

FCC Part 15C

Measurement and Test Report

For

MAG DIGITAL LIMITED

**Rm918, East Baihuo Plaza No3020, ShenNan East Road, Luohu District,
Shenzhen City, Guangdong Province, China 518000**

FCC ID: N8O-B26T

FCC Rule(s): FCC Part 15C

Product Description: MID

Tested Model: B26T

Report No.: STR14048407I-1

Tested Date: 2014-05-26 to 2014-06-11

Issued Date: 2014-06-11

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Reviewed By: Lahm Peng / EMC Manager

Lahm peng

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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: MAG DIGITAL LIMITED
Address of applicant: Rm918, East Baihuo Plaza No3020, ShenNan East Road,
Luohu District, Shenzhen City, Guangdong Province,
China 518000
Manufacturer: EA Excelsior Hangtong Computer Technology Co., Ltd
Address of manufacturer: Rm. 1901B, International Culture Building, Futian
Road, Futian district, Shenzhen, P.R.China

General Description of EUT

Product Name:	MID
Trade Name:	N/A
Model No.:	B26
Rated Voltage:	Battery: DC 3.7V
Battery Capacity	8500mAh
<i>Note: The test data is gathered from a production sample provided by the manufacturer.</i>	

Technical Characteristics of EUT

Support Standards:	802.11b, 802.11g, 802.11n-HT20, 802.11n-HT40
Frequency Range:	2412-2472MHz for 11b/g/n-HT20 2422-2462MHz for 802.11n-HT40
RF Output Power:	17.00 dBm (Conducted)
Data Rate:	1-11Mbps, 6-54Mbps, 150Mbps up to 300Mbps
Modulation:	CCK, OFDM, QPSK, BPSK, 16QAM, 64QAM
Quantity of Channels:	13 for 802.11b/g/n-HT20 9 for 802.11n-HT40
Channel Separation:	5MHz
Type of Antenna:	Integral
Antenna Gain:	0dBi
Lowest Internal Frequency	32.768kHz

1.2 Test Standards

The following report is prepared on behalf of the MAG DIGITAL LIMITED 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.

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 measurement guide KDB 558074 D01 V03r02 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 2nd 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 Ferrite
DC Power Cable	1.2	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
/	/	/	/

2. SUMMARY OF TEST RESULTS

FCC Rules	Description of Test Item	Result
§ 2.1093	RF Exposure	Compliant
§ 15.203; § 15.247(b)(4)(i)	Antenna Requirement	Compliant
§ 15.207(a)	Conducted Emission	Compliant
§ 15.247(e)	Power Spectral Density	Compliant
§ 15.247(a)(2)	6 dB Bandwidth	Compliant
§ 15.247(b)(3)	RF Output Power	Compliant
§ 15.209(a)	Radiated Emission	Compliant
§ 15.247(d)	Band Edge (Out of Band Emissions)	Compliant

N/A: not applicable

3. RF Exposure

3.1 Standard Applicable

According to § 1.1307 and § 2.1093, the portable transmitter must comply the RF exposure requirements.

3.2 Test Result

This product complied with the requirement of the RF exposure, please see the SAR Report.

4. Antenna Requirement

4.1 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.

4.2 Evaluation Information

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

5. Power Spectral Density

5.1 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.

5.2 Test Equipment List and Details

Description	Manufacturer	Model	Serial Number	Cal. Date	Due. Date
Spectrum Analyzer	Agilent	E4402B	US41192821	2014-05-28	2015-05-27
Spectrum Analyzer	Rohde & Schwarz	FSP30	836079/035	2014-05-28	2015-05-27
Attenuator	ATTEN	ATS100-4-20	/	2014-05-28	2015-05-27

5.3 Test Procedure

According to the KDB 558074 D01 V03r02, the test method of power spectral density as below:

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

5.4 Environmental Conditions

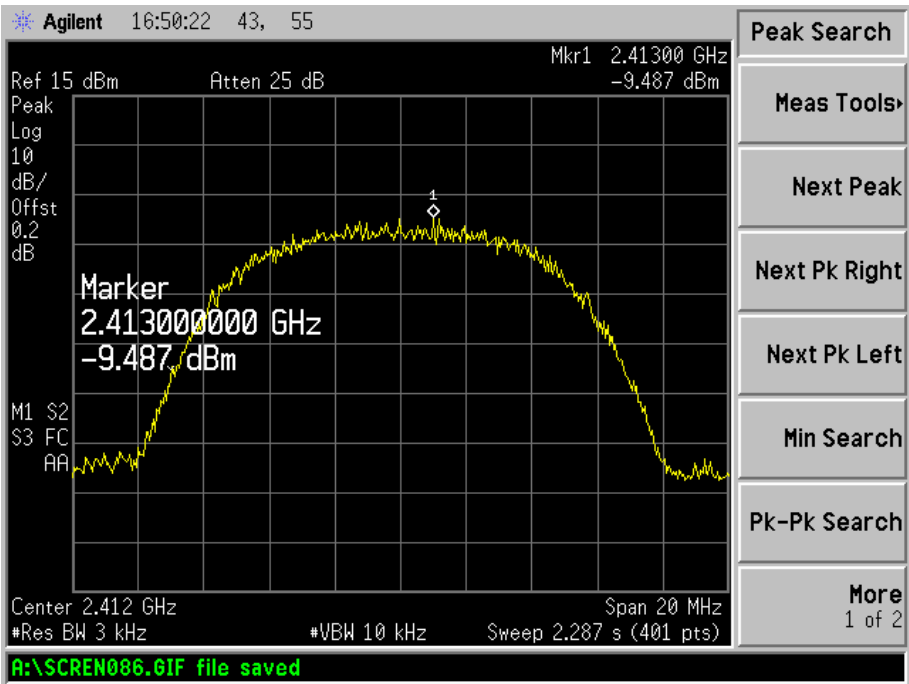
Temperature:	26° C
Relative Humidity:	54%
ATM Pressure:	1011 mbar

5.5 Summary of Test Results/Plots

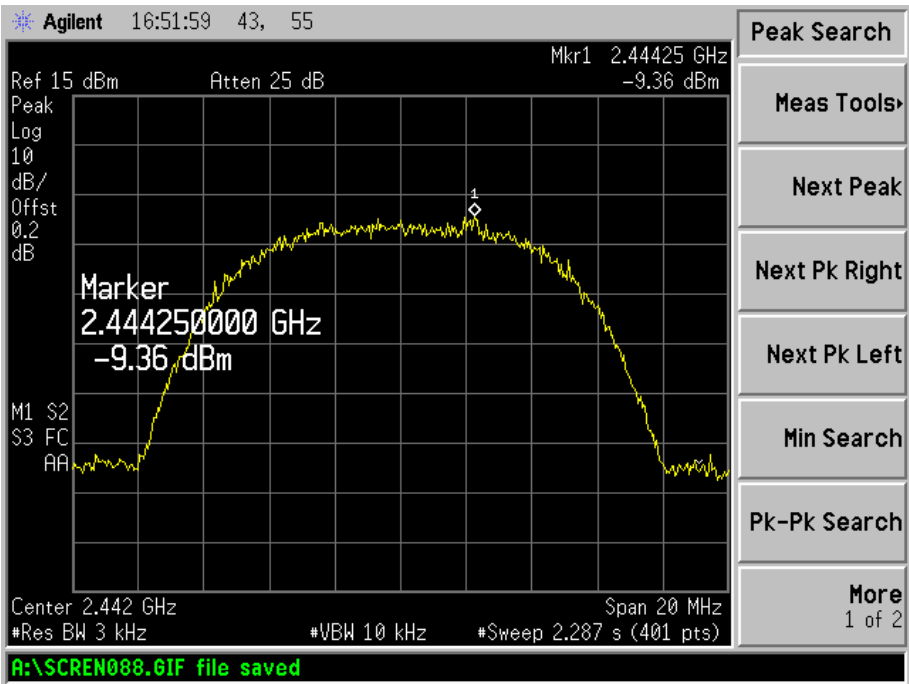
Test Mode	Test Channel MHz	Power Spectral Density dBm/3kHz	Limit dBm/3kHz
802.11b	2412	-9.487	8
	2442	-9.360	8
	2472	-9.549	8
802.11g	2412	-13.21	8
	2442	-12.29	8
	2472	-12.48	8
802.11n HT20	2412	-15.34	8
	2442	-14.22	8
	2472	-15.19	8
802.11n HT40	2422	-18.06	8
	2442	-19.65	8
	2462	-19.23	8

Please refer to the following test plots:

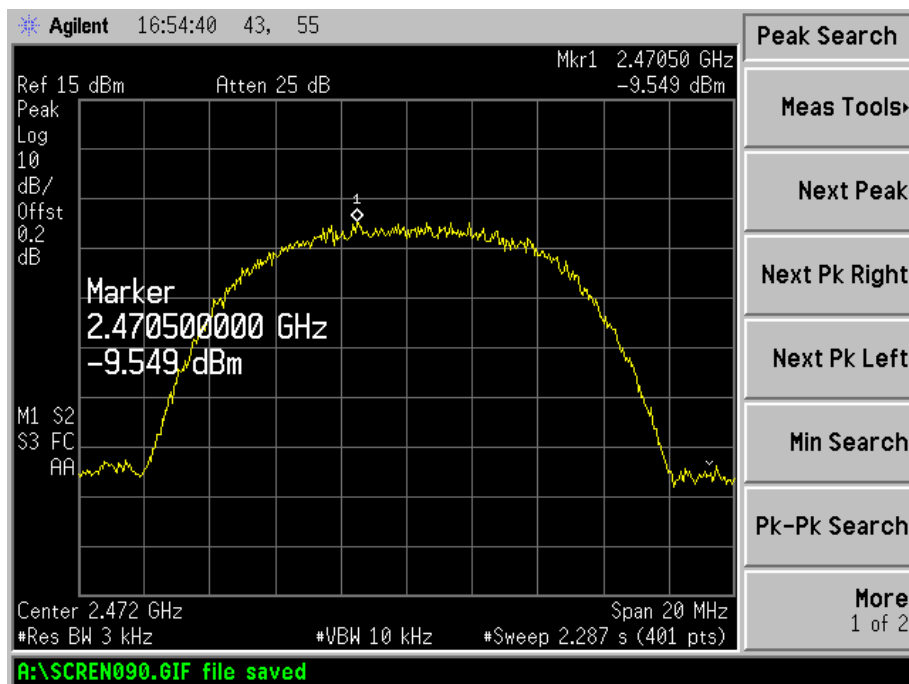
802.11b-Low Channel



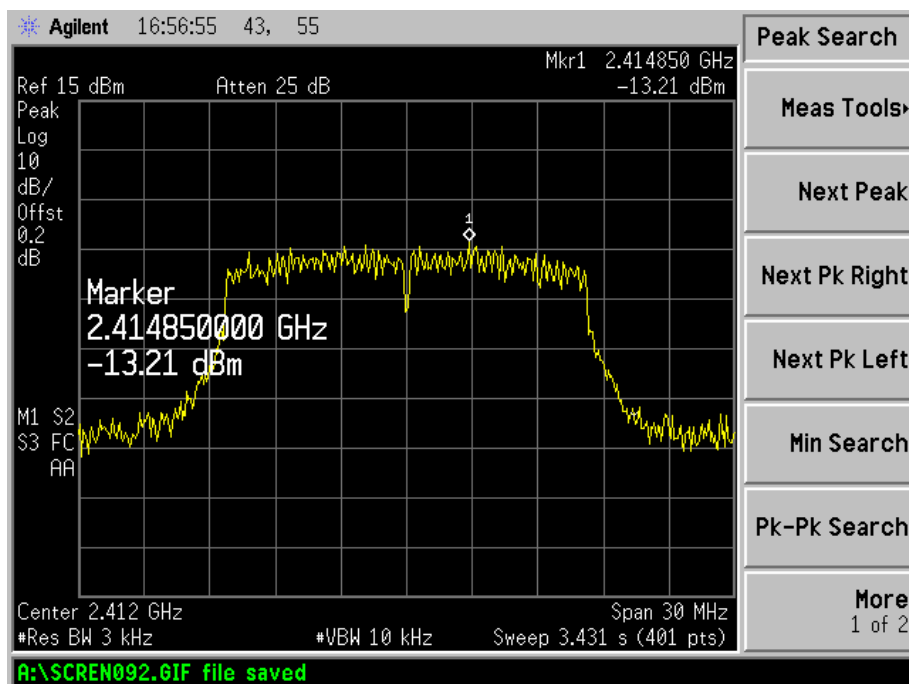
802.11b-Middle Channel



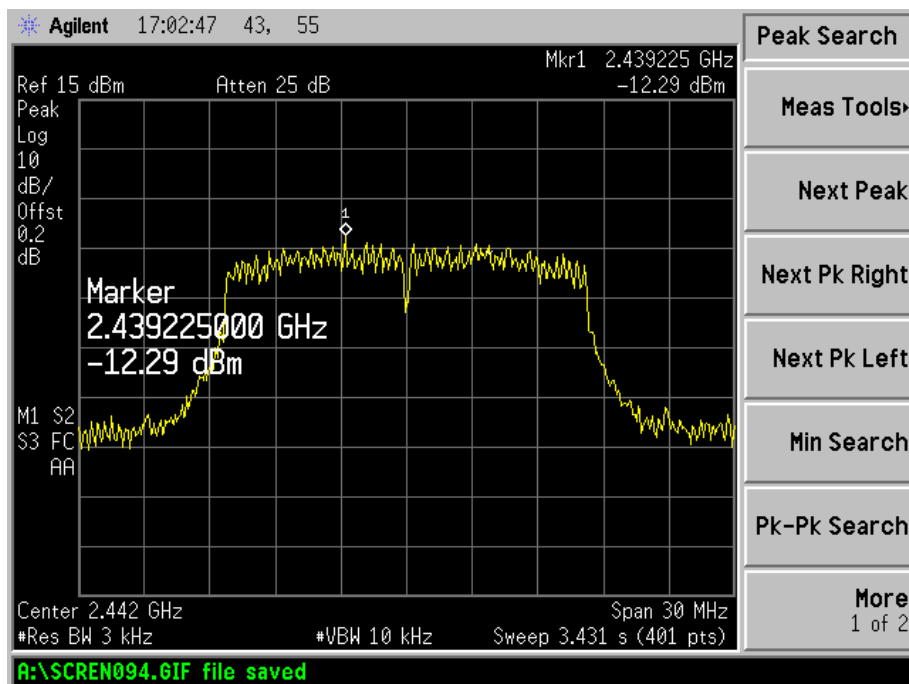
802.11b-High Channel



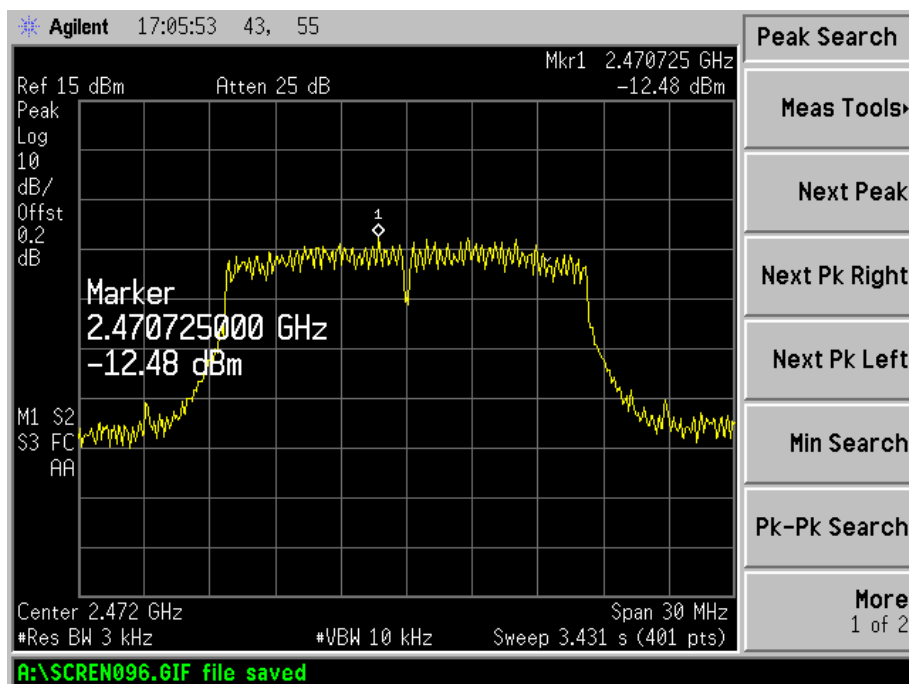
802.11g-Low Channel



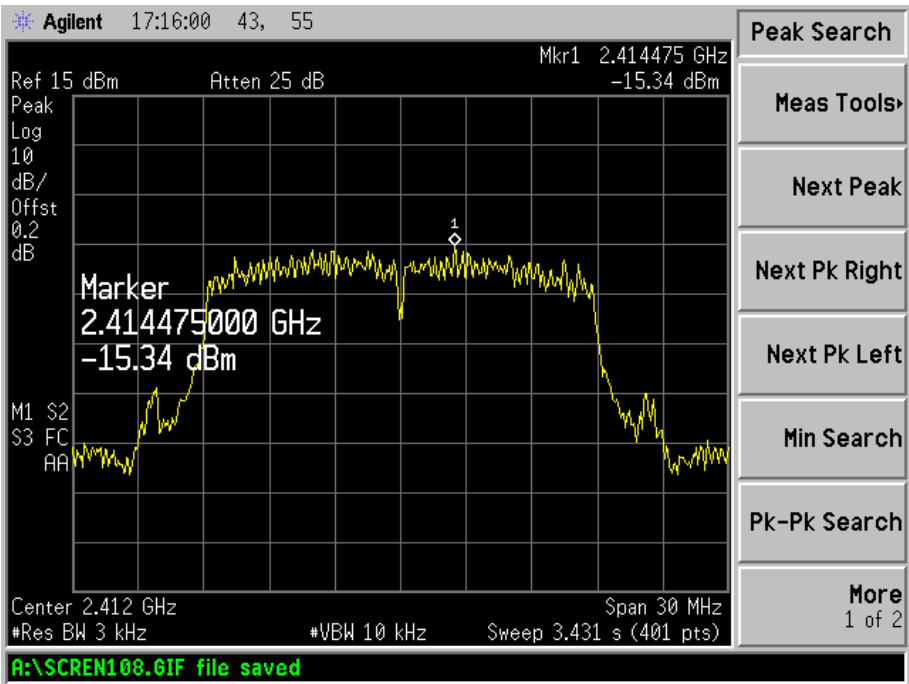
802.11g-Middle Channel



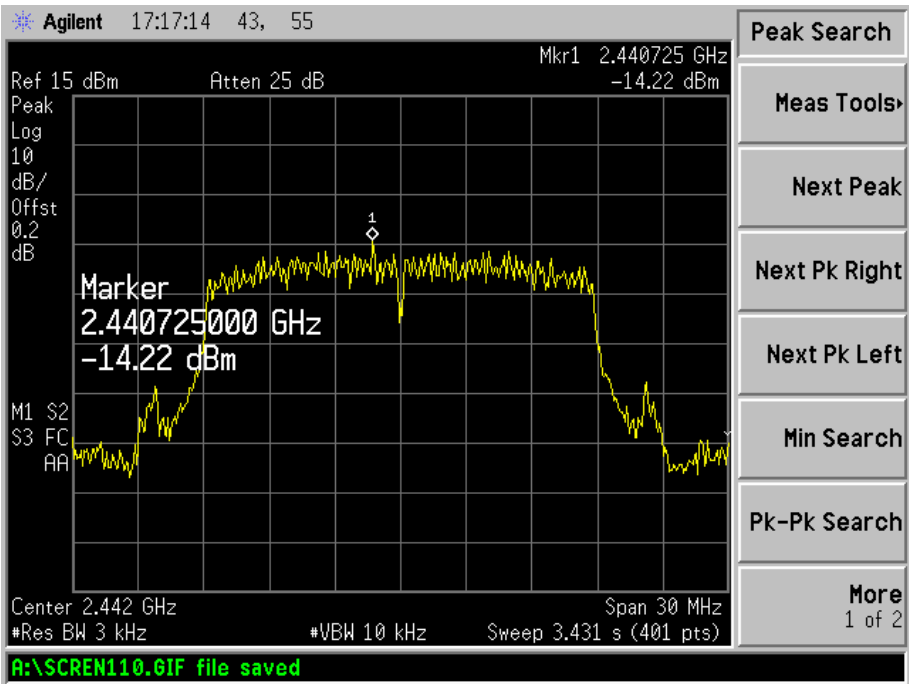
802.11g-High Channel



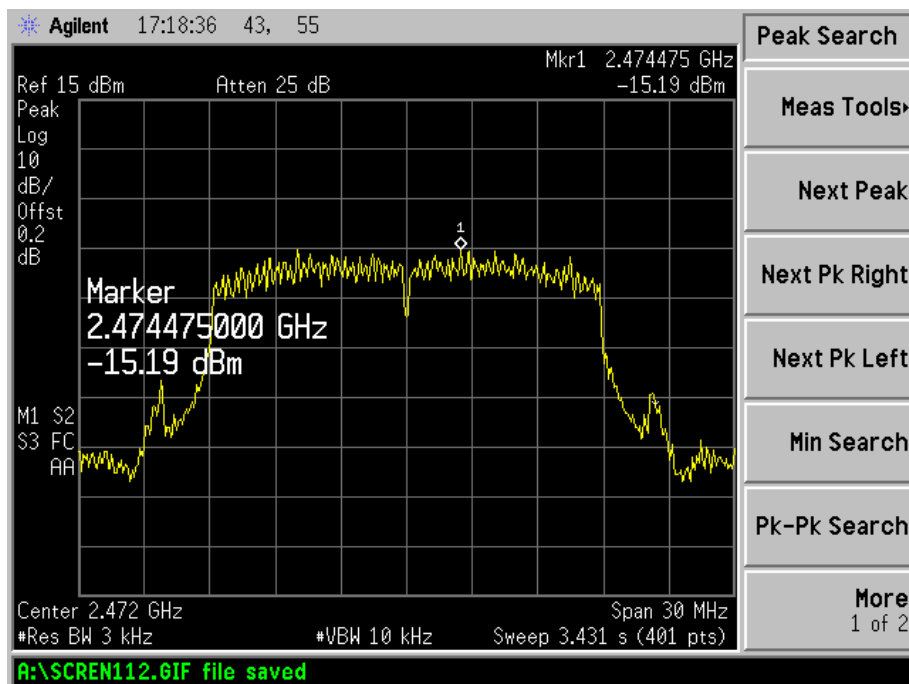
802.11n-HT20-Low Channel



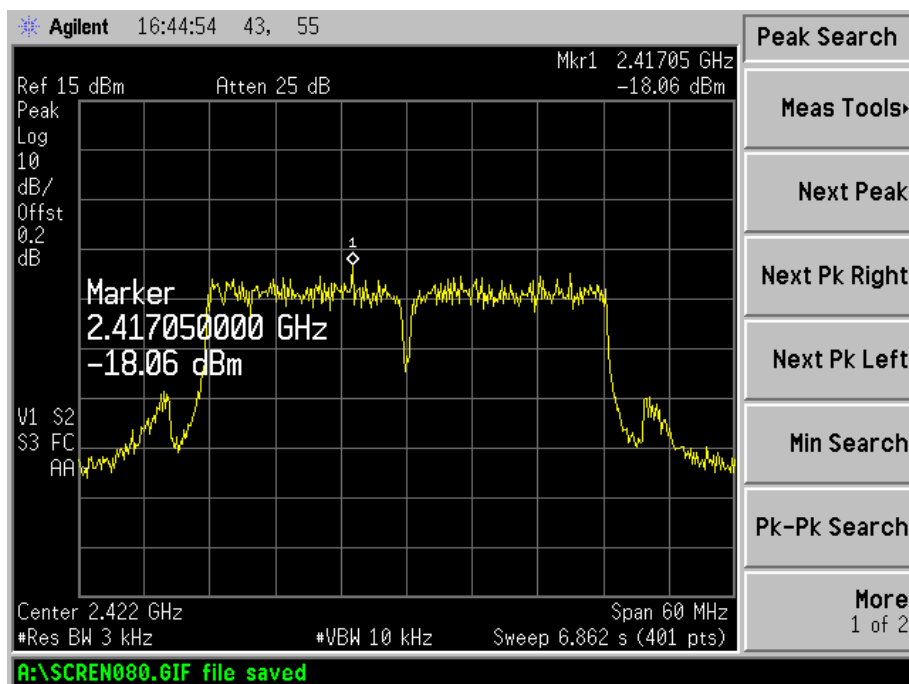
802.11n-HT20-Middle Channel



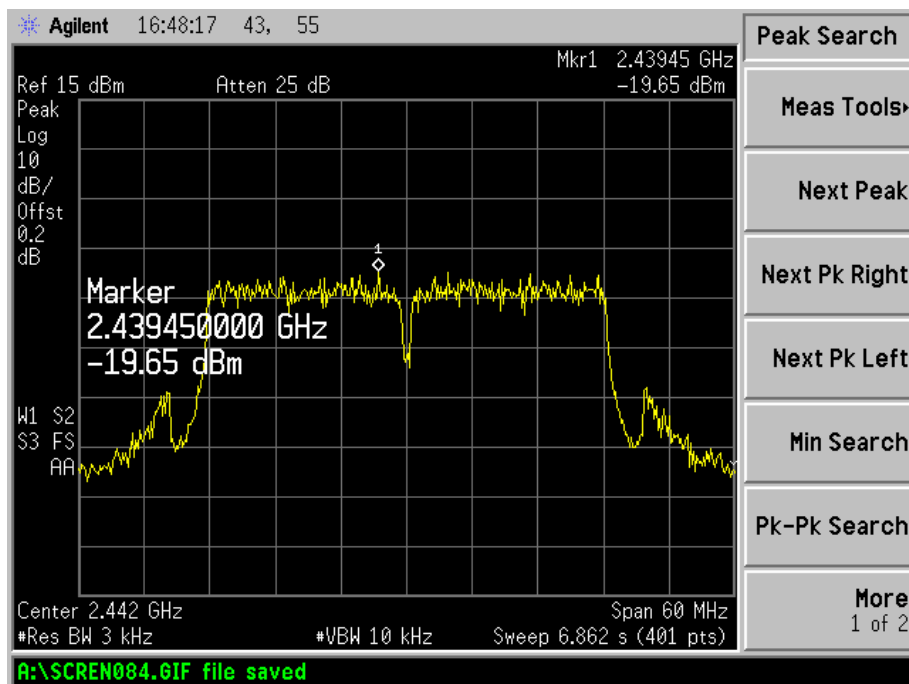
802.11n-HT20-High Channel



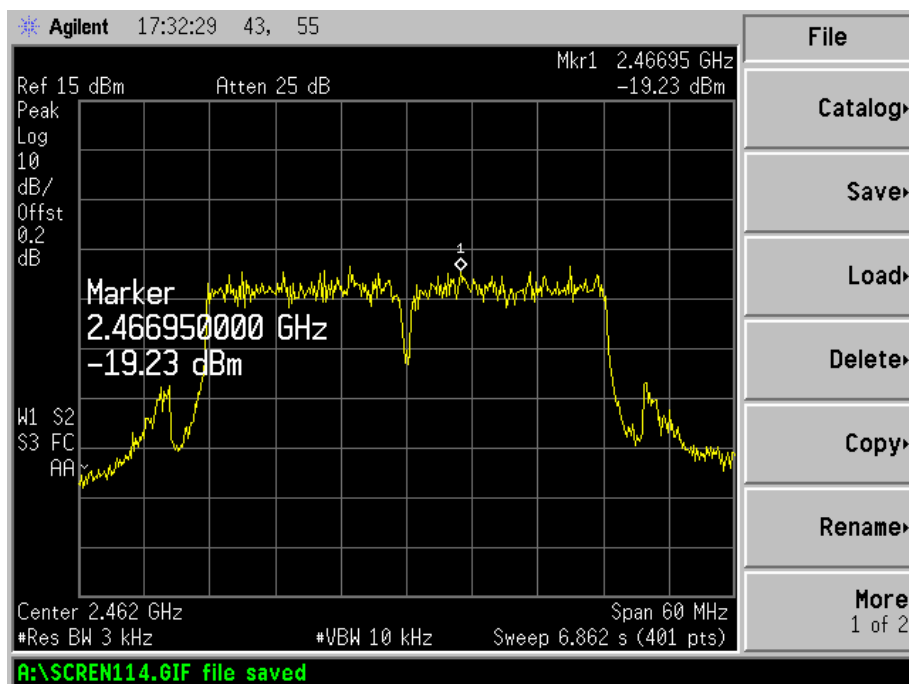
802.11n-HT40-Low Channel



802.11n-HT40-Middle Channel



802.11n-HT40-High Channel



6. 6dB Bandwidth

6.1 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.

6.2 Test Equipment List and Details

Description	Manufacturer	Model	Serial Number	Cal. Date	Due. Date
Spectrum Analyzer	Agilent	E4402B	US41192821	2014-05-28	2015-05-27
Spectrum Analyzer	Rohde & Schwarz	FSP30	836079/035	2014-05-28	2015-05-27
Attenuator	ATTEN	ATS100-4-20	/	2014-05-28	2015-05-27

6.3 Test Procedure

- a) Set RBW = 100 kHz.
- b) Set the video bandwidth (VBW) ≥ 3 RBW.
- c) Detector = Peak.
- d) Trace mode = max hold.
- e) Sweep = auto couple.
- f) Allow the trace to stabilize.
- g) Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

6.4 Environmental Conditions

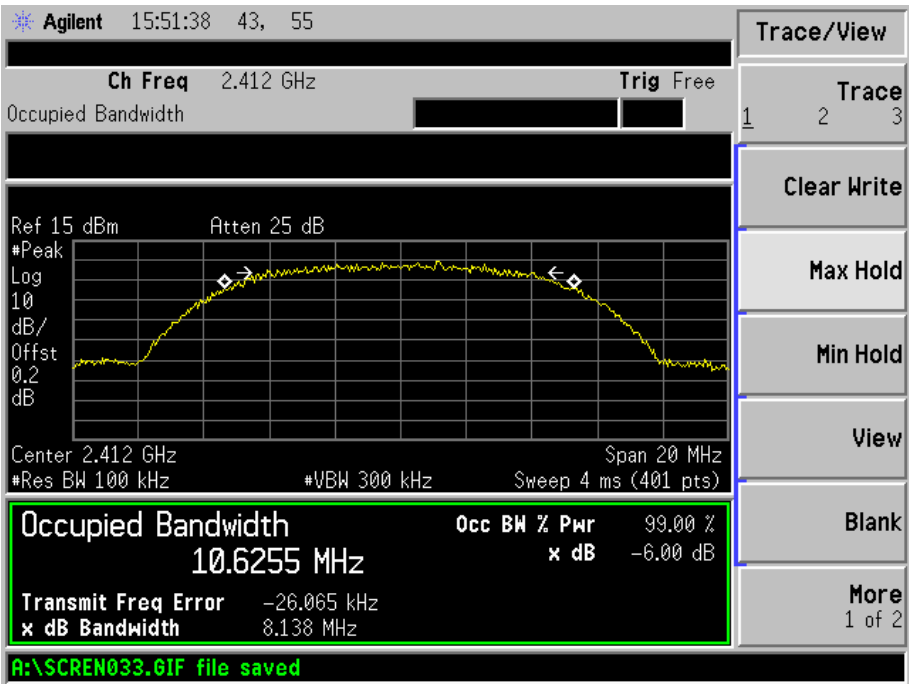
Temperature:	25° C
Relative Humidity:	53%
ATM Pressure:	1018 mbar

6.5 Summary of Test Results/Plots

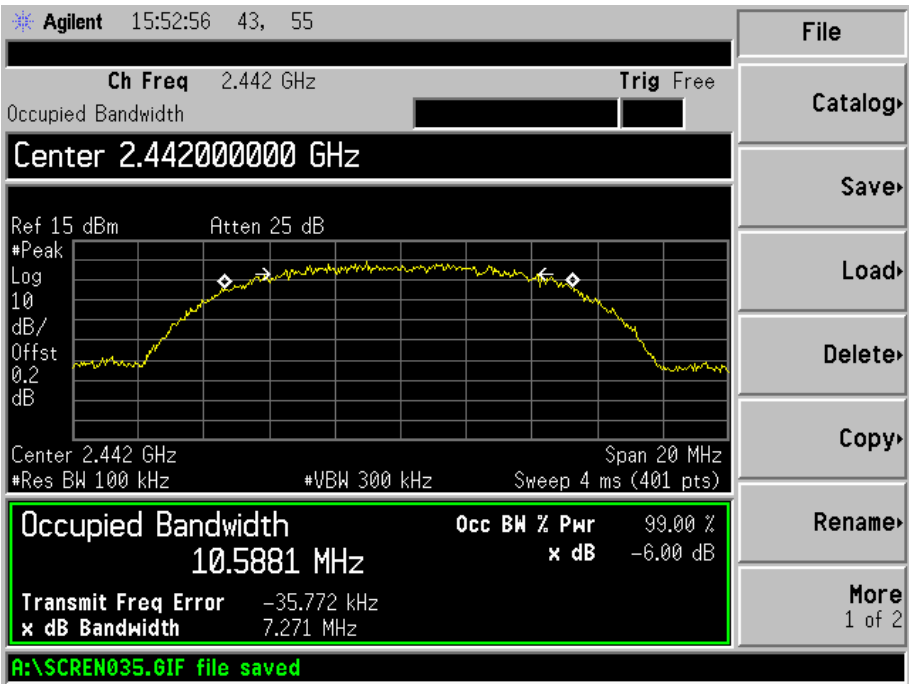
Test Mode	Test Channel MHz	6 dB Bandwidth kHz	Limit kHz
802.11b	2412	8.138	500
	2442	7.271	500
	2472	8.053	500
802.11g	2412	15.395	500
	2442	15.672	500
	2472	15.103	500
802.11n-HT20	2412	16.539	500
	2442	15.110	500
	2472	14.753	500
802.11n-HT40	2422	36.426	500
	2442	36.273	500
	2462	35.931	500

Please refer to the following test plots:

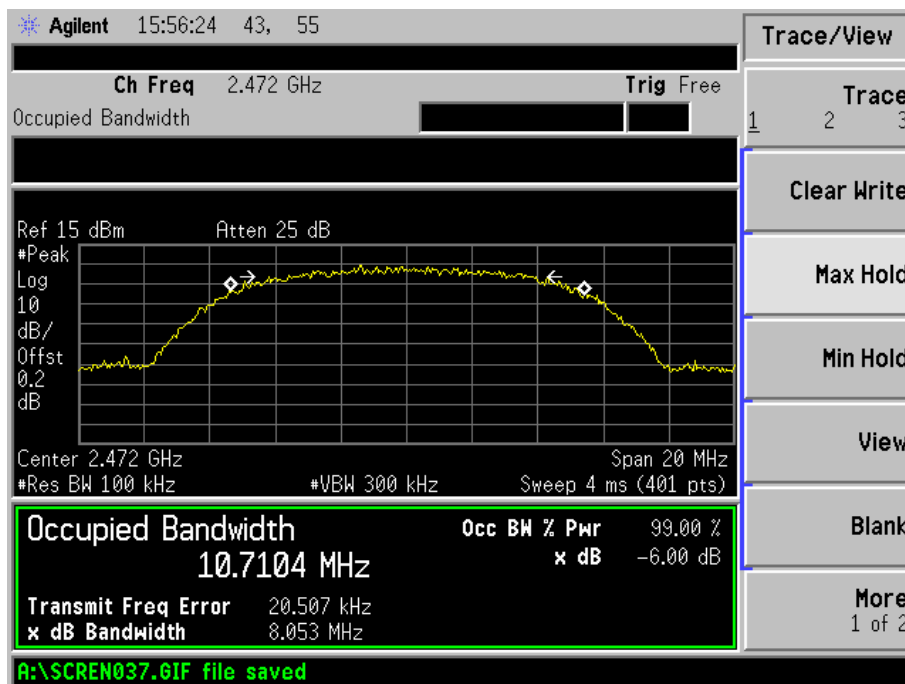
802.11b-Low Channel



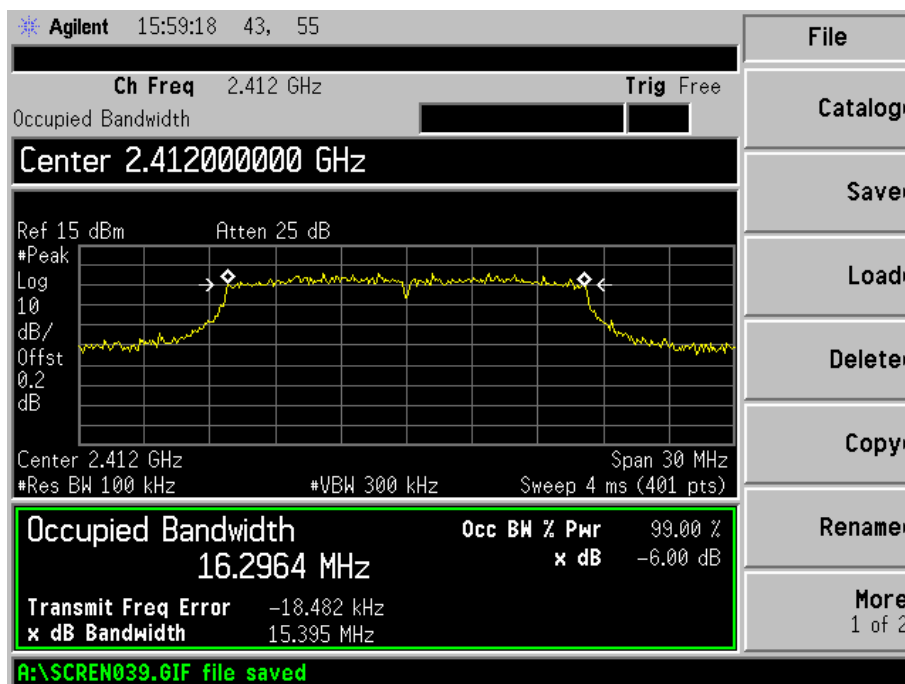
802.11b-Middle Channel



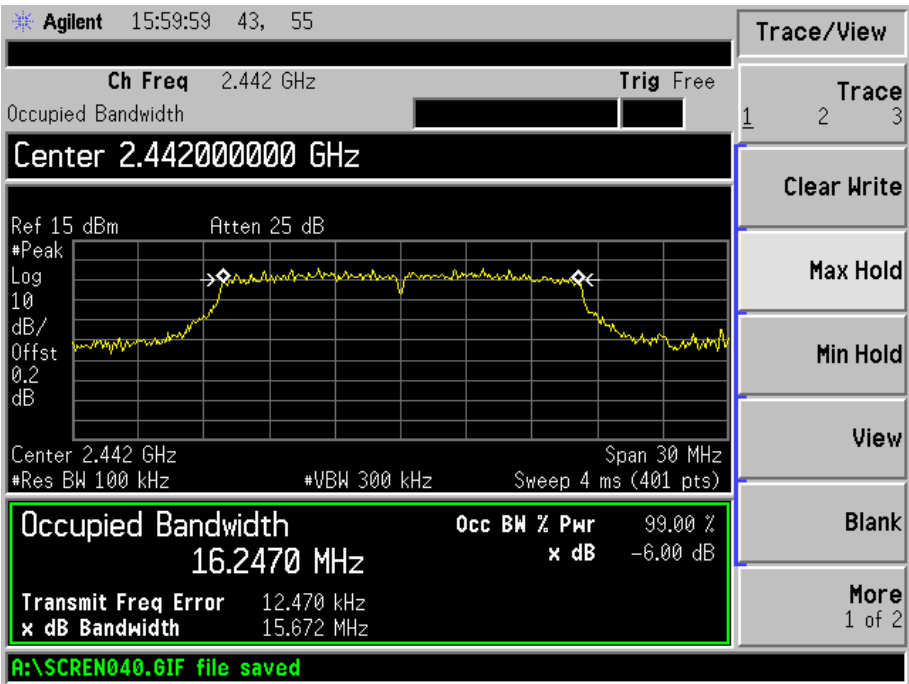
802.11b-High Channel



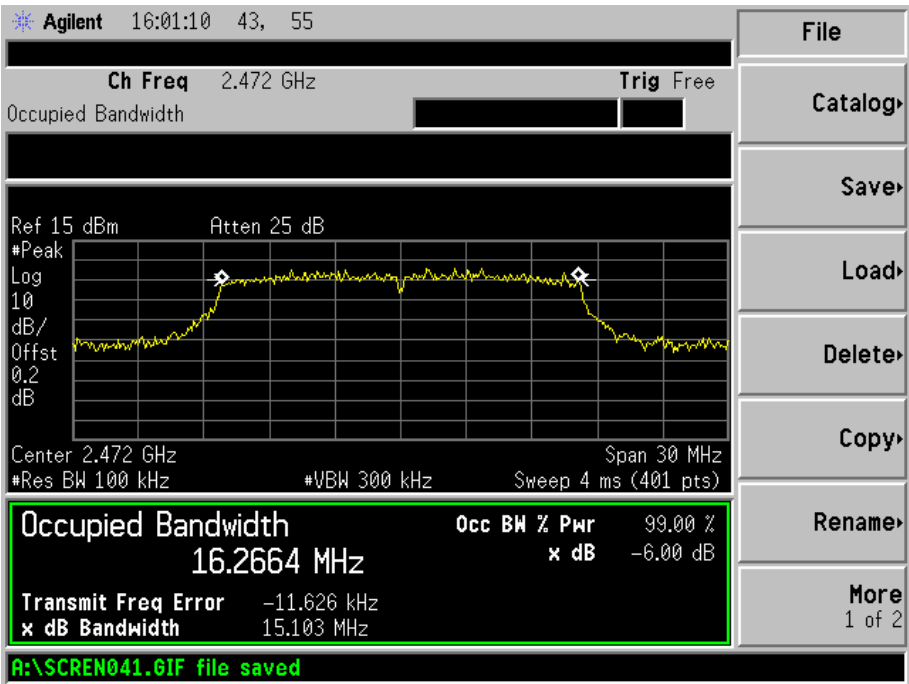
802.11g-Low Channel



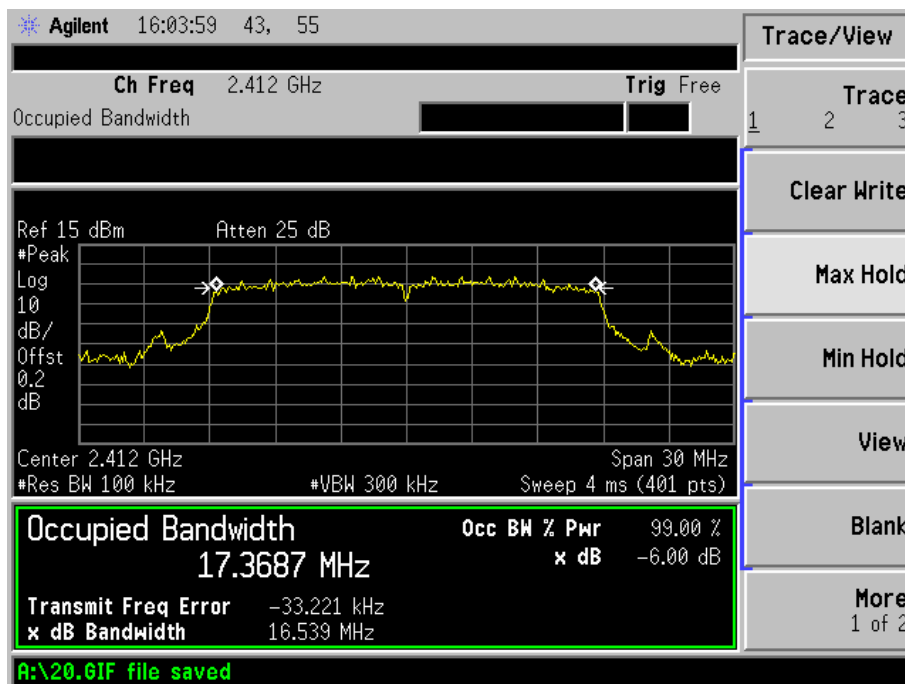
802.11g-Middle Channel



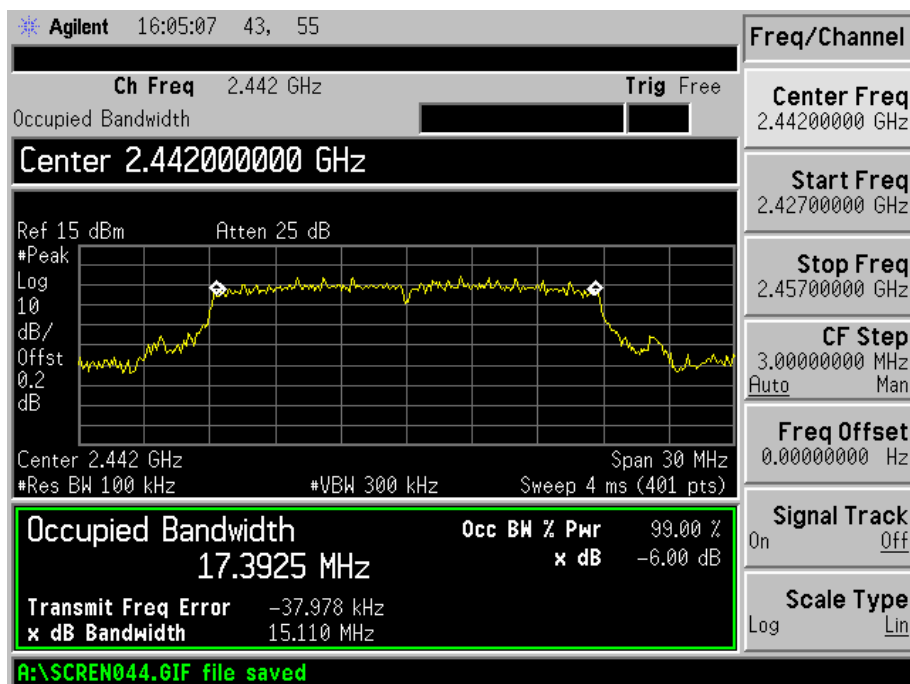
802.11g-High Channel



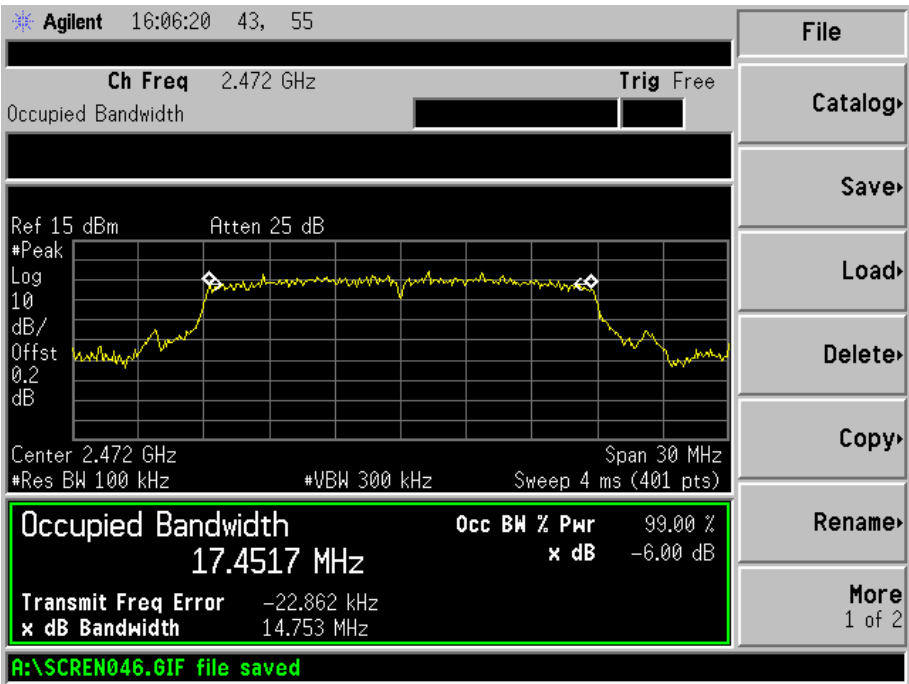
802.11n-HT20-Low Channel



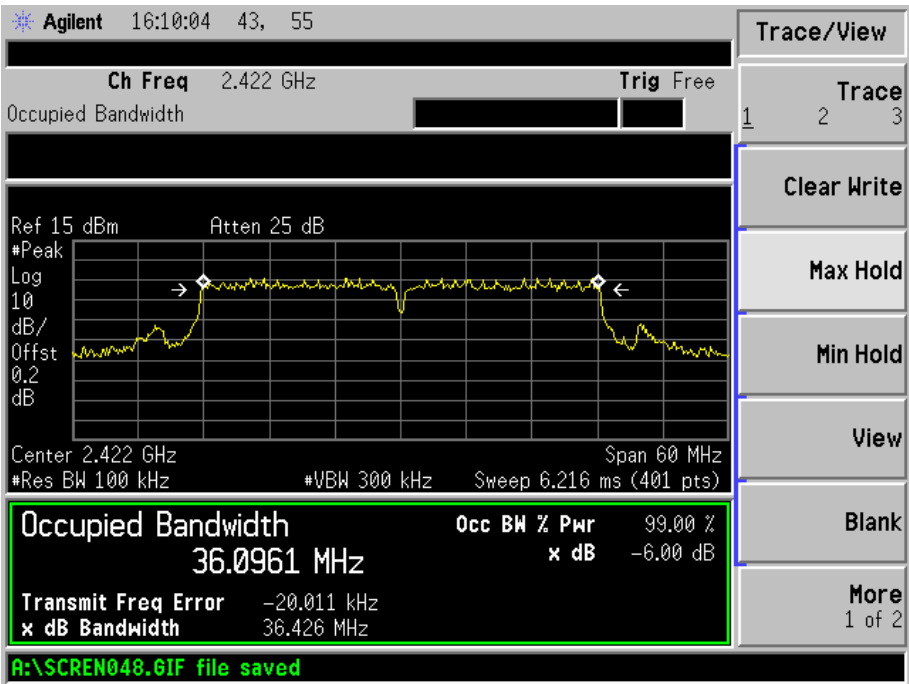
802.11n-HT20-Middle Channel



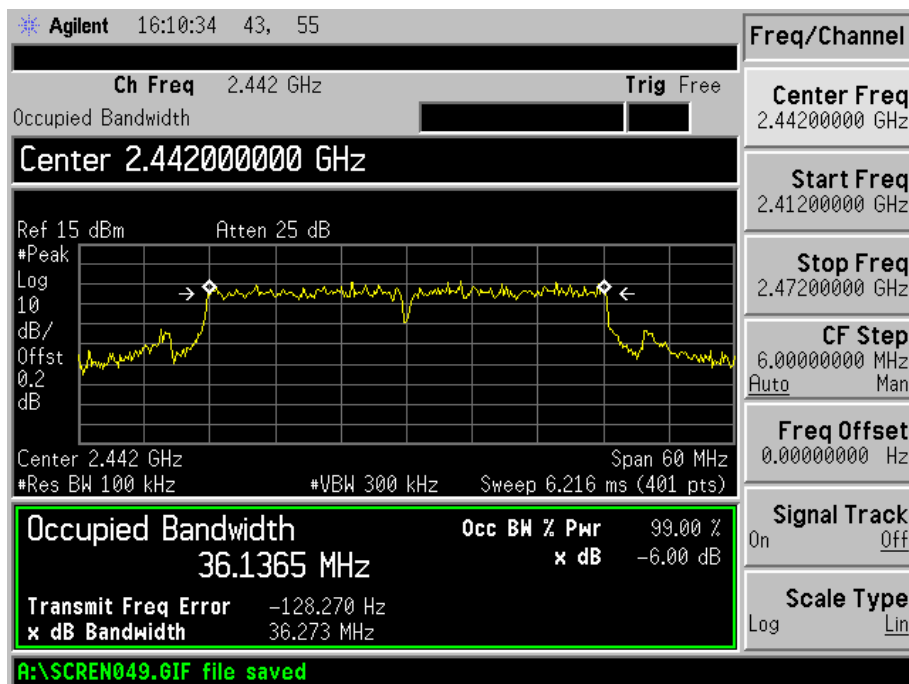
802.11n-HT20-High Channel



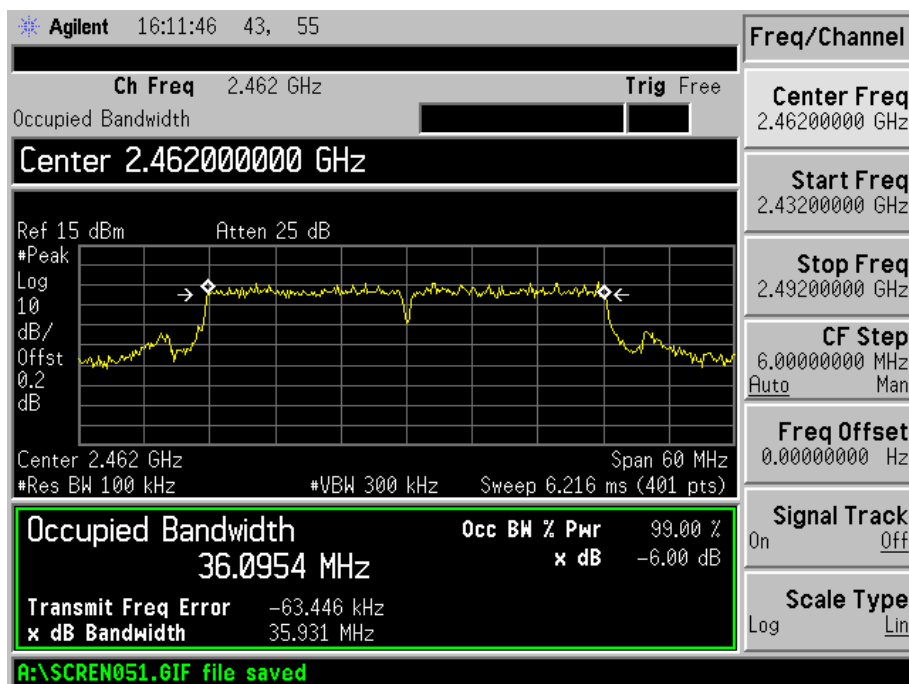
802.11n-HT40-Low Channel



802.11n-HT40-Middle Channel



802.11n-HT40-High Channel



7. RF Output Power

7.1 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.

7.2 Test Equipment List and Details

Description	Manufacturer	Model	Serial Number	Cal. Date	Due. Date
Spectrum Analyzer	Agilent	E4402B	US41192821	2014-05-28	2015-05-27
Spectrum Analyzer	Rohde & Schwarz	FSP30	836079/035	2014-05-28	2015-05-27
Attenuator	ATTEN	ATS100-4-20	/	2014-05-28	2015-05-27

7.3 Test Procedure

According to section 15.247(b)-power output of the KDB-558074 D01 V03r02, 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 x 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).

7.4 Environmental Conditions

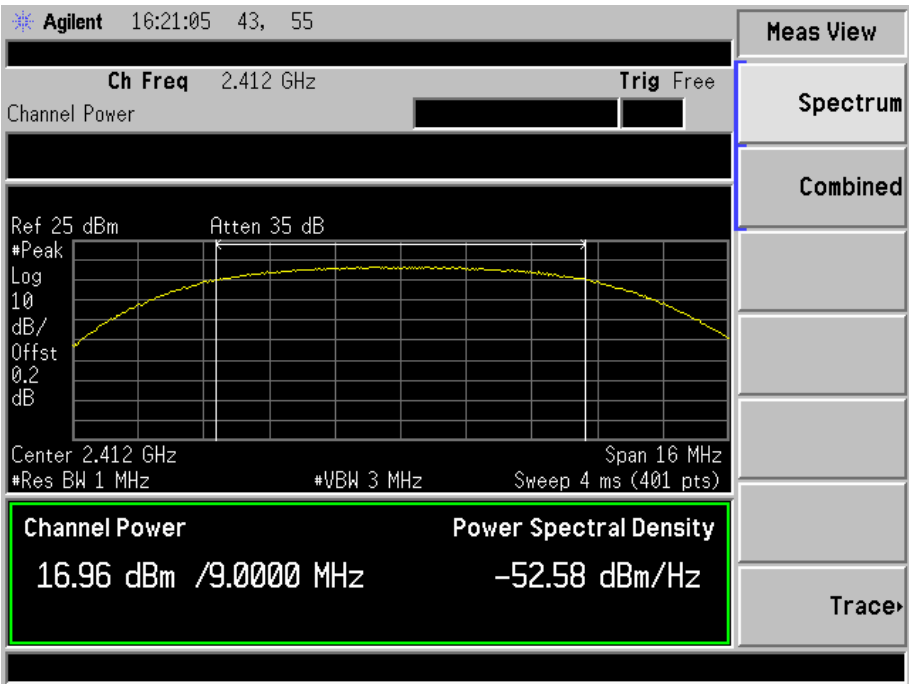
Temperature:	26° C
Relative Humidity:	57%
ATM Pressure:	1011 mbar

7.5 Summary of Test Results/Plots

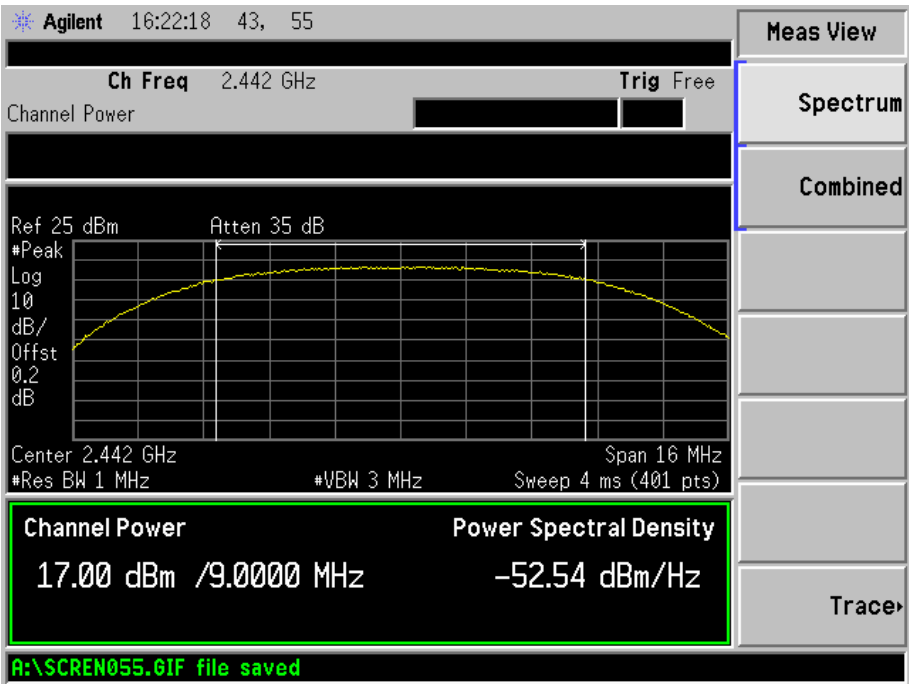
Test Mode	Frequency MHz	Reading dBm	Output Power mW	Limit mW
802.11b	2412	16.96	49.659	1000
	2442	17.00	50.119	1000
	2472	16.83	48.195	1000
802.11g	2412	15.75	37.584	1000
	2442	15.65	36.728	1000
	2472	15.55	35.892	1000
802.11n-HT20	2412	13.75	23.714	1000
	2442	13.56	22.699	1000
	2472	13.76	23.768	1000
802.11n-HT40	2422	13.05	20.184	1000
	2442	13.28	21.281	1000
	2462	13.35	21.627	1000

Please refer to the following test plots:

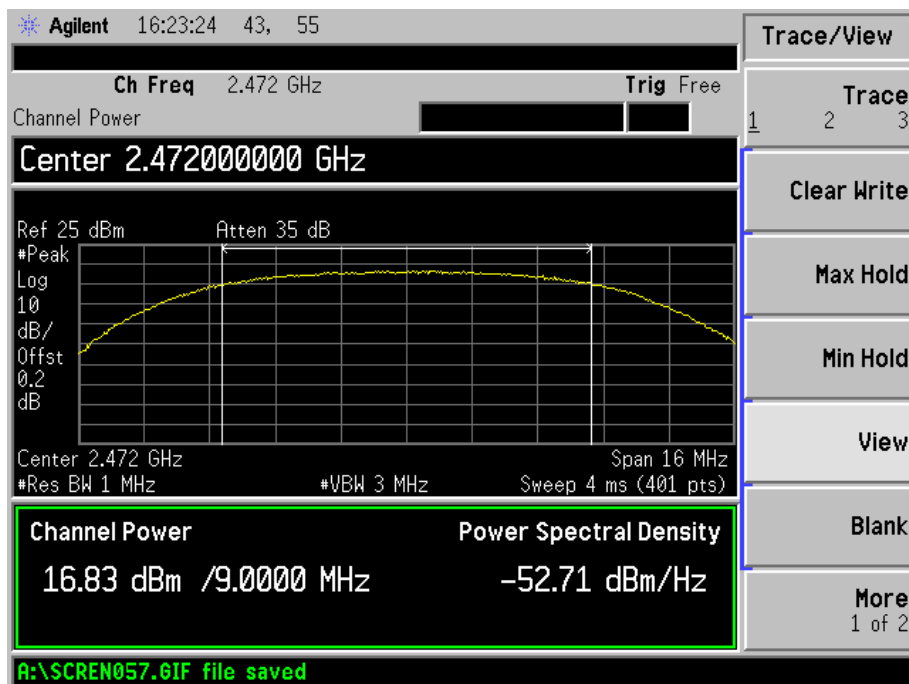
802.11b-Low Channel



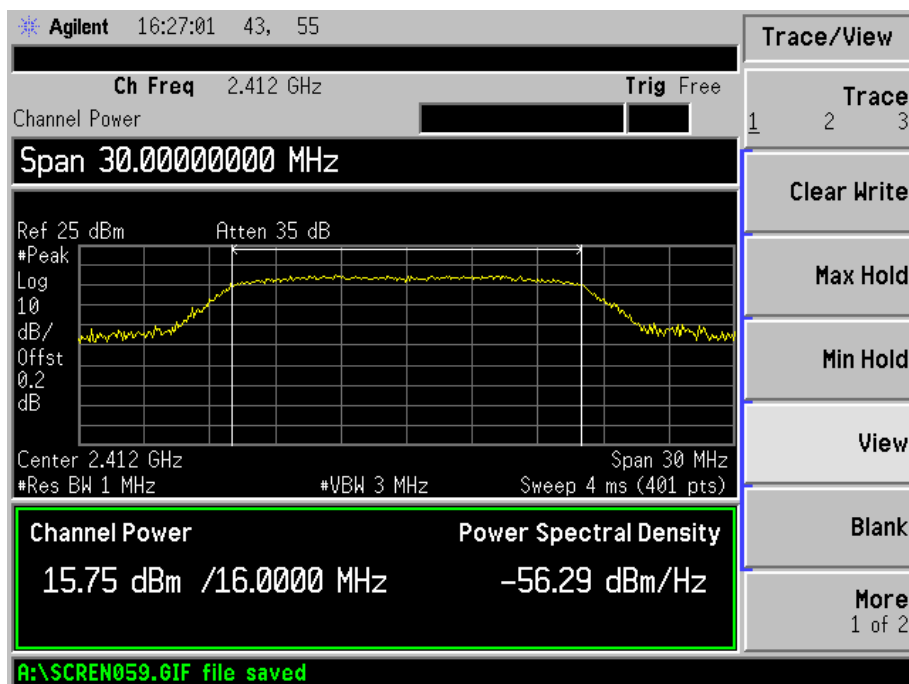
802.11b-Middle Channel



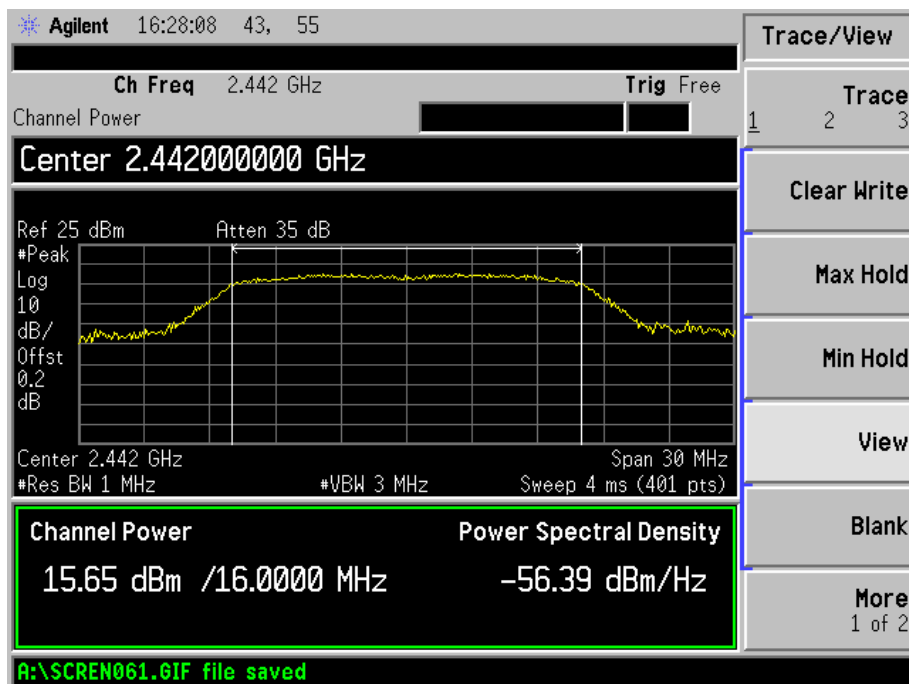
802.11b-High Channel



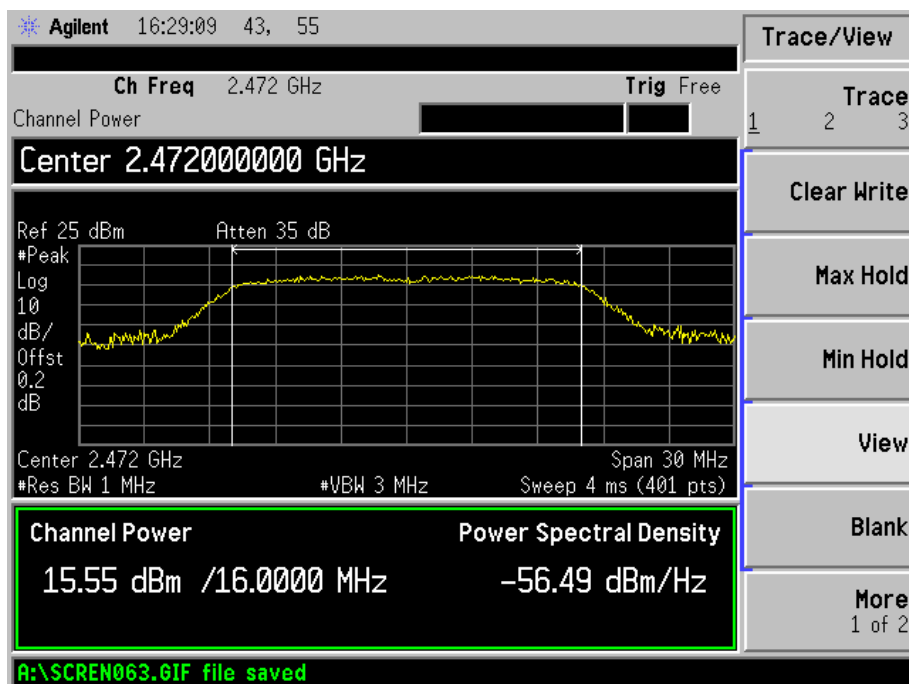
802.11g-Low Channel



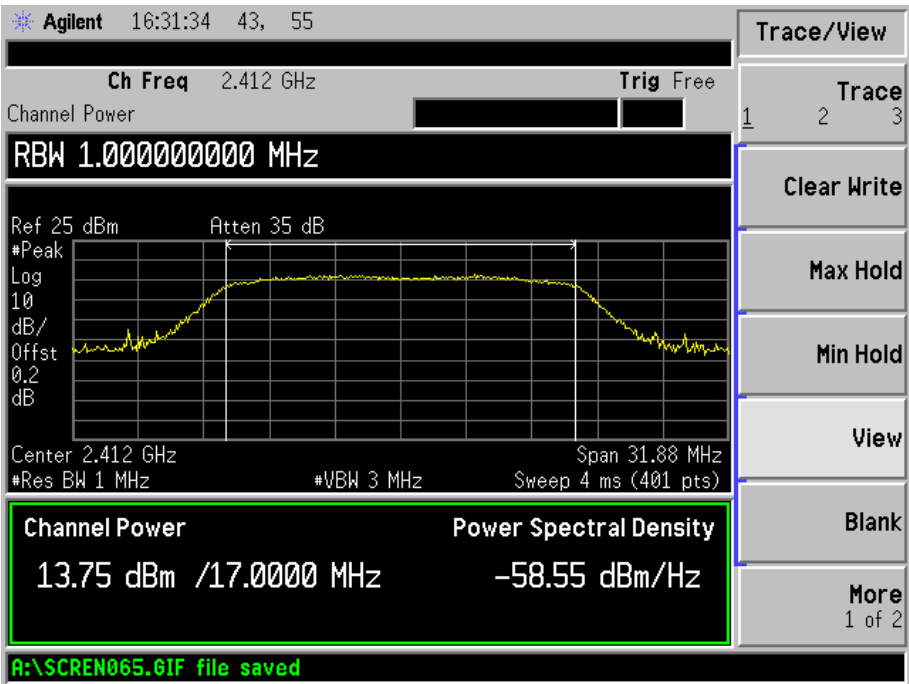
802.11g-Middle Channel



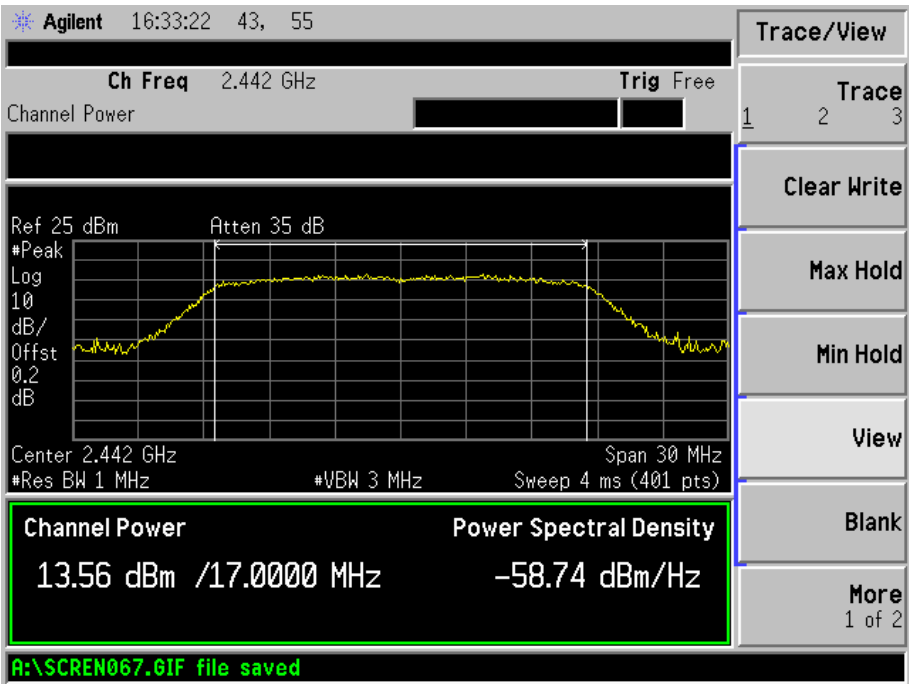
802.11g-High Channel



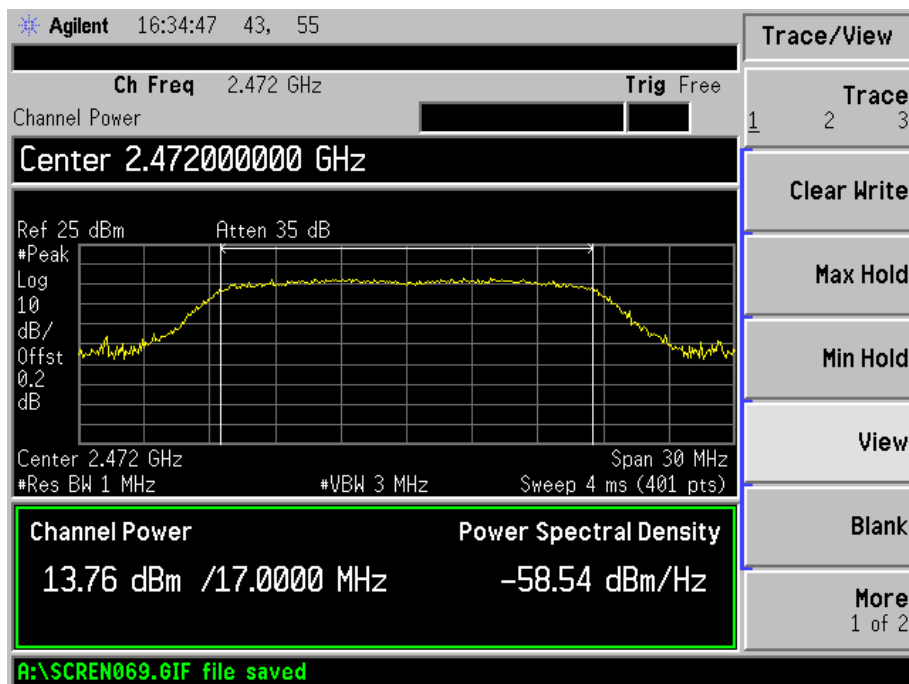
802.11n-HT20-Low Channel



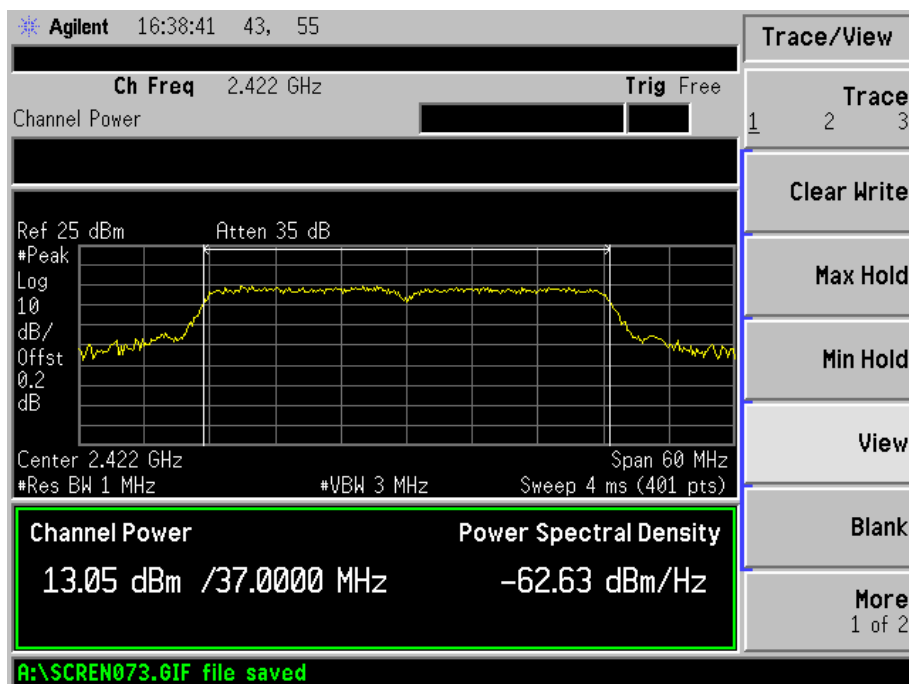
802.11n-HT20-Middle Channel



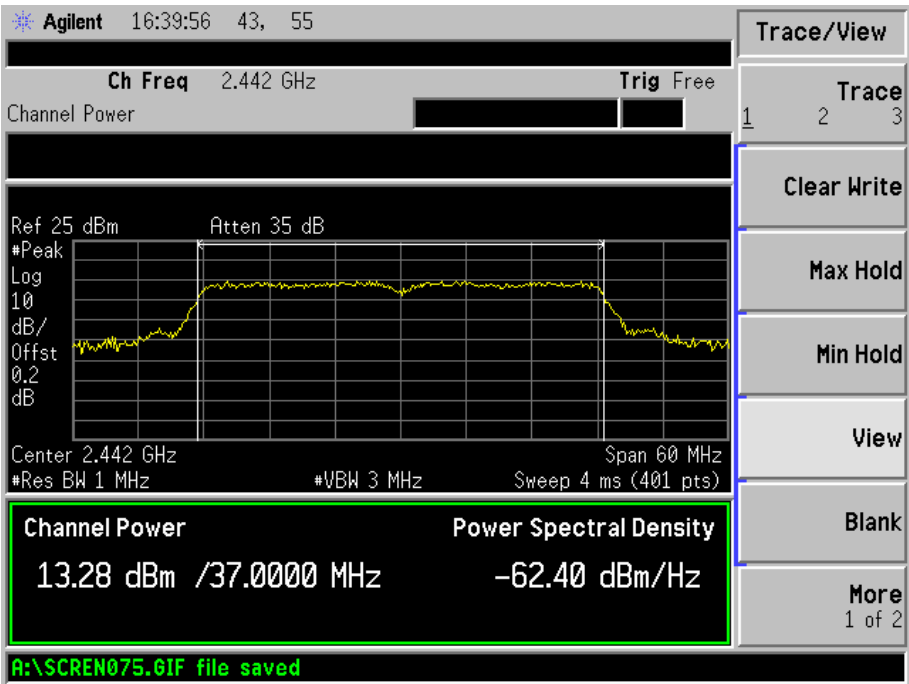
802.11n-HT20-High Channel



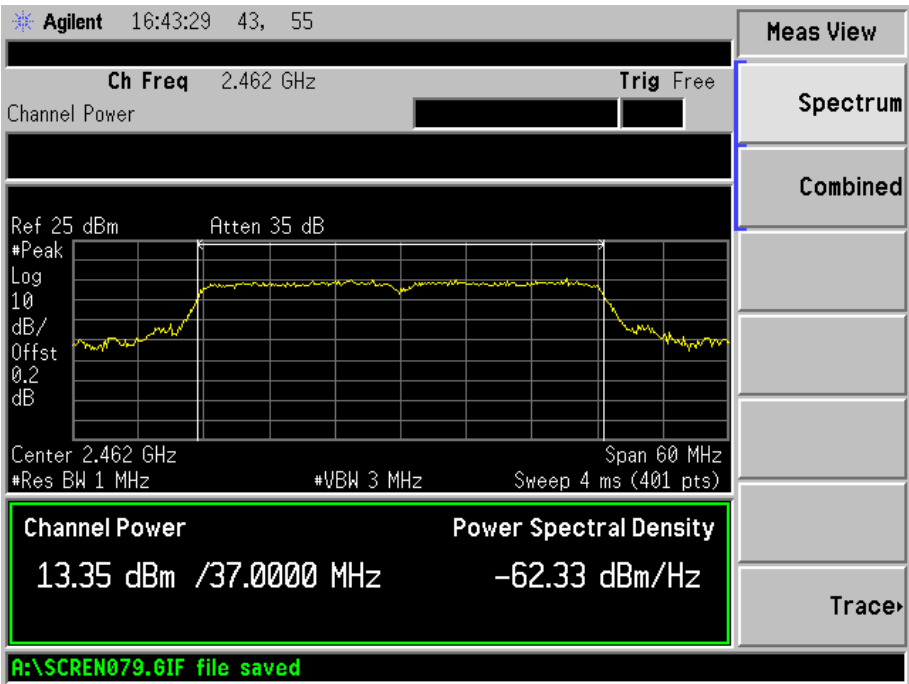
802.11n-HT40-Low Channel



802.11n-HT40-Middle Channel



802.11n-HT40-High Channel



8. Field Strength of Spurious Emissions

8.1 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.

8.2 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.

8.3 Test Equipment List and Details

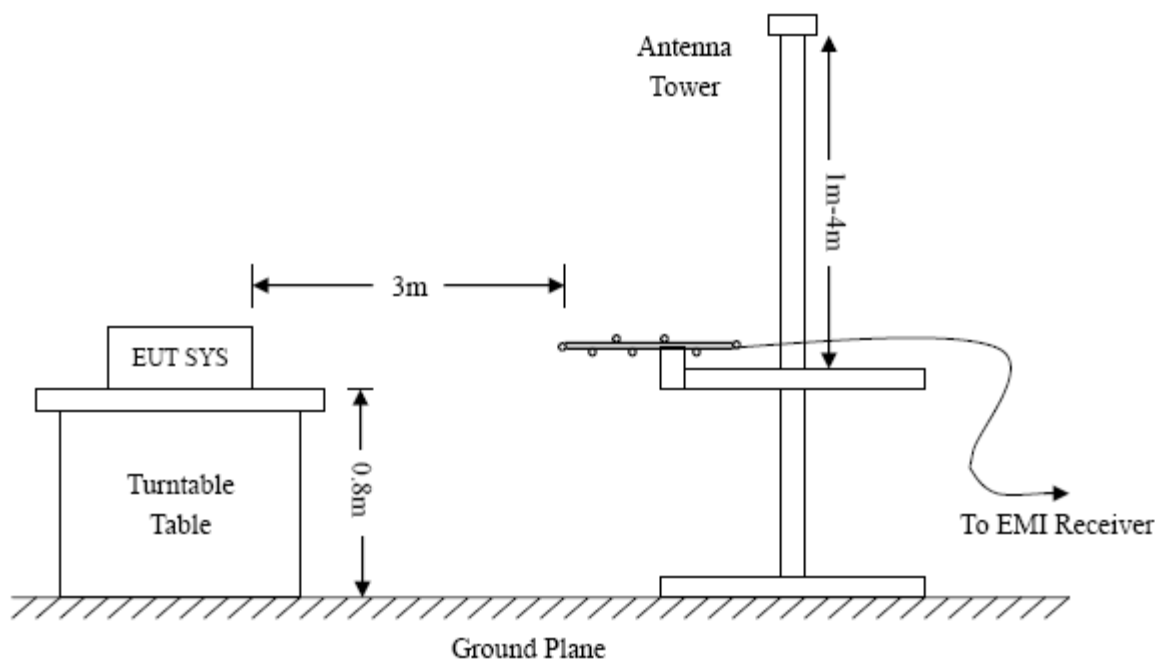
Description	Manufacturer	Model	Serial Number	Cal. Date	Due. Date
Spectrum Analyzer	R&S	FSP	836079/035	2014-05-28	2015-05-27
EMI Test Receiver	R&S	ESVB	825471/005	2014-05-28	2015-05-27
Pre-amplifier	Agilent	8447F	3113A06717	2014-05-28	2015-05-27
Pre-amplifier	Compliance Direction	PAP-0118	24002	2014-05-28	2015-05-27
Trilog Broadband Antenna	SCHWARZBECK	VULB9163	9163-333	2014-05-24	2015-05-23
Horn Antenna	ETS	3117	00086197	2014-05-24	2015-05-23
Horn Antenna	ETS	3116B	00088203	2014-05-24	2015-05-23
Loop Antenna	SCHWARZECK	HFRA 5165	9365	2014-05-24	2015-05-23

8.4 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.



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

8.5 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:

$$\text{Corr. Ampl.} = \text{Indicated Reading} + \text{Ant. Factor} + \text{Cable Loss} - \text{Ampl. Gain}$$

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 Class B. The equation for margin calculation is as follows:

$$\text{Margin} = \text{Corr. Ampl.} - \text{FCC Part 15 Limit}$$

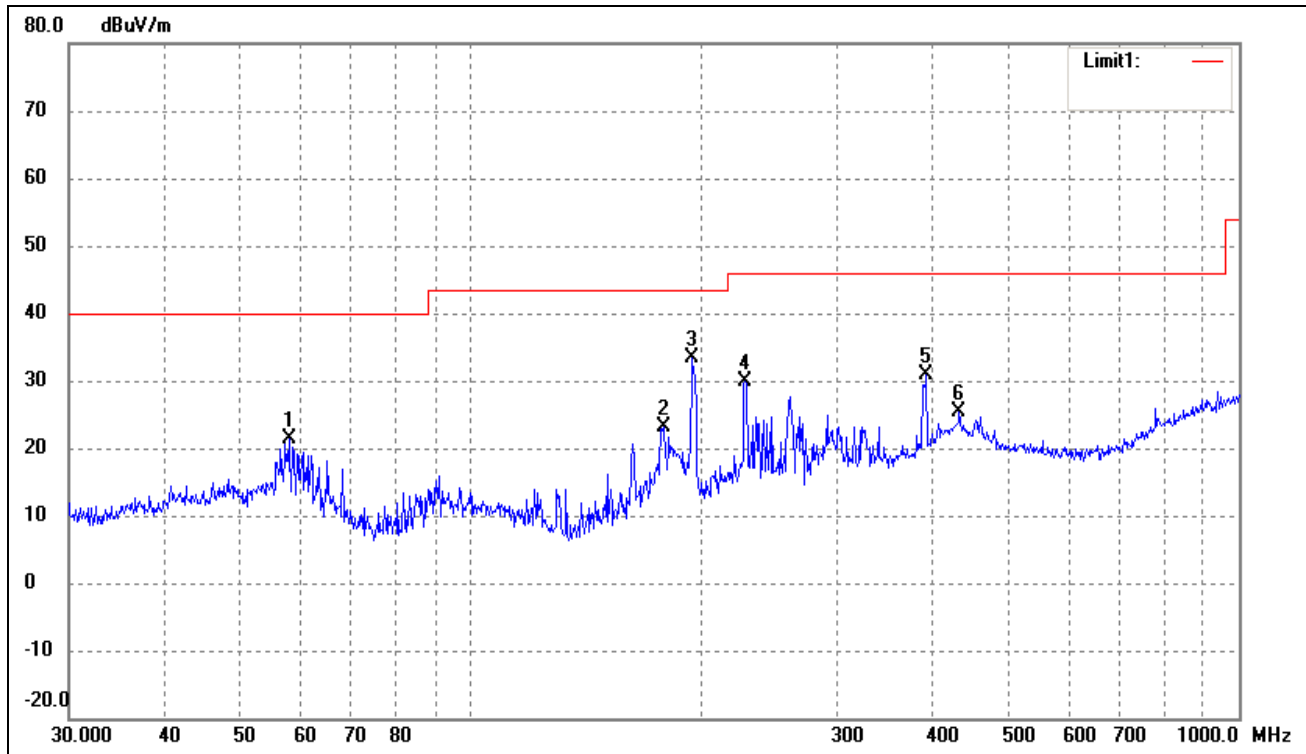
8.6 Environmental Conditions

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

8.7 Summary of Test Results/Plots

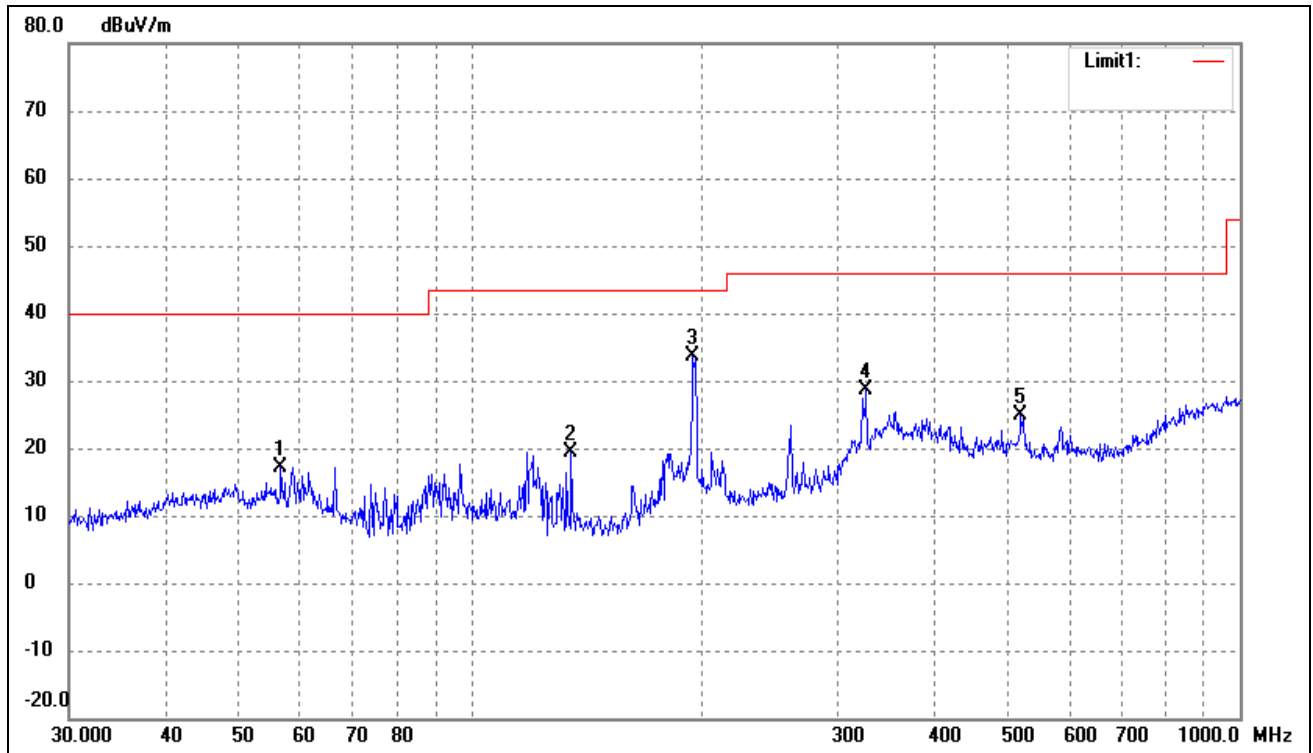
According to the data below, the FCC Part 15.205, 15.209 and 15.247 standards.

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: *MID*Tested Model: *B26T*Operating Condition: *802.11b Transmitting Low Channel-2412MHz*Comment: *DC 3.7V*Test Specification: *Horizontal*

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Detector
1	57.9993	29.82	-8.55	21.27	40.00	-18.73	272	100	peak
2	178.1327	34.45	-11.28	23.17	43.50	-20.33	360	100	peak
3*	194.4534	43.06	-9.61	33.45	43.50	-10.05	336	200	peak
4	227.6906	38.31	-8.49	29.82	46.00	-16.18	182	200	peak
5	392.0951	34.14	-3.19	30.95	46.00	-15.05	93	200	peak
6	432.5457	27.67	-2.34	25.33	46.00	-20.67	113	200	peak

Test Specification: Vertical

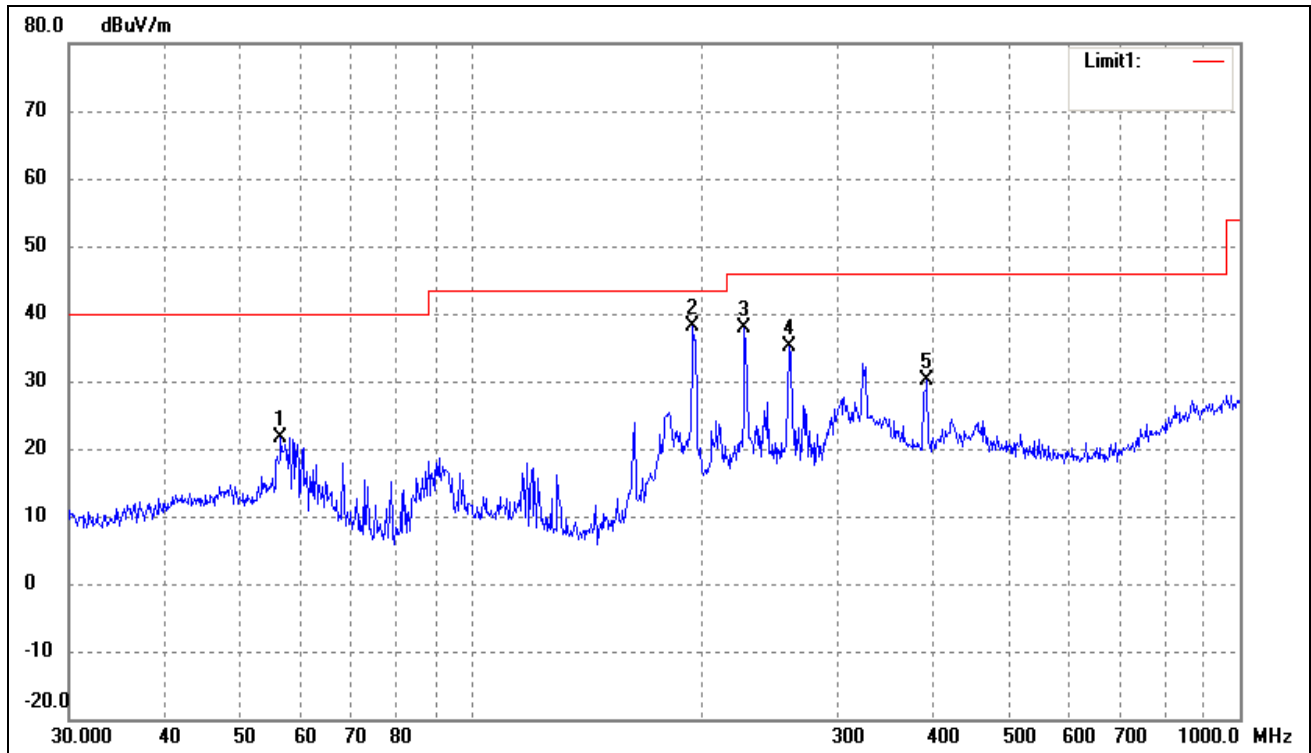


No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Detector
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(°)	(cm)	
1	56.5929	25.33	-8.21	17.12	40.00	-22.88	224	100	peak
2	135.0319	32.43	-12.95	19.48	43.50	-24.02	187	100	peak
3*	194.4534	43.21	-9.61	33.60	43.50	-9.90	260	100	peak
4	326.7395	33.78	-5.18	28.60	46.00	-17.40	178	100	peak
5	519.0649	25.53	-0.65	24.88	46.00	-21.12	289	100	peak

Operating Condition: 802.11b Transmitting Middle Channel-2442MHz

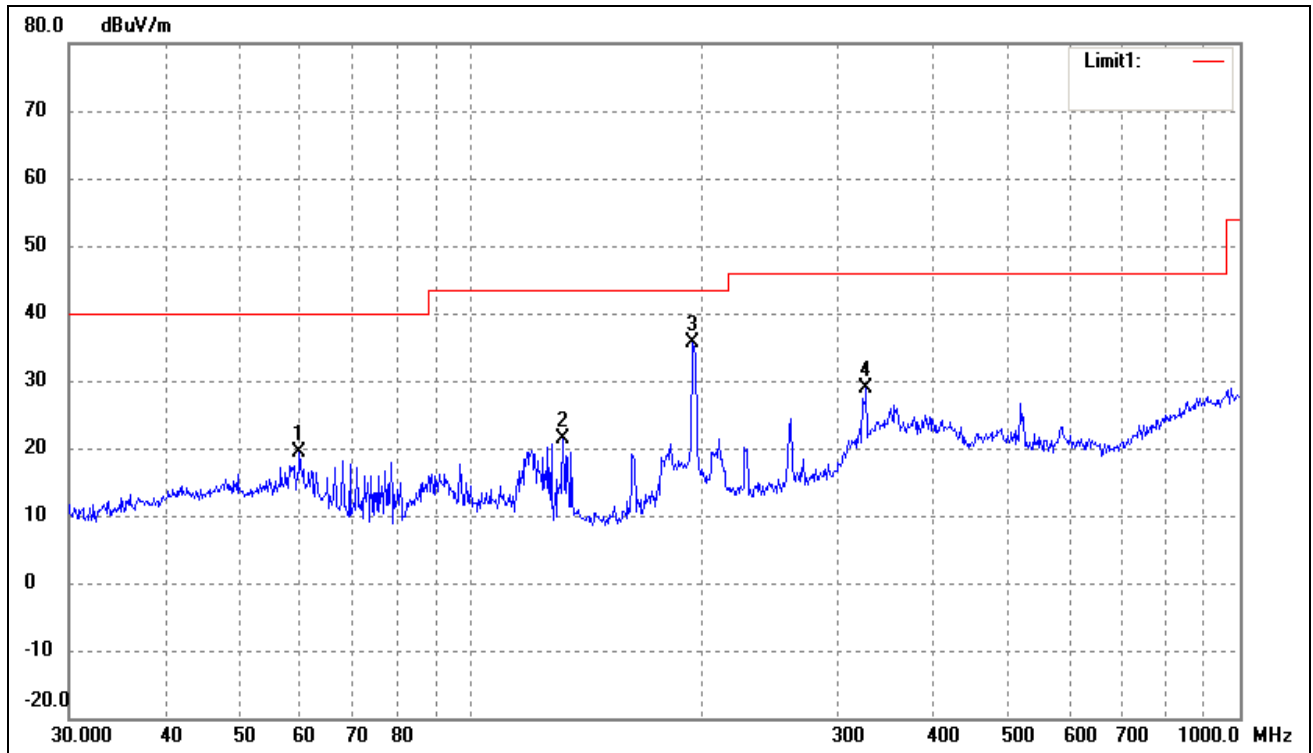
Comment: DC 3.7V

Test Specification: Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Detector
1	56.5929	29.94	-8.21	21.73	40.00	-18.27	147	100	peak
2*	194.4534	47.62	-9.61	38.01	43.50	-5.49	192	100	peak
3	226.8936	46.38	-8.53	37.85	46.00	-8.15	336	100	peak
4	259.2338	42.33	-7.21	35.12	46.00	-10.88	360	100	peak
5	392.0951	33.37	-3.19	30.18	46.00	-15.82	185	100	peak

Test Specification: Vertical

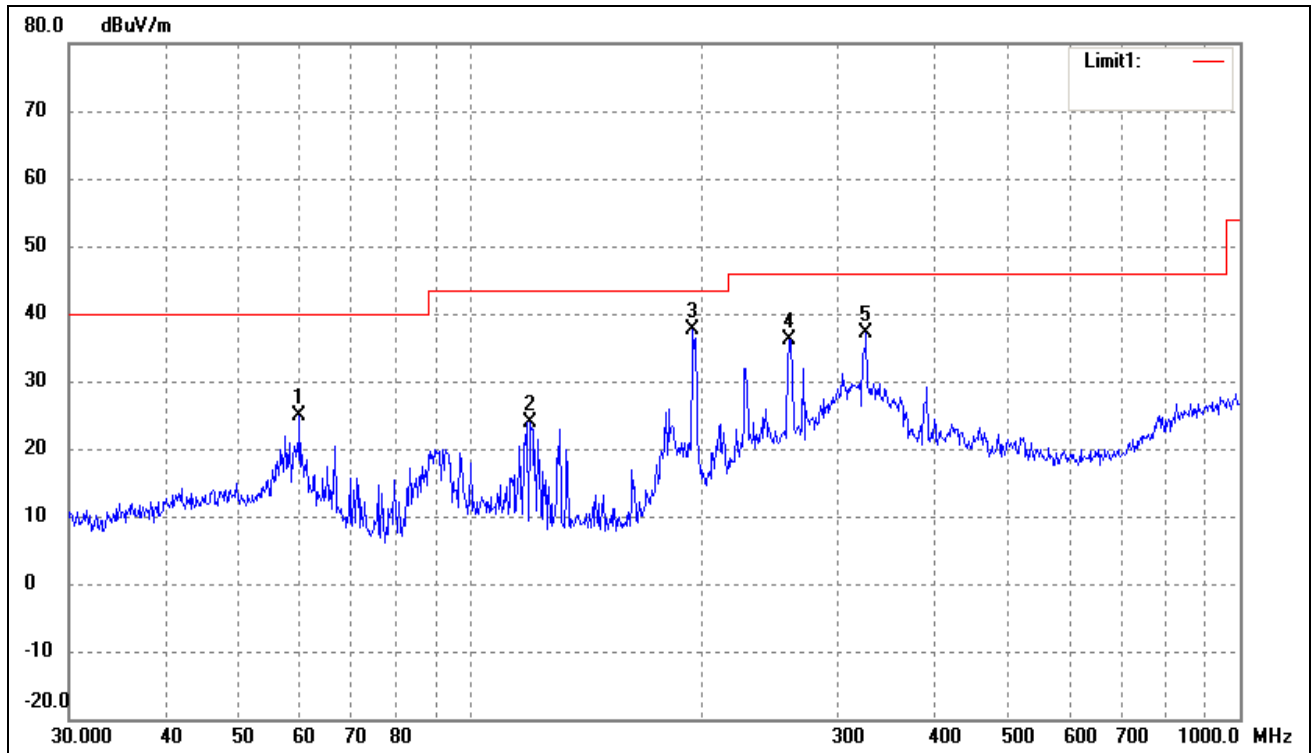


No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Detector
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(°)	(cm)	
1	59.8588	28.42	-9.00	19.42	40.00	-20.58	147	100	peak
2	131.7577	34.11	-12.81	21.30	43.50	-22.20	185	100	peak
3*	194.4534	45.13	-9.61	35.52	43.50	-7.98	226	100	peak
4	326.7395	34.16	-5.18	28.98	46.00	-17.02	336	100	peak

Operating Condition: 802.11b Transmitting High Channel-2472MHz

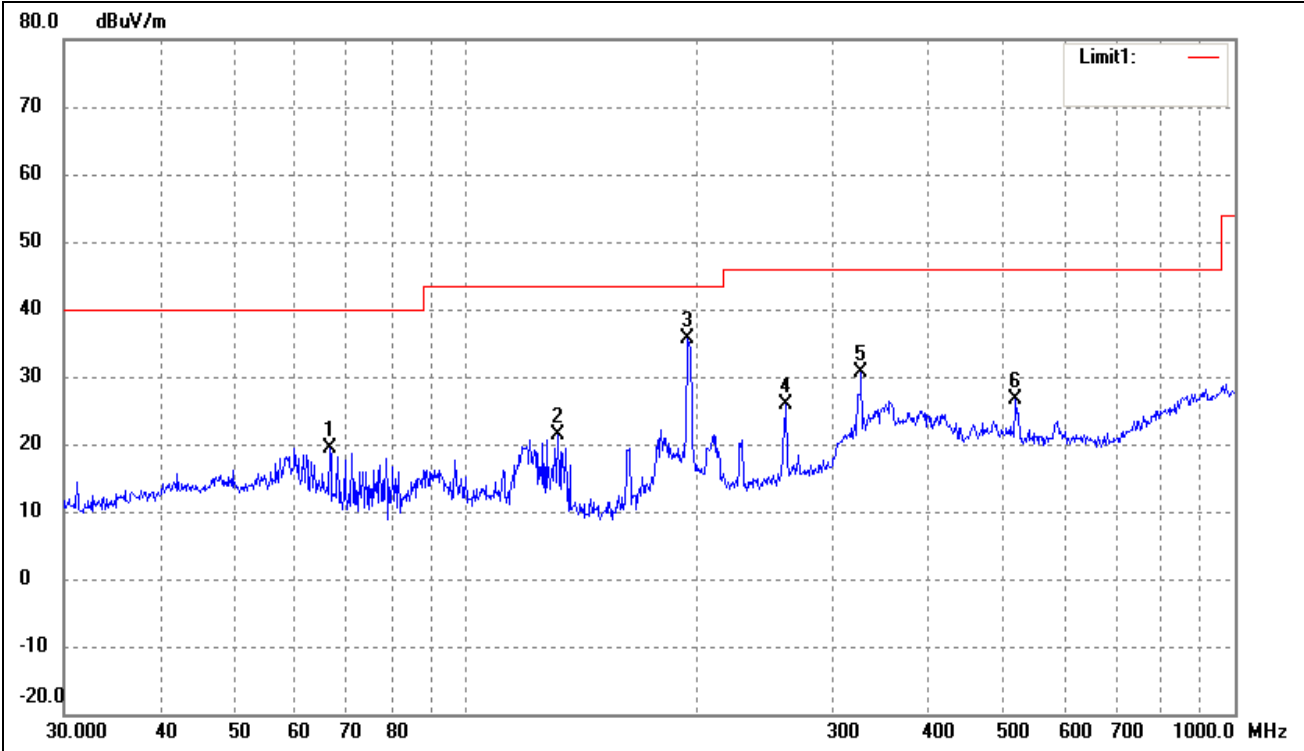
Comment: DC 3.7V

Test Specification: Horizontal

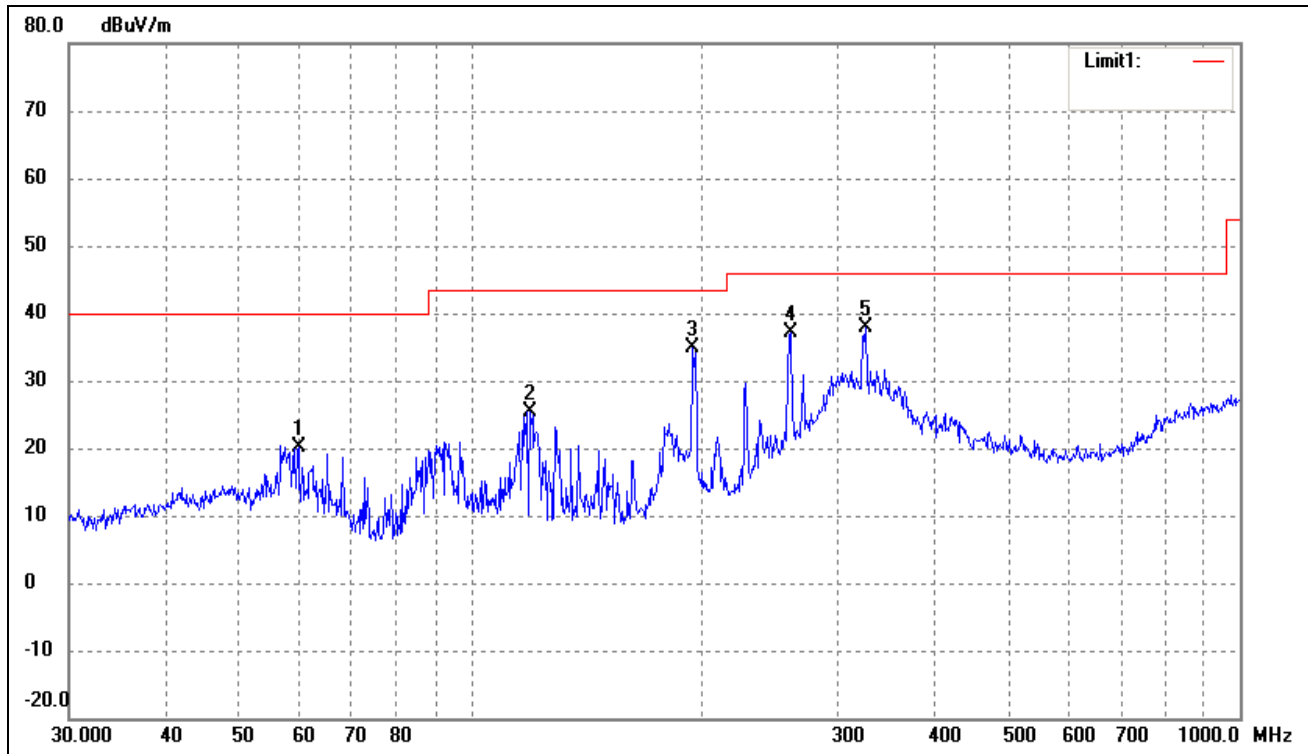


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Detector
1	59.8588	33.87	-9.00	24.87	40.00	-15.13	247	100	peak
2	119.4361	35.10	-11.17	23.93	43.50	-19.57	336	100	peak
3*	194.4534	47.33	-9.61	37.72	43.50	-5.78	360	100	peak
4	259.2338	43.30	-7.21	36.09	46.00	-9.91	360	100	peak
5	326.7395	42.20	-5.18	37.02	46.00	-8.98	182	100	peak

Test Specification: Vertical

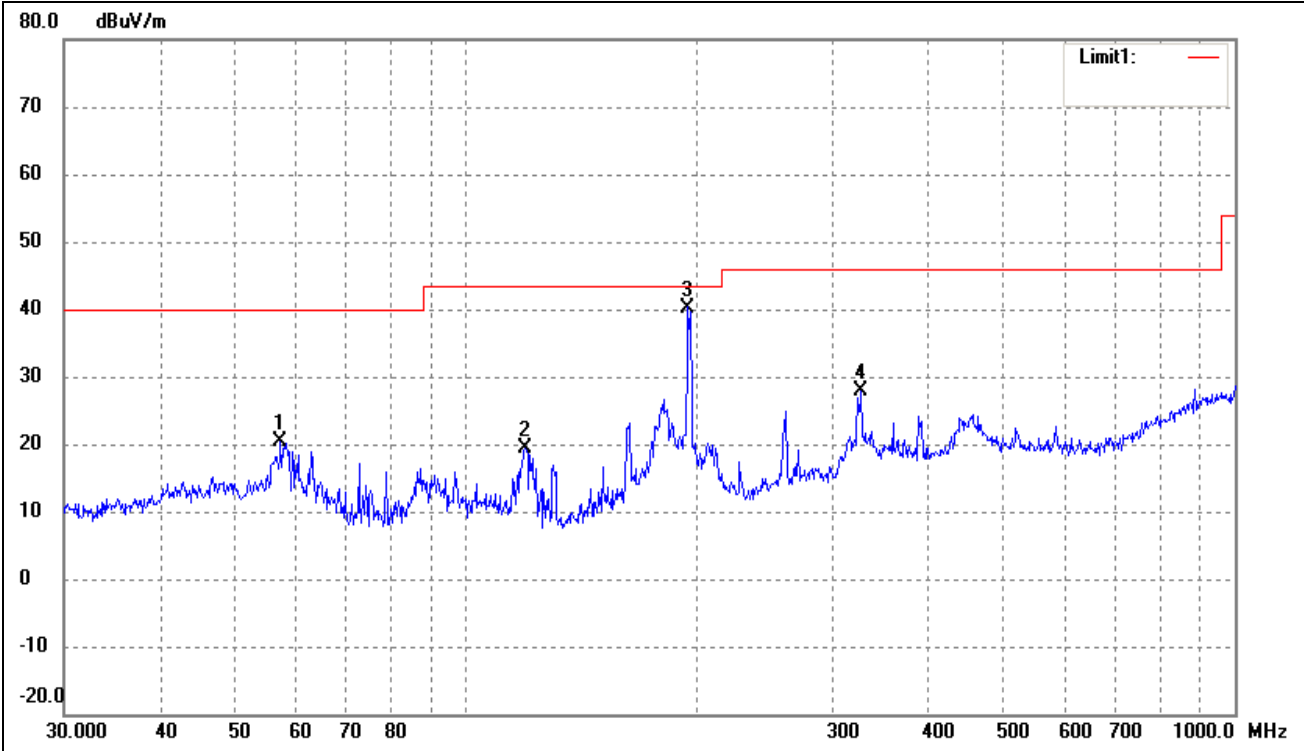


No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Detector
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(°)	(cm)	
1	66.4989	29.50	-10.21	19.29	40.00	-20.71	165	100	peak
2	131.7577	34.11	-12.81	21.30	43.50	-22.20	226	100	peak
3*	194.4534	45.13	-9.61	35.52	43.50	-7.98	360	200	peak
4	261.0583	33.01	-7.16	25.85	46.00	-20.15	223	100	peak
5	326.7395	35.87	-5.18	30.69	46.00	-15.31	192	100	peak
6	519.0649	27.30	-0.65	26.65	46.00	-19.35	360	100	peak

Plot of Radiated Emissions Test Data (30MHz to 1GHz)EUT: *MID*Tested Model: *B26T*Operating Condition: *802.11g Transmitting Low Channel-2412MHz*Comment: *DC 3.7V*Test Specification: *Horizontal*

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Detector
1	59.6493	29.19	-8.95	20.24	40.00	-19.76	225	100	peak
2	119.4361	36.47	-11.17	25.30	43.50	-18.20	182	100	peak
3	194.4534	44.46	-9.61	34.85	43.50	-8.65	360	100	peak
4	260.1444	44.41	-7.19	37.22	46.00	-8.78	272	200	peak
5*	325.5958	43.13	-5.24	37.89	46.00	-8.11	183	100	peak

Test Specification: Vertical

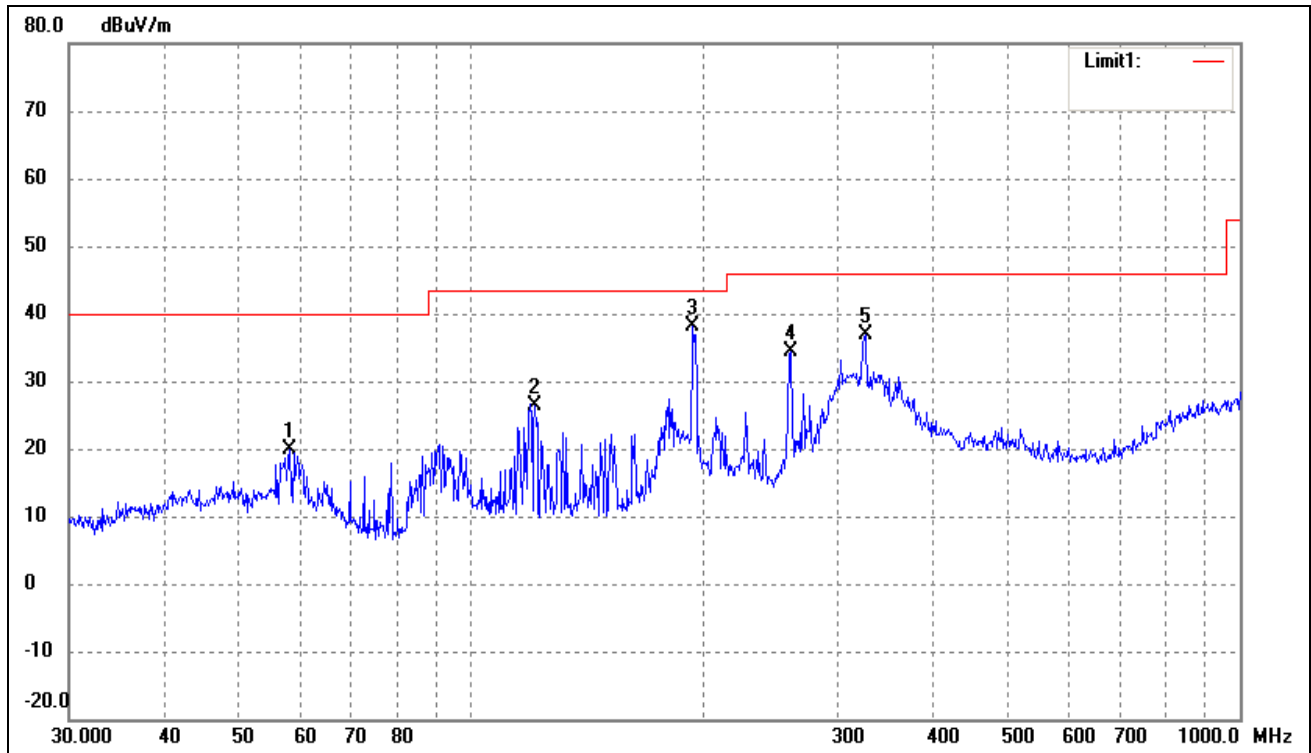


No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Detector
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(°)	(cm)	
1	57.3923	28.67	-8.39	20.28	40.00	-19.72	360	100	peak
2	119.4361	30.53	-11.17	19.36	43.50	-24.14	274	100	peak
3*	194.4534	49.86	-9.61	40.25	43.50	-3.25	116	100	peak
4	326.7395	32.95	-5.18	27.77	46.00	-18.23	285	100	peak

Operating Condition: 802.11g Transmitting Middle Channel-2442MHz

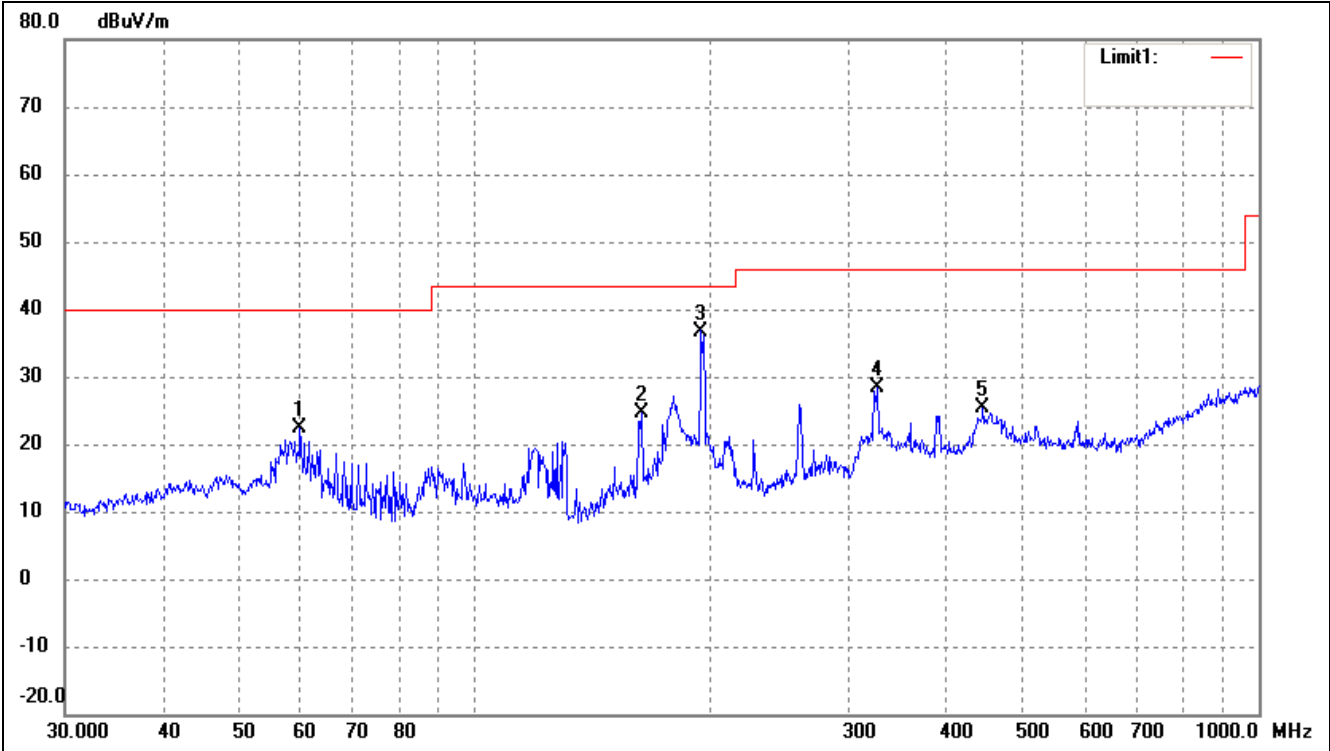
Comment: DC 3.7V

Test Specification: Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Detector
1	57.9993	28.51	-8.55	19.96	40.00	-20.04	64	100	peak
2	121.1231	37.70	-11.43	26.27	43.50	-17.23	226	100	peak
3*	194.4534	47.80	-9.61	38.19	43.50	-5.31	360	100	peak
4	260.1444	41.59	-7.19	34.40	46.00	-11.60	285	100	peak
5	325.5958	42.20	-5.24	36.96	46.00	-9.04	174	100	peak

Test Specification: Vertical

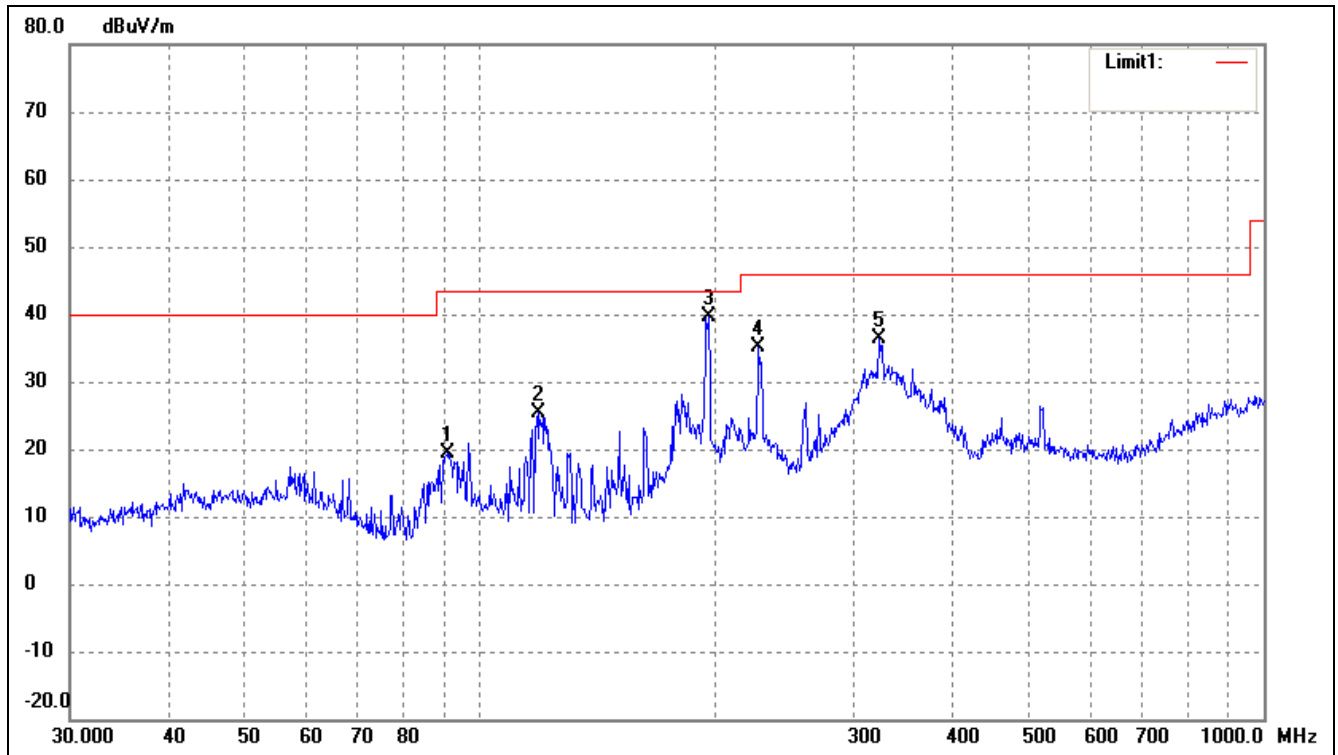


No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Detector
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(°)	(cm)	
1	59.8588	31.26	-9.00	22.26	40.00	-17.74	247	100	peak
2	163.1818	36.90	-12.19	24.71	43.50	-18.79	136	200	peak
3*	194.4534	46.36	-9.61	36.75	43.50	-6.75	225	100	peak
4	326.7395	33.48	-5.18	28.30	46.00	-17.70	198	100	peak
5	444.8514	27.73	-2.23	25.50	46.00	-20.50	360	100	peak

Operating Condition: 802.11g Transmitting High Channel-2472MHz

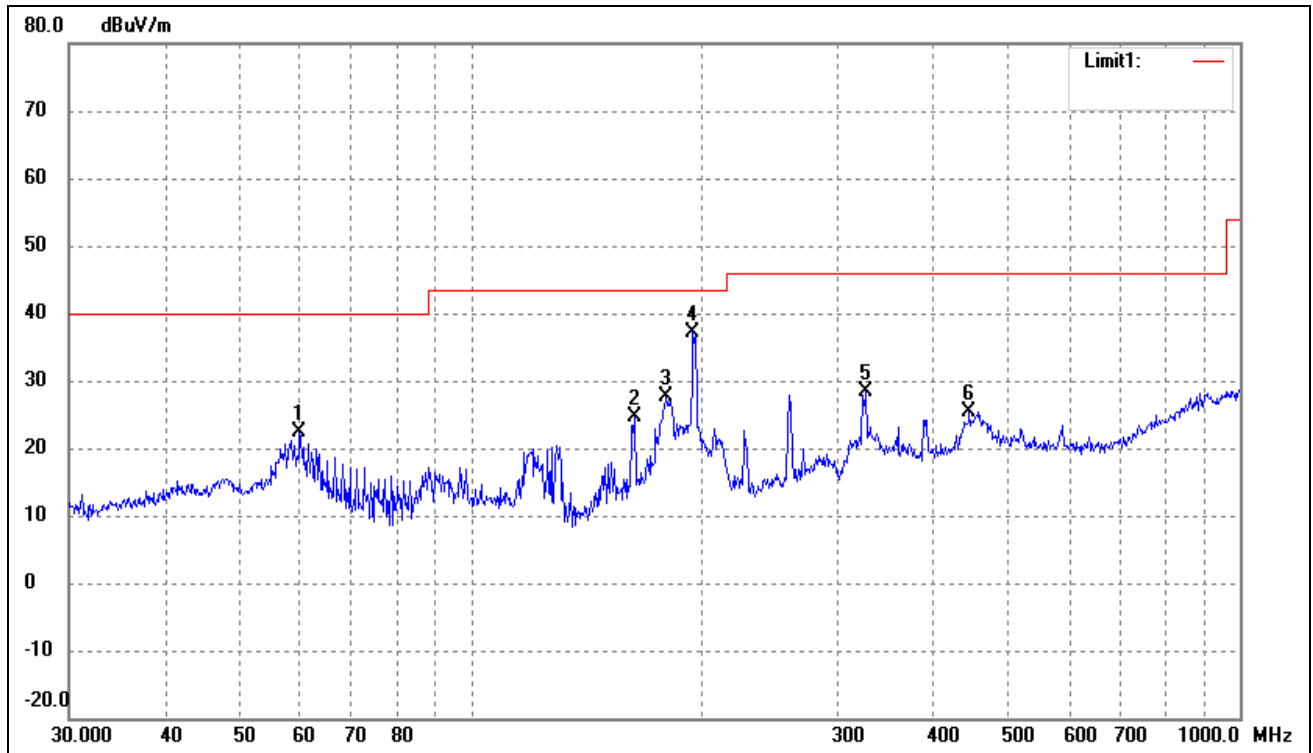
Comment: DC 3.7V

Test Specification: Horizontal

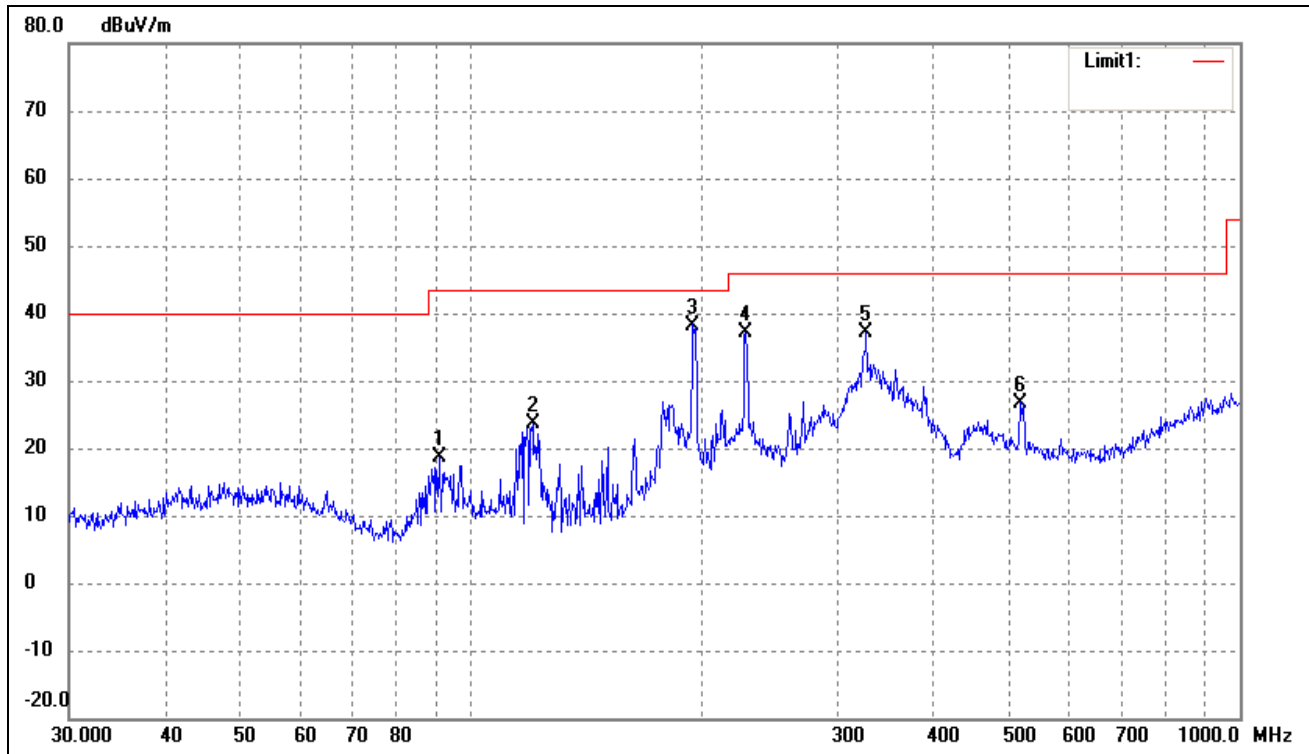


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Detector
1	90.8554	30.26	-11.00	19.26	43.50	-24.24	174	100	peak
2	119.0180	36.39	-11.10	25.29	43.50	-18.21	262	100	peak
3*	195.8220	49.08	-9.47	39.61	43.50	-3.89	165	100	peak
4	226.8936	43.74	-8.53	35.21	46.00	-10.79	360	100	peak
5	323.3204	41.62	-5.36	36.26	46.00	-9.74	263	100	peak

Test Specification: Vertical

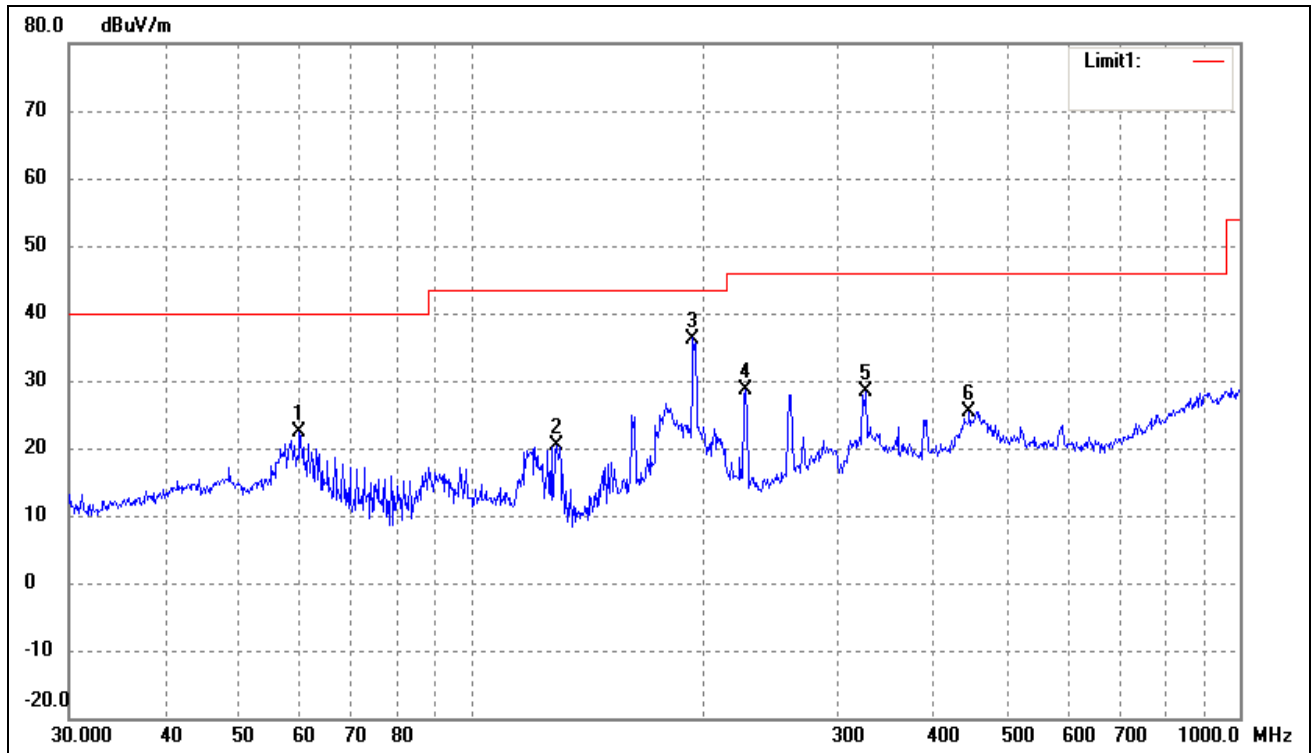


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Detector
1	59.8588	31.26	-9.00	22.26	40.00	-17.74	147	100	peak
2	163.1818	36.90	-12.19	24.71	43.50	-18.79	256	100	peak
3	179.3864	38.74	-11.19	27.55	43.50	-15.95	185	100	peak
4*	194.4534	46.86	-9.61	37.25	43.50	-6.25	229	100	peak
5	326.7395	33.48	-5.18	28.30	46.00	-17.70	26	100	peak
6	444.8514	27.73	-2.23	25.50	46.00	-20.50	113	100	peak

Plot of Radiated Emissions Test Data (30MHz to 1GHz)EUT: *MID*Tested Model: *B26T*Operating Condition: *802.11n-HT20 Transmitting Low Channel-2412MHz*Comment: *DC 3.7V*Test Specification: *Horizontal*

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Detector
1	90.8554	29.56	-11.00	18.56	43.50	-24.94	147	100	peak
2	120.2766	34.95	-11.31	23.64	43.50	-19.86	116	100	peak
3*	194.4534	47.86	-9.61	38.25	43.50	-5.25	263	200	peak
4	227.6906	45.61	-8.49	37.12	46.00	-8.88	360	100	peak
5	326.7395	42.42	-5.18	37.24	46.00	-8.76	263	200	peak
6	517.2480	27.95	-1.20	26.75	46.00	-19.25	118	200	peak

Test Specification: Vertical

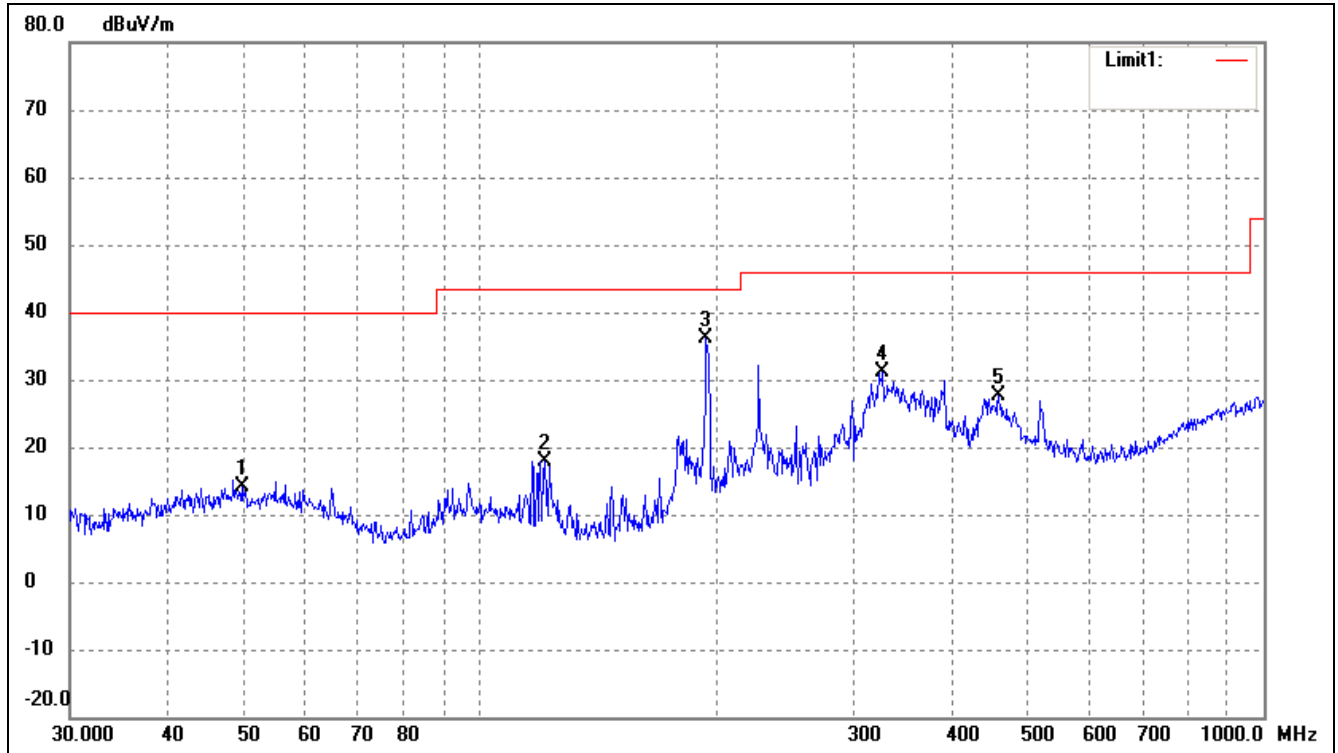


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Detector
1	59.8588	31.26	-9.00	22.26	40.00	-17.74	147	100	peak
2	129.0146	32.95	-12.59	20.36	43.50	-23.14	116	100	peak
3*	194.4534	45.86	-9.61	36.25	43.50	-7.25	360	100	peak
4	227.6906	37.00	-8.49	28.51	46.00	-17.49	360	100	peak
5	326.7395	33.48	-5.18	28.30	46.00	-17.70	115	100	peak
6	444.8514	27.73	-2.23	25.50	46.00	-20.50	126	100	peak

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

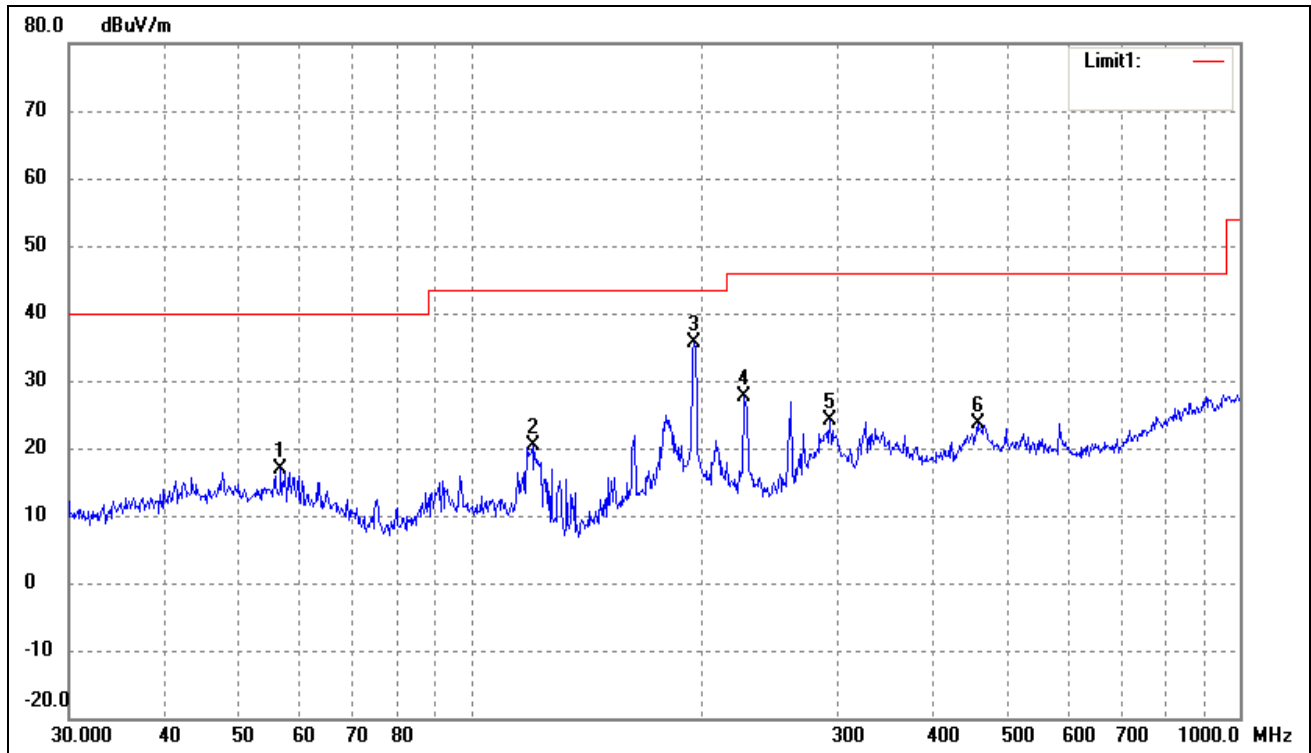
Comment: DC 3.7V

Test Specification: Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Detector
1	49.7068	21.64	-7.44	14.20	40.00	-25.80	114	100	peak
2	121.1231	29.38	-11.43	17.95	43.50	-25.55	262	100	peak
3*	194.4534	45.80	-9.61	36.19	43.50	-7.31	360	100	peak
4	326.7395	36.33	-5.18	31.15	46.00	-14.85	360	100	peak
5	459.1144	29.64	-2.07	27.57	46.00	-18.43	113	100	peak

Test Specification: Vertical

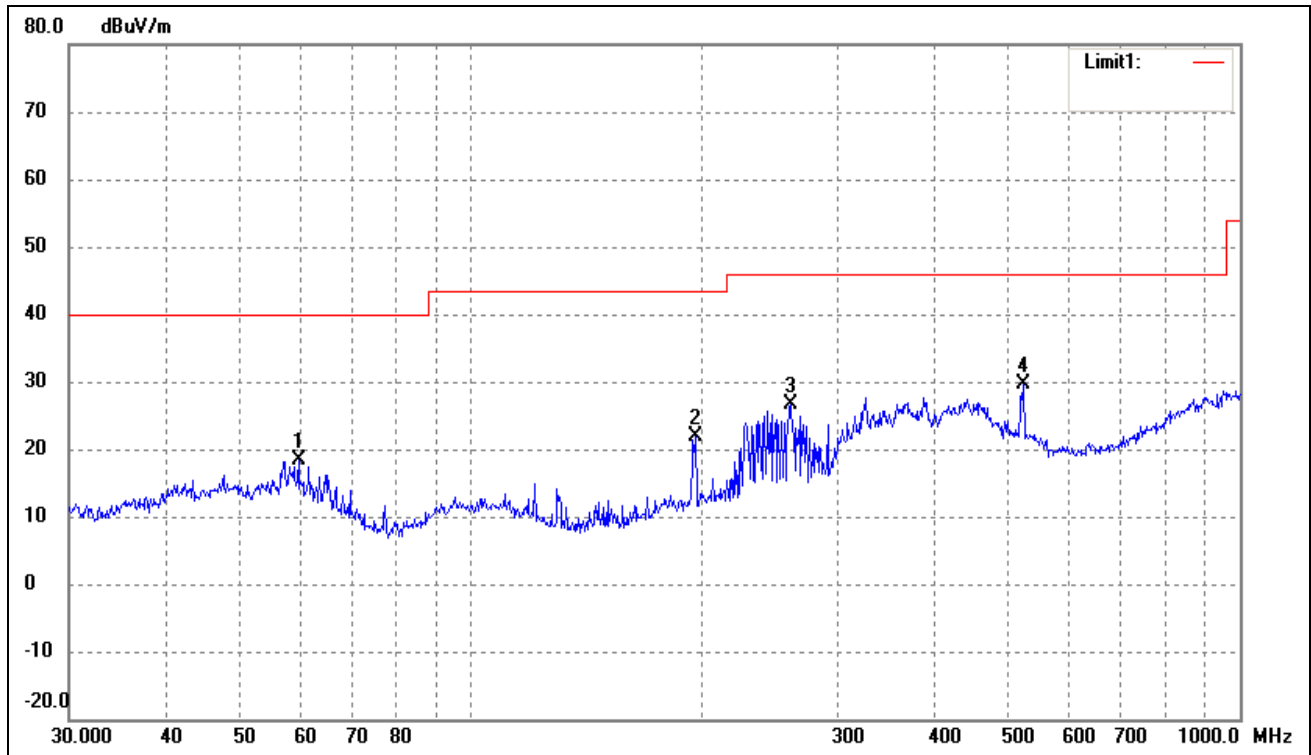


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Detector
1	56.5929	25.19	-8.21	16.98	40.00	-23.02	225	100	peak
2	120.2766	31.74	-11.31	20.43	43.50	-23.07	236	100	peak
3*	195.1365	45.07	-9.55	35.52	43.50	-7.98	162	100	peak
4	226.0994	36.16	-8.57	27.59	46.00	-18.41	360	200	peak
5	293.0842	30.41	-6.34	24.07	46.00	-21.93	226	100	peak
6	455.9058	25.79	-2.10	23.69	46.00	-22.31	360	100	peak

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

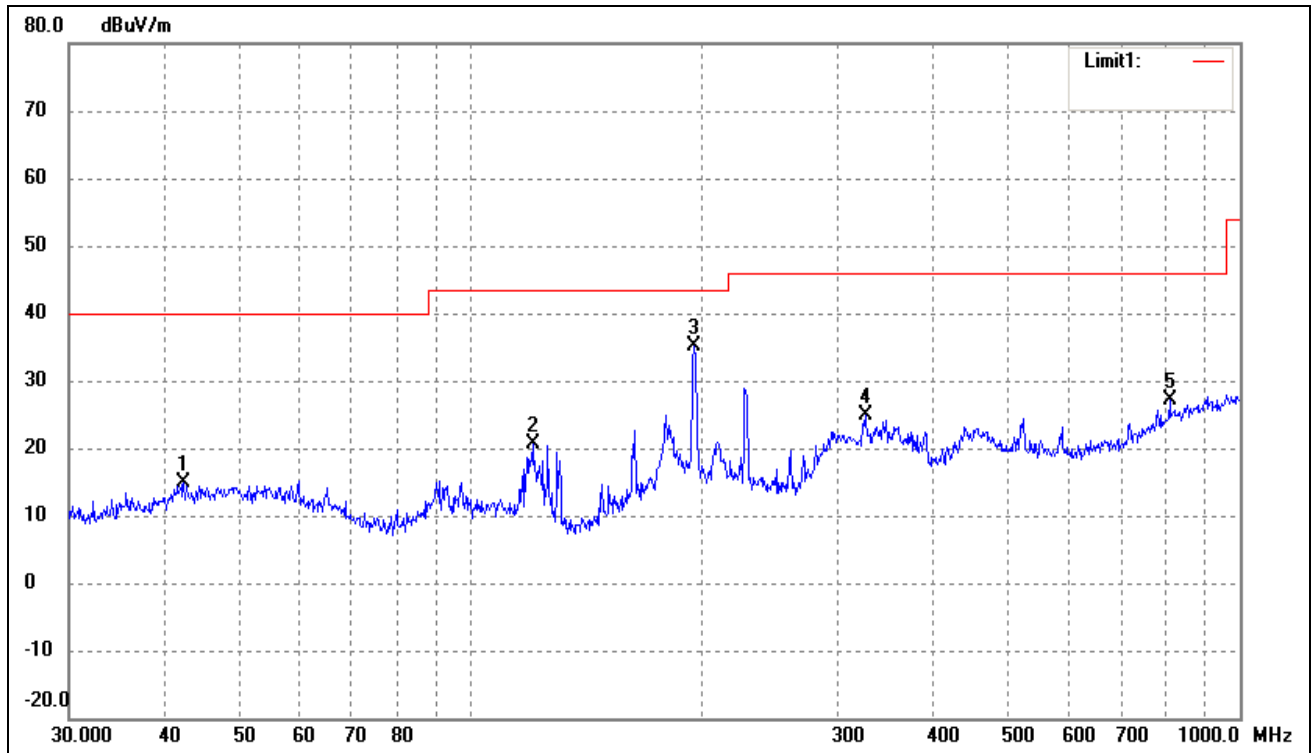
Comment: DC 3.7V

Test Specification: Horizontal

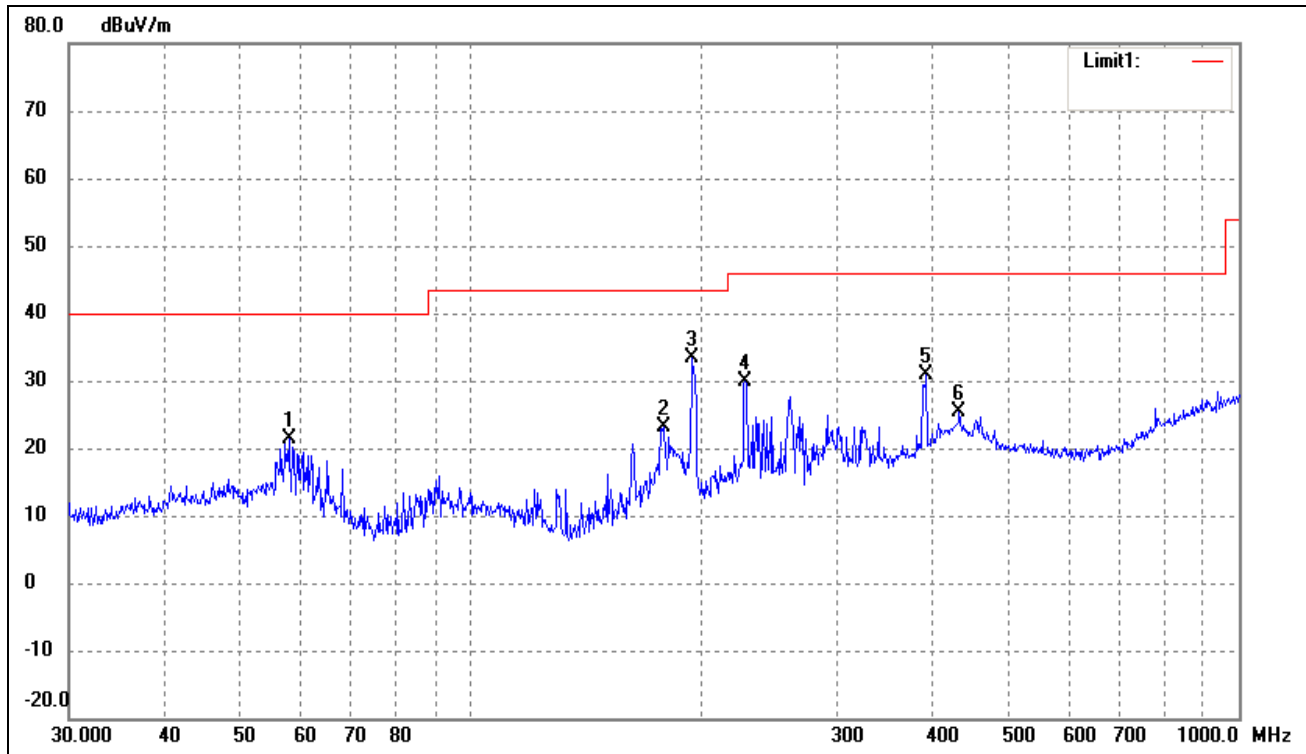


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Detector
1	59.6493	27.28	-8.95	18.33	40.00	-21.67	145	100	peak
2	195.8220	31.24	-9.47	21.77	43.50	-21.73	260	100	peak
3	261.0583	33.83	-7.16	26.67	46.00	-19.33	113	100	peak
4*	522.7180	30.88	-1.23	29.65	46.00	-16.35	226	100	peak

Test Specification: Vertical

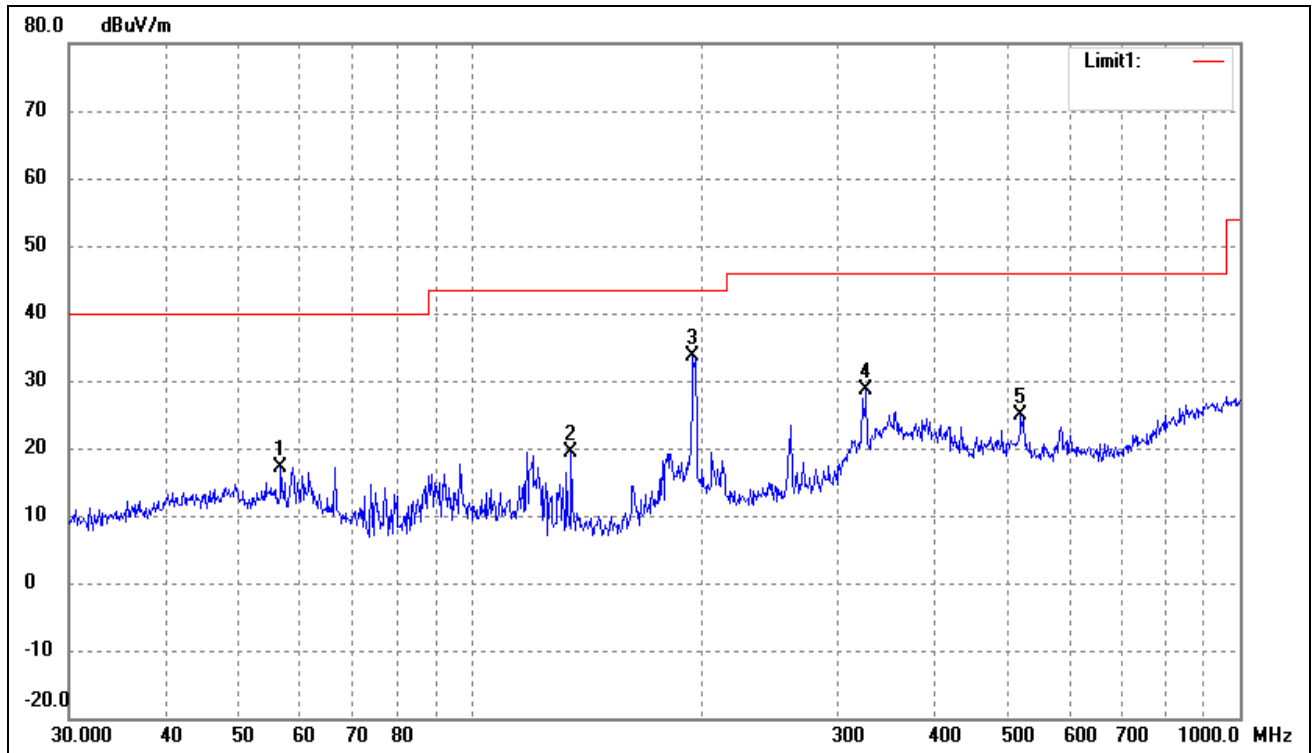


No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Detector
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(°)	(cm)	
1	42.3022	22.90	-8.00	14.90	40.00	-25.10	145	100	peak
2	120.2766	31.92	-11.31	20.61	43.50	-22.89	260	100	peak
3*	195.1365	44.63	-9.55	35.08	43.50	-8.42	113	100	peak
4	325.5958	30.05	-5.24	24.81	46.00	-21.19	360	100	peak
5	810.2654	23.23	3.86	27.09	46.00	-18.91	360	100	peak

Plot of Radiated Emissions Test Data (30MHz to 1GHz)EUT: *MID*Tested Model: *B26T*Operating Condition: *802.11n-HT40 Transmitting Low Channel-2422MHz*Comment: *DC 3.7V*Test Specification: *Horizontal*

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Detector
1	57.9993	29.82	-8.55	21.27	40.00	-18.73	272	100	peak
2	178.1327	34.45	-11.28	23.17	43.50	-20.33	360	100	peak
3*	194.4534	43.06	-9.61	33.45	43.50	-10.05	336	200	peak
4	227.6906	38.31	-8.49	29.82	46.00	-16.18	182	200	peak
5	392.0951	34.14	-3.19	30.95	46.00	-15.05	93	200	peak
6	432.5457	27.67	-2.34	25.33	46.00	-20.67	113	200	peak

Test Specification: Vertical

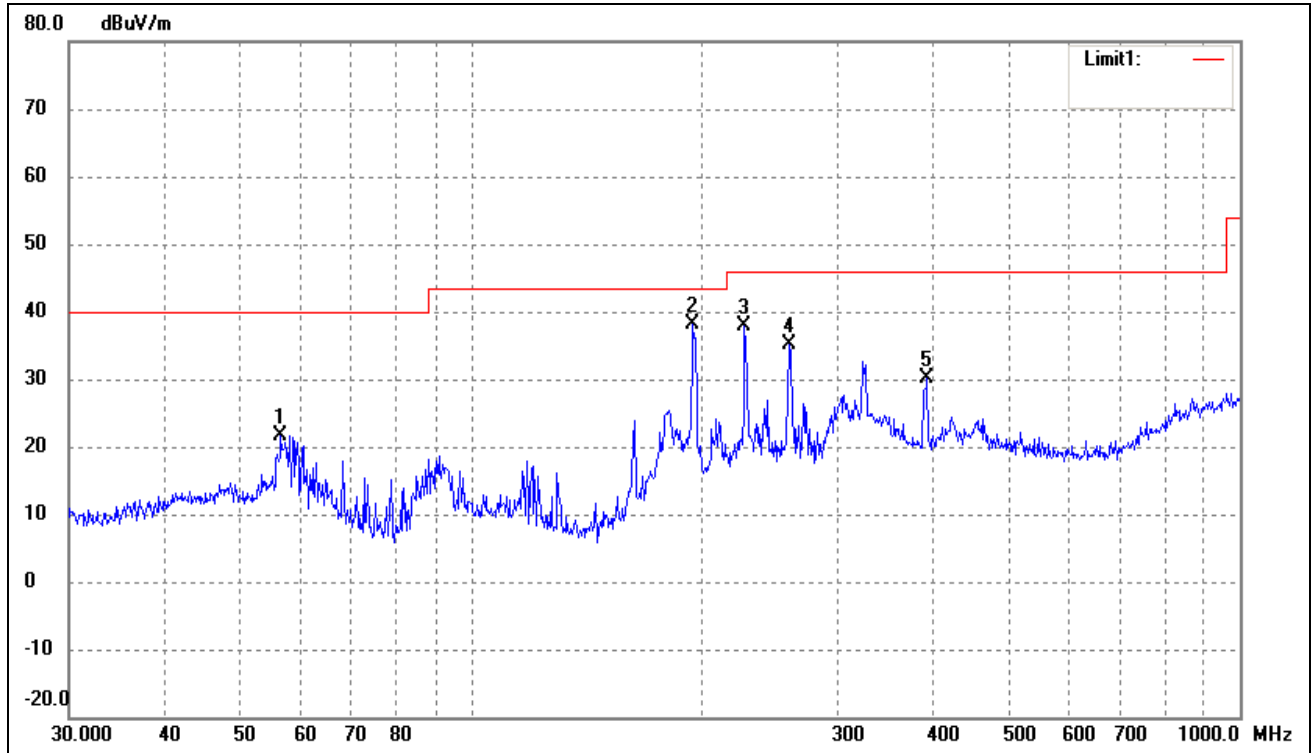


No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Detector
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(°)	(cm)	
1	56.5929	25.33	-8.21	17.12	40.00	-22.88	224	100	peak
2	135.0319	32.43	-12.95	19.48	43.50	-24.02	187	100	peak
3*	194.4534	43.21	-9.61	33.60	43.50	-9.90	260	100	peak
4	326.7395	33.78	-5.18	28.60	46.00	-17.40	178	100	peak
5	519.0649	25.53	-0.65	24.88	46.00	-21.12	289	100	peak

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

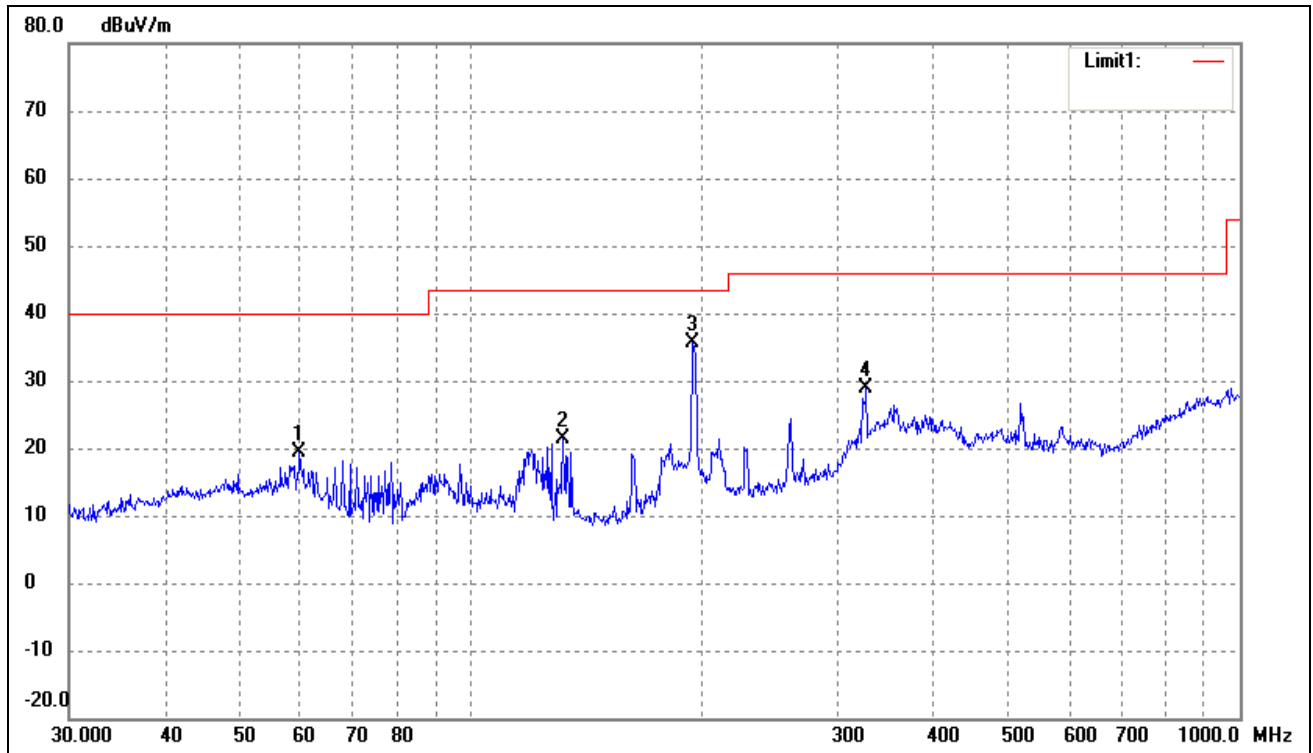
Comment: DC 3.7V

Test Specification: Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Detector
1	56.5929	29.94	-8.21	21.73	40.00	-18.27	147	100	peak
2*	194.4534	47.62	-9.61	38.01	43.50	-5.49	192	100	peak
3	226.8936	46.38	-8.53	37.85	46.00	-8.15	336	100	peak
4	259.2338	42.33	-7.21	35.12	46.00	-10.88	360	100	peak
5	392.0951	33.37	-3.19	30.18	46.00	-15.82	185	100	peak

Test Specification: Vertical

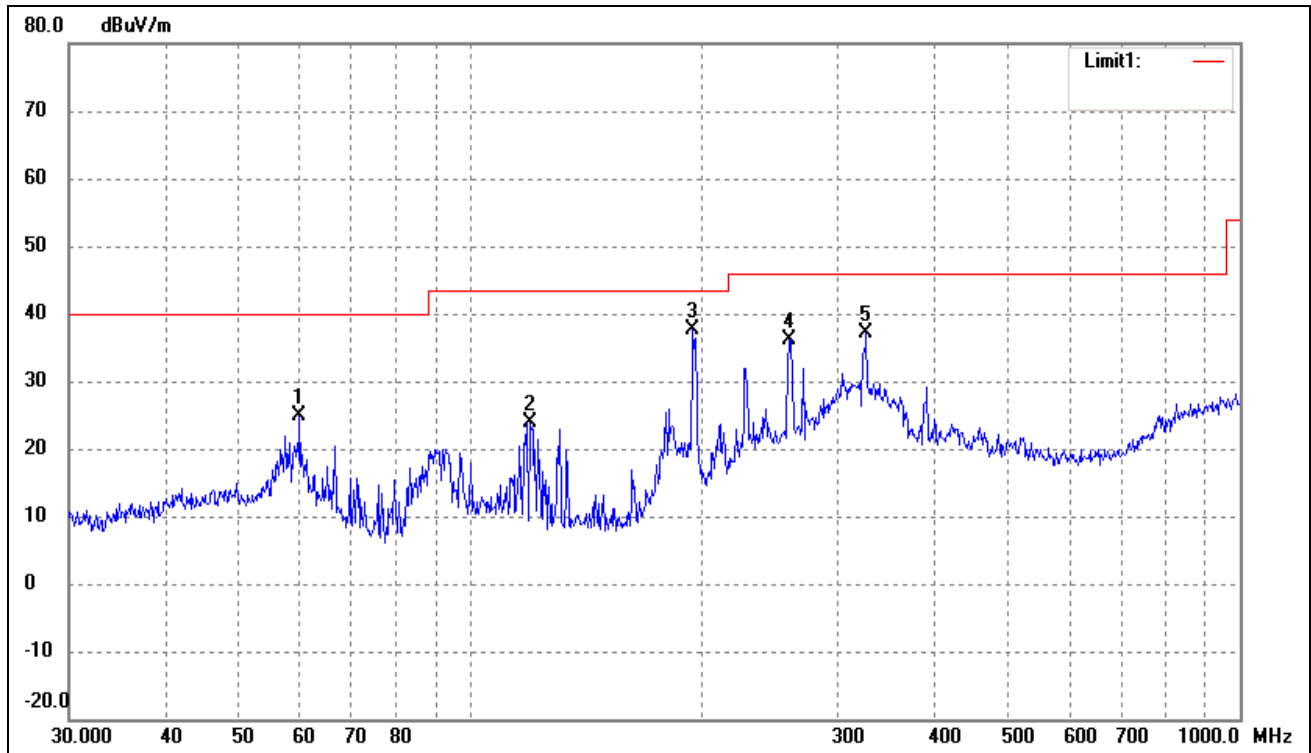


No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Detector
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(°)	(cm)	
1	59.8588	28.42	-9.00	19.42	40.00	-20.58	147	100	peak
2	131.7577	34.11	-12.81	21.30	43.50	-22.20	185	100	peak
3*	194.4534	45.13	-9.61	35.52	43.50	-7.98	226	100	peak
4	326.7395	34.16	-5.18	28.98	46.00	-17.02	336	100	peak

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

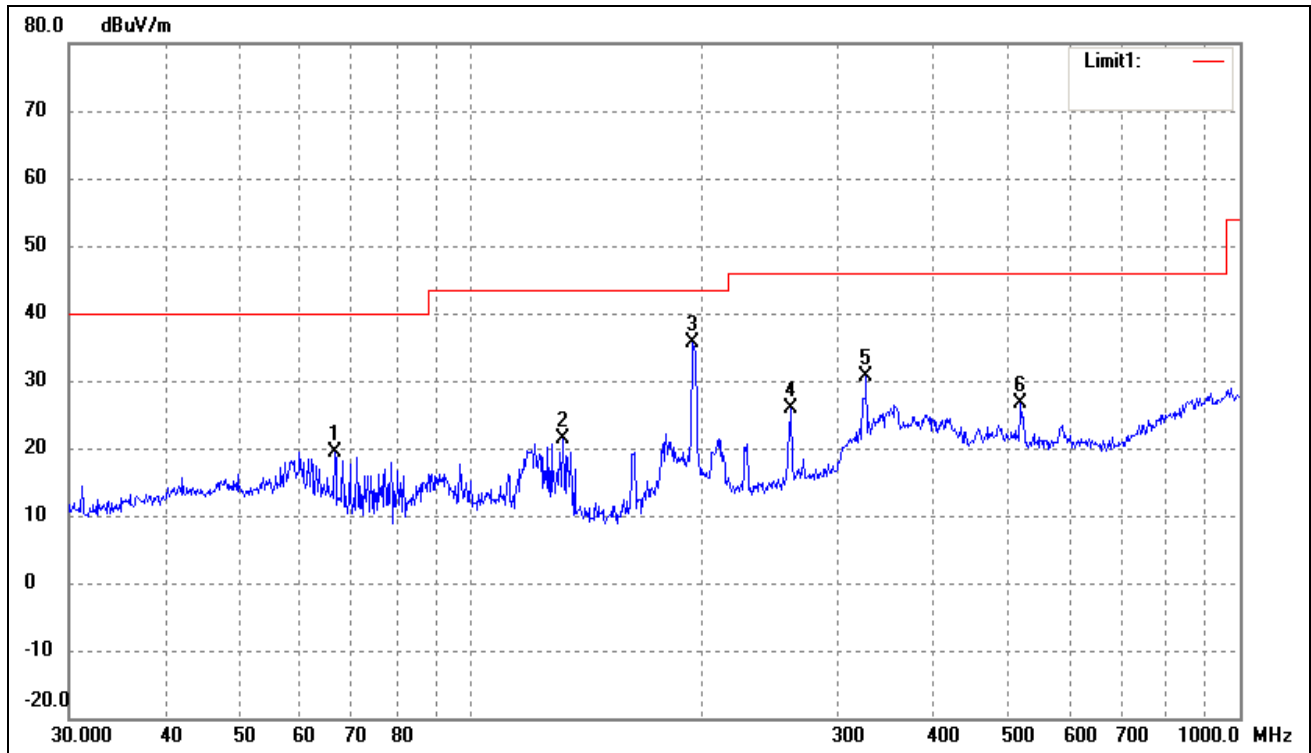
Comment: DC 3.7V

Test Specification: Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Detector
1	59.8588	33.87	-9.00	24.87	40.00	-15.13	247	100	peak
2	119.4361	35.10	-11.17	23.93	43.50	-19.57	336	100	peak
3*	194.4534	47.33	-9.61	37.72	43.50	-5.78	360	100	peak
4	259.2338	43.30	-7.21	36.09	46.00	-9.91	360	100	peak
5	326.7395	42.20	-5.18	37.02	46.00	-8.98	182	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	66.4989	29.50	-10.21	19.29	40.00	-20.71	165	100	peak
2	131.7577	34.11	-12.81	21.30	43.50	-22.20	226	100	peak
3*	194.4534	45.13	-9.61	35.52	43.50	-7.98	360	200	peak
4	261.0583	33.01	-7.16	25.85	46.00	-20.15	223	100	peak
5	326.7395	35.87	-5.18	30.69	46.00	-15.31	192	100	peak
6	519.0649	27.30	-0.65	26.65	46.00	-19.35	360	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 Channel-2412MHz							
4824	54.75	0.57	55.32	74.00	-18.68	H	PK
4824	39.48	0.57	40.05	54.00	-13.95	H	AV
7236	46.93	3.69	50.62	74.00	-23.38	H	PK
7236	34.46	3.69	38.15	54.00	-15.85	H	AV
4824	52.58	0.57	53.15	74.00	-20.85	V	PK
4824	36.67	0.57	37.24	54.00	-16.76	V	AV
7236	46.54	3.69	50.23	74.00	-23.77	V	PK
7236	31.63	3.69	35.32	54.00	-18.68	V	AV
Middle Channel-2442MHz							
4884	53.61	0.64	54.25	74.00	-19.75	H	PK
4884	38.47	0.64	39.11	54.00	-14.89	H	AV
7326	44.76	3.75	48.51	74.00	-25.49	H	PK
7326	34.84	3.75	38.59	54.00	-15.41	H	AV
4884	50.51	0.64	51.15	74.00	-22.85	V	PK
4884	37.88	0.64	38.52	54.00	-15.48	V	AV
7326	46.40	3.75	50.15	74.00	-23.85	V	PK
7326	35.46	3.75	39.21	54.00	-14.79	V	AV
High Channel-2472MHz							
4944	49.43	0.72	50.15	74.00	-23.85	H	PK
4944	39.58	0.72	40.30	54.00	-13.70	H	AV
7416	45.65	3.81	49.46	74.00	-24.54	H	PK
7416	31.88	3.81	35.69	54.00	-18.31	H	AV
4944	50.43	0.72	51.15	74.00	-22.85	V	PK
4944	38.27	0.72	38.99	54.00	-15.01	V	AV
7416	44.75	3.81	48.56	74.00	-25.44	V	PK
7416	33.25	3.81	37.06	54.00	-16.94	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 Channel-2412MHz							
4824	49.59	0.57	50.16	74.00	-23.84	H	PK
4824	34.59	0.57	35.16	54.00	-18.84	H	AV
7236	43.43	3.69	47.12	74.00	-26.88	H	PK
7236	29.96	3.69	33.65	54.00	-20.35	H	AV
4824	45.64	0.57	46.21	74.00	-27.79	V	PK
4824	33.76	0.57	34.33	54.00	-19.67	V	AV
7236	42.84	3.69	46.53	74.00	-27.47	V	PK
7236	30.36	3.69	34.05	54.00	-19.95	V	AV
Middle Channel-2442MHz							
4884	49.87	0.64	50.51	74.00	-23.49	H	PK
4884	35.61	0.64	36.25	54.00	-17.75	H	AV
7326	44.60	3.75	48.35	74.00	-25.65	H	PK
7326	33.50	3.75	37.25	54.00	-16.75	H	AV
4884	46.87	0.64	47.51	74.00	-26.49	V	PK
4884	37.69	0.64	38.33	54.00	-15.67	V	AV
7326	43.77	3.75	47.52	74.00	-26.48	V	PK
7326	31.61	3.75	35.36	54.00	-18.64	V	AV
High Channel-2472MHz							
4944	48.94	0.72	49.66	74.00	-24.34	H	PK
4944	38.19	0.72	38.91	54.00	-15.09	H	AV
7416	42.51	3.81	46.32	74.00	-27.68	H	PK
7416	33.52	3.81	37.33	54.00	-16.67	H	AV
4944	46.20	0.72	46.92	74.00	-27.08	V	PK
4944	32.97	0.72	33.69	54.00	-20.31	V	AV
7416	46.17	3.81	49.98	74.00	-24.02	V	PK
7416	32.13	3.81	35.94	54.00	-18.06	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 Channel-2412MHz							
4824	49.58	0.57	50.15	74.00	-23.85	H	PK
4824	39.64	0.57	40.21	54.00	-13.79	H	AV
7236	44.44	3.69	48.13	74.00	-25.87	H	PK
7236	36.31	3.69	40.00	54.00	-14.00	H	AV
4824	51.12	0.57	51.69	74.00	-22.31	V	PK
4824	40.74	0.57	41.31	54.00	-12.69	V	AV
7236	46.21	3.69	49.90	74.00	-24.10	V	PK
7236	34.52	3.69	38.21	54.00	-15.79	V	AV
Middle Channel-2442MHz							
4884	51.62	0.64	52.26	74.00	-21.74	H	PK
4884	40.68	0.64	41.32	54.00	-12.68	H	AV
7326	46.01	3.75	49.76	74.00	-24.24	H	PK
7326	35.15	3.75	38.90	54.00	-15.10	H	AV
4884	49.78	0.64	50.42	74.00	-23.58	V	PK
4884	39.69	0.64	40.33	54.00	-13.67	V	AV
7326	47.27	3.75	51.02	74.00	-22.98	V	PK
7326	34.64	3.75	38.39	54.00	-15.61	V	AV
High Channel-2472MHz							
4944	51.59	0.72	52.31	74.00	-21.69	H	PK
4944	39.89	0.72	40.61	54.00	-13.39	H	AV
7416	45.55	3.81	49.36	74.00	-24.64	H	PK
7416	33.18	3.81	36.99	54.00	-17.01	H	AV
4944	48.47	0.72	49.19	74.00	-24.81	V	PK
4944	38.19	0.72	38.91	54.00	-15.09	V	AV
7416	47.45	3.81	51.26	74.00	-22.74	V	PK
7416	36.35	3.81	40.16	54.00	-13.84	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 Channel-2422MHz							
4844	42.52	0.60	43.12	74.00	-30.88	H	PK
4844	33.30	0.60	33.9	54.00	-20.10	H	AV
7266	46.53	3.72	50.25	74.00	-23.75	H	PK
7266	34.11	3.72	37.83	54.00	-16.17	H	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 Channel-2442MHz							
4884	44.21	0.66	44.87	74.00	-29.13	H	PK
4884	32.01	0.66	32.67	54.00	-21.33	H	AV
7326	35.98	3.76	39.74	74.00	-34.26	H	PK
7326	24.30	3.76	28.06	54.00	-25.94	H	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 Channel-2462MHz							
4924	43.62	0.72	44.34	74.00	-29.66	H	PK
4924	32.04	0.72	32.76	54.00	-21.24	H	AV
7386	35.25	3.81	39.06	74.00	-34.94	H	PK
7386	24.11	3.81	27.92	54.00	-26.08	H	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 3th 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.

9. Out of Band Emissions

9.1 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).

9.2 Test Equipment List and Details

Description	Manufacturer	Model	Serial Number	Cal. Date	Due. Date
Spectrum Analyzer	R&S	FSP	836079/035	2014-05-28	2015-05-27
EMI Test Receiver	R&S	ESVB	825471/005	2014-05-28	2015-05-27
Pre-amplifier	Agilent	8447F	3113A06717	2014-05-28	2015-05-27
Pre-amplifier	Compliance Direction	PAP-0118	24002	2014-05-28	2015-05-27
Trilog Broadband Antenna	SCHWARZBECK	VULB9163	9163-333	2014-05-24	2015-05-23
Horn Antenna	ETS	3117	00086197	2014-05-24	2015-05-23

9.3 Test Procedure

According to the KDB 558074 D01 v03r02, 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 V03r02, 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.

9.4 Environmental Conditions

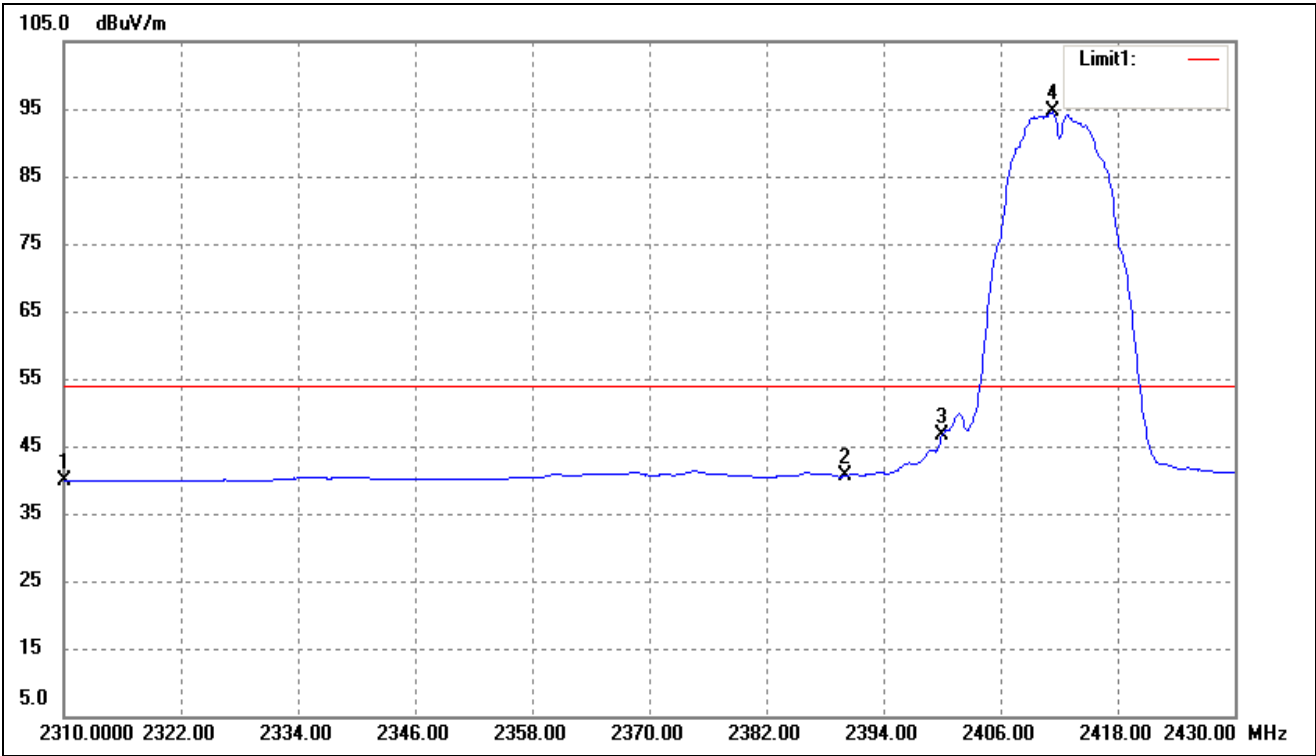
Temperature:	23°C
Relative Humidity:	54%
ATM Pressure:	1011 mbar

9.5 Summary of Test Results/Plots

Please refer to the test plots as below.

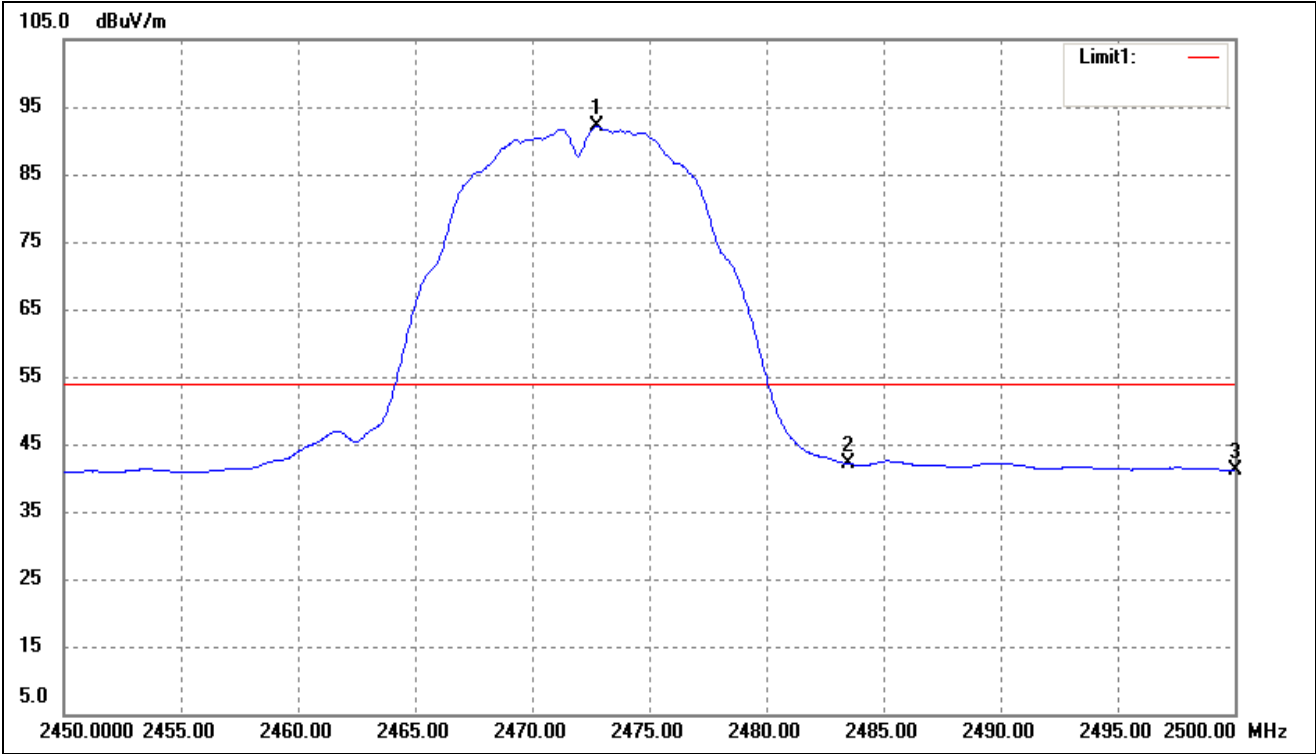
802.11b-Lowest Bandedge

Vertical (Worst case)



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	2310.000	23.56	16.34	39.90	54.00	-14.10	Average Detector
	2310.000	35.09	16.34	51.43	74.00	-22.57	Peak Detector
2	2390.000	23.53	17.03	40.56	54.00	-13.44	Average Detector
	2390.000	35.05	17.03	52.08	74.00	-21.92	Peak Detector
3	2400.000	29.44	17.11	46.55	Delta =48 dBc		Average Detector
4*	2411.280	77.36	17.19	94.55			Average Detector

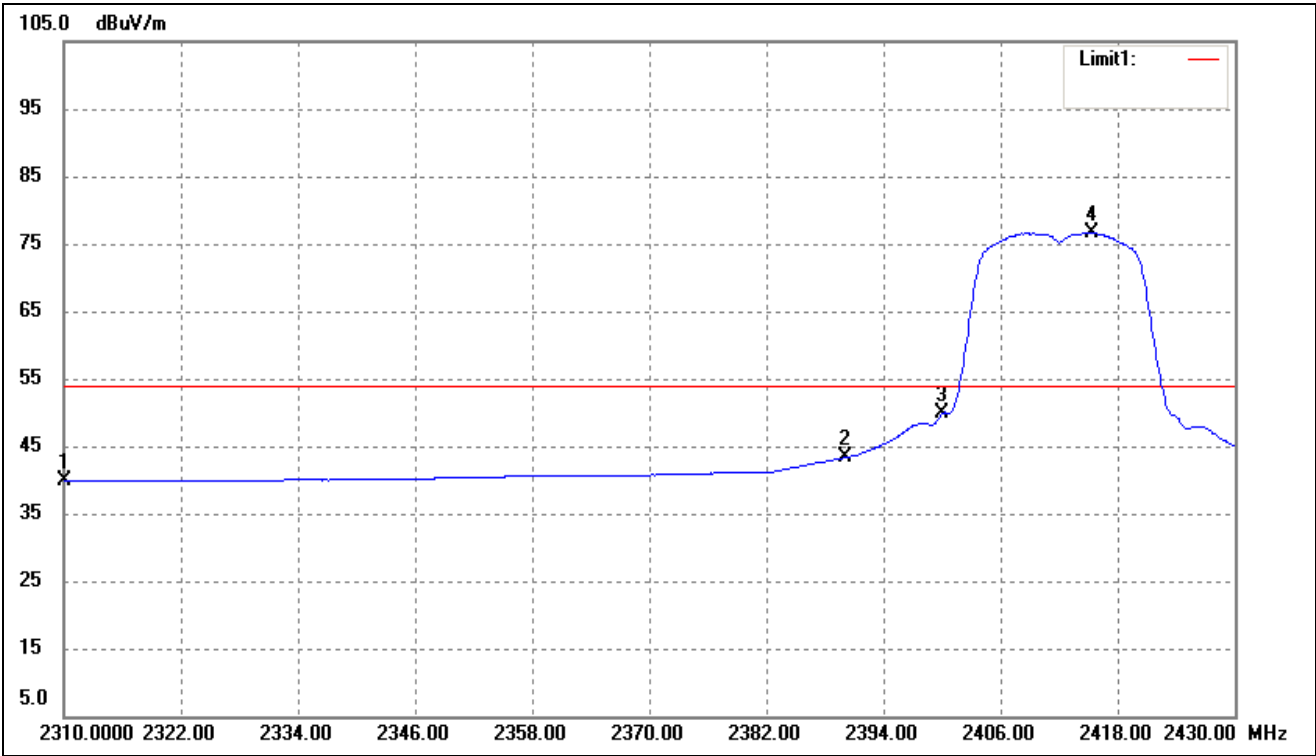
802.11b-Highest Bandedge
Vertical (Worst case)



No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1*	2472.750	74.46	17.66	92.12	/	/	Average Detector
	2461.791	80.11	17.66	97.77	/	/	Peak Detector
2	2483.500	Delta = 51.86dBc		40.26	54.00	-13.74	Average Detector
	2483.500			45.91	74.00	-8.09	Peak Detector
3	2500.000	23.30	17.86	41.16	54.00	-12.84	Average Detector
	2500.000	35.88	17.86	53.74	74.00	-20.26	Peak Detector

802.11g-Lowest Bandedge

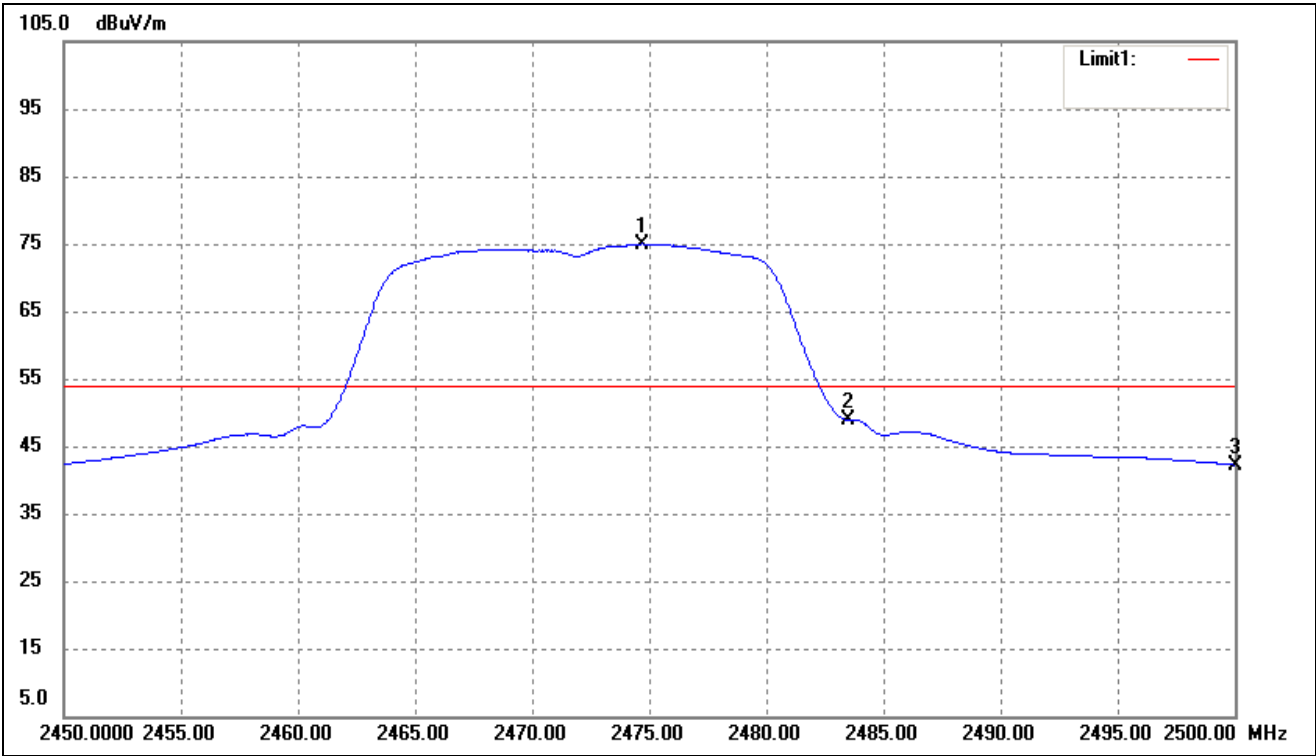
Vertical (Worst case)



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	Factor(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	2310.000	23.48	16.34	39.82	54.00	-14.18	Average Detector
	2310.000	35.54	16.34	51.88	74.00	-22.12	Peak Detector
2	2390.000	26.28	17.03	43.31	54.00	-10.69	Average Detector
	2390.000	44.43	17.03	61.46	74.00	-12.54	Peak Detector
3	2400.000	32.65	17.11	49.76	Delta = 26.85 dBc		Average Detector
4*	2415.360	59.38	17.23	76.61			Average Detector

802.11g-Highest Bandedge

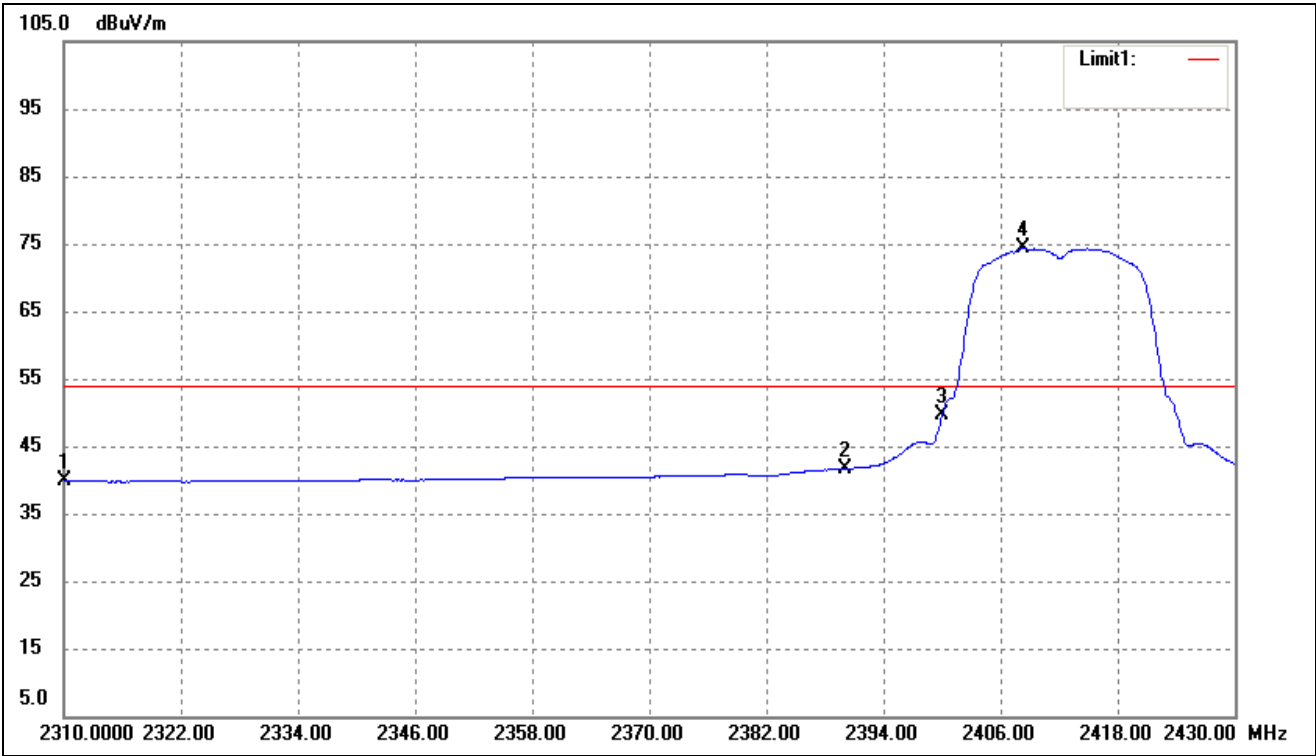
Vertical (Worst case)



No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1*	2474.700	57.33	17.67	75.00	/	/	Average Detector
	2474.700	81.95	17.67	99.62	/	/	Peak Detector
2	2483.500	Delta = 35.98dBc		39.02	54.00	-14.98	Average Detector
	2483.500			63.64	74.00	-10.36	Peak Detector
3	2500.000	24.39	17.86	42.25	54.00	-11.75	Average Detector
	2500.000	39.39	17.86	57.25	74.00	-16.75	Peak Detector

802.11n-HT20-Lowest Bandedge

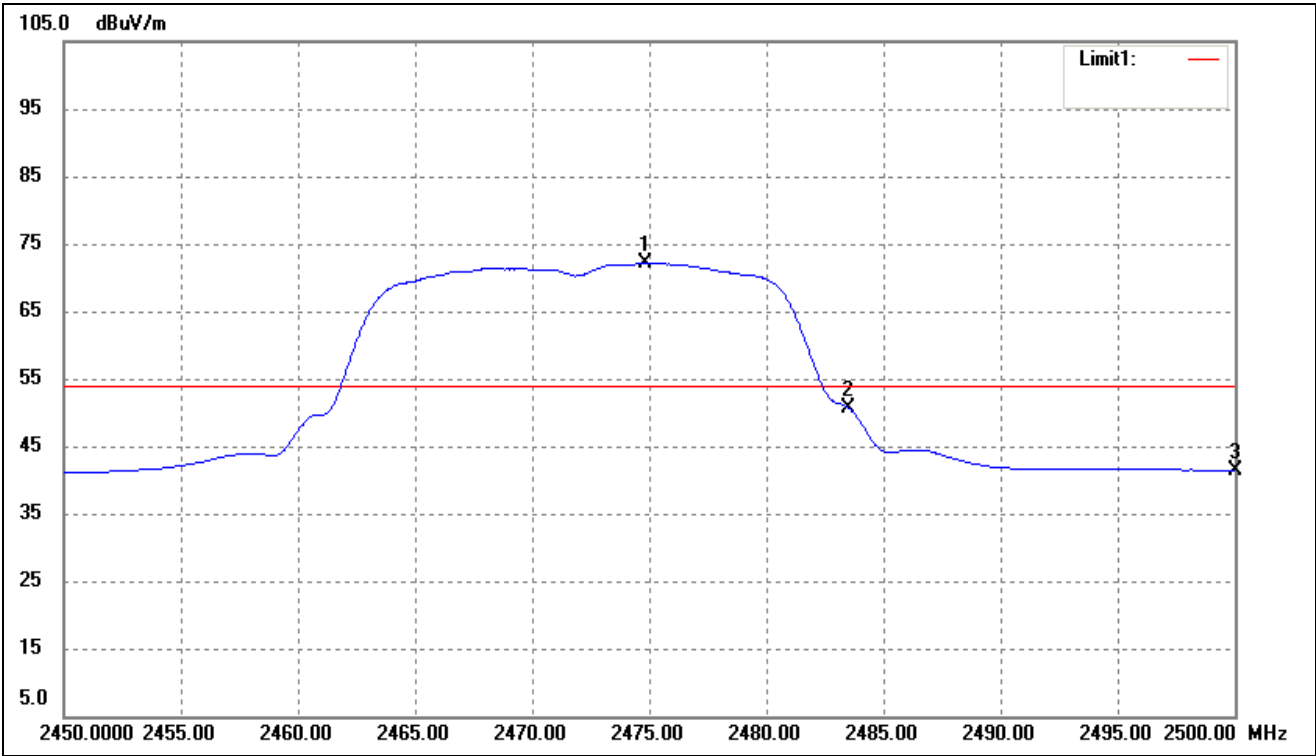
Vertical (Worst case)



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	Factor(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	2310.000	23.45	16.34	39.79	54.00	-14.21	Average Detector
	34.68	16.34	51.02	74.00	-22.98	34.68	Peak Detector
2	2390.000	24.61	17.03	41.64	54.00	-12.36	Average Detector
	2390.000	41.12	17.03	58.15	74.00	-15.85	Peak Detector
3	2400.000	32.43	17.11	49.54	Delta = 24.78 dBc		Average Detector
4*	2408.280	57.16	17.16	74.32			Average Detector

802.11n-HT20-Highest Bandedge

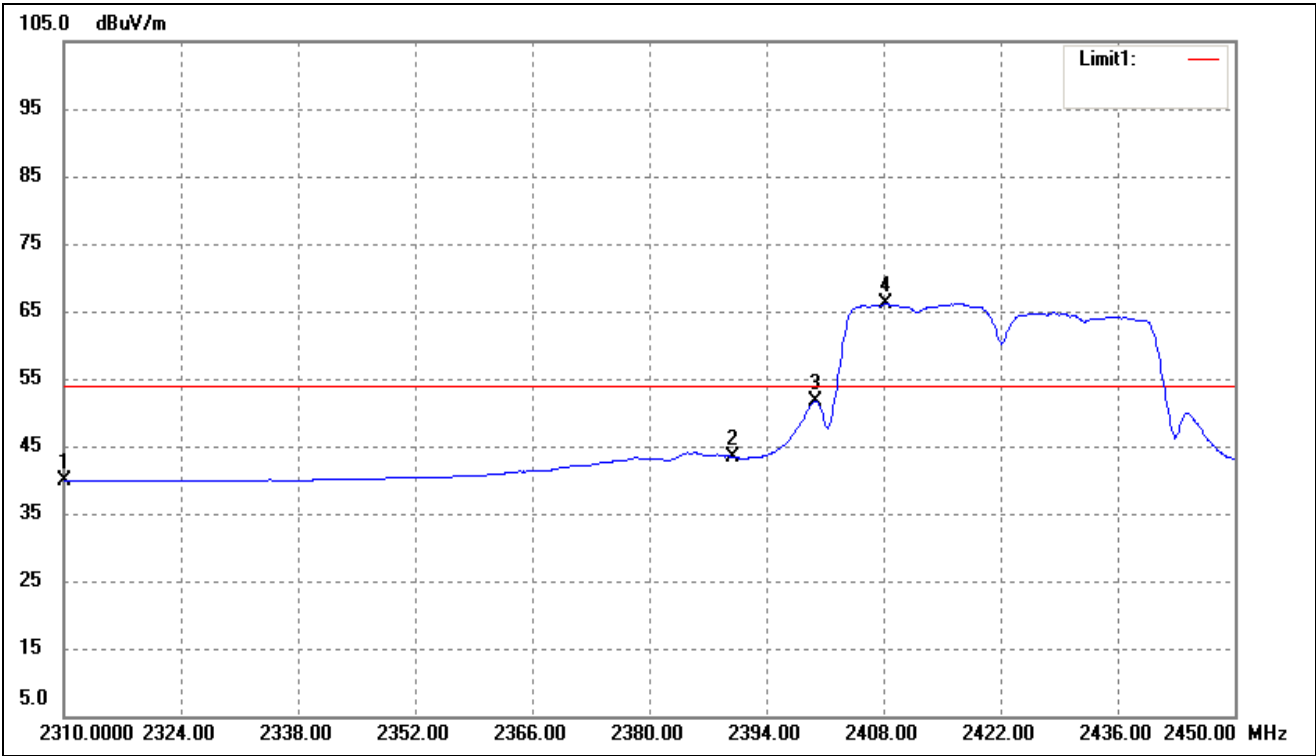
Vertical (Worst case)



No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1*	2474.850	54.47	17.67	72.14	/	/	Average Detector
	2474.850	79.66	17.67	97.33	/	/	Peak Detector
2	2483.500	Delta = 28.35 dBc		43.79	54.00	-10.21	Average Detector
	2483.500			68.98	74.00	-5.02	Peak Detector
3	2500.000	23.44	17.86	41.30	54.00	-12.70	Average Detector
	2500.000	67.64	-3.28	64.36	74.00	-9.64	Peak Detector

802.11n-HT40-Lowest Bandedge

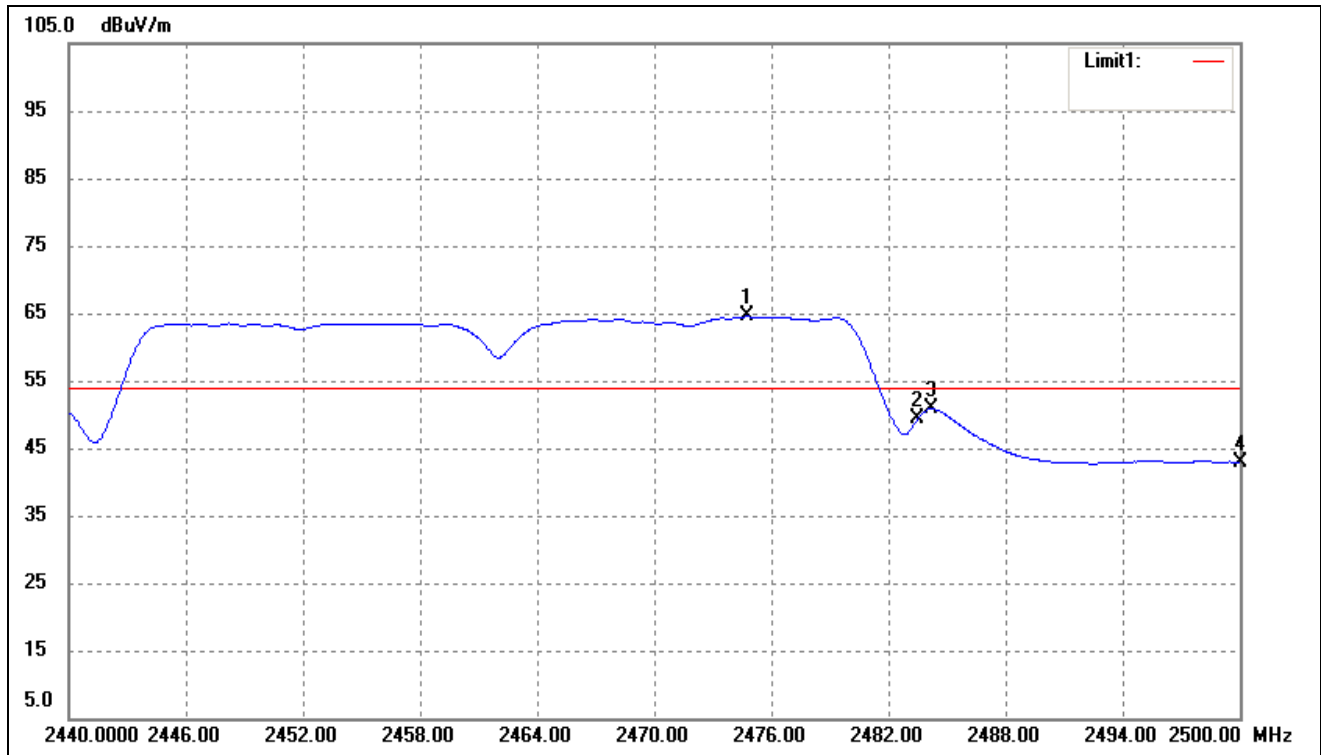
Vertical (Worst case)



No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2310.000	23.52	16.34	39.86	54.00	-14.14	Average Detector
	2390.000	49.68	17.03	66.71	74.00	-7.29	Peak Detector
2	2390.000	26.35	17.03	43.38	54.00	-10.62	Average Detector
	2390.000	41.12	17.03	58.15	74.00	-15.85	Peak Detector
3	2400.000	34.48	17.11	51.59	54.00	-2.41	Average Detector
	2400.000	55.09	17.11	72.20	74.00	-1.80	Peak Detector

802.11n-HT40-Highest Bandedge

Vertical (Worst case)



No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1*	2474.740	46.85	17.67	64.52	/	/	Average Detector
	2474.850	79.66	17.67	97.33	/	/	Peak Detector
2	2483.500	Delta = 29.78 dBc		34.74	54.00	-19.26	Average Detector
	2483.500			67.55	74.00	-6.45	Peak Detector
3	2484.160	Delta = 25.72 dBc		38.80	54.00	-15.2	Average Detector
	2484.160			71.61	74.00	-2.39	Peak Detector
4	2500.000	24.94	17.86	42.80	54.00	-11.20	Average Detector
	2500.000	42.97	17.86	60.83	74.00	-13.17	Peak Detector

10. Conducted Emissions

10.1 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.

10.2 Test Equipment List and Details

Description	Manufacturer	Model	Serial Number	Cal. Date	Due. Date
EMI Test Receiver	Rohde & Schwarz	ESPI	101611	2014-05-28	2015-05-27
L.I.S.N	Schwarz beck	NSLK8126	8126-224	2014-05-28	2015-05-27
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100911	2014-05-28	2015-05-27

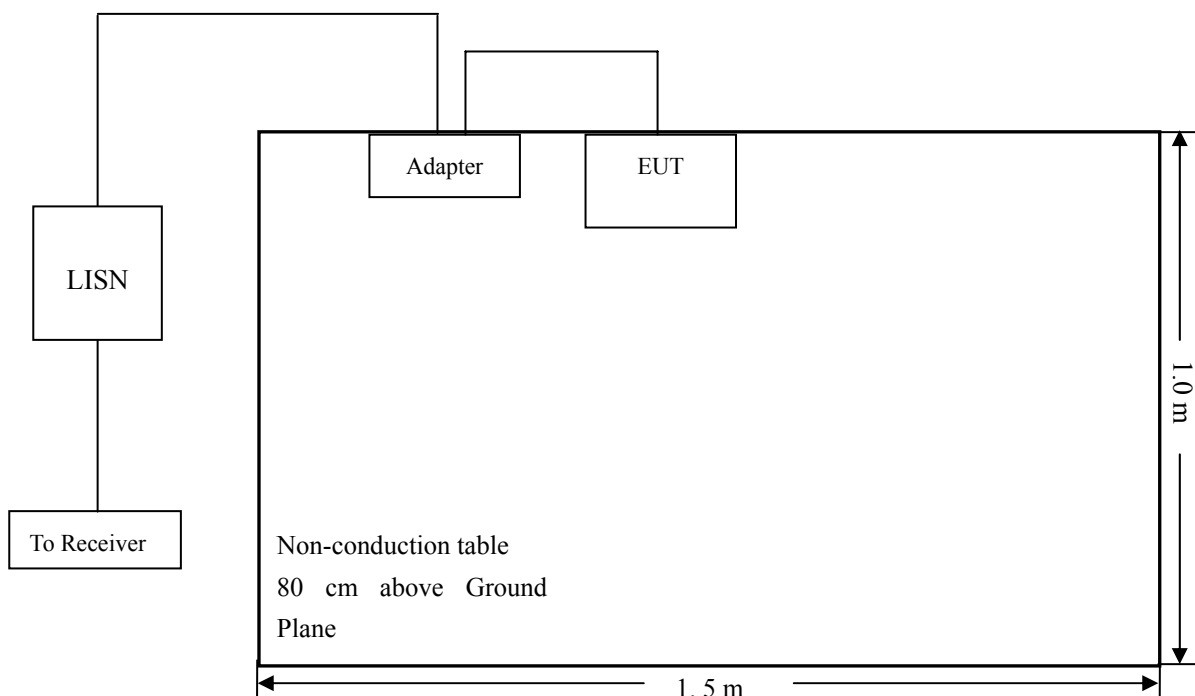
10.3 Test Procedure

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.

10.4 Basic Test Setup Block Diagram



10.5 Environmental Conditions

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

10.6 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

10.7 Summary of Test Results/Plots

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

-15.21 dB at 25.4620 MHz in the Neutral mode, Peak detector, 0.15-30MHz

10.8 Conducted Emissions Test Data

Plot of Conducted Emissions Test Data

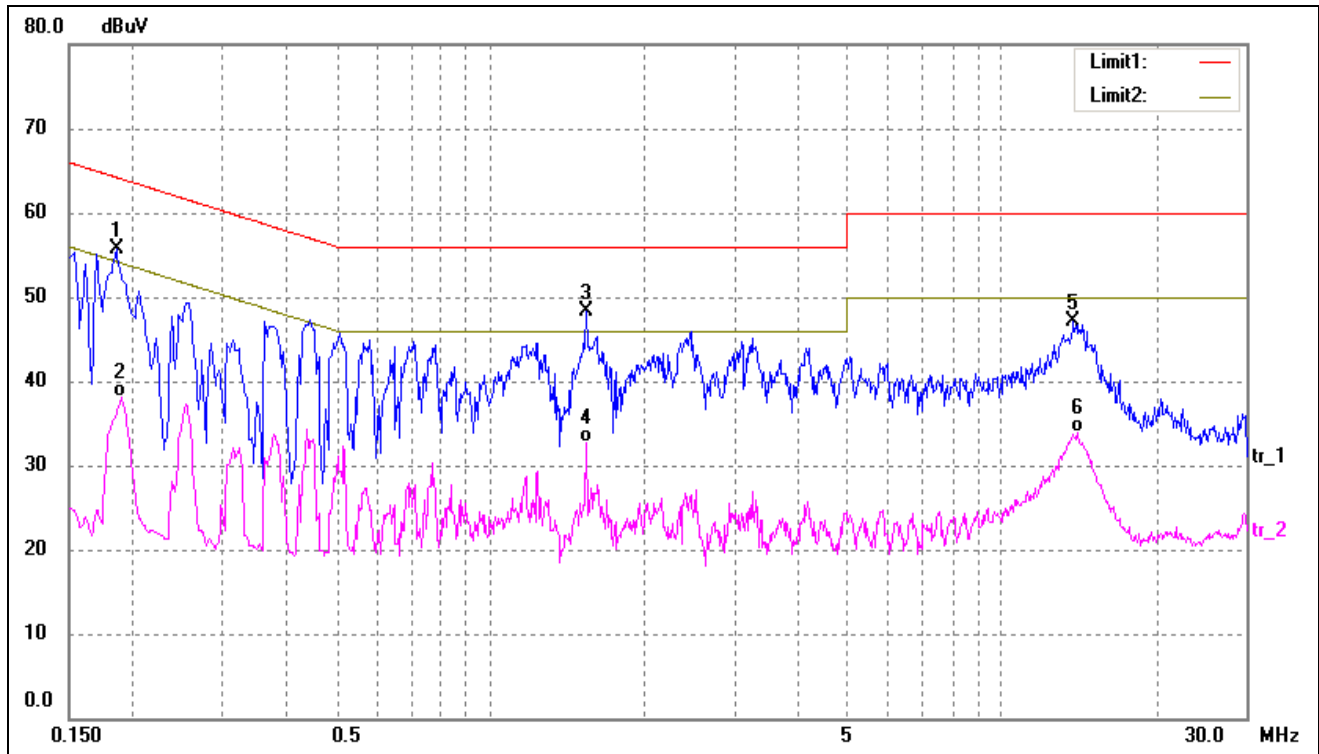
EUT: MID

Tested Model: B26T

Operating Condition: WiFi Transmitting and charging

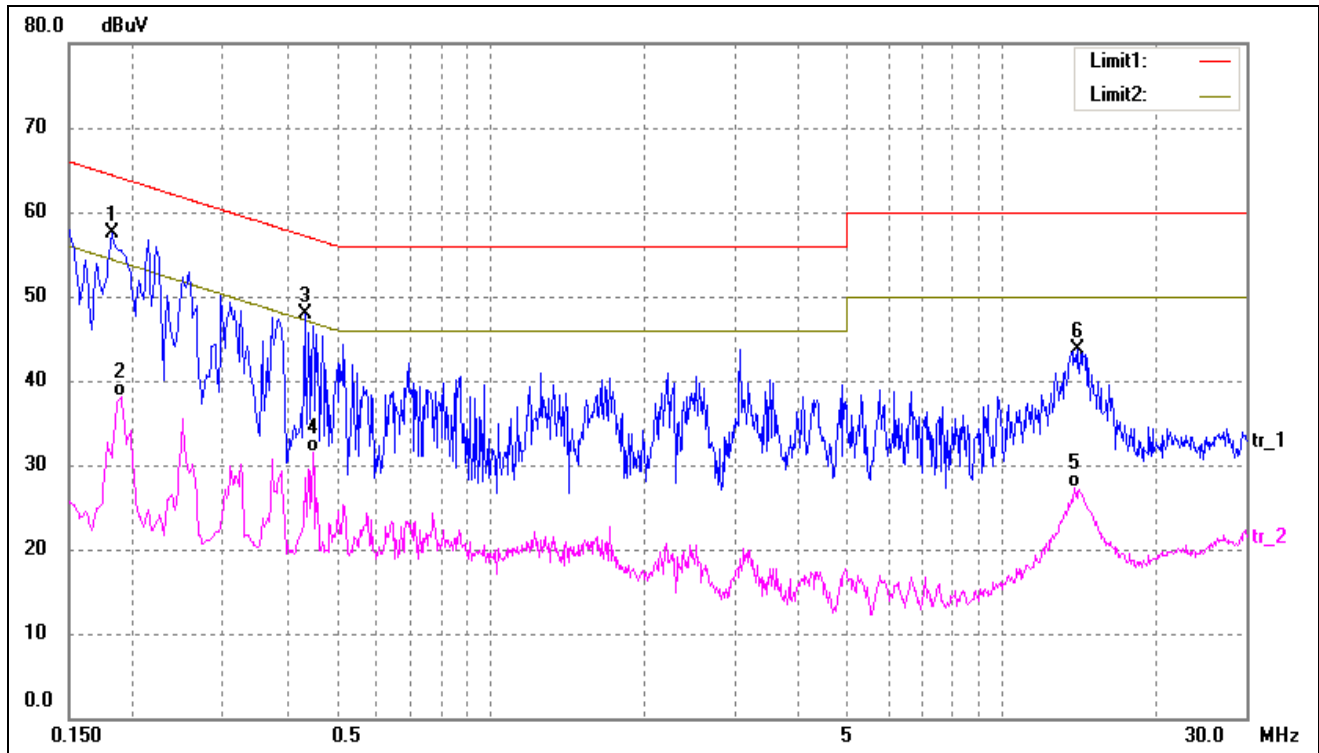
Comment: AC 120V/60Hz; Adapter DC 5V

Test Specification: Line



No.	Frequency	Reading	Correct	Result	Limit	Margin	Detector
	(MHz)	(dBuV)	(dB/m)	(dBuV)	(dBuV)	(dB)	
1	0.1860	46.12	9.50	55.62	64.21	-8.59	peak
2	0.1900	28.69	9.50	38.19	54.04	-15.85	AVG
3*	1.5380	38.39	10.00	48.39	56.00	-7.61	peak
4	1.5380	22.76	10.00	32.76	46.00	-13.24	AVG
5	13.8020	36.41	10.76	47.17	60.00	-12.83	peak
6	14.0460	23.00	10.81	33.81	50.00	-16.19	AVG

Test Specification: Neutral



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1*	0.1820	47.97	9.50	57.47	64.39	-6.92	peak
2	0.1900	28.57	9.50	38.07	54.04	-15.97	AVG
3	0.4340	38.44	9.50	47.94	57.18	-9.24	peak
4	0.4500	21.94	9.50	31.44	46.88	-15.44	AVG
5	13.9140	16.61	10.78	27.39	50.00	-22.61	AVG
6	14.0980	32.88	10.82	43.70	60.00	-16.30	peak

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