

## FCC TEST REPORT

### FOR

Shenzhen Big Master Technology Co., Ltd

Product Name: Tablet PC

Model No.: A7-3D

Prepared for : Shenzhen Big Master Technology Co., Ltd  
Address : Blog 6-7, Caifa Technology Industrial Park, Guanlan Town,  
Longhua New District, Shenzhen City, Guangdong, China

Prepared by : SHENZHEN POCE TECHNOLOGY CO., LTD.  
Address : H Building, Hongfa Science And Technology Park, Tangtou,  
Shiyan, Bao' An District, Shenzhen, China

Date of receipt of test sample : July 08, 2015  
Number of tested samples : 1  
Serial number : Prototype  
Date of Test : July 08, 2015 – August 7, 2015  
Date of Report : August 7, 2015

**Note:** This test report is limited to the above client company and the product model only. It may not be duplicated without prior written consent of Shenzhen POCE Technology Co., Ltd.

## FCC TEST REPORT

### FCC CFR 47 PART 15 C(15.247)

Report Reference No. .... : POCE15072104QCT

Date of Issue..... : August 7, 2015

Testing Laboratory Name..... : SHENZHEN POCE TECHNOLOGY CO., LTD.

Address..... : H Building, Hongfa Science And Technology Park, Tangtou,  
Shiyan, Bao' An District, Shenzhen, China

Testing Location/ Procedure ..... : Full application of Harmonised standards ☒  
Partial application of Harmonised standards ☐  
Other standard testing method ☐

Applicant's Name..... : Shenzhen Big Master Technology Co., Ltd

Address..... : Blog 6-7, Caifa Technology Industrial Park, Guanlan Town,  
Longhua New District, Shenzhen City, Guangdong, China

#### Test Specification

Standard..... : FCC CFR 47 PART 15 Subpart C, ANSI C63.4-2003

Test Report Form No..... : POCEEMC-1.0

TRF Originator..... : SHENZHEN POCE TECHNOLOGY CO., LTD.

Master TRF ..... : Dated 2015-06-11

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Test Item Description..... : Tablet PC

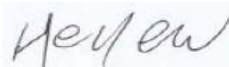
Trade Mark..... : N/A

Model/ Type reference ..... : A7-3D

Ratings..... : DC 5.0V form adapter input AC 120V/60Hz

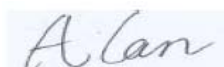
Result ..... : Positive

**Compiled by:**



Hellen Hu/ File administrators

**Supervised by:**



Alan Cao/ Technique principal

**Approved by:**



Machael Mo/ Manager

### Traceability of Device

EUT..... : Tablet PC

Type / Model..... : A7-3D

Applicant..... : Shenzhen Big Master Technology Co., Ltd

Address..... : Blog 6-7, Caifa Technology Industrial Park, Guanlan Town,  
Longhua New District, Shenzhen City, Guangdong, China

Telephone..... : /

Fax..... : /

Manufacturer..... : Shenzhen Big Master Technology Co., Ltd

Address..... : Blog 6-7, Caifa Technology Industrial Park, Guanlan Town,  
Longhua New District, Shenzhen City, Guangdong, China

Telephone..... : /

Fax..... : /

Factory..... : Shenzhen Big Master Technology Co., Ltd

Address..... : Blog 6-7, Caifa Technology Industrial Park, Guanlan Town,  
Longhua New District, Shenzhen City, Guangdong, China

Telephone..... : /

Fax..... : /

**Test Result:**

**Positive**

*The test report merely corresponds to the test sample.*

*It is not permitted to copy extracts of these test result without the written permission of the test laboratory.*

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## 1. SUMMARY OF TEST RESULTS

### 1.1. Test Summary

Test procedures according to the technical standards:

FCC Part15 (15.247) , Subpart C			
Standard Section	Test Item	Result	Remark
15.207	Conducted Emission	PASS	
15.247 (a)(2)	6dB Bandwidth	PASS	
15.247 (b)	Peak Output Power	PASS	
15.247 (c)	Radiated Spurious Emission	PASS	
15.247 (d)	Power Spectral Density	PASS	
15.203	Antenna Requirement	PASS	

### 1.2. General Test Procedures

#### 1.2.1. Conducted Emissions

The EUT is placed on the turntable, which is 0.8 m above ground plane. According to the requirements in Section 13.1.4.1 of ANSI C63.4 Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30MHz using Quasi-peak and average detector modes.

#### 1.2.2. Radiated Emissions

The EUT is placed on a turn table, which is 0.8 m above ground plane. The turntable shall rotate 360 degrees to determine the position of maximum emission level. EUT is set 3m away from the receiving antenna, which varied from 1m to 4m to find out the highest emission. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical. In order to find out the maximum emissions, exploratory radiated emission measurements were made according to the requirements in Section 13.1.4.1 of ANSI C63.4

## 2. GENERAL INFORMATION

### 2.1. Description of EUT

EUT : Tablet PC

Model Number : A7-3D

Brand Name : N/A

Operation Frequency : IEEE 802.11b: 2412-2462 MHz  
IEEE 802.11g: 2412-2462 MHz  
IEEE 802.11n: 2412-2462 MHz(HT 20),  
2422-2452 MHz(HT 40)  
Bluetooth(2.1+EDR):2402-2480MHz

Modulation : IEEE 802.11b: DSSS  
Technology IEEE 802.11g: OFDM  
IEEE 802.11n: OFDM  
Bluetooth(2.1+EDR): GFSK,  $\pi/4$ DQPSK, 8-DPSK

Power Supply : DC 5.0V form adapter input AC 120V/60Hz

Antenna description : Integral 2.0dBi

Note: 1. For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.

#### 2.1.1. Channel List

Frequency Band	Channel number	Frequency	Channel number	Frequency
2400-2483.5 MHz	1	2412 MHz	7	2442MHz
	2	2417MHz	8	2447MHz
	3	2422MHz	9	2452MHz
	4	2427MHz	10	2457MHz
	5	2432MHz	11	2462MHz
	6	2437MHz		

Note: For 20 MHz bandwidth system use Channel 1 to Channel 11;  
For 40 MHz bandwidth system use Channel 3 to Channel 9.

## 2.2. Description of Support Units

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Item	Equipment	Mfr/Brand	Model/Type No.	FCC ID	Note

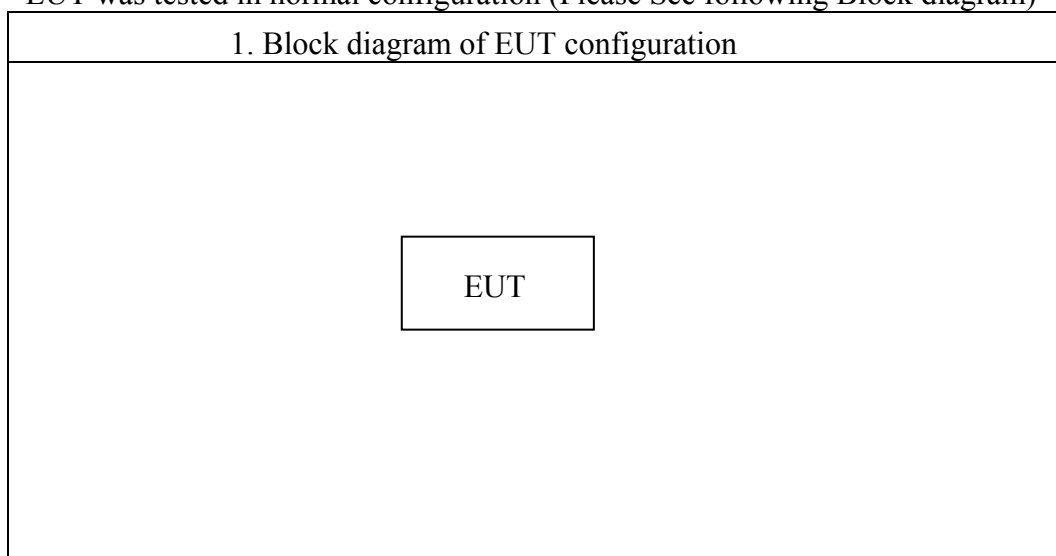
Item	Shielded Type	Ferrite Core	Length	Note
1	Unshielded	No	150cm	Power cable
2	Unshielded	No	10cm	Tieline
3	Unshielded	No	72cm	USB cable

Note:

- (1) The support equipment was authorized by Declaration of Confirmation.
- (2) For detachable type I/O cable should be specified the length in cm in 『Length』 column.

## 2.3. Description of Test Conditions

EUT was tested in normal configuration (Please See following Block diagram)





## 2.4. Test Facility

Shenzhen POCE Technology Co., Ltd.

Add. : H Building, Hongfa science and Technology Park, Tangtou, Shiyan, Bao'an District,  
Shenzhen, China

FCC Registered No.: 222278

## 2.5. MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement  $y \pm U$ , where expanded uncertainty  $U$  is based on a standard uncertainty multiplied by a coverage factor of  $k=2$ , providing a level of confidence of approximately 95 %.

No.	Item	Uncertainty
1	Conducted Emission Test	$\pm 1.38\text{dB}$
2	RF power,conducted	$\pm 0.16\text{dB}$
3	Spurious emissions,conducted	$\pm 0.21\text{dB}$
4	All emissions,radiated(<1G)	$\pm 4.68\text{dB}$
5	All emissions,radiated(>1G)	$\pm 4.89\text{dB}$
6	Frequency Stability	$< \pm 1 \times 10^{-7}$
7	Necessary bandwidth	$< \pm 5\%$

## 2.6. Test Conditions and Channel

The test software was used to control E.U.T. work in Continuous Tx mode (>98% duty cycle), and select test channel, wireless mode and data rate.

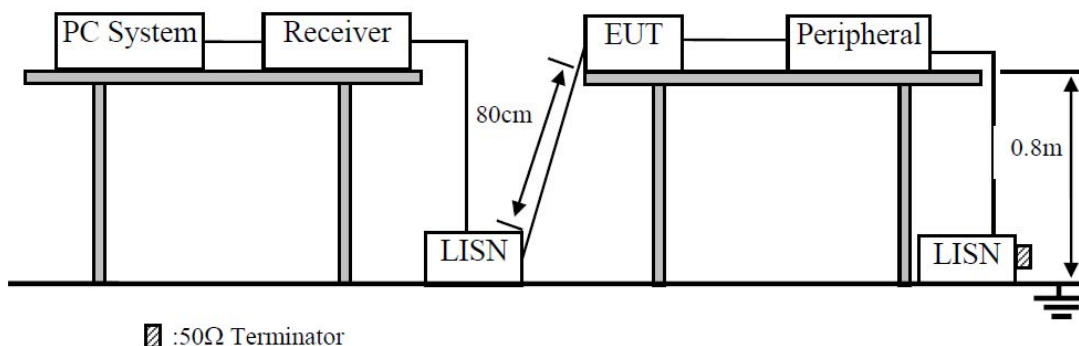
Test mode, channel and data rate information			
Mode	Channel	Frequency(MHz)	Data rate(Mbps)
IEEE 802.11b	Low:CH1	2412	1
	Middle:CH6	2437	1
	High:CH11	2462	1
IEEE 802.11g	Low:CH1	2412	6
	Middle:CH6	2437	6
	High:CH11	2462	6
IEEE 802.11n(HT20)	Low:CH1	2412	MSC0
	Middle:CH6	2437	MSC0
	High:CH11	2462	MSC0
IEEE 802.11n(HT40)	Low:CH3	2422	MSC0
	Middle:CH6	2437	MSC0
	High:CH9	2452	MSC0
Remark: According to exploratory test, E.U.T. will have maximum output power in those data rate, so those data rate were used for all tests.			

## 2.7. EQUIPMENTS LIST FOR ALL TEST ITEMS

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	Agilent	E4408B	CFG006	Nov. 08, 2015
2	Test Receiver	R&S	ESPI	102109	Nov. 08, 2015
3	Test Receiver	R&S	ESCI	101431	Nov. 08, 2015
4	Bilog Antenna	Model JB6	CBL6111D	A090414	Nov. 08, 2015
5	50Ω Coaxial Switch	Anritsu	MP59B	6200264416	Nov. 08, 2015
6	Spectrum Analyzer	ADVANTEST	R3132	150900201	Nov. 08, 2015
7	Horn Ant	Schwarzbeck	Model DRH-118	A091114	Nov. 08, 2015
8	Low Fre. Amplifier	Schwarzbeck	BBV9743	9743-151	Nov. 08, 2015
9	High Fre. AMP	Schwarzbeck	BBV9718	9718-282	Nov. 08, 2015
10	Loop Antenna	ARA	PLA-2030/B	1029	Nov. 08, 2015
11	Power Meter	R&S	NRVS	100696	Nov. 08, 2015
12	Signal Generator	R&S	SMT 06	832080/007	Nov. 08, 2015
13	Temperature & Humidity Chamber	GIANT FORCE	GTH-056P	GF-94454-1	Nov. 08, 2015
14	Power Sensor (AV)	R&S	URV5-Z4	0395.1619.05	Nov. 08, 2015
15	Power Sensor	Anritsu	ML2487A	6K0002472	Nov. 08, 2015
16	Power Sensor	Anritsu	MA2491A	0033005	Nov. 08, 2015
17	Noise Generator	Ningbo Zhongce	DF1681	EMC0009	Nov. 08, 2015
18	Spectrum analyzer	Agilent	N9030A	MY51380221	Nov. 08, 2015
19	Wireless communication	Agilent	E5515C	GB44300243	Nov. 08, 2015

### 3. POWER LINE CONDUCTED EMISSION TEST

#### 3.1. Block Diagram of Test Setup



#### 3.2. Power Line Conducted Emission Test Limits

Frequency Range (MHz)	Limits (dBμV)	
	Quasi-peak	Average
0.15 to 0.50	66 to 56*	56 to 46*
0.50 to 5	56	46
5 to 30	60	50

Notes: 1. \* Decreasing linearly with logarithm of frequency.  
2. The lower limit shall apply at the transition frequencies.

#### 3.3. Configuration of EUT on Test

The following equipment are installed on Power Line Conducted Emission Test to meet the commission requirement and operating regulations in a manner which tends to maximize its emission characteristics in a normal application.

#### 3.4. Operating Condition of EUT

3.5.1. Setup the EUT and simulator as shown as Section 2.3.

3.5.2. Turned on the power of all equipment.

3.5.3. PC run test software to control EUT work in Tx mode.

### 3.5. Test Procedure

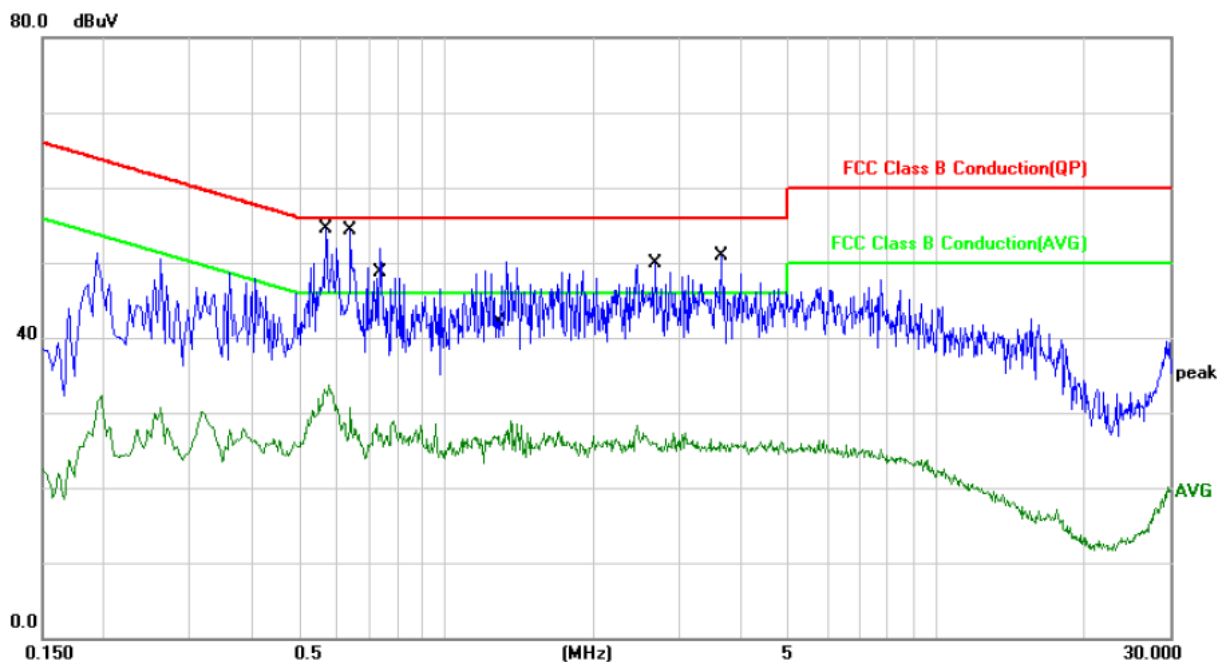
The EUT was placed on a non-metallic table, 80cm above the ground plane. The EUT Power connected to the power mains through a line impedance stabilization network. This provides a 50 ohm coupling impedance for the EUT (Please refer the block diagram of the test setup and photographs). The AC line are checked to find out the maximum conducted emission. In order to find the maximum emission levels, the relative positions of equipment and all of the interface cables shall be changed according to ANSI C63.10 on Conducted Emission Test.

The bandwidth of test receiver (R & S ESCI3) is set at 10kHz.

The frequency range from 150kHz to 30MHz is checked.

### 3.6. Power Line Conducted Emission Test Results

Pass (The testing data was attached in the next pages.)



Site Chamber #1

Phase: L1

Temperature: 25

Limit: FCC Class B Conduction(QP)

Power:

Humidity: 45 %

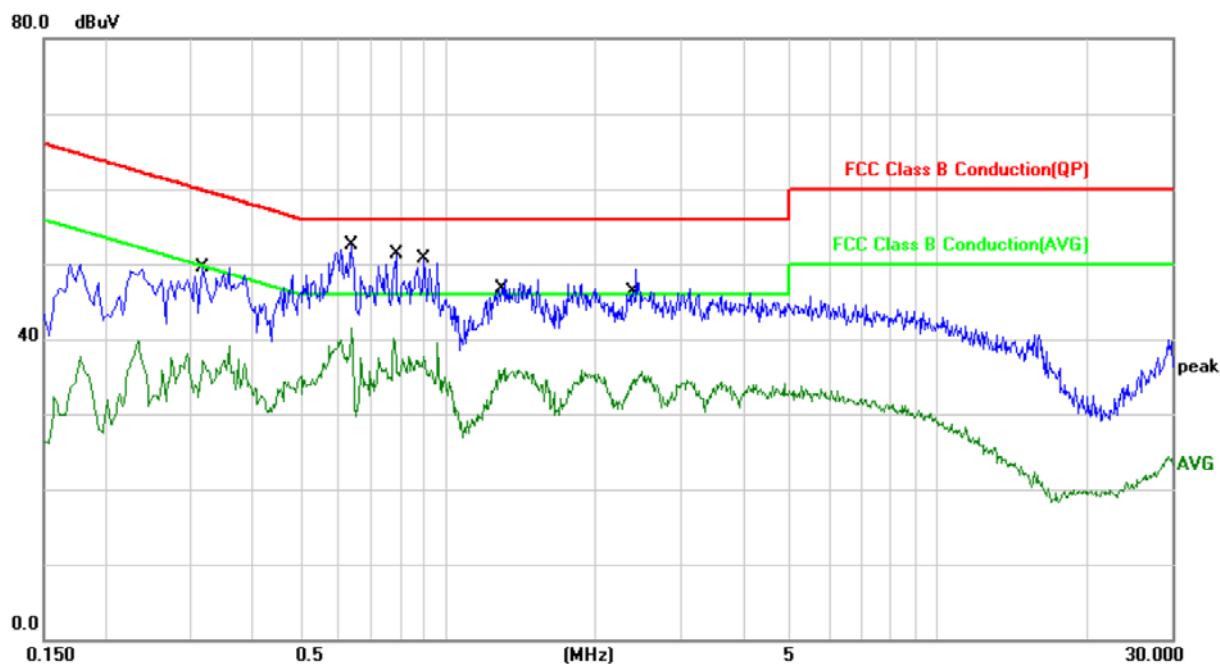
EUT:

M/N:

Mode:

Note:

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1	*	0.5737	33.93	9.96	43.89	56.00	-12.11	QP	
2		0.5737	22.53	9.96	32.49	46.00	-13.51	AVG	
3		0.6355	28.95	9.95	38.90	56.00	-17.10	QP	
4		0.6355	16.81	9.95	26.76	46.00	-19.24	AVG	
5		0.7477	27.08	9.94	37.02	56.00	-18.98	QP	
6		0.7477	15.98	9.94	25.92	46.00	-20.08	AVG	
7		1.2859	26.88	9.84	36.72	56.00	-19.28	QP	
8		1.2859	15.05	9.84	24.89	46.00	-21.11	AVG	
9		2.6882	24.83	9.83	34.66	56.00	-21.34	QP	
10		2.6882	14.79	9.83	24.62	46.00	-21.38	AVG	
11		3.6340	25.42	9.81	35.23	56.00	-20.77	QP	
12		3.6340	14.56	9.81	24.37	46.00	-21.63	AVG	



Site Chamber #1

Phase: N

Temperature: 25

Limit: FCC Class B Conduction(QP)

Power:

Humidity: 45 %

EUT:

M/N:

Mode:

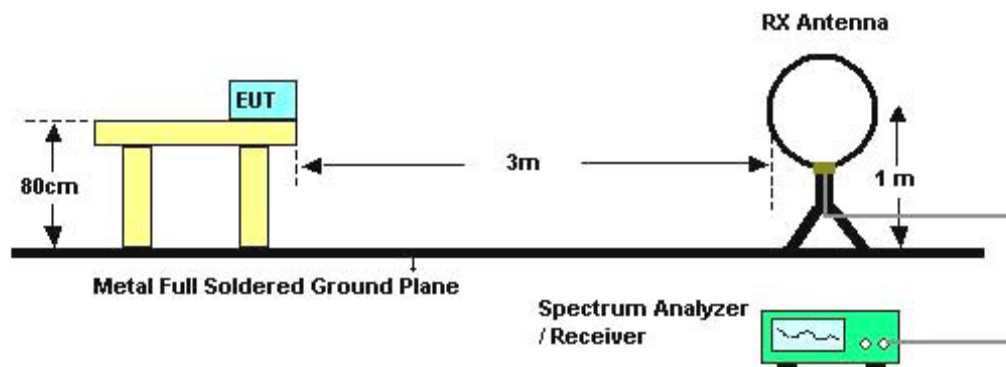
Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
		MHz	dBuV	dB	dBuV	dBuV	dB		
1		0.3218	33.46	10.31	43.77	59.66	-15.89	QP	
2		0.3218	25.51	10.31	35.82	49.66	-13.84	AVG	
3		0.6373	41.29	10.33	51.62	56.00	-4.38	QP	
4	*	0.6373	31.34	10.33	41.67	46.00	-4.33	AVG	
5		0.7811	37.26	10.32	47.58	56.00	-8.42	QP	
6		0.7811	28.34	10.32	38.66	46.00	-7.34	AVG	
7		0.8972	32.78	10.30	43.08	56.00	-12.92	QP	
8		0.8972	25.84	10.30	36.14	46.00	-9.86	AVG	
9		1.2807	30.40	10.26	40.66	56.00	-15.34	QP	
10		1.2807	22.42	10.26	32.68	46.00	-13.32	AVG	
11		2.4038	28.27	10.15	38.42	56.00	-17.58	QP	
12		2.4038	21.35	10.15	31.50	46.00	-14.50	AVG	

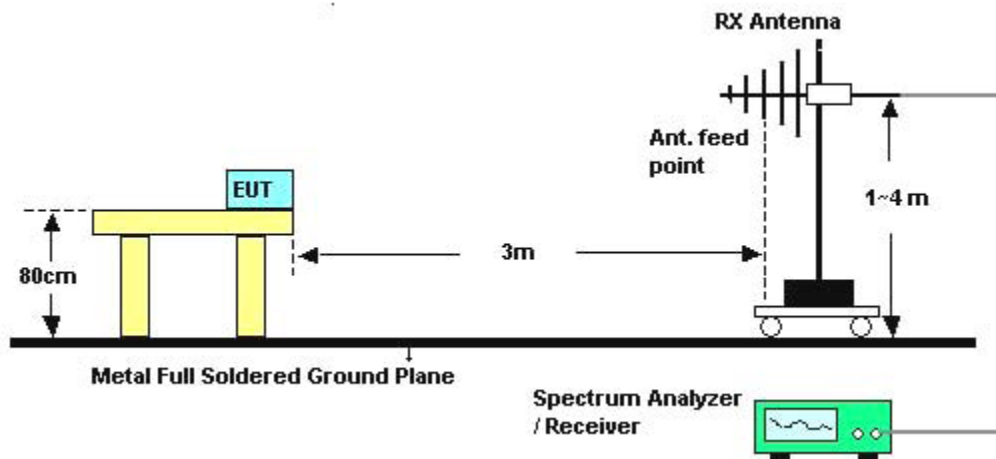
## 4. RADIATED EMISSIONS MEASUREMENT

### 4.1. Block Diagram of Test Setup

For radiated emissions below 30MHz



For radiated emissions above 30MHz



### 4.2. Radiated Emission Limit

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. 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). then the 15.209(a) limit in the table below has to be followed.

Frequencies(MHz)	Field Strength(micorvolts/meter)	Measurement Distance(meters)
0.009~0.490	2400/F(KHz)	300
0.490~1.705	24000/F(KHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
Above 960	500	3

### 4.3. EUT Configuration on Test

The configurations of EUT are listed in Section 3.2.

### 4.4. Operating Condition of EUT

Same as Conducted Emission test that is listed in Section 3.3. except the test setup replaced by Section 4.1.

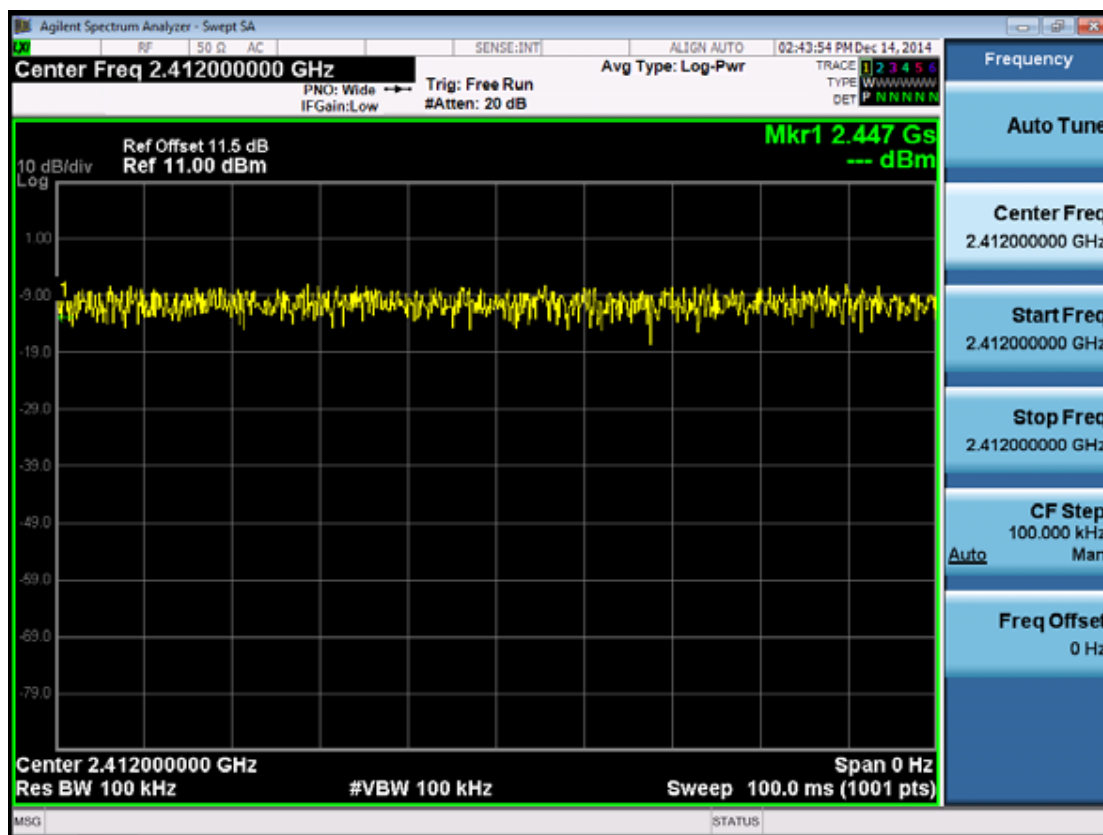
### 4.5. Test Procedures

1. Configure the EUT according to ANSI C63.4. The EUT was placed on the top of the turntable 0.8 meter above ground. The phase center of the receiving antenna mounted on the top of a height-variable antenna tower was placed 3 meters far away from the turntable.
2. Power on the EUT and all the supporting units. The turntable was rotated by 360 degrees to determine the position of the highest radiation.
3. The height of the broadband receiving antenna was varied between one meter and four meters above ground to find the maximum emissions field strength of both horizontal and vertical polarization.
4. For each suspected emissions, the antenna tower was scan (from 1 m to 4 m) and then the turntable was rotated (from 0 degree to 360 degrees) to find the maximum reading
5. Set the test-receiver system to Peak or CISPR quasi-peak Detect Function with specified bandwidth under Maximum Hold Mode.
6. For intentional radiators with a digital device portion which operates below 10 GHz, the spectrum was investigated as per §15.33(a)(1) and §15.33(a)(4); i.e., the lowest RF signal generated or used in the device up to the 10th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower.
7. In accordance with §15.35(b) the limit on the radio frequency emissions as measured using instrumentation with a peak detector function shall be 20 dB above the maximum permitted average limit for the frequency being investigated unless a different peak emission limit is otherwise specified in the rules.



## 4.6. Radiated Emission Test Results

Duty cycle



Note: Duty cycle is close to 100%

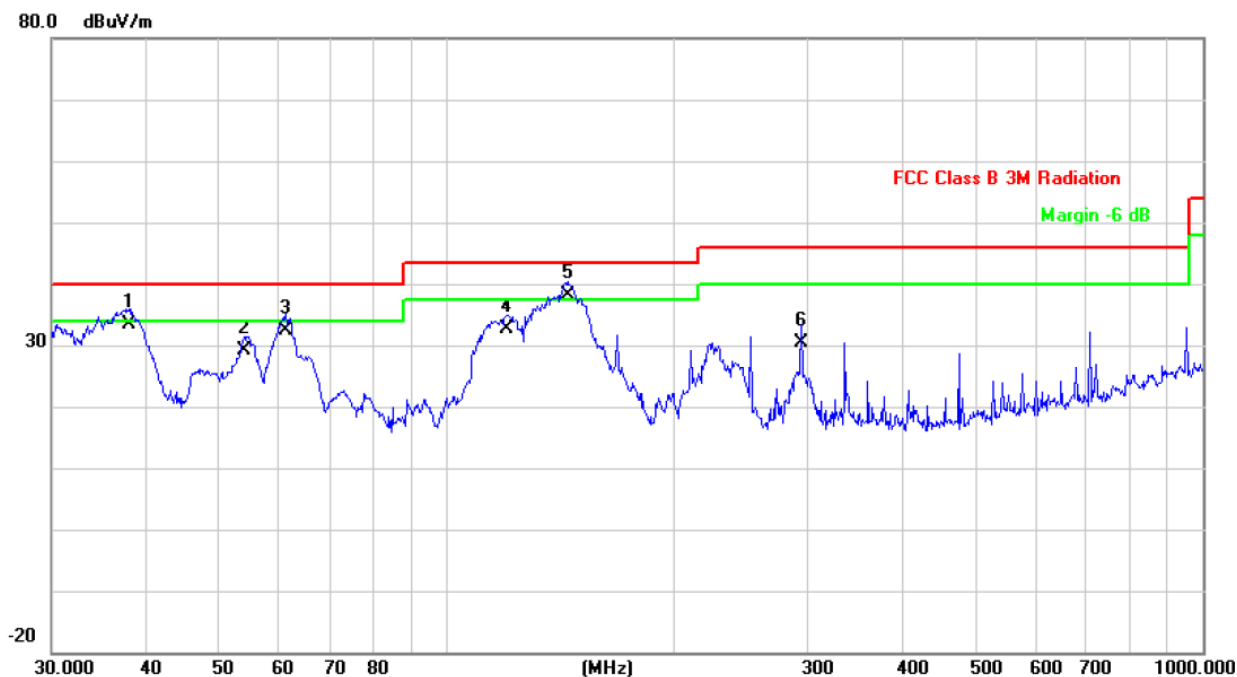
Temperature	25°C	Humidity	60%
Test Engineer	Alan	Test frequency	9KHz-30MHz
Configurations	Normal Link		

Freq MHz	Level dBuV/m	Read Level dBuV	Ant. Fac dB/m	Pre. Fac dB	Cab.Los dB	Limit Line dBuV/m	Over limit dB	Remark	Pol/Phase
--	--	--	--	--	--	--	--	See Note	--
--	--	--	--	--	--	--	--	See Note	--

Note:

The amplitude of spurious emissions which are attenuated by more than 20 dB below the permissible value has no need to be reported.

Temperature	25°C	Humidity	60%
Test Engineer	Alan	Test frequency	30MHz-1G
Configurations	Normal Link		



Site Chamber #1

Limit: FCC Class B 3M Radiation

EUT:

M/N:

Mode:

Note:

Polarization: **Vertical**

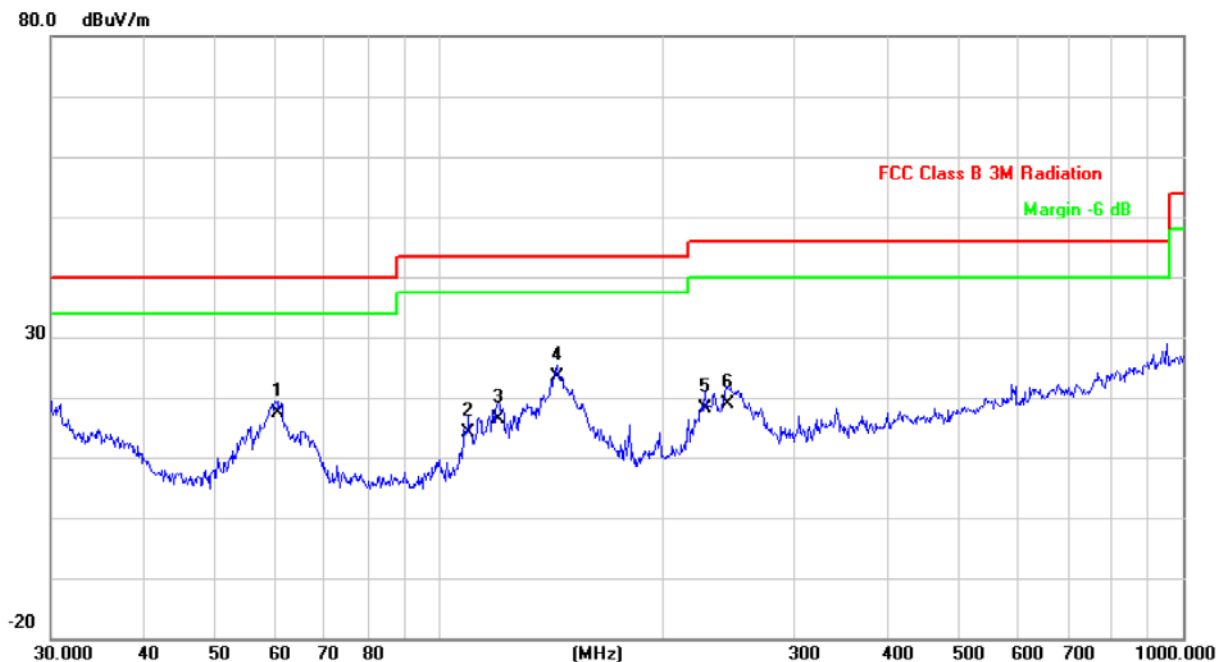
Power: AC 120V/60Hz

Distance: 3m

Temperature: 25

Humidity: 45 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	cm	degree
1		37.9450	45.12	-11.69	33.43	40.00	-6.57	QP		
2		53.8818	49.21	-20.07	29.14	40.00	-10.86	QP		
3		61.1316	52.14	-19.64	32.50	40.00	-7.50	QP		
4		119.8556	47.25	-14.73	32.52	43.50	-10.98	QP		
5	*	144.3348	50.01	-11.95	38.06	43.50	-5.44	QP		
6		294.1137	41.98	-11.65	30.33	46.00	-15.67	QP		



Site Chamber #1

Limit: FCC Class B 3M Radiation

EUT:

M/N:

Mode:

Note:

Polarization: **Horizontal**

Power: AC 120V/60Hz

Distance: 3m

Temperature: 25

Humidity: 45 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	degree	Comment
1		60.4919	37.10	-19.64	17.46	40.00	-22.54	QP		
2		109.4116	30.14	-16.00	14.14	43.50	-29.36	QP		
3		119.8556	31.05	-14.73	16.32	43.50	-27.18	QP		
4	*	143.8295	35.41	-12.03	23.38	43.50	-20.12	QP		
5		227.6906	31.89	-13.74	18.15	46.00	-27.85	QP		
6		244.2321	31.98	-13.05	18.93	46.00	-27.07	QP		

Temperature	25°C	Humidity	60%
Test Engineer	Alan	Test frequency	1G-18G
Configurations	IEEE 802.11b CH1 2412MHz TX		

Freq GHz	Level dBuV/m	Read Level dBuV	Ant. Fac dB/m	Pre. Fac dB	Cab.Los dB	Limit Line dBuV/m	Over limit dB	Remark	Pol/Phase
4824	52.67	45.71	33.06	35.04	8.94	74	-21.33	Peak	Horizontal
4824	44.21	37.25	33.06	35.04	8.94	54	-9.79	Average	Horizontal
7236	55.49	46.28	34.12	35.27	10.36	74	-18.51	Peak	Horizontal
7236	47.37	38.16	34.12	35.27	10.36	54	-6.63	Average	Horizontal
4824	51.63	44.67	33.06	35.04	8.94	74	-22.37	Peak	Vertical
4824	39.55	32.59	33.06	35.04	8.94	54	-14.45	Average	Vertical
7236	57.44	48.23	34.12	35.27	10.36	74	-16.56	Peak	Vertical
7236	44.37	35.16	34.12	35.27	10.36	54	-9.63	Average	Vertical

Temperature	25℃	Humidity	60%
Test Engineer	Alan	Test frequency	1G-18G
Configurations	IEEE 802.11b CH6 2437MHz TX		

Freq GHz	Level dBuV/m	Read Level dBuV	Ant. Fac dB/m	Pre. Fac dB	Cab.Los dB	Limit Line dBuV/m	Over limit dB	Remark	Pol/Phase
4874	53.09	46.13	33.06	35.04	8.94	74	-20.91	Peak	Horizontal
4874	42.2	35.24	33.06	35.04	8.94	54	-11.8	Average	Horizontal
7311	57.05	47.84	34.12	35.27	10.36	74	-16.95	Peak	Horizontal
7311	41.37	32.16	34.12	35.27	10.36	54	-12.63	Average	Horizontal
4874	50.33	43.37	33.06	35.04	8.94	74	-23.67	Peak	Vertical
4874	38.08	31.12	33.06	35.04	8.94	54	-15.92	Average	Vertical
7311	56.76	47.55	34.12	35.27	10.36	74	-17.24	Peak	Vertical
7311	43.6	34.39	34.12	35.27	10.36	54	-10.4	Average	Vertical

Temperature	25℃	Humidity	60%
Test Engineer	Alan	Test frequency	1G-18G
Configurations	IEEE 802.11b CH11 2462MHz TX		

Freq GHz	Level dBuV/m	Read Level dBuV	Ant. Fac dB/m	Pre. Fac dB	Cab.Los dB	Limit Line dBuV/m	Over limit dB	Remark	Pol/Phase
4924	51.77	44.81	33.06	35.04	8.94	74	-22.23	Peak	Horizontal
4924	41.15	34.19	33.06	35.04	8.94	54	-12.85	Average	Horizontal
7386	55.94	46.73	34.12	35.27	10.36	74	-18.06	Peak	Horizontal
7386	40.08	30.87	34.12	35.27	10.36	54	-13.92	Average	Horizontal
4924	46.15	39.19	33.06	35.04	8.94	74	-27.85	Peak	Vertical
4924	36.41	29.45	33.06	35.04	8.94	54	-17.59	Average	Vertical
7386	55.47	46.26	34.12	35.27	10.36	74	-18.53	Peak	Vertical
7386	42.43	33.22	34.12	35.27	10.36	54	-11.57	Average	Vertical

Temperature	25°C	Humidity	60%
Test Engineer	Alan	Test frequency	1G-18G
Configurations	IEEE 802.11g CH1 2412MHz TX		

Freq GHz	Level dBuV/m	Read Level dBuV	Ant. Fac dB/m	Pre. Fac dB	Cab.Los dB	Limit Line dBuV/m	Over limit dB	Remark	Pol/Phase
4824	52.09	45.13	33.06	35.04	8.94	74	-21.91	Peak	Horizontal
4824	40.94	33.98	33.06	35.04	8.94	54	-13.06	Average	Horizontal
7236	55.02	45.81	34.12	35.27	10.36	74	-18.98	Peak	Horizontal
7236	40.45	31.24	34.12	35.27	10.36	54	-13.55	Average	Horizontal
4824	50.75	43.79	33.06	35.04	8.94	74	-23.25	Peak	Vertical
4824	33.44	26.48	33.06	35.04	8.94	54	-20.56	Average	Vertical
7236	56.37	47.16	34.12	35.27	10.36	74	-17.63	Peak	Vertical
7236	43.42	34.21	34.12	35.27	10.36	54	-10.58	Average	Vertical

Temperature	25℃	Humidity	60%
Test Engineer	Alan	Test frequency	1G-18G
Configurations	IEEE 802.11g CH6 2437MHz TX		

Freq GHz	Level dBuV/m	Read Level dBuV	Ant. Fac dB/m	Pre. Fac dB	Cab.Los dB	Limit Line dBuV/m	Over limit dB	Remark	Pol/Phase
4874	52.29	45.33	33.06	35.04	8.94	74	-21.71	Peak	Horizontal
4874	39.15	32.19	33.06	35.04	8.94	54	-14.85	Average	Horizontal
7311	54.58	45.37	34.12	35.27	10.36	74	-19.42	Peak	Horizontal
7311	41.15	31.94	34.12	35.27	10.36	54	-12.85	Average	Horizontal
4874	50.12	43.16	33.06	35.04	8.94	74	-23.88	Peak	Vertical
4874	33.95	26.99	33.06	35.04	8.94	54	-20.05	Average	Vertical
7311	57.58	48.37	34.12	35.27	10.36	74	-16.42	Peak	Vertical
7311	44.45	35.24	34.12	35.27	10.36	54	-9.55	Average	Vertical



Temperature	25℃	Humidity	60%
Test Engineer	Alan	Test frequency	1G-18G
Configurations	IEEE 802.11g CH11 2462MHz TX		

Freq GHz	Level dBuV/m	Read Level dBuV	Ant. Fac dB/m	Pre. Fac dB	Cab.Los dB	Limit Line dBuV/m	Over limit dB	Remark	Pol/Phase
4924	53.18	46.22	33.06	35.04	8.94	74	-20.82	Peak	Horizontal
4924	40.15	33.19	33.06	35.04	8.94	54	-13.85	Average	Horizontal
7386	54.92	45.71	34.12	35.27	10.36	74	-19.08	Peak	Horizontal
7386	41.58	32.37	34.12	35.27	10.36	54	-12.42	Average	Horizontal
4924	48.91	41.95	33.06	35.04	8.94	74	-25.09	Peak	Vertical
4924	34.6	27.64	33.06	35.04	8.94	54	-19.4	Average	Vertical
7386	57.99	48.78	34.12	35.27	10.36	74	-16.01	Peak	Vertical
7386	42.38	33.17	34.12	35.27	10.36	54	-11.62	Average	Vertical

Temperature	25℃	Humidity	60%
Test Engineer	Alan	Test frequency	1G-18G
Configurations	IEEE 802.11n (HT20) CH1 2412MHz TX		

Freq GHz	Level dBuV/m	Read Level dBuV	Ant. Fac dB/m	Pre. Fac dB	Cab.Los dB	Limit Line dBuV/m	Over limit dB	Remark	Pol/Phase
4824	50.75	45.61	31.24	35.04	8.94	74	-21.91	Peak	Horizontal
4824	41.24	34.28	33.06	35.04	8.94	54	-13.06	Average	Horizontal
7236	53.4	44.19	34.12	35.27	10.36	74	-18.98	Peak	Horizontal
7236	40.85	31.64	34.12	35.27	10.36	54	-13.55	Average	Horizontal
4824	50.45	43.49	33.06	35.04	8.94	74	-23.25	Peak	Vertical
4824	35.63	28.67	33.06	35.04	8.94	54	-20.56	Average	Vertical
7236	51.52	42.31	34.12	35.27	10.36	74	-17.63	Peak	Vertical
7236	40.49	31.28	34.12	35.27	10.36	54	-10.58	Average	Vertical

Temperature	25℃	Humidity	60%
Test Engineer	Alan	Test frequency	1G-18G
Configurations	IEEE 802.11n (HT20) CH6 2437MHz TX		

Freq GHz	Level dBuV/m	Read Level dBuV	Ant. Fac dB/m	Pre. Fac dB	Cab.Los dB	Limit Line dBuV/m	Over limit dB	Remark	Pol/Phase
4874	49.74	44.6	31.24	35.04	8.94	74	-24.26	Peak	Horizontal
4874	40.45	33.49	33.06	35.04	8.94	54	-13.55	Average	Horizontal
7311	51.37	42.16	34.12	35.27	10.36	74	-22.63	Peak	Horizontal
7311	39.38	30.17	34.12	35.27	10.36	54	-14.62	Average	Horizontal
4874	49.14	42.18	33.06	35.04	8.94	74	-24.86	Peak	Vertical
4874	36.6	29.64	33.06	35.04	8.94	54	-17.4	Average	Vertical
7311	53.95	44.74	34.12	35.27	10.36	74	-20.05	Peak	Vertical
7311	42.82	33.61	34.12	35.27	10.36	54	-11.18	Average	Vertical

Temperature	25℃	Humidity	60%
Test Engineer	Alan	Test frequency	1G-18G
Configurations	IEEE 802.11n (HT20) CH11 2462MHz TX		

Freq GHz	Level dBuV/m	Read Level dBuV	Ant. Fac dB/m	Pre. Fac dB	Cab.Los dB	Limit Line dBuV/m	Over limit dB	Remark	Pol/Phase
4924	50.98	45.84	31.24	35.04	8.94	74	-23.02	Peak	Horizontal
4924	41.12	34.16	33.06	35.04	8.94	54	-12.88	Average	Horizontal
7386	52.73	43.52	34.12	35.27	10.36	74	-21.27	Peak	Horizontal
7386	40.88	31.67	34.12	35.27	10.36	54	-13.12	Average	Horizontal
4924	51.24	44.28	33.06	35.04	8.94	74	-22.76	Peak	Vertical
4924	39.13	32.17	33.06	35.04	8.94	54	-14.87	Average	Vertical
7386	55.37	46.16	34.12	35.27	10.36	74	-18.63	Peak	Vertical
7386	43.58	34.37	34.12	35.27	10.36	54	-10.42	Average	Vertical

Temperature	25°C	Humidity	60%
Test Engineer	Alan	Test frequency	1G-18G
Configurations	IEEE 802.11n (HT40) CH3 2422MHz TX		

Freq GHz	Level dBuV/m	Read Level dBuV	Ant. Fac dB/m	Pre. Fac dB	Cab.Los dB	Limit Line dBuV/m	Over limit dB	Remark	Pol/Phase
4844	54.95	45.84	35.21	35.04	8.94	74	-19.05	Peak	Horizontal
4844	42.22	34.16	34.16	35.04	8.94	54	-11.78	Average	Horizontal
7266	56.14	43.52	37.53	35.27	10.36	74	-17.86	Peak	Horizontal
7266	43.14	31.67	36.38	35.27	10.36	54	-10.86	Average	Horizontal
4844	55.37	44.28	37.19	35.04	8.94	74	-18.63	Peak	Vertical
4844	40.62	32.17	34.55	35.04	8.94	54	-13.38	Average	Vertical
7266	56.35	46.16	35.1	35.27	10.36	74	-17.65	Peak	Vertical
7266	44.8	34.37	35.34	35.27	10.36	54	-9.2	Average	Vertical

Temperature	25°C	Humidity	60%
Test Engineer	Alan	Test frequency	1G-18G
Configurations	IEEE 802.11n (HT40) CH6 2437MHz TX		

Freq GHz	Level dBuV/m	Read Level dBuV	Ant. Fac dB/m	Pre. Fac dB	Cab.Los dB	Limit Line dBuV/m	Over limit dB	Remark	Pol/Phase
4874	54.27	45.16	35.21	35.04	8.94	74	-19.73	Peak	Horizontal
4874	42.88	34.82	34.16	35.04	8.94	54	-11.12	Average	Horizontal
7311	55.9	43.28	37.53	35.27	10.36	74	-18.1	Peak	Horizontal
7311	42.69	31.22	36.38	35.27	10.36	54	-11.31	Average	Horizontal
4874	55.06	43.97	37.19	35.04	8.94	74	-18.94	Peak	Vertical
4874	41.31	32.86	34.55	35.04	8.94	54	-12.69	Average	Vertical
7311	54.51	44.32	35.1	35.27	10.36	74	-19.49	Peak	Vertical
7311	42.6	32.17	35.34	35.27	10.36	54	-11.4	Average	Vertical

Temperature	25°C	Humidity	60%
Test Engineer	Alan	Test frequency	1G-18G
Configurations	IEEE 802.11n (HT40) CH9 2452MHz TX		

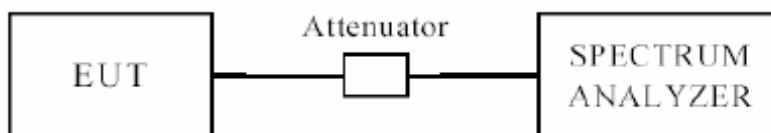
Freq GHz	Level dBuV/m	Read Level dBuV	Ant. Fac dB/m	Pre. Fac dB	Cab.Los dB	Limit Line dBuV/m	Over limit dB	Remark	Pol/Phase
4904	55.89	45.16	36.83	35.04	8.94	74	-18.11	Peak	Horizontal
4904	44.21	34.82	35.49	35.04	8.94	54	-9.79	Average	Horizontal
7356	56.53	43.28	38.16	35.27	10.36	74	-17.47	Peak	Horizontal
7356	43.2	31.22	36.89	35.27	10.36	54	-10.8	Average	Horizontal
4904	55.31	43.97	37.44	35.04	8.94	74	-18.69	Peak	Vertical
4904	41.89	32.86	35.13	35.04	8.94	54	-12.11	Average	Vertical
7356	53.65	44.32	34.24	35.27	10.36	74	-20.35	Peak	Vertical
7356	41.04	32.17	33.78	35.27	10.36	54	-12.96	Average	Vertical

Note: The Duty Cycle is 100%。

The frequency range from 30MHz to 10th harmonic (25GHz) are checked. and no any emissions were found from 18GHz to 25 GHz, So the radiated emissions from 18GHz to 25GHz were not record.

## 5. CONDUCTED SPURIOUS EMISSIONS

### 5.1. Block Diagram of Test Setup



### 5.2. Limit

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. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

### 5.3. Test Procedure

Conducted RF measurements of the transmitter output were made to confirm that the EUT antenna port conducted emissions meet the specified limit and to identify any spurious signals that require further investigation or measurements on the radiated emissions site.

The transmitter output is connected to the spectrum analyzer. The resolution bandwidth is set to 100 KHz. The video bandwidth is set to 100 KHz.

Measurements are made over the 9kHz to 25GHz range with the transmitter set to the lowest, middle, and highest channels.

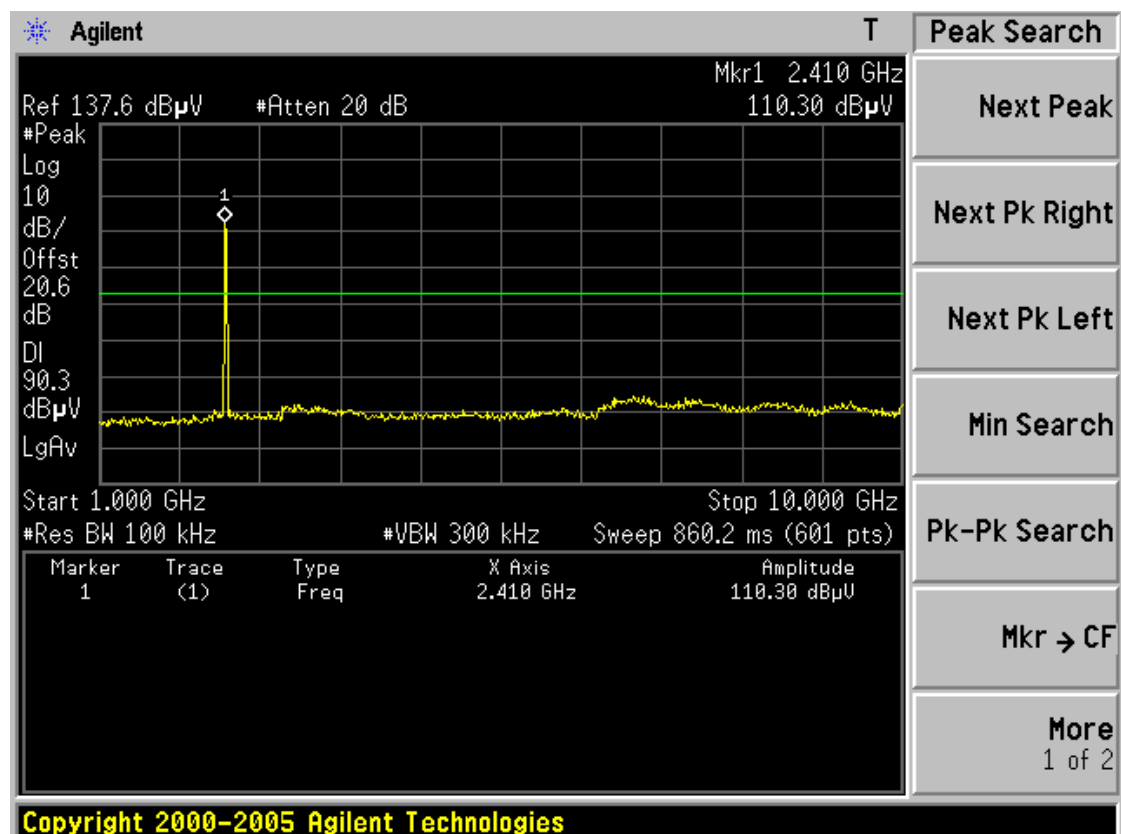
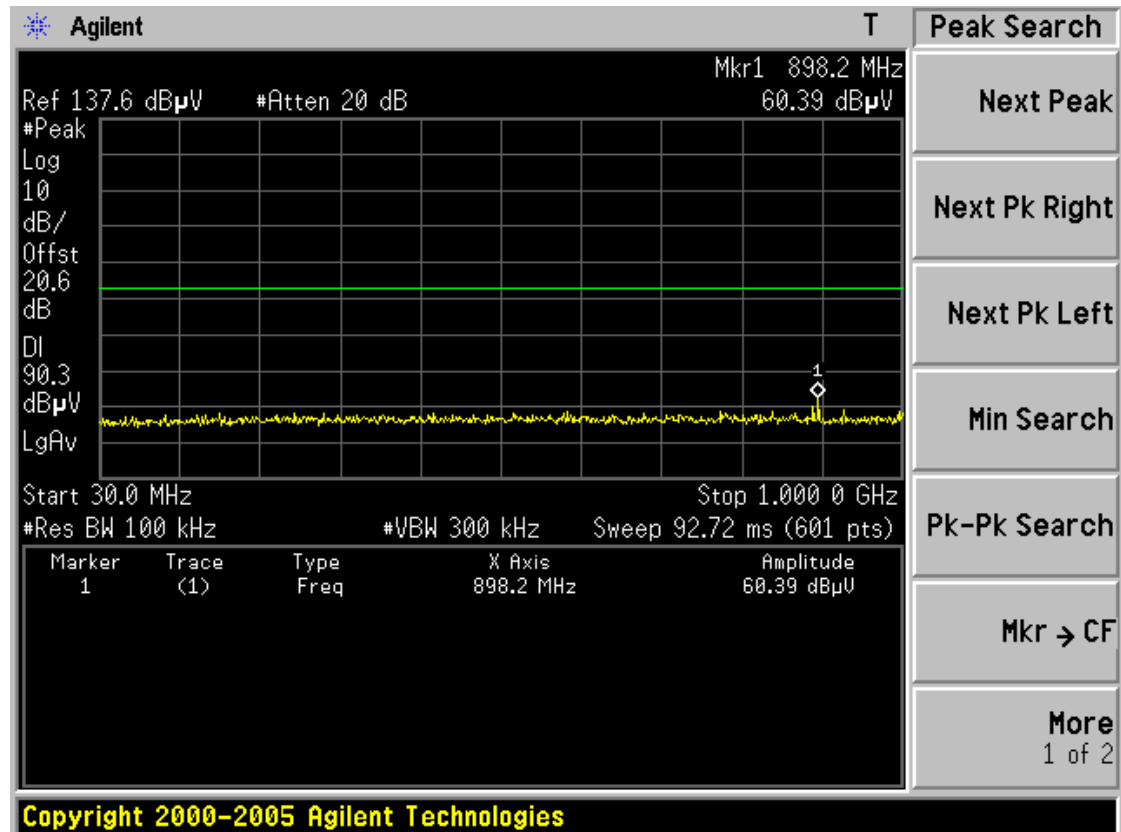
### 5.4. Test Results

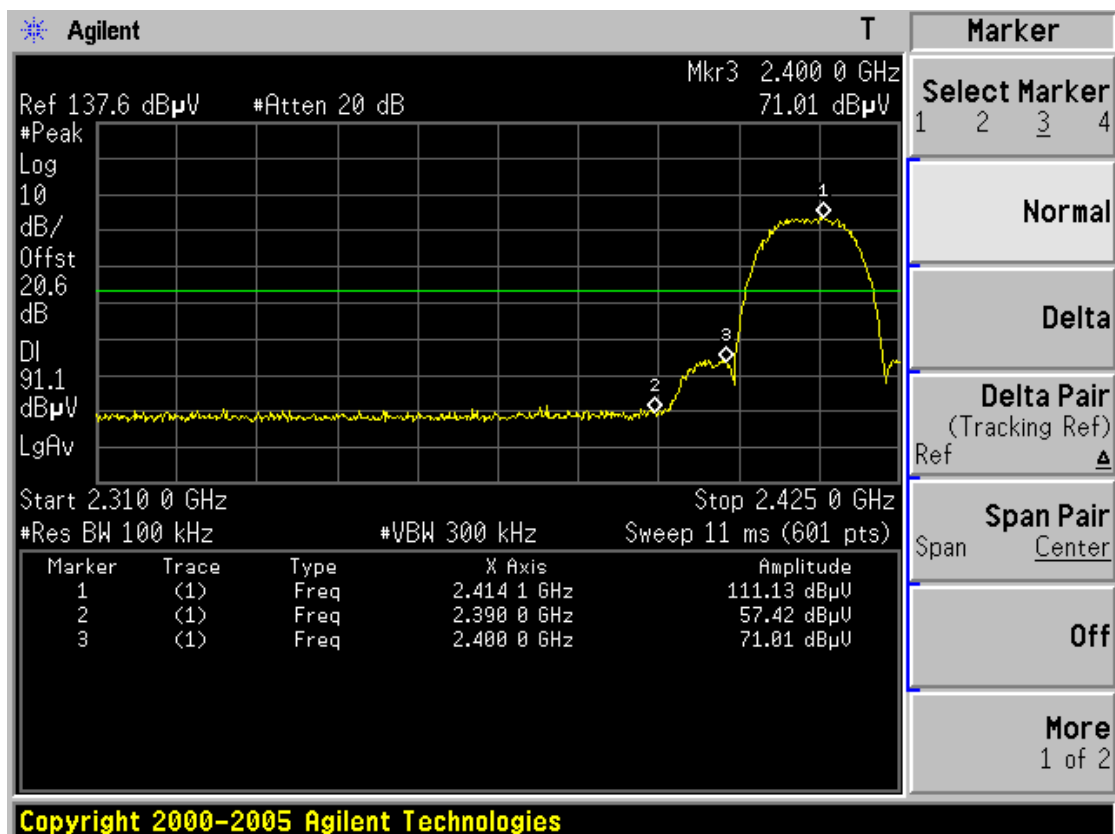
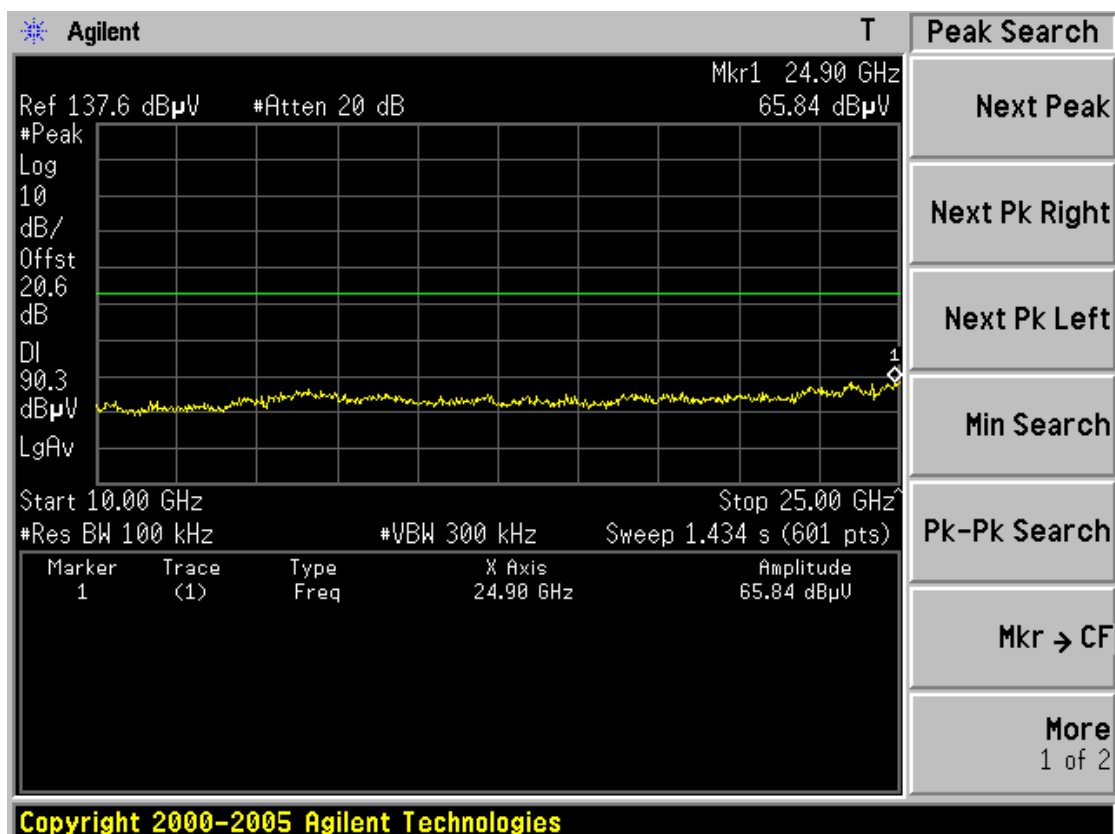
The test data graph please refer to the following page.



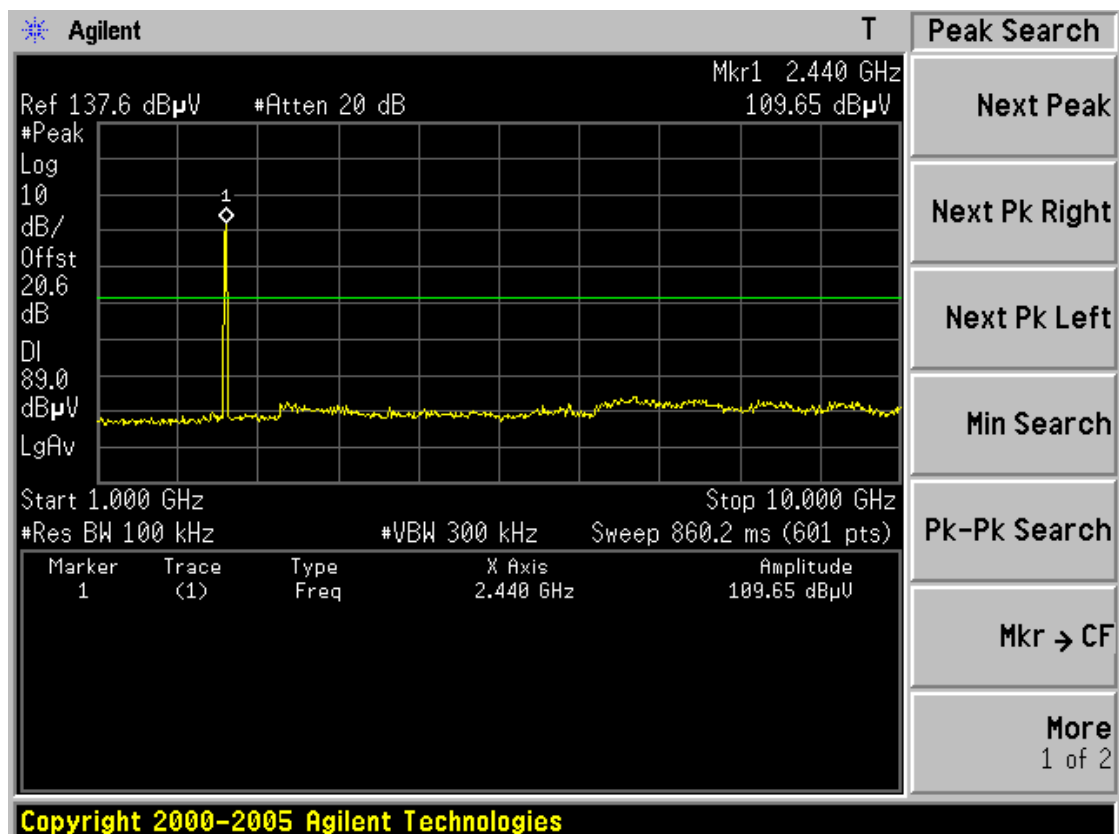
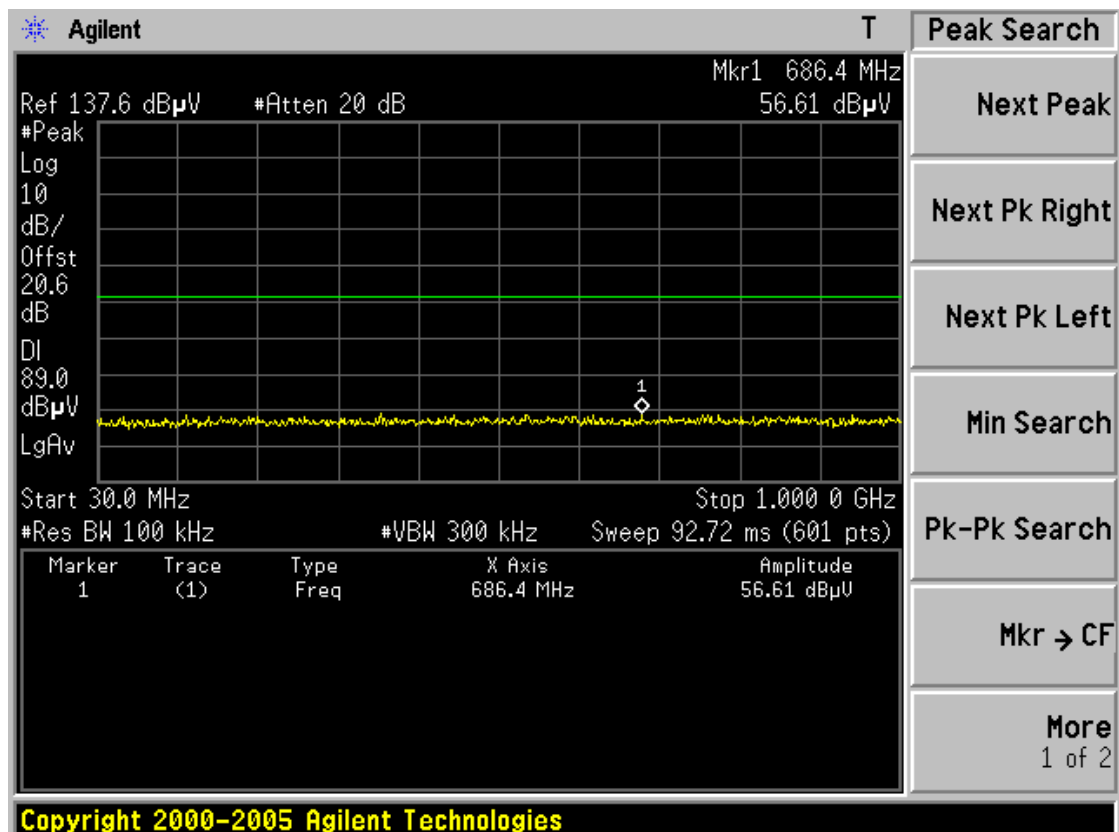
Test Mode: IEEE 802.11b TX

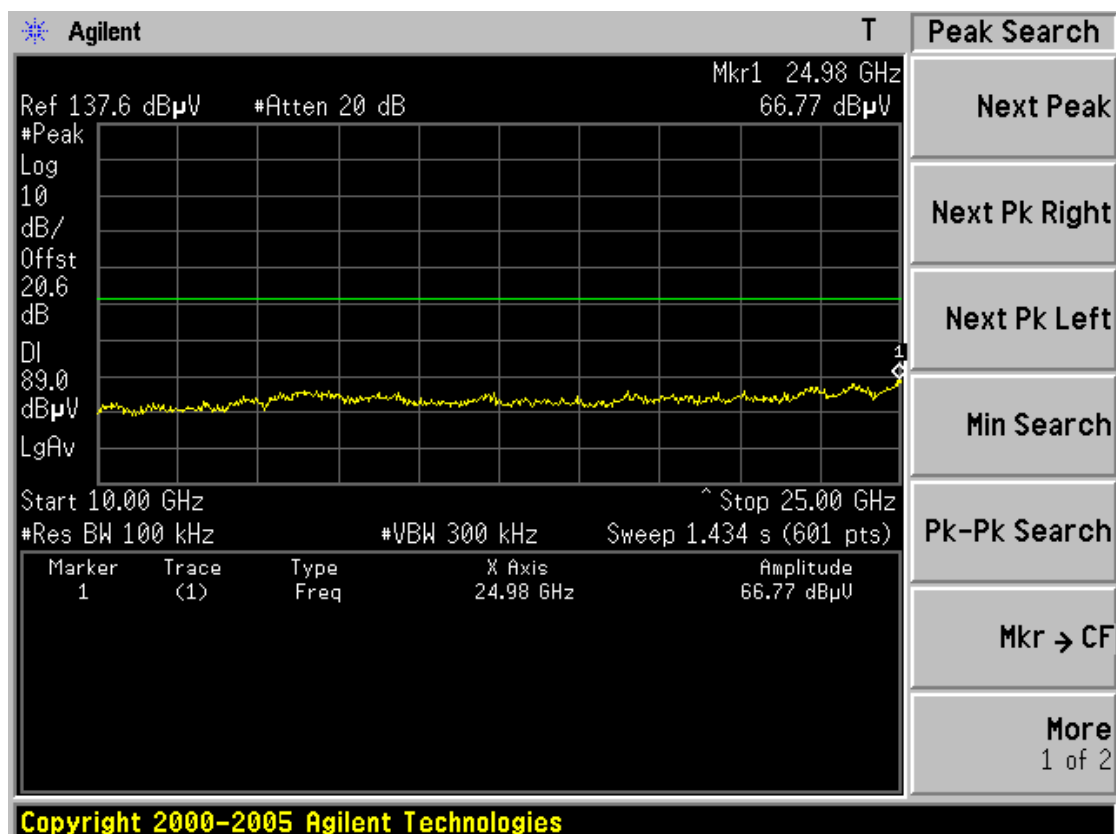
CH1



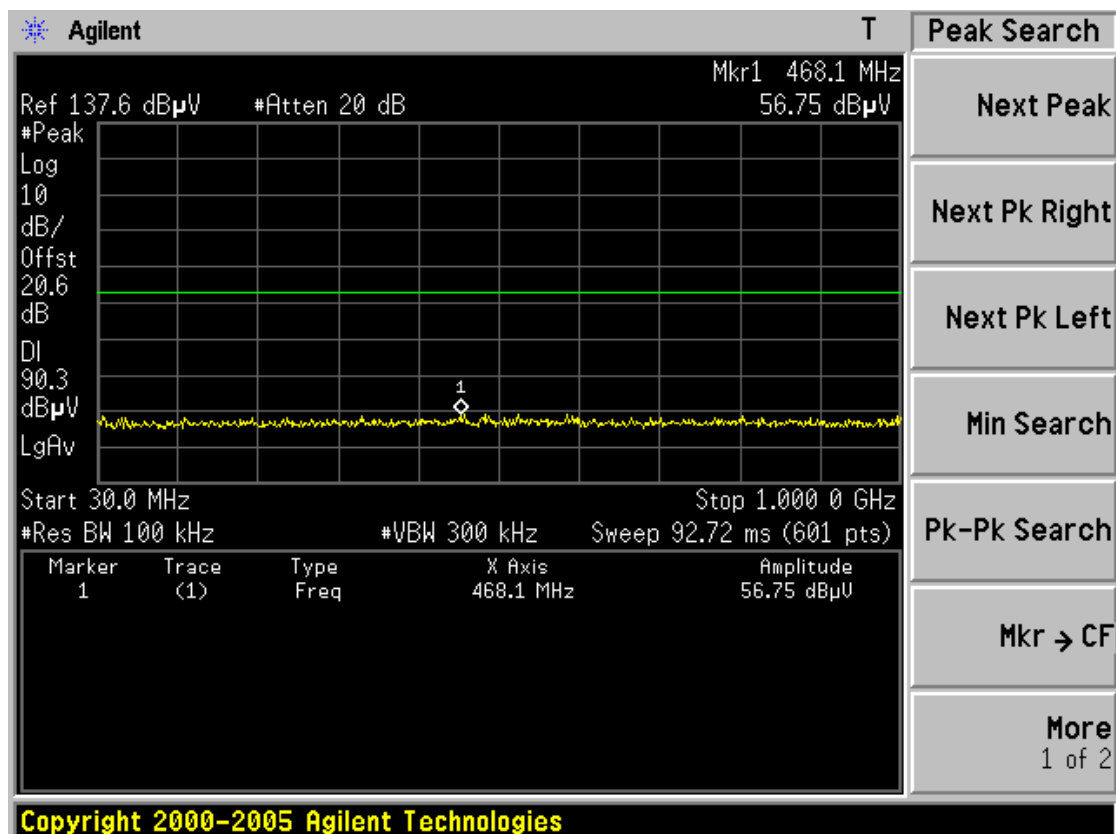


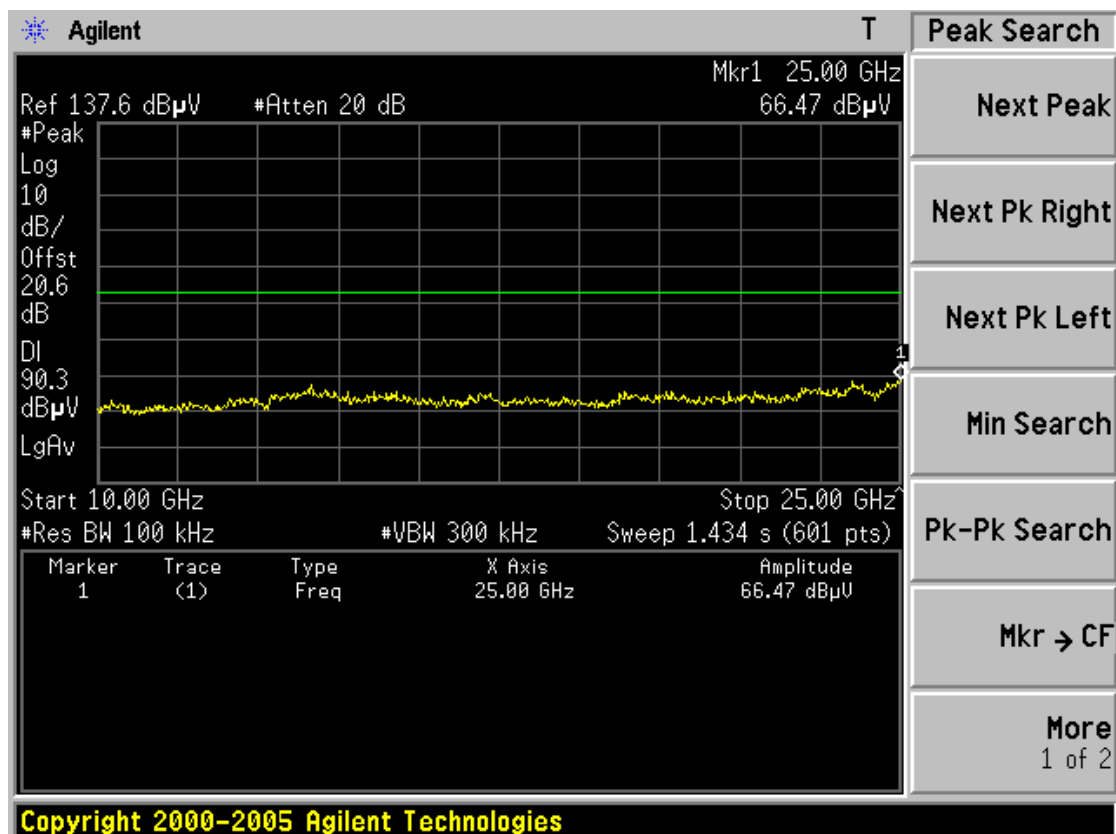
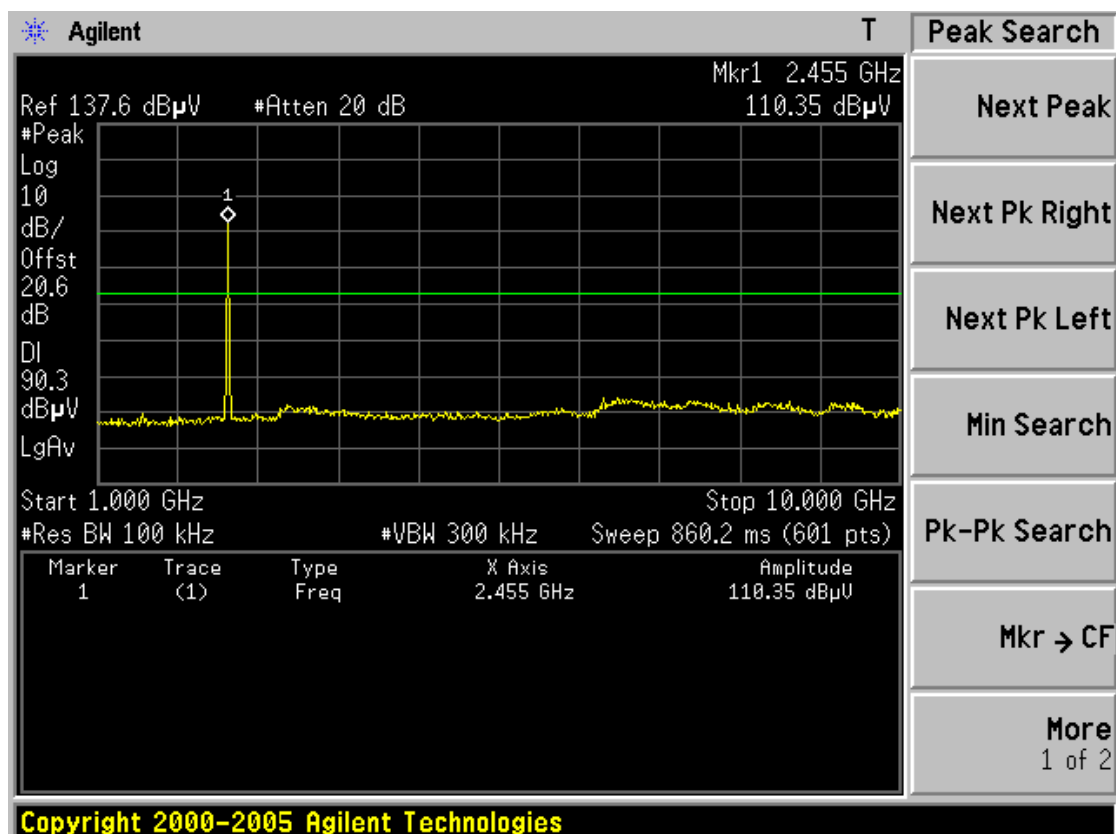
## CH6

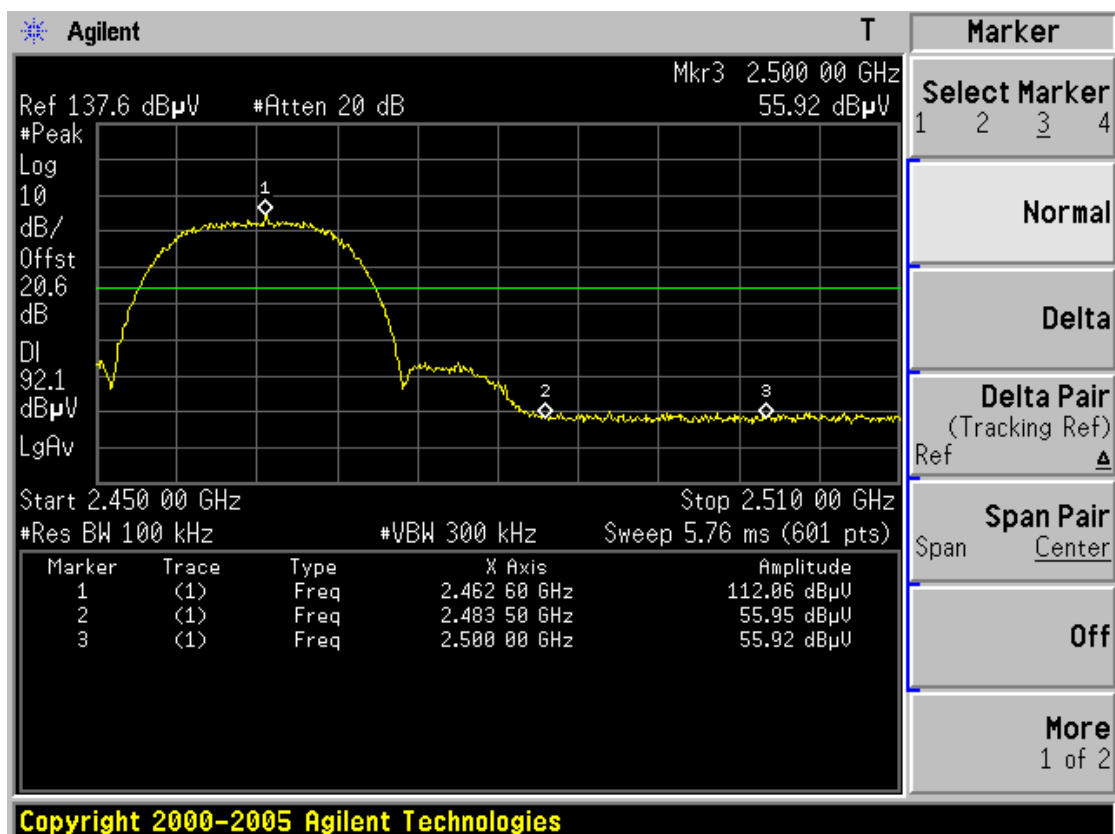




CH11

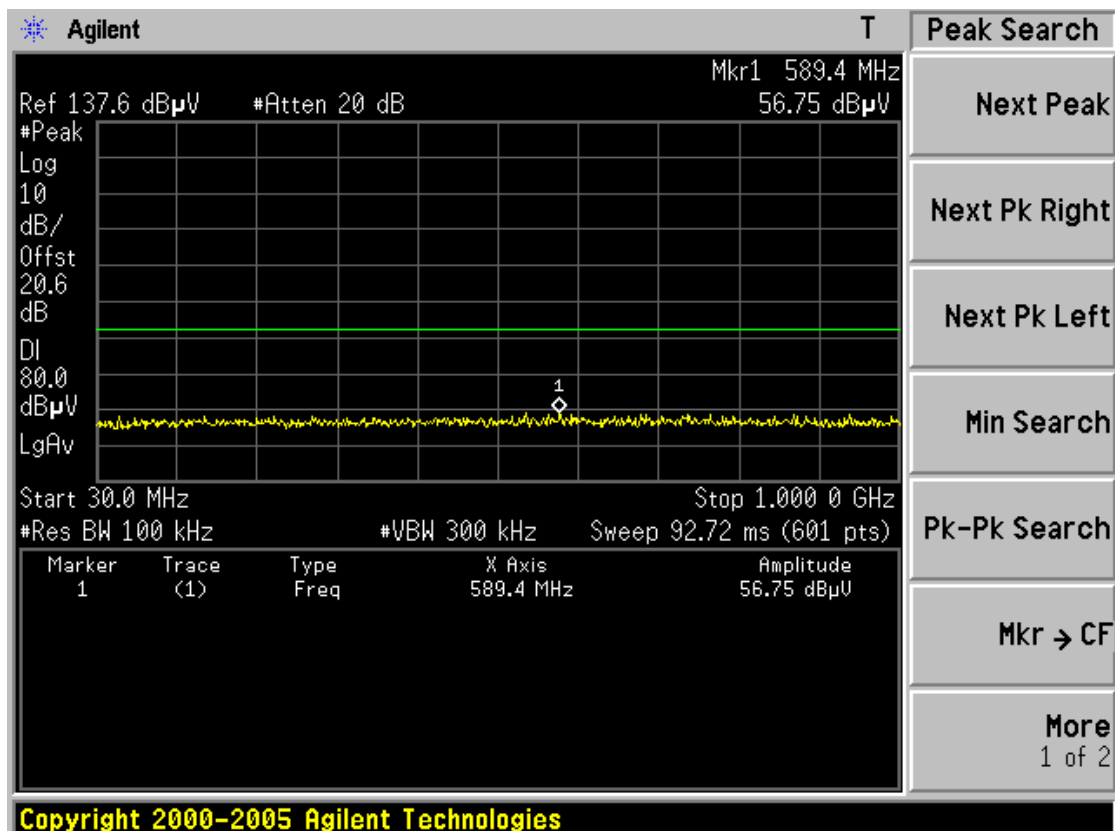


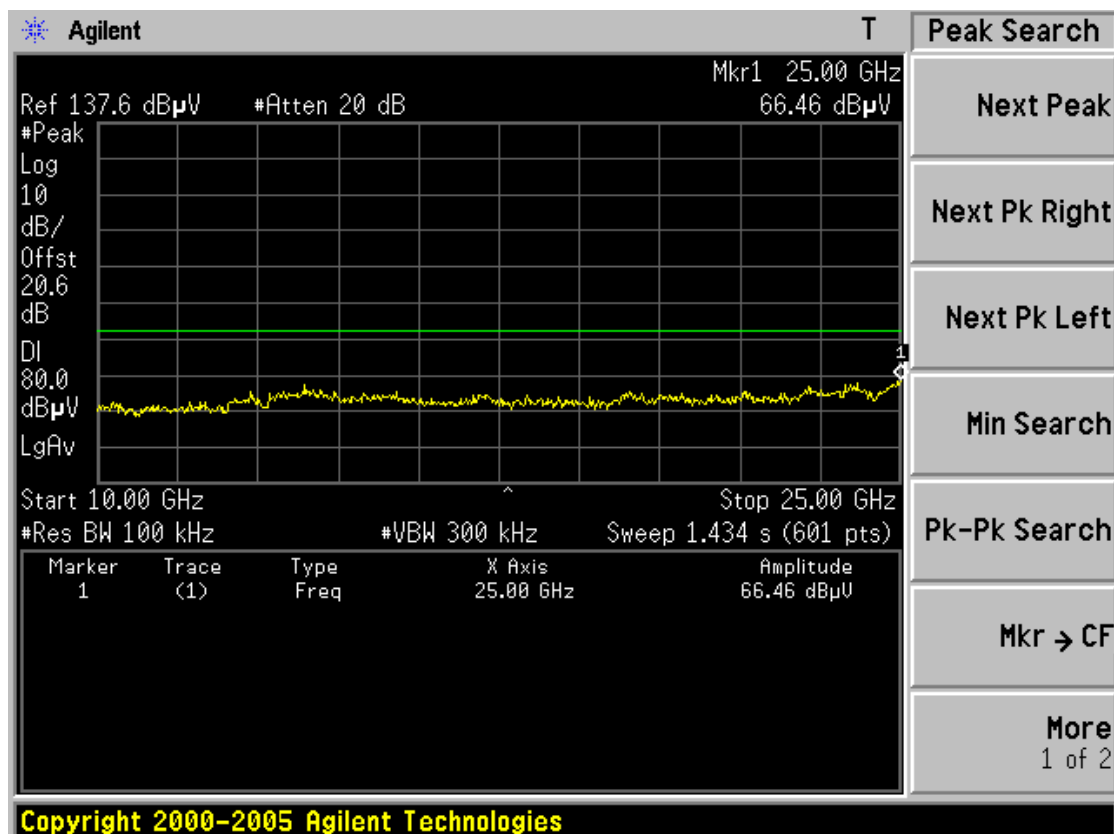
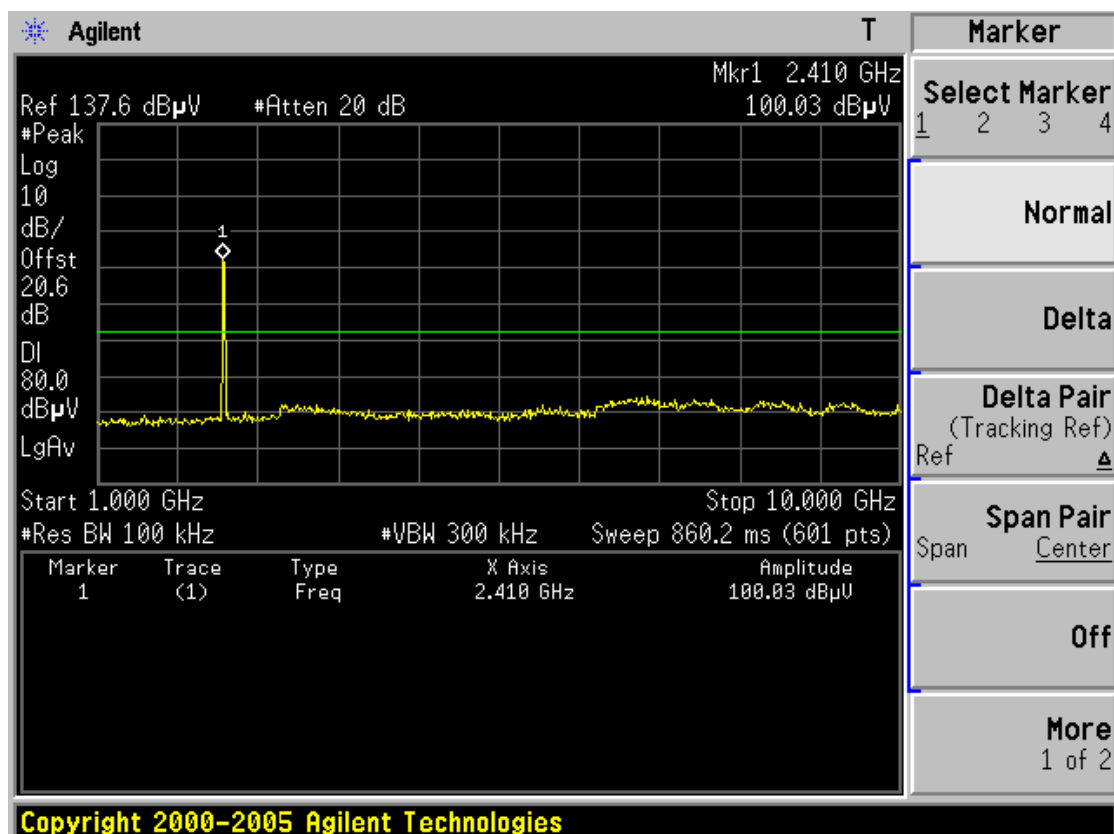


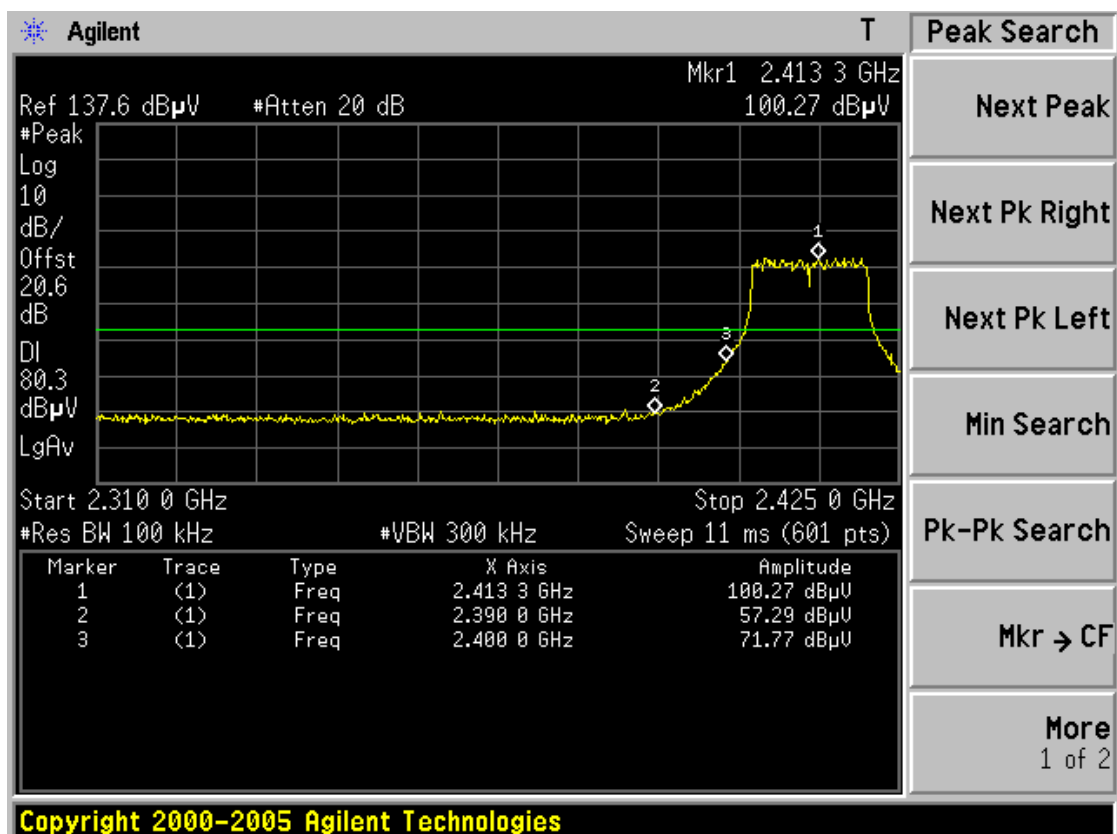


Test Mode: IEEE 802.11g TX

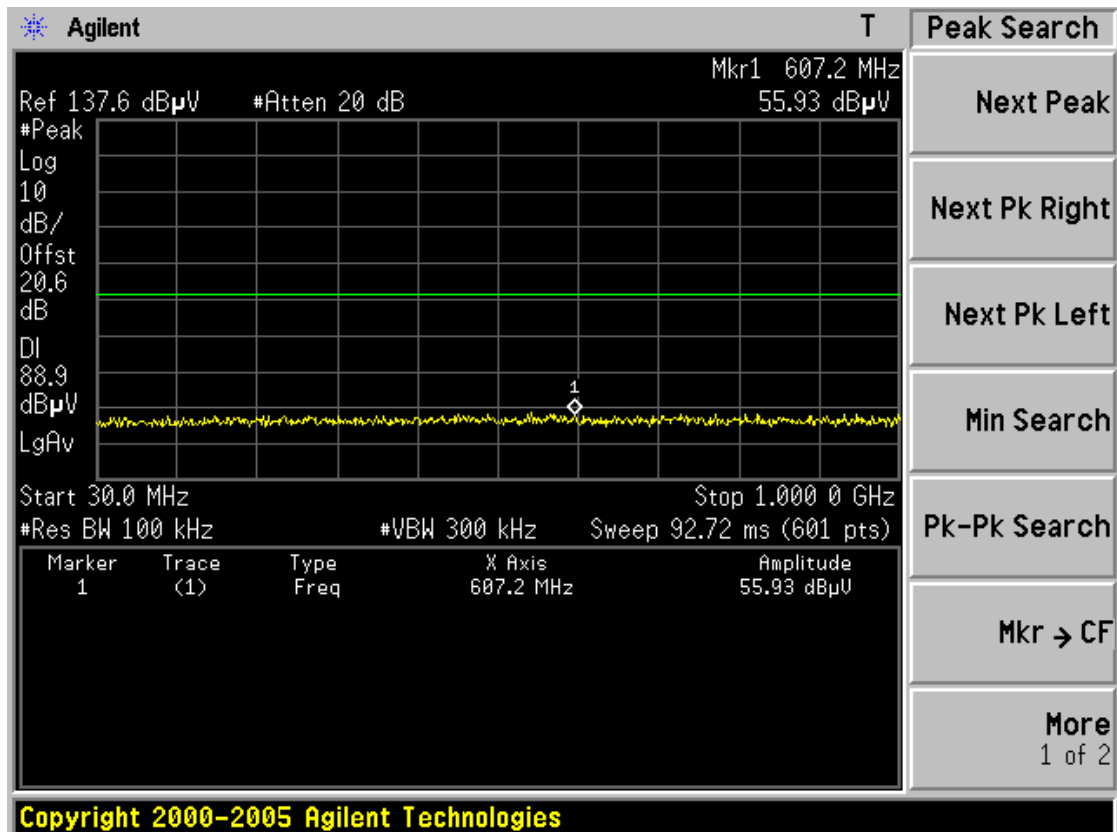
CH1



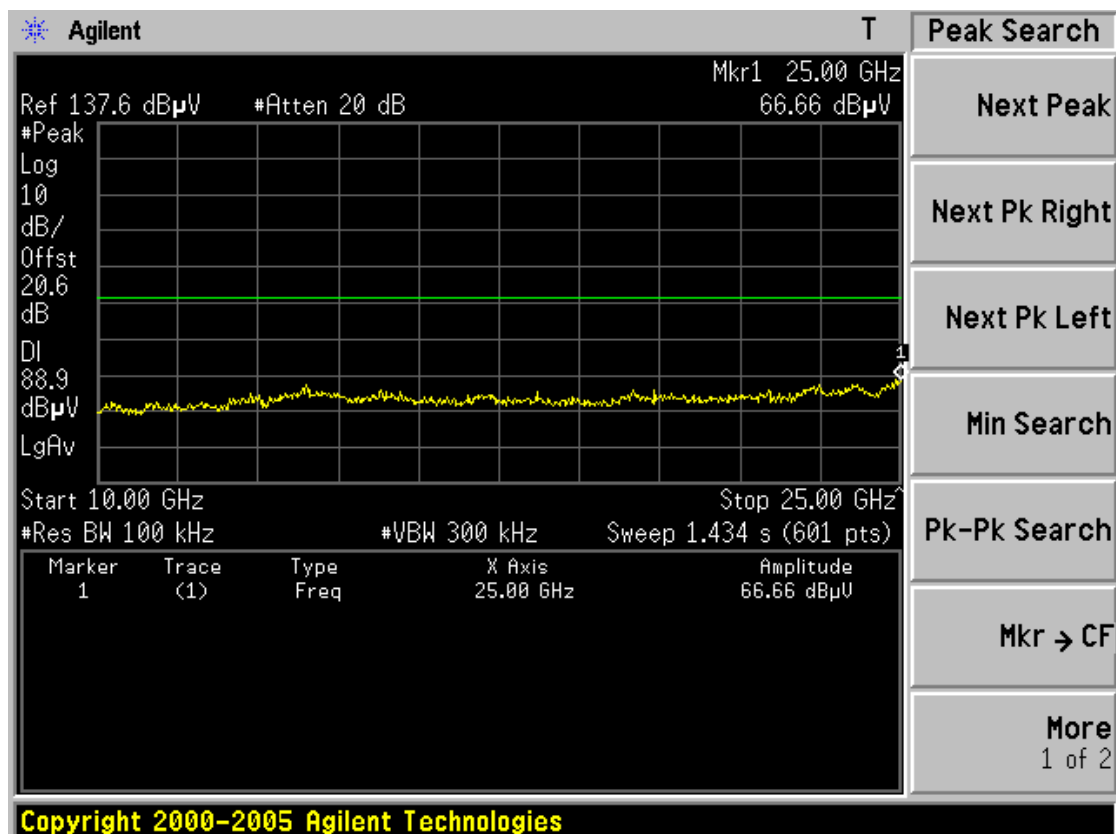
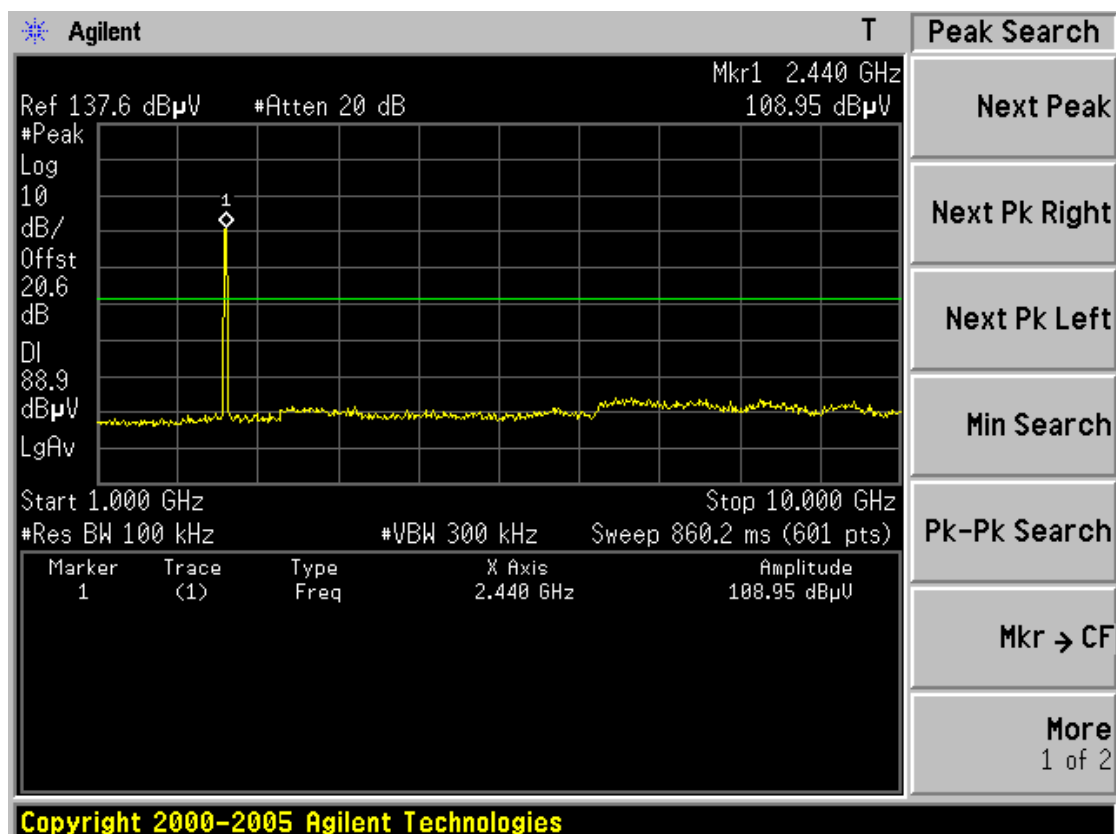




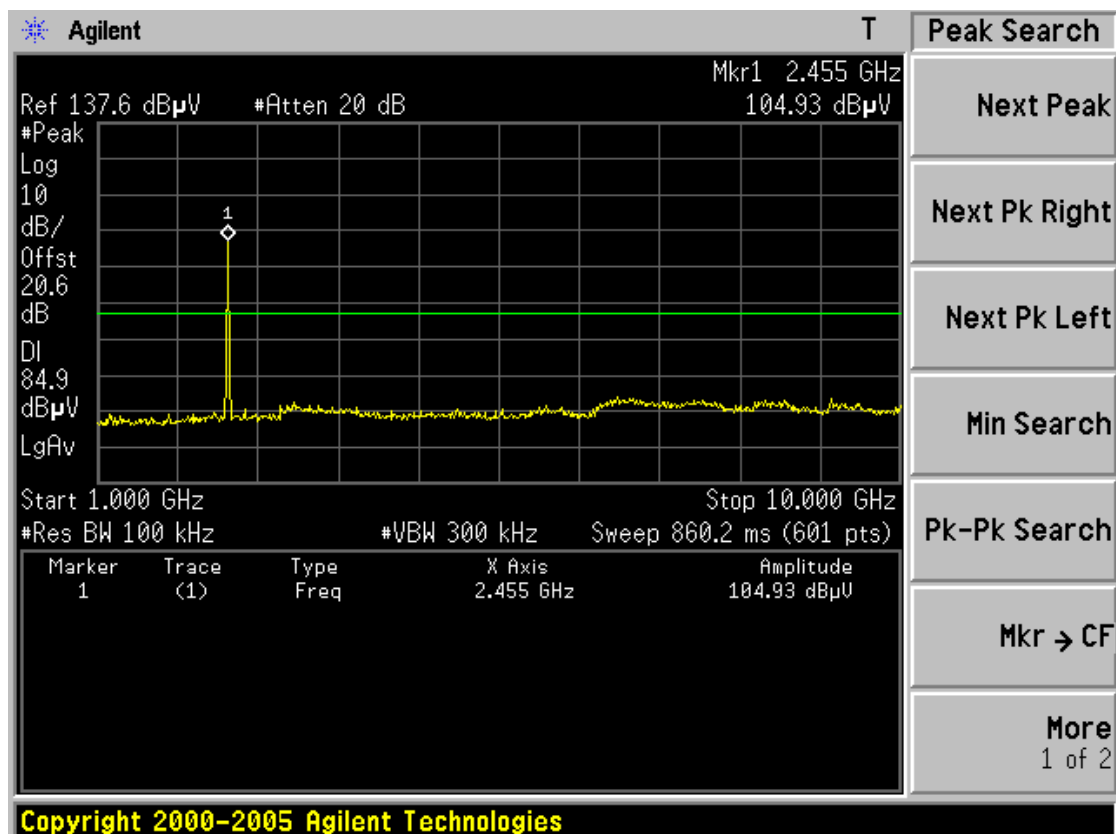
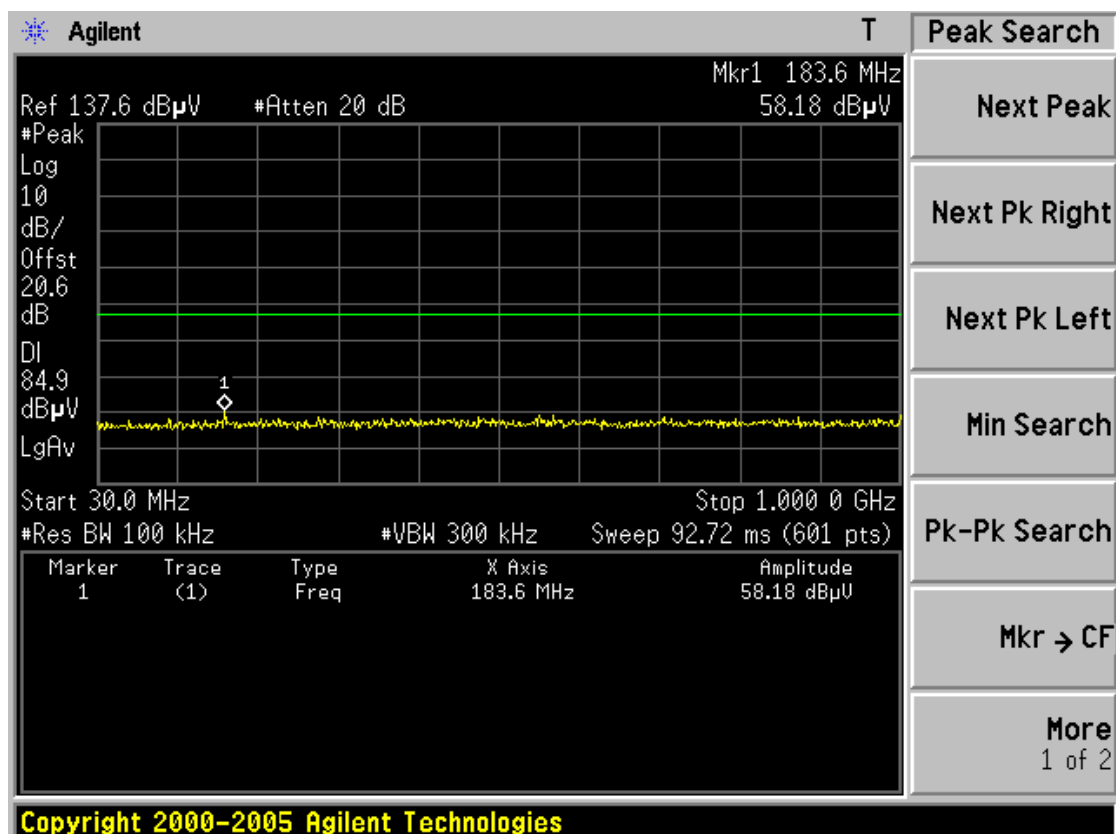
CH6

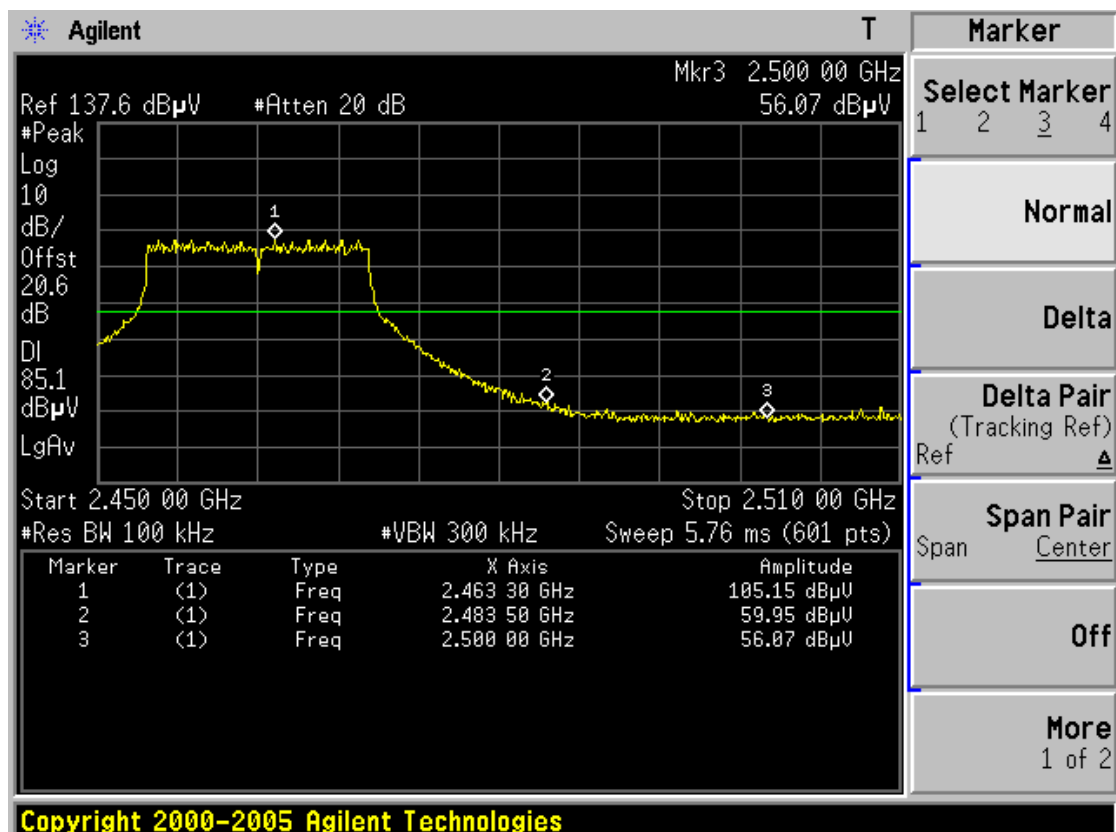
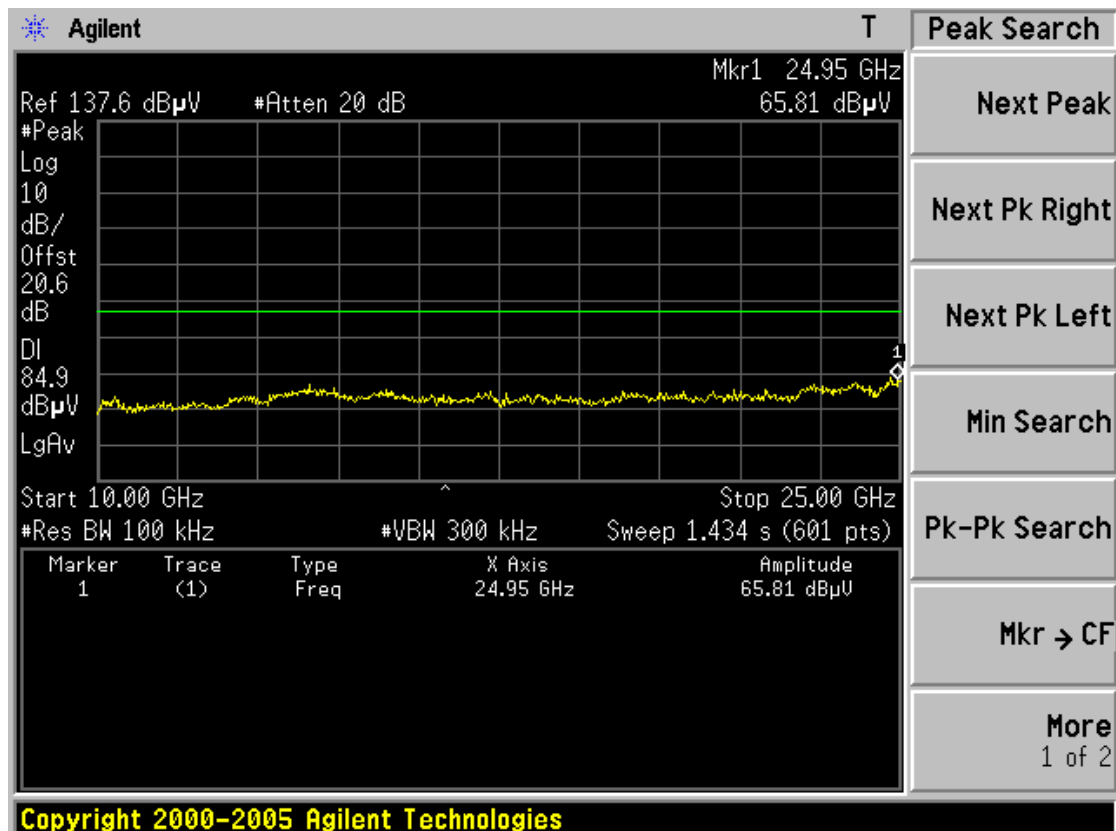






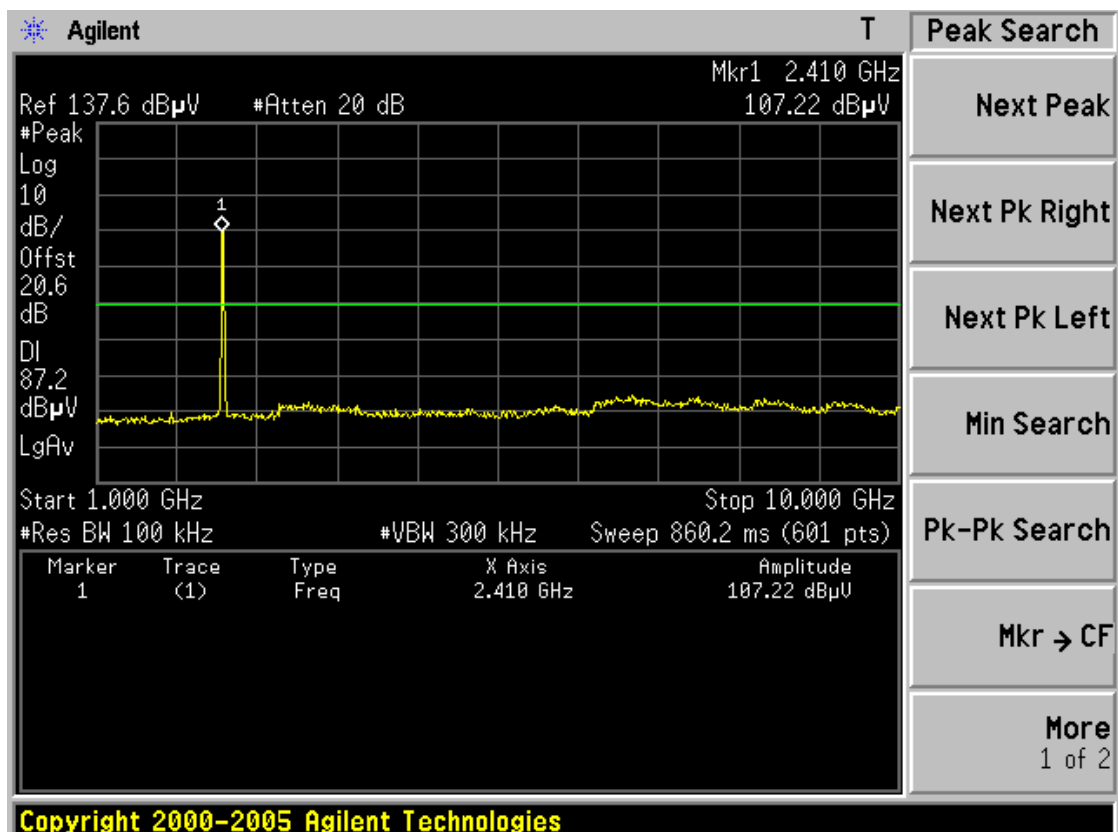
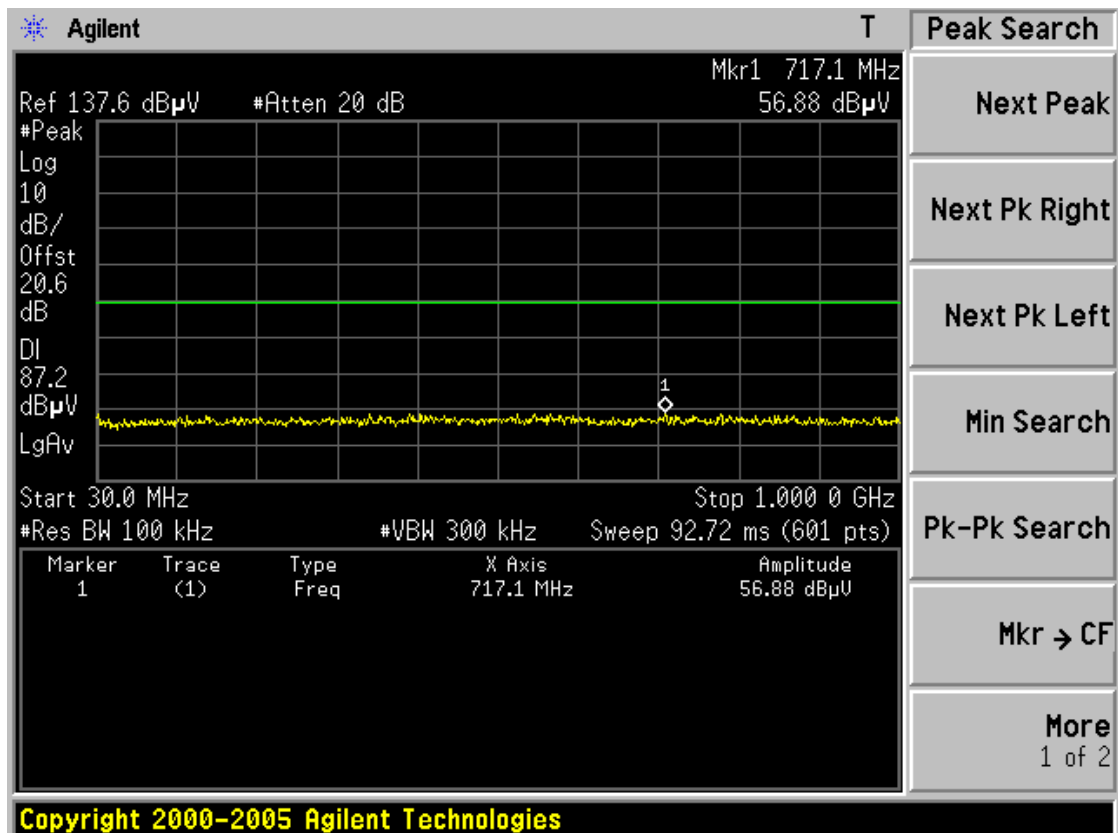
CH11

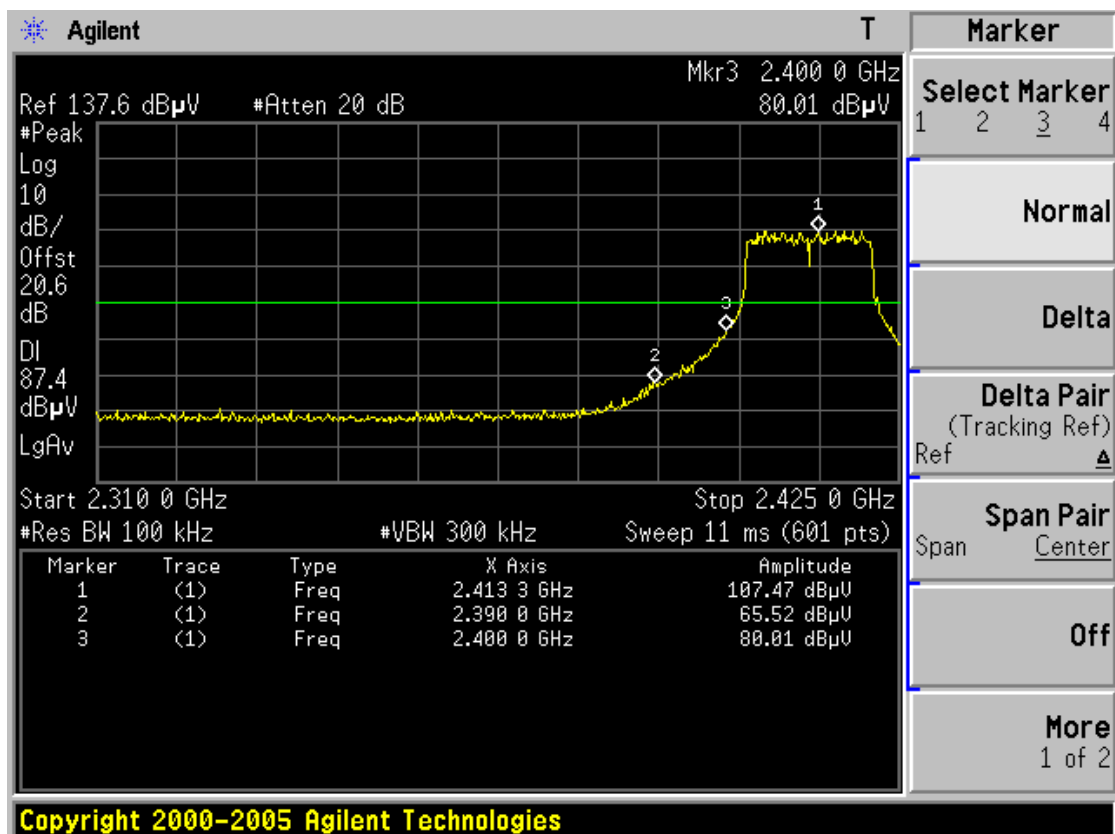
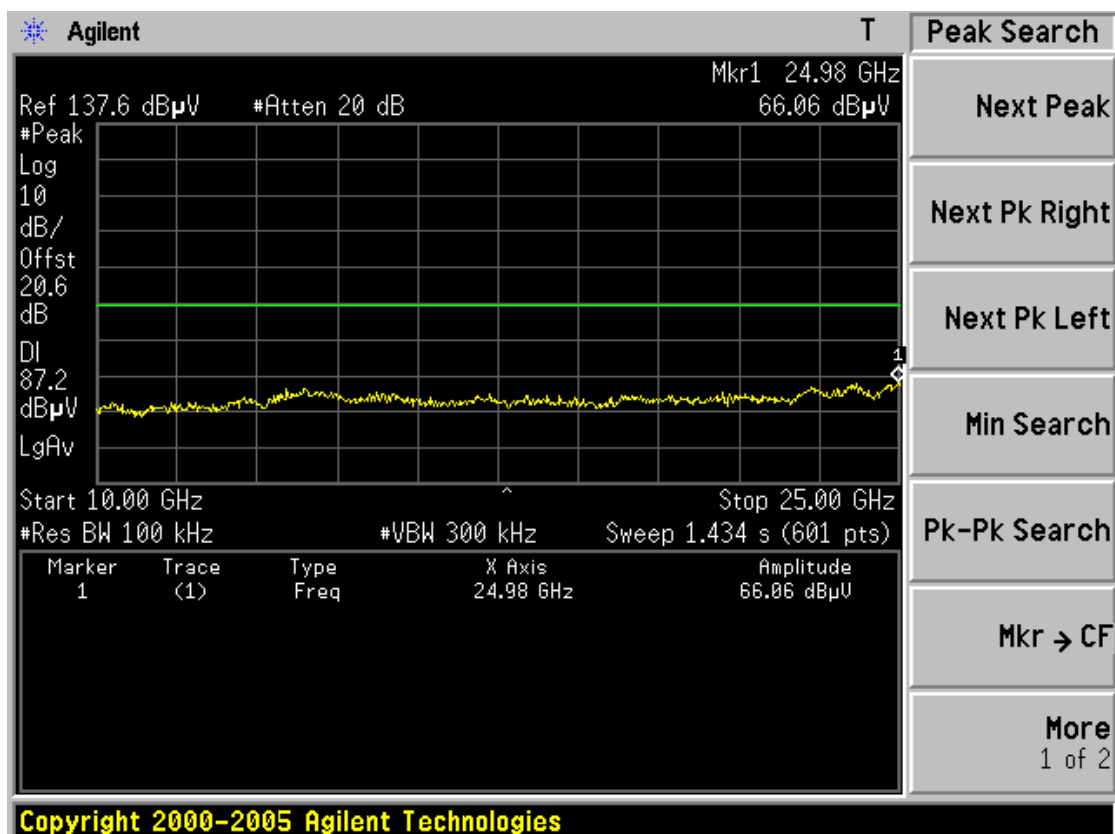




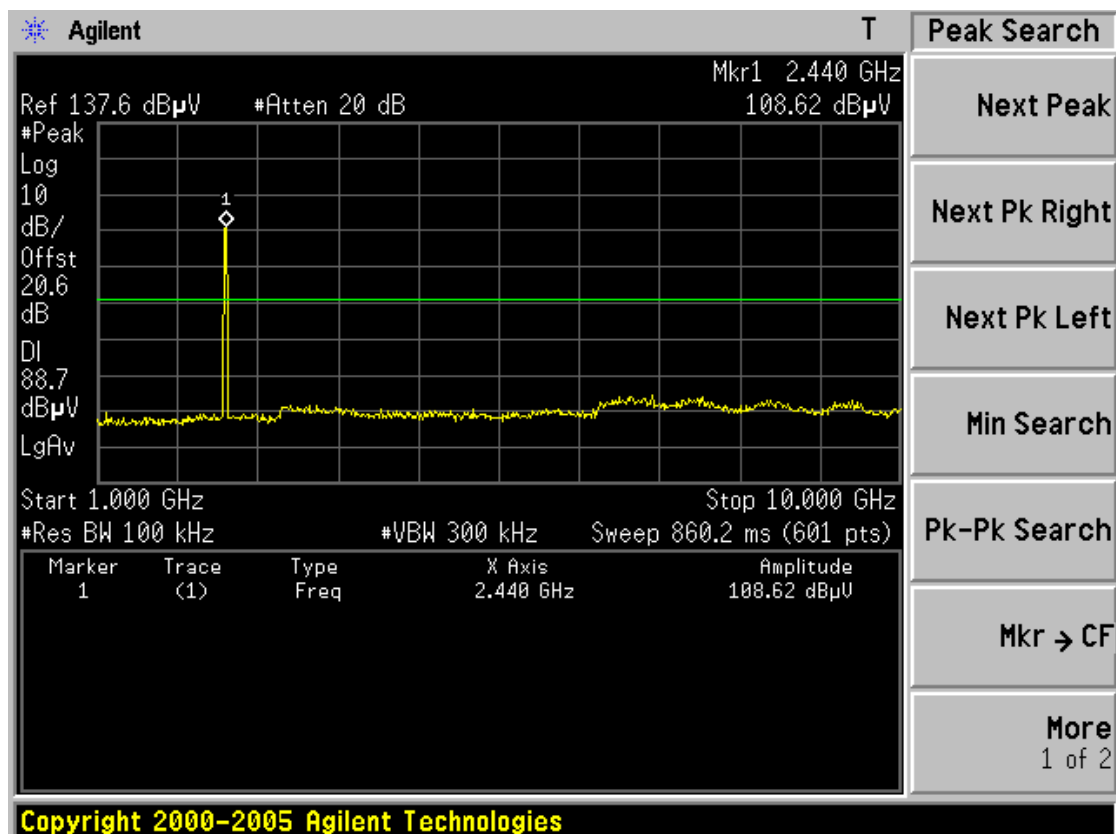
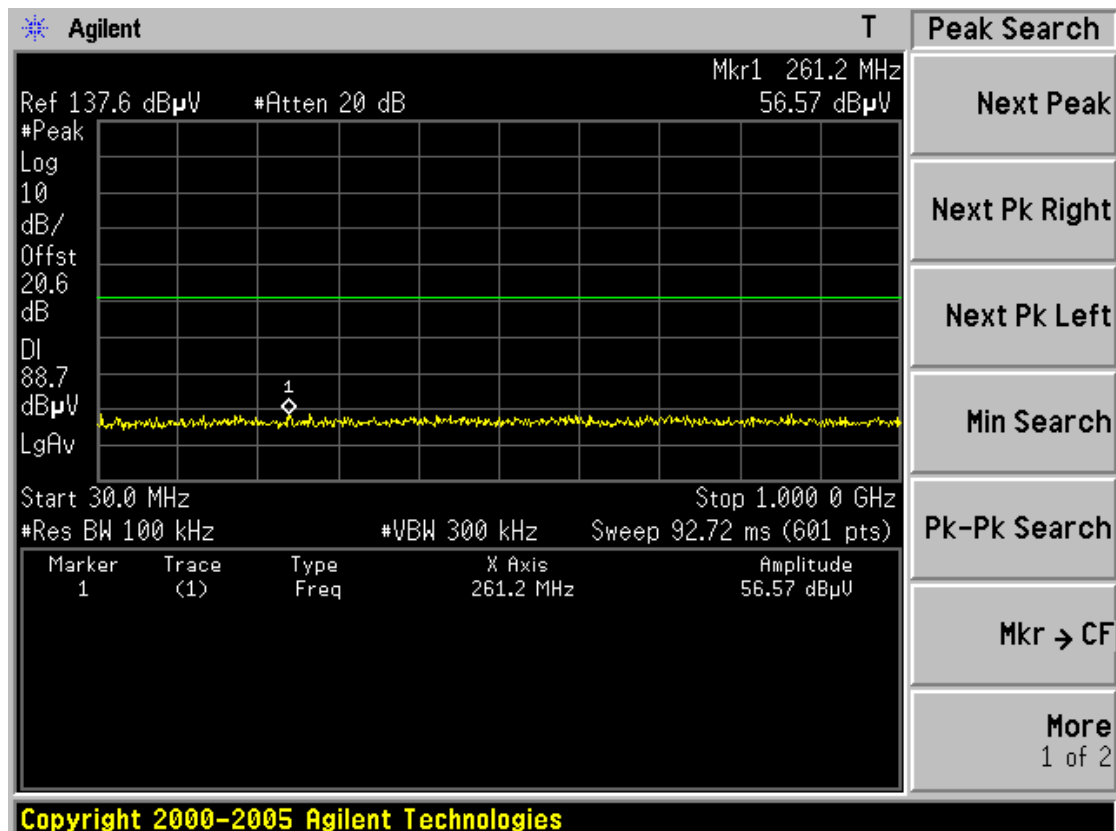
Test Mode: IEEE 802. 11n HT20 TX

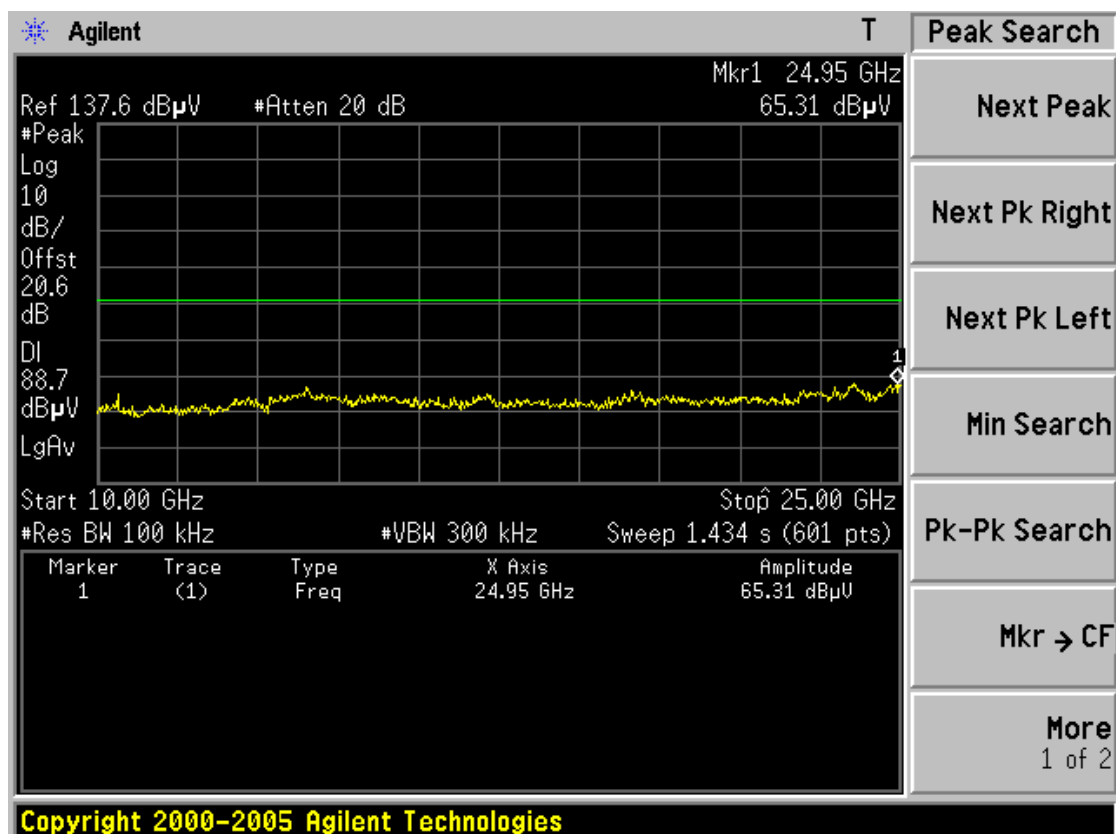
CH1



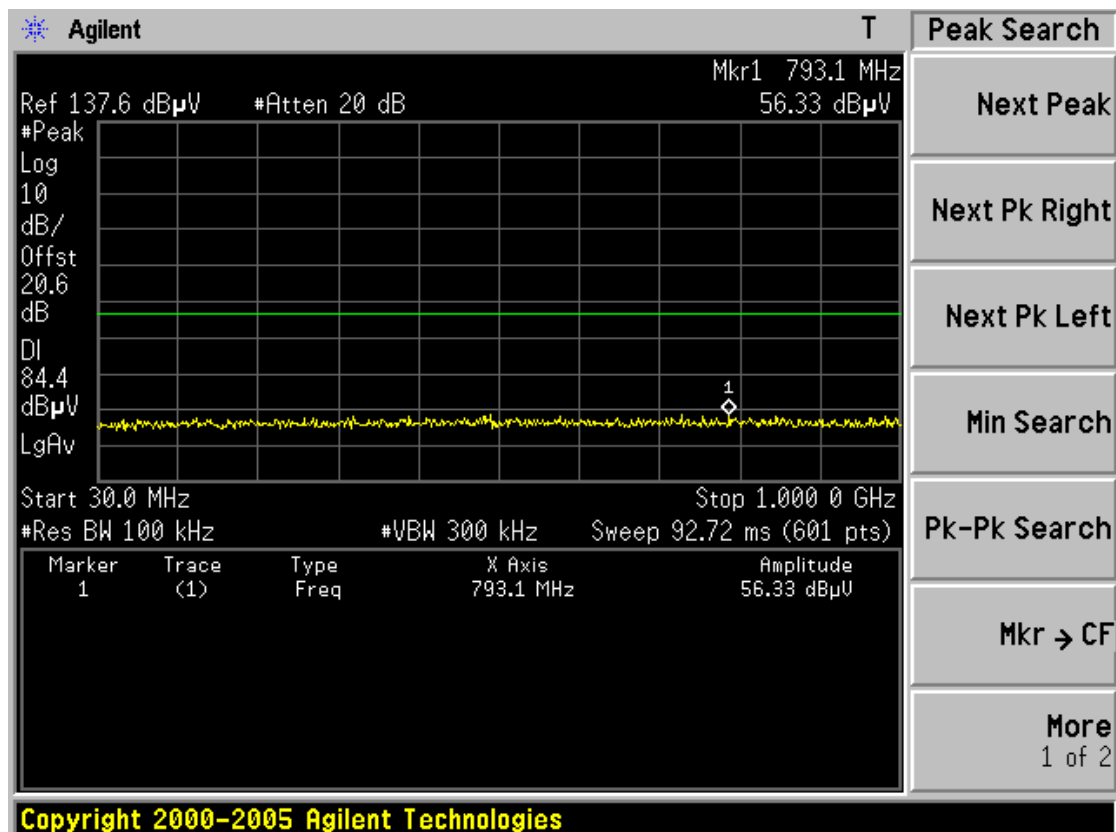


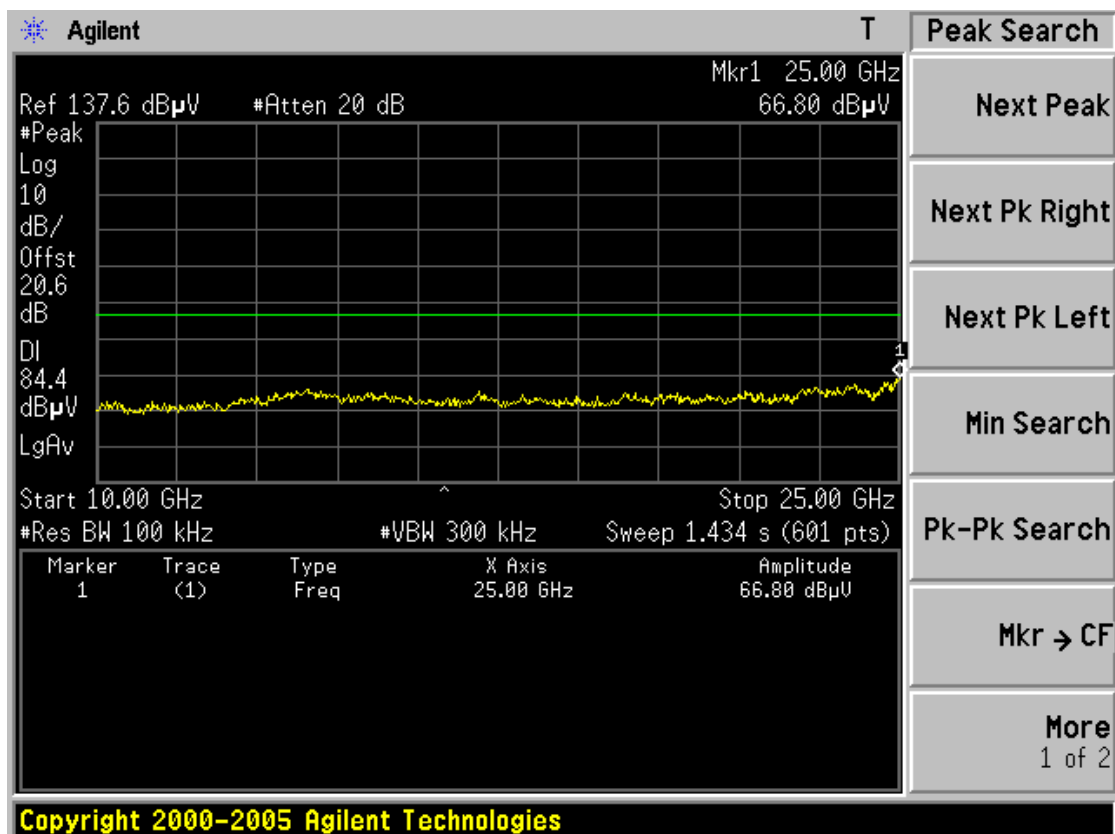
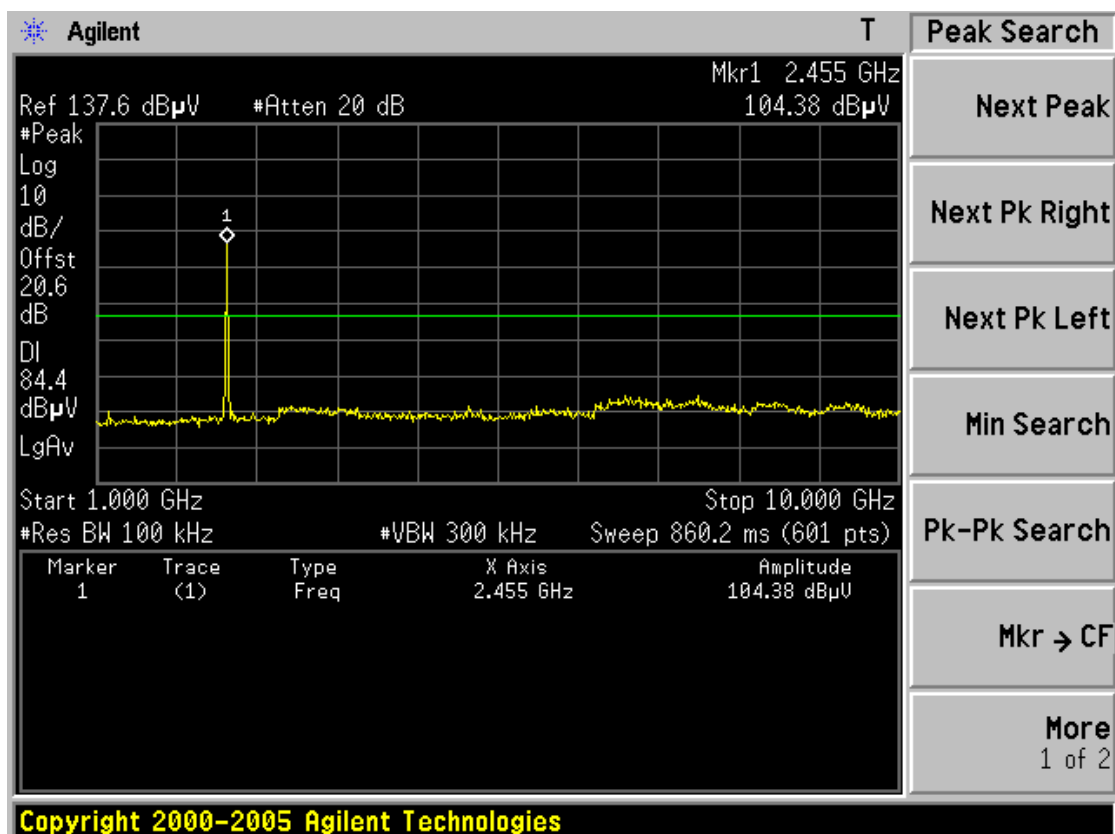
## CH6



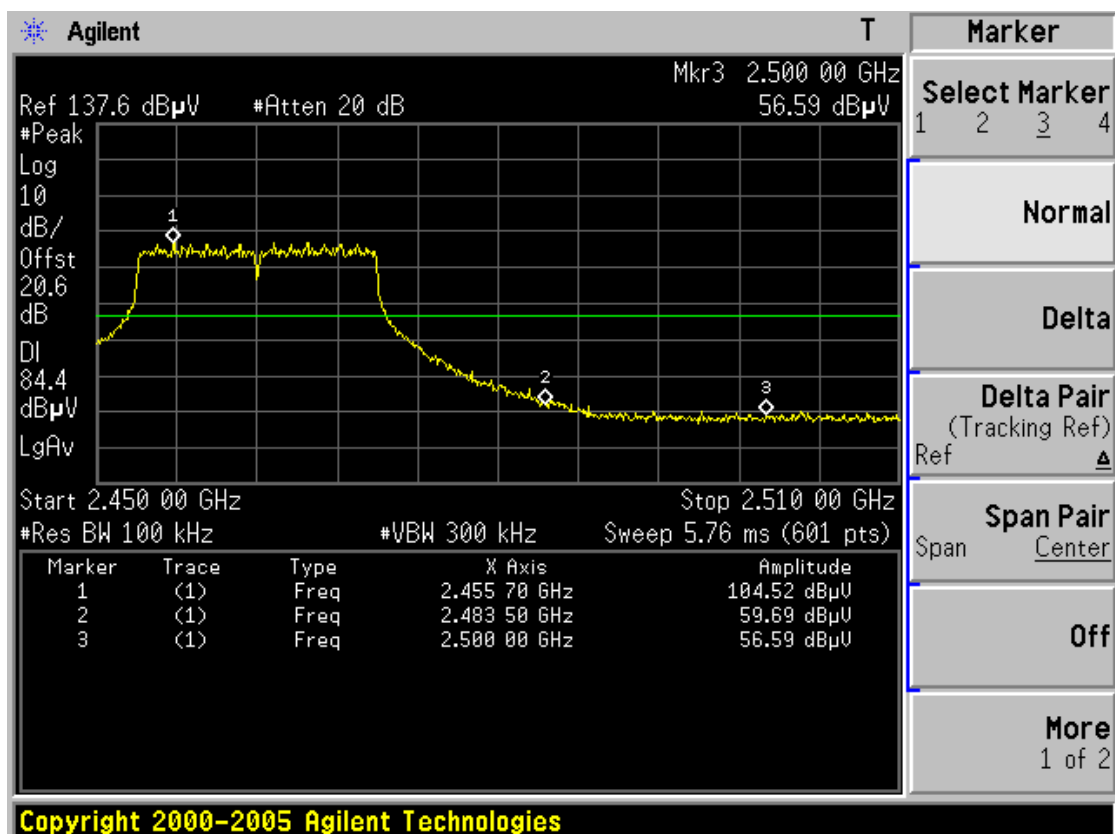


CH11



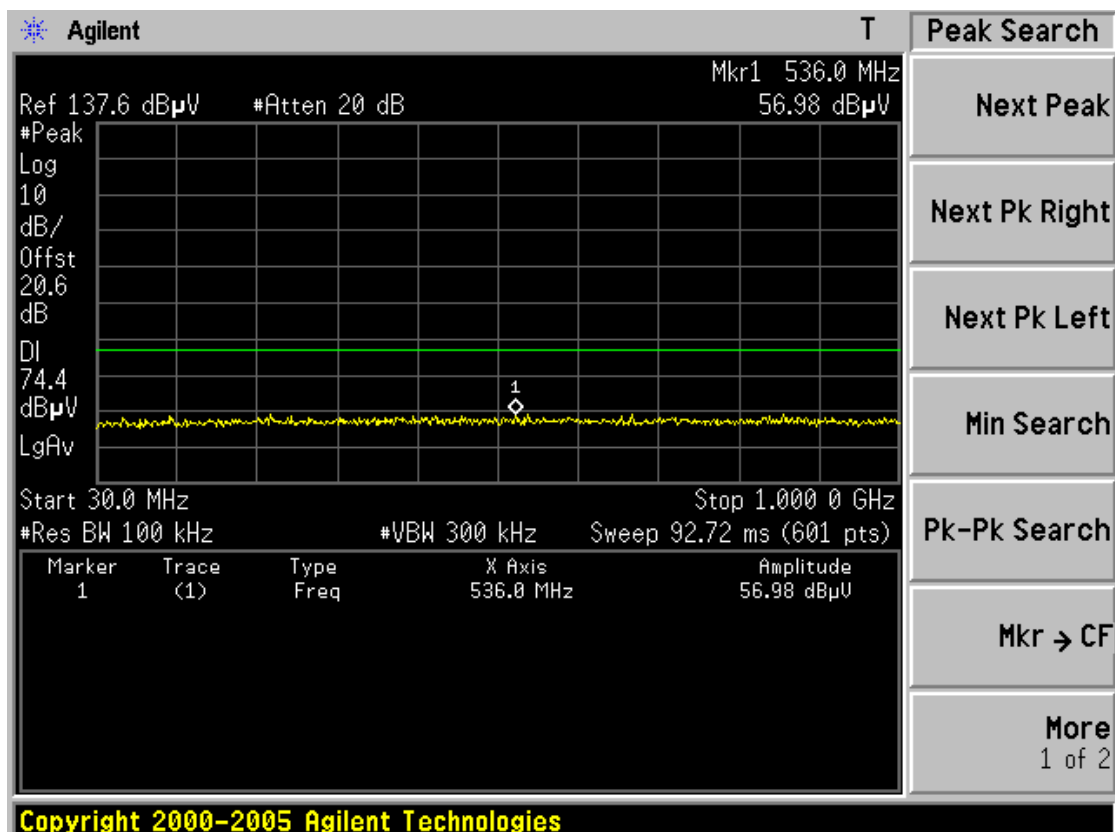


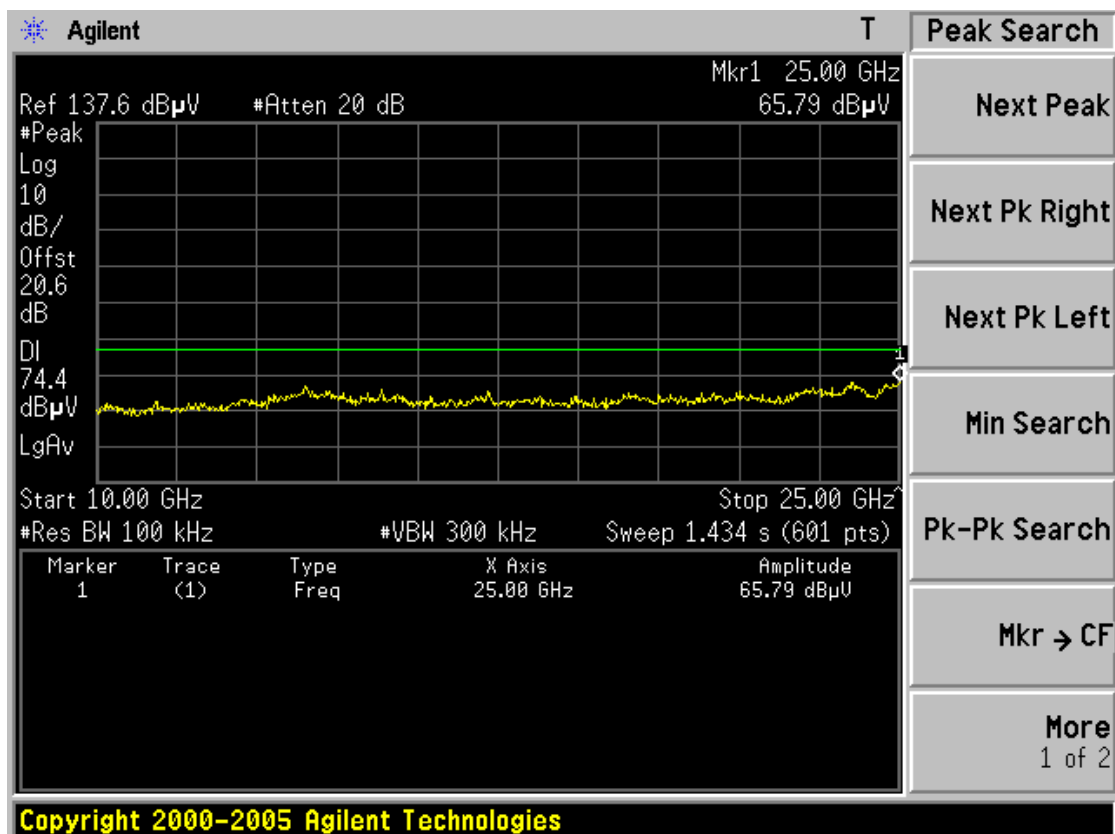
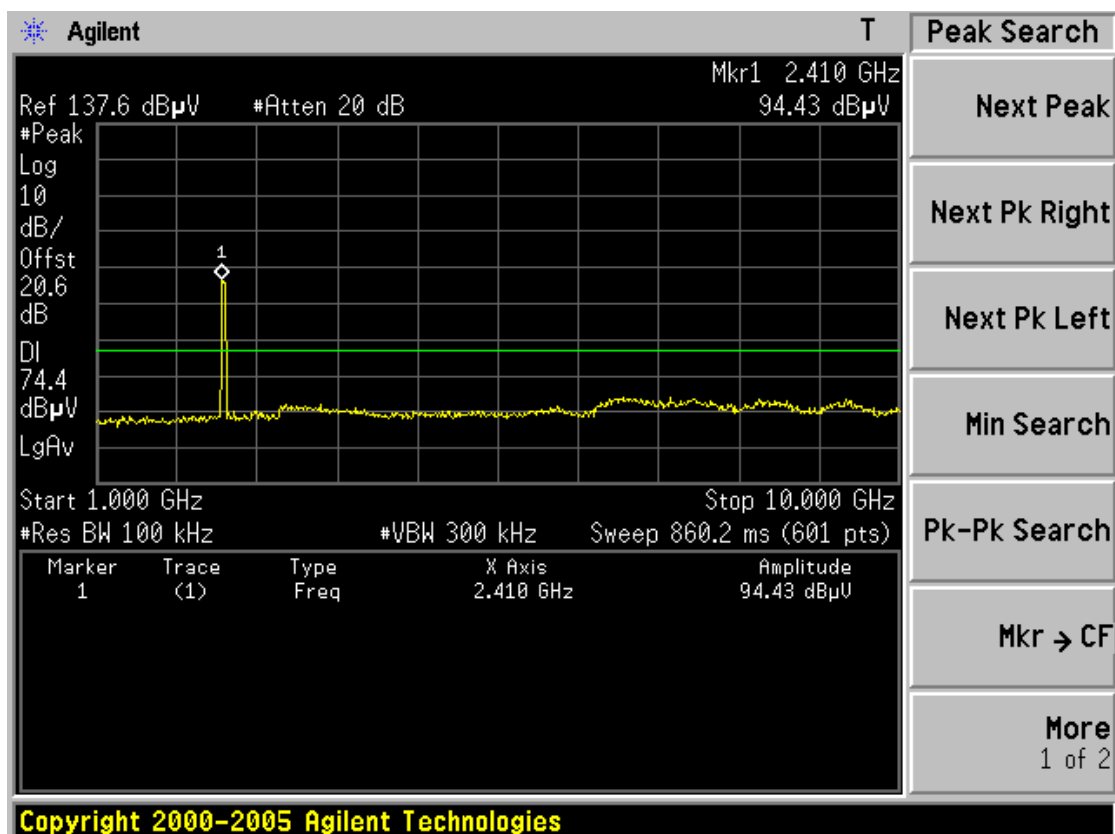


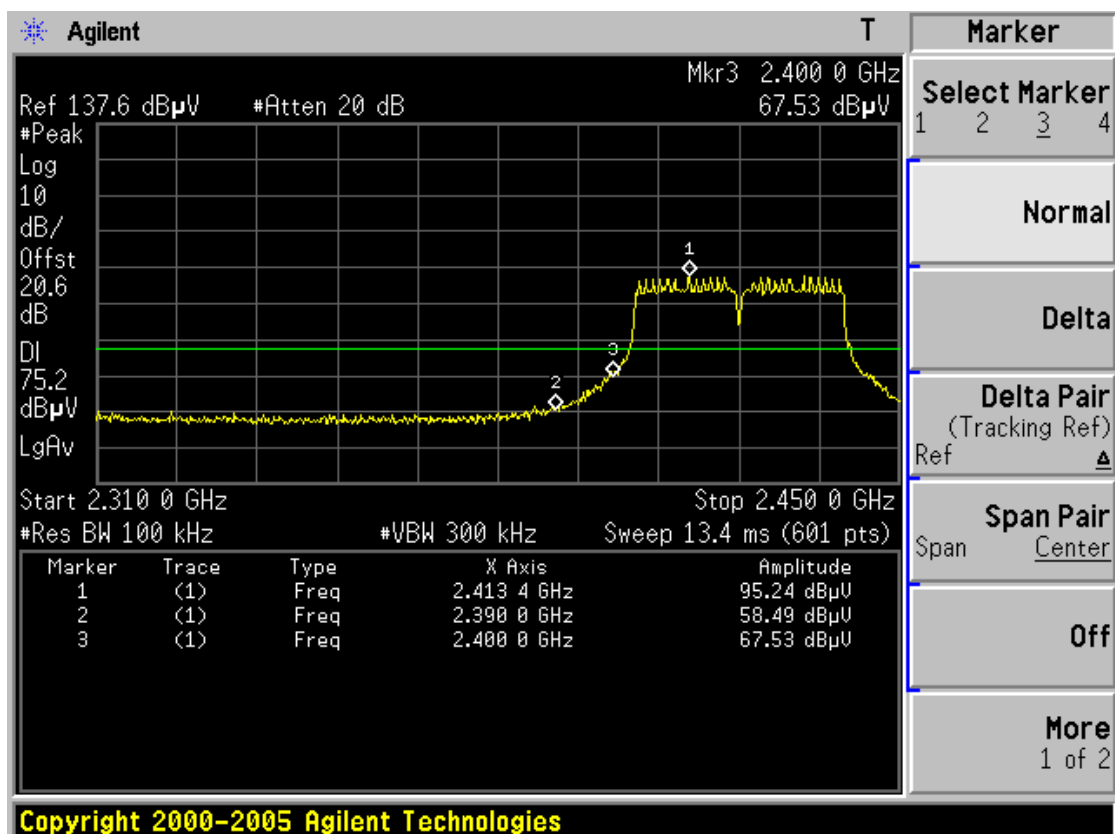


Test Mode: IEEE 802.11n HT40 TX

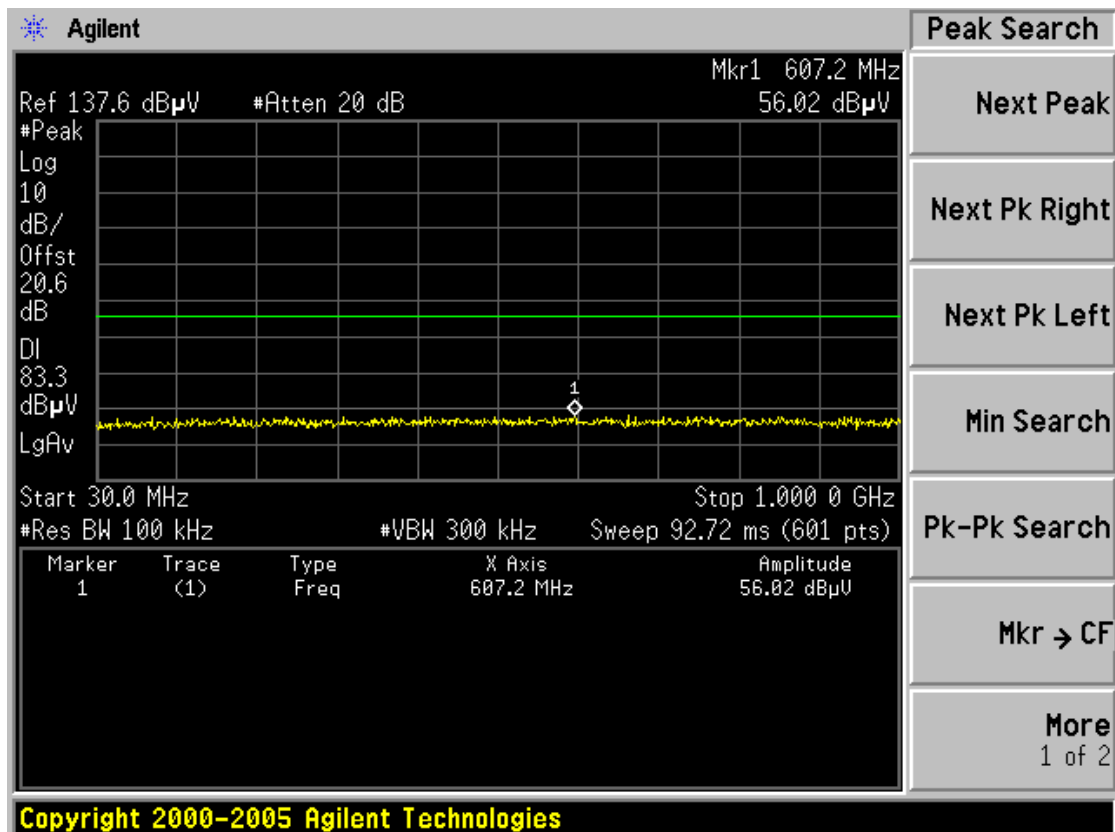
CH3

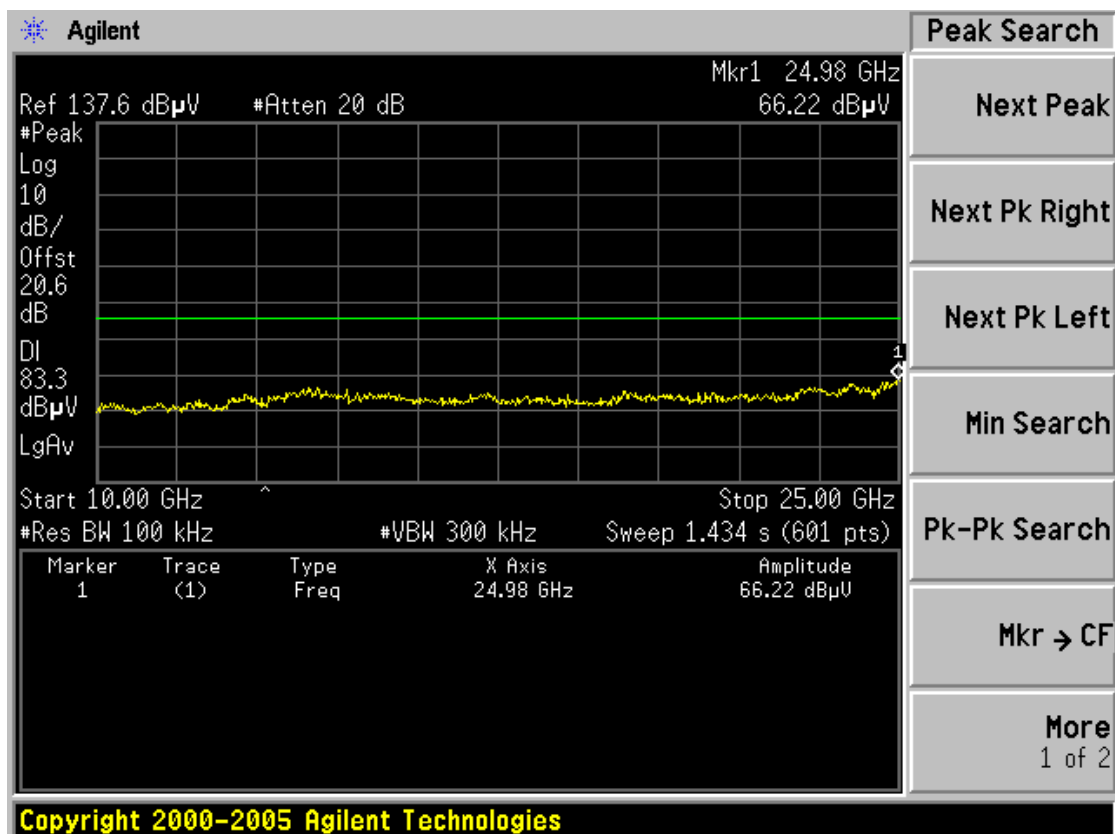
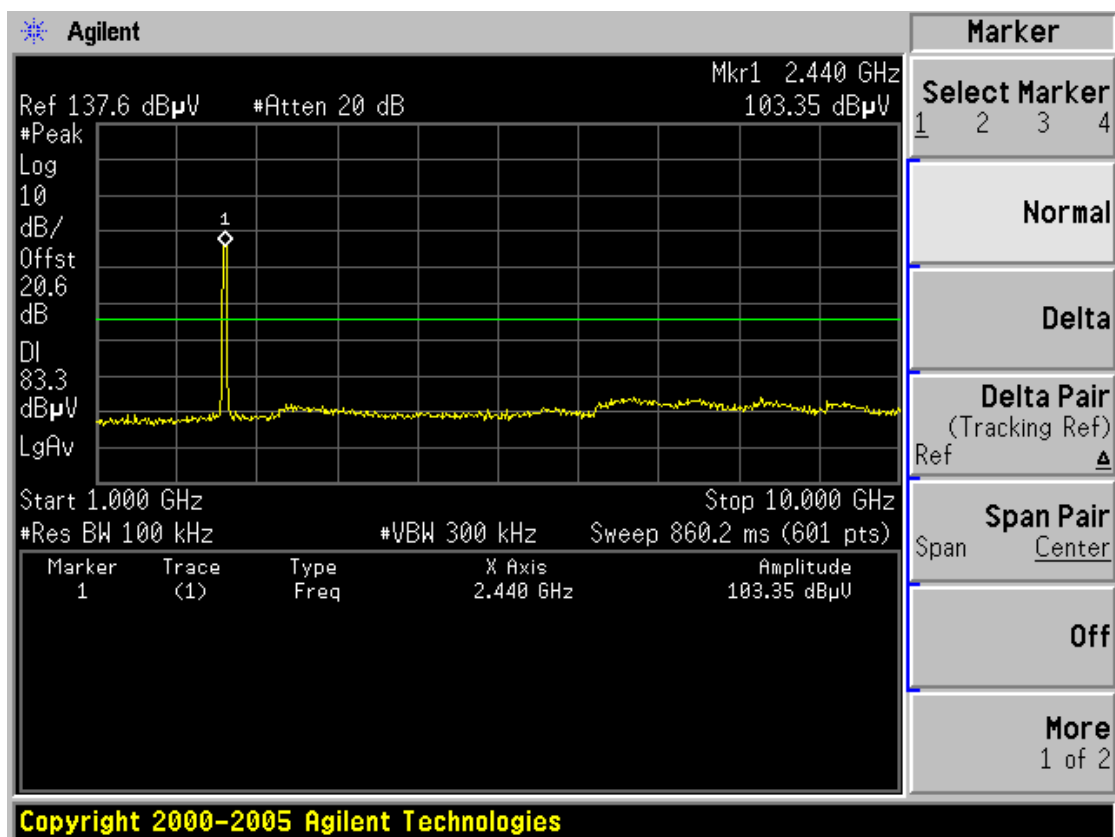




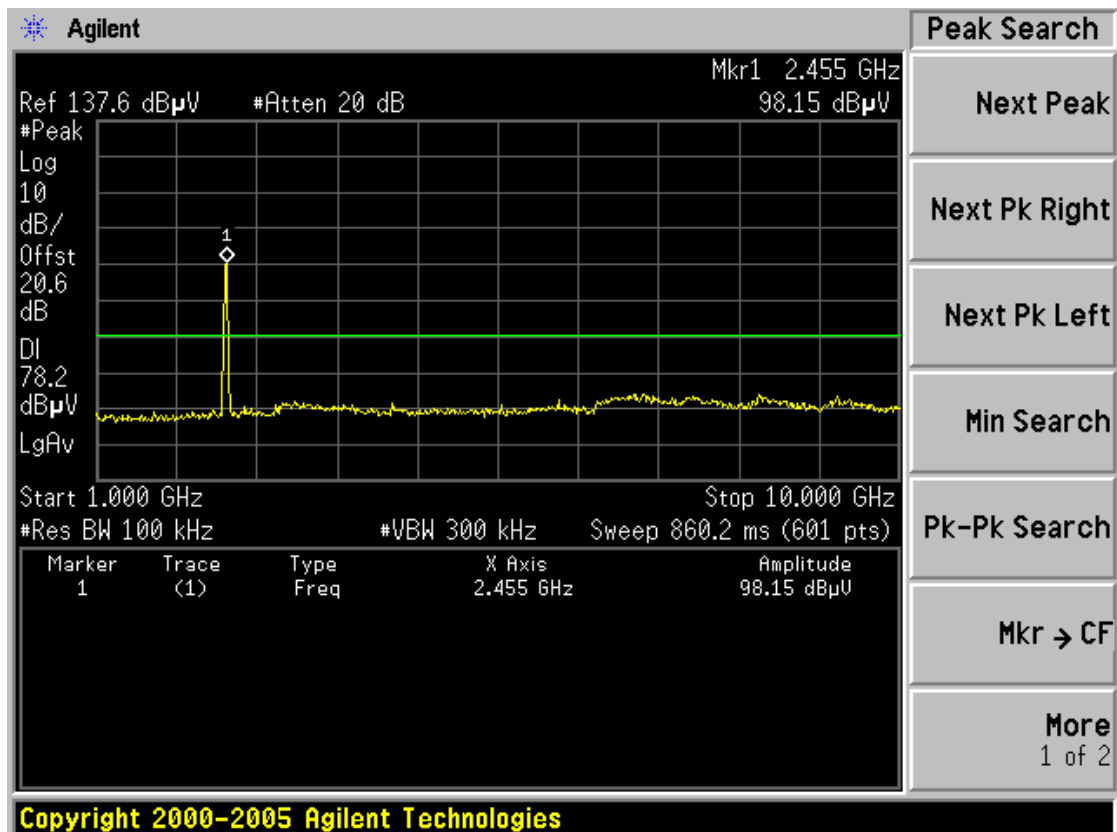
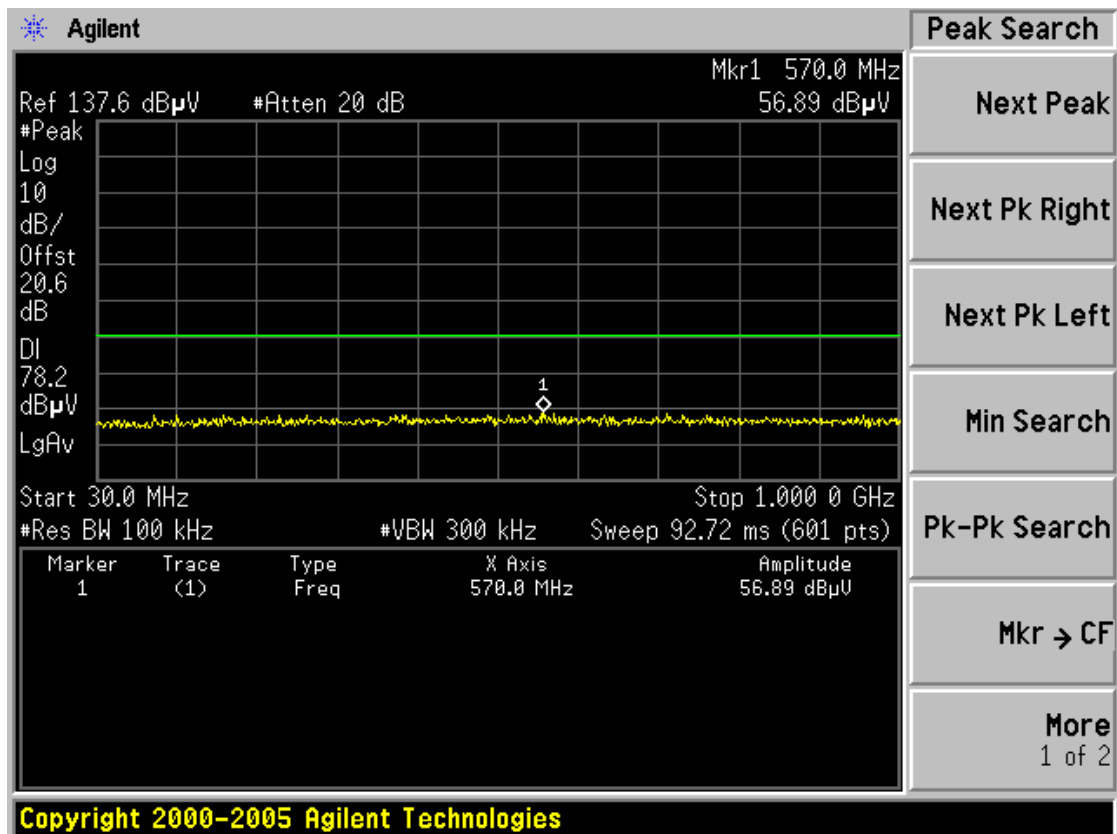


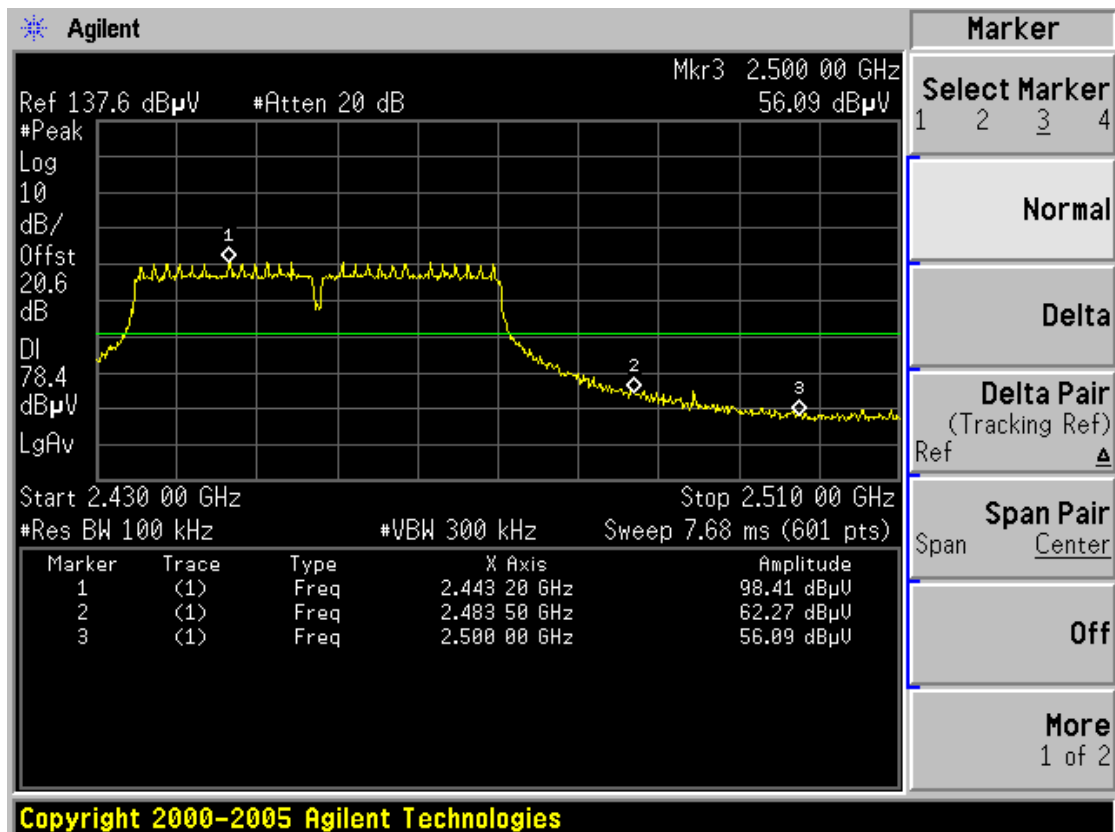
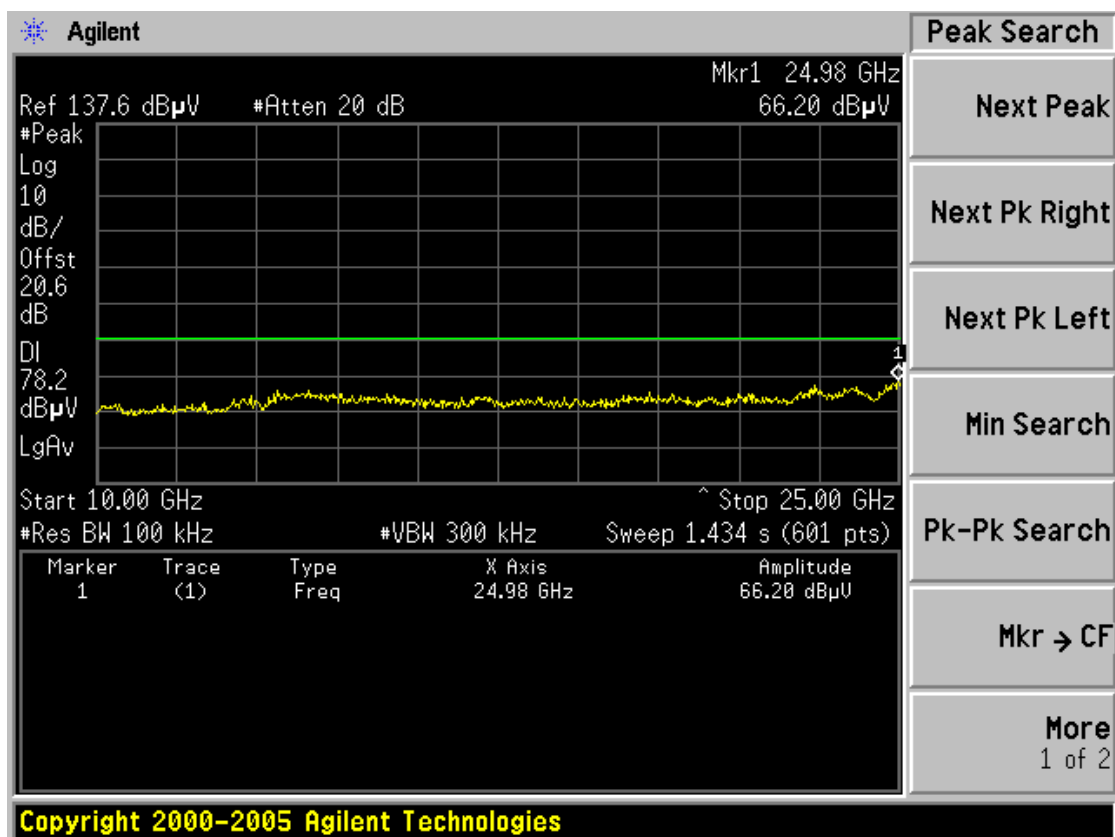
CH6





## CH9





## 6. BAND EDGE COMPLIANCE TEST

### 6.1. Limit

All the lower and upper band-edges emissions appearing within 2310MHz to 2390MHz and 2483.5MHz to 2500MHz restricted frequency bands shall not exceed the limits shown in 15.209, all the other emissions outside operation frequency band 2400MHz to 2483.5MHz shall be at least 20dB below the fundamental emissions, or comply with 15.209 limits.

### 6.2. Test Procedure

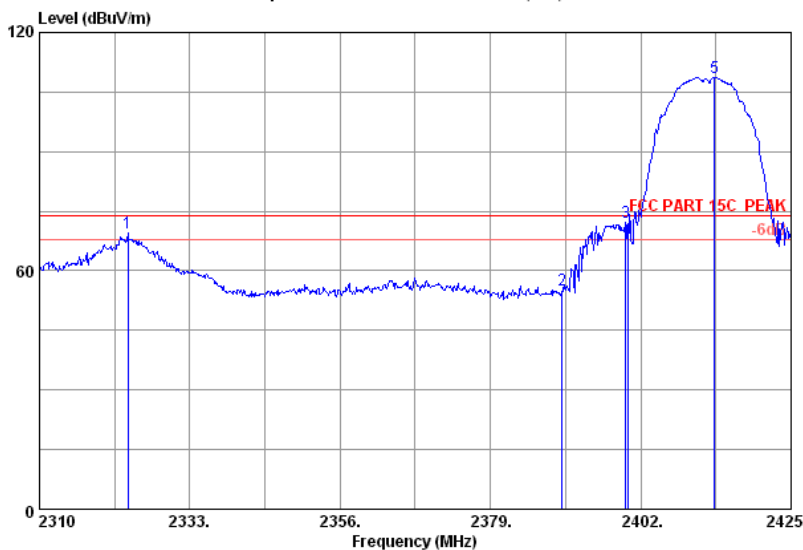
1. The EUT is placed on a turntable, which is 0.8m above the ground plane and worked at highest radiated power.
2. The turntable was rotated for 360 degrees to determine the position of maximum emission level.
3. EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emission.
4. Set the spectrum analyzer in the following setting in order to capture the lower and upper band-edges of the emission:
  - (a) PEAK: RBW=1MHz; VBW=3MHz; Sweep=AUTO
  - (b) AVERAGE: RBW=1MHz; VBW=10Hz; Sweep=AUTO

The test data graph please refer to the following page.

### 6.3. Test Results

Pass (The testing data was attached in the next pages.)

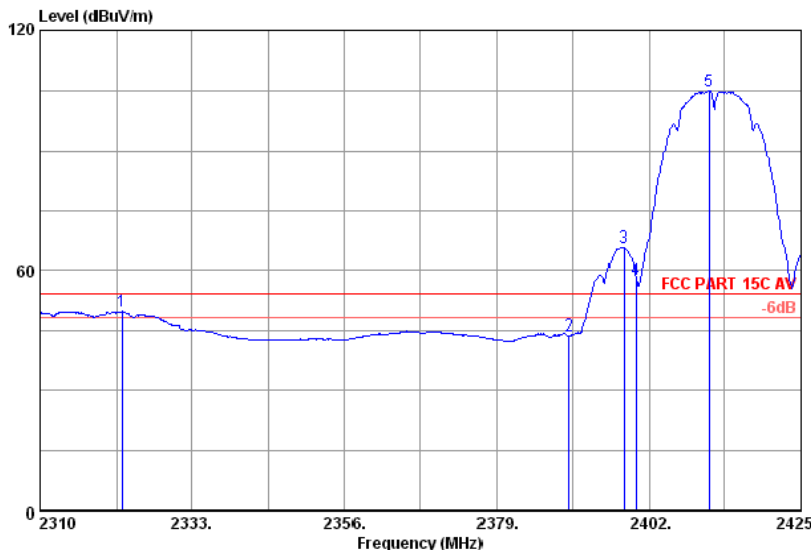
## 802.11b Low Channel



Site no. : RF Chamber Data no. : 3  
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL  
Limit : FCC PART 15C PEAK  
Env. / Ins. : 23°C/54% Engineer : Leo-Li

	Ant.	Cable	Amp.		Emission				
Freq.	Factor	loss	Factor	Reading	Level	Limits	Margin	Remark	
(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		
1 2323.570	27.86	5.89	34.43	70.09	69.41	74.00	4.59	Peak	
2 2390.000	27.96	6.01	34.44	55.52	55.05	74.00	18.95	Peak	
3 2399.700	27.96	6.01	34.44	72.74	72.27	74.00	1.73	Peak	
4 2400.000	27.96	6.01	34.44	68.17	67.70	74.00	6.30	Peak	
5 2413.270	27.98	6.03	34.44	109.02	108.59	74.00	-34.59	Peak	

Remarks:  
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.  
2. The emission levels that are 20dB below the official limit are not reported.

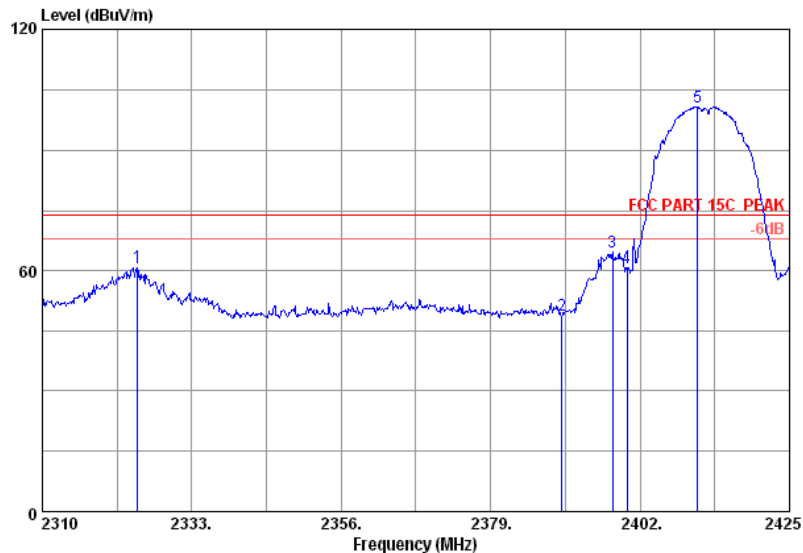


Site no. : RF Chamber Data no. : 4  
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL  
Limit : FCC PART 15C AV  
Env. / Ins. : 23°C/54% Engineer : Leo-Li

	Ant.	Cable	Amp.		Emission				
Freq.	Factor	loss	Factor	Reading	Level	Limits	Margin	Remark	
(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		
1 2322.305	27.86	5.89	34.43	50.42	49.74	54.00	4.26	Average	
2 2390.000	27.96	6.01	34.44	44.38	43.91	54.00	10.09	Average	
3 2398.205	27.96	6.01	34.44	66.41	65.94	54.00	-11.94	Average	
4 2400.000	27.96	6.01	34.44	58.19	57.72	54.00	-3.72	Average	
5 2411.200	27.98	6.03	34.44	105.36	104.93	54.00	-50.93	Average	

Remarks:  
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.  
2. The emission levels that are 20dB below the official limit are not reported.



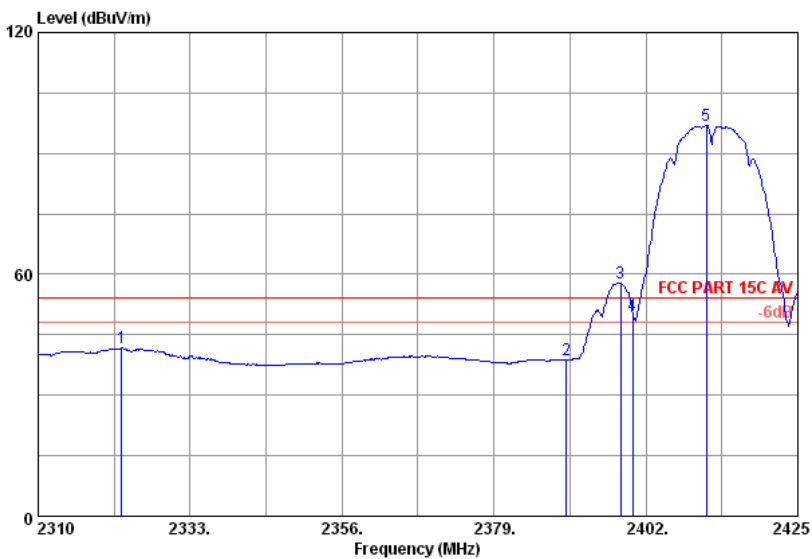


Site no. : RF Chamber Data no. : 5  
 Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54% Engineer : Leo-Li

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2324.605	27.86	5.89	34.43	61.63	60.95	74.00	13.05	Peak
2	2390.000	27.96	6.01	34.44	49.41	48.94	74.00	25.06	Peak
3	2397.745	27.96	6.01	34.44	64.84	64.37	74.00	9.63	Peak
4	2400.000	27.96	6.01	34.44	61.31	60.84	74.00	13.16	Peak
5	2410.855	27.98	6.03	34.44	100.97	100.54	74.00	-26.54	Peak

Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



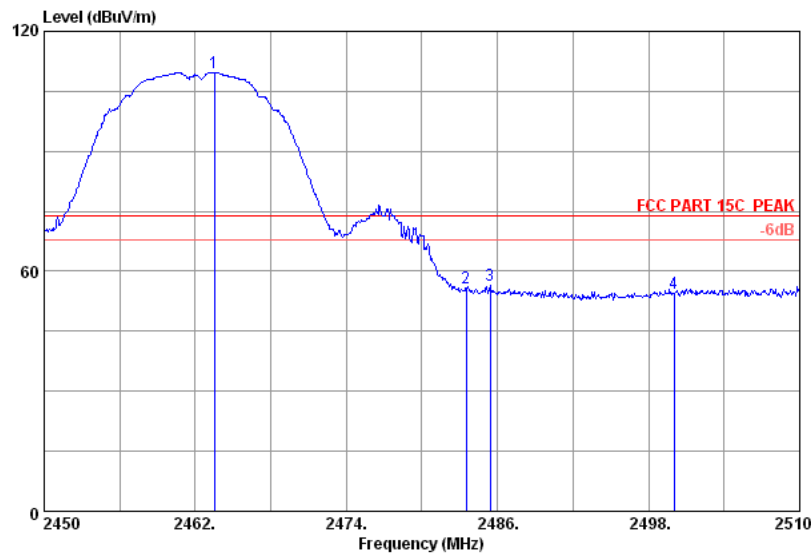
Site no. : RF Chamber Data no. : 6  
 Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C AV  
 Env. / Ins. : 23°C/54% Engineer : Leo-Li

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2322.650	27.86	5.89	34.43	42.35	41.67	54.00	12.33	Average
2	2390.000	27.96	6.01	34.44	39.17	38.70	54.00	15.30	Average
3	2398.205	27.96	6.01	34.44	58.38	57.91	54.00	-3.91	Average
4	2400.000	27.96	6.01	34.44	50.33	49.86	54.00	4.14	Average
5	2411.200	27.98	6.03	34.44	97.33	96.90	54.00	-42.90	Average

Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

## 802.11b High Channel

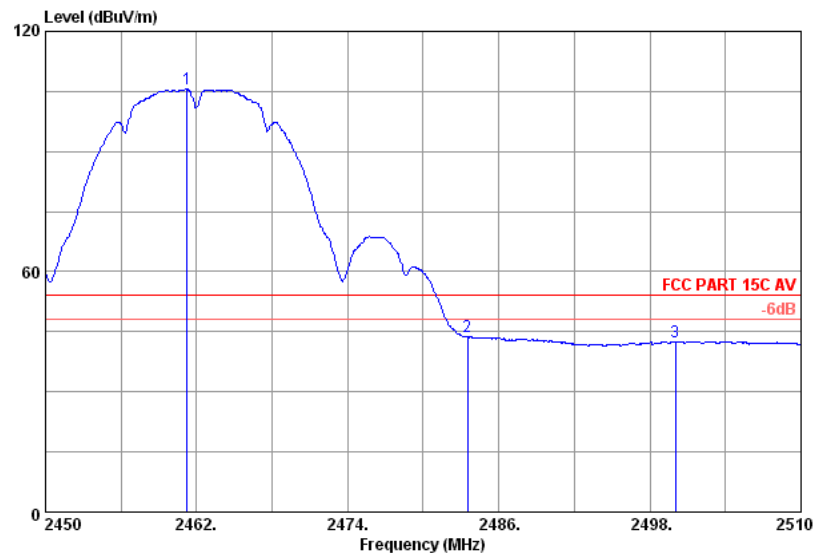


Site no. : RF Chamber Data no. : 23  
 Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54% Engineer : Leo-Li

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits dBuV/m)	Margin (dB)	Remark
1	2463.500	28.05	6.12	34.45	109.93	109.65	74.00	-35.65	Peak
2	2483.500	28.08	6.15	34.45	55.88	55.66	74.00	18.34	Peak
3	2485.400	28.08	6.15	34.45	56.83	56.61	74.00	17.39	Peak
4	2500.000	28.10	6.18	34.45	54.64	54.47	74.00	19.53	Peak

### Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

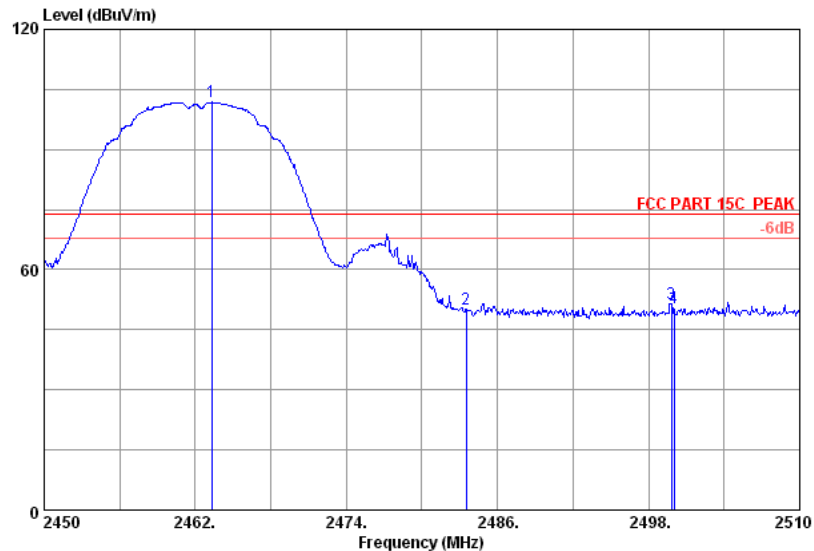


Site no. : RF Chamber Data no. : 24  
 Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL  
 Limit : FCC PART 15C AV  
 Env. / Ins. : 23°C/54% Engineer : Leo-Li

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits dBuV/m)	Margin (dB)	Remark
1	2461.220	28.05	6.12	34.44	105.82	105.55	54.00	-51.55	Average
2	2483.500	28.08	6.15	34.45	43.96	43.74	54.00	10.26	Average
3	2500.000	28.10	6.18	34.45	42.60	42.43	54.00	11.57	Average

### Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

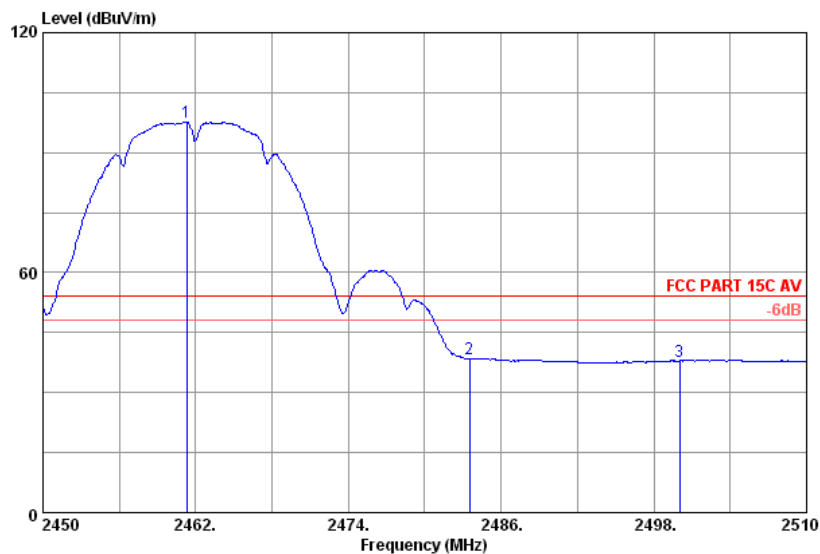


Site no. : RF Chamber Data no. : 25  
 Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54% Engineer : Leo-Li

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2463.320	28.05	6.12	34.45	102.07	101.79	74.00	-27.79	Peak
2	2483.500	28.08	6.15	34.45	50.41	50.19	74.00	23.81	Peak
3	2499.800	28.10	6.18	34.45	51.67	51.50	74.00	22.50	Peak
4	2500.000	28.10	6.18	34.45	50.53	50.36	74.00	23.64	Peak

Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



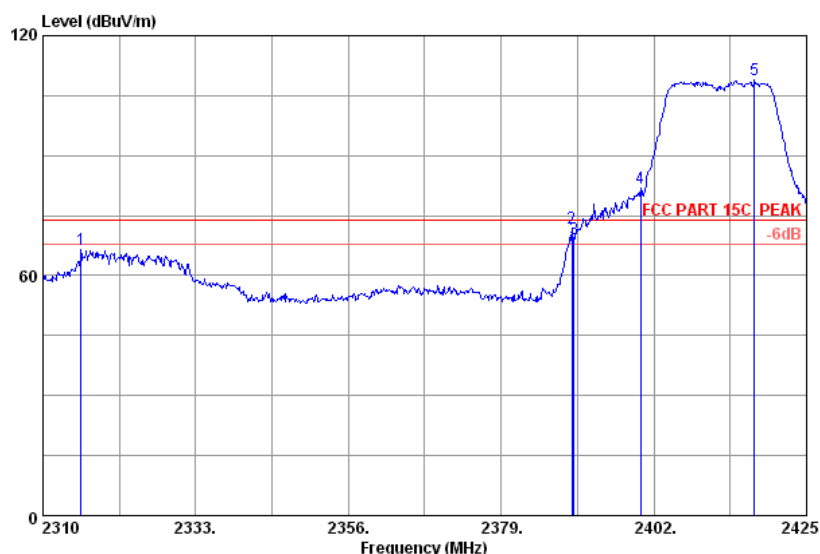
Site no. : RF Chamber Data no. : 26  
 Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C AV  
 Env. / Ins. : 23°C/54% Engineer : Leo-Li

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2461.280	28.05	6.12	34.44	98.04	97.77	54.00	-43.77	Average
2	2483.500	28.08	6.15	34.45	38.64	38.42	54.00	15.58	Average
3	2500.000	28.10	6.18	34.45	38.05	37.88	54.00	16.12	Average

Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

## 802.11g Low Channel

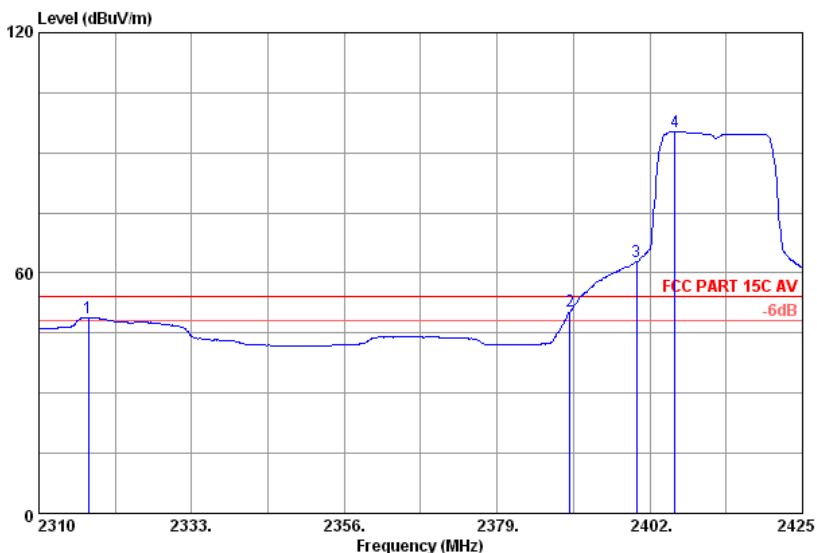


Site no. : RF Chamber Data no. : 27  
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL  
Limit : FCC PART 15C PEAK  
Env. / Ins. : 23°C/54% Engineer : Leo-Li

	Ant. Freq. (MHz)	Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2315.750	27.83	5.89	34.43	67.12	66.41	74.00	7.59	Peak
2	2389.695	27.96	6.01	34.44	72.36	71.89	74.00	2.11	Peak
3	2390.000	27.96	6.01	34.44	69.76	69.29	74.00	4.71	Peak
4	2400.000	27.96	6.01	34.44	82.47	82.00	74.00	-8.00	Peak
5	2417.180	27.98	6.03	34.44	109.39	108.96	74.00	-34.96	Peak

## Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

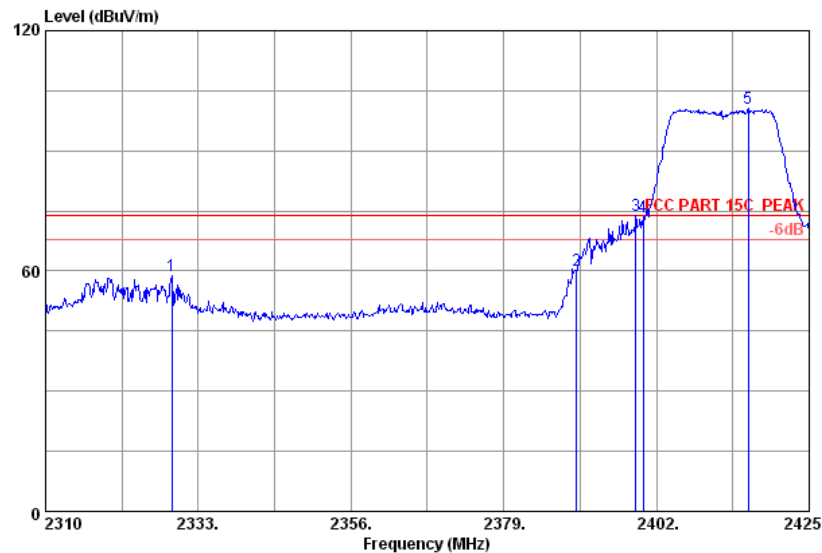


Site no. : RF Chamber Data no. : 28  
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL  
Limit : FCC PART 15C AV  
Env. / Ins. : 23°C/54% Engineer : Leo-Li

	Ant. Freq. (MHz)	Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2317.475	27.83	5.89	34.43	49.61	48.90	54.00	5.10	Average
2	2390.000	27.96	6.01	34.44	50.94	50.47	54.00	3.53	Average
3	2400.000	27.96	6.01	34.44	63.25	62.78	54.00	-8.78	Average
4	2405.795	27.98	6.03	34.44	95.73	95.30	54.00	-41.30	Average

## Remarks:

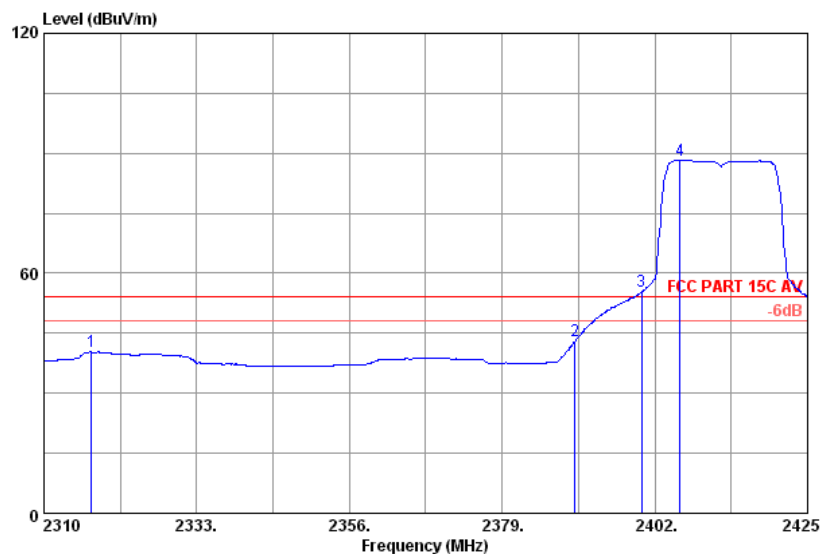
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : RF Chamber Data no. : 29  
 Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54% Engineer : Leo-Li

	Ant. Freq. (MHz)	Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2328.975	27.86	5.89	34.43	59.41	58.73	74.00	15.27	Peak
2	2390.000	27.96	6.01	34.44	60.58	60.11	74.00	13.89	Peak
3	2398.895	27.96	6.01	34.44	74.42	73.95	74.00	0.05	Peak
4	2400.000	27.96	6.01	34.44	73.96	73.49	74.00	0.51	Peak
5	2415.800	27.98	6.03	34.44	101.02	100.59	74.00	-26.59	Peak

Remarks:  
 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.  
 2. The emission levels that are 20dB below the official limit are not reported.

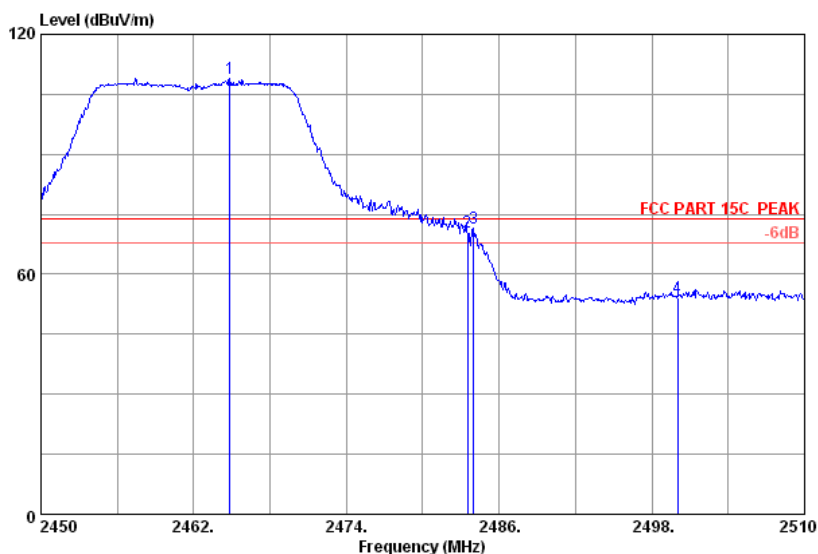


Site no. : RF Chamber Data no. : 30  
 Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C AV  
 Env. / Ins. : 23°C/54% Engineer : Leo-Li

	Ant. Freq. (MHz)	Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2317.130	27.83	5.89	34.43	41.02	40.31	54.00	13.69	Average
2	2390.000	27.96	6.01	34.44	43.59	43.12	54.00	10.88	Average
3	2400.000	27.96	6.01	34.44	55.81	55.34	54.00	-1.34	Average
4	2405.795	27.98	6.03	34.44	88.70	88.27	54.00	-34.27	Average

Remarks:  
 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.  
 2. The emission levels that are 20dB below the official limit are not reported.

## 802.11g High Channel

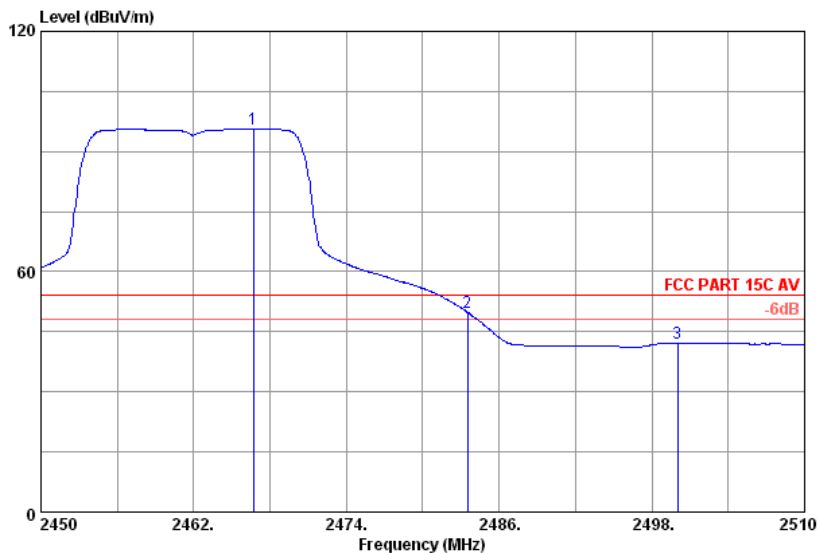


Site no. : RF Chamber Data no. : 47  
 Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54% Engineer : Leo-Li

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits dBuV/m)	Margin (dB)	Remark
1	2464.820	28.05	6.12	34.45	109.39	109.11	74.00	-35.11	Peak
2	2483.500	28.08	6.15	34.45	70.70	70.48	74.00	3.52	Peak
3	2484.020	28.08	6.15	34.45	71.64	71.42	74.00	2.58	Peak
4	2500.000	28.10	6.18	34.45	54.30	54.13	74.00	19.87	Peak

### Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

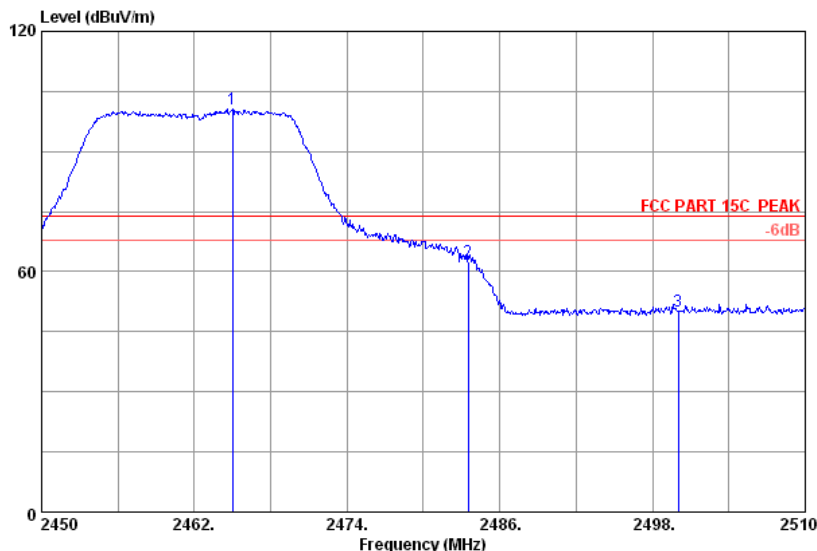


Site no. : RF Chamber Data no. : 48  
 Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL  
 Limit : FCC PART 15C AV  
 Env. / Ins. : 23°C/54% Engineer : Leo-Li

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits dBuV/m)	Margin (dB)	Remark
1	2466.680	28.05	6.12	34.45	96.00	95.72	54.00	-41.72	Average
2	2483.500	28.08	6.15	34.45	50.18	49.96	54.00	4.04	Average
3	2500.000	28.10	6.18	34.45	42.43	42.26	54.00	11.74	Average

### Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

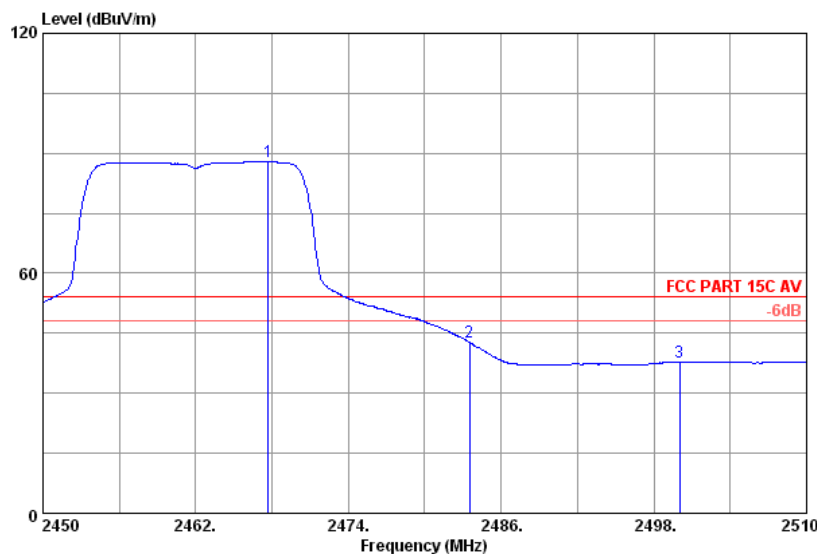


Site no. : RF Chamber Data no. : 49  
 Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54% Engineer : Leo-Li

	Ant. Freq. (MHz)	Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits dBuV/m)	Margin (dB)	Remark
1	2465.000	28.05	6.12	34.45	100.97	100.69	74.00	-26.69	Peak
2	2483.500	28.08	6.15	34.45	62.88	62.66	74.00	11.34	Peak
3	2500.000	28.10	6.18	34.45	50.19	50.02	74.00	23.98	Peak

Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



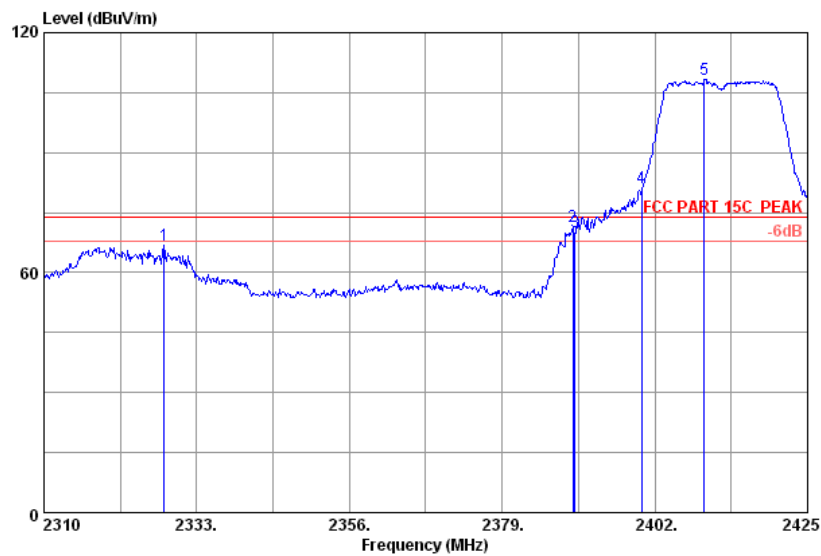
Site no. : RF Chamber Data no. : 50  
 Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C AV  
 Env. / Ins. : 23°C/54% Engineer : Leo-Li

	Ant. Freq. (MHz)	Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits dBuV/m)	Margin (dB)	Remark
1	2467.700	28.05	6.12	34.45	88.16	87.88	54.00	-33.88	Average
2	2483.500	28.08	6.15	34.45	43.03	42.81	54.00	11.19	Average
3	2500.000	28.10	6.18	34.45	37.86	37.69	54.00	16.31	Average

Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

## 802.11n HT20 Low Channel

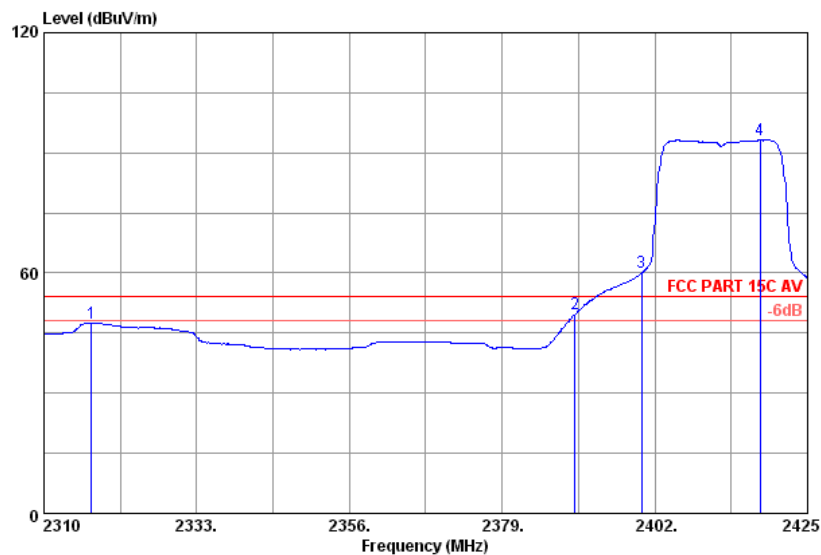


Site no. : RF Chamber Data no. : 73  
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL  
Limit : FCC PART 15C PEAK  
Env. / Ins. : 23°C/54% Engineer : Leo-Li

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits dBuV/m)	Margin (dB)	Remark
1	2328.055	27.86	5.89	34.43	67.55	66.87	74.00	7.13	Peak
2	2389.695	27.96	6.01	34.44	71.96	71.49	74.00	2.51	Peak
3	2390.000	27.96	6.01	34.44	70.69	70.22	74.00	3.78	Peak
4	2400.000	27.96	6.01	34.44	81.67	81.20	74.00	-7.20	Peak
5	2409.475	27.98	6.03	34.44	108.69	108.26	74.00	-34.26	Peak

## Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



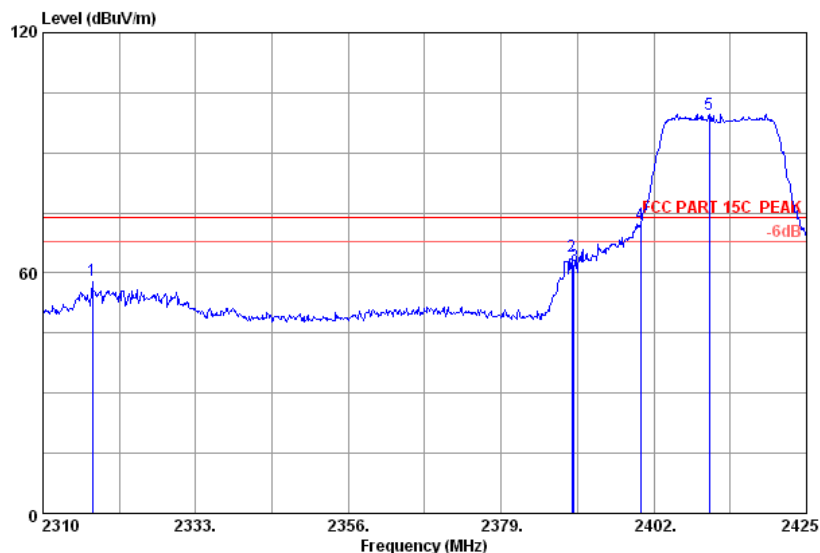
Site no. : RF Chamber Data no. : 74  
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL  
Limit : FCC PART 15C AV  
Env. / Ins. : 23°C/54% Engineer : Leo-Li

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits dBuV/m)	Margin (dB)	Remark
1	2317.130	27.83	5.89	34.43	48.16	47.45	54.00	6.55	Average
2	2390.000	27.96	6.01	34.44	50.27	49.80	54.00	4.20	Average
3	2400.000	27.96	6.01	34.44	60.56	60.09	54.00	-6.09	Average
4	2417.870	27.98	6.03	34.44	93.59	93.16	54.00	-39.16	Average

## Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



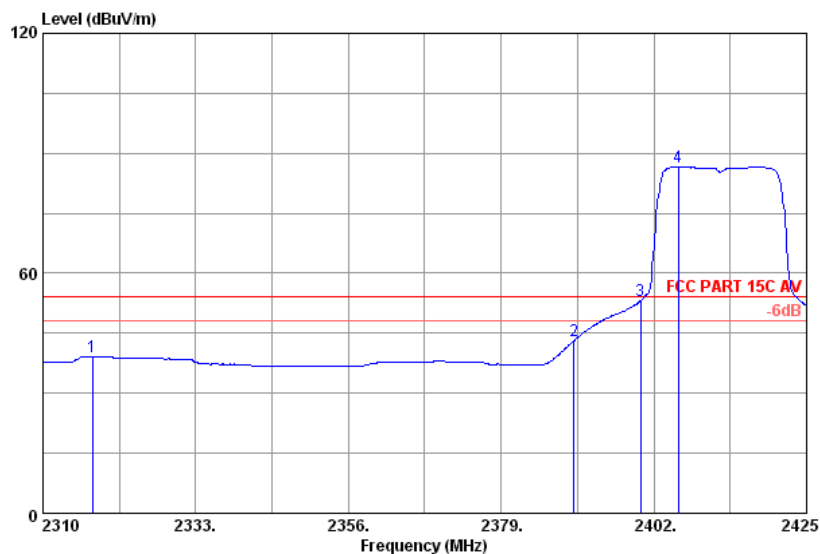


Site no. : RF Chamber Data no. : 76  
 Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54% Engineer : Leo-Li

	Ant. Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2317.475	27.83	5.89	34.43	58.82	58.11	74.00	15.89	Peak
2	2389.695	27.96	6.01	34.44	64.62	64.15	74.00	9.85	Peak
3	2390.000	27.96	6.01	34.44	62.20	61.73	74.00	12.27	Peak
4	2400.000	27.96	6.01	34.44	72.79	72.32	74.00	1.68	Peak
5	2410.395	27.98	6.03	34.44	100.12	99.69	74.00	-25.69	Peak

Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



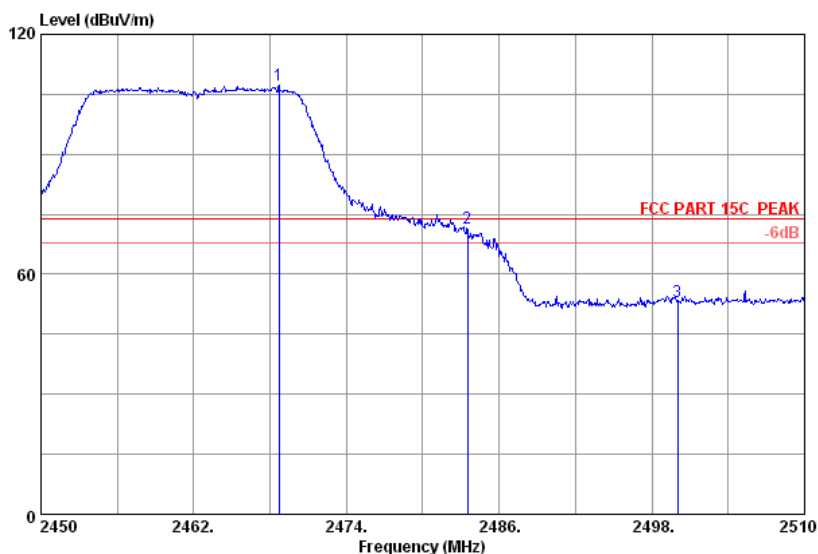
Site no. : RF Chamber Data no. : 75  
 Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C AV  
 Env. / Ins. : 23°C/54% Engineer : Leo-Li

	Ant. Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2317.475	27.83	5.89	34.43	39.96	39.25	54.00	14.75	Average
2	2390.000	27.96	6.01	34.44	43.67	43.20	54.00	10.80	Average
3	2400.000	27.96	6.01	34.44	53.75	53.28	54.00	0.72	Average
4	2405.680	27.98	6.03	34.44	87.09	86.66	54.00	-32.66	Average

Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

# 802.11n HT20 High Channel

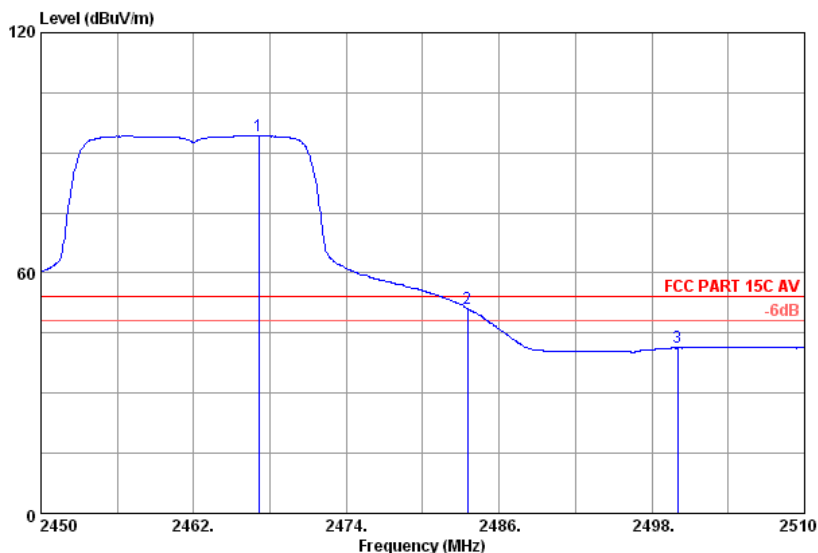


Site no. : RF Chamber Data no. : 53  
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL  
Limit : FCC PART 15C PEAK  
Env. / Ins. : 23°C/54% Engineer : Leo-Li

	Ant. Freq. (MHz)	Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2468.720	28.05	6.12	34.45	107.56	107.28	74.00	-33.28	Peak
2	2483.500	28.08	6.15	34.45	71.60	71.38	74.00	2.62	Peak
3	2500.000	28.10	6.18	34.45	53.23	53.06	74.00	20.94	Peak

## Remarks:

- Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- The emission levels that are 20dB below the official limit are not reported.

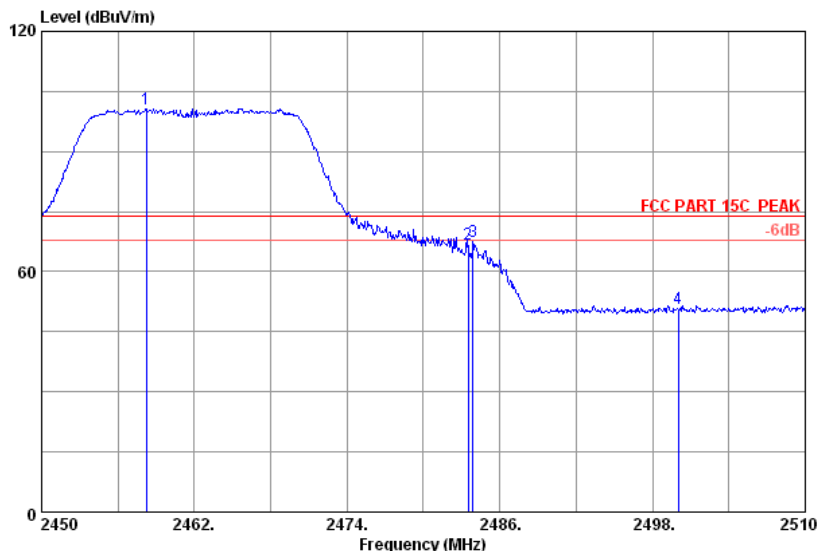


Site no. : RF Chamber Data no. : 54  
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL  
Limit : FCC PART 15C AV  
Env. / Ins. : 23°C/54% Engineer : Leo-Li

	Ant. Freq. (MHz)	Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2467.100	28.05	6.12	34.45	94.52	94.24	54.00	-40.24	Average
2	2483.500	28.08	6.15	34.45	51.26	51.04	54.00	2.96	Average
3	2500.000	28.10	6.18	34.45	41.47	41.30	54.00	12.70	Average

## Remarks:

- Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- The emission levels that are 20dB below the official limit are not reported.

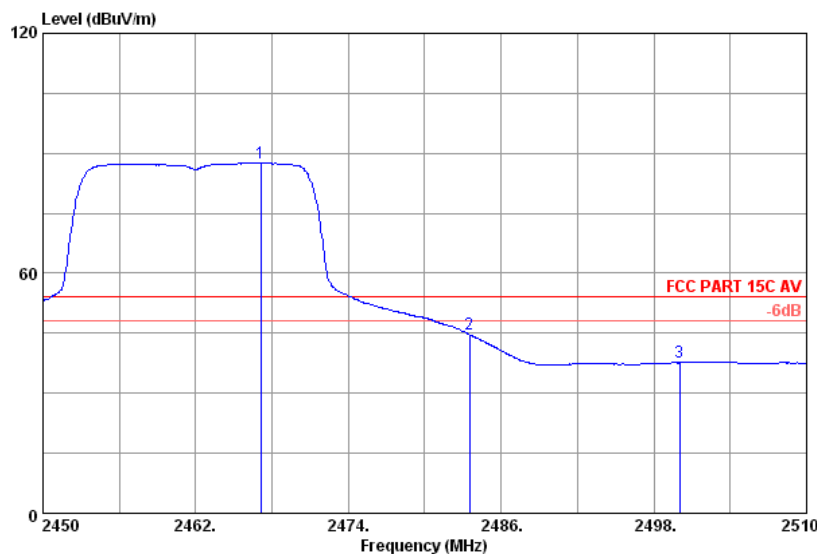


Site no. : RF Chamber Data no. : 55  
 Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54% Engineer : Leo-Li

	Ant. Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2458.220	28.05	6.12	34.44	100.97	100.70	74.00	-26.70	Peak
2	2483.500	28.08	6.15	34.45	67.14	66.92	74.00	7.08	Peak
3	2483.900	28.08	6.15	34.45	67.60	67.38	74.00	6.62	Peak
4	2500.000	28.10	6.18	34.45	51.10	50.93	74.00	23.07	Peak

Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



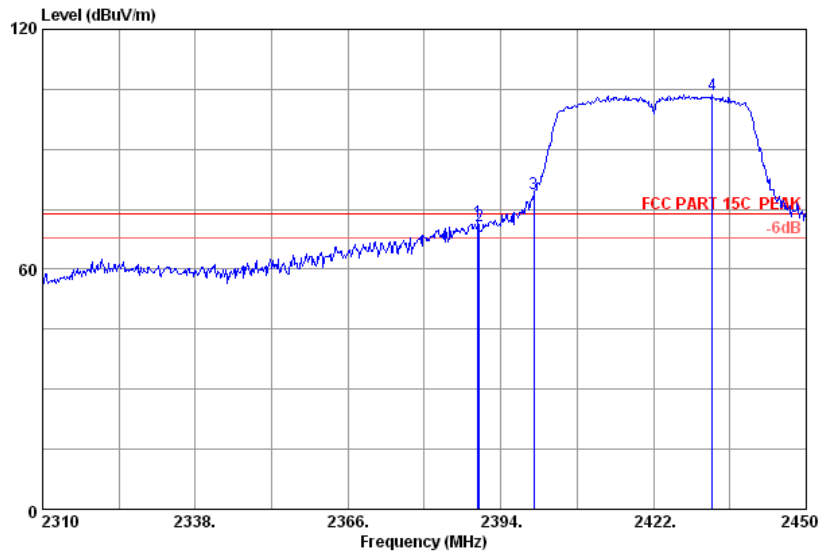
Site no. : RF Chamber Data no. : 56  
 Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C AV  
 Env. / Ins. : 23°C/54% Engineer : Leo-Li

	Ant. Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2467.100	28.05	6.12	34.45	87.78	87.50	54.00	-33.50	Average
2	2483.500	28.08	6.15	34.45	44.91	44.69	54.00	9.31	Average
3	2500.000	28.10	6.18	34.45	37.80	37.63	54.00	16.37	Average

Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

## 802.11n HT40 Low Channel

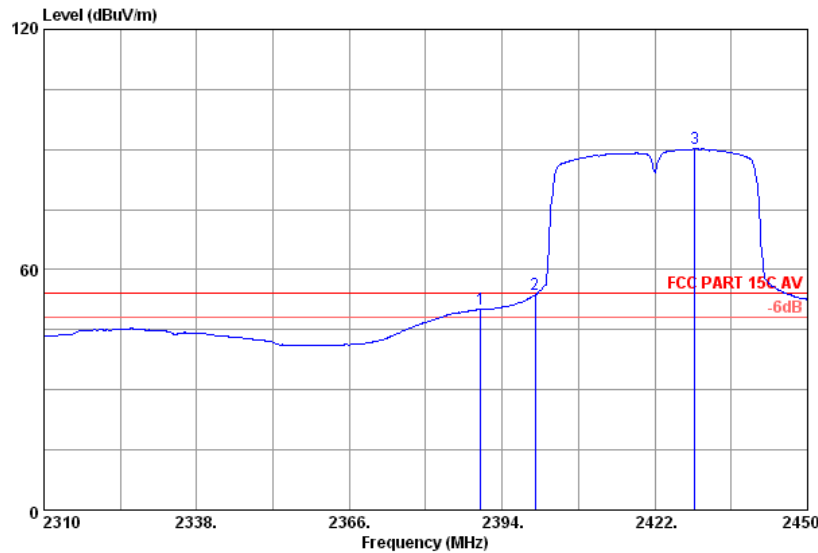


Site no. : RF Chamber Data no. : 79  
 Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54% Engineer : Leo-Li

	Ant. Freq. (MHz)	Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2389.800	27.96	6.01	34.44	72.20	71.73	74.00	2.27	Peak
2	2390.000	27.96	6.01	34.44	71.35	70.88	74.00	3.12	Peak
3	2400.000	27.96	6.01	34.44	79.28	78.81	74.00	-4.81	Peak
4	2432.780	28.00	6.06	34.44	103.95	103.57	74.00	-29.57	Peak

### Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

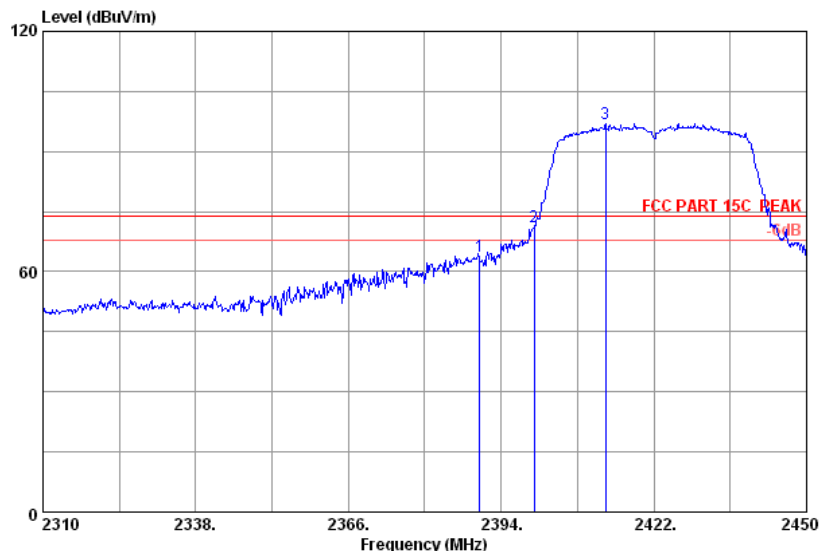


Site no. : RF Chamber Data no. : 80  
 Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL  
 Limit : FCC PART 15C AV  
 Env. / Ins. : 23°C/54% Engineer : Leo-Li

	Ant. Freq. (MHz)	Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.000	27.96	6.01	34.44	50.51	50.04	54.00	3.96	Average
2	2400.000	27.96	6.01	34.44	54.23	53.76	54.00	0.24	Average
3	2429.280	28.00	6.06	34.44	90.53	90.15	54.00	-36.15	Average

### Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

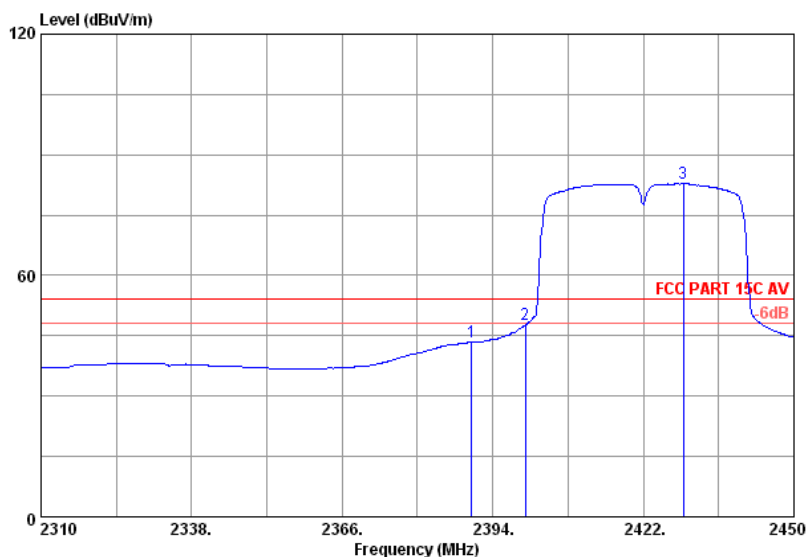


Site no. : RF Chamber Data no. : 82  
 Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54% Engineer : Leo-Li

	Ant. Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.000	27.96	6.01	34.44	64.17	63.70	74.00	10.30	Peak
2	2400.000	27.96	6.01	34.44	71.70	71.23	74.00	2.77	Peak
3	2413.180	27.98	6.03	34.44	97.46	97.03	74.00	-23.03	Peak

Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



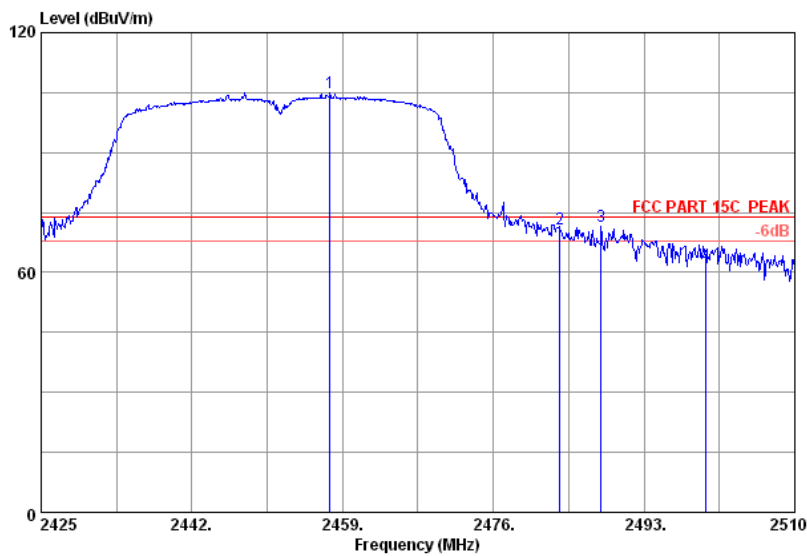
Site no. : RF Chamber Data no. : 81  
 Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C AV  
 Env. / Ins. : 23°C/54% Engineer : Leo-Li

	Ant. Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.000	27.96	6.01	34.44	43.87	43.40	54.00	10.60	Average
2	2400.000	27.96	6.01	34.44	48.19	47.72	54.00	6.28	Average
3	2429.420	28.00	6.06	34.44	83.24	82.86	54.00	-28.86	Average

Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

### 802.11n HT40 High Channel

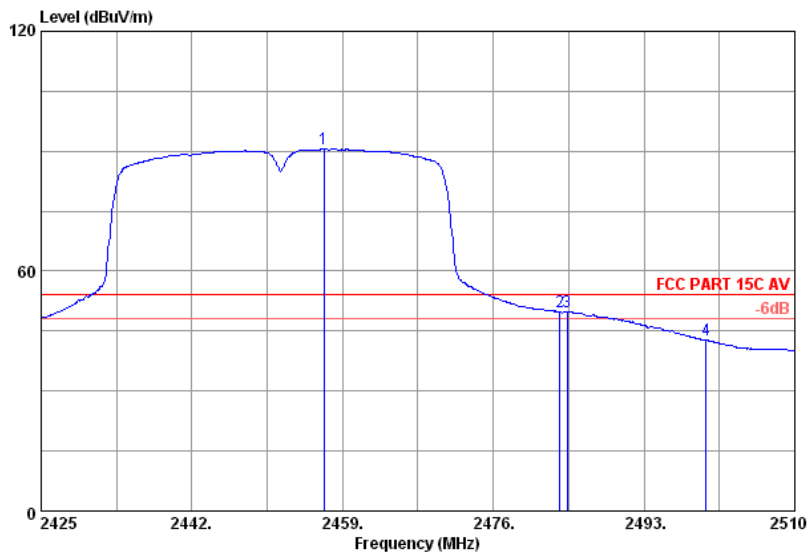


Site no. : RF Chamber Data no. : 99  
 Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54% Engineer : Leo-Li

	Ant. Freq. (MHz)	Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2457.555	28.05	6.12	34.44	105.17	104.90	74.00	-30.90	Peak
2	2483.500	28.08	6.15	34.45	71.22	71.00	74.00	3.00	Peak
3	2488.155	28.10	6.15	34.45	71.57	71.37	74.00	2.63	Peak
4	2500.000	28.10	6.18	34.45	62.13	61.96	74.00	12.04	Peak

#### Remarks:

- Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- The emission levels that are 20dB below the official limit are not reported.

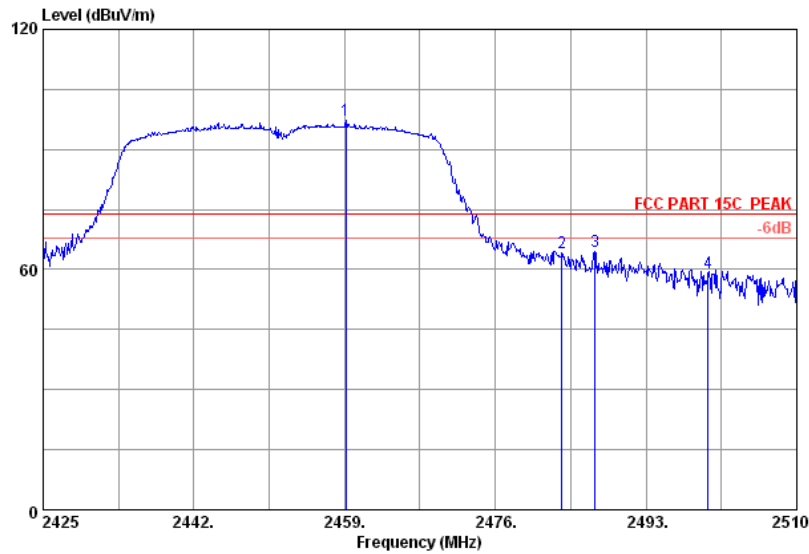


Site no. : RF Chamber Data no. : 100  
 Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL  
 Limit : FCC PART 15C AV  
 Env. / Ins. : 23°C/54% Engineer : Leo-Li

	Ant. Freq. (MHz)	Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2456.875	28.05	6.12	34.44	90.85	90.58	54.00	-36.58	Average
2	2483.500	28.08	6.15	34.45	50.07	49.85	54.00	4.15	Average
3	2484.330	28.08	6.15	34.45	50.17	49.95	54.00	4.05	Average
4	2500.000	28.10	6.18	34.45	42.98	42.81	54.00	11.19	Average

#### Remarks:

- Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- The emission levels that are 20dB below the official limit are not reported.

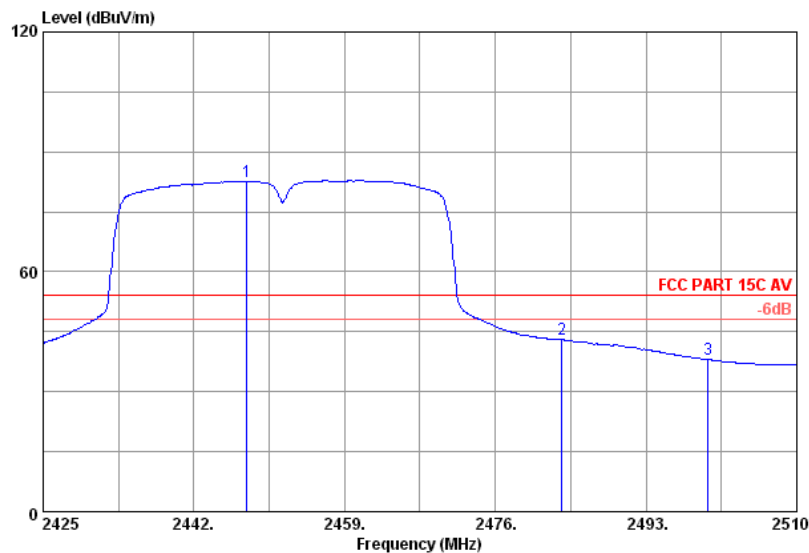


Site no. : RF Chamber Data no. : 102  
 Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54% Engineer : Leo-Li

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2459.170	28.05	6.12	34.44	97.60	97.33	74.00	-23.33	Peak
2	2483.500	28.08	6.15	34.45	64.44	64.22	74.00	9.78	Peak
3	2487.220	28.08	6.15	34.45	64.83	64.61	74.00	9.39	Peak
4	2500.000	28.10	6.18	34.45	59.23	59.06	74.00	14.94	Peak

Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : RF Chamber Data no. : 101  
 Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C AV  
 Env. / Ins. : 23°C/54% Engineer : Leo-Li

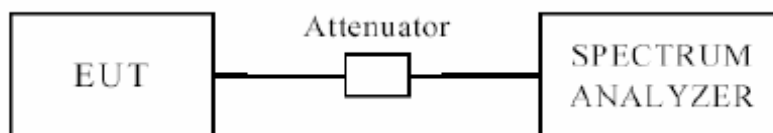
	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2447.950	28.03	6.09	34.44	82.95	82.63	54.00	-28.63	Average
2	2483.500	28.08	6.15	34.45	43.25	43.03	54.00	10.97	Average
3	2500.000	28.10	6.18	34.45	38.24	38.07	54.00	15.93	Average

Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

## 7. 6DB BANDWIDTH TEST

### 7.1. Block Diagram of Test Setup



### 7.2. Limit

For direct sequence systems, the minimum 6dB bandwidth shall be at least 500kHz.

### 7.3. Test Procedure

The transmitter output was connected to a spectrum analyzer, The bandwidth of the fundamental frequency was measured by spectrum analyzer with 100kHz RBW and 300 kHz VBW. The 6dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 6dB.

### 7.4. Test Results

Pass (The testing data was attached in the next pages.)



## 802.11b

Channel	Frequency	6dB Bandwidth (MHz)	Min. Limit (kHz)	Result
1	2412	12.134	500	Complies
6	2437	12.113	500	Complies
11	2462	12.607	500	Complies

## 802.11g

Channel	Frequency	6dB Bandwidth (MHz)	Min. Limit (kHz)	Result
1	2412	16.605	500	Complies
6	2437	16.550	500	Complies
11	2462	16.601	500	Complies

## 802.11n HT20

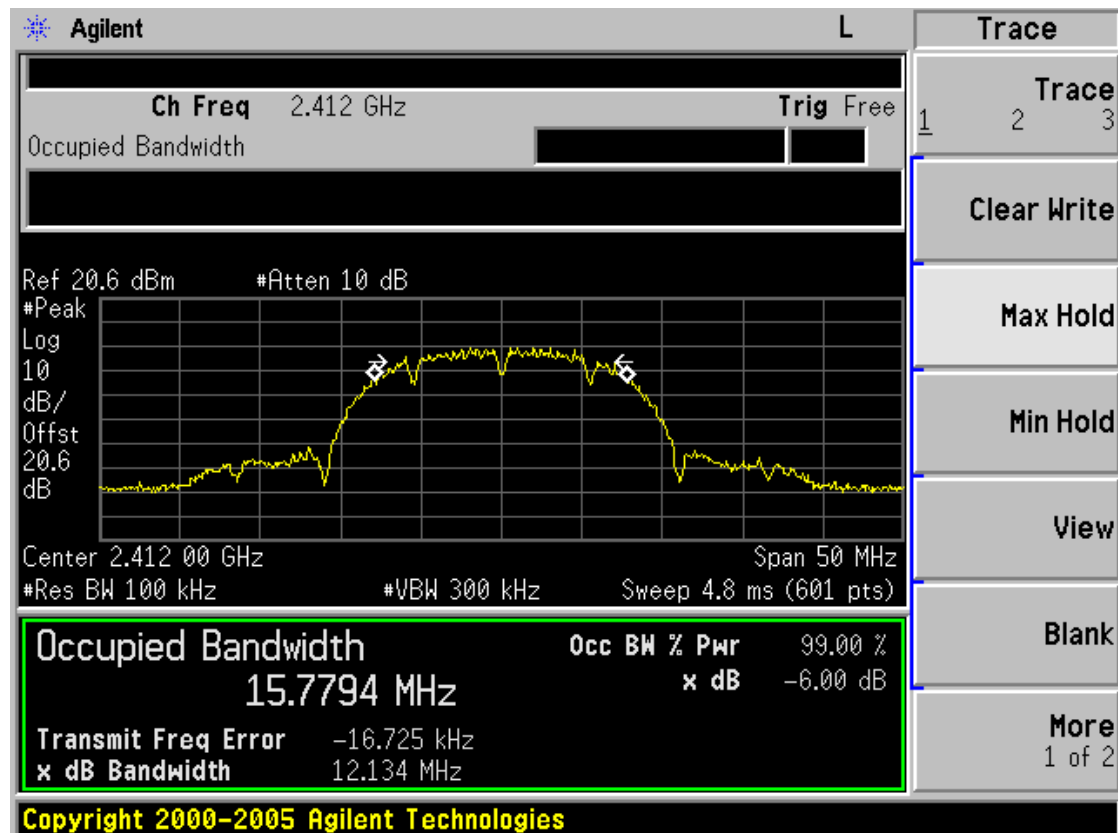
Channel	Frequency	6dB Bandwidth (MHz)	Min. Limit (kHz)	Result
1	2412	17.713	500	Complies
6	2437	17.703	500	Complies
11	2462	17.682	500	Complies

## 802.11n HT40

Channel	Frequency	6dB Bandwidth (MHz)	Min. Limit (kHz)	Result
3	2422	36.180	500	Complies
6	2437	36.174	500	Complies
9	2452	36.169	500	Complies

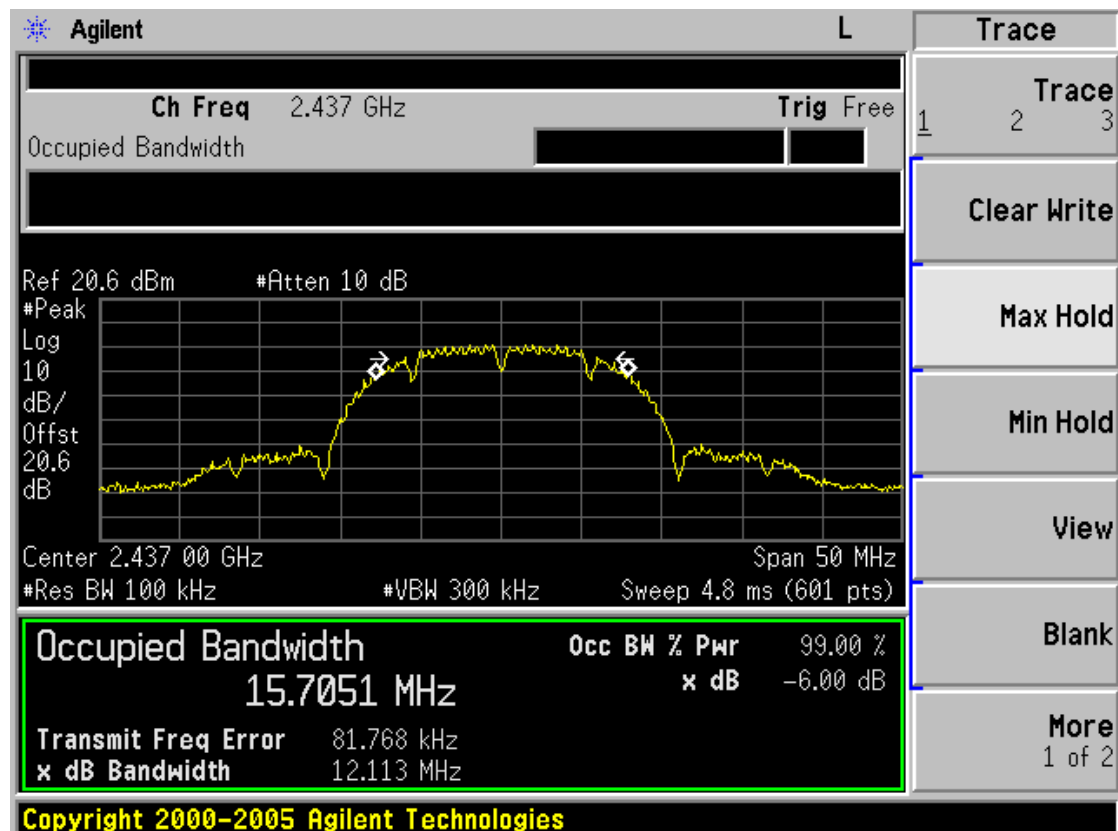
Test Mode: IEEE 802.11b TX

Test CH1: 2412MHz

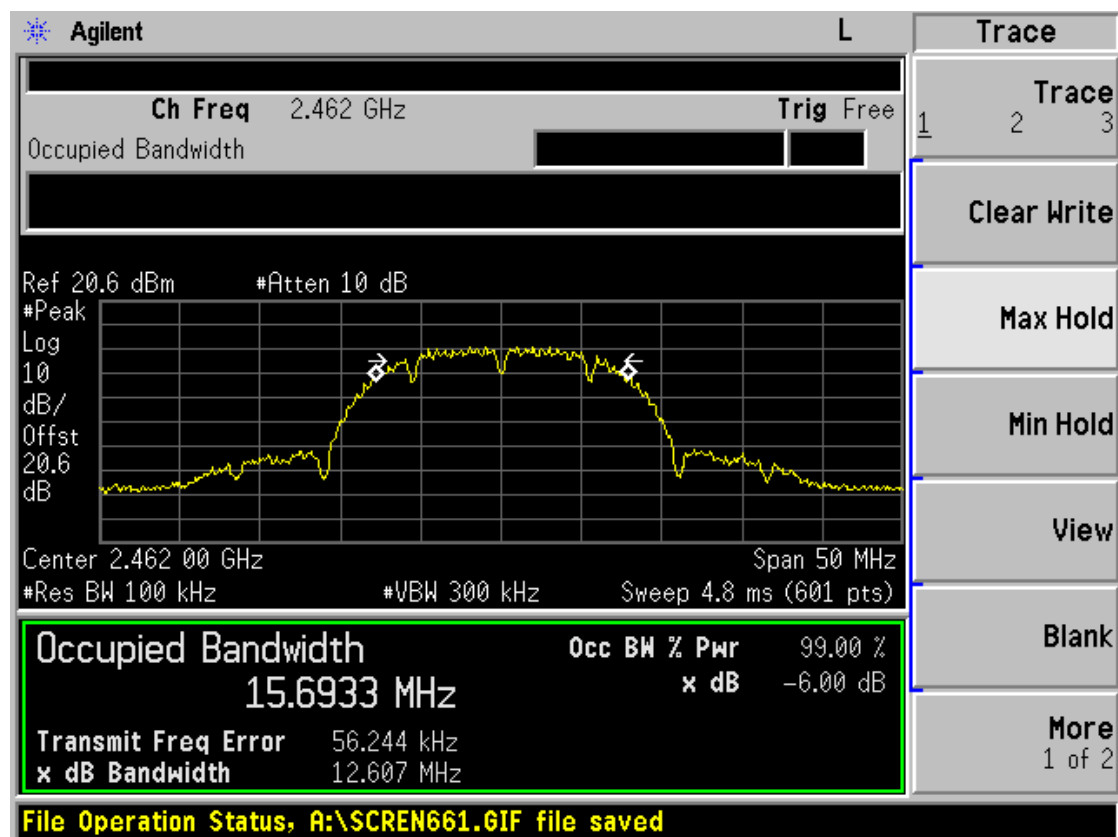


Test

CH6: 2437MHz

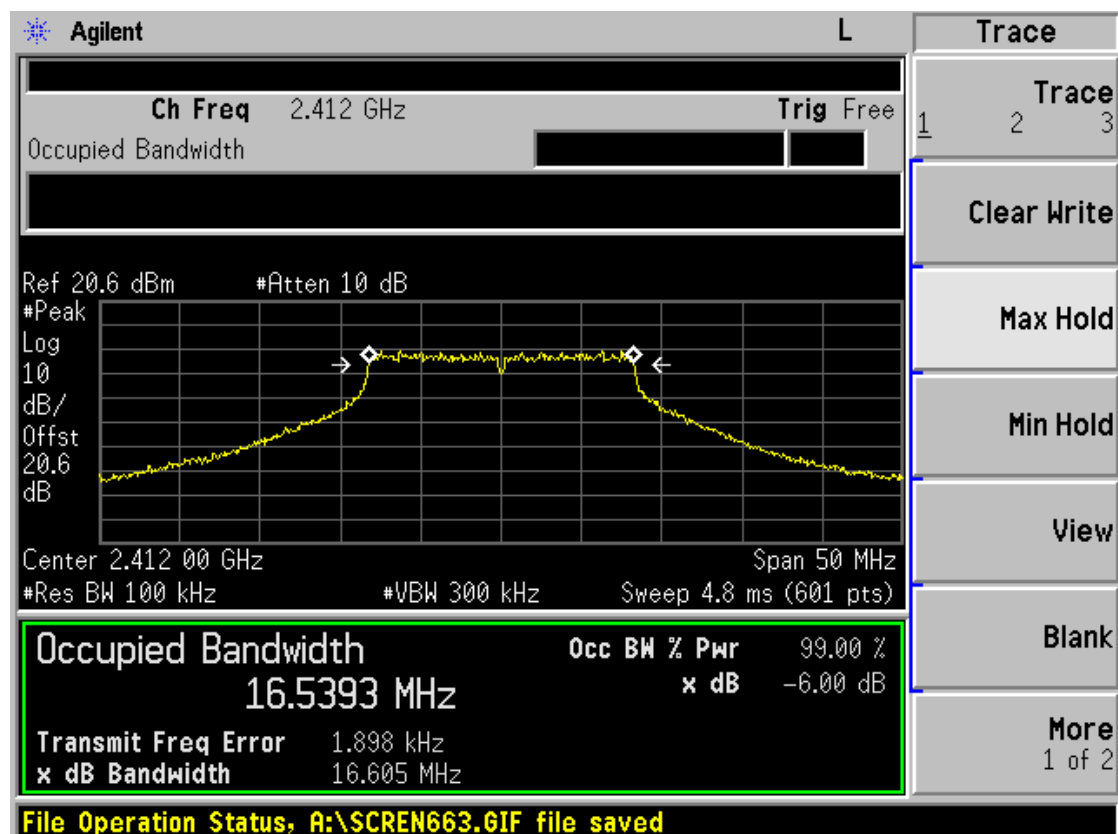


Test CH11: 2462MHz

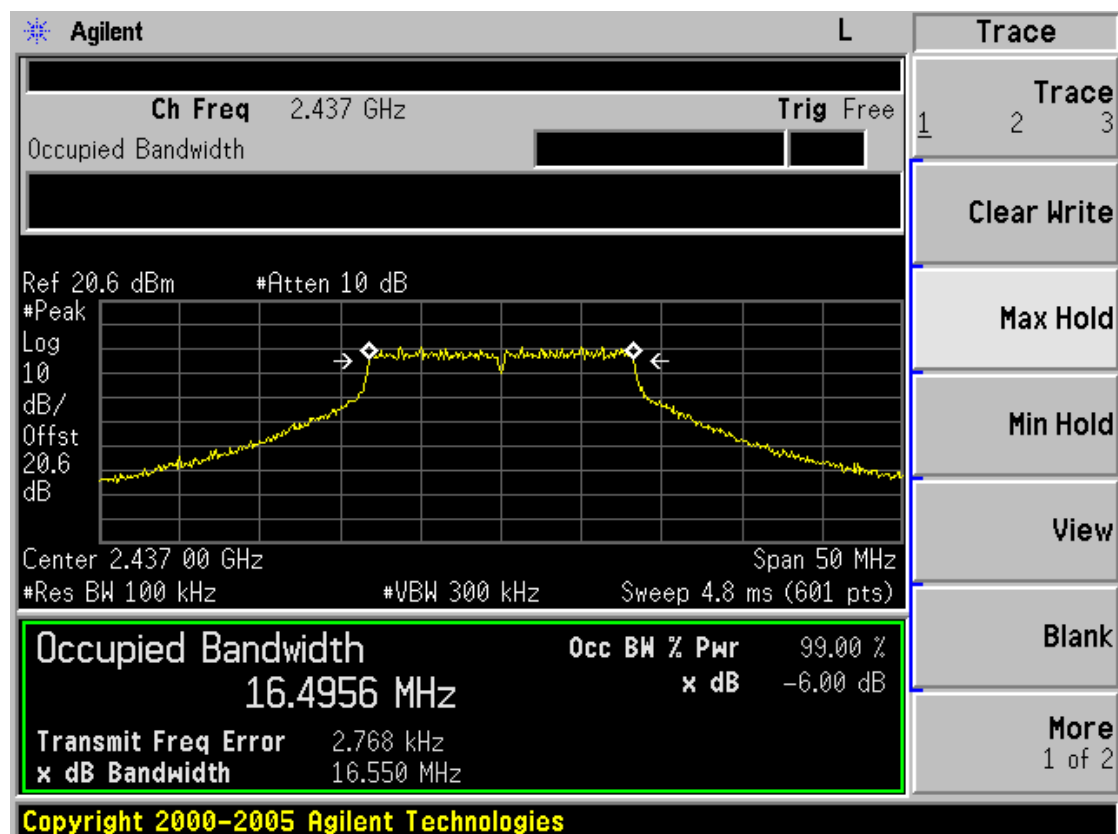


Test Mode: IEEE 802.11g TX

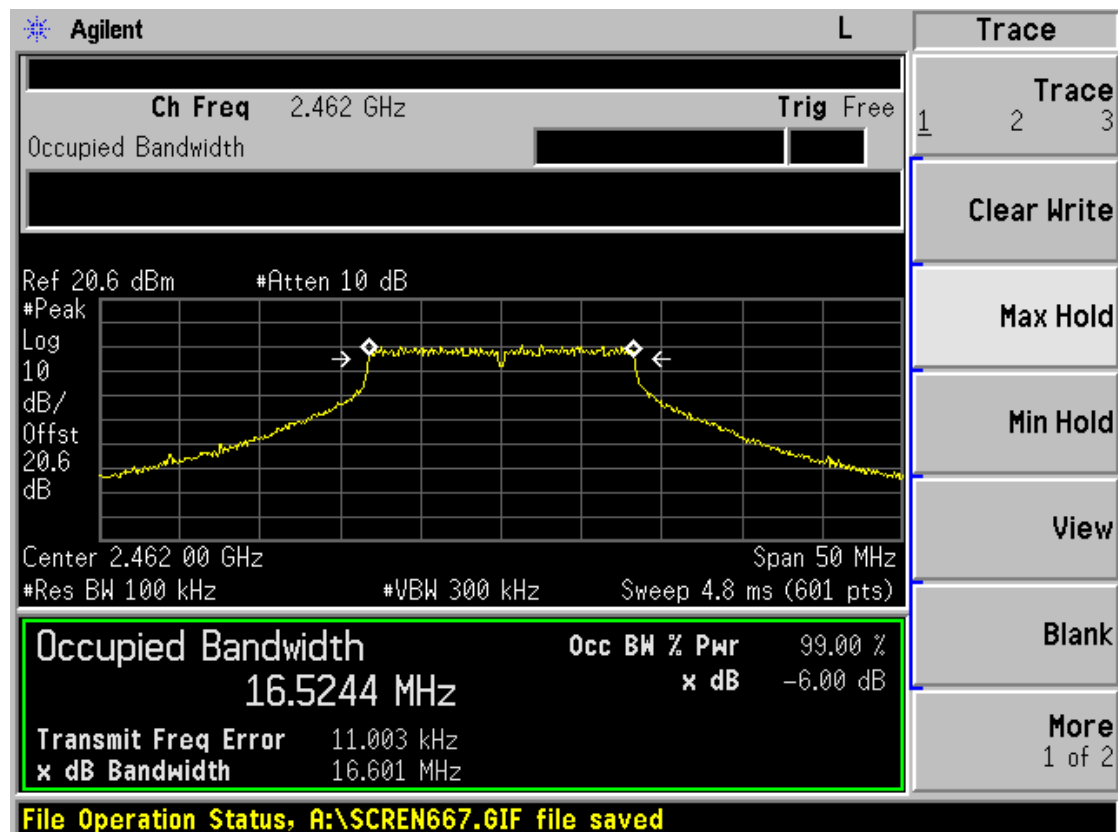
Test CH1: 2412MHz



Test CH6: 2437MHz

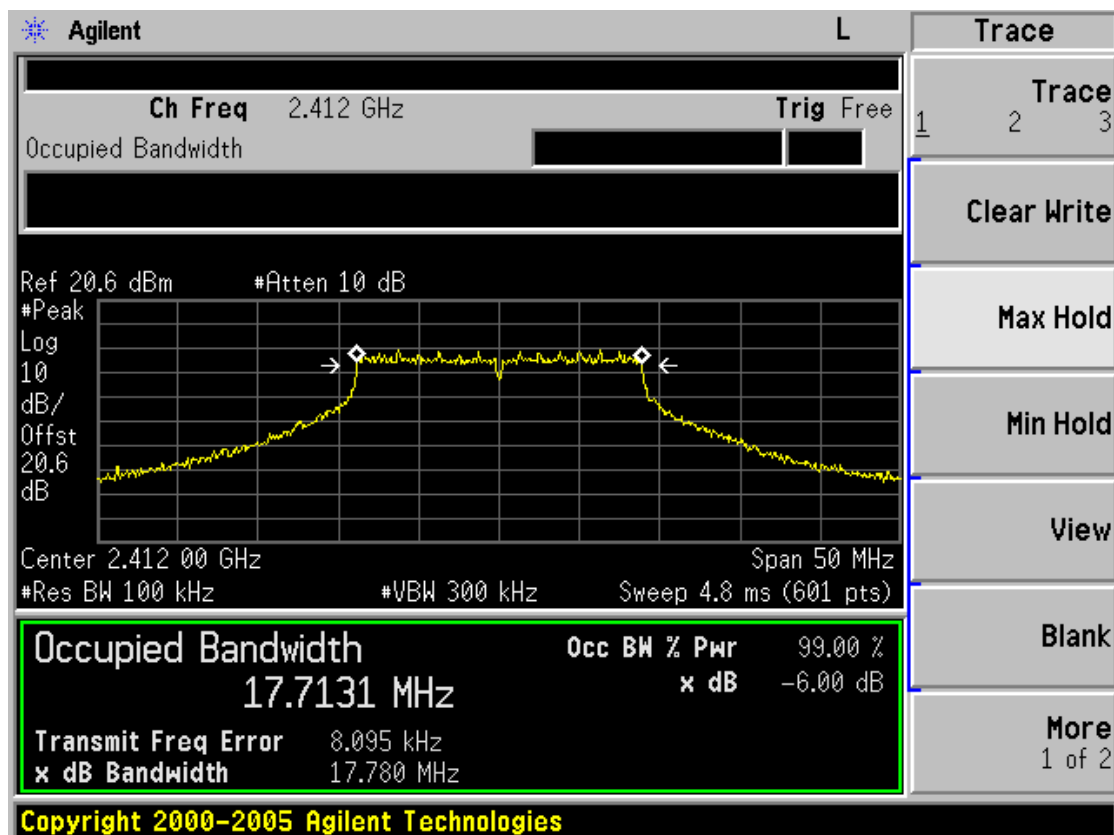


Test CH11: 2462MHz

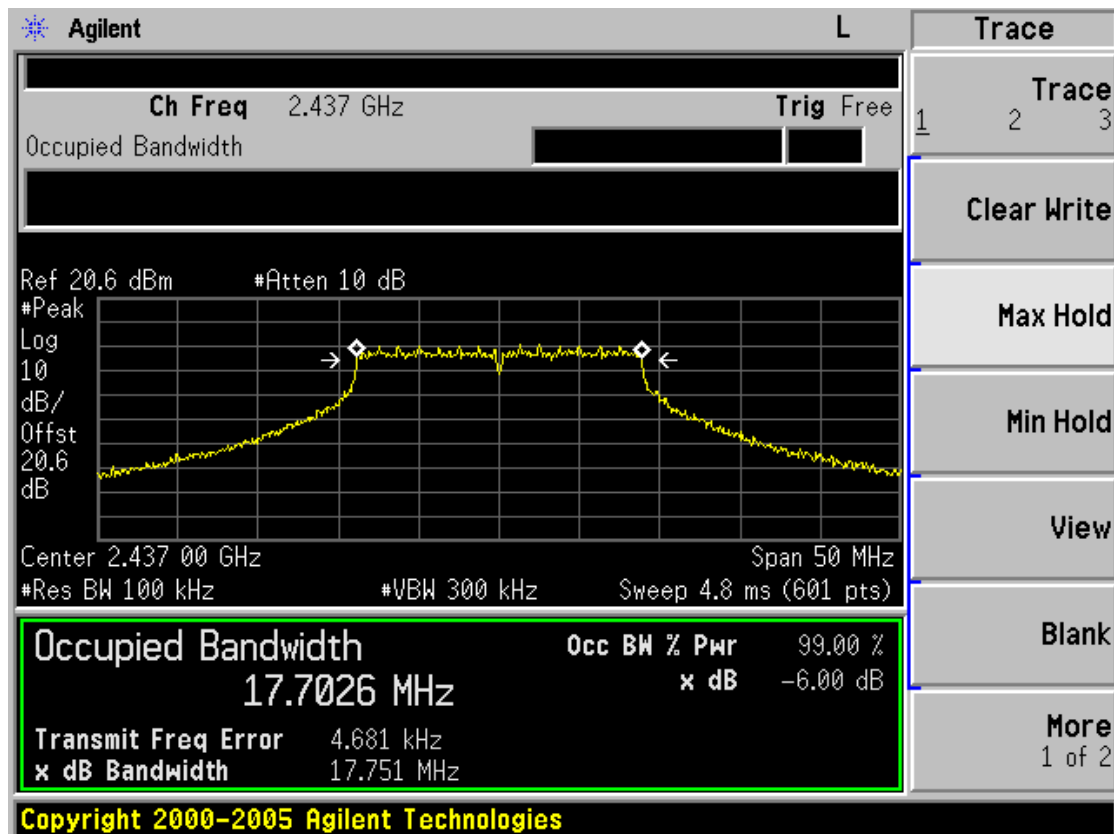


Test Mode: IEEE 802. 11n HT20 TX

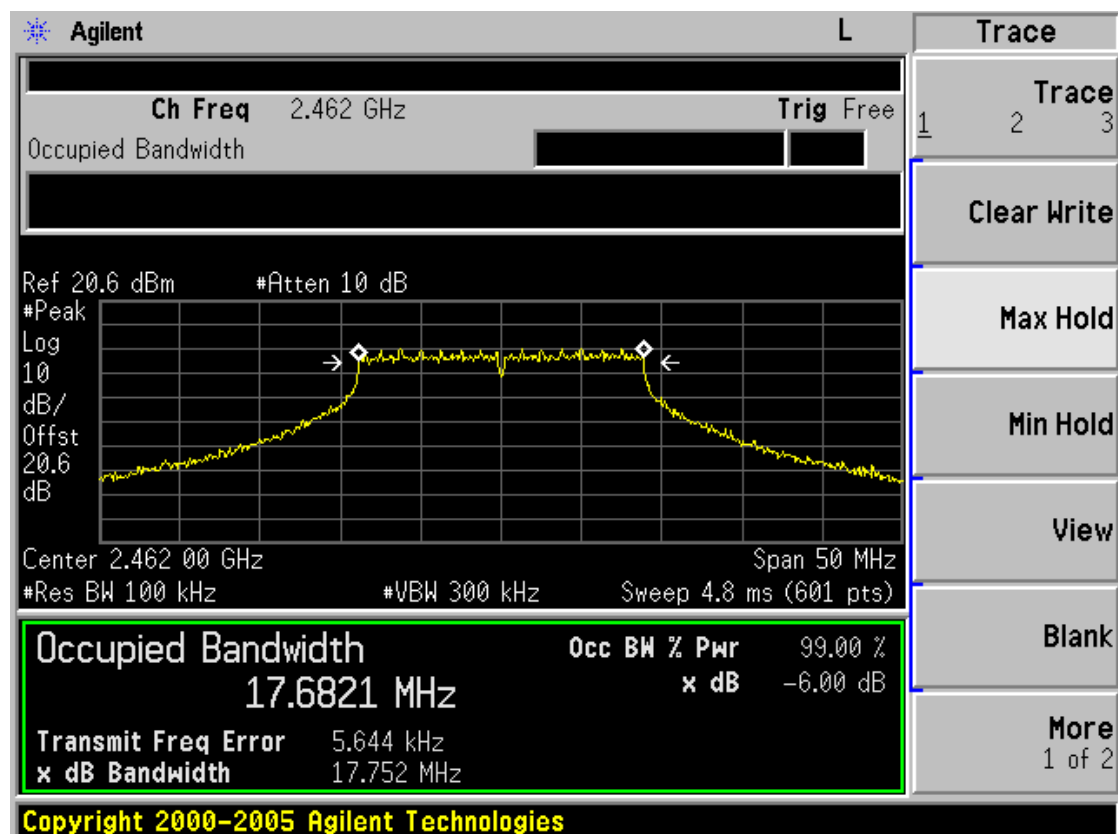
Test CH1: 2412MHz



Test CH6: 2437MHz

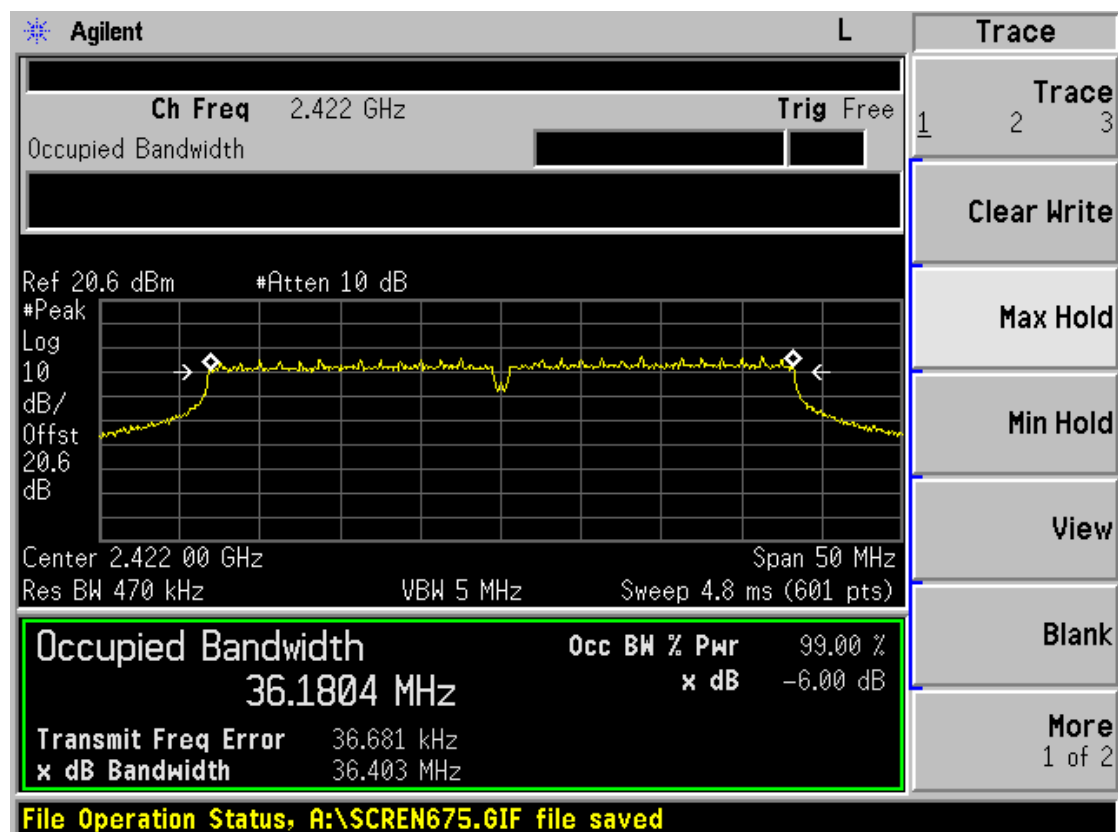


Test CH11: 2462MHz

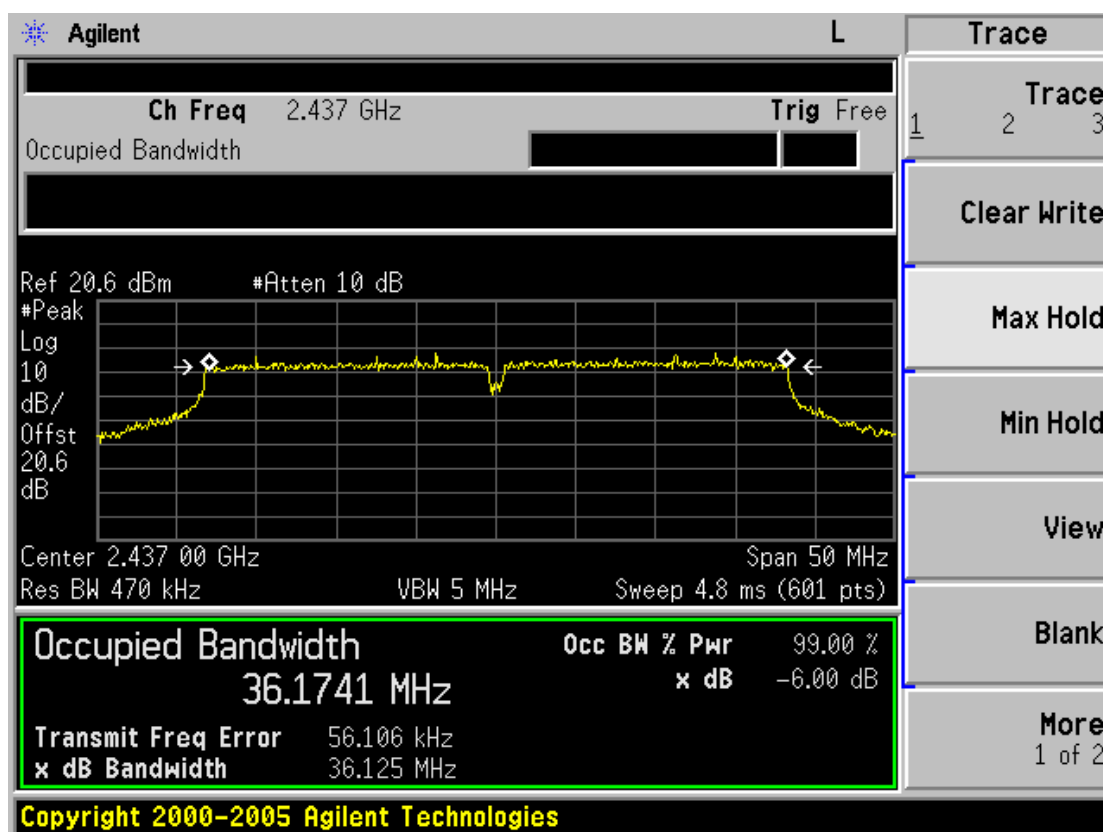


Test Mode: IEEE 802. 11n HT40 TX

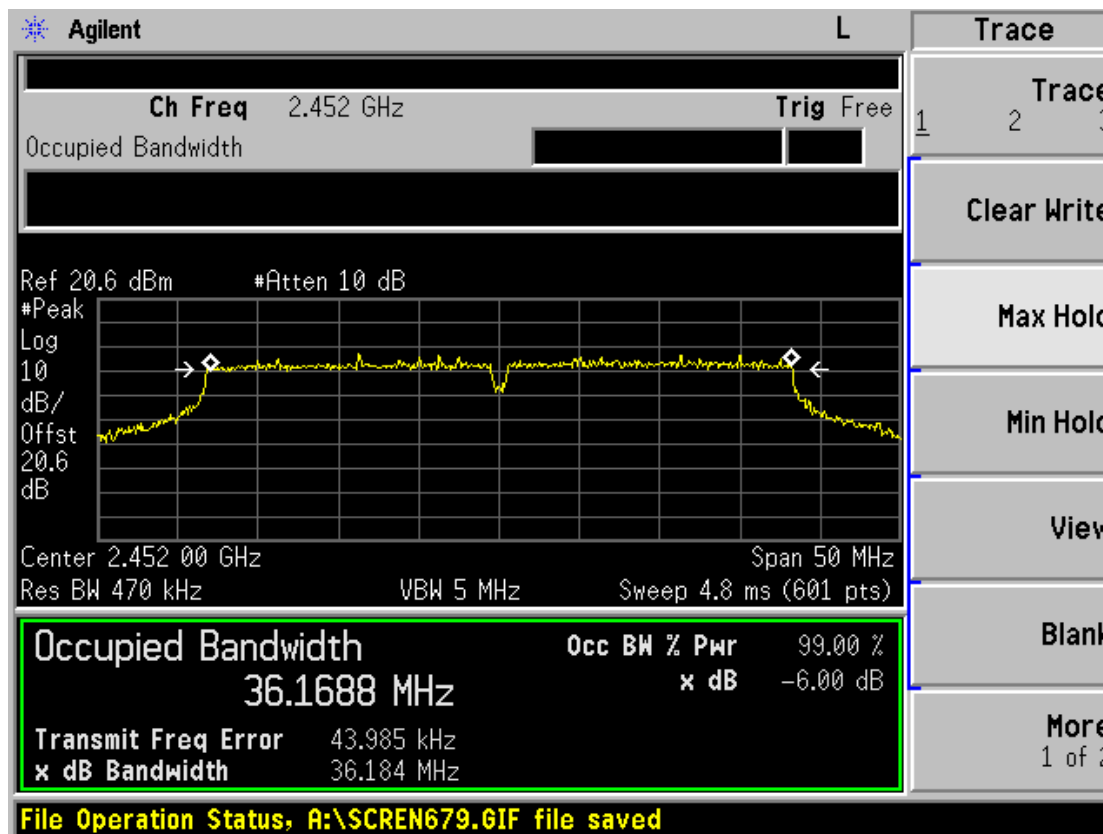
Test CH3: 2422MHz



Test CH6: 2437MHz

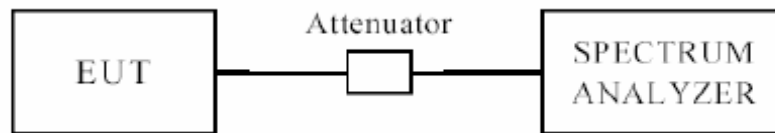


Test CH9: 2452MHz



## 8. OUTPUT POWER TEST

### 8.1. Block Diagram of Test Setup



### 8.2. Limit

According to §15.247(b)(3), for systems using digital modulation in the bands of 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz: 1 Watt(30dBm).

### 8.3. Test Procedure

8.3.1. Connected the EUT's antenna port to measure device by 20dB attenuator.

8.3.2. For IEEE 802.11b/g and IEEE802.11n HT20 mode, use a PK power meter which's bandwidth is 20MHz and above 6dB bandwidth of signal to measure out each test modes' PK output power.

8.3.3. For IEEE802.11n HT40 mode, because the signal's bandwidth is about 40MHz and above 20MHz bandwidth of power sensor. So Bandwidth correction method according to ANSI C63.10 clause 6.10.2.1 part (c) was used:

- 1) Set the RBW=3MHz and VBW =8MHz
- 2) Turn averaging off
- 3) Set sweep to automatic
- 4) Set the span just large enough to capture the emission
- 5) Use a peak detector on max hold
- 6) Record the measured power
- 7) Calculate Output power of EUT use the formula:

Peak output power =measured power+ 10log[(6dB bandwidth of emission)/(analyzer RBW)]

Note: The cable loss and attenuator loss were offset into measure device as an amplitude offset.

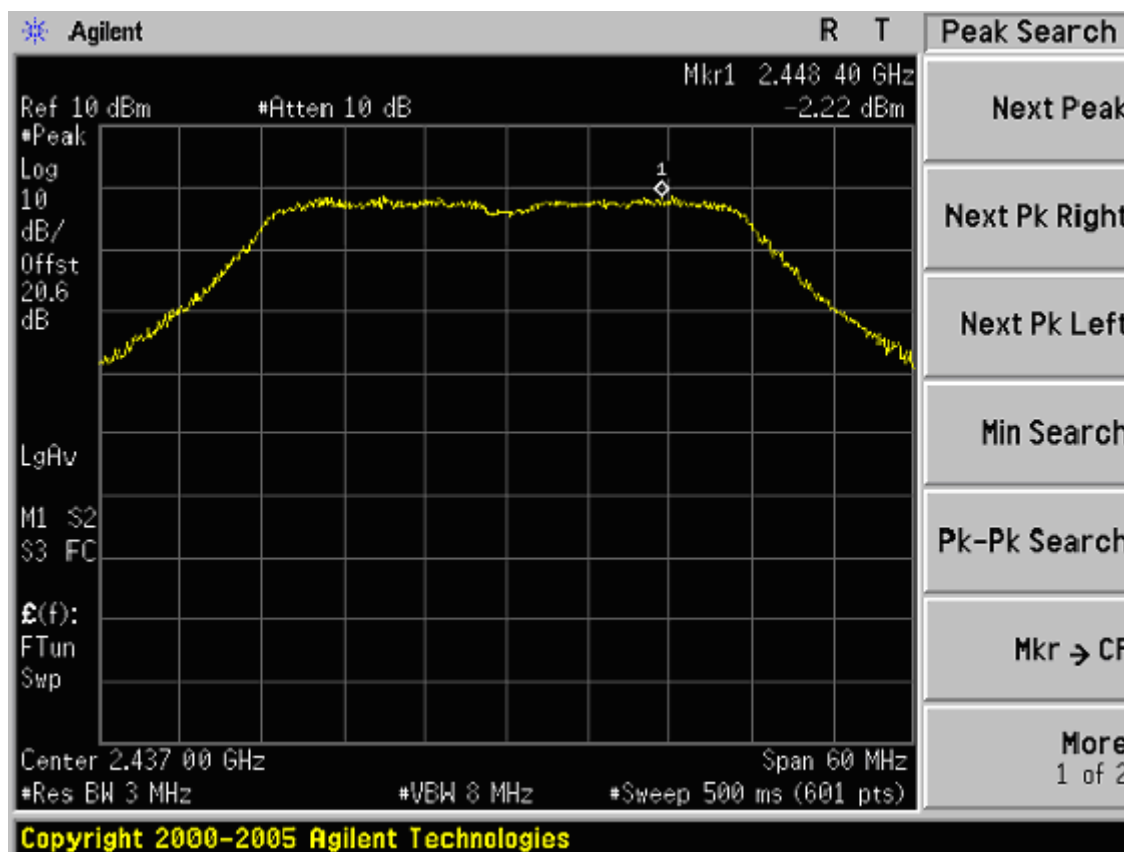


#### 8.4. Test Results

Mode	Channel	Peak output power (dBm)	Limit (dBm)	Result
802.11b	Low:CH1	8.32	30	Pass
	Middle:CH6	8.75	30	Pass
	High:CH11	8.47	30	Pass
802.11g	Low:CH1	8.18	30	Pass
	Middle:CH6	8.83	30	Pass
	High:CH11	8.46	30	Pass
802.11n (HT20)	Low:CH1	8.28	30	Pass
	Middle:CH6	8.63	30	Pass
	High:CH11	8.37	30	Pass

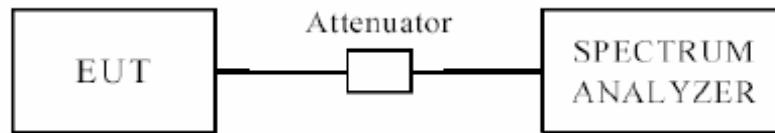
Mode	Channel	Peak power (dBm/3MHz)	Peak output power(dBm)	Limit (dBm)	Result
802.11n (HT40)	Low:CH3	-2.64	8.16	30	Pass
	Middle:CH6	-2.22	8.58	30	Pass
	High:CH9	-2.52	8.28	30	Pass

6dB Bandwidth for 11n HT40=36.18MHz

11n HT40 Mode , BW Correction Factor= $10\log(36.18 / 3)=10.8$ 


## 9. POWER SPECTRAL DENSITY TEST

### 9.1. Block Diagram of Test Setup



### 9.2. Limit

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

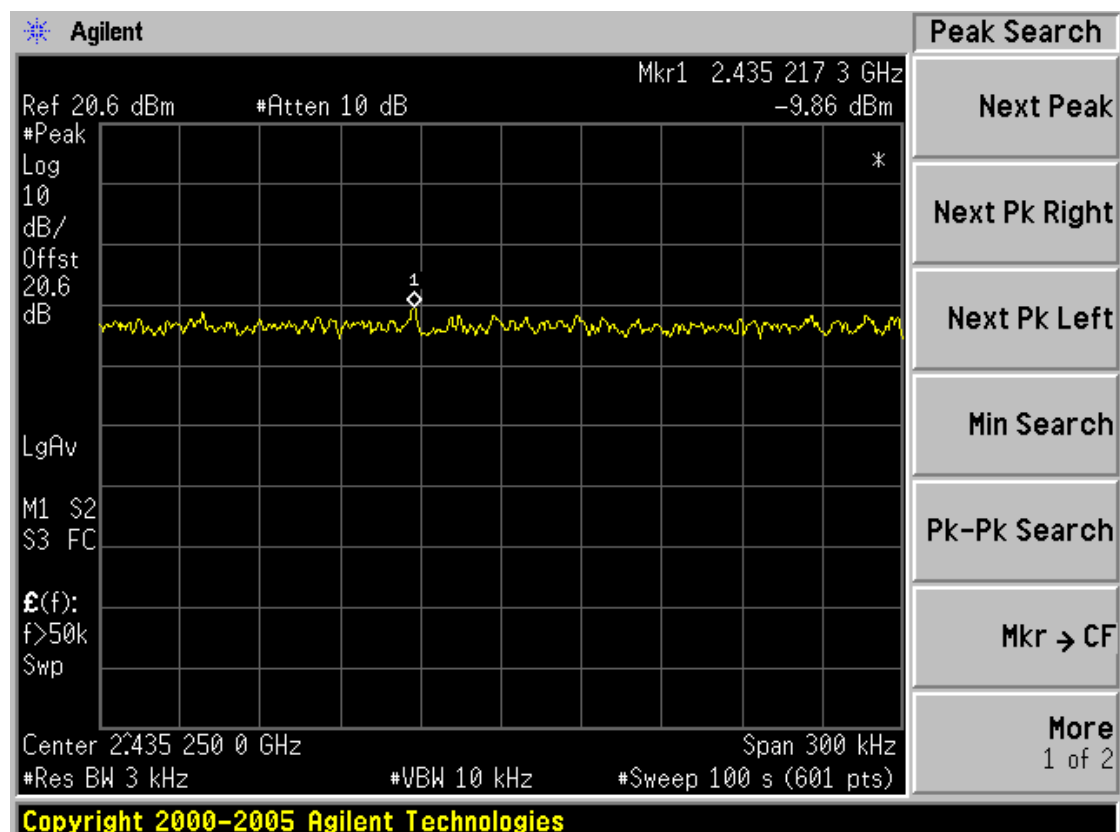
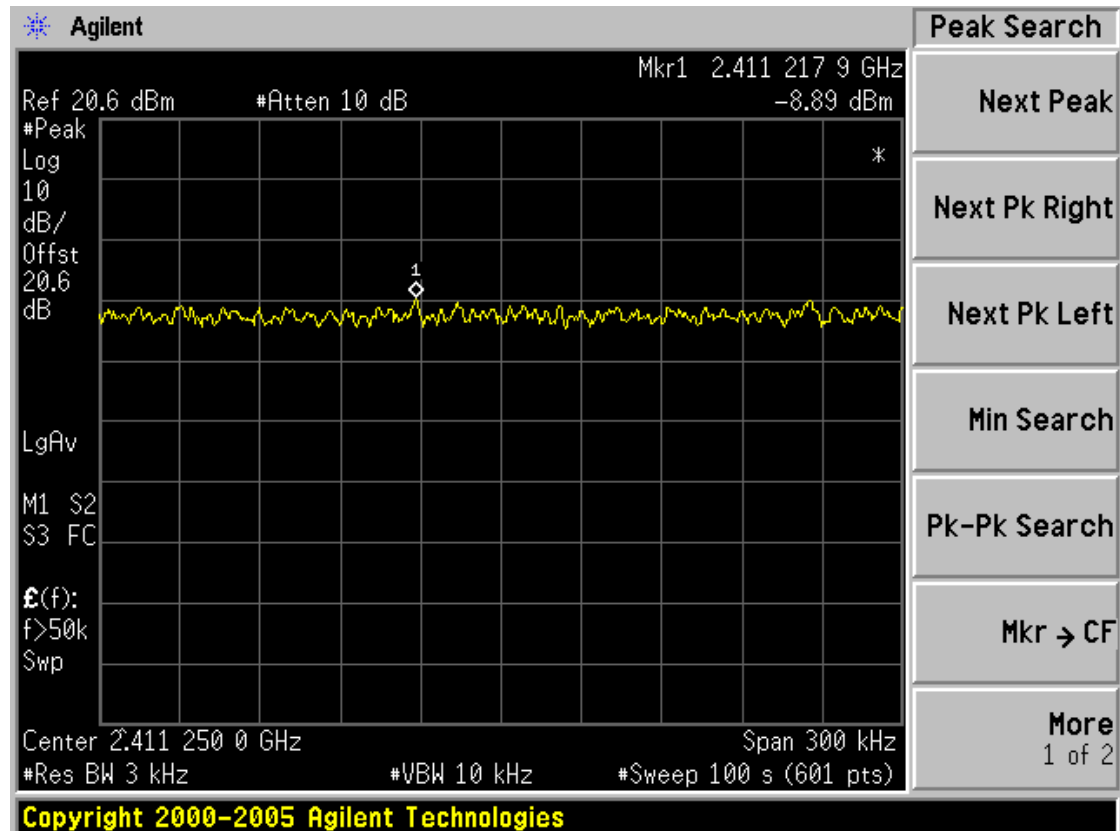
### 9.3. Test Procedure

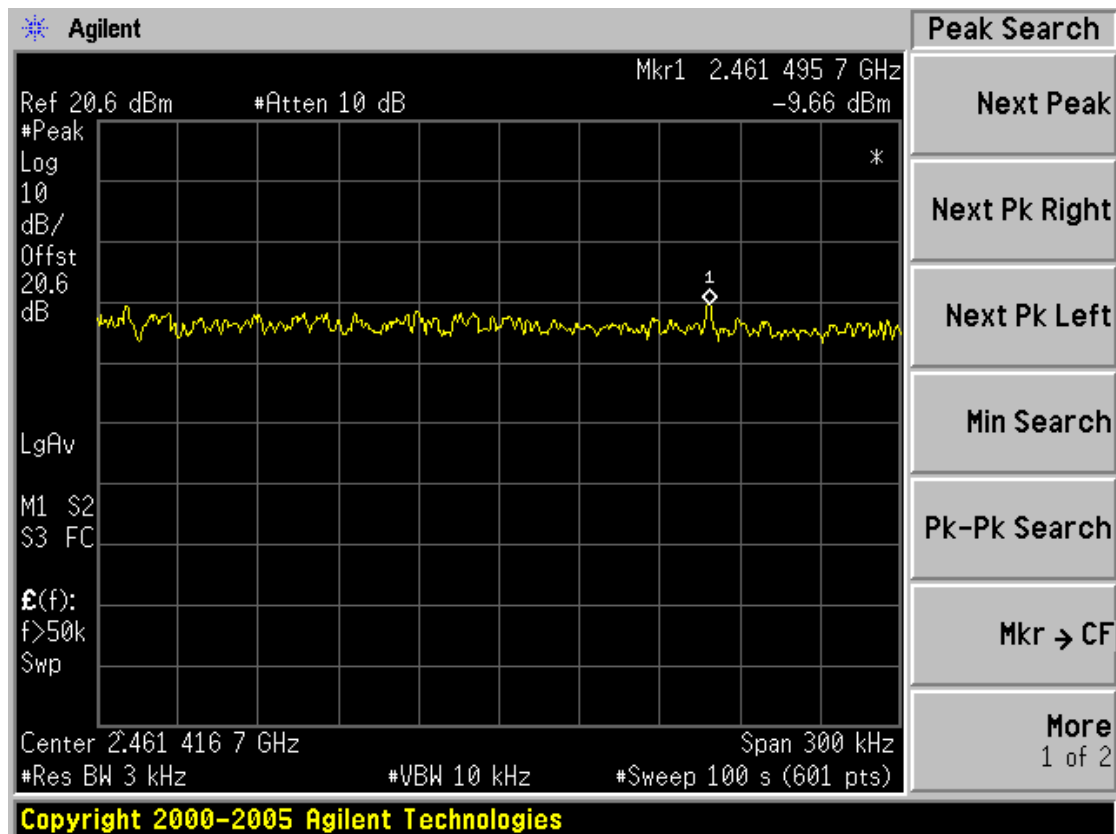
1. Connected the EUT's antenna port to spectrum analyzer device by 20dB attenuator.
2. Follow the test procedure as described in ANSI C.10: 2009 Clause 6.11.2.3 to measure out each test modes and chain's power density with 3KHz.

#### 9.4. Test Results

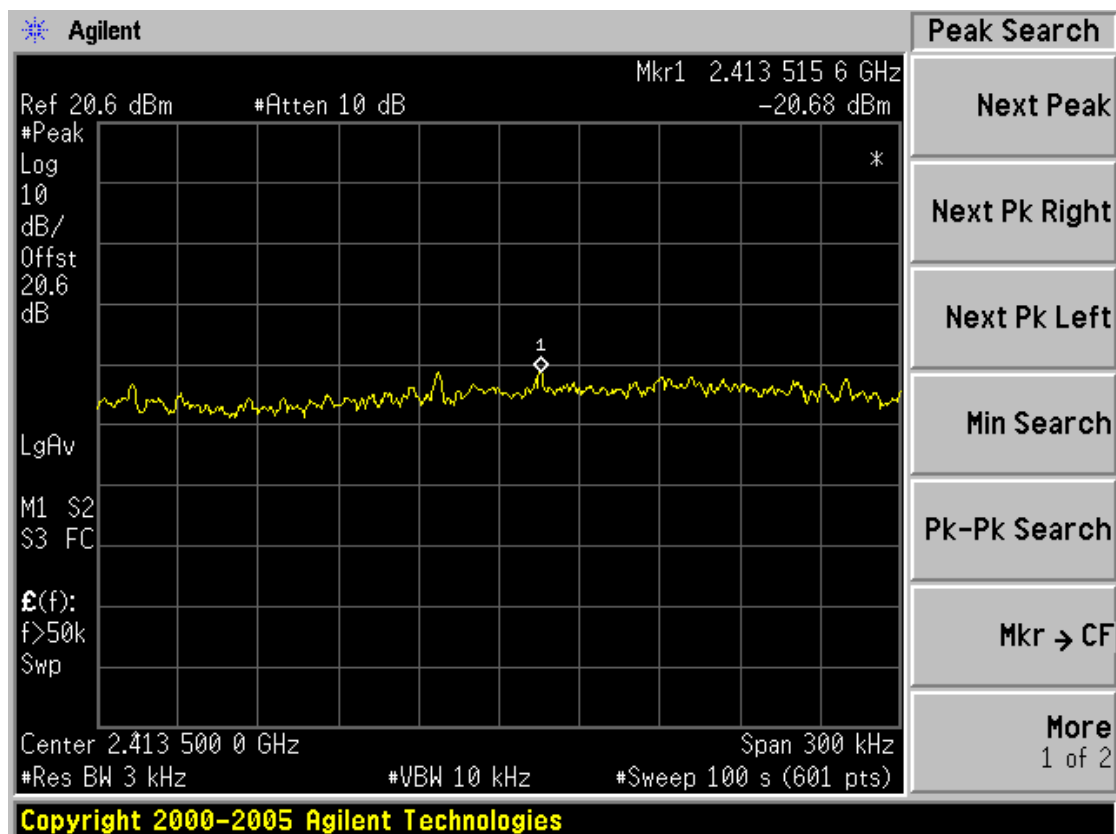
Mode	Channel	Power density (dBm/3KHz)	Limit (dBm/3KHz)	Result
802.11b	Low:CH1	-8.89	8	Pass
	Middle:CH6	-9.86	8	Pass
	High:CH11	-9.66	8	Pass
802.11g	Low:CH1	-20.68	8	Pass
	Middle:CH6	-11.80	8	Pass
	High:CH11	-15.33	8	Pass
802.11n (HT20)	Low:CH1	-13.95	8	Pass
	Middle:CH6	-12.78	8	Pass
	High:CH11	-16.17	8	Pass
802.11n (HT40)	Low:CH3	-22.16	8	Pass
	Middle:CH6	-15.32	8	Pass
	High:CH9	-25.31	8	Pass

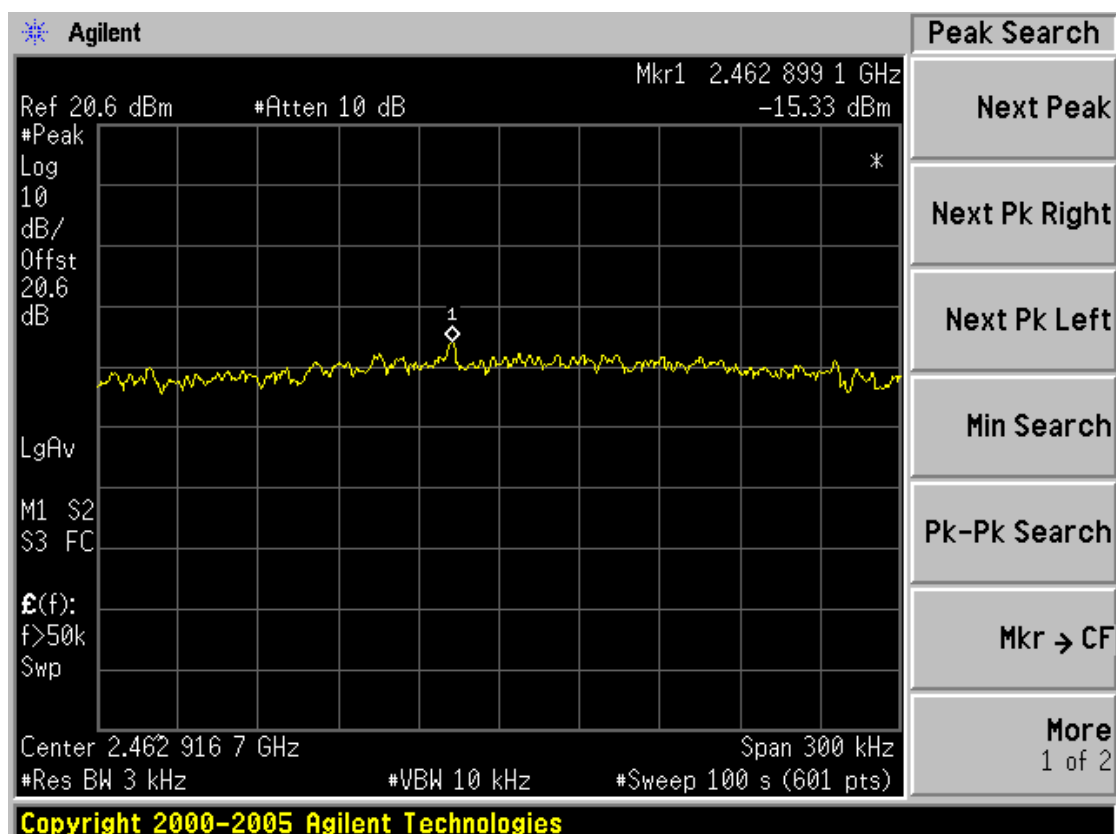
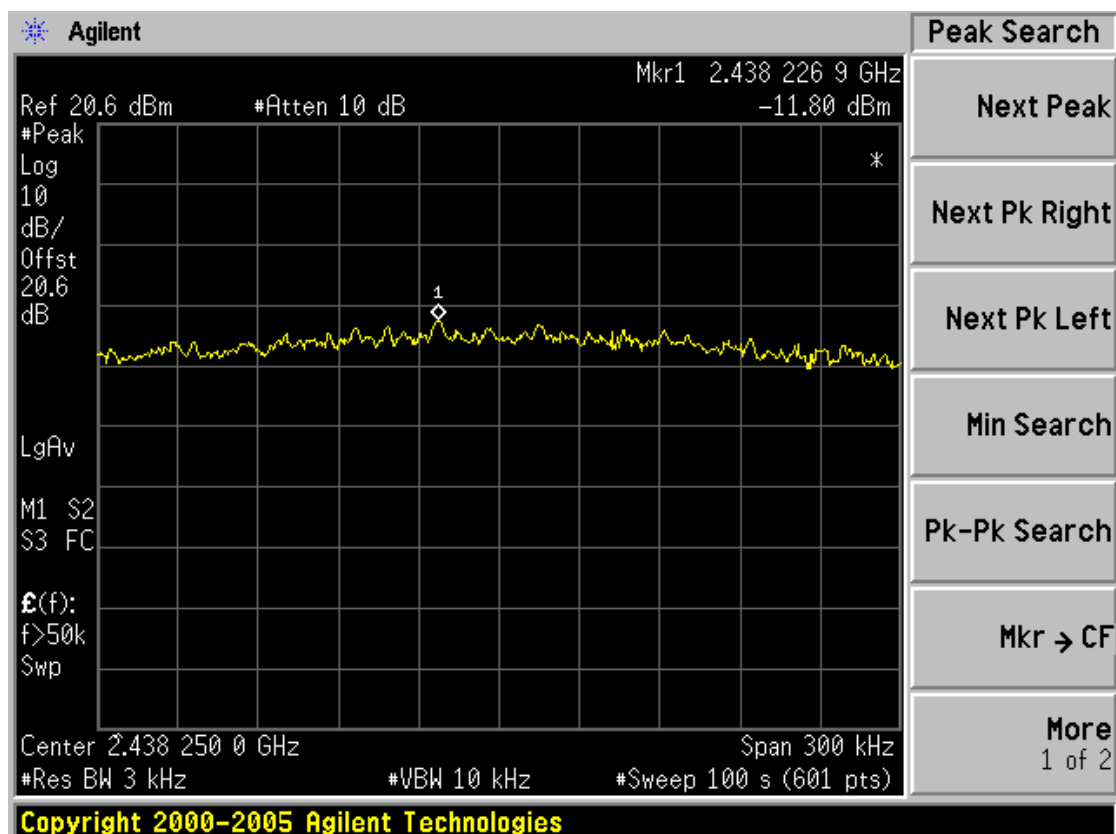
Test Mode: IEEE 802.11b TX



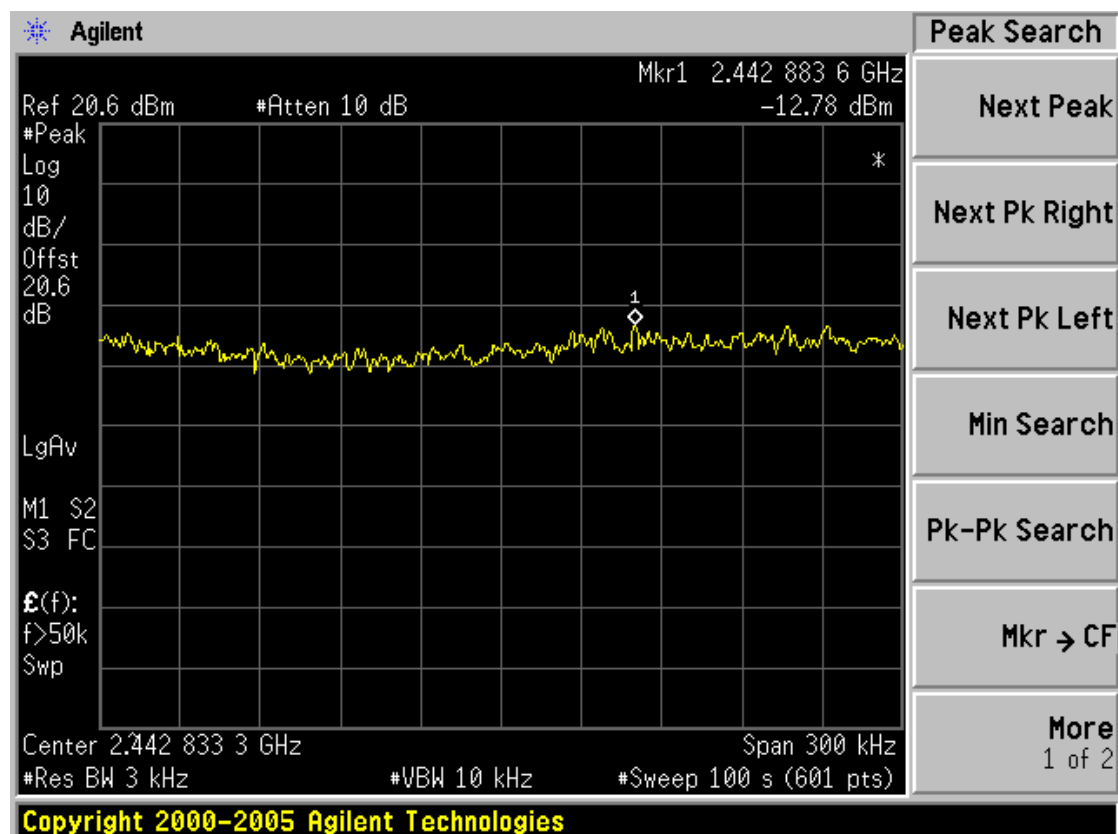
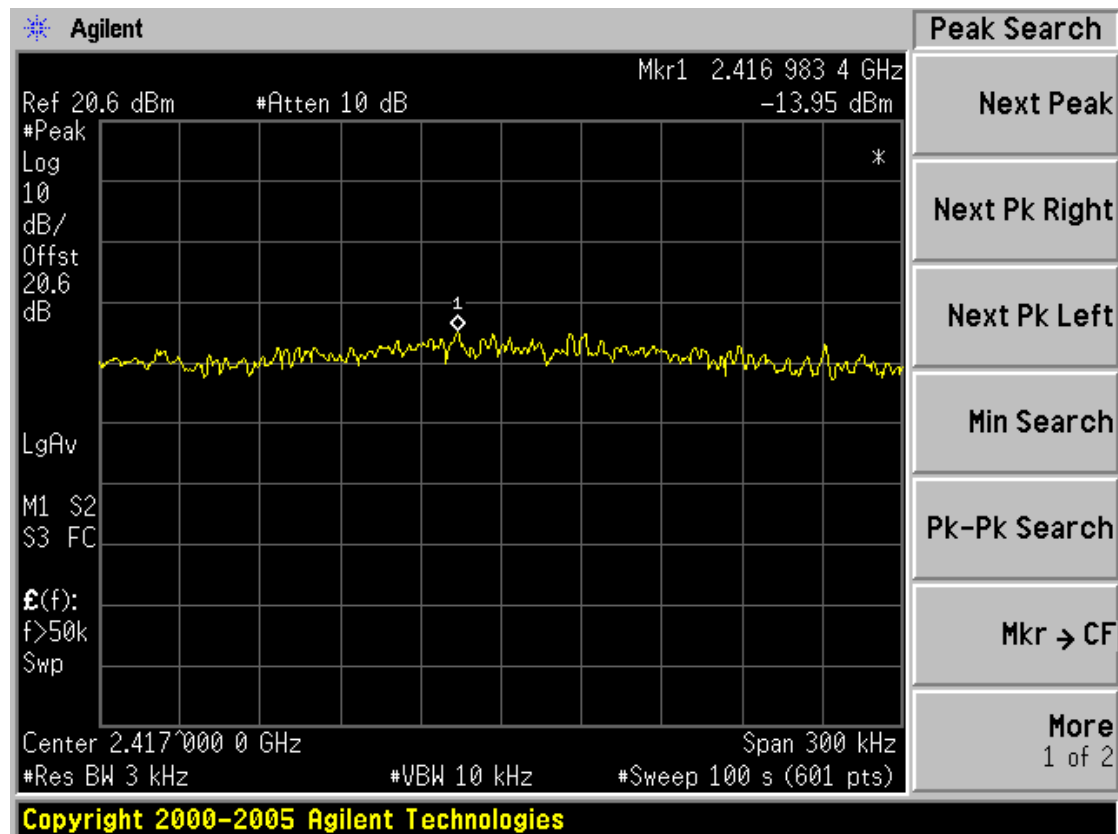


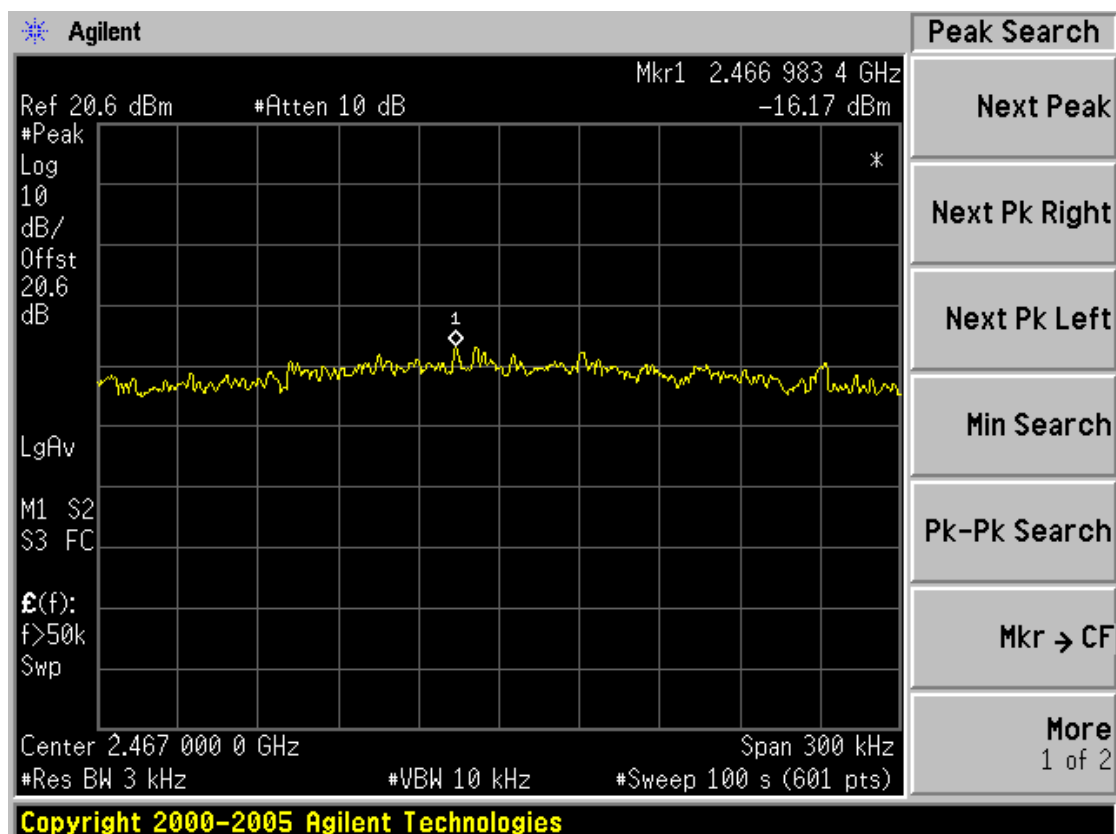
Test Mode: IEEE 802.11g TX



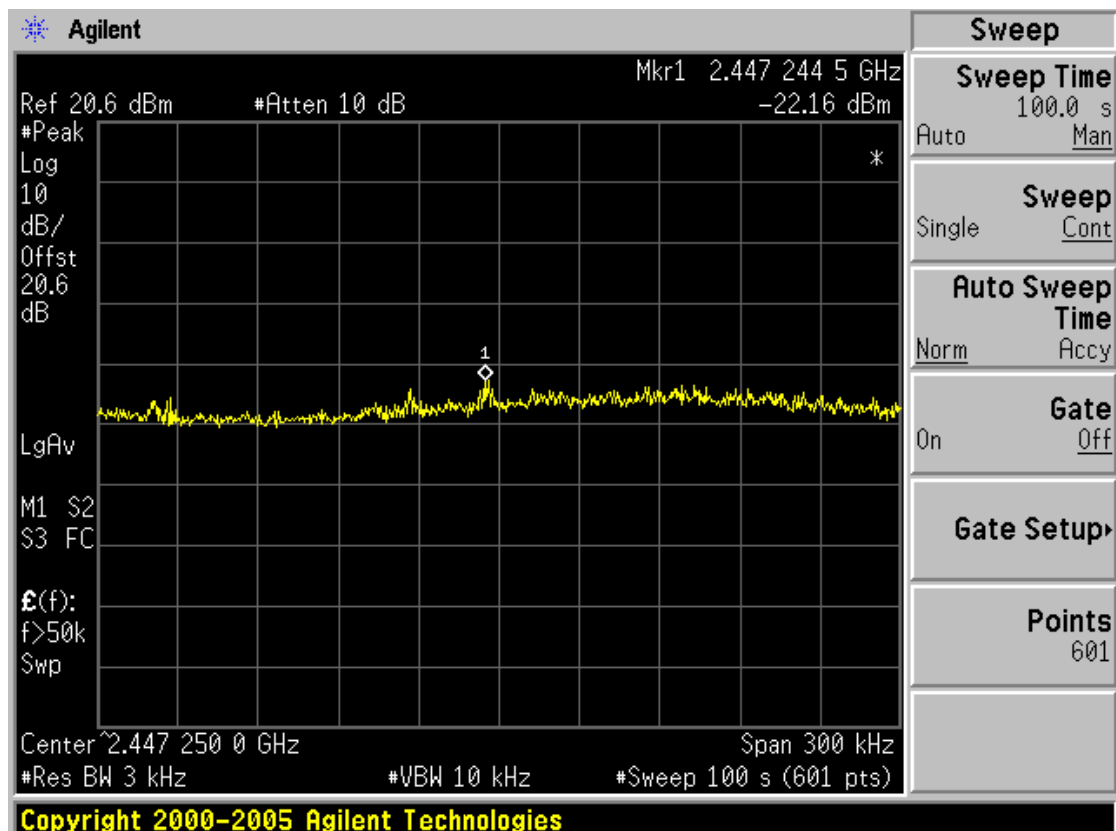


Test Mode: IEEE 802.11n HT20 TX

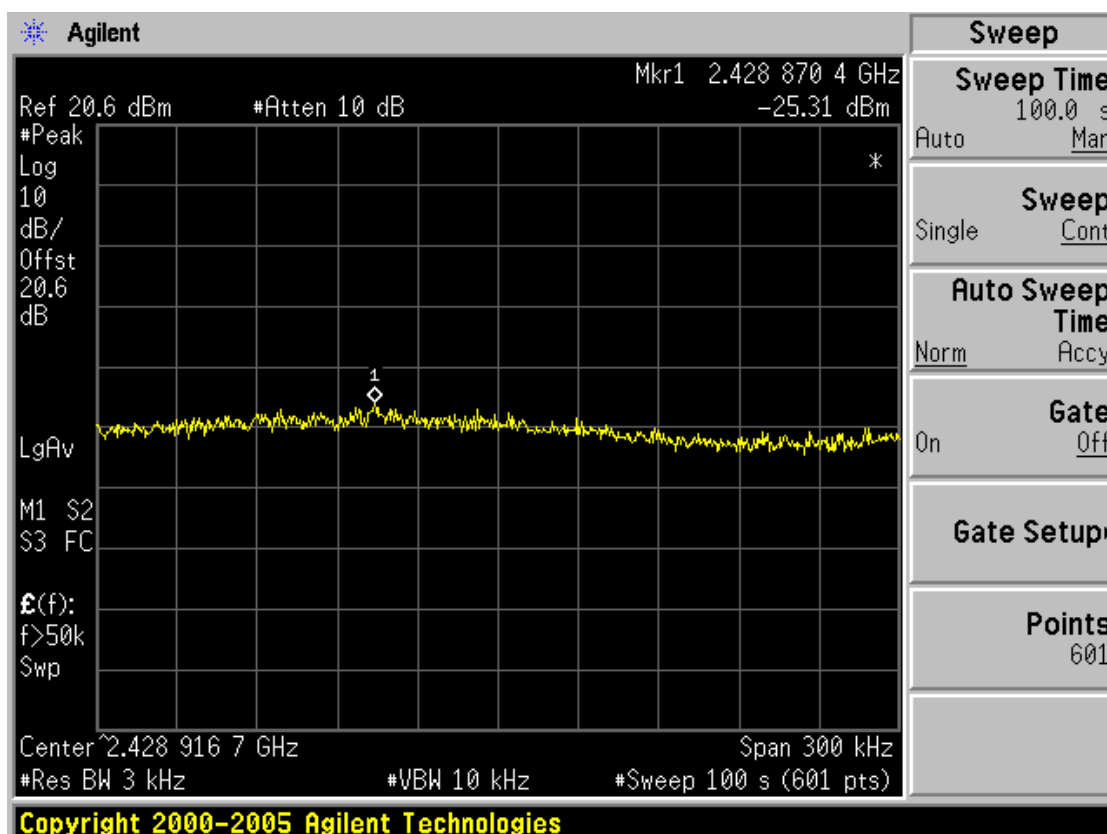
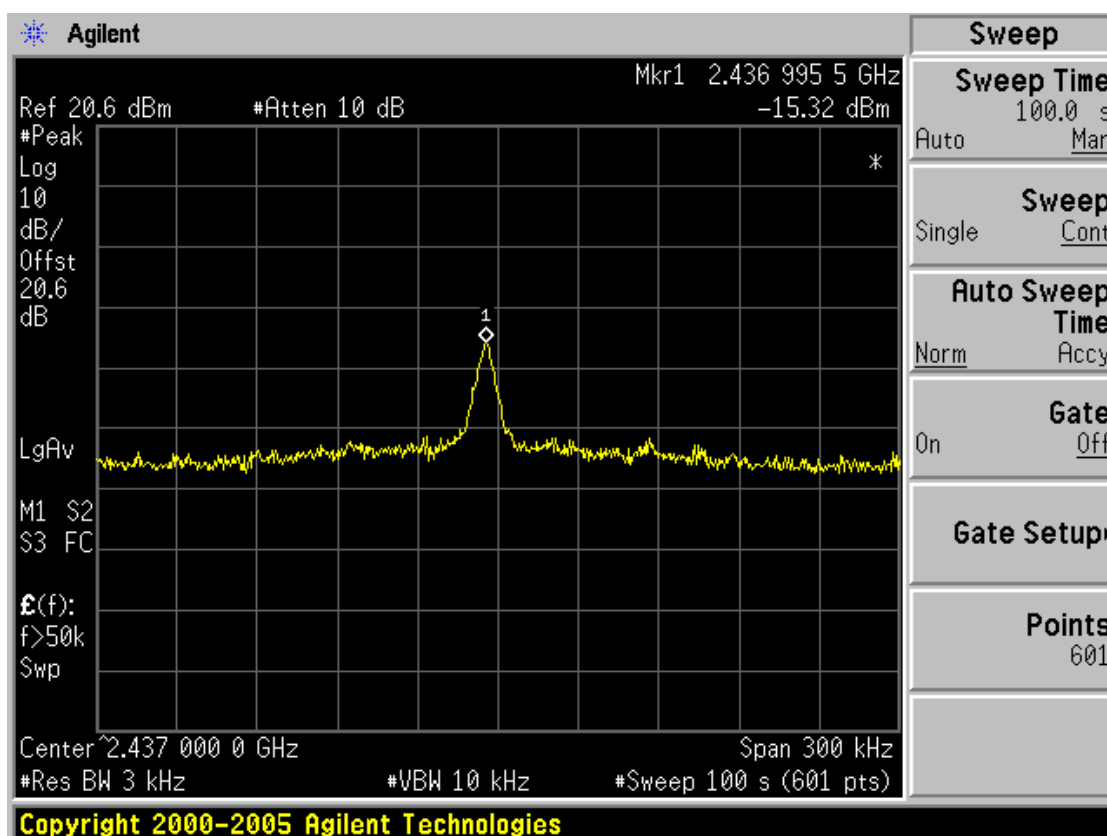




Test Mode: IEEE 802.11n HT40 TX







## 10. ANTENNA REQUIREMENT

### 10.1. Standard Applicable

According to § 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.

### 10.2. Antenna Connector Construction

The directional gains of antenna used for transmitting is 2.0dBi, and the antenna connector is de-signed with permanent attachment and no consideration of replacement. Please see EUT photo for details.

### 10.3. Results

Compliance.

## 11. DEVIATION TO TEST SPECIFICATIONS

[ NONE]

## 12. MANUFACTURER/ APPROVAL HOLDER DECLARATION

The following identical model(s):

A7-3D	X6-7AGD41	X6-7MGD41	M7
X6-8AGD41	X6-8MGD41	6-10AD21	7A42
9A42	--	--	--

*Note: All the models are identical except the model name or color.*

Belong to the tested device:

Product description : Tablet PC

Model name : A7-3D

*Remark: So no additional models were tested.*

-----THE END OF REPORT-----