

# FCC COMPLIANCE REPORT

for

Chuangfeng Electronics Co.,Ltd

Wireless Optical Mouse

Model Number: KM-1013

Prepared for : Chuangfeng Electronics Co.,Ltd  
Huali Industrial Zone, Songbotang, Changping Town, Dongguan  
Address : City, Guangdong, China

Prepared By : NS Technology Co., Ltd.  
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Report Number : NSE-F09124206  
Date of Test : Nov. 7,~ Dec. 5, 2009  
Date of Report : Dec. 7, 2009






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# NS Technology Co., Ltd.

|  |   |  |                       |
|--|---|--|-----------------------|
| <b>Applicant:</b>  | Chuangfeng Electronics Co.,Ltd  |  |                       |
| <b>Address:</b>  | Huali Industrial Zone, Songbotang, Changping Town, Dongguan City, Guangdong, China                  |  |                       |
| <b>Manufacturer:</b>   | Chuangfeng Electronics Co.,Ltd  |  |                       |
| <b>Address:</b>  | Huali Industrial Zone, Songbotang, Changping Town, Dongguan City, Guangdong, China                  |  |                       |
| <b>E.U.T:</b>  | Wireless Optical Mouse  |  |                       |
| <b>Model Number:</b>   | KM-1013   |  |                       |
| <b>Trade Name:</b>   | -----   | <b>Operating Frequency:</b>  | 2405MHz~2476MHz       |
| <b>Date of Receipt:</b>  | Nov. 6, 2009  | <b>Date of Test:</b>   | Nov. 7,~ Dec. 5, 2009 |
| <b>Test Specification:</b>   | FCC Part 15 Subpart C: July. 10, 2008<br>ANSI C63.4:2003  |  |                       |
| <b>Test Result:</b>  | The equipment under test was found to be compliance with the requirements of the standards applied. |  |                       |
| <b>Issue Date: Dec. 7,2009</b>   |   |  |                       |
| Tested by:   | Reviewed by:  | Approved by:   |                       |
| <br><hr/>   | <br><hr/>        | <br><hr/> |                       |
| Jade/ Engineer   | Iceman Hu / Supervisor  | Steven Lee / Manager   |                       |
| <b>Other Aspects:</b>  | None.   |  |                       |
| Abbreviations: OK/P=passed    fail/F=failed    n.a/N=not applicable    E.U.T=equipment under tested  |   |  |                       |
| This test report is based on a single evaluation of one sample of above mentioned products ,It is not permitted to be duplicated in extracts without written approval of NS Technology Co., Ltd. |   |  |                       |



# 1. GENERAL PRODUCT INFORMATION

## 1.1. Product Function

Details please refer to Technical Construction Form and User Manual.

## 1.2. Description of Device (EUT)

E.U.T. : Wireless Optical Mouse  
 Model No. : KM-1013  
 Operating Frequency : 2405~2476MHz  
 Number of Channels : 32 channels hopping with 2 group form 2.405GHz ~ 2.476GHz.  
 Type of Modulation : GFSK  
 Antenna Type : Integral  
 System Input Voltage : Nominal Voltage: DC 3V  
 Temperature Range(Operating) : 0 ~+ 40°C

Channel frequency:

| Frequency Group1 |      | Frequency Group2 |      | Unit  |
|------------------|------|------------------|------|-------|
| 2407             | 2442 | 2405             | 2443 | (MHz) |
| 2408             | 2447 | 2406             | 2444 |       |
| 2412             | 2451 | 2409             | 2446 |       |
| 2414             | 2452 | 2410             | 2448 |       |
| 2417             | 2457 | 2411             | 2449 |       |
| 2420             | 2458 | 2413             | 2453 |       |
| 2421             | 2459 | 2415             | 2455 |       |
| 2422             | 2460 | 2416             | 2456 |       |
| 2427             | 2461 | 2418             | 2462 |       |
| 2428             | 2465 | 2419             | 2463 |       |
| 2431             | 2468 | 2423             | 2464 |       |
| 2435             | 2469 | 2425             | 2466 |       |
| 2436             | 2472 | 2429             | 2467 |       |
| 2437             | 2473 | 2430             | 2470 |       |
| 2438             | 2475 | 2432             | 2471 |       |
| 2439             | 2476 | 2434             | 2474 |       |

## 1.3. Difference between Model Numbers

## 1.4. Independent Operation Modes

The basic operation modes are:

- 1.4.1. Low Channel TX 2405MHz
- 1.4.2. Middle Channel TX 2442MHz
- 1.4.3.; High Channel TX 2476MHz



## 2. TEST SITES

### 2.1. Test Facilities

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

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

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

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

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

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

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

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

Name of Firm : NS Technology Co., Ltd.

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



## 2.2. List of Test and Measurement Instruments

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

| Equipment          | Manufacturer    | Model No.     | Serial No.   | Last Cal.  | Next Cal.  |
|--------------------|-----------------|---------------|--------------|------------|------------|
| EMI Test Receiver  | Rohde & Schwarz | ESCS30        | 100340       | May 31,09  | May 31,10  |
| Spectrum Analyzer  | HP              | 8593E         | 3448U00806   | May 31,09  | May 31,10  |
| Bilog Antenna      | Teseq           | CBL 6111D     | 25758        | Oct. 27,09 | Oct. 27,10 |
| Signal Amplifier   | Agilent         | 8447D         | 2944A10488   | May 2,09   | May 2,10   |
| 50Ω Coaxial Switch | ANRITSU         | MP59B         | 6200530577   | May 2,09   | May 2,10   |
| RF Cable           | IMRO            | IMRO-400      | 966 Cable 1# | May 2,09   | May 2,10   |
| RF Cable           | DRAKA           | M17/84-RG 223 | 966 Cable 2# | May 2,09   | May 2,10   |

### 2.2.2. For radiated emission test(1GHz-25GHz)

| Equipment         | Manufacturer | Model No.             | Serial No.     | Last Cal.  | Next Cal.  |
|-------------------|--------------|-----------------------|----------------|------------|------------|
| Spectrum Analyzer | HP           | 8593E                 | 3448U00806     | May 31,09  | May 31,10  |
| Horn Antenna      | EMCO         | 3117                  | 00062558       | Jan. 19,09 | Jan. 19,11 |
| Signal Amplifier  | BURGEON      | PEC-38-30M18G -12-SFF | NSEMC001       | May 31,09  | May 31,11  |
| RF Cable          | DRAKA        | M06/25-RG102          | 966Cable 3#24G | May 2,09   | May 2,10   |

### 2.2.3. For Band edge compliance and 20dB bandwidth test

| Equipment          | Manufacturer    | Model No.     | Serial No.   | Last Cal.  | Next Cal.  |
|--------------------|-----------------|---------------|--------------|------------|------------|
| EMI Test Receiver  | Rohde & Schwarz | ESCS30        | 100340       | May 31,09  | May 31,10  |
| Spectrum Analyzer  | HP              | 8593E         | 3448U00806   | May 31,09  | May 31,10  |
| Bilog Antenna      | Teseq           | CBL 6111D     | 25758        | Oct. 27,09 | Oct. 27,10 |
| Signal Amplifier   | Agilent         | 8447D         | 2944A10488   | May 2,09   | May 2,10   |
| 50Ω Coaxial Switch | ANRITSU         | MP59B         | 6200530577   | May 2,09   | May 2,10   |
| RF Cable           | IMRO            | IMRO-400      | 966 Cable 1# | May 2,09   | May 2,10   |
| RF Cable           | DRAKA           | M17/84-RG 223 | 966 Cable 2# | May 2,09   | May 2,10   |

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

#### 3.1. Principle of Configuration Selection

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

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

System Diagram of Connections Between EUT and Simulators



*(EUT : Wireless Optical Mouse)*

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

Refer to clause 1.4

#### 3.4. Special Accessories and Auxiliary Equipment

None.

#### 3.5. Countermeasures to Achieve EMC Compliance

None.

## 4. TEST SUMMARY

Test items and result lists

| No. | Item                      | Standard                               | Results |
|-----|---------------------------|--|---------|
| 1   | Conduction Emission Test  | FCC Part15C: 15.209<br>ANSI C63.4-2003 | N/A     |
| 2   | Radiated Emission Test    | FCC Part15C: 15.249<br>ANSI C63.4-2003 | PASS    |
| 3   | Band Edge Compliance Test | FCC Part15: 15.249                     | PASS    |
| 4   | 20dB Bandwidth Test       | FCC Part 15: 15.215                    | PASS    |

**Note:** N/A is an abbreviation for Not Applicable.



## 5. EMISSION TEST RESULTS

### 5.1. Radiated Emission

#### 5.1.1. Test limits

- 1) FCC part 15C section 15.209
- 2) FCC part 15C section 15.249(a)

#### 5.1.2. Test procedure

The EUT was placed on a turn table which was 0.8 meter above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT was set 3 meters away from the receiving antenna which was mounted on a antenna tower. At the frequency band of 30MHz to 1GHz, The measuring antenna moved up and down to find out the maximum emission level. It moved from 1 to 4 m for horizontal and vertical polarizations. The broadband antenna (calibrated by dipole antenna) was used as a receiving antenna. At the frequency band of 1GHz to 10GHz, The measuring antenna moved from 1 to 4 m for horizontal and vertical polarization. The horn antenna was used as a receiving antenna.

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

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

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

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

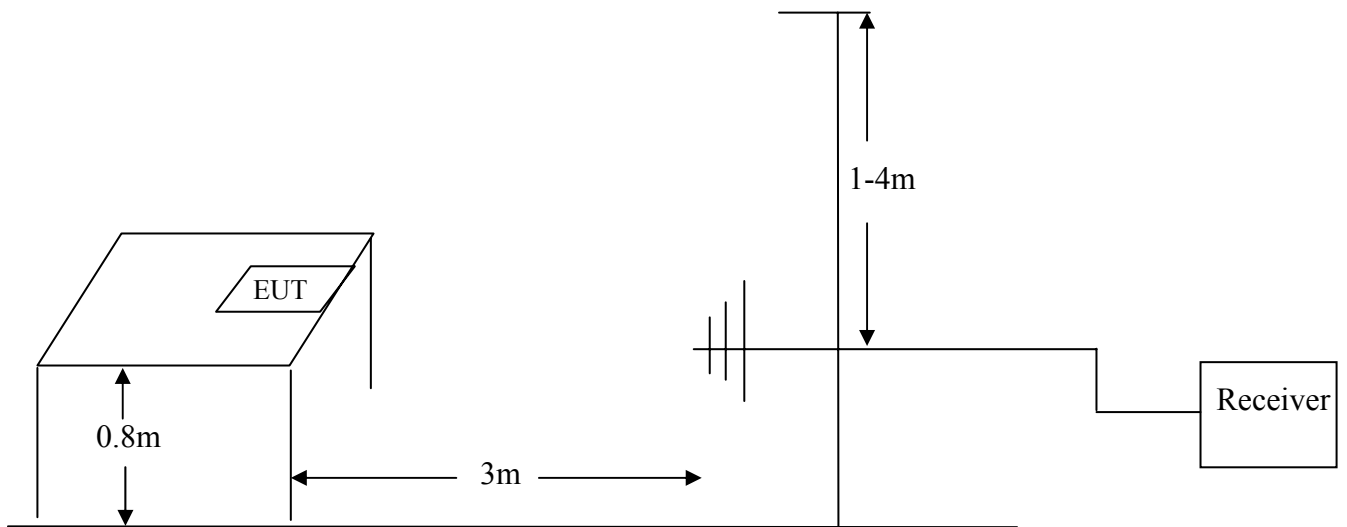
The EUT position(X. Y. Z) were checked and worse case was happened in Y position. So Y position was chose for find measurement.

The EUT was tested in Chamber Site.

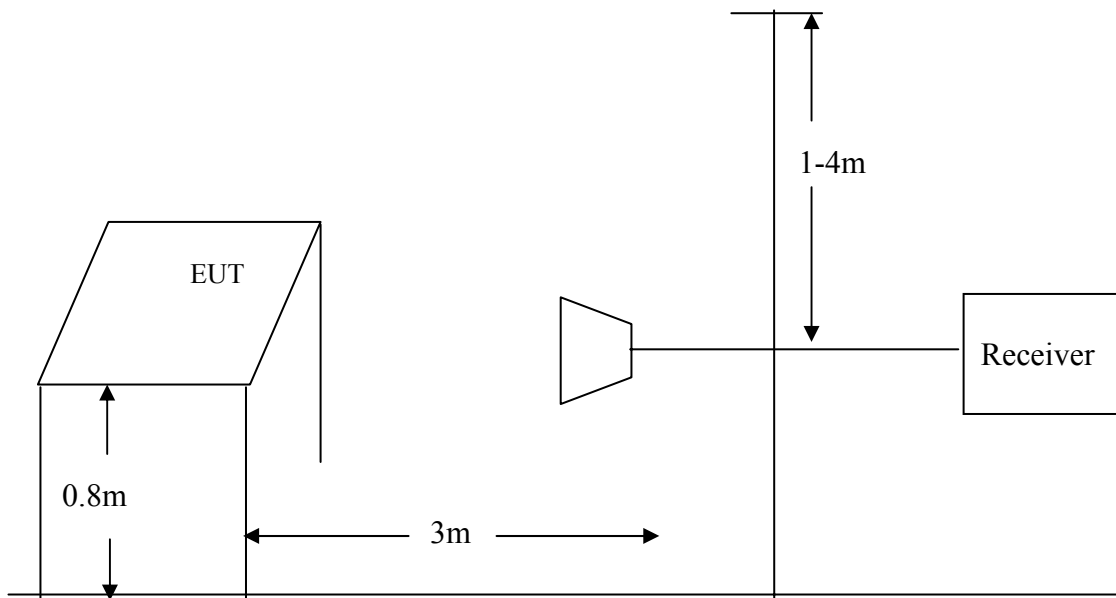


### 5.1.3. Test Setup Diagram

#### 5.1.3.1. Frequency range: 30MHz-1000MHz



#### 5.1.3.2. Frequency range: 1 GHz -25GHz



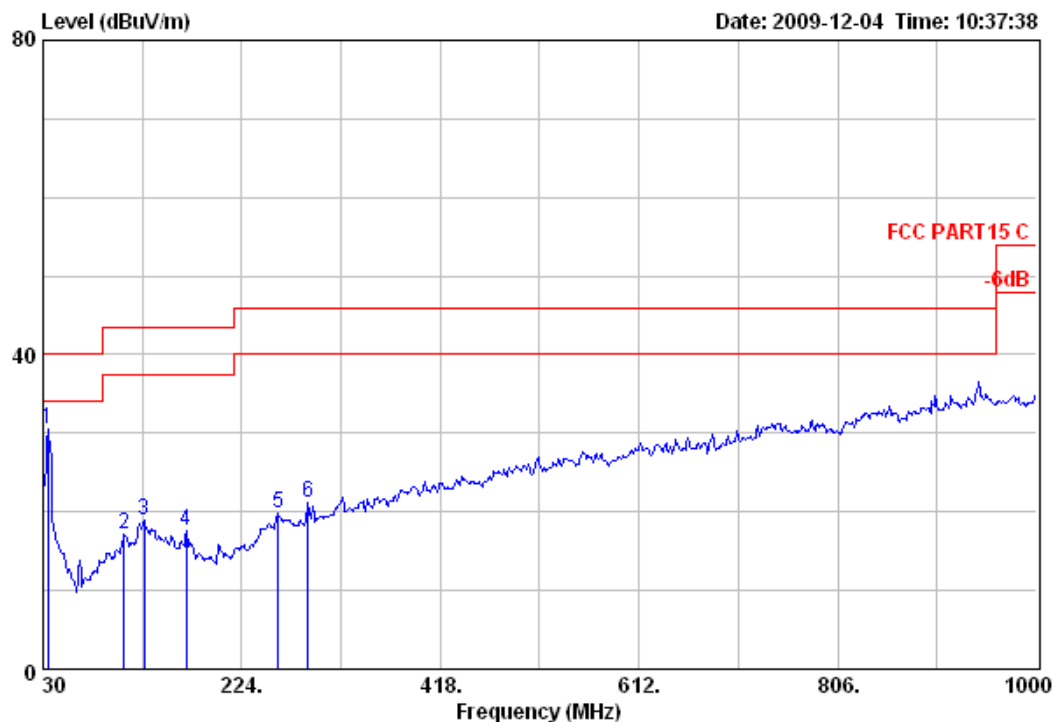
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Data: 232

File: D:\Radiation data\C\Chuangfeng.EMI (259)

Date: 2009-12-04 Time: 10:37:38



Test Site : 966 Chamber  
Limit : FCC PART15 C  
Dis. / Ant. : 3m 25758-3 Ant. Pol.: VERTICAL  
EUT : Wireless Optical Mouse  
M/N : KM-1013  
Power : DC 3V  
Test Engineer : Jade  
Comment : Temp.:25.2'C Humi.:55%  
Test Mode : TX Mode

|   |        | Emission |          |        |         | Ant.   | Cable |        |
|---|--------|----------|----------|--------|---------|--------|-------|--------|
|   | Freq.  | Level    | Limits   | Margin | Reading | Factor | Loss  | Remark |
|   | (MHz)  | (dBuV/m) | (dBuV/m) | (dB)   | (dBuV)  | (dB/m) | (dB)  |        |
| 1 | 34.85  | 30.43    | 40.00    | 9.57   | 11.84   | 18.00  | 0.59  | QP     |
| 2 | 109.54 | 17.13    | 43.50    | 26.37  | 4.83    | 11.20  | 1.10  | QP     |
| 3 | 128.94 | 19.05    | 43.50    | 24.45  | 5.89    | 11.96  | 1.20  | QP     |
| 4 | 169.68 | 17.69    | 43.50    | 25.81  | 6.19    | 10.10  | 1.40  | QP     |
| 5 | 259.89 | 19.92    | 46.00    | 26.08  | 4.69    | 13.50  | 1.73  | QP     |
| 6 | 288.99 | 21.10    | 46.00    | 24.90  | 6.02    | 13.24  | 1.84  | QP     |



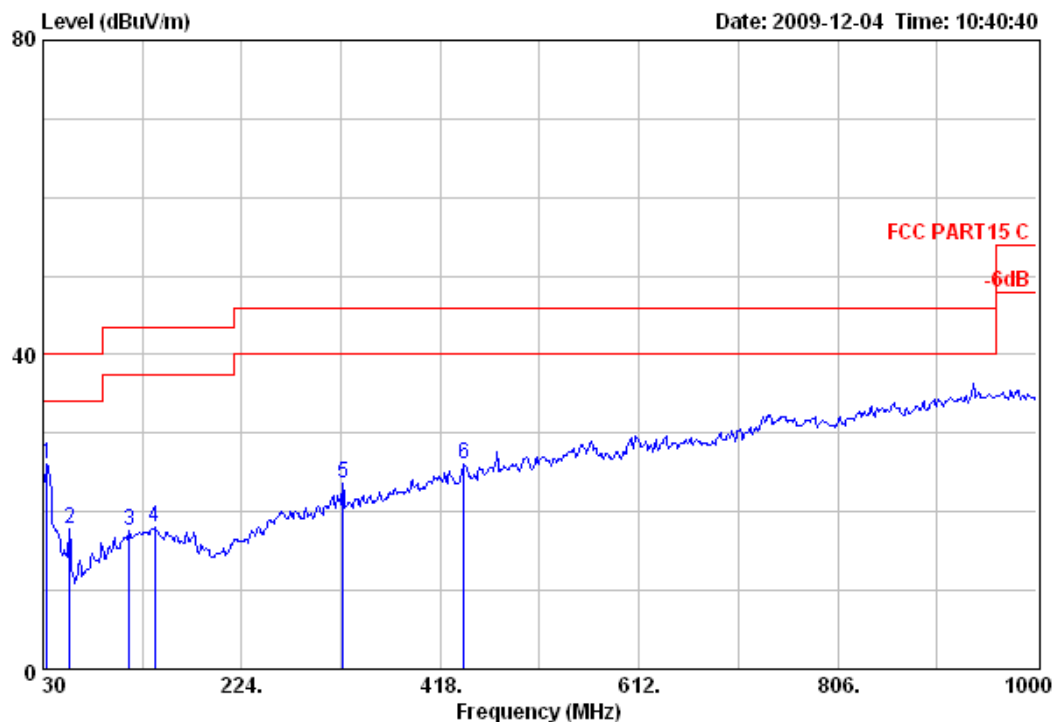
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Data: 233

File: D:\Radiation data\C\Chuangfeng.EMI (259)

Date: 2009-12-04 Time: 10:40:40



Test Site : 966 Chamber  
Limit : FCC PART15 C  
Dis. / Ant. : 3m 25758-3 Ant. Pol.: HORIZONTAL  
EUT : Wireless Optical Mouse  
M/N : KM-1013  
Power : DC 3V  
Test Engineer : Jade  
Comment : Temp.:25.2'C Humi.:55%  
Test Mode : TX Mode

|   |        | Emission |          |        |         | Ant.   | Cable |        |
|---|--------|----------|----------|--------|---------|--------|-------|--------|
|   | Freq.  | Level    | Limits   | Margin | Reading | Factor | Loss  | Remark |
|   | (MHz)  | (dBuV/m) | (dBuV/m) | (dB)   | (dBuV)  | (dB/m) | (dB)  |        |
| 1 | 33.88  | 26.03    | 40.00    | 13.97  | 6.84    | 18.60  | 0.59  | QP     |
| 2 | 56.19  | 17.85    | 40.00    | 22.15  | 10.10   | 7.04   | 0.71  | QP     |
| 3 | 114.39 | 17.60    | 43.50    | 25.90  | 5.09    | 11.40  | 1.11  | QP     |
| 4 | 138.64 | 17.95    | 43.50    | 25.55  | 4.52    | 12.18  | 1.25  | QP     |
| 5 | 322.94 | 23.67    | 46.00    | 22.33  | 7.55    | 14.15  | 1.97  | QP     |
| 6 | 441.28 | 26.07    | 46.00    | 19.93  | 6.40    | 17.41  | 2.26  | QP     |



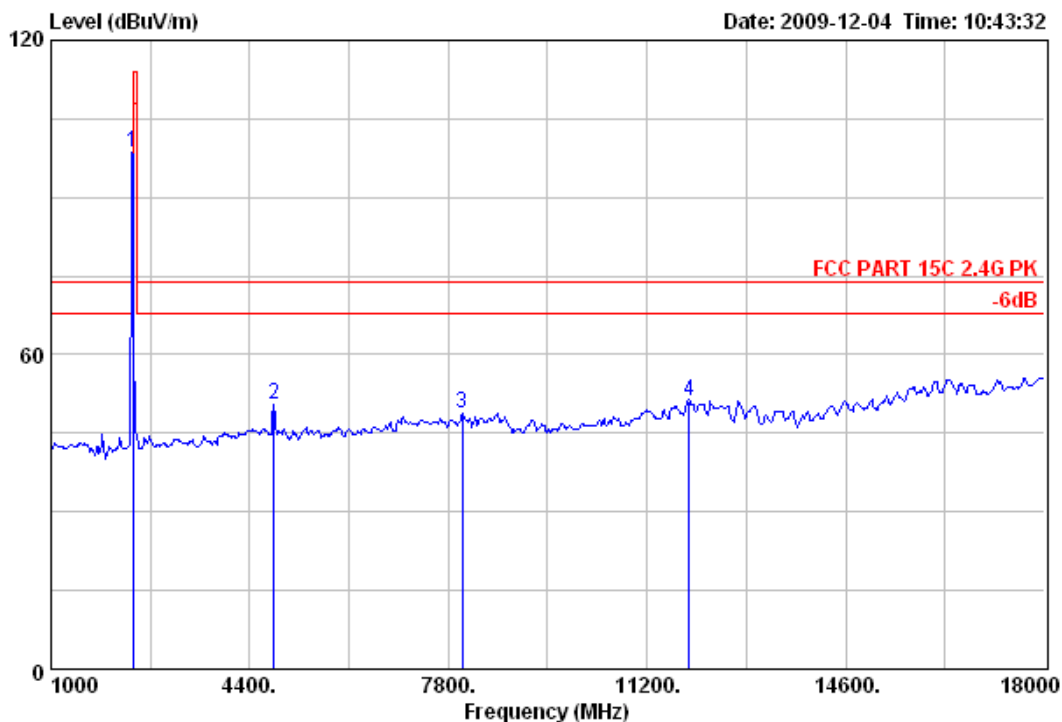
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Data: 234

File: D:\Radiation data\C\Chuangfeng.EMI (259)

Date: 2009-12-04 Time: 10:43:32



Test Site : 966 Chamber  
Limit : FCC PART 15C 2.4G PK  
Dis. / Ant. : 3m 3117 Ant. Pol.: HORIZONTAL  
EUT : Wireless Optical Mouse  
M/N : KM-1013  
Power : DC 3V  
Test Engineer : Jade  
Comment : Temp.:25.2'C Humi.:55%  
Test Mode : TX Mode 2405MHz

|   | Emission       |                   | Margin | Reading | Ant. Cable         |                  | Remark |              |
|---|----------------|-------------------|--------|---------|--------------------|------------------|--------|--------------|
|   | Freq.<br>(MHz) | Level<br>(dBuV/m) |        |         | Limits<br>(dBuV/m) | Factor<br>(dB/m) |        | Loss<br>(dB) |
| 1 | 2405.00        | 98.60             | 114.00 | 15.40   | 64.87              | 31.50            | 2.23   | Peak         |
| 2 | 4810.00        | 50.51             | 74.00  | 23.49   | 13.54              | 34.59            | 2.38   | Peak         |
| 3 | 8038.00        | 48.65             | 74.00  | 25.35   | 9.08               | 36.99            | 2.58   | Peak         |
| 4 | 11914.00       | 51.26             | 74.00  | 22.74   | 8.77               | 39.67            | 2.82   | Peak         |



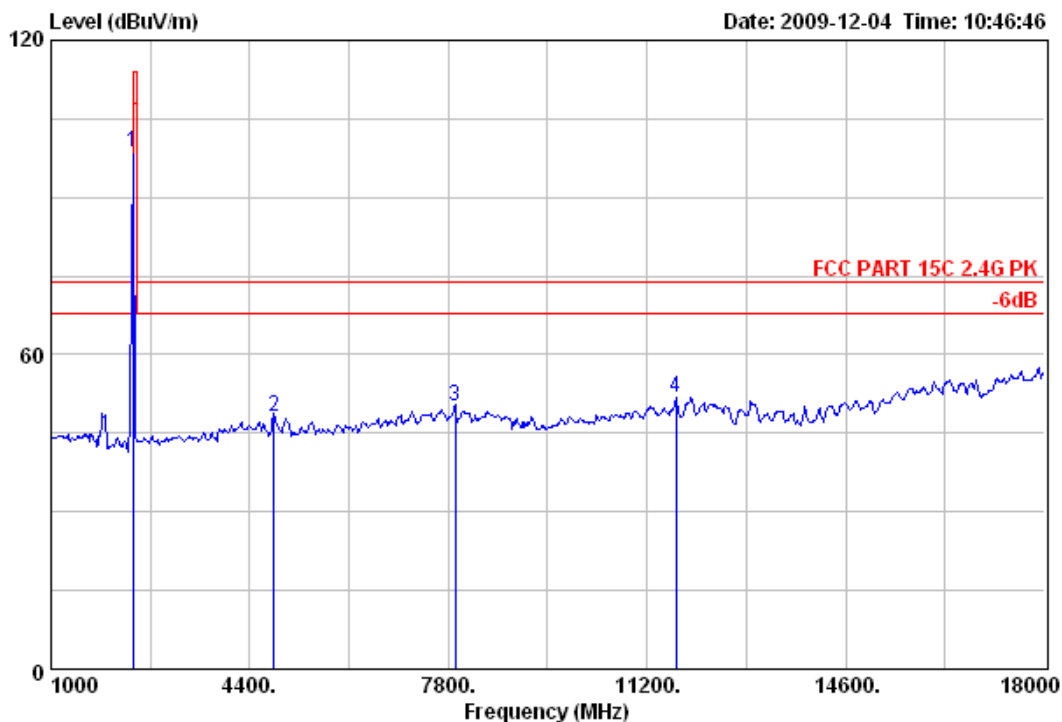
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Data: 235

File: D:\Radiation data\C\Chuangfeng.EMI (259)

Date: 2009-12-04 Time: 10:46:46



Test Site : 966 Chamber  
Limit : FCC PART 15C 2.4G PK  
Dis. / Ant. : 3m 3117 Ant. Pol.: VERTICAL  
EUT : Wireless Optical Mouse  
M/N : KM-1013  
Power : DC 3V  
Test Engineer : Jade  
Comment : Temp.:25.2'C Humi.:55%  
Test Mode : TX Mode 2405MHz

|   | Emission       |                   | Margin | Reading | Ant.               | Cable            | Remark |              |
|---|----------------|-------------------|--------|---------|--------------------|------------------|--------|--------------|
|   | Freq.<br>(MHz) | Level<br>(dBuV/m) |        |         | Limits<br>(dBuV/m) | Factor<br>(dB/m) |        | Loss<br>(dB) |
| 1 | 2405.00        | 98.63             | 114.00 | 15.37   | 64.90              | 31.50            | 2.23   | Peak         |
| 2 | 4810.00        | 48.25             | 74.00  | 25.75   | 11.28              | 34.59            | 2.38   | Peak         |
| 3 | 7919.00        | 50.06             | 74.00  | 23.94   | 10.52              | 36.97            | 2.57   | Peak         |
| 4 | 11693.00       | 51.76             | 74.00  | 22.24   | 9.59               | 39.37            | 2.80   | Peak         |



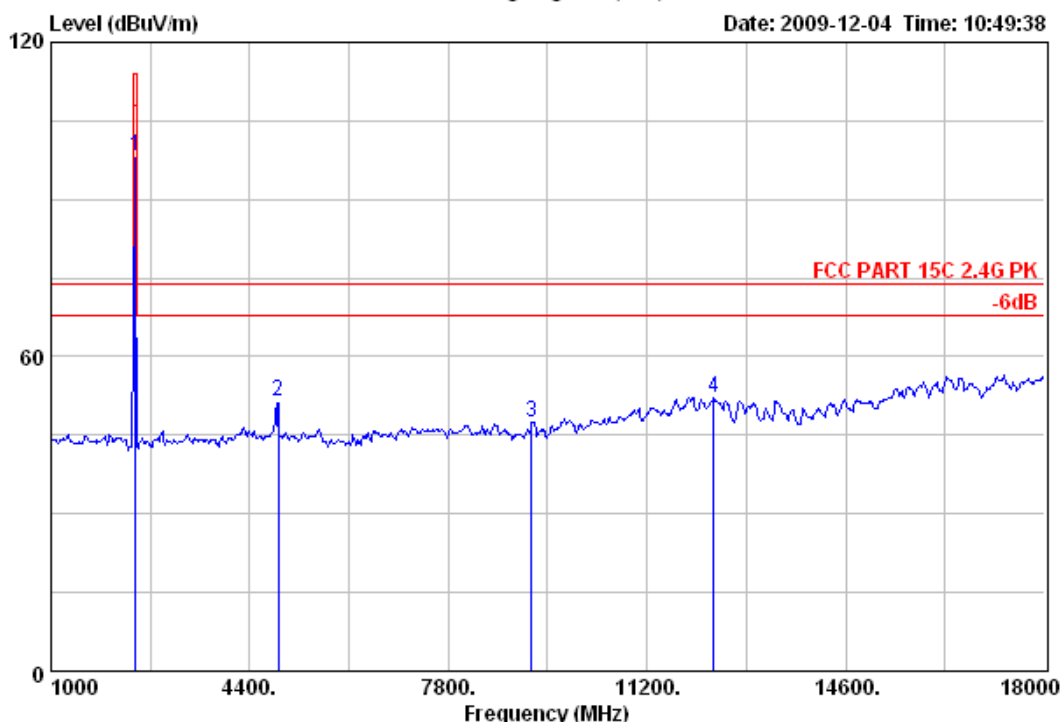
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Data: 236

File: D:\Radiation data\C\Chuangfeng.EMI (259)

Date: 2009-12-04 Time: 10:49:38



Test Site : 966 Chamber  
Limit : FCC PART 15C 2.4G PK  
Dis. / Ant. : 3m 3117 Ant. Pol.: HORIZONTAL  
EUT : Wireless Optical Mouse  
M/N : KM-1013  
Power : DC 3V  
Test Engineer : Jade  
Comment : Temp.:25.2'C Humi.:55%  
Test Mode : TX Mode 2442MHz

|   | Emission |          |          |        | Ant. Cable |        | Remark |      |
|---|----------|----------|----------|--------|------------|--------|--------|------|
|   | Freq.    | Level    | Limits   | Margin | Reading    | Factor |        | Loss |
|   | (MHz)    | (dBuV/m) | (dBuV/m) | (dB)   | (dBuV)     | (dB/m) |        | (dB) |
| 1 | 2442.00  | 98.27    | 114.00   | 15.73  | 64.50      | 31.54  | 2.23   | Peak |
| 2 | 4884.00  | 51.34    | 74.00    | 22.66  | 14.34      | 34.62  | 2.38   | Peak |
| 3 | 9228.00  | 47.36    | 74.00    | 26.64  | 7.43       | 37.28  | 2.65   | Peak |
| 4 | 12339.00 | 52.03    | 74.00    | 21.97  | 9.25       | 39.94  | 2.84   | Peak |



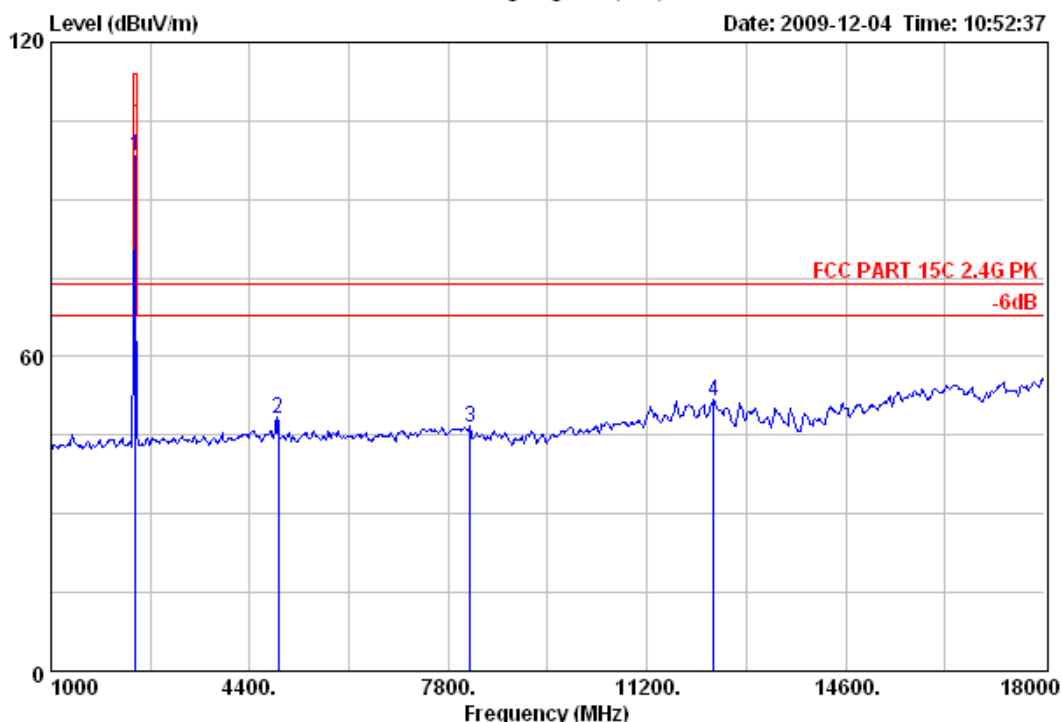
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Data: 237

File: D:\Radiation data\C\Chuangfeng.EMI (259)

Date: 2009-12-04 Time: 10:52:37



Test Site : 966 Chamber  
Limit : FCC PART 15C 2.4G PK  
Dis. / Ant. : 3m 3117 Ant. Pol.: VERTICAL  
EUT : Wireless Optical Mouse  
M/N : KM-1013  
Power : DC 3V  
Test Engineer : Jade  
Comment : Temp.:25.2'C Humi.:55%  
Test Mode : TX Mode 2442MHz

|   | Emission |          |          |        | Ant. Cable |        | Remark |      |
|---|----------|----------|----------|--------|------------|--------|--------|------|
|   | Freq.    | Level    | Limits   | Margin | Reading    | Factor |        | Loss |
|   | (MHz)    | (dBuV/m) | (dBuV/m) | (dB)   | (dBuV)     | (dB/m) |        | (dB) |
| 1 | 2442.00  | 98.25    | 114.00   | 15.75  | 64.48      | 31.54  | 2.23   | Peak |
| 2 | 4884.00  | 48.18    | 74.00    | 25.82  | 11.18      | 34.62  | 2.38   | Peak |
| 3 | 8174.00  | 46.42    | 74.00    | 27.58  | 6.87       | 36.96  | 2.59   | Peak |
| 4 | 12339.00 | 51.35    | 74.00    | 22.65  | 8.57       | 39.94  | 2.84   | Peak |





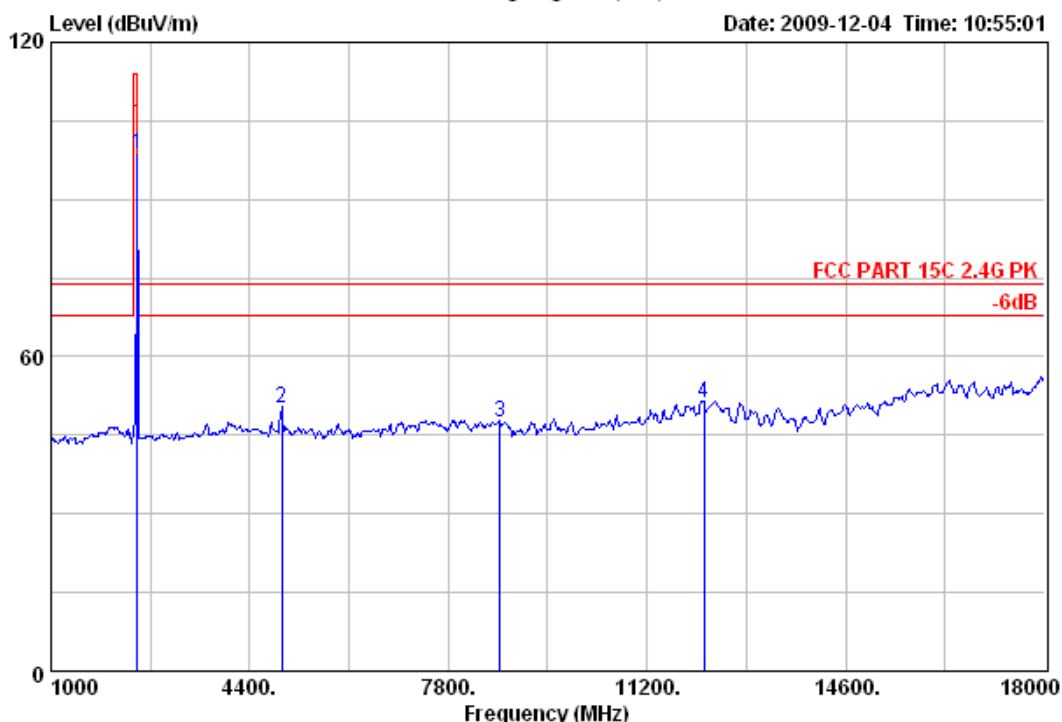
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Data: 238

File: D:\Radiation data\C\Chuangfeng.EMI (259)

Date: 2009-12-04 Time: 10:55:01



Test Site : 966 Chamber  
Limit : FCC PART 15C 2.4G PK  
Dis. / Ant. : 3m 3117 Ant. Pol.: VERTICAL  
EUT : Wireless Optical Mouse  
M/N : KM-1013  
Power : DC 3V  
Test Engineer : Jade  
Comment : Temp.:25.2'C Humi.:55%  
Test Mode : TX Mode 2476MHz

|   | Emission |          |          |        | Ant. Cable |        | Remark |      |
|---|----------|----------|----------|--------|------------|--------|--------|------|
|   | Freq.    | Level    | Limits   | Margin | Reading    | Factor |        | Loss |
|   | (MHz)    | (dBuV/m) | (dBuV/m) | (dB)   | (dBuV)     | (dB/m) |        | (dB) |
| 1 | 2476.00  | 98.74    | 114.00   | 15.26  | 64.93      | 31.58  | 2.23   | Peak |
| 2 | 4952.00  | 50.28    | 74.00    | 23.72  | 13.22      | 34.67  | 2.39   | Peak |
| 3 | 8684.00  | 47.34    | 74.00    | 26.66  | 7.75       | 36.97  | 2.62   | Peak |
| 4 | 12169.00 | 51.18    | 74.00    | 22.82  | 8.48       | 39.87  | 2.83   | Peak |



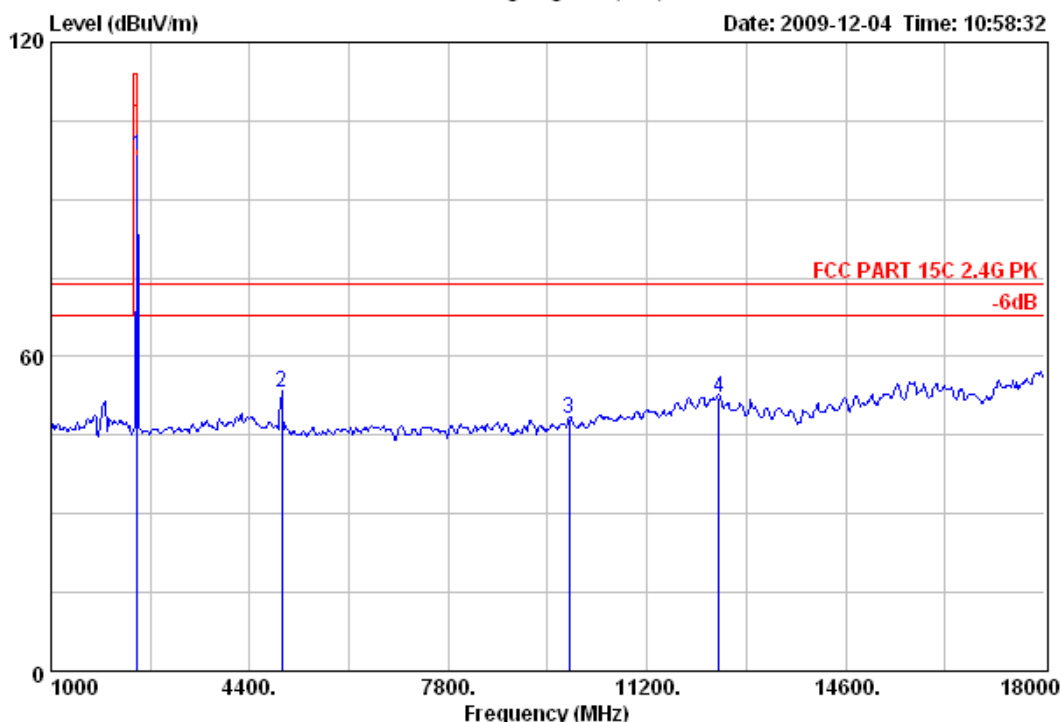
## NS Technology

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Fax: +86-769-85991080

Data: 239

File: D:\Radiation data\C\Chuangfeng.EMI (259)

Date: 2009-12-04 Time: 10:58:32



Test Site : 966 Chamber  
Limit : FCC PART 15C 2.4G PK  
Dis. / Ant. : 3m 3117 Ant. Pol.: HORIZONTAL  
EUT : Wireless Optical Mouse  
M/N : KM-1013  
Power : DC 3V  
Test Engineer : Jade  
Comment : Temp.:25.2'C Humi.:55%  
Test Mode : TX Mode 2476MHz

| Freq.<br>(MHz) | Emission          |                    | Margin<br>(dB) | Reading<br>(dBuV) | Ant. Factor<br>(dB/m) | Cable Loss<br>(dB) | Remark |
|----------------|-------------------|--------------------|----------------|-------------------|-----------------------|--------------------|--------|
|                | Level<br>(dBuV/m) | Limits<br>(dBuV/m) |                |                   |                       |                    |        |
| 1 2476.00      | 98.39             | 114.00             | 15.61          | 64.58             | 31.58                 | 2.23               | Peak   |
| 2 4952.00      | 53.13             | 74.00              | 20.87          | 16.07             | 34.67                 | 2.39               | Peak   |
| 3 9874.00      | 48.24             | 74.00              | 25.76          | 7.68              | 37.87                 | 2.69               | Peak   |
| 4 14242.00     | 52.26             | 74.00              | 21.74          | 9.44              | 39.97                 | 2.85               | Peak   |



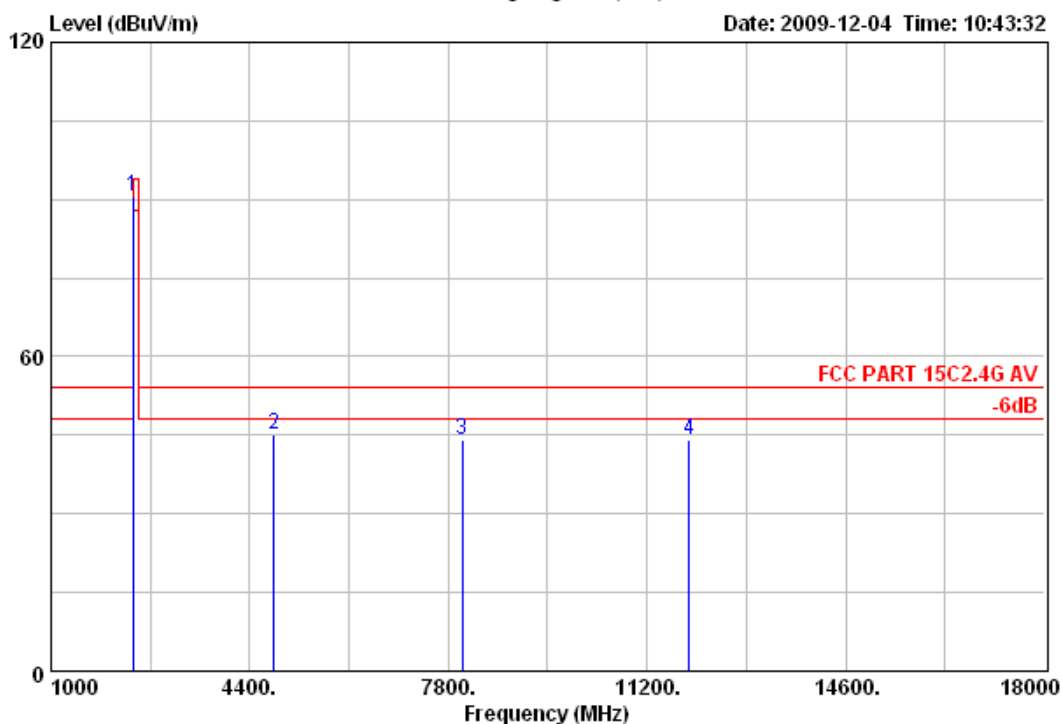
## NS Technology

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Data: 240

File: D:\Radiation data\C\Chuangfeng.EMI (259)

Date: 2009-12-04 Time: 10:43:32



Test Site : 966 Chamber  
Limit : FCC PART 15C2.4G AV  
Dis. / Ant. : 3m 3117 Ant. Pol.: HORIZONTAL  
EUT : Wireless Optical Mouse  
M/N : KM-1013  
Power : DC 3V  
Test Engineer : Jade  
Comment : Temp.:25.2'C Humi.:55%  
Test Mode : TX Mode 2405MHz

| Freq.<br>(MHz) | Emission          |  | Limits<br>(dBuV/m) | Margin<br>(dB) | Reading<br>(dBuV) | Ant. Cable       |              | Remark  |
|----------------|-------------------|--|--------------------|----------------|-------------------|------------------|--------------|---------|
|                | Level<br>(dBuV/m) |  |                    |                |                   | Factor<br>(dB/m) | Loss<br>(dB) |         |
| 1 2405.00      | 90.60             |  | 94.00              | 3.40           | 56.87             | 31.50            | 2.23         | Average |
| 2 4810.00      | 45.25             |  | 54.00              | 8.75           | 8.28              | 34.59            | 2.38         | Average |
| 3 8038.00      | 44.12             |  | 54.00              | 9.88           | 4.55              | 36.99            | 2.58         | Average |
| 4 11914.00     | 44.16             |  | 54.00              | 9.84           | 1.67              | 39.67            | 2.82         | Average |



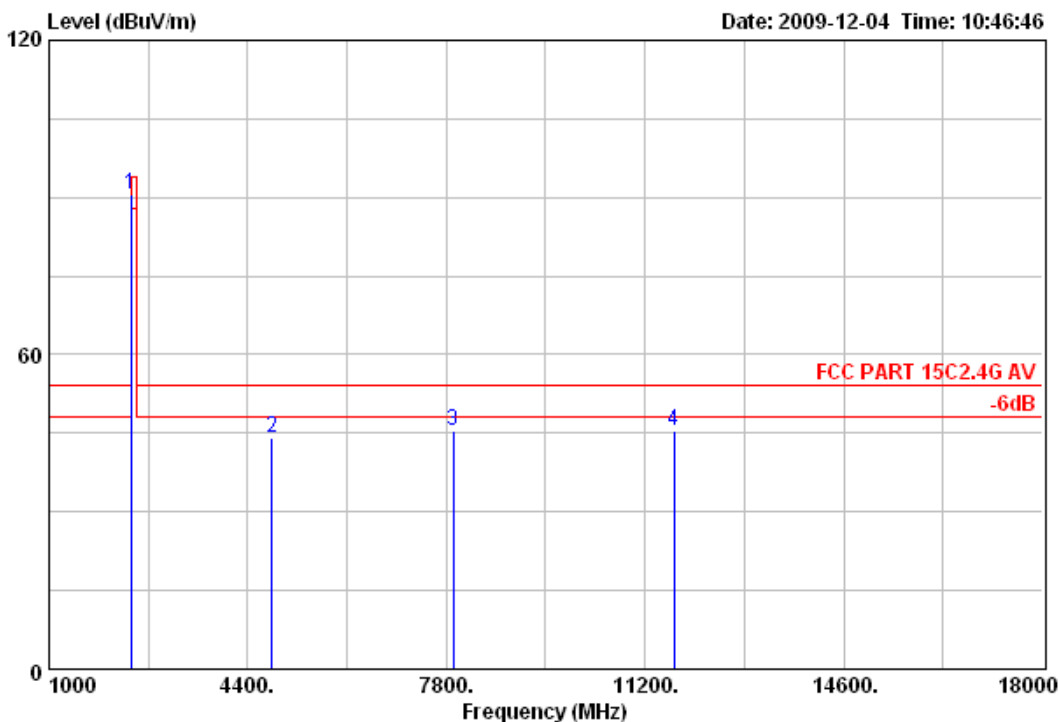
## NS Technology

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Data: 241

File: D:\Radiation data\C\Chuangfeng.EMI (259)

Date: 2009-12-04 Time: 10:46:46



Test Site : 966 Chamber  
Limit : FCC PART 15C2.4G AV  
Dis. / Ant. : 3m 3117 Ant. Pol.: VERTICAL  
EUT : Wireless Optical Mouse  
M/N : KM-1013  
Power : DC 3V  
Test Engineer : Jade  
Comment : Temp.:25.2'C Humi.:55%  
Test Mode : TX Mode 2405MHz

| Freq.<br>(MHz) | Emission          |  | Limits<br>(dBuV/m) | Margin<br>(dB) | Reading<br>(dBuV) | Ant.             | Cable        | Remark  |
|----------------|-------------------|--|--------------------|----------------|-------------------|------------------|--------------|---------|
|                | Level<br>(dBuV/m) |  |                    |                |                   | Factor<br>(dB/m) | Loss<br>(dB) |         |
| 1 2405.00      | 90.58             |  | 94.00              | 3.42           | 56.85             | 31.50            | 2.23         | Average |
| 2 4810.00      | 44.26             |  | 54.00              | 9.74           | 7.29              | 34.59            | 2.38         | Average |
| 3 7919.00      | 45.43             |  | 54.00              | 8.57           | 5.89              | 36.97            | 2.57         | Average |
| 4 11693.00     | 45.53             |  | 54.00              | 8.47           | 3.36              | 39.37            | 2.80         | Average |



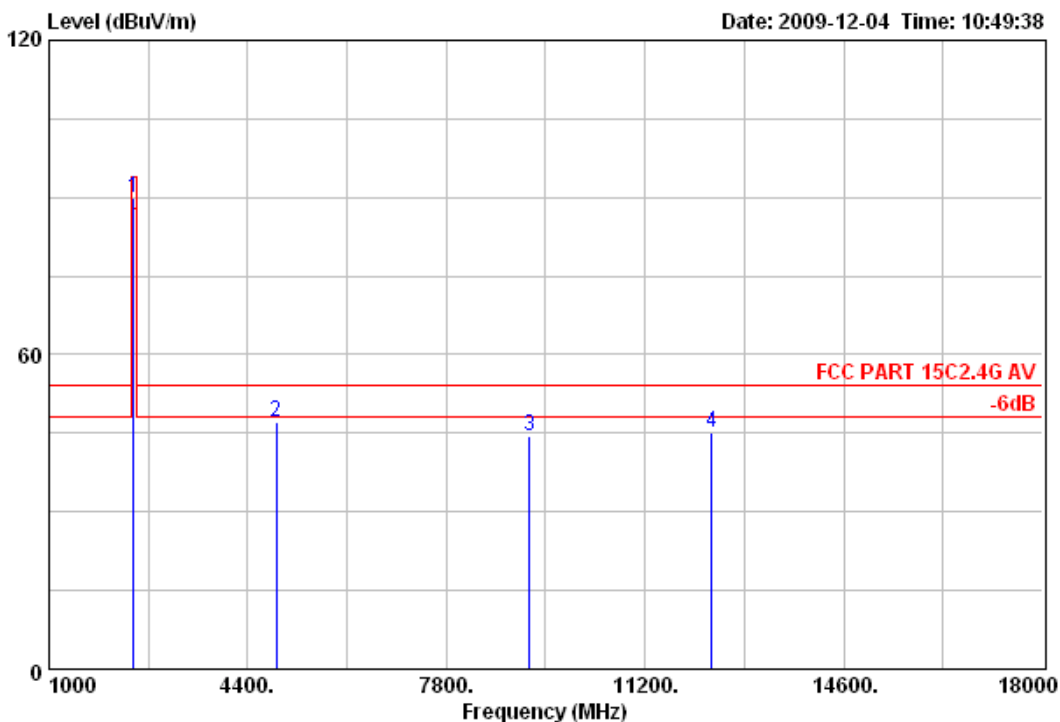
## NS Technology

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Data: 242

File: D:\Radiation data\C\Chuangfeng.EMI (259)

Date: 2009-12-04 Time: 10:49:38



Test Site : 966 Chamber  
Limit : FCC PART 15C2.4G AV  
Dis. / Ant. : 3m 3117 Ant. Pol.: HORIZONTAL  
EUT : Wireless Optical Mouse  
M/N : KM-1013  
Power : DC 3V  
Test Engineer : Jade  
Comment : Temp.:25.2'C Humi.:55%  
Test Mode : TX Mode 2442MHz

| Freq.<br>(MHz) | Emission          |  | Limits<br>(dBuV/m) | Margin<br>(dB) | Reading<br>(dBuV) | Ant. Cable       |              | Remark  |
|----------------|-------------------|--|--------------------|----------------|-------------------|------------------|--------------|---------|
|                | Level<br>(dBuV/m) |  |                    |                |                   | Factor<br>(dB/m) | Loss<br>(dB) |         |
| 1 2442.00      | 90.06             |  | 94.00              | 3.94           | 56.29             | 31.54            | 2.23         | Average |
| 2 4884.00      | 47.26             |  | 54.00              | 6.74           | 10.26             | 34.62            | 2.38         | Average |
| 3 9228.00      | 44.46             |  | 54.00              | 9.54           | 4.53              | 37.28            | 2.65         | Average |
| 4 12339.00     | 45.26             |  | 54.00              | 8.74           | 2.48              | 39.94            | 2.84         | Average |



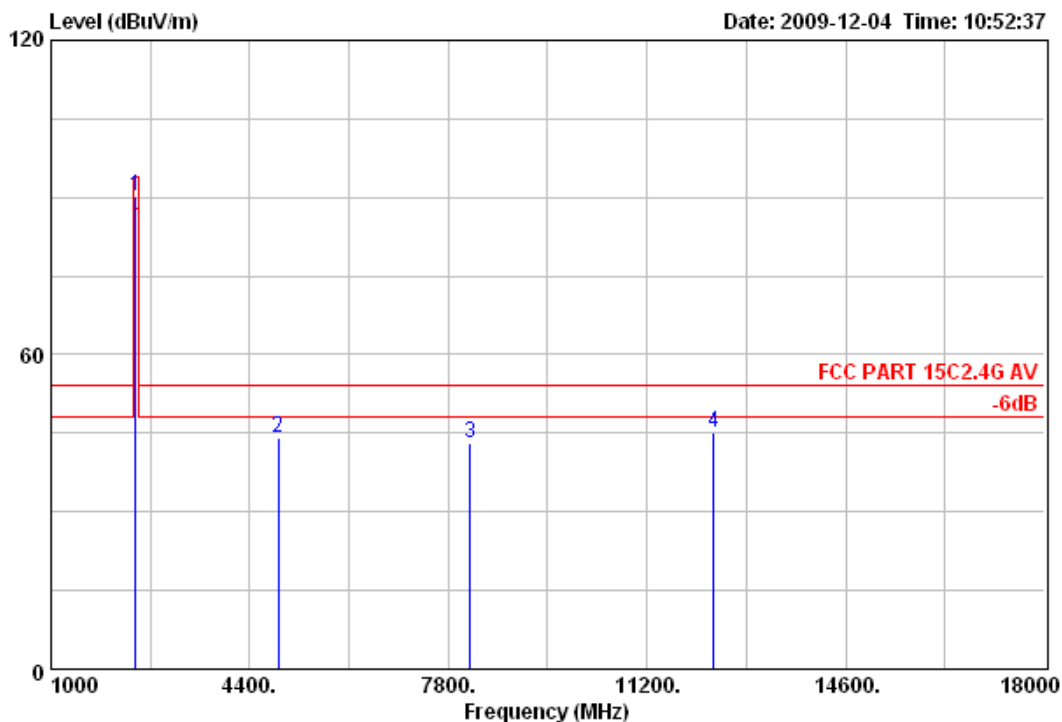
## NS Technology

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Data: 243

File: D:\Radiation data\C\Chuangfeng.EMI (259)

Date: 2009-12-04 Time: 10:52:37



Test Site : 966 Chamber  
Limit : FCC PART 15C2.4G AV  
Dis. / Ant. : 3m 3117 Ant. Pol.: VERTICAL  
EUT : Wireless Optical Mouse  
M/N : KM-1013  
Power : DC 3V  
Test Engineer : Jade  
Comment : Temp.:25.2'C Humi.:55%  
Test Mode : TX Mode 2442MHz

| Freq.<br>(MHz) | Emission          |  | Limits<br>(dBuV/m) | Margin<br>(dB) | Reading<br>(dBuV) | Ant.             | Cable        | Remark  |
|----------------|-------------------|--|--------------------|----------------|-------------------|------------------|--------------|---------|
|                | Level<br>(dBuV/m) |  |                    |                |                   | Factor<br>(dB/m) | Loss<br>(dB) |         |
| 1 2442.00      | 90.24             |  | 94.00              | 3.76           | 56.47             | 31.54            | 2.23         | Average |
| 2 4884.00      | 44.24             |  | 54.00              | 9.76           | 7.24              | 34.62            | 2.38         | Average |
| 3 8174.00      | 43.16             |  | 54.00              | 10.84          | 3.61              | 36.96            | 2.59         | Average |
| 412339.00      | 45.26             |  | 54.00              | 8.74           | 2.48              | 39.94            | 2.84         | Average |



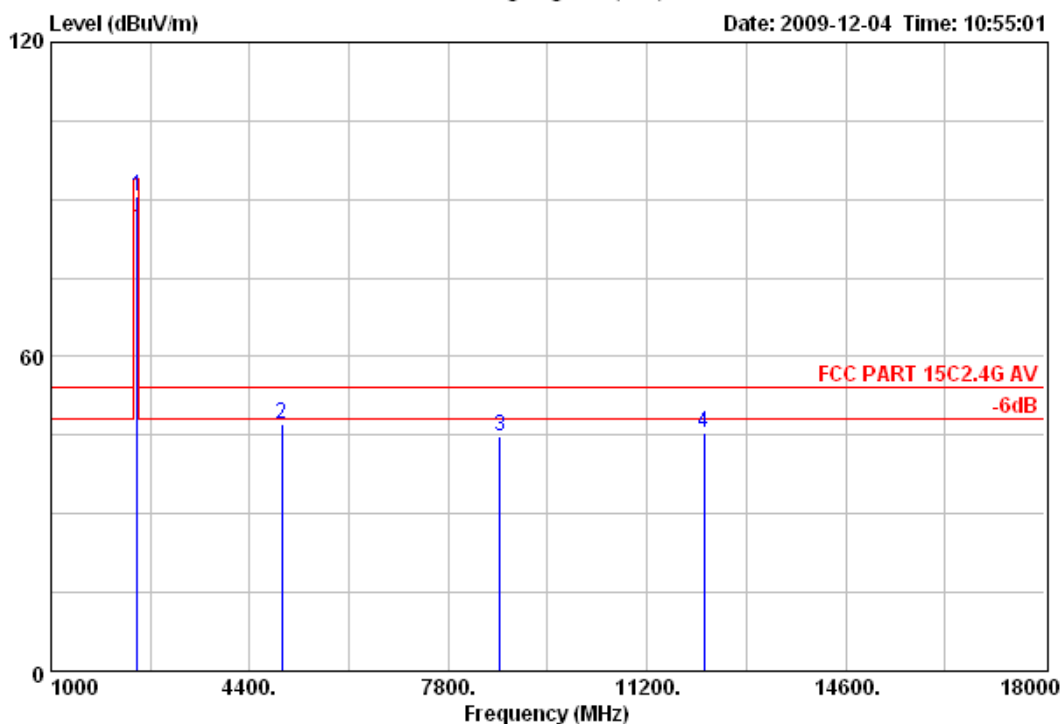
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Data: 244

File: D:\Radiation data\C\Chuangfeng.EMI (259)

Date: 2009-12-04 Time: 10:55:01



Test Site : 966 Chamber  
Limit : FCC PART 15C2.4G AV  
Dis. / Ant. : 3m 3117 Ant. Pol.: VERTICAL  
EUT : Wireless Optical Mouse  
M/N : KM-1013  
Power : DC 3V  
Test Engineer : Jade  
Comment : Temp.:25.2'C Humi.:55%  
Test Mode : TX Mode 2476MHz

| Freq.<br>(MHz) | Emission          |       | Limits<br>(dBuV/m) | Margin<br>(dB) | Reading<br>(dBuV) | Ant.             | Cable        | Remark |
|----------------|-------------------|-------|--------------------|----------------|-------------------|------------------|--------------|--------|
|                | Level<br>(dBuV/m) |       |                    |                |                   | Factor<br>(dB/m) | Loss<br>(dB) |        |
| 1 2476.00      | 90.54             | 94.00 | 3.46               | 56.73          | 31.58             | 2.23             | Average      |        |
| 2 4952.00      | 47.08             | 54.00 | 6.92               | 10.02          | 34.67             | 2.39             | Average      |        |
| 3 8684.00      | 44.67             | 54.00 | 9.33               | 5.08           | 36.97             | 2.62             | Average      |        |
| 412169.00      | 45.32             | 54.00 | 8.68               | 2.62           | 39.87             | 2.83             | Average      |        |



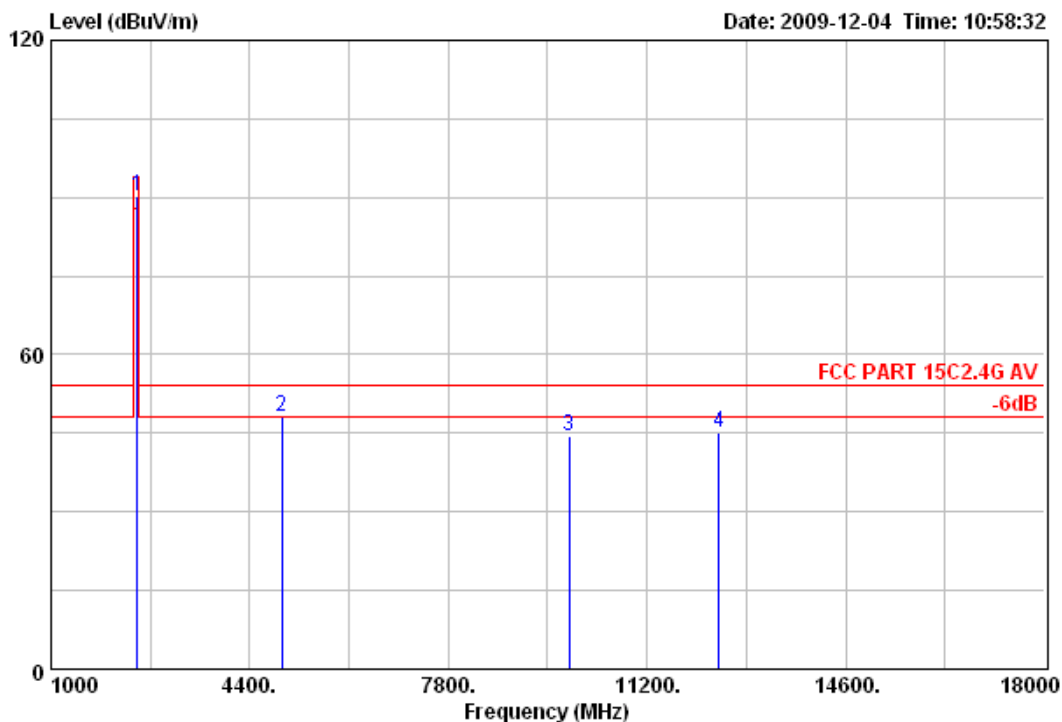
## NS Technology

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Data: 245

File: D:\Radiation data\C\Chuangfeng.EMI (259)

Date: 2009-12-04 Time: 10:58:32



Test Site : 966 Chamber  
Limit : FCC PART 15C2.4G AV  
Dis. / Ant. : 3m 3117 Ant. Pol.: HORIZONTAL  
EUT : Wireless Optical Mouse  
M/N : KM-1013  
Power : DC 3V  
Test Engineer : Jade  
Comment : Temp.:25.2'C Humi.:55%  
Test Mode : TX Mode 2476MHz

| Freq.<br>(MHz) | Emission          |  | Limits<br>(dBuV/m) | Margin<br>(dB) | Reading<br>(dBuV) | Ant.             | Cable        | Remark  |
|----------------|-------------------|--|--------------------|----------------|-------------------|------------------|--------------|---------|
|                | Level<br>(dBuV/m) |  |                    |                |                   | Factor<br>(dB/m) | Loss<br>(dB) |         |
| 1 2476.00      | 90.17             |  | 94.00              | 3.83           | 56.36             | 31.58            | 2.23         | Average |
| 2 4952.00      | 48.27             |  | 54.00              | 5.73           | 11.21             | 34.67            | 2.39         | Average |
| 3 9874.00      | 44.34             |  | 54.00              | 9.66           | 3.78              | 37.87            | 2.69         | Average |
| 4 12424.00     | 45.16             |  | 54.00              | 8.84           | 2.34              | 39.97            | 2.85         | Average |





## 5.2. 20dB Bandwidth

### 5.2.1. Test limits

No requirement.

### 5.2.2. Test procedure

1. The EUT was placed on a table which is 0.8m above ground plane.
2. Connect EUT RF output port to the spectrum analyzer through an RF attenuator.
3. Set SA Center Frequency = Operation frequency, RBW=120kHz,VBW=300kHz.
4. Set SA trace max hold, then view.

### 5.2.3. Test result

**Pass**

| Test Polarization | Frequency<br>MHz | 20dB bandwidth<br>MHz |
|-------------------|------------------|-----------------------|
| Horizontal        | 2405             | 0.39                  |
| Vertical          | 2405             | 0.38                  |
| Horizontal        | 2442             | 0.37                  |
| Vertical          | 2442             | 0.34                  |
| Horizontal        | 2476             | 0.36                  |
| Vertical          | 2476             | 0.36                  |

The test plots as following:

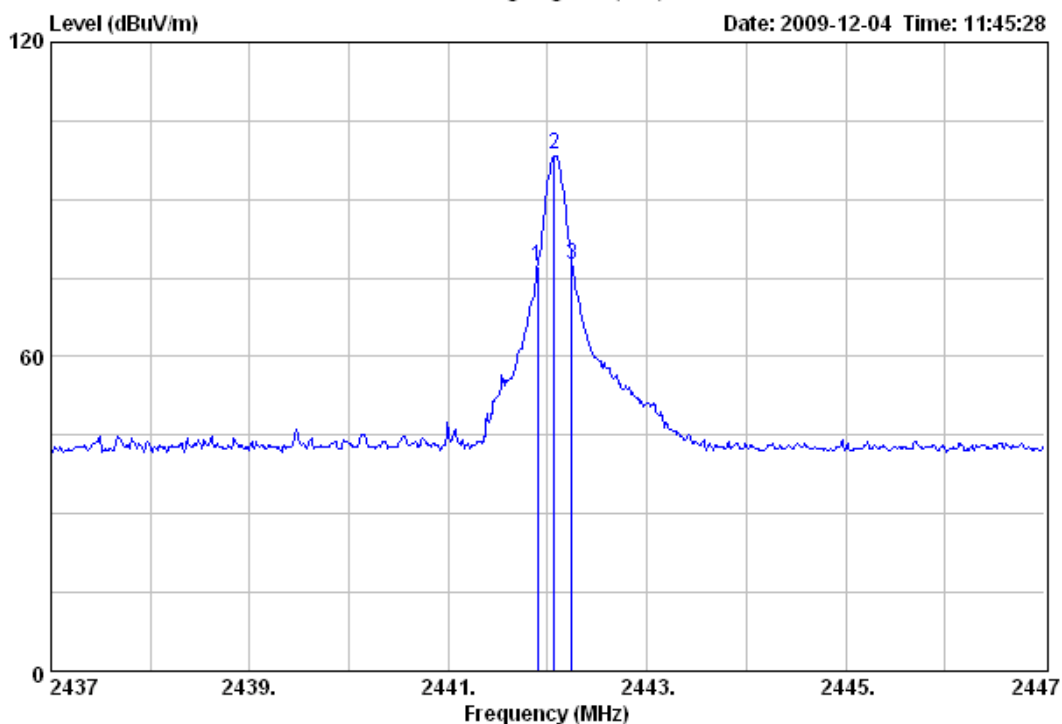
## NS Technology

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

Data: 254

File: D:\Radiation data\C\Chuangfeng.EMI (259)

Date: 2009-12-04 Time: 11:45:28



Test Site : 966 Chamber  
Limit :  
Dis. / Ant. : 3m 3117 Ant. Pol.: VERTICAL  
EUT : Wireless Optical Mouse  
M/N : KM-1013  
Power : DC 3V  
Test Engineer : Jade  
Comment : Temp.:25.2'C Humi.:55%  
Test Mode : TX Mode 2442MHz

| Freq.<br>(MHz) | Emission          |  | Limits<br>(dBuV/m) | Margin<br>(dB) | Reading<br>(dBuV) | Ant. Cable       |              | Remark |
|----------------|-------------------|--|--------------------|----------------|-------------------|------------------|--------------|--------|
|                | Level<br>(dBuV/m) |  |                    |                |                   | Factor<br>(dB/m) | Loss<br>(dB) |        |
| 1 2441.90      | 77.36             |  | 500.00             | 422.64         | 43.59             | 31.54            | 2.23         | Peak   |
| 2 2442.07      | 98.63             |  | 500.00             | 401.37         | 64.86             | 31.54            | 2.23         | Peak   |
| 3 2442.24      | 77.69             |  | 500.00             | 422.31         | 43.92             | 31.54            | 2.23         | Peak   |



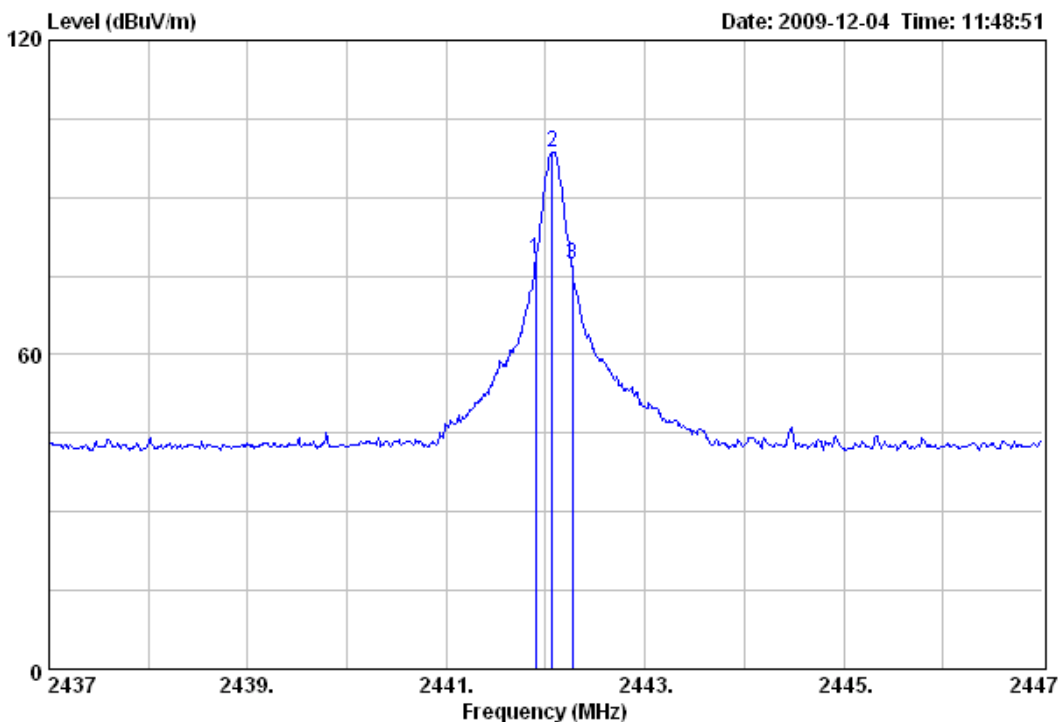
## NS Technology

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Data: 255

File: D:\Radiation data\C\Chuangfeng.EMI (259)

Date: 2009-12-04 Time: 11:48:51



Test Site : 966 Chamber  
Limit :  
Dis. / Ant. : 3m 3117 Ant. Pol.: HORIZONTAL  
EUT : Wireless Optical Mouse  
M/N : KM-1013  
Power : DC 3V  
Test Engineer : Jade  
Comment : Temp.:25.2'C Humi.:55%  
Test Mode : TX Mode 2442MHz

|   | Emission |          |          |        | Ant. Cable |        |      | Remark |
|---|----------|----------|----------|--------|------------|--------|------|--------|
|   | Freq.    | Level    | Limits   | Margin | Reading    | Factor | Loss |        |
|   | (MHz)    | (dBuV/m) | (dBuV/m) | (dB)   | (dBuV)     | (dB/m) | (dB) |        |
| 1 | 2441.90  | 78.21    | 500.00   | 421.79 | 44.44      | 31.54  | 2.23 | Peak   |
| 2 | 2442.07  | 98.56    | 500.00   | 401.44 | 64.79      | 31.54  | 2.23 | Peak   |
| 3 | 2442.27  | 77.27    | 500.00   | 422.73 | 43.50      | 31.54  | 2.23 | Peak   |



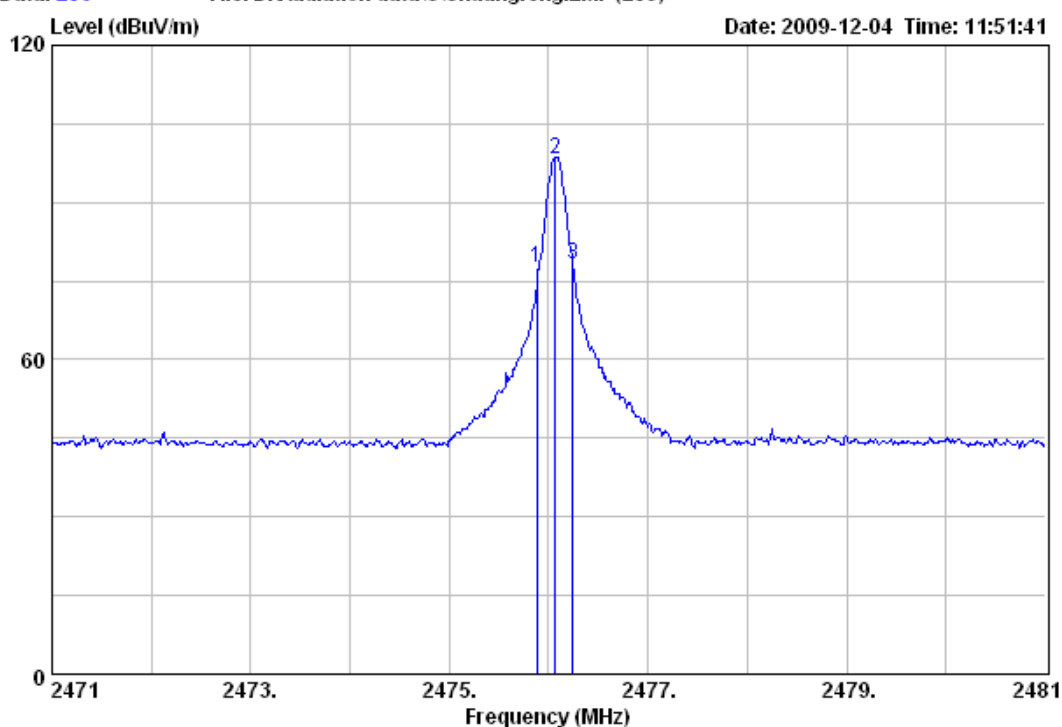
# NS Technology

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Data: 256

File: D:\Radiation data\C\Chuangfeng.EMI (259)

Date: 2009-12-04 Time: 11:51:41



Test Site : 966 Chamber  
Limit :  
Dis. / Ant. : 3m 3117 Ant. Pol.: VERTICAL  
EUT : Wireless Optical Mouse  
M/N : KM-1013  
Power : DC 3V  
Test Engineer : Jade  
Comment : Temp.:25.2'C Humi.:55%  
Test Mode : TX Mode 2476MHz

| Freq.<br>(MHz) | Emission          |                    |        | Margin<br>(dB) | Reading<br>(dBuV) | Ant. Cable       |              | Remark |
|----------------|-------------------|--------------------|--------|----------------|-------------------|------------------|--------------|--------|
|                | Level<br>(dBuV/m) | Limits<br>(dBuV/m) |        |                |                   | Factor<br>(dB/m) | Loss<br>(dB) |        |
| 1 2475.88      | 77.64             | 500.00             | 422.36 | 43.83          | 31.58             | 2.23             |              | Peak   |
| 2 2476.07      | 98.36             | 500.00             | 401.64 | 64.55          | 31.58             | 2.23             |              | Peak   |
| 3 2476.24      | 78.28             | 500.00             | 421.72 | 44.47          | 31.58             | 2.23             |              | Peak   |



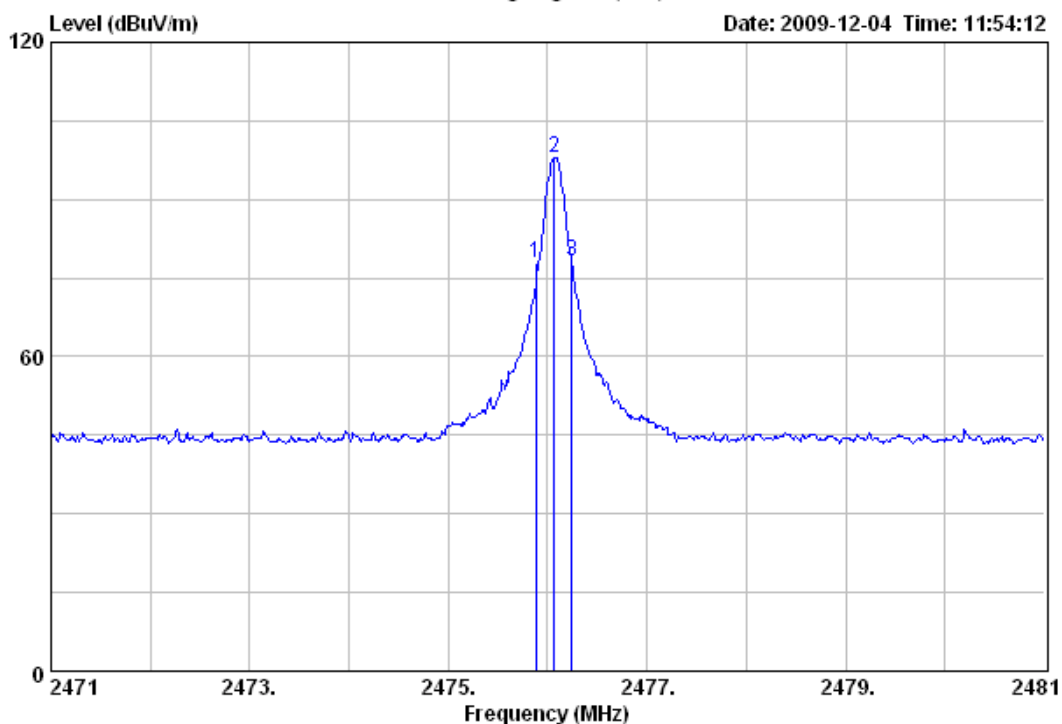
## NS Technology

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Data: 257

File: D:\Radiation data\C\Chuangfeng.EMI (259)

Date: 2009-12-04 Time: 11:54:12



Test Site : 966 Chamber  
Limit :  
Dis. / Ant. : 3m 3117 Ant. Pol.: HORIZONTAL  
EUT : Wireless Optical Mouse  
M/N : KM-1013  
Power : DC 3V  
Test Engineer : Jade  
Comment : Temp.:25.2'C Humi.:55%  
Test Mode : TX Mode 2476MHz

|   | Emission |          |          |        | Reading<br>(dBuV) | Ant.   | Cable | Remark |
|---|----------|----------|----------|--------|-------------------|--------|-------|--------|
|   | Freq.    | Level    | Limits   | Margin |                   | Factor | Loss  |        |
|   | (MHz)    | (dBuV/m) | (dBuV/m) | (dB)   |                   | (dB/m) | (dB)  |        |
| 1 | 2475.88  | 77.93    | 500.00   | 422.07 | 44.12             | 31.58  | 2.23  | Peak   |
| 2 | 2476.07  | 98.07    | 500.00   | 401.93 | 64.26             | 31.58  | 2.23  | Peak   |
| 3 | 2476.24  | 78.18    | 500.00   | 421.82 | 44.37             | 31.58  | 2.23  | Peak   |



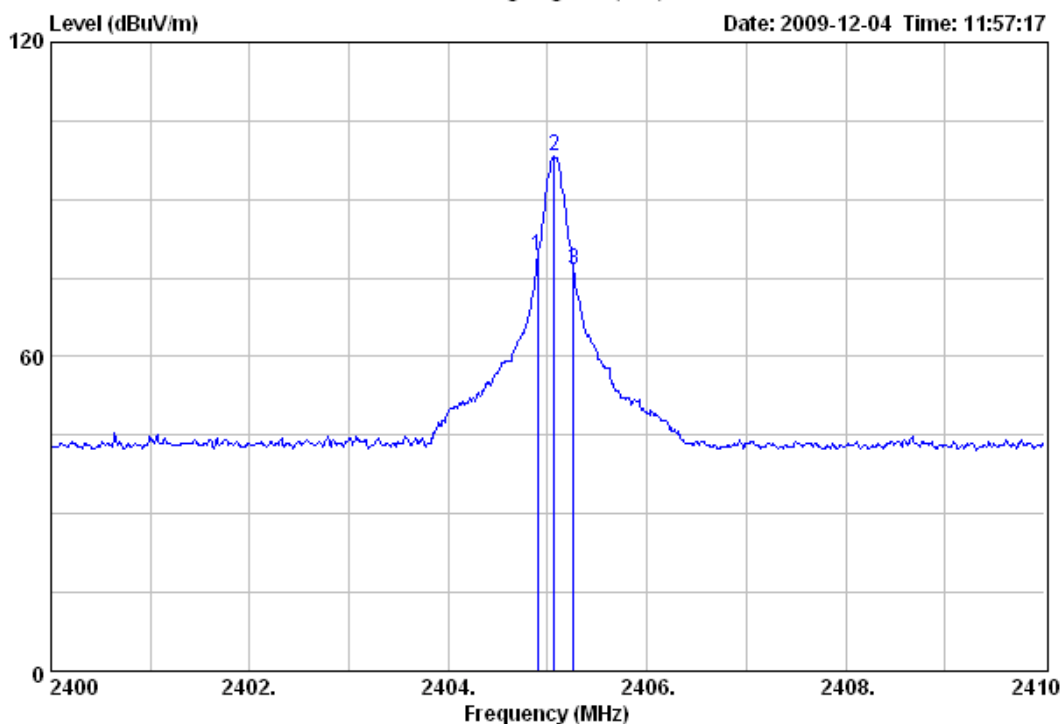
## NS Technology

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Data: 258

File: D:\Radiation data\C\Chuangfeng.EMI (259)

Date: 2009-12-04 Time: 11:57:17



Test Site : 966 Chamber  
Limit :  
Dis. / Ant. : 3m 3117 Ant. Pol.: HORIZONTAL  
EUT : Wireless Optical Mouse  
M/N : KM-1013  
Power : DC 3V  
Test Engineer : Jade  
Comment : Temp.:25.2'C Humi.:55%  
Test Mode : TX Mode 2405MHz

|   | Emission |          |          |        | Ant. Cable |        |      | Remark |
|---|----------|----------|----------|--------|------------|--------|------|--------|
|   | Freq.    | Level    | Limits   | Margin | Reading    | Factor | Loss |        |
|   | (MHz)    | (dBuV/m) | (dBuV/m) | (dB)   | (dBuV)     | (dB/m) | (dB) |        |
| 1 | 2404.90  | 79.07    | 500.00   | 420.93 | 45.34      | 31.50  | 2.23 | Peak   |
| 2 | 2405.07  | 98.16    | 500.00   | 401.84 | 64.43      | 31.50  | 2.23 | Peak   |
| 3 | 2405.26  | 76.55    | 500.00   | 423.45 | 42.82      | 31.50  | 2.23 | Peak   |

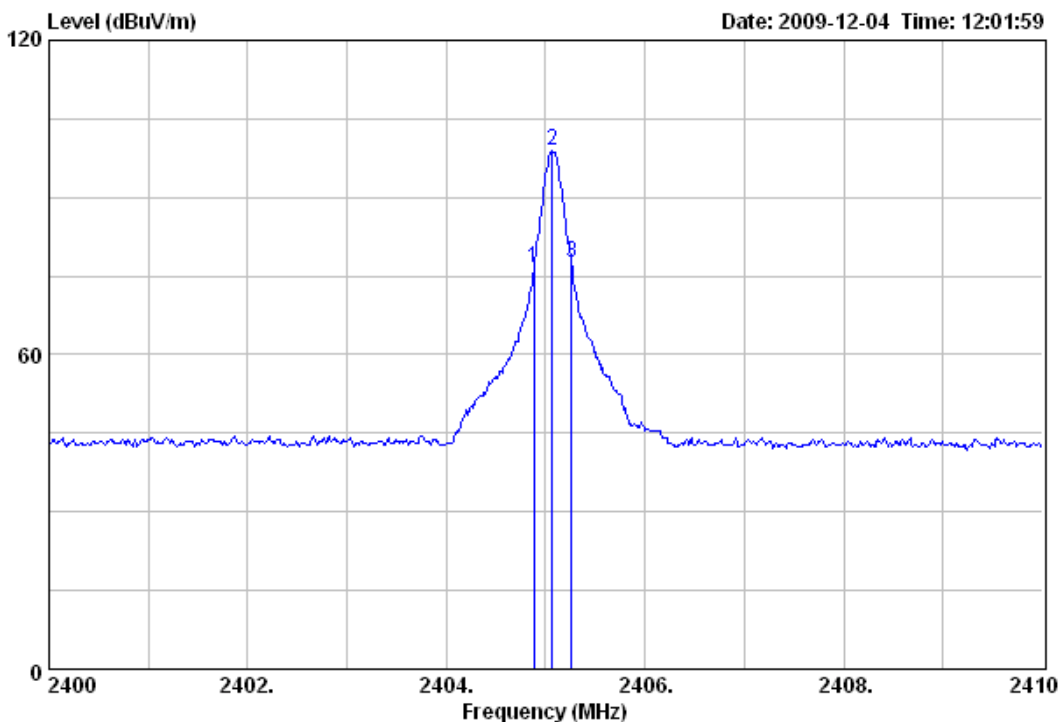
## NS Technology

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Data: 259

File: D:\Radiation data\C\Chuangfeng.EMI (259)

Date: 2009-12-04 Time: 12:01:59



Test Site : 966 Chamber  
Limit :  
Dis. / Ant. : 3m 3117 Ant. Pol.: VERTICAL  
EUT : Wireless Optical Mouse  
M/N : KM-1013  
Power : DC 3V  
Test Engineer : Jade  
Comment : Temp.:25.2'C Humi.:55%  
Test Mode : TX Mode 2405MHz

|   | Emission |          |          |        | Ant. Cable |        |      | Remark |
|---|----------|----------|----------|--------|------------|--------|------|--------|
|   | Freq.    | Level    | Limits   | Margin | Reading    | Factor | Loss |        |
|   | (MHz)    | (dBuV/m) | (dBuV/m) | (dB)   | (dBuV)     | (dB/m) | (dB) |        |
| 1 | 2404.88  | 76.39    | 500.00   | 423.61 | 42.66      | 31.50  | 2.23 | Peak   |
| 2 | 2405.07  | 98.82    | 500.00   | 401.18 | 65.09      | 31.50  | 2.23 | Peak   |
| 3 | 2405.26  | 77.71    | 500.00   | 422.29 | 43.98      | 31.50  | 2.23 | Peak   |



### 5.3. Band Edge

#### 5.3.1. Test limits

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

#### 5.3.2. Test procedure

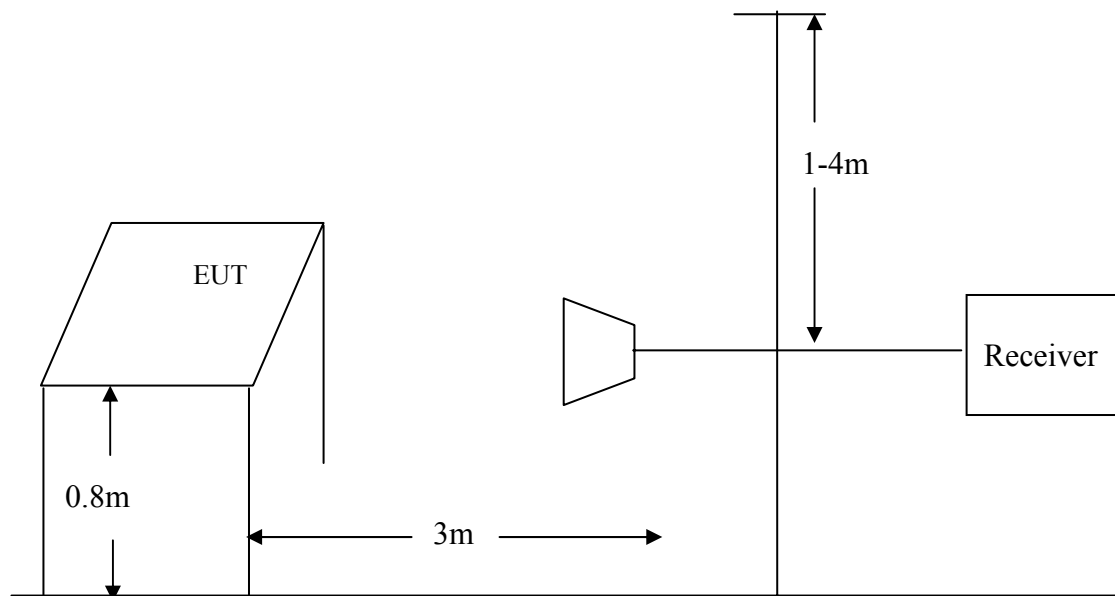
The EUT was placed on a turn table which was 0.8 meter above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT was set 3 meters away from the receiving antenna which was mounted on a antenna tower. At the frequency band above 1GHz, The measuring antenna moved from 1 to 4 m for horizontal and vertical polarization. The horn antenna was used as a receiving antenna.

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

The EUT position(X. Y. Z) were checked and worse case was happened in Y position. So Y position was chose for find measurement.

The EUT was tested in Chamber Site.

#### 5.3.3. Test Setup Diagram



#### 5.3.4. Test result

**PASS.**

The test plots as following:



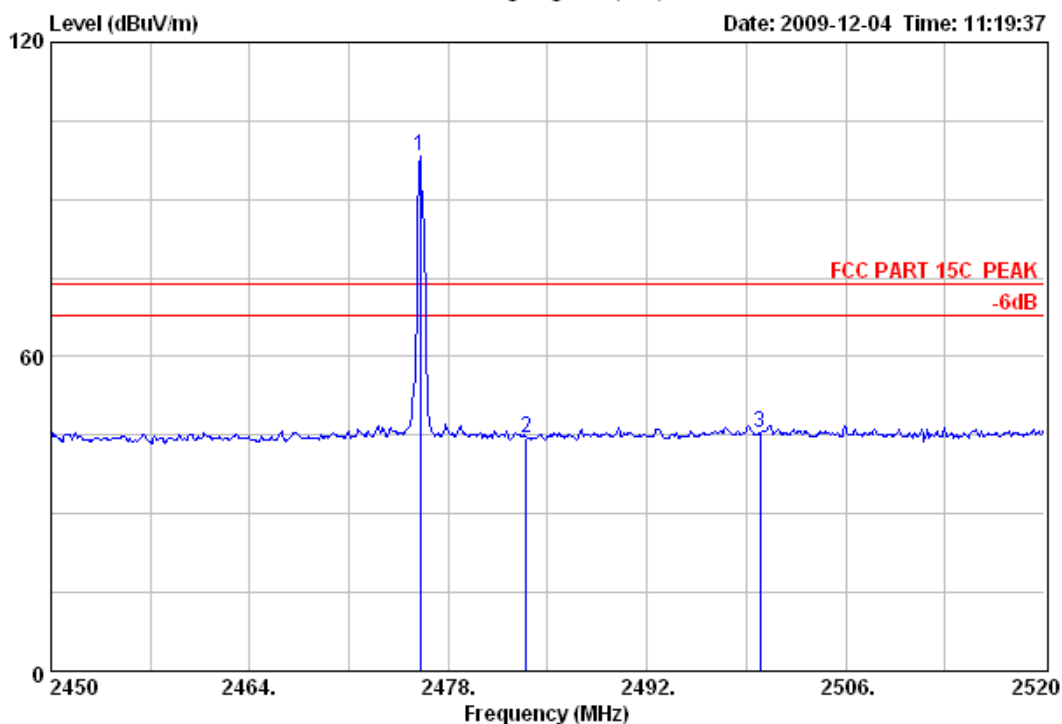
## NS Technology

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Data: 246

File: D:\Radiation data\C\Chuangfeng.EMI (259)

Date: 2009-12-04 Time: 11:19:37



Test Site : 966 Chamber  
Limit : FCC PART 15C PEAK  
Dis. / Ant. : 3m 3117 Ant. Pol.: HORIZONTAL  
EUT : Wireless Optical Mouse  
M/N : KM-1013  
Power : DC 3V  
Test Engineer : Jade  
Comment : Temp.:25.2'C Humi.:55%  
Test Mode : TX Mode 2476MHz

|   | Emission |          |          |        | Ant. Cable |        |      | Remark |
|---|----------|----------|----------|--------|------------|--------|------|--------|
|   | Freq.    | Level    | Limits   | Margin | Reading    | Factor | Loss |        |
|   | (MHz)    | (dBuV/m) | (dBuV/m) | (dB)   | (dBuV)     | (dB/m) | (dB) |        |
| 1 | 2476.04  | 98.15    | 74.00    | -24.15 | 64.34      | 31.58  | 2.23 | Peak   |
| 2 | 2483.50  | 44.29    | 74.00    | 29.71  | 10.48      | 31.58  | 2.23 | Peak   |
| 3 | 2500.00  | 45.36    | 74.00    | 28.64  | 11.53      | 31.60  | 2.23 | Peak   |



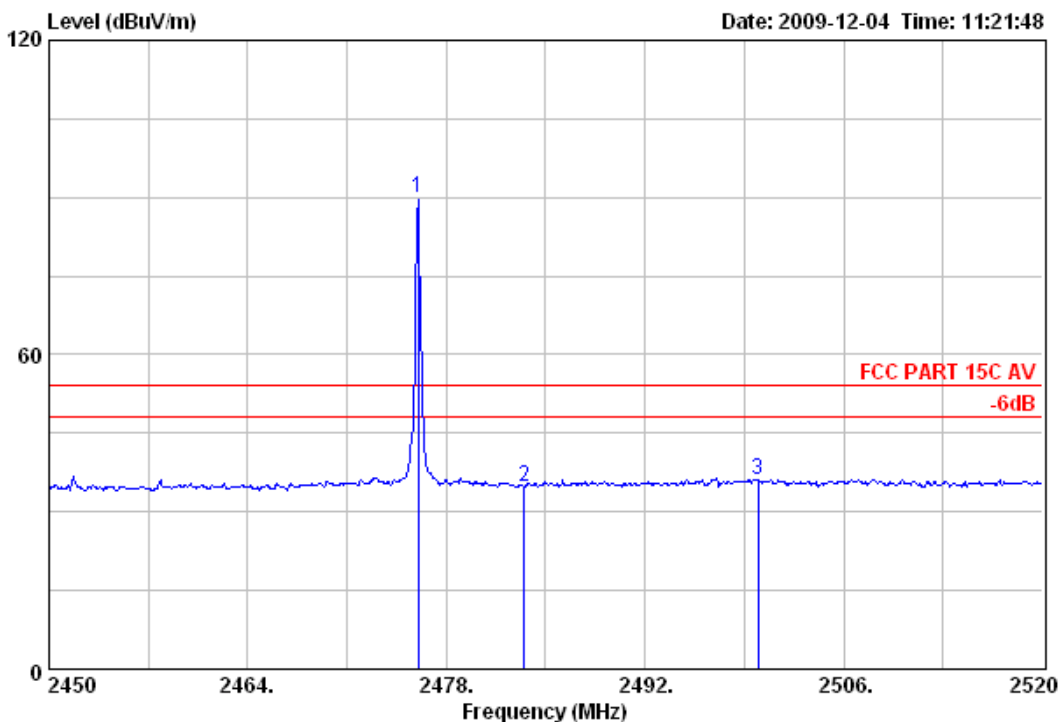
## NS Technology

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Data: 247

File: D:\Radiation data\C\Chuangfeng.EMI (259)

Date: 2009-12-04 Time: 11:21:48



Test Site : 966 Chamber  
Limit : FCC PART 15C AV  
Dis. / Ant. : 3m 3117 Ant. Pol.: HORIZONTAL  
EUT : Wireless Optical Mouse  
M/N : KM-1013  
Power : DC 3V  
Test Engineer : Jade  
Comment : Temp.:25.2'C Humi.:55%  
Test Mode : TX Mode 2476MHz

| Freq.<br>(MHz) | Emission          |  | Limits<br>(dBuV/m) | Margin<br>(dB) | Reading<br>(dBuV) | Ant. Cable       |              | Remark  |
|----------------|-------------------|--|--------------------|----------------|-------------------|------------------|--------------|---------|
|                | Level<br>(dBuV/m) |  |                    |                |                   | Factor<br>(dB/m) | Loss<br>(dB) |         |
| 1 2476.04      | 90.03             |  | 54.00              | -36.03         | 56.22             | 31.58            | 2.23         | Average |
| 2 2483.50      | 34.63             |  | 54.00              | 19.37          | 0.82              | 31.58            | 2.23         | Average |
| 3 2500.00      | 36.12             |  | 54.00              | 17.88          | 2.29              | 31.60            | 2.23         | Average |



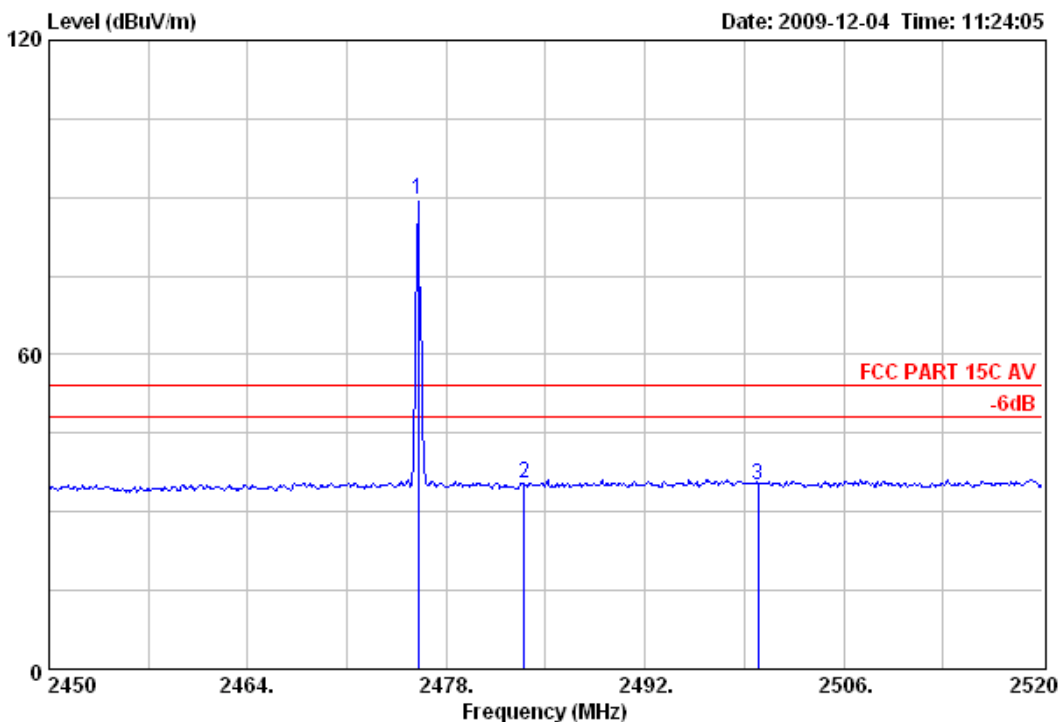
## NS Technology

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Data: 248

File: D:\Radiation data\C\Chuangfeng.EMI (259)

Date: 2009-12-04 Time: 11:24:05



Test Site : 966 Chamber  
Limit : FCC PART 15C AV  
Dis. / Ant. : 3m 3117 Ant. Pol.: VERTICAL  
EUT : Wireless Optical Mouse  
M/N : KM-1013  
Power : DC 3V  
Test Engineer : Jade  
Comment : Temp.:25.2'C Humi.:55%  
Test Mode : TX Mode 2476MHz

|   | Emission |          |          |        | Reading<br>(dBuV) | Ant. Cable |      | Remark  |
|---|----------|----------|----------|--------|-------------------|------------|------|---------|
|   | Freq.    | Level    | Limits   | Margin |                   | Factor     | Loss |         |
|   | (MHz)    | (dBuV/m) | (dBuV/m) | (dB)   |                   | (dB/m)     | (dB) |         |
| 1 | 2476.04  | 89.68    | 54.00    | -35.68 | 55.87             | 31.58      | 2.23 | Average |
| 2 | 2483.50  | 35.36    | 54.00    | 18.64  | 1.55              | 31.58      | 2.23 | Average |
| 3 | 2500.00  | 35.22    | 54.00    | 18.78  | 1.39              | 31.60      | 2.23 | Average |



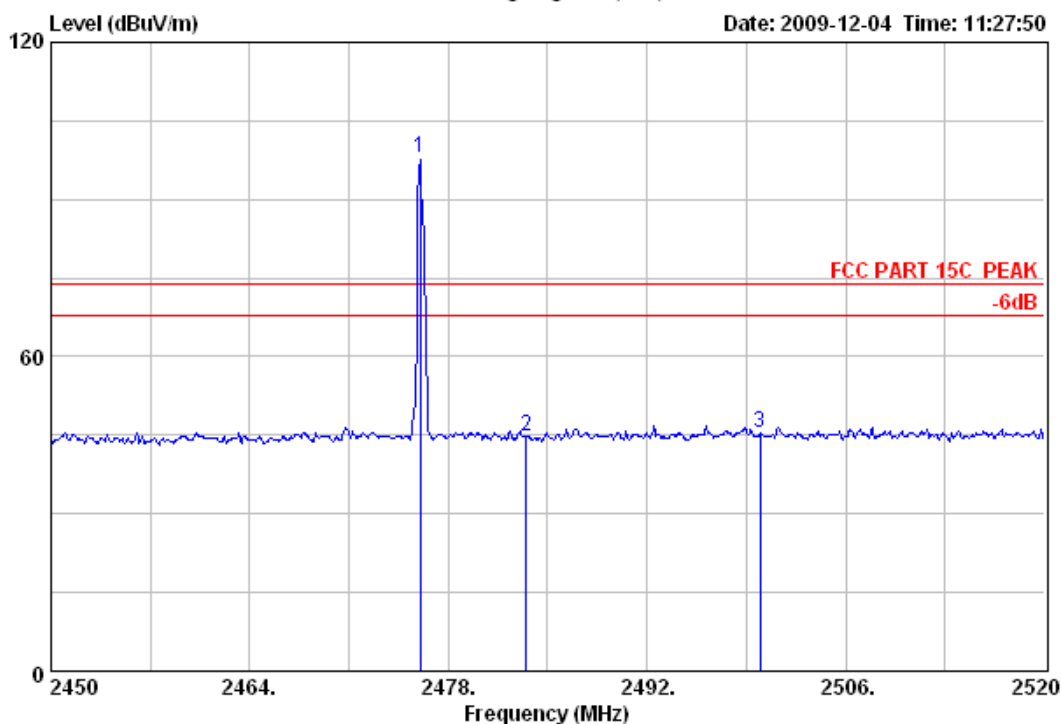
## NS Technology

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Data: 249

File: D:\Radiation data\C\Chuangfeng.EMI (259)

Date: 2009-12-04 Time: 11:27:50



Test Site : 966 Chamber  
Limit : FCC PART 15C PEAK  
Dis. / Ant. : 3m 3117 Ant. Pol.: VERTICAL  
EUT : Wireless Optical Mouse  
M/N : KM-1013  
Power : DC 3V  
Test Engineer : Jade  
Comment : Temp.:25.2'C Humi.:55%  
Test Mode : TX Mode 2476MHz

|   | Emission |          |          |        | Ant. Cable |        |      | Remark |
|---|----------|----------|----------|--------|------------|--------|------|--------|
|   | Freq.    | Level    | Limits   | Margin | Reading    | Factor | Loss |        |
|   | (MHz)    | (dBuV/m) | (dBuV/m) | (dB)   | (dBuV)     | (dB/m) | (dB) |        |
| 1 | 2476.04  | 98.09    | 74.00    | -24.09 | 64.28      | 31.58  | 2.23 | Peak   |
| 2 | 2483.50  | 44.67    | 74.00    | 29.33  | 10.86      | 31.58  | 2.23 | Peak   |
| 3 | 2500.00  | 45.32    | 74.00    | 28.68  | 11.49      | 31.60  | 2.23 | Peak   |



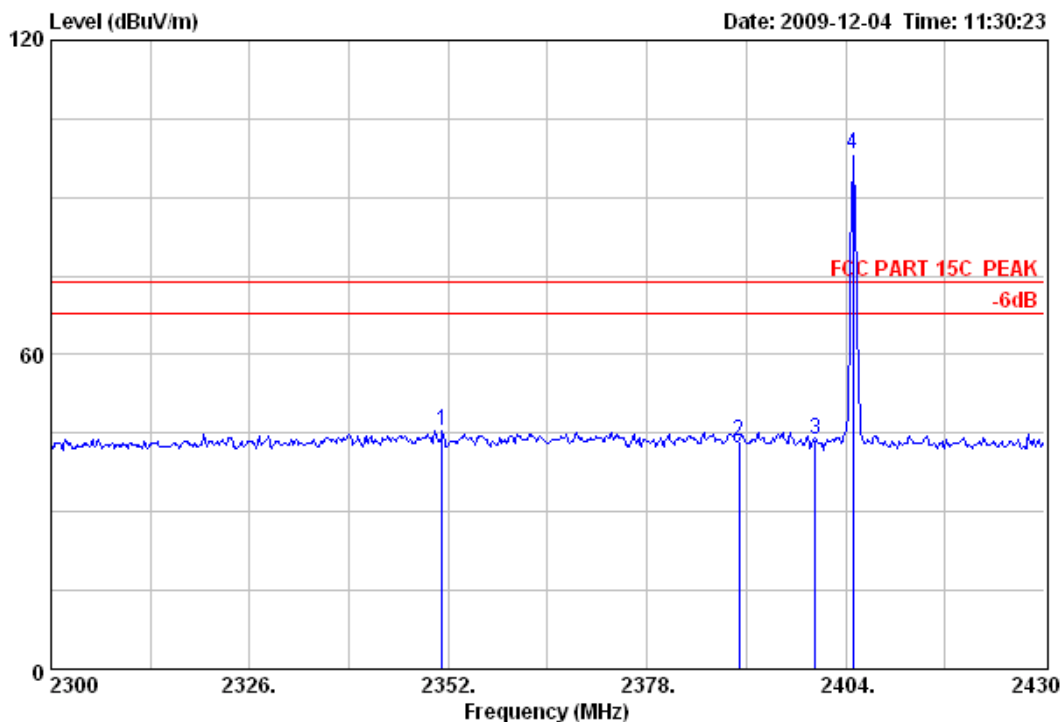
## NS Technology

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Data: 250

File: D:\Radiation data\C\Chuangfeng.EMI (259)

Date: 2009-12-04 Time: 11:30:23



Test Site : 966 Chamber  
Limit : FCC PART 15C PEAK  
Dis. / Ant. : 3m 3117 Ant. Pol.: HORIZONTAL  
EUT : Wireless Optical Mouse  
M/N : KM-1013  
Power : DC 3V  
Test Engineer : Jade  
Comment : Temp.:25.2'C Humi.:55%  
Test Mode : TX Mode 2405MHz

| Freq.<br>(MHz) | Emission          |       | Limits<br>(dBuV/m) | Margin<br>(dB) | Reading<br>(dBuV) | Ant. Cable       |              | Remark |
|----------------|-------------------|-------|--------------------|----------------|-------------------|------------------|--------------|--------|
|                | Level<br>(dBuV/m) |       |                    |                |                   | Factor<br>(dB/m) | Loss<br>(dB) |        |
| 1 2351.22      | 45.32             | 74.00 | 28.68              | 11.65          | 31.45             | 2.22             |              | Peak   |
| 2 2390.00      | 43.42             | 74.00 | 30.58              | 9.72           | 31.48             | 2.22             |              | Peak   |
| 3 2400.00      | 43.67             | 74.00 | 30.33              | 9.94           | 31.50             | 2.23             |              | Peak   |
| 4 2404.91      | 98.15             | 74.00 | -24.15             | 64.42          | 31.50             | 2.23             |              | Peak   |



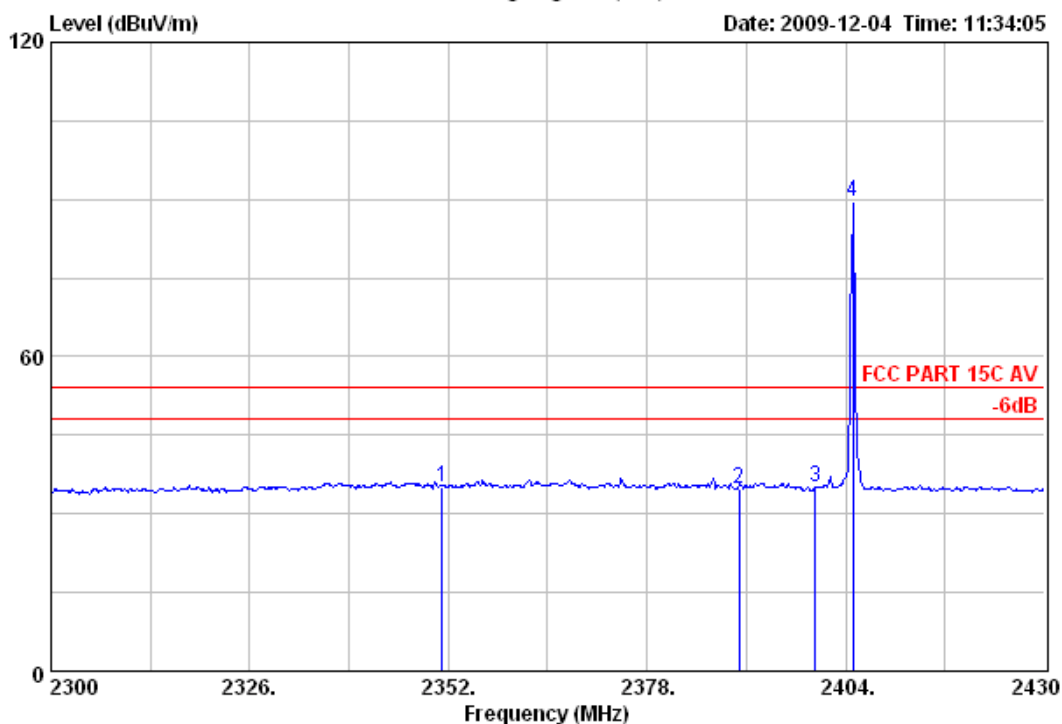
## NS Technology

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Data: 251

File: D:\Radiation data\C\Chuangfeng.EMI (259)

Date: 2009-12-04 Time: 11:34:05



Test Site : 966 Chamber  
Limit : FCC PART 15C AV  
Dis. / Ant. : 3m 3117 Ant. Pol.: HORIZONTAL  
EUT : Wireless Optical Mouse  
M/N : KM-1013  
Power : DC 3V  
Test Engineer : Jade  
Comment : Temp.:25.2'C Humi.:55%  
Test Mode : TX Mode 2405MHz

|   | Emission |          |          |        | Ant. Cable |        | Remark |         |
|---|----------|----------|----------|--------|------------|--------|--------|---------|
|   | Freq.    | Level    | Limits   | Margin | Reading    | Factor |        | Loss    |
|   | (MHz)    | (dBuV/m) | (dBuV/m) | (dB)   | (dBuV)     | (dB/m) |        | (dB)    |
| 1 | 2351.22  | 35.09    | 54.00    | 18.91  | 1.42       | 31.45  | 2.22   | Average |
| 2 | 2390.00  | 34.68    | 54.00    | 19.32  | 0.98       | 31.48  | 2.22   | Average |
| 3 | 2400.00  | 35.21    | 54.00    | 18.79  | 1.48       | 31.50  | 2.23   | Average |
| 4 | 2404.91  | 89.58    | 54.00    | -35.58 | 55.85      | 31.50  | 2.23   | Average |



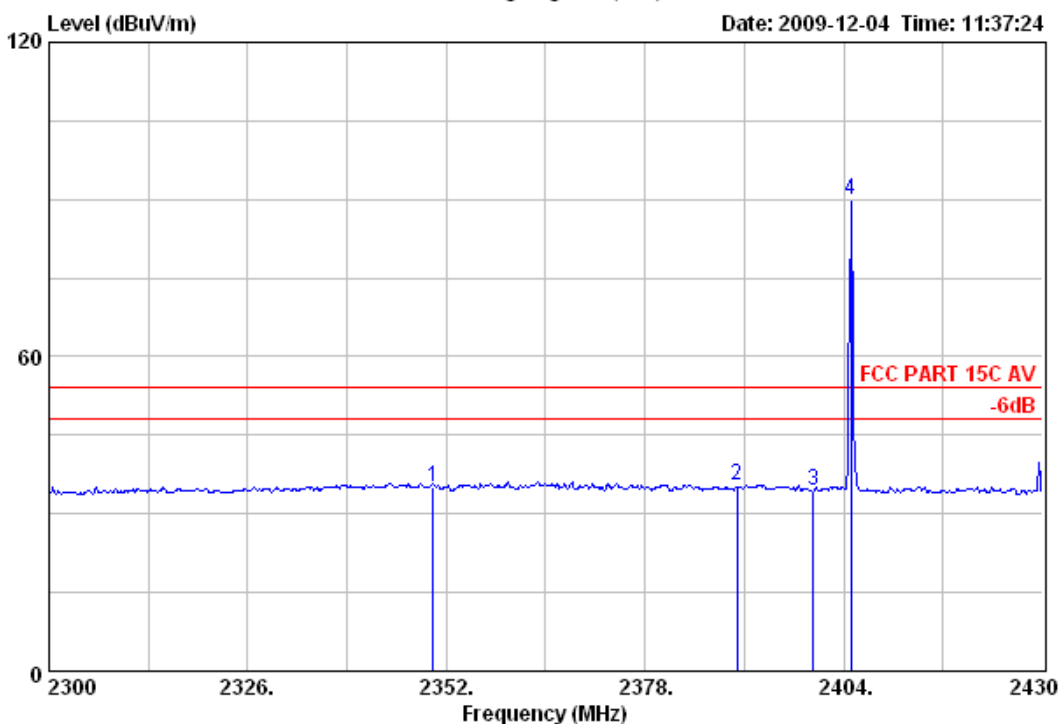
## NS Technology

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Data: 252

File: D:\Radiation data\C\Chuangfeng.EMI (259)

Date: 2009-12-04 Time: 11:37:24



Test Site : 966 Chamber  
Limit : FCC PART 15C AV  
Dis. / Ant. : 3m 3117 Ant. Pol.: VERTICAL  
EUT : Wireless Optical Mouse  
M/N : KM-1013  
Power : DC 3V  
Test Engineer : Jade  
Comment : Temp.:25.2'C Humi.:55%  
Test Mode : TX Mode 2405MHz

|   | Emission    |                |                 |             | Ant. Factor | Cable Loss | Remark |         |
|---|-------------|----------------|-----------------|-------------|-------------|------------|--------|---------|
|   | Freq. (MHz) | Level (dBuV/m) | Limits (dBuV/m) | Margin (dB) |             |            |        |         |
| 1 | 2350.31     | 35.26          | 54.00           | 18.74       | 1.59        | 31.45      | 2.22   | Average |
| 2 | 2390.00     | 35.31          | 54.00           | 18.69       | 1.61        | 31.48      | 2.22   | Average |
| 3 | 2400.00     | 34.42          | 54.00           | 19.58       | 0.69        | 31.50      | 2.23   | Average |
| 4 | 2404.91     | 89.87          | 54.00           | -35.87      | 56.14       | 31.50      | 2.23   | Average |



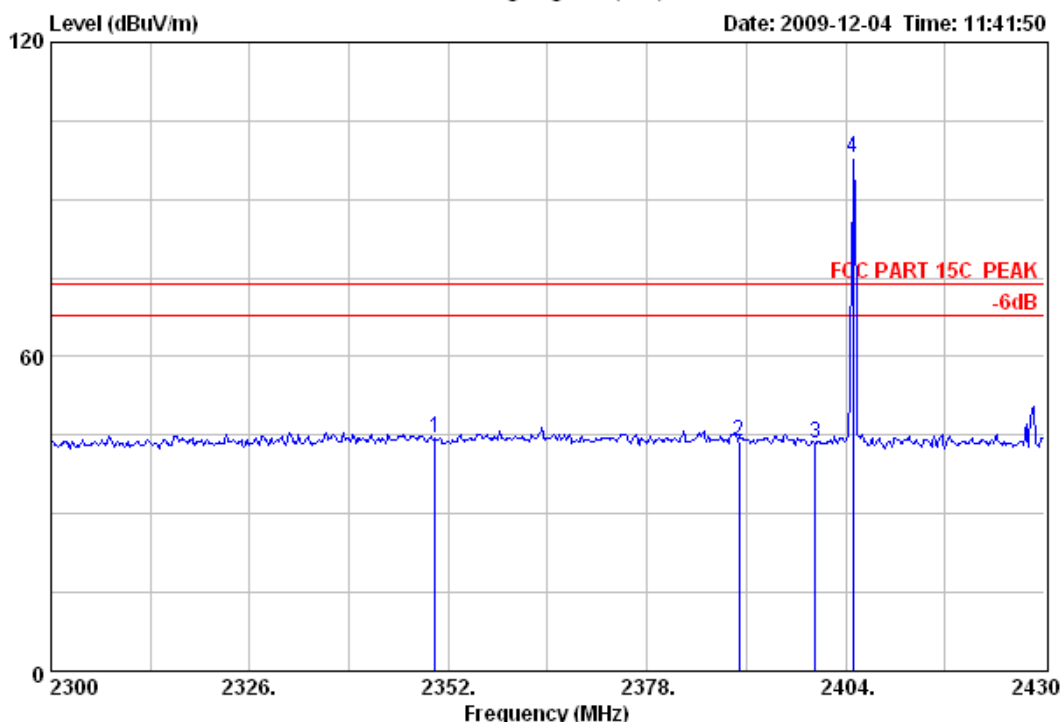
## NS Technology

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Data: 253

File: D:\Radiation data\C\Chuangfeng.EMI (259)

Date: 2009-12-04 Time: 11:41:50



Test Site : 966 Chamber  
Limit : FCC PART 15C PEAK  
Dis. / Ant. : 3m 3117 Ant. Pol.: VERTICAL  
EUT : Wireless Optical Mouse  
M/N : KM-1013  
Power : DC 3V  
Test Engineer : Jade  
Comment : Temp.:25.2'C Humi.:55%  
Test Mode : TX Mode 2405MHz

|   | Emission |          |          |        | Ant. Cable |        |      | Remark |
|---|----------|----------|----------|--------|------------|--------|------|--------|
|   | Freq.    | Level    | Limits   | Margin | Reading    | Factor | Loss |        |
|   | (MHz)    | (dBuV/m) | (dBuV/m) | (dB)   | (dBuV)     | (dB/m) | (dB) |        |
| 1 | 2350.31  | 44.29    | 74.00    | 29.71  | 10.62      | 31.45  | 2.22 | Peak   |
| 2 | 2390.00  | 43.72    | 74.00    | 30.28  | 10.02      | 31.48  | 2.22 | Peak   |
| 3 | 2400.00  | 43.58    | 74.00    | 30.42  | 9.85       | 31.50  | 2.23 | Peak   |
| 4 | 2404.91  | 98.09    | 74.00    | -24.09 | 64.36      | 31.50  | 2.23 | Peak   |

