



# Test Report

Product Name : WIRELESS-A 26DBM NETWORK  
MINI PCI ADAPTER  
Model No. : IWAVEPORT WLM54AP26  
FCC ID : TK4-08-WLM54AP26

Applicant : Compex Systems Pte Ltd  
Address : 135 Joo Seng Road, #08-01 PM Industrial Building  
Singapore 368363

Date of Receipt : 2008/04/14  
Issued Date : 2008/06/20  
Report No. : 084S048-RF-US-P05V01

The test results relate only to the samples tested.

The test results shown in the test report are traceable to the national/international standard through the calibration of the equipment and evaluated measurement uncertainty herein.

This report must not be used to claim product endorsement by CNLA, NVLAP or any agency of the Government.  
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## Test Report Certification


Issued Date : 2008/06/20


Report No. : 084S048-RF-US-P05V01



Product Name : WIRELESS-A 26DBM NETWORK MINI PCI ADAPTER  
Applicant : Compex Systems Pte Ltd  
Address : 135 Joo Seng Road, #08-01 PM Industrial Building  
Singapore 368363  
Manufacturer : Compex Systems Pte Ltd  
Address : 135 Joo Seng Road, #08-01 PM Industrial Building  
Singapore 368363  
Model No. : IWAVEPORT WLM54AP26  
FCC ID : TK4-08-WLM54AP26  
Rated Voltage : AC 120 V / 60 Hz  
EUT Voltage : DC 3.3V  
Trade Name : COMPEX  
Applicable Standard : FCC CFR Title 47 Part 15 Subpart C: 2007  
ANSI C63.4: 2003  
Test Result : Complied  
Performed Location : SuZhou EMC laboratory  
No.99 Hongye Rd., Suzhou Industrial Park Loufeng  
Hi-Tech Development Zone., SuZhou, China  
TEL: +86-512-6251-5088 / FAX: +86-512-6251-5098  
FCC Registration Number: 800392

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## Laboratory Information

We , **Quietek Corporation**, are an independent EMC and safety consultancy that was established the whole facility in our laboratories. The test facility has been accredited by the following accreditation Bodies in compliance with ISO 17025, EN 45001 and Guide 25:

Taiwan R.O.C.	: BSMI, DGT, CNLA
Germany	: TUV Rheinland
Norway	: Nemko, DNV
USA	: FCC, NVLAP
Japan	: VCCI

The related certificate for our laboratories about the test site and management system can be downloaded from Quietek Corporation's Web Site : <http://tw.quietek.com/modules/myalbum/>  
 The address and introduction of Quietek Corporation's laboratories can be founded in our Web site : <http://www.quietek.com/>  
 If you have any comments, Please don't hesitate to contact us. Our contact information is as below:

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## 1. General Information

### 1.1. EUT Description

Product Name	WIRELESS-A 26DBM NETWORK MINI PCI ADAPTER
Trade Name	COMPEX
Model No.	IWAVEPORT WLM54AP26
FCC ID	TK4-08-WLM54AP26
Working Voltage	DC 3.3V
Frequency Range	802.11a: 5745 - 5825 MHz
	802.11 Turbo a: 5765 - 5805MHz
Channel Number	802.11a: 5
	802.11 Turbo a: 2
Type of Modulation	OFDM
Data Rate	802.11a: 6/9/12/18/24/36/48/54 Mbps
	802.11 Turbo a: 12/18/24/36/48/72/96/108 Mbps
Channel Control	Auto
Antenna Type	Dipole
Antenna Gain	2dBi

Antenna List

No.	Manufacturer	Model No.	Peak Gain
1	GCP & EXCELTEK ELECTRONICS LTD.	C0053-ANG0004	2dBi for 5GHz

Note:

1. Every type of antenna should be used followed the application requirement. It mustn't be used for other frequency range except it does be required.
2. The connector of these antennas uses a unique coupling to the intentional radiator.

802.11a Working Frequency of Each Channel:							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
01	5745 MHz	02	5765 MHz	03	5785 MHz	04	5805 MHz
05	5825 MHz	N/A	N/A	N/A	N/A	N/A	N/A

802.11 Turbo a Working Frequency of Each Channel:							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
N/A	N/A	02	5765 MHz	N/A	N/A	04	5805 MHz

**1.2. Mode of Operation**

Quietek has verified the construction and function in typical operation. All the test modes were carried out with the EUT in normal operation, which was shown in this test report and defined as:

Test Mode
Mode 1: Transmit by 802.11a
Mode 2: Transmit by 802.11 turbo a

Note:

1. Regards to the frequency band operation: the lowest, middle and highest frequency of channel were selected to perform the test, then shown on this report.
2. This device is a composite device in accordance with Part 15 Subpart B regulations. The function for the receiver was measured and made a test report that the report number is 084S048-IT-RF-P01V02, certified under Declaration of Conformity.

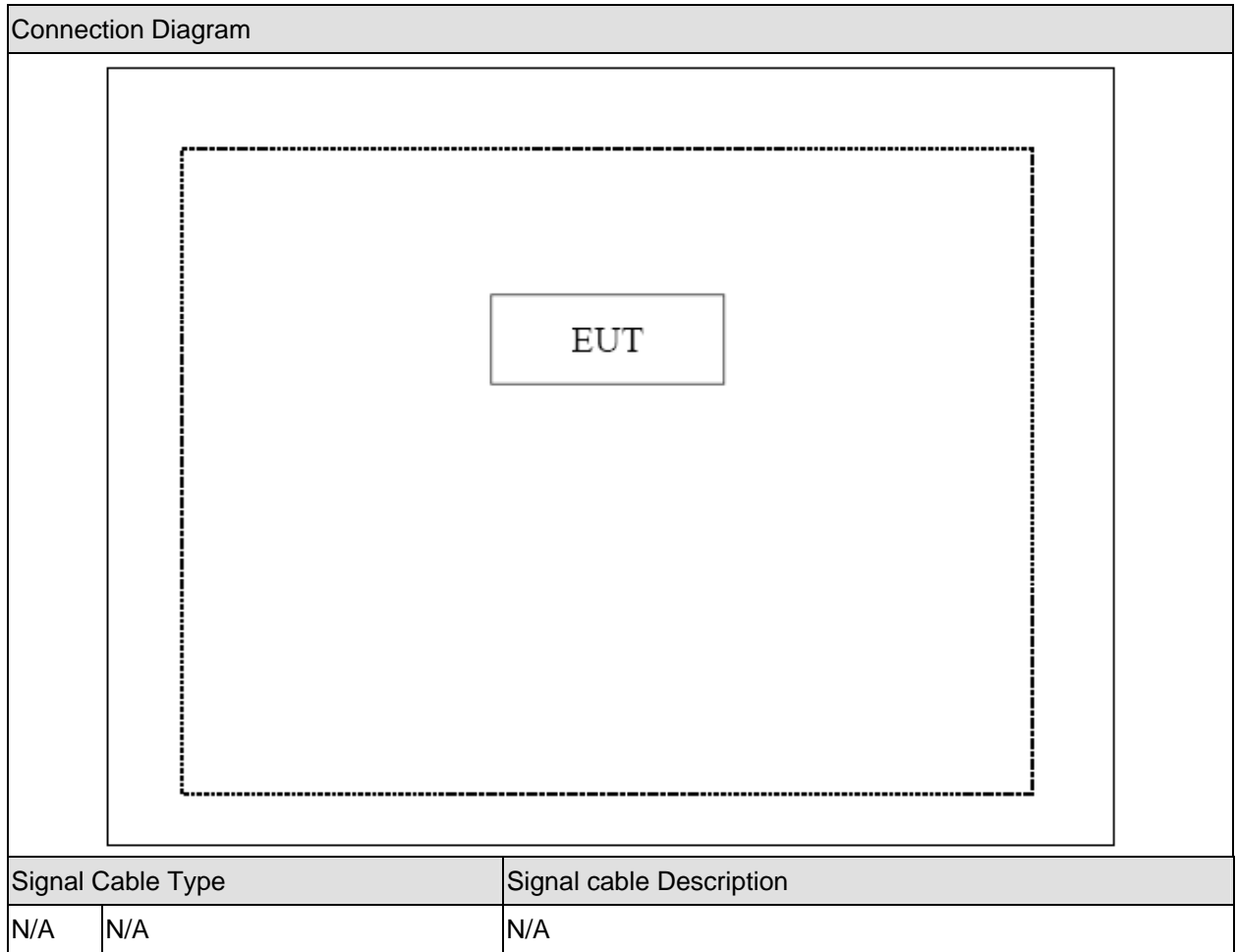


**1.3. Tested System Details**

The types for all equipments, plus descriptions of all cables used in the tested system (including inserted cards) are:

Product		Manufacturer	Model No.	Serial No.	Power Cord
1	N/A	N/A	N/A	N/A	N/A

1.4. Configuration of Tested System



**1.5. EUT Exercise Software**

1	Setup the EUT and simulators as shown on above
2	Turn on the power of equipment
3	Execute the "Brisk" software, and set the test mode and channel, then press OK to start continue Transmit.

## 2. Technical Test

### 2.1. Summary of Test Result

- No deviations from the test standards  
 Deviations from the test standards as below description:

Performed Test Item	Normative References	Test Performed	Deviation
Conducted Emission	FCC CFR Title 47 Part 15 Subpart C: 2007 Section 15.207	Yes	No
Radiated Emission	FCC CFR Title 47 Part 15 Subpart C: 2007 Section 15.209	Yes	No
RF Antenna Conducted Spurious	FCC CFR Title 47 Part 15 Subpart C: 2007 Section 15.247(d)	Yes	No
Radiated Emission Band Edge	FCC CFR Title 47 Part 15 Subpart C: 2007 15.247(d)	Yes	No
Operation Frequency Range of 20dB Bandwidth	FCC CFR Title 47 Part 15 Subpart C: 2007 15.215(c)	Yes	No
Occupied Bandwidth	FCC CFR Title 47 Part 15 Subpart C: 2007 Section 15.247(a)(2)	Yes	No
Power Output	FCC CFR Title 47 Part 15 Subpart C: 2007 Section 15.247(b)(3)	Yes	No
Power Spectral Density	FCC CFR Title 47 Part 15 Subpart C: 2007 Section 15.247(e)	Yes	No

**2.2. Test Environment**

Items	Required (IEC 68-1)	Actual
Temperature (°C)	15-35	21
Humidity (%RH)	25-75	50
Barometric pressure (mbar)	860-1060	950-1000

### 3. Conducted Emission

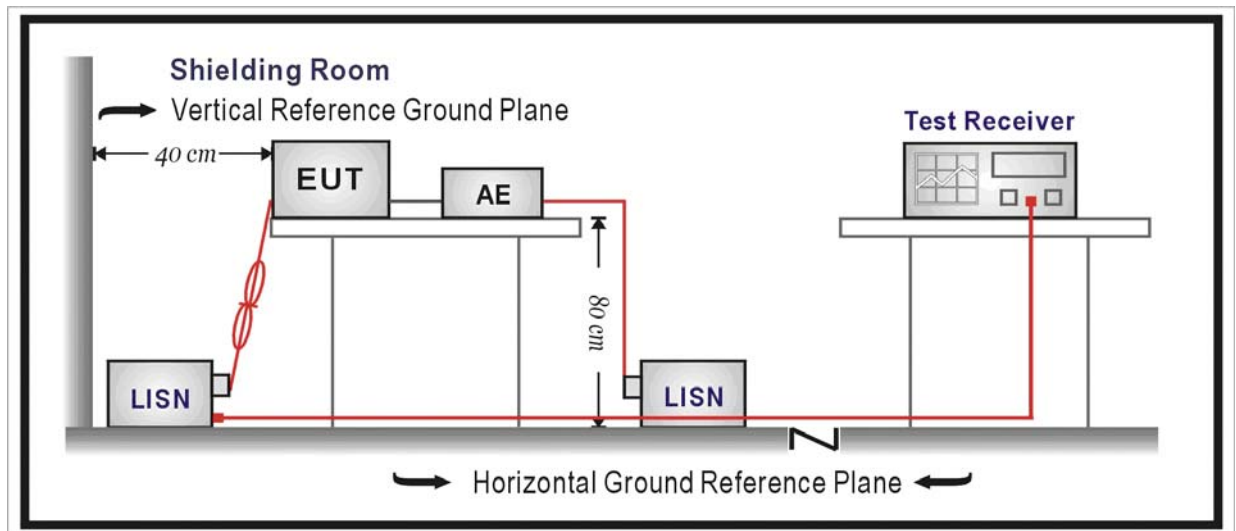
#### 3.1. Test Equipment

Conducted Emission / SR-1

Instrument	Manufacturer	Type No.	Serial No.	Cal. Date
EMI Test Receiver	R&S	ESCI	100726	2008/02/07
Two-Line V-Network	R&S	ENV216	100013	2007/11/15
Two-Line V-Network	R&S	ENV216	100014	2007/11/15
50ohm Coaxial Switch	Anritsu	MP59B	6200464462	2007/11/25
50ohm Termination	SHX	TF2	07081401	2007/10/19
Coaxial Cable	Luthi	RG214	519358	2007/11/25
Temperature/Humidity Meter	zhicheng	ZC1-2	QT-TH004	2008/03/31

Note: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

#### 3.2. Test Setup



**3.3. Limit**

FCC Part 15 Subpart C Paragraph 15.207 Limits		
Frequency (MHz)	QP (dBuV)	AV (dBuV)
0.15 - 0.50	66 - 56	56 - 46
0.50 - 5.0	56	46
5.0 - 30	60	50

Note 1: The lower limit shall apply at the transition frequencies.

Note 2: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.

**3.4. Test Procedure**

The EUT was setup according to ANSI C63.4, 2003 and tested according to DTS test procedure of Oct 2002 KDB558074 for compliance to FCC 47CFR 15.247 requirements. The EUT was placed on a platform of nominal size, 1 m by 1.5 m, raised 80 cm above the conducting ground plane. The vertical conducting plane was located 40 cm to the rear of the EUT. All other surfaces of EUT were at least 80 cm from any other grounded conducting surface. The EUT and simulators are connected to the main power through a line impedance stabilization network (LISN). The LISN provides a 50 ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN. (Please refer to the block diagram of the test setup and photographs)

Each current-carrying conductor of the EUT power cord, except the ground (safety) conductor, was individually connected through a LISN to the input power source.

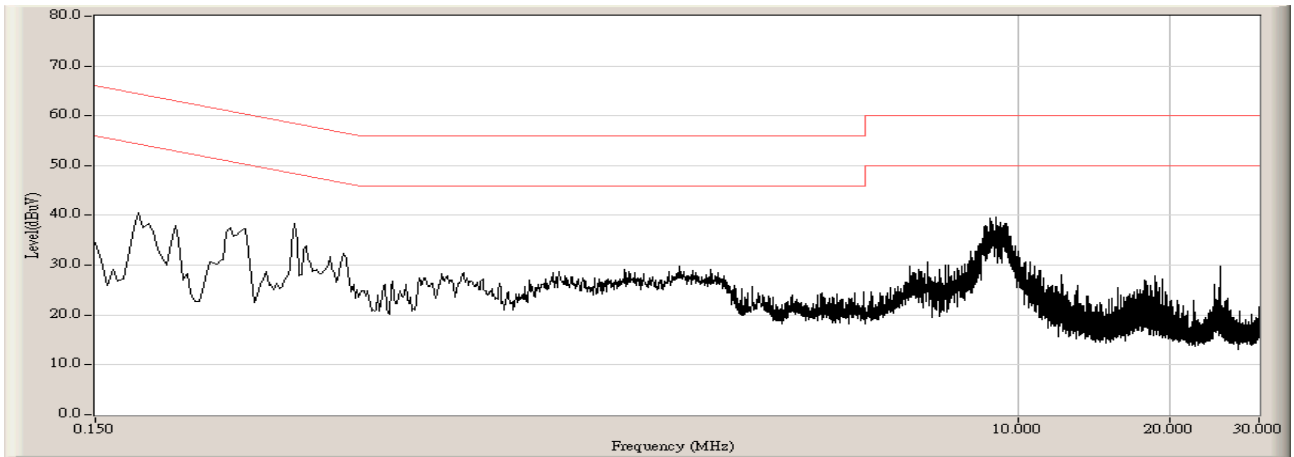
The excess length of the power cord between the EUT and the LISN receptacle were folded back and forth at the center of the lead to form a bundle not exceeding 40 cm in length. Conducted emissions were investigated over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9kHz.

**3.5. Uncertainty**

The measurement uncertainty is defined as  $\pm 2.02$  dB

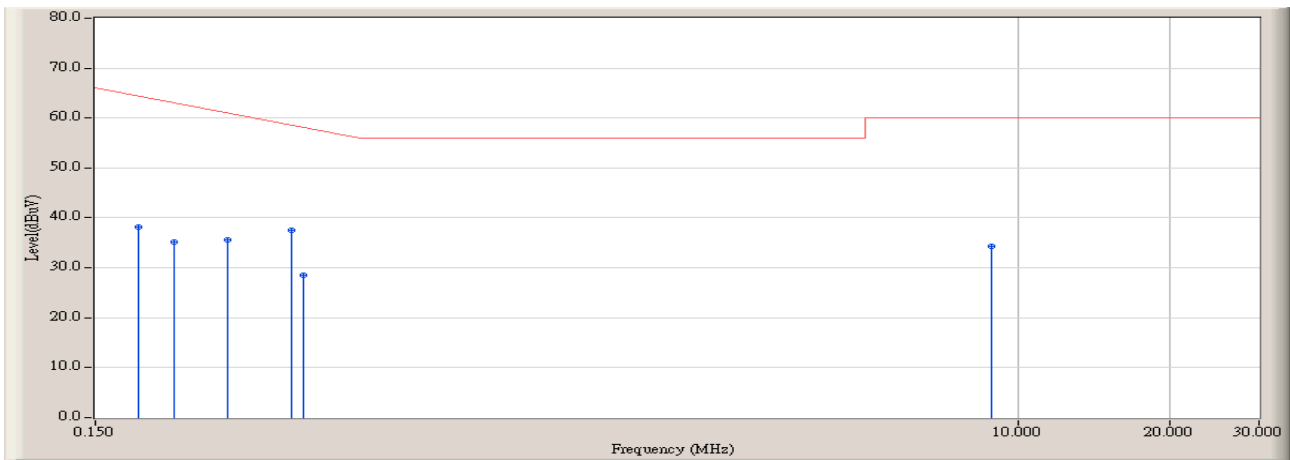
**3.6. Test Result**

Engineer : Robin	
Site : SR1 (Shielded Room for Conducted Emission and Power Disturbance Test)	Time : 2008/06/04 - 10:29
Limit : FCC_Part15.207_00M_QP	Margin : 10
EUT : Wireless-A 26dBm Network MiNi PCI Adapter	Probe : ENV216_100013(0.009-30MHz) - Line1
Power : AC 120V/60Hz	Note : Mode 1 : Transmit at by 802.11a channel 5785MHz





Engineer : Robin	
Site : SR1 (Shielded Room for Conducted Emission and Power Disturbance Test)	Time : 2008/06/04 - 10:30
Limit : FCC_Part15.207_00M_QP	Margin : 0
EUT : Wireless-A 26dBm Network MiNi PCI Adapter	Probe : ENV216_100013(0.009-30MHz) - Line1
Power : AC 120V/60Hz	Note : Mode 1 : Transmit at by 802.11a channel 5785MHz

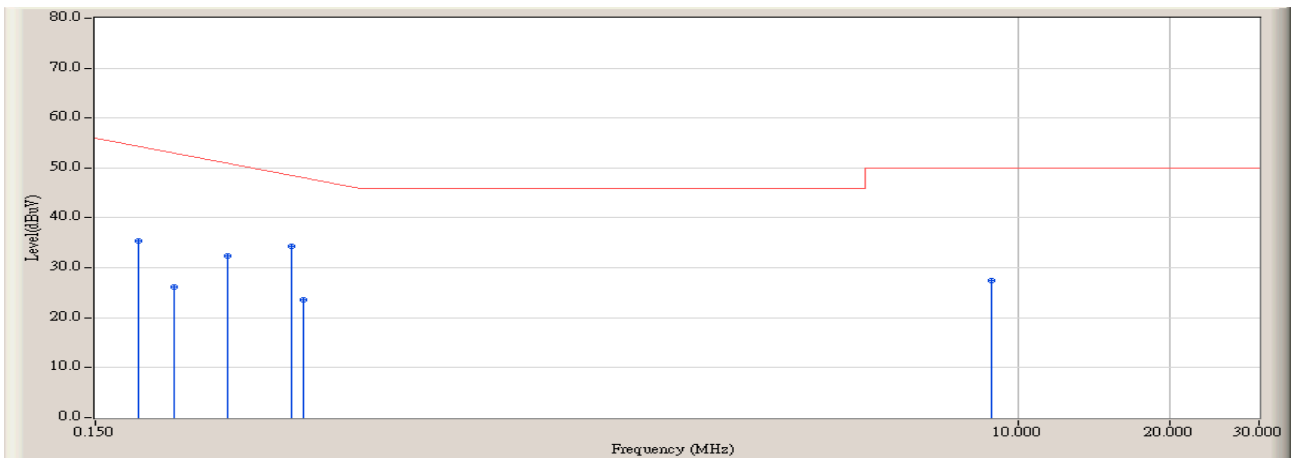


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.182	9.774	28.400	38.174	-26.912	65.086	QUASIPeAK
2		0.214	9.473	25.600	35.073	-29.098	64.171	QUASIPeAK
3		0.274	9.479	26.200	35.678	-26.779	62.457	QUASIPeAK
4	*	0.366	9.548	28.000	37.548	-22.281	59.829	QUASIPeAK
5		0.386	9.561	19.000	28.561	-30.696	59.257	QUASIPeAK
6		8.866	9.880	24.400	34.280	-25.720	60.000	QUASIPeAK

**Note:**

1. All Reading Levels are Quasi-Peak and average value.
2. " \* ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Engineer : Robin	
Site : SR1 (Shielded Room for Conducted Emission and Power Disturbance Test)	Time : 2008/06/04 - 10:30
Limit : FCC_Part15.207_00M_AV	Margin : 0
EUT : Wireless-A 26dBm Network MiNi PCI Adapter	Probe : ENV216_100013(0.009-30MHz) - Line1
Power : AC 120V/60Hz	Note : Mode 1 : Transmit at by 802.11a channel 5785MHz

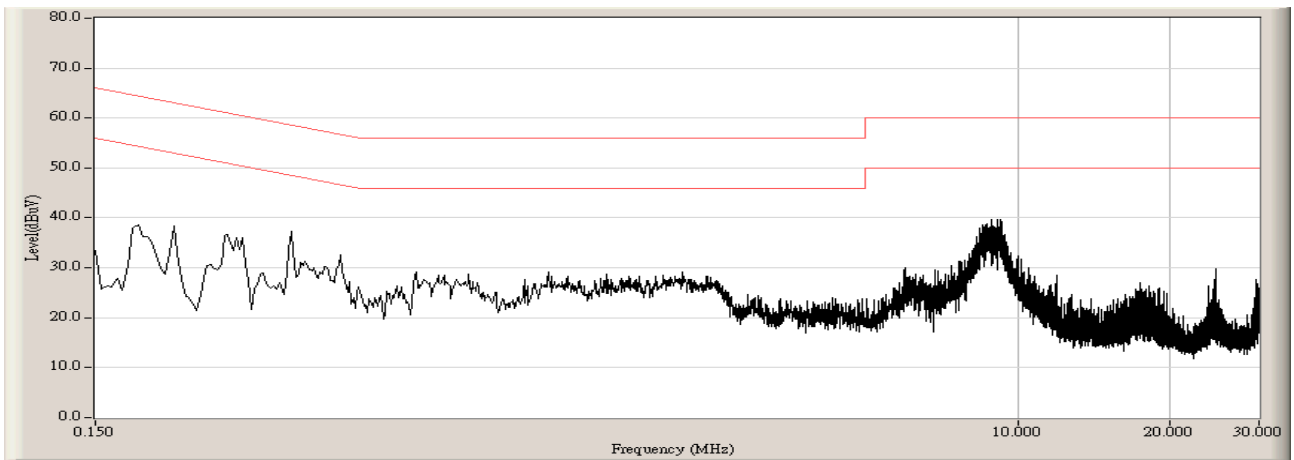


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.182	9.774	25.700	35.474	-19.612	55.086	AVERAGE
2		0.214	9.473	16.600	26.073	-28.098	54.171	AVERAGE
3		0.274	9.479	22.900	32.378	-20.079	52.457	AVERAGE
4	*	0.366	9.548	24.700	34.248	-15.581	49.829	AVERAGE
5		0.386	9.561	14.000	23.561	-25.696	49.257	AVERAGE
6		8.866	9.880	17.500	27.380	-22.620	50.000	AVERAGE

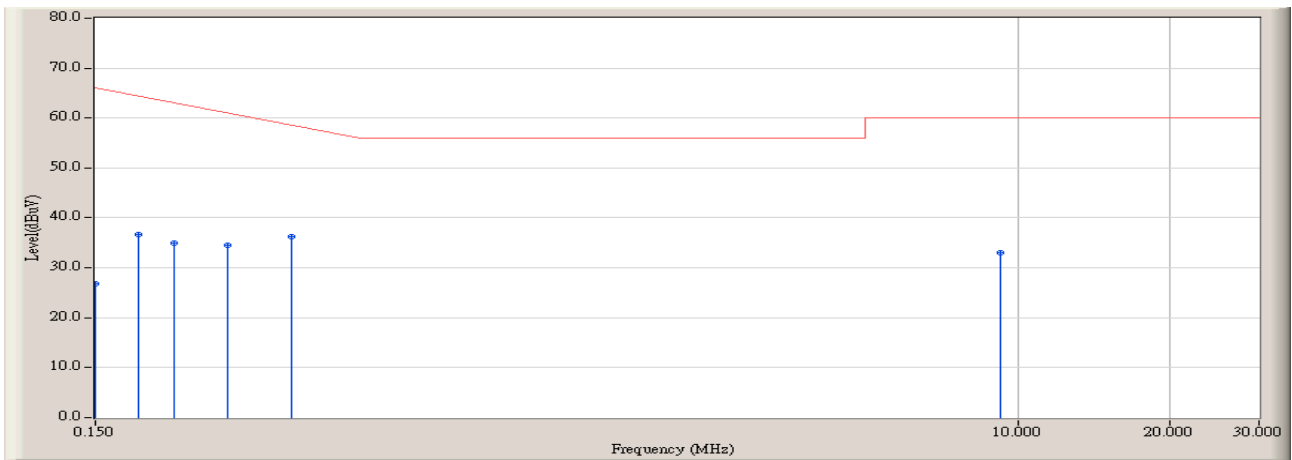
**Note:**

1. All Reading Levels are Quasi-Peak and average value.
2. " \* ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Engineer : Robin	
Site : SR1 (Shielded Room for Conducted Emission and Power Disturbance Test)	Time : 2008/06/04 - 10:32
Limit : FCC_Part15.207_00M_QP	Margin : 10
EUT : Wireless-A 26dBm Network MiNi PCI Adapter	Probe : ENV216_100013(0.009-30MHz) - Line2
Power : AC 120V/60Hz	Note : Mode 1 : Transmit at by 802.11a channel 5785MHz



Engineer : Robin	
Site : SR1 (Shielded Room for Conducted Emission and Power Disturbance Test)	Time : 2008/06/04 - 10:34
Limit : FCC_Part15.207_00M_QP	Margin : 0
EUT : Wireless-A 26dBm Network MiNi PCI Adapter	Probe : ENV216_100013(0.009-30MHz) - Line2
Power : AC 120V/60Hz	Note : Mode 1 : Transmit at by 802.11a channel 5785MHz

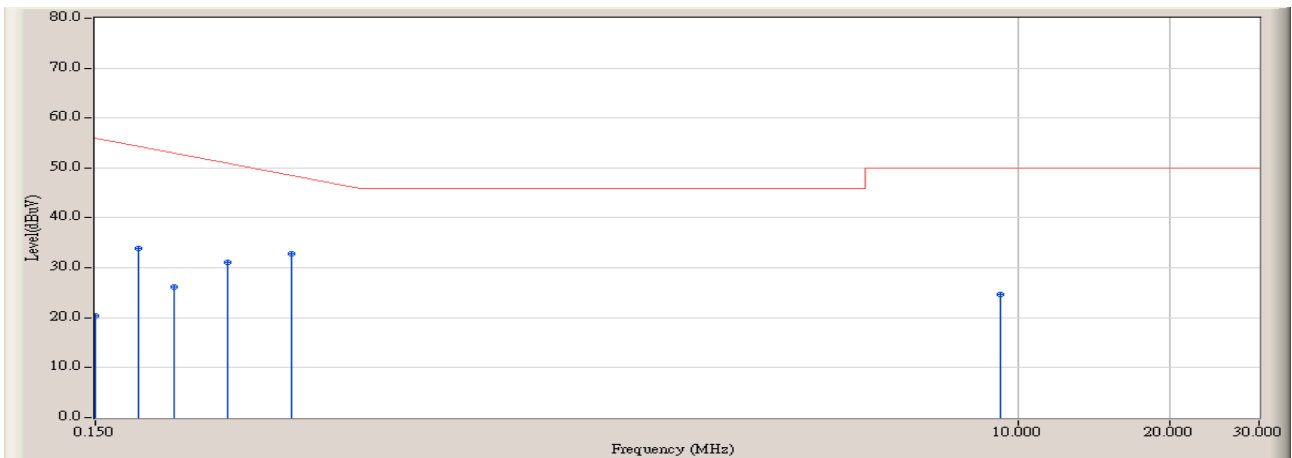


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.150	10.006	16.900	26.906	-39.094	66.000	QUASIPeAK
2		0.182	9.776	27.000	36.776	-28.310	65.086	QUASIPeAK
3		0.214	9.600	25.400	35.000	-29.171	64.171	QUASIPeAK
4		0.274	9.590	25.000	34.590	-27.867	62.457	QUASIPeAK
5	*	0.366	9.609	26.600	36.209	-23.620	59.829	QUASIPeAK
6		9.238	9.860	23.200	33.060	-26.940	60.000	QUASIPeAK

**Note:**

1. All Reading Levels are Quasi-Peak and average value.
2. " \* ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Engineer : Robin	
Site : SR1 (Shielded Room for Conducted Emission and Power Disturbance Test)	Time : 2008/06/04 - 10:34
Limit : FCC_Part15.207_00M_AV	Margin : 0
EUT : Wireless-A 26dBm Network MiNi PCI Adapter	Probe : ENV216_100013(0.009-30MHz) - Line2
Power : AC 120V/60Hz	Note : Mode 1 : Transmit at by 802.11a channel 5785MHz

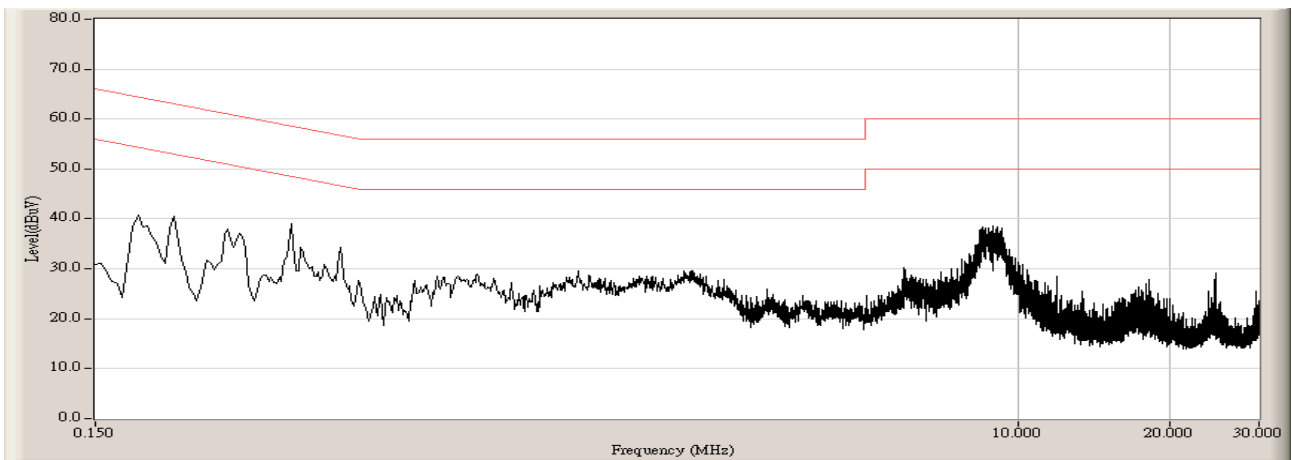


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.150	10.006	10.400	20.406	-35.594	56.000	AVERAGE
2		0.182	9.776	24.200	33.976	-21.110	55.086	AVERAGE
3		0.214	9.600	16.500	26.100	-28.071	54.171	AVERAGE
4		0.274	9.590	21.500	31.090	-21.367	52.457	AVERAGE
5	*	0.366	9.609	23.200	32.809	-17.020	49.829	AVERAGE
6		9.238	9.860	14.800	24.660	-25.340	50.000	AVERAGE

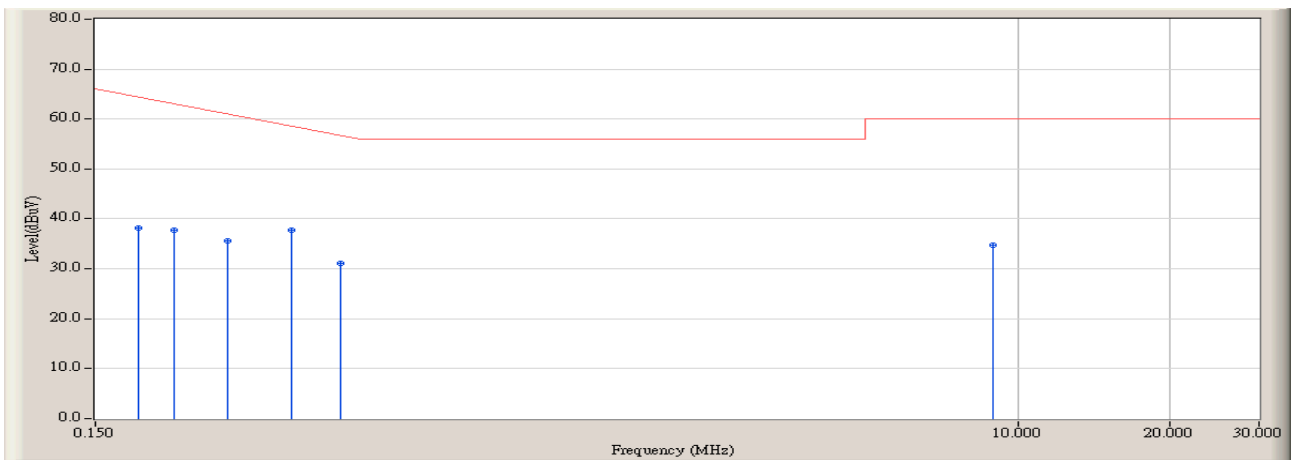
**Note:**

1. All Reading Levels are Quasi-Peak and average value.
2. " \* ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

<b>Engineer : Robin</b>	
<b>Site : SR1 (Shielded Room for Conducted Emission and Power Disturbance Test)</b>	<b>Time : 2008/04/01 - 10:19</b>
<b>Limit : FCC_Part15.207_00M_QP</b>	<b>Margin : 10</b>
<b>EUT : Wireless-A 26dBm Network MiNi PCI Adapter</b>	<b>Probe : ENV216_100013(0.009-30MHz) - Line1</b>
<b>Power :AC 120V/60Hz</b>	<b>Note : Mode 2 : Transmit at by 802.11Turbo a channel 5765MHz</b>



Engineer : Robin	
Site : SR1 (Shielded Room for Conducted Emission and Power Disturbance Test)	Time : 2008/04/01 - 10:21
Limit : FCC_Part15.207_00M_QP	Margin : 0
EUT : Wireless-A 26dBm Network MiNi PCI Adapter	Probe : ENV216_100013(0.009-30MHz) - Line1
Power :AC 120V/60Hz	Note : Mode 2 : Transmit at by 802.11Turbo a channel 5765MHz

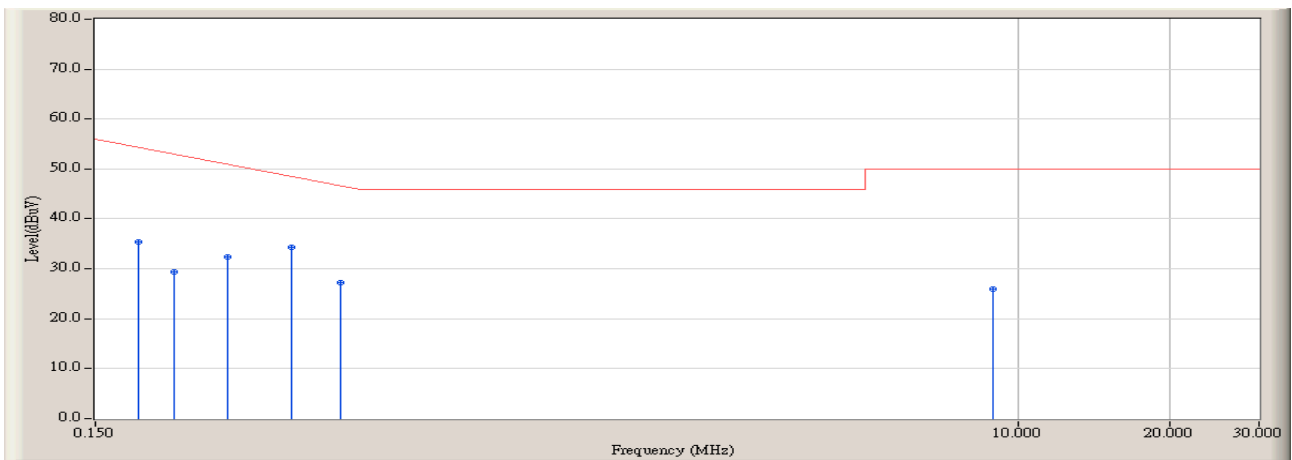


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.182	9.774	28.400	38.174	-26.912	65.086	QUASIPeAK
2		0.214	9.473	28.200	37.673	-26.498	64.171	QUASIPeAK
3		0.274	9.479	26.200	35.678	-26.779	62.457	QUASIPeAK
4	*	0.366	9.548	28.100	37.648	-22.181	59.829	QUASIPeAK
5		0.458	9.599	21.400	30.999	-26.201	57.200	QUASIPeAK
6		8.914	9.880	24.900	34.780	-25.220	60.000	QUASIPeAK

**Note:**

1. All Reading Levels are Quasi-Peak and average value.
2. " \* ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Engineer : Robin	
Site : SR1 (Shielded Room for Conducted Emission and Power Disturbance Test)	Time : 2008/04/01 - 10:21
Limit : FCC_Part15.207_00M_AV	Margin : 0
EUT : Wireless-A 26dBm Network MiNi PCI Adapter	Probe : ENV216_100013(0.009-30MHz) - Line1
Power :AC 120V/60Hz	Note : Mode 2 : Transmit at by 802.11Turbo a channel 5765MHz



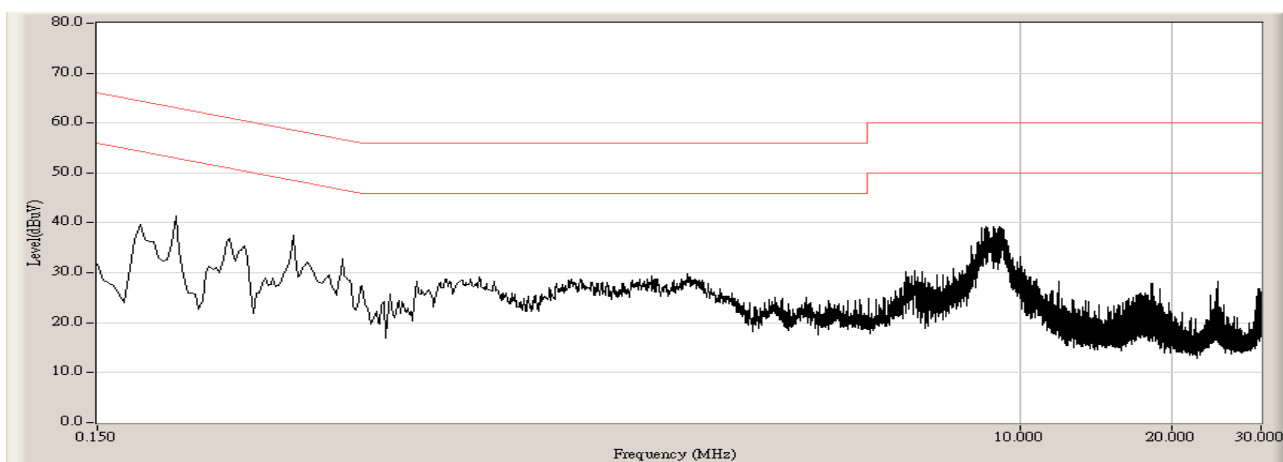
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.182	9.774	25.600	35.374	-19.712	55.086	AVERAGE
2		0.214	9.473	20.000	29.473	-24.698	54.171	AVERAGE
3		0.274	9.479	23.000	32.478	-19.979	52.457	AVERAGE
4	*	0.366	9.548	24.700	34.248	-15.581	49.829	AVERAGE
5		0.458	9.599	17.700	27.299	-19.901	47.200	AVERAGE
6		8.914	9.880	16.000	25.880	-24.120	50.000	AVERAGE

**Note:**

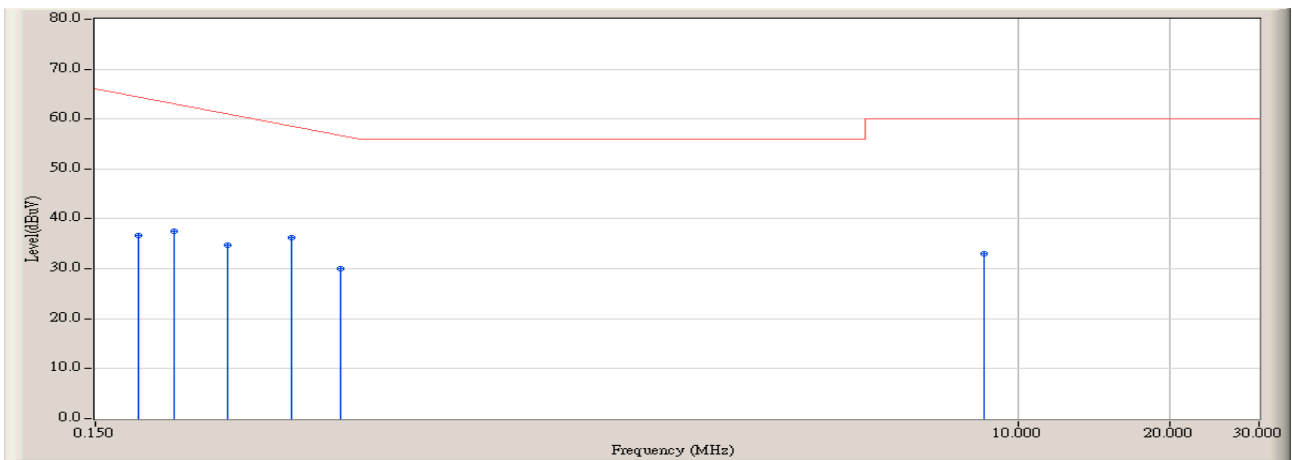
1. All Reading Levels are Quasi-Peak and average value.
2. " \* ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor



Engineer : Robin	
Site : SR1 (Shielded Room for Conducted Emission and Power Disturbance Test)	Time : 2008/04/01 - 10:24
Limit : FCC_Part15.207_00M_QP	Margin : 10
EUT : Wireless-A 26dBm Network MiNi PCI Adapter	Probe : ENV216_100013(0.009-30MHz) - Line2
Power :AC 120V/60Hz	Note : Mode 2 : Transmit at by 802.11Turbo a channel 5765MHz



Engineer : Robin	
Site : SR1 (Shielded Room for Conducted Emission and Power Disturbance Test)	Time : 2008/04/01 - 10:25
Limit : FCC_Part15.207_00M_QP	Margin : 0
EUT : Wireless-A 26dBm Network MiNi PCI Adapter	Probe : ENV216_100013(0.009-30MHz) - Line2
Power :AC 120V/60Hz	Note : Mode 2 : Transmit at by 802.11Turbo a channel 5765MHz

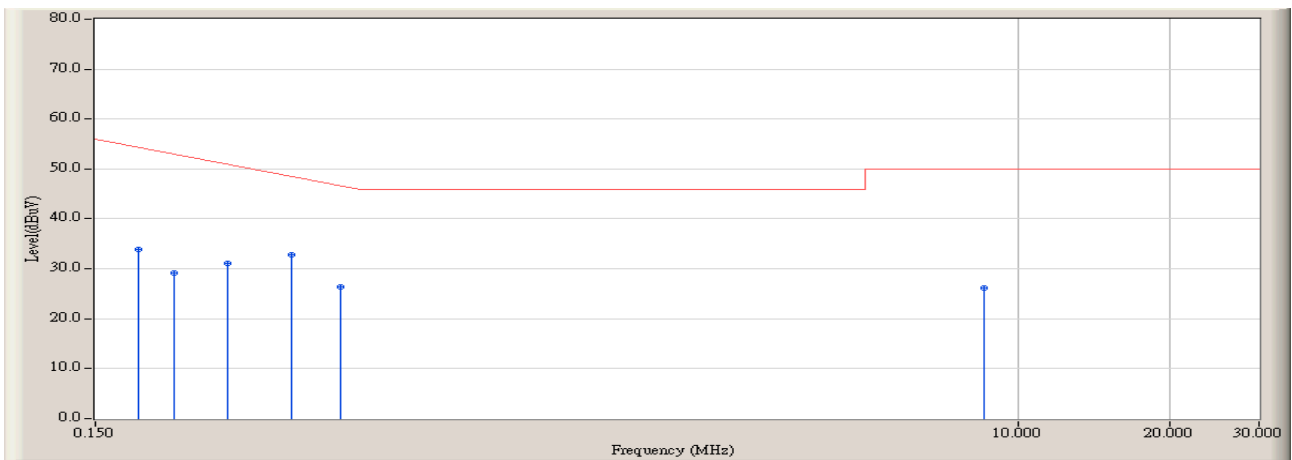


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.182	9.776	26.900	36.676	-28.410	65.086	QUASIPeAK
2		0.214	9.600	27.900	37.500	-26.671	64.171	QUASIPeAK
3		0.274	9.590	25.100	34.690	-27.767	62.457	QUASIPeAK
4	*	0.366	9.609	26.600	36.209	-23.620	59.829	QUASIPeAK
5		0.458	9.620	20.500	30.120	-27.080	57.200	QUASIPeAK
6		8.590	9.860	23.100	32.960	-27.040	60.000	QUASIPeAK

**Note:**

1. All Reading Levels are Quasi-Peak and average value.
2. " \* ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Engineer : Robin	
Site : SR1 (Shielded Room for Conducted Emission and Power Disturbance Test)	Time : 2008/04/01 - 10:25
Limit : FCC_Part15.207_00M_AV	Margin : 0
EUT : Wireless-A 26dBm Network MiNi PCI Adapter	Probe : ENV216_100013(0.009-30MHz) - Line2
Power :AC 120V/60Hz	Note : Mode 2 : Transmit at by 802.11Turbo a channel 5765MHz



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.182	9.776	24.100	33.876	-21.210	55.086	AVERAGE
2		0.214	9.600	19.600	29.200	-24.971	54.171	AVERAGE
3		0.274	9.590	21.600	31.190	-21.267	52.457	AVERAGE
4	*	0.366	9.609	23.300	32.909	-16.920	49.829	AVERAGE
5		0.458	9.620	16.700	26.320	-20.880	47.200	AVERAGE
6		8.590	9.860	16.200	26.060	-23.940	50.000	AVERAGE

**Note:**

1. All Reading Levels are Quasi-Peak and average value.
2. " \* ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.

## 4. Radiated Emission

### 4.1. Test Equipment

Radiated Emission / AC-2

Instrument	Manufacturer	Type No.	Serial No.	Cal. Date
Spectrum Analyzer	Agilent	E4408B	MY45102679	2007/11/12
EMI Test Receiver	R&S	ESCI	100573	2008/05/10
Preamplifier	Quietek	AP-025C	QT-AP003	2007/11/25
Preamplifier	Quietek	AP-180C	CHM-0602012	2007/11/25
Bilog Type Antenna	Schaffner	CBL6112B	2932	2007/11/22
Broad-Band Horn Antenna	Schwarzbeck	BBHA9120D	496	2007/11/25
High-Pass Filter	Wainwright	WHKX2.8/18G-12SS	SN1	2008/03/03
Band Reject Filter	Wainwright	WRCG2400/2485-2375 /2510-60/11SS	SN9	2008/03/03
High-Pass Filter	Wainwright	WHKX7.0/18G-8SS	SN16	2008/03/03
Low-Pass Filter	Wainwright	WLKS4500-9SS	SN2	2008/03/03
50ohm Coaxial Switch	Anritsu	MP59B	6200447304	2007/11/25
Coaxial Cable	Huber+Suhner	AC2-C	04	2007/11/25
Temperature/Humidity Meter	zhicheng	ZC1-2	QT-TH002	2008/03/31

Radiated Emission / AC-3

Instrument	Manufacturer	Type No.	Serial No.	Cal. Date
Spectrum Analyzer	Agilent	N9010A	MY48030494	2008/04/24
EMI Test Receiver	R&S	ESCI	100176	2007/11/15
Preamplifier	Quietek	AP-025C	QT-AP004	2007/11/25
Preamplifier	Quietek	AP-180C	CHM-0602012	2007/11/25
Bilog Type Antenna	Schaffner	CBL6112D	22254	2007/11/22
Broad-Band Horn Antenna	Schwarzbeck	BBHA9120D	496	2007/11/25
High-Pass Filter	Wainwright	WHKX2.8/18G-12SS	SN1	2008/03/03
Band Reject Filter	Wainwright	WRCG2400/2485-2375 /2510-60/11SS	SN9	2008/03/03
High-Pass Filter	Wainwright	WHKX7.0/18G-8SS	SN16	2008/03/03
Low-Pass Filter	Wainwright	WLKS4500-9SS	SN2	2008/03/03
50ohm Coaxial Switch	Anritsu	MP59B	6200464463	2007/11/25
Coaxial Cable	Huber+Suhner	AC2-C	05	2007/11/25

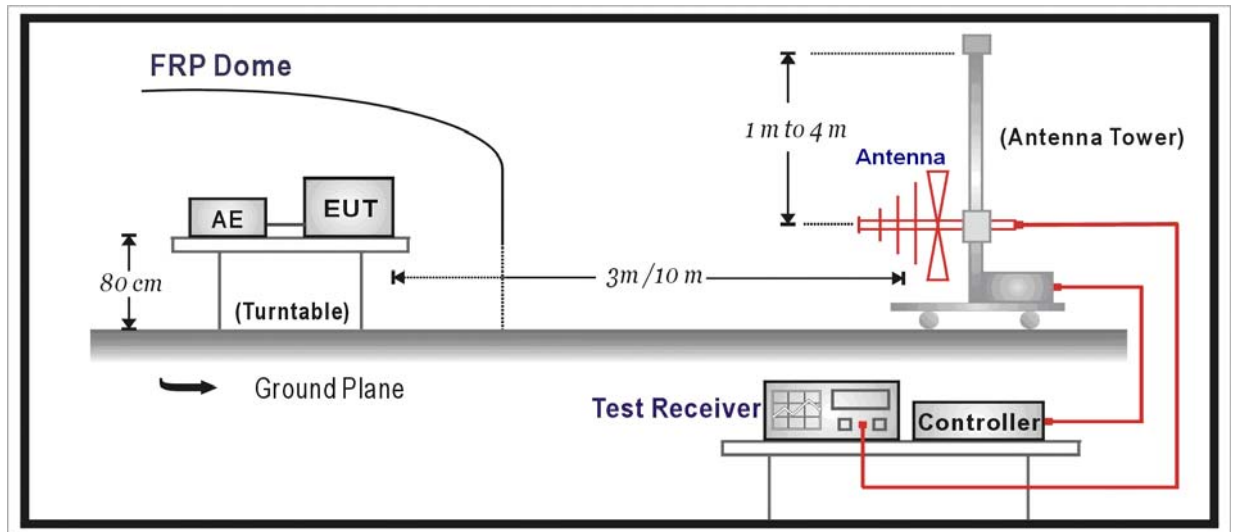
Temperature/Humidity Meter	zhicheng	ZC1-2	QT-TH003	2008/03/31
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Note 1: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

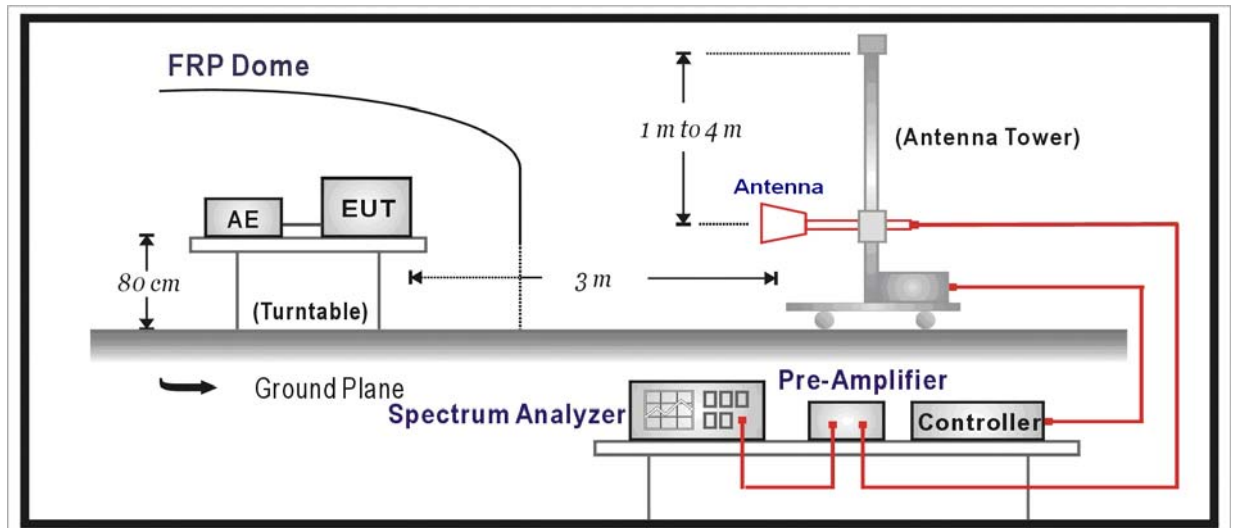
Note 2: The test instruments marked with "X" are used to measure the final test results.

### 4.2. Test Setup

Under 1GHz Test Setup:



Above 1GHz Test Setup:



**4.3. Limit**

FCC Part 15 Subpart C Paragraph 15.209		
Frequency (MHz)	Distance (m)	Level (dBuV/m)
30 - 88	3	40
88 - 216	3	43.5
216 - 960	3	46
Above 960	3	54

Note 1: The lower limit shall apply at the transition frequency.

Note 2: Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.

Note 3: E field strength (dBuV/m) = 20 log E field strength (uV/m)

**4.4. Test Procedure**

The EUT was setup according to ANSI C63.4, 2003 and tested according to DTS test procedure of Oct 2002 KDB558074 for compliance to FCC 47CFR 15.247 requirements.

The EUT is placed on a turn table which is 0.8 meter above ground. The turn table is rotated 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.

The antenna is scanned from 1 meter to 4 meters to find out the maximum emission level. This is repeated for both horizontal and vertical polarization of the antenna. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.4:2003 on radiated measurement.

The resolution bandwidth below 1GHz setting on the field strength meter is 120 kHz and above 1GHz is 1MHz.

The frequency range from 30MHz to 10th harmonic is checked.

Note: When measurement above 1GHz, the horn antenna will bend down a little (as horn antenna have the narrow beamwidth) in order to find the maximum emission of EUT.

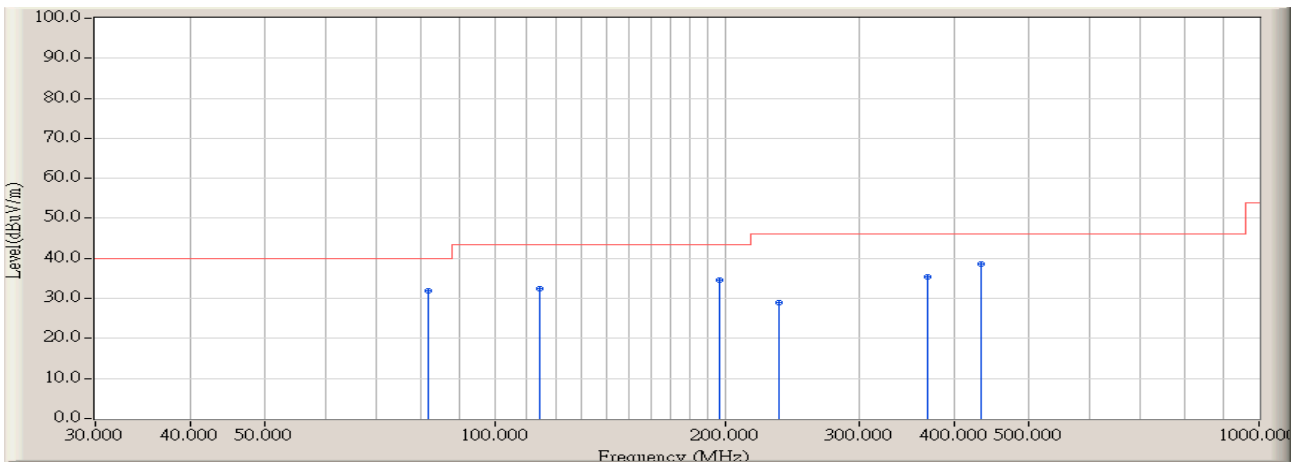
**4.5. Uncertainty**

The measurement uncertainty above 1G is defined as ± 3.9 dB

below 1G is defined as ± 3.8 dB

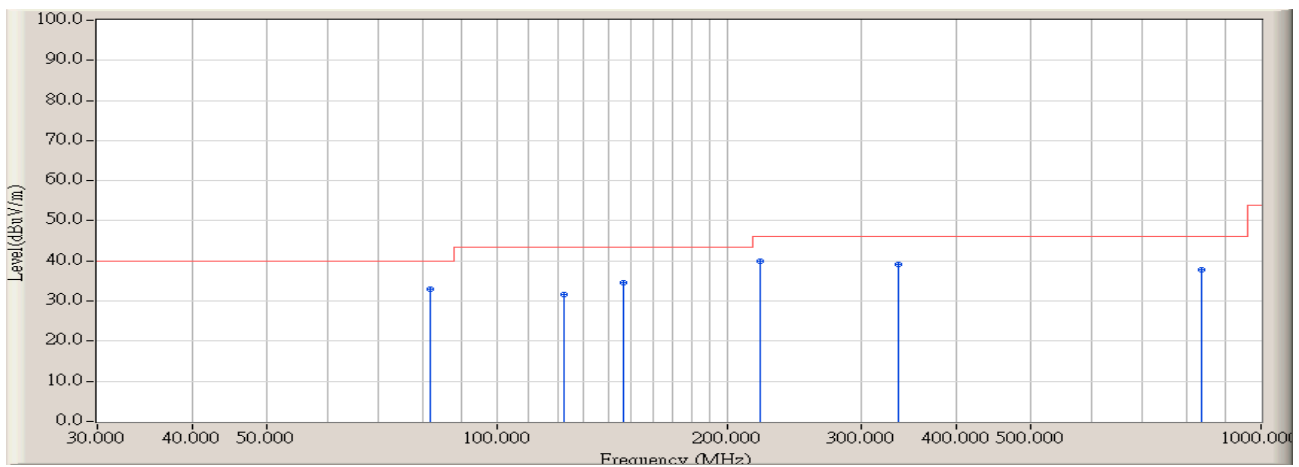
4.6. Test Result

Engineer : Robin	
Site : AC2 (3m Semi-Anechoic Chamber)	Time : 2008/05/31 - 16:01
Limit : FCC_SpartC_15.209_03M_QP	Margin : 0
EUT :WIRELESS-A 26DBM NETWORK MINI PCI ADAPTER	Probe : CBL6141A_4278(30-2000MHz) - HORIZONTAL
Power : AC 120V/60Hz	Note : Mode 1: Transmit at by 802.11a at channel 5745MHz



	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1	81.733	-13.525	45.300	31.775	-8.225	40.000	QUASIPeAK	125.600	112.400
2	114.670	-10.326	42.800	32.474	-11.046	43.520	QUASIPeAK	142.600	79.200
3	196.517	-11.060	45.600	34.541	-8.979	43.520	QUASIPeAK	100.000	185.000
4	235.350	-9.543	38.600	29.057	-16.963	46.020	QUASIPeAK	143.500	177.000
5	369.050	-6.047	41.500	35.453	-10.567	46.020	QUASIPeAK	106.500	93.500
6	* 432.500	-4.698	43.300	38.602	-7.418	46.020	QUASIPeAK	100.000	196.500

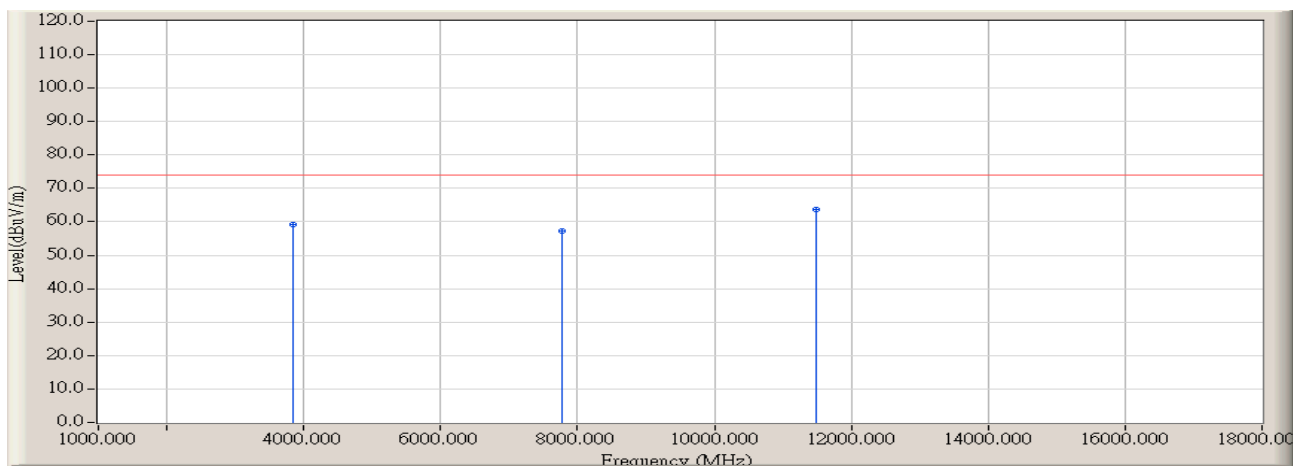
Engineer : Robin	
Site : AC2 (3m Semi-Anechoic Chamber)	Time : 2008/05/31 - 16:05
Limit : FCC_SpartC_15.209_03M_QP	Margin : 0
EUT : WIRELESS-A 26DBM NETWORK MINI PCI ADAPTER	Probe : CBL6141A_4278(30-2000MHz) - VERTICAL
Power : AC 120V/60Hz	Note : Mode 1: Transmit at by 802.11a at channel 5745MHz



	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1	81.773	-13.521	46.500	32.979	-7.021	40.000	QUASIPeAK	100.000	136.500
2	122.150	-9.970	41.500	31.530	-11.990	43.520	QUASIPeAK	106.800	92.800
3	146.400	-9.220	43.800	34.580	-8.940	43.520	QUASIPeAK	100.000	253.800
4	* 220.750	-8.891	48.900	40.009	-6.011	46.020	QUASIPeAK	142.500	78.600
5	335.550	-6.515	45.600	39.085	-6.935	46.020	QUASIPeAK	100.000	79.400
6	836.720	2.231	35.500	37.732	-8.288	46.020	QUASIPeAK	108.400	95.800

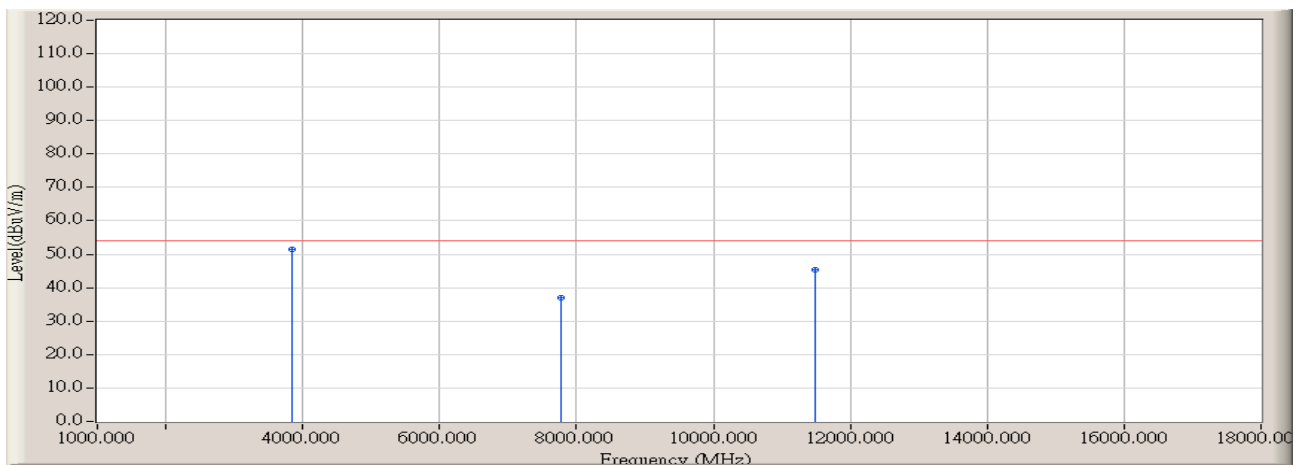


Engineer : Robin	
Site : AC2 (3m Semi-Anechoic Chamber)	Time : 2008/05/19 - 14:53
Limit : FCC_SpartC_15.209_03M_PK	Margin : 0
EUT : WIRELESS-A 26DBM NETWORK MINI PCI ADAPTER	Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL
Power : AC 120V/60Hz	Note : Mode 1: Transmit at by 802.11a at channel 5745MHz



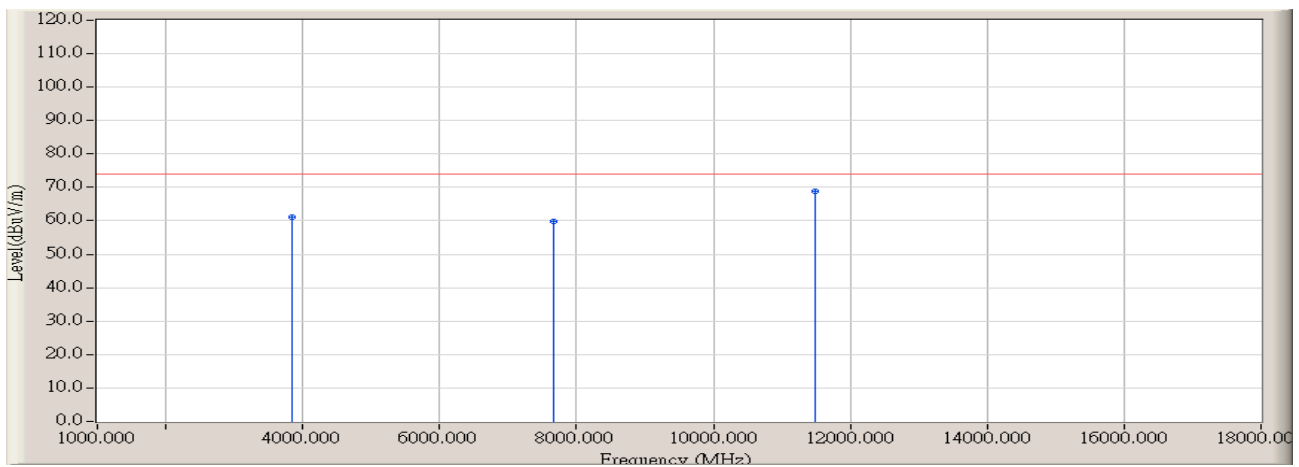
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1	3835.165	0.218	58.975	59.193	-14.777	73.970	PEAK	100.000	174.800
2	7771.667	13.247	43.985	57.232	-16.738	73.970	PEAK	122.400	145.200
3	* 11483.333	18.870	44.866	63.736	-10.234	73.970	PEAK	100.000	158.500

Engineer : Robin	
Site : AC2 (3m Semi-Anechoic Chamber)	Time : 2008/05/19 - 14:53
Limit : FCC_SpartC_15.209_03M_AV	Margin : 0
EUT : WIRELESS-A 26DBM NETWORK MINI PCI ADAPTER	Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL
Power : AC 120V/60Hz	Note : Mode 1: Transmit at by 802.11a at channel 5745MHz



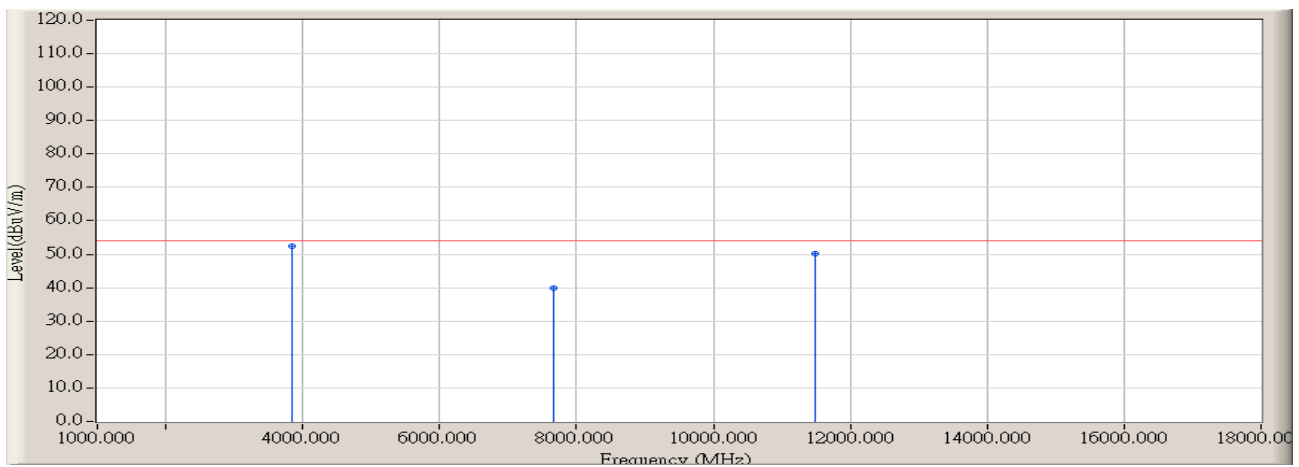
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1	*	3835.165	0.218	51.200	51.418	-2.552	53.970	AVERAGE	100.000	174.800
2		7771.667	13.247	23.800	37.047	-16.923	53.970	AVERAGE	122.400	145.200
3		11483.333	18.870	26.500	45.370	-8.600	53.970	AVERAGE	100.000	158.500

Engineer : Robin	
Site : AC2 (3m Semi-Anechoic Chamber)	Time : 2008/05/19 - 14:54
Limit : FCC_SpartC_15.209_03M_PK	Margin : 0
EUT : WIRELESS-A 26DBM NETWORK MINI PCI ADAPTER	Probe : BBHA9120D_496(1-18GHz) - VERTICAL
Power : AC 120V/60Hz	Note : Mode 1: Transmit at by 802.11a at channel 5745MHz



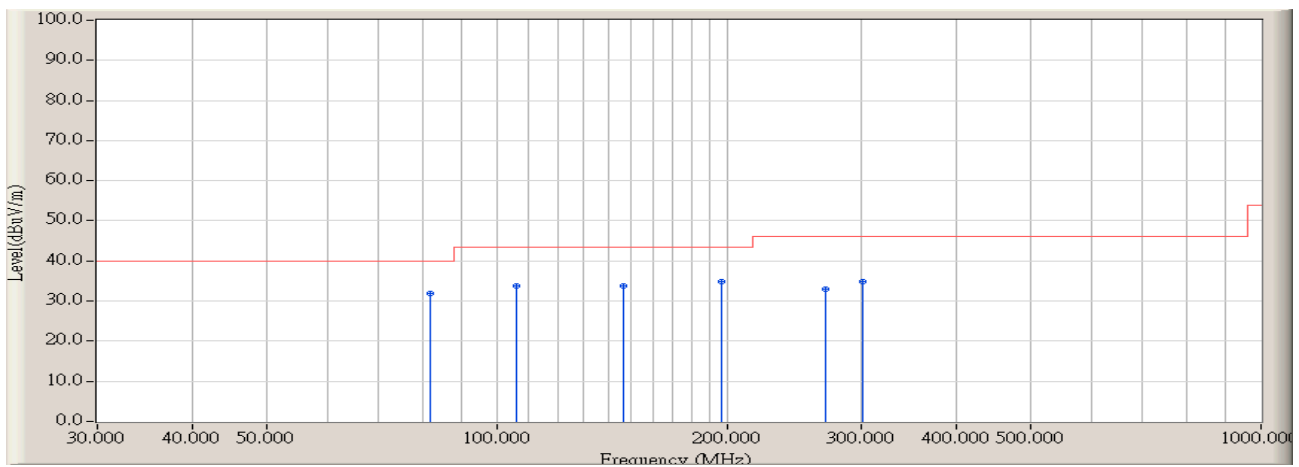
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1	3835.165	0.218	60.800	61.018	-12.952	73.970	PEAK	100.000	136.500
2	7658.333	12.849	47.121	59.971	-13.999	73.970	PEAK	100.000	163.500
3	* 11483.333	18.870	49.956	68.826	-5.144	73.970	PEAK	100.000	162.700

Engineer : Robin	
Site : AC2 (3m Semi-Anechoic Chamber)	Time : 2008/05/19 - 14:54
Limit : FCC_SpartC_15.209_03M_AV	Margin : 0
EUT : WIRELESS-A 26DBM NETWORK MINI PCI ADAPTER	Probe : BBHA9120D_496(1-18GHz) - VERTICAL
Power : AC 120V/60Hz	Note : Mode 1: Transmit at by 802.11a at channel 5745MHz



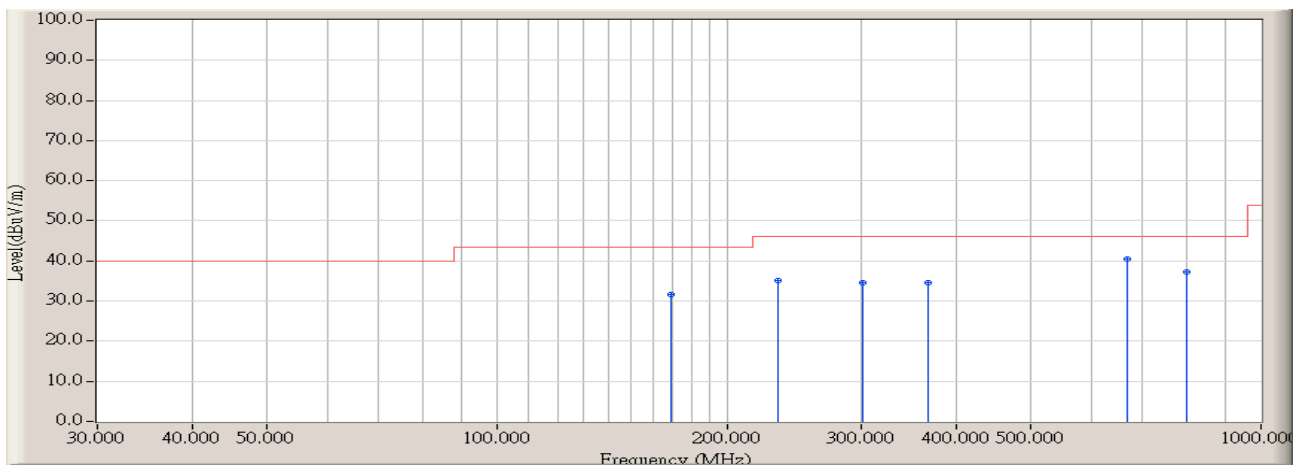
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1	*	3835.165	0.218	52.300	52.518	-1.452	53.970	AVERAGE	100.000	136.500
2		7658.333	12.849	27.200	40.050	-13.920	53.970	AVERAGE	100.000	163.500
3		11483.333	18.870	31.200	50.070	-3.900	53.970	AVERAGE	100.000	162.700

Engineer : Robin	
Site : AC2 (3m Semi-Anechoic Chamber)	Time : 2008/05/31 - 16:12
Limit : FCC_SpartC_15.209_03M_QP	Margin : 0
EUT : WIRELESS-A 26DBM NETWORK MINI PCI ADAPTER	Probe : CBL6141A_4278(30-2000MHz) - HORIZONTAL
Power : AC 120V/60Hz	Note : Mode 1: Transmit at by 802.11a at channel 5785MHz



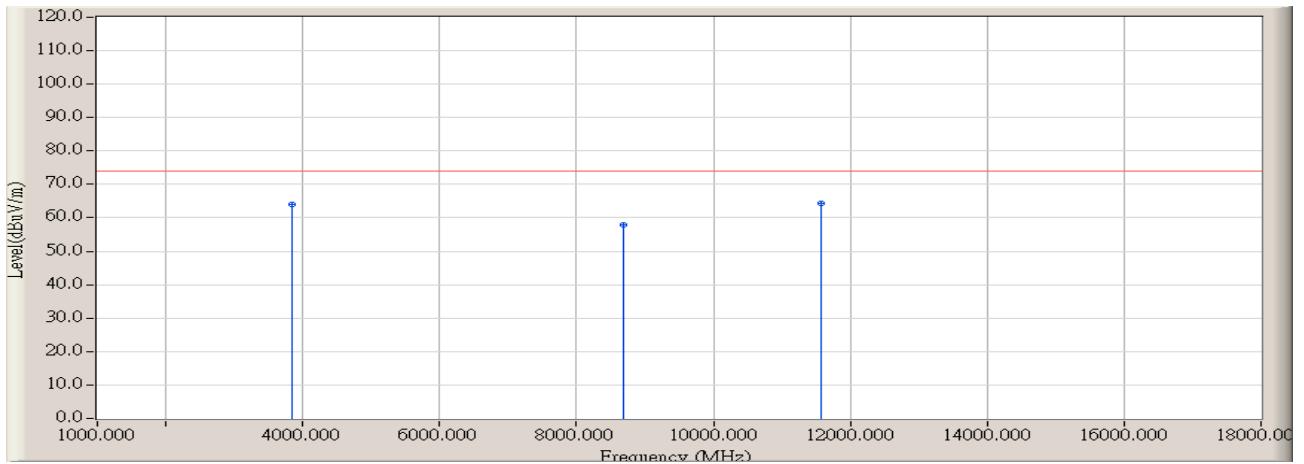
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1	*	81.733	-13.525	45.300	31.775	-8.225	40.000	QUASIPeAK	109.000	93.800
2		105.975	-10.878	44.600	33.723	-9.797	43.520	QUASIPeAK	125.800	46.100
3		146.700	-9.245	42.900	33.655	-9.865	43.520	QUASIPeAK	100.000	175.600
4		196.520	-11.059	45.800	34.741	-8.779	43.520	QUASIPeAK	139.500	28.300
5		269.525	-8.539	41.500	32.961	-13.059	46.020	QUASIPeAK	140.000	75.900
6		301.500	-7.811	42.600	34.789	-11.231	46.020	QUASIPeAK	152.000	188.700

Engineer : Robin	
Site : AC2 (3m Semi-Anechoic Chamber)	Time : 2008/05/31 - 16:17
Limit : FCC_SpartC_15.209_03M_QP	Margin : 0
EUT : WIRELESS-A 26DBM NETWORK MINI PCI ADAPTER	Probe : CBL6141A_4278(30-2000MHz) - VERTICAL
Power : AC 120V/60Hz	Note : Mode 1: Transmit at by 802.11a at channel 5785MHz



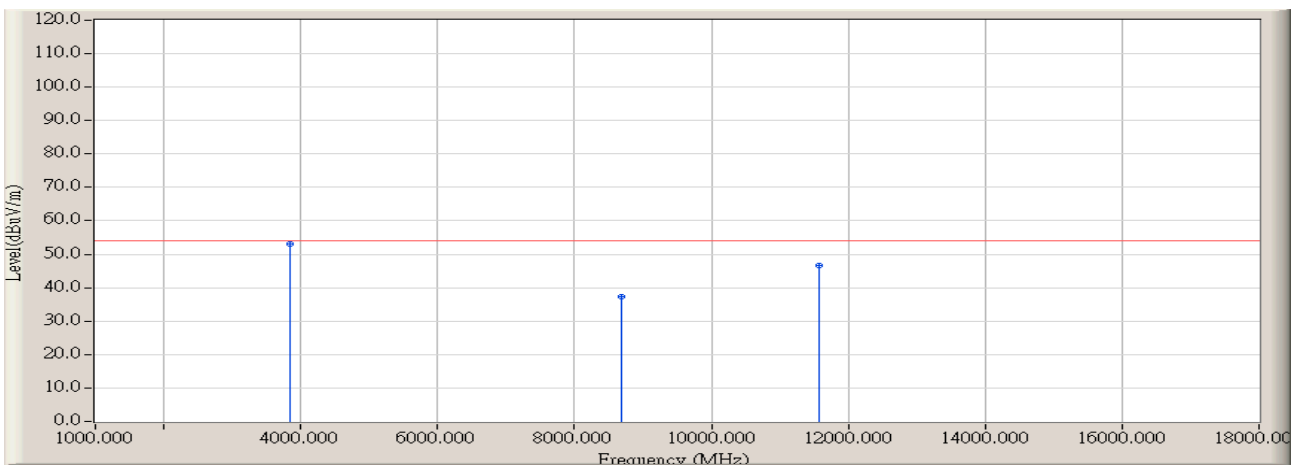
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1	169.030	-10.610	42.300	31.690	-11.830	43.520	QUASIPeAK	100.000	142.600
2	233.700	-9.482	44.500	35.018	-11.002	46.020	QUASIPeAK	105.600	174.800
3	301.600	-7.804	42.500	34.696	-11.324	46.020	QUASIPeAK	100.000	185.000
4	366.280	-6.064	40.700	34.636	-11.384	46.020	QUASIPeAK	110.600	193.500
5	* 668.500	-0.085	40.600	40.516	-5.504	46.020	QUASIPeAK	100.000	163.500
6	800.250	1.437	35.700	37.137	-8.883	46.020	QUASIPeAK	120.300	182.000

Engineer : Robin	
Site : AC2 (3m Semi-Anechoic Chamber)	Time : 2008/05/19 - 14:59
Limit : FCC_SpartC_15.209_03M_PK	Margin : 0
EUT : WIRELESS-A 26DBM NETWORK MINI PCI ADAPTER	Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL
Power : AC 120V/60Hz	Note : Mode 1: Transmit at by 802.11a at channel 5785MHz



	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1	3845.750	0.236	63.725	63.961	-10.009	73.970	PEAK	121.200	83.900
2	8678.333	14.136	43.634	57.771	-16.199	73.970	PEAK	120.300	145.800
3	* 11568.333	18.004	46.388	64.391	-9.579	73.970	PEAK	140.000	215.800

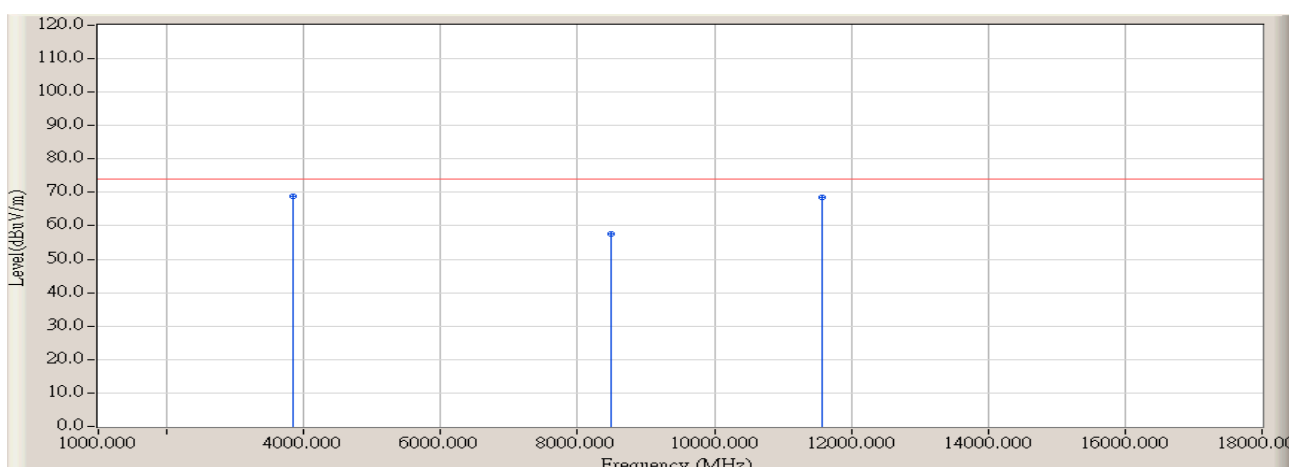
Engineer : Robin	
Site : AC2 (3m Semi-Anechoic Chamber)	Time : 2008/05/19 - 14:59
Limit : FCC_SpartC_15.209_03M_AV	Margin : 0
EUT : WIRELESS-A 26DBM NETWORK MINI PCI ADAPTER	Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL
Power : AC 120V/60Hz	Note : Mode 1: Transmit at by 802.11a at channel 5785MHz



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1	*	3845.750	0.236	53.000	53.236	-0.734	53.970	AVERAGE	121.200	83.900
2		8678.333	14.136	23.300	37.437	-16.533	53.970	AVERAGE	120.300	145.800
3		11568.333	18.004	28.600	46.603	-7.367	53.970	AVERAGE	140.000	215.800

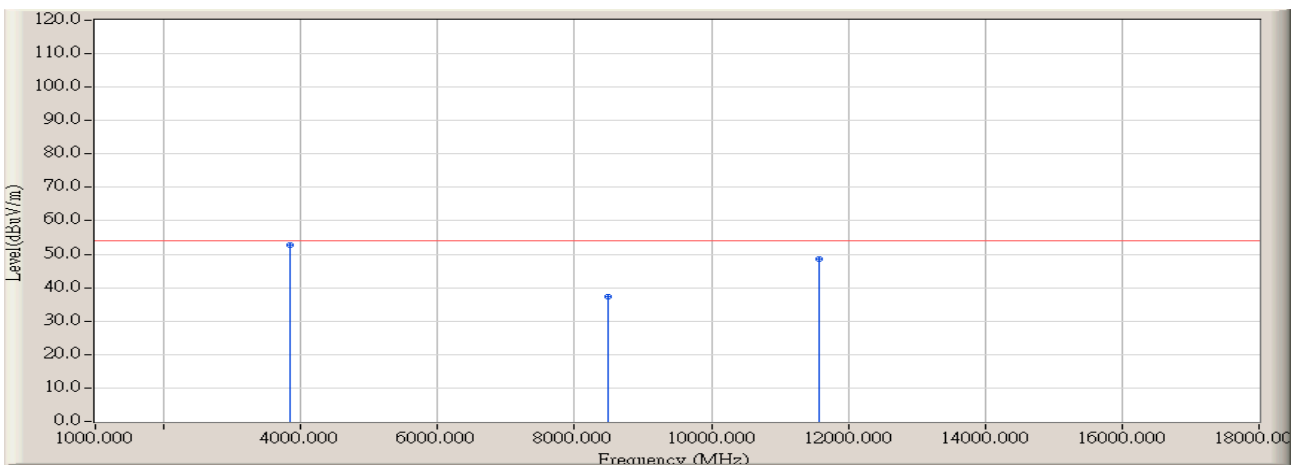


Engineer : Robin	
Site : AC2 (3m Semi-Anechoic Chamber)	Time : 2008/05/19 - 15:01
Limit : FCC_SpartC_15.209_03M_PK	Margin : 0
EUT : WIRELESS-A 26DBM NETWORK MINI PCI ADAPTER	Probe : BBHA9120D_496(1-18GHz) - VERTICAL
Power : AC 120V/60Hz	Note : Mode 1: Transmit at by 802.11a at channel 5785MHz



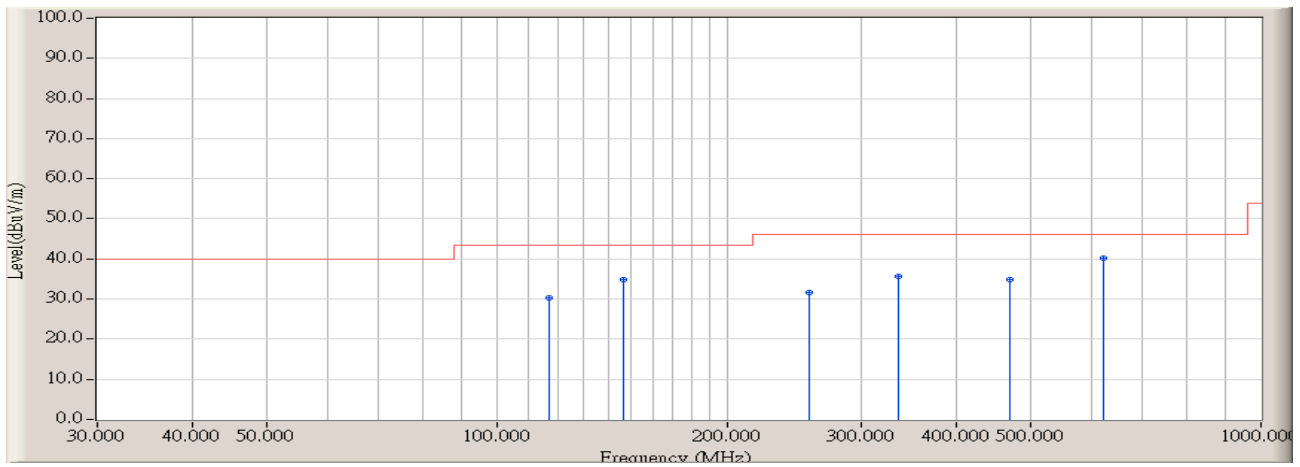
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1	*	3845.750	0.236	68.718	68.954	-5.016	73.970	PEAK	100.000	122.000
2		8480.000	13.930	43.573	57.503	-16.467	73.970	PEAK	100.000	123.600
3		11568.333	18.004	50.468	68.471	-5.499	73.970	PEAK	104.100	112.400

Engineer : Robin	
Site : AC2 (3m Semi-Anechoic Chamber)	Time : 2008/05/19 - 15:01
Limit : FCC_SpartC_15.209_03M_AV	Margin : 0
EUT : WIRELESS-A 26DBM NETWORK MINI PCI ADAPTER	Probe : BBHA9120D_496(1-18GHz) - VERTICAL
Power : AC 120V/60Hz	Note : Mode 1: Transmit at by 802.11a at channel 5785MHz



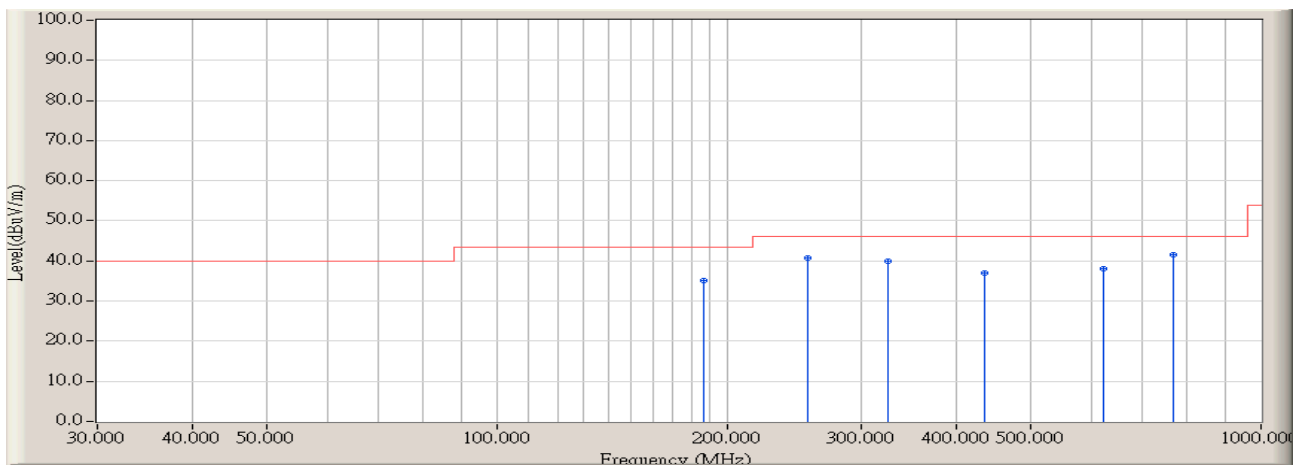
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1	*	3845.750	0.236	52.500	52.736	-1.234	53.970	AVERAGE	100.000	122.000
2		8480.000	13.930	23.500	37.430	-16.540	53.970	AVERAGE	100.000	123.600
3		11568.333	18.004	30.600	48.603	-5.367	53.970	AVERAGE	104.100	112.400

Engineer : Robin	
Site : AC2 (3m Semi-Anechoic Chamber)	Time : 2008/05/31 - 16:22
Limit : FCC_SpartC_15.209_03M_QP	Margin : 0
EUT : WIRELESS-A 26DBM NETWORK MINI PCI ADAPTER	Probe : CBL6141A_4278(30-2000MHz) - HORIZONTAL
Power : AC 120V/60Hz	Note : Mode 1: Transmit at by 802.11a at channel 5825MHz



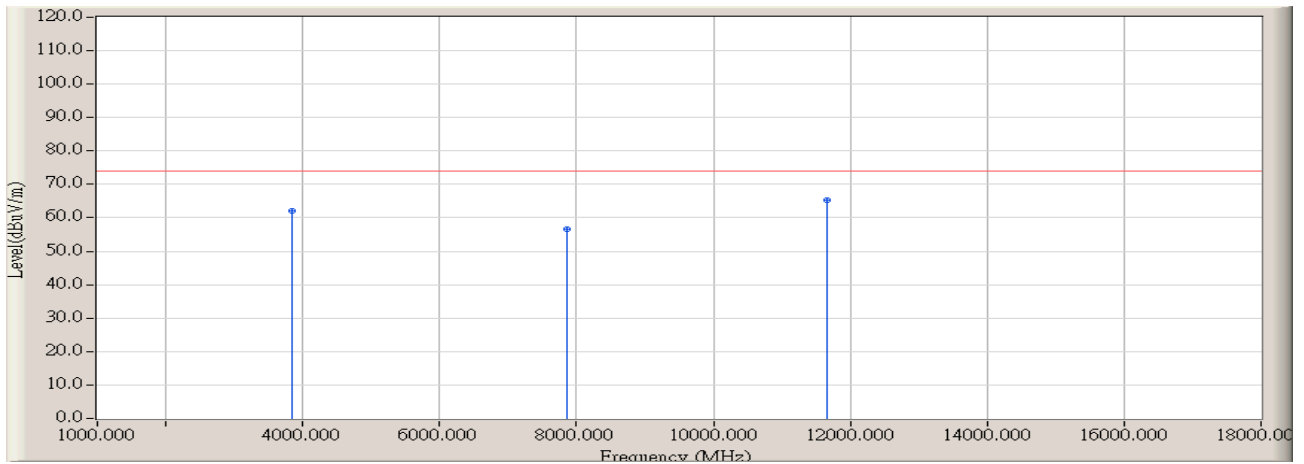
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1	117.300	-10.191	40.500	30.309	-13.211	43.520	QUASIPeAK	114.500	172.600
2	146.500	-9.228	44.200	34.971	-8.549	43.520	QUASIPeAK	100.000	158.000
3	256.300	-8.612	40.300	31.688	-14.332	46.020	QUASIPeAK	100.000	163.000
4	335.500	-6.518	42.200	35.682	-10.338	46.020	QUASIPeAK	123.600	75.000
5	469.500	-3.975	38.800	34.825	-11.195	46.020	QUASIPeAK	112.600	82.900
6	* 623.300	-1.113	41.200	40.088	-5.932	46.020	QUASIPeAK	145.500	49.600

Engineer : Robin	
Site : AC2 (3m Semi-Anechoic Chamber)	Time : 2008/05/31 - 16:26
Limit : FCC_SpartC_15.209_03M_QP	Margin : 0
EUT : WIRELESS-A 26DBM NETWORK MINI PCI ADAPTER	Probe : CBL6141A_4278(30-2000MHz) - VERTICAL
Power : AC 120V/60Hz	Note : Mode 1: Transmit at by 802.11a at channel 5825MHz



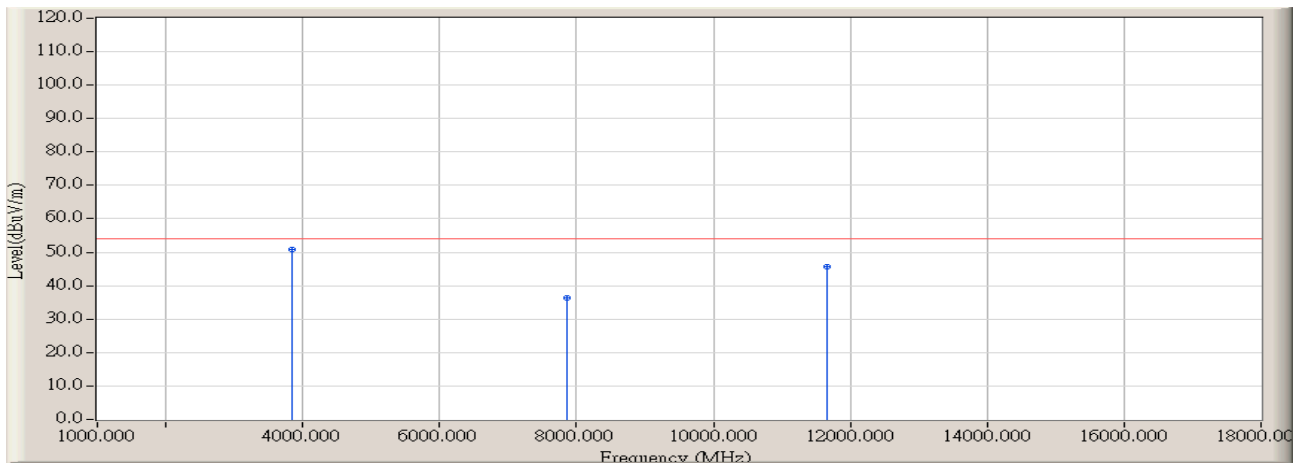
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1	186.680	-11.556	46.800	35.243	-8.277	43.520	QUASIPeAK	100.000	185.000
2	254.720	-8.636	49.500	40.864	-5.156	46.020	QUASIPeAK	104.000	117.000
3	324.350	-6.934	46.800	39.866	-6.154	46.020	QUASIPeAK	105.900	54.000
4	434.260	-4.670	41.800	37.130	-8.890	46.020	QUASIPeAK	152.600	188.000
5	623.350	-1.109	39.200	38.091	-7.929	46.020	QUASIPeAK	104.000	85.000
6	* 766.580	1.440	40.200	41.640	-4.380	46.020	QUASIPeAK	100.000	136.000

Engineer : Robin	
Site : AC2 (3m Semi-Anechoic Chamber)	Time : 2008/05/19 - 15:07
Limit : FCC_SpartC_15.209_03M_PK	Margin : 0
EUT : WIRELESS-A 26DBM NETWORK MINI PCI ADAPTER	Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL
Power : AC 120V/60Hz	Note : Mode 1: Transmit at by 802.11a at channel 5825MHz



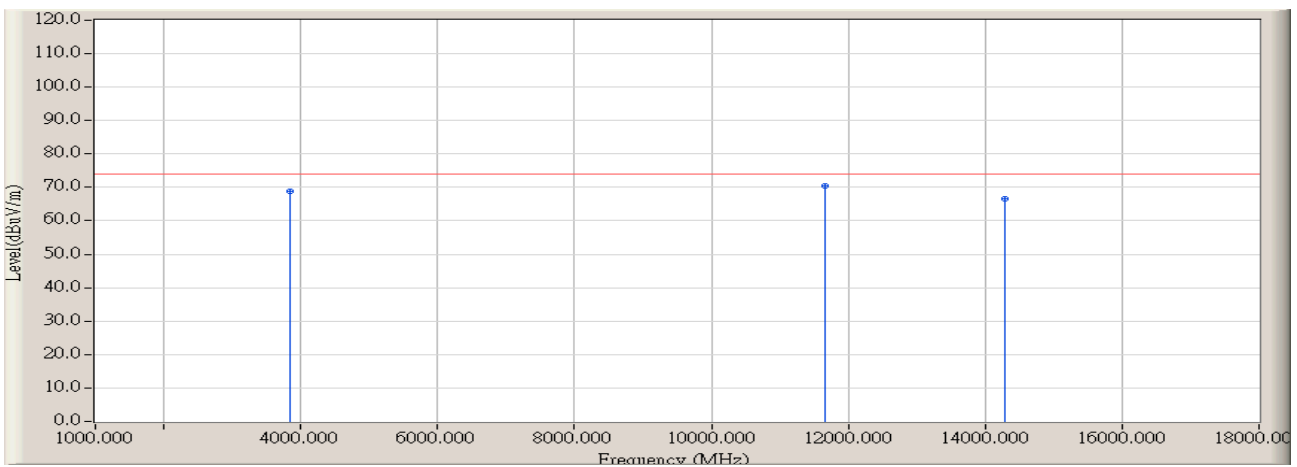
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1	3853.150	0.254	61.951	62.204	-11.766	73.970	PEAK	100.000	68.500
2	7856.667	14.566	41.905	56.472	-17.498	73.970	PEAK	104.500	114.600
3	* 11653.333	17.407	47.815	65.222	-8.748	73.970	PEAK	100.000	146.800

Engineer : Robin	
Site : AC2 (3m Semi-Anechoic Chamber)	Time : 2008/05/19 - 15:07
Limit : FCC_SpartC_15.209_03M_AV	Margin : 0
EUT : WIRELESS-A 26DBM NETWORK MINI PCI ADAPTER	Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL
Power : AC 120V/60Hz	Note : Mode 1: Transmit at by 802.11a at channel 5825MHz



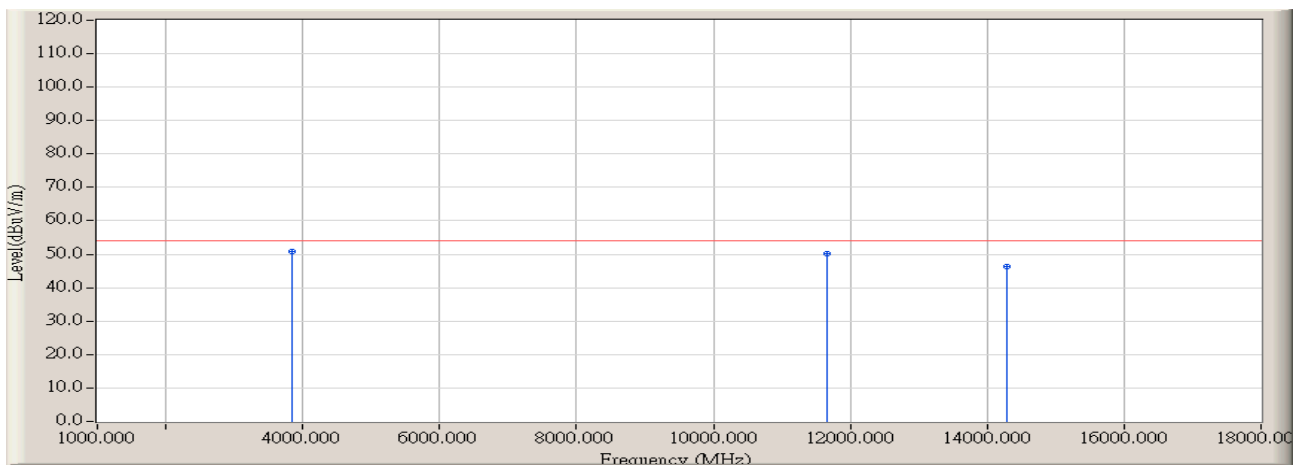
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1	*	3853.150	0.254	50.600	50.853	-3.117	53.970	AVERAGE	100.000	68.500
2		7856.667	14.566	21.900	36.467	-17.503	53.970	AVERAGE	104.500	114.600
3		11653.333	17.407	28.200	45.607	-8.363	53.970	AVERAGE	100.000	146.800

Engineer : Robin	
Site : AC2 (3m Semi-Anechoic Chamber)	Time : 2008/05/19 - 15:09
Limit : FCC_SpartC_15.209_03M_PK	Margin : 0
EUT : WIRELESS-A 26DBM NETWORK MINI PCI ADAPTER	Probe : BBHA9120D_496(1-18GHz) - VERTICAL
Power : AC 120V/60Hz	Note : Mode 1: Transmit at by 802.11a at channel 5825MHz



	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1	3853.150	0.254	68.472	68.725	-5.245	73.970	PEAK	100.000	155.700
2	* 11653.333	17.407	52.981	70.388	-3.582	73.970	PEAK	100.000	174.900
3	14288.333	21.776	44.669	66.446	-7.524	73.970	PEAK	105.400	186.800

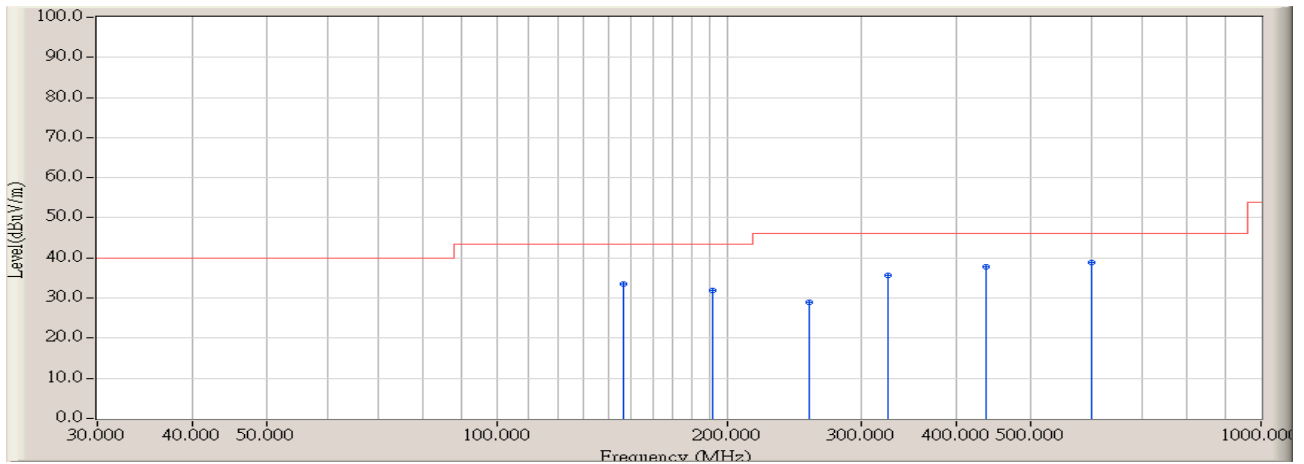
Engineer : Robin	
Site : AC2 (3m Semi-Anechoic Chamber)	Time : 2008/05/19 - 15:09
Limit : FCC_SpartC_15.209_03M_AV	Margin : 0
EUT : WIRELESS-A 26DBM NETWORK MINI PCI ADAPTER	Probe : BBHA9120D_496(1-18GHz) - VERTICAL
Power : AC 120V/60Hz	Note : Mode 1: Transmit at by 802.11a at channel 5825MHz



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1	*	3853.150	0.254	50.600	50.853	-3.117	53.970	AVERAGE	100.000	155.700
2		11653.333	17.407	32.800	50.207	-3.763	53.970	AVERAGE	100.000	174.900
3		14288.333	21.776	24.500	46.277	-7.693	53.970	AVERAGE	105.400	186.800

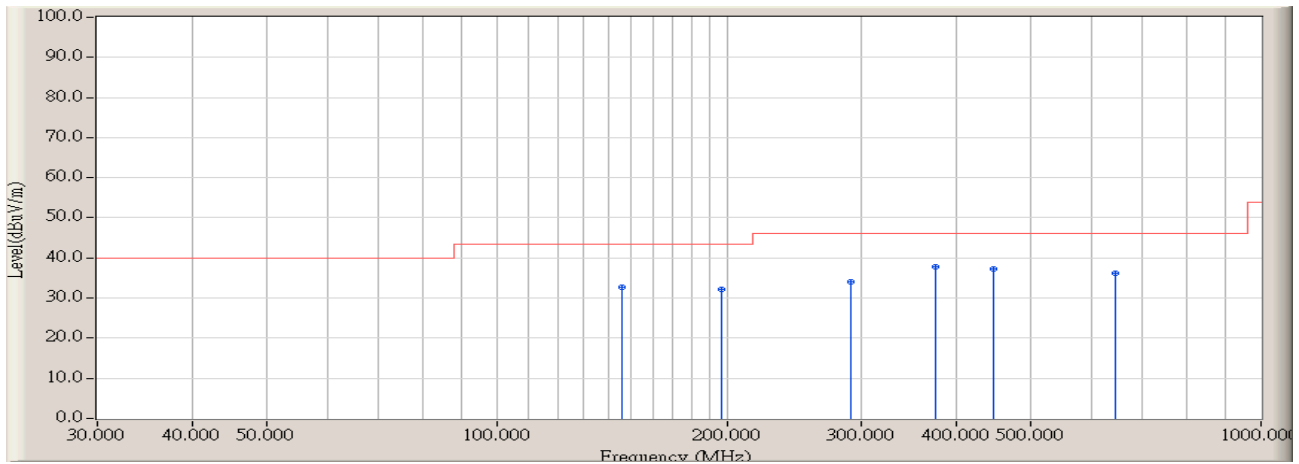


Engineer : Robin	
Site : AC2 (3m Semi-Anechoic Chamber)	Time : 2008/05/31 - 16:41
Limit : FCC_SpartC_15.209_03M_QP	Margin : 0
EUT :Wireless-A 26dBm Network Mini PCI Adapter	Probe : CBL6141A_4278(30-2000MHz) - HORIZONTAL
Power : AC 120V/60Hz	Note : Mode 1:Transmit by 802.11 turbo a at channel 5765MHz



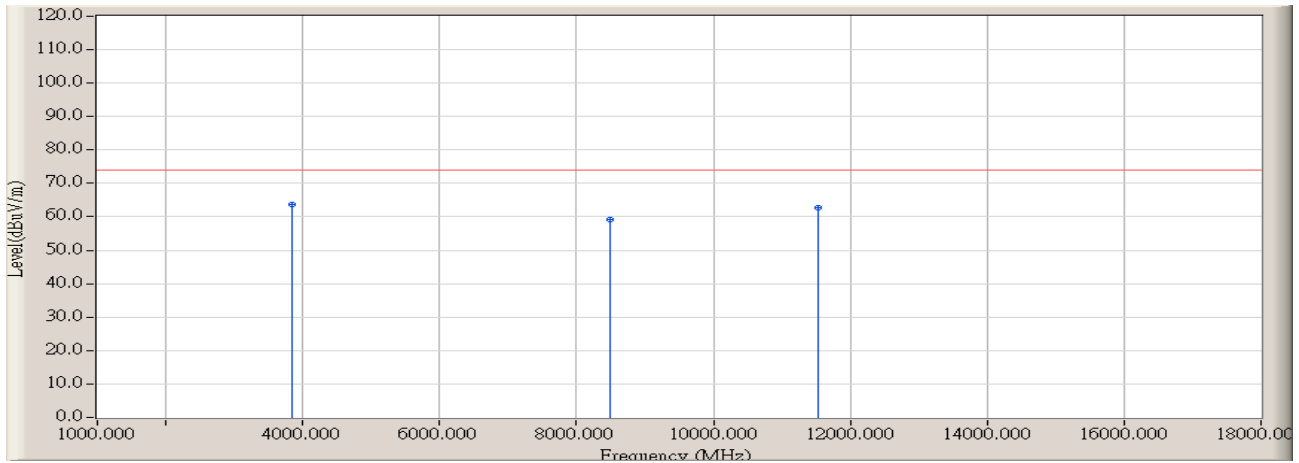
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1	146.400	-9.220	42.800	33.580	-9.940	43.520	QUASIPeAK	114.500	196.500
2	191.680	-11.284	43.300	32.016	-11.504	43.520	QUASIPeAK	100.000	185.000
3	256.300	-8.612	37.500	28.888	-17.132	46.020	QUASIPeAK	120.000	163.000
4	324.300	-6.939	42.600	35.661	-10.359	46.020	QUASIPeAK	113.600	154.000
5	437.250	-4.603	42.300	37.697	-8.323	46.020	QUASIPeAK	122.500	96.500
6	* 600.525	-1.477	40.300	38.823	-7.197	46.020	QUASIPeAK	100.000	82.000

Engineer : Robin	
Site : AC2 (3m Semi-Anechoic Chamber)	Time : 2008/05/31 - 16:46
Limit : FCC_SpartC_15.209_03M_QP	Margin : 0
EUT :Wireless-A 26dBm Network Mini PCI Adapter	Probe : CBL6141A_4278(30-2000MHz) - VERTICAL
Power : AC 120V/60Hz	Note : Mode 1:Transmit by 802.11 turbo a at channel 5765MHz



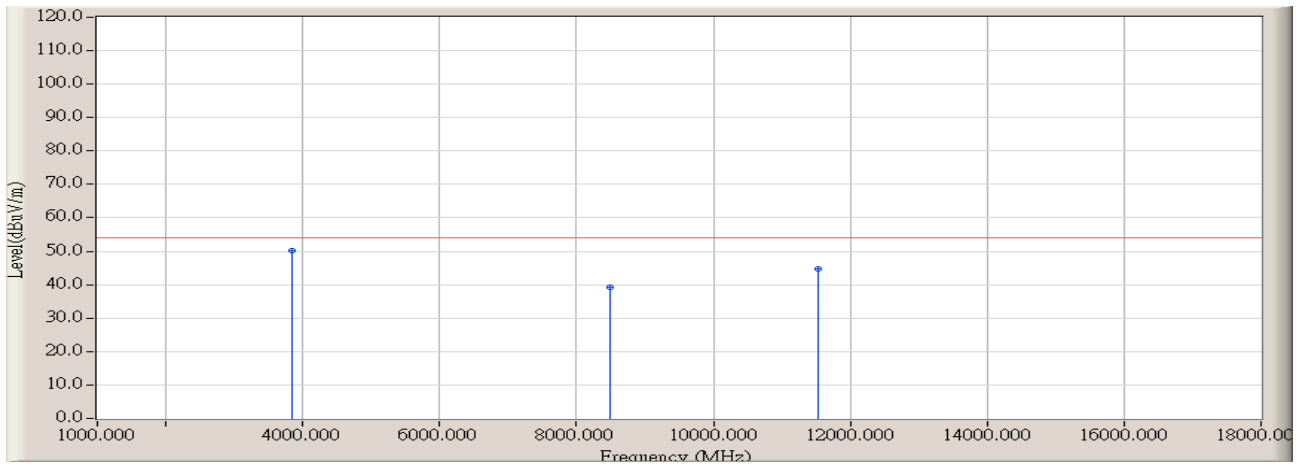
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1	145.650	-9.192	41.800	32.608	-10.912	43.520	QUASIPeAK	100.000	85.900
2	196.580	-11.057	43.200	32.143	-11.377	43.520	QUASIPeAK	105.200	93.500
3	290.200	-8.509	42.600	34.091	-11.929	46.020	QUASIPeAK	100.000	193.000
4	* 375.500	-5.887	43.700	37.813	-8.207	46.020	QUASIPeAK	143.600	55.800
5	445.800	-4.401	41.800	37.399	-8.621	46.020	QUASIPeAK	100.000	136.000
6	644.325	-0.373	36.700	36.327	-9.693	46.020	QUASIPeAK	106.500	95.800

<b>Engineer : Robin</b>	
<b>Site : AC2 (3m Semi-Anechoic Chamber)</b>	<b>Time : 2008/05/19 - 14:48</b>
<b>Limit : FCC_SpartC_15.209_03M_PK</b>	<b>Margin : 0</b>
<b>EUT : Wireless-A 26dBm Network MiNi PCI Adapter</b>	<b>Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL</b>
<b>Power : AC 120V/60Hz</b>	<b>Note : Mode 1:Transmit by 802.11 turbo a at channel 5765MHz</b>



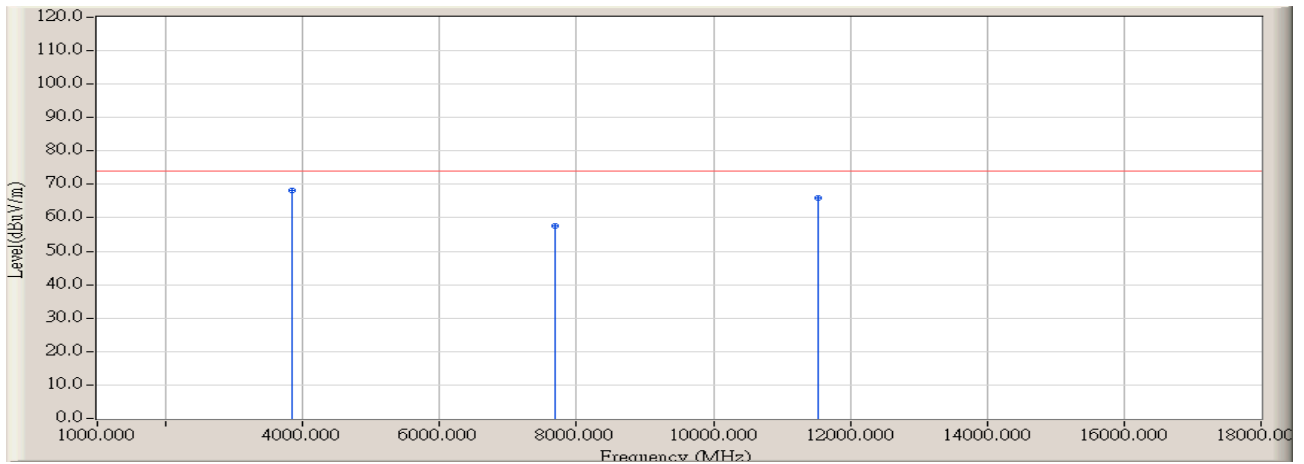
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1	*	3845.250	0.234	63.500	63.735	-10.235	73.970	PEAK	100.000	126.500
2		8480.000	13.930	45.272	59.202	-14.768	73.970	PEAK	110.300	142.800
3		11540.000	18.330	44.465	62.795	-11.175	73.970	PEAK	105.000	136.500

<b>Engineer : Robin</b>	
<b>Site : AC2 (3m Semi-Anechoic Chamber)</b>	<b>Time : 2008/05/19 - 14:48</b>
<b>Limit : FCC_SpartC_15.209_03M_AV</b>	<b>Margin : 0</b>
<b>EUT : Wireless-A 26dBm Network MiNi PCI Adapter</b>	<b>Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL</b>
<b>Power : AC 120V/60Hz</b>	<b>Note : Mode 1:Transmit by 802.11 turbo a at channel 5765MHz</b>



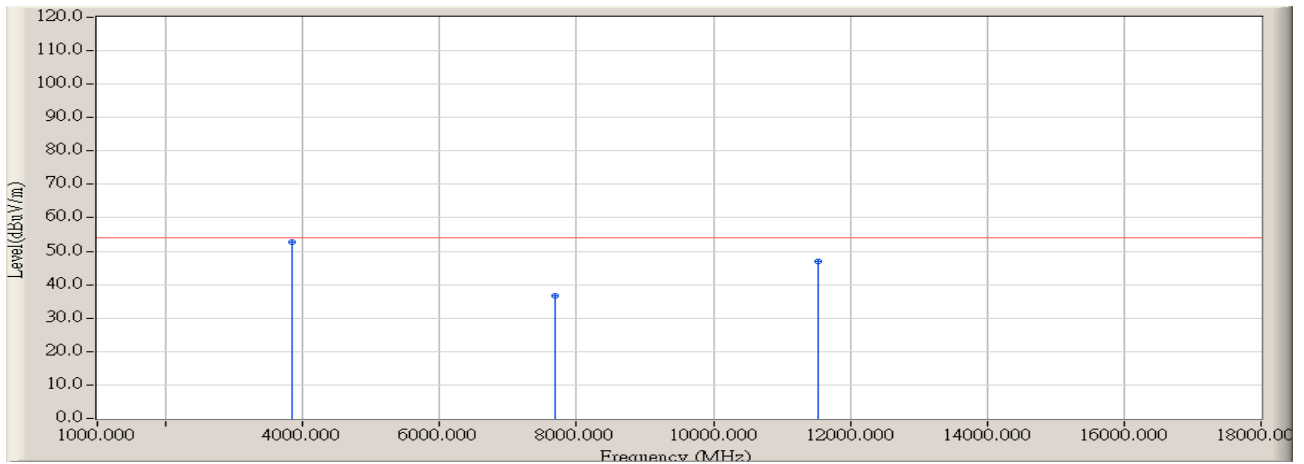
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1	*	3845.250	0.234	50.100	50.335	-3.635	53.970	AVERAGE	100.000	126.500
2		8480.000	13.930	25.300	39.230	-14.740	53.970	AVERAGE	110.300	142.800
3		11540.000	18.330	26.400	44.730	-9.240	53.970	AVERAGE	105.000	136.500

Engineer : Robin	
Site : AC2 (3m Semi-Anechoic Chamber)	Time : 2008/05/19 - 14:50
Limit : FCC_SpartC_15.209_03M_PK	Margin : 0
EUT : Wireless-A 26dBm Network MiNi PCI Adapter	Probe : BBHA9120D_496(1-18GHz) - VERTICAL
Power : AC 120V/60Hz	Note : Mode 1:Transmit by 802.11 turbo a at channel 5765MHz



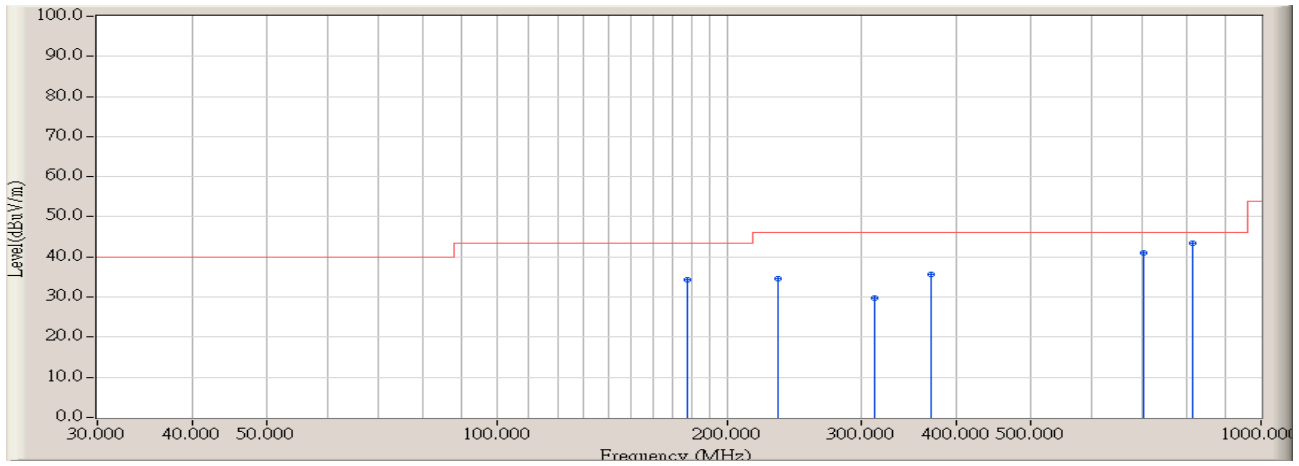
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1	*	3845.250	0.234	67.932	68.167	-5.803	73.970	PEAK	100.000	172.500
2		7686.667	12.770	44.838	57.608	-16.362	73.970	PEAK	100.000	167.400
3		11540.000	18.330	47.708	66.038	-7.932	73.970	PEAK	103.600	206.500

Engineer : Robin	
Site : AC2 (3m Semi-Anechoic Chamber)	Time : 2008/05/19 - 14:50
Limit : FCC_SpartC_15.209_03M_AV	Margin : 0
EUT : Wireless-A 26dBm Network MiNi PCI Adapter	Probe : BBHA9120D_496(1-18GHz) - VERTICAL
Power : AC 120V/60Hz	Note : Mode 1:Transmit by 802.11 turbo a at channel 5765MHz



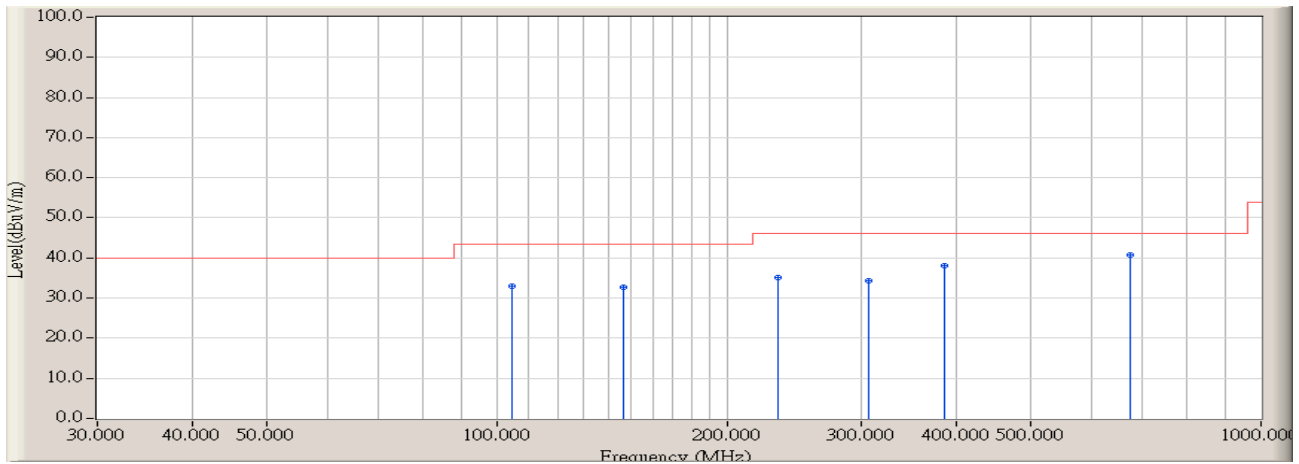
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1	*	3845.250	0.234	52.500	52.735	-1.235	53.970	AVERAGE	100.000	172.500
2		7686.667	12.770	23.800	36.570	-17.400	53.970	AVERAGE	100.000	167.400
3		11540.000	18.330	28.700	47.030	-6.940	53.970	AVERAGE	103.600	206.500

Engineer : Robin	
Site : AC2 (3m Semi-Anechoic Chamber)	Time : 2008/05/31 - 16:51
Limit : FCC_SpartC_15.209_03M_QP	Margin : 0
EUT :Wireless-A 26dBm Network MiNi PCI Adapter	Probe : CBL6141A_4278(30-2000MHz) - HORIZONTAL
Power : AC 120V/60Hz	Note : Mode 1:Transmit by 802.11 turbo a at channel 5805MHz



	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1	177.200	-11.229	45.500	34.270	-9.250	43.520	QUASIPeAK	136.100	112.500
2	233.700	-9.482	44.200	34.718	-11.302	46.020	QUASIPeAK	100.000	75.800
3	312.800	-7.008	36.900	29.891	-16.129	46.020	QUASIPeAK	113.600	152.600
4	370.525	-6.023	41.800	35.777	-10.243	46.020	QUASIPeAK	100.000	118.500
5	700.500	0.449	40.500	40.948	-5.072	46.020	QUASIPeAK	114.600	45.800
6	* 815.250	1.420	41.900	43.320	-2.700	46.020	QUASIPeAK	100.000	315.000

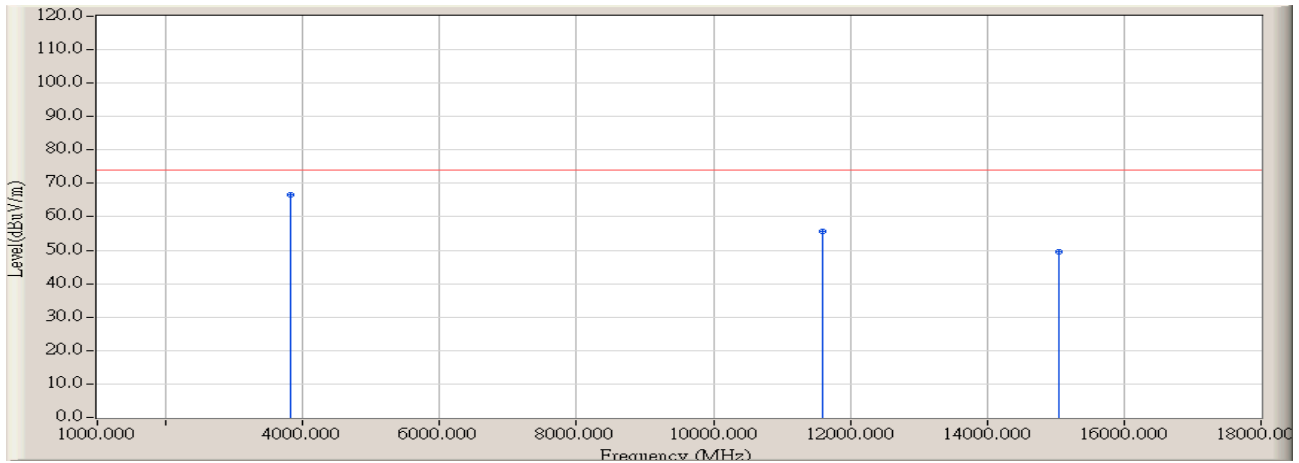
Engineer : Robin	
Site : AC2 (3m Semi-Anechoic Chamber)	Time : 2008/05/31 - 16:56
Limit : FCC_SpartC_15.209_03M_QP	Margin : 0
EUT :Wireless-A 26dBm Network Mini PCI Adapter	Probe : CBL6141A_4278(30-2000MHz) - VERTICAL
Power : AC 120V/60Hz	Note : Mode 1:Transmit by 802.11 turbo a at channel 5805MHz



	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1	104.500	-11.007	43.900	32.893	-10.627	43.520	QUASIPeAK	100.000	152.600
2	146.400	-9.220	41.800	32.580	-10.940	43.520	QUASIPeAK	100.000	86.900
3	233.700	-9.482	44.500	35.018	-11.002	46.020	QUASIPeAK	112.500	93.500
4	306.500	-7.316	41.500	34.184	-11.836	46.020	QUASIPeAK	100.000	188.000
5	384.500	-5.579	43.700	38.121	-7.899	46.020	QUASIPeAK	105.600	325.000
6	* 673.350	0.284	40.600	40.884	-5.136	46.020	QUASIPeAK	100.000	156.500

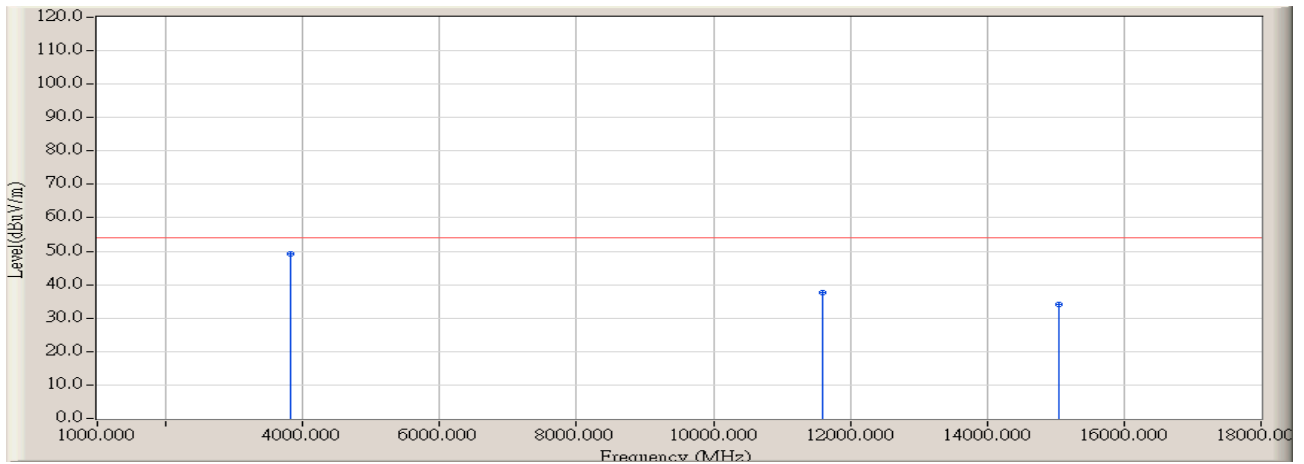


Engineer : Robin	
Site : AC2 (3m Semi-Anechoic Chamber)	Time : 2008/05/19 - 14:40
Limit : FCC_SpartC_15.209_03M_PK	Margin : 0
EUT : Wireless-A 26dBm Network MiNi PCI Adapter	Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL
Power : AC 120V/60Hz	Note : Mode 1:Transmit by 802.11 turbo a at channel 5805MHz



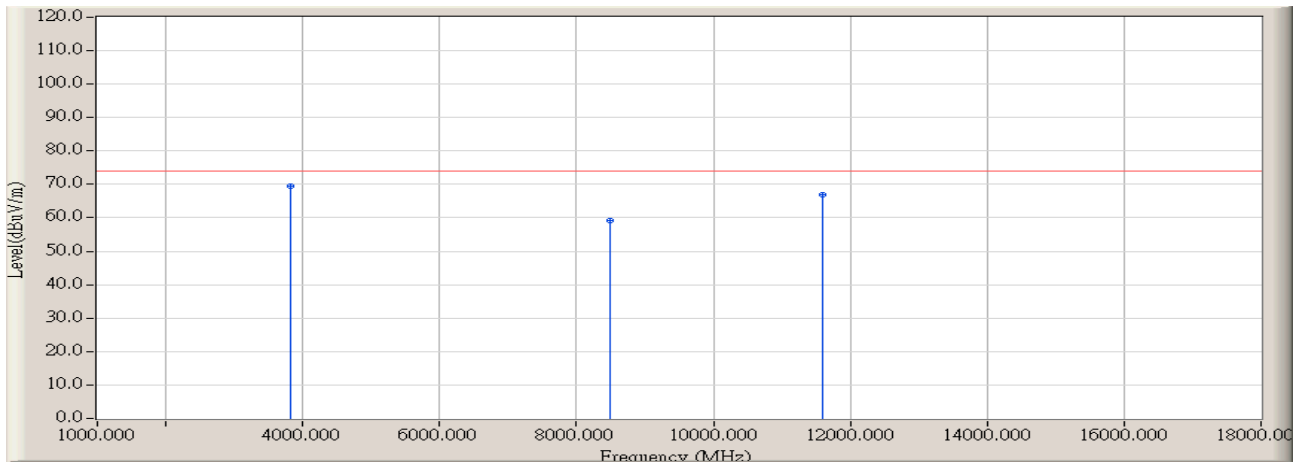
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1	*	3830.000	0.215	66.394	66.609	-7.361	73.970	PEAK	122.400	96.400
2		11596.667	17.703	37.999	55.702	-18.268	73.970	PEAK	102.300	69.400
3		15053.333	21.050	28.368	49.418	-24.552	73.970	PEAK	112.600	142.900

<b>Engineer : Robin</b>	
<b>Site : AC2 (3m Semi-Anechoic Chamber)</b>	<b>Time : 2008/05/19 - 14:40</b>
<b>Limit : FCC_SpartC_15.209_03M_AV</b>	<b>Margin : 0</b>
<b>EUT : Wireless-A 26dBm Network MiNi PCI Adapter</b>	<b>Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL</b>
<b>Power : AC 120V/60Hz</b>	<b>Note : Mode 1:Transmit by 802.11 turbo a at channel 5805MHz</b>



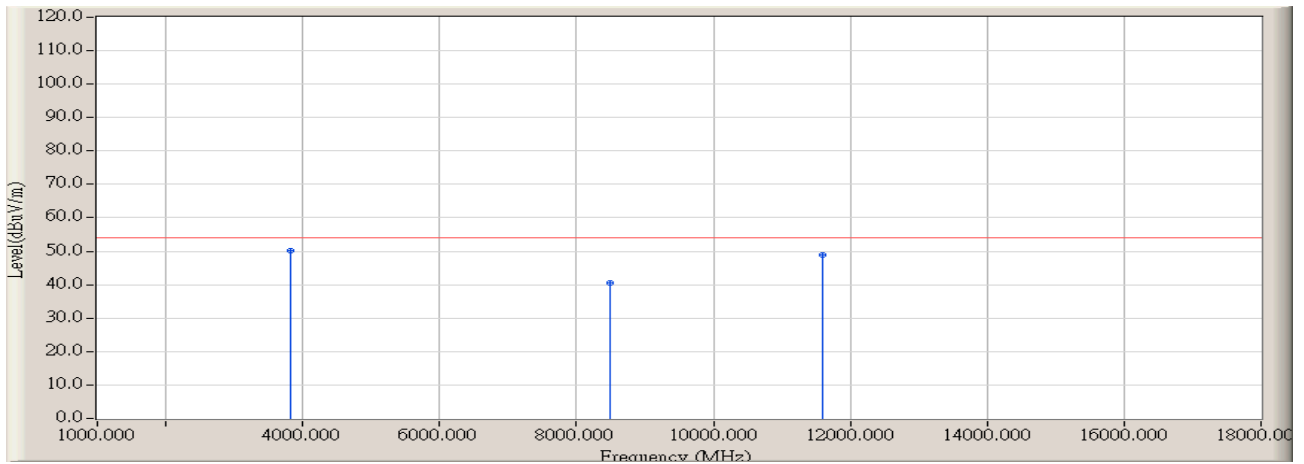
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1	*	3830.000	0.215	49.100	49.315	-4.655	53.970	AVERAGE	122.400	96.400
2		11596.667	17.703	20.000	37.703	-16.267	53.970	AVERAGE	102.300	69.400
3		15053.333	21.050	13.000	34.050	-19.920	53.970	AVERAGE	112.600	142.900

<b>Engineer : Robin</b>	
<b>Site : AC2 (3m Semi-Anechoic Chamber)</b>	<b>Time : 2008/05/19 - 14:43</b>
<b>Limit : FCC_SpartC_15.209_03M_PK</b>	<b>Margin : 0</b>
<b>EUT : Wireless-A 26dBm Network MiNi PCI Adapter</b>	<b>Probe : BBHA9120D_496(1-18GHz) - VERTICAL</b>
<b>Power : AC 120V/60Hz</b>	<b>Note : Mode 1:Transmit by 802.11 turbo a at channel 5805MHz</b>



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1	*	3830.000	0.215	69.425	69.640	-4.330	73.970	PEAK	100.000	113.800
2		8480.000	13.930	45.342	59.272	-14.698	73.970	PEAK	100.000	142.600
3		11596.667	17.703	49.131	66.834	-7.136	73.970	PEAK	105.600	172.600

<b>Engineer : Robin</b>	
<b>Site : AC2 (3m Semi-Anechoic Chamber)</b>	<b>Time : 2008/05/19 - 14:43</b>
<b>Limit : FCC_SpartC_15.209_03M_AV</b>	<b>Margin : 0</b>
<b>EUT : Wireless-A 26dBm Network MiNi PCI Adapter</b>	<b>Probe : BBHA9120D_496(1-18GHz) - VERTICAL</b>
<b>Power : AC 120V/60Hz</b>	<b>Note : Mode 1:Transmit by 802.11 turbo a at channel 5805MHz</b>



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1	*	3830.000	0.215	50.100	50.315	-3.655	53.970	AVERAGE	100.000	113.800
2		8480.000	13.930	26.700	40.630	-13.340	53.970	AVERAGE	100.000	142.600
3		11596.667	17.703	31.200	48.903	-5.067	53.970	AVERAGE	105.600	172.600

## 5. RF Antenna Conducted Spurious

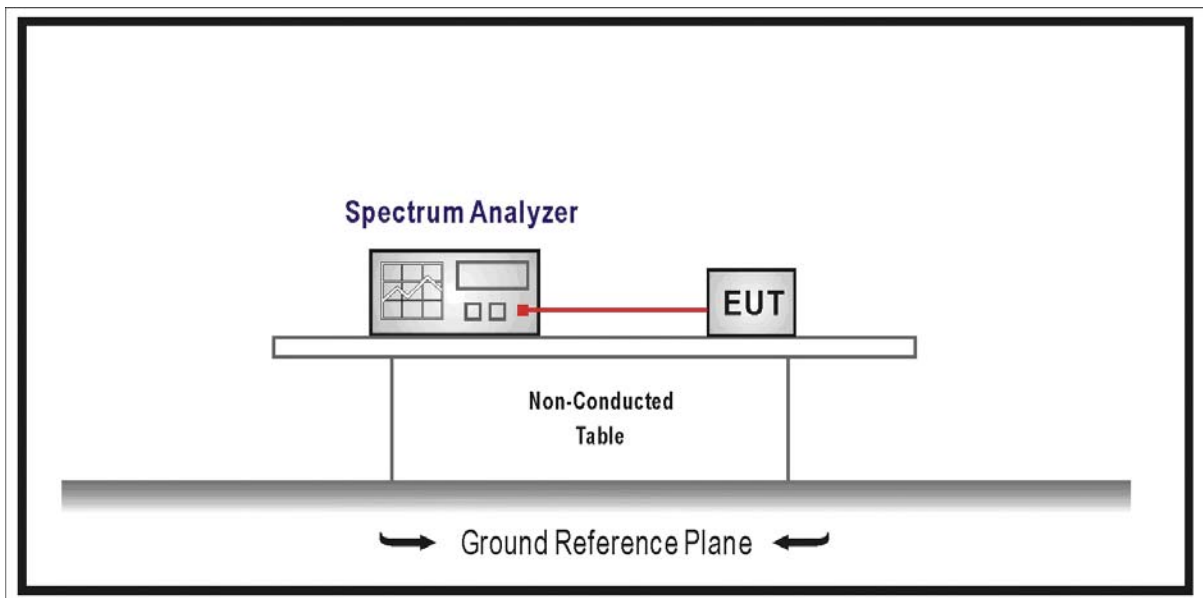
### 5.1. Test Equipment

RF Antenna Conducted Spurious / AC-4

Instrument	Manufacturer	Type No.	Serial No.	Cal. Date
Spectrum Analyzer	Agilent	E4446A	MY45300103	2007/06/11
Coaxial Cable	Huber+Suhner	AC4-RF	09	2007/11/25
Temperature/Humidity Meter	zhicheng	ZC1-2	QT-TH007	2008/03/09

Note: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

### 5.2. Test Setup



### 5.3. Limit

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum 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.

#### **5.4. Test Procedure**

The EUT was tested according to DTS test procedure of Oct 2002 KDB558074 for compliance to FCC 47CFR 15.247 requirements.

Set RBW = 100 kHz, Set VBW > RBW, scan up through 10th harmonic.

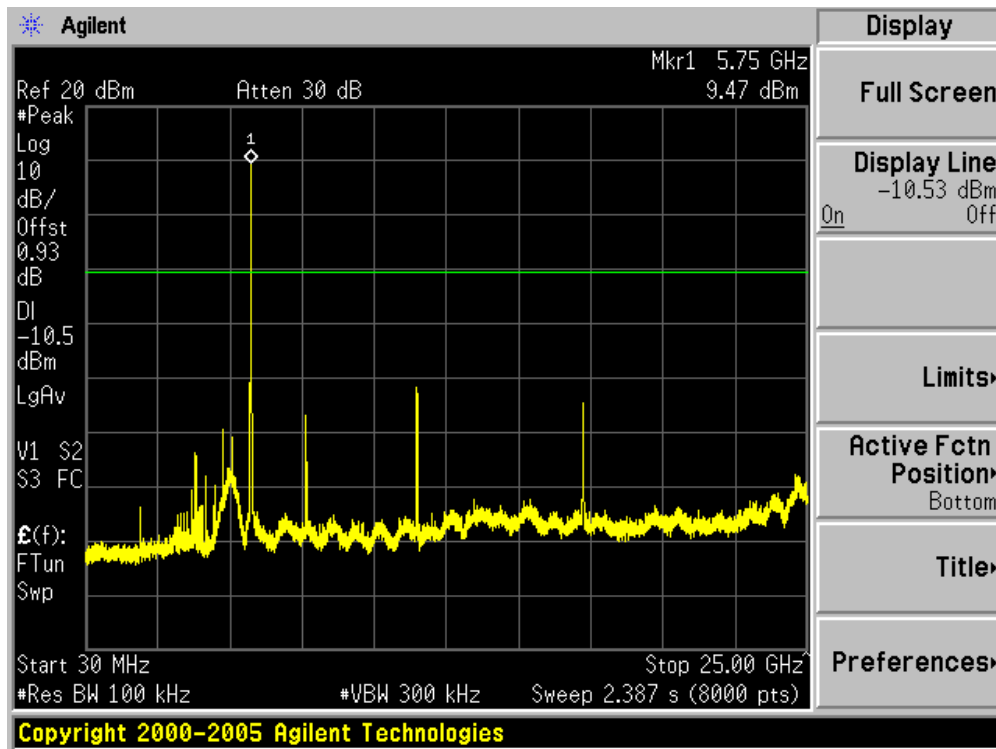
#### **5.5. Uncertainty**

The measurement uncertainty is defined as  $\pm 1.27$  dB

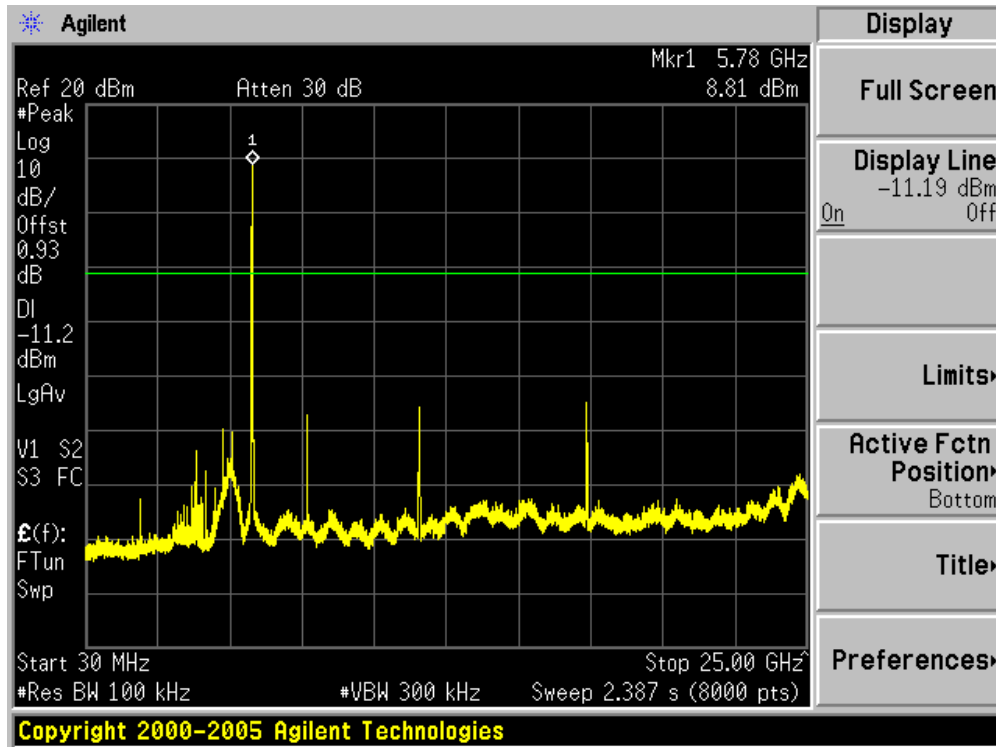
5.6. Test Result

Product	:	WIRELESS-A 26DBM NETWORK MINI PCI ADAPTER
Test Item	:	RF Antenna Conducted Spurious
Test Site	:	AC-4
Test Mode	:	Mode 1: Transmit by 802.11a

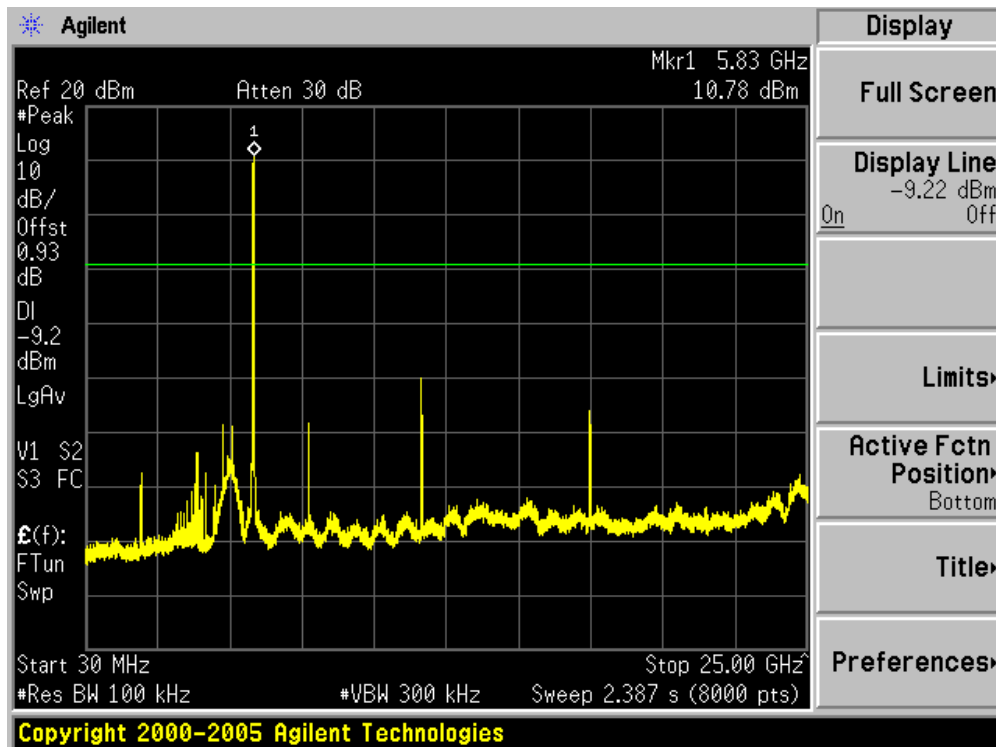
Channel 01 (5745MHz)



Channel 03 (5785MHz)



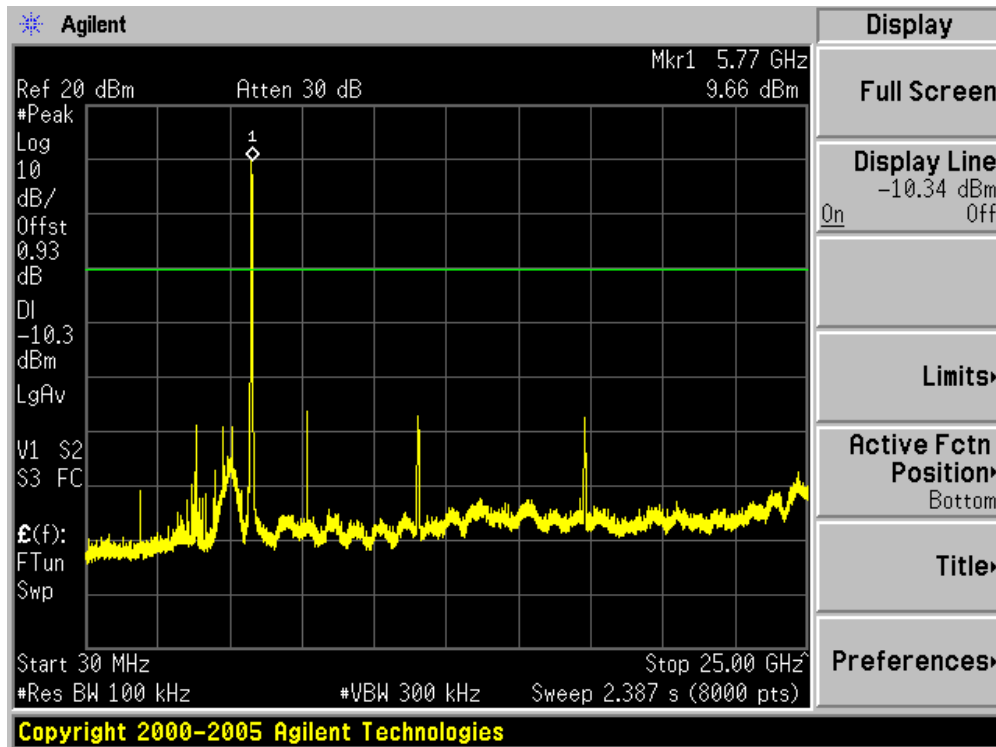
Channel 05 (5825MHz)



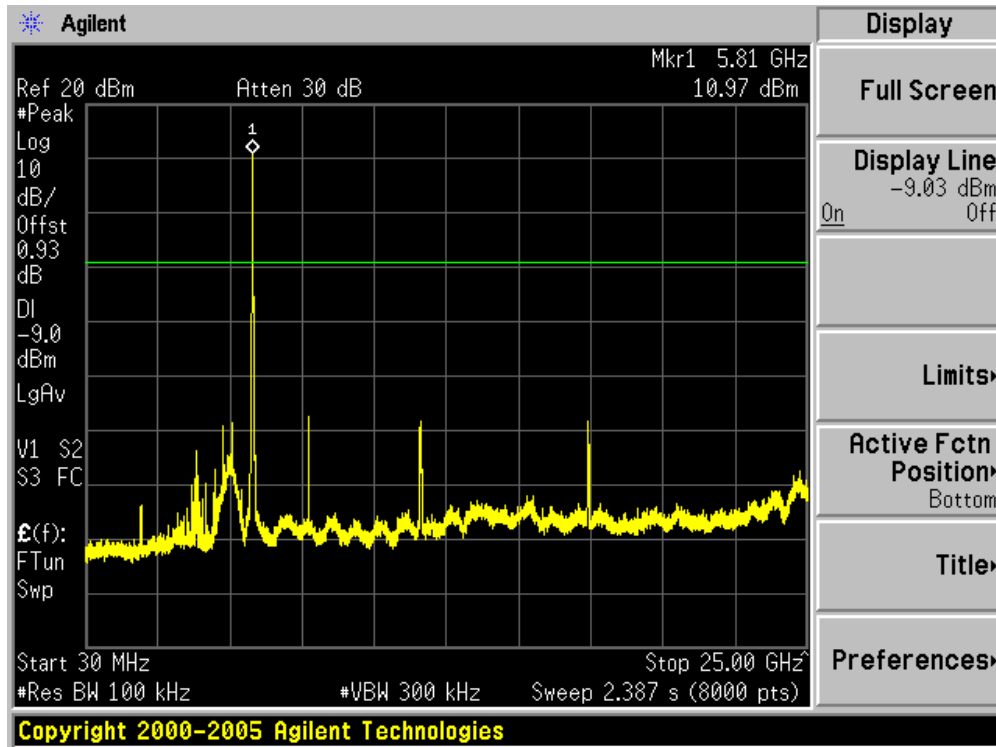


Product	:	WIRELESS-A 26DBM NETWORK MINI PCI ADAPTER
Test Item	:	RF Antenna Conducted Spurious
Test Site	:	AC-4
Test Mode	:	Mode 2: Transmit by 802.11 turbo a

Channel 02 (5765MHz)



Channel 04 (5805MHz)



**6. Radiated Emission Band Edge**

**6.1. Test Equipment**

Radiated Emission / AC-2

Instrument	Manufacturer	Type No.	Serial No.	Cal. Date
Spectrum Analyzer	Agilent	E4408B	MY45102679	2007/11/12
EMI Test Receiver	R&S	ESCI	100573	2008/05/10
Preamplifier	Quietek	AP-025C	QT-AP003	2007/11/25
Preamplifier	Quietek	AP-180C	CHM-0602012	2007/11/25
Bilog Type Antenna	Schaffner	CBL6112B	2932	2007/11/22
Broad-Band Horn Antenna	Schwarzbeck	BBHA9120D	496	2007/11/25
50ohm Coaxial Switch	Anritsu	MP59B	6200447304	2007/11/25
Coaxial Cable	Huber+Suhner	AC2-C	04	2007/11/25
Temperature/Humidity Meter	zhicheng	ZC1-2	QT-TH002	2008/03/31

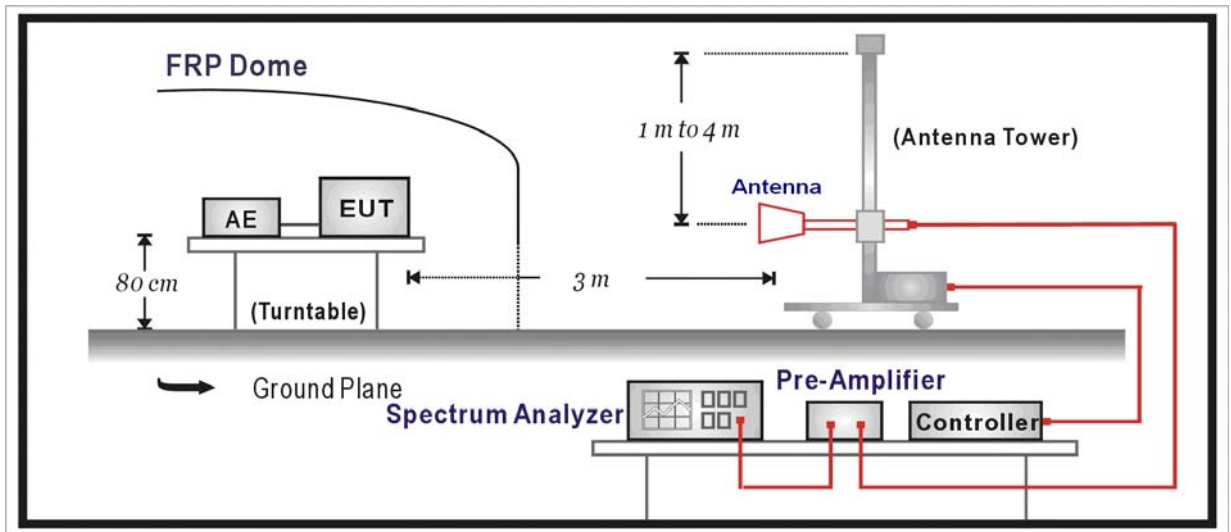
Radiated Emission / AC-3

Instrument	Manufacturer	Type No.	Serial No.	Cal. Date
Spectrum Analyzer	Agilent	N9010A	MY48030494	2008/04/24
EMI Test Receiver	R&S	ESCI	100176	2007/11/15
Preamplifier	Quietek	AP-025C	QT-AP004	2007/11/25
Preamplifier	Quietek	AP-180C	CHM-0602012	2007/11/25
Bilog Type Antenna	Schaffner	CBL6112D	22254	2007/11/22
Broad-Band Horn Antenna	Schwarzbeck	BBHA9120D	496	2007/11/25
50ohm Coaxial Switch	Anritsu	MP59B	6200464463	2007/11/25
Coaxial Cable	Huber+Suhner	AC2-C	05	2007/11/25
Temperature/Humidity Meter	zhicheng	ZC1-2	QT-TH003	2008/03/31

Note 1: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

Note 2: The test instruments marked with "X" are used to measure the final test results.

**6.2. Test Setup**



**6.3. Limit**

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a) of FCC part 15, must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

**6.4. Test Procedure**

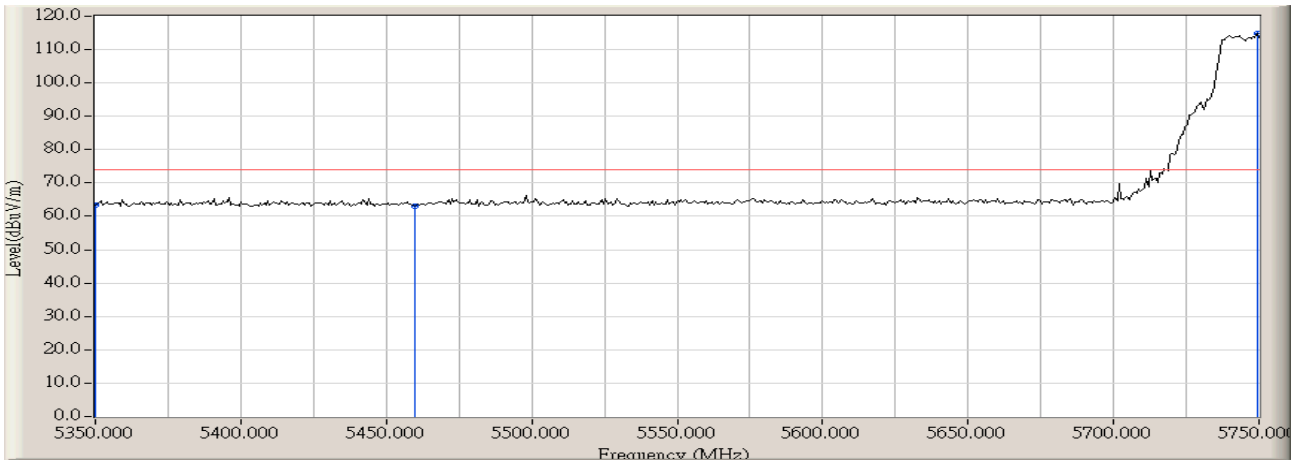
The EUT was setup according to ANSI C63.4, 2003 and tested according to DTS test procedure of Oct 2002 KDB558074 for compliance to FCC 47CFR 15.247 requirements. The EUT is placed on a turn table which is 0.8 meter above ground. The turn table is rotated 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 3 meters. The antenna is scanned from 1 meter to 4 meters to find out the maximum emission level. This is repeated for both horizontal and vertical polarization of the antenna. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.4:2003 on radiated measurement.

**6.5. Uncertainty**

The measurement uncertainty above 1G is defined as  $\pm 3.9$  dB

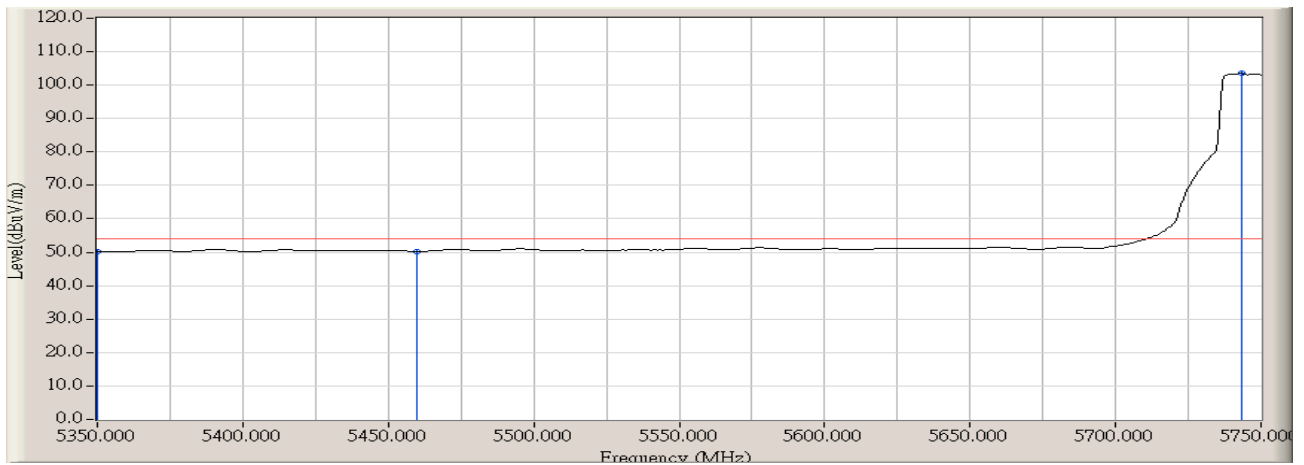
6.6. Test Result

Engineer : Robin	
Site : AC3 (3m Semi-Anechoic Chamber)	Time : 2008/05/19 - 13:20
Limit : FCC_SpartC_15.209_03M_PK	Margin : 0
EUT : Wireless-A 26dBm Network MiNi PCI Adapter	Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL
Power : AC 120V/60Hz	Note : Mode 1:Transmit by 802.11a at channel 5745MHz



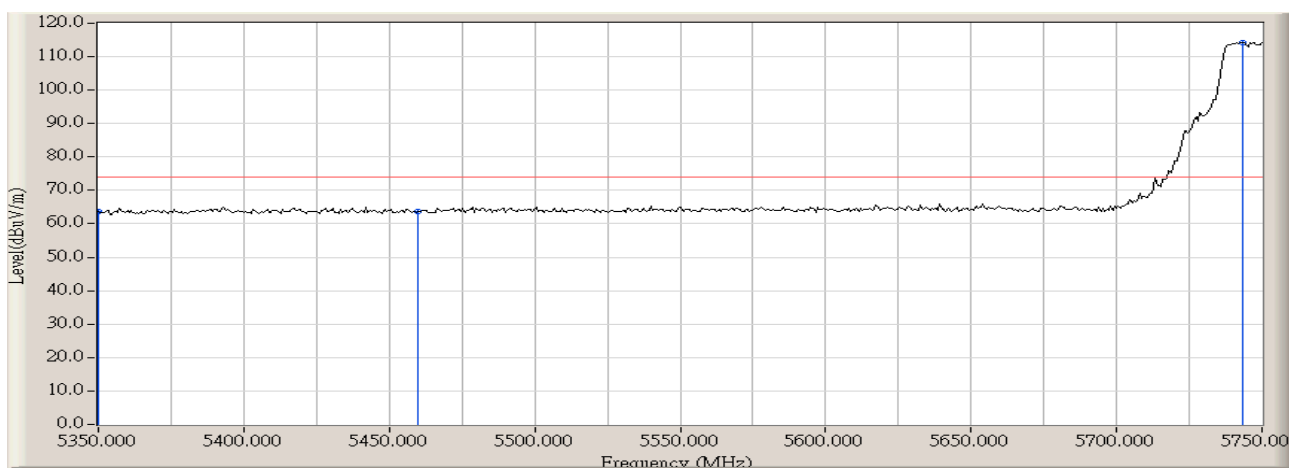
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5350.000	4.455	58.962	63.416	-10.554	73.970	PEAK
2		5460.000	4.845	58.360	63.205	-10.765	73.970	PEAK
3	*	5749.333	5.335	109.467	114.802	N/A	N/A	PEAK

Engineer : Robin	
Site : AC3 (3m Semi-Anechoic Chamber)	Time : 2008/05/19 - 13:27
Limit : FCC_SpartC_15.209_03M_AV	Margin : 0
EUT : Wireless-A 26dBm Network MiNi PCI Adapter	Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL
Power : AC 120V/60Hz	Note : Mode 1:Transmit by 802.11a at channel 5745MHz



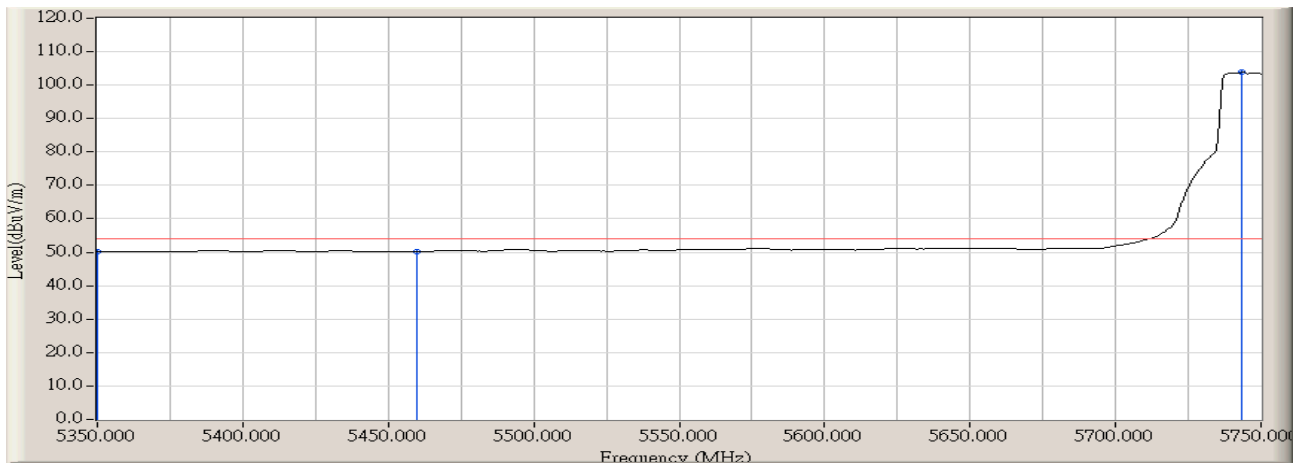
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5350.000	4.455	45.864	50.318	-3.652	53.970	AVERAGE
2		5460.000	4.845	45.405	50.250	-3.720	53.970	AVERAGE
3	*	5743.333	5.321	98.149	103.470	N/A	N/A	AVERAGE

Engineer : Robin	
Site : AC3 (3m Semi-Anechoic Chamber)	Time : 2008/05/19 - 13:30
Limit : FCC_SpartC_15.209_03M_PK	Margin : 0
EUT : Wireless-A 26dBm Network MiNi PCI Adapter	Probe : BBHA9120D_496(1-18GHz) - VERTICAL
Power : AC 120V/60Hz	Note : Mode 1:Transmit by 802.11a at channel 5745MHz



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5350.000	4.455	59.327	63.781	-10.189	73.970	PEAK
2		5460.000	4.845	58.727	63.572	-10.398	73.970	PEAK
3	*	5743.333	5.321	109.001	114.322	N/A	N/A	PEAK

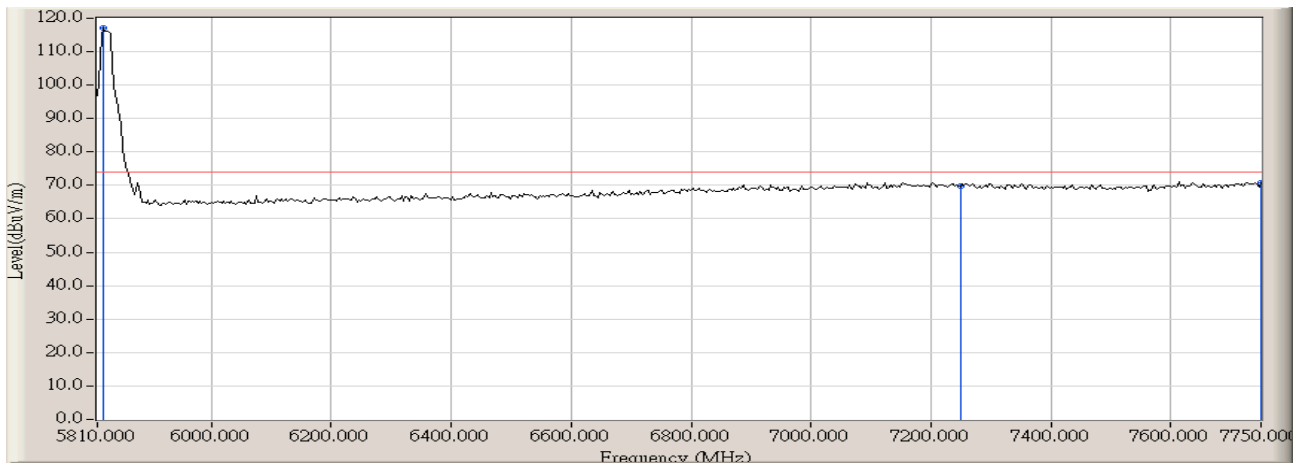
Engineer : Robin	
Site : AC3 (3m Semi-Anechoic Chamber)	Time : 2008/05/19 - 13:33
Limit : FCC_SpartC_15.209_03M_AV	Margin : 0
EUT : Wireless-A 26dBm Network MiNi PCI Adapter	Probe : BBHA9120D_496(1-18GHz) - VERTICAL
Power : AC 120V/60Hz	Note : Mode 1:Transmit by 802.11a at channel 5745MHz



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5350.000	4.455	45.709	50.163	-3.807	53.970	AVERAGE
2		5460.000	4.845	45.379	50.224	-3.746	53.970	AVERAGE
3	*	5743.333	5.321	98.455	103.776	N/A	N/A	AVERAGE

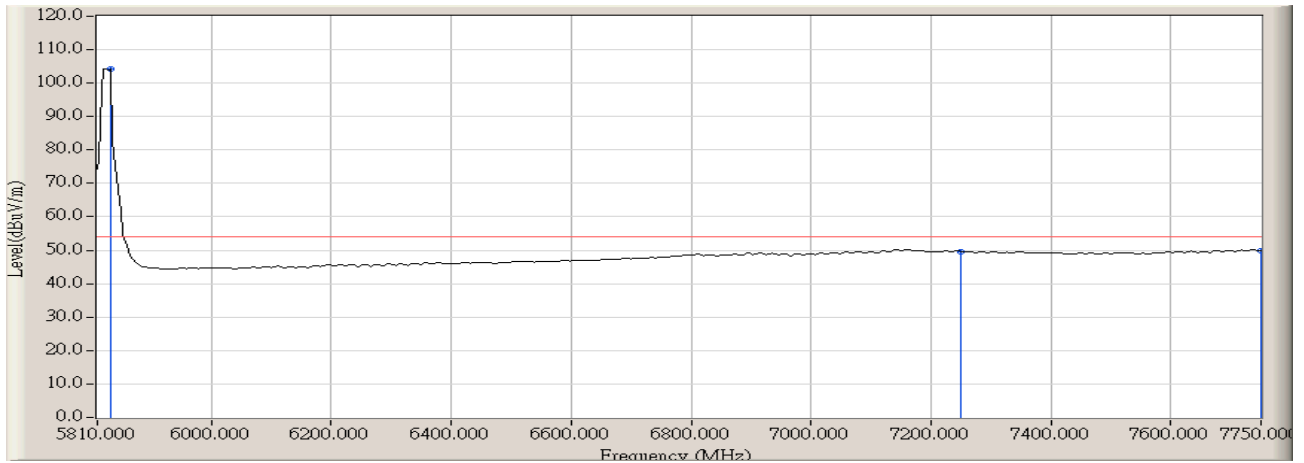


Engineer : Robin	
Site : AC3 (3m Semi-Anechoic Chamber)	Time : 2008/05/19 - 13:39
Limit : FCC_SpartC_15.209_03M_PK	Margin : 0
EUT : Wireless-A 26dBm Network MiNi PCI Adapter	Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL
Power : AC 120V/60Hz	Note : Mode 1:Transmit by 802.11a at channel 5825MHz



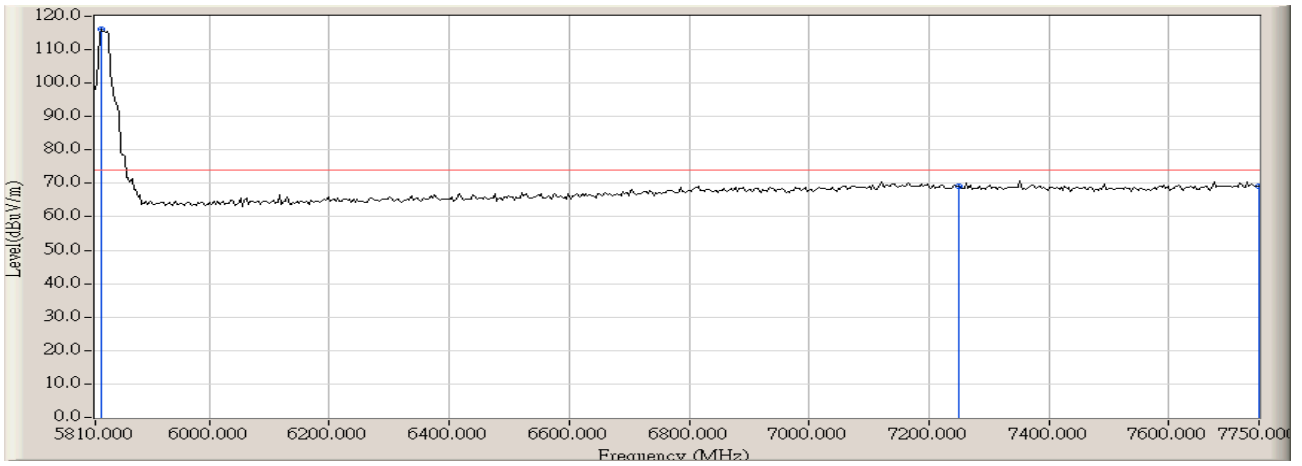
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5819.700	5.570	111.453	117.024	N/A	N/A	PEAK
2		7250.000	12.263	57.426	69.690	-4.280	73.970	PEAK
3		7750.000	13.020	57.641	70.662	-3.308	73.970	PEAK

Engineer : Robin	
Site : AC3 (3m Semi-Anechoic Chamber)	Time : 2008/05/19 - 13:51
Limit : FCC_SpartC_15.209_03M_AV	Margin : 0
EUT : Wireless-A 26dBm Network MiNi PCI Adapter	Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL
Power : AC 120V/60Hz	Note : Mode 1:Transmit by 802.11a at channel 5825MHz



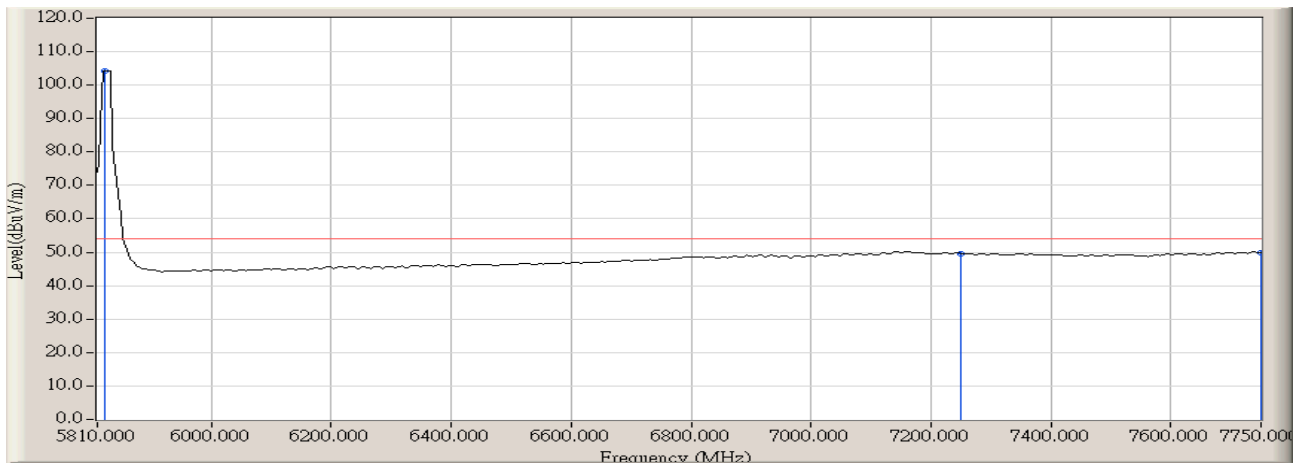
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5832.633	5.617	98.515	104.131	N/A	N/A	AVERAGE
2		7250.000	12.263	37.314	49.578	-4.392	53.970	AVERAGE
3		7750.000	13.020	36.831	49.852	-4.118	53.970	AVERAGE

Engineer : Robin	
Site : AC3 (3m Semi-Anechoic Chamber)	Time : 2008/05/19 - 13:55
Limit : FCC_SpartC_15.209_03M_PK	Margin : 0
EUT : Wireless-A 26dBm Network MiNi PCI Adapter	Probe : BBHA9120D_496(1-18GHz) - VERTICAL
Power : AC 120V/60Hz	Note : Mode 1:Transmit by 802.11a at channel 5825MHz



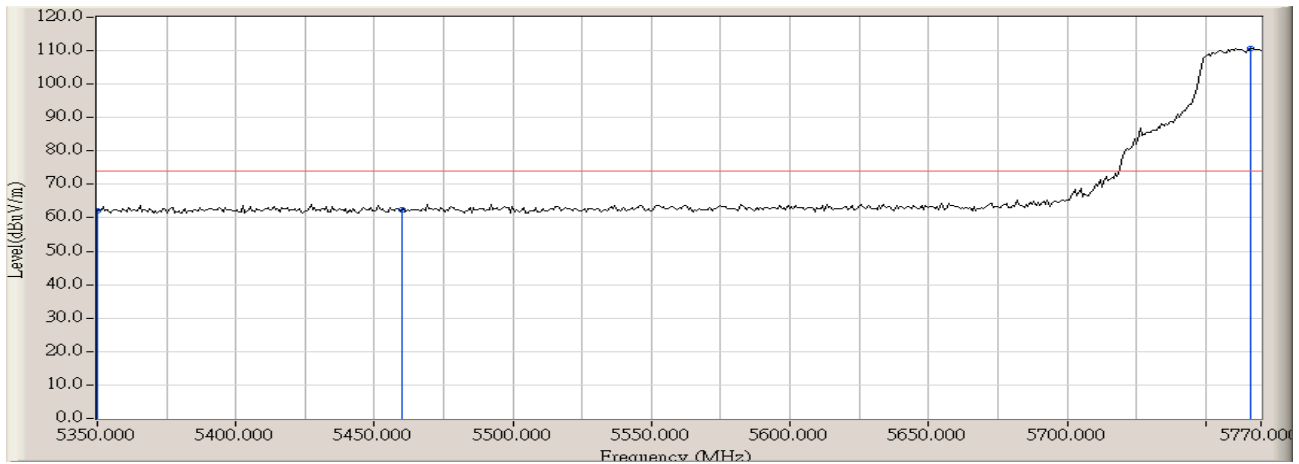
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5819.700	5.570	110.681	116.252	N/A	N/A	PEAK
2		7250.000	12.263	56.830	69.094	-4.876	73.970	PEAK
3		7750.000	13.020	56.296	69.317	-4.653	73.970	PEAK

Engineer : Robin	
Site : AC3 (3m Semi-Anechoic Chamber)	Time : 2008/05/19 - 13:59
Limit : FCC_SpartC_15.209_03M_AV	Margin : 0
EUT : Wireless-A 26dBm Network MiNi PCI Adapter	Probe : BBHA9120D_496(1-18GHz) - VERTICAL
Power : AC 120V/60Hz	Note : Mode 1:Transmit by 802.11a at channel 5825MHz



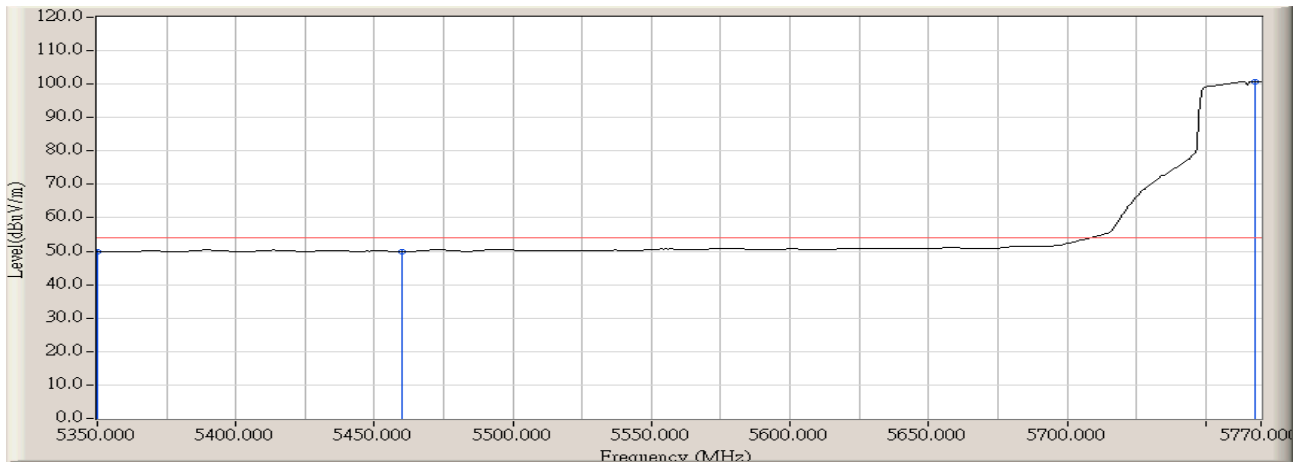
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5822.933	5.582	98.775	104.357	N/A	N/A	AVERAGE
2		7250.000	12.263	37.360	49.624	-4.346	53.970	AVERAGE
3		7750.000	13.020	36.765	49.786	-4.184	53.970	AVERAGE

Engineer : Robin	
Site : AC3 (3m Semi-Anechoic Chamber)	Time : 2008/05/19 - 14:05
Limit : FCC_SpartC_15.209_03M_PK	Margin : 0
EUT : Wireless-A 26dBm Network MiNi PCI Adapter	Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL
Power : AC 120V/60Hz	Note : Mode 1:Transmit by 802.11 turbo a at channel 5765MHz



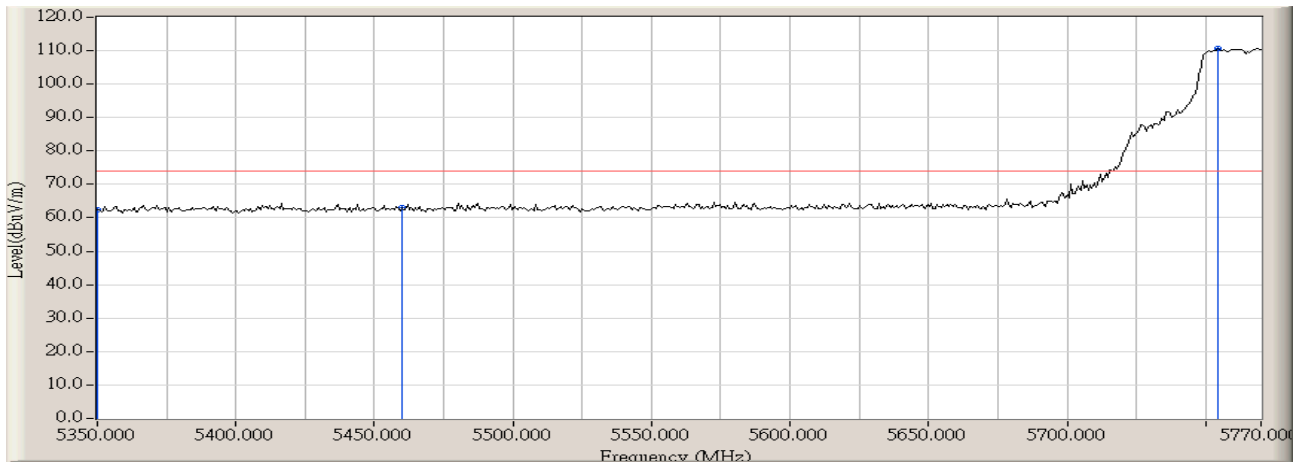
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5350.000	4.455	57.682	62.136	-11.834	73.970	PEAK
2		5460.000	4.845	57.520	62.365	-11.605	73.970	PEAK
3	*	5766.500	5.386	105.290	110.677	N/A	N/A	PEAK

Engineer : Robin	
Site : AC3 (3m Semi-Anechoic Chamber)	Time : 2008/05/19 - 14:07
Limit : FCC_SpartC_15.209_03M_AV	Margin : 0
EUT : Wireless-A 26dBm Network MiNi PCI Adapter	Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL
Power : AC 120V/60Hz	Note : Mode 1:Transmit by 802.11 turbo a at channel 5765MHz



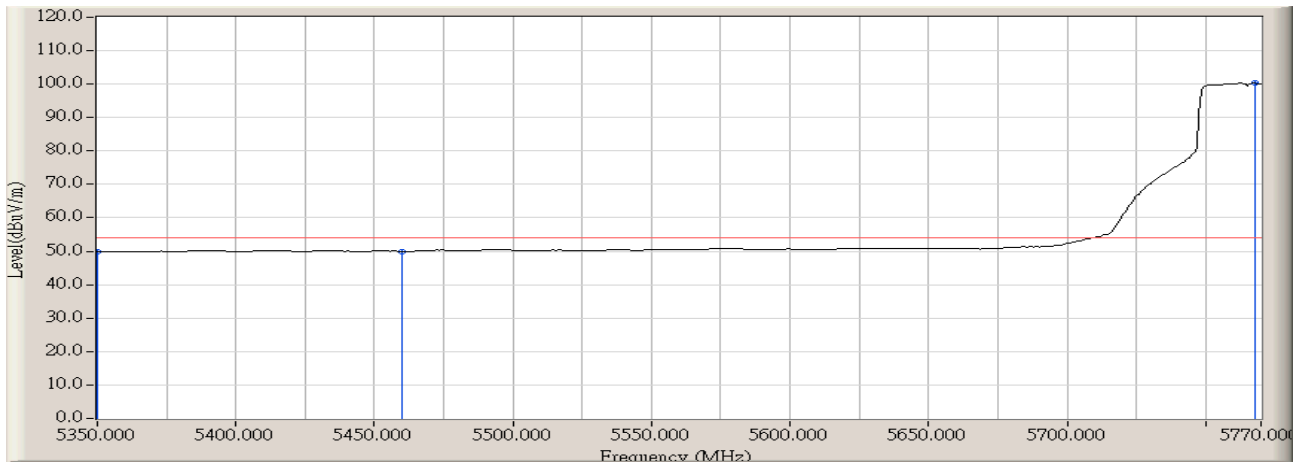
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5350.000	4.455	45.475	49.929	-4.041	53.970	AVERAGE
2		5460.000	4.845	45.040	49.885	-4.085	53.970	AVERAGE
3	*	5767.900	5.393	95.427	100.820	N/A	N/A	AVERAGE

Engineer : Robin	
Site : AC3 (3m Semi-Anechoic Chamber)	Time : 2008/05/19 - 14:08
Limit : FCC_SpartC_15.209_03M_PK	Margin : 0
EUT : Wireless-A 26dBm Network MiNi PCI Adapter	Probe : BBHA9120D_496(1-18GHz) - VERTICAL
Power : AC 120V/60Hz	Note : Mode 1:Transmit by 802.11 turbo a at channel 5765MHz



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5350.000	4.455	58.116	62.570	-11.400	73.970	PEAK
2		5460.000	4.845	58.182	63.027	-10.943	73.970	PEAK
3	*	5754.600	5.347	105.220	110.567	N/A	N/A	PEAK

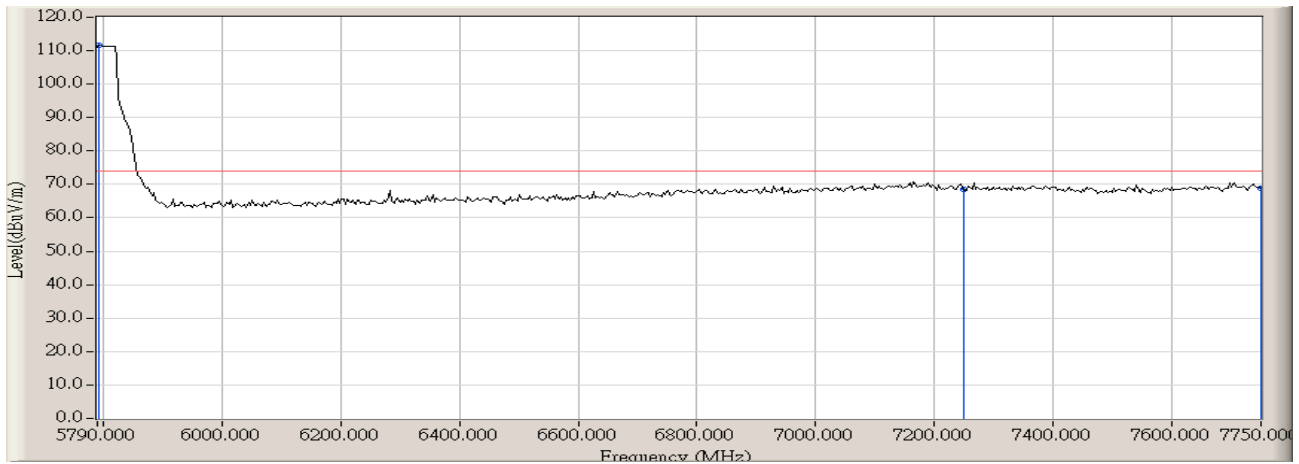
Engineer : Robin	
Site : AC3 (3m Semi-Anechoic Chamber)	Time : 2008/05/19 - 14:09
Limit : FCC_SpartC_15.209_03M_AV	Margin : 0
EUT : Wireless-A 26dBm Network MiNi PCI Adapter	Probe : BBHA9120D_496(1-18GHz) - VERTICAL
Power : AC 120V/60Hz	Note : Mode 1:Transmit by 802.11 turbo a at channel 5765MHz



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5350.000	4.455	45.467	49.921	-4.049	53.970	AVERAGE
2		5460.000	4.845	45.142	49.987	-3.983	53.970	AVERAGE
3	*	5767.900	5.393	94.867	100.260	N/A	N/A	AVERAGE

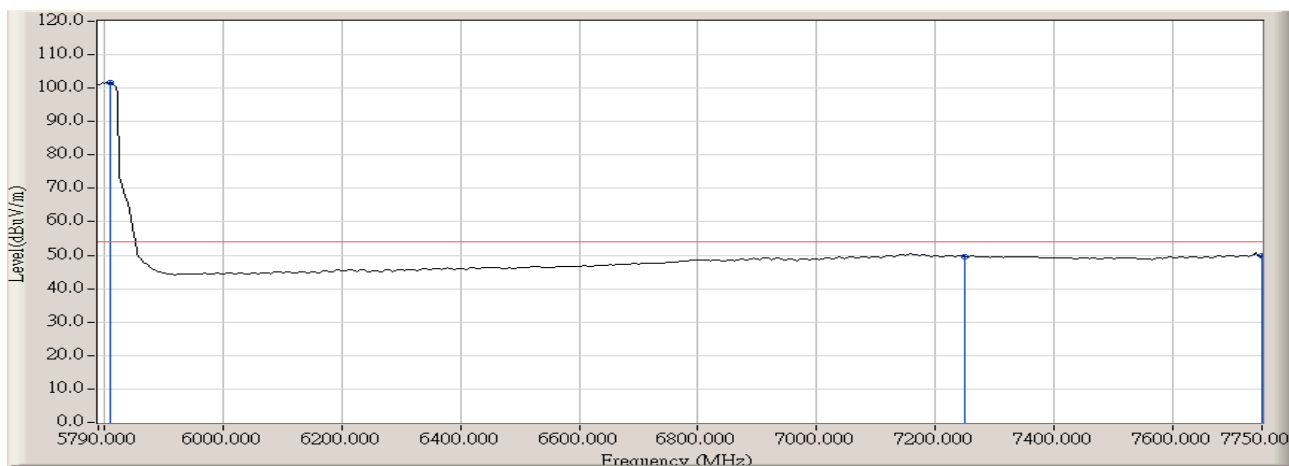


<b>Engineer : Robin</b>	
<b>Site : AC3 (3m Semi-Anechoic Chamber)</b>	<b>Time : 2008/05/19 - 14:11</b>
<b>Limit : FCC_SpartC_15.209_03M_PK</b>	<b>Margin : 0</b>
<b>EUT : Wireless-A 26dBm Network MiNi PCI Adapter</b>	<b>Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL</b>
<b>Power : AC 120V/60Hz</b>	<b>Note : Mode 1:Transmit by 802.11 turbo a at channel 5805MHz</b>



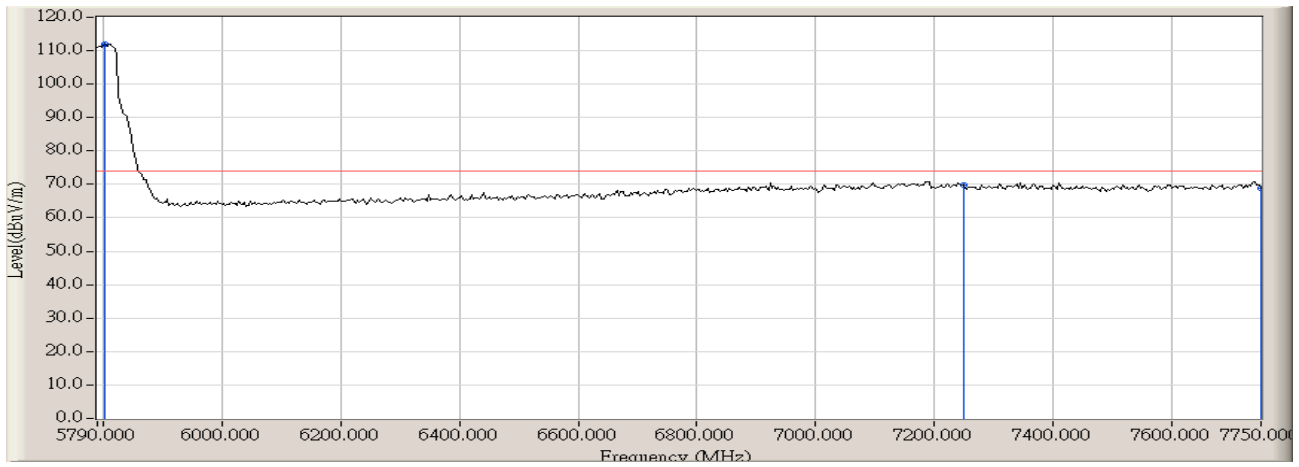
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5793.267	5.478	106.241	111.719	N/A	N/A	PEAK
2		7250.000	12.263	56.144	68.408	-5.562	73.970	PEAK
3		7750.000	13.020	55.901	68.922	-5.048	73.970	PEAK

Engineer : Robin	
Site : AC3 (3m Semi-Anechoic Chamber)	Time : 2008/05/19 - 14:15
Limit : FCC_SpartC_15.209_03M_AV	Margin : 0
EUT : Wireless-A 26dBm Network MiNi PCI Adapter	Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL
Power : AC 120V/60Hz	Note : Mode 1:Transmit by 802.11 turbo a at channel 5805MHz



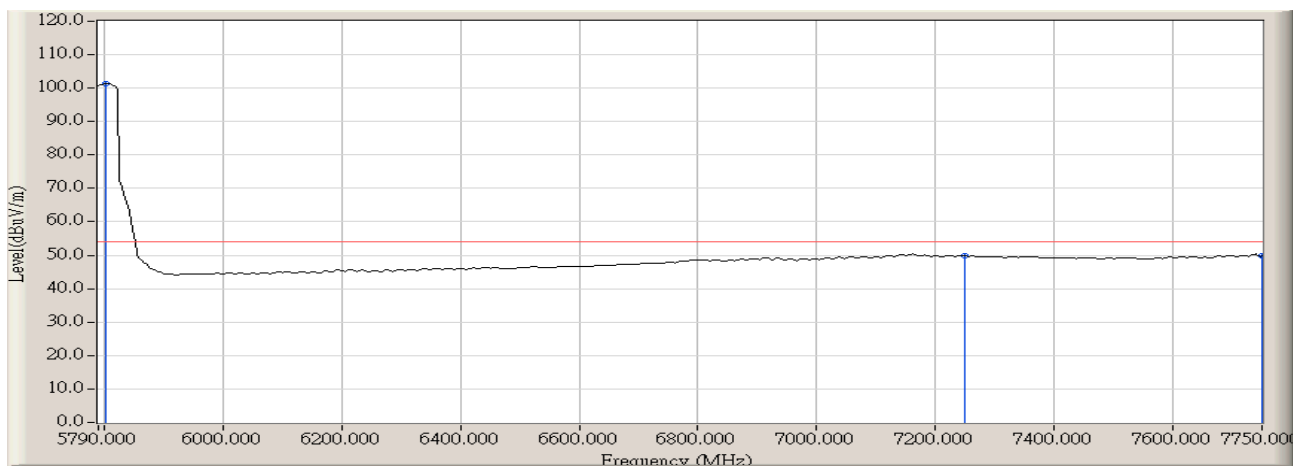
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5809.600	5.535	96.187	101.722	N/A	N/A	AVERAGE
2		7250.000	12.263	37.439	49.703	-4.267	53.970	AVERAGE
3		7750.000	13.020	36.743	49.764	-4.206	53.970	AVERAGE

<b>Engineer : Robin</b>	
<b>Site : AC3 (3m Semi-Anechoic Chamber)</b>	<b>Time : 2008/05/19 - 14:18</b>
<b>Limit : FCC_SpartC_15.209_03M_PK</b>	<b>Margin : 0</b>
<b>EUT : Wireless-A 26dBm Network MiNi PCI Adapter</b>	<b>Probe : BBHA9120D_496(1-18GHz) - VERTICAL</b>
<b>Power : AC 120V/60Hz</b>	<b>Note : Mode 1:Transmit by 802.11 turbo a at channel 5805MHz</b>



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5803.067	5.512	106.471	111.983	N/A	N/A	PEAK
2		7250.000	12.263	57.649	69.913	-4.057	73.970	PEAK
3		7750.000	13.020	55.859	68.880	-5.090	73.970	PEAK

<b>Engineer : Robin</b>	
<b>Site : AC3 (3m Semi-Anechoic Chamber)</b>	<b>Time : 2008/05/19 - 14:21</b>
<b>Limit : FCC_SpartC_15.209_03M_AV</b>	<b>Margin : 0</b>
<b>EUT : Wireless-A 26dBm Network MiNi PCI Adapter</b>	<b>Probe : BBHA9120D_496(1-18GHz) - VERTICAL</b>
<b>Power : AC 120V/60Hz</b>	<b>Note : Mode 1:Transmit by 802.11 turbo a at channel 5805MHz</b>



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5803.067	5.512	95.866	101.378	N/A	N/A	AVERAGE
2		7250.000	12.263	37.467	49.731	-4.239	53.970	AVERAGE
3		7750.000	13.020	36.731	49.752	-4.218	53.970	AVERAGE

## 7. Operation Frequency Range of 20dB Bandwidth

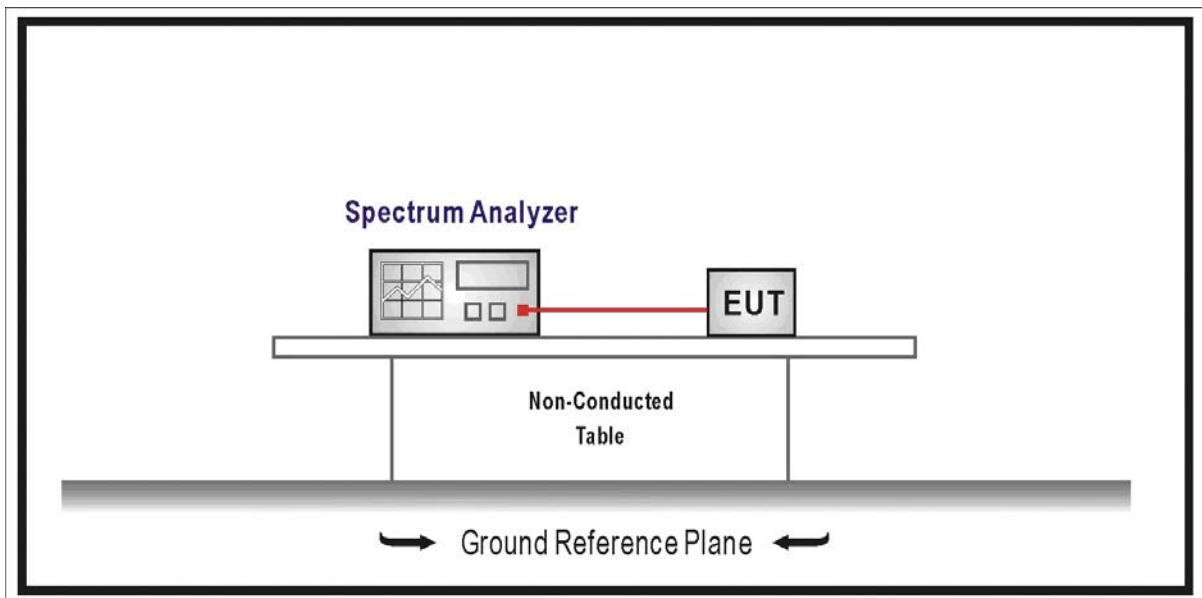
### 7.1. Test Equipment

Operation Frequency Range of 20dB Bandwidth / AC-4

Instrument	Manufacturer	Type No.	Serial No.	Cal. Date
Spectrum Analyzer	Agilent	E4446A	MY45300103	2007/06/11
Coaxial Cable	Huber+Suhner	AC4-RF	09	2007/11/25
Temperature/Humidity Meter	zhicheng	ZC1-2	QT-TH007	2008/03/09

Note: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

### 7.2. Test Setup



### 7.3. Limit

20 dB bandwidth of the emission is contained within the operation frequency band.

### 7.4. Test Procedure

The EUT was tested according to DTS test procedure of Oct 2002 KDB558074 for compliance to FCC 47CFR 15.247 requirements.

Set RBW = 100 kHz, Span greater than RBW.

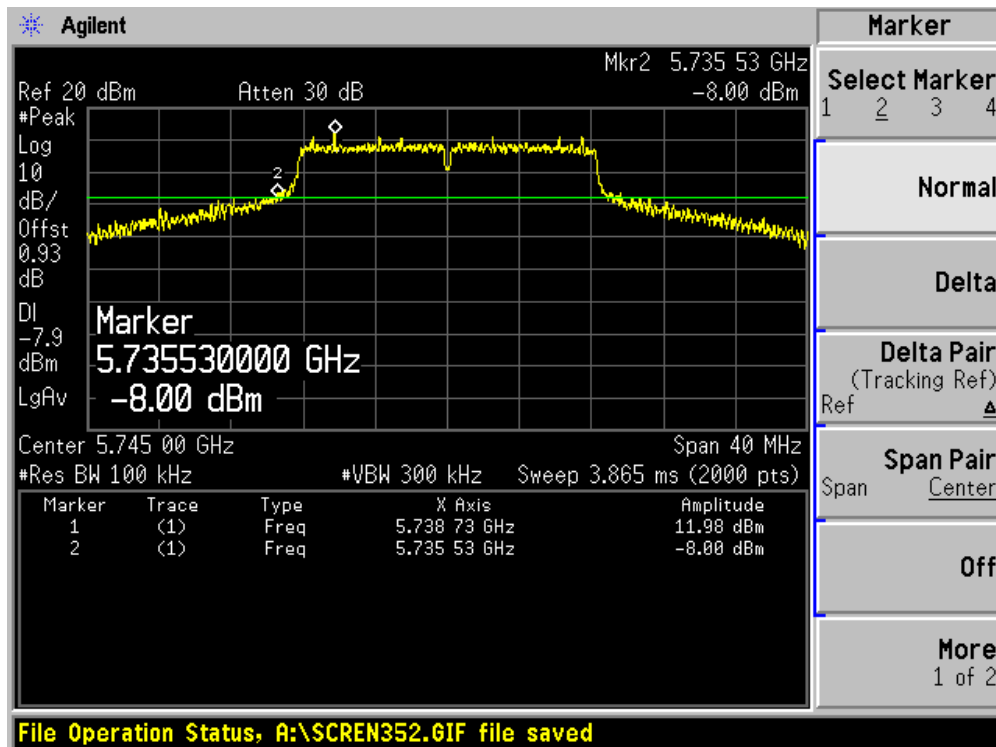
## 7.5. Uncertainty

The measurement uncertainty is defined as  $\pm 1$  kHz

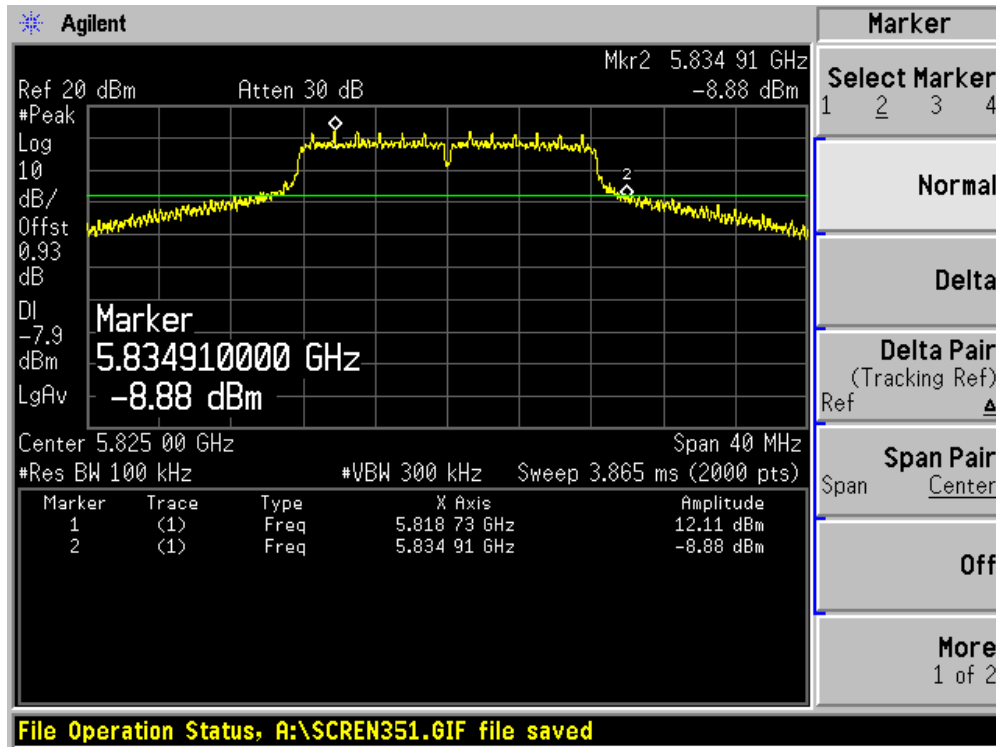
7.6. Test Result

Product	:	WIRELESS-A 26DBM NETWORK MINI PCI ADAPTER
Test Item	:	Operation Frequency Range of 20dB Bandwidth
Test Site	:	AC-4
Test Mode	:	Mode 1: Transmit by 802.11a

Channel 01 (5475MHz)



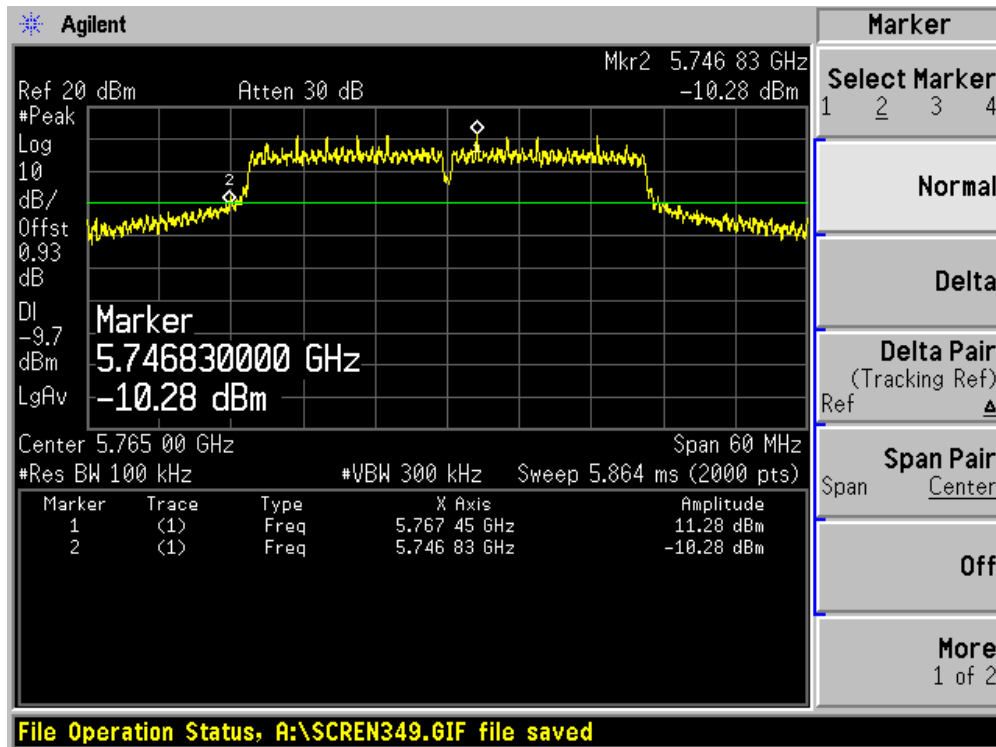
Channel 11 (5825MHz)



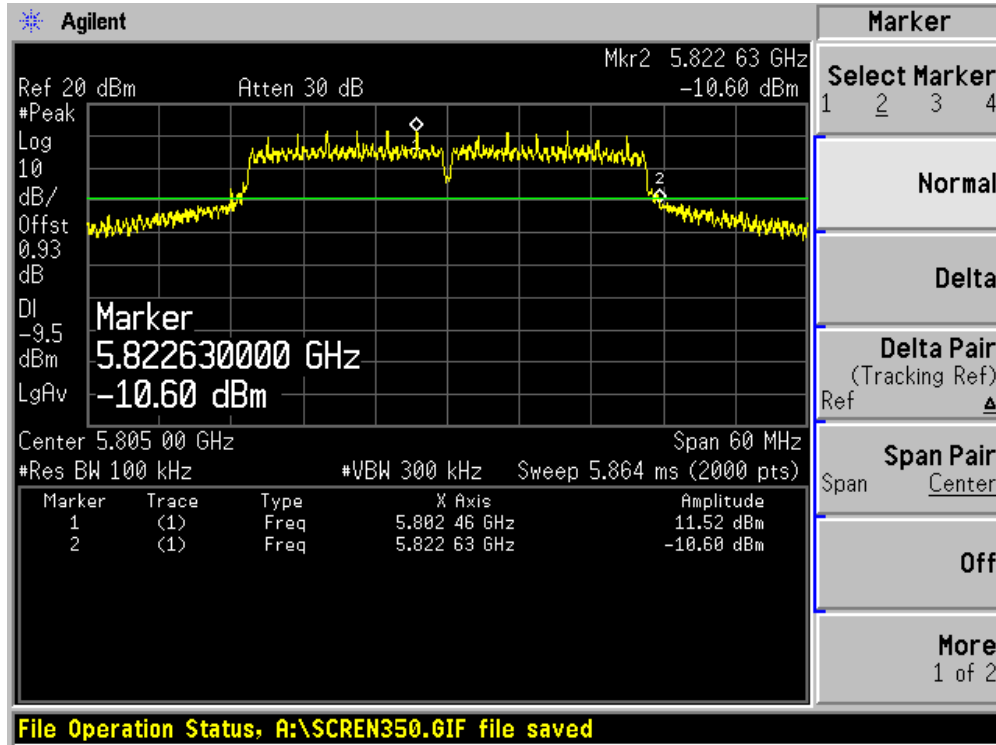


Product	:	WIRELESS-A 26DBM NETWORK MINI PCI ADAPTER
Test Item	:	Operation Frequency Range of 20dB Bandwidth
Test Site	:	AC-4
Test Mode	:	Mode 2: Transmit by 802.11 turbo a

### Channel 01 (5765MHz)



Channel 11 (5805MHz)



**8. Occupied Bandwidth**

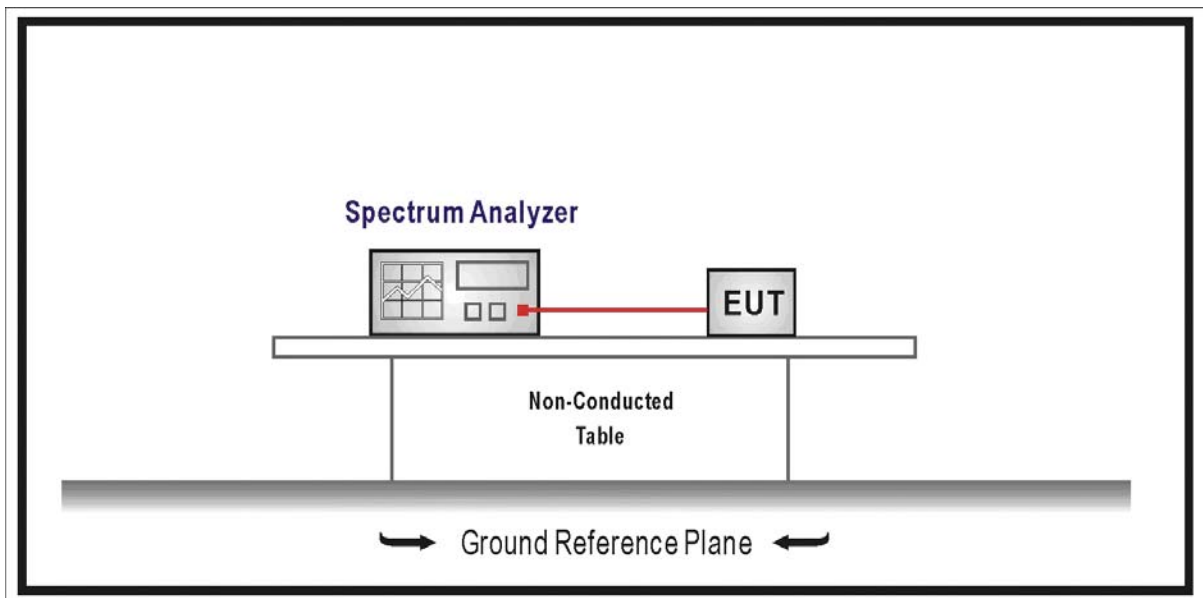
**8.1. Test Equipment**

Occupied Bandwidth / AC-4

Instrument	Manufacturer	Type No.	Serial No.	Cal. Date
Spectrum Analyzer	Agilent	E4446A	MY45300103	2007/06/11
Coaxial Cable	Huber+Suhner	AC4-RF	09	2007/11/25
Temperature/Humidity Meter	zhicheng	ZC1-2	QT-TH007	2008/03/09

Note: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

**8.2. Test Setup**



**8.3. Limit**

The minimum 6 dB bandwidth shall be at least 500 kHz.

**8.4. Test Procedure**

The EUT was tested according to DTS test procedure of Oct 2002 KDB558074 for compliance to FCC 47CFR 15.247 requirements.

Set RBW = 100 kHz, Span greater than RBW.

**8.5. Uncertainty**

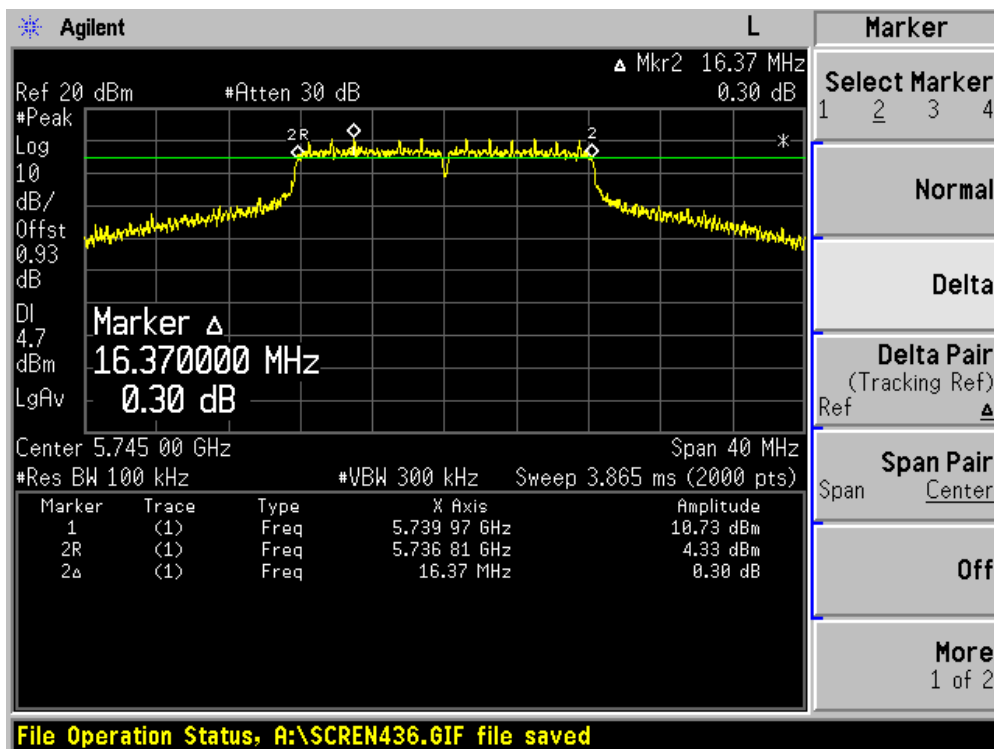
The measurement uncertainty is defined as  $\pm 1$  kHz

## 8.6. Test Result

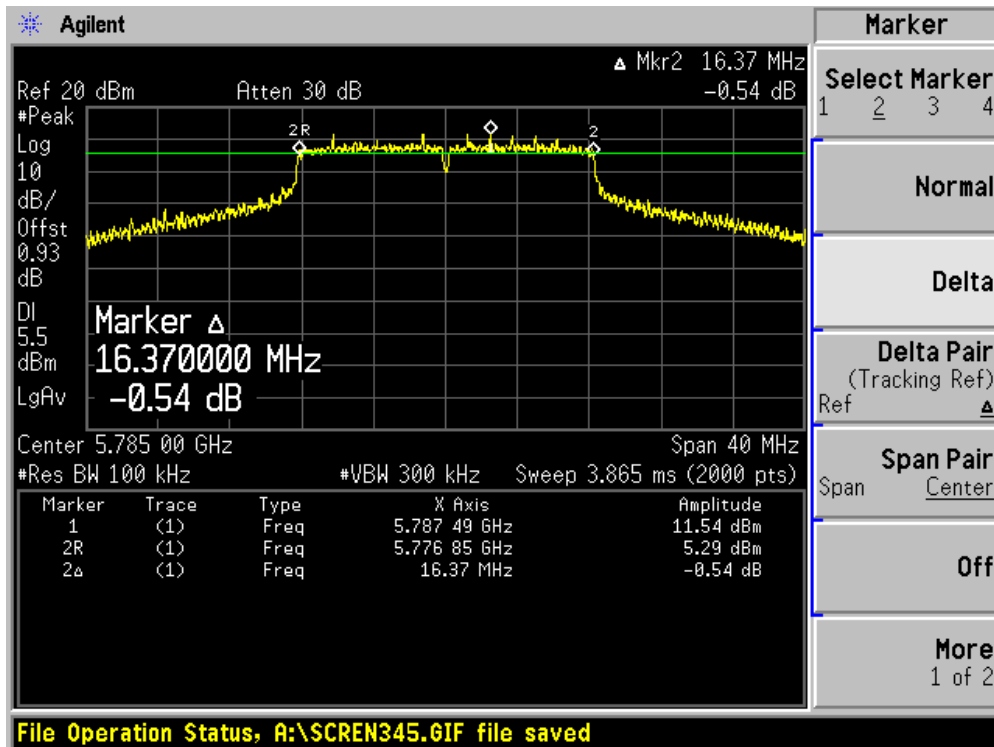
Product	:	WIRELESS-A 26DBM NETWORK MINI PCI ADAPTER
Test Item	:	Occupied Bandwidth
Test Site	:	AC-4
Test Mode	:	Mode 1: Transmit by 802.11a

Channel No.	Frequency (MHz)	Occupied Bandwidth (kHz)	Limit (kHz)	Result
01	5745	16370	500	Pass
03	5785	16370	500	Pass
05	5825	16350	500	Pass

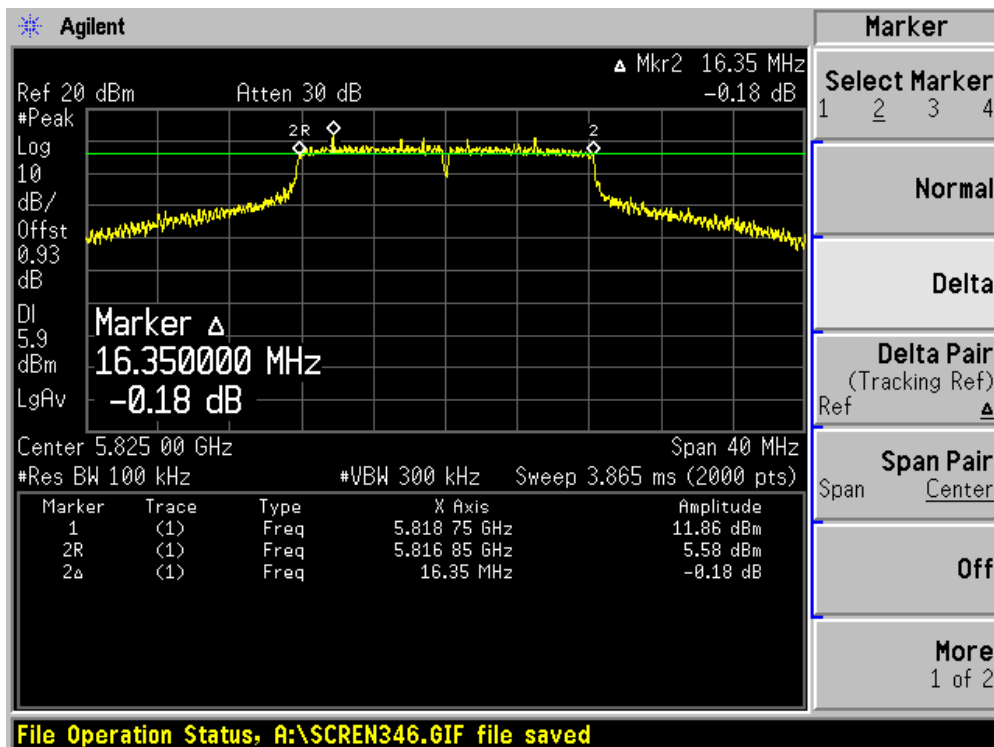
Channel 01 (5745MHz)



Channel 03 (5785MHz)



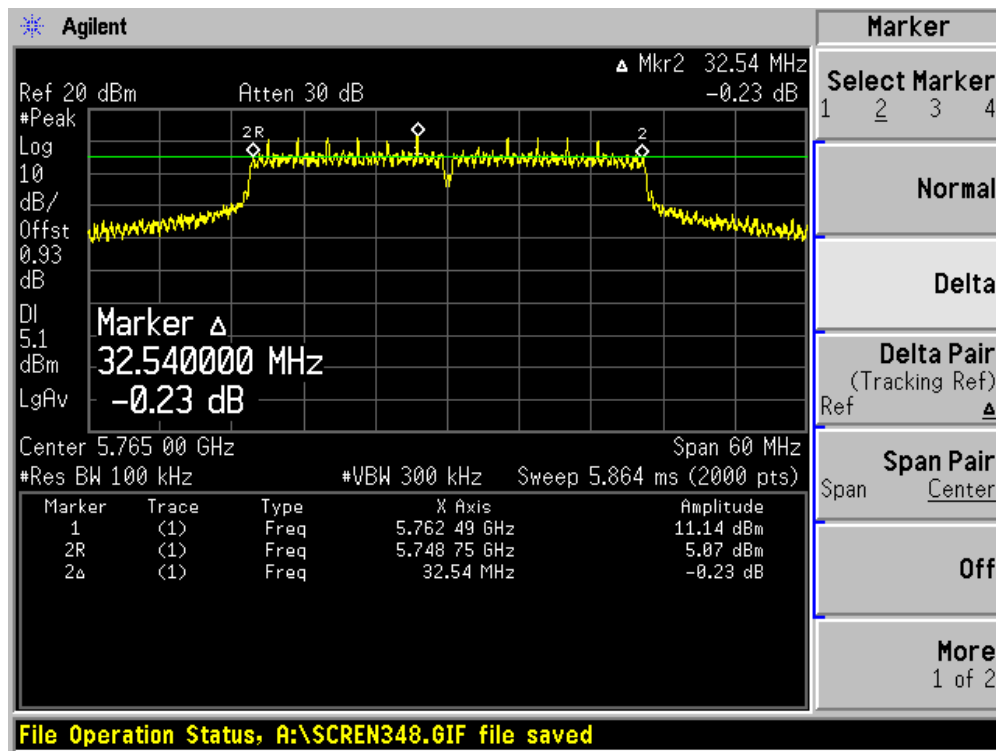
Channel 05 (5825MHz)



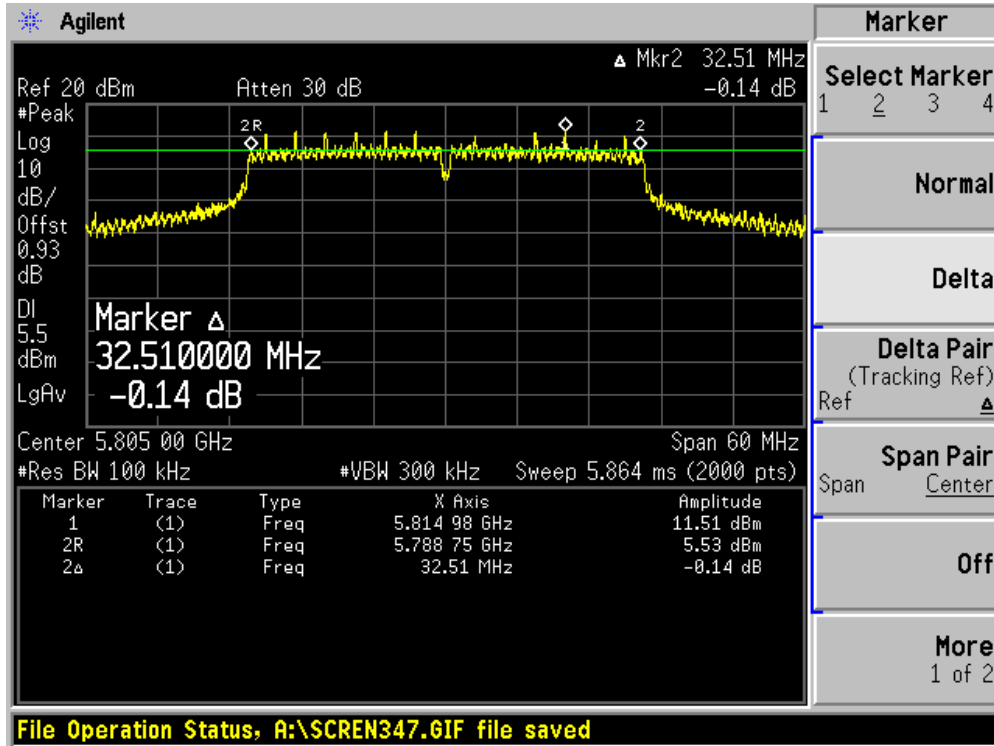
Product	:	WIRELESS-A 26DBM NETWORK MINI PCI ADAPTER
Test Item	:	Occupied Bandwidth
Test Site	:	AC-4
Test Mode	:	Mode 2: Transmit by 802.11 turbo a

Channel No.	Frequency (MHz)	Occupied Bandwidth (kHz)	Limit (kHz)	Result
02	5765	32540	500	Pass
04	5805	32510	500	Pass

### Channel 02 (5765MHz)



Channel 04 (5805MHz)





9. Power Output

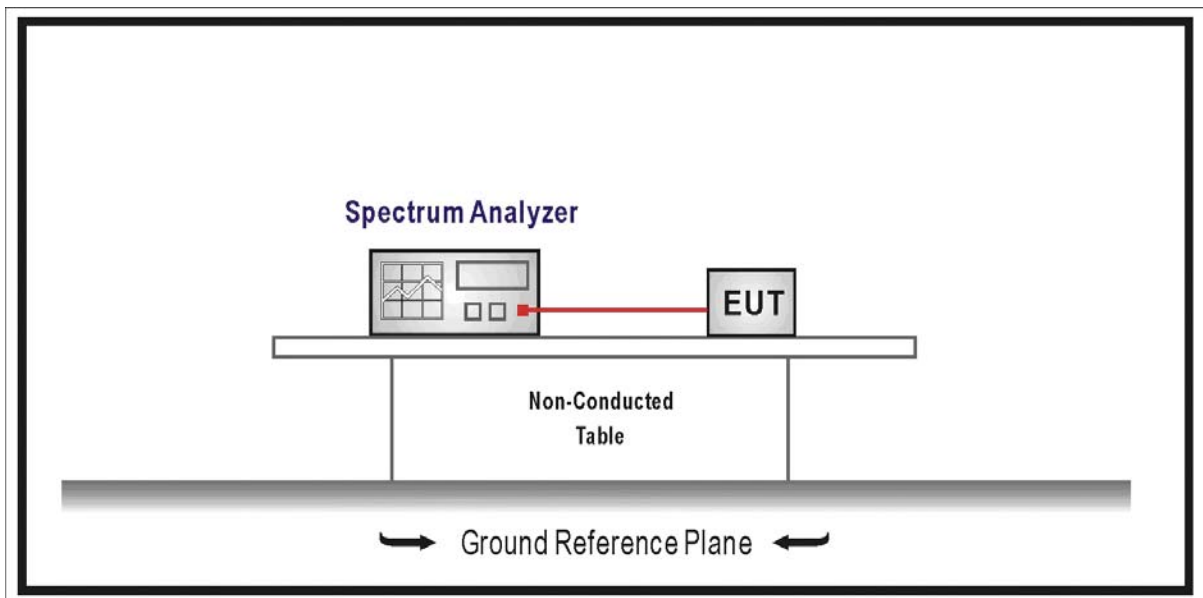
9.1. Test Equipment

Power Output / AC-4

Instrument	Manufacturer	Type No.	Serial No.	Cal. Date
Spectrum Analyzer	Agilent	E4446A	MY45300103	2007/06/11
Coaxial Cable	Huber+Suhner	AC4-RF	09	2007/11/25
Temperature/Humidity Meter	zhicheng	ZC1-2	QT-TH007	2008/03/09

Note: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

9.2. Test Setup



9.3. Limit

The maximum peak power shall be less 1 Watt (30dBm).

Note: the conducted output power limit specified above is based on the use the antennas with directional gains that do not exceed 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values above, as appropriate, by the amount in dB that the directional gain of antenna exceeds 6 dBi.

9.4. Test Procedure

The EUT was tested according to DTS test procedure of Oct 2002 KDB558074 for compliance to FCC 47CFR 15.247 requirements.

Power output measurement allowed per Section 15.247(b)(3).

In the following, “T” is the transmission pulse duration over which the transmitter is on and transmitting at its maximum power control level. Measurements are performed with a spectrum analyzer. Three methods are provided to accommodate measurement limitations of the spectrum analyzer depending on signal parameters. Set resolution bandwidth (RBW) = 1 MHz. Set span to encompass the entire emission bandwidth (EBW) of the signal. Use automatic setting for analyzer sweep time.

As “T”  $\geq$  sweep time, the test procedure will be used as following:

1. Set span to encompass the entire emission bandwidth (EBW) of the signal.
2. Set RBW = 1 MHz.
3. Set VBW  $\geq$  3 MHz.
4. Use sample detector mode if bin width (i.e., span/number of points in spectrum display) < 0.5 RBW. Otherwise use peak detector mode.
5. Use a video trigger with the trigger level set to enable triggering only on full power pulses. Transmitter must operate at full control power for entire sweep of every sweep. If the device transmits continuously, with no off intervals or reduced power intervals, the trigger may be set to “free run”.
6. Trace average 100 traces in power averaging mode.
7. Compute power by integrating the spectrum across the 26 dB EBW of the signal. The integration can be performed using the spectrum analyzer’s band power measurement function with band limits set equal to the EBW band edges or by summing power levels in each 1 MHz band in linear power terms. The 1 MHz band power levels to be summed can be obtained by averaging, in linear power terms, power levels in each frequency bin across the 1 MHz.

## 9.5. Uncertainty

The measurement uncertainty is defined as  $\pm 1.27$  dB

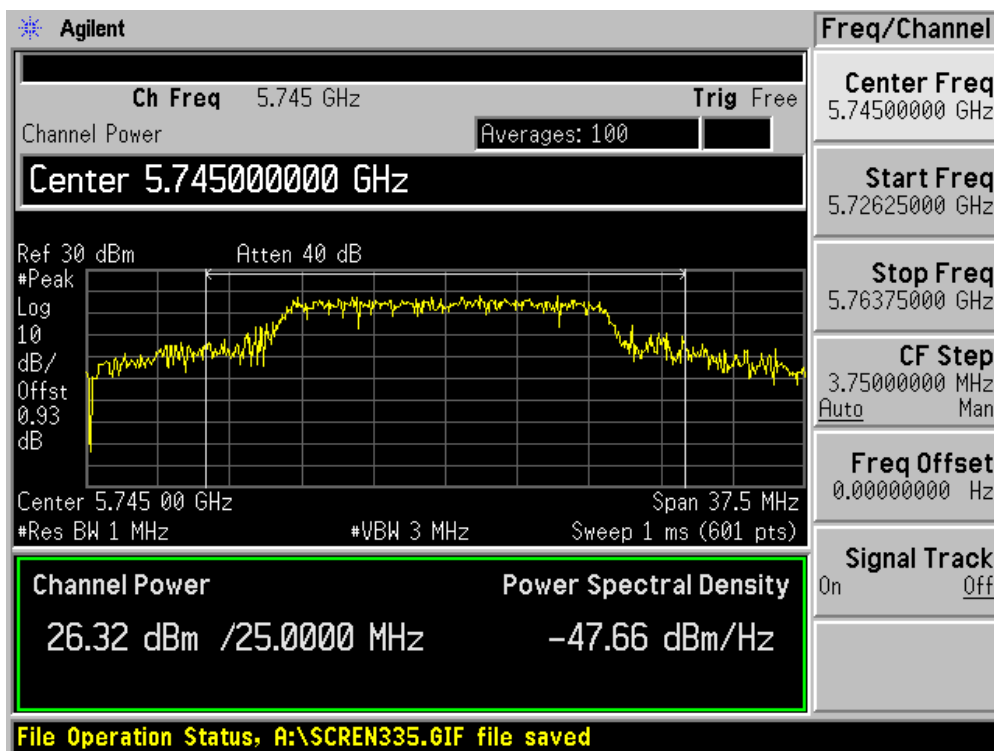
9.6. Test Result

Product	:	WIRELESS-A 26DBM NETWORK MINI PCI ADAPTER
Test Item	:	Power Output
Test Site	:	AC-4
Test Mode	:	Mode 1: Transmit by 802.11a

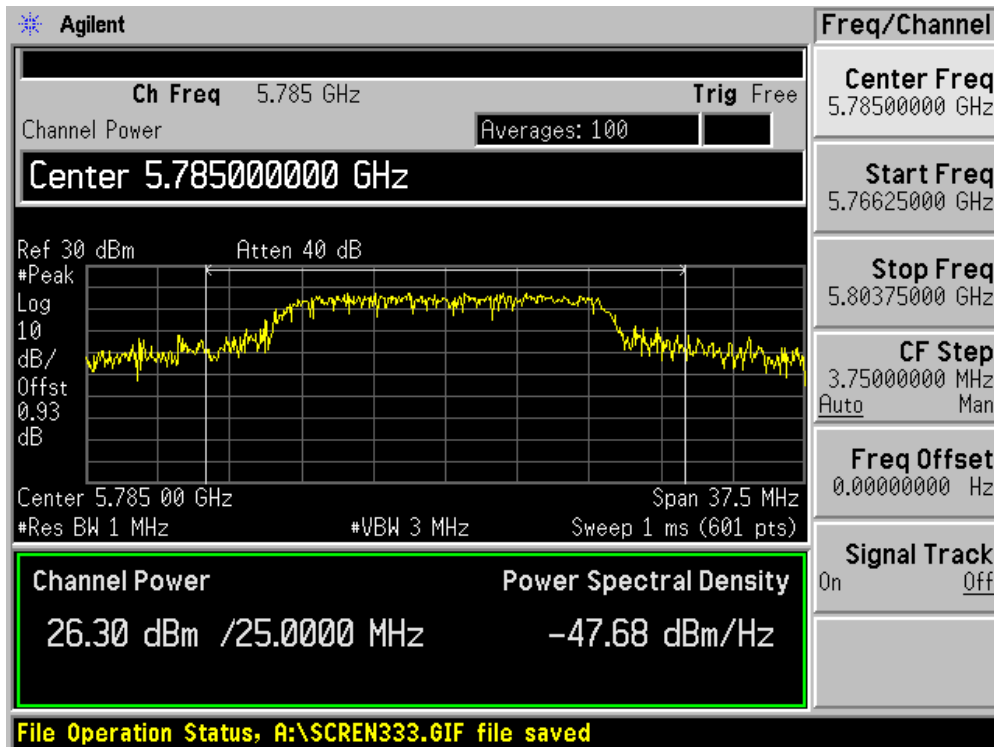
Channel No.	Frequency (MHz)	Data Rate (Mbps)								Limit (dBm)
		6	9	12	18	24	36	48	54	
01	5745.00	26.32	--	--	--	--	--	--	--	30
03	5785.00	26.30	26.28	26.25	26.19	26.12	26.10	26.08	26.01	30
05	5825.00	26.03	--	--	--	--	--	--	--	30

Note: The antenna gain of transmitter is less than 6 dBi and other than fixed, point-to-point operation, therefore the limit is 30 dBm.

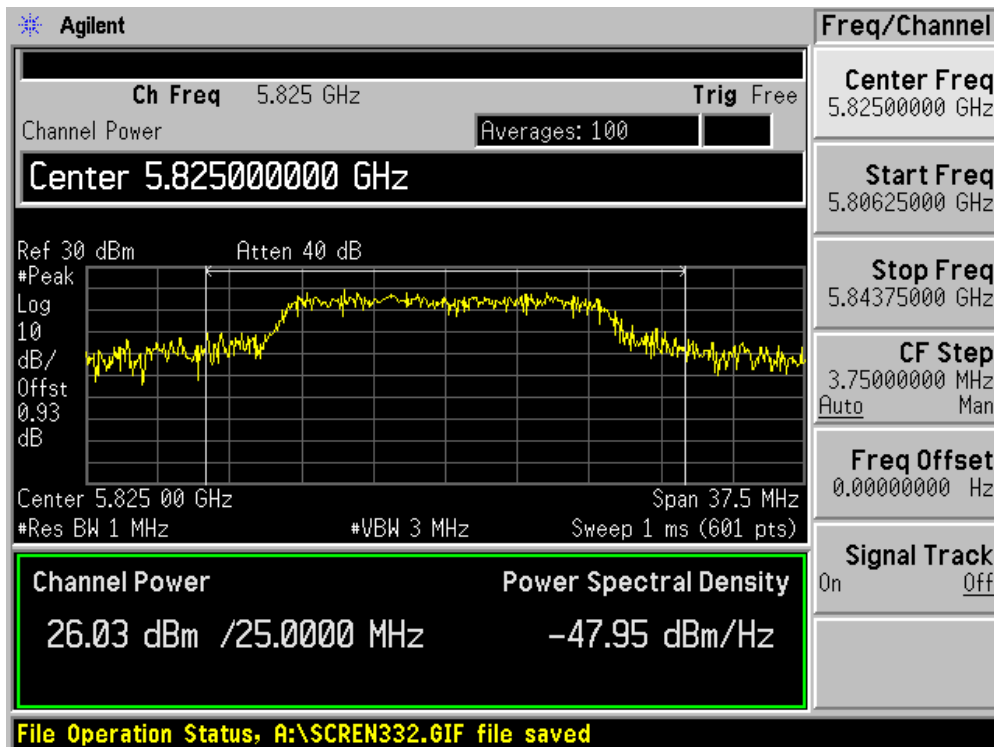
Channel 01 (5475MHz)



Channel 03 (5785MHz)



Channel 05 (5825MHz)

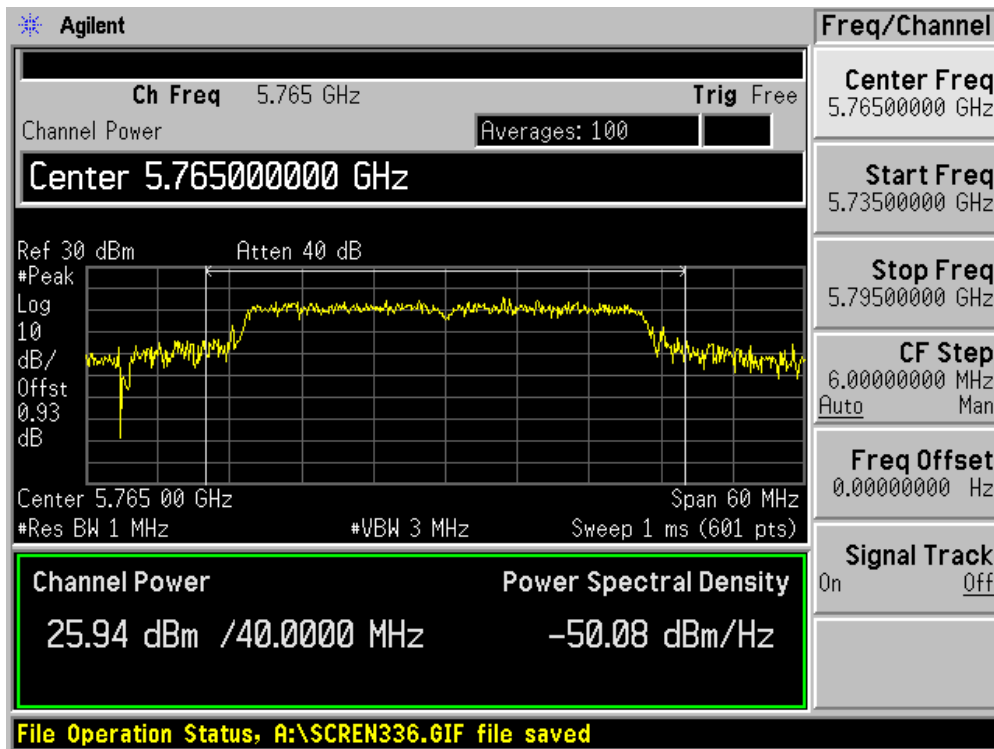


Product	:	WIRELESS-A 26DBM NETWORK MINI PCI ADAPTER
Test Item	:	Power Output
Test Site	:	AC-4
Test Mode	:	Mode 2: Transmit by 802.11 turbo a

Channel No.	Frequency (MHz)	Data Rate (Mbps)								Limit (dBm)
		12	18	24	36	48	72	96	108	
02	5765.00	25.94	25.80	25.81	25.74	25.70	25.62	25.69	25.42	30
04	5805.00	25.84	--	--	--	--	--	--	--	30

Note: The antenna gain of transmitter is less than 6 dBi and other than fixed, point-to-point operation, therefore the limit is 30 dBm.

### Channel 02 (5765MHz)



Channel 04 (5805MHz)



## 10. Power Spectral Density

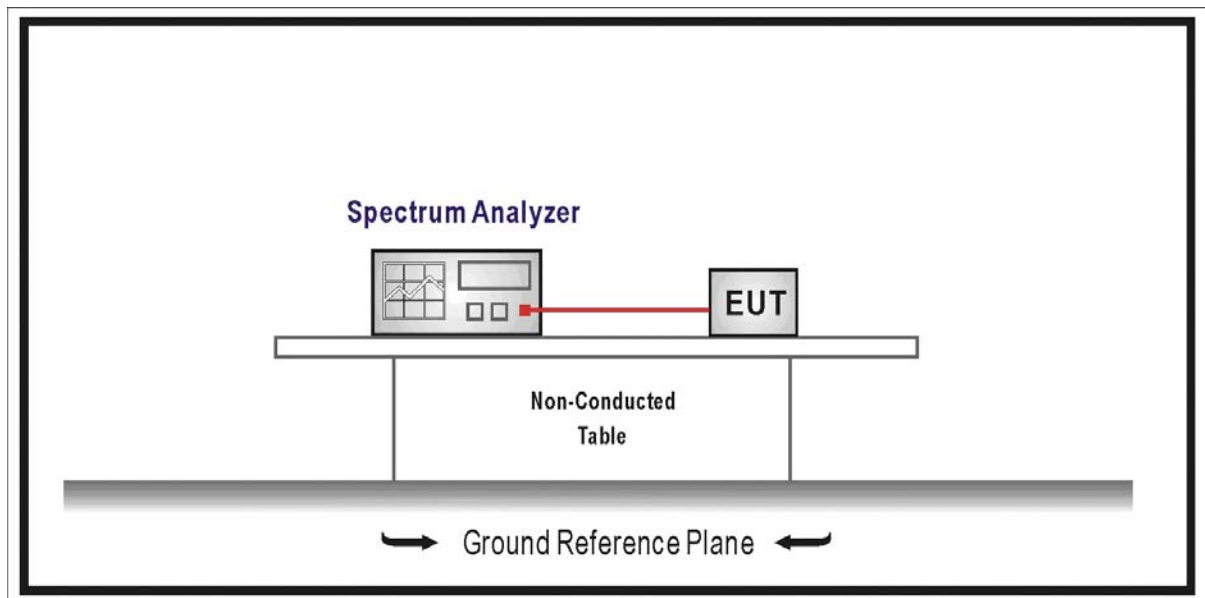
### 10.1. Test Equipment

Power Spectral Density / AC-4

Instrument	Manufacturer	Type No.	Serial No.	Cal. Date
Spectrum Analyzer	Agilent	E4446A	MY45300103	2007/06/11
Coaxial Cable	Huber+Suhner	AC4-RF	09	2007/11/25
Temperature/Humidity Meter	zhicheng	ZC1-2	QT-TH007	2008/03/09

Note: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

### 10.2. Test Setup



### 10.3. Limit

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

### 10.4. Test Procedure

The EUT was tested according to DTS test procedure of Oct 2002 KDB558074 for compliance to FCC 47CFR 15.247 requirements.

Set RBW= 3 kHz, Set VBW  $\geq$  9 kHz, Sweep time=Auto, Set detector=Peak detector.

### **10.5. Uncertainty**

The measurement uncertainty is defined as  $\pm 1.27$  dB

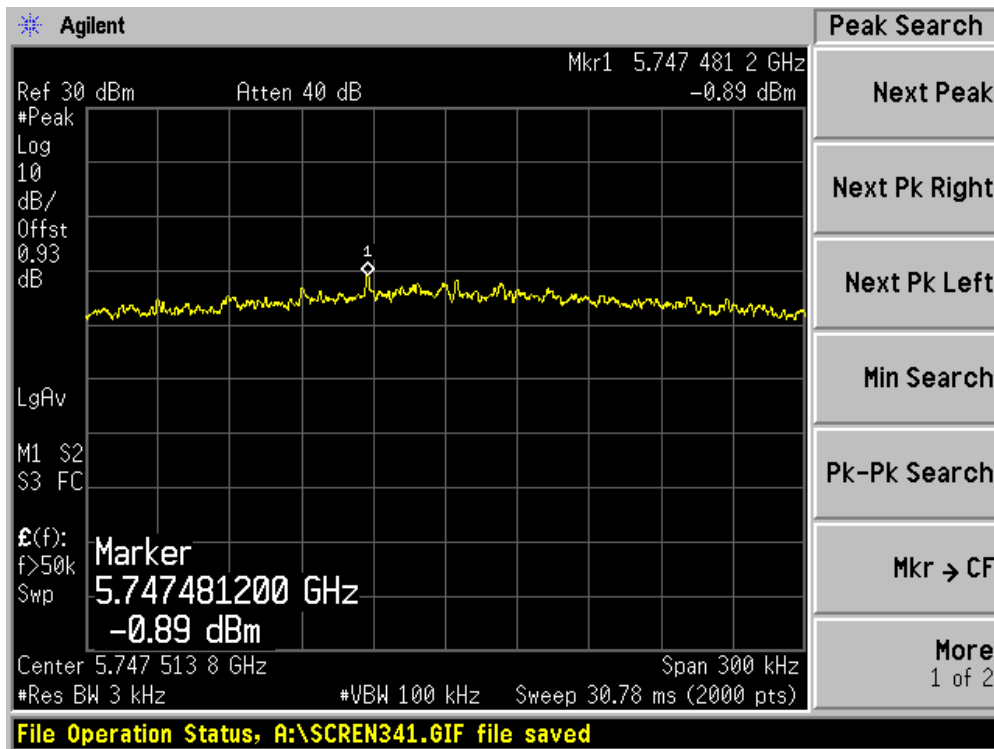


10.6. Test Result

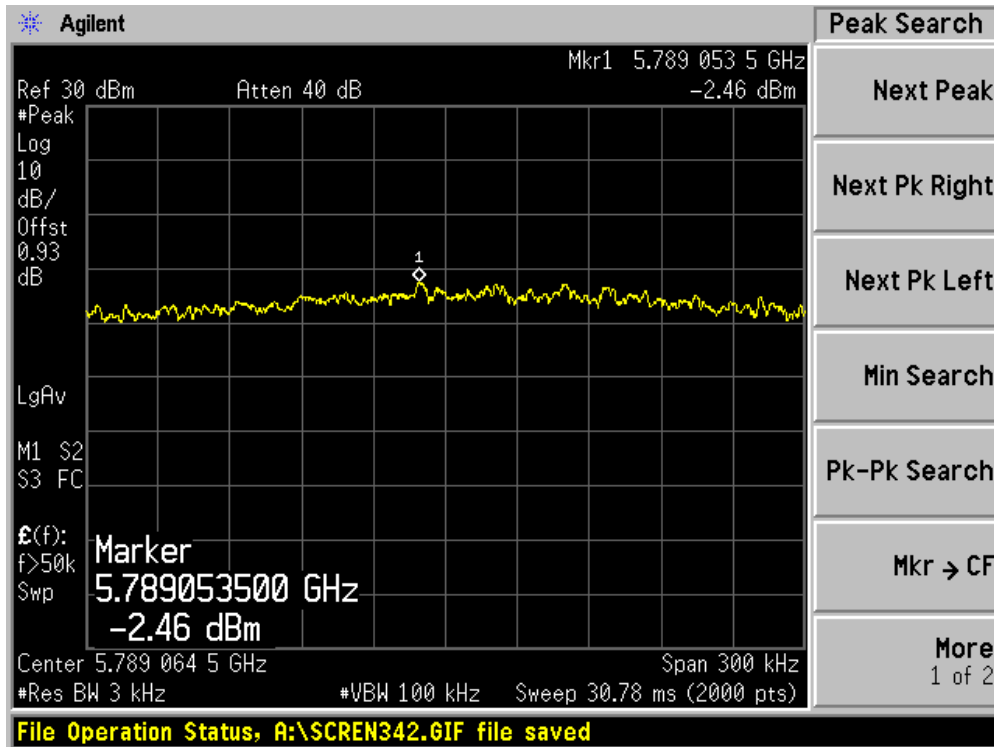
Product	:	WIRELESS-A 26DBM NETWORK MINI PCI ADAPTER
Test Item	:	Power Spectral Density
Test Site	:	AC-4
Test Mode	:	Mode 1: Transmit by 802.11a

Channel No.	Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Limit (dBm/3kHz)	Result
01	5745	-0.89	8	Pass
03	5785	-2.46	8	Pass
05	5825	-2.18	8	Pass

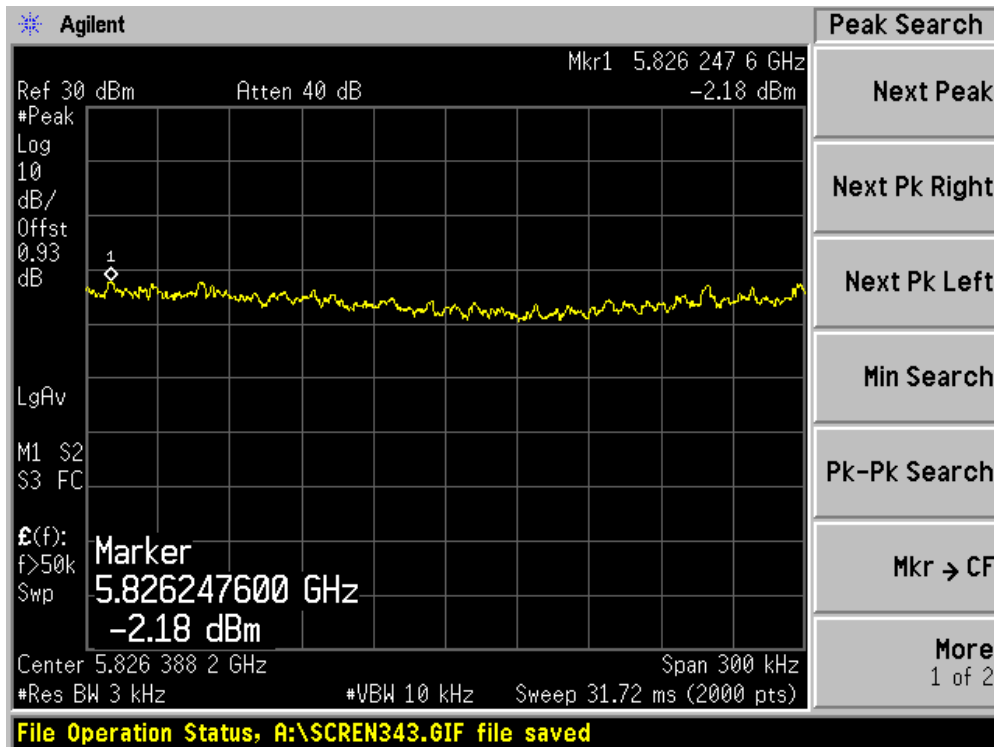
Channel 01 (5745MHz)



Channel 03 (5785MHz)



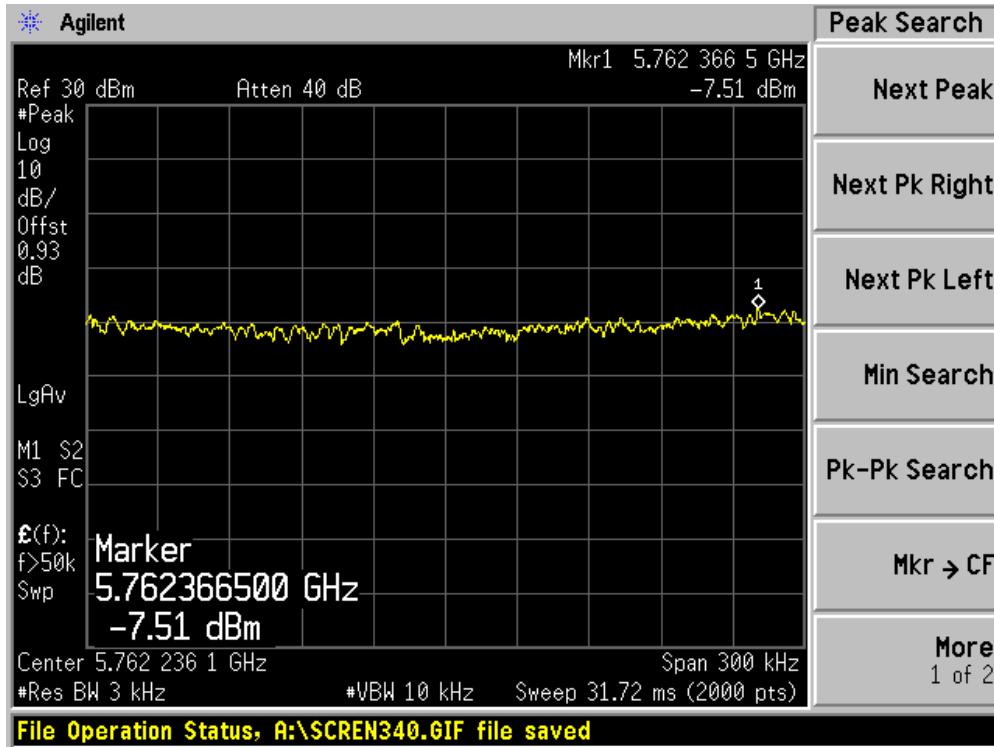
Channel 05 (5825MHz)



Product	:	WIRELESS-A 26DBM NETWORK MINI PCI ADAPTER
Test Item	:	Power Spectral Density
Test Site	:	AC-4
Test Mode	:	Mode 2: Transmit by 802.11 turbo a

Channel No.	Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Limit (dBm/3kHz)	Result
02	5765	-0.89	8	Pass
04	5805	-2.46	8	Pass

### Channel 02 (5765MHz)



Channel 04 (5805MHz)

