

# CE Test Report

Product Name : WIRELESS-N NETWORK MINI PCI ADAPTER  
Model No. : IWAVEPORT WLM200NX

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

Date of Receipt : 2008/09/10  
Issued Date : 2008/10/31  
Report No. : 089S061R-RF-CE-P14V02

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.

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# Test Report Certification

Issued Date : 2008/10/31

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Product Name : WIRELESS-N 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 WLM200NX

Rated Voltage : AC 230 V / 50 Hz

EUT Voltage : DC 3.3V

Trade Name : COMPEX

Applicable Standard : ETSI EN 300 328 V1.7.1 (2006-10)

Test Result : Complied

Performed Location : SuZhou EMC laboratory  
No.99 Hongye Rd., Suzhou Industrial Park Loufeng  
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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
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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/>  
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## 1. General Information

### 1.1. EUT Description

Product Name	WIRELESS-N NETWORK MINI PCI ADAPTER
Trade Name	COMPEX
Model No.	IWAVEPORT WLM200NX

WLAN	WIRELESS-N NETWORK MINI PCI ADAPTER
Working Voltage	DC 3.3V
Frequency Range	<p><b>For 2.4GHz Band</b></p> <p>802.11b/g/n(20MHz): 2412 - 2472 MHz</p> <p>802.11n(40MHz): 2422 - 2452 MHz</p> <p><b>For 5.0GHz Band</b></p> <p>802.11a/n(20MHz): 5180 - 5350 MHz, 5500 - 5700 MHz, 5745-5825MHz</p> <p>802.11n(40MHz): 5190 - 5310 MHz, 5510 - 5670 MHz</p>
Channel Number	<p><b>For 2.4GHz Band</b></p> <p>802.11b/g/n(20MHz): 13</p> <p>802.11n(40MHz): 7</p> <p><b>For 5.0GHz Band</b></p> <p>802.11a/n(20MHz): 22</p> <p>802.11n(40MHz): 9</p>
Type of Modulation	<p>802.11b: DSSS</p> <p>802.11a/g/n: OFDM</p>
Data Rate	<p>802.11a/g: 6/9/12/18/24/36/48/54 Mbps</p> <p>802.11b: 1/2/5.5/11 Mbps</p> <p>802.11n: up to 450 Mbps</p>
Channel Control	Auto
Antenna Type	Omni Antenna
Antenna Gain	Refer to the "Antenna List"

**For 5.0GHz Band**

802.11a/n(20MHz) Working Frequency of Each Channel:							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
36	5180 MHz	40	5200 MHz	44	5220 MHz	48	5240 MHz
52	5260 MHz	56	5280 MHz	60	5300 MHz	64	5320 MHz
100	5500 MHz	104	5520 MHz	108	5540 MHz	112	5560 MHz
116	5580 MHz	120	5600 MHz	124	5620 MHz	128	5640 MHz
132	5660 MHz	136	5680 MHz	140	5700 MHz	149	5745 MHz
157	5785 MHz	165	5825MHz	N/A	N/A	N/A	N/A

802.11n(40MHz) Working Frequency of Each Channel:							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
38	5190 MHz	46	5230 MHz	54	5270 MHz	62	5310 MHz
102	5510 MHz	110	5550 MHz	118	5590 MHz	126	5630 MHz
134	5670 MHz	N/A	N/A	N/A	N/A	N/A	N/A

**For 2.4GHz Band**

802.11b/g/n(20MHz) Working Frequency of Each Channel:							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
01	2412 MHz	02	2417 MHz	03	2422 MHz	04	2427 MHz
05	2432 MHz	06	2437 MHz	07	2442 MHz	08	2447 MHz
09	2452 MHz	10	2457 MHz	11	2462 MHz	12	2467 MHz
13	2472 MHz	N/A	N/A	N/A	N/A	N/A	N/A

802.11n(40MHz) Working Frequency of Each Channel:							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
03	2422 MHz	04	2427 MHz	05	2432 MHz	06	2437 MHz
07	2442 MHz	08	2447 MHz	09	2452 MHz	N/A	N/A

**802.11a/b/g/n Antenna List**

Antenna	Manufacturer	Model No.	Peak Gain
Combined Antenna	Exceltek Electronics (Kunshan) Co.,Ltd	C0053-ANG0004	2.0 dBi

**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 802.11b
Mode 2: Transmit by 802.11g
Mode 3: Transmit by 802.11n(20MHz)
Mode 4: Transmit by 802.11n(40MHz)
Mode 5: Receive by 802.11n(20MHz)
Mode 6: Receive by 802.11n(40MHz)

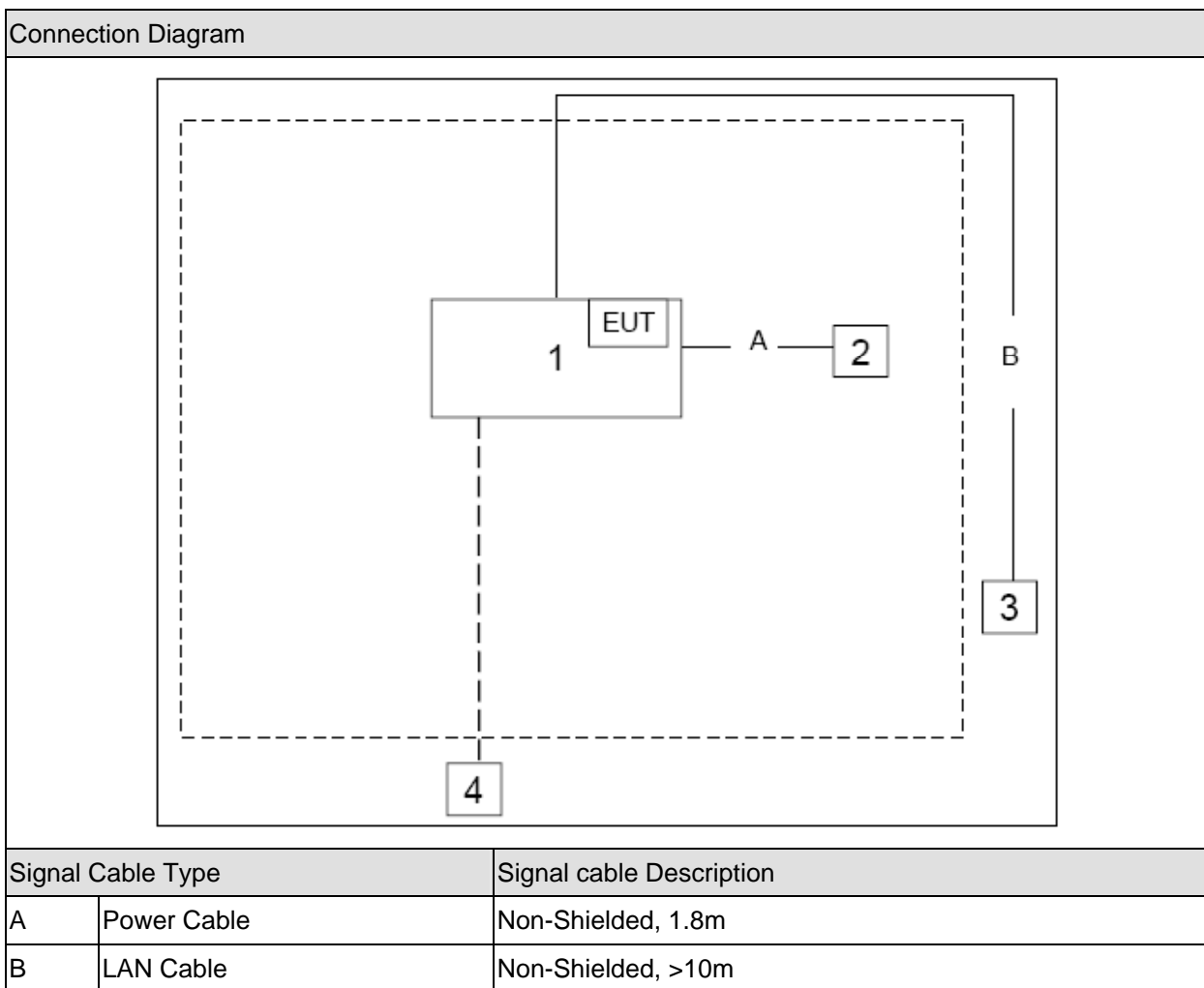


### 1.3. Tested System Details

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 Router Frame	Compex	B-543W	N/A	N/A
2 Adapter	DVE	DSA-15P-24	N/A	N/A
3 Notebook	DELL	PP19L	JH097 A01	Power by adapter
4 MacBook	Apple	MB061CH	W8732B4TZ5V	Power by adapter

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 "brinks" software, then select test mode and test channel, press OK to transmit data with another Notebook P.C. by wireless.

## 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
Equivalent Isotropic Radiated Power	ETSI EN 300 328 V1.7.1 (2006-10)	Yes	No
Maximum Spectral Power Density	ETSI EN 300 328 V1.7.1 (2006-10)	Yes	No
Frequency Range	ETSI EN 300 328 V1.7.1 (2006-10)	Yes	No
Transmitter Spurious Emissions	ETSI EN 300 328 V1.7.1 (2006-10)	Yes	No
Receiver Spurious Emissions	ETSI EN 300 328 V1.7.1 (2006-10)	Yes	No
Dwell Time	ETSI EN 300 328 V1.7.1 (2006-10)	N/A	N/A
Hopping Channel	ETSI EN 300 328 V1.7.1 (2006-10)	N/A	N/A
Hopping Sequence	ETSI EN 300 328 V1.7.1 (2006-10)	N/A	N/A

Note: The requirement of **Medium access protocol** shall be implemented by manufacture.

**2.2. Measurement Uncertainty**

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

Parameter	Uncertainty
Radio Frequency	$\pm 1 \times 10^{-7}$
Total RF Power, Conducted	$\pm 0.7\text{dB}$
RF Power Density, Conducted	$\pm 2.5\text{dB}$
Spurious Emissions, Conducted	$\pm 2.8\text{dB}$
All emissions, Radiated	$\pm 5.2\text{dB}$
Temperature	$\pm 0.5^{\circ}\text{C}$
Humidity	$\pm 1\%$
DC and Low Frequency Voltage	$\pm 2\%$

**2.3. 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. Equivalent Isotropic Radiated Power

#### 3.1. Test Equipment

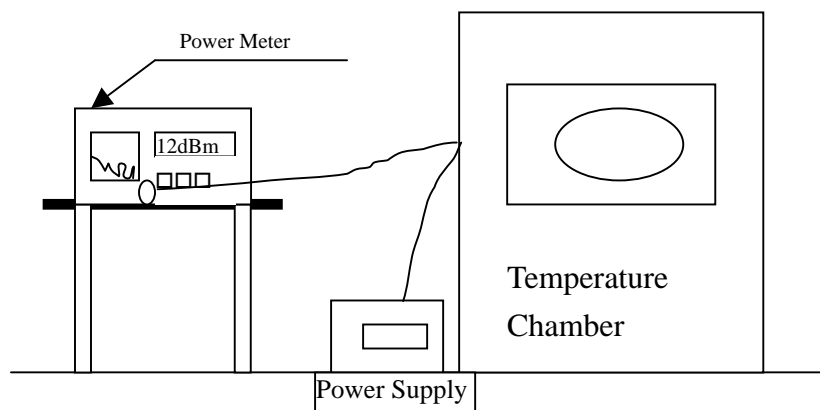
Equivalent Isotropic Radiated Power / AC-4

Instrument	Manufacturer	Type No.	Serial No.	Cal. Date
Spectrum Analyzer	Agilent	E4446A	MY45300103	2008/06/11
PSG Analog S.G.	Agilent	E8257D	MY44321116	2008/06/11
Power Meter	Agilent	E4416A	GB41293844	2007/11/01
Power Sensor	Agilent	E9323A	MY44420302	2007/11/01
Preamplifier	Quietek	AP-180C	CHM-0602013	2007/11/25
Broad-Band Horn Antenna	Schwarzbeck	BBHA9120D	496	2008/06/28
Broad-Band Horn Antenna	Schwarzbeck	BBHA9120D	499	2008/06/28
AC Power Supply	IDRC	CF-500TP	979422	2008/10/21
DC Power Supply	IDRC	CD-035-020PR	977272	2008/10/21
Programmable Temperature & Humidity Chamber	Gaoyu	TH-1P-B	WIT-05121302	2008/01/19
Coaxial Cable	Huber+Suhner	AC4-RH	07	2007/11/25
Coaxial Cable	Huber+Suhner	AC4-T	08	2007/11/25
Coaxial Cable	Huber+Suhner	AC4-RF	09	2007/11/25
Temperature/Humidity Meter	zhicheng	ZC1-2	QT-TH007	2008/03/09

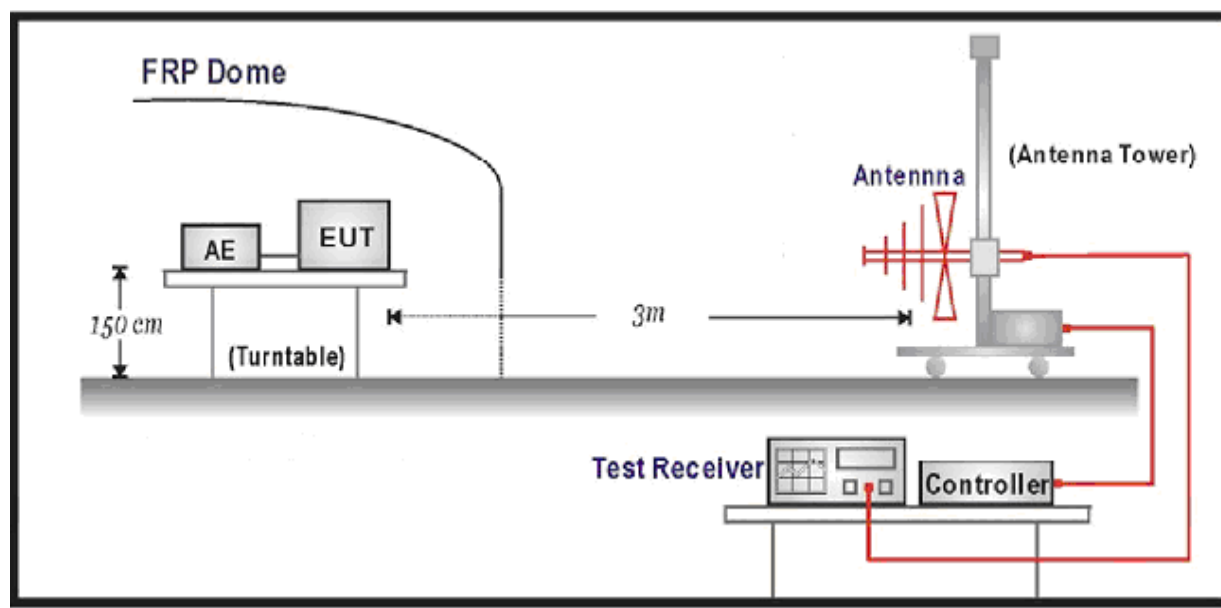
Note: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

### 3.2. Test Setup

#### For Conducted Measurement



#### For Radiated Measurement



### 3.3. Limit

The equivalent isotropic radiated power (e.i.r.p) shall be equal to or less than -10 dBW (100 mW). This limit shall apply for any combination of power level and intended antenna assembly.

### 3.4. Test Procedure

Refer to ETSI EN 300 328 V1.7.1 (2006-10) Clause 5.7.2



### 3.5. Test Result

Product	:	WIRELESS-N NETWORK MINI PCI ADAPTER
Test Item	:	Equivalent Isotropic Radiated Power
Test Site	:	AC-4
Test Mode	:	Mode 1: Transmit by 802.11b – chain 010

Antenna Gain =2dBi, Duty Cycle = 100 %						
Test Conditions		Frequency (MHz)	Measured Power (dBm)	Test Cable Loss (dB)	EIRP (dBm)	Limit (dBm)
Tnom (25°C)	Vnom (AC 230V)	2412	15.01	0.7	17.71	20
		2442	15.26	0.7	17.96	20
		2472	15.38	0.7	18.08	20
Tmax (40°C)	Vmax (AC 253V)	2412	14.03	0.7	16.73	20
		2442	14.17	0.7	16.87	20
		2472	14.27	0.7	16.97	20
Tmax (40°C)	Vmin (AC 207V)	2412	14.01	0.7	16.71	20
		2442	14.15	0.7	16.85	20
		2472	14.26	0.7	16.96	20
Tmin (0°C)	Vmax (AC 253V)	2412	16.02	0.7	18.72	20
		2442	16.14	0.7	18.84	20
		2472	16.27	0.7	18.97	20
Tmin (0°C)	Vmin (AC 207V)	2412	16.03	0.7	18.73	20
		2442	16.15	0.7	18.85	20
		2472	16.28	0.7	18.98	20

EIRP = Measured Power + Antenna Gain + Test Cable Loss + 10 log (1/Duty Cycle)

Product	:	WIRELESS-N NETWORK MINI PCI ADAPTER
Test Item	:	Equivalent Isotropic Radiated Power
Test Site	:	AC-4
Test Mode	:	Mode 2: Transmit by 802.11g – chain 010

Antenna Gain = 2dBi, Duty Cycle = 99 %						
Test Conditions		Frequency (MHz)	Measured Power (dBm)	Test Cable Loss (dB)	EIRP (dBm)	Limit (dBm)
Tnom (25°C)	Vnom (AC 230V)	2412	15.32	0.7	18.06	20
		2442	15.26	0.7	18.00	20
		2472	15.30	0.7	18.04	20
Tmax (40°C)	Vmax (AC 253V)	2412	14.29	0.7	17.03	20
		2442	14.23	0.7	16.97	20
		2472	14.26	0.7	17.00	20
Tmax (40°C)	Vmin (AC 207V)	2412	14.29	0.7	17.03	20
		2442	14.22	0.7	16.96	20
		2472	14.26	0.7	17.00	20
Tmin (0°C)	Vmax (AC 253V)	2412	16.35	0.7	19.09	20
		2442	16.27	0.7	19.01	20
		2472	16.38	0.7	19.12	20
Tmin (0°C)	Vmin (AC 207V)	2412	16.36	0.7	19.10	20
		2442	16.28	0.7	19.02	20
		2472	16.37	0.7	19.11	20

EIRP = Measured Power + Antenna Gain + Test Cable Loss + 10 log (1/Duty Cycle)

Product	:	WIRELESS-N NETWORK MINI PCI ADAPTER
Test Item	:	Equivalent Isotropic Radiated Power
Test Site	:	AC-4
Test Mode	:	Mode 3: Transmit by 802.11n(20MHz) – chain 010

Antenna Gain = 2dBi, Duty Cycle = 99 %						
Test Conditions		Frequency (MHz)	Measured Power (dBm)	Test Cable Loss (dB)	EIRP (dBm)	Limit (dBm)
Tnom (25°C)	Vnom (AC 230V)	2412	15.32	0.7	18.06	20
		2442	15.33	0.7	18.07	20
		2472	15.35	0.7	18.09	20
Tmax (40°C)	Vmax (AC 253V)	2412	14.19	0.7	16.93	20
		2442	14.24	0.7	16.98	20
		2472	14.26	0.7	17.00	20
Tmax (40°C)	Vmin (AC 207V)	2412	14.20	0.7	16.94	20
		2442	14.25	0.7	16.99	20
		2472	14.26	0.7	17.00	20
Tmin (0°C)	Vmax (AC 253V)	2412	16.23	0.7	18.97	20
		2442	16.26	0.7	19.00	20
		2472	16.29	0.7	19.03	20
Tmin (0°C)	Vmin (AC 207V)	2412	16.22	0.7	18.96	20
		2442	16.25	0.7	18.99	20
		2472	16.29	0.7	19.03	20

EIRP = Measured Power + Antenna Gain + Test Cable Loss + 10 log (1/Duty Cycle)

Product	:	WIRELESS-N NETWORK MINI PCI ADAPTER
Test Item	:	Equivalent Isotropic Radiated Power
Test Site	:	AC-4
Test Mode	:	Mode 4: Transmit by 802.11n(40MHz) – chain 010

Antenna Gain = 2dBi, Duty Cycle = 99 %						
Test Conditions		Frequency (MHz)	Measured Power (dBm)	Test Cable Loss (dB)	EIRP (dBm)	Limit (dBm)
Tnom (25°C)	Vnom (AC 230V)	2422	15.48	0.7	18.26	20
		2437	15.51	0.7	18.29	20
		2452	15.36	0.7	18.14	20
Tmax (40°C)	Vmax (AC 253V)	2422	14.35	0.7	17.13	20
		2437	14.42	0.7	17.20	20
		2452	14.30	0.7	17.08	20
Tmax (40°C)	Vmin (AC 207V)	2422	14.35	0.7	17.13	20
		2437	14.41	0.7	17.19	20
		2452	14.30	0.7	17.08	20
Tmin (0°C)	Vmax (AC 253V)	2422	16.32	0.7	19.10	20
		2437	16.38	0.7	19.16	20
		2452	16.27	0.7	19.05	20
Tmin (0°C)	Vmin (AC 207V)	2422	16.31	0.7	19.09	20
		2437	16.38	0.7	19.16	20
		2452	16.27	0.7	19.05	20

EIRP = Measured Power + Antenna Gain + Test Cable Loss + 10 log (1/Duty Cycle)

Product	:	WIRELESS-N NETWORK MINI PCI ADAPTER
Test Item	:	Equivalent Isotropic Radiated Power
Test Site	:	AC-4
Test Mode	:	Mode 1: Transmit by 802.11b – chain 100

Antenna Gain =2dBi, Duty Cycle = 100 %						
Test Conditions		Frequency (MHz)	Measured Power (dBm)	Test Cable Loss (dB)	EIRP (dBm)	Limit (dBm)
Tnom (25°C)	Vnom (AC 230V)	2412	15.20	0.7	17.90	20
		2442	15.12	0.7	17.82	20
		2472	15.16	0.7	17.86	20
Tmax (40°C)	Vmax (AC 253V)	2412	14.52	0.7	17.22	20
		2442	14.28	0.7	16.98	20
		2472	14.26	0.7	16.96	20
Tmax (40°C)	Vmin (AC 207V)	2412	14.50	0.7	17.20	20
		2442	14.27	0.7	16.97	20
		2472	14.27	0.7	16.97	20
Tmin (0°C)	Vmax (AC 253V)	2412	16.31	0.7	19.01	20
		2442	16.23	0.7	18.93	20
		2472	16.24	0.7	18.94	20
Tmin (0°C)	Vmin (AC 207V)	2412	16.30	0.7	19.00	20
		2442	16.23	0.7	18.93	20
		2472	16.25	0.7	18.95	20

EIRP = Measured Power + Antenna Gain + Test Cable Loss + 10 log (1/Duty Cycle)

Product	:	WIRELESS-N NETWORK MINI PCI ADAPTER
Test Item	:	Equivalent Isotropic Radiated Power
Test Site	:	AC-4
Test Mode	:	Mode 2: Transmit by 802.11g – chain 100

Antenna Gain = 2dBi, Duty Cycle = 99 %						
Test Conditions		Frequency (MHz)	Measured Power (dBm)	Test Cable Loss (dB)	EIRP (dBm)	Limit (dBm)
Tnom (25°C)	Vnom (AC 230V)	2412	15.19	0.7	17.93	20
		2442	15.58	0.7	18.32	20
		2472	15.47	0.7	18.21	20
Tmax (40°C)	Vmax (AC 253V)	2412	14.06	0.7	16.80	20
		2442	14.37	0.7	17.11	20
		2472	14.29	0.7	17.03	20
Tmax (40°C)	Vmin (AC 207V)	2412	14.08	0.7	16.82	20
		2442	14.37	0.7	17.11	20
		2472	14.28	0.7	17.02	20
Tmin (0°C)	Vmax (AC 253V)	2412	16.23	0.7	18.97	20
		2442	16.44	0.7	19.18	20
		2472	16.34	0.7	19.08	20
Tmin (0°C)	Vmin (AC 207V)	2412	16.22	0.7	18.96	20
		2442	16.45	0.7	19.19	20
		2472	16.34	0.7	19.08	20

EIRP = Measured Power + Antenna Gain + Test Cable Loss + 10 log (1/Duty Cycle)

Product	:	WIRELESS-N NETWORK MINI PCI ADAPTER
Test Item	:	Equivalent Isotropic Radiated Power
Test Site	:	AC-4
Test Mode	:	Mode 3: Transmit by 802.11n(20MHz) – chain 100

Antenna Gain = 2dBi, Duty Cycle = 99 %						
Test Conditions		Frequency (MHz)	Measured Power (dBm)	Test Cable Loss (dB)	EIRP (dBm)	Limit (dBm)
Tnom (25°C)	Vnom (AC 230V)	2412	15.16	0.7	17.90	20
		2442	15.56	0.7	18.30	20
		2472	15.36	0.7	18.10	20
Tmax (40°C)	Vmax (AC 253V)	2412	14.06	0.7	16.80	20
		2442	14.47	0.7	17.21	20
		2472	14.25	0.7	16.99	20
Tmax (40°C)	Vmin (AC 207V)	2412	14.08	0.7	16.82	20
		2442	14.46	0.7	17.20	20
		2472	14.25	0.7	16.99	20
Tmin (0°C)	Vmax (AC 253V)	2412	16.22	0.7	18.96	20
		2442	16.47	0.7	19.21	20
		2472	16.34	0.7	19.08	20
Tmin (0°C)	Vmin (AC 207V)	2412	16.21	0.7	18.95	20
		2442	16.48	0.7	19.22	20
		2472	16.35	0.7	19.09	20

EIRP = Measured Power + Antenna Gain + Test Cable Loss + 10 log (1/Duty Cycle)

Product	:	WIRELESS-N NETWORK MINI PCI ADAPTER
Test Item	:	Equivalent Isotropic Radiated Power
Test Site	:	AC-4
Test Mode	:	Mode 4: Transmit by 802.11n(40MHz) – chain 100

Antenna Gain = 2dBi, Duty Cycle = 98 %						
Test Conditions		Frequency (MHz)	Measured Power (dBm)	Test Cable Loss (dB)	EIRP (dBm)	Limit (dBm)
Tnom (25°C)	Vnom (AC 230V)	2422	15.24	0.7	18.02	20
		2437	15.44	0.7	18.22	20
		2452	15.08	0.7	17.86	20
Tmax (40°C)	Vmax (AC 253V)	2422	14.14	0.7	16.92	20
		2437	14.38	0.7	17.16	20
		2452	14.00	0.7	16.78	20
Tmax (40°C)	Vmin (AC 207V)	2422	14.13	0.7	16.91	20
		2437	14.37	0.7	17.15	20
		2452	14.02	0.7	16.80	20
Tmin (0°C)	Vmax (AC 253V)	2422	16.15	0.7	18.93	20
		2437	16.36	0.7	19.14	20
		2452	16.05	0.7	18.83	20
Tmin (0°C)	Vmin (AC 207V)	2422	16.17	0.7	18.95	20
		2437	16.37	0.7	19.15	20
		2452	16.04	0.7	18.82	20

EIRP = Measured Power + Antenna Gain + Test Cable Loss + 10 log (1/Duty Cycle)



Product	:	WIRELESS-N NETWORK MINI PCI ADAPTER
Test Item	:	Equivalent Isotropic Radiated Power
Test Site	:	AC-4
Test Mode	:	Mode 3: Transmit by 802.11n(20MHz) – chain 110

Antenna Gain = 2dBi, Duty Cycle = 99 %						
Test Conditions		Frequency (MHz)	Measured Power (dBm)	Test Cable Loss (dB)	EIRP (dBm)	Limit (dBm)
Tnom (25°C)	Vnom (AC 230V)	2412	15.44	0.7	18.18	20
		2442	15.30	0.7	18.04	20
		2472	15.42	0.7	18.16	20
Tmax (40°C)	Vmax (AC 253V)	2412	14.37	0.7	17.11	20
		2442	14.23	0.7	16.97	20
		2472	14.31	0.7	17.05	20
Tmax (40°C)	Vmin (AC 207V)	2412	14.37	0.7	17.11	20
		2442	14.23	0.7	16.97	20
		2472	14.30	0.7	17.04	20
Tmin (0°C)	Vmax (AC 253V)	2412	16.43	0.7	19.17	20
		2442	16.37	0.7	19.11	20
		2472	16.46	0.7	19.20	20
Tmin (0°C)	Vmin (AC 207V)	2412	16.42	0.7	19.16	20
		2442	16.37	0.7	19.11	20
		2472	16.46	0.7	19.20	20

EIRP = Measured Power + Antenna Gain + Test Cable Loss + 10 log (1/Duty Cycle)

Product	:	WIRELESS-N NETWORK MINI PCI ADAPTER
Test Item	:	Equivalent Isotropic Radiated Power
Test Site	:	AC-4
Test Mode	:	Mode 4: Transmit by 802.11n(40MHz) – chain 110

Antenna Gain = 2dBi, Duty Cycle = 98 %						
Test Conditions		Frequency (MHz)	Measured Power (dBm)	Test Cable Loss (dB)	EIRP (dBm)	Limit (dBm)
Tnom (25°C)	Vnom (AC 230V)	2422	15.52	0.7	18.30	20
		2437	15.56	0.7	18.34	20
		2452	15.42	0.7	18.20	20
Tmax (40°C)	Vmax (AC 253V)	2422	14.48	0.7	17.26	20
		2437	14.50	0.7	17.28	20
		2452	14.38	0.7	17.16	20
Tmax (40°C)	Vmin (AC 207V)	2422	14.48	0.7	17.26	20
		2437	14.52	0.7	17.30	20
		2452	14.40	0.7	17.18	20
Tmin (0°C)	Vmax (AC 253V)	2422	16.50	0.7	19.28	20
		2437	16.48	0.7	19.26	20
		2452	16.45	0.7	19.23	20
Tmin (0°C)	Vmin (AC 207V)	2422	16.50	0.7	19.28	20
		2437	16.48	0.7	19.26	20
		2452	16.46	0.7	19.24	20

EIRP = Measured Power + Antenna Gain + Test Cable Loss + 10 log (1/Duty Cycle)

#### 4. Maximum Spectral Power Density

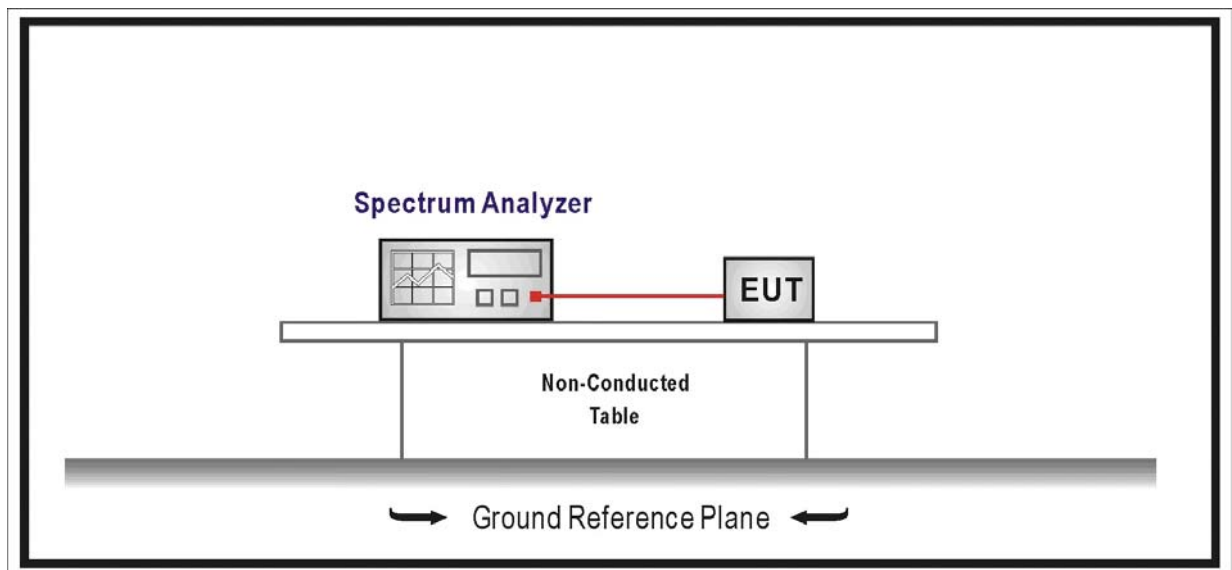
##### 4.1. Test Equipment

Maximum Spectral Power Density / AC-4

Instrument	Manufacturer	Type No.	Serial No.	Cal. Date
Spectrum Analyzer	Agilent	E4446A	MY45300103	2008/06/11
PSG Analog S.G.	Agilent	E8257D	MY44321116	2008/06/11
Power Meter	Agilent	E4416A	GB41293844	2008/10/21
Power Sensor	Agilent	E9323A	MY44420302	2008/10/21
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.

##### 4.2. Test Setup



##### 4.3. Limit

For wide band modulations other than FHSS (e.g. DSSS, OFDM, etc.), the maximum e.i.r.p spectral density is limited to 10 mW per MHz.

##### 4.4. Test Procedure

Refer to ETSI EN 300 328 V1.7.1 (2006-10) Clause 5.7.3

**4.5. Test Result**

Product	:	WIRELESS-N NETWORK MINI PCI ADAPTER
Test Item	:	Maximum Spectral Power Density
Test Site	:	AC-4
Test Mode	:	Mode 1: Transmit by 802.11b – chain 010

Antenna Gain = 2dBi, Duty Cycle = 100 %				
Frequency (MHz)	Measured Density (dBm/MHz)	Test Cable Loss (dB)	Power Density (dBm/MHz)	Limit (dBm/MHz)
2412	5.92	0.7	8.62	10
2442	5.98	0.7	8.68	10
2472	6.32	0.7	9.02	10

Power Density = Measured Density + Antenna Gain + Test Cable Loss + 10 log (1/Duty Cycle)

Product	:	WIRELESS-N NETWORK MINI PCI ADAPTER
Test Item	:	Maximum Spectral Power Density
Test Site	:	AC-4
Test Mode	:	Mode 2: Transmit by 802.11g – chain 010

Antenna Gain = 2dBi, Duty Cycle = 99 %				
Frequency (MHz)	Measured Density (dBm/MHz)	Test Cable Loss (dB)	Power Density (dBm/MHz)	Limit (dBm/MHz)
2412	3.90	0.7	6.64	10
2442	3.93	0.7	6.67	10
2472	4.38	0.7	7.12	10

Power Density = Measured Density + Antenna Gain + Test Cable Loss + 10 log (1/Duty Cycle)

Product	:	WIRELESS-N NETWORK MINI PCI ADAPTER
Test Item	:	Maximum Spectral Power Density
Test Site	:	AC-4
Test Mode	:	Mode 3: Transmit by 802.11n (20MHz) – chain 010

Antenna Gain = 2dBi, Duty Cycle = 99 %				
Frequency (MHz)	Measured Density (dBm/MHz)	Test Cable Loss (dB)	Power Density (dBm/MHz)	Limit (dBm/MHz)
2412	3.41	0.7	6.15	10
2442	3.17	0.7	5.91	10
2472	3.35	0.7	6.09	10

Power Density = Measured Density + Antenna Gain + Test Cable Loss + 10 log (1/Duty Cycle)

Product	:	WIRELESS-N NETWORK MINI PCI ADAPTER
Test Item	:	Maximum Spectral Power Density
Test Site	:	AC-4
Test Mode	:	Mode 4: Transmit by 802.11n(40MHz) – chain 010

Antenna Gain = 2dBi, Duty Cycle = 98 %				
Frequency (MHz)	Measured Density (dBm/MHz)	Test Cable Loss (dB)	Power Density (dBm/MHz)	Limit (dBm/MHz)
2422	0.52	0.7	3.30	10
2437	0.66	0.7	3.44	10
2452	1.42	0.7	4.20	10

Power Density = Measured Density + Antenna Gain + Test Cable Loss + 10 log (1/Duty Cycle)

Product	:	WIRELESS-N NETWORK MINI PCI ADAPTER
Test Item	:	Maximum Spectral Power Density
Test Site	:	AC-4
Test Mode	:	Mode 1: Transmit by 802.11b – chain 100

Antenna Gain = 2dBi, Duty Cycle = 100 %				
Frequency (MHz)	Measured Density (dBm/MHz)	Test Cable Loss (dB)	Power Density (dBm/MHz)	Limit (dBm/MHz)
2412	6.26	0.7	8.96	10
2442	5.87	0.7	8.57	10
2472	5.89	0.7	8.59	10

Power Density = Measured Density + Antenna Gain + Test Cable Loss + 10 log (1/Duty Cycle)



Product	:	WIRELESS-N NETWORK MINI PCI ADAPTER
Test Item	:	Maximum Spectral Power Density
Test Site	:	AC-4
Test Mode	:	Mode 2: Transmit by 802.11g – chain 100

Antenna Gain = 2dBi, Duty Cycle = 99 %				
Frequency (MHz)	Measured Density (dBm/MHz)	Test Cable Loss (dB)	Power Density (dBm/MHz)	Limit (dBm/MHz)
2412	3.61	0.7	6.35	10
2442	4.39	0.7	7.13	10
2472	3.62	0.7	6.36	10

Power Density = Measured Density + Antenna Gain + Test Cable Loss + 10 log (1/Duty Cycle)

Product	:	WIRELESS-N NETWORK MINI PCI ADAPTER
Test Item	:	Maximum Spectral Power Density
Test Site	:	AC-4
Test Mode	:	Mode 3: Transmit by 802.11n (20MHz) – chain 100

Antenna Gain = 2dBi, Duty Cycle = 99 %				
Frequency (MHz)	Measured Density (dBm/MHz)	Test Cable Loss (dB)	Power Density (dBm/MHz)	Limit (dBm/MHz)
2412	3.27	0.7	6.01	10
2442	4.09	0.7	6.83	10
2472	3.48	0.7	6.22	10

Power Density = Measured Density + Antenna Gain + Test Cable Loss + 10 log (1/Duty Cycle)

Product	:	WIRELESS-N NETWORK MINI PCI ADAPTER
Test Item	:	Maximum Spectral Power Density
Test Site	:	AC-4
Test Mode	:	Mode 4: Transmit by 802.11n(40MHz) – chain 100

Antenna Gain = 2dBi, Duty Cycle = 98 %				
Frequency (MHz)	Measured Density (dBm/MHz)	Test Cable Loss (dB)	Power Density (dBm/MHz)	Limit (dBm/MHz)
2422	0.63	0.7	3.41	10
2437	0.61	0.7	3.39	10
2452	0.50	0.7	3.28	10

Power Density = Measured Density + Antenna Gain + Test Cable Loss + 10 log (1/Duty Cycle)

Product	:	WIRELESS-N NETWORK MINI PCI ADAPTER
Test Item	:	Maximum Spectral Power Density
Test Site	:	AC-4
Test Mode	:	Mode 3: Transmit by 802.11n (20MHz) – chain 110

Antenna Gain = 2dBi, Duty Cycle = 99 %				
Frequency (MHz)	Measured Density (dBm/MHz)	Test Cable Loss (dB)	Power Density (dBm/MHz)	Limit (dBm/MHz)
2412	4.82	0.7	7.56	10
2442	5.02	0.7	7.76	10
2472	5.10	0.7	7.84	10

Power Density = Measured Density + Antenna Gain + Test Cable Loss + 10 log (1/Duty Cycle)

Product	:	WIRELESS-N NETWORK MINI PCI ADAPTER
Test Item	:	Maximum Spectral Power Density
Test Site	:	AC-4
Test Mode	:	Mode 4: Transmit by 802.11n(40MHz) – chain 110

Antenna Gain = 2dBi, Duty Cycle = 98 %				
Frequency (MHz)	Measured Density (dBm/MHz)	Test Cable Loss (dB)	Power Density (dBm/MHz)	Limit (dBm/MHz)
2422	2.43	0.7	5.21	10
2437	2.09	0.7	4.87	10
2452	1.91	0.7	4.69	10

Power Density = Measured Density + Antenna Gain + Test Cable Loss + 10 log (1/Duty Cycle)

**5. Frequency Range**

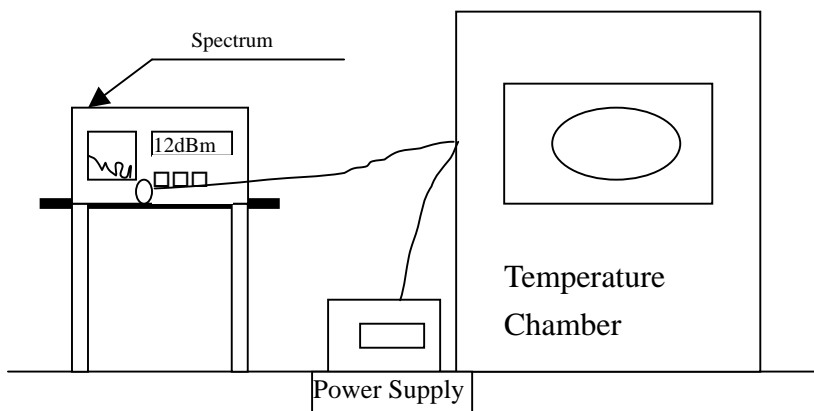
**5.1. Test Equipment**

Frequency Range / AC-4

Instrument	Manufacturer	Type No.	Serial No.	Cal. Date
Spectrum Analyzer	Agilent	E4446A	MY45300103	2008/06/11
AC Power Supply	IDRC	CF-500TP	979422	2008/10/21
DC Power Supply	IDRC	CD-035-020PR	977272	2008/10/21
Programmable Temperature & Humidity Chamber	Gaoyu	TH-1P-B	WIT-05121302	2008/01/19
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**

For all equipment the frequency range shall lie within the band 2.4 GHz to 2.4835 GHz ( $f_L > 2.4$  GHz and  $f_H < 2.4835$  GHz).

**5.4. Test Procedure**

Refer to ETSI EN 300 328 V1.7.1 (2006-10) Clause 5.7.4

**5.5. Test Result**

Product	:	WIRELESS-N NETWORK MINI PCI ADAPTER
Test Item	:	Frequency Range
Test Site	:	AC-4
Test Mode	:	Mode 1: Transmit by 802.11b – chain 010

Test Conditions		Low Frequency (MHz)	F <sub>L</sub> Limit (MHz)	High Frequency (MHz)	F <sub>H</sub> Limit (MHz)
Tnom (25°C)	Vnom (AC 230V)	2403.01	2400	2481.01	2483.5
Tmax (40°C)	Vmax (AC 253V)	2403.84	2400	2480.16	2483.5
Tmax (40°C)	Vmin (AC 207V)	2403.85	2400	2480.15	2483.5
Tmin (0°C)	Vmax (AC 253V)	2401.95	2400	2482.21	2483.5
Tmin (0°C)	Vmin (AC 207V)	2401.94	2400	2482.20	2483.5

Product	:	WIRELESS-N NETWORK MINI PCI ADAPTER
Test Item	:	Frequency Range
Test Site	:	AC-4
Test Mode	:	Mode 2: Transmit by 802.11g – chain 010

Test Conditions		Low Frequency (MHz)	F <sub>L</sub> Limit (MHz)	High Frequency (MHz)	F <sub>H</sub> Limit (MHz)
Tnom (25°C)	Vnom (AC 230V)	2403.17	2400	2480.75	2483.5
Tmax (40°C)	Vmax (AC 253V)	2404.15	2400	2479.53	2483.5
Tmax (40°C)	Vmin (AC 207V)	2404.16	2400	2479.52	2483.5
Tmin (0°C)	Vmax (AC 253V)	2402.03	2400	2481.84	2483.5
Tmin (0°C)	Vmin (AC 207V)	2402.05	2400	2481.85	2483.5



Product	:	WIRELESS-N NETWORK MINI PCI ADAPTER
Test Item	:	Frequency Range
Test Site	:	AC-4
Test Mode	:	Mode 3: Transmit by 802.11n(20MHz) – chain 010

Test Conditions		Low Frequency (MHz)	F <sub>L</sub> Limit (MHz)	High Frequency (MHz)	F <sub>H</sub> Limit (MHz)
Tnom (25°C)	Vnom (AC 230V)	2402.67	2400	2481.25	2483.5
Tmax (40°C)	Vmax (AC 253V)	2403.73	2400	2480.15	2483.5
Tmax (40°C)	Vmin (AC 207V)	2403.72	2400	2480.15	2483.5
Tmin (0°C)	Vmax (AC 253V)	2401.47	2400	2482.41	2483.5
Tmin (0°C)	Vmin (AC 207V)	2401.46	2400	2482.40	2483.5

Product	:	WIRELESS-N NETWORK MINI PCI ADAPTER
Test Item	:	Frequency Range
Test Site	:	AC-4
Test Mode	:	Mode 4: Transmit by 802.11n(40MHz) – chain 010

Test Conditions		Low Frequency (MHz)	F <sub>L</sub> Limit (MHz)	High Frequency (MHz)	F <sub>H</sub> Limit (MHz)
Tnom (25°C)	Vnom (AC 230V)	2403.42	2400	2470.30	2483.5
Tmax (40°C)	Vmax (AC 253V)	2404.54	2400	2469.47	2483.5
Tmax (40°C)	Vmin (AC 207V)	2404.53	2400	2469.46	2483.5
Tmin (0°C)	Vmax (AC 253V)	2402.16	2400	2471.73	2483.5
Tmin (0°C)	Vmin (AC 207V)	2402.16	2400	2471.73	2483.5

Product	:	WIRELESS-N NETWORK MINI PCI ADAPTER
Test Item	:	Frequency Range
Test Site	:	AC-4
Test Mode	:	Mode 1: Transmit by 802.11b – chain 100

Test Conditions		Low Frequency (MHz)	F <sub>L</sub> Limit (MHz)	High Frequency (MHz)	F <sub>H</sub> Limit (MHz)
Tnom (25°C)	Vnom (AC 230V)	2403.33	2400	2480.83	2483.5
Tmax (40°C)	Vmax (AC 253V)	2404.24	2400	2479.94	2483.5
Tmax (40°C)	Vmin (AC 207V)	2404.26	2400	2479.93	2483.5
Tmin (0°C)	Vmax (AC 253V)	2402.12	2400	2482.02	2483.5
Tmin (0°C)	Vmin (AC 207V)	2402.13	2400	2482.01	2483.5

Product	:	WIRELESS-N NETWORK MINI PCI ADAPTER
Test Item	:	Frequency Range
Test Site	:	AC-4
Test Mode	:	Mode 2: Transmit by 802.11g – chain 100

Test Conditions		Low Frequency (MHz)	F <sub>L</sub> Limit (MHz)	High Frequency (MHz)	F <sub>H</sub> Limit (MHz)
Tnom (25°C)	Vnom (AC 230V)	2403.17	2400	2480.75	2483.5
Tmax (40°C)	Vmax (AC 253V)	2404.34	2400	2479.82	2483.5
Tmax (40°C)	Vmin (AC 207V)	2404.35	2400	2479.83	2483.5
Tmin (0°C)	Vmax (AC 253V)	2402.09	2400	2482.04	2483.5
Tmin (0°C)	Vmin (AC 207V)	2402.11	2400	2482.04	2483.5

Product	:	WIRELESS-N NETWORK MINI PCI ADAPTER
Test Item	:	Frequency Range
Test Site	:	AC-4
Test Mode	:	Mode 3: Transmit by 802.11n(20MHz) – chain 100

Test Conditions		Low Frequency (MHz)	F <sub>L</sub> Limit (MHz)	High Frequency (MHz)	F <sub>H</sub> Limit (MHz)
Tnom (25°C)	Vnom (AC 230V)	2402.83	2400	2481.08	2483.5
Tmax (40°C)	Vmax (AC 253V)	2403.94	2400	2480.04	2483.5
Tmax (40°C)	Vmin (AC 207V)	2403.92	2400	2480.02	2483.5
Tmin (0°C)	Vmax (AC 253V)	2401.73	2400	2482.46	2483.5
Tmin (0°C)	Vmin (AC 207V)	2401.74	2400	2482.45	2483.5

Product	:	WIRELESS-N NETWORK MINI PCI ADAPTER
Test Item	:	Frequency Range
Test Site	:	AC-4
Test Mode	:	Mode 4: Transmit by 802.11n(40MHz) – chain 100

Test Conditions		Low Frequency (MHz)	F <sub>L</sub> Limit (MHz)	High Frequency (MHz)	F <sub>H</sub> Limit (MHz)
Tnom (25°C)	Vnom (AC 230V)	2403.42	2400	2470.42	2483.5
Tmax (40°C)	Vmax (AC 253V)	2404.37	2400	2469.63	2483.5
Tmax (40°C)	Vmin (AC 207V)	2404.37	2400	2469.63	2483.5
Tmin (0°C)	Vmax (AC 253V)	2402.26	2400	2471.73	2483.5
Tmin (0°C)	Vmin (AC 207V)	2402.27	2400	2471.74	2483.5

## 6. Transmitter Spurious Emissions

### 6.1. Test Equipment

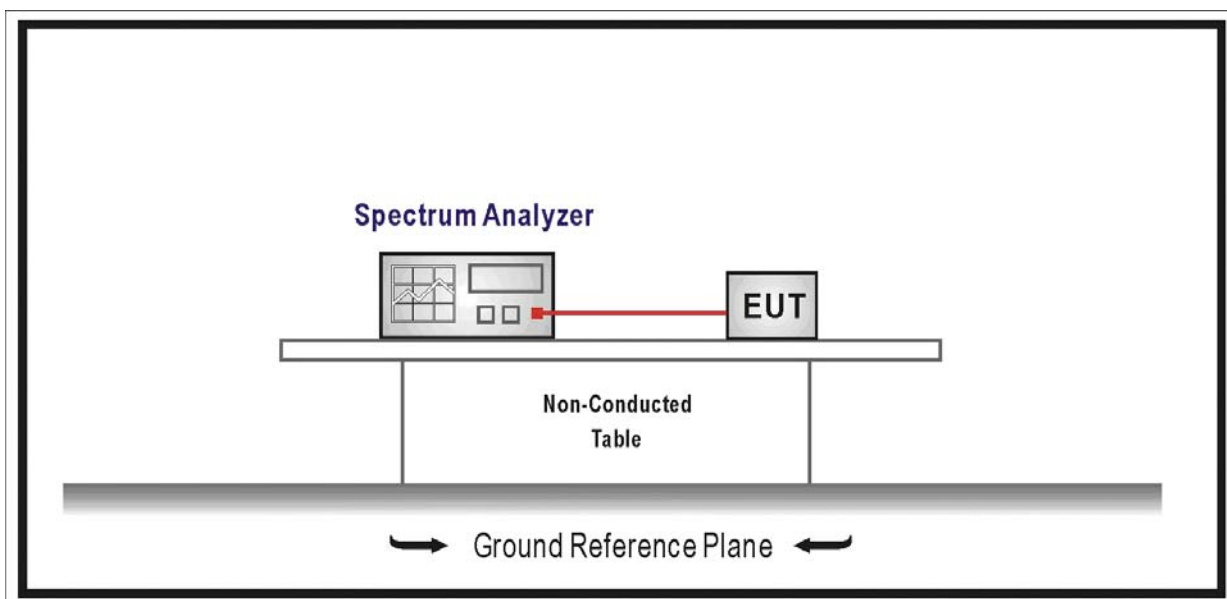
#### Transmitter Spurious Emissions / AC-4

Instrument	Manufacturer	Type No.	Serial No.	Cal. Date
Spectrum Analyzer	Agilent	E4446A	MY45300103	2008/06/11
PSG Analog S.G.	Agilent	E8257D	MY44321116	2008/06/11
Preamplifier	QuieTek	AP-025C	QT-AP005	2007/11/25
Preamplifier	QuieTek	AP-180C	CHM-0602013	2007/11/25
Bilog Type Antenna	Schaffner	CBL6141A	4278	2007/11/25
Half Wave Tuned Dipole Antenna	COM-POWER	AD-100	40137	2007/11/25
Broad-Band Horn Antenna	Schwarzbeck	BBHA9120D	496	2008/06/28
Broad-Band Horn Antenna	Schwarzbeck	BBHA9120D	499	2008/06/28
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
Coaxial Cable	Huber+Suhner	AC4-RL	06	2007/11/25
Coaxial Cable	Huber+Suhner	AC4-RH	07	2007/11/25
Coaxial Cable	Huber+Suhner	AC4-T	08	2007/11/25
Coaxial Cable	Huber+Suhner	AC4-RF	09	2007/11/25
Temperature/Humidity Meter	zhicheng	ZC1-2	QT-TH007	2008/03/09

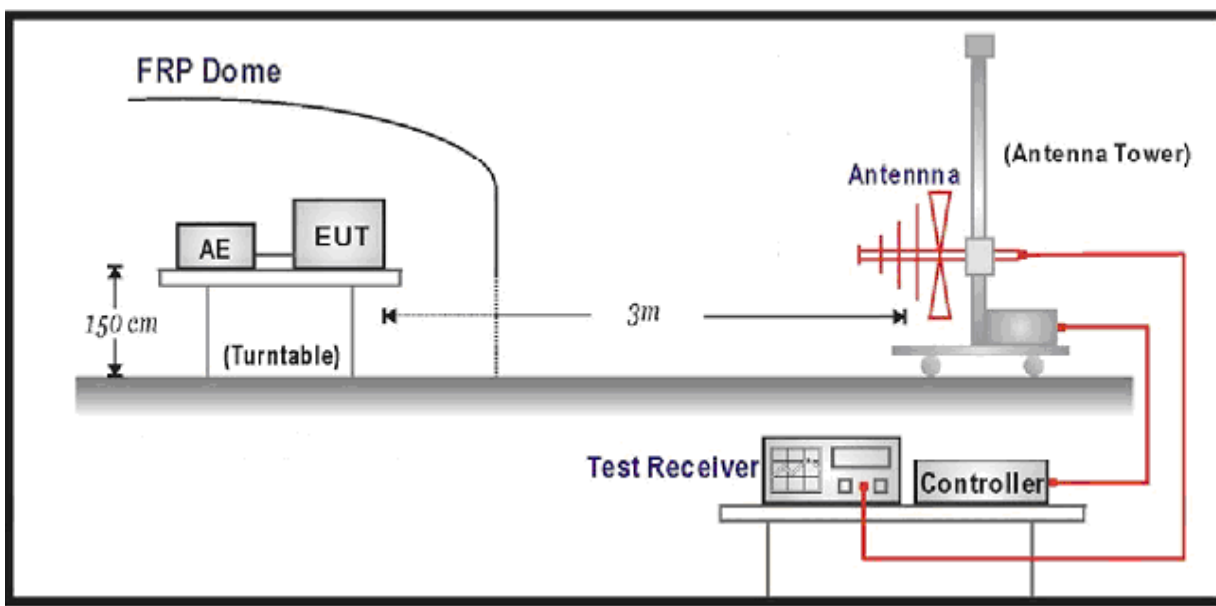
Note: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

6.2. Test Setup

For Conducted Measurement



For Radiated Measurement





**6.3. Limit**

<b>Transmitter Limits for Narrowband Spurious Emissions</b>		
Frequency Range	Limit when operating	Limit when in standby
30 MHz to 1 GHz	-36 dBm	-57 dBm
above 1 GHz to 12.75 GHz	-30 dBm	-47 dBm
1.8 GHz to 1.9 GHz 5.15 GHz to 5.3 GHz	-47 dBm	-47 dBm

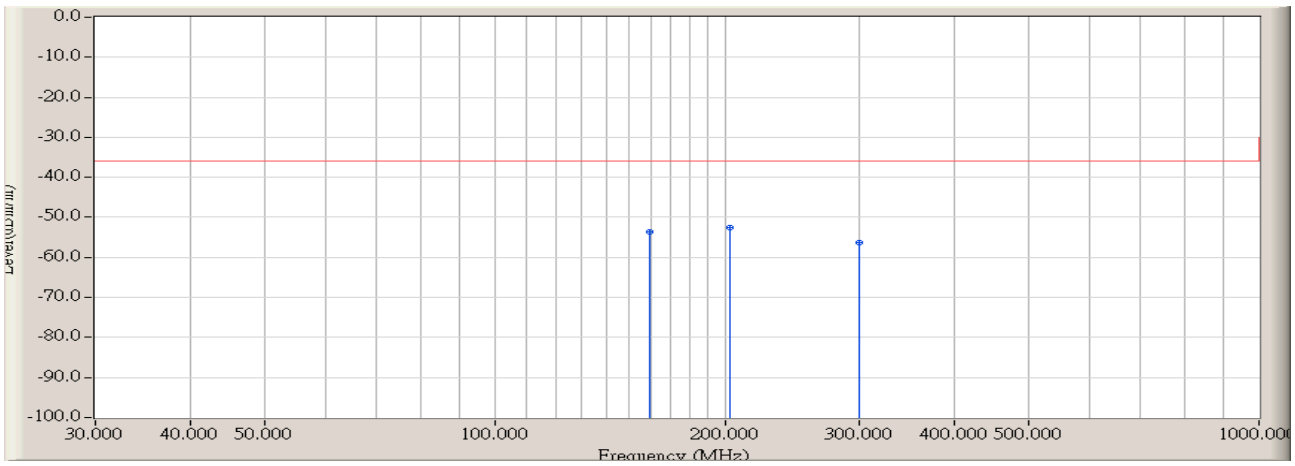
<b>Transmitter Limits for Wideband Spurious Emissions</b>		
Frequency Range	Limit when operating	Limit when in standby
30 MHz to 1 GHz	-86 dBm/Hz	-107 dBm/Hz
above 1 GHz to 12.75 GHz	-80 dBm/Hz	-97 dBm/Hz
1.8 GHz to 1.9 GHz 5.15 GHz to 5.3 GHz	-97 dBm/Hz	-97 dBm/Hz

**6.4. Test Procedure**

Refer to ETSI EN 300 328 V1.7.1 (2006-10) Clause 5.7.5

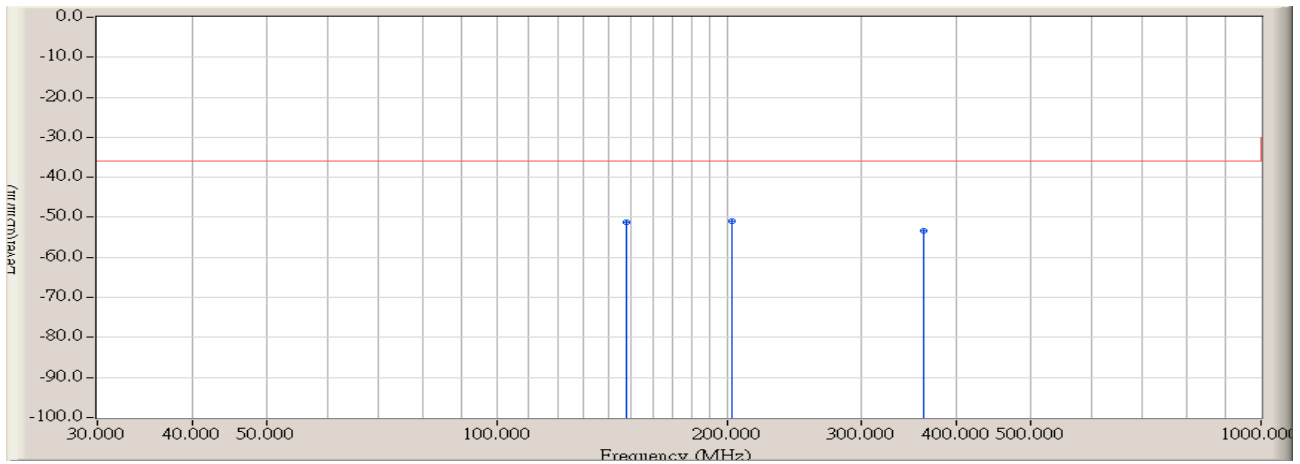
6.5. Test Result

Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/17 - 10:57
Limit : ETSI_300328_Tx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(30-1000MHz) - HORIZONTAL
Power : AC 230V/50Hz	Note : Model 1: Transmit by 802.11b at channel 2412MHz – chain 010



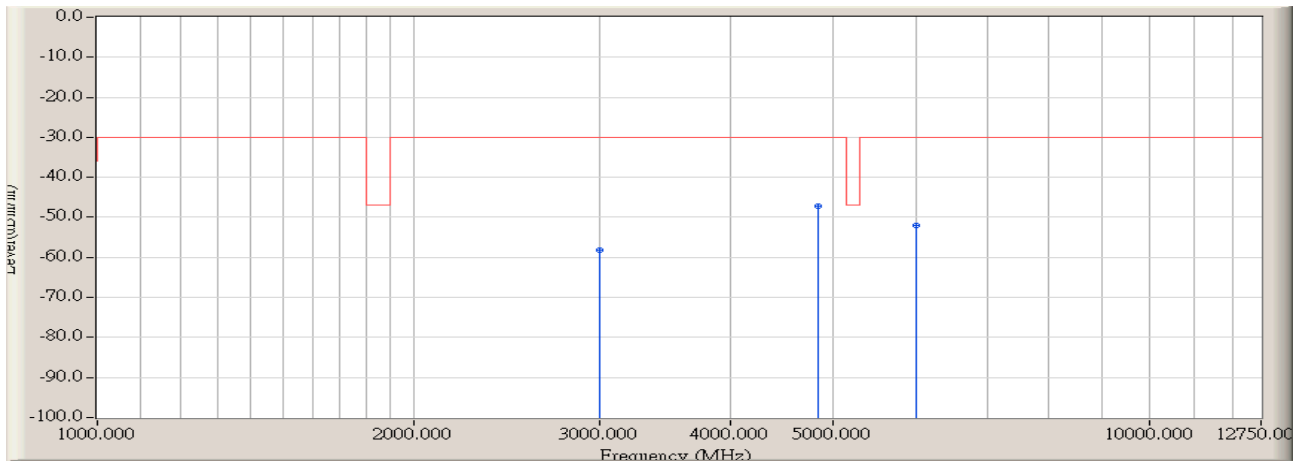
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		159.333	0.060	-53.672	-53.612	-17.612	-36.000	PEAK
2	*	202.983	-2.090	-50.360	-52.450	-16.450	-36.000	PEAK
3		299.983	2.877	-59.271	-56.394	-20.394	-36.000	PEAK

Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/17 - 10:58
Limit : ETSI_300328_Tx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(30-1000MHz) - VERTICAL
Power : AC 230V/50Hz	Note : Model 1: Transmit by 802.11b at channel 2412MHz – chain 010



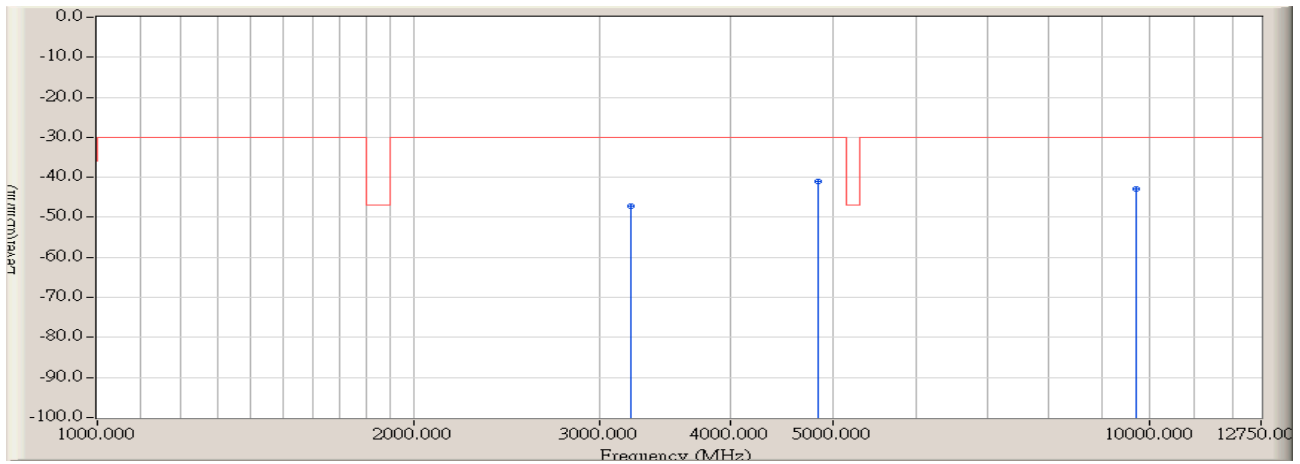
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		148.017	0.610	-51.808	-51.198	-15.198	-36.000	PEAK
2	*	202.983	-0.447	-50.360	-50.807	-14.807	-36.000	PEAK
3		361.417	5.763	-59.242	-53.479	-17.479	-36.000	PEAK

Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/16 - 17:57
Limit : ETSI_300328_Tx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(1-18GHz) - HORIZONTAL
Power : AC 230V/50Hz	Note : Model 1: Transmit by 802.11b at channel 2412MHz – chain 010



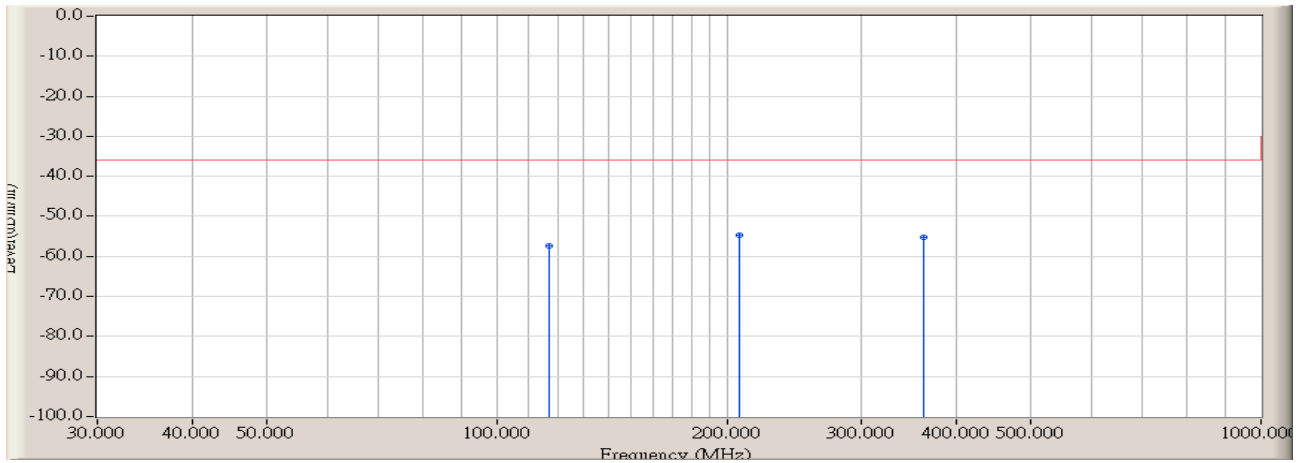
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		2997.500	9.350	-67.430	-58.080	-28.080	-30.000	PEAK
2	*	4838.333	14.840	-61.995	-47.155	-17.155	-30.000	PEAK
3		5993.750	16.590	-68.517	-51.927	-21.927	-30.000	PEAK

Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/16 - 17:57
Limit : ETSI_300328_Tx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(1-18GHz) - VERTICAL
Power : AC 230V/50Hz	Note : Model 1: Transmit by 802.11b at channel 2412MHz – chain 010



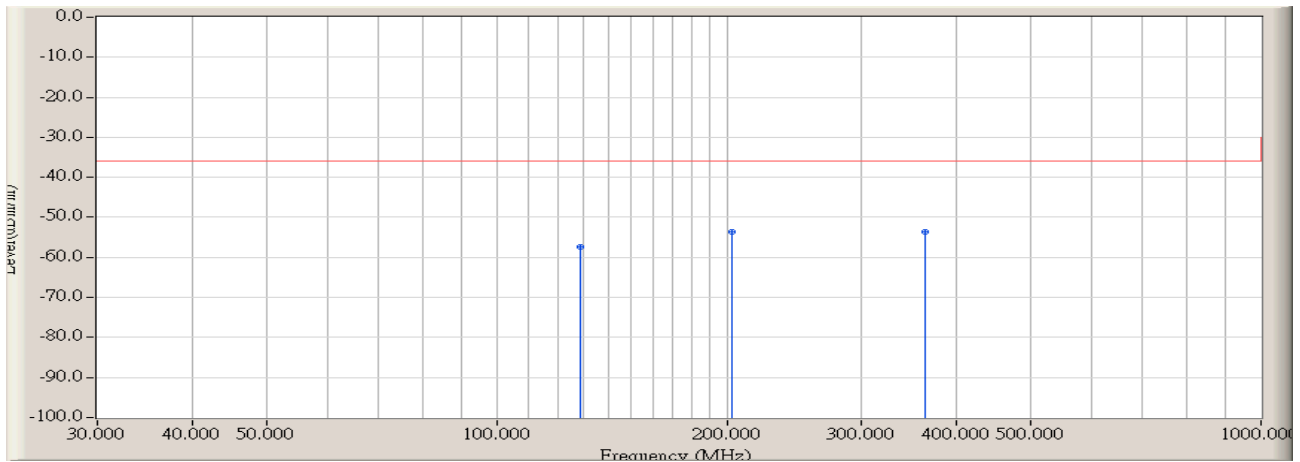
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		3212.917	10.911	-58.154	-47.243	-17.243	-30.000	PEAK
2	*	4838.333	14.906	-56.005	-41.099	-11.099	-30.000	PEAK
3		9695.000	24.987	-67.957	-42.970	-12.970	-30.000	PEAK

<b>Engineer : Jame</b>	
<b>Site : AC-4 (3m Fully-Anechoic Chamber)</b>	<b>Time : 2008/10/17 - 10:58</b>
<b>Limit : ETSI_300328_Tx_03M_PK</b>	<b>Margin : 0</b>
<b>EUT : Wireless-N Network Mini PCI Adapter</b>	<b>Probe : RF_Substitution(30-1000MHz) - HORIZONTAL</b>
<b>Power : AC 230V/50Hz</b>	<b>Note : Model 1: Transmit by 802.11b at channel 2472MHz – chain 010</b>



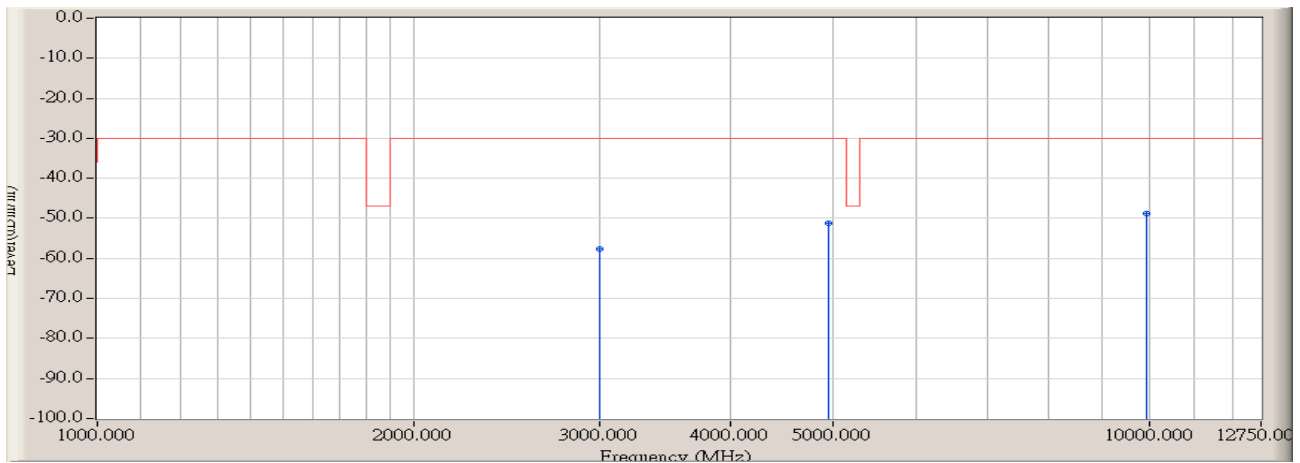
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		117.300	-3.520	-53.844	-57.364	-21.364	-36.000	PEAK
2	*	207.833	-1.650	-53.106	-54.756	-18.756	-36.000	PEAK
3		361.417	4.500	-59.783	-55.283	-19.283	-36.000	PEAK

Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/17 - 10:58
Limit : ETSI_300328_Tx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(30-1000MHz) - VERTICAL
Power : AC 230V/50Hz	Note : Model 1: Transmit by 802.11b at channel 2472MHz – chain 010



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		128.617	-0.587	-56.666	-57.253	-21.253	-36.000	PEAK
2	*	202.983	-0.447	-53.143	-53.590	-17.590	-36.000	PEAK
3		363.033	5.843	-59.444	-53.601	-17.601	-36.000	PEAK

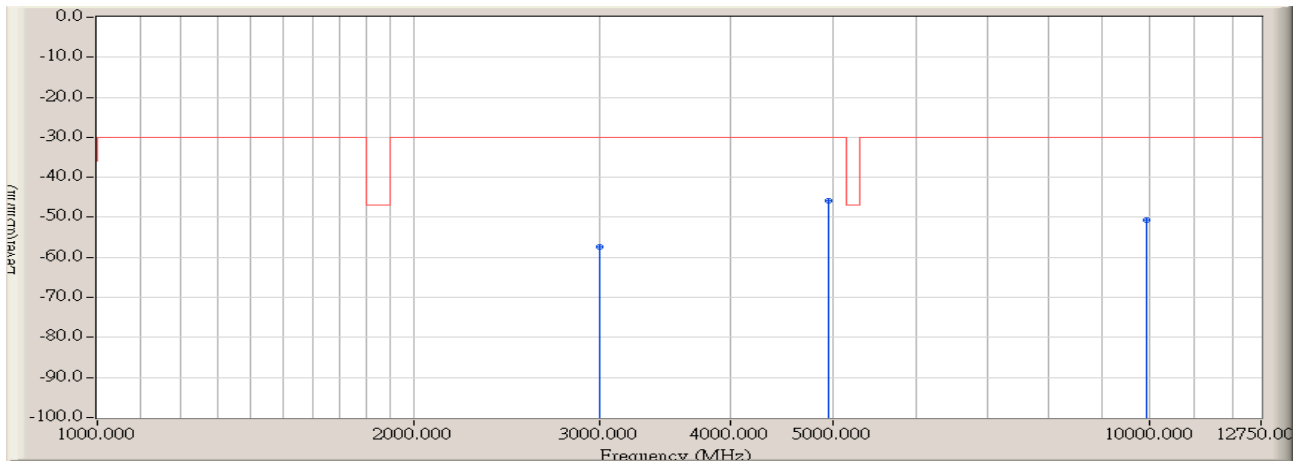
Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/16 - 17:57
Limit : ETSI_300328_Tx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(1-18GHz) - HORIZONTAL
Power : AC 230V/50Hz	Note : Model 1: Transmit by 802.11b at channel 2472MHz – chain 010



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		2997.500	9.350	-66.881	-57.531	-27.531	-30.000	PEAK
2		4955.833	14.662	-65.855	-51.193	-21.193	-30.000	PEAK
3	*	9930.000	25.828	-74.727	-48.899	-18.899	-30.000	PEAK

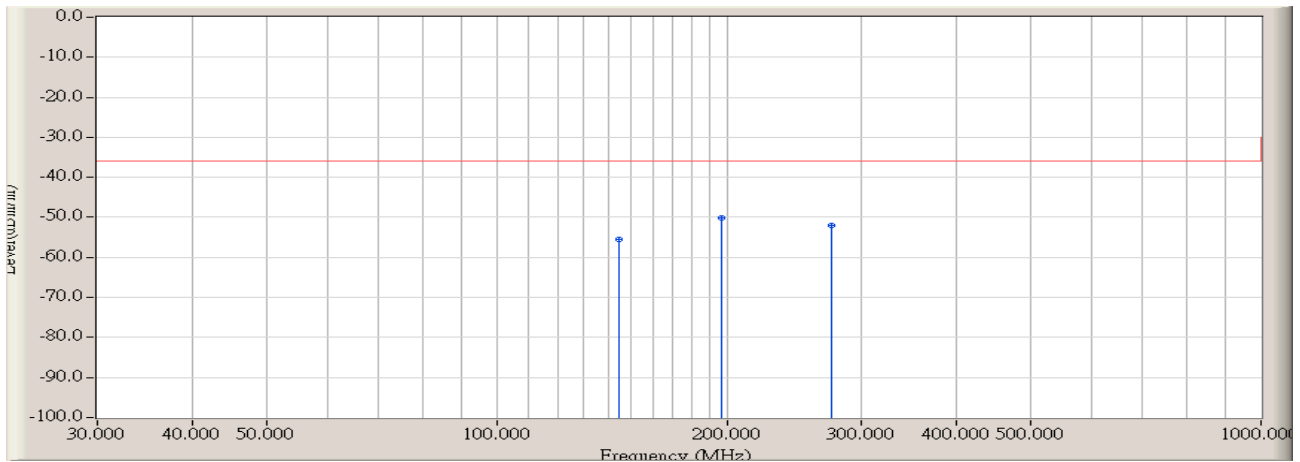


Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/16 - 17:58
Limit : ETSI_300328_Tx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(1-18GHz) - VERTICAL
Power : AC 230V/50Hz	Note : Model 1: Transmit by 802.11b at channel 2472MHz – chain 010



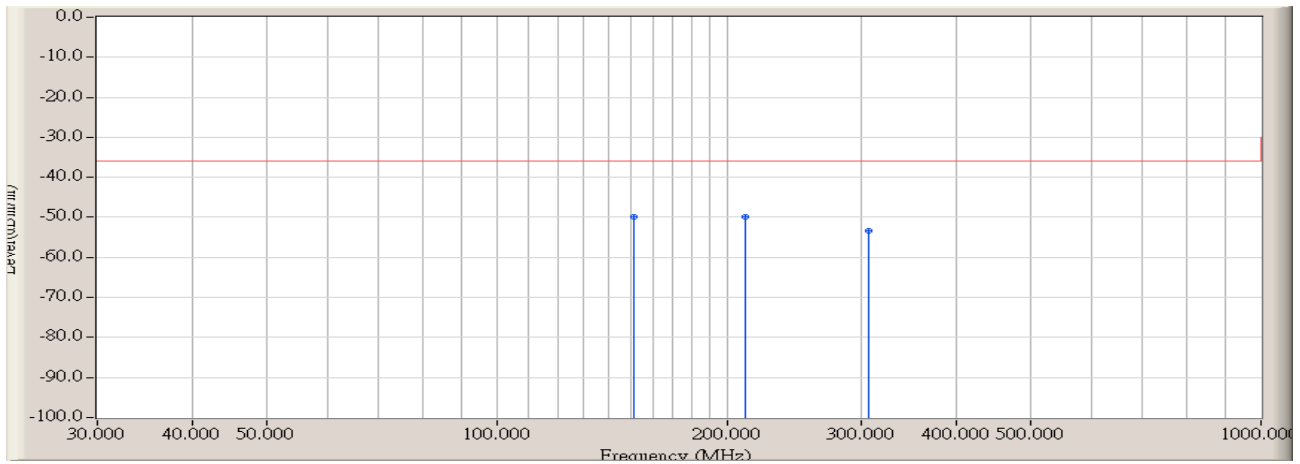
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		2997.500	9.040	-66.374	-57.334	-27.334	-30.000	PEAK
2	*	4955.833	14.670	-60.418	-45.748	-15.748	-30.000	PEAK
3		9930.000	25.611	-76.282	-50.671	-20.671	-30.000	PEAK

Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/17 - 10:58
Limit : ETSI_300328_Tx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(30-1000MHz) - HORIZONTAL
Power : AC 230V/50Hz	Note : Model 2: Transmit by 802.11g at channel 2412MHz – chain 010



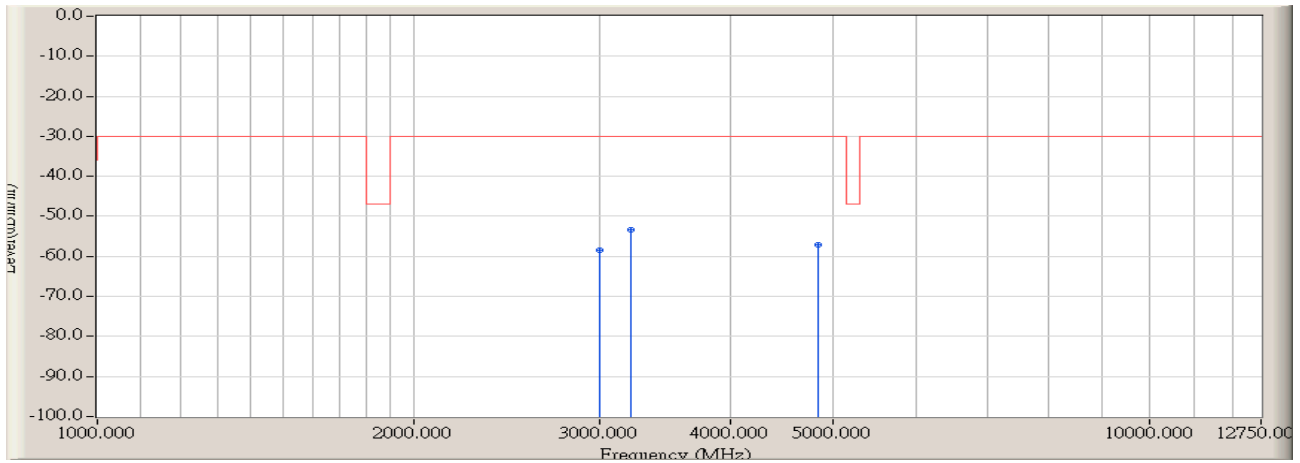
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		144.783	-1.487	-54.054	-55.541	-19.541	-36.000	PEAK
2	*	196.517	-2.240	-47.844	-50.084	-14.084	-36.000	PEAK
3		274.117	2.503	-54.486	-51.983	-15.983	-36.000	PEAK

Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/17 - 10:58
Limit : ETSI_300328_Tx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(30-1000MHz) - VERTICAL
Power : AC 230V/50Hz	Note : Model 2: Transmit by 802.11g at channel 2412MHz – chain 010



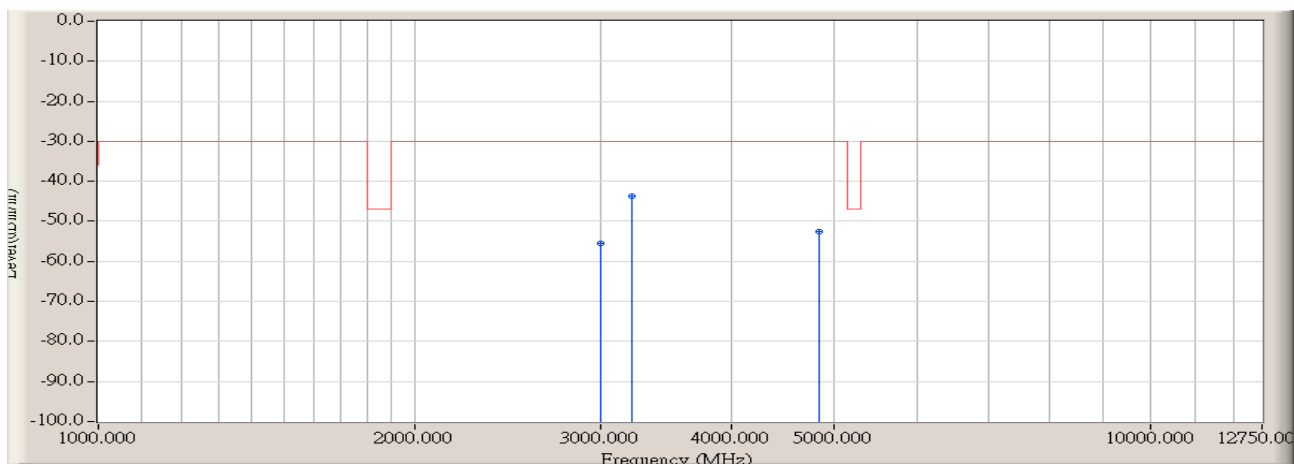
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		151.250	1.090	-51.041	-49.951	-13.951	-36.000	PEAK
2	*	211.067	-0.363	-49.400	-49.763	-13.763	-36.000	PEAK
3		306.450	3.100	-56.526	-53.426	-17.426	-36.000	PEAK

Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/16 - 17:58
Limit : ETSI_300328_Tx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(1-18GHz) - HORIZONTAL
Power : AC 230V/50Hz	Note : Model 2: Transmit by 802.11g at channel 2412MHz – chain 010



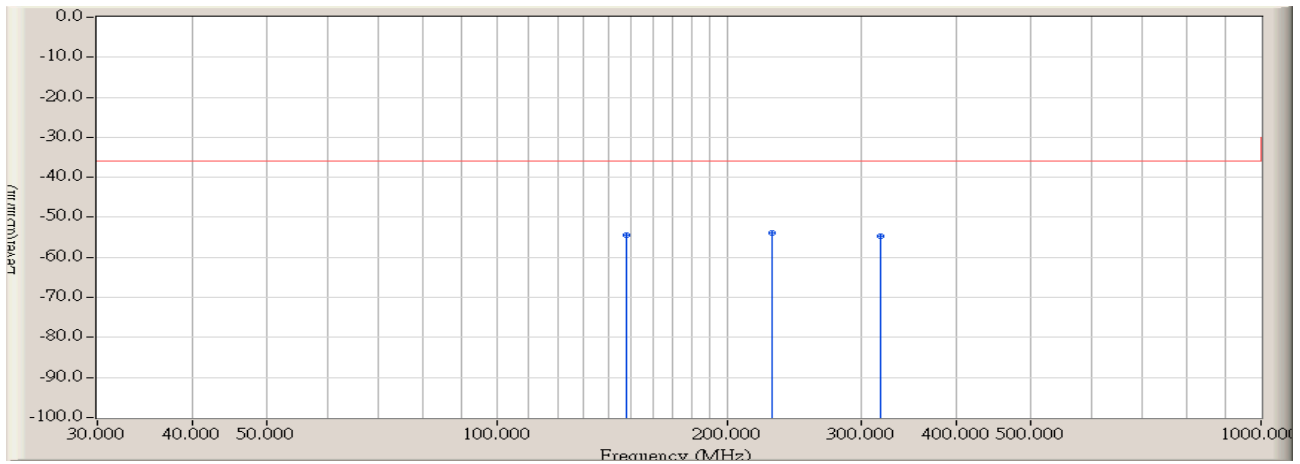
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		2997.500	9.350	-67.772	-58.422	-28.422	-30.000	PEAK
2	*	3212.917	10.676	-64.025	-53.349	-23.349	-30.000	PEAK
3		4838.333	14.840	-71.897	-57.057	-27.057	-30.000	PEAK

Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/16 - 17:58
Limit : ETSI_300328_Tx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(1-18GHz) - VERTICAL
Power : AC 230V/50Hz	Note : Model 2: Transmit by 802.11g at channel 2412MHz – chain 010



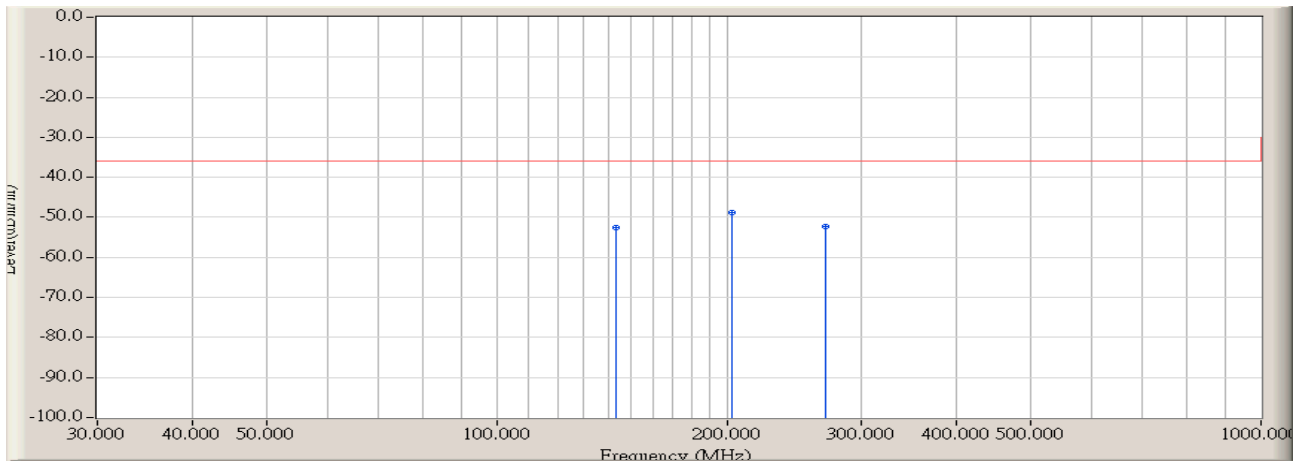
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		2997.500	9.040	-64.563	-55.523	-25.523	-30.000	PEAK
2	*	3212.917	10.911	-54.727	-43.816	-13.816	-30.000	PEAK
3		4838.333	14.906	-67.541	-52.635	-22.635	-30.000	PEAK

Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/17 - 10:58
Limit : ETSI_300328_Tx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(30-1000MHz) - HORIZONTAL
Power : AC 230V/50Hz	Note : Model 2: Transmit by 802.11g at channel 2472MHz – chain 010



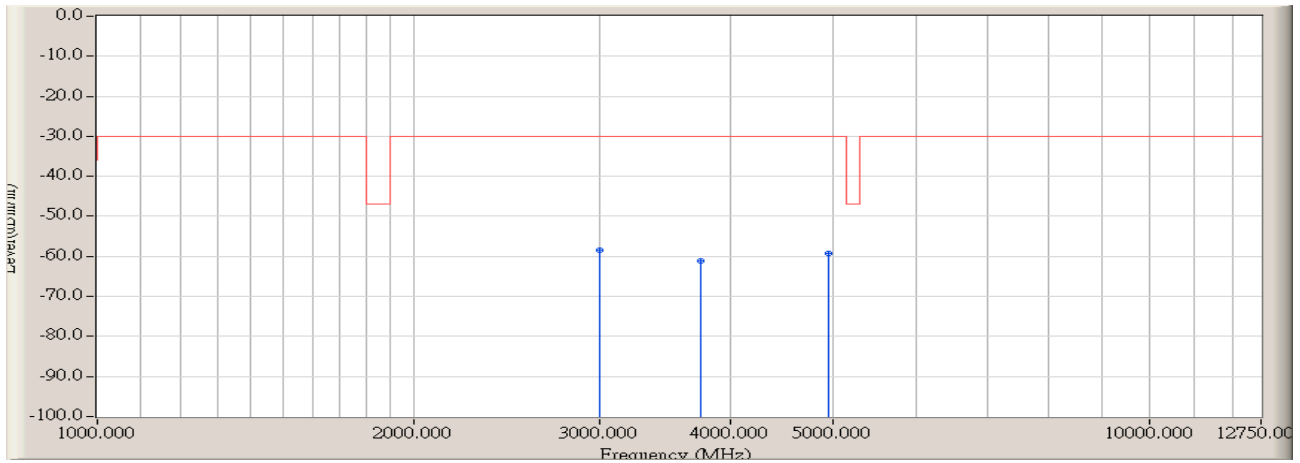
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		148.017	-1.043	-53.324	-54.367	-18.367	-36.000	PEAK
2	*	228.850	0.250	-54.028	-53.778	-17.778	-36.000	PEAK
3		317.767	3.340	-58.037	-54.697	-18.697	-36.000	PEAK

Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/17 - 10:59
Limit : ETSI_300328_Tx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(30-1000MHz) - VERTICAL
Power : AC 230V/50Hz	Note : Model 2: Transmit by 802.11g at channel 2472MHz – chain 010



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		143.167	-0.170	-52.266	-52.436	-16.436	-36.000	PEAK
2	*	202.983	-0.447	-48.237	-48.684	-12.684	-36.000	PEAK
3		269.267	1.113	-53.482	-52.369	-16.369	-36.000	PEAK

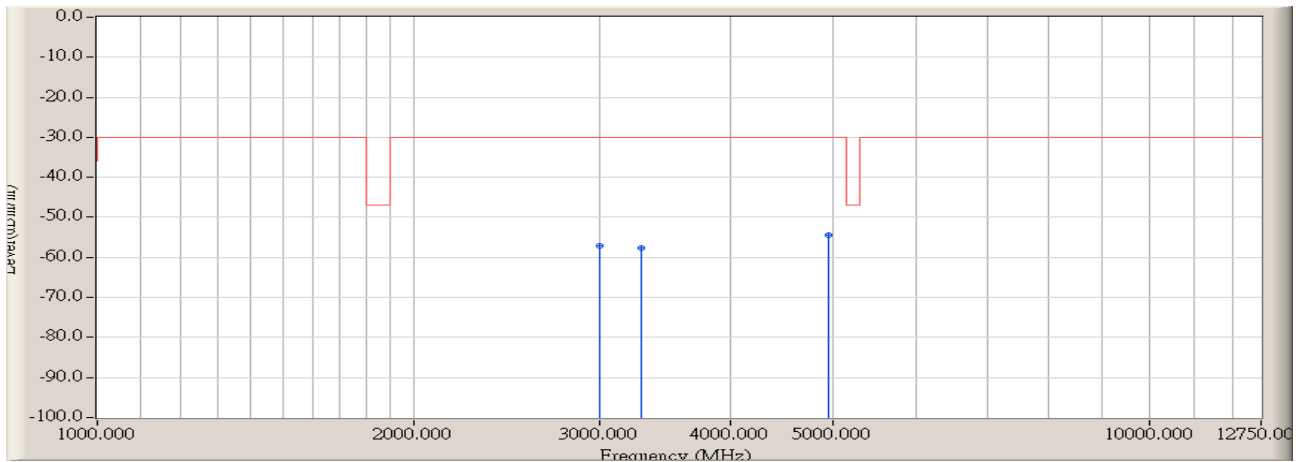
Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/16 - 17:58
Limit : ETSI_300328_Tx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(1-18GHz) - HORIZONTAL
Power : AC 230V/50Hz	Note : Model 2: Transmit by 802.11g at channel 2472MHz – chain 010



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1	*	2997.500	9.350	-67.908	-58.558	-28.558	-30.000	PEAK
2		3741.667	11.390	-72.490	-61.100	-31.100	-30.000	PEAK
3		4955.833	14.662	-73.915	-59.253	-29.253	-30.000	PEAK

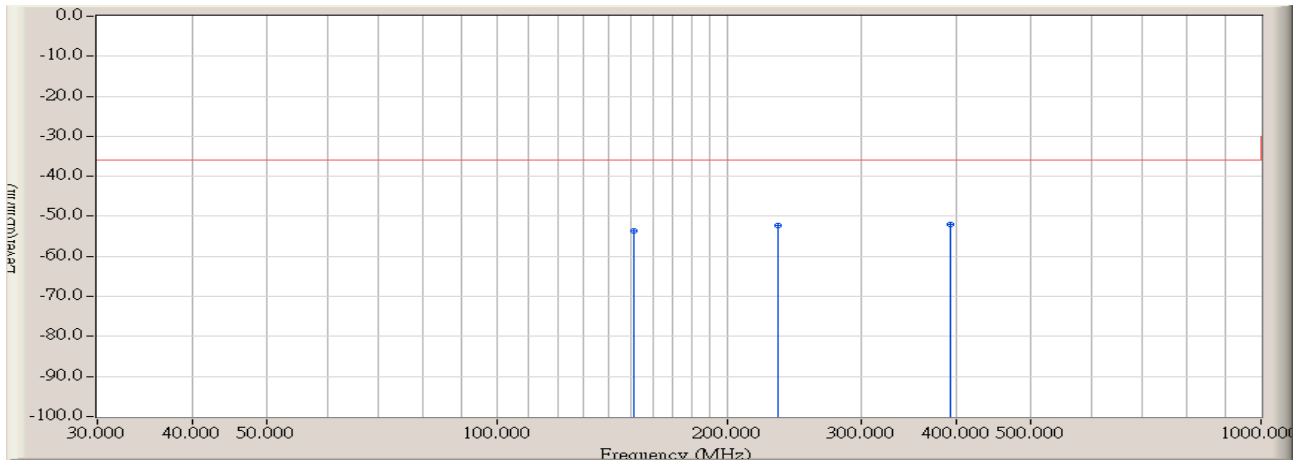


Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/16 - 17:58
Limit : ETSI_300328_Tx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(1-18GHz) - VERTICAL
Power : AC 230V/50Hz	Note : Model 2: Transmit by 802.11g at channel 2472MHz – chain 010



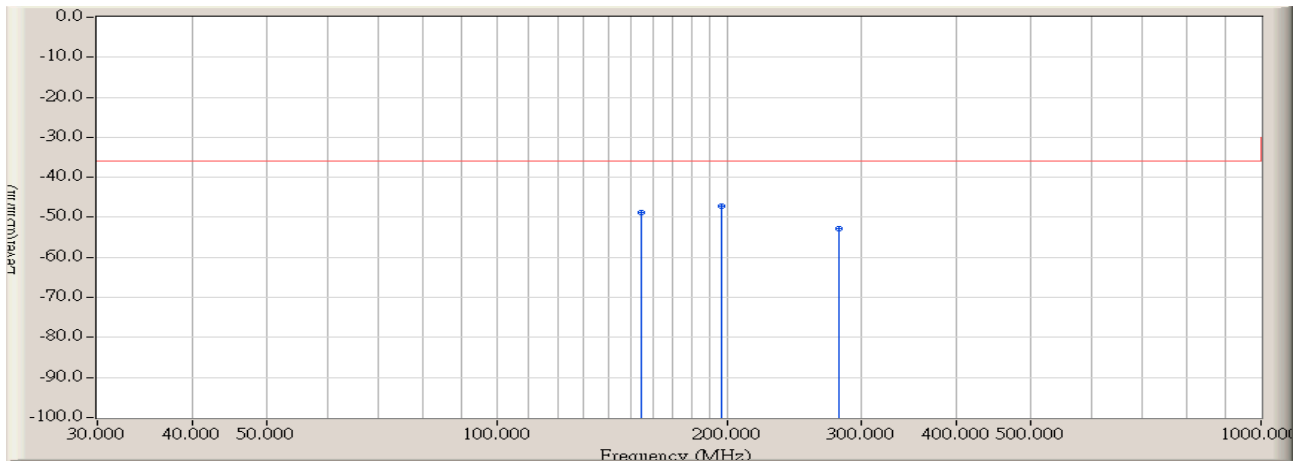
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		2997.500	9.040	-66.237	-57.197	-27.197	-30.000	PEAK
2		3291.250	10.306	-67.979	-57.673	-27.673	-30.000	PEAK
3	*	4955.833	14.670	-69.163	-54.493	-24.493	-30.000	PEAK

<b>Engineer : Jame</b>	
<b>Site : AC-4 (3m Fully-Anechoic Chamber)</b>	<b>Time : 2008/10/17 - 10:59</b>
<b>Limit : ETSI_300328_Tx_03M_PK</b>	<b>Margin : 0</b>
<b>EUT : Wireless-N Network Mini PCI Adapter</b>	<b>Probe : RF_Substitution(30-1000MHz) - HORIZONTAL</b>
<b>Power : AC 230V/50Hz</b>	<b>Note : Model 3: Transmit by 802.11n(20MHz) at channel 2412MHz – chain 010</b>



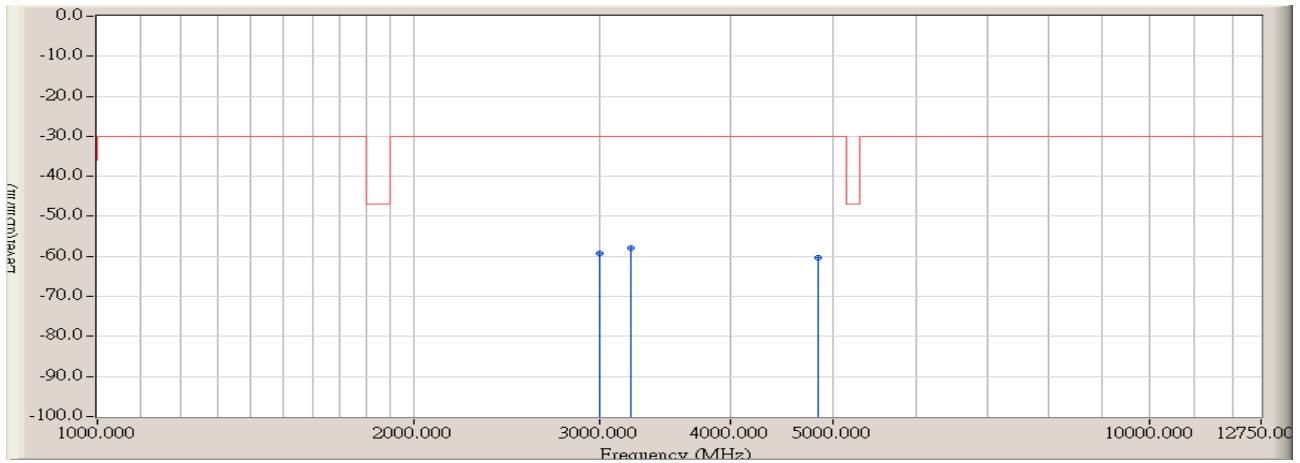
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		151.250	-0.660	-53.074	-53.734	-17.734	-36.000	PEAK
2		233.700	0.690	-52.844	-52.154	-16.154	-36.000	PEAK
3	*	392.133	5.310	-57.326	-52.016	-16.016	-36.000	PEAK

Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/17 - 10:59
Limit : ETSI_300328_Tx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(30-1000MHz) - VERTICAL
Power : AC 230V/50Hz	Note : Model 3: Transmit by 802.11n(20MHz) at channel 2412MHz – chain 010



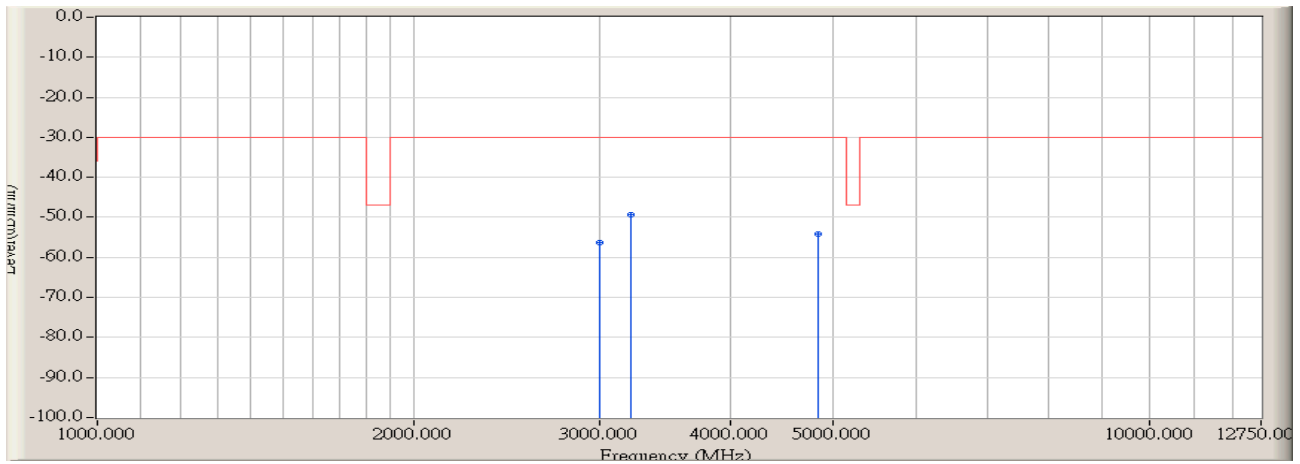
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		154.483	1.493	-50.280	-48.787	-12.787	-36.000	PEAK
2	*	196.517	-0.437	-46.745	-47.182	-11.182	-36.000	PEAK
3		280.583	1.730	-54.505	-52.775	-16.775	-36.000	PEAK

Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/16 - 17:58
Limit : ETSI_300328_Tx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(1-18GHz) - HORIZONTAL
Power : AC 230V/50Hz	Note : Model 3: Transmit by 802.11n(20MHz) at channel 2412MHz – chain 010



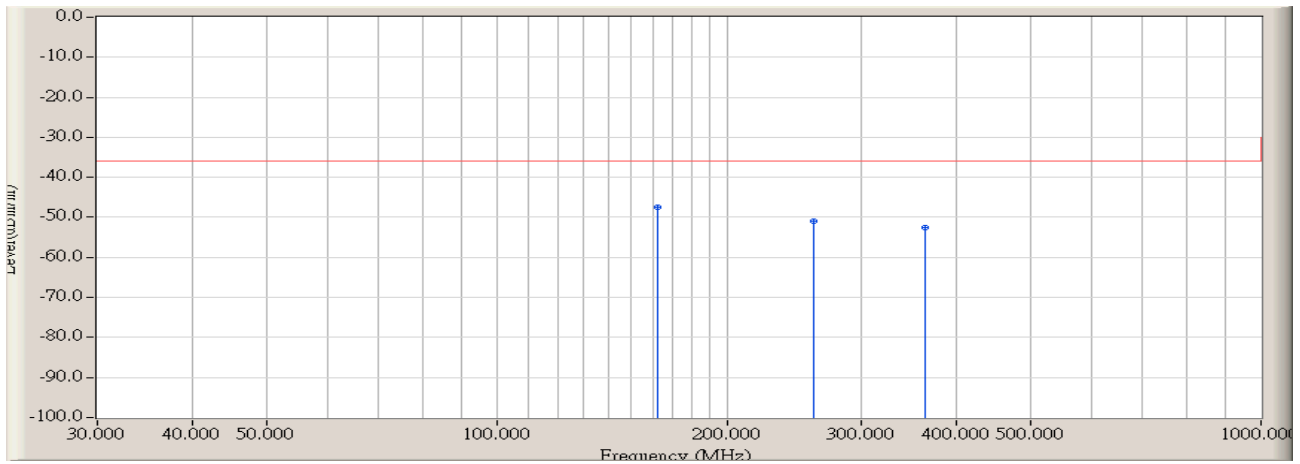
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		2997.500	9.350	-68.517	-59.167	-29.167	-30.000	PEAK
2	*	3212.917	10.676	-68.677	-58.001	-28.001	-30.000	PEAK
3		4838.333	14.840	-75.171	-60.331	-30.331	-30.000	PEAK

Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/16 - 17:58
Limit : ETSI_300328_Tx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(1-18GHz) - VERTICAL
Power : AC 230V/50Hz	Note : Model 3: Transmit by 802.11n(20MHz) at channel 2412MHz – chain 010



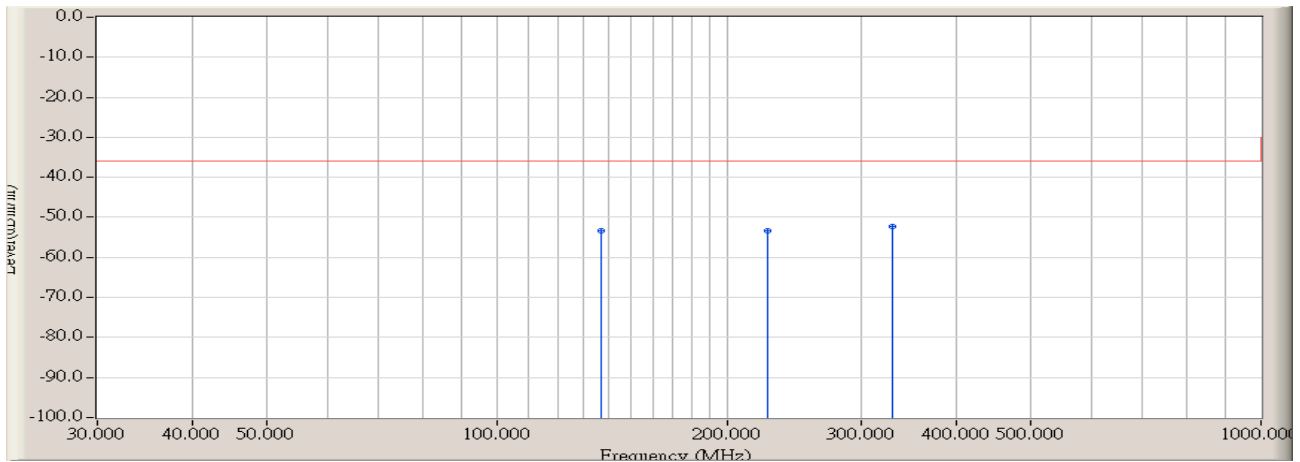
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		2997.500	9.040	-65.347	-56.307	-26.307	-30.000	PEAK
2	*	3212.917	10.911	-60.320	-49.409	-19.409	-30.000	PEAK
3		4838.333	14.906	-68.930	-54.024	-24.024	-30.000	PEAK

Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/17 - 10:59
Limit : ETSI_300328_Tx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(30-1000MHz) - HORIZONTAL
Power : AC 230V/50Hz	Note : Model 3: Transmit by 802.11n(20MHz) at channel 2472MHz – chain 010



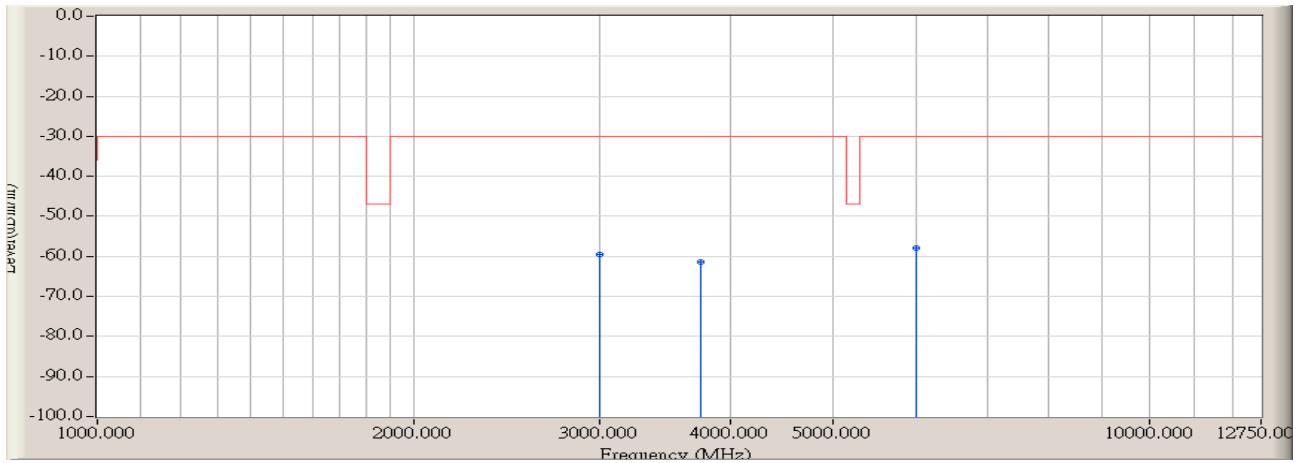
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1	*	162.567	-0.040	-47.409	-47.449	-11.449	-36.000	PEAK
2		259.567	2.297	-53.219	-50.922	-14.922	-36.000	PEAK
3		363.033	4.540	-57.021	-52.481	-16.481	-36.000	PEAK

Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/17 - 10:59
Limit : ETSI_300328_Tx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(30-1000MHz) - VERTICAL
Power : AC 230V/50Hz	Note : Model 3: Transmit by 802.11n(20MHz) at channel 2472MHz – chain 010



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		136.700	-0.650	-52.725	-53.375	-17.375	-36.000	PEAK
2		225.617	-0.203	-53.018	-53.221	-17.221	-36.000	PEAK
3	*	329.083	4.197	-56.454	-52.257	-16.257	-36.000	PEAK

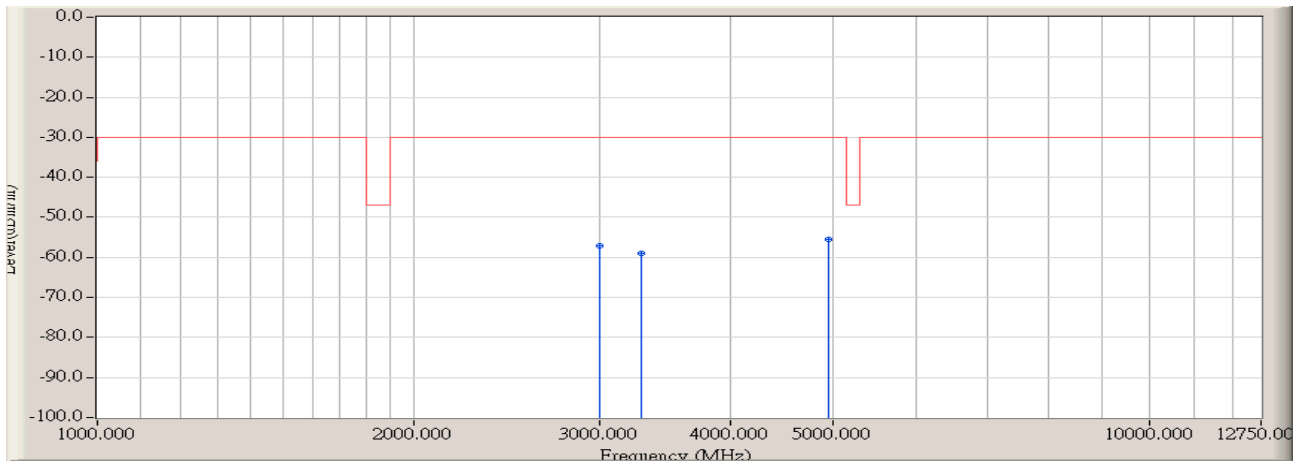
Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/16 - 17:58
Limit : ETSI_300328_Tx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(1-18GHz) - HORIZONTAL
Power : AC 230V/50Hz	Note : Model 3: Transmit by 802.11n(20MHz) at channel 2472MHz – chain 010



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		2997.500	9.350	-68.780	-59.430	-29.430	-30.000	PEAK
2		3741.667	11.390	-72.914	-61.524	-31.524	-30.000	PEAK
3	*	5993.750	16.590	-74.557	-57.967	-27.967	-30.000	PEAK

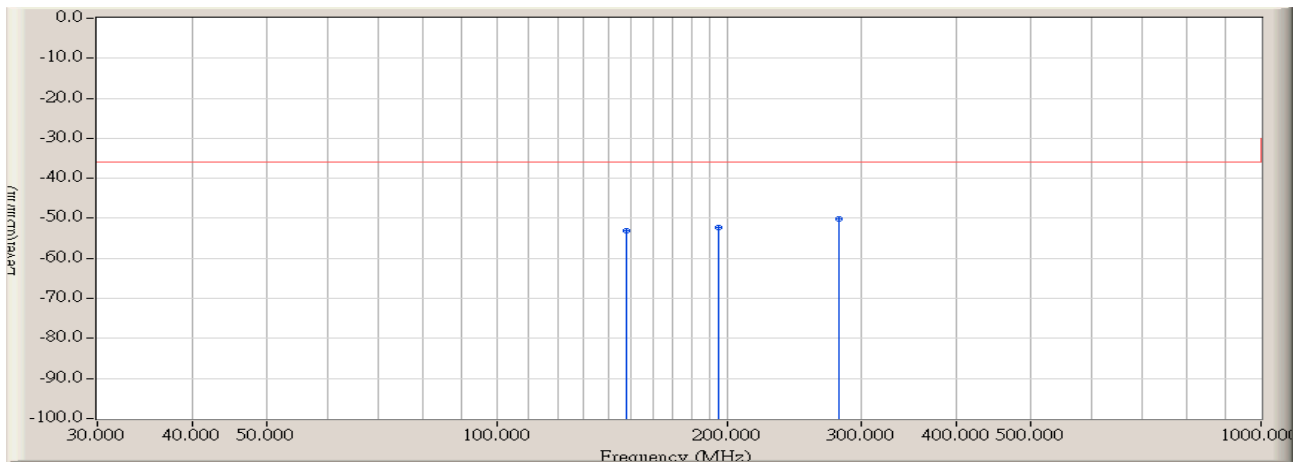


Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/16 - 17:58
Limit : ETSI_300328_Tx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(1-18GHz) - VERTICAL
Power : AC 230V/50Hz	Note : Model 3: Transmit by 802.11n(20MHz) at channel 2472MHz – chain 010



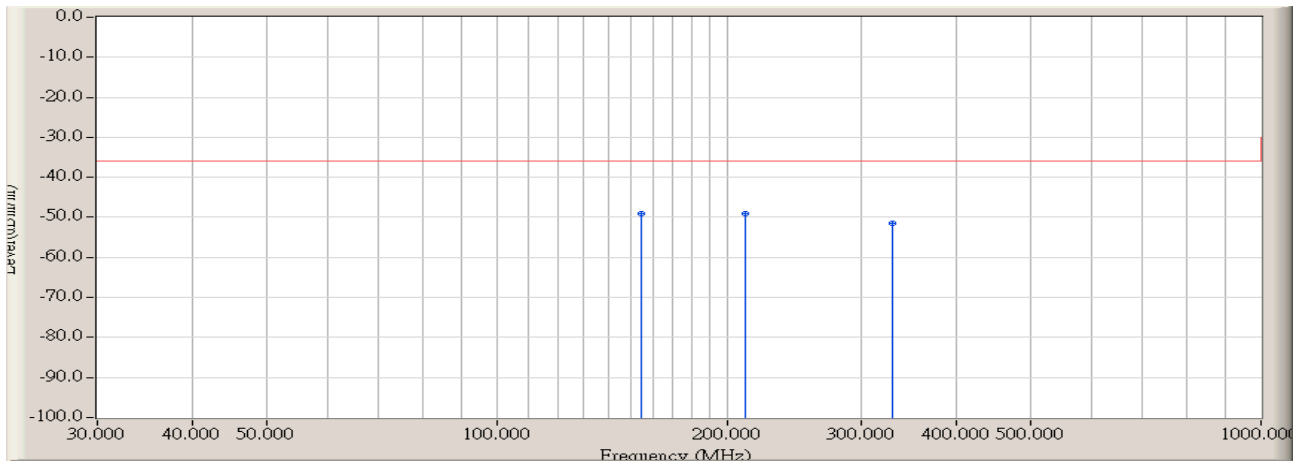
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		2997.500	9.040	-66.017	-56.977	-26.977	-30.000	PEAK
2		3291.250	10.306	-69.226	-58.920	-28.920	-30.000	PEAK
3	*	4955.833	14.670	-70.223	-55.553	-25.553	-30.000	PEAK

<b>Engineer : Jame</b>	
<b>Site : AC-4 (3m Fully-Anechoic Chamber)</b>	<b>Time : 2008/10/17 - 11:00</b>
<b>Limit : ETSI_300328_Tx_03M_PK</b>	<b>Margin : 0</b>
<b>EUT : Wireless-N Network Mini PCI Adapter</b>	<b>Probe : RF_Substitution(30-1000MHz) - HORIZONTAL</b>
<b>Power : AC 230V/50Hz</b>	<b>Note : Model 4: Transmit by 802.11n(40MHz) at channel 2422MHz – chain 010</b>



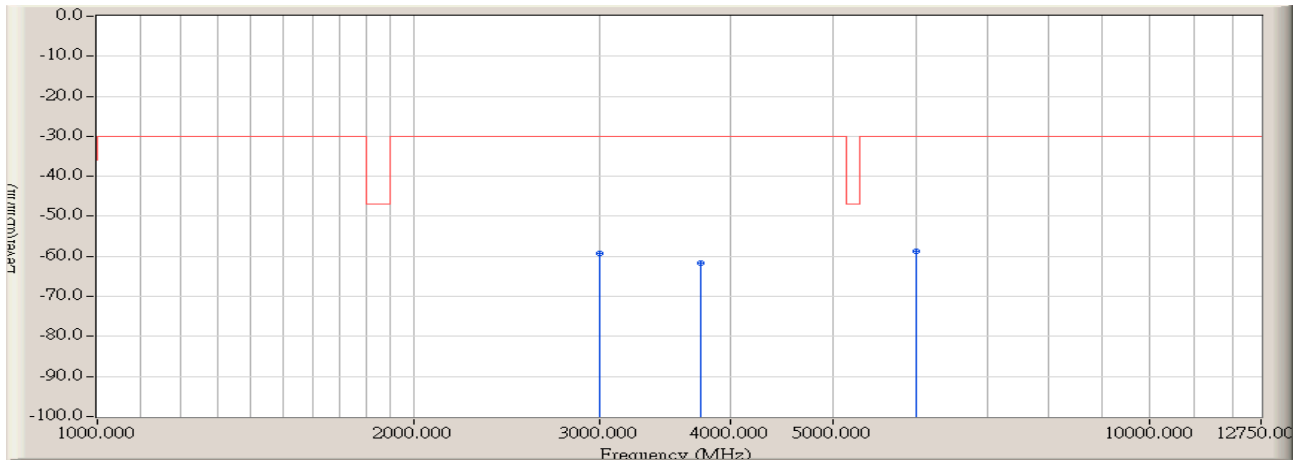
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		148.017	-1.043	-52.159	-53.202	-17.202	-36.000	PEAK
2		194.900	-2.180	-50.124	-52.304	-16.304	-36.000	PEAK
3	*	280.583	2.593	-52.601	-50.008	-14.008	-36.000	PEAK

Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/17 - 11:00
Limit : ETSI_300328_Tx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(30-1000MHz) - VERTICAL
Power : AC 230V/50Hz	Note : Model 4: Transmit by 802.11n(40MHz) at channel 2422MHz – chain 010



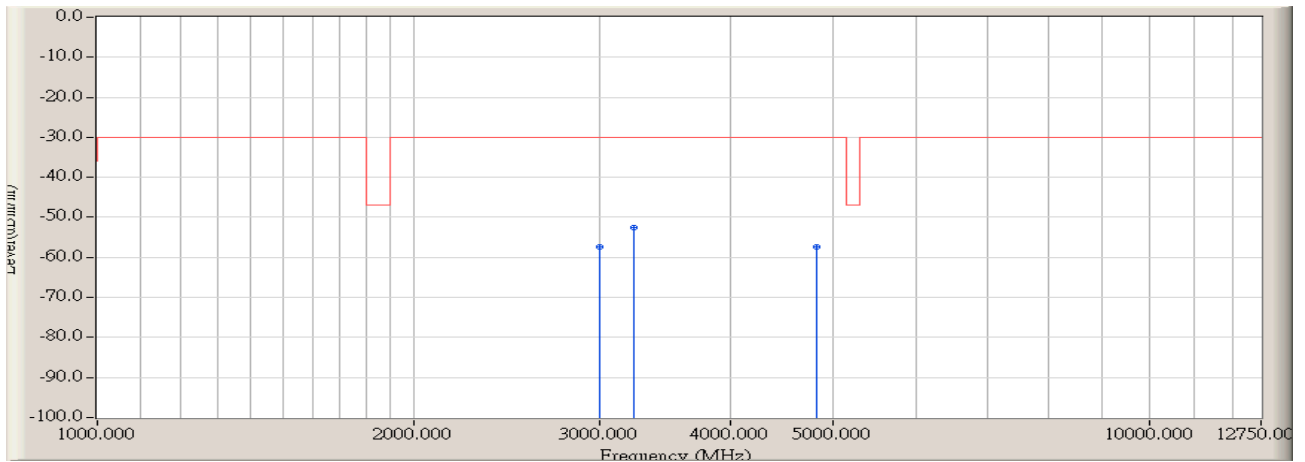
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1	*	154.483	1.493	-50.536	-49.043	-13.043	-36.000	PEAK
2		211.067	-0.363	-48.746	-49.109	-13.109	-36.000	PEAK
3		329.083	4.197	-55.542	-51.345	-15.345	-36.000	PEAK

Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/16 - 17:58
Limit : ETSI_300328_Tx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(1-18GHz) - HORIZONTAL
Power : AC 230V/50Hz	Note : Model 4: Transmit by 802.11n(40MHz) at channel 2422MHz – chain 010



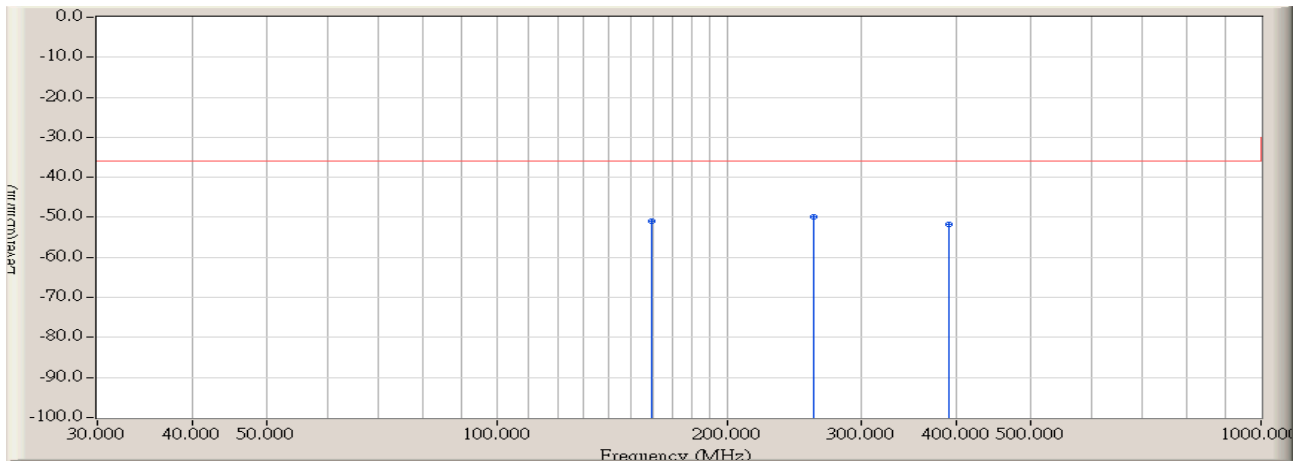
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		2997.500	9.350	-68.593	-59.243	-29.243	-30.000	PEAK
2		3741.667	11.390	-73.122	-61.732	-31.732	-30.000	PEAK
3	*	5993.750	16.590	-75.204	-58.614	-28.614	-30.000	PEAK

Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/16 - 17:58
Limit : ETSI_300328_Tx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(1-18GHz) - VERTICAL
Power : AC 230V/50Hz	Note : Model 4: Transmit by 802.11n(40MHz) at channel 2422MHz – chain 010



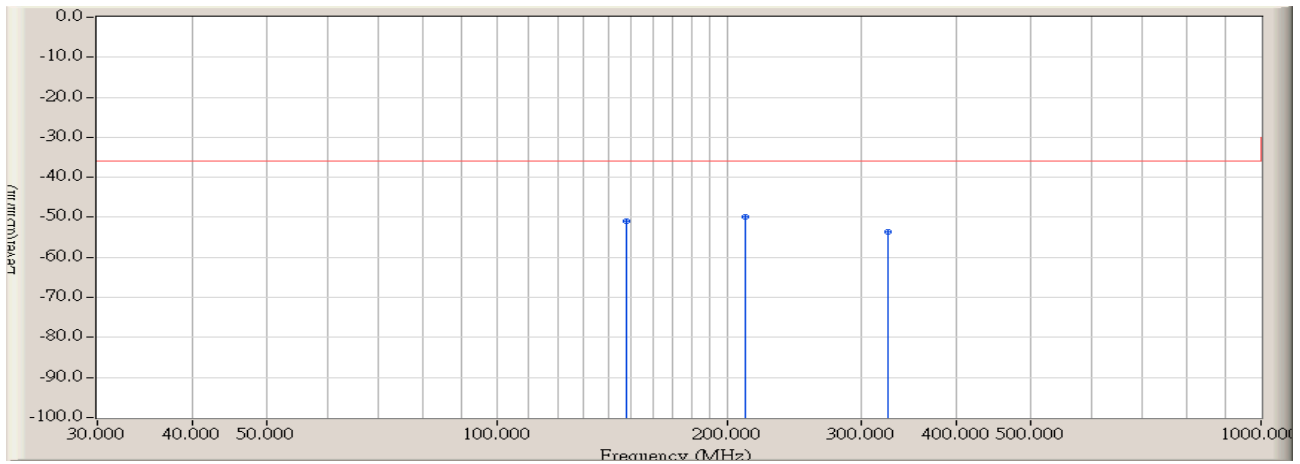
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		2997.500	9.040	-66.351	-57.311	-27.311	-30.000	PEAK
2	*	3232.500	10.857	-63.291	-52.434	-22.434	-30.000	PEAK
3		4818.750	15.044	-72.536	-57.492	-27.492	-30.000	PEAK

Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/17 - 11:00
Limit : ETSI_300328_Tx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(30-1000MHz) - HORIZONTAL
Power : AC 230V/50Hz	Note : Model 4: Transmit by 802.11n(40MHz) at channel 2452MHz – chain 010



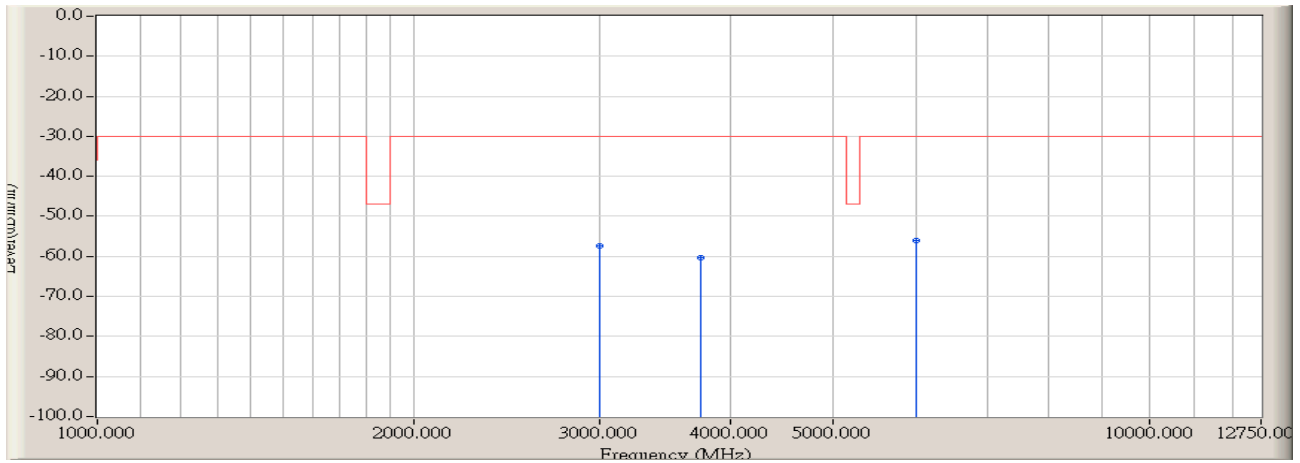
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		159.333	0.060	-50.909	-50.849	-14.849	-36.000	PEAK
2	*	259.567	2.297	-52.143	-49.846	-13.846	-36.000	PEAK
3		390.517	5.270	-56.920	-51.650	-15.650	-36.000	PEAK

Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/17 - 11:00
Limit : ETSI_300328_Tx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(30-1000MHz) - VERTICAL
Power : AC 230V/50Hz	Note : Model 4: Transmit by 802.11n(40MHz) at channel 2452MHz – chain 010



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		148.017	0.610	-51.463	-50.853	-14.853	-36.000	PEAK
2	*	211.067	-0.363	-49.531	-49.894	-13.894	-36.000	PEAK
3		324.233	3.963	-57.684	-53.721	-17.721	-36.000	PEAK

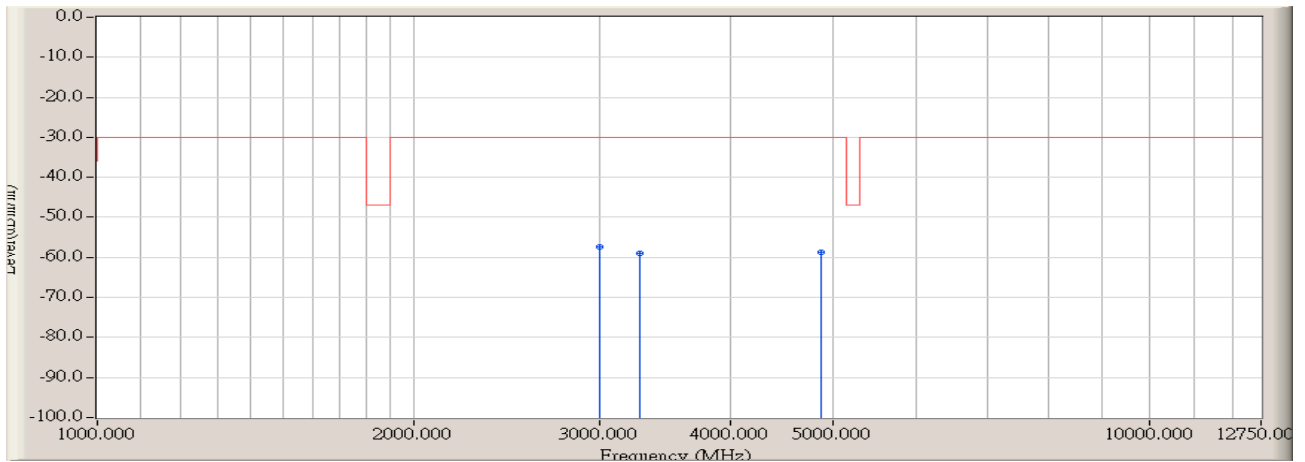
<b>Engineer : Jame</b>	
<b>Site : AC-4 (3m Fully-Anechoic Chamber)</b>	<b>Time : 2008/10/16 - 17:58</b>
<b>Limit : ETSI_300328_Tx_03M_PK</b>	<b>Margin : 0</b>
<b>EUT : Wireless-N Network Mini PCI Adapter</b>	<b>Probe : RF_Substitution(1-18GHz) - HORIZONTAL</b>
<b>Power : AC 230V/50Hz</b>	<b>Note : Model 4: Transmit by 802.11n(40MHz) at channel 2452MHz – chain 010</b>



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		2997.500	9.350	-66.592	-57.242	-27.242	-30.000	PEAK
2		3741.667	11.390	-71.740	-60.350	-30.350	-30.000	PEAK
3	*	5993.750	16.590	-72.511	-55.921	-25.921	-30.000	PEAK

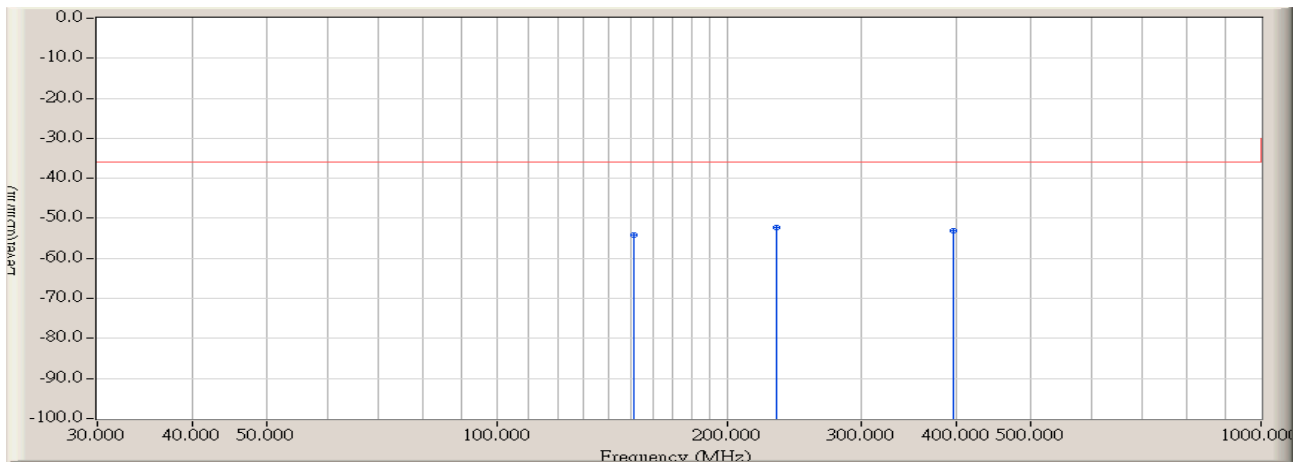


Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/16 - 17:59
Limit : ETSI_300328_Tx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(1-18GHz) - VERTICAL
Power : AC 230V/50Hz	Note : Model 4: Transmit by 802.11n(40MHz) at channel 2452MHz – chain 010



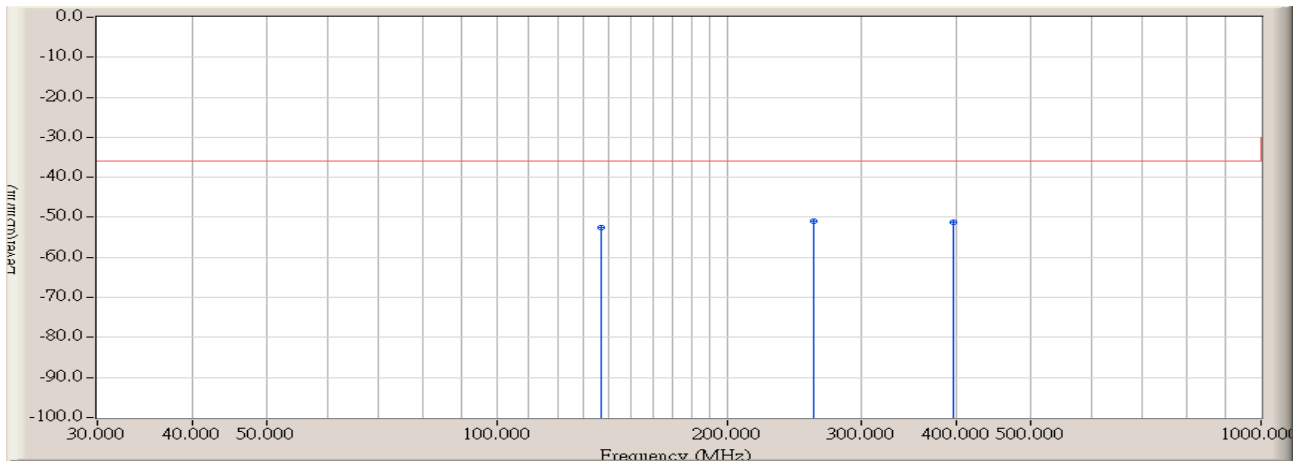
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1	*	2997.500	9.040	-66.295	-57.255	-27.255	-30.000	PEAK
2		3271.667	10.548	-69.454	-58.906	-28.906	-30.000	PEAK
3		4877.500	14.535	-73.258	-58.723	-28.723	-30.000	PEAK

Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/17 - 10:49
Limit : ETSI_300328_Tx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(30-1000MHz) - HORIZONTAL
Power : AC 230V/50Hz	Note : Model 1: Transmit by 802.11b at channel 2412MHz – chain 100



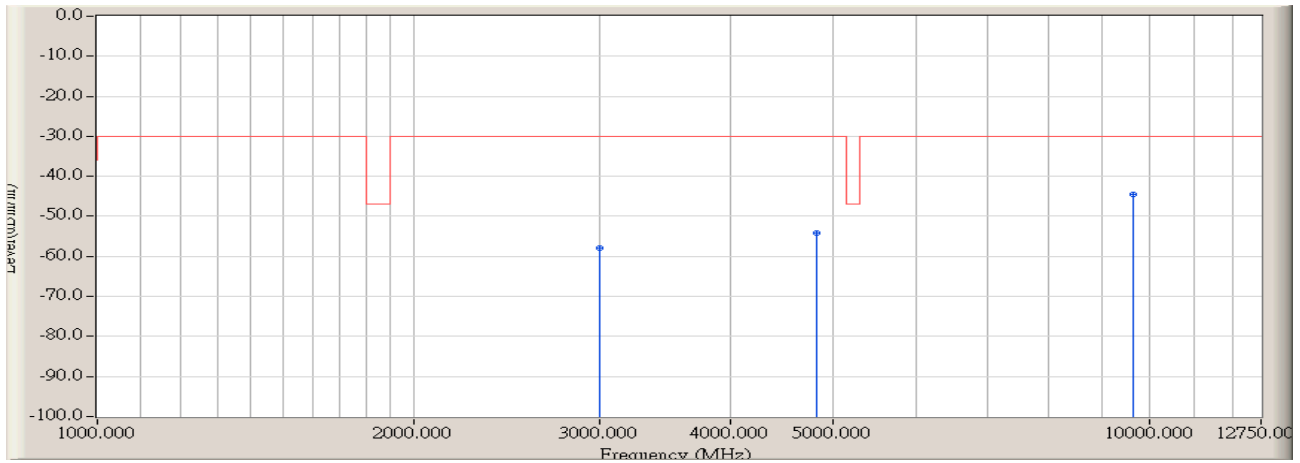
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		151.250	-0.660	-53.370	-54.030	-18.030	-36.000	PEAK
2	*	232.083	0.540	-52.863	-52.323	-16.323	-36.000	PEAK
3		395.367	5.400	-58.589	-53.189	-17.189	-36.000	PEAK

Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/17 - 10:49
Limit : ETSI_300328_Tx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(30-1000MHz) - VERTICAL
Power : AC 230V/50Hz	Note : Model 1: Transmit by 802.11b at channel 2412MHz – chain 100



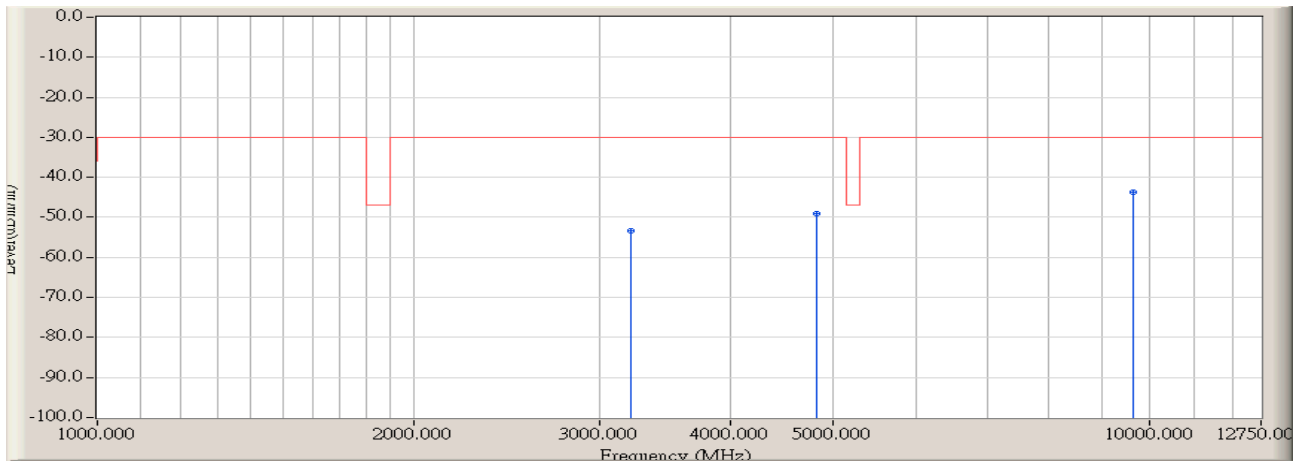
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		136.700	-0.650	-51.854	-52.504	-16.504	-36.000	PEAK
2	*	259.567	0.583	-51.574	-50.991	-14.991	-36.000	PEAK
3		395.367	7.403	-58.589	-51.186	-15.186	-36.000	PEAK

<b>Engineer : Jame</b>	
<b>Site : AC-4 (3m Fully-Anechoic Chamber)</b>	<b>Time : 2008/10/16 - 17:51</b>
<b>Limit : ETSI_300328_Tx_03M_PK</b>	<b>Margin : 0</b>
<b>EUT : Wireless-N Network Mini PCI Adapter</b>	<b>Probe : RF_Substitution(1-18GHz) - HORIZONTAL</b>
<b>Power : AC 230V/50Hz</b>	<b>Note : Model 1: Transmit by 802.11b at channel 2412MHz – chain 100</b>



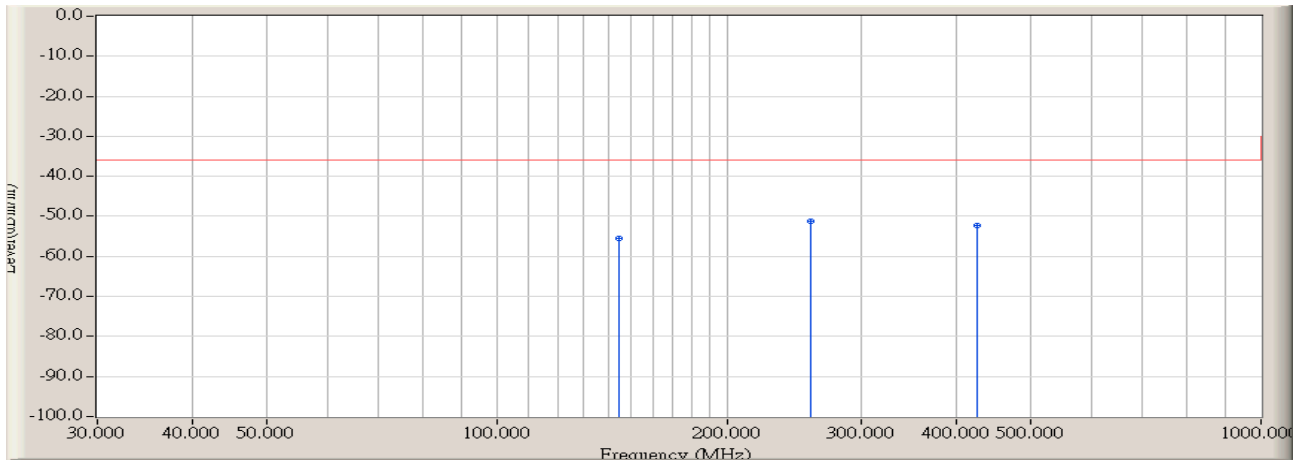
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		2997.500	9.350	-67.160	-57.810	-27.810	-30.000	PEAK
2		4818.750	15.001	-69.051	-54.050	-24.050	-30.000	PEAK
3	*	9655.833	24.688	-69.240	-44.552	-14.552	-30.000	PEAK

Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/16 - 17:52
Limit : ETSI_300328_Tx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(1-18GHz) - VERTICAL
Power : AC 230V/50Hz	Note : Model 1: Transmit by 802.11b at channel 2412MHz – chain 100



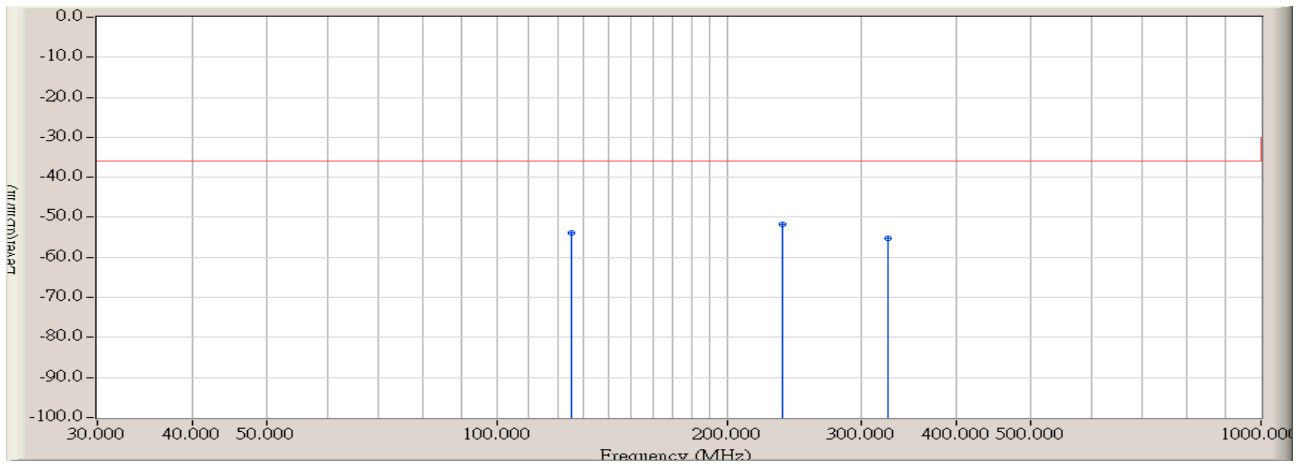
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		3212.917	10.911	-64.323	-53.412	-23.412	-30.000	PEAK
2		4818.750	15.044	-64.177	-49.133	-19.133	-30.000	PEAK
3	*	9655.833	24.775	-68.468	-43.693	-13.693	-30.000	PEAK

<b>Engineer : Jame</b>	
<b>Site : AC-4 (3m Fully-Anechoic Chamber)</b>	<b>Time : 2008/10/17 - 10:50</b>
<b>Limit : ETSI_300328_Tx_03M_PK</b>	<b>Margin : 0</b>
<b>EUT : Wireless-N Network Mini PCI Adapter</b>	<b>Probe : RF_Substitution(30-1000MHz) - HORIZONTAL</b>
<b>Power : AC 230V/50Hz</b>	<b>Note : Model 1: Transmit by 802.11b at channel 2472MHz – chain 100</b>



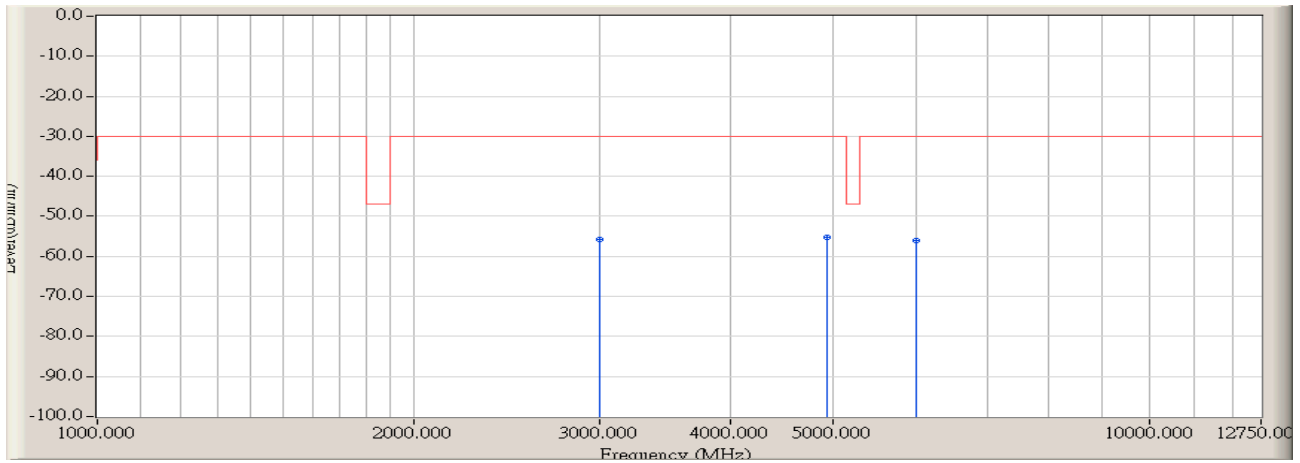
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		144.783	-1.487	-53.929	-55.416	-19.416	-36.000	PEAK
2	*	257.950	2.270	-53.362	-51.092	-15.092	-36.000	PEAK
3		424.467	5.783	-57.962	-52.179	-16.179	-36.000	PEAK

Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/17 - 10:50
Limit : ETSI_300328_Tx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(30-1000MHz) - VERTICAL
Power : AC 230V/50Hz	Note : Model 1: Transmit by 802.11b at channel 2472MHz – chain 100



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		125.383	-0.563	-53.300	-53.863	-17.863	-36.000	PEAK
2	*	236.933	-0.077	-51.632	-51.709	-15.709	-36.000	PEAK
3		324.233	3.963	-59.058	-55.095	-19.095	-36.000	PEAK

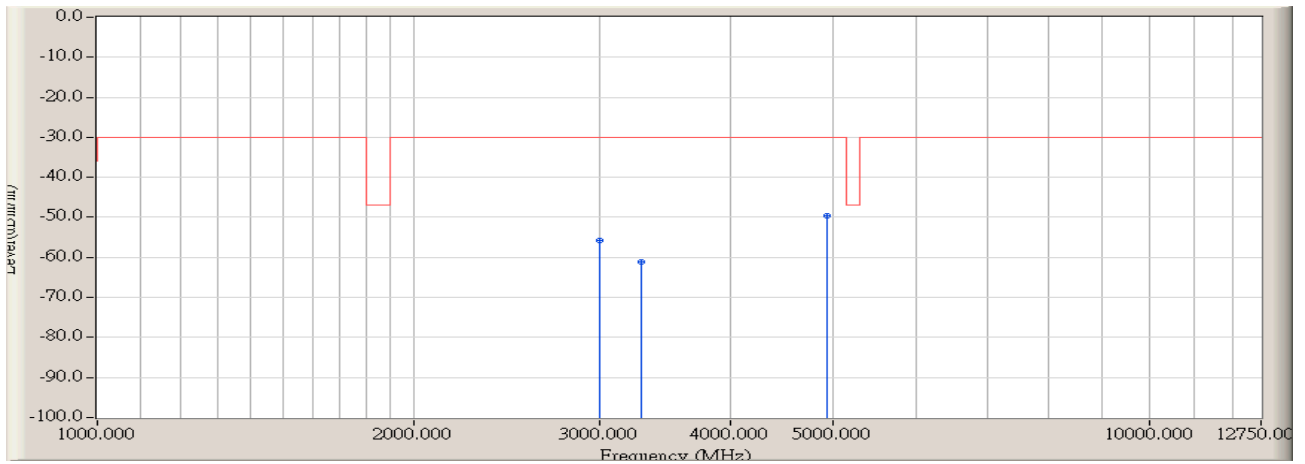
<b>Engineer : Jame</b>	
<b>Site : AC-4 (3m Fully-Anechoic Chamber)</b>	<b>Time : 2008/10/16 - 17:52</b>
<b>Limit : ETSI_300328_Tx_03M_PK</b>	<b>Margin : 0</b>
<b>EUT : Wireless-N Network Mini PCI Adapter</b>	<b>Probe : RF_Substitution(1-18GHz) - HORIZONTAL</b>
<b>Power : AC 230V/50Hz</b>	<b>Note : Model 1: Transmit by 802.11b at channel 2472MHz – chain 100</b>



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		2997.500	9.350	-65.173	-55.823	-25.823	-30.000	PEAK
2	*	4936.250	14.644	-69.967	-55.323	-25.323	-30.000	PEAK
3		5993.750	16.590	-72.543	-55.953	-25.953	-30.000	PEAK

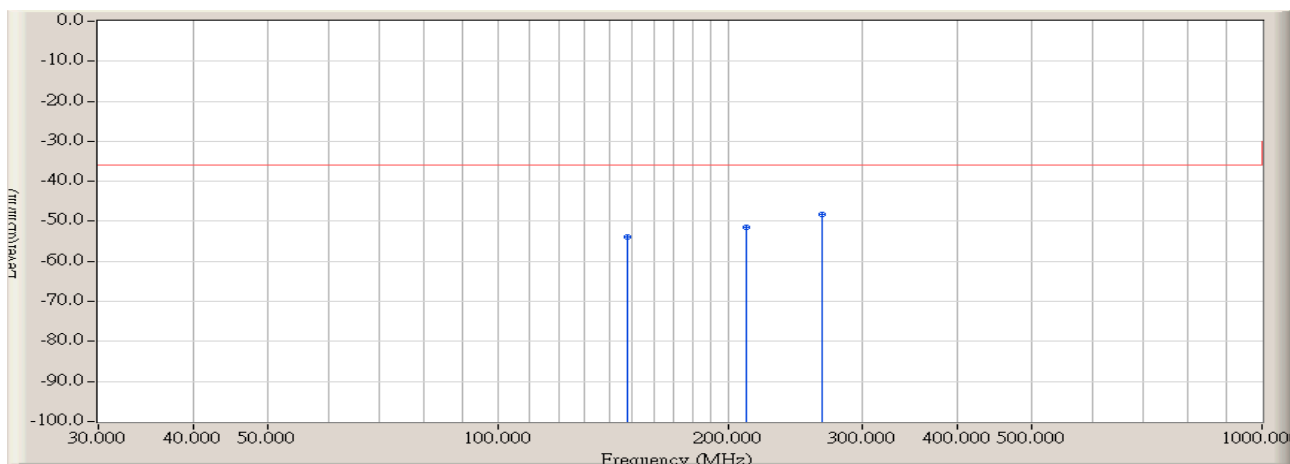


Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/16 - 17:52
Limit : ETSI_300328_Tx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(1-18GHz) - VERTICAL
Power : AC 230V/50Hz	Note : Model 1: Transmit by 802.11b at channel 2472MHz – chain 100



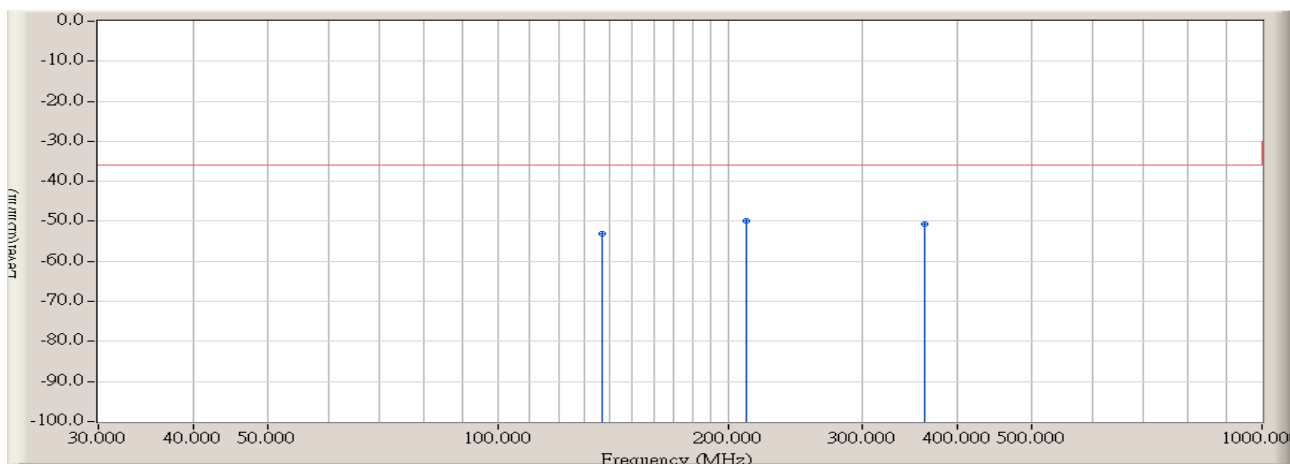
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		2997.500	9.040	-64.853	-55.813	-25.813	-30.000	PEAK
2		3291.250	10.306	-71.302	-60.996	-30.996	-30.000	PEAK
3	*	4936.250	14.606	-64.091	-49.485	-19.485	-30.000	PEAK

Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/17 - 10:50
Limit : ETSI_300328_Tx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(30-1000MHz) - HORIZONTAL
Power : AC 230V/50Hz	Note : Model 2: Transmit by 802.11g at channel 2412MHz – chain 100



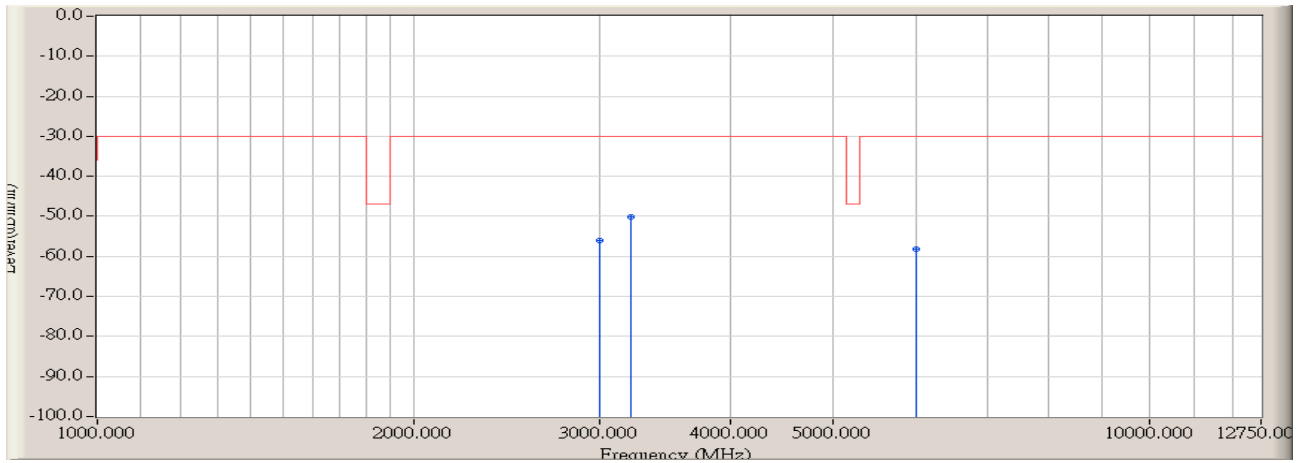
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		148.017	-1.043	-52.928	-53.971	-17.971	-36.000	PEAK
2		211.067	-1.360	-50.054	-51.414	-15.414	-36.000	PEAK
3	*	266.033	2.387	-50.515	-48.128	-12.128	-36.000	PEAK

Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/17 - 10:50
Limit : ETSI_300328_Tx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(30-1000MHz) - VERTICAL
Power : AC 230V/50Hz	Note : Model 2: Transmit by 802.11g at channel 2412MHz – chain 100



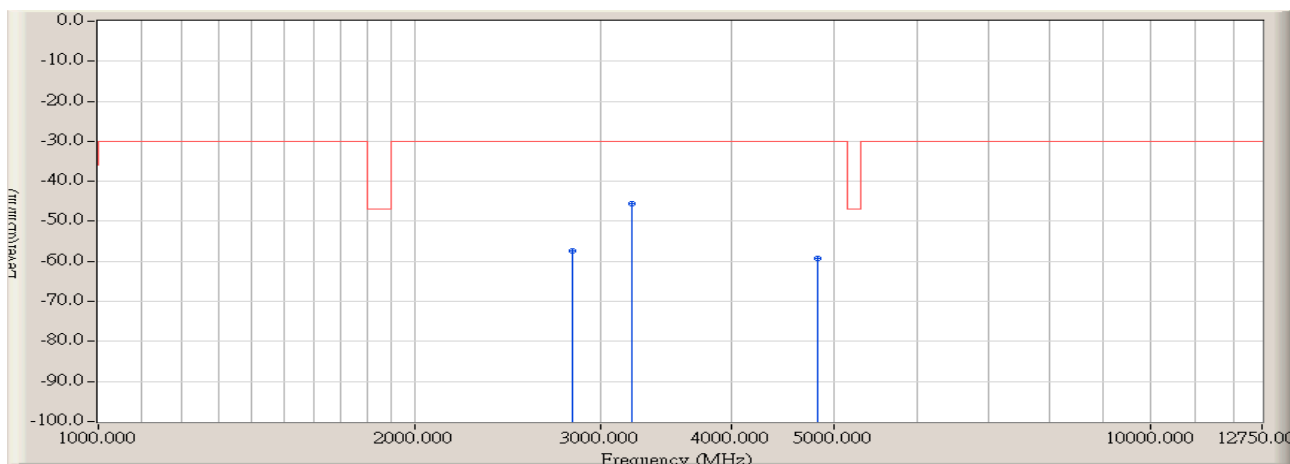
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		136.700	-0.650	-52.536	-53.186	-17.186	-36.000	PEAK
2	*	211.067	-0.363	-49.400	-49.763	-13.763	-36.000	PEAK
3		361.417	5.763	-56.340	-50.577	-14.577	-36.000	PEAK

Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/16 - 17:52
Limit : ETSI_300328_Tx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(1-18GHz) - HORIZONTAL
Power : AC 230V/50Hz	Note : Model 2: Transmit by 802.11g at channel 2412MHz – chain 100



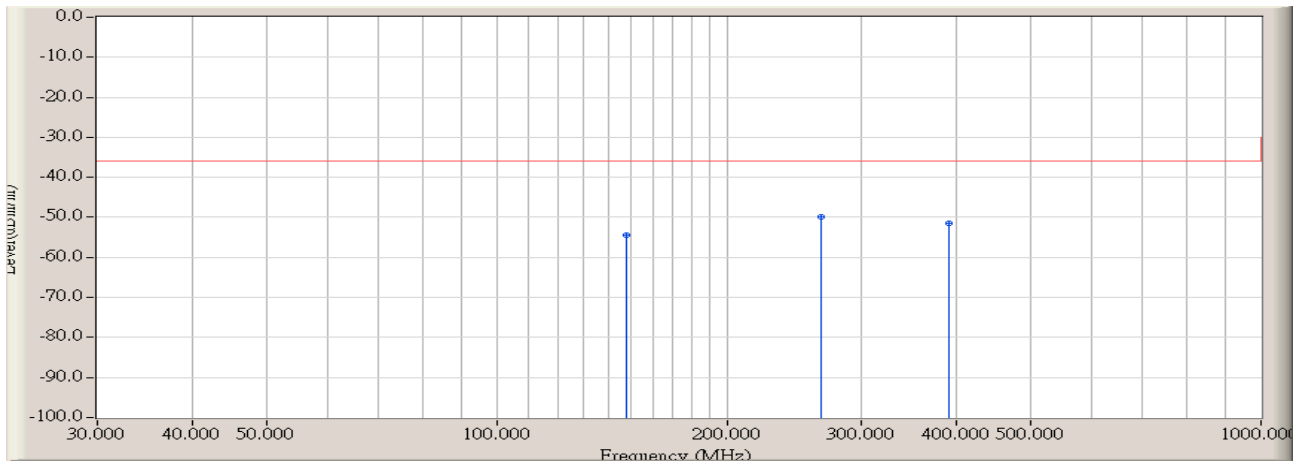
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		2997.500	9.350	-65.394	-56.044	-26.044	-30.000	PEAK
2	*	3212.917	10.676	-60.930	-50.254	-20.254	-30.000	PEAK
3		5993.750	16.590	-74.869	-58.279	-28.279	-30.000	PEAK

Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/16 - 17:52
Limit : ETSI_300328_Tx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(1-18GHz) - VERTICAL
Power : AC 230V/50Hz	Note : Model 2: Transmit by 802.11g at channel 2412MHz – chain 100



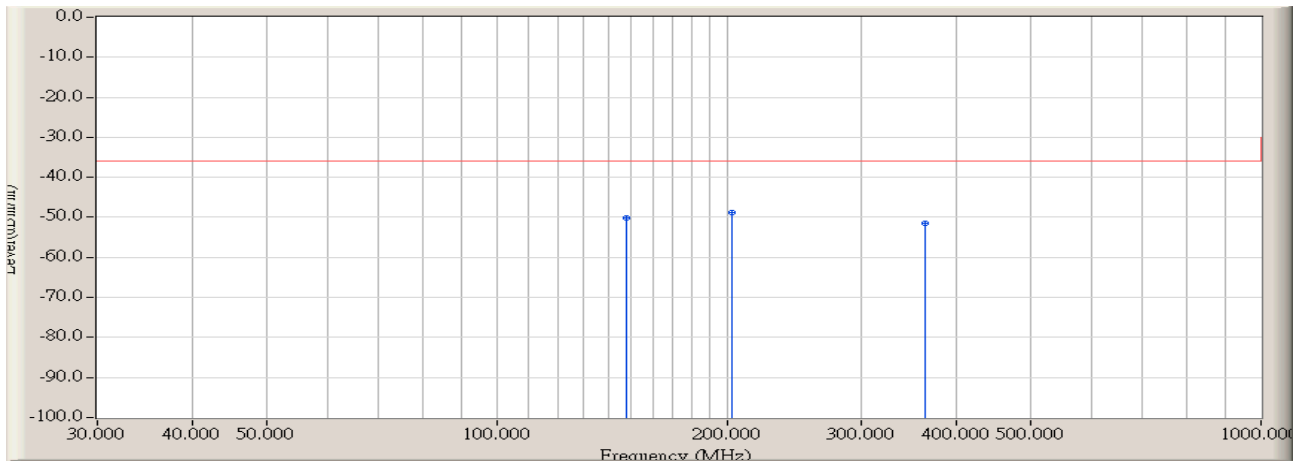
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		2821.250	9.647	-67.084	-57.437	-27.437	-30.000	PEAK
2	*	3212.917	10.911	-56.363	-45.452	-15.452	-30.000	PEAK
3		4818.750	15.044	-74.292	-59.248	-29.248	-30.000	PEAK

Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/17 - 10:50
Limit : ETSI_300328_Tx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(30-1000MHz) - HORIZONTAL
Power : AC 230V/50Hz	Note : Model 2: Transmit by 802.11g at channel 2472MHz – chain 100



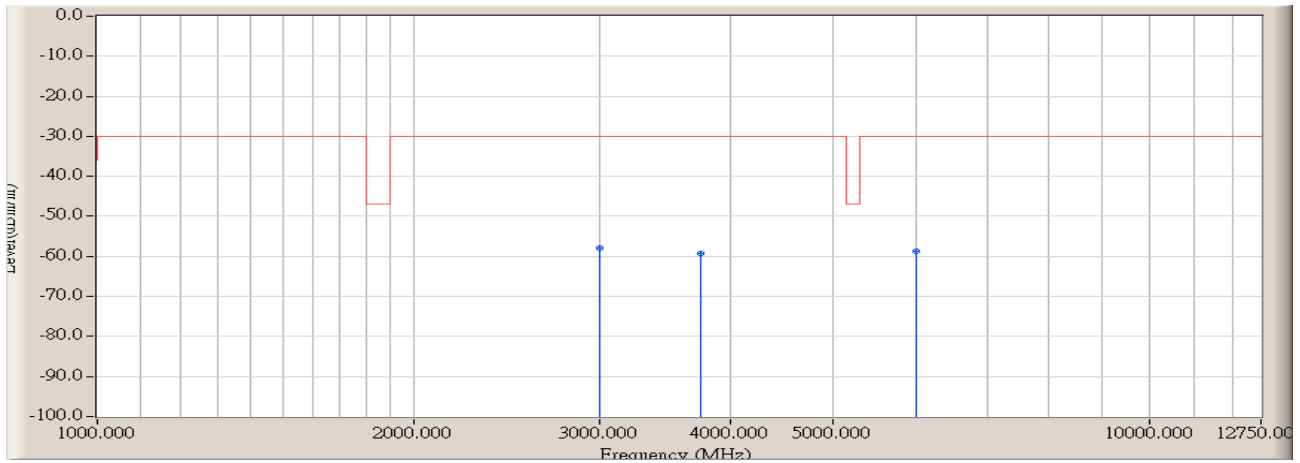
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		148.017	-1.043	-53.324	-54.367	-18.367	-36.000	PEAK
2	*	266.033	2.387	-52.123	-49.736	-13.736	-36.000	PEAK
3		390.517	5.270	-56.805	-51.535	-15.535	-36.000	PEAK

Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/17 - 10:51
Limit : ETSI_300328_Tx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(30-1000MHz) - VERTICAL
Power : AC 230V/50Hz	Note : Model 2: Transmit by 802.11g at channel 2472MHz – chain 100



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		148.017	0.610	-50.764	-50.154	-14.154	-36.000	PEAK
2	*	202.983	-0.447	-48.237	-48.684	-12.684	-36.000	PEAK
3		363.033	5.843	-57.196	-51.353	-15.353	-36.000	PEAK

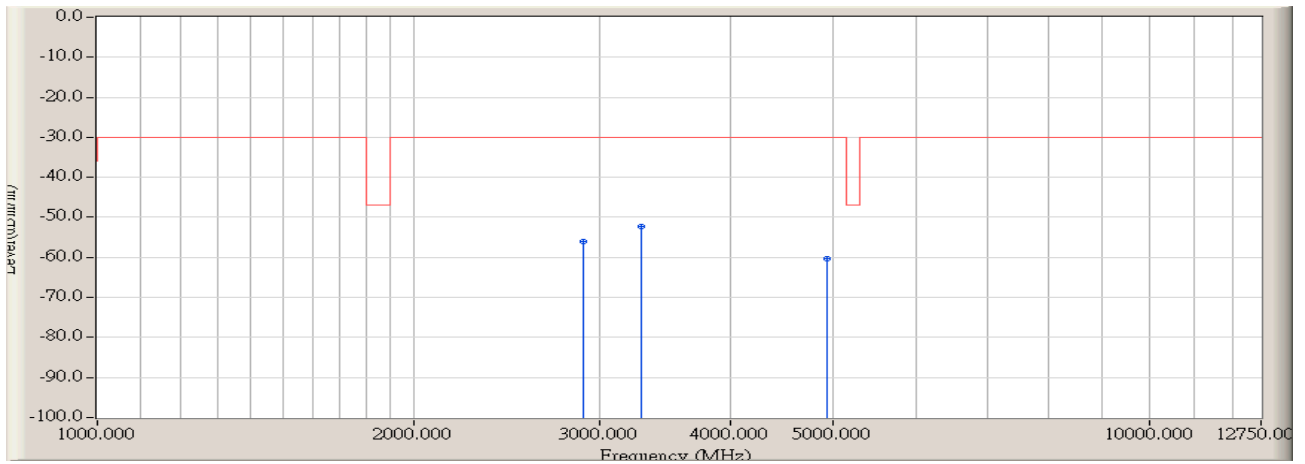
<b>Engineer : Jame</b>	
<b>Site : AC-4 (3m Fully-Anechoic Chamber)</b>	<b>Time : 2008/10/16 - 17:52</b>
<b>Limit : ETSI_300328_Tx_03M_PK</b>	<b>Margin : 0</b>
<b>EUT : Wireless-N Network Mini PCI Adapter</b>	<b>Probe : RF_Substitution(1-18GHz) - HORIZONTAL</b>
<b>Power : AC 230V/50Hz</b>	<b>Note : Model 2: Transmit by 802.11g at channel 2472MHz – chain 100</b>



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1	*	2997.500	9.350	-67.200	-57.850	-27.850	-30.000	PEAK
2		3741.667	11.390	-70.740	-59.350	-29.350	-30.000	PEAK
3		5993.750	16.590	-75.392	-58.802	-28.802	-30.000	PEAK

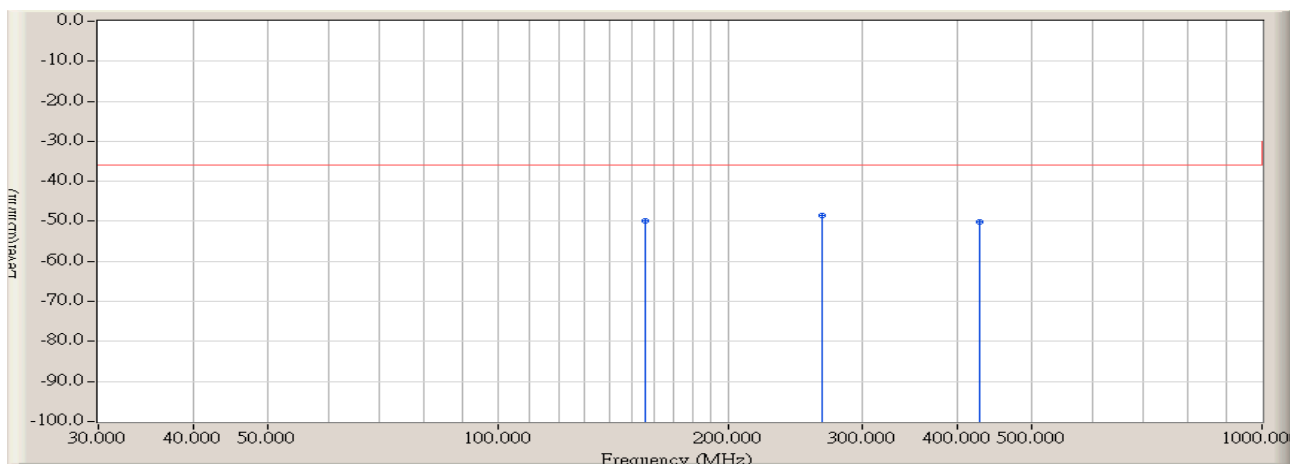


Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/16 - 17:52
Limit : ETSI_300328_Tx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(1-18GHz) - VERTICAL
Power : AC 230V/50Hz	Note : Model 2: Transmit by 802.11g at channel 2472MHz – chain 100



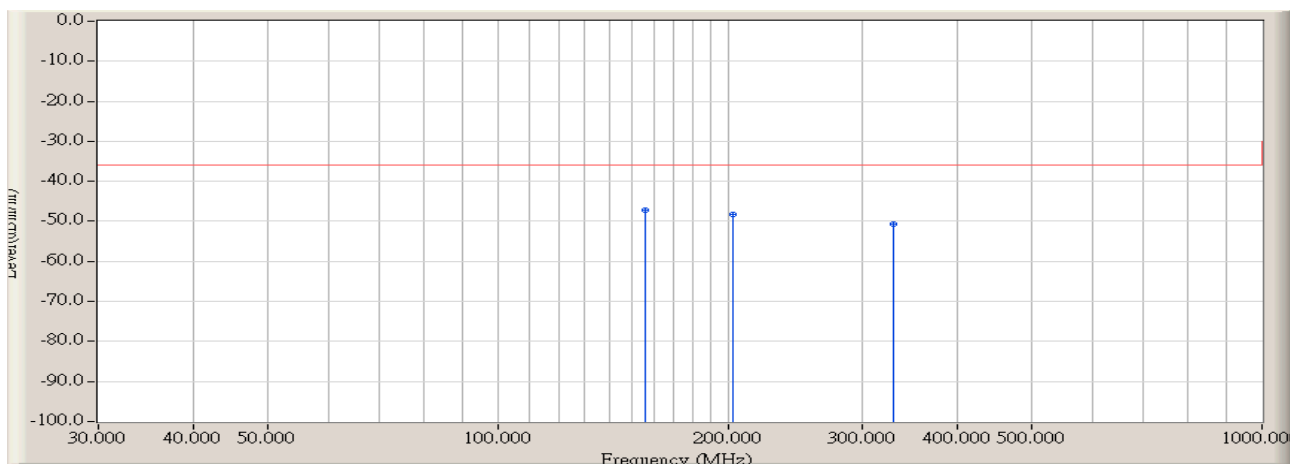
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		2899.583	9.668	-65.582	-55.914	-25.914	-30.000	PEAK
2	*	3291.250	10.306	-62.464	-52.158	-22.158	-30.000	PEAK
3		4936.250	14.606	-74.817	-60.211	-30.211	-30.000	PEAK

Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/17 - 10:51
Limit : ETSI_300328_Tx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(30-1000MHz) - HORIZONTAL
Power : AC 230V/50Hz	Note : Model 3: Transmit by 802.11n(20MHz) at channel 2412MHz – chain 100



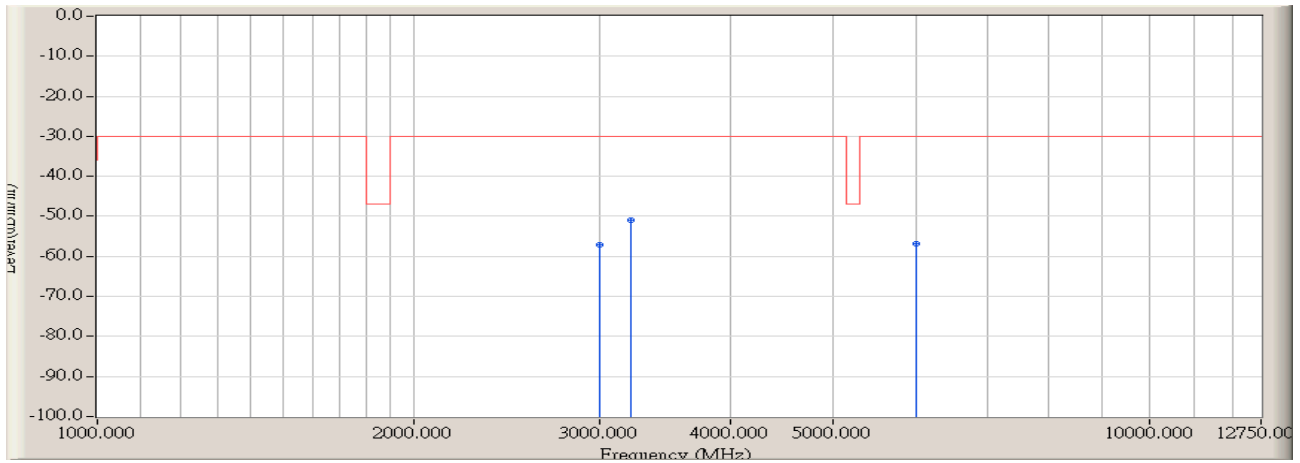
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		156.100	-0.230	-49.621	-49.851	-13.851	-36.000	PEAK
2	*	266.033	2.387	-50.918	-48.531	-12.531	-36.000	PEAK
3		426.083	5.803	-55.978	-50.175	-14.175	-36.000	PEAK

Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/17 - 10:51
Limit : ETSI_300328_Tx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(30-1000MHz) - VERTICAL
Power : AC 230V/50Hz	Note : Model 3: Transmit by 802.11n(20MHz) at channel 2412MHz – chain 100



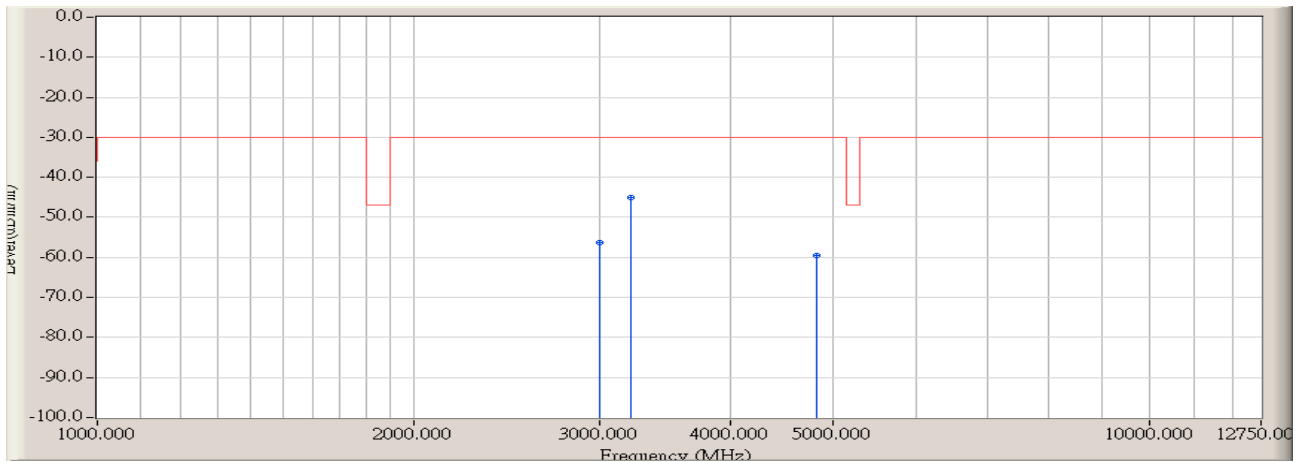
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1	*	156.100	1.700	-48.984	-47.284	-11.284	-36.000	PEAK
2		202.983	-0.447	-47.748	-48.195	-12.195	-36.000	PEAK
3		329.083	4.197	-54.773	-50.576	-14.576	-36.000	PEAK

Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/16 - 17:52
Limit : ETSI_300328_Tx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(1-18GHz) - HORIZONTAL
Power : AC 230V/50Hz	Note : Model 3: Transmit by 802.11n(20MHz) at channel 2412MHz – chain 100



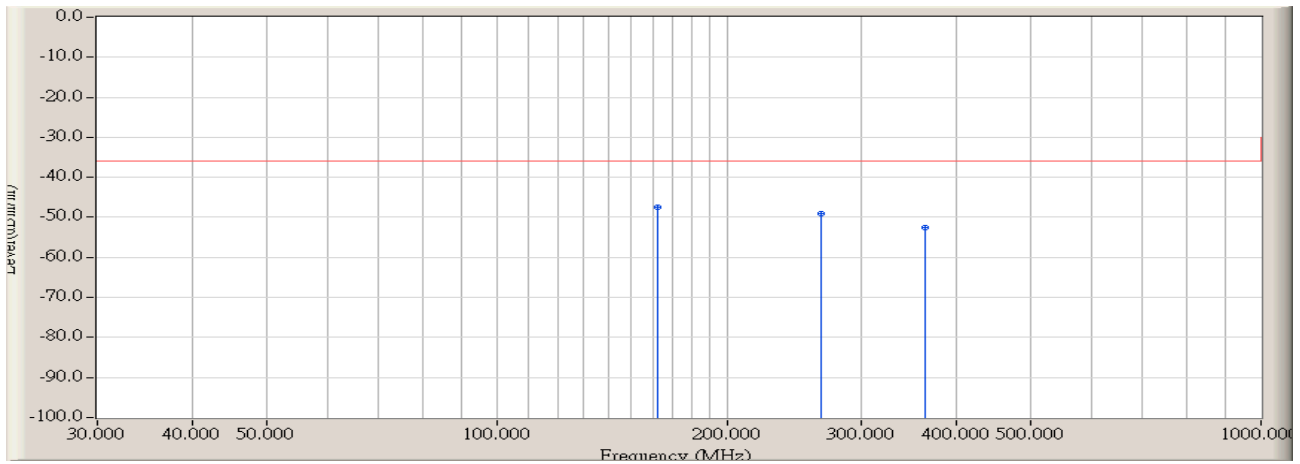
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		2997.500	9.350	-66.498	-57.148	-27.148	-30.000	PEAK
2	*	3212.917	10.676	-61.601	-50.925	-20.925	-30.000	PEAK
3		5993.750	16.590	-73.318	-56.728	-26.728	-30.000	PEAK

Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/16 - 17:52
Limit : ETSI_300328_Tx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(1-18GHz) - VERTICAL
Power : AC 230V/50Hz	Note : Model 3: Transmit by 802.11n(20MHz) at channel 2412MHz – chain 100



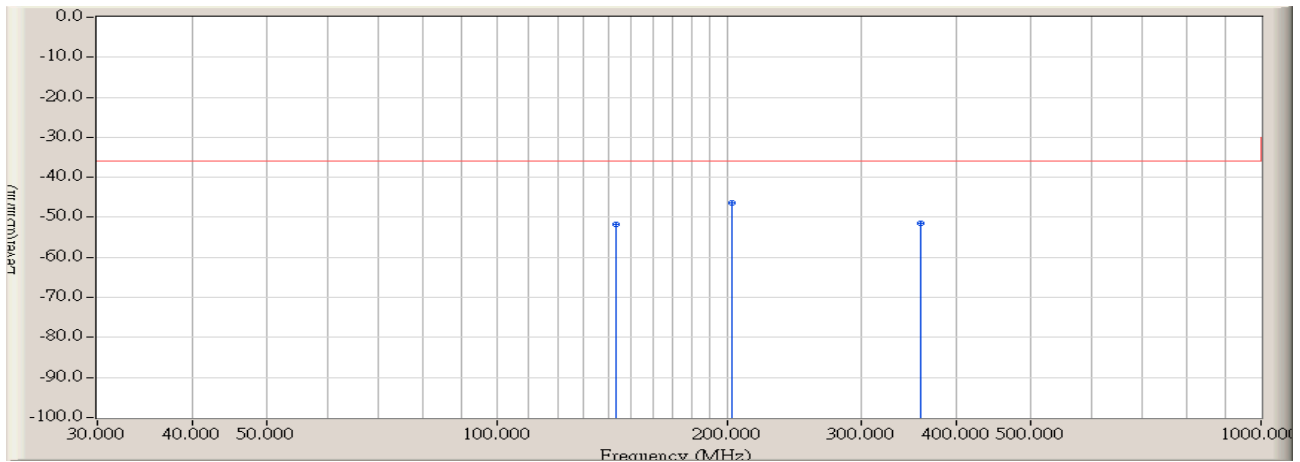
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		2997.500	9.040	-65.230	-56.190	-26.190	-30.000	PEAK
2	*	3212.917	10.911	-56.025	-45.114	-15.114	-30.000	PEAK
3		4818.750	15.044	-74.681	-59.637	-29.637	-30.000	PEAK

Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/17 - 10:52
Limit : ETSI_300328_Tx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(30-1000MHz) - HORIZONTAL
Power : AC 230V/50Hz	Note : Model 3: Transmit by 802.11n(20MHz) at channel 2472MHz – chain 100



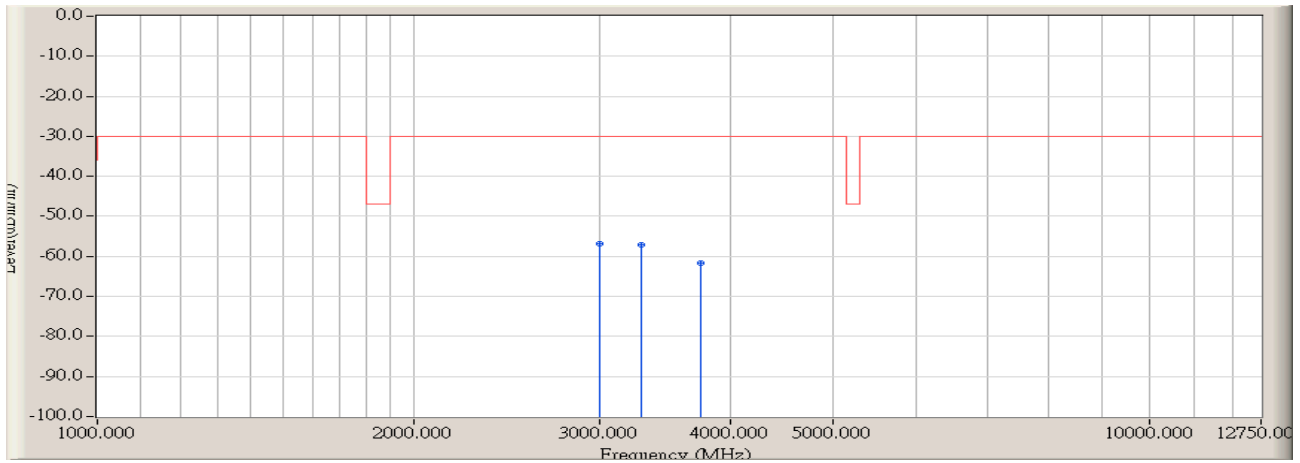
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1	*	162.567	-0.040	-47.409	-47.449	-11.449	-36.000	PEAK
2		266.033	2.387	-51.503	-49.116	-13.116	-36.000	PEAK
3		363.033	4.540	-57.021	-52.481	-16.481	-36.000	PEAK

Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/17 - 10:52
Limit : ETSI_300328_Tx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(30-1000MHz) - VERTICAL
Power : AC 230V/50Hz	Note : Model 3: Transmit by 802.11n(20MHz) at channel 2472MHz – chain 100



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		143.167	-0.170	-51.578	-51.748	-15.748	-36.000	PEAK
2	*	202.983	-0.447	-46.036	-46.483	-10.483	-36.000	PEAK
3		358.183	5.607	-56.990	-51.383	-15.383	-36.000	PEAK

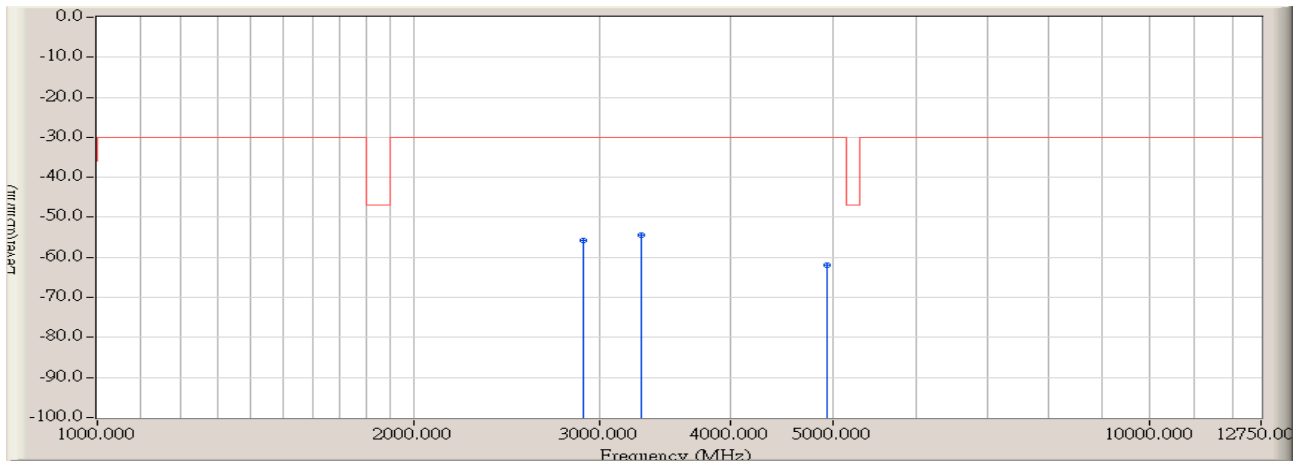
<b>Engineer : Jame</b>	
<b>Site : AC-4 (3m Fully-Anechoic Chamber)</b>	<b>Time : 2008/10/16 - 17:52</b>
<b>Limit : ETSI_300328_Tx_03M_PK</b>	<b>Margin : 0</b>
<b>EUT : Wireless-N Network Mini PCI Adapter</b>	<b>Probe : RF_Substitution(1-18GHz) - HORIZONTAL</b>
<b>Power : AC 230V/50Hz</b>	<b>Note : Model 3: Transmit by 802.11n(20MHz) at channel 2472MHz – chain 100</b>



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1	*	2997.500	9.350	-66.316	-56.966	-26.966	-30.000	PEAK
2		3291.250	10.353	-67.486	-57.133	-27.133	-30.000	PEAK
3		3741.667	11.390	-73.007	-61.617	-31.617	-30.000	PEAK

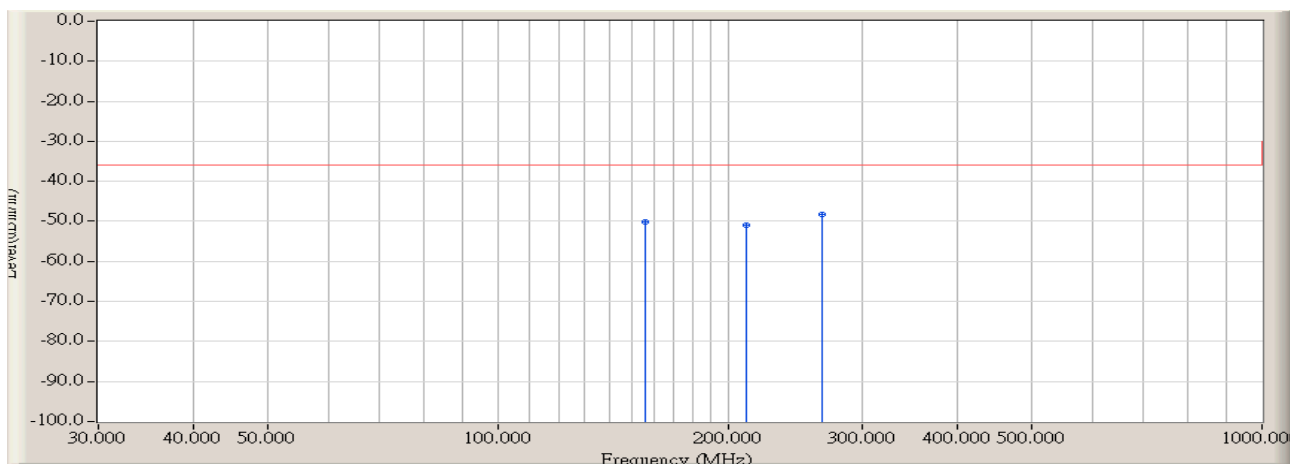


Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/16 - 17:52
Limit : ETSI_300328_Tx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(1-18GHz) - VERTICAL
Power : AC 230V/50Hz	Note : Model 3: Transmit by 802.11n(20MHz) at channel 2472MHz – chain 100



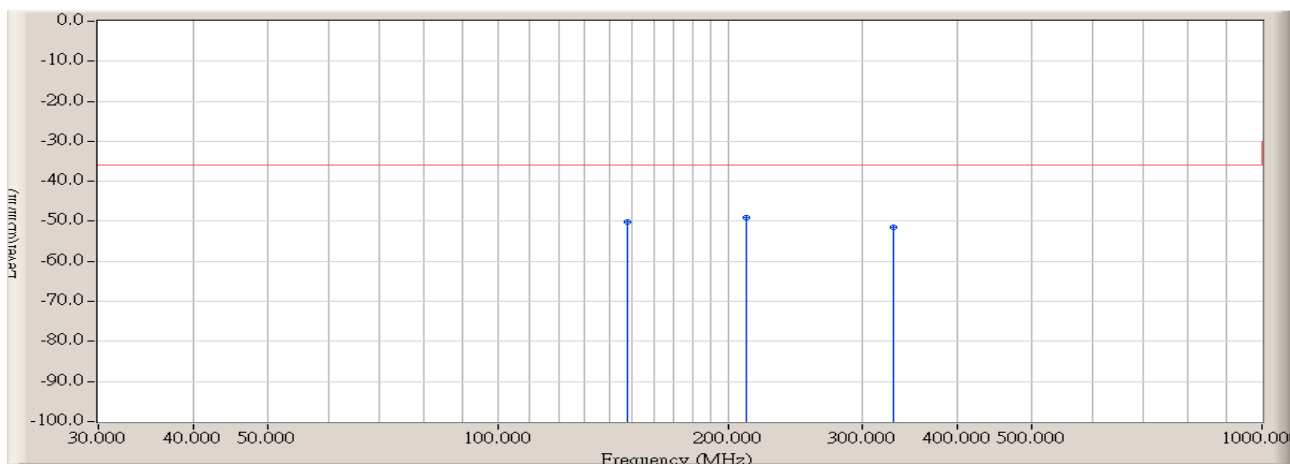
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		2899.583	9.668	-65.352	-55.684	-25.684	-30.000	PEAK
2	*	3291.250	10.306	-64.666	-54.360	-24.360	-30.000	PEAK
3		4936.250	14.606	-76.475	-61.869	-31.869	-30.000	PEAK

Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/17 - 10:52
Limit : ETSI_300328_Tx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(30-1000MHz) - HORIZONTAL
Power : AC 230V/50Hz	Note : Model 4: Transmit by 802.11n(40MHz) at channel 2422MHz – chain 100



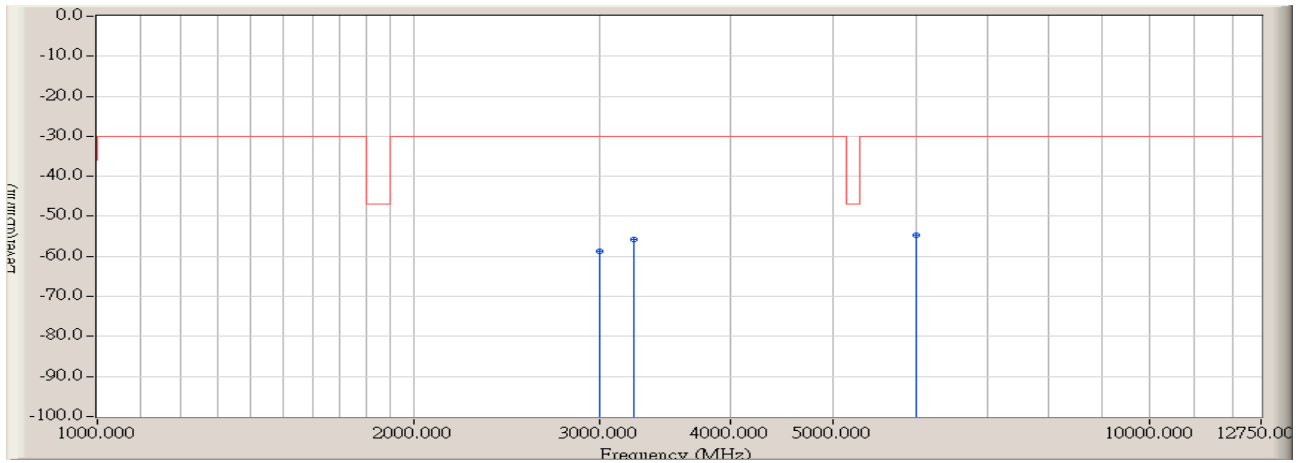
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		156.100	-0.230	-49.991	-50.221	-14.221	-36.000	PEAK
2		211.067	-1.360	-49.698	-51.058	-15.058	-36.000	PEAK
3	*	266.033	2.387	-50.776	-48.389	-12.389	-36.000	PEAK

Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/17 - 10:52
Limit : ETSI_300328_Tx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(30-1000MHz) - VERTICAL
Power : AC 230V/50Hz	Note : Model 4: Transmit by 802.11n(40MHz) at channel 2422MHz – chain 100



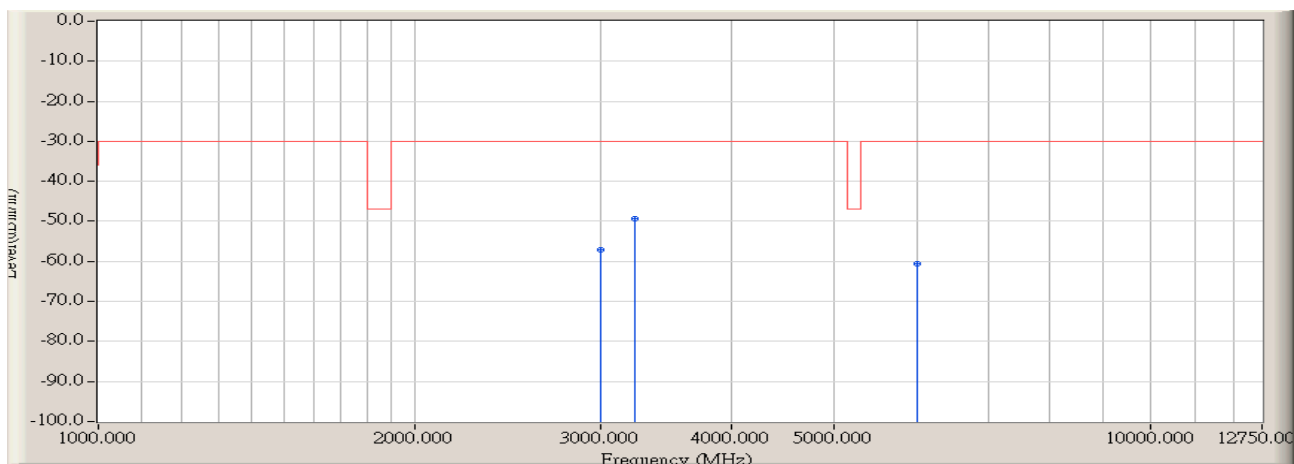
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		148.017	0.610	-50.873	-50.263	-14.263	-36.000	PEAK
2	*	211.067	-0.363	-48.746	-49.109	-13.109	-36.000	PEAK
3		329.083	4.197	-55.542	-51.345	-15.345	-36.000	PEAK

Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/16 - 17:52
Limit : ETSI_300328_Tx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(1-18GHz) - HORIZONTAL
Power : AC 230V/50Hz	Note : Model 4: Transmit by 802.11n(40MHz) at channel 2422MHz – chain 100



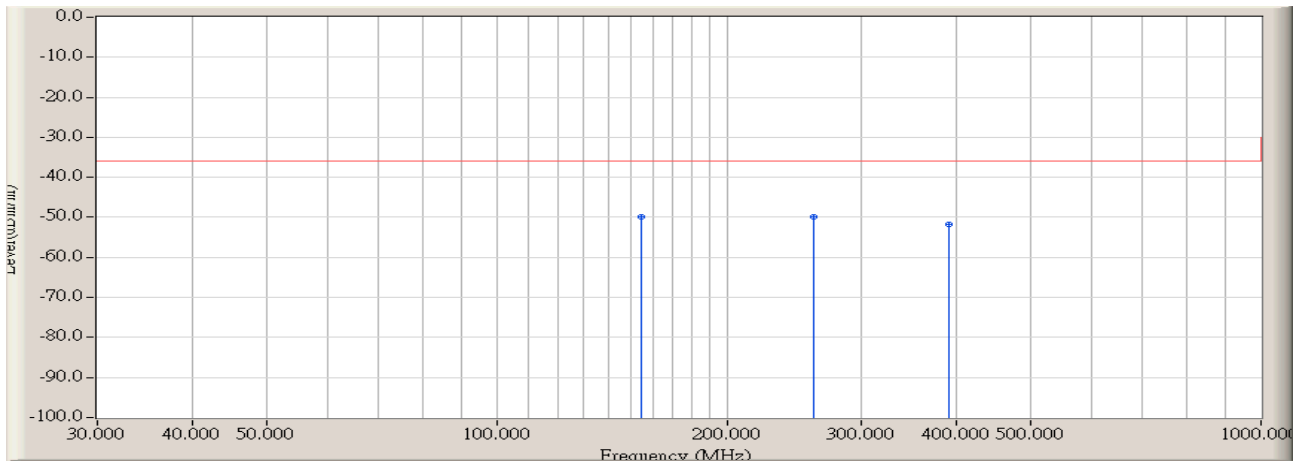
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		2997.500	9.350	-68.120	-58.770	-28.770	-30.000	PEAK
2		3232.500	10.587	-66.398	-55.811	-25.811	-30.000	PEAK
3	*	5993.750	16.590	-71.381	-54.791	-24.791	-30.000	PEAK

Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/16 - 17:53
Limit : ETSI_300328_Tx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(1-18GHz) - VERTICAL
Power : AC 230V/50Hz	Note : Model 4: Transmit by 802.11n(40MHz) at channel 2422MHz – chain 100



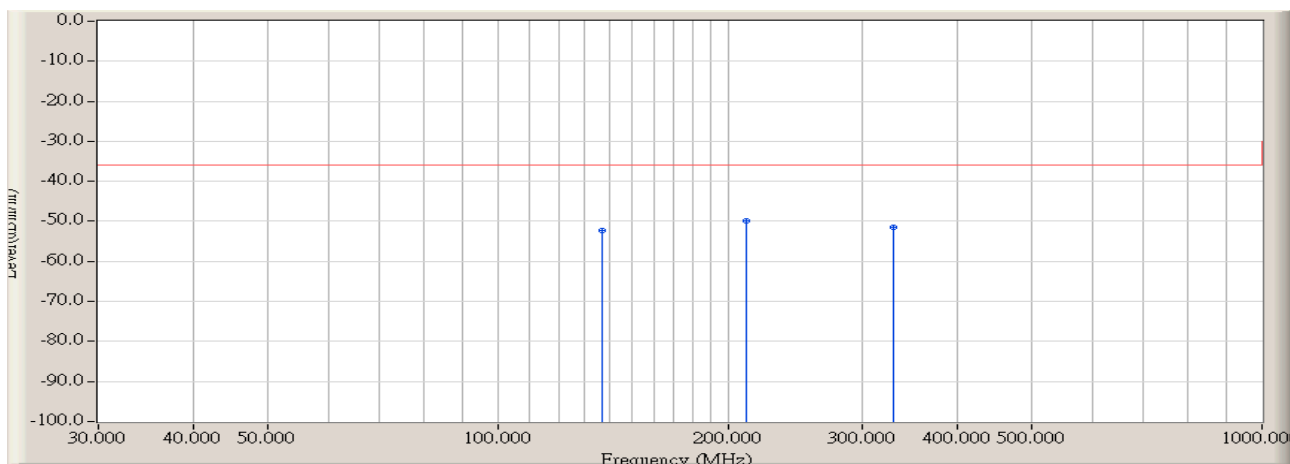
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		2997.500	9.040	-66.017	-56.977	-26.977	-30.000	PEAK
2	*	3232.500	10.857	-60.316	-49.459	-19.459	-30.000	PEAK
3		5993.750	16.730	-77.294	-60.564	-30.564	-30.000	PEAK

Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/17 - 10:52
Limit : ETSI_300328_Tx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(30-1000MHz) - HORIZONTAL
Power : AC 230V/50Hz	Note : Model 4: Transmit by 802.11n(40MHz) at channel 2452MHz – chain 100



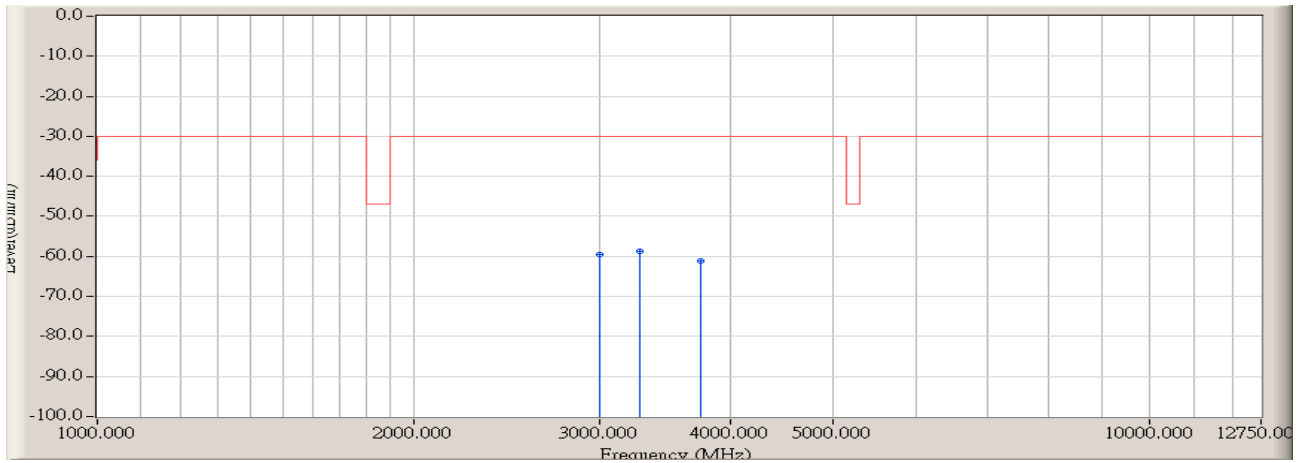
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1	*	154.483	-0.370	-49.400	-49.770	-13.770	-36.000	PEAK
2		259.567	2.297	-52.143	-49.846	-13.846	-36.000	PEAK
3		390.517	5.270	-56.920	-51.650	-15.650	-36.000	PEAK

Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/17 - 10:52
Limit : ETSI_300328_Tx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(30-1000MHz) - VERTICAL
Power : AC 230V/50Hz	Note : Model 4: Transmit by 802.11n(40MHz) at channel 2452MHz – chain 100



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		136.700	-0.650	-51.755	-52.405	-16.405	-36.000	PEAK
2	*	211.067	-0.363	-49.531	-49.894	-13.894	-36.000	PEAK
3		329.083	4.197	-55.657	-51.460	-15.460	-36.000	PEAK

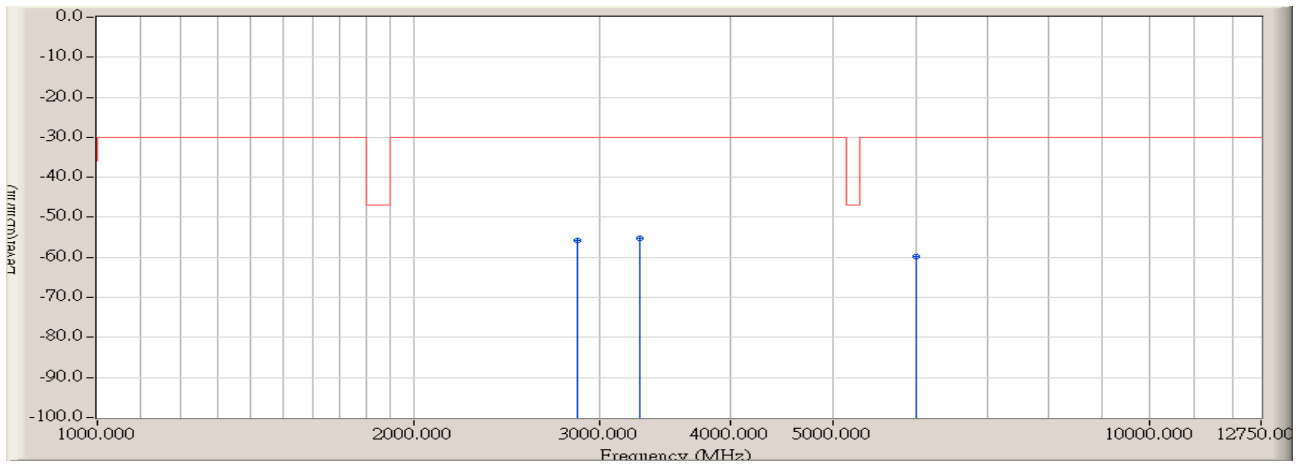
<b>Engineer : Jame</b>	
<b>Site : AC-4 (3m Fully-Anechoic Chamber)</b>	<b>Time : 2008/10/16 - 17:53</b>
<b>Limit : ETSI_300328_Tx_03M_PK</b>	<b>Margin : 0</b>
<b>EUT : Wireless-N Network Mini PCI Adapter</b>	<b>Probe : RF_Substitution(1-18GHz) - HORIZONTAL</b>
<b>Power : AC 230V/50Hz</b>	<b>Note : Model 4: Transmit by 802.11n(40MHz) at channel 2452MHz – chain 100</b>



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		2997.500	9.350	-68.965	-59.615	-29.615	-30.000	PEAK
2	*	3271.667	10.426	-69.127	-58.701	-28.701	-30.000	PEAK
3		3741.667	11.390	-72.438	-61.048	-31.048	-30.000	PEAK

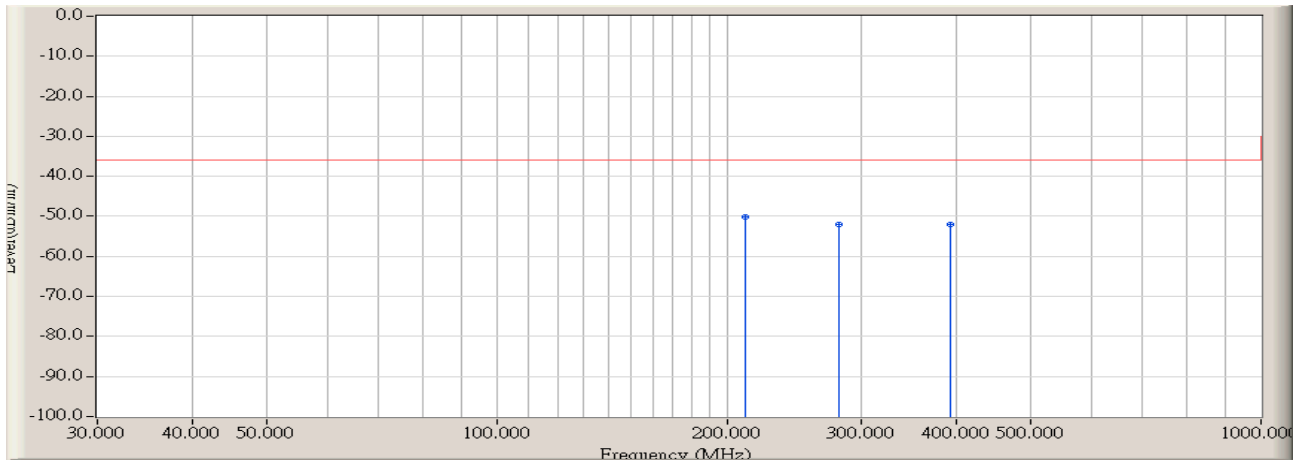


Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/16 - 17:53
Limit : ETSI_300328_Tx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(1-18GHz) - VERTICAL
Power : AC 230V/50Hz	Note : Model 4: Transmit by 802.11n(40MHz) at channel 2452MHz – chain 100



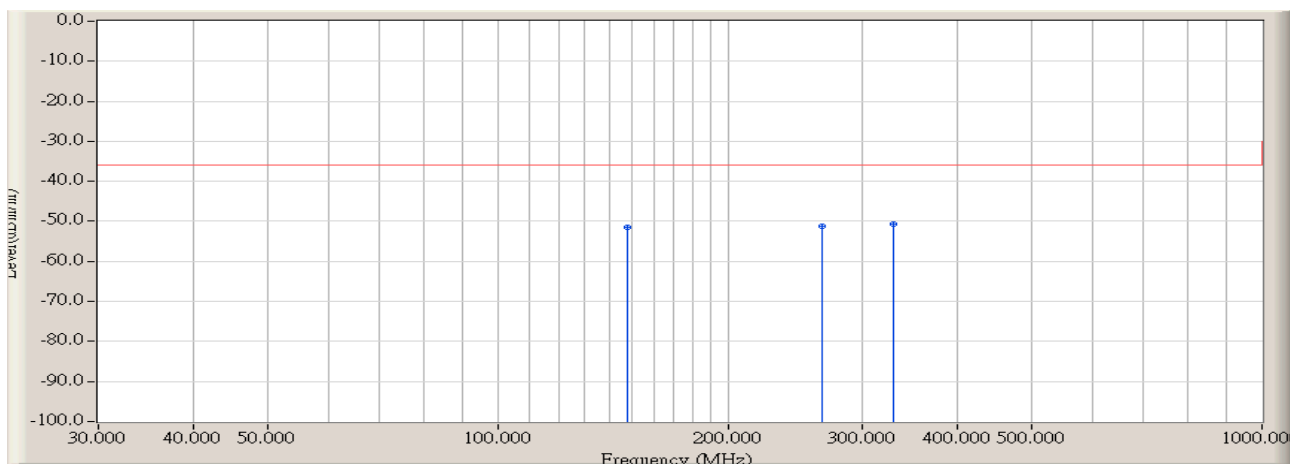
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		2860.417	9.721	-65.501	-55.780	-25.780	-30.000	PEAK
2	*	3271.667	10.548	-65.820	-55.272	-25.272	-30.000	PEAK
3		5993.750	16.730	-76.553	-59.823	-29.823	-30.000	PEAK

Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/17 - 11:08
Limit : ETSI_300328_Tx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(30-1000MHz) - HORIZONTAL
Power : AC 230V/50Hz	Note : Model 3: Transmit by 802.11n(20MHz) at channel 2412MHz - chain 110



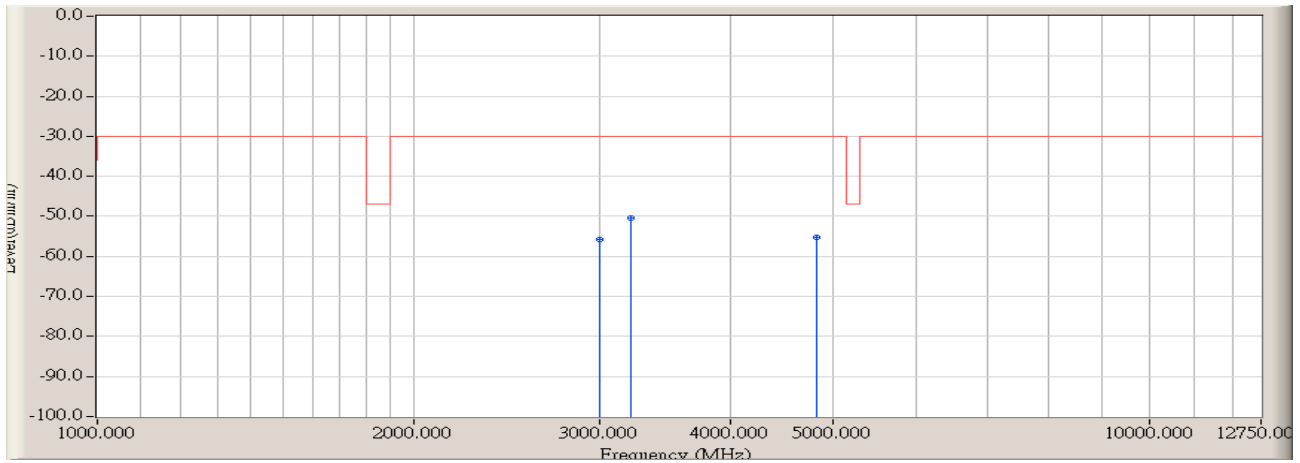
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1	*	211.067	-1.360	-48.899	-50.259	-14.259	-36.000	PEAK
2		280.583	2.593	-54.566	-51.973	-15.973	-36.000	PEAK
3		392.133	5.310	-57.326	-52.016	-16.016	-36.000	PEAK

Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/17 - 11:08
Limit : ETSI_300328_Tx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(30-1000MHz) - VERTICAL
Power : AC 230V/50Hz	Note : Model 3: Transmit by 802.11n(20MHz) at channel 2412MHz - chain 110



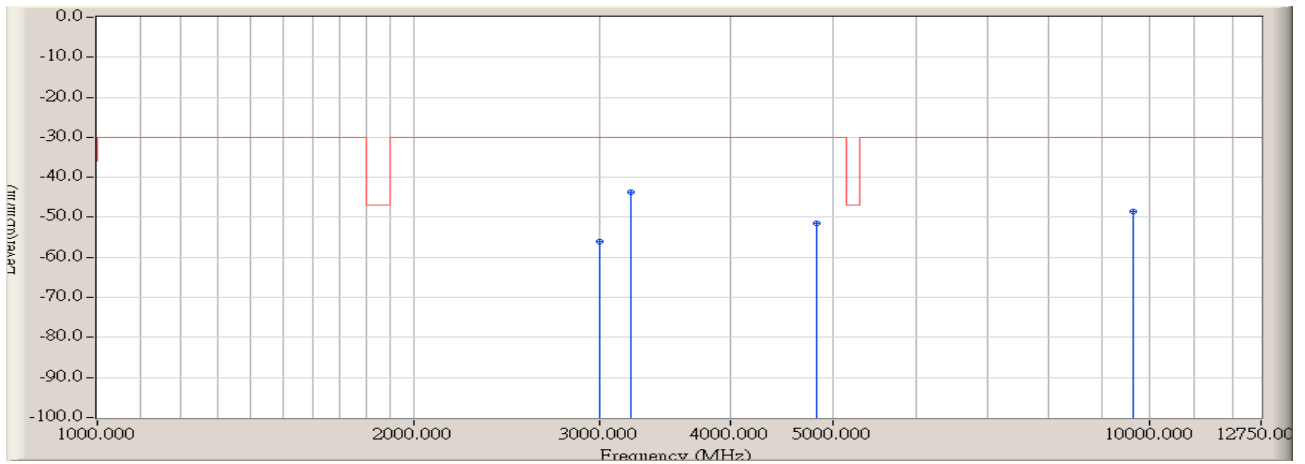
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		148.017	0.610	-52.154	-51.544	-15.544	-36.000	PEAK
2		266.033	0.937	-52.107	-51.170	-15.170	-36.000	PEAK
3	*	329.083	4.197	-54.773	-50.576	-14.576	-36.000	PEAK

Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/17 - 10:04
Limit : ETSI_300328_Tx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(1-18GHz) - HORIZONTAL
Power : AC 230V/50Hz	Note : Model 3: Transmit by 802.11n(20MHz) at channel 2412MHz - chain 110



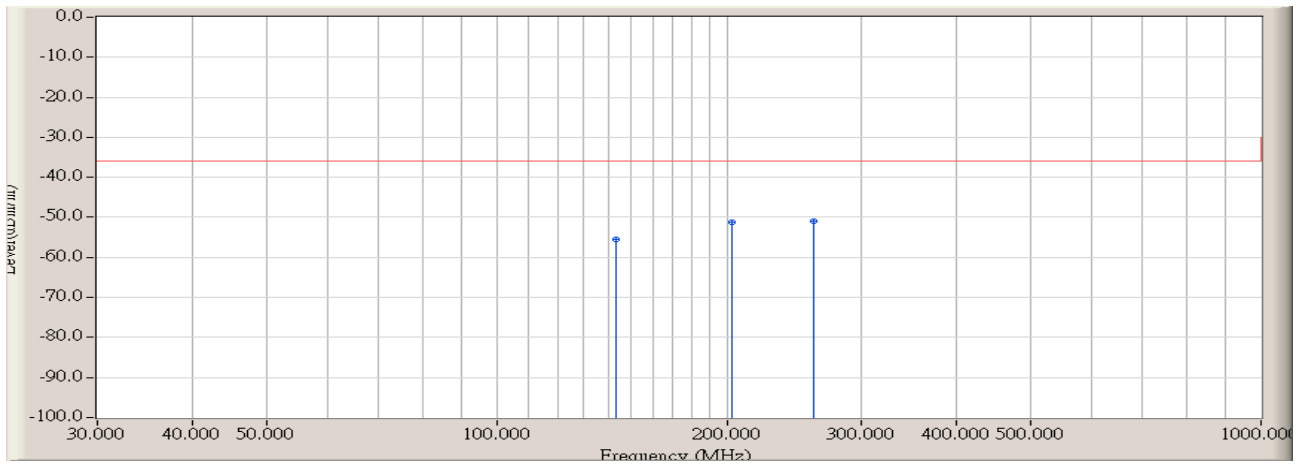
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		2997.500	9.350	-65.069	-55.719	-25.719	-30.000	PEAK
2	*	3212.917	10.676	-61.142	-50.466	-20.466	-30.000	PEAK
3		4818.750	15.001	-70.106	-55.105	-25.105	-30.000	PEAK

Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/17 - 10:04
Limit : ETSI_300328_Tx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(1-18GHz) - VERTICAL
Power : AC 230V/50Hz	Note : Model 3: Transmit by 802.11n(20MHz) at channel 2412MHz - chain 110



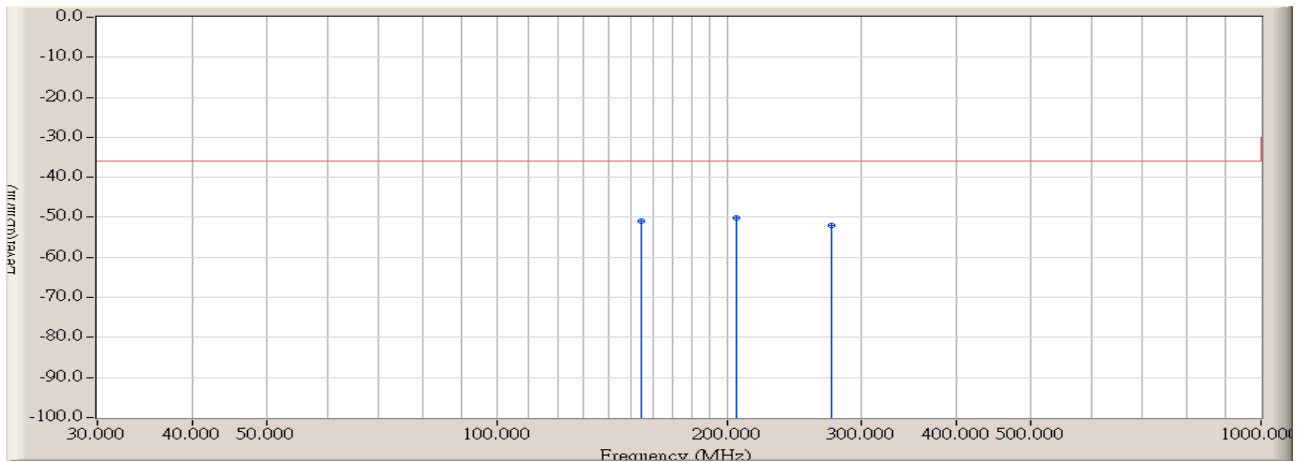
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		2997.500	9.040	-65.160	-56.120	-26.120	-30.000	PEAK
2	*	3212.917	10.911	-54.587	-43.676	-13.676	-30.000	PEAK
3		4818.750	15.044	-66.465	-51.421	-21.421	-30.000	PEAK
4		9655.833	24.775	-73.381	-48.606	-18.606	-30.000	PEAK

Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/17 - 11:08
Limit : ETSI_300328_Tx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(30-1000MHz) - HORIZONTAL
Power : AC 230V/50Hz	Note : Model 3: Transmit by 802.11n(20MHz) at channel 2472MHz - chain 110



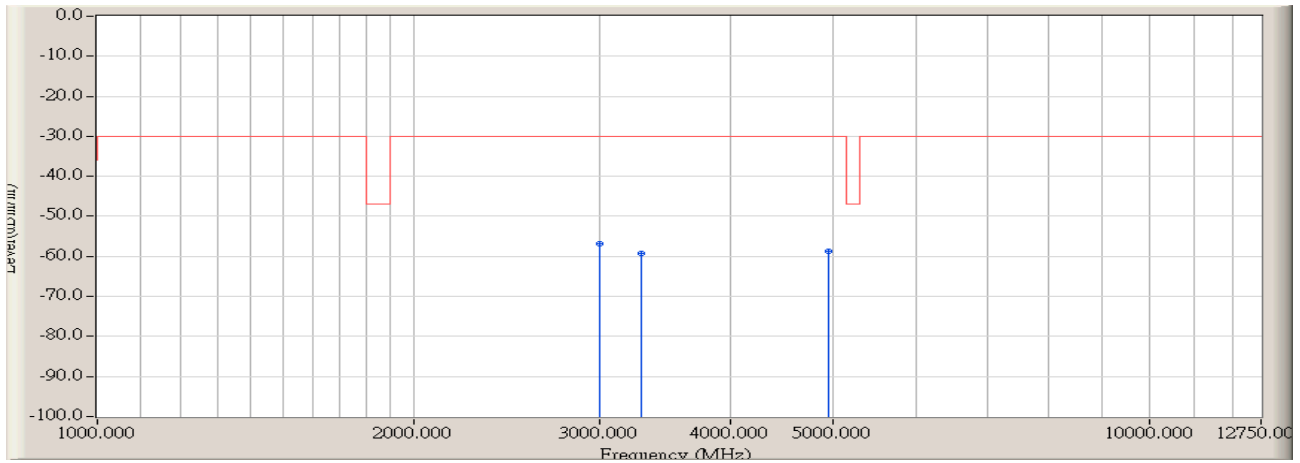
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		143.167	-1.703	-53.846	-55.549	-19.549	-36.000	PEAK
2		202.983	-2.090	-49.057	-51.147	-15.147	-36.000	PEAK
3	*	259.567	2.297	-53.219	-50.922	-14.922	-36.000	PEAK

Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/17 - 11:09
Limit : ETSI_300328_Tx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(30-1000MHz) - VERTICAL
Power : AC 230V/50Hz	Note : Model 3: Transmit by 802.11n(20MHz) at channel 2472MHz - chain 110



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		154.483	1.493	-52.316	-50.823	-14.823	-36.000	PEAK
2	*	206.217	-0.413	-49.753	-50.166	-14.166	-36.000	PEAK
3		274.117	1.373	-53.320	-51.947	-15.947	-36.000	PEAK

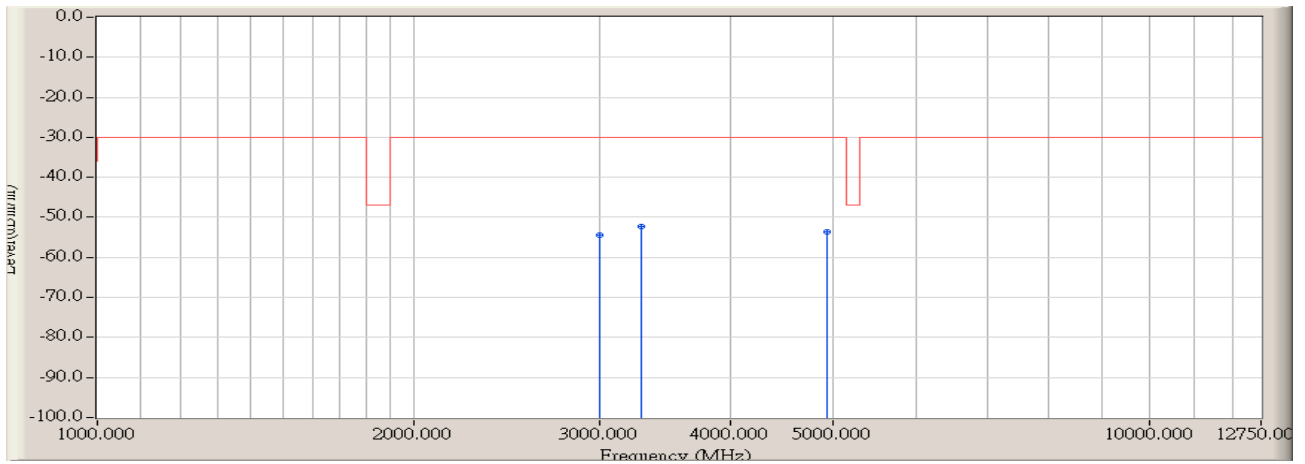
Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/17 - 10:04
Limit : ETSI_300328_Tx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(1-18GHz) - HORIZONTAL
Power : AC 230V/50Hz	Note : Model 3: Transmit by 802.11n(20MHz) at channel 2472MHz - chain 110



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1	*	2997.500	9.350	-66.070	-56.720	-26.720	-30.000	PEAK
2		3291.250	10.353	-69.637	-59.284	-29.284	-30.000	PEAK
3		4955.833	14.662	-73.396	-58.734	-28.734	-30.000	PEAK

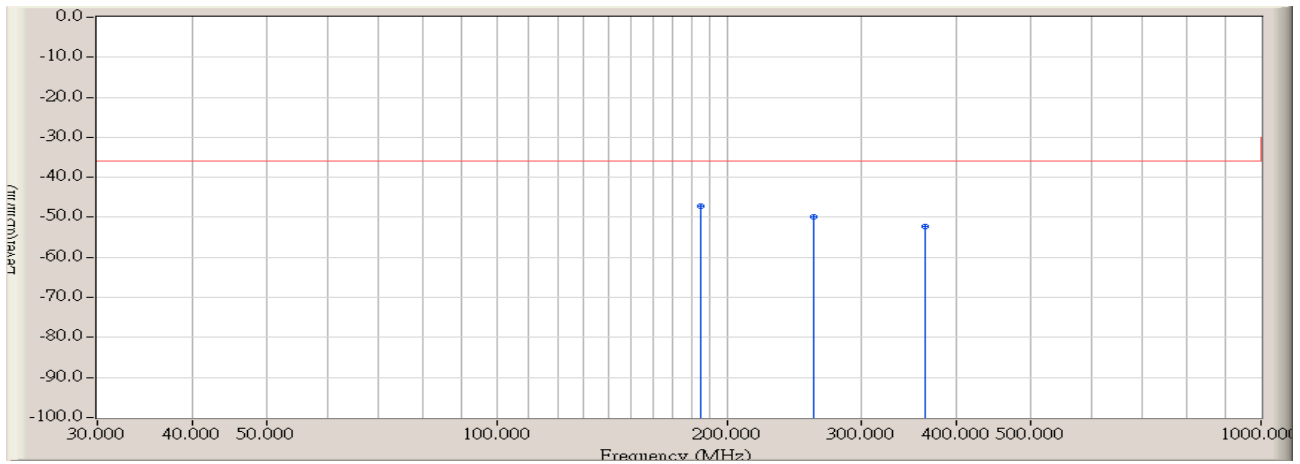


Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/17 - 10:04
Limit : ETSI_300328_Tx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(1-18GHz) - VERTICAL
Power : AC 230V/50Hz	Note : Model 3: Transmit by 802.11n(20MHz) at channel 2472MHz - chain 110



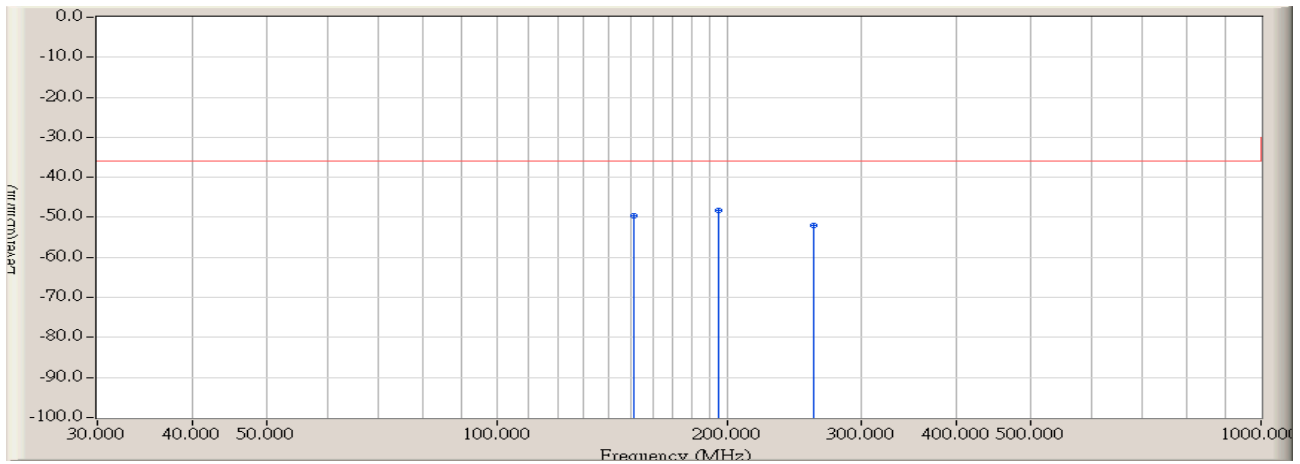
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		2997.500	9.040	-63.356	-54.316	-24.316	-30.000	PEAK
2	*	3291.250	10.306	-62.660	-52.354	-22.354	-30.000	PEAK
3		4936.250	14.606	-68.149	-53.543	-23.543	-30.000	PEAK

Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/17 - 11:09
Limit : ETSI_300328_Tx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(30-1000MHz) - HORIZONTAL
Power : AC 230V/50Hz	Note : Model 4: Transmit by 802.11n(40MHz) at channel 2422MHz - chain 110



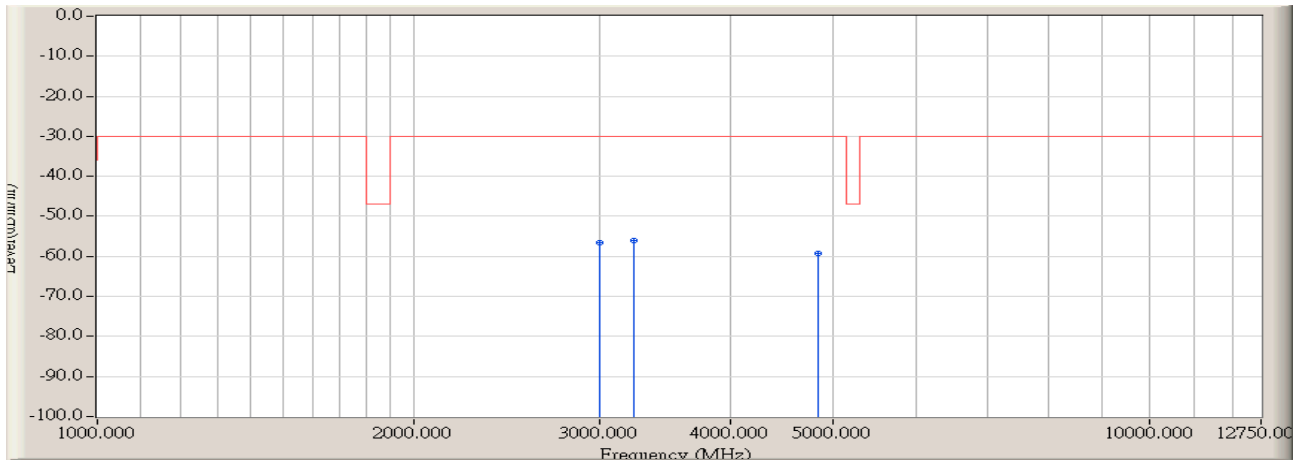
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1	*	185.200	-1.850	-45.256	-47.106	-11.106	-36.000	PEAK
2		259.567	2.297	-52.207	-49.910	-13.910	-36.000	PEAK
3		363.033	4.540	-56.942	-52.402	-16.402	-36.000	PEAK

Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/17 - 11:09
Limit : ETSI_300328_Tx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(30-1000MHz) - VERTICAL
Power : AC 230V/50Hz	Note : Model 4: Transmit by 802.11n(40MHz) at channel 2422MHz - chain 110



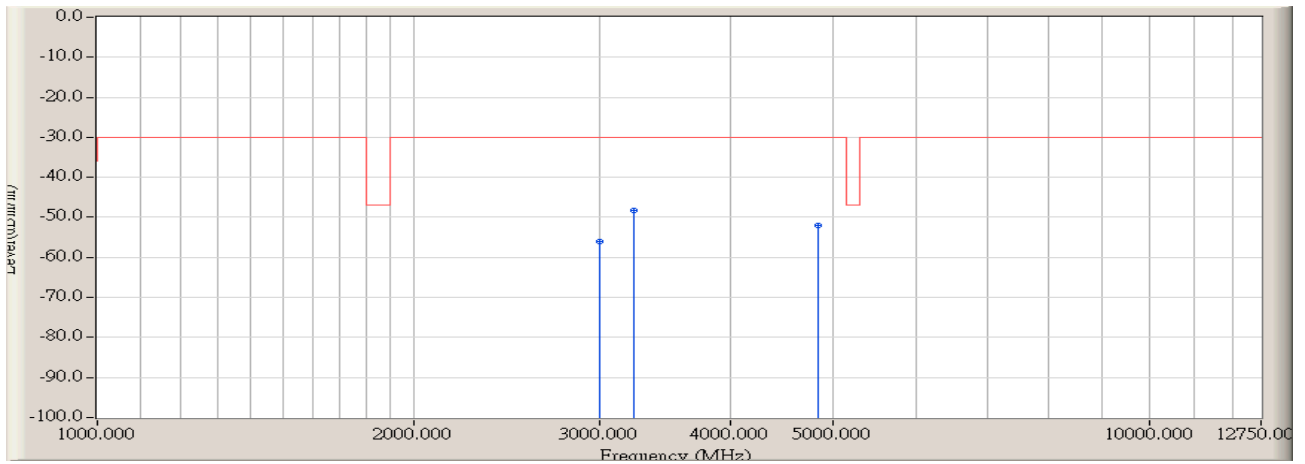
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		151.250	1.090	-50.649	-49.559	-13.559	-36.000	PEAK
2	*	194.900	-0.410	-47.787	-48.197	-12.197	-36.000	PEAK
3		259.567	0.583	-52.529	-51.946	-15.946	-36.000	PEAK

Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/17 - 10:04
Limit : ETSI_300328_Tx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(1-18GHz) - HORIZONTAL
Power : AC 230V/50Hz	Note : Model 4: Transmit by 802.11n(40MHz) at channel 2422MHz - chain 110



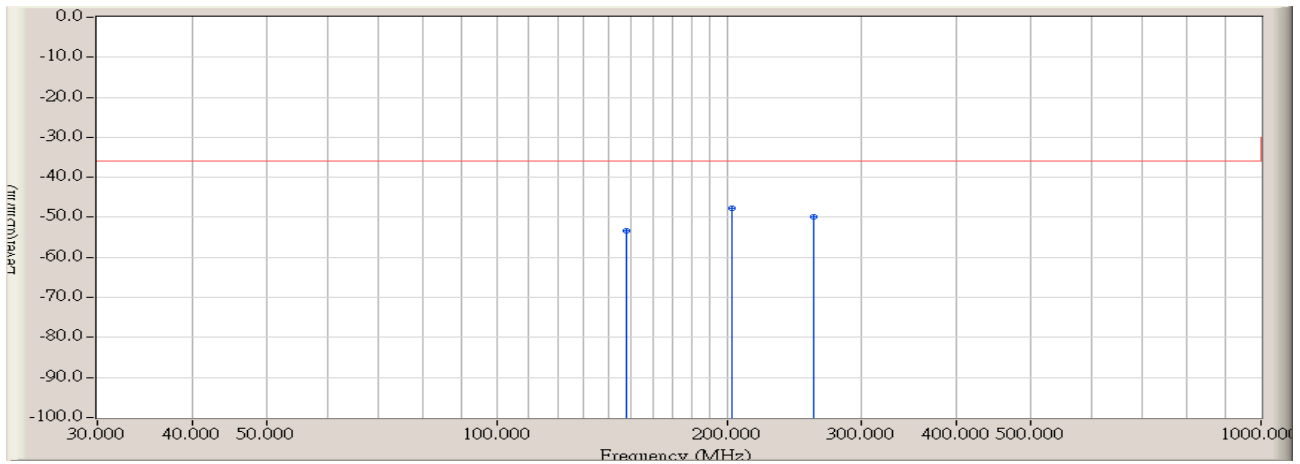
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		2997.500	9.350	-65.922	-56.572	-26.572	-30.000	PEAK
2	*	3232.500	10.587	-66.520	-55.933	-25.933	-30.000	PEAK
3		4838.333	14.840	-74.074	-59.234	-29.234	-30.000	PEAK

Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/17 - 10:04
Limit : ETSI_300328_Tx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(1-18GHz) - VERTICAL
Power : AC 230V/50Hz	Note : Model 4: Transmit by 802.11n(40MHz) at channel 2422MHz - chain 110



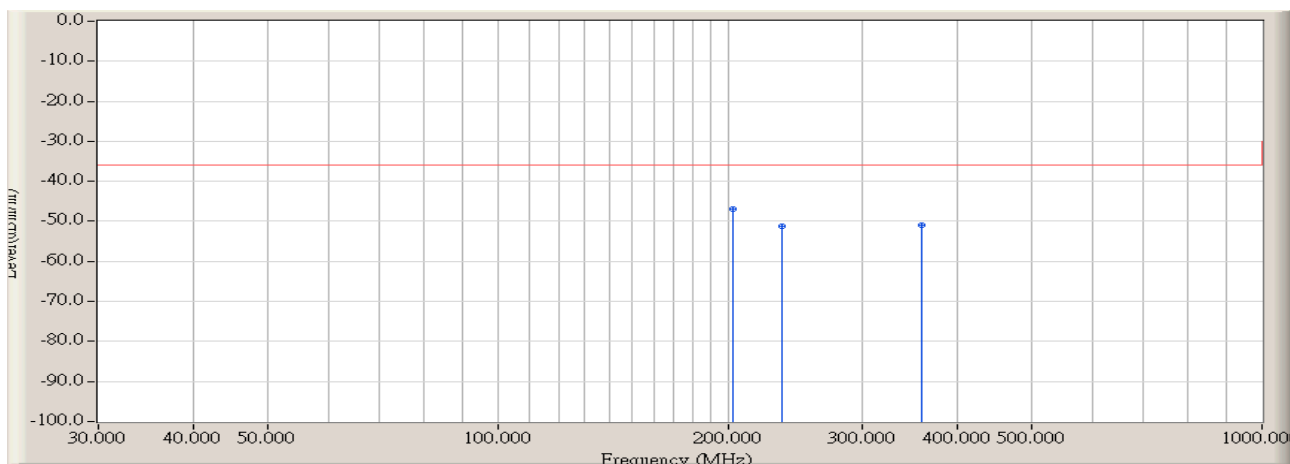
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		2997.500	9.040	-65.067	-56.027	-26.027	-30.000	PEAK
2	*	3232.500	10.857	-59.064	-48.207	-18.207	-30.000	PEAK
3		4838.333	14.906	-66.941	-52.035	-22.035	-30.000	PEAK

Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/17 - 11:09
Limit : ETSI_300328_Tx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(30-1000MHz) - HORIZONTAL
Power : AC 230V/50Hz	Note : Model 4: Transmit by 802.11n(40MHz) at channel 2452MHz - chain 110



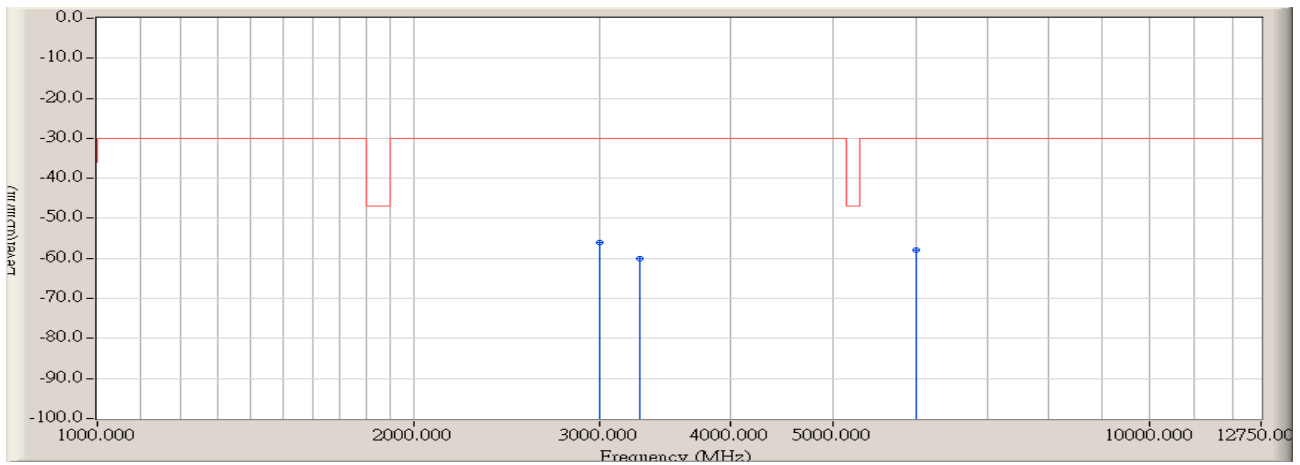
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		148.017	-1.043	-52.361	-53.404	-17.404	-36.000	PEAK
2	*	202.983	-2.090	-45.635	-47.725	-11.725	-36.000	PEAK
3		259.567	2.297	-52.143	-49.846	-13.846	-36.000	PEAK

Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/17 - 11:09
Limit : ETSI_300328_Tx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(30-1000MHz) - VERTICAL
Power : AC 230V/50Hz	Note : Model 4: Transmit by 802.11n(40MHz) at channel 2452MHz - chain 110



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1	*	202.983	-0.447	-46.346	-46.793	-10.793	-36.000	PEAK
2		235.317	-0.103	-51.106	-51.209	-15.209	-36.000	PEAK
3		358.183	5.607	-56.421	-50.814	-14.814	-36.000	PEAK

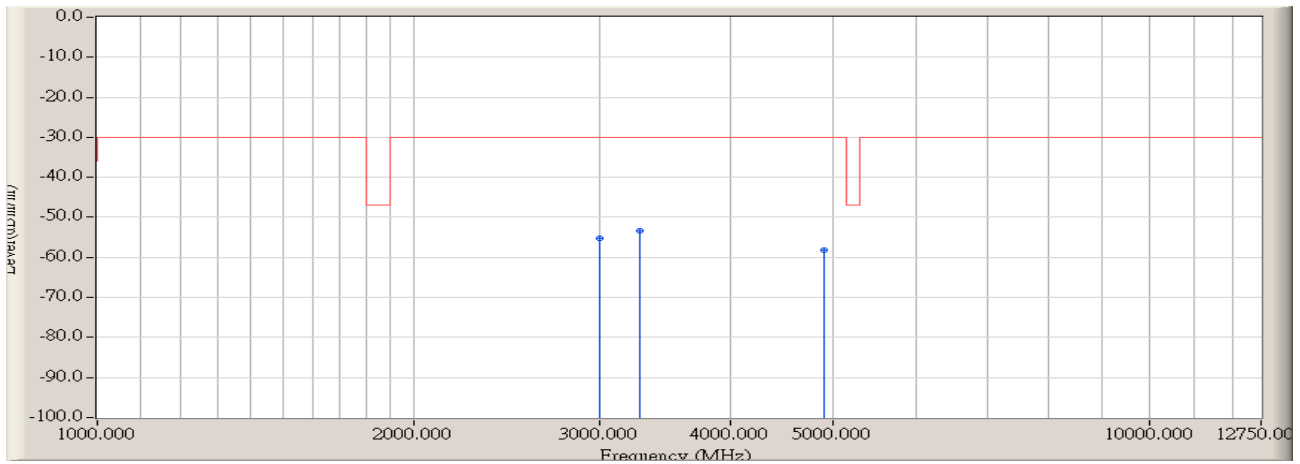
Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/17 - 10:04
Limit : ETSI_300328_Tx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(1-18GHz) - HORIZONTAL
Power : AC 230V/50Hz	Note : Model 4: Transmit by 802.11n(40MHz) at channel 2452MHz - chain 110



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1	*	2997.500	9.350	-65.450	-56.100	-26.100	-30.000	PEAK
2		3271.667	10.426	-70.418	-59.992	-29.992	-30.000	PEAK
3		5993.750	16.590	-74.450	-57.860	-27.860	-30.000	PEAK



Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/17 - 10:04
Limit : ETSI_300328_Tx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(1-18GHz) - VERTICAL
Power : AC 230V/50Hz	Note : Model 4: Transmit by 802.11n(40MHz) at channel 2452MHz - chain 110

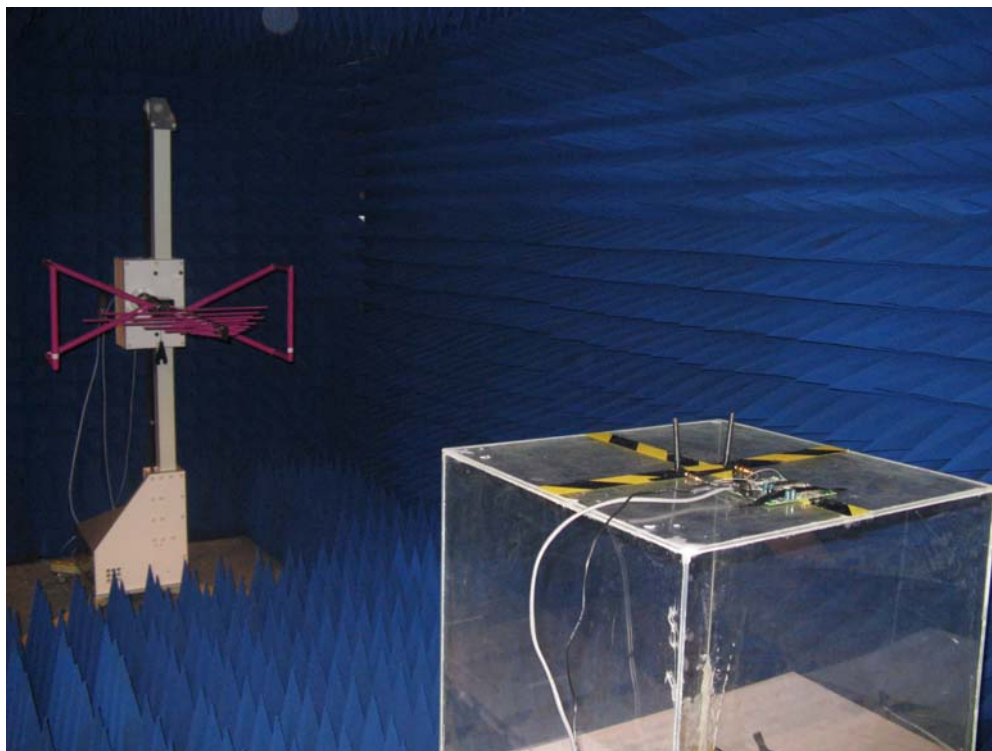


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		2997.500	9.040	-64.275	-55.235	-25.235	-30.000	PEAK
2	*	3271.667	10.548	-63.923	-53.375	-23.375	-30.000	PEAK
3		4897.083	14.382	-72.518	-58.136	-28.136	-30.000	PEAK

**6.6. Test Photograph**

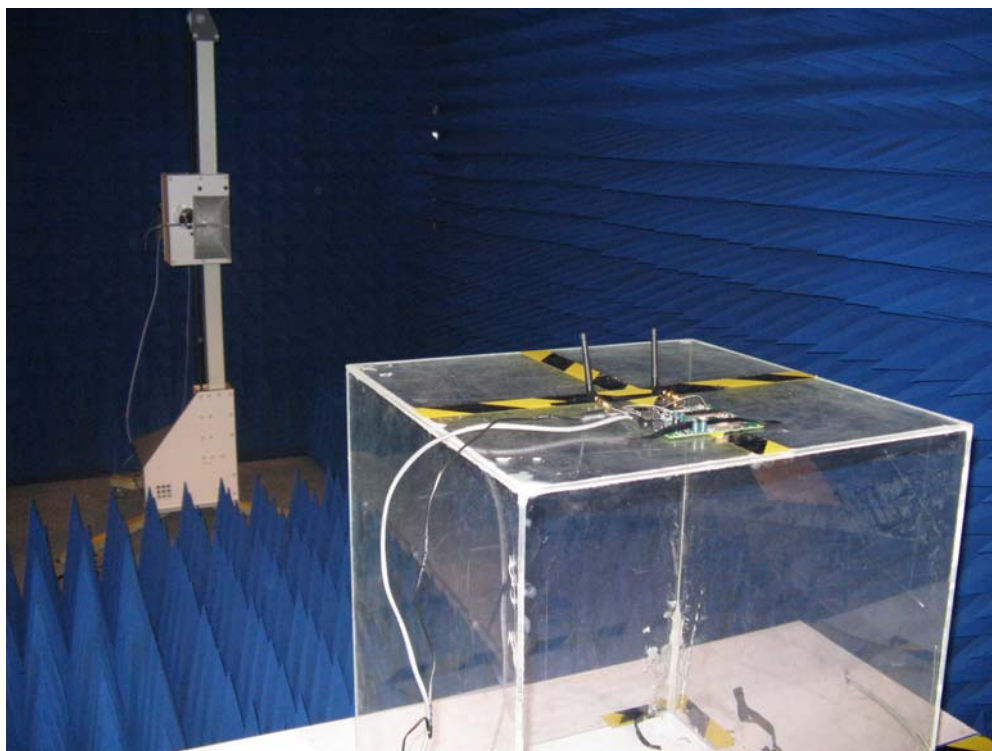
Test Mode: Transmit

Description: Transmitter Spurious Emissions Test Setup for Under 1GHz



Test Mode: Transmit

Description: Transmitter Spurious Emissions Test Setup for Above 1GHz



**7. Receiver Spurious Emissions**

**7.1. Test Equipment**

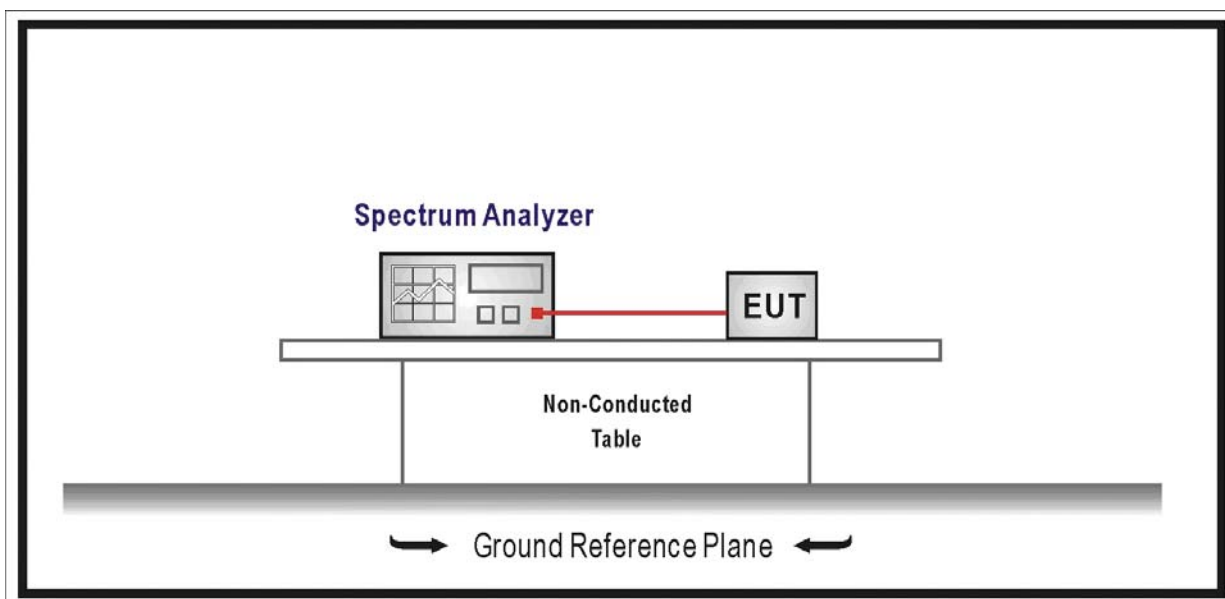
Receiver Spurious Emissions / AC-4

Instrument	Manufacturer	Type No.	Serial No.	Cal. Date
Spectrum Analyzer	Agilent	E4446A	MY45300103	2008/06/11
PSG Analog S.G.	Agilent	E8257D	MY44321116	2008/06/11
Preamplifier	Quietek	AP-025C	QT-AP005	2007/11/25
Preamplifier	Quietek	AP-180C	CHM-0602013	2007/11/25
Bilog Type Antenna	Schaffner	CBL6141A	4278	2007/11/25
Half Wave Tuned Dipole Antenna	COM-POWER	AD-100	40137	2007/11/25
Broad-Band Horn Antenna	Schwarzbeck	BBHA9120D	496	2008/06/28
Broad-Band Horn Antenna	Schwarzbeck	BBHA9120D	499	2008/06/28
Coaxial Cable	Huber+Suhner	AC4-RL	06	2007/11/25
Coaxial Cable	Huber+Suhner	AC4-RH	07	2007/11/25
Coaxial Cable	Huber+Suhner	AC4-T	08	2007/11/25
Coaxial Cable	Huber+Suhner	AC4-RF	09	2007/11/25
Temperature/Humidity Meter	zhicheng	ZC1-2	QT-TH007	2008/03/09

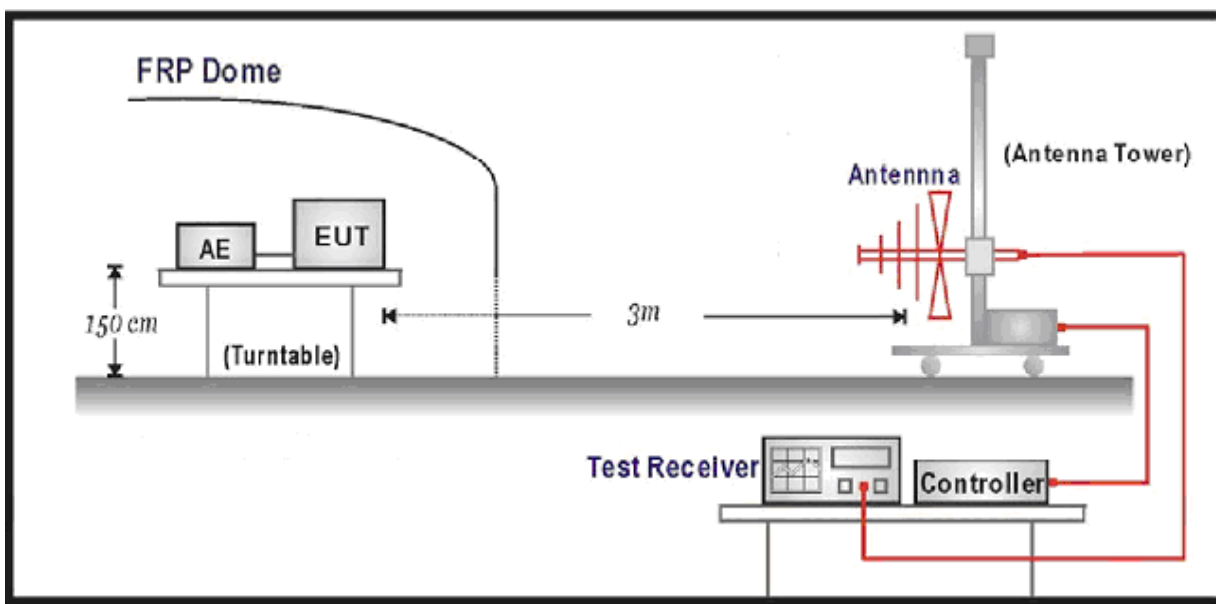
Note: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

7.2. Test Setup

For Conducted Measurement



For Radiated Measurement



**7.3. Limit**

<b>Narrowband Spurious Emissions Limits for Receivers</b>	
Frequency Range	Limit
30 MHz to 1 GHz	-57 dBm
above 1 GHz to 12.75 GHz	-47 dBm

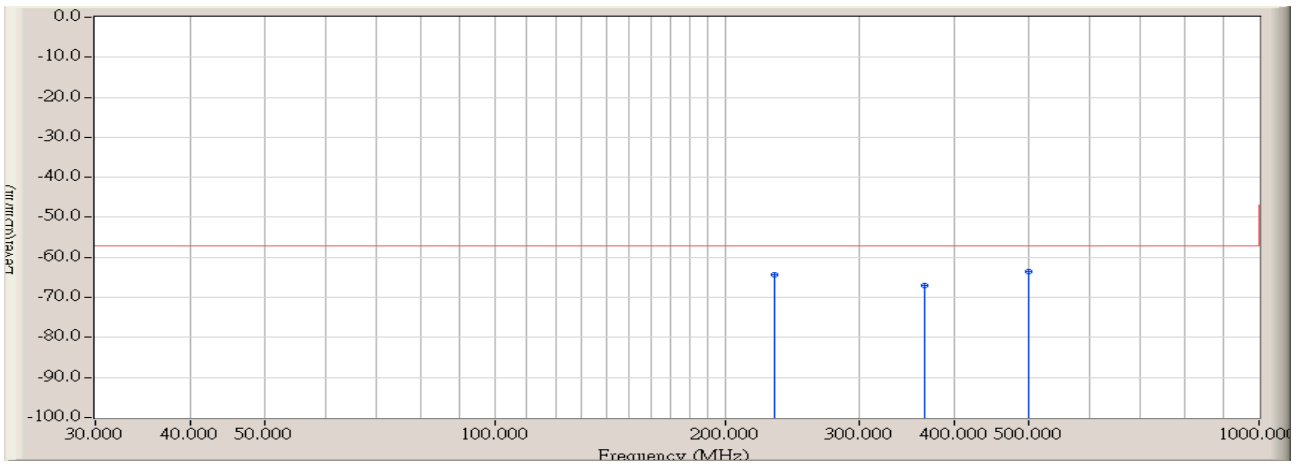
<b>Wideband Spurious Emissions Limits for Receivers</b>	
Frequency Range	Limit
30 MHz to 1 GHz	-107 dBm/Hz
above 1 GHz to 12.75 GHz	-97 dBm/Hz

**7.4. Test Procedure**

Refer to ETSI EN 300 328 V1.7.1 (2006-10) Clause 5.7.6

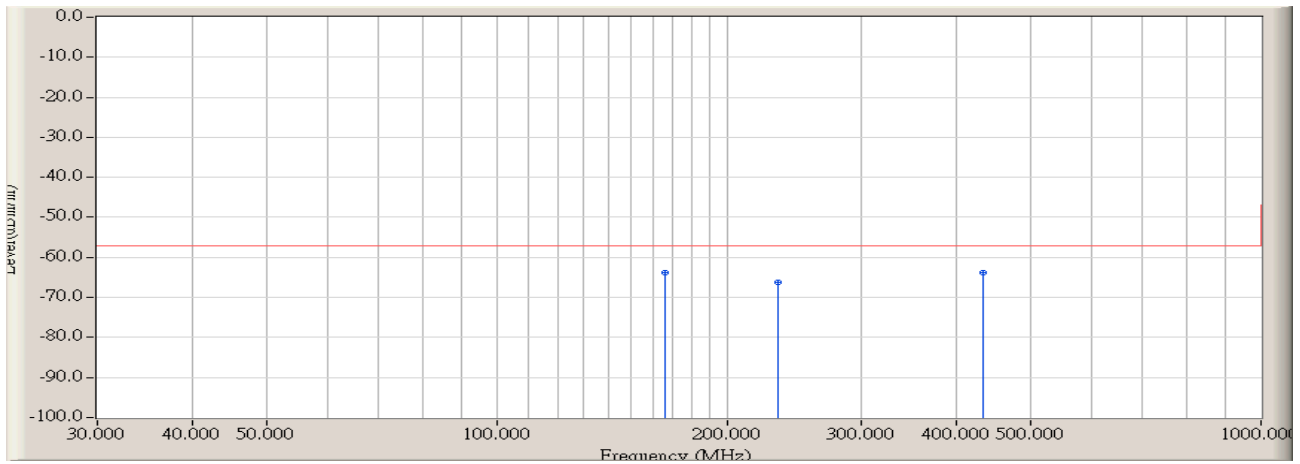
7.5. Test Result

Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/17 - 13:31
Limit : ETSI_300328_Rx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(30-1000MHz) - HORIZONTAL
Power : AC 230V/50Hz	Note : Model 5: Receive by 802.11n(20MHz) at channel 2412MHz – chain 010



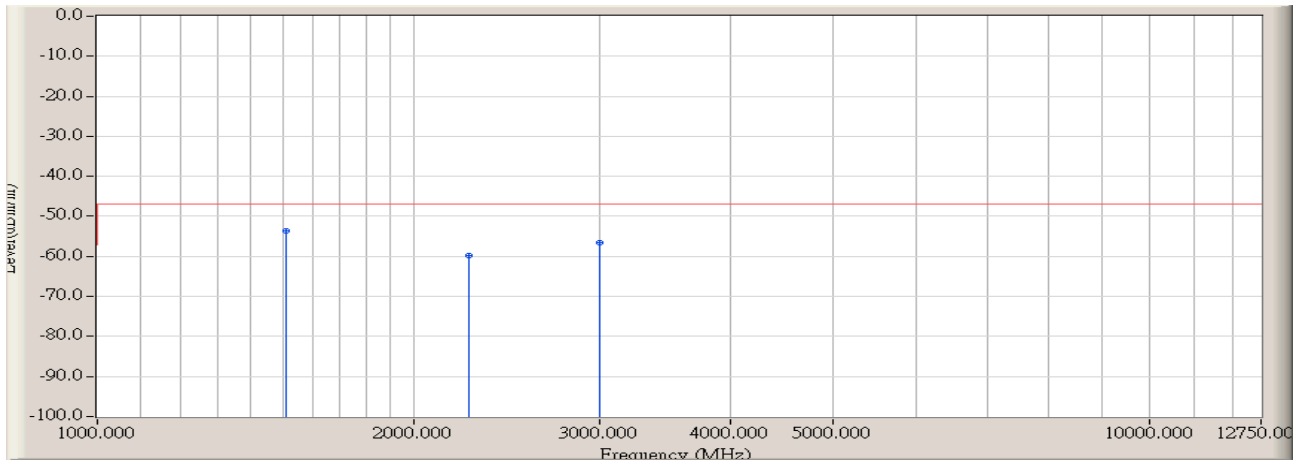
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		232.083	0.540	-64.956	-64.416	-7.416	-57.000	PEAK
2		364.650	4.580	-71.507	-66.927	-9.927	-57.000	PEAK
3	*	500.450	6.590	-70.094	-63.504	-6.504	-57.000	PEAK

Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/17 - 13:31
Limit : ETSI_300328_Rx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(30-1000MHz) - VERTICAL
Power : AC 230V/50Hz	Note : Model 5: Receive by 802.11n(20MHz) at channel 2412MHz – chain 010



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		165.800	1.710	-65.584	-63.874	-6.874	-57.000	PEAK
2		233.700	-0.120	-66.005	-66.125	-9.125	-57.000	PEAK
3	*	432.550	6.730	-70.499	-63.769	-6.769	-57.000	PEAK

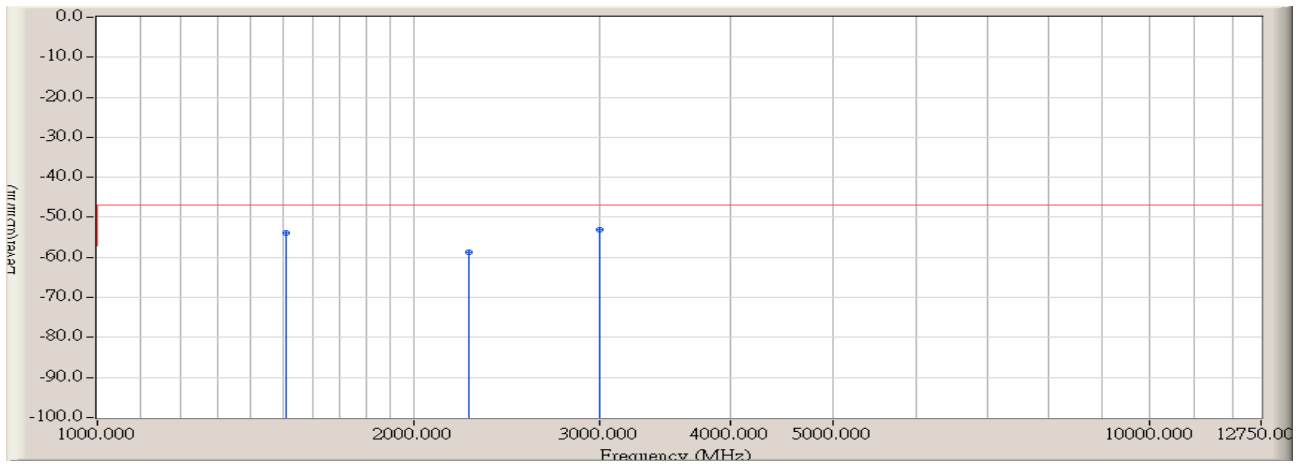
<b>Engineer : Jame</b>	
<b>Site : AC-4 (3m Fully-Anechoic Chamber)</b>	<b>Time : 2008/10/17 - 10:16</b>
<b>Limit : ETSI_300328_Rx_03M_PK</b>	<b>Margin : 0</b>
<b>EUT : Wireless-N Network Mini PCI Adapter</b>	<b>Probe : RF_Substitution(1-18GHz) - HORIZONTAL</b>
<b>Power : AC 230V/50Hz</b>	<b>Note : Model 5: Receive by 802.11n(20MHz) at channel 2412MHz – chain 010</b>



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1	*	1509.167	4.741	-58.248	-53.507	-6.507	-47.000	PEAK
2		2253.333	8.099	-67.837	-59.738	-12.738	-47.000	PEAK
3		2997.500	9.350	-65.942	-56.592	-9.592	-47.000	PEAK

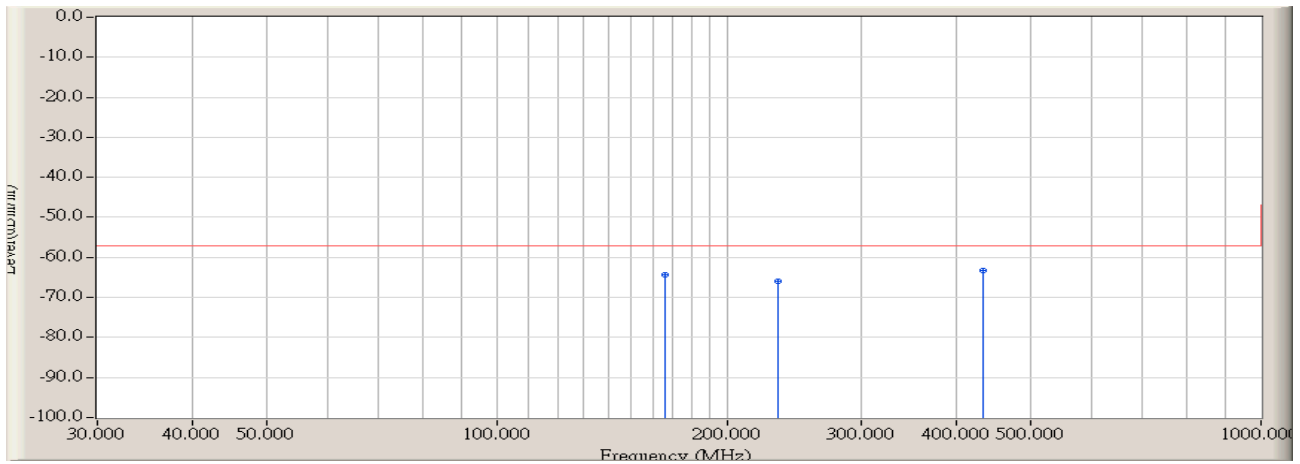


Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/17 - 10:17
Limit : ETSI_300328_Rx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(1-18GHz) - VERTICAL
Power : AC 230V/50Hz	Note : Model 5: Receive by 802.11n(20MHz) at channel 2412MHz – chain 010



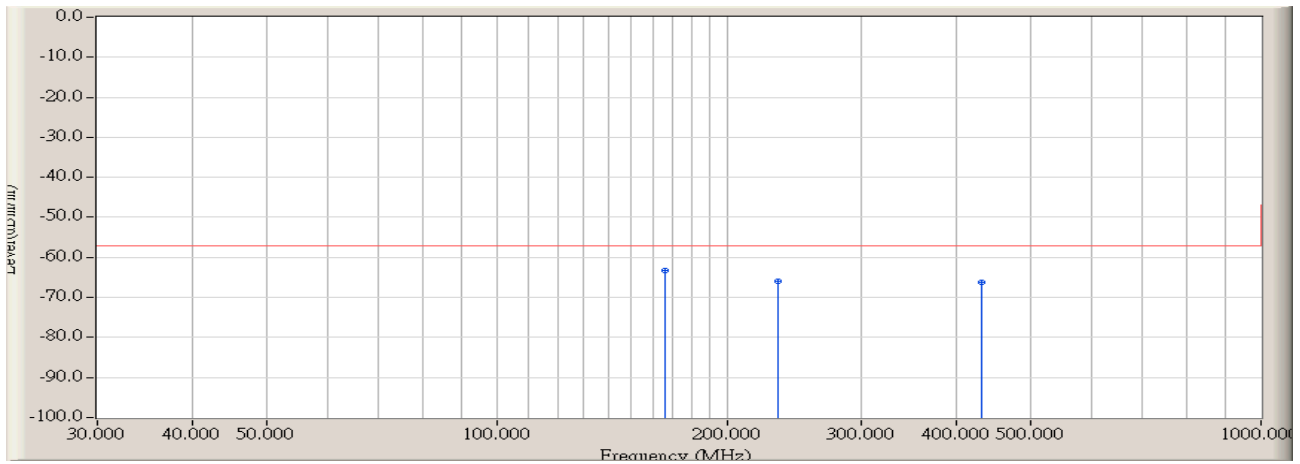
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		1509.167	5.022	-58.819	-53.797	-6.797	-47.000	PEAK
2		2253.333	8.413	-67.147	-58.734	-11.734	-47.000	PEAK
3	*	2997.500	9.040	-62.221	-53.181	-6.181	-47.000	PEAK

Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/17 - 13:31
Limit : ETSI_300328_Rx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(30-1000MHz) - HORIZONTAL
Power : AC 230V/50Hz	Note : Model 5: Receive by 802.11n(20MHz) at channel 2472MHz – chain 010



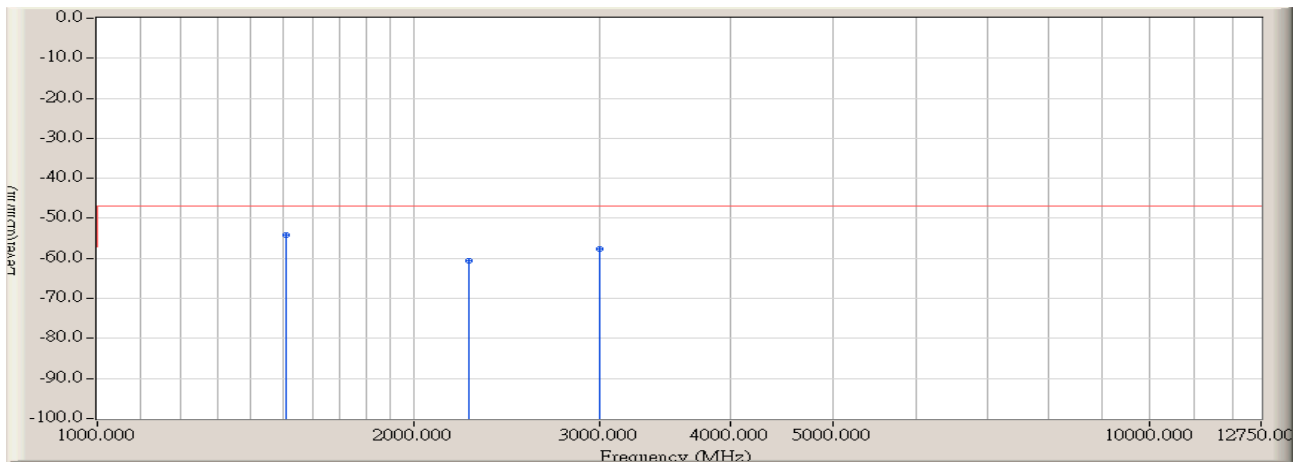
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		165.800	-0.240	-64.077	-64.317	-7.317	-57.000	PEAK
2		233.700	0.690	-66.681	-65.991	-8.991	-57.000	PEAK
3	*	432.550	5.870	-69.232	-63.362	-6.362	-57.000	PEAK

Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/17 - 13:31
Limit : ETSI_300328_Rx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(30-1000MHz) - VERTICAL
Power : AC 230V/50Hz	Note : Model 5: Receive by 802.11n(20MHz) at channel 2472MHz – chain 010



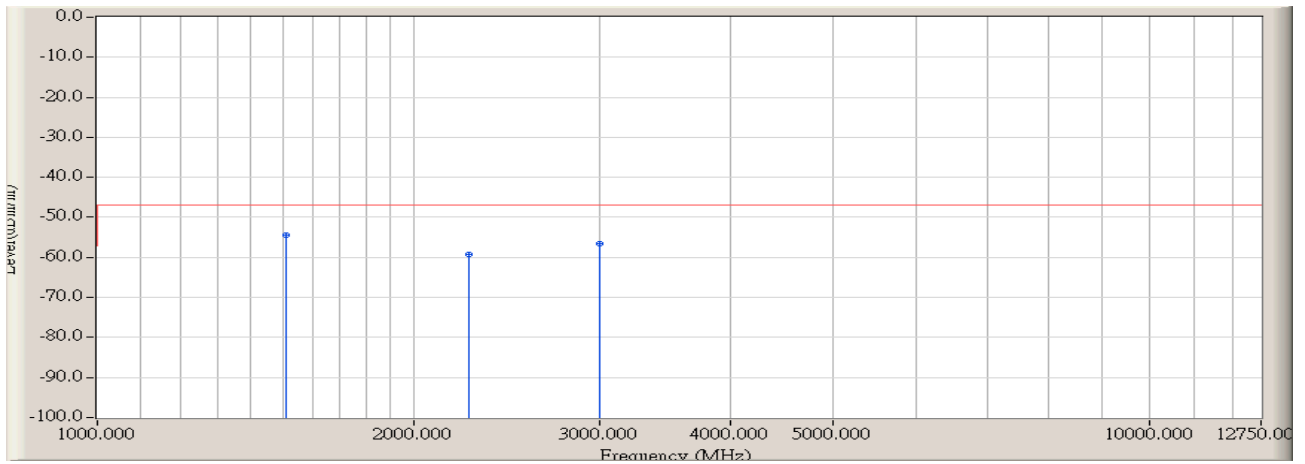
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1	*	165.800	1.710	-65.028	-63.318	-6.318	-57.000	PEAK
2		233.700	-0.120	-65.823	-65.943	-8.943	-57.000	PEAK
3		430.933	6.773	-72.860	-66.087	-9.087	-57.000	PEAK

<b>Engineer : Jame</b>	
<b>Site : AC-4 (3m Fully-Anechoic Chamber)</b>	<b>Time : 2008/10/17 - 10:17</b>
<b>Limit : ETSI_300328_Rx_03M_PK</b>	<b>Margin : 0</b>
<b>EUT : Wireless-N Network Mini PCI Adapter</b>	<b>Probe : RF_Substitution(1-18GHz) - HORIZONTAL</b>
<b>Power : AC 230V/50Hz</b>	<b>Note : Model 5: Receive by 802.11n(20MHz) at channel 2472MHz – chain 010</b>



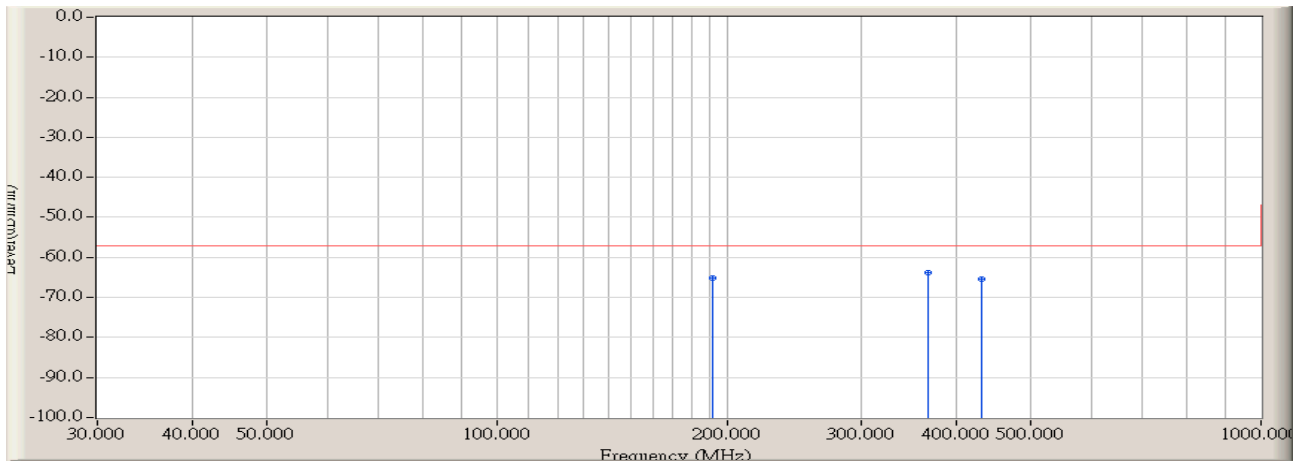
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1	*	1509.167	4.741	-58.899	-54.158	-7.158	-47.000	PEAK
2		2253.333	8.099	-68.814	-60.715	-13.715	-47.000	PEAK
3		2997.500	9.350	-66.930	-57.580	-10.580	-47.000	PEAK

Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/17 - 10:17
Limit : ETSI_300328_Rx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(1-18GHz) - VERTICAL
Power : AC 230V/50Hz	Note : Model 5: Receive by 802.11n(20MHz) at channel 2472MHz – chain 010



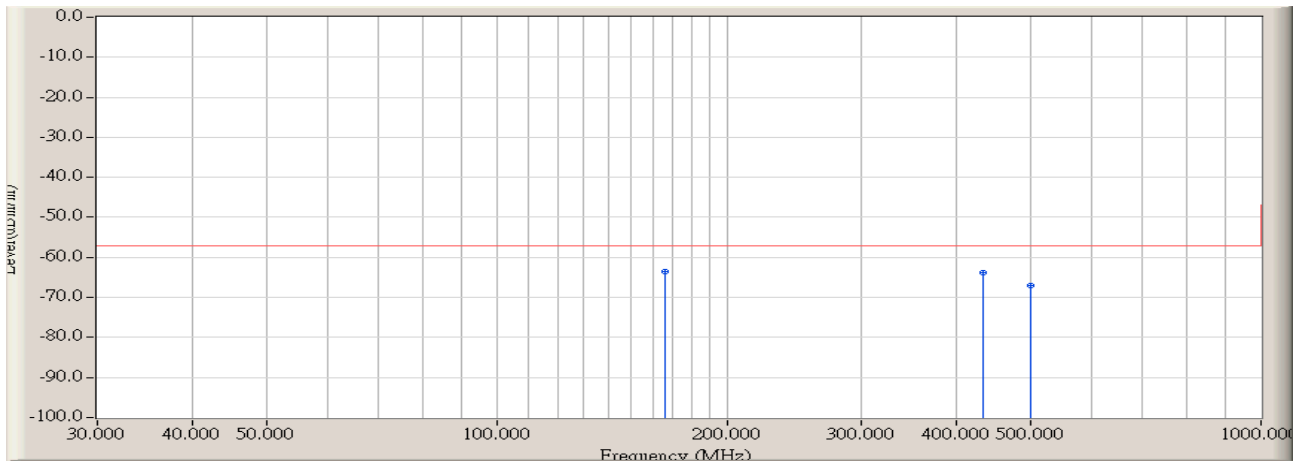
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1	*	1509.167	5.022	-59.380	-54.358	-7.358	-47.000	PEAK
2		2253.333	8.413	-67.701	-59.288	-12.288	-47.000	PEAK
3		2997.500	9.040	-65.591	-56.551	-9.551	-47.000	PEAK

Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/17 - 13:31
Limit : ETSI_300328_Rx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(30-1000MHz) - HORIZONTAL
Power : AC 230V/50Hz	Note : Model 6: Receive by 802.11n(40MHz) at channel 2422MHz – chain 010



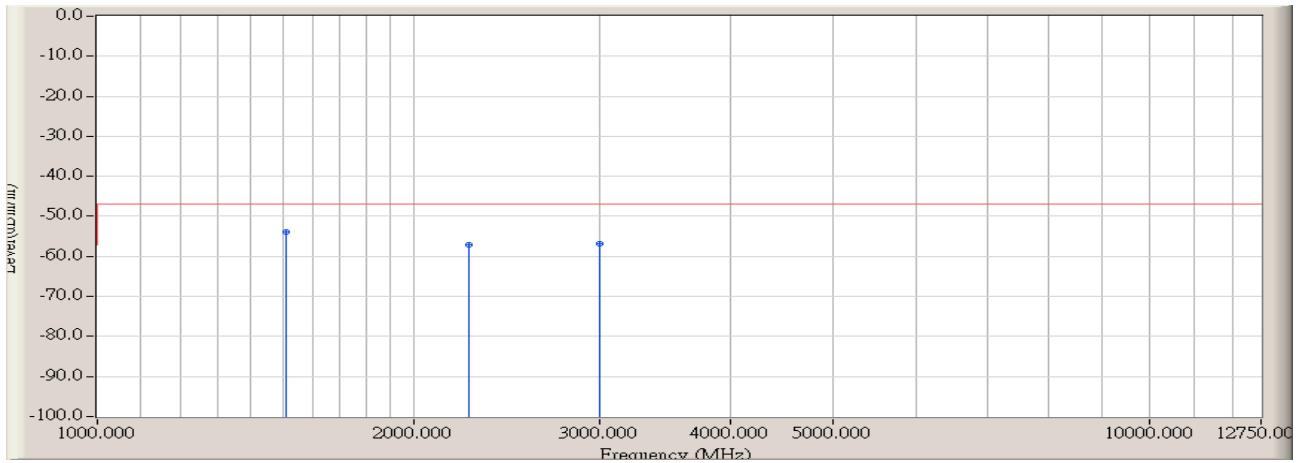
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		191.667	-2.070	-63.065	-65.135	-8.135	-57.000	PEAK
2	*	366.267	4.623	-68.528	-63.905	-6.905	-57.000	PEAK
3		430.933	5.853	-71.350	-65.497	-8.497	-57.000	PEAK

Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/17 - 13:31
Limit : ETSI_300328_Rx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(30-1000MHz) - VERTICAL
Power : AC 230V/50Hz	Note : Model 6: Receive by 802.11n(40MHz) at channel 2422MHz – chain 010



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1	*	165.800	1.710	-65.246	-63.536	-6.536	-57.000	PEAK
2		432.550	6.730	-70.467	-63.737	-6.737	-57.000	PEAK
3		500.450	4.870	-71.847	-66.977	-9.977	-57.000	PEAK

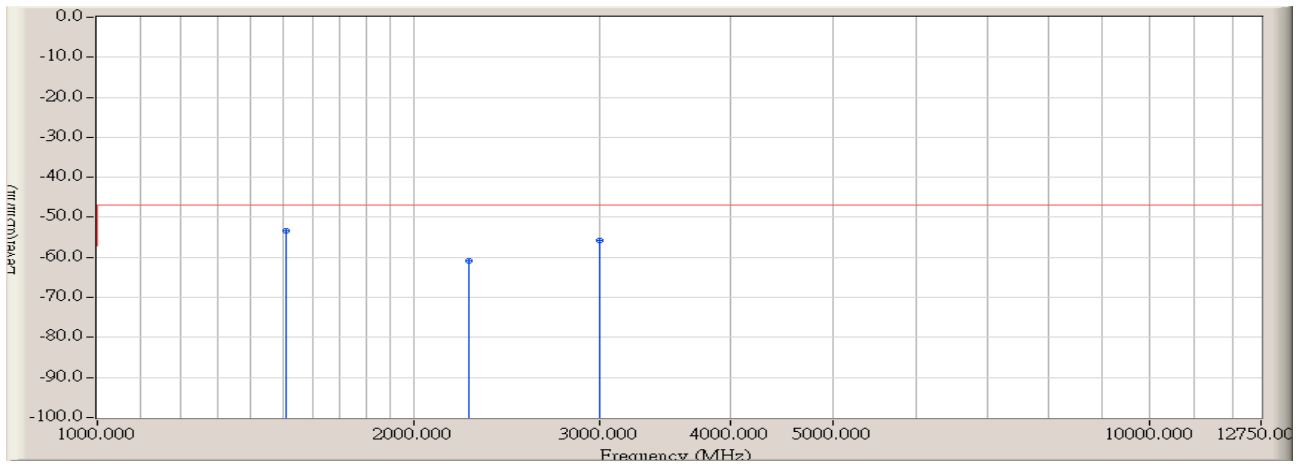
<b>Engineer : Jame</b>	
<b>Site : AC-4 (3m Fully-Anechoic Chamber)</b>	<b>Time : 2008/10/17 - 10:17</b>
<b>Limit : ETSI_300328_Rx_03M_PK</b>	<b>Margin : 0</b>
<b>EUT : Wireless-N Network Mini PCI Adapter</b>	<b>Probe : RF_Substitution(1-18GHz) - HORIZONTAL</b>
<b>Power : AC 230V/50Hz</b>	<b>Note : Model 6: Receive by 802.11n(40MHz) at channel 2422MHz – chain 010</b>



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1	*	1509.167	4.741	-58.742	-54.001	-7.001	-47.000	PEAK
2		2253.333	8.099	-65.212	-57.113	-10.113	-47.000	PEAK
3		2997.500	9.350	-66.075	-56.725	-9.725	-47.000	PEAK

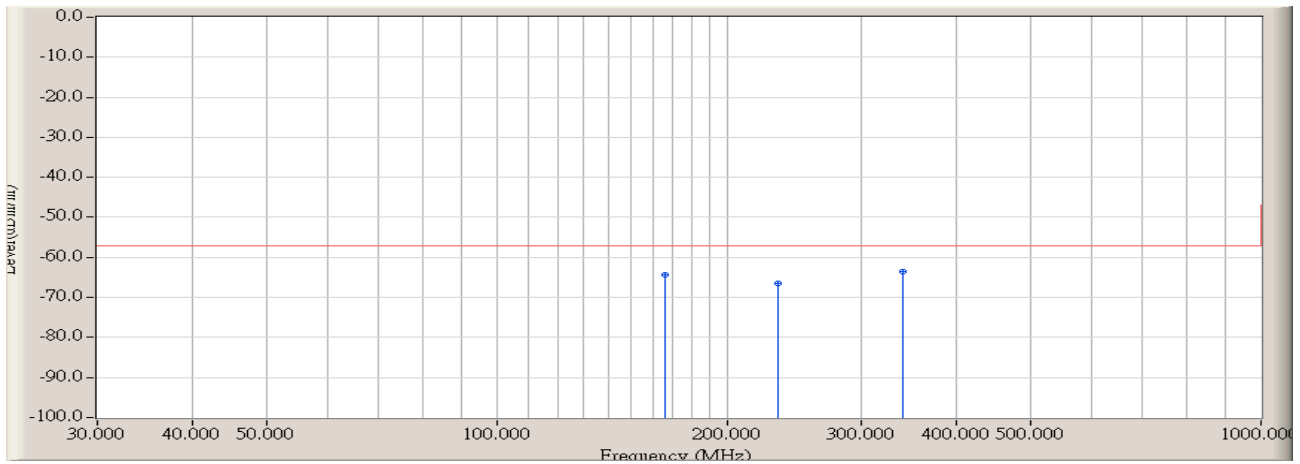


Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/17 - 10:17
Limit : ETSI_300328_Rx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(1-18GHz) - VERTICAL
Power : AC 230V/50Hz	Note : Model 6: Receive by 802.11n(40MHz) at channel 2422MHz – chain 010



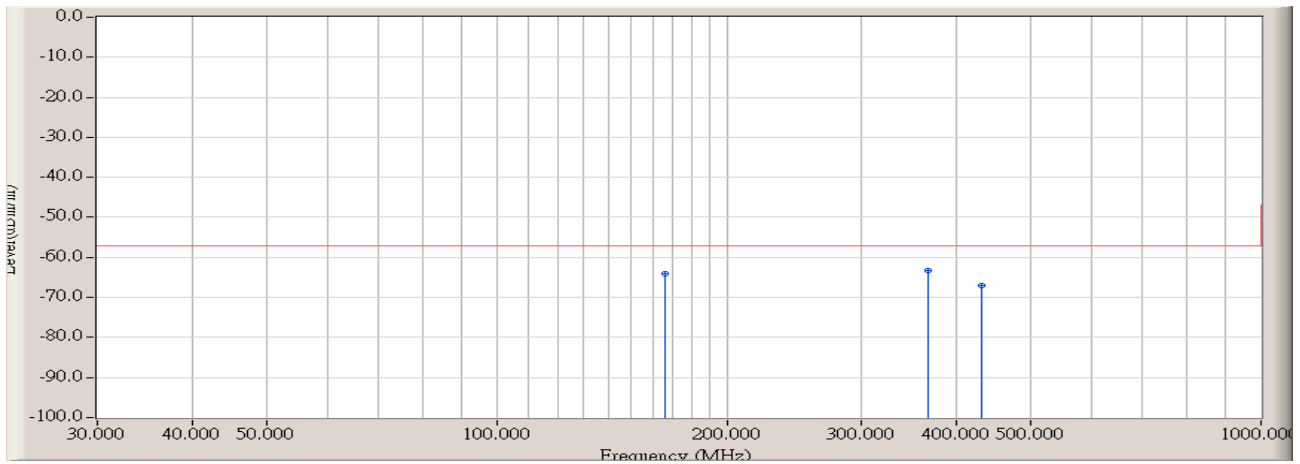
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1	*	1509.167	5.022	-58.491	-53.469	-6.469	-47.000	PEAK
2		2253.333	8.413	-69.244	-60.831	-13.831	-47.000	PEAK
3		2997.500	9.040	-64.851	-55.811	-8.811	-47.000	PEAK

Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/17 - 13:32
Limit : ETSI_300328_Rx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(30-1000MHz) - HORIZONTAL
Power : AC 230V/50Hz	Note : Model 6: Receive by 802.11n(40MHz) at channel 2452MHz – chain 010



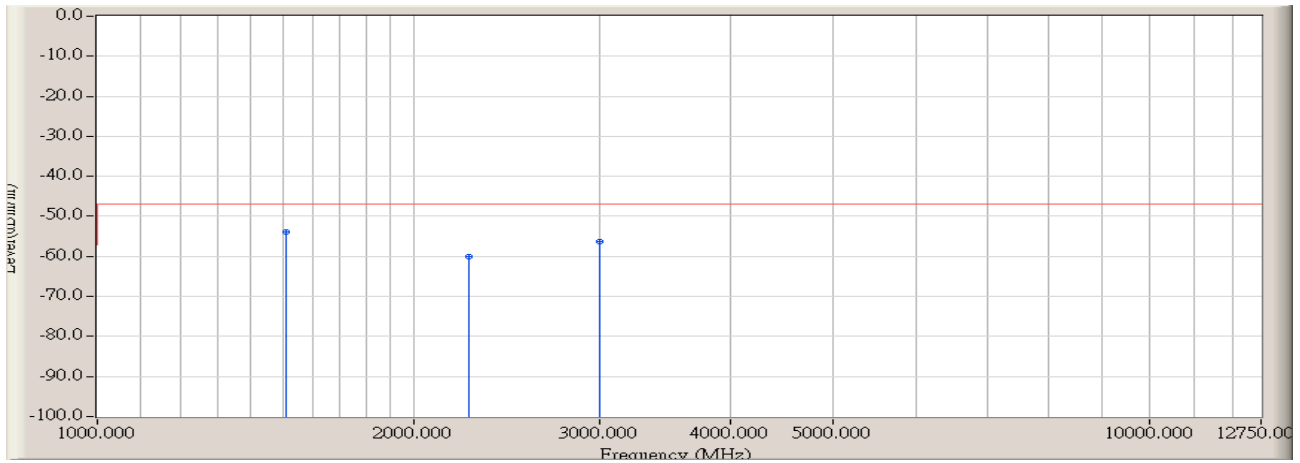
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		165.800	-0.240	-64.020	-64.260	-7.260	-57.000	PEAK
2		233.700	0.690	-67.232	-66.542	-9.542	-57.000	PEAK
3	*	340.400	3.940	-67.360	-63.420	-6.420	-57.000	PEAK

Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/17 - 13:32
Limit : ETSI_300328_Rx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(30-1000MHz) - VERTICAL
Power : AC 230V/50Hz	Note : Model 6: Receive by 802.11n(40MHz) at channel 2452MHz – chain 010



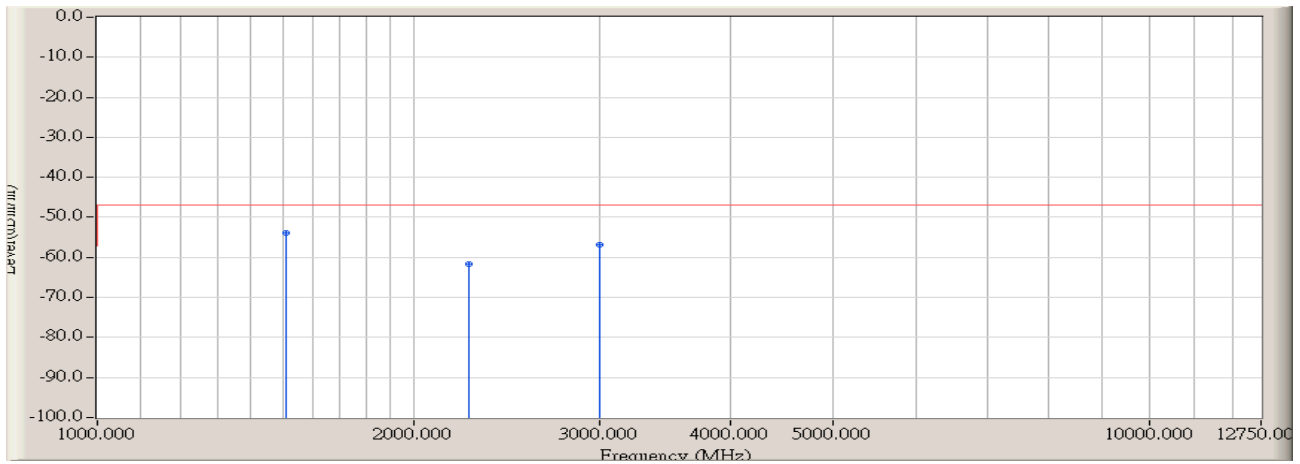
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		165.800	1.710	-65.780	-64.070	-7.070	-57.000	PEAK
2	*	366.267	5.997	-69.268	-63.271	-6.271	-57.000	PEAK
3		430.933	6.773	-73.711	-66.938	-9.938	-57.000	PEAK

<b>Engineer : Jame</b>	
<b>Site : AC-4 (3m Fully-Anechoic Chamber)</b>	<b>Time : 2008/10/17 - 10:18</b>
<b>Limit : ETSI_300328_Rx_03M_PK</b>	<b>Margin : 0</b>
<b>EUT : Wireless-N Network Mini PCI Adapter</b>	<b>Probe : RF_Substitution(1-18GHz) - HORIZONTAL</b>
<b>Power : AC 230V/50Hz</b>	<b>Note : Model 6: Receive by 802.11n(40MHz) at channel 2452MHz – chain 010</b>



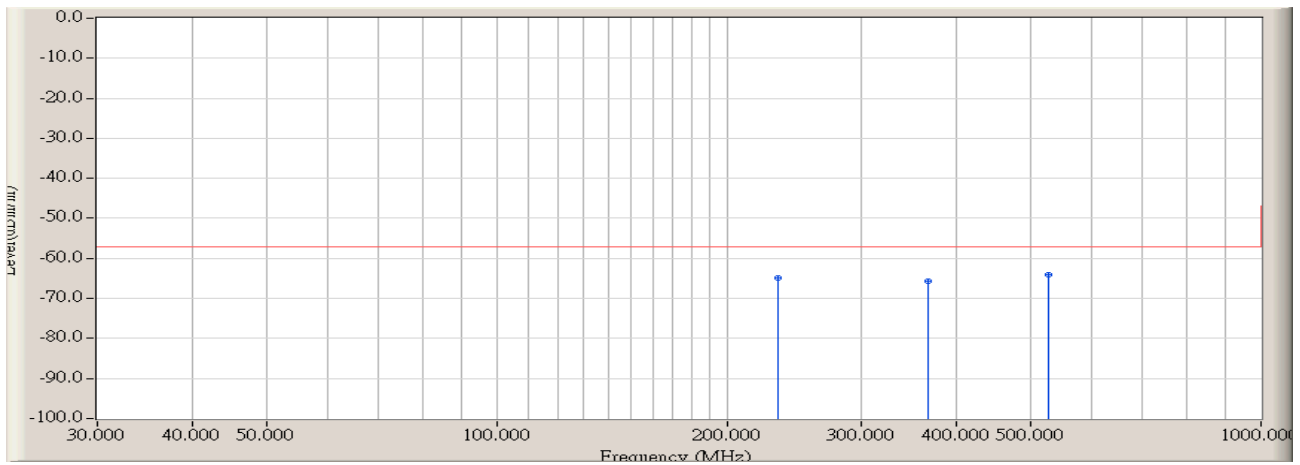
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1	*	1509.167	4.741	-58.622	-53.881	-6.881	-47.000	PEAK
2		2253.333	8.099	-68.244	-60.145	-13.145	-47.000	PEAK
3		2997.500	9.350	-65.517	-56.167	-9.167	-47.000	PEAK

Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/17 - 10:18
Limit : ETSI_300328_Rx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(1-18GHz) - VERTICAL
Power : AC 230V/50Hz	Note : Model 6: Receive by 802.11n(40MHz) at channel 2452MHz – chain 010



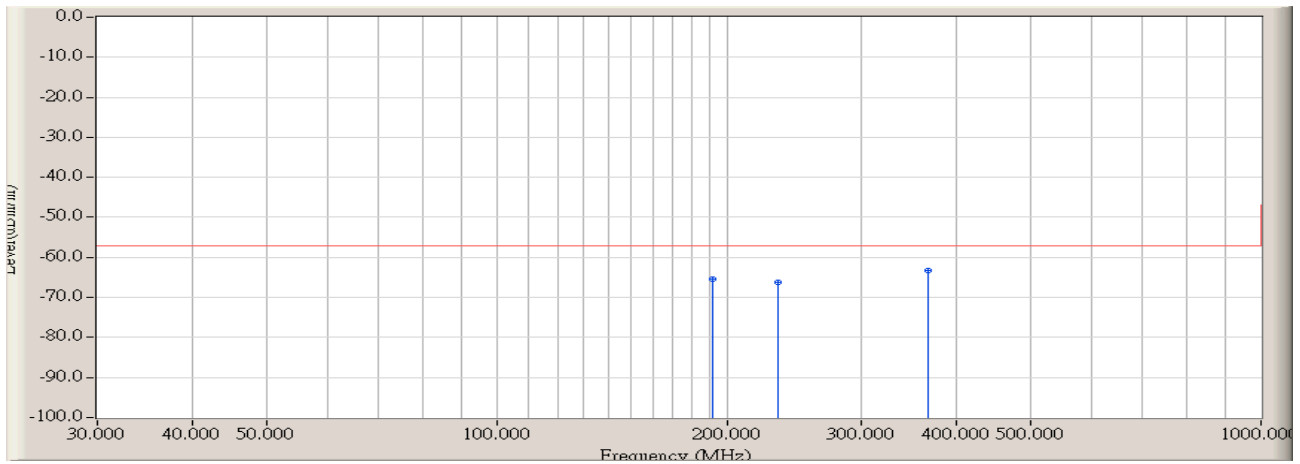
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1	*	1509.167	5.022	-58.966	-53.944	-6.944	-47.000	PEAK
2		2253.333	8.413	-70.071	-61.658	-14.658	-47.000	PEAK
3		2997.500	9.040	-65.972	-56.932	-9.932	-47.000	PEAK

<b>Engineer : Jame</b>	
<b>Site : AC-4 (3m Fully-Anechoic Chamber)</b>	<b>Time : 2008/10/17 - 11:30</b>
<b>Limit : ETSI_300328_Rx_03M_PK</b>	<b>Margin : 0</b>
<b>EUT : Wireless-N Network Mini PCI Adapter</b>	<b>Probe : RF_Substitution(30-1000MHz) - HORIZONTAL</b>
<b>Power : AC 230V/50Hz</b>	<b>Note : Model 5: Receive by 802.11n(20MHz) at channel 2412MHz – chain 100</b>



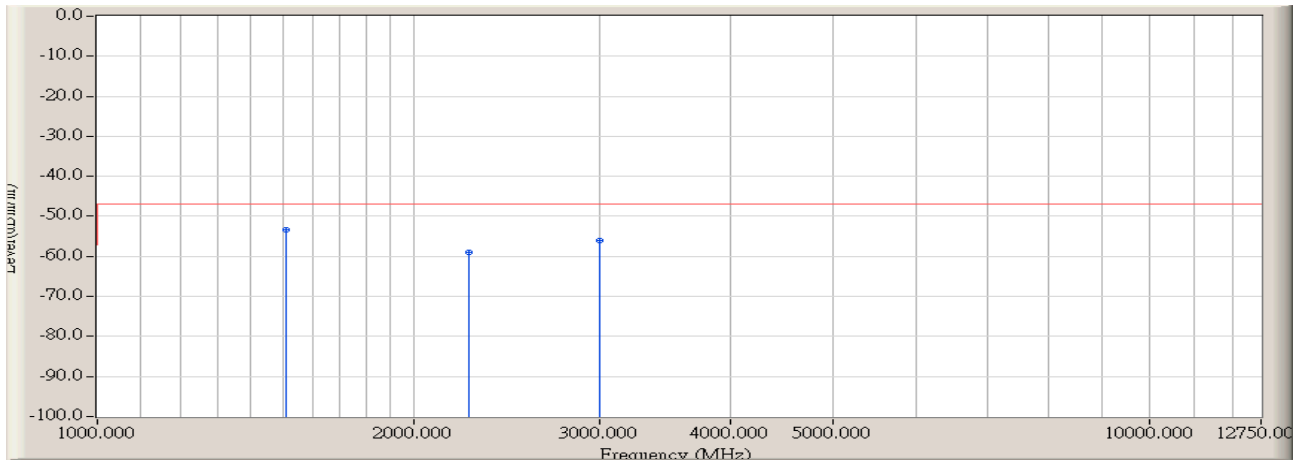
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		233.700	0.690	-65.540	-64.850	-7.850	-57.000	PEAK
2		366.267	4.623	-70.289	-65.666	-8.666	-57.000	PEAK
3	*	527.933	6.793	-70.895	-64.102	-7.102	-57.000	PEAK

Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/17 - 11:30
Limit : ETSI_300328_Rx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(30-1000MHz) - VERTICAL
Power : AC 230V/50Hz	Note : Model 5: Receive by 802.11n(20MHz) at channel 2412MHz- chain 100



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		191.667	-0.373	-64.962	-65.335	-8.335	-57.000	PEAK
2		233.700	-0.120	-66.005	-66.125	-9.125	-57.000	PEAK
3	*	366.267	5.997	-69.303	-63.306	-6.306	-57.000	PEAK

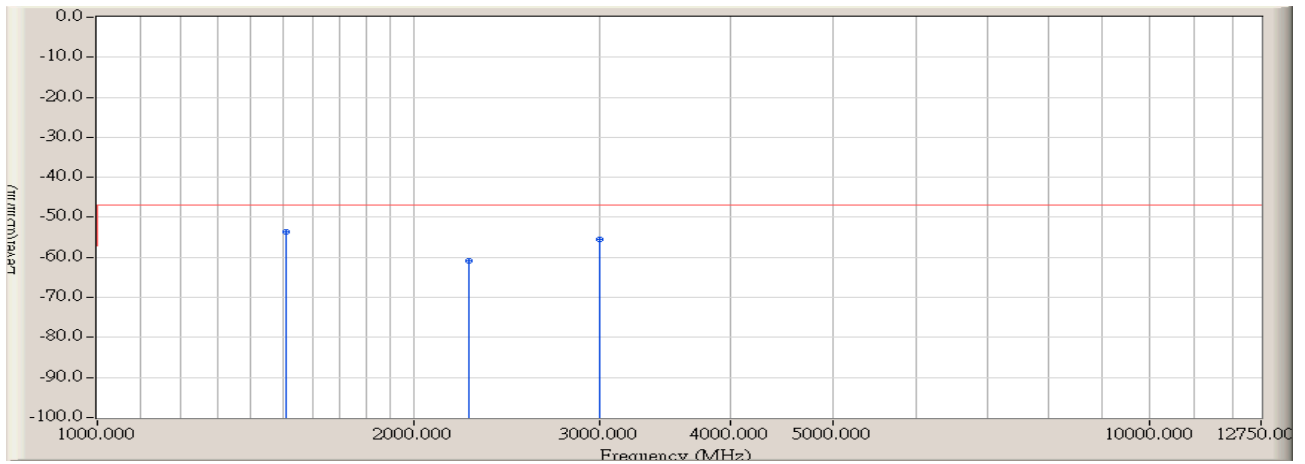
<b>Engineer : Jame</b>	
<b>Site : AC-4 (3m Fully-Anechoic Chamber)</b>	<b>Time : 2008/10/17 - 10:09</b>
<b>Limit : ETSI_300328_Rx_03M_PK</b>	<b>Margin : 0</b>
<b>EUT : Wireless-N Network Mini PCI Adapter</b>	<b>Probe : RF_Substitution(1-18GHz) - HORIZONTAL</b>
<b>Power : AC 230V/50Hz</b>	<b>Note : Model 5: Receive by 802.11n(20MHz) at channel 2412MHz– chain 100</b>



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1	*	1509.167	4.741	-58.115	-53.374	-6.374	-47.000	PEAK
2		2253.333	8.099	-67.103	-59.004	-12.004	-47.000	PEAK
3		2997.500	9.350	-65.397	-56.047	-9.047	-47.000	PEAK

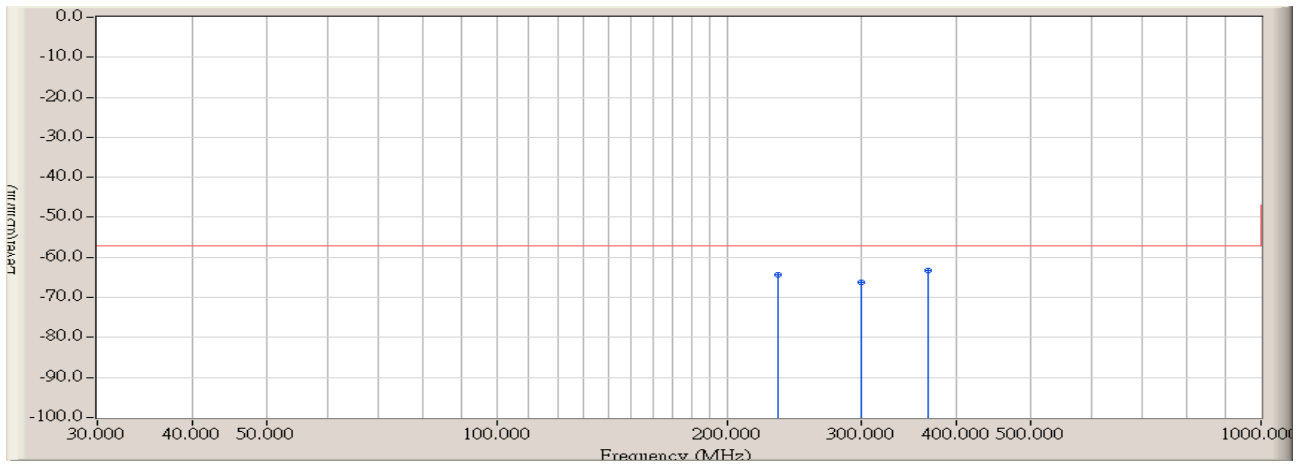


Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/17 - 10:09
Limit : ETSI_300328_Rx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(1-18GHz) - VERTICAL
Power : AC 230V/50Hz	Note : Model 5: Receive by 802.11n(20MHz) at channel 2412MHz- chain 100



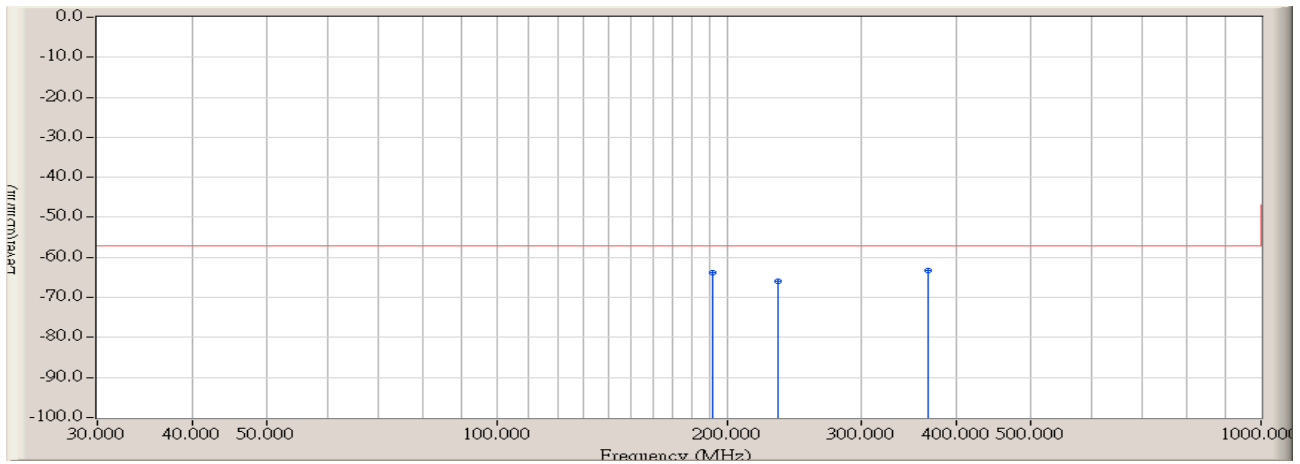
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1	*	1509.167	5.022	-58.652	-53.630	-6.630	-47.000	PEAK
2		2253.333	8.413	-69.197	-60.784	-13.784	-47.000	PEAK
3		2997.500	9.040	-64.588	-55.548	-8.548	-47.000	PEAK

Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/17 - 11:31
Limit : ETSI_300328_Rx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(30-1000MHz) - HORIZONTAL
Power : AC 230V/50Hz	Note : Model 5: Receive by 802.11n(20MHz) at channel 2472MHz- chain 100



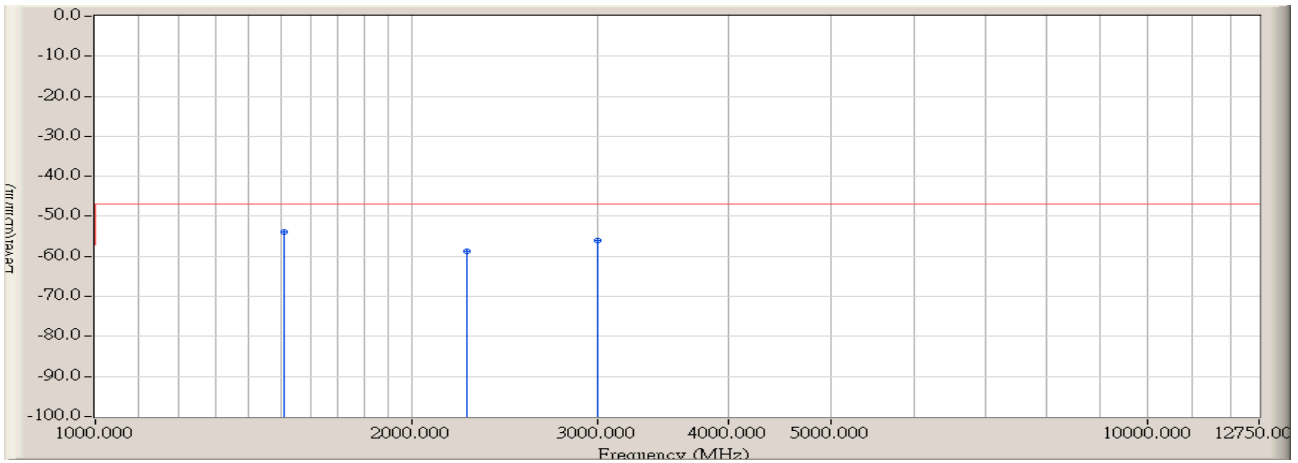
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		233.700	0.690	-65.081	-64.391	-7.391	-57.000	PEAK
2		299.983	2.877	-69.062	-66.185	-9.185	-57.000	PEAK
3	*	366.267	4.623	-67.851	-63.228	-6.228	-57.000	PEAK

Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/17 - 11:32
Limit : ETSI_300328_Rx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(30-1000MHz) - VERTICAL
Power : AC 230V/50Hz	Note : Model 5: Receive by 802.11n(20MHz) at channel 2472MHz- chain 100



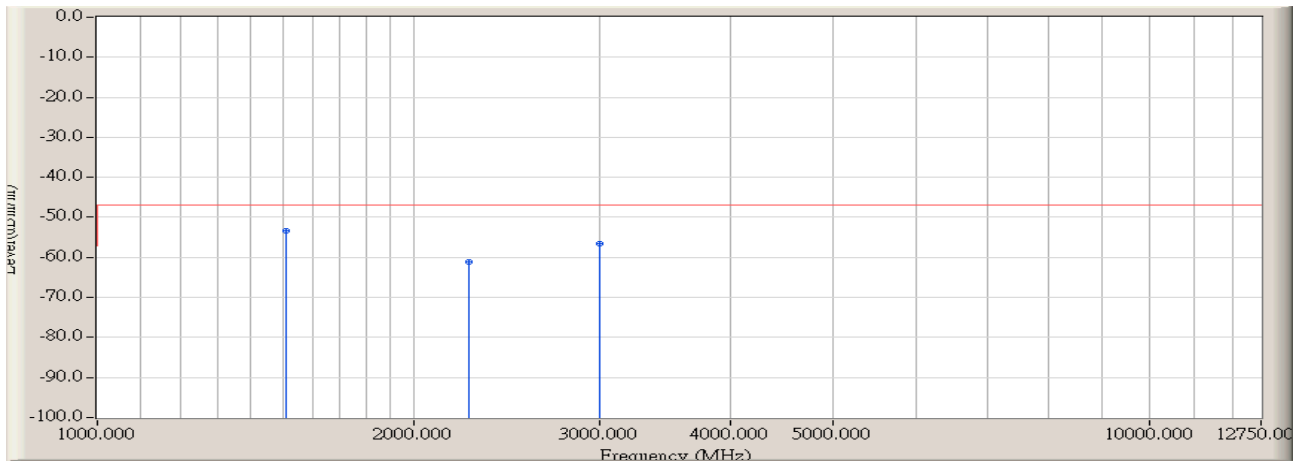
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		191.667	-0.373	-63.446	-63.819	-6.819	-57.000	PEAK
2		233.700	-0.120	-65.823	-65.943	-8.943	-57.000	PEAK
3	*	366.267	5.997	-69.289	-63.292	-6.292	-57.000	PEAK

<b>Engineer : Jame</b>	
<b>Site : AC-4 (3m Fully-Anechoic Chamber)</b>	<b>Time : 2008/10/17 - 10:09</b>
<b>Limit : ETSI_300328_Rx_03M_PK</b>	<b>Margin : 0</b>
<b>EUT : Wireless-N Network Mini PCI Adapter</b>	<b>Probe : RF_Substitution(1-18GHz) - HORIZONTAL</b>
<b>Power : AC 230V/50Hz</b>	<b>Note : Model 5: Receive by 802.11n(20MHz) at channel 2472MHz– chain 100</b>



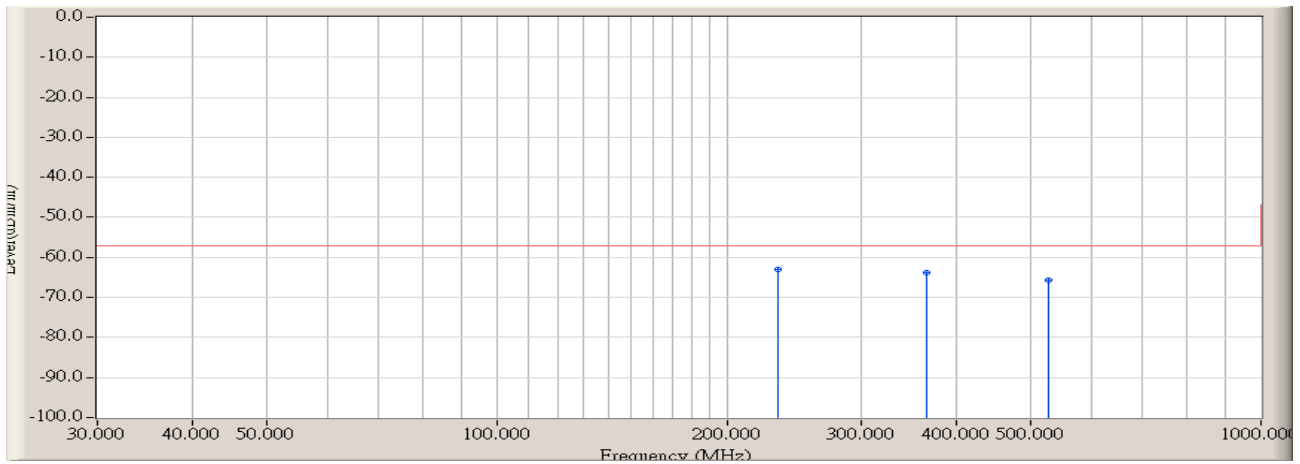
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1	*	1509.167	4.741	-58.759	-54.018	-7.018	-47.000	PEAK
2		2253.333	8.099	-66.824	-58.725	-11.725	-47.000	PEAK
3		2997.500	9.350	-65.249	-55.899	-8.899	-47.000	PEAK

Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/17 - 10:09
Limit : ETSI_300328_Rx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(1-18GHz) - VERTICAL
Power : AC 230V/50Hz	Note : Model 5: Receive by 802.11n(20MHz) at channel 2472MHz- chain 100



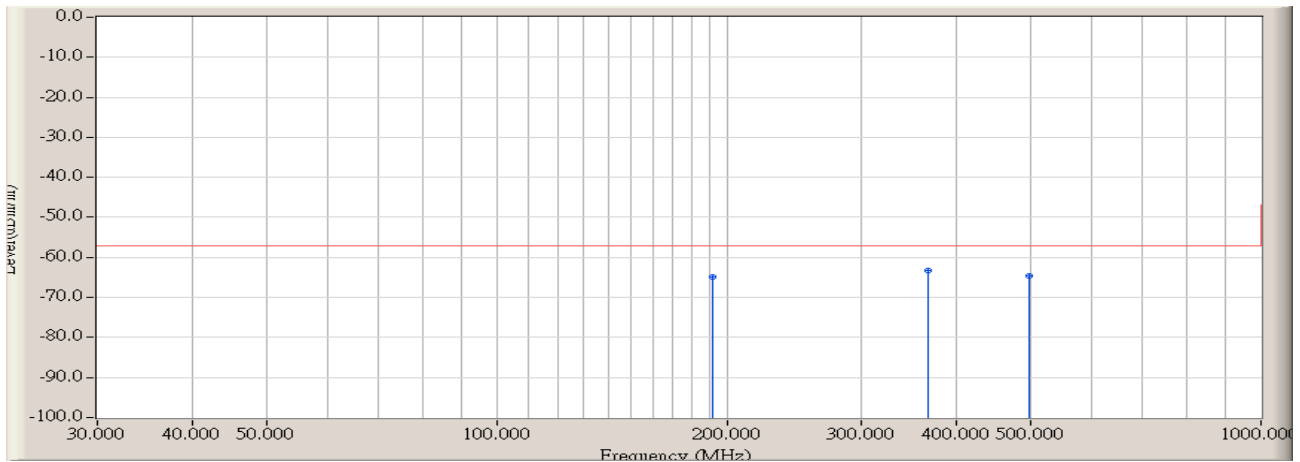
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1	*	1509.167	5.022	-58.484	-53.462	-6.462	-47.000	PEAK
2		2253.333	8.413	-69.446	-61.033	-14.033	-47.000	PEAK
3		2997.500	9.040	-65.601	-56.561	-9.561	-47.000	PEAK

Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/17 - 11:32
Limit : ETSI_300328_Rx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(30-1000MHz) - HORIZONTAL
Power : AC 230V/50Hz	Note : Model 6: Receive by 802.11n(40MHz) at channel 2422MHz- chain 100



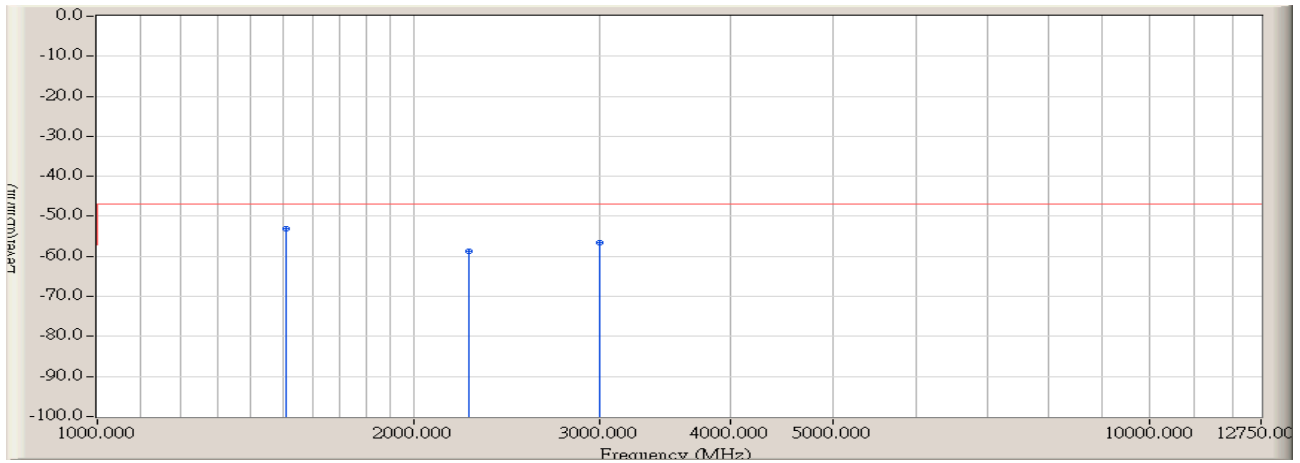
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1	*	233.700	0.690	-63.693	-63.003	-6.003	-57.000	PEAK
2		364.650	4.580	-68.361	-63.781	-6.781	-57.000	PEAK
3		527.933	6.793	-72.512	-65.719	-8.719	-57.000	PEAK

Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/17 - 11:32
Limit : ETSI_300328_Rx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(30-1000MHz) - VERTICAL
Power : AC 230V/50Hz	Note : Model 6: Receive by 802.11n(40MHz) at channel 2422MHz- chain 100



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		191.667	-0.373	-64.576	-64.949	-7.949	-57.000	PEAK
2	*	366.267	5.997	-69.294	-63.297	-6.297	-57.000	PEAK
3		497.217	4.940	-69.562	-64.622	-7.622	-57.000	PEAK

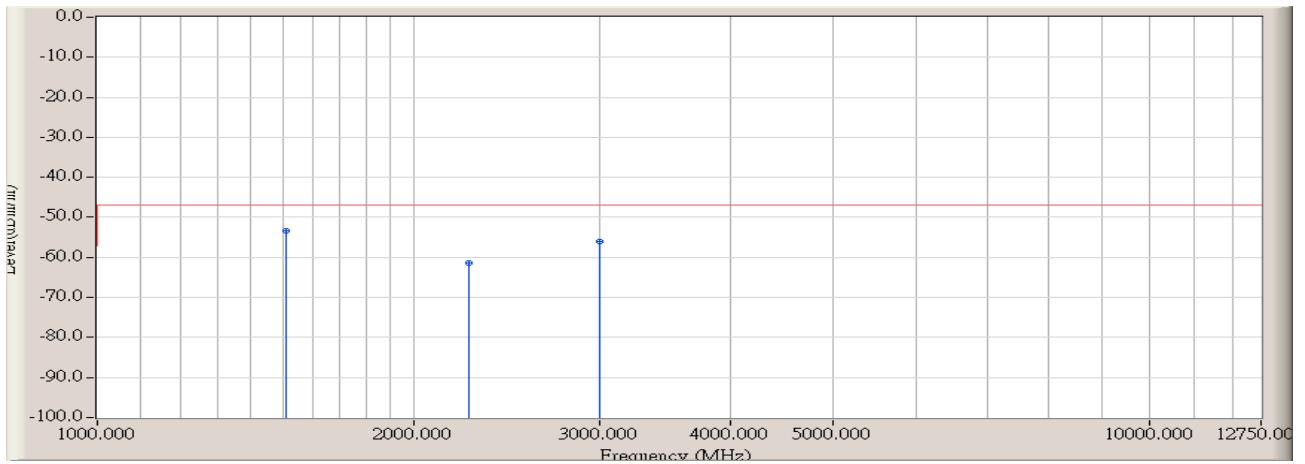
<b>Engineer : Jame</b>	
<b>Site : AC-4 (3m Fully-Anechoic Chamber)</b>	<b>Time : 2008/10/17 - 10:09</b>
<b>Limit : ETSI_300328_Rx_03M_PK</b>	<b>Margin : 0</b>
<b>EUT : Wireless-N Network Mini PCI Adapter</b>	<b>Probe : RF_Substitution(1-18GHz) - HORIZONTAL</b>
<b>Power : AC 230V/50Hz</b>	<b>Note : Model 6: Receive by 802.11n(40MHz) at channel 2422MHz– chain 100</b>



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1	*	1509.167	4.741	-57.939	-53.198	-6.198	-47.000	PEAK
2		2253.333	8.099	-66.875	-58.776	-11.776	-47.000	PEAK
3		2997.500	9.350	-65.855	-56.505	-9.505	-47.000	PEAK

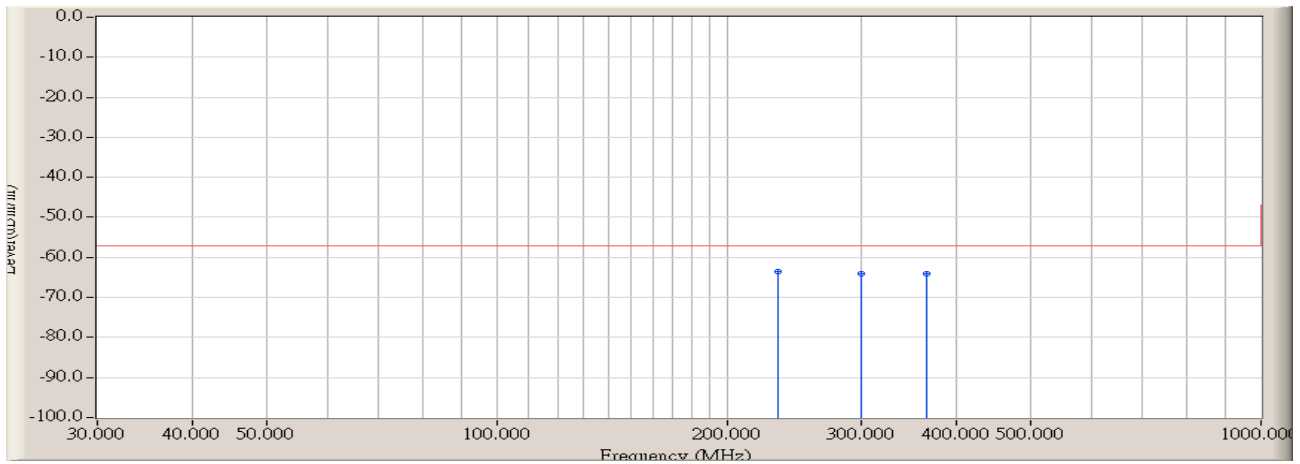


Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/17 - 10:10
Limit : ETSI_300328_Rx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(1-18GHz) - VERTICAL
Power : AC 230V/50Hz	Note : Model 6: Receive by 802.11n(40MHz) at channel 2422MHz- chain 100



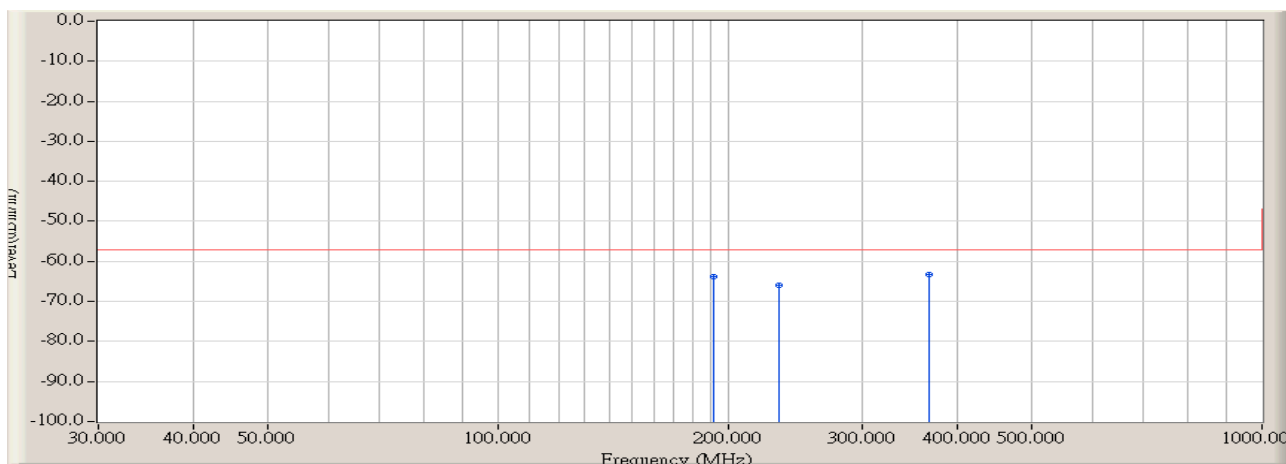
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1	*	1509.167	5.022	-58.359	-53.337	-6.337	-47.000	PEAK
2		2253.333	8.413	-69.895	-61.482	-14.482	-47.000	PEAK
3		2997.500	9.040	-65.000	-55.960	-8.960	-47.000	PEAK

Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/17 - 11:33
Limit : ETSI_300328_Rx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(30-1000MHz) - HORIZONTAL
Power : AC 230V/50Hz	Note : Model 6: Receive by 802.11n(40MHz) at channel 2452MHz- chain 100



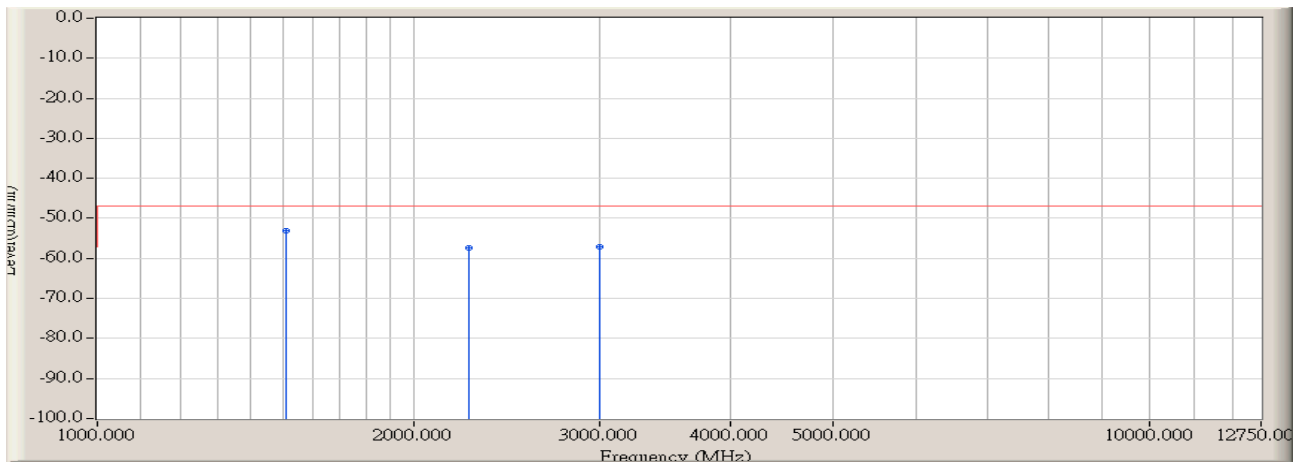
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1	*	233.700	0.690	-64.232	-63.542	-6.542	-57.000	PEAK
2		299.983	2.877	-66.828	-63.951	-6.951	-57.000	PEAK
3		364.650	4.580	-68.778	-64.198	-7.198	-57.000	PEAK

Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/17 - 11:33
Limit : ETSI_300328_Rx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(30-1000MHz) - VERTICAL
Power : AC 230V/50Hz	Note : Model 6: Receive by 802.11n(40MHz) at channel 2452MHz- chain 100



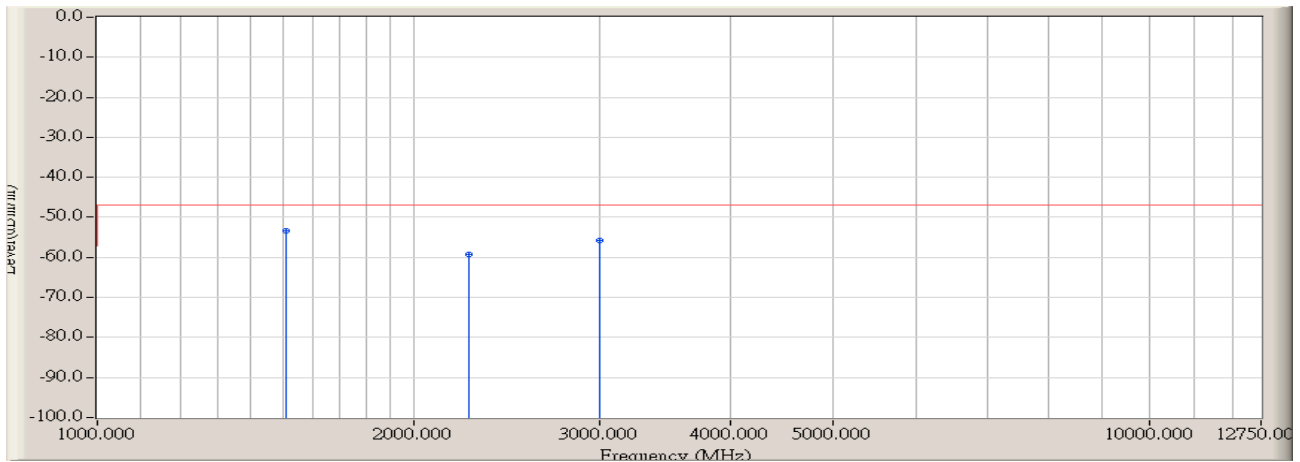
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		191.667	-0.373	-63.329	-63.702	-6.702	-57.000	PEAK
2		233.700	-0.120	-65.893	-66.013	-9.013	-57.000	PEAK
3	*	366.267	5.997	-69.268	-63.271	-6.271	-57.000	PEAK

<b>Engineer : Jame</b>	
<b>Site : AC-4 (3m Fully-Anechoic Chamber)</b>	<b>Time : 2008/10/17 - 10:10</b>
<b>Limit : ETSI_300328_Rx_03M_PK</b>	<b>Margin : 0</b>
<b>EUT : Wireless-N Network Mini PCI Adapter</b>	<b>Probe : RF_Substitution(1-18GHz) - HORIZONTAL</b>
<b>Power : AC 230V/50Hz</b>	<b>Note : Model 6: Receive by 802.11n(40MHz) at channel 2452MHz- chain 100</b>



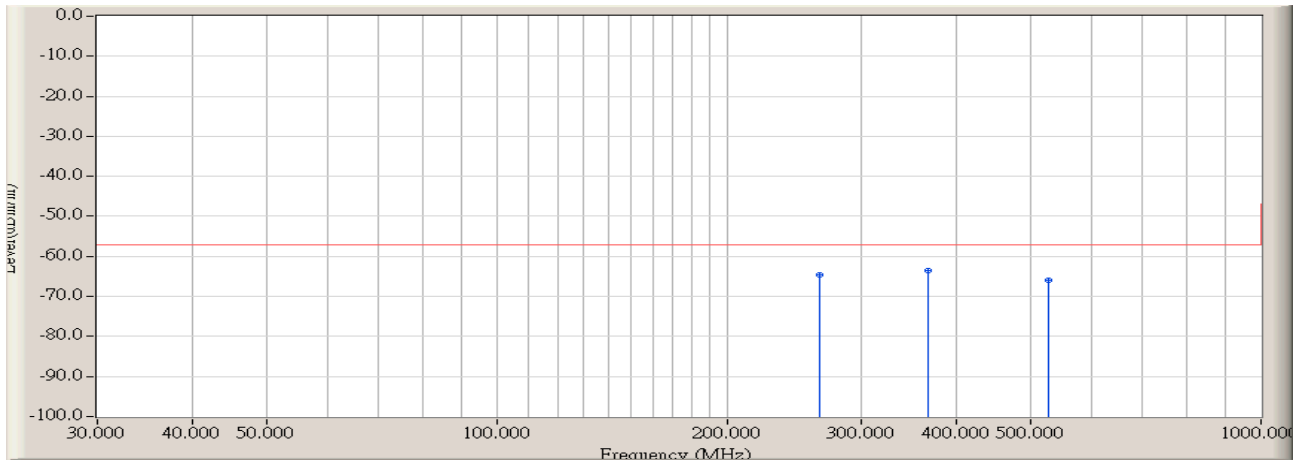
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1	*	1509.167	4.741	-57.754	-53.013	-6.013	-47.000	PEAK
2		2253.333	8.099	-65.532	-57.433	-10.433	-47.000	PEAK
3		2997.500	9.350	-66.406	-57.056	-10.056	-47.000	PEAK

Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/17 - 10:10
Limit : ETSI_300328_Rx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(1-18GHz) - VERTICAL
Power : AC 230V/50Hz	Note : Model 6: Receive by 802.11n(40MHz) at channel 2452MHz- chain 100



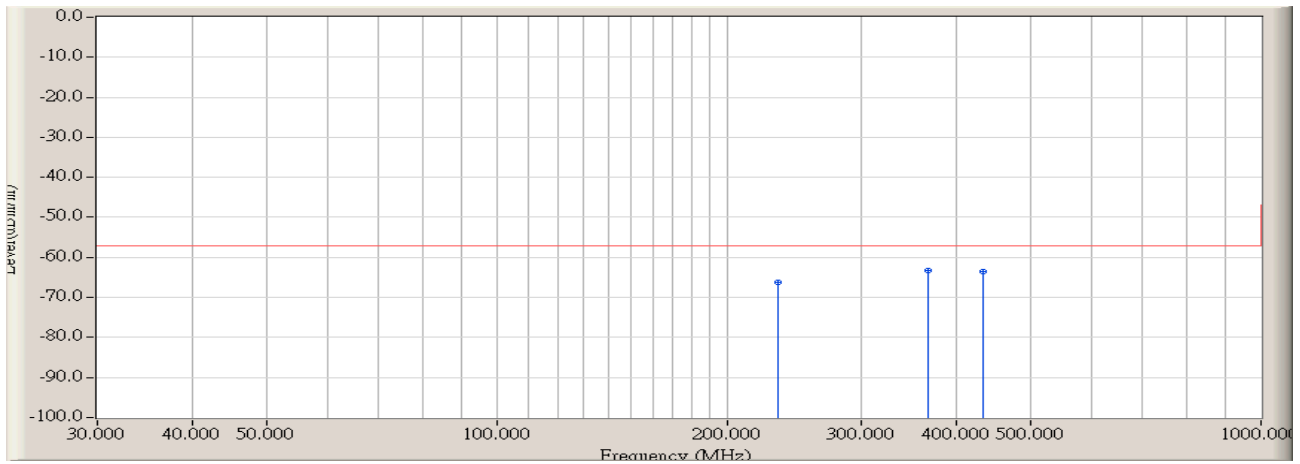
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1	*	1509.167	5.022	-58.427	-53.405	-6.405	-47.000	PEAK
2		2253.333	8.413	-67.668	-59.255	-12.255	-47.000	PEAK
3		2997.500	9.040	-64.886	-55.846	-8.846	-47.000	PEAK

<b>Engineer : Jame</b>	
<b>Site : AC-4 (3m Fully-Anechoic Chamber)</b>	<b>Time : 2008/10/17 - 13:35</b>
<b>Limit : ETSI_300328_Rx_03M_PK</b>	<b>Margin : 0</b>
<b>EUT : Wireless-N Network Mini PCI Adapter</b>	<b>Probe : RF_Substitution(30-1000MHz) - HORIZONTAL</b>
<b>Power : AC 230V/50Hz</b>	<b>Note : Model 5: Receive by 802.11n(20MHz) at channel 2412MHz- chain 110</b>



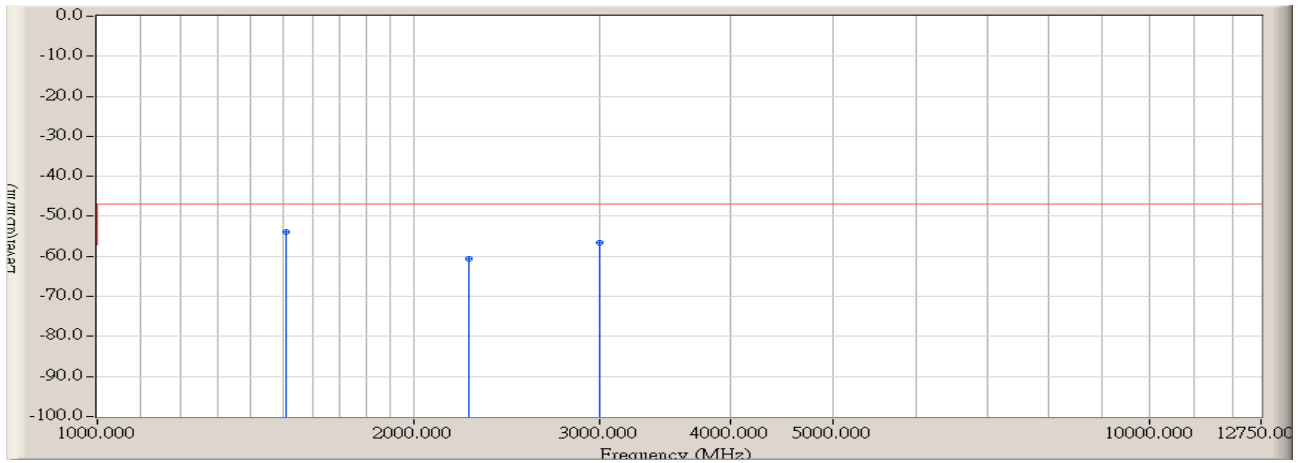
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		264.417	2.367	-66.895	-64.528	-7.528	-57.000	PEAK
2	*	366.267	4.623	-68.189	-63.566	-6.566	-57.000	PEAK
3		527.933	6.793	-72.795	-66.002	-9.002	-57.000	PEAK

Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/17 - 13:35
Limit : ETSI_300328_Rx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(30-1000MHz) - VERTICAL
Power : AC 230V/50Hz	Note : Model 5: Receive by 802.11n(20MHz) at channel 2412MHz- chain 110



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		233.700	-0.120	-66.005	-66.125	-9.125	-57.000	PEAK
2	*	366.267	5.997	-69.303	-63.306	-6.306	-57.000	PEAK
3		432.550	6.730	-70.399	-63.669	-6.669	-57.000	PEAK

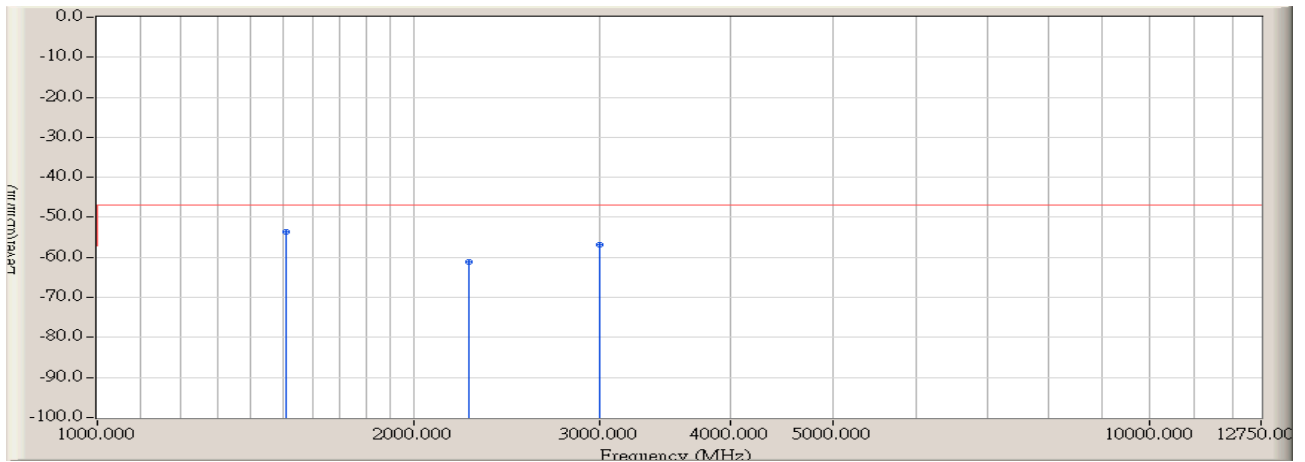
<b>Engineer : Jame</b>	
<b>Site : AC-4 (3m Fully-Anechoic Chamber)</b>	<b>Time : 2008/10/17 - 10:21</b>
<b>Limit : ETSI_300328_Rx_03M_PK</b>	<b>Margin : 0</b>
<b>EUT : Wireless-N Network Mini PCI Adapter</b>	<b>Probe : RF_Substitution(1-18GHz) - HORIZONTAL</b>
<b>Power : AC 230V/50Hz</b>	<b>Note : Model 5: Receive by 802.11n(20MHz) at channel 2412MHz– chain 110</b>



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1	*	1509.167	4.741	-58.570	-53.829	-6.829	-47.000	PEAK
2		2253.333	8.099	-68.686	-60.587	-13.587	-47.000	PEAK
3		2997.500	9.350	-65.820	-56.470	-9.470	-47.000	PEAK

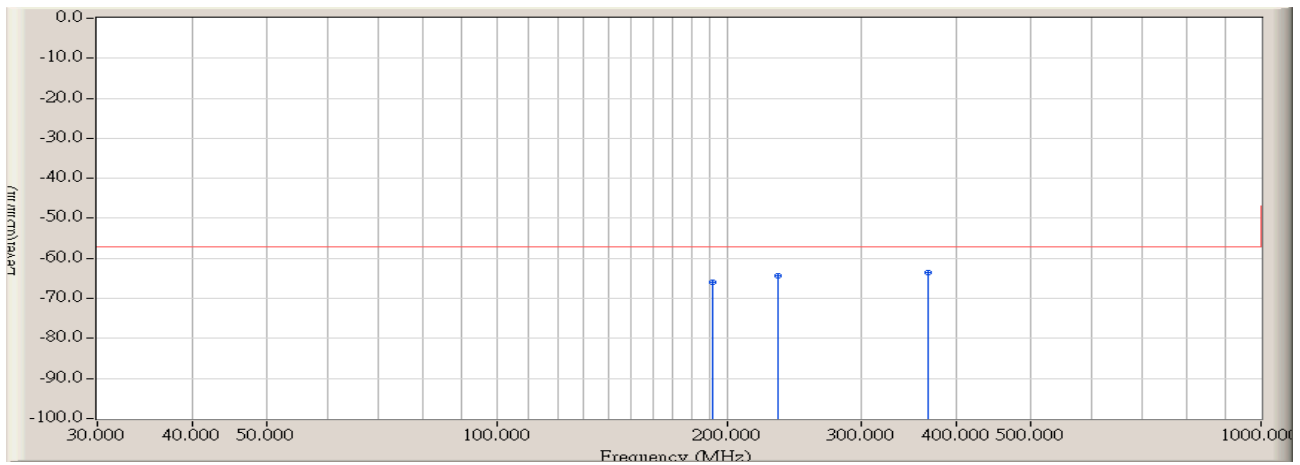


Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/17 - 10:22
Limit : ETSI_300328_Rx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(1-18GHz) - VERTICAL
Power : AC 230V/50Hz	Note : Model 5: Receive by 802.11n(20MHz) at channel 2412MHz- chain 110



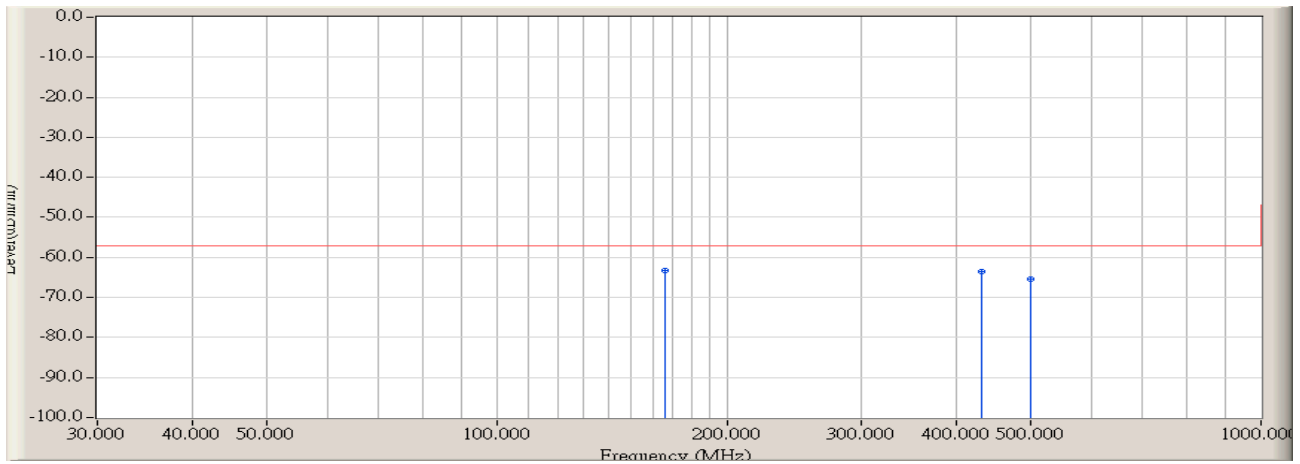
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1	*	1509.167	5.022	-58.523	-53.501	-6.501	-47.000	PEAK
2		2253.333	8.413	-69.498	-61.085	-14.085	-47.000	PEAK
3		2997.500	9.040	-65.760	-56.720	-9.720	-47.000	PEAK

<b>Engineer : Jame</b>	
<b>Site : AC-4 (3m Fully-Anechoic Chamber)</b>	<b>Time : 2008/10/17 - 13:36</b>
<b>Limit : ETSI_300328_Rx_03M_PK</b>	<b>Margin : 0</b>
<b>EUT : Wireless-N Network Mini PCI Adapter</b>	<b>Probe : RF_Substitution(30-1000MHz) - HORIZONTAL</b>
<b>Power : AC 230V/50Hz</b>	<b>Note : Model 5: Receive by 802.11n(20MHz) at channel 2472MHz- chain 110</b>



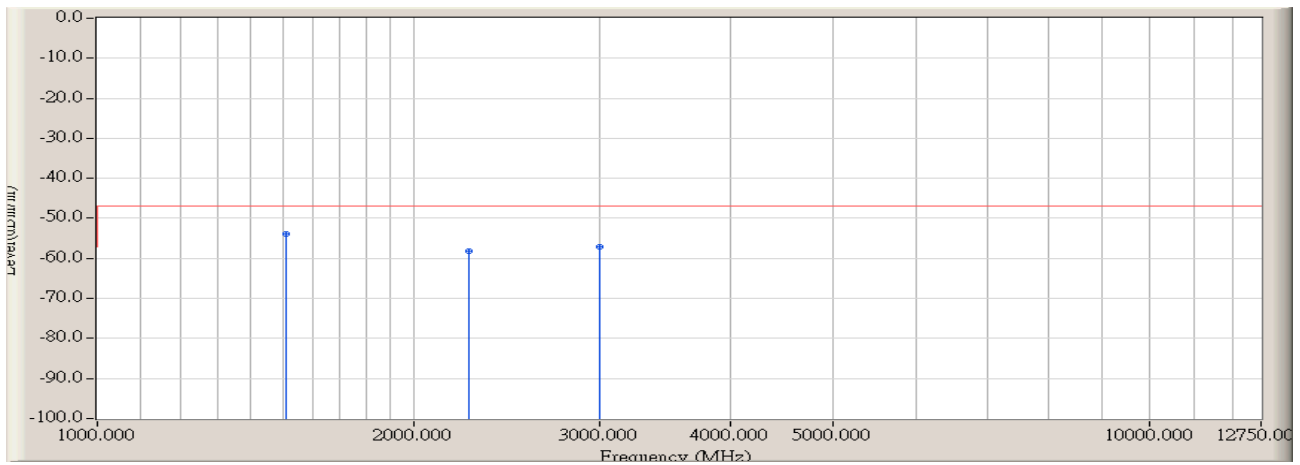
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		191.667	-2.070	-64.015	-66.085	-9.085	-57.000	PEAK
2		233.700	0.690	-65.081	-64.391	-7.391	-57.000	PEAK
3	*	366.267	4.623	-68.251	-63.628	-6.628	-57.000	PEAK

Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/17 - 13:36
Limit : ETSI_300328_Rx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(30-1000MHz) - VERTICAL
Power : AC 230V/50Hz	Note : Model 5: Receive by 802.11n(20MHz) at channel 2472MHz- chain 110



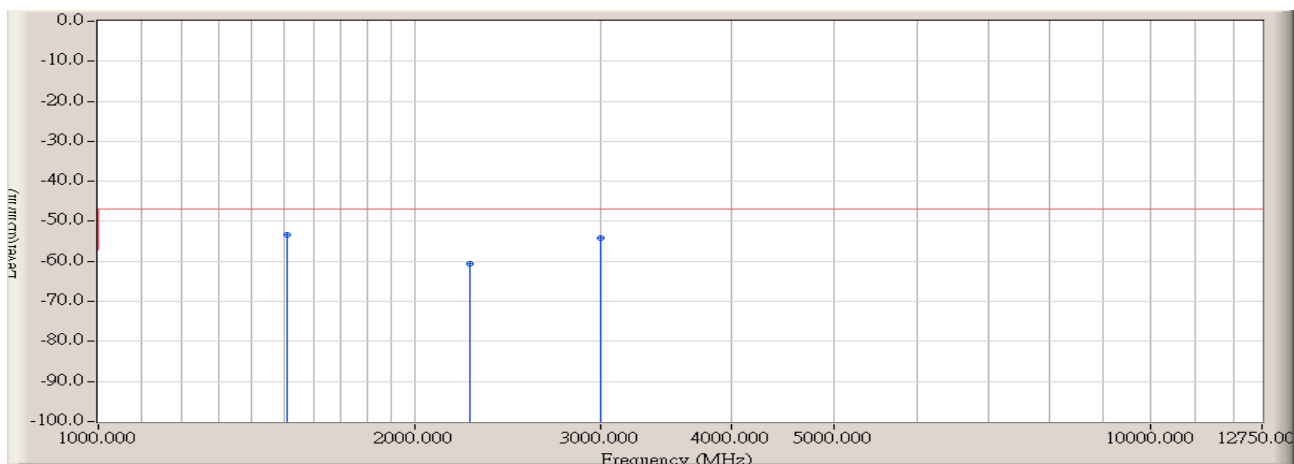
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1	*	165.800	1.710	-64.928	-63.218	-6.218	-57.000	PEAK
2		430.933	6.773	-70.360	-63.587	-6.587	-57.000	PEAK
3		500.450	4.870	-70.283	-65.413	-8.413	-57.000	PEAK

<b>Engineer : Jame</b>	
<b>Site : AC-4 (3m Fully-Anechoic Chamber)</b>	<b>Time : 2008/10/17 - 10:22</b>
<b>Limit : ETSI_300328_Rx_03M_PK</b>	<b>Margin : 0</b>
<b>EUT : Wireless-N Network Mini PCI Adapter</b>	<b>Probe : RF_Substitution(1-18GHz) - HORIZONTAL</b>
<b>Power : AC 230V/50Hz</b>	<b>Note : Model 5: Receive by 802.11n(20MHz) at channel 2472MHz- chain 110</b>



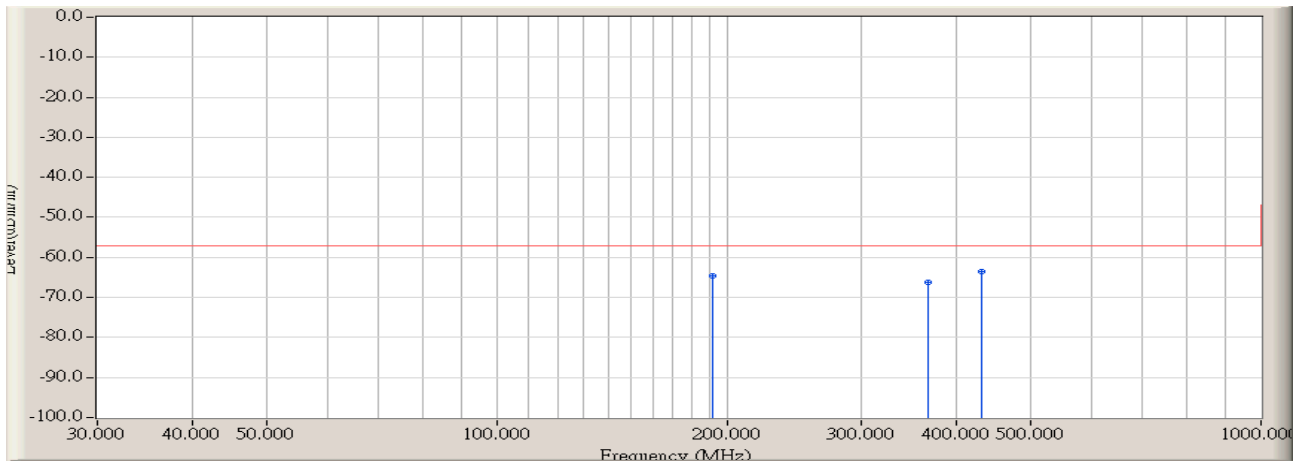
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1	*	1509.167	4.741	-58.664	-53.923	-6.923	-47.000	PEAK
2		2253.333	8.099	-66.299	-58.200	-11.200	-47.000	PEAK
3		2997.500	9.350	-66.484	-57.134	-10.134	-47.000	PEAK

Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/17 - 10:22
Limit : ETSI_300328_Rx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(1-18GHz) - VERTICAL
Power : AC 230V/50Hz	Note : Model 5: Receive by 802.11n(20MHz) at channel 2472MHz- chain 110



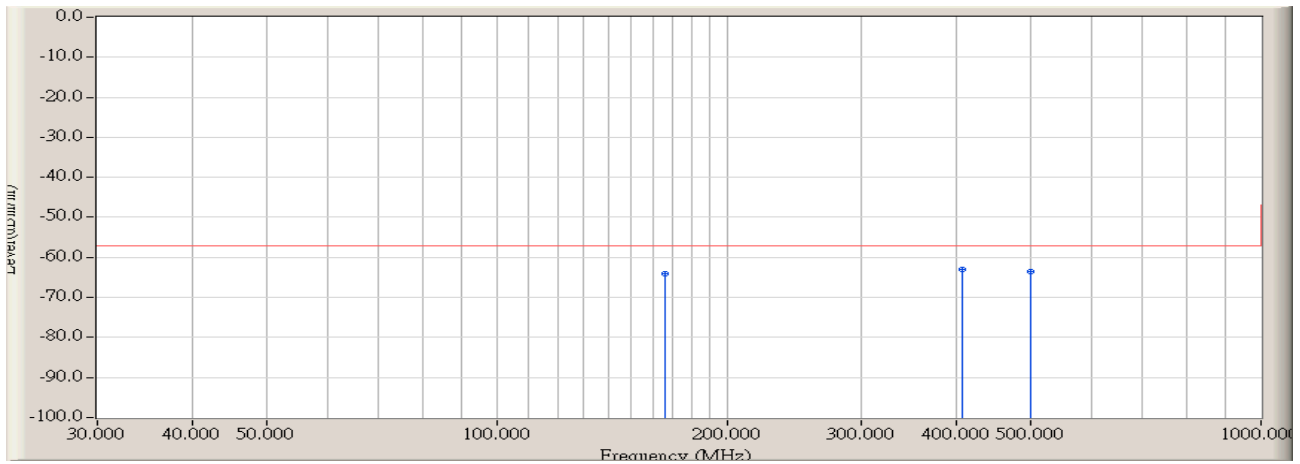
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1	*	1509.167	5.022	-58.243	-53.221	-6.221	-47.000	PEAK
2		2253.333	8.413	-68.953	-60.540	-13.540	-47.000	PEAK
3		2997.500	9.040	-63.185	-54.145	-7.145	-47.000	PEAK

Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/17 - 13:36
Limit : ETSI_300328_Rx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(30-1000MHz) - HORIZONTAL
Power : AC 230V/50Hz	Note : Model 6: Receive by 802.11n(40MHz) at channel 2422MHz- chain 110



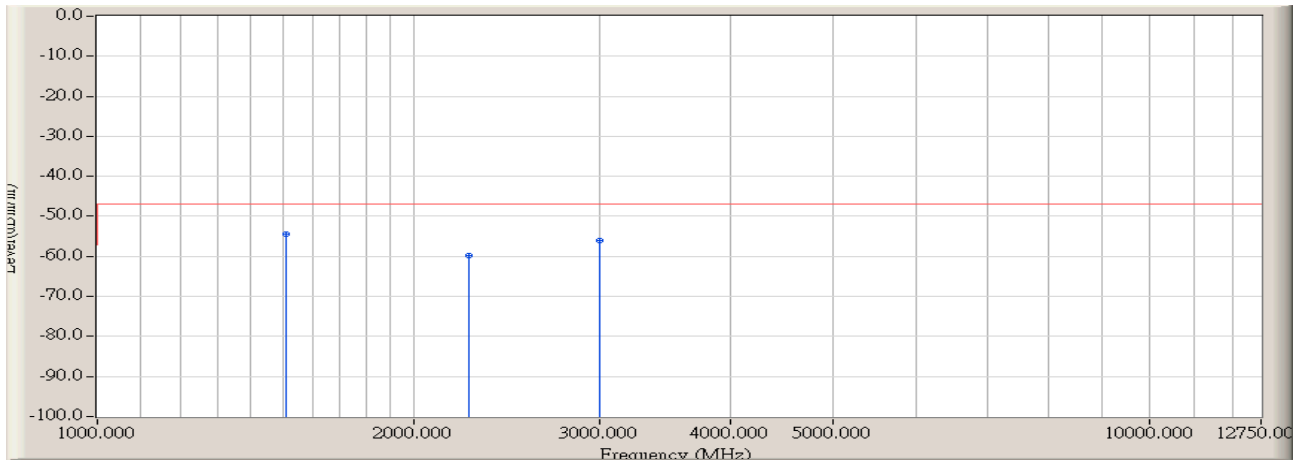
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		191.667	-2.070	-62.465	-64.535	-7.535	-57.000	PEAK
2		366.267	4.623	-70.728	-66.105	-9.105	-57.000	PEAK
3	*	430.933	5.853	-69.450	-63.597	-6.597	-57.000	PEAK

Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/17 - 13:36
Limit : ETSI_300328_Rx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(30-1000MHz) - VERTICAL
Power : AC 230V/50Hz	Note : Model 6: Receive by 802.11n(40MHz) at channel 2422MHz- chain 110



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		165.800	1.710	-65.746	-64.036	-7.036	-57.000	PEAK
2	*	406.683	7.443	-70.476	-63.033	-6.033	-57.000	PEAK
3		500.450	4.870	-68.347	-63.477	-6.477	-57.000	PEAK

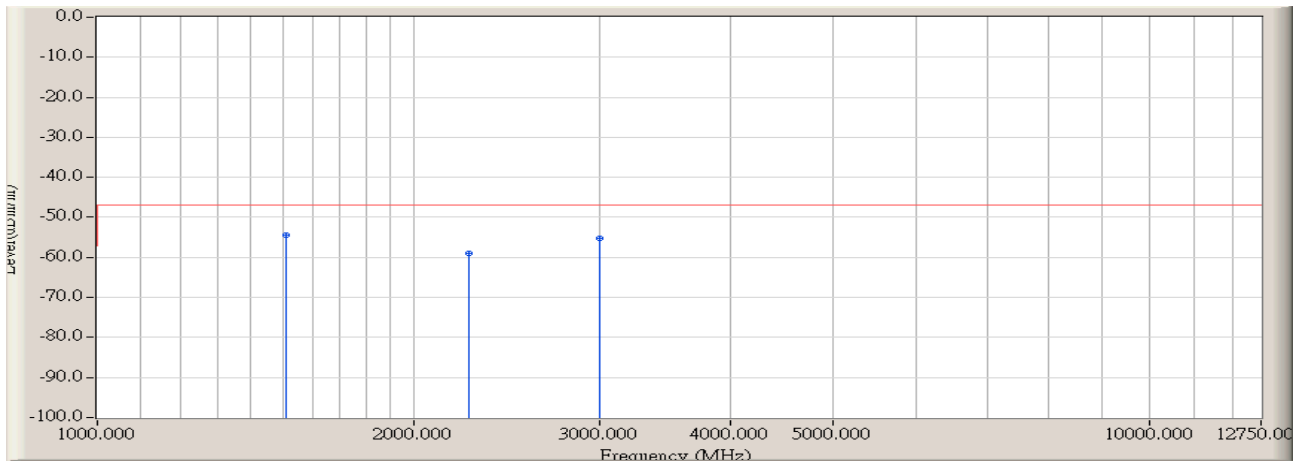
<b>Engineer : Jame</b>	
<b>Site : AC-4 (3m Fully-Anechoic Chamber)</b>	<b>Time : 2008/10/17 - 10:22</b>
<b>Limit : ETSI_300328_Rx_03M_PK</b>	<b>Margin : 0</b>
<b>EUT : Wireless-N Network Mini PCI Adapter</b>	<b>Probe : RF_Substitution(1-18GHz) - HORIZONTAL</b>
<b>Power : AC 230V/50Hz</b>	<b>Note : Model 6: Receive by 802.11n(40MHz) at channel 2422MHz- chain 110</b>



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1	*	1509.167	4.741	-59.107	-54.366	-7.366	-47.000	PEAK
2		2253.333	8.099	-67.947	-59.848	-12.848	-47.000	PEAK
3		2997.500	9.350	-65.443	-56.093	-9.093	-47.000	PEAK

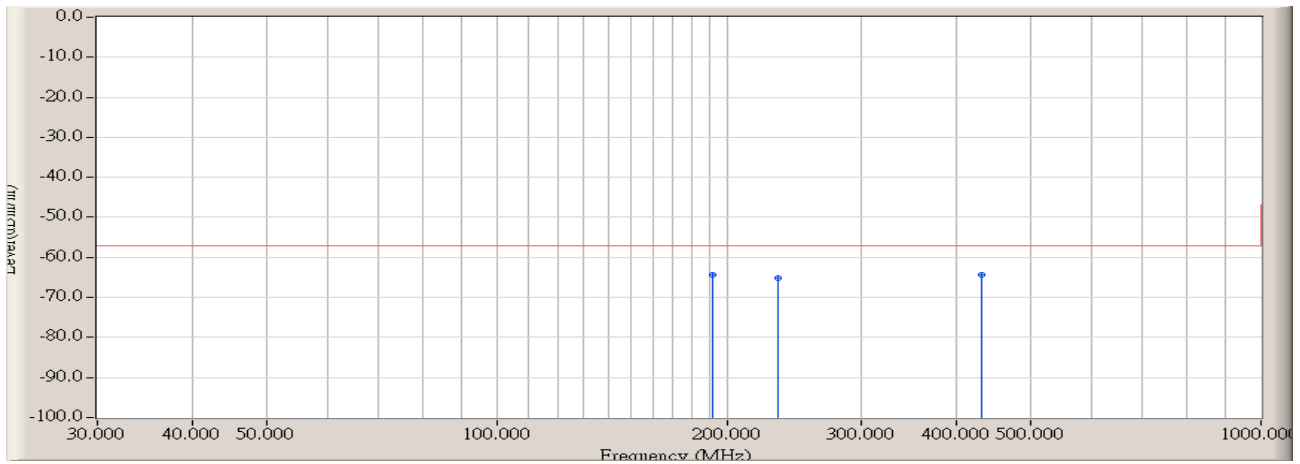


Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/17 - 10:22
Limit : ETSI_300328_Rx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(1-18GHz) - VERTICAL
Power : AC 230V/50Hz	Note : Model 6: Receive by 802.11n(40MHz) at channel 2422MHz- chain 110



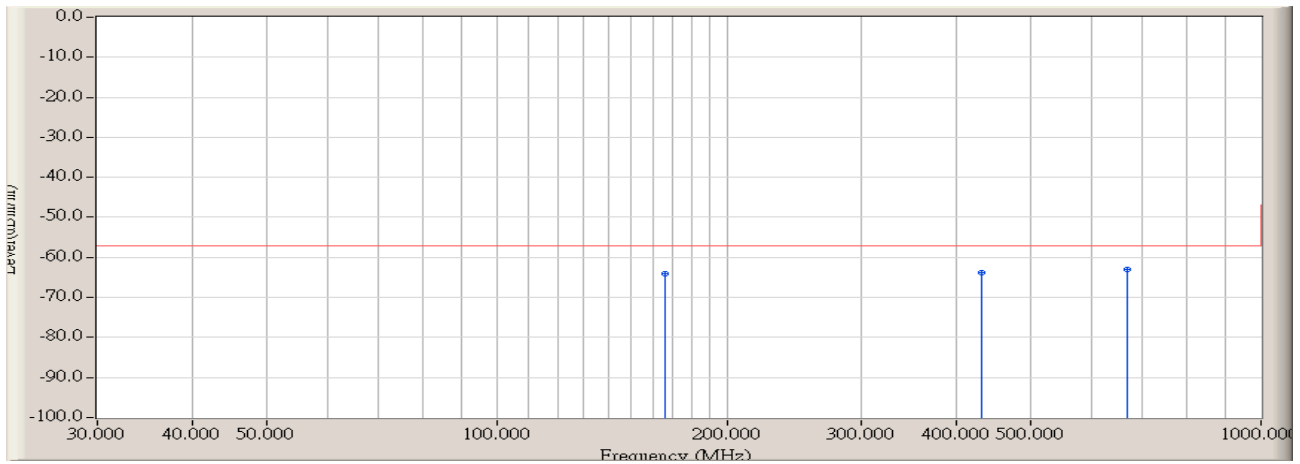
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1	*	1509.167	5.022	-59.557	-54.535	-7.535	-47.000	PEAK
2		2253.333	8.413	-67.508	-59.095	-12.095	-47.000	PEAK
3		2997.500	9.040	-64.309	-55.269	-8.269	-47.000	PEAK

Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/17 - 13:36
Limit : ETSI_300328_Rx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(30-1000MHz) - HORIZONTAL
Power : AC 230V/50Hz	Note : Model 6: Receive by 802.11n(40MHz) at channel 2452MHz- chain 110



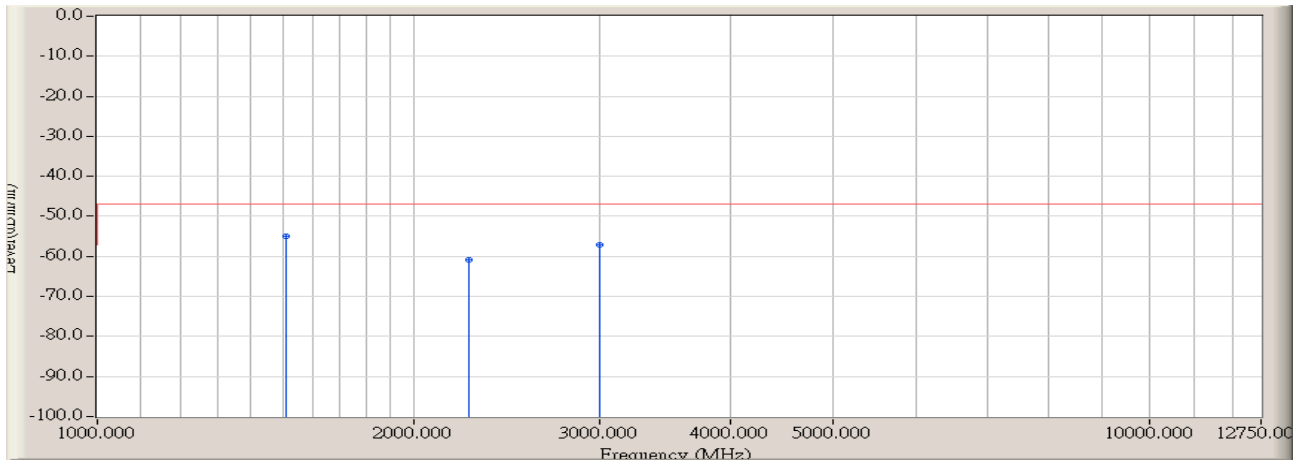
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		191.667	-2.070	-62.197	-64.267	-7.267	-57.000	PEAK
2		233.700	0.690	-65.732	-65.042	-8.042	-57.000	PEAK
3	*	430.933	5.853	-70.071	-64.218	-7.218	-57.000	PEAK

Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/17 - 13:37
Limit : ETSI_300328_Rx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(30-1000MHz) - VERTICAL
Power : AC 230V/50Hz	Note : Model 6: Receive by 802.11n(40MHz) at channel 2452MHz- chain 110



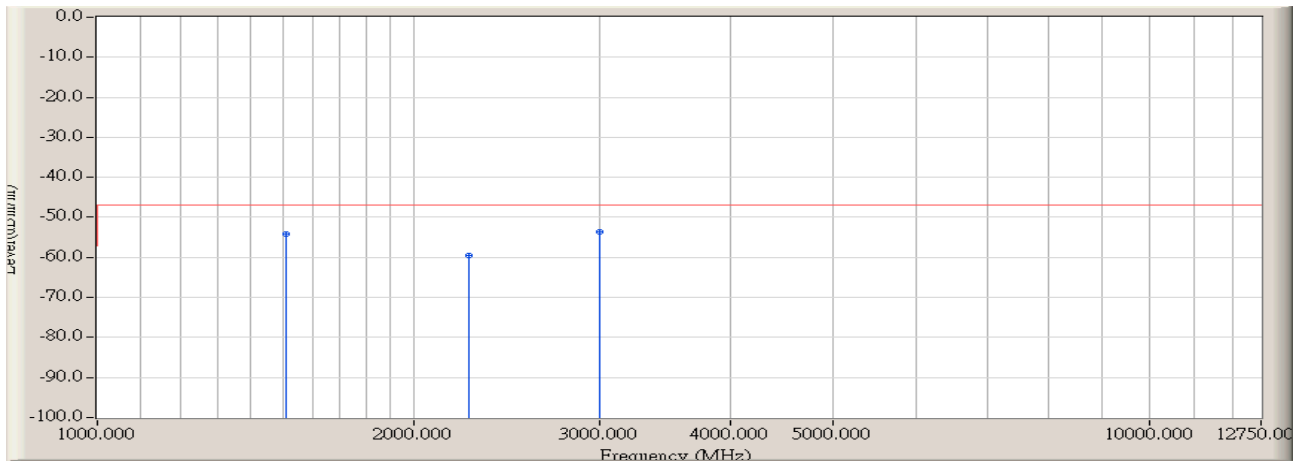
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		165.800	1.710	-65.780	-64.070	-7.070	-57.000	PEAK
2		430.933	6.773	-70.711	-63.938	-6.938	-57.000	PEAK
3	*	666.967	8.670	-71.700	-63.030	-6.030	-57.000	PEAK

<b>Engineer : Jame</b>	
<b>Site : AC-4 (3m Fully-Anechoic Chamber)</b>	<b>Time : 2008/10/17 - 10:22</b>
<b>Limit : ETSI_300328_Rx_03M_PK</b>	<b>Margin : 0</b>
<b>EUT : Wireless-N Network Mini PCI Adapter</b>	<b>Probe : RF_Substitution(1-18GHz) - HORIZONTAL</b>
<b>Power : AC 230V/50Hz</b>	<b>Note : Model 6: Receive by 802.11n(40MHz) at channel 2452MHz- chain 110</b>



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1	*	1509.167	4.741	-59.629	-54.888	-7.888	-47.000	PEAK
2		2253.333	8.099	-68.928	-60.829	-13.829	-47.000	PEAK
3		2997.500	9.350	-66.576	-57.226	-10.226	-47.000	PEAK

Engineer : Jame	
Site : AC-4 (3m Fully-Anechoic Chamber)	Time : 2008/10/17 - 10:22
Limit : ETSI_300328_Rx_03M_PK	Margin : 0
EUT : Wireless-N Network Mini PCI Adapter	Probe : RF_Substitution(1-18GHz) - VERTICAL
Power : AC 230V/50Hz	Note : Model 6: Receive by 802.11n(40MHz) at channel 2452MHz- chain 110

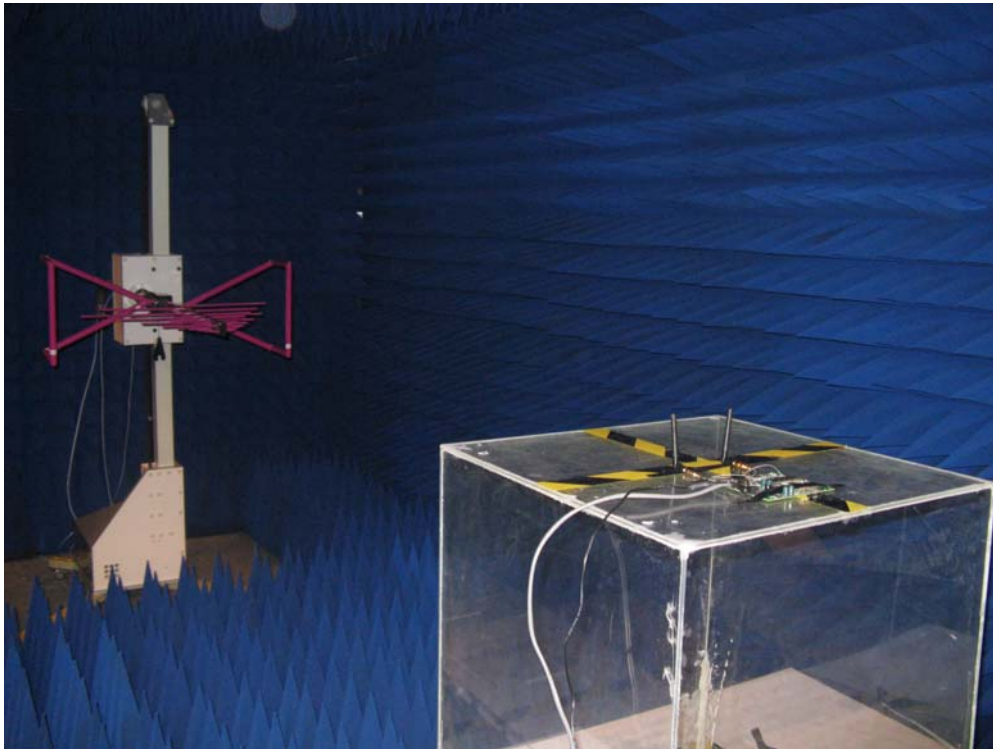


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		1509.167	5.022	-59.180	-54.158	-7.158	-47.000	PEAK
2		2253.333	8.413	-68.040	-59.627	-12.627	-47.000	PEAK
3	*	2997.500	9.040	-62.721	-53.681	-6.681	-47.000	PEAK

**7.6. Test Photograph**

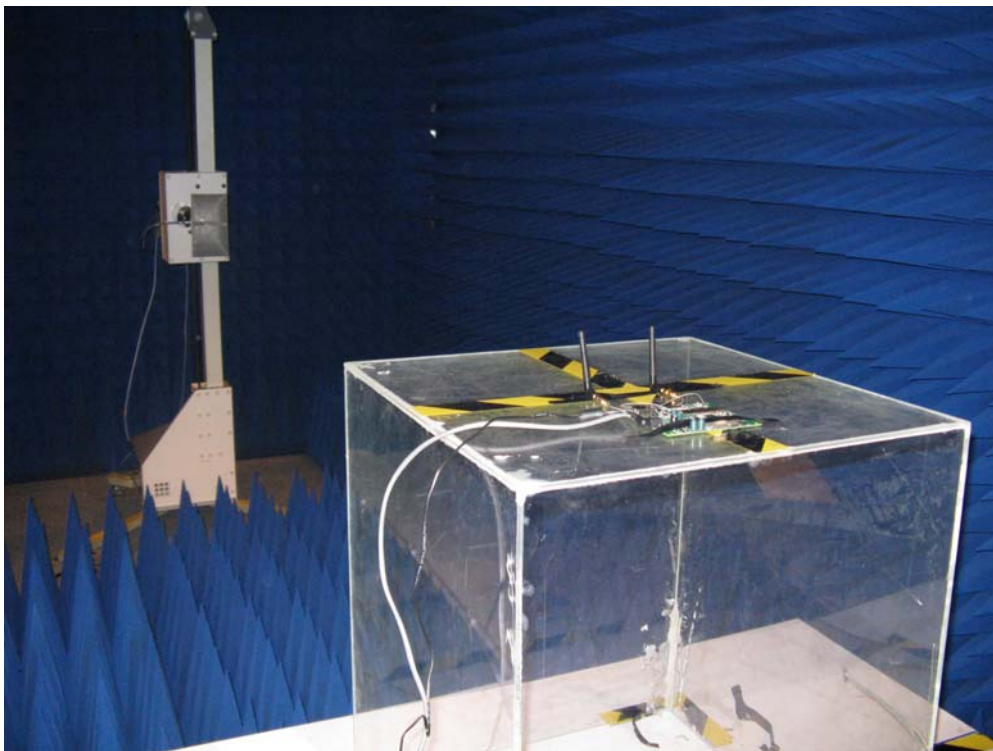
Test Mode: Receive

Description: Transmitter Spurious Emissions Test Setup for Under 1GHz



Test Mode: Receive

Description: Transmitter Spurious Emissions Test Setup for Above 1GHz



**8. Dwell Time**

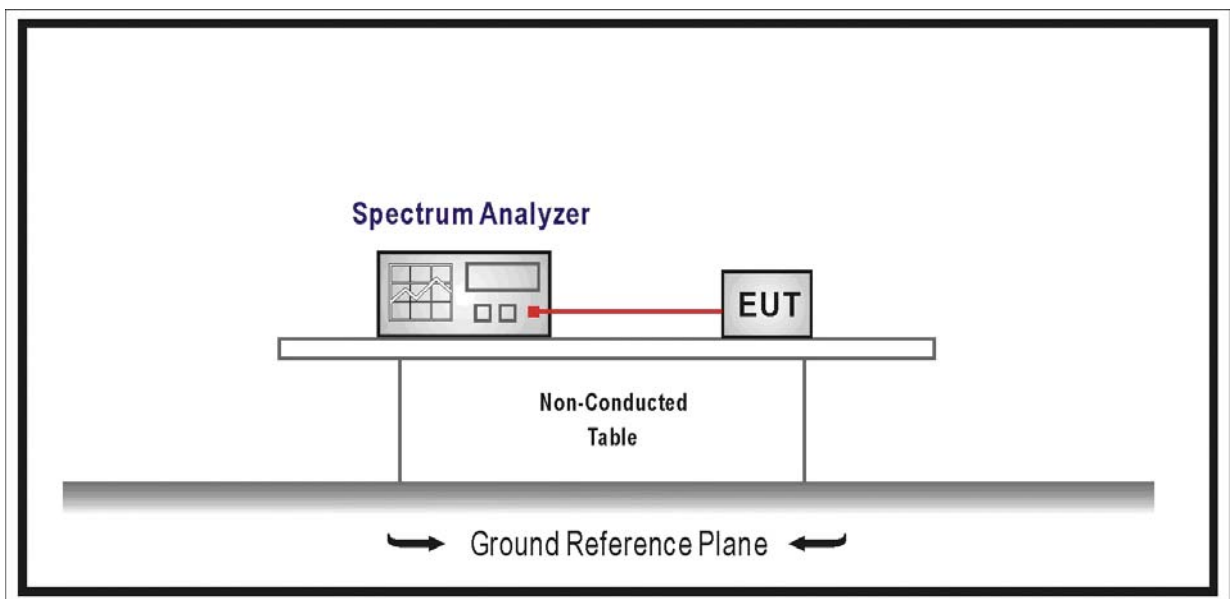
**8.1. Test Equipment**

Dwell Time / AC-4

Instrument	Manufacturer	Type No.	Serial No.	Cal. Date
Spectrum Analyzer	Agilent	E4446A	MY45300103	2008/06/11
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 maximum dwell time shall be 0.4 s.

**8.4. Test Procedure**

The EUT must have its hopping function enabled. Use the following spectrum analyzer settings:

Span = zero span, centered on a hopping channel

RBW = 1MHz

VBW  $\geq$  RBW

Sweep = as necessary to capture the entire dwell time per hopping channel

Detector function = peak

Trace = max hold

If possible, use the marker-delta function to determine the dwell time. If this value varies with different modes of operation (e.g., data rate, modulation format, etc.), repeat this test for each variation.

## 8.5. Test Result

It is not suitable to perform this test item as the requirements in this clause are only applicable to equipment using Frequency Hopping Spread Spectrum (FHSS) modulation.



## 9. Hopping Channel

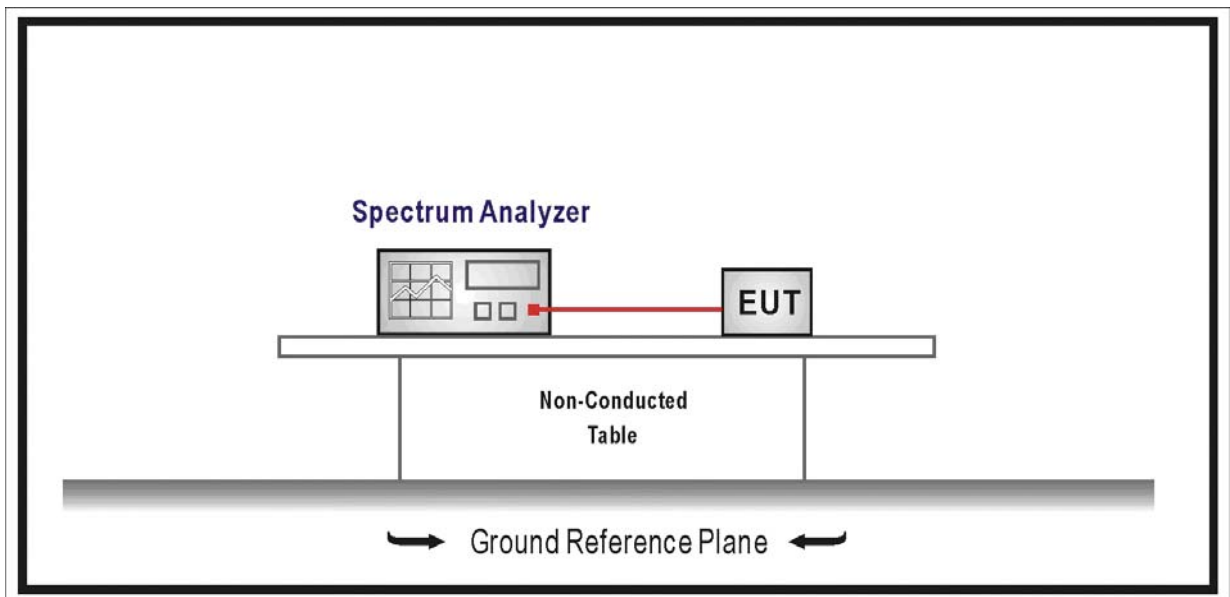
### 9.1. Test Equipment

Hopping Channel / AC-4

Instrument	Manufacturer	Type No.	Serial No.	Cal. Date
Spectrum Analyzer	Agilent	E4446A	MY45300103	2008/06/11
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

Non-adaptive Frequency Hopping systems shall make use of non-overlapping hopping channels separated by the channel bandwidth as measured at 20 dB below peak power. The hopping channels defined within a hopping sequence shall be at least 1 MHz apart (channel separation).

### 9.4. Test Procedure

Use the following spectrum analyzer settings:

Span = approximately 2 to 3 times the 20dB bandwidth, centered on a hopping channel

RBW  $\geq$  1% of the 20dB bandwidth

VBW  $\geq$  RBW

Sweep = auto

Detector function = peak

Trace = max hold

The EUT should be transmitting at its maximum data rate. Allow the trace to stabilize.

Use the marker-to-peak function to set the marker to the peak of the emission. Use the marker-delta function to measure 20 dB down one side of the emission. Reset the marker-delta function, and move the marker to the other side of the emission, until it is (as close as possible to) even with the reference marker level. The marker-delta reading at this point is the 20 dB bandwidth of the emission.

Repeat above procedure testing on the adjacent channel, and record all frequencies to determined the non-overlapping hopping channels and channel separation.

If above values varies with different modes of operation (e.g., data rate, modulation format, etc.), repeat this test for each variation.

## 9.5. Test Result

It is not suitable to perform this test item as the requirements in this clause are only applicable to equipment using Frequency Hopping Spread Spectrum (FHSS) modulation.

## 10. Hopping Sequence

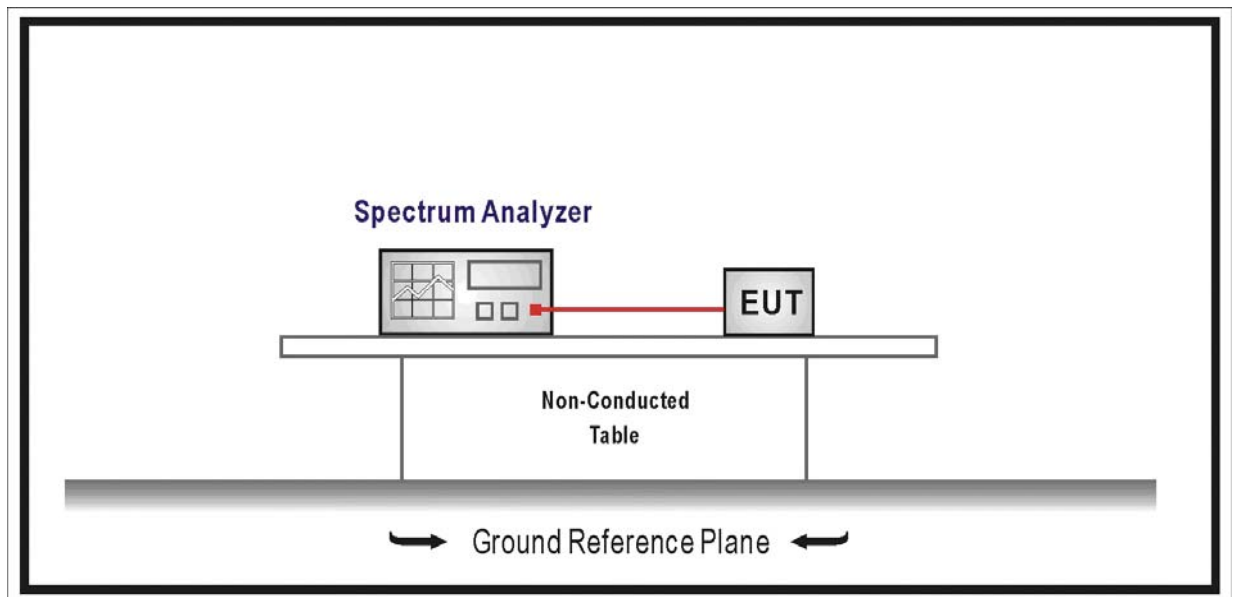
### 10.1. Test Equipment

Hopping Sequence / AC-4

Instrument	Manufacturer	Type No.	Serial No.	Cal. Date
Spectrum Analyzer	Agilent	E4446A	MY45300103	2008/06/11
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

Non-adaptive Frequency Hopping systems shall make use of a hopping sequence(s) that contains at least 15 hopping channels.

Adaptive Frequency Hopping systems shall make use of a hopping sequence(s) that is capable of operating over a minimum of 90% of the band specified in table 1, from which at any give time a minimum of 20 hopping channels shall be used.

Each hopping channel of the hopping sequence shall be occupied at least once during a period not exceeding four times the product of the dwell time per hop and the number of channels.

## 10.4. Test Procedure

### For Hopping Channel Number:

The EUT must have its hopping function enabled. Use the following spectrum analyzer settings:

Span = the frequency band of operation

RBW  $\geq$  1% of the span

VBW  $\geq$  RBW

Sweep = auto

Detector function = peak

Trace = max hold

Allow the trace to stabilize. It may prove necessary to bread the span up to sections, in order to clearly show all of the hopping frequencies.

### For Hopping Sequence:

The EUT must have its hopping function enabled. Use the following spectrum analyzer settings:

Span = zero span, centered on a hopping channel

RBW = 1MHz

VBW  $\geq$  RBW

Sweet Time = 4 x dwell time per hop and the number of channels

Detector function = peak

Sweep mode = Single

Trace = max hold

## 10.5. Test Result

It is not suitable to perform this test item as the requirements in this clause are only applicable to equipment using Frequency Hopping Spread Spectrum (FHSS) modulation.

## 11. Attachment

### ➤ EUT Photograph

(1) EUT Photo



(2) EUT Photo



(3) EUT Photo

