



FCC TEST REPORT

for

47 CFR Part 15 Subpart C

Equipment : Pocket PC (PDA)
Trade Name : Mio DigiWalker
Model No. : Mio P550
FCC ID : P4Q-MIOP550
Filing Type : Certification
Applicant : Mitac International Corporation
6th FL., NO. 187, TIDING BLVD., SEC. 2, TAIPEI, TAIWAN, R.O.C.

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- The data shown in this test report were carried out on Mar. 22, 2006 at **Sporton International Inc. LAB.**
- Report No.: FR631101, Report Version: Rev. 02

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History of this test report

Report Issue Date: Apr. 07, 2006

Report No.	Description



1. General Description of Equipment under Test

1.1 Applicant

Mitac International Corporation

6th FL., NO. 187, TIDING BLVD., SEC. 2, TAIPEI, TAIWAN, R.O.C.

1.2 Manufacturer

Mitac Computer (KunShan) Co., Ltd.

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

1.3 Basic Description of Equipment under Test

Equipment	: Pocket PC (PDA)
Trade Name	: Mio DigiWalker
Model No.	: Mio P550
FCC ID	: P4Q-MIOP550
Power Supply Type	: Switching, From Battery 3.7V
AC Power Cord	: AC 120V, Wall-mount, 1.8 meter, 2pin
Battery	: E4MT111202B12
AC Charger	: Phihong, PSC05R-050
DC Charger	: Atech, ATP1-68HT0501-NC1.1

1.4 Feature of Equipment under Test

Product Feature & Specification			
1. Type of Modulation	WLAN: DSSS / OFDM Bluetooth: GFSK		
2. Number of Channels	WLAN: 11 Channels BT: 79 Channels		
3. Frequency Band	WLAN/BT: 2.4GHz~2.4835GHz		
4. Carrier Frequency of each channel	WLAN: 2412MHz+(n-1)*5MHz, n=1~11 BT: 2402MHz+n*1MHz, n=0~78		
5. Channel Spacing	WLAN: 5MHz BT: 1MHz		
6. Maximum Output Power to Antenna (Normal Condition)	802.11b: 17.31 dBm 802.11g: 14.90 dBm BT: 2.69 dBm		
7. Type of Antenna Connector	N/A		
8. Antenna Type	Patch Antenna		
9. Antenna Gain	WLAN: -3 dBi Bluetooth: -1 dBi		
10. Function Type	Transmitter		Transceiver V
11. Power Rating (DC/AC Voltage) :	3.7V / 1200mA		

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

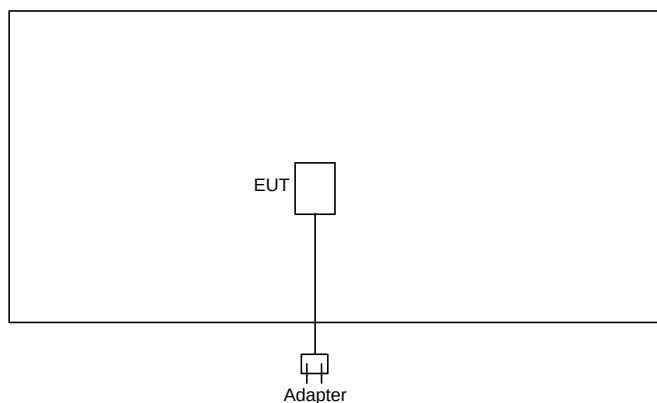
Application			
Radiated Emission	802.11b	802.11g	BT
	Mode 1: Tx_CH01_2412 MHz	Mode 4: Tx_CH01_2412 MHz	Mode 7: Tx_CH00_2402 MHz
	Mode 2: Tx_CH06_2437 MHz	Mode 5: Tx_CH06_2437 MHz	Mode 8: Tx_CH39_2441 MHz
	Mode 3: Tx_CH11_2462 MHz	Mode 6: Tx_CH11_2462 MHz	Mode 9: Tx_CH78_2480 MHz
Conducted Emission	Mode 1: GPS Rx Mode + BT Link + WLAN Link + Earphone		

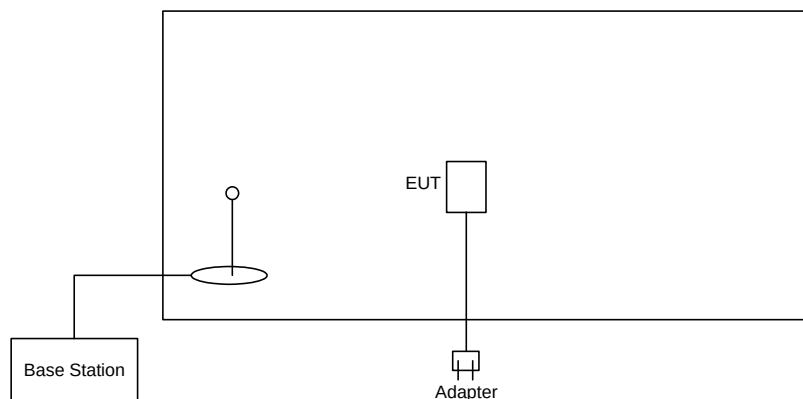
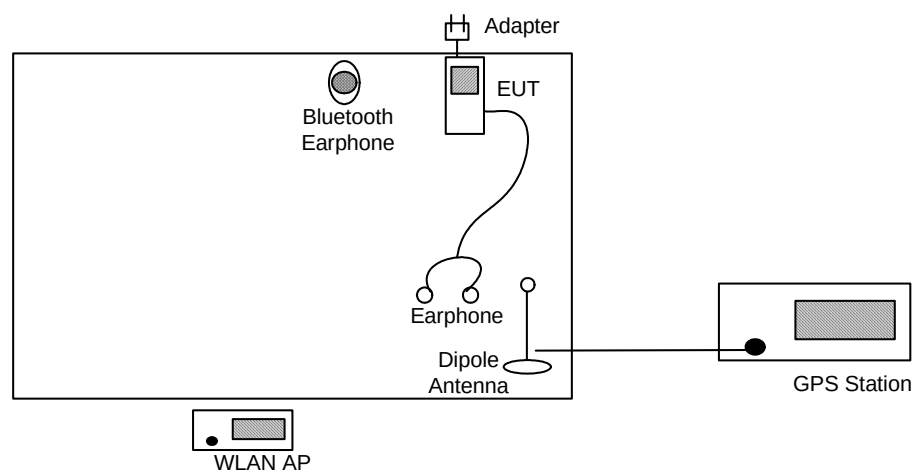
Remark: The co-location for 802.11b and BT was verified to be compliant with the limit.

2.3 Connection Diagram of Test System

Radiated Emission

<WLAN>



<Bluetooth>

Conducted Emission

2.4 Ancillary Equipment List

Item	Asset	Trade Name	Model Name	Power Cord
1.	Adapter	PHIHONG	PSC05R-050	AC 100-240V
2.	Base Station	R&S	CMU200	AC 100-240V
3.	Dipole Antenna	Sporton	N/A	N/A
4.	Bluetooth Earphone	Free Style	JD-100	N/A
5.	GPS Station	T&H	GP-50	AC 100-240V
6.	WLAN AP	SMC	SMC-100	AC 100-240V
7.	Earphone	N/A	N/A	N/A



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, 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 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

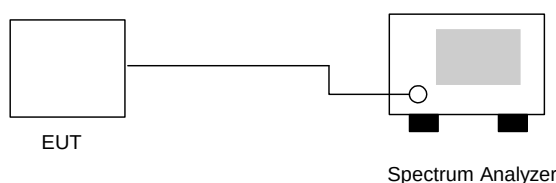
5.2.1 Measuring Instruments :

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/g
- Temperature : 24°C
- Relative Humidity : 52%
- Test Enginner : Andy

802.11b

Channel	Frequency (MHz)	6dB Emission bandwidth (MHz)	Limits (MHz)	Plot Ref. No.
01	2412	8.96	> 0.5MHz	Mode 1
06	2437	8.96	> 0.5MHz	Mode 2
11	2462	8.96	> 0.5MHz	Mode 3

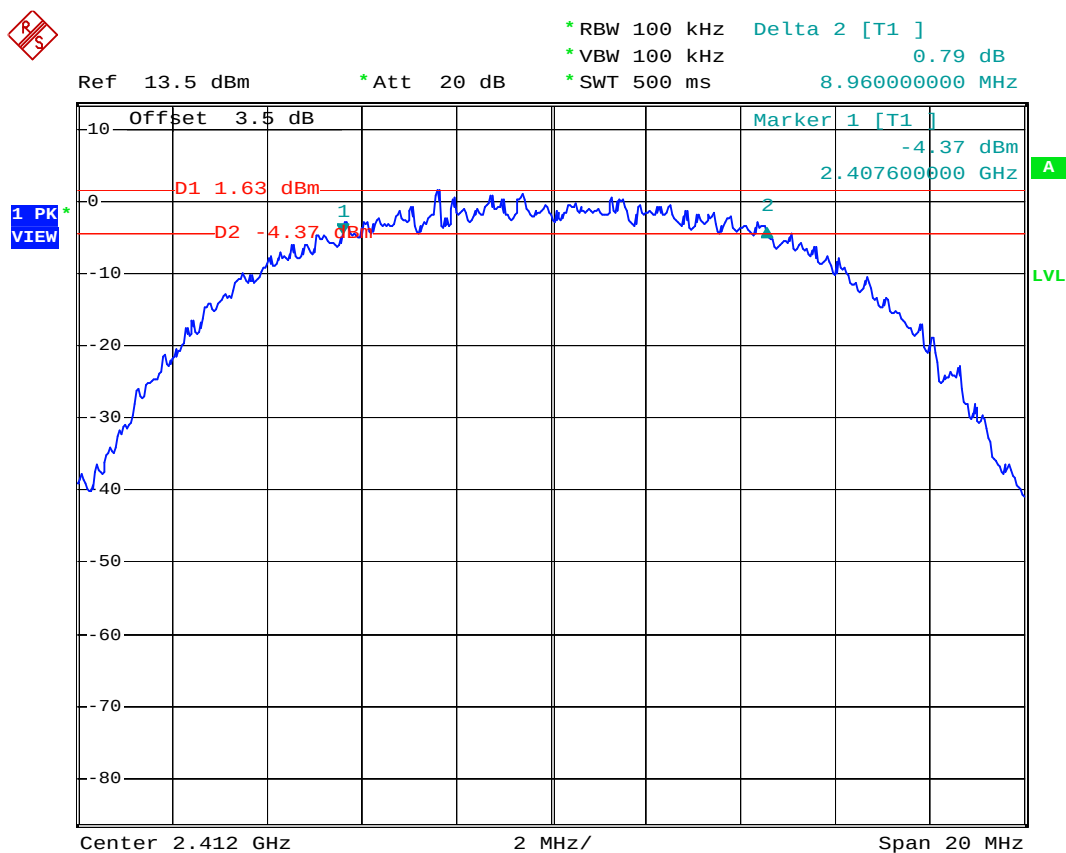
802.11g

Channel	Frequency (MHz)	6dB Emission bandwidth (MHz)	Limits (MHz)	Plot Ref. No.
01	2412	16.48	> 0.5MHz	Mode 4
06	2437	16.48	> 0.5MHz	Mode 5
11	2462	16.52	> 0.5MHz	Mode 6



5.2.5 6dB Bandwidth

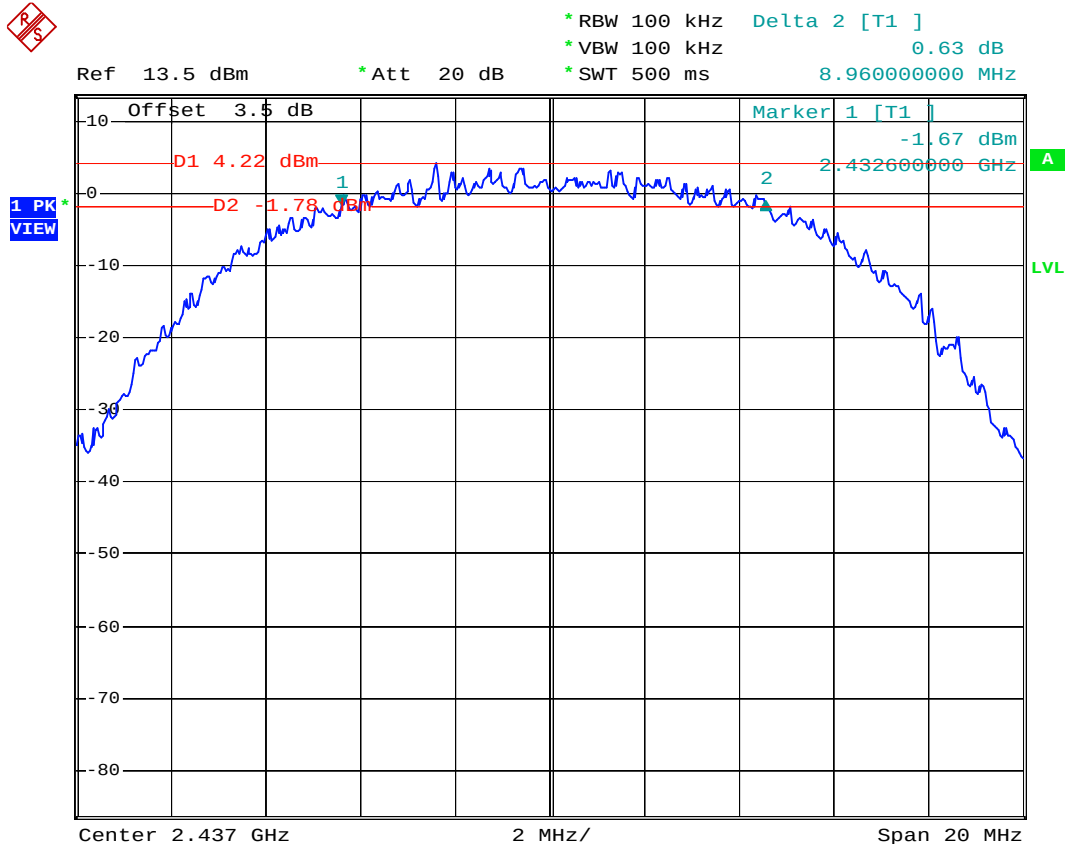
Mode 1



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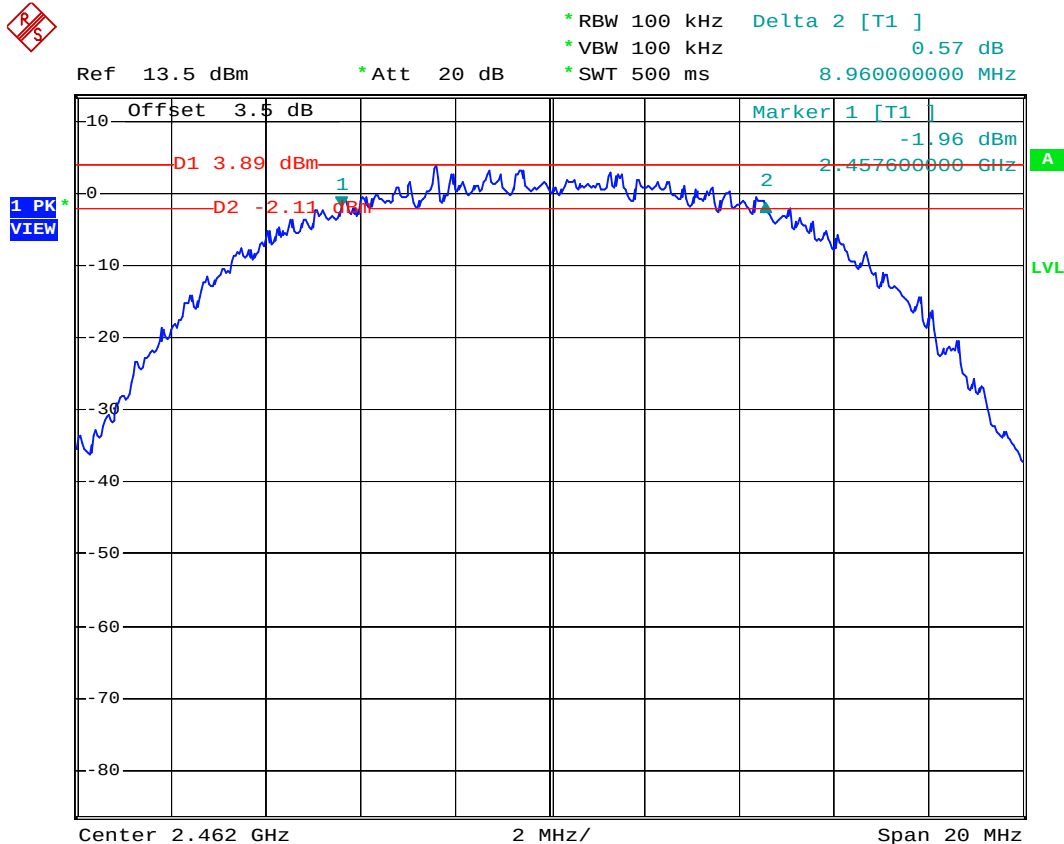
Mode 2



Date: 22.MAR.2006 11:28:45



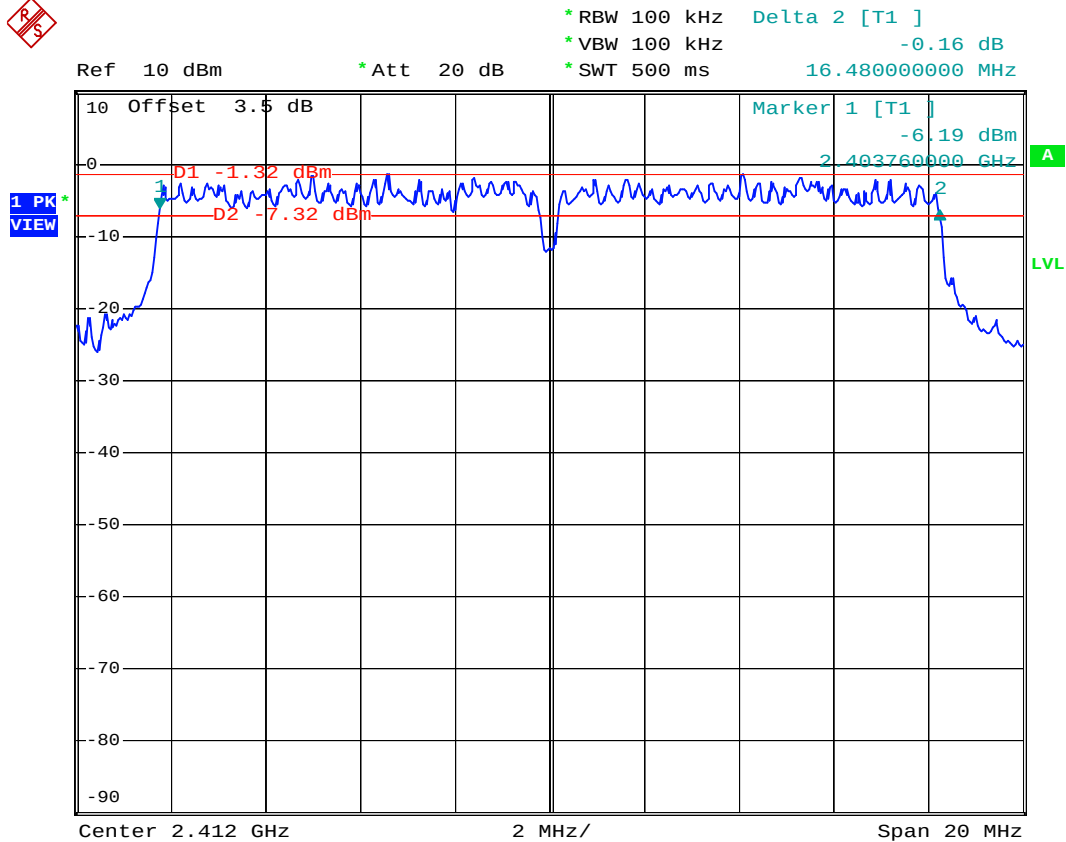
Mode 3



Date: 22.MAR.2006 11:25:34



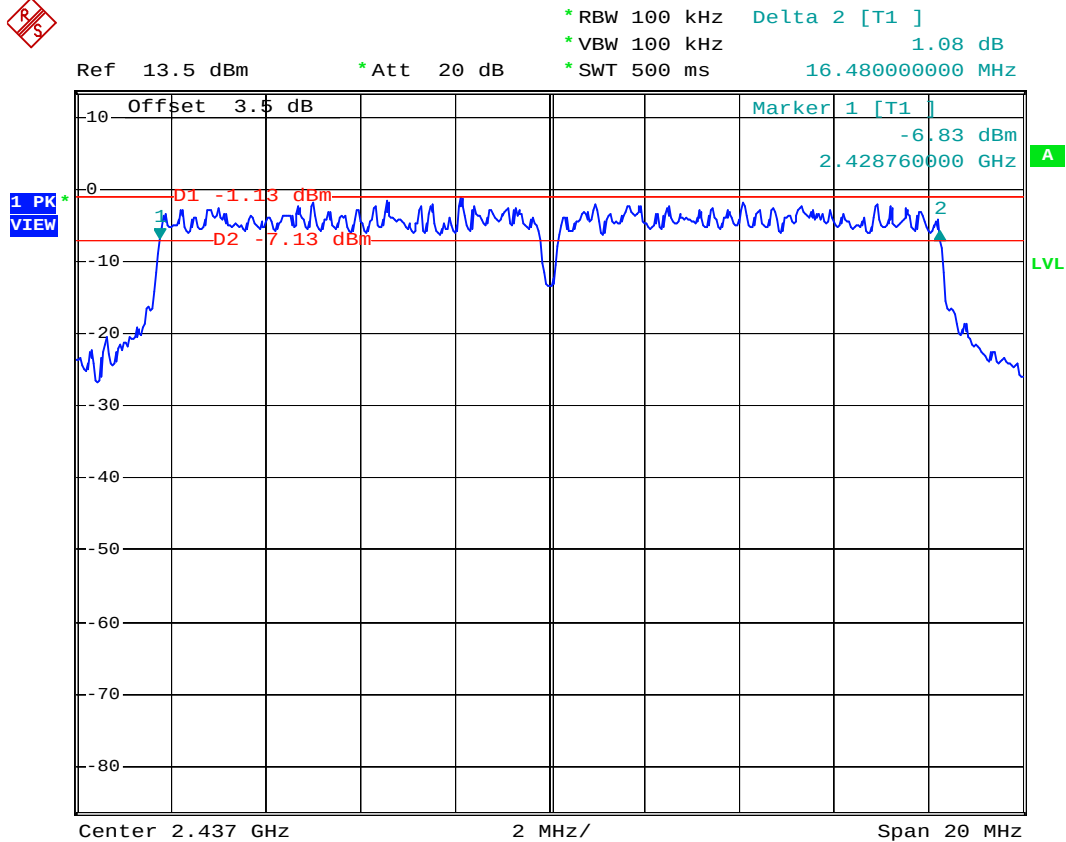
Mode 4



Date: 22.MAR.2006 11:15:19



Mode 5



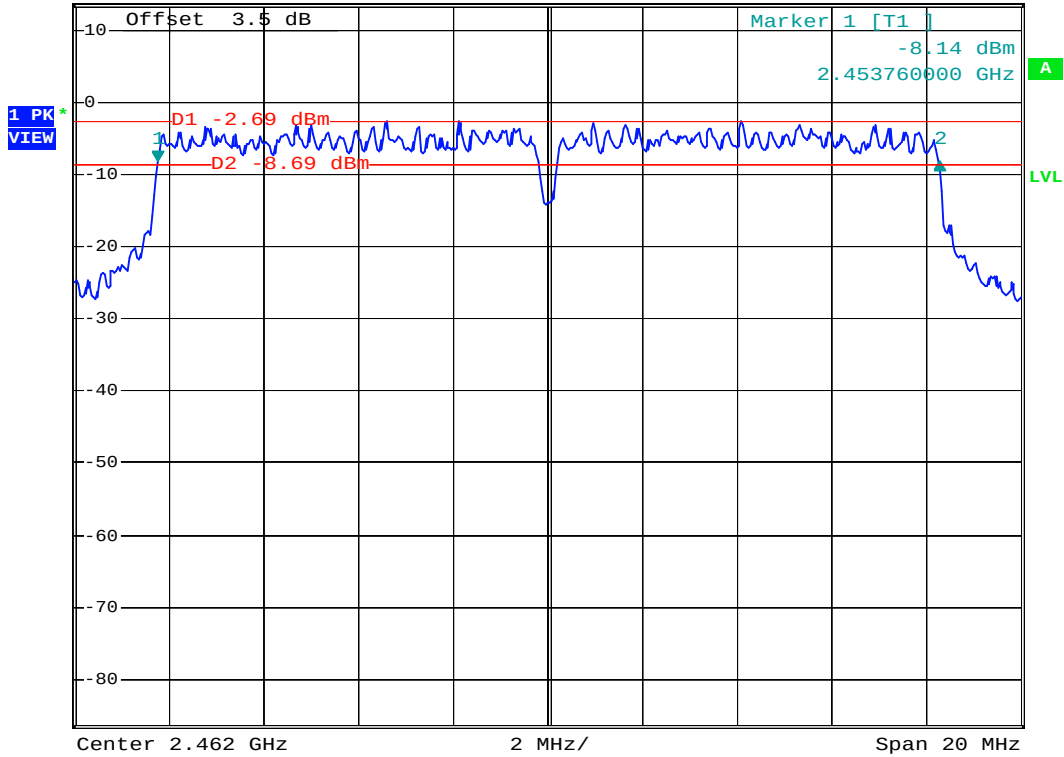
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Mode 6



Ref 13.5 dBm * Att 20 dB * RBW 100 kHz Delta 2 [T1]
* VBW 100 kHz -0.05 dB
* SWT 500 ms 16.520000000 MHz



Date: 22.MAR.2006 11:21:44

5.3 Power Spectral Density Measurement

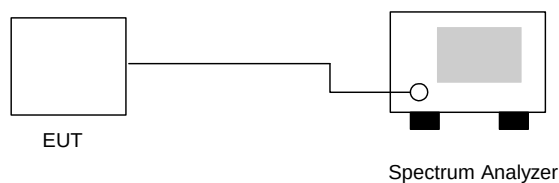
5.3.1 Measuring Instruments :

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 : Andy

802.11b

Channel	Frequency (MHz)	Power Spectral Density (dBm)	Limits (dBm)	Plot Ref. No.
01	2412	-11.66	8	Mode 1
06	2437	-11.73	8	Mode 2
11	2462	-11.61	8	Mode 3

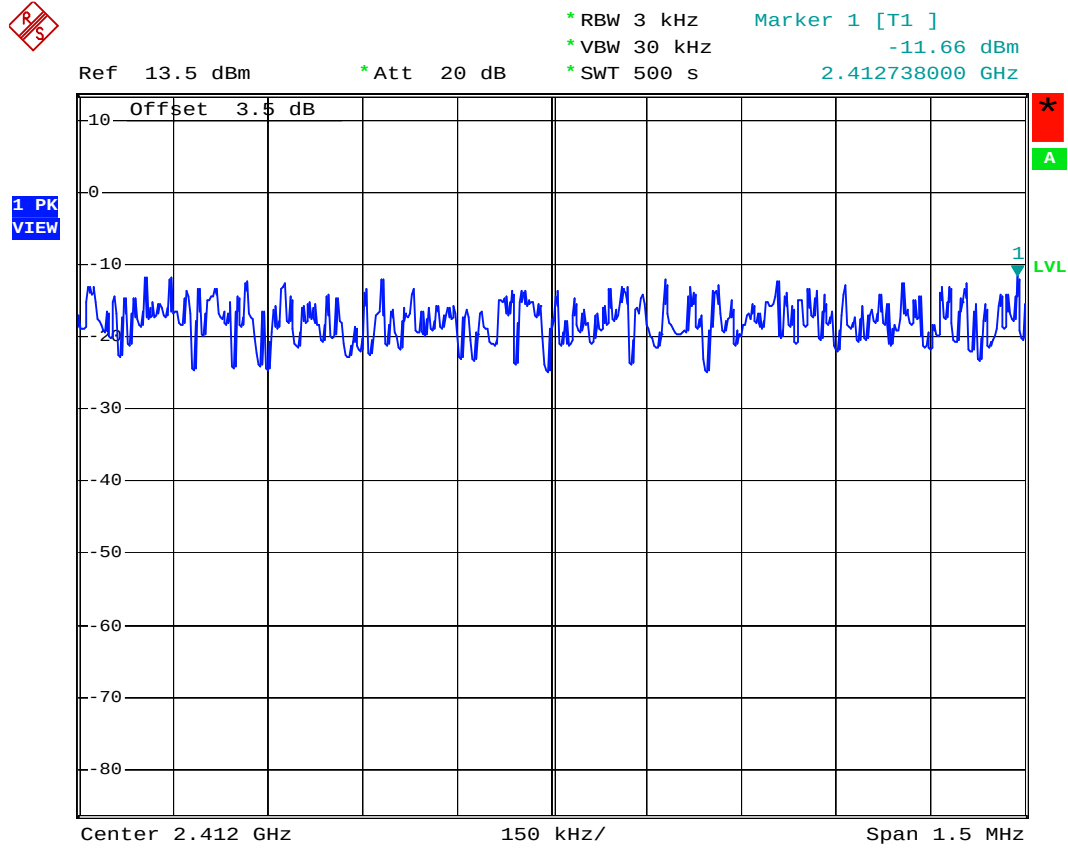
802.11g

Channel	Frequency (MHz)	Power Spectral Density (dBm)	Limits (dBm)	Plot Ref. No.
01	2412	-16.41	8	Mode 4
06	2437	-15.99	8	Mode 5
11	2462	-17.41	8	Mode 6



5.3.5 Power Spectral Density

Mode 1



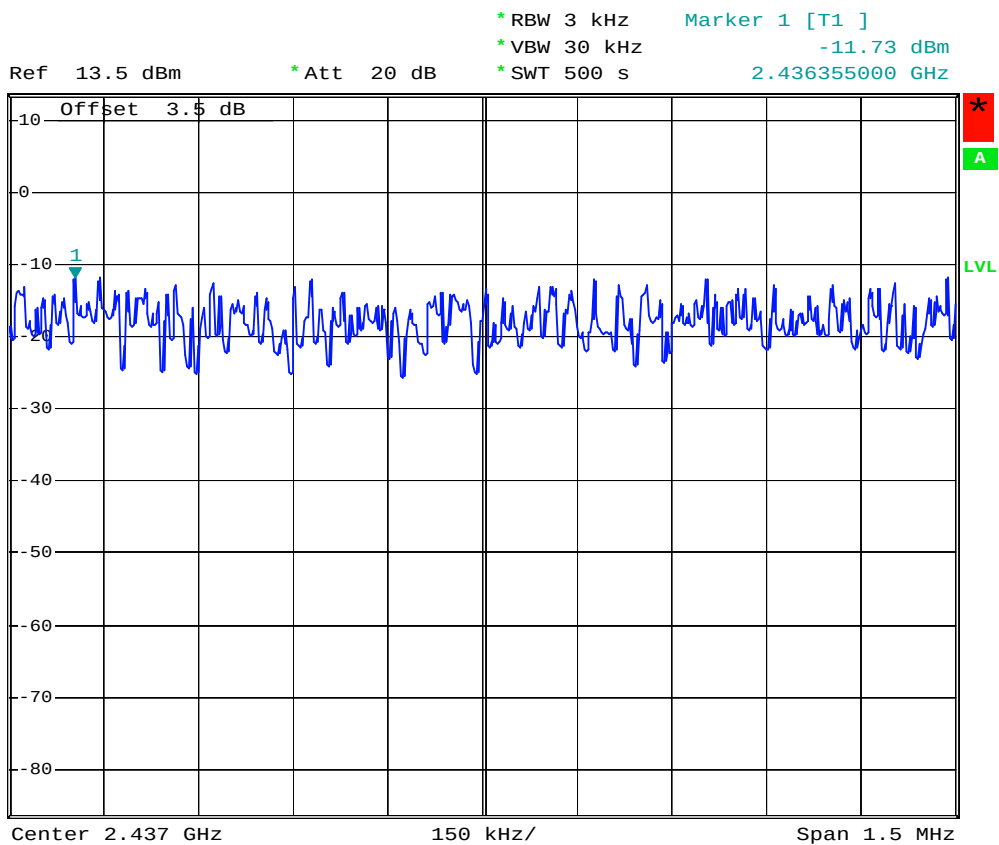
Date: 22.MAR.2006 11:32:16



Mode 2



1 PK
VIEW



Date: 22.MAR.2006 11:29:10



Mode 3



* RBW 3 kHz
* VBW 30 kHz
* SWT 500 s

Marker 1 [T1]

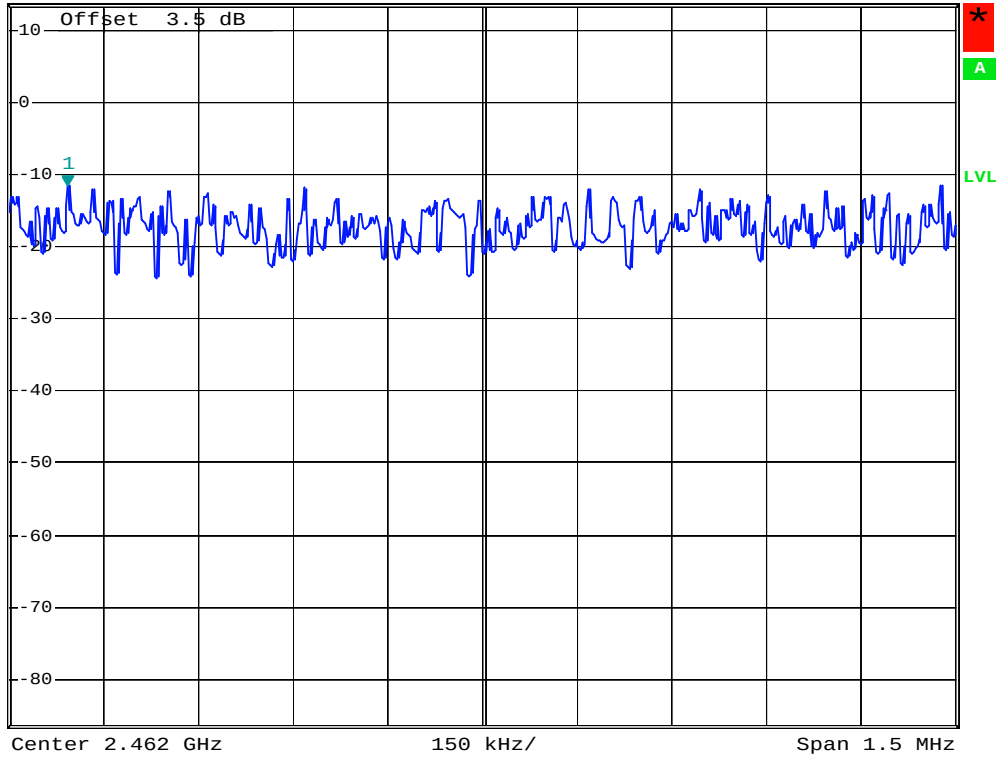
-11.61 dBm

2.461343000 GHz

Ref 13.5 dBm

* Att 20 dB

1 PK
VIEW



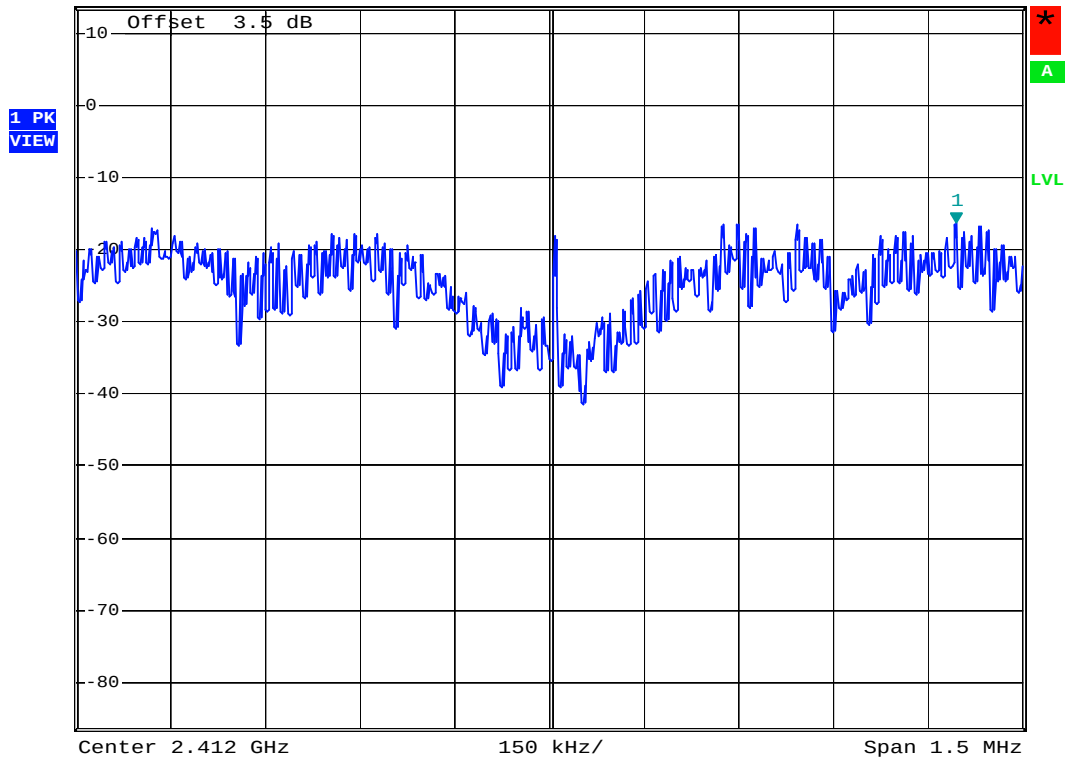
Date: 22.MAR.2006 11:24:17



Mode 4



Ref 13.5 dBm * Att 20 dB * RBW 3 kHz * VBW 30 kHz * SWT 500 s Marker 1 [T1]
-16.41 dBm
2.412645000 GHz



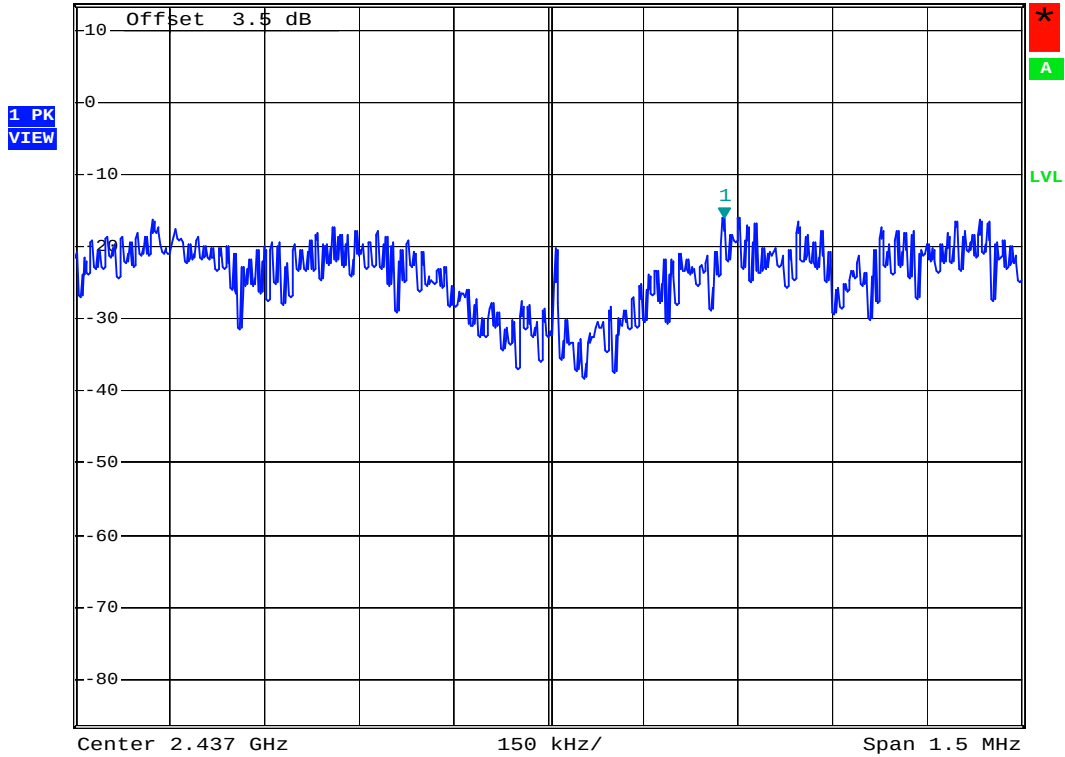
Date: 22.MAR.2006 11:16:33



Mode 5



Ref 13.5 dBm * Att 20 dB * RBW 3 kHz * VBW 30 kHz * SWT 500 s Marker 1 [T1] -15.99 dBm 2.437279000 GHz



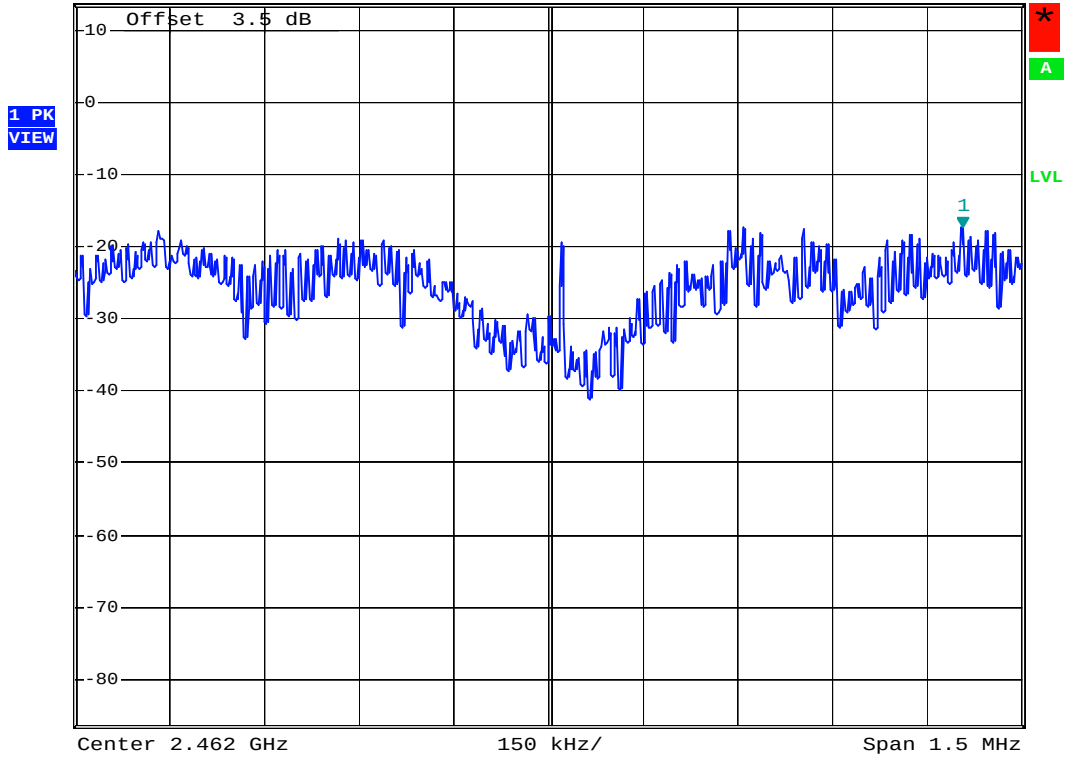
Date: 22.MAR.2006 11:17:40



Mode 6



Ref 13.5 dBm * Att 20 dB * RBW 3 kHz * VBW 30 kHz * SWT 500 s Marker 1 [T1]
-17.41 dBm
2.462657000 GHz



Date: 22.MAR.2006 11:23:10



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 : 24°C
- Relative Humidity : 52%
- Test Enginner : Andy
- 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	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV)	(dB)	(dB)	(dB)	(cm)	(deg)	
2390.00	54.58	-19.42	74.00	55.29	30.48	35.46	4.26	100	360	Peak
2390.00	41.83	-12.17	54.00	42.54	30.48	35.46	4.26	100	35	Average

CH01 (Vertical)

Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV)	(dB)	(dB)	(dB)	(cm)	(deg)	
2390.00	55.65	-18.35	74.00	56.36	30.48	35.46	4.26	100	360	Peak
2390.00	42.56	-11.44	54.00	43.27	30.48	35.46	4.26	100	259	Average

**CH11 (Horizontal)**

Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV)	(dB)	(dB)	(dB)	(cm)	(deg)	
2483.50	50.59	-23.41	74.00	51.32	30.41	35.51	4.36	100	360	Peak
2483.50	40.01	-13.99	54.00	40.75	30.41	35.51	4.36	100	38	Average

CH11 (Vertical)

Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV)	(dB)	(dB)	(dB)	(cm)	(deg)	
2483.50	50.41	-23.59	74.00	51.15	30.41	35.51	4.36	100	0	Peak
2483.50	40.48	-13.52	54.00	41.22	30.41	35.51	4.36	100	276	Average

➤WLAN 802.11g**CH01 (Horizontal)**

Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV)	(dB)	(dB)	(dB)	(cm)	(deg)	
2390.00	62.06	-11.94	74.00	62.77	30.48	35.46	4.26	100	360	Peak
2390.00	43.09	-10.91	54.00	43.80	30.48	35.46	4.26	100	36	Average

CH01 (Vertical)

Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV)	(dB)	(dB)	(dB)	(cm)	(deg)	
2390.00	67.05	-6.95	74.00	67.76	30.48	35.46	4.26	100	360	Peak
2390.00	46.66	-7.34	54.00	47.37	30.48	35.46	4.26	100	275	Average

CH11 (Horizontal)

Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV)	(dB)	(dB)	(dB)	(cm)	(deg)	
2483.50	56.01	-17.99	74.00	56.75	30.41	35.51	4.36	100	360	Peak
2483.50	41.86	-12.14	54.00	42.60	30.41	35.51	4.36	100	36	Average



CH11 (Vertical)

Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV)	(dB)	(dB)	(dB)	(cm)	(deg)	
2483.50	60.06	-13.94	74.00	60.80	30.41	35.51	4.36	100	360	Peak
2483.50	44.64	-9.36	54.00	45.38	30.41	35.51	4.36	100	276	Average

➤Bluetooth

CH00 (Horizontal)

Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV)	(dB)	(dB)	(dB)	(cm)	(deg)	
2344.00	50.60	-23.40	74.00	51.30	30.52	35.42	4.20	100	0	Peak
2344.00	39.40	-14.60	54.00	40.10	30.52	35.42	4.20	100	64	Average

CH00 (Vertical)

Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV)	(dB)	(dB)	(dB)	(cm)	(deg)	
2358.00	50.49	-23.51	74.00	51.20	30.51	35.42	4.20	100	360	Peak
2358.00	39.43	-14.57	54.00	40.14	30.51	35.42	4.20	100	280	Average

CH78 (Horizontal)

Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV)	(dB)	(dB)	(dB)	(cm)	(deg)	
2483.50	66.45	-7.55	74.00	67.19	30.41	35.51	4.36	100	4	Peak
2483.50	43.45	-10.55	54.00	44.19	30.41	35.51	4.36	100	25	Average

CH78 (Vertical)

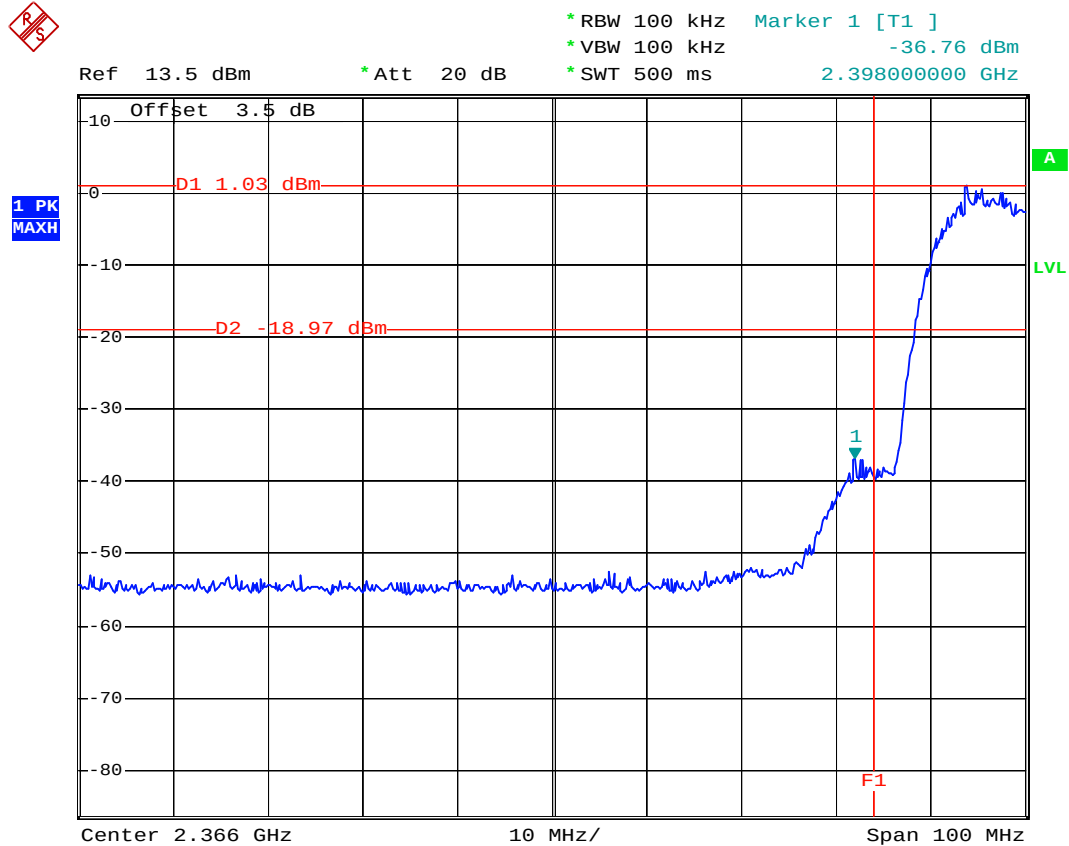
Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV)	(dB)	(dB)	(dB)	(cm)	(deg)	
2483.50	65.43	-8.57	74.00	66.17	30.41	35.51	4.36	100	333	Peak
2483.50	43.92	-10.08	54.00	44.66	30.41	35.51	4.36	100	260	Average



5.4.5 20dB Band Edge

<WLAN 802.11b>

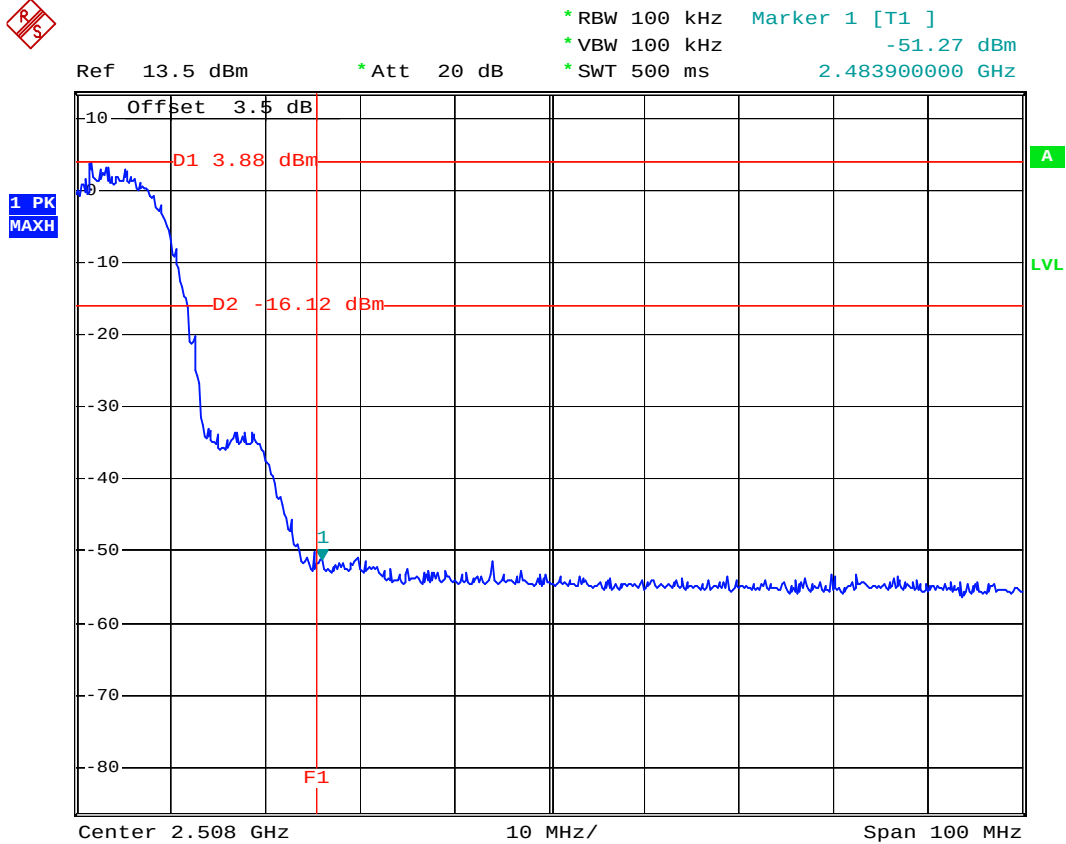
CH01



Date: 22.MAR.2006 11:36:40



CH11

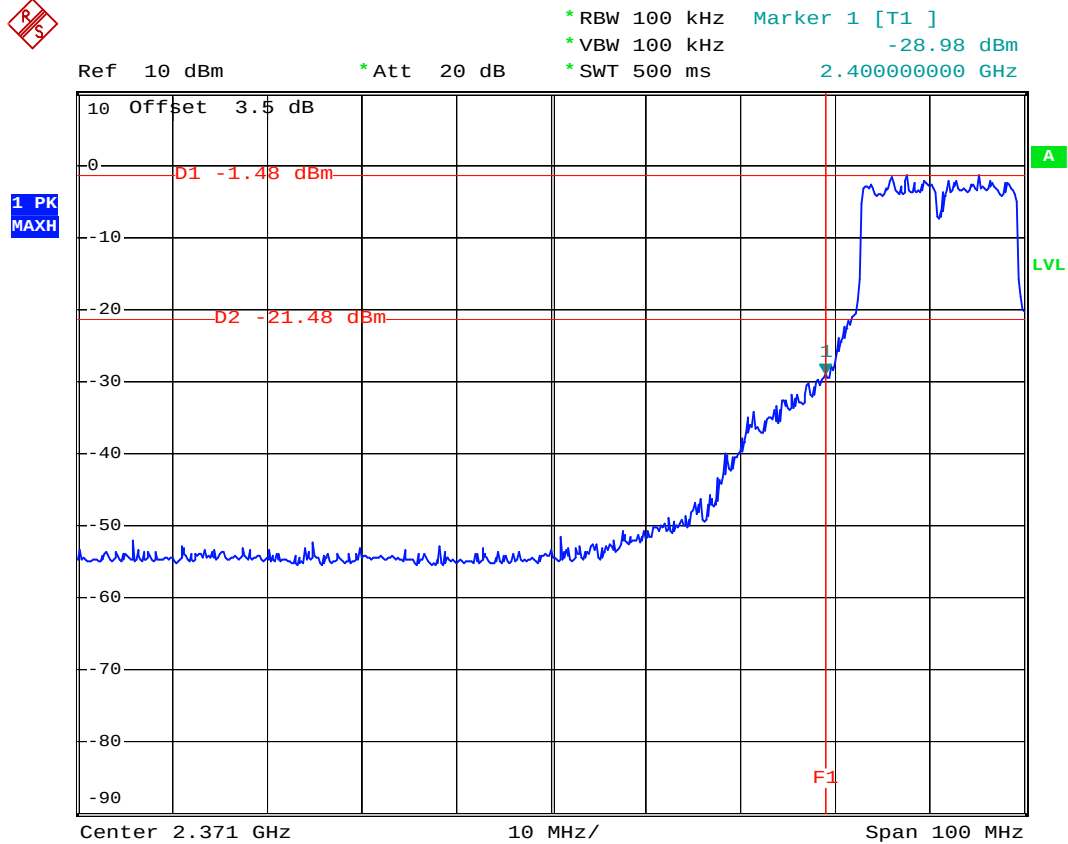


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<WLAN 802.11g>

CH01



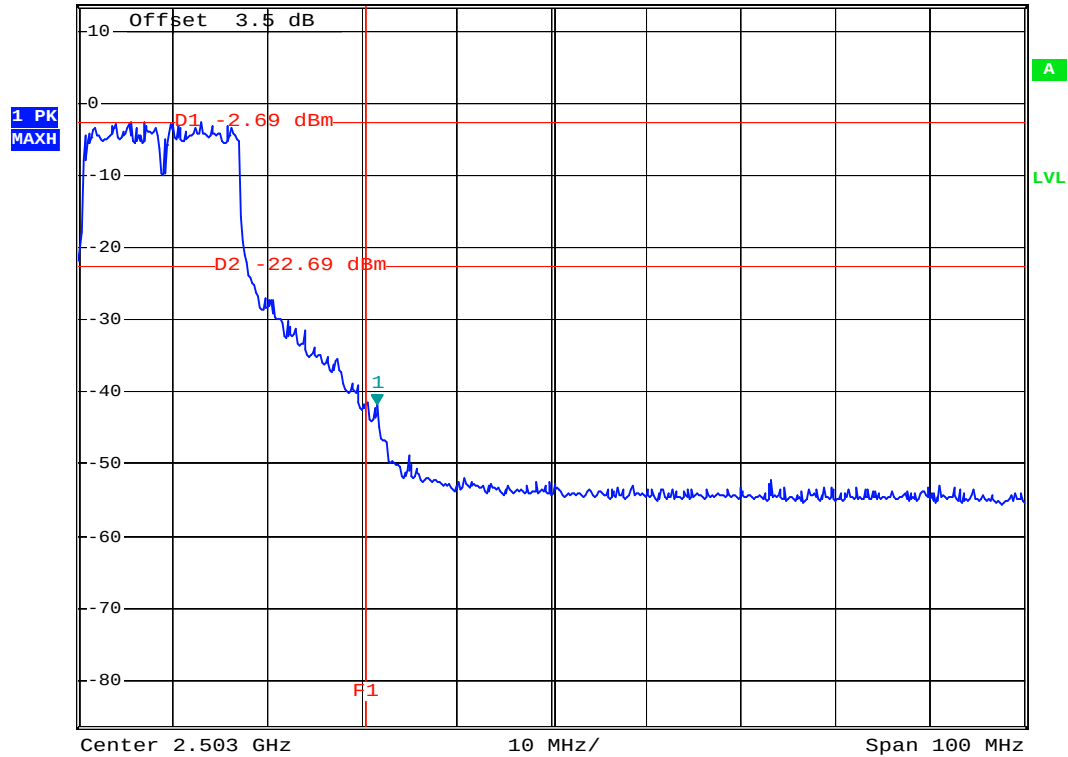
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CH11



Ref 13.5 dBm * Att 20 dB * RBW 100 kHz Marker 1 [T1]
* VBW 100 kHz -41.72 dBm
* SWT 500 ms 2.484500000 GHz

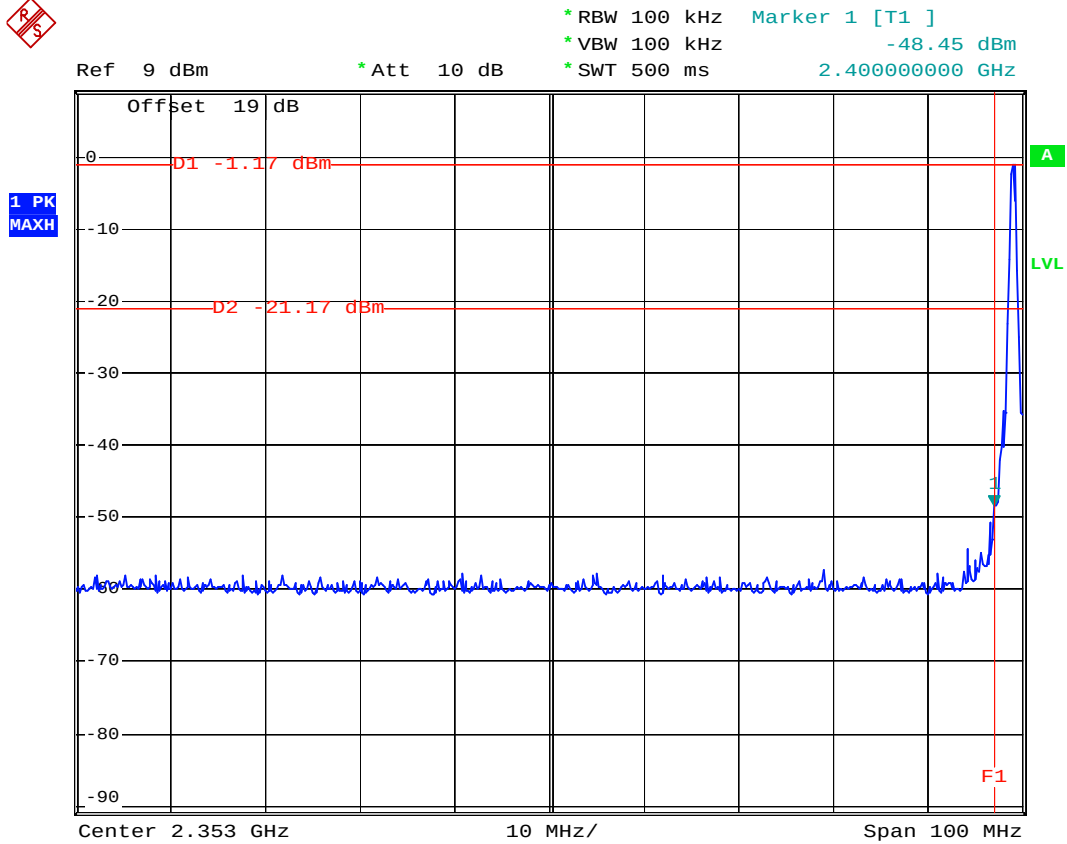


Date: 22.MAR.2006 11:22:25



<Bluetooth>

CH00



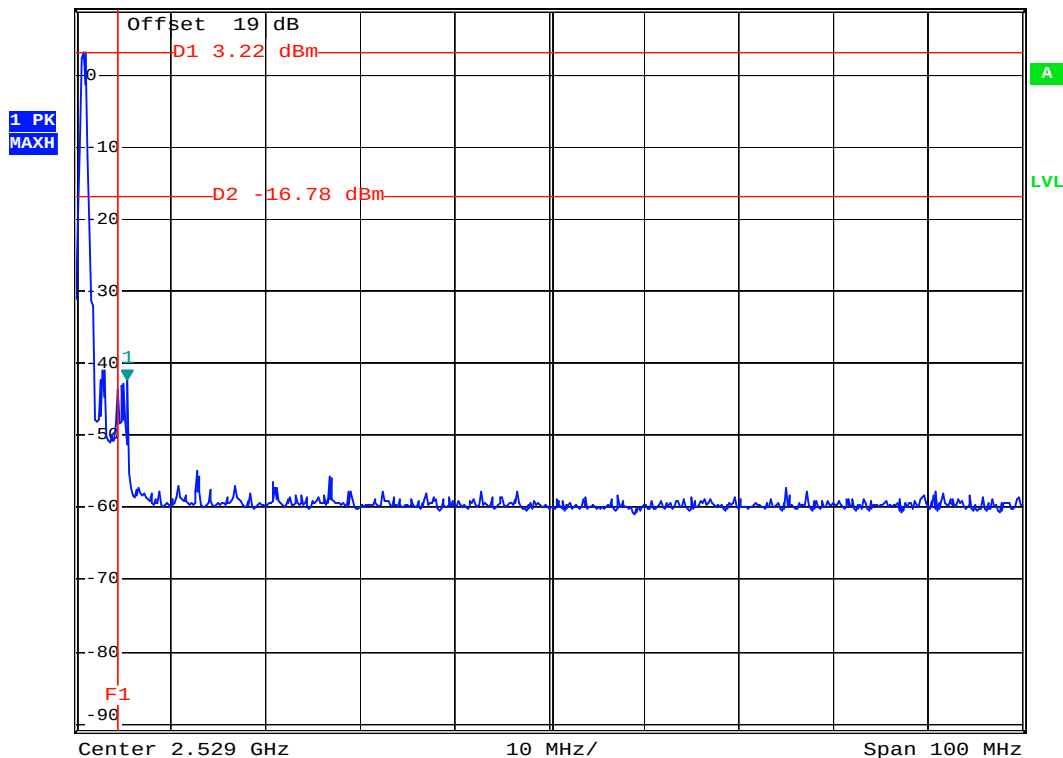
Date: 22.MAR.2006 09:25:11



CH78



Ref 9 dBm * Att 10 dB * RBW 100 kHz Marker 1 [T1]
* VBW 100 kHz -42.43 dBm
* SWT 500 ms 2.484400000 GHz



Date: 22.MAR.2006 09:49:11

5.5 Hopping Channel Separation

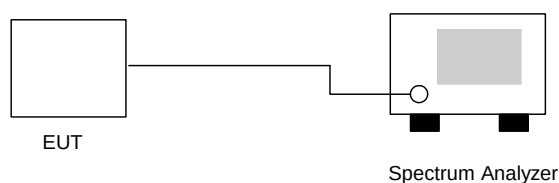
5.5.1 Measuring Instruments :

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 : Andy

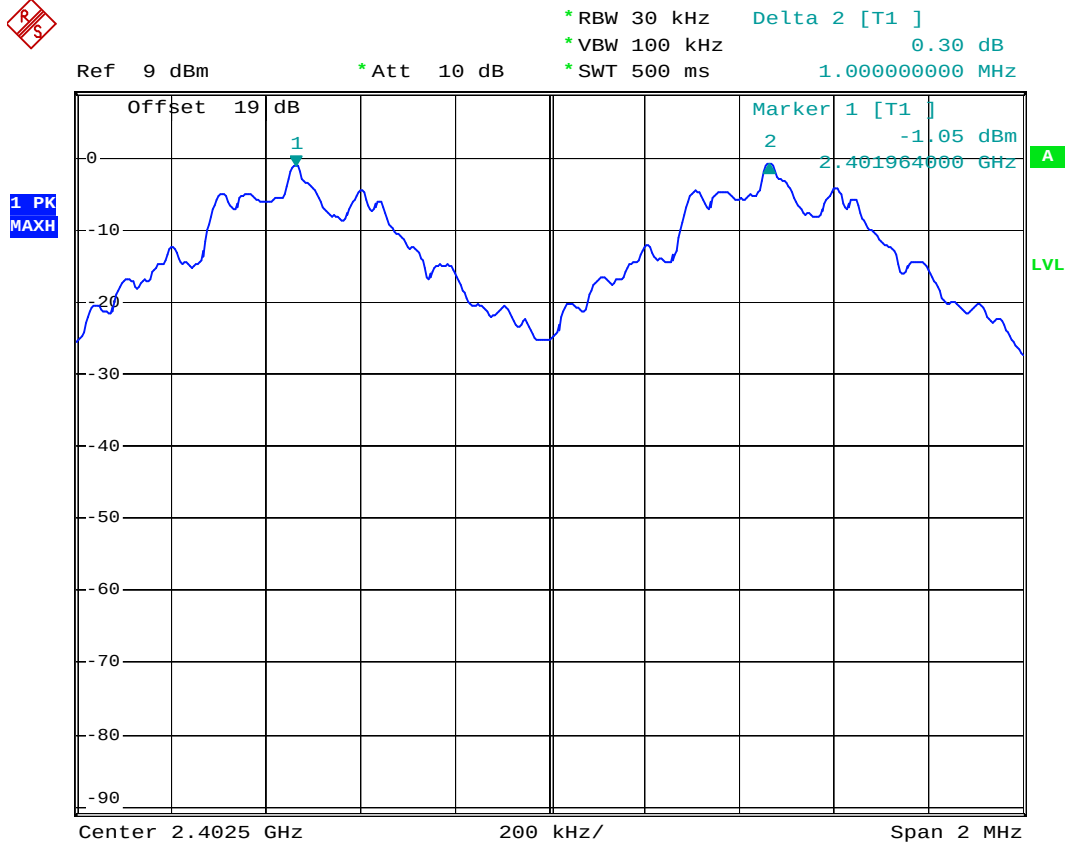
Channel	Carrier Frequency		Limits	Plot
	Frequency (MHz)	Separation (MHz)		
00	2402	1.000	0.878	Mode 1
39	2441	1.000	0.874	Mode 2
78	2480	1.004	0.880	Mode 3

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



5.5.5 Hopping Channel Separation

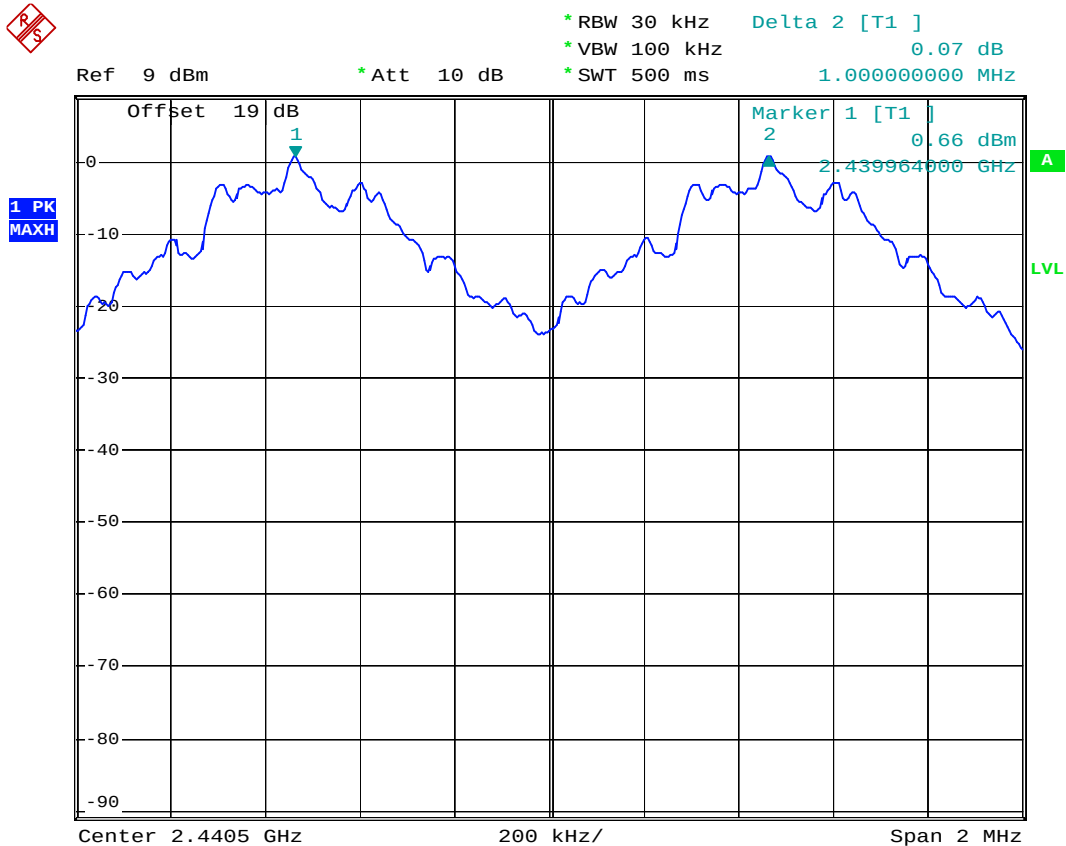
Mode 1



Date: 22.MAR.2006 09:25:47



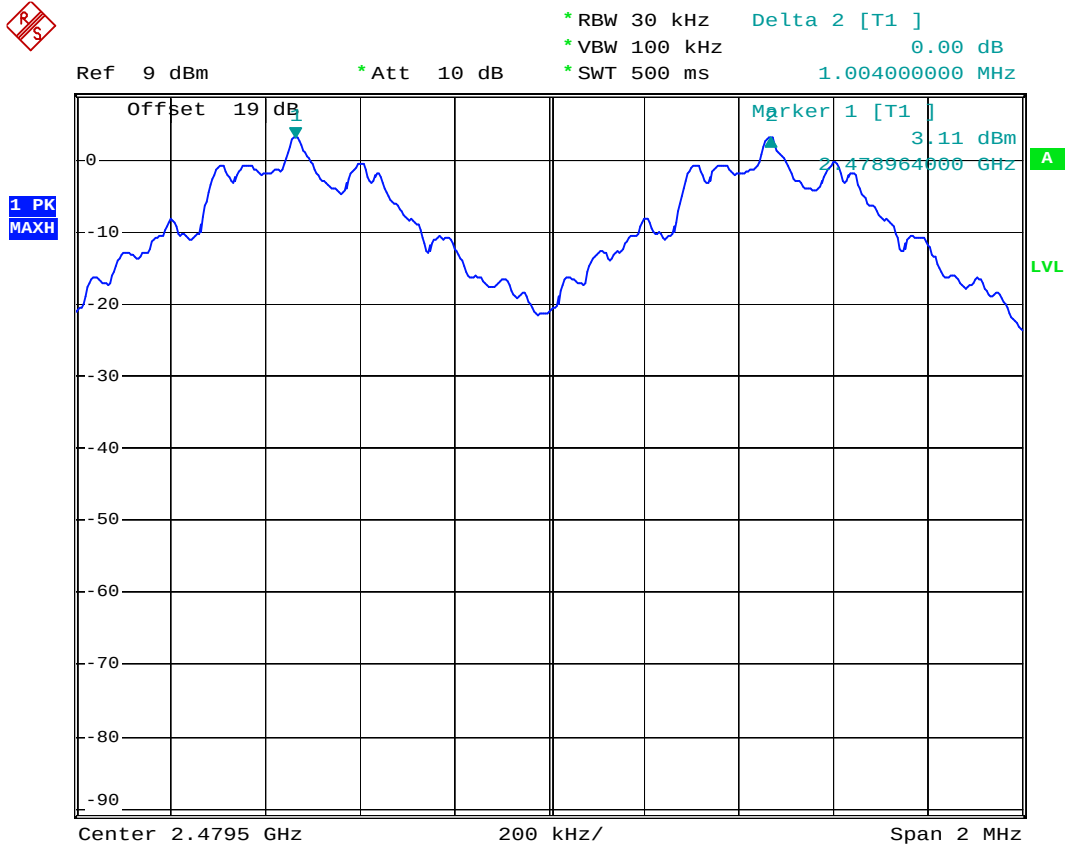
Mode 2



Date: 22.MAR.2006 09:26:15



Mode 3



Date: 22.MAR.2006 09:49:46

5.6 Number of Hopping Frequency

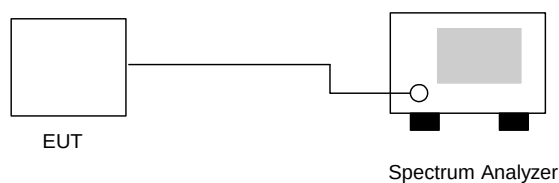
5.6.1 Measuring Instruments :

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 :



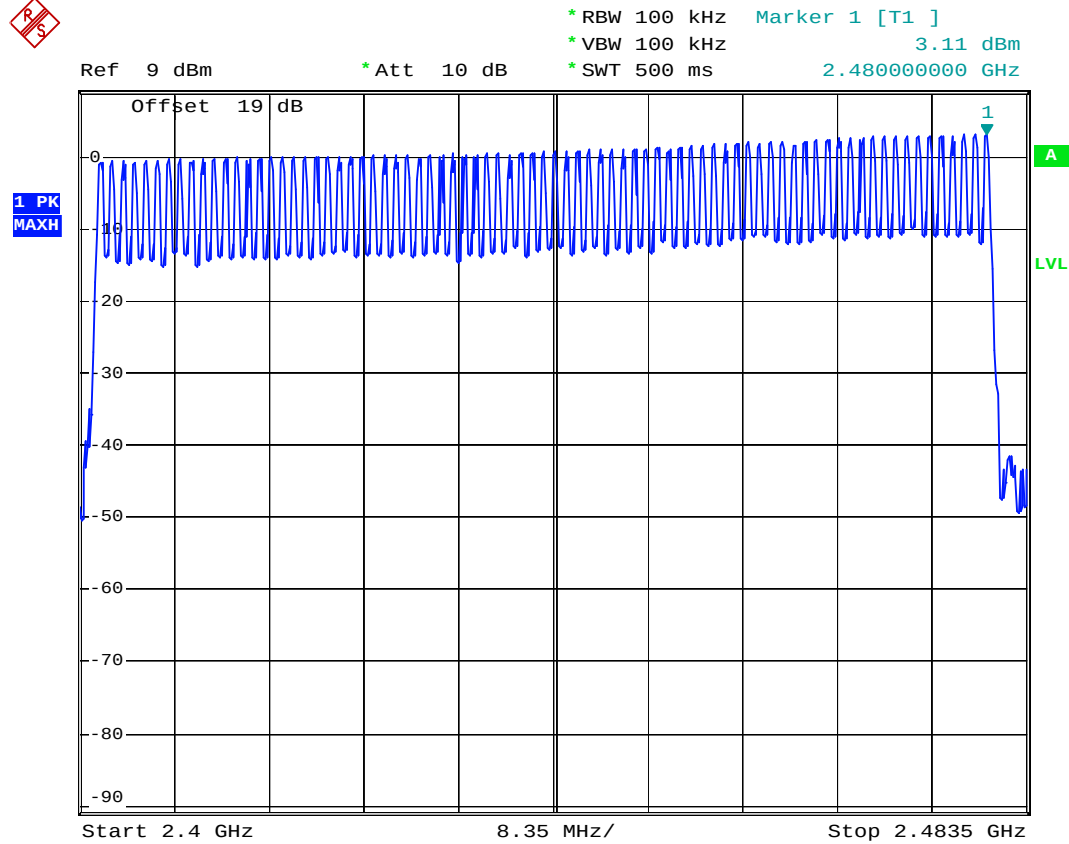
5.6.4 Test Result : See spectrum analyzer plots below

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

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



5.6.5 Number of Hopping Frequency



Date: 22.MAR.2006 09:38:01

5.7 Hopping Channel Bandwidth

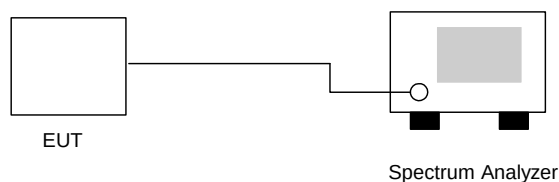
5.7.1 Measuring Instruments :

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 : Andy

Channel	Frequency (MHz)	Hopping Channel Bandwidth (MHz)	Limits (MHz)	Plot Ref. No.
00	2402	0.878	1.000	Mode 1
39	2441	0.874	1.000	Mode 2
78	2480	0.880	1.000	Mode 3



5.7.5 Hopping Channel Bandwidth

Mode 1



Date: 22.MAR.2006 09:24:34



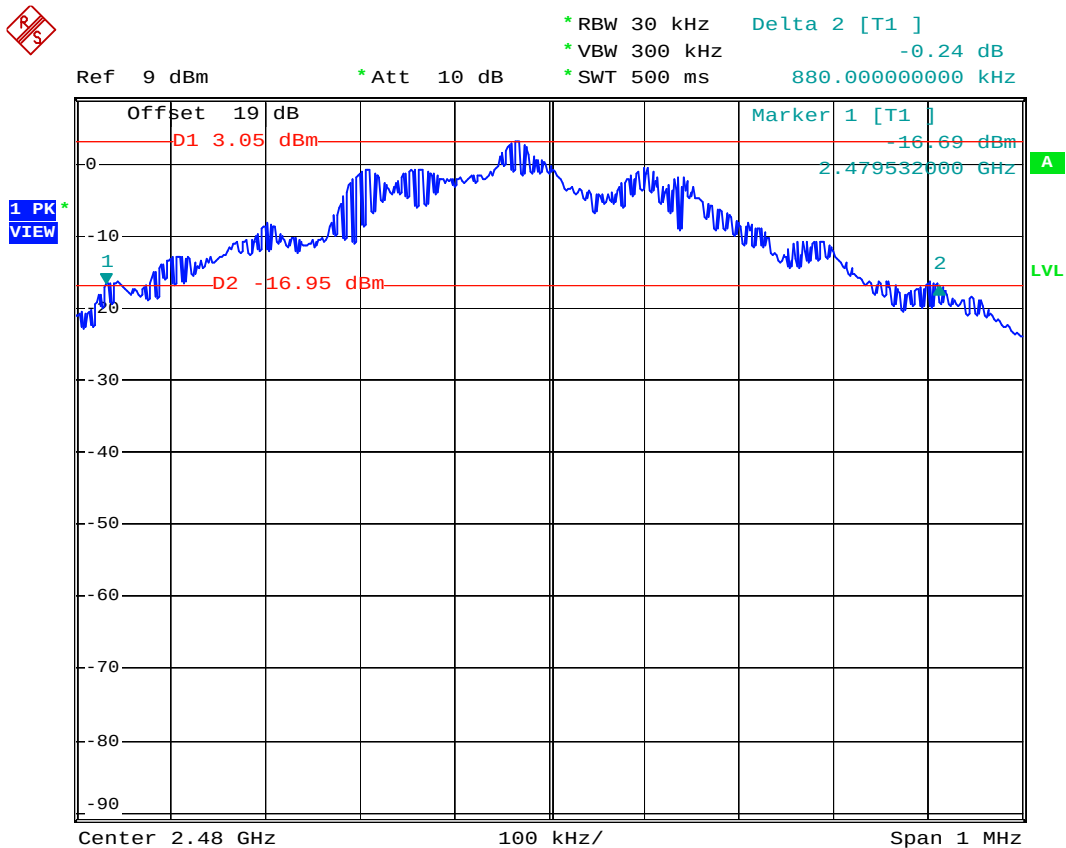
Mode 2



Date: 22.MAR.2006 09:27:06



Mode 3



Date: 22.MAR.2006 09:48:24

5.8 Dwell Time of Each Frequency

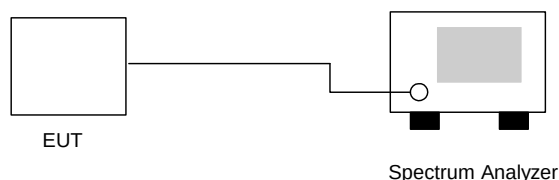
5.8.1 Measuring Instruments :

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 : Andy

Ch00

Package Mode	Average Hopping Channel	Package Transfer Time (us)	Dwell Time (s)	Limit (s)
DH1	7.3	548	0.126	0.4
DH3	4.2	1818	0.241	0.4
DH5	3.5	3078	0.340	0.4

**CH39**

Package Mode	Average Hopping Channel	Package Transfer Time (us)	Dwell Time (s)	Limit (s)
DH1	8.2	554	0.144	0.4
DH3	5.1	1818	0.293	0.4
DH5	3.2	3078	0.311	0.4

CH78

Package Mode	Average Hopping Channel	Package Transfer Time (us)	Dwell Time (s)	Limit (s)
DH1	7.4	550	0.129	0.4
DH3	4.2	1820	0.242	0.4
DH5	3.7	3080	0.360	0.4

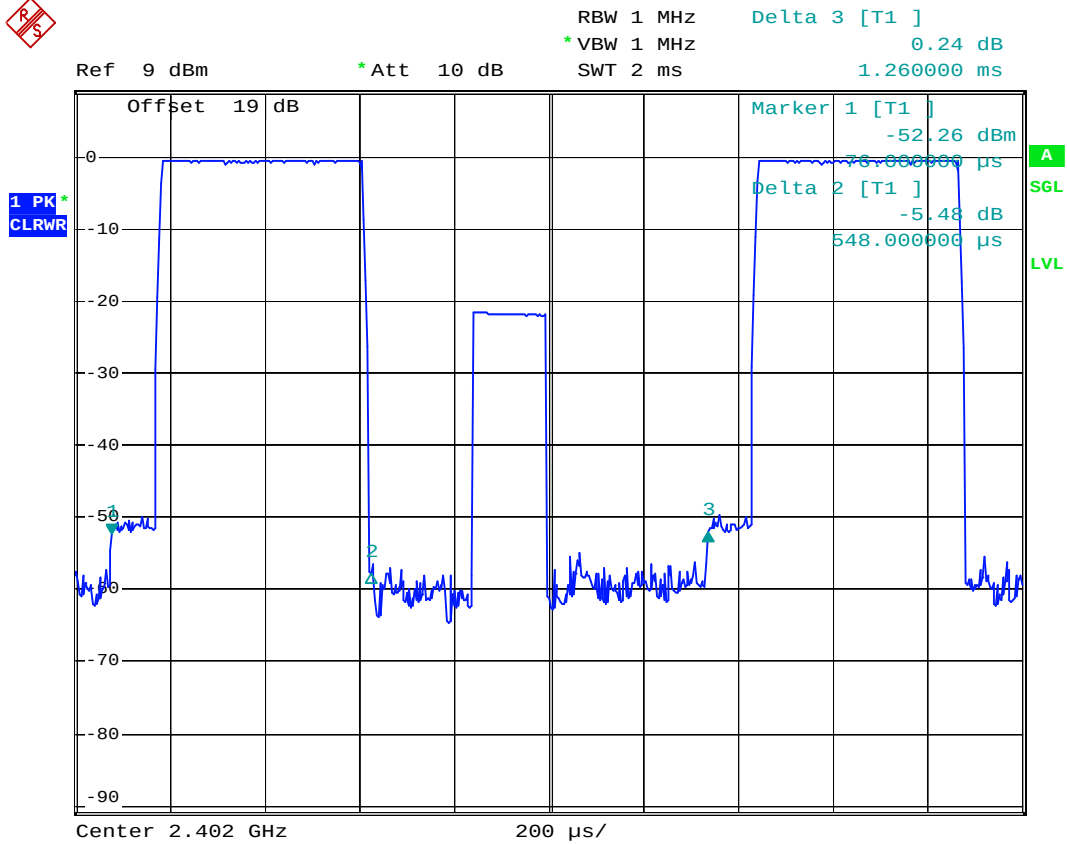
※ Remark:

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)

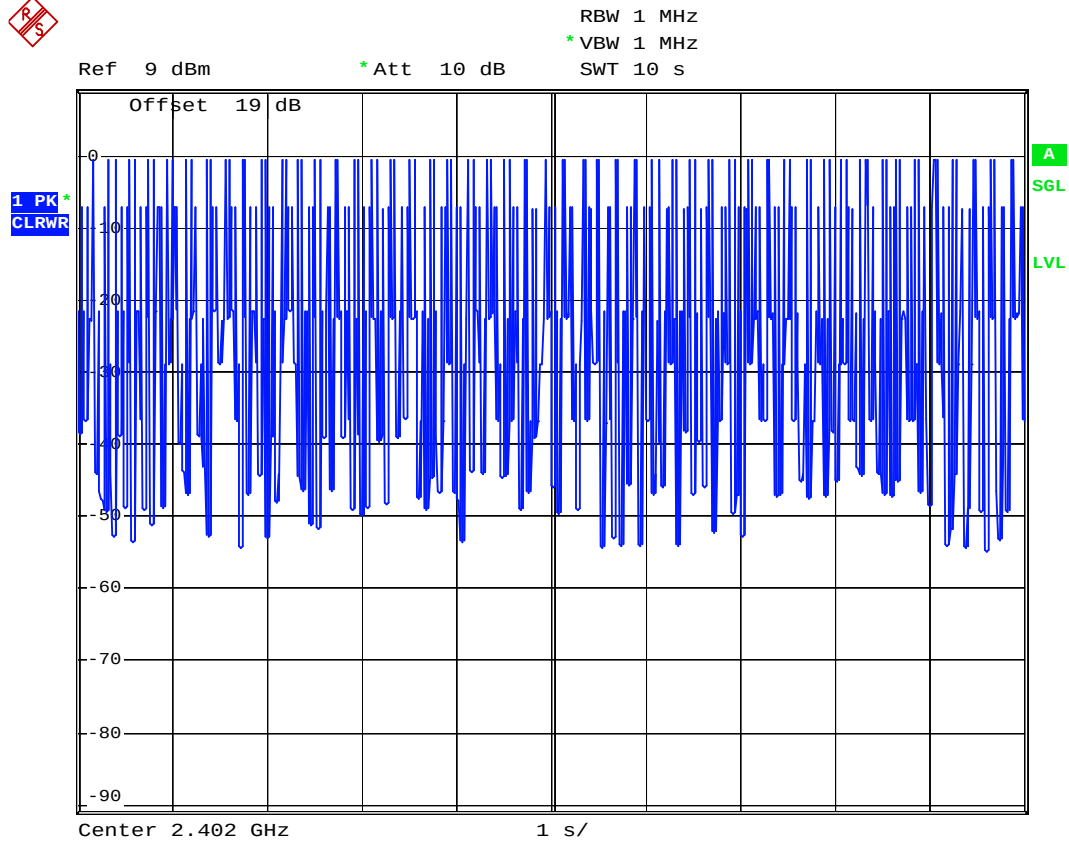


5.8.5 Dwell Time

DH1 (CH00)

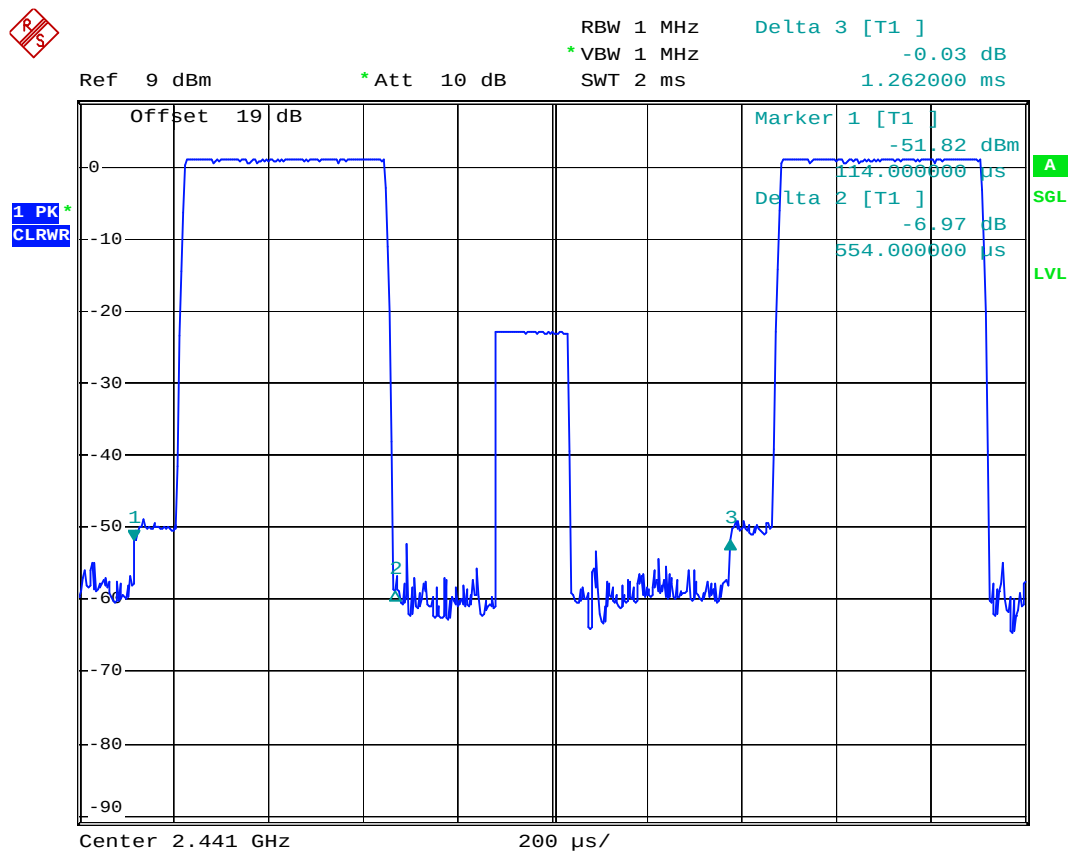


Date: 22.MAR.2006 09:39:02

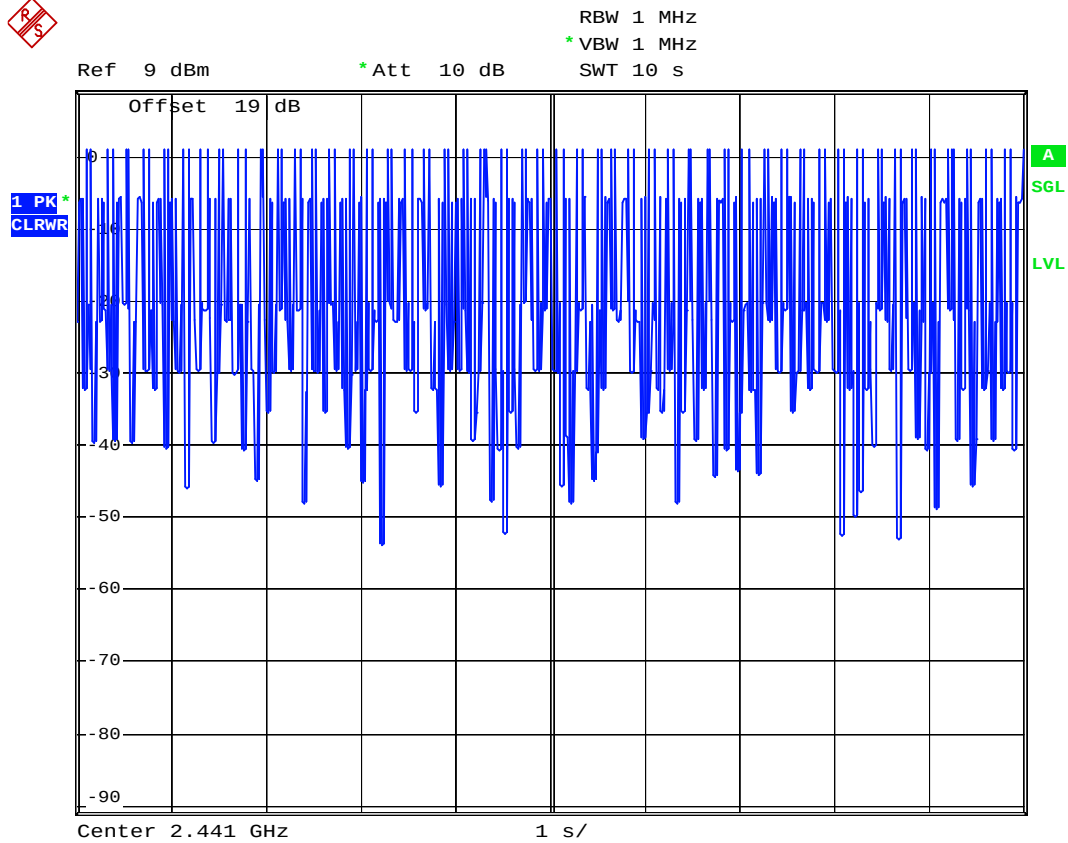


Date: 22.MAR.2006 09:47:15

DH1 (CH39)



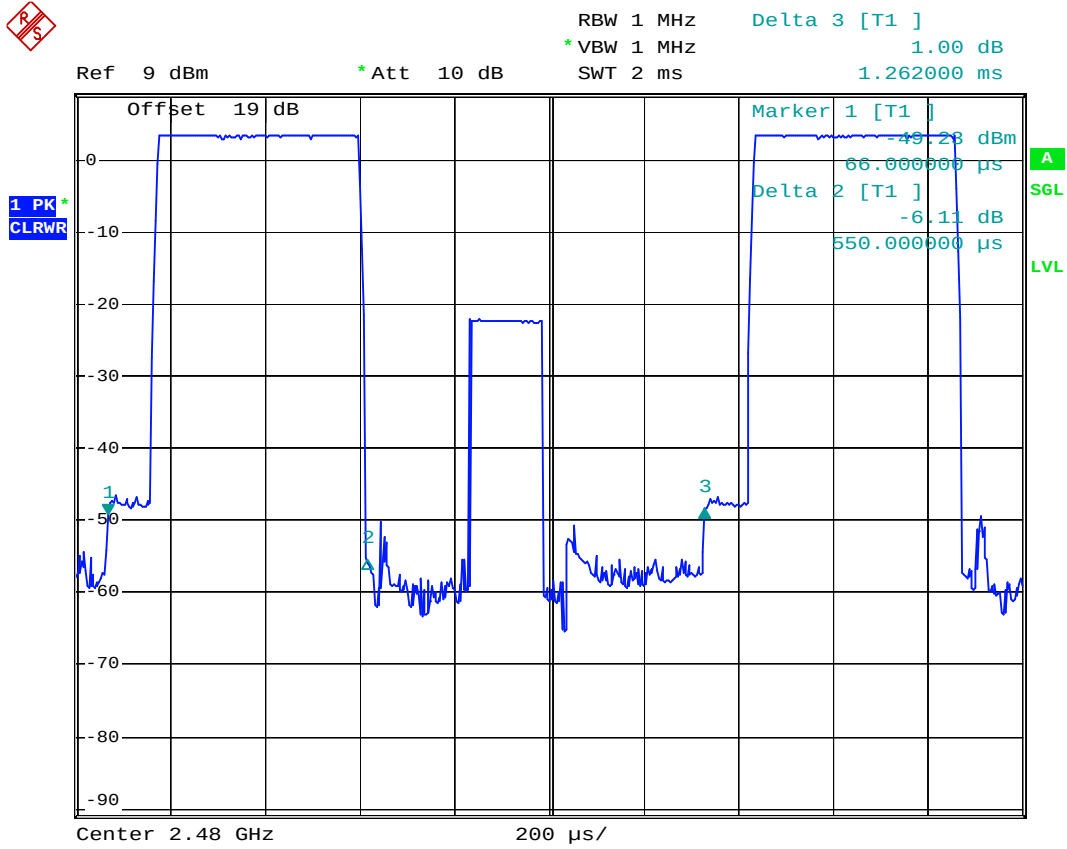
Date: 22.MAR.2006 09:41:44



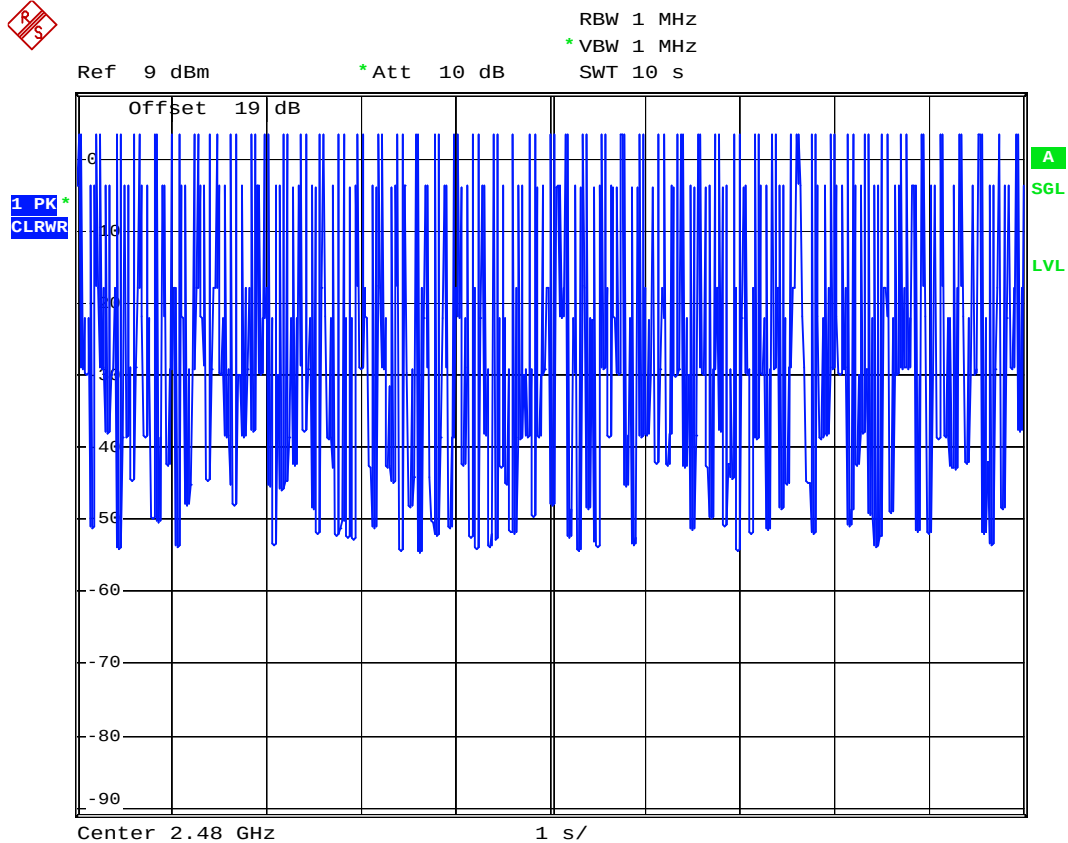
Date: 22.MAR.2006 09:46:53



DH1 (CH78)



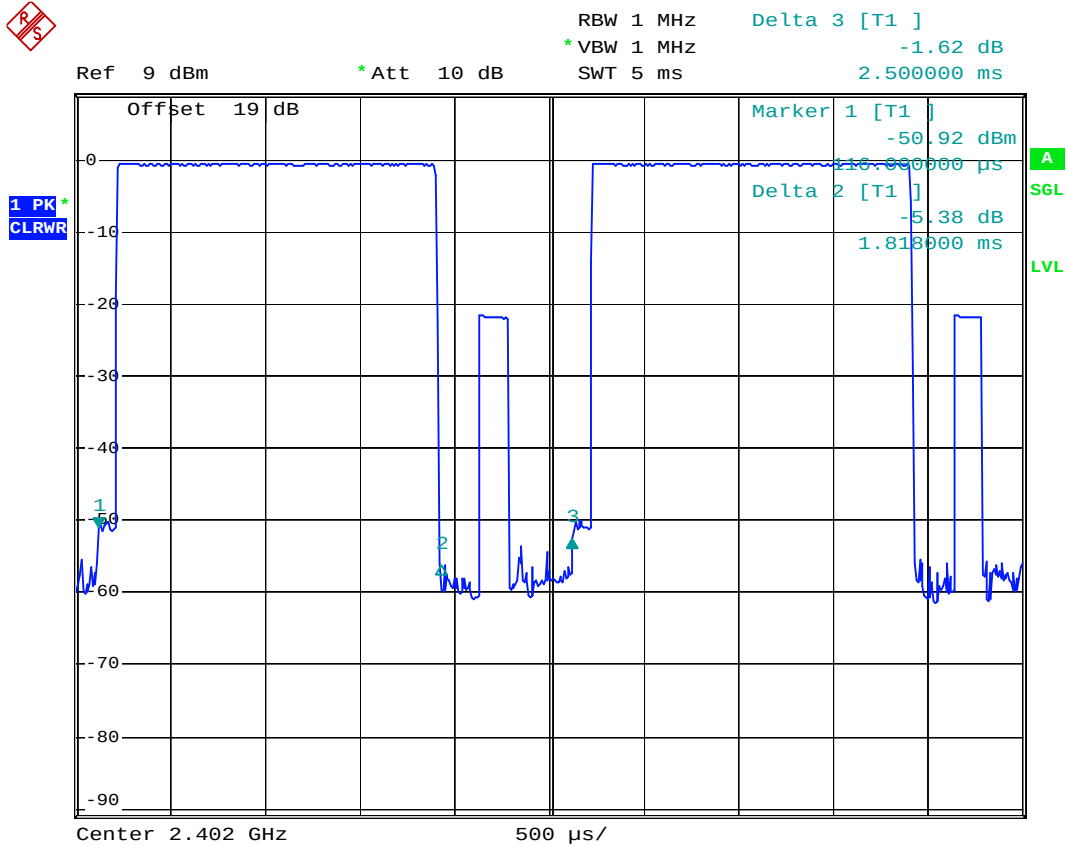
Date: 22.MAR.2006 09:42:13



Date: 22.MAR.2006 09:46:28



DH3 (CH00)



Date: 22.MAR.2006 09:39:32

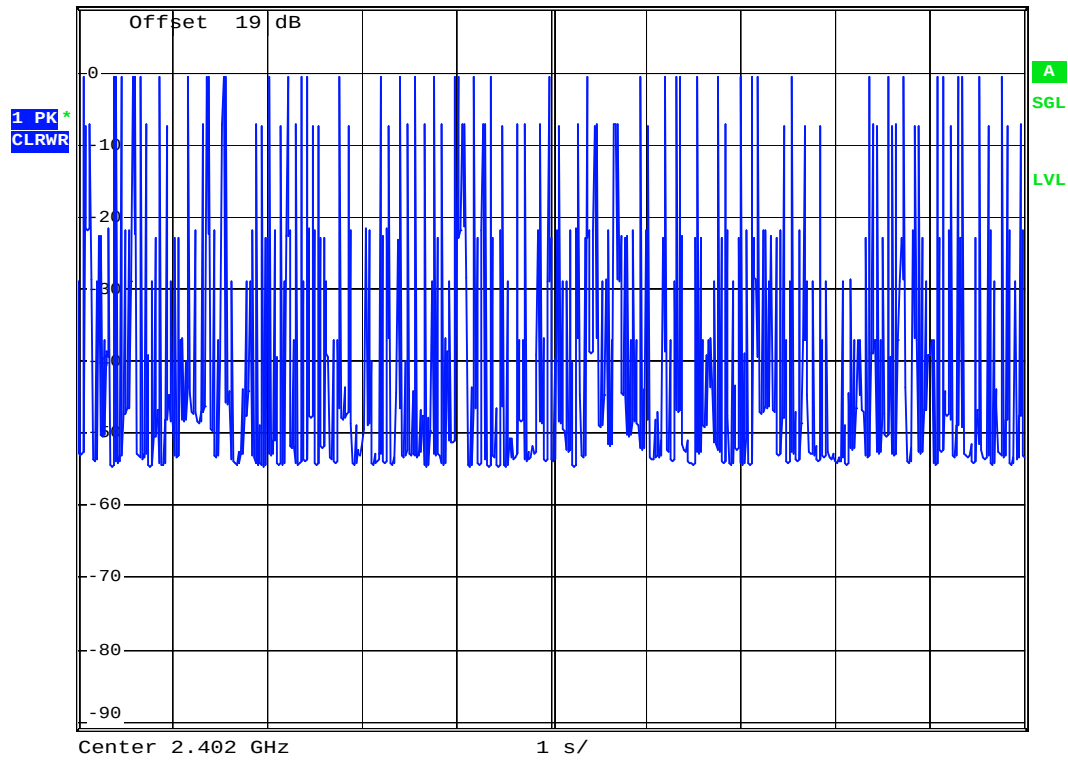


FCC TEST REPORT

Report No. : FR631101



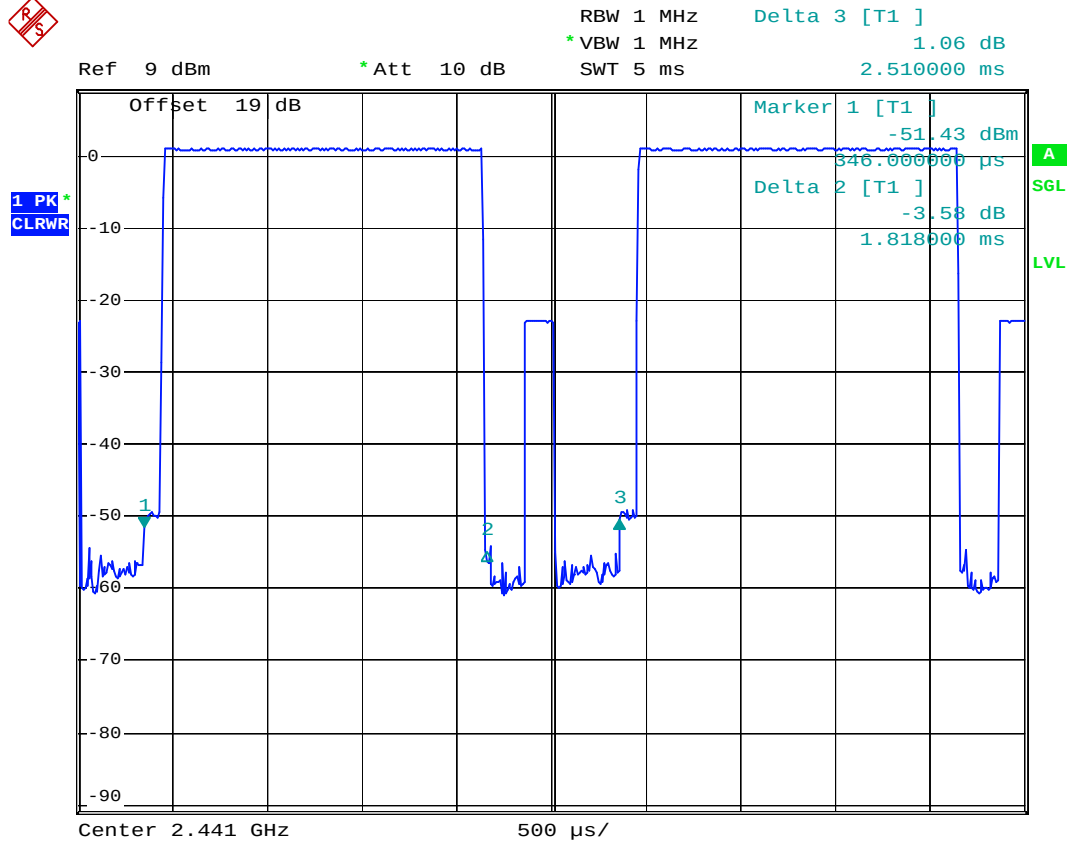
Ref 9 dBm * Att 10 dB RBW 1 MHz
* VBW 1 MHz SWT 10 s



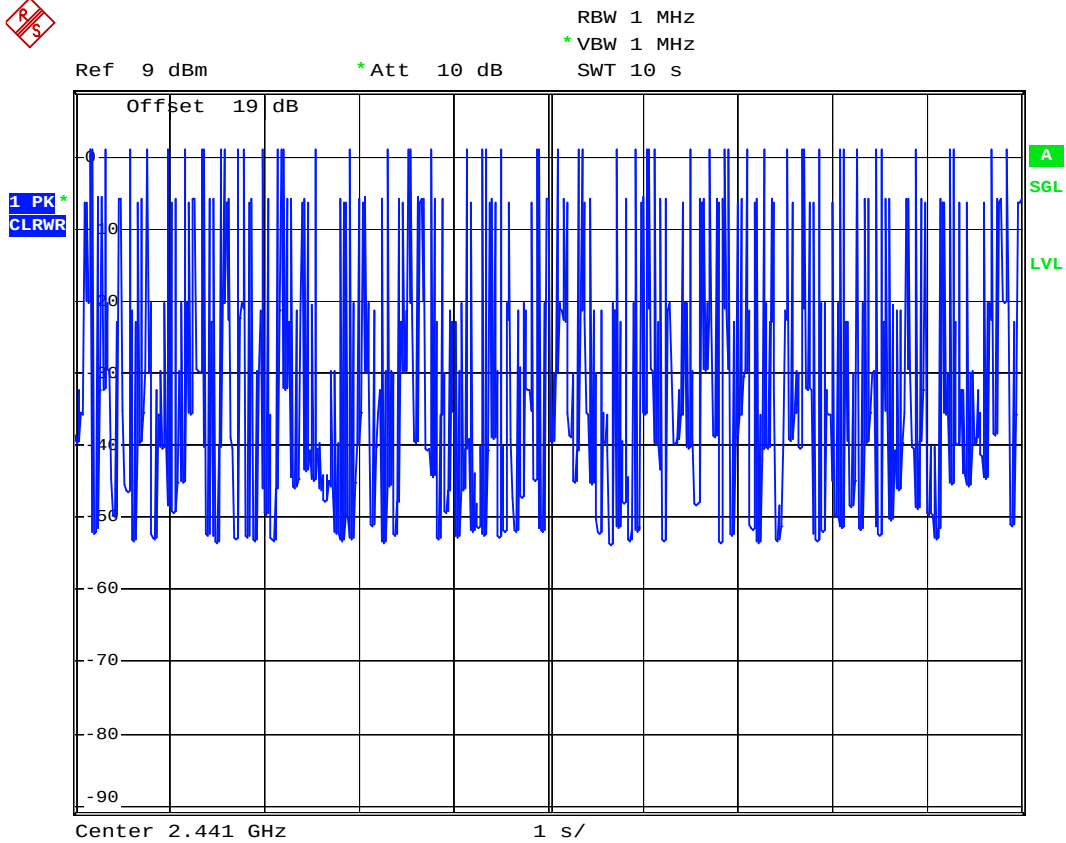
Date: 22.MAR.2006 09:45:10



DH3 (CH39)



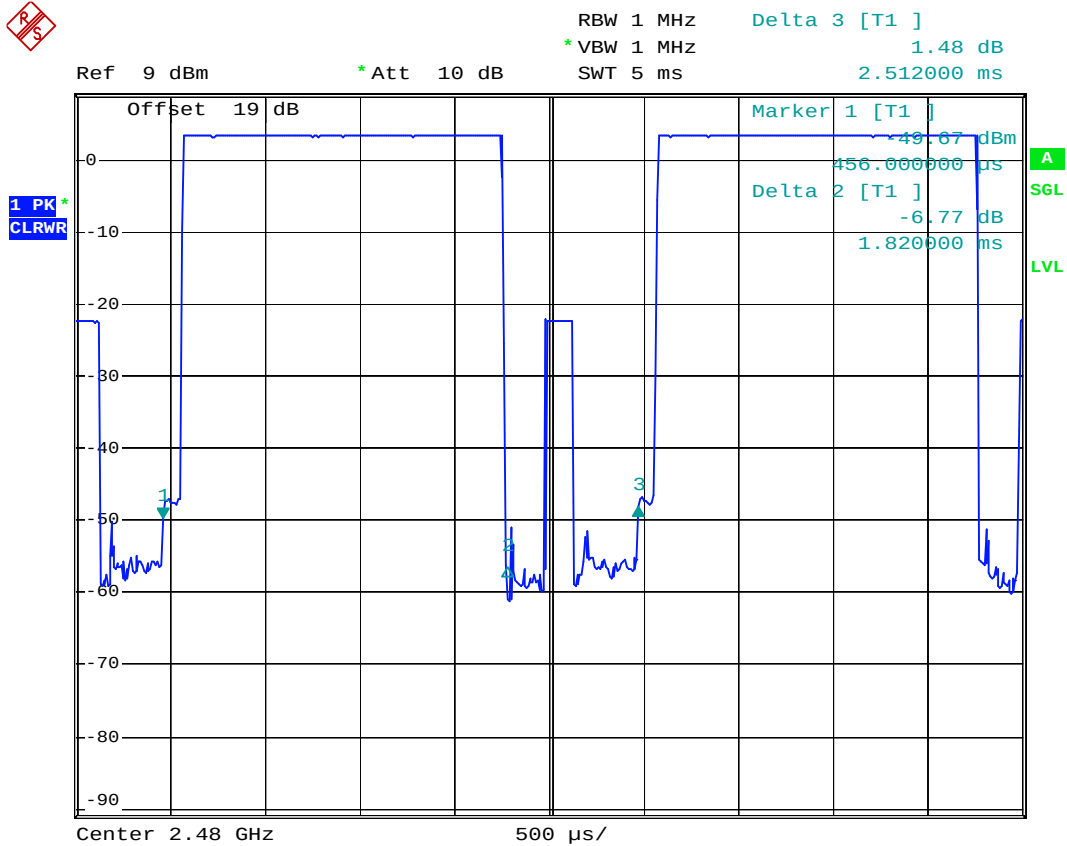
Date: 22.MAR.2006 09:41:08



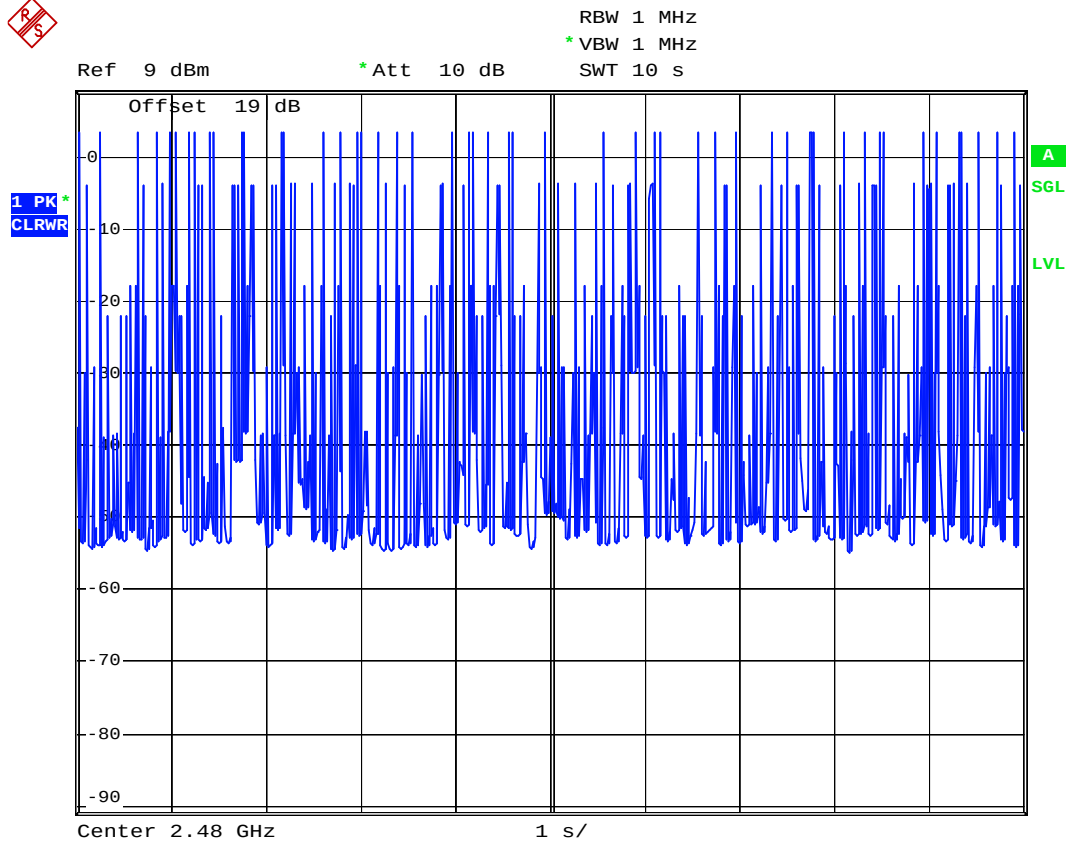
Date: 22.MAR.2006 09:45:31



DH3 (CH78)

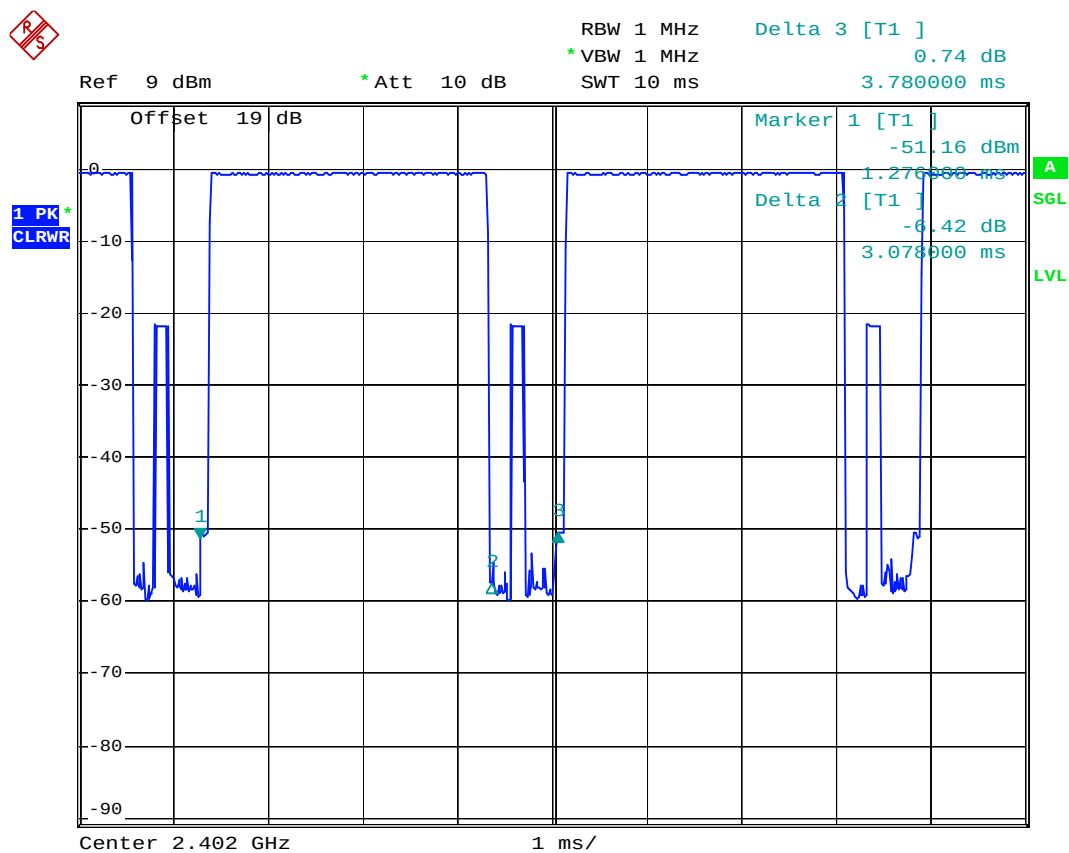


Date: 22.MAR.2006 09:42:43



Date: 22.MAR.2006 09:46:03

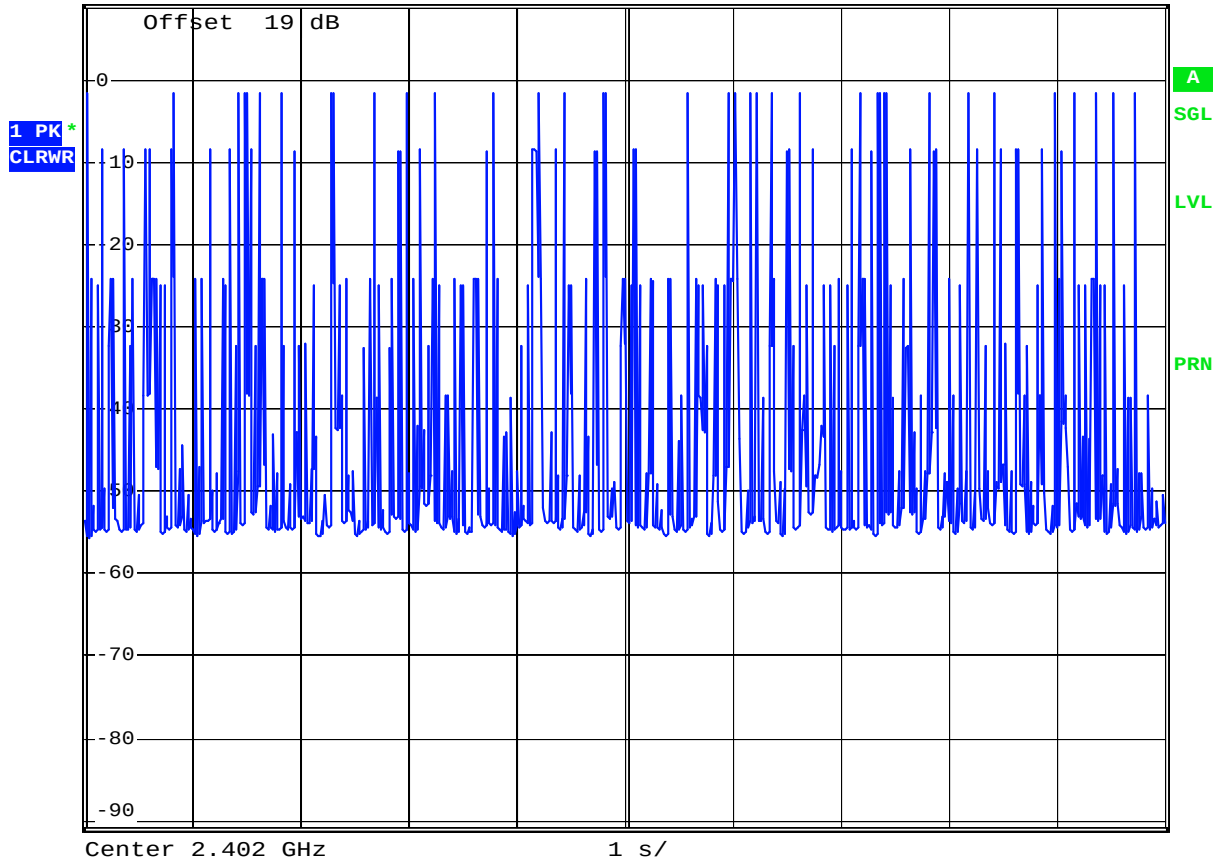
DH5 (CH00)



Date: 22.MAR.2006 09:39:59



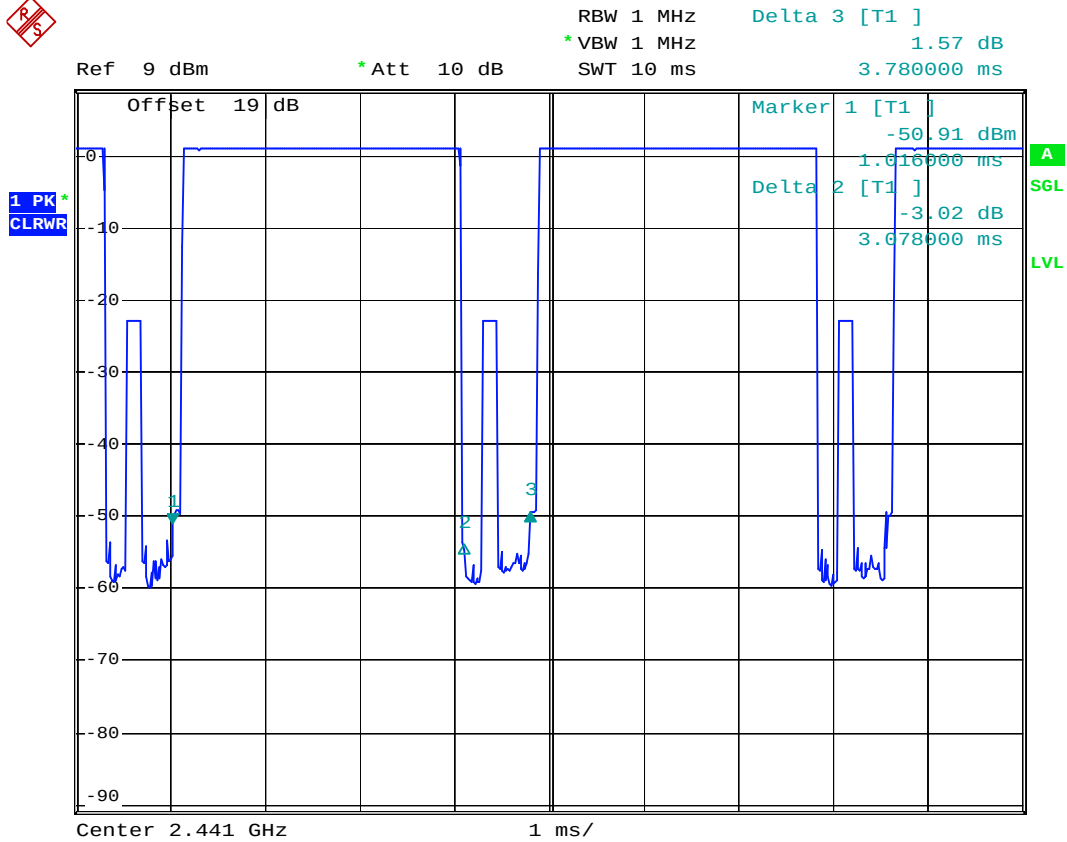
Ref 9 dBm * Att 10 dB RBW 1 MHz
* VBW 1 MHz SWT 10 s



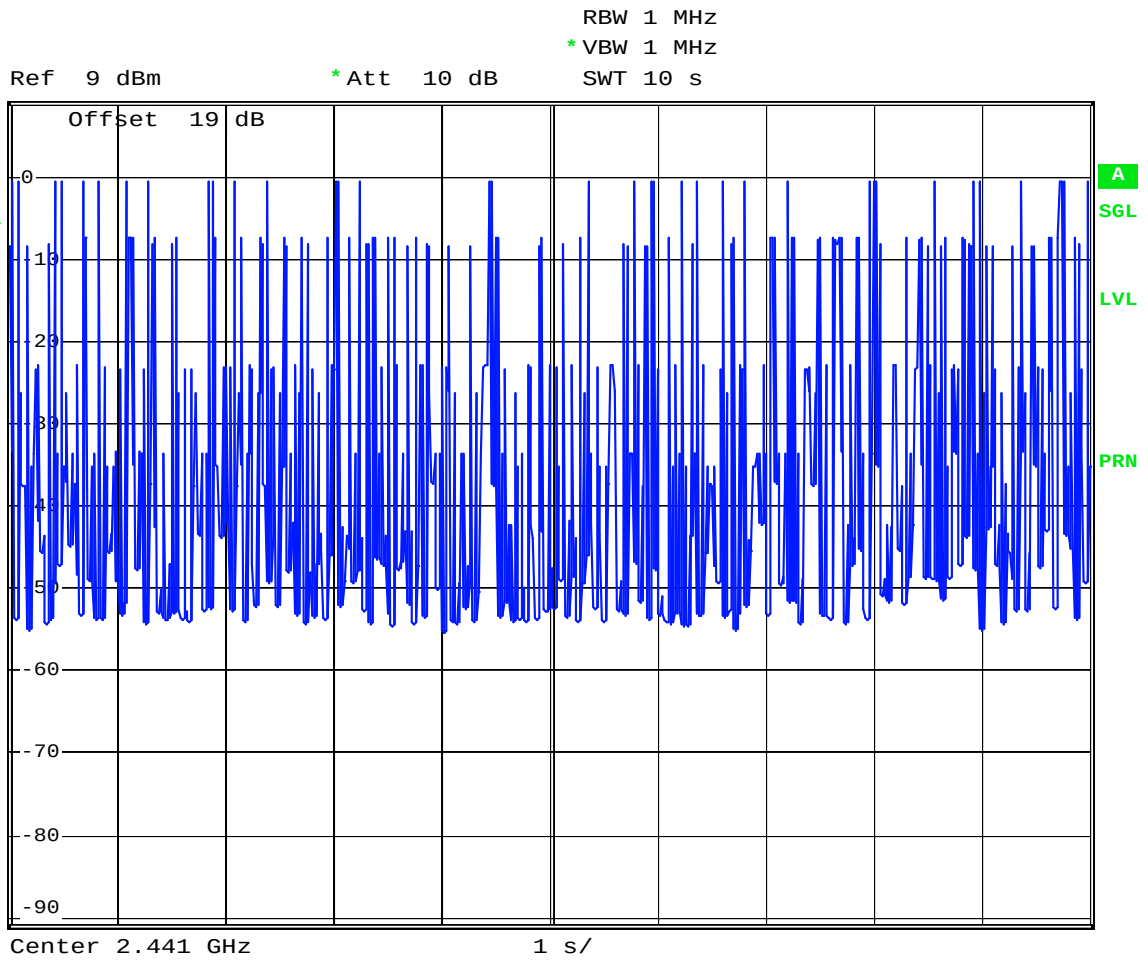
Date: 22.MAR.2006 16:09:32



DH5 (CH39)



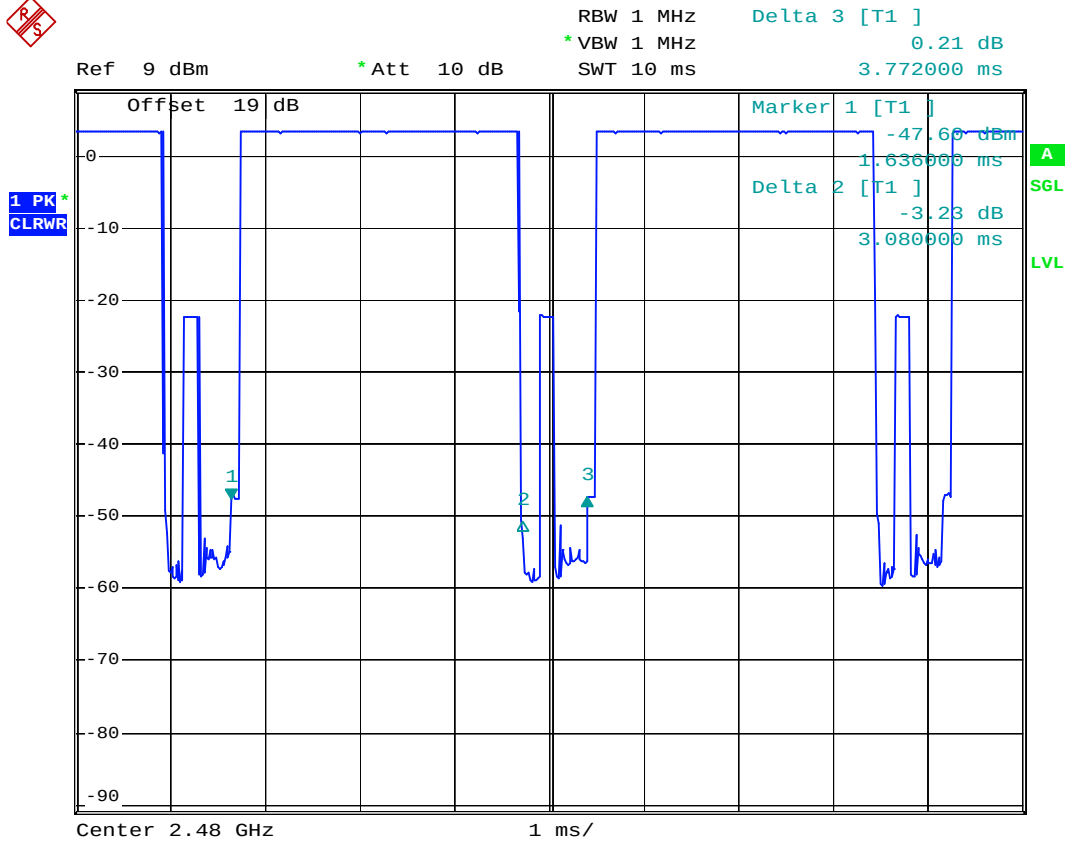
Date: 22.MAR.2006 09:40:35



Date: 22.MAR.2006 16:11:27



DH5 (CH78)



Date: 22.MAR.2006 09:43:18



RBW 1 MHz

Marker 1 [T1]

* VBW 1 MHz

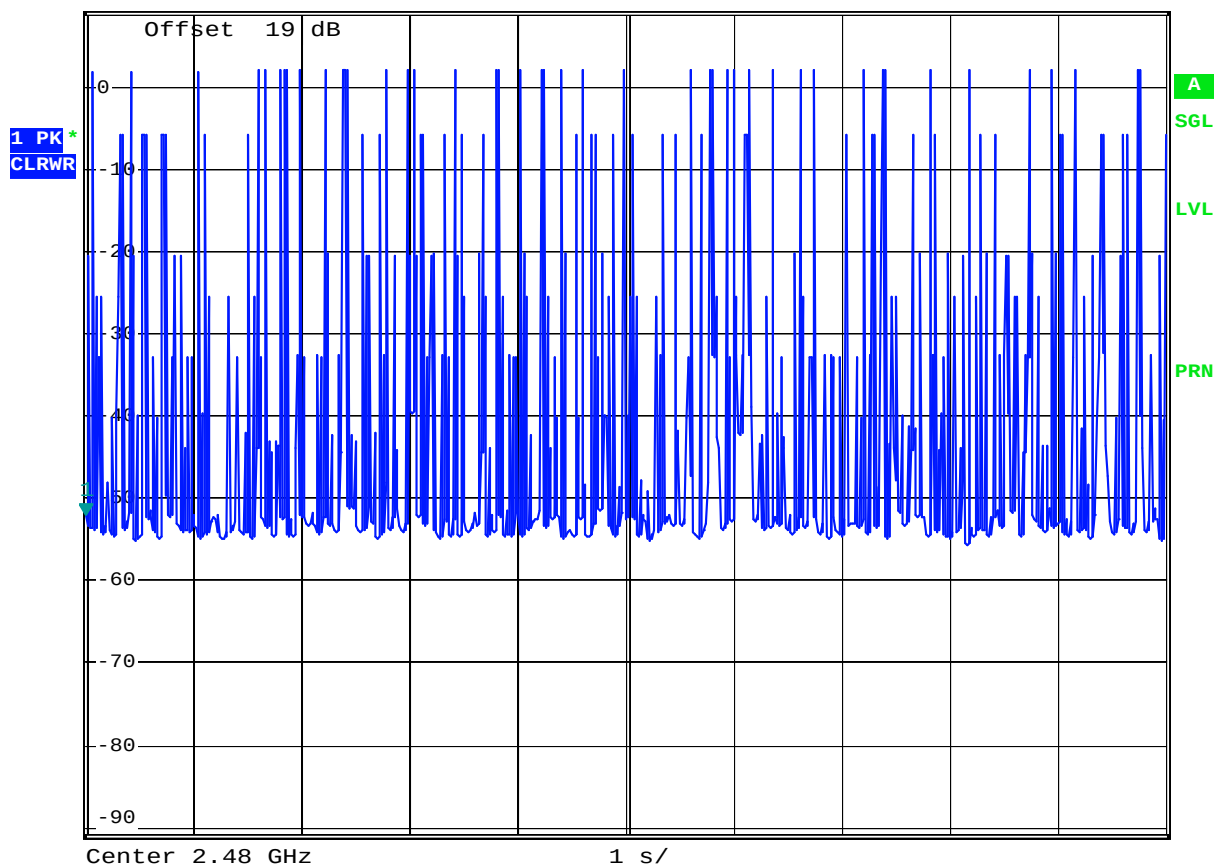
-51.96 dBm

SWT 10 s

2.000000 ms

Ref 9 dBm

* Att 10 dB



Date: 22.MAR.2006 16:04:14

5.9 Peak Output Power Measurement

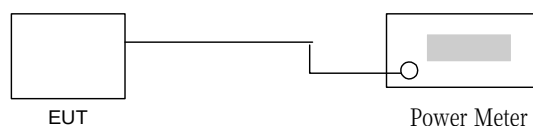
5.9.1 Measuring Instruments :

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 : Andy

WLAN 802.11b

Channel	Frequency (MHz)	Measured Output Power (dBm)	Limits (Watt/dBm)
01	2412	17.31	1W/30 dBm
06	2437	17.12	1W/30 dBm
11	2462	17.25	1W/30 dBm

WLAN 802.11g

Channel	Frequency (MHz)	Measured Output Power (dBm)	Limits (Watt/dBm)
01	2412	14.19	1W/30 dBm
06	2437	14.90	1W/30 dBm
11	2462	14.54	1W/30 dBm

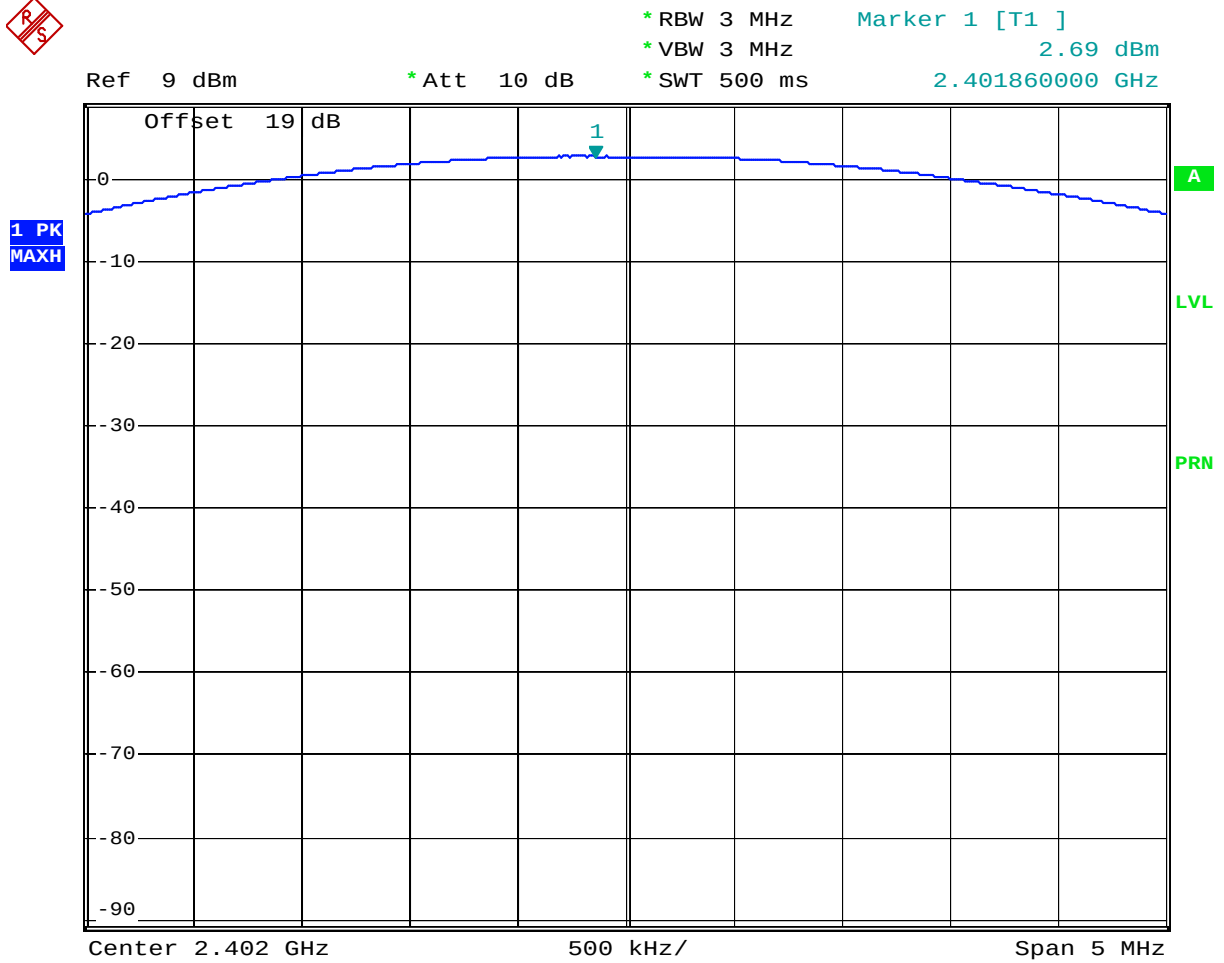
**BT**

Channel	Frequency (MHz)	Measured Output Power (dBm)	Limits (Watt/dBm)
00	2402	2.69	1W/30 dBm
39	2441	1.13	1W/30 dBm
78	2480	2.30	1W/30 dBm



5.9.5 Output Power

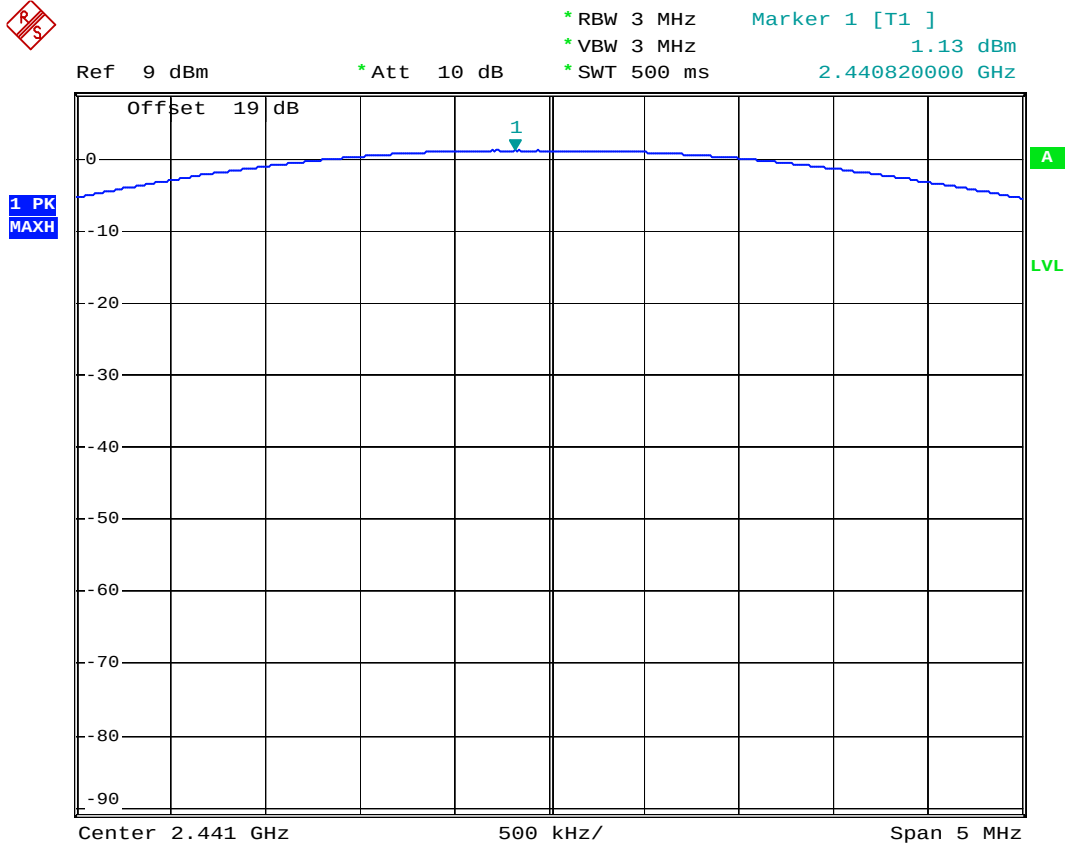
Mode 1: CH00 (2402MHz)



Date: 22.MAR.2006 16:37:55



Mode 2: CH39 (2441MHz)



Date: 22.MAR.2006 09:27:30

Mode 3: CH78 (2480MHz)



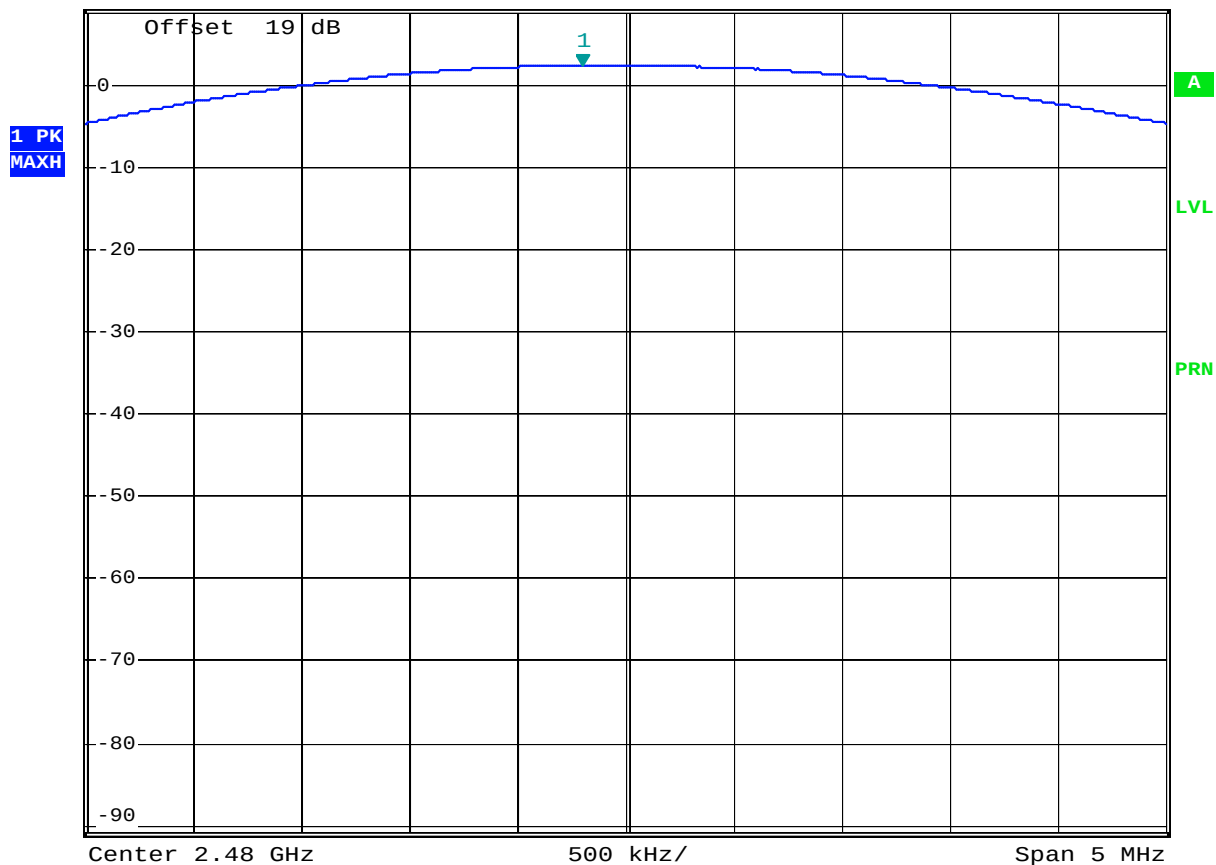
```
* RBW 3 MHz      Marker 1 [T1 ]
* VBW 3 MHz      2.30 dBm
* SWT 500 ms     2.479800000 GHz
```

Ref 9 dBm

* Att 10 dB

* SWT 500 ms

2.479800000 GHz



Date: 22.MAR.2006 16:02:59



5.10 Conducted Emission

5.10.1 Measuring Instruments

As described in chapter 6 of this test Report.

5.10.2 Test Procedures :

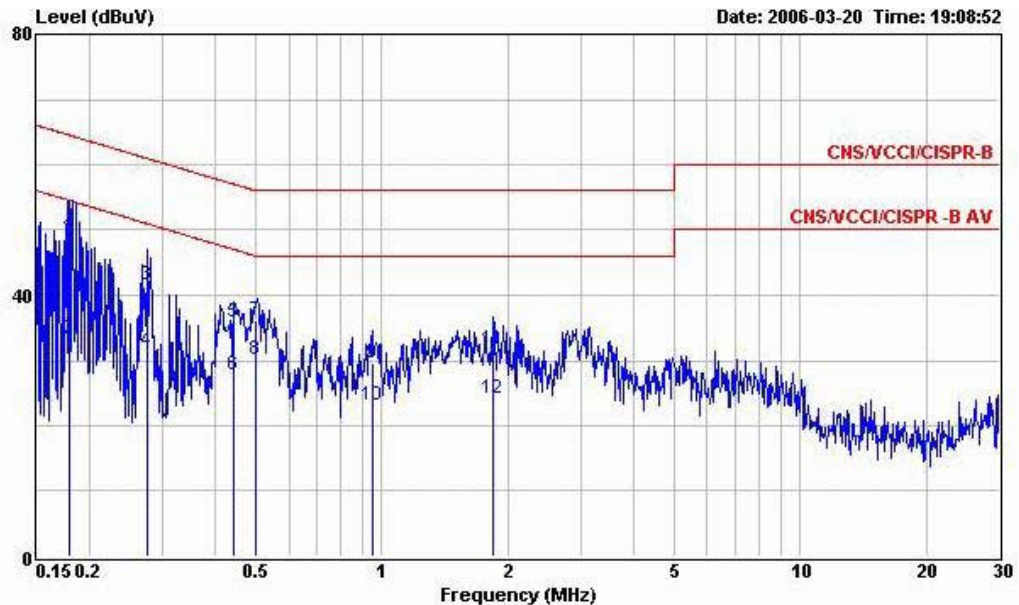
- a. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
- b. Connect EUT to the power port of a line impedance stabilization network (LISN).
- c. All the support units are connected to the other LISN.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

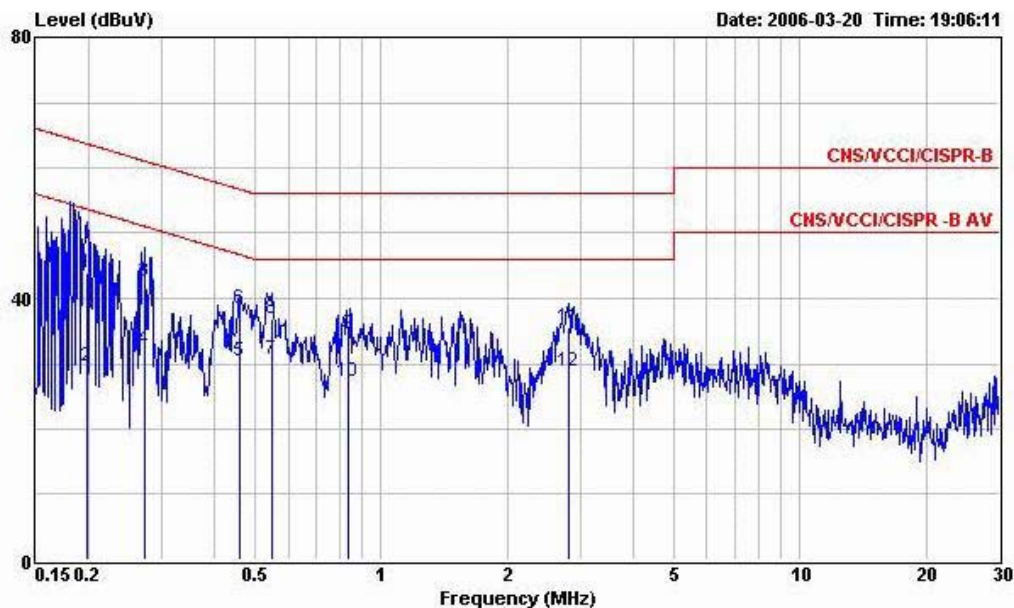
- Temperature : 24 °C
- Relating Humidity : 52 %
- Test Enginner : Andy
- Test Mode : Mode 1

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



Site : site
Condition : CNS/VCCI/CISPR-B 2001/004 200505 LINE
EUT : GPS Bluetooth PDA
Power : 110V/50Hz
Model : TE631101
Memo : GPS RX+Earphone+BT Link+WLAN Link
Memo :

	Freq	Level	Over	Limit	Read	Probe	Cable	
	MHz	dBuV	Limit	Line	Level	Factor	Loss	Remark
			dB	dBuV	dBuV	dB	dB	
1	0.178	48.94	-15.62	64.56	48.76	0.06	0.12	QP
2	0.178	33.23	-21.33	54.56	33.05	0.06	0.12	Average
3	0.275	41.58	-19.39	60.97	41.43	0.06	0.09	QP
4	0.275	31.48	-19.49	50.97	31.33	0.06	0.09	Average
5	0.444	35.77	-21.22	56.99	35.64	0.07	0.06	QP
6	0.444	27.78	-19.21	46.99	27.65	0.07	0.06	Average
7	0.502	36.12	-19.88	56.00	35.98	0.07	0.07	QP
8	0.502	30.25	-15.75	46.00	30.11	0.07	0.07	Average
9	0.948	29.64	-26.36	56.00	29.43	0.11	0.10	QP
10	0.948	23.06	-22.94	46.00	22.85	0.11	0.10	Average
11	1.850	31.76	-24.24	56.00	31.51	0.11	0.14	QP
12	1.850	24.24	-21.76	46.00	23.99	0.11	0.14	Average



Site : site
Condition : CNS/VCCI/CISPR-B 2001/004 200505 NEUTRAL
EUT : GPS Bluetooth PDA
Power : 110V/60Hz
Model : TE631101
Memo : GPS RX+Earphone+BT Link+WLAN Link
Memo :
Memo :

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.198	43.83	-19.86	63.69	43.60	0.11	0.12	QP
2	0.198	29.72	-23.97	53.69	29.49	0.11	0.12	Average
3	0.273	42.51	-18.52	61.03	42.31	0.11	0.09	QP
4	0.273	32.17	-18.86	51.03	31.97	0.11	0.09	Average
5	0.459	30.29	-16.42	46.71	30.09	0.13	0.07	Average
6	0.459	38.37	-18.34	56.71	38.17	0.13	0.07	QP
7	0.546	30.67	-15.33	46.00	30.45	0.15	0.07	Average
8	0.546	36.87	-19.13	56.00	36.65	0.15	0.07	QP
9	0.833	34.65	-21.35	56.00	34.35	0.21	0.09	QP
10	0.833	27.25	-18.75	46.00	26.95	0.21	0.09	Average
11	2.810	35.63	-20.37	56.00	35.24	0.23	0.16	QP
12	2.810	28.81	-17.19	46.00	28.42	0.23	0.16	Average



5.11 Radiated Emission Measurement

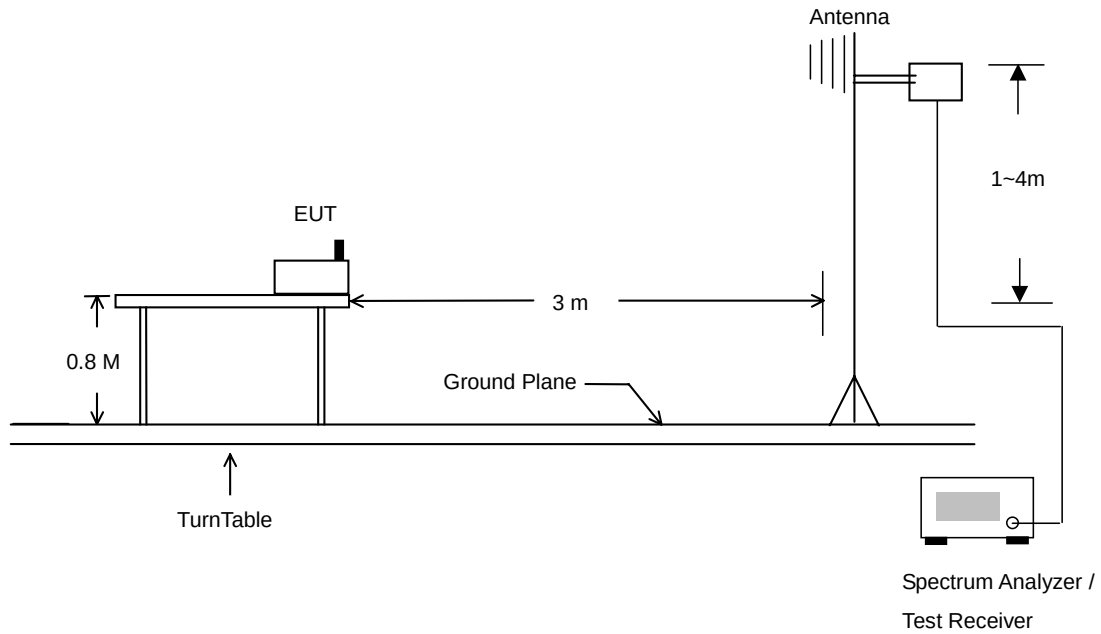
5.11.1 Measuring Instruments

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

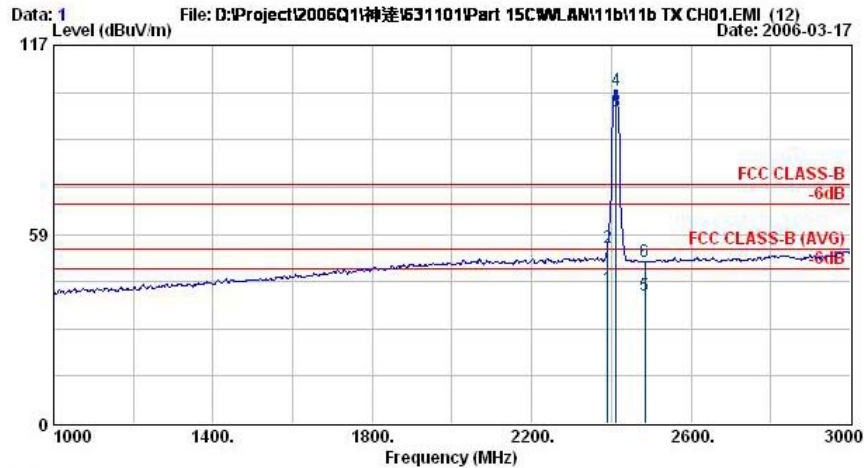




5.11.4 Test Data

- Temperature : 26°C
- Relative Humidity : 56%
- Test Engineer : Andy
- 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-071025-940201 HORIZONTAL
EUT : GPS Bluetooth PDA
Power : 120Vac/60Hz
Model : FR631101
Memo : 11b TX_CH01_2412MHz
Plane : E1

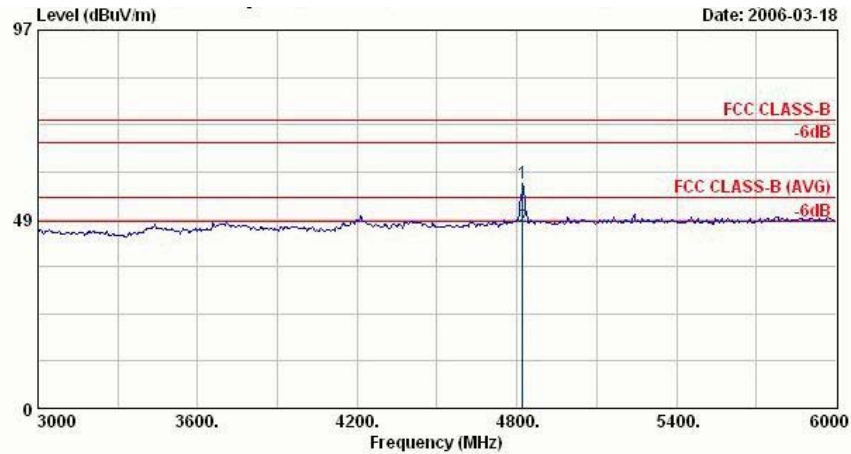
	Freq	Level	Over	Limit	Read	Antenna	Preamp	Cable	Ant	Table	
	MHz	dBuV/m	Limit	Line	Level	Factor	Factor	Loss	Pos	Pos	Remark
			dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	2390.00	41.83	-12.17	54.00	42.54	30.48	35.46	4.26	100	35	Average
2	2390.00	54.58	-19.42	74.00	55.29	30.48	35.46	4.26	100	360	Peak
3 @	2412.00	96.48			97.20	30.47	35.46	4.26	100	35	Average
4 X	2412.00	103.19			103.92	30.47	35.46	4.26	100	360	Peak
5	2483.50	39.72	-14.28	54.00	40.46	30.41	35.51	4.36	100	35	Average
6	2483.50	49.99	-24.01	74.00	50.73	30.41	35.51	4.36	100	360	Peak

Remark: #3 and #4 Fundamental Signal.



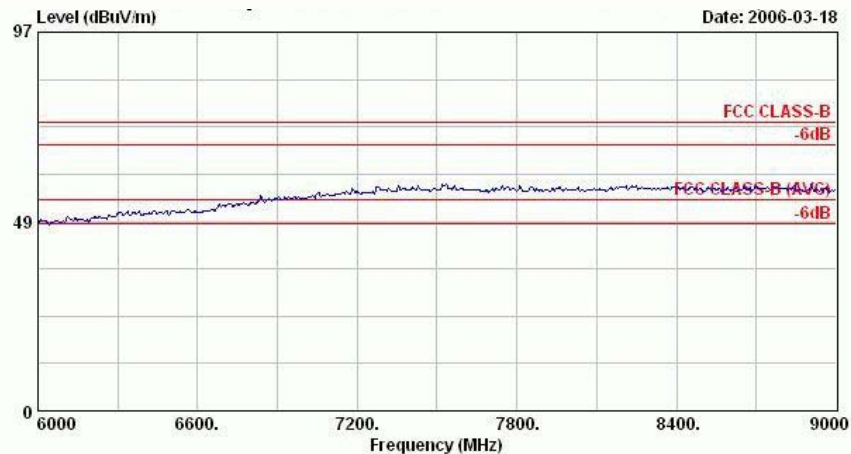
FCC TEST REPORT

Report No. : FR631101



Site : 03CH06-HY
Condition : HF-ANT-071025-940201 HORIZONTAL
EUT : GPS Bluetooth PDA
Power : 120Vac/60Hz
Model : FR631101
Memo : 11b TX_CH01,2412MHz
Plane : E1

	Freq	Level	Over	Limit	ReadAntenna	Preamp	Cable	Ant	Table	
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Pos	Pos	Remark
			dB	dBuV/m	dBuV	dB/m	dB	cm	deg	
1	4821.00	57.71	-16.29	74.00	54.37	33.21	36.12	6.24	200	0 Peak
2	4821.00	46.50	-7.50	54.00	43.16	33.21	36.12	6.24	100	2 Average

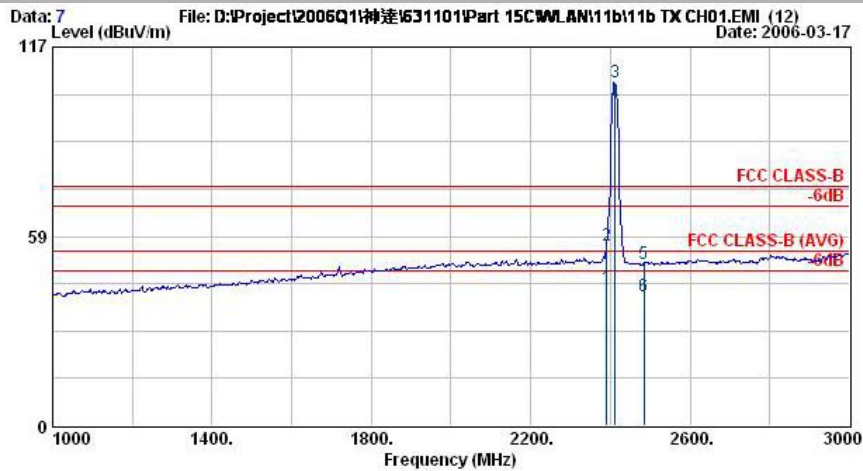


Site : 03CH06-HY
Condition : HF-ANT-071025-940201 HORIZONTAL
EUT : GPS Bluetooth PDA
Power : 120Vac/60Hz
Model : FR631101
Memo : 11b TX_CH01,2412MHz
Plane : E1



- Polarization : Vertical

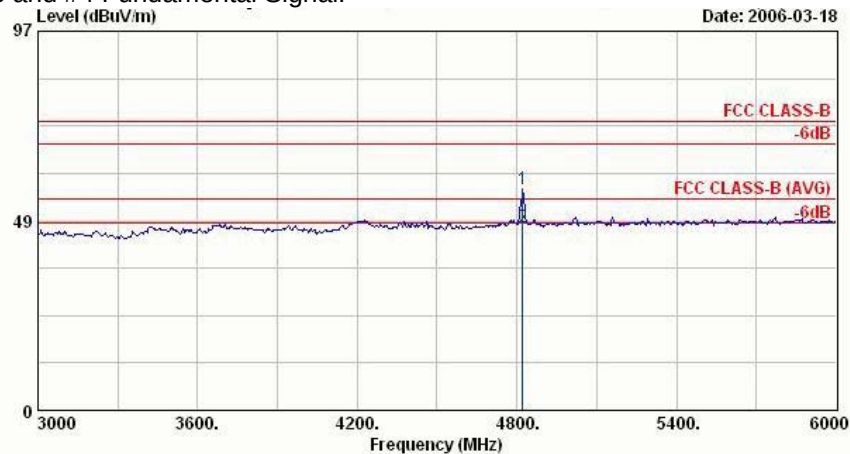
■ The test that passed at minimum margin was marked by the frame in the following table.



Site : 03CH06-HY
Condition : HF-ANT-071025-940201 VERTICAL
EUT : GPS Bluetooth PDA
Power : 120Vac/60Hz
Model : FR631101
Memo : 11b TX_CH01,2412MHz
Plane : E1

	Freq	Level	Over	Limit	Read	Antenna	Preamp	Cable	Ant	Table	
	MHz	dBuV/m	Limit	Line	Level	Factor	Factor	Loss	Pos	Pos	Remark
			dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	2390.00	42.56	-11.44	54.00	43.27	30.48	35.46	4.26	100	259	Average
2	2390.00	55.65	-18.35	74.00	56.36	30.48	35.46	4.26	100	360	Peak
3 X	2412.00	105.92			106.64	30.47	35.46	4.26	100	360	Peak
4 @	2412.00	99.48			100.20	30.47	35.46	4.26	100	259	Average
5	2483.50	50.02	-23.98	74.00	50.76	30.41	35.51	4.36	100	360	Peak
6	2483.50	39.85	-14.15	54.00	40.59	30.41	35.51	4.36	100	259	Average

Remark: #3 and #4 Fundamental Signal.



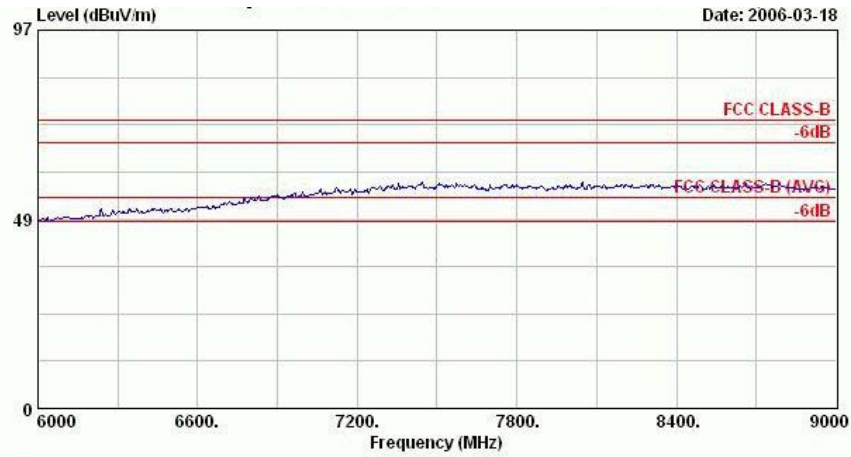
Site : 03CH06-HY
Condition : HF-ANT-071025-940201 VERTICAL
EUT : GPS Bluetooth PDA
Power : 120Vac/60Hz
Model : FR631101
Memo : 11b TX_CH01,2412MHz
Plane : E1

	Freq	Level	Over	Limit	Read	Antenna	Preamp	Cable	Ant	Table	
	MHz	dBuV/m	Limit	Line	Level	Factor	Factor	Loss	Pos	Pos	Remark
			dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	4821.00	56.60	-17.40	74.00	53.26	33.21	36.12	6.24	200	360	Peak
2	4821.00	46.89	-7.11	54.00	43.55	33.21	36.12	6.24	100	78	Average



FCC TEST REPORT

Report No. : FR631101

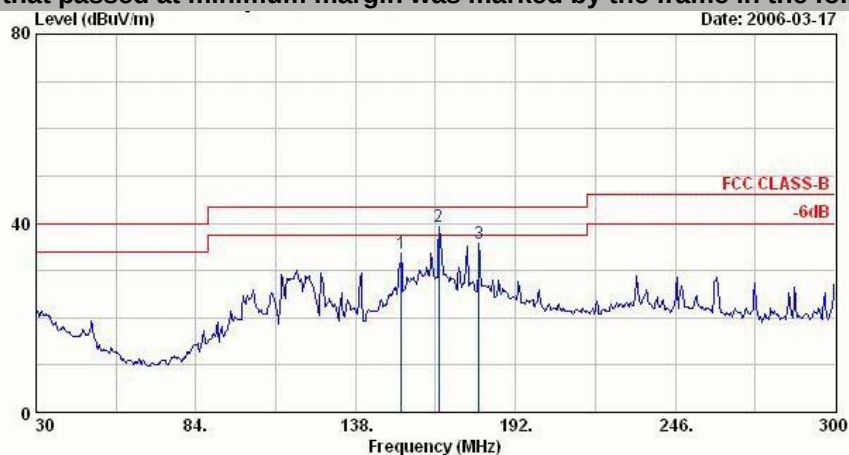


Site : 03CH06-HY
Condition : HF-ANT-071025-940201 VERTICAL
EUT : GPS Bluetooth PDA
Power : 120Vac/60Hz
Model : FR631101
Memo : 11b TX_CH01,2412MHz
Plane : E1



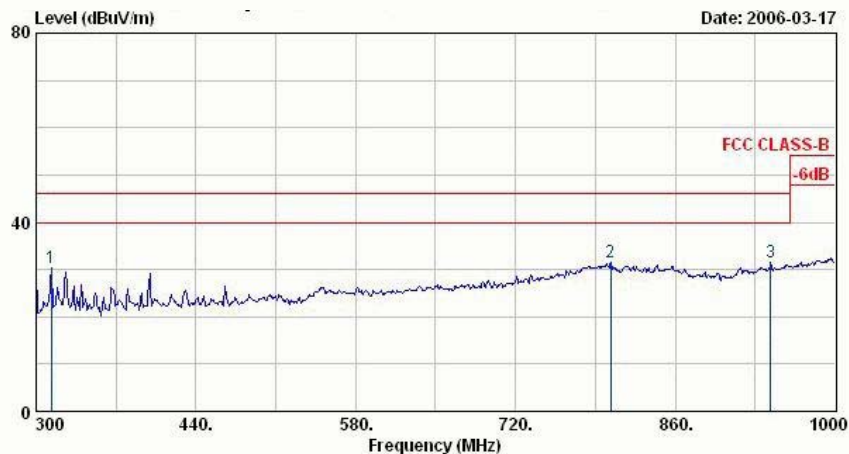
- Test Mode : Mode 2
- Polarization : Horizontal

■ 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 : GPS Bluetooth PDA
Power : 120Vac/60Hz
Model : FR631101
Memo : 11b TX _CH06,2437MHz
Plane : E1

	Freq	Level	Over	Limit	ReadAntenna	Preamp	Cable	Ant	Table	
	MHz	dBuV/m	dB	dBuV/m	Level	Factor	Loss	Pos	Pos	Remark
					dBuV	dB/m	dB	cm	deg	
1	153.39	33.74	-9.76	43.50	52.87	9.34	31.52	3.04	400	0 Peak
2 @	166.08	39.29	-4.21	43.50	57.62	9.95	31.47	3.18	122	283 Peak
3	179.58	35.81	-7.69	43.50	54.75	9.14	31.39	3.32	400	0 Peak



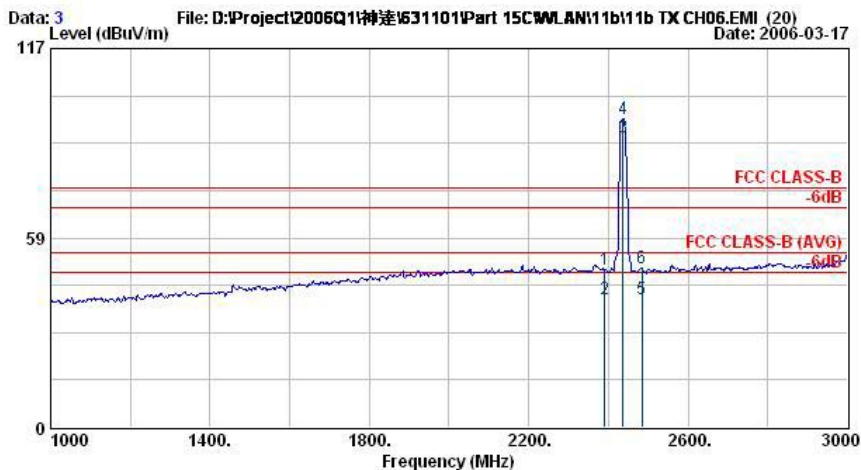
Site : 03CH06-HY
Condition : BI-LOG-2004-1122 HORIZONTAL
EUT : GPS Bluetooth PDA
Power : 120Vac/60Hz
Model : FR631101
Memo : 11b TX _CH06,2437MHz
Plane : E1

	Freq	Level	Over	Limit	ReadAntenna	Preamp	Cable	Ant	Table	
	MHz	dBuV/m	dB	dBuV/m	Level	Factor	Loss	Pos	Pos	Remark
					dBuV	dB/m	dB	cm	deg	
1	313.30	30.20	-15.80	46.00	43.07	13.34	30.67	4.47	100	0 Peak
2	803.30	31.50	-14.50	46.00	32.46	21.84	30.26	7.47	100	0 Peak
3	943.30	31.62	-14.38	46.00	32.35	21.26	30.26	8.26	100	0 Peak



FCC TEST REPORT

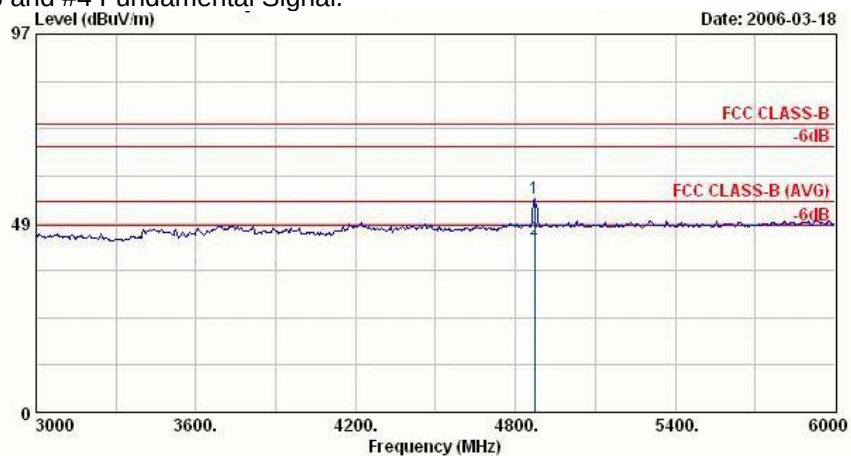
Report No. : FR631101



Site : 03CH06-HY
Condition : HF-ANT-071025-940201 HORIZONTAL
EUT : GPS Bluetooth PDA
Power : 120Vac/60Hz
Model : FR631101
Memo : 11b TX_CH06,2437MHz
Plane : E1

	Freq	Level	Over	Limit	ReadAntenna	Preamp	Cable	Ant	Table	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	2390.00	48.89	-25.11	74.00	49.60	30.48	35.46	4.26	100	0 Peak
2	2390.00	39.56	-14.44	54.00	40.27	30.48	35.46	4.26	100	36 Average
3 X	2437.00	89.50			90.24	30.44	35.47	4.29	100	36 Average
4 X	2437.00	95.39			96.13	30.44	35.47	4.29	100	0 Peak
5	2483.50	39.73	-14.27	54.00	40.47	30.41	35.51	4.36	100	36 Average
6	2483.50	49.07	-24.93	74.00	49.81	30.41	35.51	4.36	100	0 Peak

Remark: #3 and #4 Fundamental Signal.



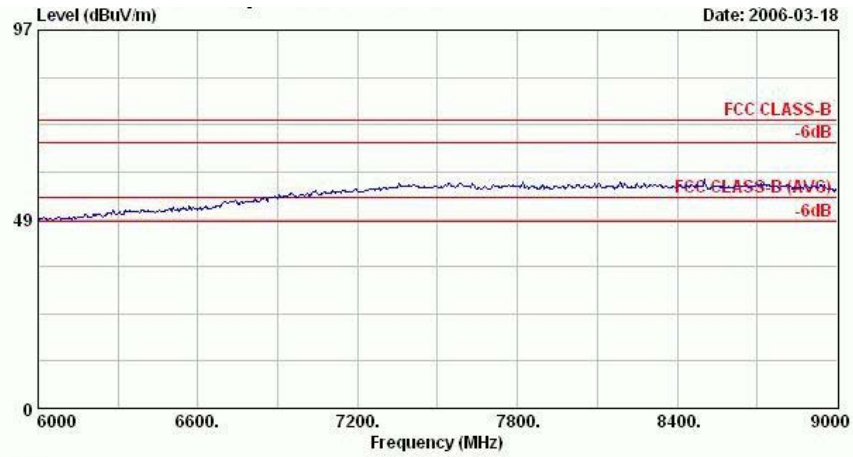
Site : 03CH06-HY
Condition : HF-ANT-071025-940201 HORIZONTAL
EUT : GPS Bluetooth PDA
Power : 120Vac/60Hz
Model : FR631101
Memo : 11b TX_CH06,2437MHz
Plane : E1

	Freq	Level	Over	Limit	ReadAntenna	Preamp	Cable	Ant	Table	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	4872.00	54.90	-19.10	74.00	51.37	33.39	36.16	6.30	200	0 Peak
2	4872.00	44.26	-9.74	54.00	40.73	33.39	36.16	6.30	100	9 Average



FCC TEST REPORT

Report No. : FR631101

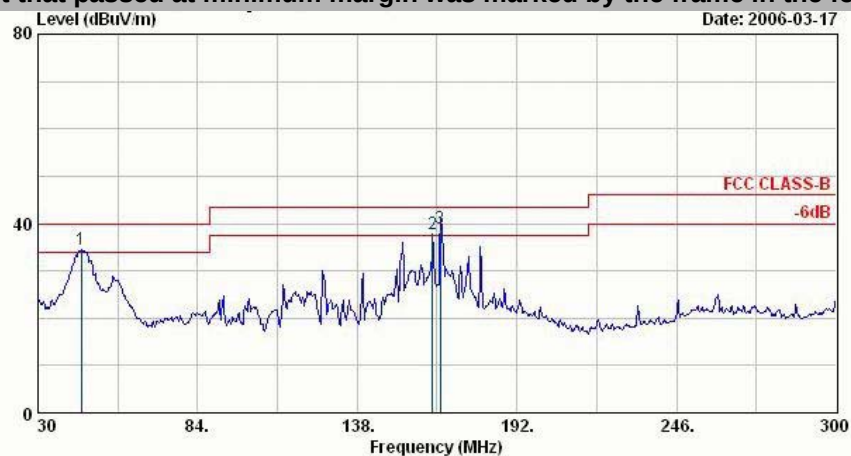


Site : 03CH06-HY
Condition : HF-ANT-071025-940201 HORIZONTAL
EUT : GPS Bluetooth PDA
Power : 120Vac/60Hz
Model : FR631101
Memo : 11b TX_CH06,2437MHz
Plane : E1



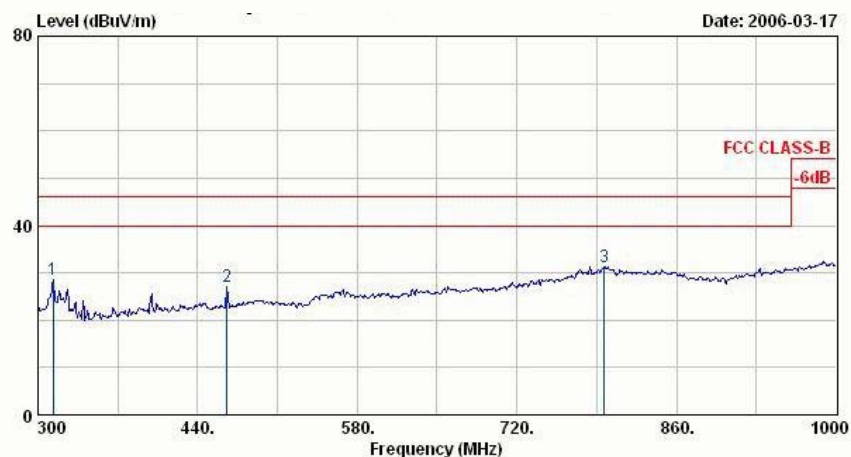
- Polarization : Vertical

■ 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 : GPS Bluetooth PDA
Power : 120Vac/60Hz
Model : FR631101
Memo : 11b TX_CH06,2437MHz
Plane : E1

	Freq	Level	Over	Limit	ReadAntenna	Preamp	Cable	Ant	Table	
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Pos	Pos	Remark
			dB	dBuV/m	dBuV	dB/m	dB	cm	deg	
1 !	44.58	34.48	-5.52	40.00	52.37	12.10	31.62	1.63	400	0 Peak
2 !	163.38	37.69	-5.81	43.50	55.98	10.09	31.53	3.15	400	0 Peak
3 !	166.08	38.87	-4.63	43.50	57.20	9.95	31.47	3.18	100	216 QP



Site : 03CH06-HY
Condition : BI-LOG-2004-1122 VERTICAL
EUT : GPS Bluetooth PDA
Power : 120Vac/60Hz
Model : FR631101
Memo : 11b TX_CH06,2437MHz
Plane : E1

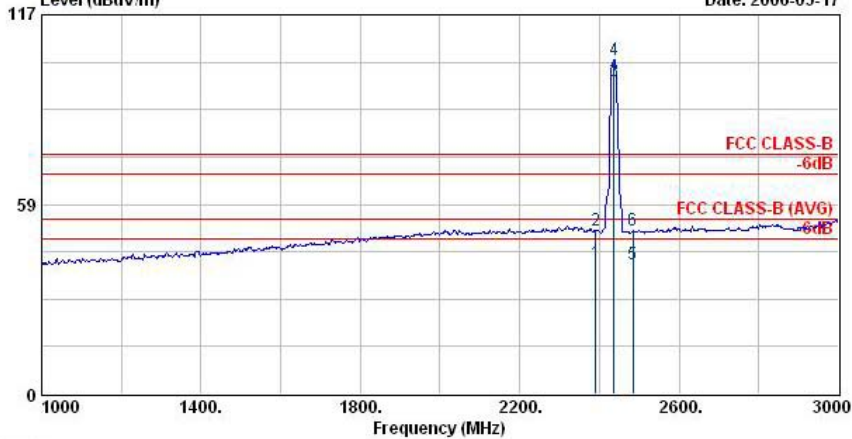
	Freq	Level	Over	Limit	ReadAntenna	Preamp	Cable	Ant	Table	
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Pos	Pos	Remark
			dB	dBuV/m	dBuV	dB/m	dB	cm	deg	
1	313.30	28.62	-17.38	46.00	41.49	13.34	30.67	4.47	100	0 Peak
2	465.90	27.05	-18.95	46.00	35.71	16.67	30.82	5.49	100	0 Peak
3	796.30	31.20	-14.80	46.00	32.11	21.79	30.14	7.44	100	0 Peak



FCC TEST REPORT

Report No. : FR631101

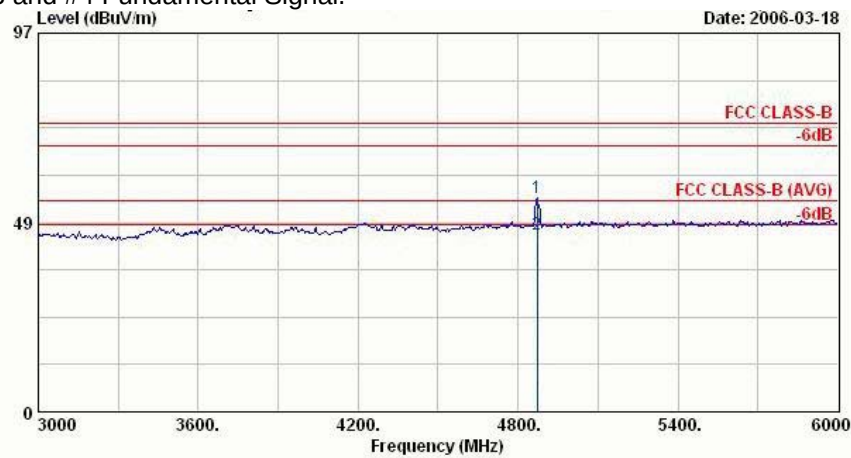
Data: 13 File: D:\Project\2006Q1\新建\631101\Part 15C\WLAN\11b\11b TX CH06.EMI (20) Date: 2006-03-17
Level (dBuV/m)



Site : 03CH06-HY
Condition : HF-ANT-071025-940201 VERTICAL
EUT : GPS Bluetooth PDA
Power : 120Vac/60Hz
Model : FR631101
Memo : 11b TX _CH06,2437MHz
Plane : E1

	Freq	Level	Over	Limit	Read	Antenna	Preamp	Cable	Ant	Table	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	2390.00	40.46	-13.54	54.00	41.17	30.48	35.46	4.26	100	250	Average
2	2390.00	50.51	-23.49	74.00	51.22	30.48	35.46	4.26	100	360	Peak
3 X	2437.00	96.34			97.08	30.44	35.47	4.29	100	250	Average
4 X	2437.00	103.04			103.78	30.44	35.47	4.29	100	360	Peak
5	2483.50	39.85	-14.15	54.00	40.59	30.41	35.51	4.36	100	250	Average
6	2483.50	50.43	-23.57	74.00	51.17	30.41	35.51	4.36	100	360	Peak

Remark: #3 and #4 Fundamental Signal.



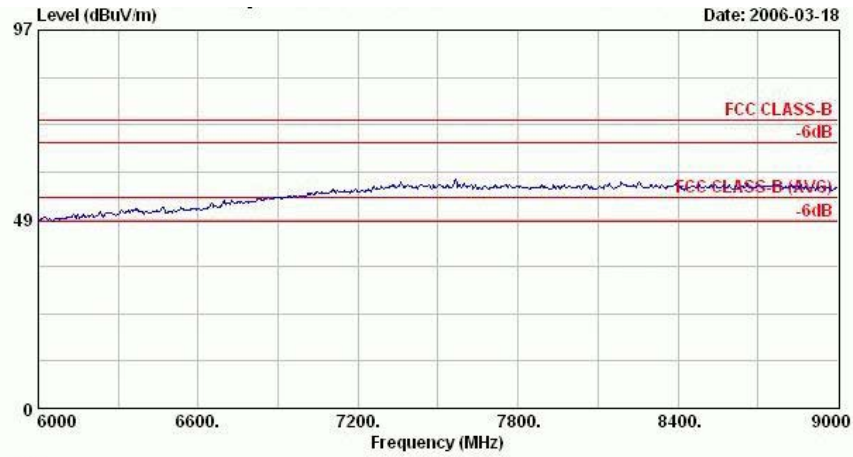
Site : 03CH06-HY
Condition : HF-ANT-071025-940201 VERTICAL
EUT : GPS Bluetooth PDA
Power : 120Vac/60Hz
Model : FR631101
Memo : 11b TX _CH06,2437MHz
Plane : E1

	Freq	Level	Over	Limit	Read	Antenna	Preamp	Cable	Ant	Table	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	4872.00	54.86	-19.14	74.00	51.33	33.39	36.16	6.30	200	360	Peak
2	4872.00	45.55	-8.45	54.00	42.02	33.39	36.16	6.30	122	326	Average



FCC TEST REPORT

Report No. : FR631101

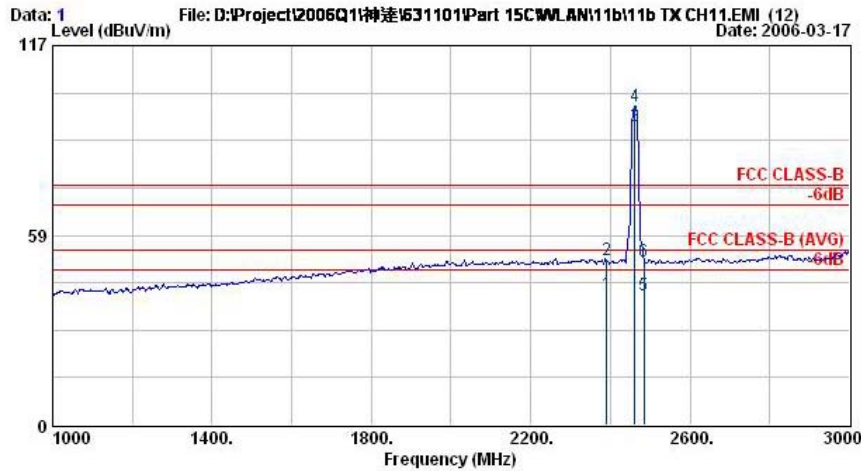


Site : 03CH06-HY
Condition : HF-ANT-071025-940201 VERTICAL
EUT : GPS Bluetooth PDA
Power : 120Vac/60Hz
Model : FR631101
Memo : 11b TX_CH06_2437MHz
Plane : E1



- Test Mode : Mode 3
- Polarization : Horizontal

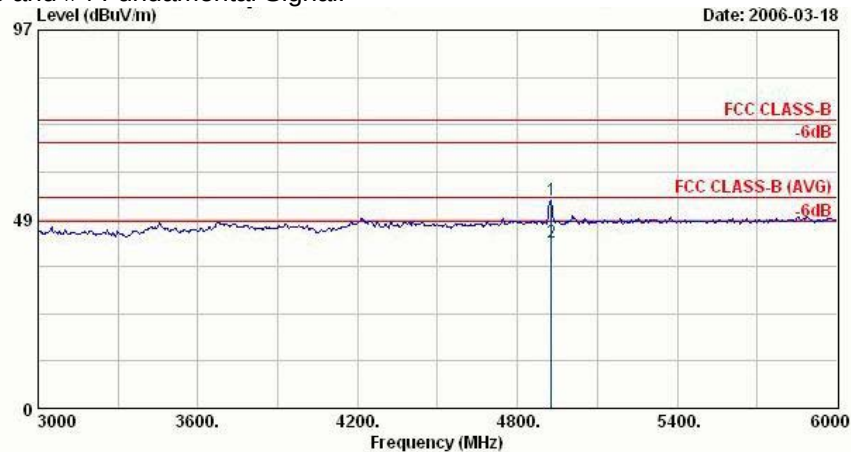
The test that passed at minimum margin was marked by the frame in the following table.



Site : 03CH06-HY
Condition : HF-ANT-071025-940201 HORIZONTAL
EUT : GPS Bluetooth PDA
Power : 120Vac/60Hz
Model : FR631101
Memo : 11b TX_CH11 2462MHz
Plane : E1

	Freq	Level	Over	Limit	ReadAntenna	Preamp	Cable	Ant	Table	
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Pos	Pos	Remark
			dB	dBuV/m	dBuV	dB/m	dB	cm	deg	
1	2390.00	40.26	-13.74	54.00	40.97	30.48	35.46	4.26	100	38 Average
2	2390.00	50.99	-23.01	74.00	51.71	30.48	35.46	4.26	100	360 Peak
3 @	2462.00	92.40			93.14	30.43	35.49	4.33	100	38 Average
4 X	2462.00	98.37			99.11	30.43	35.49	4.33	100	360 Peak
5	2483.50	40.01	-13.99	54.00	40.75	30.41	35.51	4.36	100	38 Average
6	2483.50	50.59	-23.41	74.00	51.32	30.41	35.51	4.36	100	360 Peak

Remark: #3 and #4 Fundamental Signal.



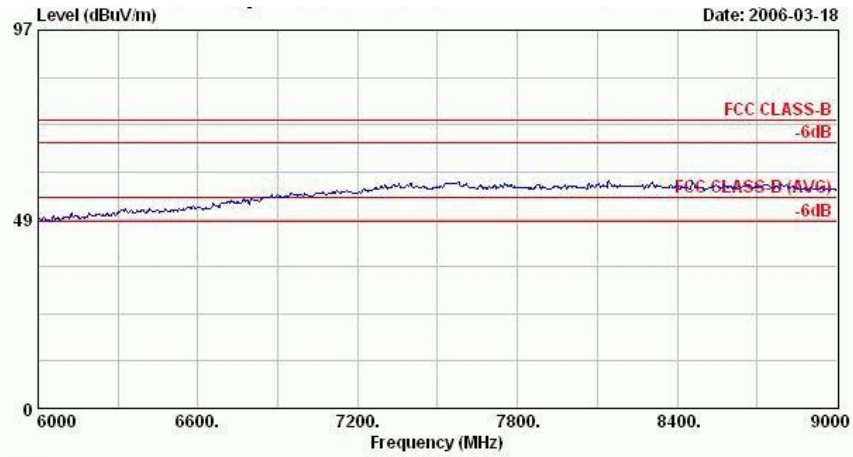
Site : 03CH06-HY
Condition : HF-ANT-071025-940201 HORIZONTAL
EUT : GPS Bluetooth PDA
Power : 120Vac/60Hz
Model : FR631101
Memo : 11b TX_CH11 2462MHz
Plane : E1

	Freq	Level	Over	Limit	ReadAntenna	Preamp	Cable	Ant	Table	
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Pos	Pos	Remark
			dB	dBuV/m	dBuV	dB/m	dB	cm	deg	
1	4926.00	53.35	-20.65	74.00	49.63	33.57	36.21	6.36	200	0 Peak
2	4926.00	42.45	-11.55	54.00	38.73	33.57	36.21	6.36	100	350 Average



FCC TEST REPORT

Report No. : FR631101

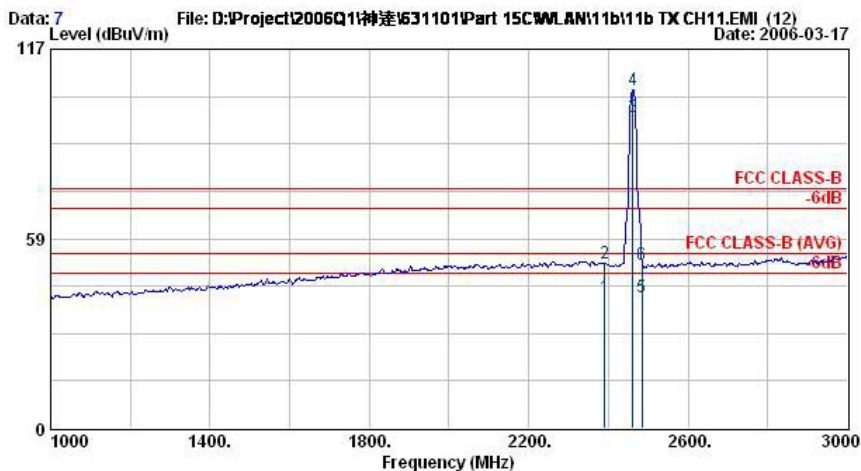


Site : 03CH06-HY
Condition : HF-ANT-071025-940201 HORIZONTAL
EUT : GPS Bluetooth PDA
Power : 120Vac/60Hz
Model : FR631101
Memo : 11b TX_CH11,2462MHz
Plane : E1



- Polarization : Vertical

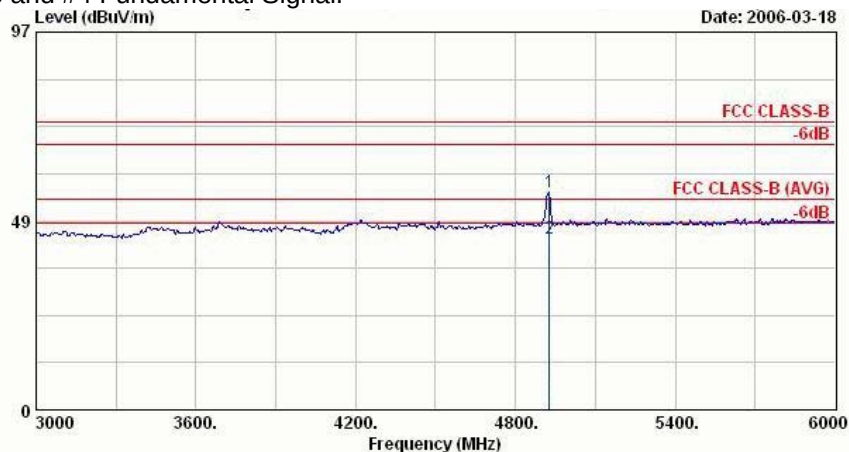
The test that passed at minimum margin was marked by the frame in the following table.



Site : 03CH06-HY
Condition : HF-ANT-071025-940201 VERTICAL
EUT : GPS Bluetooth PDA
Power : 120Vac/60Hz
Model : FR631101
Memo : 11b TX_CH11,2462MHz
Plane : E1

	Freq	Level	Over	Limit	ReadAntenna	Preamp	Cable	Ant	Table	
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Pos	Pos	Remark
			dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	2390.00	40.62	-13.38	54.00	41.33	30.48	35.46	4.26	100	276 Average
2	2390.00	50.83	-23.17	74.00	51.54	30.48	35.46	4.26	100	0 Peak
3 @	2462.00	96.08			96.82	30.43	35.49	4.33	100	276 Average
4 X	2462.00	104.47			105.21	30.43	35.49	4.33	100	0 Peak
5	2483.50	40.48	-13.52	54.00	41.22	30.41	35.51	4.36	100	276 Average
6	2483.50	50.41	-23.59	74.00	51.15	30.41	35.51	4.36	100	0 Peak

Remark: #3 and #4 Fundamental Signal.



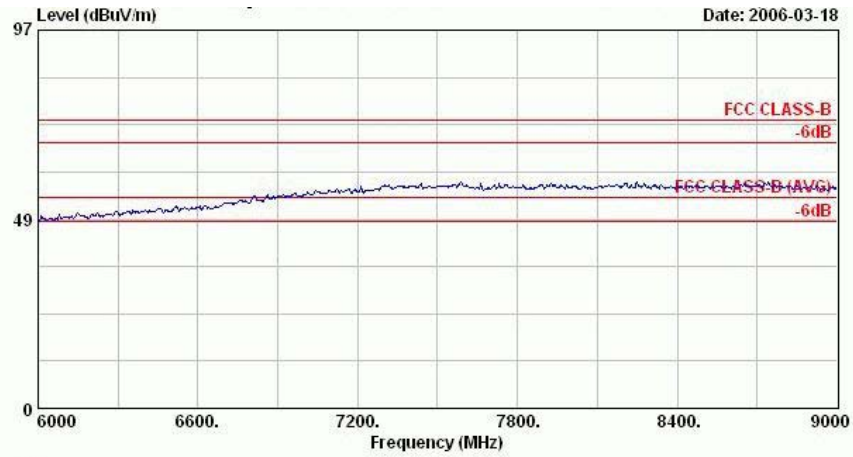
Site : 03CH06-HY
Condition : HF-ANT-071025-940201 VERTICAL
EUT : GPS Bluetooth PDA
Power : 120Vac/60Hz
Model : FR631101
Memo : 11b TX_CH11,2462MHz
Plane : E1

	Freq	Level	Over	Limit	ReadAntenna	Preamp	Cable	Ant	Table	
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Pos	Pos	Remark
			dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	4926.00	56.05	-17.95	74.00	52.33	33.57	36.21	6.36	200	360 Peak
2	4926.00	44.08	-9.92	54.00	40.36	33.57	36.21	6.36	100	74 Average



FCC TEST REPORT

Report No. : FR631101



Site : 03CH06-HY
Condition : HF-ANT-071025-940201 VERTICAL
EUT : GPS Bluetooth PDA
Power : 120Vac/60Hz
Model : FR631101
Memo : 11b TX_CH11,2462MHz
Plane : E1

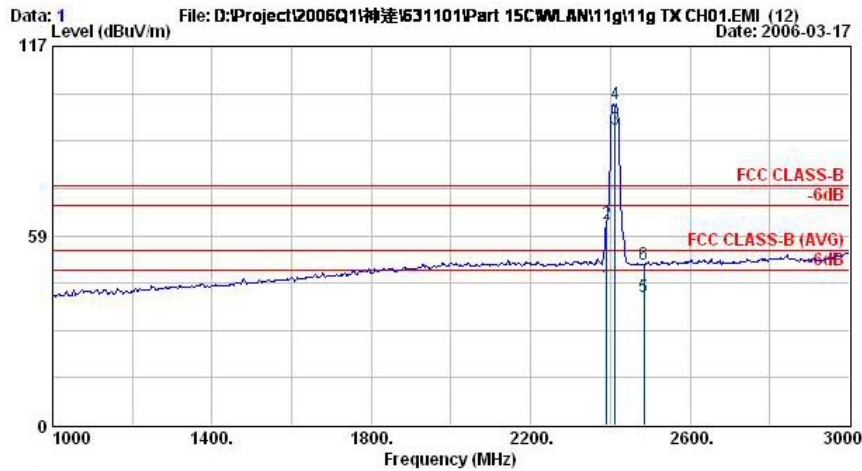


FCC TEST REPORT

Report No. : FR631101

- Test Mode : Mode 4
- Polarization : Horizontal

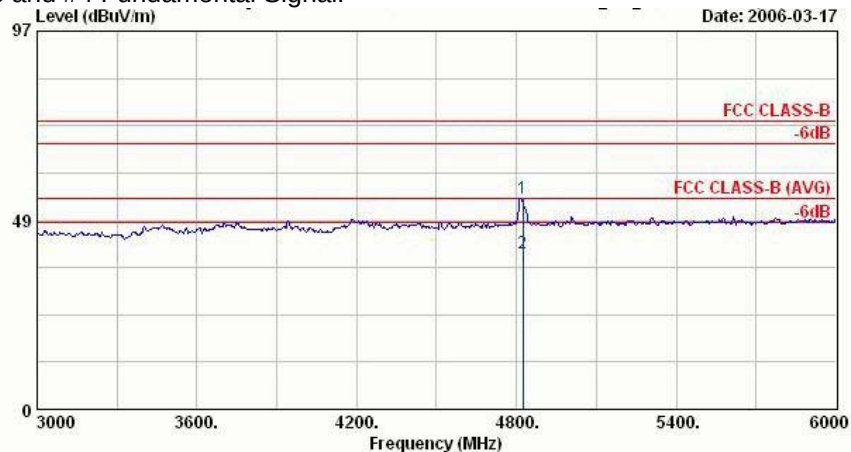
The test that passed at minimum margin was marked by the frame in the following table.



Site : 03CH06-HY
Condition : HF-ANT-071025-940201 HORIZONTAL
EUT : GPS Bluetooth PDA
Power : 120Vac/60Hz
Model : FR631101
Memo : 11g TX_CH01,2412MHz
Plane : E1

	Freq	Level	Over	Limit	ReadAntenna	Preamp	Cable	Ant	Table	
	MHz	dBuV/m	Limit	Line	Level	Factor	Factor	Loss	Pos	Pos
			dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	2390.00	43.09	-10.91	54.00	43.80	30.48	35.46	4.26	100	36
2	2390.00	62.06	-11.94	74.00	62.77	30.48	35.46	4.26	100	360
3 @	2412.00	91.24			91.96	30.47	35.46	4.26	100	36
4 X	2412.00	99.35			100.08	30.47	35.46	4.26	100	360
5	2483.50	39.38	-14.62	54.00	40.12	30.41	35.51	4.36	100	36
6	2483.50	49.60	-24.40	74.00	50.34	30.41	35.51	4.36	100	360

Remark: #3 and #4 Fundamental Signal.



Site : 03CH06-HY
Condition : HF-ANT-071025-940201 HORIZONTAL
EUT : GPS Bluetooth PDA
Power : 120Vac/60Hz
Model : FR631101
Memo : 11g TX_CH01,2412MHz
Plane : E1

	Freq	Level	Over	Limit	ReadAntenna	Preamp	Cable	Ant	Table	
	MHz	dBuV/m	Limit	Line	Level	Factor	Factor	Loss	Pos	Pos
			dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	4824.00	53.97	-20.03	74.00	50.70	33.16	36.10	6.21	200	0
2	4824.00	39.92	-14.08	54.00	36.58	33.21	36.12	6.24	153	161