



FCC / IC TEST REPORT

for

47 CFR Part 15 Subpart C and IC RSS-210

Equipment : Notebook Computer
Trade Name : Fujitsu Siemens Computers, Fujitsu Limited
Model No. : E83XX (X maybe any alphanumeric character or blank)
FCC ID : EJE-WB0048
IC ID : 337J-WB0048
Filing Type : Certification
Applicant : Fujitsu Limited
4-1-1 Kamikodanaka, Nakahara-ku, Kawasaki-shi, Kanagawa, 211-8588, Japan

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- The data shown in this test report were carried out on May 12, 2007 at **Sporton International Inc. LAB.**
- Report No.: FR6D2906-A, Report Version: Rev. 01

Roy Wu
Deputy Manager

SPORTON International Inc.

6F, No.106, Sec. 1, Hsin Tai Wu Rd., Hsi Chih, Taipei Hsien, Taiwan, R.O.C.

SPORTON International Inc.

TEL : 886-2-2696-2468

FAX : 886-2-2696-2255

Report Version: Rev. 01



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History of this test report

Report Issue Date: May 14, 2007

Report No.	Description



1. General Description of Equipment under Test

1.1 Applicant

Fujitsu Limited

4-1-1 Kamikodanaka, Nakahara-ku, Kawasaki-shi, Kanagawa, 211-8588, Japan

1.2 Manufacturer

Fujitsu Siemens Computers GmbH

Buergermeister-Ulrich-Str. 100, 86199 Augsburg, Germany

1.3 Basic Description of Equipment under Test

Equipment	: Notebook Computer
Trade Name	: Fujitsu Siemens Computers, Fujitsu Limited
Model No.	: E83XX (X maybe any alphanumeric character or blank)
FCC ID	: EJE-WB0048
IC ID	: 337J-WB0048
Power Supply Type	: Switching
AC Power Cord	: AC 120V, 1.2 meter, 2 pin
Adapter	: FUJITSU LIMITED, SEC100P2-19.0
Battery	: FUJITSU LIMITED, FPCBP145

1.4 Feature of Equipment under Test

Product Feature & Specification				
1. Type of Modulation	WLAN : DSSS / OFDM BT : GFSK / 1/4DQPSK / 8DPSK			
2. Number of Channels	802.11b/g : 11 Channels 802.11a : 5 Channels (Band III) / 4 Channels (Band I) BT : 79 Channels			
3. Frequency Band	802.11b/g : 2400MHz ~ 2483.5MHz 802.11a : 5150 ~ 5250MHz (Band I) / 5725MHz ~ 5850MHz (Band III) BT : 2400MHz ~ 2483.5MHz			
4. Carrier Frequency of each channel	802.11b/g : 2412MHz+(n-1)*5MHz, n=1~11 802.11a Band III : 5000+n*5 MHz, n=149, 153, 157, 161, 165 802.11a Band I : 5000+n*5 MHz, n=36, 40, 44, 48 BT : 2402MHz+n*1MHz, n=0~78			
5. Channel Spacing	802.11b/g : 5MHz 802.11a : 20MHz BT : 1MHz			
6. Maximum Output Power to Antenna (Normal Condition)	802.11b : 20.68 dBm / 802.11g: 22.28 dBm 802.11a : 16.50 dBm (Band I) / 19.20 dBm (Band III) BT : 0.49 dBm / BT(EDR) : 1.27 dBm			
7. Type of Antenna Connector	I-PEX			
8. Antenna Type	PIFA			
9. Antenna Gain	802.11b/g : 3 dBi 802.11a : 3 dBi BT : 3 dBi			
10. HW Version	A02			
11. SW Version	R15			
12. Function Type	Transmitter		Transceiver	V

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.

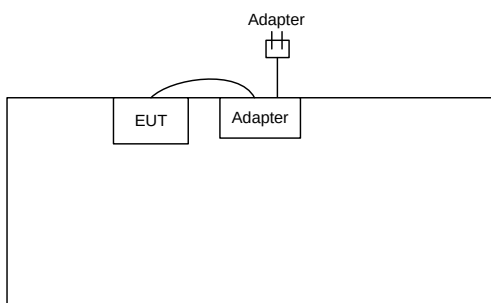
2.2 Test Mode

Application				
Radiated Emission	802.11b	802.11g	802.11a	BT
	Mode 1: CH01_2412 MHz	Mode 4: CH01_2412 MHz	Mode 7: CH149_5745MHz	Mode 10: CH00_EDR_2402 MHz
	Mode 2: CH06_2437 MHz	Mode 5: CH06_2437 MHz	Mode 8: CH157_5785MHz	Mode 11: CH39_EDR_2441 MHz
	Mode 3: CH11_2462 MHz	Mode 6: CH11_2462 MHz	Mode 9: CH165_5825MHz	Mode 12: CH78_EDR_2480 MHz
	Mode 13: CH78_2480 MHz			
Conducted Emission	Mode 14: BT Tx CH78_2480 MHz + 802.11g Tx CH01_2412 MHz			
	Mode 1: BT Link + WLAN Link + Adapter			

Remark:

- We chose the test mode 10 ~ 12 for Bluetooth test, as the EDR,8DPSK with packet type 3-DH5 was the maximum output power than others ,GFSK, and 1/4DQPSK.
- The test mode 13 was for data rate 1Mbps with DH 5 data format and chosen from the worst channel of mode 10 through 12, Bluetooth Enhance Data Rate (EDR).

2.3 Connection Diagram of Test System



**2.4 Ancillary Equipment List**

Item	Asset	Model Name	Power Cord
1.	Bluetooth Earphone (Free Style)	JD-100	N/A
2.	WLAN AP (SMC)	SMC-100	AC 100-240V



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 : CO04-HY, 03CH06-HY, 03CH04-HY

4.1 Test Voltage

120V / 60Hz

4.2 Standard for Methods of Measurement

ANSI C63.4-2003

4.3 Test in Compliance with

47 CFR Part 15 Subpart C and IC RSS-210 Issue 6

4.4 Frequency Range Investigated

- a. Conduction: from 150 kHz to 30 MHz
- b. Radiation: from 30 MHz to 25000 MHz for 802.11b/g and Bluetooth
- c. Radiation: from 30 MHz to 40000 MHz for 802.11a

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	IC Rule	Description of Test	Result
15.207	RSS-Gen 7.2.2	Conducted Emission	Pass
15.247(a)(2)	A8.2 (1)	6dB & 20dB Bandwidth	Pass
15.247(b)	A8.4 (4)	Maximum Peak Output Power	Pass
15.209(a)	2.6	Radiated Emission	Pass
15.247 (c)	A8.5	100kHz Bandwidth of Frequency Band Edges	Pass
15.247(d)	A8.2 (2)	Power Spectral Density	Pass
15.203 15.247(b)(4)	A8.4 (6)	Antenna Requirement	Pass

**The Emission Mode: Bluetooth**

FCC Rule	IC Rule	Description of Test	Result
15.207	A8.1 (2)	Conducted Emission	Pass
15.247(a) (1)	A8.1 (4)	Hopping Channel Bandwidth	Pass
15.247(a)(1)	A8.1 (1)	Hopping Channel Separation	Pass
15.247(a)(1)(iii)	A8.1 (4)	Number of Hopping Frequency Used	Pass
15.247(a)(1)(iii)	A8.4 (2)	Dwell Time of Each Frequency	Pass
15.247(b)	A8.5	Output Power	Pass
15.247(c)	RSS-Gen 7.2.2	100kHz Bandwidth of Frequency Band Edges	Pass
15.209(a)	2.6	Radiated Emission	Pass
15.203 15.247(b)(4)	A8.4 (6)	Antenna Requirement	Pass

5.2 6dB Bandwidth Measurement

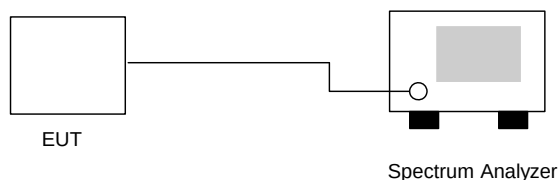
5.2.1 Measuring Instruments :

As described in chapter 6 of this test report.

5.2.2 Test Procedure :

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

5.2.3 Test Setup Layout :



5.2.4 Test Result :

- Application Type : WLAN 802.11b/g
- Temperature : 23°C
- Relative Humidity : 47%
- Test Enginner : James

802.11b

Channel	Frequency (MHz)	6dB Emission bandwidth (MHz)	Limits (MHz)	Plot Ref. No.
01	2412	8.12	> 0.5MHz	Mode 1
06	2437	8.12	> 0.5MHz	Mode 2
11	2462	8.08	> 0.5MHz	Mode 3

802.11g

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

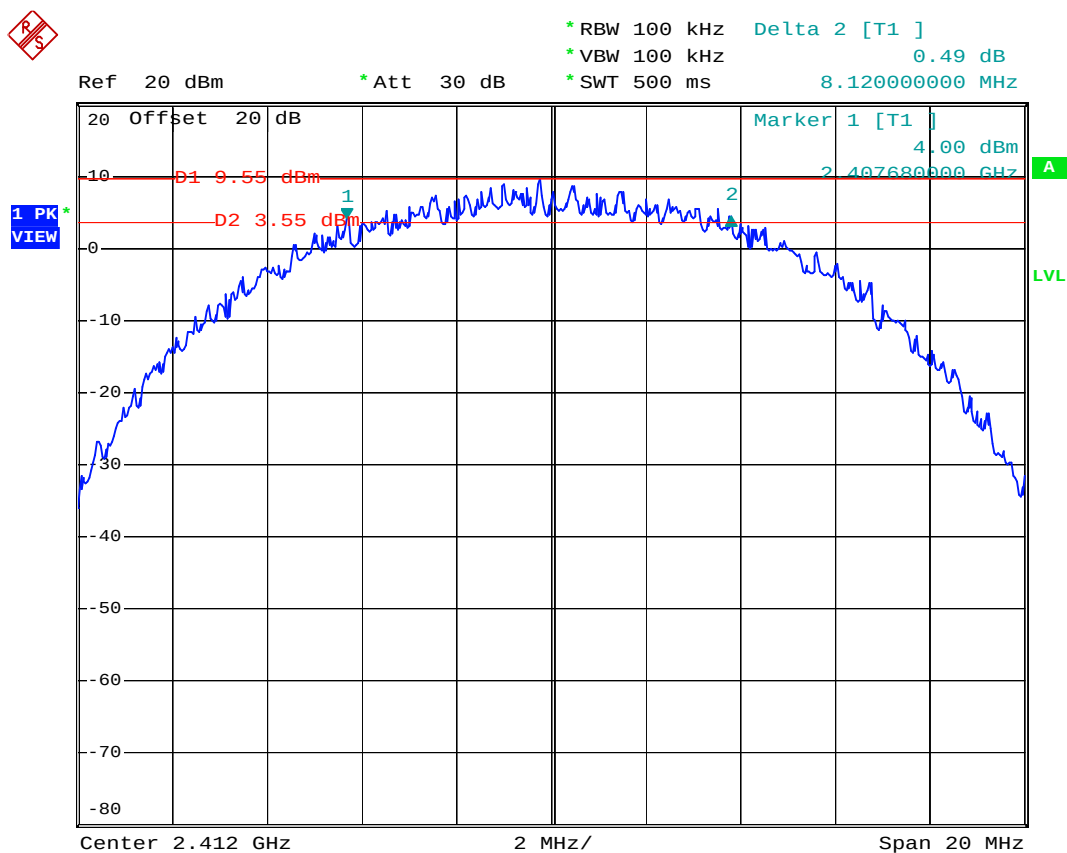
802.11a

Channel	Frequency (MHz)	6dB Emission bandwidth (MHz)	Limits (MHz)	Plot Ref. No.
149	5745	16.40	> 0.5MHz	Mode 7
159	5785	16.44	> 0.5MHz	Mode 8
165	5825	16.40	> 0.5MHz	Mode 9



5.2.5 6dB Bandwidth

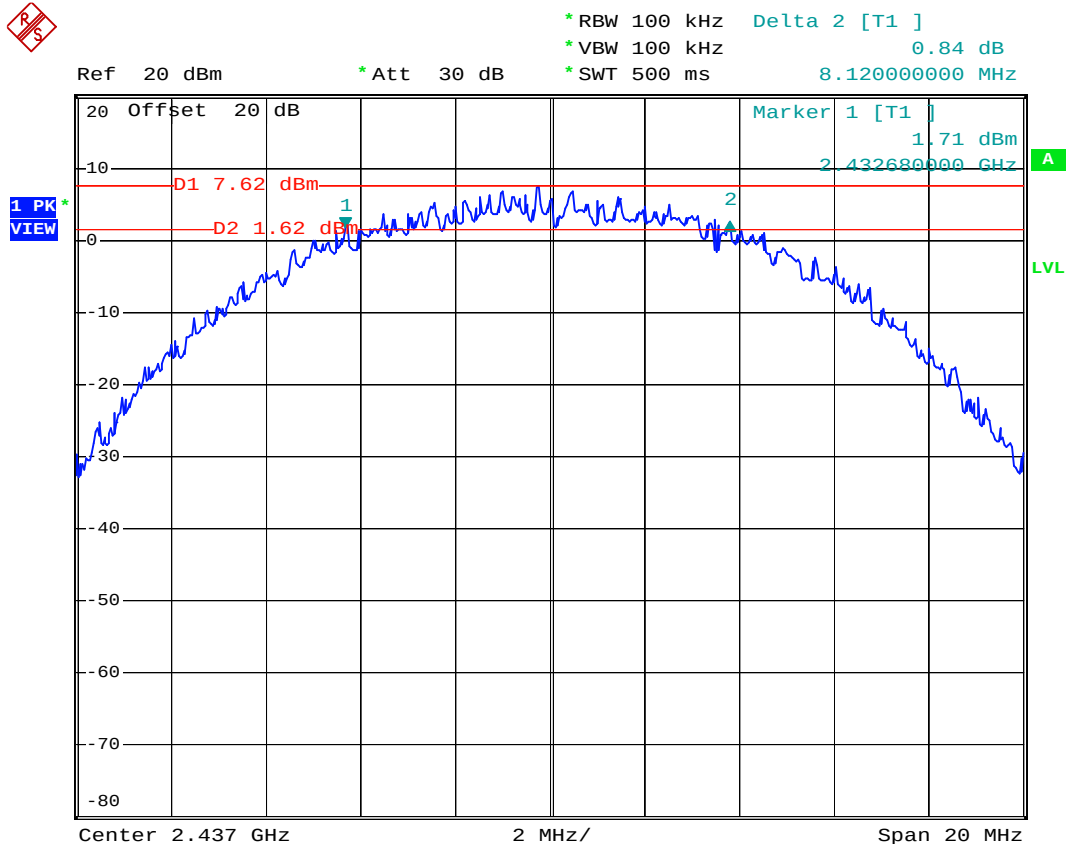
Mode 1



Date: 30.APR.2007 09:48:03



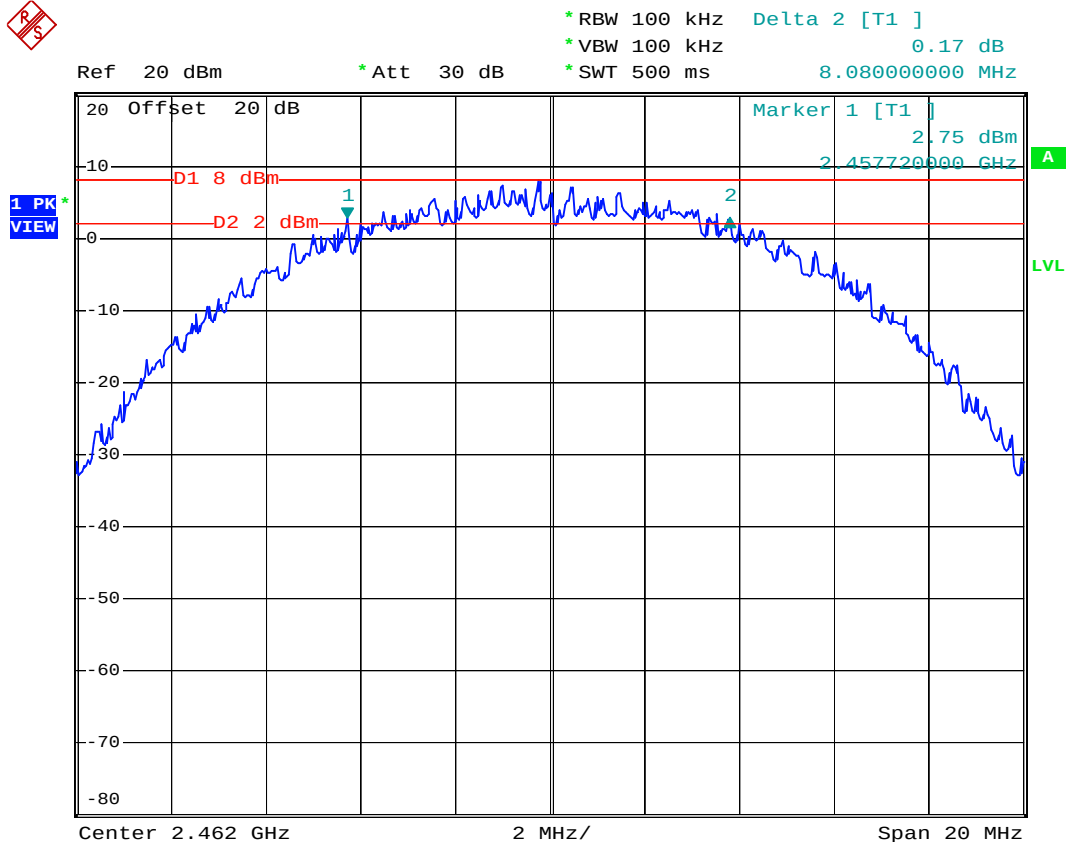
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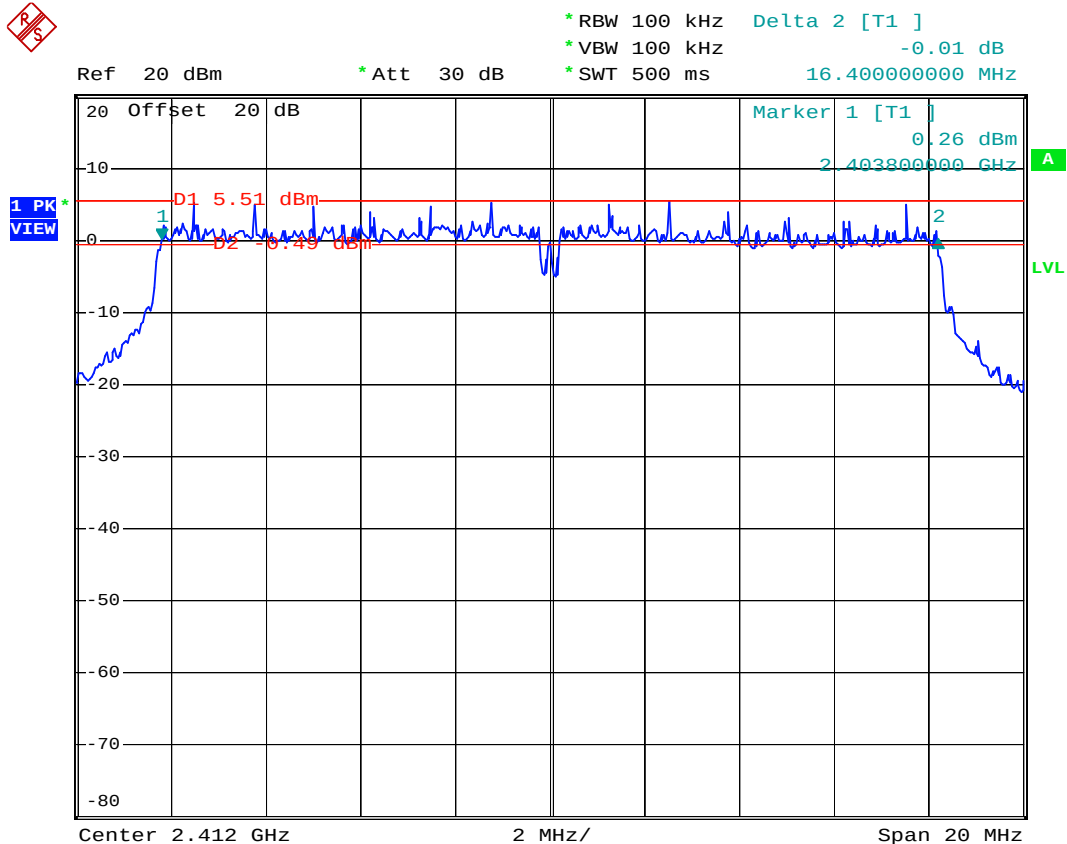
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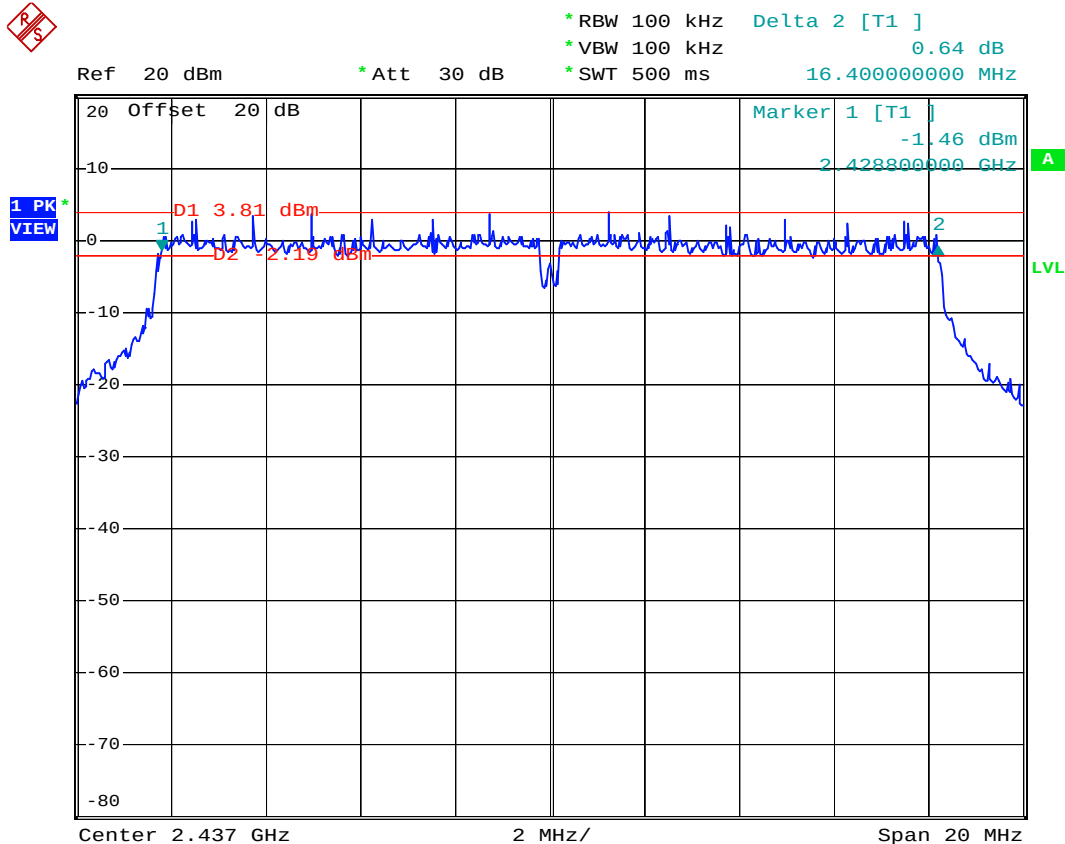
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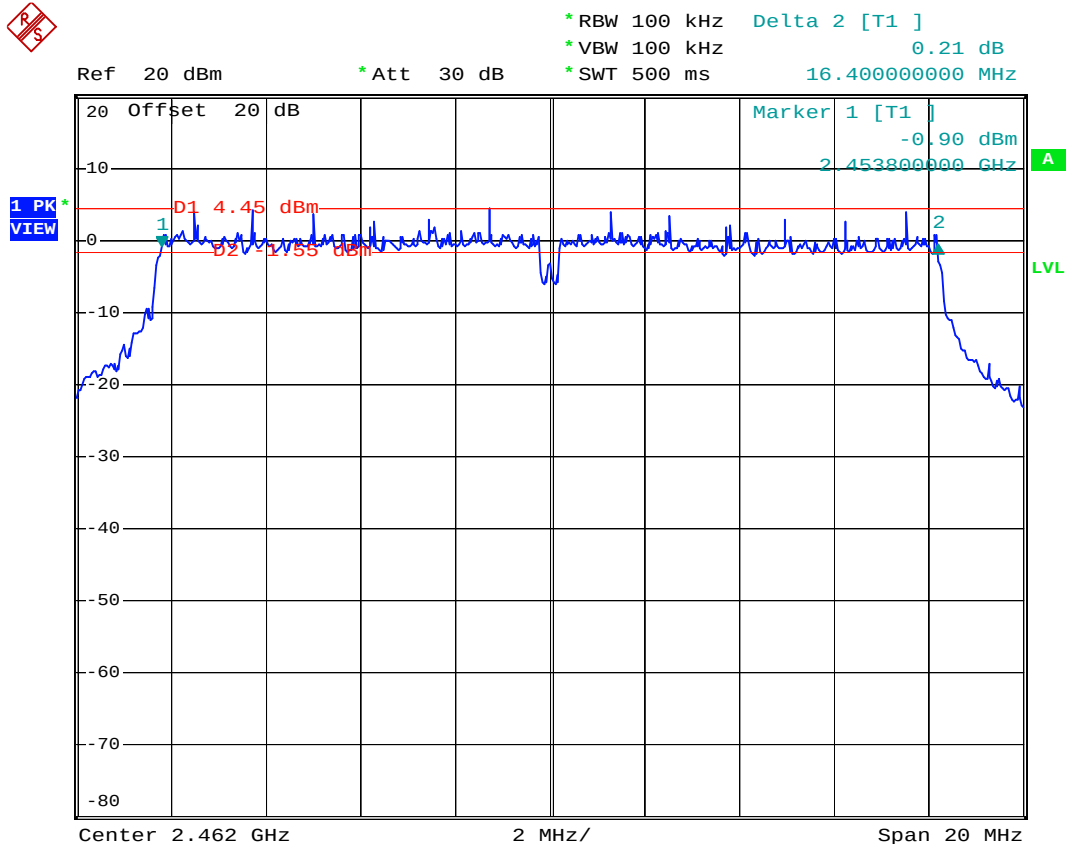
Mode 5



Date: 30.APR.2007 11:51:00



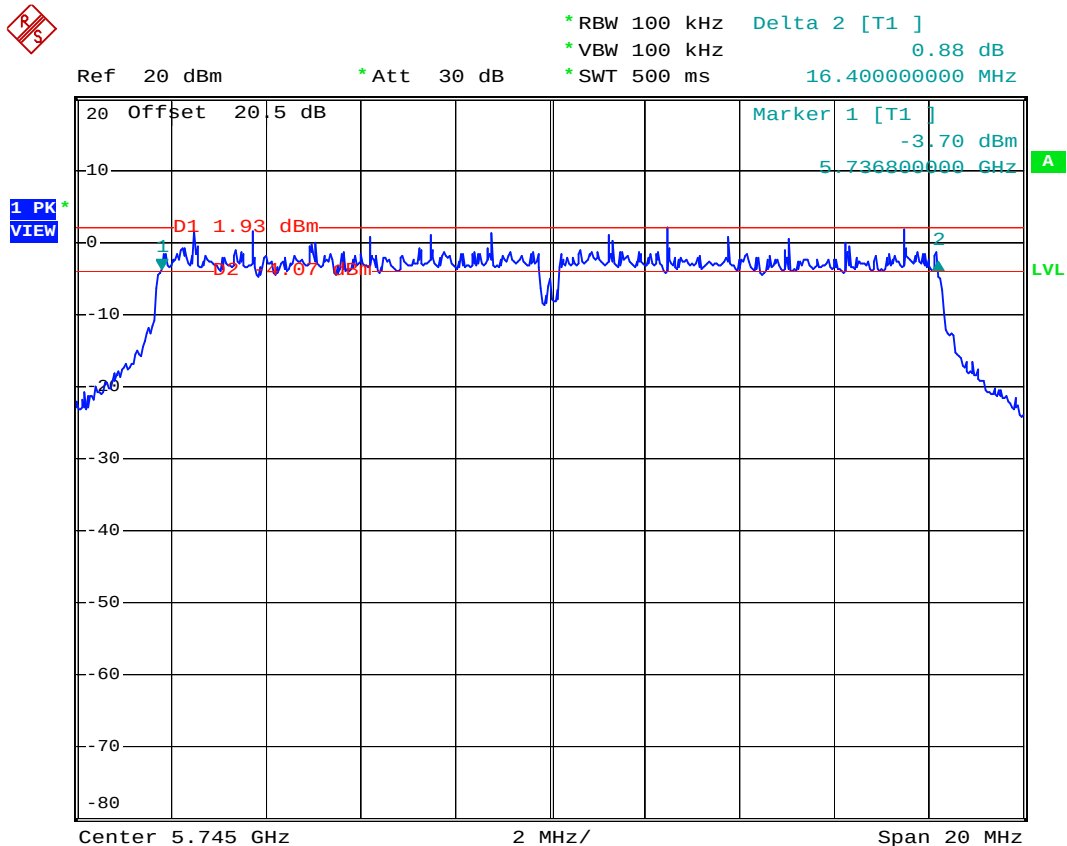
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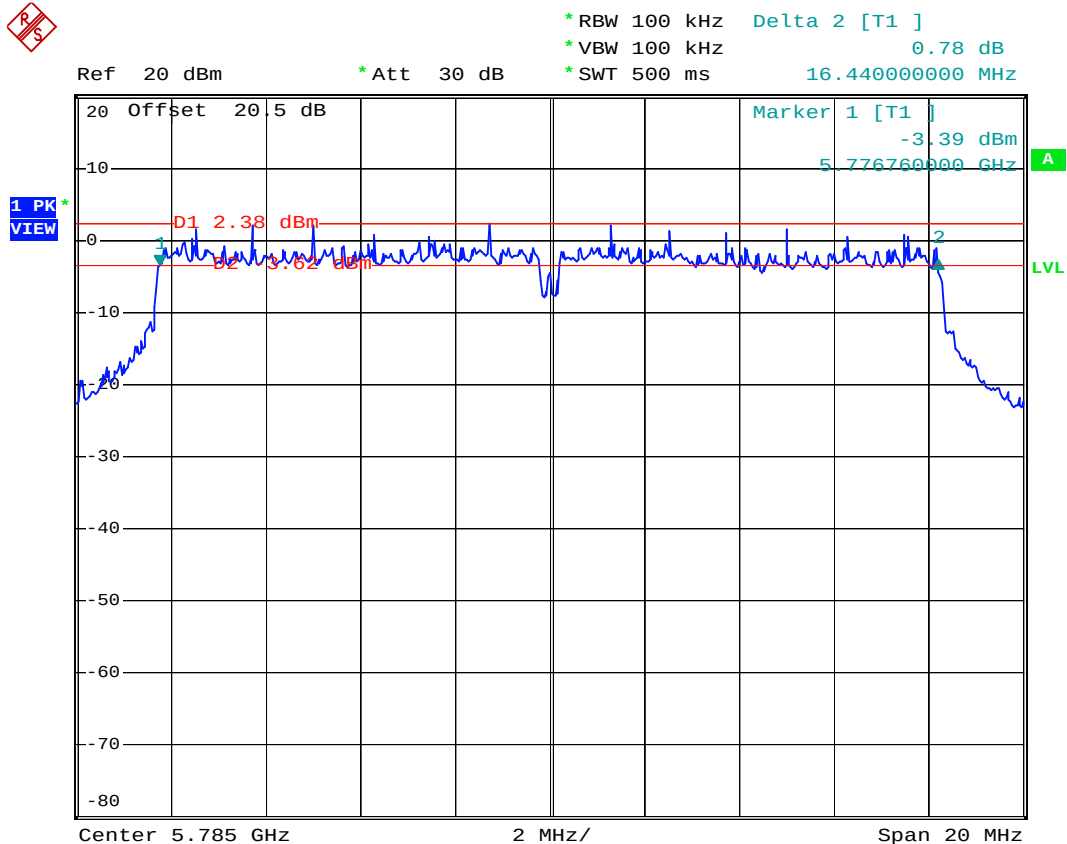
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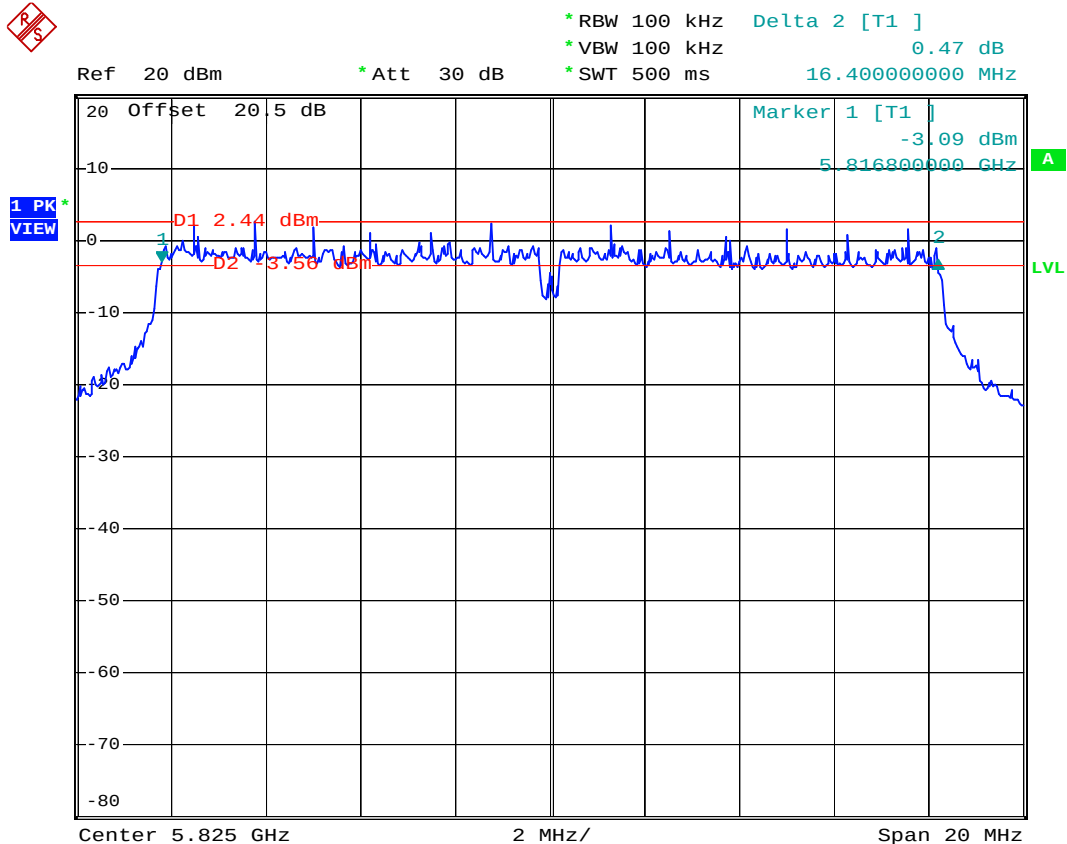
Mode 8



Date: 30.APR.2007 12:05:17



Mode 9



Date: 30.APR.2007 12:06:26

5.3 Power Spectral Density Measurement

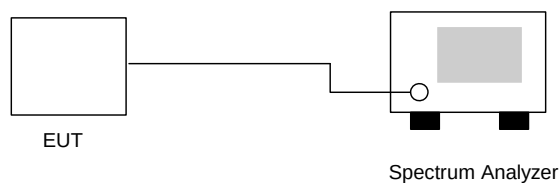
5.3.1 Measuring Instruments :

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 : 23°C
- Relative Humidity : 47%
- Test Enginner : James

802.11b

Channel	Frequency (MHz)	Power Spectral Density (dBm)	Limits (dBm)	Plot Ref. No.
01	2412	-4.77	8	Mode 1
06	2437	-6.06	8	Mode 2
11	2462	-5.99	8	Mode 3

802.11g

Channel	Frequency (MHz)	Power Spectral Density (dBm)	Limits (dBm)	Plot Ref. No.
01	2412	-4.05	8	Mode 4
06	2437	-5.92	8	Mode 5
11	2462	-5.82	8	Mode 6

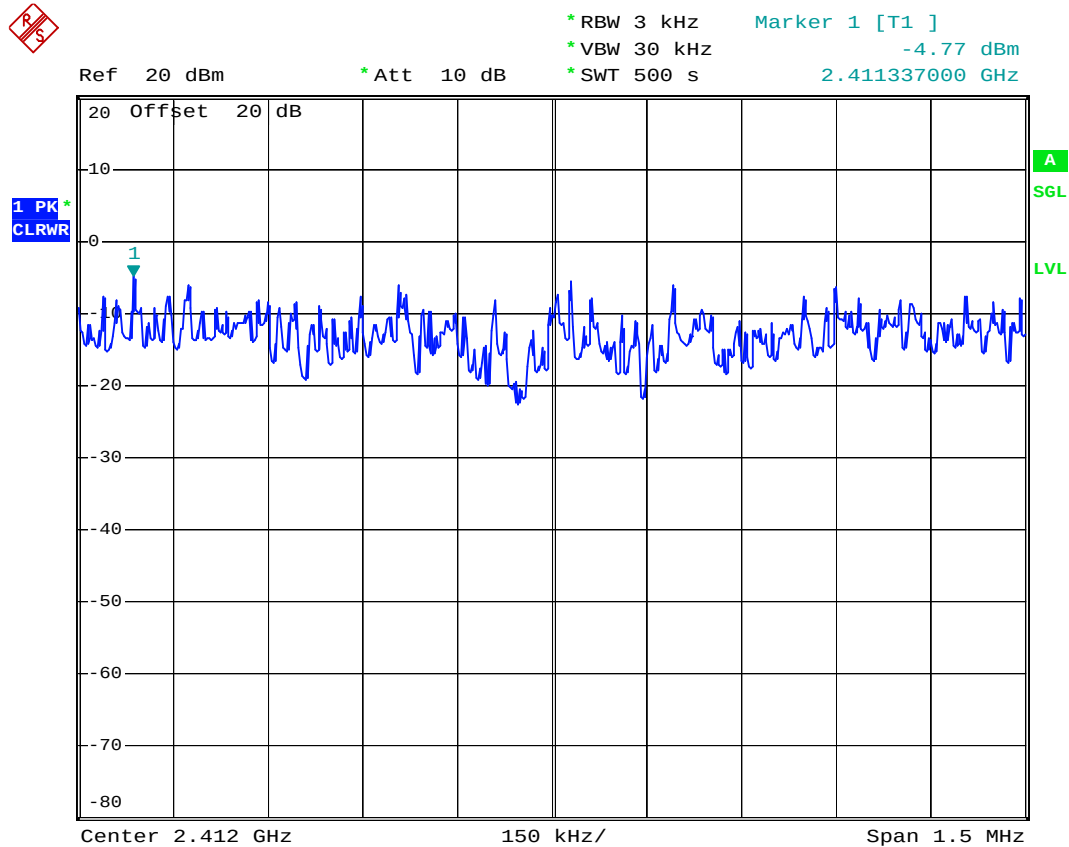
802.11a

Channel	Frequency (MHz)	Power Spectral Density (dBm)	Limits (dBm)	Plot Ref. No.
149	5745	-9.16	8	Mode 7
157	5785	-9.22	8	Mode 8
165	5825	-10.98	8	Mode 9



5.3.5 Power Spectral Density

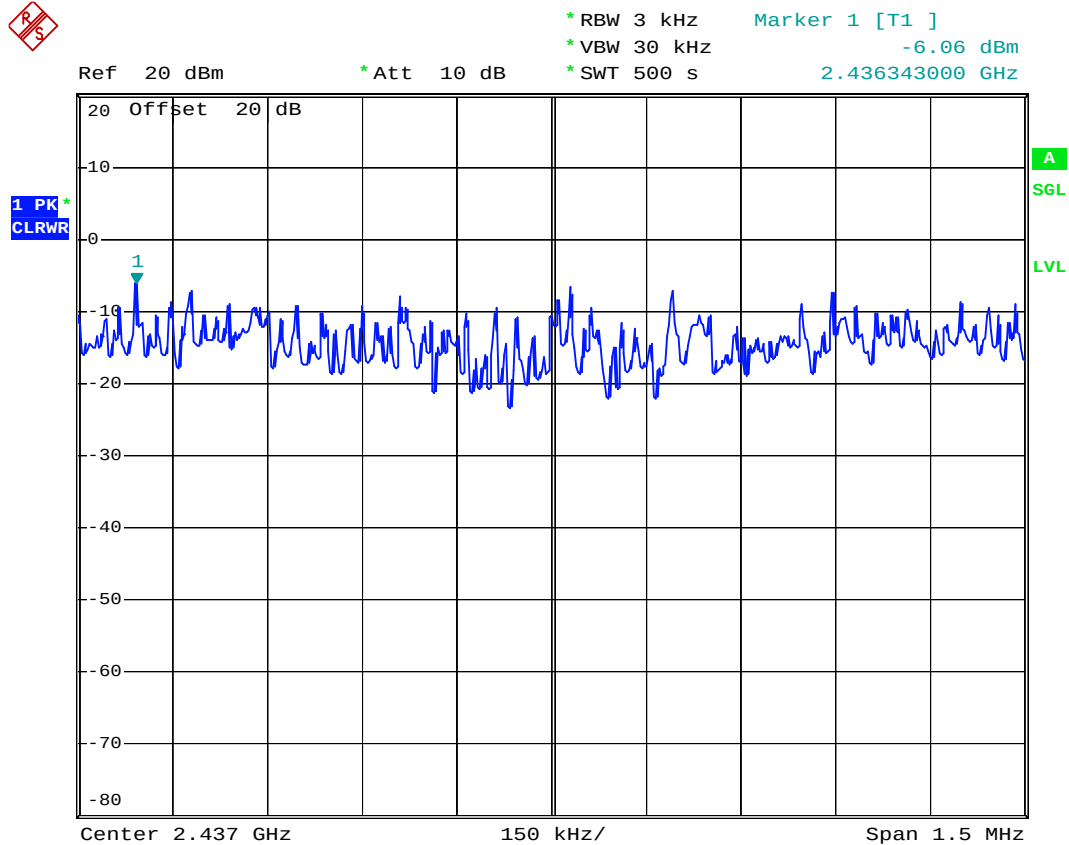
Mode 1



Date: 30.APR.2007 10:07:38



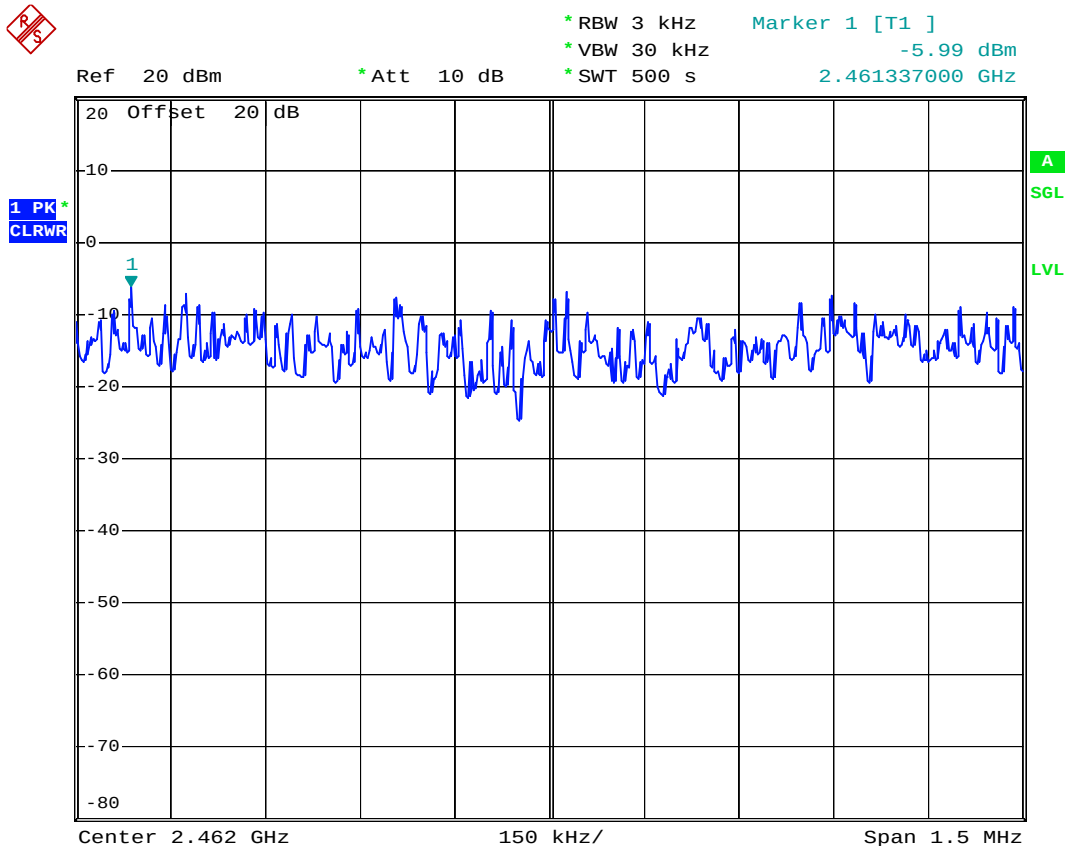
Mode 2



Date: 30.APR.2007 10:17:06



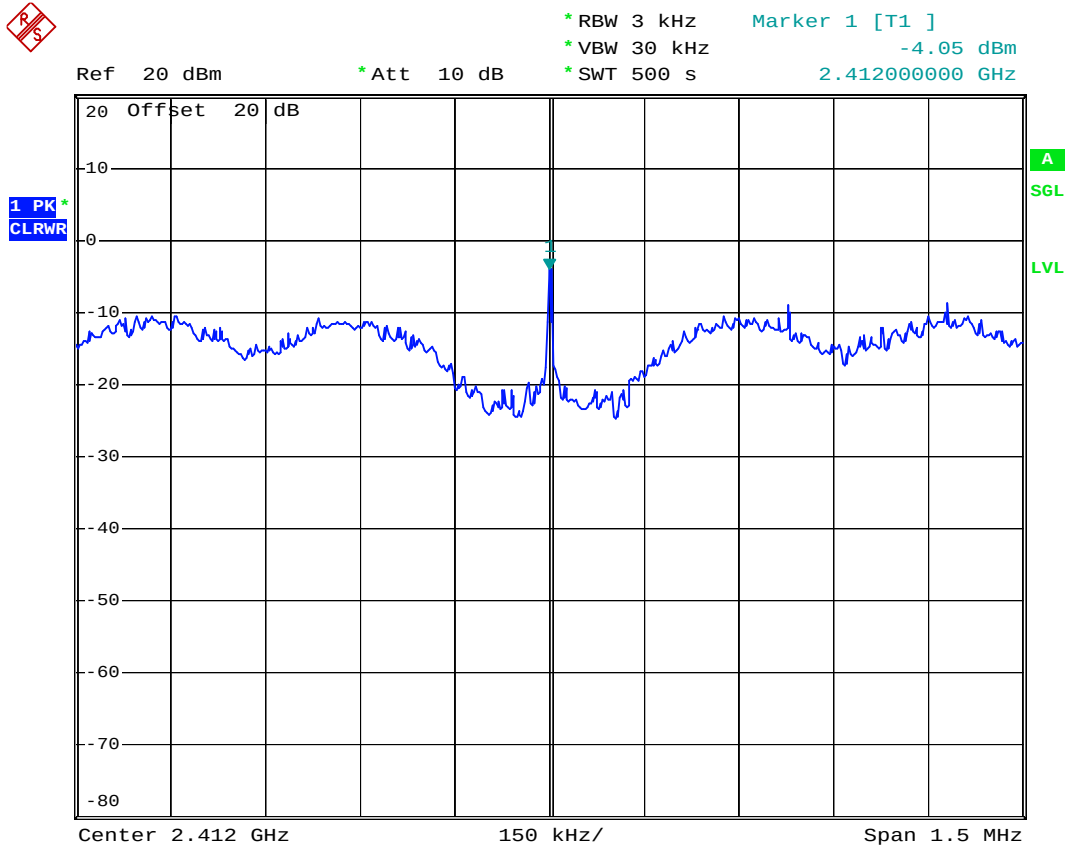
Mode 3



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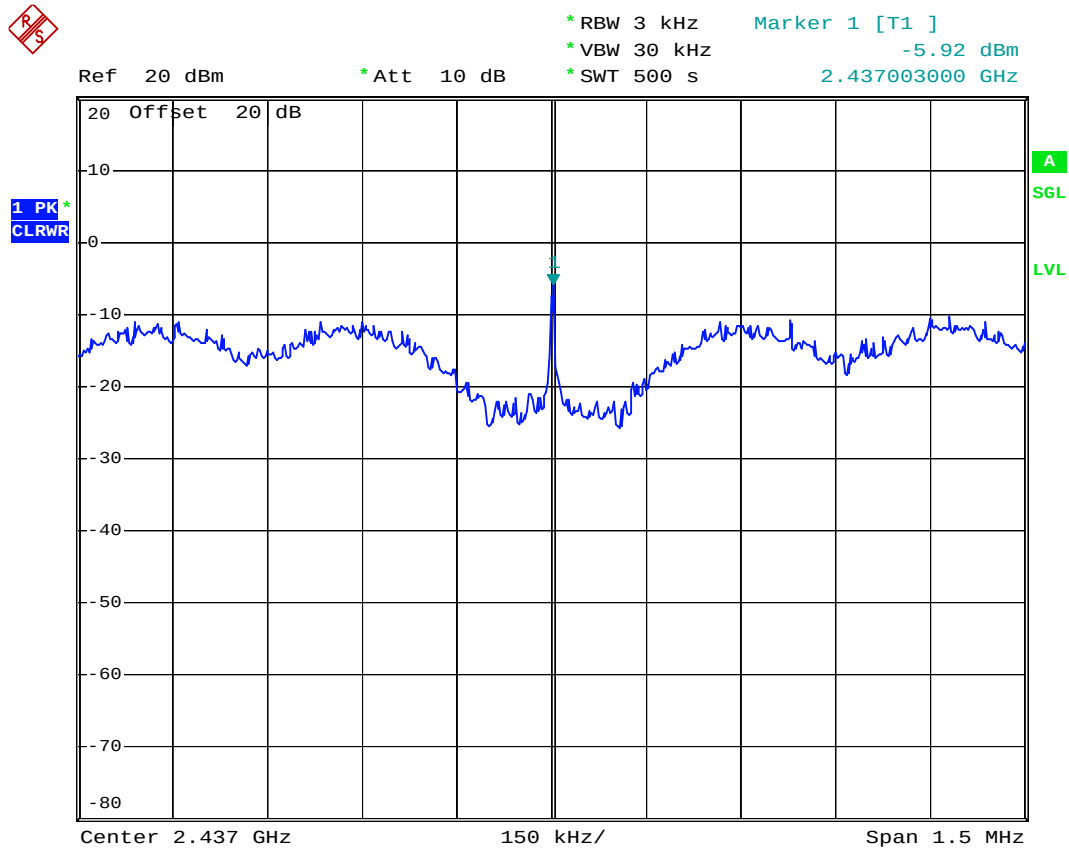
Mode 4



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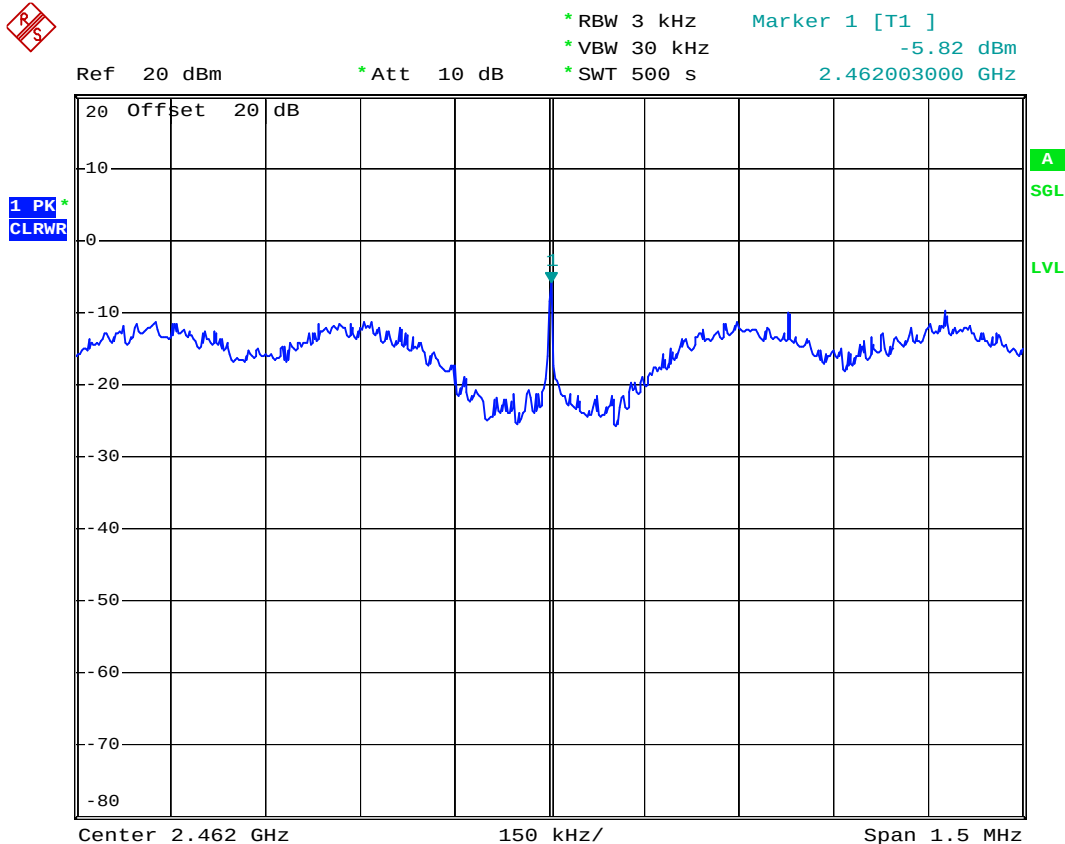
Mode 5



Date: 30.APR.2007 11:17:22



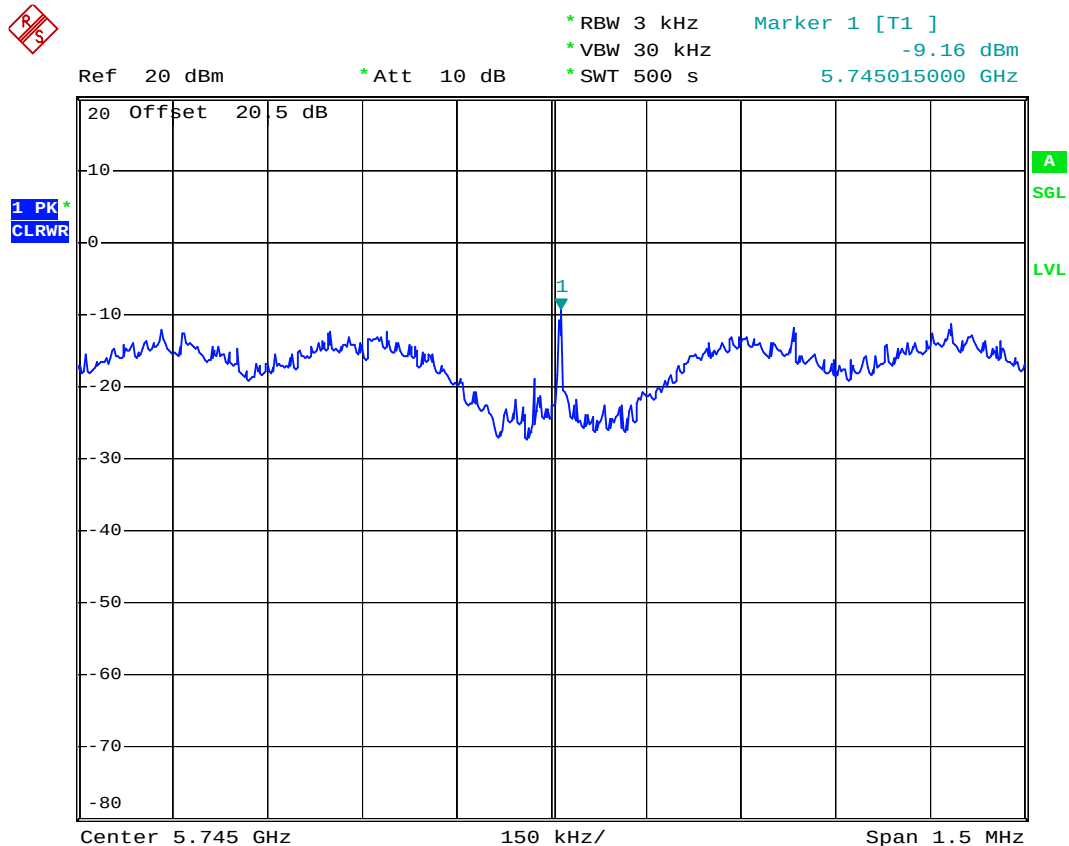
Mode 6



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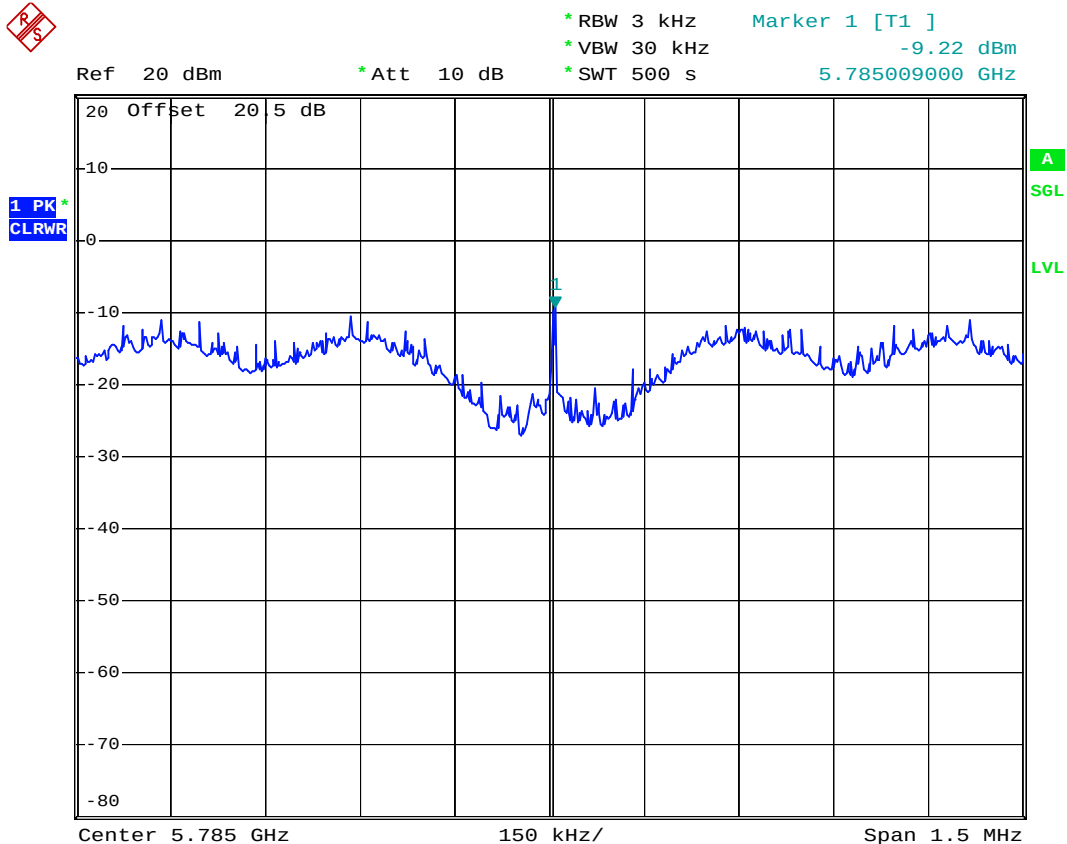
Mode 7



Date: 30.APR.2007 12:29:09



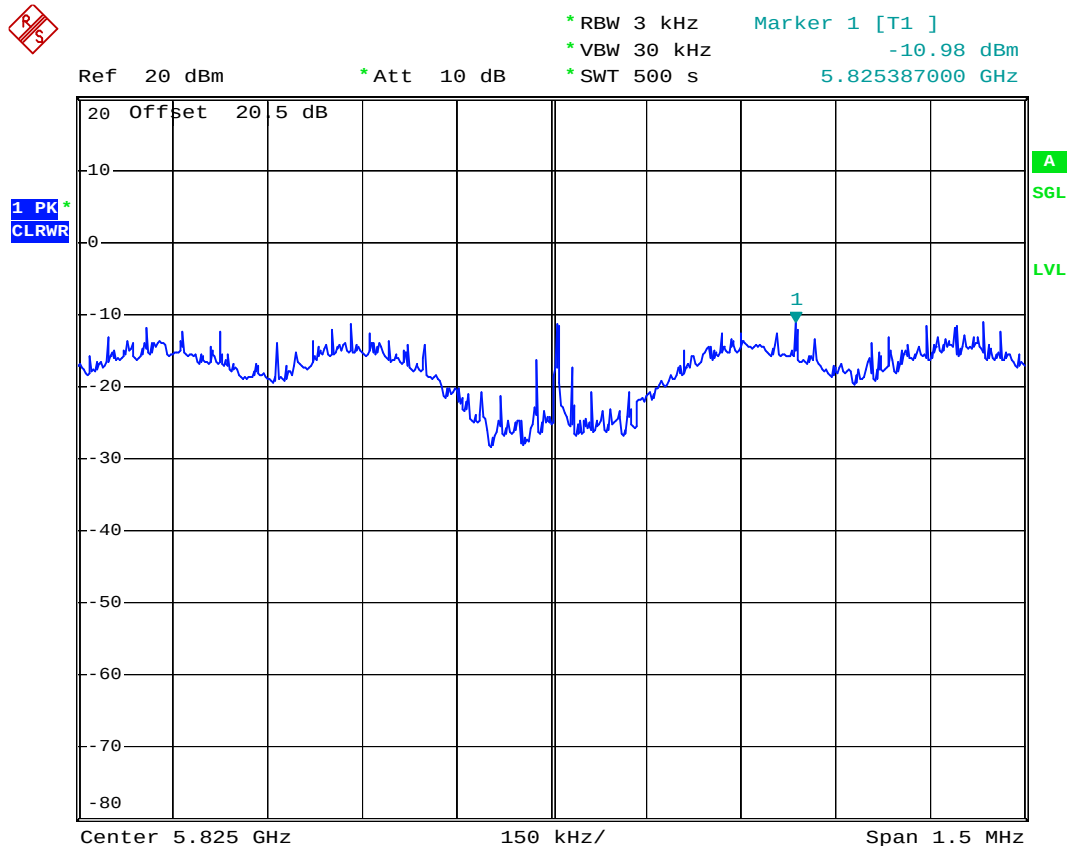
Mode 8



Date: 30.APR.2007 14:00:48



Mode 9



Date: 30.APR.2007 14:39:51



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 : 23°C
- Relative Humidity : 47%
- Test Enginner : James

- Test Result in WLAN lower band (802.11b/g) : PASS
- Test Result in WLAN higher band (802.11b/g) : PASS
- Test Result in WLAN lower band (802.11a Band III) : PASS
- Test Result in WLAN higher band (802.11a Band III) : PASS
- Test Result in BT lower band : PASS
- Test Result in BT higher band : PASS

**5.4.4 Note on Band Edge Emission :****➤WLAN 802.11b****CH01 (Horizontal)**

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	63.92	-10.08	74.00	65.37	30.26	3.75	35.46	100	360	Peak
2390.00	49.90	-4.10	54.00	51.35	30.26	3.75	35.46	106	245	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)	
2324.00	53.96	-20.04	74.00	55.45	30.23	3.69	35.40	100	360	Peak
2324.00	38.07	-15.93	54.00	39.56	30.23	3.69	35.40	100	119	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	57.36	-16.64	74.00	58.72	30.29	3.86	35.51	100	360	Peak
2483.50	49.14	-4.86	54.00	50.50	30.29	3.86	35.51	100	245	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	53.45	-20.55	74.00	54.81	30.29	3.86	35.51	100	360	Peak
2483.50	47.93	-6.07	54.00	49.29	30.29	3.86	35.51	100	268	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)	
2389.92	53.60	-0.40	54.00	55.05	30.26	3.75	35.46	100	248	Average
2389.92	70.60	-3.40	74.00	72.05	30.26	3.75	35.46	100	360	Peak



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)	
2389.92	66.52	-7.48	74.00	67.97	30.26	3.75	35.46	100	360	Peak
2389.92	47.71	-6.29	54.00	49.16	30.26	3.75	35.46	100	269	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	68.31	-5.69	74.00	69.67	30.29	3.86	35.51	100	360	Peak
2483.50	50.06	-3.94	54.00	51.42	30.29	3.86	35.51	100	245	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	44.67	-9.33	54.00	46.03	30.29	3.86	35.51	100	269	Average
2483.50	64.10	-9.90	74.00	65.46	30.29	3.86	35.51	100	360	Peak

➤BT_EDR

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)	
2324.00	31.25	-22.75	54.00	30.64	30.71	3.66	33.77	100	298	Average
2324.00	51.12	-22.88	74.00	50.51	30.71	3.66	33.77	100	0	Peak

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)	
2326.00	36.12	-17.88	54.00	35.51	30.71	3.66	33.77	104	90	Average
2326.00	58.00	-16.00	74.00	57.39	30.71	3.66	33.77	100	0	Peak

**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	41.52	-12.48	54.00	41.05	30.43	3.84	33.80	100	114	Average
2483.50	52.34	-21.66	74.00	51.87	30.43	3.84	33.80	100	0	Peak

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	62.06	-11.94	74.00	61.59	30.43	3.84	33.80	100	0	Peak
2483.50	49.84	-4.16	54.00	49.37	30.43	3.84	33.80	105	91	Average

➤BT**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	52.27	-21.73	74.00	51.80	30.43	3.84	33.80	100	0	Peak
2483.50	45.77	-8.23	54.00	45.30	30.43	3.84	33.80	100	276	Average

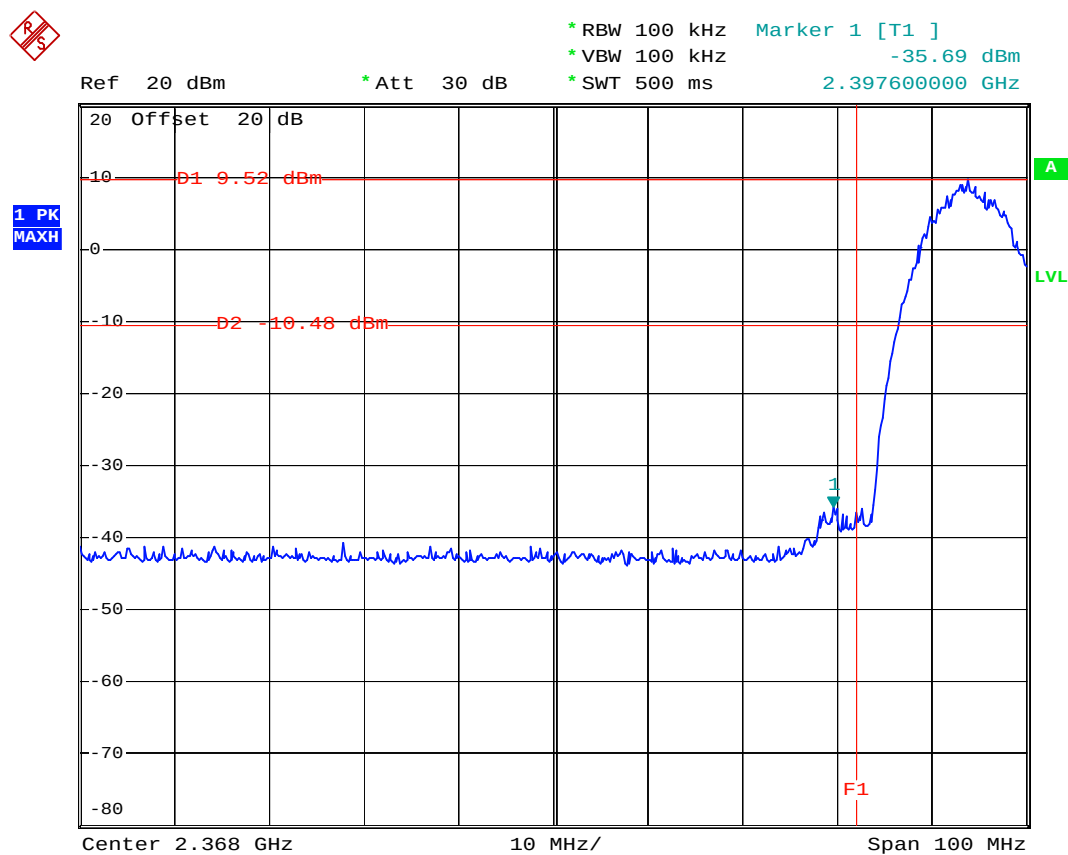
CH78 (Vertical)

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	57.36	-16.64	74.00	56.89	30.43	3.84	33.80	100	0	Peak
2483.50	50.44	-3.56	54.00	49.97	30.43	3.84	33.80	108	90	Average

5.4.5 20dB Band Edge

WLAN 802.11b

CH01



Date: 30.APR.2007 09:54:37

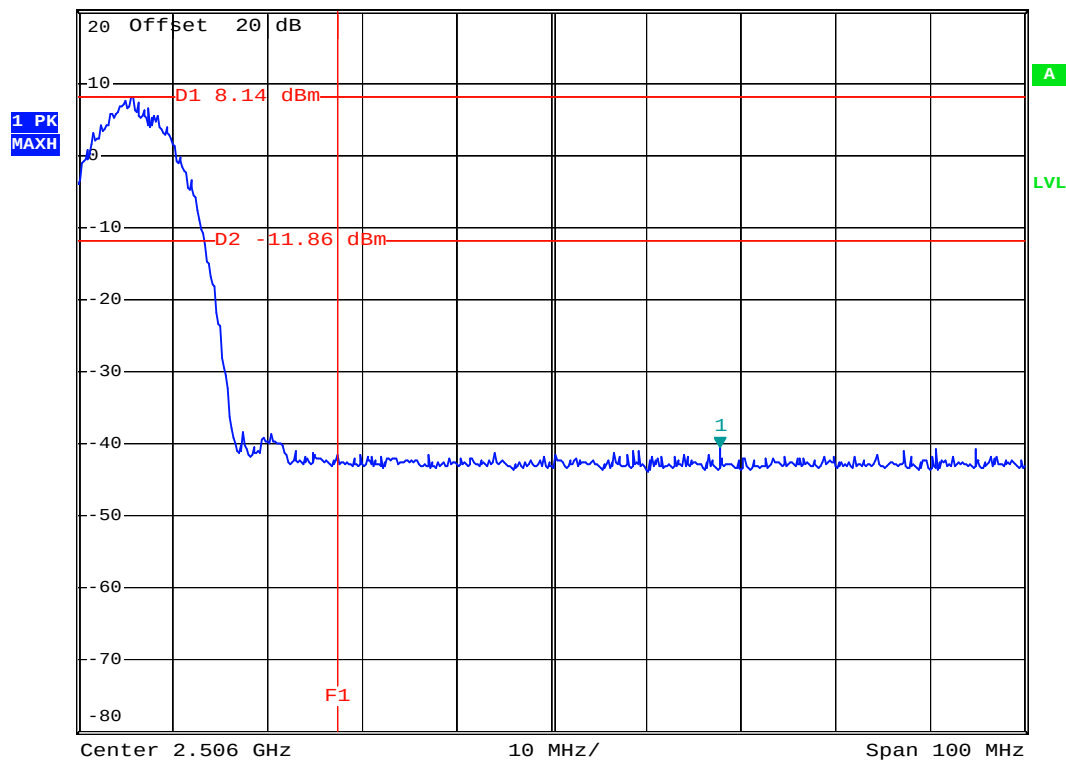


CH11



* RBW 100 kHz Marker 1 [T1]
* VBW 100 kHz -40.61 dBm
* SWT 500 ms 2.523800000 GHz

Ref 20 dBm * Att 30 dB

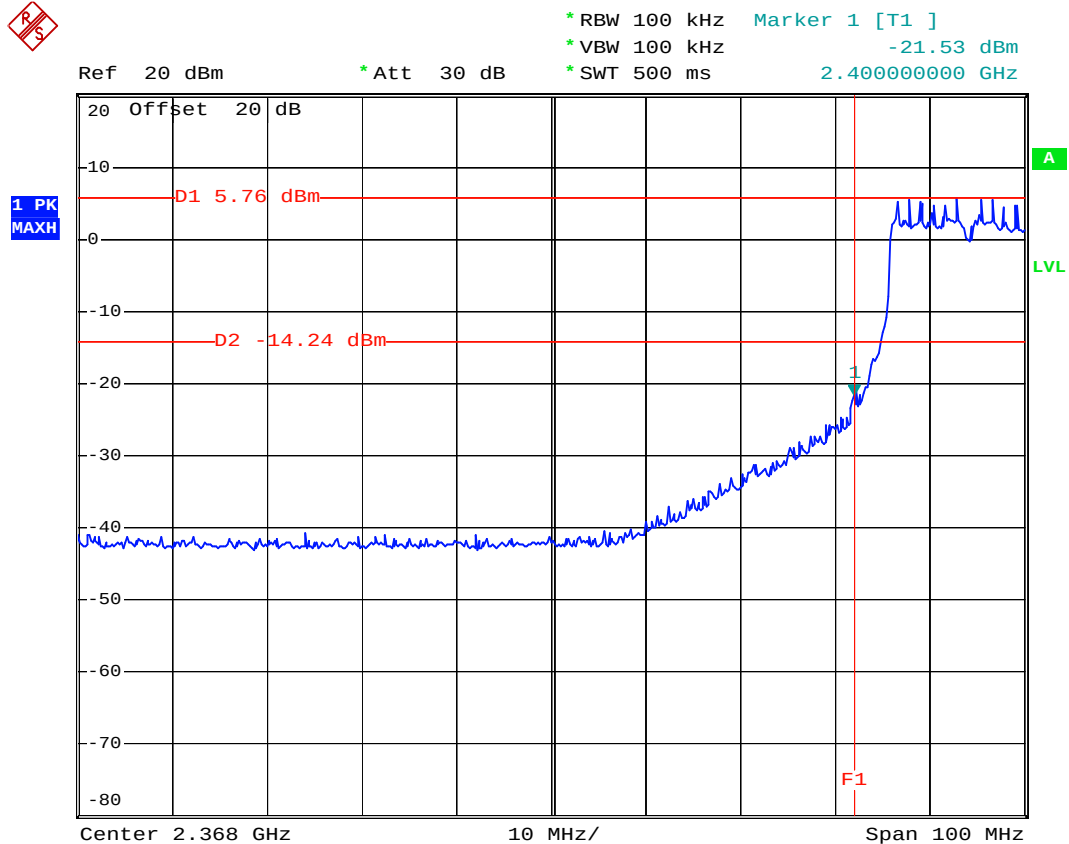


Date: 30.APR.2007 09:56:24



WLAN 802.11g

CH01



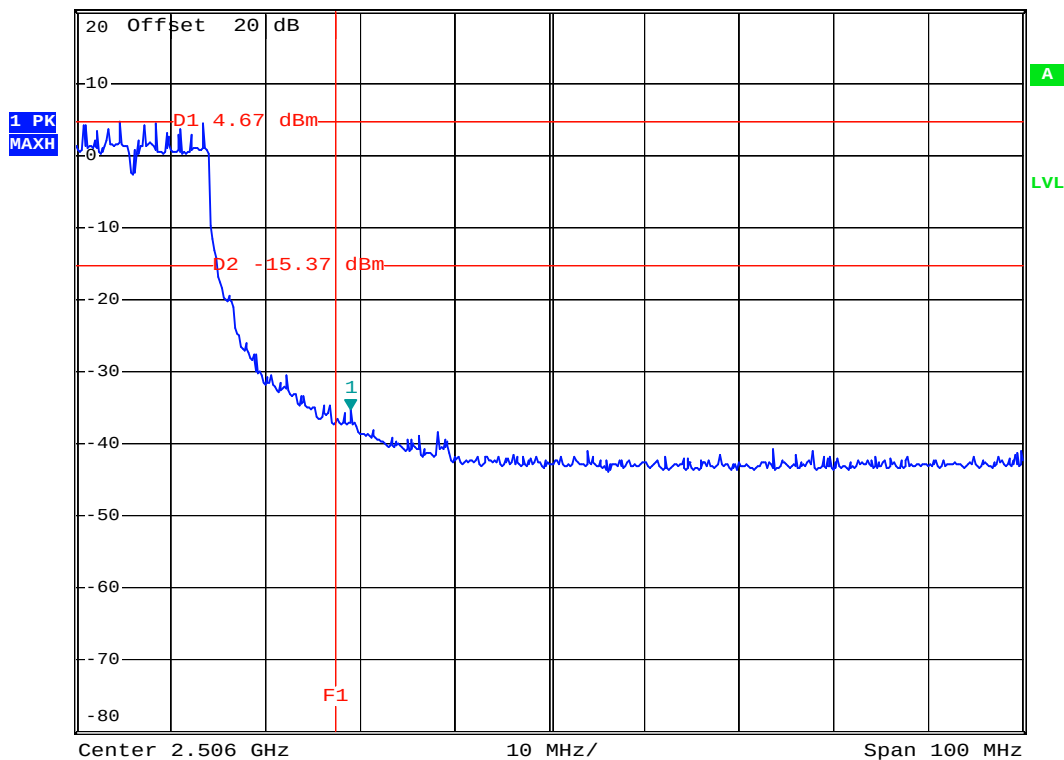
Date: 30.APR.2007 11:58:45



CH11



Ref 20 dBm * Att 30 dB * RBW 100 kHz Marker 1 [T1]
* VBW 100 kHz -35.28 dBm
* SWT 500 ms 2.485000000 GHz



Date: 30.APR.2007 11:47:29

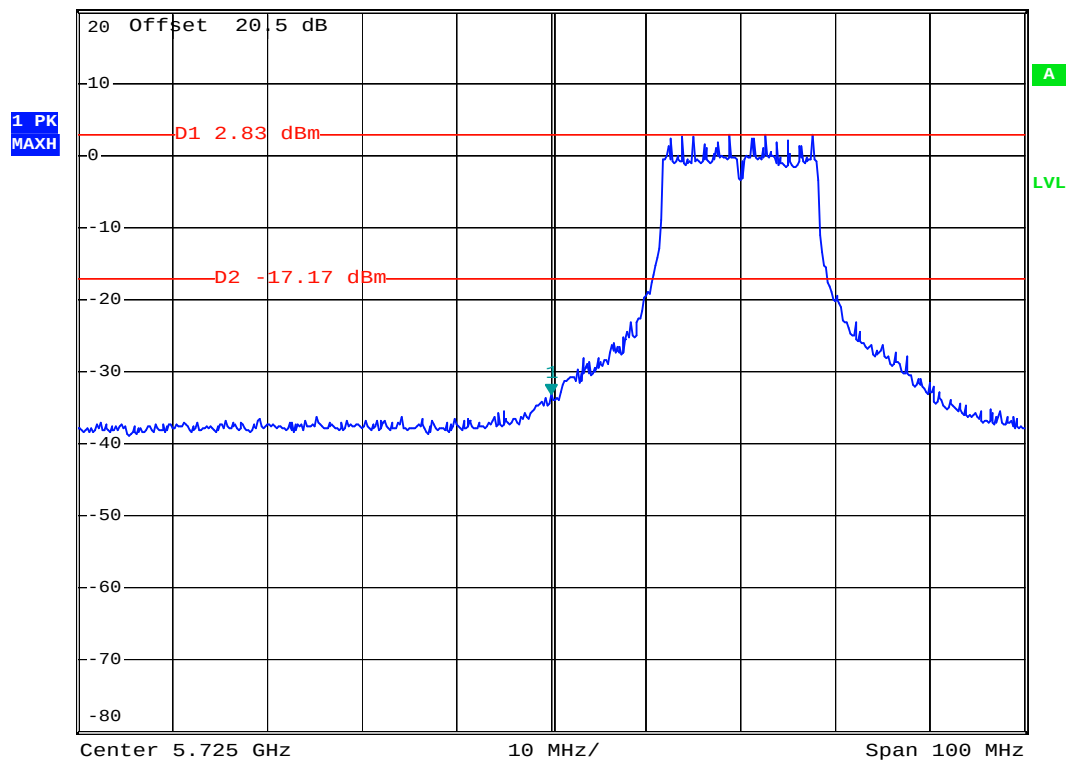


WLAN 802.11a

CH149



Ref 20 dBm * Att 30 dB * RBW 100 kHz Marker 1 [T1] -33.08 dBm
* VBW 100 kHz * SWT 500 ms 5.725000000 GHz



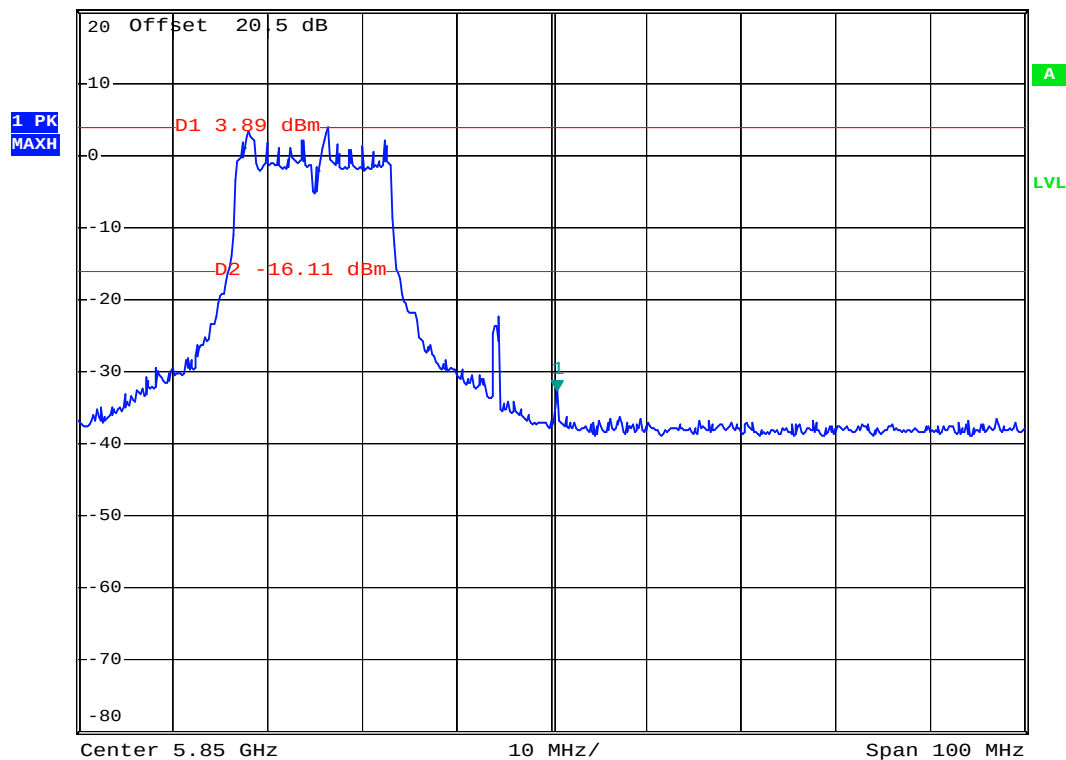
Date: 30.APR.2007 12:13:08



CH165



Ref 20 dBm * Att 30 dB * RBW 100 kHz Marker 1 [T1]
* VBW 100 kHz -32.57 dBm
* SWT 500 ms 5.850600000 GHz

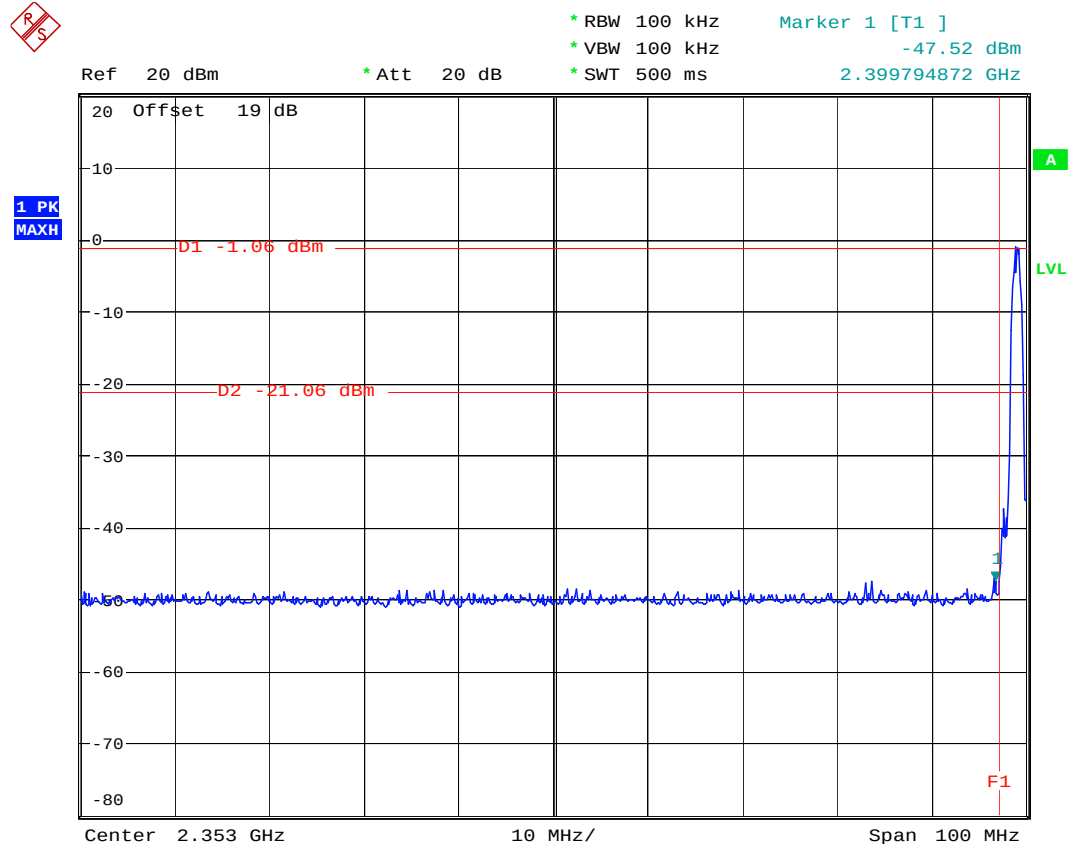


Date: 30.APR.2007 12:11:16



Bluetooth_EDR

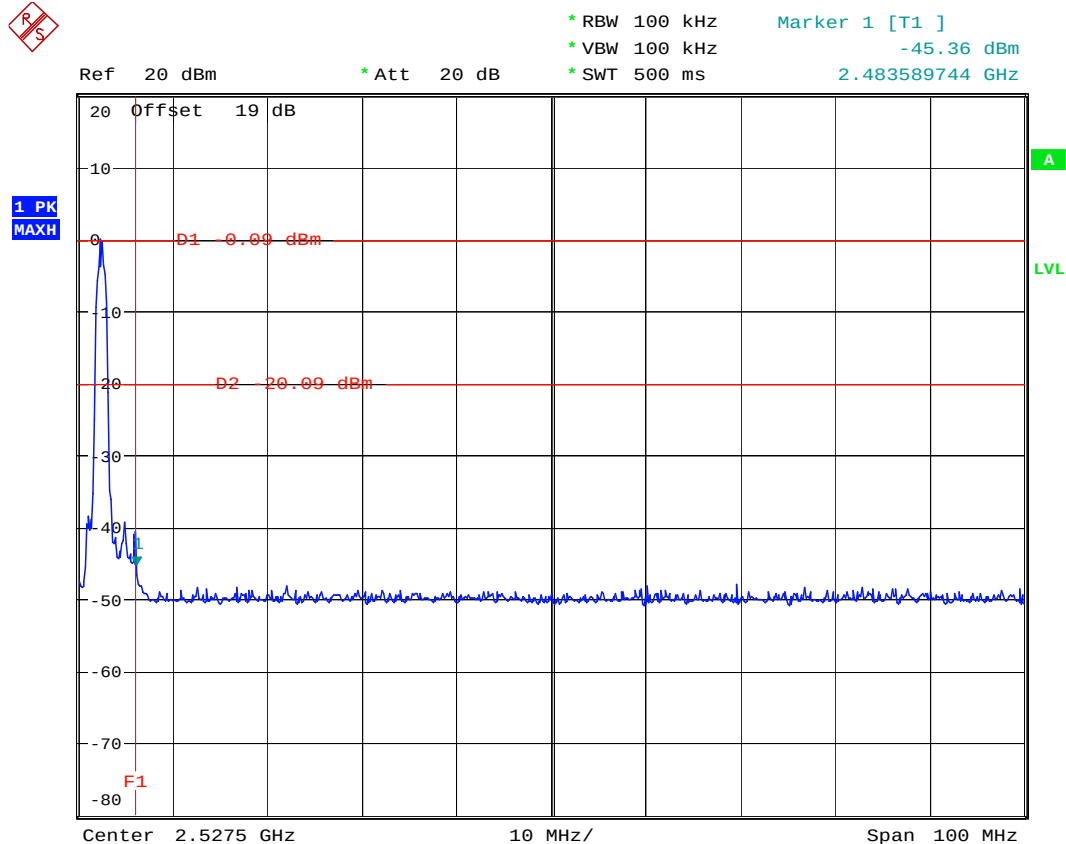
CH00



Date: 10.MAY.2007 15:49:18



CH78

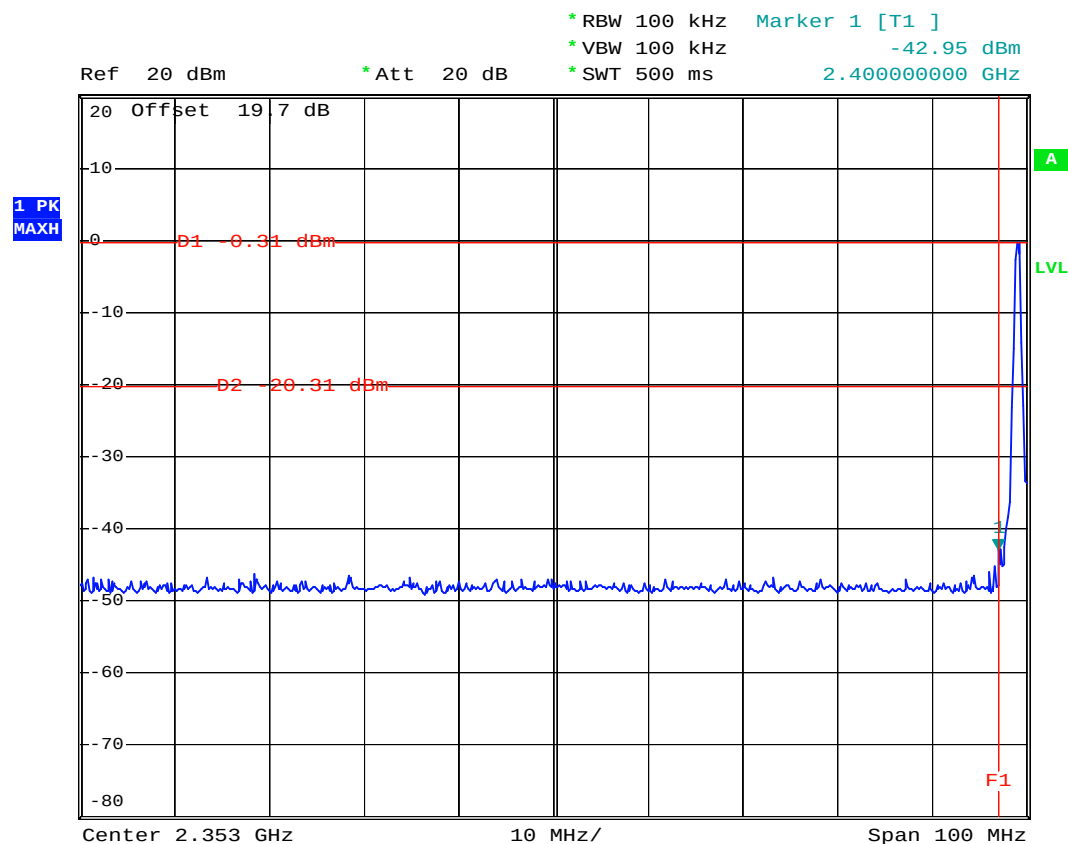


Date: 10.MAY.2007 15:50:26



Bluetooth

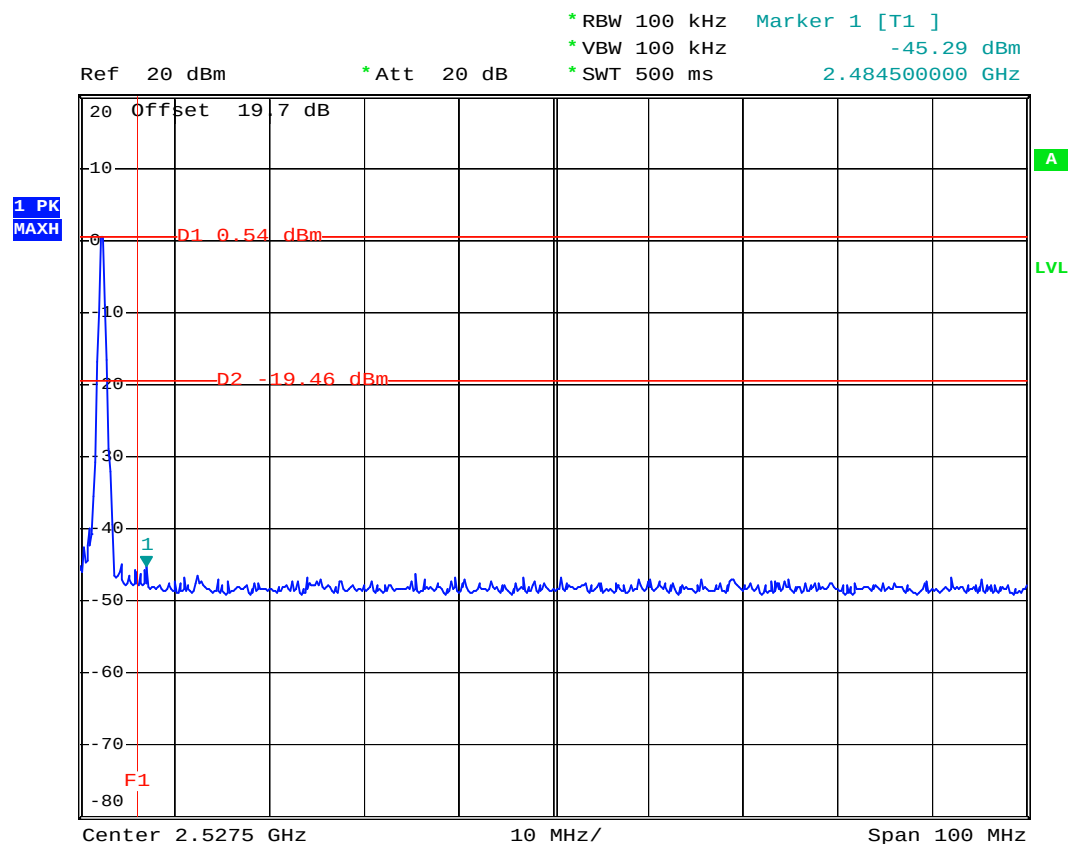
CH00



Date: 9.MAY.2007 22:45:19



CH78



Date: 9.MAY.2007 22:46:30

5.5 Hopping Channel Separation

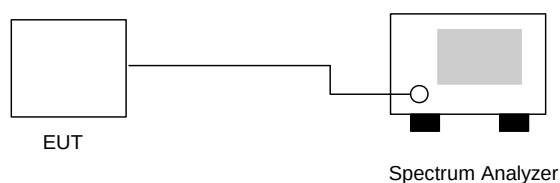
5.5.1 Measuring Instruments :

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 : 23°C
- Relative Humidity : 47%
- Test Enginner : James

➤ BT_EDR

Channel	Carrier Frequency		Limits	Plot
	Frequency (MHz)	Separation (MHz)		
00	2402	1.000	1.256	Mode 1
39	2441	1.000	1.250	Mode 2
78	2480	1.000	1.260	Mode 3

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

**➤ BT**

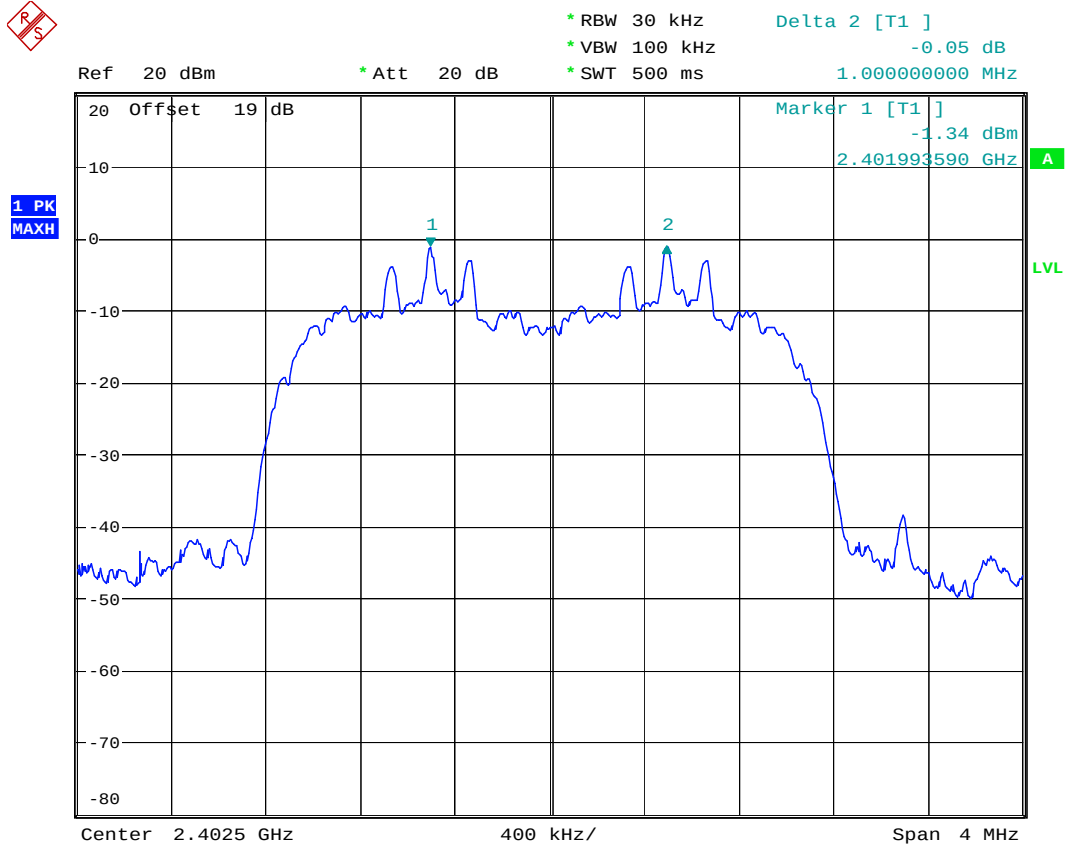
Channel	Carrier Frequency		Limits	Plot
	Frequency	Separation		
	(MHz)	(MHz)	(MHz)	Ref. No.
00	2402	1.000	0.828	Mode 4
39	2441	1.000	0.824	Mode 5
78	2480	1.004	0.814	Mode 6

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



5.5.5 Hopping Channel Separation

Mode 1



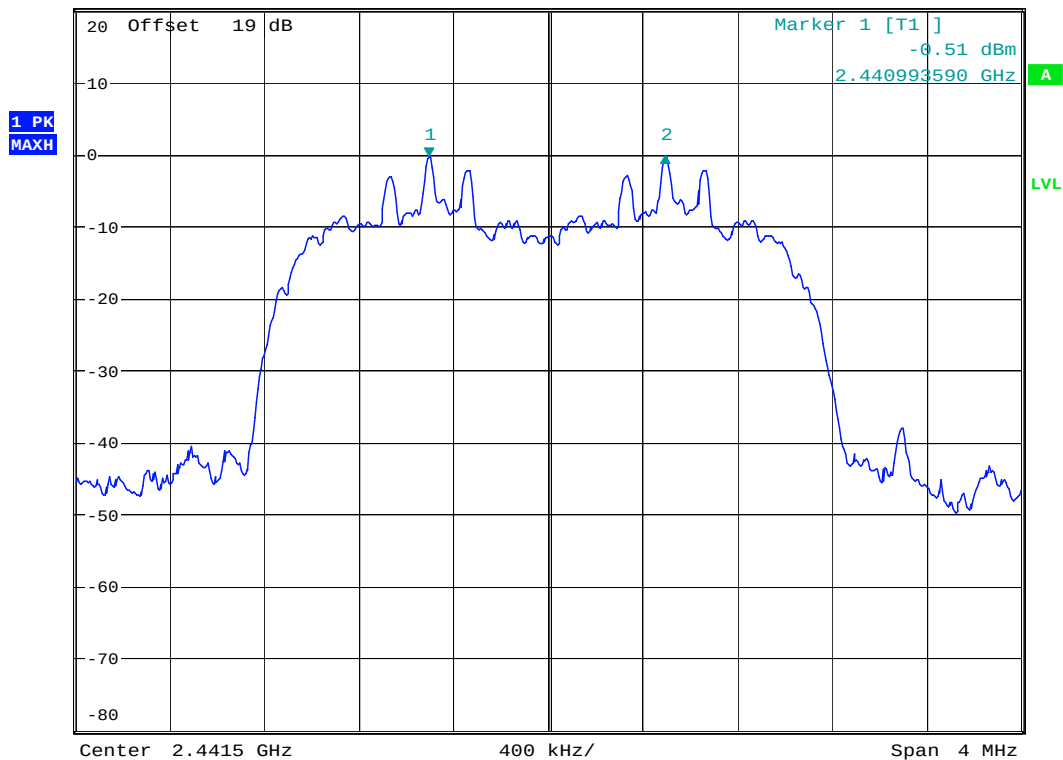
Date: 10.MAY.2007 16:56:36



Mode 2



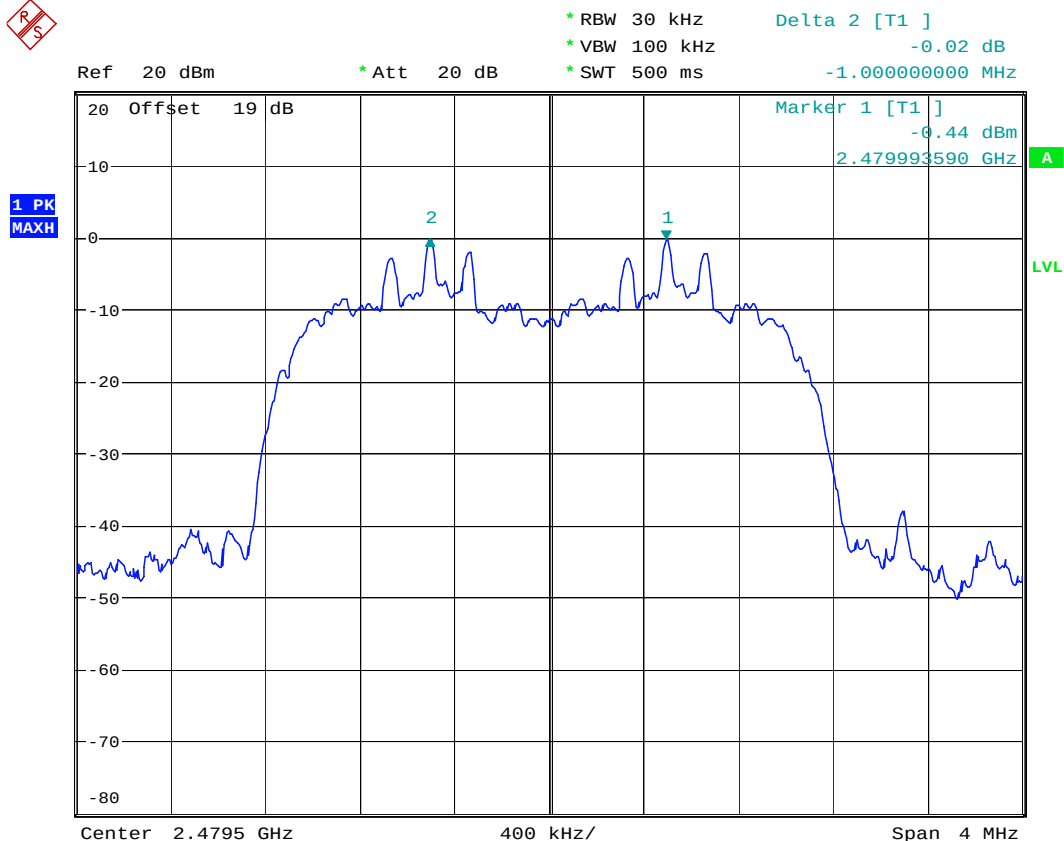
Ref 20 dBm * Att 20 dB * RBW 30 kHz Delta 2 [T1] 0.04 dB
* VBW 100 kHz 1.000000000 MHz
* SWT 500 ms



Date: 10.MAY.2007 16:57:16



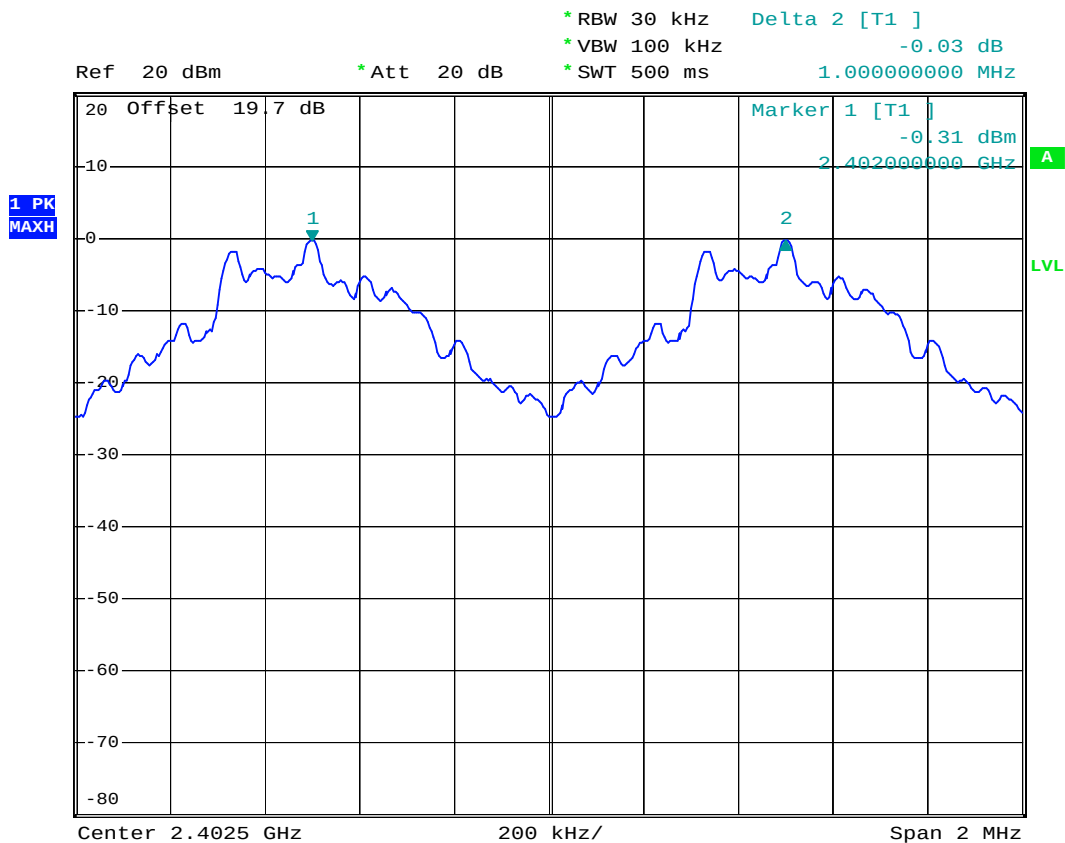
Mode 3



Date: 10.MAY.2007 16:57:56



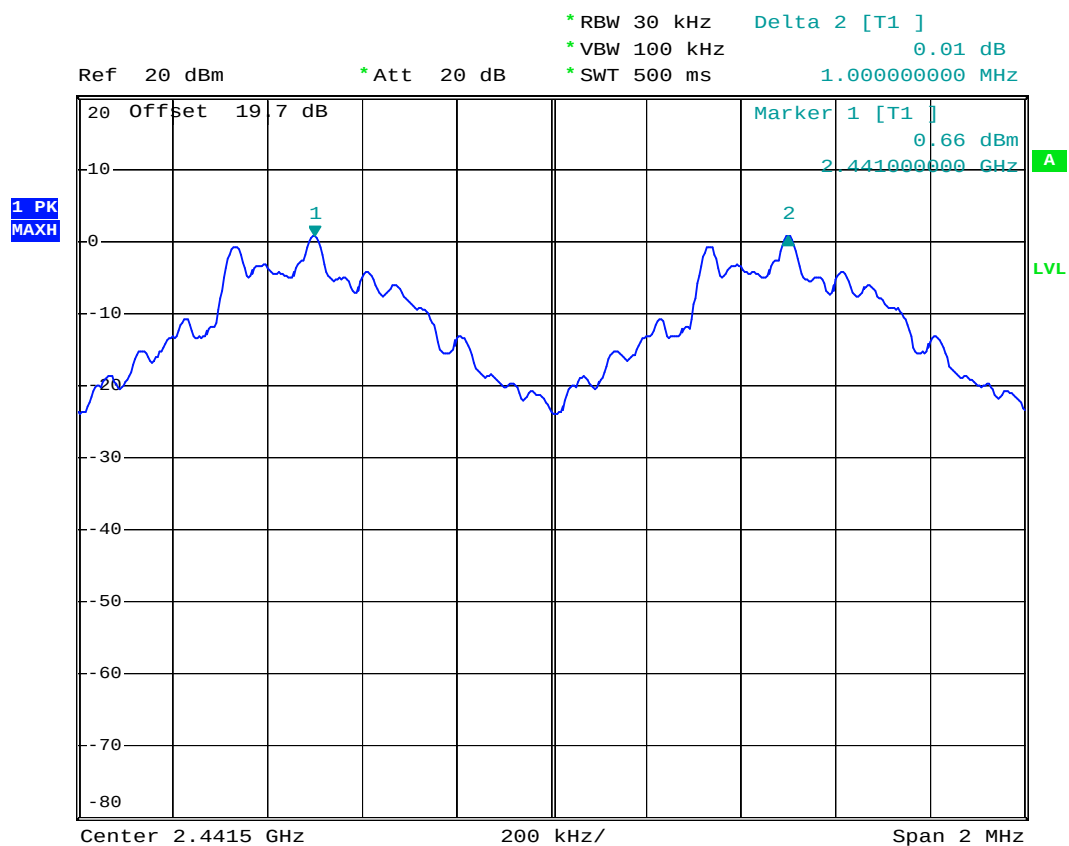
Mode 4



Date: 9.MAY.2007 22:47:44



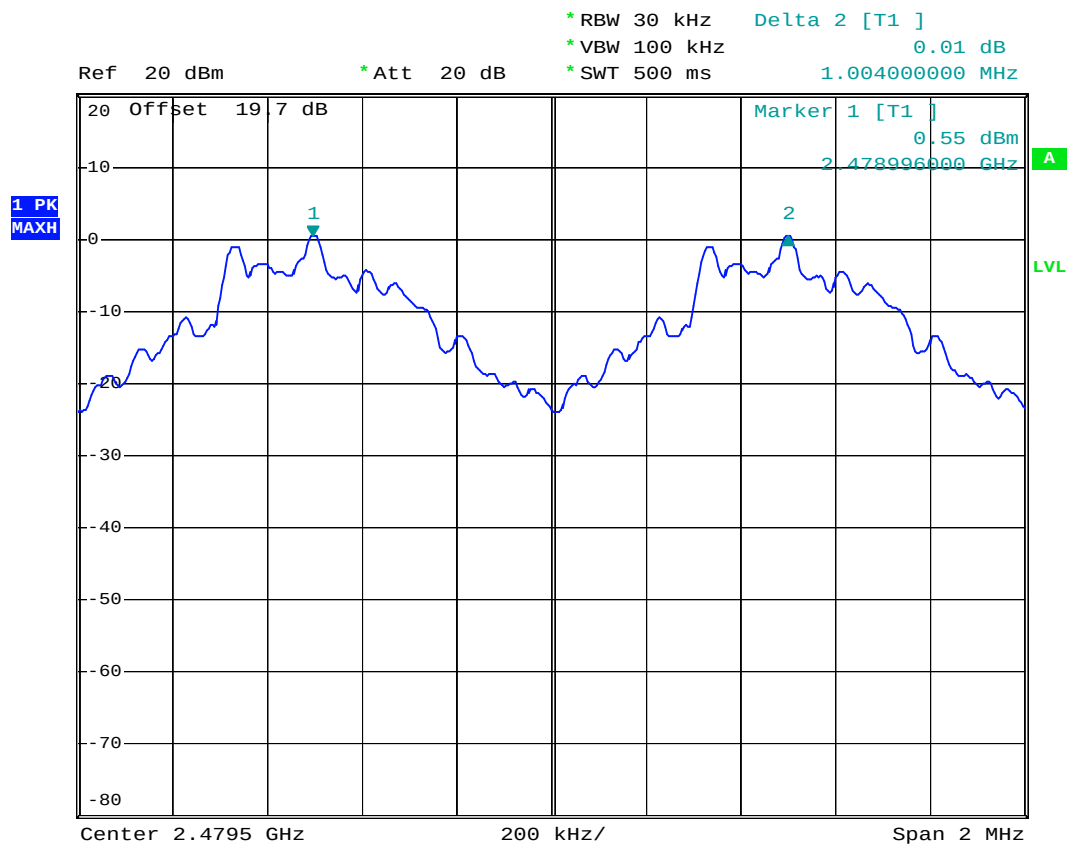
Mode 5



Date: 9.MAY.2007 22:48:16



Mode 6



Date: 9.MAY.2007 22:49:22

5.6 Number of Hopping Frequency

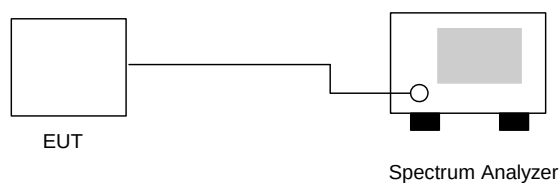
5.6.1 Measuring Instruments :

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 : 23°C
- Relative Humidity : 47%
- Test Enginner : James

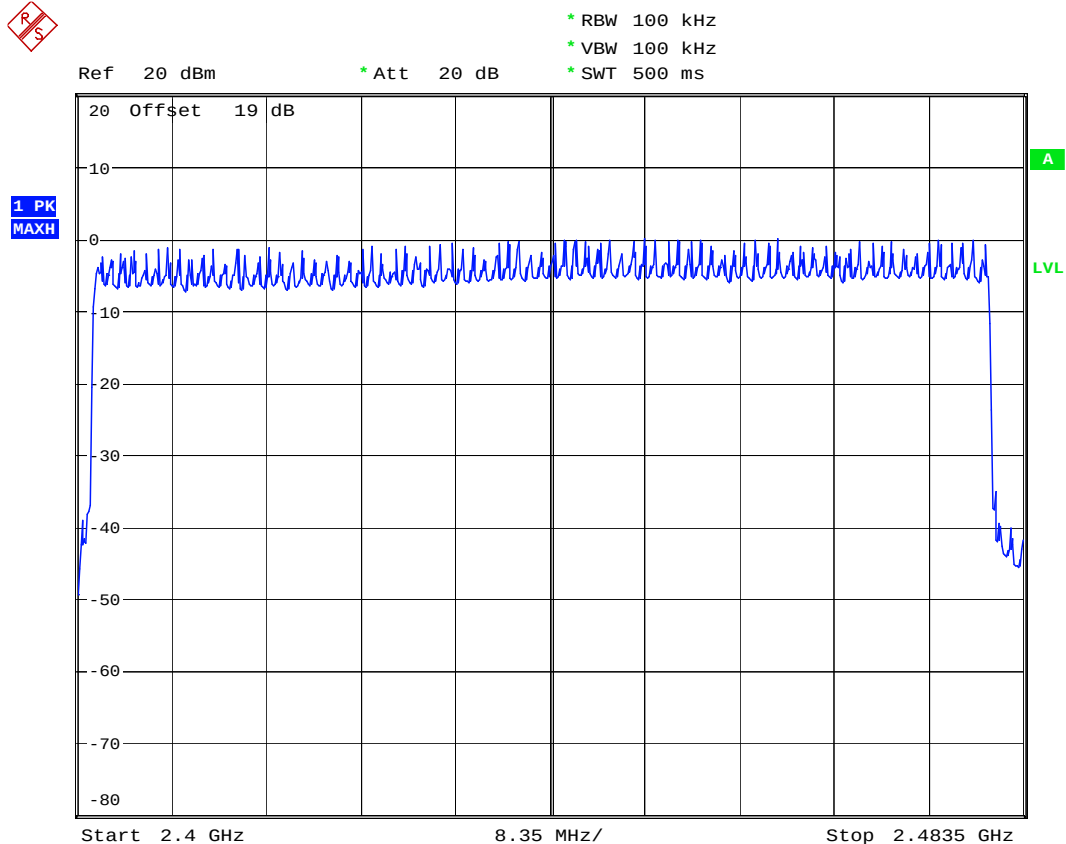
➤ BT_EDR & BT

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



5.6.5 Number of Hopping Frequency

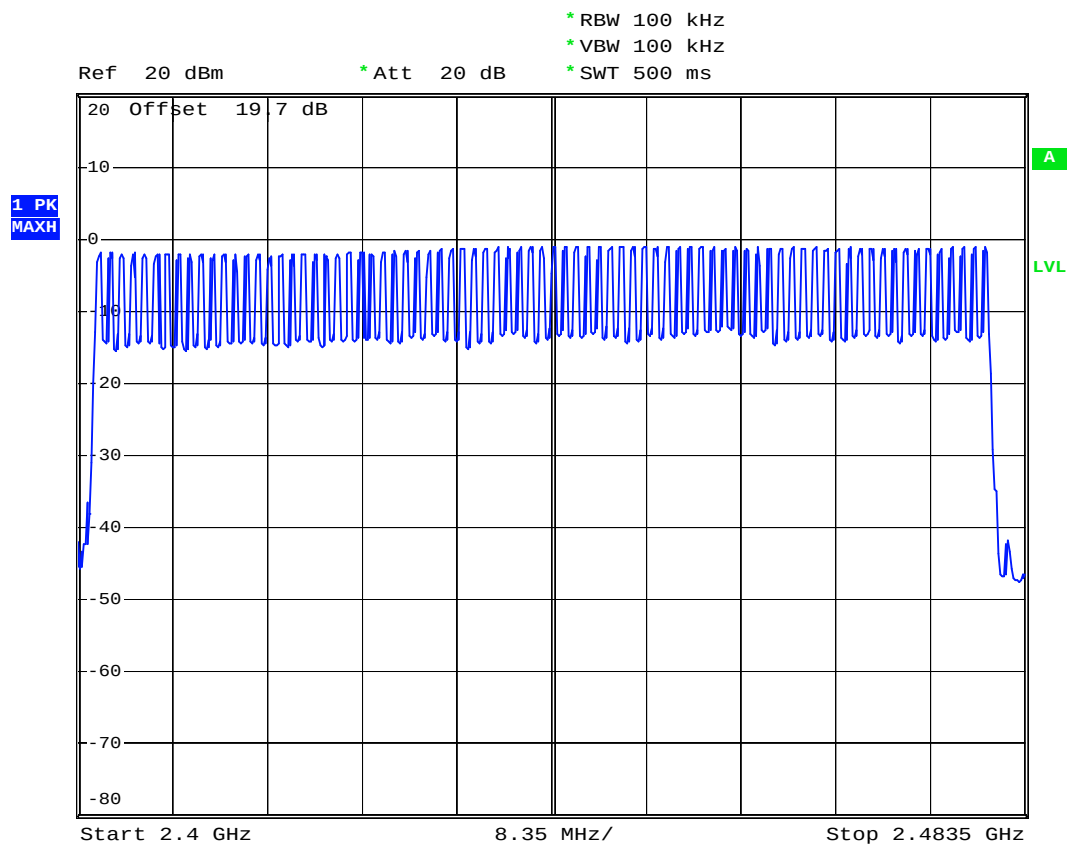
➤ BT_EDR



Date: 10.MAY.2007 16:46:41



➤ BT



Date: 9.MAY.2007 23:26:05

5.7 Hopping Channel Bandwidth

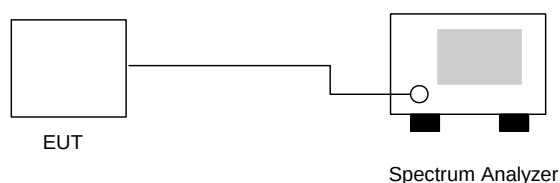
5.7.1 Measuring Instruments :

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 : 23°C
- Relative Humidity : 47%
- Test Enginner : James

➤ BT_EDR

Channel	Frequency (MHz)	Hopping Channel Bandwidth (MHz)	Plot Ref. No.
00	2402	1.256	Mode 1
39	2441	1.250	Mode 2
78	2480	1.260	Mode 3



➤ BT

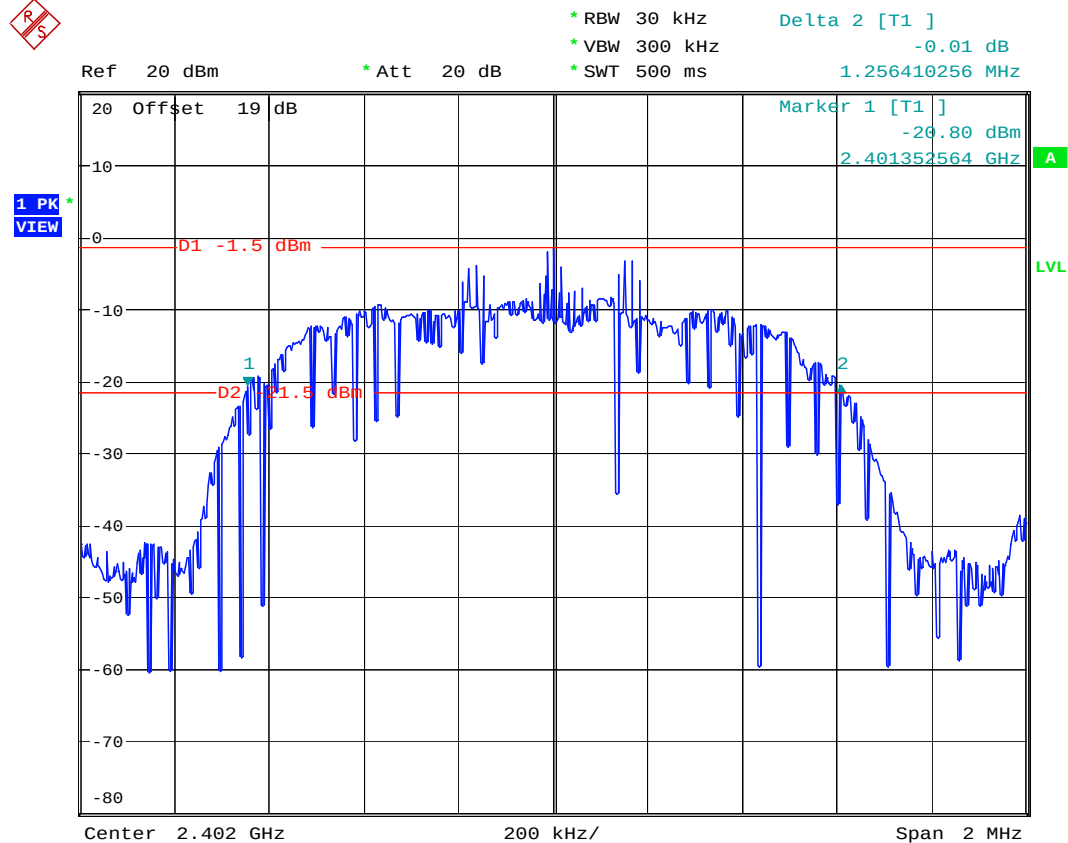
Channel	Frequency (MHz)	Hopping Channel Bandwidth (MHz)	Plot Ref. No.
00	2402	0.828	Mode 4
39	2441	0.824	Mode 5
78	2480	0.814	Mode 6



5.7.5 Hopping Channel Bandwidth

➤ BT_EDR

Mode 1



Date: 10.MAY.2007 16:53:12

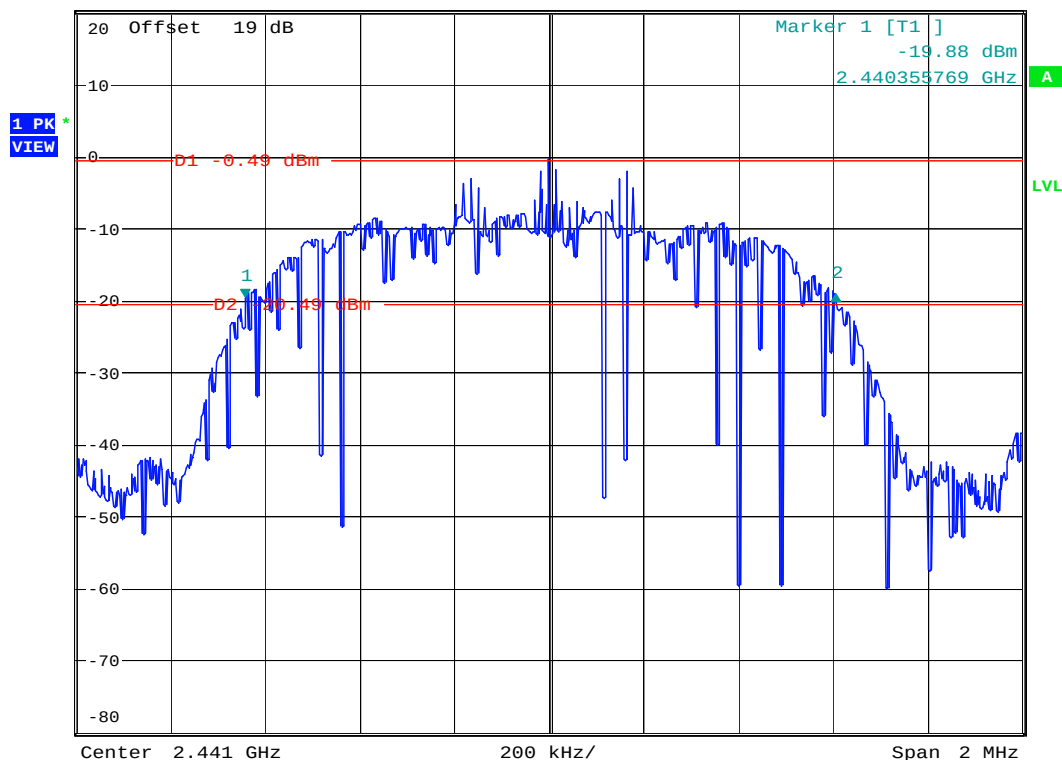


Mode 2



* RBW 30 kHz Delta 2 [T1] 0.39 dB
* VBW 300 kHz
* SWT 500 ms 1.250000000 MHz

Ref 20 dBm * Att 20 dB



Date: 10.MAY.2007 16:54:15



Mode 3



* RBW 30 kHz

Delta 2 [T1]

* VBW 100 kHz

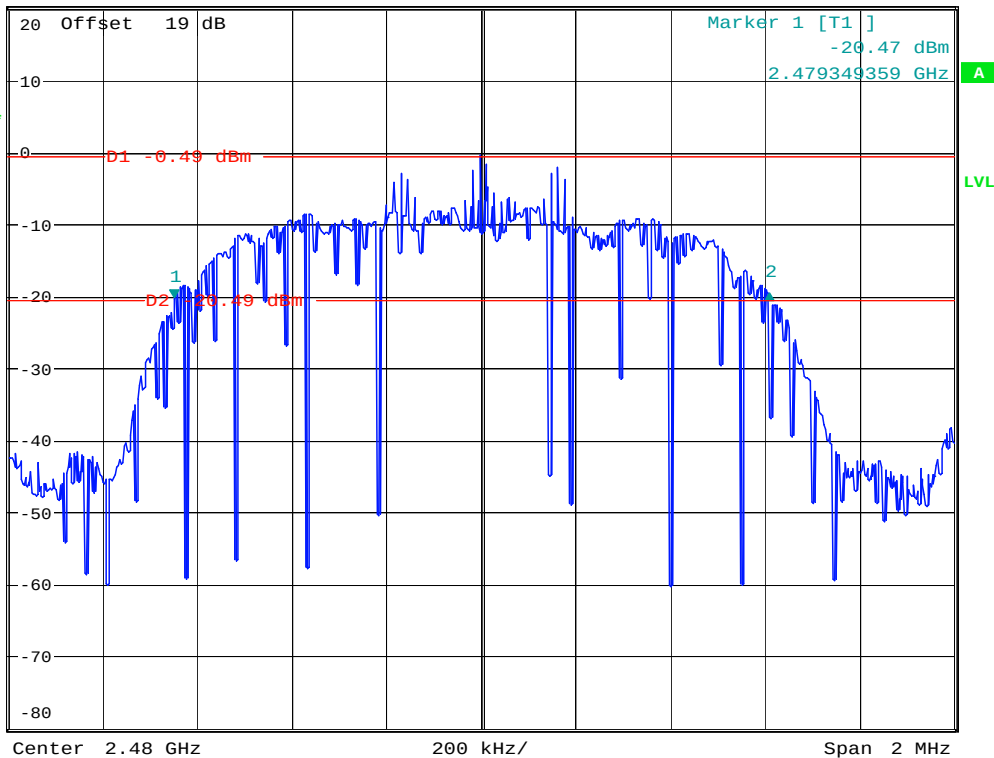
0.67 dB

* SWT 500 ms

1.259615385 MHz

Ref 20 dBm

* Att 20 dB

1 PK
VIEW

Date: 10.MAY.2007 16:51:32



➤ BT

Mode 4



Date: 9.MAY.2007 22:40:49



Mode 5



Date: 9.MAY.2007 22:42:08



Mode 6



Date: 9.MAY.2007 22:43:52

5.8 Dwell Time of Each Frequency

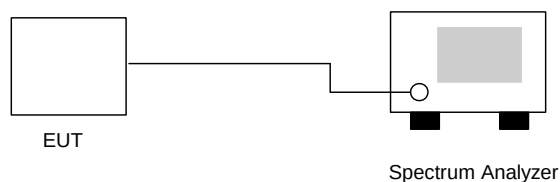
5.8.1 Measuring Instruments :

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 : 23°C
- Relative Humidity : 47%
- Test Enginner : James

➤ BT_EDR

Ch00

Package Mode	Average Hopping Channel	Package Transfer Time (us)	Dwell Time (s)	Limit (s)
DH1	9.3	477.56	0.1403	0.4
DH3	5.2	1758.00	0.2889	0.4
DH5	3.3	3064.10	0.3195	0.4

**CH39**

Package Mode	Average Hopping Channel	Package Transfer Time (us)	Dwell Time (s)	Limit (s)
DH1	9.2	471.15	0.1370	0.4
DH3	5.4	1750.00	0.2986	0.4
DH5	3.2	3016.02	0.3050	0.4

CH78

Package Mode	Average Hopping Channel	Package Transfer Time (us)	Dwell Time (s)	Limit (s)
DH1	9.5	467.95	0.1405	0.4
DH3	5.5	1750.00	0.3042	0.4
DH5	3.4	3080.12	0.3309	0.4

➤ BT**Ch00**

Package Mode	Average Hopping Channel	Package Transfer Time (us)	Dwell Time (s)	Limit (s)
DH1	9.5	464.00	0.1393	0.4
DH3	5.1	1736.00	0.2798	0.4
DH5	3.4	3000.00	0.3223	0.4

CH39

Package Mode	Average Hopping Channel	Package Transfer Time (us)	Dwell Time (s)	Limit (s)
DH1	9.5	472.00	0.1417	0.4
DH3	5.2	1746.00	0.2869	0.4
DH5	3.2	3060.00	0.3094	0.4

CH78

Package Mode	Average Hopping Channel	Package Transfer Time (us)	Dwell Time (s)	Limit (s)
DH1	9.4	456.00	0.1355	0.4
DH3	5.4	1740.00	0.2969	0.4
DH5	3.5	3020.00	0.3340	0.4

※ Remark:

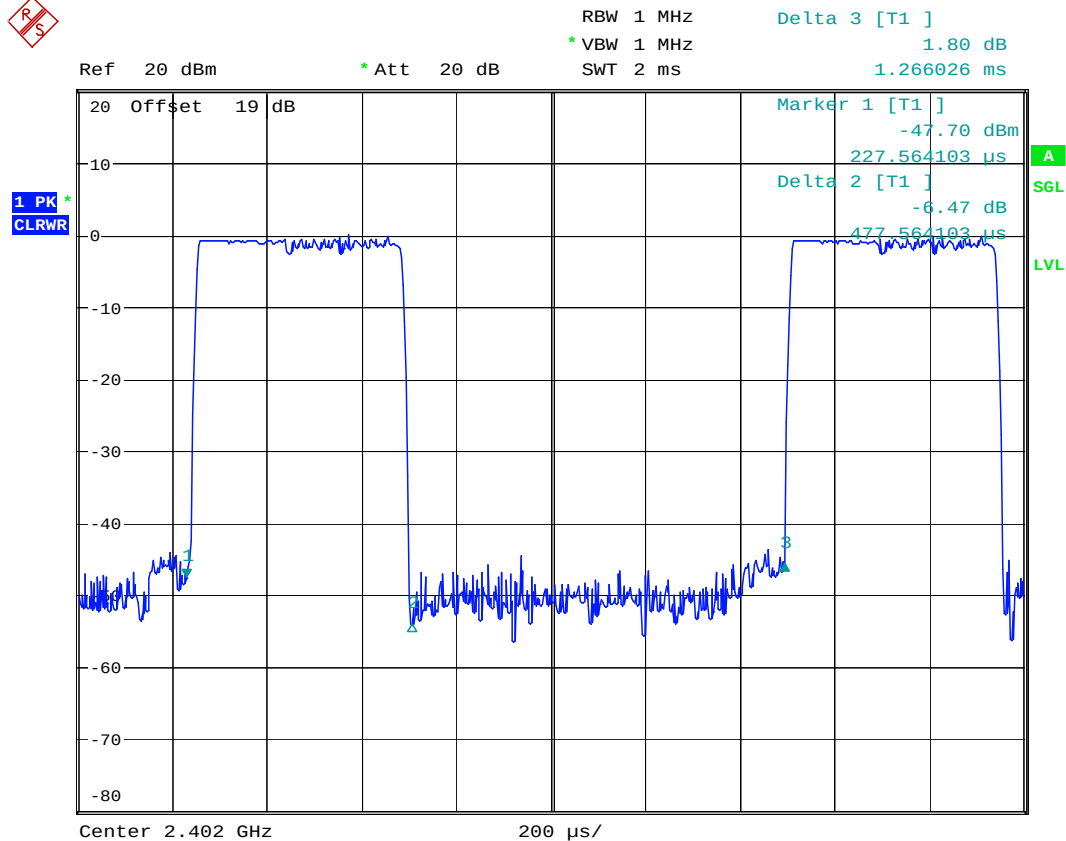
1. Dwell Time=79(channels) x 0.4(s) x average hopping channel x package transfer time
2. 79channels come from the Hopping Channel number.
3. Average Hopping Channel = hops/sweep time
4. t: Package Transfer Time(us)



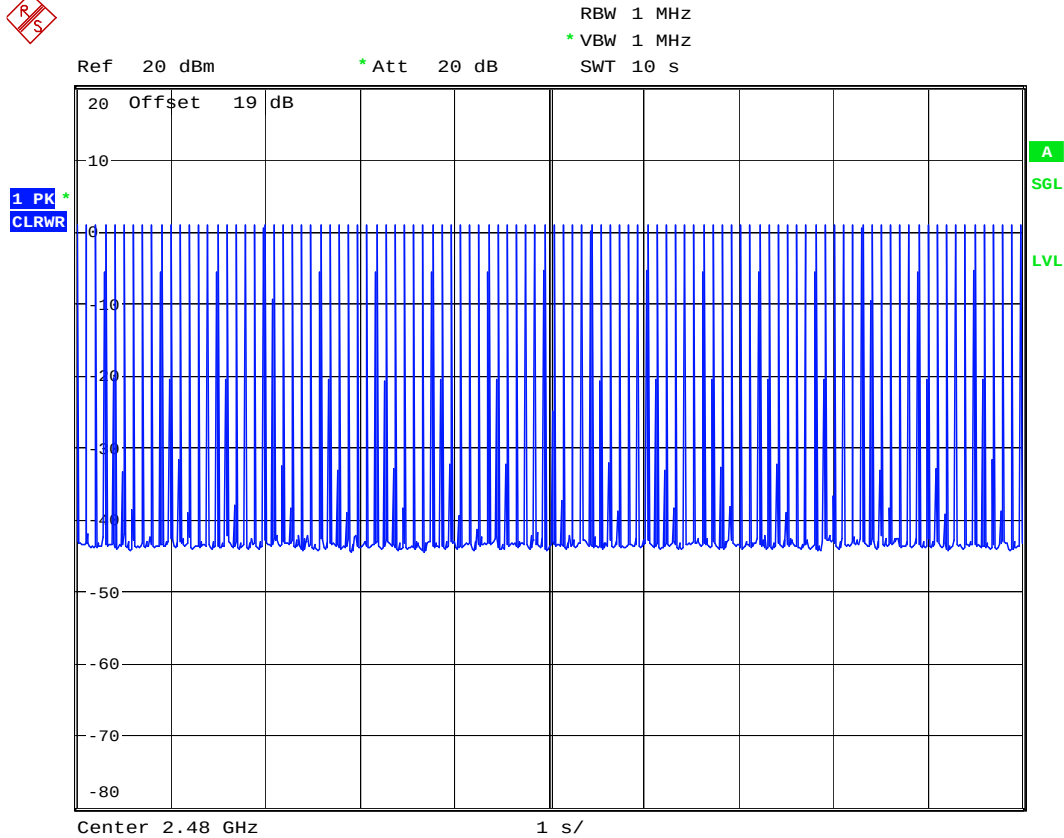
5.8.5 Dwell Time

➤ BT_EDR

DH1 (CH00)



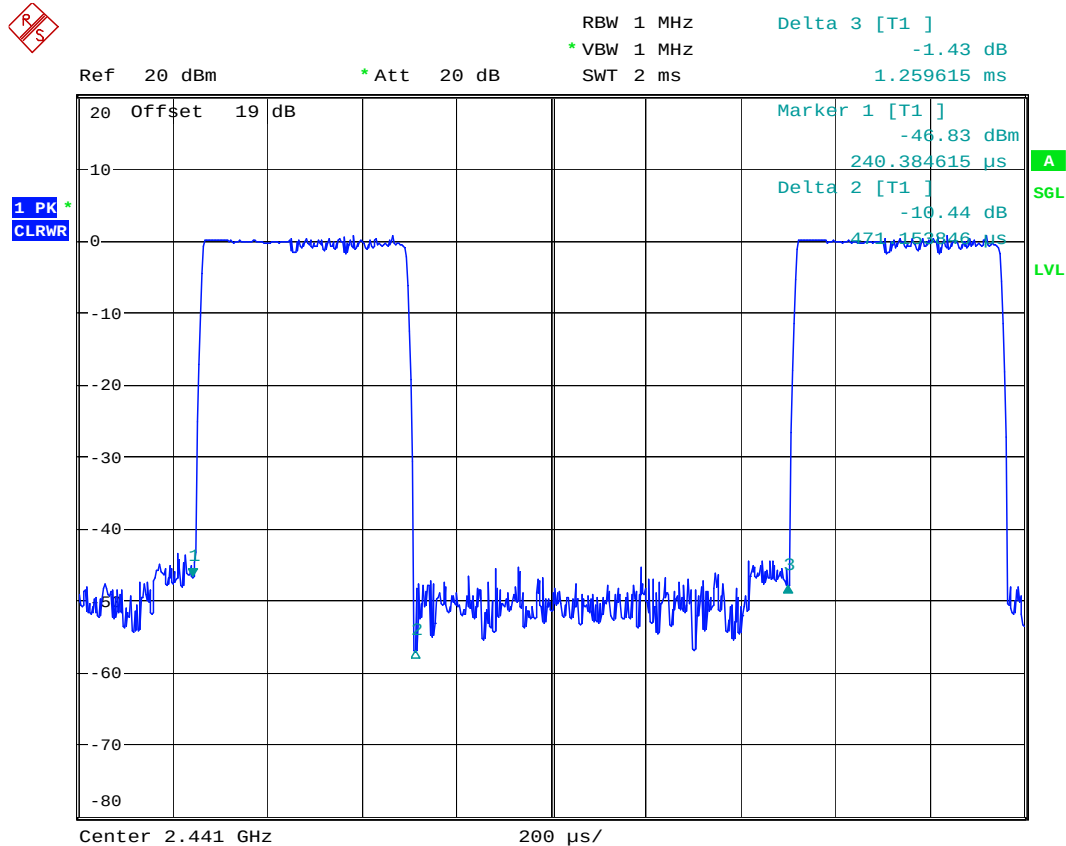
Date: 10.MAY.2007 14:51:06



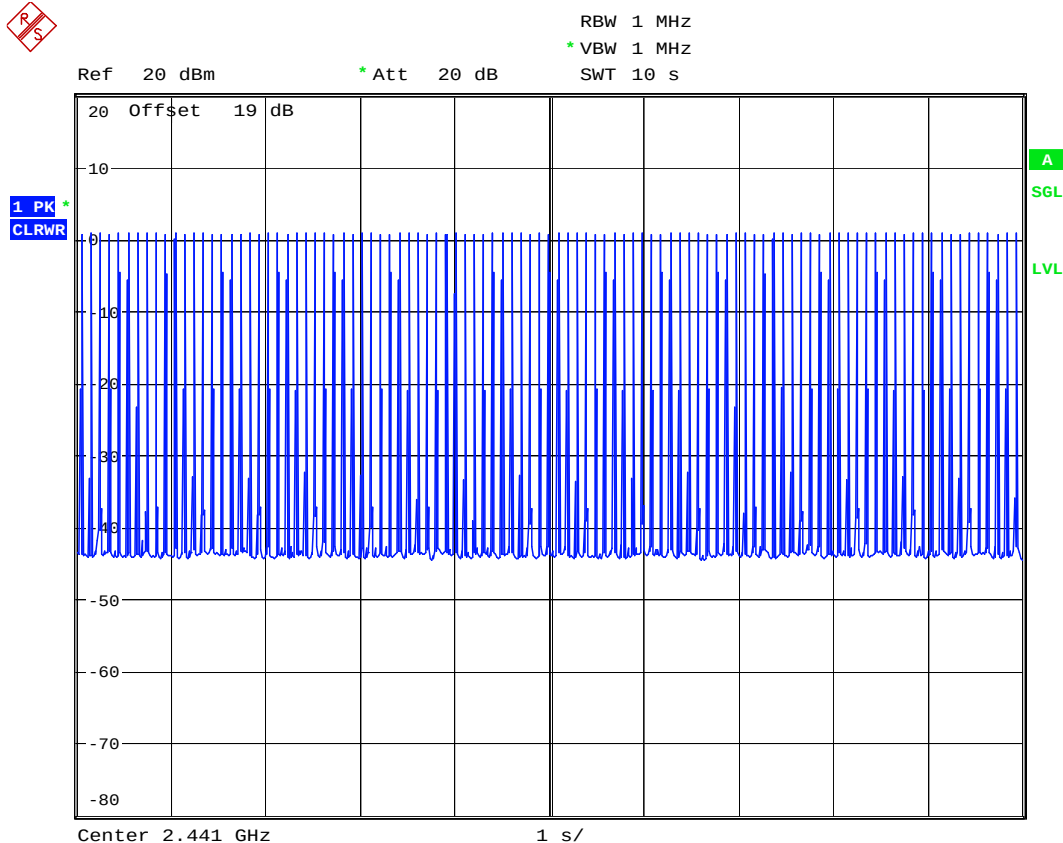
Date: 10.MAY.2007 15:03:41



DH1 (CH39)



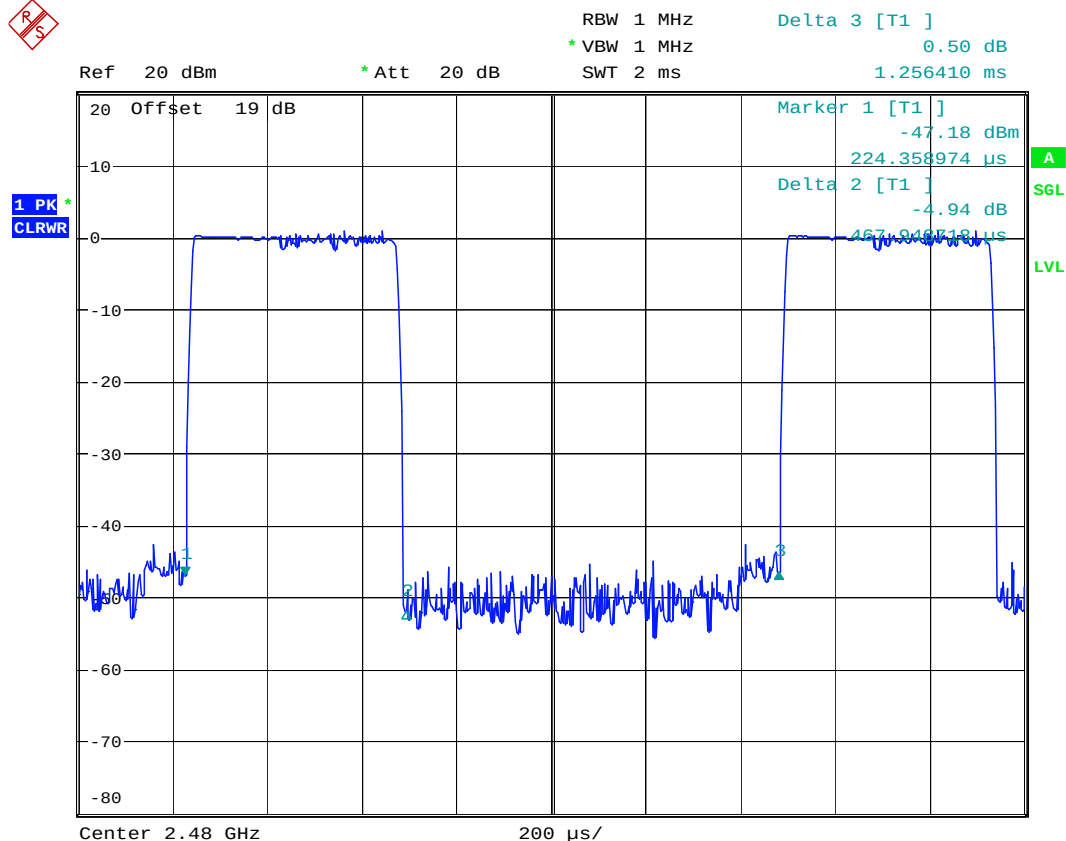
Date: 10.MAY.2007 14:51:52



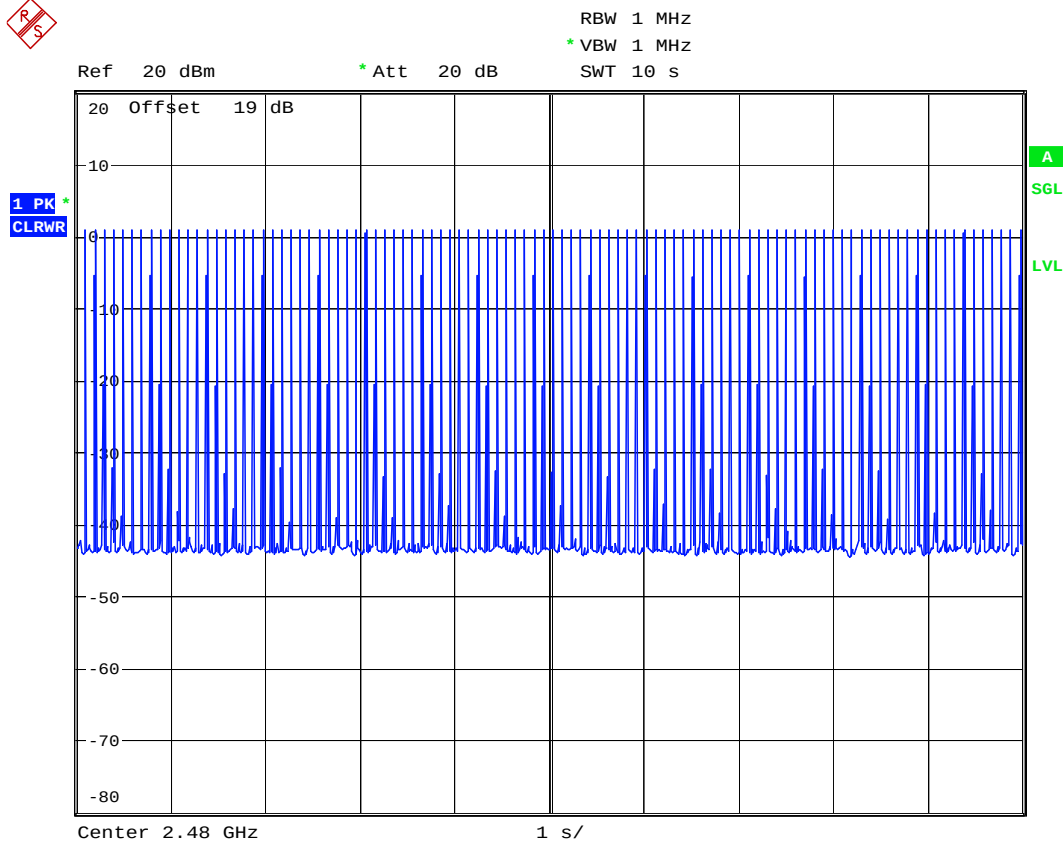
Date: 10.MAY.2007 15:04:41



DH1 (CH78)



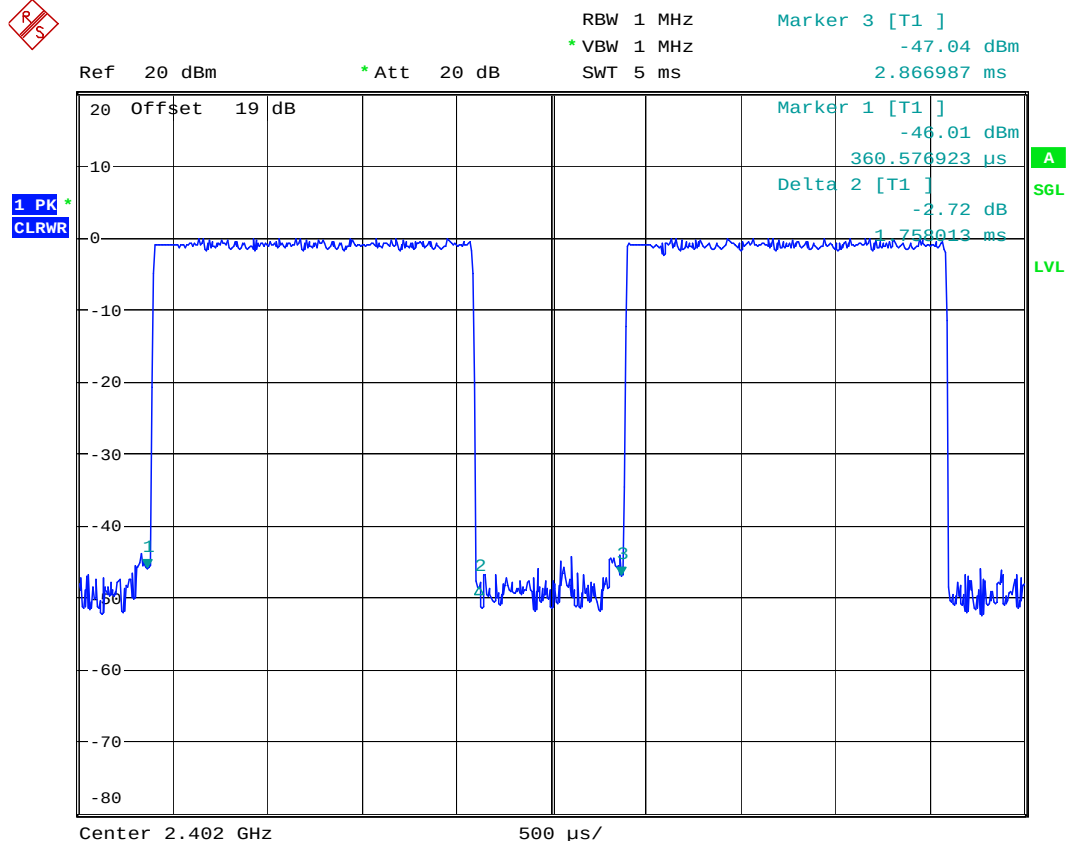
Date: 10.MAY.2007 14:52:50



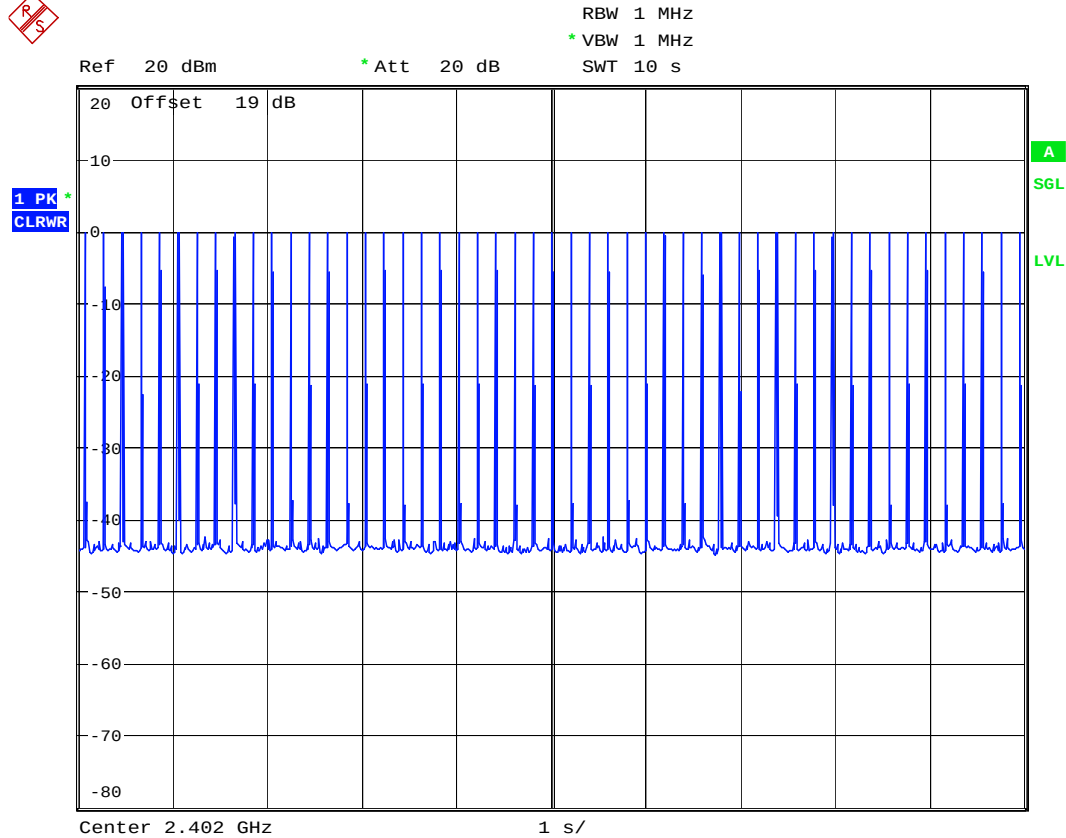
Date: 10.MAY.2007 15:05:32



DH3 (CH00)



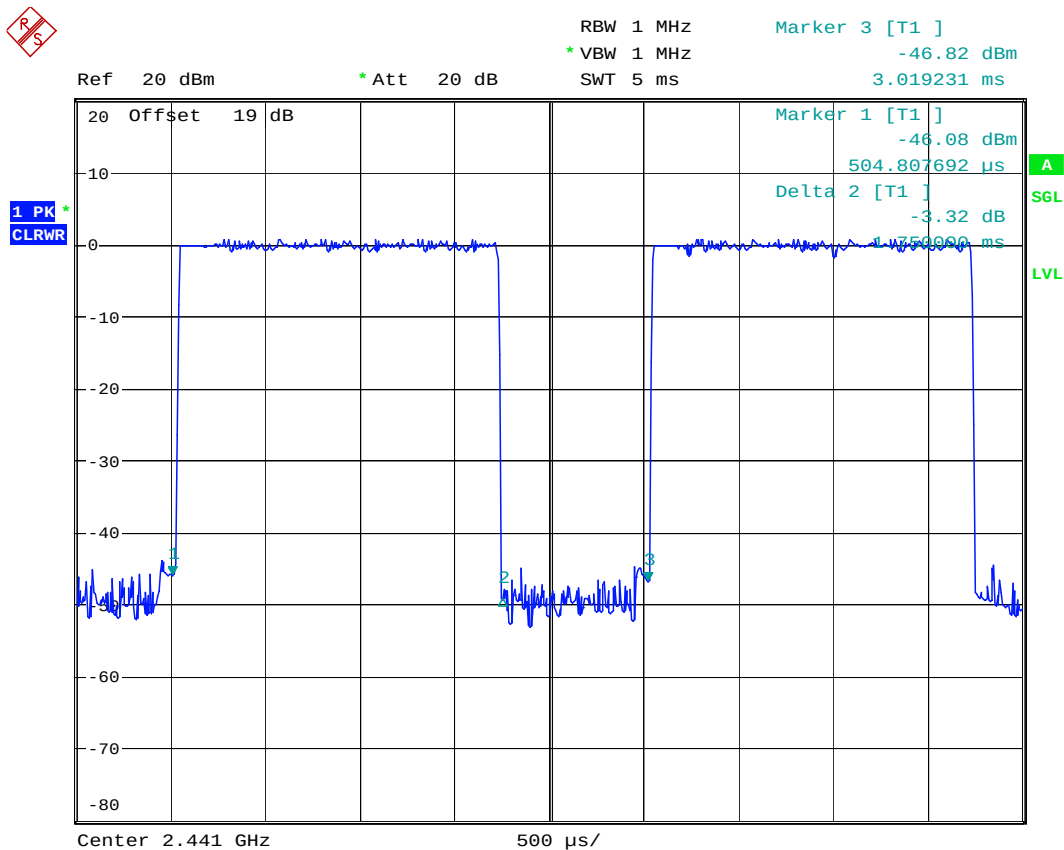
Date: 10.MAY.2007 14:54:35



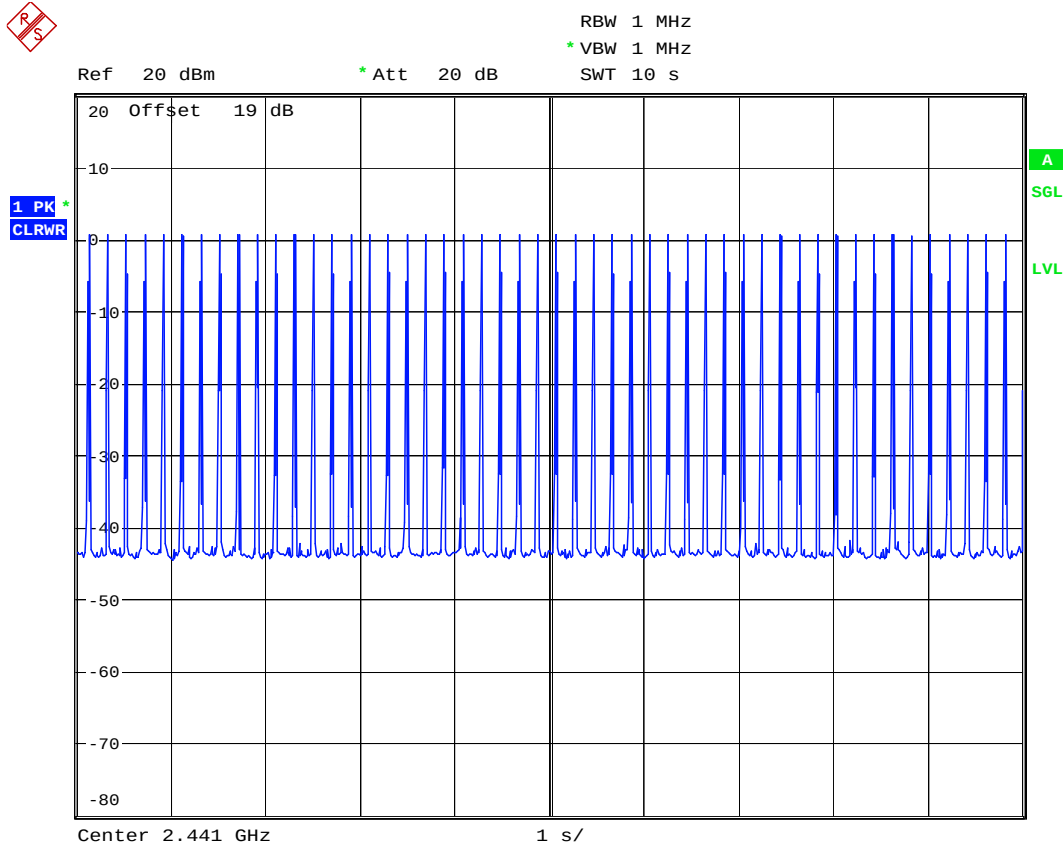
Date: 10.MAY.2007 15:07:58



DH3 (CH39)



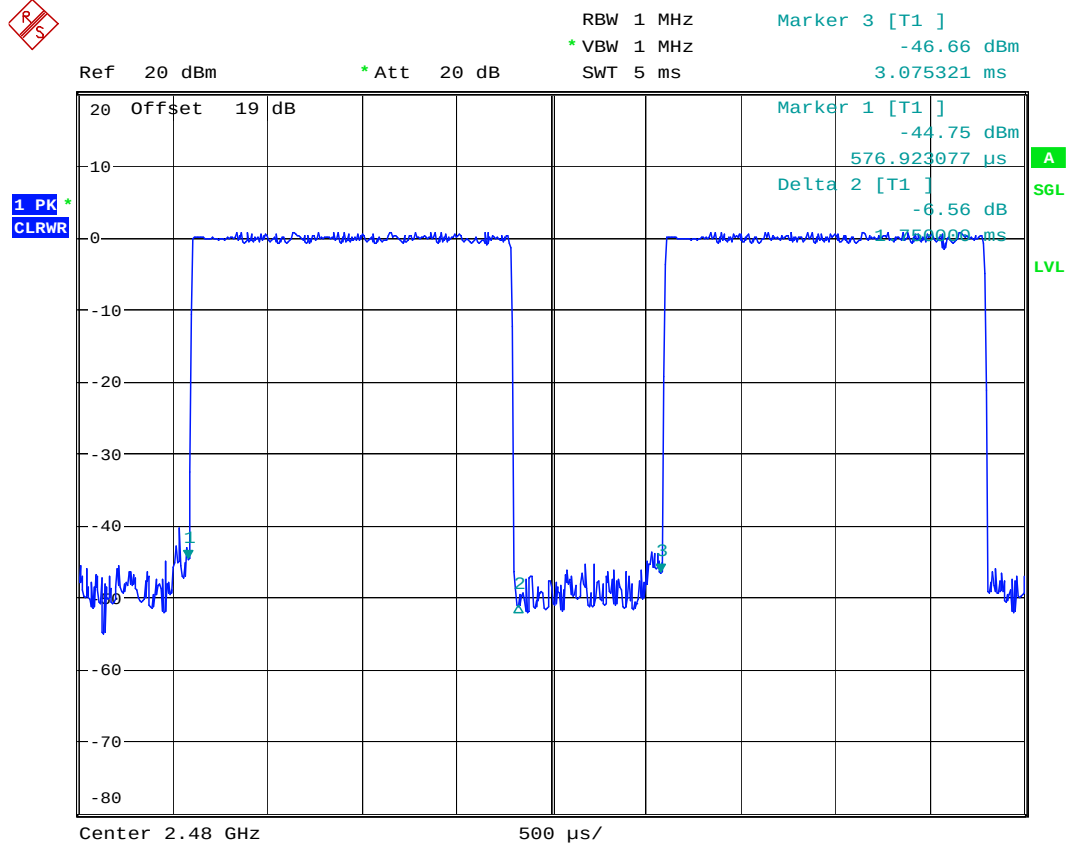
Date: 10.MAY.2007 14:55:36



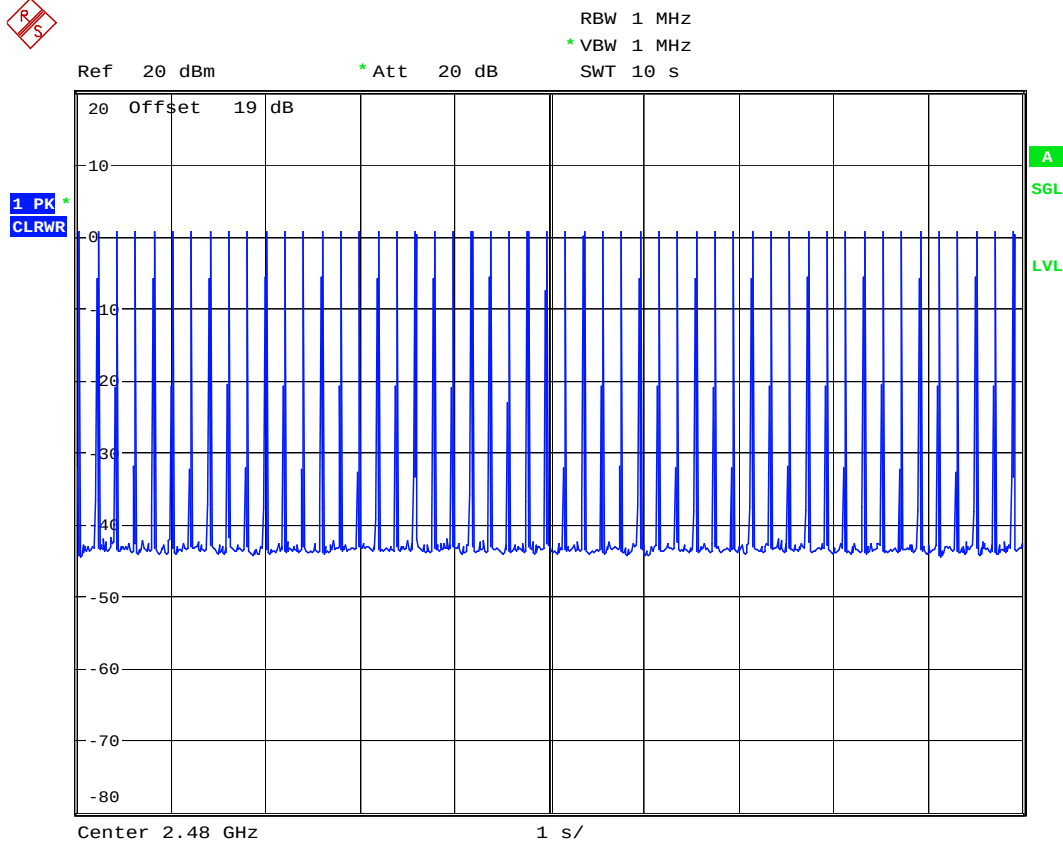
Date: 10.MAY.2007 15:08:38



DH3 (CH78)



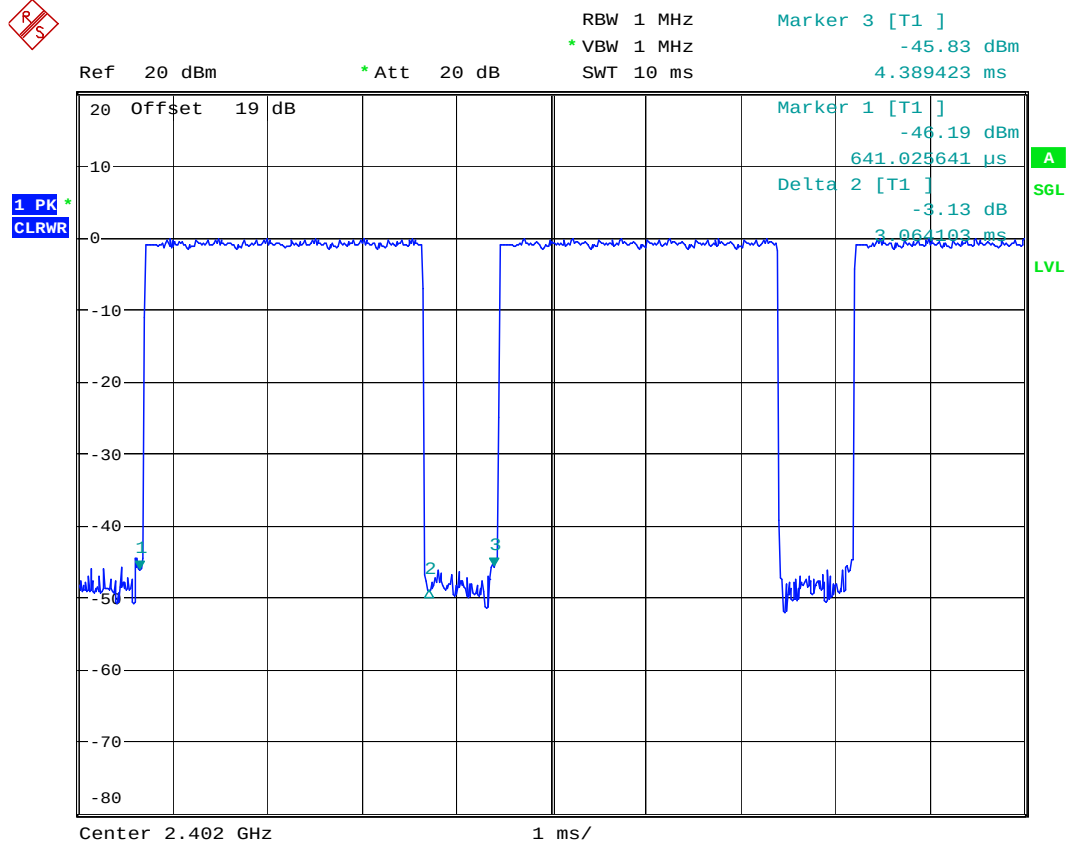
Date: 10.MAY.2007 14:56:50



Date: 10.MAY.2007 15:09:26



DH5 (CH00)

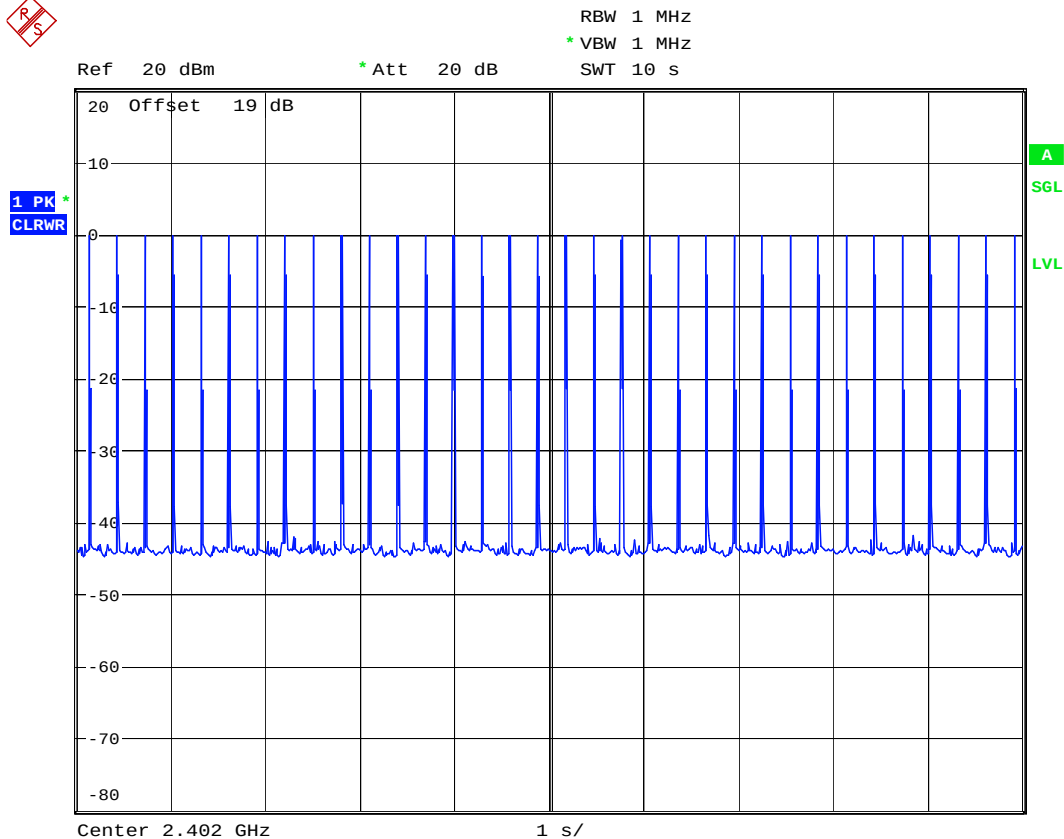


Date: 10.MAY.2007 14:58:27



FCC / IC TEST REPORT

Report No. : FR6D2906-A



Date: 10.MAY.2007 15:10:51

SPORTON International Inc.

TEL : 886-2-2696-2468

FAX : 886-2-2696-2255

FCC ID : EJE-WB0048

IC ID : 337J-WB0048

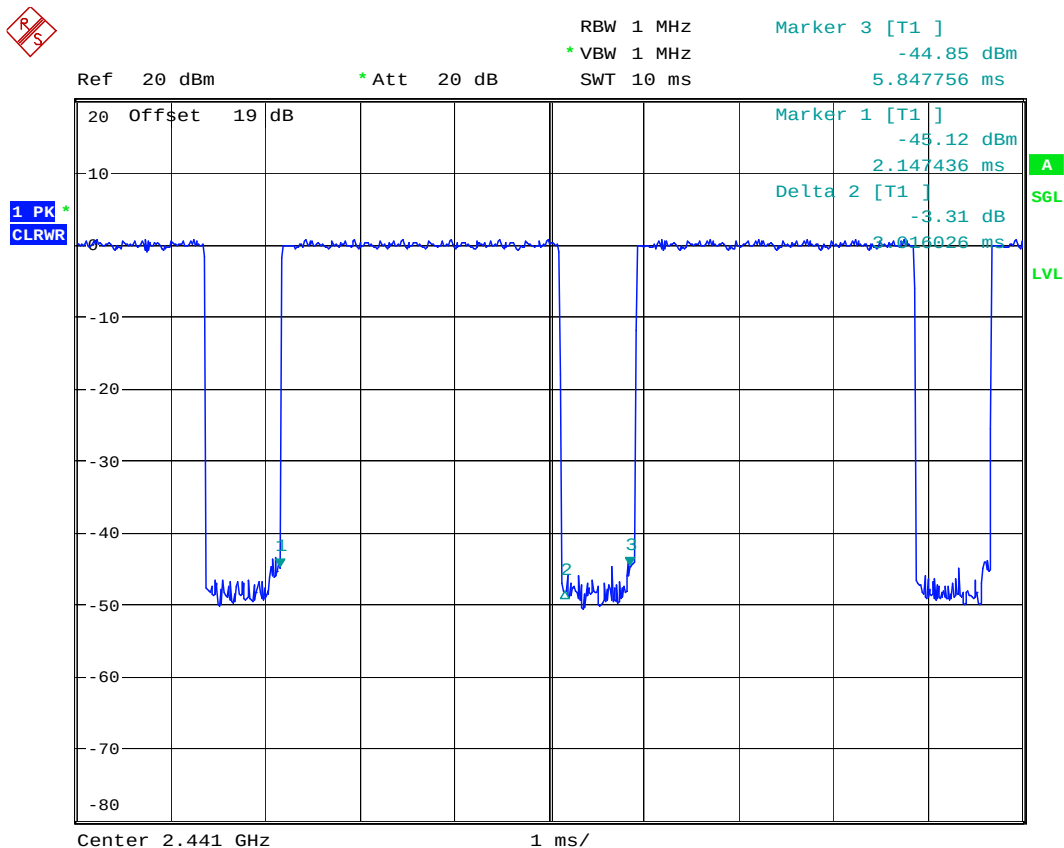
Page No. : 80 of 259

Report Issued Date : May 14, 2007

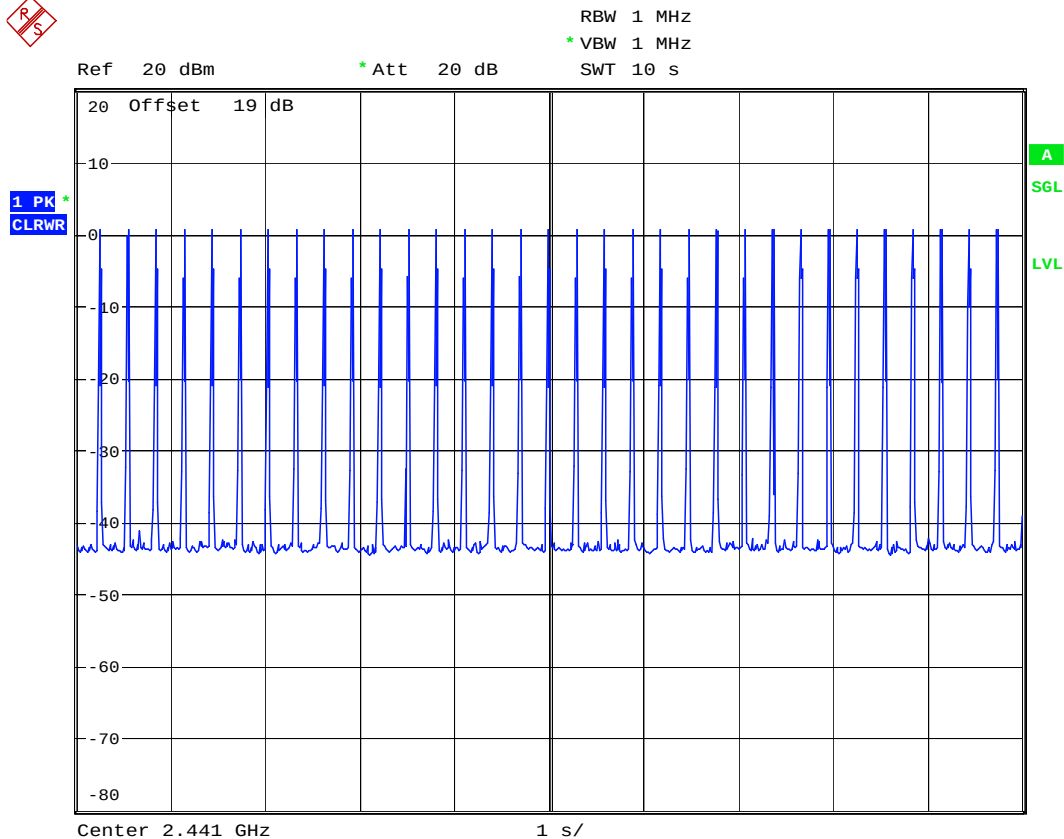
Report Version : Rev. 01



DH5 (CH39)



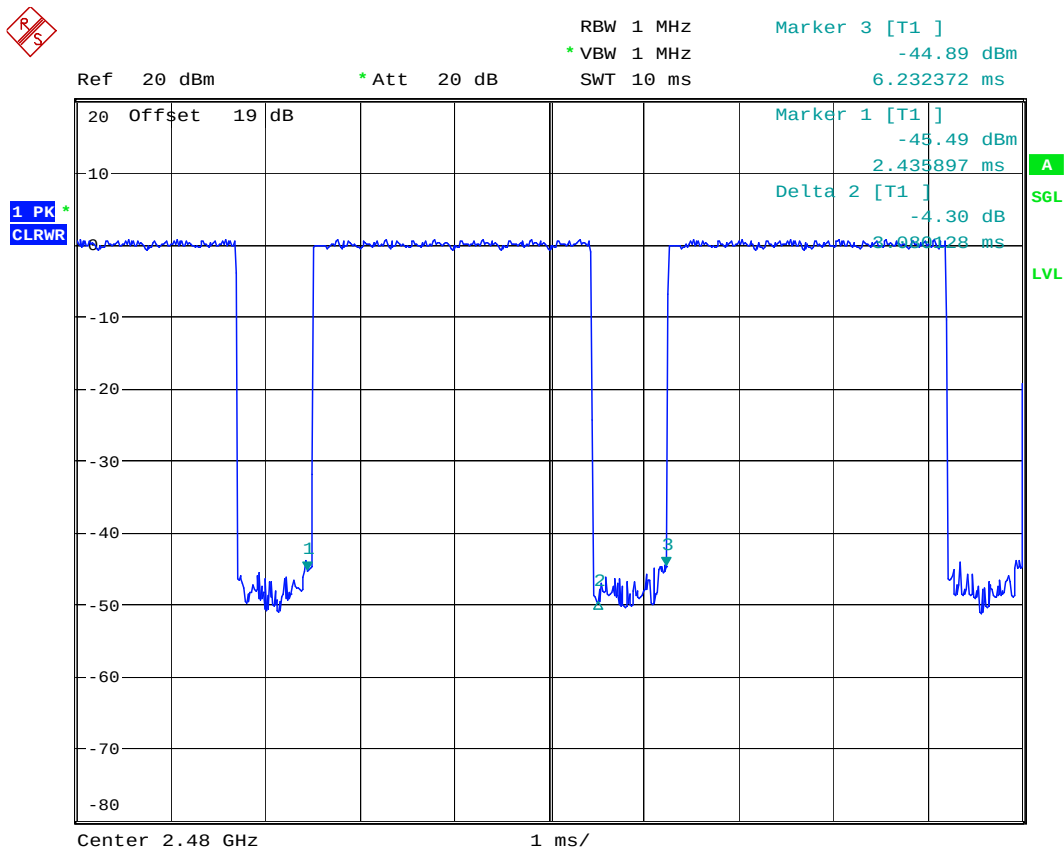
Date: 10.MAY.2007 14:59:46



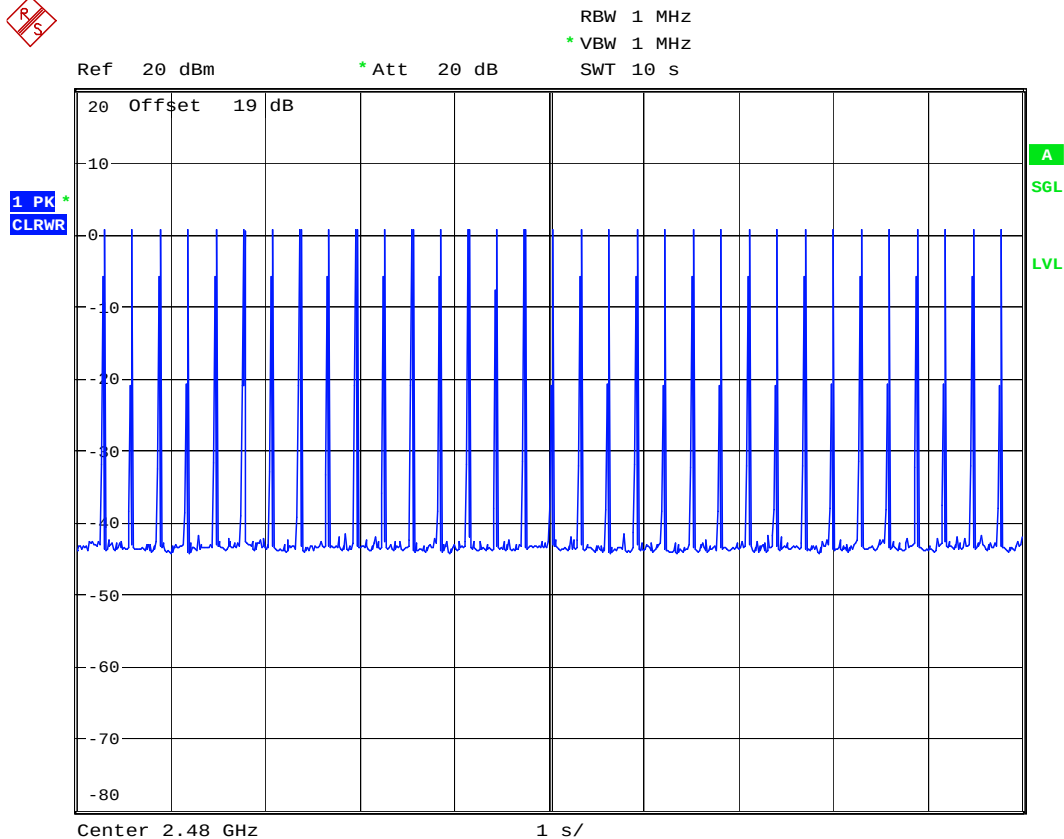
Date: 10.MAY.2007 15:11:30



DH5 (CH78)



Date: 10.MAY.2007 15:00:30

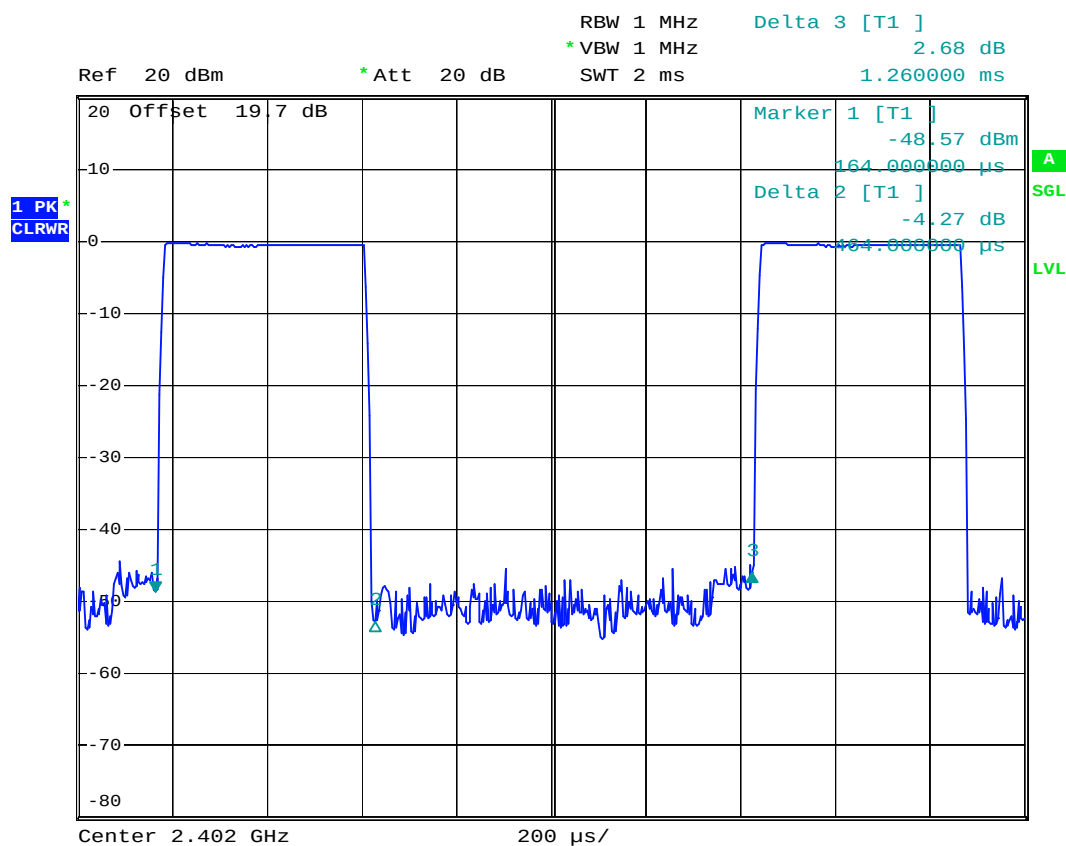


Date: 10.MAY.2007 15:12:29

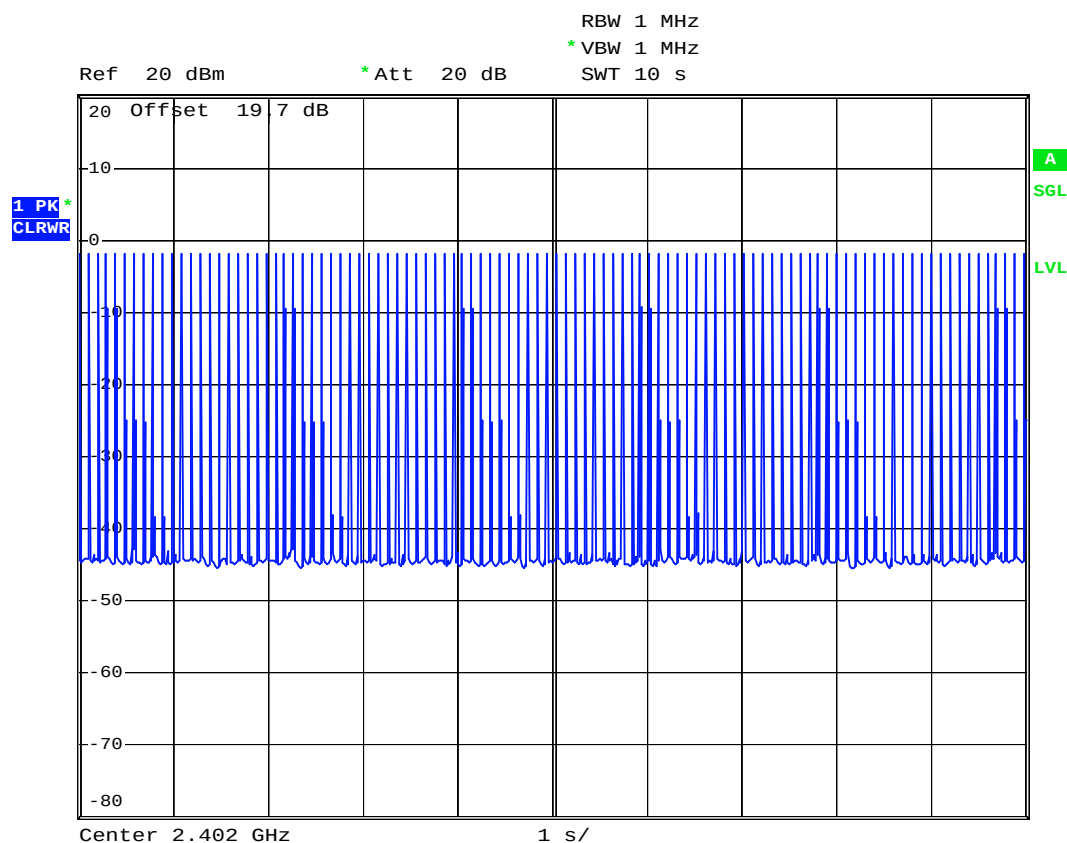


➤ BT

DH1 (CH00)



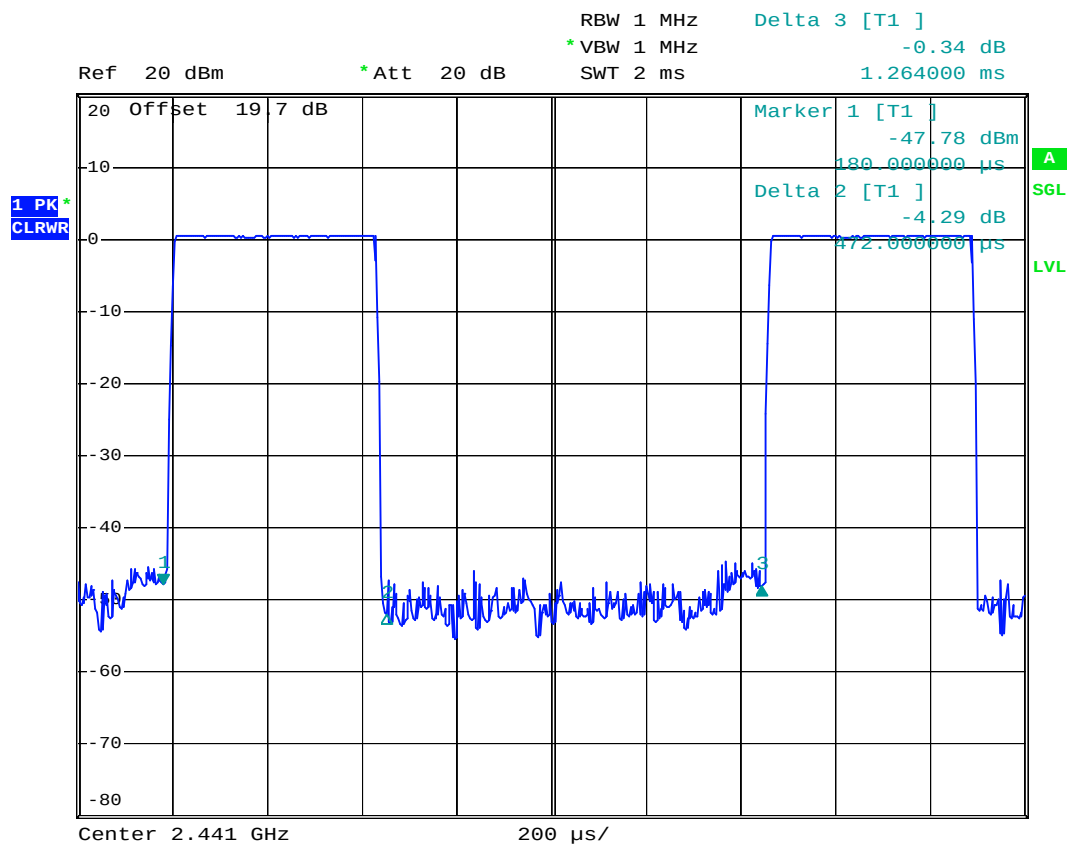
Date: 9.MAY.2007 22:51:07



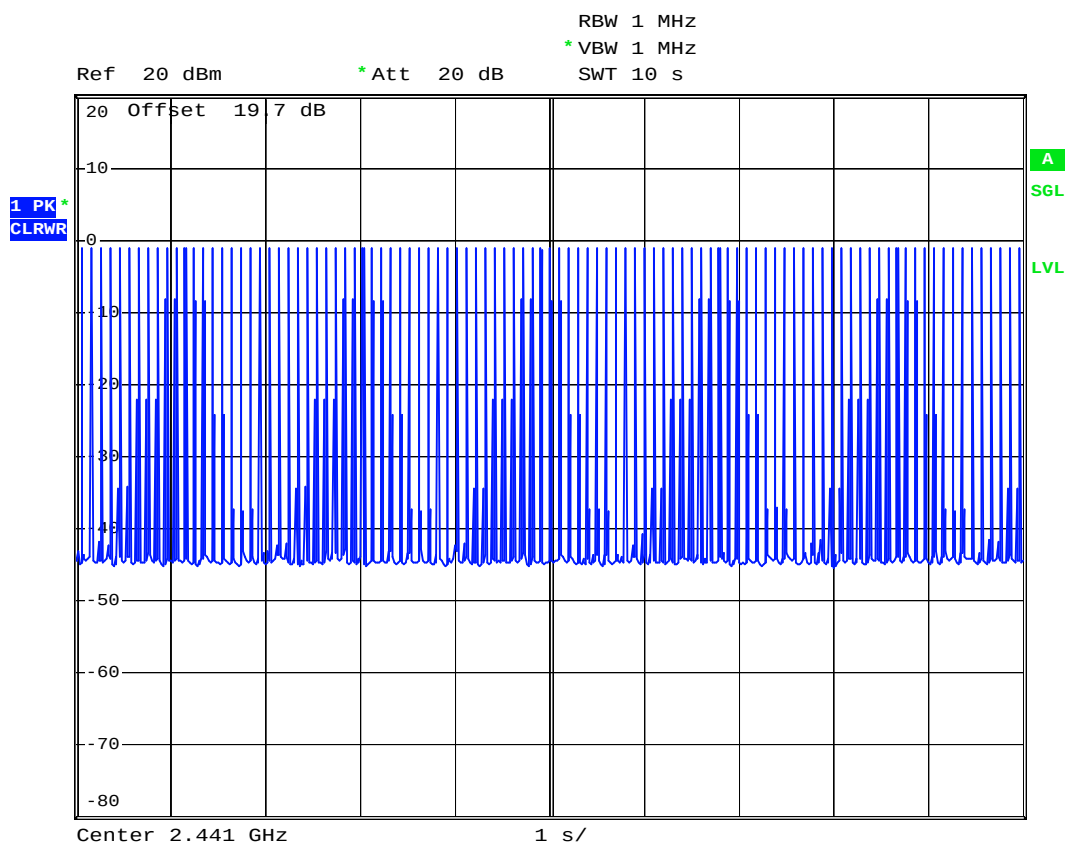
Date: 9.MAY.2007 23:09:59



DH1 (CH39)



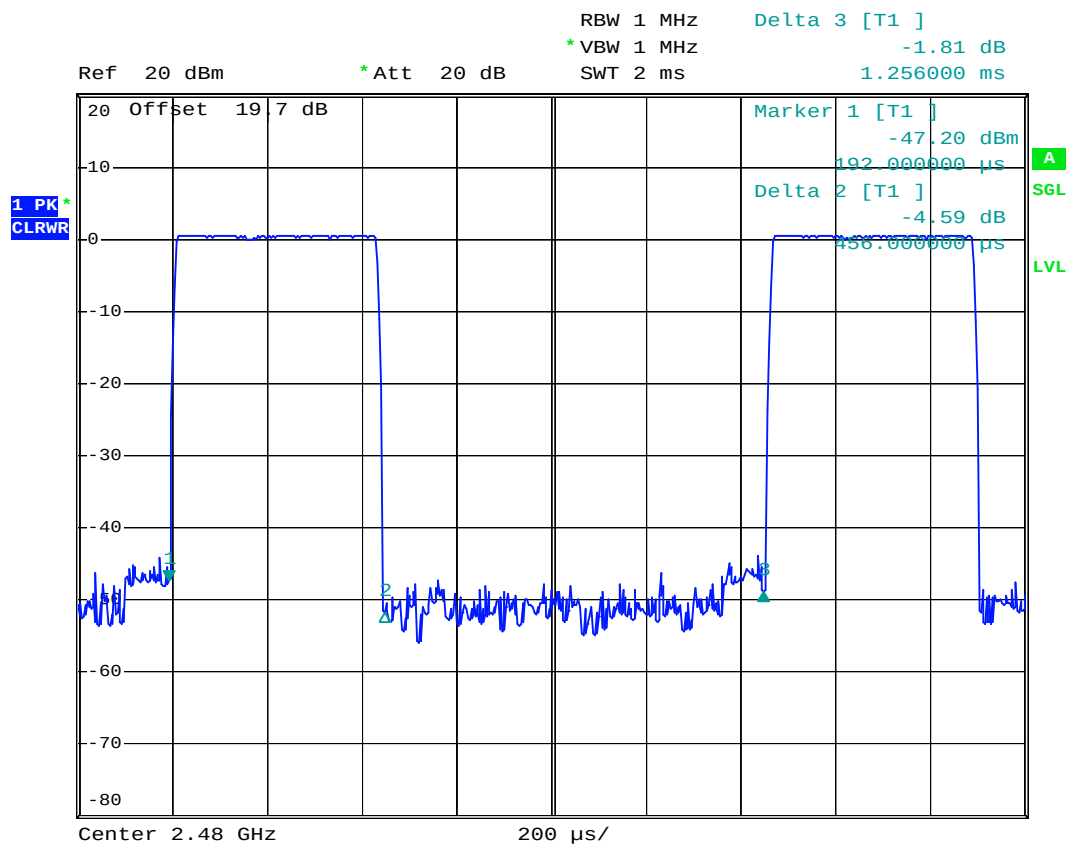
Date: 9.MAY.2007 22:52:08



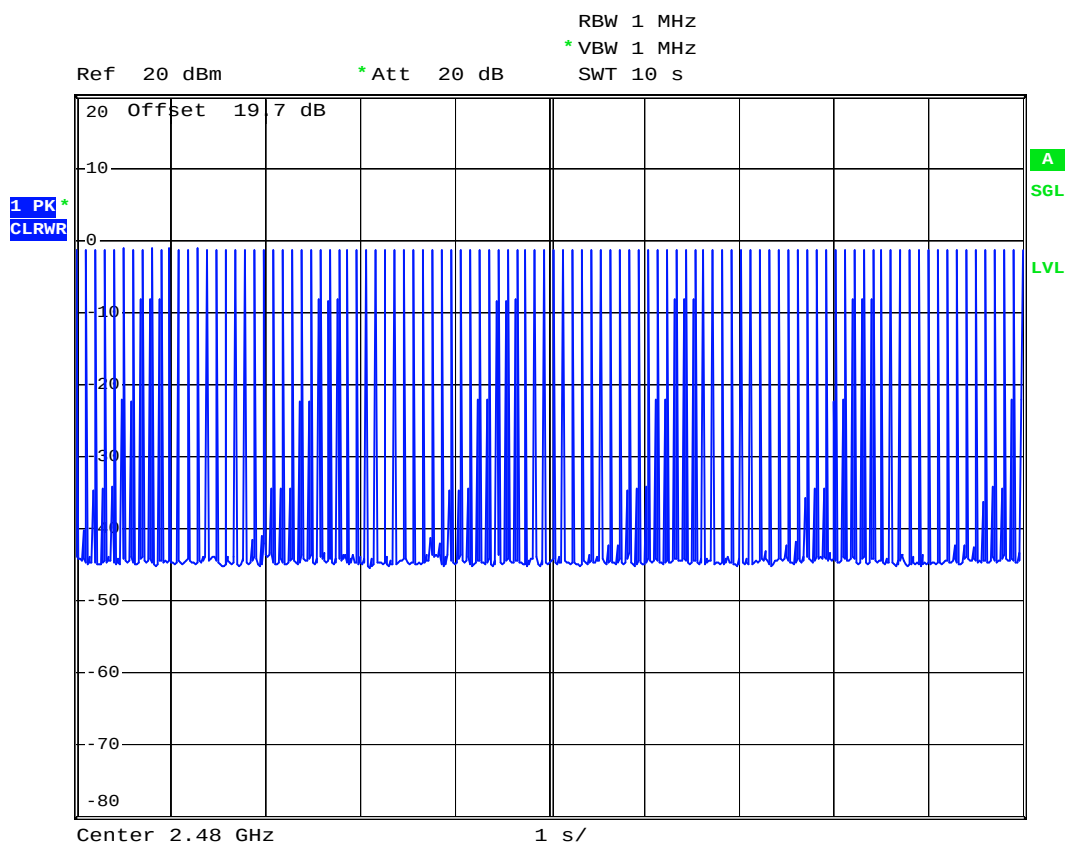
Date: 9.MAY.2007 23:10:28



DH1 (CH78)



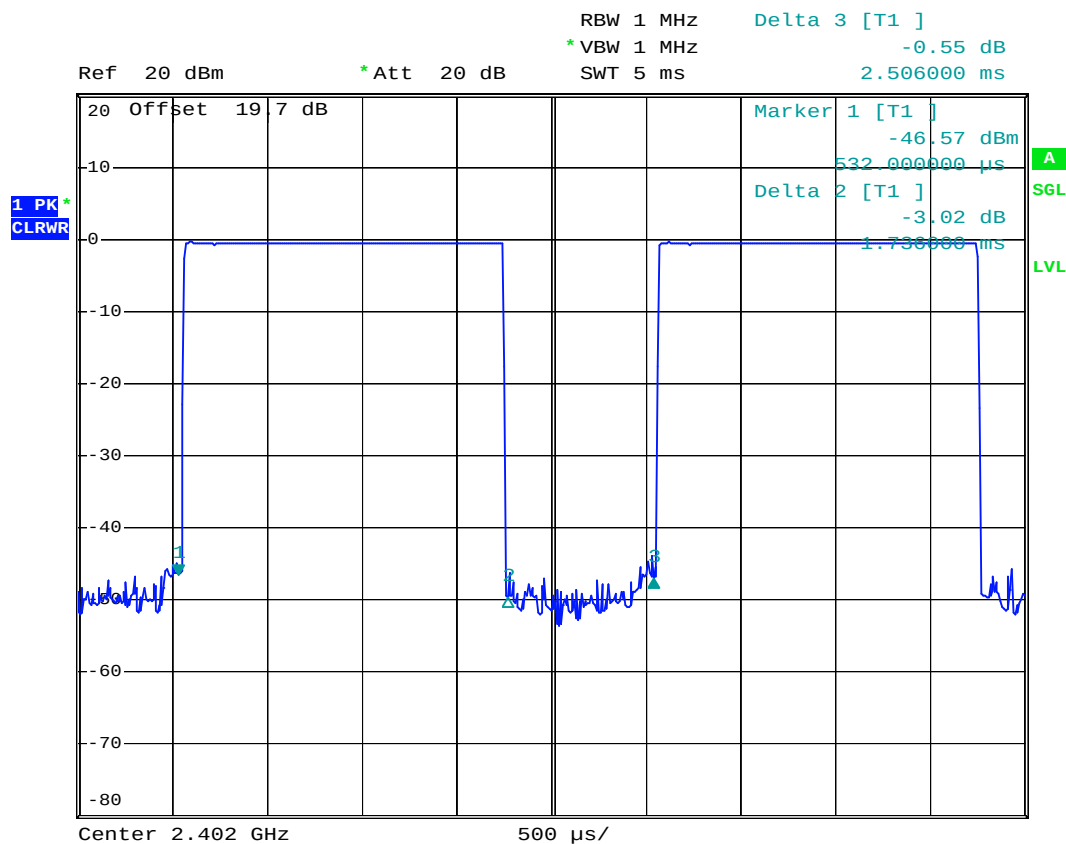
Date: 9.MAY.2007 22:52:49



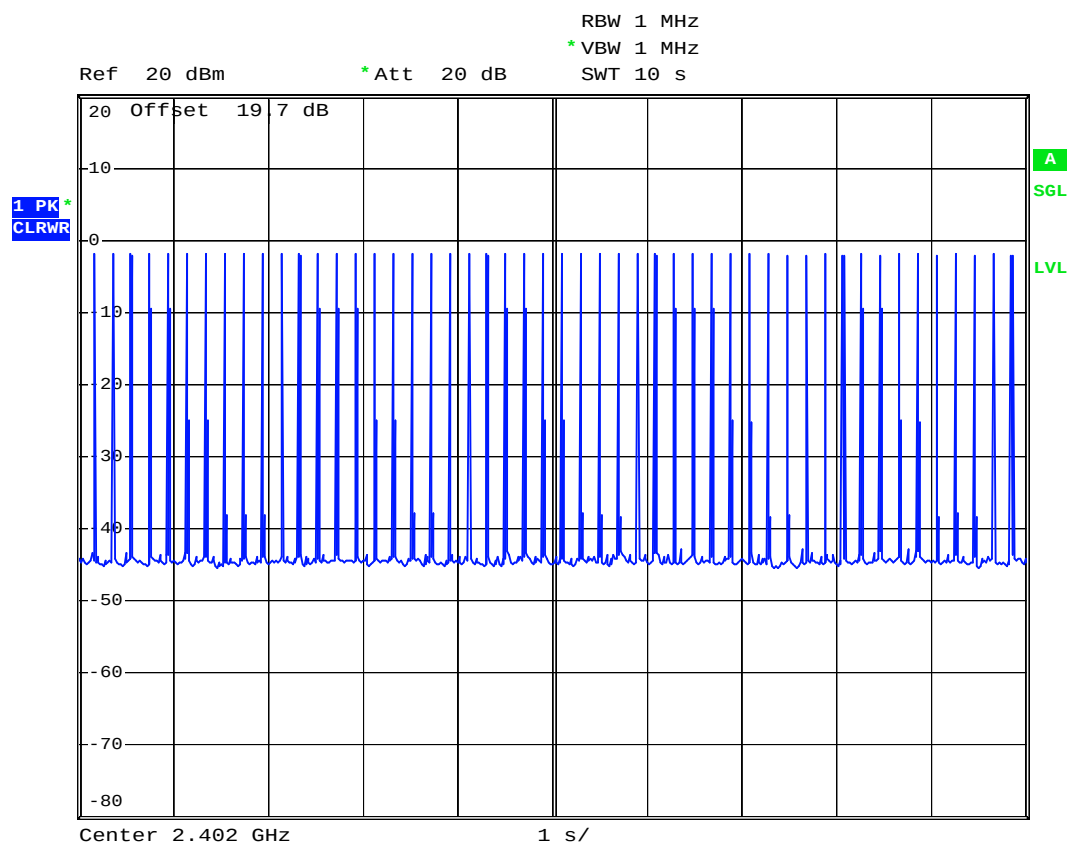
Date: 9.MAY.2007 23:10:52



DH3 (CH00)



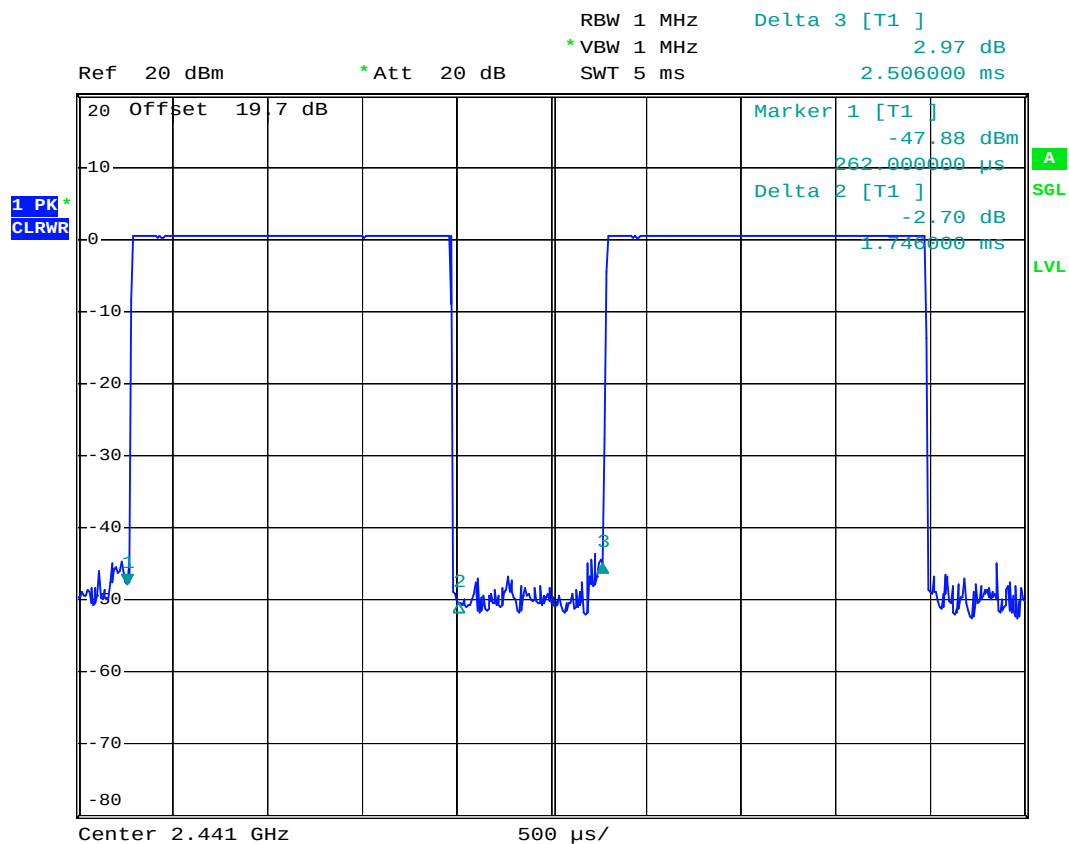
Date: 9.MAY.2007 22:54:06



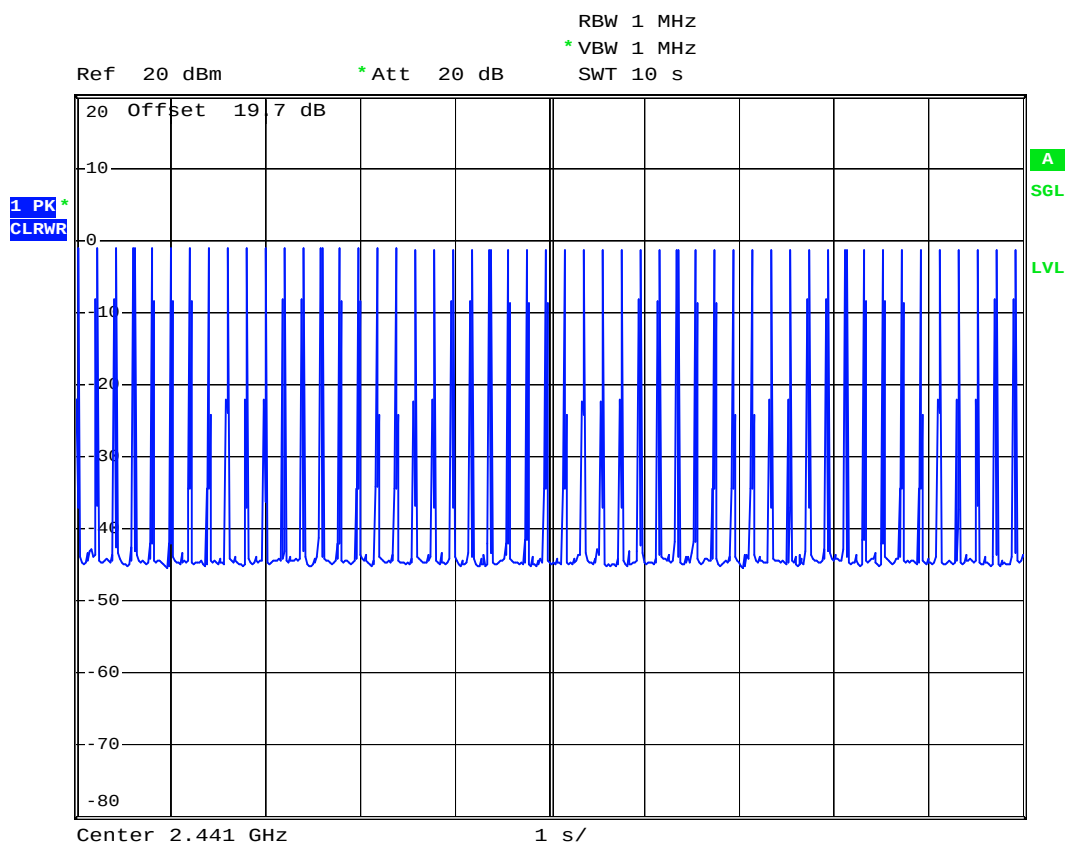
Date: 9.MAY.2007 23:11:43



DH3 (CH39)



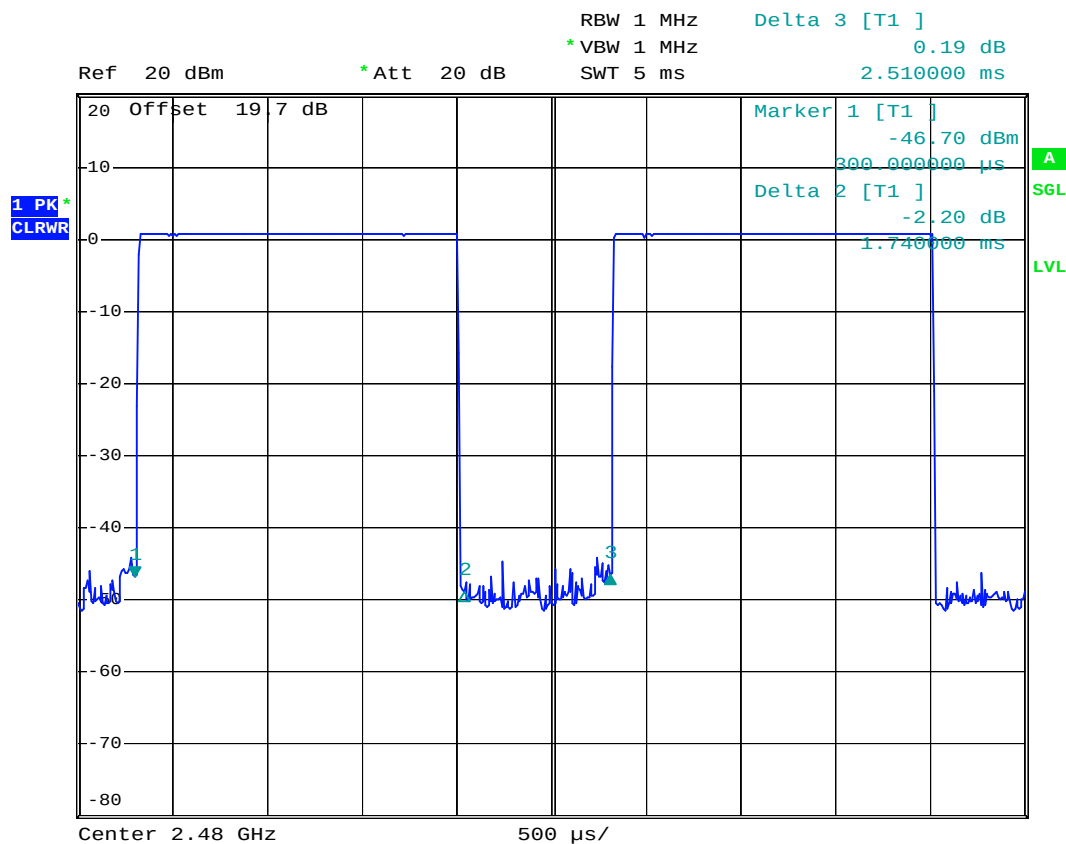
Date: 9.MAY.2007 22:54:57



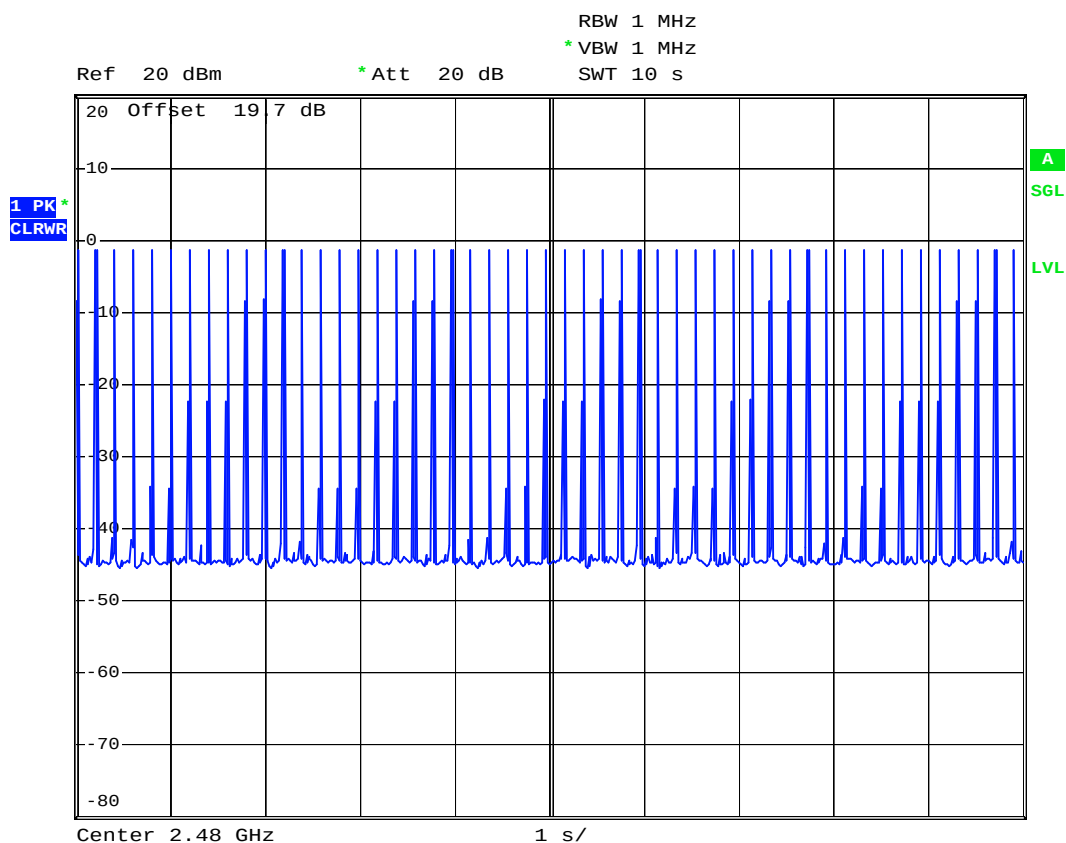
Date: 9.MAY.2007 23:12:08



DH3 (CH78)



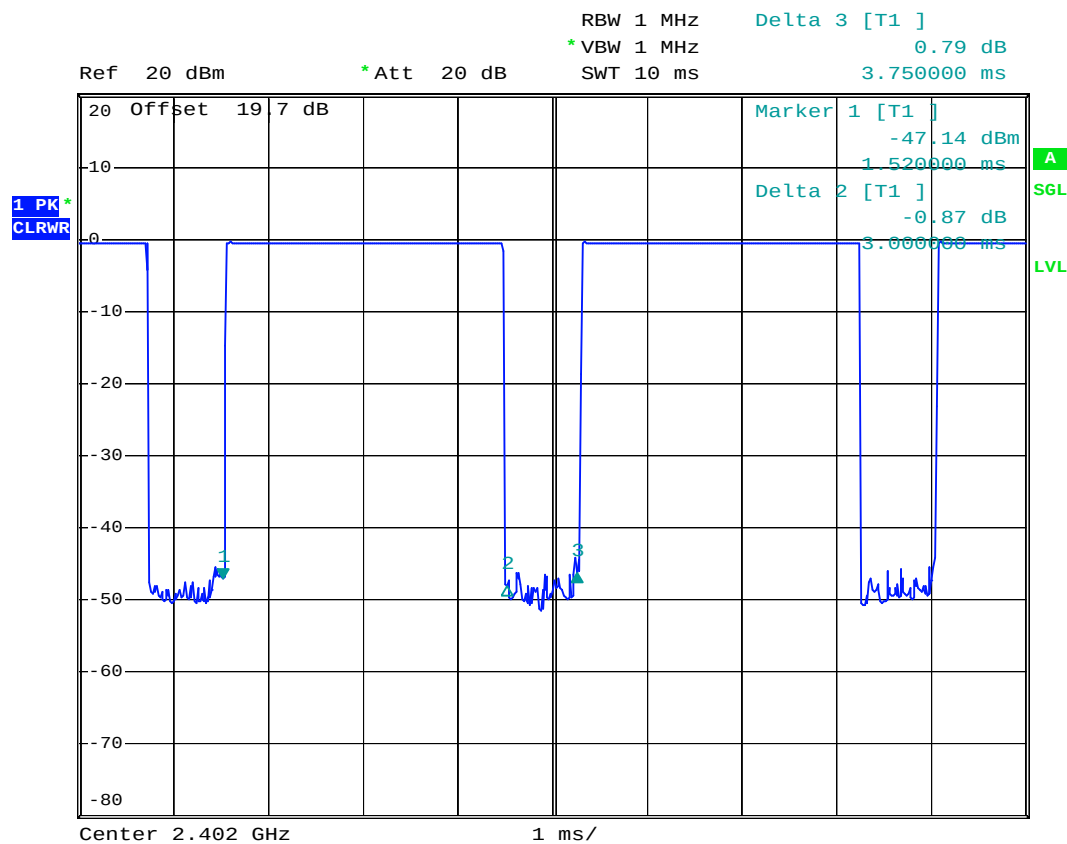
Date: 9.MAY.2007 22:55:41



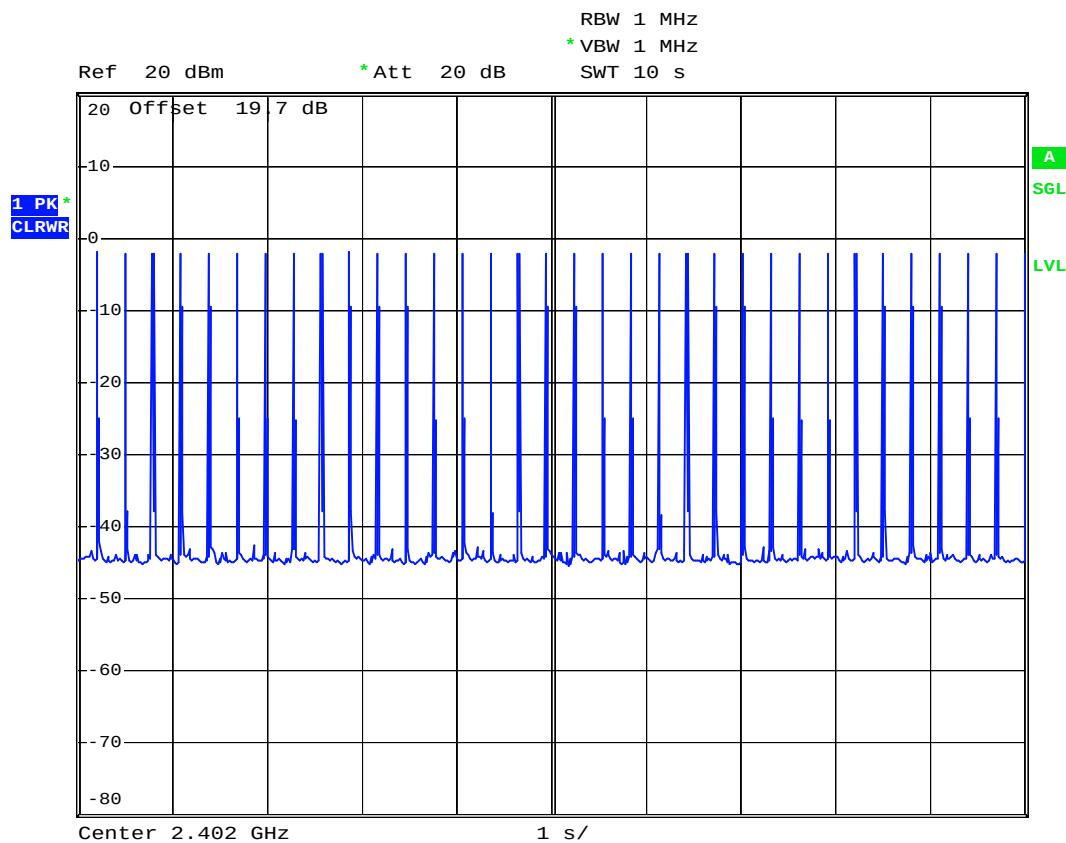
Date: 9.MAY.2007 23:12:30



DH5 (CH00)



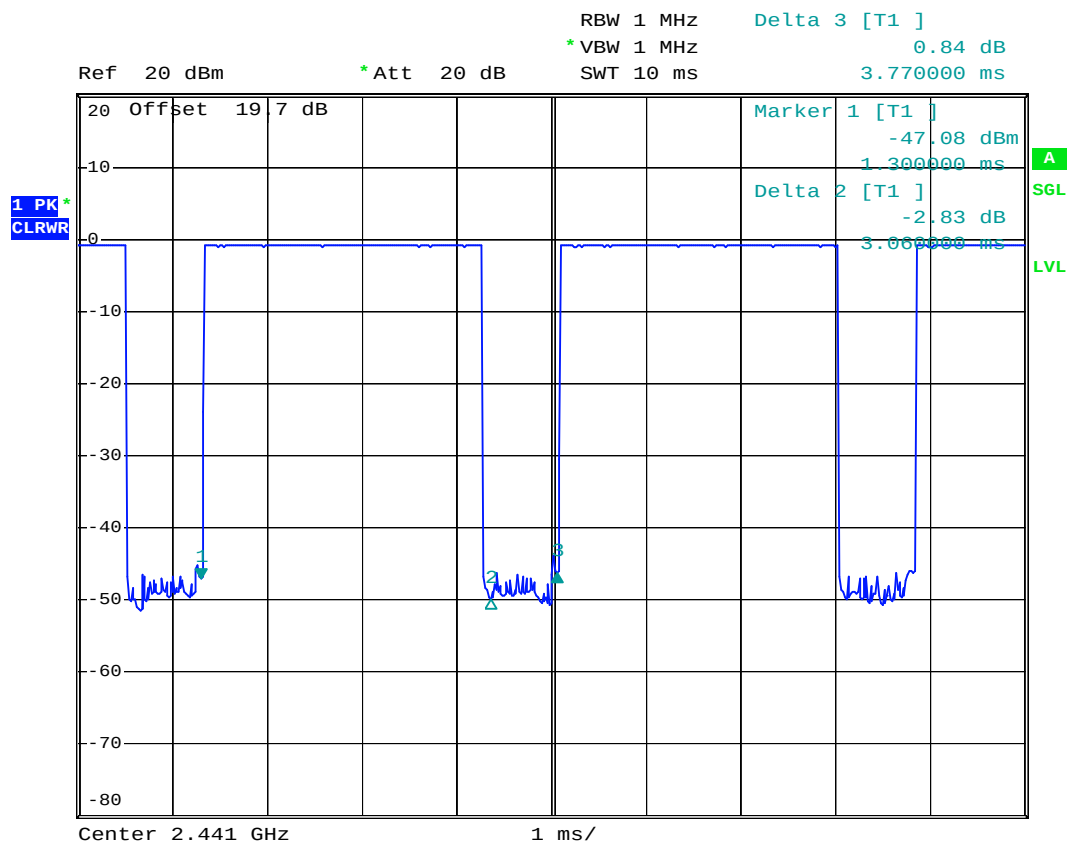
Date: 9.MAY.2007 22:56:36



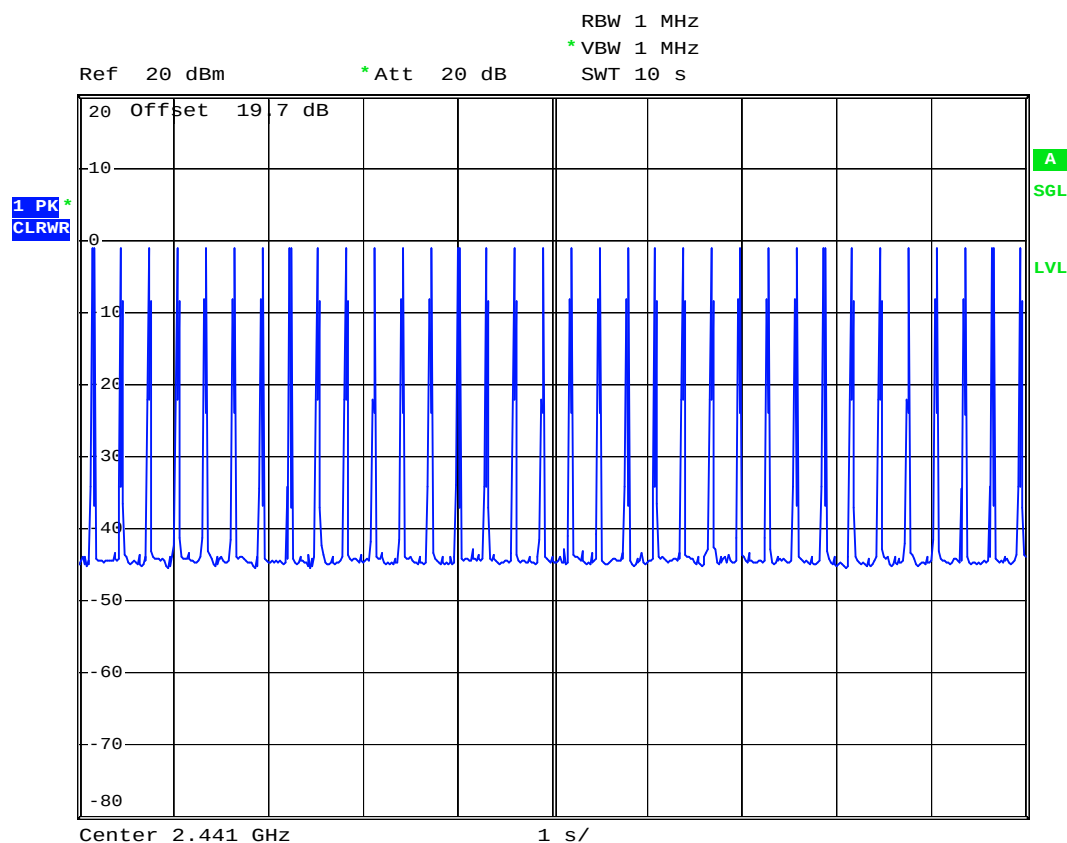
Date: 9.MAY.2007 23:13:44



DH5 (CH39)



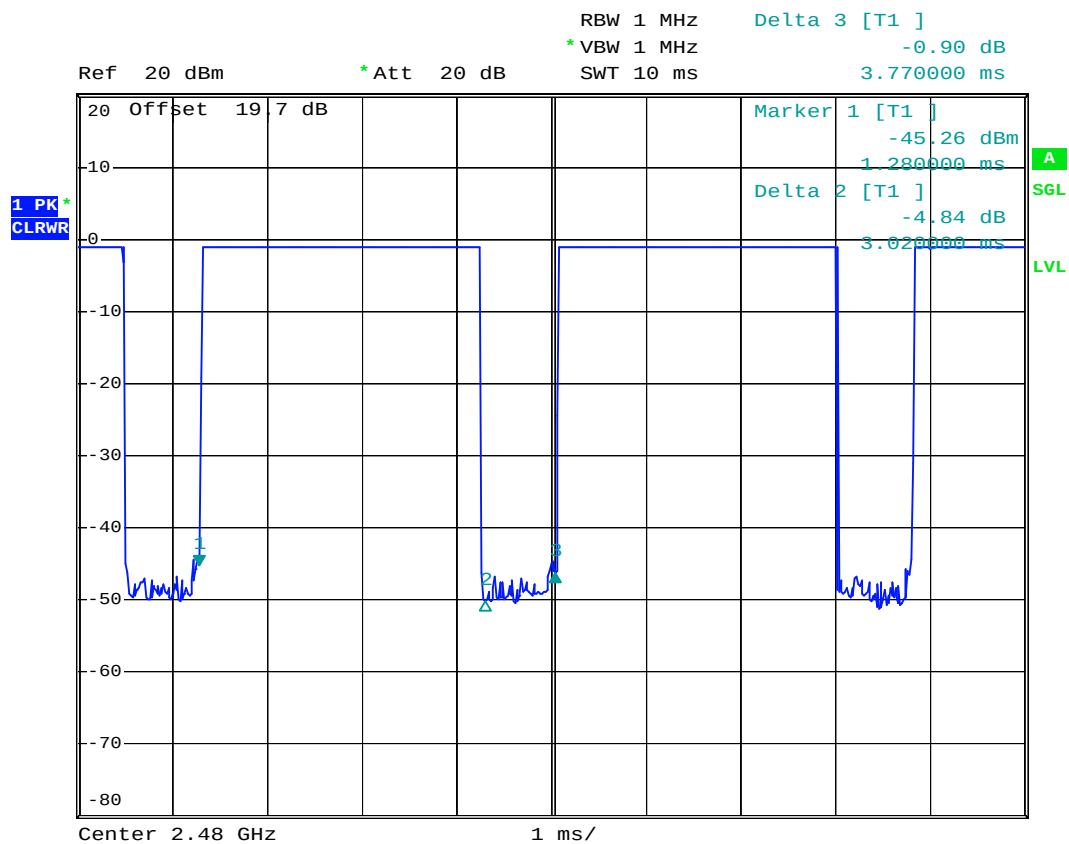
Date: 9.MAY.2007 22:57:35



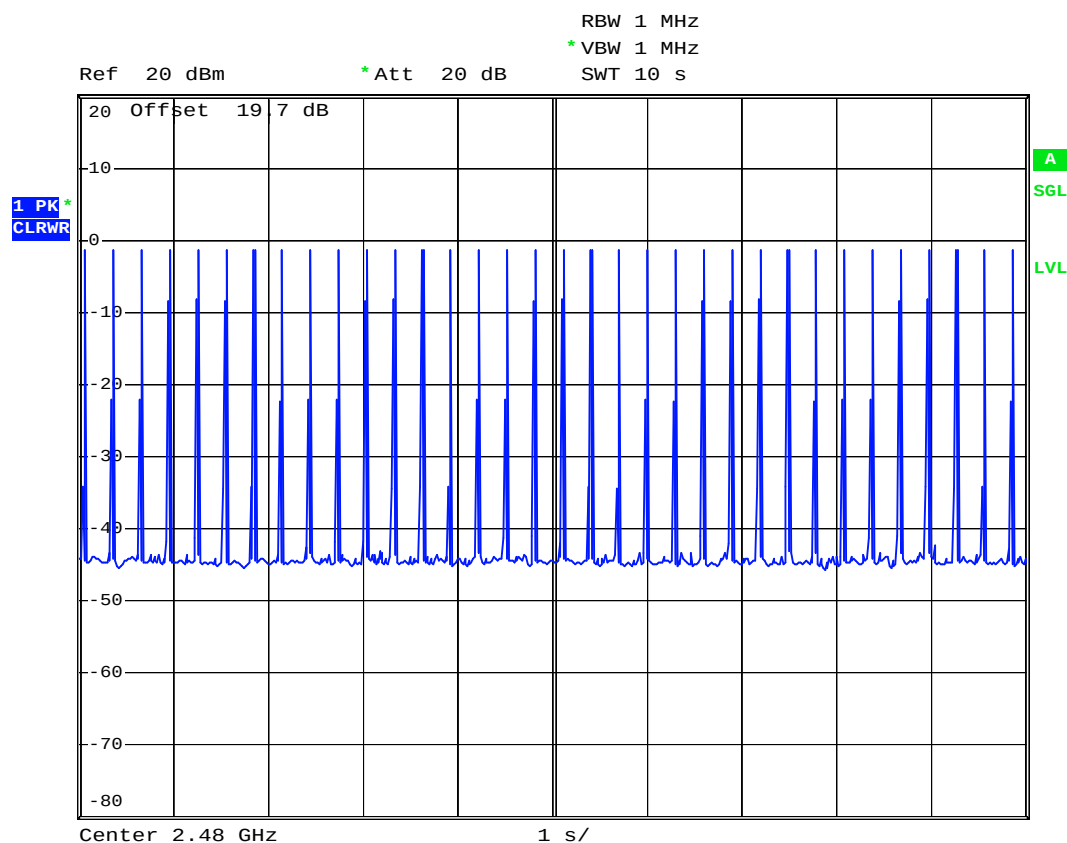
Date: 9.MAY.2007 23:15:56



DH5 (CH78)



Date: 9.MAY.2007 22:58:33



Date: 9.MAY.2007 23:16:30

5.9 Peak Output Power Measurement

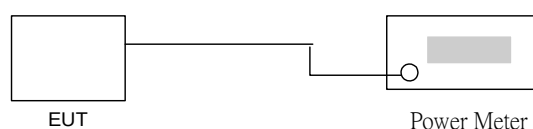
5.9.1 Measuring Instruments :

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 : 23°C
- Relative Humidity : 47 %
- Test Enginner : James

WLAN 802.11b

Channel	Frequency (MHz)	Measured Output Power (dBm)	Limits (Watt/dBm)
01	2412	20.68	1W/30 dBm
06	2437	19.32	1W/30 dBm
11	2462	19.13	1W/30 dBm

WLAN 802.11g

Channel	Frequency (MHz)	Measured Output Power (dBm)	Limits (Watt/dBm)
01	2412	22.05	1W/30 dBm
06	2437	21.99	1W/30 dBm
11	2462	22.28	1W/30 dBm

WLAN 802.11a

Channel	Frequency (MHz)	Measured Output Power (dBm)	Limits (Watt/dBm)
149	5745	19.20	1W/30 dBm
157	5785	19.05	1W/30 dBm
165	5825	18.62	1W/30 dBm

Bluetooth_EDR

Channel	Frequency (MHz)	Measured Output Power (dBm)	Limits (Watt/dBm)
00	2402	0.29	1W/30 dBm
39	2441	1.15	1W/30 dBm
78	2480	1.27	1W/30 dBm

Bluetooth

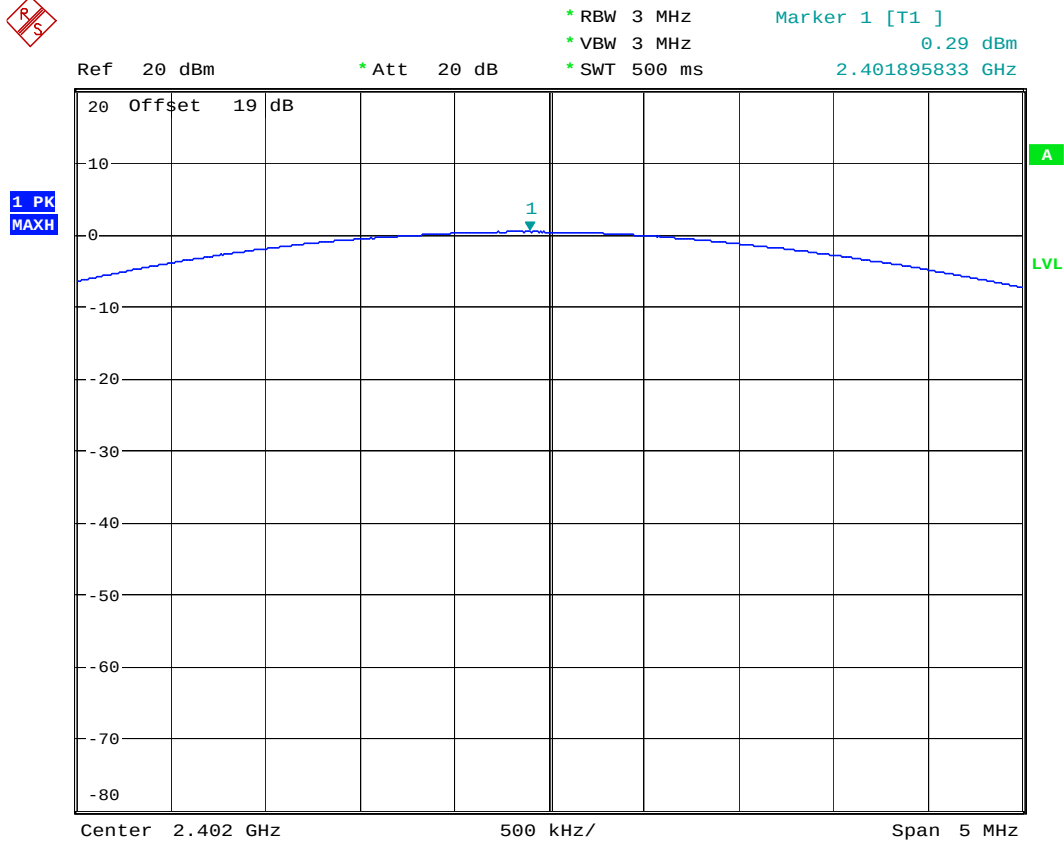
Channel	Frequency (MHz)	Measured Output Power (dBm)	Limits (Watt/dBm)
00	2402	0.49	1W/30 dBm
39	2441	-0.55	1W/30 dBm
78	2480	0.13	1W/30 dBm



5.9.5 Output Power

➤ BT_EDR

BT Mode : CH00 (2402MHz)



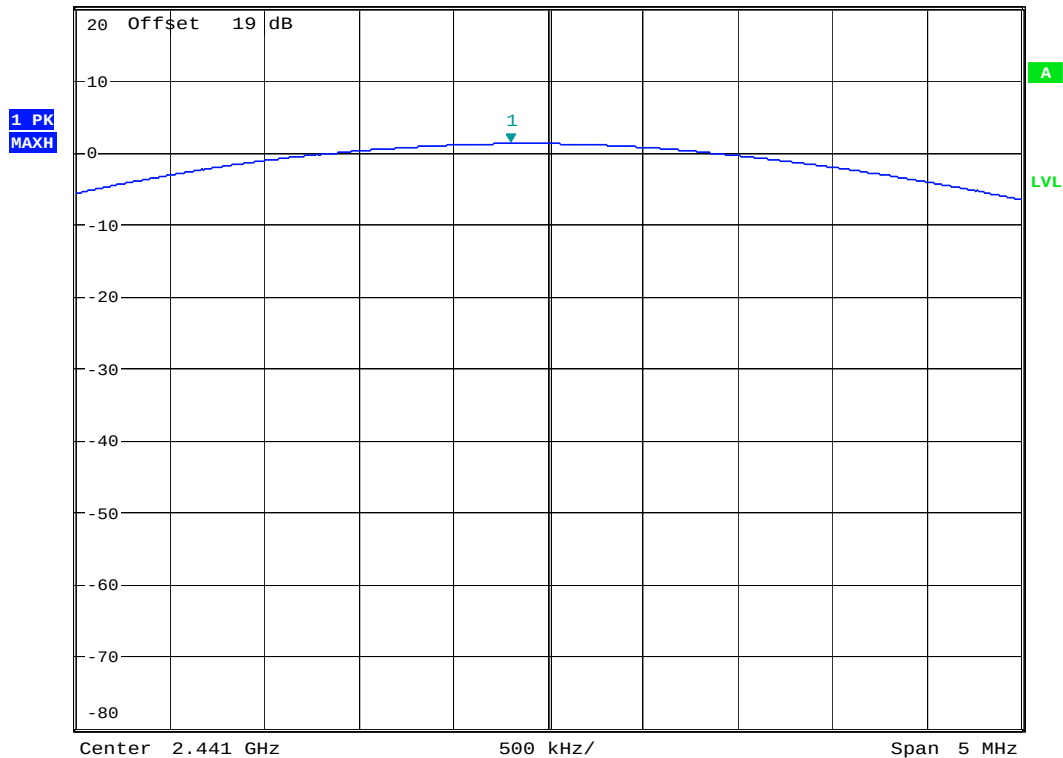
Date: 10.MAY.2007 16:47:47



BT Mode : CH39 (2441MHz)



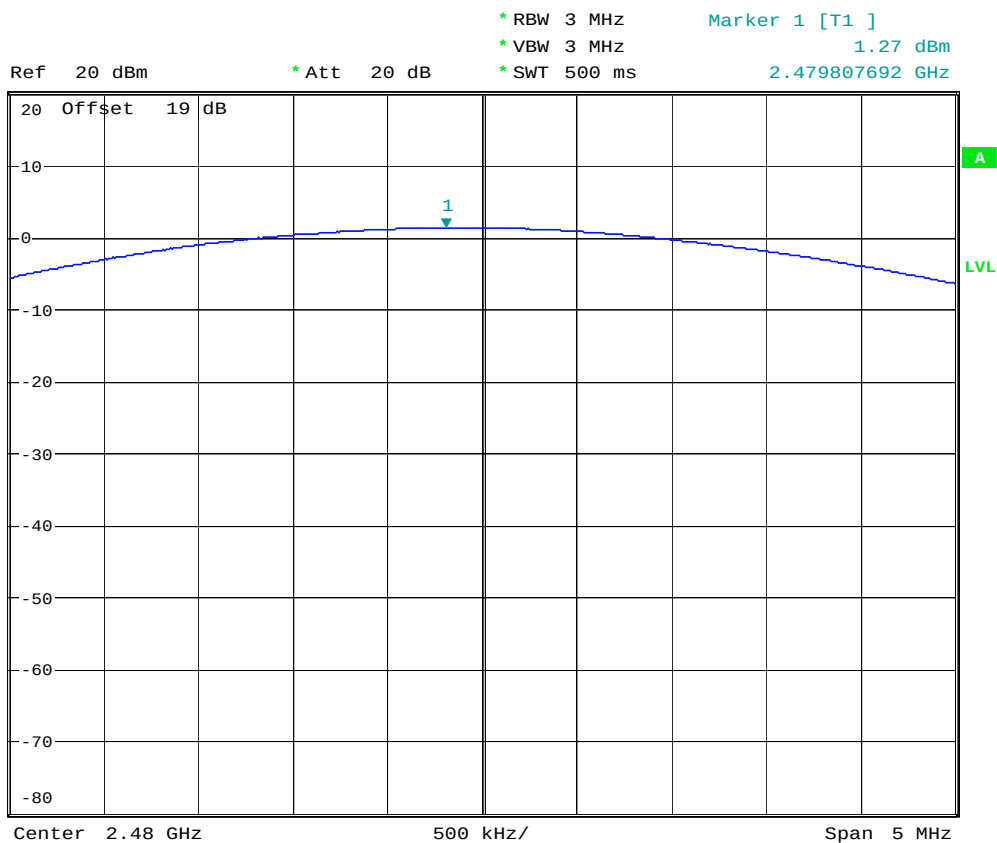
Ref 20 dBm * Att 20 dB * RBW 3 MHz * VBW 3 MHz * SWT 500 ms Marker 1 [T1] 1.15 dBm 2.440799679 GHz



Date: 10.MAY.2007 16:48:09



BT Mode : CH78 (2480MHz)

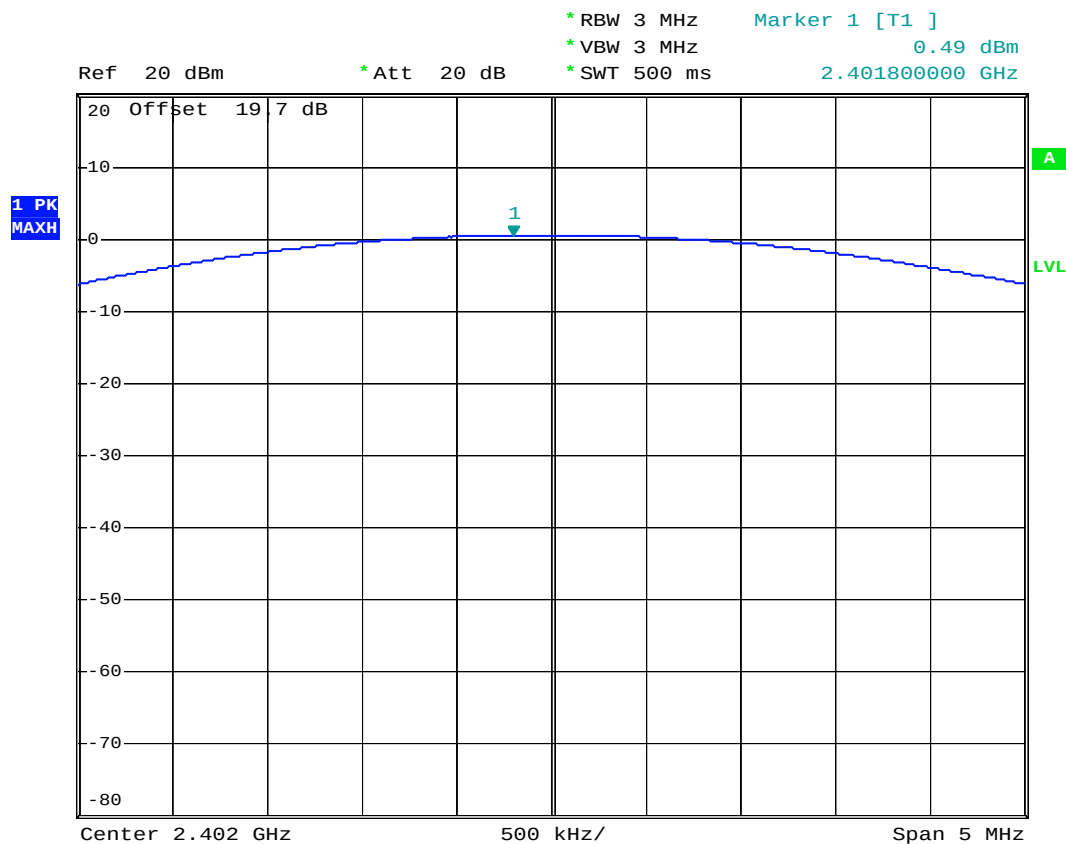


Date: 10.MAY.2007 16:48:32



➤ BT

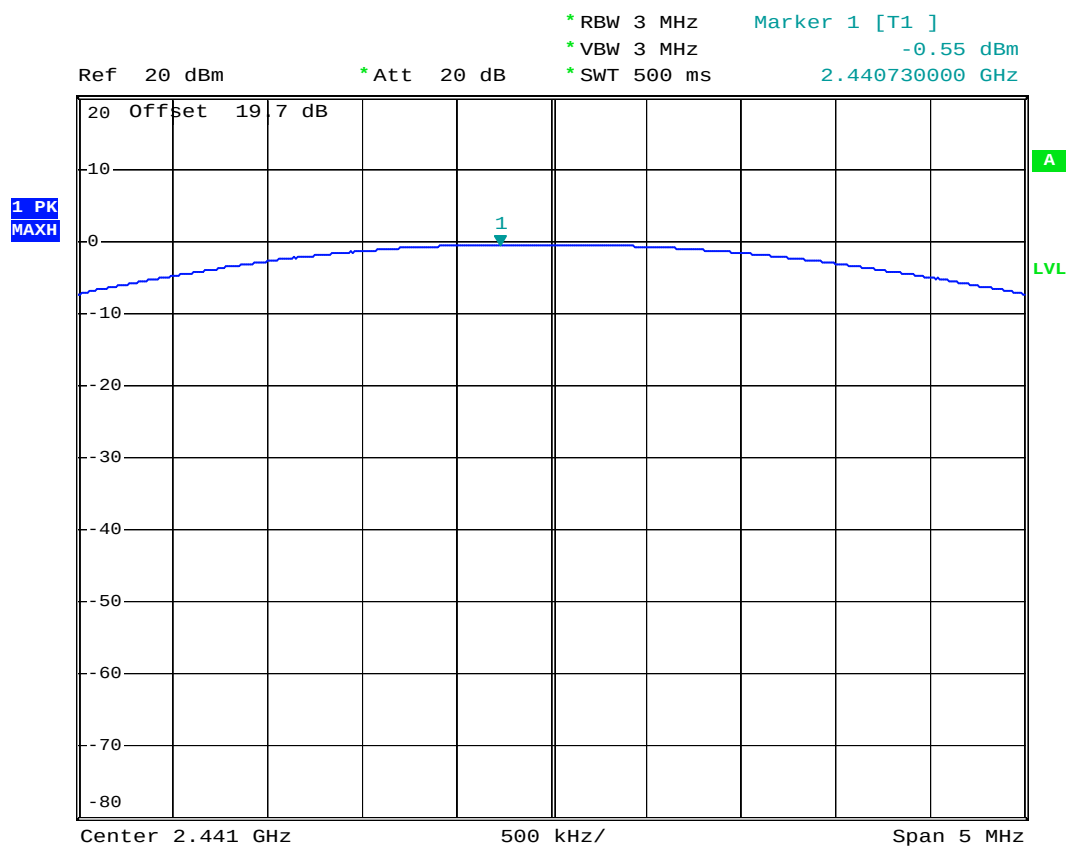
BT Mode : CH00 (2402MHz)



Date: 9.MAY.2007 22:37:42



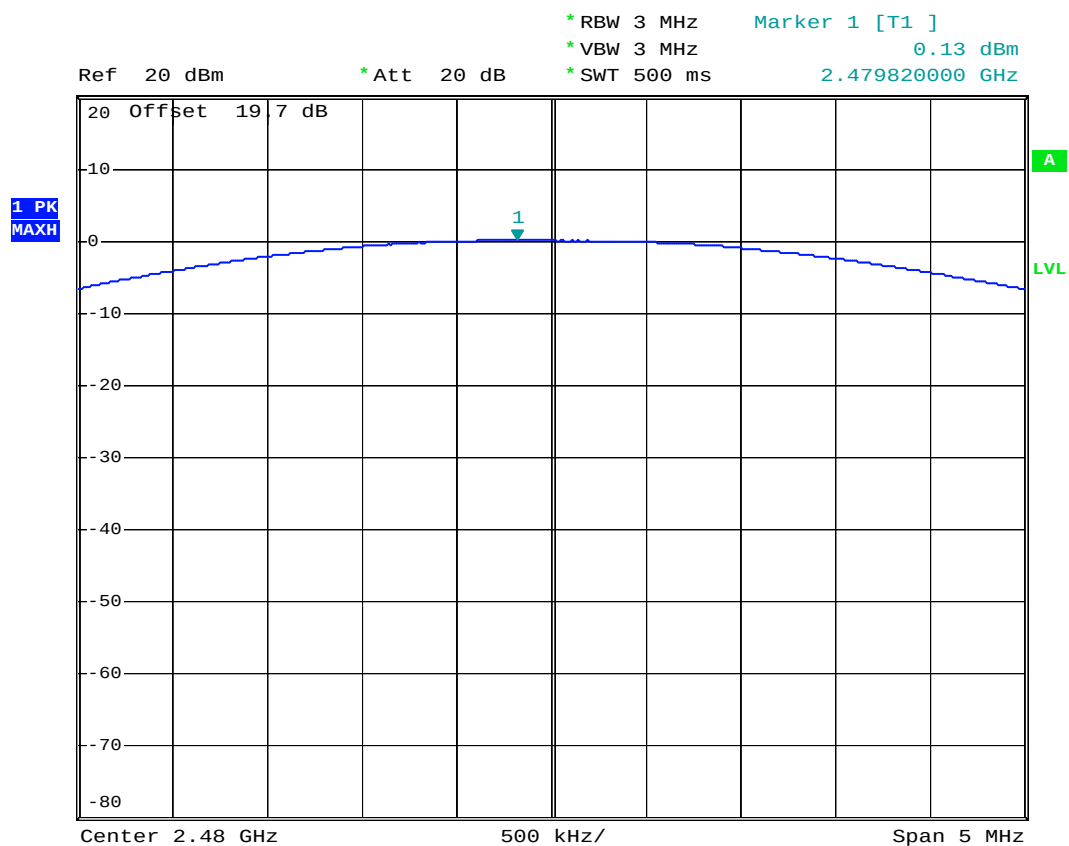
BT Mode : CH39 (2441MHz)



Date: 9.MAY.2007 22:38:05



BT Mode : CH78 (2480MHz)



Date: 9.MAY.2007 22:38:34



5.10 Conducted Emission

5.10.1 Measuring Instruments

As described in chapter 6 of this test Report.

5.10.2 Test Procedures :

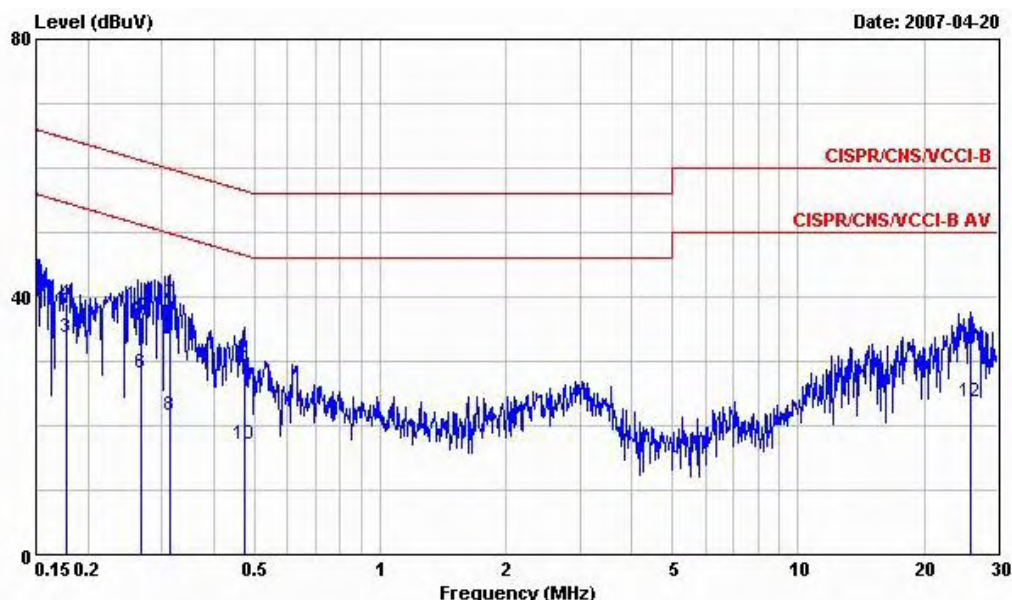
- a. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
- b. Connect EUT to the power port of a line impedance stabilization network (LISN).
- c. All the support units are connected to the other LISN.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

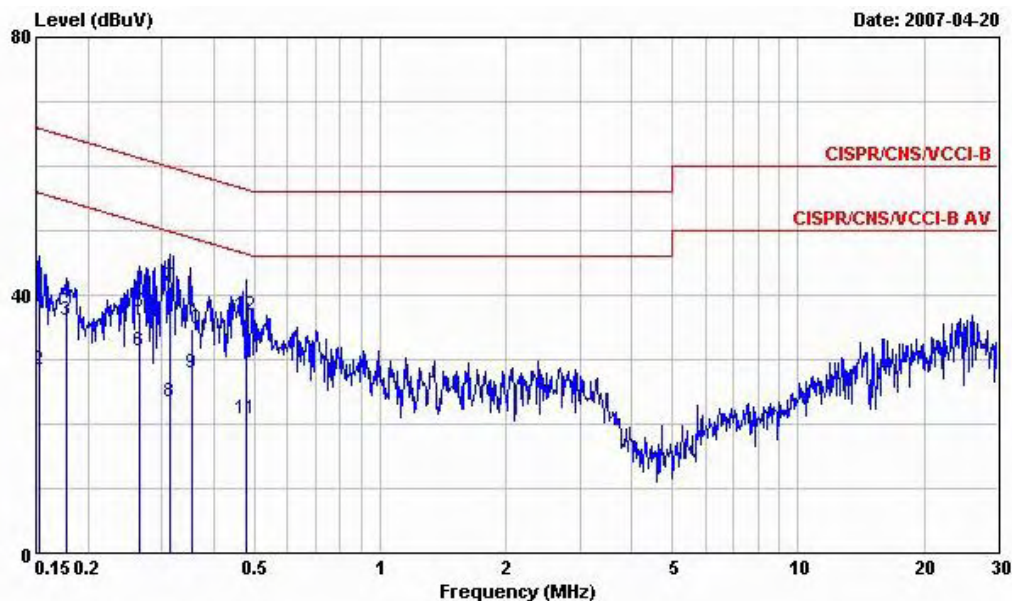
- Temperature : 23 °C
- Relative Humidity : 47 %
- Test Engineer : James
- Test Mode : Mode 1

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



Site : CO04-HY
Condition : CISPR/CNS/VCCI-B LISN 200604 99041 LINE
EUT : Notebook
POWER: AC 120V/60Hz
Model : FR6D2906
Memo : BT Link + WLAN Link + Adapter

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.150000	29.02	-26.98	56.00	28.22	0.10	0.70	Average
2	0.150000	42.06	-23.94	66.00	41.26	0.10	0.70	QP
3	0.177396	33.77	-20.84	54.61	33.09	0.10	0.58	Average
4	0.177396	38.96	-25.65	64.61	38.28	0.10	0.58	QP
5	0.266727	36.89	-24.33	61.22	36.33	0.10	0.46	QP
6	0.266727	28.09	-23.13	51.22	27.53	0.10	0.46	Average
7	0.314946	38.94	-20.90	59.84	38.44	0.10	0.40	QP
8	0.314946	21.65	-28.19	49.84	21.15	0.10	0.40	Average
9	0.473603	30.63	-25.82	56.45	30.08	0.10	0.45	QP
10	0.473603	17.15	-29.30	46.45	16.60	0.10	0.45	Average
11	25.730	32.15	-27.85	60.00	30.91	0.32	0.92	QP
12	25.730	23.71	-26.29	50.00	22.47	0.32	0.92	Average



Site : CO04-HY
 Condition : CISPR/CNS/VCCI-B LISN 200604 99041 NEUTRAL
 EUT : Notebook
 POWER: AC 120V/60Hz
 Model : FR6D2906
 Memo : BT Link + WLAN Link + Adapter

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.1524030	41.38	-24.49	65.87	40.59	0.10	0.69	QP
2	0.1524030	28.46	-27.41	55.87	27.67	0.10	0.69	Average
3	0.1767760	36.11	-18.53	54.64	35.42	0.10	0.59	Average
4	0.1767760	38.65	-25.99	64.64	37.96	0.10	0.59	QP
5	0.2658290	37.24	-24.01	61.25	36.67	0.10	0.47	QP
6	0.2658290	31.44	-19.81	51.25	30.87	0.10	0.47	Average
7	0.3149460	41.36	-18.48	59.84	40.86	0.10	0.40	QP
8	0.3149460	23.33	-26.51	49.84	22.83	0.10	0.40	Average
9	0.3558320	27.81	-21.02	48.83	27.31	0.10	0.40	Average
10	0.3558320	34.86	-23.97	58.83	34.36	0.10	0.40	QP
11	0.4761190	20.88	-25.53	46.41	20.34	0.10	0.44	Average
12	0.4761190	36.94	-19.47	56.41	36.40	0.10	0.44	QP

5.11 Radiated Emission Measurement

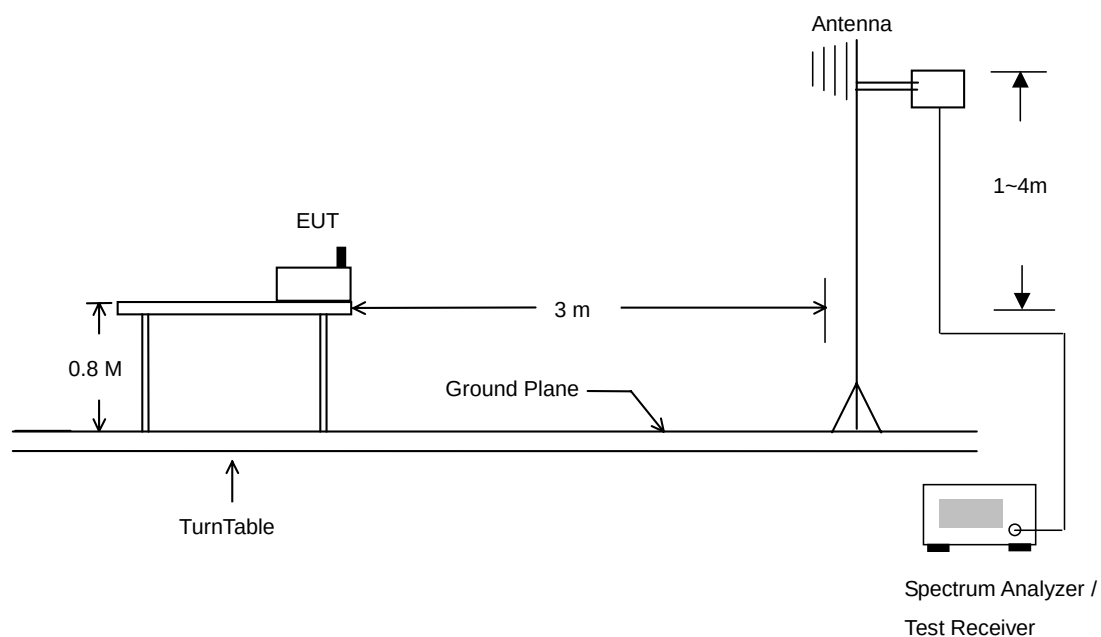
5.11.1 Measuring Instruments

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

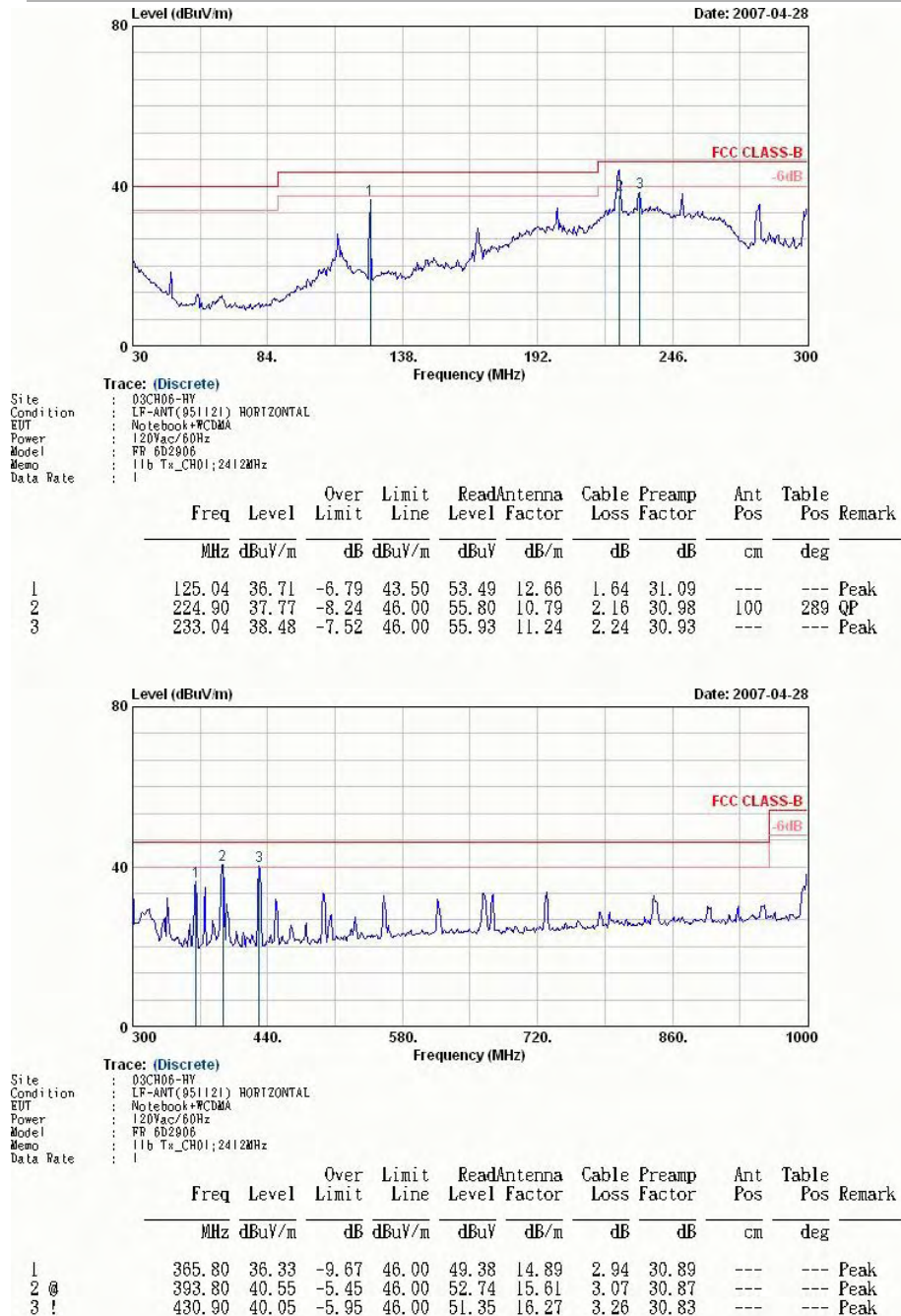


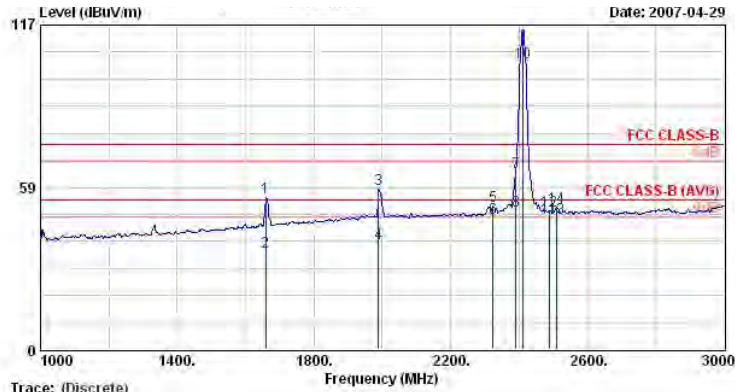


5.11.4 Test Data

- Temperature : 24°C
- Relating Humidity : 52%
- Test Enginner : Andrew
- Test Mode : Mode 1
- Polarization : Horizontal

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

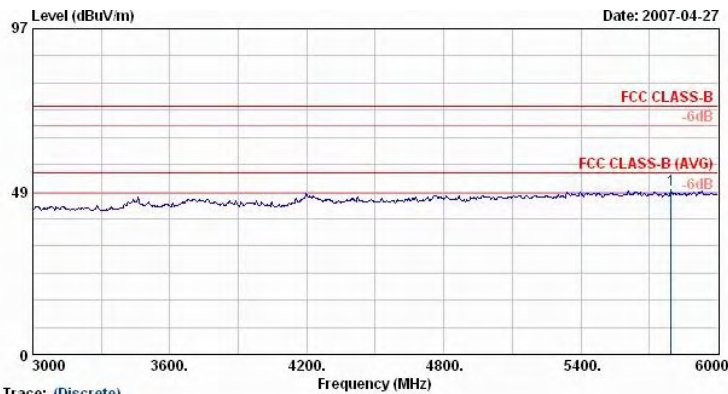




Trace: (Discrete)
Site : D3CH06-HY
Condition : RF-ANT-060410 HORIZONTAL
EUT : Notebook+PCDMA
Power : 120Vac/60Hz
Model : FR 6D2906
Memo : 11b Tx_CH01:2412MHz
Data Rate : 1

	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	cm	deg	
1	1858.00	54.75	-19.25	74.00	59.82	27.43	3.03	35.53	100	360 Peak
2	1858.00	35.14	-18.86	54.00	40.21	27.43	3.03	35.53	100	358 Average
3	1988.00	57.96	-16.04	74.00	59.86	29.97	3.30	35.17	100	360 Peak
4	1988.00	38.31	-15.69	54.00	40.21	29.97	3.30	35.17	100	61 Average
5	2324.00	51.73	-22.27	74.00	53.22	30.23	3.69	35.40	100	360 Peak
6	2324.00	47.48	-6.52	54.00	48.97	30.23	3.69	35.40	108	246 Average
7	2390.00	63.92	-10.08	74.00	65.37	30.26	3.75	35.46	100	360 Peak
8 @	2390.00	49.90	-4.10	54.00	51.35	30.26	3.75	35.46	108	245 Average
9 @	2412.00	115.29			116.71	30.27	3.77	35.46	100	360 Peak
10 @	2412.00	103.38			104.80	30.27	3.77	35.46	108	245 Average
11	2488.00	47.45	-6.55	54.00	48.80	30.30	3.86	35.51	108	245 Average
12	2488.00	49.89	-24.11	74.00	51.24	30.30	3.86	35.51	100	360 Peak
13	2508.00	47.59	-6.41	54.00	48.94	30.28	3.90	35.53	108	245 Average
14	2508.00	51.31	-22.69	74.00	52.68	30.28	3.88	35.53	100	360 Peak

Remark: #9 and #10 Fundamental Signal



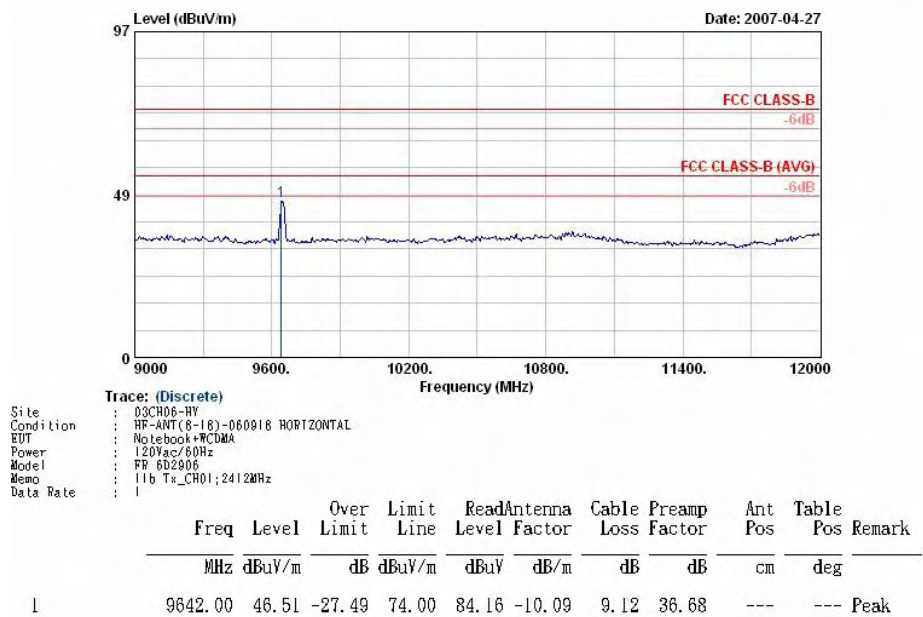
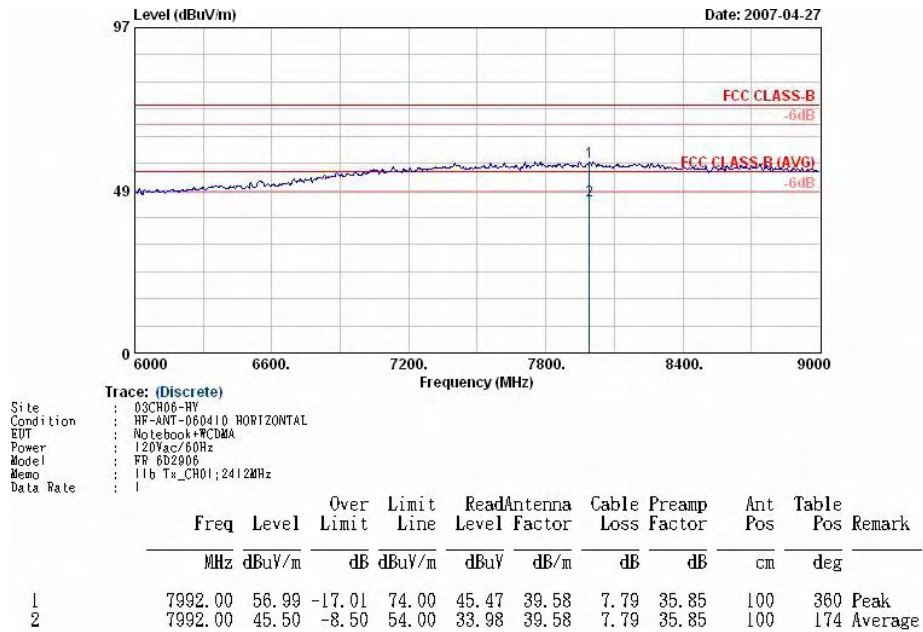
Trace: (Discrete)
Site : D3CH06-HY
Condition : RF-ANT-060410 HORIZONTAL
EUT : Notebook+PCDMA
Power : 120Vac/60Hz
Model : FR 6D2906
Memo : 11b Tx_CH01:2412MHz
Data Rate : 1

	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	cm	deg	
1	5796.00	48.96	-25.04	74.00	43.96	33.89	6.91	35.81	---	Peak



FCC / IC TEST REPORT

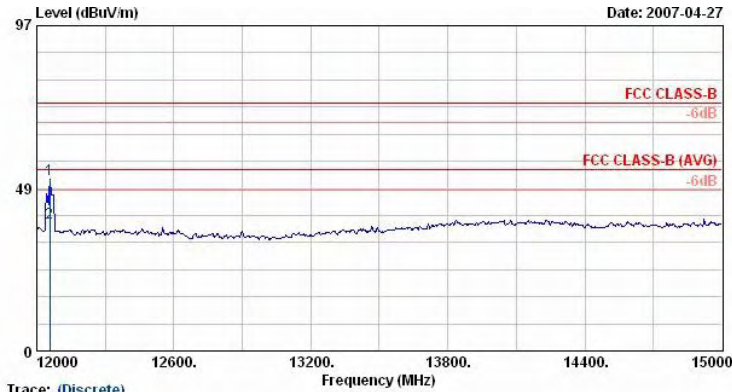
Report No. : FR6D2906-A





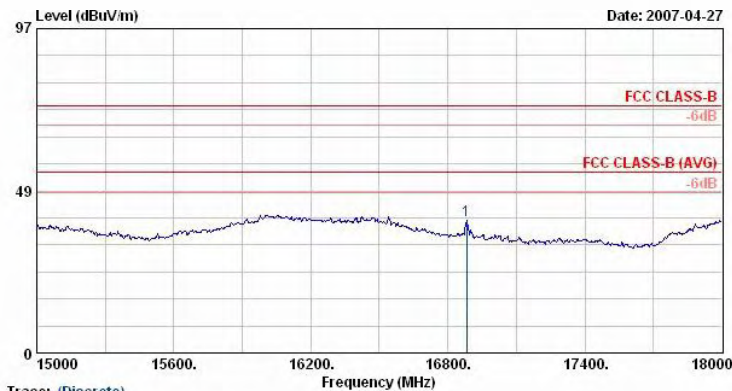
FCC / IC TEST REPORT

Report No. : FR6D2906-A



Trace: (Discrete)
Site : D3CH06-HY
Condition : HF-ANT(8-18)-060918 HORIZONTAL
EUT : Notebook+WCDMA
Power : 120Vac/60Hz
Model : FR 6D2906
Memo : 11b Tx_CH01;2412MHz
Data Rate : 1

	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	cm	deg	
1	12057.00	51.12	-22.88	74.00	86.83	-9.80	10.65	100	360	Peak
2	12057.00	38.22	-15.78	54.00	73.93	-9.80	10.65	103	313	Average



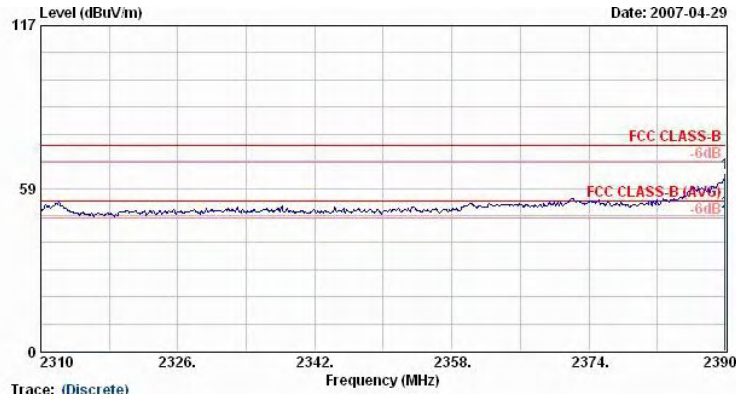
Trace: (Discrete)
Site : D3CH06-HY
Condition : HF-ANT(8-18)-060918 HORIZONTAL
EUT : Notebook+WCDMA
Power : 120Vac/60Hz
Model : FR 6D2906
Memo : 11b Tx_CH01;2412MHz
Data Rate : 1

	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	cm	deg	
1	16881.00	39.74	-34.26	74.00	72.29	-10.10	11.99	---	---	Peak



FCC / IC TEST REPORT

Report No. : FR6D2906-A



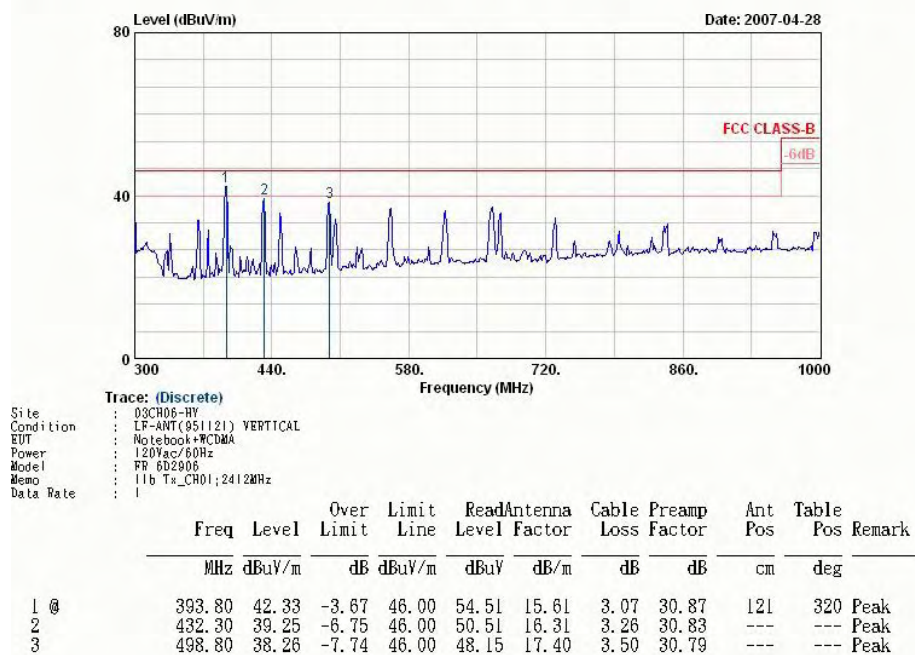
Trace: (Discrete)
Site : 03CH06-HY
Condition : RF-ANT-060410, HORIZONTAL
EUT : Notebook+WCDMA
Power : 120Vac/60Hz
Model : FR 6D2906
Memo : 11b Tx_CH01; 2412MHz
Data Rate : 1

	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	cm	deg	
1	2389.92	63.92	-10.08	74.00	65.37	30.26	3.75	35.46	100	360 Peak
2 @	2389.92	49.90	-4.10	54.00	51.35	30.26	3.75	35.46	106	245 Average



- Polarization : Vertical

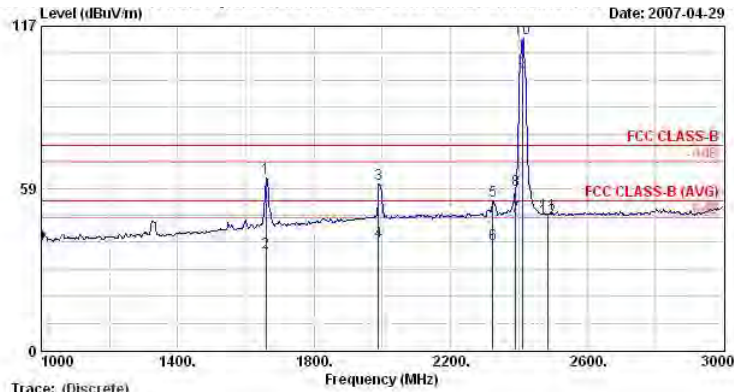
■ The test that passed at minimum margin was marked by the frame in the following table.





FCC / IC TEST REPORT

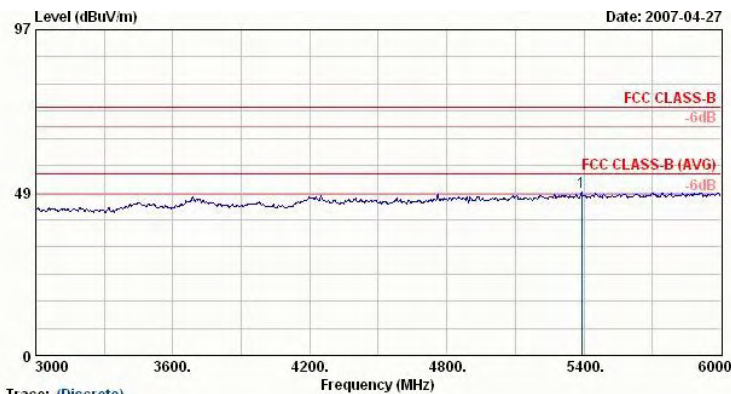
Report No. : FR6D2906-A



Trace: (Discrete)
Site : 03CH06-HY
Condition : RF-ANT-060410 VERTICAL
EUT : Notebook+WCDMA
Power : 120Vac/60Hz
Model : FR 6D2906
Memo : 11b Tx_CH01;2412MHz
Data Rate : 1

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	1658.00	62.19	-11.81	74.00	67.27	27.43	3.03	35.53	100	360 Peak
2	1658.00	35.33	-18.67	54.00	40.40	27.43	3.03	35.53	100	43 Average
3	1988.00	60.15	-13.85	74.00	62.05	29.97	3.30	35.17	100	360 Peak
4	1988.00	39.06	-14.94	54.00	40.96	29.97	3.30	35.17	100	310 Average
5	2324.00	53.96	-20.04	74.00	55.45	30.23	3.69	35.40	100	360 Peak
6	2324.00	38.07	-15.93	54.00	39.56	30.23	3.69	35.40	100	119 Average
7 @	2390.00	48.30	-5.70	54.00	49.75	30.26	3.75	35.46	100	269 Average
8	2390.00	57.72	-16.28	74.00	59.16	30.26	3.75	35.46	100	360 Peak
9 @	2412.00	100.58			102.00	30.27	3.77	35.46	100	269 Average
10 @	2412.00	112.65			114.07	30.27	3.77	35.46	100	360 Peak
11	2483.50	49.04	-24.96	74.00	50.40	30.29	3.86	35.51	100	360 Peak
12	2483.50	47.38	-6.62	54.00	48.74	30.29	3.86	35.51	100	269 Average

Remark: #9 and #10 Fundamental Signal



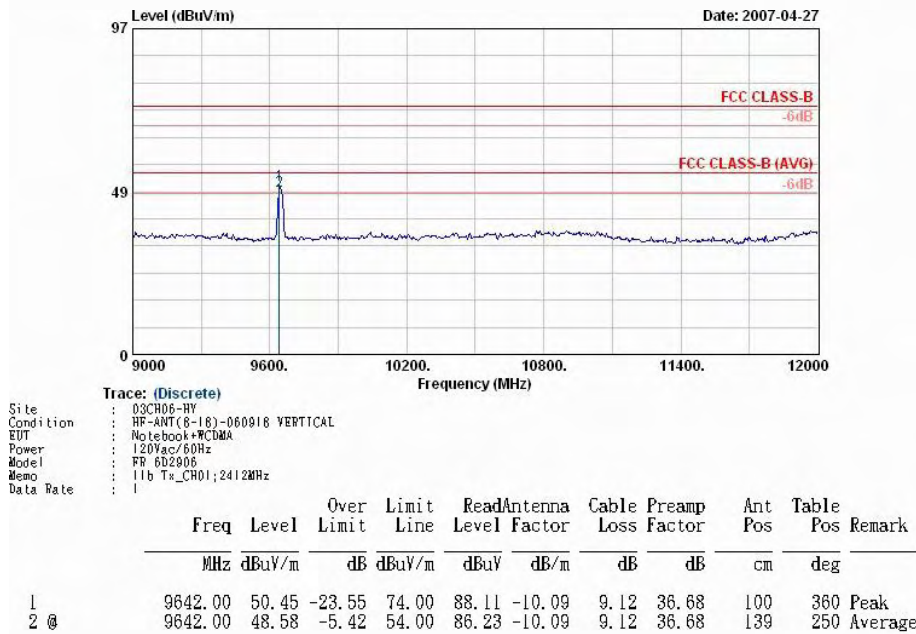
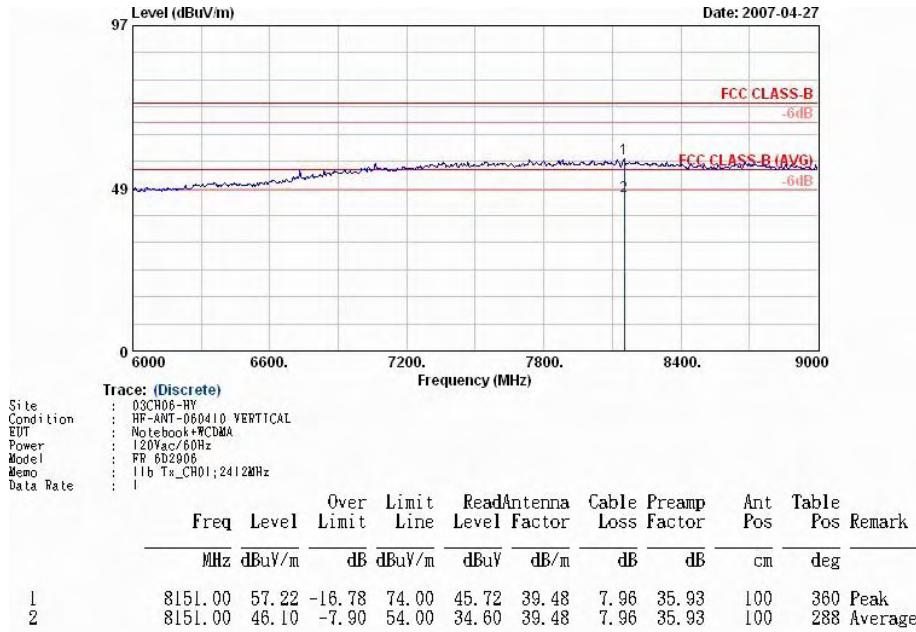
Trace: (Discrete)
Site : 03CH06-HY
Condition : RF-ANT-060410 VERTICAL
EUT : Notebook+WCDMA
Power : 120Vac/60Hz
Model : FR 6D2906
Memo : 11b Tx_CH01;2412MHz
Data Rate : 1

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	5391.00	48.52	-25.48	74.00	44.32	33.60	6.66	36.07	---	---



FCC / IC TEST REPORT

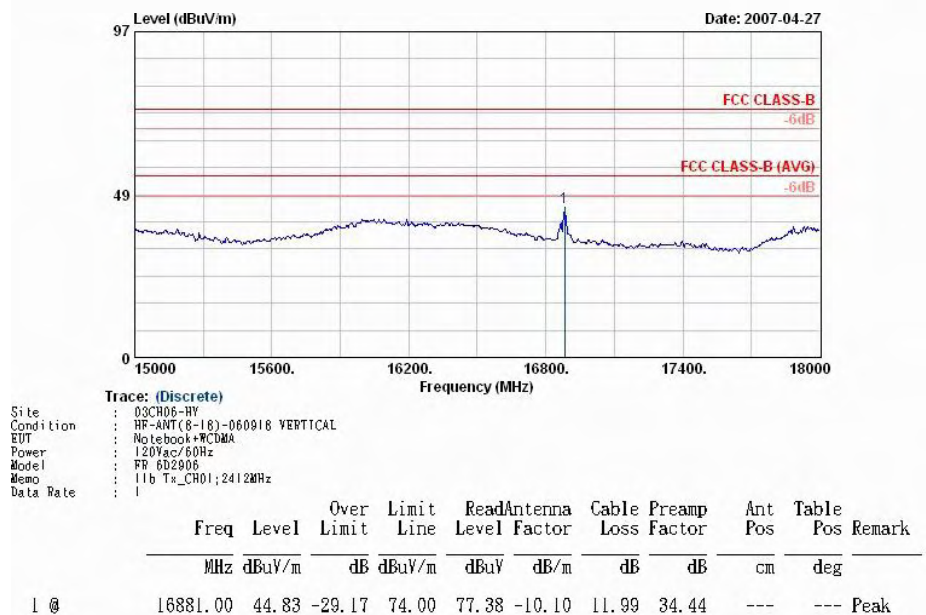
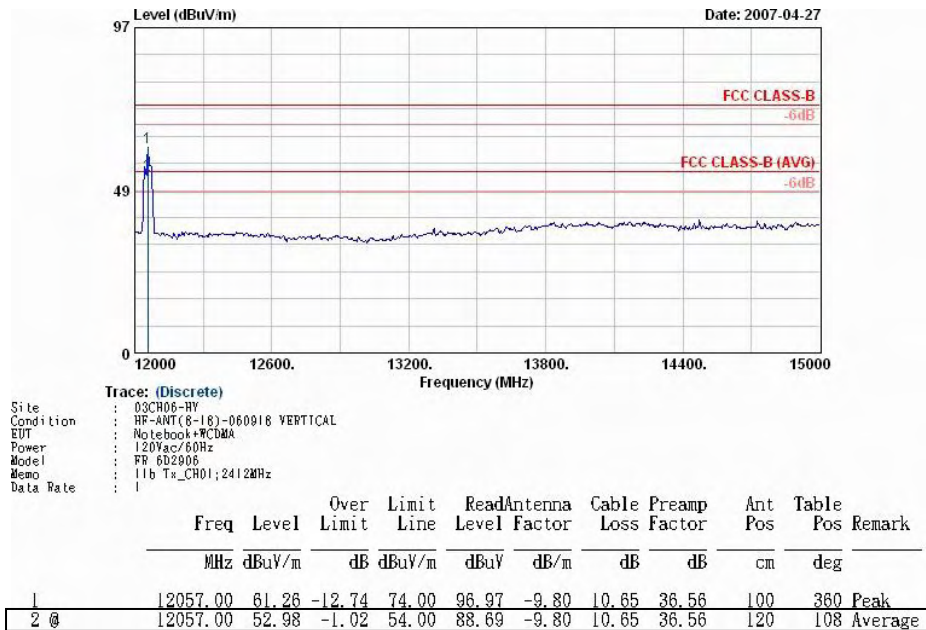
Report No. : FR6D2906-A





FCC / IC TEST REPORT

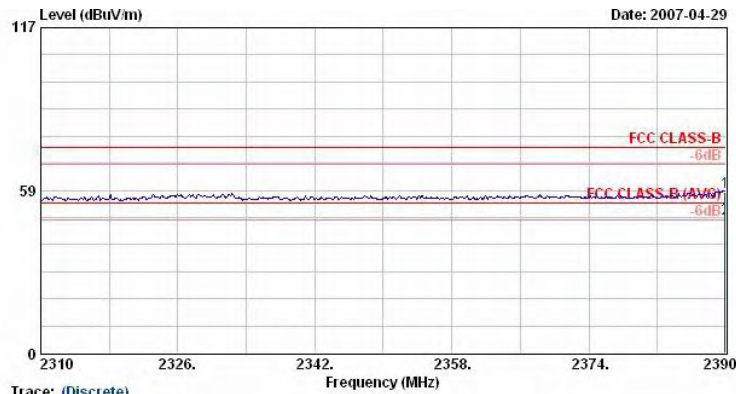
Report No. : FR6D2906-A





FCC / IC TEST REPORT

Report No. : FR6D2906-A



Trace: (Discrete)
Site : 03CH06-HY
Condition : NF-ANT-060410 VERTICAL
EUT : Notebook+WCDMA
Power : 120Vac/60Hz
Model : FR 6D2906
Memo : 11b Tx_CH01;2412MHz
Data Rate : 1

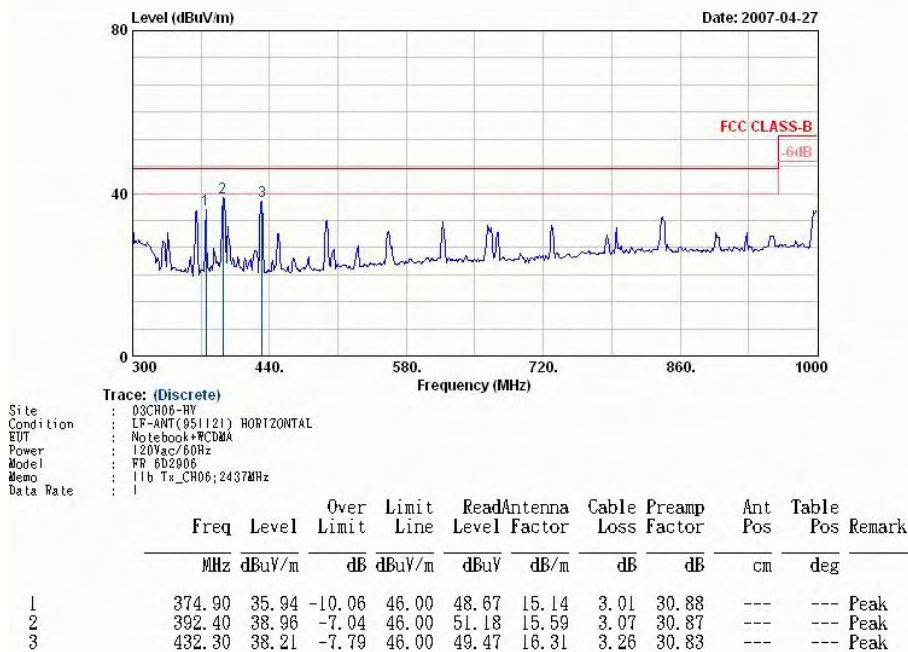
	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Remark
			dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	2389.92	57.72	-16.28	74.00	59.17	30.26	3.75	35.46	100	360	Peak
2 @	2389.92	48.30	-5.70	54.00	49.75	30.26	3.75	35.46	100	269	Average

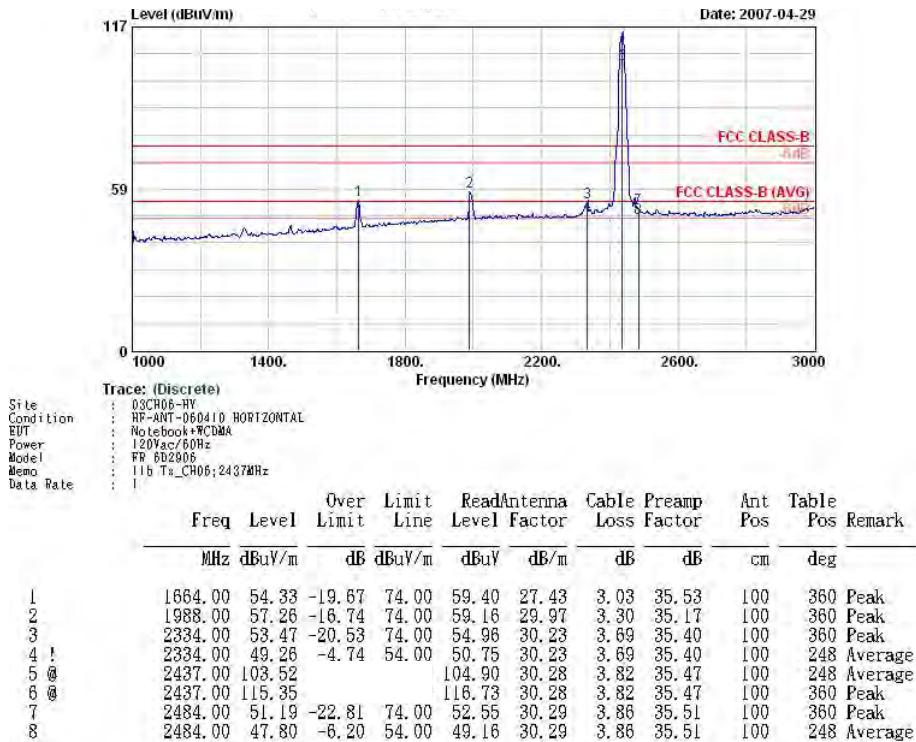
Remark : Frequency from 18GHz to 25GHz, the emission emitted by the EUT is too low to be measured.



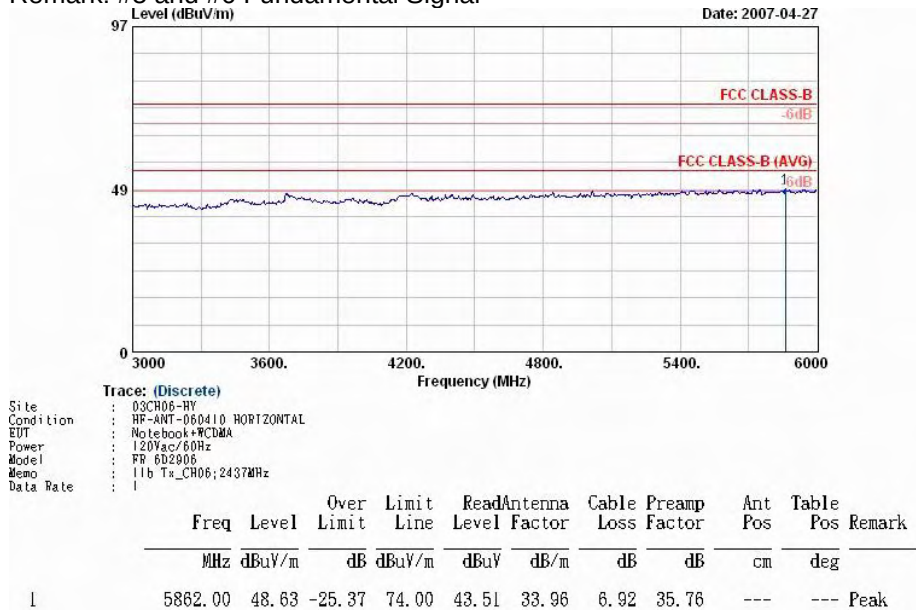
- Test Mode : Mode 2
- Polarization : Horizontal

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





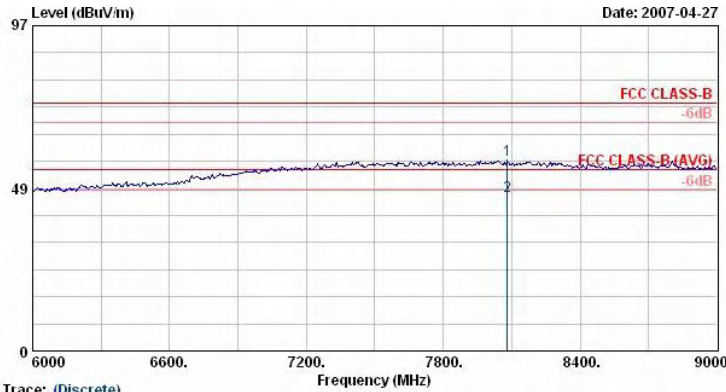
Remark: #5 and #6 Fundamental Signal





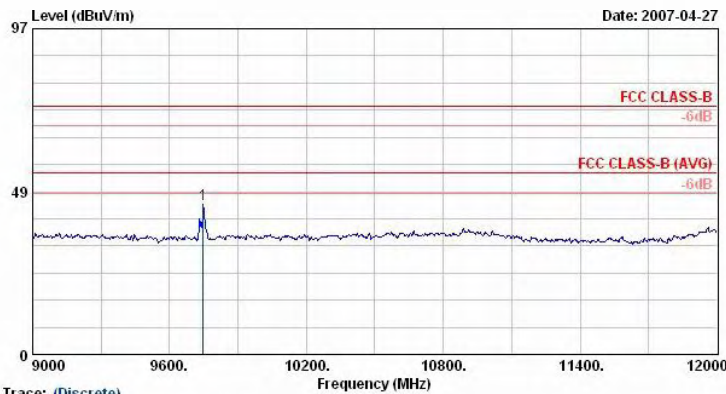
FCC / IC TEST REPORT

Report No. : FR6D2906-A



Trace: (Discrete)
Site : 03CH06-HY
Condition : HF-ANT-060410 HORIZONTAL
EUT : Notebook+WCDMA
Power : 120Vac/60Hz
Model : FR 6D2906
Memo : 11b Tx_CH06;2437MHz
Data Rate : 1

	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	8082.00	56.87	-17.13	74.00	45.34	39.53	7.89	35.90	100	360 Peak
2	8082.00	46.02	-7.98	54.00	34.50	39.53	7.89	35.90	100	265 Average



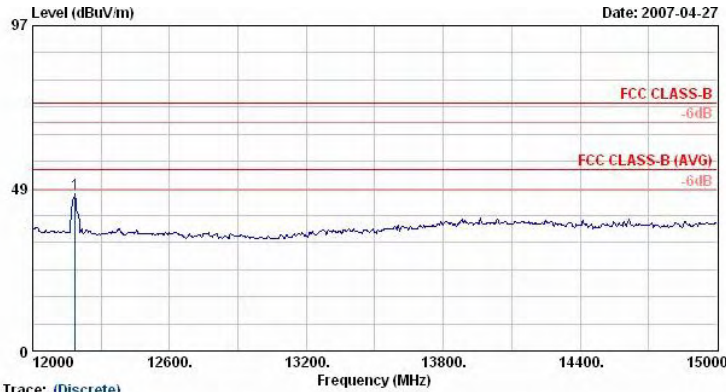
Trace: (Discrete)
Site : 03CH06-HY
Condition : HF-ANT(8-18)-060918 HORIZONTAL
EUT : Notebook+WCDMA
Power : 120Vac/60Hz
Model : FR 6D2906
Memo : 11b Tx_CH06;2437MHz
Data Rate : 1

	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	9747.00	44.79	-29.21	74.00	82.11	-9.85	9.15	36.61	---	---



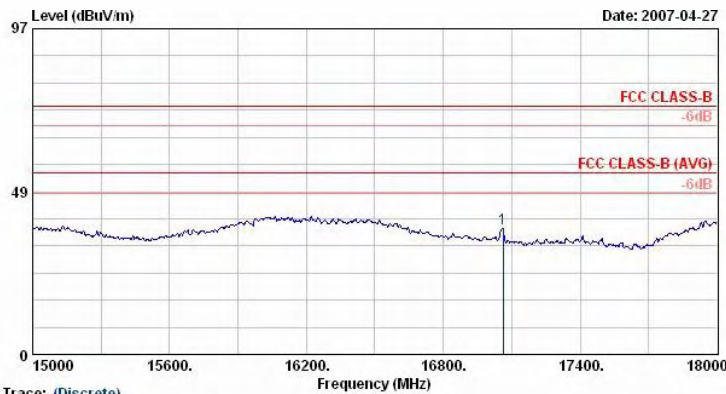
FCC / IC TEST REPORT

Report No. : FR6D2906-A



Trace: (Discrete)
Site : 03CH06-HV
Condition : HF-ANT(8-18)-060918 HORIZONTAL
EUT : Notebook+WCDMA
Power : 120Vac/60Hz
Model : FR 6D2906
Memo : 11b Tx_CH06;2437MHz
Data Rate : 1

		Over	Limit	ReadAntenna		Cable	Preamp	Ant	Table		
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Remark	
		dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg		
1	12186.00	46.84	-27.16	74.00	82.88	-10.25	10.66	36.46	---	---	Peak



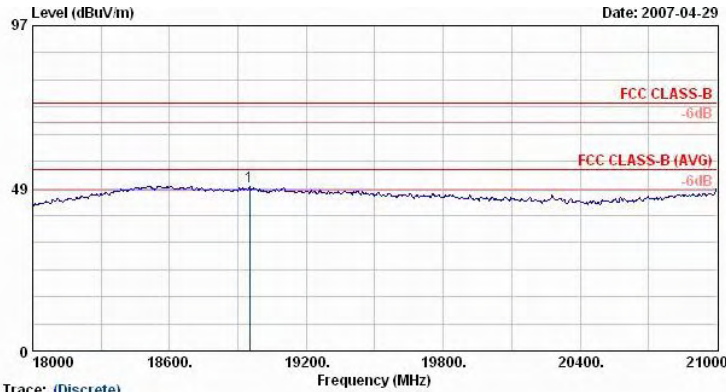
Trace: (Discrete)
Site : 03CH06-HV
Condition : HF-ANT(8-18)-060918 HORIZONTAL
EUT : Notebook+WCDMA
Power : 120Vac/60Hz
Model : FR 6D2906
Memo : 11b Tx_CH06;2437MHz
Data Rate : 1

Rate		Over		Limit		ReadAntenna		Cable Preamp		Ant Table		Remark
Freq	Level	Limit	Line	Level	Factor	Loss	Factor	Pos	Pos			
MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg			
1	17061.00	37.68	-36.32	74.00	71.33	-10.35	12.10	35.40	---	---	Peak	

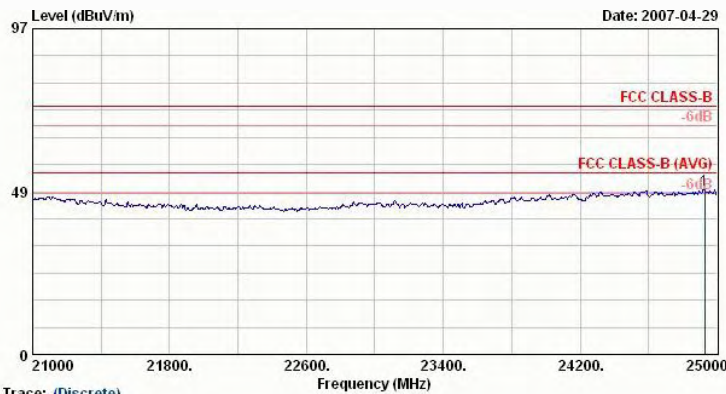


FCC / IC TEST REPORT

Report No. : FR6D2906-A



	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
			dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	18951.00	49.21	-24.79	74.00	44.98	21.78	18.22	35.77	---	---	Peak

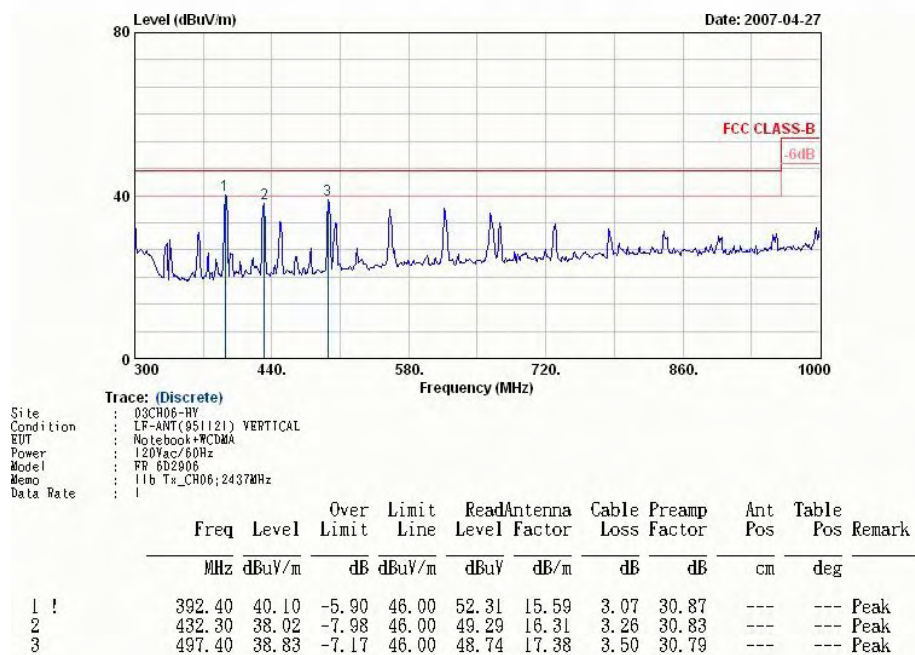


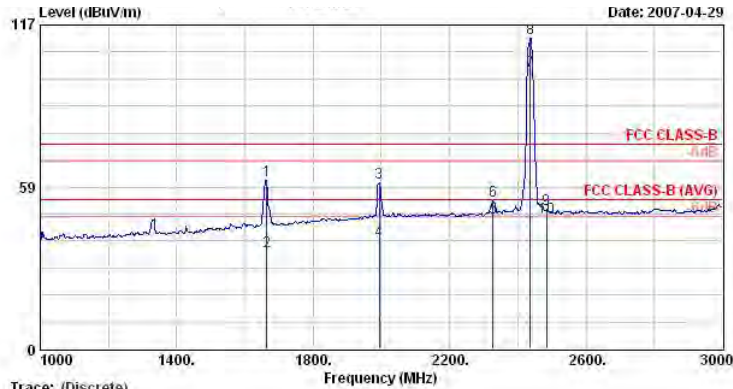
	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
			dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	24928.00	49.15	-24.85	74.00	47.14	21.87	18.69	38.55	---	---	Peak



- Polarization : Vertical

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

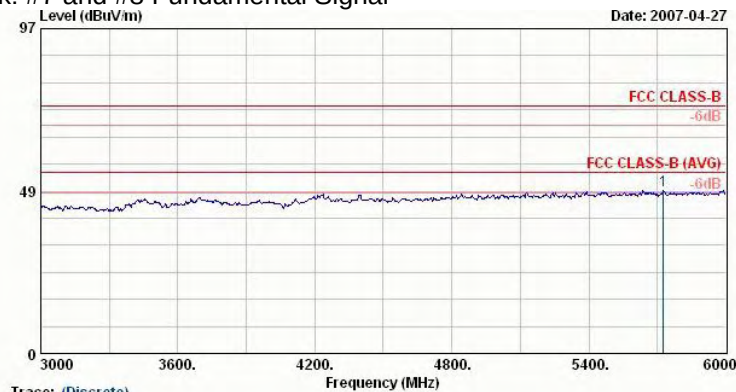




Trace: (Discrete)
Site : D3CH06-HY
Condition : RF-ANT-060410 VERTICAL
EUT : Notebook+HCDMA
Power : 120Vac/60Hz
Model : FR 6D2906
Memo : 11b Tx_CH06;2437MHz
Data Rate : 1

	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	1664.00	61.03	-12.97	74.00	66.11	27.43	3.03	35.53	100	360 Peak
2	1664.00	35.14	-18.86	54.00	40.21	27.43	3.03	35.53	100	241 Average
3	1994.00	59.91	-14.09	74.00	61.81	29.97	3.30	35.17	100	360 Peak
4	1994.00	39.12	-14.88	54.00	41.02	29.97	3.30	35.17	100	184 Average
5	2328.00	47.41	-6.59	54.00	48.90	30.23	3.69	35.40	100	271 Average
6	2328.00	53.65	-20.35	74.00	55.14	30.23	3.69	35.40	100	360 Peak
7 @	2437.00	100.52			101.90	30.28	3.82	35.47	100	271 Average
8 @	2437.00	112.07			113.45	30.28	3.82	35.47	100	360 Peak
9	2484.00	50.27	-23.73	74.00	51.63	30.29	3.86	35.51	100	360 Peak
10	2484.00	47.57	-6.43	54.00	48.93	30.29	3.86	35.51	100	271 Average

Remark: #7 and #8 Fundamental Signal



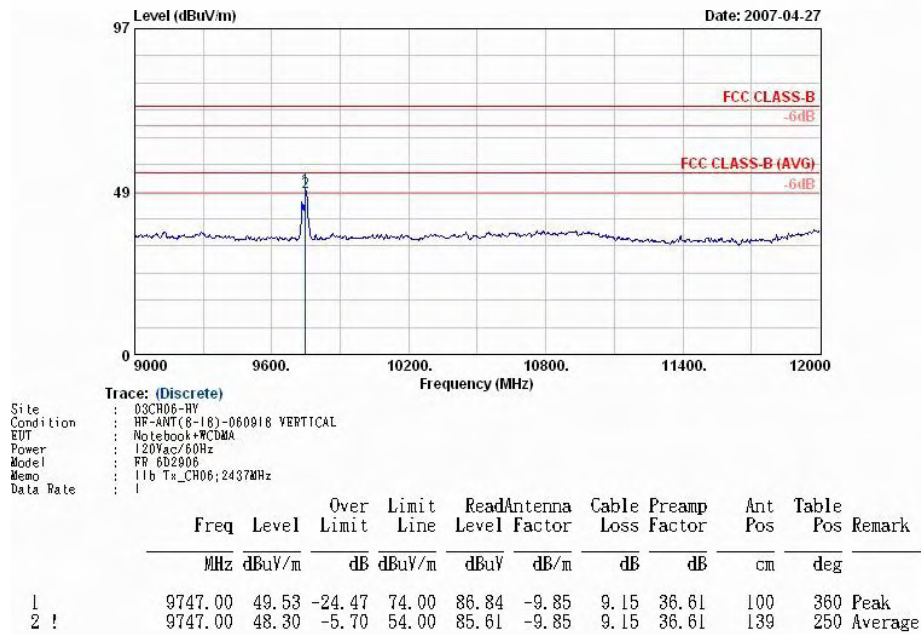
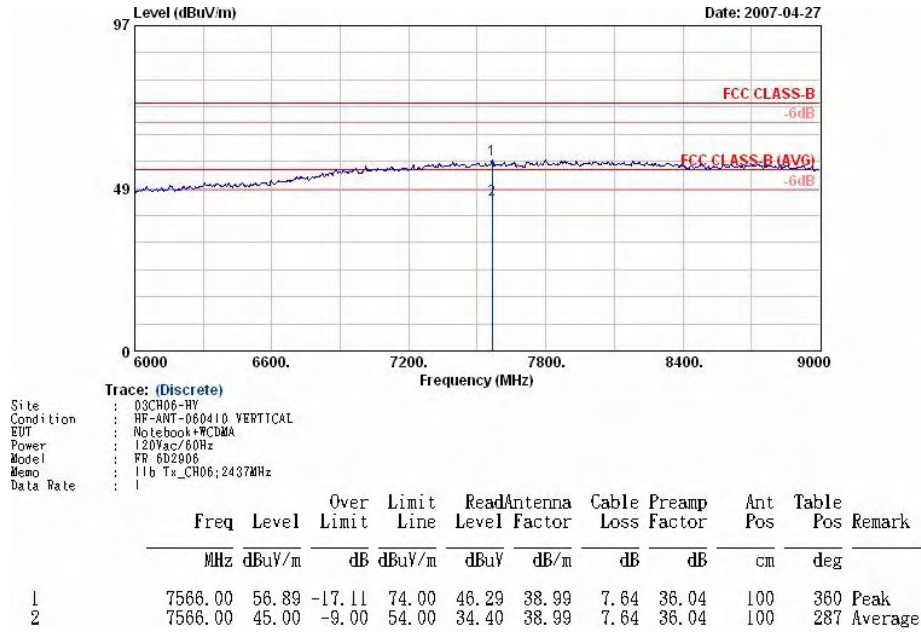
Trace: (Discrete)
Site : D3CH06-HY
Condition : RF-ANT-060410 VERTICAL
EUT : Notebook+HCDMA
Power : 120Vac/60Hz
Model : FR 6D2906
Memo : 11b Tx_CH06;2437MHz
Data Rate : 1

	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	5727.00	48.81	-25.19	74.00	43.95	33.82	6.90	35.86	---	---	Peak



FCC / IC TEST REPORT

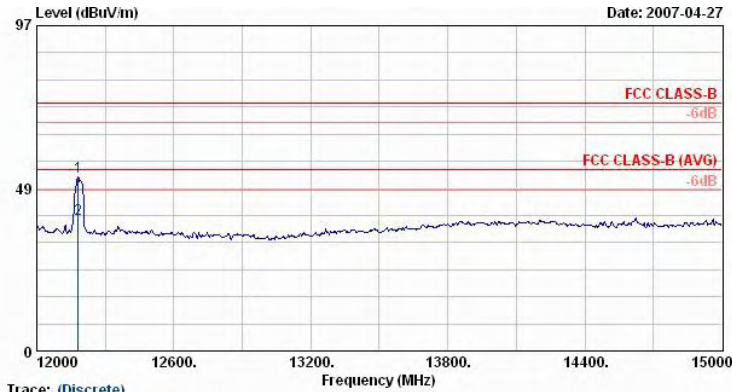
Report No. : FR6D2906-A





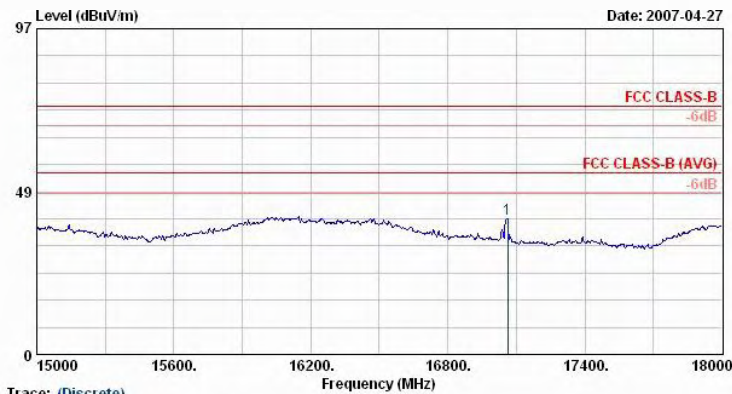
FCC / IC TEST REPORT

Report No. : FR6D2906-A



Trace: (Discrete)
Site : D3CH06-HY
Condition : HF-ANT(8-18)-060918 VERTICAL
EUT : Notebook+WCDMA
Power : 120Vac/60Hz
Model : FR 6D2906
Memo : 11b Tx_CH06;2437MHz
Data Rate : 1

	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	cm	deg	
1	12180.00	51.84	-22.16	74.00	87.87	-10.21	10.66	36.48	100	360 Peak
2	12180.00	39.17	-14.83	54.00	75.21	-10.25	10.66	36.46	115	105 Average



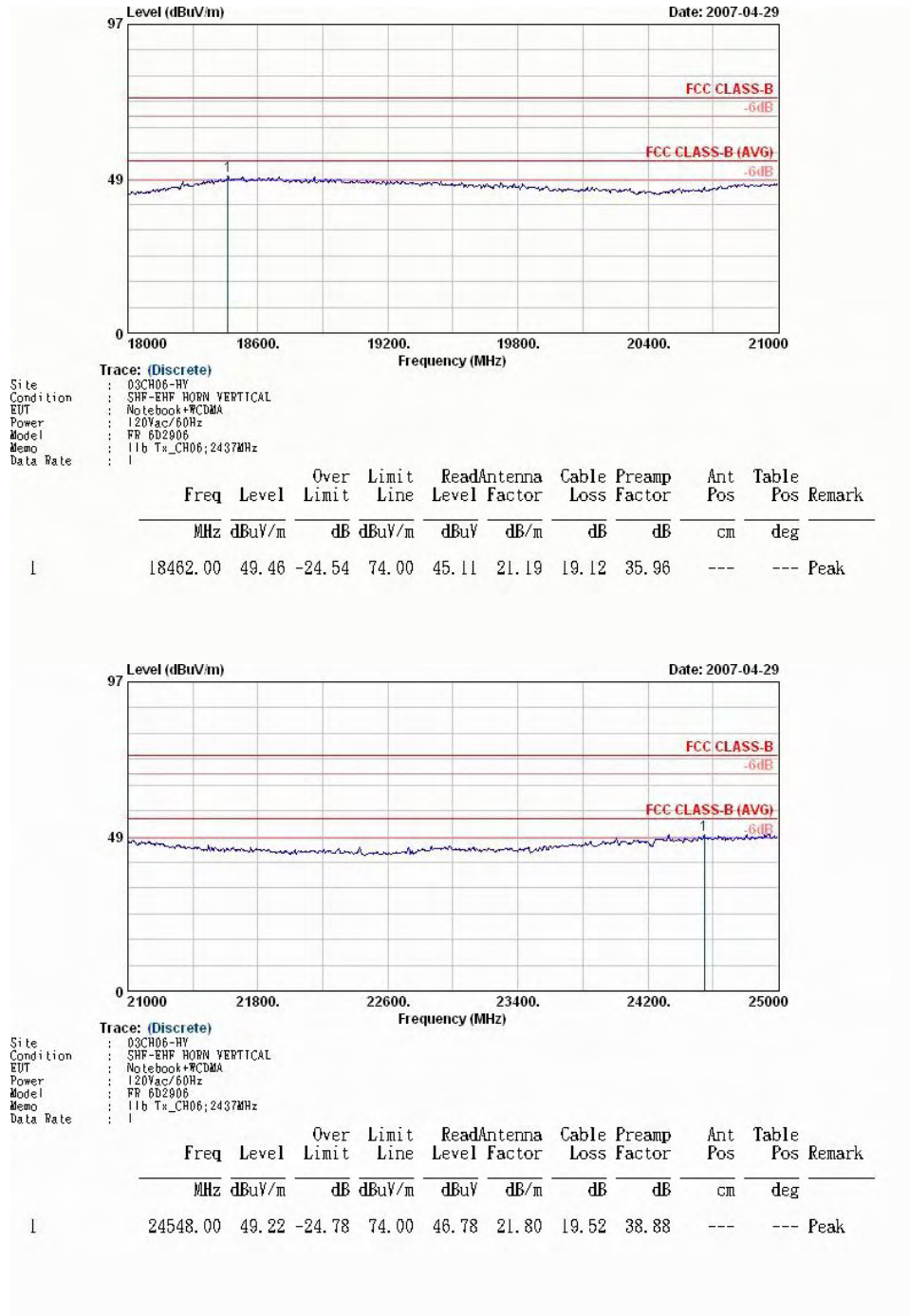
Trace: (Discrete)
Site : D3CH06-HY
Condition : HF-ANT(8-18)-060918 VERTICAL
EUT : Notebook+WCDMA
Power : 120Vac/60Hz
Model : FR 6D2906
Memo : 11b Tx_CH06;2437MHz
Data Rate : 1

Data Rate : 1											
	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	17061.00	40.52	-33.48	74.00	74.17	-10.35	12.10	35.40	---	---	Peak



FCC / IC TEST REPORT

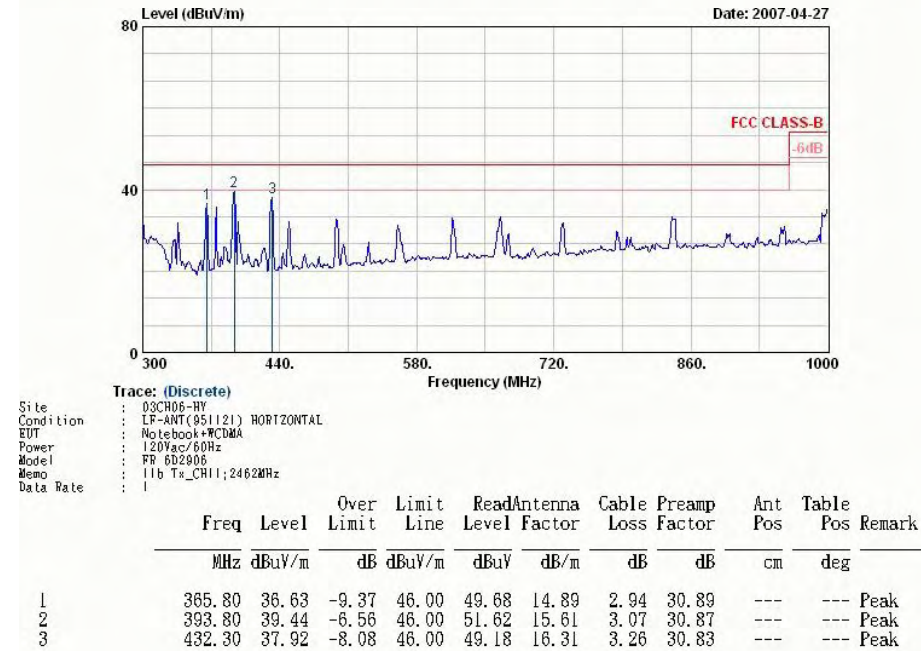
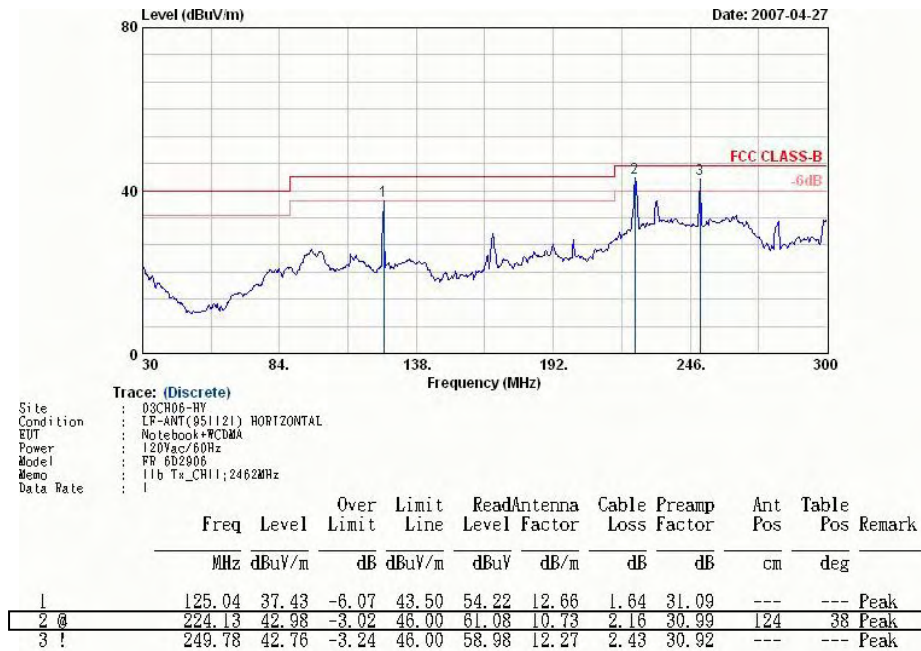
Report No. : FR6D2906-A

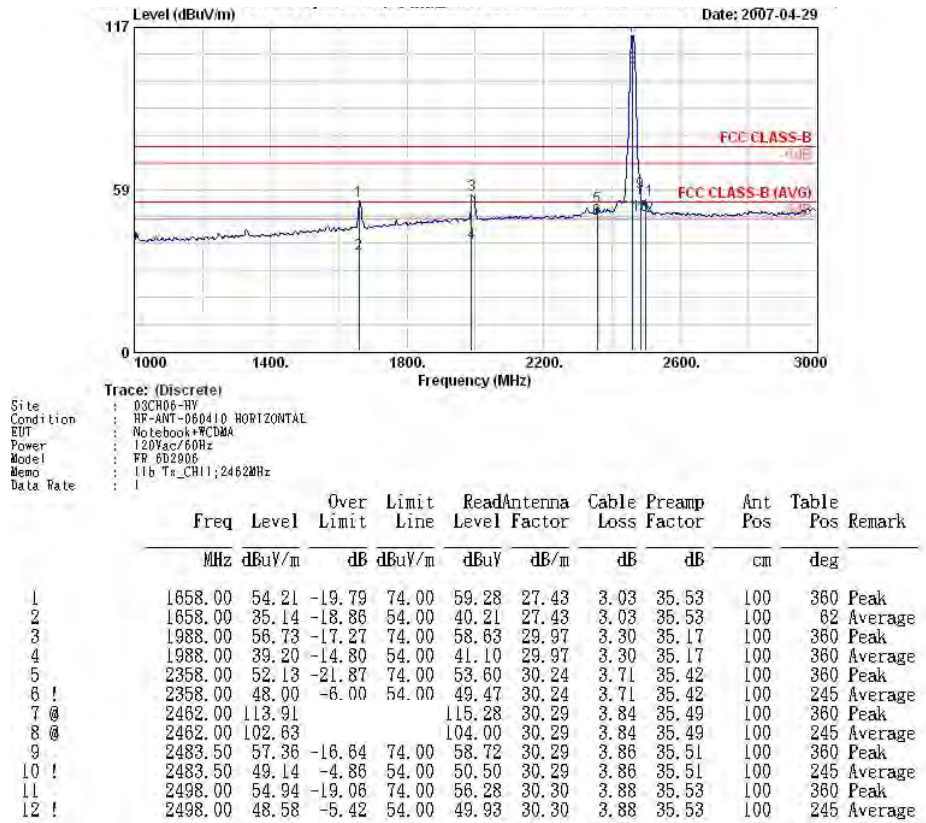




- Test Mode : Mode 3
- Polarization : Horizontal

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





Remark: #7 and #8 Fundamental Signal

