# FCC Part 15C Measurement and Test Report

# For

# **Amelia World Corporation dba LINSAY**

# 16340 West Dixie Highway, North Miami Beach, Florida

FCC ID: 2AAC3F7HD2CORENEW

FCC Rules: FCC Part 15C

Product Description: <u>Tablet PC</u>

Tested Model: <u>F-7HD2CORE</u>

**Report No.:** <u>STR14048346I-1</u>

**Tested Date:** <u>2014-04-23 to 2014-05-06</u>

**Issued Date:** <u>2014-05-08</u>

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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 Shenzhen SEM.Test Technology 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-7HD2CORE
Add Models:	1
Rated Voltage:	Battery: DC 3.7V Charging: DC 5V/2A
Dower Adenter Medel	PSYA05010US
Power Adapter Model:	(Input: AC 100-240V, Output: DC 5V 2A)

Note: The test data is gathered from a production sample provided by the manufacturer. The others models listed in the report have different appearance only of F-7HD2CORE without circuit and electronic construction changed, declared by the manufacturer.

Technical Characteristics of EUT			
Support Standards:	802.11b, 802.11g, 802.11n		
Frequency Range:	2412-2472MHz,2422-2462MHz		
RF Output Power:	7.89dBm (Conducted)		
Type of Modulation:	QPSK, BPSK, 16QAM, 64QAM		
Data Rate:	1,2,5.5,6,11,12,18,22,24,30,36,48,54,60,90,120		
Dala Nate.	up to 150Mbps		
Quantity of Channels	13 for 802.11b/g/n(HT20), 9 for 802.11n(HT40)		
Channel Separation:	5MHz		
Type of Antenna:	Integral Antenna		
Antenna Gain:	1.5dBi		
Lowest Internal Frequency	32.768kHz		
Device Category:	Portable Device		

#### 1.2 Test Standards

The following report is prepared on behalf of the Amelia World Corporation dba LINSAY in accordance with FCC Part 15, Subpart C, and section 15.203, 15.205, 15.207, 15.209 and 15.247 of the Federal Communication Commissions rules.

Model: F-7HD2CORE

The objective is to determine compliance with FCC Part 15, Subpart C, and section 15.203, 15.205, 15.207, 15.209 and 15.247 of the Federal Communication Commissions 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. The public notice KDB 558074 D01 V02 for digital transmission systems shall be performed also.

# 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 2<sup>nd</sup> Road, Bao'an District, Shenzhen, P.R.C (518101).

# 1.5 EUT Setup and Test Mode

The EUT was operated in the engineering mode to fix the Tx frequency that was for the purpose of the measurements. All testing shall be performed under maximum output power condition, and to measure its highest possible emissions level, more detailed description as follows:

Test Mode List			
Test Mode	Description	Remark	
TM1	802.11b	2412MHz, 2442MHz, 2472MHz	
TM2	802.11g	2412MHz, 2442MHz, 2472MHz	
TM3	802.11n-HT20	2412MHz, 2442MHz, 2472MHz	
TM4	802.11n-HT40	2422MHz, 2442MHz, 2462MHz	

EUT Cable List and Details				
Cable Description Length (m) Shielded/Unshielded With / Without Ferri				
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
§ 15.203; § 15.247(b)(4)(i)	Antenna Requirement Comp	
§ 15.207(a)	Conducted Emission Complian	
§ 15.247(e)	Power Spectral Density Compl	
§ 15.247(a)(2)	6 dB Bandwidth	Compliant
§ 15.247(b)(3)	RF Output Power	Compliant
§ 15.209(a)(d)	Radiated Emission	Compliant
§ 15.247(d)	Band Edge (Out of Band Emissions)	Compliant

N/A: not applicable

# 3. Antenna Requirement

# 3.1 Standard Applicable

According to FCC Part 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section.

# 3.2 Evaluation Information

This product has a integral antenna, fulfill the requirement of this section.

# 4. Power Spectral Density

# 4.1 Standard Applicable

According to 15.247(a)(1)(iii), For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission

Model: F-7HD2CORE

# 4.2 Test Equipment List and Details

Description	Manufacturer	Model	Serial Number	Cal. Date	Due. Date
Spectrum Analyzer	Agilent	E4402B	US41192821	2013-05-07	2014-05-06
Attenuator	ATTEN	ATS100-4-20	/	2013-05-07	2014-05-06

**Statement of Traceability:** All calibrations have been performed per the NVLAP requirements traceable to the NIST.

#### **4.3 Test Procedure**

According to the KDB 558074, the test method of power spectral density as below:

- 1. Set analyzer center frequency to DTS channel center frequency.
- 2. Set the span to 1.5 times the DTS bandwidth.
- 3. Set the RBW to:  $3 \text{ kHz} \le \text{RBW} \le 100 \text{ kHz}$ .
- 4. Set the VBW  $\geq 3xRBW$ .
- 5. Detector = peak.
- 6. Sweep time = auto couple.
- 7. Trace mode = max hold.
- 8. Allow trace to fully stabilize.
- 9. Use the peak marker function to determine the maximum amplitude level within the RBW.
- 10. If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.

# **4.4 Environmental Conditions**

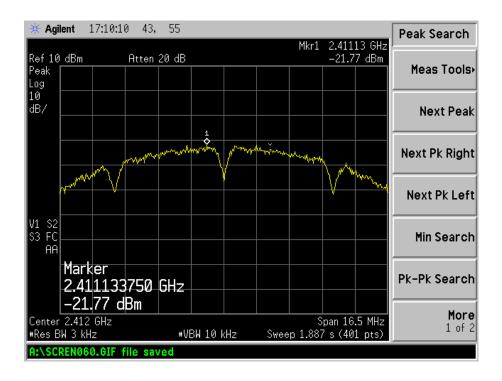
Temperature:	26° C
Relative Humidity:	54%
ATM Pressure:	1011 mbar

# 4.5 Summary of Test Results/Plots

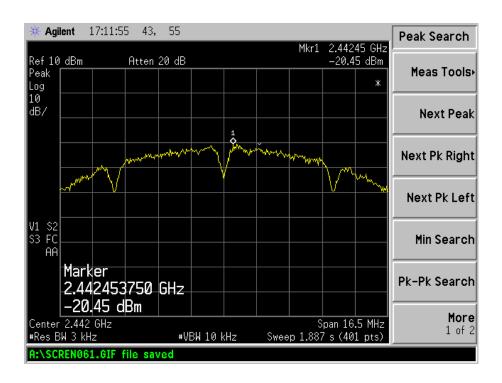
Test Mode	Test Channel MHz	Power Spectral Density dBm/3kHz	Limit dBm/3kHz
	2412	-21.77	8
802.11b	2442	-20.45	8
	2472	-19.21	8
	2412	-24.06	8
802.11g	2442	-23.50	8
	2472	-22.19	8
	2412	-24.71	8
802.11n HT20	2442	-24.36	8
	2472	-23.96	8
	2422	-27.85	8
802.11n HT40	2442	-26.39	8
	2462	-26.81	8

Please refer to the following test plots:

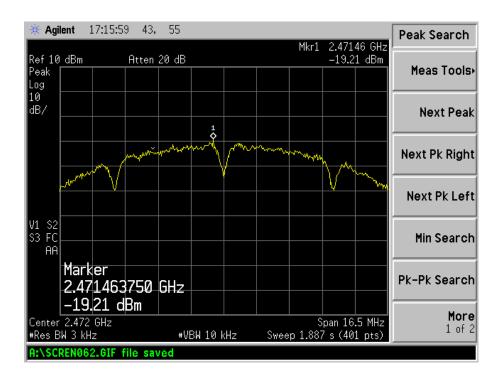
#### 802.11b-Low Channel



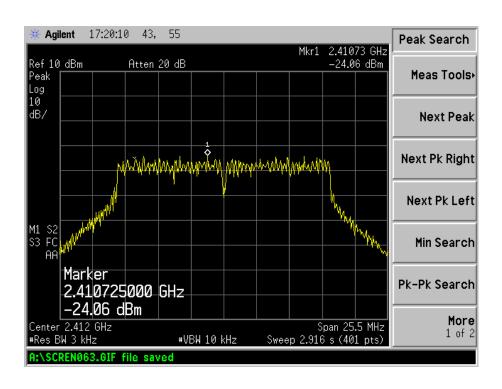
#### 802.11b-Middle Channel



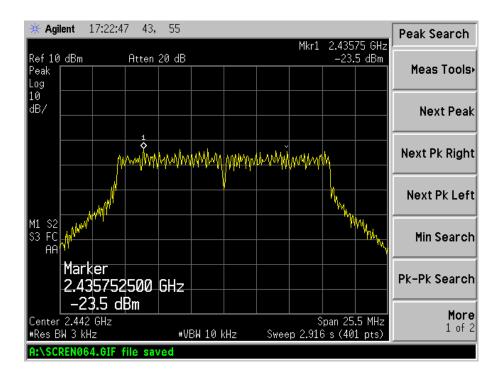
# 802.11b-High Channel



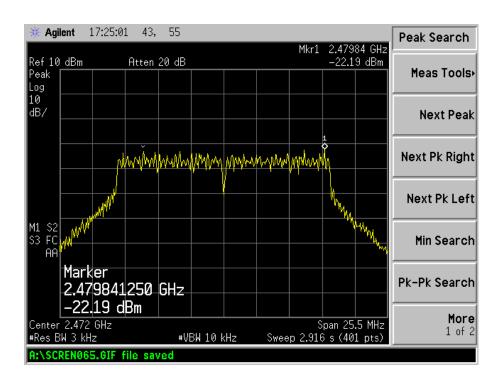
# 802.11g-Low Channel



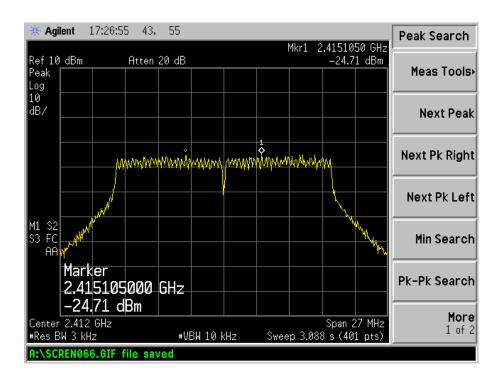
#### 802.11g-Middle Channel



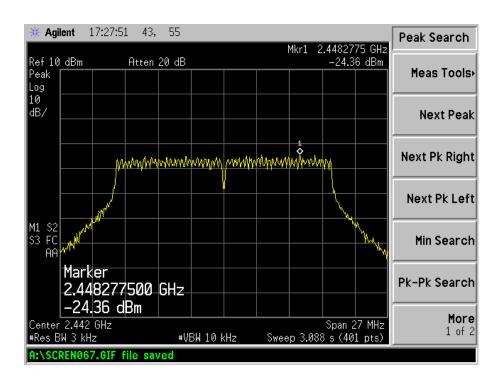
# 802.11g-High Channel



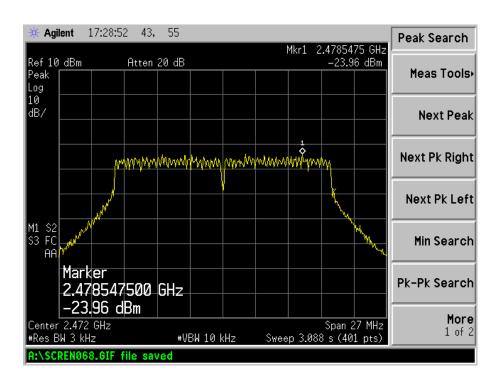
#### 802.11n-HT20-Low Channel



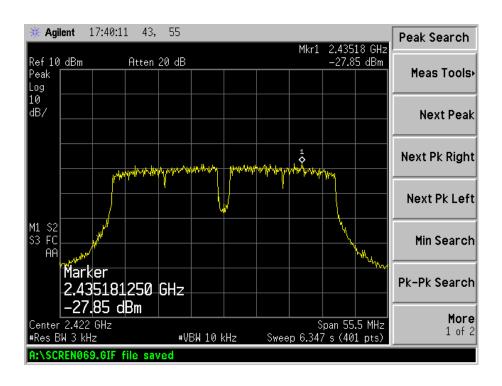
#### 802.11n-HT20-Middle Channel



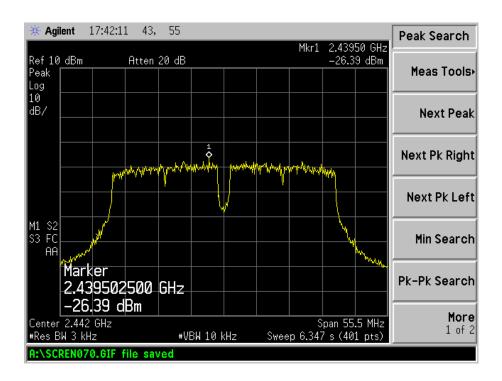
# 802.11n-HT20-High Channel



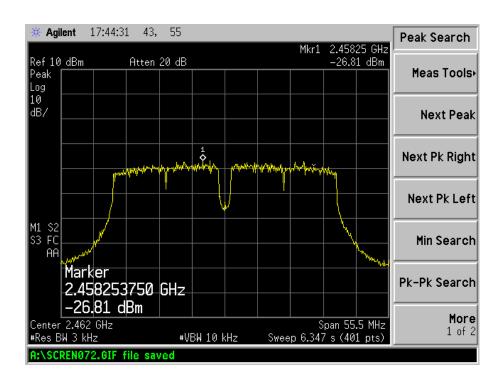
#### 802.11n-HT40-Low Channel



#### 802.11n-HT40-Middle Channel



# 802.11n-HT40-High Channel



# 5. 6dB Bandwidth

# **5.1 Standard Applicable**

According to 15.247(a)(2). Systems using digital modulation techniques may operate in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands. The minimum 6 dB bandwidth shall be at least 500 kHz.

Model: F-7HD2CORE

# 5.2 Test Equipment List and Details

Description	Manufacturer	Model	Serial Number	Cal. Date	Due. Date
Spectrum Analyzer	Agilent	E4402B	US41192821	2013-05-07	2014-05-06
Attenuator	ATTEN	ATS100-4-20	/	2013-05-07	2014-05-06

**Statement of Traceability:** All calibrations have been performed per the NVLAP requirements traceable to the NIST.

#### **5.3 Test Procedure**

- 1. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.
- 2. Set resolution bandwidth (RBW) = 1-5% or DTS BW, not to exceed 100 kHz.
- 3. Set the video bandwidth (VBW)  $\geq$  3 x RBW.
- 4. Detector = Peak.
- 5. Trace mode = max hold.
- 6. Sweep = auto couple.
- 7. Allow the trace to stabilize.
- 8. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission..

#### **5.4 Environmental Conditions**

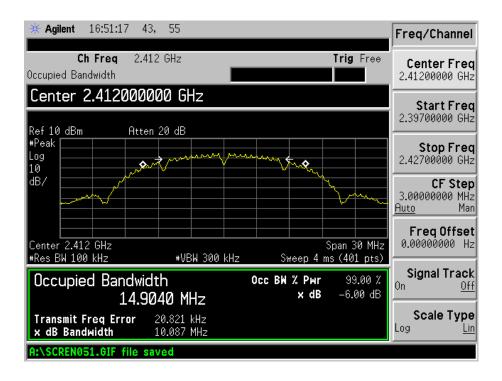
Temperature:	25° C
Relative Humidity:	53%
ATM Pressure:	1018 mbar

# **5.5 Summary of Test Results/Plots**

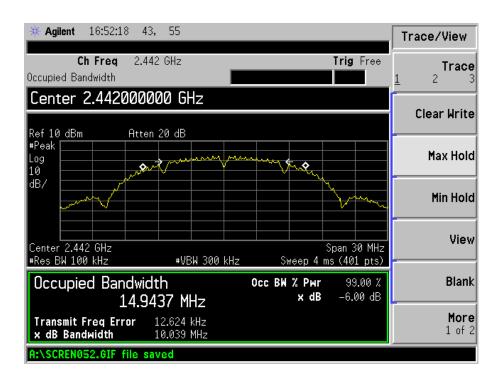
Test Mode	Test Channel	6 dB Bandwidth	99% Bandwidth	Limit
lest wide	MHz	kHz	kHz	kHz
	2412	10087	14904.0	500
802.11b	2442	10039	14943.7	500
	2472	10077	14911.1	500
	2412	16484	16477.5	500
802.11g	2442	16479	16454.1	500
	2472	16478	16470.2	500
	2412	17628	17674.6	500
802.11n-HT20	2442	17606	17642.0	500
	2472	17607	17660.2	500
	2422	36260	37136.9	500
802.11n-HT40	2442	36678	37149.0	500
	2462	36178	37121.7	500

Please refer to the following test plots:

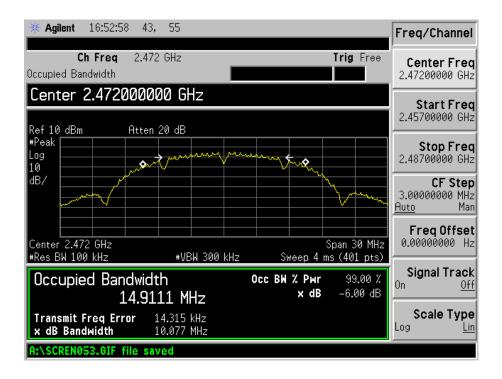
#### 802.11b-Low Channel



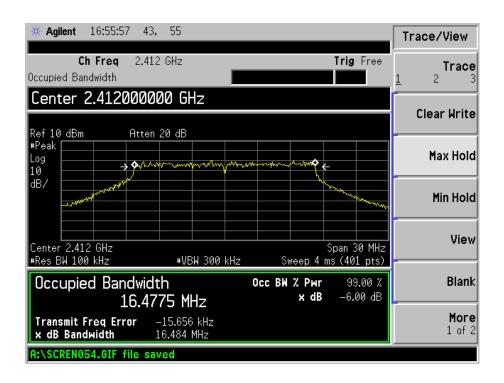
#### 802.11b-Middle Channel



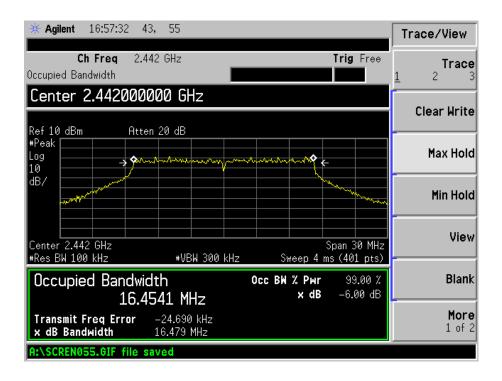
#### 802.11b-High Channel



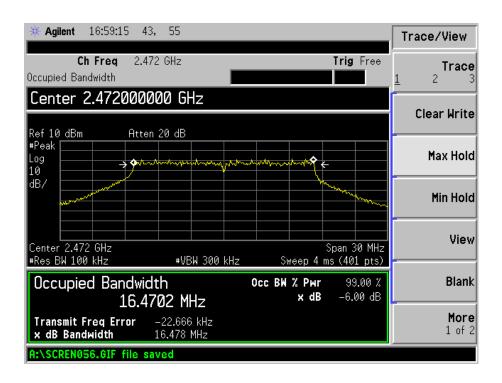
# 802.11g-Low Channel



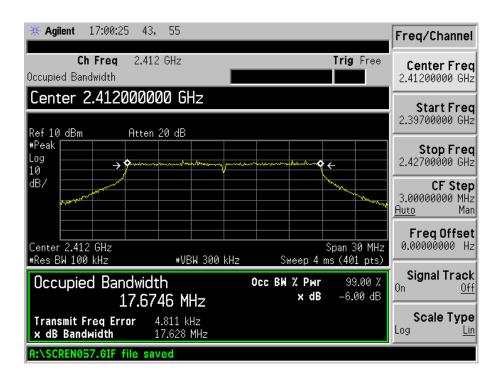
#### 802.11g-Middle Channel



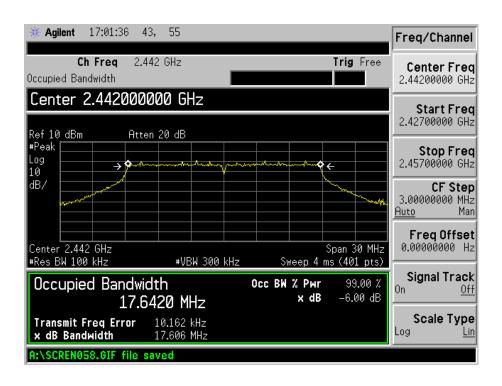
# 802.11g-High Channel



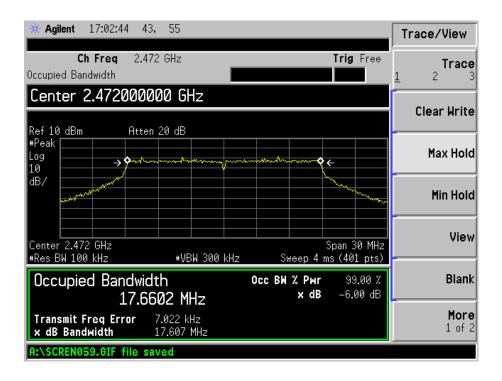
#### 802.11n-HT20-Low Channel



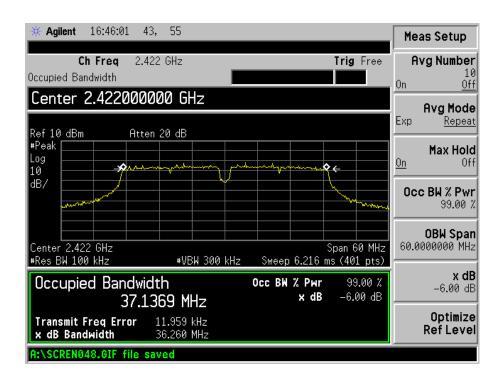
#### 802.11n-HT20-Middle Channel



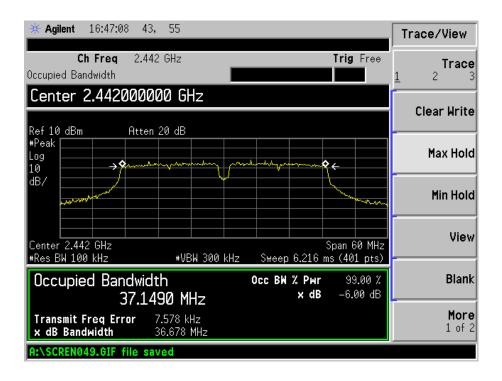
# 802.11n-HT20-High Channel



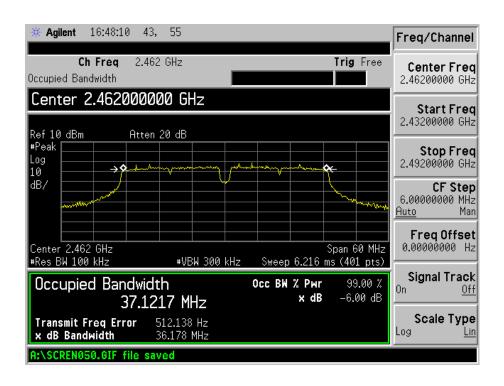
#### 802.11n-HT40-Low Channel



#### 802.11n-HT40-Middle Channel



#### 802.11n-HT40-High Channel



# 6. RF Output Power

# **6.1 Standard Applicable**

According to 15.247(b)(3). For systems using digital modulation in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands: 1 Watt.

# 6.2 Test Equipment List and Details

Description	Manufacturer	Model	Serial Number	Cal. Date	Due. Date
Spectrum Analyzer	Agilent	E4402B	US41192821	2013-05-07	2014-05-06
Attenuator	ATTEN	ATS100-4-20	/	2013-05-07	2014-05-06

**Statement of Traceability:** All calibrations have been performed per the NVLAP requirements traceable to the NIST.

#### **6.3 Test Procedure**

According to section 15.247(b)-power output of the KDB-558074 D01 V02 (2012), 8.1.2 Option 2 (channel integration method) this procedure should only be used when the maximum available RBW of the spectrum/signal analyzer is less than the DTS bandwidth.

- 1. Set the RBW = maximum available (at least 1 MHz).
- 2. Set the VBW =  $3 \times RBW$  or maximum available setting (must be  $\geq RBW$ ).
- 3. Set the span to fully encompass the DTS bandwidth.
- 4. Detector = peak.
- 5. Sweep time = auto couple.
- 6. Trace mode = max hold.
- 7. Allow trace to fully stabilize.
- 8. Use the spectrum analyzer's band/channel power measurement function with the band limits set equal to the DTS bandwidth edges (for some analyzers, this may require a manual override to ensure use of peak detector).

#### **6.4 Environmental Conditions**

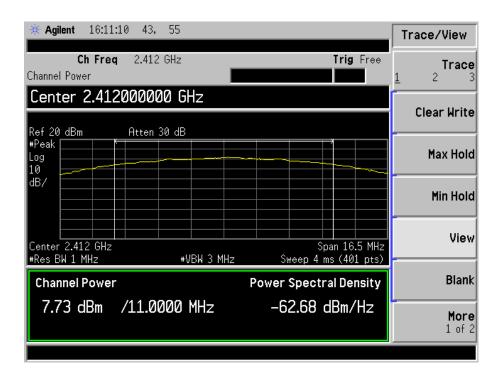
Temperature:	26° C
Relative Humidity:	57%
ATM Pressure:	1011 mbar

# **6.5 Summary of Test Results/Plots**

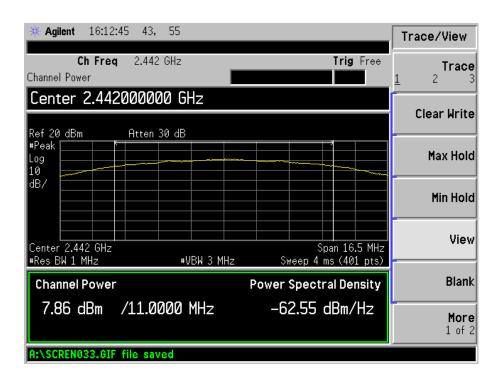
Test Mede	Frequency	Reading	Output Power	Limit
Test Mode	MHz	dBm	mW	mW
	2412	7.73	5.929	1000
802.11b	2442	7.86	6.109	1000
	2472	7.89	6.152	1000
	2412		5.082	1000
802.11g	2442	7.62	5.781	1000
	2472	7.41	5.508	1000
	2412	7.03	5.047	1000
802.11n HT20	2442	7.44	5.546	1000
	2472	7.26	5.321	1000
	2422	6.92	4.920	1000
802.11n HT40	2442	7.08	5.105	1000
	2462	7.55	5.689	1000

Please refer to the following test plots:

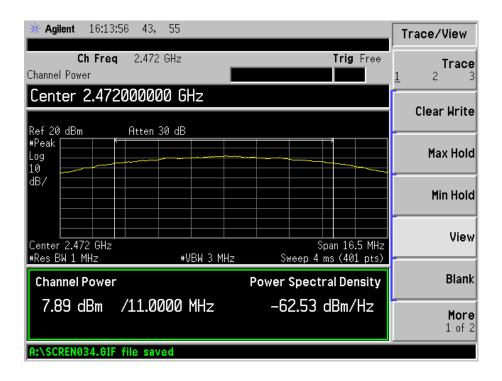
#### 802.11b-Low Channel



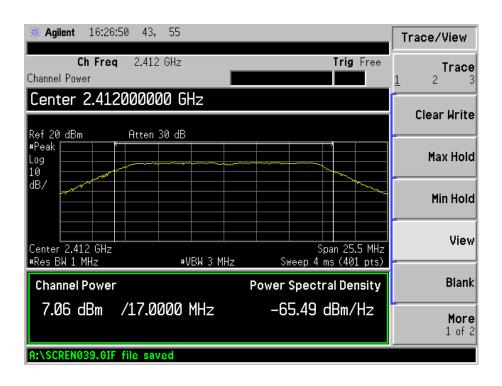
#### 802.11b-Middle Channel



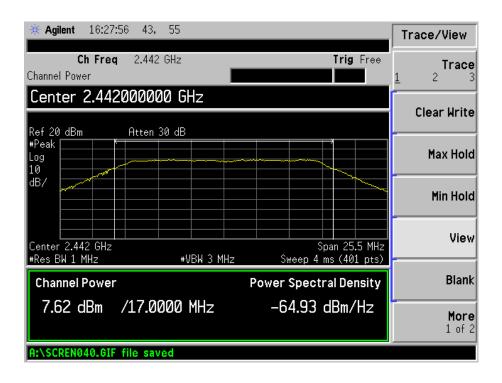
# 802.11b-High Channel



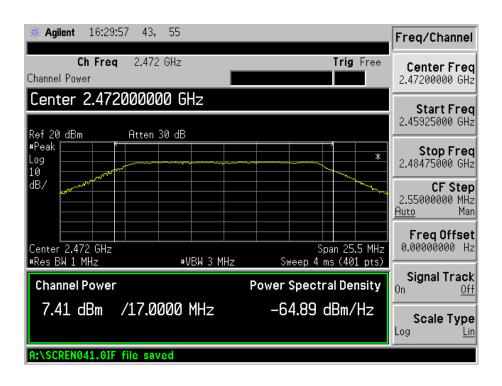
# 802.11g-Low Channel



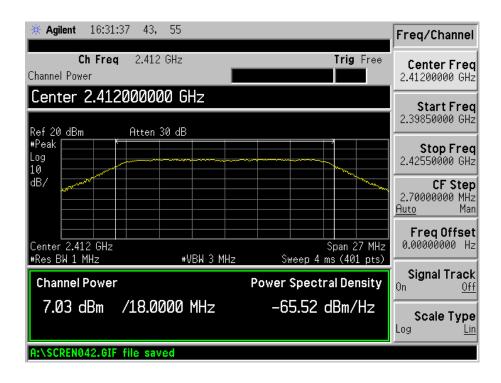
#### 802.11g-Middle Channel



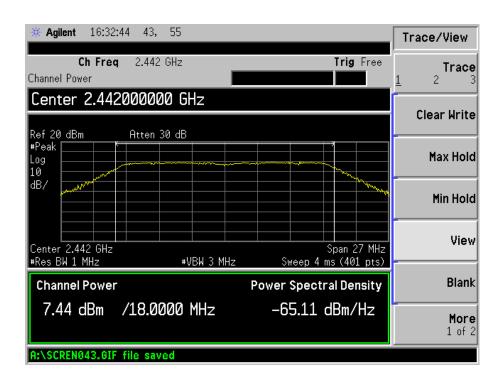
# 802.11g-High Channel



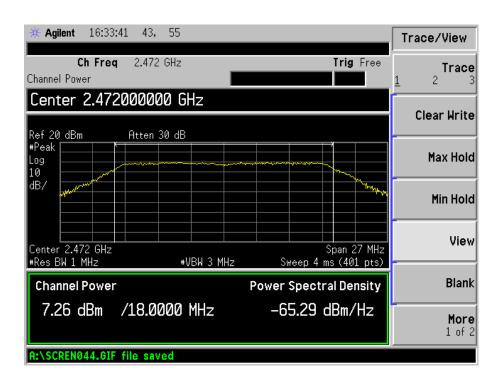
#### 802.11n HT20-Low Channel



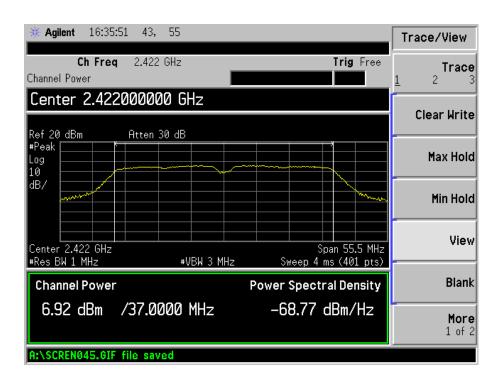
#### 802.11n-HT20-Middle Channel



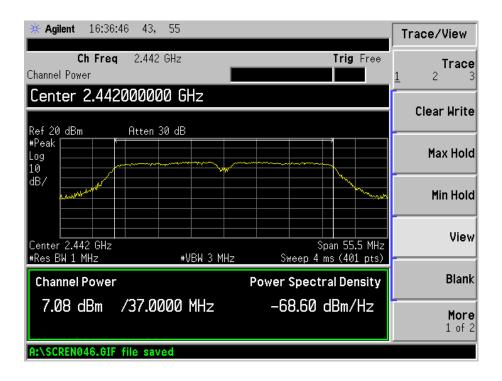
# 802.11n-HT20-High Channel



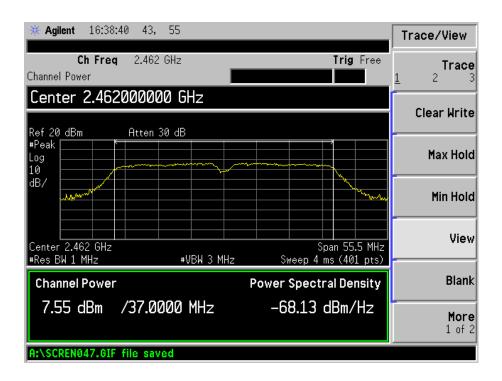
#### 802.11n-HT40-Low Channel



#### 802.11n-HT40-Middle Channel



# 802.11n-HT40-High Channel



# 7. Field Strength of Spurious Emissions

# 7.1 Measurement Uncertainty

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

# 7.2 Standard Applicable

According to §15.247(d), in any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a).

The emission limit in this paragraph is based on measurement instrumentation employing an average detector. The provisions in §15.35 for limiting peak emissions apply. Spurious Radiated Emissions measurements starting below or at the lowest crystal frequency.

### 7.3 Test Equipment List and Details

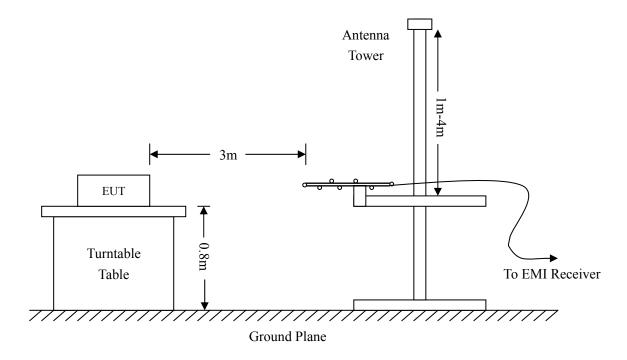
Description	Description Manufacturer		Serial Number	Cal. Date	Due. Date
Spectrum Analyzer	R&S	FSP	836079/035	2013-05-07	2014-05-06
EMI Test Receiver	R&S	ESVB	825471/005	2013-05-07	2014-05-06
Pre-amplifier	Agilent	8447F	3113A06717	2013-05-07	2014-05-06
Pre-amplifier	Compliance Direction	PAP-0118	24002	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
Horn Antenna	ETS	3116B	00088203	2014-04-20	2015-04-19

**Statement of Traceability:** All calibrations have been performed per the NVLAP requirements traceable to the NIST.

#### 7.4 Test Procedure

The setup of EUT is according with per ANSI C63.4-2003 measurement procedure. The specification used was with the FCC Part 15.205 15.247(a) and FCC Part 15.209 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.



# 7.5 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:

The "Margin" column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of -6dB $\mu$ V means the emission is 6dB $\mu$ V below the maximum limit for Class B. The equation for margin calculation is as follows:

#### 7.6 Environmental Conditions

Temperature:	25 °C
Relative Humidity:	52%
ATM Pressure:	1012 mbar

# 7.7 Summary of Test Results/Plots

According to the data below, the FCC Part 15.205, 15.209 and 15.247 standards, and had the worst margin of:

Note: this EUT was tested in 3 orthogonal positions and the worst case position data was reported.

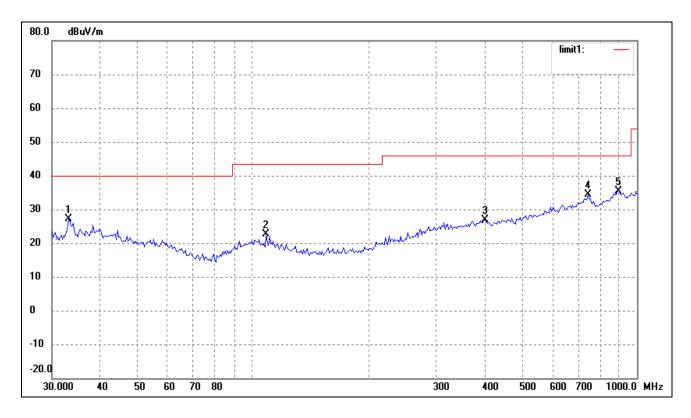
# Plot of Radiated Emissions Test Data (30MHz to 1GHz)

EUT: Tablet PC
Tested Model: F-7HD2CORE

Operating Condition: 802.11b Transmitting Low Channel-2412MHz

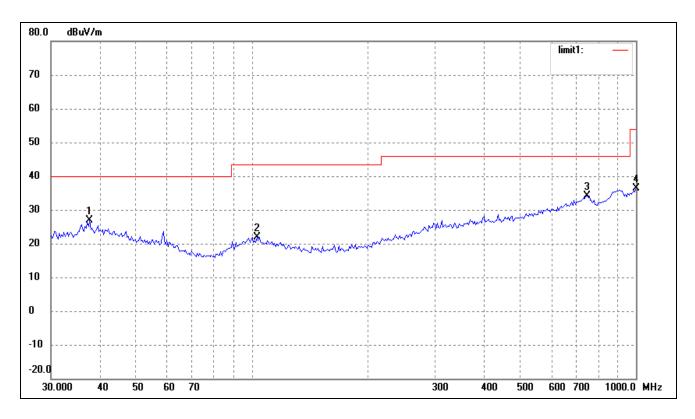
Comment: DC 3.7V

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	33.0950	18.58	8.56	27.14	40.00	-12.86	254	100	peak
2	108.2667	16.51	6.02	22.53	43.50	-20.97	113	100	peak
3	401.8385	15.51	11.47	26.98	46.00	-19.02	284	100	peak
4	744.8661	16.35	17.95	34.30	46.00	-11.70	360	100	peak
5	893.8567	16.23	19.27	35.50	46.00	-10.50	100	100	peak

Test Specification: Vertical

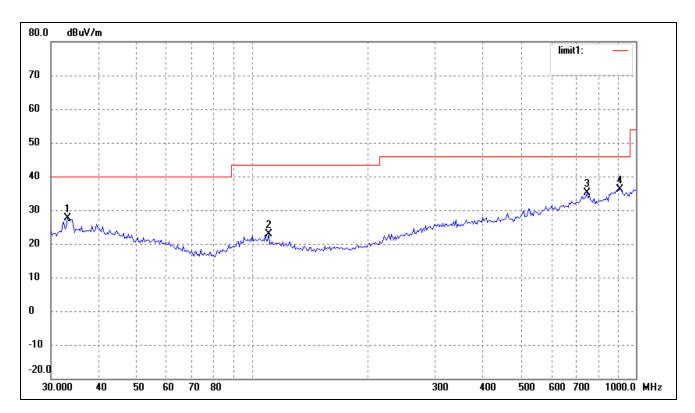


No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(•)	(cm)	
1	37.8121	17.52	9.33	26.85	40.00	-13.15	114	100	peak
2	103.0800	15.37	6.54	21.91	43.50	-21.59	270	100	peak
3	744.8661	16.16	17.95	34.11	46.00	-11.89	360	100	peak
4	1000.0000	16.41	19.90	36.31	54.00	-17.69	116	100	peak

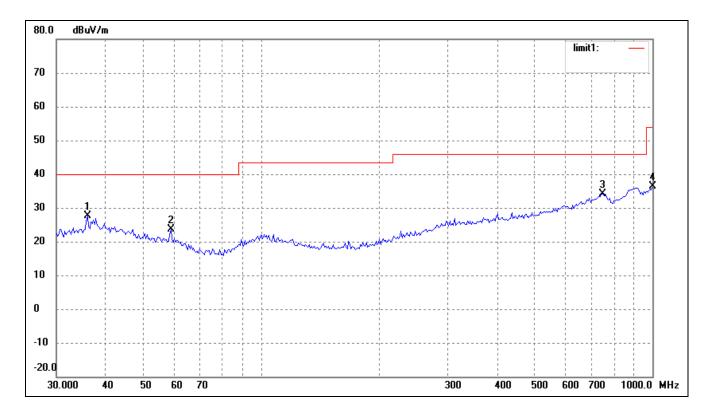
Operating Condition: 802.11b Transmitting Middle Channel-2442MHz

Comment: DC 3.7V

Test Specification: Horizontal



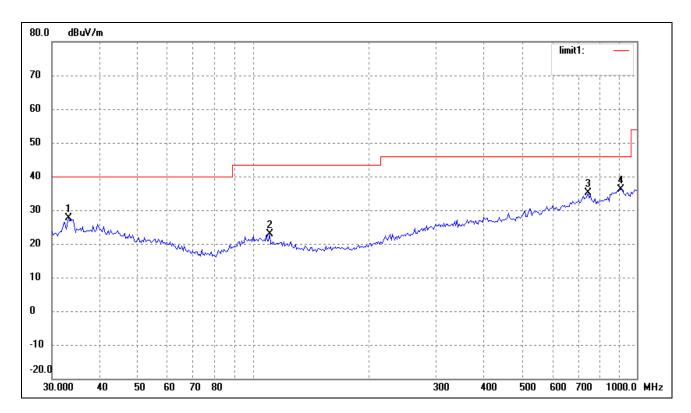
No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(•)	(cm)	
1	33.0950	19.05	8.56	27.61	40.00	-12.39	178	100	peak
2	110.5687	16.99	5.80	22.79	43.50	-20.71	224	100	peak
3	744.8661	17.06	17.95	35.01	46.00	-10.99	160	100	peak
4	906.4824	16.94	19.15	36.09	46.00	-9.91	290	100	peak



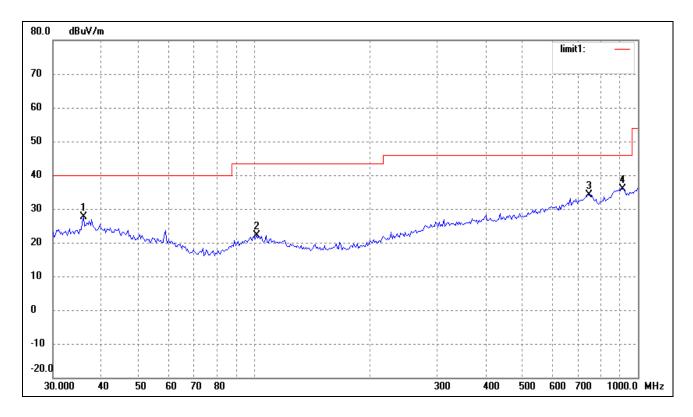
No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(•)	(cm)	
1	36.0007	18.59	9.04	27.63	40.00	-12.37	256	100	peak
2	58.8185	17.75	5.81	23.56	40.00	-16.44	360	100	peak
3	744.8661	16.16	17.95	34.11	46.00	-11.89	360	100	peak
4	1000.0000	16.41	19.90	36.31	54.00	-17.69	360	100	peak

Operating Condition: 802.11b Transmitting High Channel-2472MHz

Comment: DC 3.7V



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(•)	(cm)	
1	33.0950	19.05	8.56	27.61	40.00	-12.39	176	100	peak
2	110.5687	16.99	5.80	22.79	43.50	-20.71	255	100	peak
3	744.8661	17.06	17.95	35.01	46.00	-10.99	360	100	peak
4	906.4824	16.94	19.15	36.09	46.00	-9.91	178	100	peak



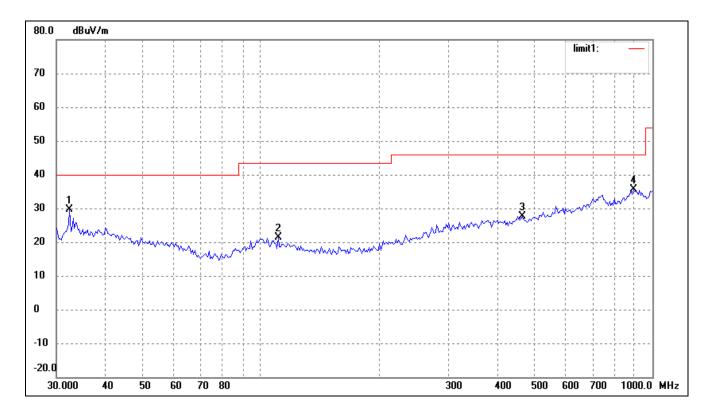
No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(•)	(cm)	
1	36.0007	18.59	9.04	27.63	40.00	-12.37	360	100	peak
2	101.6443	15.50	6.67	22.17	43.50	-21.33	225	100	peak
3	744.8661	16.16	17.95	34.11	46.00	-11.89	160	100	peak
4	912.8620	16.92	18.93	35.85	46.00	-10.15	310	100	peak

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

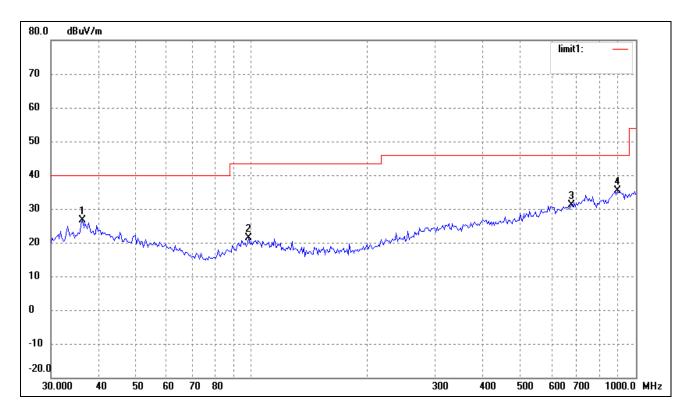
EUT: Tablet PC
Tested Model: F-7HD2CORE

Operating Condition: 802.11g Transmitting Low Channel-2412MHz

Comment: DC 3.7V



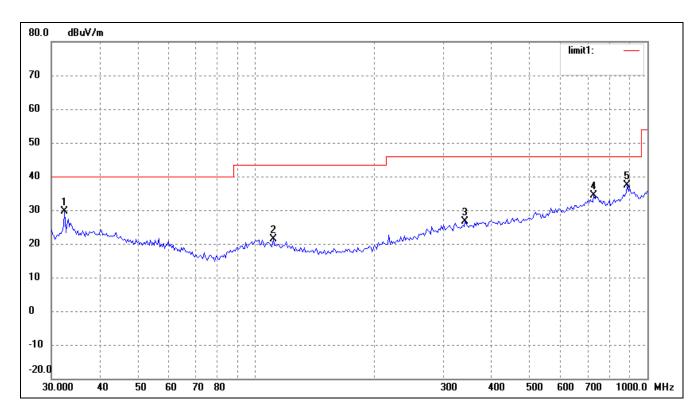
No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(•)	(cm)	
1	32.4059	21.23	8.44	29.67	40.00	-10.33	174	100	peak
2	110.5687	15.56	5.80	21.36	43.50	-22.14	160	100	peak
3	465.5994	16.02	11.69	27.71	46.00	-18.29	320	100	peak
4	893.8567	16.34	19.27	35.61	46.00	-10.39	360	100	peak



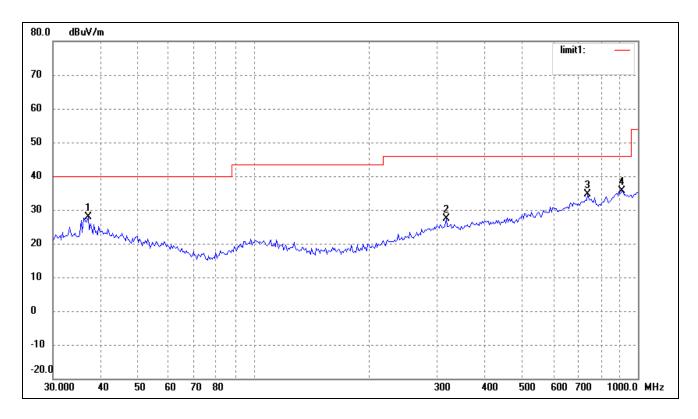
No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(•)	(cm)	
1	36.2541	17.45	9.09	26.54	40.00	-13.46	177	100	peak
2	98.1419	14.98	6.39	21.37	43.50	-22.13	90	100	peak
3	679.9600	15.48	15.55	31.03	46.00	-14.97	336	100	peak
4	893.8567	16.13	19.27	35.40	46.00	-10.60	360	100	peak

Operating Condition: 802.11g Transmitting Middle Channel-2442MHz

Comment: DC 3.7V



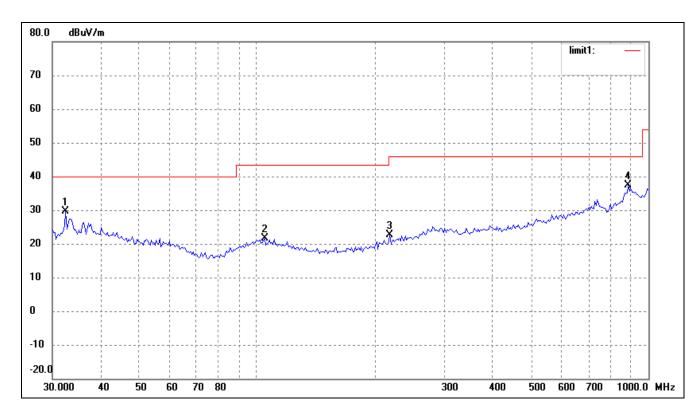
No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(•)	(cm)	
1	32.4059	21.23	8.44	29.67	40.00	-10.33	270	100	peak
2	110.5687	15.56	5.80	21.36	43.50	-22.14	164	100	peak
3	341.9787	16.40	10.16	26.56	46.00	-19.44	228	200	peak
4	729.3583	17.11	17.31	34.42	46.00	-11.58	130	200	peak
5	887.6099	18.21	19.15	37.36	46.00	-8.64	360	100	peak



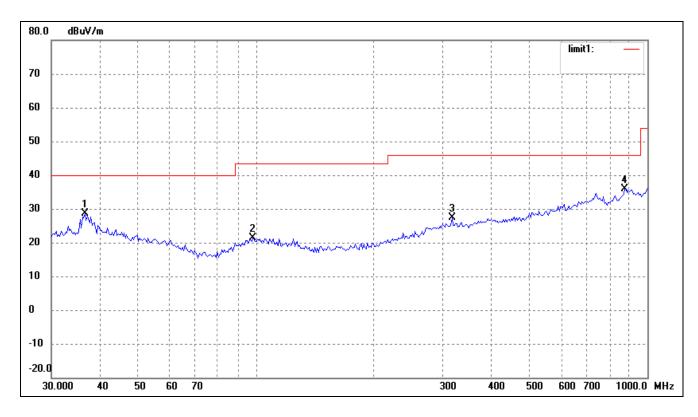
No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(•)	(cm)	
1	37.0249	18.59	9.21	27.80	40.00	-12.20	360	100	peak
2	316.5890	16.84	10.44	27.28	46.00	-18.72	255	100	peak
3	739.6605	16.54	18.07	34.61	46.00	-11.39	270	100	peak
4	906.4824	16.47	19.15	35.62	46.00	-10.38	180	100	peak

Operating Condition: 802.11g Transmitting High Channel-2472MHz

Comment: DC 3.7V



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(•)	(cm)	
1	32.4059	21.23	8.44	29.67	40.00	-10.33	270	100	peak
2	104.5361	15.27	6.39	21.66	43.50	-21.84	51	200	peak
3	218.3085	16.82	5.81	22.63	46.00	-23.37	360	200	peak
4	887.6099	18.21	19.15	37.36	46.00	-8.64	360	100	peak



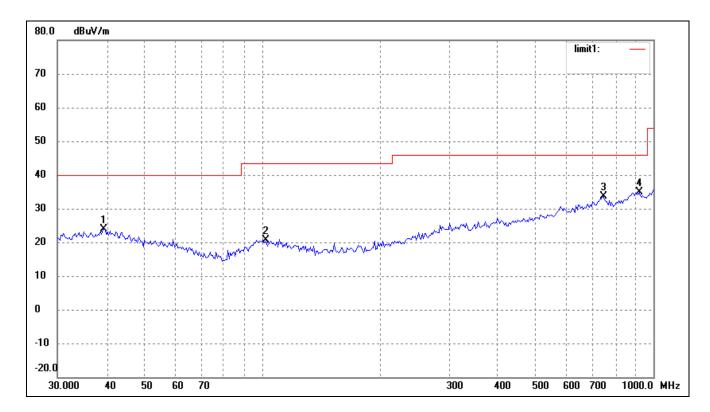
No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(•)	(cm)	
1	36.5092	19.47	9.13	28.60	40.00	-11.40	360	100	peak
2	98.1419	14.98	6.39	21.37	43.50	-22.13	180	100	peak
3	316.5890	16.84	10.44	27.28	46.00	-18.72	225	100	peak
4	875.2470	17.15	18.80	35.95	46.00	-10.05	67	100	peak

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

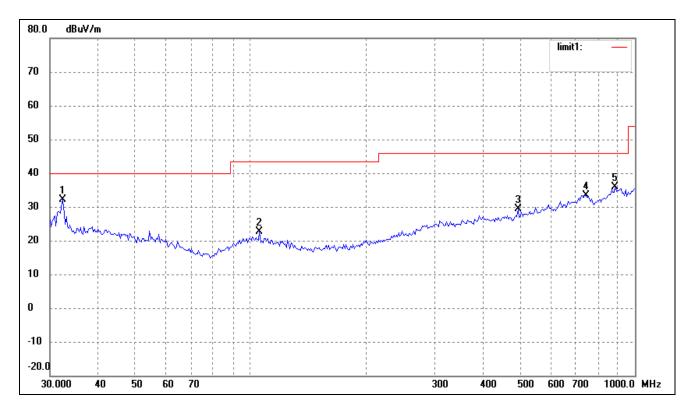
EUT: Tablet PC
Tested Model: F-7HD2CORE

Operating Condition: 802.11n-HT20 Transmitting Low Channel-2412MHz

Comment: DC 3.7V



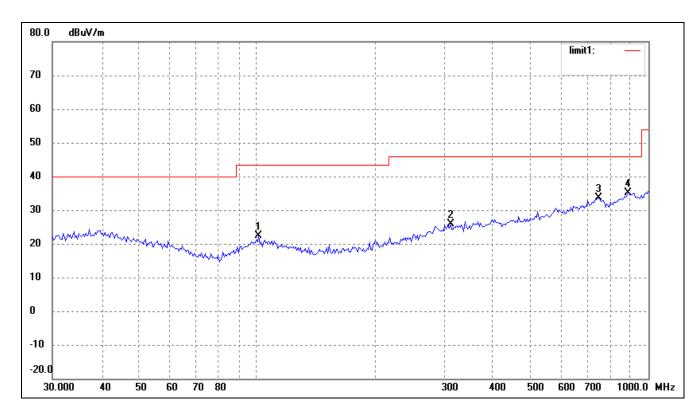
No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(•)	(cm)	
1	39.4372	14.37	9.60	23.97	40.00	-16.03	260	100	peak
2	102.3597	14.14	6.61	20.75	43.50	-22.75	131	200	peak
3	744.8661	15.61	17.95	33.56	46.00	-12.44	285	200	peak
4	919.2866	16.27	18.70	34.97	46.00	-11.03	224	100	peak



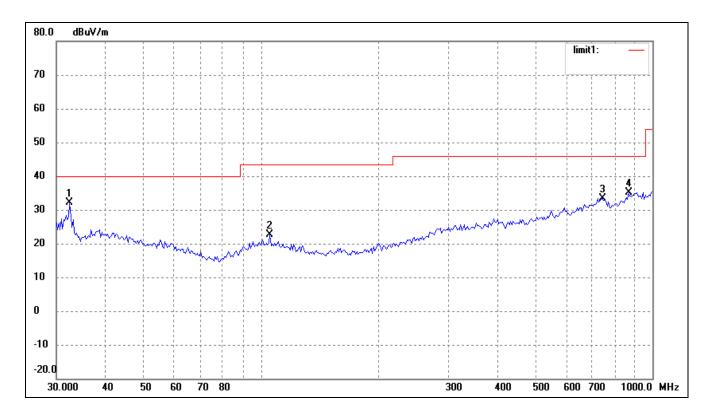
No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(•)	(cm)	
1	32.4059	23.69	8.44	32.13	40.00	-7.87	155	100	peak
2	105.2718	16.25	6.32	22.57	43.50	-20.93	197	100	peak
3	495.9344	17.25	12.04	29.29	46.00	-16.71	310	100	peak
4	744.8661	15.46	17.95	33.41	46.00	-12.59	229	100	peak
5	887.6099	16.71	19.15	35.86	46.00	-10.14	130	100	peak

Operating Condition: 802.11n-HT20 Transmitting Middle Channel-2442MHz

Comment: DC 3.7V



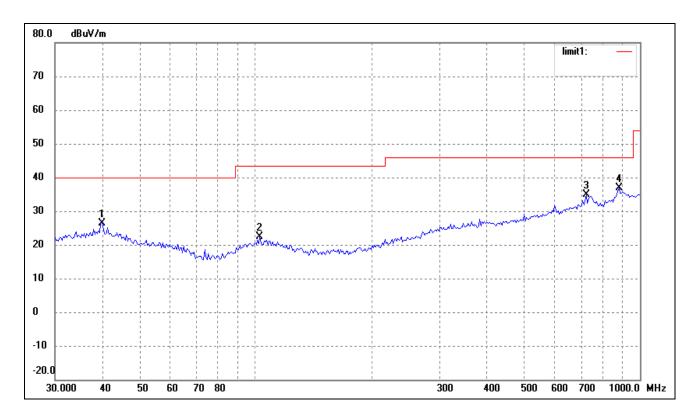
No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(•)	(cm)	
1	100.9340	15.68	6.75	22.43	43.50	-21.07	274	100	peak
2	312.1794	15.59	10.36	25.95	46.00	-20.05	116	100	peak
3	744.8661	15.61	17.95	33.56	46.00	-12.44	82	100	peak
4	887.6099	15.93	19.15	35.08	46.00	-10.92	134	100	peak



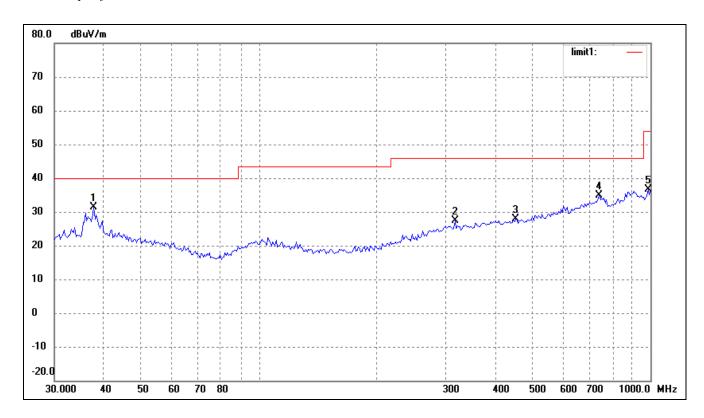
No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(•)	(cm)	
1	32.4059	23.69	8.44	32.13	40.00	-7.87	264	100	peak
2	105.2718	16.25	6.32	22.57	43.50	-20.93	110	100	peak
3	744.8661	15.46	17.95	33.41	46.00	-12.59	136	100	peak
4	869.1302	16.70	18.54	35.24	46.00	-10.76	90	100	peak

Operating Condition: 802.11n-HT20 Transmitting High Channel-2472MHz

Comment: DC 3.7V



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(•)	(cm)	
1	39.7147	16.86	9.64	26.50	40.00	-13.50	360	100	peak
2	102.3597	15.89	6.61	22.50	43.50	-21.00	112	100	peak
3	724.2611	18.01	16.93	34.94	46.00	-11.06	180	200	peak
4	881.4067	17.84	19.03	36.87	46.00	-9.13	270	200	peak



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(•)	(cm)	
1	37.8121	21.98	9.33	31.31	40.00	-8.69	267	100	peak
2	316.5890	16.84	10.44	27.28	46.00	-18.72	116	100	peak
3	452.7197	16.27	11.58	27.85	46.00	-18.15	360	100	peak
4	739.6605	16.81	18.07	34.88	46.00	-11.12	228	100	peak
5	986.0717	17.36	19.17	36.53	54.00	-17.47	270	100	peak

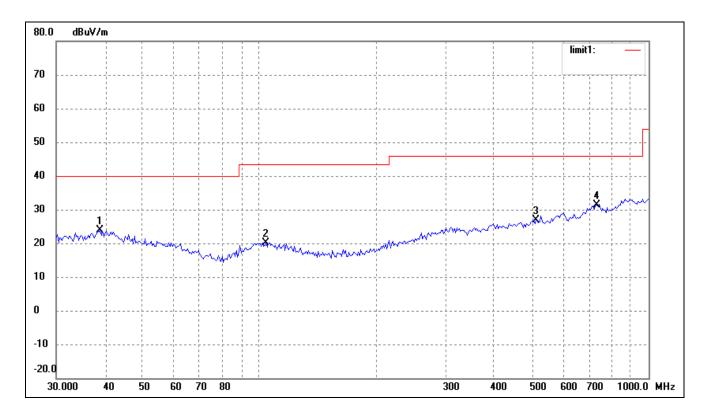
# Plot of Radiated Emissions Test Data (30MHz to 1GHz)

EUT: Tablet PC

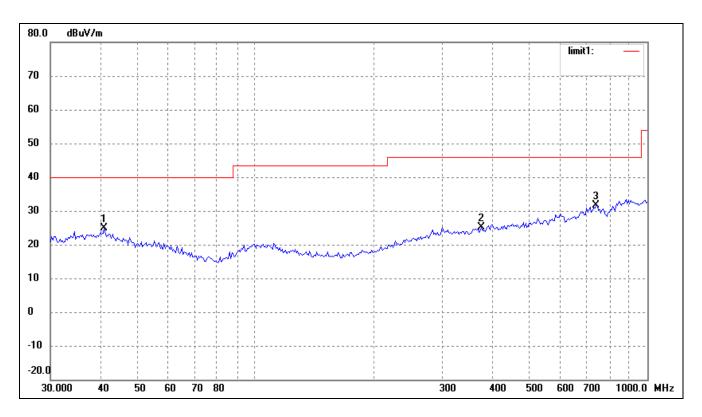
Tested Model: F-7HD2CORE

Operating Condition: 802.11n-HT40 Transmitting Low Channel-2422MHz

Comment: DC 3.7V



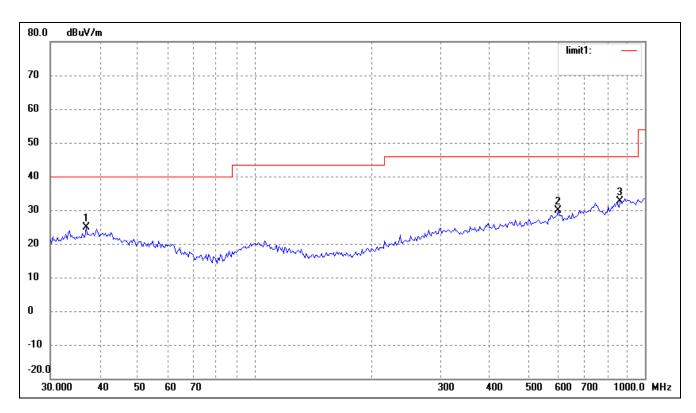
No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	Factor(dB)	(dBuV/m)	(dBuV/m)	(dB)	(•)	(cm)	
1	38.8879	14.75	9.06	23.81	40.00	-16.19	177	100	peak
2	103.8055	14.46	5.73	20.19	43.50	-23.31	90	100	peak
3	513.6331	15.58	11.21	26.79	46.00	-19.21	336	100	peak
4	734.4913	16.04	15.22	31.26	46.00	-14.74	360	100	peak



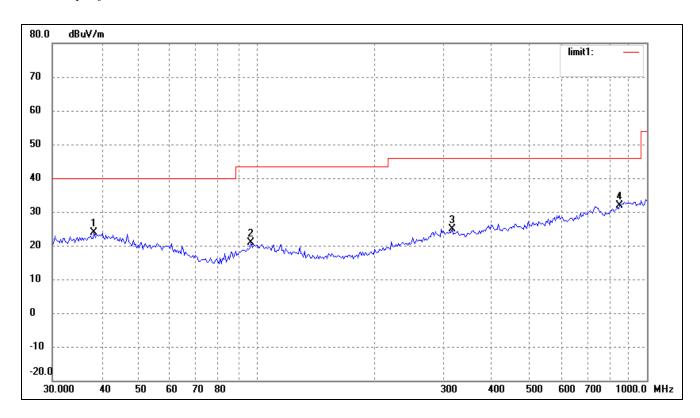
No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	Factor(dB)	(dBuV/m)	(dBuV/m)	(dB)	(•)	(cm)	
1	41.1320	15.91	8.91	24.82	40.00	-15.18	270	100	peak
2	377.2591	16.03	9.20	25.23	46.00	-20.77	164	100	peak
3	739.6605	16.06	15.53	31.59	46.00	-14.41	228	200	peak

Operating Condition: 802.11n-HT40 Transmitting Middle Channel-2442MHz

Comment: DC 3.7V



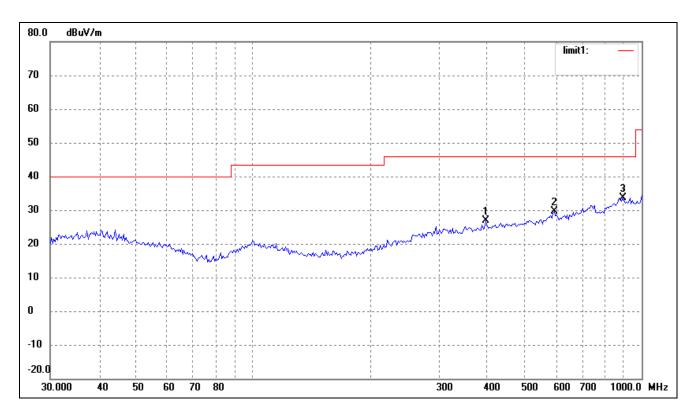
No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	Factor(dB)	(dBuV/m)	(dBuV/m)	(dB)	(•)	(cm)	
1	37.0249	16.07	8.74	24.81	40.00	-15.19	360	100	peak
2	599.3213	16.46	13.30	29.76	46.00	-16.24	255	100	peak
3	863.0562	16.29	16.38	32.67	46.00	-13.33	270	100	peak



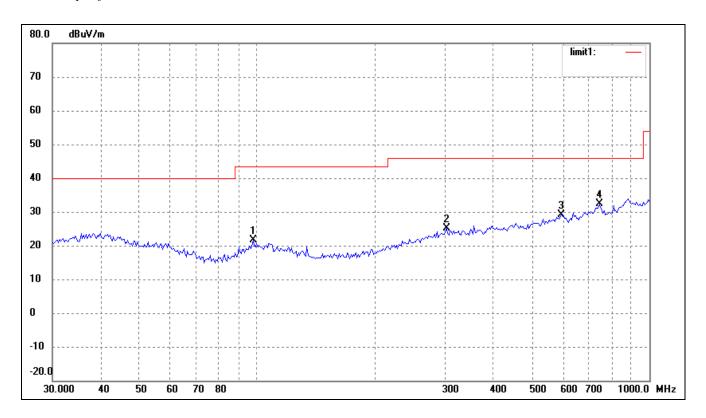
No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	Factor(dB)	(dBuV/m)	(dBuV/m)	(dB)	(•)	(cm)	
1	38.3462	14.80	8.97	23.77	40.00	-16.23	270	100	peak
2	96.7749	15.52	5.32	20.84	43.50	-22.66	51	200	peak
3	316.5890	15.66	9.28	24.94	46.00	-21.06	360	200	peak
4	851.0353	15.81	15.97	31.78	46.00	-14.22	360	100	peak

Operating Condition: 802.11n-HT40 Transmitting High Channel-2462MHz

Comment: DC 3.7V



	No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
Ī		(MHz)	(dBuV/m)	Factor(dB)	(dBuV/m)	(dBuV/m)	(dB)	(•)	(cm)	
ſ	1	396.2415	16.87	9.95	26.82	46.00	-19.18	360	100	peak
ſ	2	595.1329	16.45	13.14	29.59	46.00	-16.41	180	100	peak
	3	893.8567	16.88	16.85	33.73	46.00	-12.27	225	100	peak



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	Factor(dB)	(dBuV/m)	(dBuV/m)	(dB)	(•)	(cm)	
1	97.4560	16.14	5.49	21.63	43.50	-21.87	260	100	peak
2	303.5437	15.82	9.19	25.01	46.00	-20.99	131	200	peak
3	595.1329	15.93	13.14	29.07	46.00	-16.93	285	200	peak
4	744.8661	16.95	15.33	32.28	46.00	-13.72	224	100	peak

# Spurious Emissions Above 1GHz

Test Mode: 802.11b

Frequency	Reading	Correct	Result	Limit	Margin	Polar	Detector
(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	H/V	
			Low Channe	el-2412MHz			•
4824	44.12	0.57	44.69	74.00	-29.31	Н	PK
4824	33.52	0.57	34.09	54.00	-19.91	Н	AV
7236	46.84	3.69	50.53	74.00	-23.47	Н	PK
7236	38.45	3.69	42.14	54.00	-11.86	Н	AV
4824	43.20	0.57	43.77	74.00	-30.23	V	PK
4824	33.63	0.57	34.20	54.00	-19.80	V	AV
7236	48.50	3.69	52.19	74.00	-21.81	V	PK
7236	37.19	3.69	40.88	54.00	-13.12	V	AV
			Middle Chan	nel-2442MHz			
4884	44.90	0.66	45.56	74.00	-28.44	Н	PK
4884	32.01	0.66	32.67	54.00	-21.33	Н	AV
7326	47.95	3.76	51.71	74.00	-22.29	Н	PK
7326	36.41	3.76	40.17	54.00	-13.83	Н	AV
4884	44.41	0.66	45.07	74.00	-28.93	V	PK
4884	31.99	0.66	32.65	54.00	-21.35	V	AV
7326	48.51	3.76	52.27	74.00	-21.73	V	PK
7326	37.4	3.76	41.16	54.00	-12.84	V	AV
			High Chann	el-2472MHz			
4944	43.17	0.74	43.91	74.00	-30.09	Н	PK
4944	32.14	0.74	32.88	54.00	-21.12	Н	AV
7416	47.74	3.83	51.57	74.00	-22.43	Н	PK
7416	35.71	3.83	39.54	54.00	-14.46	Н	AV
4944	43.52	0.74	44.26	74.00	-29.74	V	PK
4944	32.17	0.74	32.91	54.00	-21.09	V	AV
7416	49.58	3.83	53.41	74.00	-20.59	V	PK
7416	36.97	3.83	40.80	54.00	-13.20	V	AV

Test Mode: 802.11g

Frequency	Reading	Correct	Result	Limit	Margin	Polar	Detector
(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	H/V	
			Low Channe	el-2412MHz			
4824	43.22	0.57	43.79	74.00	-30.21	Н	PK
4824	33.44	0.57	34.01	54.00	-19.99	Н	AV
7236	51.85	3.69	55.54	74.00	-18.46	Н	PK
7236	38.08	3.69	41.77	54.00	-12.23	Н	AV
4824	43.41	0.57	43.98	74.00	-30.02	V	PK
4824	33.42	0.57	33.99	54.00	-20.01	V	AV
7236	51.08	3.69	54.77	74.00	-19.23	V	PK
7236	37.86	3.69	41.55	54.00	-12.45	V	AV
			Middle Chan	nel-2442MHz			
4884	44.60	0.66	45.26	74.00	-28.74	Н	PK
4884	32.02	0.66	32.68	54.00	-21.32	Н	AV
7326	50.42	3.76	54.18	74.00	-19.82	Н	PK
7326	36.66	3.76	40.42	54.00	-13.58	Н	AV
4884	43.90	0.66	44.56	74.00	-29.44	V	PK
4884	31.96	0.66	32.62	54.00	-21.38	V	AV
7326	53.12	3.76	56.88	74.00	-17.12	V	PK
7326	38.75	3.76	42.51	54.00	-11.49	V	AV
			High Chann	el-2472MHz			
4944	43.28	0.74	44.02	74.00	-29.98	Н	PK
4944	31.87	0.74	32.61	54.00	-21.39	Н	AV
7416	48.11	3.83	51.94	74.00	-22.06	Н	PK
7416	37.07	3.83	40.90	54.00	-13.10	Н	AV
4944	41.50	0.74	42.24	74.00	-31.76	V	PK
4944	32.04	0.74	32.78	54.00	-21.22	V	AV
7416	48.19	3.83	52.02	74.00	-21.98	V	PK
7416	36.98	3.83	40.81	54.00	-13.19	V	AV

Test Mode: 802.11n-HT20

Frequency	Reading	Correct	Result	Limit	Margin	Polar	Detector
(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	H/V	
			Low Chann	el-2412MHz			
4824	42.52	0.57	43.09	74.00	-30.91	Н	PK
4824	33.62	0.57	34.19	54.00	-19.81	Н	AV
7236	36.52	3.69	40.21	74.00	-33.79	Н	PK
7236	34.01	3.69	37.70	54.00	-16.30	Н	AV
4824	43.82	0.57	44.39	74.00	-29.61	V	PK
4824	33.65	0.57	34.22	54.00	-19.78	V	AV
7236	54.17	3.69	57.86	74.00	-16.14	V	PK
7236	37.36	3.69	41.05	54.00	-12.95	V	AV
			Middle Chan	nel-2442MHz			
4884	45.17	0.66	45.83	74.00	-28.17	Н	PK
4884	31.94	0.66	32.60	54.00	-21.40	Н	AV
7326	48.62	3.76	52.38	74.00	-21.62	Н	PK
7326	38.35	3.76	42.11	54.00	-11.89	Н	AV
4884	44.60	0.66	45.26	74.00	-28.74	V	PK
4884	32.02	0.66	32.68	54.00	-21.32	V	AV
7326	53.52	3.76	57.28	74.00	-16.72	V	PK
7326	38.46	3.76	42.22	54.00	-11.78	V	AV
			High Chann	el-2472MHz			
4944	42.76	0.74	43.50	74.00	-30.50	Н	PK
4944	31.98	0.74	32.72	54.00	-21.28	Н	AV
7416	50.45	3.83	54.28	74.00	-19.72	Н	PK
7416	38.35	3.83	42.18	54.00	-11.82	Н	AV
4944	42.40	0.74	43.14	74.00	-30.86	V	PK
4944	32.14	0.74	32.88	54.00	-21.12	V	AV
7416	54.24	3.83	58.07	74.00	-15.93	V	PK
7416	39.20	3.83	43.03	54.00	-10.97	V	AV

Test Mode: 802.11n-HT40

Frequency	Reading	Correct	Result	Limit	Margin	Polar	Detector
(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	H/V	
			Low Chann	el-2422MHz			
4844	42.52	0.60	43.12	74.00	-30.88	Н	PK
4844	33.30	0.60	33.9	54.00	-20.10	Н	AV
7266	46.53	3.72	50.25	74.00	-23.75	Н	PK
7266	34.11	3.72	37.83	54.00	-16.17	Н	AV
4844	43.25	0.60	43.85	74.00	-30.15	V	PK
4844	31.56	0.60	32.16	54.00	-21.84	V	AV
7266	44.36	3.72	48.08	74.00	-25.92	V	PK
7266	43.32	3.72	47.04	54.00	-6.96	V	AV
			Middle Chan	nel-2442MHz			
4884	44.21	0.66	44.87	74.00	-29.13	Н	PK
4884	32.01	0.66	32.67	54.00	-21.33	Н	AV
7326	35.98	3.76	39.74	74.00	-34.26	Н	PK
7326	24.30	3.76	28.06	54.00	-25.94	Н	AV
4884	53.86	0.66	54.52	74.00	-19.48	V	PK
4884	41.84	0.66	42.50	54.00	-11.5	V	AV
7326	45.92	3.76	49.68	74.00	-24.32	V	PK
7326	34.31	3.76	38.07	54.00	-15.93	V	AV
			High Chann	el-2462MHz			
4924	43.62	0.72	44.34	74.00	-29.66	Н	PK
4924	32.04	0.72	32.76	54.00	-21.24	Н	AV
7386	35.25	3.81	39.06	74.00	-34.94	Н	PK
7386	24.11	3.81	27.92	54.00	-26.08	Н	AV
4924	52.63	0.72	53.35	74.00	-20.65	V	PK
4924	43.24	0.72	43.96	54.00	-10.04	V	AV
7386	45.03	3.81	48.84	74.00	-25.16	V	PK
7386	43.31	3.81	47.12	54.00	-6.88	V	AV

Note: Testing is carried out with frequency rang 9kHz to the tenth harmonics, which above  $3^{th}$  Harmonics are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured. The measurements greater than 20dB below the limit from 9kHz to 30MHz.

#### 8. Out of Band Emissions

### 8.1 Standard Applicable

According to §15.247 (d) In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a).

#### 8.2 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

#### 8.3 Test Procedure

According to the KDB 558074, the band-edge radiated test method as follows:

Set span = wide enough to capture the peak level of the emission operating on the channel closest to the bandedge, as well as any modulation products which fall outside of the authorized band of operation (2310MHz to 2420MHz for low bandedge, 2460MHz to 2500MHz for the high bandedge)

RBW = 1MHz, VBW = 1MHz for peak value measured

RBW = 1MHz, VBW = 10Hz for average value measured

Sweep = auto; Detector function = peak/average; Trace = max hold

All the trace to stabilize, set the marker on the emission at the bandedge, or on the highest modulation product outside of the band, if this level is greater than that at the bandedge. Enable the marker-delta function, then use the marker-to-peak function to move the marker to the peak of the in-band emission. Those emission must comply with the 15.209 limit for fall in the restricted bands listed in section 15.205. Note that the method of measurement KDB publication number: 913591 may be used for the radiated bandedge measurements.

According to the KDB 558074 D01 V02, the conducted spurious emissions test method as follows:

- 1. Set start frequency to DTS channel edge frequency.
- 2. Set stop frequency so as to encompass the spectrum to be examined.
- 3. Set RBW = 100 kHz.
- 4. Set VBW  $\geq$  300 kHz.
- 5. Detector = peak.
- 6. Trace Mode =  $\max$  hold.
- 7. Sweep = auto couple.
- 8. Allow the trace to stabilize (this may take some time, depending on the extent of the span).
- 9. Use peak marker function to determine maximum amplitude of all unwanted emissions within any 100 kHz bandwidth.

Ensure that the amplitude of all unwanted emissions outside of the authorized frequency band (excluding restricted frequency bands) are attenuated by at least the minimum requirements specified in section 8.1. Report the three highest emissions relative to the limit.

#### **8.4 Environmental Conditions**

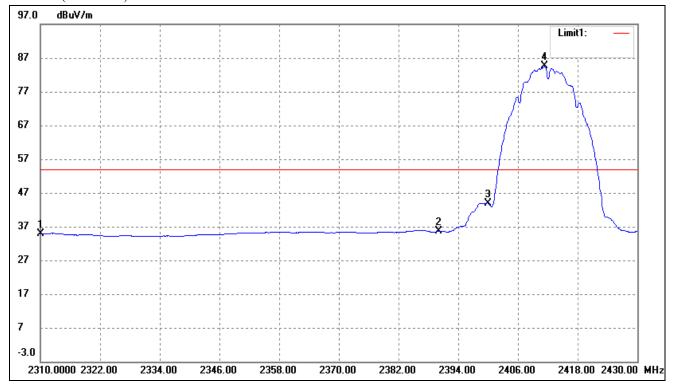
Temperature:	23°C
Relative Humidity:	54%
ATM Pressure:	1011 mbar

### 8.5 Summary of Test Results/Plots

Please refer to the test plots as below.

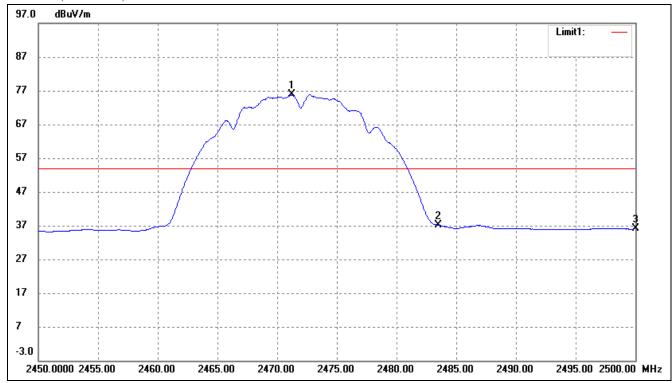
FCC PART 15.247

# 802.11b-Lowest Bandedge



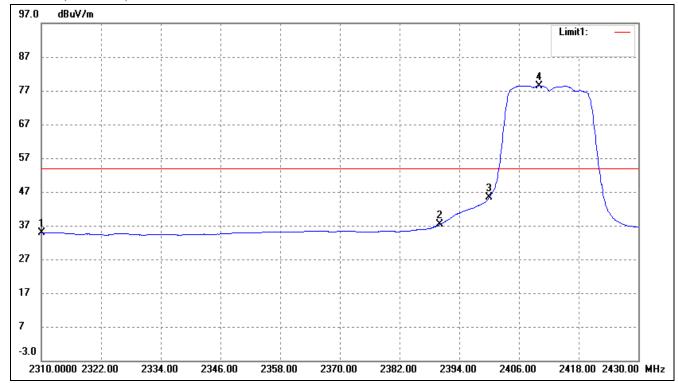
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	2310.000	18.59	16.34	34.93	54.00	-19.07	Average Detector
	2310.000	31.16	16.34	47.50	74.00	-26.50	Peak Detector
2	2390.000	18.55	17.03	35.58	54.00	-18.42	Average Detector
	2390.000	30.92	17.03	47.95	74.00	-26.05	Peak Detector
3	2400.000	26.76	17.11	43.87	Delta=40.64dBc		Average Detector
	2411.280	67.32	17.19	84.51			Peak Detector

802.11b-Highest Bandedge



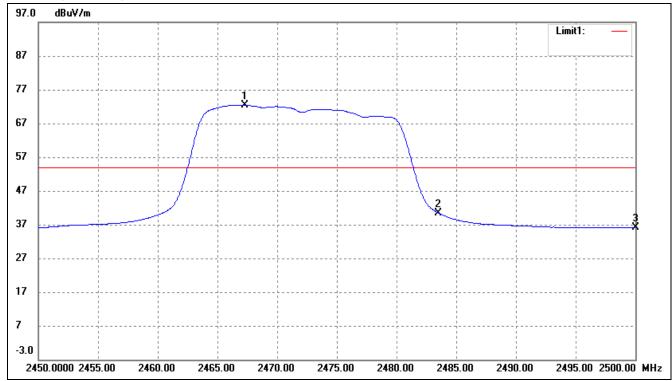
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark	
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)		
1	2471.200	58.14	17.65	75.79	/	/	Average Detector	
	2471.200	67.23	17.65	84.88	/	/	Peak Detector	
2	2483.500	Dolto - 4	Delta = 45.59dBc		54.00	-23.80	Average Detector	
	2483.500	Della – 4.	3.39UDC	39.29	74.00	-34.71	Peak Detector	
3	2500.000	18.16	17.86	36.02	54.00	-17.98	Average Detector	
	2500.000	30.95	17.86	48.81	74.00	-25.19	Peak Detector	

802.11g-Lowest Bandedge



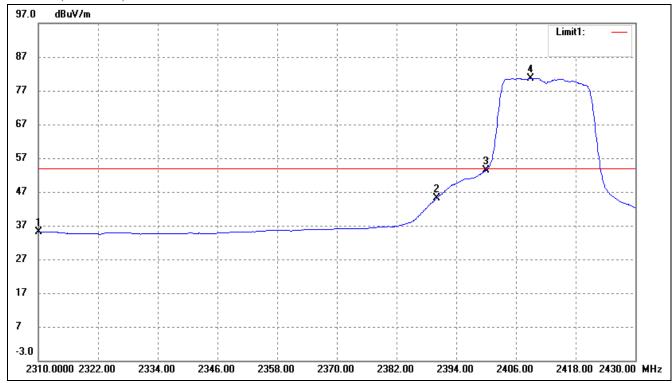
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	2310.000	18.52	16.34	34.86	54.00	-19.14	Average Detector
	2310.000	30.35	16.34	46.69	74.00	-27.31 Peak Detector	
2	2390.000	20.24	17.03	37.27	54.00	-16.73	Average Detector
	2390.000	35.23	17.03	52.26	74.00	-21.74	Peak Detector
3	2400.000	28.24	17.11	45.35	Delta=33.15dBc		Average Detector
	2410.080	61.31	17.19	78.50			Peak Detector

802.11g-Highest Bandedge



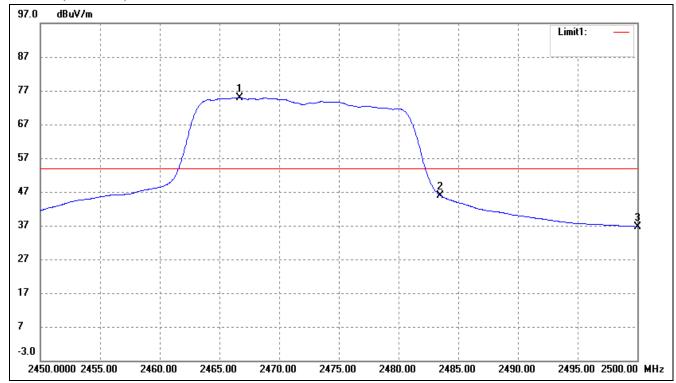
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark	
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)		
2	2467.300	54.80	17.60	72.40	/	/	Average Detector	
	2467.300	67.46	17.60	85.06	/	/	Peak Detector	
1	2483.500	Dolto - 4	Delta = 44.48dBc		54.00	-26.08	Average Detector	
	2483.500	Della – 4	4.48UDC	40.58	74.00	-33.42	Peak Detector	
3	2500.000	18.19	17.86	36.05	54.00	-17.95	Average Detector	
	2500.000	43.83	-3.28	40.55	74.00	-33.45	Peak Detector	

# 802.11n-HT20-Lowest Bandedge



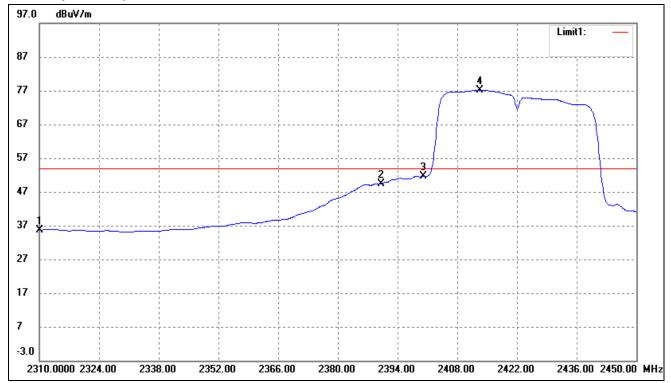
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	2310.000	18.67	16.34	35.01	54.00	-18.99	Average Detector
	2310.000	30.12	16.34	46.46	74.00	-27.54	Peak Detector
2	2390.000	28.06	17.03	45.09	54.00	-8.91	Average Detector
	2390.000	51.71	17.03	68.74	74.00	-5.26	Peak Detector
3	2400.000	36.32	17.11	53.43	Delta=27.31dBc		Average Detector
	2408.880	63.57	17.17	80.74			Peak Detector

# 802.11n-HT20-Highest Bandedge



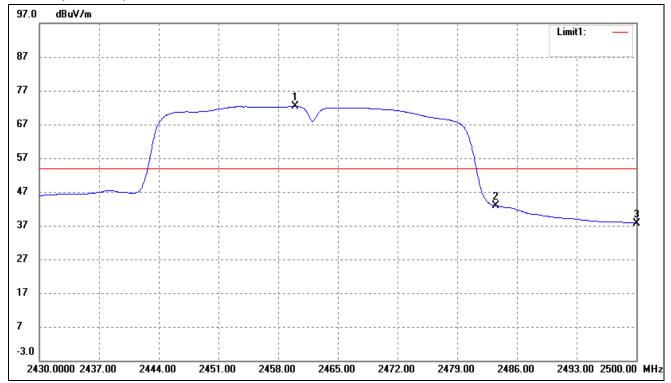
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark	
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)		
1	2466.700	57.32	17.60	74.92	/	/	Average Detector	
	2466.250	68.36	17.60	85.96	/	/	Peak Detector	
2	2483.500	Dolto - 4	Delta = 45.09dBc		54.00	-24.17	Average Detector	
	2483.500	Della – 4.	3.09 <b>ubc</b>	40.87	74.00	-33.13	Peak Detector	
3	2500.000	18.81	17.86	36.67	54.00	-17.33	Average Detector	
	2500.000	30.86	17.86	48.72	74.00	-25.28	Peak Detector	

# 802.11n-HT40-Lowest Bandedge



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	2310.000	19.39	16.34	35.73	54.00	-18.27	Average Detector
	2310.000	31.78	16.34	48.12	74.00	-25.88 Peak Detector	
2	2390.000	32.35	17.03	49.38	54.00	-4.62	Average Detector
	2390.000	47.86	17.03	64.89	74.00	-9.11	Peak Detector
3	2400.000	34.47	17.11	51.58	Delta=25.55dBc		Average Detector
	2413.320	59.92	17.21	77.13			Peak Detector

# 802.11n-HT40-Highest Bandedge



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark	
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)		
1	2460.030	54.79	17.56	72.35	/	/	Average Detector	
	2459.610	65.70	17.55	83.25	/	/	Peak Detector	
2	2483.500	Delta = 4	( )1 JD.	26.14	54.00	-27.86	Average Detector	
	2483.500	Delta – 4	0.21 <b>uBc</b>	37.04	74.00	-36.96	Peak Detector	
3	2500.000	19.80	17.86	37.66	54.00	-16.34	Average Detector	
	2500.000	33.96	17.86	51.82	74.00	-22.18	Peak Detector	

### 9. Conducted Emissions

# 9.1 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  $\pm 2.88$  dB.

### 9.2 Test Equipment List and Details

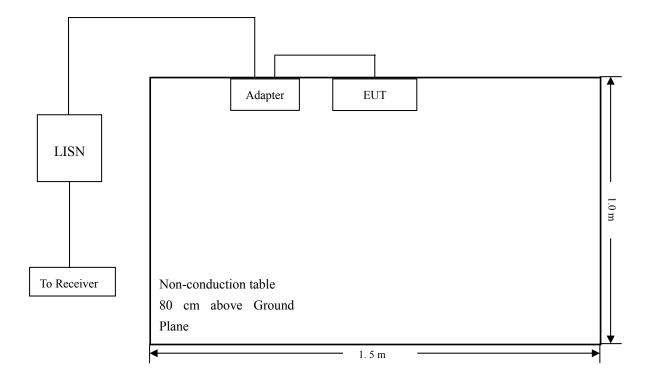
Description	Manufacturer	Model	Serial Number	Cal. Date	Due. Date
EMI Test Receiver	Rohde & Schwarz	ESPI	101611	2013-05-07	2014-05-06
L.I.S.N	Schwarz beck	NSLK8126	8126-224	2013-05-07	2014-05-06
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100911	2013-05-07	2014-05-06

#### 9.3 Test Procedure

The setup of EUT is according with per ANSI C63.4-2003 measurement procedure. The specification used was with the FCC Part 15.207 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.

### 9.4 Basic Test Setup Block Diagram



#### 9.5 Environmental Conditions

Temperature:	25 °C
Relative Humidity:	52%
ATM Pressure:	1012 mbar

# 9.6 Test Receiver Setup

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

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

# 9.7 Summary of Test Results/Plots

According to the data in section 9.8, the EUT <u>complied with the FCC Part 15.207</u> Conducted margin for a Class B device, with the *worst* margin reading of:

-7.91 dB at 0.3900 MHz in the Neutral mode, average detector, 0.15-30MHz

### 9.8 Conducted Emissions Test Data

### **Plot of Conducted Emissions Test Data**

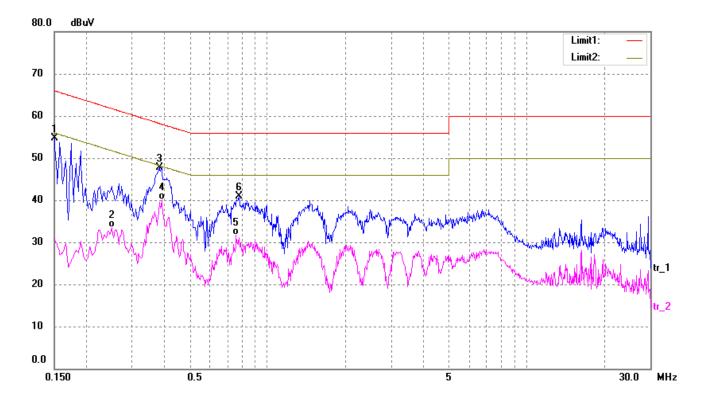
EUT: Tablet PC

Tested Model: F-7HD2CORE

Operating Condition: Wi-Fi Transmitting

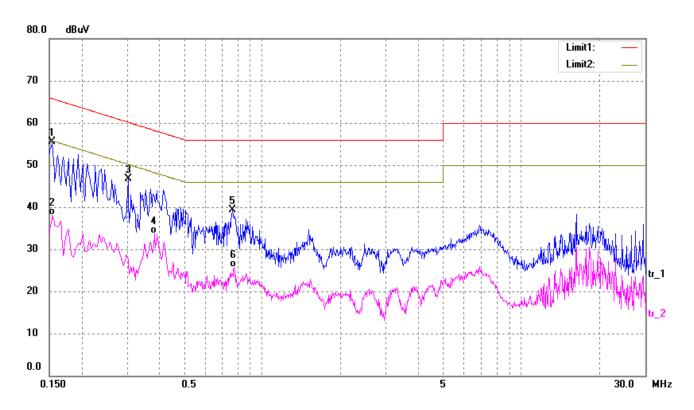
Comment: AC 120V/60Hz; adapter DC 5V

Test Specification: Neutral



No.	Frequency	Reading	Correct	Result	Limit	Margin	Detector
	(MHz)	(dBuV)	(dB/m)	(dBuV)	(dBuV)	(dB)	
1	0.1500	45.28	9.50	54.78	66.00	-11.22	peak
2	0.2500	23.94	9.50	33.44	51.76	-18.32	AVG
3	0.3820	38.27	9.50	47.77	58.24	-10.47	peak
4	0.3900	30.65	9.50	40.15	48.06	-7.91	AVG
5	0.7580	21.91	9.76	31.67	46.00	-14.33	AVG
6	0.7780	31.07	9.78	40.85	56.00	-15.15	peak

Test Specification: Line



No.	Frequency	Reading	Correct	Result	Limit	Margin	Detector
	(MHz)	(dBuV)	(dB/m)	(dBuV)	(dBuV)	(dB)	
1	0.1540	46.09	9.50	55.59	65.78	-10.19	peak
2	0.1540	28.54	9.50	38.04	55.78	-17.74	AVG
3	0.3020	37.12	9.50	46.62	60.19	-13.57	peak
4	0.3820	24.19	9.50	33.69	48.24	-14.55	AVG
5	0.7660	29.54	9.77	39.31	56.00	-16.69	peak
6	0.7780	15.85	9.78	25.63	46.00	-20.37	AVG

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