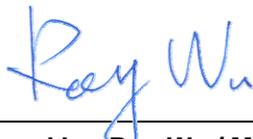


# FCC Test Report

**EQUIPMENT** : Pocket PC Phone  
**MODEL NAME** : QUAR100  
**FCC ID** : NM8QUAR100  
**STANDARD** : FCC Part 15 Subpart C §15.247  
**CLASSIFICATION** : Digital Transmission System (DTS)  
**APPLICANT** : HTC Corporation  
No. 23, Xinghua Rd., Taoyuan City, Taiwan.

The product sample received on Feb. 07, 2009 and completely tested on Apr. 14, 2009. We, SPORTON INTERNATIONAL INC., would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.4-2003 and shown the compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC., the test report shall not be reproduced except in full.



Reviewed by: Roy Wu / Manager



**SPORTON INTERNATIONAL INC.**

No. 52, Hwa Ya 1<sup>st</sup> Rd., Hwa Ya Technology Park, Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C.



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**SUMMARY OF TEST RESULT**

Report Section	FCC Rule	IC Rule	Description	Limit	Result	Remark
3.1	15.247(a)(2)	A8.2(a)	6dB Bandwidth	$\geq 0.5\text{MHz}$	Pass	-
3.2	15.247(b)	A8.4	Power Output	$\leq 30\text{dBm}$	Pass	-
3.3	15.247(d)	A8.5	Frequency Band Edges	$\leq 20\text{dBc}$	Pass	-
3.4	15.247(c)	A8.5	Spurious Emission	$< 20 \text{ dBc}$	Pass	-
3.5	15.247(e)	A8.2(b)	Power Spectral Density	$\leq 8\text{dBm}$	Pass	-
3.6	15.207	Gen 7.2.2	AC Conducted Emission	15.207(a)	Pass	Under limit 15.9 dB at 0.5420 MHz
3.7	15.247(d)	A8.5	Transmitter Radiated Emission	15.209(a) & 15.247(d)	Pass	Under limit 6.90 dB at 2483.50 MHz
3.8	15.203 & 15.247(b)	A8.4	Antenna Requirement	N/A	Pass	-

# 1 General Description

## 1.1 Applicant

**HTC Corporation**

No. 23, Xinghua Rd., Taoyuan City, Taiwan.

## 1.2 Manufacturer

**HTC Corporation**

1F, No. 6-3, Baoqiang Rd., Xindian City, Taipei, Taiwan.

## 1.3 Feature of Equipment Under Test

Product Feature & Specification	
<b>Equipment</b>	Pocket PC Phone
<b>Model Name</b>	QUAR100
<b>FCC ID</b>	NM8QUAR100
<b>Tx/Rx Frequency Range</b>	2400 MHz ~ 2483.5 MHz
<b>Number of Channels</b>	11
<b>Carrier Frequency of Each Channel</b>	2412+(n-1)*5 MHz; n=1~11
<b>Channel Spacing</b>	5 MHz
<b>Maximum Output Power to Antenna</b>	802.11b: 17.39 dBm (54.83 mW) 802.11g : 15.97 dBm (39.54 mW)
<b>Antenna Type</b>	PIFA Antenna with gain -1 dBi
<b>Type of Antenna Connector</b>	N/A
<b>Type of Modulation</b>	802.11b : DSSS (BPSK / QPSK / CCK) 802.11g : OFDM (BPSK / QPSK / 16QAM / 64QAM)
<b>EUT Stage</b>	Production Unit

## 1.4 Testing Site

<b>Test Site</b>	SPORTON INTERNATIONAL INC.		
<b>Test Site Location</b>	No. 52, Hwa Ya 1 <sup>st</sup> Rd., Hwa Ya Technology Park, Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C. TEL: +886-3-3273456 / FAX: +886-3-3284978		
<b>Test Site No.</b>	<b>Sporton Site No.</b>		<b>FCC/IC Registration No.</b>
	CO05-HY	03CH06-HY	TW1022/4086B-1

## 1.5 Applied Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- ♦ FCC Part 15 Subpart C §15.247
- ♦ FCC KDB Publication No. 558074 (Measurement Guidelines of DTS)
- ♦ ANSI C63.4-2003
- ♦ IC RSS-210 Issue 7

**Remark:**

1. All test items were verified and recorded according to the standards and without any deviation during the test.
2. This EUT has also been tested and complied with the requirements of FCC Part 15, Subpart B (DoC), recorded in a separate test report.

## 1.6 Ancillary Equipment List

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	System Simulator	R&S	CMU 200	N/A	N/A	Unshielded, 1.8 m
2.	GPS Station	T&E	GS-50	N/A	N/A	Unshielded, 1.8 m
3.	WLAN AP	D-Link	DWL-7100AP	KA22003040018-1	N/A	Unshielded, 1.8 m
4.	Bluetooth Earphone	Nokia	BH-100	PYA1YH	N/A	N/A

## 2 Test Configuration of Equipment Under Test

### 2.1 Pre-Scanned RF Power

Preliminary tests were performed in different data rate and recorded the RF power output in the following table:

**<802.11b>**

RF Power (dBm)					
Channel	Frequency (MHz)	Data Rate			
		1 Mbps	2 Mbps	5.5 Mbps	11 Mbps
CH 01	2412 MHz	15.58	15.66	16.29	15.98
CH 06	2437 MHz	<b>16.58</b>	16.54	16.54	16.56
CH 11	2462 MHz	16.04	16.07	16.12	16.22

**<802.11g>**

RF Power (dBm)									
Channel	Frequency (MHz)	Data Rate							
		6 Mbps	9 Mbps	12 Mbps	18 Mbps	24 Mbps	36 Mbps	48 Mbps	54 Mbps
CH 01	2412 MHz	13.66	13.72	12.91	13.04	12.55	12.44	11.84	11.80
CH 06	2437 MHz	<b>13.80</b>	13.78	12.91	13.00	12.37	12.43	12.02	12.01
CH 11	2462 MHz	13.29	13.20	12.63	12.66	12.00	12.13	11.62	11.60

**Remark:**

1. For WLAN RF power, the pre-scanned RF power was measured by power meter.
2. The 802.11b data rates were set in 1 Mbps and 802.11g data rates were set in 6 Mbps for all the test cases, due to the highest RF output power.
3. The EUT is programmed to transmit signal continuously for all testing.

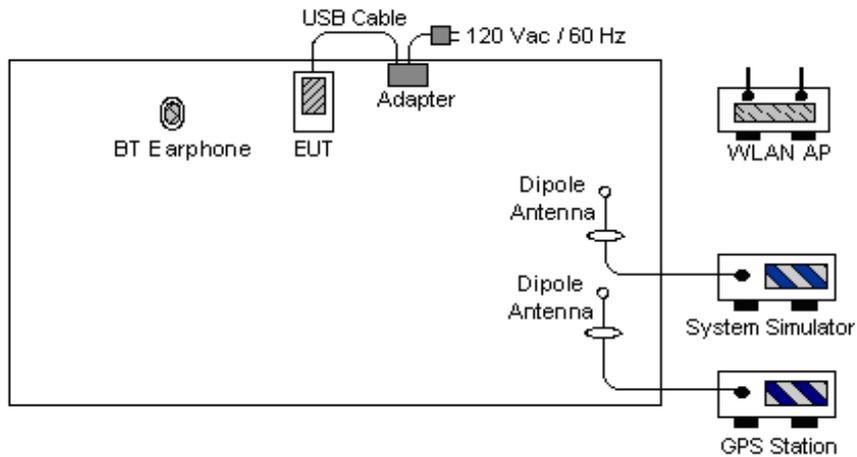
## 2.2 Test Mode

The EUT has been associated with peripherals pursuant to ANSI C63.4-2003 and configuration operated in a manner tended to maximize its emission characteristics in a typical application. Frequency range investigated: conducted emission (150 kHz to 30 MHz), radiated emission (30 MHz to the 10th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower). Pre-scanned tests were conducted to determine the final configuration from all possible combinations. The following tables are showing the test modes as the worst cases and recorded in this report.

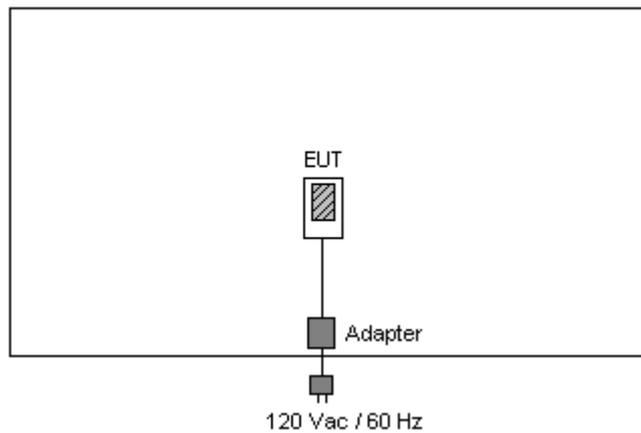
Test Cases		
Test Item	802.11b Modulation : DSSS	802.11g Modulation : OFDM
Conducted TCs	<ul style="list-style-type: none"> <li>■ Mode 1: CH01_2412 MHz</li> <li>■ Mode 2: CH06_2437 MHz</li> <li>■ Mode 3: CH11_2462 MHz</li> </ul>	<ul style="list-style-type: none"> <li>■ Mode 4: CH01_2412 MHz</li> <li>■ Mode 5: CH06_2437 MHz</li> <li>■ Mode 6: CH11_2462 MHz</li> </ul>
Radiated TCs	<ul style="list-style-type: none"> <li>■ Mode 1: CH01_2412 MHz</li> <li>■ Mode 2: CH06_2437 MHz</li> <li>■ Mode 3: CH11_2462 MHz</li> </ul>	<ul style="list-style-type: none"> <li>■ Mode 4: CH01_2412 MHz</li> <li>■ Mode 5: CH06_2437 MHz</li> <li>■ Mode 6: CH11_2462 MHz</li> </ul>
AC Conducted Emission	<ul style="list-style-type: none"> <li>■ Mode 1 : GSM1900 Idle + WLAN Link + BT Link + Camera + Adapter + GPS Rx</li> </ul>	

## 2.3 Connection Diagram of Test System

### <Conducted Emission>



### <Radiated Emission>



## 2.4 RF Utility

The programmed RF Utility "WLAN\_EMAPI" is installed in EUT to provide channel selection, power level, data rate and the application type. RF Utility can send transmitting signal for all testing. The RF output power selection is for the setting of RF output power expected by the customer and is going to be fixed on the firmware of the final end product.

### 3 Test Result

#### 3.1 6dB Bandwidth Measurement

##### 3.1.1 Limit of 6dB Bandwidth

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

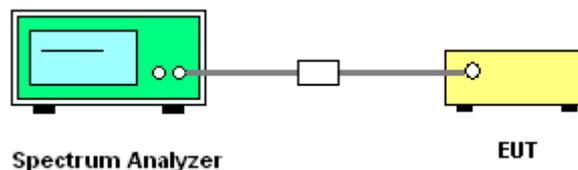
##### 3.1.2 Measuring Instruments

See list of measuring instruments of this test report.

##### 3.1.3 Test Procedures

1. The testing follows FCC KDB Publication No. 558074 (Measurement Guidelines of DTS).
2. The RF output of EUT was connected to the spectrum analyzer by a low loss cable.
3. Make the measurement with the spectrum analyzer's resolution bandwidth (RBW) = 100 kHz.  
In order to make an accurate measurement, set the span greater than RBW. The 6 dB bandwidth must be greater than 500 kHz.
4. The marker-delta reading at this point is the 6 dB bandwidth of the emission.

##### 3.1.4 Test Setup





3.1.5 Test Result of 6dB Bandwidth

Test Mode :	Mode 1, 2, 3	Temperature :	23~24°C
Test Engineer :	Ken Hsu	Relative Humidity :	42~43%

Channel	Frequency (MHz)	802.11b 6dB Bandwidth (MHz)	6dB Bandwidth Min. Limit (MHz)	Pass/Fail
01	2412	10.08	0.5	Pass
06	2437	10.08	0.5	Pass
11	2462	10.08	0.5	Pass

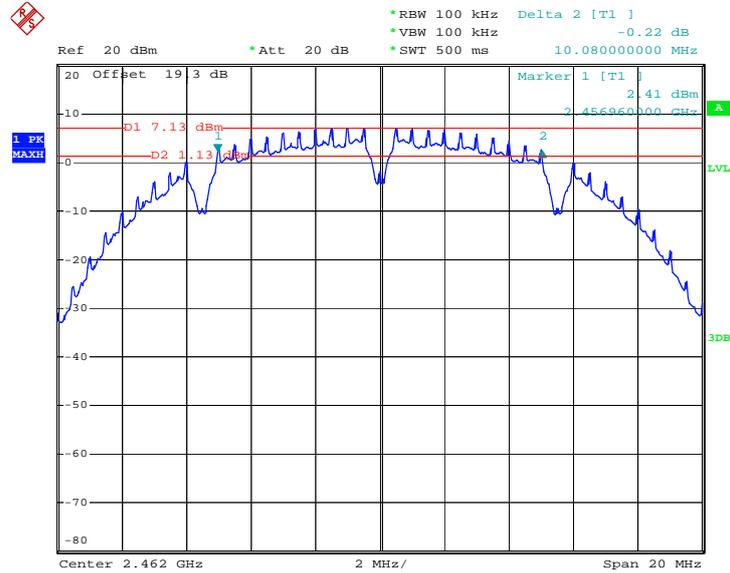
Test Mode :	Mode 4, 5, 6	Temperature :	23~24°C
Test Engineer :	Ken Hsu	Relative Humidity :	42~43%

Channel	Frequency (MHz)	802.11g 6dB Bandwidth (MHz)	6dB Bandwidth Min. Limit (MHz)	Pass/Fail
01	2412	16.32	0.5	Pass
06	2437	16.32	0.5	Pass
11	2462	16.32	0.5	Pass



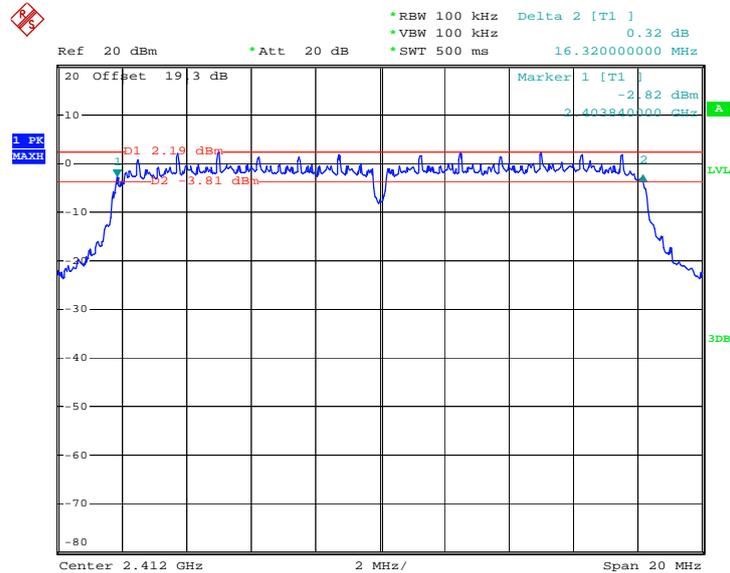


Mode 3 : 6 dB Bandwidth Plot on 802.11b Channel 11



Date: 22.FEB.2009 23:51:19

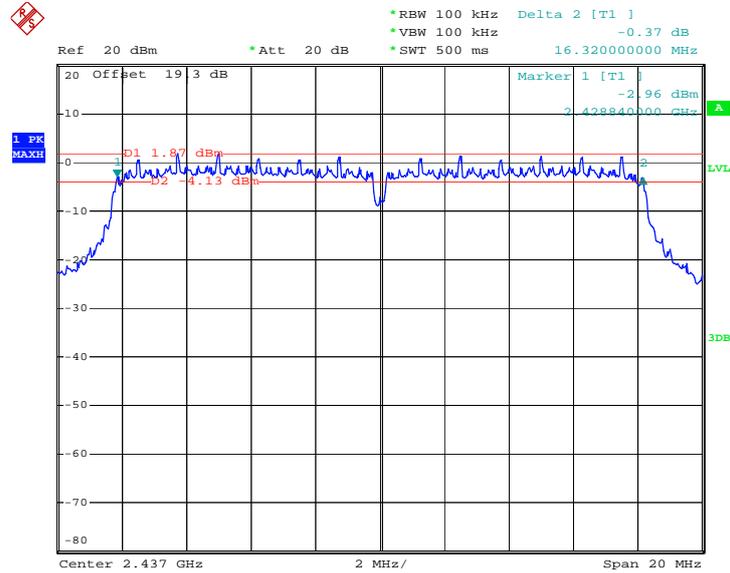
Mode 4 : 6 dB Bandwidth Plot on 802.11g Channel 01



Date: 22.FEB.2009 23:44:12

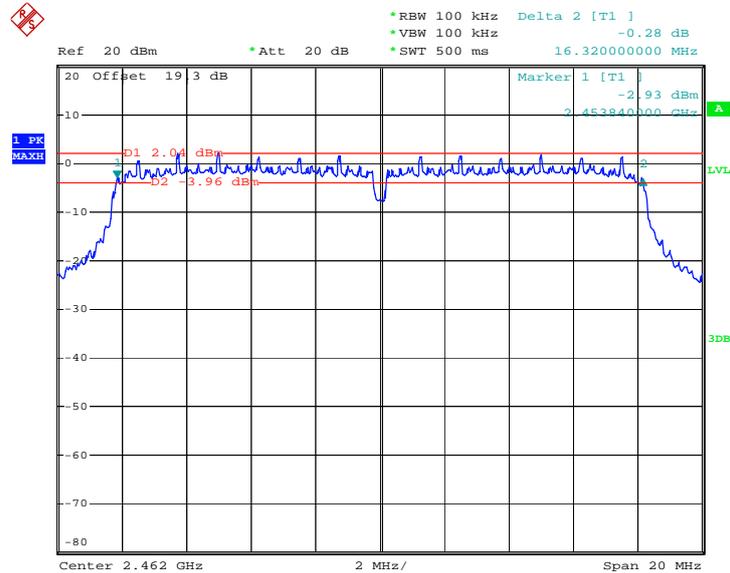


Mode 5 : 6 dB Bandwidth Plot on 802.11g Channel 06



Date: 22.FEB.2009 23:42:26

Mode 6 : 6 dB Bandwidth Plot on 802.11g Channel 11



Date: 22.FEB.2009 23:49:35

## 3.2 Output Power Measurement

### 3.2.1 Limit of Output Power

For systems using digital modulation in the 2400-2483.5MHz, the limit for peak output power is 30dBm. If transmitting antenna of directional gain greater than 6dBi are used the peak output power from the intentional radiator shall be reduced below the above stated value by the amount in dB that the directional gain of the antenna exceeds 6 dBi. In case of point-to-point operation, the limit has to be reduced by 1dB for every 3dB that the directional gain of the antenna exceeds 6dBi.

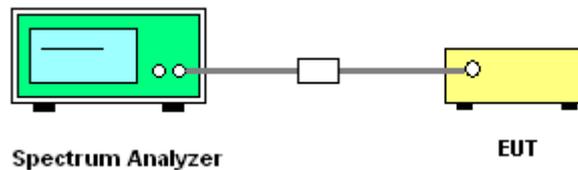
### 3.2.2 Measuring Instruments

See list of measuring instruments of this test report.

### 3.2.3 Test Procedures

1. The testing follows FCC KDB Publication No. 558074 (Measurement Guidelines of DTS).
2. The RF output of EUT was connected to the spectrum analyzer by a low loss cable.
3. Measure the power by spectrum analyzer.

### 3.2.4 Test Setup





3.2.5 Test Result of Output Power

Test Mode :	Mode 1, 2, 3	Temperature :	23~24°C
Test Engineer :	Ken Hsu	Relative Humidity :	42~43%

Channel	Frequency (MHz)	802.11b Measured Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
01	2412	17.39	30	Pass
06	2437	16.69	30	Pass
11	2462	16.89	30	Pass

Test Mode :	Mode 4, 5, 6	Temperature :	23~24°C
Test Engineer :	Ken Hsu	Relative Humidity :	42~43%

Channel	Frequency (MHz)	802.11g Measured Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
01	2412	15.97	30	Pass
06	2437	15.38	30	Pass
11	2462	15.61	30	Pass



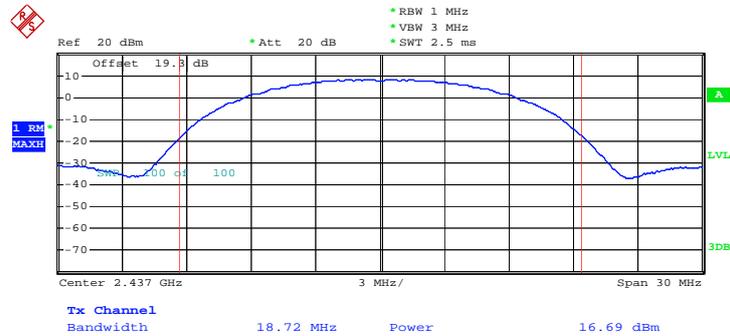
### 3.2.6 Test Result of Output Power Plots

#### Mode 1 : Output Power Plot on 802.11b Channel 01



Date: 23.FEB.2009 01:42:39

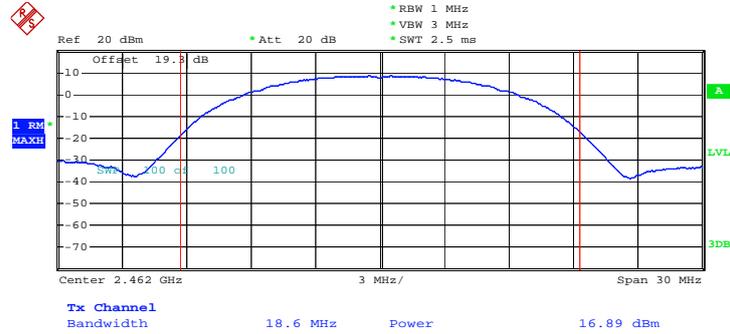
#### Mode 2 : Output Power Plot on 802.11b Channel 06



Date: 23.FEB.2009 01:43:54

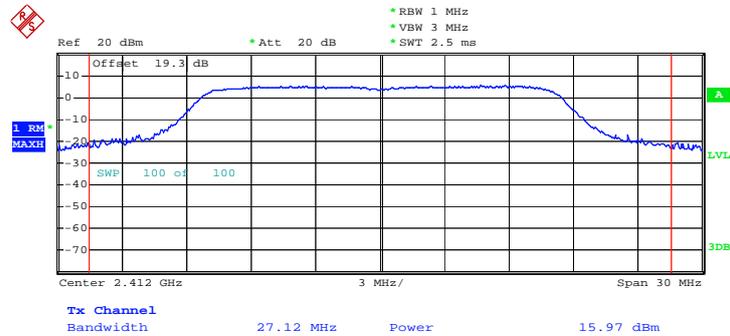


Mode 3 : Output Power Plot on 802.11b Channel 11



Date: 23.FEB.2009 01:44:30

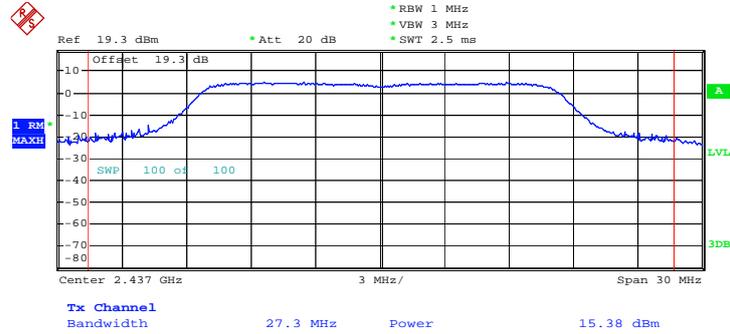
Mode 4 : Output Power Plot on 802.11g Channel 01



Date: 23.FEB.2009 01:40:51

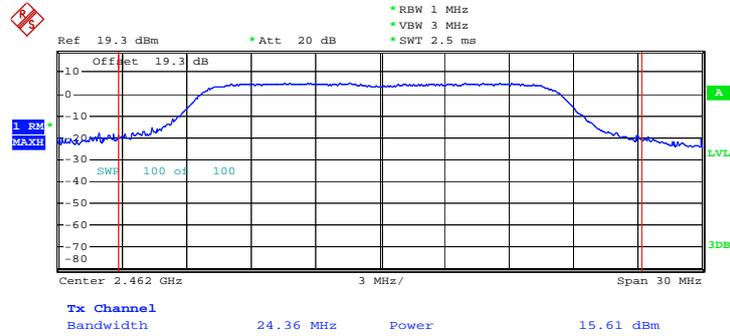


Mode 5 : Output Power Plot on 802.11g Channel 06



Date: 23.FEB.2009 01:38:54

Mode 6 : Output Power Plot on 802.11g Channel 11



Date: 23.FEB.2009 01:36:55

### 3.3 Band Edges Measurement

#### 3.3.1 Limit of Band Edges

In any 100 kHz bandwidth outside the intentional radiation frequency band, the radio frequency power shall be at least 20 dB below the highest level of the radiated power. If the output power of this device was measured by spectrum analyzer, the attenuation under this paragraph shall be 30 dB instead of 20 dB.

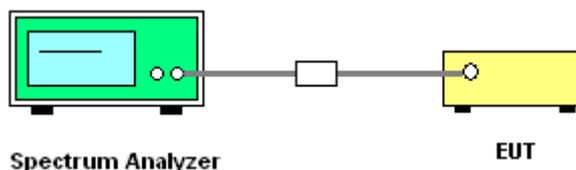
#### 3.3.2 Measuring Instruments

See list of measuring instruments of this test report.

#### 3.3.3 Test Procedures

1. The testing follows the guidelines in ANSI C63.4-2003 and FCC KDB Publication No. 558074 (Measurement Guidelines of DTS).
2. Conducted emission test: Set RBW = 100 kHz, Video bandwidth (VBW) > RBW, scan up through 10th harmonic. Band edge emissions must be at least 20 dB below the highest emission level within the authorized band as measured with a 100 kHz RBW. Note: If the output power of this device was measured by power meter, the attenuation under this paragraph shall be 30 dB instead of 20 dB.
3. Radiated emission test: Apply to band edge emissions that fall in the restricted bands listed in FCC Section 15.205. The maximum permitted average field strength is listed in FCC Section 15.209. A pre-amp is necessary for this measurement. For measurements above 1 GHz, set RBW = 1MHz, VBW = 10 Hz, Sweep=Auto. If the emission is pulsed, modify the unit for continuous operation; use the settings shown above, then correct the reading by subtracting the peak-average correction factor, derived from the appropriate duty cycle calculation as in FCC Section 15.35(b) and (c).

#### 3.3.4 Test Setup





3.3.5 Test Result of Radiated Band Edges

Test Mode :	Mode 1	Temperature :	23~24°C
Test Band :	802.11b	Relative Humidity :	47~48%
Test Channel :	01	Test Engineer :	Mac Lin

ANTENNA POLARITY : HORIZONTAL										
Frequency ( MHz )	Level ( dBuV/m )	Over Limit ( dB )	Limit Line ( dBuV/m )	Read Level ( dBuV )	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
2386.38	50.56	-23.44	74.00	50.94	31.98	3.92	36.28	102	14	Peak
2386.38	39.56	-14.44	54.00	39.94	31.98	3.92	36.28	102	14	Average

ANTENNA POLARITY : VERTICAL										
Frequency ( MHz )	Level ( dBuV/m )	Over Limit ( dB )	Limit Line ( dBuV/m )	Read Level ( dBuV )	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
2385.81	49.50	-24.50	74.00	49.88	31.98	3.92	36.28	123	316	Peak
2385.81	39.13	-14.87	54.00	39.51	31.98	3.92	36.28	123	316	Average

Test Mode :	Mode 3	Temperature :	23~24°C
Test Band :	802.11b	Relative Humidity :	47~48%
Test Channel :	11	Test Engineer :	Mac Lin

ANTENNA POLARITY : HORIZONTAL										
Frequency ( MHz )	Level ( dBuV/m )	Over Limit ( dB )	Limit Line ( dBuV/m )	Read Level ( dBuV )	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
2483.50	52.21	-21.79	74.00	52.38	32.08	4.05	36.30	101	341	Peak
2483.50	41.38	-12.62	54.00	41.55	32.08	4.05	36.30	101	341	Average

ANTENNA POLARITY : VERTICAL										
Frequency ( MHz )	Level ( dBuV/m )	Over Limit ( dB )	Limit Line ( dBuV/m )	Read Level ( dBuV )	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
2483.50	48.67	-25.33	74.00	48.84	32.08	4.05	36.30	195	121	Peak
2483.50	37.01	-16.99	54.00	37.18	32.08	4.05	36.30	195	121	Average



Test Mode :	Mode 4	Temperature :	23~24°C
Test Band :	802.11g	Relative Humidity :	47~48%
Test Channel :	01	Test Engineer :	Mac Lin

ANTENNA POLARITY : HORIZONTAL										
Frequency ( MHz )	Level ( dBuV/m )	Over Limit ( dB )	Limit Line ( dBuV/m )	Read Level ( dBuV )	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
2389.99	62.23	-11.77	74.00	62.61	31.98	3.92	36.28	102	335	Peak
2389.99	45.97	-8.03	54.00	46.35	31.98	3.92	36.28	102	335	Average

ANTENNA POLARITY : VERTICAL										
Frequency ( MHz )	Level ( dBuV/m )	Over Limit ( dB )	Limit Line ( dBuV/m )	Read Level ( dBuV )	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
2389.99	66.50	-7.50	74.00	66.88	31.98	3.92	36.28	121	316	Peak
2389.99	43.85	-10.15	54.00	44.23	31.98	3.92	36.28	121	316	Average

Test Mode :	Mode 6	Temperature :	23~24°C
Test Band :	802.11g	Relative Humidity :	47~48%
Test Channel :	11	Test Engineer :	Mac Lin

ANTENNA POLARITY : HORIZONTAL										
Frequency ( MHz )	Level ( dBuV/m )	Over Limit ( dB )	Limit Line ( dBuV/m )	Read Level ( dBuV )	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
2483.50	67.10	-6.90	74.00	67.27	32.08	4.05	36.30	100	52	Peak
2483.50	43.53	-10.47	54.00	43.70	32.08	4.05	36.30	100	52	Average

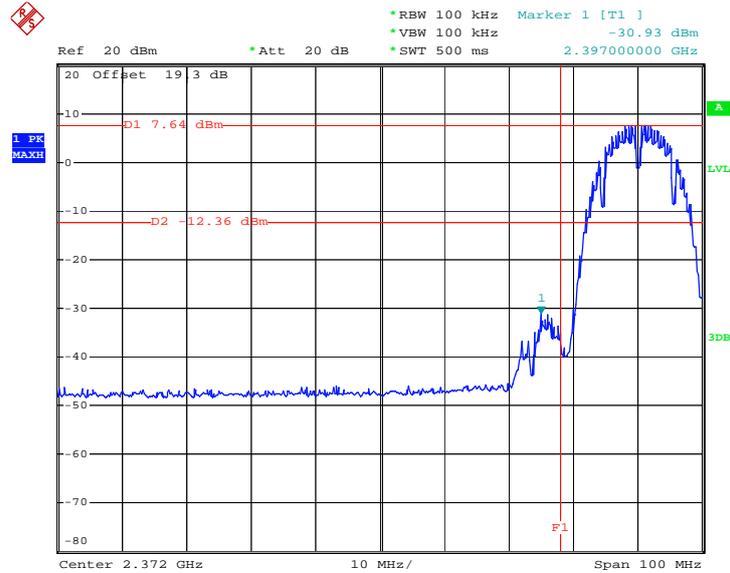
ANTENNA POLARITY : VERTICAL										
Frequency ( MHz )	Level ( dBuV/m )	Over Limit ( dB )	Limit Line ( dBuV/m )	Read Level ( dBuV )	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
2483.50	64.16	-9.84	74.00	64.33	32.08	4.05	36.30	121	56	Peak
2483.50	40.85	-13.15	54.00	41.02	32.08	4.05	36.30	121	56	Average



### 3.3.6 Test Result of Conducted Band Edges

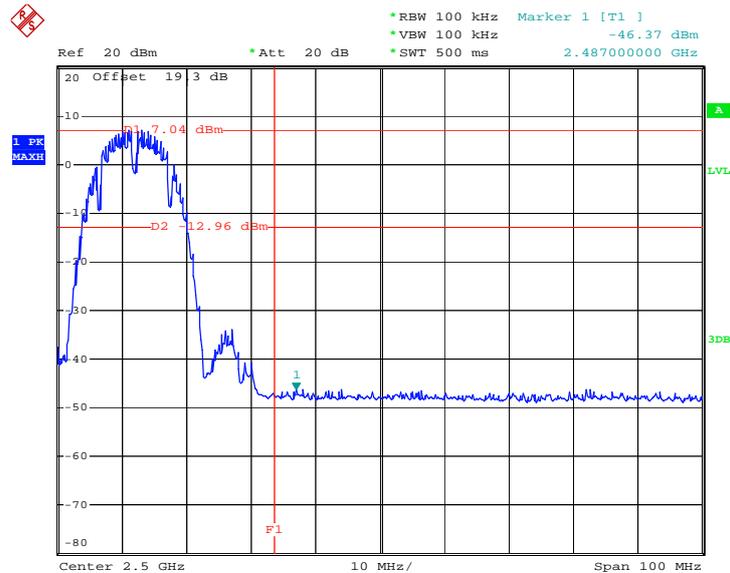
Test Mode :	Mode 1 and 3	Temperature :	23~24°C
Test Band :	802.11b	Relative Humidity :	42~43%
Test Channel :	01 and 11	Test Engineer :	Ken Hsu

Low Band Edge Plot on 802.11b Channel 01



Date: 22.FEB.2009 23:59:12

High Band Edge Plot on 802.11b Channel 11

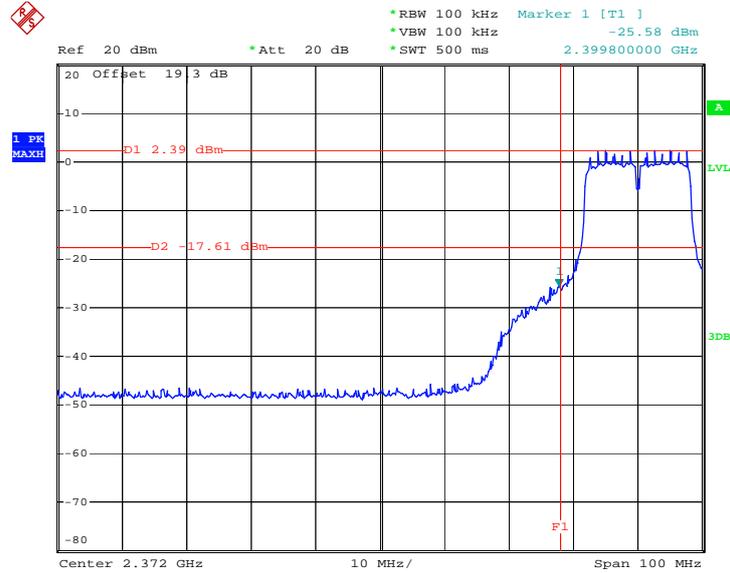


Date: 23.FEB.2009 00:00:58



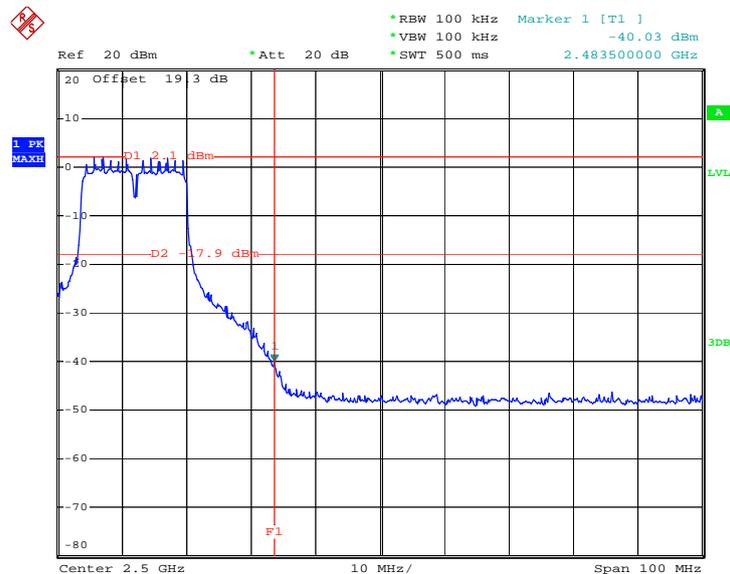
Test Mode :	Mode 4 and 6	Temperature :	23~24°C
Test Band :	802.11g	Relative Humidity :	42~43%
Test Channel :	01 and 11	Test Engineer :	Ken Hsu

Low Band Edge Plot on 802.11g Channel 01



Date: 23.FEB.2009 00:06:21

High Band Edge Plot on 802.11g Channel 11



Date: 23.FEB.2009 00:04:04

## 3.4 Spurious Emission Measurement

### 3.4.1 Limit of Spurious Emission Measurement

All harmonics/spurs must be at least 20 dB down from the highest emission level within the authorized band.

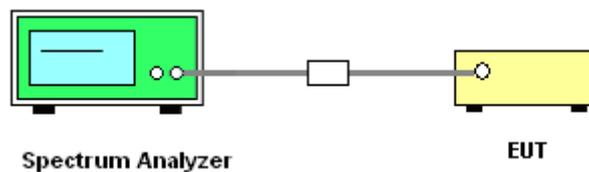
### 3.4.2 Measuring Instruments

See list of measuring instruments of this test report.

### 3.4.3 Test Procedure

1. The transmitter output was connected to the spectrum analyzer via a low loss cable.
2. Set RBW = 100 kHz, Video bandwidth (VBW)  $\geq$  RBW, scan up through 10th harmonic. All harmonics/spurs must be at least 20 dB down from the highest emission level within the authorized band as measured with a 100 kHz RBW.

### 3.4.4 Test Setup

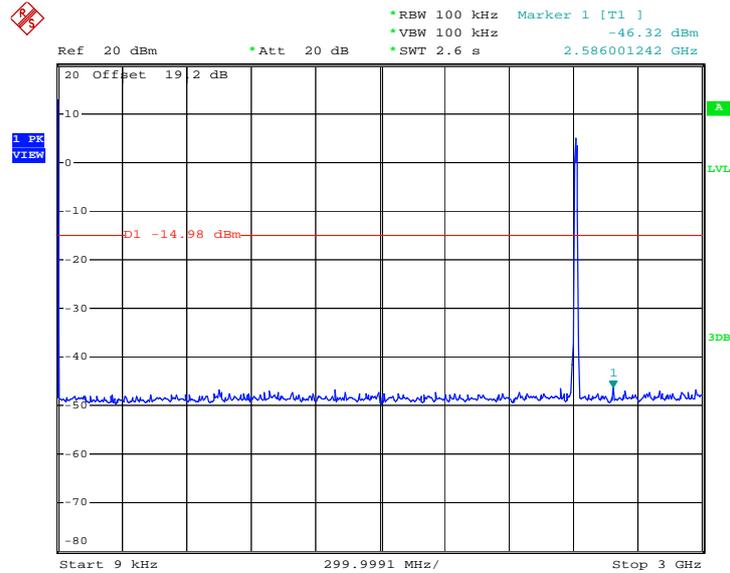




3.4.5 Test Result

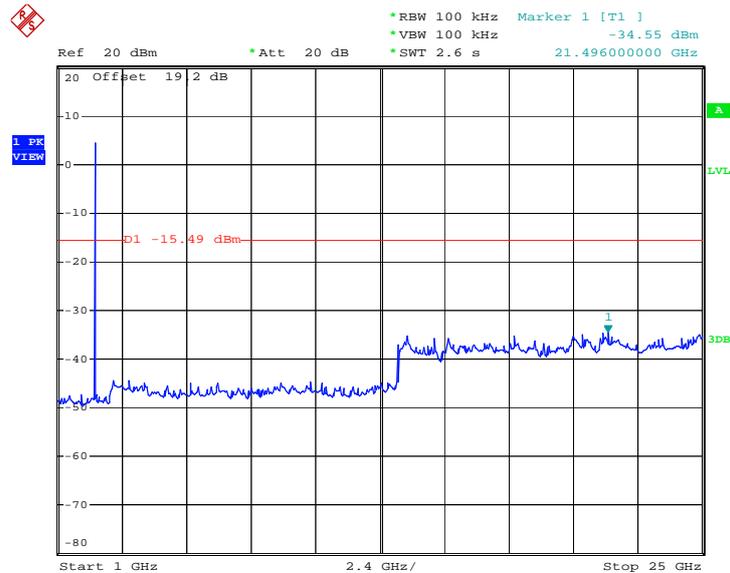
Test Mode :	Mode 1	Temperature :	23~24°C
Test Channel :	01	Relative Humidity :	42~43%
		Test Engineer :	Ken Hsu

Conducted Spurious Emission Plot between 9K-3G



Date: 14.APR.2009 16:11:32

Conducted Spurious Emission Plot between 1G-25G

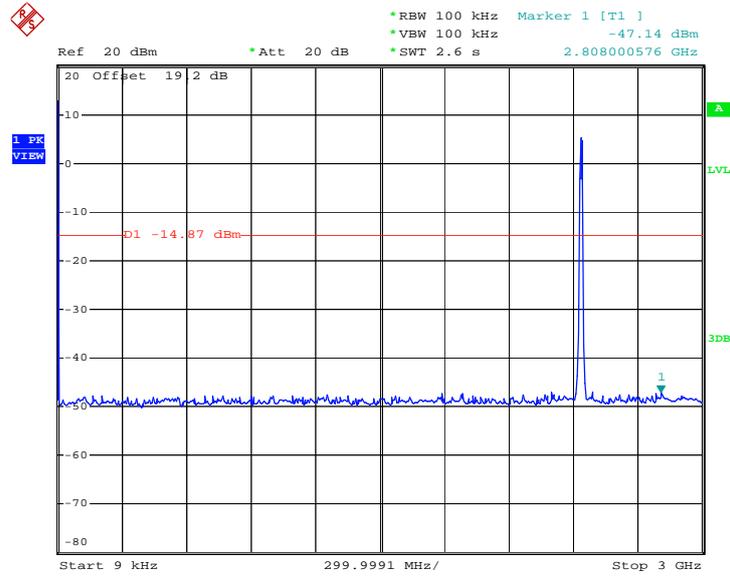


Date: 14.APR.2009 16:12:02



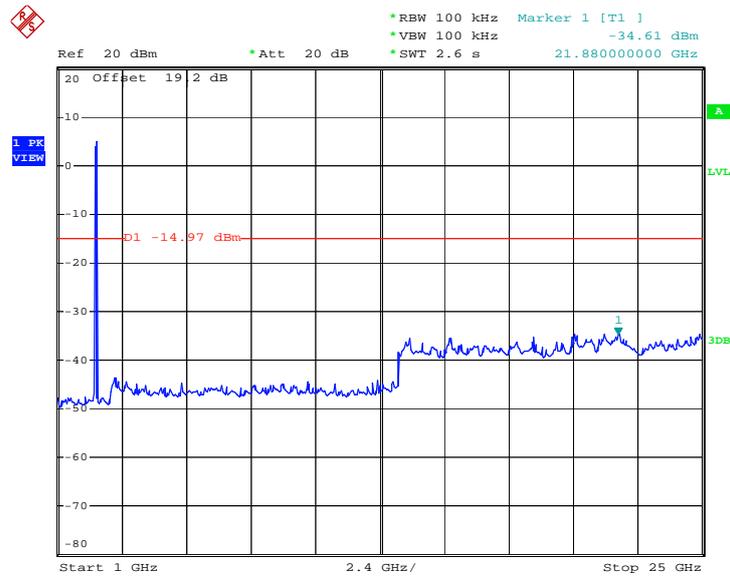
Test Mode :	Mode 2	Temperature :	23~24°C
Test Channel :	06	Relative Humidity :	42~43%
		Test Engineer :	Ken Hsu

Conducted Spurious Emission Plot between 9K-3G



Date: 14.APR.2009 16:12:39

Conducted Spurious Emission Plot between 1G-25G

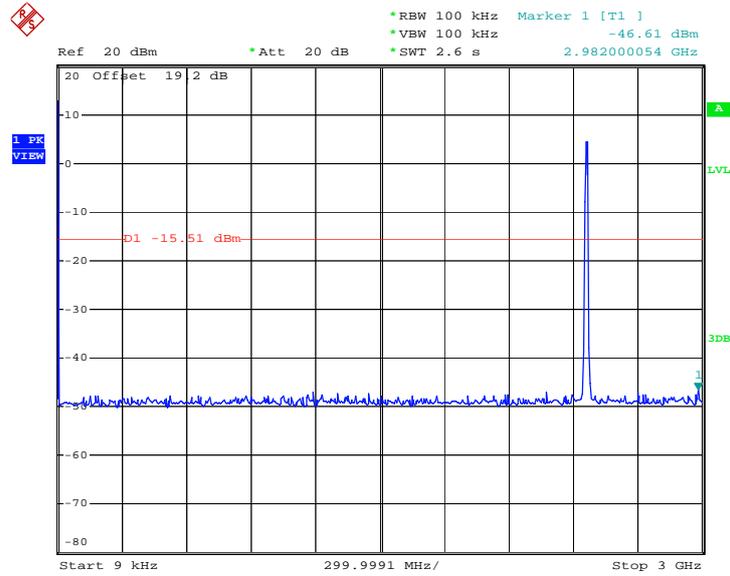


Date: 14.APR.2009 16:13:22



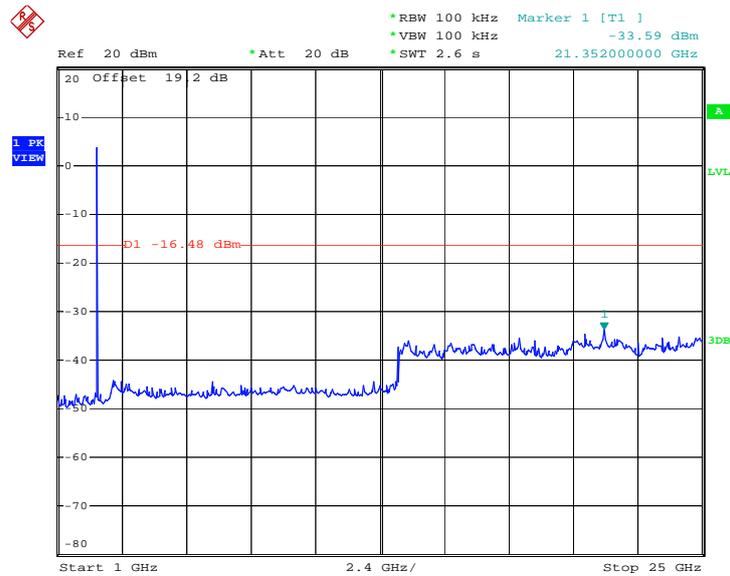
Test Mode :	Mode 3	Temperature :	23~24°C
Test Channel :	11	Relative Humidity :	42~43%
		Test Engineer :	Ken Hsu

Conducted Spurious Emission Plot between 9K-3G



Date: 14.APR.2009 16:13:54

Conducted Spurious Emission Plot between 1G-25G

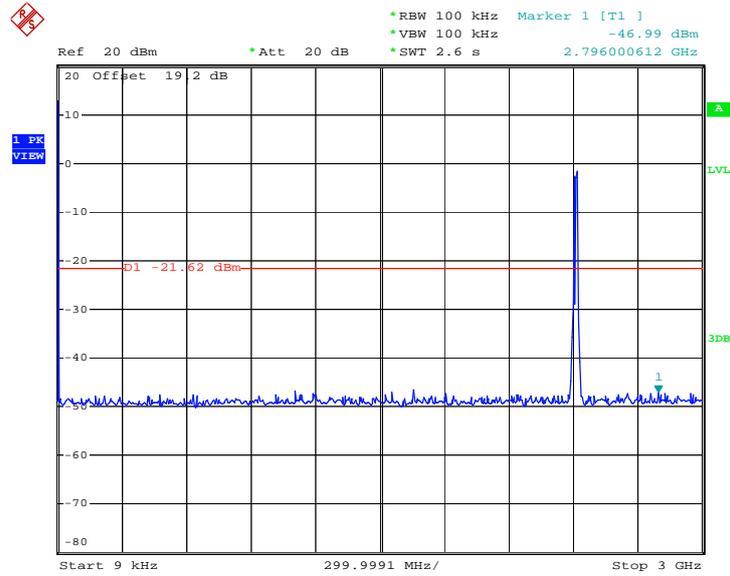


Date: 14.APR.2009 16:14:48



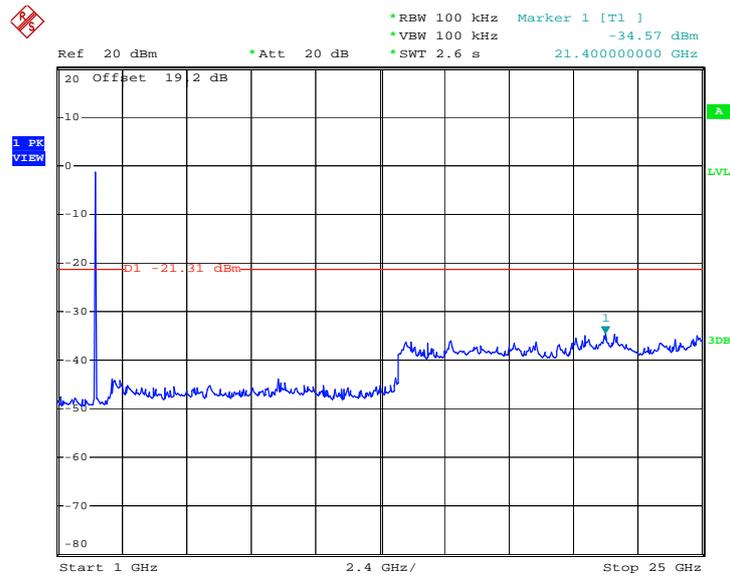
Test Mode :	Mode 4	Temperature :	23~24°C
Test Channel :	01	Relative Humidity :	42~43%
		Test Engineer :	Ken Hsu

Conducted Spurious Emission Plot between 9K-3G



Date: 14.APR.2009 16:15:40

Conducted Spurious Emission Plot between 1G-25G

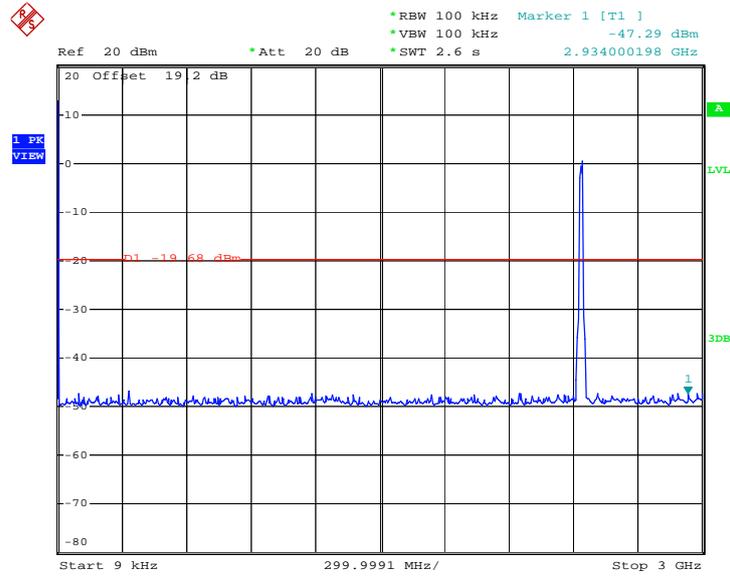


Date: 14.APR.2009 16:16:08



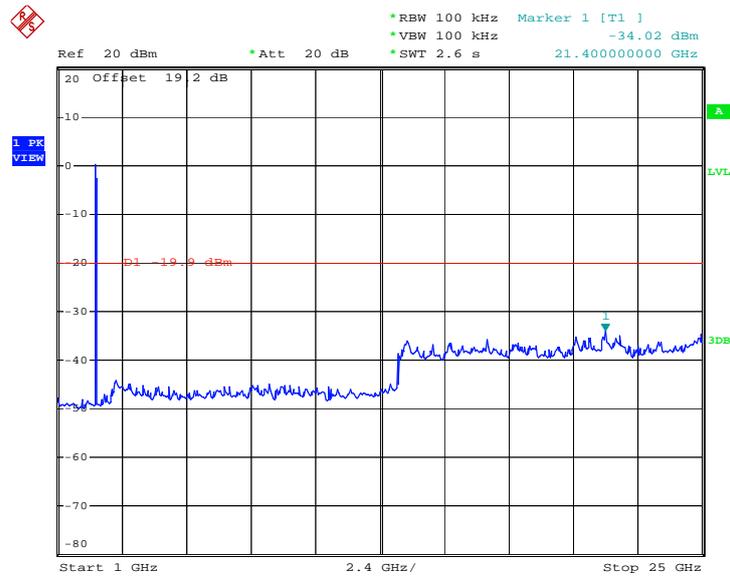
Test Mode :	Mode 5	Temperature :	23~24°C
Test Channel :	06	Relative Humidity :	42~43%
		Test Engineer :	Ken Hsu

Conducted Spurious Emission Plot between 9K-3G



Date: 14.APR.2009 16:16:46

Conducted Spurious Emission Plot between 1G-25G

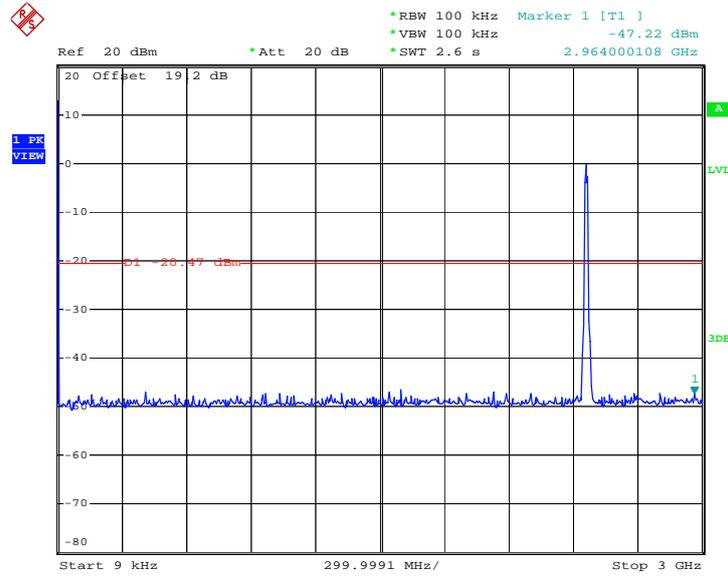


Date: 14.APR.2009 16:17:06



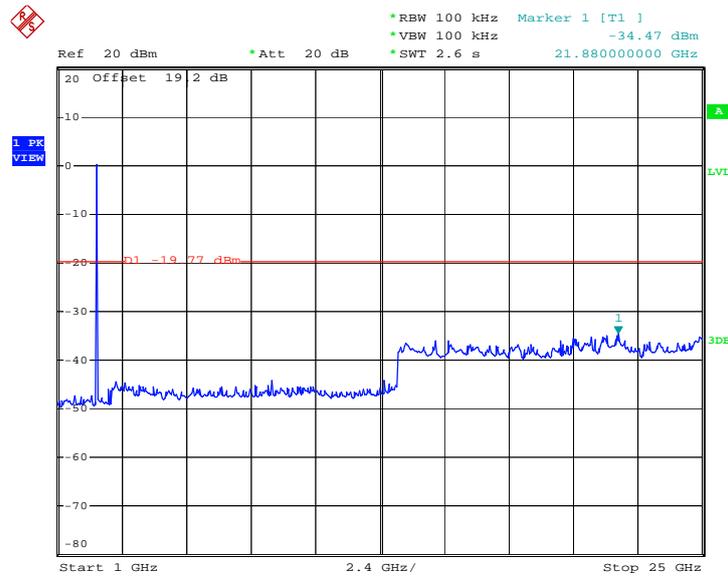
Test Mode :	Mode 6	Temperature :	23~24°C
Test Channel :	11	Relative Humidity :	42~43%
		Test Engineer :	Ken Hsu

Conducted Spurious Emission Plot between 9K-3G



Date: 14.APR.2009 16:18:00

Conducted Spurious Emission Plot between 1G-25G



Date: 14.APR.2009 16:18:22

### 3.5 Power Spectral Density Measurement

#### 3.5.1 Limit of Power Spectral Density

The peak power spectral density shall not be greater than 8dBm in any 3kHz band at any time interval of continuous transmission.

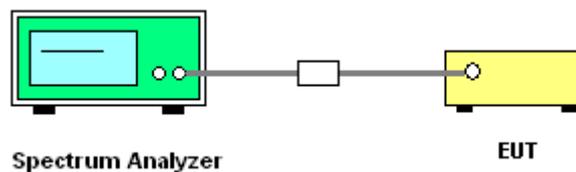
#### 3.5.2 Measuring Instruments

See list of measuring instruments of this test report.

#### 3.5.3 Test Procedures

1. The test follows FCC KDB Publication No. 558074 (Measurement Guidelines of DTS).
2. The RF output of EUT was connected to the spectrum analyzer by a low loss cable.
3. Take the measured data from spectrum analyzer.

#### 3.5.4 Test Setup





3.5.5 Test Result of Power Spectral Density

Test Mode :	Mode 1, 2, 3	Temperature :	23~24°C
Test Engineer :	Ken Hsu	Relative Humidity :	42~43%

Channel	Frequency (MHz)	802.11b Measured PSD (dBm)	Max. Limits (dBm)	Pass/Fail
01	2412	-5.31	8	Pass
06	2437	-6.27	8	Pass
11	2462	-5.89	8	Pass

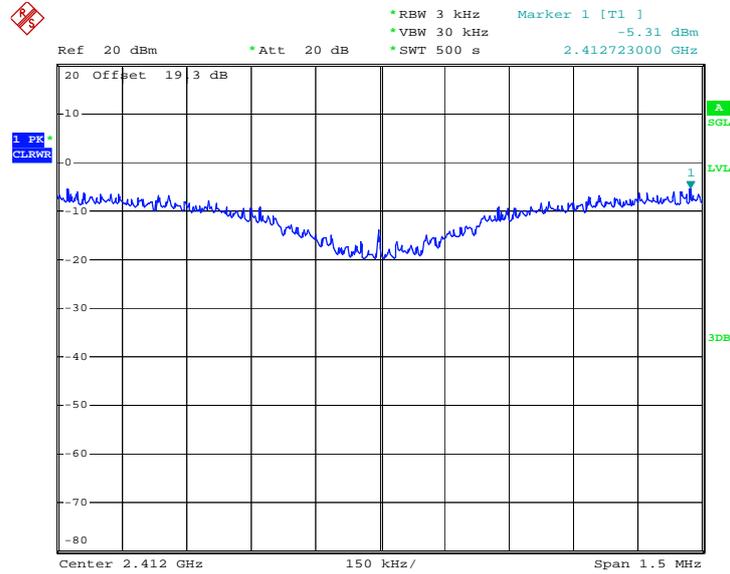
Test Mode :	Mode 4, 5, 6	Temperature :	23~24°C
Test Engineer :	Ken Hsu	Relative Humidity :	42~43%

Channel	Frequency (MHz)	802.11g Measured PSD (dBm)	Max. Limits (dBm)	Pass/Fail
01	2412	-9.79	8	Pass
06	2437	-11.01	8	Pass
11	2462	-11.40	8	Pass



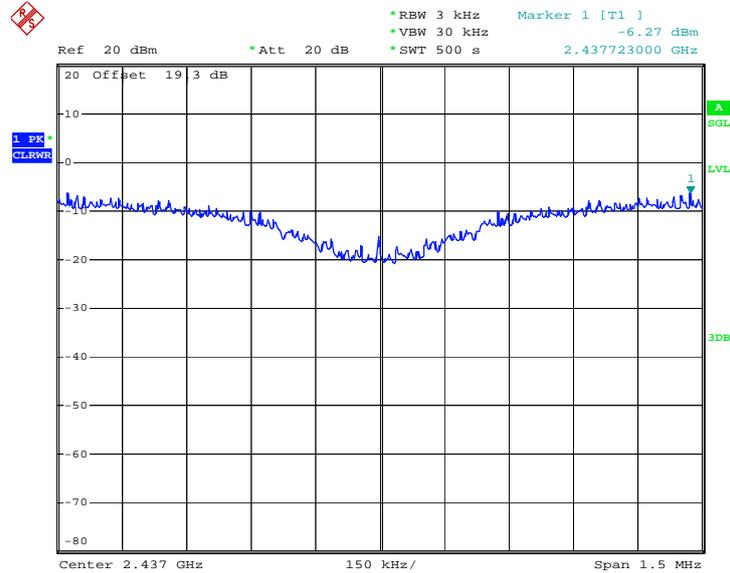
### 3.5.6 Test Result of Power Spectral Density Plots

Mode 1 : PSD Plot on 802.11b Channel 01



Date: 23.FEB.2009 01:09:04

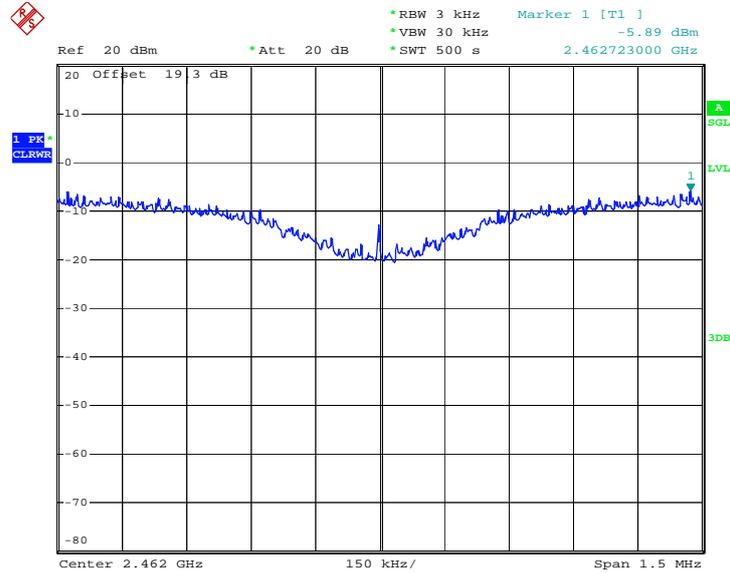
Mode 2 : PSD Plot on 802.11b Channel 06



Date: 23.FEB.2009 00:55:24

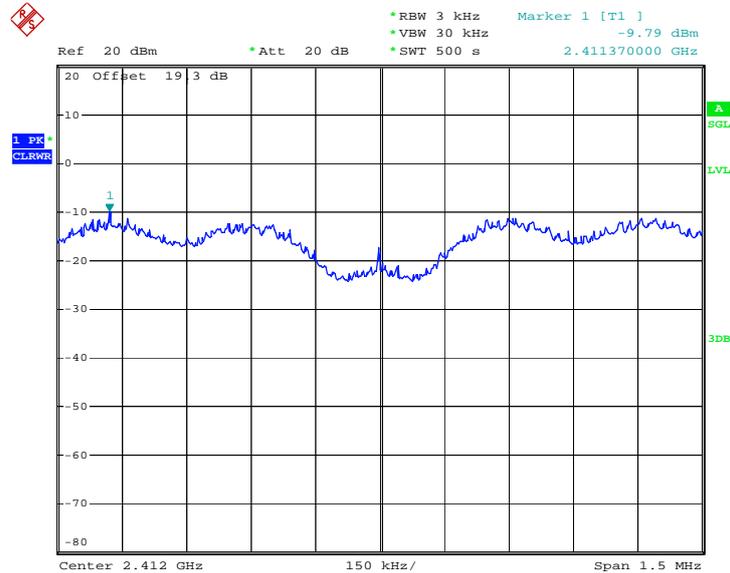


Mode 3 : PSD Plot on 802.11b Channel 11



Date: 23.FEB.2009 00:45:40

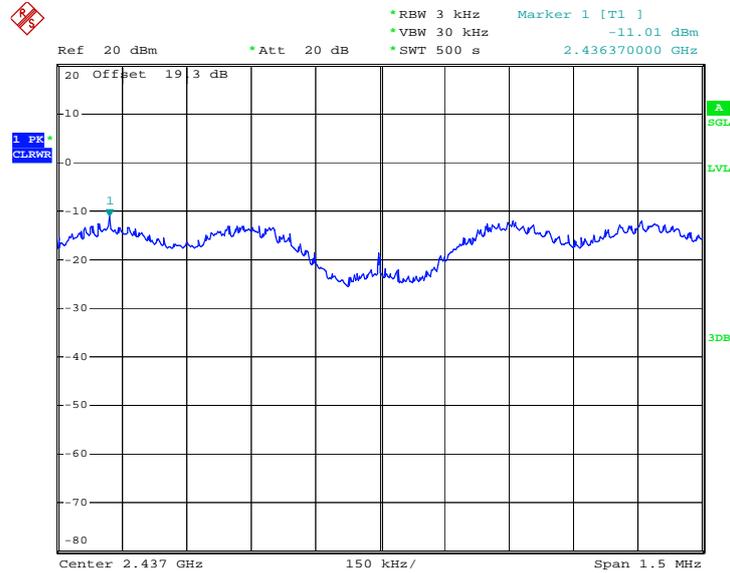
Mode 4 : PSD Plot on 802.11g Channel 01



Date: 23.FEB.2009 00:16:21

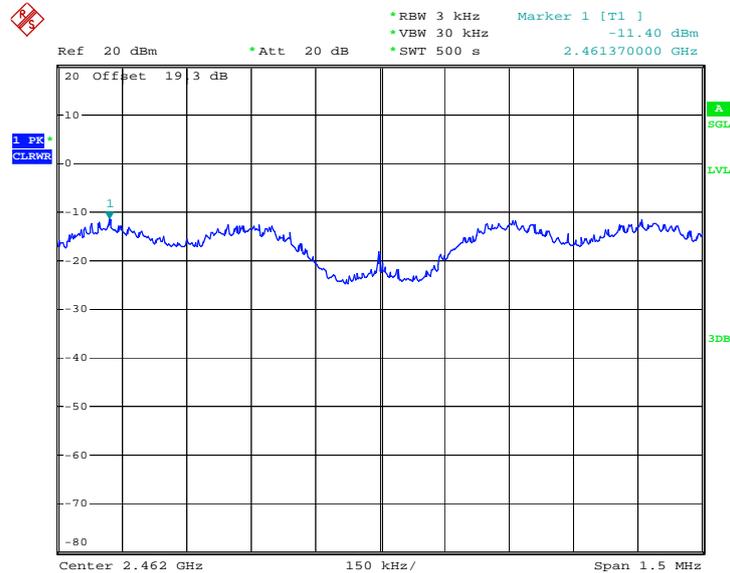


Mode 5 : PSD Plot on 802.11g Channel 06



Date: 23.FEB.2009 00:25:59

Mode 6 : PSD Plot on 802.11g Channel 11



Date: 23.FEB.2009 00:34:44

### 3.6 AC Conducted Emission Measurement

#### 3.6.1 Limit of AC Conducted Emission

For equipment that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table.

Frequency of emission (MHz)	Conducted limit (dBuV)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

\*Decreases with the logarithm of the frequency.

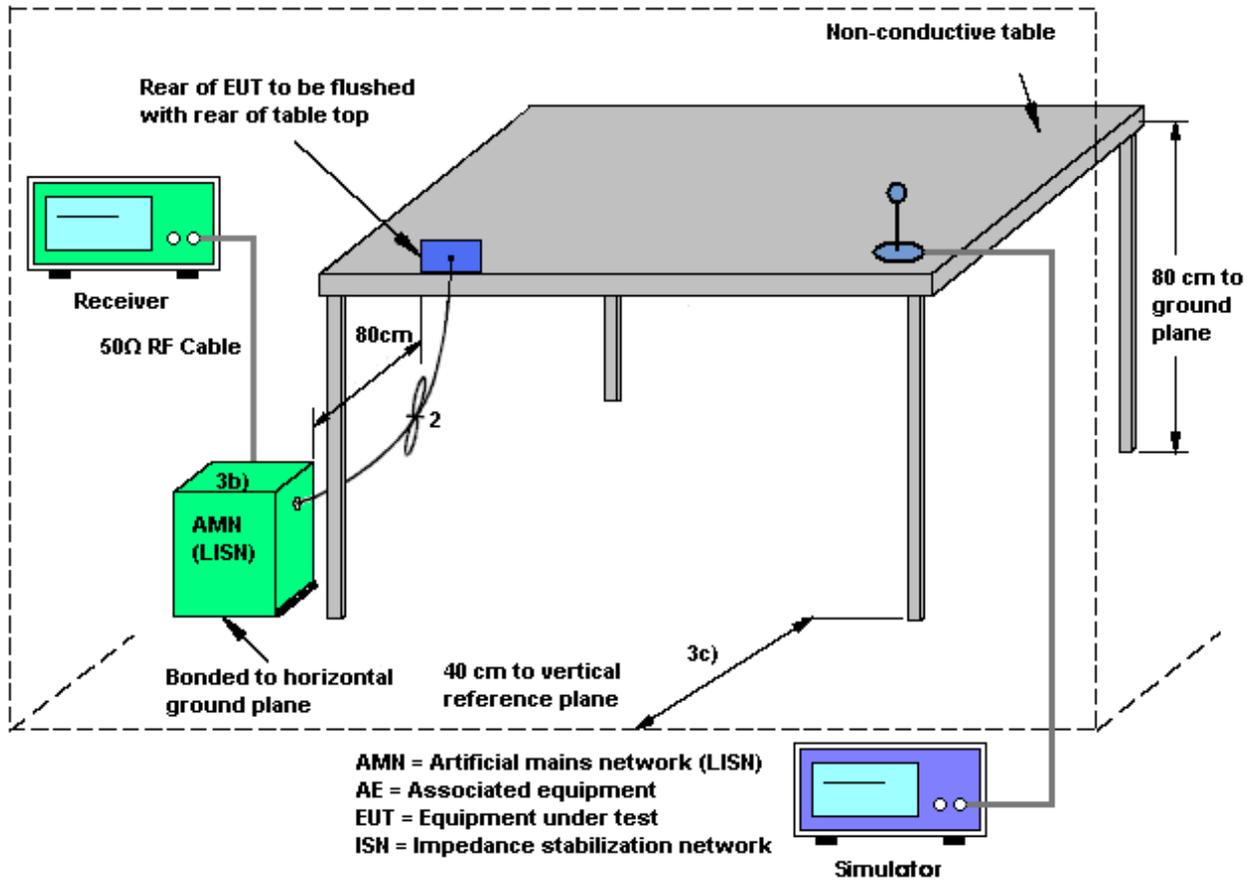
#### 3.6.2 Measuring Instruments

See list of measuring instruments of this test report.

#### 3.6.3 Test Procedures

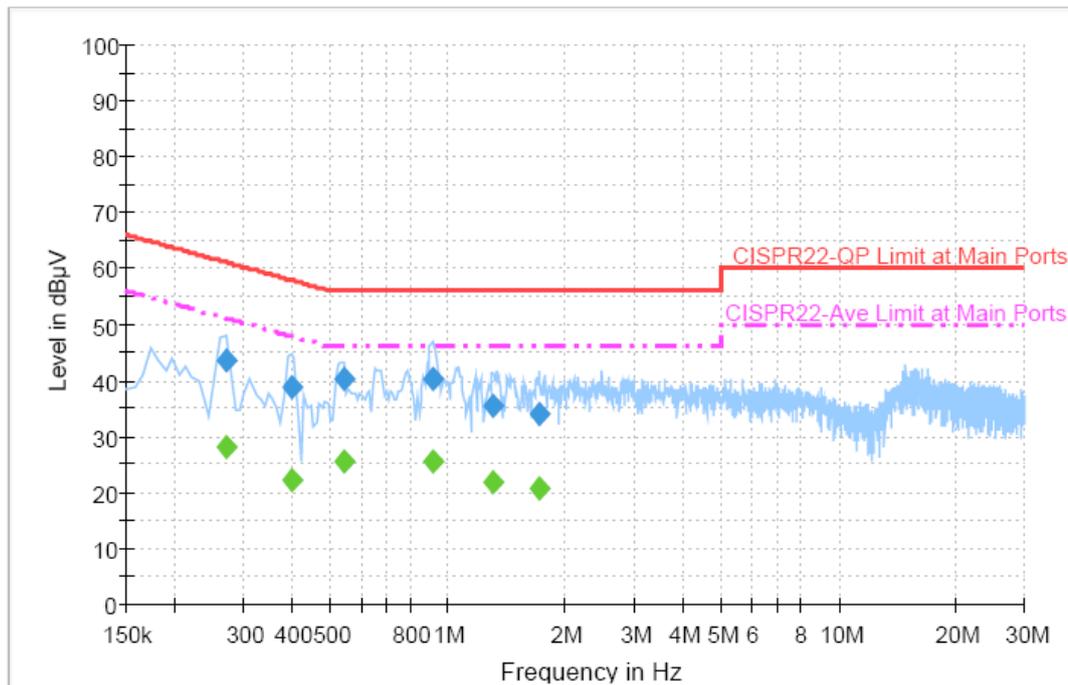
1. The testing follows the guidelines in ANSI C63.4-2003.
2. The EUT was placed 0.4 meter from the conducting wall of the shielding room, and it was kept at least 80 centimeters from any other grounded conducting surface.
3. Connect EUT to the power mains through a line impedance stabilization network (LISN).
4. All the support units are connecting to the other LISN.
5. The LISN provides 50 ohm coupling impedance for the measuring instrument.
6. The FCC states that a 50 ohm, 50 microhenry LISN should be used.
7. Both sides of AC line were checked for maximum conducted interference.
8. The frequency range from 150 kHz to 30 MHz was searched.
9. Set the test-receiver system to Peak Detect Function and specified bandwidth with Maximum Hold Mode.

### 3.6.4 Test Setup



3.6.5 Test Result of AC Conducted Emission

Test Mode :	Mode 1	Temperature :	23~24°C
Test Engineer :	Cona Huang	Relative Humidity :	42~43%
Test Voltage :	120Vac / 60Hz	Phase :	Line
Function Type :	GSM1900 Idle + WLAN Link + BT Link + Camera + Adapter + GPS Rx		
Remark :	All emissions not reported here are more than 10 dB below the prescribed limit.		



Final Result 1

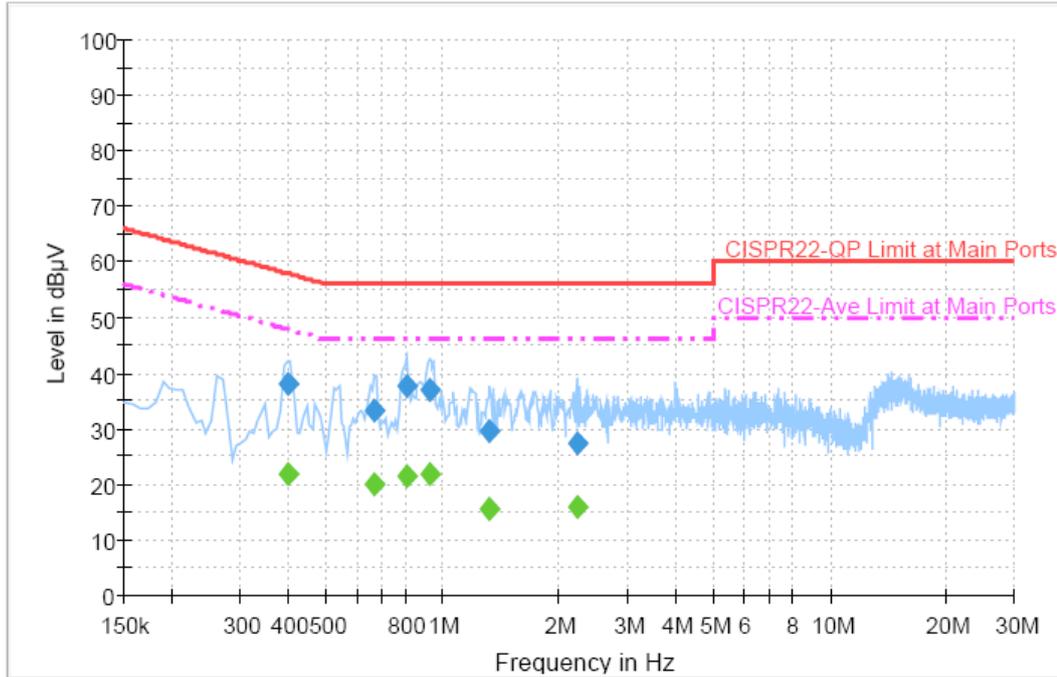
Frequency (MHz)	QuasiPeak (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.270000	43.7	Off	L1	19.3	17.4	61.1
0.398000	38.7	Off	L1	19.4	19.2	57.9
0.542000	40.1	Off	L1	19.3	15.9	56.0
0.918000	40.1	Off	L1	19.4	15.9	56.0
1.302000	35.3	Off	L1	19.4	20.7	56.0
1.718000	33.8	Off	L1	19.4	22.2	56.0

Final Result 2

Frequency (MHz)	Average (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.270000	28.0	Off	L1	19.3	23.1	51.1
0.398000	22.2	Off	L1	19.4	25.7	47.9
0.542000	25.5	Off	L1	19.3	20.5	46.0
0.918000	25.5	Off	L1	19.4	20.5	46.0
1.302000	21.9	Off	L1	19.4	24.1	46.0
1.718000	20.6	Off	L1	19.4	25.4	46.0



Test Mode :	Mode 1	Temperature :	23~24°C
Test Engineer :	Cona Huang	Relative Humidity :	42~43%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral
Function Type :	GSM1900 Idle + WLAN Link + BT Link + Camera + Adapter + GPS Rx		
Remark :	All emissions not reported here are more than 10 dB below the prescribed limit.		



**Final Result 1**

Frequency (MHz)	QuasiPeak (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.398000	38.1	Off	N	19.4	19.8	57.9
0.670000	33.3	Off	N	19.4	22.7	56.0
0.806000	37.6	Off	N	19.4	18.4	56.0
0.926000	36.7	Off	N	19.4	19.3	56.0
1.326000	29.6	Off	N	19.5	26.4	56.0
2.222000	27.2	Off	N	19.5	28.8	56.0

**Final Result 2**

Frequency (MHz)	Average (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.398000	21.9	Off	N	19.4	26.0	47.9
0.670000	19.9	Off	N	19.4	26.1	46.0
0.806000	21.5	Off	N	19.4	24.5	46.0
0.926000	21.7	Off	N	19.4	24.3	46.0
1.326000	15.3	Off	N	19.5	30.7	46.0
2.222000	15.8	Off	N	19.5	30.2	46.0

### 3.7 Radiated Emission Measurement

#### 3.7.1 Limit of Radiated Emission

In any 100 kHz bandwidth outside the intentional radiator frequency band, all harmonics/spurious must be at least 20 dB below the highest emission level within the authorized band. If the output power of this device was measured by spectrum analyzer, the attenuation under this paragraph shall be 30 dB instead of 20 dB. In addition, radiated emissions which fall in the restricted bands must also comply with the FCC section 15.209 limits as below.

Frequency (MHz)	Field Strength (microvolts/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

#### 3.7.2 Measuring Instruments

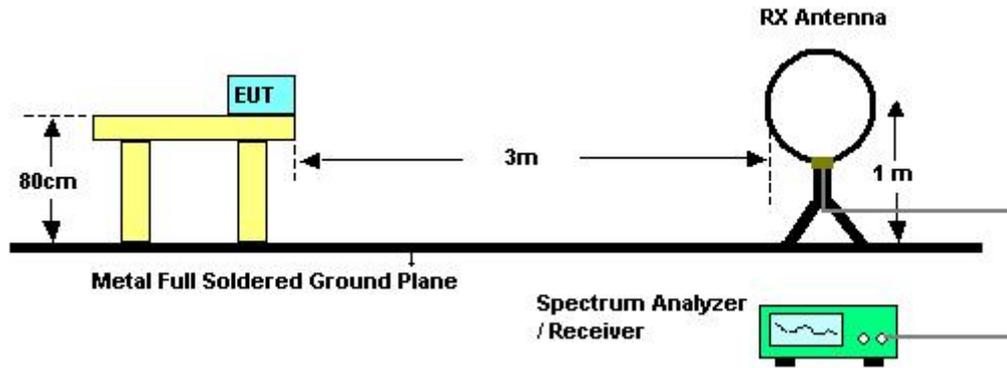
See list of measuring instruments of this test report.

#### 3.7.3 Test Procedures

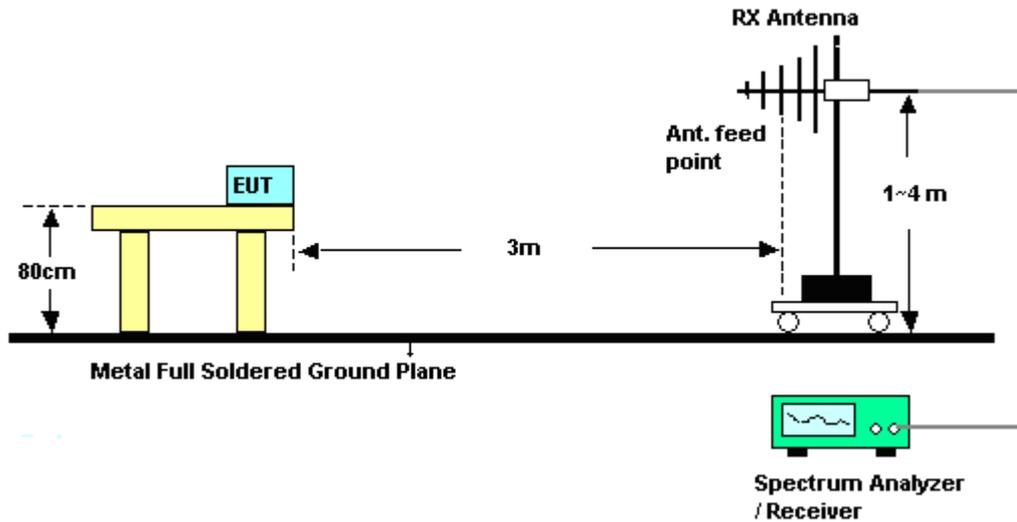
1. The testing follows the guidelines in FCC KDB Publication No. 558074 (Measurement Guidelines of DTS).
2. Use the following spectrum analyzer settings:  
Span = wide enough to fully capture the emission being measured; RBW = 1 MHz for  $f \geq 1$  GHz, 100 kHz for  $f < 1$  GHz; VBW  $\geq$  RBW; Sweep = auto; Detector function = peak; Trace = max hold.
3. Follow the guidelines in ANSI C63.4-2003 with respect to maximizing the emission by rotating the EUT, measuring the emission for three EUT orthogonal planes, and adjusting the measurement antenna height and polarization. A pre-amp and a high pass filter are used for this test in order to get the good signal level.

### 3.7.4 Test Setup

For radiated emissions below 30MHz



For radiated emissions above 30MHz





3.7.5 Test Results of Radiated Emissions (9kHz ~ 30MHz)

Temperature	23~24°C	Humidity	47~48%
Test Engineer	Andrew Hsiao		

Freq. (MHz)	Level (dBuV)	Over Limit (dB)	Limit Line (dBuV)	Remark
-	-	-	-	See Note

**Note:**

The amplitude of spurious emissions that are attenuated by more than 20dB below the permissible value has no need to be reported.

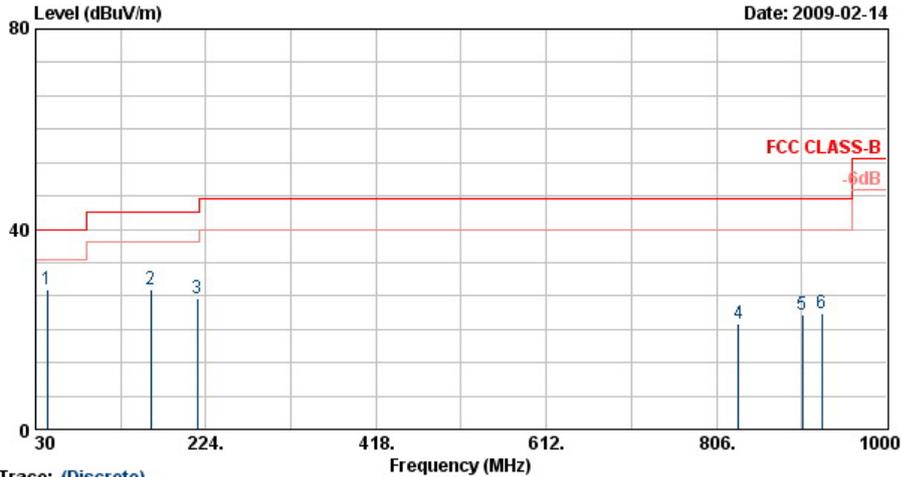
Distance extrapolation factor =  $40 \log(\text{specific distance} / \text{test distance})$  (dB);

Limit line = specific limits (dBuV) + distance extrapolation factor.



3.7.6 Test Result of Radiated Emission (30MHz ~ 1GHz)

Test Mode :	Mode 1	Temperature :	23~24°C
Test Channel :	01	Relative Humidity :	47~48%
Test Engineer :	Mac Lin	Polarization :	Horizontal



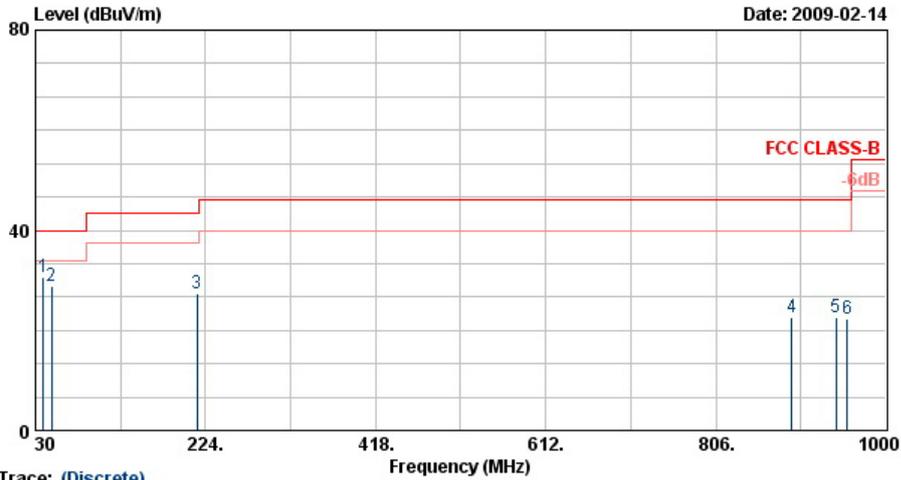
Trace: (Discrete)

Site : 03CH06-HY  
 Condition : FCC CLASS-B 3m BILOG\_081124 HORIZONTAL  
 Project : FR 920713

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	43.23	28.03	-11.97	40.00	47.86	11.58	0.30	31.71	100	177	Peak
2	161.49	28.04	-15.46	43.50	48.74	10.62	0.60	31.92	---	---	Peak
3	214.68	26.14	-17.36	43.50	46.96	10.62	0.64	32.09	---	---	Peak
4	831.30	21.09	-24.91	46.00	31.04	21.18	1.20	32.32	---	---	Peak
5	903.40	22.83	-23.17	46.00	31.46	21.72	1.30	31.66	---	---	Peak
6	925.80	23.30	-22.70	46.00	31.73	21.91	1.20	31.54	---	---	Peak



Test Mode :	Mode 1	Temperature :	23~24°C
Test Channel :	01	Relative Humidity :	47~48%
Test Engineer :	Mac Lin	Polarization :	Vertical

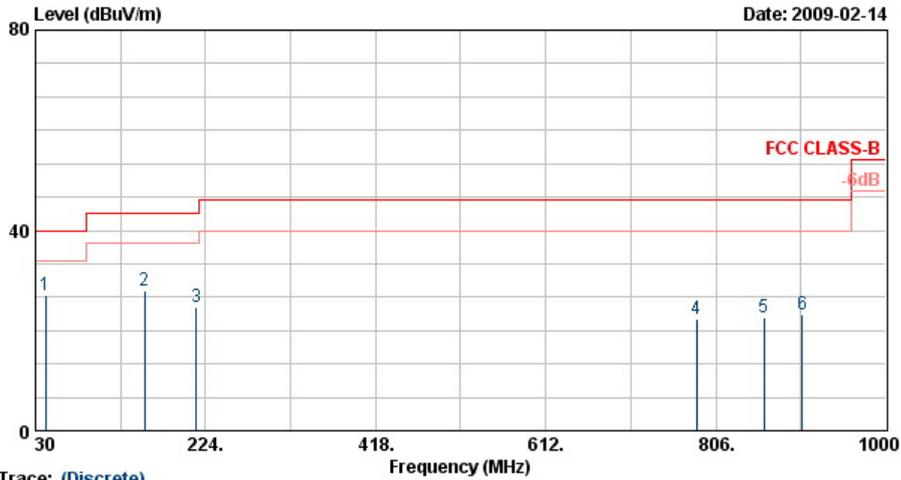


Trace: (Discrete)  
 Site : 03CH06-HY  
 Condition : FCC CLASS-B 3m BTLOC\_081124 VERTICAL  
 Project : FR 920713

	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
			dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	38.64	30.72	-9.28	40.00	47.64	14.50	0.30	31.72	100	133	Peak
2	48.63	28.81	-11.19	40.00	50.76	9.67	0.30	31.91	---	---	Peak
3	214.68	27.44	-16.06	43.50	48.27	10.62	0.64	32.09	---	---	Peak
4	892.90	22.47	-23.53	46.00	31.27	21.66	1.30	31.77	---	---	Peak
5	943.30	22.67	-23.33	46.00	30.87	22.05	1.20	31.46	---	---	Peak
6	955.90	22.35	-23.65	46.00	30.31	22.11	1.26	31.34	---	---	Peak



Test Mode :	Mode 2	Temperature :	23~24°C
Test Channel :	06	Relative Humidity :	47~48%
Test Engineer :	Mac Lin	Polarization :	Horizontal



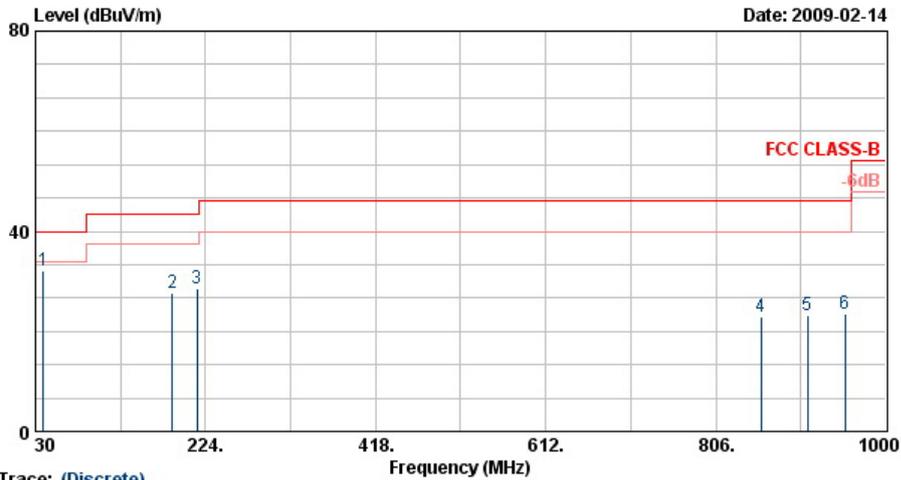
Trace: (Discrete)

Site : 03CH06-HY  
 Condition : FCC CLASS-B 3m BTLOC\_081124 HORIZONTAL  
 Project : FR 920713

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	41.88	27.17	-12.83	40.00	45.84	12.74	0.30	31.70	100	163	Peak
2	154.74	27.85	-15.65	43.50	48.10	10.95	0.60	31.81	---	---	Peak
3	213.33	24.56	-18.94	43.50	45.41	10.64	0.63	32.12	---	---	Peak
4	784.40	22.41	-23.59	46.00	32.70	20.65	1.20	32.14	---	---	Peak
5	861.40	22.62	-23.38	46.00	32.17	21.47	1.21	32.23	---	---	Peak
6	904.80	23.06	-22.94	46.00	31.67	21.74	1.30	31.65	---	---	Peak



Test Mode :	Mode 2	Temperature :	23~24°C
Test Channel :	06	Relative Humidity :	47~48%
Test Engineer :	Mac Lin	Polarization :	Vertical



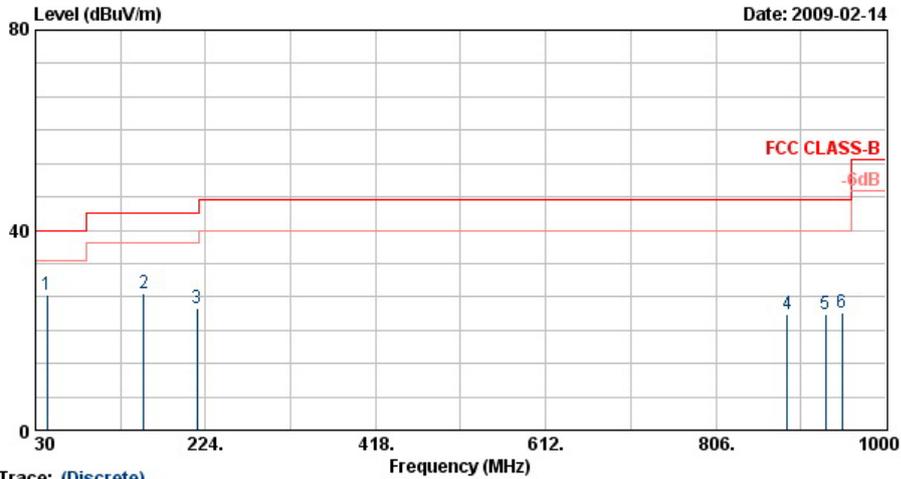
Trace: (Discrete)

Site : 03CH06-HY  
 Condition : FCC CLASS-B 3m BTLOC\_081124 VERTICAL  
 Project : FR 920713

	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	39.18	32.02	-7.98	40.00	48.94	14.50	0.30	31.72	100	199	Peak
2	185.79	27.63	-15.87	43.50	49.40	9.68	0.60	32.05	---	---	Peak
3	214.14	28.42	-15.08	43.50	49.25	10.62	0.64	32.09	---	---	Peak
4	857.90	22.89	-23.11	46.00	32.51	21.45	1.20	32.27	---	---	Peak
5	910.40	23.07	-22.93	46.00	31.61	21.79	1.29	31.62	---	---	Peak
6	953.80	23.47	-22.53	46.00	31.51	22.11	1.24	31.38	---	---	Peak



Test Mode :	Mode 3	Temperature :	23~24°C
Test Channel :	11	Relative Humidity :	47~48%
Test Engineer :	Mac Lin	Polarization :	Horizontal



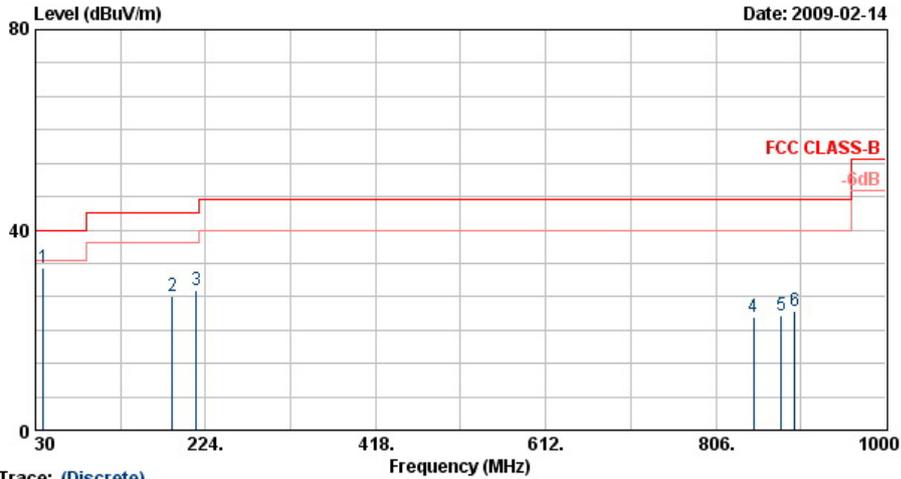
Trace: (Discrete)

Site : 03CH06-HY  
 Condition : FCC CLASS-B 3m BTLOC\_081124 HORIZONTAL  
 Project : FR 920713

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	43.23	27.12	-12.88	40.00	46.95	11.58	0.30	31.71	100	194	Peak
2	153.93	27.47	-16.03	43.50	47.65	11.00	0.60	31.78	---	---	Peak
3	214.68	24.42	-19.08	43.50	45.25	10.62	0.64	32.09	---	---	Peak
4	887.30	23.30	-22.70	46.00	32.23	21.63	1.30	31.85	---	---	Peak
5	931.40	23.30	-22.70	46.00	31.66	21.95	1.20	31.52	---	---	Peak
6	950.30	23.60	-22.40	46.00	31.71	22.10	1.21	31.42	---	---	Peak



Test Mode :	Mode 3	Temperature :	23~24°C
Test Channel :	11	Relative Humidity :	47~48%
Test Engineer :	Mac Lin	Polarization :	Vertical



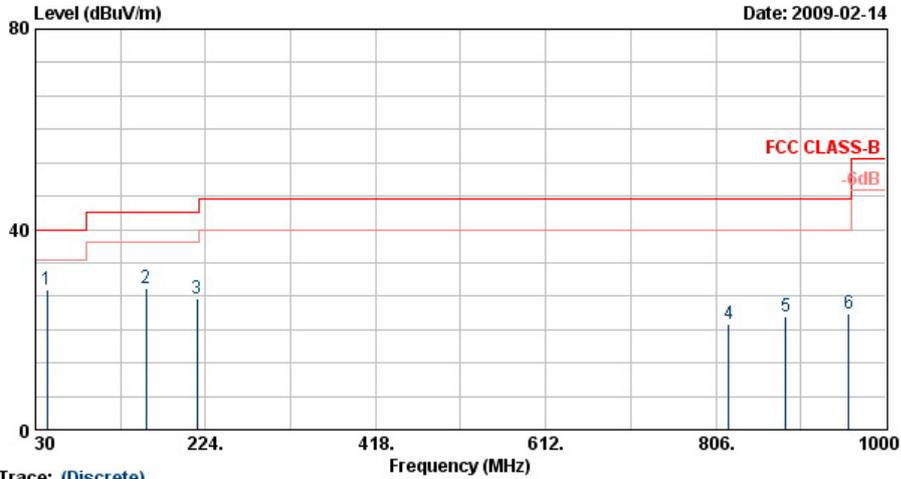
Trace: (Discrete)

Site : 03CH06-HY  
 Condition : FCC CLASS-B 3m BTLOC\_081124 VERTICAL  
 Project : FR 920713

	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	39.18	32.53	-7.47	40.00	49.44	14.50	0.30	31.72	100	157	Peak
2	186.33	26.89	-16.61	43.50	48.66	9.68	0.60	32.05	---	---	Peak
3	213.33	27.98	-15.52	43.50	48.83	10.64	0.63	32.12	---	---	Peak
4	848.80	22.49	-23.51	46.00	32.29	21.39	1.20	32.40	---	---	Peak
5	880.30	22.98	-23.02	46.00	32.04	21.58	1.30	31.95	---	---	Peak
6	896.40	23.74	-22.26	46.00	32.49	21.68	1.30	31.73	---	---	Peak



Test Mode :	Mode 4	Temperature :	23~24°C
Test Channel :	01	Relative Humidity :	47~48%
Test Engineer :	Mac Lin	Polarization :	Horizontal



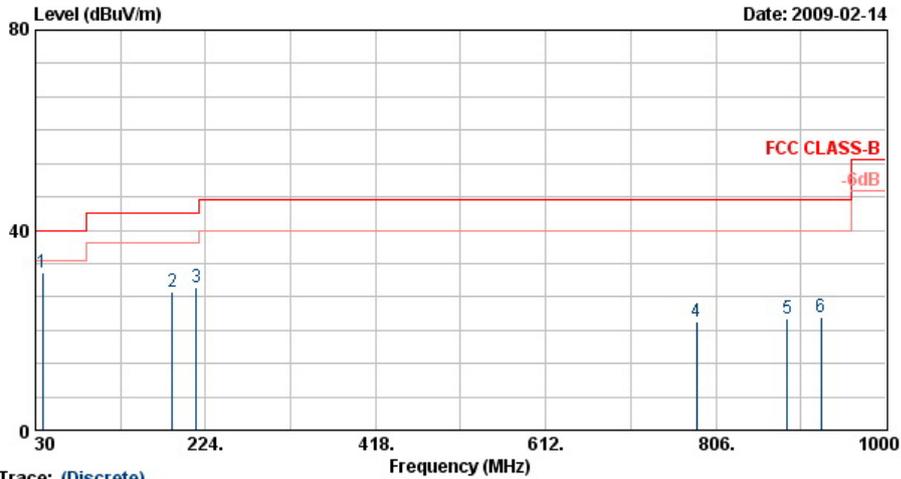
Trace: (Discrete)

Site : 03CH06-HY  
 Condition : FCC CLASS-B 3m BTLOC\_081124 HORIZONTAL  
 Project : FR 920713

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	43.23	27.95	-12.05	40.00	47.79	11.58	0.30	31.71	100	133	Peak
2	156.09	28.27	-15.23	43.50	48.60	10.90	0.60	31.83	---	---	Peak
3	214.68	26.28	-17.22	43.50	47.11	10.62	0.64	32.09	---	---	Peak
4	820.80	21.21	-24.79	46.00	31.23	21.05	1.20	32.27	---	---	Peak
5	885.90	22.53	-23.47	46.00	31.50	21.61	1.30	31.88	---	---	Peak
6	957.30	23.10	-22.90	46.00	31.03	22.12	1.27	31.32	---	---	Peak



Test Mode :	Mode 4	Temperature :	23~24°C
Test Channel :	01	Relative Humidity :	47~48%
Test Engineer :	Mac Lin	Polarization :	Vertical



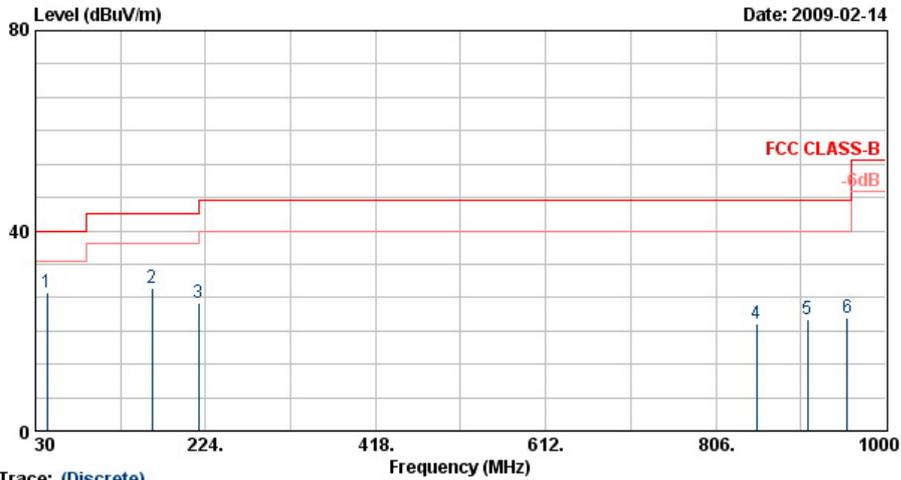
Trace: (Discrete)

Site : 03CH06-HY  
 Condition : FCC CLASS-B 3m BTLOC\_081124 VERTICAL  
 Project : FR 920713

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	37.83	31.47	-8.53	40.00	47.82	15.10	0.30	31.75	100	310	Peak
2	186.33	27.58	-15.92	43.50	49.35	9.68	0.60	32.05	---	---	Peak
3	213.33	28.51	-14.99	43.50	49.36	10.64	0.63	32.12	---	---	Peak
4	784.40	21.83	-24.17	46.00	32.13	20.65	1.20	32.14	---	---	Peak
5	887.30	22.17	-23.83	46.00	31.10	21.63	1.30	31.85	---	---	Peak
6	925.80	22.60	-23.40	46.00	31.03	21.91	1.20	31.54	---	---	Peak



Test Mode :	Mode 5	Temperature :	23~24°C
Test Channel :	06	Relative Humidity :	47~48%
Test Engineer :	Mac Lin	Polarization :	Horizontal



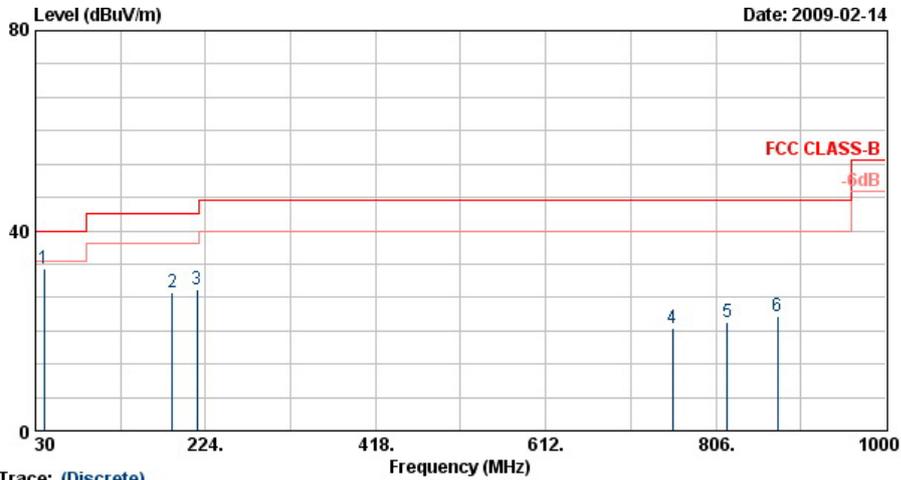
Trace: (Discrete)

Site : 03CH06-HY  
 Condition : FCC CLASS-B 3m BTLOC\_081124 HORIZONTAL  
 Project : FR 920713

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	43.23	27.51	-12.49	40.00	47.35	11.58	0.30	31.71	100	101	Peak
2	162.84	28.67	-14.83	43.50	49.41	10.58	0.60	31.92	---	---	Peak
3	216.03	25.50	-20.50	46.00	46.28	10.58	0.66	32.02	---	---	Peak
4	852.30	21.55	-24.45	46.00	31.29	21.42	1.20	32.36	---	---	Peak
5	910.40	22.18	-23.82	46.00	30.72	21.79	1.29	31.62	---	---	Peak
6	955.90	22.74	-23.26	46.00	30.70	22.11	1.26	31.34	---	---	Peak



Test Mode :	Mode 5	Temperature :	23~24°C
Test Channel :	06	Relative Humidity :	47~48%
Test Engineer :	Mac Lin	Polarization :	Vertical



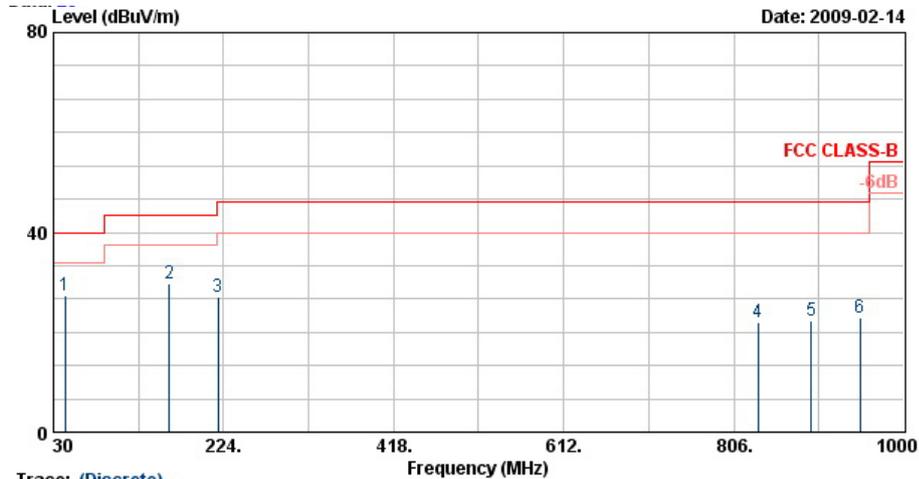
Trace: (Discrete)

Site : 03CH06-HY  
 Condition : FCC CLASS-B 3m B1LOG\_081124 VERTICAL  
 Project : FR 920713

	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	39.45	32.28	-7.72	40.00	49.77	13.90	0.30	31.69	100	328	Peak
2	186.33	27.79	-15.71	43.50	49.56	9.68	0.60	32.05	---	---	Peak
3	214.14	28.20	-15.30	43.50	49.03	10.62	0.64	32.09	---	---	Peak
4	756.40	20.58	-25.42	46.00	31.19	20.37	1.10	32.08	---	---	Peak
5	819.40	21.65	-24.35	46.00	31.68	21.04	1.20	32.27	---	---	Peak
6	876.80	22.76	-23.24	46.00	31.90	21.56	1.30	32.01	---	---	Peak



Test Mode :	Mode 6	Temperature :	23~24°C
Test Channel :	11	Relative Humidity :	47~48%
Test Engineer :	Mac Lin	Polarization :	Horizontal



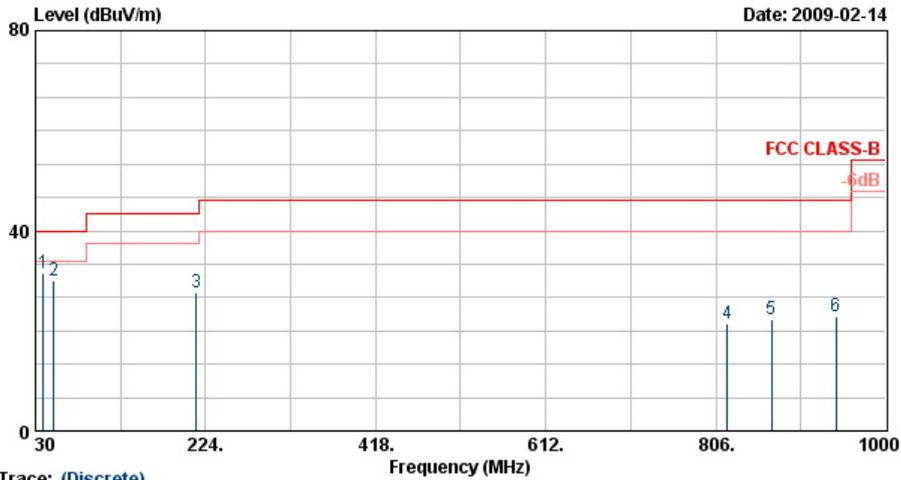
Trace: (Discrete)

Site : 03CH06-RY  
 Condition : FCC CLASS-B 3m BILOC\_081124 HORIZONTAL  
 Project : FR 020713

	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	43.23	27.37	-12.63	40.00	47.21	11.58	0.30	31.71	100	128	Peak
2	162.03	29.84	-13.66	43.50	50.54	10.62	0.60	31.92	---	---	Peak
3	217.38	27.19	-18.81	46.00	47.94	10.56	0.67	31.99	---	---	Peak
4	833.40	22.04	-23.96	46.00	31.97	21.20	1.20	32.33	---	---	Peak
5	894.30	22.38	-23.62	46.00	31.17	21.67	1.30	31.75	---	---	Peak
6	950.30	22.91	-23.09	46.00	31.02	22.10	1.21	31.42	---	---	Peak



Test Mode :	Mode 6	Temperature :	23~24°C
Test Channel :	11	Relative Humidity :	47~48%
Test Engineer :	Mac Lin	Polarization :	Vertical



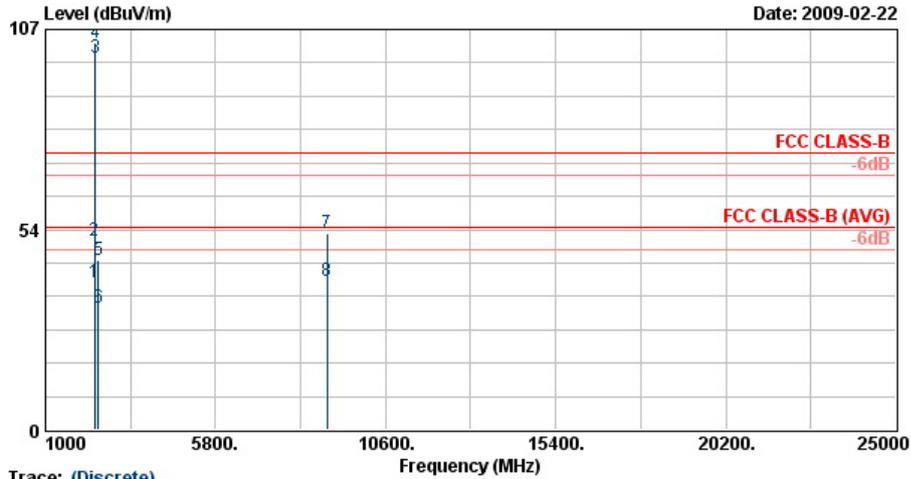
Site : 03CH06-HY  
 Condition : FCC CLASS-B 3m BTLOC\_081124 VERTICAL  
 Project : FR 920713

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	38.64	31.39	-8.61	40.00	48.31	14.50	0.30	31.72	100	231	Peak
2 @	50.79	29.91	-10.09	40.00	52.62	9.00	0.30	32.01	---	---	Peak
3	213.33	27.72	-15.78	43.50	48.57	10.64	0.63	32.12	---	---	Peak
4	819.40	21.46	-24.54	46.00	31.49	21.04	1.20	32.27	---	---	Peak
5	869.80	22.43	-23.57	46.00	31.72	21.52	1.30	32.11	---	---	Peak
6	943.30	22.93	-23.07	46.00	31.14	22.05	1.20	31.46	---	---	Peak



3.7.7 Test Result of Radiated Emission (1GHz ~ 10<sup>th</sup> Harmonic)

Test Mode :	Mode 1	Temperature :	23~24°C
Test Channel :	01	Relative Humidity :	47~48%
Test Engineer :	Mac Lin	Polarization :	Horizontal
Remark :	#3 and #4 are Fundamental Signals		



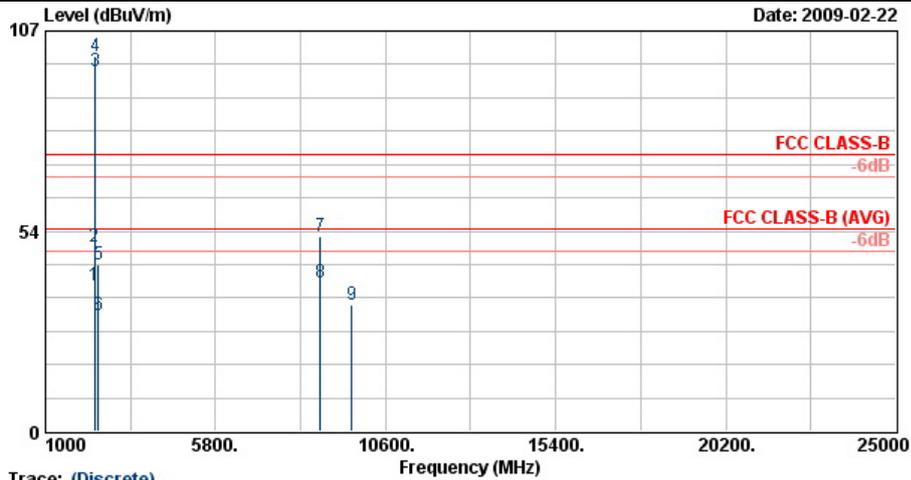
Trace: (Discrete)

Site : 03CH06-HY  
 Condition : FCC CLASS-B 3m SHF-EHF HORN HORIZONTAL  
 Project : FR 920713

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	cm	deg	
1	2386.38	39.56	-14.44	54.00	39.94	31.98	3.92	36.28	102	14 Average
2	2386.38	50.56	-23.44	74.00	50.94	31.98	3.92	36.28	102	14 Peak
3 @	2412.00	99.53			99.86	32.00	3.95	36.28	102	14 Average
4 X	2412.00	103.41			103.75	32.00	3.95	36.28	102	14 Peak
5	2484.00	45.52	-28.48	74.00	45.69	32.08	4.05	36.30	102	14 Peak
6	2484.00	32.63	-21.37	54.00	32.80	32.08	4.05	36.30	102	14 Average
7	8952.00	52.68	-21.32	74.00	45.67	36.15	7.74	36.88	100	331 Peak
8	8952.00	39.88	-14.12	54.00	32.87	36.15	7.74	36.88	100	331 Average



Test Mode :	Mode 1	Temperature :	23~24°C
Test Channel :	01	Relative Humidity :	47~48%
Test Engineer :	Mac Lin	Polarization :	Vertical
Remark :	#3 and #4 are Fundamental Signals		

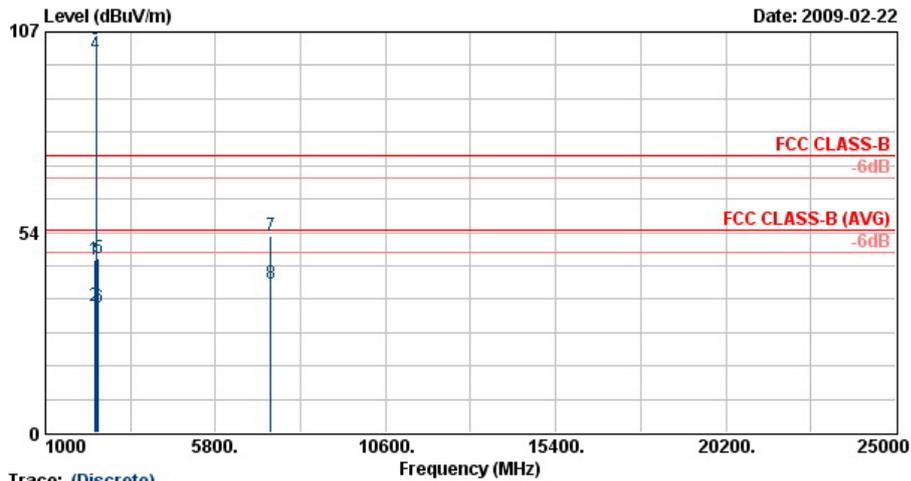


Trace: (Discrete)  
 Site : 03CH06-HY  
 Condition : FCC CLASS-B 3m SHF-EHF HORN VERTICAL  
 Project : FR 920713

	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	2385.81	39.13	-14.87	54.00	39.51	31.98	3.92	36.28	123	316	Average
2	2385.81	49.50	-24.50	74.00	49.88	31.98	3.92	36.28	123	316	Peak
3 @	2412.00	96.28			96.61	32.00	3.95	36.28	123	316	Average
4 X	2412.00	100.08			100.41	32.00	3.95	36.28	123	316	Peak
5	2492.00	44.54	-29.46	74.00	44.69	32.10	4.05	36.30	123	316	Peak
6	2492.00	31.14	-22.86	54.00	31.29	32.10	4.05	36.30	123	316	Average
7	8766.00	52.06	-21.94	74.00	45.37	35.97	7.53	36.81	100	178	Peak
8	8766.00	39.78	-14.22	54.00	33.09	35.97	7.53	36.81	100	178	Average
9	9648.00	33.68	-40.32	74.00	73.09	-10.29	7.94	37.06	100	0	Peak



Test Mode :	Mode 2	Temperature :	23~24°C
Test Channel :	06	Relative Humidity :	47~48%
Test Engineer :	Mac Lin	Polarization :	Horizontal
Remark :	#3 and #4 are Fundamental Signals		



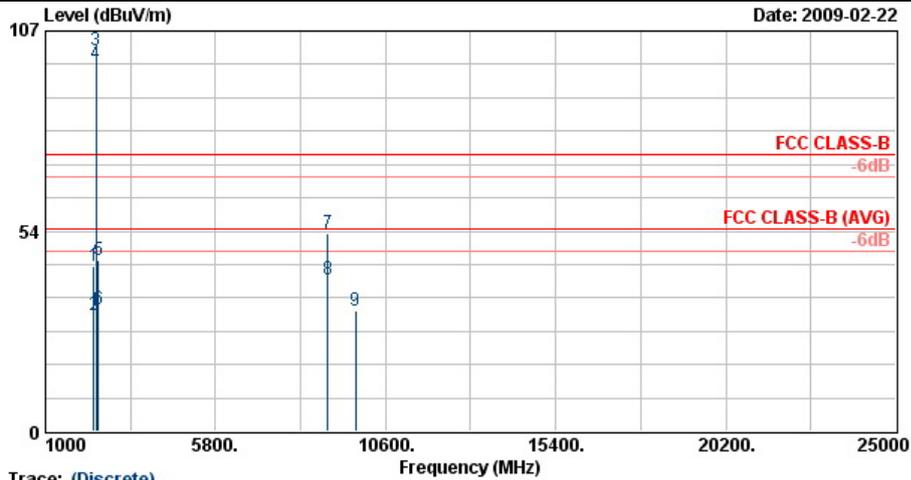
Trace: (Discrete)

Site : 03CH06-HY  
 Condition : FCC CLASS-B 3m SHF-EHF HORN HORIZONTAL  
 Project : FR 920713

	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	2390.00	46.00	-28.00	74.00	46.38	31.98	3.92	36.28	100	17	Peak
2	2390.00	33.63	-20.37	54.00	34.01	31.98	3.92	36.28	100	17	Average
3 X	2437.00	104.85			105.11	32.04	3.99	36.29	100	17	Peak
4 @	2437.00	100.87			101.13	32.04	3.99	36.29	100	17	Average
5	2484.00	46.36	-27.64	74.00	46.53	32.08	4.05	36.30	100	17	Peak
6	2484.00	33.52	-20.48	54.00	33.69	32.08	4.05	36.30	100	17	Average
7	7356.00	52.66	-21.34	74.00	46.43	35.56	7.22	36.54	100	117	Peak
8	7356.00	39.87	-14.13	54.00	33.64	35.56	7.22	36.54	100	117	Average



Test Mode :	Mode 2	Temperature :	23~24°C
Test Channel :	06	Relative Humidity :	47~48%
Test Engineer :	Mac Lin	Polarization :	Vertical
Remark :	#3 and #4 are Fundamental Signals		

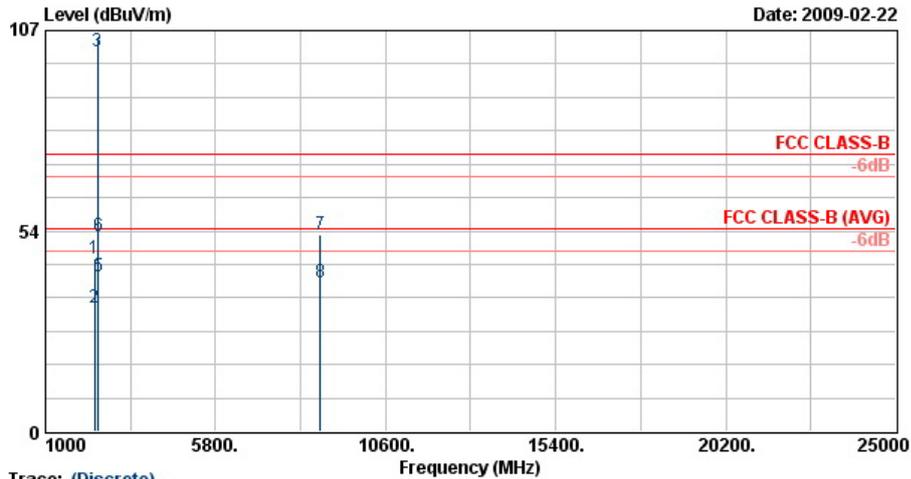


Trace: (Discrete)  
 Site : 03CH06-HY  
 Condition : FCC CLASS-B 3m SHF-EHF HORN VERTICAL  
 Project : FR 920713

	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	dB	dBuV/m	Level	Factor	Loss	Factor	Pos	Pos	
					dBuV	dB/m	dB	dB	cm	deg	
1	2372.00	43.98	-30.02	74.00	44.41	31.96	3.89	36.28	148	101	Peak
2	2372.00	31.14	-22.86	54.00	31.57	31.96	3.89	36.28	148	101	Average
3 X	2437.00	101.90			102.16	32.04	3.99	36.29	148	101	Peak
4 X	2437.00	98.07			98.33	32.04	3.99	36.29	148	101	Average
5	2484.00	45.62	-28.38	74.00	45.79	32.08	4.05	36.30	148	101	Peak
6	2484.00	32.80	-21.20	54.00	32.97	32.08	4.05	36.30	148	101	Average
7	8967.00	52.82	-21.18	74.00	45.77	36.17	7.77	36.88	100	221	Peak
8	8967.00	40.46	-13.54	54.00	33.40	36.17	7.77	36.88	100	221	Average
9	9748.00	32.40	-41.60	74.00	71.53	-10.02	7.98	37.10	100	0	Peak



Test Mode :	Mode 3	Temperature :	23~24°C
Test Channel :	11	Relative Humidity :	47~48%
Test Engineer :	Mac Lin	Polarization :	Horizontal
Remark :	#3 and #4 are Fundamental Signals		

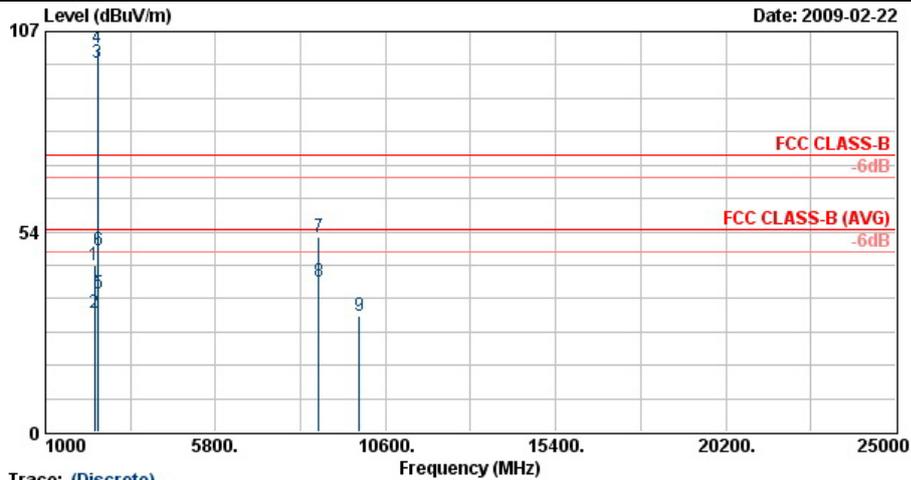


Trace: (Discrete)  
 Site : 03CH06-HY  
 Condition : FCC CLASS-B 3m SHF-EHF HORN HORIZONTAL  
 Project : FR 920713

	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
			dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	2388.00	46.23	-27.77	74.00	46.61	31.98	3.92	36.28	101	341	Peak
2	2388.00	33.19	-20.81	54.00	33.57	31.98	3.92	36.28	101	341	Average
3 @	2462.00	101.25			101.46	32.06	4.02	36.29	101	341	Average
4 X	2462.00	105.25			105.46	32.06	4.02	36.29	101	341	Peak
5	2483.50	41.38	-12.62	54.00	41.55	32.08	4.05	36.30	101	341	Average
6	2483.50	52.21	-21.79	74.00	52.38	32.08	4.05	36.30	101	341	Peak
7	8751.00	52.62	-21.38	74.00	45.97	35.95	7.50	36.80	100	101	Peak
8	8751.00	39.82	-14.18	54.00	33.17	35.95	7.50	36.80	100	101	Average



Test Mode :	Mode 3	Temperature :	23~24°C
Test Channel :	11	Relative Humidity :	47~48%
Test Engineer :	Mac Lin	Polarization :	Vertical
Remark :	#3 and #4 are Fundamental Signals		

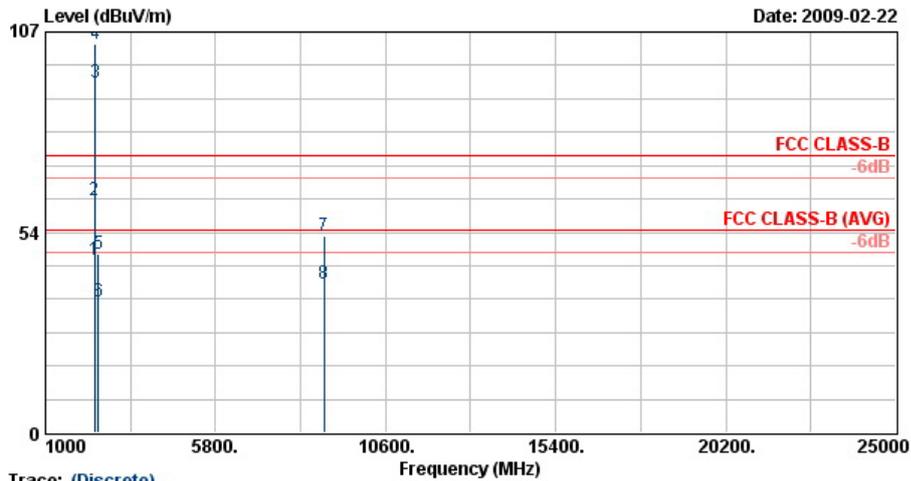


Trace: (Discrete)  
 Site : 03CH06-HV  
 Condition : FCC CLASS-B 3m SHF-EHF HORN VERTICAL  
 Project : FR 920713

	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
			dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	2388.00	44.61	-29.39	74.00	44.99	31.98	3.92	36.28	195	121	Peak
2	2388.00	31.74	-22.26	54.00	32.12	31.98	3.92	36.28	195	121	Average
3 @	2462.00	98.52			98.73	32.06	4.02	36.29	195	121	Average
4 X	2462.00	102.52			102.74	32.06	4.02	36.29	195	121	Peak
5	2483.50	37.01	-16.99	54.00	37.18	32.08	4.05	36.30	195	121	Average
6	2483.50	48.67	-25.33	74.00	48.84	32.08	4.05	36.30	195	121	Peak
7	8706.00	52.30	-21.70	74.00	45.74	35.90	7.45	36.78	100	199	Peak
8	8706.00	40.01	-13.99	54.00	33.44	35.90	7.45	36.78	100	199	Average
9	9848.00	30.88	-43.12	74.00	69.75	-9.77	8.04	37.14	100	0	Peak



Test Mode :	Mode 4	Temperature :	23~24°C
Test Channel :	01	Relative Humidity :	47~48%
Test Engineer :	Mac Lin	Polarization :	Horizontal
Remark :	#3 and #4 are Fundamental Signals		



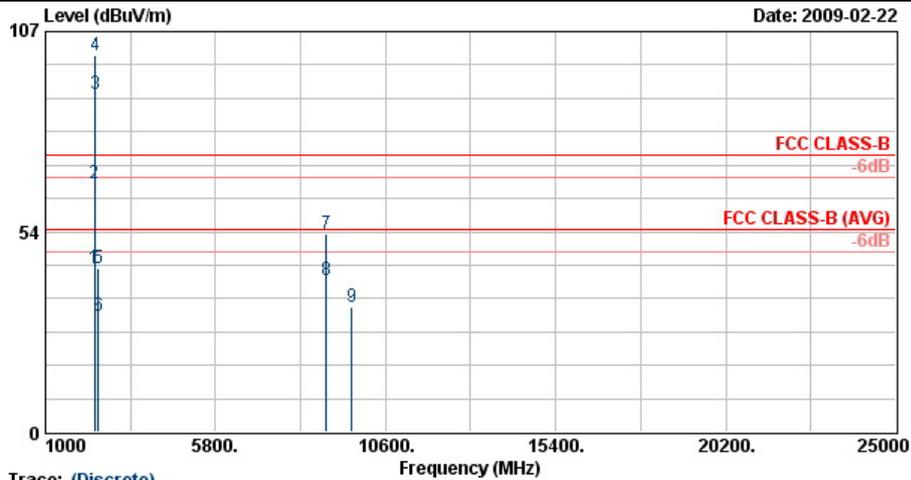
Trace: (Discrete)

Site : 03CH06-HY  
 Condition : FCC CLASS-B 3m SHF-EHF HORN HORIZONTAL  
 Project : FR 920713

	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	2389.99	45.97	-8.03	54.00	46.35	31.98	3.92	36.28	102	335	Average
2	2389.99	62.23	-11.77	74.00	62.61	31.98	3.92	36.28	102	335	Peak
3 @	2412.00	93.50			93.83	32.00	3.95	36.28	102	335	Average
4 X	2412.00	103.72			104.05	32.00	3.95	36.28	102	335	Peak
5	2484.00	47.92	-26.08	74.00	48.09	32.08	4.05	36.30	100	335	Peak
6	2484.00	34.87	-19.13	54.00	35.04	32.08	4.05	36.30	102	335	Average
7	8862.00	52.51	-21.49	74.00	45.64	36.05	7.65	36.84	100	133	Peak
8	8862.00	39.62	-14.38	54.00	32.76	36.05	7.65	36.84	100	133	Average



Test Mode :	Mode 4	Temperature :	23~24°C
Test Channel :	01	Relative Humidity :	47~48%
Test Engineer :	Mac Lin	Polarization :	Vertical
Remark :	#3 and #4 are Fundamental Signals		

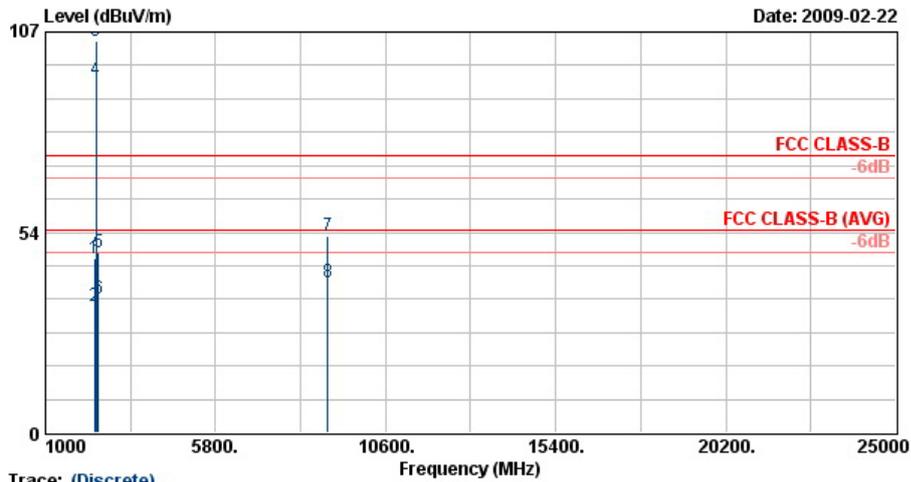


Trace: (Discrete)  
 Site : 03CH06-HV  
 Condition : FCC CLASS-B 3m SHF-EHF HORN VERTICAL  
 Project : FR 920713

	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
			dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	2389.99	43.85	-10.15	54.00	44.23	31.98	3.92	36.28	121	316	Average
2	2389.99	66.50	-7.50	74.00	66.88	31.98	3.92	36.28	121	316	Peak
3 @	2412.00	90.33			90.66	32.00	3.95	36.28	121	316	Average
4 X	2412.00	100.63			100.96	32.00	3.95	36.28	121	316	Peak
5	2492.00	43.94	-30.06	74.00	44.09	32.10	4.05	36.30	121	316	Peak
6	2492.00	31.01	-22.99	54.00	31.16	32.10	4.05	36.30	121	316	Average
7	8922.00	53.03	-20.97	74.00	46.07	36.12	7.71	36.87	100	300	Peak
8	8922.00	40.46	-13.54	54.00	33.50	36.12	7.71	36.87	100	300	Average
9	9648.00	33.41	-40.59	74.00	72.82	-10.29	7.94	37.06	100	0	Peak



Test Mode :	Mode 5	Temperature :	23~24°C
Test Channel :	06	Relative Humidity :	47~48%
Test Engineer :	Mac Lin	Polarization :	Horizontal
Remark :	#3 and #4 are Fundamental Signals		

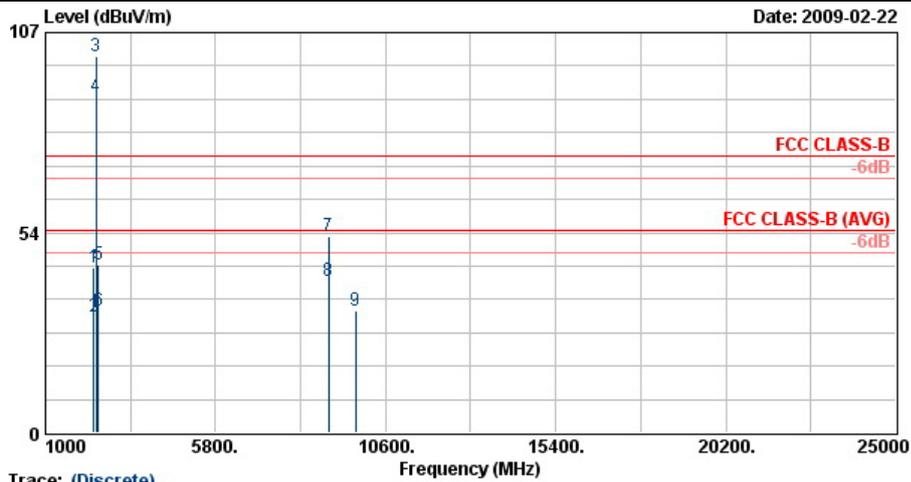


Trace: (Discrete)  
 Site : 03CH06-HY  
 Condition : FCC CLASS-B 3m SHF-EHF HORN HORIZONTAL  
 Project : FR 920713

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	cm	deg	
1	2390.00	46.74	-27.26	74.00	47.12	31.98	3.92	36.28	101	337 Peak
2	2390.00	33.92	-20.08	54.00	34.30	31.98	3.92	36.28	101	337 Average
3 X	2437.00	104.57			104.84	32.04	3.99	36.29	101	337 Peak
4 @	2437.00	94.38			94.64	32.04	3.99	36.29	101	337 Average
5	2484.00	48.13	-25.87	74.00	48.30	32.08	4.05	36.30	101	337 Peak
6	2484.00	35.87	-18.13	54.00	36.04	32.08	4.05	36.30	101	337 Average
7	8961.00	52.41	-21.59	74.00	45.37	36.15	7.77	36.88	100	69 Peak
8	8961.00	40.05	-13.95	54.00	33.01	36.15	7.77	36.88	100	69 Average



Test Mode :	Mode 5	Temperature :	23~24°C
Test Channel :	06	Relative Humidity :	47~48%
Test Engineer :	Mac Lin	Polarization :	Vertical
Remark :	#3 and #4 are Fundamental Signals		

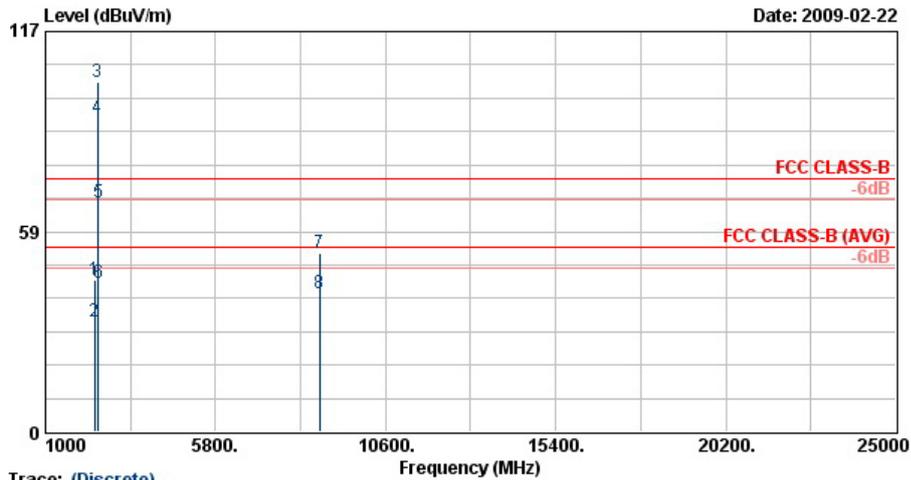


Trace: (Discrete)  
 Site : 03CH06-HY  
 Condition : FCC CLASS-B 3m SHF-EHF HORN VERTICAL  
 Project : FR 920713

	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
			dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	2366.00	44.21	-29.79	74.00	44.66	31.93	3.89	36.28	133	222	Peak
2	2366.00	31.06	-22.94	54.00	31.51	31.93	3.89	36.28	133	222	Average
3 X	2437.00	100.69			100.96	32.04	3.99	36.29	133	222	Peak
4 X	2437.00	90.00			90.26	32.04	3.99	36.29	133	222	Average
5	2484.00	44.92	-29.08	74.00	45.09	32.08	4.05	36.30	133	222	Peak
6	2484.00	32.42	-21.58	54.00	32.59	32.08	4.05	36.30	133	222	Average
7	8982.00	52.37	-21.63	74.00	45.27	36.18	7.80	36.89	100	355	Peak
8	8982.00	40.39	-13.61	54.00	33.30	36.18	7.80	36.89	100	355	Average
9	9748.00	32.64	-41.36	74.00	71.77	-10.02	7.98	37.10	100	0	Peak



Test Mode :	Mode 6	Temperature :	23~24°C
Test Channel :	11	Relative Humidity :	47~48%
Test Engineer :	Mac Lin	Polarization :	Horizontal
Remark :	#3 and #4 are Fundamental Signals		



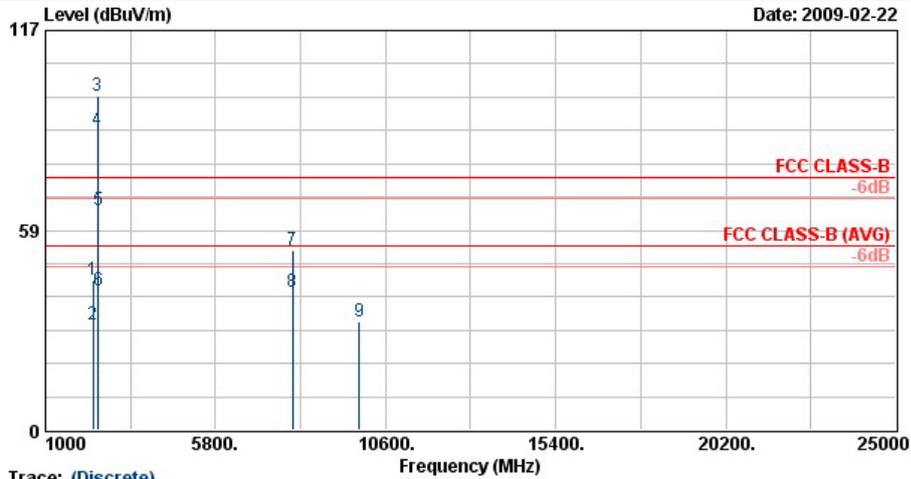
Trace: (Discrete)

Site : 03CH06-HY  
 Condition : FCC CLASS-B 3m SHF-EHF HORN HORIZONTAL  
 Project : FR 920713

	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	2390.00	44.46	-29.54	74.00	44.85	31.98	3.92	36.28	100	52	Peak
2	2390.00	32.13	-21.87	54.00	32.51	31.98	3.92	36.28	100	52	Average
3 @	2462.00	102.38			102.60	32.06	4.02	36.29	100	52	Peak
4 @	2462.00	91.76			91.97	32.06	4.02	36.29	100	52	Average
5 @	2483.50	67.10	-6.90	74.00	67.27	32.08	4.05	36.30	100	52	Peak
6 @	2483.50	43.53	-10.47	54.00	43.70	32.08	4.05	36.30	100	52	Average
7	8742.00	52.18	-21.82	74.00	45.55	35.93	7.50	36.80	100	210	Peak
8	8742.00	40.35	-13.65	54.00	33.71	35.93	7.50	36.80	100	210	Average



Test Mode :	Mode 6	Temperature :	23~24°C
Test Channel :	11	Relative Humidity :	47~48%
Test Engineer :	Mac Lin	Polarization :	Vertical
Remark :	#3 and #4 are Fundamental Signals		



Trace: (Discrete)  
 Site : 03CH06-HY  
 Condition : FCC CLASS-B 3m SHF-EHF HORN VERTICAL  
 Project : FR 920713

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	2350.00	43.97	-30.03	74.00	44.48	31.91	3.86	36.27	121	56	Peak
2	2350.00	30.99	-23.01	54.00	31.49	31.91	3.86	36.27	121	56	Average
3 @	2462.00	97.85			98.07	32.06	4.02	36.30	121	56	Peak
4 @	2462.00	87.81			88.02	32.06	4.02	36.29	121	56	Average
5 @	2483.50	64.16	-9.84	74.00	64.33	32.08	4.05	36.30	121	56	Peak
6	2483.50	40.85	-13.15	54.00	41.02	32.08	4.05	36.30	121	56	Average
7	7977.00	52.61	-21.39	74.00	46.11	35.69	7.51	36.70	100	23	Peak
8	7977.00	40.31	-13.69	54.00	33.81	35.69	7.51	36.70	100	23	Average
9	9848.00	31.68	-42.32	74.00	70.55	-9.77	8.04	37.14	100	0	Peak



## **3.8 Antenna Requirements**

### **3.8.1 Standard Applicable**

If directional gain of transmitting antennas is greater than 6dBi, the power shall be reduced by the same level in dB comparing to gain minus 6dBi. For the fixed point-to-point operation, the power shall be reduced by one dB for every 3 dB that the directional gain of the antenna exceeds 6 dBi.

The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the FCC rule.

### **3.8.2 Antenna Connected Construction**

The antennas type used in this product is PIFA Antenna without connector and it is considered to meet antenna requirement.

### **3.8.3 Antenna Gain**

The antenna peak gain of EUT is less than 6 dBi. Therefore, it is not necessary to reduce maximum peak output power limit.

## 4 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Due Date	Remark
Spectrum Analyzer	R&S	FSP40	100055	9kHz~40GHz	Jun. 26, 2008	Jun. 25, 2009	Conducted (TH02-HY)
Power Meter	Agilent	E4416A	GB41292344	N/A	Feb. 19, 2009	Feb. 18, 2010	Conducted (TH02-HY)
Power Sensor	Agilent	E9327A	US40441548	N/A	Feb. 19, 2009	Feb. 18, 2010	Conducted (TH02-HY)
EMI Receiver	R&S	ESCS 30	100356	9kHz~2.75GHz	Aug. 01, 2008	Jul. 31, 2009	Conduction (CO05-HY)
Two-LISN	R&S	ENV216	11-100081	9kHz~30MHz	Nov. 26, 2008	Nov. 25, 2009	Conduction (CO05-HY)
Two-LISN	R&S	ENV216	11-100080	9kHz~30MHz	Nov. 26, 2008	Nov. 25, 2009	Conduction (CO05-HY)
AC Power Source	APC	APC-1000W	N/A	N/A	N/A	N/A	Conduction (CO05-HY)
System Simulator	R&S	CMU200	116457	N/A	Jun. 04, 2008	Jun. 03, 2009	Conduction (CO05-HY)
Spectrum Analyzer	Agilent	E4408B	MY44211030	9kHz~26.5GHz	Oct. 24, 2008	Oct. 23, 2009	Radiation (03CH06-HY)
Spectrum Analyzer	R&S	FSP40	100057	9kHz~40GHz	Oct. 16, 2008	Oct. 15, 2009	Radiation (03CH06-HY)
EMI Test Receiver	R&S	ESVS10	834468/003	20MHz~1000M Hz	Apr. 24, 2008	Apr. 23, 2009	Radiation (03CH06-HY)
Bilog Antenna	SCHAFFNER	CBL6112B	2885	30MHz~2GHz	Nov. 12, 2008	Nov. 11, 2009	Radiation (03CH06-HY)
Double Ridge Horn Antenna	EMCO	3117	00066583	1G~18GHz	Aug. 18, 2008	Aug. 17, 2009	Radiation (03CH06-HY)
Double Ridge Horn Antenna	Training Research	AF-0801	95119	8G~18G	Oct. 28, 2008	Oct. 27, 2009	Radiation (03CH06-HY)
SHF-EHF Horn	SCHWARZBECK	BBHA 9170	BBHA9170251	15G - 40GHz	Oct. 16, 2008	Oct. 15, 2009	Radiation (03CH06-HY)
Pre Amplifier	Agilent	8449B	3008A01917	1G~26.5GHz	Nov. 11, 2008	Nov. 10, 2009	Radiation (03CH06-HY)
Pre Amplifier	Agilent	310N	186713	9kHz~1GHz	Apr. 21, 2008	Apr. 20, 2009	Radiation (03CH06-HY)
Loop Antenna	R&S	HFH2-Z2	860004/001	9 kHz~30 MHz	May 22, 2008	May 21, 2010	Radiation (03CH06-HY)

## 5 Uncertainty of Evaluation

### Uncertainty of Conducted Emission Measurement (150 kHz ~ 30 MHz)

Contribution	Uncertainty of $x_i$		$u(x_i)$
	dB	Probability Distribution	
Receiver reading	0.10	Normal(k=2)	0.05
Cable loss	0.10	Normal(k=2)	0.05
AMN insertion loss	2.50	Rectangular	0.63
Receiver Spec	1.50	Rectangular	0.43
Site imperfection	1.39	Rectangular	0.80
Mismatch	+0.34/-0.35	U-shape	0.24
<b>Combined standard uncertainty Uc(y)</b>	<b>1.13</b>		
<b>Measuring uncertainty for a level of confidence of 95% U=2Uc(y)</b>	<b>2.26</b>		

### Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Contribution	Uncertainty of $x_i$		$u(x_i)$
	dB	Probability Distribution	
Receiver reading	0.41	Normal(k=2)	0.21
Antenna factor calibration	0.83	Normal(k=2)	0.42
Cable loss calibration	0.25	Normal(k=2)	0.13
Pre Amplifier Gain calibration	0.27	Normal(k=2)	0.14
RCV/SPA specification	2.50	Rectangular	0.72
Antenna Factor Interpolation for Frequency	1.00	Rectangular	0.29
Site imperfection	1.43	Rectangular	0.83
Mismatch	+0.39/-0.41	U-shaped	0.28
<b>Combined standard uncertainty Uc(y)</b>	<b>1.27</b>		
<b>Measuring uncertainty for a level of confidence of 95% U=2Uc(y)</b>	<b>2.54</b>		

**Uncertainty of Radiated Emission Measurement (1 GHz ~ 40 GHz)**

Contribution	Uncertainty of $x_i$		$u(x_i)$	$C_i$	$C_i * u(x_i)$
	dB	Probability Distribution			
Receiver reading	±0.10	Normal(k=1)	0.10	1	0.10
Antenna factor calibration	±1.70	Normal(k=2)	0.85	1	0.85
Cable loss calibration	±0.50	Normal(k=2)	0.25	1	0.25
Receiver Correction	±2.00	Rectangular	1.15	1	1.15
Antenna Factor Directional	±1.50	Rectangular	0.87	1	0.87
Site imperfection	±2.80	Triangular	1.14	1	1.14
Mismatch Receiver VSWR $\Gamma_1 = 0.197$ Antenna VSWR $\Gamma_2 = 0.194$ Uncertainty = $20 \log(1 - \Gamma_1 * \Gamma_2)$	+0.34/-0.35	U-shaped	0.244	1	0.244
<b>Combined standard uncertainty <math>U_c(y)</math></b>	<b>2.36</b>				
<b>Measuring uncertainty for a level of confidence of 95% <math>U = 2U_c(y)</math></b>	<b>4.72</b>				

## 6 Certification of TAF Accreditation



Certificate No. : L1190-081212

財團法人全國認證基金會  
Taiwan Accreditation Foundation

### Certificate of Accreditation

This is to certify that

**Sporton International Inc.**  
**EMC & Wireless Communications Laboratory**  
No.52, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan Hsiang, Tao Yuan Hsien,  
Taiwan, R.O.C.

is accredited in respect of laboratory

<b>Accreditation Criteria</b>	: ISO/IEC 17025:2005
<b>Accreditation Number</b>	: 1190
<b>Originally Accredited</b>	: December 15, 2003
<b>Effective Period</b>	: January 10, 2007 to January 09, 2010
<b>Accredited Scope</b>	: Testing Field, see described in the Appendix
<b>Specific Accreditation Program</b>	: Accreditation Program for Designated Testing Laboratory for Commodities Inspection Accreditation Program for Telecommunication Equipment Testing Laboratory Accreditation Program for BSMI Mutual Recognition Arrangement with Foreign Authorities

  
Jay-San Chen  
President, Taiwan Accreditation Foundation  
Date : December 12, 2008

PI, total 18 pages

The Appendix forms an integral part of this Certificate, which shall be invalid when use without the Appendix



## **Appendix A. Photographs of EUT**

Please refer to Sporton report number EP920713 as below.