



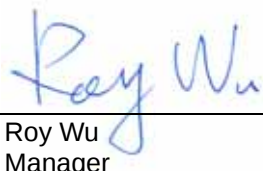
FCC TEST REPORT

for

47 CFR Part 15 Subpart C

Equipment : WCDMA Quad-band/Mobile Phone with GPRS, WiFi, GPS, Bluetooth
Trade Name : glofiish
Model No. : X800/X800+
FCC ID : SPUX800
Filing Type : Certification
Applicant : E-TEN Information Systems Co., Ltd.
9F, No. 256, Yangguang Street, Neihu Chiu, Taipei, Taiwan
114, R.O.C.

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- The data shown in this test report were carried out on Jun. 21, 2007 at **Sporton International Inc. LAB.**
- Report No.: FR761327, Report Version: Rev. 01.


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Manager

SPORTON International Inc.

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History of this test report

Report Issue Date: Jul. 10, 2007

Report No.	Description



1. General Description of Equipment under Test

1.1 Applicant

E-TEN Information Systems Co., Ltd.

9F, No. 256, Yangguang Street, Neihu Chiu, Taipei, Taiwan 114, R.O.C.

1.2 Manufacturer

E-TEN Information Systems Co., Ltd.

9F, No. 256, Yangguang Street, Neihu Chiu, Taipei, Taiwan 114, R.O.C.

1.3 Basic Description of Equipment under Test

Equipment	: WCDMA Quad-band/Mobile Phone with GPRS, WiFi, GPS, Bluetooth
Trade Name	: glofiish
Model No.	: X800/X800+
FCC ID	: SPUX800
Power Supply Type	: Switching, From Battery 3.7V
AC Power Cord	: AC 120V, Wall-mount, 1.8 meter, 2 pin
Adapter	: Philhong, PSC05R-050 PH
Battery	: Welldone, E4ET011K1002
Earphone	: Merry, DD0EN5EP004
USB cable	: Golden Bridge, As52-07030013

1.4 Feature of Equipment under Test

Product Feature & Specification				
1. Type of Modulation	WLAN: DSSS / OFDM Bluetooth(1Mbps): GFSK Bluetooth EDR (2Mbps): Pi/4-DQPSK Bluetooth EDR (3Mbps): 8-DPSK			
2. Number of Channels	WLAN: 11 Channels Bluetooth : 79 Channels			
3. Frequency Band	WLAN: 2400MHz~2483.5MHz Bluetooth: 2400MHz~2483.5MHz			
4. Carrier Frequency of each channel	WLAN: $2412+(n-1) * 5\text{MHz}$; $n=1-11$ Bluetooth: $2402+ n*1 \text{ MHz}$, $n= 0\sim78$			
5. Channel Spacing	WLAN: 5MHz Bluetooth: 1MHz			
6. Maximum Output Power to Antenna (Normal Condition)	802.11b : 14.81 dBm / 802.11g: 15.01 dBm Bluetooth(1Mbps): 3.14dBm Bluetooth EDR (2Mbps): 3.51dBm Bluetooth EDR (3Mbps): 3.27 dBm			
7. HW Version	1.0V			
8. SW Version	020			
9. Type of Antenna Connector	N/A			
10. Antenna Type	WLAN: PIFA Antenna Bluetooth: Chip Antenna			
11. Antenna Gain	802.11b/g : -4 dBi BT : 0 dBi			
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.
- 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.
- For radiated measurements, the results were the maximum of those obtained in 3 orthogonal axes and only showed the worst data in this report.

2.2 Test Mode

Application					
Radiated Emission	802.11b	802.11g	BT(1Mbps)	BT-EDR(2Mbps)	BT-EDR(3Mbps)
	Mode 1: CH01_2412 MHz	Mode 4: CH01_2412 MHz	Mode 7: CH00_2402 MHz	Mode 10: CH78_2480 MHz	Mode 11: CH78_2480 MHz
	Mode 2: CH06_2437 MHz	Mode 5: CH06_2437 MHz	Mode 8: CH39_2441 MHz		
	Mode 3: CH11_2462 MHz	Mode 6: CH11_2462 MHz	Mode 9: CH78_2480 MHz		
Conducted Emission	Mode 1: GSM 850 Idle Mode + BT Link + WLAN Link + Earphone + Camera + MPEG4 + GPS Rx + Adapter				
	Mode 2: GSM 850 Idle Mode + BT Link + WLAN Link + Earphone + Camera + MPEG4 + GPS Rx + USB Link				
	Mode 3: WCDMA 850 Idle Mode + BT Link + WLAN Link + Earphone + Camera + MPEG4 + GPS Rx + USB Link				
	Mode 4: WCDMA 1900 Idle Mode + BT Link + WLAN Link + Earphone + Camera + MPEG4 + GPS Rx + USB Link				

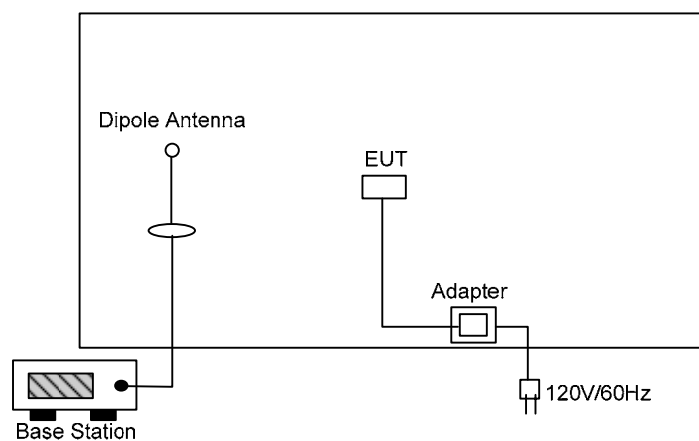
2.3 Ancillary Equipment List

Item	Equipment	Trade Name	Model Name	FCC ID	Power Cord / Cable
1.	Notebook	DELL	D400	E2K24GBRL	1.2m
2.	WLAN AP	SMC	SMC-100	HEDWG4005ACC	1.8 m
3.	Bluetooth Earphone	Engotech	ET-BH111	PQY471087	N/A
4.	Base Station	R&S	CMU200	N/A	N/A
5.	BT Base Station	Anritus	MT8820B	N/A	N/A
6.	RS-232	State	MS-303	DoC	1.8 m

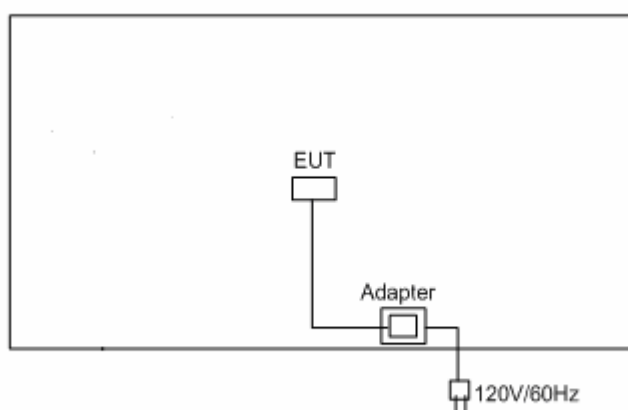
2.4 Connection Diagram of Test System

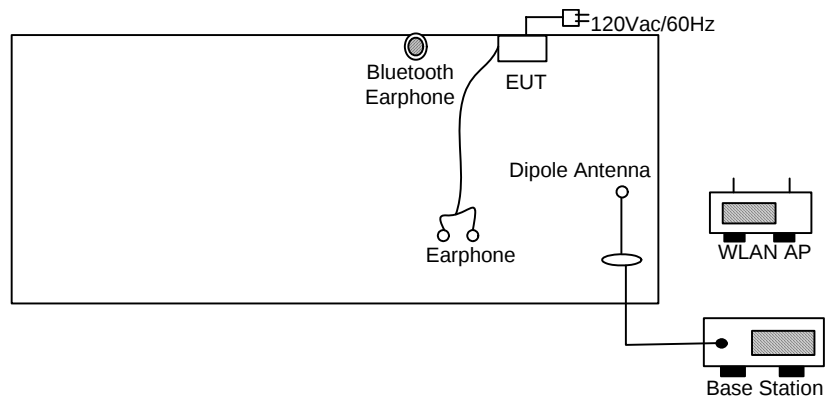
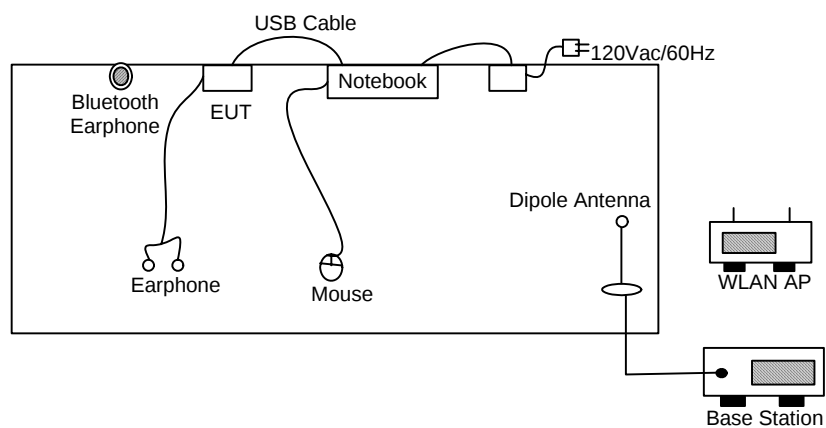
<Radiated Emission >

Bluetooth Tx Mode



WLAN Tx Mode



<Conducted Emission>
Phone with Adapter Mode

Phone with USB Link Mode




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.

Mode	Data Rate	Power Setting
802.11b	11 Mbps	14
802.11g	54 Mbps	12
Bluetooth	1 Mbps 2 Mbps 3 Mbps	Max Power

802.11b/g Mode

1. Use "Labtool.exe" RF Utility
2. Choose 802.11b, Data Rate 11Mbps, Power Setting 14
3. Choose 802.11g, Data Rate 54Mbps, Power Setting 12

Bluetooth test mode

1. Continuously press the Camera button, and then press the Power button
2. Choose the item15
3. Choose the Bluetooth test mode .
4. Press the icon at the right top screen, and then show " Success in Test Mode"



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

4.1 Test Voltage

120V / 60Hz

4.2 Standard for Methods of Measurement

ANSI C63.4-2003

4.3 Test Compliance

47 CFR Part 15 Subpart C

4.4 Frequency Range

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

4.5 Test Distance

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



5. Test Data and Test Result

5.1 List of Measurements and Examinations

The Emission Mode: Wireless LAN

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

5.2 6dB Bandwidth Measurement

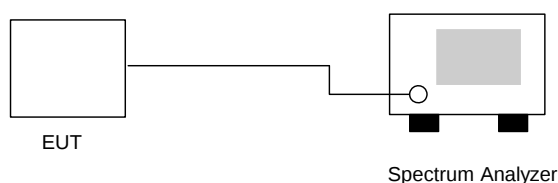
5.2.1 Measuring Instruments :

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 : 25~27
- Relative Humidity : 58~60%
- Test Enginner : Win

802.11b

Channel	Frequency (MHz)	6dB Emission bandwidth (MHz)	Limits (MHz)	Plot Ref. No.
01	2412	9.56	> 0.5MHz	Mode 1
06	2437	9.52	> 0.5MHz	Mode 2
11	2462	9.52	> 0.5MHz	Mode 3

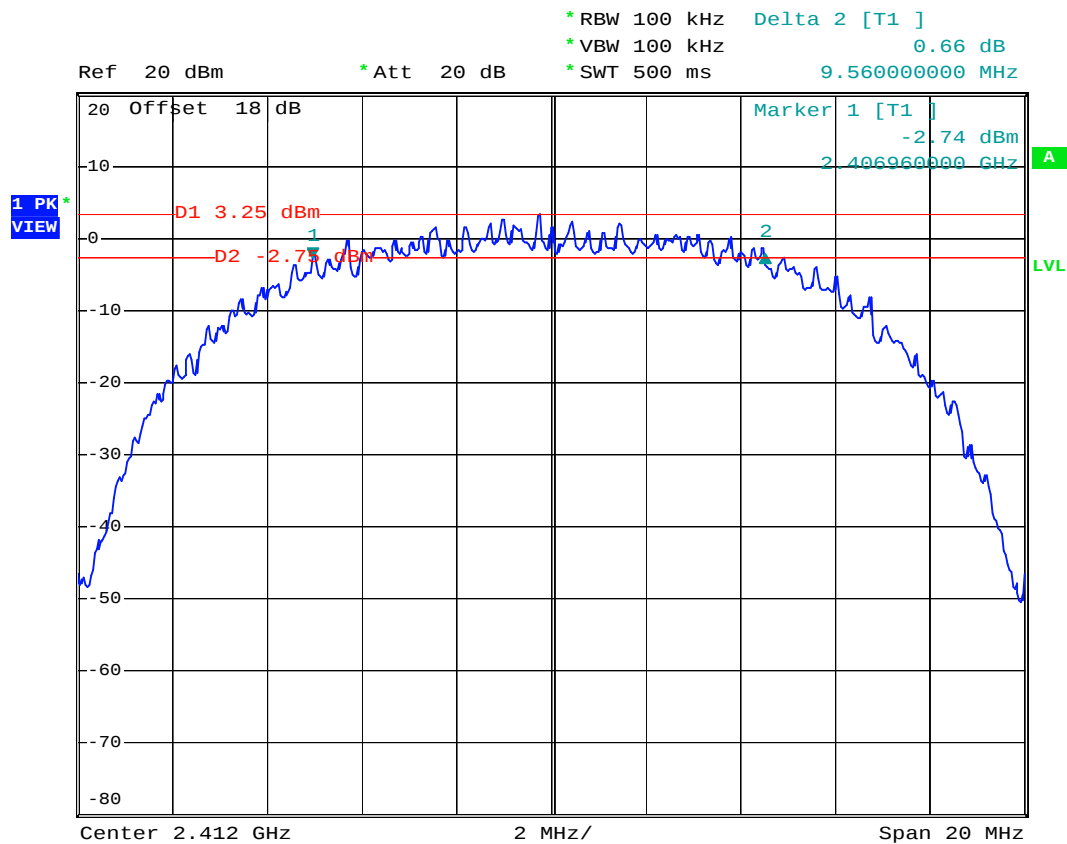
802.11g

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

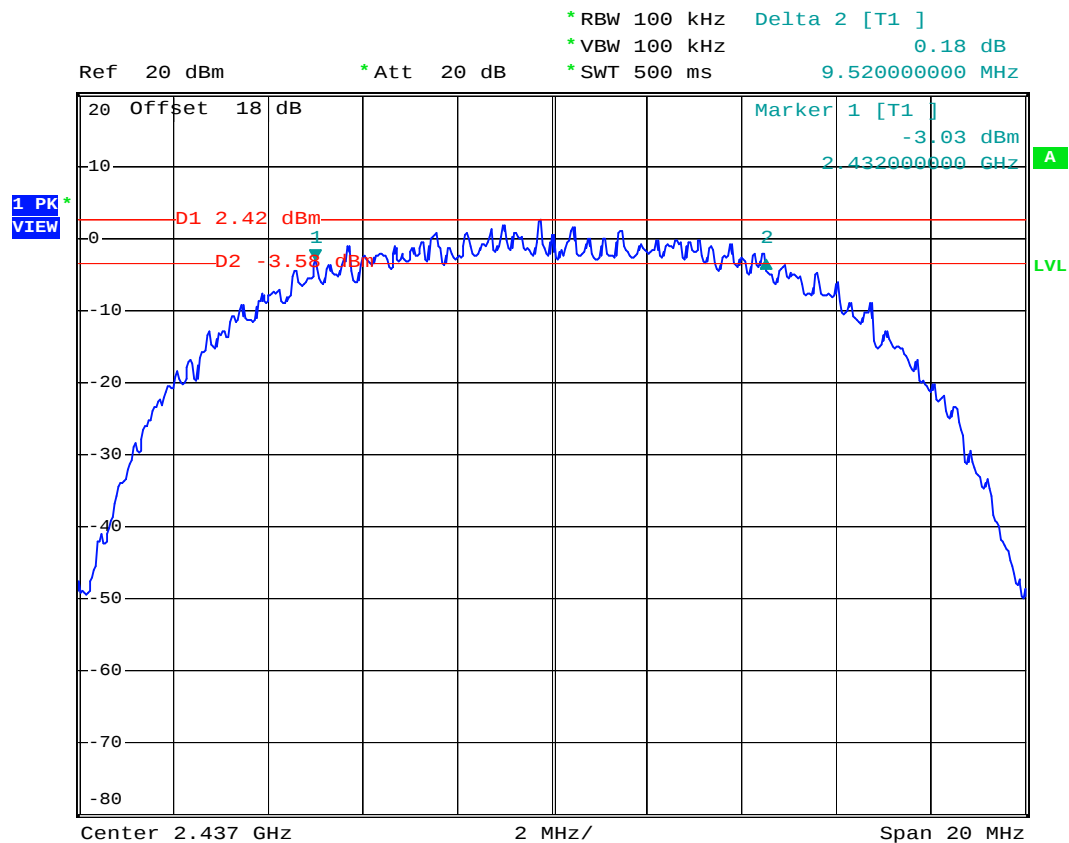
Mode 1



Date: 16.JUN.2007 19:04:18



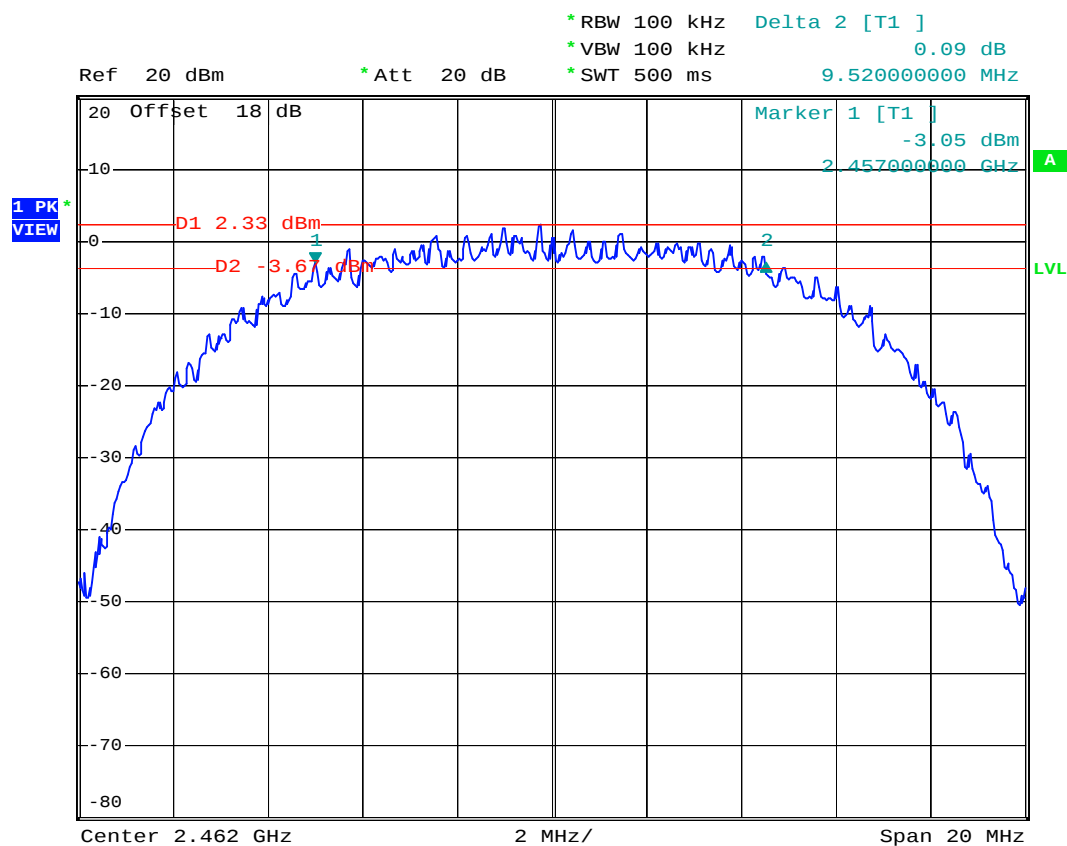
Mode 2



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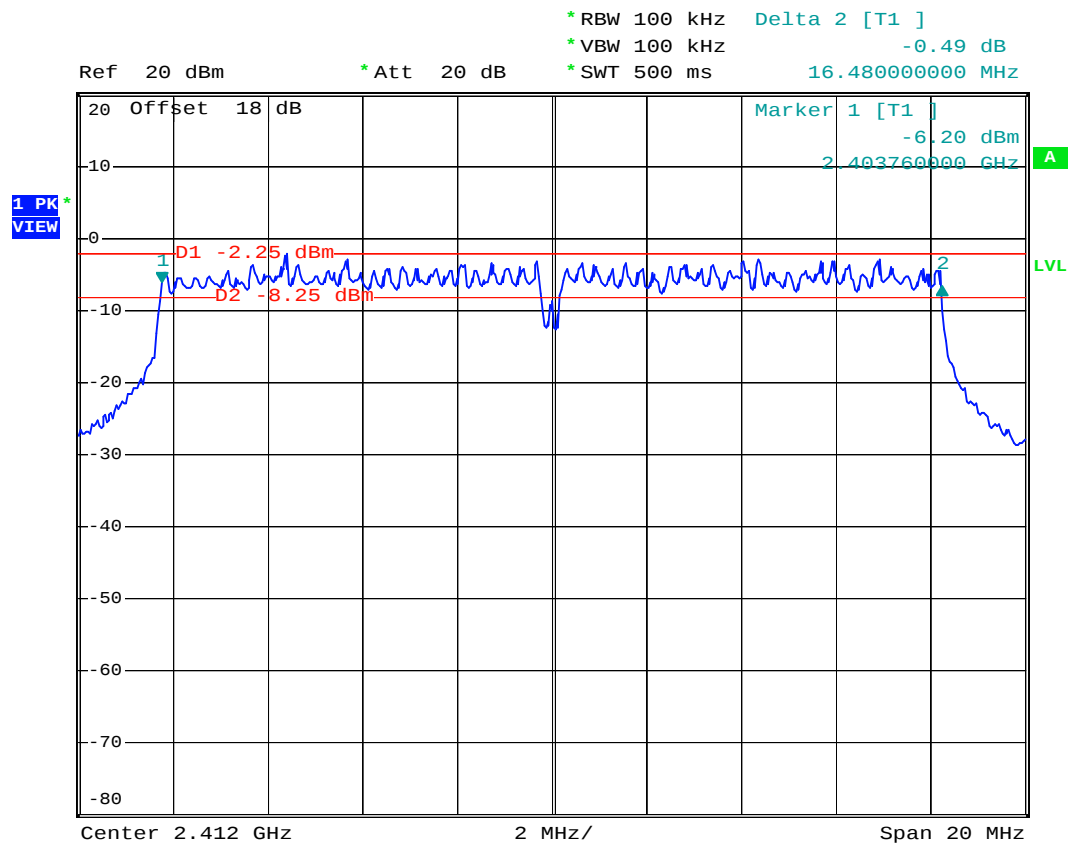
Mode 3



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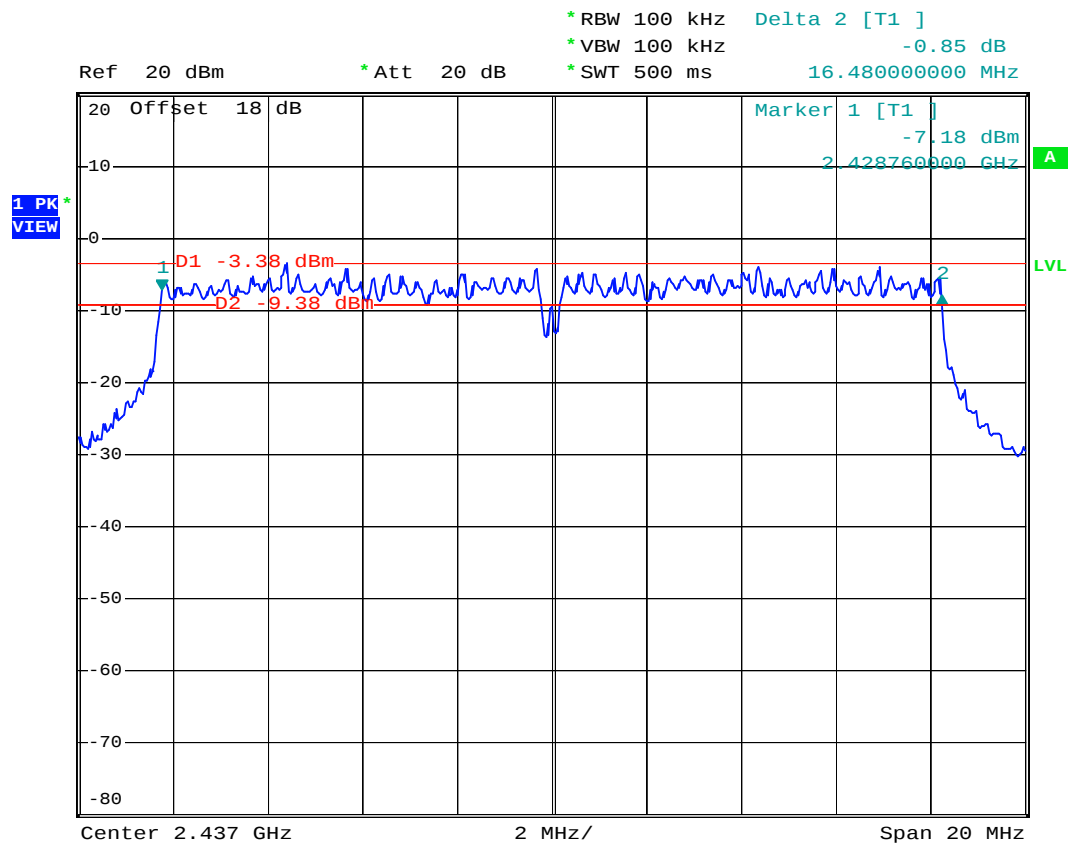
Mode 4



Date: 16.JUN.2007 20:00:28



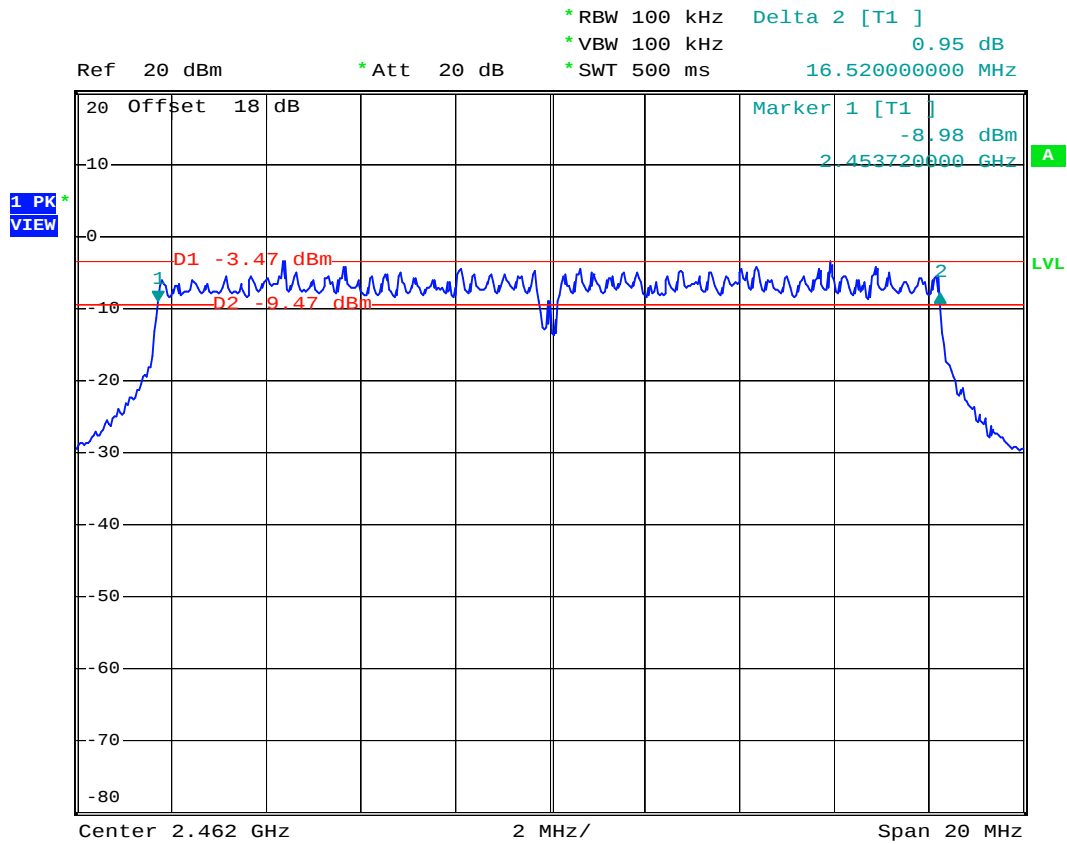
Mode 5



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Mode 6



Date: 16.JUN.2007 20:01:49

5.3 Power Spectral Density Measurement

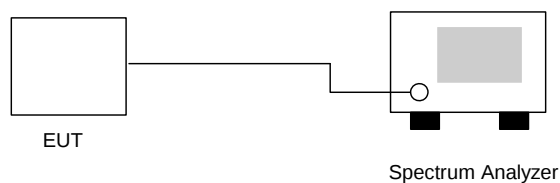
5.3.1 Measuring Instruments :

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 : 25~27
- Relative Humidity : 58~60%
- Test Enginner : Win

802.11b

Channel	Frequency (MHz)	Power Spectral Density (dBm)	Limits (dBm)	Plot Ref. No.
01	2412	-10.17	8	Mode 1
06	2437	-10.83	8	Mode 2
11	2462	-11.19	8	Mode 3

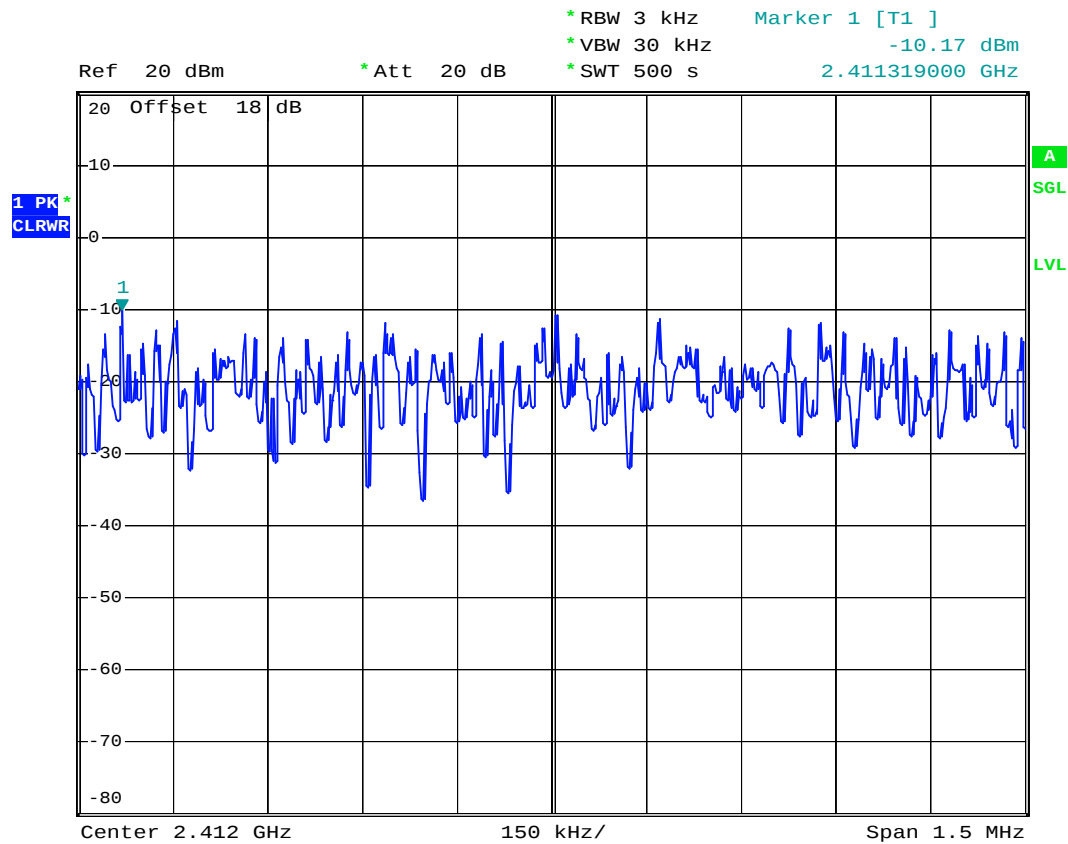
802.11g

Channel	Frequency (MHz)	Power Spectral Density (dBm)	Limits (dBm)	Plot Ref. No.
01	2412	-15.10	8	Mode 4
06	2437	-15.65	8	Mode 5
11	2462	-14.64	8	Mode 6



5.3.5 Power Spectral Density

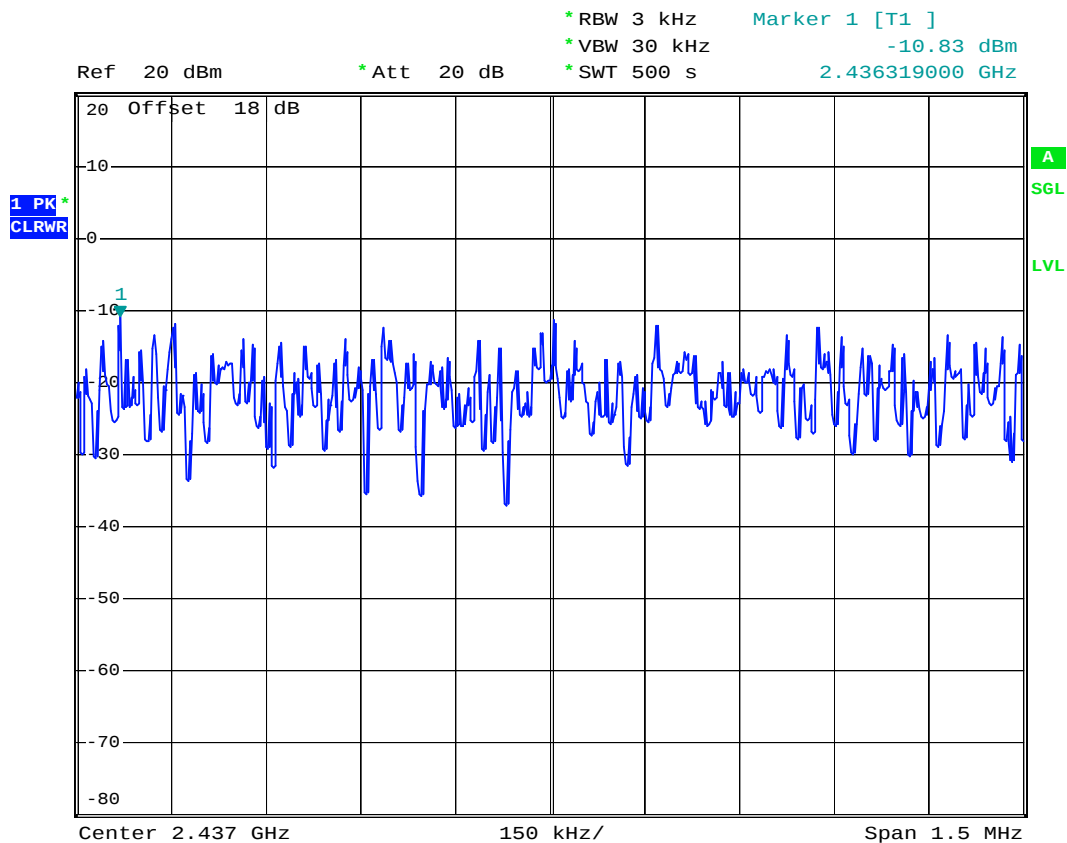
Mode 1



Date: 16.JUN.2007 19:27:37



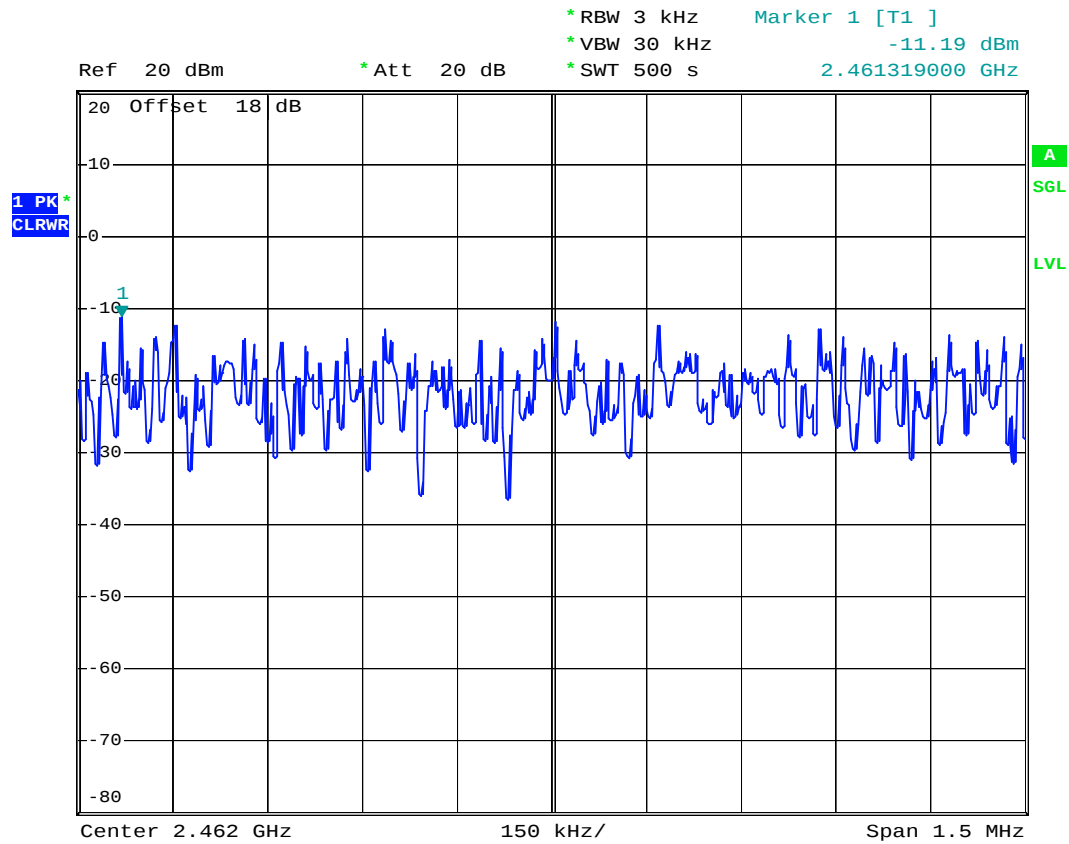
Mode 2



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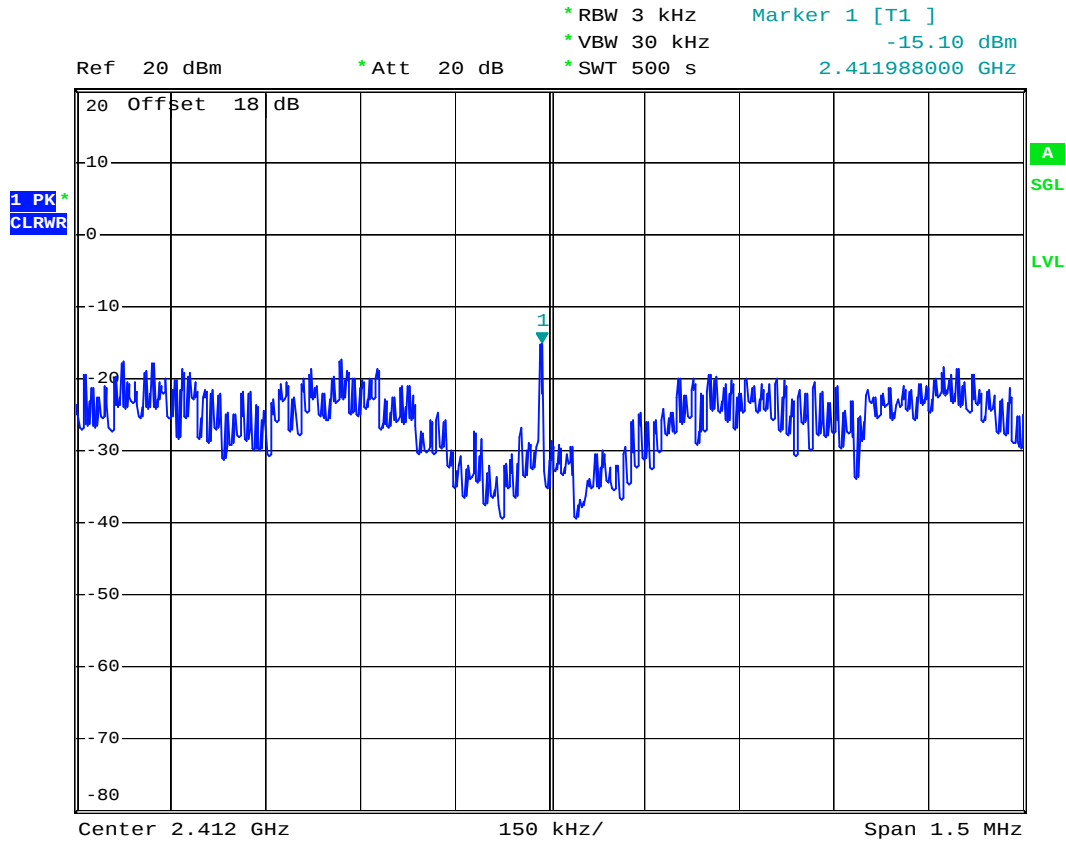
Mode 3



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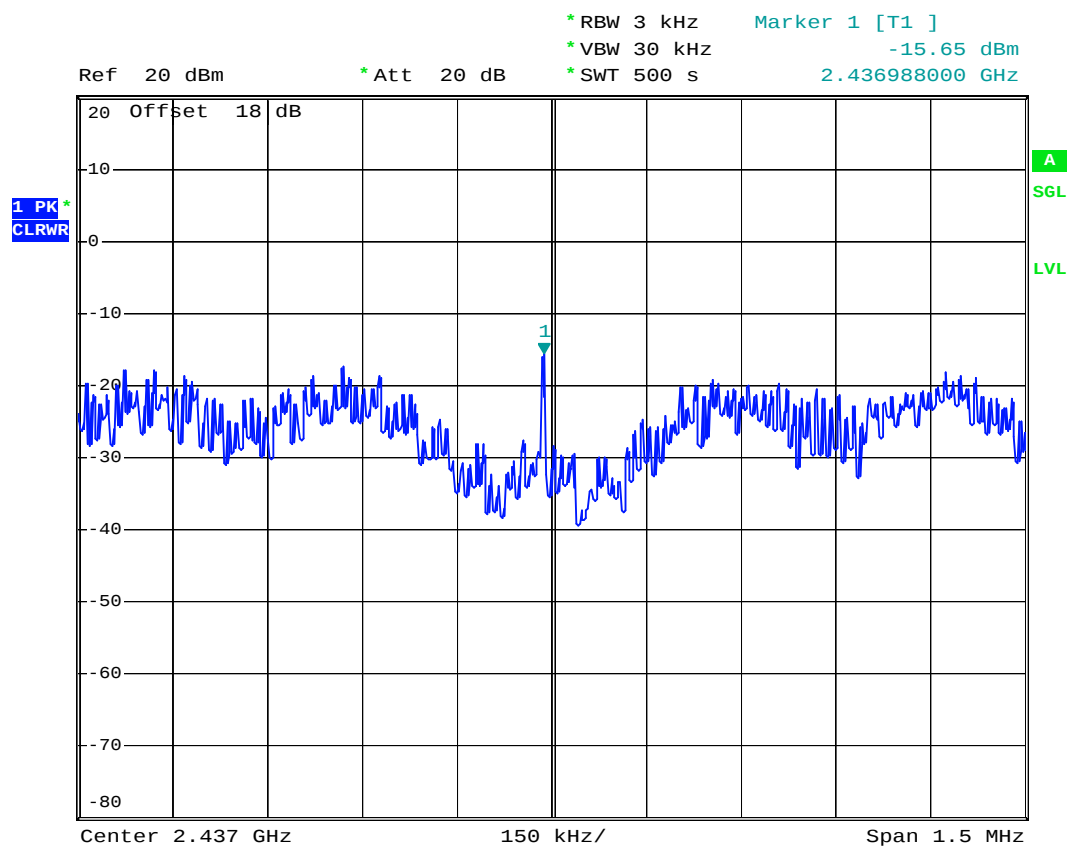
Mode 4



Date: 16.JUN.2007 20:15:09



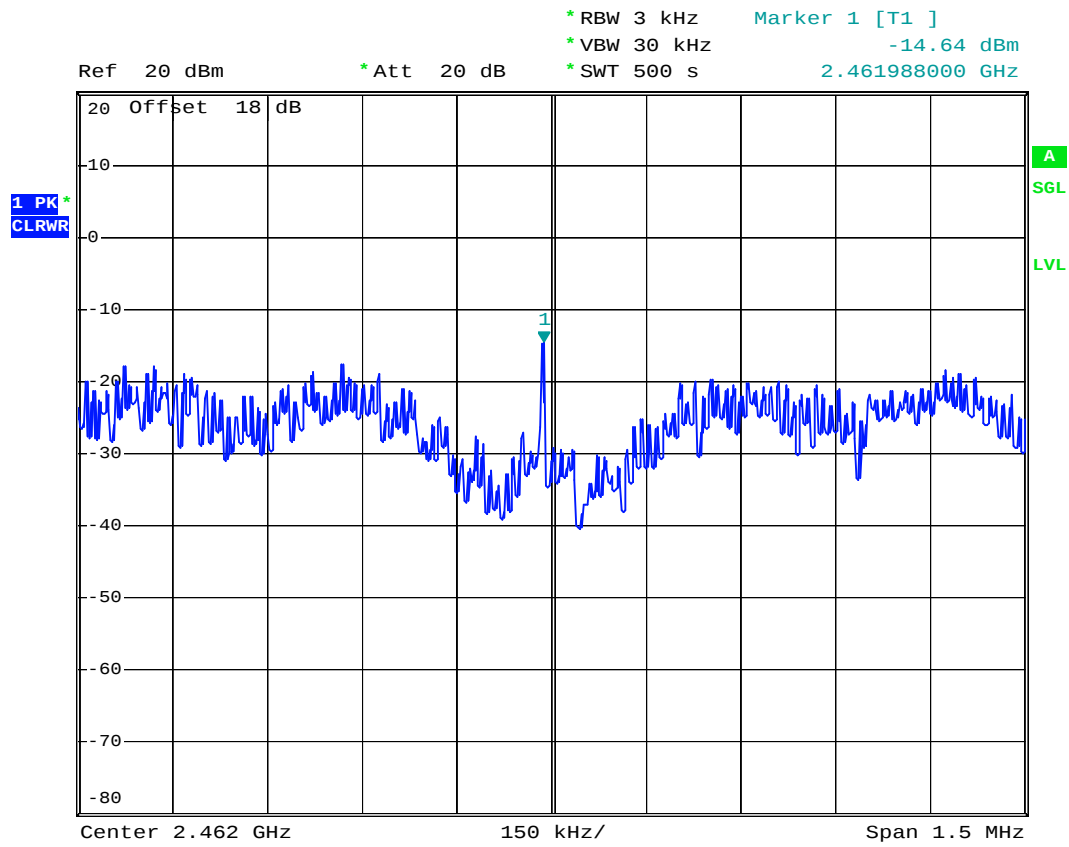
Mode 5



Date: 16.JUN.2007 20:28:08



Mode 6



Date: 16.JUN.2007 20:37:24

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 : 25~27
- Relative Humidity : 58~60%
- Test Enginner : Win
- Test Result in WLAN lower band (802.11b/g) : PASS
- Test Result in WLAN higher band (802.11b/g) : PASS
- Test Result in BT lower band : PASS
- Test Result in BT higher band : PASS

5.4.4 Note on Band Edge Emission :

➤WLAN 802.11b

CH01 (Horizontal)

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2385.12	50.27	-23.73	74.00	51.71	30.25	3.75	35.44	100	0	Peak
2385.12	39.63	-14.37	54.00	41.07	30.25	3.75	35.44	100	213	Average

CH01 (Vertical)

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2385.52	48.96	-25.04	74.00	50.39	30.26	3.75	35.44	100	0	Peak
2385.52	39.00	-15.00	54.00	40.43	30.26	3.75	35.44	100	213	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)	
2492.28	50.13	-23.87	74.00	51.48	30.30	3.88	35.53	100	0	Peak
2492.28	39.20	-14.80	54.00	40.55	30.30	3.88	35.53	100	25	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)	
2494.67	49.33	-24.67	74.00	50.68	30.30	3.88	35.53	100	0	Peak
2494.67	38.74	-15.26	54.00	40.09	30.30	3.88	35.53	100	31	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	55.71	-18.29	74.00	56.48	30.26	4.42	35.46	100	0	Peak
2390.00	43.23	-10.77	54.00	44.00	30.26	4.42	35.46	100	30	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	53.34	-20.66	74.00	54.11	30.26	4.42	35.46	100	0	Peak
2390.00	41.51	-12.49	54.00	42.28	30.26	4.42	35.46	110	331	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	54.62	-19.38	74.00	55.35	30.29	4.49	35.51	100	0	Peak
2483.50	41.80	-12.20	54.00	42.53	30.29	4.49	35.51	100	33	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	40.82	-13.18	54.00	41.55	30.29	4.49	35.51	106	329	Average
2483.50	53.20	-20.80	74.00	53.93	30.29	4.49	35.51	100	0	Peak

➤ BT(1Mbps)**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)	
2385.92	49.97	-24.03	74.00	51.40	30.26	3.75	35.44	100	0	Peak
2385.92	38.98	-15.02	54.00	40.41	30.26	3.75	35.44	100	152	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)	
2311.12	47.84	-26.16	74.00	49.34	30.22	3.66	35.39	100	0	Peak
2311.12	37.82	-16.18	54.00	39.32	30.22	3.66	35.39	100	324	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	65.37	-8.63	74.00	66.72	30.29	3.86	35.51	100	0	Peak
2483.50	47.48	-6.52	54.00	48.84	30.29	3.86	35.51	100	154	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	59.93	-14.07	74.00	61.29	30.29	3.86	35.51	100	0	Peak
2483.50	44.26	-9.74	54.00	45.62	30.29	3.86	35.51	100	205	Average

**➤ BT-EDR(2Mbps)****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	47.48	-6.52	54.00	48.21	30.29	4.49	35.51	100	154	Average
2483.50	67.81	-6.19	74.00	68.54	30.29	4.49	35.51	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	43.52	-10.48	54.00	44.25	30.29	4.49	35.51	107	302	Average
2483.50	59.18	-14.82	74.00	59.91	30.29	4.49	35.51	100	0	Peak

➤ BT-EDR(3Mbps)**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	46.62	-7.38	54.00	47.35	30.29	4.49	35.51	100	154	Average
2483.50	65.48	-8.52	74.00	66.21	30.29	4.49	35.51	100	0	Peak

CH78 (Vertical)

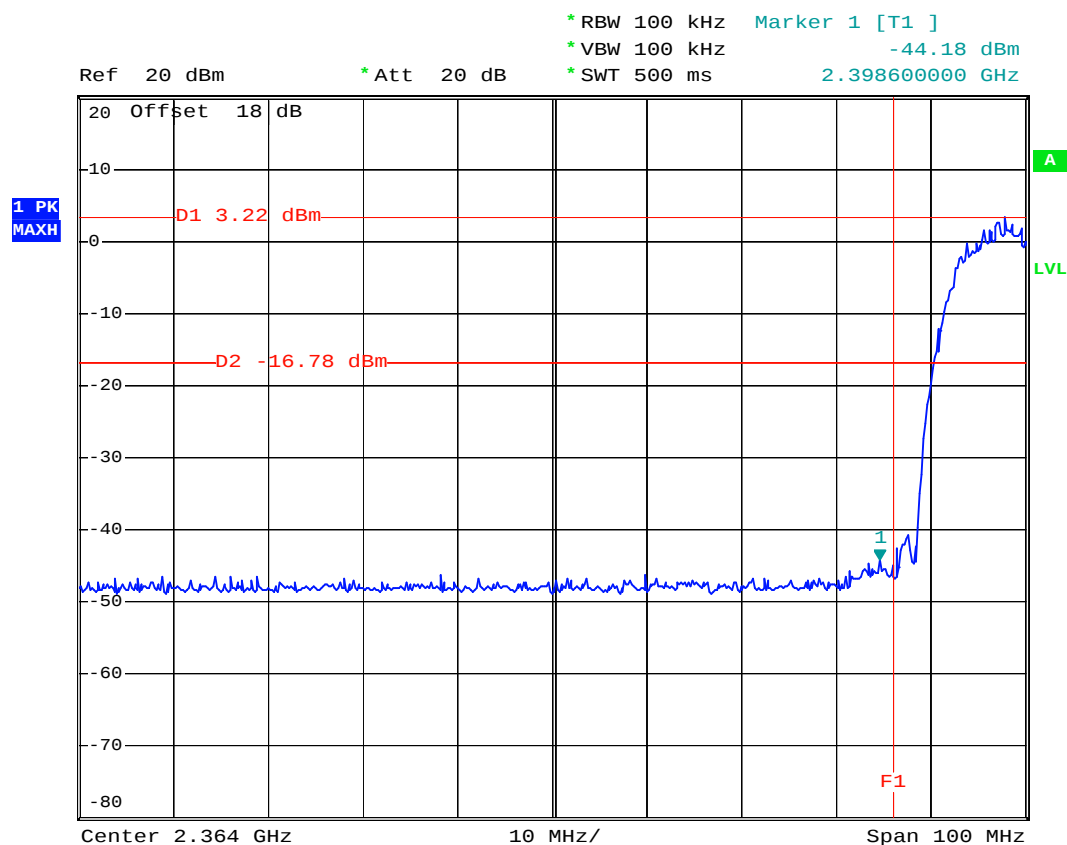
Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV)	(dB)	(dB)	(dB)	(cm)	(deg)	
2483.50	43.68	-10.32	54.00	44.41	30.29	4.49	35.51	107	302	Average
2483.50	58.78	-15.22	74.00	59.51	30.29	4.49	35.51	100	0	Peak



5.4.5 Band Edge

WLAN 802.11b

CH01

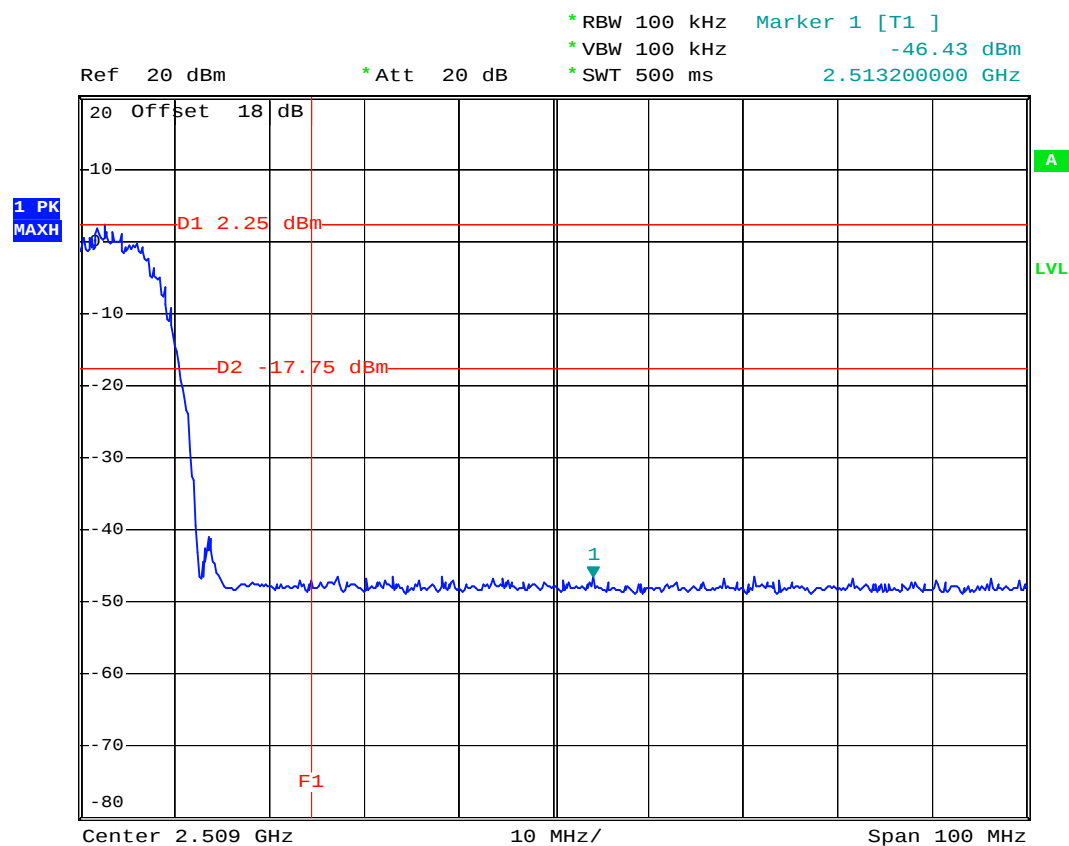


Date: 16.JUN.2007 19:08:16



WLAN 802.11b

CH11

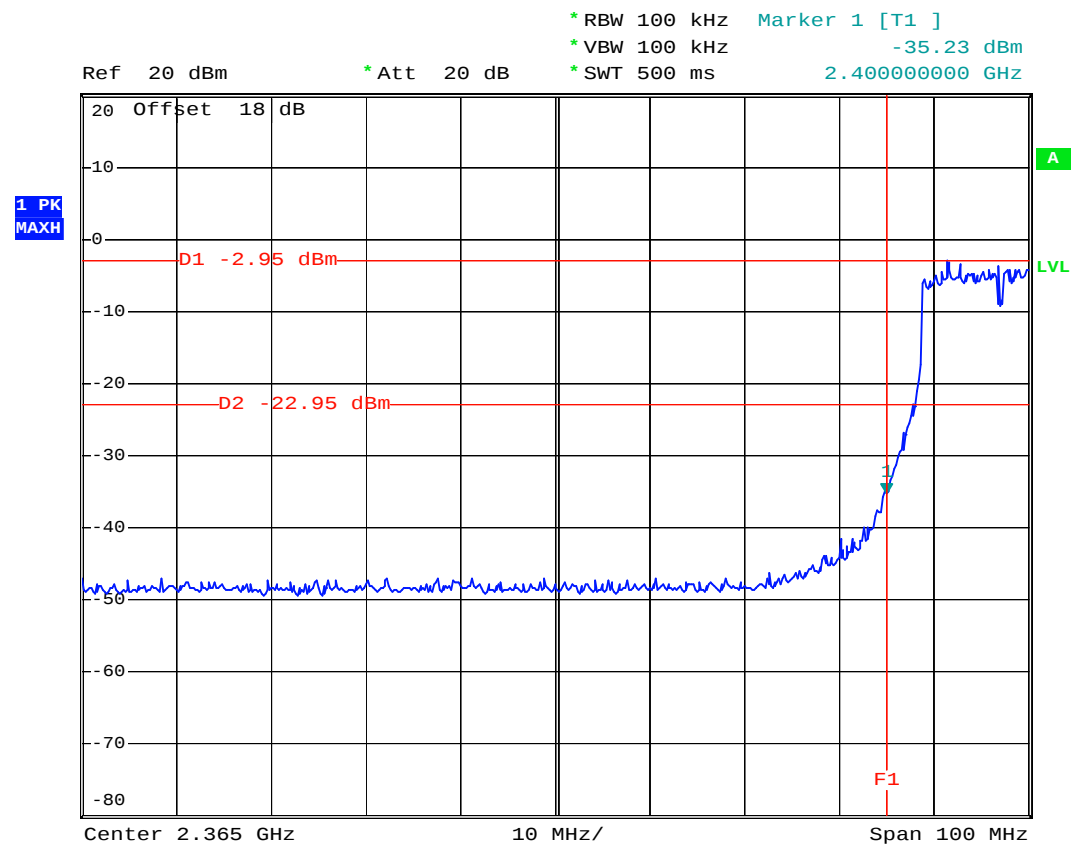


Date: 16.JUN.2007 19:11:53



WLAN 802.11g

CH01

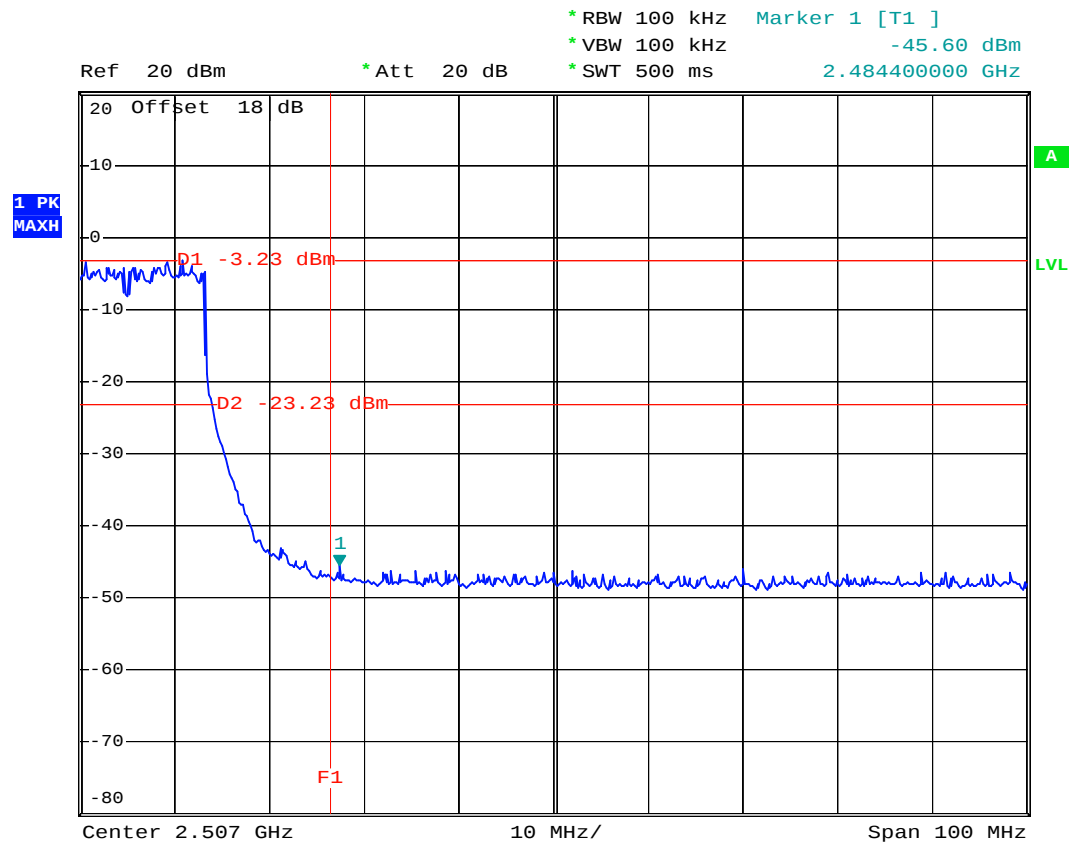


Date: 16.JUN.2007 20:04:11



WLAN 802.11g

CH11

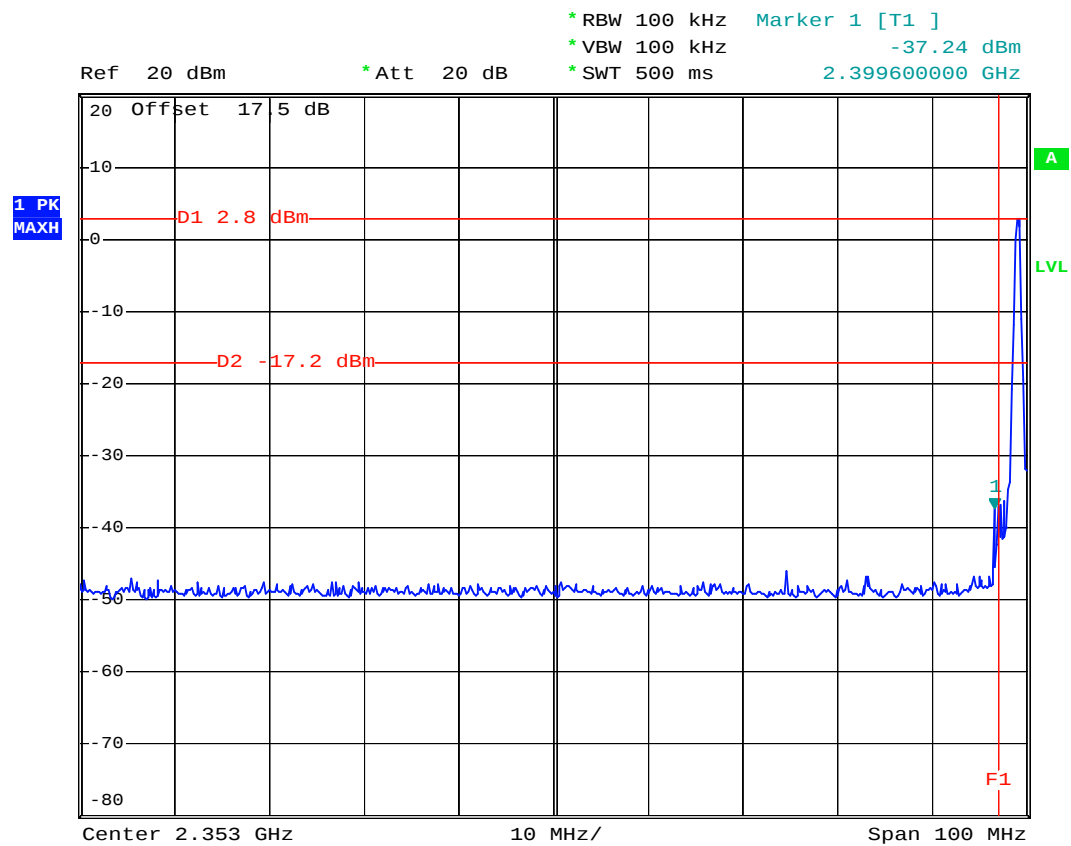


Date: 16.JUN.2007 20:05:54



BT(1Mbps)

CH00

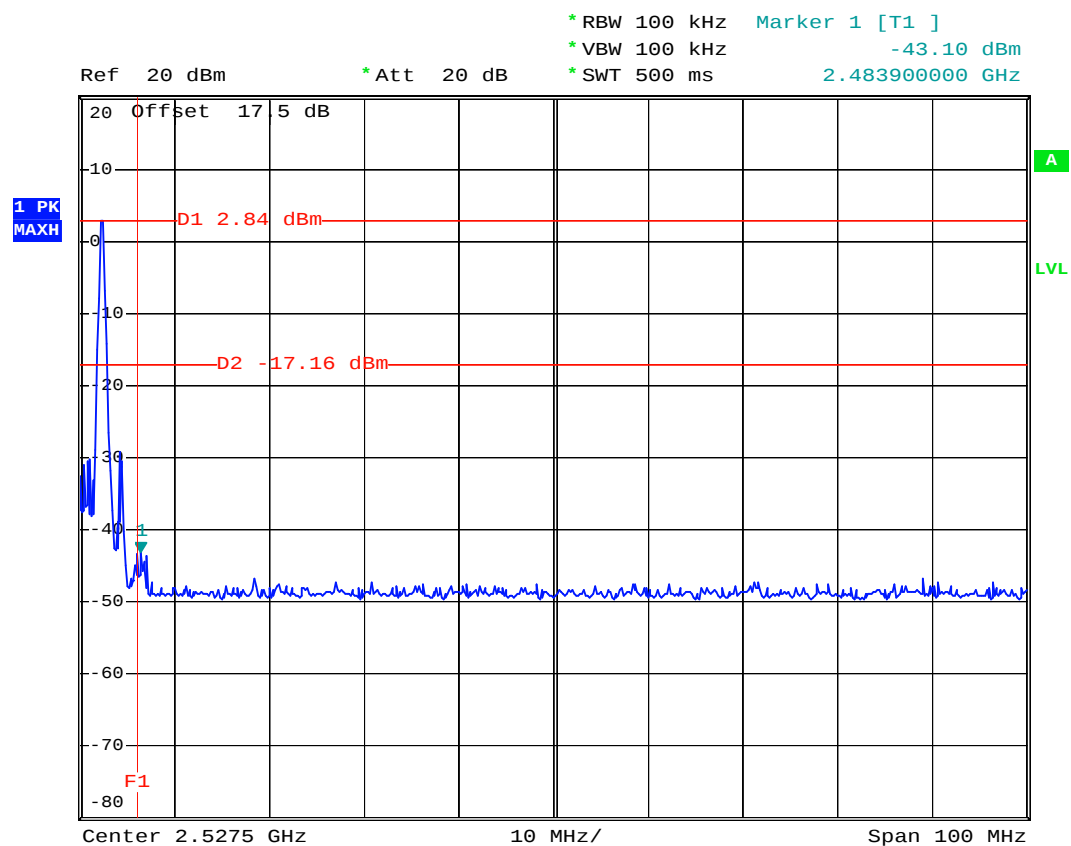


Date: 14.JUN.2007 21:28:08



BT(1Mbps)

CH78

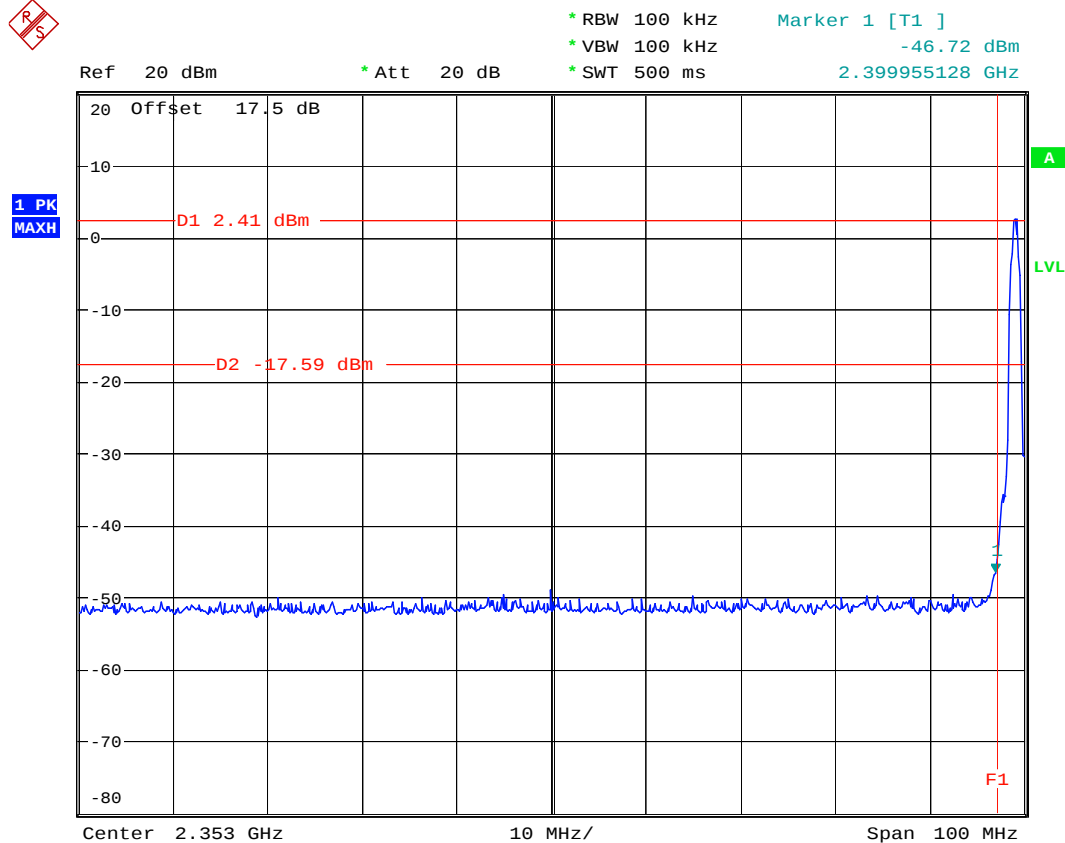


Date: 14.JUN.2007 21:29:01



BT-EDR(2Mbps)

CH00

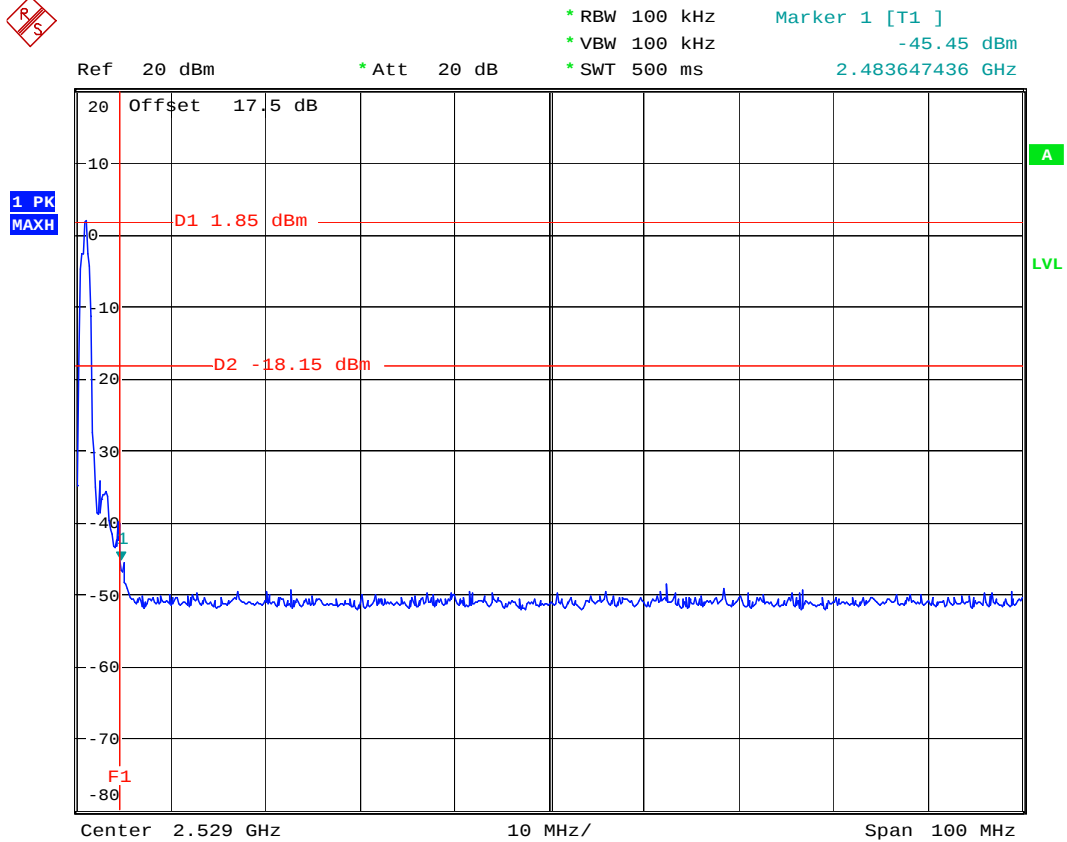


Date: 23.JUN.2007 13:46:22



BT-EDR(2Mbps)

CH78

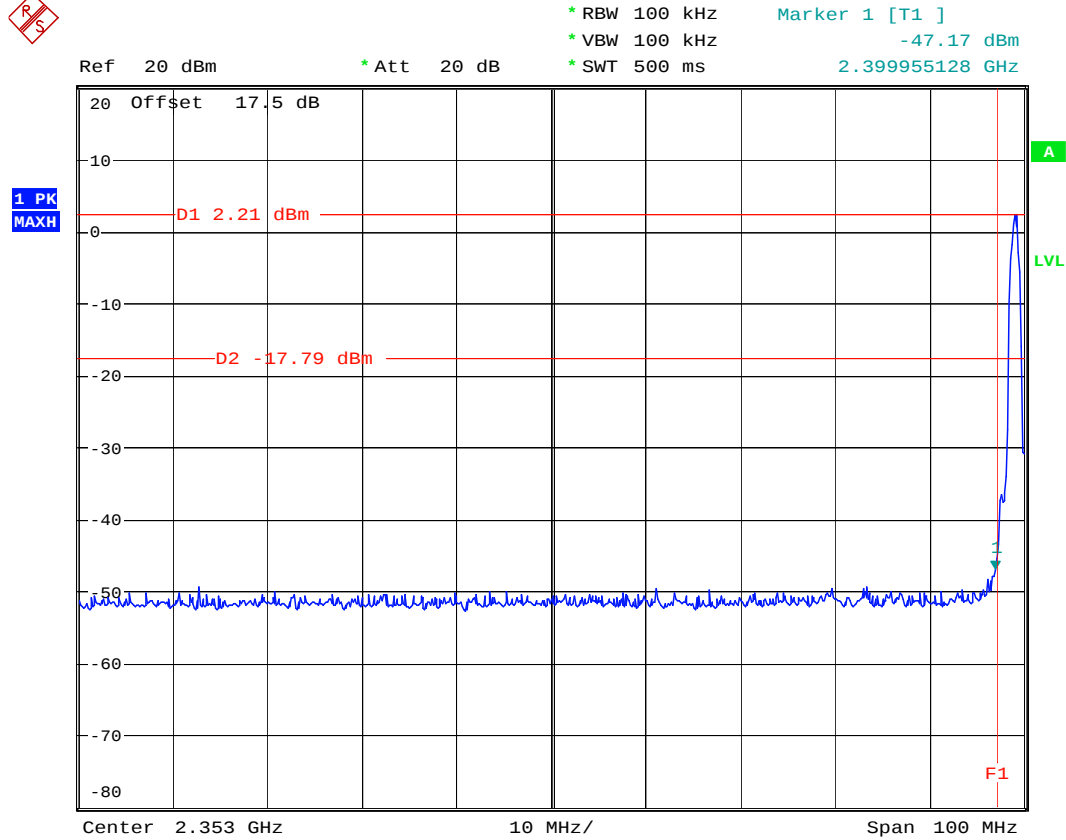


Date: 23.JUN.2007 13:47:46



BT-EDR(3Mbps)

CH00

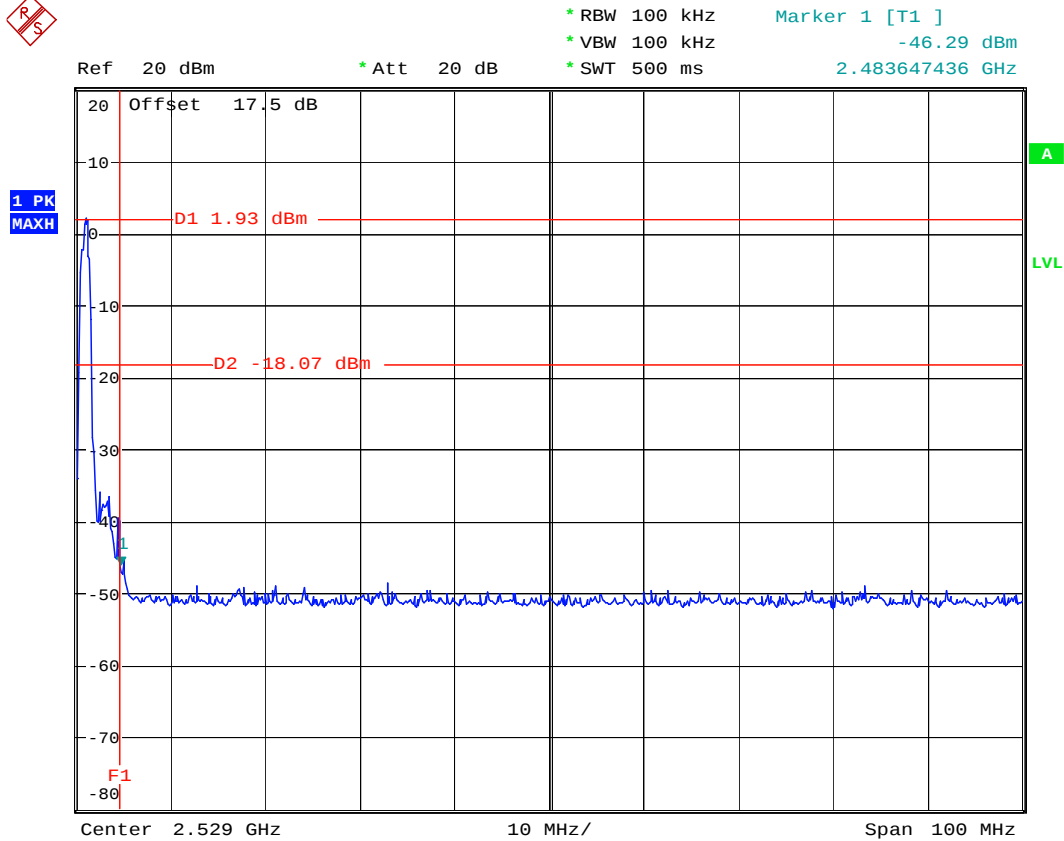


Date: 23.JUN.2007 14:05:16



BT-EDR(3Mbps)

CH78



Date: 23.JUN.2007 14:06:30

5.5 Hopping Channel Separation

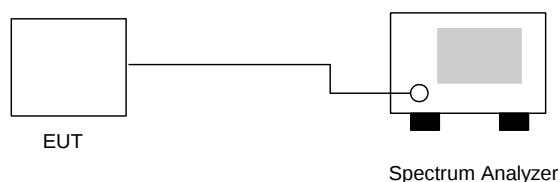
5.5.1 Measuring Instruments :

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 1% of the span and VBW RBW.
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(1Mbps)
- Temperature : 25~27
- Relative Humidity : 58~60%
- Test Enginner : Win

Channel	Carrier Frequency		Limits	Plot
	Frequency (MHz)	Separation (MHz)		
00	2402	1.000	0.588	Mode 7
39	2441	1.000	0.584	Mode 8
78	2480	1.004	0.591	Mode 9

Note: Hopping Channel Separation shall be greater 2/3 of 20dB bandwidth. Refer the result of 20dB bandwidth to section 5.7.

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

- Application Type : BT-EDR(2Mbps)
- Temperature : 25~27
- Relative Humidity : 58~60%
- Test Enginner : Win

Channel	Carrier Frequency		Limits	Plot
	Frequency (MHz)	Separation (MHz)		
00	2402	1.000	0.863	Mode 10
39	2441	1.000	0.861	Mode 11
78	2480	1.013	0.861	Mode 12

Note: Hopping Channel Separation shall be greater 2/3 of 20dB bandwidth. Refer the result of 20dB bandwidth to section 5.7.

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

- Application Type : BT-EDR(3Mbps)
- Temperature : 25~27
- Relative Humidity : 58~60%
- Test Enginner : Win

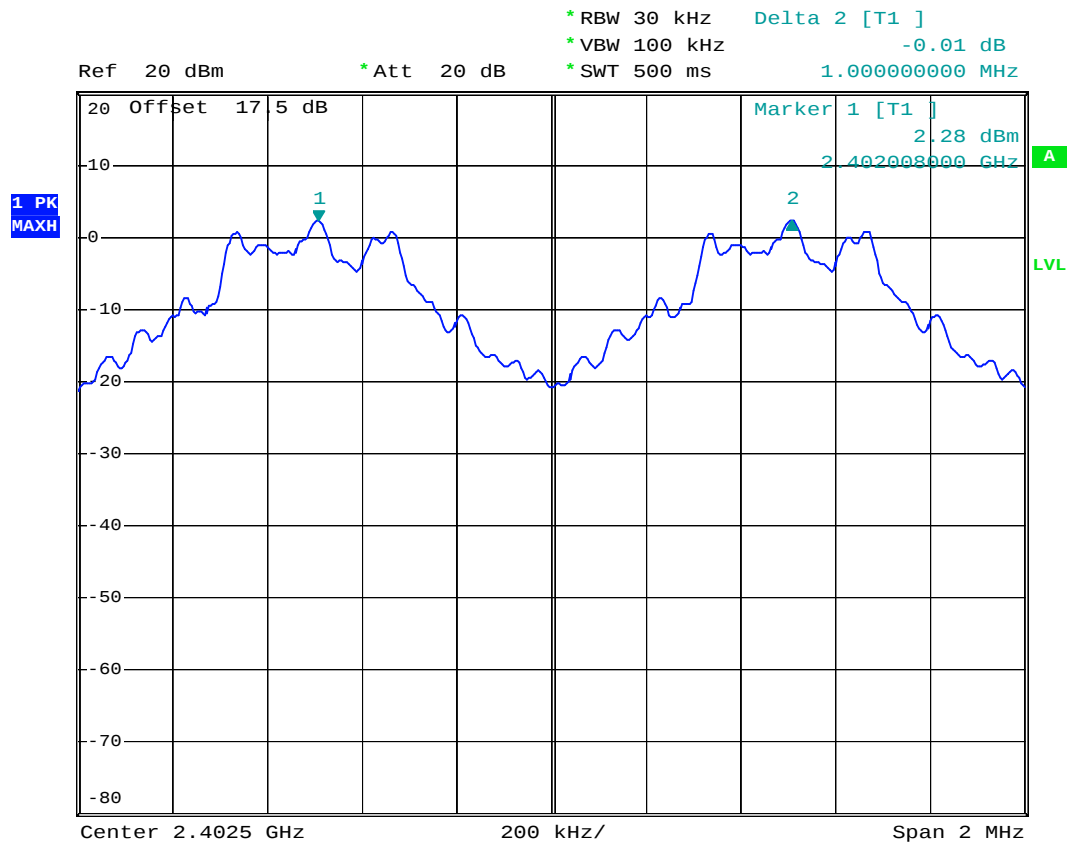
Channel	Carrier Frequency		Limits	Plot
	Frequency (MHz)	Separation (MHz)		
00	2402	0.934	0.853	Mode 13
39	2441	1.000	0.857	Mode 14
78	2480	1.000	0.857	Mode 15

Note: Hopping Channel Separation shall be greater 2/3 of 20dB bandwidth. Refer the result of 20dB bandwidth to section 5.7.



5.5.5 Hopping Channel Separation

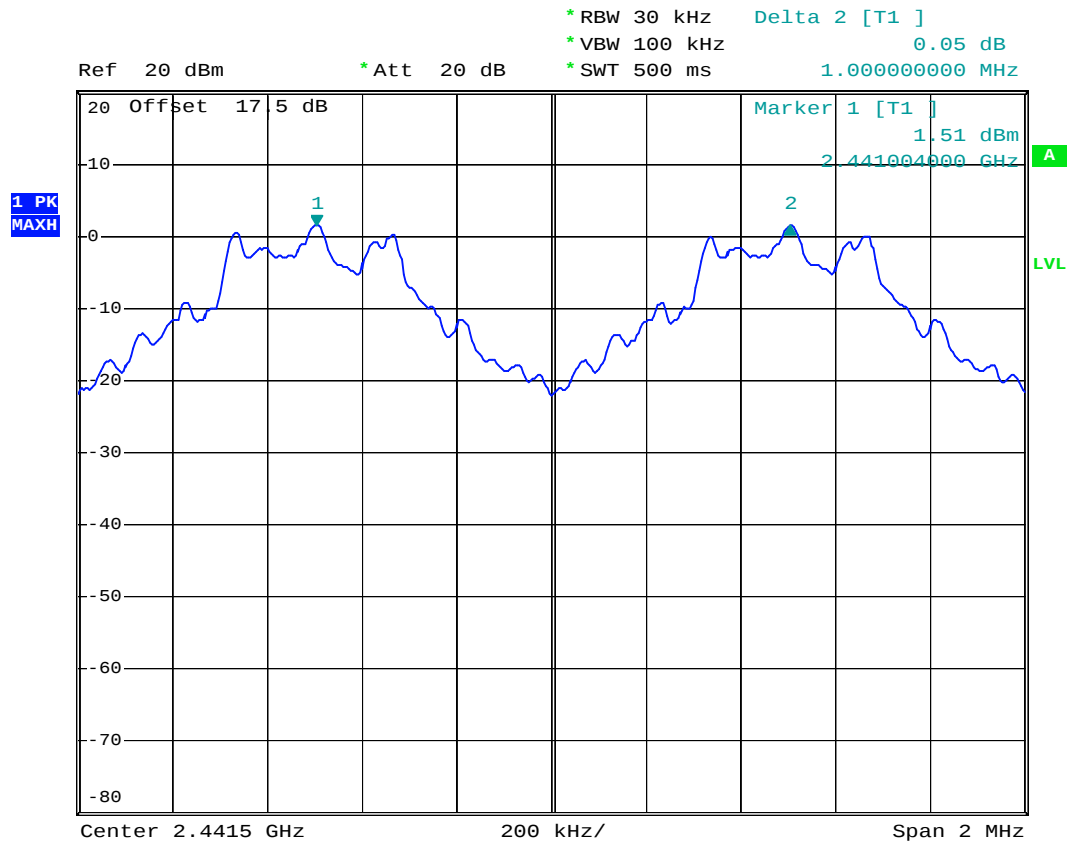
Mode 7



Date: 14.JUN.2007 21:29:42



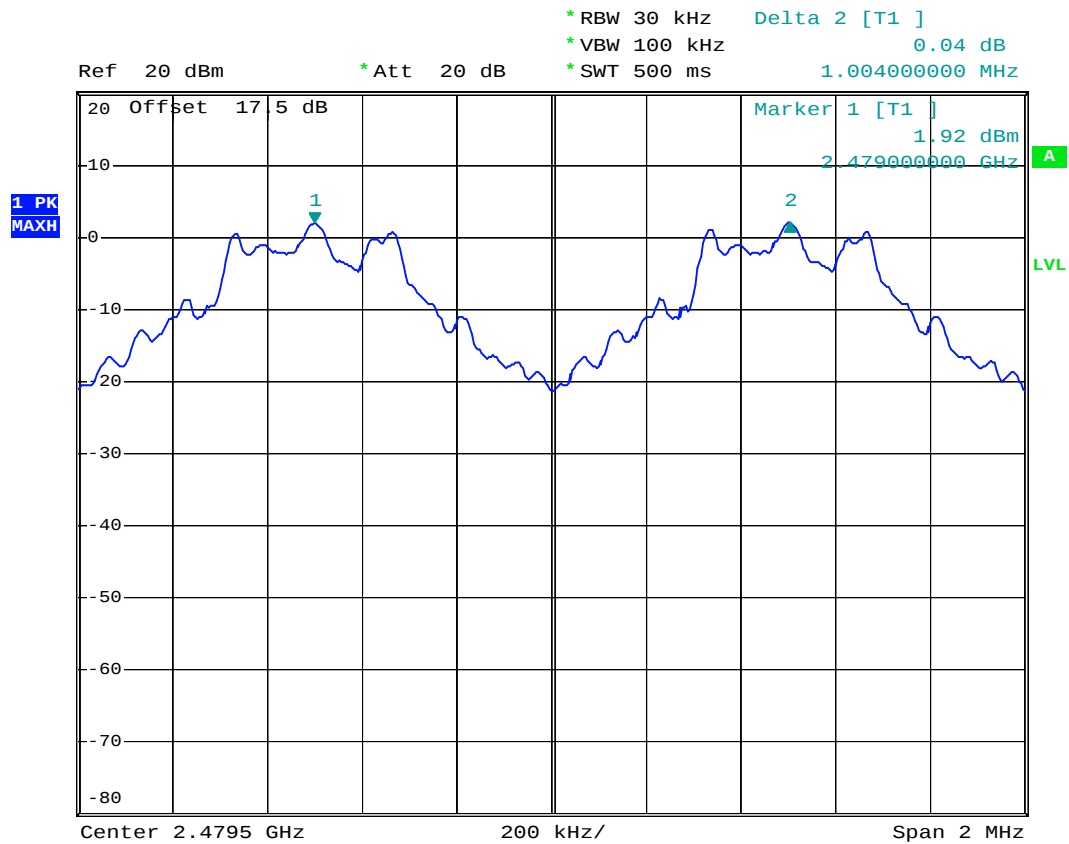
Mode 8



Date: 14.JUN.2007 21:30:08



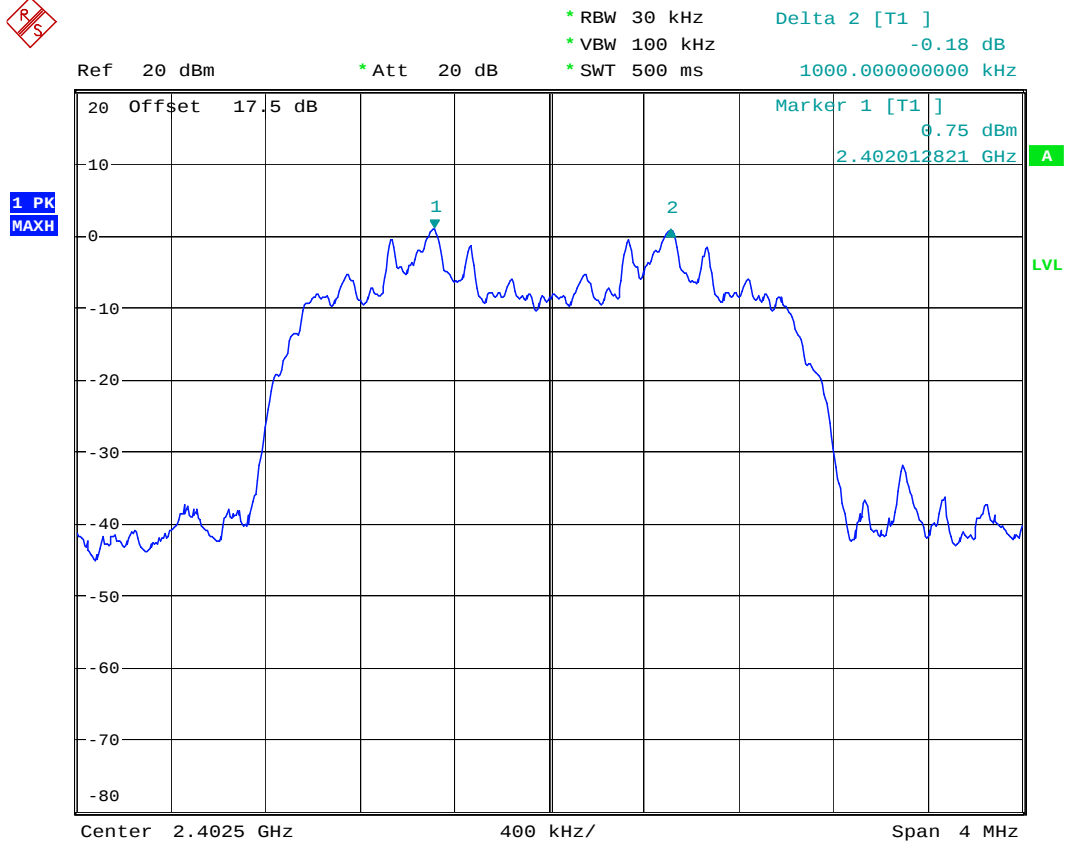
Mode 9



Date: 14.JUN.2007 21:30:55



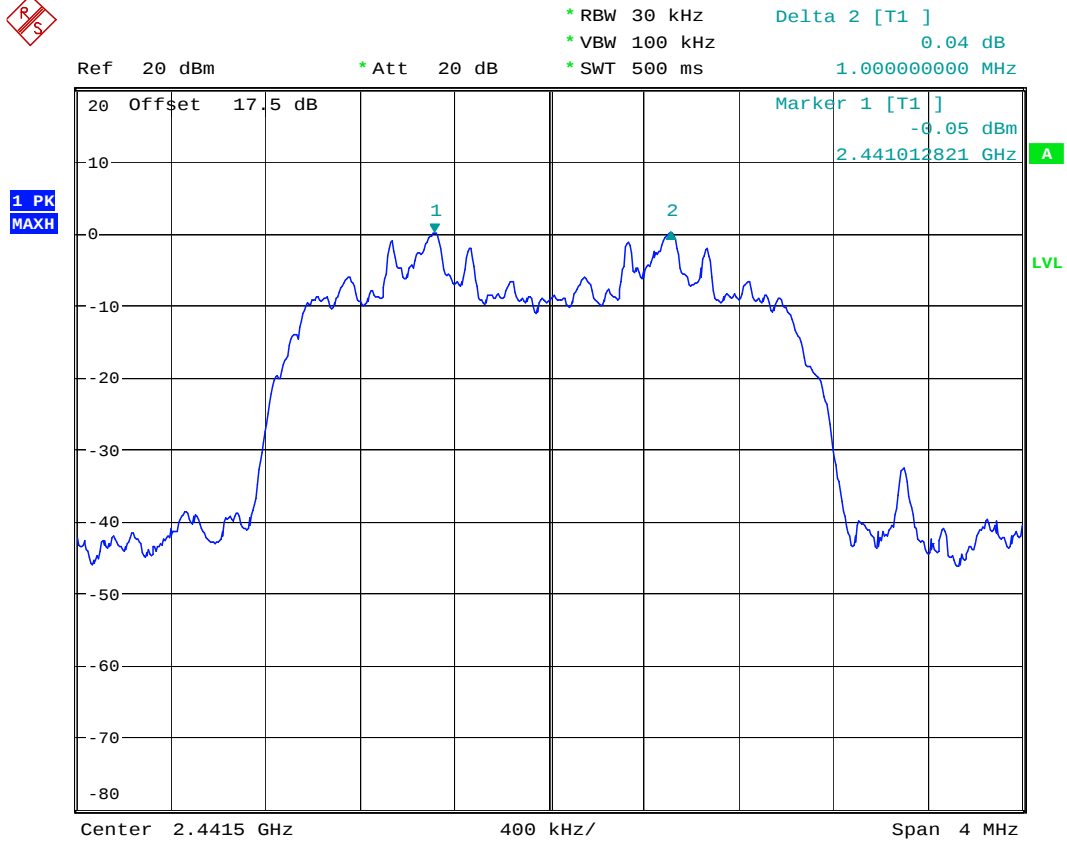
Mode 10



Date: 23.JUN.2007 13:49:20



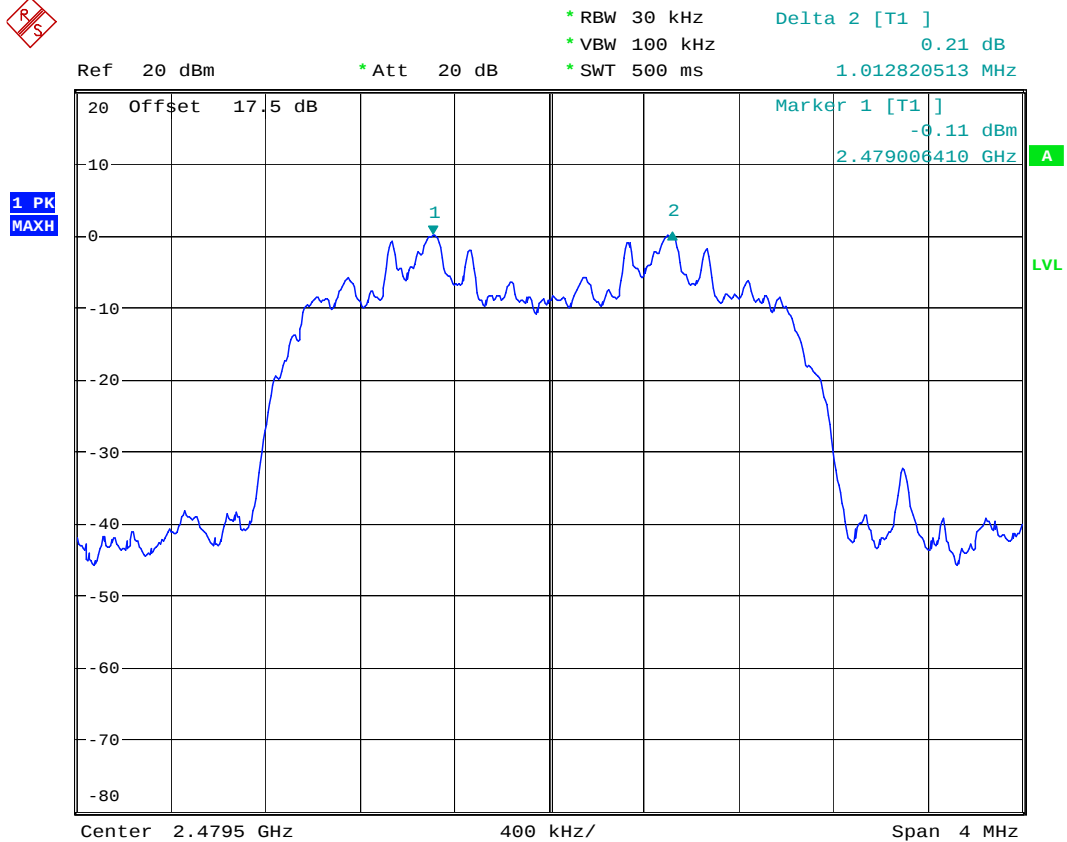
Mode 11



Date: 23.JUN.2007 13:49:57



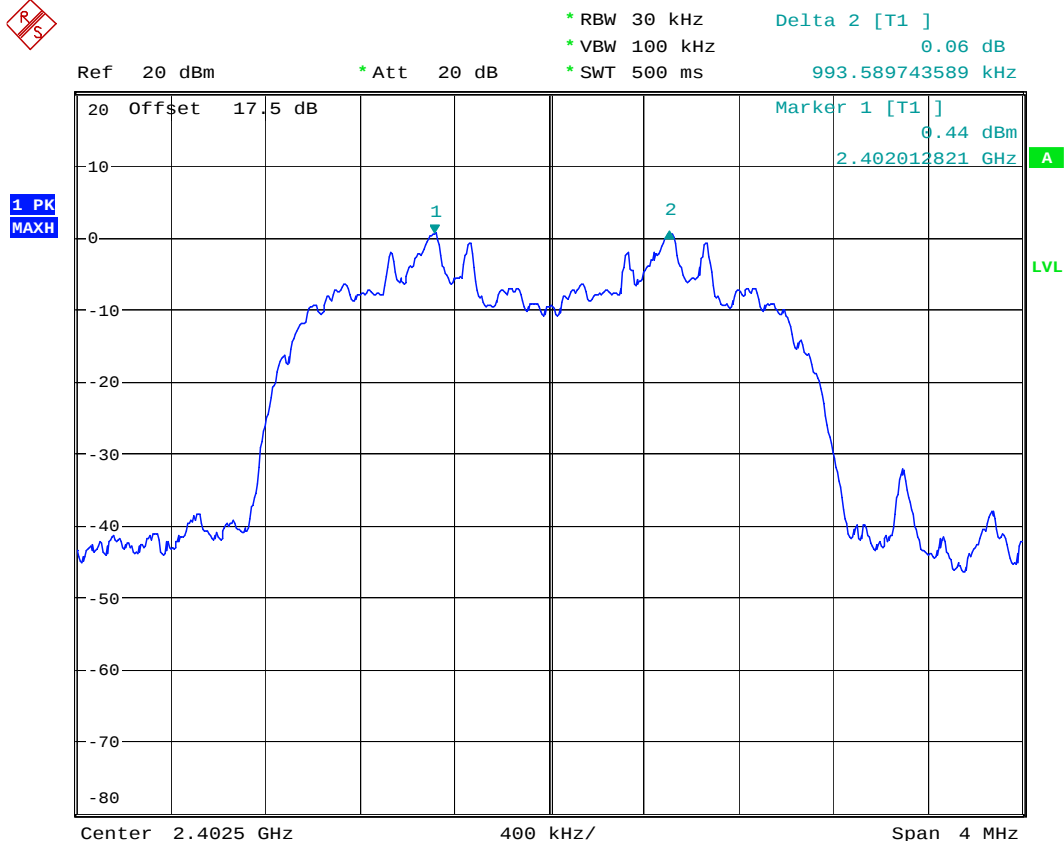
Mode 12



Date: 23.JUN.2007 13:50:49



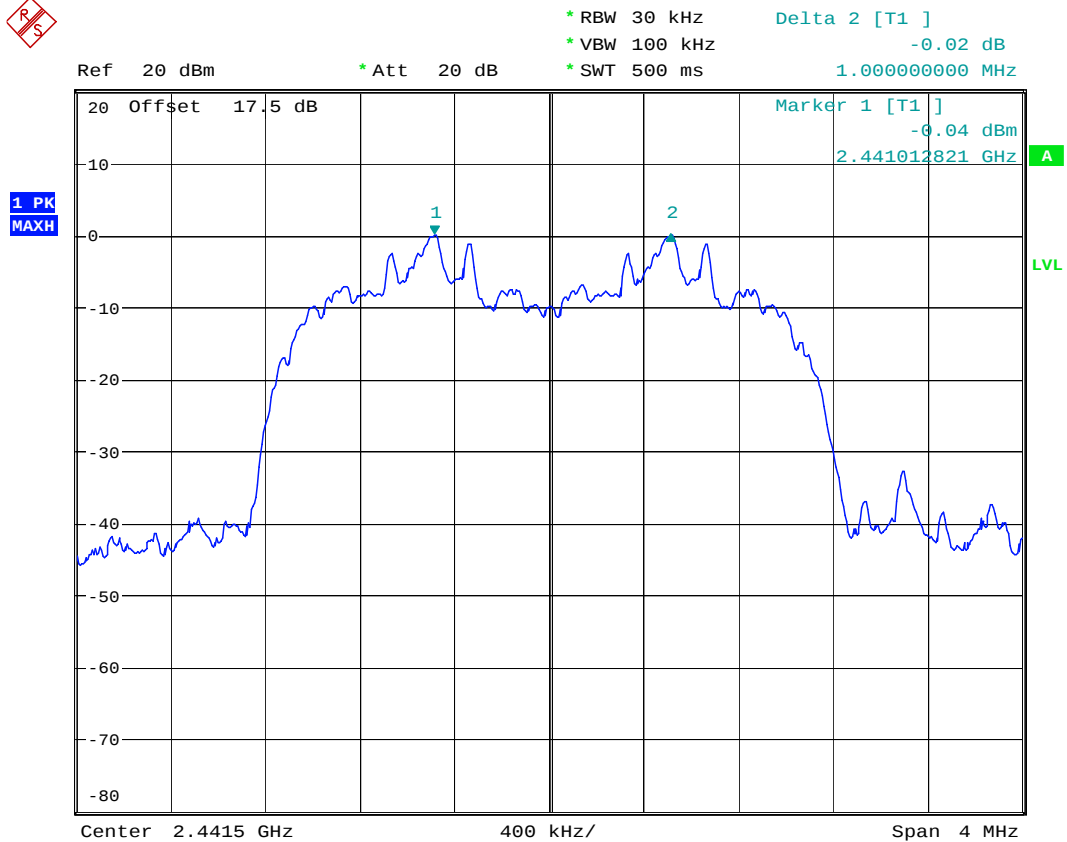
Mode 13



Date: 23.JUN.2007 14:07:24



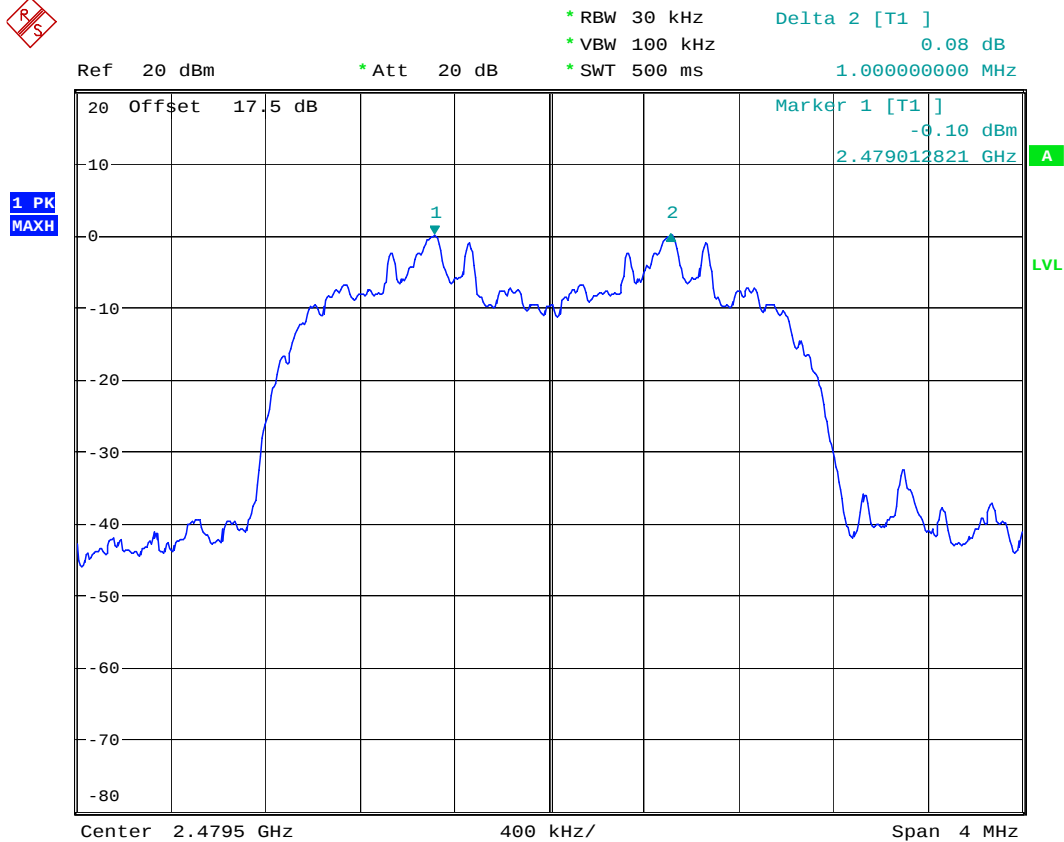
Mode 14



Date: 23.JUN.2007 14:07:58



Mode 15



Date: 23.JUN.2007 14:08:28

5.6 Number of Hopping Frequency

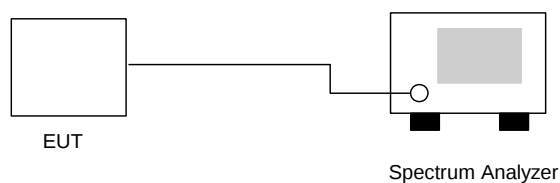
5.6.1 Measuring Instruments :

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(1Mbps)
- Temperature : 25~27
- Relative Humidity : 58~60%
- Test Enginner : Win

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



5.6.4 Test Result : See spectrum analyzer plots below

- Application Type : BT-EDR(2Mbps)
- Temperature : 25~27
- Relative Humidity : 58~60%
- Test Enginner : Win

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

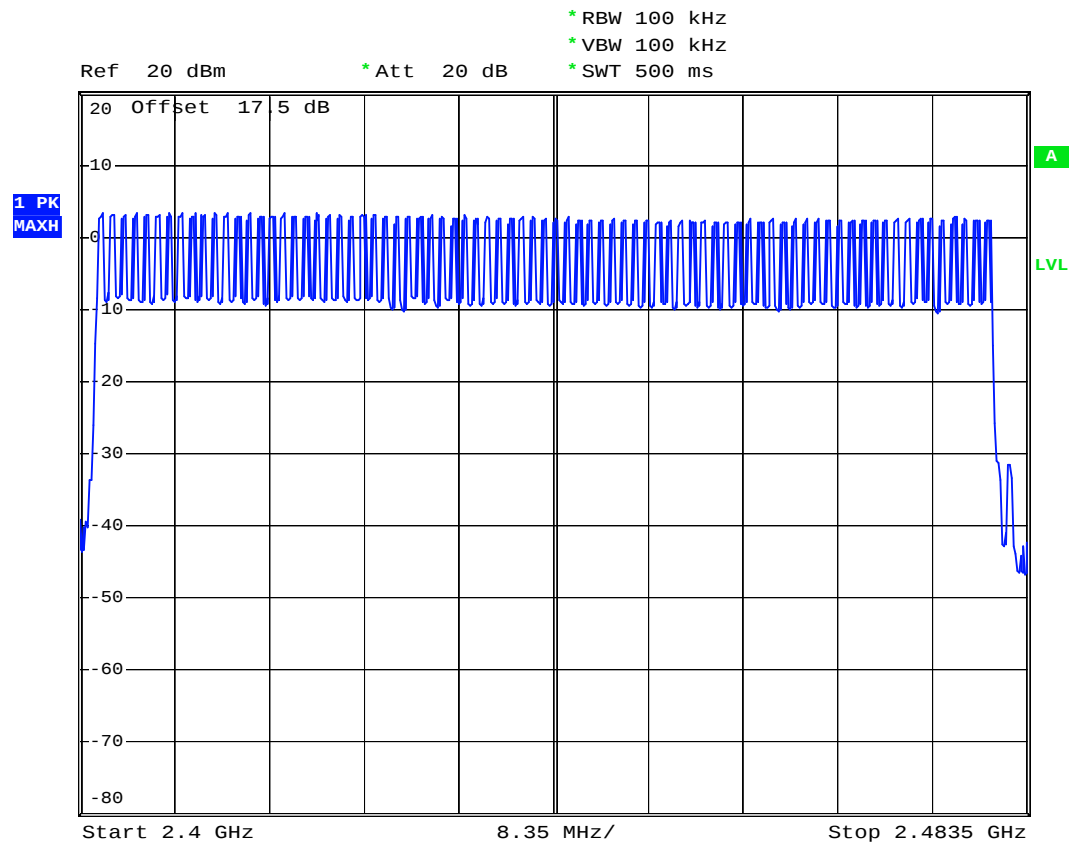
5.6.4 Test Result : See spectrum analyzer plots below

- Application Type : BT-EDR(3Mbps)
- Temperature : 25~27
- Relative Humidity : 58~60%
- Test Enginner : Win

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

**5.6.5 Number of Hopping Frequency**

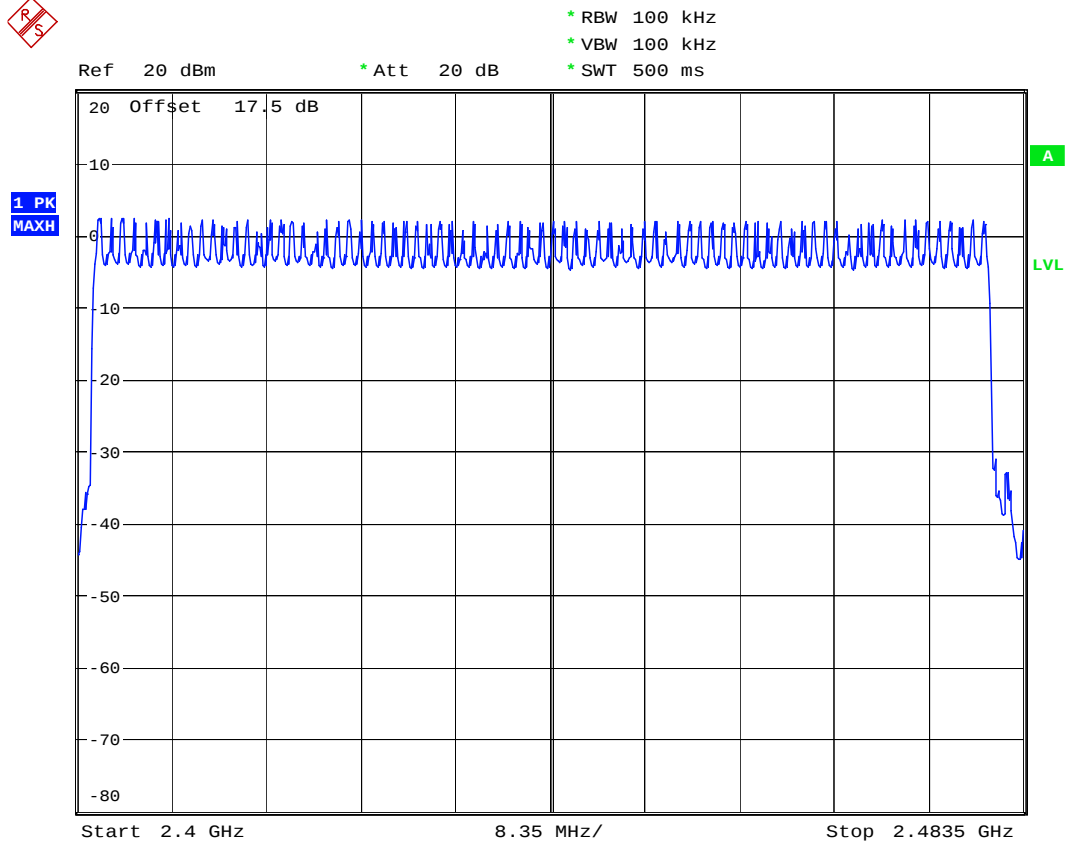
BT(1Mbps)



Date: 14.JUN.2007 22:27:16



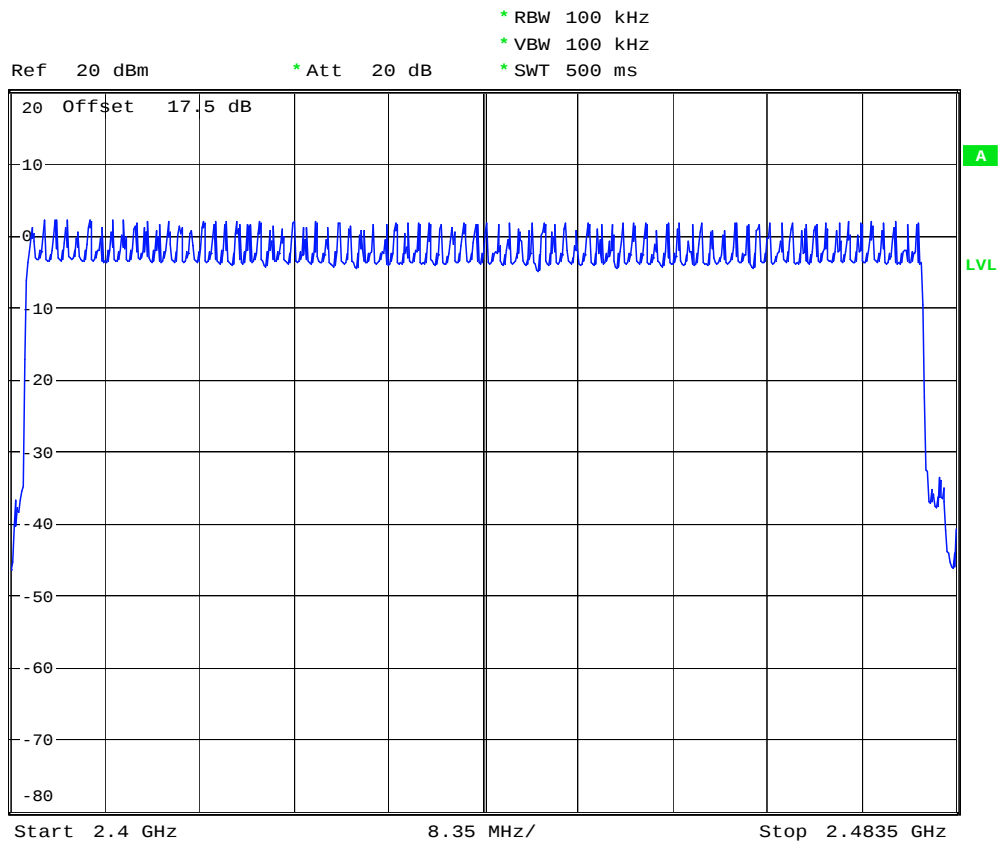
BT-EDR(2Mbps)



Date: 23.JUN.2007 13:59:44



BT-EDR(3Mbps)



Date: 23.JUN.2007 14:17:35

5.7 Hopping Channel Bandwidth

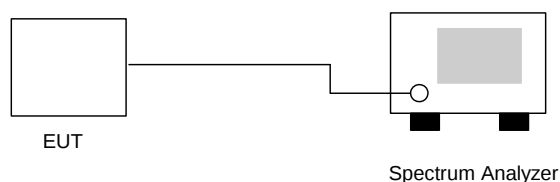
5.7.1 Measuring Instruments :

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(1Mbps)
- Temperature : 25~27
- Relative Humidity : 58~60%
- Test Enginner : Win

Channel	Frequency (MHz)	Hopping Channel Bandwidth (MHz)	Plot Ref. No.
00	2402	0.882	Mode 7
39	2441	0.876	Mode 8
78	2480	0.886	Mode 9



5.7.4 Test Result : See spectrum analyzer plots below

- Application Type : BT-EDR(2Mbps)
- Temperature : 25~27
- Relative Humidity : 58~60%
- Test Enginner : Win

Channel	Frequency (MHz)	Hopping Channel Bandwidth (MHz)	Plot Ref. No.
00	2402	1.295	Mode 10
39	2441	1.292	Mode 11
78	2480	1.292	Mode 12

5.7.4 Test Result : See spectrum analyzer plots below

- Application Type : BT-EDR(3Mbps)
- Temperature : 25~27
- Relative Humidity : 58~60%
- Test Enginner : Win

Channel	Frequency (MHz)	Hopping Channel Bandwidth (MHz)	Plot Ref. No.
00	2402	1.279	Mode 13
39	2441	1.285	Mode 14
78	2480	1.285	Mode 15



5.7.5 Hopping Channel Bandwidth

Mode 7



Date: 14.JUN.2007 21:23:34



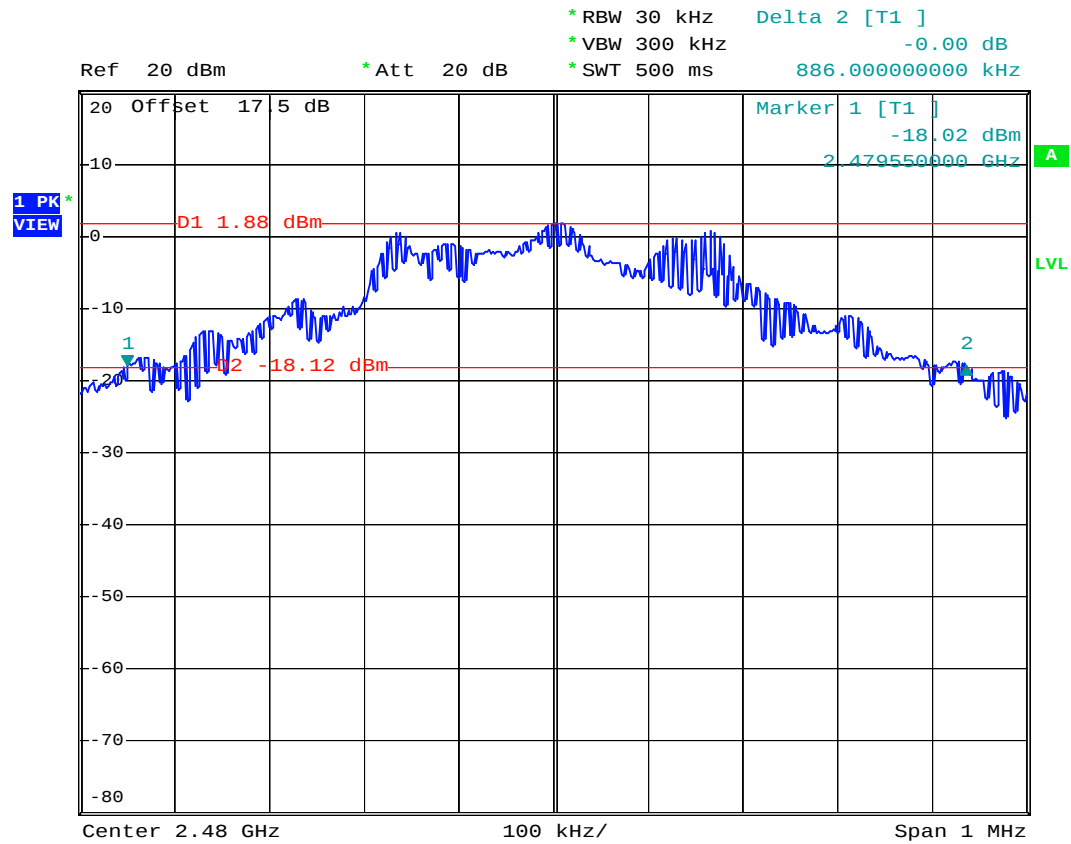
Mode 8



Date: 14.JUN.2007 21:24:41



Mode 9



Date: 14.JUN.2007 21:25:32



Mode 10

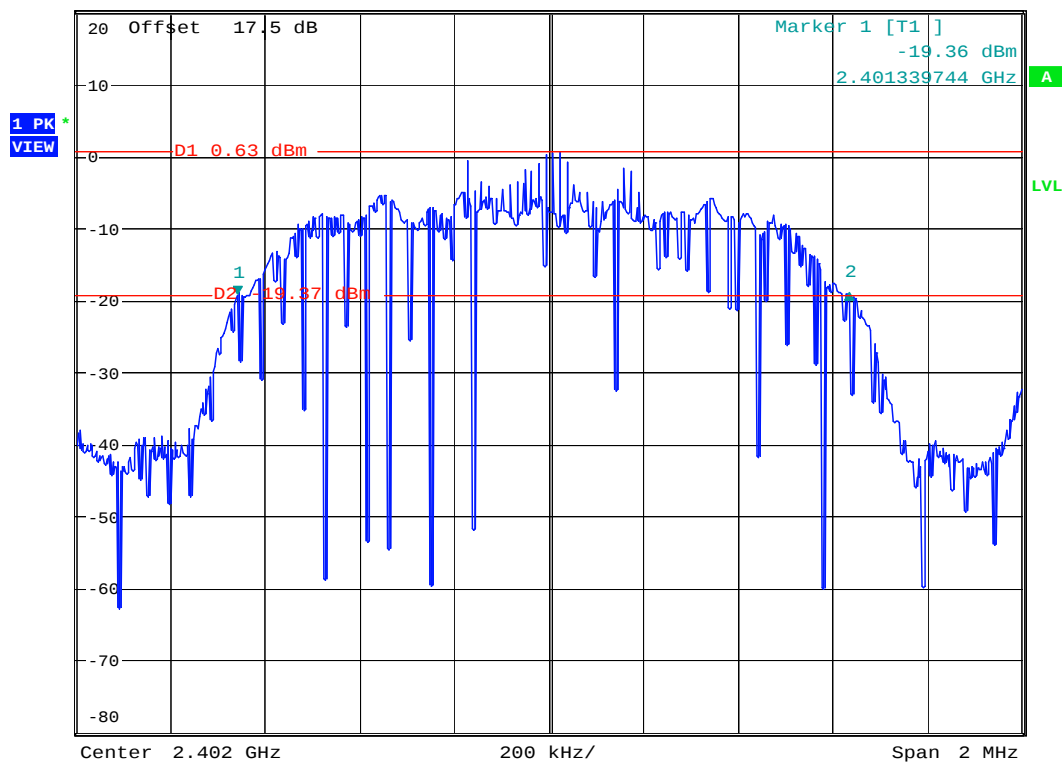


* RBW 30 kHz
* VBW 300 kHz
* SWT 500 ms

Delta 2 [T1]
0.12 dB
1.294871795 MHz

Ref 20 dBm

* Att 20 dB



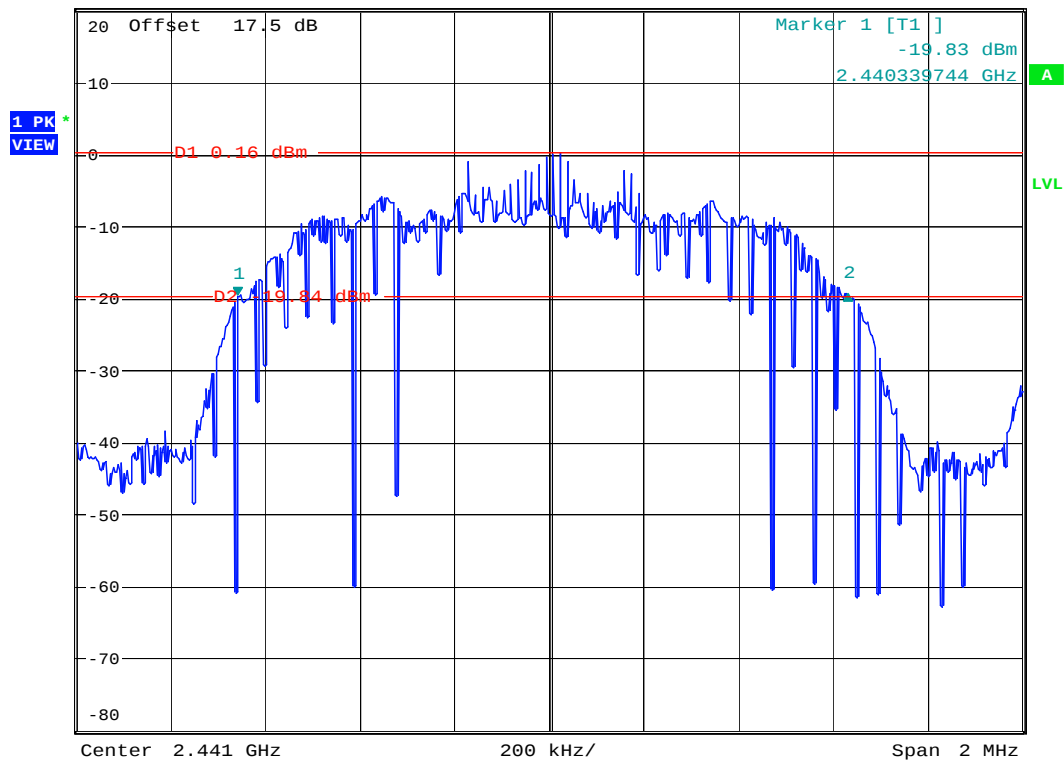
Date: 23.JUN.2007 13:43:49



Mode 11



Ref 20 dBm * Att 20 dB * RBW 30 kHz Delta 2 [T1] 0.21 dB
* VBW 300 kHz 1.291666667 MHz
* SWT 500 ms



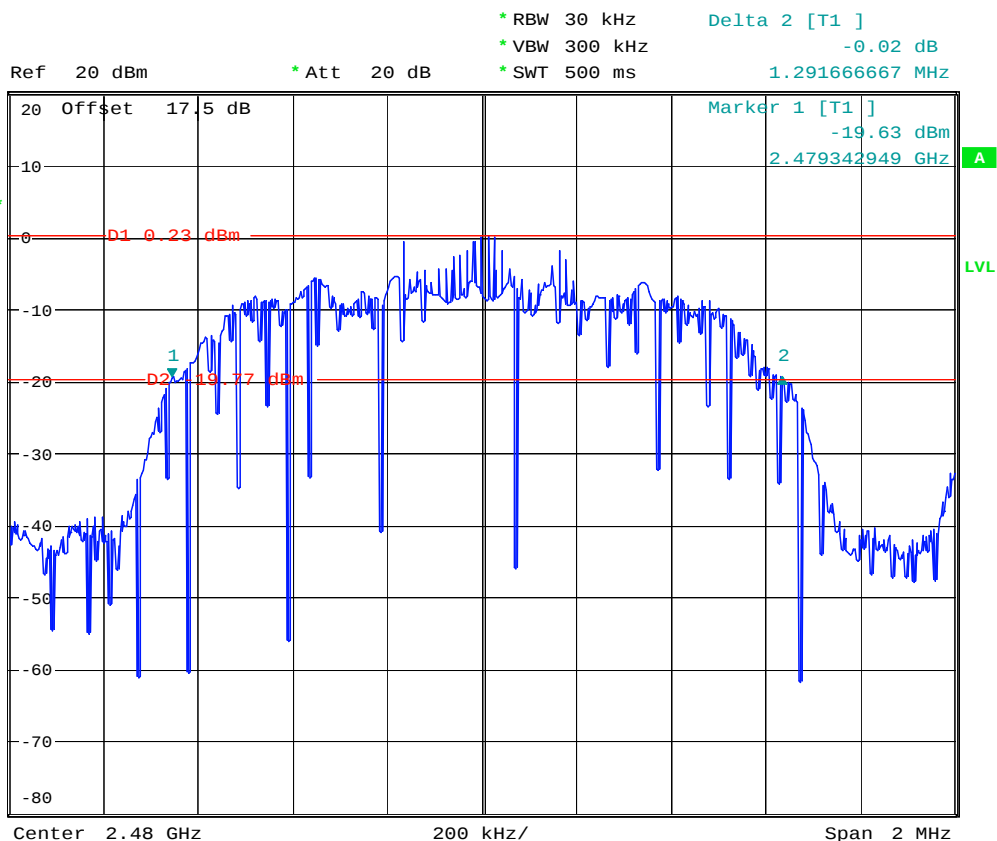
Date: 23.JUN.2007 13:44:27



Mode 12



1 PK
VIEW



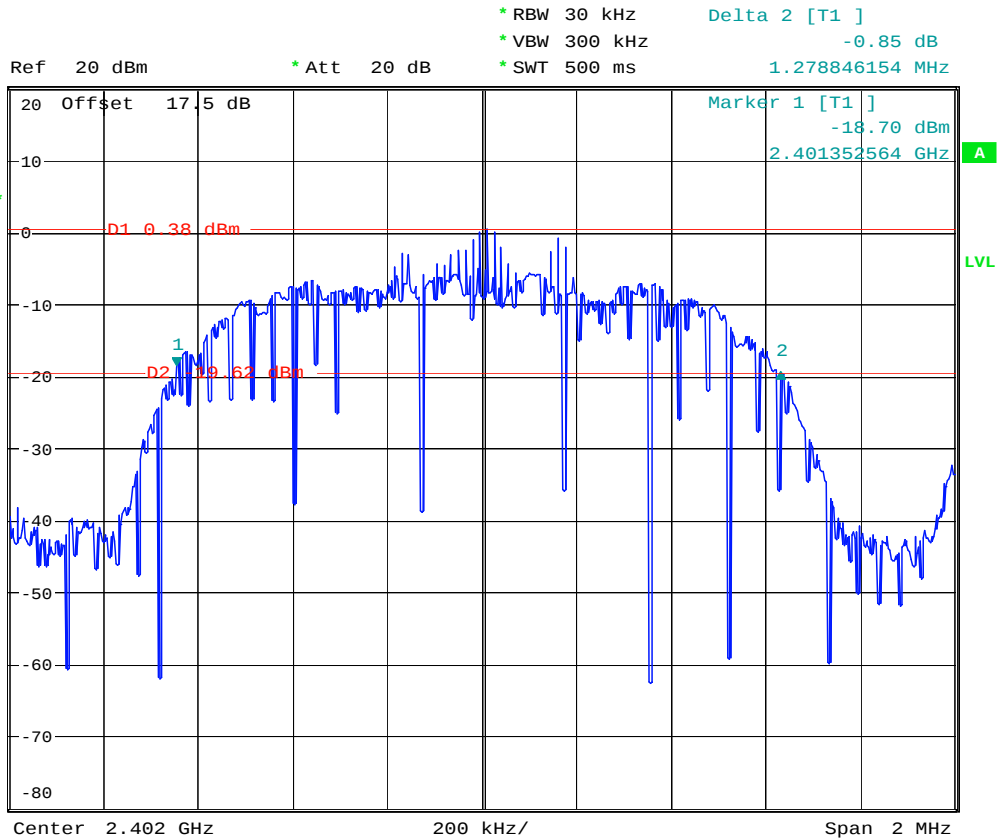
Date: 23.JUN.2007 13:45:08



Mode 13



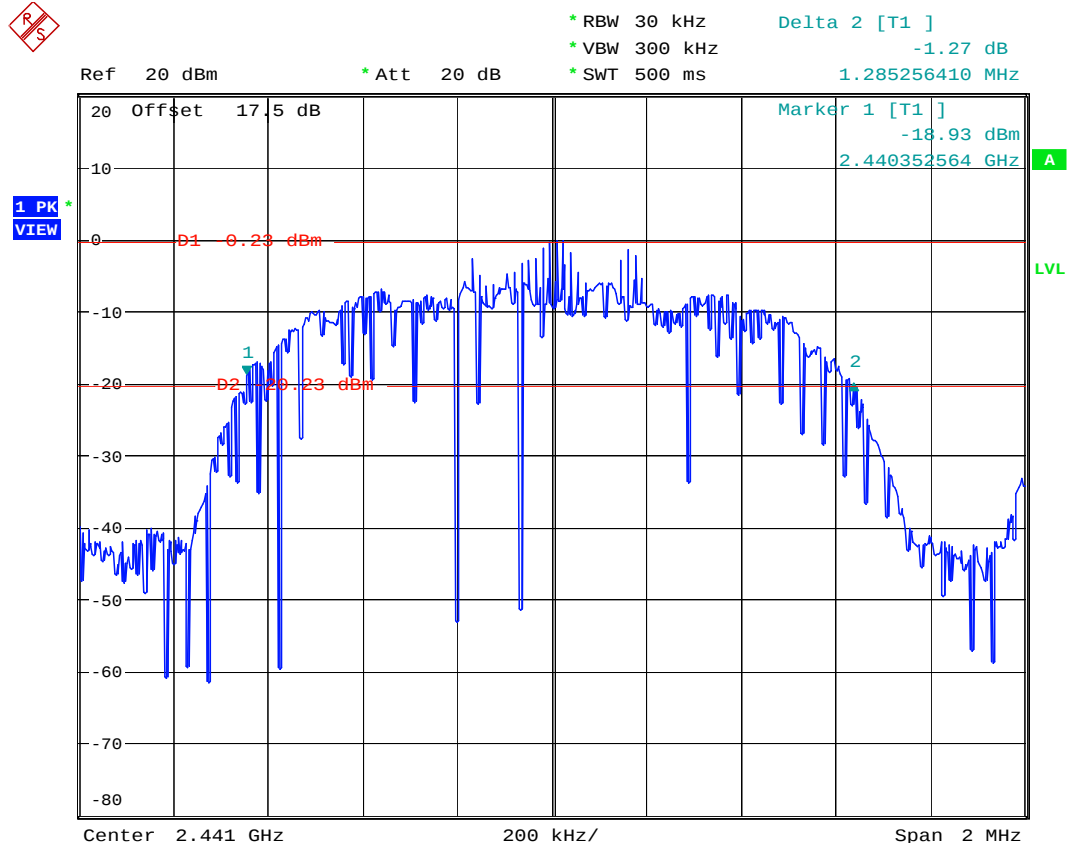
1 PK
VIEW



Date: 23.JUN.2007 14:02:41



Mode 14



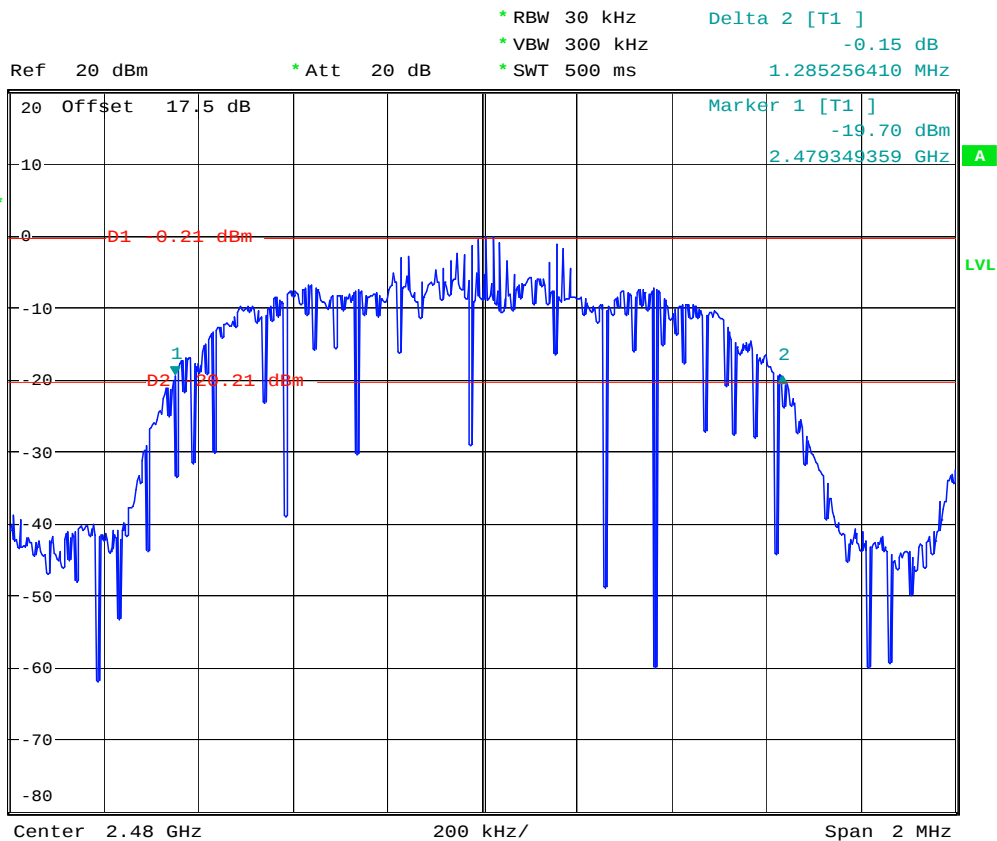
Date: 23.JUN.2007 14:03:27



Mode 15



1 PK
VIEW



Date: 23.JUN.2007 14:04:04

5.8 Dwell Time of Each Frequency

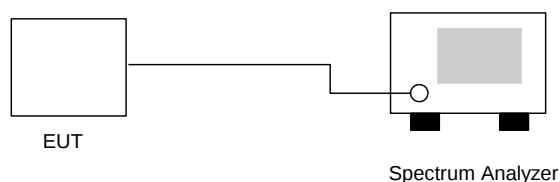
5.8.1 Measuring Instruments :

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 equals $79 * 0.4 * (1600/79) * t$ (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(1Mbps)
- Temperature : 25~27
- Relative Humidity : 58~60%
- Test Enginner : Win

Ch00

Package Mode	Average Hopping Channel	Package Transfer Time (us)	Dwell Time (s)	Limit (s)
DH1	9.7	444.00	0.136	0.4
DH3	4.9	1720.00	0.266	0.4
DH5	3.8	3040.00	0.365	0.4

**CH39**

Package Mode	Average Hopping Channel	Package Transfer Time (us)	Dwell Time (s)	Limit (s)
DH1	9.5	440.00	0.132	0.4
DH3	5	1710.00	0.270	0.4
DH5	3.9	3040.00	0.375	0.4

CH78

Package Mode	Average Hopping Channel	Package Transfer Time (us)	Dwell Time (s)	Limit (s)
DH1	9.6	448.00	0.136	0.4
DH3	5.1	1740.00	0.280	0.4
DH5	3.5	3000.00	0.332	0.4

5.8.4 Test Result : See spectrum analyzer plots below

- Application Type : BT-EDR(2Mbps)
- Temperature : 25~27
- Relative Humidity : 58~60%
- Test Enginner : Win

CH39

Package Mode	Average Hopping Channel	Package Transfer Time (us)	Dwell Time (s)	Limit (s)
DH5	4.2	2980.76	0.396	0.4



5.8.4 Test Result : See spectrum analyzer plots below

- Application Type : BT-EDR(3Mbps)
- Temperature : 25~27
- Relative Humidity : 58~60%
- Test Enginner : Win

CH39

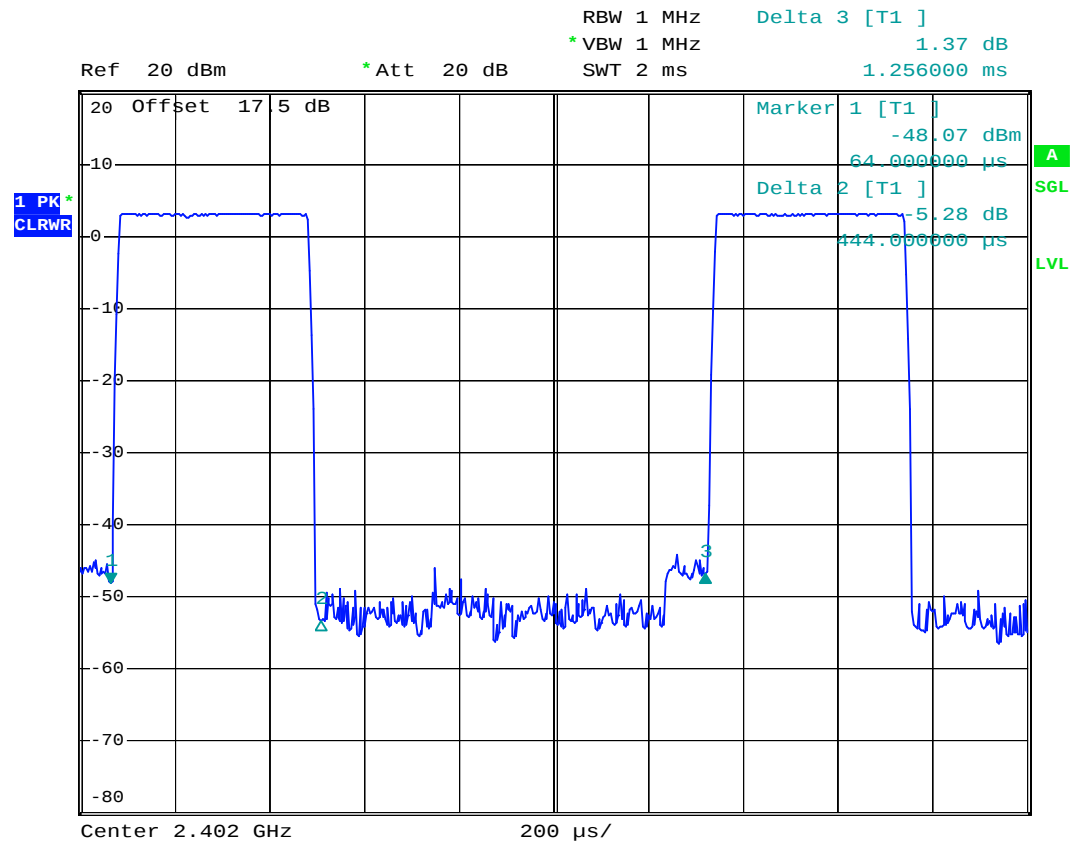
Package Mode	Average Hopping Channel	Package Transfer Time (us)	Dwell Time (s)	Limit (s)
DH5	3.6	2996.79	0.341	0.4

Remark:

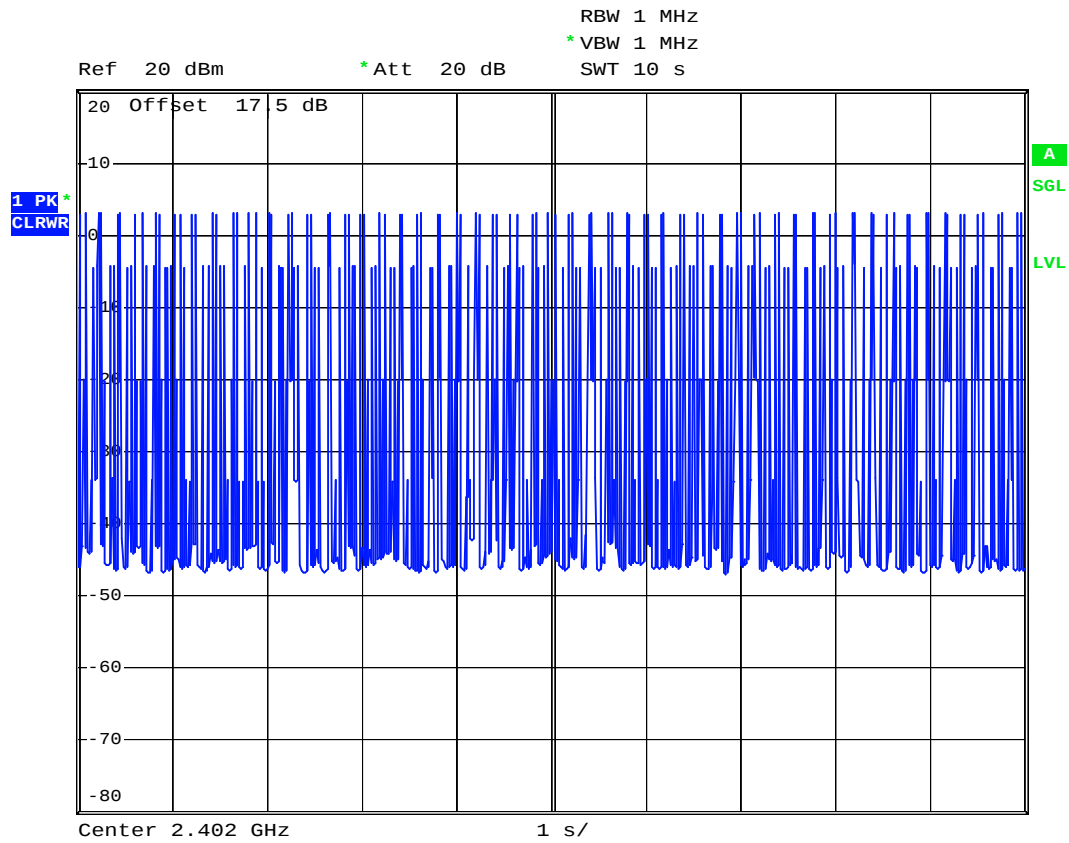
1. Dwell Time=79(channels) x 0.4(s) x average hopping channel x package transfer time
2. 79 channels come from the Hopping Channel number.
3. Average Hopping Channel = hops/sweep time
4. t: Package Transfer Time(us)

**5.8.5 Dwell Time**

BT(1Mbps)_DH1 (CH00)



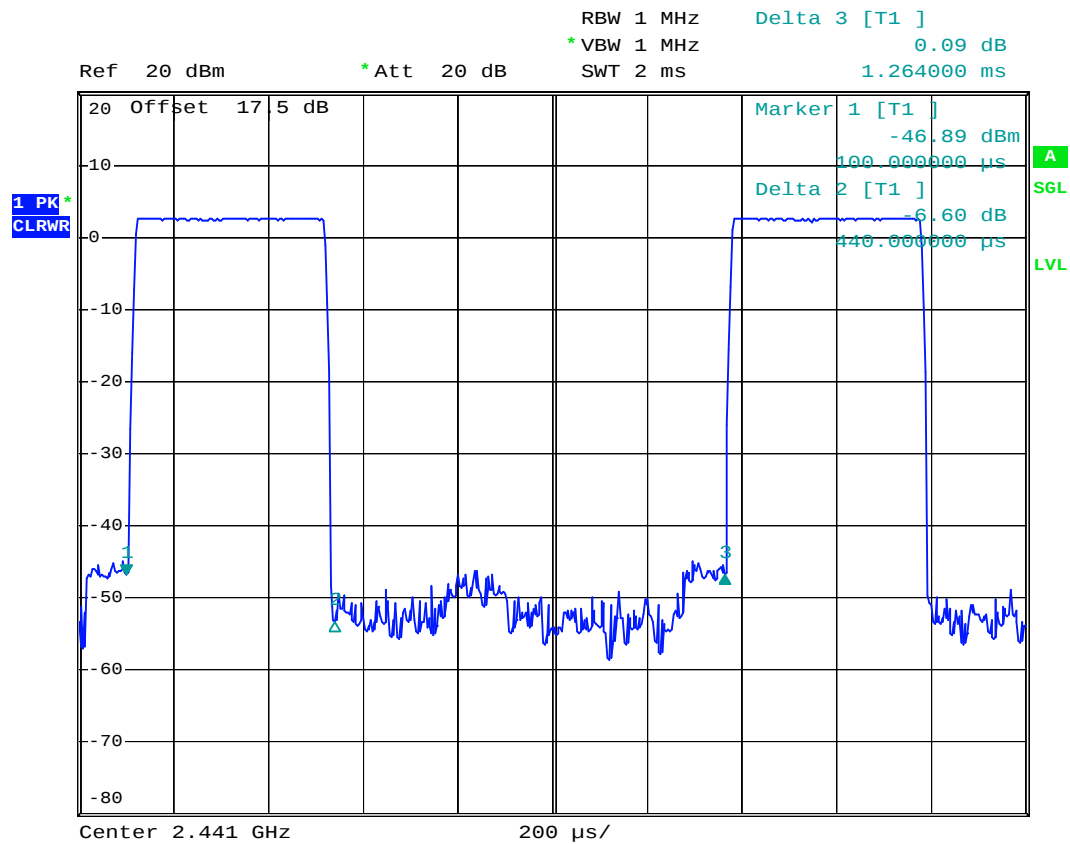
Date: 14.JUN.2007 21:43:46



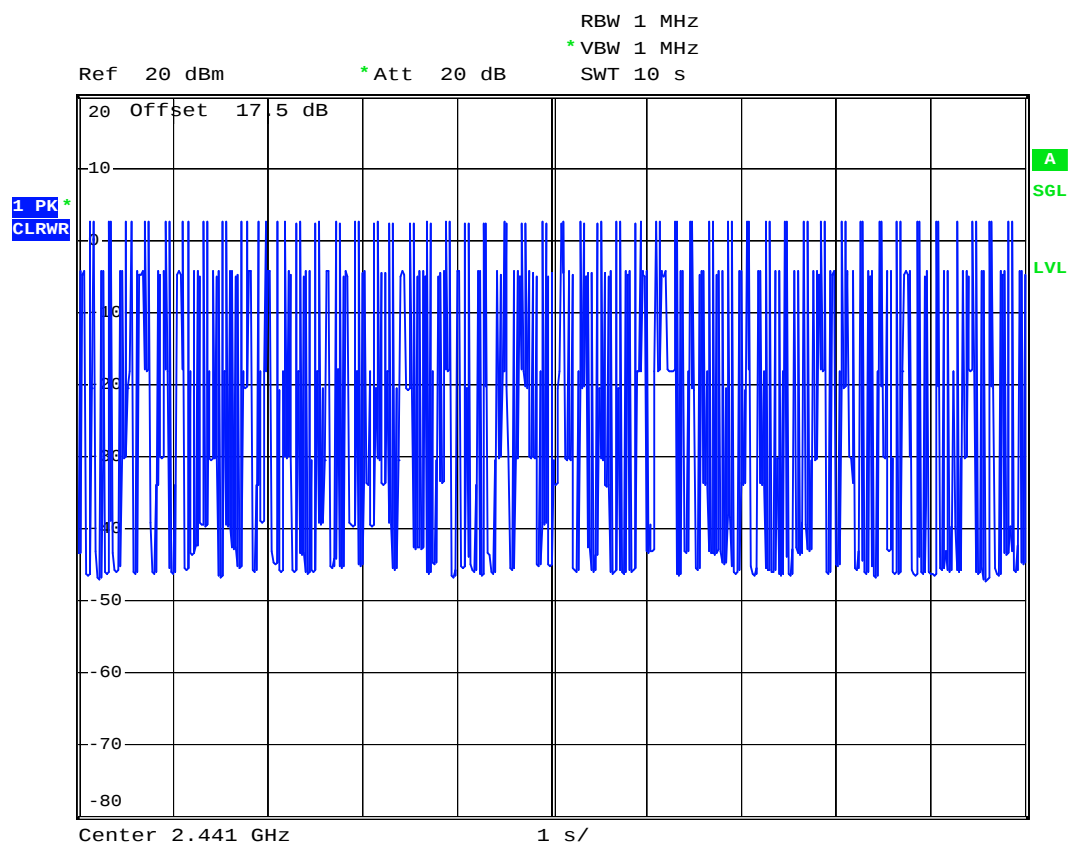
Date: 14.JUN.2007 21:50:36



BT(1Mbps)_DH1 (CH39)



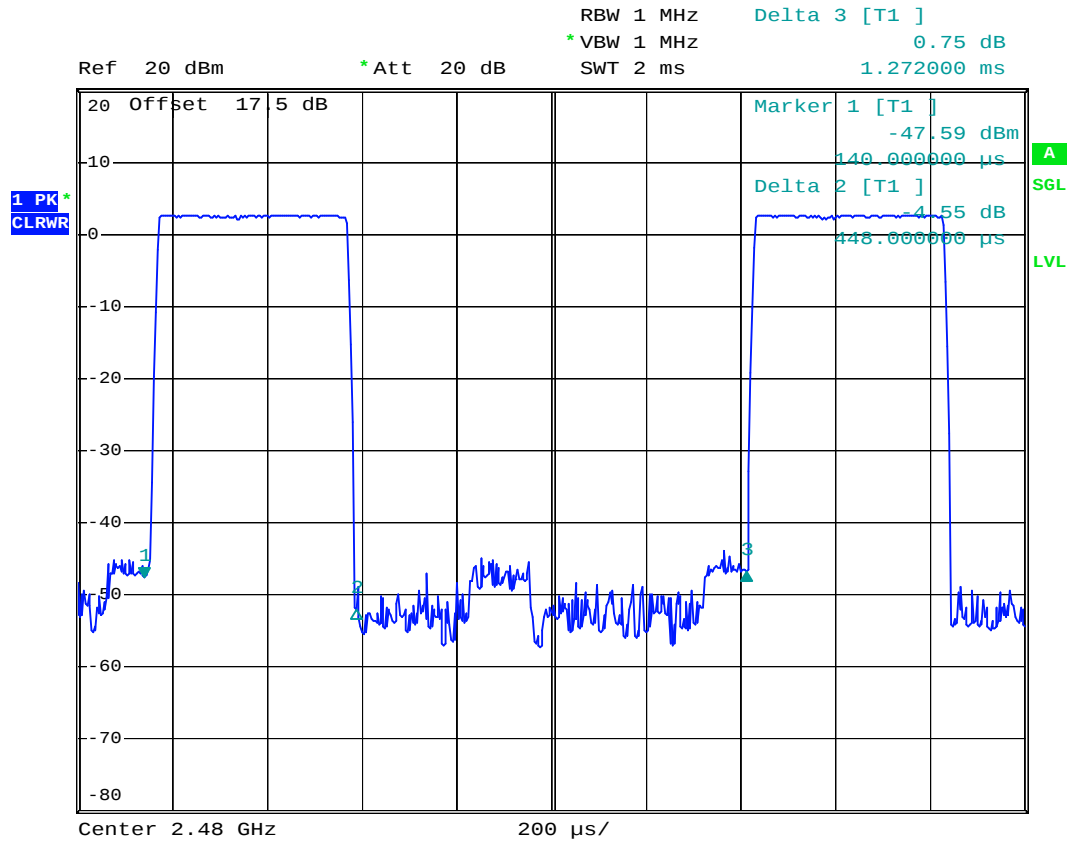
Date: 14.JUN.2007 21:44:13



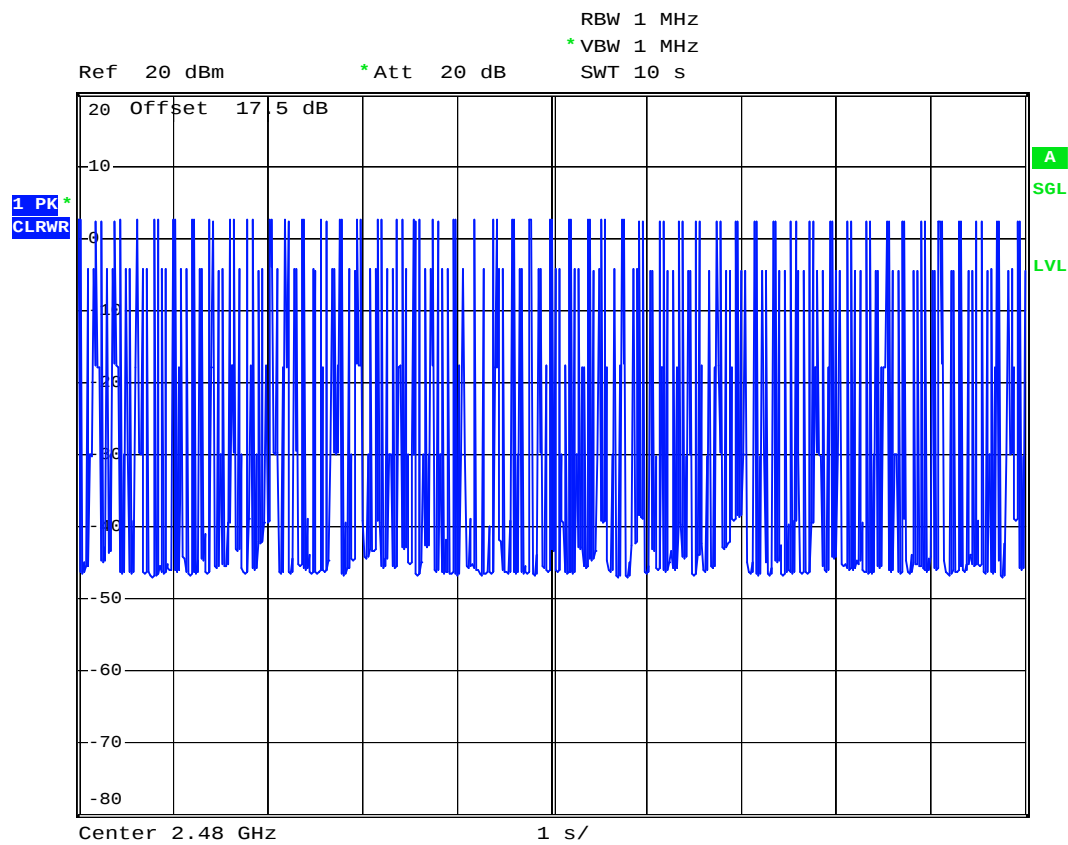
Date: 14.JUN.2007 21:51:18



BT(1Mbps)_DH1 (CH78)



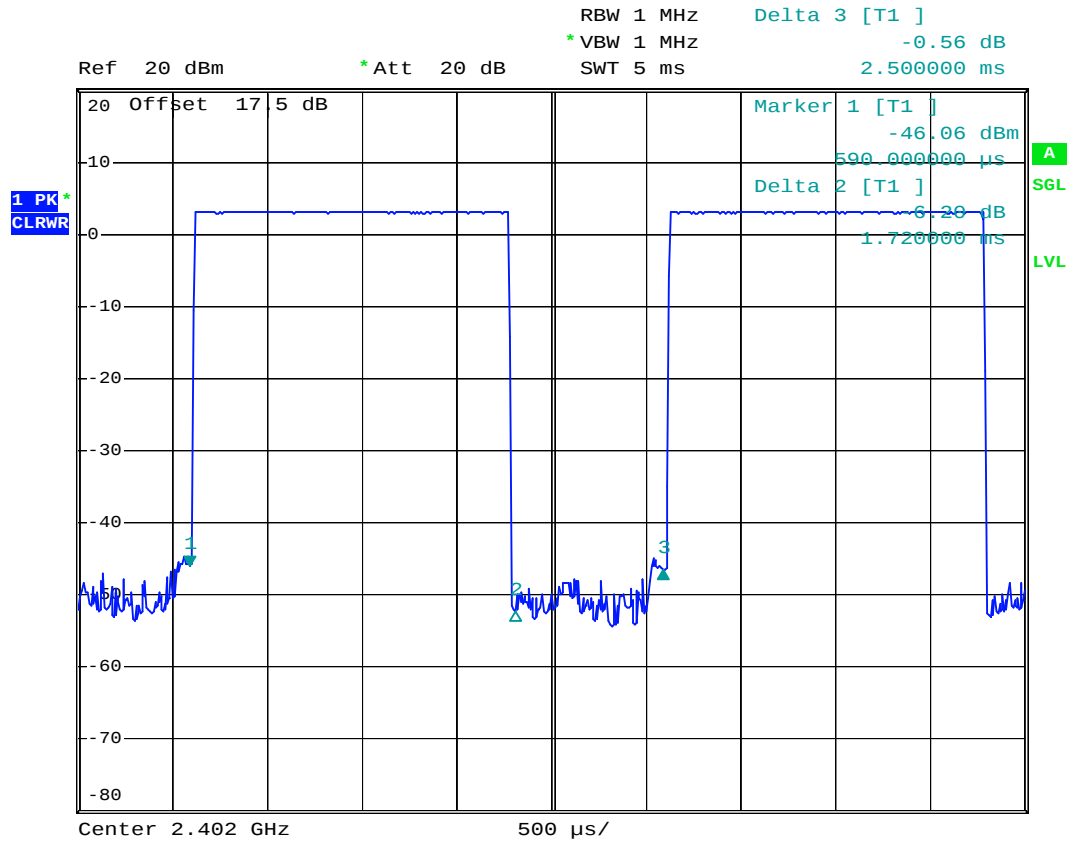
Date: 14.JUN.2007 21:44:50



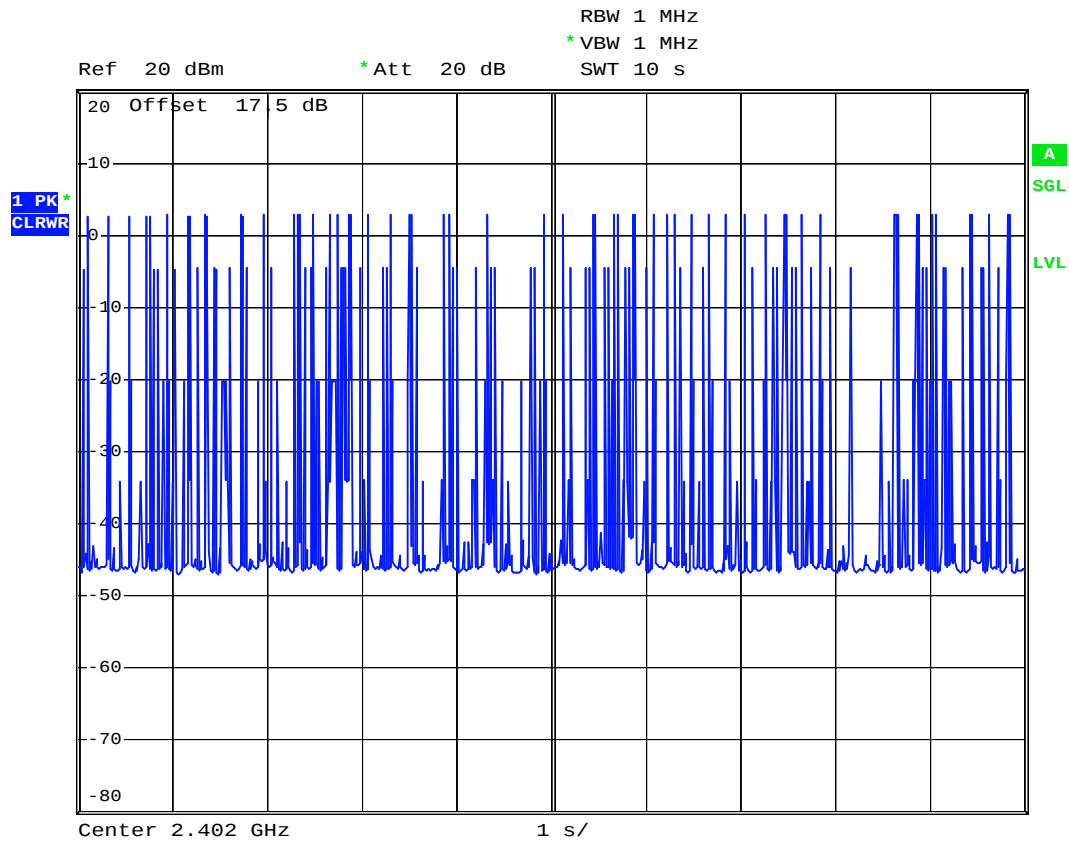
Date: 14.JUN.2007 21:51:38



BT(1Mbps)_DH3 (CH00)



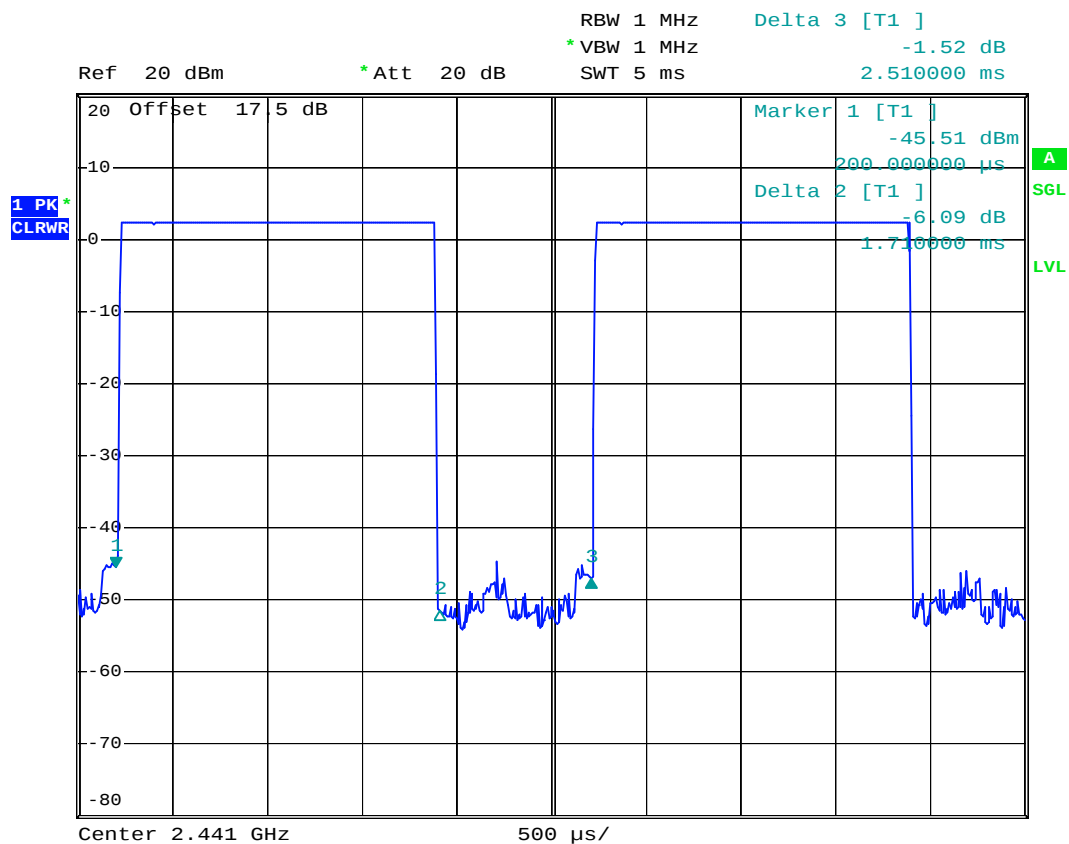
Date: 14.JUN.2007 21:45:39



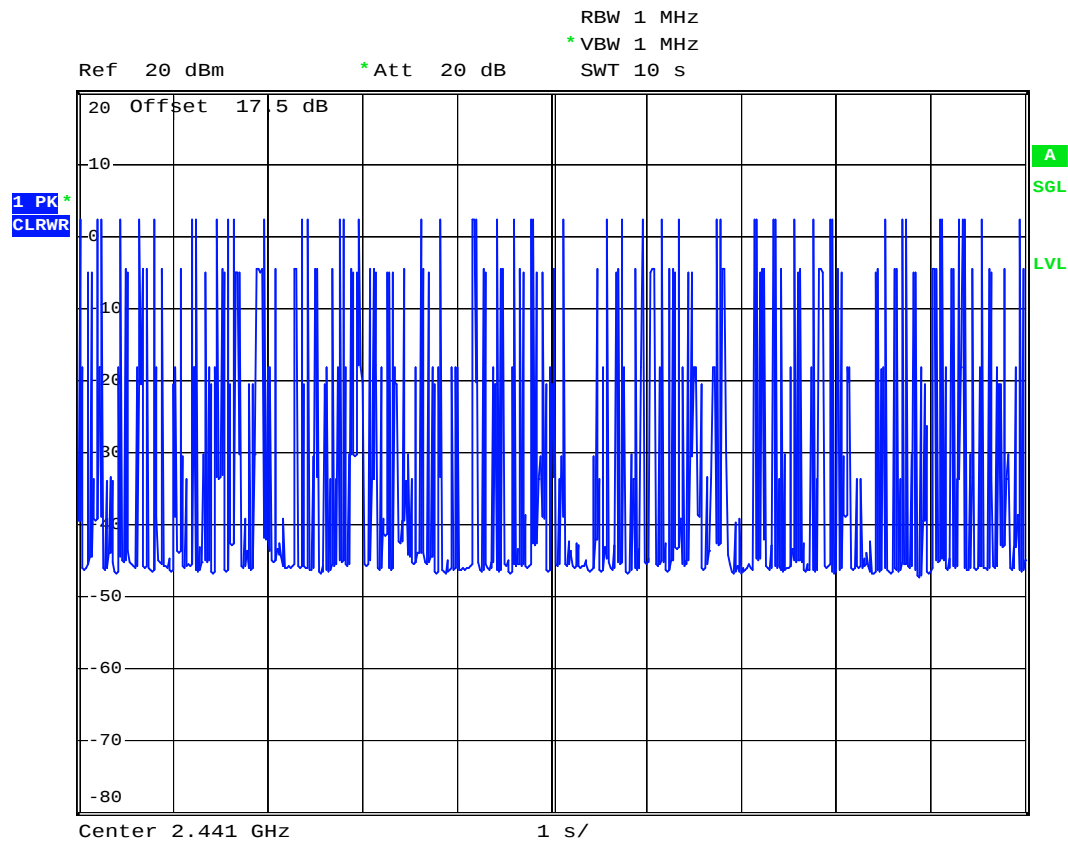
Date: 14.JUN.2007 21:52:11



BT(1Mbps)_DH3 (CH39)



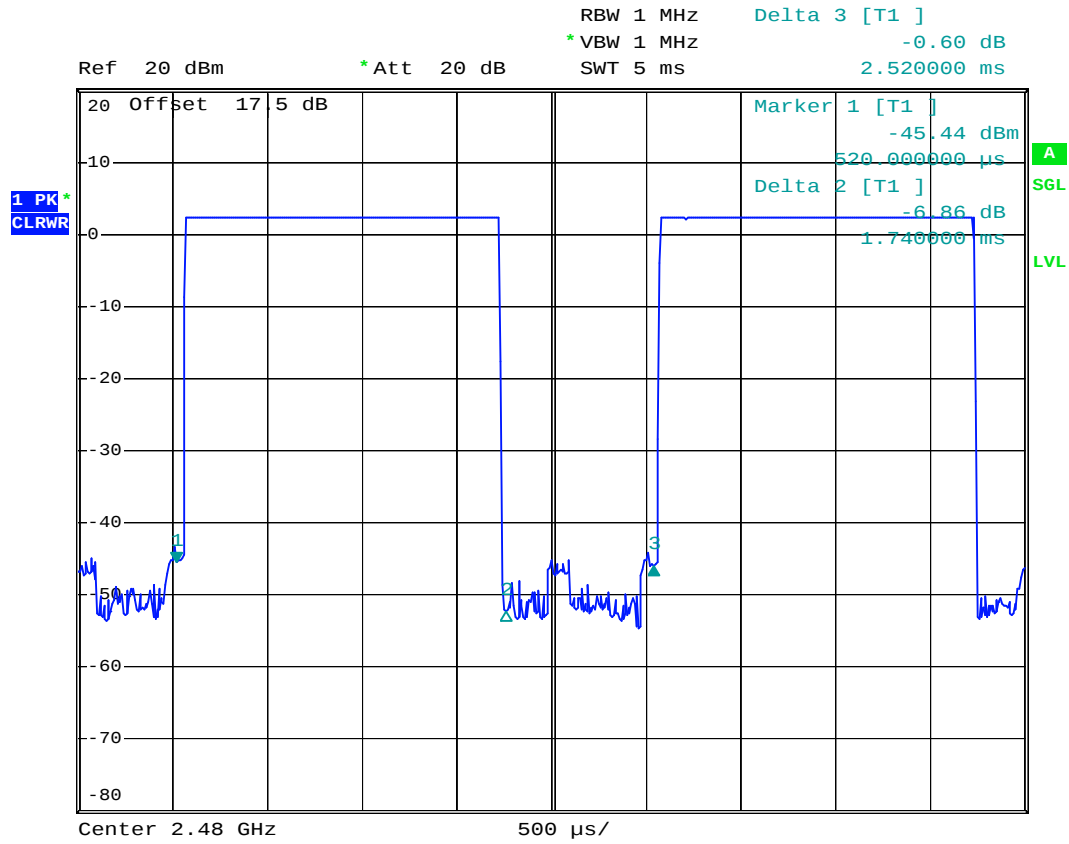
Date: 14.JUN.2007 21:46:11



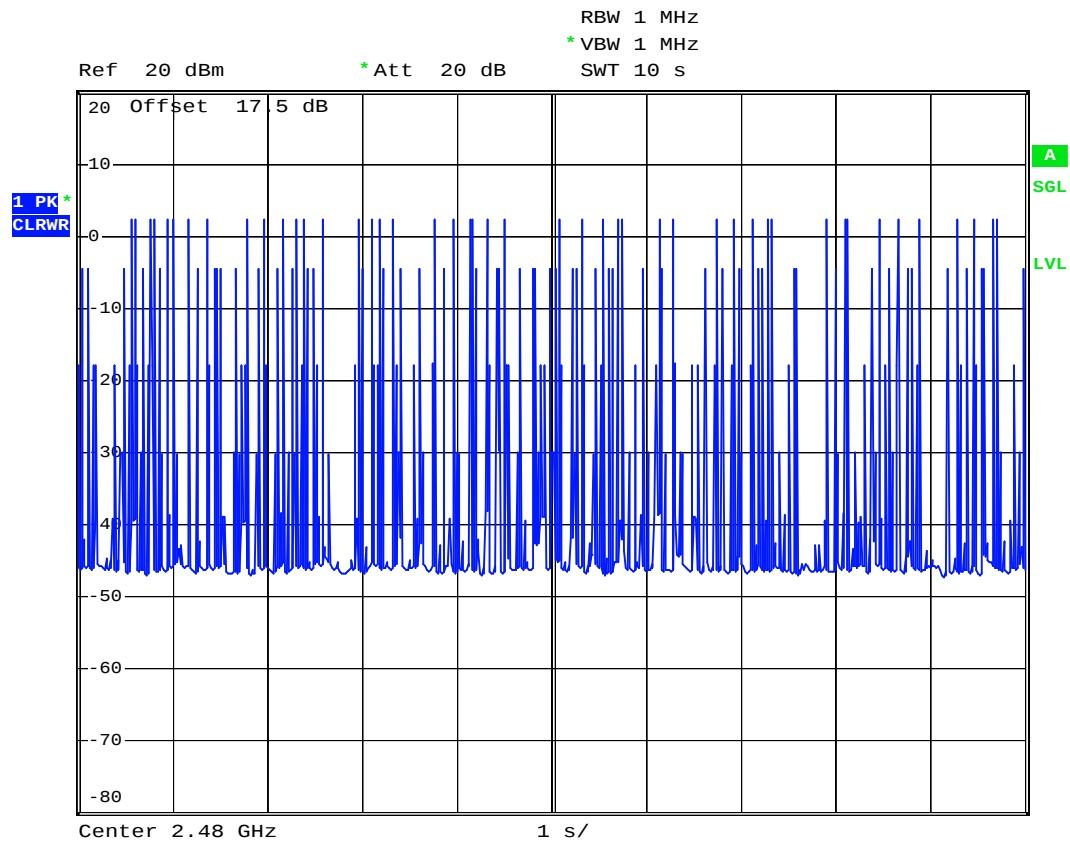
Date: 14.JUN.2007 21:52:38



BT(1Mbps)_DH3 (CH78)



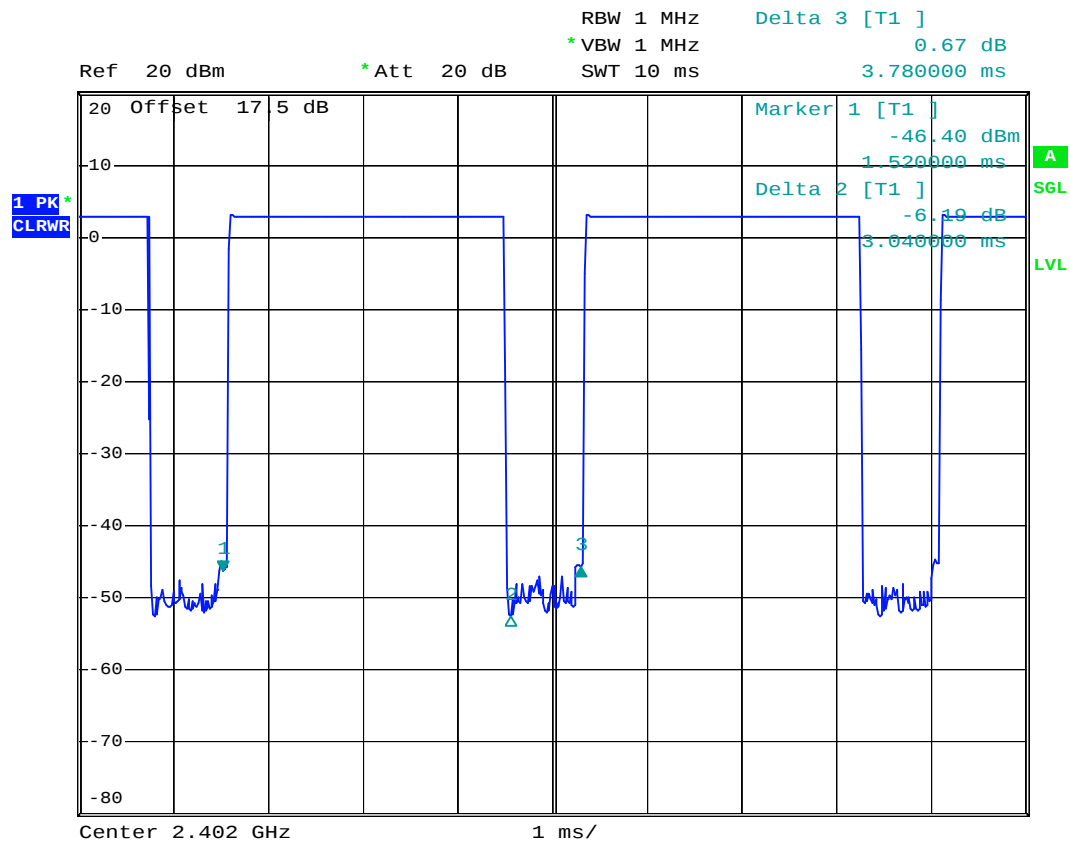
Date: 14.JUN.2007 21:46:51



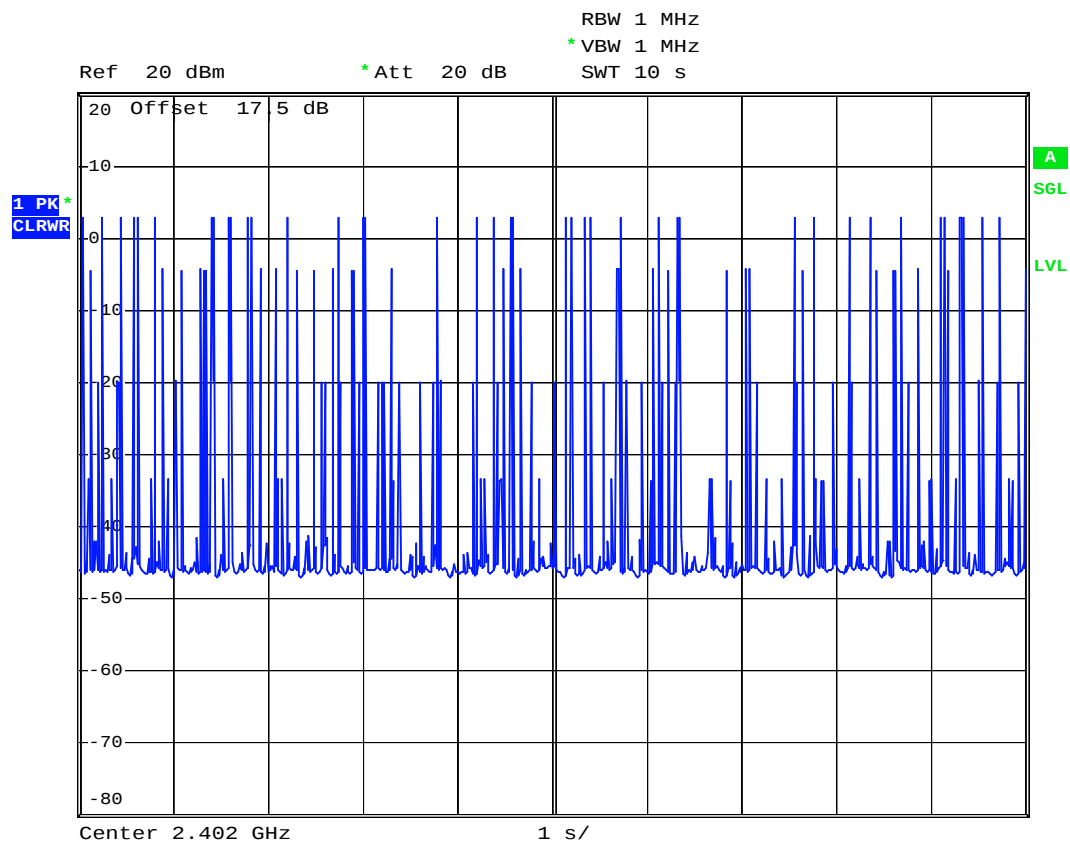
Date: 14.JUN.2007 21:52:56



BT(1Mbps)_DH5 (CH00)



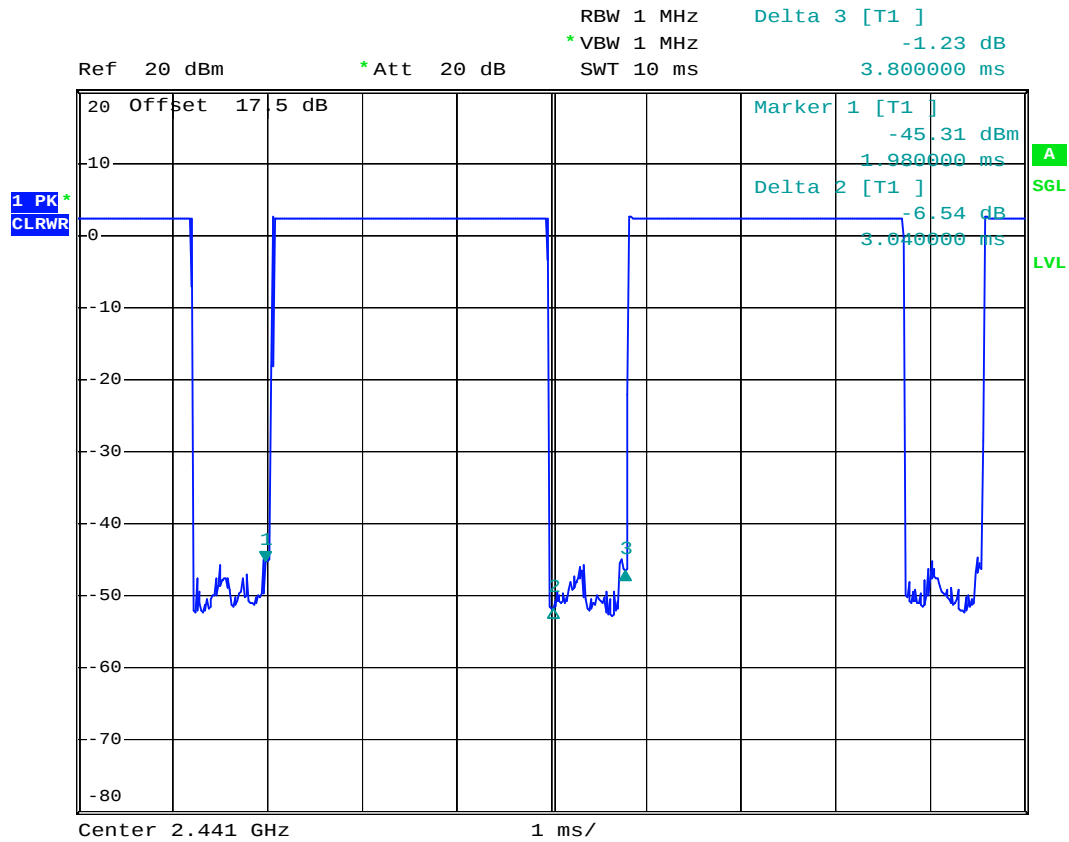
Date: 14.JUN.2007 21:47:32



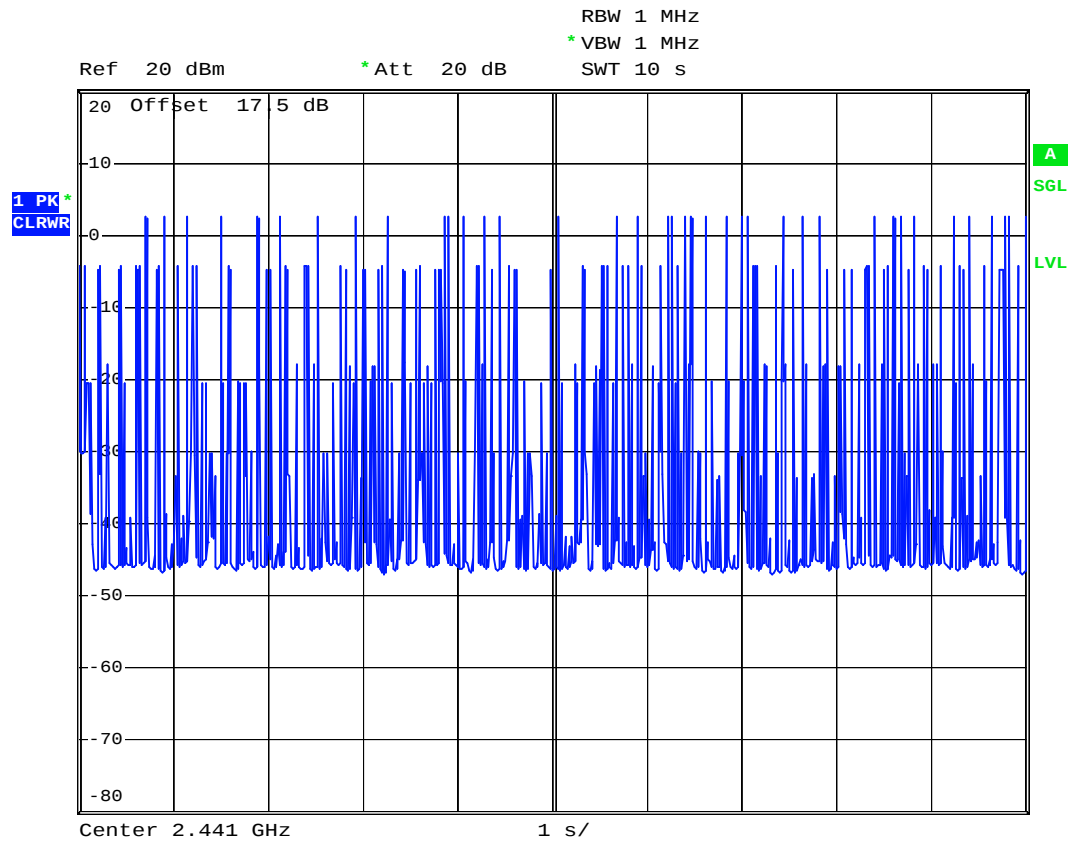
Date: 14.JUN.2007 21:53:37



BT(1Mbps)_DH5 (CH39)



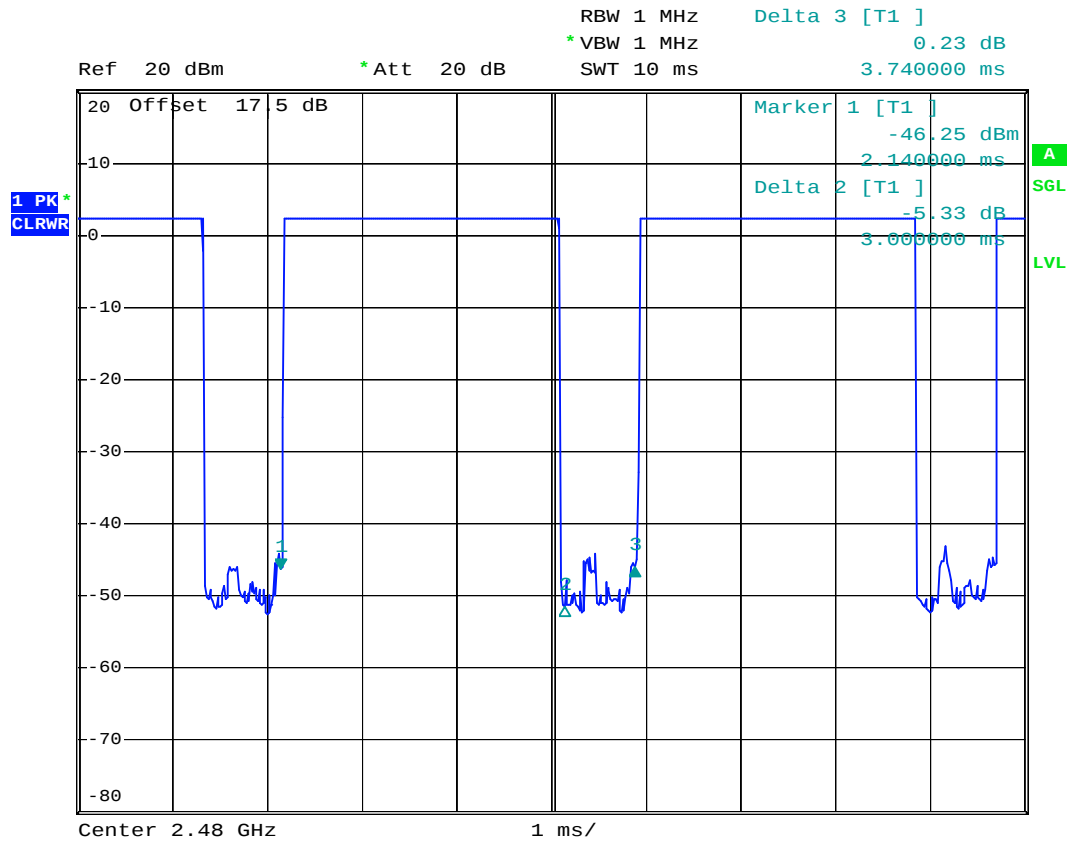
Date: 14.JUN.2007 21:49:52



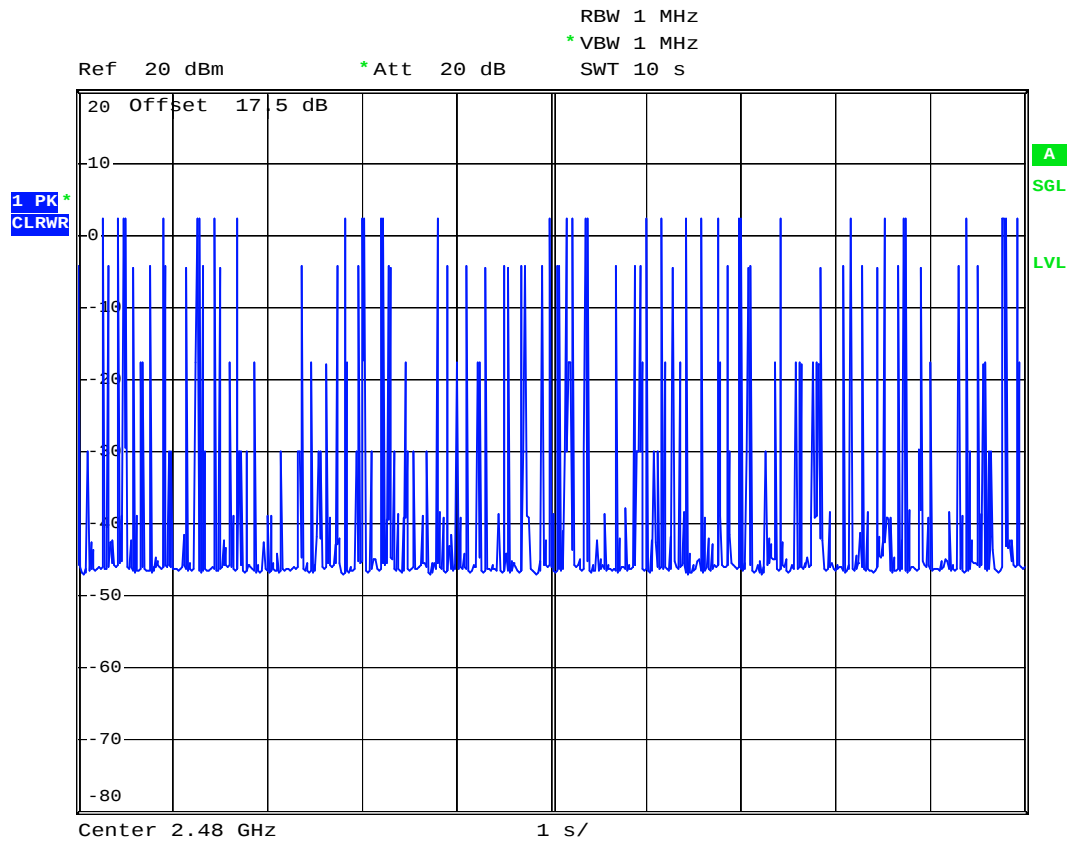
Date: 14.JUN.2007 21:54:31



BT(1Mbps)_DH5 (CH78)



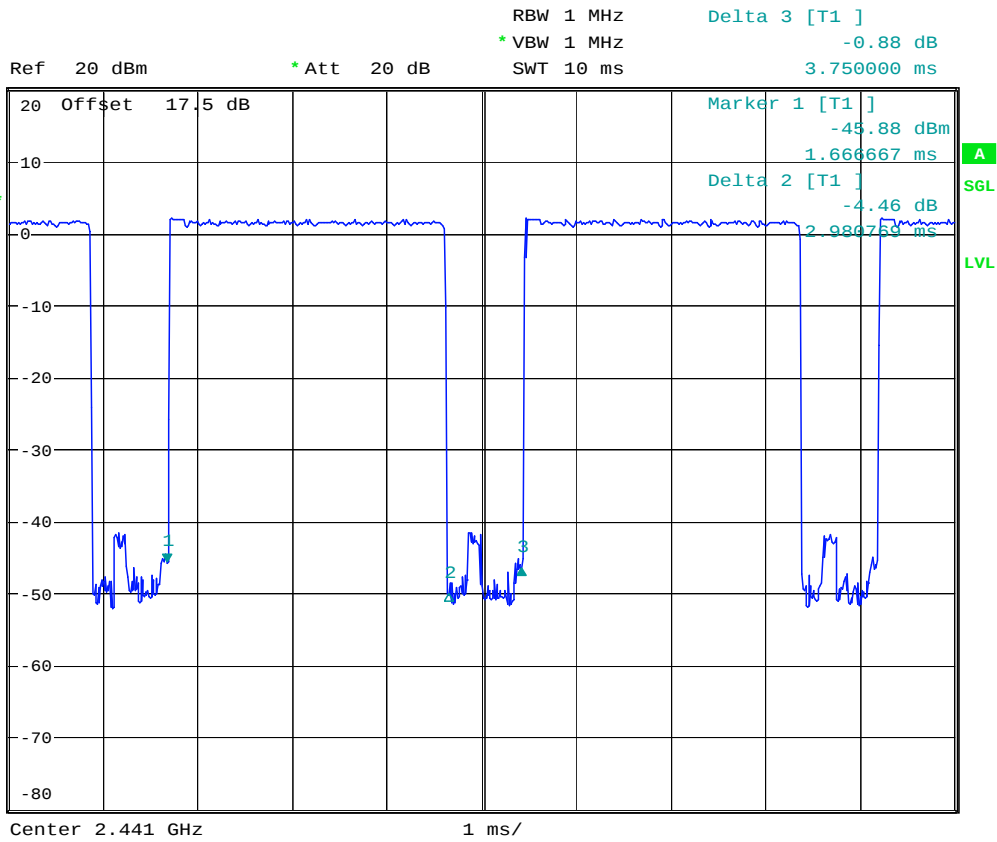
Date: 14.JUN.2007 21:49:08



Date: 14.JUN.2007 21:54:51



BT-EDR(2Mbps)_DH5 (CH39)

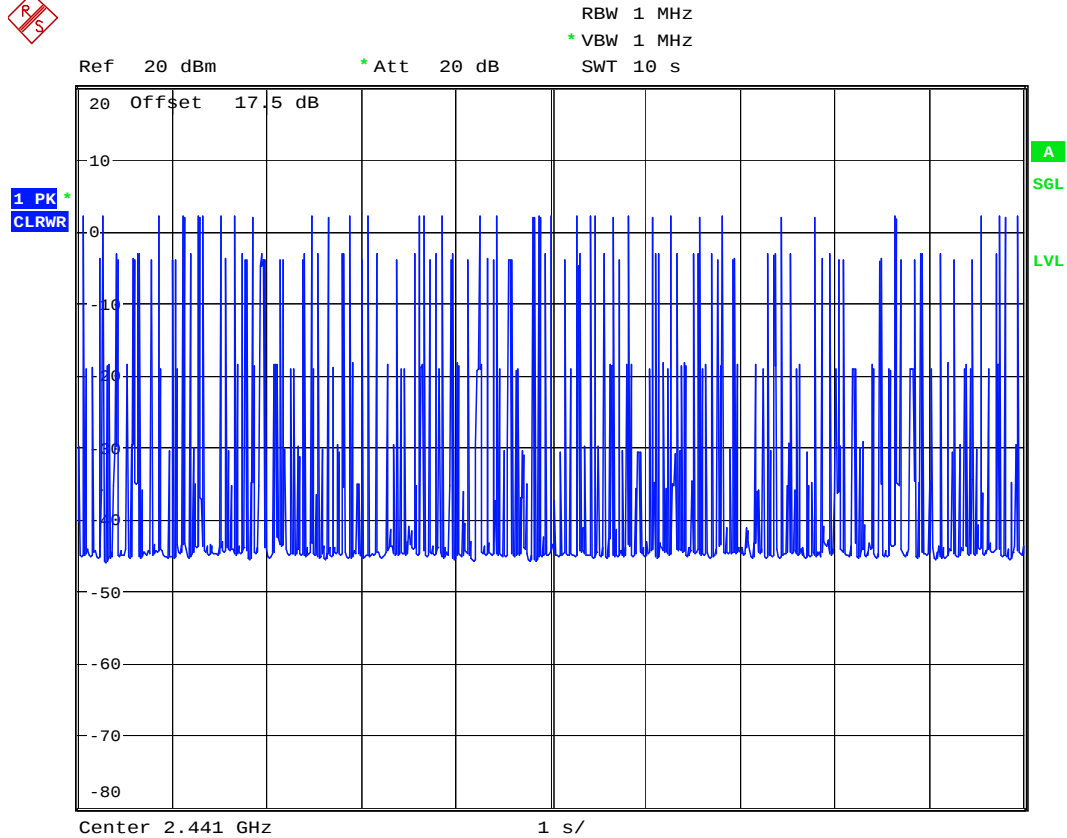


Date: 23.JUN.2007 13:52:22



FCC TEST REPORT

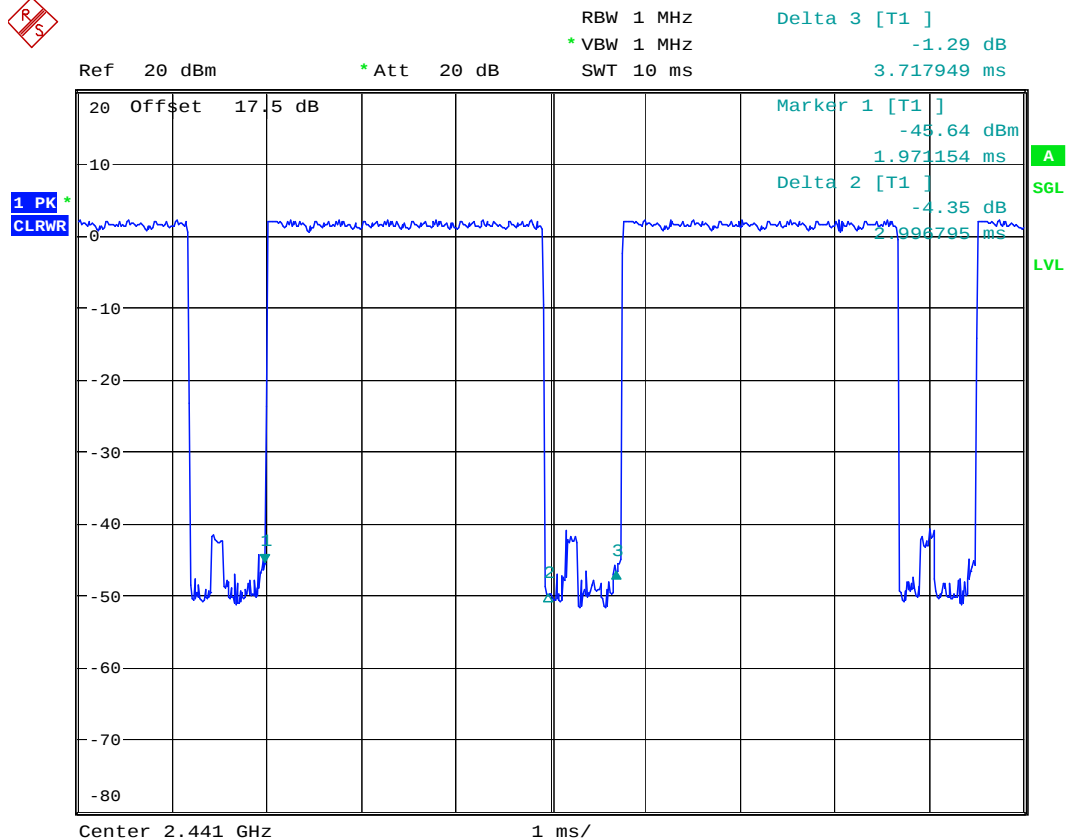
Report No. : FR761327



Date: 23.JUN.2007 13:53:01



BT-EDR(3Mbps)_DH5 (CH39)

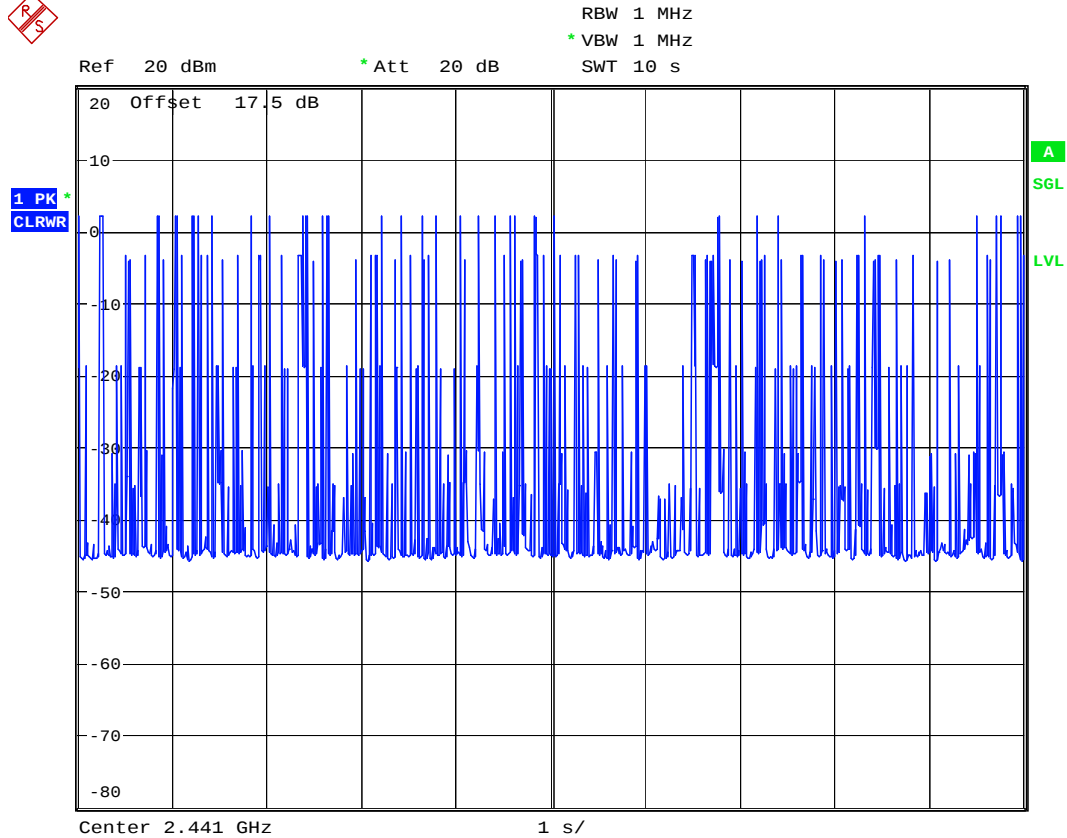


Date: 23.JUN.2007 14:10:46



FCC TEST REPORT

Report No. : FR761327



Date: 23.JUN.2007 14:11:19

5.9 Peak Output Power Measurement

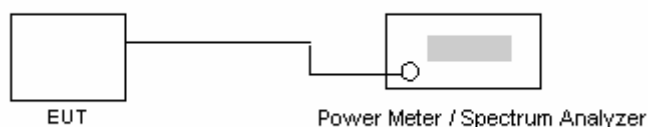
5.9.1 Measuring Instruments :

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 : 25~27
- Relative Humidity : 58~60%
- Test Enginner : Win

WLAN 802.11b

Channel	Frequency (MHz)	Measured Output Power (dBm)	Limits (Watt/dBm)
01	2412	14.81	1W/30 dBm
06	2437	14.26	1W/30 dBm
11	2462	14.35	1W/30 dBm

WLAN 802.11g

Channel	Frequency (MHz)	Measured Output Power (dBm)	Limits (Watt/dBm)
01	2412	15.01	1W/30 dBm
06	2437	14.31	1W/30 dBm
11	2462	14.52	1W/30 dBm

**BT(1Mbps)**

Channel	Frequency (MHz)	Measured Output Power (dBm)	Limits (Watt/dBm)
00	2402	3.14	1W/30 dBm
39	2441	2.35	1W/30 dBm
78	2480	3.05	1W/30 dBm

BT-EDR(2Mbps)

Channel	Frequency (MHz)	Measured Output Power (dBm)	Limits (Watt/dBm)
00	2402	3.51	1W/30 dBm
39	2441	2.95	1W/30 dBm
78	2480	3.10	1W/30 dBm

BT-EDR(3Mbps)

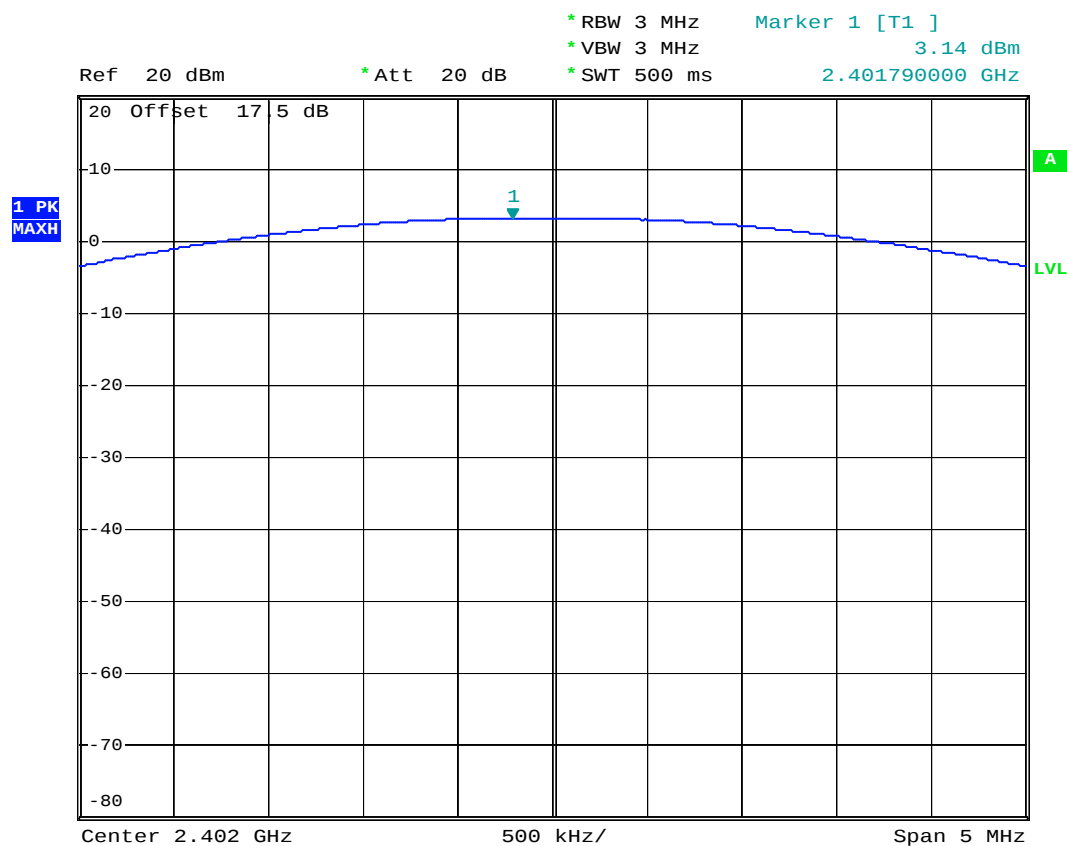
Channel	Frequency (MHz)	Measured Output Power (dBm)	Limits (Watt/dBm)
00	2402	3.27	1W/30 dBm
39	2441	2.83	1W/30 dBm
78	2480	3.02	1W/30 dBm



5.9.5 Output Power

BT(1Mbps)

Mode : CH00 (2402MHz)

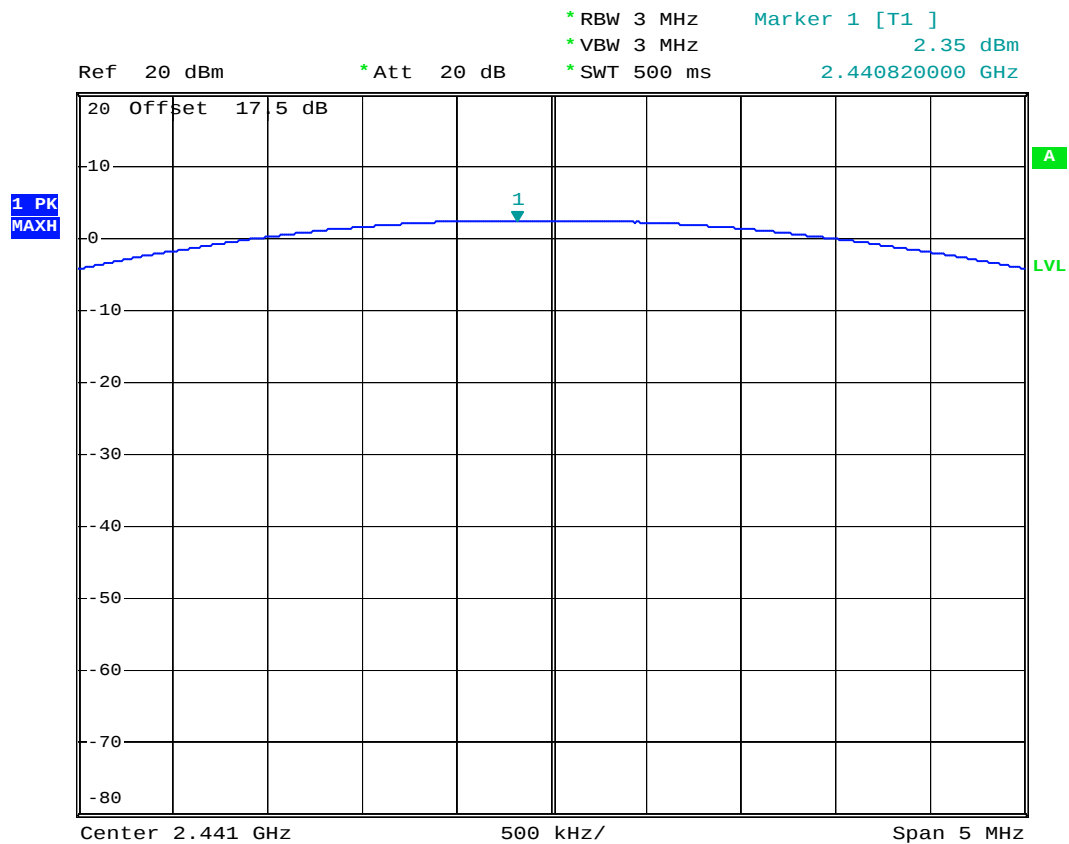


Date: 14.JUN.2007 21:22:19



BT(1Mbps)

Mode : CH39 (2441MHz)

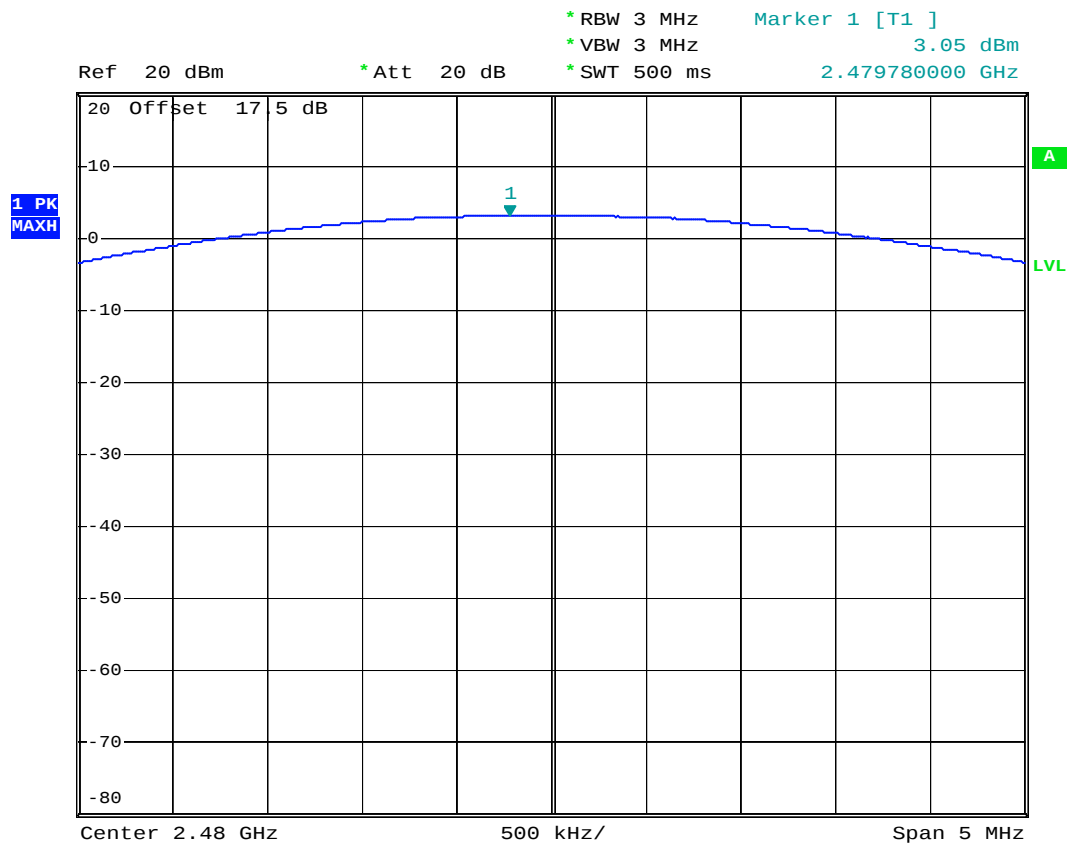


Date: 14.JUN.2007 21:22:33



BT(1Mbps)

Mode : CH78 (2480MHz)



Date: 14.JUN.2007 21:22:46



FCC TEST REPORT

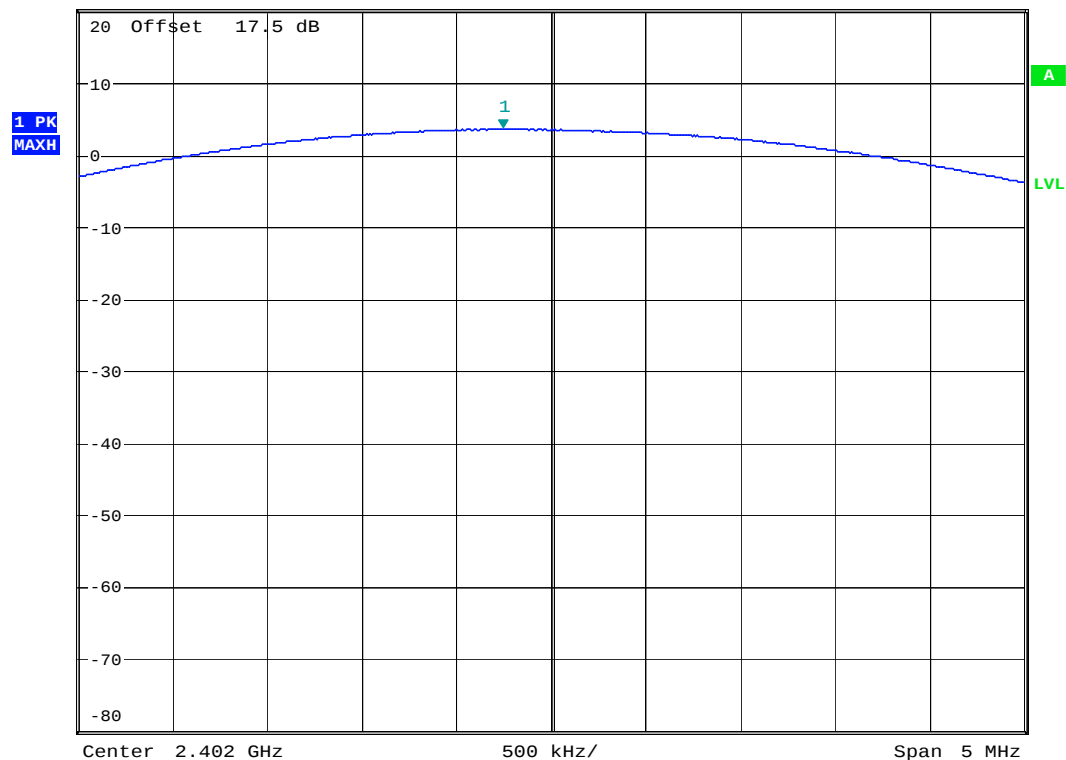
Report No. : FR761327

BT-EDR(2Mbps)

Mode : CH00 (2402MHz)



Ref 20 dBm * Att 20 dB * RBW 3 MHz * VBW 3 MHz * SWT 500 ms Marker 1 [T1] 3.51 dBm 2.401743590 GHz



Date: 23.JUN.2007 13:41:39

SPORTON International Inc.

TEL : 886-2-2696-2468

FAX : 886-2-2696-2255

FCC ID : SPUX800

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Report Issued Date : Jul. 10, 2007

Report Version : Rev. 01

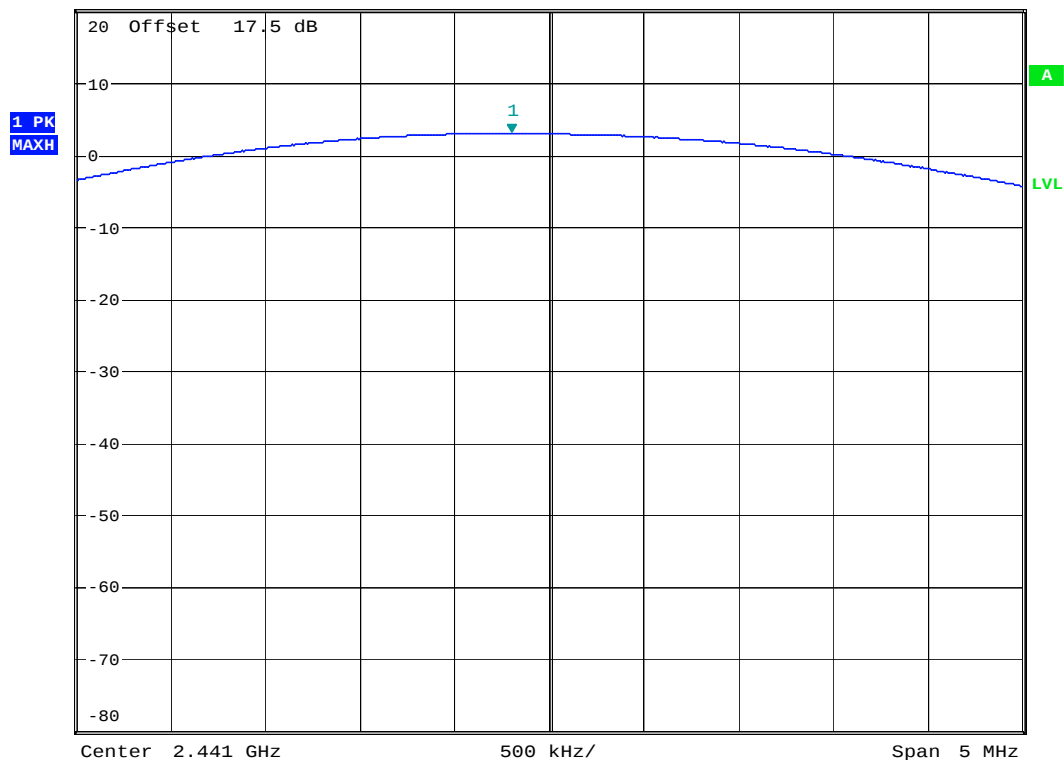


BT-EDR(2Mbps)

Mode : CH39 (2441MHz)



Ref 20 dBm * Att 20 dB * RBW 3 MHz * VBW 3 MHz * SWT 500 ms Marker 1 [T1] 2.95 dBm 2.440799679 GHz



Date: 23.JUN.2007 13:41:53

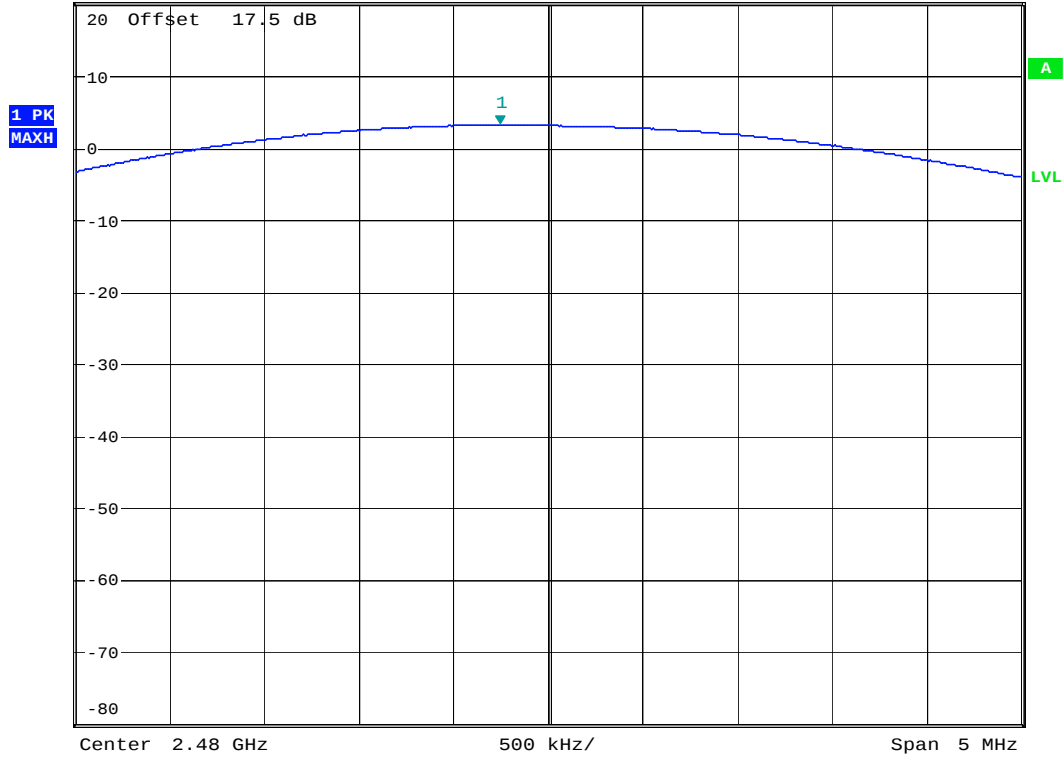


BT-EDR(2Mbps)

Mode : CH78 (2480MHz)



Ref 20 dBm * Att 20 dB * RBW 3 MHz * VBW 3 MHz * SWT 500 ms Marker 1 [T1] 3.10 dBm 2.479743590 GHz



Date: 23.JUN.2007 13:42:05



FCC TEST REPORT

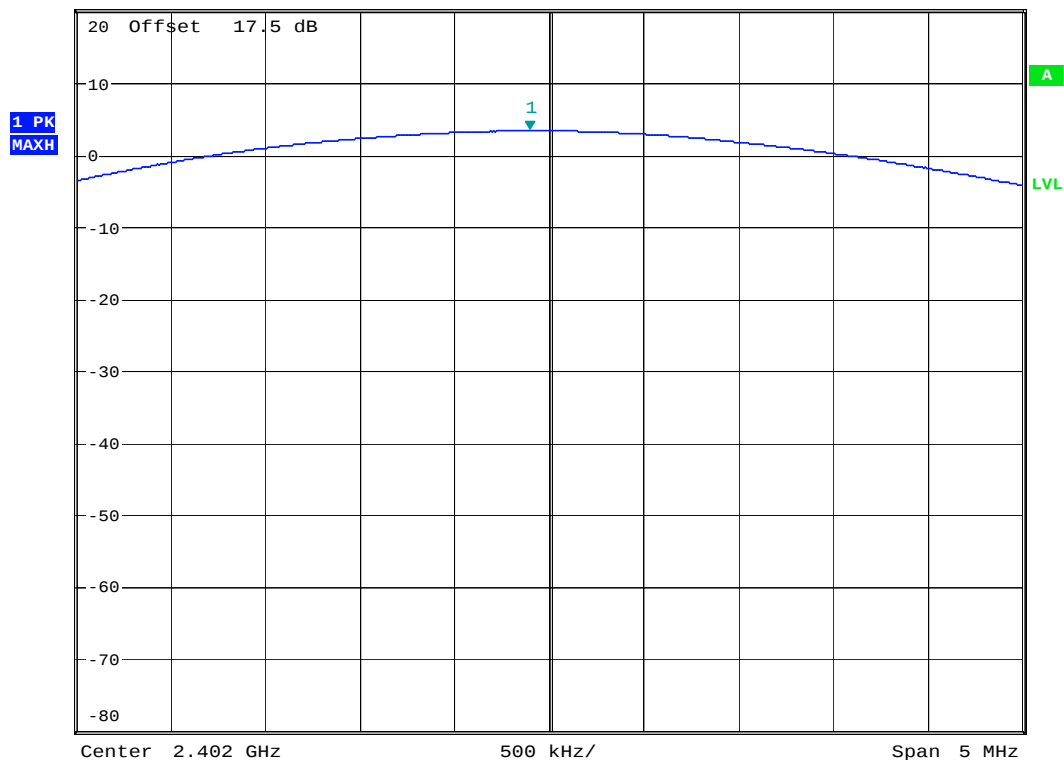
Report No. : FR761327

BT-EDR(3Mbps)

Mode : CH00 (2402MHz)



Ref 20 dBm * Att 20 dB * RBW 3 MHz * VBW 3 MHz * SWT 500 ms Marker 1 [T1] 3.27 dBm 2.401895833 GHz



Date: 23.JUN.2007 14:01:00



FCC TEST REPORT

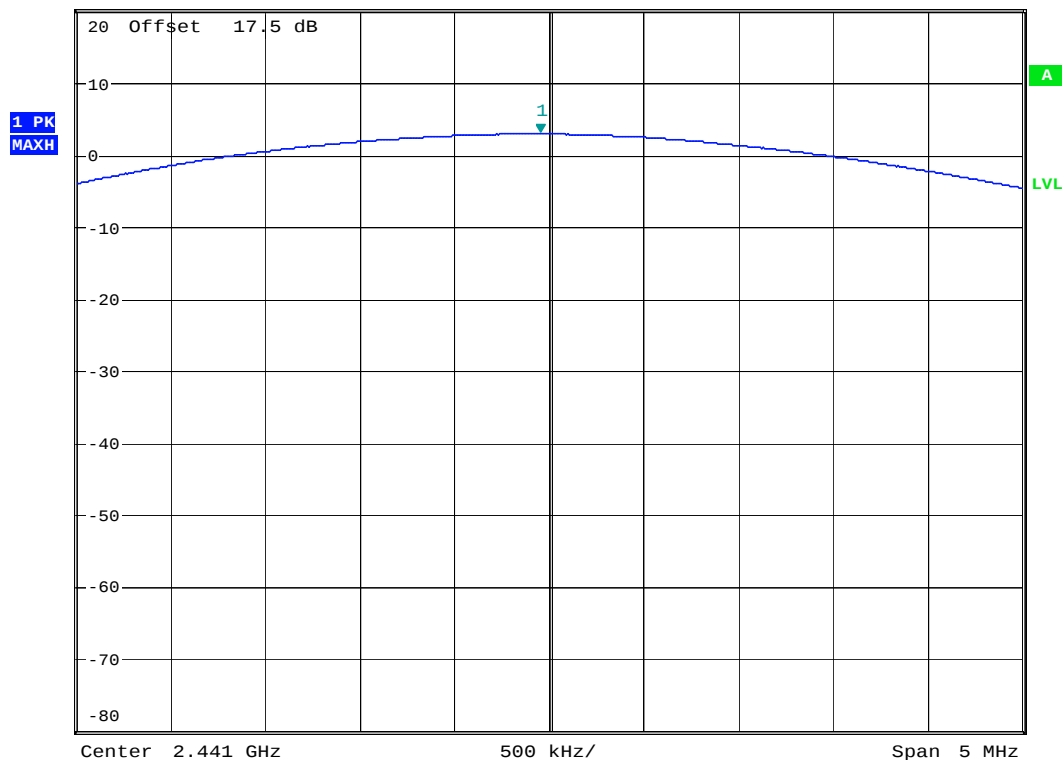
Report No. : FR761327

BT-EDR(3Mbps)

Mode : CH39 (2441MHz)



Ref 20 dBm * Att 20 dB * RBW 3 MHz * VBW 3 MHz * SWT 500 ms Marker 1 [T1] 2.83 dBm 2.440951923 GHz



Date: 23.JUN.2007 14:01:21

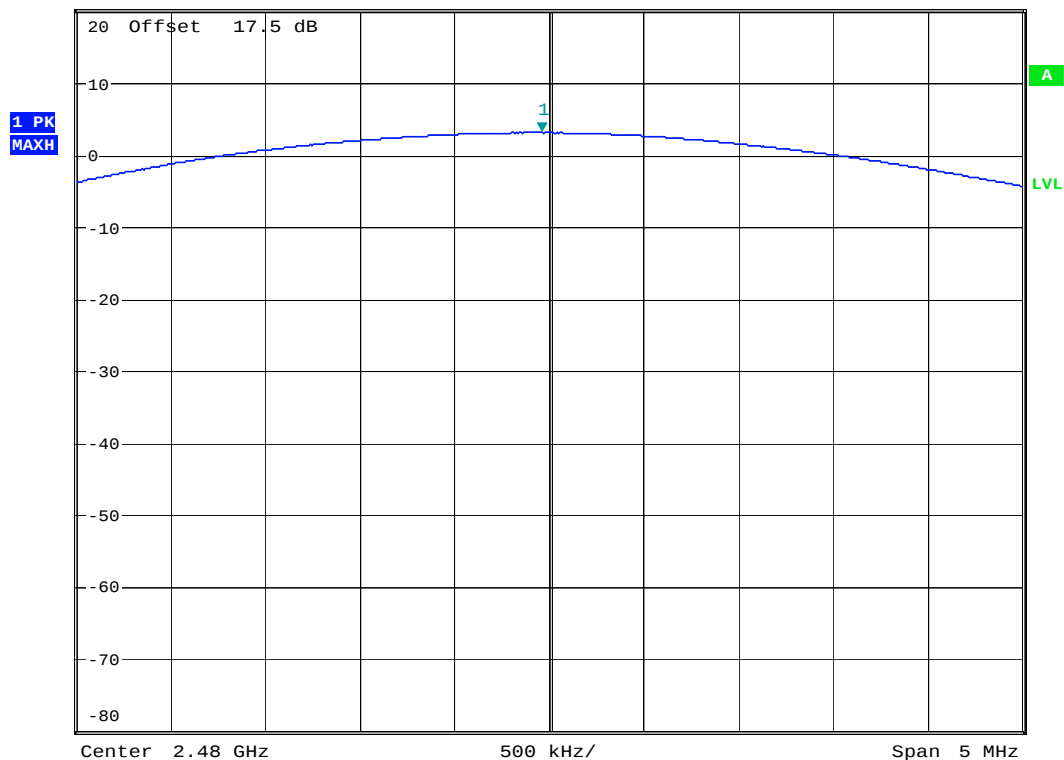


BT-EDR(3Mbps)

Mode : CH78 (2480MHz)



Ref 20 dBm * Att 20 dB * RBW 3 MHz * VBW 3 MHz * SWT 500 ms Marker 1 [T1] 3.02 dBm 2.479959936 GHz



Date: 23.JUN.2007 14:01:38



5.10 Conducted Emission

5.10.1 Measuring Instruments

As described in chapter 6 of this test Report.

The receiver setting :

150 KHz ~ 30 MHz	Detector : Quasi – Peak and Average Bandwidth : 9 KHz
------------------	--

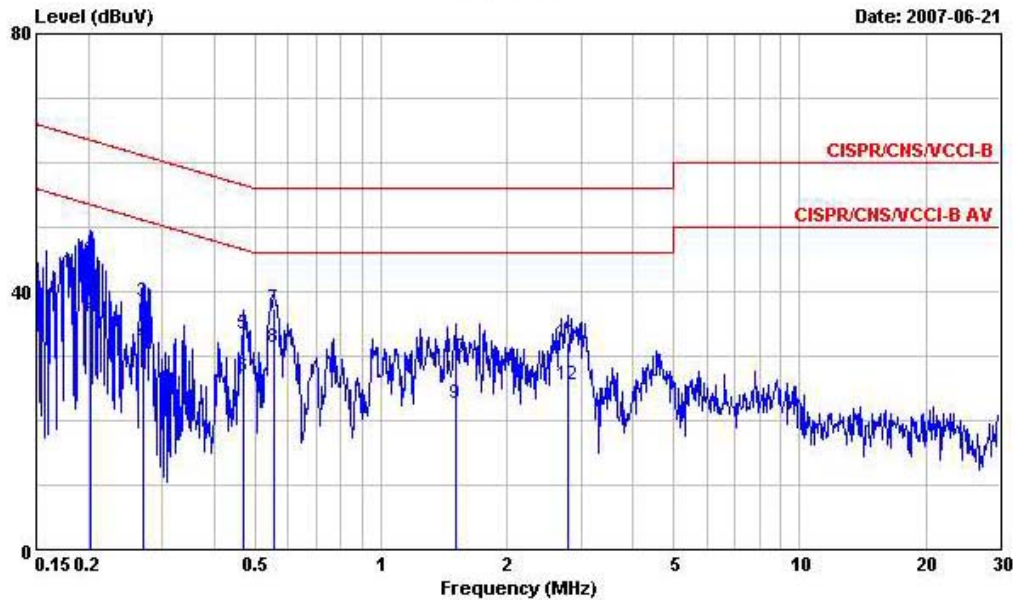
5.10.2 Test Procedures :

- 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.
- Connect EUT to the power port of a line impedance stabilization network (LISN).
- All the support units are connected to the other LISN.
- The LISN provides 50 ohm coupling impedance for the measuring instrument.
- The FCC states that a 50 ohm, 50 microhenry LISN should be used.
- Both sides of AC line were checked for maximum conducted interference.
- The frequency range from 150 kHz to 30 MHz was searched.
- Set the test-receiver system to Peak Detect Function and specified bandwidth with Maximum Hold Mode.

5.10.3 Test Data

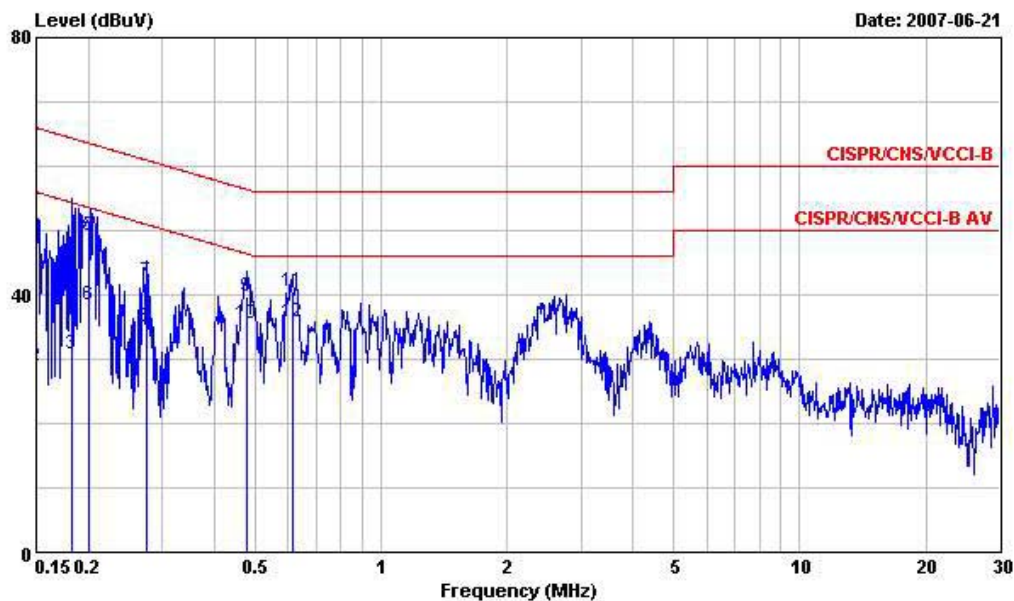
- Temperature : 25~27
- Relative Humidity : 58~60%
- Test Enginner : Win
- Test Mode : Mode 1

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



Site : C004-HY
 Condition : CISPR/CNS/VCCI-B LISN 200704 99041 LINE
 EUT : PDA Phone
 POWER: AC 120V/60Hz
 Model : FD761327
 Memo : GSM850 Idle + BT Link + WLAN Link +
 : Earphone + Camera + MPEG 4 + GPS RX
 : +Adaptor

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.2028850	45.08	-18.41	63.49	44.83	0.10	0.15	QP
2	0.2028850	36.57	-16.92	53.49	36.32	0.10	0.15	Average
3	0.2700880	38.48	-22.64	61.12	37.99	0.10	0.39	QP
4	0.2700880	31.92	-19.20	51.12	31.43	0.10	0.39	Average
5	0.4711010	33.44	-23.05	56.49	32.66	0.10	0.68	QP
6	0.4711010	26.95	-19.54	46.49	26.17	0.10	0.68	Average
7	0.5551950	37.24	-18.76	56.00	36.51	0.10	0.63	QP
8	0.5551950	31.42	-14.58	46.00	30.69	0.10	0.63	Average
9	1.510	22.74	-23.26	46.00	22.21	0.10	0.43	Average
10	1.510	29.82	-26.18	56.00	29.29	0.10	0.43	QP
11	2.790	32.08	-23.92	56.00	31.60	0.10	0.38	QP
12	2.790	25.57	-20.43	46.00	25.09	0.10	0.38	Average



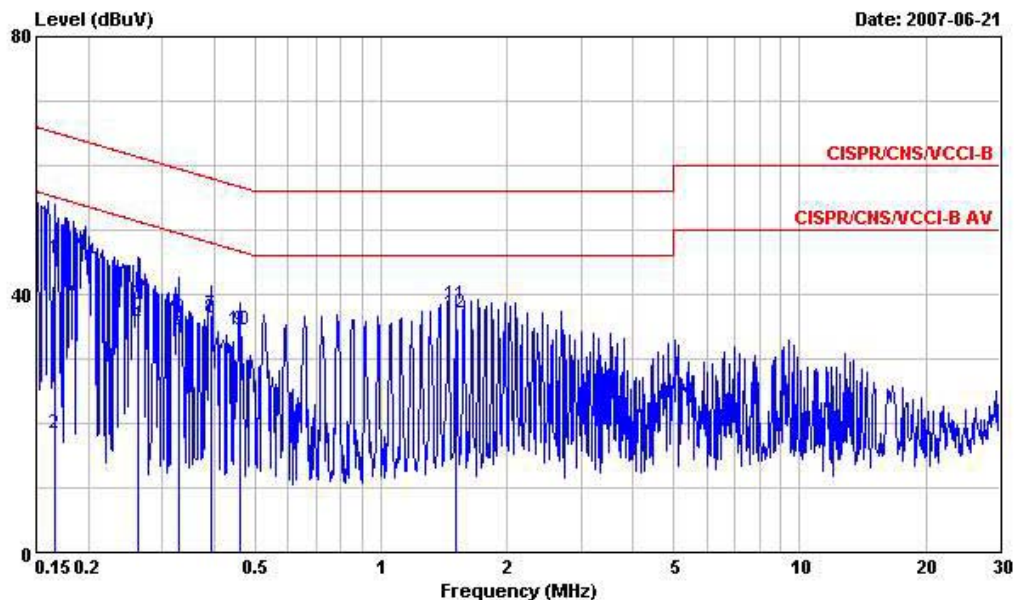
Site : CO04-HY
Condition : CISPR/CNS/VCCI-B LISN 200704 99041 NEUTRAL
EUT : PDA Phone
POWER: AC 120V/60Hz
Model : FD761327
Memo : GSM850 Idle + BT Link + WLAN Link +
: Earphone + Camera + MPEG 4 + GPS RX
: +Adaptor

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.1500000	44.27	-21.73	66.00	44.03	0.10	0.14	QP
2	0.1500000	29.00	-27.00	56.00	28.76	0.10	0.14	Average
3	0.1824860	30.85	-23.52	54.37	30.61	0.10	0.14	Average
4	0.1824860	45.52	-18.85	64.37	45.28	0.10	0.14	QP
5	0.1998260	49.11	-14.51	63.62	48.87	0.10	0.14	QP
6	0.1998260	38.30	-15.32	53.62	38.06	0.10	0.14	Average
7	0.2744160	42.01	-18.97	60.98	41.50	0.10	0.41	QP
8	0.2744160	34.88	-16.10	50.98	34.37	0.10	0.41	Average
9	0.4786490	39.82	-16.54	56.36	39.05	0.10	0.67	QP
10	0.4786490	35.47	-10.89	46.36	34.70	0.10	0.67	Average
11	0.6139960	40.64	-15.36	56.00	39.95	0.10	0.59	QP
12	0.6139960	35.80	-10.20	46.00	35.11	0.10	0.59	Average



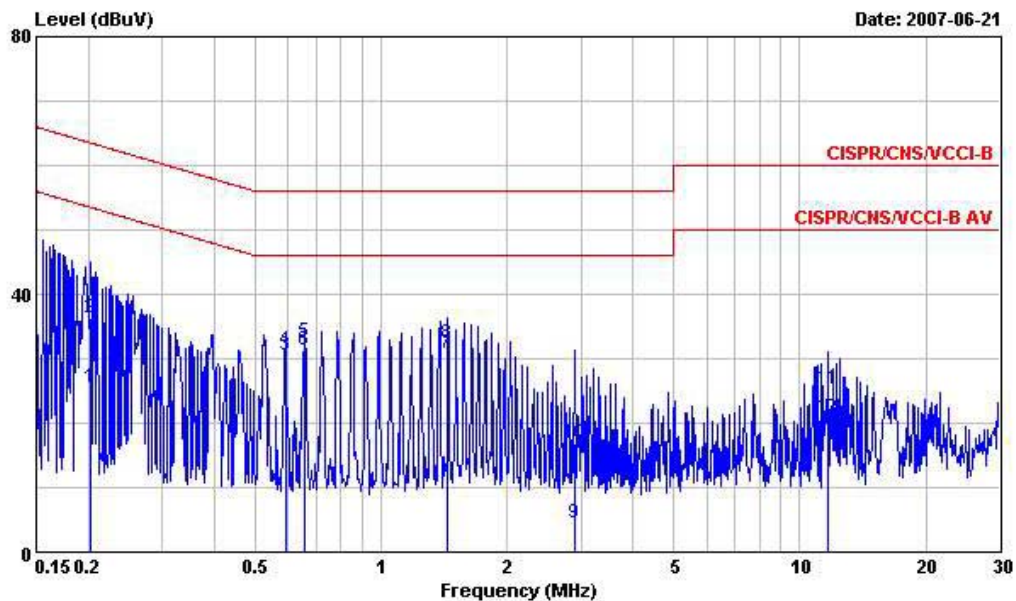
- Temperature : 25~27
- Relative Humidity : 58~60%
- Test Enginner : Win
- Test Mode : Mode 2

■ 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 200704 99041 LINE
 EUT : PDA Phone
 POWER: AC 120V/60Hz
 Model : FD761327
 Memo : GSM850 Idle + BT Link + WLAN Link +
 : Earphone + Camera + MPEG 4 + GPS RX
 : +USB Link

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.1658860	45.40	-19.76	65.16	45.16	0.10	0.14	QP
2	0.1658860	18.41	-36.75	55.16	18.17	0.10	0.14	Average
3	0.2630270	38.31	-23.03	61.34	37.84	0.10	0.37	QP
4	0.2630270	35.35	-15.99	51.34	34.88	0.10	0.37	Average
5	0.3285820	36.43	-23.06	59.49	35.76	0.10	0.57	QP
6	0.3285820	34.44	-15.05	49.49	33.77	0.10	0.57	Average
7	0.3934400	36.83	-11.16	47.99	36.01	0.10	0.72	Average
8	0.3934400	36.35	-21.64	57.99	35.53	0.10	0.72	QP
9	0.4587840	34.55	-12.16	46.71	33.76	0.10	0.69	Average
10	0.4587840	34.54	-22.17	56.71	33.75	0.10	0.69	QP
11	1.510	38.44	-17.56	56.00	37.91	0.10	0.43	QP
12	1.510	37.02	-8.98	46.00	36.49	0.10	0.43	Average



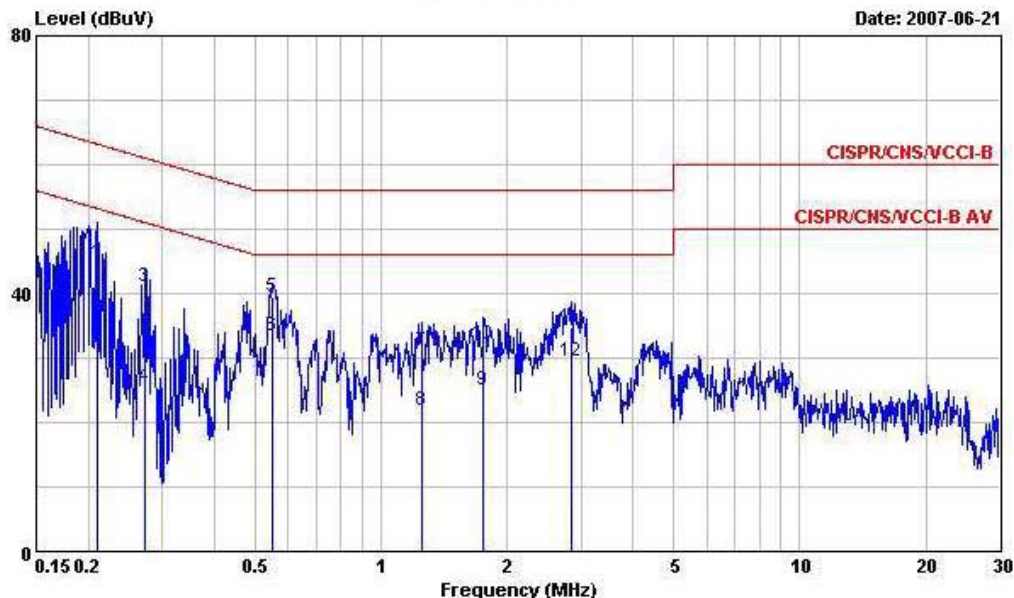
Site : CO04-HY
Condition : CISPR/CNS/VCCI-B LISN 200704 99041 NEUTRAL
EUT : PDA Phone
POWER: AC 120V/60Hz
Model : FD761327
Memo : GSM850 Idle + BT Link + WLAN Link +
: Earphone + Camera + MPEG 4 + GPS RX
: + USB Link

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.2018130	25.42	-28.12	53.54	25.17	0.10	0.15	Average
2	0.2018130	36.29	-27.25	63.54	36.04	0.10	0.15	QP
3	0.5916410	30.49	-15.51	46.00	29.78	0.10	0.61	Average
4	0.5916410	31.31	-24.69	56.00	30.60	0.10	0.61	QP
5	0.6577770	32.60	-23.40	56.00	31.93	0.10	0.57	QP
6	0.6577770	31.41	-14.59	46.00	30.74	0.10	0.57	Average
7	1.440	30.86	-15.14	46.00	30.33	0.10	0.43	Average
8	1.440	32.25	-23.75	56.00	31.72	0.10	0.43	QP
9	2.900	4.45	-41.55	46.00	3.93	0.15	0.37	Average
10	2.900	16.92	-39.08	56.00	16.40	0.15	0.37	QP
11	11.680	25.20	-34.80	60.00	24.71	0.30	0.19	QP
12	11.680	20.76	-29.24	50.00	20.27	0.30	0.19	Average



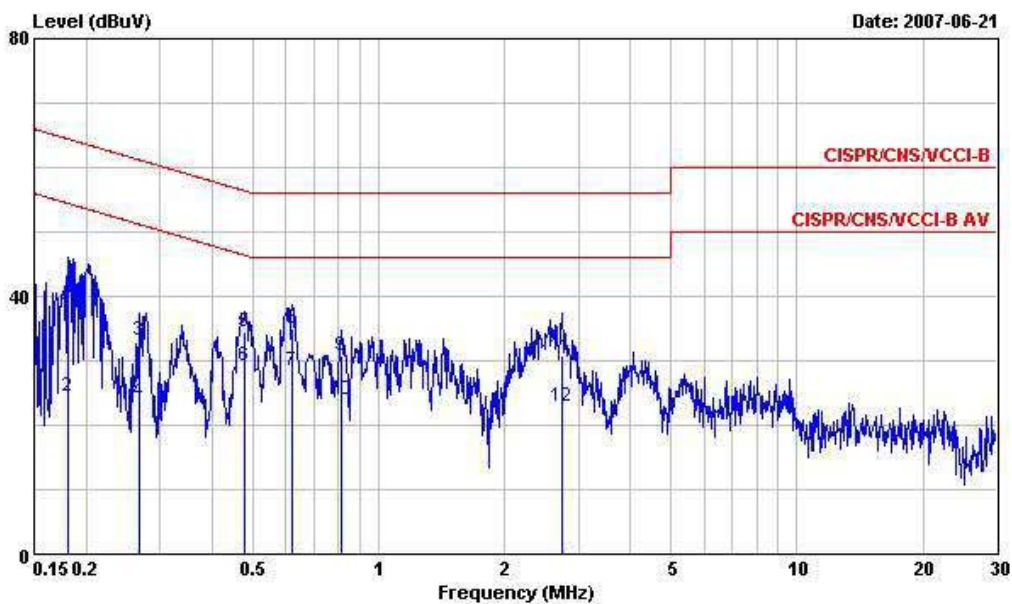
- Temperature : 25~27
- Relative Humidity : 58~60%
- Test Enginner : Win
- Test Mode : Mode 3

■ 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 200704 99041 LINE
 EUT : PDA Phone
 POWER: AC 120V/60Hz
 Model : FD761327
 Memo : WCDMA850 Idle + BT Link + WLAN Link +
 : Earphone + Camera + MPEG 4 + GPS RX + USB Link

	Freq	Level	Over	Limit	Read	LISN	Cable	
	MHz	dBuV	Limit	Line	Level	Factor	Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.2094380	44.80	-18.43	63.23	44.52	0.10	0.18	QP
2	0.2094380	37.87	-15.36	53.23	37.59	0.10	0.18	Average
3	0.2715230	40.98	-20.09	61.07	40.48	0.10	0.40	QP
4	0.2715230	25.64	-25.43	51.07	25.14	0.10	0.40	Average
5	0.5493430	39.53	-16.47	56.00	38.80	0.10	0.63	QP
6	0.5493430	33.52	-12.48	46.00	32.79	0.10	0.63	Average
7	1.250	31.04	-24.96	56.00	30.50	0.10	0.44	QP
8	1.250	21.82	-24.18	46.00	21.28	0.10	0.44	Average
9	1.750	24.88	-21.12	46.00	24.35	0.10	0.43	Average
10	1.750	32.09	-23.91	56.00	31.56	0.10	0.43	QP
11	2.840	34.87	-21.13	56.00	34.39	0.10	0.38	QP
12	2.840	29.42	-16.58	46.00	28.94	0.10	0.38	Average



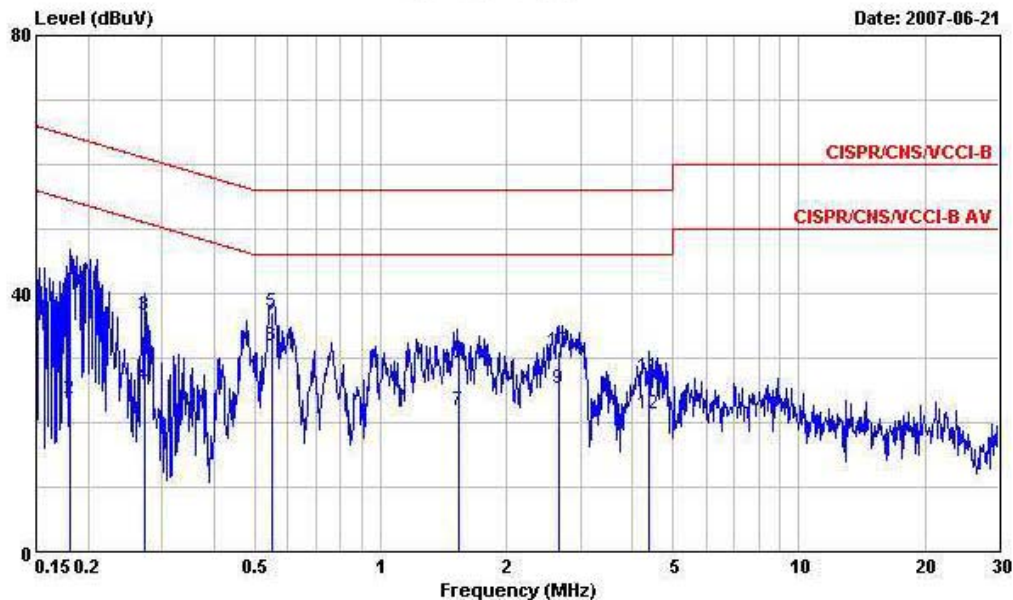
Site : CO04-HY
Condition : CISPR/CNS/VCCI-B LISN 200704 99041 NEUTRAL
EUT : PDA Phone
POWER: AC 120V/60Hz
Model : FD761327
Memo : WCDMA850 Idle + BT Link + WLAN Link +
Earphone + Camera + MPEG 4 + GPS RX + USB Link

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.1815220	37.39	-27.03	64.42	37.15	0.10	0.14	QP
2	0.1815220	24.60	-29.82	54.42	24.36	0.10	0.14	Average
3	0.2672410	33.18	-28.02	61.20	32.69	0.10	0.39	QP
4	0.2672410	23.68	-27.52	51.20	23.19	0.10	0.39	Average
5	0.4786490	34.60	-21.76	56.36	33.83	0.10	0.67	QP
6	0.4786490	29.27	-17.09	46.36	28.50	0.10	0.67	Average
7	0.6205370	28.48	-17.52	46.00	27.79	0.10	0.59	Average
8	0.6205370	35.02	-20.98	56.00	34.33	0.10	0.59	QP
9	0.8130550	30.82	-25.18	56.00	30.21	0.10	0.51	QP
10	0.8130550	24.06	-21.94	46.00	23.45	0.10	0.51	Average
11	2.750	30.85	-25.15	56.00	30.32	0.15	0.38	QP
12	2.750	22.83	-23.17	46.00	22.30	0.15	0.38	Average



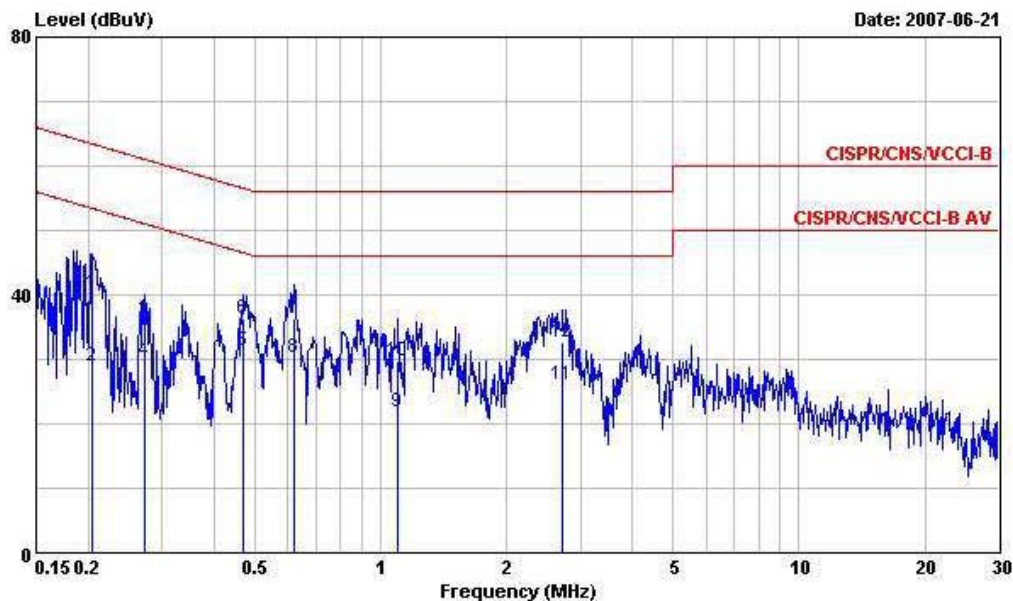
- Temperature : 25~27
- Relative Humidity : 58~60%
- Test Enginner : Win
- Test Mode : Mode 4

■ 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 200704 99041 LINE
EUT : PDA Phone
POWER: AC 120V/60Hz
Model : FD761327
Memo : WCDMA1900 Idle + BT Link + WLAN Link +
: Earphone + Camera + MPEG 4 + GPS RX + USB Link

	Freq	Level	Over	Limit	Read	LISN	Cable	
	MHz	dBuV	Limit	Line	Level	Factor	Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.1815220	39.33	-25.09	64.42	39.09	0.10	0.14	QP
2	0.1815220	23.59	-30.83	54.42	23.35	0.10	0.14	Average
3	0.2715230	36.57	-24.50	61.07	36.07	0.10	0.40	QP
4	0.2715230	25.85	-25.22	51.07	25.35	0.10	0.40	Average
5	0.5522610	37.20	-18.80	56.00	36.47	0.10	0.63	QP
6	0.5522610	31.81	-14.19	46.00	31.08	0.10	0.63	Average
7	1.530	21.71	-24.29	46.00	21.18	0.10	0.43	Average
8	1.530	29.28	-26.72	56.00	28.75	0.10	0.43	QP
9	2.660	25.32	-20.68	46.00	24.83	0.10	0.39	Average
10	2.660	31.16	-24.84	56.00	30.67	0.10	0.39	QP
11	4.380	27.08	-28.92	56.00	26.66	0.11	0.31	QP
12	4.380	21.23	-24.77	46.00	20.81	0.11	0.31	Average



Site : CO04-HY
Condition : CISPR/CNS/VCCI-B LISN 200704 99041 NEUTRAL
EUT : PDA Phone
POWER: AC 120V/60Hz
Model : FD761327
Memo : WCDMA1900 Idle + BT Link + WLAN Link +
Earphone + Camera + MPEG 4 + GPS RX + USB Link

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.2050460	40.36	-23.04	63.40	40.10	0.10	0.16	QP
2	0.2050460	28.89	-24.51	53.40	28.63	0.10	0.16	Average
3	0.2715230	36.05	-25.02	61.07	35.55	0.10	0.40	QP
4	0.2715230	29.74	-21.33	51.07	29.24	0.10	0.40	Average
5	0.4711010	31.33	-15.16	46.49	30.55	0.10	0.68	Average
6	0.4711010	36.34	-20.15	56.49	35.56	0.10	0.68	QP
7	0.6205370	36.32	-19.68	56.00	35.63	0.10	0.59	QP
8	0.6205370	30.24	-15.76	46.00	29.55	0.10	0.59	Average
9	1.100	21.75	-24.25	46.00	21.21	0.10	0.44	Average
10	1.100	29.64	-26.36	56.00	29.10	0.10	0.44	QP
11	2.720	26.13	-19.87	46.00	25.61	0.14	0.38	Average
12	2.720	32.59	-23.41	56.00	32.07	0.14	0.38	QP

5.11 Radiated Emission Measurement

5.11.1 Measuring Instruments

As described in chapter 6 of this Report.

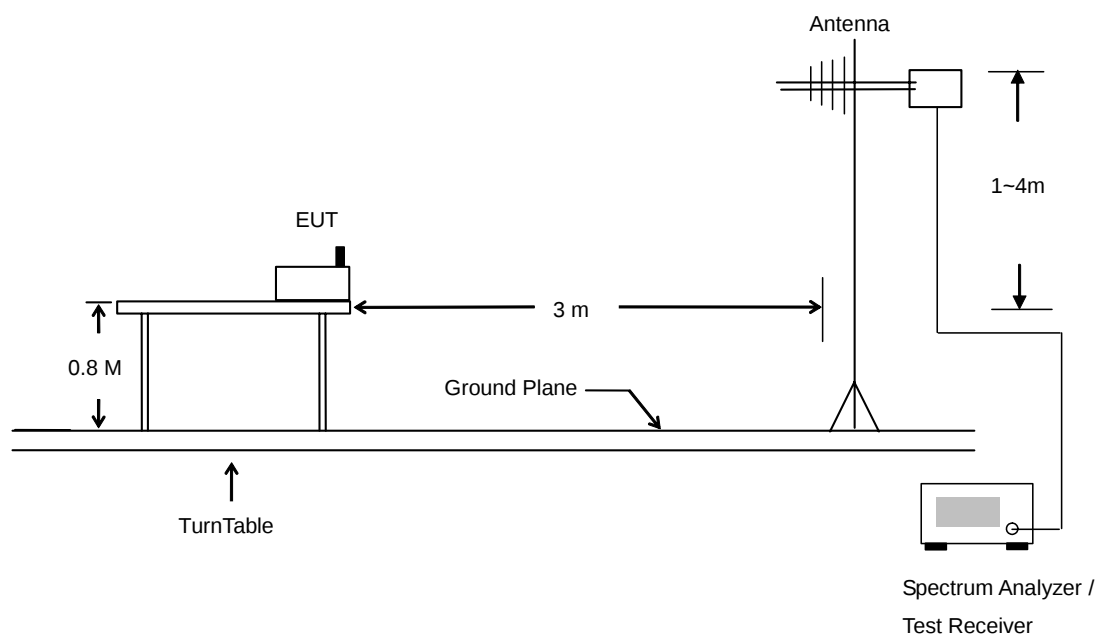
The spectrum analyzer setting :

30 ~ 1000 MHz	Detector : Quasi – Peak Bandwidth : 120 KHz
1 ~ 25 GHz	Detector : Peak and Average Bandwidth : 1 MHz

5.11.2 Test Procedures

- The EUT was placed on a rotatable table top 0.8 meter above ground.
- The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
- The table was rotated 360 degrees to determine the position of the highest radiation.
- 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.
- 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.
- Set the test-receiver system to Peak or CISPR quasi-peak Detect Function and specified bandwidth with Maximum Hold Mode.
- 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.
- 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

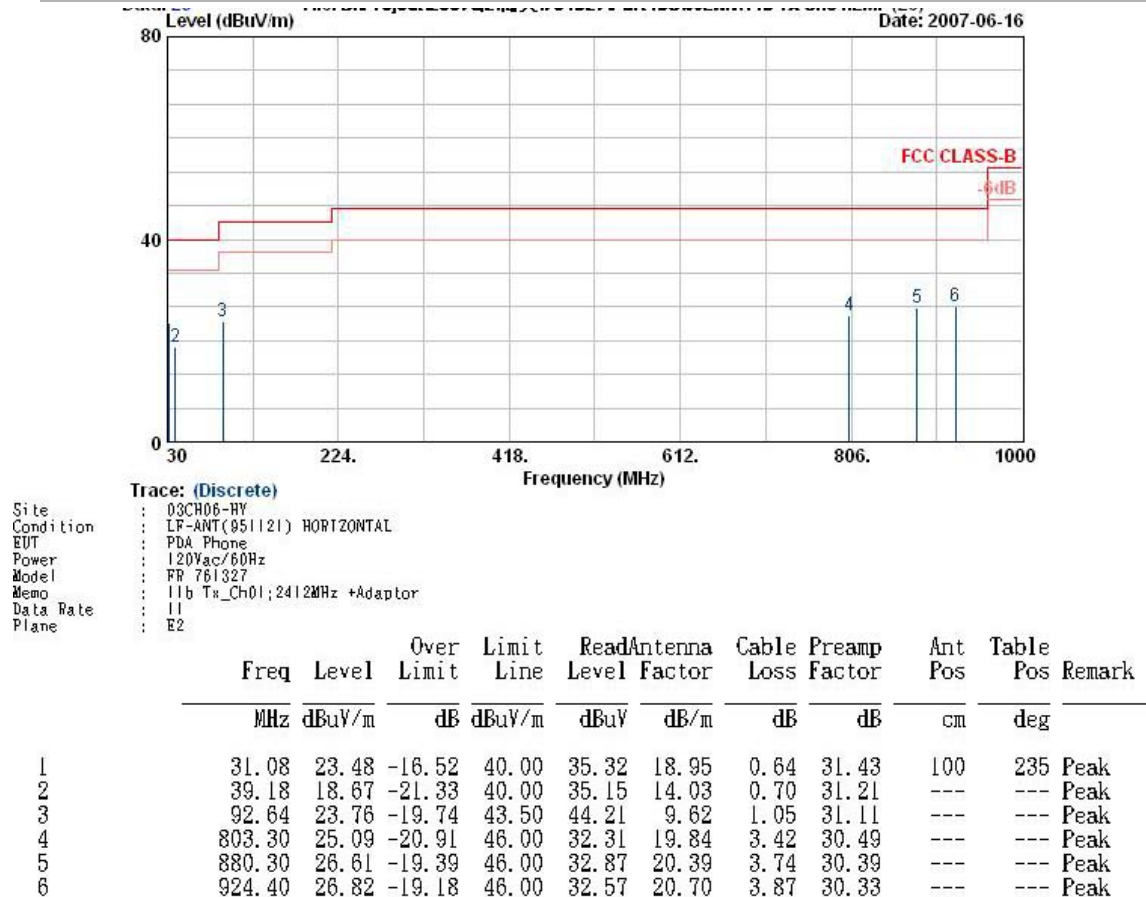




5.11.4 Test Data

- Temperature : 25~26
- Relative Humidity : 57~59%
- Test Engineer : Sam
- Test Mode : Mode 1
- Polarization : Horizontal

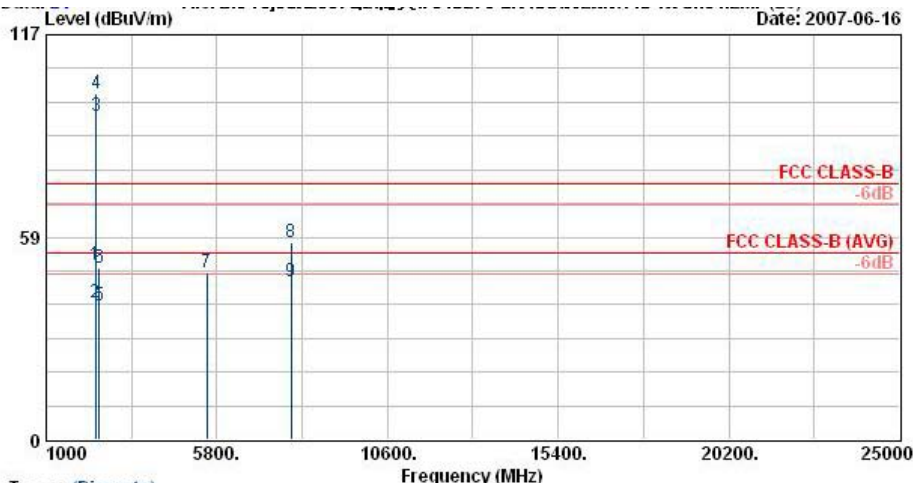
■ The test that passed at minimum margin was marked by the frame in the following table.





FCC TEST REPORT

Report No. : FR761327



Trace: (Discrete)

Site : 03CH06-HY
Condition : HF-ANT-060410 HORIZONTAL
EUT : PDA Phone
Power : 120Vac/60Hz
Model : FR 761327
Memo : 11b Tx_Ch01;2412MHz +Adaptor
Data Rate : 11
Plane : E2

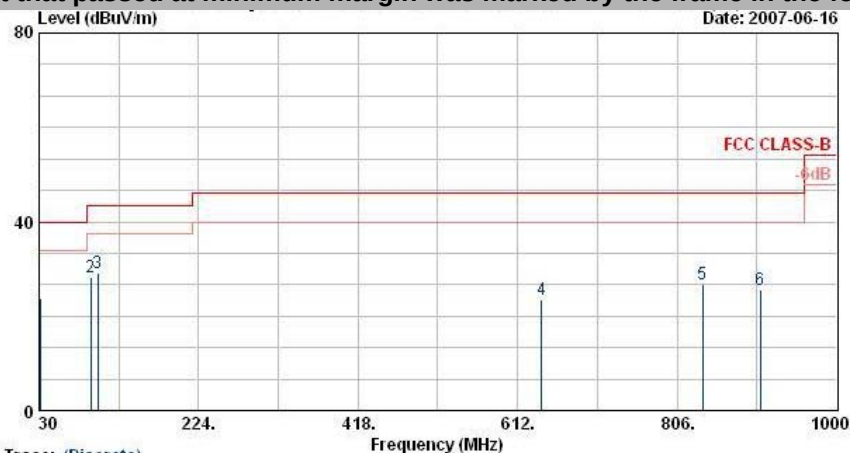
	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	2385.12	50.27	-23.73	74.00	51.71	30.25	3.75	35.44	100	0	Peak
2	2385.12	39.63	-14.37	54.00	41.07	30.25	3.75	35.44	100	213	Average
3 @	2412.00	93.36			94.78	30.27	3.77	35.46	100	213	Average
4 X	2412.00	100.15			101.57	30.27	3.77	35.46	100	0	Peak
5	2498.00	38.50	-15.50	54.00	39.85	30.30	3.88	35.53	100	213	Average
6	2498.00	49.52	-24.48	74.00	50.87	30.30	3.88	35.53	100	0	Peak
7	5526.00	48.40	-25.60	74.00	43.90	33.62	6.87	36.00	---	---	Peak
8	7881.00	56.88	-17.12	74.00	45.59	39.44	7.75	35.89	100	0	Peak
9	7881.00	45.63	-8.37	54.00	34.34	39.44	7.75	35.89	100	244	Average

Remark: #3 and #4 Fundamental Signal



- Polarization : Vertical

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



Trace: (Discrete)

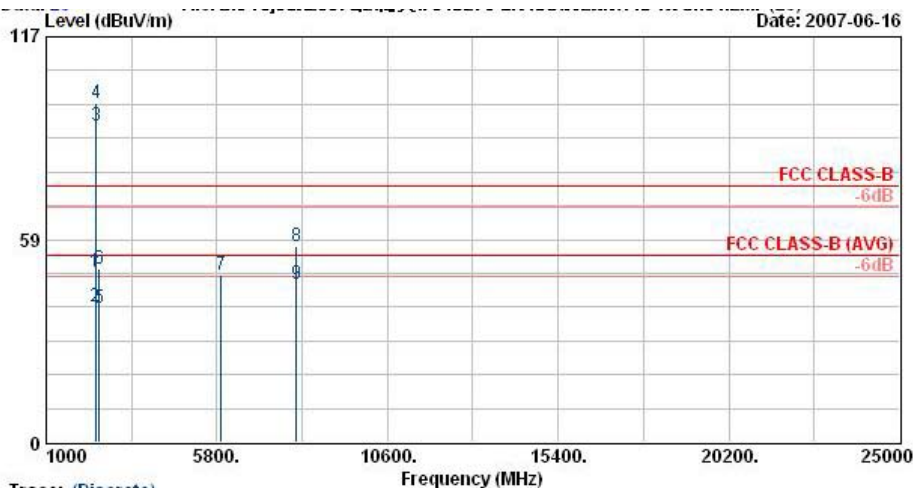
Site : 03CH06-RV
Condition : SHF-EHF HORN VERTICAL
EUT : PDA Phone
Power : 120Vac/60Hz
Model : FR 761327
Memo : lib Tx_Ch01;2412MHz +Adaptor
Data Rate : 11
Plane : E2

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1 @	31.08	23.74	-16.26	40.00	35.57	18.95	0.64	31.43	---	---
2 @	92.64	28.22	-15.28	43.50	48.67	9.62	1.05	31.11	---	---
3 @	101.28	29.13	-14.37	43.50	48.15	11.07	1.07	31.15	100	83
4	640.90	23.39	-22.61	46.00	32.32	18.64	3.08	30.65	---	---
5	836.90	26.82	-19.18	46.00	33.63	20.08	3.56	30.45	---	---
6	906.90	25.70	-20.30	46.00	31.64	20.58	3.83	30.36	---	---



FCC TEST REPORT

Report No. : FR761327



Trace: (Discrete)

Site : 03CH06-HY
Condition : SHF-EHF HORN VERTICAL
EUT : PDA Phone
Power : 120Vac/60Hz
Model : FR 761327
Memo : 11b Tx_Ch01;2412MHz +Adaptor
Data Rate : 11
Plane : E2

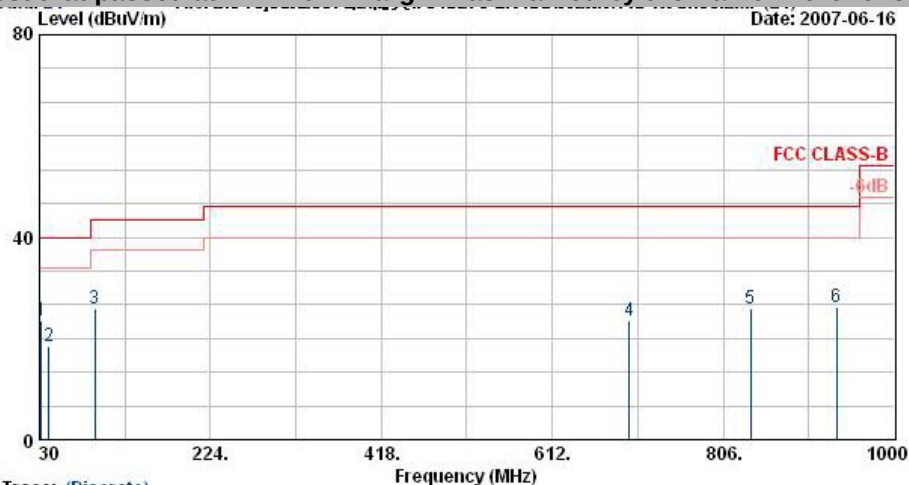
	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	2385.52	48.96	-25.04	74.00	50.39	30.26	3.75	35.44	100	0	Peak
2	2385.52	39.00	-15.00	54.00	40.43	30.26	3.75	35.44	100	329	Average
3 @	2412.00	91.29			92.71	30.27	3.77	35.46	100	329	Average
4 X	2412.00	98.04			99.45	30.27	3.77	35.46	100	0	Peak
5	2498.00	38.64	-15.36	54.00	39.99	30.30	3.88	35.53	100	329	Average
6	2498.00	50.11	-23.89	74.00	51.46	30.30	3.88	35.53	100	0	Peak
7	5931.00	48.40	-25.60	74.00	43.17	34.03	6.93	35.73	---	---	Peak
8	8046.00	56.70	-17.30	74.00	45.15	39.57	7.85	35.87	100	0	Peak
9	8046.00	45.75	-8.25	54.00	34.20	39.57	7.85	35.87	100	69	Average

Remark: #3 and #4 Fundamental Signal



- Test Mode : Mode 2
- Polarization : Horizontal

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



Trace: (Discrete)
Site : 03CH06-HY
Condition : LP-ANT(951121) HORIZONTAL
EUT : PDA Phone
Power : 120Vac/60Hz
Model : FR 761327
Memo : 11b Tx_Ch06;2437MHz +Adaptor
Data Rate : 11
Plane : E2

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	
	MHz	dBuV/m	Limit	Line	Level	Loss	Factor	Pos	Pos	Remark
			dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	31.89	23.55	-16.45	40.00	36.04	18.25	0.65	31.39	100	25
2	40.53	18.30	-21.70	40.00	35.76	13.01	0.71	31.19	---	---
3	92.64	25.78	-17.72	43.50	46.22	9.62	1.05	31.11	---	---
4	699.70	23.47	-22.53	46.00	31.93	18.89	3.25	30.59	---	---
5	836.90	25.97	-20.03	46.00	32.77	20.08	3.56	30.45	---	---
6	934.90	26.09	-19.91	46.00	31.73	20.78	3.89	30.31	---	---