

# FCC COMPLIANCE REPORT

for

Futaba Corporation

RRC-R13 2.4G

Model Number: RRC-R13

Prepared for : Futaba Corporation

Address : 1080 Yabutsuka,Chosei-mura,Chosei-gun Chiba-ken 299-4395

Prepared By : NS Technology Co., Ltd.

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Report Number : NSE-F09033001

Date of Test : Mar.14~18, 2009

Date of Report : Mar.18, 2009

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# NS Technology Co., Ltd.

<b>Applicant:</b>	Futaba Corporation		
<b>Address:</b>	1080 Yabutsuka,Chosei-mura,Chosei-gun Chiba-ken 299-4395		
<b>Manufacturer:</b>	Vision Electronics Co.,LTD		
<b>Address:</b>	No 5, JuLong Road, ShiGu Park, TangXia Town, DongGuan City, GuandDong, China		
<b>E.U.T:</b>	RRC-R13 2.4G		
<b>Model Number:</b>	RRC-R13		
<b>Trade Name:</b>	-----	<b>Operating Frequency:</b>	2403MHz-2479MHz
<b>Date of Receipt:</b>	Mar.13, 2009	<b>Date of Test:</b>	Mar.14~18, 2009
<b>Test Specification:</b>	FCC Part 15 Subpart C: July. 10, 2008 ANSI C63.4:2003		
<b>Test Result:</b>	The equipment under test was found to be compliance with the requirements of the standards applied.		
			<b>Issue Date: Mar. 18,2009</b>
<b>Tested by:</b>	<b>Reviewed by:</b>	<b>Approved by:</b>	
<u>David</u>	<u>Iceman Hu</u>	<u>Steven Lee</u>	
David / Engineer	Iceman Hu / Supervisor	Steven Lee / Manager	
<b>Other Aspects:</b>	None.		
<i>Abbreviations: OK/P=passed    fail/F=failed    n.a/N=not applicable    E.U.T=equipment under tested</i>			
<i>This test report is based on a single evaluation of one sample of above mentioned products ,It is not permitted to be duplicated in extracts without written approval of NS Technology Co., Ltd.</i>			

# 1. GENERAL PRODUCT INFORMATION

## 1.1. Product Function

The EUT is used to transmit control command only. The operation frequency is 2403MHz. to 2479MHz, Press the button on remote transmitter, Please refer to the user's manual for the details.

## 1.2. Description of Device (EUT)

E.U.T.	: RRC-R13 2.4G
Model No.	: RRC-R13
Type of the Equipment	: Combined Equipment
Operating Frequency	: 2403MHz-2479MHz
Channel Number	: 77
Channel frequency	: $F = 2403 + (K-1) K=1,2,\dots,77$
Type of Modulation	: GFSK
Antenna Type	: Integral
System Input Voltage	: Nominal Voltage: DC 3V
Temperature Range(Operating)	: 0 ~+ 40°C

## 1.3. Difference between Model Numbers

None.

## 1.4. Independent Operation Modes

The basic operation modes are:

TX CH1 2403MHz

TX CH39 2441MHz

TX CH77 2479MHz

## 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.: 897109  
Date of registration: October 10, 2003

Certificated by VCCI, Japan  
Registration No.: R-1798 & C-1926  
Date of registration: January 30, 2004

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.: 5936  
Date of registration: March 24, 2006

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

Name of Firm : NS Technology Co., Ltd.

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

## 2.2. List of Test and Measurement Instruments

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

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
Test Receiver	Rohde & Schwarz	ESCS30	100199	May 25,08	May 25,09
Artificial Mains Network	Rohde & Schwarz	ESH2-Z5	100071	May 25,08	May 25,09
Artificial Mains Network(AUX)	Kyoritsu	KNW-407	8-1579-1	Jan.19,09	Jan.19,10
Coaxial Switch	Anritsu	MP59B	6200530578	May 2,08	May 2,09

### 2.2.2. For radiated emission test

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
Test Receiver	R&S	ESCS30	100340	May 25,08	May 25,09
Spectrum Analyzer	HP	8593E	3448U00806	May 25,08	May 25,09
Amplifier	HP	8447D	2944A10488	May 2,08	May 2,09
Amplifier	BURGEON	PEC-38-30M18G-12-SEF	B001	Jun.02,08	Jun.02,09
Bilog Antenna	Teseq	CBL 6111D	25758	Oct. 15,08	Oct. 15,09
Horn Antenna	EMCO	3117	00062558	May 02,08	May 2,09

### 2.2.3. For Band Edge

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
Test Receiver	R&S	ESCS30	100340	May 25,08	May 25,09
Spectrum Analyzer	HP	8593E	3448U00806	May 25,08	May 25,09
Amplifier	HP	8447D	2944A10488	May 2,08	May 2,09
Amplifier	BURGEON	PEC-38-30M18G-12-SEF	B001	Jun.02,08	Jun.02,09
Bilog Antenna	Teseq	CBL 6111D	25758	Oct. 15,08	Oct. 15,09
Horn Antenna	EMCO	3117	00062558	May 02,08	May 2,09

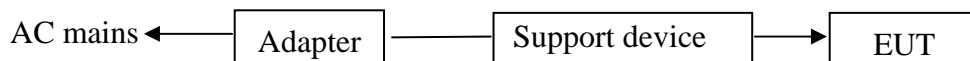
### 3. TEST SET-UP AND OPERATION MODES

#### 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:RRC-R13 2.4G)*

#### 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 List

No.	Item	Specification	Remarks	Results
1	Conducted emission	FCC Part15.207	Conducted	PASS
2	Flid Strength of Fundamental	FCC Part 15.249(a)	Radiated	PASS
3	Flid Strength of Harmornics or other Frequency	FCC Part 15.249(a) FCC Part15.209	Radiated	PASS
4	Band Edge	FCC Part 15.249(d)	Radiated	PASS



## 5. EMISSION TEST RESULTS

### 5.1. Conducted Emissions

**RESULT** : **Pass**  
 Test procedure : ANSI C63.4:2003  
 Frequency range : 0.15~30MHz  
 Test Site : Shielded Room  
 Limits : FCC Part 15 Subpart C: July. 10, 2008

#### Test Setup

Date of test : Mar. 15, 2008  
 Input Voltage : DC 3V(Adapter input AC 120V/60Hz)  
 Operation Mode : TX mode

The EUT was put on a wooden table which was 0.8metre high above the ground and connected to the AC mains through a Artificial Mains Network (A.M.N). The mains lead in excess of 1 m separating the EUT from the AMN was folded back and forth parallel to the lead so as to form a bundle with a length of 0.3m to 0.4m.

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

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

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

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

## Test data

EUT:	RRC-R13 2.4G	Temperature:	25.3°C
M/N:	RRC-R13	Humidity:	55%
Test Mode:	TX mode	Test Engineer:	David

Conducted Emission					
Frequency (MHz)	Reading (dB $\mu$ V)			Limit (dB $\mu$ V)	
	Quasi-Peak	Average	Ports	Quasi-Peak	Average
0.150	43.00	41.35	Positive	66.00	56.00
0.350	39.01	37.80	Positive	58.96	48.96
0.598	35.97	34.26	Positive	56.00	46.00
0.646	34.87	33.22	Positive	56.00	46.00
1.094	35.68	33.73	Positive	56.00	46.00
29.118	38.43	36.64	Positive	60.00	50.00
0.198	38.43	35.21	Negative	63.69	53.69
0.346	40.31	36.79	Negative	59.06	49.06
0.746	37.30	35.47	Negative	56.00	46.00
1.378	34.24	32.53	Negative	56.00	46.00
14.610	33.05	31.54	Negative	60.00	50.00
29.117	40.18	38.13	Negative	60.00	50.00

Remark: 1. Test uncertainty:  $\pm 1.99$ dB at a level of confidence of 95%.

## 5.2. Radiated emissions

### 5.2.1. Applied Standard

According to 15.249(a), the field strength of emissions from intentional radiators operated within these frequency bands shall comply with the following:

Fundamental Frequencies (MHz)	Field strength of Fundamental (mV/meter at 3m)	Unwanted emissions (uV/meter at 3m)
902-928 MHz	50	500
2400-2483.5 MHz	50	500
5725-5875 MHz	50	500
24.0-24.25GHz	250	2500

The field strength of spurious emissions which appear outside of this band shall not exceed the general radiated emission limits in Section 15.209 as following:

Frequencies (MHz)	Field strength uV/meter	Measurement distance (meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

According to 15.35(b), for frequencies above 1000MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20dB under any condition of modulation.

### 5.2.2. Test procedure

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

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

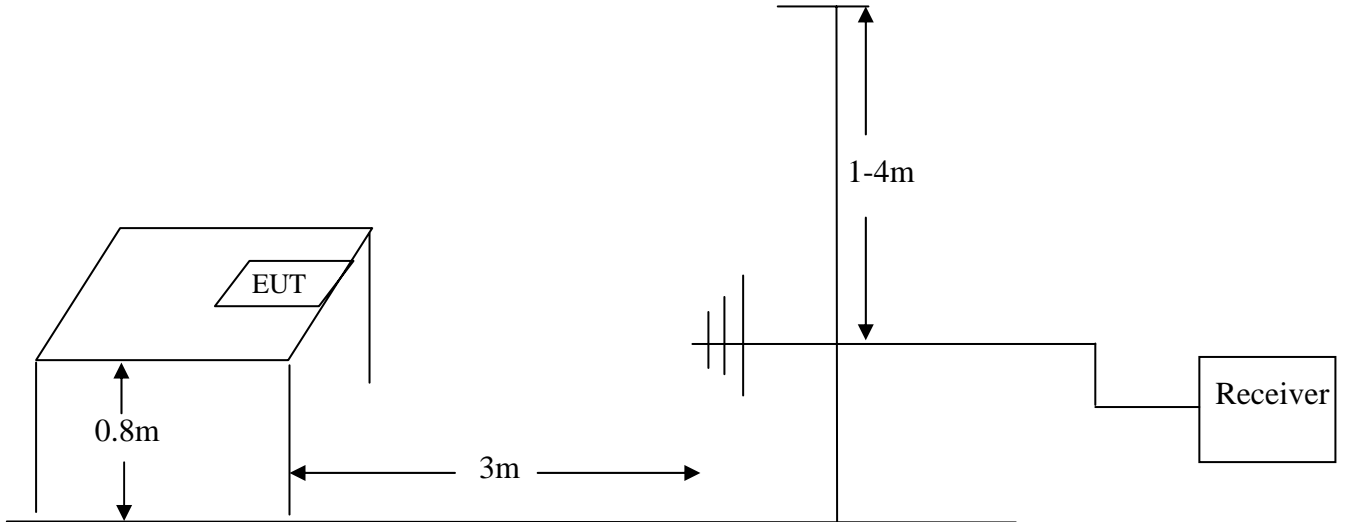
The resolution bandwidth and video bandwidth of the test receiver was 1MHz and 1MHz for Peak detection at frequency above 1GHz.

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

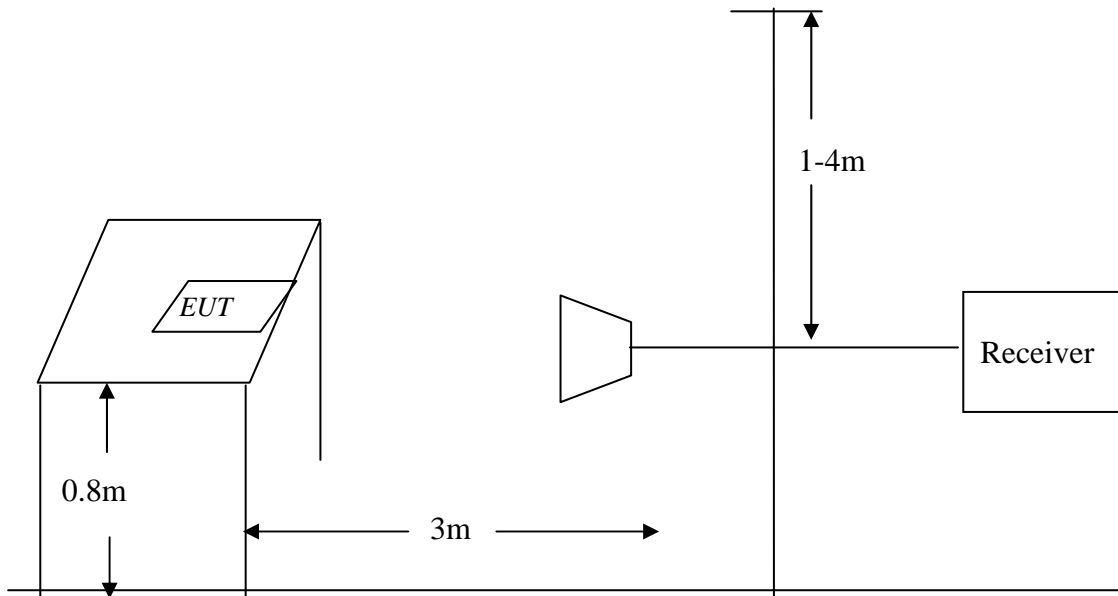
The EUT was tested in 3m Chamber Site.

### 5.2.3. Test Setup Diagram

For frequency range: 30MHz-1000MHz



For frequency range: 1 GHz -25GHz



5.2.4. Test result

**Pass.**

Test Data ( worst position: Y-axis)

EUT	:	<u>RRC-R13 2.4G</u>	Temperature:	<u>25.4°C</u>
Model No.	:	<u>RRC-R13</u>	Humidity	<u>55%</u>
Test Mode	:	<u>TX CH1 2403MHz</u>	Test Engineer	<u>David</u>

Frequency MHz	Antenna Factor dB	Cable Loss dB	Meter Reading dBμV	Emission Level dBμV/m	Over Limits dB	Limits @3m dBμV/m	Polarity	Detector
96.93	12.55	1.51	24.90	38.96	-4.54	43.50	H	QP
193.90	9.46	2.19	28.52	40.17	-3.33	43.50	H	QP
589.66	22.23	4.36	12.52	39.11	-6.89	46.00	H	QP
2403.00	31.50	2.23	60.24	93.97	-20.01	113.98	H	Peak
2403.00	31.50	2.23	42.09	75.82	-18.16	93.98	H	Average
4778.84	34.57	2.37	13.39	50.33	-23.67	74.00	H	Peak
4778.84	34.57	2.37	10.03	46.97	-7.03	54.00	H	Average
7306.64	36.84	2.53	10.28	49.65	-24.35	74.00	H	Peak
7306.64	36.84	2.53	4.95	44.32	-9.68	54.00	H	Average
48.43	6.96	0.98	28.68	36.62	-3.38	40.00	V	QP
96.93	12.55	1.51	23.58	37.64	-5.86	43.50	V	QP
434.49	17.92	3.55	16.66	38.13	-7.87	46.00	V	QP
2403.00	31.50	2.23	60.61	94.34	-19.64	113.98	V	Peak
2403.00	31.50	2.23	37.77	71.50	-22.48	93.98	V	Average
4778.84	34.57	2.37	21.04	57.98	-16.02	74.00	V	Peak
4778.84	34.57	2.37	5.42	42.36	-11.64	54.00	V	Average
6418.08	36.53	2.48	11.09	50.10	-23.90	74.00	V	Peak
6418.08	36.53	2.48	4.81	43.82	-10.18	54.00	V	Average

Remark:

1. Emission Level = Antenna Factor + Cable Loss + Meter Reading
2. Peak Limit=Average Limit+20dB
3. Test uncertainty: ±4.76dB at a level of confidence of 95%

Test Data ( worst position: Y-axis)

EUT	:	<u>RRC-R13 2.4G</u>	Temperature:	<u>25.4°C</u>
Model No.	:	<u>RRC-R13</u>	Humidity	: <u>55%</u>
Test Mode	:	<u>TX CH39 2441MHz</u>	Test Engineer	: <u>David</u>

Frequency MHz	Antenna Factor dB	Cable Loss dB	Meter Reading dB $\mu$ V	Emission Level dB $\mu$ V/m	Over Limits dB	Limits @3m dB $\mu$ V/m	Polarity	Detector
96.93	12.55	1.51	21.24	35.30	-8.20	43.50	H	QP
193.93	9.46	2.19	27.69	39.34	-4.16	43.50	H	QP
589.64	22.23	4.36	12.46	39.05	-6.95	46.00	H	QP
2441.00	31.54	2.23	58.90	92.67	-21.31	113.98	H	Peak
2441.00	31.54	2.23	37.74	71.51	-22.47	93.98	H	Average
4855.44	34.61	2.38	15.21	52.20	-21.80	74.00	H	Peak
4855.44	34.61	2.38	5.02	42.01	-11.99	54.00	H	Average
7230.04	36.86	2.53	10.05	49.44	-24.56	74.00	H	Peak
7230.04	36.86	2.53	2.53	41.92	-12.08	54.00	H	Average
48.43	6.96	0.98	27.73	35.67	-4.33	40.00	V	QP
96.93	12.55	1.51	23.66	37.72	-5.78	43.50	V	QP
193.92	9.46	2.19	24.15	35.80	-7.70	43.50	V	QP
2441.00	31.54	2.23	66.74	100.51	-13.47	113.98	V	Peak
2441.00	31.54	2.23	51.59	85.36	-8.62	93.98	V	Average
4855.44	34.61	2.38	21.11	58.10	-15.90	74.00	V	Peak
4855.44	34.61	2.38	6.82	43.32	-10.19	54.00	V	Average
7567.08	36.82	2.55	11.41	50.78	-23.22	74.00	V	Peak
7567.08	36.82	2.55	3.95	43.32	-10.68	54.00	V	Average

Remark:

1. Emission Level = Antenna Factor + Cable Loss + Meter Reading
2. Peak Limit=Average Limit+20dB
3. Test uncertainty:  $\pm 4.76$ dB at a level of confidence of 95%

Test Data ( worst position: Y-axis)

EUT	:	<u>RRC-R13 2.4G</u>	Temperature:	<u>25.4°C</u>
Model No.	:	<u>RRC-R13</u>	Humidity	: <u>55%</u>
Test Mode	:	<u>TX CH77 2479MHz</u>	Test Engineer	: <u>David</u>

Frequency MHz	Antenna Factor dB	Cable Loss dB	Meter Reading dB $\mu$ V	Emission Level dB $\mu$ V/m	Over Limits dB	Limits @3m dB $\mu$ V/m	Polarity	Detector
96.93	12.55	1.51	22.86	36.92	-6.58	43.50	H	QP
193.93	9.46	2.19	25.49	37.14	-6.36	43.50	H	QP
434.49	17.92	3.55	16.39	37.85	-8.15	46.00	H	QP
2479.00	31.58	2.23	56.18	89.99	-23.99	113.98	H	Peak
2479.00	31.58	2.23	46.75	80.56	-13.99	93.98	H	Average
4932.04	34.66	2.38	15.12	52.16	-21.84	74.00	H	Peak
4932.04	34.66	2.38	7.57	44.61	-9.39	54.00	H	Average
7567.08	36.82	2.55	11.04	50.41	-23.59	74.00	H	Peak
7567.08	36.82	2.55	4.93	44.30	-9.70	54.00	H	Average
48.43	6.96	0.98	28.68	36.62	-3.38	40.00	V	QP
96.93	12.55	1.51	23.08	37.14	-6.36	43.50	V	QP
744.89	23.00	5.21	14.10	42.31	-3.69	46.00	V	QP
2479.00	31.58	2.23	64.30	98.11	-23.30	113.98	V	Peak
2479.00	31.58	2.23	36.87	70.68	-15.87	93.98	V	Average
4932.04	34.66	2.38	27.13	64.17	-9.83	74.00	V	Peak
4932.04	34.66	2.38	8.58	45.62	-8.38	54.00	V	Average
7230.01	36.86	2.53	12.28	49.32	-24.12	74.00	V	Peak
7230.01	36.86	2.53	7.46	46.85	-7.15	54.00	V	Average

Remark:

1. Emission Level = Antenna Factor + Cable Loss + Meter Reading
2. Peak Limit=Average Limit+20dB
3. Test uncertainty:  $\pm 4.76$ dB at a level of confidence of 95%



## 5.3. Band Edge

### 5.3.1. Applied Standard

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 of 1GHz to 25GHz, The measuring antenna moved from 1 to 4 m for horizontal and vertical polarization. The horn antenna was used was a receiving antenna.

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.

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 3m Chamber Site.

### 5.3.3. Test Setup Diagram

Refer to clause 5.3.3

### 5.3.4. Test Result

**Pass.**

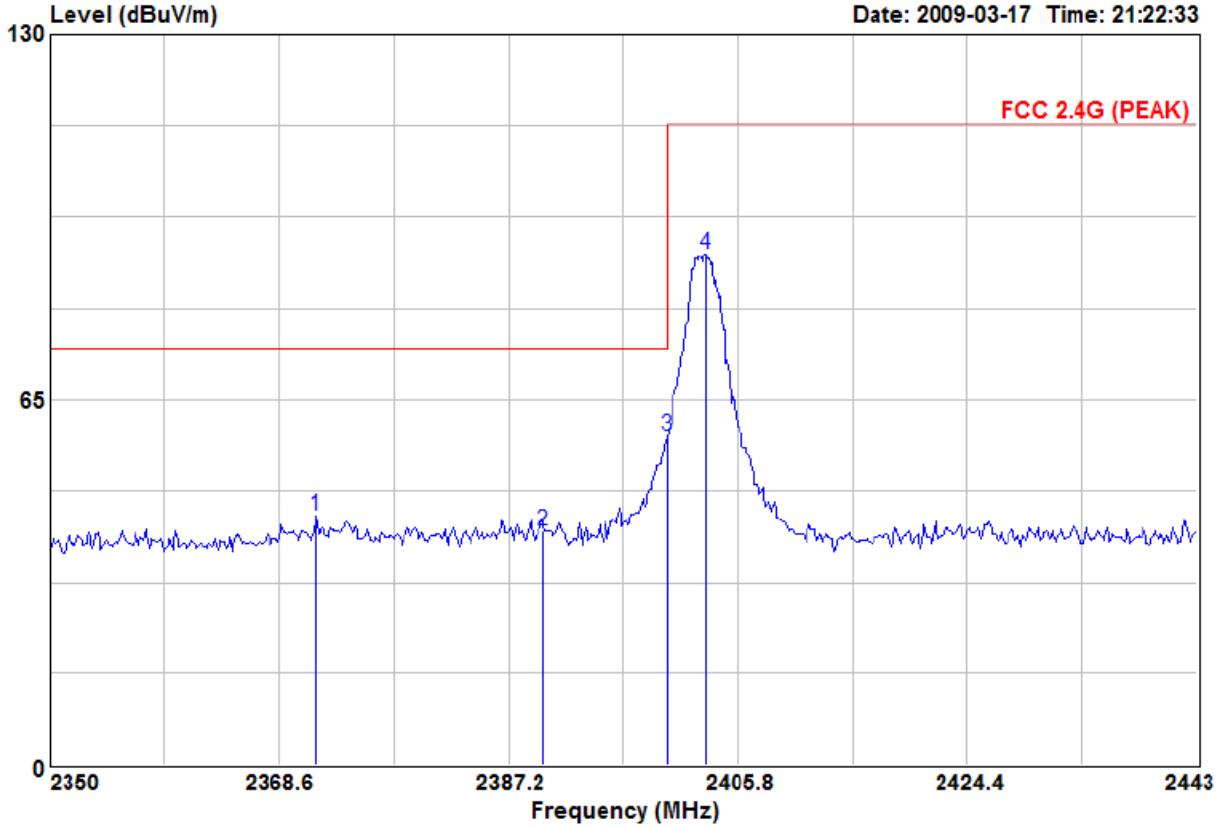
The test plots as following:

NS Technology

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

Data: 10 File: \\966pc2\radiation\WWEIXIN.EMI (17)

Date: 2009-03-17 Time: 21:22:33



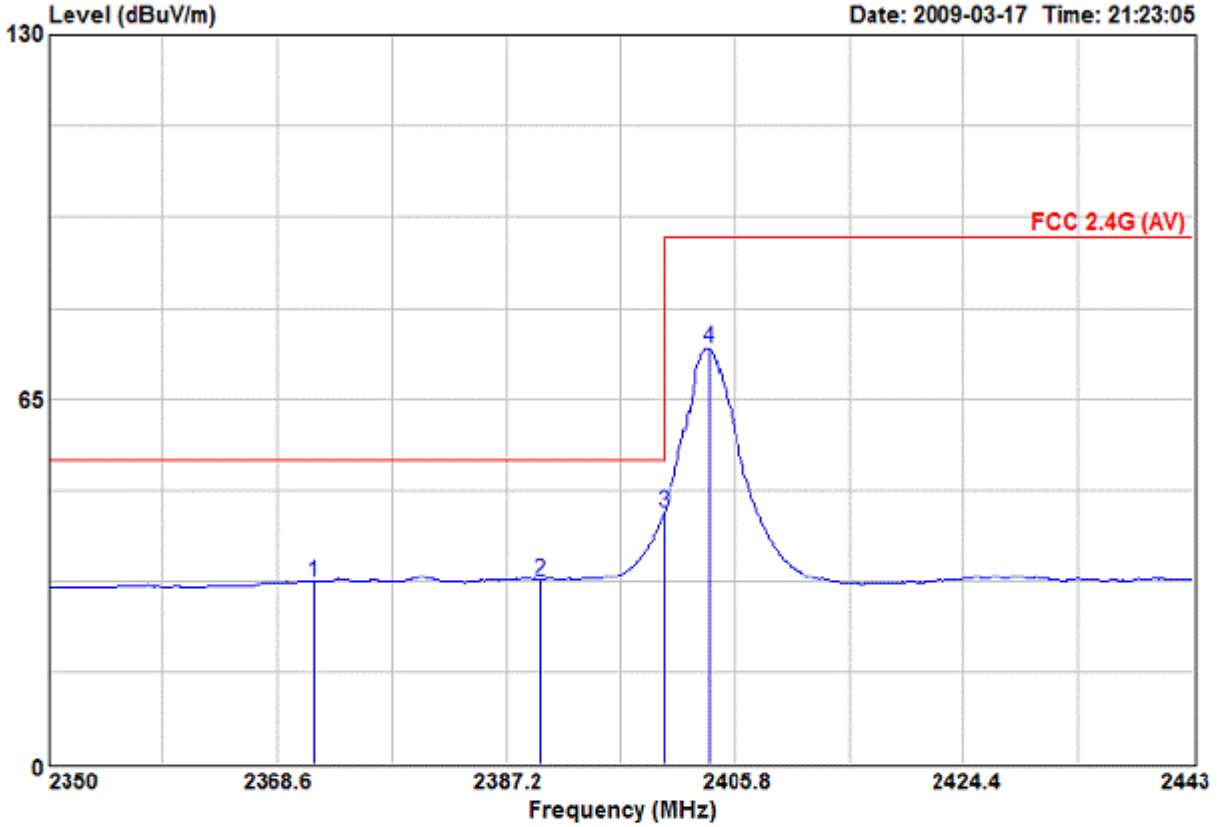
Test Site : 966 Chamber  
 Limit : FCC 2.4G (PEAK)  
 Dis. / Ant. : 3m 3117 Ant. Pol.: VERTICAL  
 EUT : AZPRRC-R13  
 Power : RRC-R13  
 M/N : DC 3V(Adapter input AC 120V/60Hz)  
 Test Engineer : David  
 Comment : Temp:25.3'C Humi:55%  
 Test Mode : TX CH1 2403MHz

Freq. (MHz)	Emission			Margin (dB)	Reading (dBuV)	Ant. Factor (dB/m)	Cable Loss (dB)
	Level (dBuV/m)	Limits (dBuV/m)					
1 2371.58	44.29	74.00	29.71	10.60	31.47	2.22	
2 2390.00	41.50	74.00	32.50	7.80	31.48	2.22	
3 2400.00	58.54	74.00	15.46	24.81	31.50	2.23	
4 2403.20	91.00	114.00	23.00	57.27	31.50	2.23	

NS Technology

Chenwu Industrial Zone, Houjie Town,  
Dongguan City, Guangdong, China  
Tel: +86-769-85935656  
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Data: 11 File: \\966pc2\radiation\W\WEIXIN.EMI (17)



Test Site : 966 Chamber  
 Limit : FCC 2.4G (AV)  
 Dis. / Ant. : 3m 3117 Ant. Pol.: VERTICAL  
 EUT : AZPRRC-R13  
 Power : RRC-R13  
 M/N : DC 3V(Adapter input AC 120V/60Hz)  
 Test Engineer : David  
 Comment : Temp:25.3'C Humi:55%  
 Test Mode : TX CH1 2403MHz

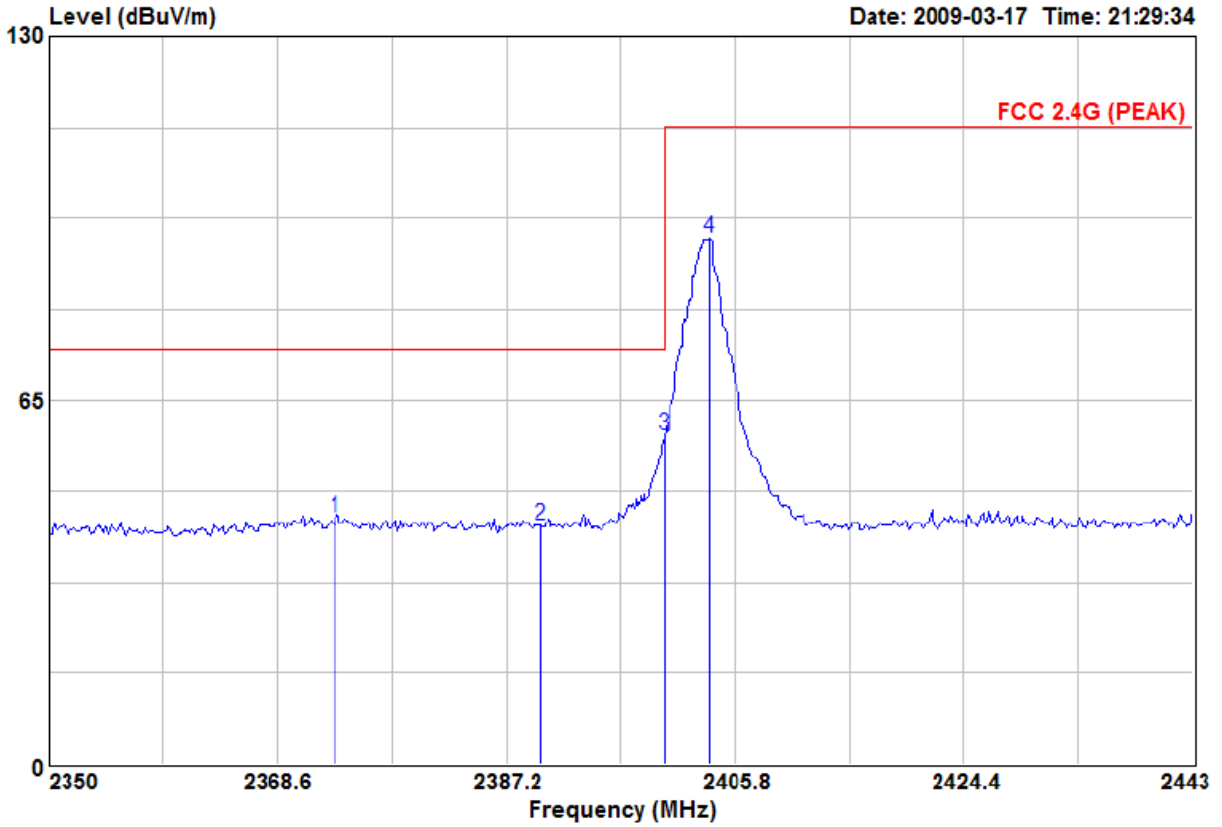
	Emission				Ant.	Cable
Freq. (MHz)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Reading (dBuV)	Factor (dB/m)	Loss (dB)
1 2371.58	32.39	54.00	21.61	1.30	31.47	2.22
2 2390.00	32.77	54.00	21.23	0.93	31.48	2.22
3 2400.00	44.83	54.00	9.17	11.10	31.50	2.23
4 2403.66	74.08	94.00	19.92	40.35	31.50	2.23

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Data: 16 File: \\966pc2\radiation\WWEIXIN.EMI (17)

Date: 2009-03-17 Time: 21:29:34



Test Site : 966 Chamber  
 Limit : FCC 2.4G (PEAK)  
 Dis. / Ant. : 3m 3117 Ant. Pol.: HORIZONTAL  
 EUT : AZPRRC-R13  
 Power : RRC-R13  
 M/N : DC 3V(Adapter input AC 120V/60Hz)  
 Test Engineer : David  
 Comment : Temp:25.3'C Humi:55%  
 Test Mode : TX CH1 2403MHz

Freq. (MHz)	Emission			Reading (dBuV)	Ant. Factor (dB/m)	Cable Loss (dB)
	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)			
1 2373.34	44.02	74.00	29.98	10.33	31.47	2.22
2 2390.00	42.61	74.00	31.39	8.91	31.48	2.22
3 2400.00	58.79	74.00	15.21	25.06	31.50	2.23
4 2403.66	93.85	114.00	20.15	60.12	31.50	2.23

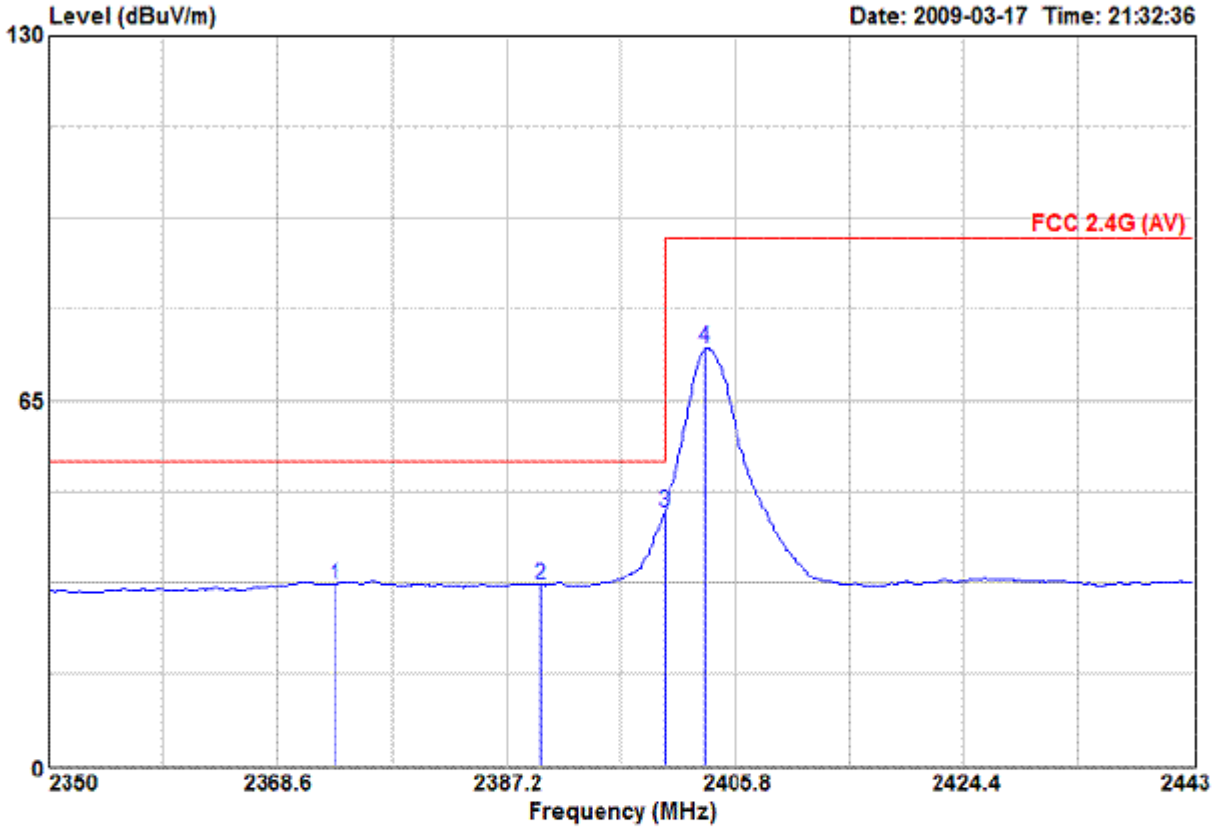
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Data: 17

File: \\966pc2\radiation\WWEIXIN.EMI (17)

Date: 2009-03-17 Time: 21:32:36



Test Site : 966 Chamber  
 Limit : FCC 2.4G (AV)  
 Dis. / Ant. : 3m 3117 Ant. Pol.: HORIZONTAL  
 EUT : AZPRRC-R13  
 Power : RRC-R13  
 M/N : DC 3V(Adapter input AC 120V/60Hz)  
 Test Engineer : David  
 Comment : Temp:25.3'C Humi:55%  
 Test Mode : TX CH1 2403MHz

Freq. (MHz)	Emission			Margin (dB)	Reading (dBUV)	Ant. Factor (dB/m)	Cable Loss (dB)
	Level (dBUV/m)	Limits (dBUV/m)					
1 2373.34	32.24	54.00	21.76	1.45	31.47	2.22	
2 2390.00	32.15	54.00	21.85	1.55	31.48	2.22	
3 2400.00	45.06	54.00	8.94	11.33	31.50	2.23	
4 2403.38	74.29	94.00	19.71	40.56	31.50	2.23	

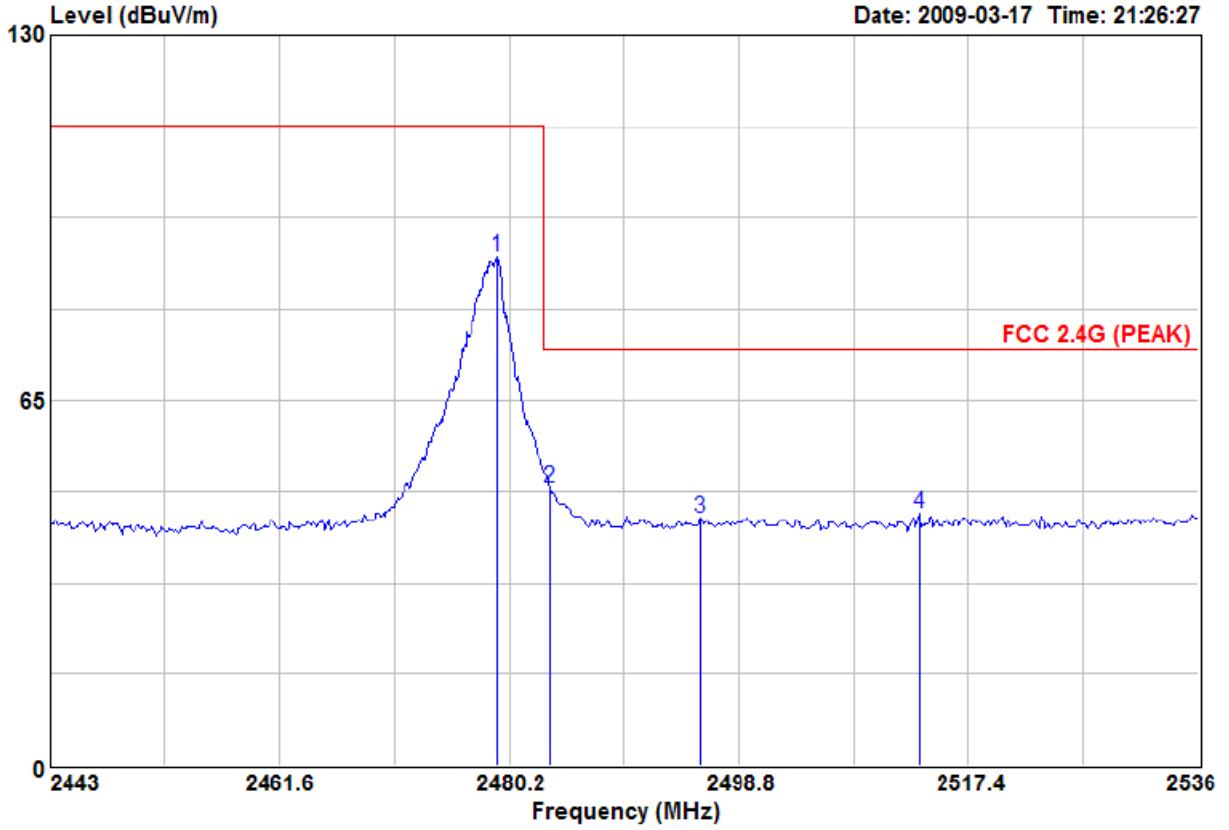
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Data: 12

File: \\966pc2\radiation\WWEIXIN.EMI (17)

Date: 2009-03-17 Time: 21:26:27



Test Site : 966 Chamber  
 Limit : FCC 2.4G (PEAK)  
 Dis. / Ant. : 3m 3117 Ant. Pol.: VERTICAL  
 EUT : AZPRRC-R13  
 Power : RRC-R13  
 M/N : DC 3V(Adapter input AC 120V/60Hz)  
 Test Engineer : David  
 Comment : Temp:25.3'C Humi:55%  
 Test Mode : TX CH77 2479MHz

	Emission				Ant.	Cable
Freq. (MHz)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Reading (dBuV)	Factor (dB/m)	Loss (dB)
1 2479.18	90.54	114.00	23.46	56.73	31.58	2.23
2 2483.50	49.34	74.00	24.66	15.53	31.58	2.23
3 2495.73	44.18	74.00	29.82	10.35	31.60	2.23
4 2513.40	44.86	74.00	29.14	11.02	31.61	2.23

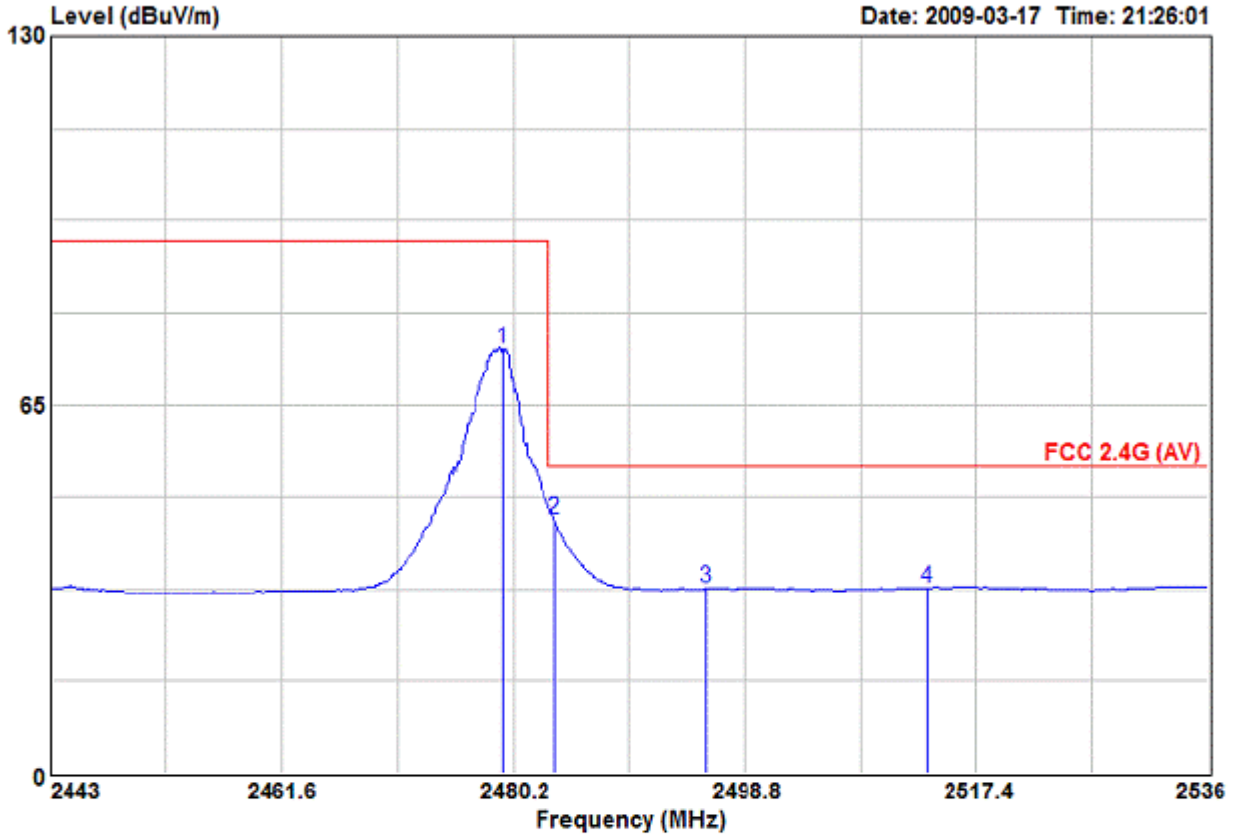
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Data: 13

File: \\966pc2\radiation\WWEIXIN.EMI (17)

Date: 2009-03-17 Time: 21:26:01



Test Site : 966 Chamber  
 Limit : FCC 2.4G (AV)  
 Dis. / Ant. : 3m 3117 Ant. Pol.: VERTICAL  
 EUT : AZPRRC-R13  
 Power : RRC-R13  
 M/N : DC 3V(Adapter input AC 120V/60Hz)  
 Test Engineer : David  
 Comment : Temp:25.3°C Humi:55%  
 Test Mode : TX CH77 2479MHz

	Emission				Ant.	Cable
Freq. (MHz)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Reading (dBuV)	Factor (dB/m)	Loss (dB)
1 2479.36	74.74	94.00	19.26	40.93	31.58	2.23
2 2483.50	44.85	54.00	9.15	11.04	31.58	2.23
3 2495.73	32.62	54.00	21.38	1.21	31.60	2.23
4 2513.40	32.77	54.00	21.23	1.07	31.61	2.23

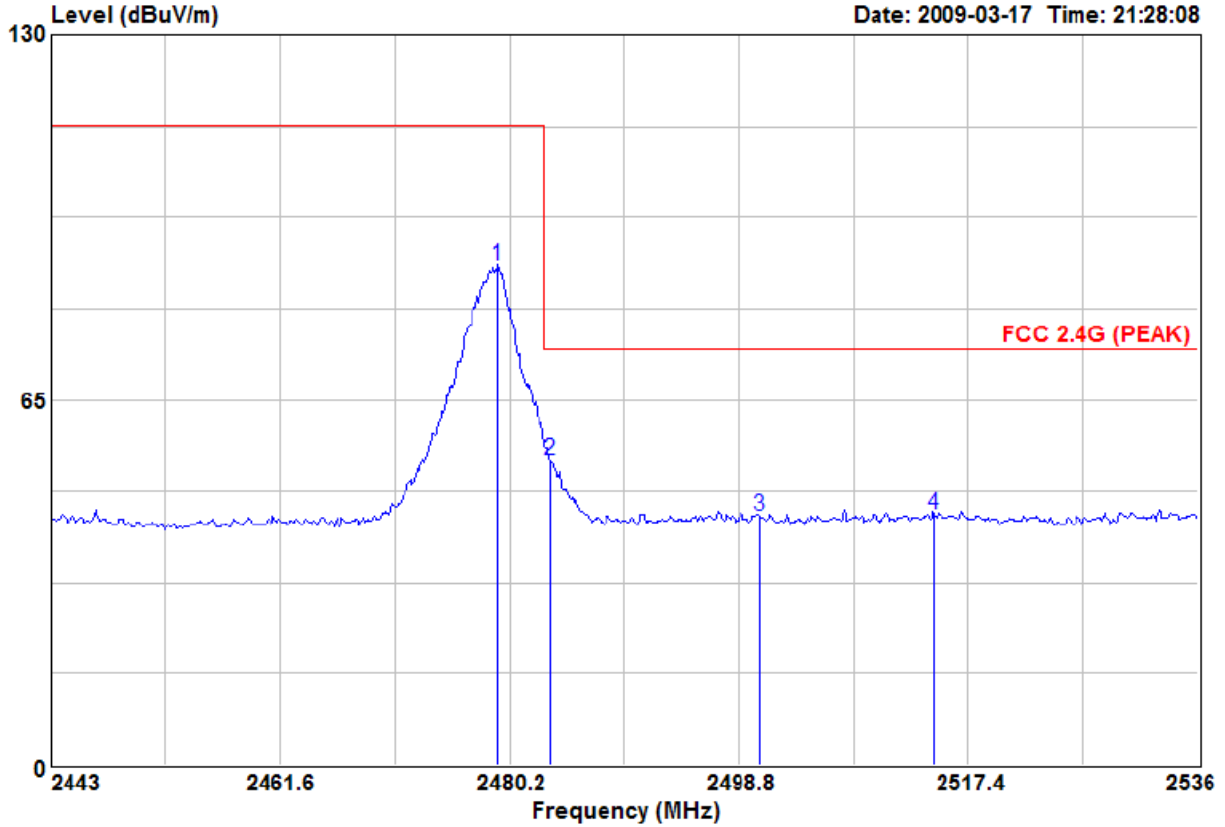
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Data: 15

File: \\966pc2\radiation\WWEIXIN.EMI (17)

Date: 2009-03-17 Time: 21:28:08



Test Site : 966 Chamber  
 Limit : FCC 2.4G (PEAK)  
 Dis. / Ant. : 3m 3117 Ant. Pol.: HORIZONTAL  
 EUT : AZPRRC-R13  
 Power : RRC-R13  
 M/N : DC 3V(Adapter input AC 120V/60Hz)  
 Test Engineer : David  
 Comment : Temp:25.3'C Humi:55%  
 Test Mode : TX CH77 2479MHz

Emission				Ant. Cable		
Freq. (MHz)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Reading (dBuV)	Factor (dB/m)	Loss (dB)
1 2479.27	88.94	114.00	25.06	55.13	31.58	2.23
2 2483.50	54.33	74.00	19.67	20.52	31.58	2.23
3 2500.47	44.34	74.00	29.66	10.51	31.60	2.23
4 2514.61	44.75	74.00	29.25	10.91	31.61	2.23

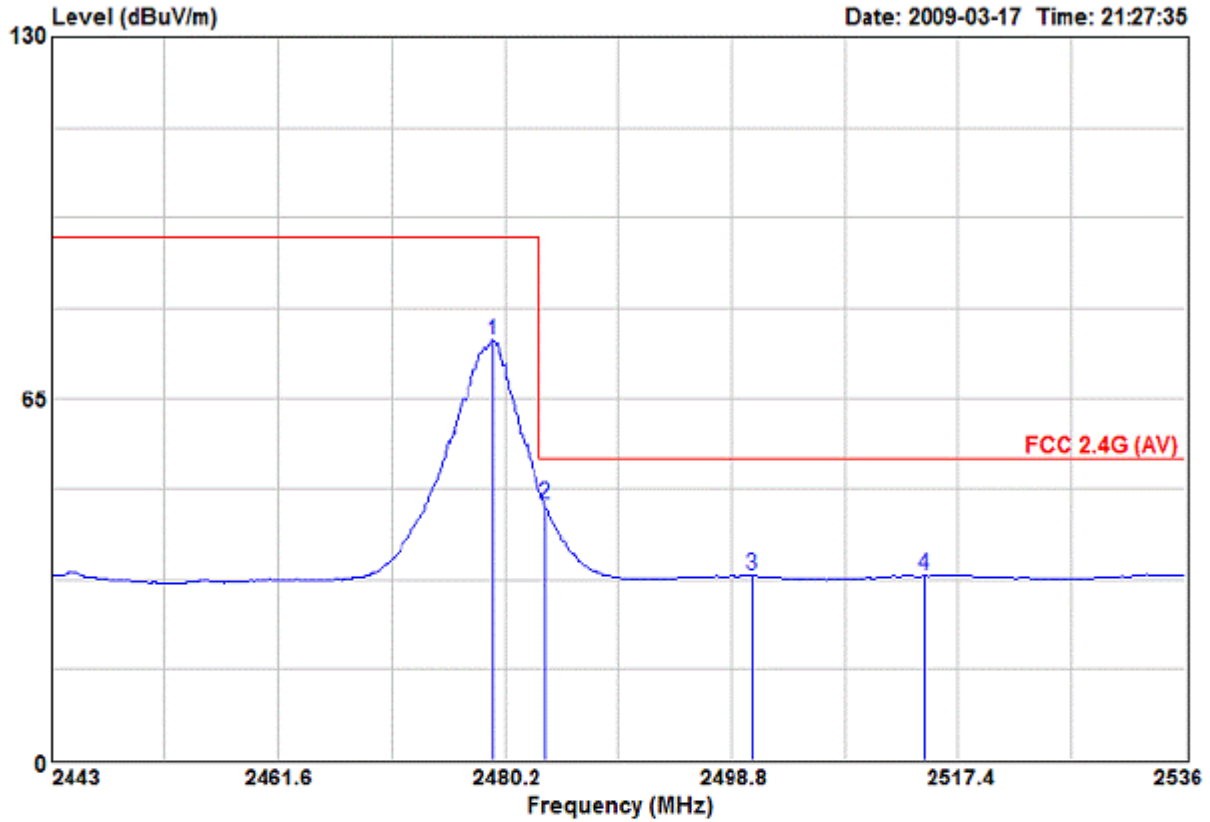


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Data: 14 File: \\966pc2\radiation\WWEIXIN.EMI (17)

Date: 2009-03-17 Time: 21:27:35



Test Site : 966 Chamber  
 Limit : FCC 2.4G (AV)  
 Dis. / Ant. : 3m 3117 Ant. Pol.: HORIZONTAL  
 EUT : AZPRRC-R13  
 Power : RRC-R13  
 M/N : DC 3V(Adapter input AC 120V/60Hz)  
 Test Engineer : David  
 Comment : Temp:25.3'C Humi:55%  
 Test Mode : TX CH77 2479MHz

	Emission				Ant. Cable		
1	Freq. (MHz)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Reading (dBuV)	Factor (dB/m)	Loss (dB)
1	2479.27	75.52	94.00	18.48	41.71	31.58	2.23
2	2483.50	45.97	54.00	8.03	12.16	31.58	2.23
3	2500.47	33.14	54.00	20.86	0.69	31.60	2.23
4	2514.61	33.21	54.00	20.79	0.63	31.61	2.23

## 6. PHOTOGRAPHS OF TEST SET-UP

**Figure 1**

Set-up for radiated measurements (30MHz to 1000MHz)



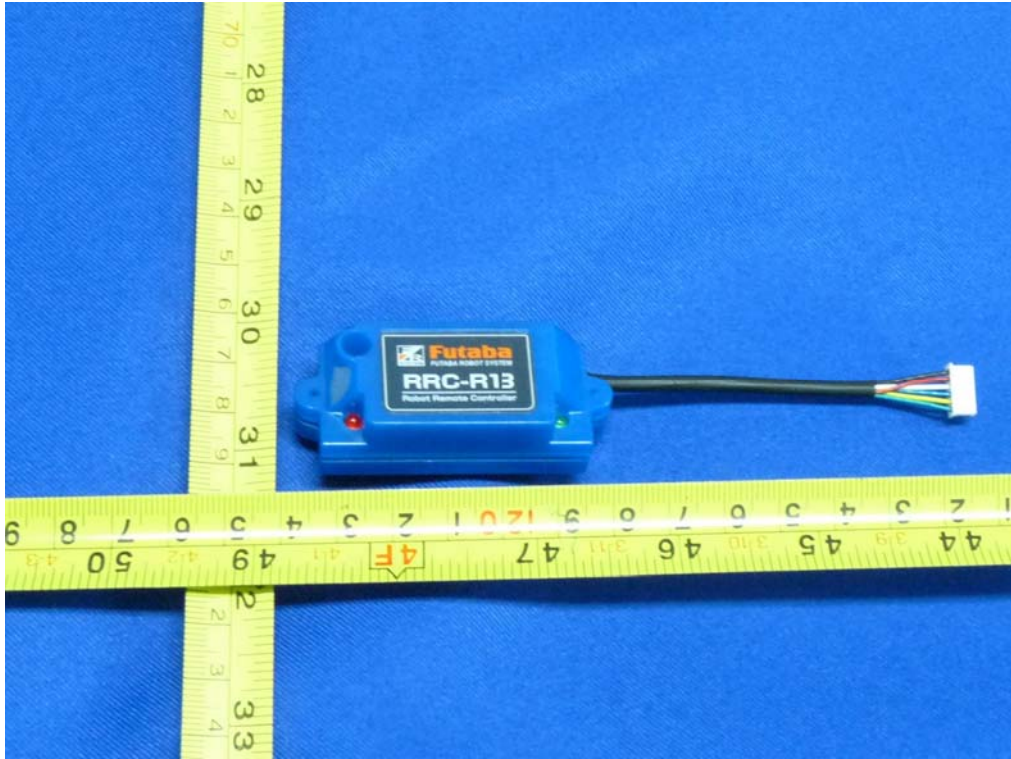
**Figure 2**

Set-up for radiated measurements (1000MHz to 25000MHz)

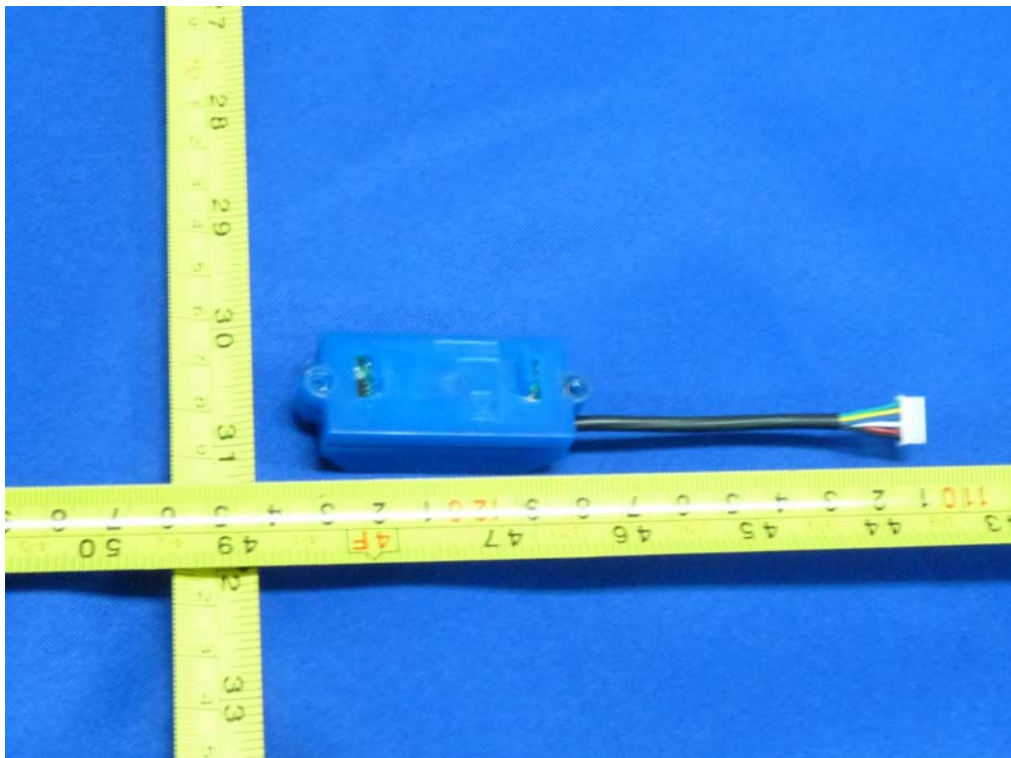


## 7. PHOTOGRAPHS OF THE EUT

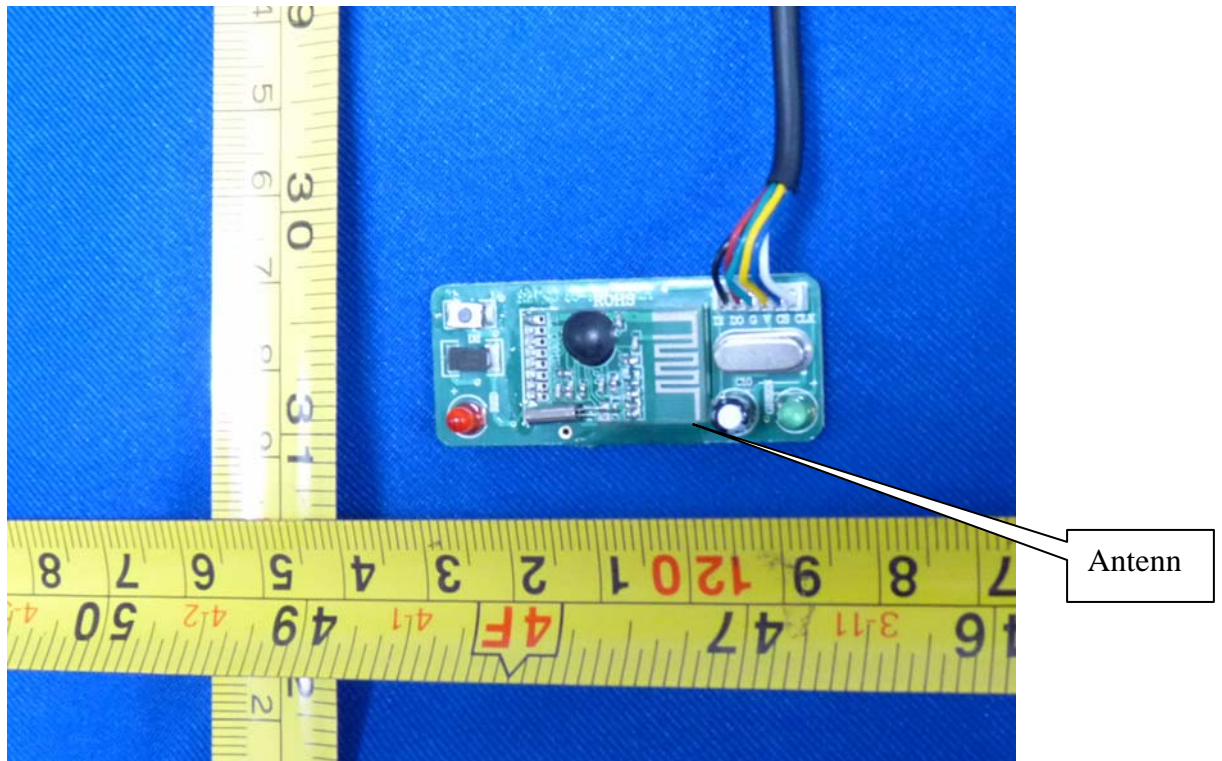
**Figure 3**  
General Appearance of the EUT



**Figure 4**  
General Appearance of the EUT



**Figure 5**  
General Appearance of the PCB



**Figure 6**  
General Appearance of the PCB

