

# FCC COMPLIANCE REPORT

for

ZIONCOM TECHNOLOGY LIMITED

Wireless Router

Model Number: IP04103; RG300EX Lite ||

Prepared for : ZIONCOM TECHNOLOGY LIMITED

Address : Building A1~A2,lantian Science and Technology Park,Xinyu Road  
Xinqiao Henggang Block Shajing Street,Baoan District,  
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Prepared By : NS Technology Co., Ltd.

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Report Number : NSE-F10034599

Date of Test : Mar. 10~Mar . 24, 2010

Date of Report : Mar. 26, 2010






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## NS Technology Co., Ltd.

<b>Applicant:</b>	ZIONCOM TECHNOLOGY LIMITED		
<b>Address:</b>	Building A1~A2,lantian Science and Technology Park,Xinyu Road Xinqiao Henggang Block Shajing Street,Baoan District, Shenzhen City		
<b>Manufacturer:</b>	ZIONCOM TECHNOLOGY LIMITED		
<b>Address:</b>	Building A1~A2,lantian Science and Technology Park,Xinyu Road Xinqiao Henggang Block Shajing Street,Baoan District, Shenzhen City		
<b>E.U.T:</b>	Wireless Router		
<b>Model Number:</b>	IP04103; RG300EX Lite II		
<b>Trade Name:</b>	-----		
<b>Operating Frequency:</b>	IEEE802.11b 2412~2462MHz; IEEE802.11g 2412~2462MHz IEEE802.11n HT20:2412~2462MHz;IEEE802.11n HT40:2422~2452MHz		
<b>Date of Receipt:</b>	Mar.4, 2010	<b>Date of Test:</b>	Mar. 10~Mar . 24, 2010
<b>Test Specification:</b>	FCC Part 15 Subpart C: Oct. 2009 ANSI C63.4:2003		
<b>Test Result:</b>	The equipment under test was found to be compliance with the requirements of the standards applied.		
		<b>Issue Date: Mar.26, 2010</b>	
<b>Tested by:</b>	<b>Reviewed by:</b>	<b>Approved by:</b>	
			
Jade/ Engineer	Iceman Hu / Supervisor	Steven Lee / Manager	
<b>Other Aspects:</b>	None.		
<i>Abbreviations: OK/P=passed    fail/F=failed    n.a/N=not applicable    E.U.T=equipment under tested</i>			
<i>This test report is based on a single evaluation of one sample of above mentioned products ,It is not permitted to be duplicated in extracts without written approval of NS Technology Co., Ltd.</i>			



# 1. GENERAL PRODUCT INFORMATION

## 1.1. Product Function

Details please refer to Technical Construction Form and User Manual.

## 1.2. Description of Device (EUT)

E.U.T.	: Wireless Router
Model No.	: IP04103
Operating Frequency	: 2412~2462MHz
Number of Channels	: IEEE 802.11b/g,802.11n HT20:11 Channels IEEE 802.11n HT40:7 Channels
Type of Modulation	: DSSS for IEEE 802.11b, OFDM for IEEE 802.11g and IEEE 802.11n
Data Rate	: IEEE 802.11b:11/5.5/2/1M bps IEEE 802.11g:54/48/36/24/18/12/9/6Mbps IEEE 802.11n HT20:130/117/104/78/65/58.5/52/39/26/ 19.5/13/6.5Mbps IEEE 802.11n HT40:135/121.5/108/81/54/40.5/ 27/13.5Mbps
Antenna Type	: External
Antenna Gain	: 5dBi
System Input Voltage	: DC 5V from adapter input AC 120V/60Hz
Temperature Range	: 0 ~+ 40°C
Adapter	: M/N:FLDE0501000K I/P:100-240V~50/60Hz 0.2A O/P:5V___1A DC Line:Unshielded,Undetachable ,1.5m
Lan Cable	: Unshielded,Detachable ,0.9m

## 1.3. Difference between Model Numbers

*Note :The products are different only for model number,But the others are identical.*

## 1.4. Independent Operation Modes

The basic operation modes are:

- 1.4.1. IEEE 802.11b; TX CH1 (2412MHz)
- 1.4.2. IEEE 802.11b; TX CH 6 (2437MHz)
- 1.4.3. IEEE 802.11b; TX CH11 (2462MHz)
- 1.4.4. IEEE 802.11g; TX CH1 (2412MHz)
- 1.4.5. IEEE 802.11g; TX CH 6 (2437MHz)
- 1.4.6. IEEE 802.11g; TX CH11 (2462MHz)
- 1.4.1. IEEE 802.11n HT20; TX CH1 (2412MHz)
- 1.4.2. IEEE 802.11n HT20; TX CH 6 (2437MHz)
- 1.4.3. IEEE 802.11n HT20; TX CH11 (2462MHz)
- 1.4.4. IEEE 802.11n HT40; TX CH1 (2422MHz)
- 1.4.5. IEEE 802.11n HT40; TX CH 4 (2437MHz)
- 1.4.6. IEEE 802.11 HT40n; TX CH7 (2452MHz)



## 1.5. Test Supporting System

### 1.5.1. PC

Model Number : a6608cn  
Serial Number : 3CR8382430  
Manufacturer : HP  
Data Cable : Shielded, Detachable, 1.5m  
Power Cord : Unshielded, Detachable, 1.5m

### 1.5.2. Monitor

Model Number : KB744AA  
Serial Number : 3CR8382430  
Manufacturer : HP  
Data Cable : Shielded, Detachable, 1.5m  
Power Cord : Shielded, Detachable, 1.5m

### 1.5.3. Keyboard

Model Number : SK-8115  
Serial Number : CN-0DJ313-91D-0AE4  
Manufacturer : HP

### 1.5.4. Mouse

Model Number : M056UO  
Manufacturer : DELL  
Data Cable : Shielded, Undetachable, 1.8m

## 2. TEST SITES

### 2.1. Test Facilities

EMC Lab : Certificated by TUV Rheinland, Germany.  
Date of registration: July 28, 2003

Certificated by FCC, USA  
Registration No.: 502831  
Date of registration: February 09, 2009

Certificated by VCCI, Japan  
Registration No.: R-2527 & C-2770  
Date of registration: March 23, 2007

Certificated by CNAL, CHINA  
Registration No.: L1744  
Date of registration: November 25, 2004

Certificated by Intertek ETL SEMKO  
Registration No.: TMP-013  
Date of registration: June 11, 2005

Certificated by TUV/PS, Hong Kong  
Date of registration: December 1, 2005

Certificated by Industry Canada  
Registration No.: 5936A  
Date of registration: March 4, 2009

Certificated by ATCB, America  
Date of registration: August 03, 2006

Name of Firm : NS Technology Co., Ltd.

Site Location : Chenwu Industrial Zone, Houjie Town, Dongguan City,  
Guangdong, China



## 2.2. List of Test and Measurement Instruments

### 2.2.1. For conducted emission at the mains terminals test

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
EMI Test Receiver	Rohde&Schwarz	ESCS30	100340	May 31,09	May 31,10
Artificial Mains Network	Rohde&Schwarz	ESH3-Z5	100317	May 31,09	May 31,10
Artificial Mains Network (AUX)	Kyoritsu	KNW-407	8-1579-1	Jan.19,09	Jan.19,11
Pulse Limiter	Rohde&Schwarz	ESH3-Z2	100168	May 2,09	May 2,10

### 2.2.2.For radiated emission test (30MHz-1GHz)

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
EMI Test Receiver	Rohde & Schwarz	ESCS30	100340	May 31,09	May 31,10
Spectrum Analyzer	HP	8593E	3448U00806	May 31,09	May 31,10
Bilog Antenna	Teseq	CBL 6111D	25758	Oct. 27,09	Oct. 27,10
Signal Amplifier	Agilent	8447D	2944A10488	May 2,09	May 2,10
50Ω Coaxial Switch	ANRITSU	MP59B	6200530577	May 2,09	May 2,10

### 2.2.3.For radiated emission test(1GHz-18GHz)

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
Spectrum Analyzer	HP	8593E	3448U00806	May 31,09	May 31,10
Horn Antenna	EMCO	3117	00062558	Jan. 19,09	Jan. 19,11
Signal Amplifier	BURGEON	PEC-38-30M18G-12-SFF	NSEMC001	May 31,09	May 31,11

### 2.2.4.For output power Test

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
RF Probe	Rohde&Schwarz	URV5-Z7	100657	Jul.31,09	Jul.31,10
Power Meter	Rohde&Schwarz	NRVS	101732	Jul.31,09	Jul.31,10

### 2.2.5.For power spectral density Test

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
EMI Test Receiver	Rohde & Schwarz	ESCS30	100340	May 31,09	May 31,10
Spectrum Analyzer	HP	8593E	3448U00806	May 31,09	May 31,10
Bilog Antenna	Teseq	CBL 6111D	25758	Oct. 27,09	Oct. 27,10
Signal Amplifier	Agilent	8447D	2944A10488	May 2,09	May 2,10
50Ω Coaxial Switch	ANRITSU	MP59B	6200530577	May 2,09	May 2,10

### 2.2.6.For Band edge compliance and 6dB bandwidth test

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
EMI Test Receiver	Rohde & Schwarz	ESCS30	100340	May 31,09	May 31,10
Spectrum Analyzer	HP	8593E	3448U00806	May 31,09	May 31,10
Bilog Antenna	Teseq	CBL 6111D	25758	Oct. 27,09	Oct. 27,10
Signal Amplifier	Agilent	8447D	2944A10488	May 2,09	May 2,10
50Ω Coaxial Switch	ANRITSU	MP59B	6200530577	May 2,09	May 2,10

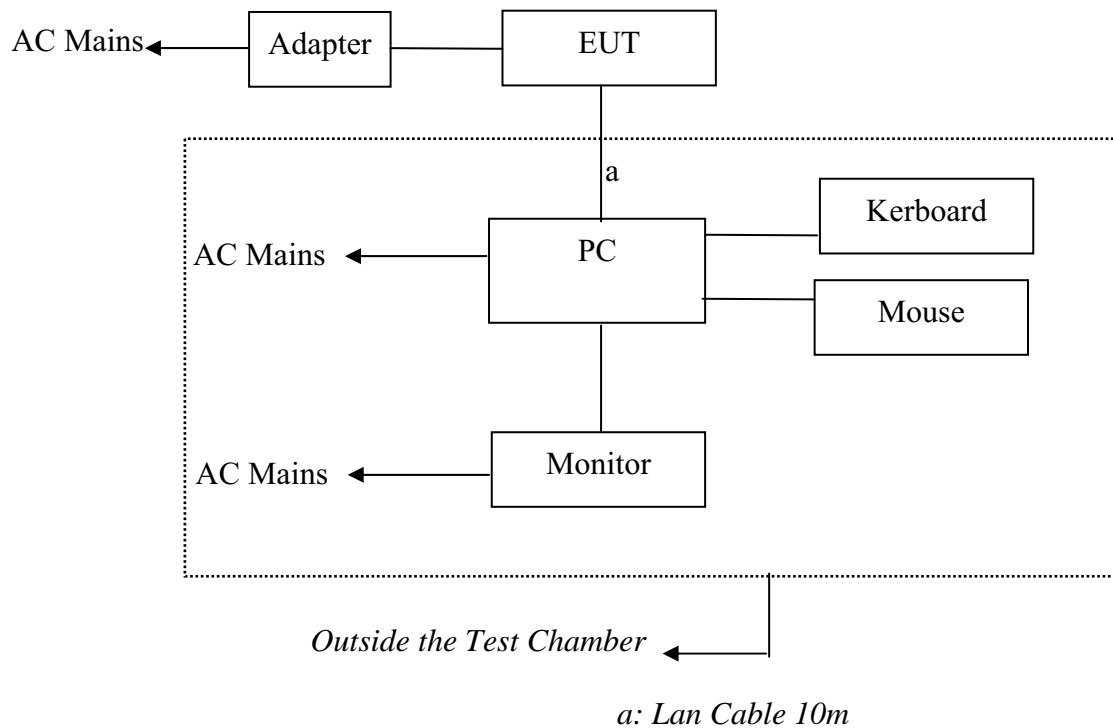
### 3. TEST SET-UP AND OPERATION MODES

#### 3.1. Principle of Configuration Selection

The equipment under test (EUT) was configured to measure its highest possible radiated level. The test modes were adapted accordingly in reference to the Operating Instructions.

#### 3.2. Block Diagram of Test Set-up

System Diagram of Connections Between EUT and Simulators



*(EUT : Wireless Router)*

#### 3.3. Test Operation Mode and Test Software

Refer to clause 1.4

#### 3.4. Special Accessories and Auxiliary Equipment

None.

#### 3.5. Countermeasures to Achieve EMC Compliance

None.



## 4. TEST SUMMARY

Test items and result lists

No.	Item	Standard	Results
1	Data rate VS power	N/A	N/A
2	Conduction Emission Test	FCC Part15C: 15.207 ANSI C63.4-2003 KDB558074	PASS
3	Radiated Emission Test	FCC Part15C: 15.209 ANSI C63.4-2003 KDB558074	PASS
4	Band Edge Compliance Test	FCC Part15: 15.247 KDB558074	PASS
5	Output Power Test	FCC Part15: 15.247 KDB558074	PASS
6	6dB Bandwidth Test	FCC Part15: 15.247 KDB558074	PASS
7	Power Spectral Density Test	FCC Part15: 15.247 KDB558074	PASS
8	Antenna requirement	FCC Part 15:15.203	PASS

## 5. DATA RATE VS POWER

Mode	data rate (Mbps)	CH	Read (dBm)	Factor (dB)	Result (dBm)
11b	1	CH6	12.05	6	18.05
	2	CH6	11.09	6	17.09
	5.5	CH6	12.10	6	18.10
	11	CH6	12.16	6	18.16
11g	54	CH6	11.30	6	17.30
	48	CH6	10.64	6	16.64
	36	CH6	10.45	6	16.46
	24	CH6	10.80	6	16.80
	18	CH6	10.58	6	16.58
	12	CH6	10.50	6	16.50
	9	CH6	10.37	6	16.37
11n HT20	6	CH6	10.29	6	16.29
	6	CH6	9.12	6	15.12
	13	CH6	9.13	6	15.13
	19.5	CH6	9.14	6	15.14
	26	CH6	9.16	6	15.16
	39	CH6	9.18	6	15.18
	52	CH6	9.20	6	15.20
	58.5	CH6	9.22	6	15.22
	65	CH6	9.35	6	15.35
	78	CH6	9.46	6	15.46
	104	CH6	9.51	6	15.51
	117	CH6	9.53	6	15.53
11n HT40	130	CH6	9.61	6	15.61
	135	CH3	8.85	6	14.85
	121.5	CH3	8.75	6	14.75
	108	CH3	8.74	6	14.74
	81	CH3	8.69	6	14.69
	54	CH3	8.60	6	14.60
	40.5	CH3	8.55	6	14.55
	27	CH3	8.51	6	14.51
13.5	CH3	8.53	6	14.53	

Result=Read+Factor

When IEEE 802.11b's data rate was 11Mbps ; IEEE 802.11g's data rate was 54Mbps, When IEEE 802.11n HT20's data rate was 130Mbps ; IEEE 802.11n HT40's data rate was 135Mbps the EUT have maximum output power and all the test was performed in this data rate set.

## 6. EMISSION TEST RESULTS

### 6.1. Conducted Emission at The Mains Terminals Test

**RESULT** : **Pass**  
 Test procedure : FCC Part 15 Subpart C  
 Frequency range : 0.15 ~ 30MHz  
 Test Site : Shielded Room  
 Limits : FCC Part 15 Subpart C

#### Test Setup

Date of test : Jan. 20, 2010  
 Model No. : IP04103  
 Input Voltage : DC 5V from adapter input AC 120V/60Hz  
 Operation Mode : TX Mode

The EUT was put on a wooden table which was 0.8metre high above the ground and connected to the AC mains through a Artificial Mains Network (A.M.N). The mains lead in excess of 1 m separating the EUT from the AMN was folded at the cable centre into a bundle no longer than 0.4 m.

The EUT was kept 0.4m from any other earthed conducting surface. Both sides of AC line were checked to find out the maximum conducted emission levels according to the test procedure during conducted emission test.

The bandwidth of the test receiver (R&S ESCS30) was set at 9 kHz.

The frequency range from 150 kHz to 30 MHz was investigated.

The test data of the worst case condition(s) was reported on the following page.

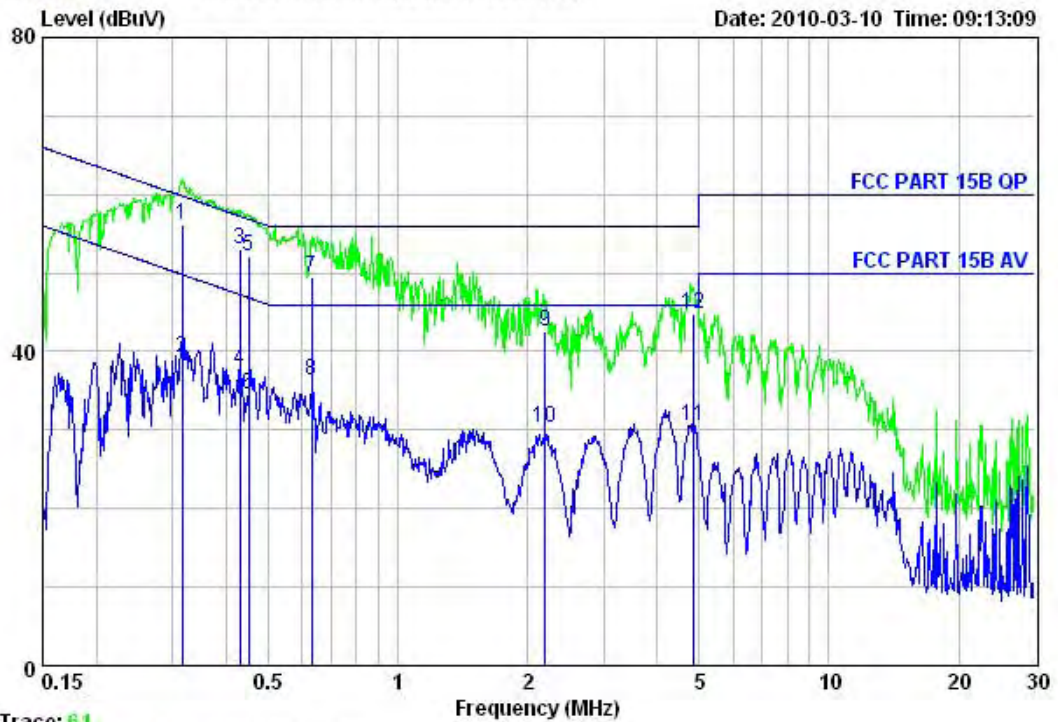
When IEEE 802.11b's data rate was 11Mbps ; IEEE 802.11g's data rate was 54Mbps, When IEEE 802.11n HT20's data rate was 130Mbps ; IEEE 802.11n HT40's data rate was 135Mbps the EUT have maximum output power and all the test was performed in this data rate set.

Note: Test uncertainty:  $\pm 2.54$ dB at a level of confidence of 95%.

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Data: 86 File: D:\Conduction\Z\Zioncom.EMI (88)



Trace: 61

Test Site : 843 Shielded Room  
 Limit : FCC PART 15B QP LINE Phase: NEUTRAL  
 EUT : Wireless Router  
 Power : DC 5V From Adapter Input AC 120V/60Hz  
 M/N : IPO4103  
 Test Engineer: Jade  
 Comment : Temp: 25.3°C Humi: 55% Press: 101.52kPa  
 Test Mode : TX Mode

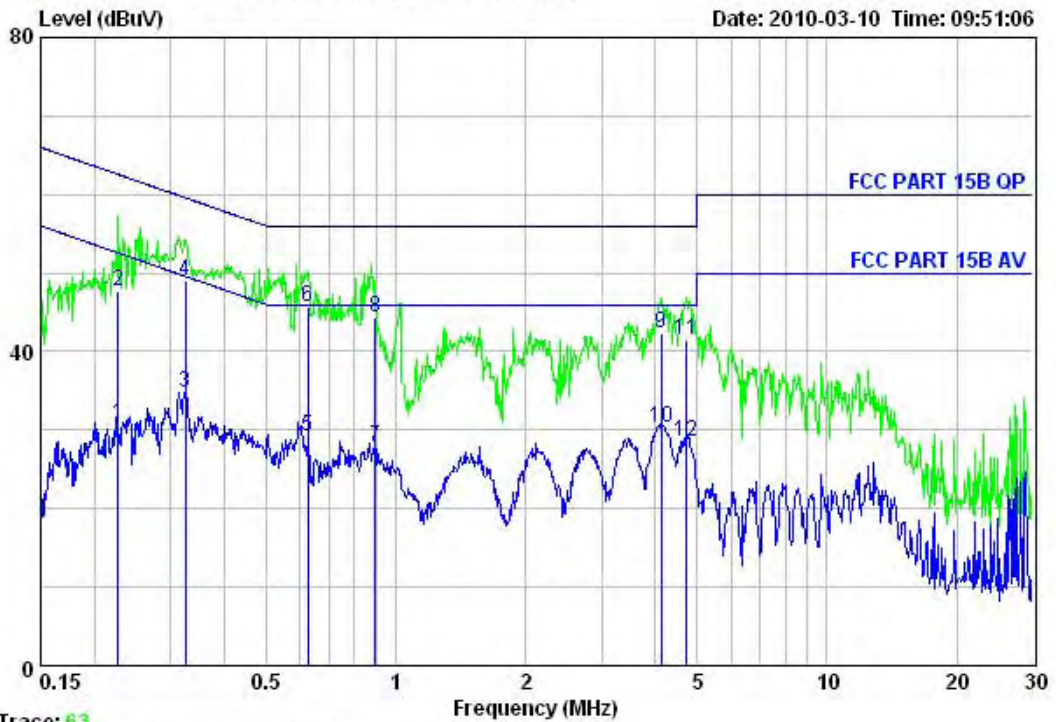
	Freq. (MHz)	Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.32	56.20	59.81	3.61	QP
2	0.32	39.20	49.80	10.60	Average
3	0.43	53.10	57.24	4.14	QP
4	0.43	37.59	47.24	9.65	Average
5	0.45	52.16	56.86	4.70	QP
6	0.45	34.58	46.85	12.27	Average
7	0.63	49.52	56.00	6.48	QP
8	0.63	36.34	46.00	9.66	Average
9	2.20	42.59	56.00	13.41	QP
10	2.20	30.41	46.00	15.59	Average
11	4.85	30.59	46.00	15.41	Average
12	4.85	44.68	56.00	11.32	QP



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Data: 88 File: D:\Conduction\Z\Zioncom.EMI (88)



Trace: 63

Test Site : 843 Shielded Room  
 Limit : FCC PART 15B QP LINE Phase:LINE  
 EUT : Wireless Router  
 Power : DC 5V From Adapter Input AC 120V/60Hz  
 M/N : IPO4103  
 Test Engineer: Jade  
 Comment : Temp:25.3'C Humi:55% Press:101.52kPa  
 Test Mode : TX Mode

	Freq. (MHz)	Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.23	30.68	52.57	21.89	Average
2	0.23	47.69	62.57	14.88	QP
3	0.33	34.68	49.57	14.89	Average
4	0.33	48.95	59.57	10.62	QP
5	0.62	29.24	46.00	16.76	Average
6	0.62	45.68	56.00	10.32	QP
7	0.89	27.95	46.00	18.05	Average
8	0.89	44.25	56.00	11.75	QP
9	4.14	42.29	56.00	13.71	QP
10	4.14	30.26	46.00	15.74	Average
11	4.70	41.51	56.00	14.49	QP
12	4.70	28.57	46.00	17.43	Average



## 6.2. Radiated Emission

### 6.2.1. Test limits

- 1) FCC part 15C section 15.209
- 2) FCC part 15C section 15.247(a)

### 6.2.2. Test procedure

The EUT was placed on a turn table which was 0.8 meter above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT was set 3 meters away from the receiving antenna which was mounted on a antenna tower. At the frequency band of 30MHz to 1GHz, The measuring antenna moved up and down to find out the maximum emission level. It moved from 1 to 4 m for horizontal and vertical polarizations. The broadband antenna (calibrated by dipole antenna) was used as a receiving antenna. At the frequency band of 1GHz to 25GHz, The measuring antenna moved from 1 to 4 m for horizontal and vertical polarization. The horn antenna was used as a receiving antenna.

The resolution bandwidth and video bandwidth of the test receiver was 120 kHz and 300kHz for Quasi-peak detection at frequency below 1GHz.

The resolution bandwidth and video bandwidth of the test receiver was 1MHz and 1MHz for Peak detection at frequency above 1GHz.

For Average measurement at frequency above 1GHz. The resolution bandwidth of the test receiver was 1MHz ; due to the shortest pulse width  $T$  is 116us, according the video bandwidth should not smaller than  $1/T$ , so the video bandwidth is 10Hz.

In 18GHz to 25GHz, The EUT was checked by Horn ANT . But the test result is background.

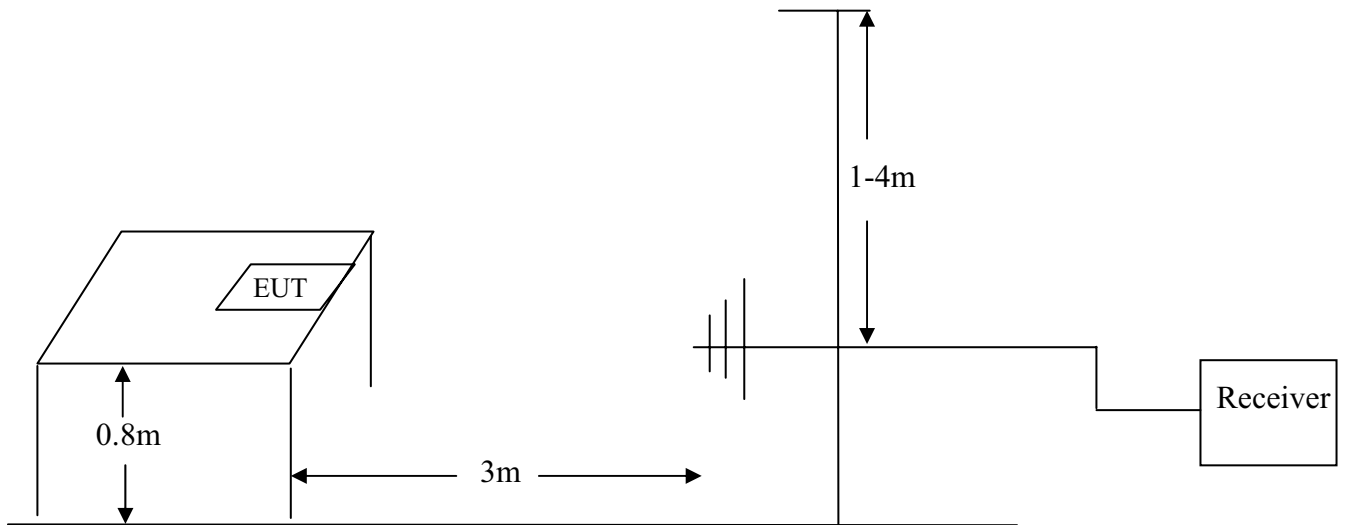
When IEEE 802.11b's data rate was 11Mbps ; IEEE 802.11g's data rate was 54Mbps, When IEEE 802.11n HT20's data rate was 130Mbps ; IEEE 802.11n HT40's data rate was 135Mbps the EUT have maximum output power and all the test was performed in this data rate set.

The EUT was tested in Chamber Site.

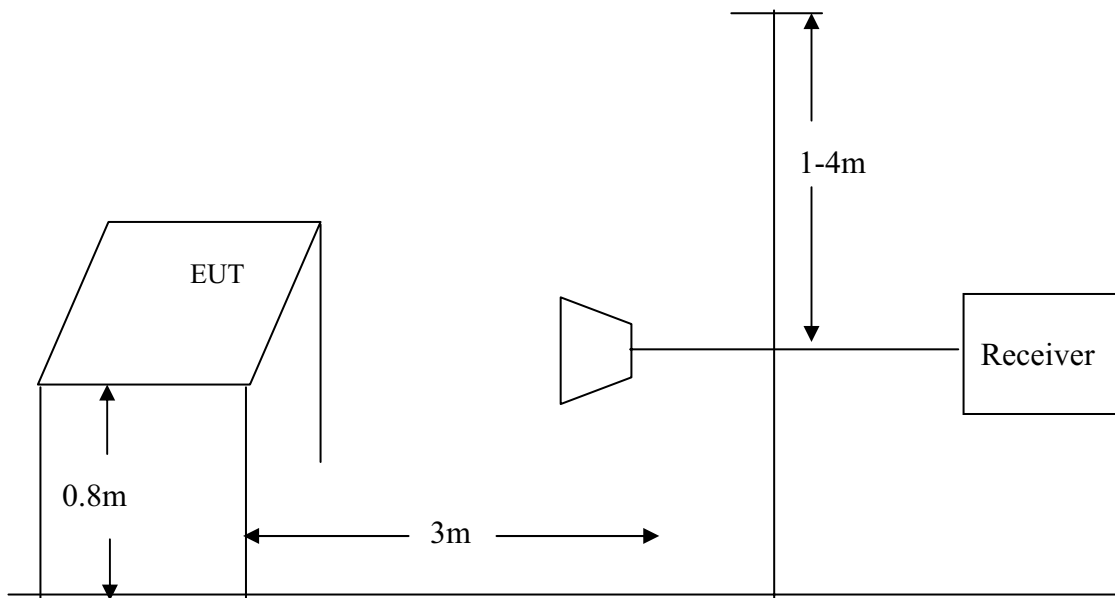
Note: Test uncertainty:  $\pm 2.62$ dB at a level of confidence of 95%.

6.2.3. Test Setup Diagram

5.1.3.1. Frequency range: 30MHz-1000MHz



5.1.3.2. Frequency range: 1 GHz -25GHz



The test plots as following:



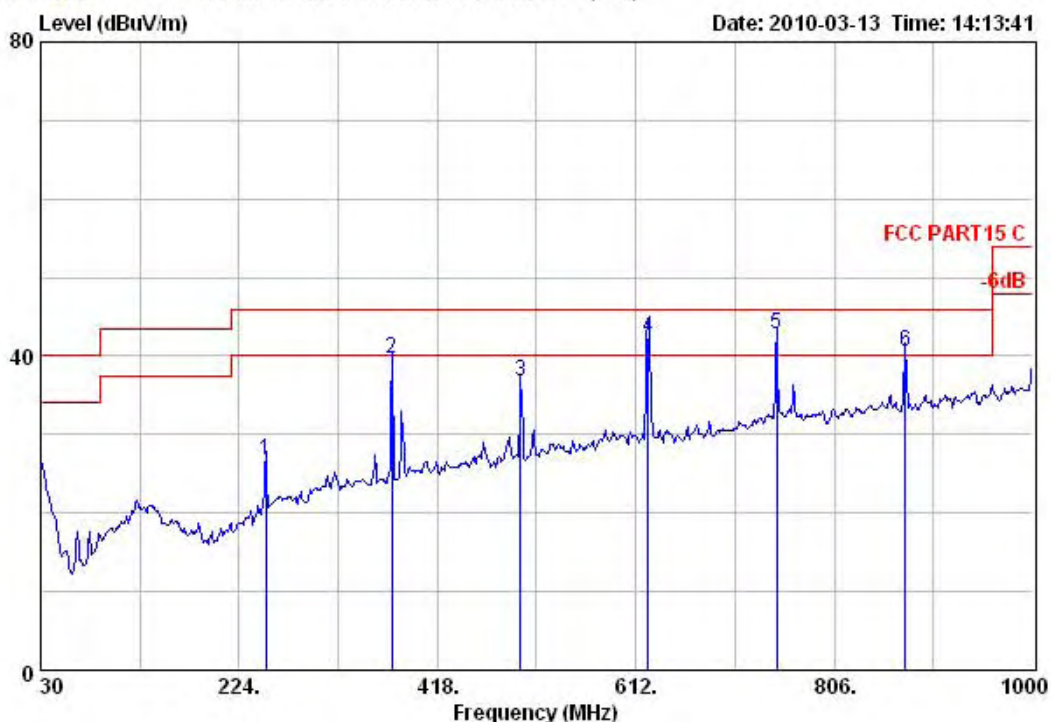
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Data: 169

File: D:\Radiation data\Z\ZIONCOM1.EMI (169)

Date: 2010-03-13 Time: 14:13:41



Test Site : 966 Chamber  
 Limit : FCC PART15 C  
 Dis. / Ant. : 3m 25757-3M Ant. Pol.: HORIZONTAL  
 EUT : Wireless Router  
 M/N : IP04103  
 Power : DC 5V from adapter input AC 120V/60Hz  
 Test Engineer : Jade  
 Comment : Temp.:25.2'C Humi.:55% Press:101.35kPa  
 Test Mode : TX Mode

	Emission				Ant. Cable			
Freq. (MHz)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Reading (dBuV)	Factor (dB/m)	Loss (dB)	Remark	
1	250.19	26.84	46.00	19.16	13.08	12.80	0.96	QP
2	373.38	39.60	46.00	6.40	22.70	15.78	1.12	QP
3	499.48	36.75	46.00	9.25	16.59	18.90	1.26	QP
4	623.64	42.32	46.00	3.68	19.99	20.94	1.39	QP
5	749.74	42.76	46.00	3.24	17.95	23.28	1.53	QP
6	875.84	40.66	46.00	5.34	15.00	23.94	1.72	QP





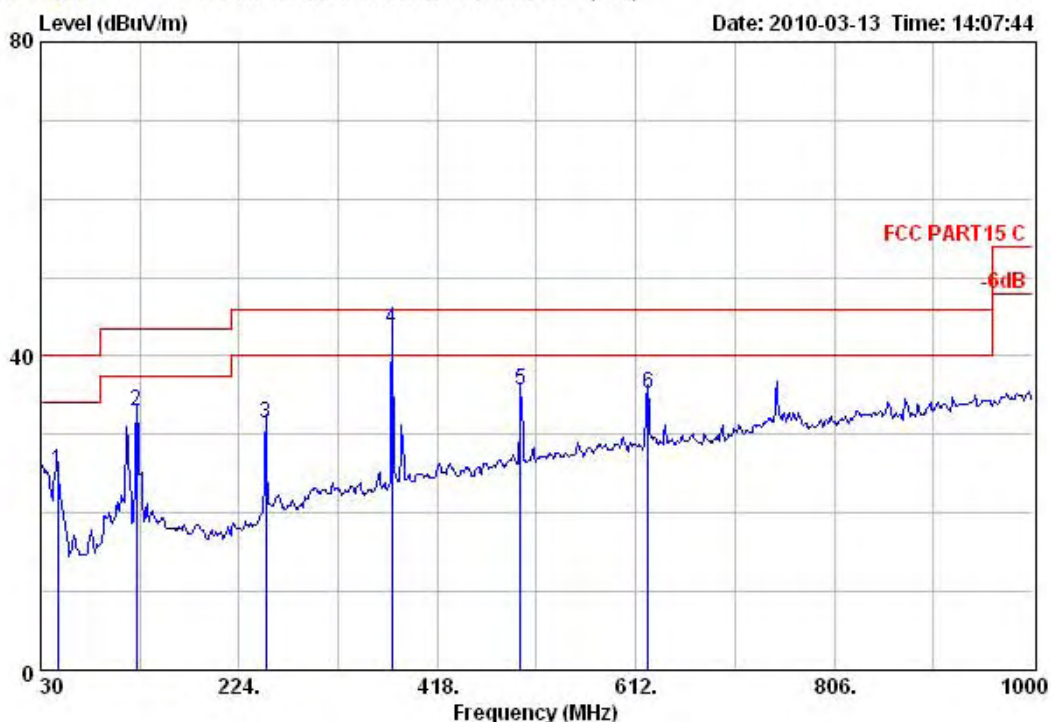
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Data: 168

File: D:\Radiation data\Z\ZIONCOM1.EMI (169)

Date: 2010-03-13 Time: 14:07:44



Test Site : 966 Chamber  
 Limit : FCC PART15 C  
 Dis. / Ant. : 3m 25757-3M Ant. Pol.: VERTICAL  
 EUT : Wireless Router  
 M/N : IP04103  
 Power : DC 5V from adapter input AC 120V/60Hz  
 Test Engineer : Jade  
 Comment : Temp.:25.2'C Humi.:55% Press:101.35kPa  
 Test Mode : TX Mode

	Emission				Ant. Cable			
Freq. (MHz)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Reading (dBuV)	Factor (dB/m)	Loss (dB)	Remark	
1	46.49	25.47	40.00	14.53	13.85	11.06	0.56	QP
2	124.09	32.90	43.50	10.60	20.63	11.53	0.74	QP
3	250.19	31.45	46.00	14.55	17.69	12.80	0.96	QP
4	373.38	43.53	46.00	2.47	26.63	15.78	1.12	QP
5	499.48	35.63	46.00	10.37	15.47	18.90	1.26	QP
6	623.64	35.26	46.00	10.74	12.93	20.94	1.39	QP



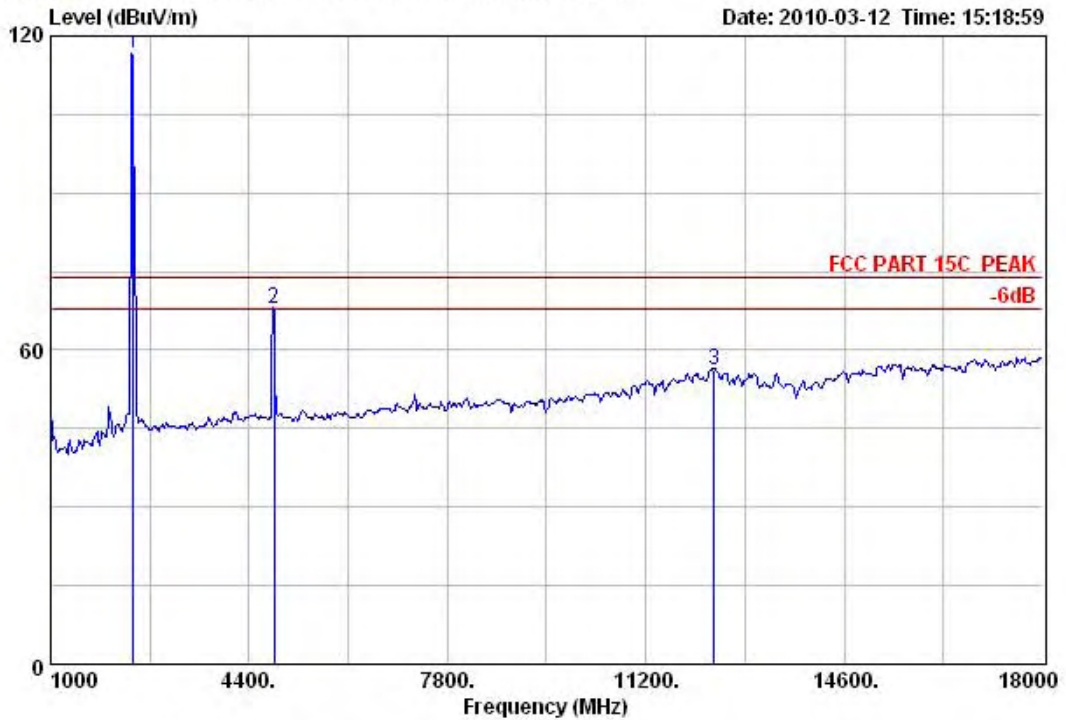
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Fax: +86-769-85991080

Data: 88

File: D:\Radiation data\Z\ZIONCOM1.EMI (169)

Date: 2010-03-12 Time: 15:18:59



Test Site : 966 Chamber  
 Limit : FCC PART 15C PEAK  
 Dis. / Ant. : 3m 3117 Ant. Pol.: VERTICAL  
 EUT : Wireless Router  
 M/N : IP04103  
 Power : DC 5V from adapter input AC 120V/60Hz  
 Test Engineer : Jade  
 Comment : Temp.:25.2'C Humi.:56% Press:101.51kPa  
 Test Mode : TX Mode 802.11g CH1 2412MHz

Freq. (MHz)	Emission			Reading (dBuV)	Ant. Factor (dB/m)	Cable Loss (dB)	Remark
	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)				
1 2412.00	116.65	74.00	-42.65	82.92	31.50	2.23	Peak
2 4824.00	67.85	74.00	6.15	30.88	34.59	2.38	Peak
3 12373.00	56.26	74.00	17.74	13.47	39.95	2.84	Peak



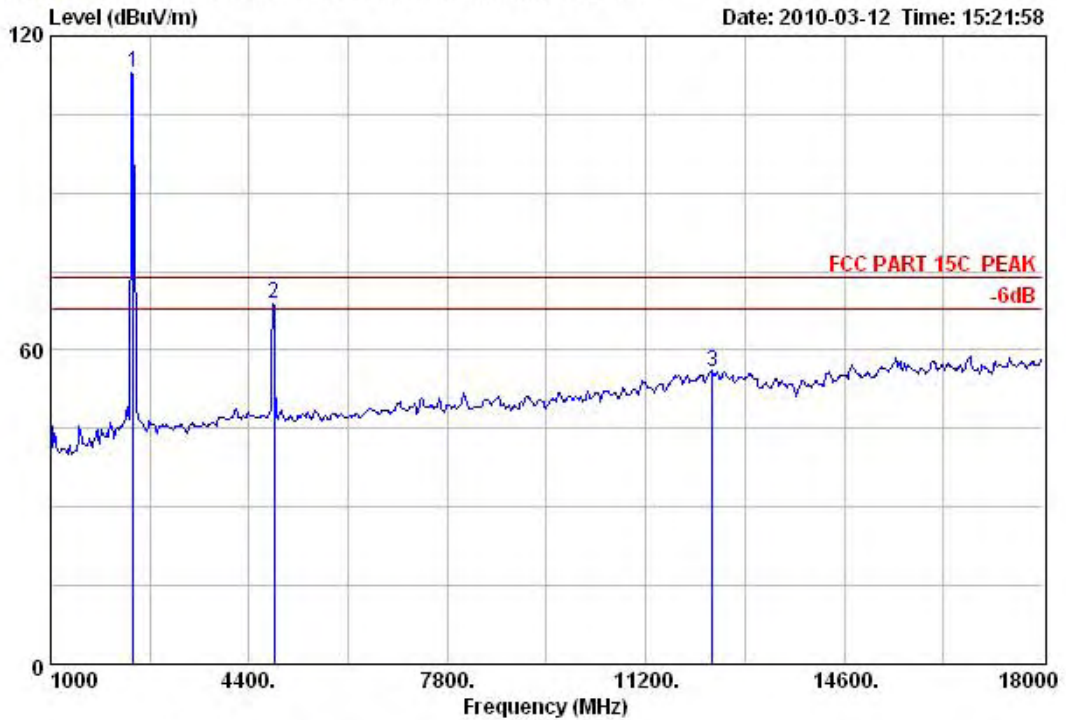
# NS Technology

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Dongguan, Guangdong, China  
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Fax: +86-769-85991080

Data: 89

File: D:\Radiation data\Z\ZIONCOM1.EMI (169)

Date: 2010-03-12 Time: 15:21:58



Test Site : 966 Chamber  
 Limit : FCC PART 15C PEAK  
 Dis. / Ant. : 3m 3117 Ant. Pol.: HORIZONTAL  
 EUT : Wireless Router  
 M/N : IP04103  
 Power : DC 5V from adapter input AC 120V/60Hz  
 Test Engineer : Jade  
 Comment : Temp.:25.2'C Humi.:56% Press:101.51kPa  
 Test Mode : TX Mode 802.11g CH1 2412MHz

Freq. (MHz)	Emission			Reading (dBuV)	Ant. Factor (dB/m)	Cable Loss (dB)	Remark
	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)				
1 2412.00	113.15	74.00	-39.15	79.42	31.50	2.23	Peak
2 4824.00	68.75	74.00	5.25	31.78	34.59	2.38	Peak
3 12333.90	55.89	74.00	18.11	13.11	39.94	2.84	Peak



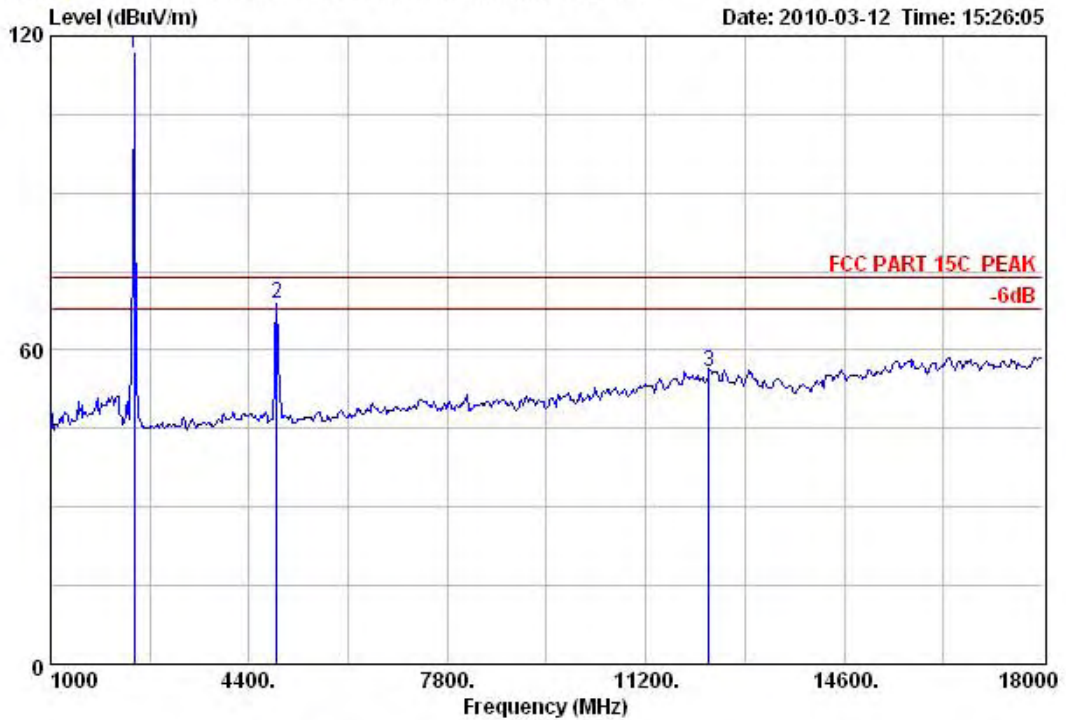
# NS Technology

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Dongguan, Guangdong, China  
Tel: +86-769-85935656  
Fax: +86-769-85991080

Data: 90

File: D:\Radiation data\Z\ZIONCOM1.EMI (169)

Date: 2010-03-12 Time: 15:26:05



Test Site : 966 Chamber  
 Limit : FCC PART 15C PEAK  
 Dis. / Ant. : 3m 3117 Ant. Pol.: HORIZONTAL  
 EUT : Wireless Router  
 M/N : IP04103  
 Power : DC 5V from adapter input AC 120V/60Hz  
 Test Engineer : Jade  
 Comment : Temp.:25.2'C Humi.:56% Press:101.51kPa  
 Test Mode : TX Mode 802.11g CH6 2437MHz

Freq. (MHz)	Emission			Margin (dB)	Reading (dBuV)	Ant. Cable		Remark
	Level (dBuV/m)	Limits (dBuV/m)				Factor (dB/m)	Loss (dB)	
1 2437.00	116.63	74.00	-42.63	82.86	31.54	2.23	Peak	
2 4874.00	68.76	74.00	5.24	31.76	34.62	2.38	Peak	
3 13128.80	55.86	74.00	18.14	13.10	39.92	2.84	Peak	



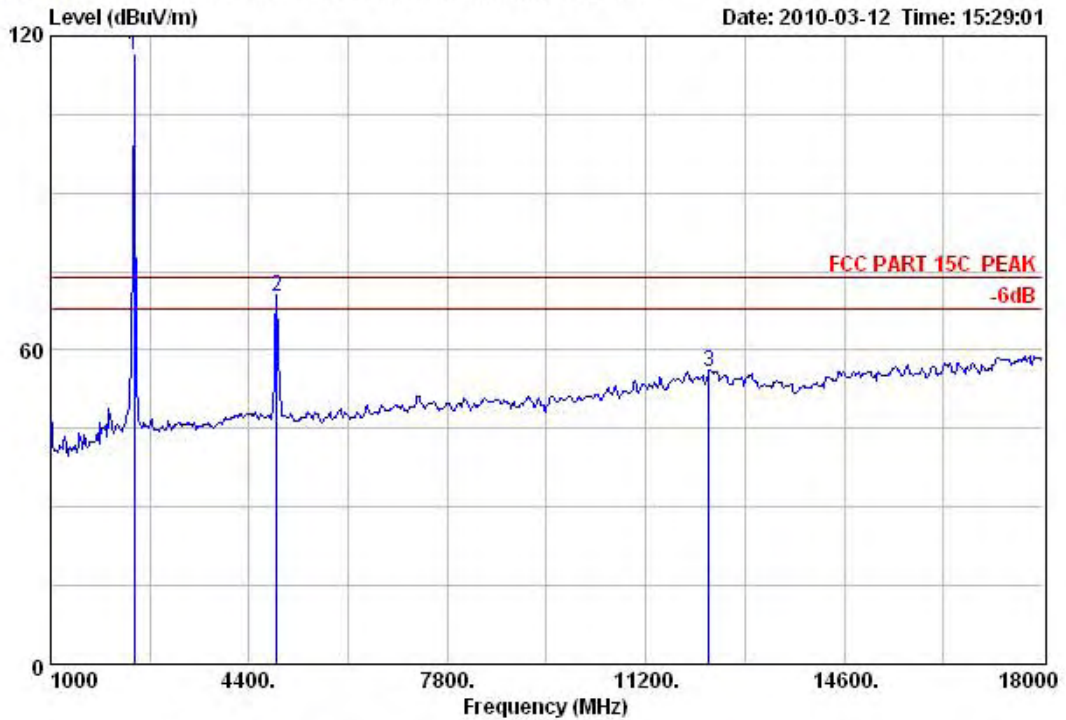
# NS Technology

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Fax: +86-769-85991080

Data: 91

File: D:\Radiation data\Z\ZIONCOM1.EMI (169)

Date: 2010-03-12 Time: 15:29:01



Test Site : 966 Chamber  
 Limit : FCC PART 15C PEAK  
 Dis. / Ant. : 3m 3117 Ant. Pol.: VERTICAL  
 EUT : Wireless Router  
 M/N : IP04103  
 Power : DC 5V from adapter input AC 120V/60Hz  
 Test Engineer : Jade  
 Comment : Temp.:25.2'C Humi.:56% Press:101.51kPa  
 Test Mode : TX Mode 802.11g CH6 2437MHz

Freq. (MHz)	Emission		Margin (dB)	Reading (dBuV)	Ant. Cable		Remark
	Level (dBuV/m)	Limits (dBuV/m)			Factor (dB/m)	Loss (dB)	
1 2437.00	116.20	74.00	-42.20	82.43	31.54	2.23	Peak
2 4874.00	70.21	74.00	3.79	33.21	34.62	2.38	Peak
3 12288.00	55.84	74.00	18.16	13.08	39.92	2.84	Peak





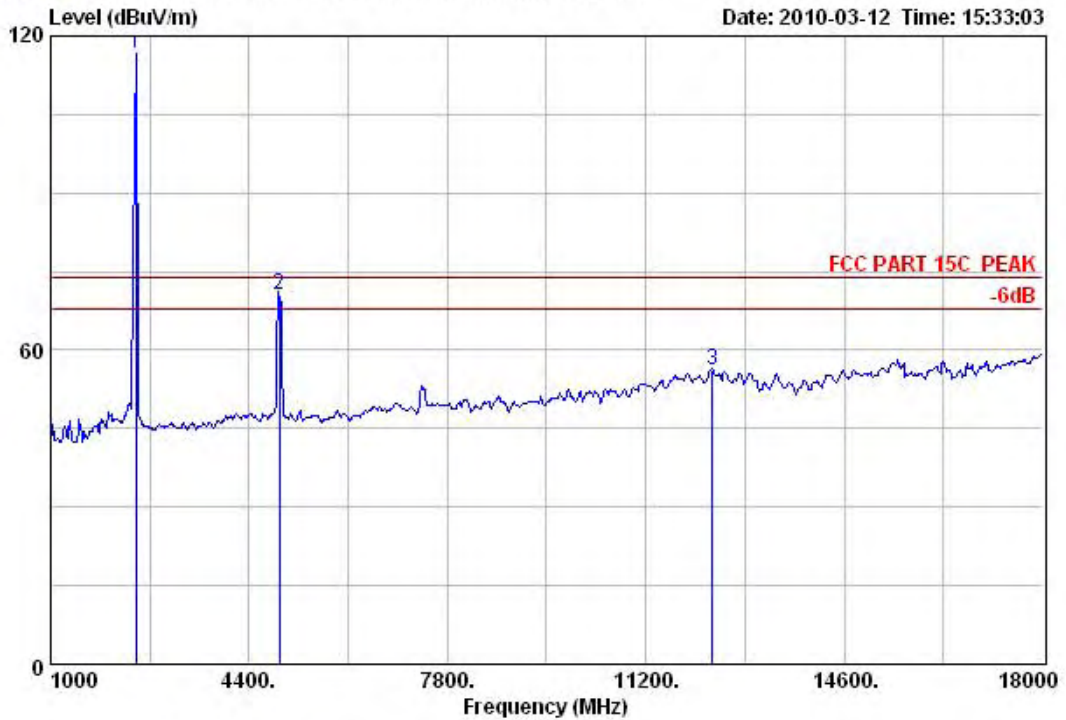
# NS Technology

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Fax: +86-769-85991080

Data: 92

File: D:\Radiation data\Z\ZIONCOM1.EMI (169)

Date: 2010-03-12 Time: 15:33:03



Test Site : 966 Chamber  
 Limit : FCC PART 15C PEAK  
 Dis. / Ant. : 3m 3117 Ant. Pol.: VERTICAL  
 EUT : Wireless Router  
 M/N : IP04103  
 Power : DC 5V from adapter input AC 120V/60Hz  
 Test Engineer : Jade  
 Comment : Temp.:25.2'C Humi.:56% Press:101.51kPa  
 Test Mode : TX Mode 802.11g CH11 2462MHz

Freq. (MHz)	Emission		Margin (dB)	Reading (dBuV)	Ant. Cable		Remark
	Level (dBuV/m)	Limits (dBuV/m)			Factor (dB/m)	Loss (dB)	
1 2462.00	116.50	74.00	-42.50	82.71	31.56	2.23	Peak
2 4924.00	70.55	74.00	3.45	33.51	34.66	2.38	Peak
3 13239.00	56.17	74.00	17.83	13.39	39.94	2.84	Peak



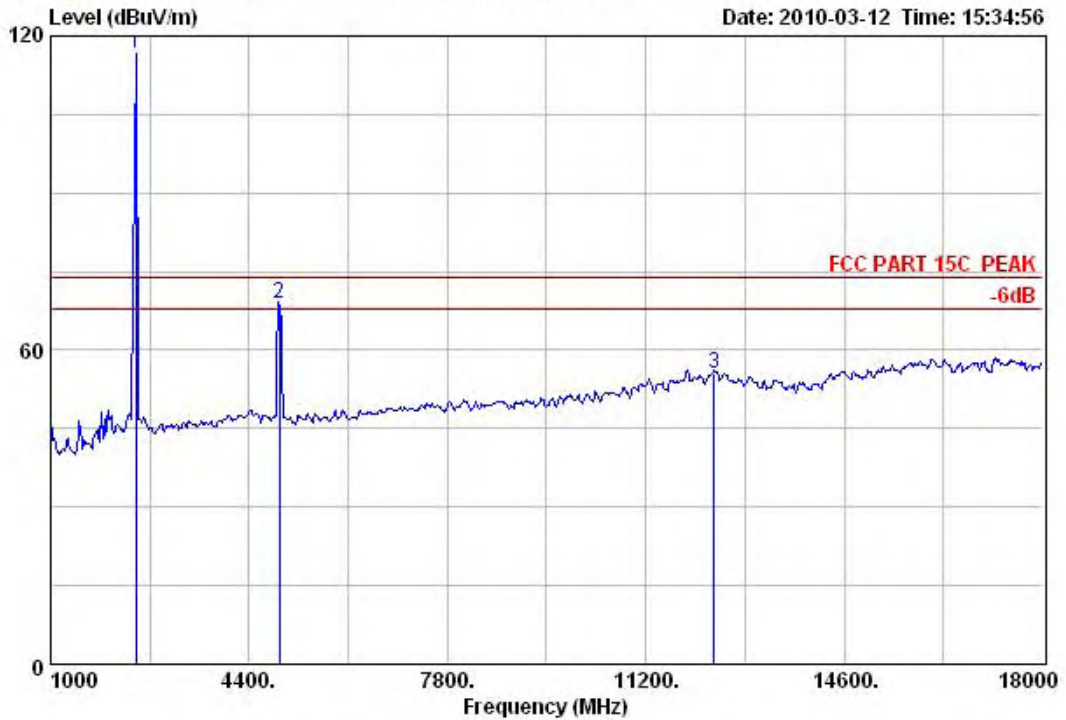
# NS Technology

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Fax: +86-769-85991080

Data: 93

File: D:\Radiation data\Z\ZIONCOM1.EMI (169)

Date: 2010-03-12 Time: 15:34:56



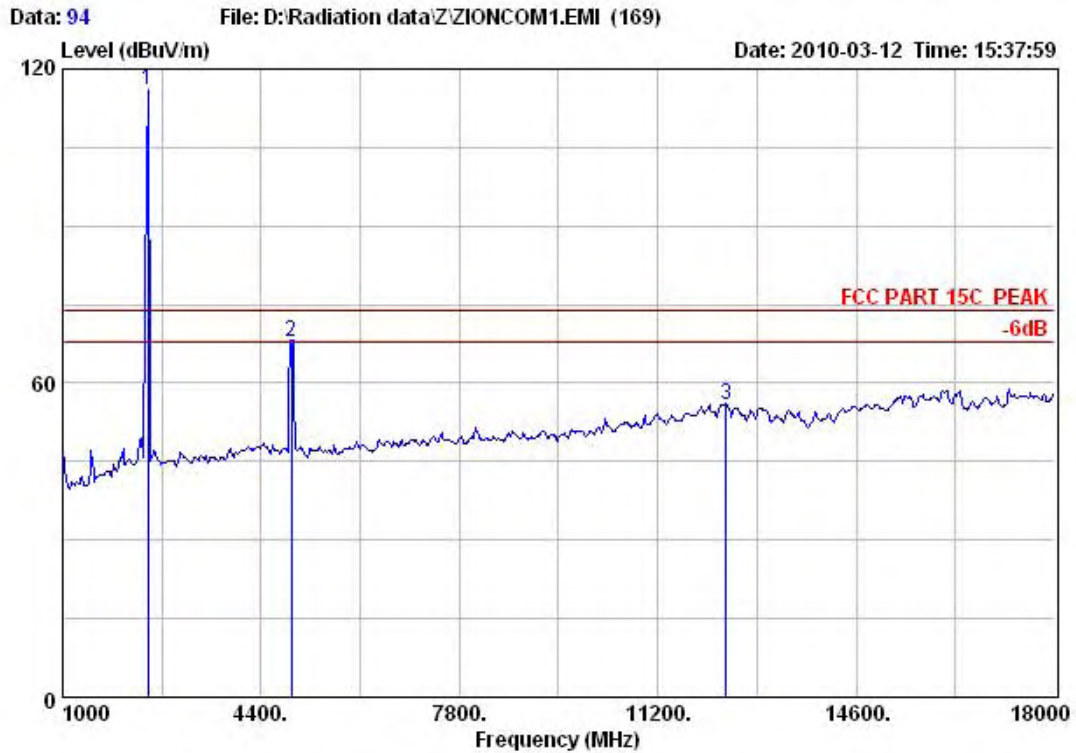
Test Site : 966 Chamber  
 Limit : FCC PART 15C PEAK  
 Dis. / Ant. : 3m 3117 Ant. Pol.: HORIZONTAL  
 EUT : Wireless Router  
 M/N : IP04103  
 Power : DC 5V from adapter input AC 120V/60Hz  
 Test Engineer : Jade  
 Comment : Temp.:25.2'C Humi.:56% Press:101.51kPa  
 Test Mode : TX Mode 802.11g CH11 2462MHz

Freq. (MHz)	Emission		Margin (dB)	Reading (dBuV)	Ant. Cable		Remark
	Level (dBuV/m)	Limits (dBuV/m)			Factor (dB/m)	Loss (dB)	
1 2462.00	116.67	74.00	-42.67	82.88	31.56	2.23	Peak
2 4924.00	68.74	74.00	5.26	31.70	34.66	2.38	Peak
3 12373.00	55.57	74.00	18.43	12.78	39.95	2.84	Peak



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Test Site : 966 Chamber  
 Limit : FCC PART 15C PEAK  
 Dis. / Ant. : 3m 3117 Ant. Pol.: HORIZONTAL  
 EUT : Wireless Router  
 M/N : IP04103  
 Power : DC 5V from adapter input AC 120V/60Hz  
 Test Engineer : Jade  
 Comment : Temp.:25.2'C Humi.:56% Press:101.51kPa  
 Test Mode : TX Mode 802.11b CH11 2462MHz

Freq. (MHz)	Emission			Margin (dB)	Reading (dBuV)	Ant. Cable		Remark
	Level (dBuV/m)	Limits (dBuV/m)				Factor (dB/m)	Loss (dB)	
1 2462.00	116.00	74.00	-42.00	82.21	31.56	2.23	Peak	
2 4924.00	67.84	74.00	6.16	30.80	34.66	2.38	Peak	
3 12373.00	55.87	74.00	18.13	13.08	39.95	2.84	Peak	





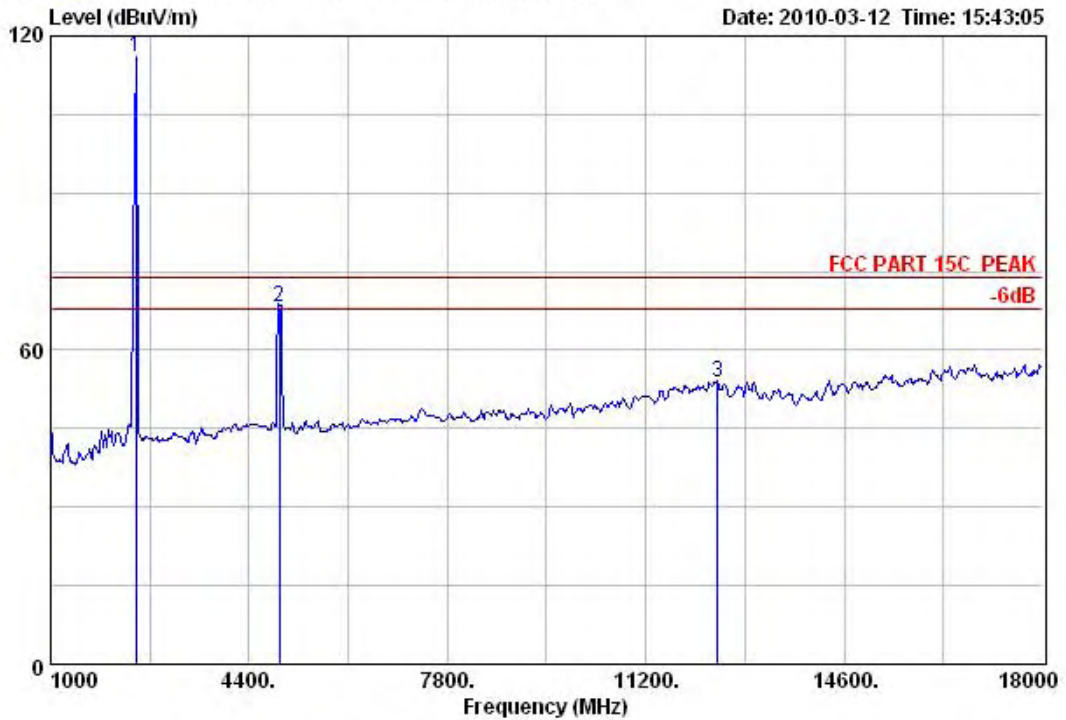
# NS Technology

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Data: 95

File: D:\Radiation data\Z\ZIONCOM1.EMI (169)

Date: 2010-03-12 Time: 15:43:05



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Test Site      : 966 Chamber
Limit         : FCC PART 15C PEAK
Dis. / Ant.   : 3m 3117           Ant. Pol.: VERTICAL
EUT          : Wireless Router
M/N          : IP04103
Power        : DC 5V from adapter input AC 120V/60Hz
Test Engineer : Jade
Comment      : Temp.:25.2'C Humi.:56% Press:101.51kPa
Test Mode    : TX Mode 802.11b CH11 2462MHz
    
```

Freq. (MHz)	Emission		Margin (dB)	Reading (dBuV)	Ant. Cable		Remark
	Level (dBuV/m)	Limits (dBuV/m)			Factor (dB/m)	Loss (dB)	
1 2462.00	116.02	74.00	-42.02	82.23	31.56	2.23	Peak
2 4924.00	68.16	74.00	5.84	31.12	34.66	2.38	Peak
3 12424.00	53.67	74.00	20.33	10.85	39.97	2.85	Peak



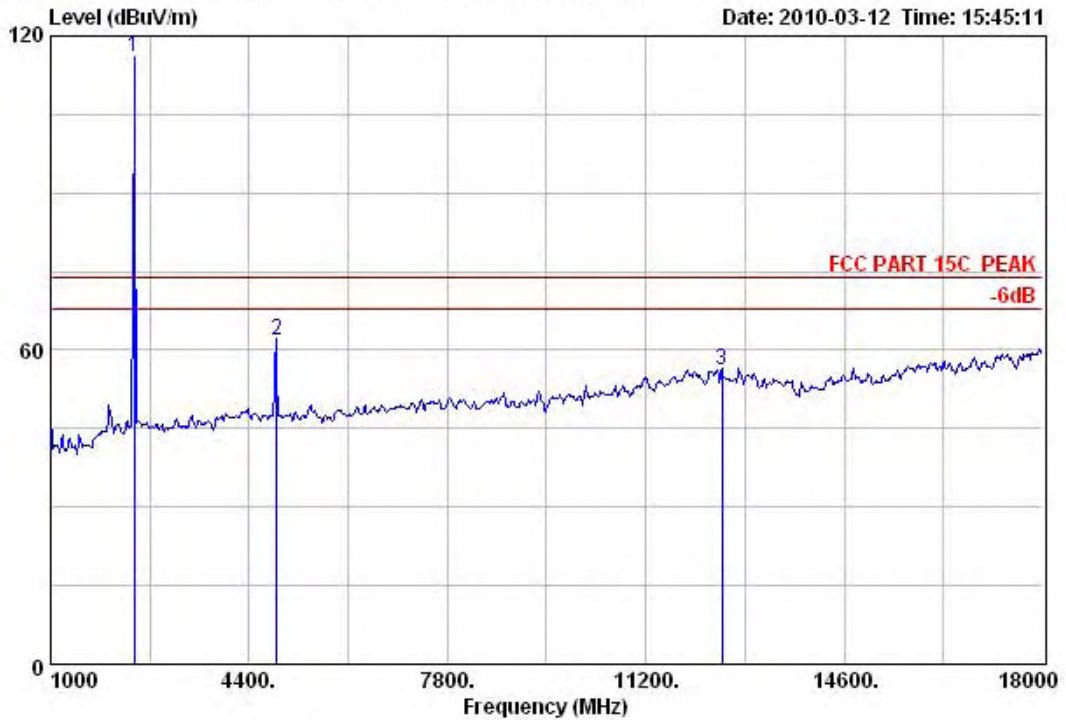
# NS Technology

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Fax: +86-769-85991080

Data: 96

File: D:\Radiation data\Z\ZIONCOM1.EMI (169)

Date: 2010-03-12 Time: 15:45:11



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Test Site      : 966 Chamber
Limit         : FCC PART 15C PEAK
Dis. / Ant.   : 3m 3117           Ant. Pol.: VERTICAL
EUT          : Wireless Router
M/N          : IP04103
Power        : DC 5V from adapter input AC 120V/60Hz
Test Engineer : Jade
Comment      : Temp.:25.2'C Humi.:56% Press:101.51kPa
Test Mode    : TX Mode 802.11b CH6 2437MHz
    
```

Freq. (MHz)	Emission			Reading (dBuV)	Ant. Factor (dB/m)	Cable Loss (dB)	Remark
	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)				
1 2437.00	116.06	74.00	-42.06	82.29	31.54	2.23	Peak
2 4874.00	61.75	74.00	12.25	24.75	34.62	2.38	Peak
3 12509.00	56.17	74.00	17.83	13.31	40.01	2.85	Peak



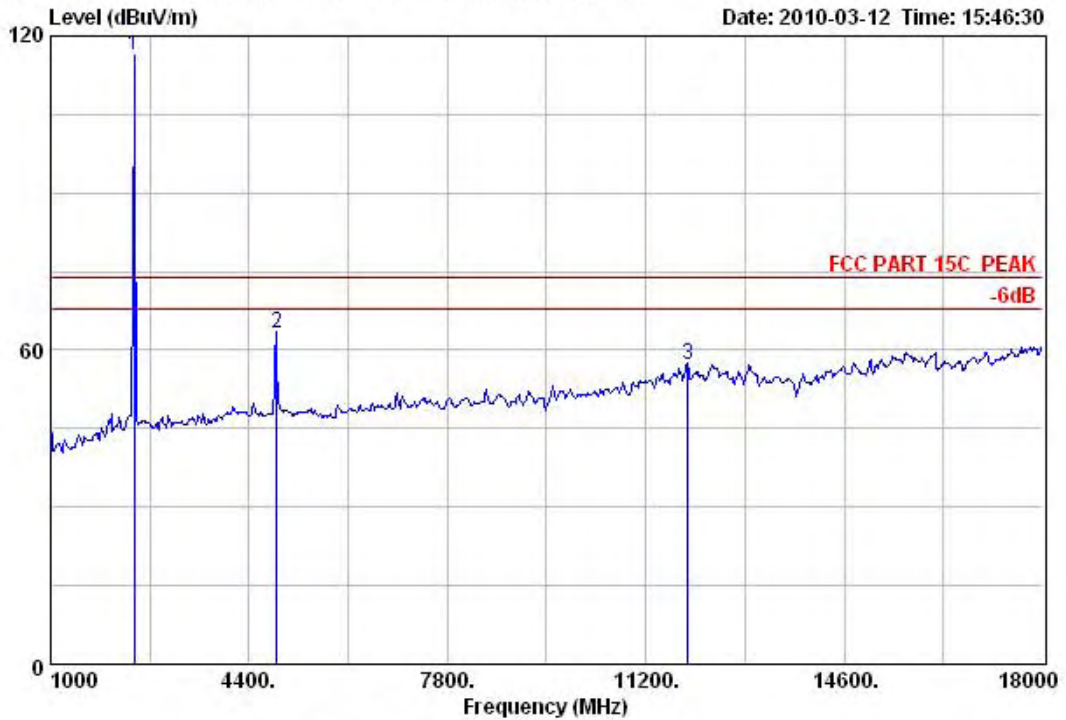
# NS Technology

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Dongguan, Guangdong, China  
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Fax: +86-769-85991080

Data: 97

File: D:\Radiation data\Z\ZIONCOM1.EMI (169)

Date: 2010-03-12 Time: 15:46:30



Test Site : 966 Chamber  
 Limit : FCC PART 15C PEAK  
 Dis. / Ant. : 3m 3117 Ant. Pol.: HORIZONTAL  
 EUT : Wireless Router  
 M/N : IP04103  
 Power : DC 5V from adapter input AC 120V/60Hz  
 Test Engineer : Jade  
 Comment : Temp.:25.2'C Humi.:56% Press:101.51kPa  
 Test Mode : TX Mode 802.11b CH6 2437MHz

Freq. (MHz)	Emission		Margin (dB)	Reading (dBuV)	Ant. Cable		Remark
	Level (dBuV/m)	Limits (dBuV/m)			Factor (dB/m)	Loss (dB)	
1 2437.00	116.22	74.00	-42.22	82.45	31.54	2.23	Peak
2 4874.00	63.09	74.00	10.91	26.09	34.62	2.38	Peak
3 11914.00	57.16	74.00	16.84	14.67	39.67	2.82	Peak



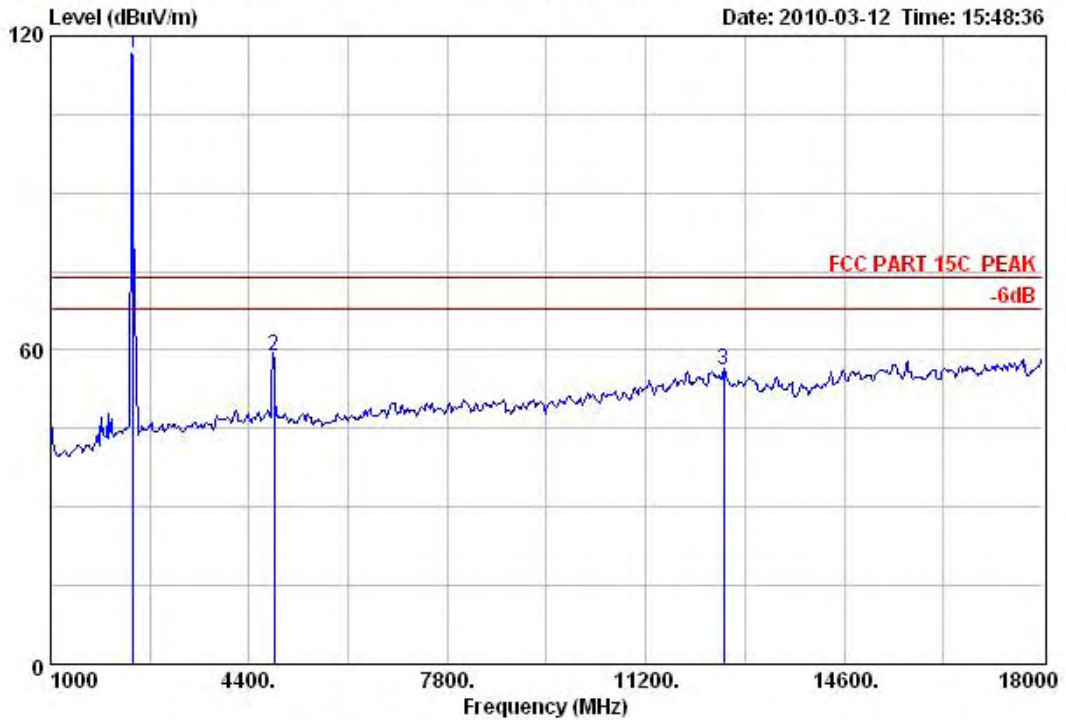
# NS Technology

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Dongguan, Guangdong, China  
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Fax: +86-769-85991080

Data: 98

File: D:\Radiation data\Z\ZIONCOM1.EMI (169)

Date: 2010-03-12 Time: 15:48:36



Test Site : 966 Chamber  
 Limit : FCC PART 15C PEAK  
 Dis. / Ant. : 3m 3117 Ant. Pol.: HORIZONTAL  
 EUT : Wireless Router  
 M/N : IP04103  
 Power : DC 5V from adapter input AC 120V/60Hz  
 Test Engineer : Jade  
 Comment : Temp.:25.2'C Humi.:56% Press:101.51kPa  
 Test Mode : TX Mode 802.11b CH1 2412MHz

Freq. (MHz)	Emission			Margin (dB)	Reading (dBuV)	Ant. Cable		Remark
	Level (dBuV/m)	Limits (dBuV/m)				Factor (dB/m)	Loss (dB)	
1 2412.00	116.72	74.00	-42.72	82.99	31.50	2.23	Peak	
2 4824.00	58.86	74.00	15.14	21.89	34.59	2.38	Peak	
3 132543.00	56.01	74.00	17.99	13.13	40.03	2.85	Peak	



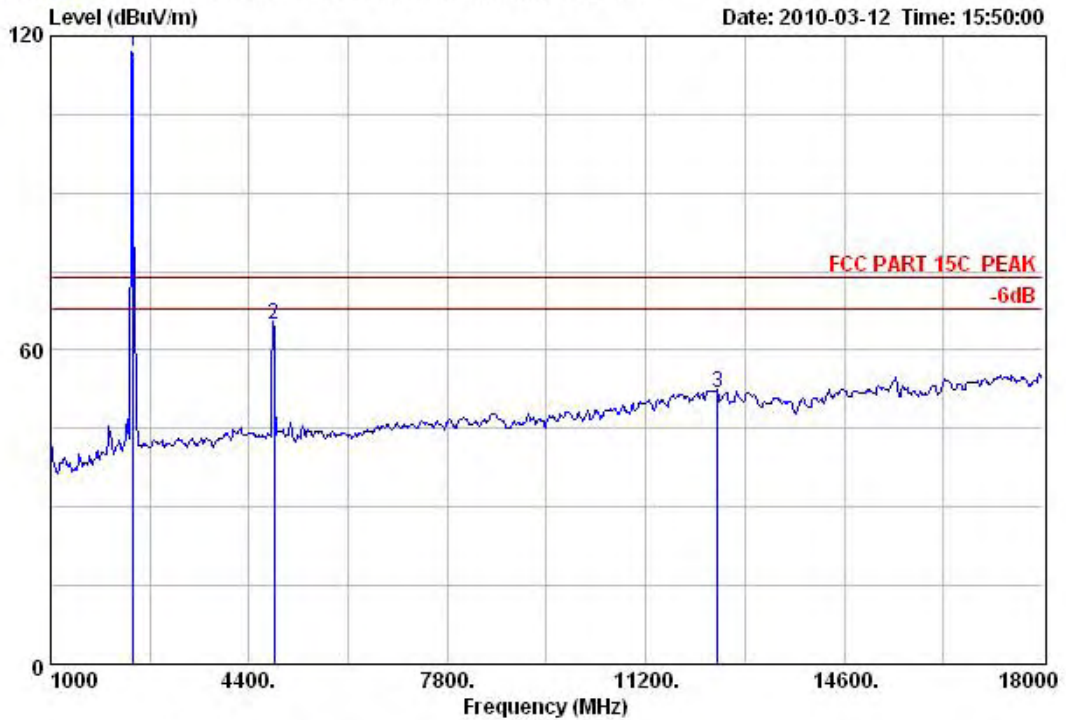
# NS Technology

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Fax: +86-769-85991080

Data: 99

File: D:\Radiation data\Z\ZIONCOM1.EMI (169)

Date: 2010-03-12 Time: 15:50:00



Test Site : 966 Chamber  
 Limit : FCC PART 15C PEAK  
 Dis. / Ant. : 3m 3117 Ant. Pol.: VERTICAL  
 EUT : Wireless Router  
 M/N : IP04103  
 Power : DC 5V from adapter input AC 120V/60Hz  
 Test Engineer : Jade  
 Comment : Temp.:25.2'C Humi.:56% Press:101.51kPa  
 Test Mode : TX Mode 802.11b CH1 2412MHz

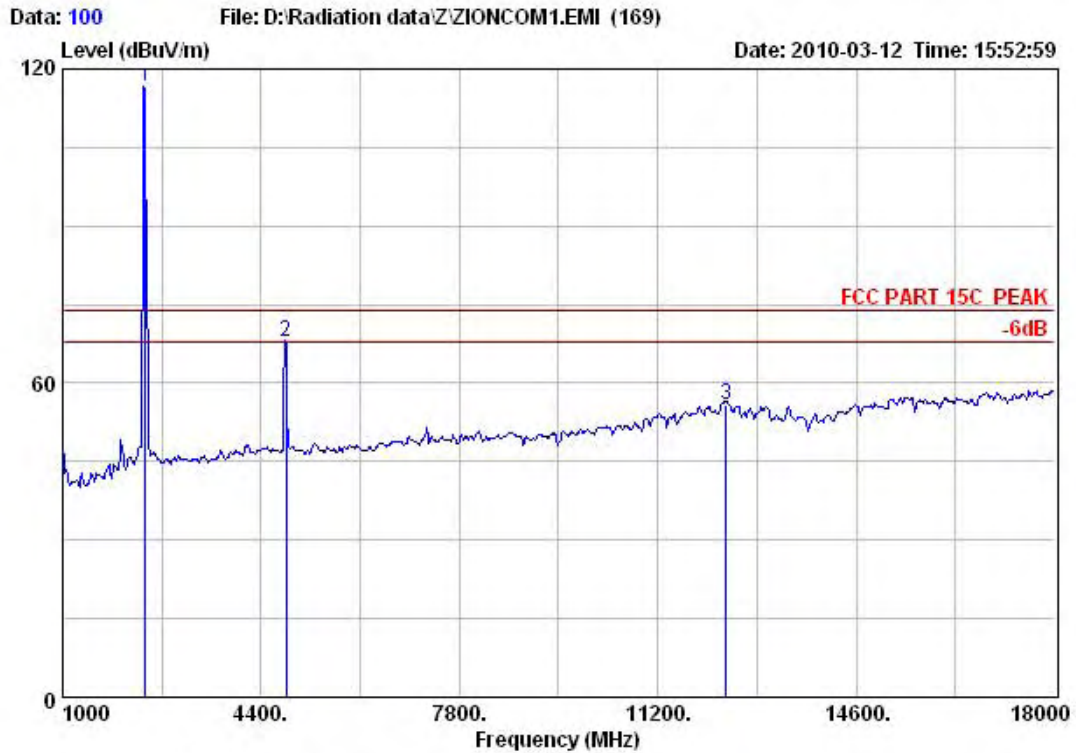
Freq. (MHz)	Emission		Margin (dB)	Reading (dBuV)	Ant. Factor (dB/m)	Cable Loss (dB)	Remark
	Level (dBuV/m)	Limits (dBuV/m)					
1 2412.00	116.85	74.00	-42.85	83.12	31.50	2.23	Peak
2 4824.00	64.87	74.00	9.13	27.90	34.59	2.38	Peak
3 12424.00	51.78	74.00	22.22	8.96	39.97	2.85	Peak





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Test Site : 966 Chamber  
 Limit : FCC PART 15C PEAK  
 Dis. / Ant. : 3m 3117 Ant. Pol.: VERTICAL  
 EUT : Wireless Router  
 M/N : IP04103  
 Power : DC 5V from adapter input AC 120V/60Hz  
 Test Engineer : Jade  
 Comment : Temp.:25.2'C Humi.:56% Press:101.51kPa  
 Test Mode : TX Mode 802.11n HT20 CH1 2412MHz

Freq. (MHz)	Emission		Margin (dB)	Reading (dBuV)	Ant. Cable		Remark
	Level (dBuV/m)	Limits (dBuV/m)			Factor (dB/m)	Loss (dB)	
1 2412.00	116.65	74.00	-42.65	82.92	31.50	2.23	Peak
2 4824.00	67.94	74.00	6.06	30.97	34.59	2.38	Peak
3 13237.300	55.94	74.00	18.06	13.15	39.95	2.84	Peak



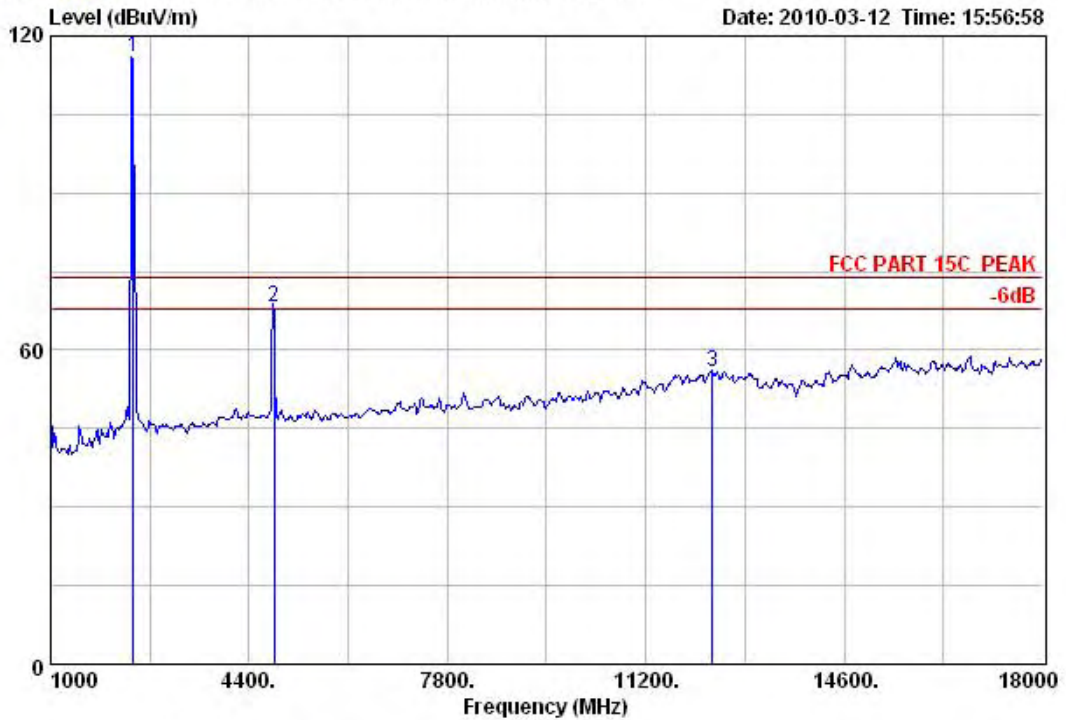
# NS Technology

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Fax: +86-769-85991080

Data: 101

File: D:\Radiation data\Z\ZIONCOM1.EMI (169)

Date: 2010-03-12 Time: 15:56:58



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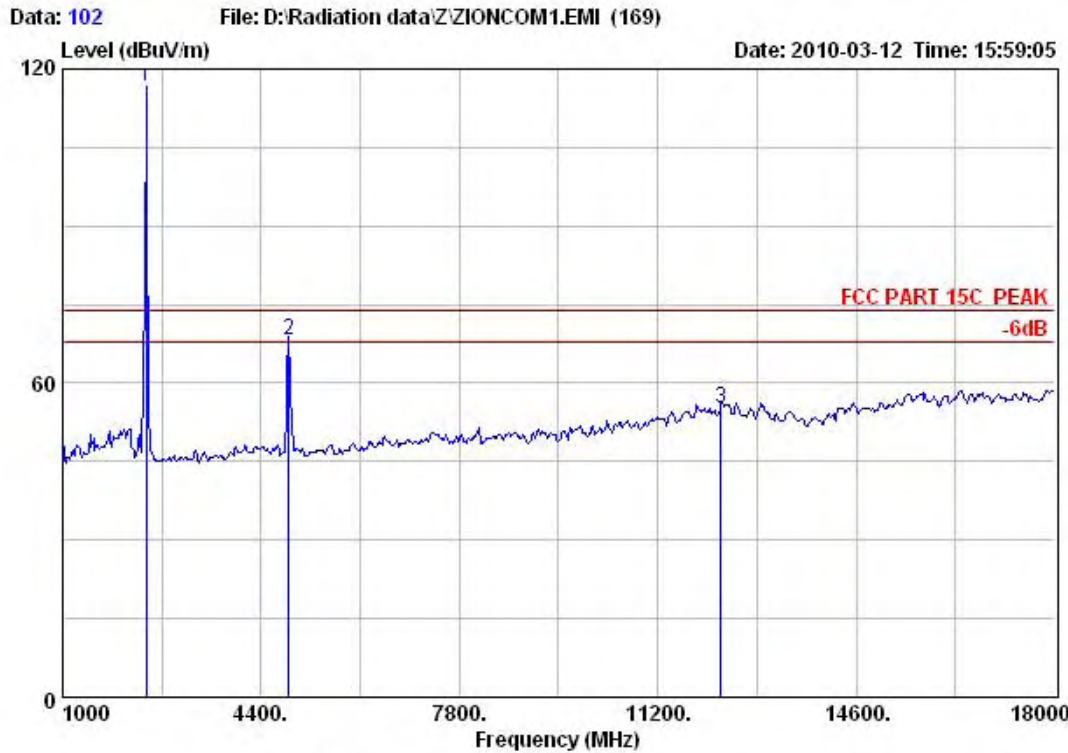
Test Site      : 966 Chamber
Limit         : FCC PART 15C PEAK
Dis. / Ant.   : 3m 3117           Ant. Pol.: HORIZONTAL
EUT          : Wireless Router
M/N          : IP04103
Power        : DC 5V from adapter input AC 120V/60Hz
Test Engineer : Jade
Comment      : Temp.:25.2'C Humi.:56% Press:101.51kPa
Test Mode    : TX Mode 802.11n HT20 CH1 2412MHz
    
```

Freq. (MHz)	Emission			Margin (dB)	Reading (dBuV)	Ant. Cable		Remark
	Level (dBuV/m)	Limits (dBuV/m)				Factor (dB/m)	Loss (dB)	
1 2412.00	116.15	74.00	-42.15	82.42	31.50	2.23	Peak	
2 4824.00	68.16	74.00	5.84	31.19	34.59	2.38	Peak	
3 12339.00	55.74	74.00	18.26	12.96	39.94	2.84	Peak	



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Test Site : 966 Chamber  
 Limit : FCC PART 15C PEAK  
 Dis. / Ant. : 3m 3117 Ant. Pol.: HORIZONTAL  
 EUT : Wireless Router  
 M/N : IP04103  
 Power : DC 5V from adapter input AC 120V/60Hz  
 Test Engineer : Jade  
 Comment : Temp.:25.2'C Humi.:56% Press:101.51kPa  
 Test Mode : TX Mode 802.11n HT20 CH6 2437MHz

Freq. (MHz)	Emission		Margin (dB)	Reading (dBuV)	Ant. Cable		Remark
	Level (dBuV/m)	Limits (dBuV/m)			Factor (dB/m)	Loss (dB)	
1 2437.00	116.63	74.00	-42.63	82.86	31.54	2.23	Peak
2 4874.00	68.16	74.00	5.84	31.16	34.62	2.38	Peak
3 12288.00	55.04	74.00	18.96	12.28	39.92	2.84	Peak





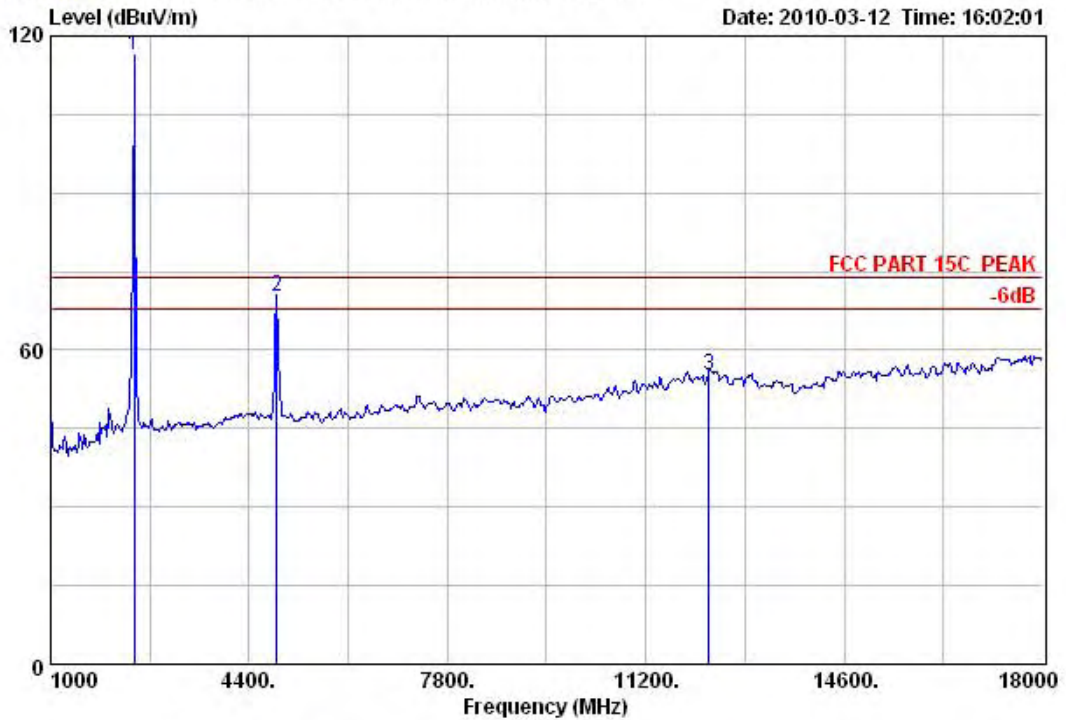
# NS Technology

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Fax: +86-769-85991080

Data: 103

File: D:\Radiation data\Z\ZIONCOM1.EMI (169)

Date: 2010-03-12 Time: 16:02:01



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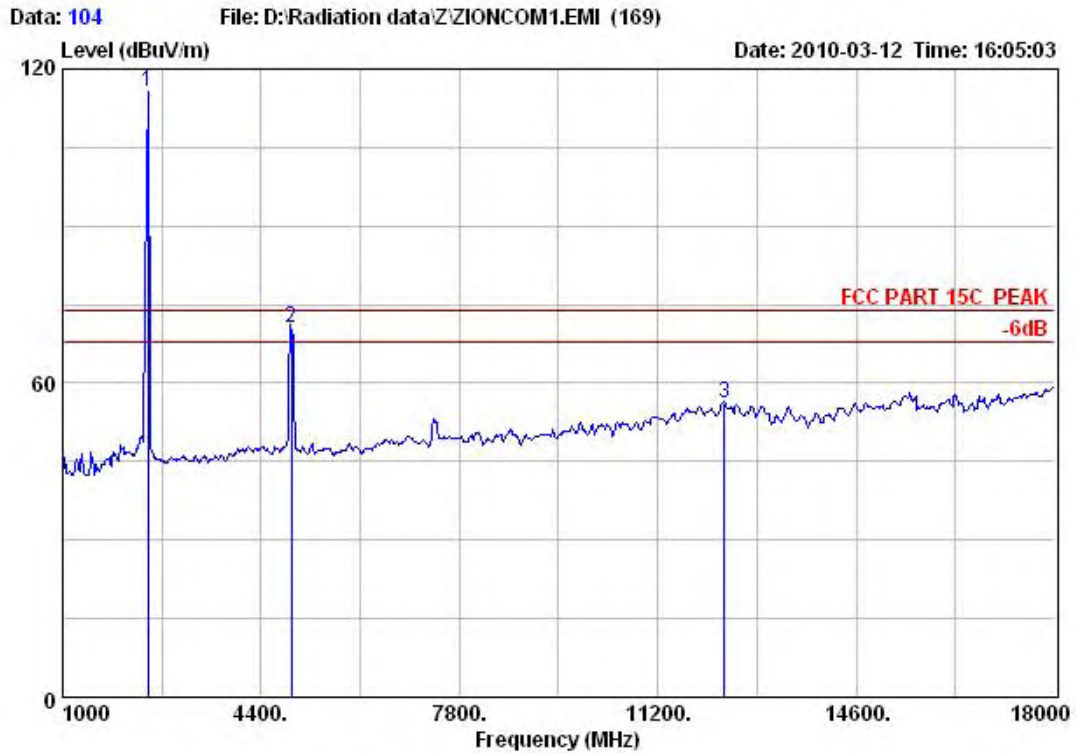
Test Site      : 966 Chamber
Limit         : FCC PART 15C PEAK
Dis. / Ant.   : 3m 3117           Ant. Pol.: VERTICAL
EUT          : Wireless Router
M/N          : IP04103
Power        : DC 5V from adapter input AC 120V/60Hz
Test Engineer : Jade
Comment      : Temp.:25.2'C Humi.:56% Press:101.51kPa
Test Mode    : TX Mode 802.11n HT20 CH6 2437MHz
    
```

Freq. (MHz)	Emission			Margin (dB)	Reading (dBuV)	Ant. Cable		Remark
	Level (dBuV/m)	Limits (dBuV/m)				Factor (dB/m)	Loss (dB)	
1 2437.00	116.20	74.00	-42.20	82.43	31.54	2.23	Peak	
2 4874.00	70.09	74.00	3.91	33.09	34.62	2.38	Peak	
3 12288.00	55.14	74.00	18.86	12.38	39.92	2.84	Peak	



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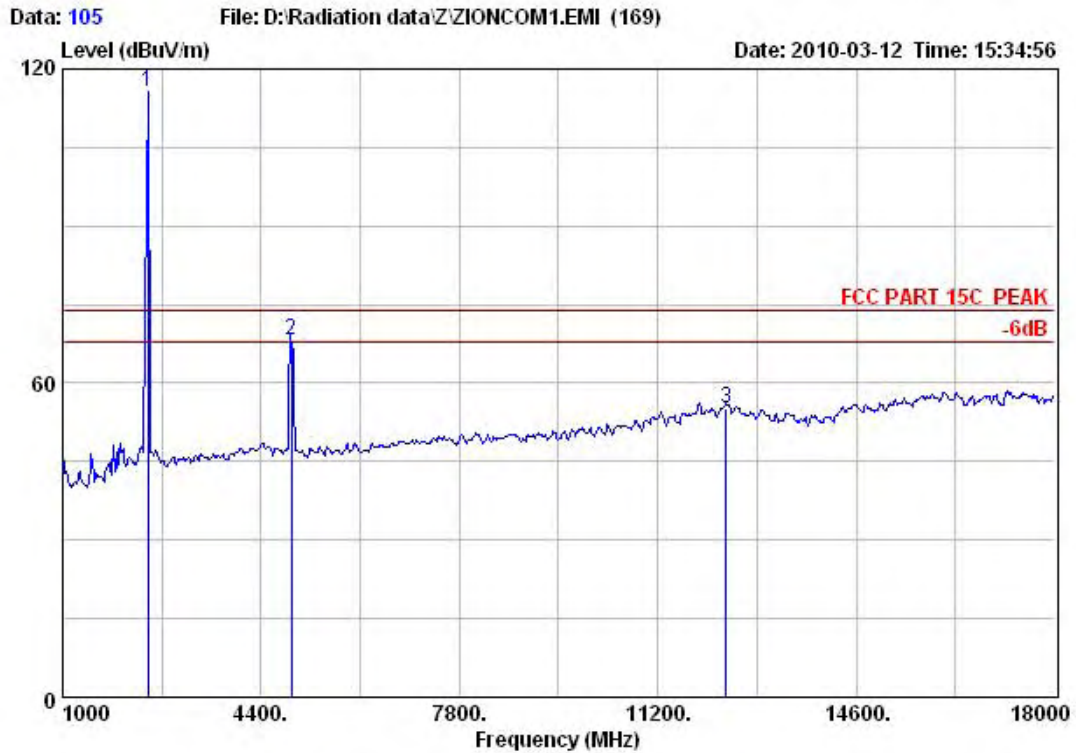
Test Site : 966 Chamber  
 Limit : FCC PART 15C PEAK  
 Dis. / Ant. : 3m 3117 Ant. Pol.: VERTICAL  
 EUT : Wireless Router  
 M/N : IP04103  
 Power : DC 5V from adapter input AC 120V/60Hz  
 Test Engineer : Jade  
 Comment : Temp.:25.2'C Humi.:56% Press:101.51kPa  
 Test Mode : TX Mode 802.11n HT20 CH11 2462MHz

Freq. (MHz)	Emission		Margin (dB)	Reading (dBuV)	Ant. Cable		Remark
	Level (dBuV/m)	Limits (dBuV/m)			Factor (dB/m)	Loss (dB)	
1 2462.00	115.50	74.00	-41.50	81.71	31.56	2.23	Peak
2 4924.00	70.58	74.00	3.42	33.54	34.66	2.38	Peak
3 12333.90	56.13	74.00	17.87	13.35	39.94	2.84	Peak



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Test Site : 966 Chamber  
 Limit : FCC PART 15C PEAK  
 Dis. / Ant. : 3m 3117 Ant. Pol.: HORIZONTAL  
 EUT : Wireless Router  
 M/N : IP04103  
 Power : DC 5V from adapter input AC 120V/60Hz  
 Test Engineer : Jade  
 Comment : Temp.:25.2'C Humi.:56% Press:101.51kPa  
 Test Mode : TX Mode 802.11n HT20 CH11 2462MHz

Freq. (MHz)	Emission		Margin (dB)	Reading (dBuV)	Ant. Cable		Remark
	Level (dBuV/m)	Limits (dBuV/m)			Factor (dB/m)	Loss (dB)	
1 2462.00	115.67	74.00	-41.67	81.88	31.56	2.23	Peak
2 4924.00	68.27	74.00	5.73	31.23	34.66	2.38	Peak
3 12373.00	55.27	74.00	18.73	12.48	39.95	2.84	Peak



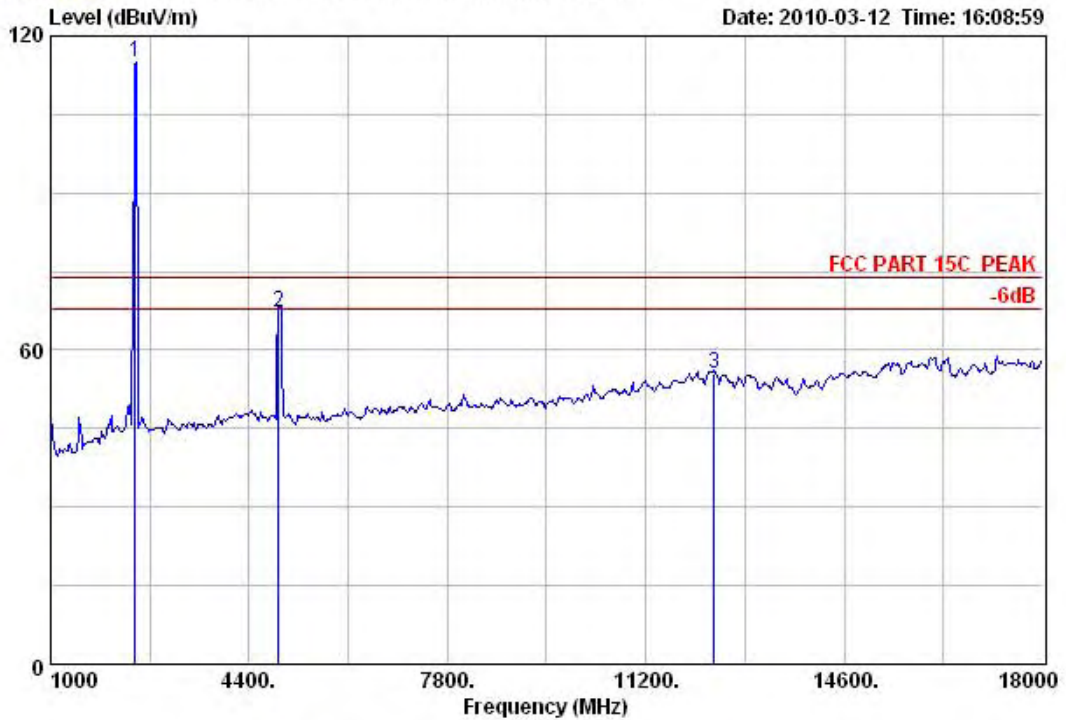
# NS Technology

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Dongguan, Guangdong, China  
Tel: +86-769-85935656  
Fax: +86-769-85991080

Data: 106

File: D:\Radiation data\ZIONCOM1.EMI (169)

Date: 2010-03-12 Time: 16:08:59



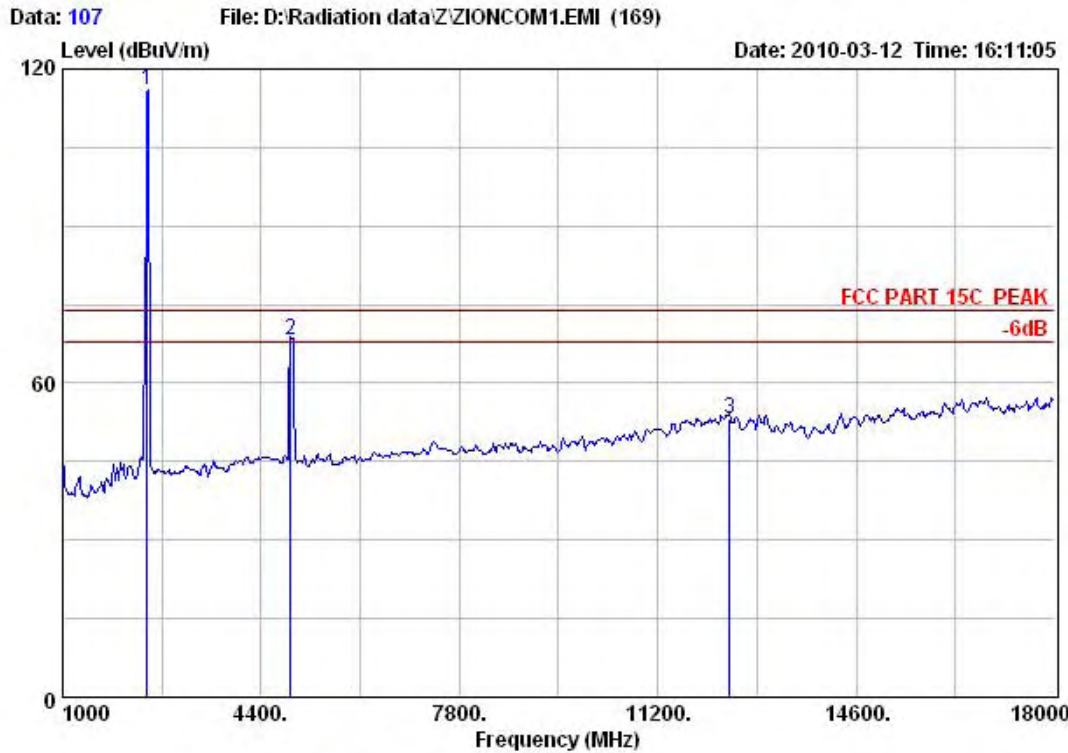
Test Site : 966 Chamber  
 Limit : FCC PART 15C PEAK  
 Dis. / Ant. : 3m 3117 Ant. Pol.: HORIZONTAL  
 EUT : Wireless Router  
 M/N : IP04103  
 Power : DC 5V from adapter input AC 120V/60Hz  
 Test Engineer : Jade  
 Comment : Temp.:25.2'C Humi.:56% Press:101.51kPa  
 Test Mode : TX Mode 802.11n HT40 CH7 2452MHz

Freq. (MHz)	Emission		Margin (dB)	Reading (dBuV)	Ant. Cable		Remark
	Level (dBuV/m)	Limits (dBuV/m)			Factor (dB/m)	Loss (dB)	
1 2452.00	115.00	74.00	-41.00	81.23	31.54	2.23	Peak
2 4904.00	67.19	74.00	6.81	30.18	34.63	2.38	Peak
3 12373.00	55.43	74.00	18.57	12.64	39.95	2.84	Peak



# NS Technology

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Test Site : 966 Chamber  
 Limit : FCC PART 15C PEAK  
 Dis. / Ant. : 3m 3117 Ant. Pol.: VERTICAL  
 EUT : Wireless Router  
 M/N : IP04103  
 Power : DC 5V from adapter input AC 120V/60Hz  
 Test Engineer : Jade  
 Comment : Temp.:25.2'C Humi.:56% Press:101.51kPa  
 Test Mode : TX Mode 802.11n HT40 CH7 2452MHz

Freq. (MHz)	Emission		Margin (dB)	Reading (dBuV)	Ant. Cable		Remark
	Level (dBuV/m)	Limits (dBuV/m)			Factor (dB/m)	Loss (dB)	
1 2452.00	116.02	74.00	-42.02	82.25	31.54	2.23	Peak
2 4904.00	68.12	74.00	5.88	31.11	34.63	2.38	Peak
3 13242.00	53.29	74.00	20.71	10.47	39.97	2.85	Peak





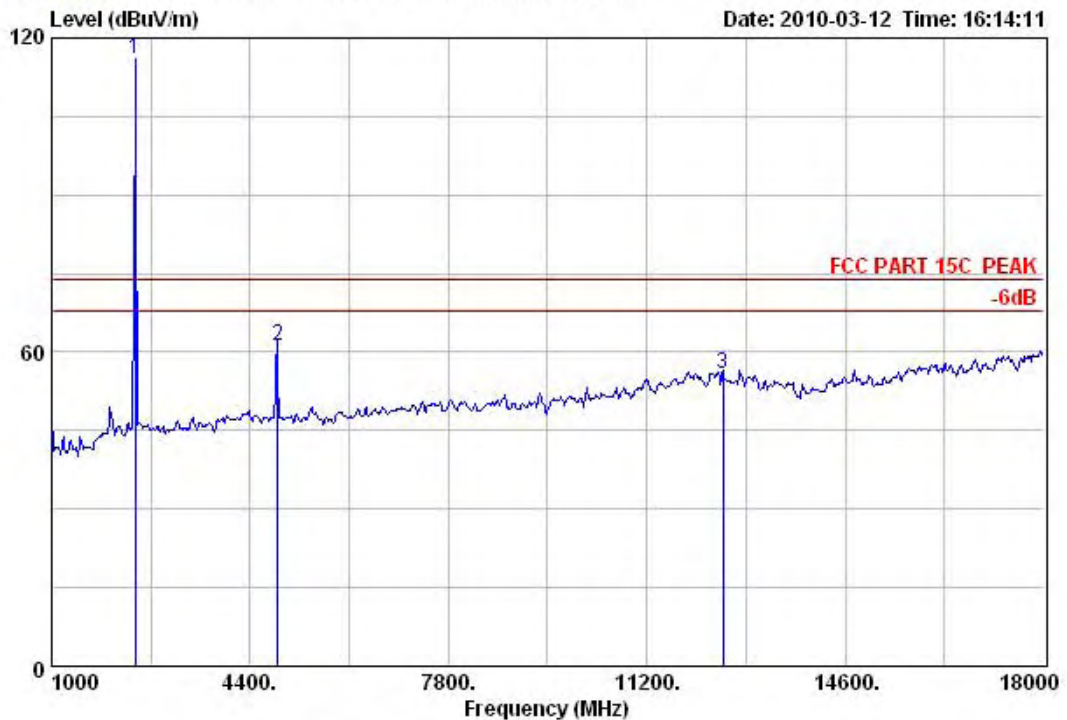
# NS Technology

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Dongguan, Guangdong, China  
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Data: 108

File: D:\Radiation data\Z\ZIONCOM1.EMI (169)

Date: 2010-03-12 Time: 16:14:11



```

Test Site      : 966 Chamber
Limit         : FCC PART 15C PEAK
Dis. / Ant.   : 3m 3117           Ant. Pol.: VERTICAL
EUT          : Wireless Router
M/N          : IP04103
Power        : DC 5V from adapter input AC 120V/60Hz
Test Engineer: Jade
Comment      : Temp.:25.2'C Humi.:56% Press:101.51kPa
Test Mode    : TX Mode 802.11n HT40 CH4 2437MHz
    
```

Freq. (MHz)	Emission			Margin (dB)	Reading (dBuV)	Ant. Cable		Remark
	Level (dBuV/m)	Limits (dBuV/m)				Factor (dB/m)	Loss (dB)	
1 2437.00	116.06	74.00	-42.06	82.29	31.54	2.23	Peak	
2 4874.00	61.27	74.00	12.73	24.27	34.62	2.38	Peak	
3 12509.00	55.87	74.00	18.13	13.01	40.01	2.85	Peak	



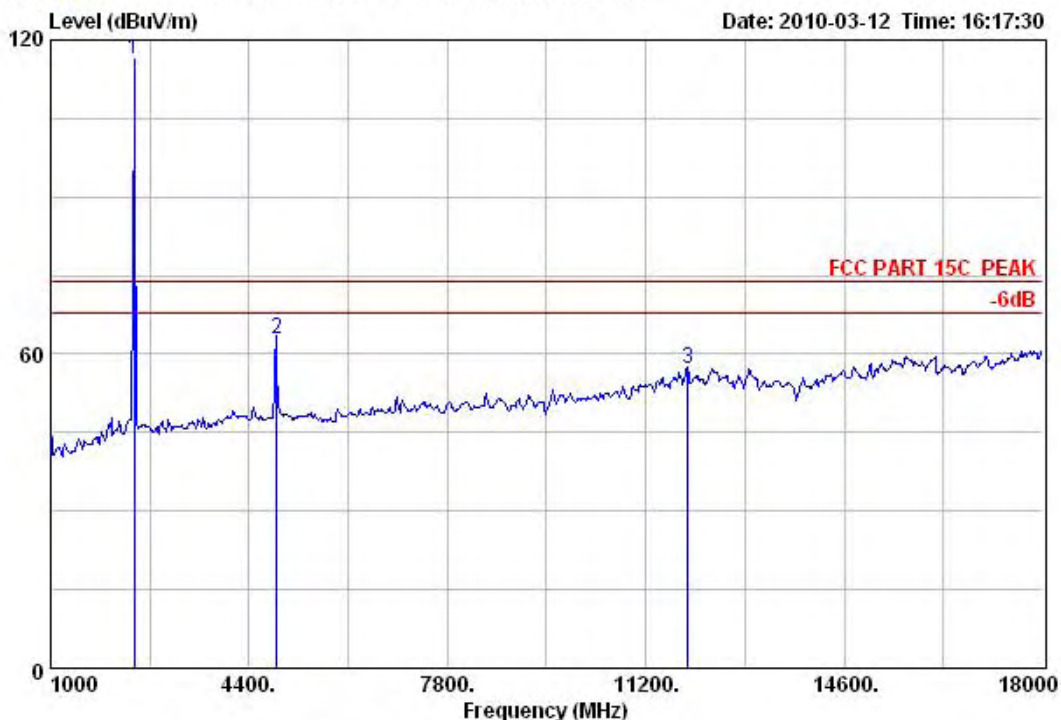
# NS Technology

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Dongguan, Guangdong, China  
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Fax: +86-769-85991080

Data: 109

File: D:\Radiation data\Z\ZIONCOM1.EMI (169)

Date: 2010-03-12 Time: 16:17:30



Test Site : 966 Chamber  
 Limit : FCC PART 15C PEAK  
 Dis. / Ant. : 3m 3117 Ant. Pol.: HORIZONTAL  
 EUT : Wireless Router  
 M/N : IP04103  
 Power : DC 5V from adapter input AC 120V/60Hz  
 Test Engineer : Jade  
 Comment : Temp.:25.2'C Humi.:56% Press:101.51kPa  
 Test Mode : TX Mode 802.11n HT40 CH4 2437MHz

Freq. (MHz)	Emission		Margin (dB)	Reading (dBuV)	Ant. Factor (dB/m)	Cable Loss (dB)	Remark
	Level (dBuV/m)	Limits (dBuV/m)					
1 2437.00	116.22	74.00	-42.22	82.45	31.54	2.23	Peak
2 4874.00	62.89	74.00	11.11	25.89	34.62	2.38	Peak
3 11914.00	57.08	74.00	16.92	14.59	39.67	2.82	Peak



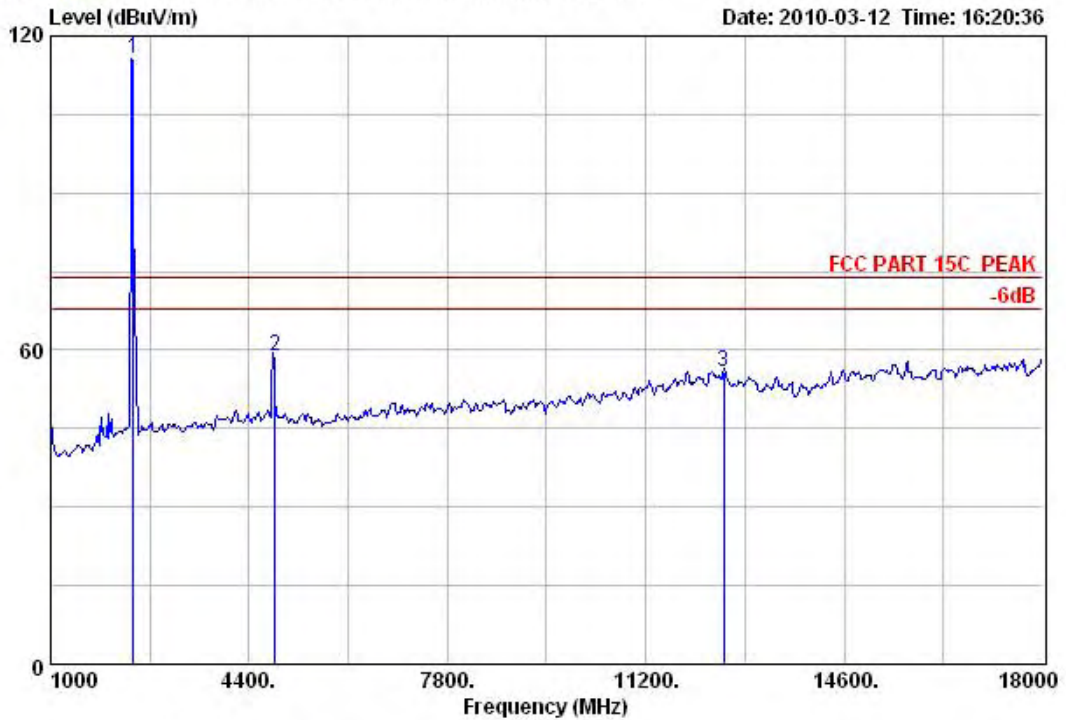
# NS Technology

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Dongguan, Guangdong, China  
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Data: 110

File: D:\Radiation data\Z\ZIONCOM1.EMI (169)

Date: 2010-03-12 Time: 16:20:36



Test Site : 966 Chamber  
 Limit : FCC PART 15C PEAK  
 Dis. / Ant. : 3m 3117 Ant. Pol.: HORIZONTAL  
 EUT : Wireless Router  
 M/N : IP04103  
 Power : DC 5V from adapter input AC 120V/60Hz  
 Test Engineer : Jade  
 Comment : Temp.:25.2'C Humi.:56% Press:101.51kPa  
 Test Mode : TX Mode 802.11n HT40 CH1 2422MHz

Freq. (MHz)	Emission		Margin (dB)	Reading (dBuV)	Ant. Cable		Remark
	Level (dBuV/m)	Limits (dBuV/m)			Factor (dB/m)	Loss (dB)	
1 2422.00	115.72	74.00	-41.72	81.97	31.52	2.23	Peak
2 4844.00	58.98	74.00	15.02	22.00	34.60	2.38	Peak
3 12543.00	55.91	74.00	18.09	13.03	40.03	2.85	Peak





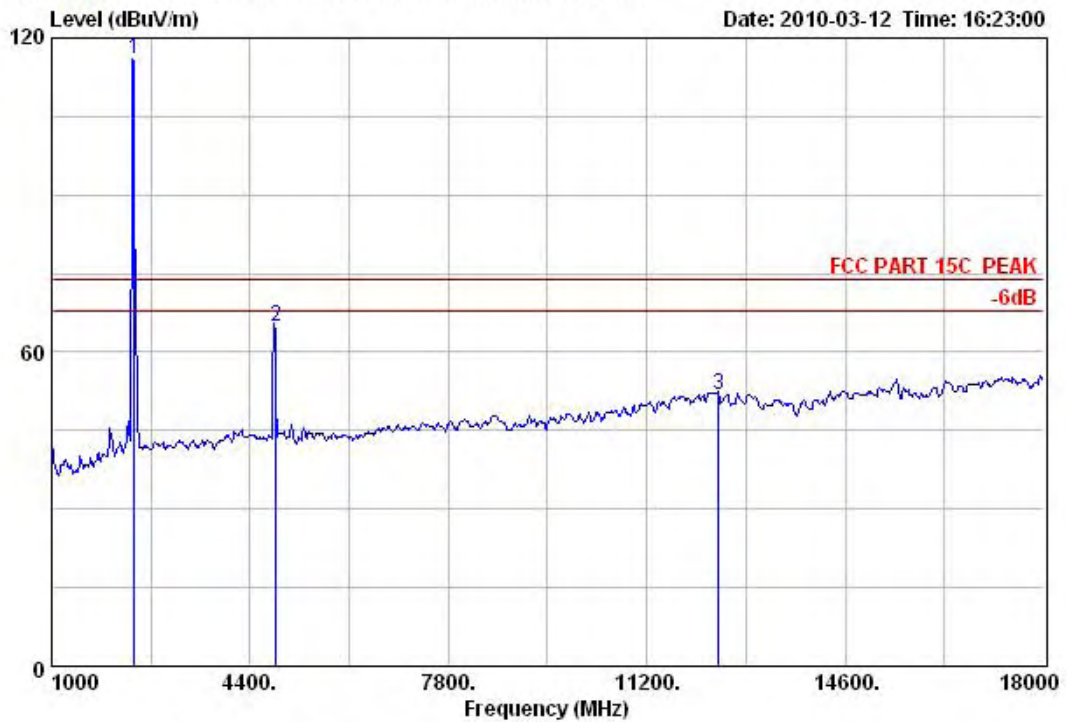
# NS Technology

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Fax: +86-769-85991080

Data: 111

File: D:\Radiation data\Z\ZIONCOM1.EMI (169)

Date: 2010-03-12 Time: 16:23:00



```

Test Site      : 966 Chamber
Limit         : FCC PART 15C PEAK
Dis. / Ant.   : 3m 3117           Ant. Pol.: VERTICAL
EUT          : Wireless Router
M/N          : IP04103
Power        : DC 5V from adapter input AC 120V/60Hz
Test Engineer : Jade
Comment      : Temp.:25.2'C Humi.:56% Press:101.51kPa
Test Mode    : TX Mode 802.11n HT40 CH1 2422MHz
    
```

Freq. (MHz)	Emission		Margin (dB)	Reading (dBuV)	Ant. Cable		Remark
	Level (dBuV/m)	Limits (dBuV/m)			Factor (dB/m)	Loss (dB)	
1 2422.00	115.85	74.00	-41.85	82.10	31.52	2.23	Peak
2 4844.00	64.96	74.00	9.04	27.98	34.60	2.38	Peak
3 13244.00	51.68	74.00	22.32	8.86	39.97	2.85	Peak



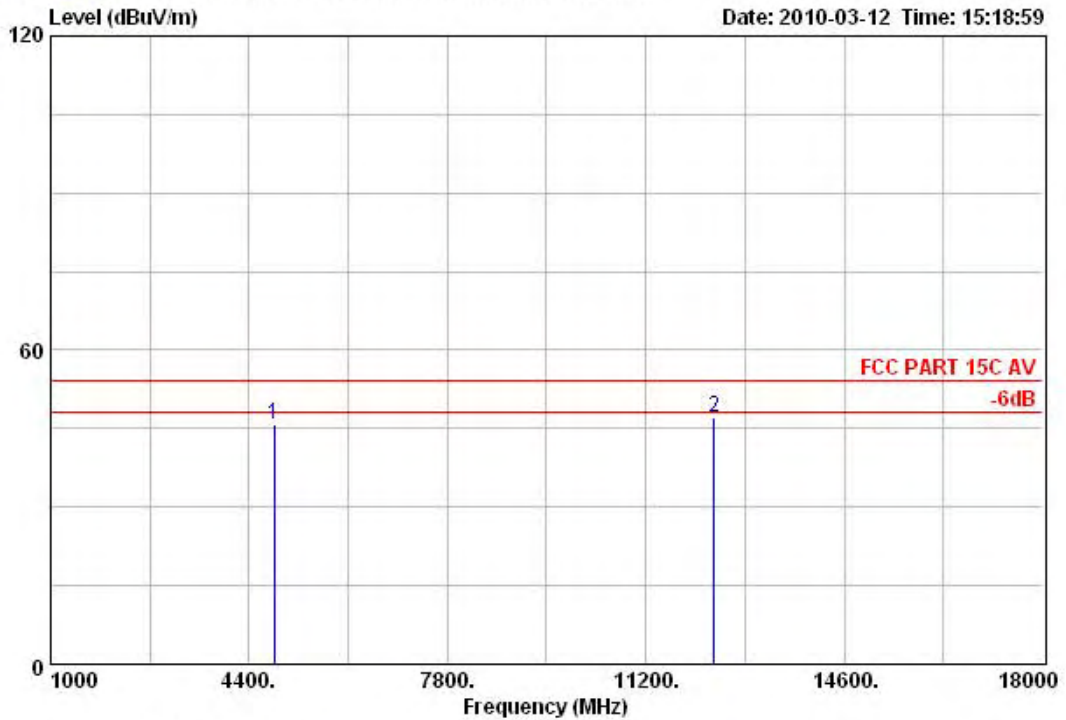
# NS Technology

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Data: 144

File: D:\Radiation data\Z\ZIONCOM1.EMI (169)

Date: 2010-03-12 Time: 15:18:59



Test Site : 966 Chamber  
 Limit : FCC PART 15C AV  
 Dis. / Ant. : 3m 3117 Ant. Pol.: VERTICAL  
 EUT : Wireless Router  
 M/N : IP04103  
 Power : DC 5V from adapter input AC 120V/60Hz  
 Test Engineer : Jade  
 Comment : Temp.:25.2'C Humi.:56% Press:101.51kPa  
 Test Mode : TX Mode 802.11g CH1 2412MHz

Freq. (MHz)	Emission			Margin (dB)	Reading (dBuV)	Ant. Cable		Remark
	Level (dBuV/m)	Limits (dBuV/m)				Factor (dB/m)	Loss (dB)	
1 4824.00	45.85	54.00	8.15	8.88	34.59	2.38	Average	
21237.30	47.26	54.00	6.74	4.47	39.95	2.84	Average	



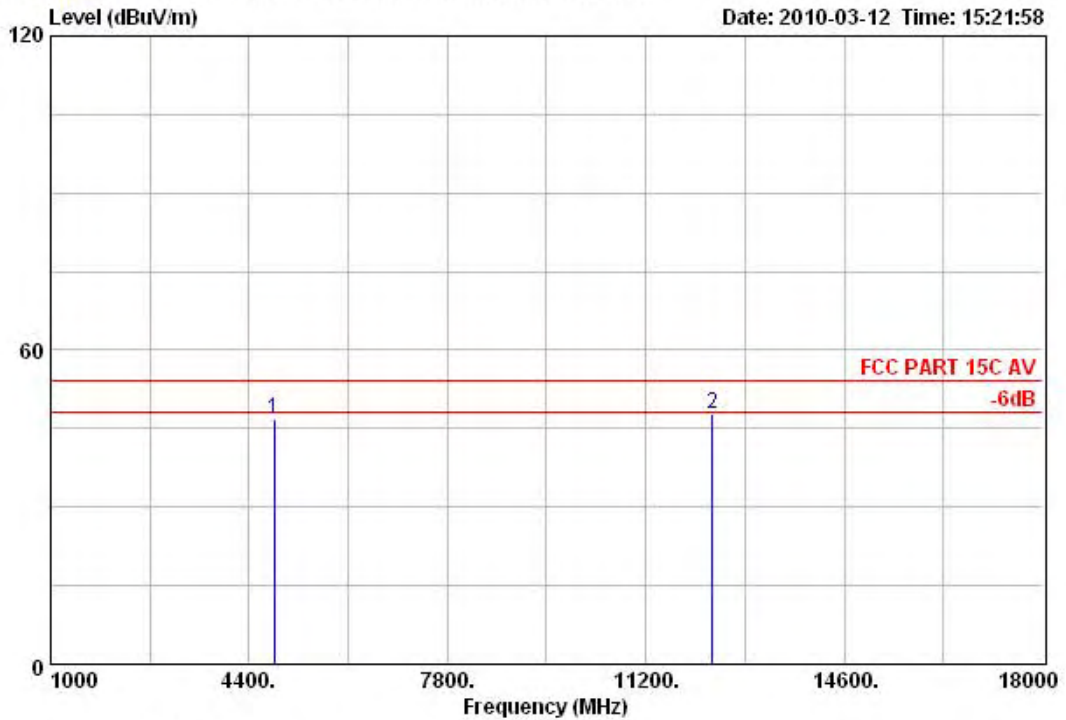
# NS Technology

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Data: 145

File: D:\Radiation data\Z\ZIONCOM1.EMI (169)

Date: 2010-03-12 Time: 15:21:58



Test Site : 966 Chamber  
 Limit : FCC PART 15C AV  
 Dis. / Ant. : 3m 3117 Ant. Pol.: HORIZONTAL  
 EUT : Wireless Router  
 M/N : IP04103  
 Power : DC 5V from adapter input AC 120V/60Hz  
 Test Engineer : Jade  
 Comment : Temp.:25.2'C Humi.:56% Press:101.51kPa  
 Test Mode : TX Mode 802.11g CH1 2412MHz

Freq. (MHz)	Emission			Margin (dB)	Reading (dBuV)	Ant. Cable		Remark
	Level (dBuV/m)	Limits (dBuV/m)				Factor (dB/m)	Loss (dB)	
1 4824.00	46.75	54.00	7.25	9.78	34.59	2.38	Average	
212339.00	47.89	54.00	6.11	5.11	39.94	2.84	Average	



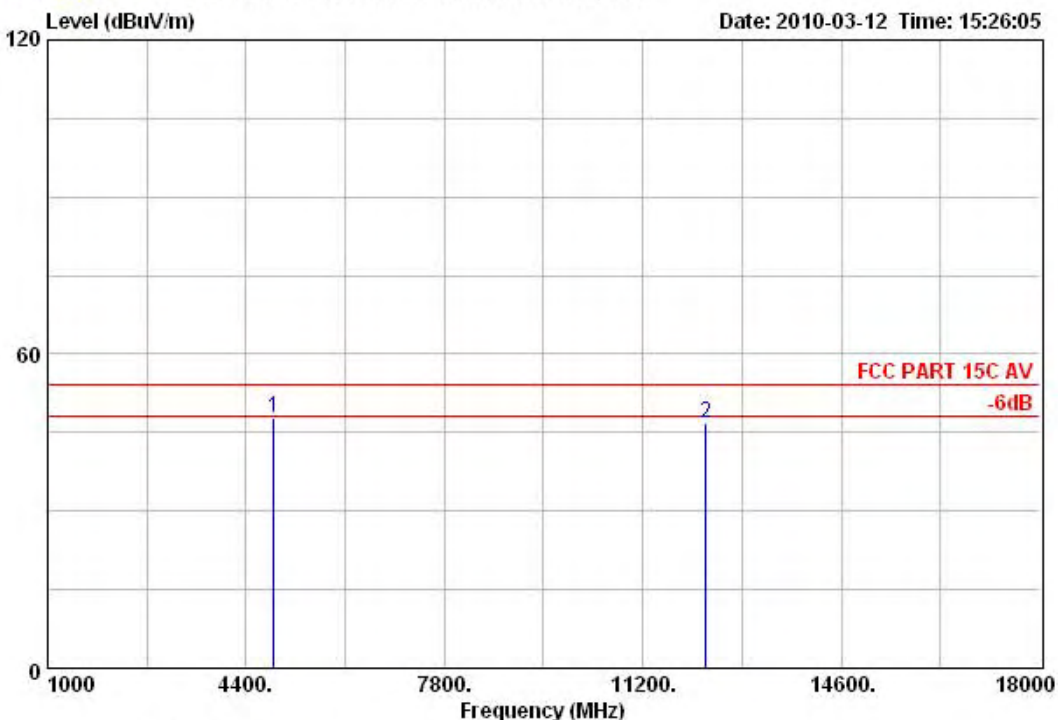
# NS Technology

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Data: 146

File: D:\Radiation data\Z\ZIONCOM1.EMI (169)

Date: 2010-03-12 Time: 15:26:05



Test Site : 966 Chamber  
 Limit : FCC PART 15C AV  
 Dis. / Ant. : 3m 3117 Ant. Pol.: HORIZONTAL  
 EUT : Wireless Router  
 M/N : IP04103  
 Power : DC 5V from adapter input AC 120V/60Hz  
 Test Engineer : Jade  
 Comment : Temp.:25.2'C Humi.:56% Press:101.51kPa  
 Test Mode : TX Mode 802.11g CH6 2437MHz

Freq. (MHz)	Emission			Margin (dB)	Reading (dBuV)	Ant. Cable		Remark
	Level (dBuV/m)	Limits (dBuV/m)				Factor (dB/m)	Loss (dB)	
1 4874.00	47.76	54.00	6.24	10.76	34.62	2.38	Average	
212288.00	46.86	54.00	7.14	4.10	39.92	2.84	Average	



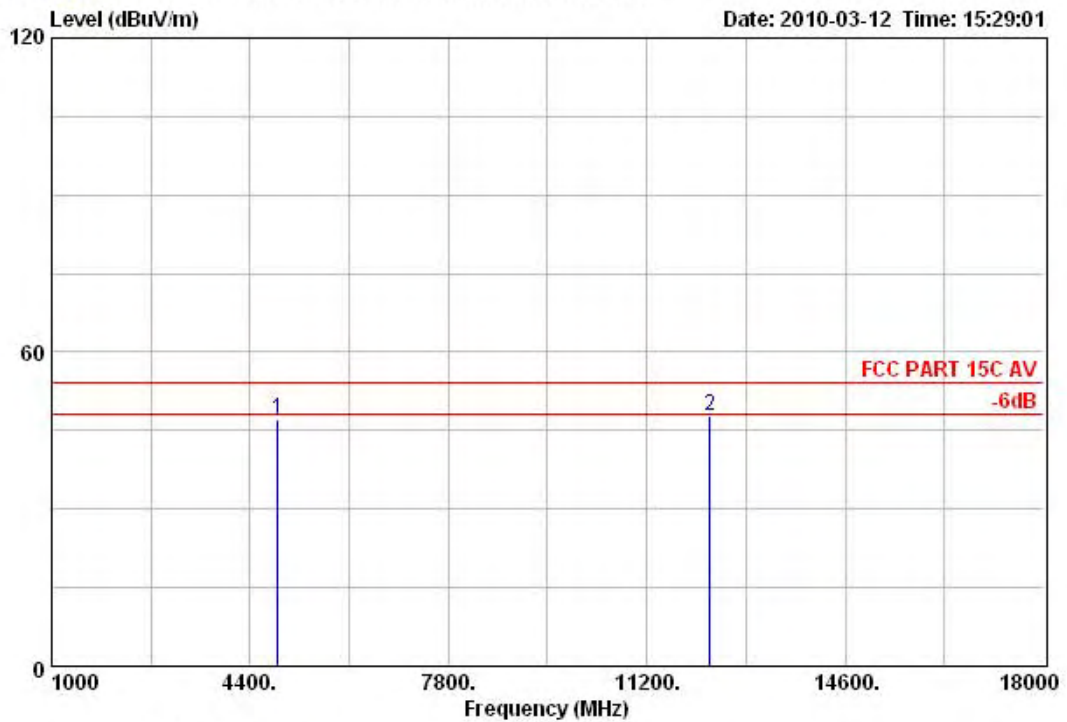
# NS Technology

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Dongguan, Guangdong, China  
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Fax: +86-769-85991080

Data: 147

File: D:\Radiation data\Z\ZIONCOM1.EMI (169)

Date: 2010-03-12 Time: 15:29:01



Test Site : 966 Chamber  
 Limit : FCC PART 15C AV  
 Dis. / Ant. : 3m 3117 Ant. Pol.: VERTICAL  
 EUT : Wireless Router  
 M/N : IP04103  
 Power : DC 5V from adapter input AC 120V/60Hz  
 Test Engineer : Jade  
 Comment : Temp.:25.2'C Humi.:56% Press:101.51kPa  
 Test Mode : TX Mode 802.11g CH6 2437MHz

Freq. (MHz)	Emission			Margin (dB)	Reading (dBuV)	Ant. Cable		Remark
	Level (dBuV/m)	Limits (dBuV/m)				Factor (dB/m)	Loss (dB)	
1 4874.00	47.21	54.00	6.79	10.21	34.62	2.38	Average	
21228.00	47.84	54.00	6.16	5.08	39.92	2.84	Average	





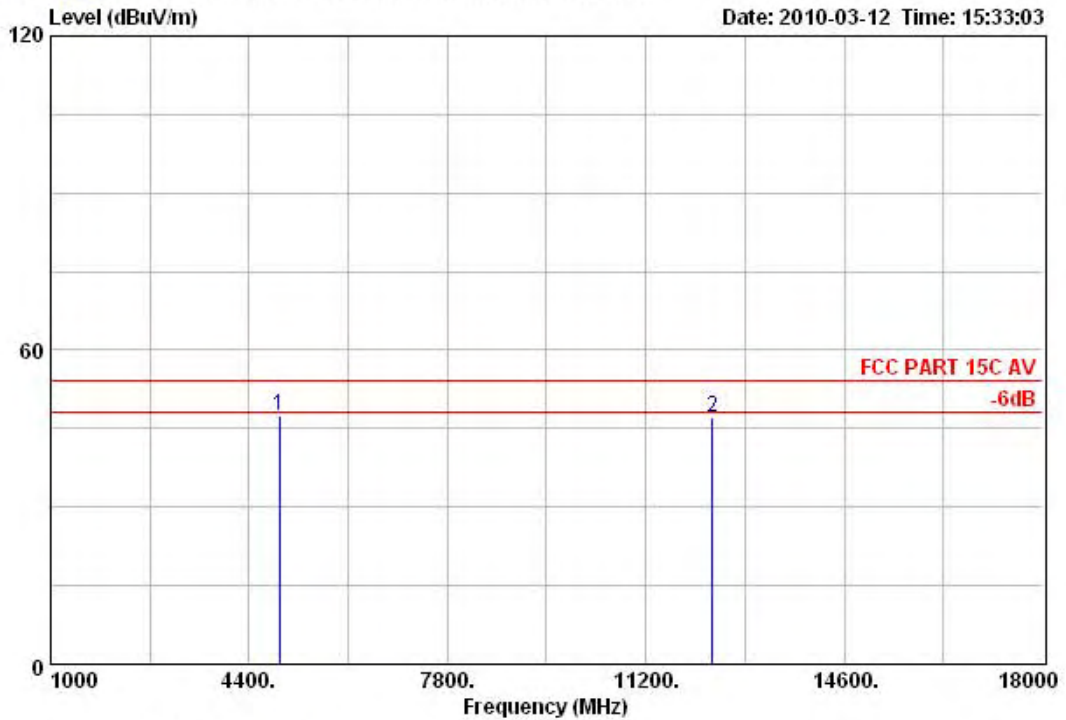
# NS Technology

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Dongguan, Guangdong, China  
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Data: 148

File: D:\Radiation data\Z\ZIONCOM1.EMI (169)

Date: 2010-03-12 Time: 15:33:03



Test Site : 966 Chamber  
 Limit : FCC PART 15C AV  
 Dis. / Ant. : 3m 3117 Ant. Pol.: VERTICAL  
 EUT : Wireless Router  
 M/N : IP04103  
 Power : DC 5V from adapter input AC 120V/60Hz  
 Test Engineer : Jade  
 Comment : Temp.:25.2'C Humi.:56% Press:101.51kPa  
 Test Mode : TX Mode 802.11g CH11 2462MHz

Freq. (MHz)	Emission			Margin (dB)	Reading (dBuV)	Ant. Cable		Remark
	Level (dBuV/m)	Limits (dBuV/m)				Factor (dB/m)	Loss (dB)	
1 4924.00	47.55	54.00	6.45	10.51	34.66	2.38	Average	
212339.00	47.17	54.00	6.83	4.39	39.94	2.84	Average	





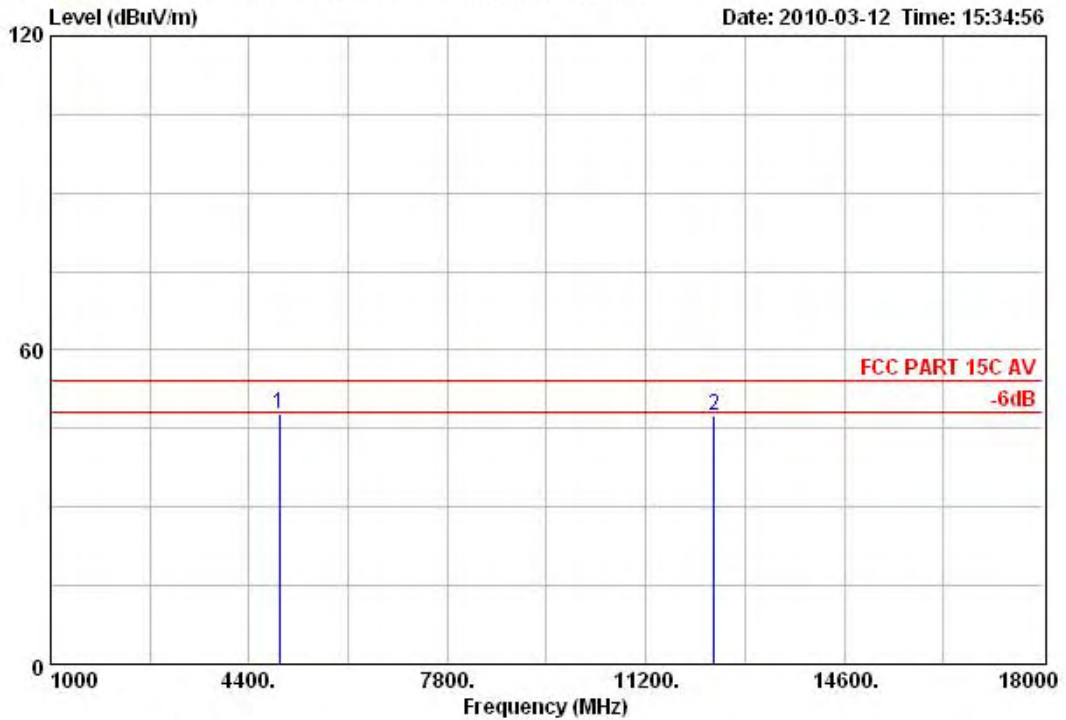
# NS Technology

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Dongguan, Guangdong, China  
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Data: 149

File: D:\Radiation data\Z\ZIONCOM1.EMI (169)

Date: 2010-03-12 Time: 15:34:56



Test Site : 966 Chamber  
 Limit : FCC PART 15C AV  
 Dis. / Ant. : 3m 3117 Ant. Pol.: HORIZONTAL  
 EUT : Wireless Router  
 M/N : IP04103  
 Power : DC 5V from adapter input AC 120V/60Hz  
 Test Engineer : Jade  
 Comment : Temp.:25.2'C Humi.:56% Press:101.51kPa  
 Test Mode : TX Mode 802.11g CH11 2462MHz

Freq. (MHz)	Emission			Margin (dB)	Reading (dBuV)	Ant. Cable		Remark
	Level (dBuV/m)	Limits (dBuV/m)				Factor (dB/m)	Loss (dB)	
1 4924.00	47.74	54.00	6.26	10.70	34.66	2.38	Average	
212373.00	47.57	54.00	6.43	4.78	39.95	2.84	Average	



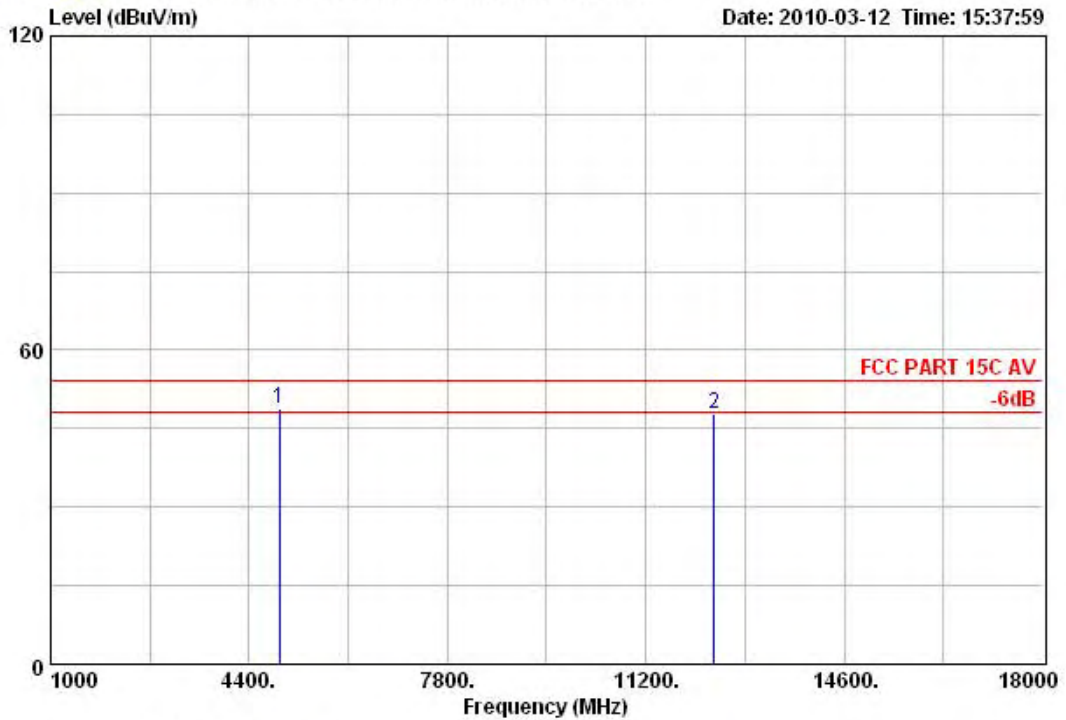
# NS Technology

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Data: 150

File: D:\Radiation data\Z\ZIONCOM1.EMI (169)

Date: 2010-03-12 Time: 15:37:59



Test Site : 966 Chamber  
 Limit : FCC PART 15C AV  
 Dis. / Ant. : 3m 3117 Ant. Pol.: HORIZONTAL  
 EUT : Wireless Router  
 M/N : IP04103  
 Power : DC 5V from adapter input AC 120V/60Hz  
 Test Engineer : Jade  
 Comment : Temp.:25.2'C Humi.:56% Press:101.51kPa  
 Test Mode : TX Mode 802.11b CH11 2462MHz

Freq. (MHz)	Emission			Margin (dB)	Reading (dBuV)	Ant. Cable		Remark
	Level (dBuV/m)	Limits (dBuV/m)				Factor (dB/m)	Loss (dB)	
1 4924.00	48.84	54.00	5.16	11.80	34.66	2.38	Average	
212373.00	47.87	54.00	6.13	5.08	39.95	2.84	Average	



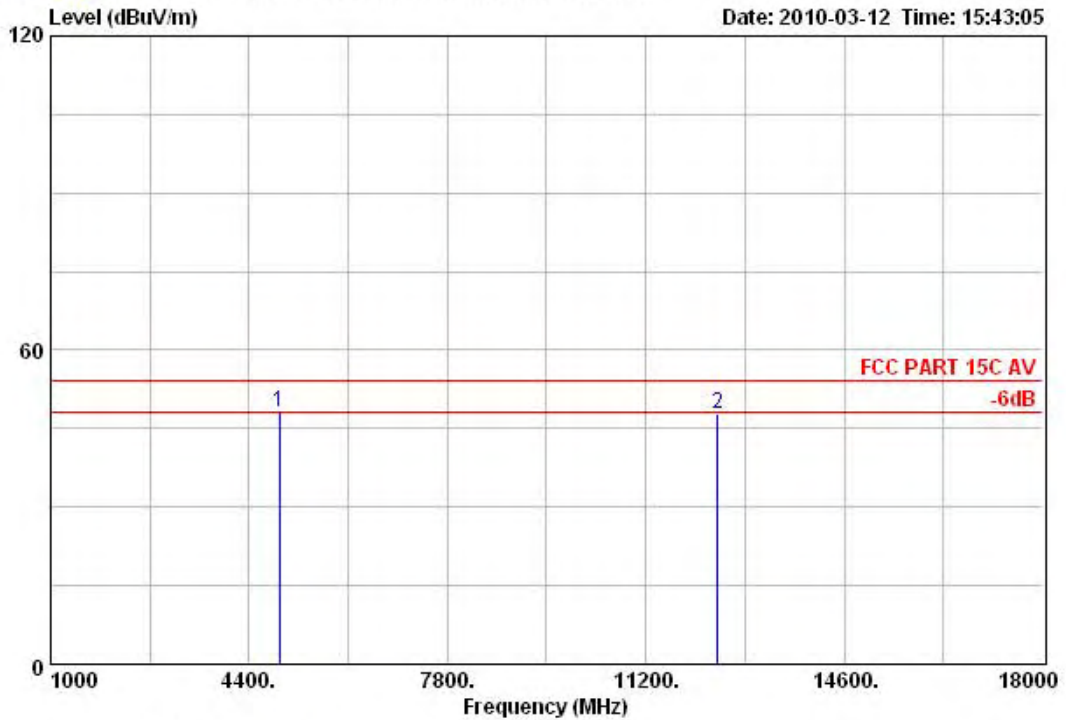
# NS Technology

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Dongguan, Guangdong, China  
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Data: 151

File: D:\Radiation data\Z\ZIONCOM1.EMI (169)

Date: 2010-03-12 Time: 15:43:05



Test Site : 966 Chamber  
 Limit : FCC PART 15C AV  
 Dis. / Ant. : 3m 3117 Ant. Pol.: VERTICAL  
 EUT : Wireless Router  
 M/N : IP04103  
 Power : DC 5V from adapter input AC 120V/60Hz  
 Test Engineer : Jade  
 Comment : Temp.:25.2'C Humi.:56% Press:101.51kPa  
 Test Mode : TX Mode 802.11b CH11 2462MHz

Freq. (MHz)	Emission			Margin (dB)	Reading (dBuV)	Ant. Cable		Remark
	Level (dBuV/m)	Limits (dBuV/m)				Factor (dB/m)	Loss (dB)	
1 4924.00	48.16	54.00	5.84	11.12	34.66	2.38	Average	
212424.00	47.67	54.00	6.33	4.85	39.97	2.85	Average	



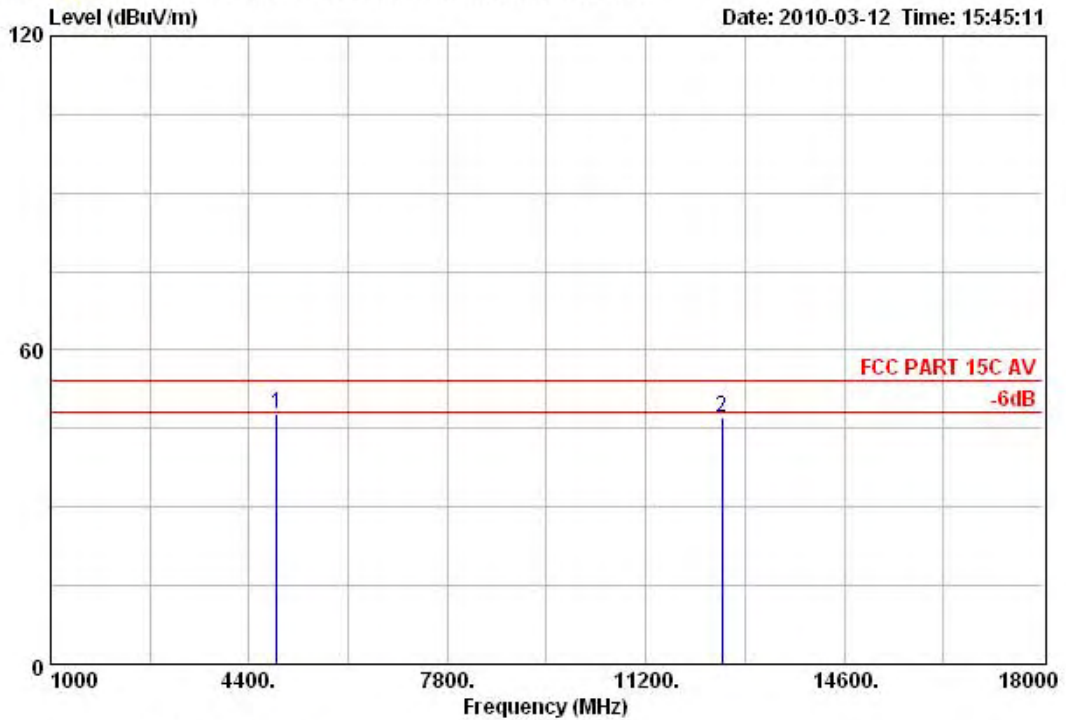
# NS Technology

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Data: 152

File: D:\Radiation data\Z\ZIONCOM1.EMI (169)

Date: 2010-03-12 Time: 15:45:11



Test Site : 966 Chamber  
 Limit : FCC PART 15C AV  
 Dis. / Ant. : 3m 3117 Ant. Pol.: VERTICAL  
 EUT : Wireless Router  
 M/N : IP04103  
 Power : DC 5V from adapter input AC 120V/60Hz  
 Test Engineer : Jade  
 Comment : Temp.:25.2'C Humi.:56% Press:101.51kPa  
 Test Mode : TX Mode 802.11b CH6 2437MHz

Freq. (MHz)	Emission			Margin (dB)	Reading (dBuV)	Ant. Cable		Remark
	Level (dBuV/m)	Limits (dBuV/m)				Factor (dB/m)	Loss (dB)	
1 4874.00	47.75	54.00	6.25	10.75	34.62	2.38	Average	
212509.00	47.17	54.00	6.83	4.31	40.01	2.85	Average	



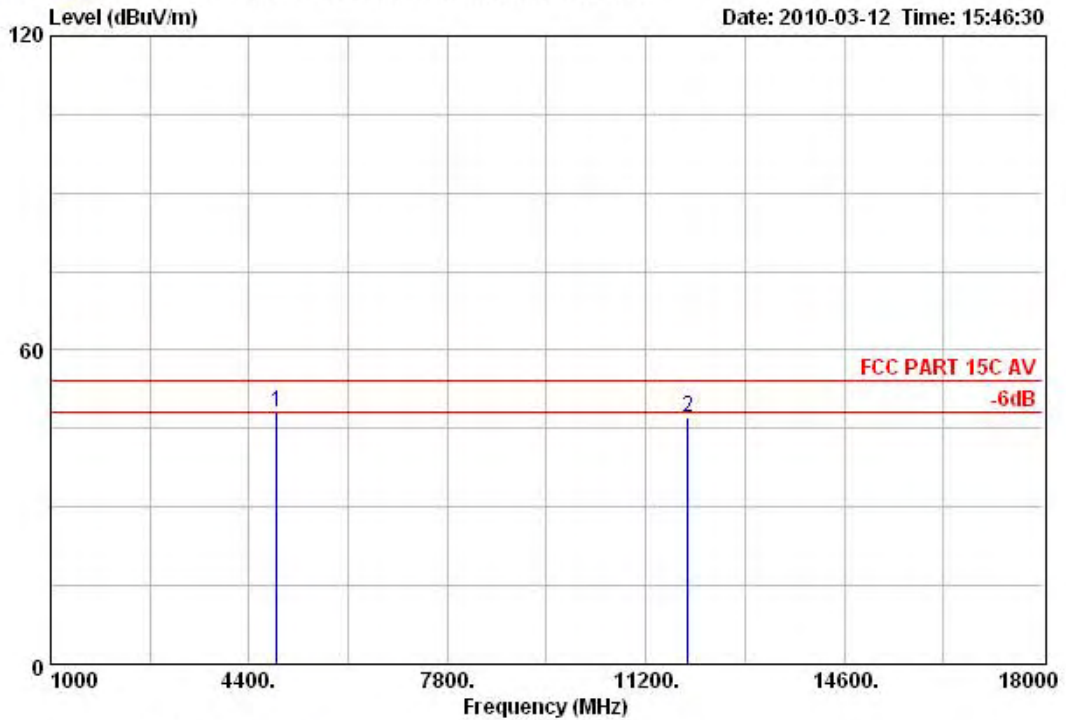
# NS Technology

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Dongguan, Guangdong, China  
Tel: +86-769-85935656  
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Data: 153

File: D:\Radiation data\Z\ZIONCOM1.EMI (169)

Date: 2010-03-12 Time: 15:46:30



Test Site : 966 Chamber  
 Limit : FCC PART 15C AV  
 Dis. / Ant. : 3m 3117 Ant. Pol.: HORIZONTAL  
 EUT : Wireless Router  
 M/N : IP04103  
 Power : DC 5V from adapter input AC 120V/60Hz  
 Test Engineer : Jade  
 Comment : Temp.:25.2'C Humi.:56% Press:101.51kPa  
 Test Mode : TX Mode 802.11b CH6 2437MHz

Freq. (MHz)	Emission			Margin (dB)	Reading (dBuV)	Ant. Cable		Remark
	Level (dBuV/m)	Limits (dBuV/m)				Factor (dB/m)	Loss (dB)	
1 4874.00	48.09	54.00	5.91	11.09	34.62	2.38	Average	
211914.00	47.16	54.00	6.84	4.67	39.67	2.82	Average	



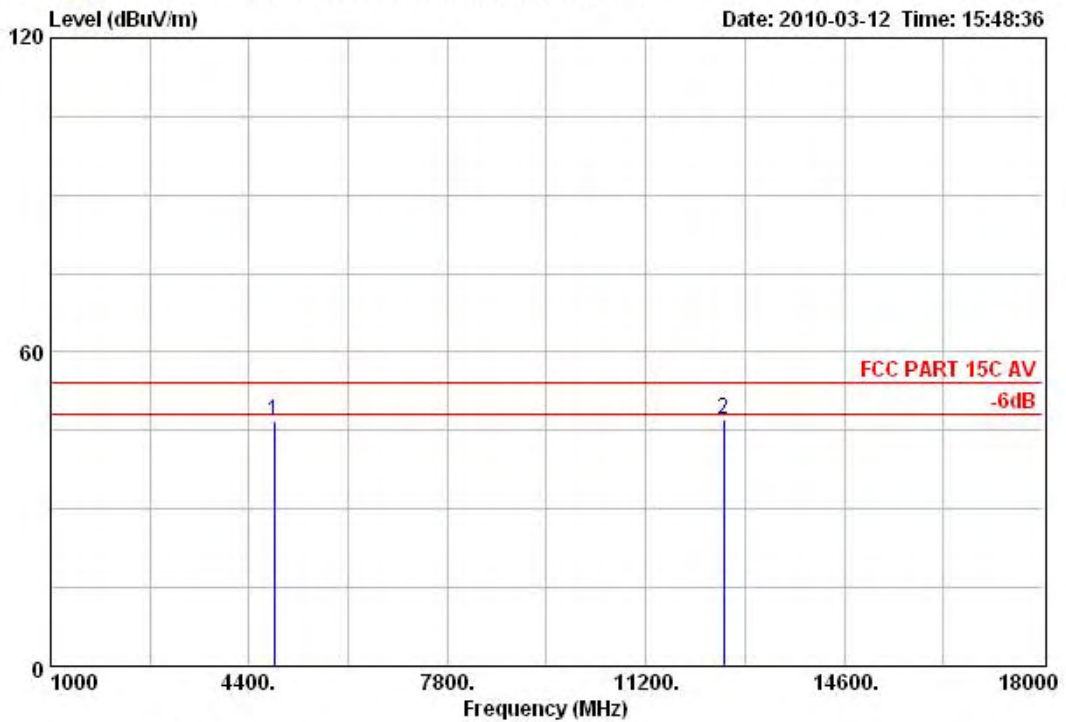
# NS Technology

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Data: 154

File: D:\Radiation data\Z\ZIONCOM1.EMI (169)

Date: 2010-03-12 Time: 15:48:36



Test Site : 966 Chamber  
 Limit : FCC PART 15C AV  
 Dis. / Ant. : 3m 3117 Ant. Pol.: HORIZONTAL  
 EUT : Wireless Router  
 M/N : IP04103  
 Power : DC 5V from adapter input AC 120V/60Hz  
 Test Engineer : Jade  
 Comment : Temp.:25.2'C Humi.:56% Press:101.51kPa  
 Test Mode : TX Mode 802.11b CH1 2412MHz

Freq. (MHz)	Emission			Margin (dB)	Reading (dBuV)	Ant. Cable		Remark
	Level (dBuV/m)	Limits (dBuV/m)				Factor (dB/m)	Loss (dB)	
1 4824.00	46.86	54.00	7.14	9.89	34.59	2.38	Average	
212543.00	47.01	54.00	6.99	4.13	40.03	2.85	Average	





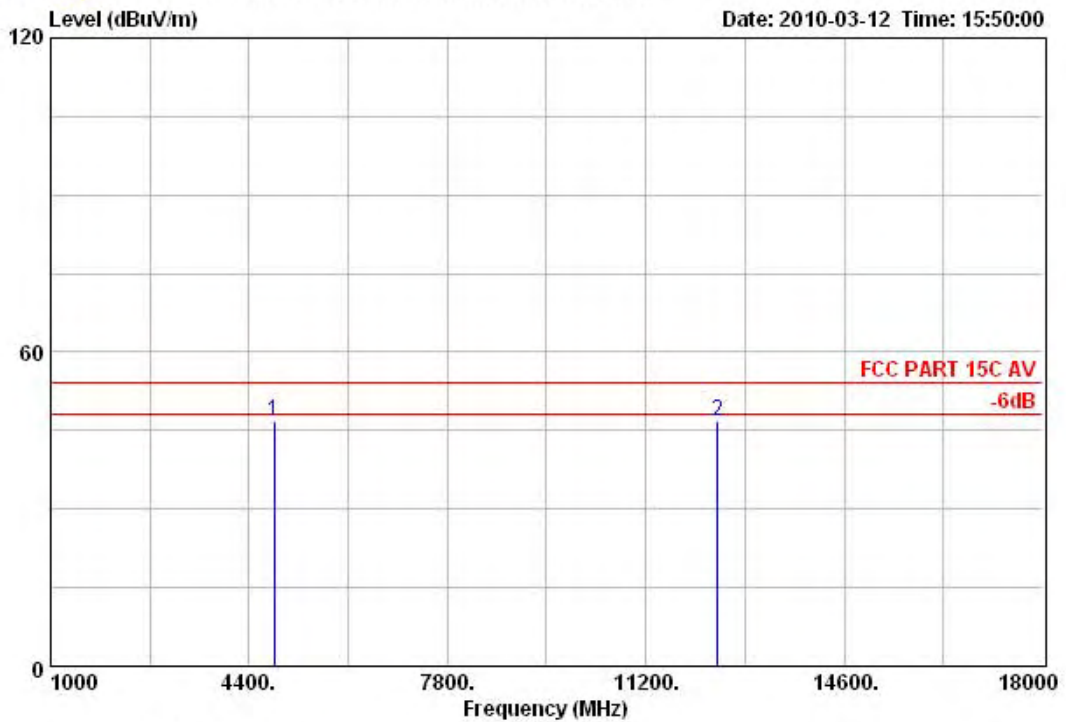
# NS Technology

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Fax: +86-769-85991080

Data: 155

File: D:\Radiation data\Z\ZIONCOM1.EMI (169)

Date: 2010-03-12 Time: 15:50:00



Test Site : 966 Chamber  
 Limit : FCC PART 15C AV  
 Dis. / Ant. : 3m 3117 Ant. Pol.: VERTICAL  
 EUT : Wireless Router  
 M/N : IP04103  
 Power : DC 5V from adapter input AC 120V/60Hz  
 Test Engineer : Jade  
 Comment : Temp.:25.2'C Humi.:56% Press:101.51kPa  
 Test Mode : TX Mode 802.11b CH1 2412MHz

Freq. (MHz)	Emission			Margin (dB)	Reading (dBuV)	Ant. Cable		Remark
	Level (dBuV/m)	Limits (dBuV/m)				Factor (dB/m)	Loss (dB)	
1 4824.00	46.87	54.00	7.13	9.90	34.59	2.38	Average	
212424.00	46.78	54.00	7.22	3.96	39.97	2.85	Average	



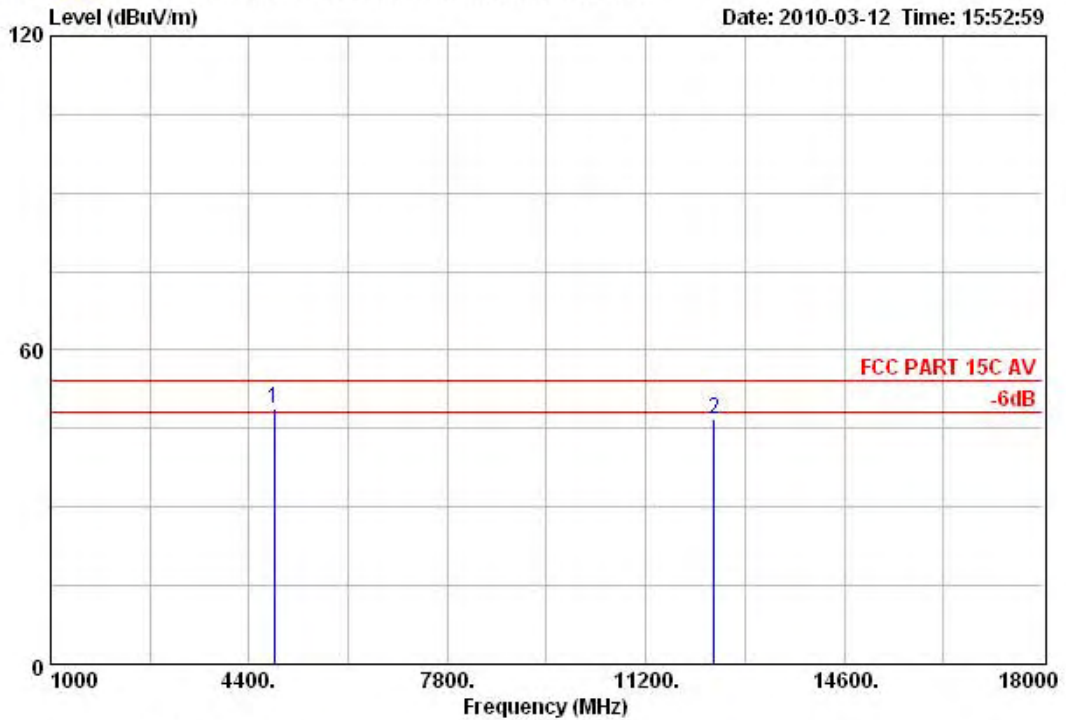
# NS Technology

Chenwu Industrial Zone, Houjie Town,  
Dongguan, Guangdong, China  
Tel: +86-769-85935656  
Fax: +86-769-85991080

Data: 156

File: D:\Radiation data\Z\ZIONCOM1.EMI (169)

Date: 2010-03-12 Time: 15:52:59



Test Site : 966 Chamber  
 Limit : FCC PART 15C AV  
 Dis. / Ant. : 3m 3117 Ant. Pol.: VERTICAL  
 EUT : Wireless Router  
 M/N : IP04103  
 Power : DC 5V from adapter input AC 120V/60Hz  
 Test Engineer : Jade  
 Comment : Temp.:25.2'C Humi.:56% Press:101.51kPa  
 Test Mode : TX Mode 802.11n HT20 CH1 2412MHz

Freq. (MHz)	Emission			Margin (dB)	Reading (dBuV)	Ant. Cable		Remark
	Level (dBuV/m)	Limits (dBuV/m)				Factor (dB/m)	Loss (dB)	
1 4824.00	48.94	54.00	5.06	11.97	34.59	2.38	Average	
212373.00	46.94	54.00	7.06	4.15	39.95	2.84	Average	



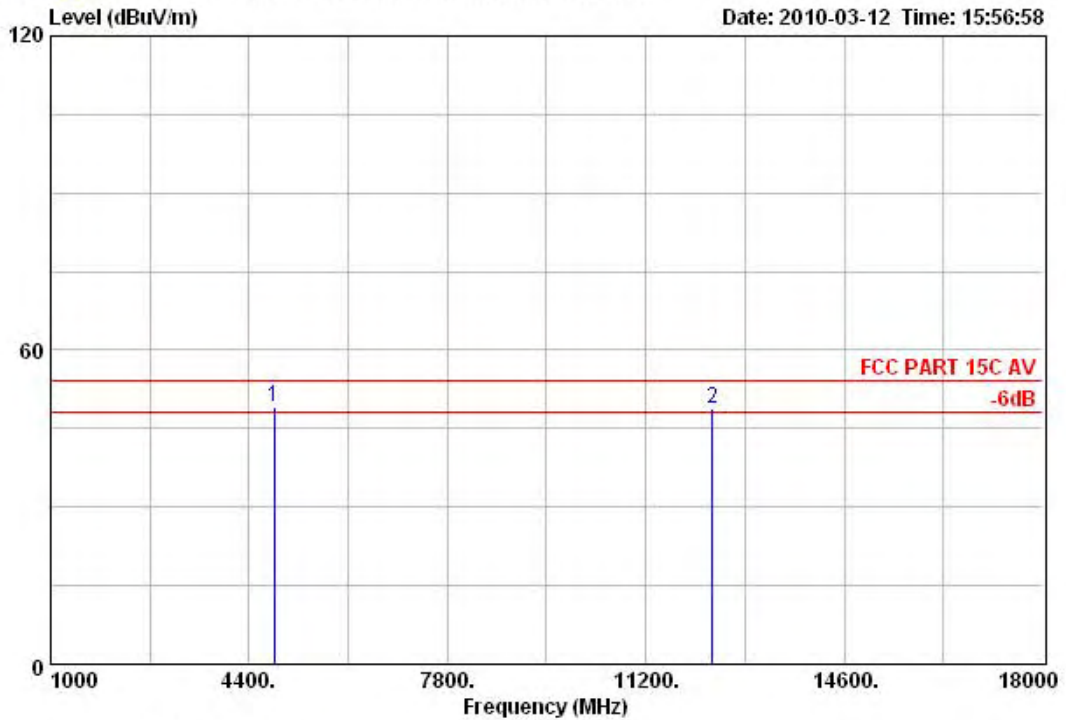
# NS Technology

Chenwu Industrial Zone, Houjie Town,  
Dongguan, Guangdong, China  
Tel: +86-769-85935656  
Fax: +86-769-85991080

Data: 157

File: D:\Radiation data\Z\ZIONCOM1.EMI (169)

Date: 2010-03-12 Time: 15:56:58



Test Site : 966 Chamber  
 Limit : FCC PART 15C AV  
 Dis. / Ant. : 3m 3117 Ant. Pol.: HORIZONTAL  
 EUT : Wireless Router  
 M/N : IP04103  
 Power : DC 5V from adapter input AC 120V/60Hz  
 Test Engineer : Jade  
 Comment : Temp.:25.2'C Humi.:56% Press:101.51kPa  
 Test Mode : TX Mode 802.11n HT20 CH1 2412MHz

Freq. (MHz)	Emission			Margin (dB)	Reading (dBuV)	Ant. Cable		Remark
	Level (dBuV/m)	Limits (dBuV/m)				Factor (dB/m)	Loss (dB)	
1 4824.00	49.16	54.00	4.84	12.19	34.59	2.38	Average	
212339.00	48.74	54.00	5.26	5.96	39.94	2.84	Average	



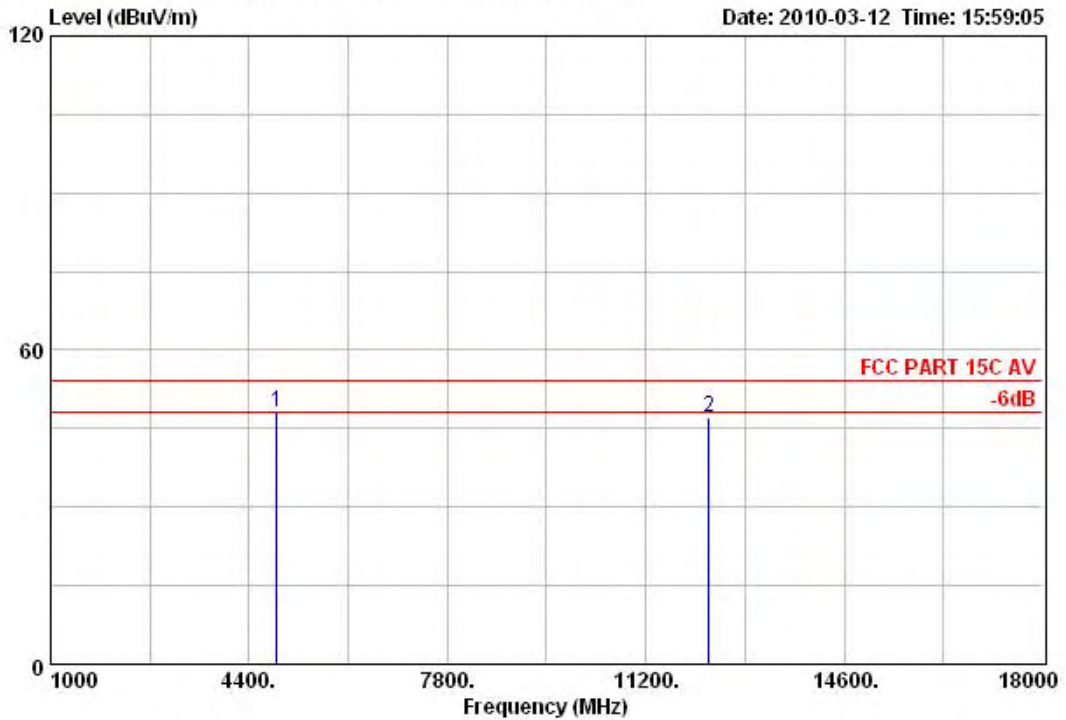
# NS Technology

Chenwu Industrial Zone, Houjie Town,  
Dongguan, Guangdong, China  
Tel: +86-769-85935656  
Fax: +86-769-85991080

Data: 158

File: D:\Radiation data\Z\ZIONCOM1.EMI (169)

Date: 2010-03-12 Time: 15:59:05



Test Site : 966 Chamber  
 Limit : FCC PART 15C AV  
 Dis. / Ant. : 3m 3117 Ant. Pol.: HORIZONTAL  
 EUT : Wireless Router  
 M/N : IP04103  
 Power : DC 5V from adapter input AC 120V/60Hz  
 Test Engineer : Jade  
 Comment : Temp.:25.2'C Humi.:56% Press:101.51kPa  
 Test Mode : TX Mode 802.11n HT20 CH6 2437MHz

Freq. (MHz)	Emission			Margin (dB)	Reading (dBuV)	Ant. Cable		Remark
	Level (dBuV/m)	Limits (dBuV/m)				Factor (dB/m)	Loss (dB)	
1 4874.00	48.16	54.00	5.84	11.16	34.62	2.38	Average	
21228.00	47.04	54.00	6.96	4.28	39.92	2.84	Average	



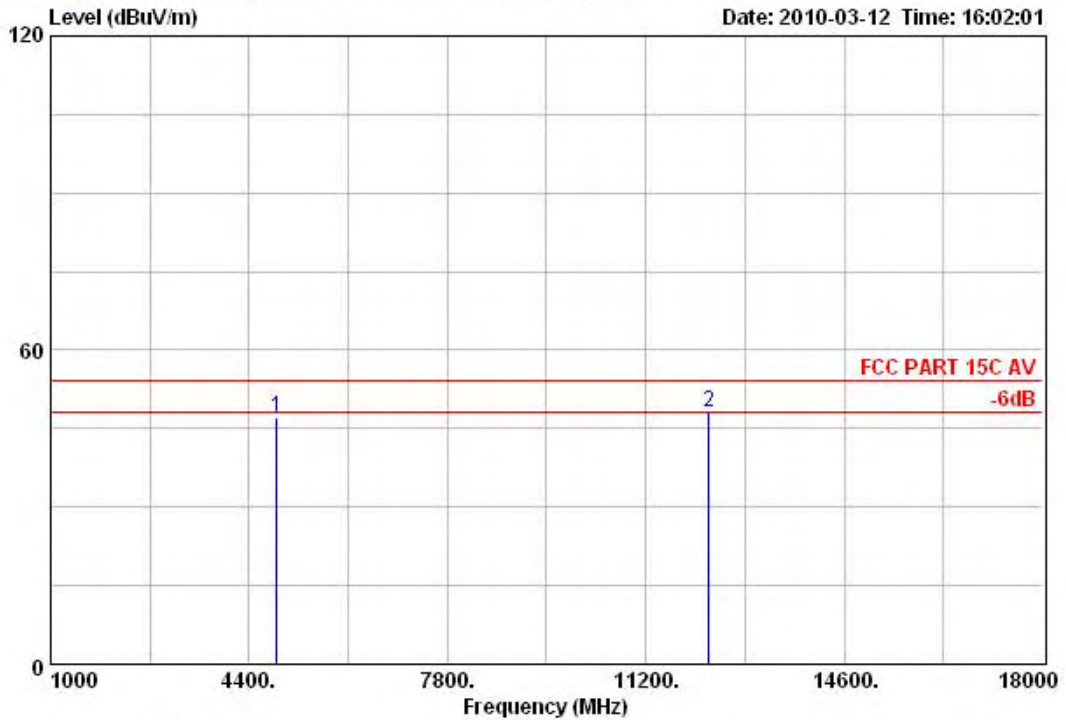
# NS Technology

Chenwu Industrial Zone, Houjie Town,  
Dongguan, Guangdong, China  
Tel: +86-769-85935656  
Fax: +86-769-85991080

Data: 159

File: D:\Radiation data\Z\ZIONCOM1.EMI (169)

Date: 2010-03-12 Time: 16:02:01



Test Site : 966 Chamber  
 Limit : FCC PART 15C AV  
 Dis. / Ant. : 3m 3117 Ant. Pol.: VERTICAL  
 EUT : Wireless Router  
 M/N : IP04103  
 Power : DC 5V from adapter input AC 120V/60Hz  
 Test Engineer : Jade  
 Comment : Temp.:25.2'C Humi.:56% Press:101.51kPa  
 Test Mode : TX Mode 802.11n HT20 CH6 2437MHz

Freq. (MHz)	Emission			Margin (dB)	Reading (dBuV)	Ant. Cable		Remark
	Level (dBuV/m)	Limits (dBuV/m)				Factor (dB/m)	Loss (dB)	
1 4874.00	47.09	54.00	6.91	10.09	34.62	2.38	Average	
212288.00	48.14	54.00	5.86	5.38	39.92	2.84	Average	



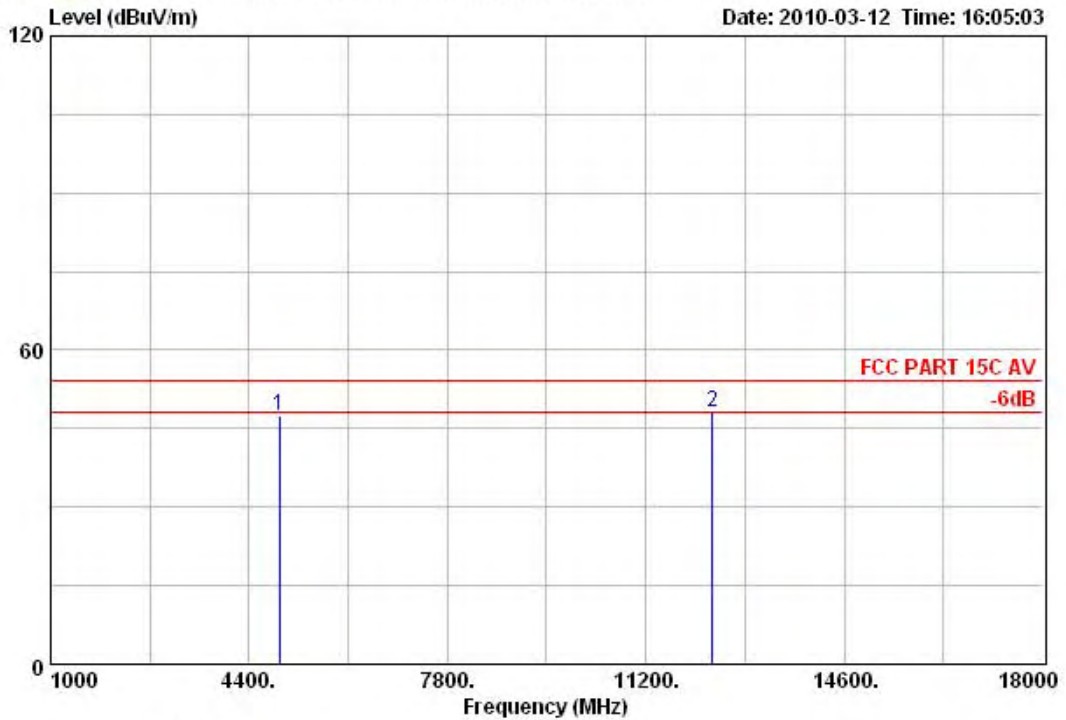
# NS Technology

Chenwu Industrial Zone, Houjie Town,  
Dongguan, Guangdong, China  
Tel: +86-769-85935656  
Fax: +86-769-85991080

Data: 160

File: D:\Radiation data\Z\ZIONCOM1.EMI (169)

Date: 2010-03-12 Time: 16:05:03



Test Site : 966 Chamber  
 Limit : FCC PART 15C AV  
 Dis. / Ant. : 3m 3117 Ant. Pol.: VERTICAL  
 EUT : Wireless Router  
 M/N : IP04103  
 Power : DC 5V from adapter input AC 120V/60Hz  
 Test Engineer : Jade  
 Comment : Temp.:25.2'C Humi.:56% Press:101.51kPa  
 Test Mode : TX Mode 802.11n HT20 CH11 2462MHz

Freq. (MHz)	Emission			Margin (dB)	Reading (dBuV)	Ant. Cable		Remark
	Level (dBuV/m)	Limits (dBuV/m)				Factor (dB/m)	Loss (dB)	
1 4924.00	47.58	54.00	6.42	10.54	34.66	2.38	Average	
212339.00	48.13	54.00	5.87	5.35	39.94	2.84	Average	





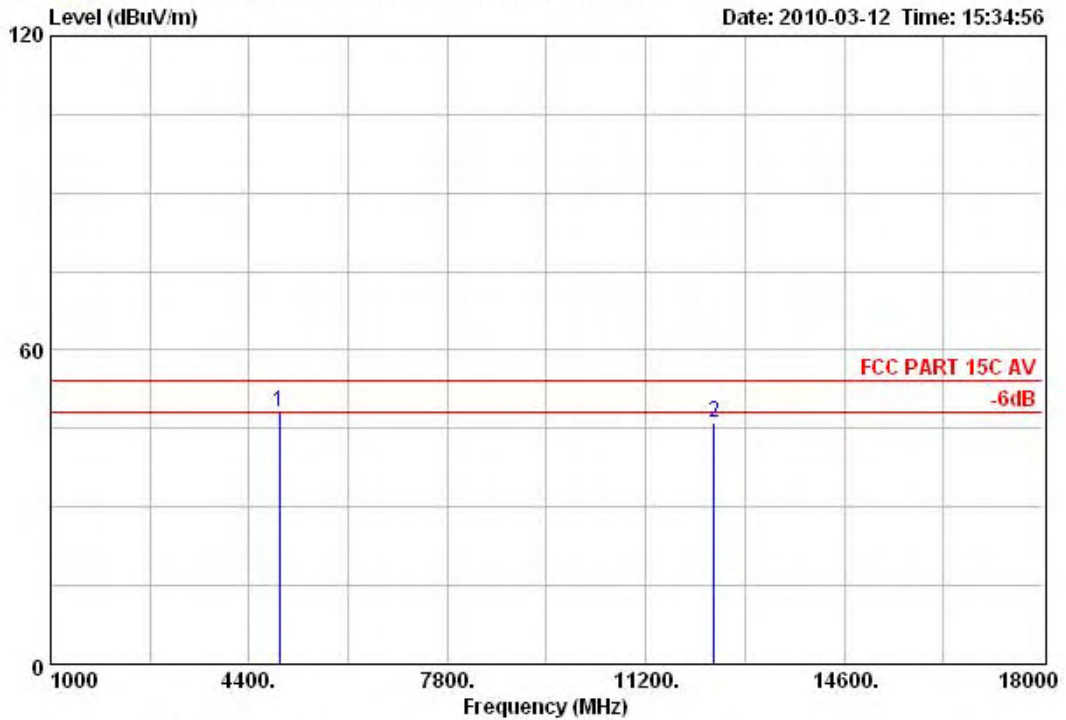
# NS Technology

Chenwu Industrial Zone, Houjie Town,  
Dongguan, Guangdong, China  
Tel: +86-769-85935656  
Fax: +86-769-85991080

Data: 161

File: D:\Radiation data\Z\ZIONCOM1.EMI (169)

Date: 2010-03-12 Time: 15:34:56



Test Site : 966 Chamber  
 Limit : FCC PART 15C AV  
 Dis. / Ant. : 3m 3117 Ant. Pol.: HORIZONTAL  
 EUT : Wireless Router  
 M/N : IP04103  
 Power : DC 5V from adapter input AC 120V/60Hz  
 Test Engineer : Jade  
 Comment : Temp.:25.2'C Humi.:56% Press:101.51kPa  
 Test Mode : TX Mode 802.11n HT20 CH11 2462MHz

Freq. (MHz)	Emission			Margin (dB)	Reading (dBuV)	Ant. Cable		Remark
	Level (dBuV/m)	Limits (dBuV/m)				Factor (dB/m)	Loss (dB)	
1 4924.00	48.27	54.00	5.73	11.23	34.66	2.38	Average	
212373.00	46.27	54.00	7.73	3.48	39.95	2.84	Average	



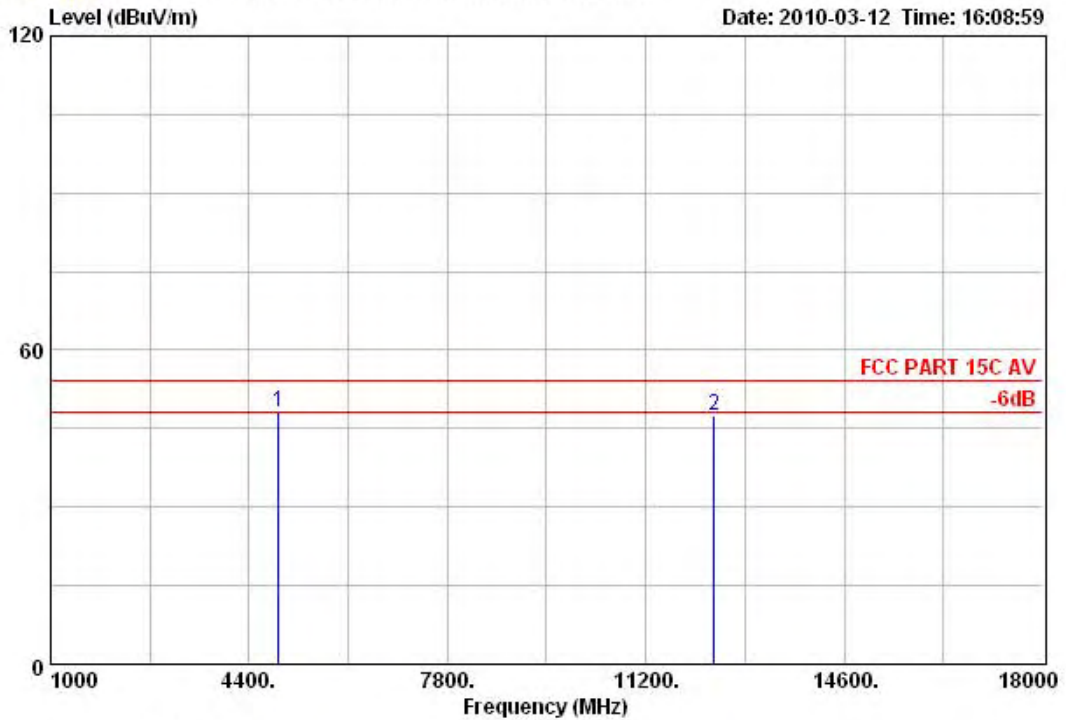
# NS Technology

Chenwu Industrial Zone, Houjie Town,  
Dongguan, Guangdong, China  
Tel: +86-769-85935656  
Fax: +86-769-85991080

Data: 162

File: D:\Radiation data\Z\ZIONCOM1.EMI (169)

Date: 2010-03-12 Time: 16:08:59



Test Site : 966 Chamber  
 Limit : FCC PART 15C AV  
 Dis. / Ant. : 3m 3117 Ant. Pol.: HORIZONTAL  
 EUT : Wireless Router  
 M/N : IP04103  
 Power : DC 5V from adapter input AC 120V/60Hz  
 Test Engineer : Jade  
 Comment : Temp.:25.2'C Humi.:56% Press:101.51kPa  
 Test Mode : TX Mode 802.11n HT40 CH7 2452MHz

Freq. (MHz)	Emission			Margin (dB)	Reading (dBuV)	Ant. Cable		Remark
	Level (dBuV/m)	Limits (dBuV/m)				Factor (dB/m)	Loss (dB)	
1 4904.00	48.19	54.00	5.81	11.18	34.63	2.38	Average	
212373.00	47.43	54.00	6.57	4.64	39.95	2.84	Average	



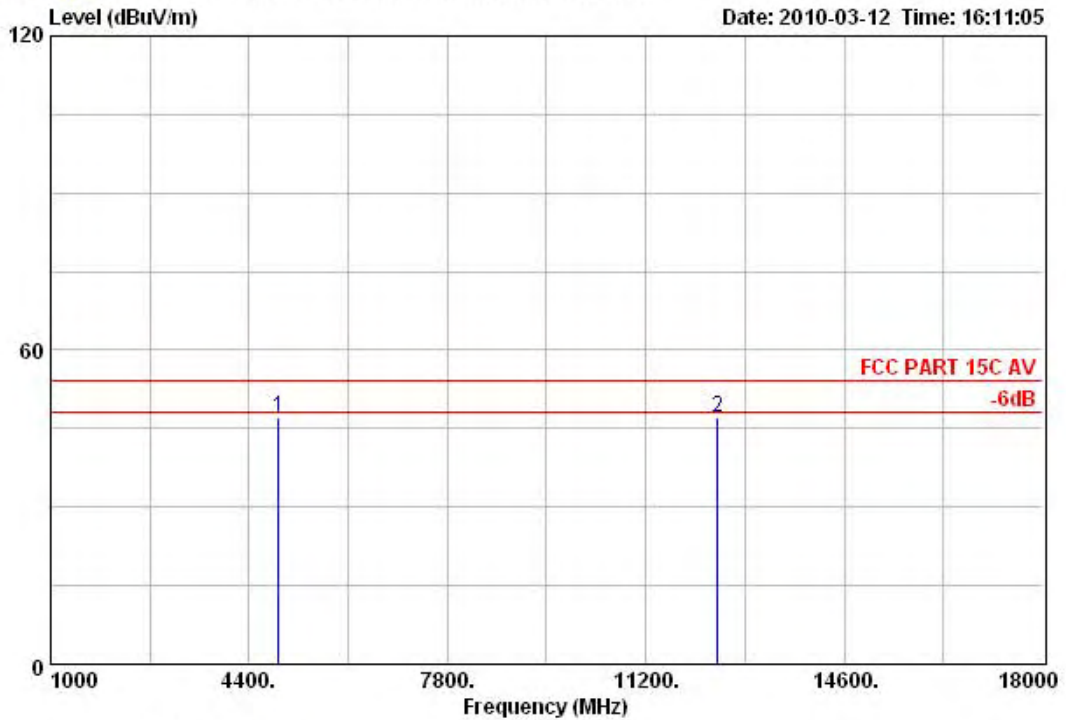
# NS Technology

Chenwu Industrial Zone, Houjie Town,  
Dongguan, Guangdong, China  
Tel: +86-769-85935656  
Fax: +86-769-85991080

Data: 163

File: D:\Radiation data\Z\ZIONCOM1.EMI (169)

Date: 2010-03-12 Time: 16:11:05



Test Site : 966 Chamber  
 Limit : FCC PART 15C AV  
 Dis. / Ant. : 3m 3117 Ant. Pol.: VERTICAL  
 EUT : Wireless Router  
 M/N : IP04103  
 Power : DC 5V from adapter input AC 120V/60Hz  
 Test Engineer : Jade  
 Comment : Temp.:25.2'C Humi.:56% Press:101.51kPa  
 Test Mode : TX Mode 802.11n HT40 CH7 2452MHz

Freq. (MHz)	Emission			Margin (dB)	Reading (dBuV)	Ant. Cable		Remark
	Level (dBuV/m)	Limits (dBuV/m)				Factor (dB/m)	Loss (dB)	
1 4904.00	47.12	54.00	6.88	10.11	34.63	2.38	Average	
212424.00	47.29	54.00	6.71	4.47	39.97	2.85	Average	



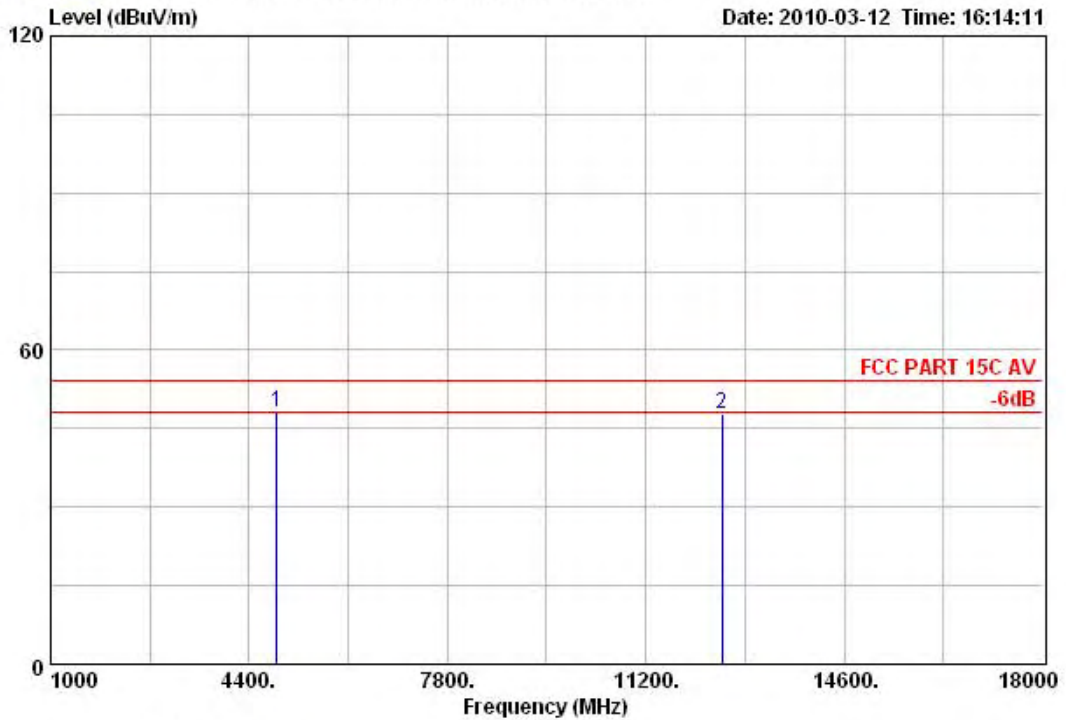
# NS Technology

Chenwu Industrial Zone, Houjie Town,  
Dongguan, Guangdong, China  
Tel: +86-769-85935656  
Fax: +86-769-85991080

Data: 164

File: D:\Radiation data\Z\ZIONCOM1.EMI (169)

Date: 2010-03-12 Time: 16:14:11



Test Site : 966 Chamber  
 Limit : FCC PART 15C AV  
 Dis. / Ant. : 3m 3117 Ant. Pol.: VERTICAL  
 EUT : Wireless Router  
 M/N : IP04103  
 Power : DC 5V from adapter input AC 120V/60Hz  
 Test Engineer : Jade  
 Comment : Temp.:25.2'C Humi.:56% Press:101.51kPa  
 Test Mode : TX Mode 802.11n HT40 CH4 2437MHz

Freq. (MHz)	Emission			Margin (dB)	Reading (dBuV)	Ant. Cable		Remark
	Level (dBuV/m)	Limits (dBuV/m)				Factor (dB/m)	Loss (dB)	
1 4874.00	48.27	54.00	5.73	11.27	34.62	2.38	Average	
212509.00	47.87	54.00	6.13	5.01	40.01	2.85	Average	



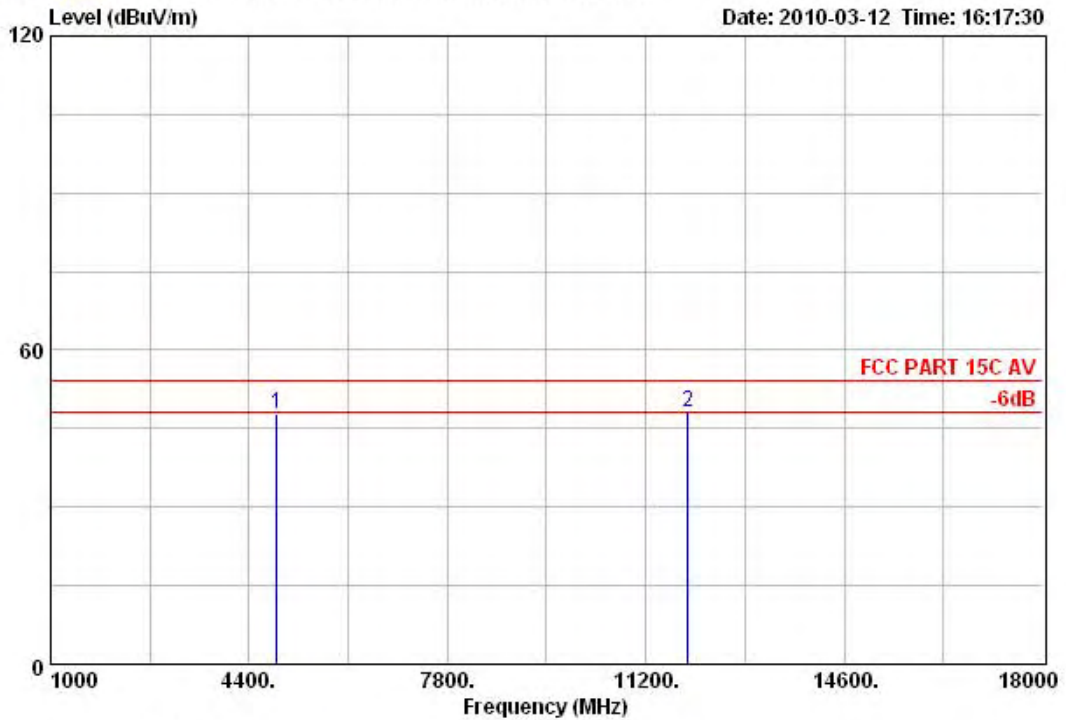
# NS Technology

Chenwu Industrial Zone, Houjie Town,  
Dongguan, Guangdong, China  
Tel: +86-769-85935656  
Fax: +86-769-85991080

Data: 165

File: D:\Radiation data\Z\ZIONCOM1.EMI (169)

Date: 2010-03-12 Time: 16:17:30



Test Site : 966 Chamber  
 Limit : FCC PART 15C AV  
 Dis. / Ant. : 3m 3117 Ant. Pol.: HORIZONTAL  
 EUT : Wireless Router  
 M/N : IP04103  
 Power : DC 5V from adapter input AC 120V/60Hz  
 Test Engineer : Jade  
 Comment : Temp.:25.2'C Humi.:56% Press:101.51kPa  
 Test Mode : TX Mode 802.11n HT40 CH4 2437MHz

Freq. (MHz)	Emission			Margin (dB)	Reading (dBuV)	Ant. Cable		Remark
	Level (dBuV/m)	Limits (dBuV/m)				Factor (dB/m)	Loss (dB)	
1 4874.00	47.89	54.00	6.11	10.89	34.62	2.38	Average	
211914.00	48.08	54.00	5.92	5.59	39.67	2.82	Average	



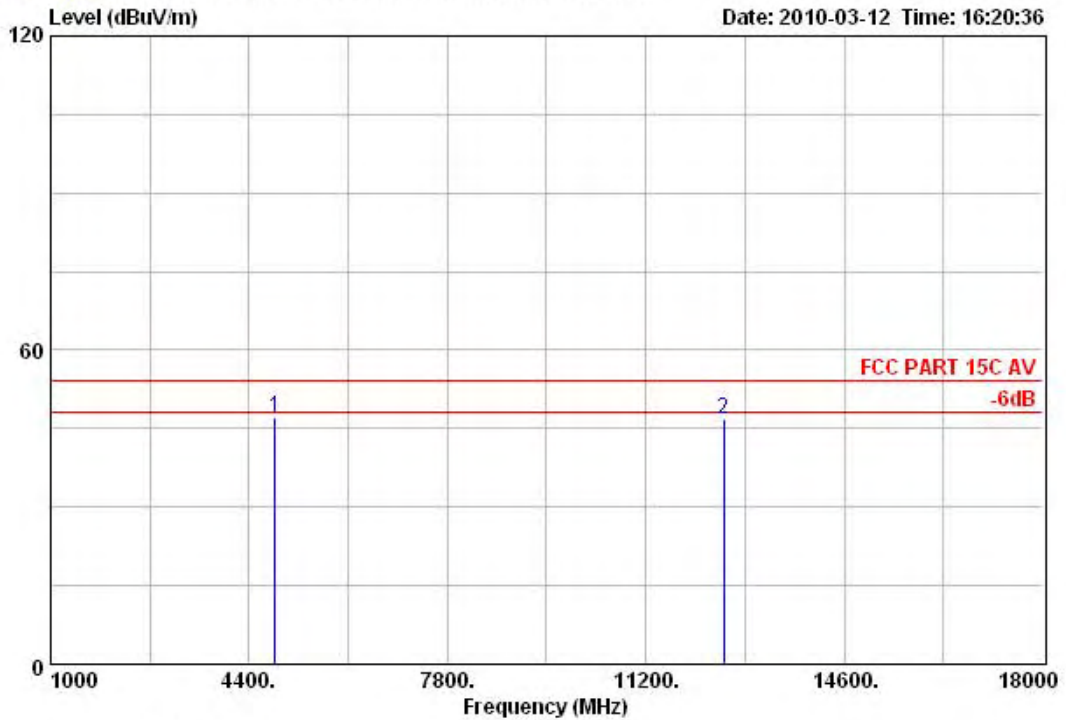
# NS Technology

Chenwu Industrial Zone, Houjie Town,  
Dongguan, Guangdong, China  
Tel: +86-769-85935656  
Fax: +86-769-85991080

Data: 166

File: D:\Radiation data\Z\ZIONCOM1.EMI (169)

Date: 2010-03-12 Time: 16:20:36



Test Site : 966 Chamber  
 Limit : FCC PART 15C AV  
 Dis. / Ant. : 3m 3117 Ant. Pol.: HORIZONTAL  
 EUT : Wireless Router  
 M/N : IP04103  
 Power : DC 5V from adapter input AC 120V/60Hz  
 Test Engineer : Jade  
 Comment : Temp.:25.2'C Humi.:56% Press:101.51kPa  
 Test Mode : TX Mode 802.11n HT40 CH1 2422MHz

Freq. (MHz)	Emission			Margin (dB)	Reading (dBuV)	Ant. Cable		Remark
	Level (dBuV/m)	Limits (dBuV/m)				Factor (dB/m)	Loss (dB)	
1 4844.00	46.98	54.00	7.02	10.00	34.60	2.38	Average	
212543.00	46.91	54.00	7.09	4.03	40.03	2.85	Average	





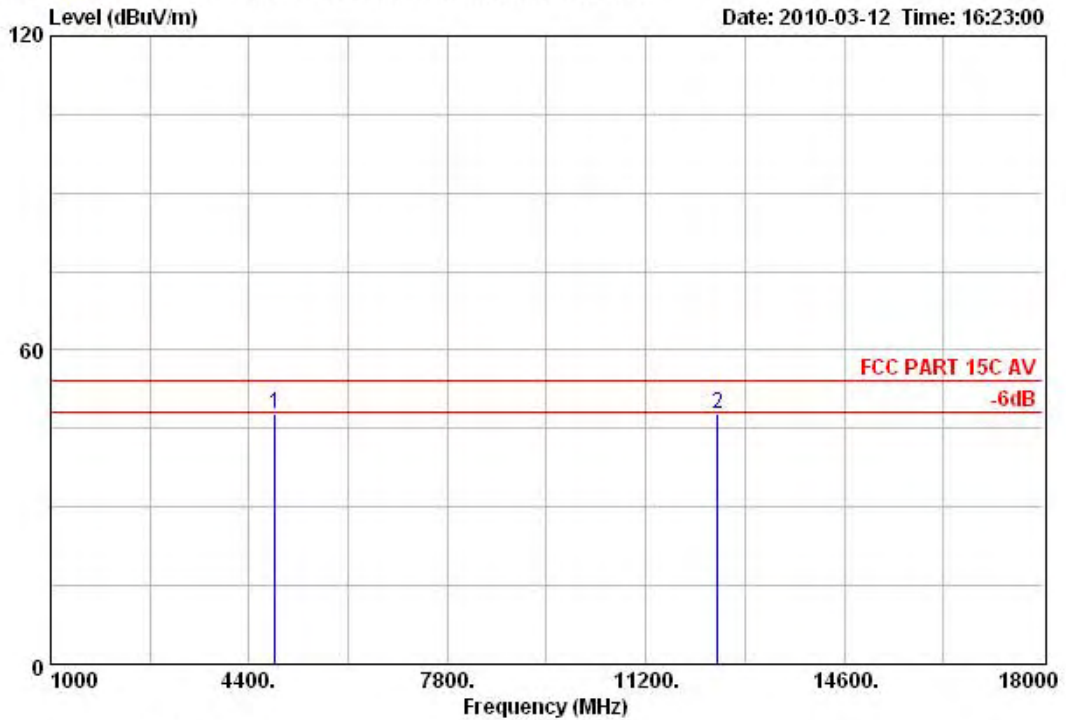
# NS Technology

Chenwu Industrial Zone, Houjie Town,  
Dongguan, Guangdong, China  
Tel: +86-769-85935656  
Fax: +86-769-85991080

Data: 167

File: D:\Radiation data\Z\ZIONCOM1.EMI (169)

Date: 2010-03-12 Time: 16:23:00



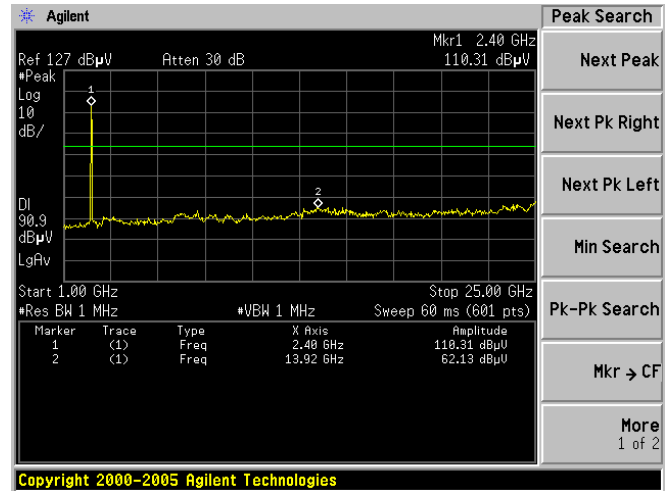
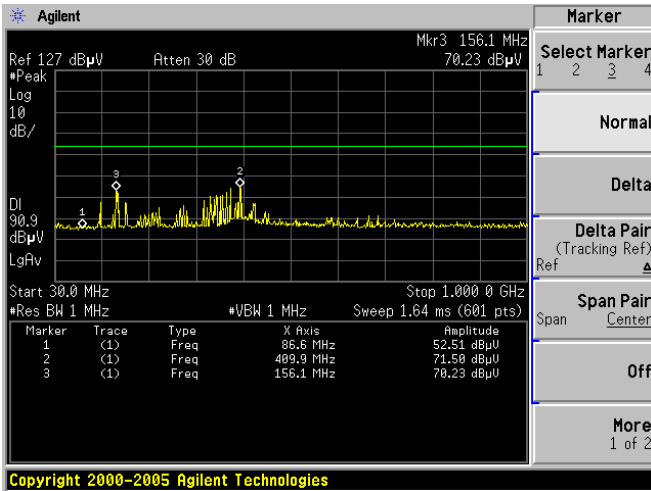
Test Site : 966 Chamber  
 Limit : FCC PART 15C AV  
 Dis. / Ant. : 3m 3117 Ant. Pol.: VERTICAL  
 EUT : Wireless Router  
 M/N : IP04103  
 Power : DC 5V from adapter input AC 120V/60Hz  
 Test Engineer : Jade  
 Comment : Temp.:25.2'C Humi.:56% Press:101.51kPa  
 Test Mode : TX Mode 802.11n HT40 CH1 2422MHz

Freq. (MHz)	Emission			Margin (dB)	Reading (dBuV)	Ant. Cable		Remark
	Level (dBuV/m)	Limits (dBuV/m)				Factor (dB/m)	Loss (dB)	
1 4844.00	47.96	54.00	6.04	10.98	34.60	2.38	Average	
212424.00	47.68	54.00	6.32	4.86	39.97	2.85	Average	

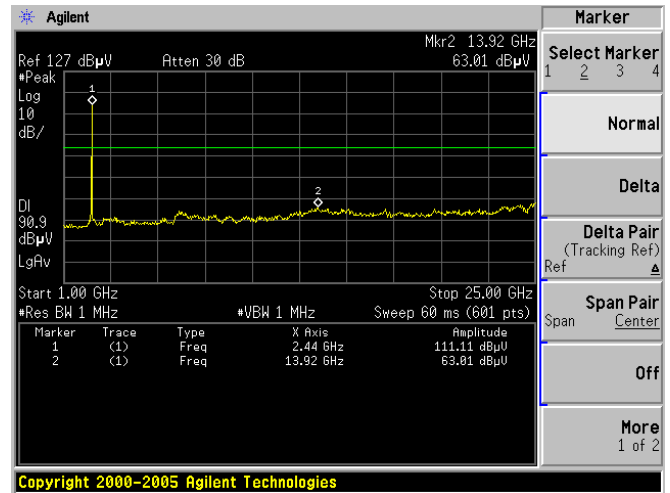
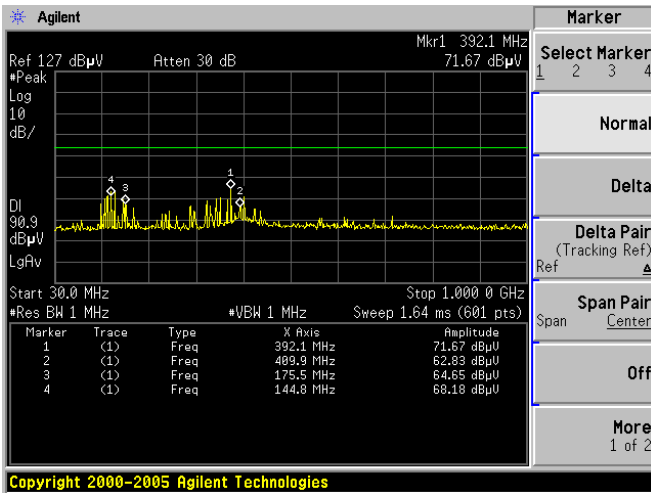


### Conducted emission test data

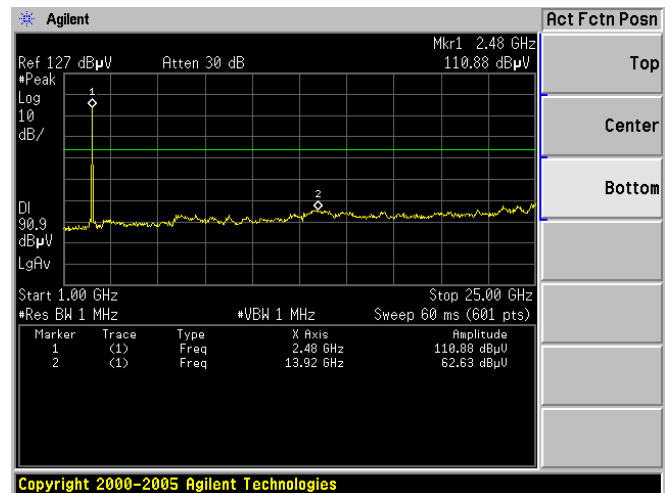
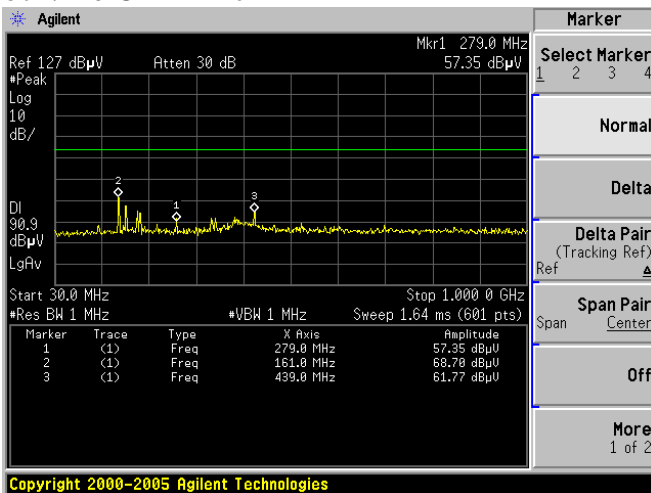
#### 802.11b CH1 2412MHz



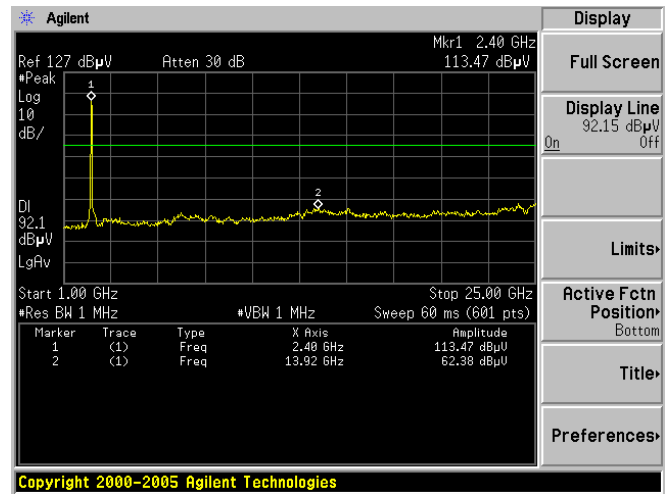
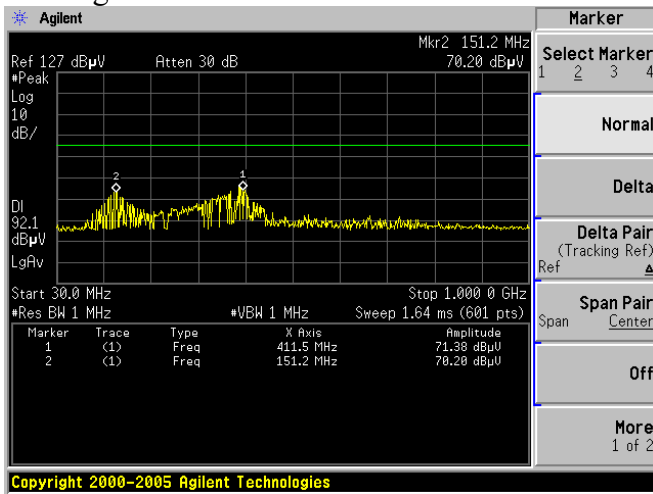
#### 802.11b CH6 2437MHz



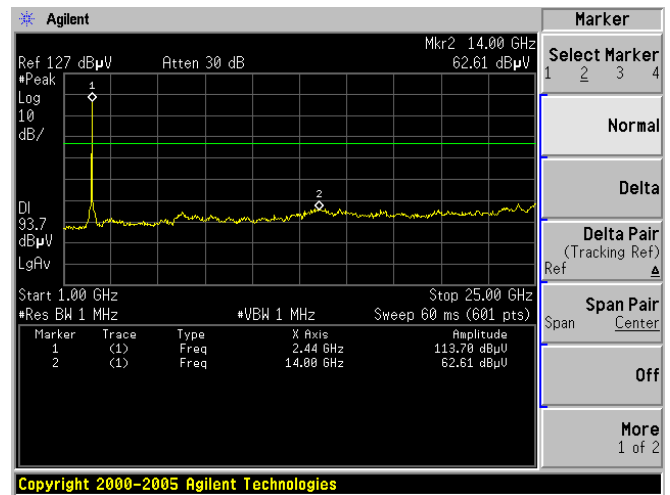
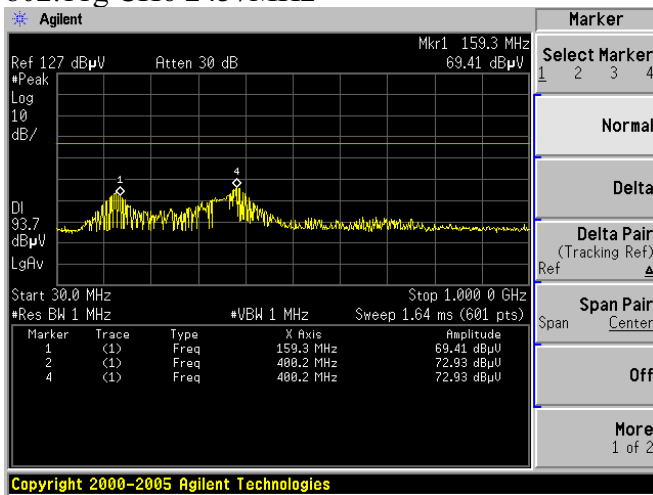
#### 802.11b CH11 2462MHz



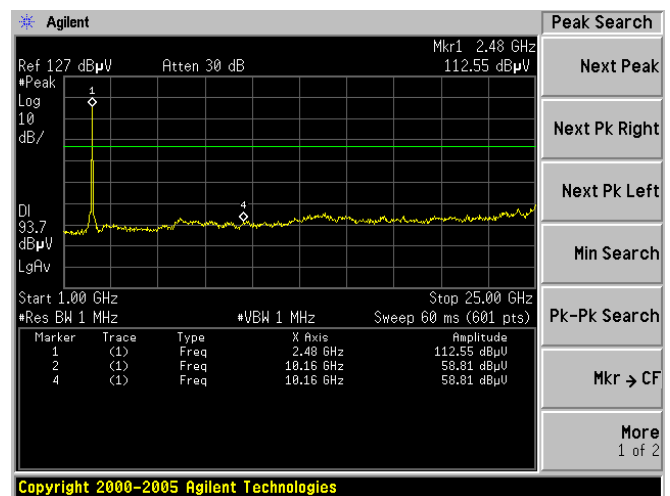
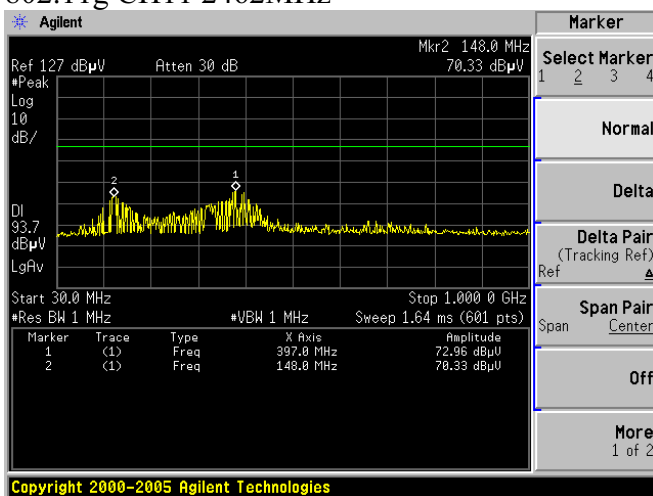
### 802.11g CH1 2412MHz



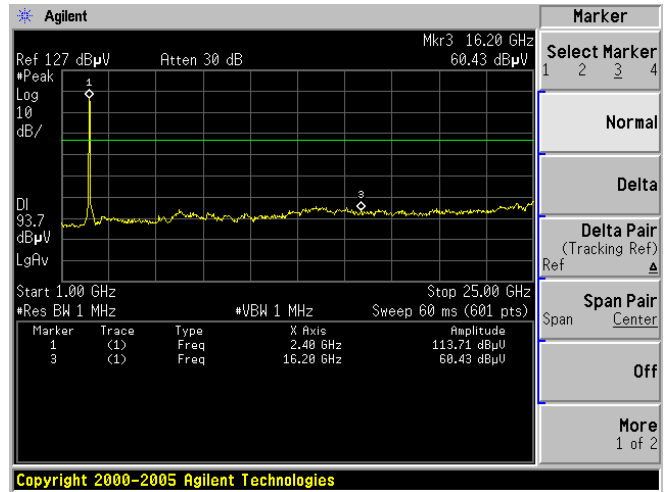
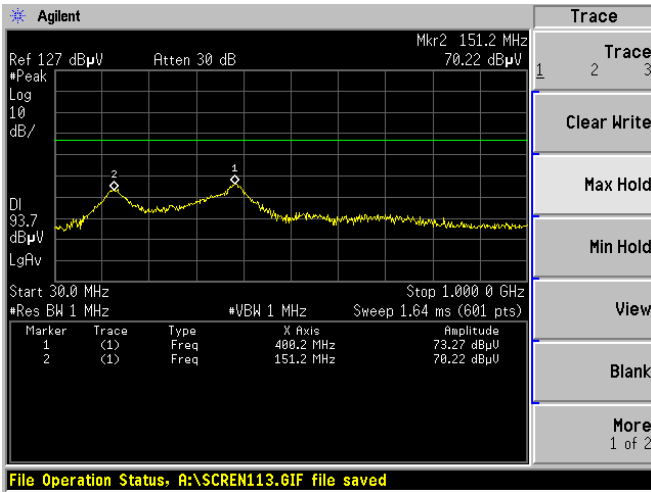
### 802.11g CH6 2437MHz



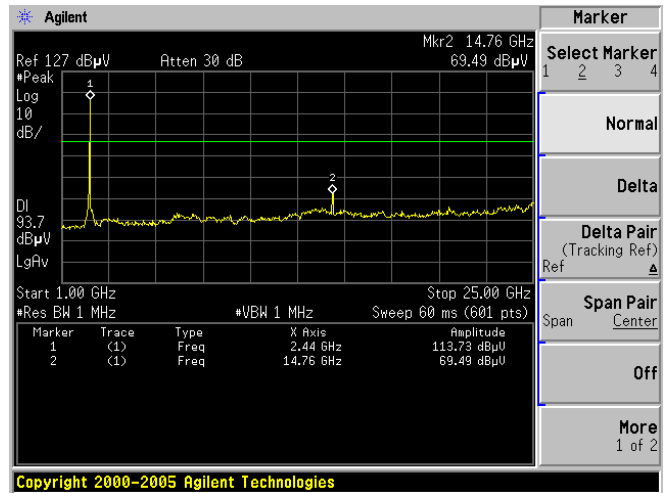
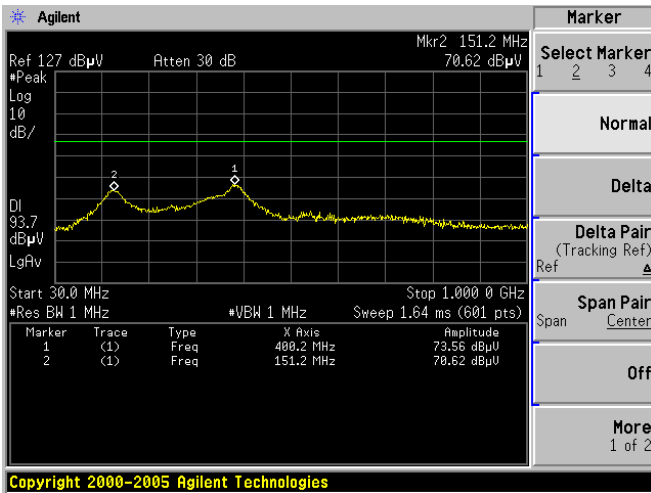
### 802.11g CH11 2462MHz



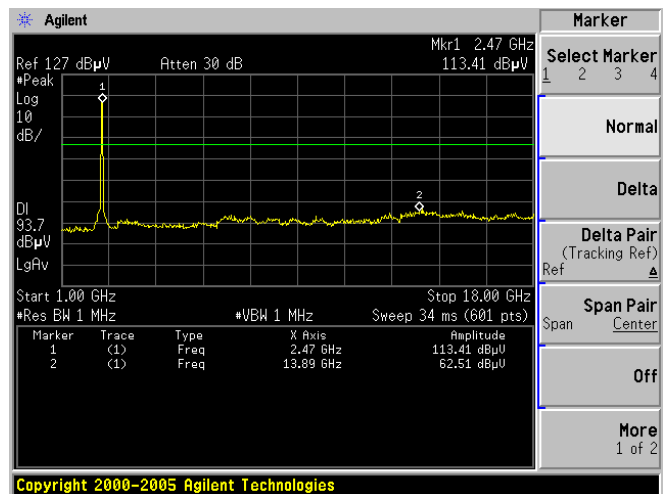
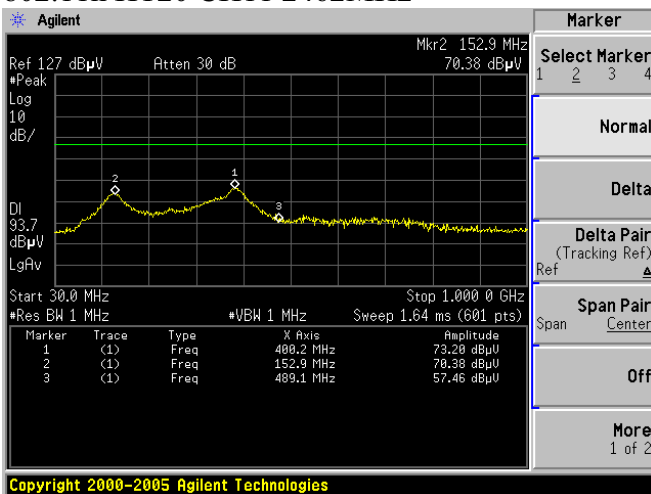
802.11n HT20 CH1 2412MHz



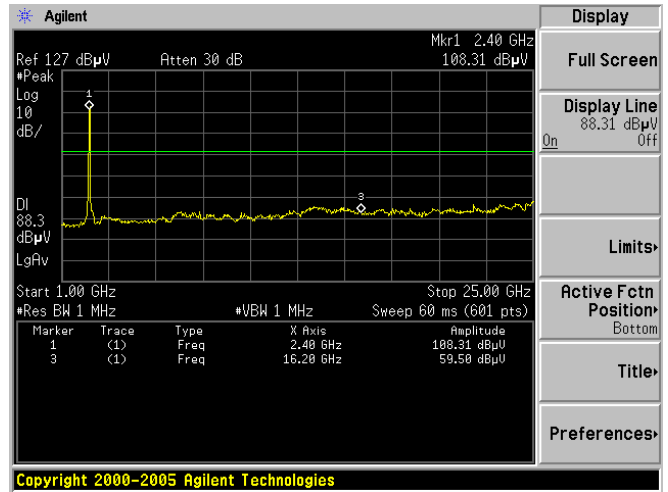
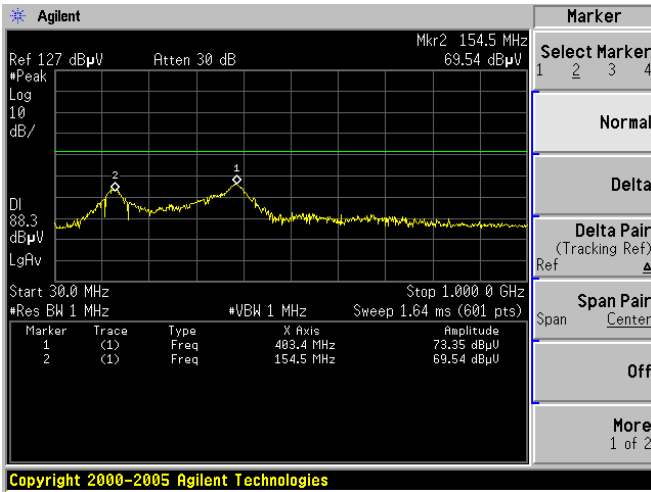
802.11n HT20 CH6 2437MHz



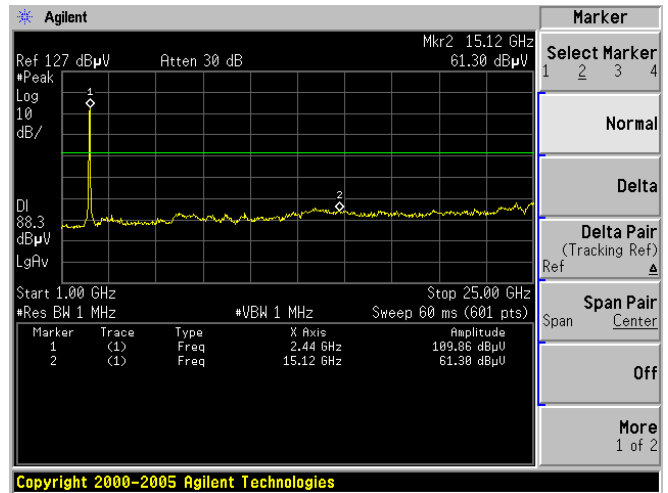
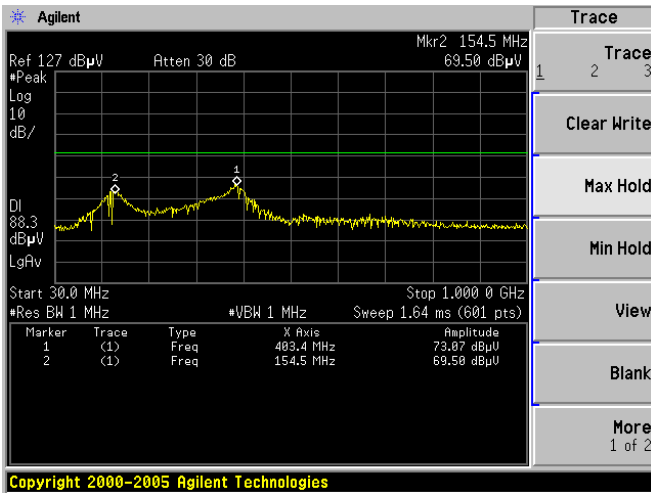
802.11n HT20 CH11 2462MHz



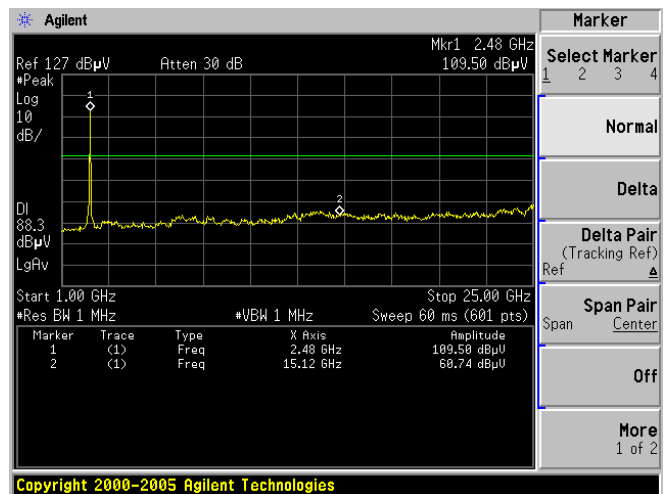
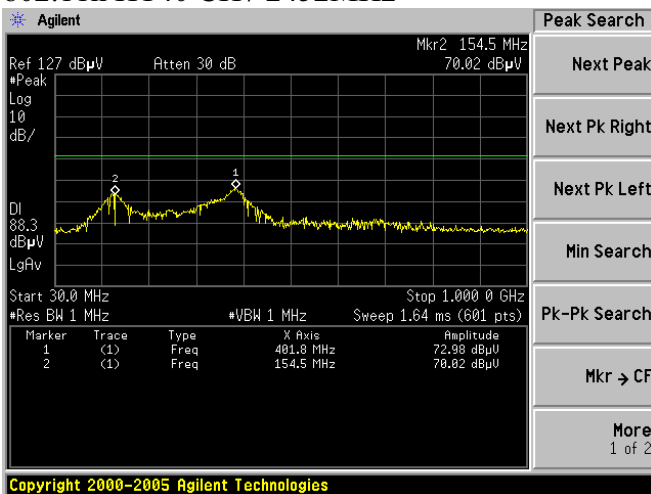
802.11n HT40 CH1 2422MHz



802.11n HT40 CH4 2437MHz



802.11n HT40 CH7 2452MHz



## 6.3. 6dB Bandwidth

### 6.3.1. Test limits

>500kHz.

### 6.3.2. Test procedure

1. The EUT was placed on a table which is 0.8m above ground plane.
2. Connect EUT RF output port to the spectrum analyzer through an RF attenuator.
3. Set SA Center Frequency = Operation frequency, RBW=100kHz,VBW=300kHz.
4. Set SA trace max hold, then view.

### 6.3.3. Test result

**Pass**

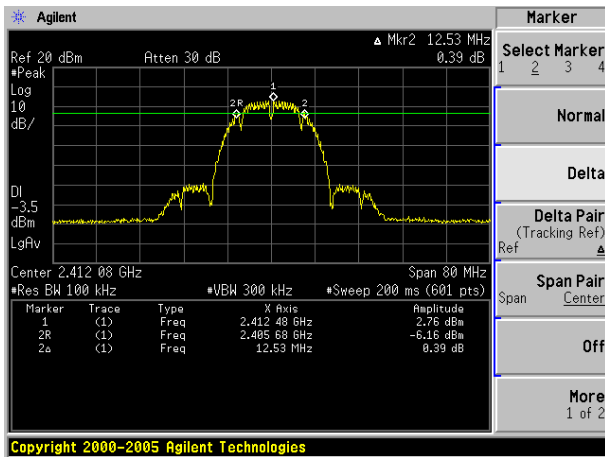
Test Channel	Frequency MHz	6dB bandwidth MHz	Conclusion
802.11b CH1	2412MHz	12.53	Pass
802.11b CH6	2437MHz	12.27	Pass
802.11b CH11	2462MHz	12.00	Pass
802.11g CH1	2412MHz	16.53	Pass
802.11g CH6	2437MHz	16.53	Pass
802.11g CH11	2462MHz	16.53	Pass
802.11n HT20 CH1	2412MHz	17.87	Pass
802.11 n HT20 CH6	2437MHz	18.00	Pass
802.11 n HT20 CH11	2462MHz	17.87	Pass
802.11 n HT20 CH1	2422MHz	36.53	Pass
802.11 n HT20 CH4	2437MHz	36.53	Pass
802.11 n HT20 CH7	2452MHz	36.53	Pass

When IEEE 802.11b's data rate was 11Mbps ; IEEE 802.11g's data rate was 54Mbps, When IEEE 802.11n HT20's data rate was 130Mbps ; IEEE 802.11n HT40's data rate was 135Mbps the EUT have maximum output power and all the test was performed in this data rate set.

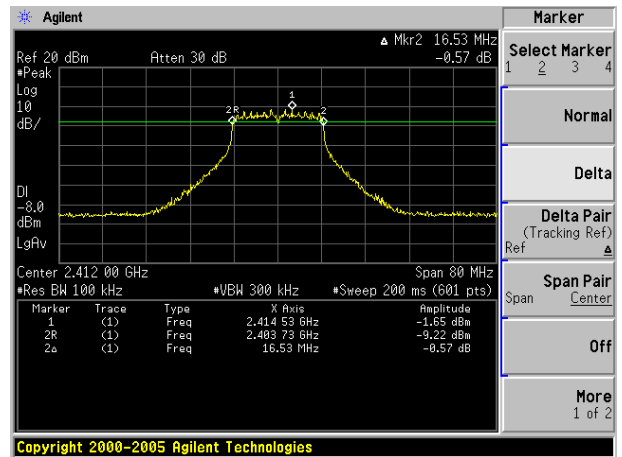
The test plots as following:



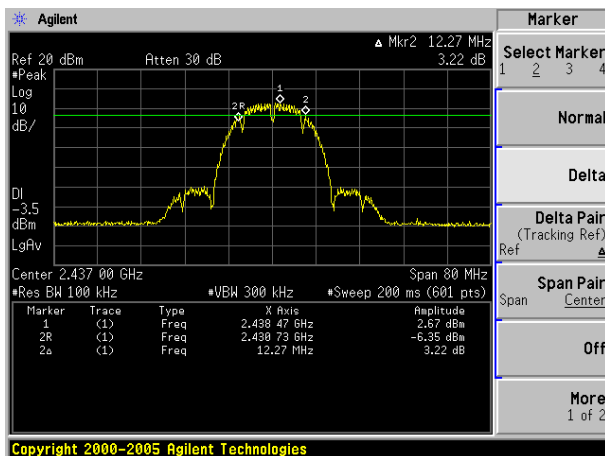
802.11b CH1 2412MHz



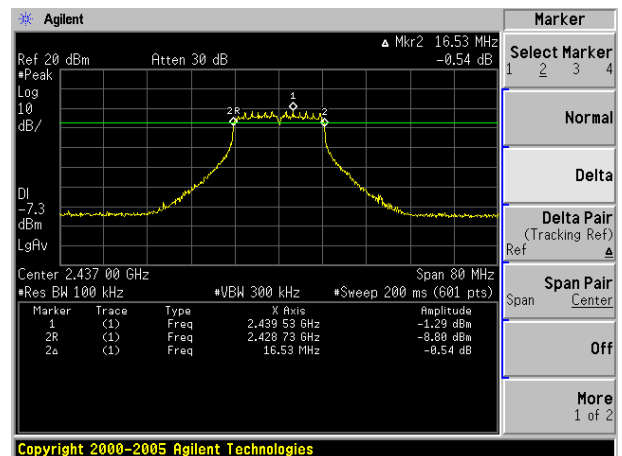
802.11g CH1 2412MHz



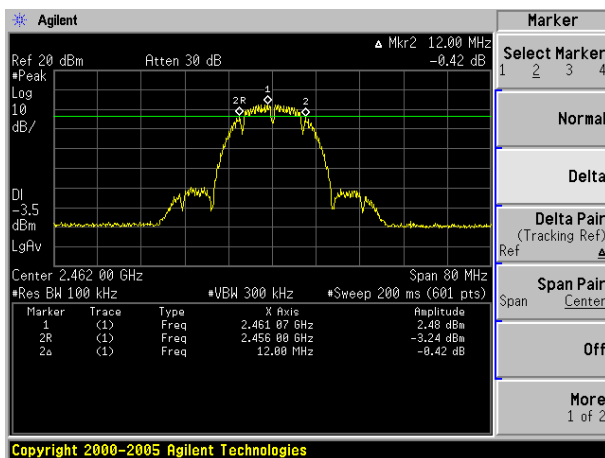
802.11b CH6 2437MHz



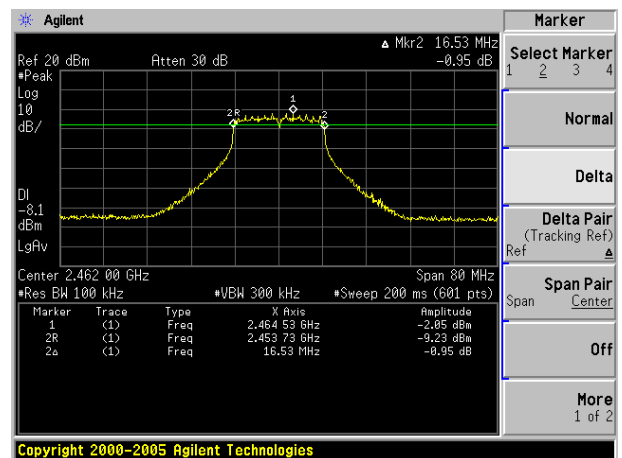
802.11g CH6 2437MHz



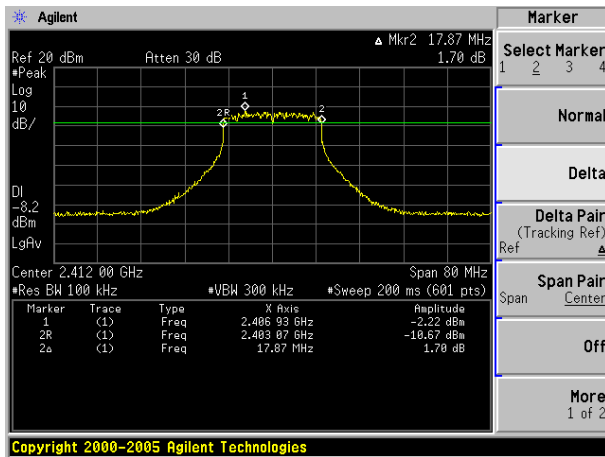
802.11b CH11 2462MHz



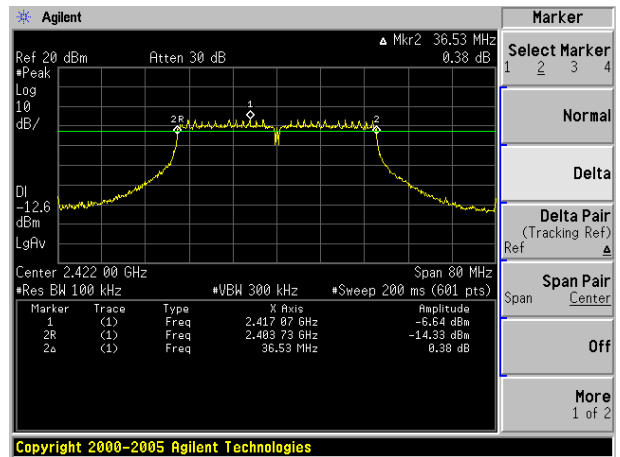
802.11g CH11 2462MHz



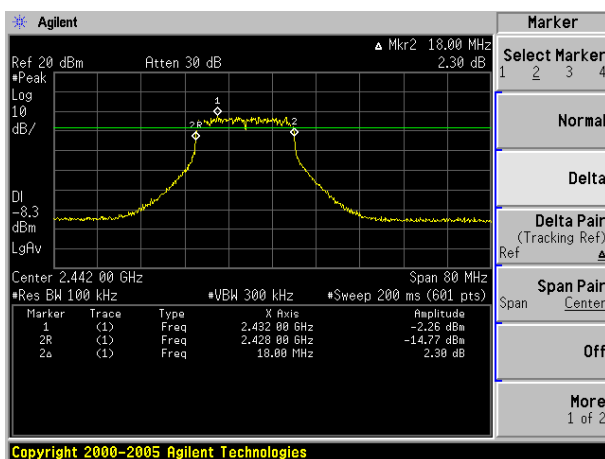
802.11n HT20 CH1 2412MHz



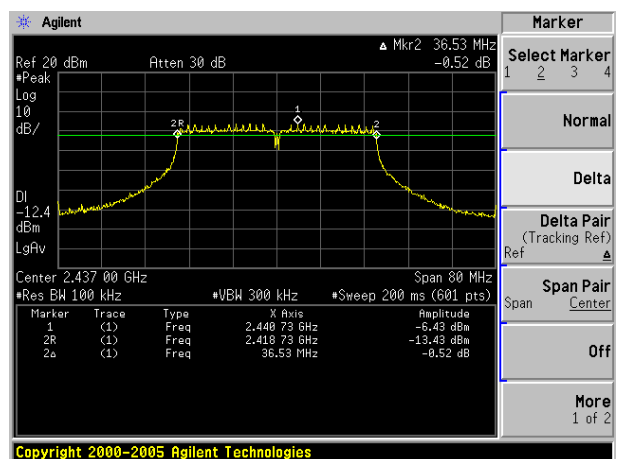
802.11n HT40 CH1 2422MHz



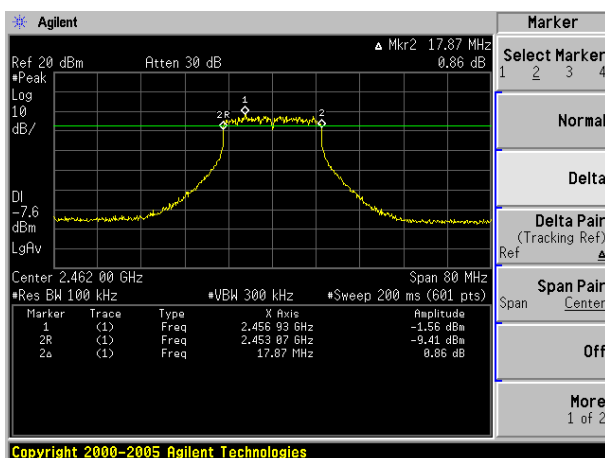
802.11 n HT20 CH6 2437MHz



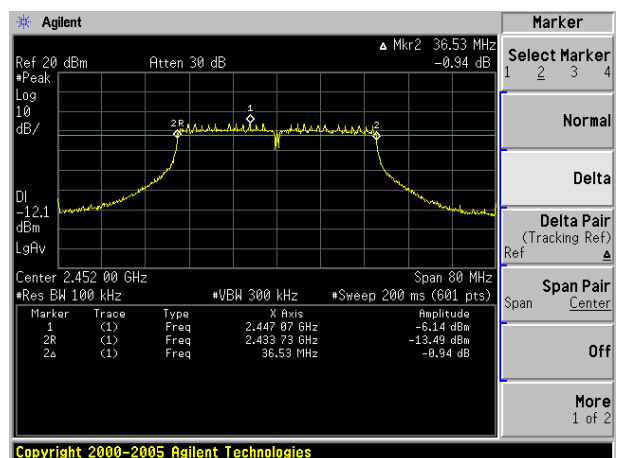
802.11 n HT40 CH4 2437MHz



802.11 n HT20 CH11 2462MHz



802.11 n HT40 CH7 2452MHz



## 6.4. Power Spectral Density Test

### 6.4.1. Test procedure

1. The EUT was placed on a table which is 0.8m above ground plane.
2. Connect EUT RF output port to the spectrum analyzer through an RF attenuator.
3. Set SA Center Frequency = Operation frequency, RBW=3kHz,VBW=300kHz.
4. Set SA trace max hold, then view.

### 6.4.2. Test result

#### Pass

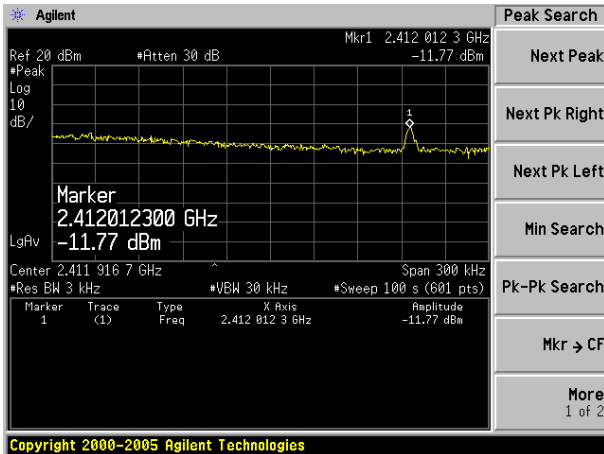
Test Channel	Read (dBm)	Factor (dB)	Result (dBm)	Limit
802.11b CH1	-11.77	6	-5.77	8.0
802.11b CH6	-11.58	6	-5.58	8.0
802.11b CH11	-11.59	6	-5.59	8.0
802.11g CH1	-18.63	6	-12.63	8.0
802.11g CH6	-19.19	6	-13.19	8.0
802.11g CH11	-19.32	6	-13.32	8.0
802.11n HT20 CH1	-19.55	6	-13.55	8.0
802.11 n HT20 CH6	-20.44	6	-14.44	8.0
802.11 n HT20 CH11	-19.94	6	-13.94	8.0
802.11 n HT40 CH1	-24.45	6	-18.45	8.0
802.11 n HT40 CH4	-23.45	6	-17.45	8.0
802.11 n HT40 CH7	-24.70	6	-18.70	8.0

**Note:** Result=Read+Factor

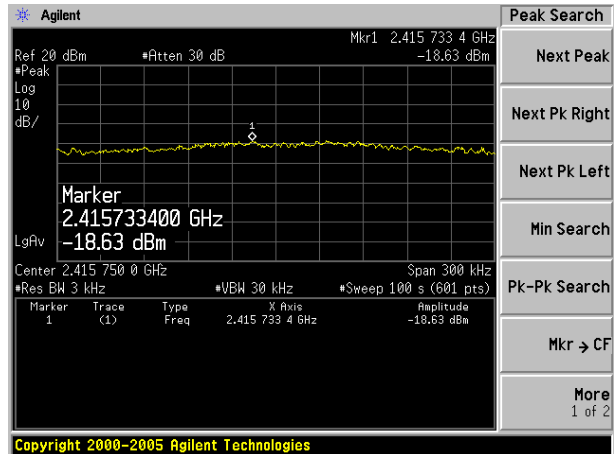
The test plots as following:

When IEEE 802.11b's data rate was 11Mbps ; IEEE 802.11g's data rate was 54Mbps,  
When IEEE 802.11n HT20's data rate was 130Mbps ; IEEE 802.11n HT40's data rate  
was 135Mbps the EUT have maximum output power and all the test was performed  
in this data rate set.

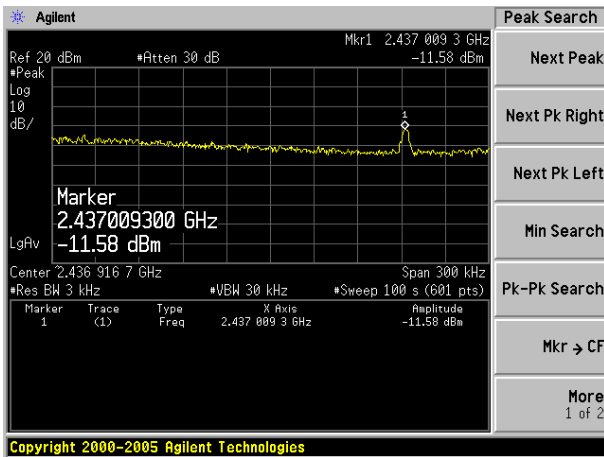
802.11b CH1 2412MHz



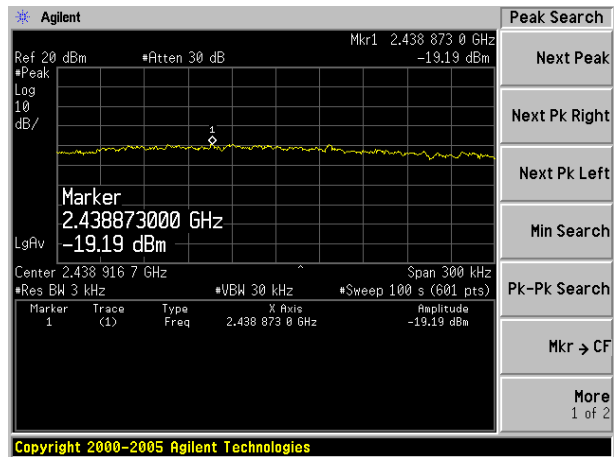
802.11b CH11 2462MHz



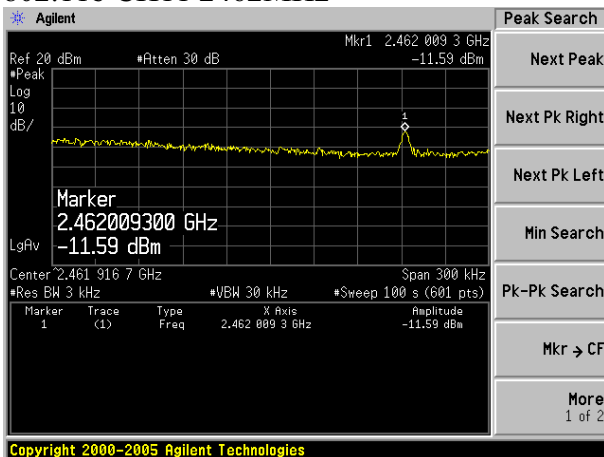
802.11b CH6 2437MHz



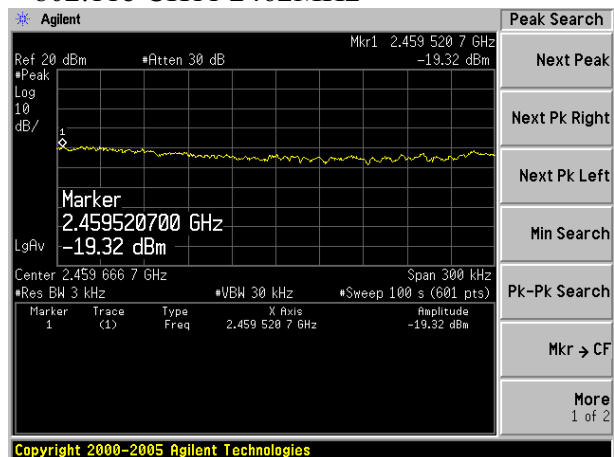
802.11b CH11 2462MHz



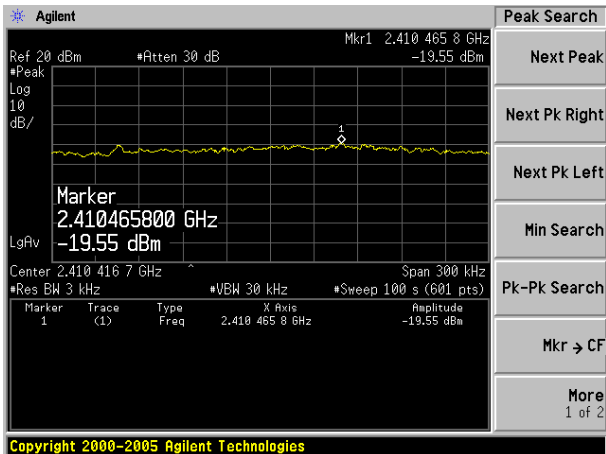
802.11b CH11 2462MHz



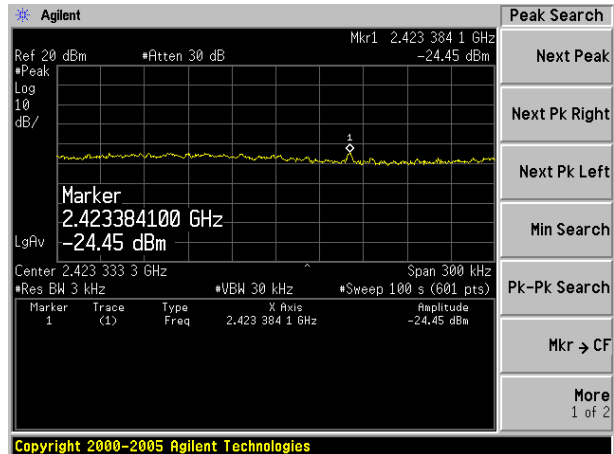
802.11b CH11 2462MHz



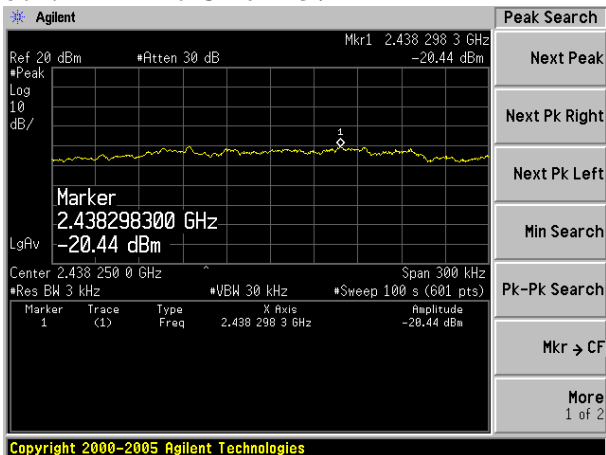
802.11n HT20 CH1 2412MHz



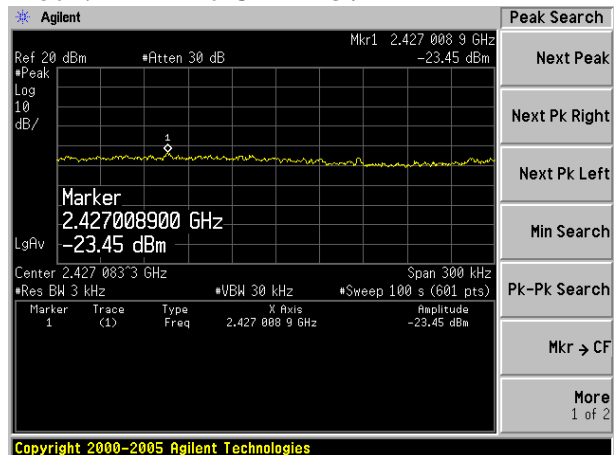
802.11n HT40 CH1 2412MHz



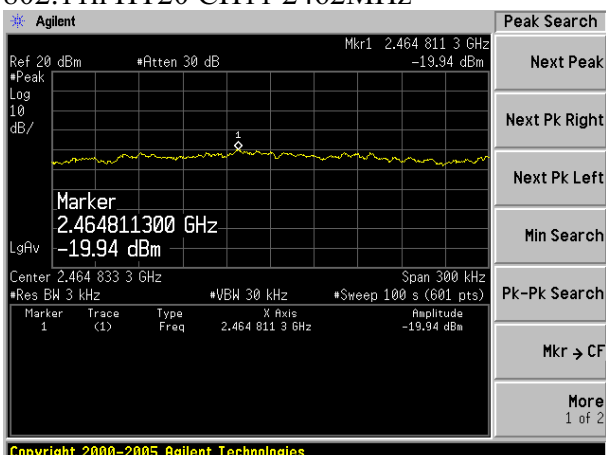
802.11n HT20 CH6 2437MHz



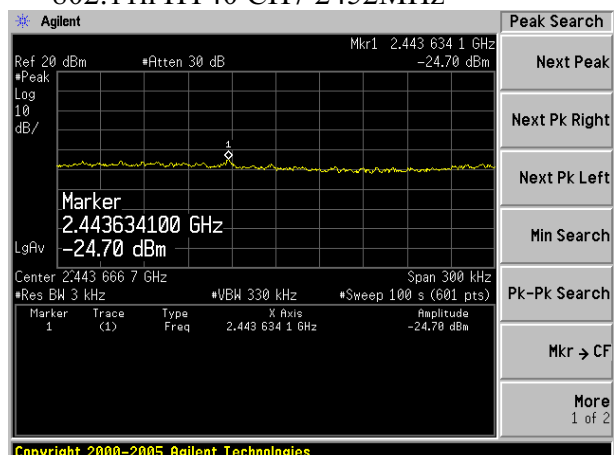
802.11n HT40 CH4 2437MHz



802.11n HT20 CH11 2462MHz



802.11n HT40 CH7 2452MHz



## 6.5. Output Power Test

### 6.5.1. Test procedure

1. The EUT was placed on a table which is 0.8m above ground plane.
2. Connect EUT RF output port to the Power meter through an RF attenuator.

### 6.5.2. Test result

**Pass**

Test Channel	Read (dBm)	Factor (dB)	Result (dBm)	Limit
802.11b CH1	11.25	6	17.25	30.00
802.11b CH6	12.05	6	18.05	30.00
802.11b CH11	11.84	6	17.84	30.00
802.11g CH1	12.01	6	18.01	30.00
802.11g CH6	11.30	6	17.30	30.00
802.11g CH11	10.68	6	16.68	30.00
802.11n HT20 CH1	9.26	6	15.26	30.00
802.11 n HT20 CH6	9.61	6	15.61	30.00
802.11n HT20 CH11	9.34	6	15.34	30.00
802.11 n HT40 CH1	8.91	6	14.91	30.00
802.11 n HT40 CH4	8.85	6	14.85	30.00
802.11 n HT40 CH7	8.19	6	14.19	30.00

**Note:**Result=Read+Factor

When 802.11b's data rate was 11MHz;802.11g's data rate was 54MHz;the EUT have Maximum output and all the test was performed in this data rate set.



## 6.6. Band Edge

### 6.6.1. Test limits

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in Section 15.209 , whichever is the lesser attenuation.

### 6.6.2. Test procedure

The EUT was placed on a table which is 0.8m above ground plane.

Connect EUT RF output port to the Power meter through an RF attenuator.

The resolution bandwidth and video bandwidth of the test receiver was 1MHz and 1MHz for Peak detection at frequency above 1GHz.

The resolution bandwidth and video bandwidth of the test receiver was 1MHz and 10Hz for Average detection at frequency above 1GHz.

When 802.11b's data rate was 11MHz; 802.11g's data rate was 54MHz; the EUT have Maximum output and all the test was performed in this data rate set.

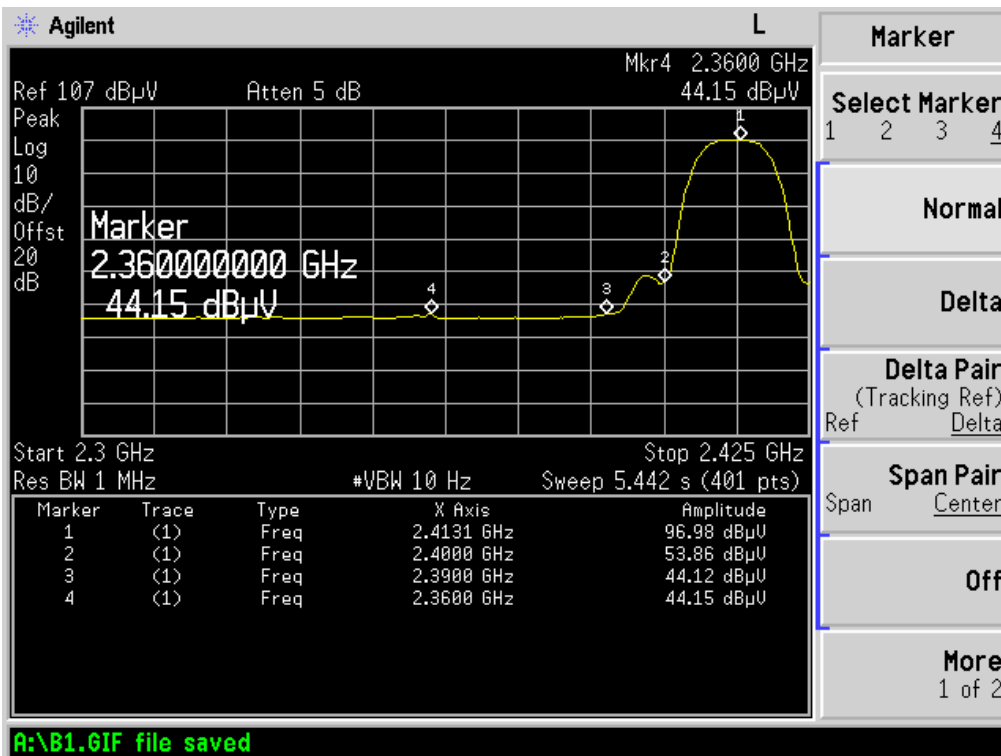
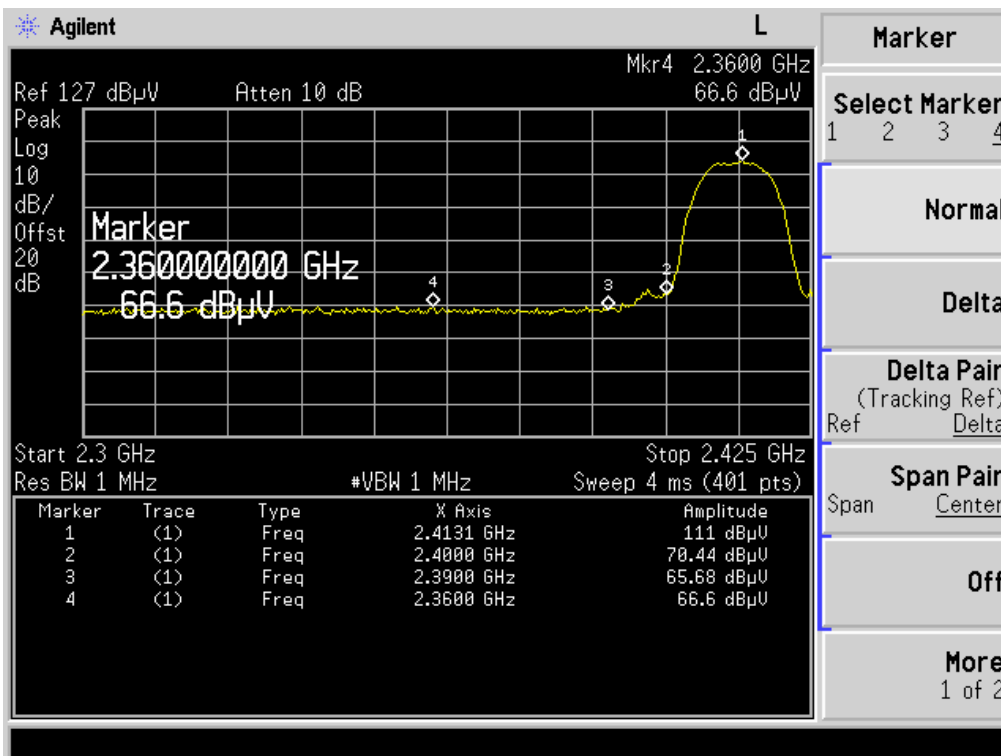
The EUT was tested in Chamber Site.

### 6.6.3. Test result

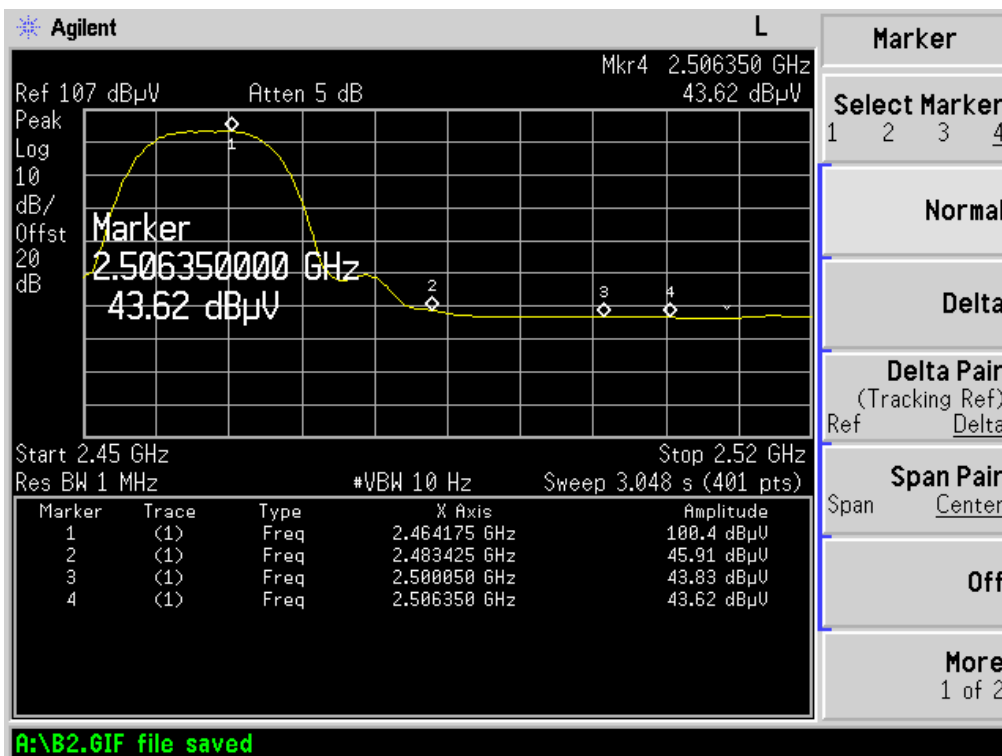
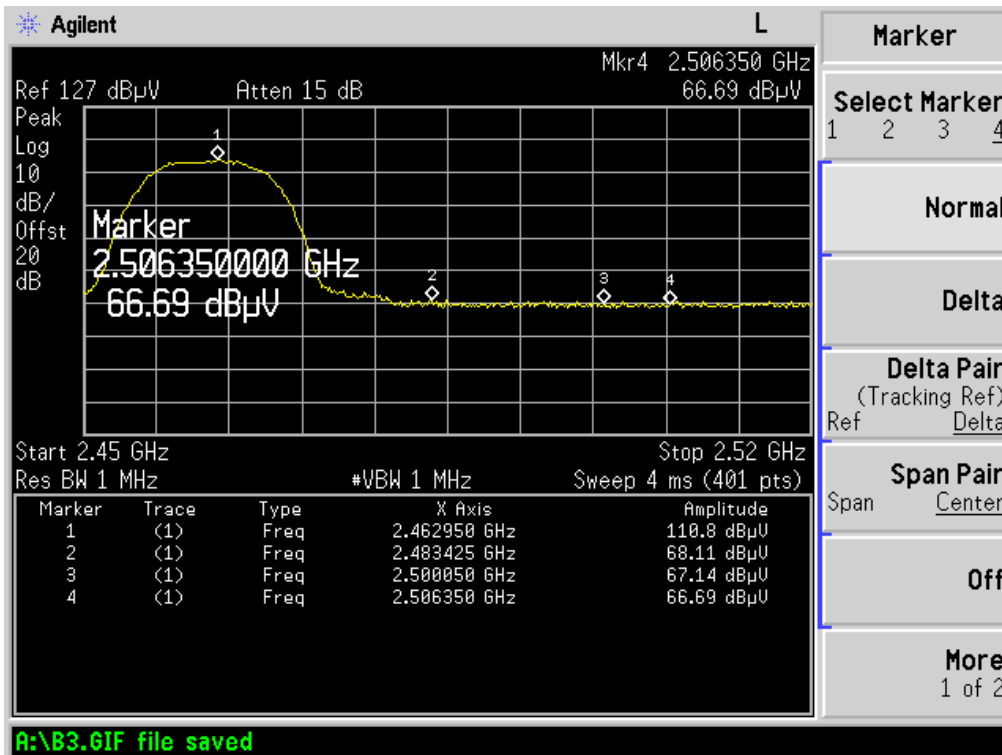
**PASS.**

The test plots as following:

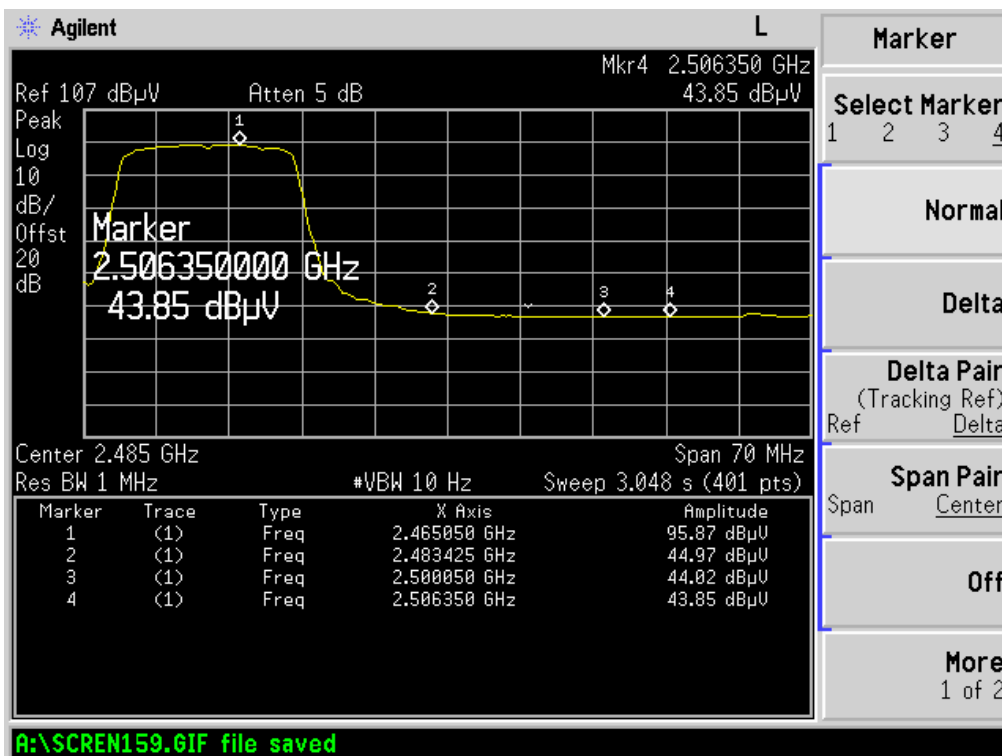
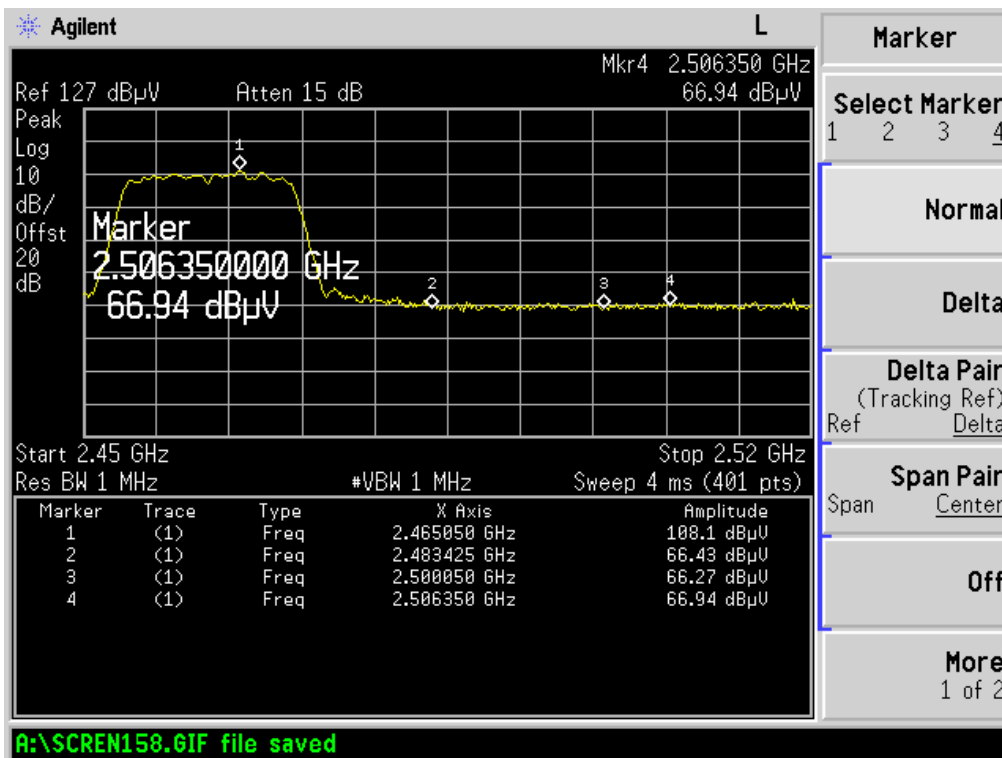
IEEE 802.11b



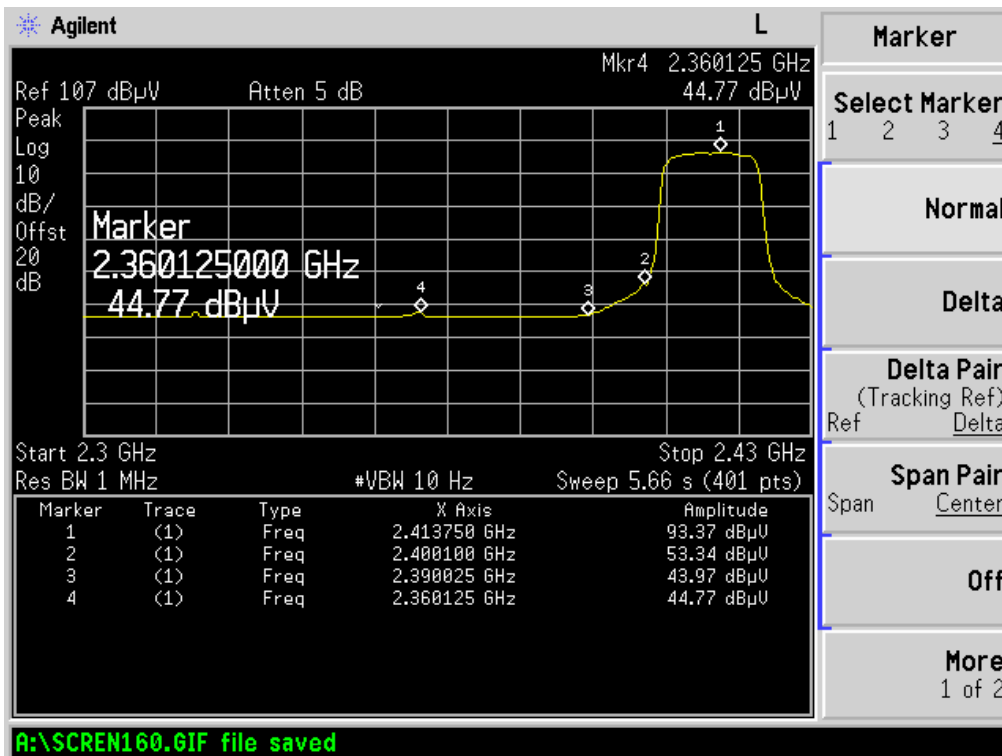
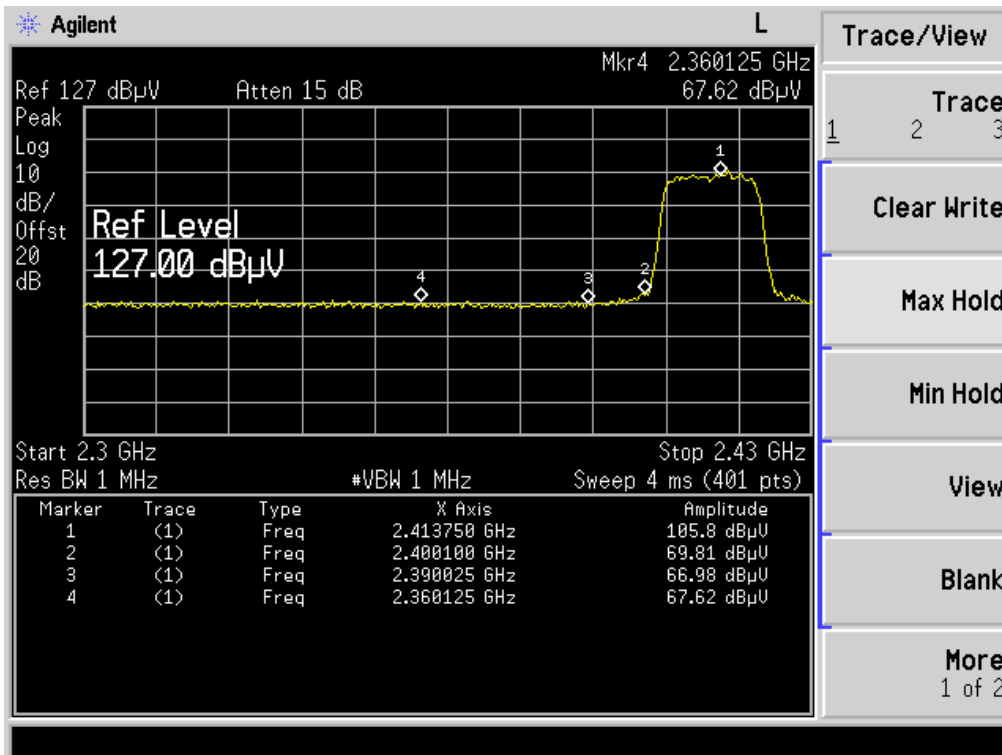
IEEE 802.11b



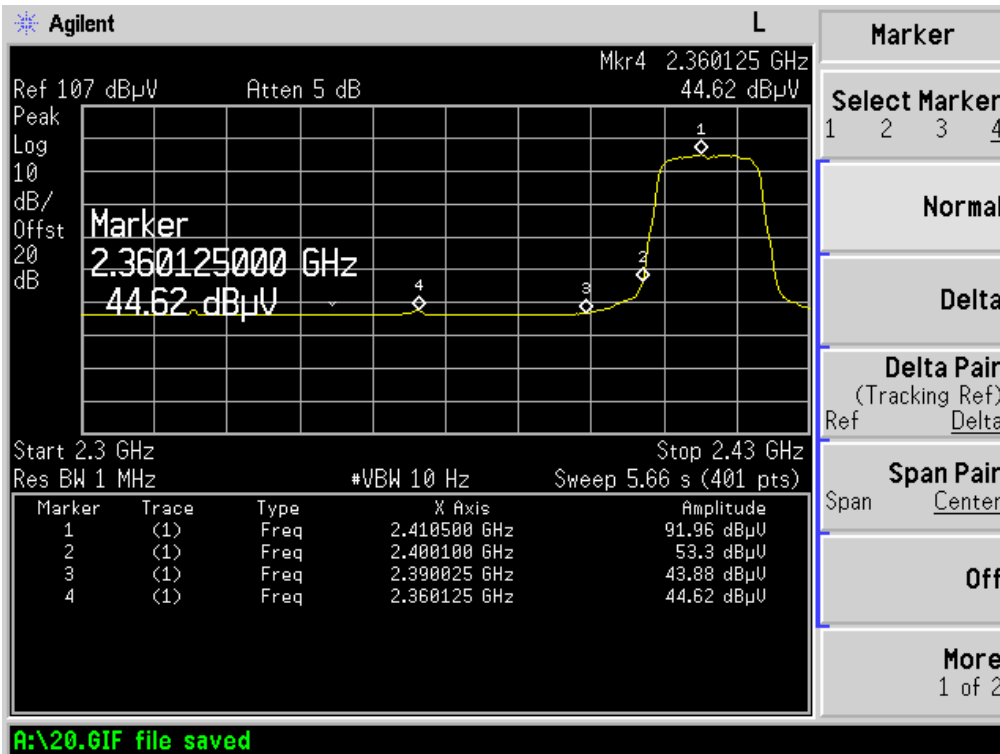
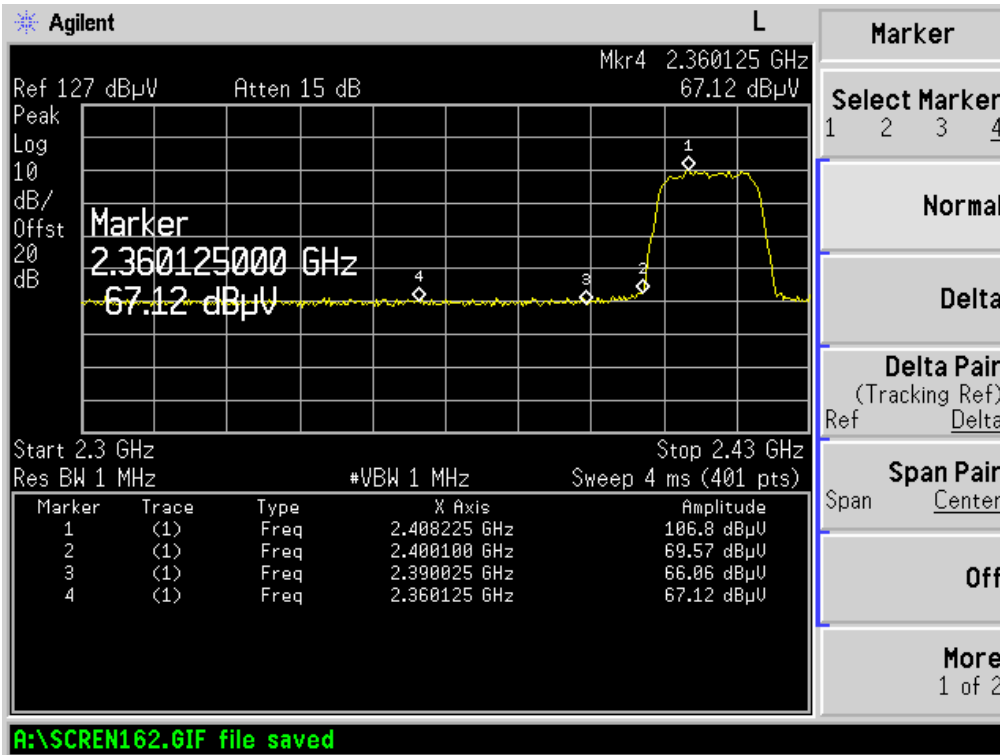
IEEE 802.11g



IEEE 802.11g

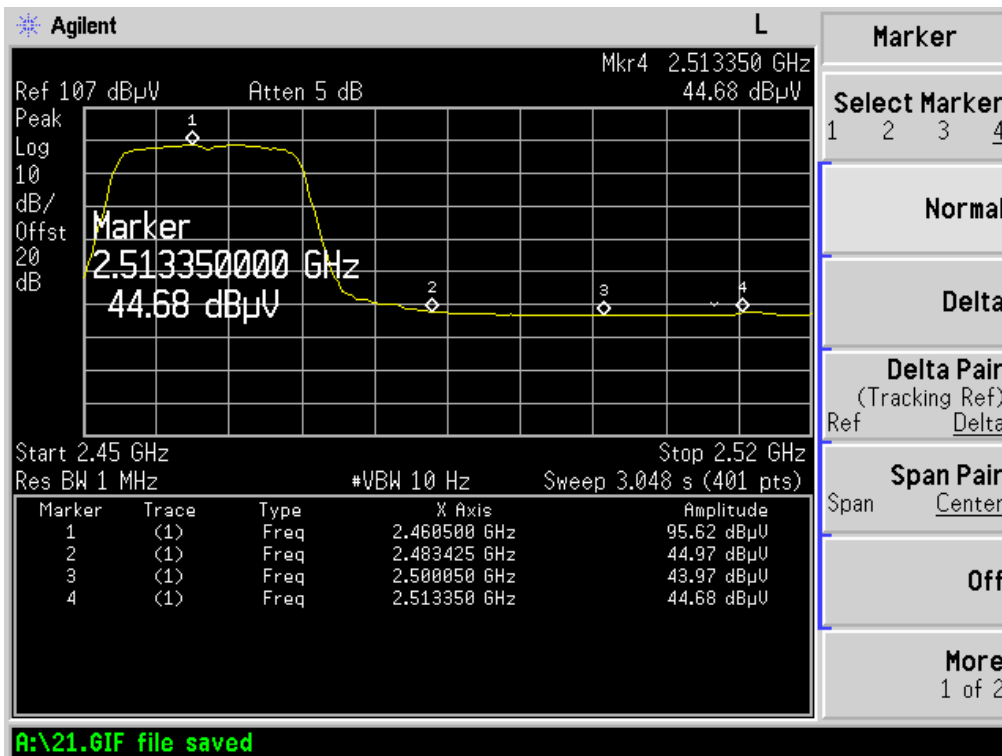
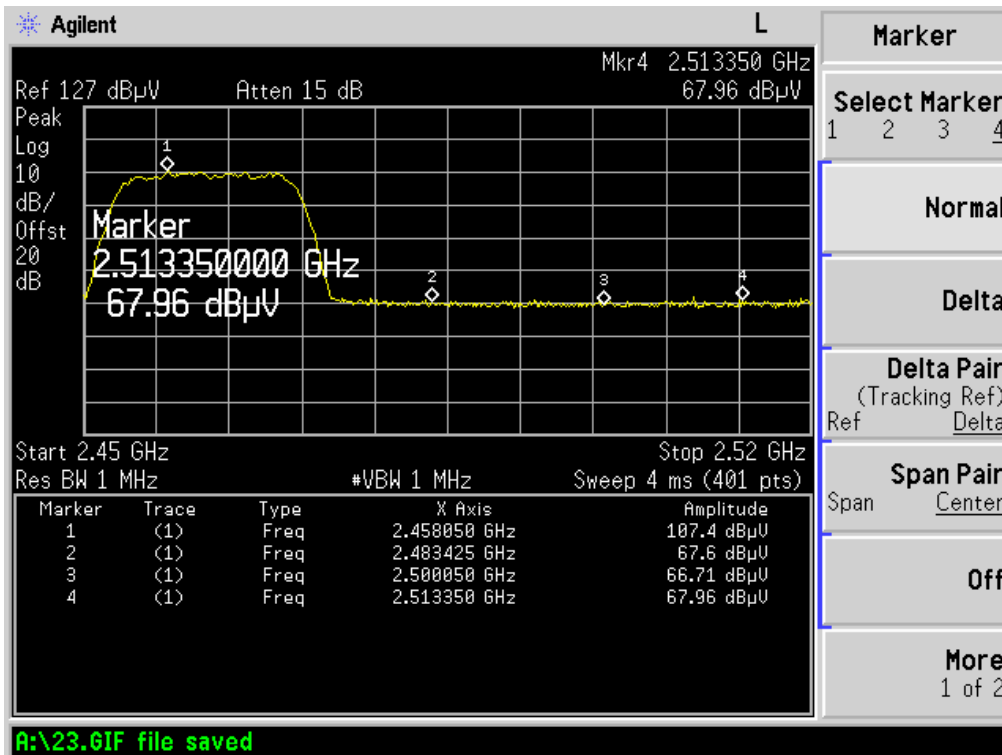


IEEE 802.11n HT20

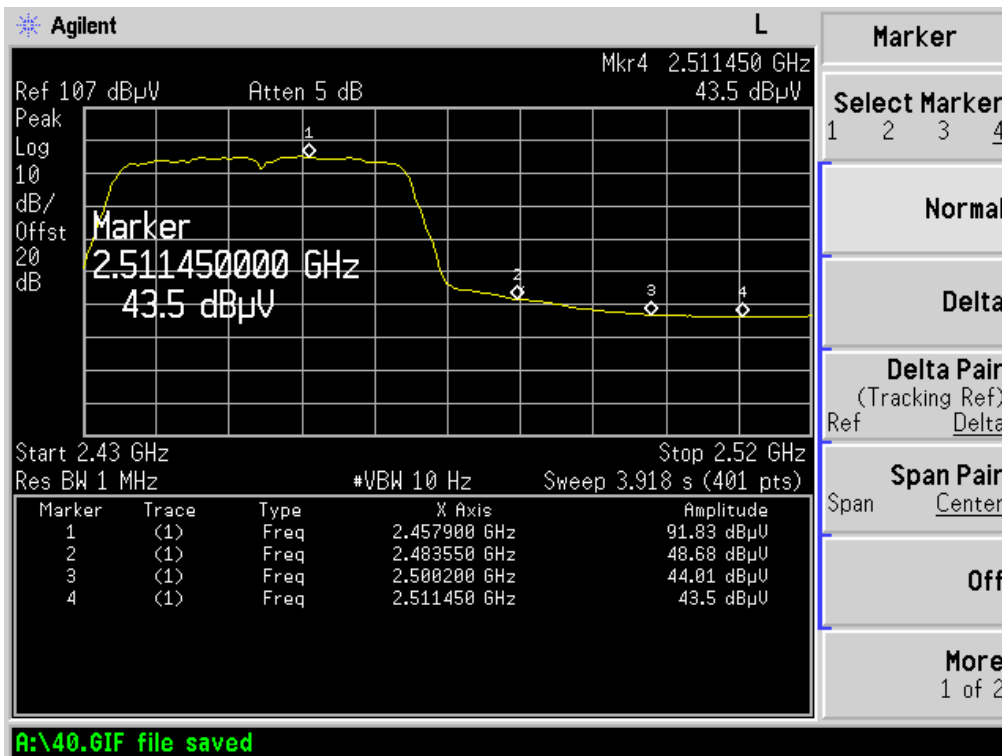
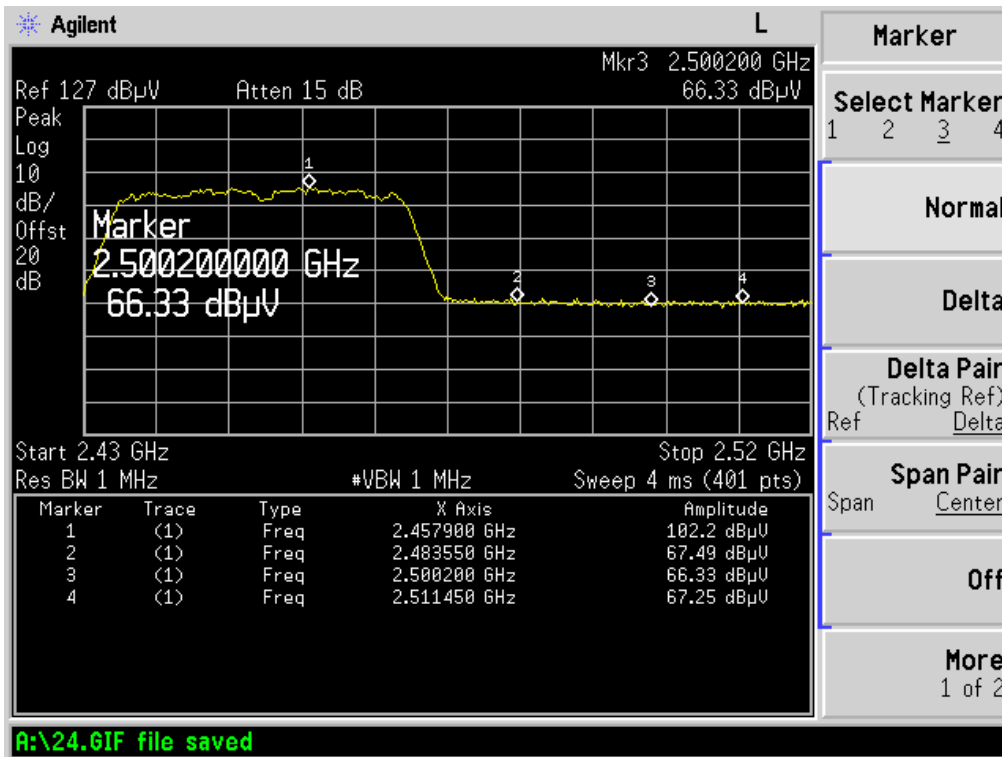




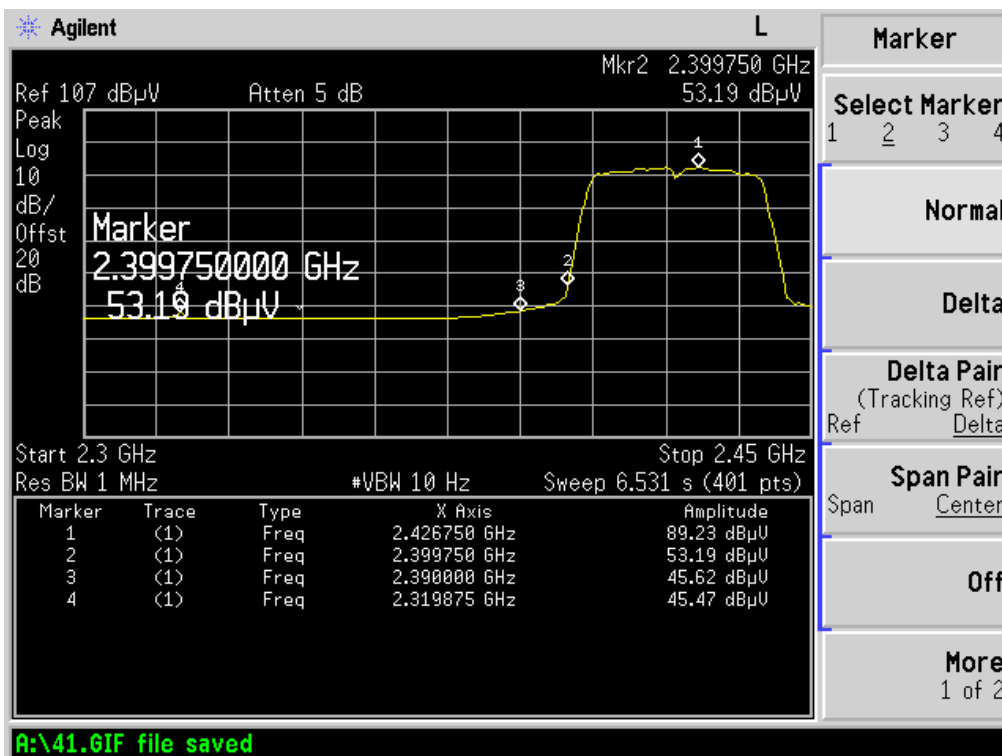
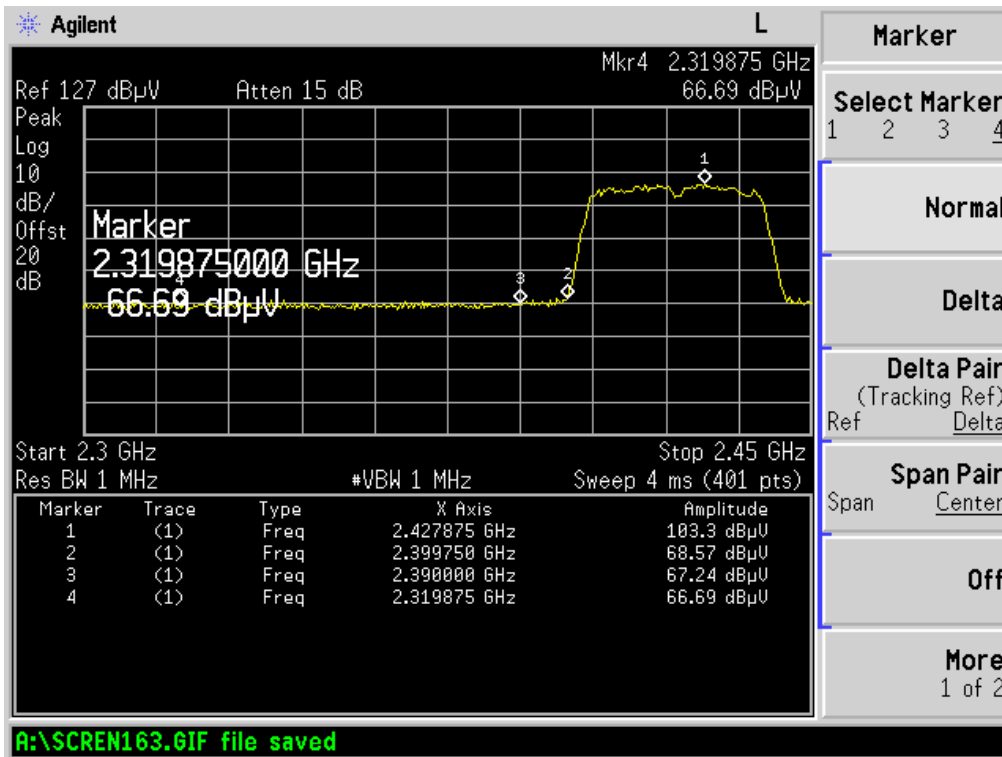
IEEE 802.11n HT20



IEEE 802.11n HT40



IEEE 802.11n HT40



## 6.7. ANTENNA REQUIREMENT

### 6.7.1. STANDARD APPLICABLE

For intentional device, according to FCC 47 CFR Section 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. And according to FCC 47 CFR Section 15.247 (b), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

### 6.7.2. ANTENNA CONNECTED CONSTRUCTION

The antenna used for this product is External antenna (see EUT photo) that no antenna other than that furnished by the responsible party shall be used with the device, The maximum peak gain of this antenna is only 5dBi.