



# FCC TEST REPORT

for

## 47 CFR Part 15 Subpart C

**Equipment** : PDA phone

**Trade Name** : MiTAC

**Model No.** : A702

**FCC ID** : P4Q-MIOA702

**Filing Type** : Certification

**Applicant** : **MiTAC International Corp.**

No. 1, Yen-Fa 2nd Rd., Hsin-Chu Science Based Industrial Park, Hsin-Chu Hsien, Taiwan, R.O.C.

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- The data shown in this test report were carried out on May 26, 2007 at **Sporton International Inc. LAB.**
- Report No.: FR742004-01, Report Version: Rev. 01.

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Report Version: Rev. 01



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History of this test report

Report Issue Date: Jun. 05, 2007

Report No.	Description



## **1. General Description of Equipment under Test**

### **1.1 Applicant**

**MiTAC International Corp.**

No. 1, Yen-Fa 2nd Rd., Hsin-Chu Science Based Industrial Park, Hsin-Chu Hsien, Taiwan, R.O.C.

### **1.2 Manufacturer**

**Mitac computer (Kunshan) CO., Ltd.**

No. 269, 2nd Road , Export Processing Zone, Changjiang South Road, KunShan,JiangSu prov.China

### **1.3 Basic Description of Equipment under Test**

Equipment	: PDA phone
Trade Name	: MiTAC
Model No.	: A702
FCC ID	: P4Q-MIOA702
Power Supply Type	: Switching, From Battery 3.7V
AC Power Cord	: AC 120V, Wall-mount, 1.8 meter, 2 pin
Adapter	: PHIHONG, PSB05R-050Q
Battery	: Welldone, E4MT211303B12
Earphone	: BIMOS, 70425-02

**1.4 Feature of Equipment under Test**

Product Feature & Specification			
1. Type of Modulation	WLAN : DSSS / OFDM BT : GFSK		
2. Number of Channels	802.11b/g : 11 Channels BT : 79 Channels		
3. Frequency Band	802.11b/g : 2400MHz ~ 2483.5MHz BT : 2400MHz ~ 2483.5MHz		
4. Carrier Frequency of each channel	802.11b/g : $2412\text{MHz} + (n-1) * 5\text{MHz}$ , $n=1\sim 11$ BT : $2402\text{MHz} + n * 1\text{MHz}$ , $n=0\sim 78$		
5. Channel Spacing	802.11b/g : 5MHz BT : 1MHz		
6. Maximum Output Power to Antenna (Normal Condition)	802.11b : 13.92 dBm / 802.11g: 18.42 dBm BT : -0.47 dBm		
7. HW Version	R02		
8. SW Version	R30		
9. Type of Antenna Connector	N/A		
10. Antenna Type	Fixed Internal (PIFA)		
11. Antenna Gain	802.11b/g : -3.5 dBi BT : -3.5 dBi		
12. Function Type	Transmitter		Transceiver V



## 2 Test Configuration of Equipment under Test

### 2.1 Test Manner

- a. 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.
- b. For spurious emission below 1GHz, only one channel of each application was tested because it is not related to channel selection.
- c. The EUT is programmed to transmit signal continuously for all testings.
- d. Frequency range investigated: conduction 150 kHz to 30 MHz, radiation 30 MHz to 25000MHz.

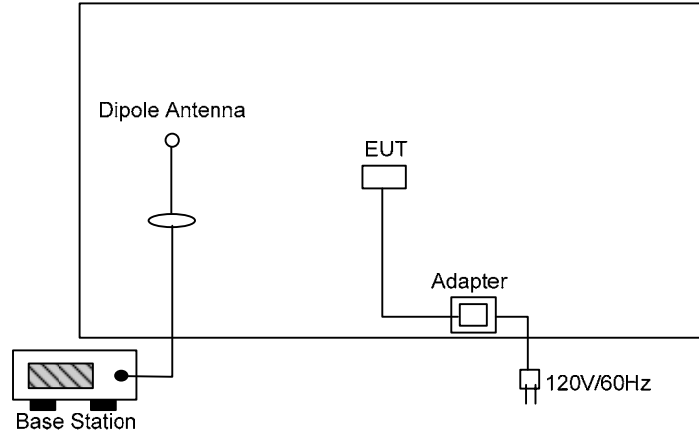
### 2.2 Test Mode

Application			
	<b>802.11b</b>	<b>802.11g</b>	<b>BT</b>
Radiated Emission	Mode 1: CH01_2412 MHz Mode 2: CH06_2437 MHz Mode 3: CH11_2462 MHz	Mode 4: CH01_2412 MHz Mode 5: CH06_2437 MHz Mode 6: CH11_2462 MHz	Mode 7: CH00_2402 MHz Mode 8: CH39_2441 MHz Mode 9: CH78_2480 MHz
Conducted Emission	Mode 1: GSM850 Idle Mode + BT Link + WLAN Link + Camera + Earphone + GPS Rx + Adapter Mode 2: GSM850 Idle Mode + BT Link + WLAN Link + Camera + Earphone + GPS Rx + USB Link		

Item	Asset	Model Name	FCC ID	Power Cord
1.	Notebook	D400	E2K24GBRL	1.2m
2.	WLAN AP (SMC)	SMC-100	HEDWG4005ACC	1.8m
3.	Bluetooth Earphone	ET-BH111	PQY471087	N/A

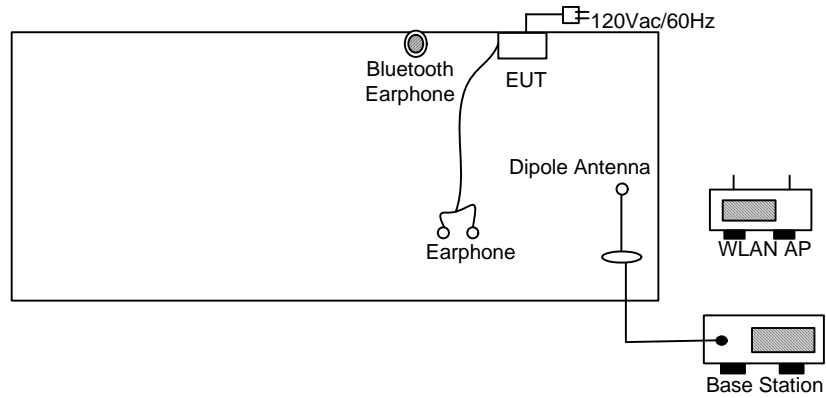
### 2.3 Connection Diagram of Test System

**<Radiated Emission >**

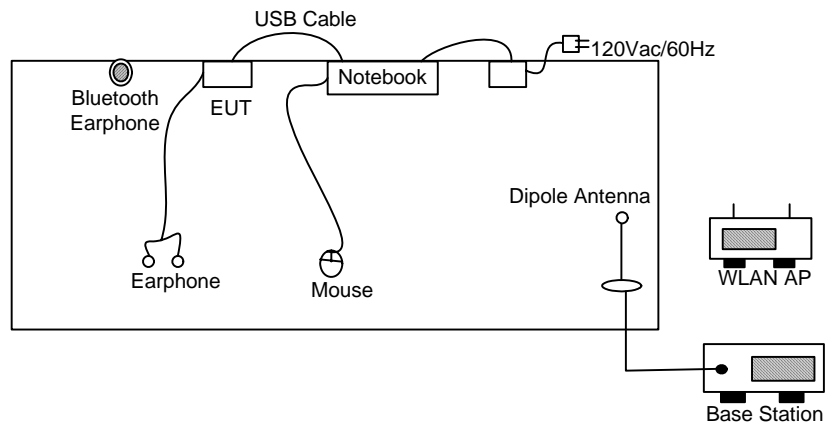


**<Conducted Emission>**

**Mode 1**



**Mode 2**





### **3. RF Utility**

The programmed RF Utility is installed in EUT to provide channel selection, power level, data rate and the application type. RF Utility can send transmitting signal for all testings.





## **4. General Information of Test**

Test Site Location : No. 52, Hwa Ya 1st Rd., Hwa Ya Technology Park,  
Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C.  
TEL : 886-3-327-3456  
FAX : 886-3-318-0055

Test Site No : CO01-HY, 03CH04-HY

### **4.1 Test Voltage**

120V/ 60Hz

### **4.2 Standard for Methods of Measurement**

ANSI C63.4-2003

### **4.3 Test in Compliance with**

47 CFR Part 15 Subpart C

### **4.4 Frequency Range Investigated**

- a. Conduction: from 150 kHz to 30 MHz
- b. Radiation: from 30 MHz to 25000 MHz

### **4.5 Test Distance**

The test distance of radiated emission from antenna to EUT is 3 m.



## 5. Test Data and Test Result

### 5.1 List of Measurements and Examinations

The Emission Mode: Wireless LAN

FCC Rule	Description of Test	Result
15.207	Conducted Emission	Pass
15.247(a)(2)	6dB & 20dB Bandwidth	Pass
15.247(b)	Maximum Peak Output Power	Pass
15.209(a)	Radiated Emission	Pass
15.247 (c)	100kHz Bandwidth of Frequency Band Edges	Pass
15.247(d)	Power Spectral Density	Pass
15.203 15.247(b)(4)	Antenna Requirement	Pass

**The Emission Mode: Bluetooth**

FCC Rule	Description of Test	Result
15.207	Conducted Emission	Pass
<u>15.247(a) (1)</u>	Hopping Channel Bandwidth	Pass
<u>15.247(a)(1)</u>	Hopping Channel Separation	Pass
<u>15.247(a)(1)(iii)</u>	Number of Hopping Frequency Used	Pass
<u>15.247(a)(1)(iii)</u>	Dwell Time of Each Frequency	Pass
<u>15.247(b)</u>	Output Power	Pass
15.247(c)	100kHz Bandwidth of Frequency Band Edges	Pass
15.209(a)	Radiated Emission	Pass
<u>15.203</u> 15.247(b)(4)	Antenna Requirement	Pass

## 5.2 6dB Bandwidth Measurement

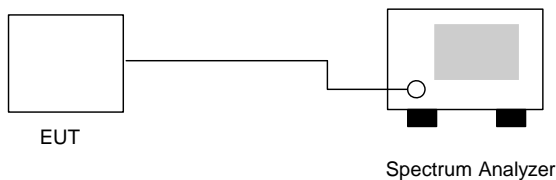
### 5.2.1 Measuring Instruments :

As described in chapter 6 of this test report.

### 5.2.2 Test Procedure :

1. The transmitter output was connected to the spectrum analyzer directly.
2. Set RBW of spectrum analyzer to 100kHz and VBW to 100kHz.
3. The 6 dB and 20 dB bandwidth is defined as the frequency range where the power is higher than the peak power minus 6dB.

### 5.2.3 Test Setup Layout :



### 5.2.4 Test Result :

- Application Type : WLAN 802.11b/g
- Temperature : 24°C
- Relative Humidity : 52%
- Test Enginner : James

#### **802.11b**

Channel	Frequency ( MHz )	6dB Emission bandwidth ( MHz )	Limits ( MHz )	Plot Ref. No.
01	2412	9.60	> 0.5MHz	Mode 1
06	2437	9.88	> 0.5MHz	Mode 2
11	2462	9.60	> 0.5MHz	Mode 3

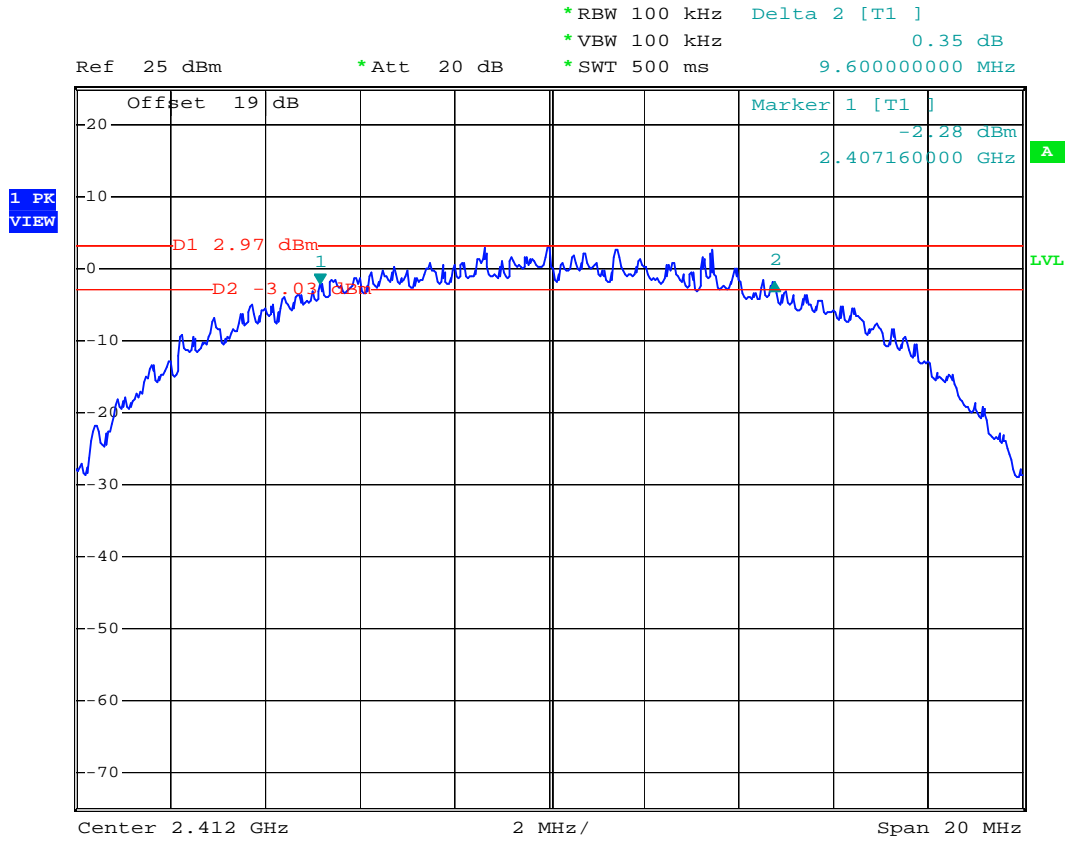
#### **802.11g**

Channel	Frequency ( MHz )	6dB Emission bandwidth ( MHz )	Limits ( MHz )	Plot Ref. No.
01	2412	16.36	> 0.5MHz	Mode 4
06	2437	16.40	> 0.5MHz	Mode 5
11	2462	16.36	> 0.5MHz	Mode 6



5.2.5 6dB Bandwidth

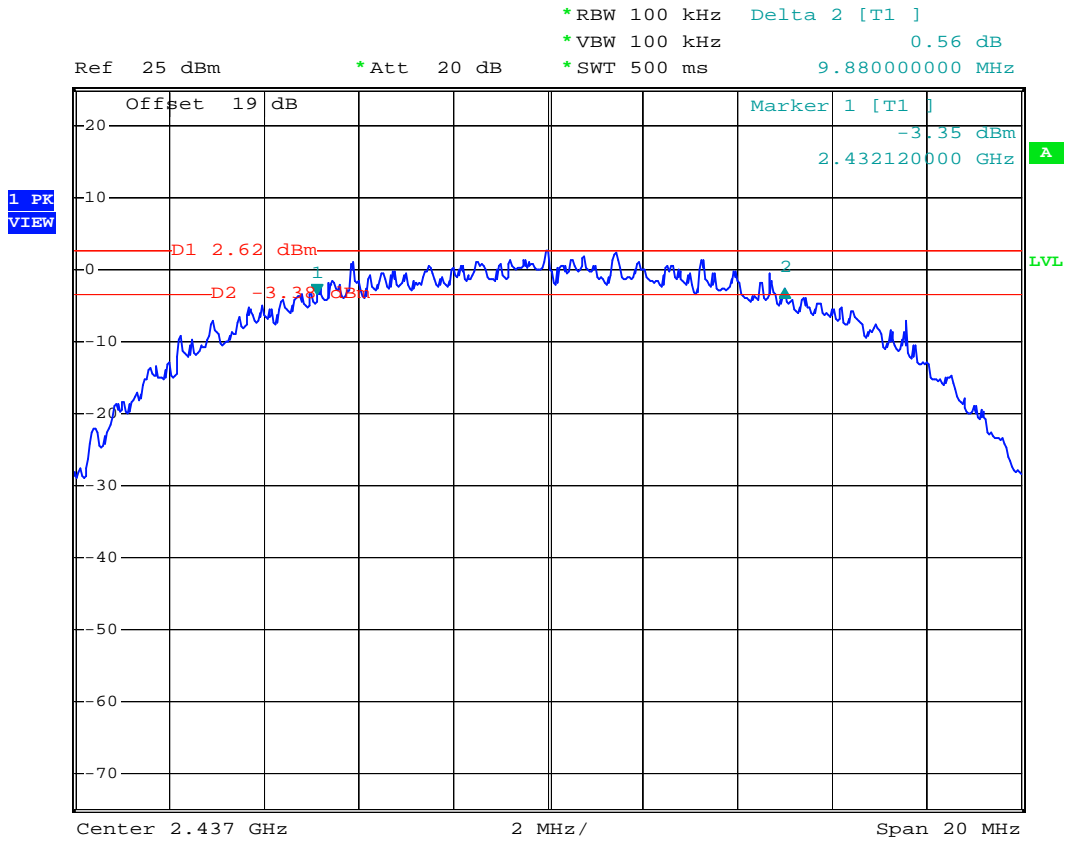
Mode 1



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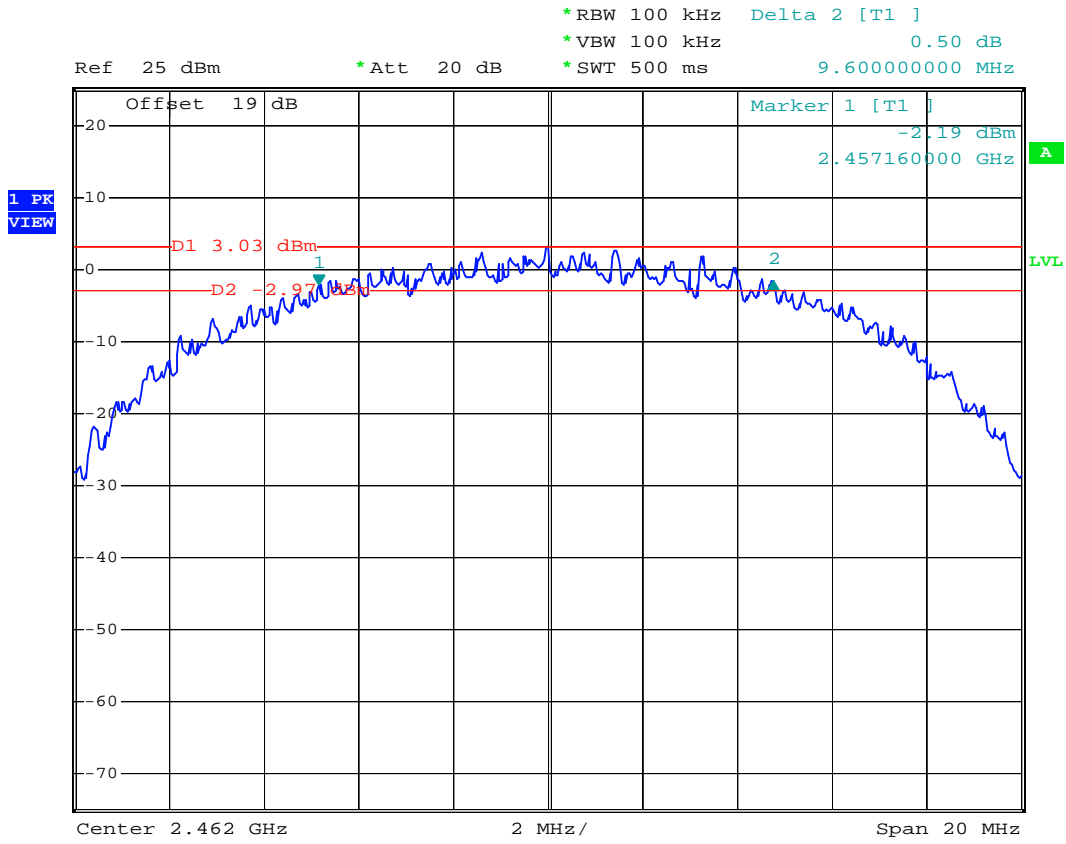
Mode 2



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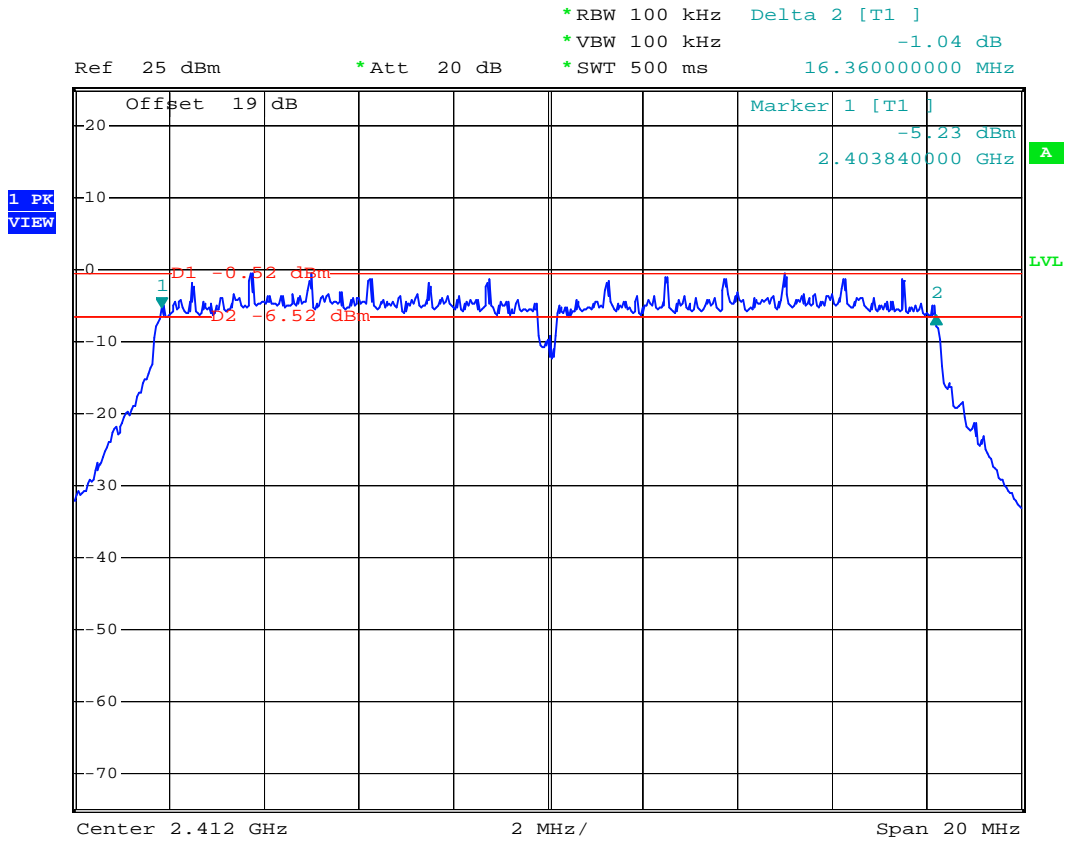
Mode 3



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Mode 4

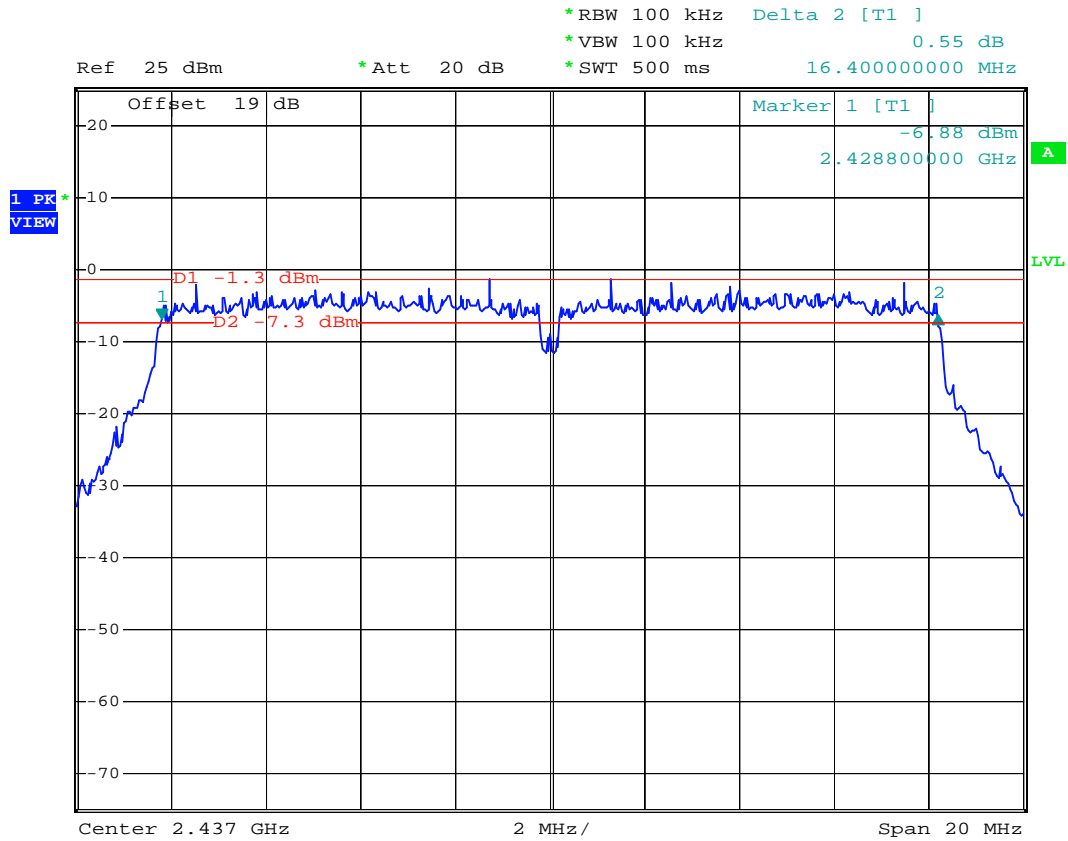


Date: 26.MAY.2007 18:05:21





Mode 5



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Mode 6



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### 5.3 Power Spectral Density Measurement

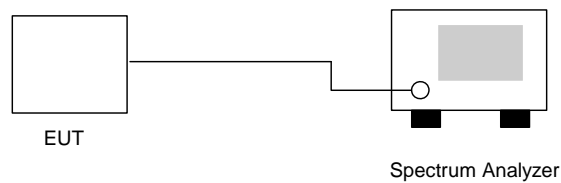
#### 5.3.1 Measuring Instruments :

As described in chapter 6 of this test report.

#### 5.3.2 Test Procedure :

1. The transmitter output was connected to spectrum analyzer directly.
2. The spectrum analyzer's resolution bandwidth was set at 3kHz RBW and 30kHz VBW as that of the fundamental frequency. Set the sweep time=span/3kHz.
3. The power spectral density was measured and recorded.
4. The sweep time is allowed to be longer than span/3kHz for a full response of the mixer in the spectrum analyzer.

#### 5.3.3 Test Setup Layout :





5.3.4 Test Result :

- Application Type : 802.11b/g
- Temperature : 24°C
- Relative Humidity : 52%
- Test Enginner : James

**802.11b**

Channel	Frequency (MHz)	Power Spectral Density (dBm)	Limits (dBm )	Plot Ref. No.
01	2412	2.20	8	Mode 1
06	2437	2.04	8	Mode 2
11	2462	2.47	8	Mode 3

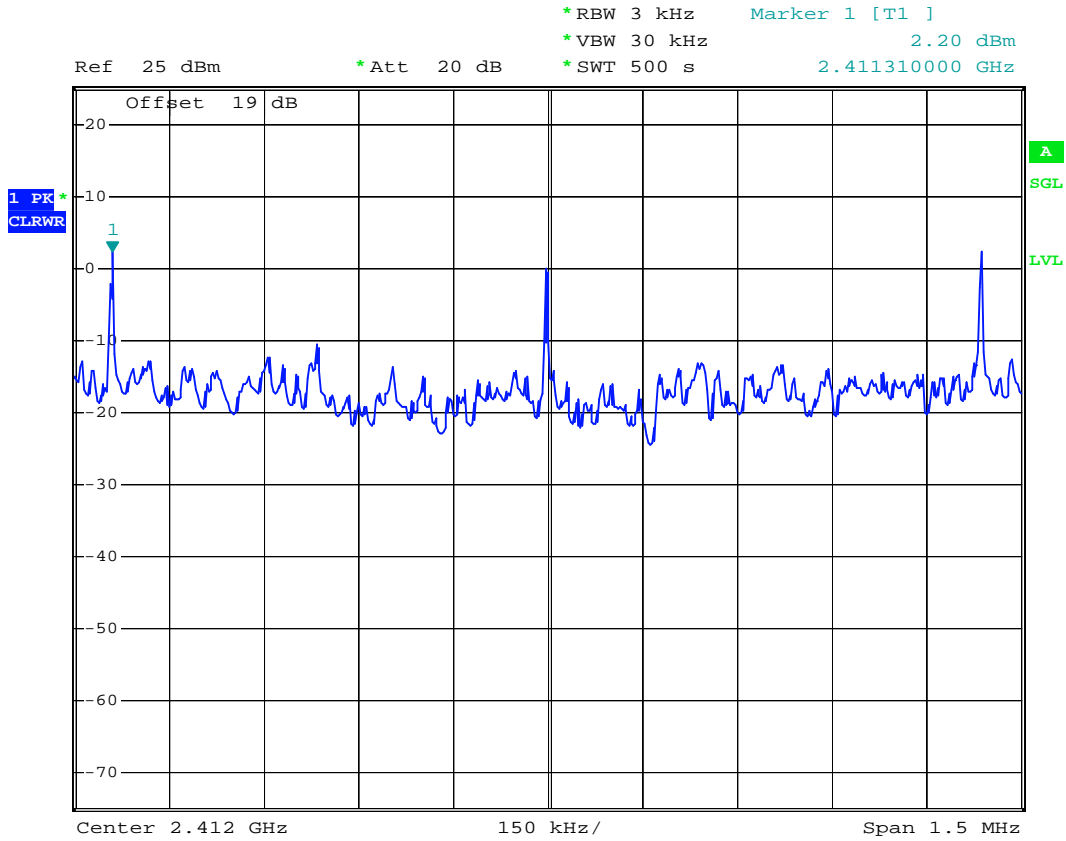
**802.11g**

Channel	Frequency (MHz)	Power Spectral Density (dBm)	Limits (dBm )	Plot Ref. No.
01	2412	-15.95	8	Mode 4
06	2437	-15.77	8	Mode 5
11	2462	-13.86	8	Mode 6



5.3.5 Power Spectral Density

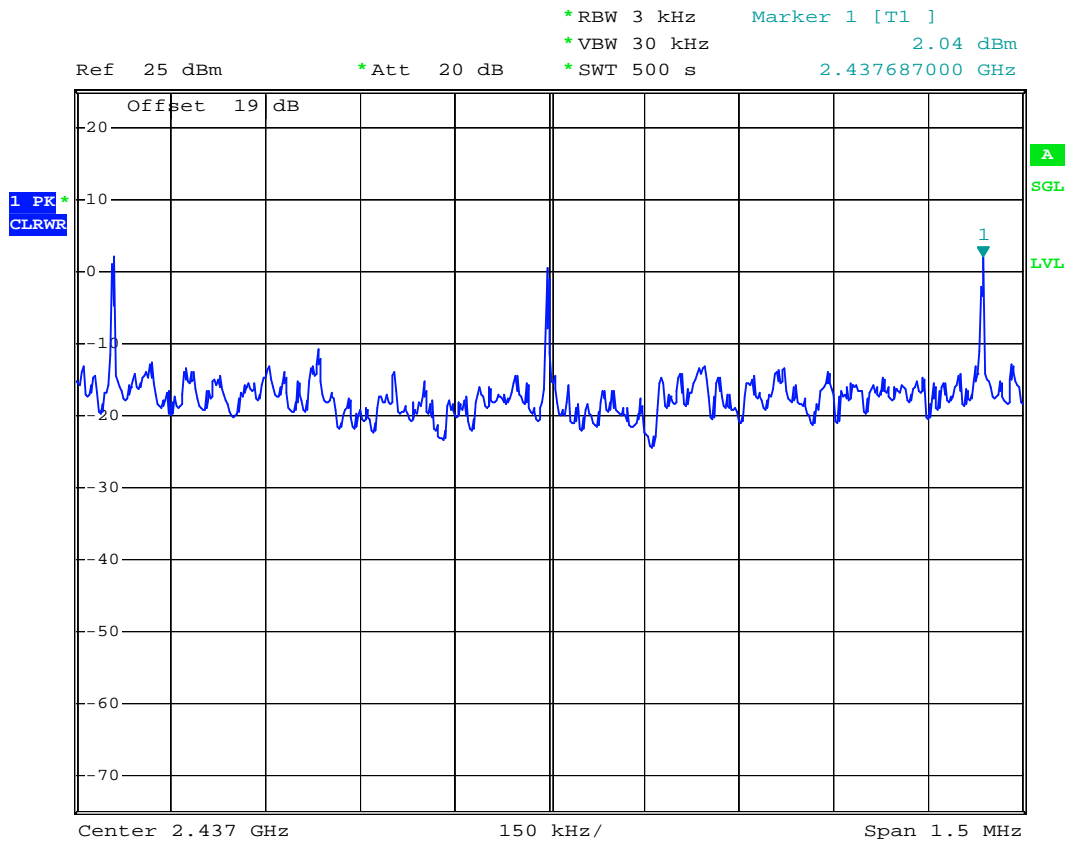
Mode 1



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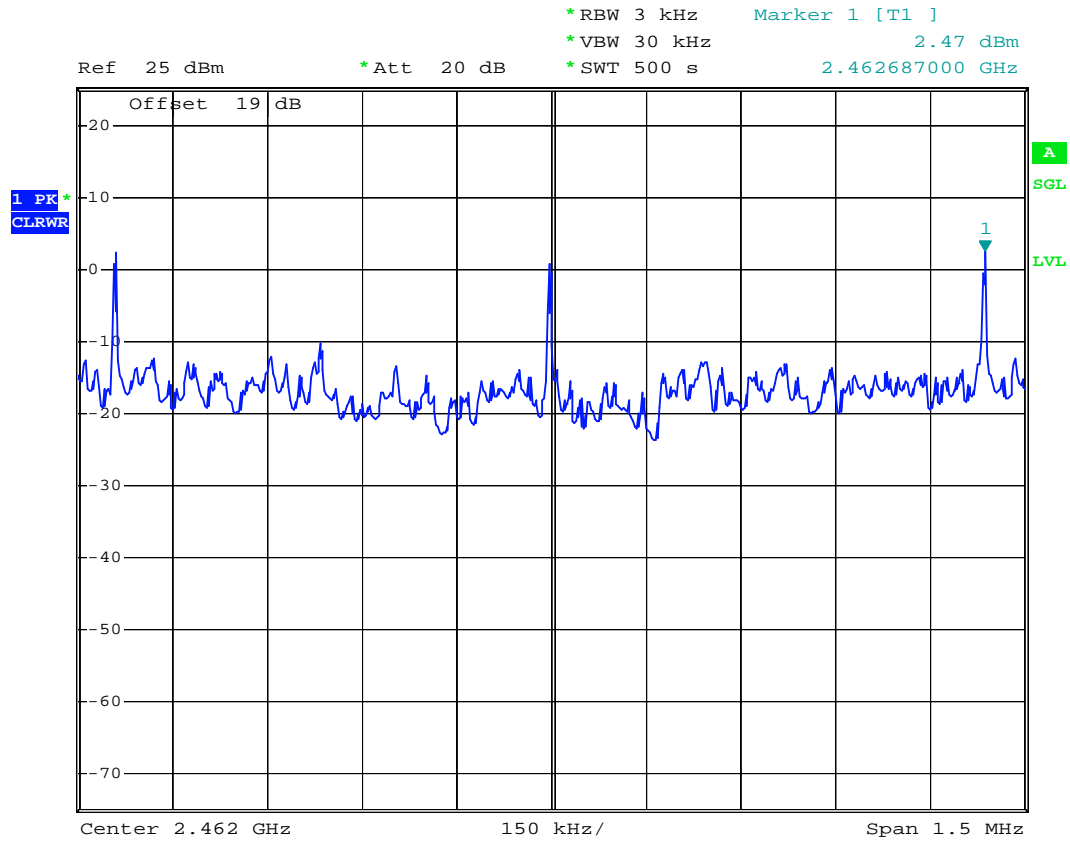
Mode 2



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Mode 3



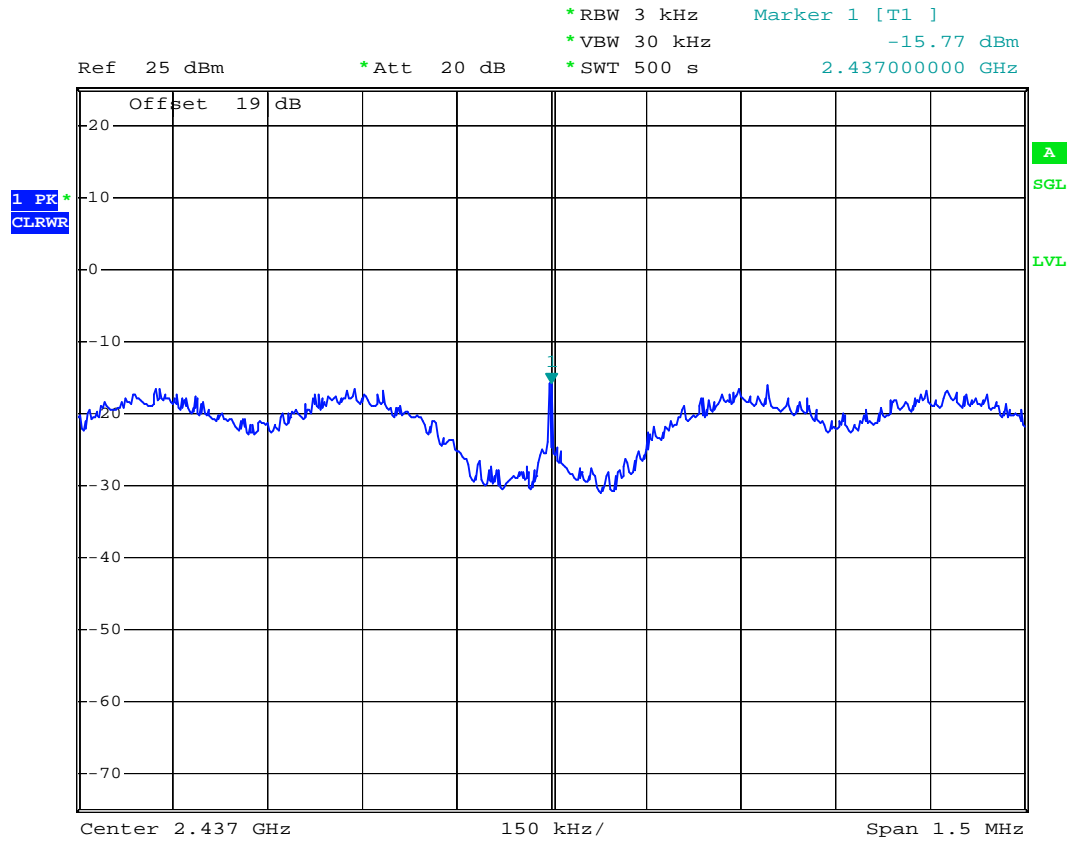
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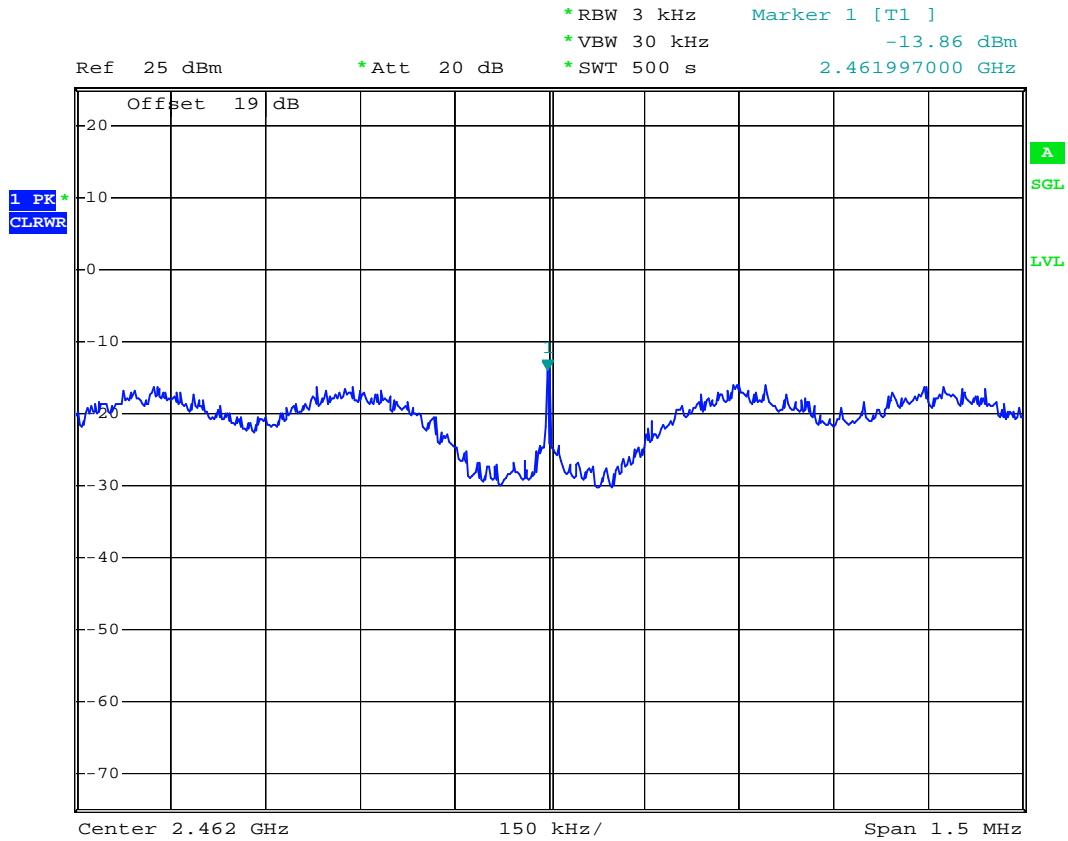
Mode 5



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Mode 6



Date: 26.MAY.2007 18:38:36



5.4 Band Edges Measurement

5.4.1 Measuring Instruments :

As described in chapter 6 of this test report.

5.4.2 Test Procedure :

- 1. The transmitter output was connected to the spectrum analyzer via a low lose cable.
2. Set both RBW and VBW of spectrum analyzer to 100kHz with suitable frequency span including 100 kHz bandwidth from band edge.
3. The band edges was measured and recorded.

5.4.3 Test Result :

- Application Type : WLAN 802.11b/g and BT
Temperature : 24C
Relative Humidity : 52%
Test Enginner : James
Test Result in WLAN lower band (802.11b/g) : PASS
Test Result in WLAN higher band (802.11b/g) : PASS
Test Result in BT lower band : PASS
Test Result in BT higher band : PASS

5.4.4 Note on Band Edge Emission :

WLAN 802.11b

CH01 (Horizontal)

Table with 11 columns: Frequency, Level, Over Limit, Limit Line, Read Level, Antenna Factor, Cable Loss, Preamp Factor, Ant Pos, Table Pos, Remark. Rows for 2389.520 MHz showing Peak and Average values.

CH01 (Vertical)

Table with 11 columns: Frequency, Level, Over Limit, Limit Line, Read Level, Antenna Factor, Cable Loss, Preamp Factor, Ant Pos, Table Pos, Remark. Rows for 2388.320 MHz showing Peak and Average values.



CH11 (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
2483.500	37.16	-16.84	54.00	36.69	30.43	3.84	33.80	100	154	Average
2483.500	50.83	-23.17	74.00	50.36	30.43	3.84	33.80	100	0	Peak

CH11 (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
2483.550	35.35	-38.65	54.00	34.88	30.43	3.84	33.80	100	153	Average
2483.550	47.30	-26.70	74.00	46.83	30.43	3.84	33.80	100	0	Peak

➤WLAN 802.11g

CH01 (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
2389.920	71.39	-2.61	74.00	70.85	30.59	3.74	33.78	100	0	Peak
2389.920	49.22	-4.78	54.00	48.68	30.59	3.74	33.78	100	156	Average

CH01 (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
2389.600	66.37	-7.63	74.00	65.82	30.59	3.74	33.78	100	0	Peak
2389.600	44.86	-9.14	54.00	44.31	30.59	3.74	33.78	100	152	Average

CH11 (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
2483.555	45.84	-8.16	54.00	45.37	30.43	3.84	33.80	100	165	Average
2483.555	67.28	-6.72	74.00	66.81	30.43	3.84	33.80	100	0	Peak

**CH11 (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
2483.730	43.54	-10.46	54.00	43.07	30.43	3.84	33.80	100	152	Average
2483.730	63.65	-10.35	74.00	63.18	30.43	3.84	33.80	100	0	Peak

➤BT

**CH00 (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
2390.000	42.97	-31.03	74.00	42.43	30.59	3.74	33.78	100	0	Peak
2390.000	31.66	-22.34	54.00	31.12	30.59	3.74	33.78	100	208	Average

**CH00 (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
2390.000	42.65	-31.65	74.00	42.11	30.59	3.74	33.78	100	0	Peak
2390.000	31.29	-22.71	54.00	30.75	30.59	3.74	33.78	100	247	Average

**CH78 (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
2483.500	51.76	-22.24	74.00	51.29	30.43	3.84	33.80	100	0	Peak
2483.500	43.79	-10.21	54.00	43.32	30.43	3.84	33.80	100	237	Average

**CH78 (Vertical)**

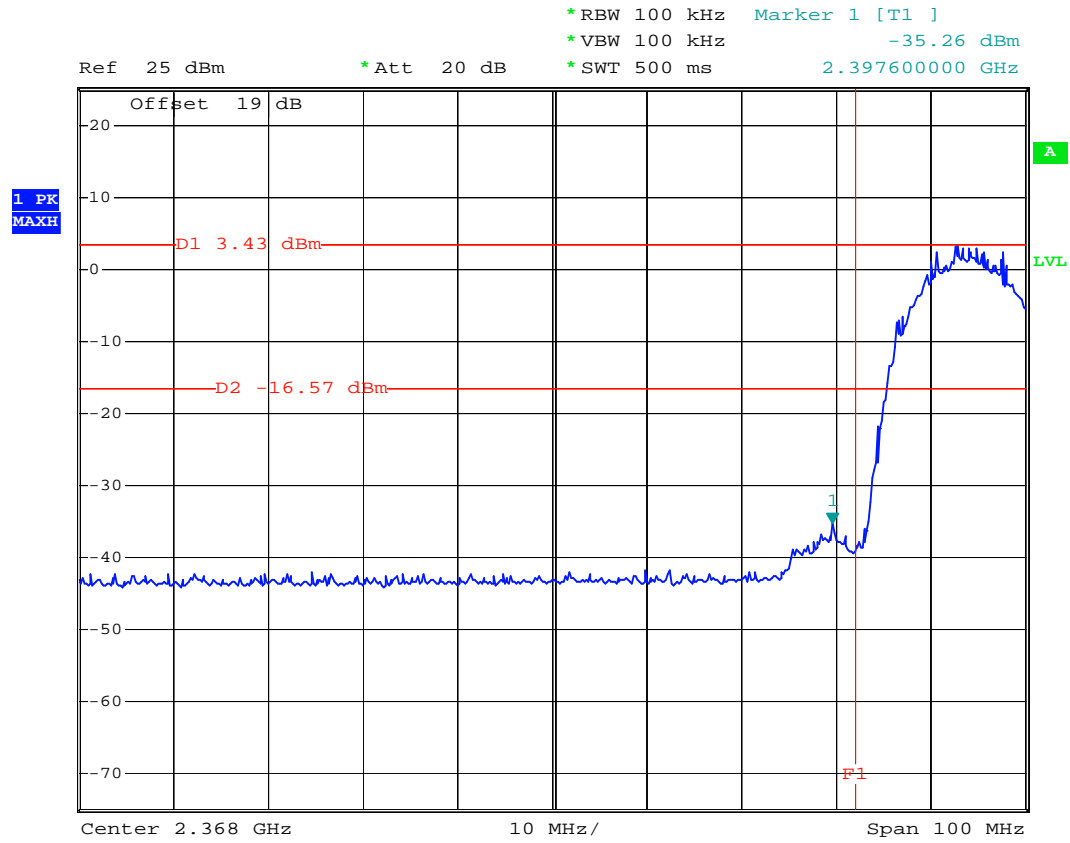
Frequency ( MHz )	Level ( dBuV/m )	Over Limit ( dB )	Limit Line ( dBuV/m )	Read Level ( dBuV )	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
2483.500	52.23	-21.77	74.00	51.76	30.43	3.84	33.80	100	0	Peak
2483.500	45.14	-8.86	54.00	44.67	30.43	3.84	33.80	100	216	Average



5.4.5 20dB Band Edge

WLAN 802.11b

CH01



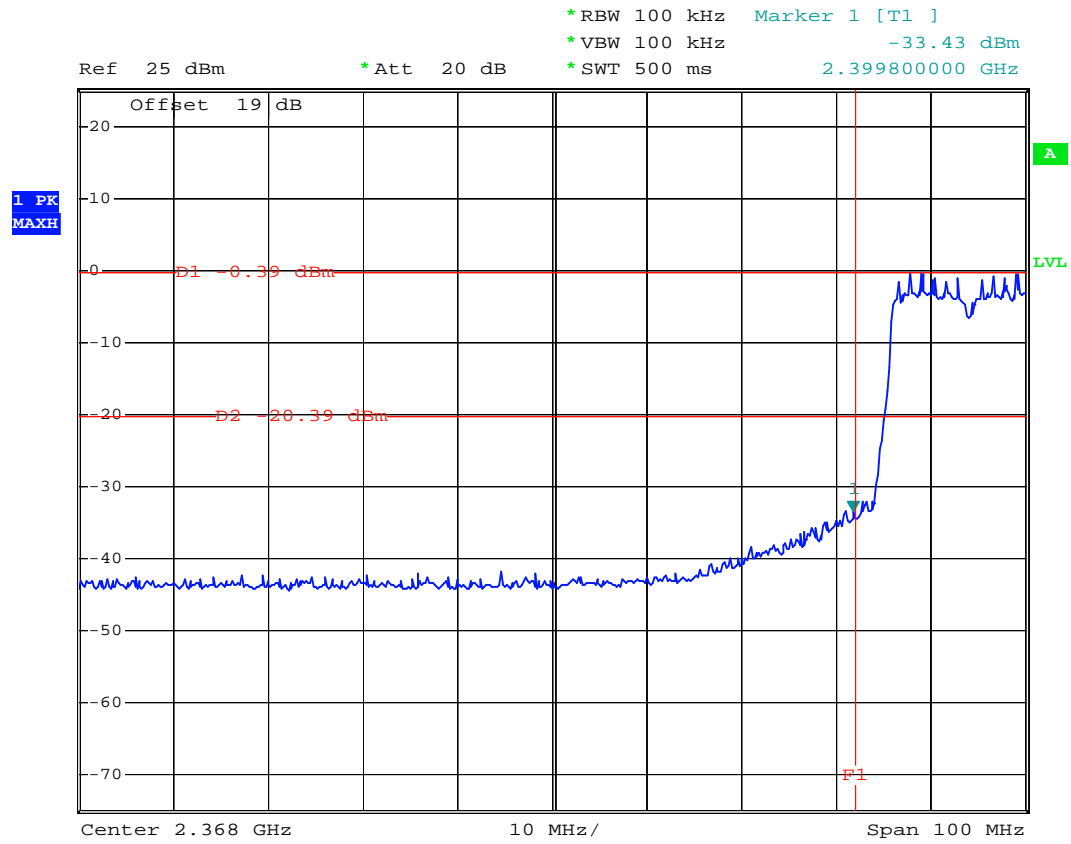
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WLAN 802.11g

CH01

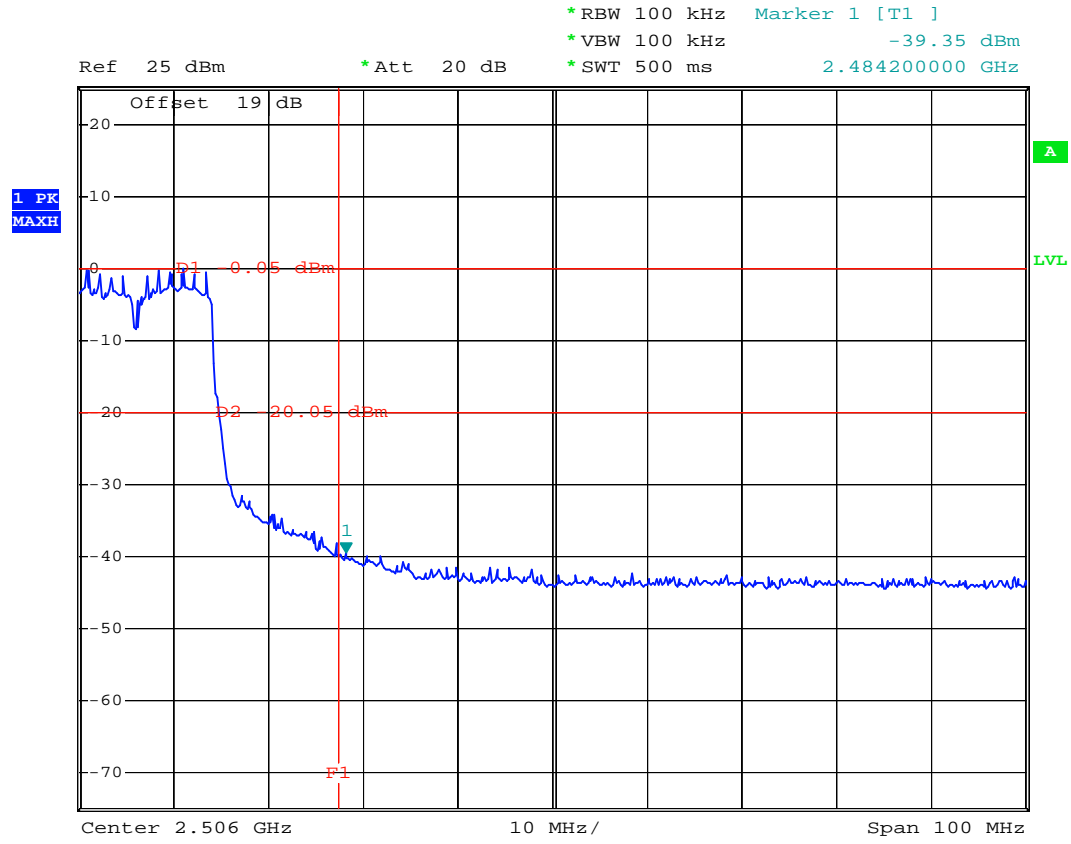


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CH11

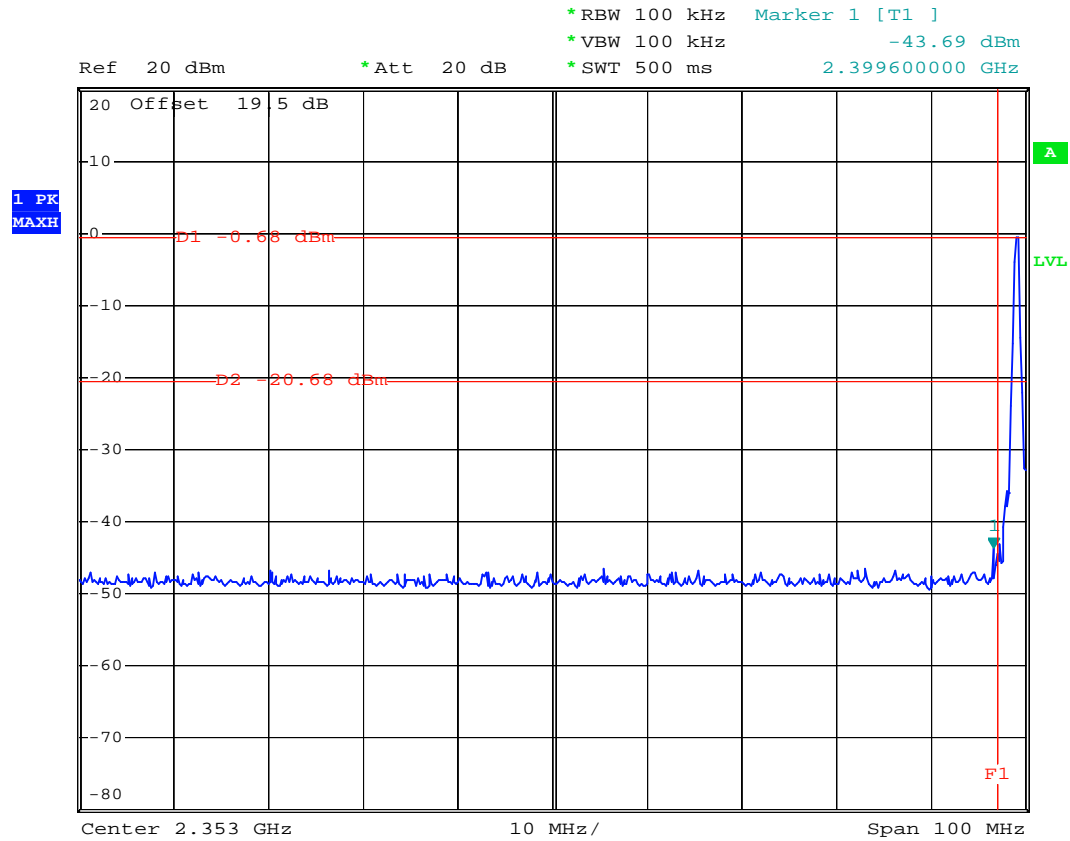


Date: 26.MAY.2007 18:02:12



Bluetooth

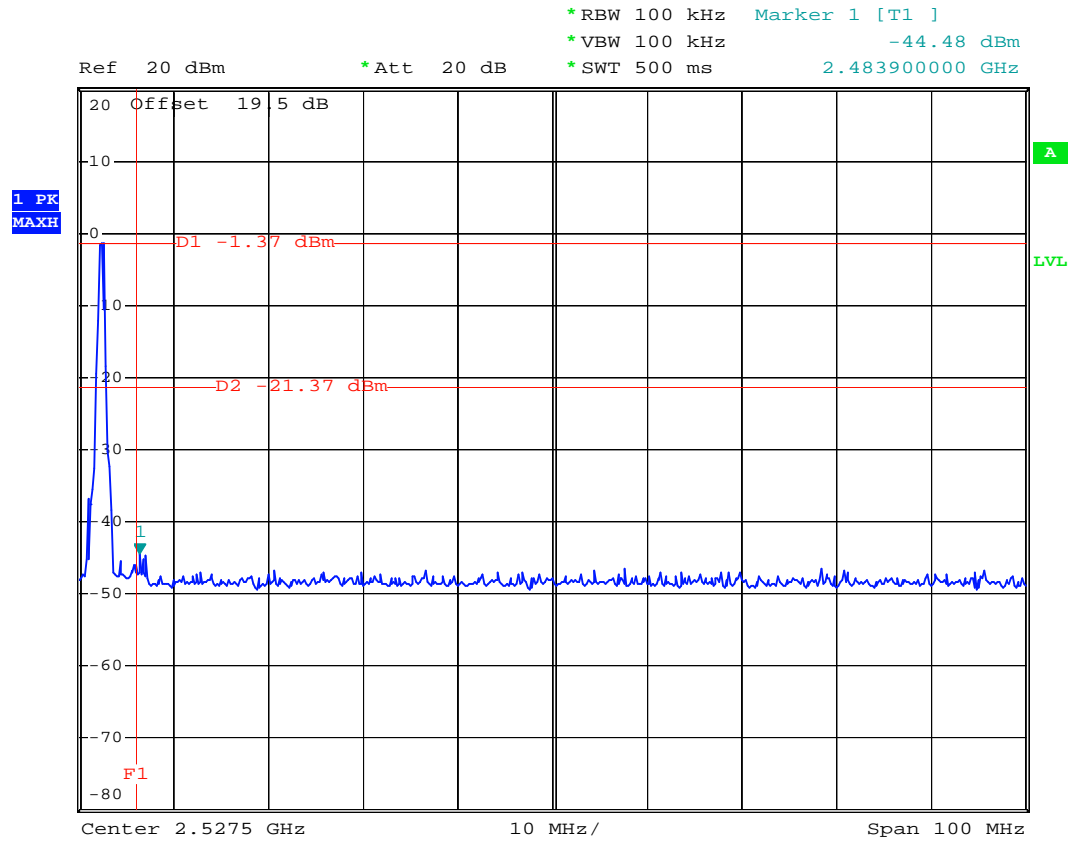
CH00



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CH78



Date: 17.MAY.2007 14:54:17

## 5.5 Hopping Channel Separation

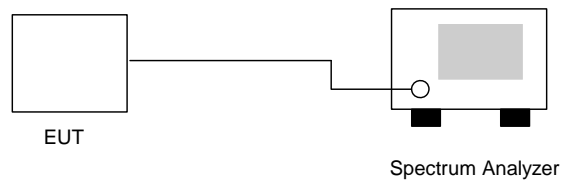
### 5.5.1 Measuring Instruments :

As described in chapter 9 of this test report.

### 5.5.2 Test Procedure :

1. The output of EUT was connected to the spectrum analyzer by a low loss cable..
2. Set RBW of spectrum analyzer to 100kHz and VBW to 100kHz.
3. The Hopping Channel Separation is defined as the channel is separated with the next channel.

### 5.5.3 Test Setup Layout :



### 5.5.4 Test Result : The spectrum analyzer plots are attached as below

- Application Type : BT
- Temperature : 24°C
- Relative Humidity : 52%
- Test Enginner : James

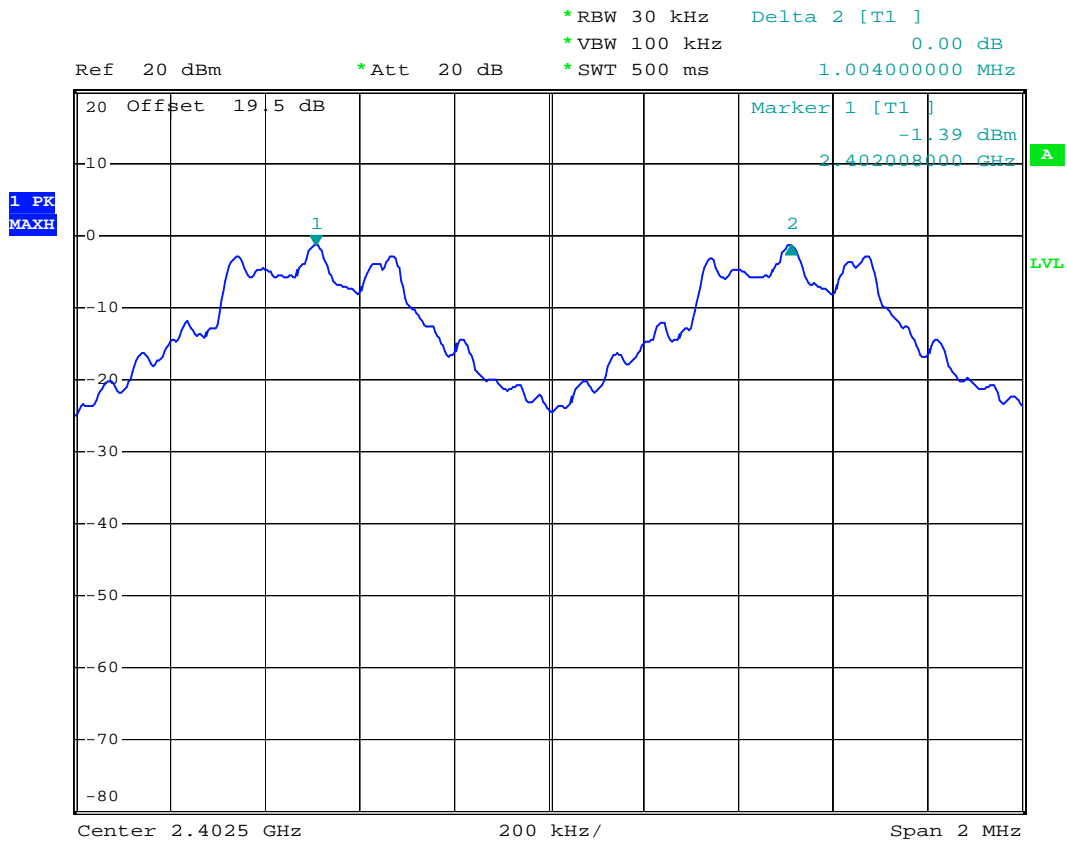
Channel	Carrier Frequency		Limits	Plot
	Frequency (MHz)	Separation ( MHz )		
00	2402	1.004	0.882	Mode 1
39	2441	1.000	0.882	Mode 2
78	2480	1.004	0.882	Mode 3

Note: Limits =25kHz or the 20dB bandwidth of the hopping channel, which ever is greater



5.5.5 Hopping Channel Separation

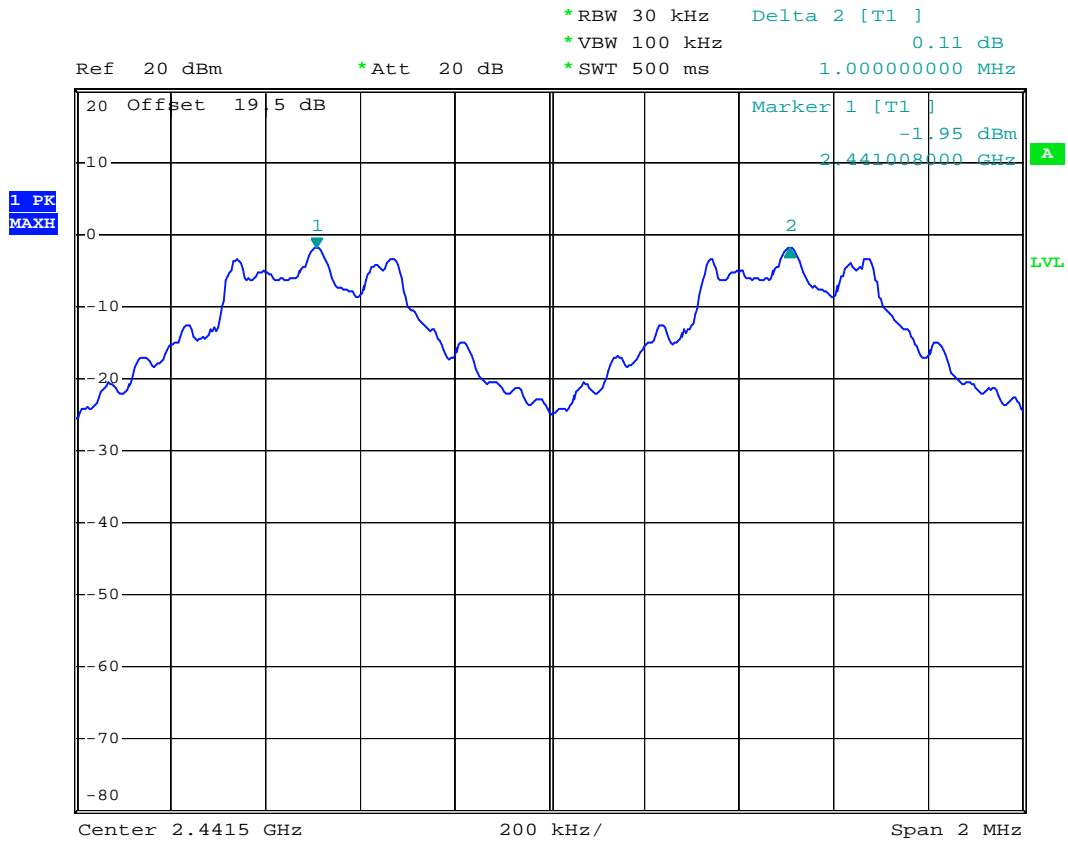
Mode 1



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Mode 2



Date: 17.MAY.2007 14:55:56



## 5.6 Number of Hopping Frequency

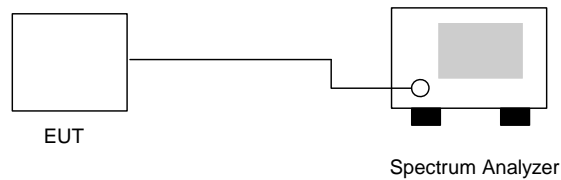
### 5.6.1 Measuring Instruments :

As described in chapter 9 of this test report.

### 5.6.2 Test Procedure :

1. The output of EUT was connected to the spectrum analyzer by a low loss cable.
2. Set RBW of spectrum analyzer to 100kHz and VBW to 100kHz.
3. The number of hopping frequency used is defined as the device has the numbers of total channel.

### 5.6.3 Test Setup Layout :



### 5.6.4 Test Result : See spectrum analyzer plots below

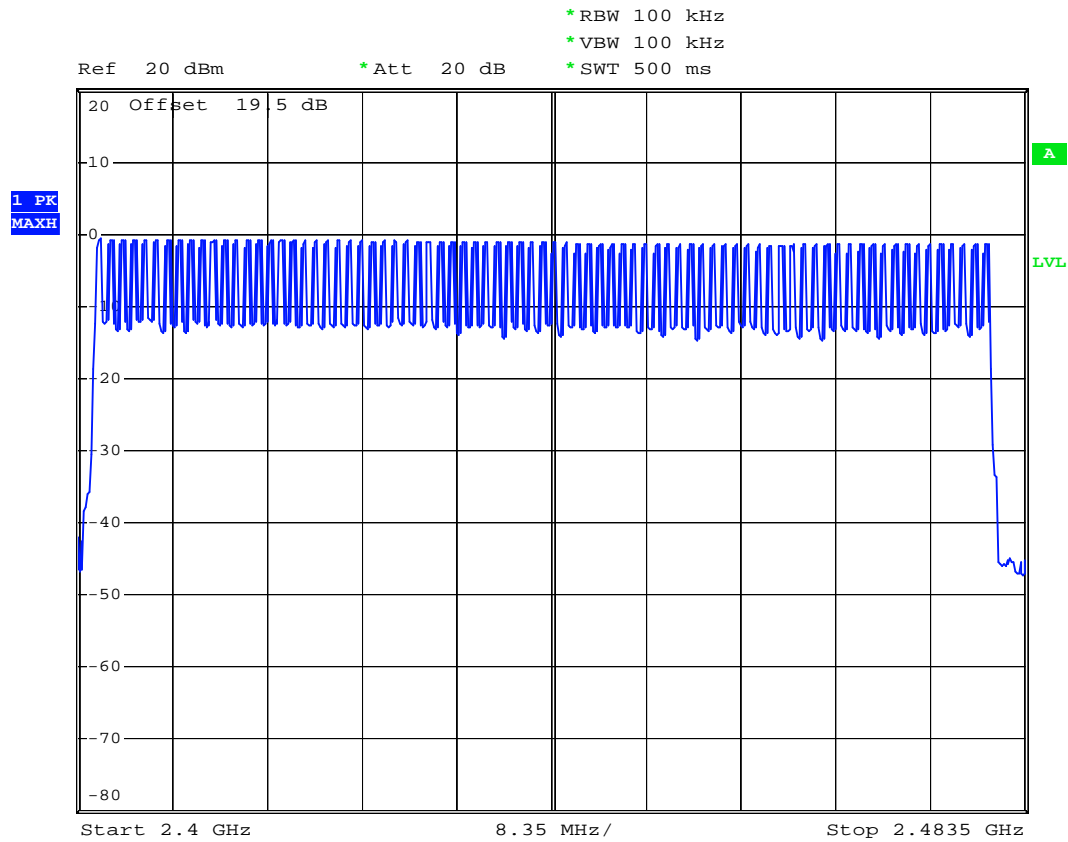
- Application Type : BT
- Temperature : 24°C
- Relative Humidity :52%
- Test Enginner : James

Number of Hopping Frequency (Channel)	Limits (Channel)
79	15





5.6.5 Number of Hopping Frequency



Date: 17.MAY.2007 15:27:22

## 5.7 Hopping Channel Bandwidth

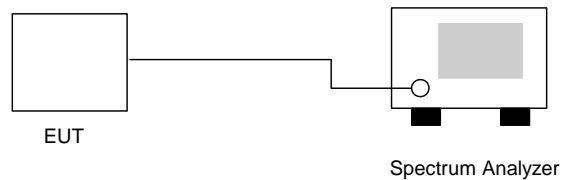
### 5.7.1 Measuring Instruments :

As described in chapter 9 of this test report.

### 5.7.2 Test Procedure :

1. The transmitter output was connected to the spectrum analyzer by a low loss cable.
2. Set RBW of spectrum analyzer to 30kHz and VBW to 300kHz.
3. The Hopping Channel bandwidth is defined as the total spectrum the power of which is higher than peak power minus 20 dB.

### 5.7.3 Test Setup Layout :



### 5.7.4 Test Result : See spectrum analyzer plots below

- Application Type : BT
- Temperature : 24°C
- Relative Humidity : 52%
- Test Enginner : James

Channel	Frequency (MHz)	Hopping Channel Bandwidth (MHz)	Limits (MHz)	Plot Ref. No.
00	2402	0.882	1.000	Mode 1
39	2441	0.882	1.000	Mode 2
78	2480	0.882	1.000	Mode 3



5.7.5 Hopping Channel Bandwidth

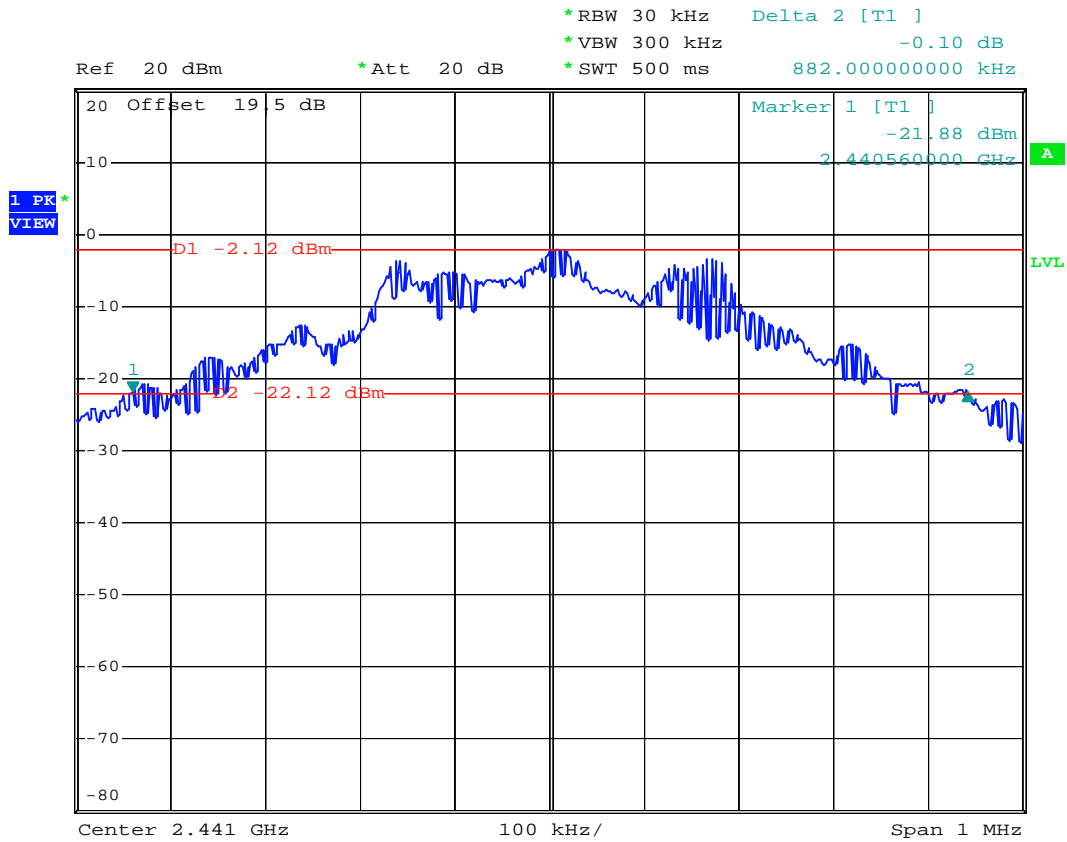
Mode 1



Date: 17.MAY.2007 14:49:34



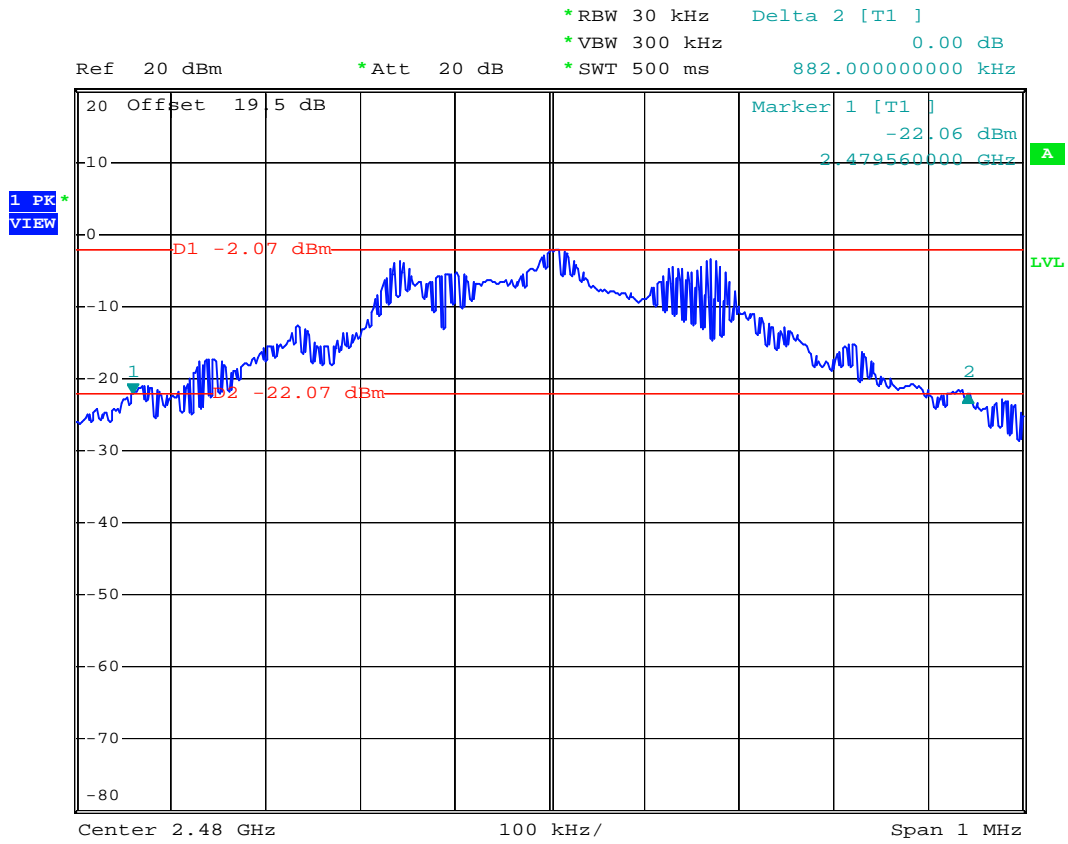
Mode 2



Date: 17.MAY.2007 14:51:22



Mode 3



Date: 17.MAY.2007 14:52:14

### 5.8 Dwell Time of Each Frequency

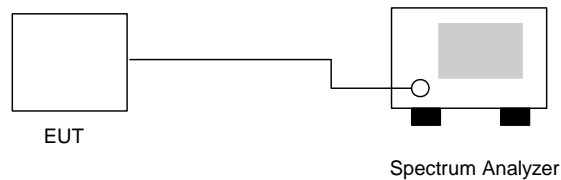
#### 5.8.1 Measuring Instruments :

As described in chapter 9 of this test report.

#### 5.8.2 Test Procedure :

1. The transmitter output was connected to the spectrum analyzer by a low loss cable.
2. Set RBW of spectrum analyzer to 1MHz and VBW to 1MHz.
3. Set the center frequency on any frequency would be measure and set the frequency span to zero span.
4. The calculate  $= 79 * 0.4 * (1600/79) * t$  (t = the time duration of one single pulse )

#### 5.8.3 Test Setup Layout :



#### 5.8.4 Test Result : See spectrum analyzer plots below

- Application Type : BT
- Temperature : 24°C
- Relative Humidity : 52%
- Test Enginner : James

Ch00

Package Mode	Average Hopping Channel	Package Transfer Time (us)	Dwell Time (s)	Limit (s)
DH1	9	444.00	0.12627	0.4
DH3	5.1	1730.00	0.27881	0.4
DH5	3.6	3050.00	0.34697	0.4



CH39

Package Mode	Average Hopping Channel	Package Transfer Time (us)	Dwell Time (s)	Limit (s)
DH1	9.1	448.00	0.12883	0.4
DH3	4.9	1710.00	0.26478	0.4
DH5	3	3010.00	0.28535	0.4

CH78

Package Mode	Average Hopping Channel	Package Transfer Time (us)	Dwell Time (s)	Limit (s)
DH1	9.2	440.00	0.12792	0.4
DH3	5	1710.00	0.27018	0.4
DH5	3.5	2990.00	0.33069	0.4

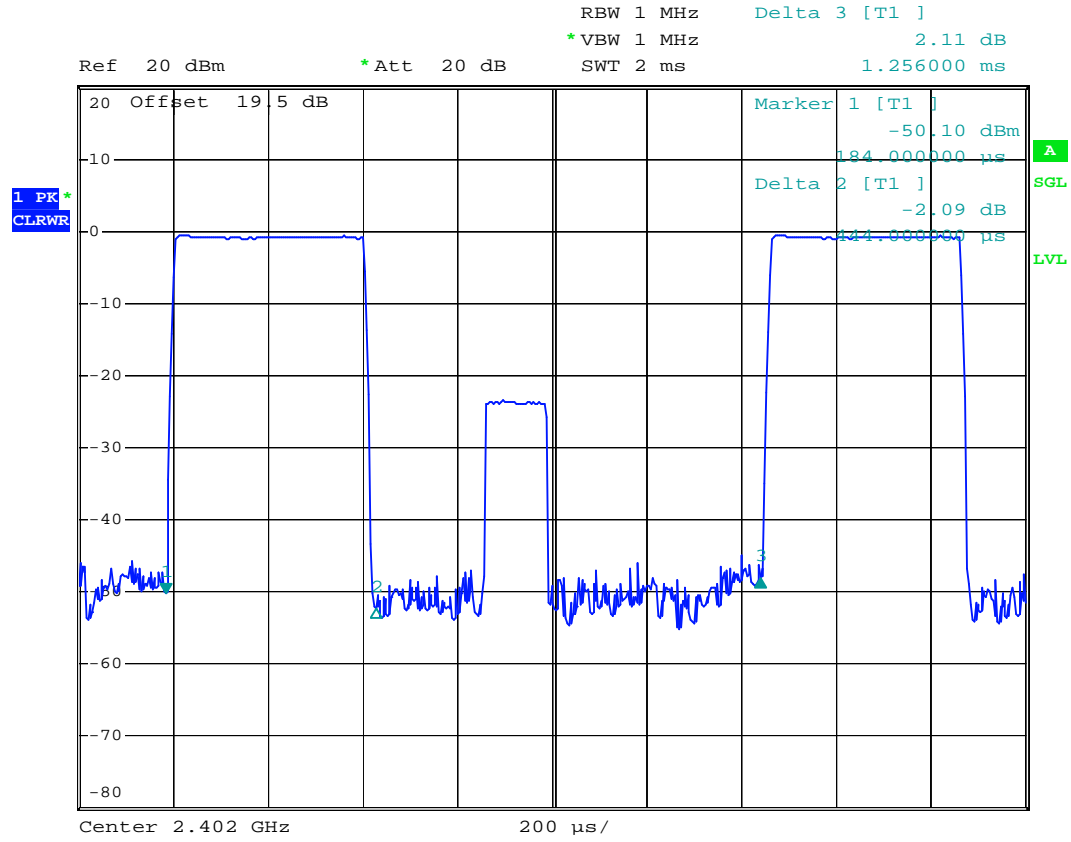
Remark:

1. Dwell Time=79(channels) x 0.4(s) x average hopping channel x package transfer time
2. 79channels come from the Hopping Channel number.
3. Average Hopping Channel = hops/sweep time
4. t: Package Transfer Time(us)



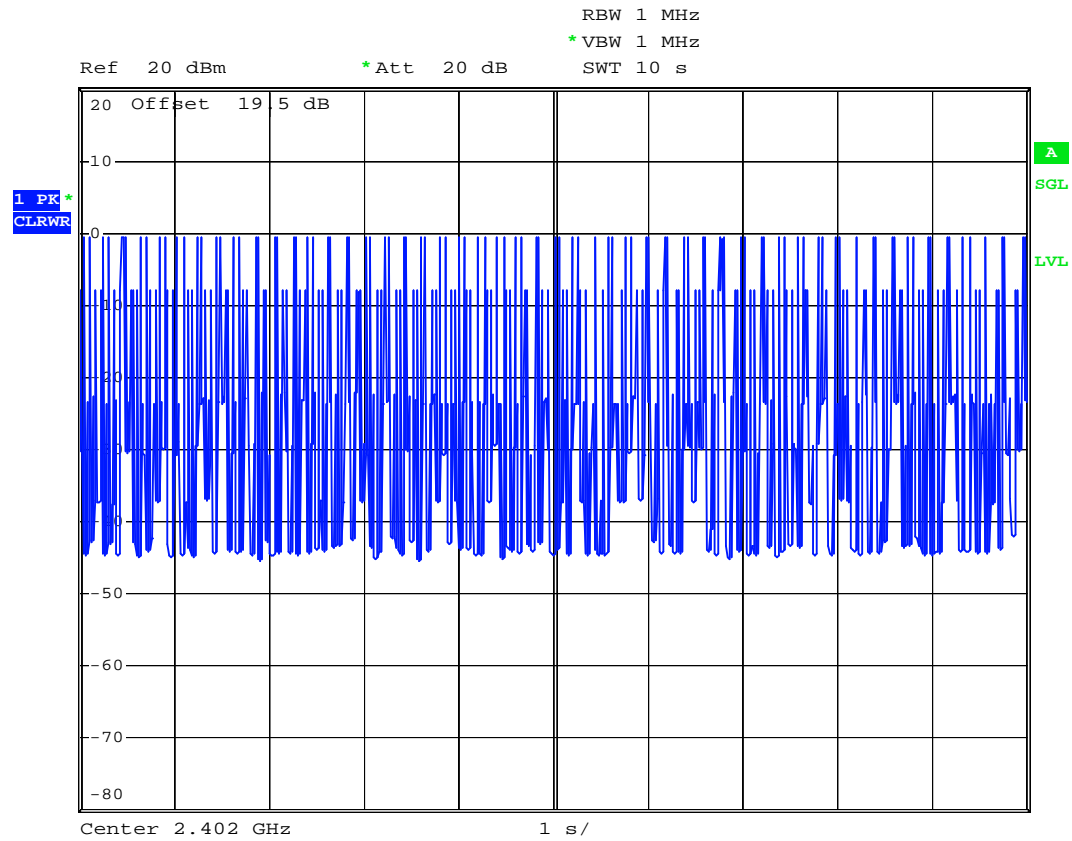
5.8.5 Dwell Time

DH1 (CH00)



Date: 17.MAY.2007 14:58:13

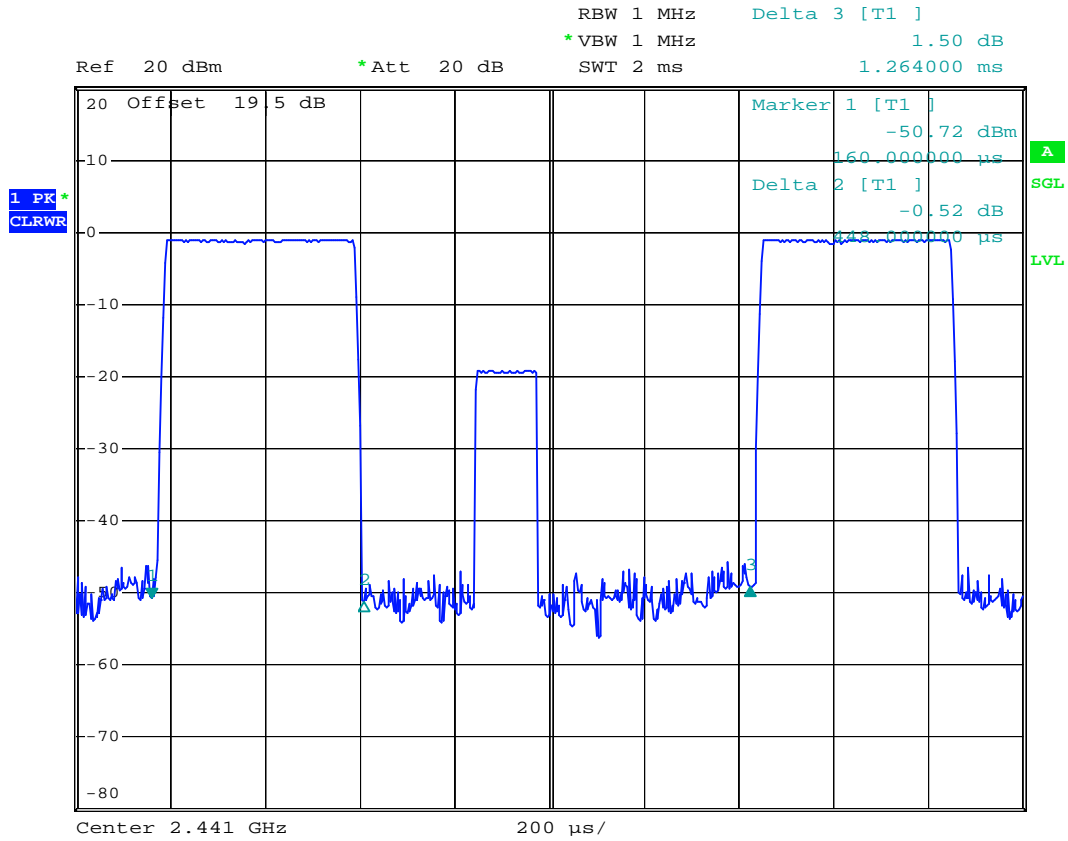




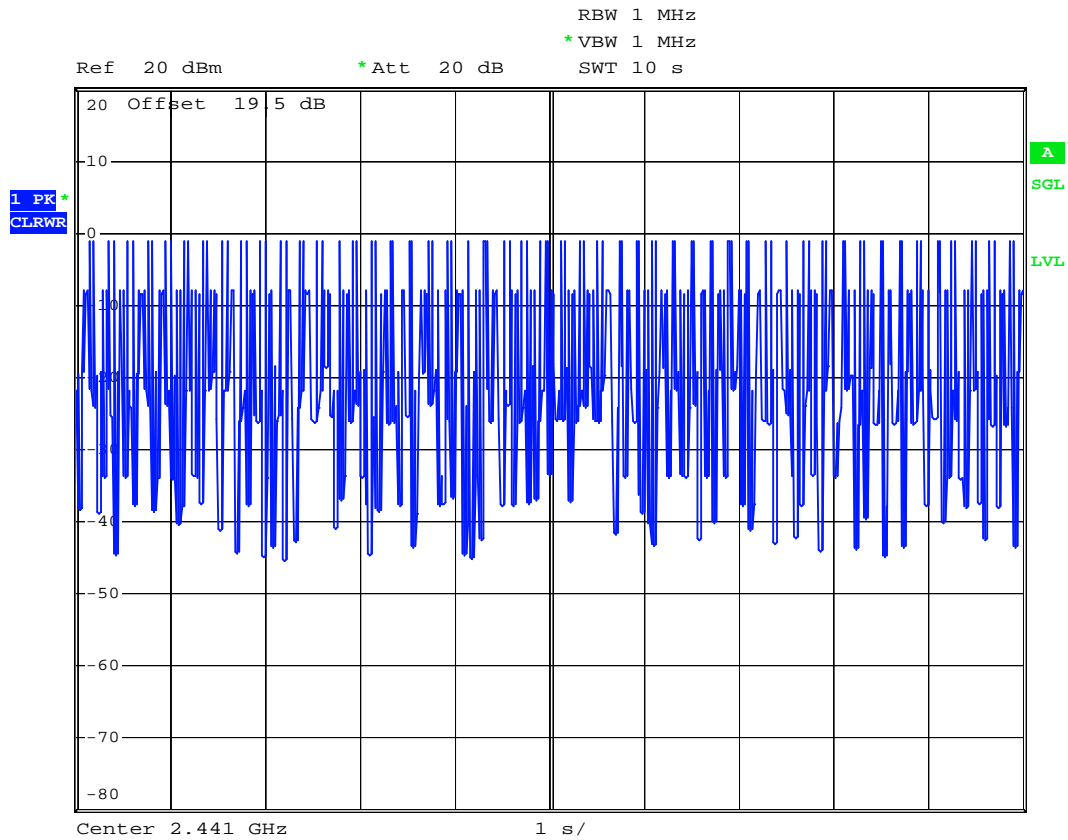
Date: 17.MAY.2007 15:04:54



DH1 (CH39)



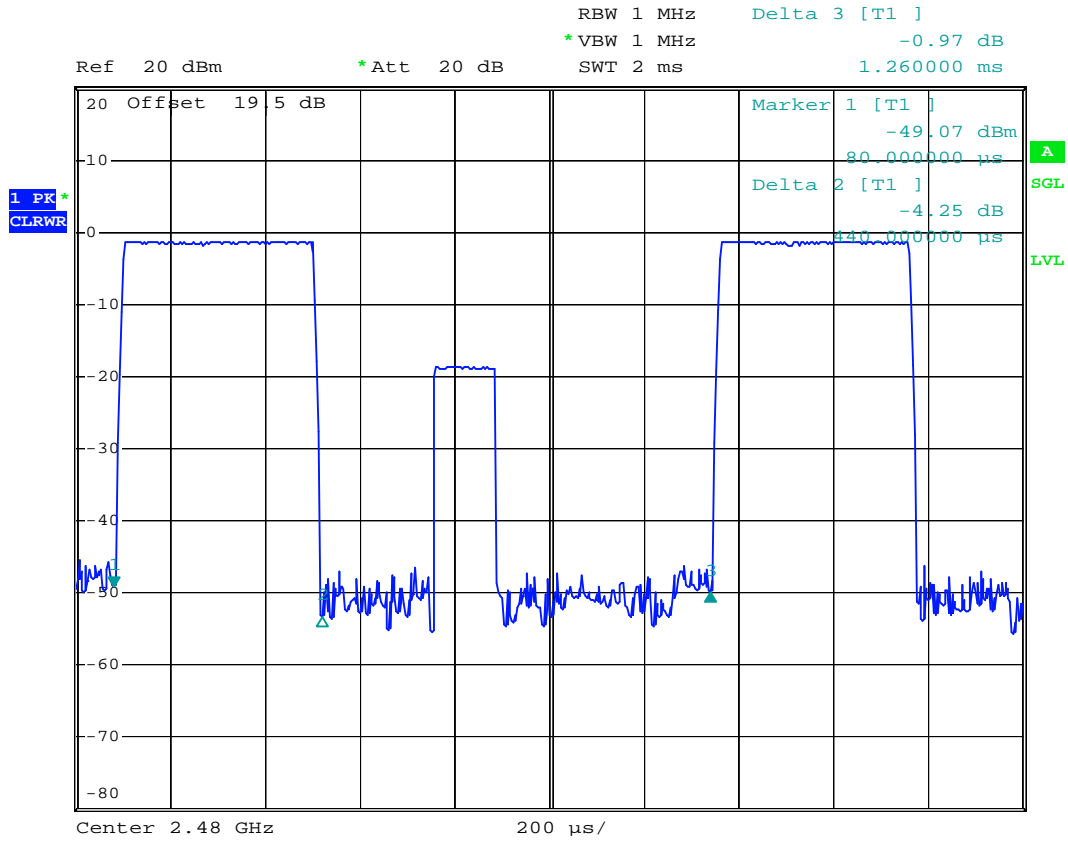
Date: 17.MAY.2007 14:58:56



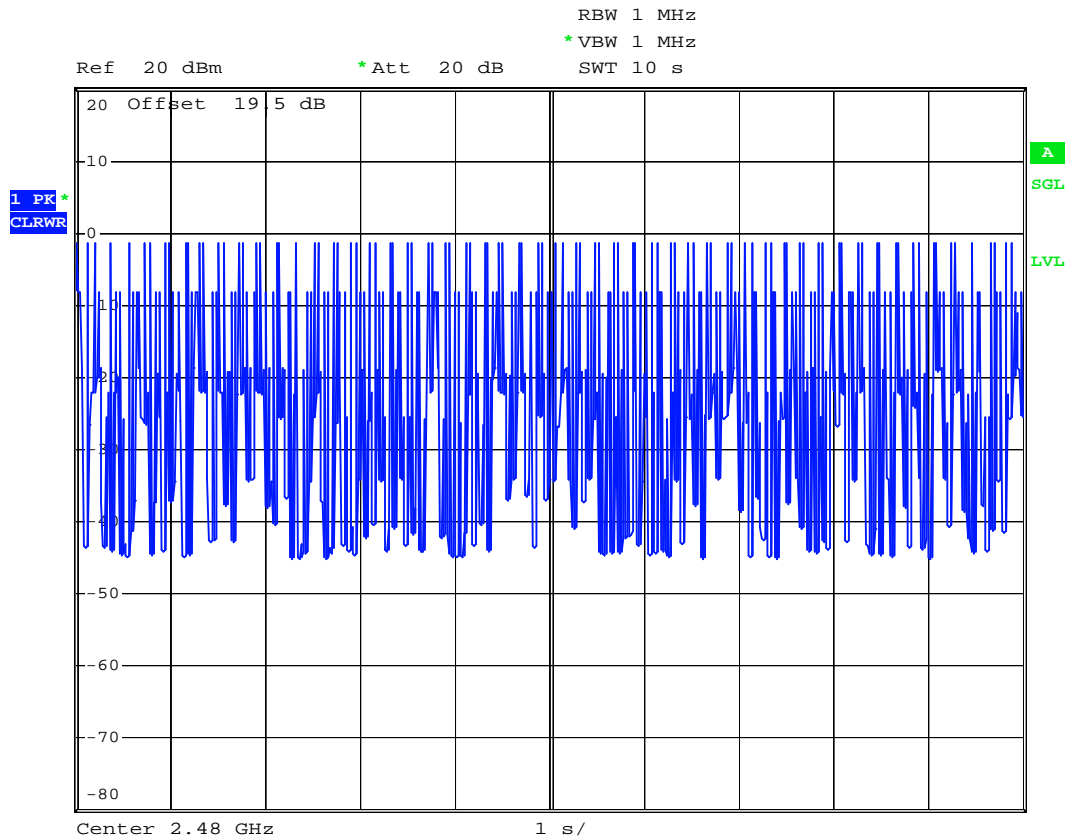
Date: 17.MAY.2007 15:05:30



DH1 (CH78)



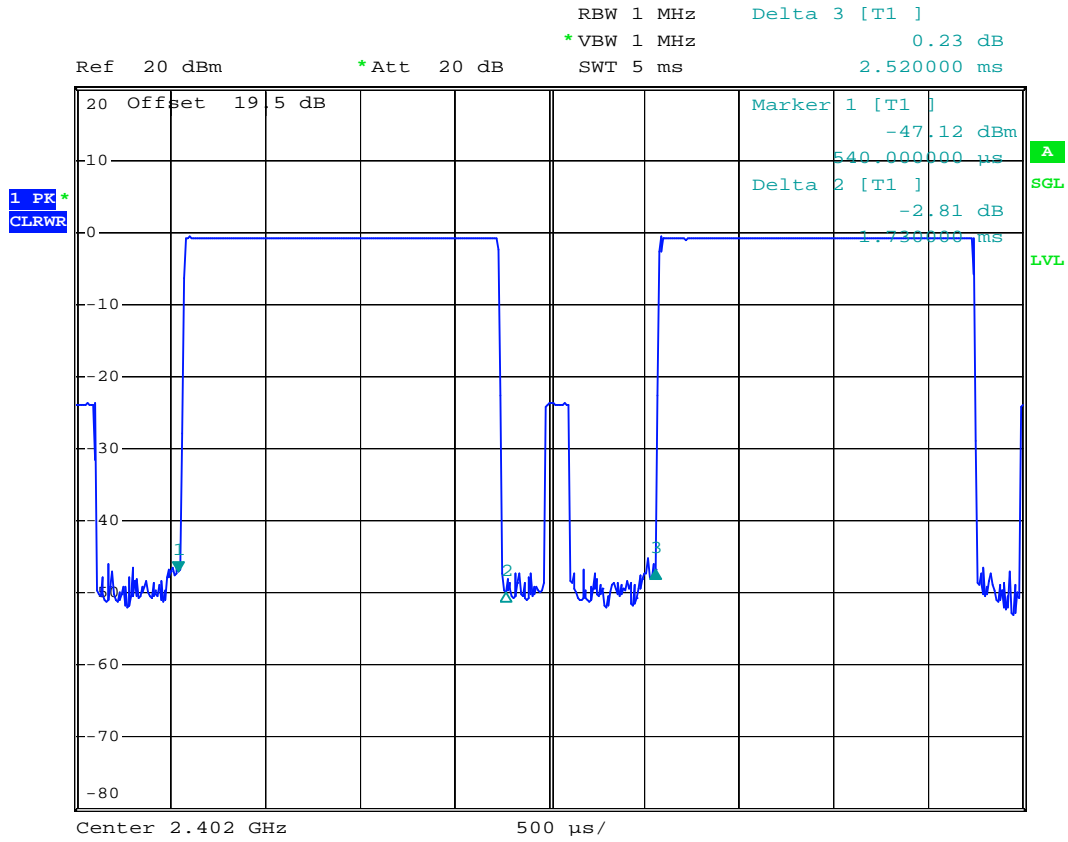
Date: 17.MAY.2007 14:59:59



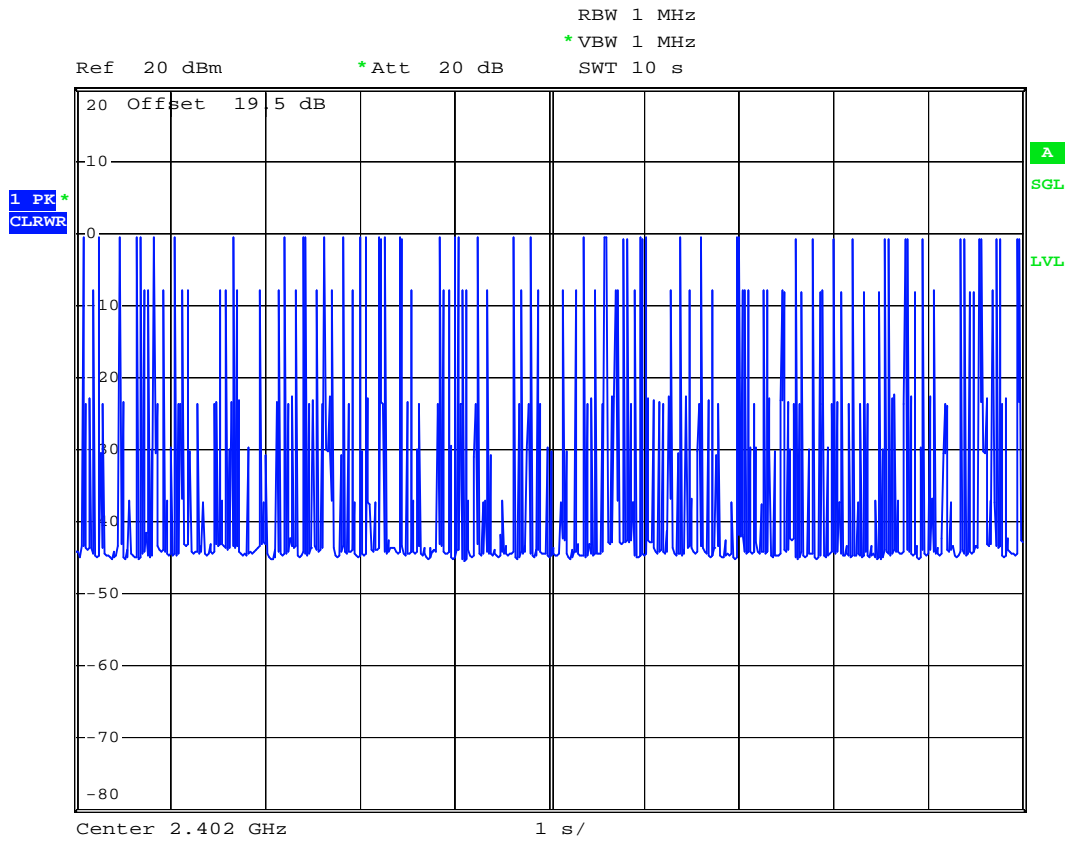
Date: 17.MAY.2007 15:05:48



DH3 (CH00)



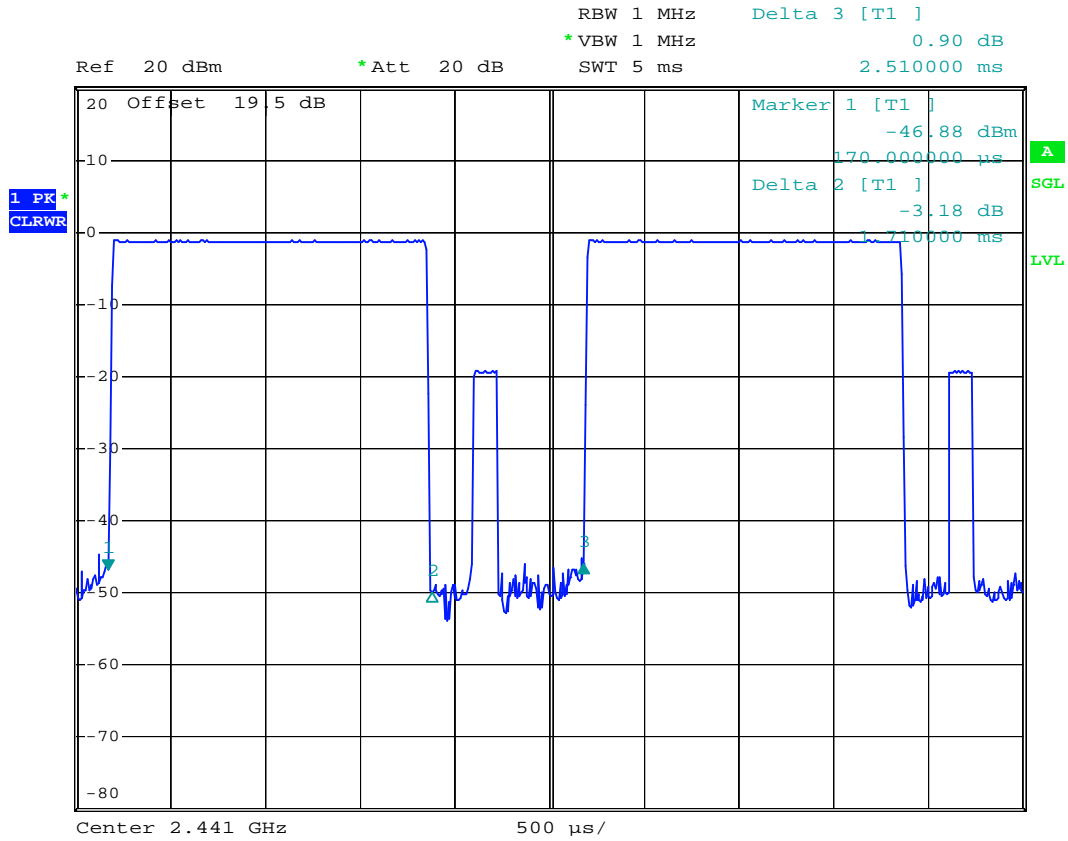
Date: 17.MAY.2007 15:00:53



Date: 17.MAY.2007 15:06:20

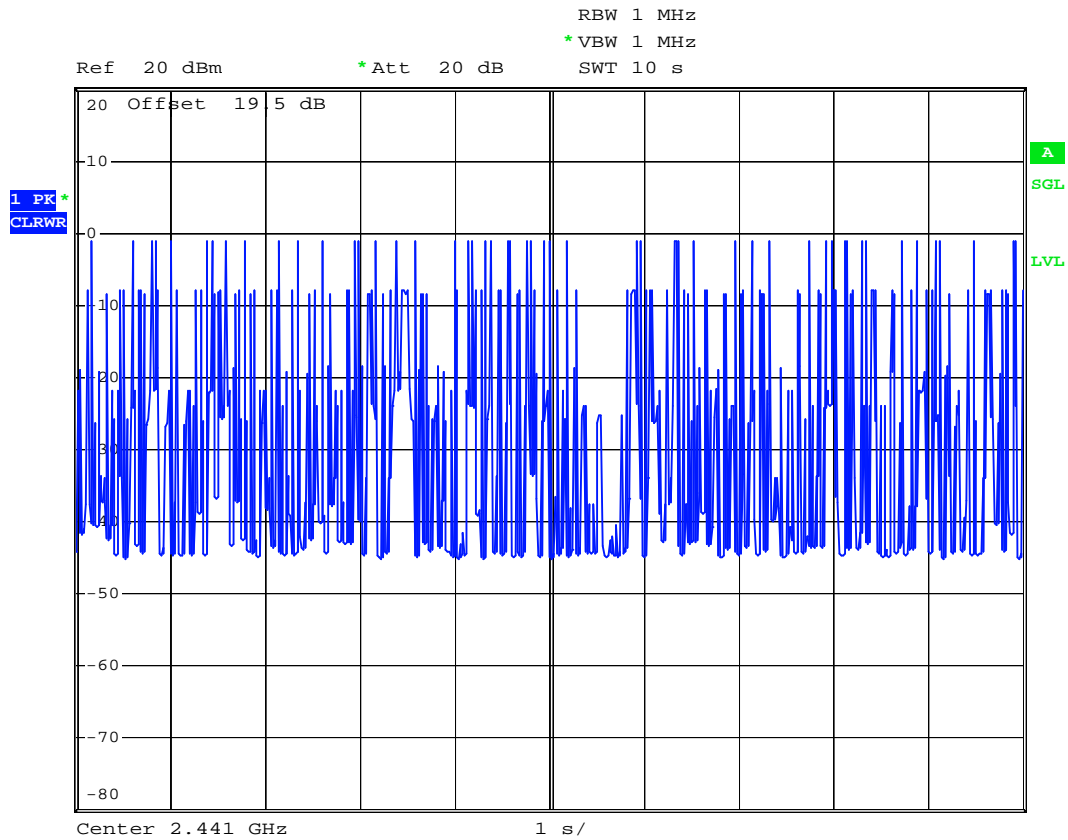


DH3 (CH39)



Date: 17.MAY.2007 15:01:42

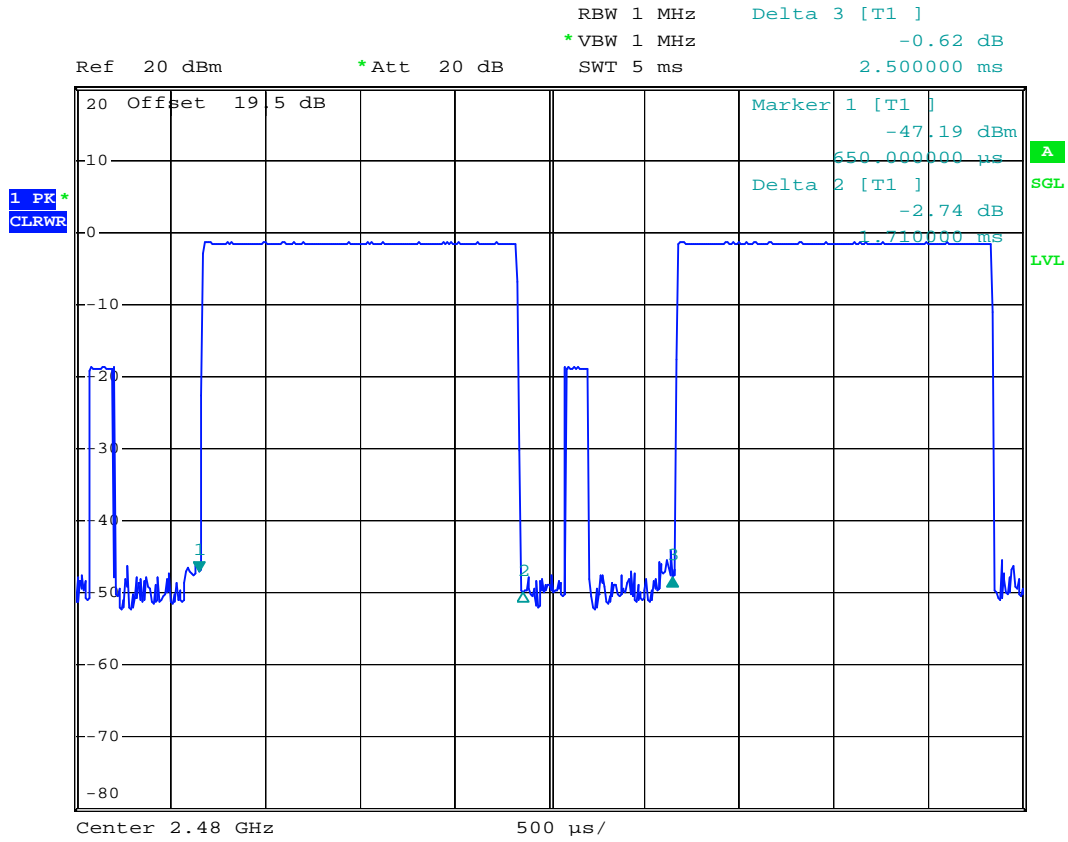




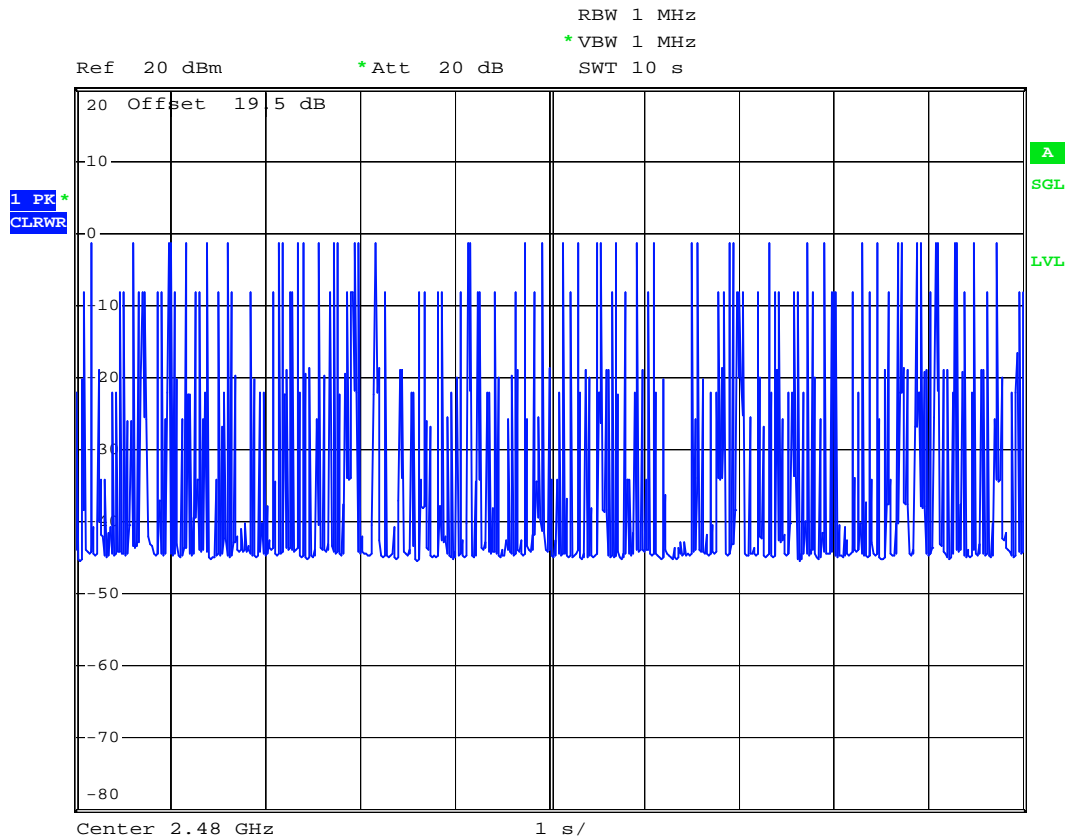
Date: 17.MAY.2007 15:06:39



DH3 (CH78)



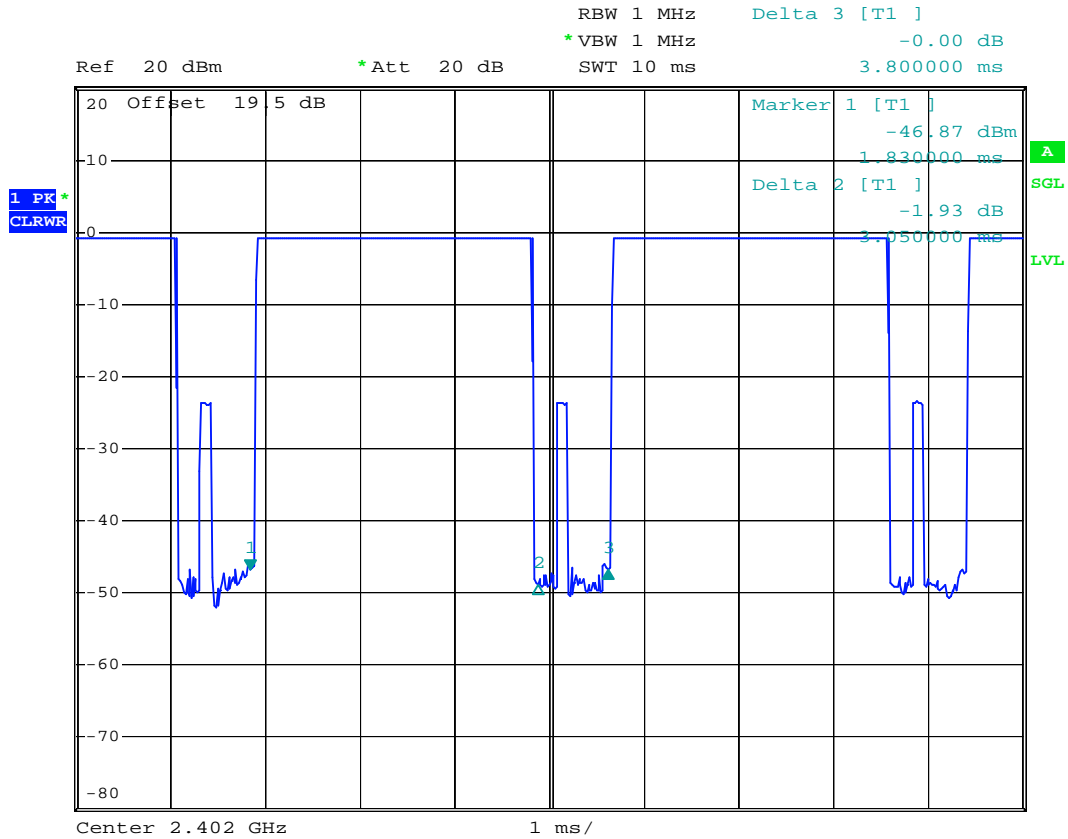
Date: 17.MAY.2007 15:02:11



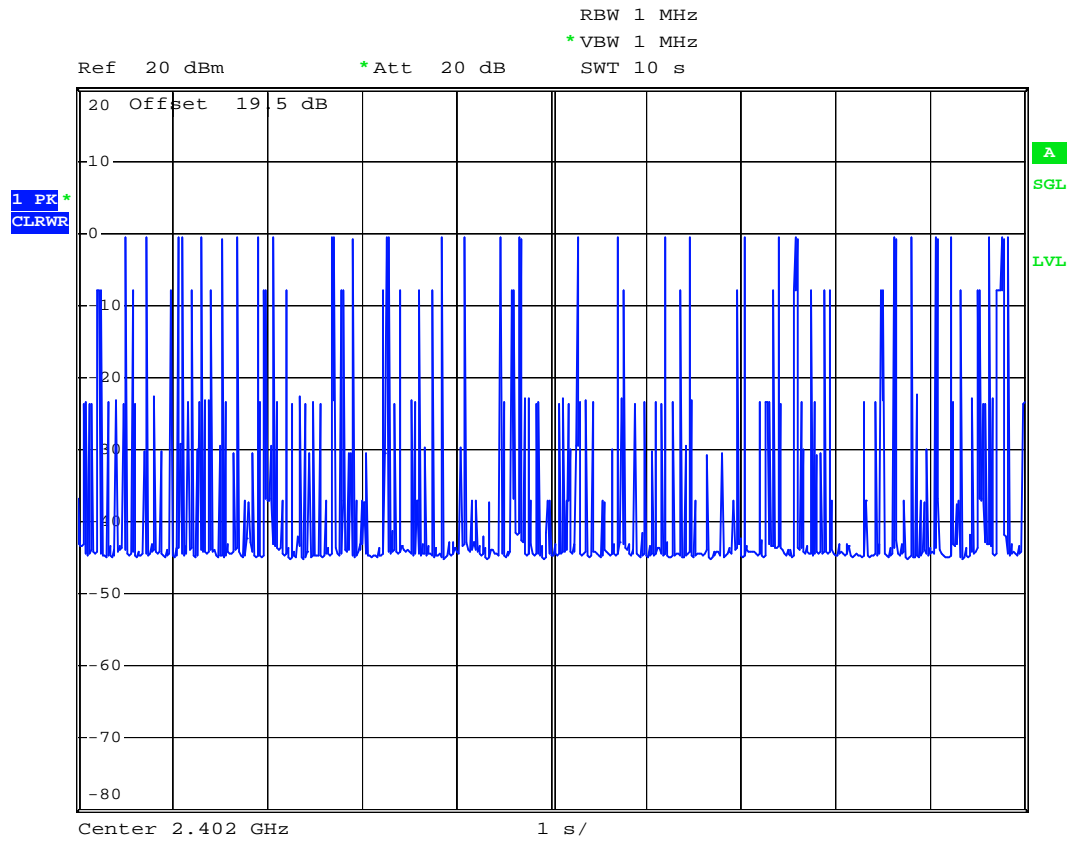
Date: 17.MAY.2007 15:07:19



DH5 (CH00)



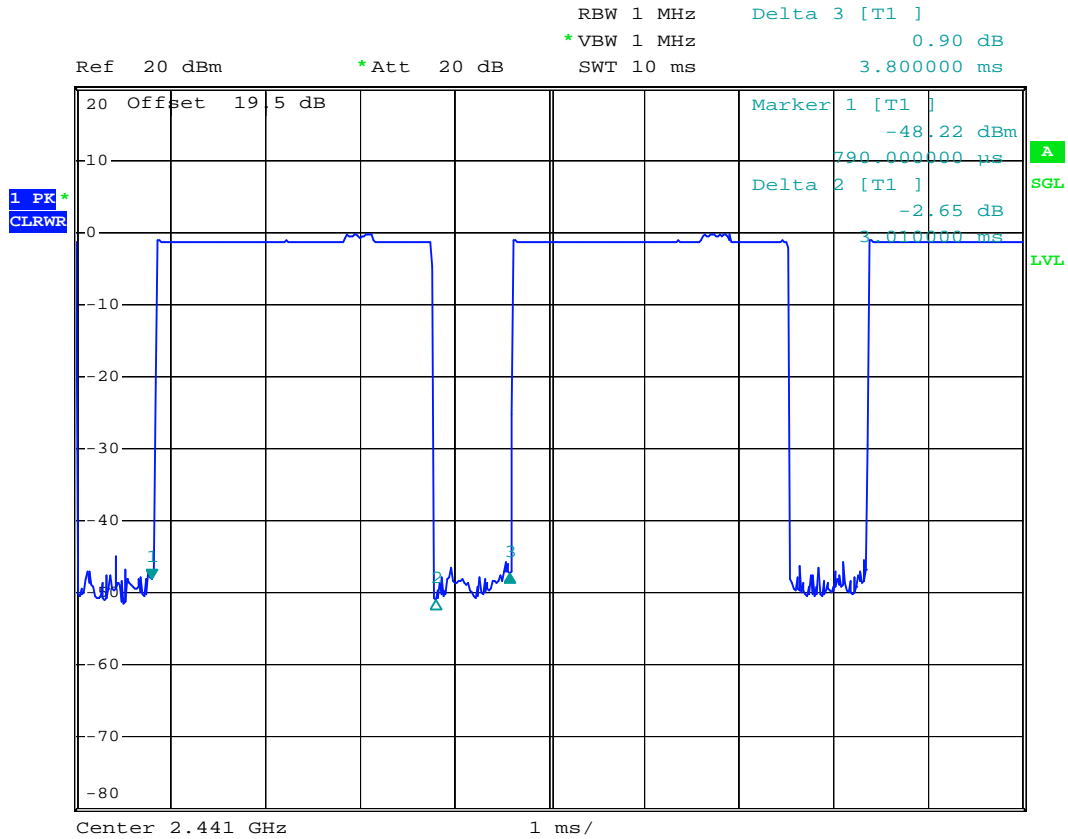
Date: 17.MAY.2007 15:02:59



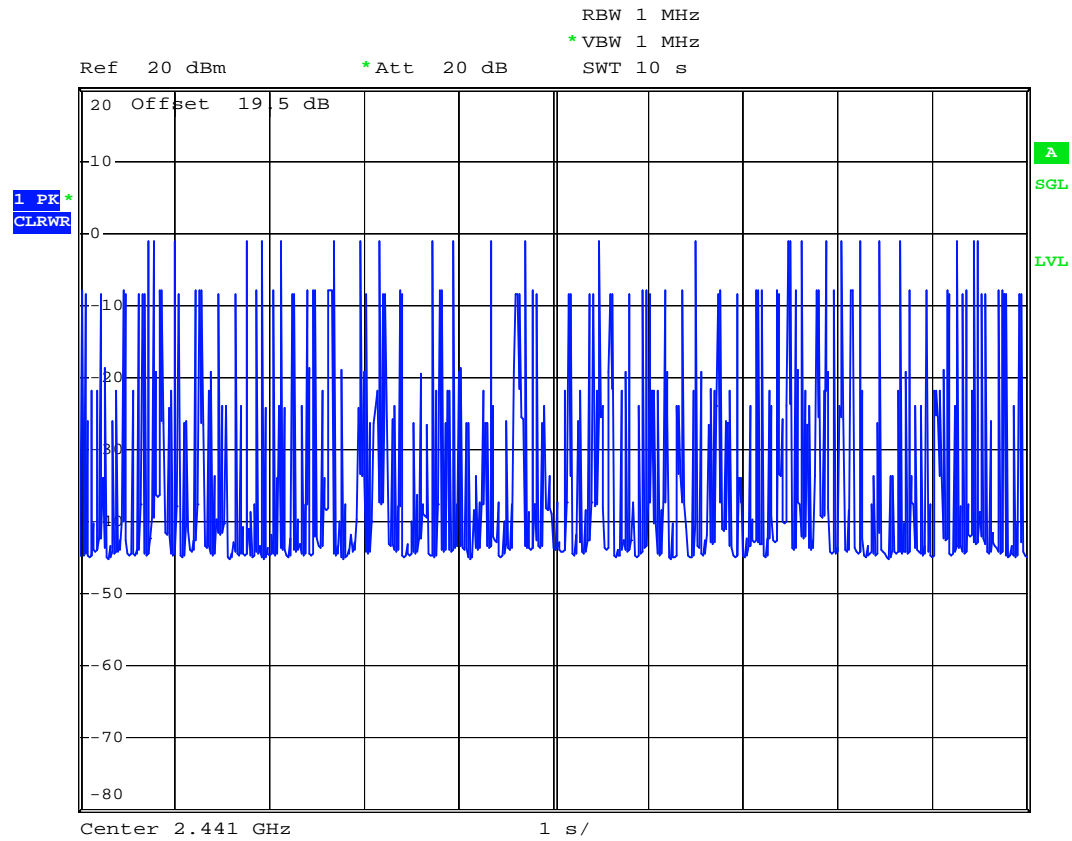
Date: 17.MAY.2007 15:07:47



DH5 (CH39)



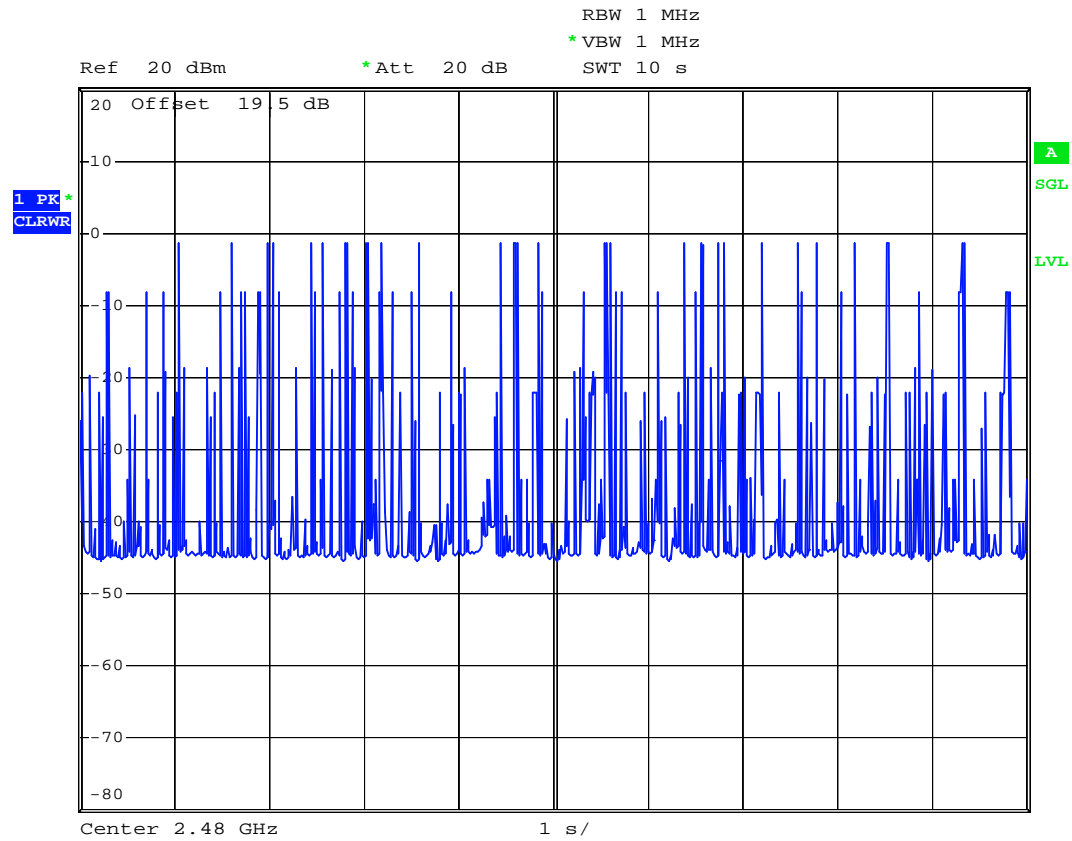
Date: 17.MAY.2007 15:03:35



Date: 17.MAY.2007 15:08:24







Date: 17.MAY.2007 15:08:46

### 5.9 Peak Output Power Measurement

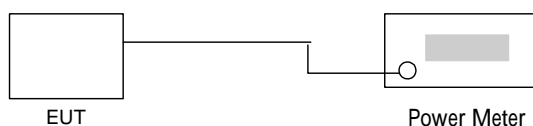
#### 5.9.1 Measuring Instruments :

As described in chapter 6 of this test report.

#### 5.9.2 Test Procedure :

1. The antenna port ( RF output ) of the EUT was connected to the input ( RF input ) of a power meter for WLAN measurement. The power is equal to the reading level on power meter plus cable loss at the EUT antenna terminal.
2. The antenna port(RF output) of the EUT was connected to the input (RF input) of a spectrum analyzer for BT measurement. The cable loss has been offset before testing.

#### 5.9.3 Test Setup Layout :



#### 5.9.4 Test Result :

- Application Type : WLAN 802.11b/g and BT
- Temperature : 24°C
- Relative Humidity : 52 %
- Test Enginner : James

#### **WLAN 802.11b**

Channel	Frequency (MHz)	Measured Output Power (dBm)	Limits (Watt/dBm )
01	2412	13.92	1W/30 dBm
06	2437	13.83	1W/30 dBm
11	2462	13.73	1W/30 dBm

#### **WLAN 802.11g**

Channel	Frequency (MHz)	Measured Output Power (dBm)	Limits (Watt/dBm )
01	2412	18.25	1W/30 dBm
06	2437	18.02	1W/30 dBm
11	2462	18.42	1W/30 dBm



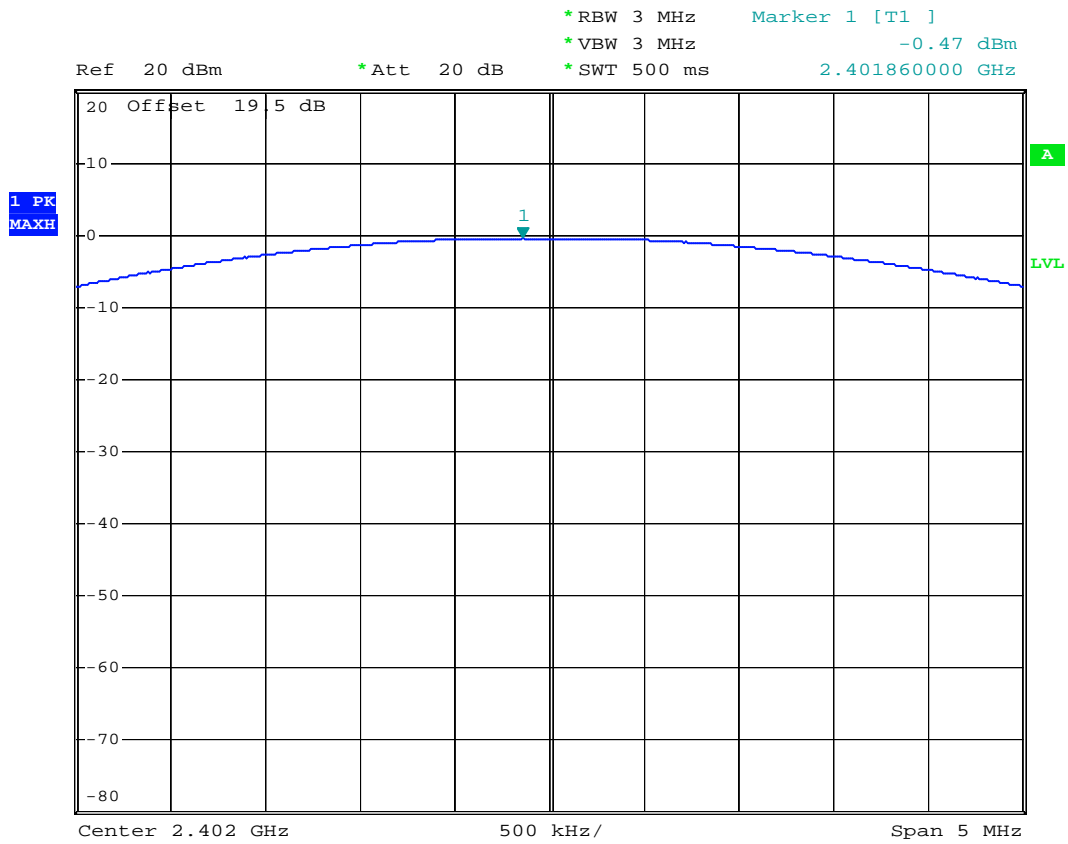
**Bluetooth**

Channel	Frequency (MHz)	Measured Output Power (dBm)	Limits (Watt/dBm )
00	2402	-0.47	1W/30 dBm
39	2441	-1.01	1W/30 dBm
78	2480	-1.22	1W/30 dBm



5.9.5 Output Power

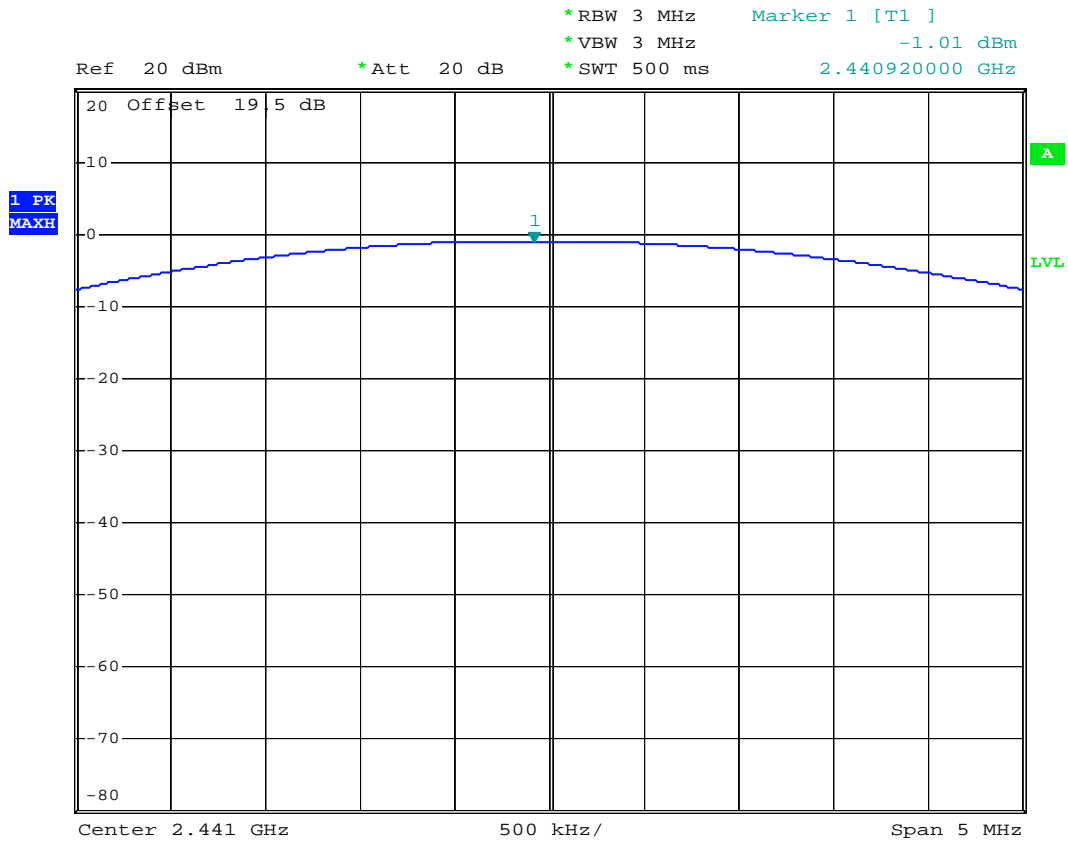
BT Mode : CH00 (2402MHz)



Date: 17.MAY.2007 14:47:40



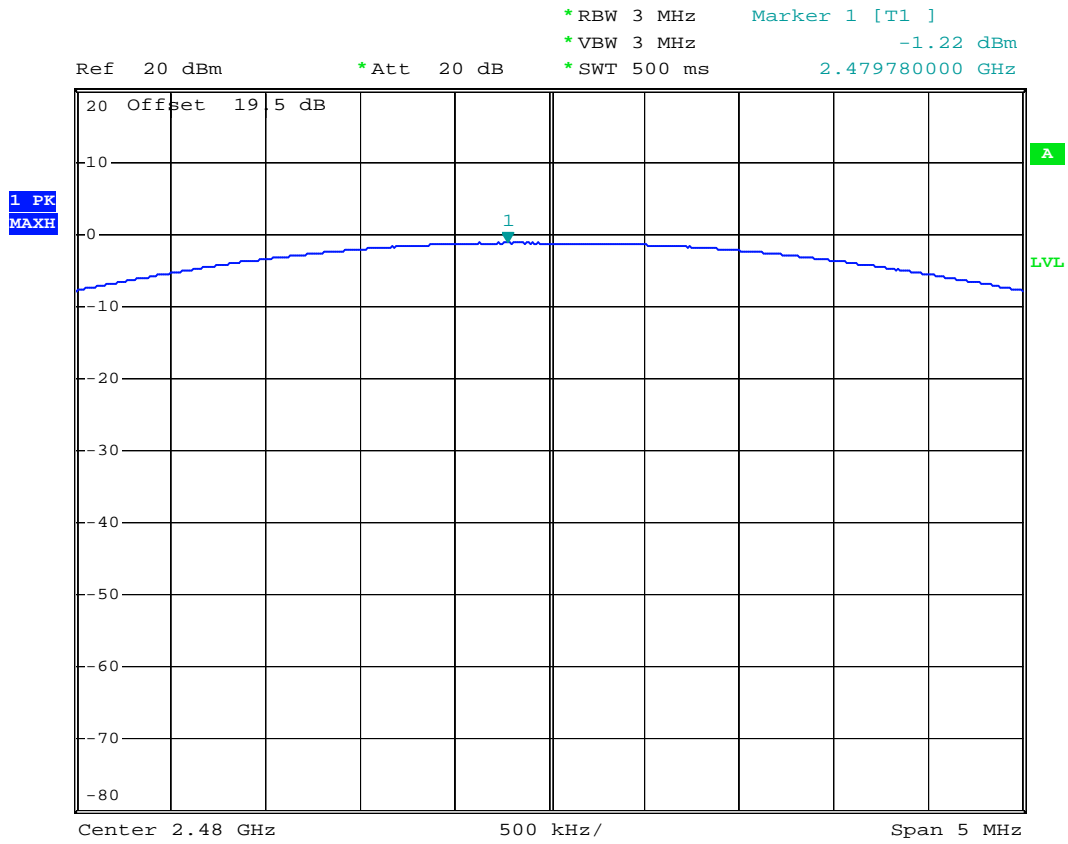
BT Mode : CH39 (2441MHz)



Date: 17.MAY.2007 14:47:53



BT Mode : CH78 (2480MHz)



Date: 17.MAY.2007 14:48:11



## **5.10 Conducted Emission**

### **5.10.1 Measuring Instruments**

As described in chapter 6 of this test Report.

### **5.10.2 Test Procedures :**

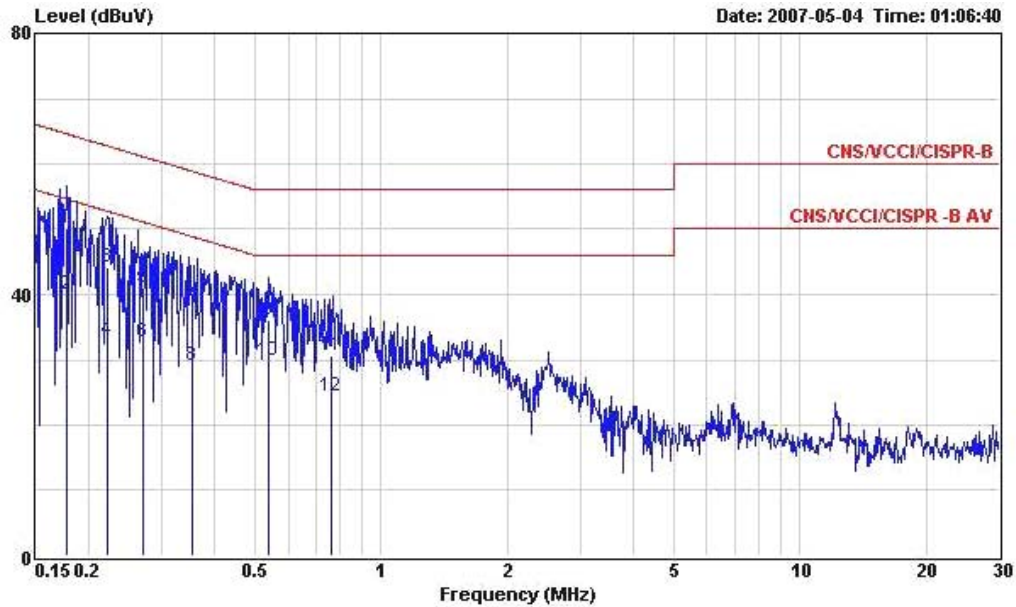
- a. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
- b. Connect EUT to the power port of a line impedance stabilization network (LISN).
- c. All the support units are connected to the other LISN.
- d. The LISN provides 50 ohm coupling impedance for the measuring instrument.
- e. The FCC states that a 50 ohm, 50 microhenry LISN should be used.
- f. Both sides of AC line were checked for maximum conducted interference.
- g. The frequency range from 150 kHz to 30 MHz was searched.
- h. Set the test-receiver system to Peak Detect Function and specified bandwidth with Maximum Hold Mode.



5.10.3 Test Data

- Temperature : 24 °C
- Relating Humidity : 52 %
- Test Enginner : James
- Test Mode : Mode 1

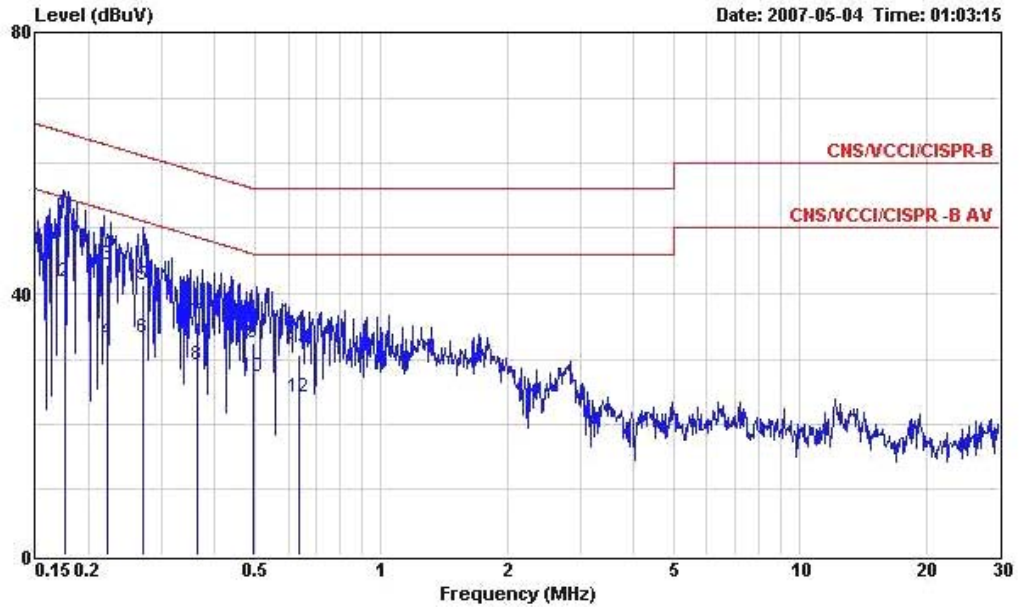
The test that passed at minimum margin was marked by the frame in the following table.



Site : CO01-HY  
 Condition : CNS/VCCI/CISPR-B 2001/004 200604 LINE  
 EUT : PDA PHONE  
 Power : 120V/50Hz  
 Model : FD742004-01  
 Memo : GSM850 IDLE+E1 LINK+WLAN LINK+EARPHONE  
 Memo : +CAMERA+ADAPTOR+GPS Rx  
 Memo :

	Freq	Level	Over	Limit	Read	Probe	Cable	
	MHz	dBuV	Limit	Line	Level	Factor	Loss	Remark
			dB	dBuV	dBuV	dB	dB	
1	0.178	50.20	-14.38	64.58	49.97	0.10	0.13	QP
2	0.178	40.08	-14.50	54.58	39.85	0.10	0.13	Average
3	0.222	44.07	-18.67	62.74	43.80	0.10	0.17	QP
4	0.222	32.98	-19.76	52.74	32.71	0.10	0.17	Average
5	0.270	41.13	-19.99	61.12	40.80	0.10	0.23	QP
6	0.270	32.68	-18.44	51.12	32.35	0.10	0.23	Average
7	0.354	38.20	-20.66	58.86	37.79	0.10	0.31	QP
8	0.354	28.99	-19.87	48.86	28.58	0.10	0.31	Average
9	0.538	36.10	-19.90	56.00	35.73	0.10	0.27	QP
10	0.538	29.77	-16.23	46.00	29.40	0.10	0.27	Average
11	0.761	30.78	-25.22	56.00	30.49	0.10	0.19	QP
12	0.761	24.48	-21.52	46.00	24.19	0.10	0.19	Average





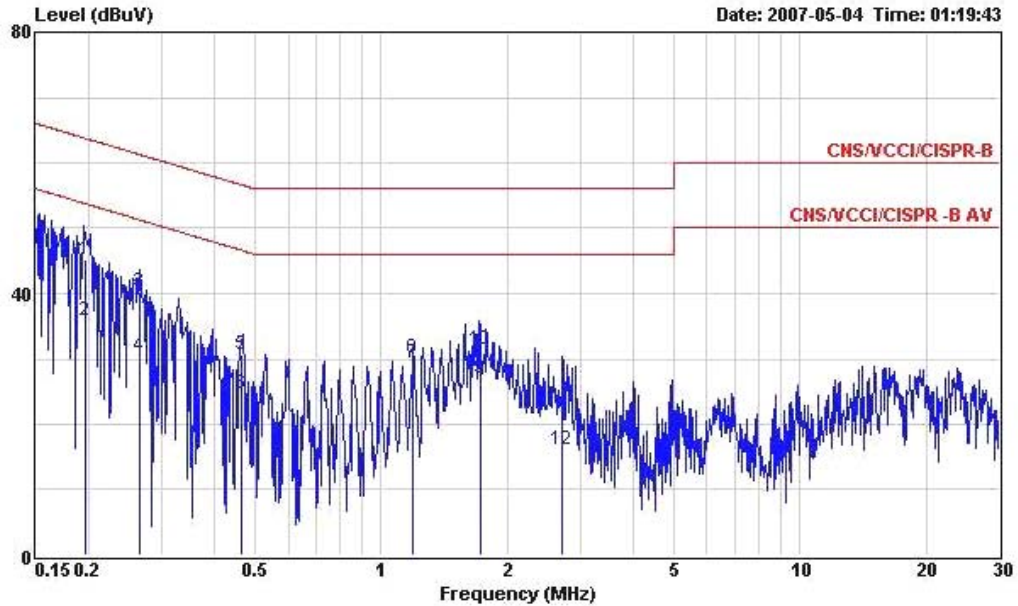
Site : CO01-HY  
 Condition : CNS/VCCI/CISPR-B 2001/004 200604 NEUTRAL  
 EUT : PDA PHONE  
 Power : 120V/60Hz  
 Model : FD742004-01  
 Memo : GSM850 IDLE+B1 LINK+WLAN LINK+EARPHONE  
 Memo : +CAMERA+ADAPTOR+GPS Rx  
 Memo :

	Freq	Level	Over	Limit	Read	Probe	Cable	
	MHz	dBuV	Limit	Line	Level	Factor	Loss	Remark
			dB	dBuV	dBuV	dB	dB	
1	0.177	52.11	-12.54	64.65	51.88	0.10	0.13	QP
2	0.177	41.84	-12.81	54.65	41.61	0.10	0.13	Average
3	0.221	44.36	-18.41	62.77	44.09	0.10	0.17	QP
4	0.221	32.69	-20.08	52.77	32.42	0.10	0.17	Average
5	0.270	41.35	-19.77	61.12	41.02	0.10	0.23	QP
6	0.270	33.17	-17.95	51.12	32.84	0.10	0.23	Average
7	0.363	35.55	-23.11	58.66	35.14	0.10	0.31	QP
8	0.363	29.08	-19.58	48.66	28.67	0.10	0.31	Average
9	0.497	32.57	-23.48	56.05	32.18	0.10	0.29	QP
10	0.497	27.31	-18.74	46.05	26.92	0.10	0.29	Average
11	0.634	30.71	-25.29	56.00	30.38	0.10	0.23	QP
12	0.634	24.03	-21.97	46.00	23.70	0.10	0.23	Average



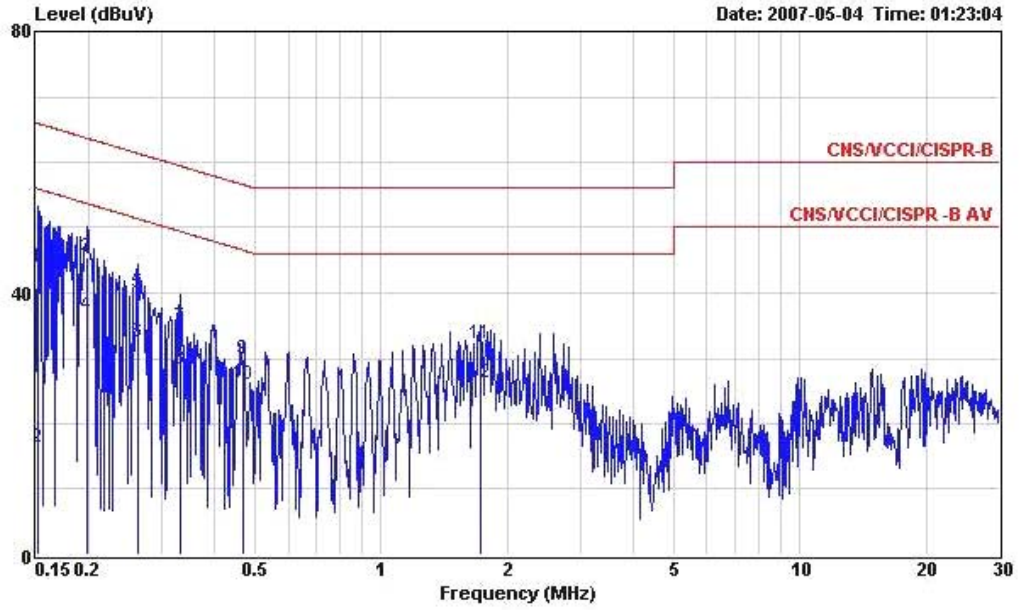
- Temperature : 24 °C
- Relating Humidity : 52 %
- Test Enginner : James
- Test Mode : Mode 2

**The test that passed at minimum margin was marked by the frame in the following table.**



Site : CO01-HY  
 Condition : CNS/VCCI/CISPR-B 2001/004 200604 LINE  
 EUT : PDA PHONE  
 Power : 120V/50Hz  
 Model : FD742004-01  
 Memo : GSM850 IDLE+B1 LINK+WLAN LINK+EARPHONE  
 Memo : +CAMERA+USB LINK+GPS Rx  
 Memo :

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.197	45.27	-18.47	63.74	45.03	0.10	0.14	QP
2	0.197	35.79	-17.95	53.74	35.55	0.10	0.14	Average
3	0.266	40.23	-21.01	61.24	39.91	0.10	0.22	QP
4	0.266	30.29	-20.95	51.24	29.97	0.10	0.22	Average
5	0.464	30.69	-25.93	56.62	30.29	0.10	0.30	QP
6	0.464	24.59	-22.03	46.62	24.19	0.10	0.30	Average
7	1.191	29.31	-16.69	46.00	29.04	0.10	0.17	Average
8	1.191	30.20	-25.80	56.00	29.93	0.10	0.17	QP
9	1.720	26.91	-19.09	46.00	26.54	0.10	0.27	Average
10	1.720	31.54	-24.46	56.00	31.17	0.10	0.27	QP
11	2.710	22.44	-33.56	56.00	22.04	0.14	0.26	QP
12	2.710	16.03	-29.97	46.00	15.63	0.14	0.26	Average



Site : CO01-HY  
 Condition : CNS/VCCI/CISPR-B 2001/004 200604 NEUTRAL  
 EUT : PDA PHONE  
 Power : 120V/60Hz  
 Model : FD742004-01  
 Memo : GSM850 IDLE+B1 LINK+WLAN LINK+EARPHONE  
 Memo : +CAMERA+USB LINK+GPS Rx  
 Memo :

	Freq	Level	Over	Limit	Read	Probe	Cable	
	MHz	dBuV	Limit	Line	Level	Factor	Loss	Remark
			dB	dBuV	dBuV	dB	dB	
1	0.151	43.84	-22.10	65.94	43.62	0.10	0.12	QP
2	0.151	16.42	-39.52	55.94	16.20	0.10	0.12	Average
3	0.199	45.40	-18.25	63.65	45.16	0.10	0.14	QP
4	0.199	36.54	-17.11	53.65	36.30	0.10	0.14	Average
5	0.263	39.93	-21.41	61.34	39.61	0.10	0.22	QP
6	0.263	32.40	-18.94	51.34	32.08	0.10	0.22	Average
7	0.330	34.86	-24.59	59.45	34.47	0.10	0.29	QP
8	0.330	28.39	-21.06	49.45	28.00	0.10	0.29	Average
9	0.466	29.76	-26.82	56.58	29.36	0.10	0.30	QP
10	0.466	26.00	-20.58	46.58	25.60	0.10	0.30	Average
11	1.729	32.22	-23.78	56.00	31.85	0.10	0.27	QP
12	1.729	26.14	-19.86	46.00	25.77	0.10	0.27	Average



## **5.11 Radiated Emission Measurement**

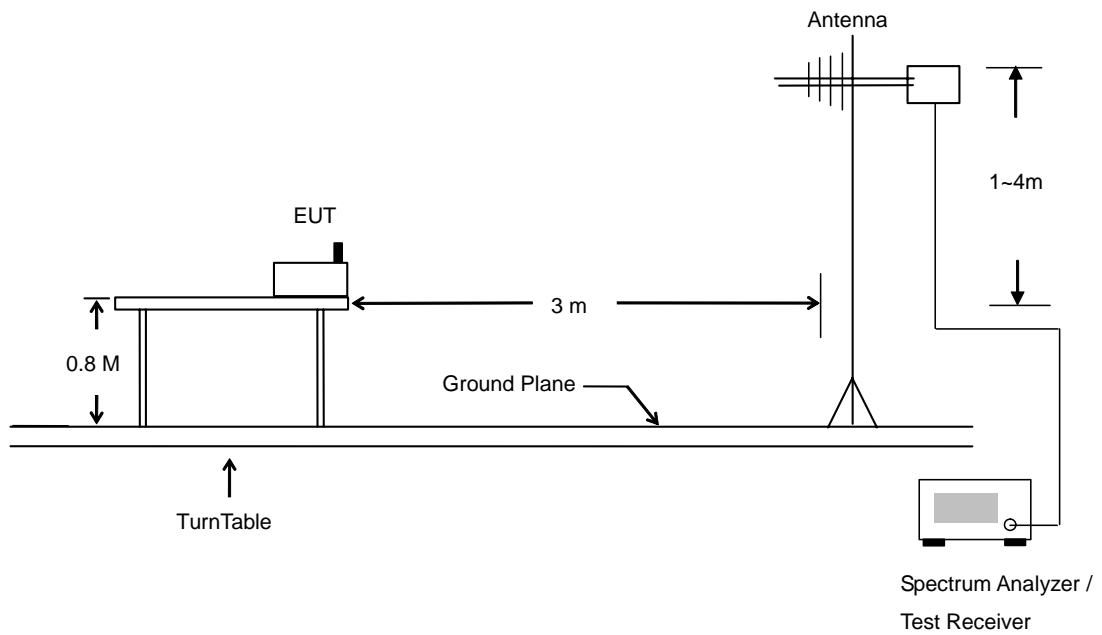
### **5.11.1 Measuring Instruments**

As described in chapter 6 of this Report.

### **5.11.2 Test Procedures**

- a. The EUT was placed on a rotatable table top 0.8 meter above ground.
- b. The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
- c. The table was rotated 360 degrees to determine the position of the highest radiation.
- d. The antenna is a broadband antenna and its height is varied between one meter and four meters above ground to find the maximum value of the field strength for both horizontal polarization and vertical polarization of the antenna.
- e. For each suspected emission, the EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading.
- f. Set the test-receiver system to Peak or CISPR quasi-peak Detect Function and specified bandwidth with Maximum Hold Mode.
- g. For testing below 1GHz, If the emission level of the EUT in peak mode was 3 dB lower than the limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be repeated one by one using the quasi-peak method and reported.
- h. For testing above 1GHz, the emission level of the EUT in peak mode was 20dB lower than average limit (that means the emission level in average mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.

5.11.3 Typical Test Setup Layout of Radiated Emission

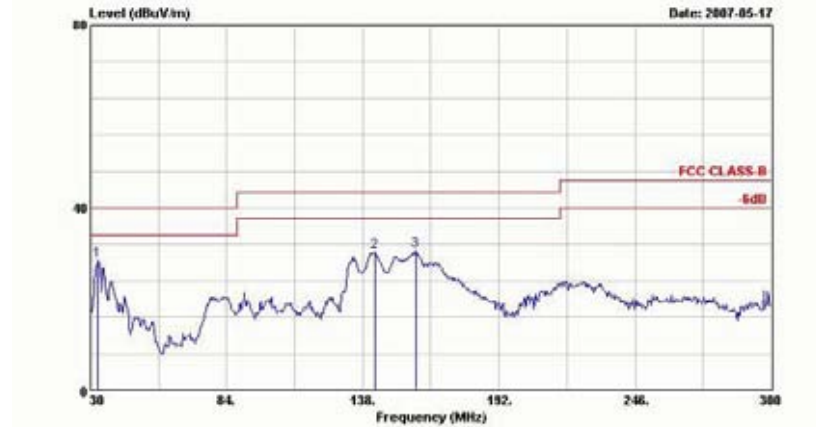




5.11.4 Test Data

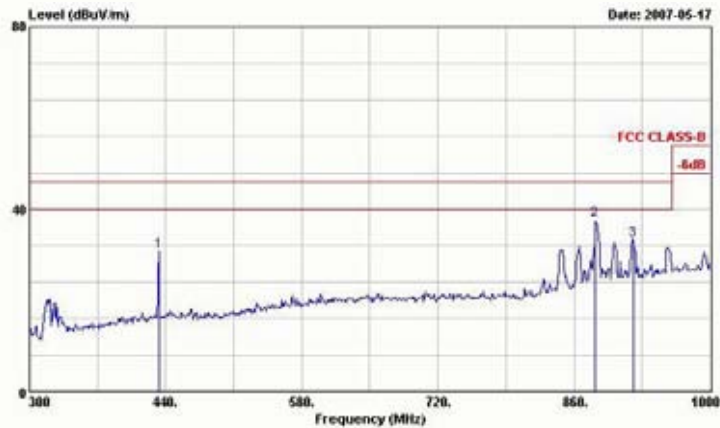
- Temperature : 26°C
- Relating Humidity : 58%
- Test Enginner :     Andy
- Test Mode : Mode 1
- Polarization : Horizontal

The test that passed at minimum margin was marked by the frame in the following table.



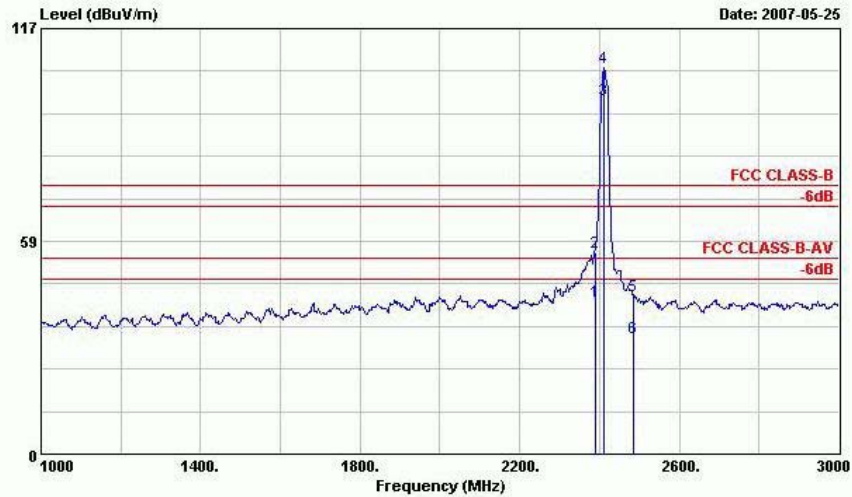
Site : 03CH04-HY  
 Condition: FCC CLASS-B 3m ANT2724 HORIZONTAL  
 EUT : PDA Phone  
 POWER : 120Vac/60Hz  
 MODEL : FR 742004-01  
 MODE : 11b Tx\_Ch01;2412MHz  
 Data Rate: 11  
 Plane : E2

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table		
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	32.970	28.33	-11.67	40.00	44.36	16.33	0.66	33.02	---	---	Peak
2	142.860	30.31	-13.19	43.50	51.18	10.63	1.40	32.90	---	---	Peak
3	159.060	30.41	-13.09	43.50	52.59	9.36	1.44	32.99	---	---	Peak



Site : 03CH04-HY  
 Condition: FCC CLASS-B 3m ANT2724 HORIZONTAL  
 EUT : PDA Phone  
 POWER : 120Vac/60Hz  
 MODEL : FR 742004-01  
 MODE : 11b Tx\_Ch01;2412MHz  
 Data Rate: 11  
 Plane : E2

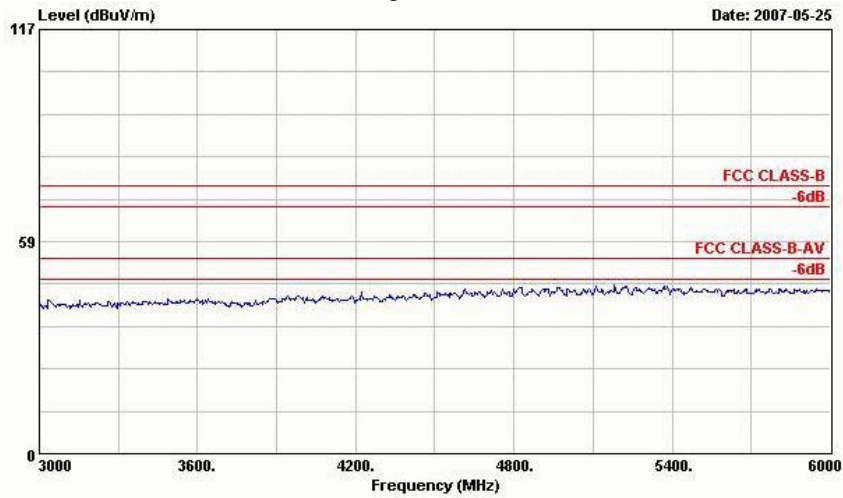
	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table		
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	433.000	30.73	-15.27	46.00	44.94	16.13	2.43	32.78	---	---	Peak
2	881.700	37.50	-8.50	46.00	42.65	22.82	3.61	31.59	100	286	Peak
3	920.900	33.20	-12.80	46.00	37.01	24.03	3.59	31.43	---	---	Peak



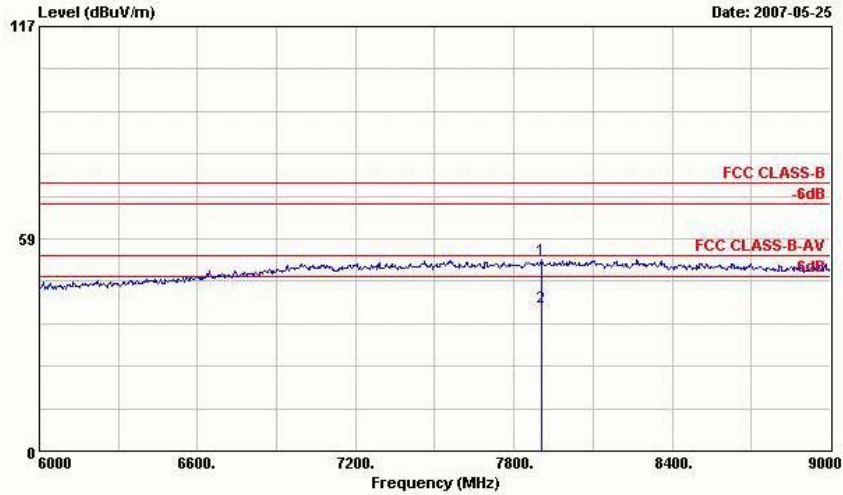
Site : 03CH04-HY  
 Condition: FCC CLASS-B 3m HF-ANT HORIZONTAL  
 EUT : PDA Phone  
 POWER : 120Vac/60Hz  
 MODEL : FR 742004-01  
 MODE : 11b Tx\_Ch01;2412MHz  
 Data Rate: 11  
 Plane : E2

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Pos	Pos	Remark
			dB	dBuV/m	dBuV	dB/m	dB	cm	deg	
1	2389.520	41.96	-12.04	54.00	41.41	30.59	3.74	33.78	100	158 Average
2	2389.520	55.26	-18.74	74.00	54.71	30.59	3.74	33.78	100	0 Peak
3 @	2412.000	97.46			96.92	30.56	3.76	33.78	100	158 Average
4 @	2412.000	106.36			105.82	30.56	3.76	33.78	100	0 Peak
5	2483.500	43.64	-30.36	74.00	43.17	30.43	3.84	33.80	100	0 Peak
6	2483.500	31.89	-22.11	54.00	31.42	30.43	3.84	33.80	100	158 Average

Remark: #3 and #4 Fundamental Signal

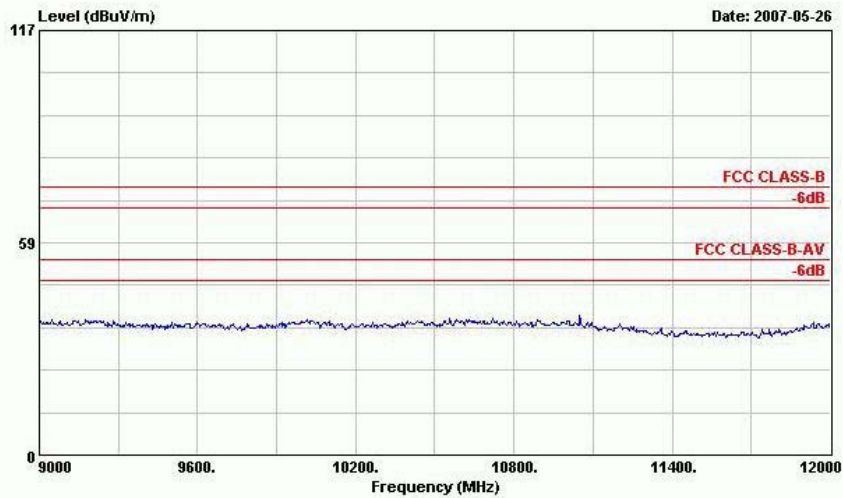


Site : 03CH04-HY  
 Condition: FCC CLASS-B 3m HF-ANT HORIZONTAL  
 EUT : PDA Phone  
 POWER : 120Vac/60Hz  
 MODEL : FR 742004-01  
 MODE : 11b Tx\_Ch01;2412MHz  
 Data Rate: 11  
 Plane : E2



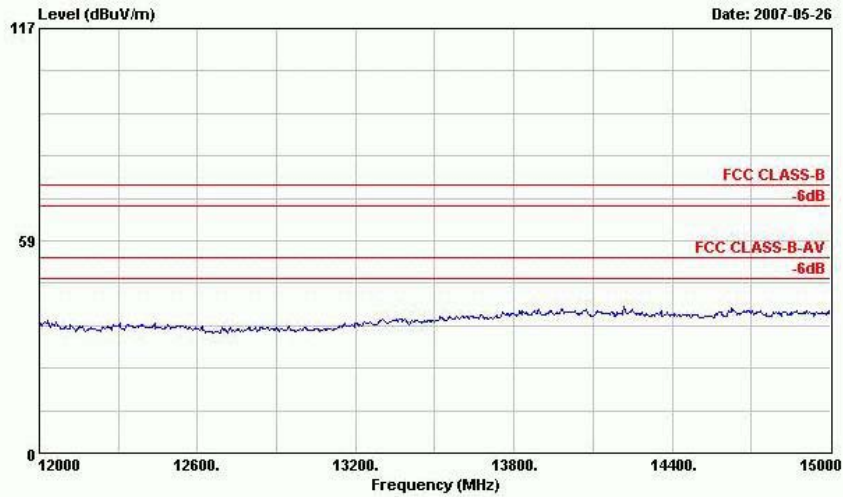
Site : 03CH04-HY  
 Condition: FCC CLASS-B 3m HF-ANT HORIZONTAL  
 EUT : PDA Phone  
 POWER : 120Vac/60Hz  
 MODEL : FR 742004-01  
 MODE : 11b Tx\_Ch01;2412MHz  
 Data Rate: 11  
 Plane : E2

	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	Remark
1	7905.000	52.65	-21.35	74.00	40.15	39.42	6.72	33.64	100	0	Peak
2	7905.000	39.60	-14.40	54.00	27.10	39.42	6.72	33.64	100	0	Average

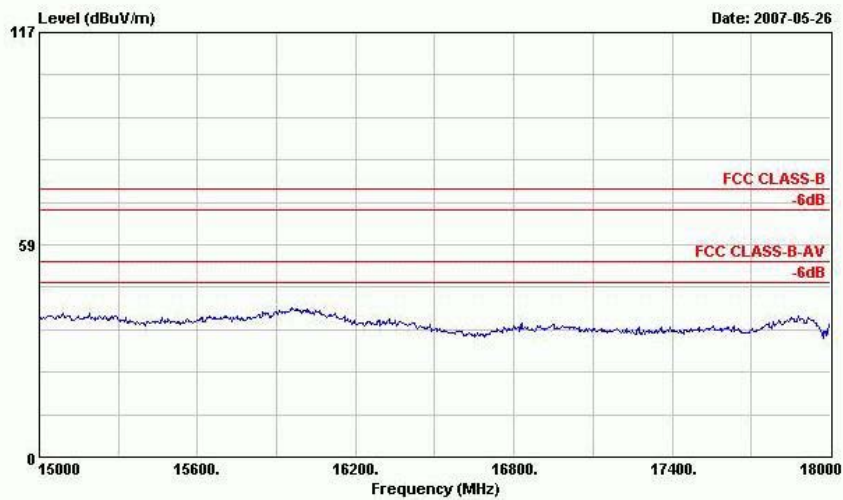


Site : 03CH04-HY  
 Condition: FCC CLASS-B 3m ACTIVE HORN HORIZONTAL  
 EUT : PDA Phone  
 POWER : 120Vac/60Hz  
 MODEL : FR 742004-01  
 MODE : 11b Tx\_Ch01;2412MHz  
 Data Rate: 11  
 Plane : E2

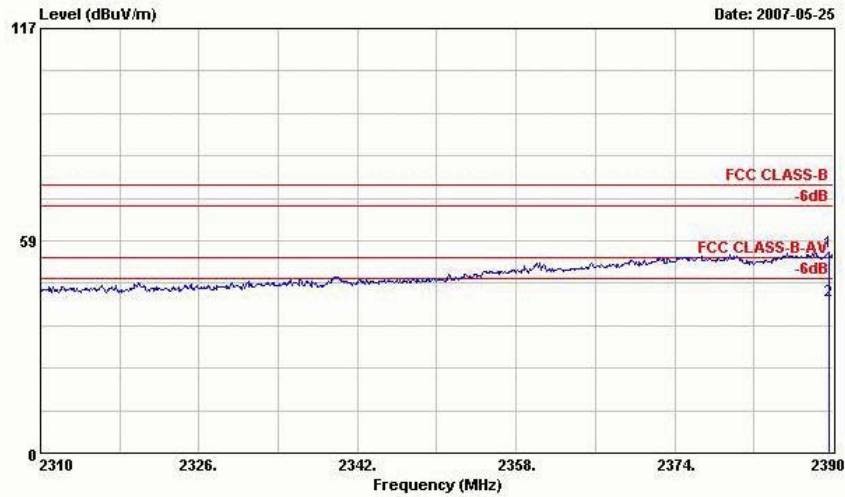




Site : 03CH04-HY  
Condition: FCC CLASS-B 3m ACTIVE HORN HORIZONTAL  
EUT : PDA Phone  
POWER : 120Vac/60Hz  
MODEL : FR 742004-01  
MODE : 11b Tx\_Ch01;2412MHz  
Data Rate: 11  
Plane : E2



Site : 03CH04-HY  
Condition: FCC CLASS-B 3m ACTIVE HORN HORIZONTAL  
EUT : PDA Phone  
POWER : 120Vac/60Hz  
MODEL : FR 742004-01  
MODE : 11b Tx\_Ch01;2412MHz  
Data Rate: 11  
Plane : E2



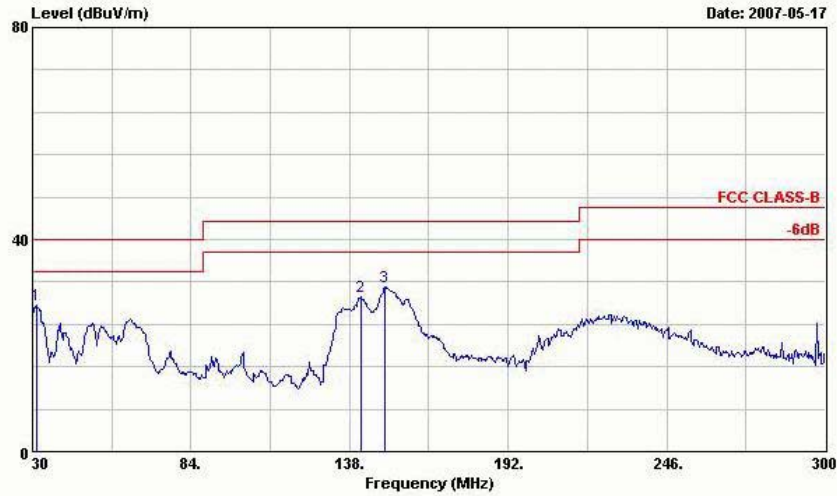
Site : 03CH04-HY  
 Condition: FCC CLASS-B 3m HF-ANT HORIZONTAL  
 EUT : PDA Phone  
 POWER : 120Vac/60Hz  
 MODEL : FR 742004-01  
 MODE : 11b Tx\_Ch01;2412MHz  
 Data Rate: 11  
 Plane : E2

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	Remark	
			Limit	Line							Level
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	2389.520	55.26	-18.74	74.00	54.71	30.59	3.74	33.78	---	---	Peak
2	2389.520	41.96	-12.04	54.00	41.41	30.59	3.74	33.78	100	158	Average



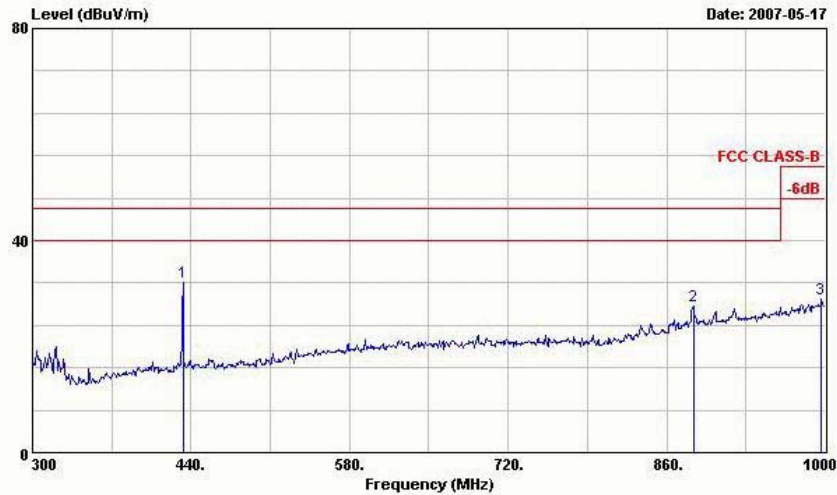
▪ Polarization : Vertical

The test that passed at minimum margin was marked by the frame in the following table.



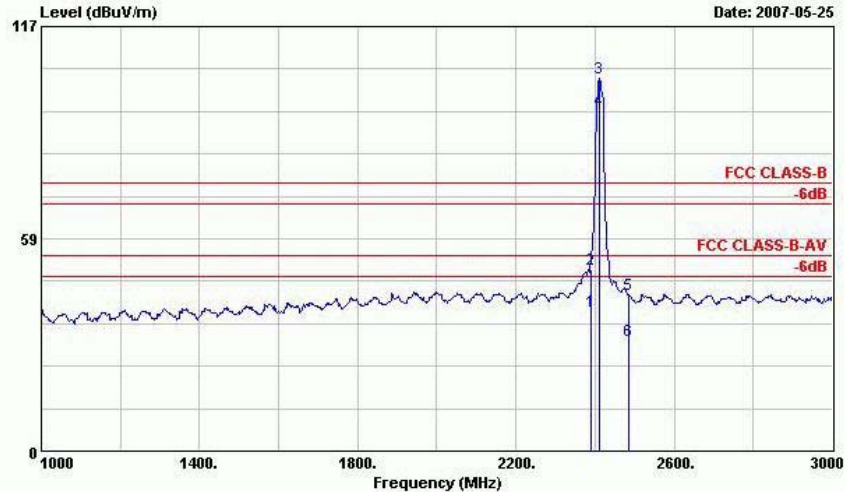
Site : 03CH04-HY  
 Condition: FCC CLASS-B 3m ANT2724 VERTICAL  
 EUT : PDA Phone  
 POWER : 120Vac/60Hz  
 MODEL : FR 742004-01  
 MODE : 11b Tx\_Ch01;2412MHz  
 Data Rate: 11  
 Plane : E2

Line	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	cm	deg	
1	31.620	27.71	-12.29	40.00	43.69	16.34	0.65	32.98	124	274 Peak
2	141.780	29.08	-14.42	43.50	49.96	10.61	1.40	32.90	---	---
3	149.880	30.94	-12.56	43.50	51.69	10.77	1.42	32.94	---	---



Site : 03CH04-HY  
 Condition: FCC CLASS-B 3m ANT2724 VERTICAL  
 EUT : PDA Phone  
 POWER : 120Vac/60Hz  
 MODEL : FR 742004-01  
 MODE : 11b Tx\_Ch01;2412MHz  
 Data Rate: 11  
 Plane : E2

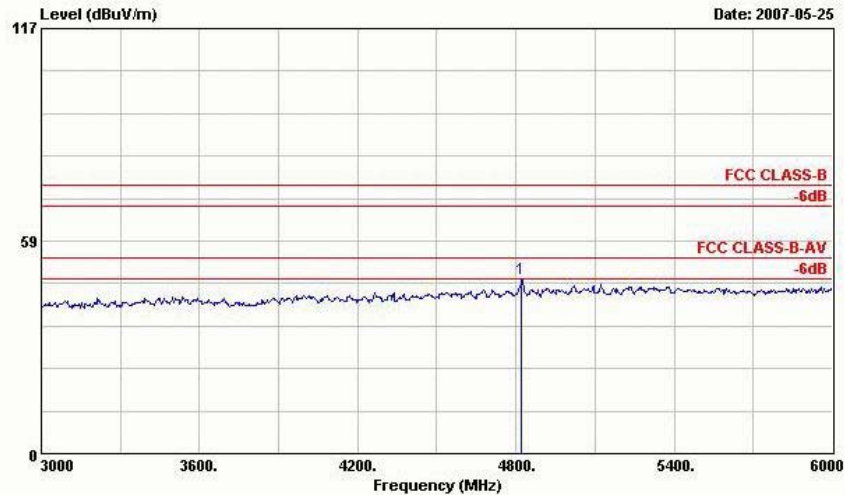
Line	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	cm	deg	
1	433.000	32.00	-14.00	46.00	46.21	16.13	2.43	32.78	---	---
2	883.800	27.75	-18.25	46.00	32.81	22.91	3.61	31.58	---	---
3	996.500	28.96	-25.04	54.00	30.26	25.95	3.74	31.00	---	---



Site : 03CH04-HY  
 Condition: FCC CLASS-B 3m HF-ANT VERTICAL  
 EUT : PDA Phone  
 POWER : 120Vac/60Hz  
 MODEL : FR 742004-01  
 MODE : 11b Tx\_Ch01;2412MHz  
 Data Rate: 11  
 Plane : E2

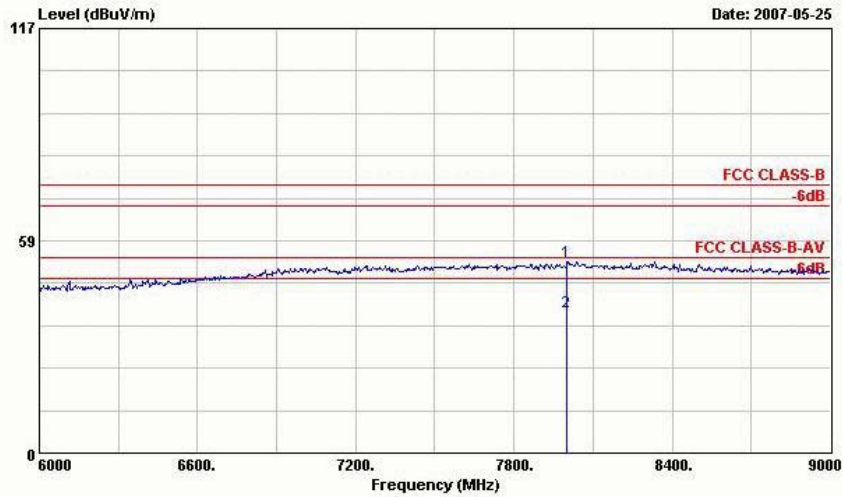
	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	2388.320	38.64	-15.36	54.00	38.09	30.59	3.74	33.78	100	156 Average
2	2388.320	49.85	-24.15	74.00	49.30	30.59	3.74	33.78	100	0 Peak
3 @	2412.000	102.82			102.28	30.56	3.76	33.78	100	0 Peak
4 @	2412.000	93.87			93.33	30.56	3.76	33.78	100	156 Average
5	2483.500	42.95	-31.05	74.00	42.48	30.43	3.84	33.80	100	0 Peak
6	2483.500	30.58	-23.42	54.00	30.11	30.43	3.84	33.80	100	156 Average

Remark: #3 and #4 Fundamental Signal



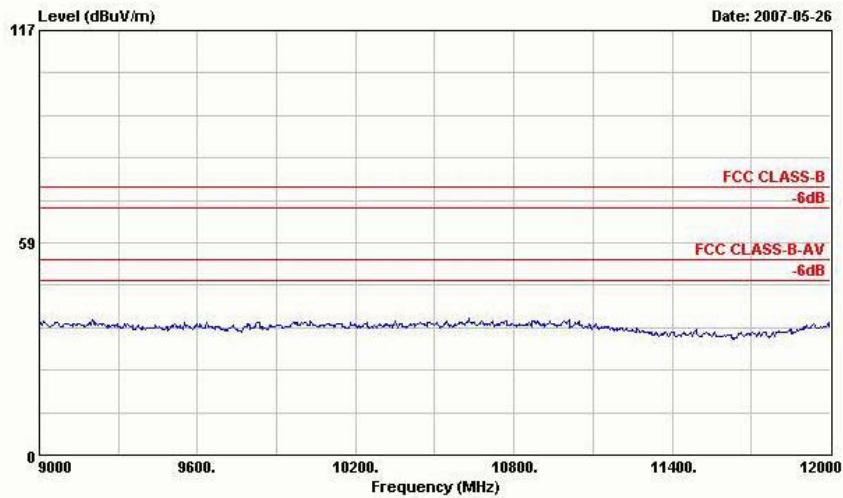
Site : 03CH04-HY  
 Condition: FCC CLASS-B 3m HF-ANT VERTICAL  
 EUT : PDA Phone  
 POWER : 120Vac/60Hz  
 MODEL : FR 742004-01  
 MODE : 11b Tx\_Ch01;2412MHz  
 Data Rate: 11  
 Plane : E2

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	4821.000	48.26	-25.74	74.00	43.23	33.45	5.88	34.30	---	---

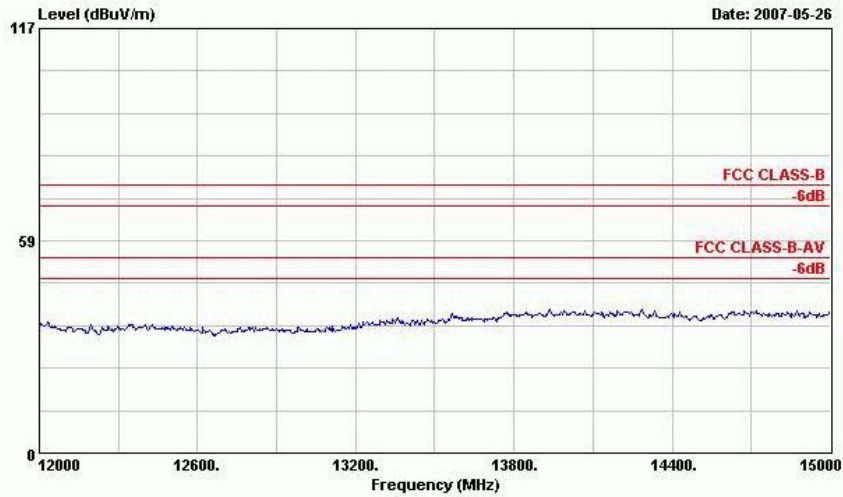


Site : 03CH04-HY  
 Condition: FCC CLASS-B 3m HF-ANT VERTICAL  
 EUT : PDA Phone  
 POWER : 120Vac/60Hz  
 MODEL : FR 742004-01  
 MODE : 11b Tx\_Ch01;2412MHz  
 Data Rate: 11  
 Plane : E2

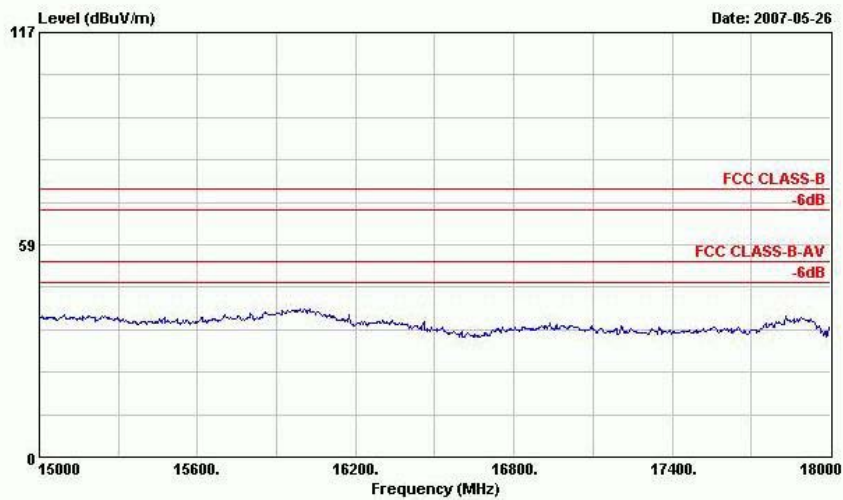
	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	Remark
1	8001.000	52.87	-21.13	74.00	40.21	39.50	6.76	33.60	100	0	Peak
2	8001.000	38.89	-15.11	54.00	26.23	39.50	6.76	33.60	100	0	Average



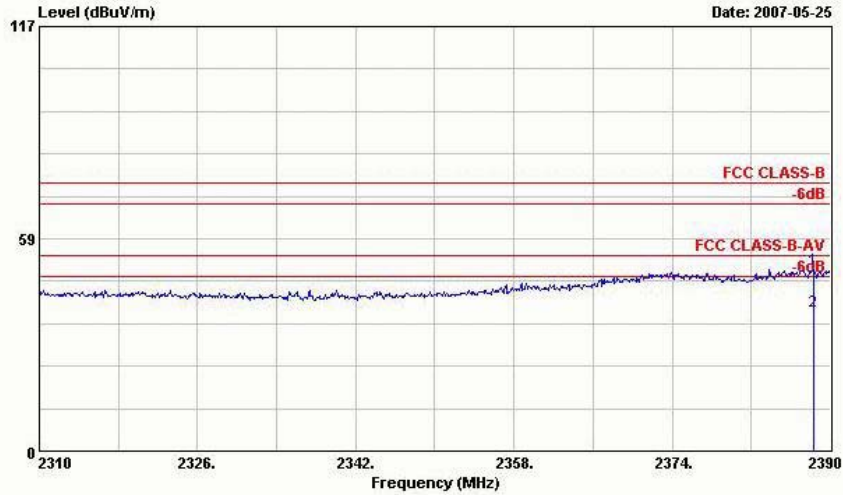
Site : 03CH04-HY  
 Condition: FCC CLASS-B 3m ACTIVE HORN VERTICAL  
 EUT : PDA Phone  
 POWER : 120Vac/60Hz  
 MODEL : FR 742004-01  
 MODE : 11b Tx\_Ch01;2412MHz  
 Data Rate: 11  
 Plane : E2



Site : 03CH04-HY  
Condition: FCC CLASS-B 3m ACTIVE HORN VERTICAL  
EUT : PDA Phone  
POWER : 120Vac/60Hz  
MODEL : FR 742004-01  
MODE : 11b Tx\_Ch01;2412MHz  
Data Rate: 11  
Plane : E2



Site : 03CH04-HY  
Condition: FCC CLASS-B 3m ACTIVE HORN VERTICAL  
EUT : PDA Phone  
POWER : 120Vac/60Hz  
MODEL : FR 742004-01  
MODE : 11b Tx\_Ch01;2412MHz  
Data Rate: 11  
Plane : E2



Site : 03CH04-HY  
 Condition: FCC CLASS-B 3m HF-ANT VERTICAL  
 EUT : PDA Phone  
 POWER : 120Vac/60Hz  
 MODEL : FR 742004-01  
 MODE : 11b Tx\_Ch01;2412MHz  
 Data Rate: 11  
 Plane : E2

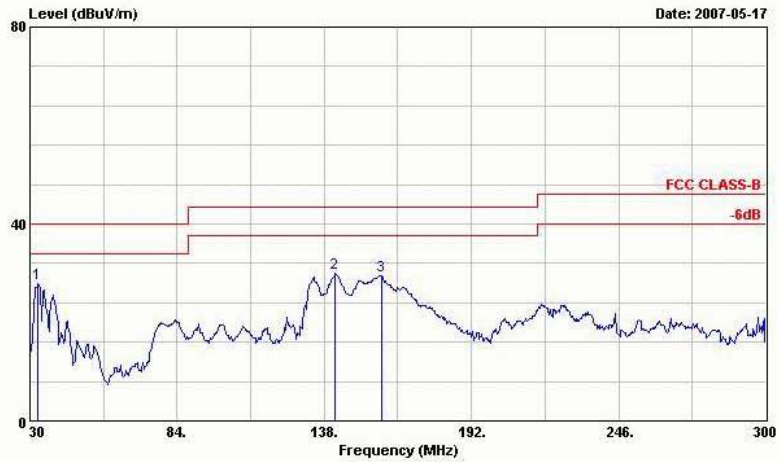
	Freq MHz	Level dBuV/m	Over Limit dB	Limit Line dBuV/m	ReadAntenna		Cable Preamp		Ant Pos cm	Table Pos deg	Remark
					Level	Factor	Loss	Factor			
1	2388.320	49.85	-24.15	74.00	49.30	30.59	3.74	33.78	100	0	Peak
2	2388.320	38.64	-15.36	54.00	38.09	30.59	3.74	33.78	100	156	Average

Remark : Frequency from 18GHz to 25GHz, the emission emitted by the EUT is too low to be measured.



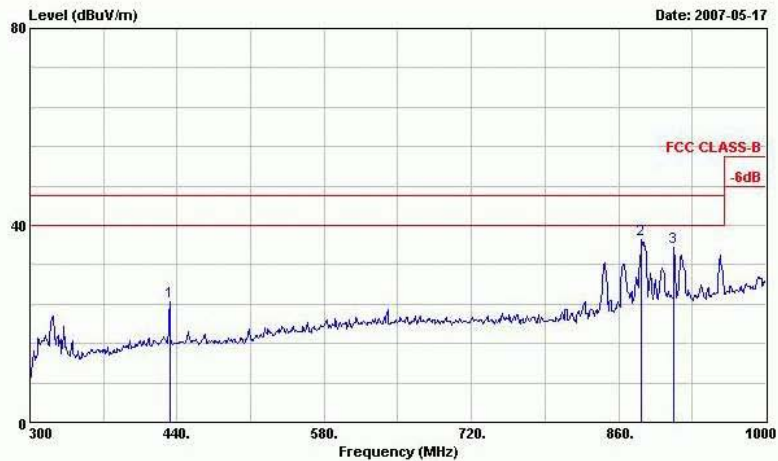
- Test Mode : Mode 2
- Polarization : Horizontal

The test that passed at minimum margin was marked by the frame in the following table.



Site : 03CH04-HY  
 Condition: FCC CLASS-B 3m ANT2724 HORIZONTAL  
 EUT : PDA Phone  
 POWER : 120Vac/60Hz  
 MODEL : FR 742004-01  
 MODE : 11b Tx\_Ch06;2437MHz  
 Data Rate: 11  
 Plane : E2

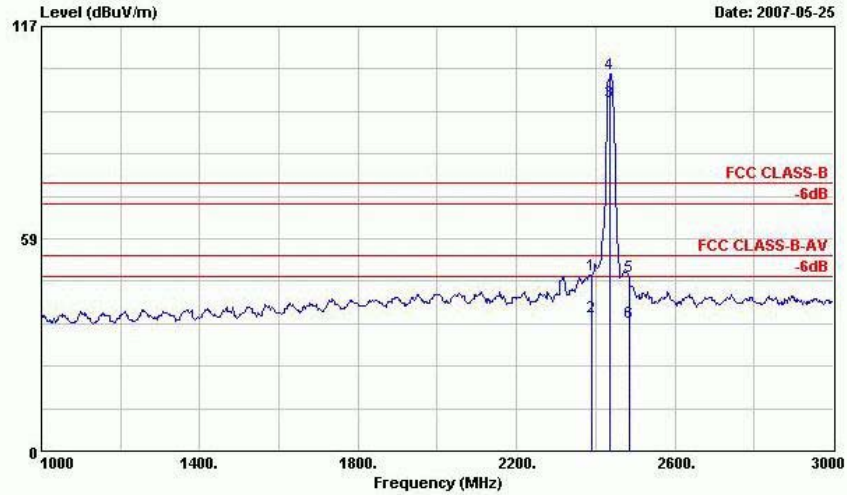
	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1 @	32.970	27.82	-12.18	40.00	43.85	16.33	0.66	33.02	---	---
2	142.050	29.94	-13.56	43.50	50.81	10.63	1.40	32.90	---	---
3	159.060	29.46	-14.04	43.50	51.64	9.36	1.44	32.99	---	---



Site : 03CH04-HY  
 Condition: FCC CLASS-B 3m ANT2724 HORIZONTAL  
 EUT : PDA Phone  
 POWER : 120Vac/60Hz  
 MODEL : FR 742004-01  
 MODE : 11b Tx\_Ch06;2437MHz  
 Data Rate: 11  
 Plane : E2

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	433.000	24.44	-21.56	46.00	38.65	16.13	2.43	32.78	---	---
2 @	881.700	37.06	-8.94	46.00	42.21	22.83	3.61	31.59	100	246
3 @	912.500	35.65	-10.35	46.00	39.65	23.83	3.59	31.43	---	---

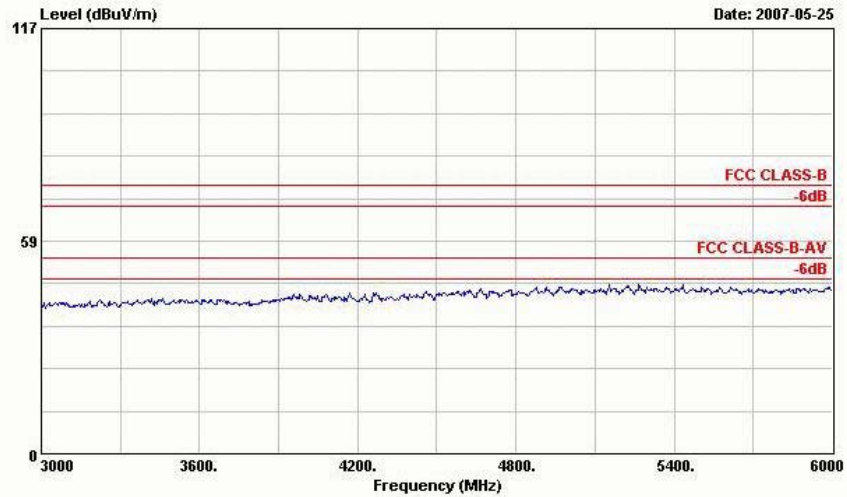




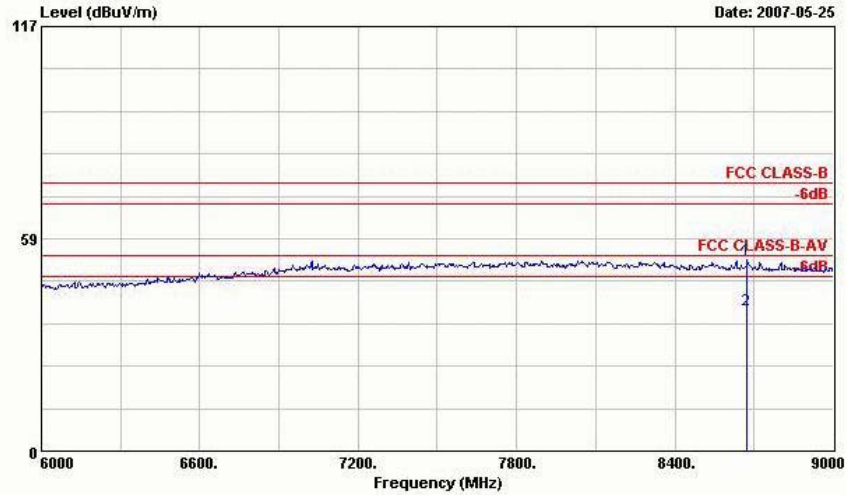
Site : 03CH04-HY  
 Condition: FCC CLASS-B 3m HF-ANT HORIZONTAL  
 EUT : PDA Phone  
 POWER : 120Vac/60Hz  
 MODEL : FR 742004-01  
 MODE : 11b Tx\_Ch06;2437MHz  
 Data Rate: 11  
 Plane : E2

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	
	MHz	dBuV/m	dB	dBuV/m	Level	Loss	Loss	Pos	Pos	Remark
					Factor	Factor	Factor	cm	deg	
1	2390.000	48.53	-25.47	74.00	47.99	30.59	3.74	33.78	100	0 Peak
2	2390.000	37.09	-16.91	54.00	36.55	30.59	3.74	33.78	100	169 Average
3 @	2437.000	96.09			95.59	30.49	3.79	33.79	100	169 Average
4 @	2437.000	103.98			103.48	30.49	3.79	33.79	100	0 Peak
5	2483.500	47.97	-26.03	74.00	47.50	30.43	3.84	33.80	100	0 Peak
6	2483.500	35.23	-18.77	54.00	34.76	30.43	3.84	33.80	100	169 Average

Remark: #3 and #4 Fundamental Signal

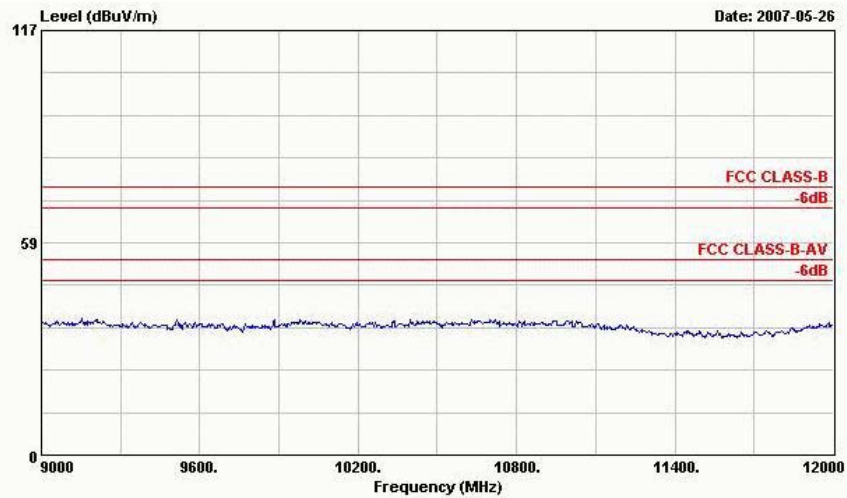


Site : 03CH04-HY  
 Condition: FCC CLASS-B 3m HF-ANT HORIZONTAL  
 EUT : PDA Phone  
 POWER : 120Vac/60Hz  
 MODEL : FR 742004-01  
 MODE : 11b Tx\_Ch06;2437MHz  
 Data Rate: 11  
 Plane : E2

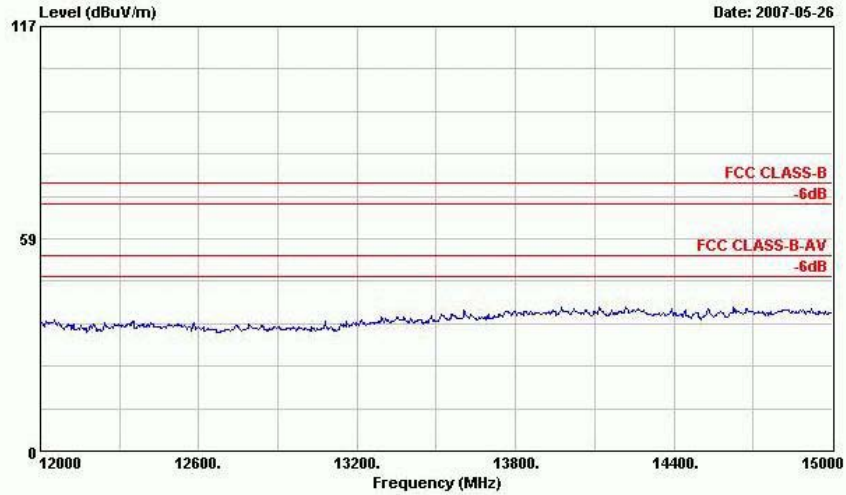


Site : 03CH04-HY  
 Condition: FCC CLASS-B 3m HF-ANT HORIZONTAL  
 EUT : PDA Phone  
 POWER : 120Vac/60Hz  
 MODEL : FR 742004-01  
 MODE : 11b Tx\_Ch06;2437MHz  
 Data Rate: 11  
 Plane : E2

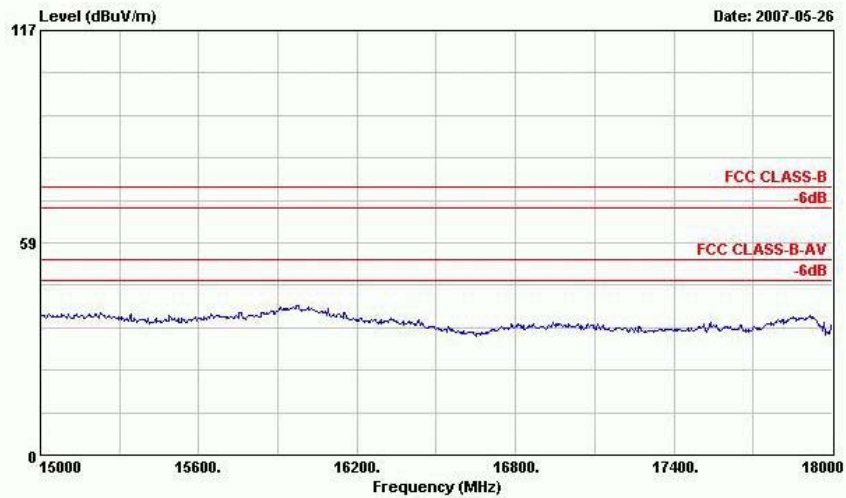
	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	
	MHz	dBuV/m	dB	dBuV/m	Level	Loss	Loss	Pos	Pos	Remark
					Factor	Factor	Factor	cm	deg	
1	8673.000	52.62	-21.38	74.00	40.95	39.10	7.11	34.54	100	0 Peak
2	8673.000	38.96	-15.04	54.00	27.29	39.10	7.11	34.54	100	0 Average



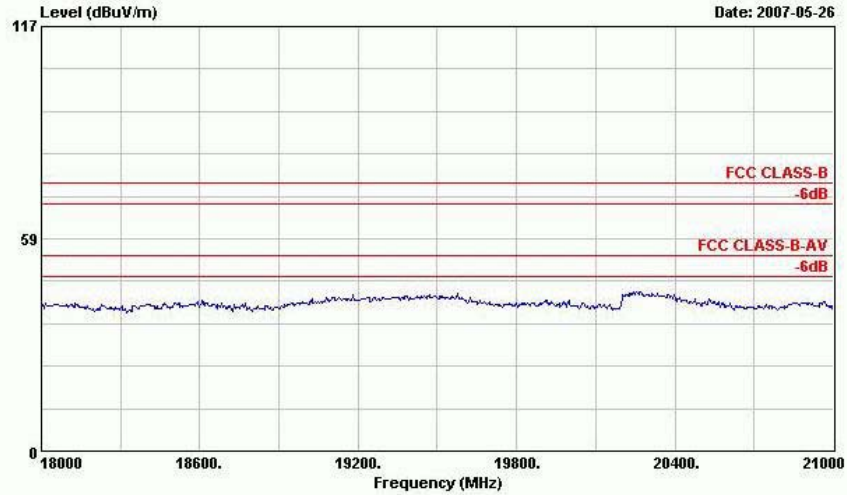
Site : 03CH04-HY  
 Condition: FCC CLASS-B 3m ACTIVE HORN HORIZONTAL  
 EUT : PDA Phone  
 POWER : 120Vac/60Hz  
 MODEL : FR 742004-01  
 MODE : 11b Tx\_Ch06;2437MHz  
 Data Rate: 11  
 Plane : E2



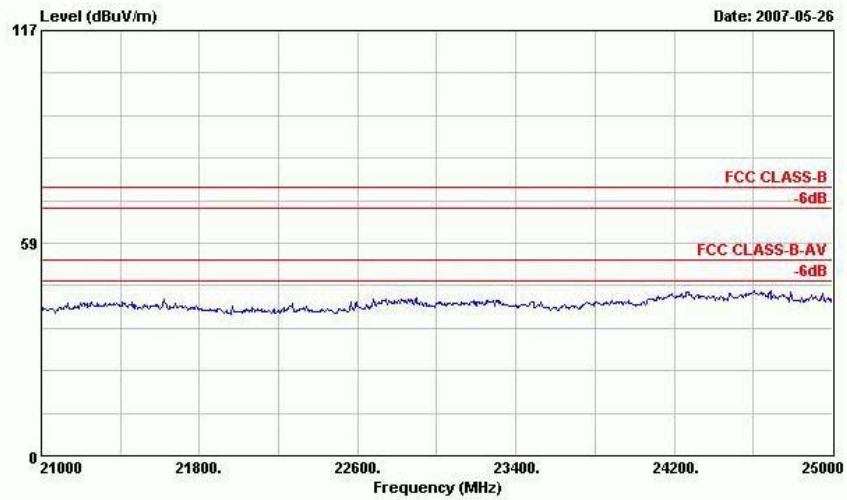
Site : 03CH04-HY  
Condition: FCC CLASS-B 3m ACTIVE HORN HORIZONTAL  
EUT : PDA Phone  
POWER : 120Vac/60Hz  
MODEL : FR 742004-01  
MODE : 11b Tx\_Ch06;2437MHz  
Data Rate: 11  
Plane : E2



Site : 03CH04-HY  
Condition: FCC CLASS-B 3m ACTIVE HORN HORIZONTAL  
EUT : PDA Phone  
POWER : 120Vac/60Hz  
MODEL : FR 742004-01  
MODE : 11b Tx\_Ch06;2437MHz  
Data Rate: 11  
Plane : E2



Site : 03CH04-HY  
Condition: FCC CLASS-B 3m SHF-EHF HORN HORIZONTAL  
EUT : PDA Phone  
POWER : 120Vac/60Hz  
MODEL : FR 742004-01  
MODE : 11b Tx\_Ch06;2437MHz  
Data Rate: 11  
Plane : E2

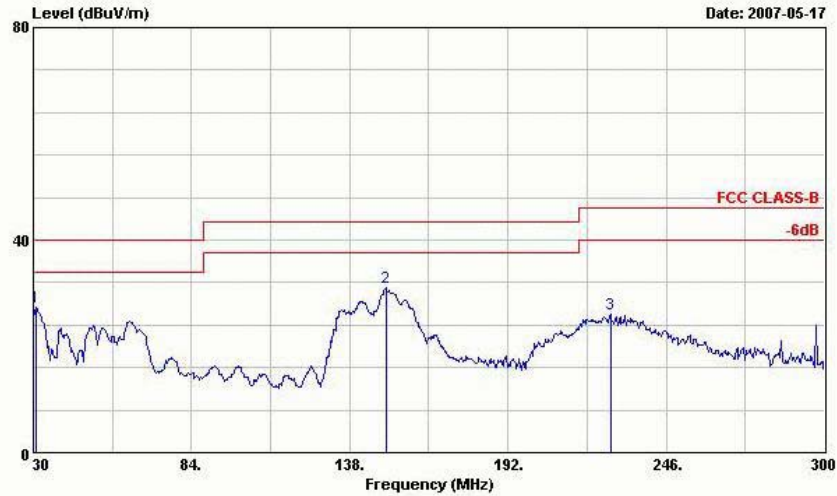


Site : 03CH04-HY  
Condition: FCC CLASS-B 3m SHF-EHF HORN HORIZONTAL  
EUT : PDA Phone  
POWER : 120Vac/60Hz  
MODEL : FR 742004-01  
MODE : 11b Tx\_Ch06;2437MHz  
Data Rate: 11  
Plane : E2



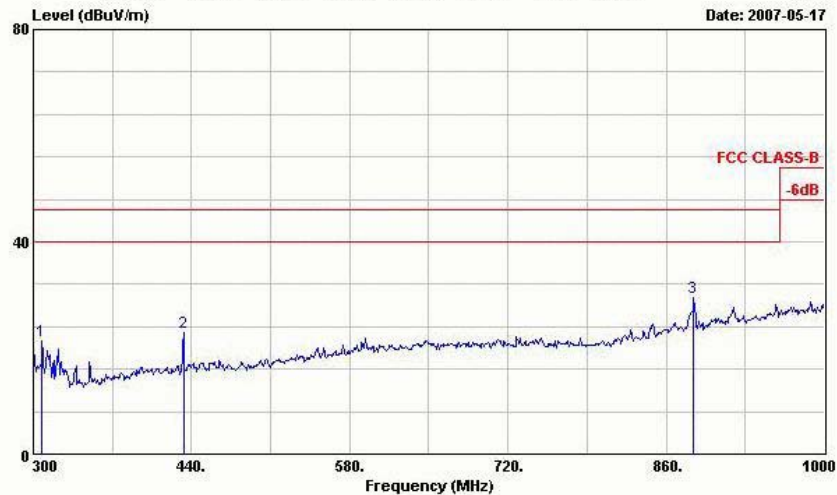
- Polarization : Vertical

The test that passed at minimum margin was marked by the frame in the following table.



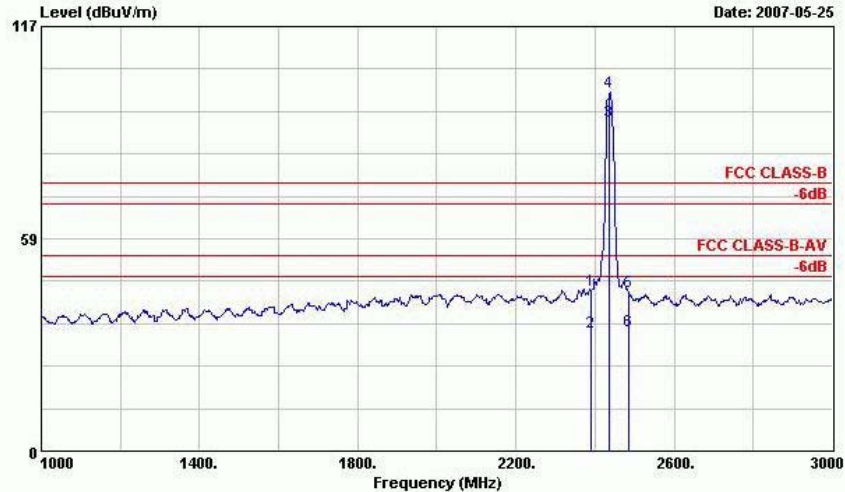
Site : 03CH04-HY  
 Condition: FCC CLASS-B 3m ANT2724 VERTICAL  
 EUT : PDA Phone  
 POWER : 120Vac/60Hz  
 MODEL : FR 742004-01  
 MODE : 11b Tx\_Ch06;2437MHz  
 Data Rate: 11  
 Plane : E2

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table		
	MHz	dBuV/m	Limit	Line	Level	Loss	Factor	Pos	Pos	Remark	
			dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	30.810	27.27	-12.73	40.00	43.20	16.36	0.64	32.93	---	---	Peak
2	150.420	30.97	-12.53	43.50	51.72	10.77	1.42	32.94	126	234	Peak
3	227.100	25.99	-20.01	46.00	46.25	10.79	1.76	32.82	---	---	Peak



Site : 03CH04-HY  
 Condition: FCC CLASS-B 3m ANT2724 VERTICAL  
 EUT : PDA Phone  
 POWER : 120Vac/60Hz  
 MODEL : FR 742004-01  
 MODE : 11b Tx\_Ch06;2437MHz  
 Data Rate: 11  
 Plane : E2

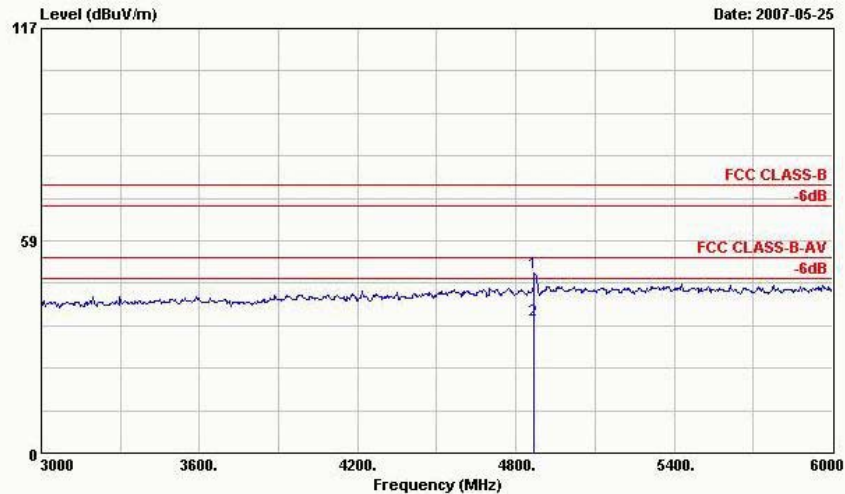
	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table		
	MHz	dBuV/m	Limit	Line	Level	Loss	Factor	Pos	Pos	Remark	
			dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	307.700	21.19	-24.81	46.00	39.38	12.58	2.04	32.81	---	---	Peak
2	433.000	22.93	-23.07	46.00	37.14	16.13	2.43	32.78	---	---	Peak
3	884.500	29.42	-16.58	46.00	34.44	22.94	3.61	31.57	---	---	Peak



Site : 03CH04-HY  
 Condition: FCC CLASS-B 3m HF-ANT VERTICAL  
 EUT : PDA Phone  
 POWER : 120Vac/60Hz  
 MODEL : FR 742004-01  
 MODE : 11b Tx\_Ch06;2437MHz  
 Data Rate: 11  
 Plane : E2

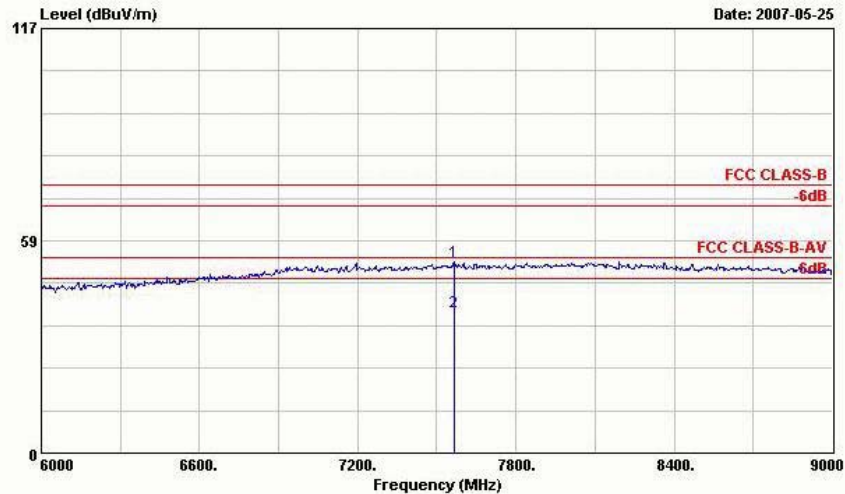
Line	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Pos	Pos	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	2390.000	44.39	-29.61	74.00	43.85	30.59	3.74	33.78	100	0 Peak
2	2390.000	32.74	-21.26	54.00	32.20	30.59	3.74	33.78	100	152 Average
3 @	2437.000	91.00			90.50	30.49	3.79	33.79	100	152 Average
4 @	2437.000	98.75			98.25	30.49	3.79	33.79	100	0 Peak
5	2483.500	43.85	-30.15	74.00	43.38	30.43	3.84	33.80	100	0 Peak
6	2483.500	33.04	-20.96	54.00	32.57	30.43	3.84	33.80	100	152 Average

Remark: #3 and #4 Fundamental Signal



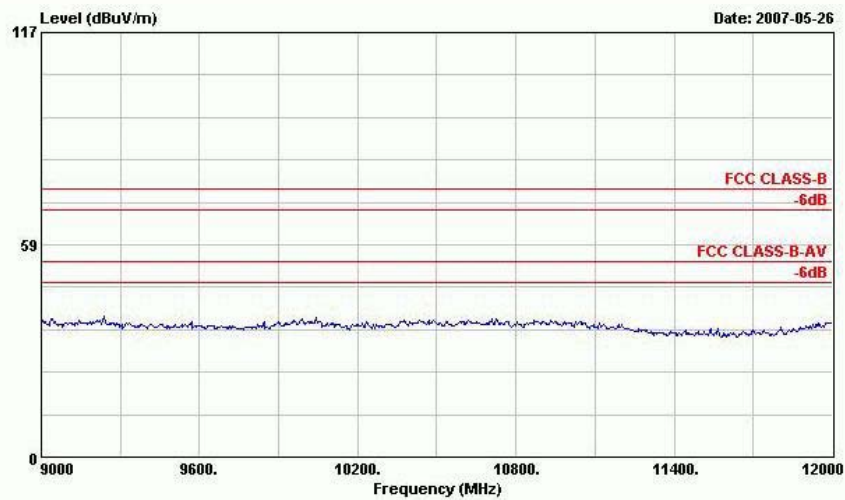
Site : 03CH04-HY  
 Condition: FCC CLASS-B 3m HF-ANT VERTICAL  
 EUT : PDA Phone  
 POWER : 120Vac/60Hz  
 MODEL : FR 742004-01  
 MODE : 11b Tx\_Ch06;2437MHz  
 Data Rate: 11  
 Plane : E2

Line	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Pos	Pos	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	4869.000	49.58	-24.42	74.00	44.39	33.59	5.91	34.30	100	0 Peak
2	4869.000	36.70	-17.30	54.00	31.51	33.59	5.91	34.30	100	170 Average

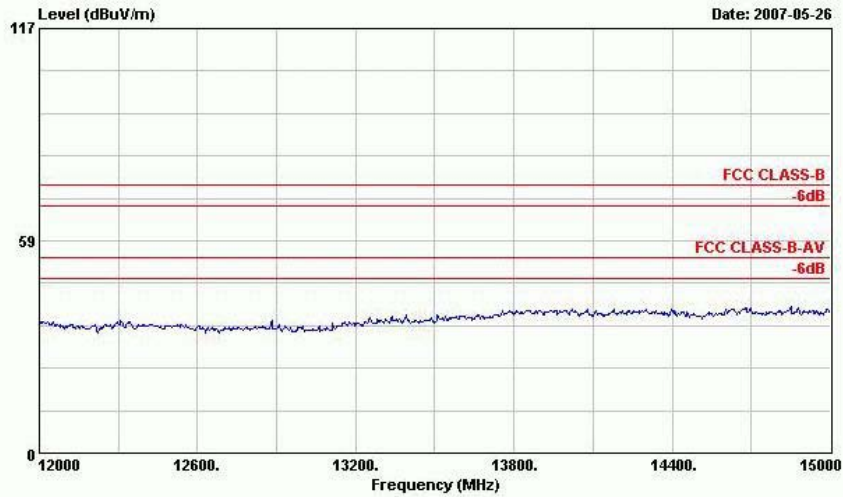


Site : 03CH04-HY  
 Condition: FCC CLASS-B 3m HF-ANT VERTICAL  
 EUT : PDA Phone  
 POWER : 120Vac/60Hz  
 MODEL : FR 742004-01  
 MODE : 11b Tx\_Ch06;2437MHz  
 Data Rate: 11  
 Plane : E2

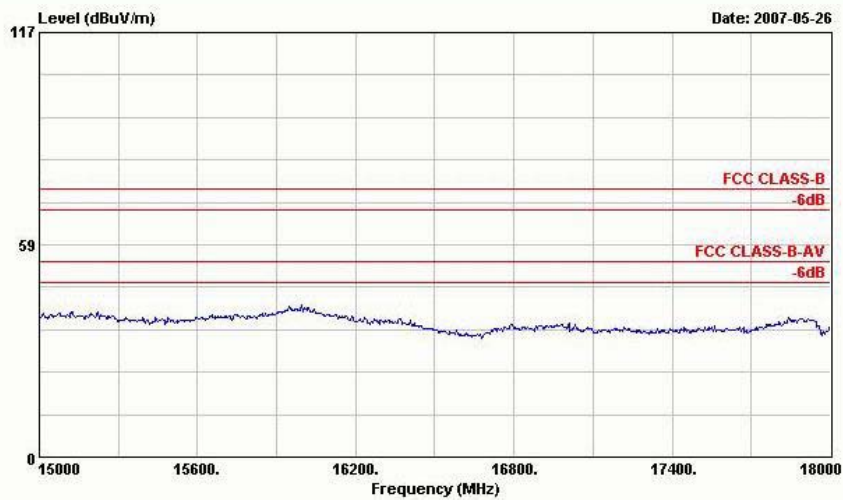
	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Pos	Pos	Remark
			dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	7566.000	52.74	-21.26	74.00	40.78	39.15	6.59	33.78	100	0 Peak
2	7566.000	38.80	-15.20	54.00	26.84	39.15	6.59	33.78	100	0 Average



Site : 03CH04-HY  
 Condition: FCC CLASS-B 3m ACTIVE HORN VERTICAL  
 EUT : PDA Phone  
 POWER : 120Vac/60Hz  
 MODEL : FR 742004-01  
 MODE : 11b Tx\_Ch06;2437MHz  
 Data Rate: 11  
 Plane : E2

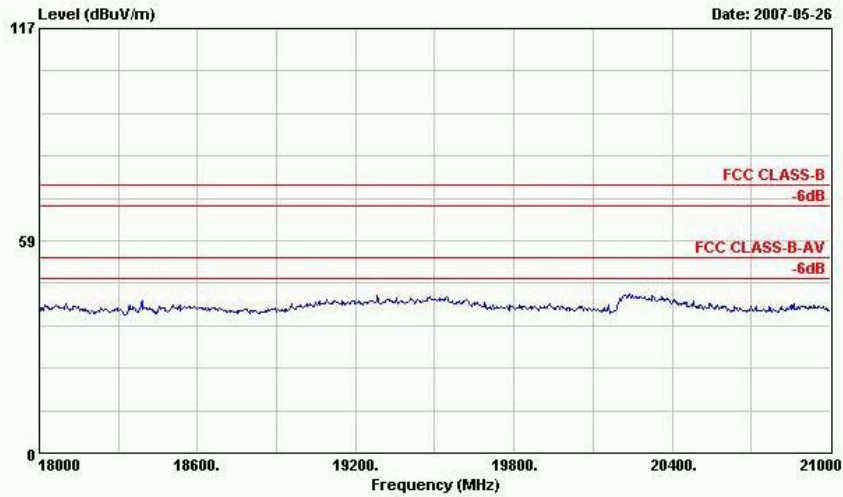


Site : 03CH04-HY  
Condition: FCC CLASS-B 3m ACTIVE HORN VERTICAL  
EUT : PDA Phone  
POWER : 120Vac/60Hz  
MODEL : FR 742004-01  
MODE : 11b Tx\_Ch06;2437MHz  
Data Rate: 11  
Plane : E2

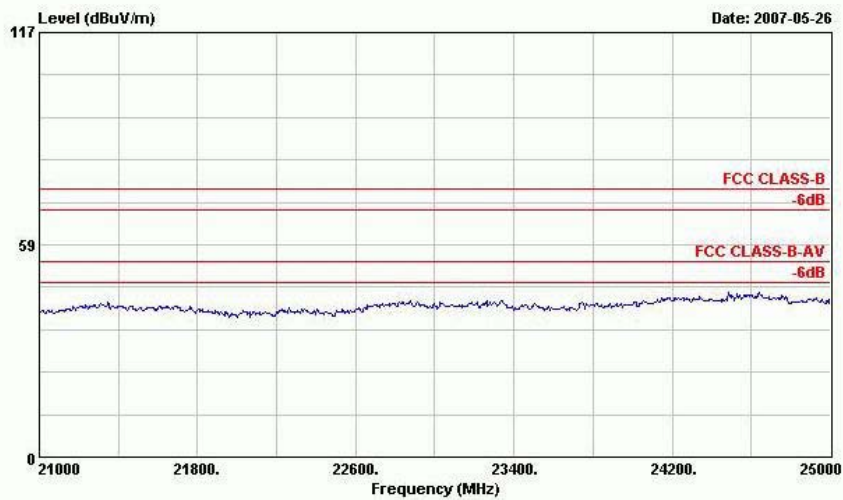


Site : 03CH04-HY  
Condition: FCC CLASS-B 3m ACTIVE HORN VERTICAL  
EUT : PDA Phone  
POWER : 120Vac/60Hz  
MODEL : FR 742004-01  
MODE : 11b Tx\_Ch06;2437MHz  
Data Rate: 11  
Plane : E2





Site : 03CH04-HY  
Condition: FCC CLASS-B 3m SHF-EHF HORN VERTICAL  
EUT : PDA Phone  
POWER : 120Vac/60Hz  
MODEL : FR 742004-01  
MODE : 11b Tx\_Ch06;2437MHz  
Data Rate: 11  
Plane : E2

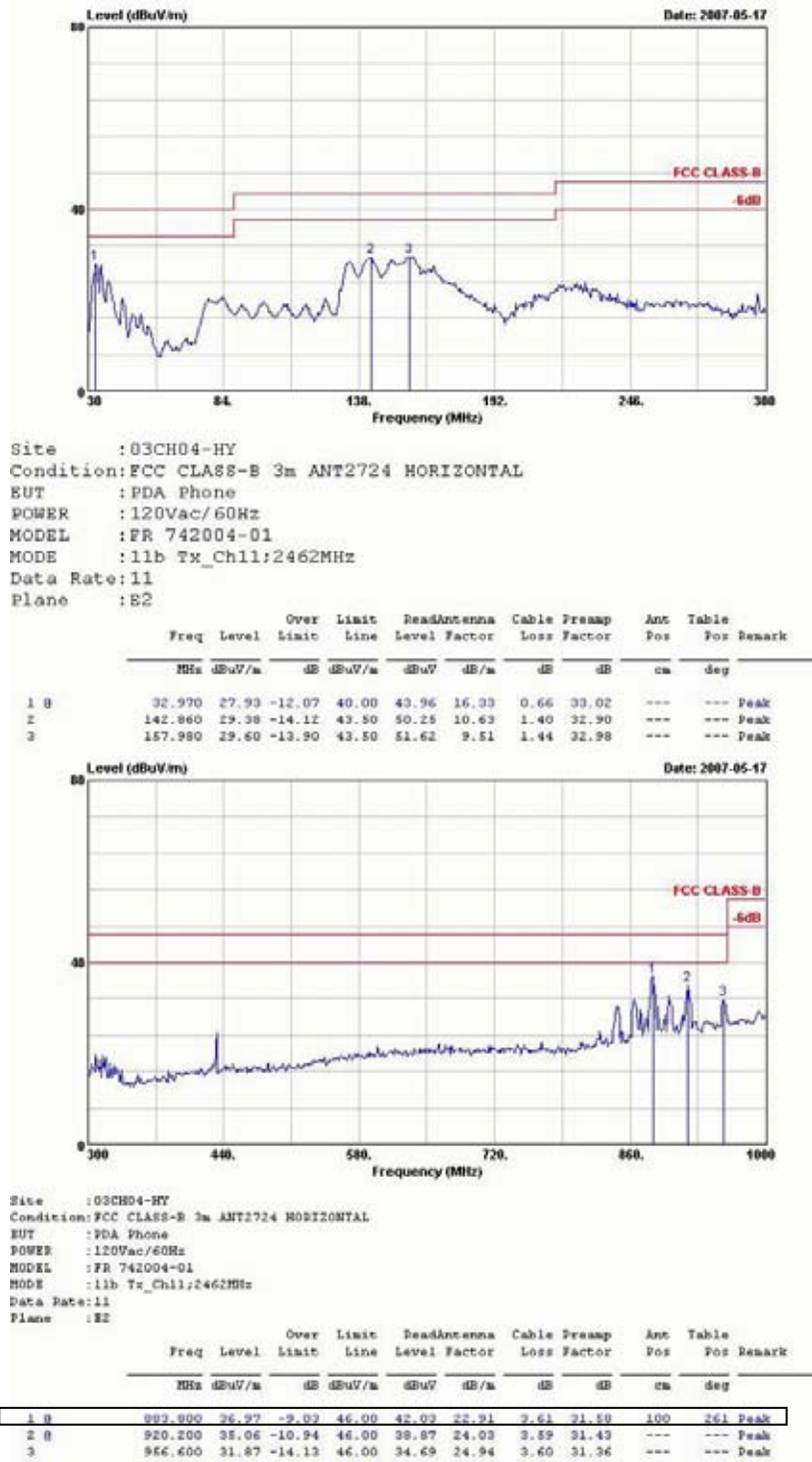


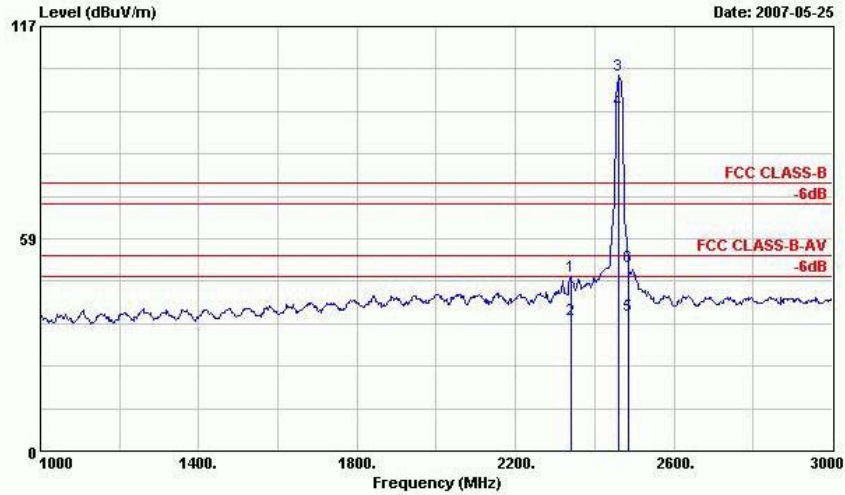
Site : 03CH04-HY  
Condition: FCC CLASS-B 3m SHF-EHF HORN VERTICAL  
EUT : PDA Phone  
POWER : 120Vac/60Hz  
MODEL : FR 742004-01  
MODE : 11b Tx\_Ch06;2437MHz  
Data Rate: 11  
Plane : E2



- Test Mode : Mode 3
- Polarization : Horizontal

The test that passed at minimum margin was marked by the frame in the following table.

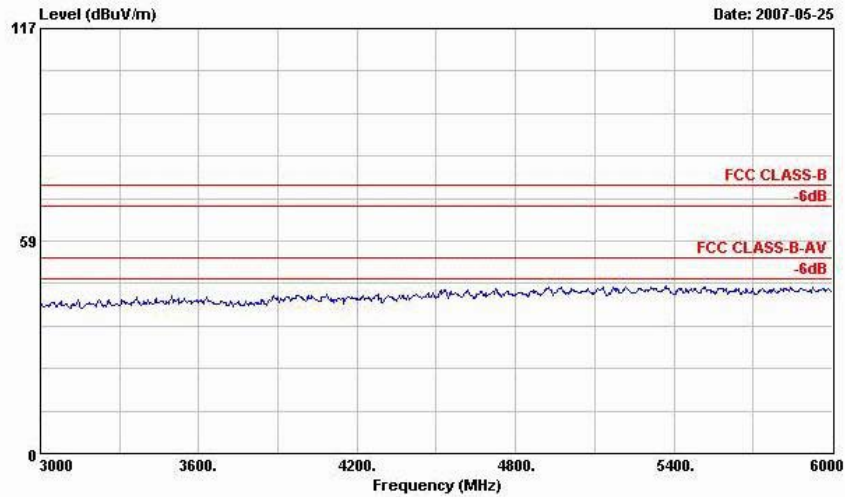




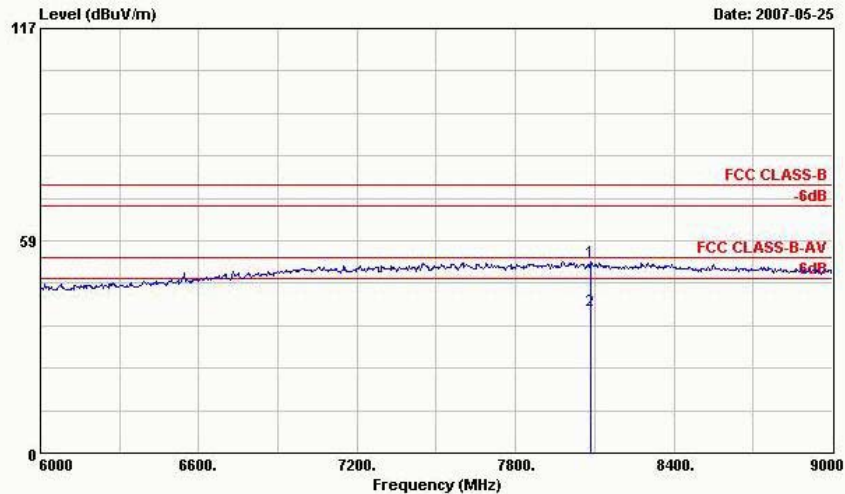
Site : 03CH04-HY  
 Condition: FCC CLASS-B 3m HF-ANT HORIZONTAL  
 EUT : PDA Phone  
 POWER : 120Vac/60Hz  
 MODEL : FR 742004-01  
 MODE : 11b Tx\_Ch11;2462MHz  
 Data Rate: 11  
 Plane : E2

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Pos	Pos	Remark
			dB	dBuV/m	dBuV	dB/m	dB	cm	deg	
1	2340.000	47.99	-26.01	74.00	47.39	30.68	3.69	33.77	100	0 Peak
2	2340.000	36.37	-17.63	54.00	35.77	30.68	3.69	33.77	100	154 Average
3 @	2462.000	103.63			103.15	30.46	3.81	33.79	100	0 Peak
4 @	2462.000	93.87			93.39	30.46	3.81	33.79	100	154 Average
5	2483.500	37.16	-16.84	54.00	36.69	30.43	3.84	33.80	100	154 Average
6	2483.500	50.83	-23.17	74.00	50.36	30.43	3.84	33.80	100	0 Peak

Remark: #3 and #4 Fundamental Signal

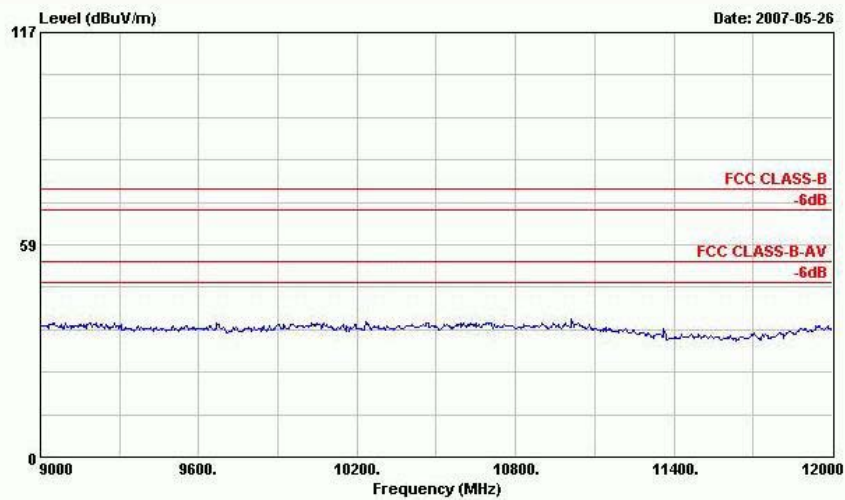


Site : 03CH04-HY  
 Condition: FCC CLASS-B 3m HF-ANT HORIZONTAL  
 EUT : PDA Phone  
 POWER : 120Vac/60Hz  
 MODEL : FR 742004-01  
 MODE : 11b Tx\_Ch11;2462MHz  
 Data Rate: 11  
 Plane : E2



Site : 03CH04-HY  
 Condition: FCC CLASS-B 3m HF-ANT HORIZONTAL  
 EUT : PDA Phone  
 POWER : 120Vac/60Hz  
 MODEL : FR 742004-01  
 MODE : 11b Tx\_Ch11;2462MHz  
 Data Rate: 11  
 Plane : E2

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	8085.000	52.62	-21.38	74.00	40.08	39.47	6.80	33.73	100	0 Peak
2	8085.000	39.18	-14.82	54.00	26.64	39.47	6.80	33.73	100	0 Average



Site : 03CH04-HY  
 Condition: FCC CLASS-B 3m ACTIVE HORN HORIZONTAL  
 EUT : PDA Phone  
 POWER : 120Vac/60Hz  
 MODEL : FR 742004-01  
 MODE : 11b Tx\_Ch11;2462MHz  
 Data Rate: 11  
 Plane : E2