



FCC TEST REPORT

for

47 CFR Part 15 Subpart C

Equipment : Quad-band Smart Phone
(GSM850/GSM900/DCS1800/PCS1900/Bluetooth/WLAN)
Trade Name : ASUS
Model No. : P525
FCC ID : MSQP525
Filing Type : Certification
Applicant : ASUSTeK COMPUTER INC.
No. 150, Li-Te Rd., Peitou, Taipei, Taiwan, R.O.C.

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- The data shown in this test report were carried out on July 27, 2006 at **Sporton International Inc. LAB.**
- Report No.: FR632820-02, Report Version: Rev. 01

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Report Version: Rev. 01



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History of this test report

Report Issue Date: Aug. 03, 2006

Report No.	Description



1. General Description of Equipment under Test

1.1 Applicant

ASUSTeK COMPUTER INC.

No. 150, Li-Te Rd., Peitou, Taipei, Taiwan, R.O.C.

1.2 Manufacturer

ASUSTeK COMPUTER INC.

No. 150, Li-Te Rd., Peitou, Taipei, Taiwan, R.O.C.

1.3 Basic Description of Equipment under Test

Equipment	: Quad-band Smart Phone (GSM850/GSM900/DCS1800/PCS1900/Bluetooth/WLAN)
Trade Name	: ASUS
Model No.	: P525
FCC ID	: MSQP525
Power Supply Type	: Switching
AC Power Cord	: AC 120V, Non-shielded, Wall-mount, 1.8 meter, 2 pin
Adapter	: PI, P005WA05OW
Battery	: ASUS, SBP-06
Earphone	: Cotron, CHM-201STV01017G
USB Cable	: Foxlink, FY663084-A

**1.4 Feature of Equipment under Test**

DUT Type :	Quad-band Smart Phone (GSM850/GSM900/DCS1800/PCS1900/Bluetooth/WLAN)
Trade Name :	ASUS
Model Name :	P525
FCC ID :	MSQP525
Tx Frequency :	GSM850 : 824 ~ 849 MHz PCS1900 : 1850 ~1910 MHz Bluetooth : 2400~2483.5 MHz 802.11b : 2400 ~ 2483.5 MHz
Rx Frequency :	GSM850 : 869 ~ 894 MHz PCS1900 : 1930 ~ 1990 MHz Bluetooth : 2400~2483.5 MHz 802.11b : 2400 ~ 2483.5 MHz
Number of Channels :	Bluetooth : 79 802.11b : 11
Carrier Frequency of Each Channel :	Bluetooth : 2402+n*1 MHz; n=0~78 802.11b : 2412+(n-1)*5 MHz; n=1~11
Antenna Connector :	N/A
Antenna Type :	GSM850/PCS1900 : Fixed Internal Bluetooth : Chip Antenna 802.11b : PIFA Antenna
Antenna Gain :	Bluetooth : 0 dBi 802.11b : 0 dBi
Maximum Output Power to Antenna :	GSM850 : 31.72 dBm PCS1900 : 28.75 dBm Bluetooth : 3.54 dBm 802.11b : 16.08 dBm
HW Version :	Rev. 1.2
SW Version :	V3.1.0 CHT
Power Rating (DC/AC , Voltage and Current of RF element or PA) :	3.7V / 1300mA
Digital Modulation Emission :	GSM850/PCS1900 : GMSK Bluetooth : GFSK 802.11b : DSSS (DBPSK,DQPSK,CCK)
DUT Stage :	Identical Prototype

2 Test Configuration of Equipment under Test

2.1 Test Manner

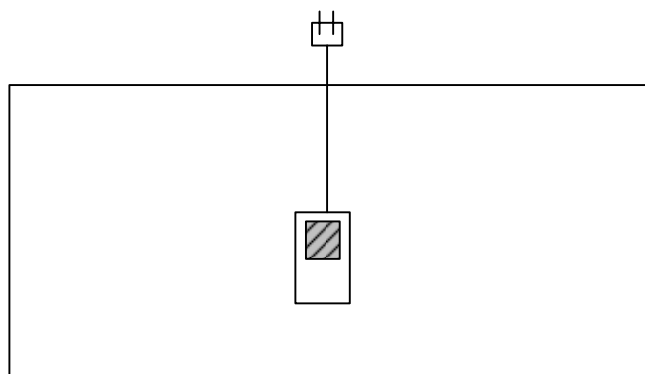
- The EUT has been associated with peripherals pursuant to ANSI C63.4-2003 and configuration operated in a manner tended to maximize its emission characteristics in a typical application.
- For spurious emission below 1GHz, only one channel of each application was tested because it is not related to channel selection.
- The EUT is programmed to transmit signal continuously for all testings.
- Frequency range investigated: conduction 150 kHz to 30 MHz, radiation 30 MHz to 25000MHz.

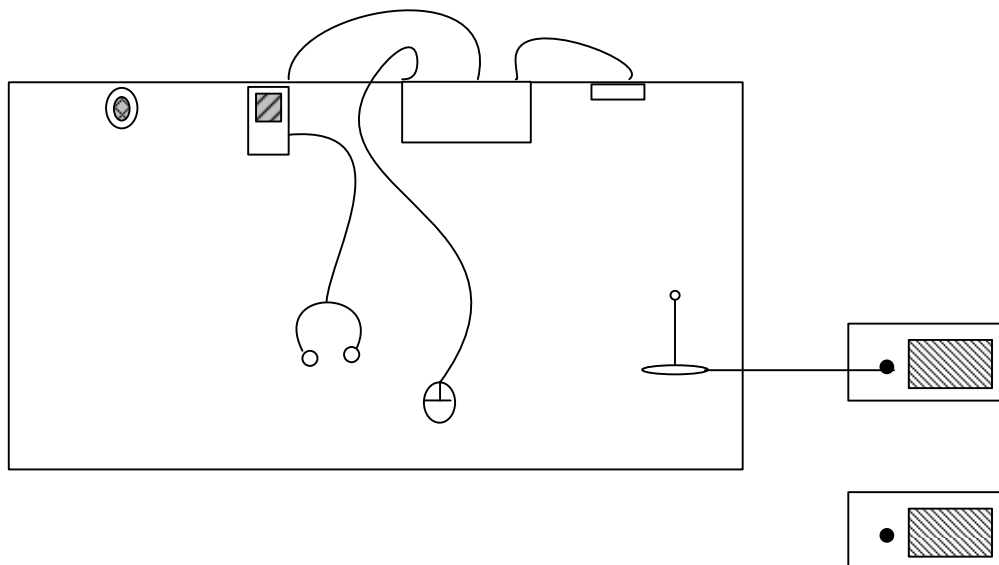
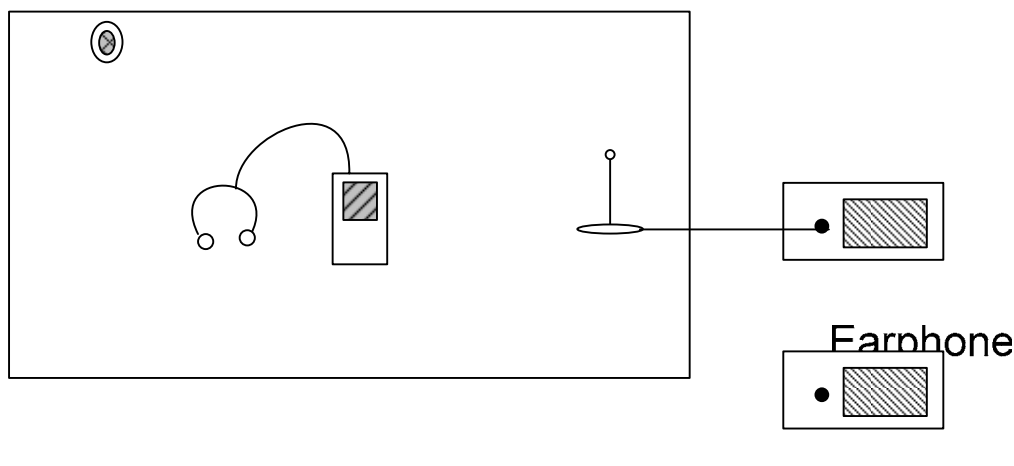
2.2 Test Mode

Application		
	802.11b	BT
Radiated Emission	Mode 1: Tx_CH01_2412 MHz	Mode 4: Tx_CH00_2402 MHz
	Mode 2: Tx_CH06_2437 MHz	Mode 5: Tx_CH39_2441 MHz
	Mode 3: Tx_CH11_2462 MHz	Mode 6: Tx_CH78_2480 MHz
Conducted Emission	Mode 1: PCS1900 Idle Mode + Earphone + BT Link + WLAN Link + MPEG4 + USB Link	
	Mode 2: PCS1900 Idle Mode + Earphone + BT Link + WLAN Link + MPEG4 + Adapter	
	Mode 3: PCS1900 Idle Mode + Earphone + BT Link + WLAN Link + Camera + Adapter	

2.3 Connection Diagram of Test System

<Radiated Emission>



<Conducted Emission>
Mode 1

Mode 2-3
**Bluetooth
Earphone**
EUT

2.4 Ancillary Equipment List

Item	Asset	Model Name	Power Cord
1.	Base Station (R&S)	CMU 200	AC 100-240V
2.	Notebook (DELL)	D400	AC 100-240V
3.	USB Mouse (Microsoft)	B75-00093	Non-shielded, 1.8 m
4.	Bluetooth Earphone (Free Style)	JD-100	N/A
5.	WLAN AP (SMC)	SMC-100	AC 100-240V
6.	Adapter (PI)	P005WA05OW	AC 100-240V
7.	Earphone (Cotron)	CHM-201STV01017G	N/A
8.	USB Cable (Foxlink)	FY663084-A	Weave-shielded, 1.2 m



3. RF Utility

The executive program, EMCTEST.EXE and Activesync.exe under WIN XP installed in notebook, which generates a complete line of continuously repeating " H" pattern were used as the test software.

The programmed RF Utility "AlpsRF Toolp" and "BT_Test Mode" 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, 03CH06-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. 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

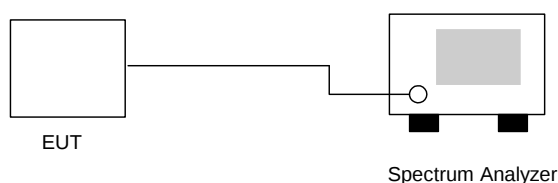
5.2.1 Measuring Instruments :

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 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
- Temperature : 24°C
- Relative Humidity : 51%
- Test Enginner : James

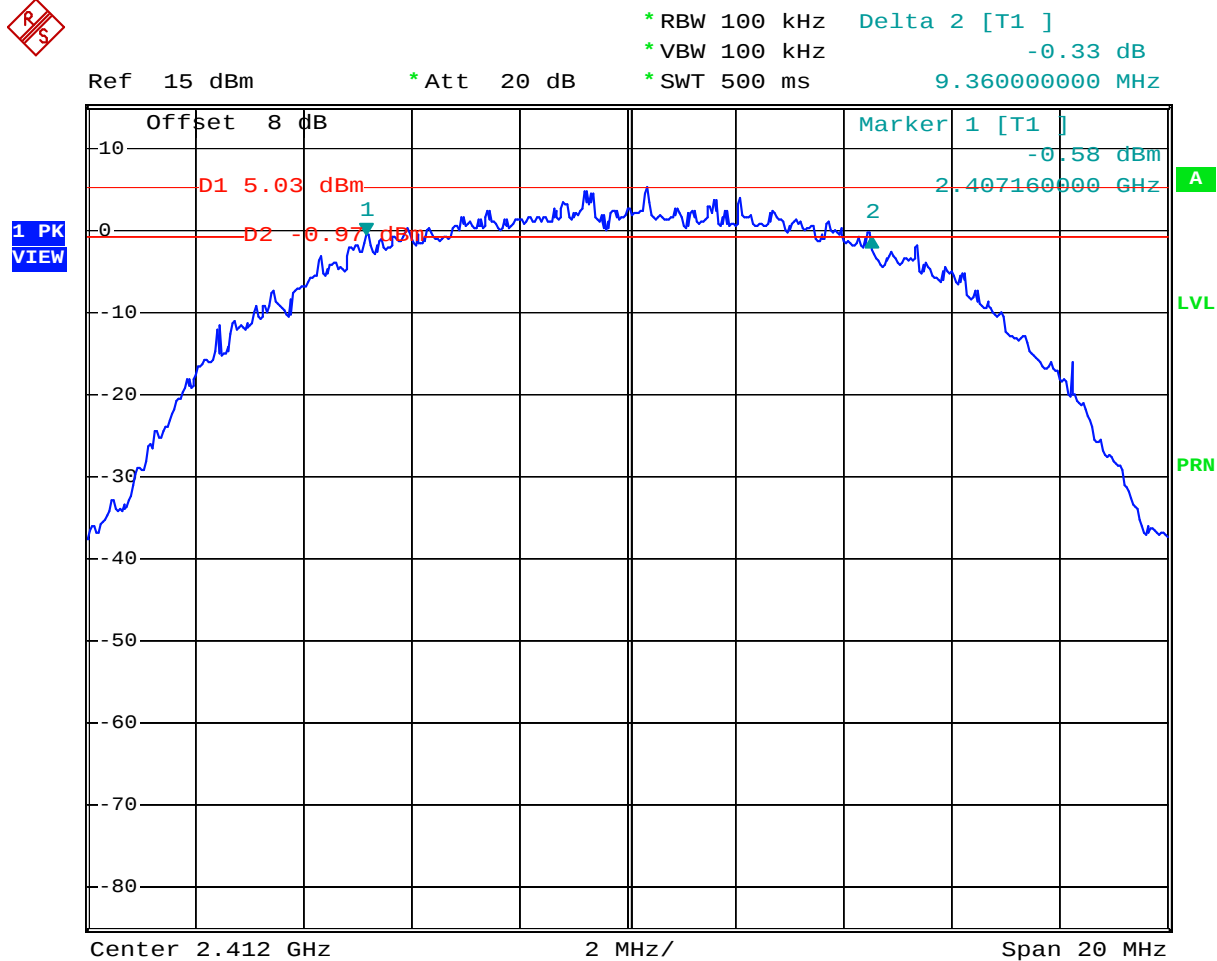
802.11b

Channel	Frequency (MHz)	6dB Emission bandwidth (MHz)	Limits (MHz)	Plot Ref. No.
01	2412	9.36	> 0.5MHz	Mode 1
06	2437	9.32	> 0.5MHz	Mode 2
11	2462	9.32	> 0.5MHz	Mode 3



5.2.5 6dB Bandwidth

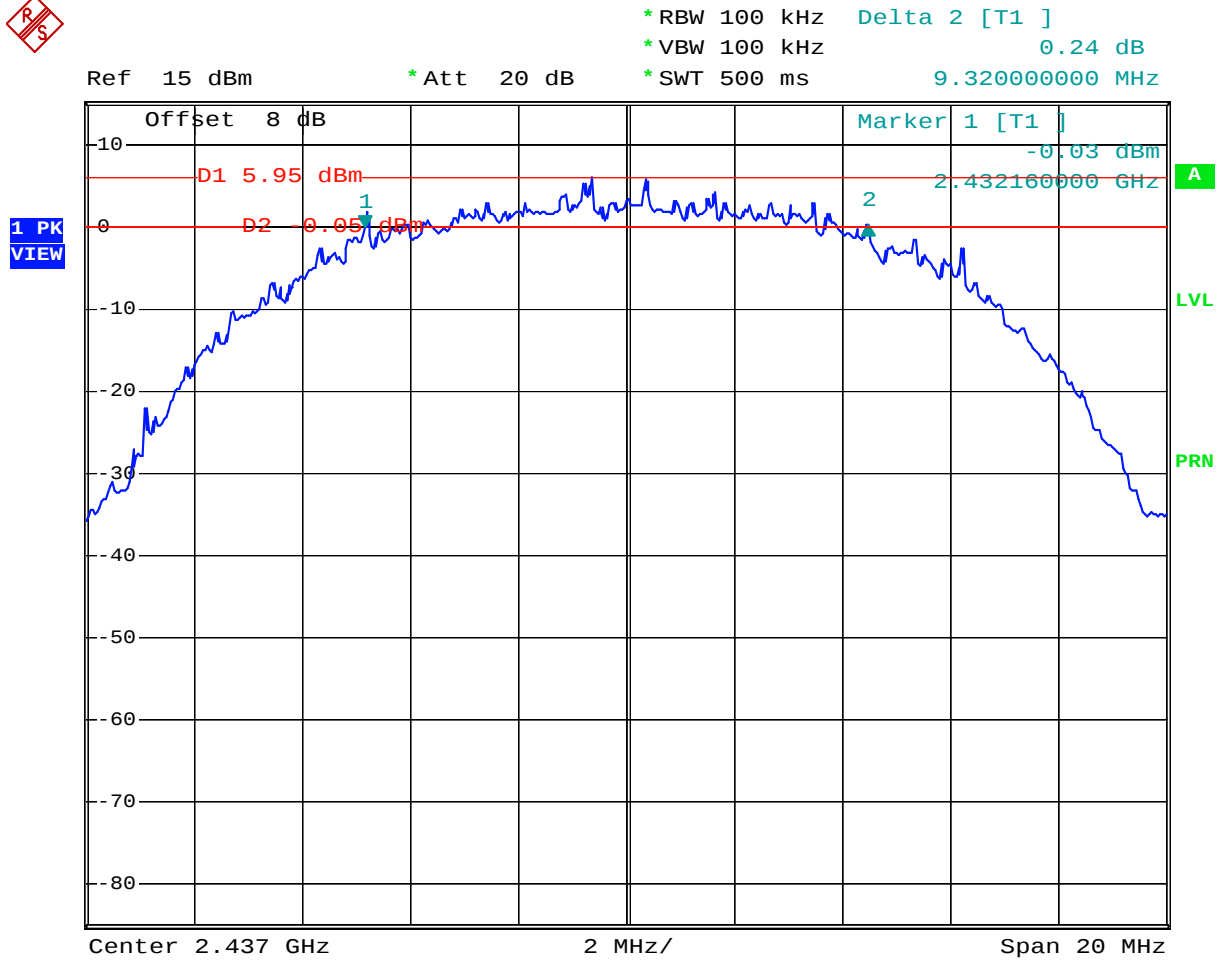
Mode 1



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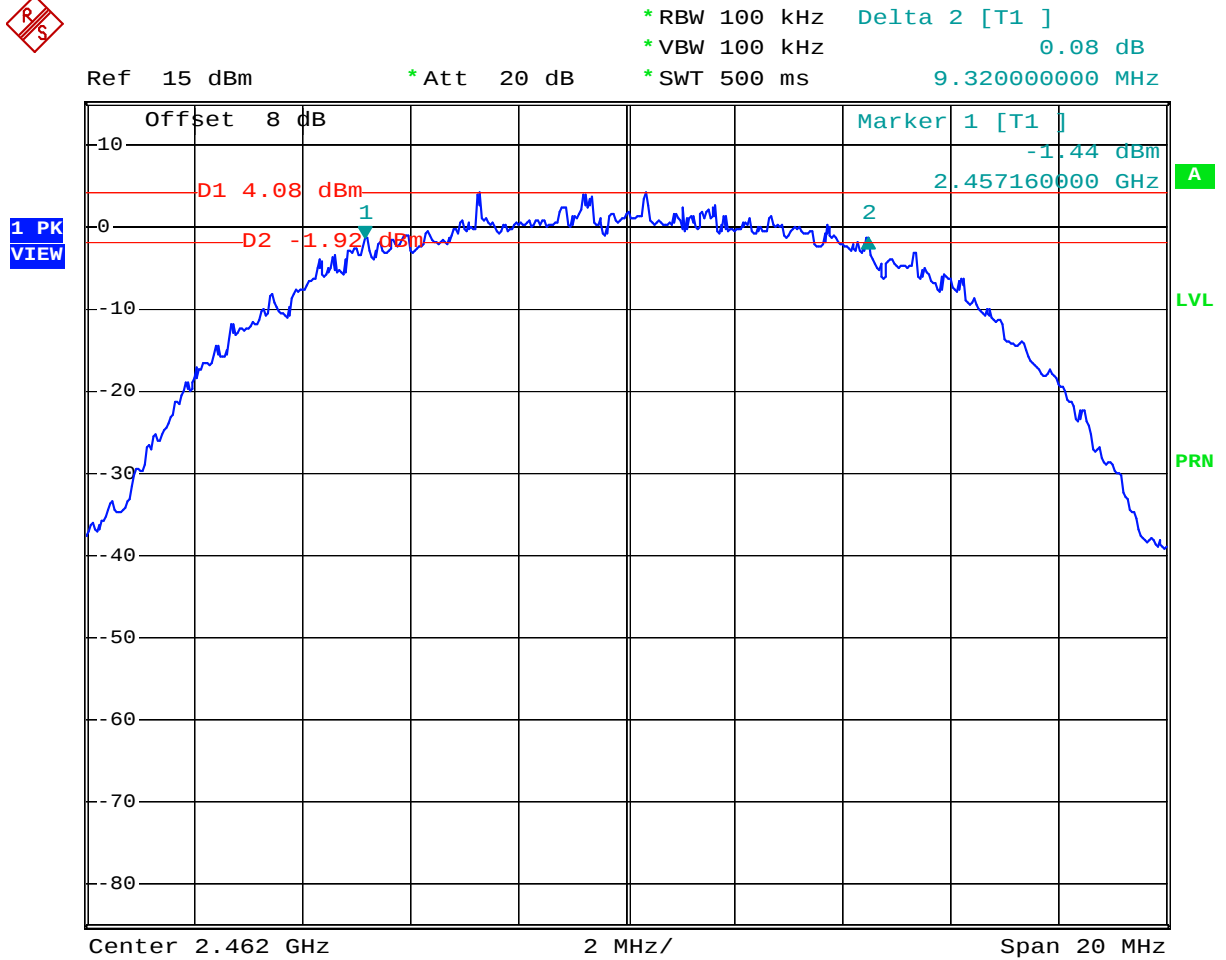
Mode 2



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Mode 3



Date: 20.APR.2006 22:58:20

5.3 Power Spectral Density Measurement

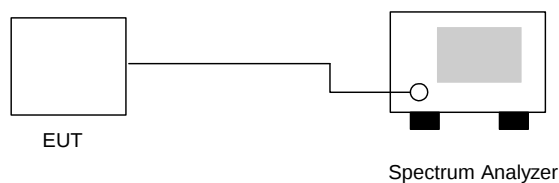
5.3.1 Measuring Instruments :

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
- Temperature : 24°C
- Relative Humidity : 51%
- Test Enginner : James

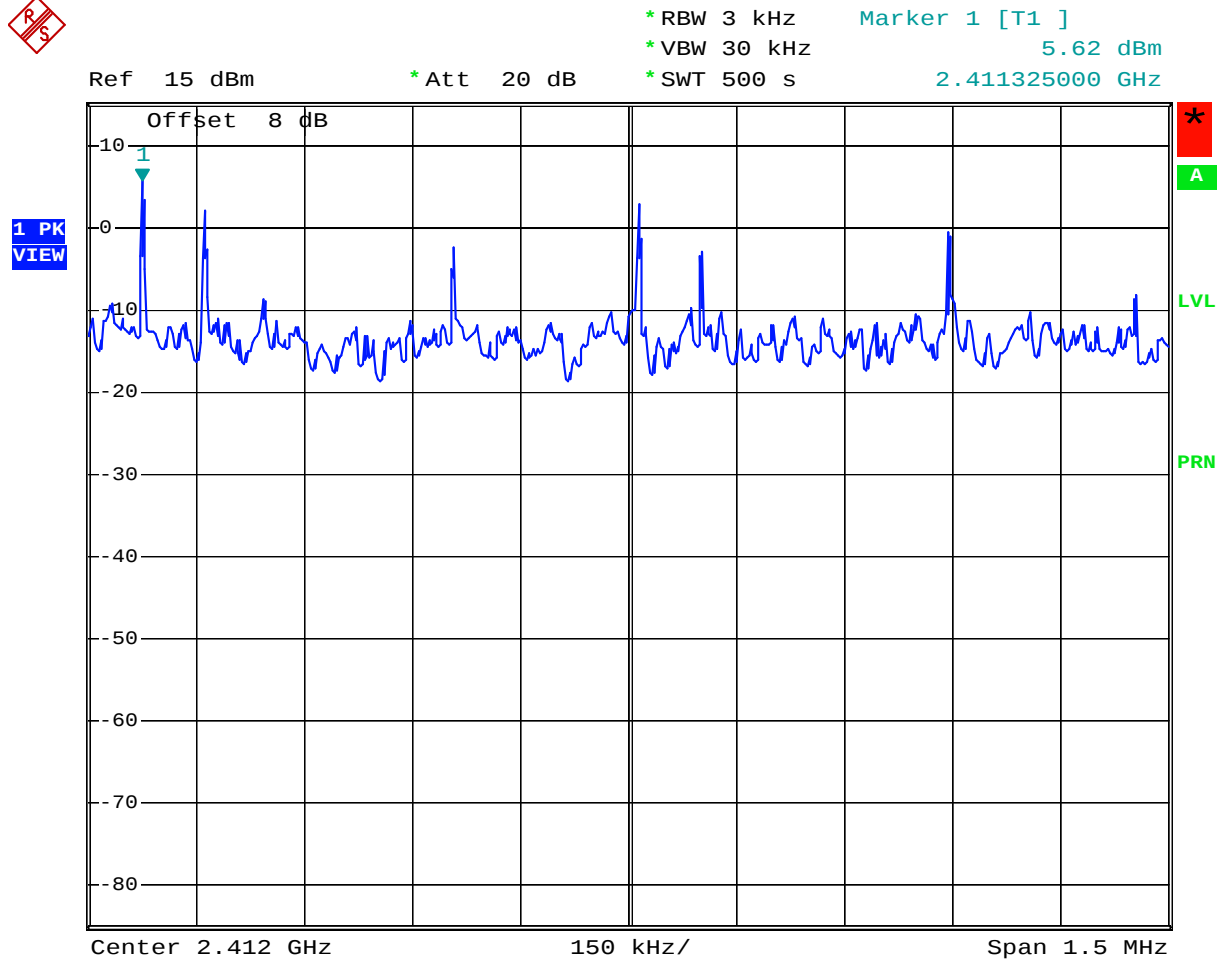
802.11b

Channel	Frequency (MHz)	Power Spectral Density (dBm)	Limits (dBm)	Plot Ref. No.
01	2412	5.62	8	Mode 1
06	2437	5.27	8	Mode 2
11	2462	-3.77	8	Mode 3



5.3.5 Power Spectral Density

Mode 1



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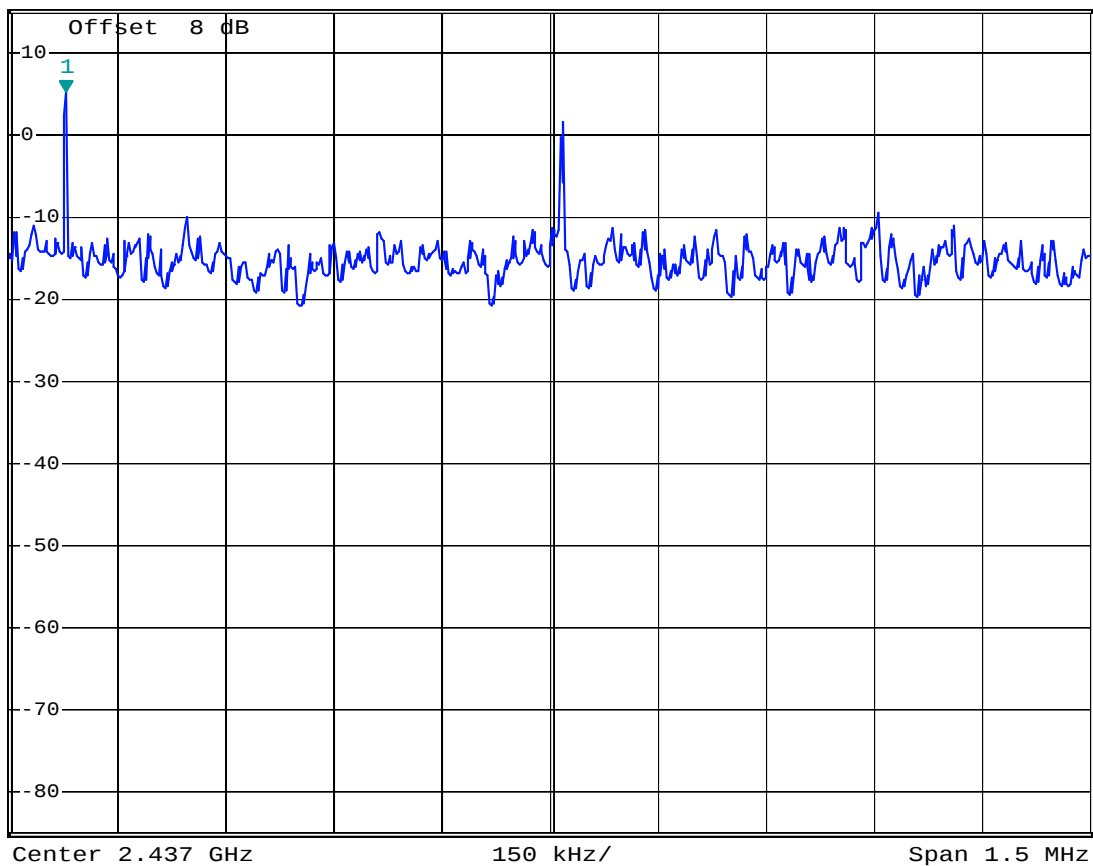
Mode 2



* RBW 3 kHz Marker 1 [T1]
* VBW 30 kHz 5.27 dBm
* SWT 500 s 2.436328000 GHz

Ref 15 dBm

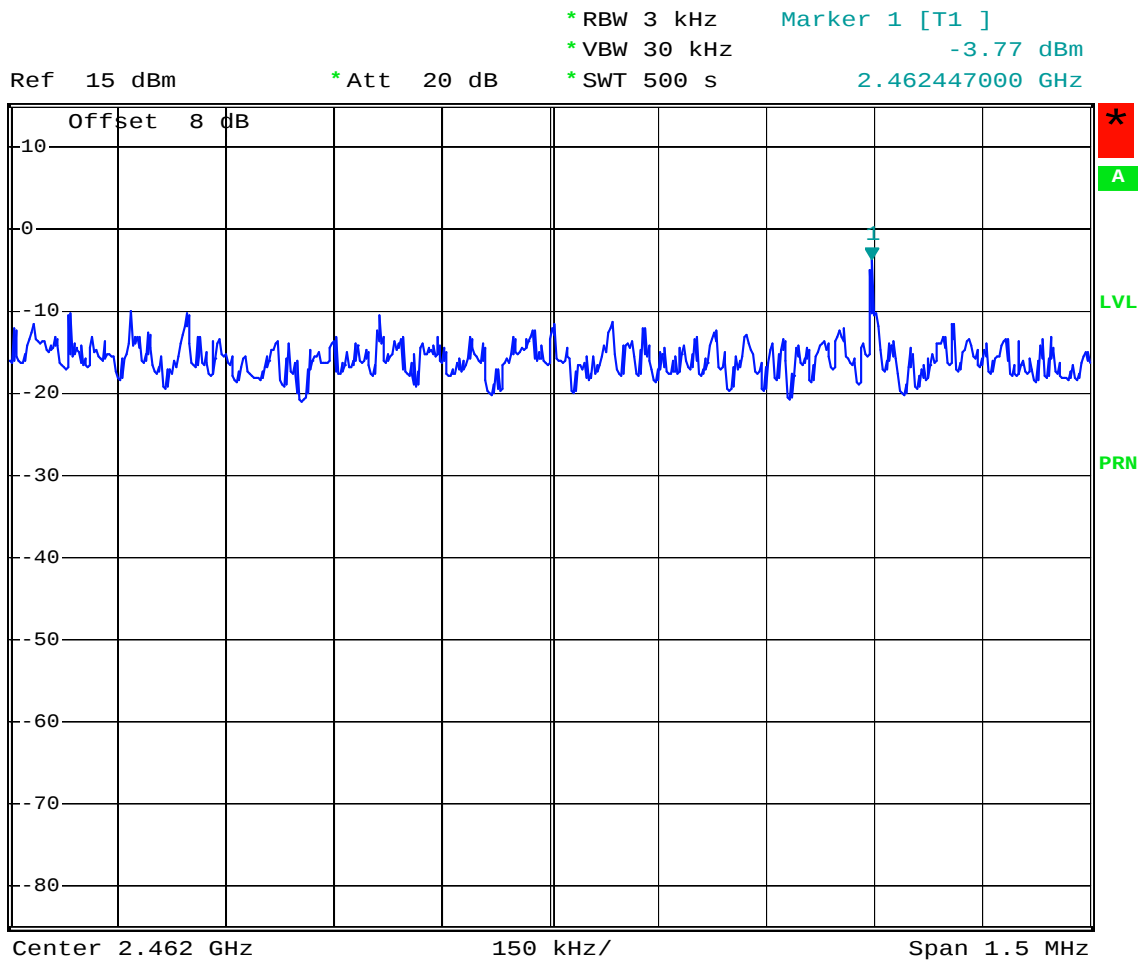
* Att 20 dB



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Mode 3



Date: 20.APR.2006 23:39:47

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 and BT
- Temperature : 24°C
- Relative Humidity : 51%
- Test Enginner : James

- Test Result in WLAN lower band (Channel 1) : PASS
- Test Result in WLAN higher band (Channel 11) : PASS
- Test Result in BT lower band (Channel 00) : PASS
- Test Result in BT higher band (Channel 78) : PASS

5.4.4 Note on Band Edge Emission :

➤WLAN 802.11b

CH01 (Horizontal)

Frequency	Level	Over	Limit	Read	Abtebba	Cable	Preamp	Ant	Table	Remark
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	
2390.00	54.91	-19.09	74.00	55.63	30.48	35.46	4.26	100	0	Peak
2390.00	39.31	-14.69	54.00	40.02	30.48	35.46	4.26	100	169	Average

CH01 (Vertical)

Frequency	Level	Over	Limit	Read	Abtebba	Cable	Preamp	Ant	Table	Remark
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	
2390.00	55.49	-18.51	74.00	56.20	30.48	35.46	4.26	8995	360	Peak
2390.00	41.45	-12.55	54.00	42.16	30.48	35.46	4.26	100	280	Average

**CH11 (Horizontal)**

Frequency	Level	Over	Limit	Read	Abtebba	Cable	Preamp	Ant	Table	Remark
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	
2500.00	39.78	-14.22	54.00	40.52	30.40	35.53	4.39	100	33	Average
2500.00	49.96	-24.04	74.00	50.70	30.40	35.53	4.39	100	360	Peak

CH11 (Vertical)

Frequency	Level	Over	Limit	Read	Abtebba	Cable	Preamp	Ant	Table	Remark
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	
2494.00	39.99	-14.01	54.00	40.73	30.40	35.53	4.39	100	36	Average
2494.00	59.79	-14.21	74.00	60.53	30.40	35.53	4.39	100	360	Peak

➤BT**CH00 (Horizontal)**

Frequency	Level	Over	Limit	Read	Abtebba	Cable	Preamp	Ant	Table	Remark
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	
2324.00	50.62	-23.38	74.00	51.63	30.23	4.17	35.40	100	360	Peak
2324.00	38.36	-15.64	54.00	39.36	30.23	4.17	35.40	106	334	Average

CH00 (Vertical)

Frequency	Level	Over	Limit	Read	Abtebba	Cable	Preamp	Ant	Table	Remark
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	
2318.00	50.94	-23.06	74.00	51.94	30.23	4.17	35.40	100	0	Peak
2318.00	38.50	-15.50	54.00	39.50	30.23	4.17	35.40	100	102	Average

CH78 (Horizontal)

Frequency	Level	Over	Limit	Read	Abtebba	Cable	Preamp	Ant	Table	Remark
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	
2483.50	68.22	-5.78	74.00	69.08	30.29	4.36	35.51	100	0	Peak
2483.50	51.18	-2.92	54.00	52.04	30.29	4.36	35.51	100	335	Average



CH78 (Vertical)

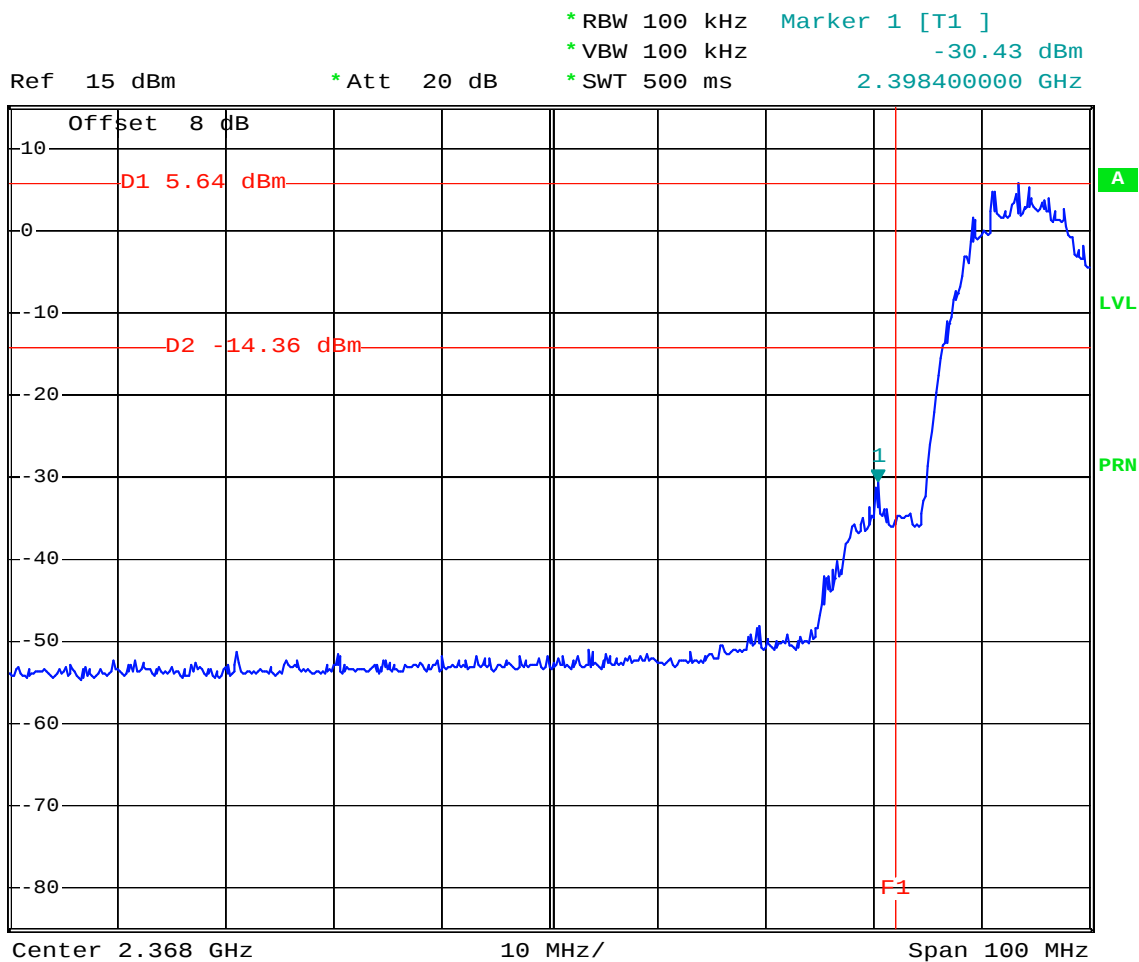
Frequency	Level	Over	Limit	Read	Abtebba	Cable	Preamp	Ant	Table	Remark
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	
2483.50	66.25	-7.75	74.00	67.11	30.29	4.36	35.51	100	360	Peak
2483.50	47.24	-6.76	54.00	48.10	30.29	4.36	35.51	100	323	Average



5.4.5 20dB Band Edge

WLAN 802.11b

CH01



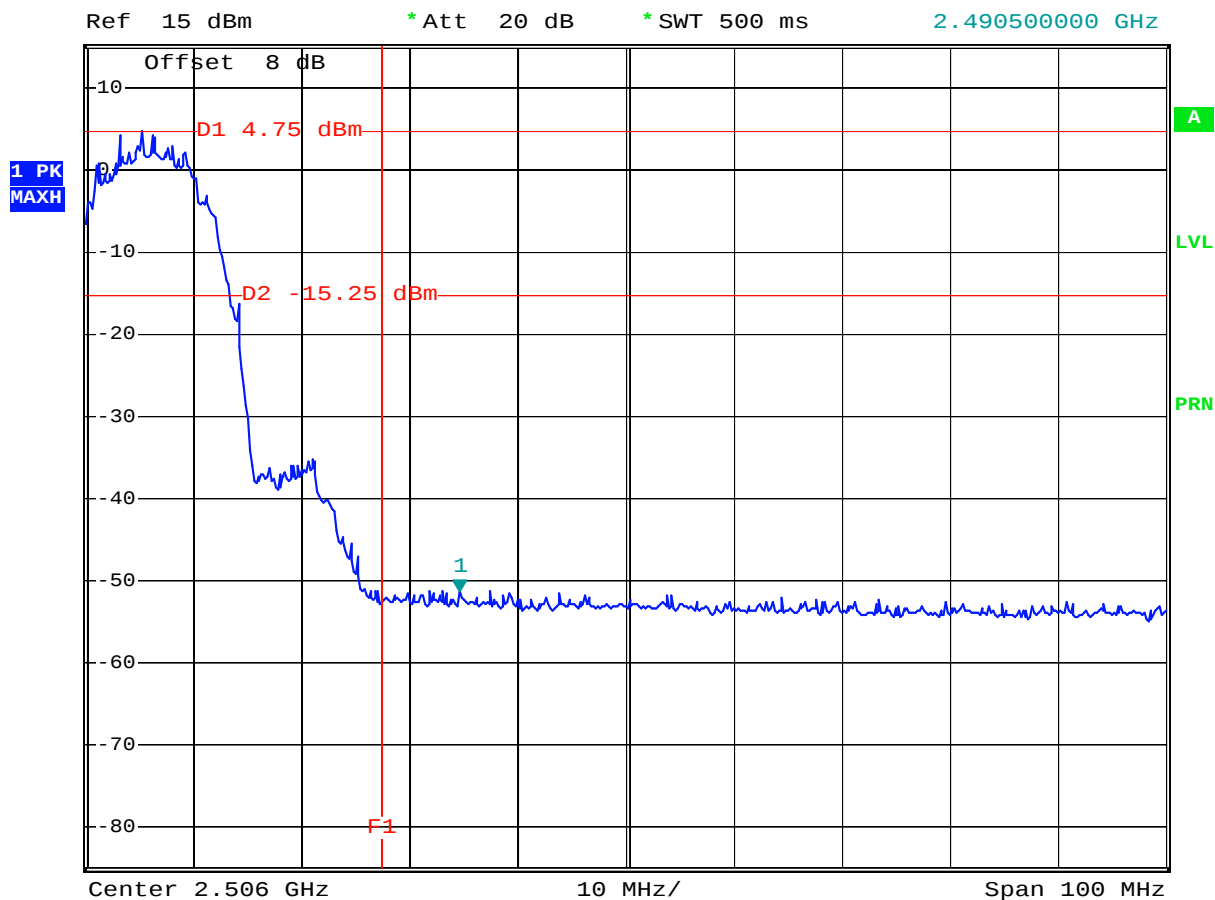
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CH11



* RBW 100 kHz Marker 1 [T1]
* VBW 100 kHz -51.20 dBm
* SWT 500 ms 2.490500000 GHz



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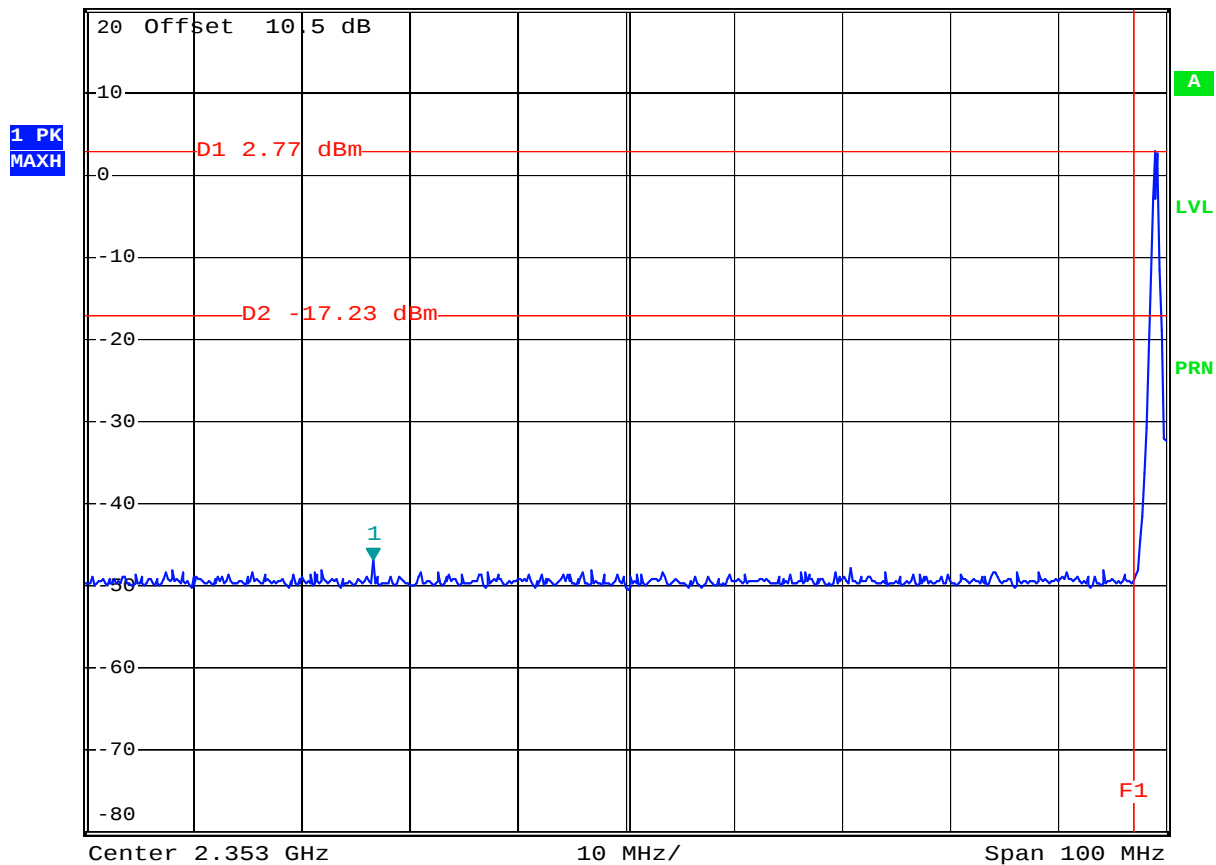


Bluetooth

CH00



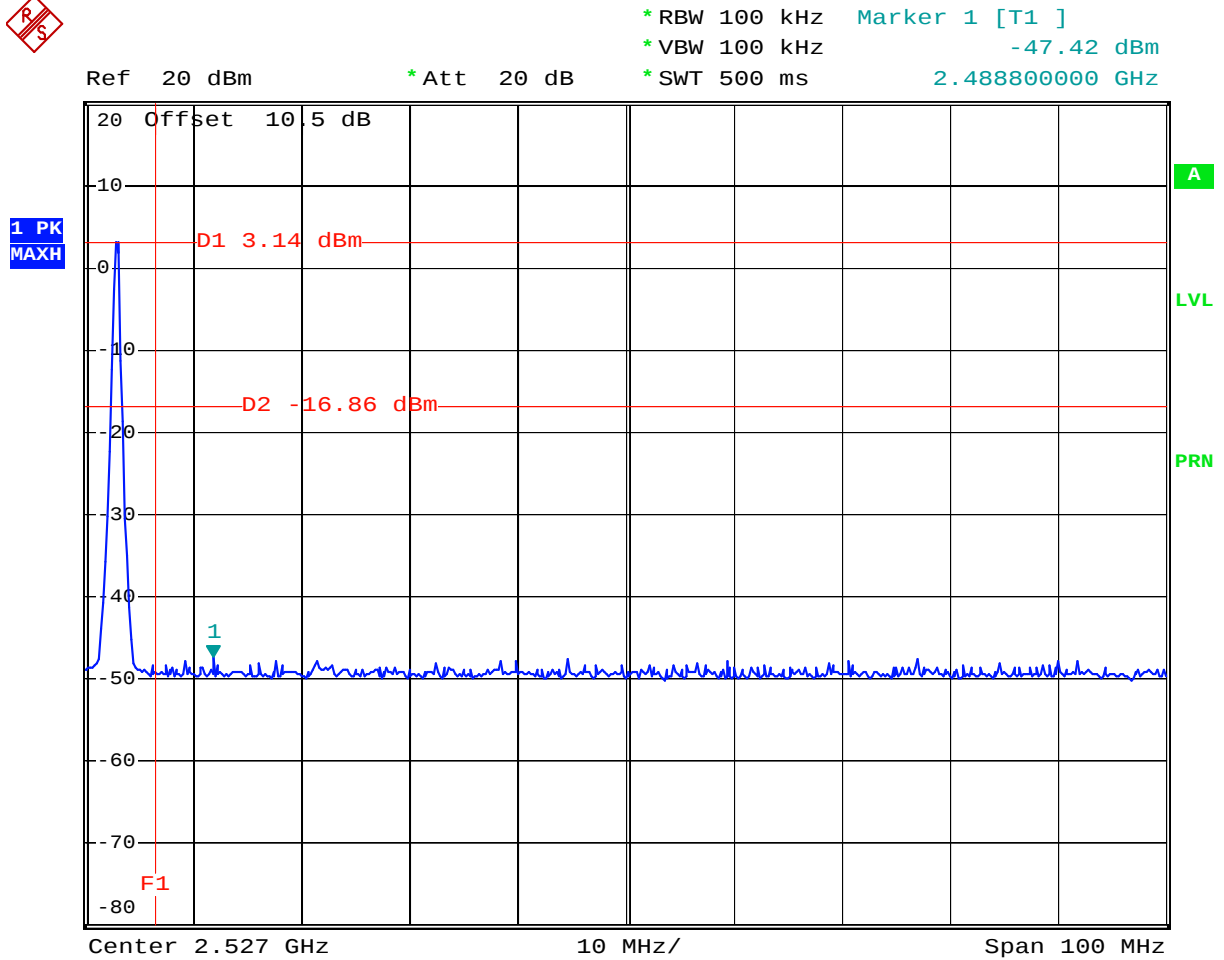
Ref 20 dBm * Att 20 dB * RBW 100 kHz Marker 1 [T1]
* VBW 100 kHz -46.90 dBm
* SWT 500 ms 2.329600000 GHz



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CH78



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5.5 Hopping Channel Separation

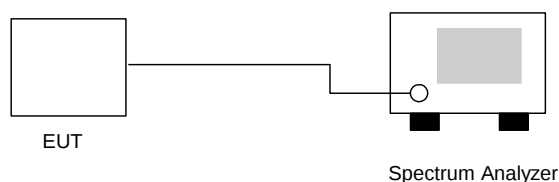
5.5.1 Measuring Instruments :

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 : 51%
- Test Enginner : James

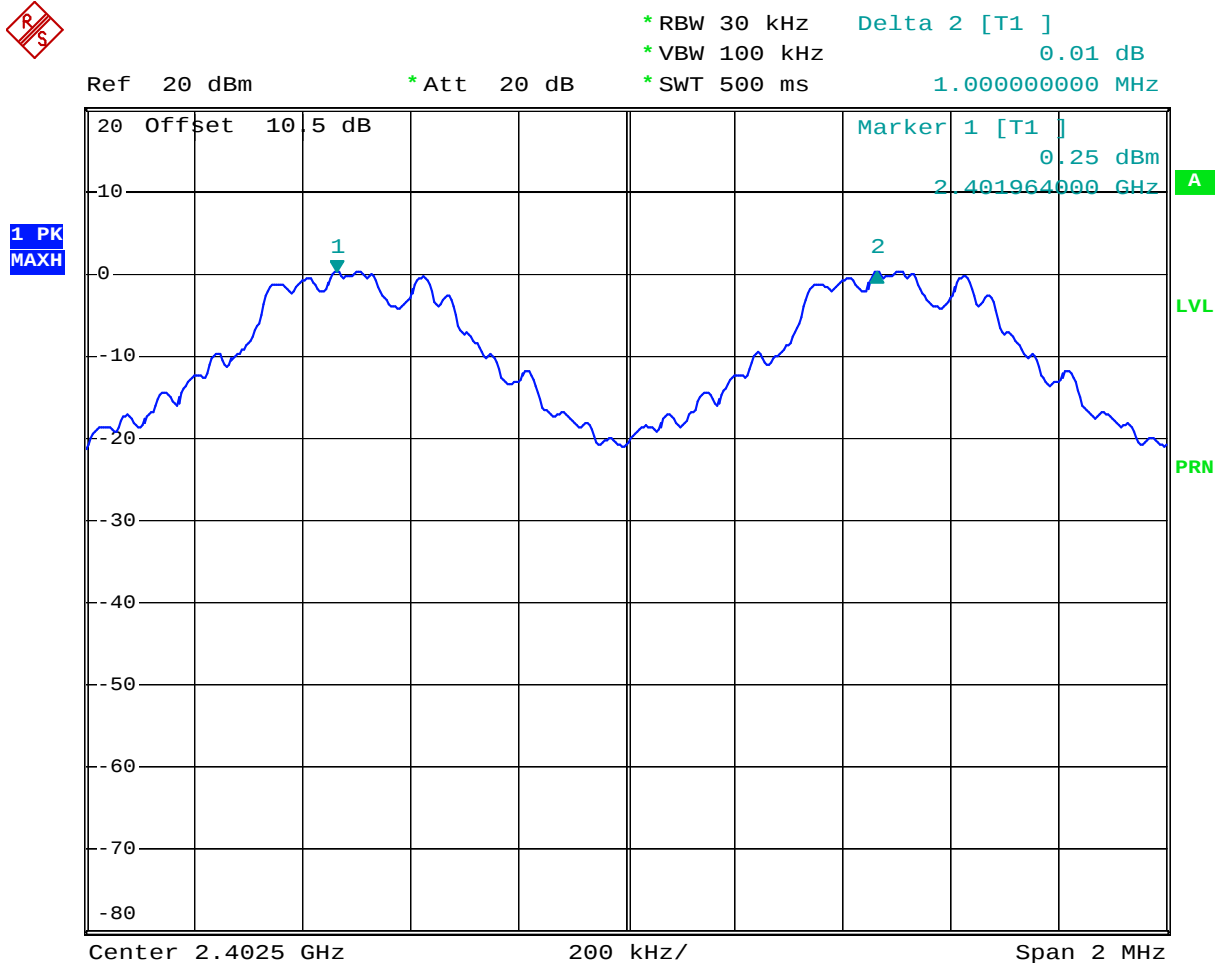
		Carrier Frequency		Limits	Plot
Channel	Frequency (MHz)	Separation (MHz)		(MHz)	Ref. No.
00	2402	1.000		0.928	Mode 1
39	2441	1.004		0.924	Mode 2
78	2480	1.004		0.928	Mode 3

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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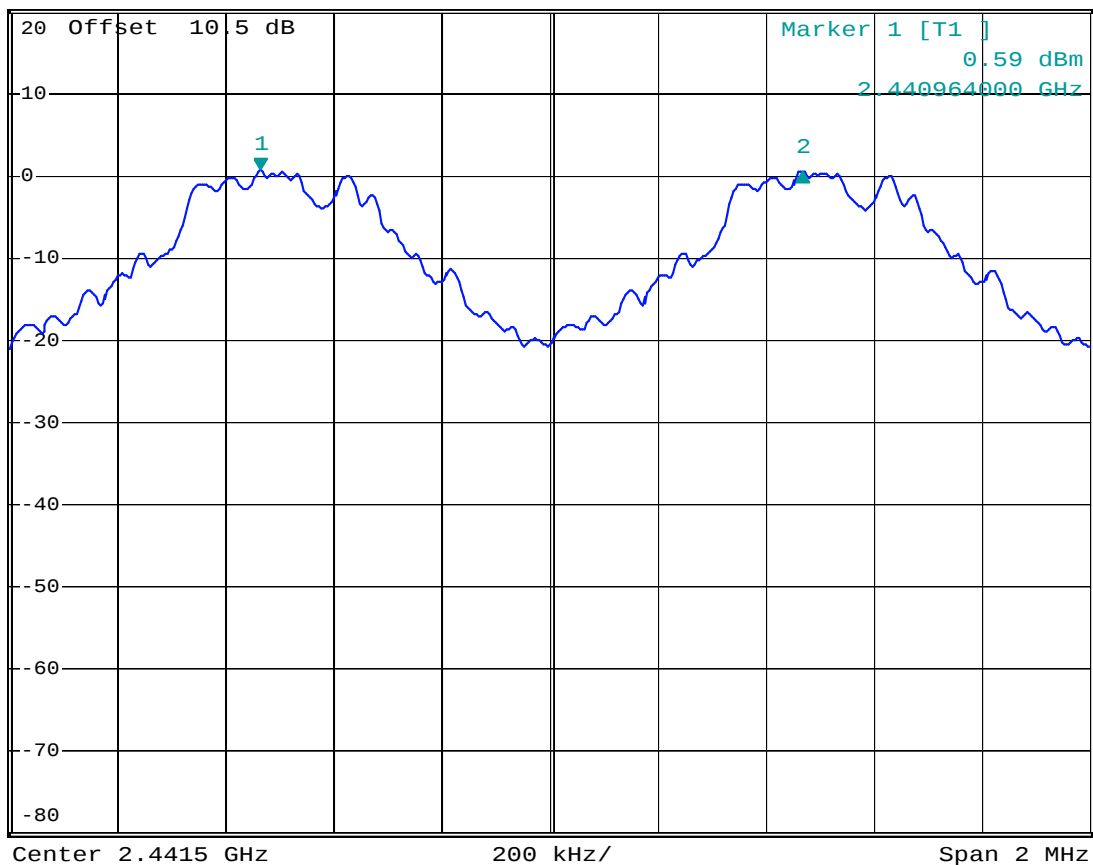
Mode 2



* RBW 30 kHz Delta 2 [T1]
* VBW 100 kHz -0.04 dB
* SWT 500 ms 1.004000000 MHz

Ref 20 dBm

* Att 20 dB



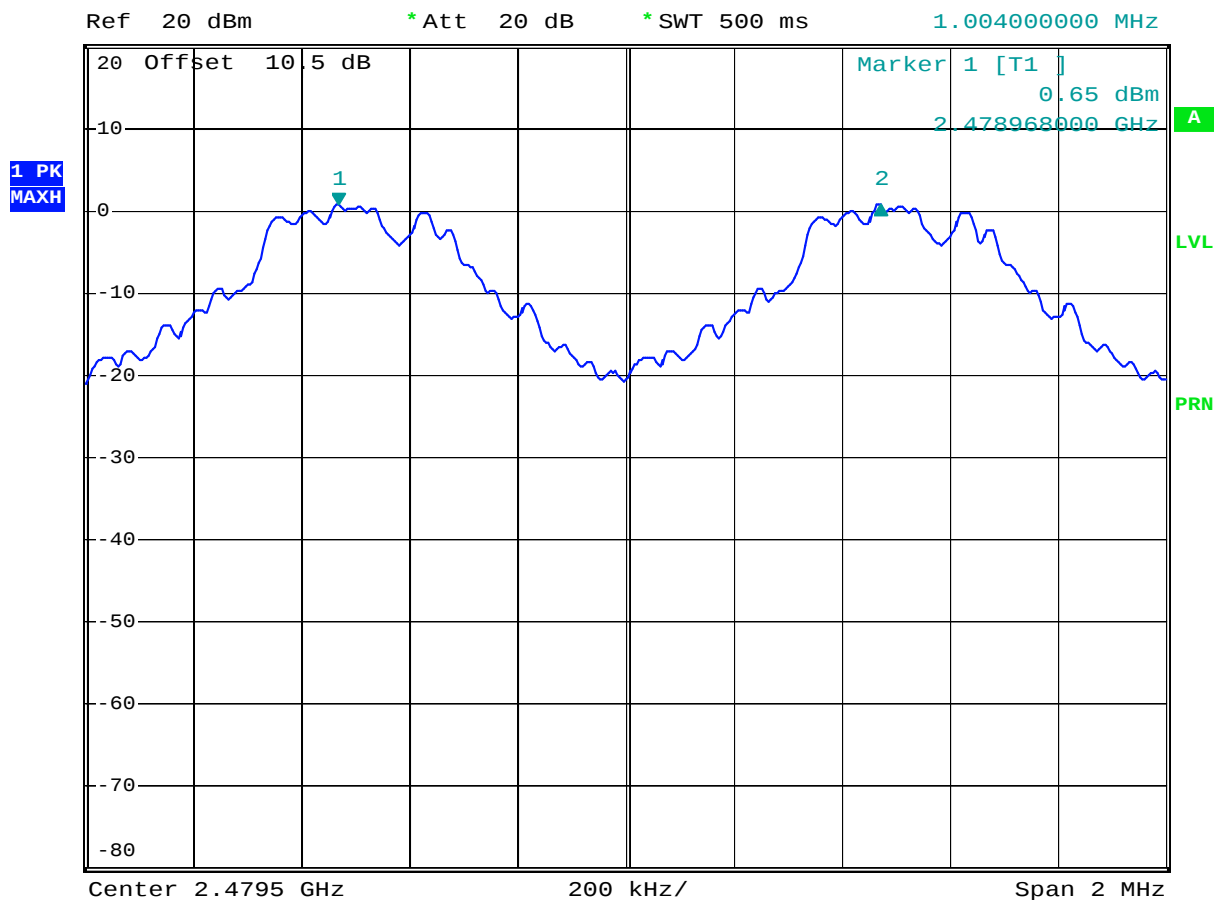
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Mode 3



* RBW 30 kHz Delta 2 [T1]
* VBW 100 kHz -0.01 dB
* SWT 500 ms 1.004000000 MHz



Date: 20.APR.2006 16:22:35

5.6 Number of Hopping Frequency

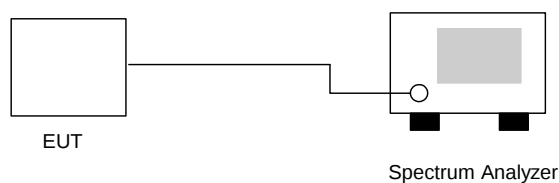
5.6.1 Measuring Instruments :

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 :



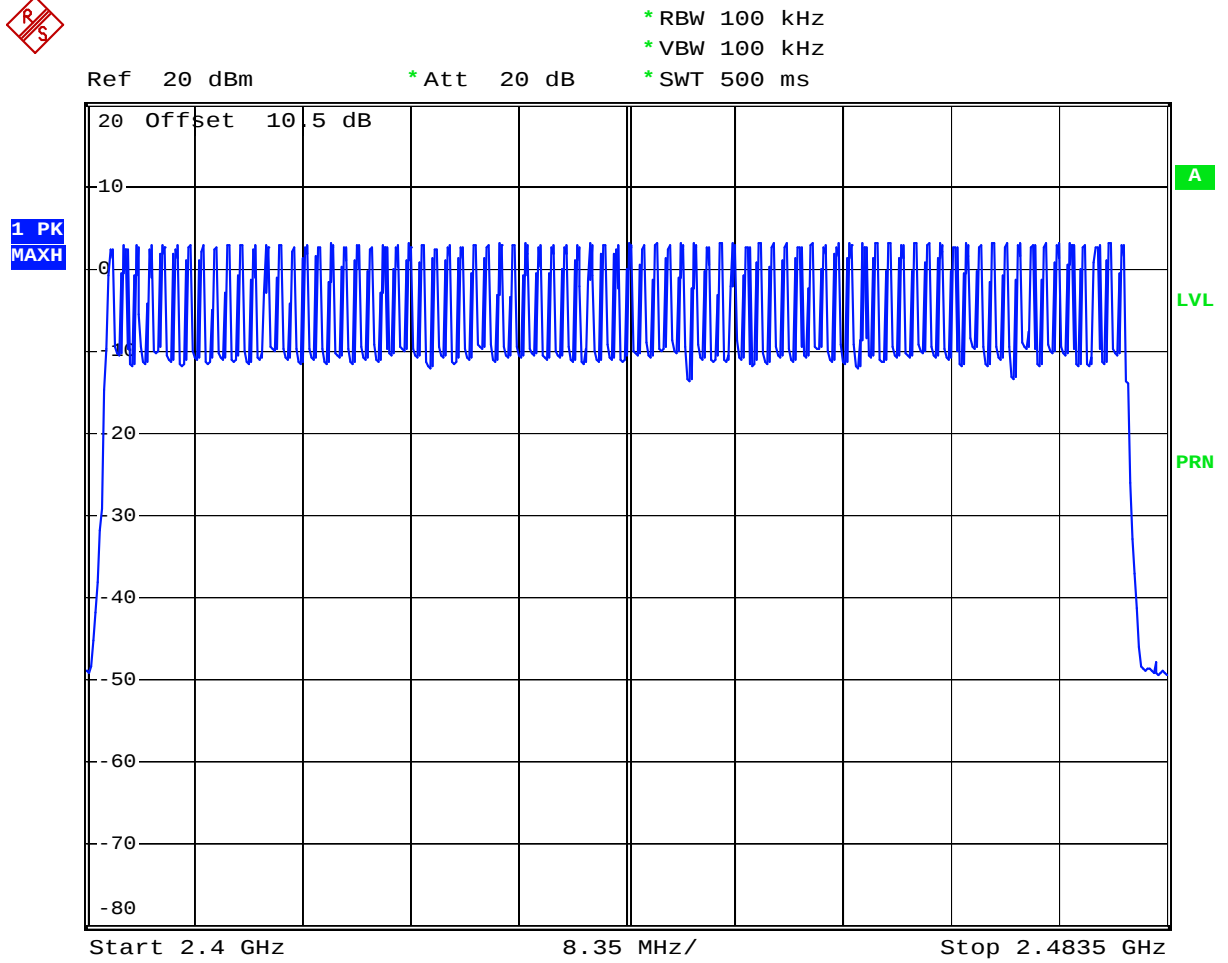
5.6.4 Test Result : See spectrum analyzer plots below

- Application Type : BT
- Temperature : 24°C
- Relative Humidity : 51%
- Test Enginner : James

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



5.6.5 Number of Hopping Frequency



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5.7 Hopping Channel Bandwidth

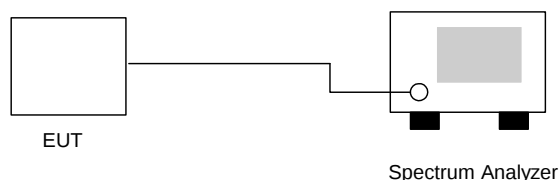
5.7.1 Measuring Instruments :

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

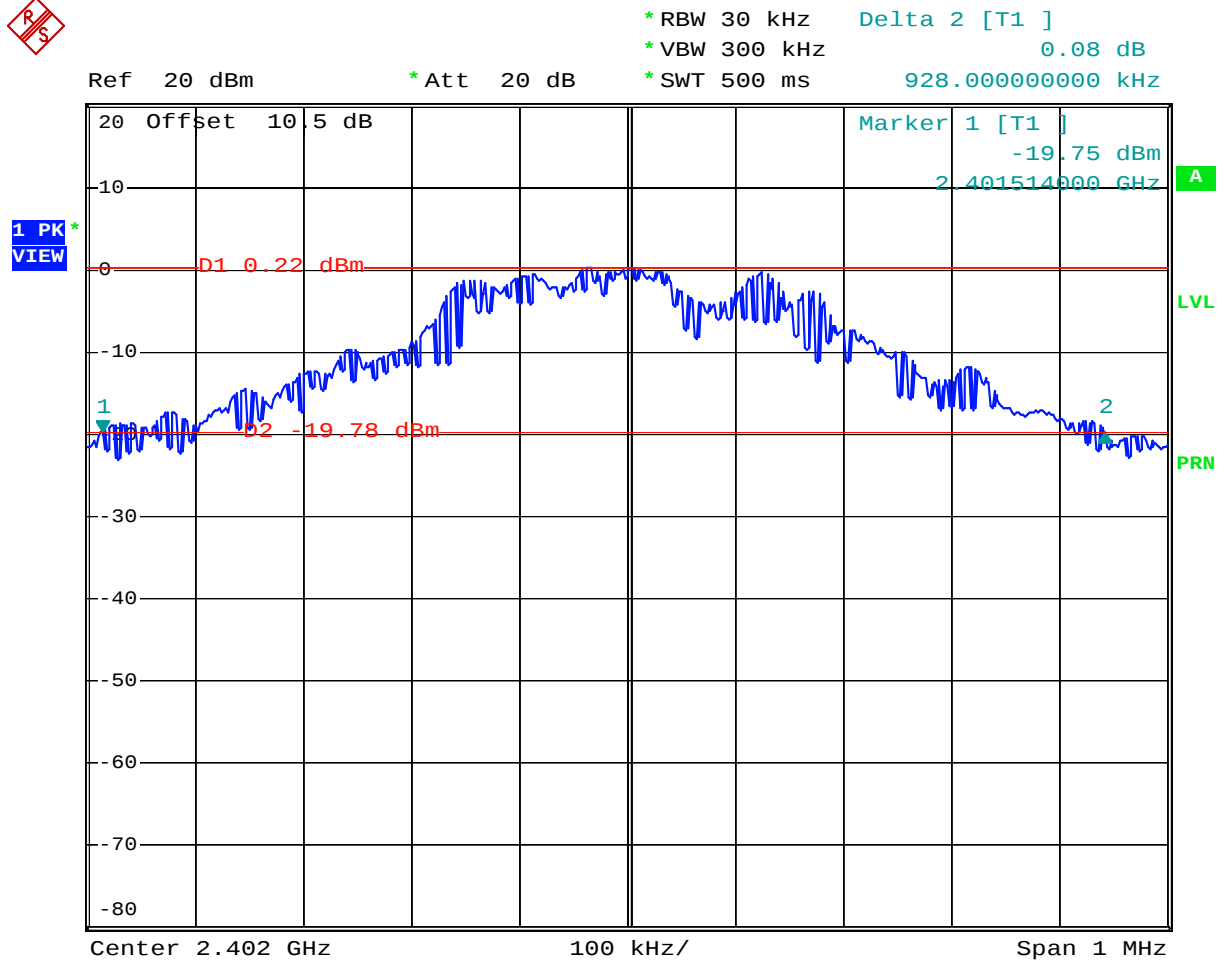
- Application Type : BT
- Temperature : 24°C
- Relative Humidity : 51%
- Test Enginner : James

Channel	Frequency (MHz)	Hopping Channel Bandwidth (MHz)	Limits (MHz)	Plot Ref. No.
00	2402	0.928	1.000	Mode 1
39	2441	0.924	1.000	Mode 2
78	2480	0.928	1.000	Mode 3



5.7.5 Hopping Channel Bandwidth

Mode 1



Date: 20.APR.2006 15:52:06



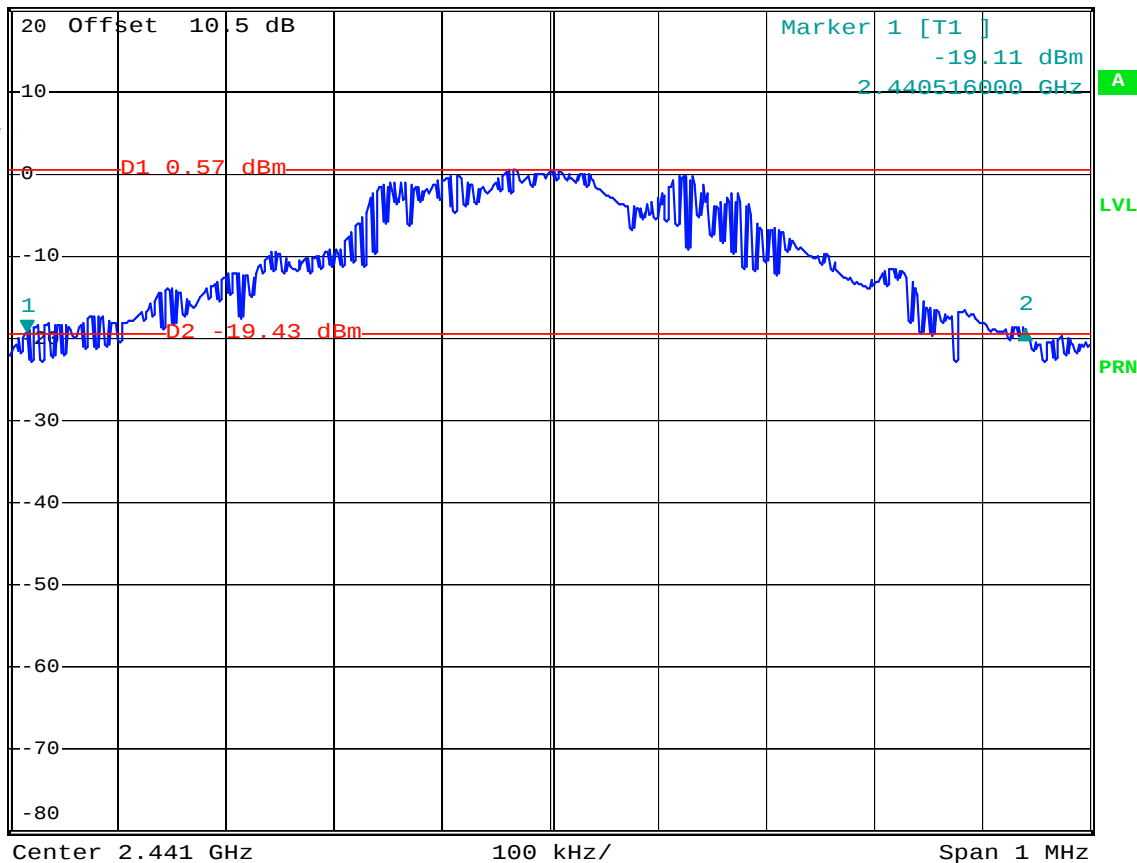
Mode 2



* RBW 30 kHz Delta 2 [T1]
* VBW 300 kHz 0.13 dB
* SWT 500 ms 924.000000000 kHz

Ref 20 dBm

* Att 20 dB



Date: 20.APR.2006 15:53:15



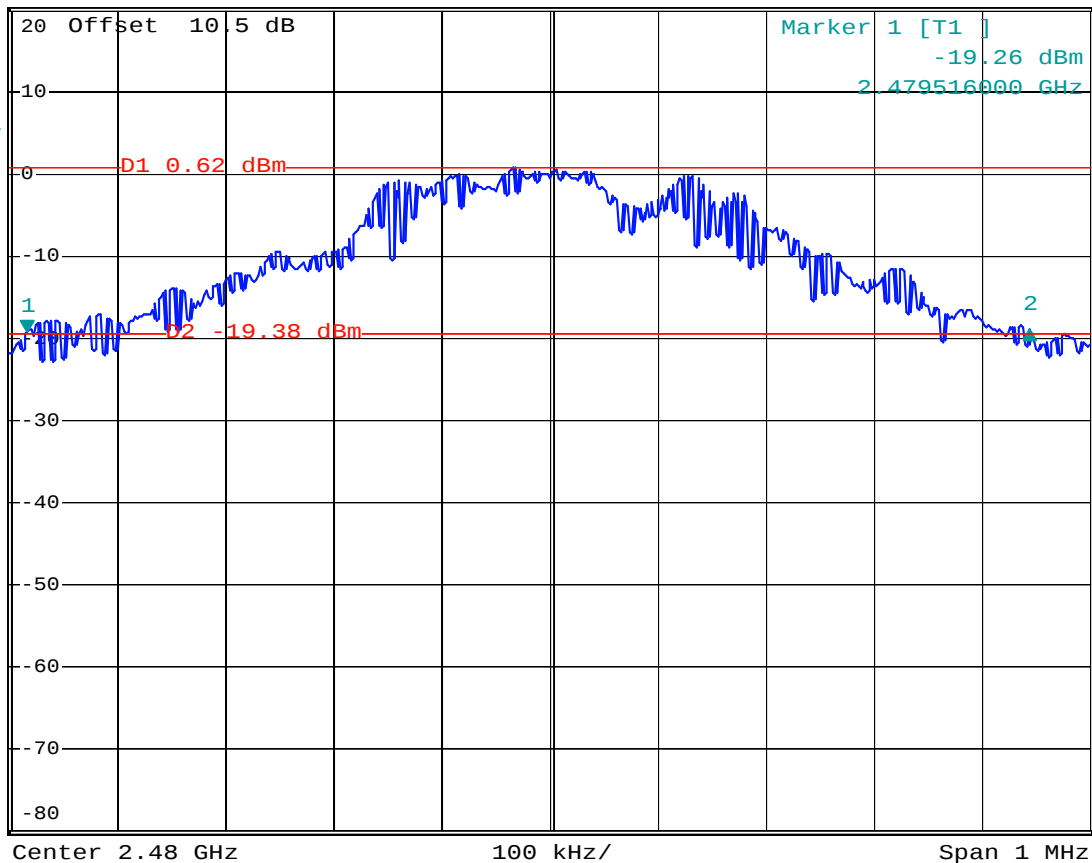
Mode 3



* RBW 30 kHz Delta 2 [T1]
* VBW 300 kHz 0.23 dB
* SWT 500 ms 928.000000000 kHz

Ref 20 dBm

* Att 20 dB



Date: 20.APR.2006 15:54:45

5.8 Dwell Time of Each Frequency

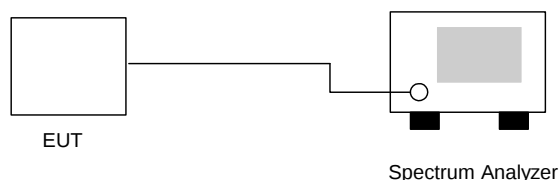
5.8.1 Measuring Instruments :

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 : 51%
- Test Enginner : James

Ch00

Package Mode	Average Hopping Channel	Package Transfer Time (us)	Dwell Time (s)	Limit (s)
DH1	6.9	408	0.089	0.4
DH3	4.3	1674	0.227	0.4
DH5	2.9	2954	0.271	0.4

CH39

Package Mode	Average Hopping Channel	Package Transfer Time (us)	Dwell Time (s)	Limit (s)
DH1	7.7	408	0.099	0.4
DH3	5	1674	0.264	0.4
DH5	3.1	2954	0.289	0.4

CH78

Package Mode	Average Hopping Channel	Package Transfer Time (us)	Dwell Time (s)	Limit (s)
DH1	8.5	408	0.110	0.4
DH3	4.1	1674	0.217	0.4
DH5	3.1	2954	0.290	0.4

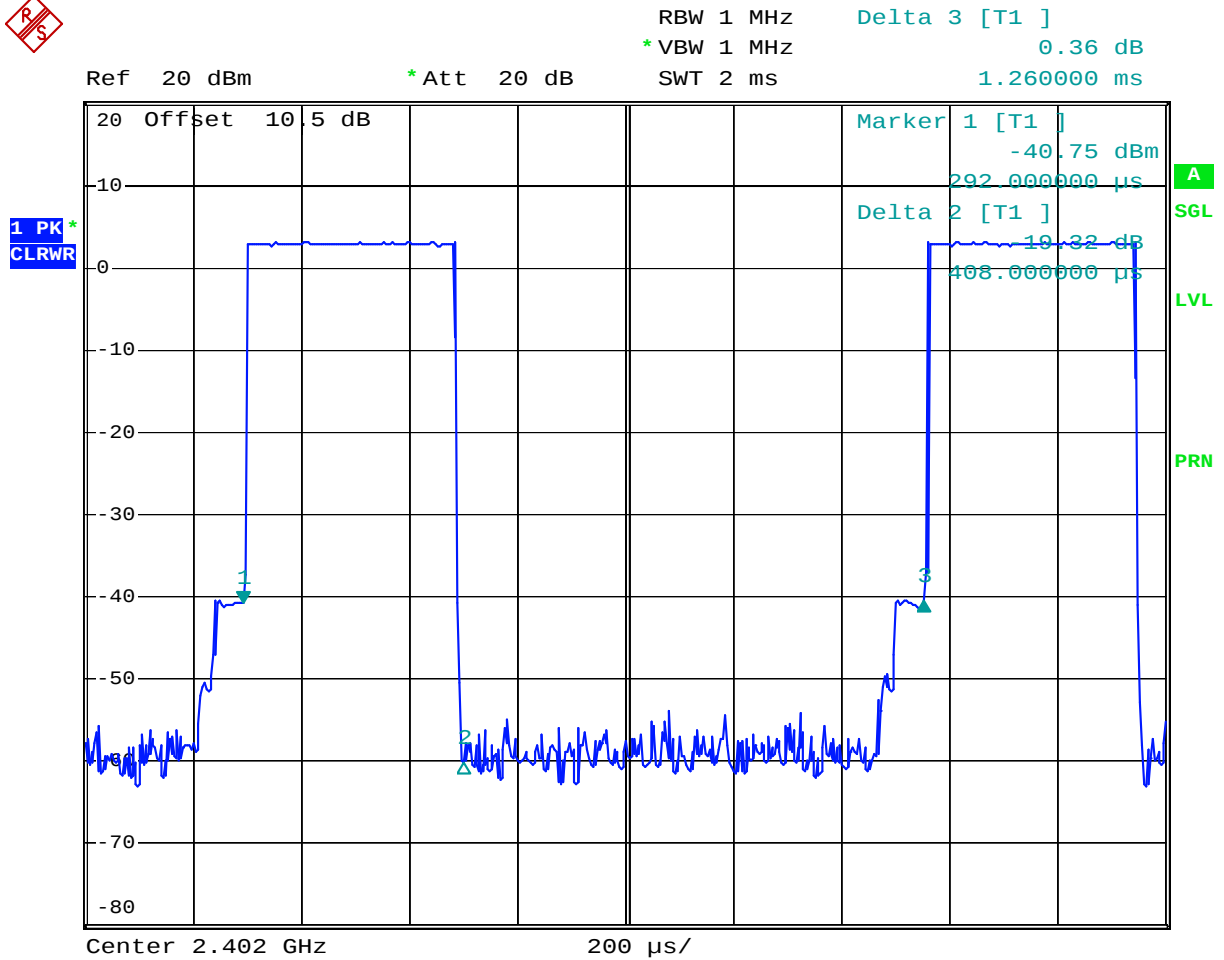
※ Remark:

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)

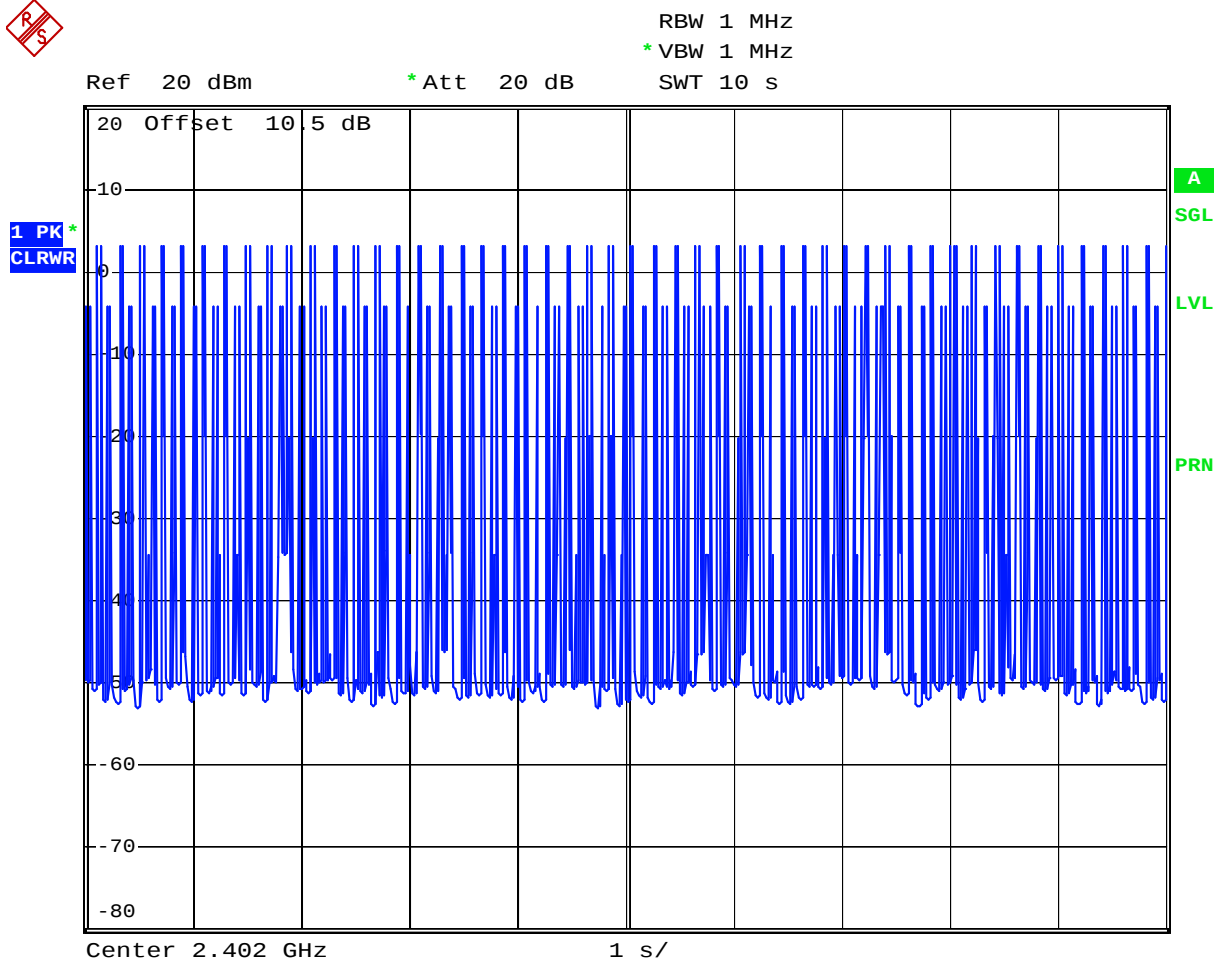


5.8.5 Dwell Time

DH1 (CH00)



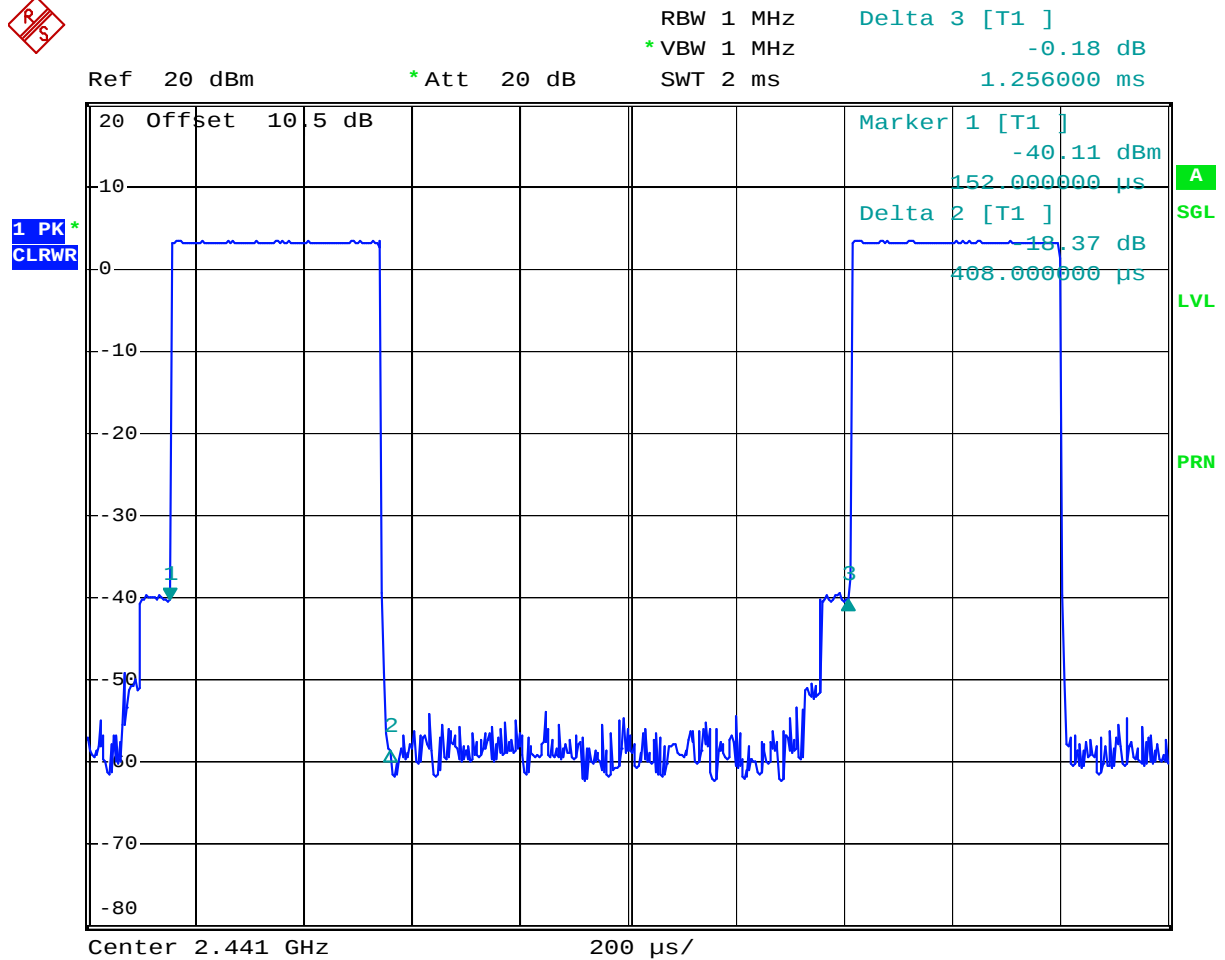
Date: 20.APR.2006 16:27:30



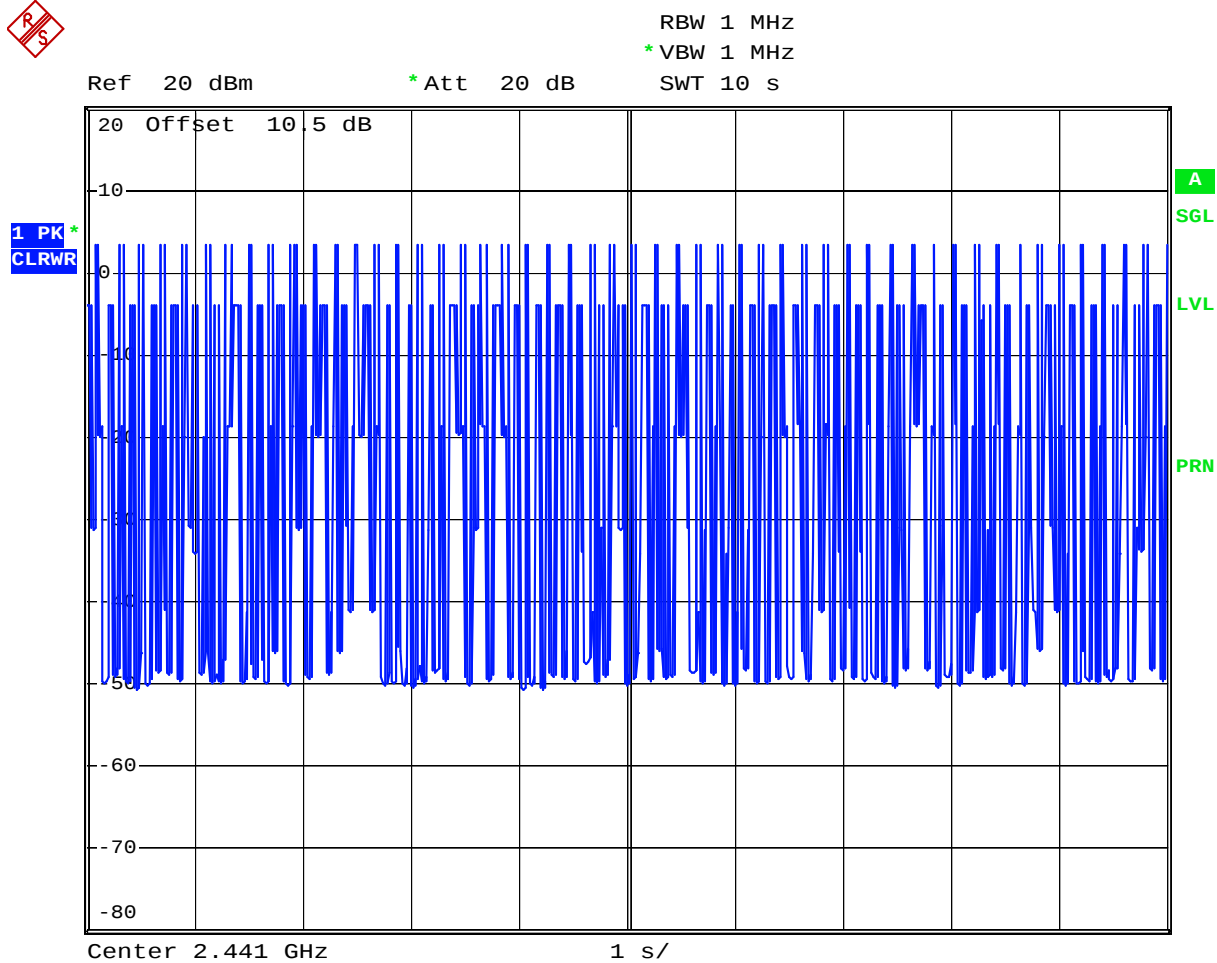
Date: 20.APR.2006 16:56:32



DH1 (CH39)



Date: 20.APR.2006 16:26:48



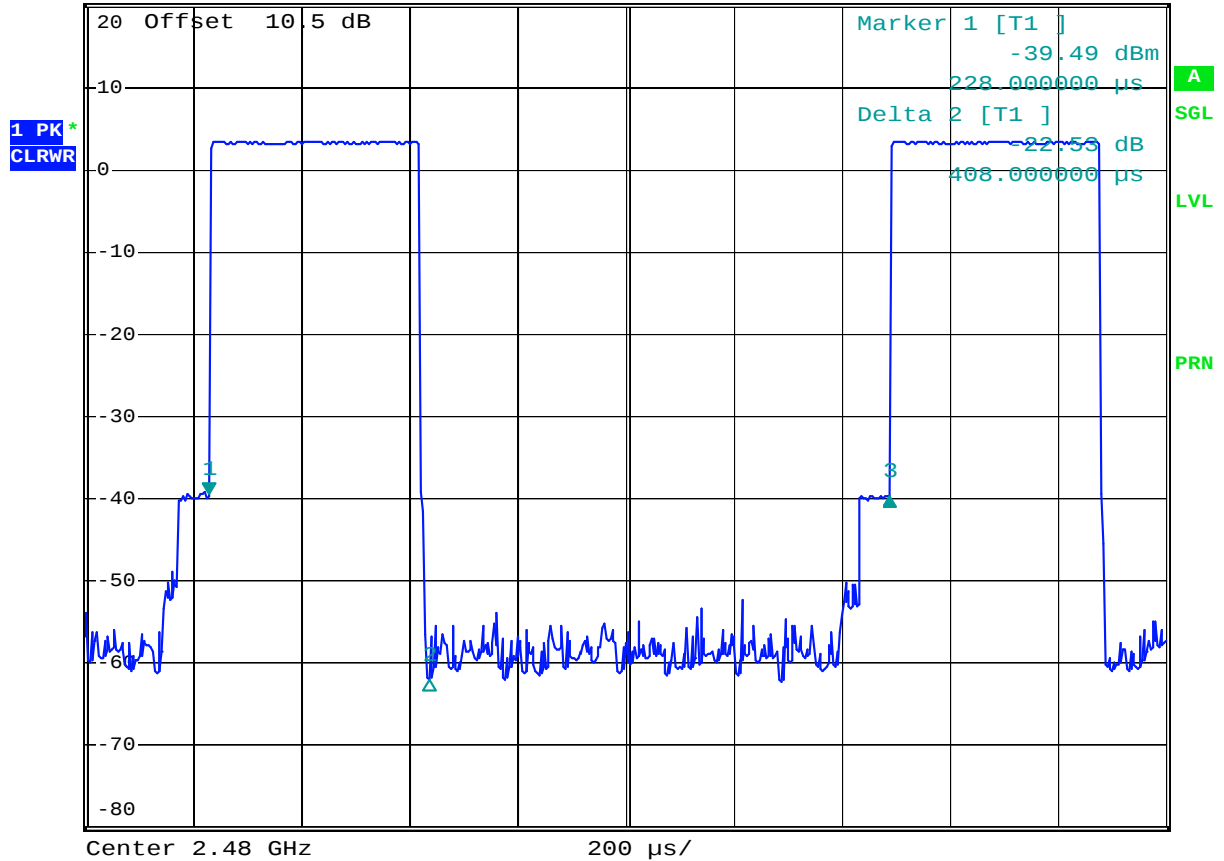
Date: 20.APR.2006 16:57:02



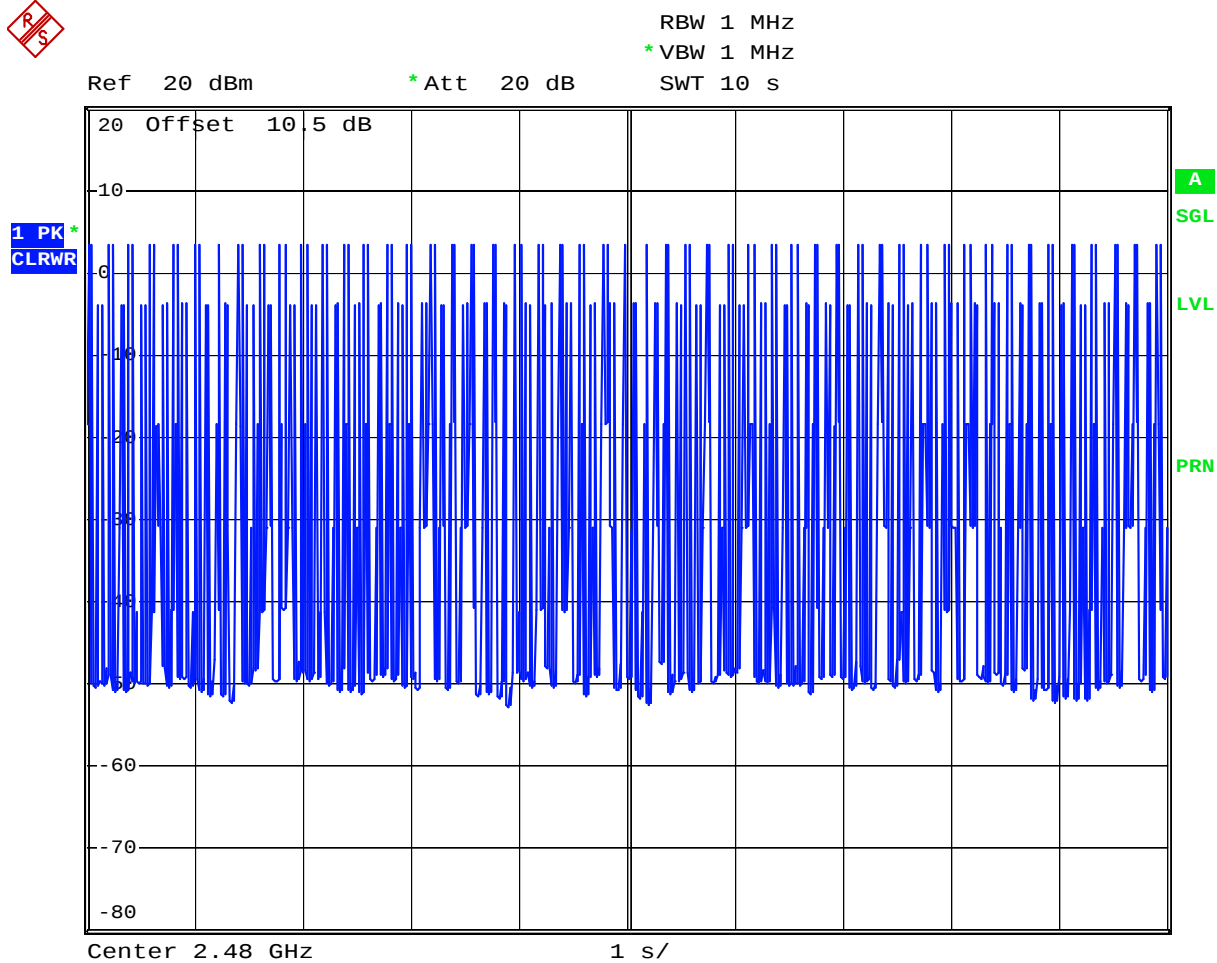
DH1 (CH78)



Ref 20 dBm * Att 20 dB RBW 1 MHz Delta 3 [T1] -0.31 dB
* VBW 1 MHz SWT 2 ms 1.260000 ms



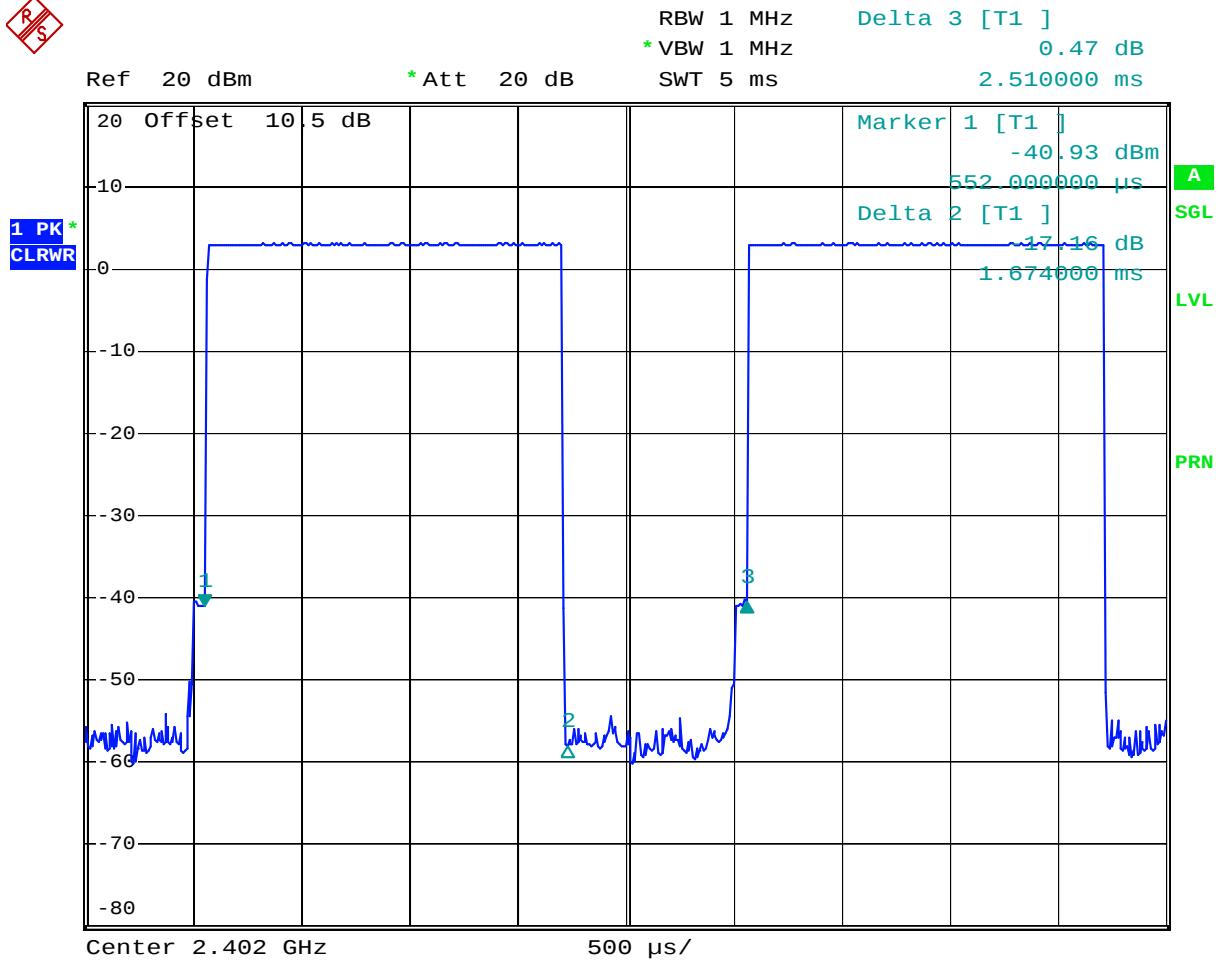
Date: 20.APR.2006 16:25:57



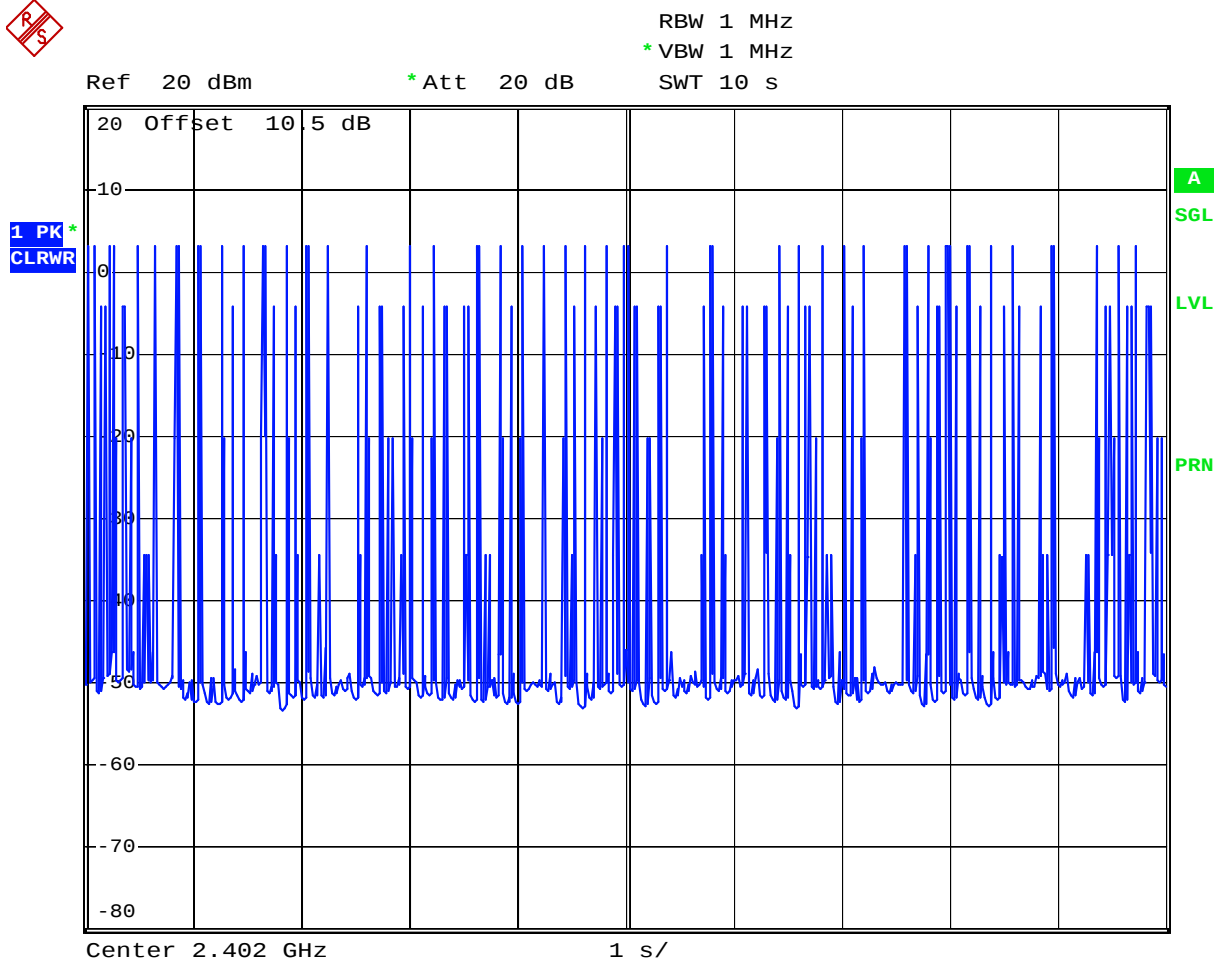
Date: 20.APR.2006 16:57:27



DH3 (CH00)



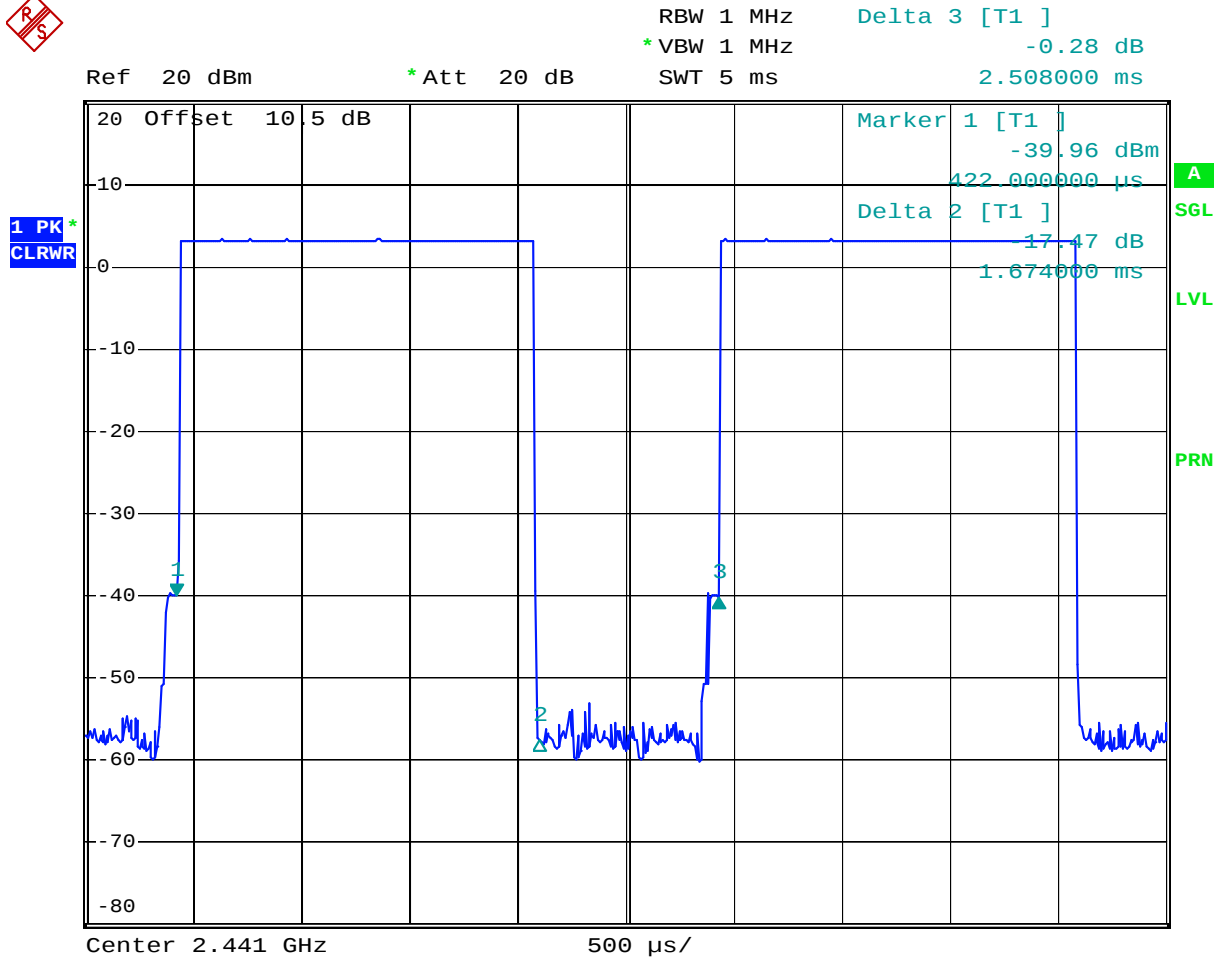
Date: 20.APR.2006 16:39:46



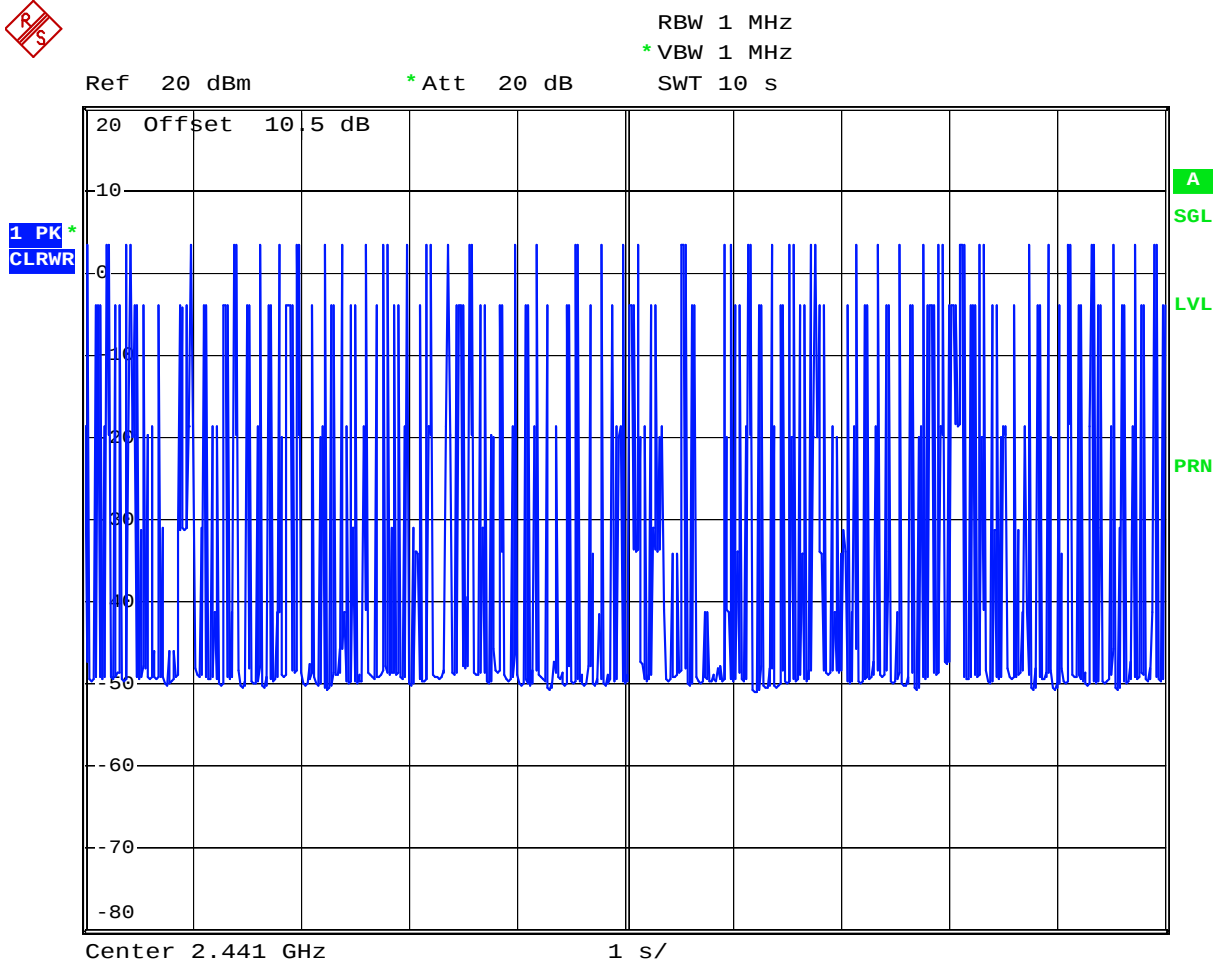
Date: 20.APR.2006 16:58:16



DH3 (CH39)



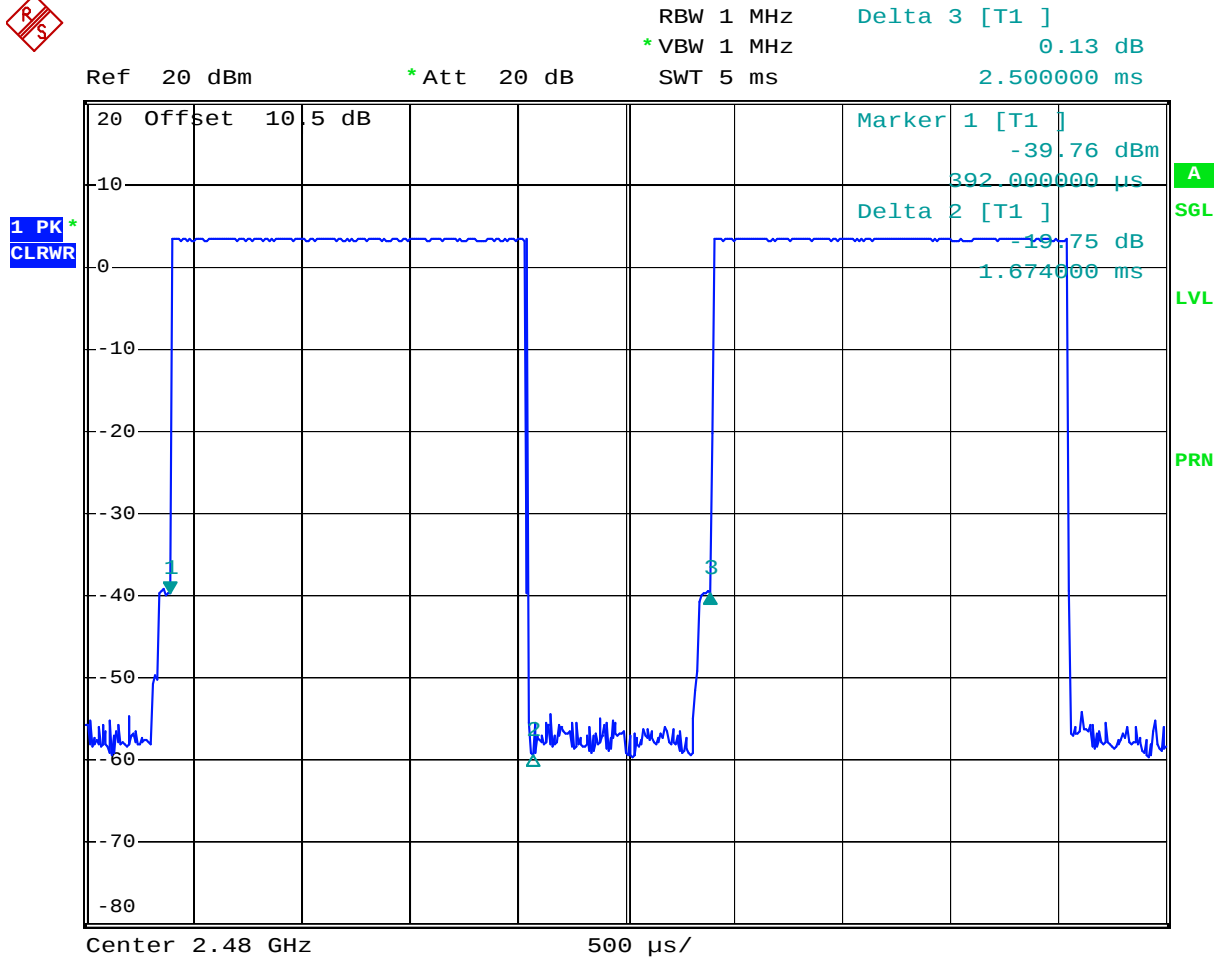
Date: 20.APR.2006 16:54:03



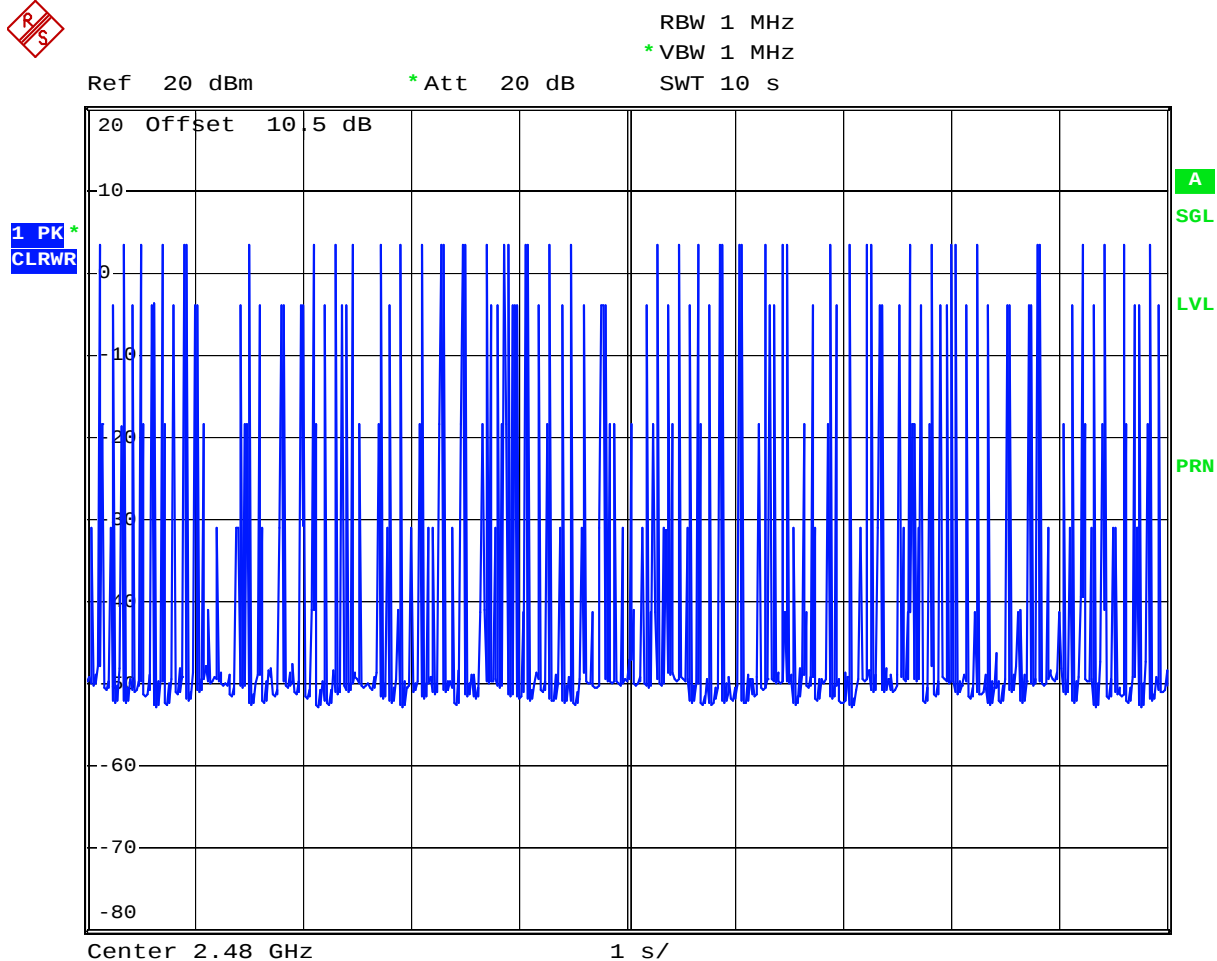
Date: 20.APR.2006 17:03:48



DH3 (CH78)



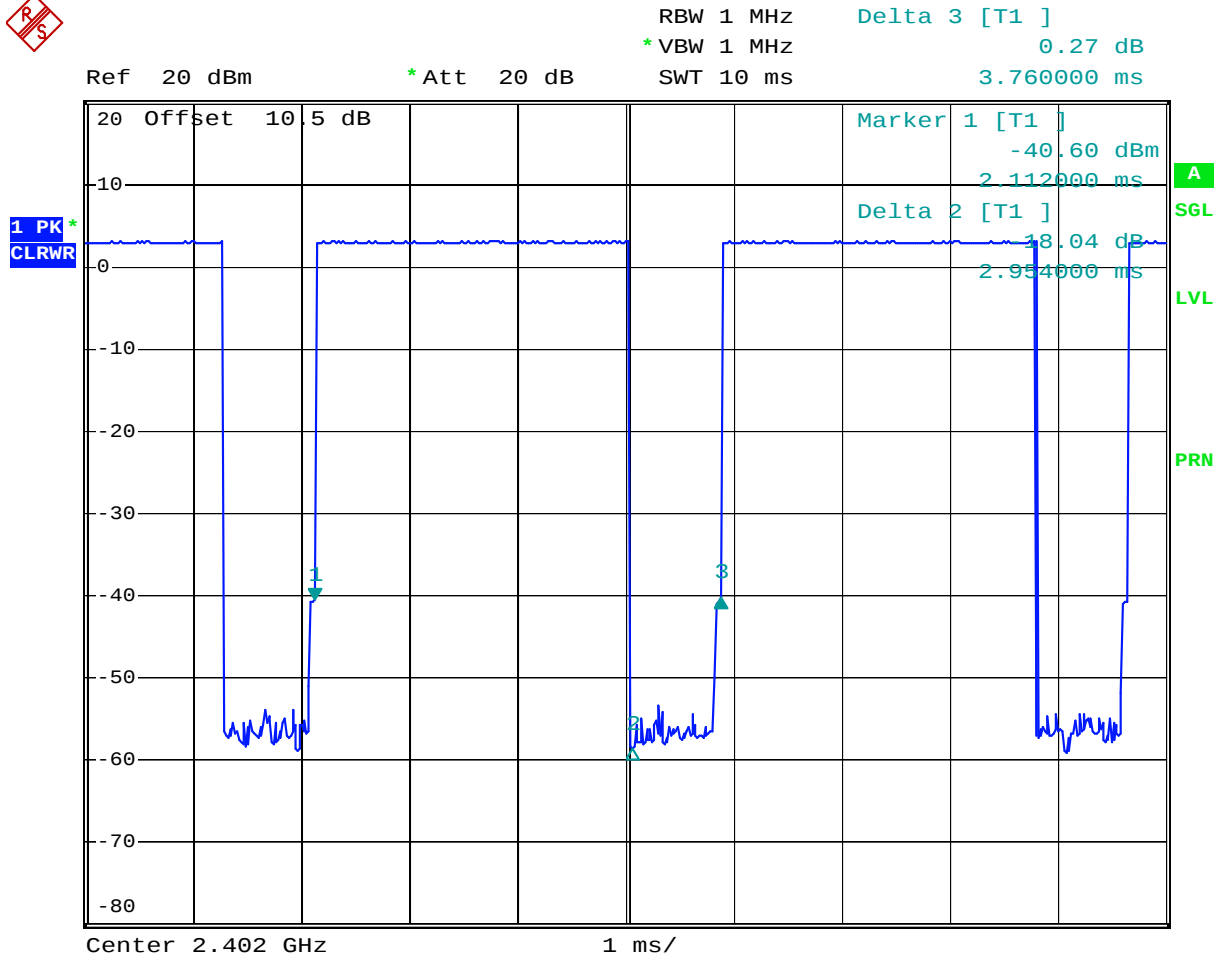
Date: 20.APR.2006 16:44:10



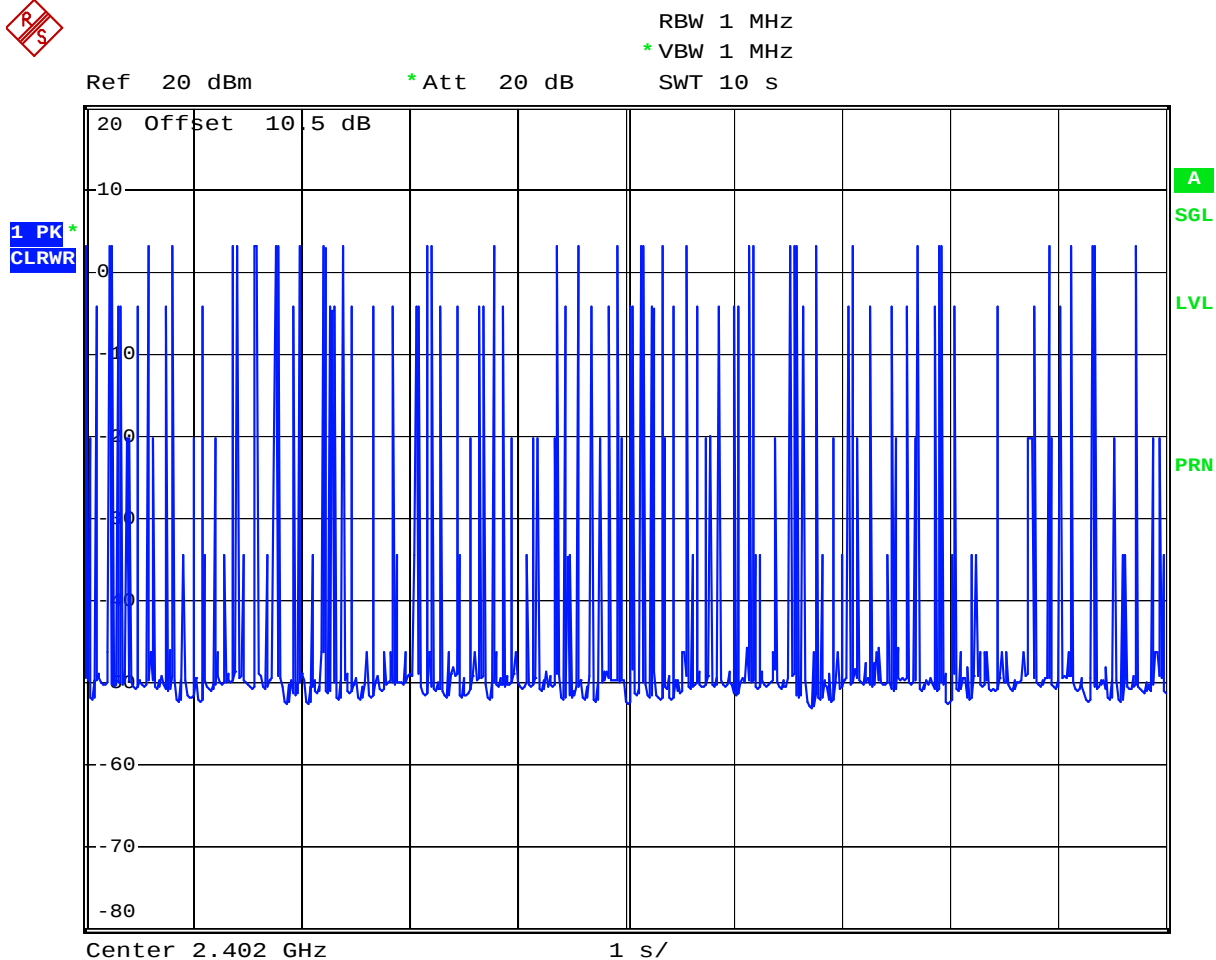
Date: 20.APR.2006 17:04:25



DH5 (CH00)



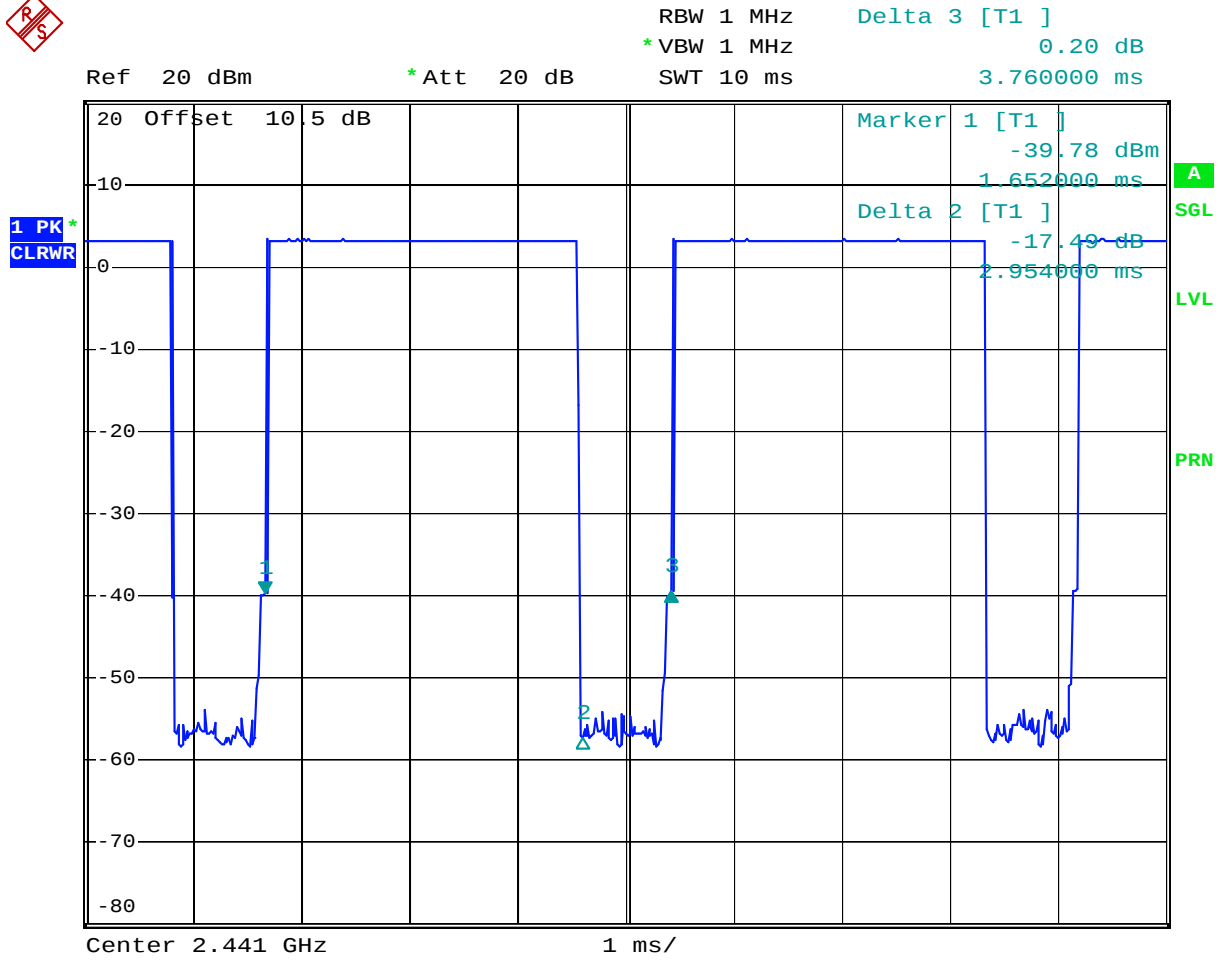
Date: 20.APR.2006 16:46:10



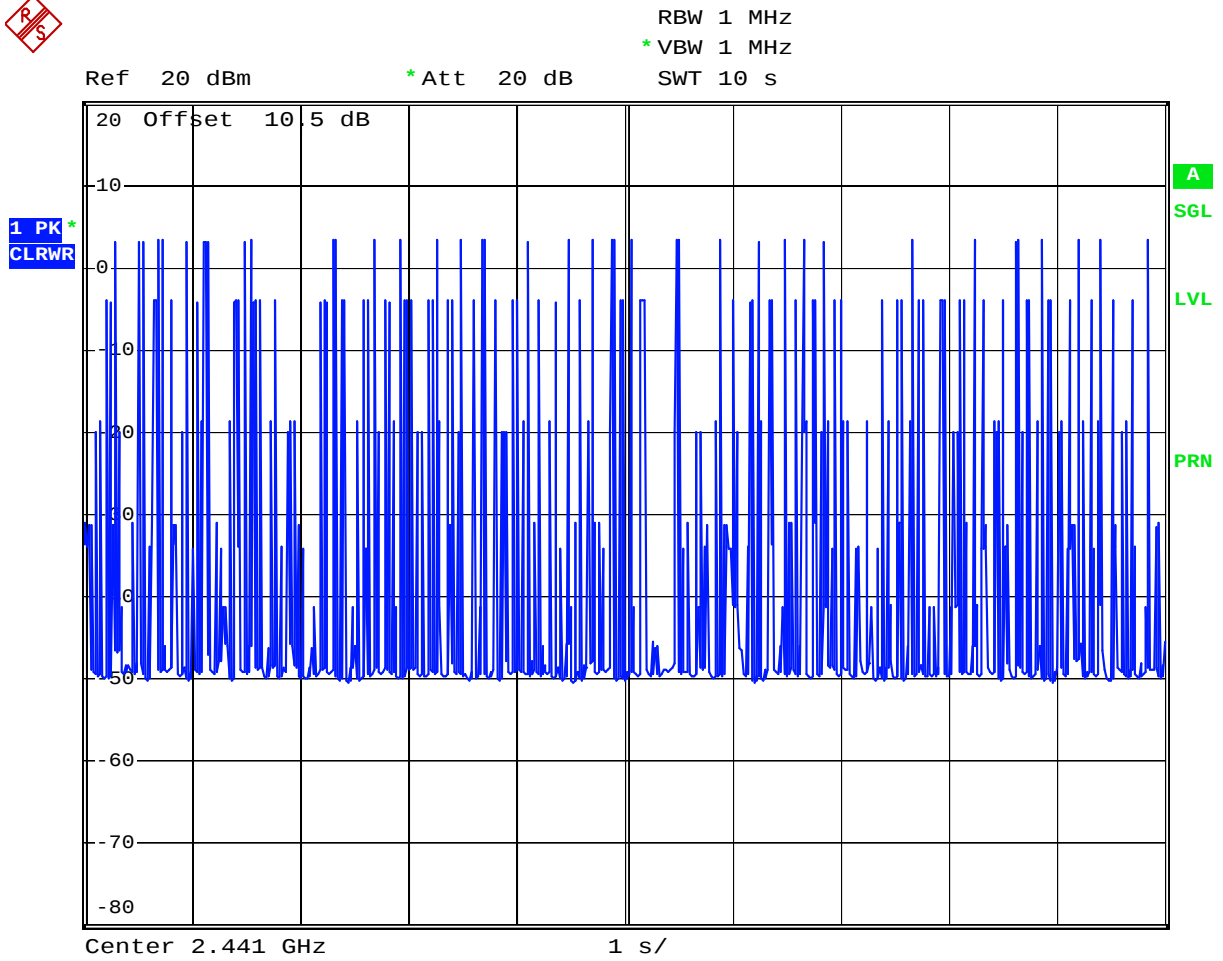
Date: 20.APR.2006 17:06:11



DH5 (CH39)



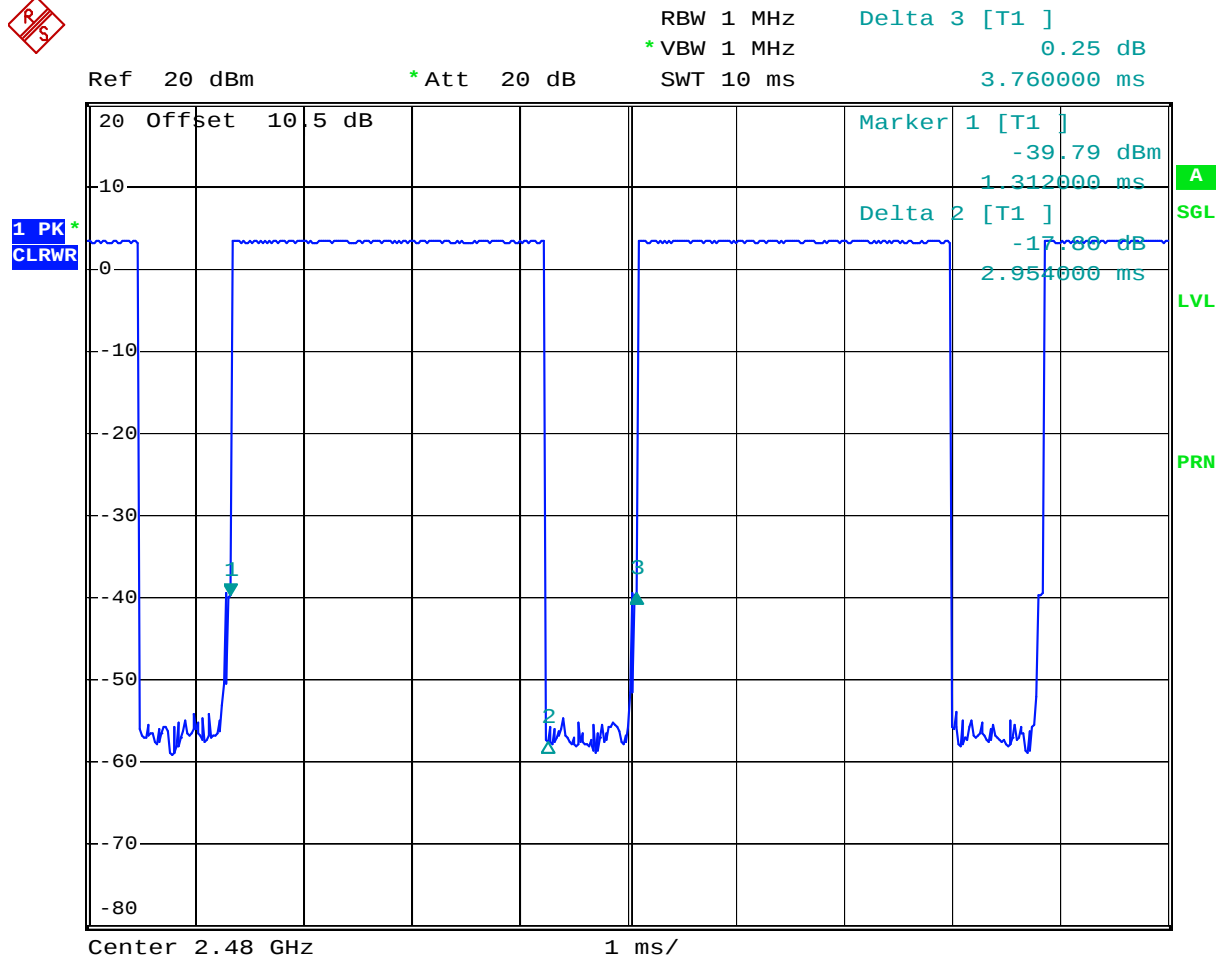
Date: 20.APR.2006 16:46:46



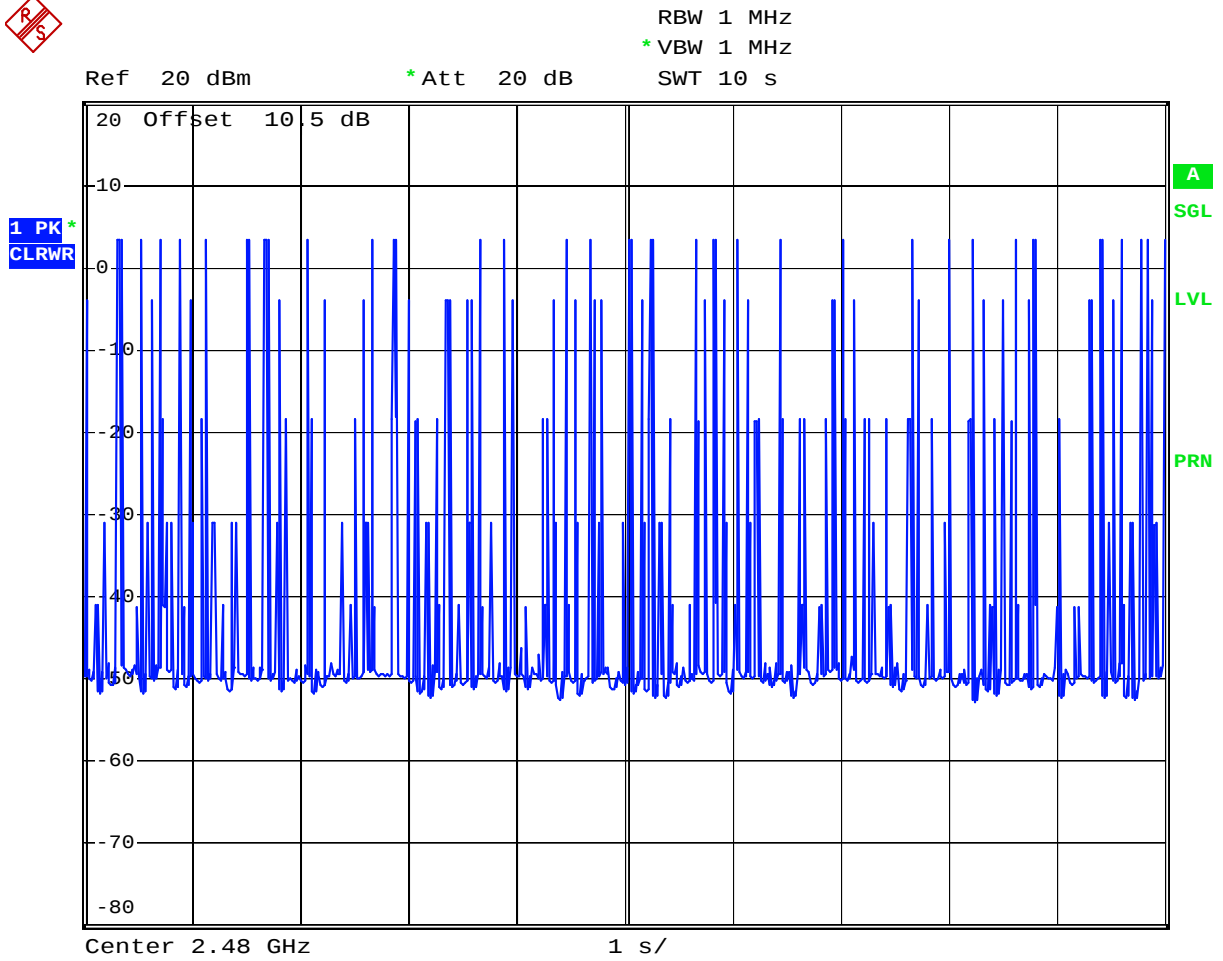
Date: 20.APR.2006 17:05:37



DH5 (CH78)



Date: 20.APR.2006 16:47:12



Date: 20.APR.2006 17:05:04

5.9 Peak Output Power Measurement

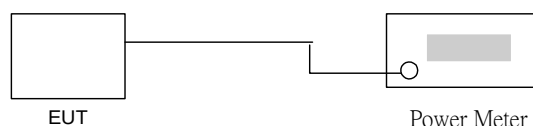
5.9.1 Measuring Instruments :

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 and BT
- Temperature : 24°C
- Relative Humidity : 51 %
- Test Enginner : James

WLAN 802.11b

Channel	Frequency (MHz)	Measured Output Power (dBm)	Limits (Watt/dBm)
01	2412	16.08	1W/30 dBm
06	2437	15.58	1W/30 dBm
11	2462	15.07	1W/30 dBm

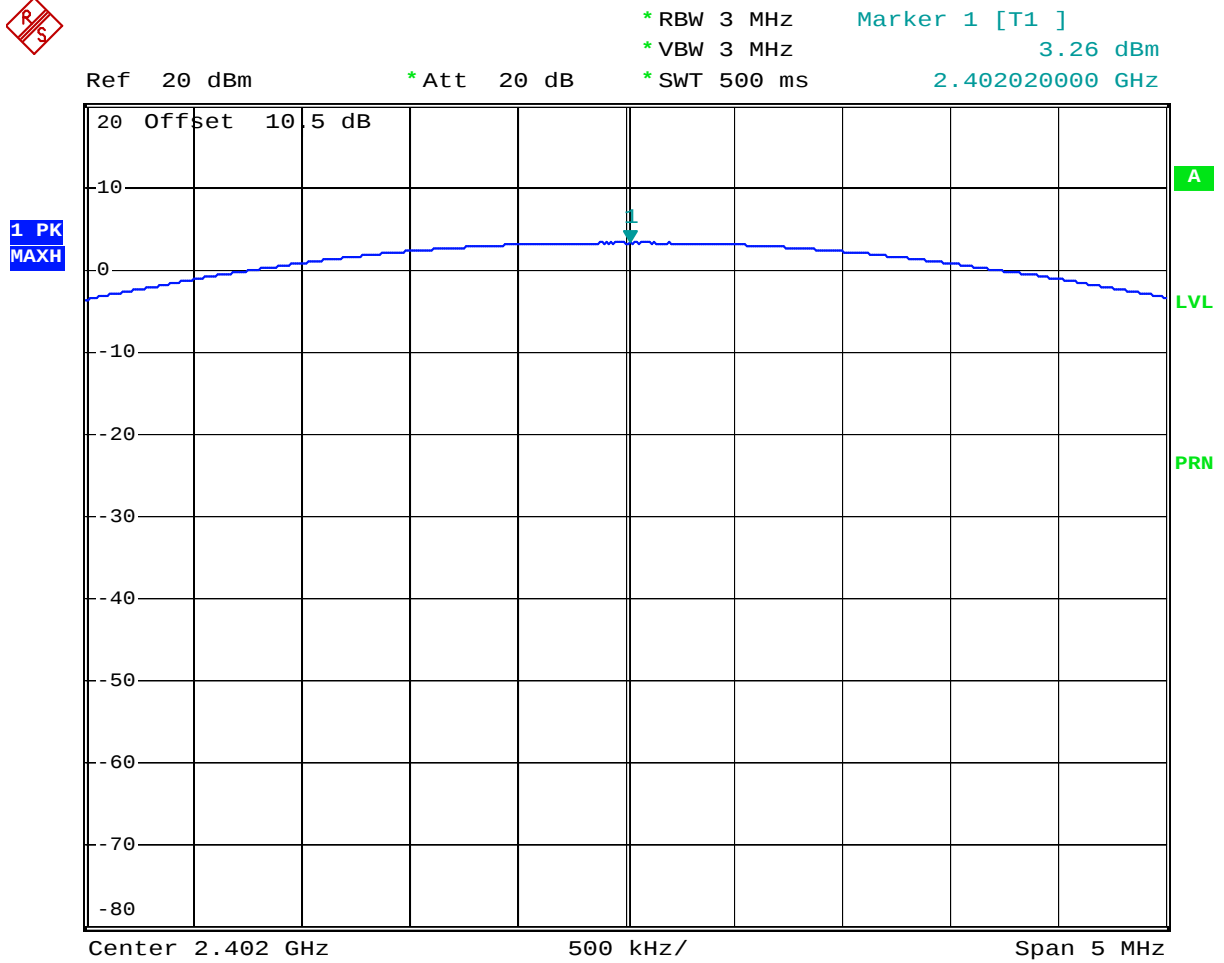
Bluetooth

Channel	Frequency (MHz)	Measured Output Power (dBm)	Limits (Watt/dBm)
00	2402	3.26	1W/30 dBm
39	2441	3.42	1W/30 dBm
78	2480	3.54	1W/30 dBm



5.9.5 Output Power

BT Mode : CH00 (2402MHz)



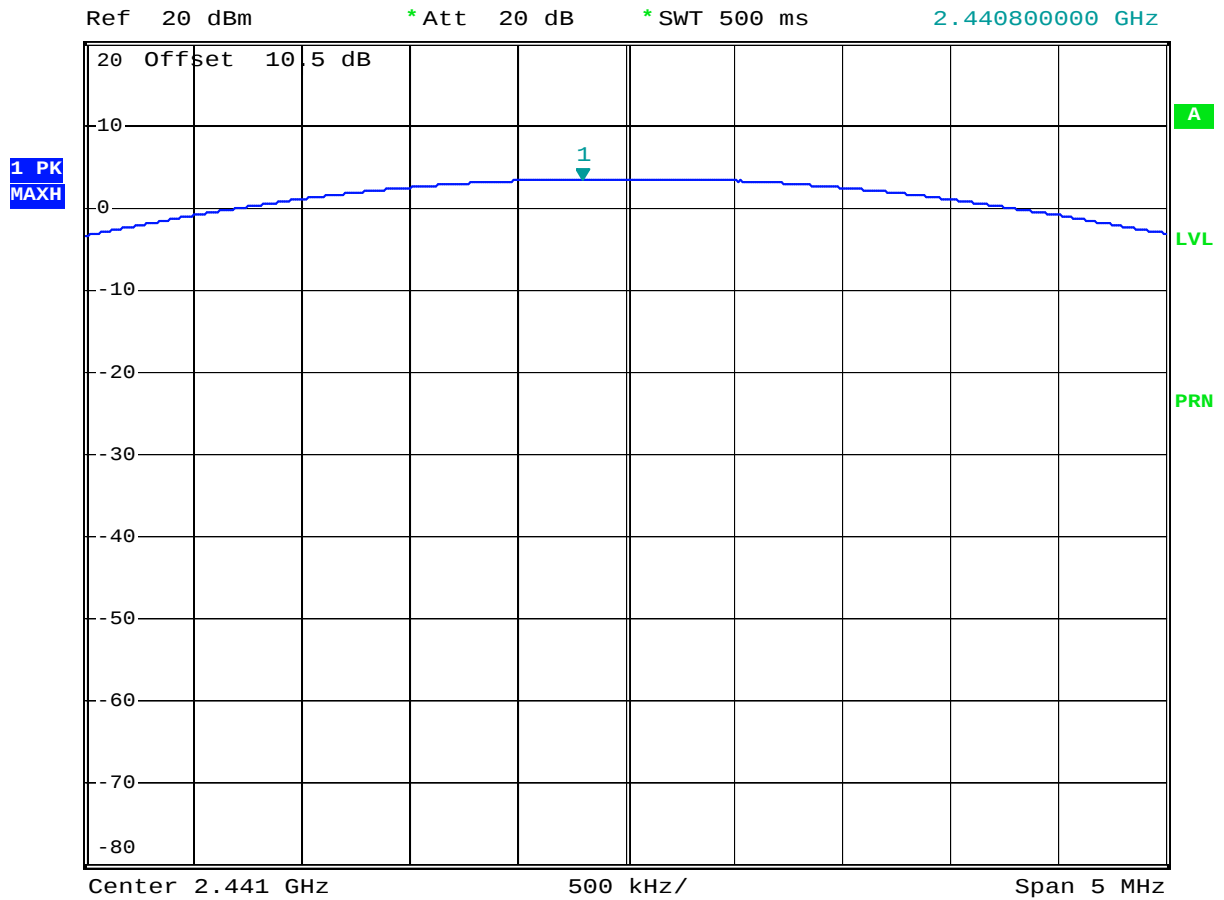
Date: 20.APR.2006 15:50:46



BT Mode : CH39 (2441MHz)



* RBW 3 MHz Marker 1 [T1]
* VBW 3 MHz 3.42 dBm
* SWT 500 ms 2.440800000 GHz



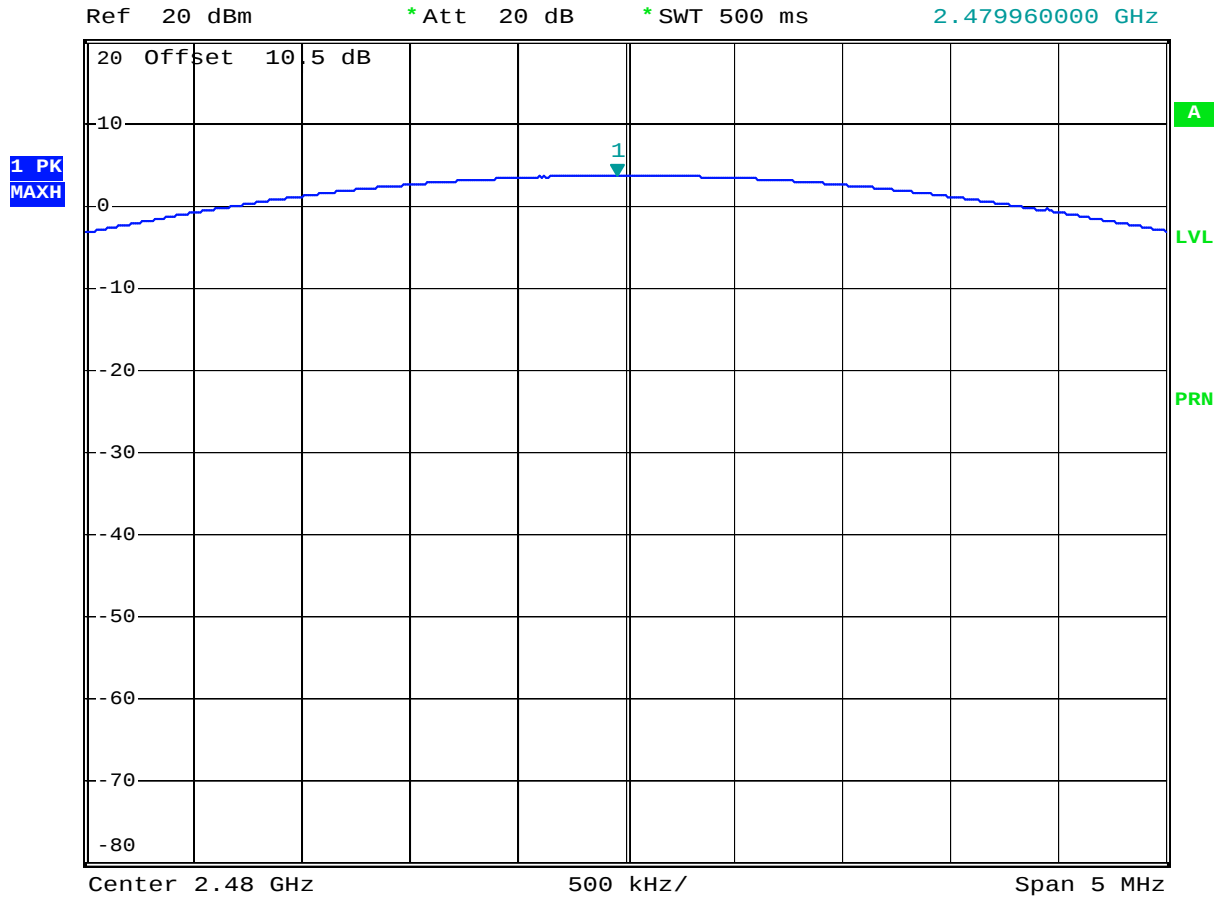
Date: 20.APR.2006 15:50:23



BT Mode : CH78 (2480MHz)



* RBW 3 MHz Marker 1 [T1]
* VBW 3 MHz 3.54 dBm
* SWT 500 ms 2.479960000 GHz



Date: 20.APR.2006 15:49:13



5.10 Conducted Emission

5.10.1 Measuring Instruments

As described in chapter 6 of this test Report.

5.10.2 Test Procedures :

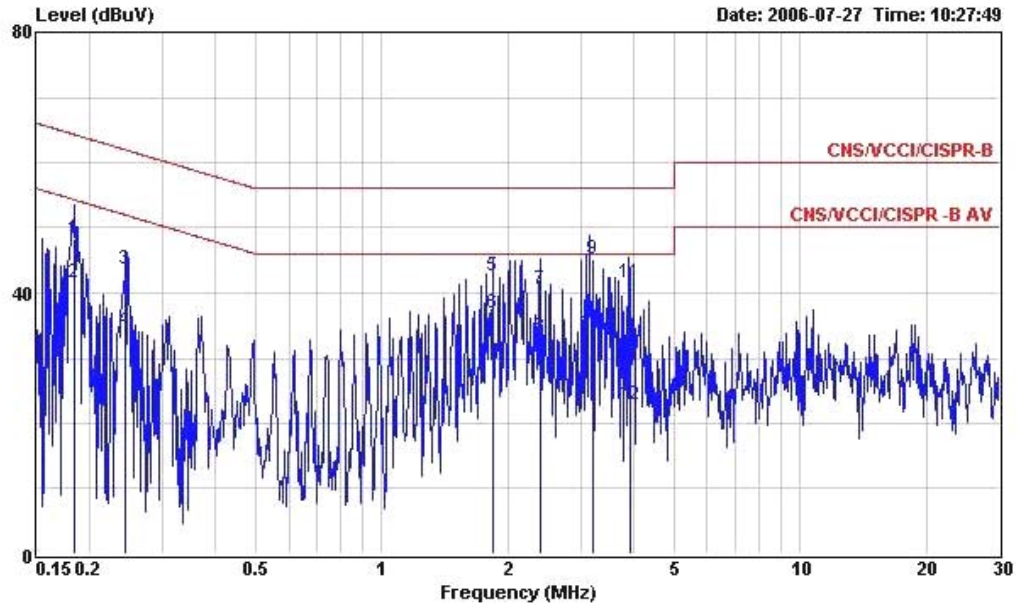
- a. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
- b. Connect EUT to the power port of a line impedance stabilization network (LISN).
- c. All the support units are connected to the other LISN.
- 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

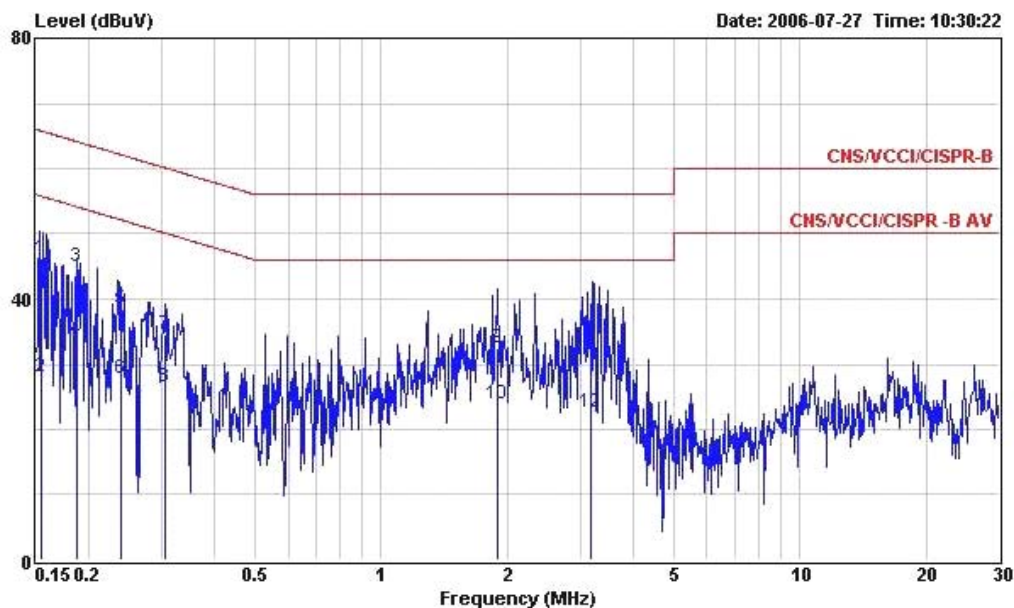
- Temperature : 24 °C
- Relating Humidity : 51 %
- Test Enginner : James
- Test Mode : Mode 1

■ 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 : GSM850/GSM900/DCS1800/PCS1900/Bluetooth
Power : 120V/50Hz
Model :
Memo : PCS1900 Idle Mode + Earphone + BT Link + WLAN
Memo : Link + MPEG4 + USB Link

	Freq	Level	Over	Limit	Read	Probe	Cable	
	MHz	dBuV	Limit	Line	Level	Factor	Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.184	48.33	-15.97	64.30	48.17	0.10	0.06	QP
2	0.184	41.52	-12.78	54.30	41.36	0.10	0.06	Average
3	0.244	43.62	-18.34	61.96	43.45	0.10	0.07	QP
4	0.244	34.17	-17.79	51.96	34.00	0.10	0.07	Average
5	1.839	42.67	-13.33	56.00	42.46	0.10	0.11	QP
6	1.839	36.85	-9.15	46.00	36.64	0.10	0.11	Average
7	2.391	40.44	-15.56	56.00	40.19	0.13	0.12	QP
8	2.391	33.31	-12.69	46.00	33.06	0.13	0.12	Average
9	3.186	45.30	-10.70	56.00	45.01	0.17	0.12	QP
10	3.186	34.01	-11.99	46.00	33.72	0.17	0.12	Average
11	3.916	41.55	-14.45	56.00	41.23	0.20	0.12	QP
12	3.916	22.88	-23.12	46.00	22.56	0.20	0.12	Average



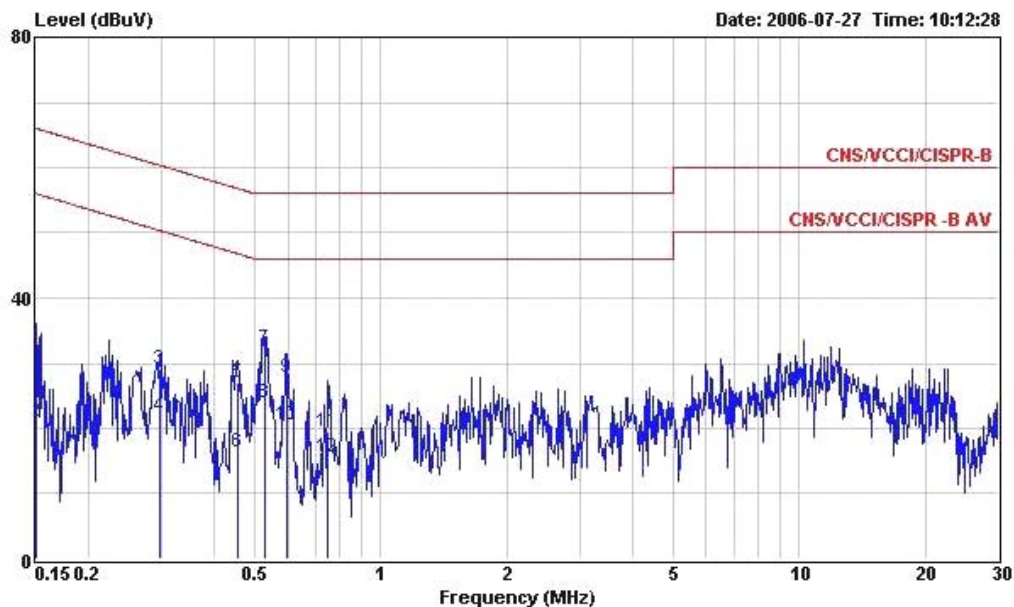
Site : CO01-HY
Condition : CNS/VCCI/CISPR-B 2001/004 200604 NEUTRAL
EUT : GSM850/GSM900/DCS1800/PCS1900/Bluetooth
Power : 120V/60Hz
Model :
Memo : PCS1900 Idle Mode + Earphone + BT Link + WLAN
Memo : Link + MPEG4 + USB Link

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.155	46.26	-19.49	65.75	46.11	0.10	0.05	QP
2	0.155	27.94	-27.81	55.75	27.79	0.10	0.05	Average
3	0.187	44.94	-19.23	64.17	44.78	0.10	0.06	QP
4	0.187	33.65	-20.52	54.17	33.49	0.10	0.06	Average
5	0.239	38.53	-23.61	62.14	38.36	0.10	0.07	QP
6	0.239	27.83	-24.31	52.14	27.66	0.10	0.07	Average
7	0.304	34.63	-25.51	60.14	34.46	0.10	0.07	QP
8	0.304	26.60	-23.54	50.14	26.43	0.10	0.07	Average
9	1.900	32.35	-23.65	56.00	32.14	0.10	0.11	QP
10	1.900	23.87	-22.13	46.00	23.66	0.10	0.11	Average
11	3.161	34.32	-21.68	56.00	34.10	0.10	0.12	QP
12	3.161	22.70	-23.30	46.00	22.48	0.10	0.12	Average



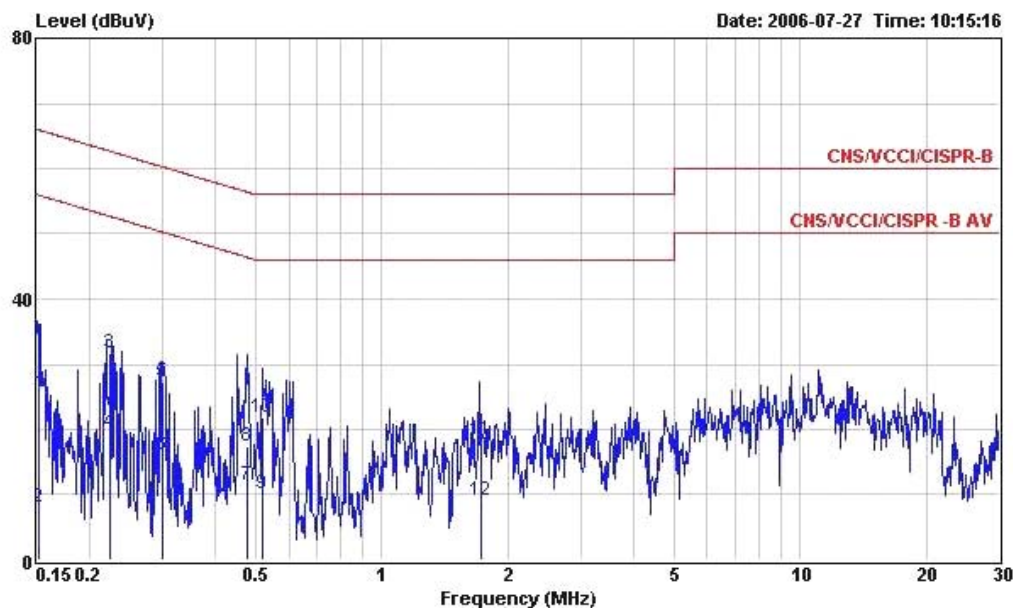
- Temperature : 24 °C
- Relating Humidity : 51 %
- Test Enginner : James
- Test Mode : Mode 2

■ 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 : GSM850/GSM900/DCS1800/PCS1900/Bluetooth
 : /WLAN
 Power : 120V/60Hz
 Model :
 Memo : PCS1900 Idle Mode + Earphone + BT Link + WLAN
 : Link + MPEG4 + Adapter

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.150	33.74	-32.26	66.00	33.59	0.10	0.05	QP
2	0.150	21.00	-35.00	56.00	20.85	0.10	0.05	Average
3	0.298	29.07	-31.24	60.31	28.90	0.10	0.07	QP
4	0.298	21.74	-28.57	50.31	21.57	0.10	0.07	Average
5	0.454	26.96	-29.84	56.80	26.79	0.10	0.07	QP
6	0.454	16.41	-30.39	46.80	16.24	0.10	0.07	Average
7	0.530	32.18	-23.82	56.00	32.01	0.10	0.07	QP
8	0.530	23.88	-22.12	46.00	23.71	0.10	0.07	Average
9	0.595	27.81	-28.19	56.00	27.65	0.10	0.06	QP
10	0.595	20.51	-25.49	46.00	20.35	0.10	0.06	Average
11	0.748	19.55	-36.45	56.00	19.40	0.10	0.05	QP
12	0.748	15.53	-30.47	46.00	15.38	0.10	0.05	Average

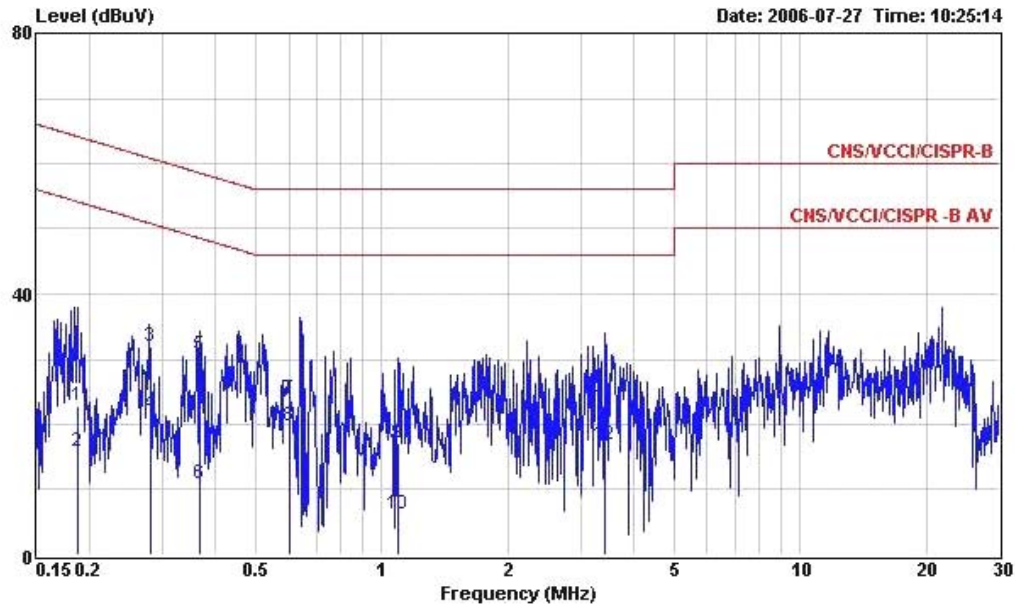


Site : CO01-HY
Condition : CNS/VCCI/CISPR-B 2001/004 200604 NEUTRAL
EUT : GSM850/GSM900/DCS1800/PCS1900/Bluetooth
: /WLAN
Power : 120V/60Hz
Model :
Memo : PCS1900 Idle Mode + Earphone + BT Link + WLAN
Memo : Link + MPEG4 + Adapter

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.152	33.68	-32.21	65.89	33.53	0.10	0.05	QP
2	0.152	8.14	-47.75	55.89	7.99	0.10	0.05	Average
3	0.224	31.60	-31.08	62.68	31.44	0.10	0.06	QP
4	0.224	19.57	-33.11	52.68	19.41	0.10	0.06	Average
5	0.298	27.37	-32.92	60.29	27.20	0.10	0.07	QP
6	0.298	16.07	-34.22	50.29	15.90	0.10	0.07	Average
7	0.479	11.36	-35.00	46.36	11.19	0.10	0.07	Average
8	0.479	17.41	-38.95	56.36	17.24	0.10	0.07	QP
9	0.518	10.16	-35.84	46.00	9.99	0.10	0.07	Average
10	0.518	21.93	-34.07	56.00	21.76	0.10	0.07	QP
11	1.720	18.31	-37.69	56.00	18.11	0.10	0.10	QP
12	1.720	9.21	-36.79	46.00	9.01	0.10	0.10	Average

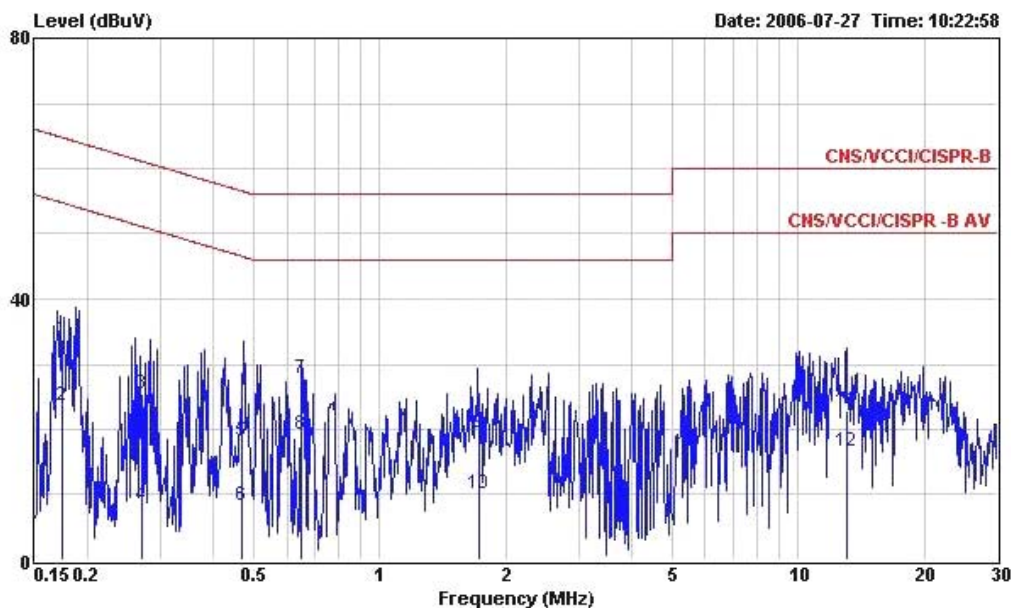
- Temperature : 24 °C
- Relating Humidity : 51 %
- Test Enginner : James
- Test Mode : Mode 3

■ 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 : GSM850/GSM900/DCS1800/PCS1900/Bluetooth
: /WLAN
Power : 120V/60Hz
Model :
Memo : PCS1900 Idle Mode + Earphone + BT Link + WLAN
Memo : Link + Camera + Adapter

	Freq	Level	Over	Limit	Read	Probe	Cable	
	MHz	dBuV	Limit	Line	Level	Factor	Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.187	22.97	-41.20	64.17	22.81	0.10	0.06	QP
2	0.187	15.80	-38.37	54.17	15.64	0.10	0.06	Average
3	0.279	32.04	-28.81	60.85	31.87	0.10	0.07	QP
4	0.279	21.63	-29.22	50.85	21.46	0.10	0.07	Average
5	0.367	30.59	-27.98	58.57	30.41	0.10	0.08	QP
6	0.367	11.03	-37.54	48.57	10.85	0.10	0.08	Average
7	0.602	23.78	-32.22	56.00	23.62	0.10	0.06	QP
8	0.602	19.80	-26.20	46.00	19.64	0.10	0.06	Average
9	1.090	17.16	-38.84	56.00	17.01	0.10	0.05	QP
10	1.090	6.33	-39.67	46.00	6.18	0.10	0.05	Average
11	3.400	22.52	-33.48	56.00	22.22	0.18	0.12	QP
12	3.400	16.87	-29.13	46.00	16.57	0.18	0.12	Average



Site : CO01-HY
Condition : CNS/VCCI/CISPR-B 2001/004 200604 NEUTRAL
EUT : GSM850/GSM900/DCS1800/PCS1900/Bluetooth
: /WLAN
Power : 120V/60Hz
Model :
Memo : PCS1900 Idle Mode + Earphone + BT Link + WLAN
Memo : Link + Camera + Adapter

			Over	Limit	Read	Probe	Cable	
	Freq	Level	Limit	Line	Level	Factor	Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.174	33.81	-30.94	64.75	33.65	0.10	0.06	QP
2	0.174	23.77	-30.98	54.75	23.61	0.10	0.06	Average
3	0.269	25.35	-35.79	61.14	25.18	0.10	0.07	QP
4	0.269	8.37	-42.77	51.14	8.20	0.10	0.07	Average
5	0.467	18.21	-38.35	56.56	18.04	0.10	0.07	QP
6	0.467	8.25	-38.31	46.56	8.08	0.10	0.07	Average
7	0.650	27.73	-28.27	56.00	27.57	0.10	0.06	QP
8	0.650	19.34	-26.66	46.00	19.18	0.10	0.06	Average
9	1.720	19.38	-36.62	56.00	19.18	0.10	0.10	QP
10	1.720	10.21	-35.79	46.00	10.01	0.10	0.10	Average
11	13.060	22.94	-37.06	60.00	22.53	0.26	0.15	QP
12	13.060	16.66	-33.34	50.00	16.25	0.26	0.15	Average

5.11 Radiated Emission Measurement

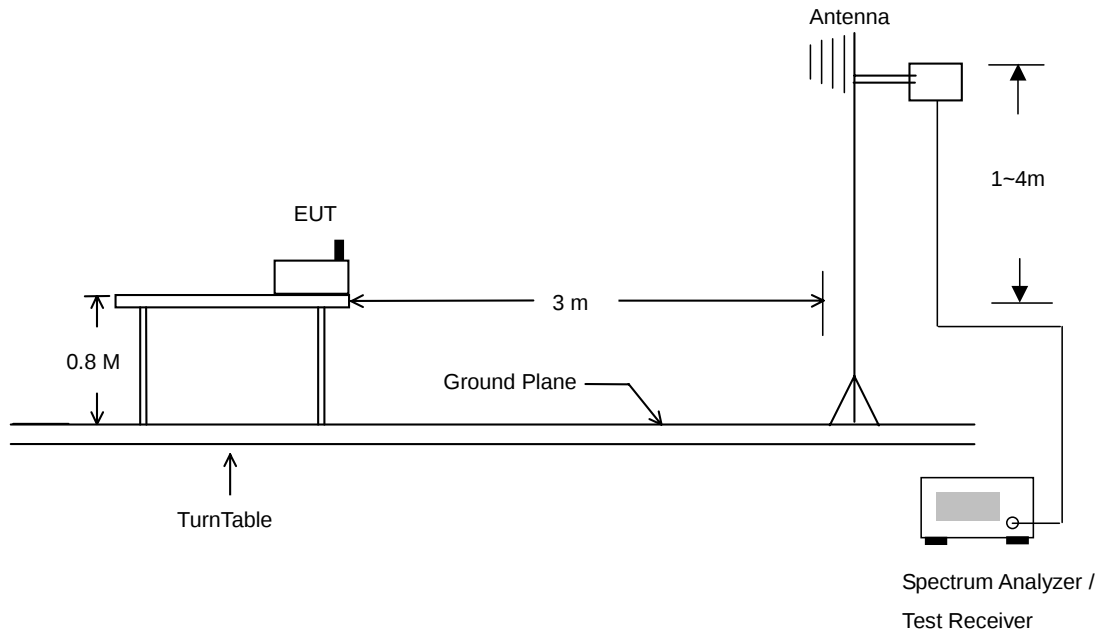
5.11.1 Measuring Instruments

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.

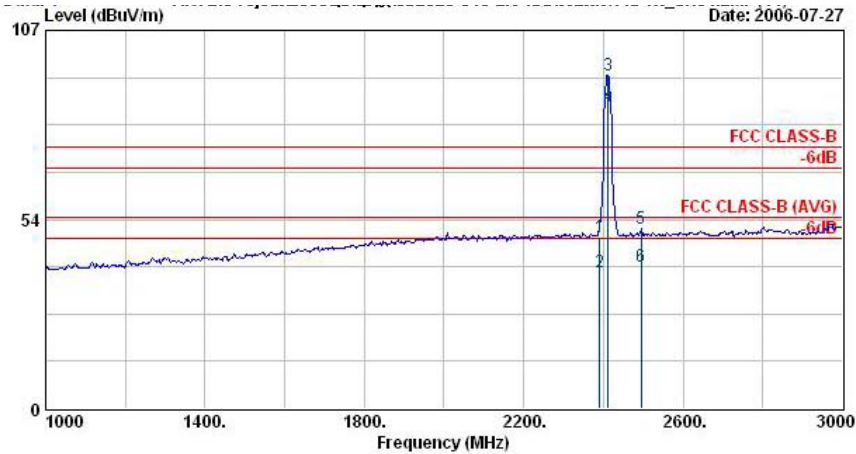
5.11.3 Typical Test Setup Layout of Radiated Emission



**5.11.4 Test Data**

- Temperature : 26°C
- Relative Humidity : 52%
- Test Engineer : Sam
- Test Mode : Mode 1
- Polarization : Horizontal

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



Site : 03CH06-HY
Condition : HF-ANT-060410 HORIZONTAL
EUT : Quad band Mobile Phone
EUT : (11G WLAN BT inside)
Power : 120Vac/60Hz
Model :
Memo : 11b Tx_CH01,2412MHz
Plane : E1

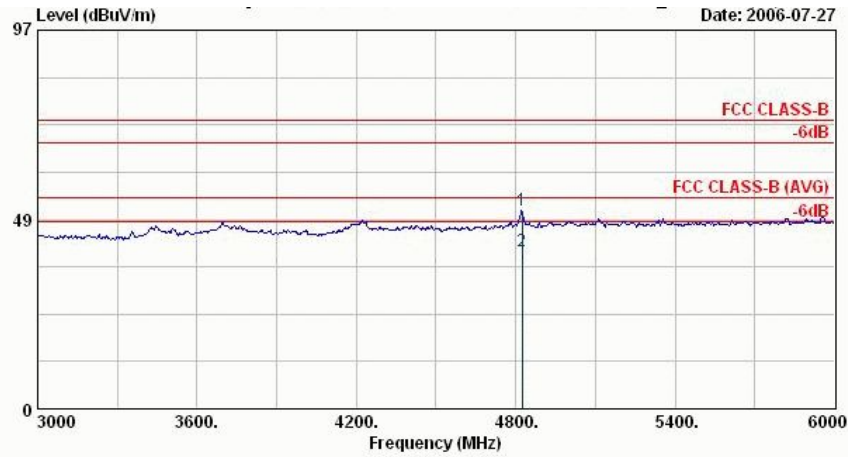
	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Remark
			dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	2390.00	48.39	-25.61	74.00	49.33	30.26	4.26	35.46	100	0	Peak
2	2390.00	38.78	-15.22	54.00	39.72	30.26	4.26	35.46	100	353	Average
3 @	2412.00	94.41			95.33	30.27	4.26	35.46	100	0	Peak
4 @	2412.00	85.46			86.39	30.27	4.26	35.46	100	353	Average
5	2494.00	50.79	-23.21	74.00	51.63	30.30	4.39	35.53	100	0	Peak
6 @	2494.00	40.12	-13.88	54.00	40.96	30.30	4.39	35.53	100	353	Average

Remark: #3 and #4 Fundamental Signal



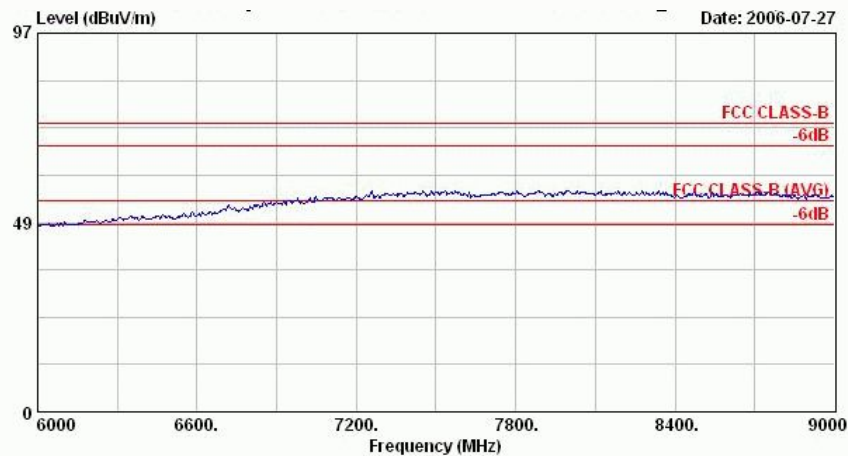
FCC TEST REPORT

Report No. : FR632820-02



Site : 03CH06-HY
Condition : HF-ANT-060410 HORIZONTAL
EUT : Quad band Mobile Phone
EUT : (11G WLAN BT inside)
Power : 120Vac/60Hz
Model :
Memo : 11b Tx_CH01,2412MHz
Plane : E1

	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Remark
			dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	4824.00	50.88	-23.12	74.00	47.81	32.94	6.24	36.12	200	0	Peak
2 @	4824.00	40.27	-13.73	54.00	37.20	32.94	6.24	36.12	150	360	Average

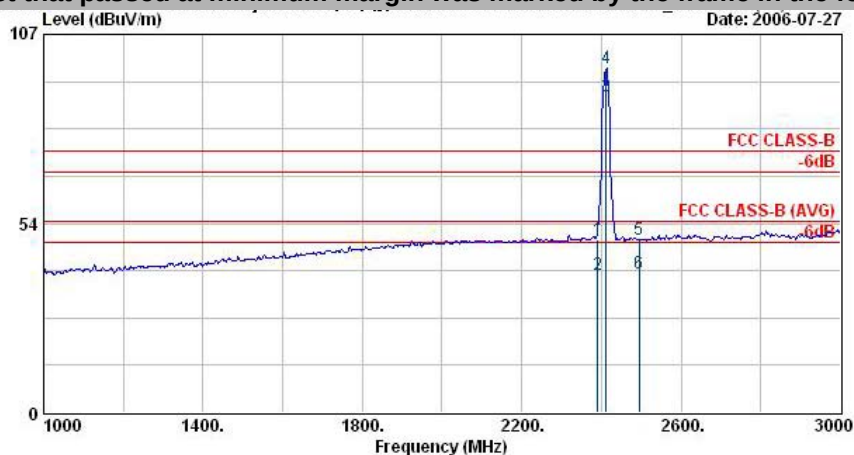


Site : 03CH06-HY
Condition : HF-ANT-060410 HORIZONTAL
EUT : Quad band Mobile Phone
EUT : (11G WLAN BT inside)
Power : 120Vac/60Hz
Model :
Memo : 11b Tx_CH01,2412MHz
Plane : E1



- Polarization : Vertical

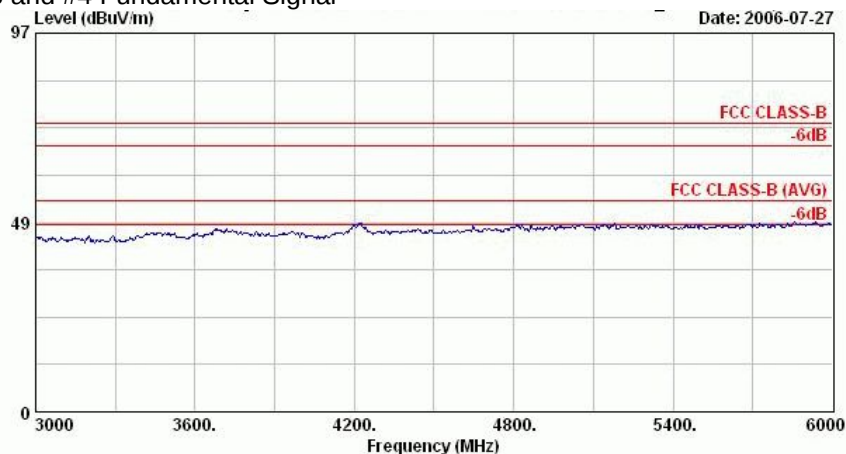
The test that passed at minimum margin was marked by the frame in the following table.



Site : 03CH06-HY
Condition : HF-ANT-060410 VERTICAL
EUT : Quad band Mobile Phone
EUT : (11G WLAN BT inside)
Power : 120Vac/60Hz
Model :
Memo : 11b Tx_CH01,2412MHz
Plane : E1

	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	dB	cm	deg	
1	2390.00	48.81	-25.19	74.00	49.75	30.26	4.26	35.46	100	360 Peak
2	2390.00	39.01	-14.99	54.00	39.95	30.26	4.26	35.46	100	332 Average
3 @	2412.00	89.31			90.24	30.27	4.26	35.46	100	332 Average
4 @	2412.00	97.29			98.22	30.27	4.26	35.46	100	360 Peak
5	2494.00	48.92	-25.08	74.00	49.76	30.30	4.39	35.53	100	360 Peak
6 @	2494.00	39.35	-14.65	54.00	40.19	30.30	4.39	35.53	100	332 Average

Remark: #3 and #4 Fundamental Signal

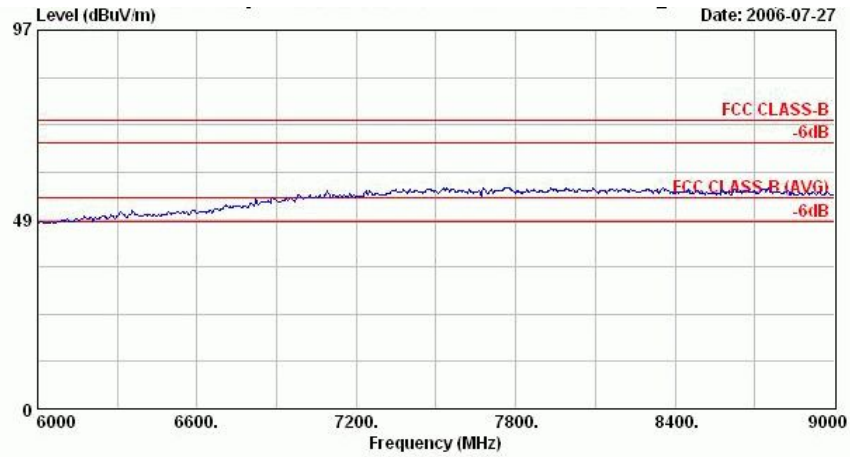


Site : 03CH06-HY
Condition : HF-ANT-060410 VERTICAL
EUT : Quad band Mobile Phone
EUT : (11G WLAN BT inside)
Power : 120Vac/60Hz
Model :
Memo : 11b Tx_CH01,2412MHz
Plane : E1



FCC TEST REPORT

Report No. : FR632820-02

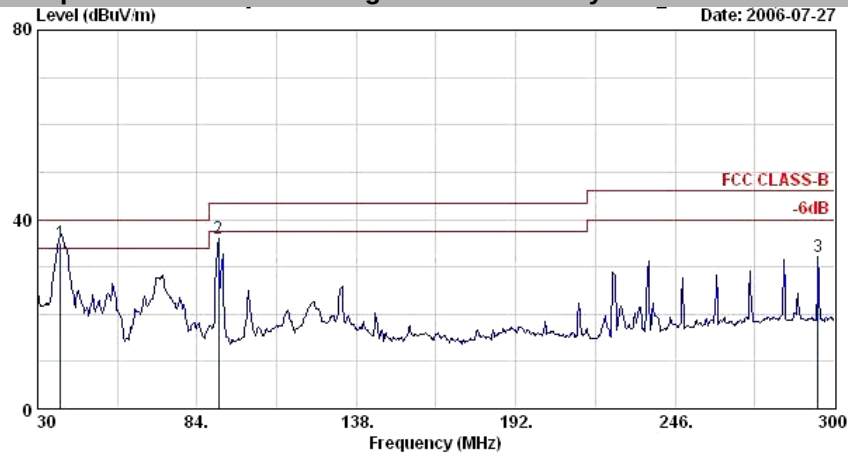


Site : 03CH06-HY
Condition : HF-ANT-060410 VERTICAL
EUT : Quad band Mobile Phone
EUT : (11G WLAN BT inside)
Power : 120Vac/60Hz
Model :
Memo : 11b Tx_CH01,2412MHz
Plane : E1



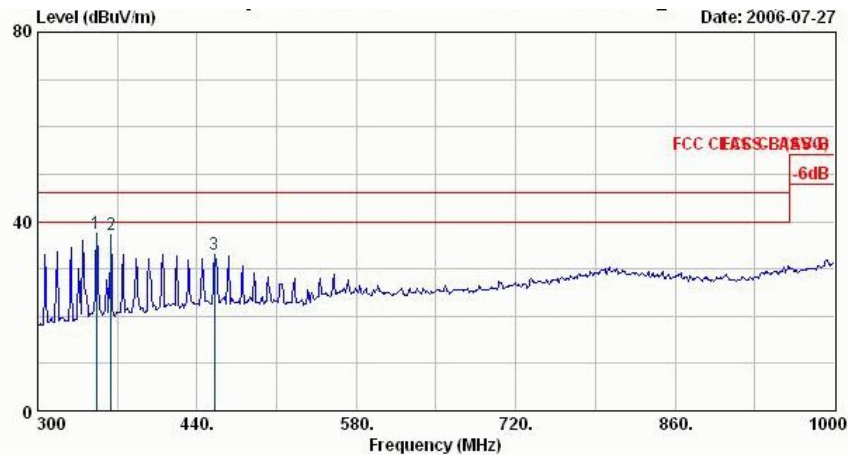
- Test Mode : Mode 2
- Polarization : Horizontal

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



Site : 03CH06-HY
Condition : BI-LOG-2004-1122 HORIZONTAL
EUT : Quad band Mobile Phone
EUT : (11G WLAN BT inside)
Power : 120Vac/60Hz
Model :
Memo : 11b Tx_CH06,2437MHz
Plane : E1

	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 @	37.83	35.16	-4.84	40.00	46.90	15.73	1.19	28.66	112	156 OP
2 @	91.29	35.87	-7.63	43.50	53.81	9.18	1.68	28.81	400	0 Peak
3 @	294.33	32.24	-13.76	46.00	44.97	12.94	3.24	28.90	400	0 Peak



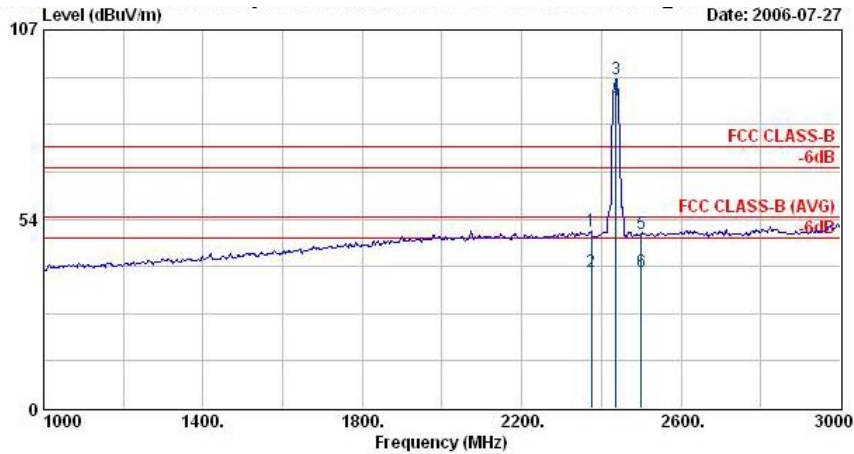
Site : 03CH06-HY
Condition : BI-LOG-2004-1122 HORIZONTAL
EUT : Quad band Mobile Phone
EUT : (11G WLAN BT inside)
Power : 120Vac/60Hz
Model :
Memo : 11b Tx_CH06,2437MHz
Plane : E1

	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 @	351.80	37.41	-8.59	46.00	48.36	14.48	3.59	29.02	100	0 Peak
2 @	364.40	37.25	-8.75	46.00	47.76	14.85	3.69	29.05	100	0 Peak
3 @	455.40	33.05	-12.95	46.00	41.36	16.50	4.01	28.81	100	0 Peak



FCC TEST REPORT

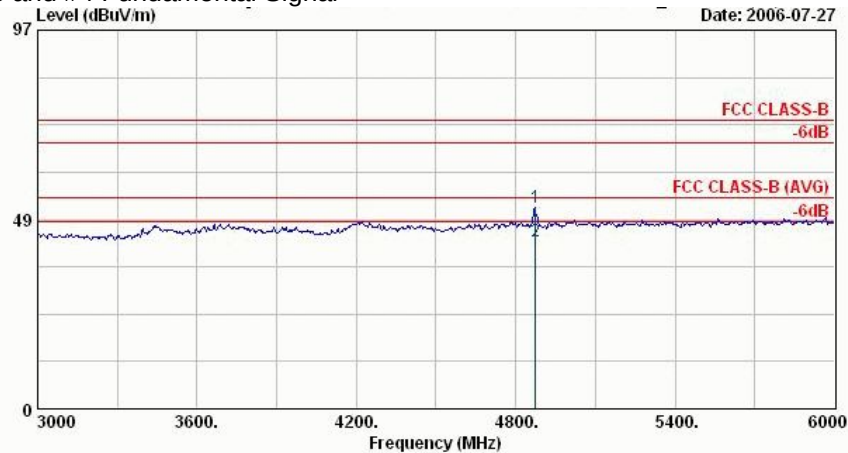
Report No. : FR632820-02



Site : 03CH06-HY
Condition : HF-ANT-060410 HORIZONTAL
EUT : Quad band Mobile Phone
EUT : (11G WLAN BT inside)
Power : 120Vac/60Hz
Model :
Memo : 11b Tx_CH06,2437MHz
Plane : E1

	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	dB	cm	deg	
1 @	2374.00	50.20	-23.80	74.00	51.15	30.25	4.23	35.44	100	0 Peak
2 @	2374.00	38.60	-15.40	54.00	39.56	30.25	4.23	35.44	100	354 Average
3 @	2437.00	93.18			94.08	30.28	4.29	35.47	100	0 Peak
4 @	2437.00	87.24			88.14	30.28	4.29	35.47	100	354 Average
5 @	2500.00	49.26	-24.74	74.00	50.10	30.30	4.39	35.53	100	0 Peak
6 @	2500.00	38.71	-15.29	54.00	39.55	30.30	4.39	35.53	100	354 Average

Remark: #3 and #4 Fundamental Signal



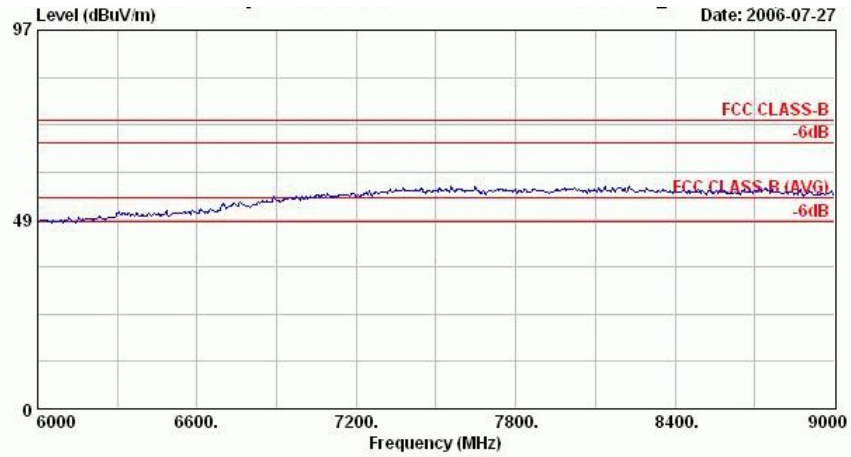
Site : 03CH06-HY
Condition : HF-ANT-060410 HORIZONTAL
EUT : Quad band Mobile Phone
EUT : (11G WLAN BT inside)
Power : 120Vac/60Hz
Model :
Memo : 11b Tx_CH06,2437MHz
Plane : E1

	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	dB	cm	deg	
1 @	4874.00	51.64	-22.36	74.00	48.36	33.14	6.30	36.16	200	0 Peak
2 @	4874.00	42.77	-11.23	54.00	39.49	33.14	6.30	36.16	160	170 Average



FCC TEST REPORT

Report No. : FR632820-02

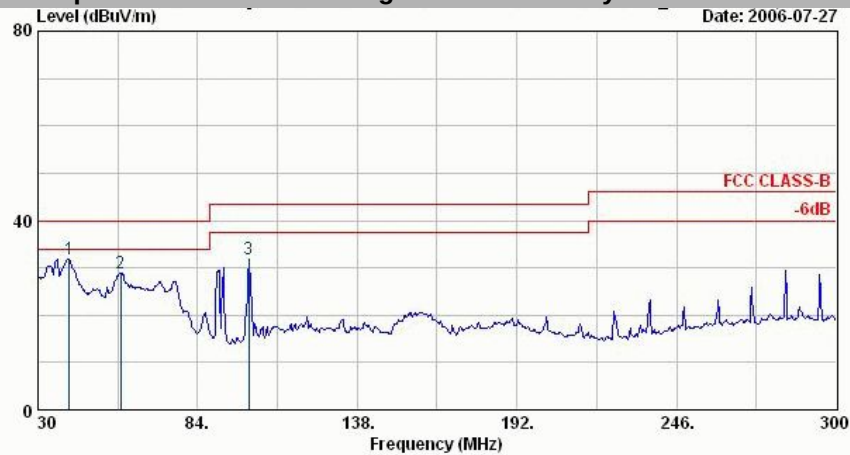


Site : 03CH06-HY
Condition : HF-ANT-060410 HORIZONTAL
EUT : Quad band Mobile Phone
EUT : (11G WLAN BT inside)
Power : 120Vac/60Hz
Model :
Memo : 11b Tx_CH06,2437MHz
Plane : E1



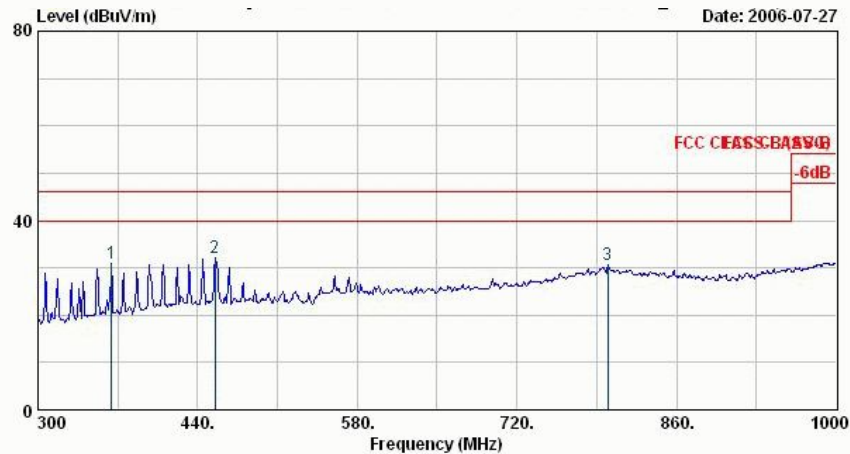
- Polarization : Vertical

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



Site : 03CH06-HY
Condition : BI-LOG-2004-1122 VERTICAL
EUT : Quad band Mobile Phone
EUT : (11G WLAN BT inside)
Power : 120Vac/60Hz
Model :
Memo : 11b Tx_CH06,2437MHz
Plane : E1

	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 @	40.53	31.94	-8.06	40.00	45.11	14.28	1.20	28.65	154	223 Peak
2 @	58.08	28.94	-11.06	40.00	49.17	7.21	1.20	28.64	400	0 Peak
3 @	101.28	31.84	-11.66	43.50	48.49	10.57	1.65	28.87	400	0 Peak



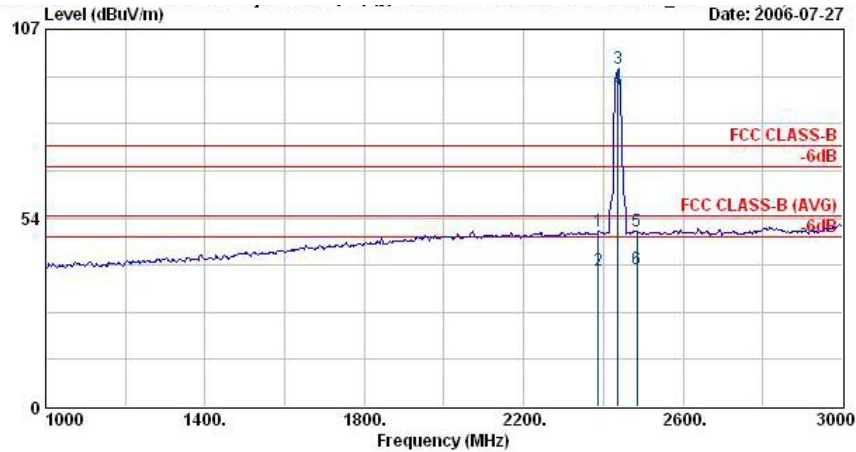
Site : 03CH06-HY
Condition : BI-LOG-2004-1122 VERTICAL
EUT : Quad band Mobile Phone
EUT : (11G WLAN BT inside)
Power : 120Vac/60Hz
Model :
Memo : 11b Tx_CH06,2437MHz
Plane : E1

	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 @	364.40	31.03	-14.97	46.00	41.54	14.85	3.69	29.05	100	0 Peak
2 @	455.40	31.99	-14.01	46.00	40.29	16.50	4.01	28.81	100	0 Peak
3 @	799.80	30.58	-15.42	46.00	31.93	21.90	5.62	28.87	100	0 Peak



FCC TEST REPORT

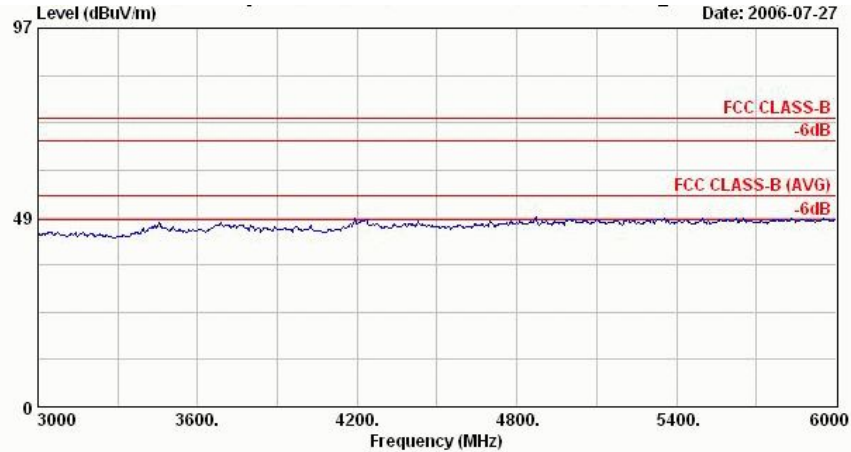
Report No. : FR632820-02



Site : 03CH06-HY
Condition : HF-ANT-060410 VERTICAL
EUT : Quad band Mobile Phone
EUT : (11G WLAN BT inside)
Power : 120Vac/60Hz
Model :
Memo : 11b Tx_CH06,2437MHz
Plane : E1

	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 @	2388.00	49.75	-24.25	74.00	50.70	30.26	4.23	35.44	100	0 Peak
2 @	2388.00	38.57	-15.43	54.00	39.52	30.26	4.23	35.44	100	267 Average
3 @	2437.00	95.76			96.66	30.28	4.29	35.47	100	0 Peak
4 @	2437.00	90.01			90.91	30.28	4.29	35.47	100	267 Average
5 @	2484.00	49.81	-24.19	74.00	50.67	30.29	4.36	35.51	100	0 Peak
6 @	2484.00	38.93	-15.07	54.00	39.79	30.29	4.36	35.51	100	267 Average

Remark: #3 and #4 Fundamental Signal

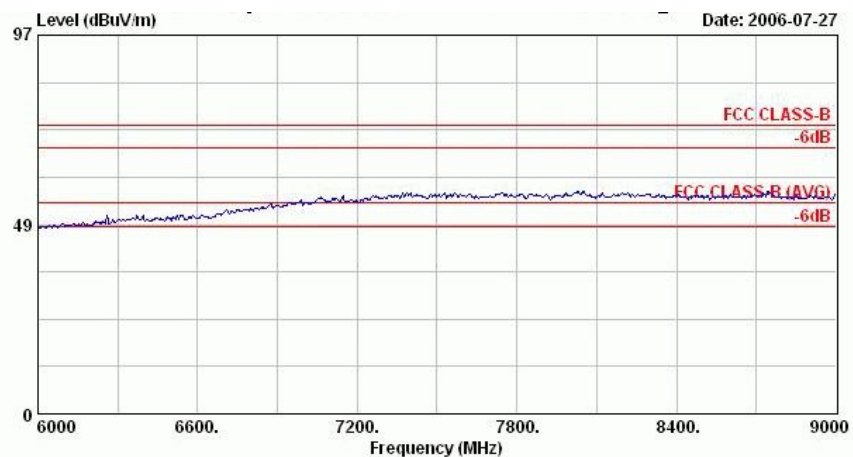


Site : 03CH06-HY
Condition : HF-ANT-060410 VERTICAL
EUT : Quad band Mobile Phone
EUT : (11G WLAN BT inside)
Power : 120Vac/60Hz
Model :
Memo : 11b Tx_CH06,2437MHz
Plane : E1



FCC TEST REPORT

Report No. : FR632820-02

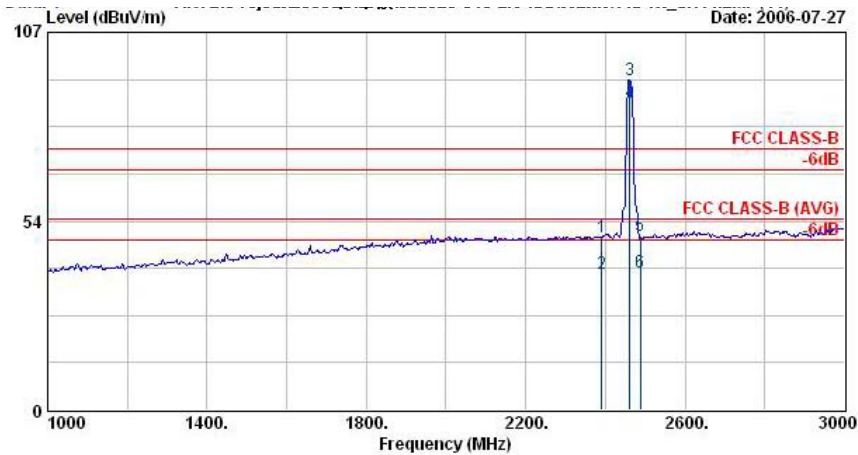


Site : 03CH06-HY
Condition : HF-ANT-060410 VERTICAL
EUT : Quad band Mobile Phone
EUT : (11G WLAN BT inside)
Power : 120Vac/60Hz
Model :
Memo : 11b Tx_CH06,2437MHz
Plane : E1



- Test Mode : Mode 3
- Polarization : Horizontal

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



Site : 03CH06-HY
Condition : HF-ANT-060410 HORIZONTAL
EUT : Quad band Mobile Phone
EUT : (11G WLAN BT inside)
Power : 120Vac/60Hz
Model :
Memo : 11b Tx_CH11,2462MHz
Plane : E1

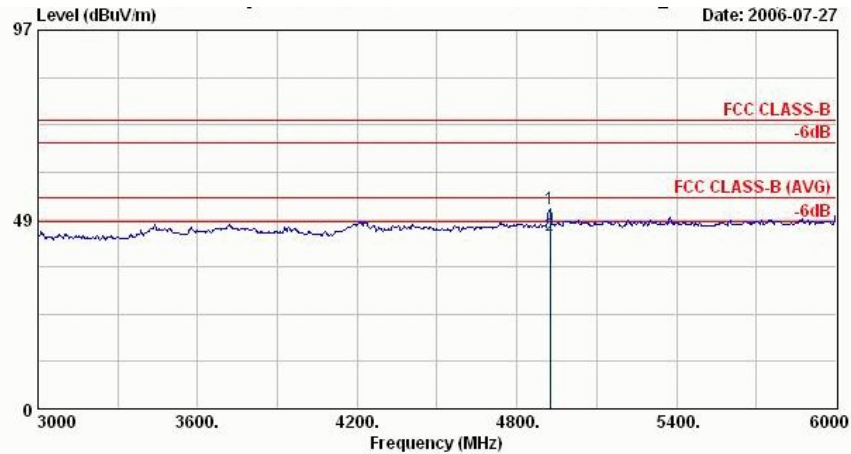
	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Remark
			dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	2390.00	49.11	-24.89	74.00	50.05	30.26	4.26	35.46	100	0	Peak
2	2390.00	38.42	-15.58	54.00	39.36	30.26	4.26	35.46	100	353	Average
3 @	2462.00	93.30			94.18	30.29	4.33	35.49	100	0	Peak
4 @	2462.00	86.96			87.84	30.29	4.33	35.49	100	353	Average
5	2488.00	49.15	-24.85	74.00	50.00	30.30	4.36	35.51	100	0	Peak
6	2488.00	38.90	-15.10	54.00	39.75	30.30	4.36	35.51	100	353	Average

Remark: #3 and #4 Fundamental Signal



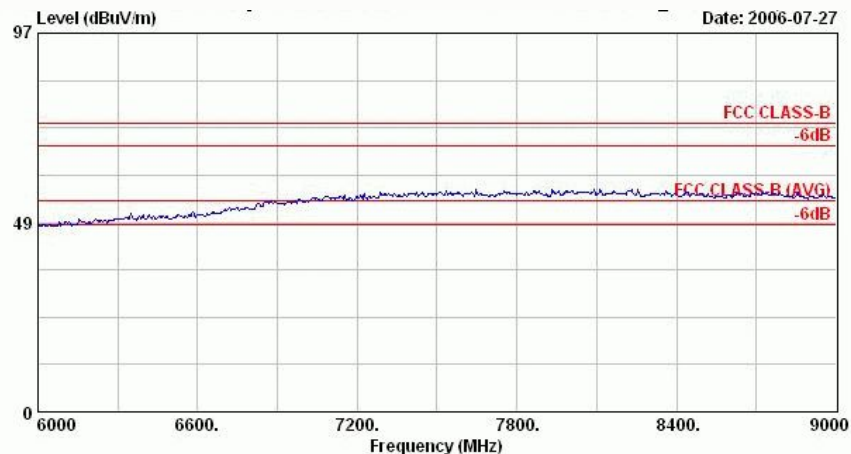
FCC TEST REPORT

Report No. : FR632820-02



Site : 03CH06-HY
Condition : HF-ANT-060410 HORIZONTAL
EUT : Quad band Mobile Phone
EUT : (11G WLAN BT inside)
Power : 120Vac/60Hz
Model :
Memo : 11b Tx_CH11,2462MHz
Plane : E1

	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Remark
			dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	4924.00	51.38	-22.62	74.00	47.89	33.34	6.36	36.21	200	0	Peak
2 @	4924.00	44.44	-9.56	54.00	40.95	33.34	6.36	36.21	162	204	Average

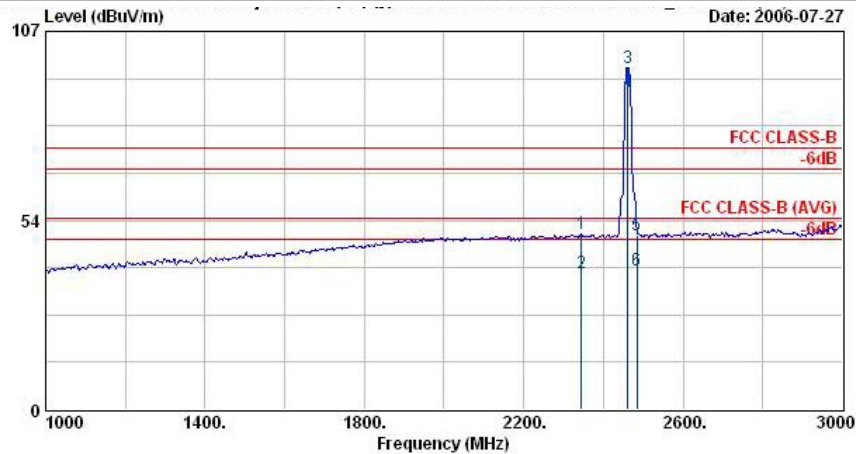


Site : 03CH06-HY
Condition : HF-ANT-060410 HORIZONTAL
EUT : Quad band Mobile Phone
EUT : (11G WLAN BT inside)
Power : 120Vac/60Hz
Model :
Memo : 11b Tx_CH11,2462MHz
Plane : E1



- Polarization : Vertical

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



Site : 03CH06-HY
Condition : HF-ANT-060410 VERTICAL
EUT : Quad band Mobile Phone
EUT : (11G WLAN BT inside)
Power : 120Vac/60Hz
Model :
Memo : 11b Tx_CH11,2462MHz
Plane : E1

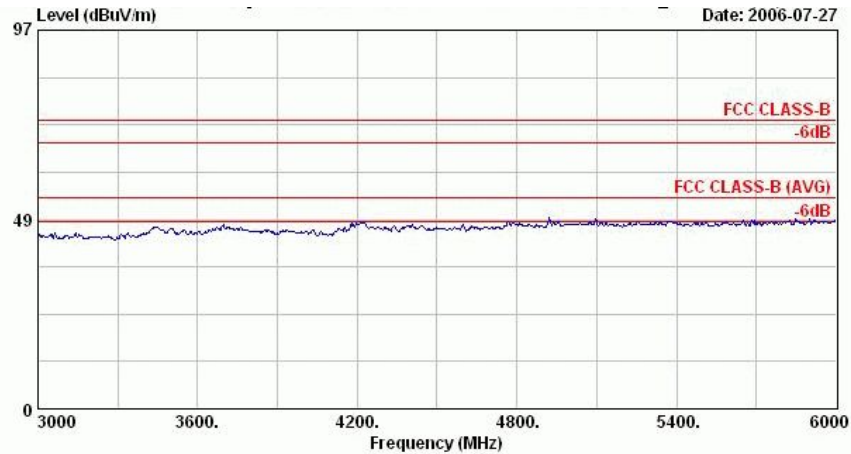
	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	
	MHz	dBuV/m	Limit	Line	Level	Loss	Factor	Pos	Pos	Remark
			dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	2344.00	49.64	-24.36	74.00	50.62	30.24	4.20	35.42	100	360 Peak
2	2344.00	38.51	-15.49	54.00	39.49	30.24	4.20	35.42	100	266 Average
3 @	2462.00	96.62			97.50	30.29	4.33	35.49	100	360 Peak
4 @	2462.00	89.96			90.84	30.29	4.33	35.49	100	266 Average
5	2483.50	49.30	-24.70	74.00	50.16	30.29	4.36	35.51	100	360 Peak
6	2483.50	39.22	-14.78	54.00	40.08	30.29	4.36	35.51	100	266 Average

Remark: #3 and #4 Fundamental Signal

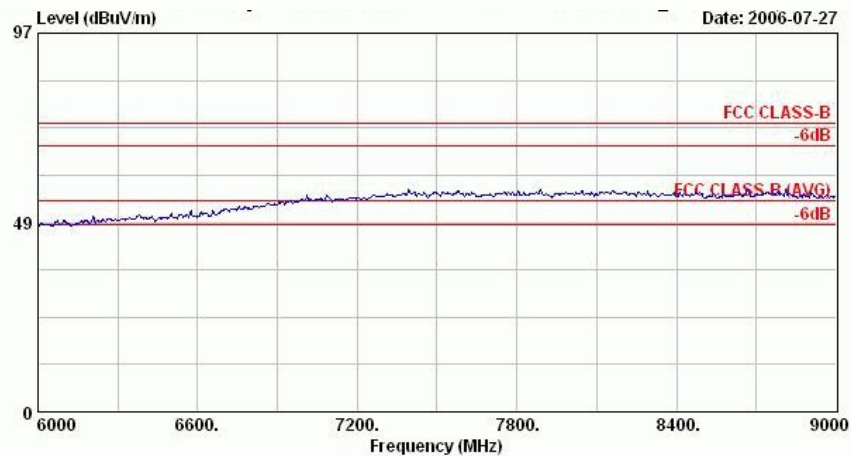


FCC TEST REPORT

Report No. : FR632820-02



Site : 03CH06-HY
Condition : HF-ANT-060410 VERTICAL
EUT : Quad band Mobile Phone
EUT : (11G WLAN BT inside)
Power : 120Vac/60Hz
Model :
Memo : 11b Tx_CH11,2462MHz
Plane : E1

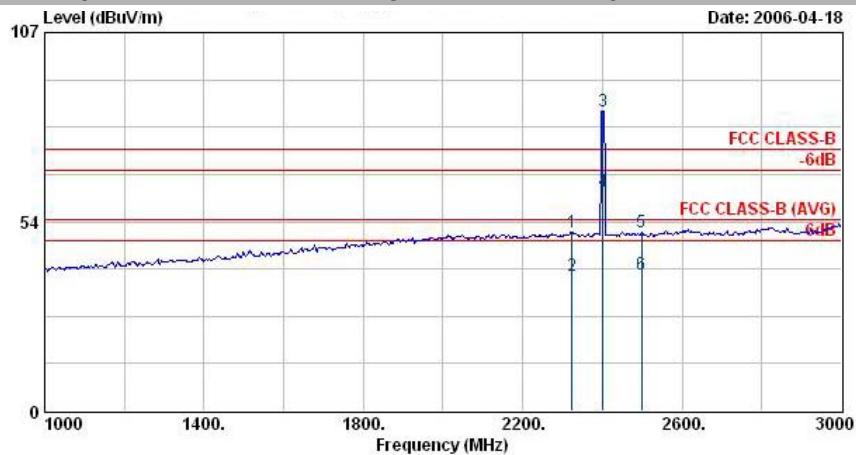


Site : 03CH06-HY
Condition : HF-ANT-060410 VERTICAL
EUT : Quad band Mobile Phone
EUT : (11G WLAN BT inside)
Power : 120Vac/60Hz
Model :
Memo : 11b Tx_CH11,2462MHz
Plane : E1



- Test Mode : Mode 4
- Polarization : Horizontal

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



Site : 03CH06-HY
Condition : HF-ANT-060410 HORIZONTAL
EUT : Quad-band PDA Phone(11G WLAN BT inside)
Power : 120Vac/60Hz
Model :
Memo : BT Tx CH00,2402MHz
Plane : E2

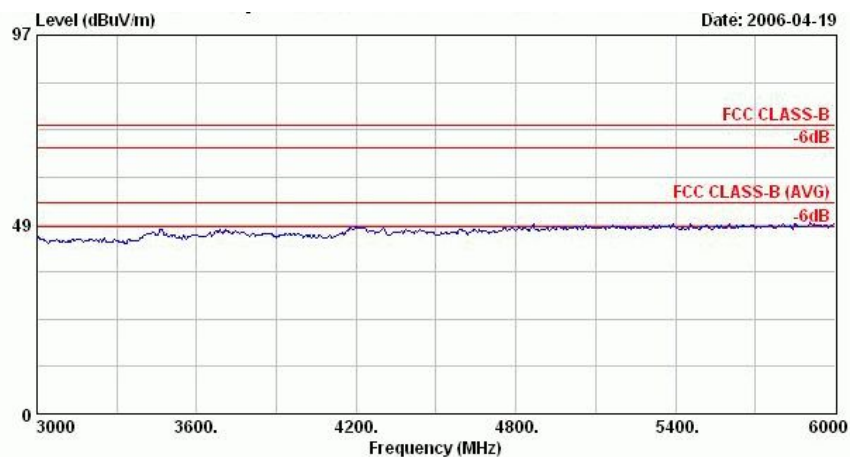
	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	2324.00	50.62	-23.38	74.00	51.63	30.23	4.17	35.40	100	360	Peak
2 @	2324.00	38.36	-15.64	54.00	39.36	30.23	4.17	35.40	106	334	Average
3 @	2402.00	84.87			85.81	30.26	4.26	35.46	100	360	Peak
4 @	2402.00	62.00			62.94	30.26	4.26	35.46	106	334	Average
5 @	2498.00	50.63	-23.37	74.00	51.47	30.30	4.39	35.53	100	360	Peak
6 @	2498.00	38.50	-15.50	54.00	39.34	30.30	4.39	35.53	106	334	Average

Remark: #3 and #4 Fundamental Signal

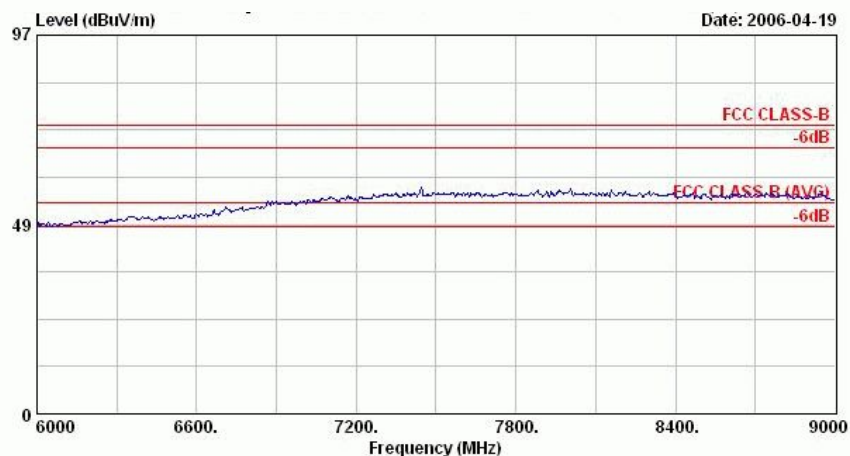


FCC TEST REPORT

Report No. : FR632820-02



Site : 03CH06-HY
Condition : HF-ANT-060410 HORIZONTAL
EUT : Quad-band PDA Phone(11G WLAN BT inside)
Power : 120Vac/60Hz
Model :
Memo : BT Tx CH00,2402MHz
Plane : E2

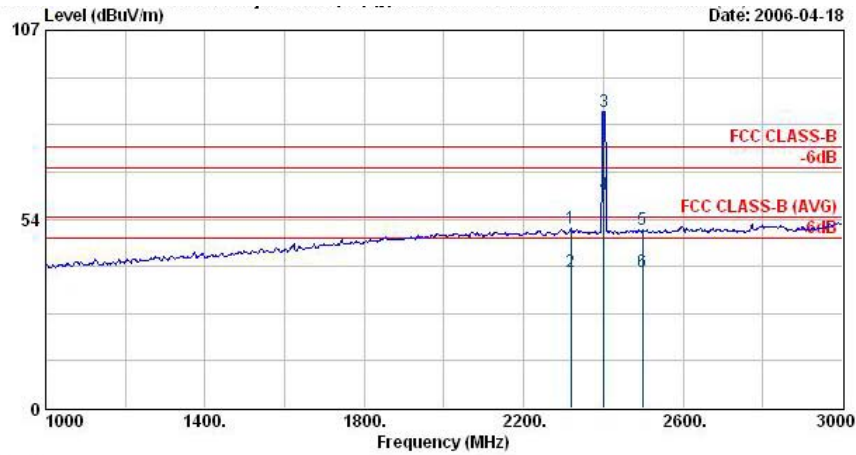


Site : 03CH06-HY
Condition : HF-ANT-060410 HORIZONTAL
EUT : Quad-band PDA Phone(11G WLAN BT inside)
Power : 120Vac/60Hz
Model :
Memo : BT Tx CH00,2402MHz
Plane : E2



- Polarization : Vertical

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



Site : 03CH06-HY
Condition : HF-ANT-060410 VERTICAL
EUT : Quad-band PDA Phone(11G WLAN BT inside)
Power : 120Vac/60Hz
Model :
Memo : BT Tx CH00,2402MHz
Plane : E2

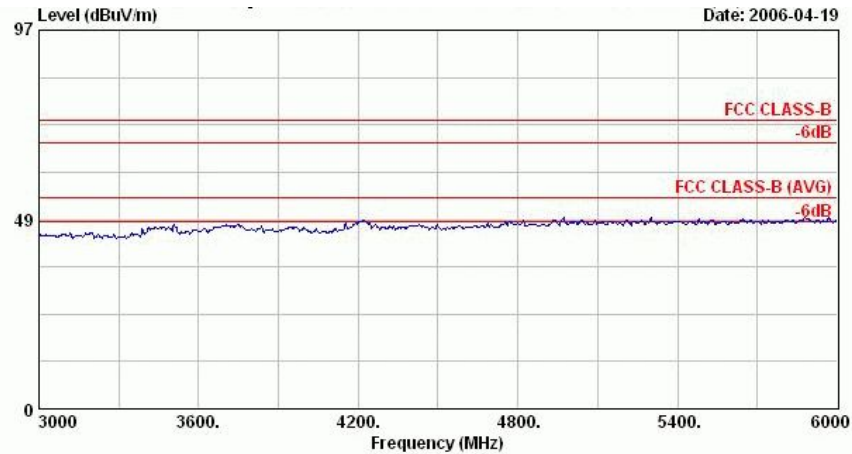
	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	
	MHz	dBuV/m	Limit	Line	Level	Loss	Factor	Pos	Pos	Remark
			dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1 @	2318.00	50.94	-23.06	74.00	51.94	30.23	4.17	35.40	100	0 Peak
2 @	2318.00	38.50	-15.50	54.00	39.50	30.23	4.17	35.40	100	102 Average
3 @	2402.00	84.08			85.02	30.26	4.26	35.46	100	0 Peak
4 @	2402.00	60.65			61.59	30.26	4.26	35.46	100	102 Average
5 @	2498.00	50.61	-23.39	74.00	51.45	30.30	4.39	35.53	100	0 Peak
6 @	2498.00	38.57	-15.43	54.00	39.41	30.30	4.39	35.53	100	102 Average

Remark: #3 and #4 Fundamental Signal

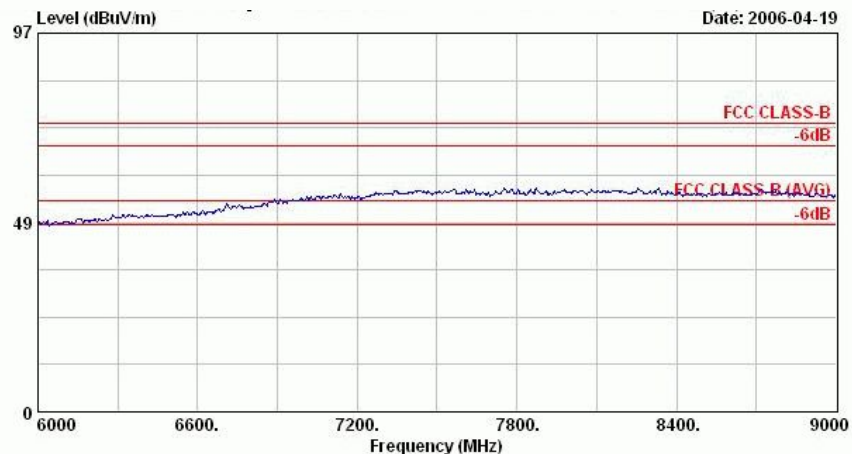


FCC TEST REPORT

Report No. : FR632820-02



Site : 03CH06-HY
Condition : HF-ANT-060410 VERTICAL
EUT : Quad-band PDA Phone(11G WLAN BT inside)
Power : 120Vac/60Hz
Model :
Memo : BT Tx CH00,2402MHz
Plane : E2

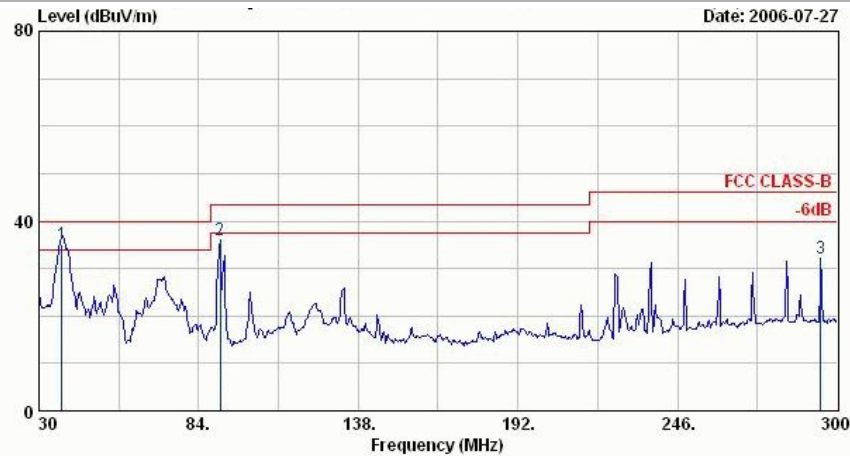


Site : 03CH06-HY
Condition : HF-ANT-060410 VERTICAL
EUT : Quad-band PDA Phone(11G WLAN BT inside)
Power : 120Vac/60Hz
Model :
Memo : BT Tx CH00,2402MHz
Plane : E2



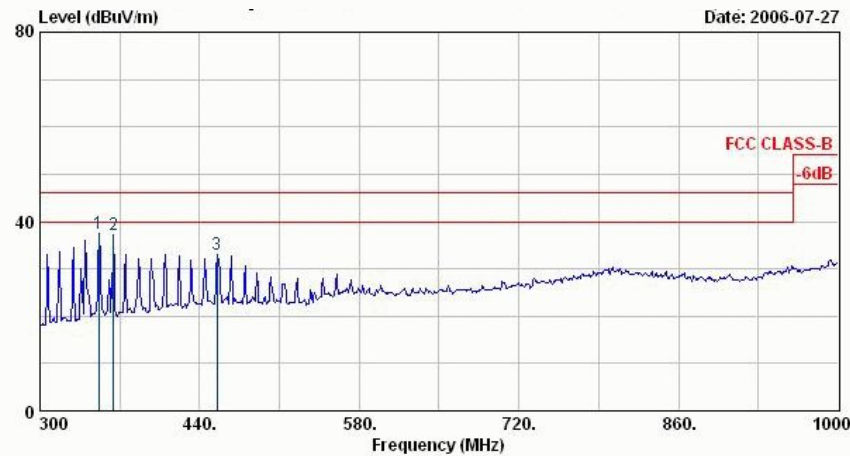
- Test Mode : Mode 5
- Polarization : Horizontal

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



Site : 03CH06-HY
Condition : BI-LOG-2004-1122 HORIZONTAL
EUT : Quad band PDA Phone(11G WLAN BT inside)
Power : 120Vac/60Hz
Model :
Memo : BT Tx CH39,2441MHz
Plane : E2

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	
	MHz	dBuV/m	dB	dBuV/m	Level	Loss	Factor	Pos	Pos	Remark
					dBuV	dB/m		cm	deg	
1 @	37.83	35.16	-4.84	40.00	46.90	15.73	1.19	28.66	112	156 QP
2 @	91.29	35.87	-7.63	43.50	53.81	9.18	1.68	28.81	400	0 Peak
3 @	294.33	32.24	-13.76	46.00	44.97	12.94	3.24	28.90	400	0 Peak



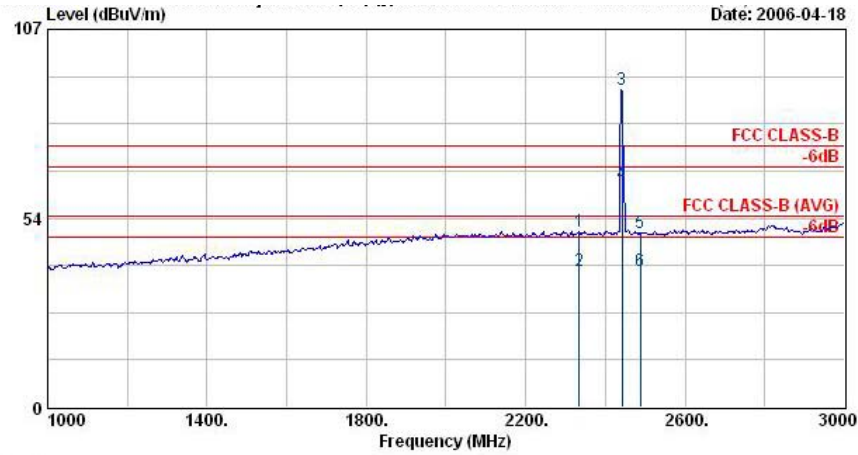
Site : 03CH06-HY
Condition : BI-LOG-2004-1122 HORIZONTAL
EUT : Quad band PDA Phone(11G WLAN BT inside)
Power : 120Vac/60Hz
Model :
Memo : BT Tx CH39,2441MHz
Plane : E2

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	
	MHz	dBuV/m	dB	dBuV/m	Level	Loss	Factor	Pos	Pos	Remark
					dBuV	dB/m		cm	deg	
1 @	351.80	37.41	-8.59	46.00	48.36	14.48	3.59	29.02	100	0 Peak
2 @	364.40	37.25	-8.75	46.00	47.76	14.85	3.69	29.05	100	0 Peak
3 @	455.40	33.05	-12.95	46.00	41.36	16.50	4.01	28.81	100	0 Peak



FCC TEST REPORT

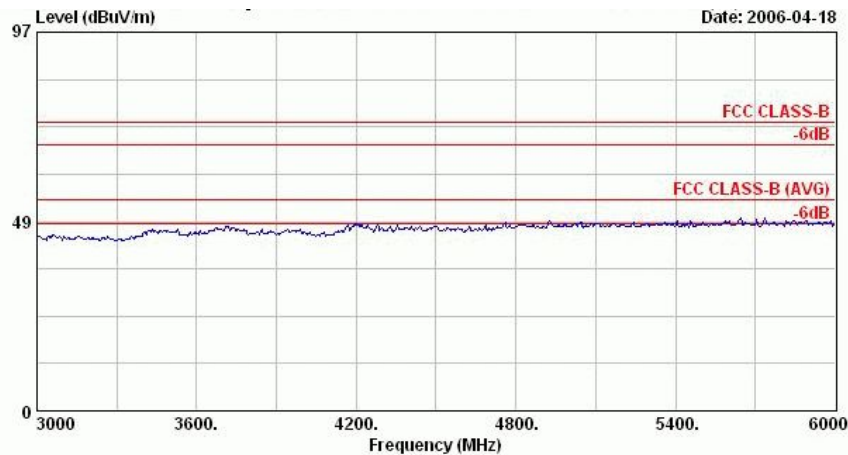
Report No. : FR632820-02



Site : 03CH06-HY
Condition : HF-ANT-060410 HORIZONTAL
EUT : Quad-band PDA Phone(11G WLAN BT inside)
Power : 120Vac/60Hz
Model :
Memo : BT Tx CH39,2441MHz
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	dB	cm	deg	
1 @	2334.00	49.69	-24.31	74.00	50.70	30.23	4.17	35.40	100	0 Peak
2 @	2334.00	38.61	-15.39	54.00	39.61	30.23	4.17	35.40	100	332 Average
3 @	2441.00	89.93			90.83	30.28	4.29	35.47	100	0 Peak
4 @	2441.00	63.33			64.22	30.28	4.33	35.49	100	332 Average
5 @	2488.00	49.49	-24.51	74.00	50.34	30.30	4.36	35.51	100	0 Peak
6 @	2488.00	38.59	-15.41	54.00	39.44	30.30	4.36	35.51	100	332 Average

Remark: #3 and #4 Fundamental Signal

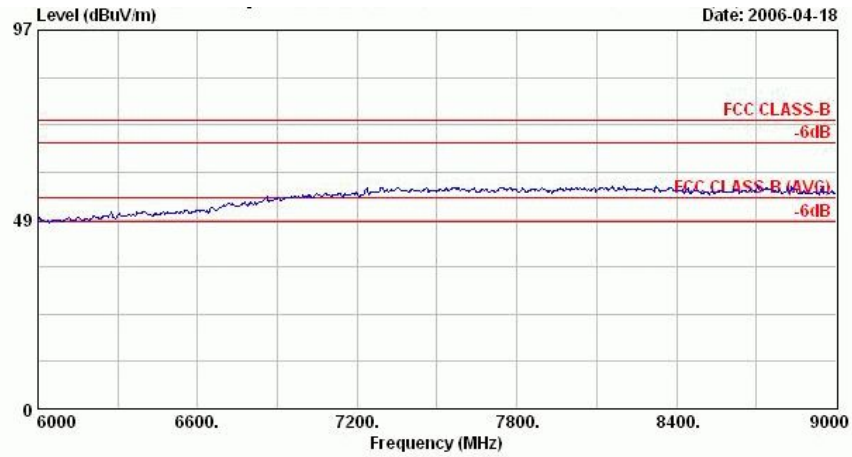


Site : 03CH06-HY
Condition : HF-ANT-060410 HORIZONTAL
EUT : Quad-band PDA Phone(11G WLAN BT inside)
Power : 120Vac/60Hz
Model :
Memo : BT Tx CH39,2441MHz
Plane : E2



FCC TEST REPORT

Report No. : FR632820-02

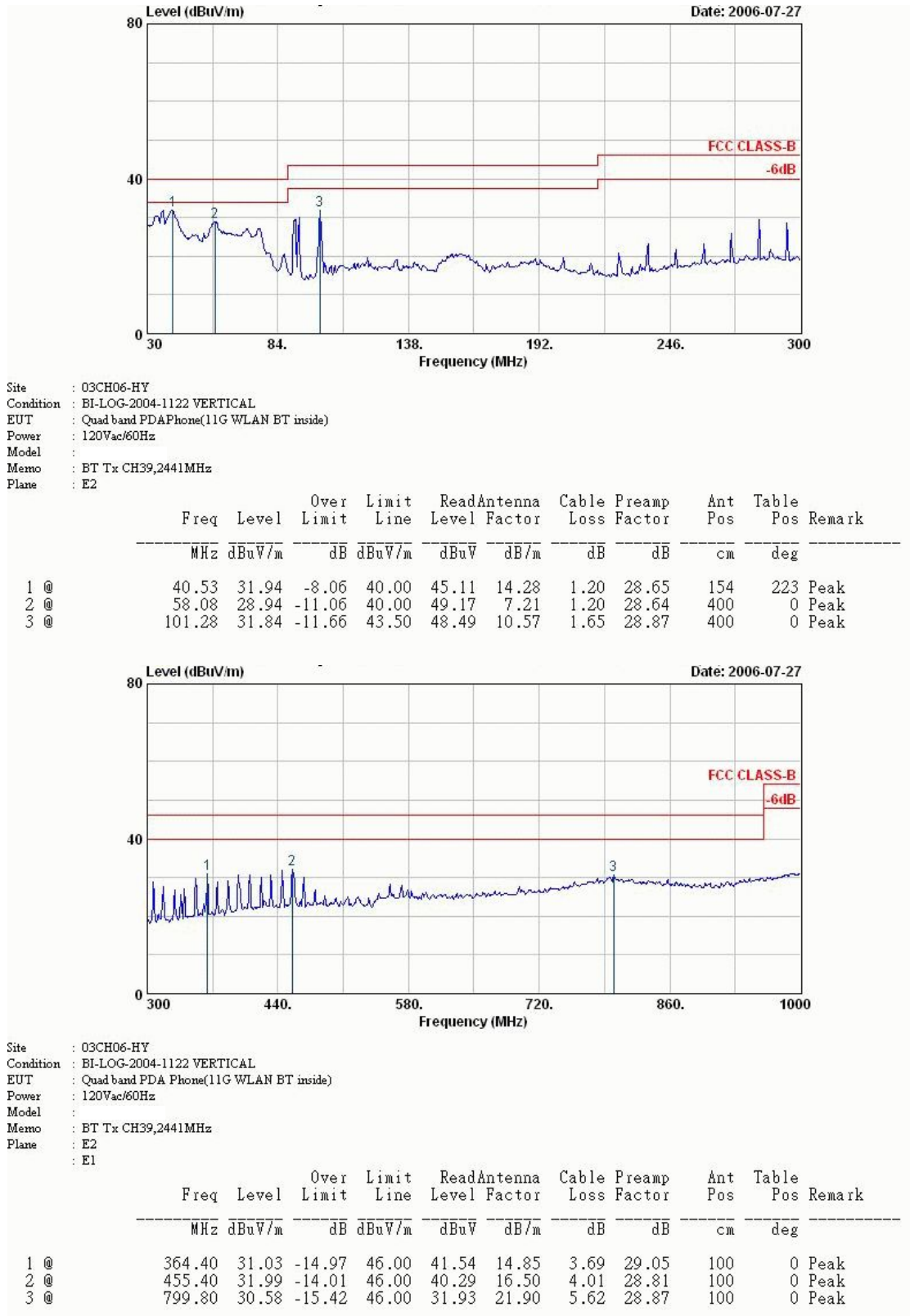


Site : 03CH06-HY
Condition : HF-ANT-060410 HORIZONTAL
EUT : Quad-band PDA Phone(11G WLAN BT inside)
Power : 120Vac/60Hz
Model :
Memo : BT Tx CH39,2441MHz
Plane : E2



- Polarization : Vertical

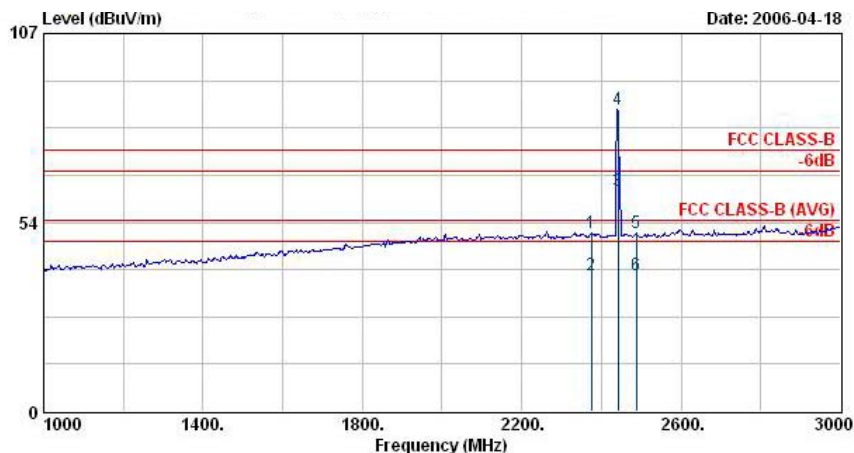
■ The test that passed at minimum margin was marked by the frame in the following table.





FCC TEST REPORT

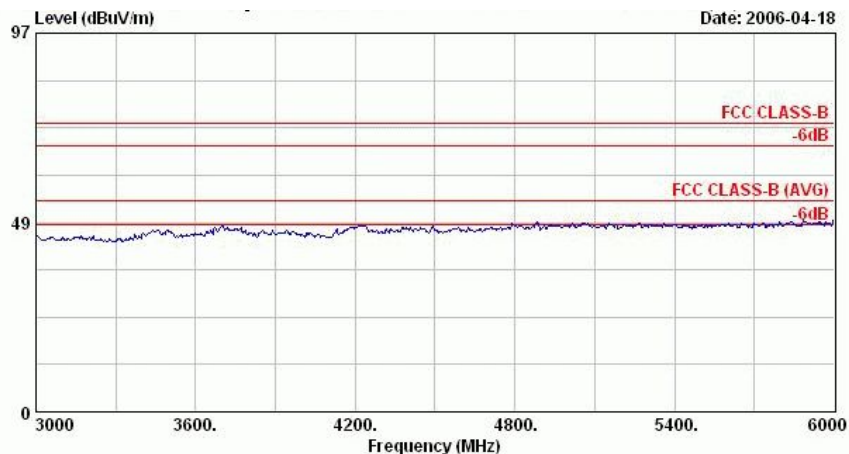
Report No. : FR632820-02



Site : 03CH06-HY
Condition : HF-ANT-060410 VERTICAL
EUT : Quad-band PDA Phone(11G WLAN BT inside)
Power : 120Vac/60Hz
Model :
Memo : BT Tx CH39,2441MHz
Plane : E2

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	
	MHz	dBuV/m	dB	dBuV/m	Level	Loss	Factor	Pos	Pos	Remark
					dBuV	dB/m	dB	dB	cm	deg
1 @	2374.00	50.52	-23.48	74.00	51.48	30.25	4.23	35.44	100	0 Peak
2 @	2374.00	38.49	-15.51	54.00	39.45	30.25	4.23	35.44	100	98 Average
3 @	2441.00	62.25			63.14	30.28	4.33	35.49	100	98 Average
4 @	2441.00	85.43			86.33	30.28	4.29	35.47	100	0 Peak
5 @	2488.00	50.35	-23.65	74.00	51.20	30.30	4.36	35.51	100	0 Peak
6 @	2488.00	38.59	-15.41	54.00	39.44	30.30	4.36	35.51	100	98 Average

Remark: #3 and #4 Fundamental Signal

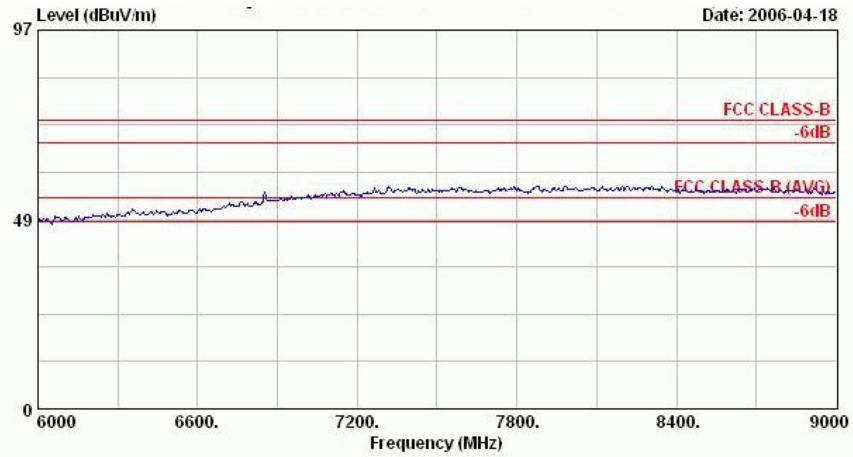


Site : 03CH06-HY
Condition : HF-ANT-060410 VERTICAL
EUT : Quad-band PDA Phone(11G WLAN BT inside)
Power : 120Vac/60Hz
Model :
Memo : BT Tx CH39,2441MHz
Plane : E2



FCC TEST REPORT

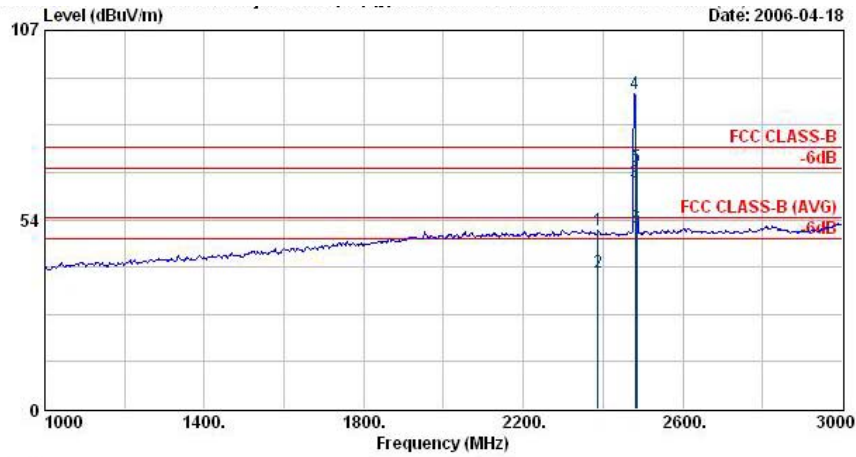
Report No. : FR632820-02



Site : 03CH06-HY
Condition : HF-ANT-060410 VERTICAL
EUT : Quad-band PDA Phone(11G WLAN BT inside)
Power : 120Vac/60Hz
Model :
Memo : BT Tx CH39,2441MHz
Plane : E2

- Test Mode : Mode 6
- Polarization : Horizontal

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



Site : 03CH06-HY
Condition : HF-ANT-060410 HORIZONTAL
EUT : Quad-band PDA Phone(11G WLAN BT inside)
Power : 120Vac/60Hz
Model :
Memo : BT Tx CH78,2480MHz
Plane : E2

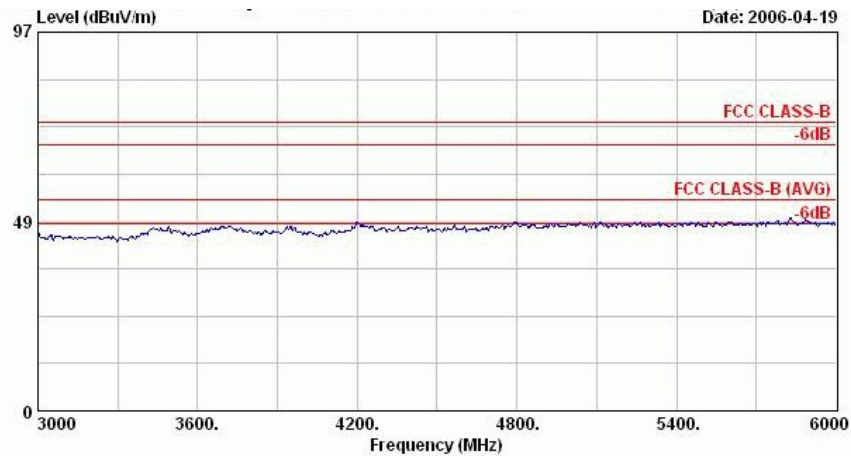
	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	
	MHz	dBuV/m	Limit	Line	Level Factor	Loss	Factor	Pos	Pos	Remark
			dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1 @	2388.00	50.58	-23.42	74.00	51.52	30.26	4.23	35.44	100	0 Peak
2 @	2388.00	38.42	-15.58	54.00	39.37	30.26	4.23	35.44	100	335 Average
3 @	2480.00	63.87			64.73	30.29	4.36	35.51	100	335 Average
4 @	2480.00	89.26			90.12	30.29	4.36	35.51	100	0 Peak
5 @	2483.50	68.22	-5.78	74.00	69.08	30.29	4.36	35.51	100	0 Peak
6 @	2483.50	51.18	-2.82	54.00	52.04	30.29	4.36	35.51	100	335 Average

Remark: #3 and #4 Fundamental Signal

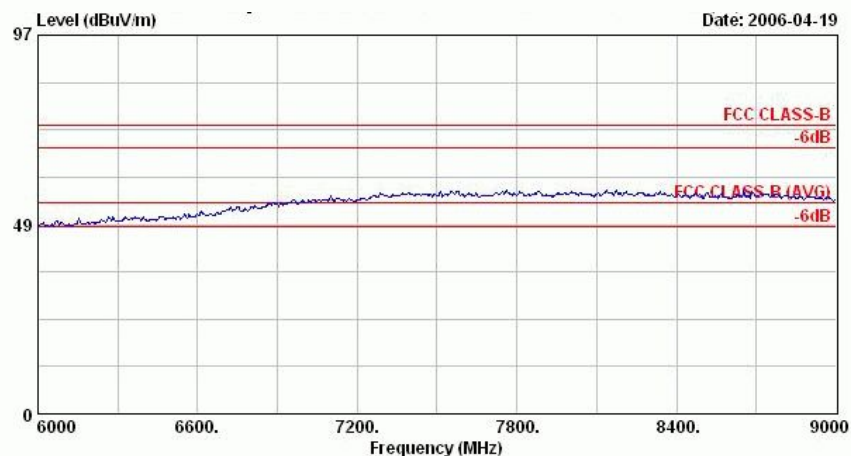


FCC TEST REPORT

Report No. : FR632820-02



Site : 03CH06-HY
Condition : HF-ANT-060410 HORIZONTAL
EUT : Quad-band PDA Phone(11G WLAN BT inside)
Power : 120Vac/60Hz
Model :
Memo : BT Tx CH78,2480MHz
Plane : E2

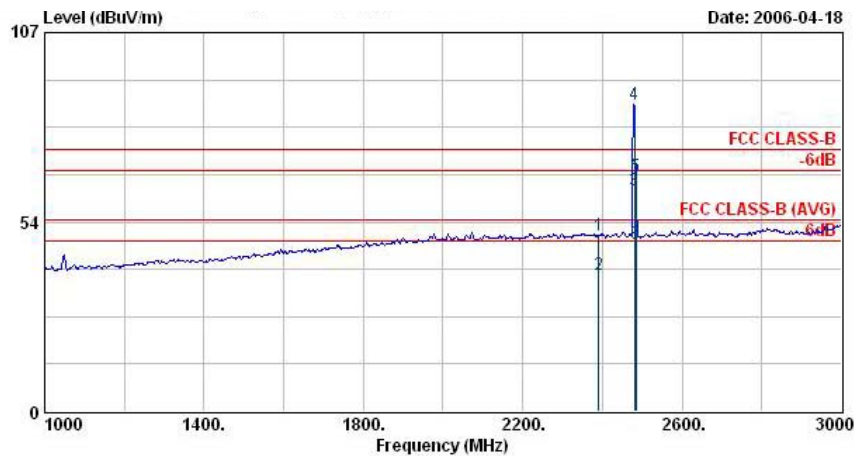


Site : 03CH06-HY
Condition : HF-ANT-060410 HORIZONTAL
EUT : Quad-band PDA Phone(11G WLAN BT inside)
Power : 120Vac/60Hz
Model :
Memo : BT Tx CH78,2480MHz
Plane : E2



- Polarization : Vertical

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



Site : 03CH06-HY
Condition : HF-ANT-060410 VERTICAL
EUT : Quad-band PDA Phone(11G WLAN BT inside)
Power : 120Vac/60Hz
Model :
Memo : BT Tx CH78,2480MHz
Plane : E2

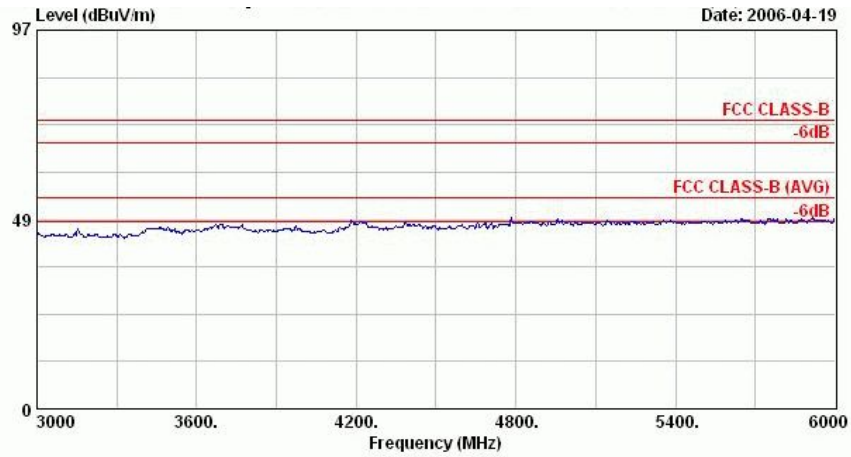
	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	
	MHz	dBuV/m	Limit	Line	Level	Loss	Factor	Pos	Pos	Remark
			dB	dBuV/m	dBuV	dB	dB	cm	deg	
1 @	2390.00	49.62	-24.38	74.00	50.56	30.26	4.26	35.46	100	360 Peak
2 @	2390.00	38.49	-15.51	54.00	39.43	30.26	4.26	35.46	100	323 Average
3 @	2480.00	62.46			63.32	30.29	4.36	35.51	100	323 Average
4 @	2480.00	86.79			87.65	30.29	4.36	35.51	100	360 Peak
5 @	2483.50	66.25	-7.75	74.00	67.11	30.29	4.36	35.51	100	360 Peak
6 @	2483.50	47.24	-6.76	54.00	48.10	30.29	4.36	35.51	100	323 Average

Remark: #3 and #4 Fundamental Signal

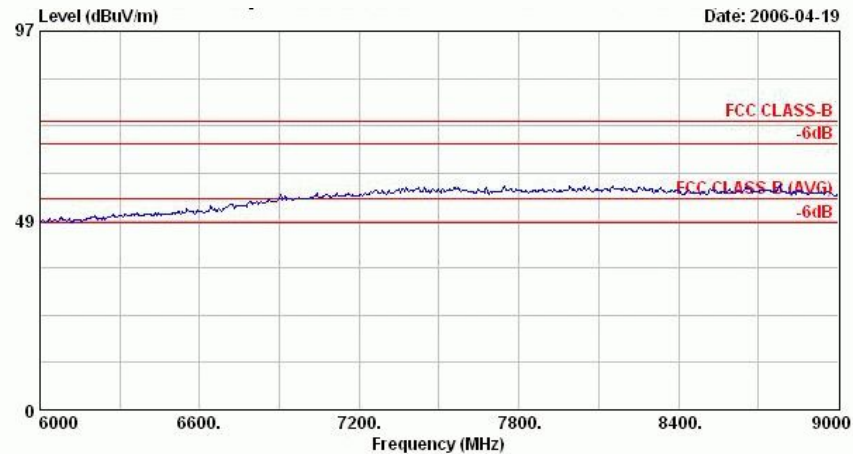


FCC TEST REPORT

Report No. : FR632820-02



Site : 03CH06-HY
Condition : HF-ANT-060410 VERTICAL
EUT : Quad-band PDA Phone(11G WLAN BT inside)
Power : 120Vac/60Hz
Model :
Memo : BT Tx CH78,2480MHz
Plane : E2



Site : 03CH06-HY
Condition : HF-ANT-060410 VERTICAL
EUT : Quad-band PDA Phone(11G WLAN BT inside)
Power : 120Vac/60Hz
Model :
Memo : BT Tx CH78,2480MHz
Plane : E2

Remark: There is no more obvious spurious emission except the listings above.



5.12 Antenna Requirements

5.12.1 Standard Applicable

For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no other antenna except assembled by the responsible party shall be used with the device.

And according to FCC 47 CFR Section 15.247 (b), 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.

5.12.2 Antenna Connected Construction

The antennas used in this product are PIFA for WLAN and Chip antenna for BT without connector and it is considered to meet antenna requirement of FCC.

5.12.3 Antenna Gain

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

6. List of Measuring Equipments Used

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Due Date	Remark
EMC Receiver	R&S	ESCS 30	100174	9kHz – 2.75GHz	Feb. 22, 2006	Feb. 22, 2007	Conduction (CO01-HY)
LISN	MessTec	NNB-2/16Z	2001/004	9kHz – 30MHz	Apr. 28, 2006	Apr. 28, 2007	Conduction (CO01-HY)
LISN (Support Unit)	MessTec	NNB-2/16Z	2001/009	9kHz – 30MHz	Apr. 19, 2006	Apr. 19, 2007	Conduction (CO01-HY)
EMI Filter	LINDGREN	LRE-2060	1004	< 450Hz	N/A	N/A	Conduction (CO01-HY)
EMI Filter	LINDGREN	N6006	201052	0 – 60Hz	N/A	N/A	Conduction (CO01-HY)
RF Cable-CON	Suhner Switzerland	RG223/U	CB029	9kHz – 30MHz	Dec. 22, 2005	Dec. 22, 2006	Conduction (CO01-HY)
Spectrum analyzer	Agilent	E4408B	MY44211030	9KHz-26.5GHz	Jul. 24, 2006	Jul. 24, 2007	Radiation (03CH06-HY)
Receiver	R&S	ESCS30	100356	9KHz-2.75GHz	Jun. 26, 2006	Jun. 25, 2007	Radiation (03CH06-HY)
Controller	CT	SC100	N/A	N/A	N/A	N/A	Radiation (03CH06-HY)
Bilog Antenna	SCHAFFNER	CBL6112B	2885	30MHz -2GHz	Nov. 21, 2004	Nov. 20, 2006	Radiation (03CH06-HY)
Horn Antenna	Com-Power	AH118	071025	1G-18G	Feb. 1, 2005	Jan. 31, 2007	Radiation (03CH06-HY)
SHF-EHF Horn	SCHWARZBECK	BBHA 9170	9170-249	14G - 40G	Jul. 20, 2006	Jul. 20, 2007	Radiation (03CH06-HY)
HF Amplifier	MITEQ	AFS44	973248	0.1G - 26.5G	Dec. 17, 2005	Dec. 17, 2006	Radiation (03CH06-HY)
Amplifier	MITEQ	AMF-6F	997165	26G - 40G	Jul. 20, 2006	Jul. 20, 2007	Radiation (03CH06-HY)
Turn Table	HD	DS 420	420/650/00	0 ~ 360 degree	N/A	N/A	Radiation (03CH06-HY)
Antenna Mast	HD	MA 240	240/560/00	1 m - 4 m	N/A	N/A	Radiation (03CH06-HY)

7. Uncertainty Evaluation

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

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
combined standard uncertainty Uc(y)	1.13		
Measuring uncertainty for a level of confidence of 95% U=2Uc(y)	2.26		

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

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
combined standard uncertainty Uc(y)	1.27		
Measuring uncertainty for a level of confidence of 95% U=2Uc(y)	2.54		

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

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 = $20\log(1 - \Gamma_1 * \Gamma_2 * \Gamma_3)$	+0.34/-0.35	U-shaped	0.244	1	0.244
Combined standard uncertainty $U_c(y)$	2.36				
Measuring uncertainty for a level of confidence of 95% $U = 2U_c(y)$	4.72				