44	44.35	74.00	-29.65	359	200	peak
6	3590.000	36.73	-6.23	30.50	54.00	-23.50	359	200	AVG

Test Specification: Vertical

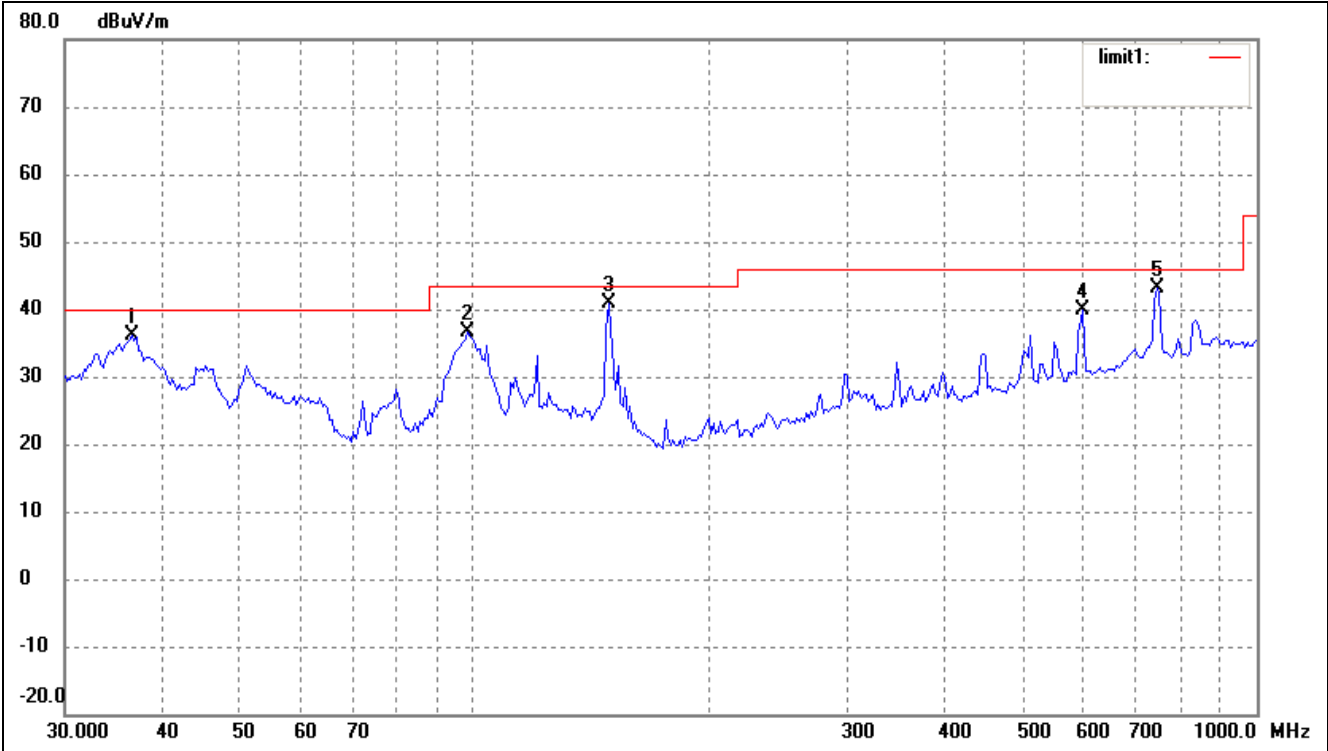


No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(°)	(cm)	
1	1030.000	46.34	-15.82	30.52	54.00	-23.48	359	100	AVG
2	1040.000	66.84	-15.79	51.05	74.00	-22.95	359	100	peak
3	1910.000	58.28	-12.13	46.15	74.00	-27.85	359	100	peak
4	1910.000	38.91	-12.13	26.78	54.00	-27.22	359	100	AVG
5	3520.000	50.04	-6.44	43.60	74.00	-30.40	359	100	peak
6	3600.000	36.83	-6.19	30.64	54.00	-23.36	359	100	AVG

Plot of Radiated Emissions Test Data (Below 1GHz)*EUT:* Tablet PC*Tested Model:* F-10XHD4Core*Operating Condition:* TM2*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	35.12	3.53	38.65	43.50	-4.85	248	100	peak
2	346.8091	26.68	10.33	37.01	46.00	-8.99	26	100	peak
3	446.4141	28.04	11.41	39.45	46.00	-6.55	96	100	peak
4	595.1328	28.78	14.63	43.41	46.00	-2.59	44	100	peak
5	744.8660	24.52	17.94	42.46	46.00	-3.54	164	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	36.5090	26.92	9.13	36.05	40.00	-3.95	147	100	peak
2	98.1419	30.24	6.39	36.63	43.50	-6.87	54	100	peak
3	148.4410	37.25	3.53	40.78	43.50	-2.72	312	100	peak
4	599.3211	25.11	14.76	39.87	46.00	-6.13	51	100	peak
5	744.8659	25.28	17.94	43.22	46.00	-2.78	64	100	peak

Plot of Radiated Emissions Test Data (Above 1GHz)

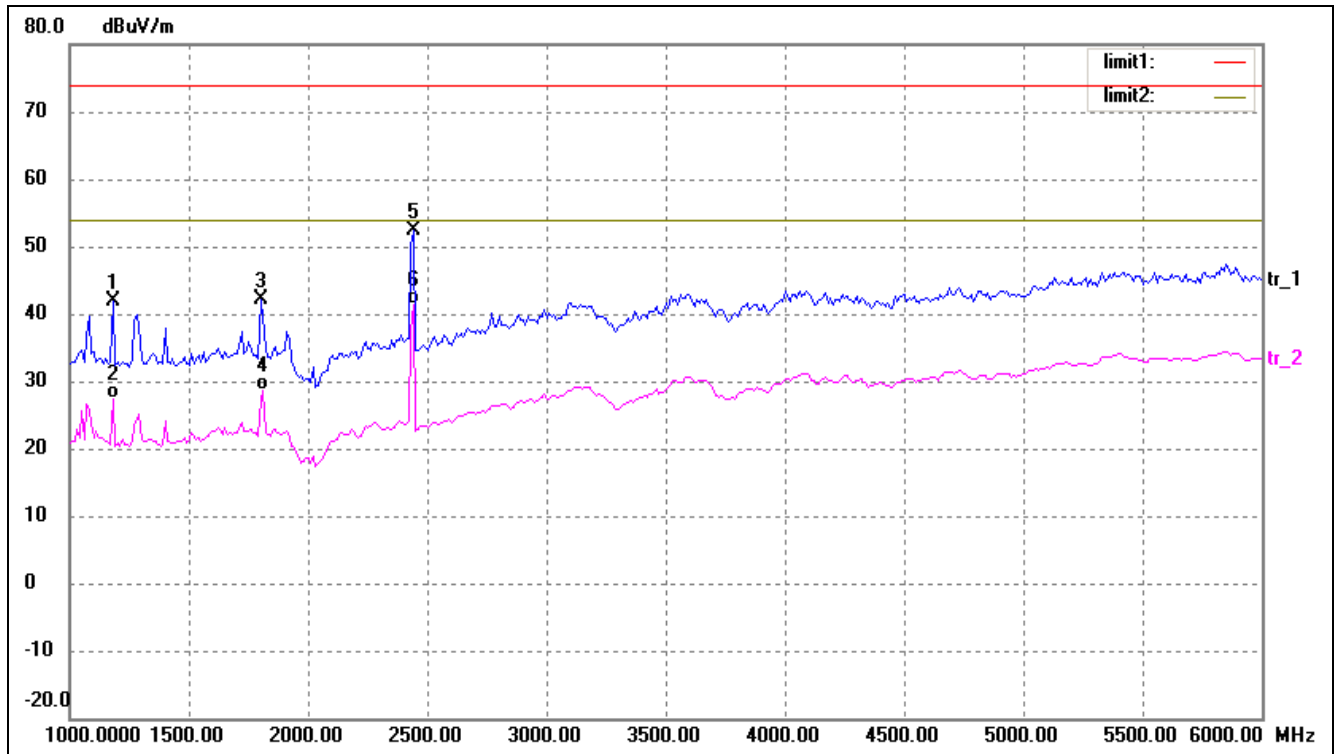
EUT: Tablet PC

Tested Model: F-10XHD4Core

Operating Condition: TM2

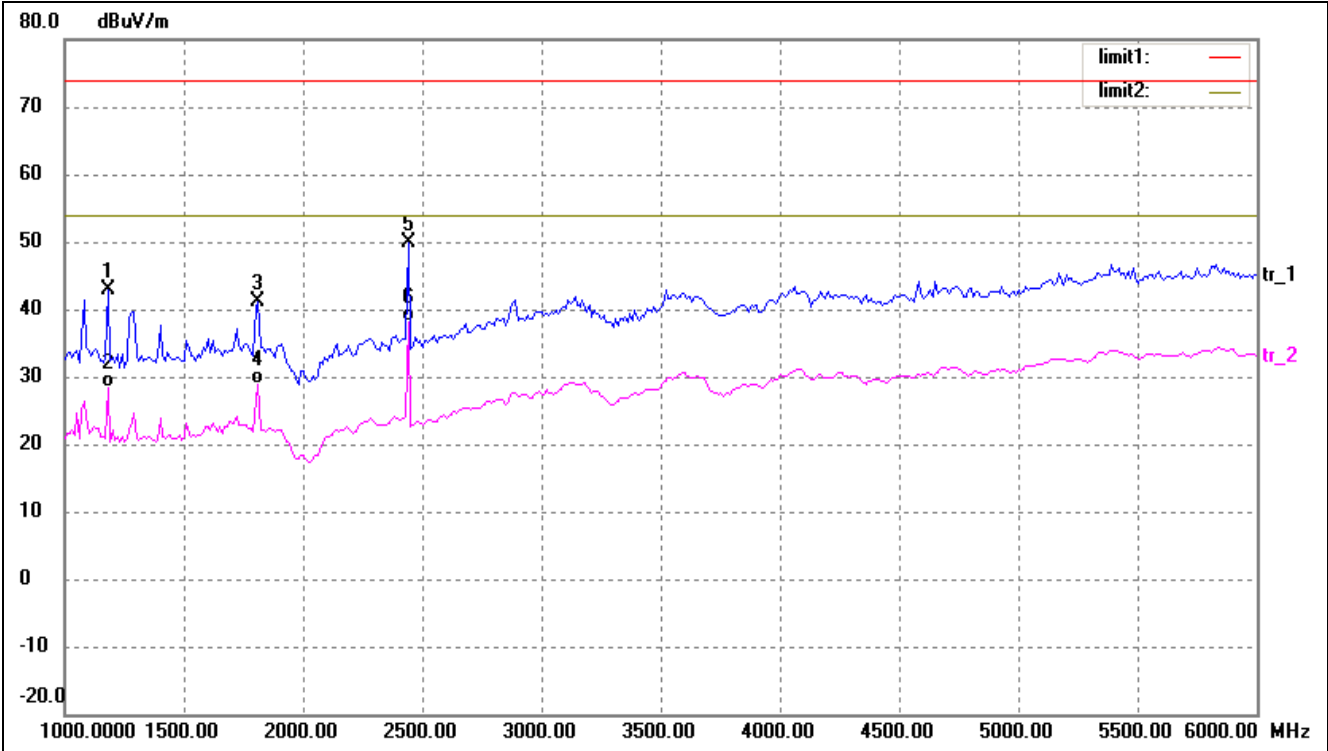
Comment: AC 120V/60Hz; Adapter DC 5V

Test Specification: Horizontal

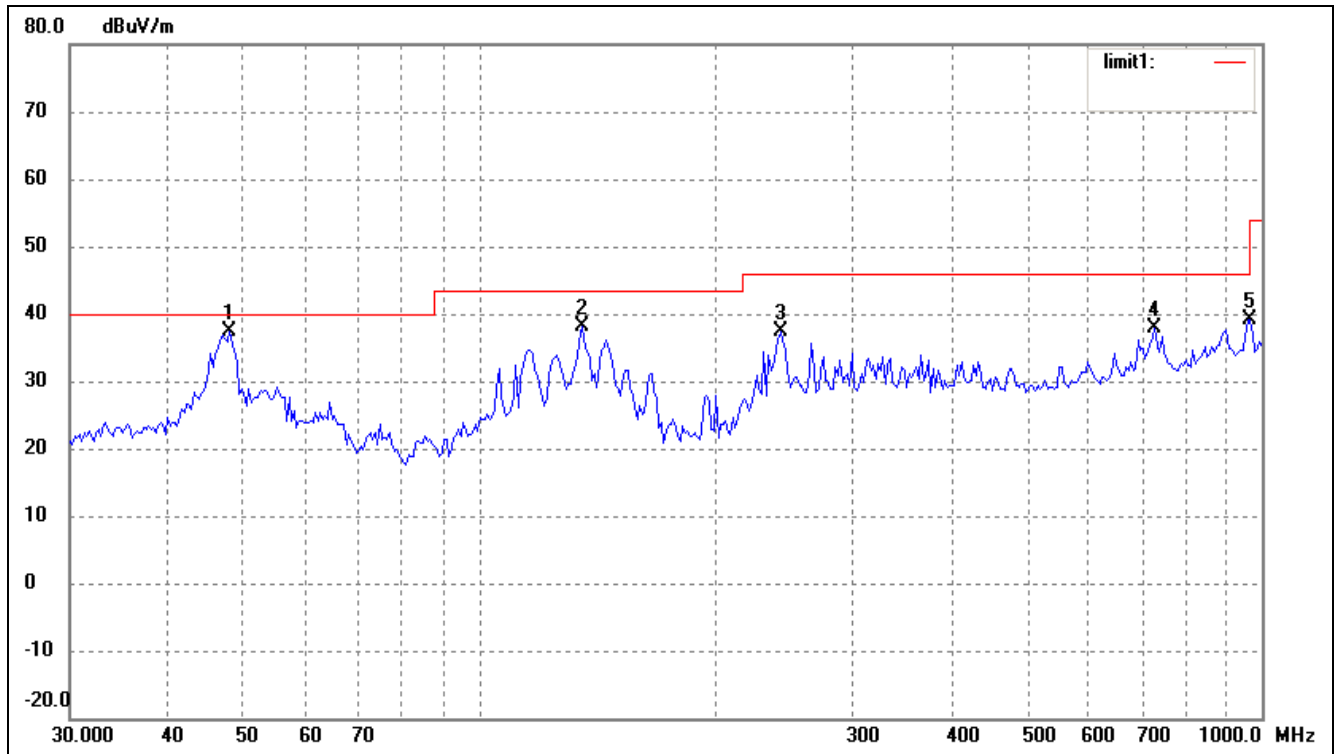


No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	1180.000	57.33	-15.40	41.93	74.00	-32.07	359	200	peak
2	1180.000	42.90	-15.40	27.50	54.00	-26.50	359	200	AVG
3	1800.000	54.83	-12.76	42.07	74.00	-31.93	359	200	peak
4	1810.000	41.26	-12.70	28.56	54.00	-25.44	359	200	AVG
5	2440.000	64.04	-11.77	52.27	74.00	-21.73	359	200	peak
6	2440.000	53.07	-11.77	41.30	54.00	-12.70	359	200	AVG

Test Specification: Vertical

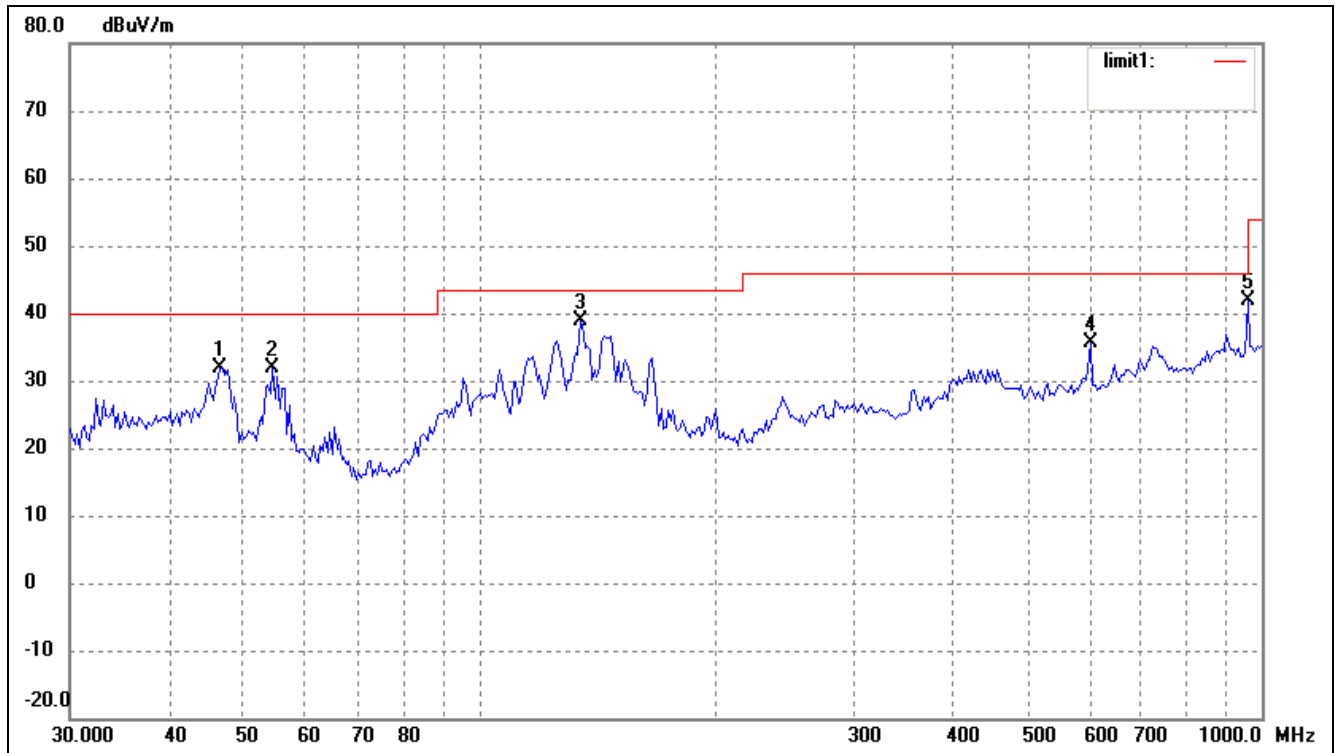


No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(°)	(cm)	
1	1180.000	58.28	-15.40	42.88	74.00	-31.12	359	100	peak
2	1180.000	43.74	-15.40	28.34	54.00	-25.66	359	100	AVG
3	1810.000	53.78	-12.70	41.08	74.00	-32.92	359	100	peak
4	1810.000	41.56	-12.70	28.86	54.00	-25.14	359	100	AVG
5	2440.000	61.75	-11.77	49.98	74.00	-24.02	359	100	peak
6	2440.000	49.82	-11.77	38.05	54.00	-15.95	359	100	AVG

Plot of Radiated Emissions Test Data (Below 1GHz)*EUT:* Tablet PC*Tested Model:* F-10XHD4Core*Operating Condition:* TM3*Comment:* AC 120V/60Hz; USB 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	47.9940	30.11	7.23	37.34	40.00	-2.66	153	100	peak
2	135.5062	34.34	3.72	38.06	43.50	-5.44	67	100	peak
3	242.5253	30.37	7.08	37.45	46.00	-8.55	18	100	peak
4	729.3583	20.66	17.31	37.97	46.00	-8.03	94	100	peak
5	965.5421	20.74	18.37	39.11	54.00	-14.89	24	100	peak

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	46.6664	24.19	7.64	31.83	40.00	-8.17	254	100	peak
2	54.4516	25.74	6.21	31.95	40.00	-8.05	16	100	peak
3	134.5592	35.05	3.78	38.83	43.50	-4.67	315	100	peak
4	603.5392	20.92	14.62	35.54	46.00	-10.46	44	100	peak
5	958.7943	23.60	18.16	41.76	46.00	-4.24	64	100	peak

Plot of Radiated Emissions Test Data (Above 1GHz)

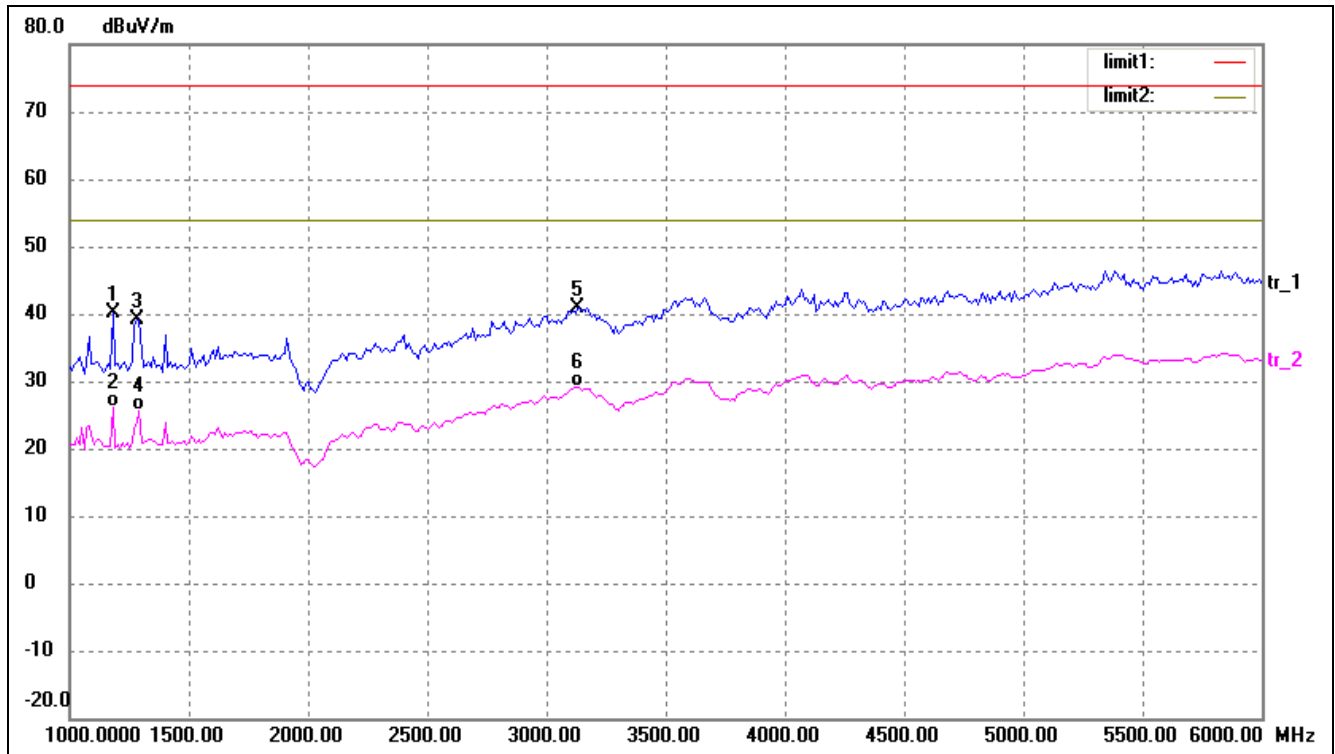
EUT: Tablet PC

Tested Model: F-10XHD4Core

Operating Condition: TM3

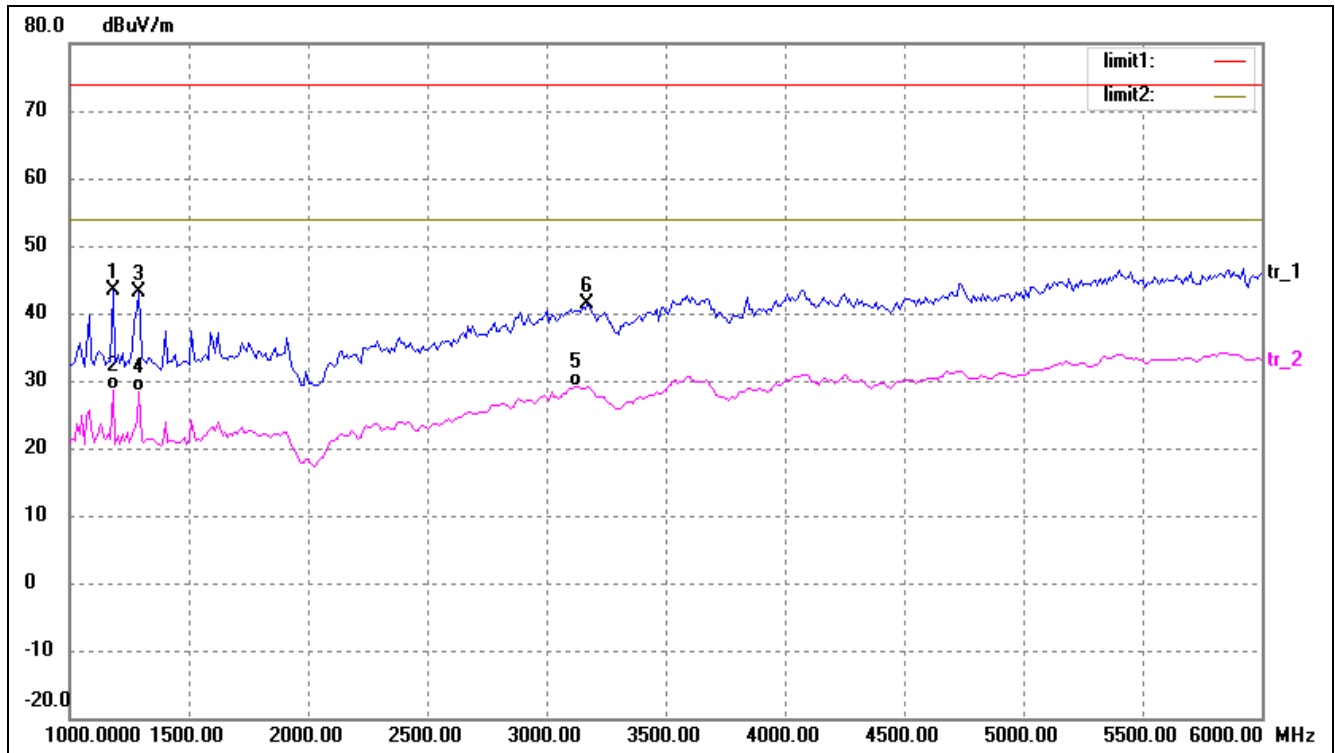
Comment: AC 120V/60Hz; USB 5V

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	1180.000	55.62	-15.40	40.22	74.00	-33.78	359	200	peak
2	1180.000	41.51	-15.40	26.11	54.00	-27.89	359	200	AVG
3	1280.000	54.28	-15.12	39.16	74.00	-34.84	359	200	peak
4	1290.000	40.76	-15.09	25.67	54.00	-28.33	359	200	AVG
5	3130.000	48.29	-7.49	40.80	74.00	-33.20	359	200	peak
6	3130.000	36.57	-7.49	29.08	54.00	-24.92	359	200	AVG

Test Specification: Vertical



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	1180.000	58.84	-15.40	43.44	74.00	-30.56	359	100	peak
2	1180.000	44.15	-15.40	28.75	54.00	-25.25	359	100	AVG
3	1290.000	58.18	-15.09	43.09	74.00	-30.91	359	100	peak
4	1290.000	43.40	-15.09	28.31	54.00	-25.69	359	100	AVG
5	3120.000	36.72	-7.53	29.19	54.00	-24.81	359	100	AVG
6	3170.000	48.69	-7.39	41.30	74.00	-32.70	359	100	peak

Note: Testing is carried out with frequency rang 9kHz to 6GHz, The measurements greater than 20dB below the limit from 9kHz to 30MHz.

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