FCC Test Report

for

47 CFR Part 15 Subpart C

Equipment	:	**WLAN/BT Handheld PDA**
Trade Name	:	**HP**
Model No.	:	**HSTNH-F17C**
FCC ID	:	**UCVHSTNH-F17C**
Filing Type	:	**Certification**
Applicant	:	**Hon Hai Precision Industry Co., Ltd.** No.66, Zhongshan Rd., Tucheng City, Taipei County 236, Taiwan (R.O.C.)

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- The data shown in this test report were carried out on Oct. 03, 2007 at **Sporton International Inc. LAB.**
- Report No.: FR783112, Report Version: Rev. 01.

Jones Tsai
Manager

SPORTON International Inc.

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

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History of this test report

Report Issue Date: Oct. 11, 2007

Report No.	Description

1. General Description of Equipment under Test

1.1 Applicant

Hon Hai Precision Industry Co., Ltd.
No.66, Zhongshan Rd., Tucheng City, Taipei County 236, Taiwan (R.O.C.)

1.2 Manufacturer

Hon Hai Precision Industry Co., Ltd.
2 Zihyou Street, Tucheng City, Taipei County, 236, Taiwan

1.3 Basic Description of Equipment under Test

Equipment		WLAN/BT Handheld PDA
Trade Name		HP
Model Name		HSTNH-F17C
AC Adapter	**Brand Name**	PhiHong
	Model Name	PSC11R-050
	Power Rating	I/P:100-240V, 0.3A, 50-60Hz, 26~34VA; O/P: +5V, 2A
	AC Power Cord Type	1.8 meter shielded cable without ferrite core
Battery	**Brand Name**	HP
	Model Name	HSTNH-S17B
	Rating	3.7V, 2200mAh
	Type	Li-ion
USB Cable	**Brand Name**	FOXCONN
	Model Name	CQV24D04UB04-X17-EF
	Signal line Type	1.2m shielded core cable

Remark: Above EUT's information was declared by manufacturer. Please refer to the specifications of manufacturer or User's Manual for more detailed features description.

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) * 5MHz; n=1-11 Bluetooth: 2402+ n*1MHz, n= 0~78			
5. Channel Spacing	WLAN: 5MHz Bluetooth: 1MHz			
6. Maximum Output Power to Antenna (Normal Condition)	WLAN: 802.11b : 17.85dBm / 802.11g: 17.66dBm Bluetooth(1Mbps): -0.51dBm Bluetooth EDR (2Mbps): 1.93dBm Bluetooth EDR (3Mbps): 1.95dBm			
7. Type of Antenna Connector	N/A			
8. Antenna Type	WLAN: PIFA Antenna Bluetooth: PIFA Antenna			
9. Antenna Gain	WLAN : -3 dBi BT : -5 dBi			
HW Version :	Sterling EVT2			
SW Version :	V0.10.35-WWE			
10. Function Type	Transmitter		Transceiver	V

2 Test Configuration of Equipment under Test

2.1 Test Manner

a. The EUT has been associated with peripherals pursuant to ANSI C63.4-2003 and configuration operated in a manner tended to maximize its emission characteristics in a typical application.
b. The EUT is programmed to transmit signal continuously for all testings.
c. Frequency range investigated: conduction 150 kHz to 30 MHz, radiation 30 MHz to 25000MHz.
d. 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 / RF Conducted	**802.11b**	**802.11g**	
	Mode1:CH01_2412MHz	Mode4:CH01_2412MHz	
	Mode2:CH06_2437MHz	Mode5:CH06_2437MHz	
	Mode3:CH11_2462MHz	Mode6:CH11_2462MHz	
	BT(1Mbps)	**BT-EDR(2Mbps)**	**BT-EDR(3Mbps)**
	Mode7:CH00_2402MHz	Mode10:CH00_2402MHz	Mode13:CH00_2402MHz
	Mode8:CH39_2441MHz	Mode11:CH39_2441MHz	Mode14:CH39_2441MHz
	Mode9:CH78_2480MHz	Mode12:CH78_2480MHz	Mode15:CH78_2480MHz
Conducted Emission	Mode 1: WLAN Link + BT Link + Adapter 1		
	Mode 2: WLAN Link + BT Link + USB Link + Adapter 2		

Note:

1. For BT we tested Radiated emissions full modes in 3Mbps and retesting the worst channel ,CH78, in 1Mbps and 2Mbps respectively.

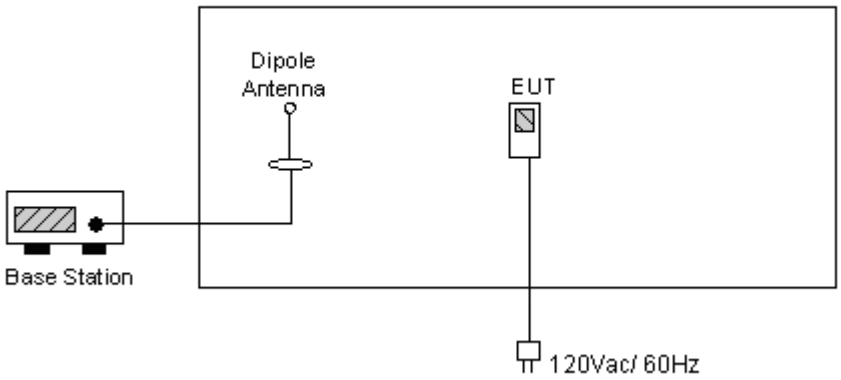
2.3 Ancillary Equipment List

Item	Equipment	Trade Name	Model Name	FCC ID	Power Cord / Cable
1.	BT Base Station	Anritus	8852A	N/A	N/A
2.	Notebook	DELL	D400	E2K24GBRL	AC I/P: Unshielded, 1.2 m DC O/P: shielded, 1.8 m
3.	Bluetooth Device	Engotech	ET-BD201	PQY471087	N/A
4.	WLAN AP	SMC	SMC-100	HEDWG4005ACC	Unshielded, 1.8 m
5.	i-pod	Apple	A1199	N/A	N/A

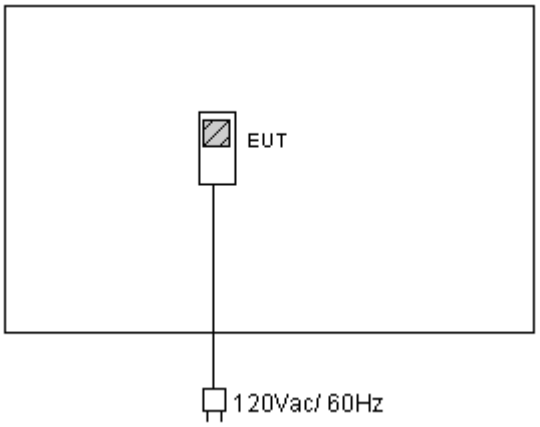
2.4 Connection Diagram of Test System

<Radiated Emission >

Bluetooth Tx Mode

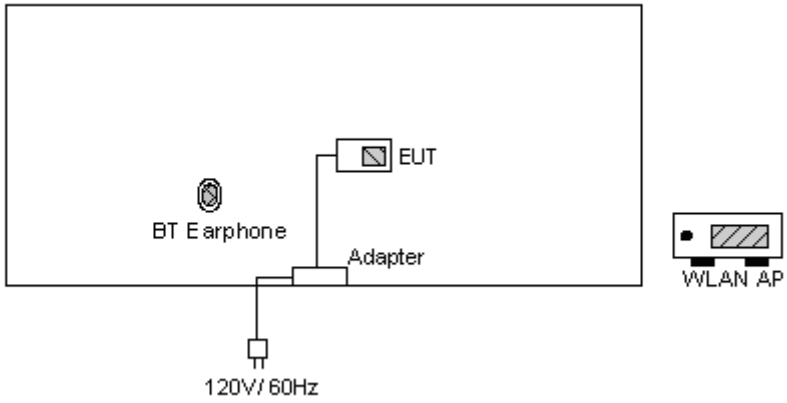


WLAN Tx Mode

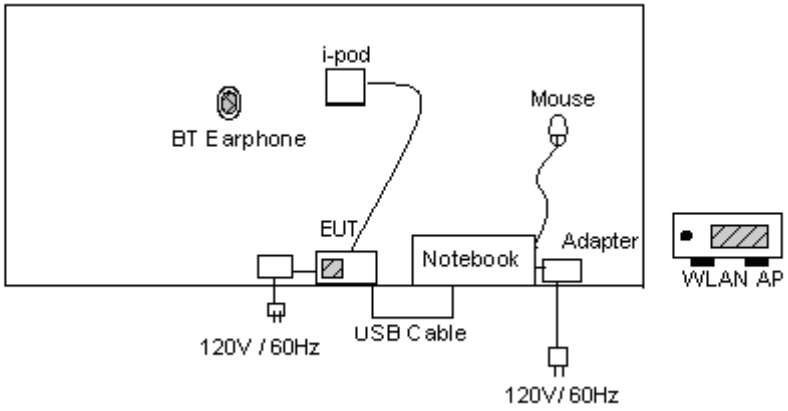


<Conducted Emission>

EUT with Adapter Mode



EUT 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.

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

AC 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

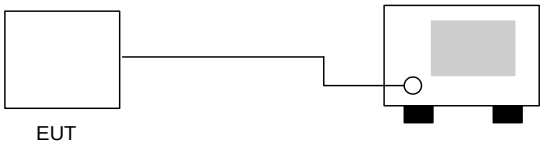
5.2.1 Measuring Instruments：

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 : 26~27℃
Relative Humidity : 49~52%
Test Enginner : Sun

802.11b

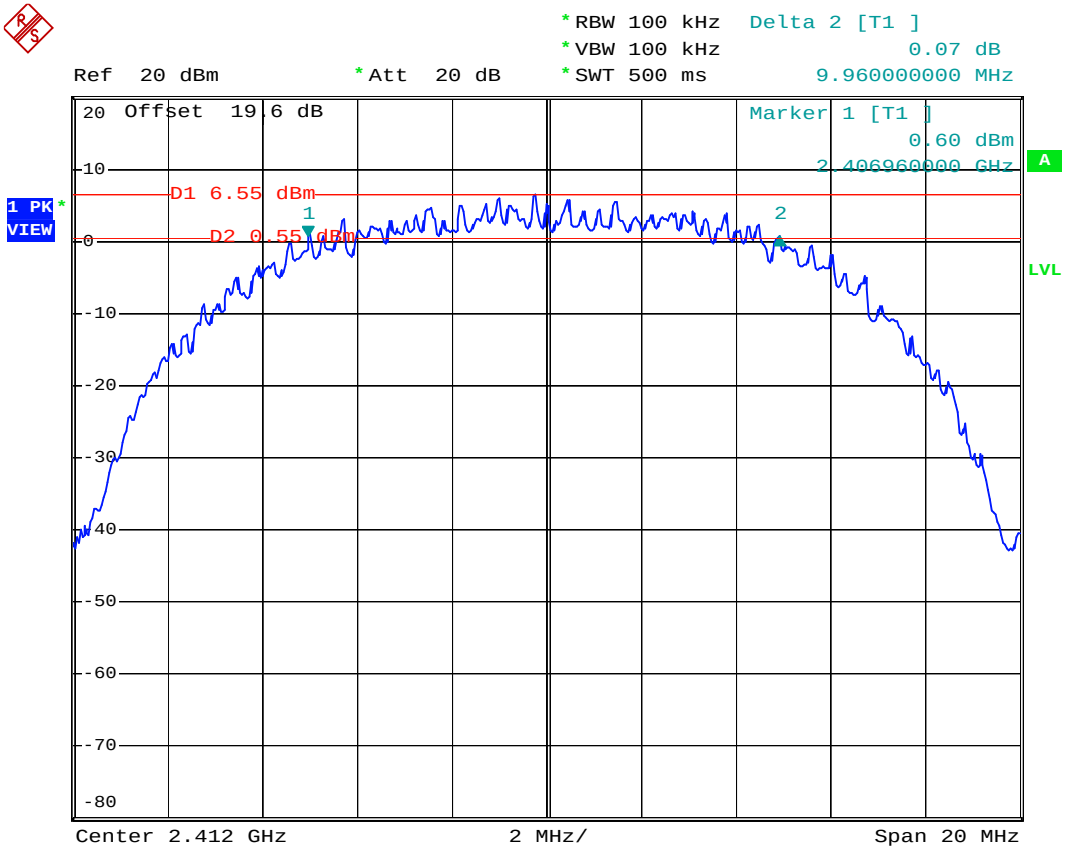
Channel	Frequency (MHz)	6dB Emission bandwidth (MHz)	Limits (MHz)	Plot Ref. No.
01	2412	9.96	> 0.5MHz	Mode 1
06	2437	9.90	> 0.5MHz	Mode 2
11	2462	9.92	> 0.5MHz	Mode 3

802.11g

Channel	Frequency (MHz)	6dB Emission bandwidth (MHz)	Limits (MHz)	Plot Ref. No.
01	2412	16.56	> 0.5MHz	Mode 4
06	2437	16.56	> 0.5MHz	Mode 5
11	2462	16.60	> 0.5MHz	Mode 6

5.2.5 6dB Bandwidth

Mode 1



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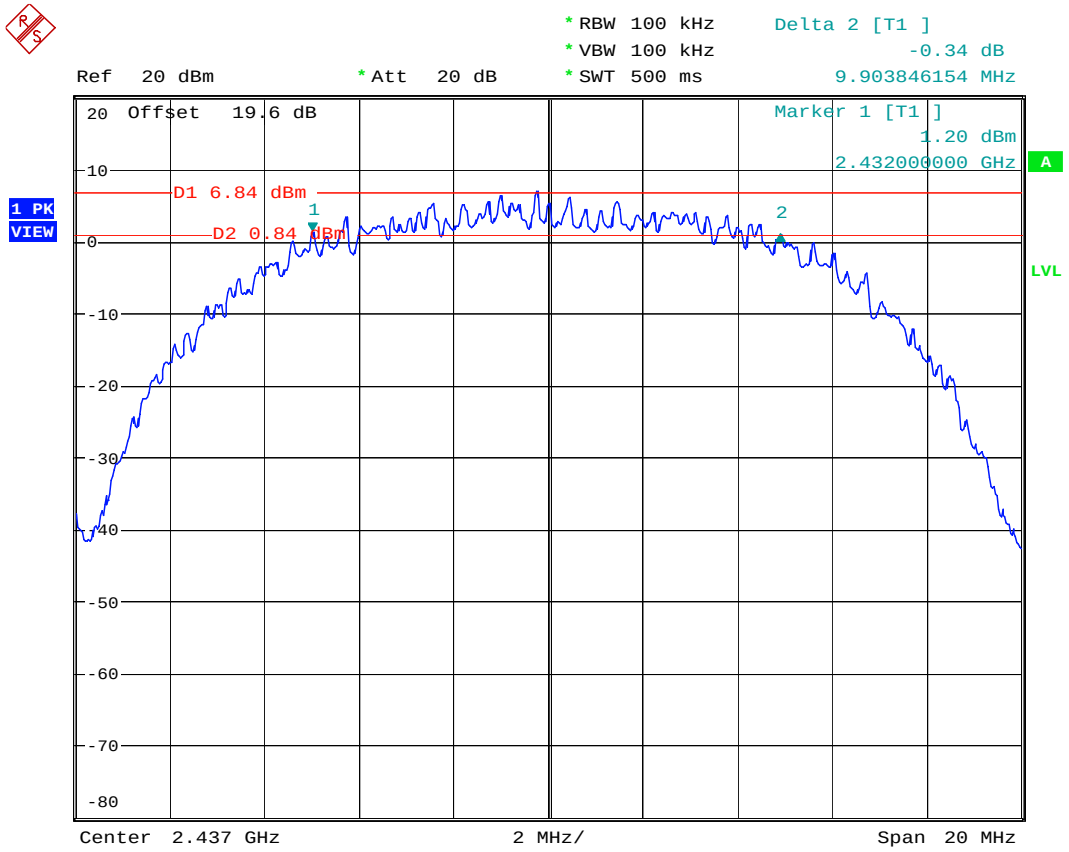
Mode 2



444

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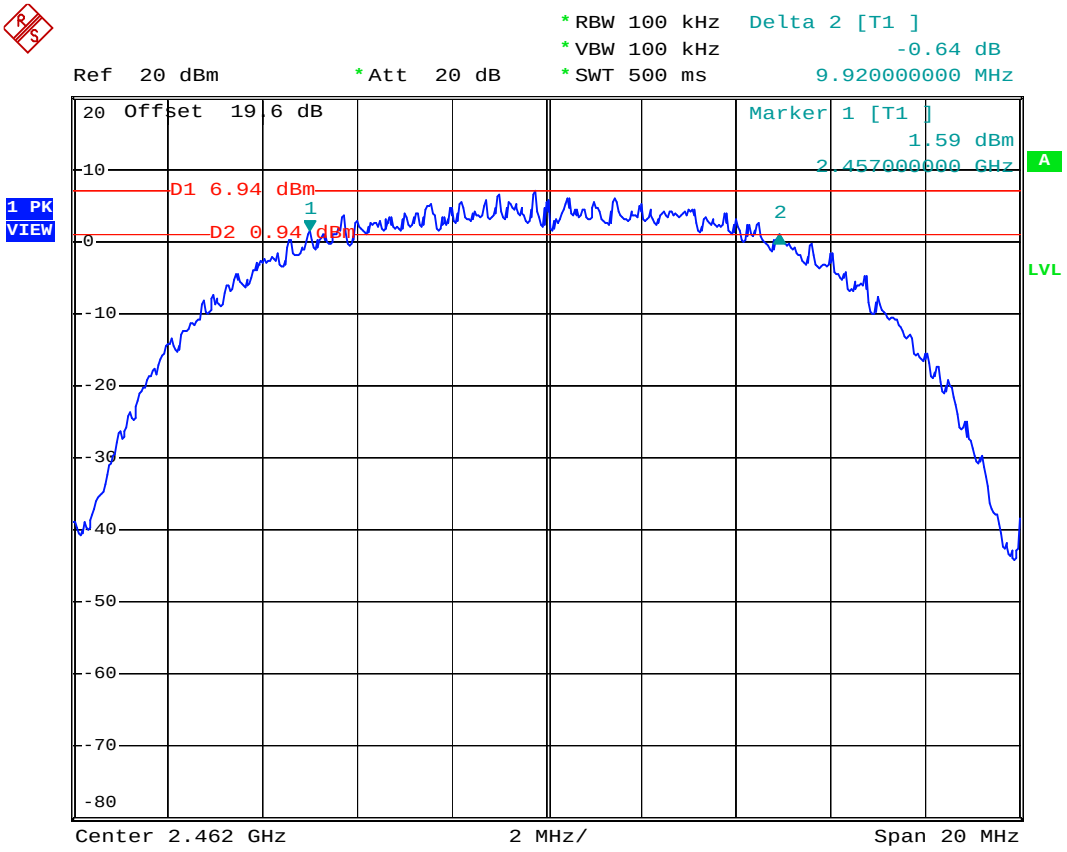
Mode 3



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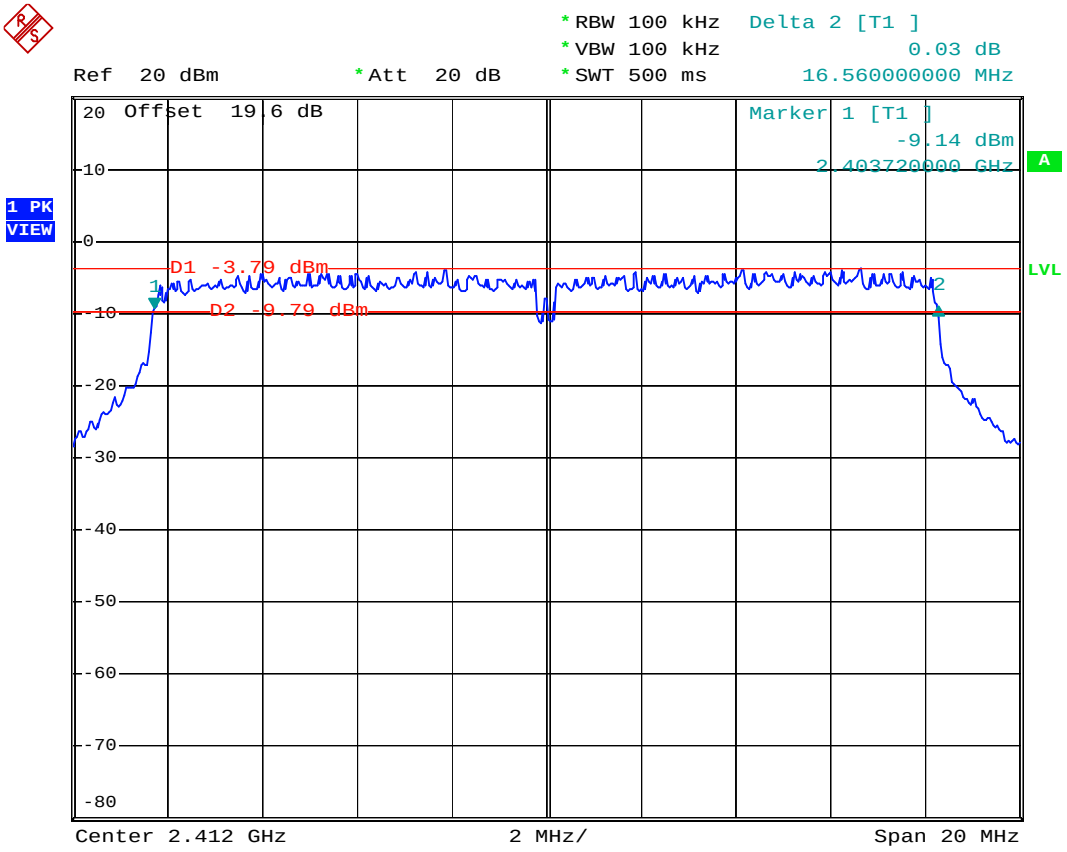
Mode 4



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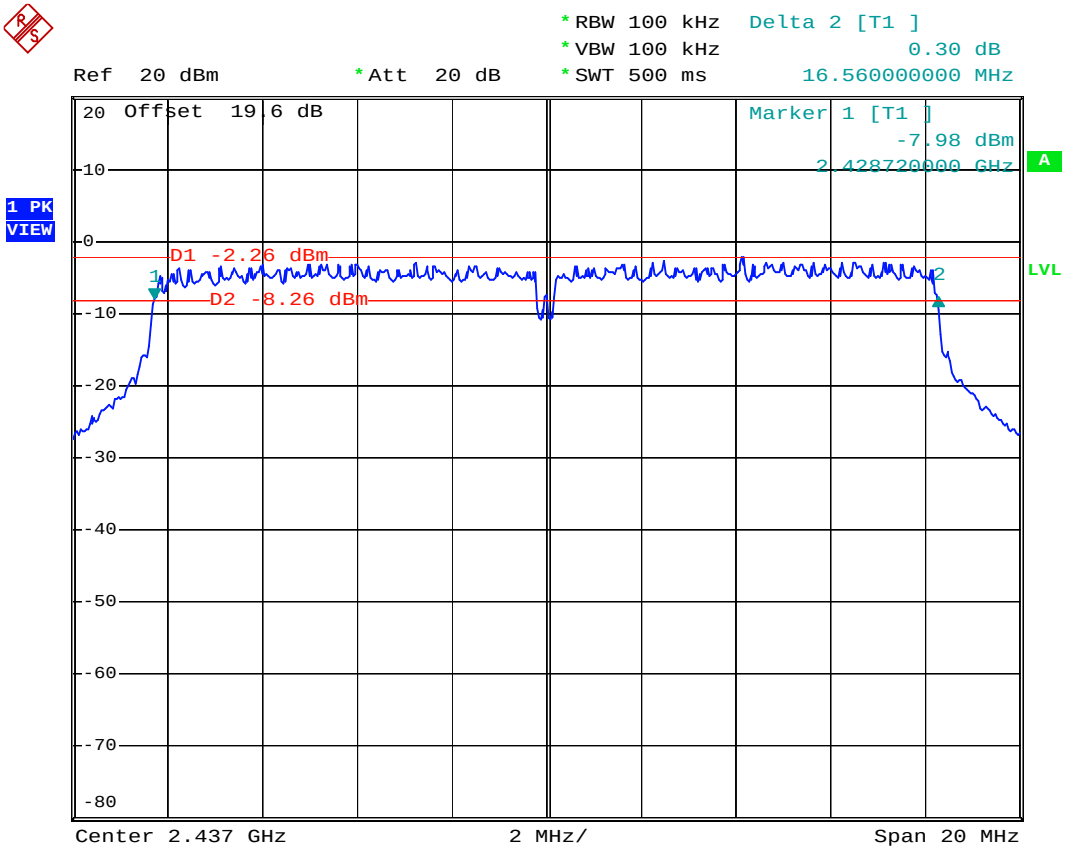
Mode 5



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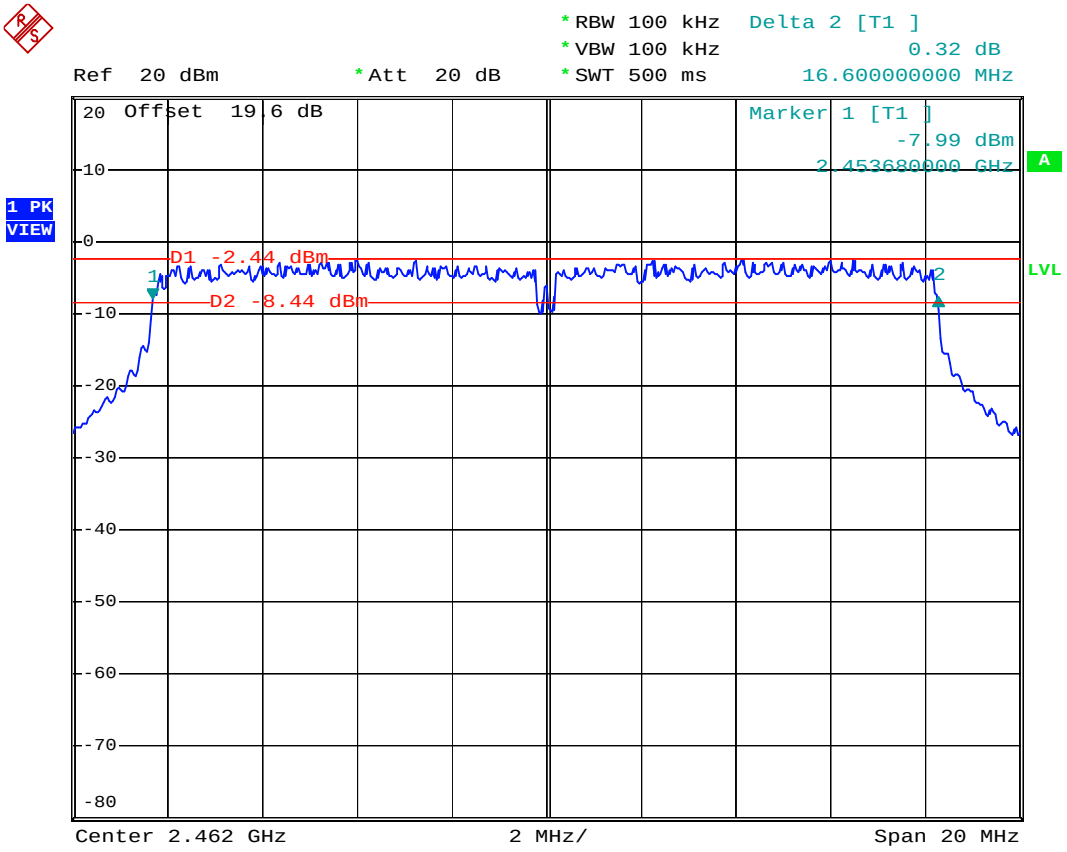
Mode 6



Date: 11.SEP.2007 20:42:50

5.3 Power Spectral Density Measurement

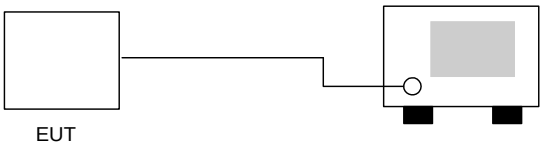
5.3.1 Measuring Instruments：

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 : 26~27℃
Relative Humidity : 49~52%
Test Enginner : Sun

802.11b

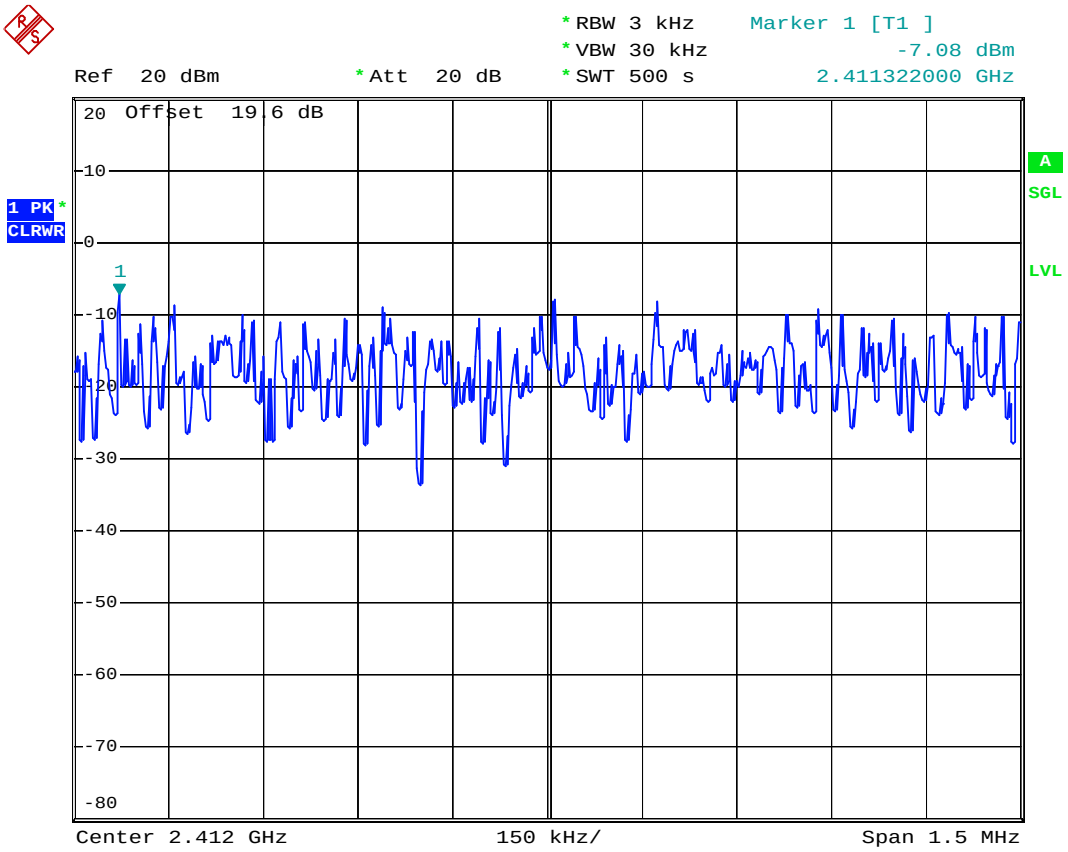
Channel	Frequency (MHz)	Power Spectral Density (dBm)	Limits (dBm)	Plot Ref. No.
01	2412	-7.08	8	Mode 1
06	2437	-6.03	8	Mode 2
11	2462	-7.11	8	Mode 3

802.11g

Channel	Frequency (MHz)	Power Spectral Density (dBm)	Limits (dBm)	Plot Ref. No.
01	2412	-12.53	8	Mode 4
06	2437	-10.94	8	Mode 5
11	2462	-17.15	8	Mode 6

5.3.5 Power Spectral Density

Mode 1



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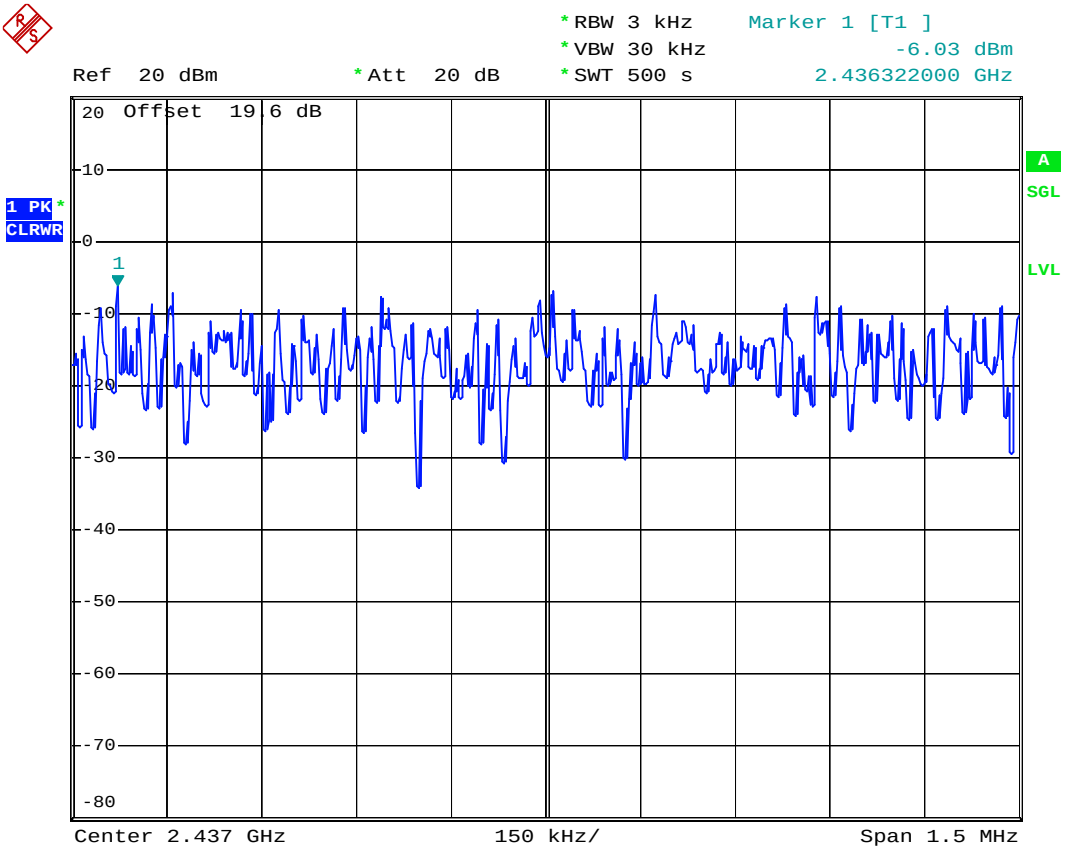
Mode 2



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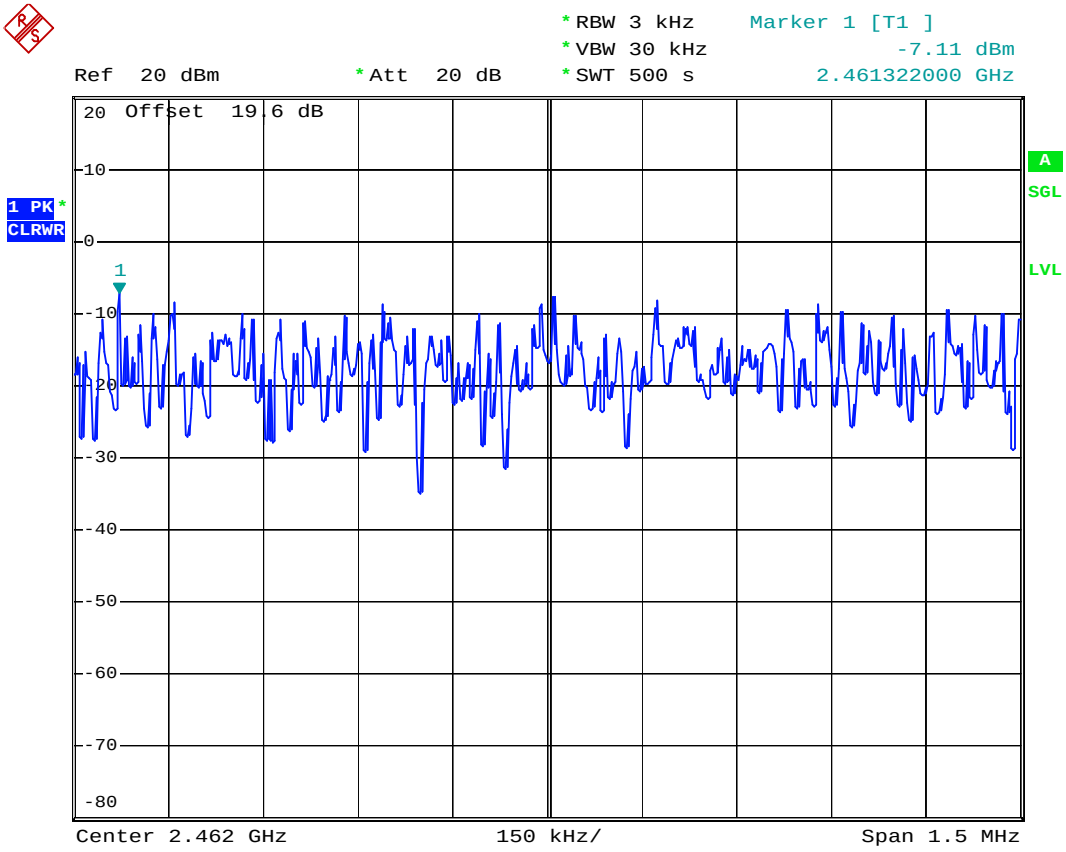
Mode 3



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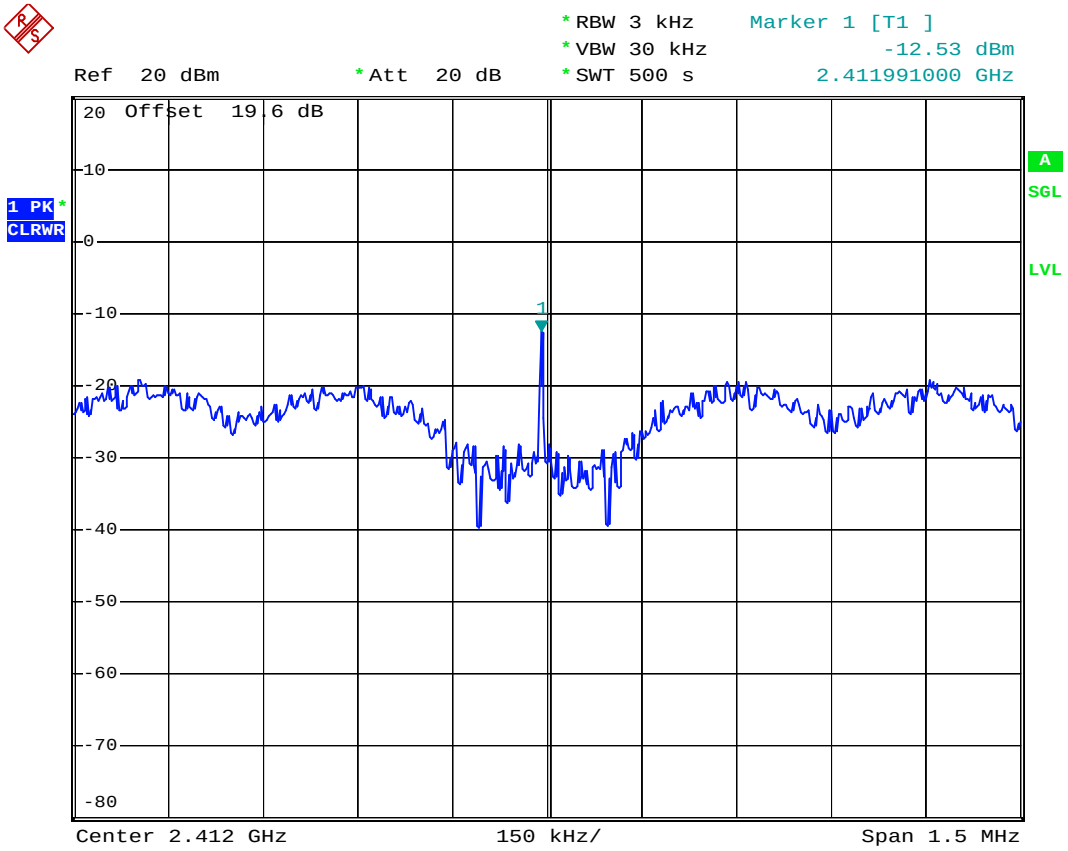
Mode 4



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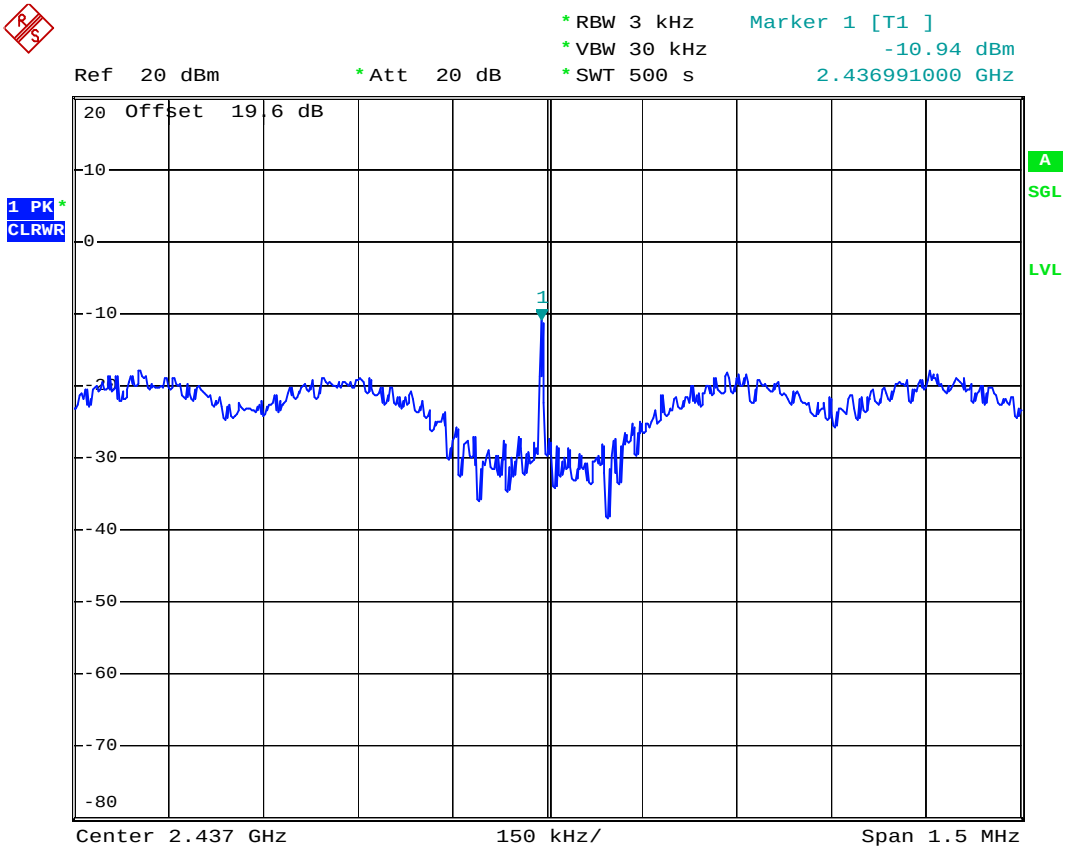
Mode 5



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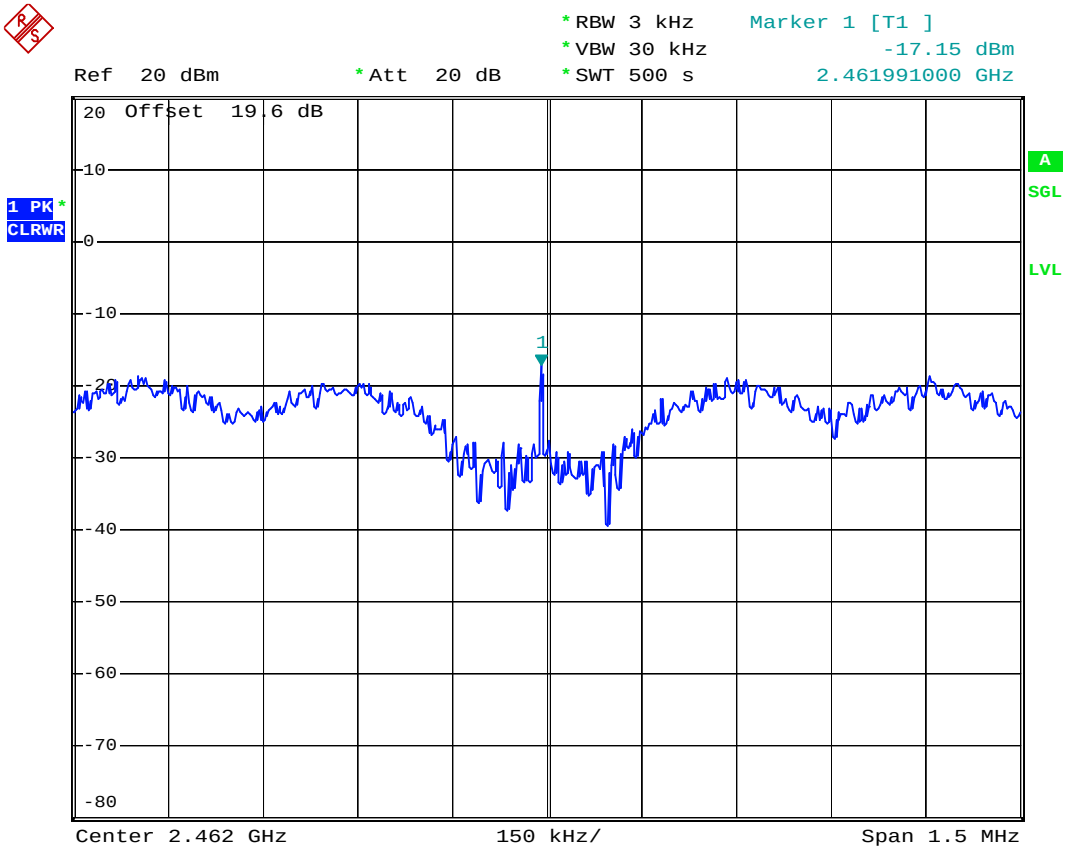


Date: 11.SEP.2007 21:21:28

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 : 26~27℃
Relative Humidity : 49~52%
Test Enginner : Sun

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
2387.3	52.86	-24.14	74.00	54.29	30.26	3.75	35.44	100	0	Peak
2387.3	42.48	-11.52	54.00	43.91	30.26	3.75	35.44	100	7	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
2386.4	43.98	-10.02	54.00	45.41	30.26	3.75	35.44	100	280	Average
2386.4	54.82	-19.18	74.00	56.25	30.26	3.75	35.44	1000	0	Peak

CH11 (Horizontal)

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2486.1	52.64	-21.03	74.00	54.33	30.29	3.86	35.51	100	0	Peak
2486.1	41.83	-12.17	54.00	43.19	30.29	3.86	35.51	100	7	Average

CH11 (Vertical)

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2485.2	52.94	-21.06	74.00	54.30	30.29	3.86	35.51	100	0	Peak
2485.2	42.64	-11.36	54.00	44.00	30.29	3.86	35.51	100	279	Average

➢WLAN 802.11g

CH01 (Horizontal)

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2390.0	53.42	-20.58	74.00	54.87	30.26	3.75	35.46	100	0	Peak
2390.0	41.65	-12.35	54.00	43.10	30.26	3.75	35.46	100	5	Average

CH01 (Vertical)

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2389.2	54.93	-19.07	74.00	56.36	30.26	3.75	35.44	100	0	Peak
2389.2	41.84	-12.16	54.00	43.27	30.26	3.75	35.44	100	282	Average

CH11 (Horizontal)

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2483.50	40.09	-13.91	54.00	41.79	28.26	3.84	33.80	101	89	Average
2483.50	62.89	-11.11	74.00	64.59	28.26	3.84	33.80	100	0	Peak

CH11 (Vertical)

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
25.00	40.72	-13.28	54.00	42.07	30.30	3.88	35.53	100	282	Average
25.00	51.00	-23.00	74.00	52.35	30.30	3.88	35.53	100	0	Peak

➢ **BT(1Mbps)**

CH78 (Horizontal)

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2483.5	59.33	-14.67	74.00	60.79	28.47	2.87	32.80	100	0	Peak
2483.5	49.50	-4.50	54.00	50.96	28.47	2.87	32.80	100	320	Average

CH78 (Vertical)

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2483.5	57.59	-16.41	74.00	59.05	28.47	2.87	32.80	100	40	Peak
2483.5	48.12	-5.88	54.00	49.58	28.47	2.87	32.80	100	40	Average

➢ **BT EDR(2Mbps)**

CH78 (Horizontal)

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2483.5	63.84	-10.16	74.00	65.30	28.47	2.87	32.80	100	0	Peak
2483.5	50.24	-3.76	54.00	51.70	28.47	2.87	32.80	100	332	Average

CH78 (Vertical)

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2483.5	59.94	-14.06	74.00	61.40	28.47	2.87	32.80	100	0	Peak
2483.5	46.88	-7.12	54.00	48.34	28.47	2.87	32.80	100	30	Average

➢ **BT-EDR(3Mbps)**

CH00 (Horizontal)

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2387.9	33.64	-20.36	54.00	35.32	28.29	2.82	32.80	100	322	Average
2387.9	48.54	-25.46	74.00	50.22	28.29	2.82	32.80	100	0	Peak

CH00 (Vertical)

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2380.3	31.03	-22.97	54.00	32.77	28.26	2.80	32.80	100	302	Average
2380.3	46.78	-27.22	74.00	48.52	28.26	2.80	32.80	100	0	Peak

CH78 (Horizontal)

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2483.5	64.65	-9.35	74.00	66.11	28.47	2.84	32.80	100	0	Peak
2483.5	51.03	-2.97	54.00	52.49	28.47	2.87	32.80	100	327	Average

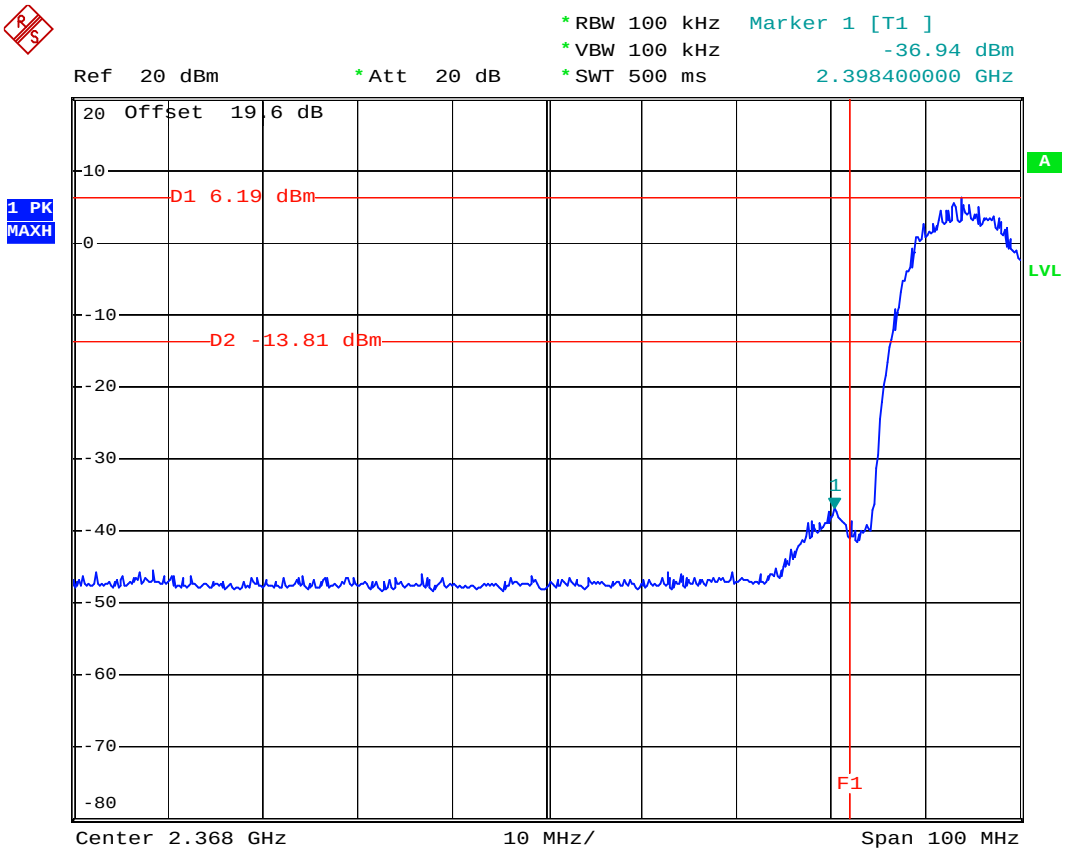
CH78 (Vertical)

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2483.5	48.71	-5.29	54.00	50.17	28.47	2.87	32.80	100	33	Average
2483.5	61.82	-12.18	74.00	63.28	28.47	2.87	32.80	100	0	Peak

5.4.5 Band Edge

WLAN 802.11b

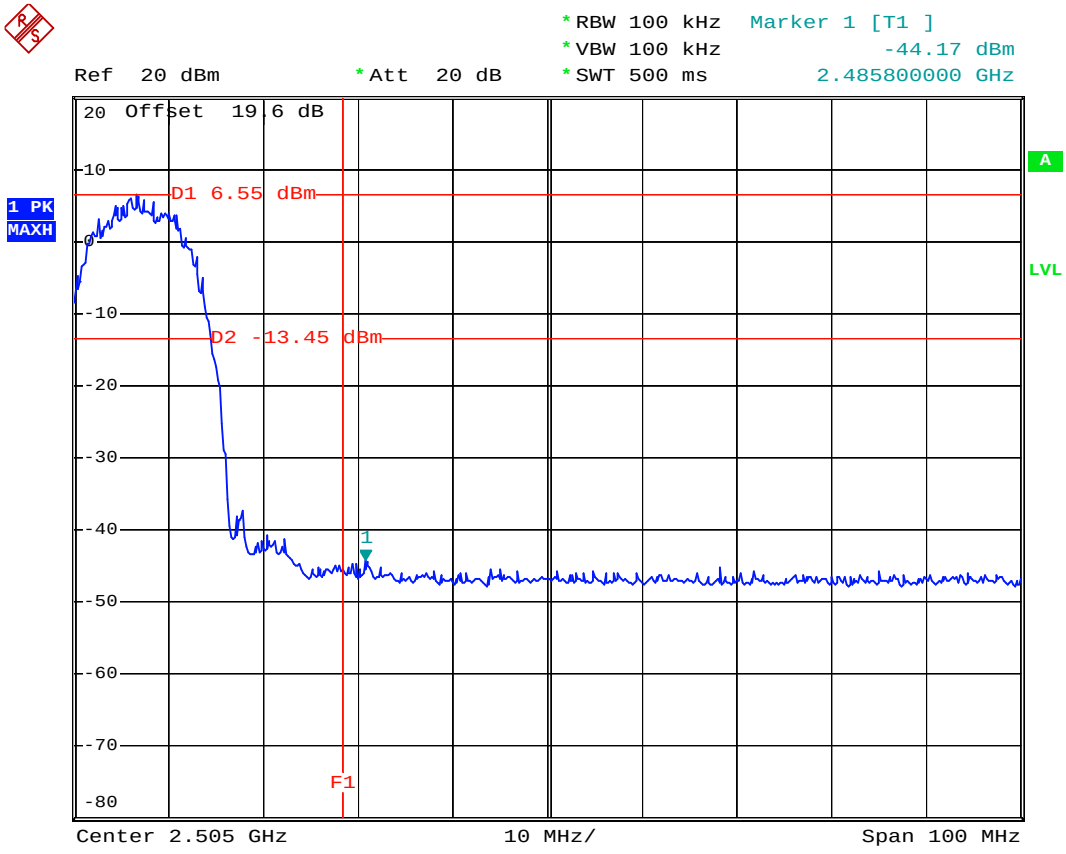
CH01



Date: 11.SEP.2007 20:04:17

WLAN 802.11b

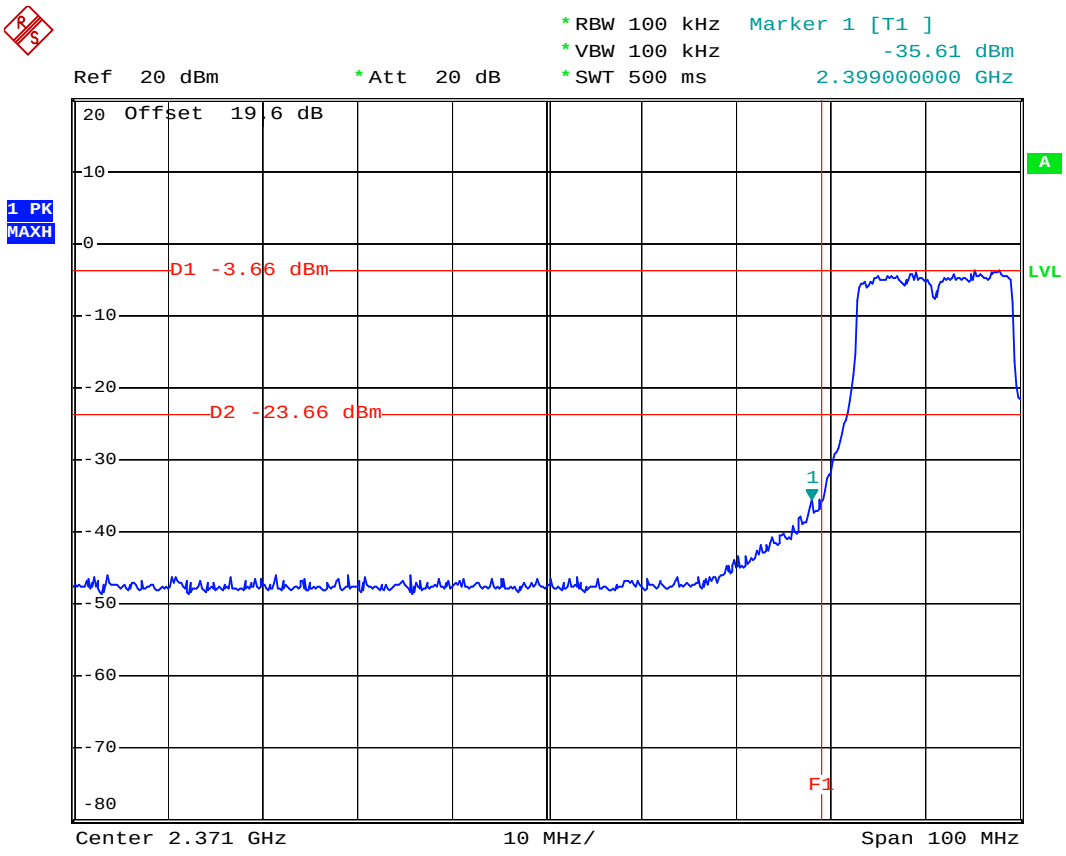
CH11



Date: 11.SEP.2007 20:02:16

WLAN 802.11g

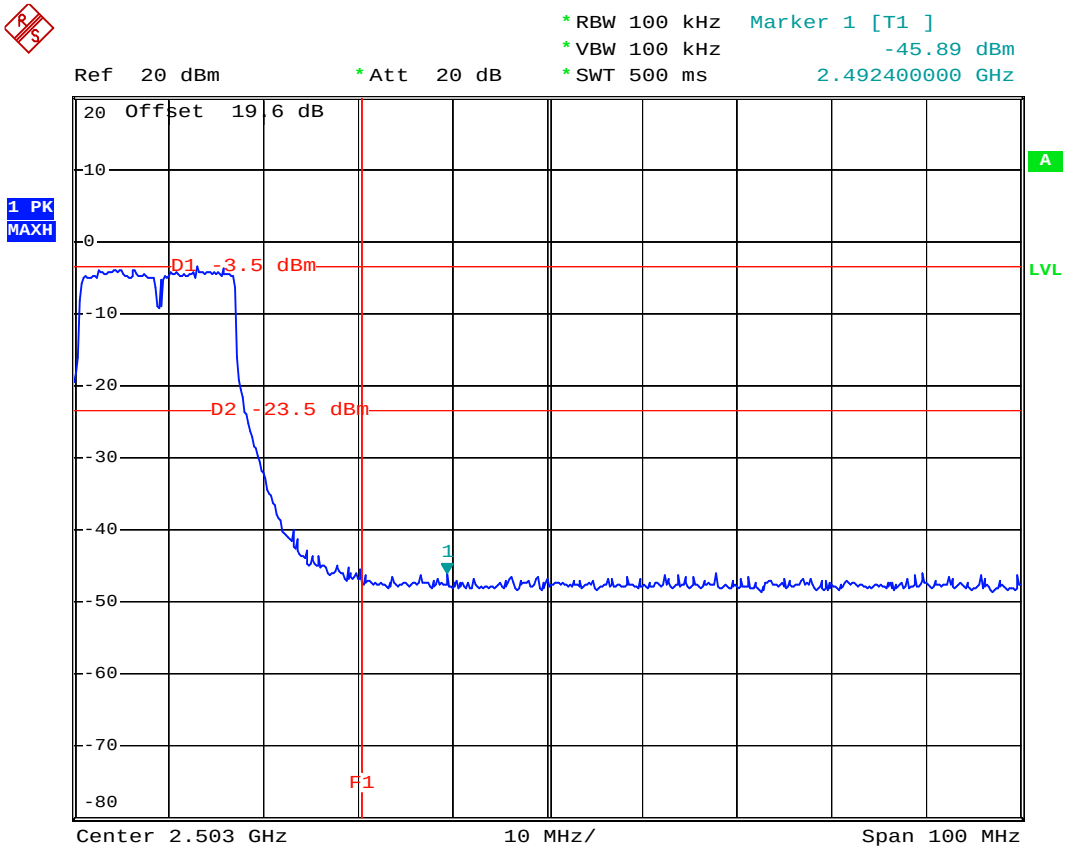
CH01



Date: 11.SEP.2007 20:45:22

WLAN 802.11g

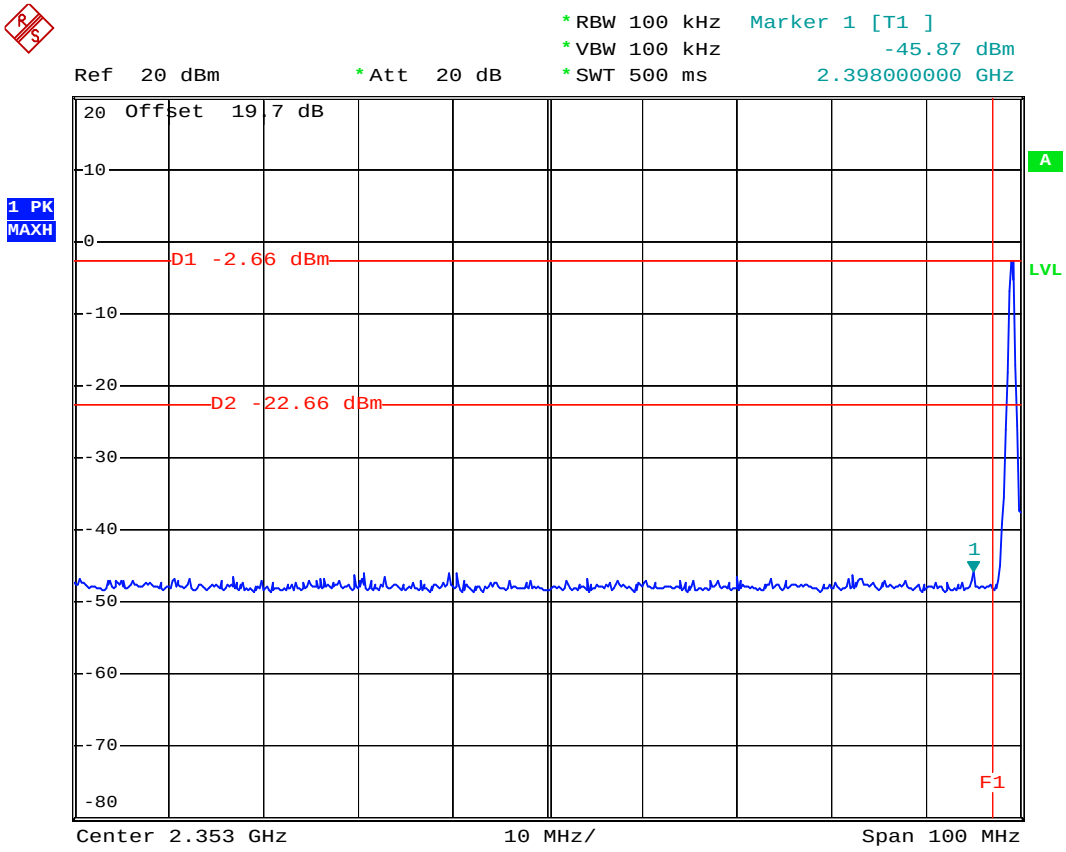
CH11



Date: 11.SEP.2007 21:23:01

BT(1Mbps)

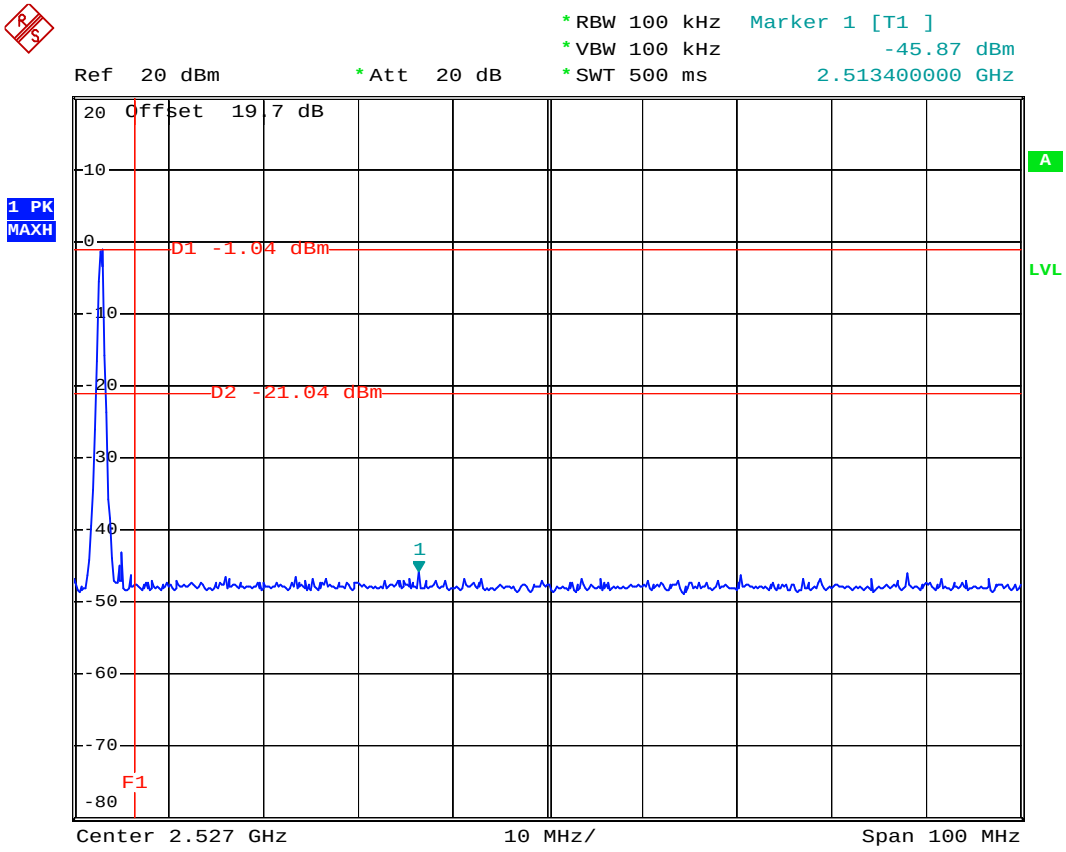
CH00



Date: 8.SEP.2007 04:15:57

BT(1Mbps)

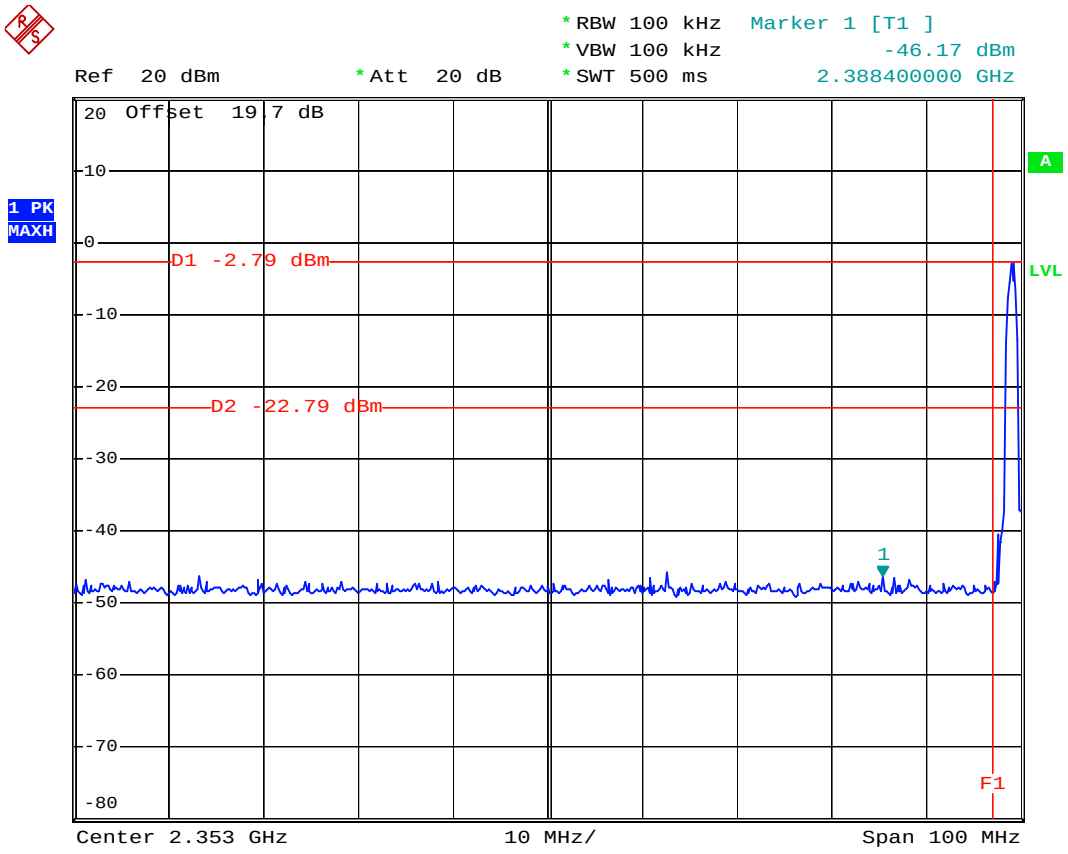
CH78



Date: 8.SEP.2007 04:19:10

BT-EDR(2Mbps)

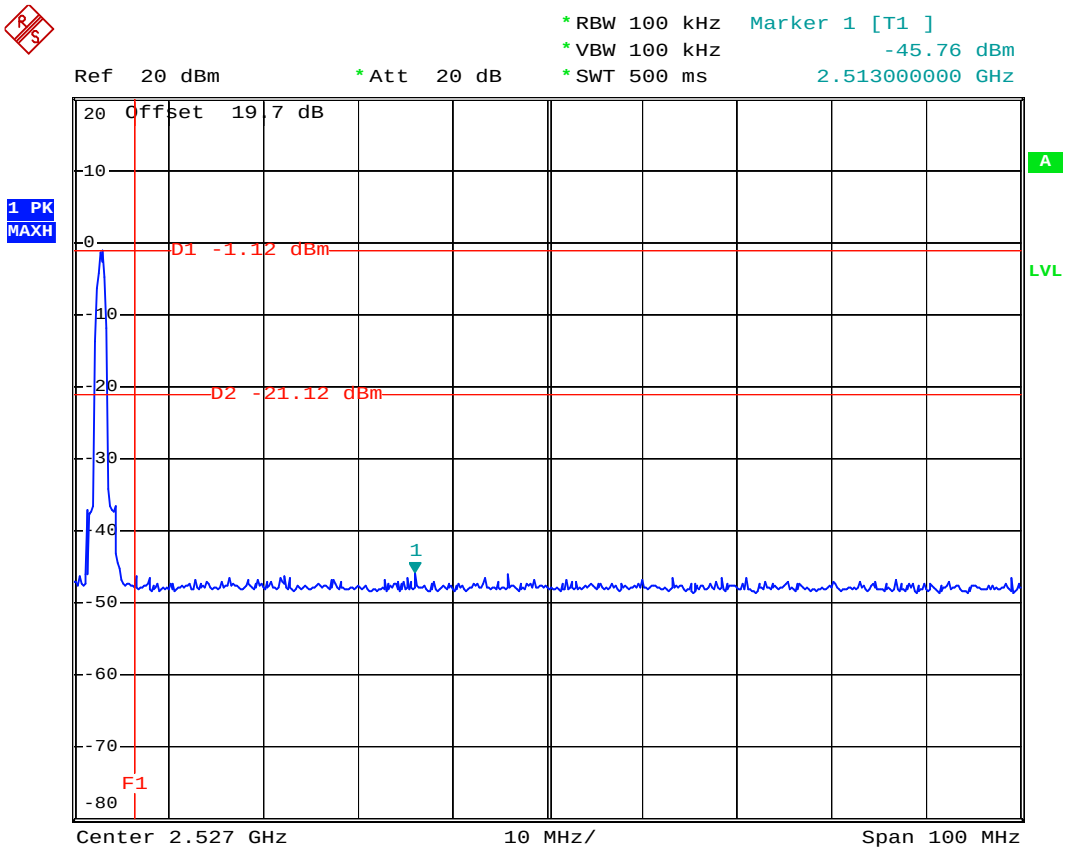
CH00



Date: 8.SEP.2007 05:10:39

BT-EDR(2Mbps)

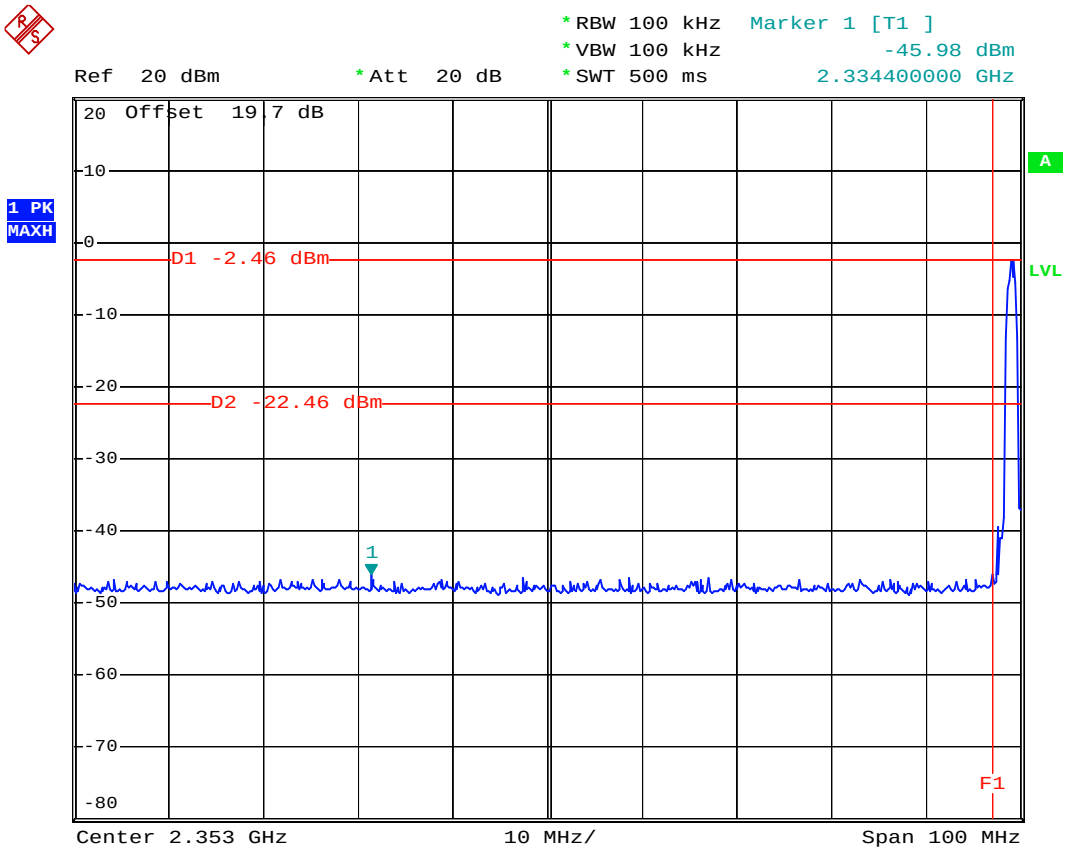
CH78



Date: 8.SEP.2007 05:17:18

BT-EDR(3Mbps)

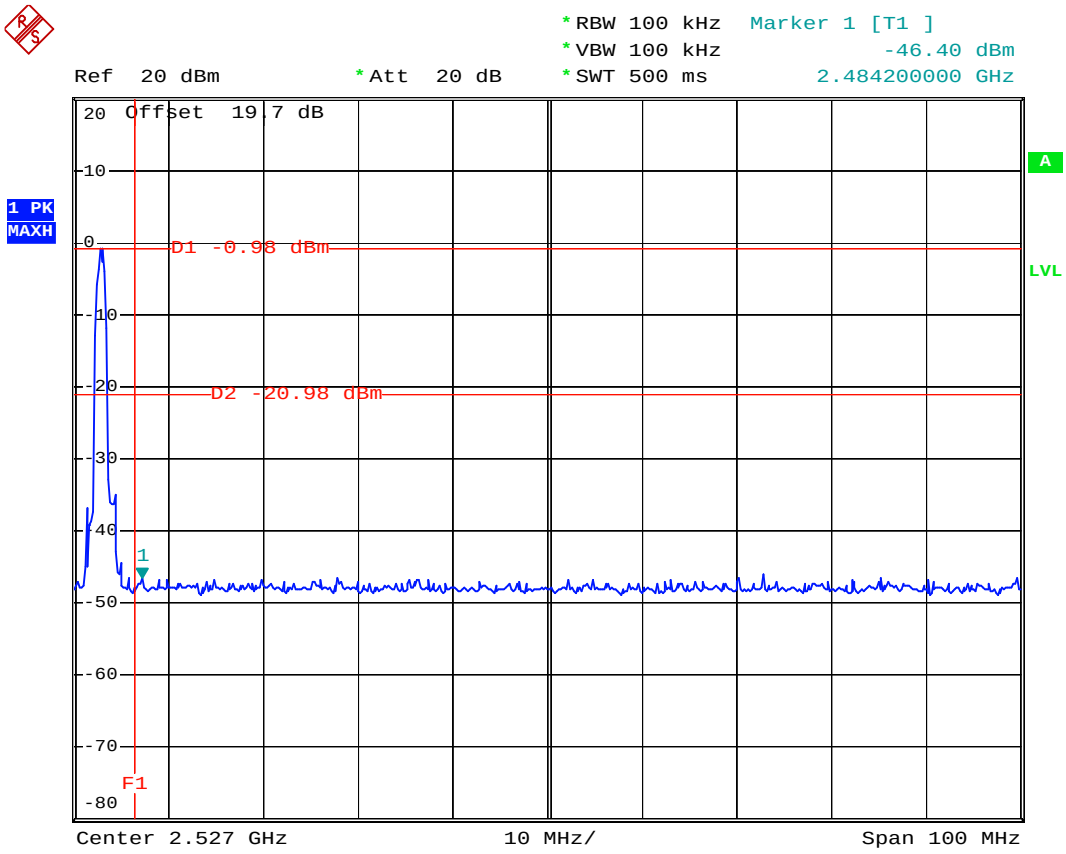
CH00



Date: 8.SEP.2007 05:12:48

BT-EDR(3Mbps)

CH78



Date: 8.SEP.2007 05:19:54

5.5 Hopping Channel Separation

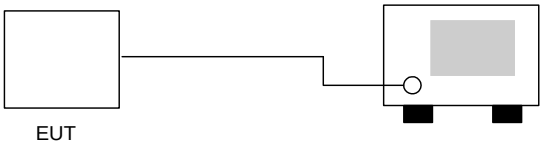
5.5.1 Measuring Instruments：

As described in chapter 6 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 : 26~27℃
Relative Humidity : 49~52%
Test Enginner : Sun

Channel	Frequency (MHz)	Carrier Frequency Separation (MHz)	Limits (MHz)	Plot Ref. No.
00	2402	1.000	0.634	Mode 7
39	2441	1.004	0.652	Mode 8
78	2480	1.004	0.650	Mode 9

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

5.5.5 est Result：The spectrum analyzer plots are attached as below

Application Type : BT-EDR(2Mbps)
Temperature : 26~27℃
Relative Humidity : 49~52%
Test Enginner : Sun

Channel	Frequency (MHz)	Carrier Frequency Separation (MHz)	Limits (MHz)	Plot Ref. No.
00	2402	1.000	0.883	Mode 10
39	2441	1.000	0.880	Mode 11
78	2480	1.000	0.883	Mode 12

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

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

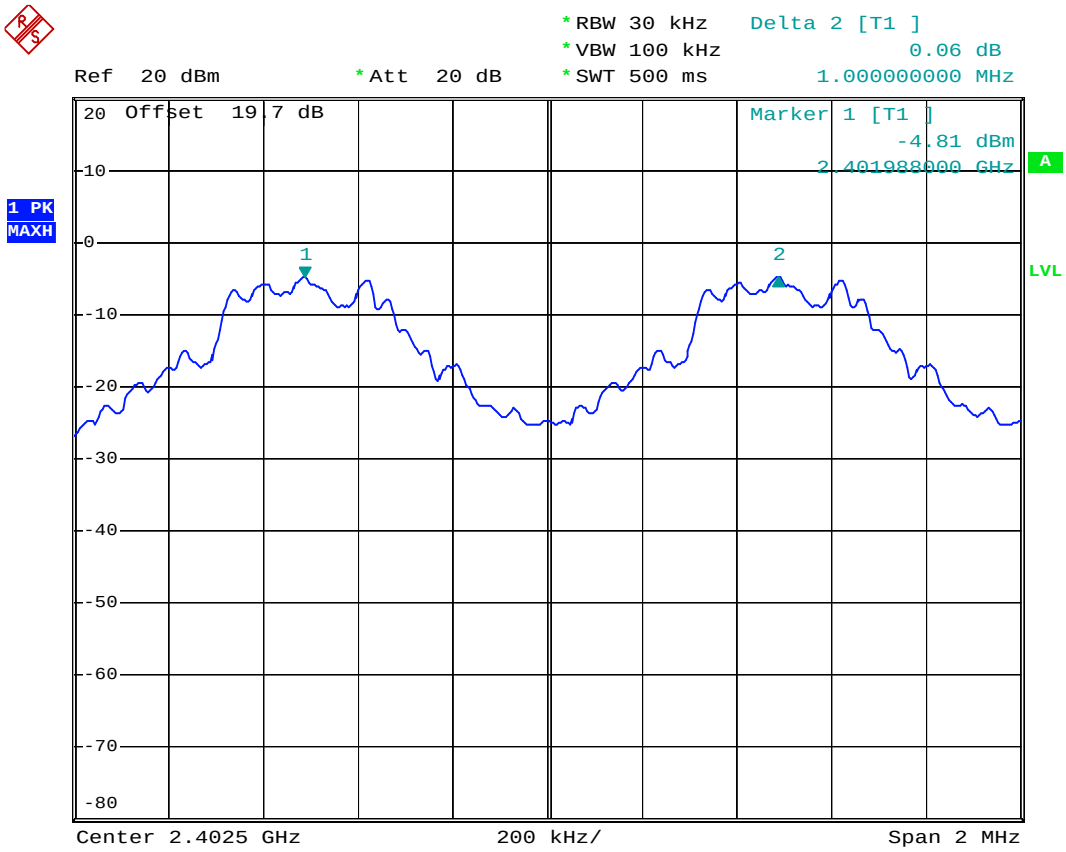
Application Type : BT-EDR(3Mbps)
Temperature : 26~27℃
Relative Humidity : 49~52%
Test Enginner : Sun

Channel	Frequency (MHz)	Carrier Frequency Separation (MHz)	Limits (MHz)	Plot Ref. No.
00	2402	1.000	0.861	Mode 13
39	2441	1.000	0.859	Mode 14
78	2480	1.000	0.864	Mode 15

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

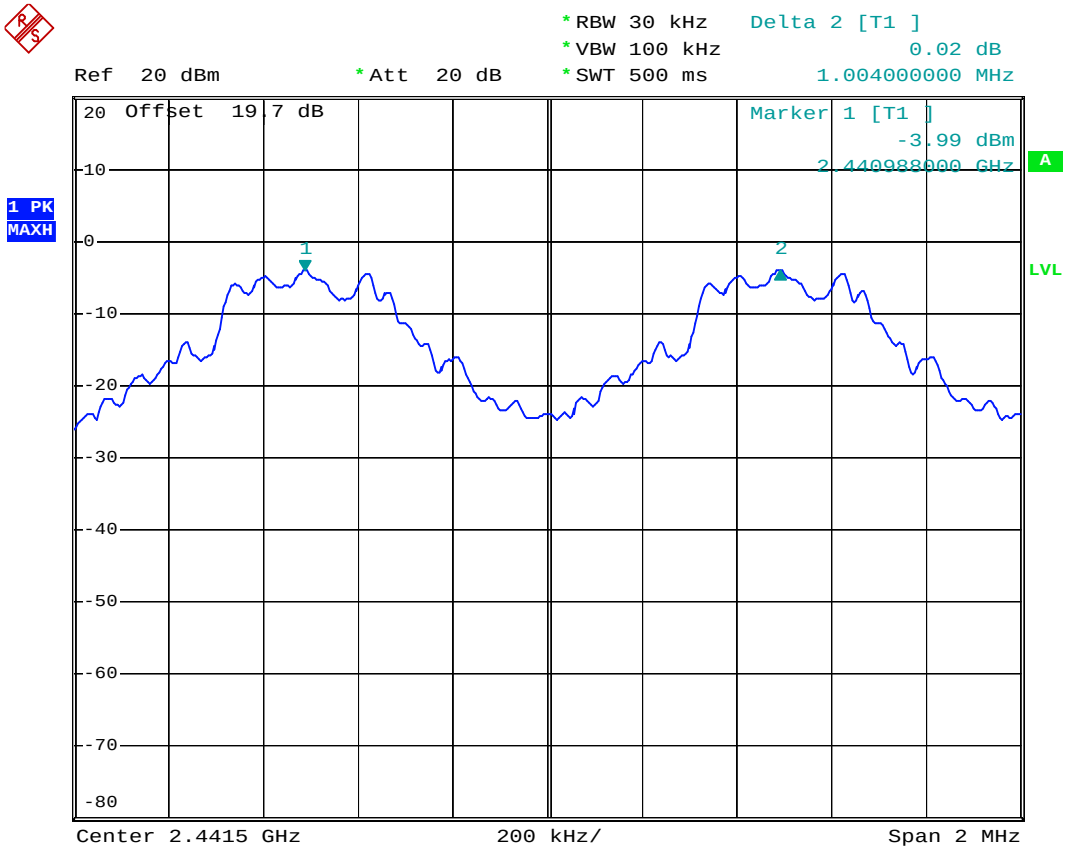
5.5.7 Hopping Channel Seperation

Mode 7



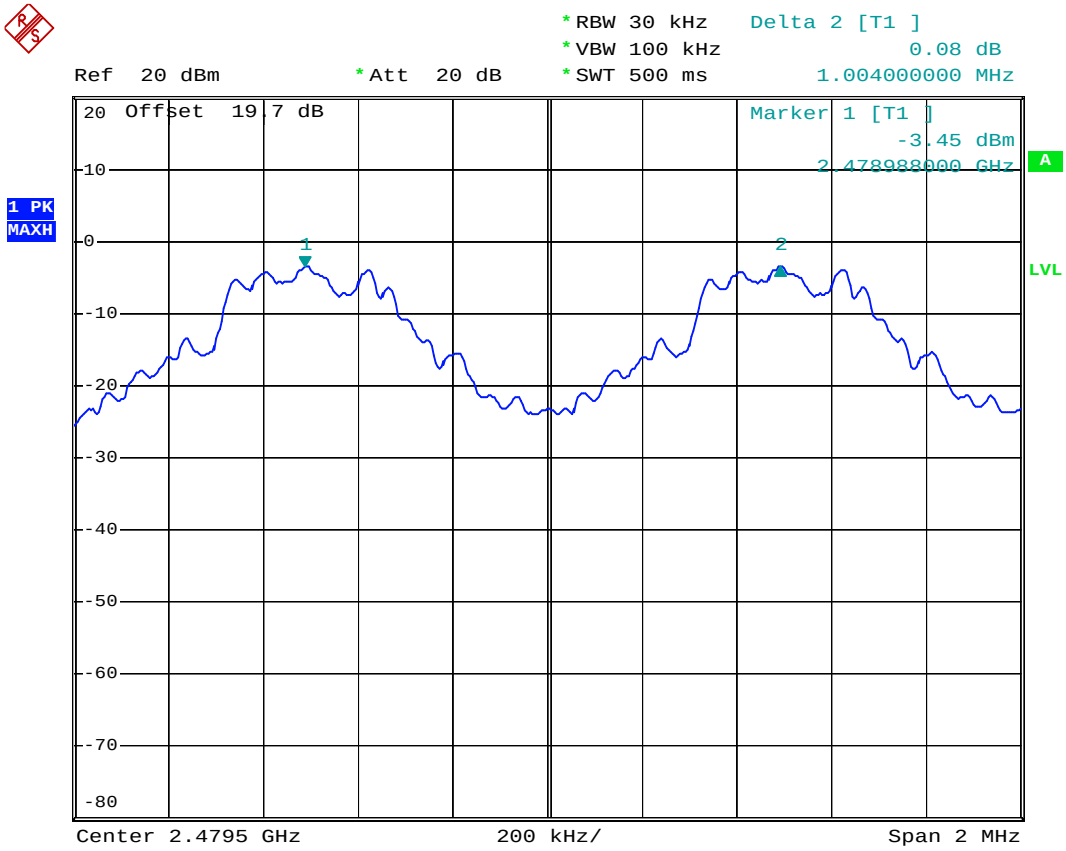
Date: 8.SEP.2007 04:20:52

Mode 8



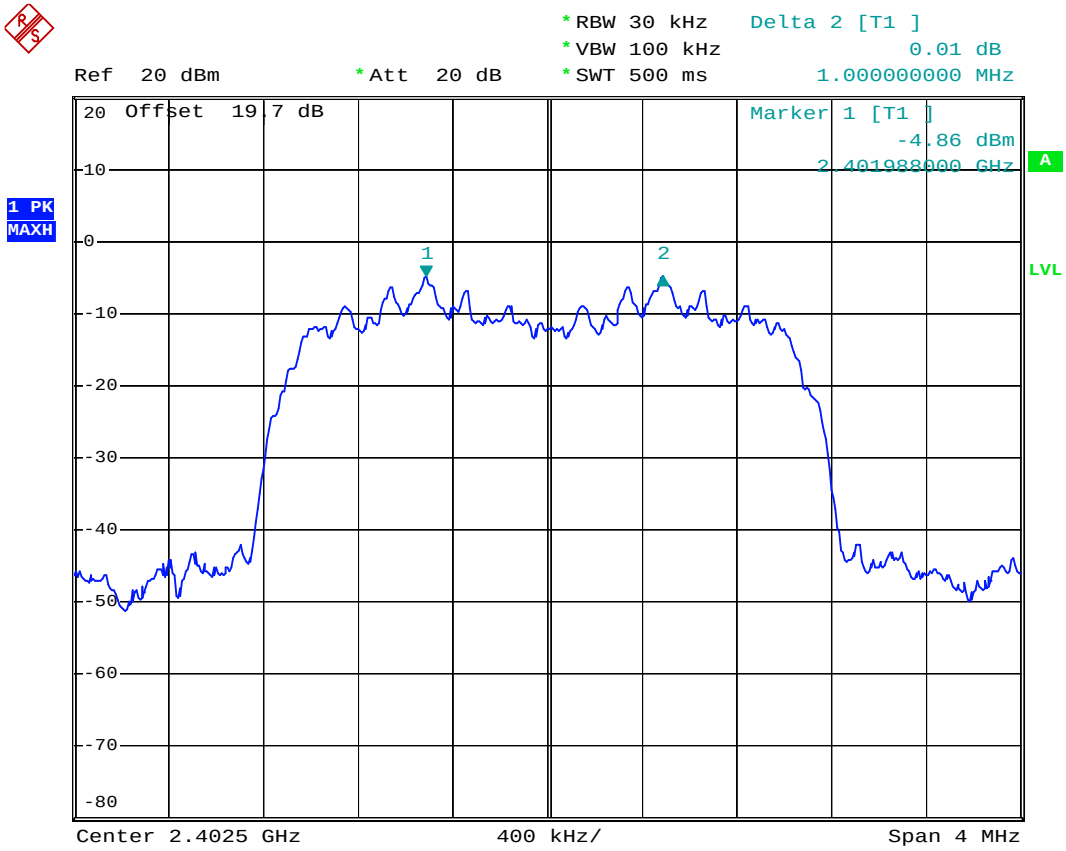
Date: 8.SEP.2007 04:21:31

Mode 9



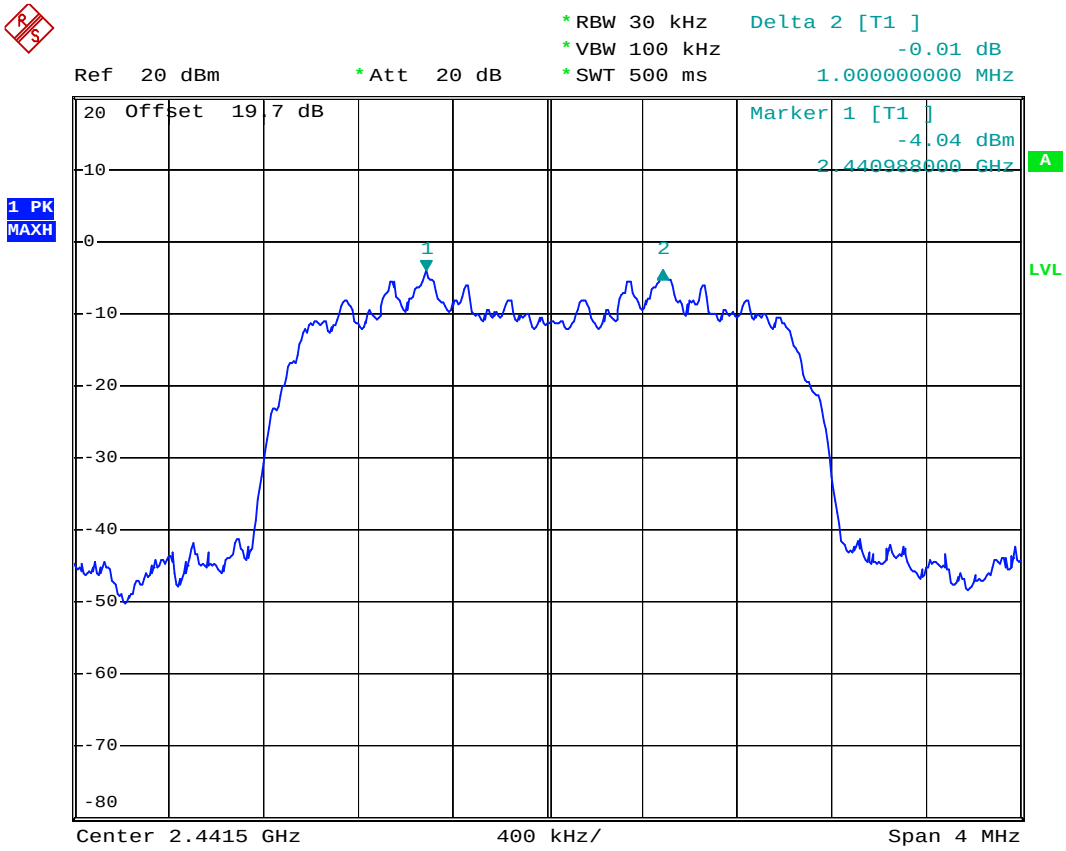
Date: 8.SEP.2007 04:22:02

Mode 10



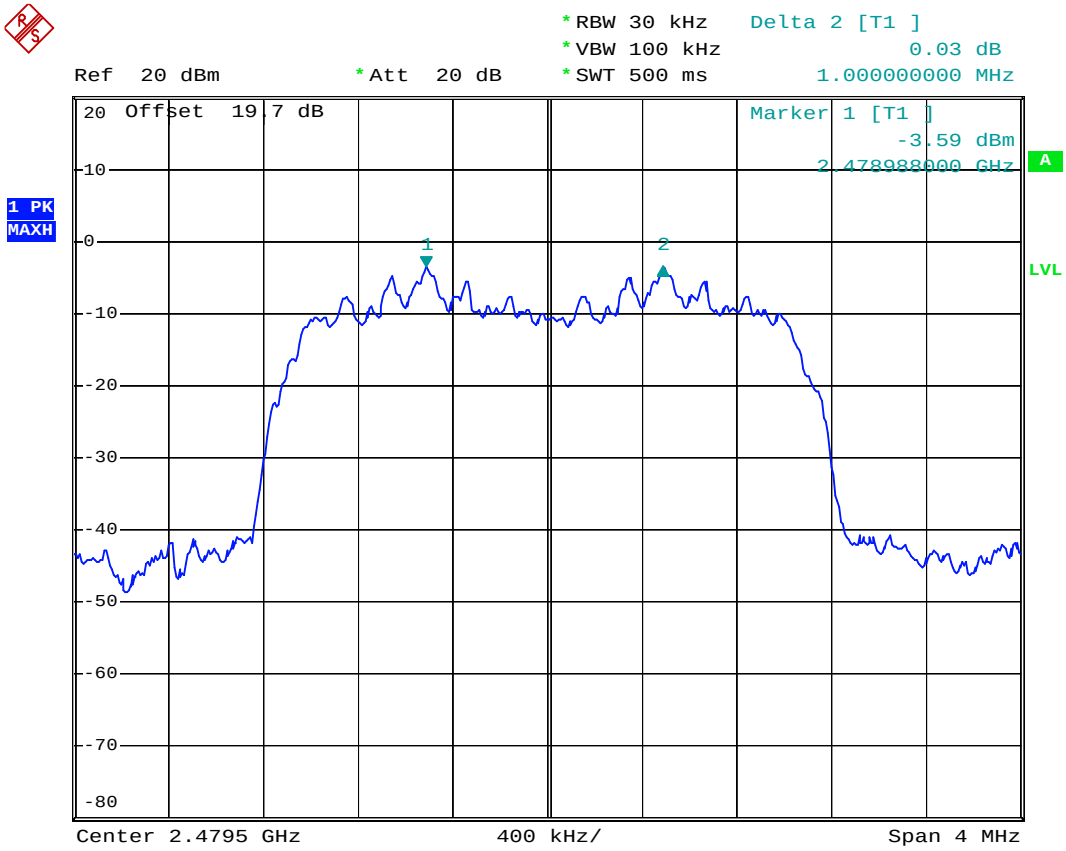
Date: 8.SEP.2007 05:21:09

Mode 11



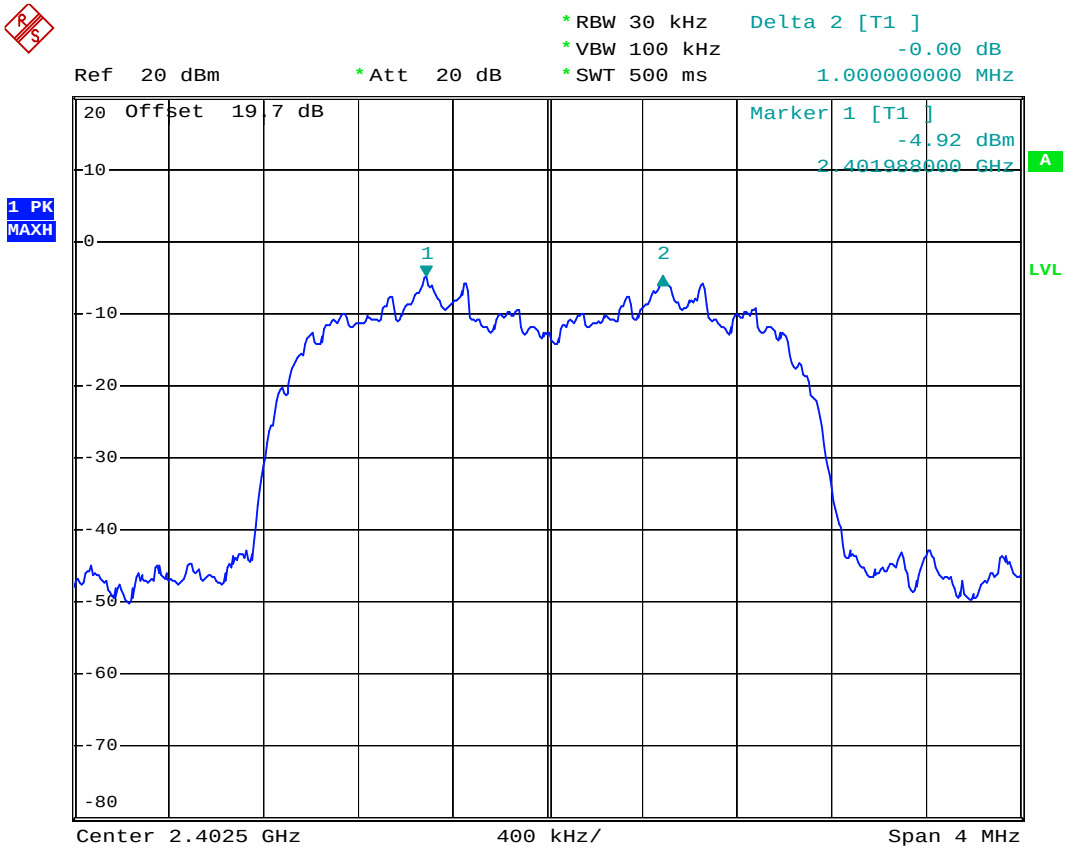
Date: 8.SEP.2007 05:23:47

Mode 12



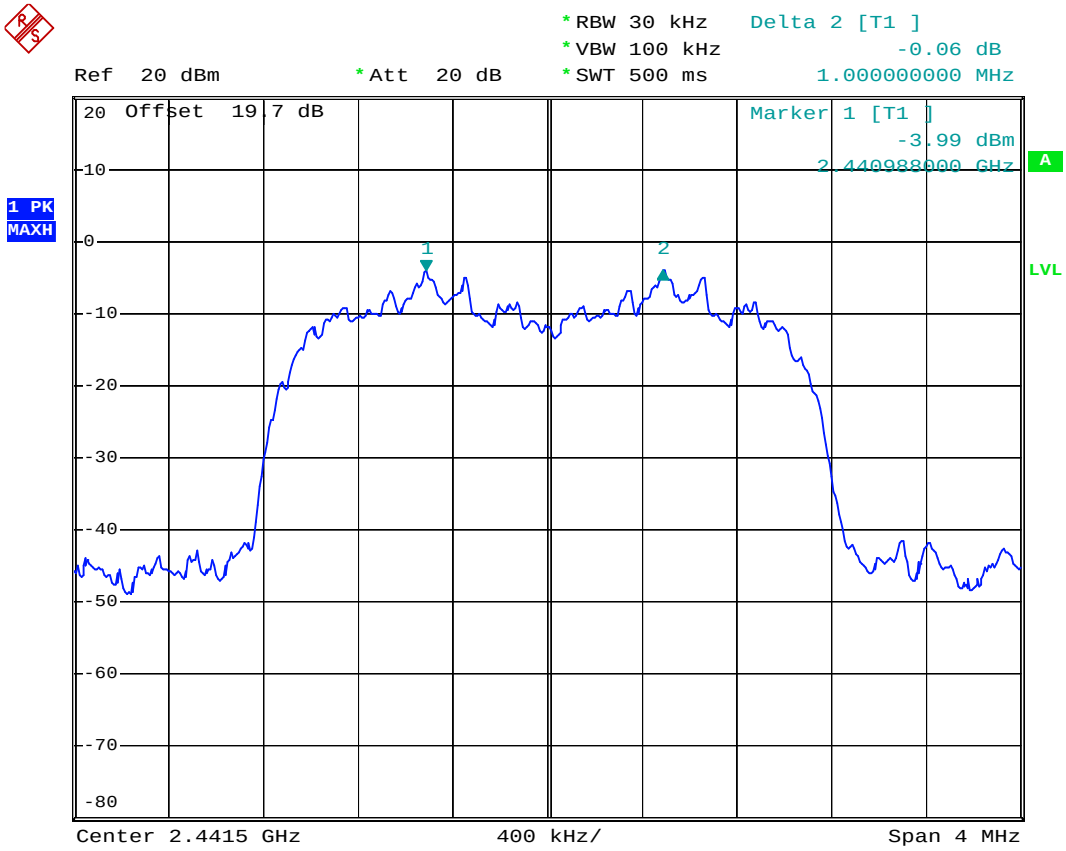
Date: 8.SEP.2007 05:26:13

Mode 13



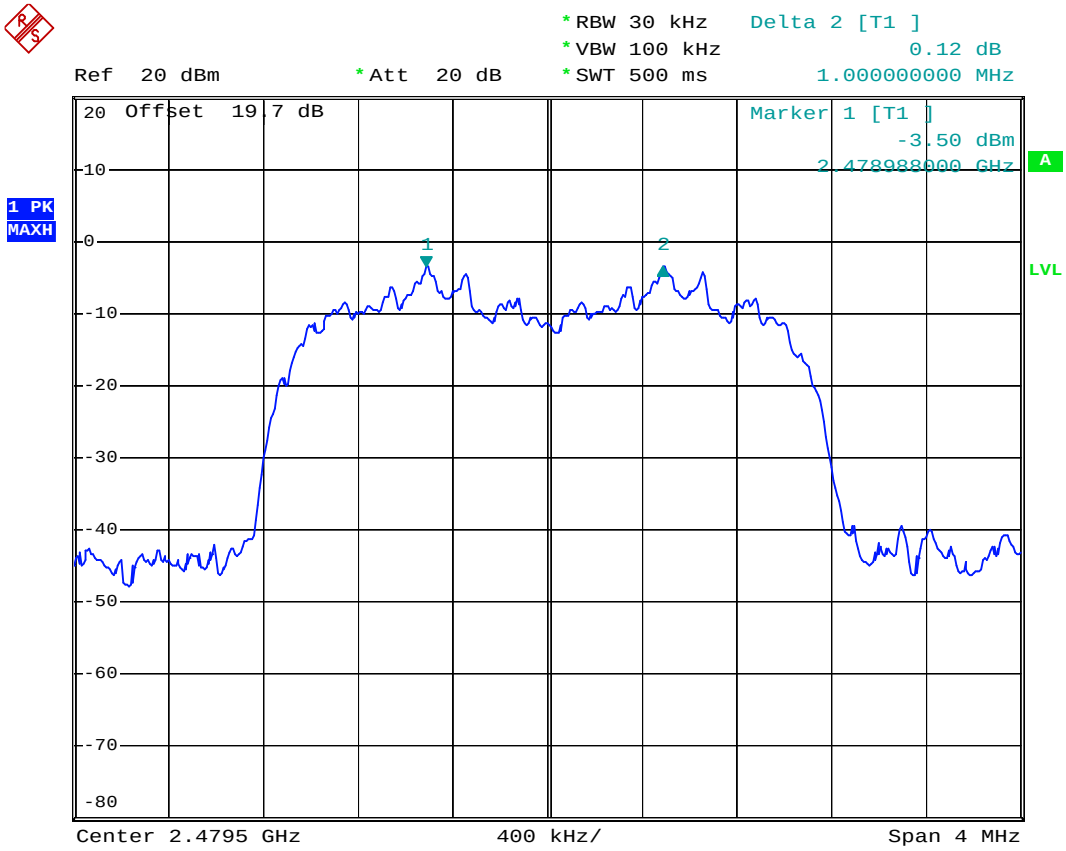
Date: 8.SEP.2007 05:22:25

Mode 14



Date: 8.SEP.2007 05:25:13

Mode 15



Date: 8.SEP.2007 05:28:31

5.6 Number of Hopping Frequency

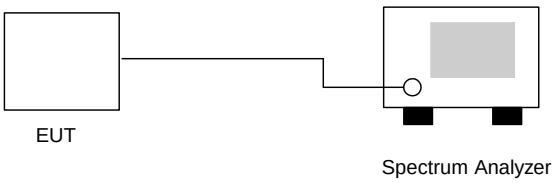
5.6.1 Measuring Instruments：

As described in chapter 6 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 : 26~27℃
Relative Humidity : 49~52%
Test Enginner : Sun

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

5.6.5 Test Result：See spectrum analyzer plots below

Application Type : BT-EDR(2Mbps)
Temperature : 26~27℃
Relative Humidity : 49~52%
Test Enginner : Sun

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

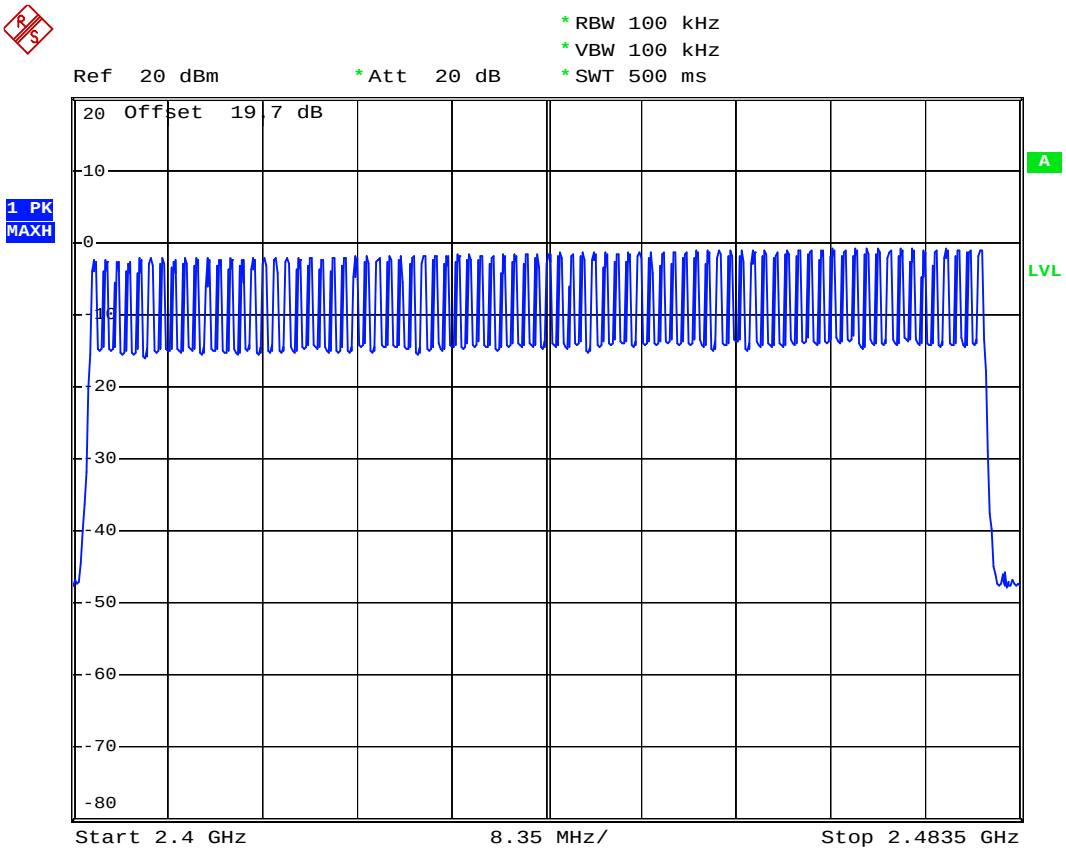
5.6.6 Test Result：See spectrum analyzer plots below

Application Type : BT-EDR(3Mbps)
Temperature : 26~27℃
Relative Humidity : 49~52%
Test Enginner : Sun

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

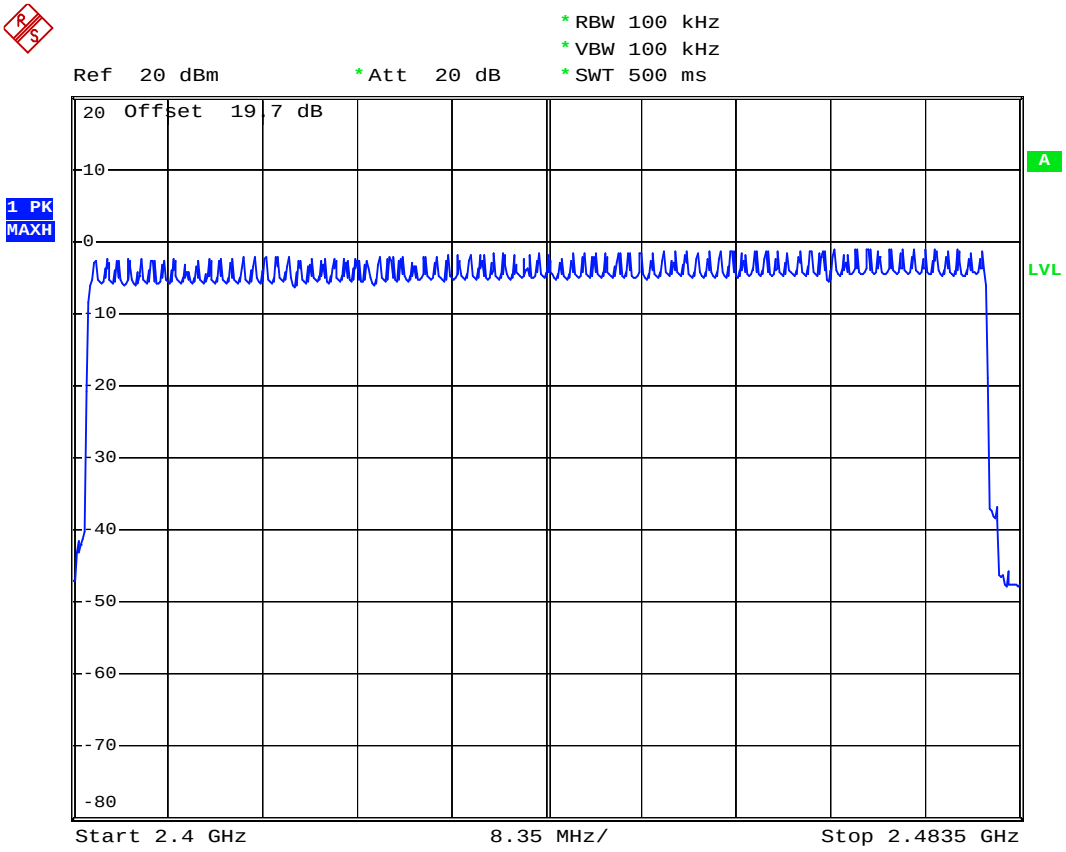
5.6.7 Number of Hopping Frequency

BT(1Mbps)



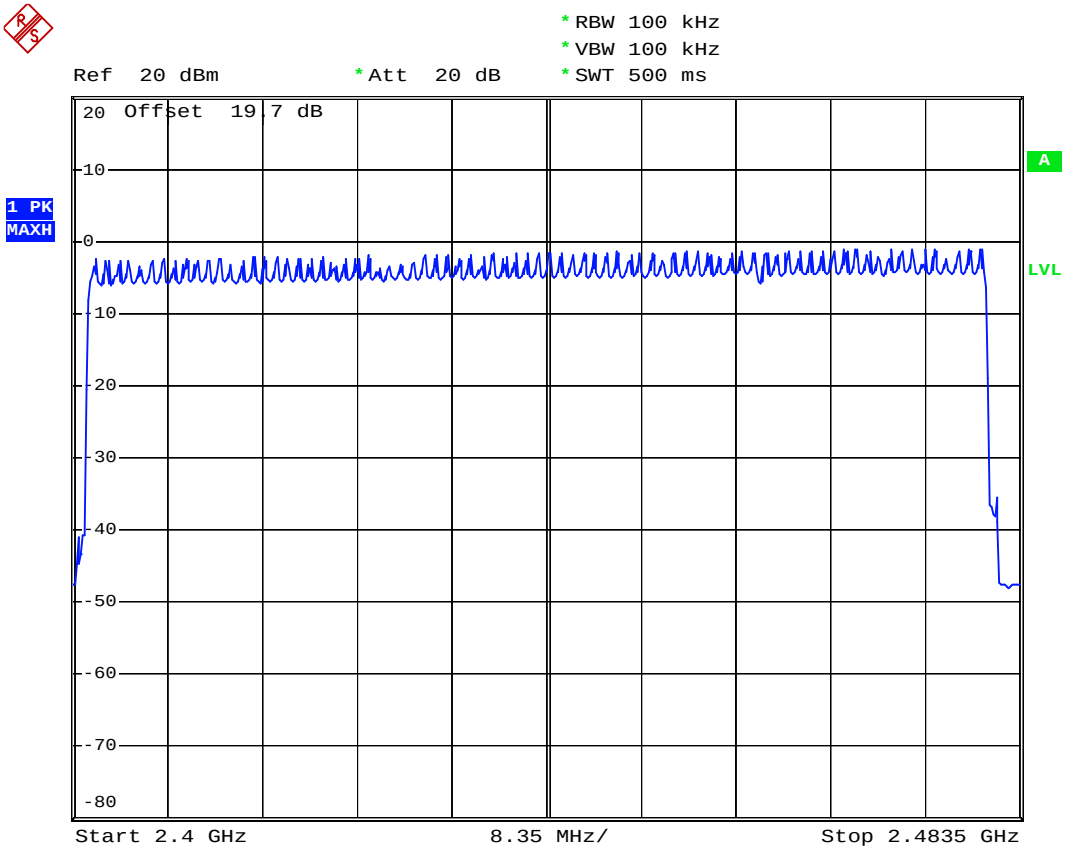
Date: 8.SEP.2007 04:44:41

BT-EDR(2Mbps)



Date: 8.SEP.2007 05:51:30

BT-EDR(3Mbps)



Date: 8.SEP.2007 05:59:20

5.7 Hopping Channel Bandwidth

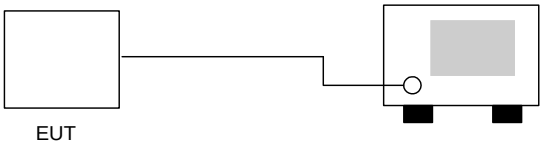
5.7.1 Measuring Instruments：

As described in chapter 6 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 : 26~27℃
Relative Humidity : 49~52%
Test Enginner : Sun

Channel	Frequency (MHz)	Hopping Channel Bandwidth (MHz)	Plot Ref. No.
00	2402	0.951	Mode 7
39	2441	0.978	Mode 8
78	2480	0.975	Mode 9

5.7.5 Test Result：See spectrum analyzer plots below

Application Type : BT-EDR(2Mbps)
Temperature : 26~27℃
Relative Humidity : 49~52%
Test Enginner : Sun

Channel	Frequency (MHz)	Hopping Channel Bandwidth (MHz)	Plot Ref. No.
00	2402	1.324	Mode 10
39	2441	1.320	Mode 11
78	2480	1.324	Mode 12

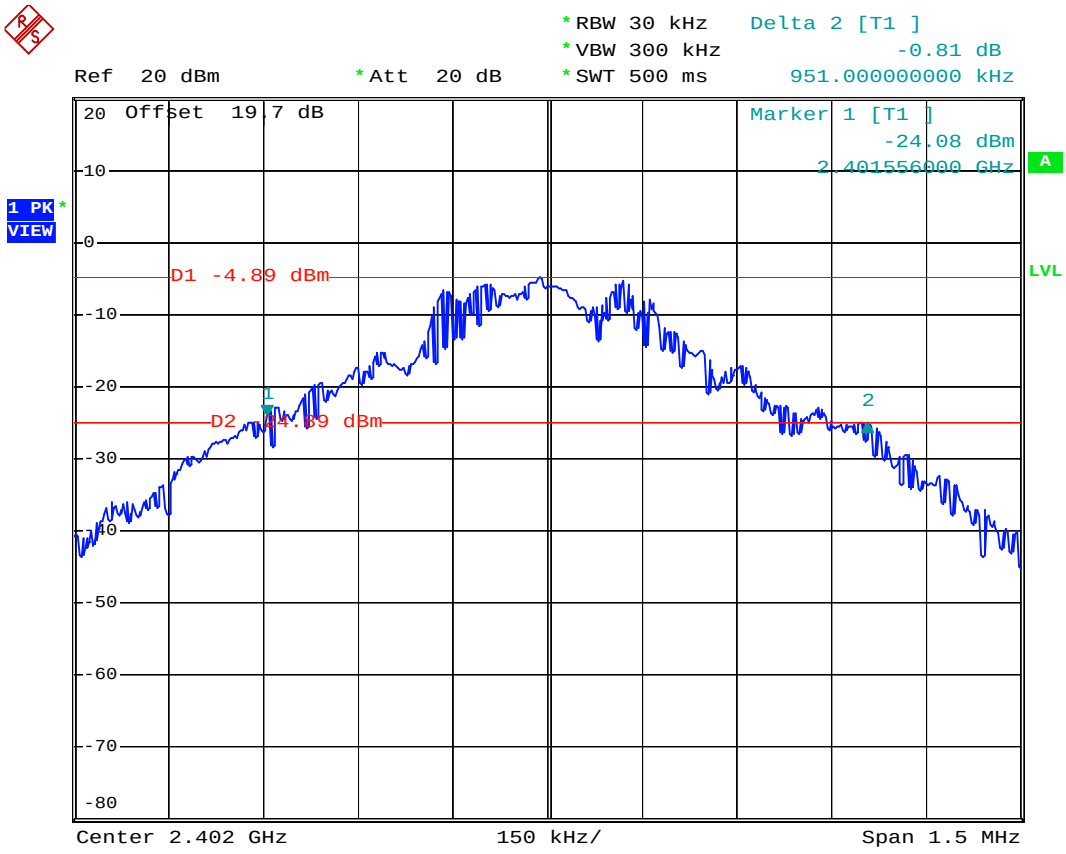
5.6.7 Test Result：See spectrum analyzer plots below

Application Type : BT-EDR(3Mbps)
Temperature : 26~27℃
Relative Humidity : 49~52%
Test Enginner : Sun

Channel	Frequency (MHz)	Hopping Channel Bandwidth (MHz)	Plot Ref. No.
00	2402	1.292	Mode 13
39	2441	1.288	Mode 14
78	2480	1.296	Mode 15

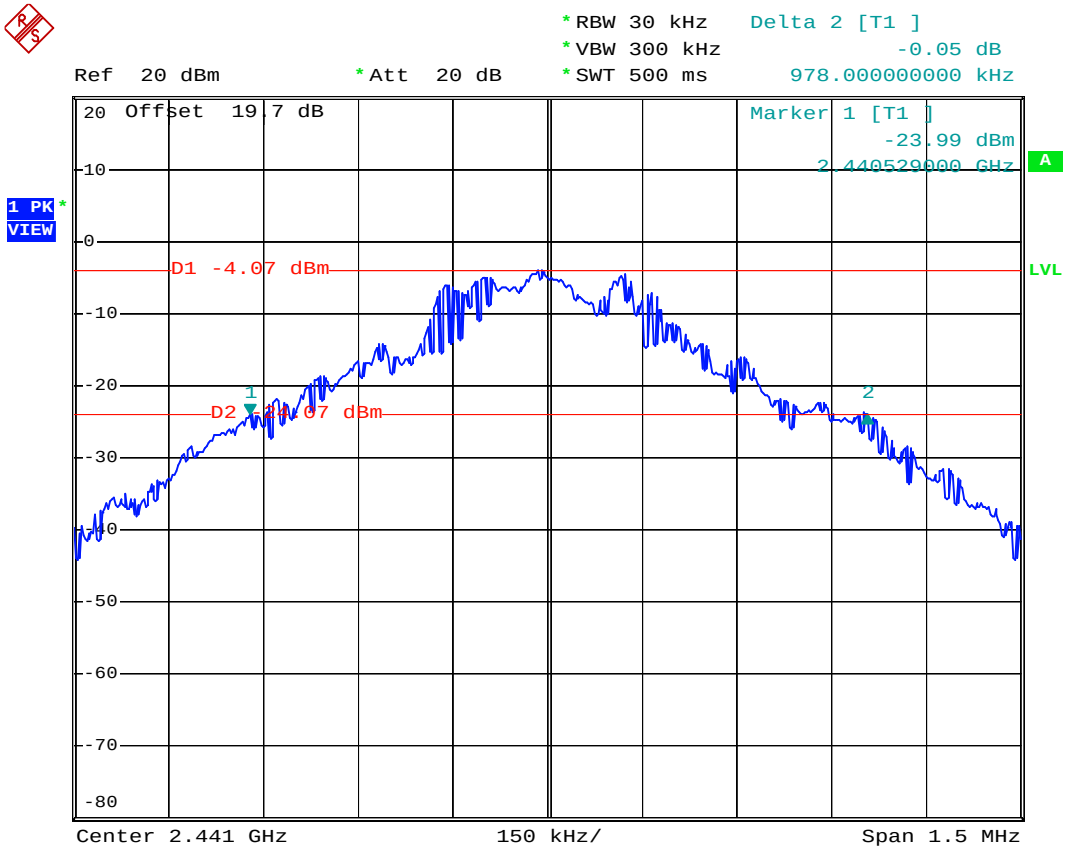
5.7.6 Hopping Channel Bandwidth

Mode 7



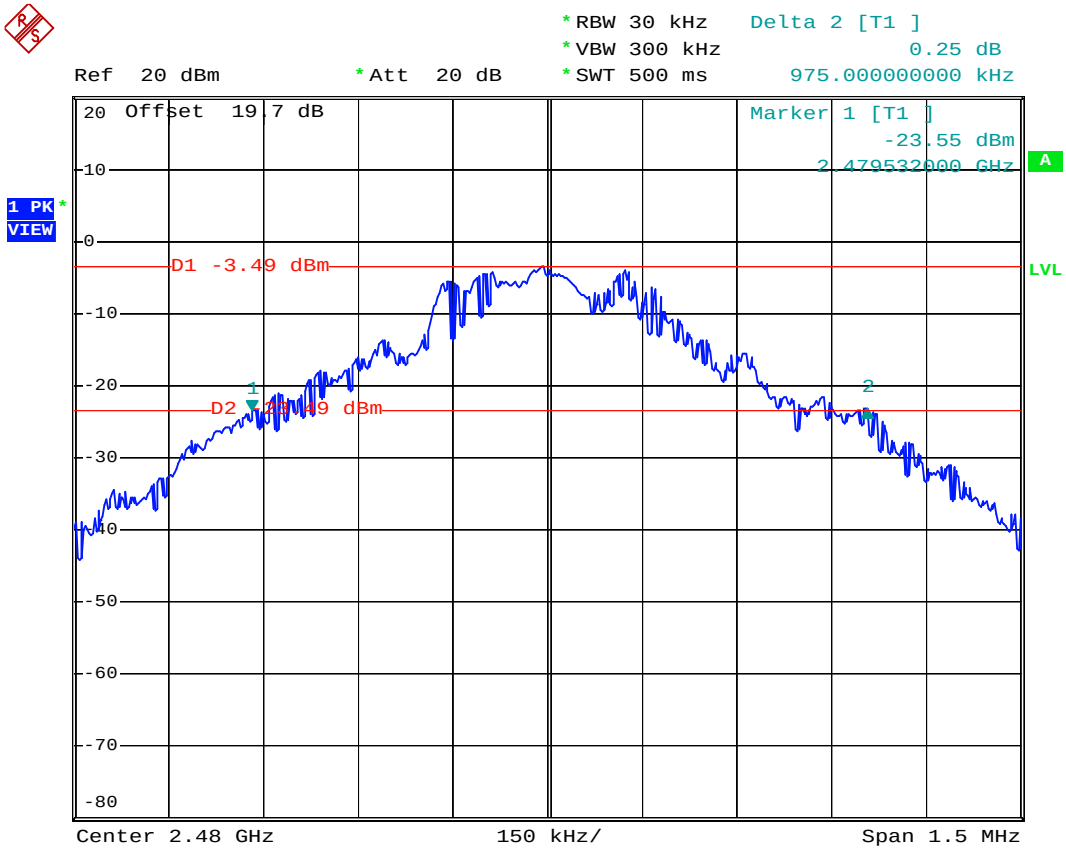
Date: 8.SEP.2007 03:48:00

Mode 8



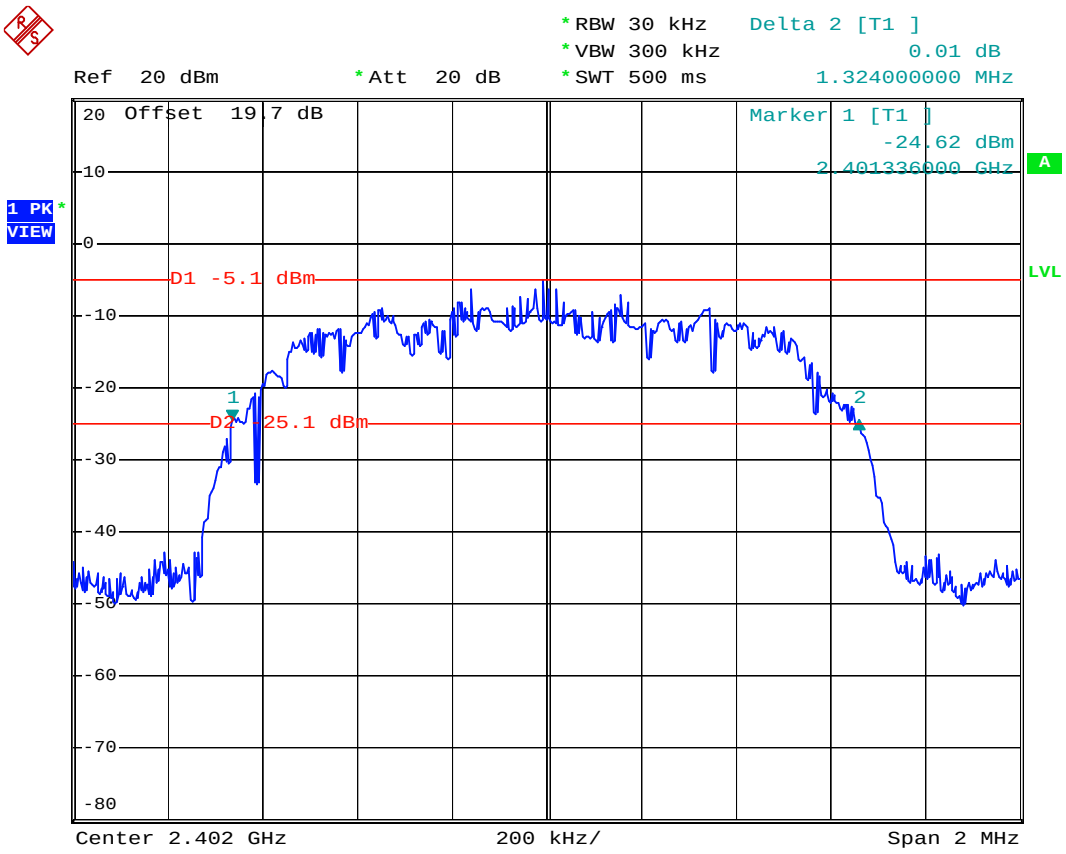
Date: 8.SEP.2007 03:49:17

Mode 9



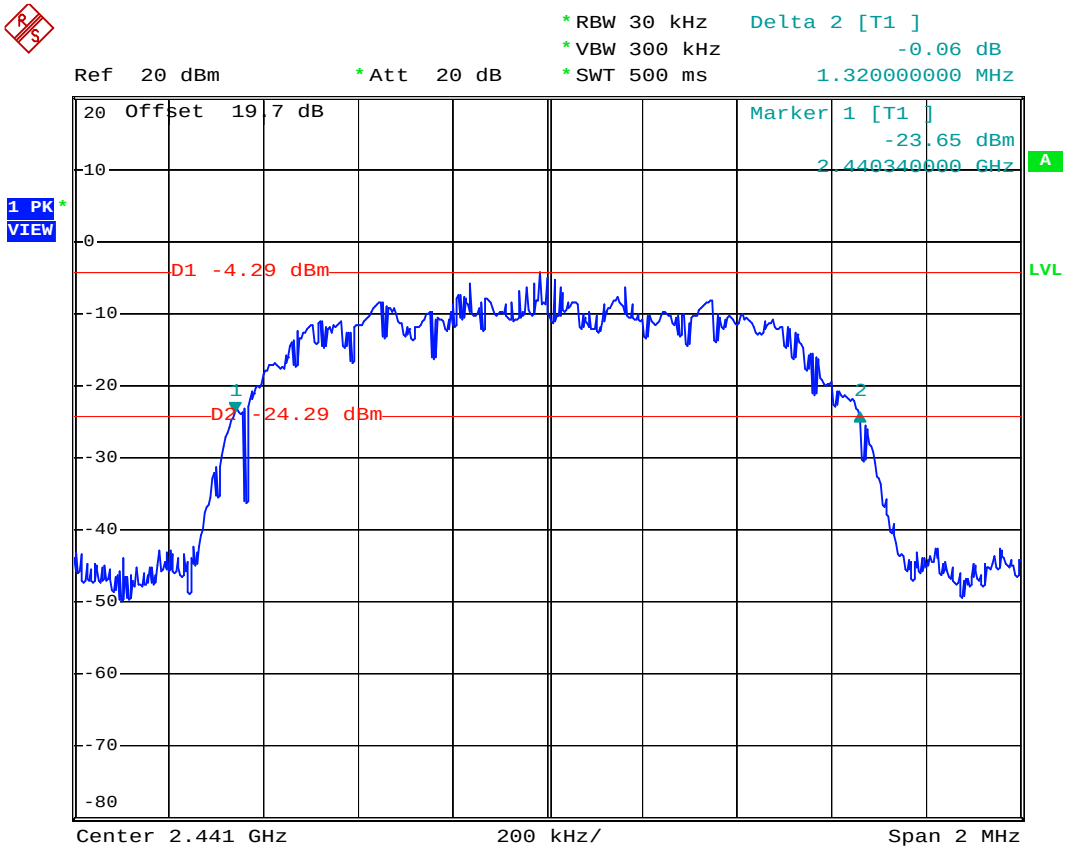
Date: 8.SEP.2007 04:06:39

Mode 10



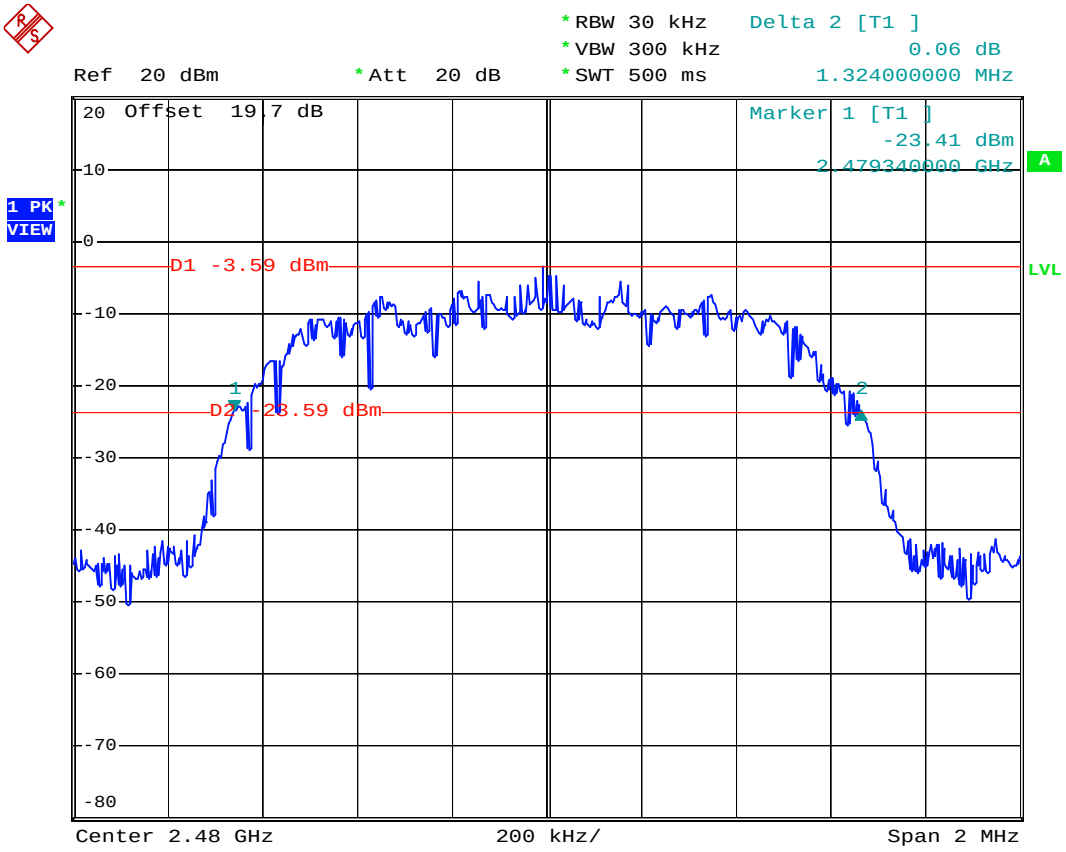
Date: 8.SEP.2007 05:01:39

Mode 11



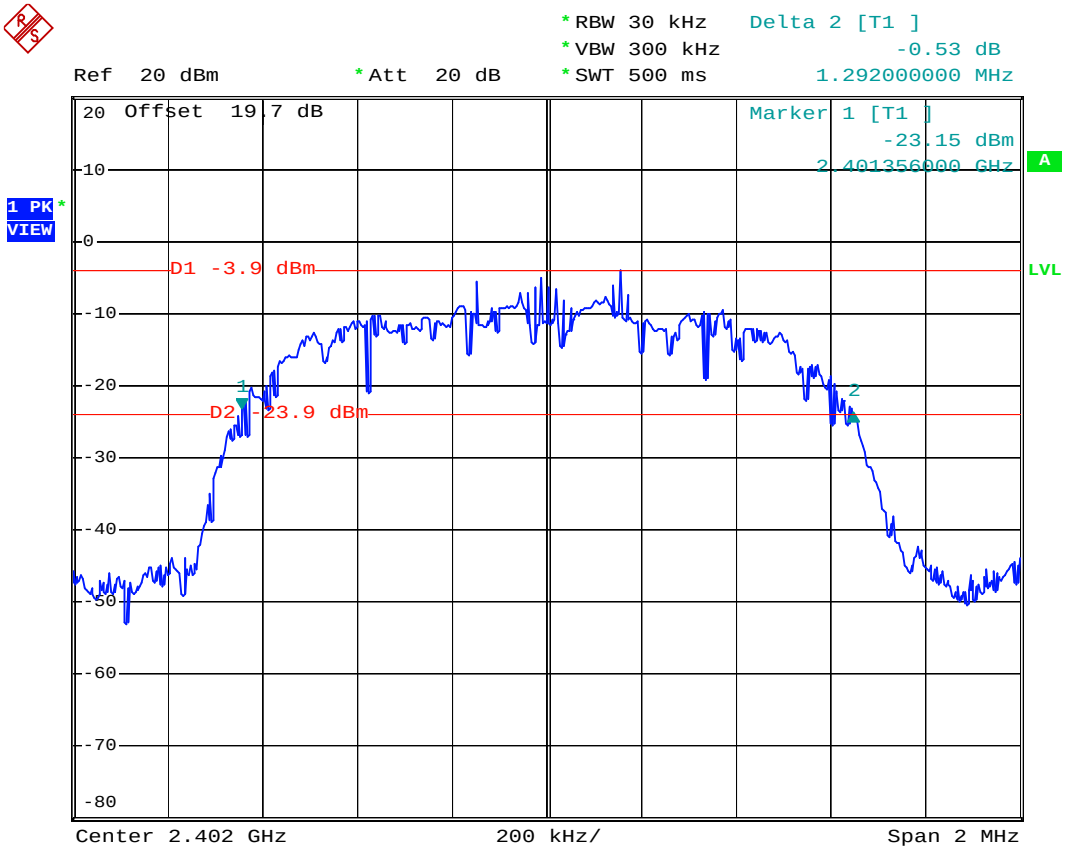
Date: 8.SEP.2007 05:03:56

Mode 12



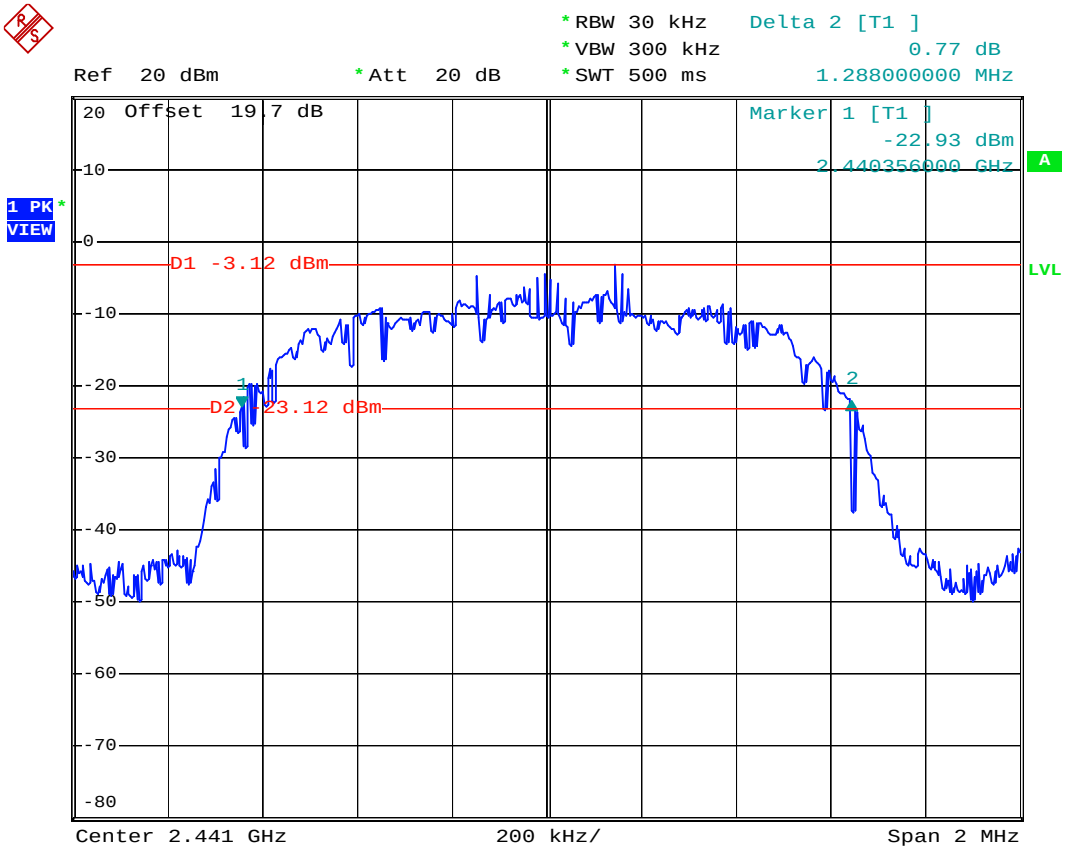
Date: 8.SEP.2007 05:07:41

Mode 13



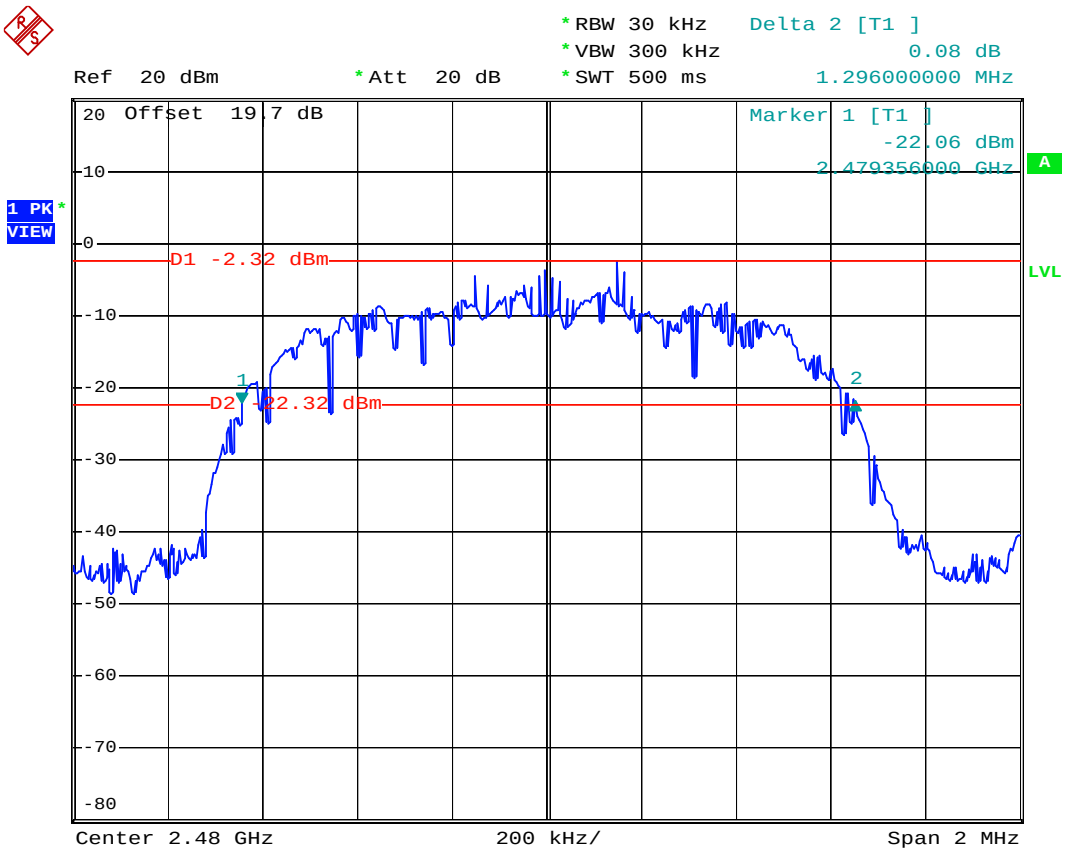
Date: 8.SEP.2007 05:02:41

Mode 14



Date: 8.SEP.2007 05:04:57

Mode 15



Date: 8.SEP.2007 05:08:48

5.8 Dwell Time of Each Frequency

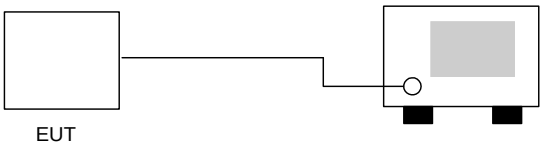
5.8.1 Measuring Instruments：

As described in chapter 6 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 : 26~27℃
Relative Humidity : 49~52%
Test Enginner : Sun

CH39

Package Mode	Average Hopping Channel	Package Transfer Time (us)	Dwell Time (s)	Limit (s)
DH1	9.1	416	0.120	0.4
DH3	4.8	1670	0.253	0.4
DH5	3.3	3060	0.319	0.4

5.8.5 Test Result：See spectrum analyzer plots below

Application Type : BT-EDR(2Mbps)
Temperature : 26~27℃
Relative Humidity : 49~52%
Test Enginner : Sun

CH39

Package Mode	Average Hopping Channel	Package Transfer Time (us)	Dwell Time (s)	Limit (s)
DH1	9.2	420	0.122	0.4
DH3	5	1680	0.265	0.4
DH5	3.6	2960	0.337	0.4

5.8.6 Test Result：See spectrum analyzer plots below

Application Type : BT-EDR(3Mbps)
Temperature : 26~27℃
Relative Humidity : 49~52%
Test Enginner : Sun

CH39

Package Mode	Average Hopping Channel	Package Transfer Time (us)	Dwell Time (s)	Limit (s)
DH1	9.3	412	0.121	0.4
DH3	4.9	1680	0.260	0.4
DH5	3.3	2940	0.306	0.4

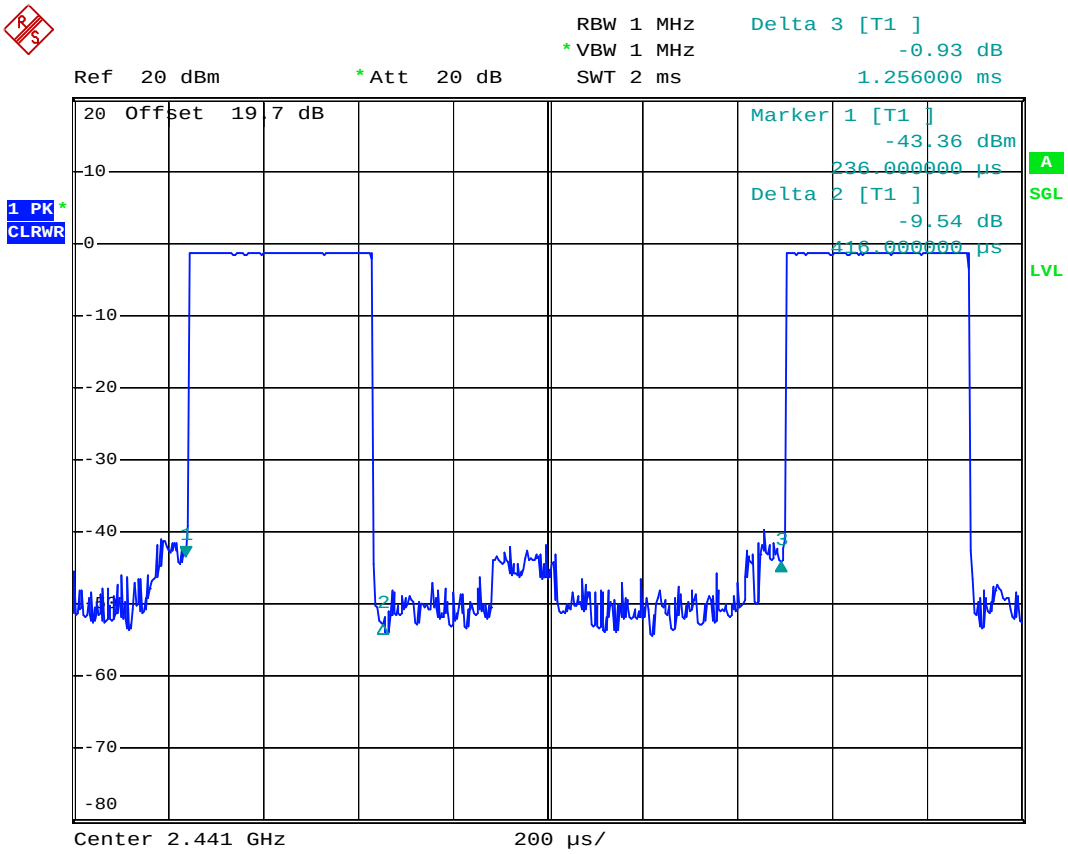
※ Remark:

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

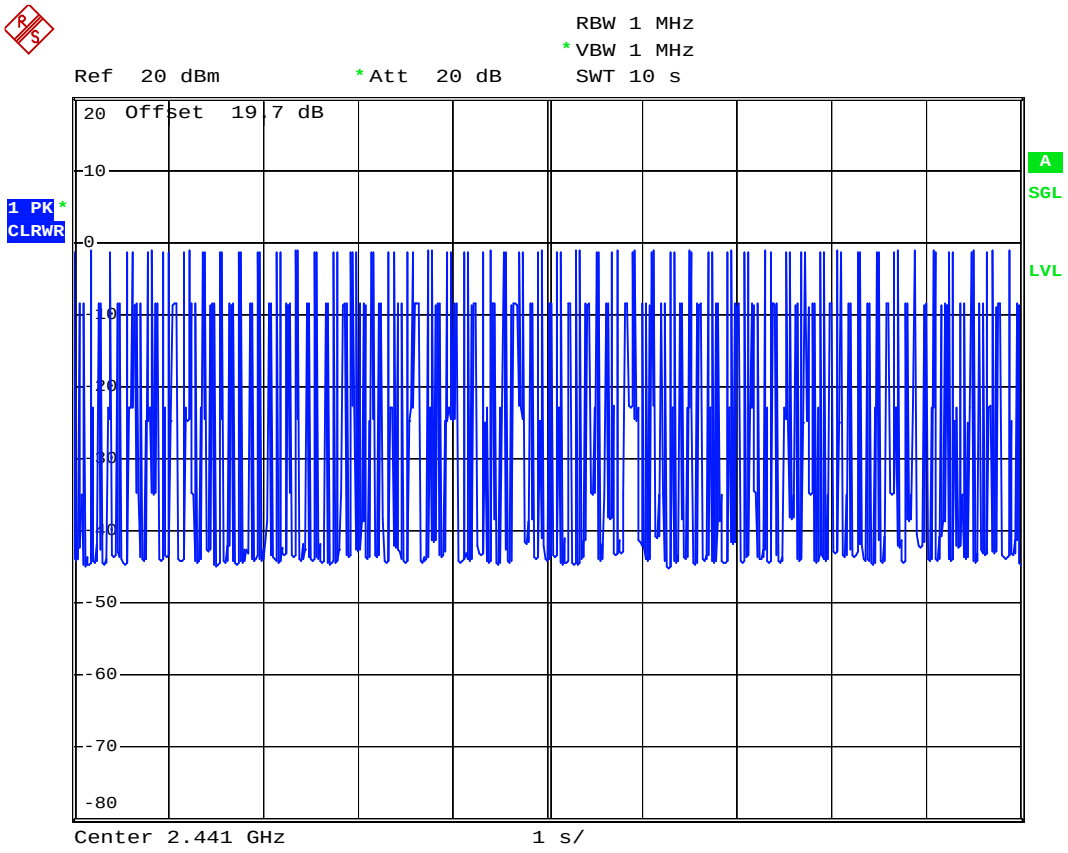
5.8.7 Dwell Time

BT(1Mbps)_DH1

(CH39)

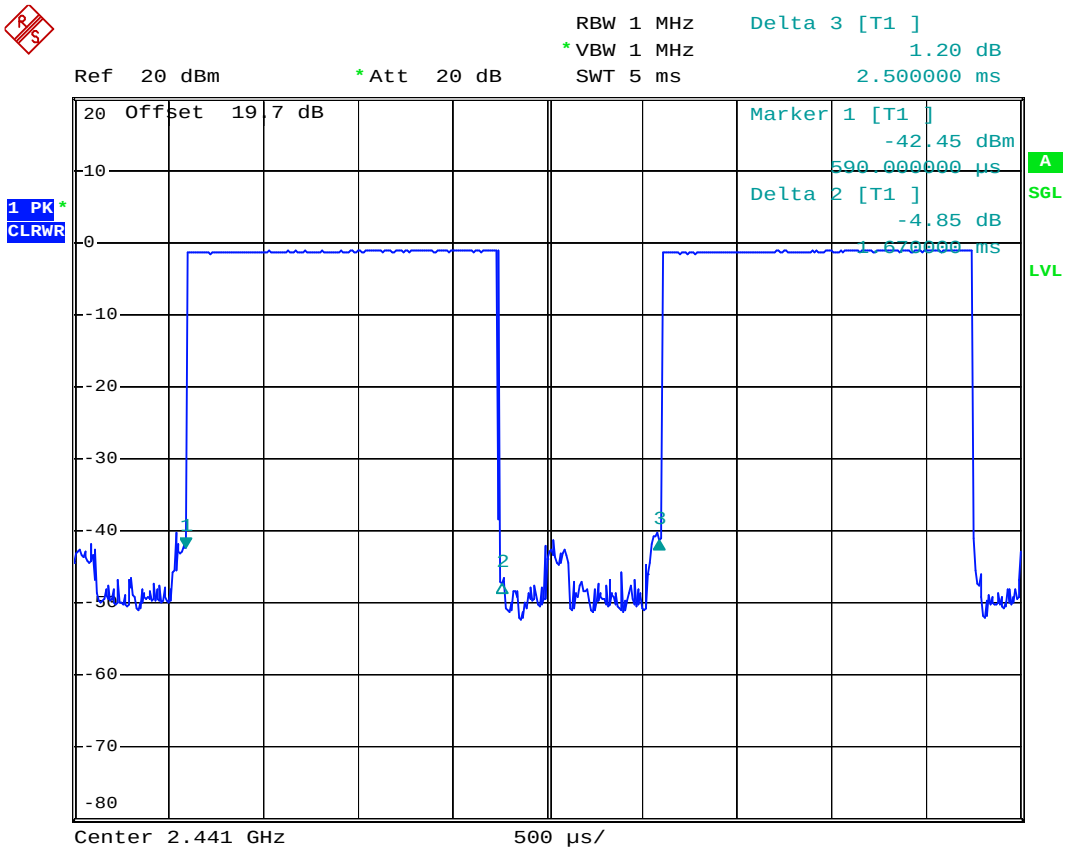


Date: 8.SEP.2007 04:23:51

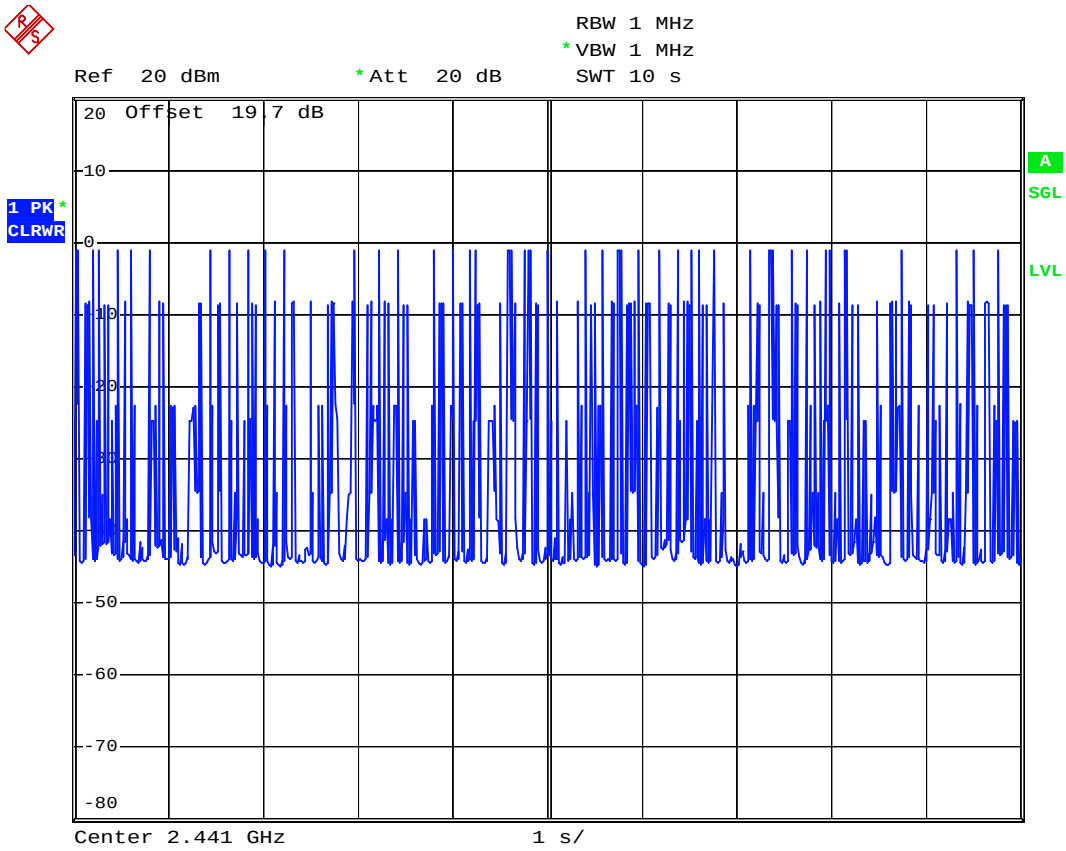


Date: 8.SEP.2007 04:28:53

BT(1Mbps)_DH3 (CH39)

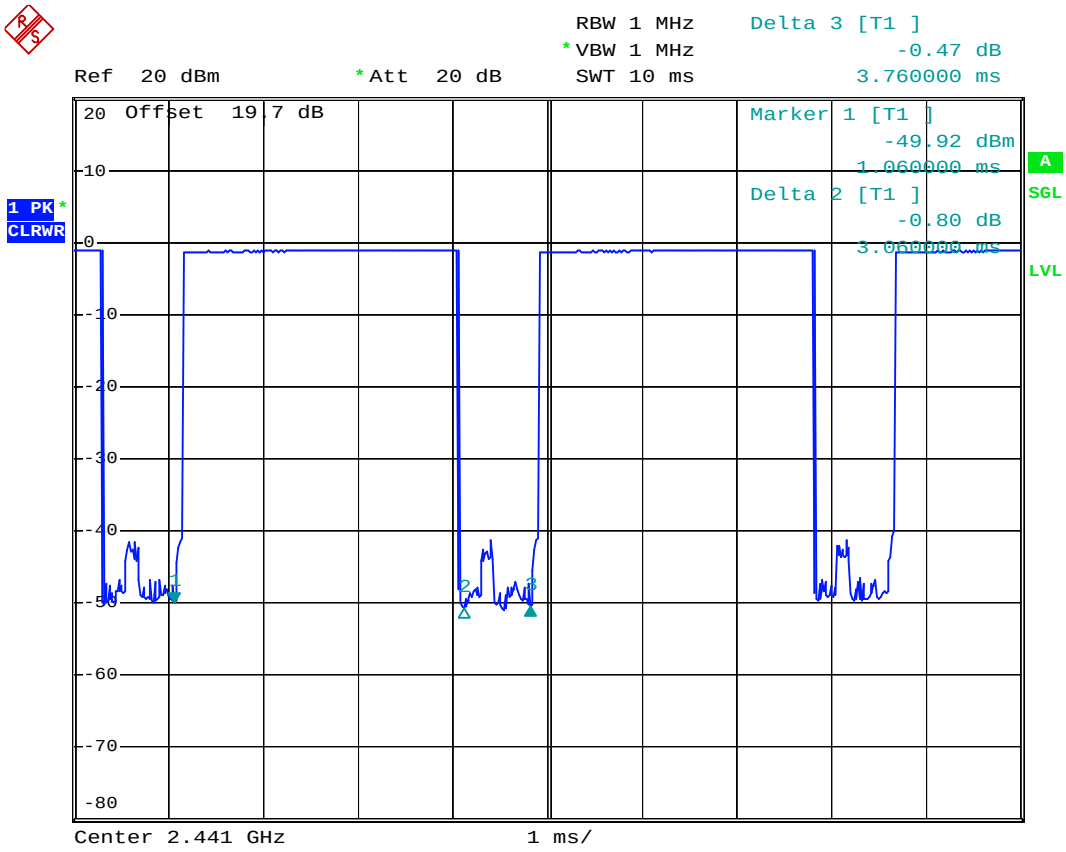


Date: 8.SEP.2007 04:25:11

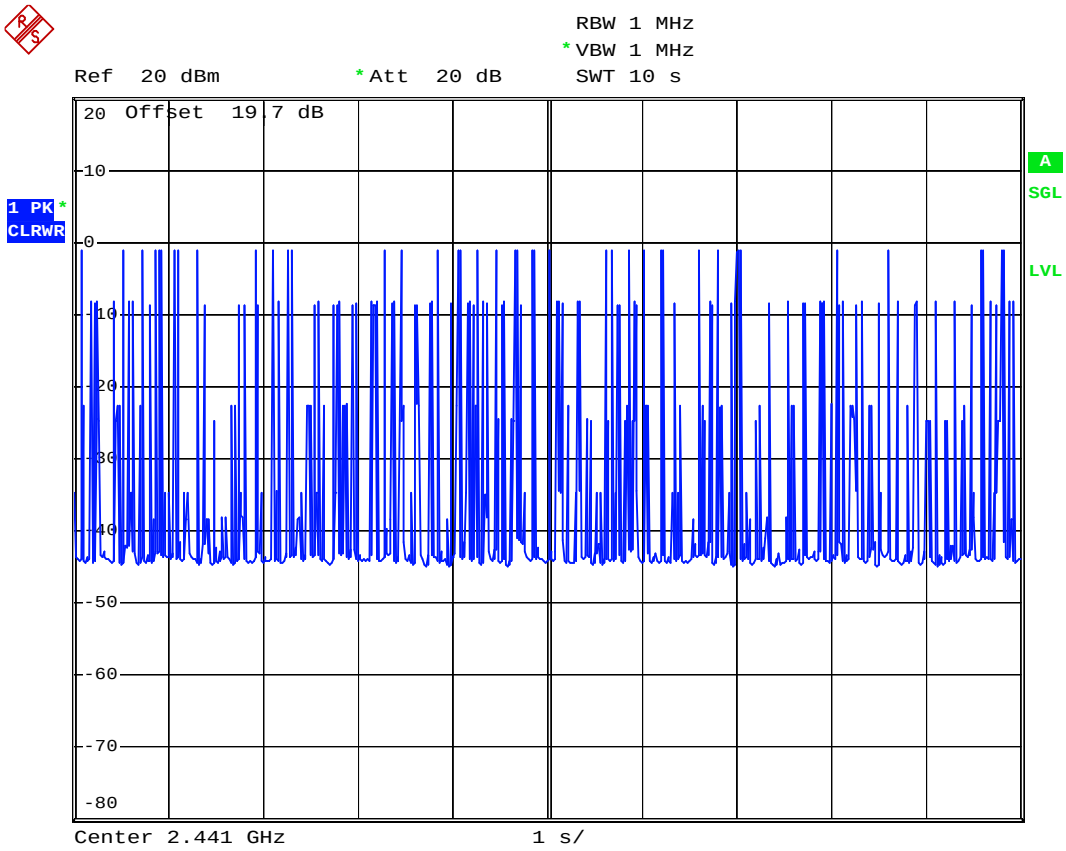


Date: 8.SEP.2007 04:28:29

BT(1Mbps)_DH5 (CH39)

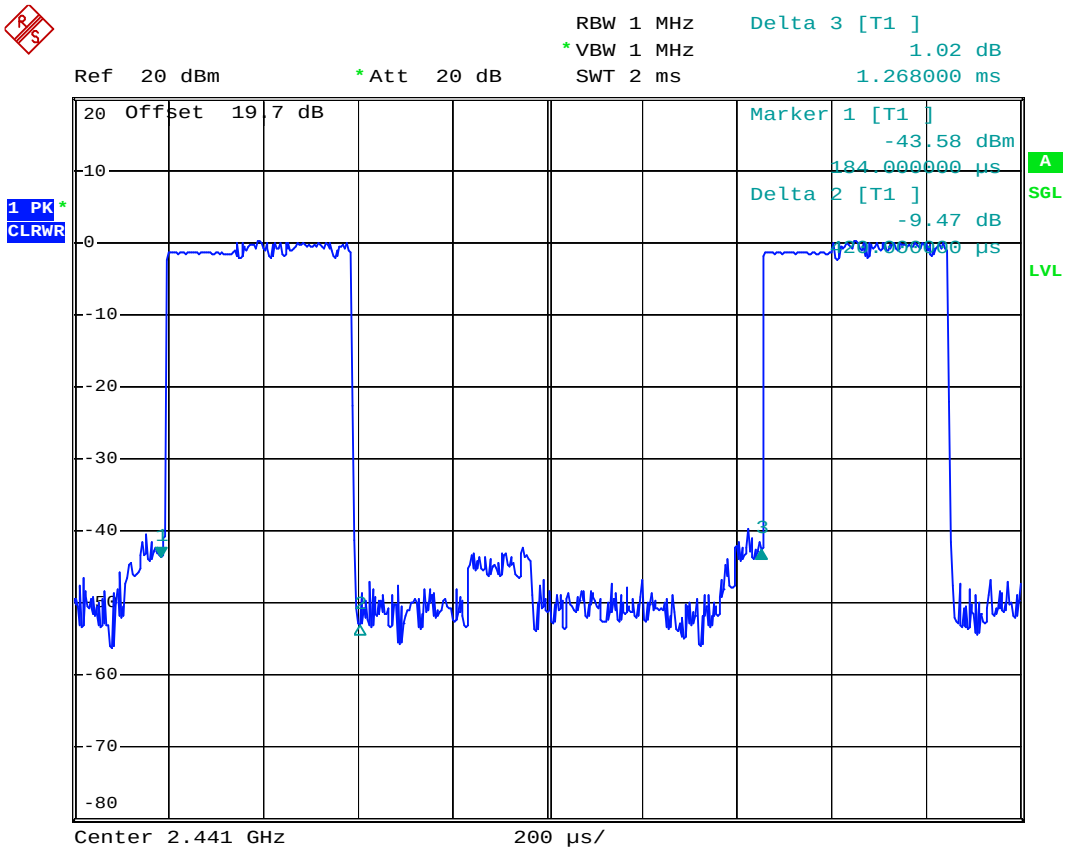


Date: 8.SEP.2007 04:27:06

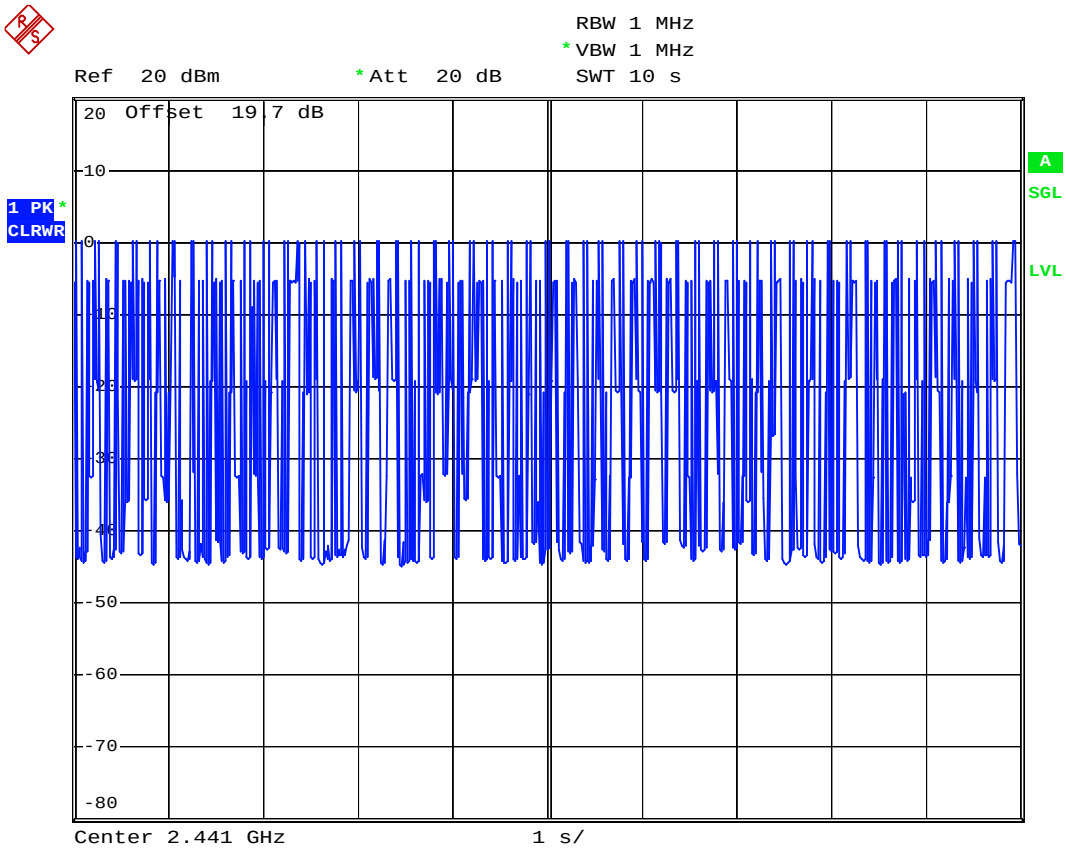


Date: 8.SEP.2007 04:29:23

BT-EDR(2Mbps)_DH1(CH39)

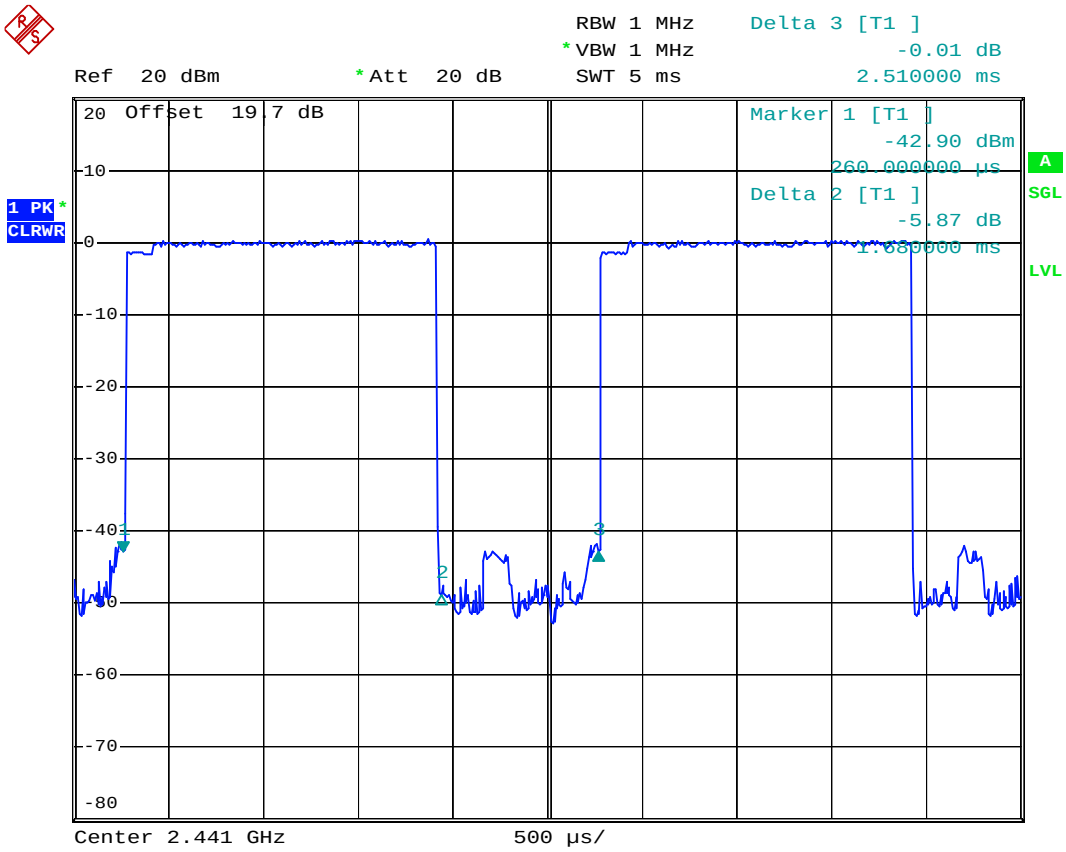


Date: 8.SEP.2007 05:34:46

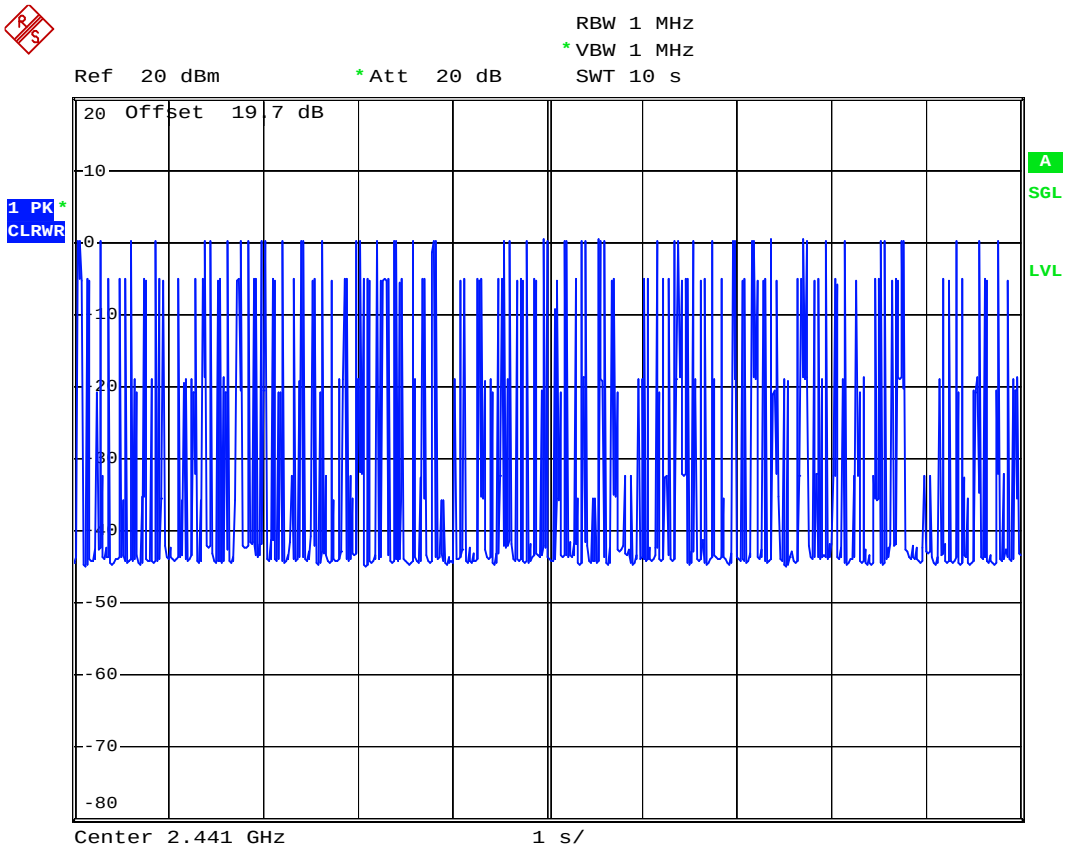


Date: 8.SEP.2007 05:41:04

BT-EDR(2Mbps)_DH3 (CH39)

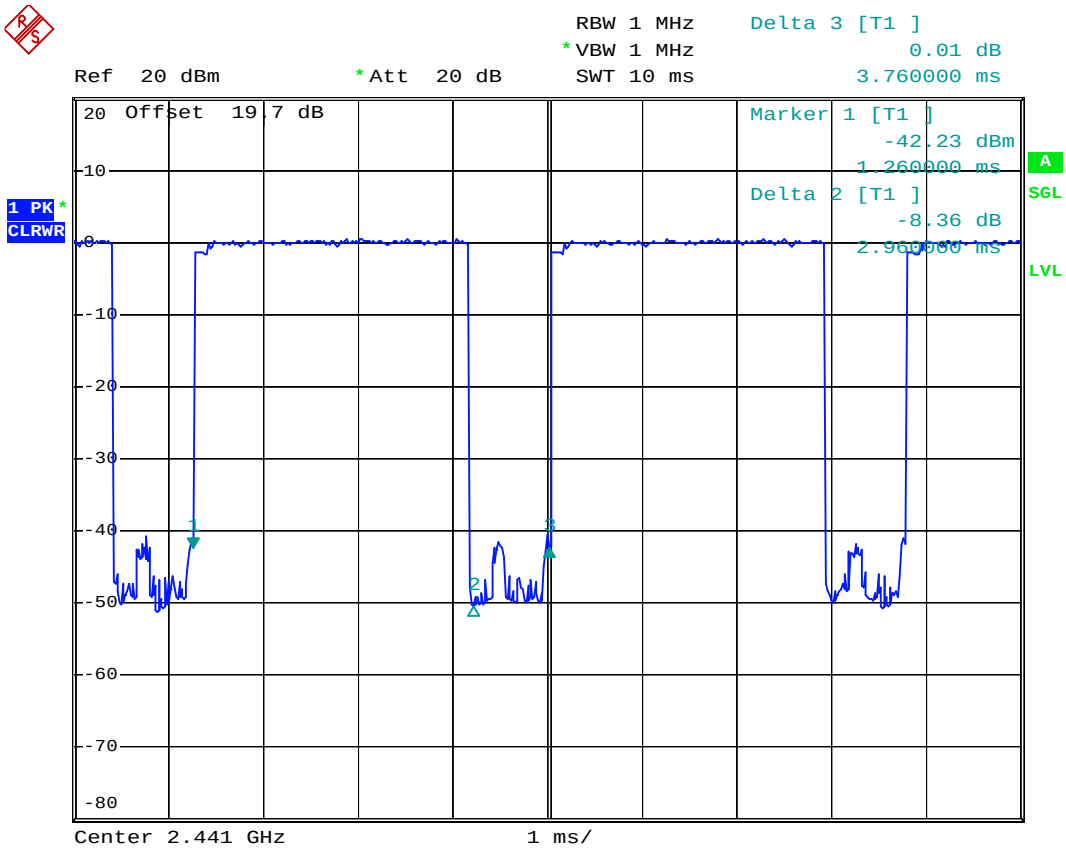


Date: 8.SEP.2007 05:36:21

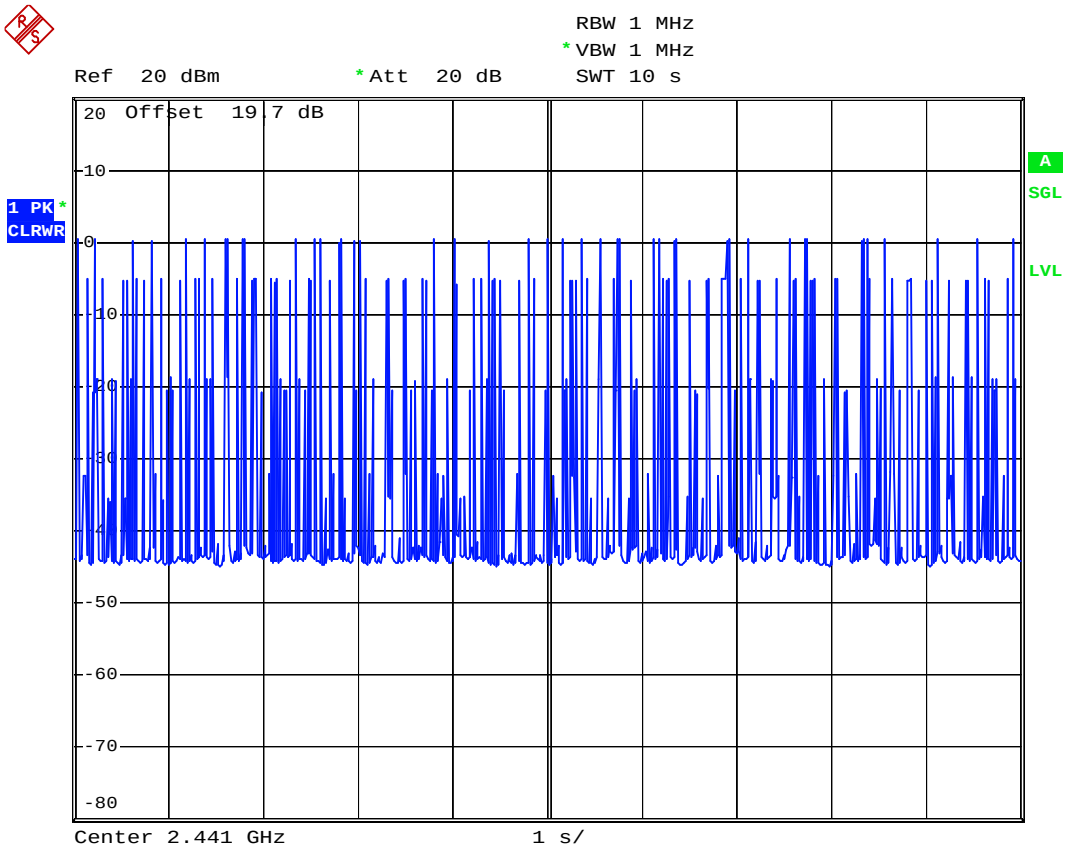


Date: 8.SEP.2007 05:41:37

BT-EDR(2Mbps)_DH5 (CH39)

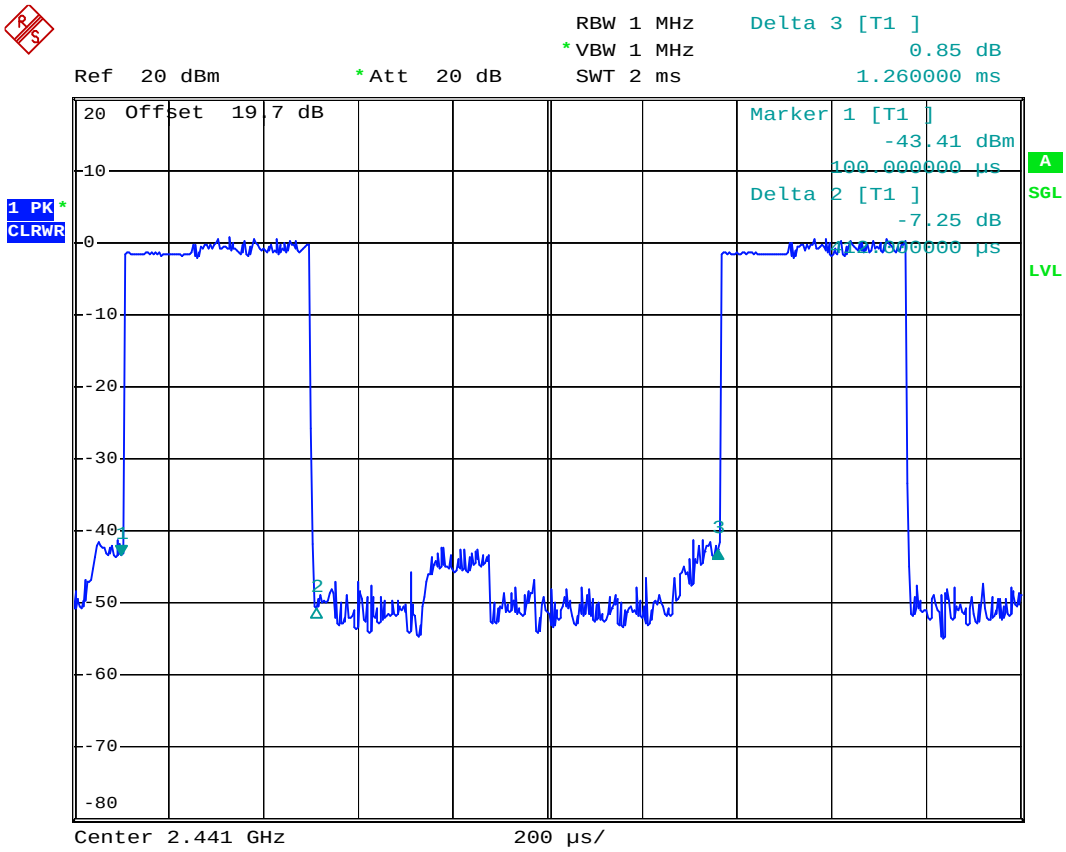


Date: 8.SEP.2007 05:38:21

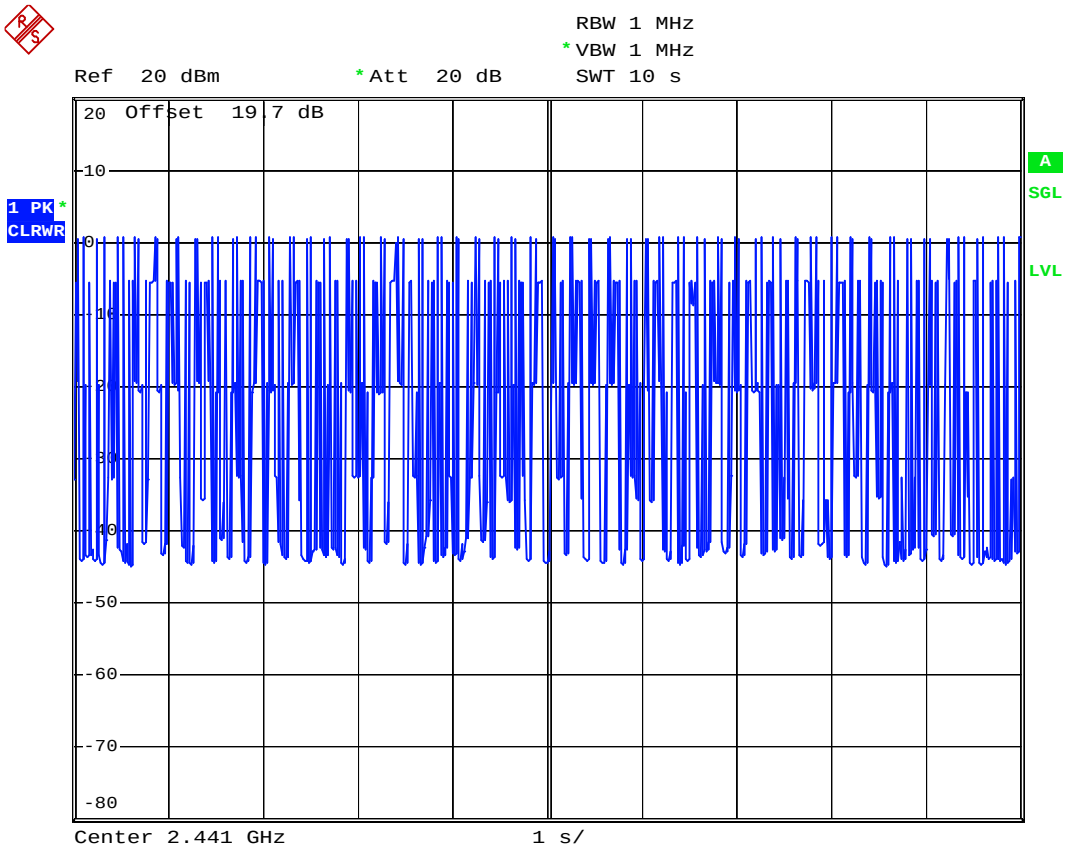


Date: 8.SEP.2007 05:42:01

BT-EDR(3Mbps)_DH1 (CH39)

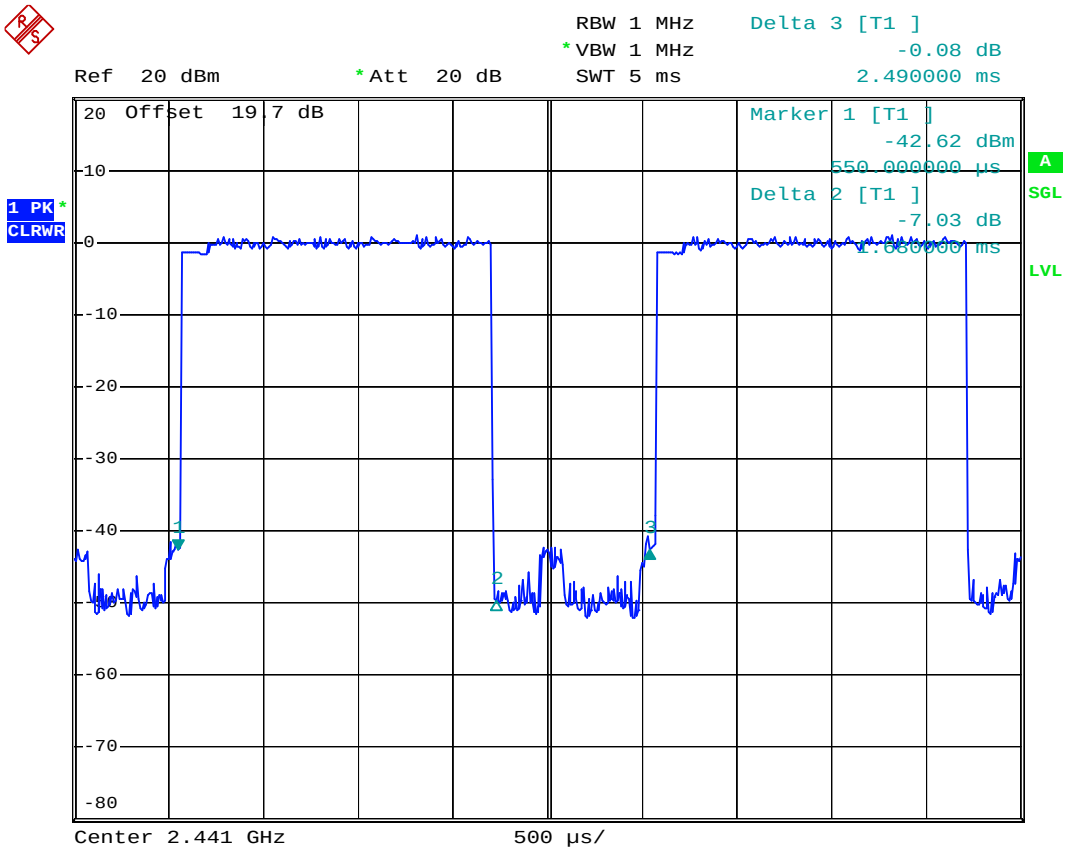


Date: 8.SEP.2007 05:35:29

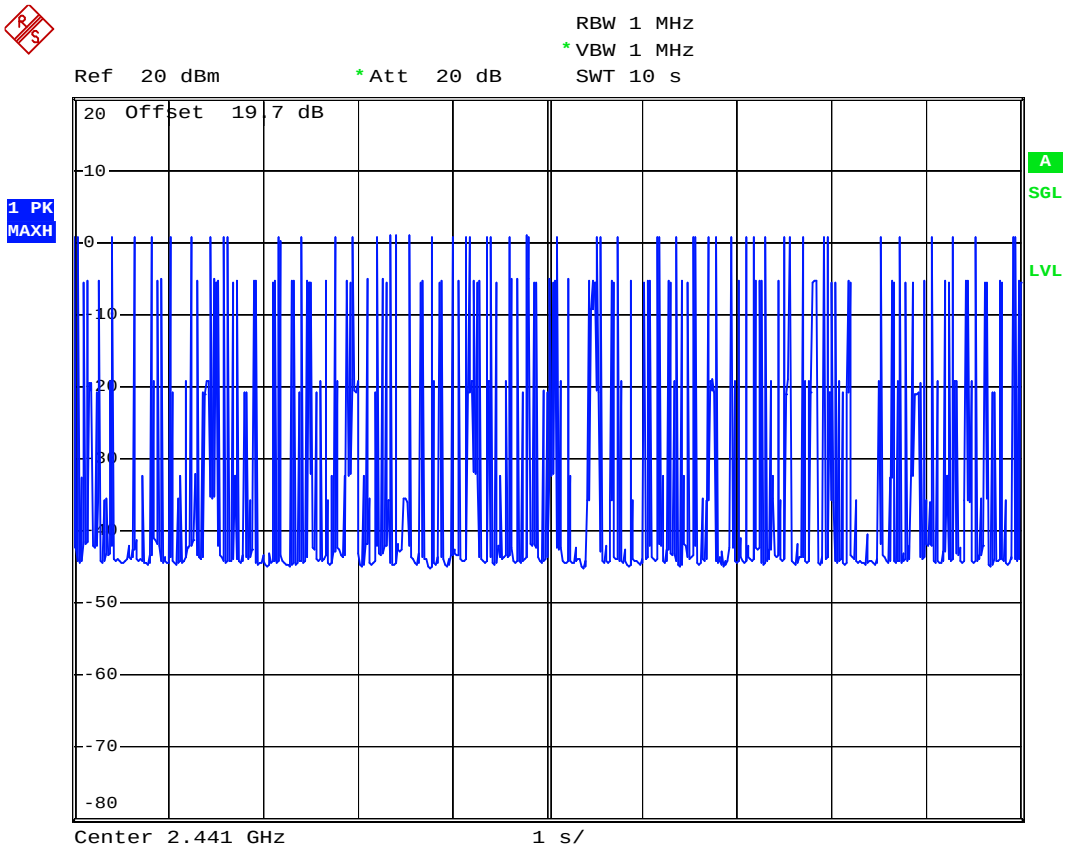


Date: 8.SEP.2007 05:42:31

BT-EDR(3Mbps)_DH3 (CH39)

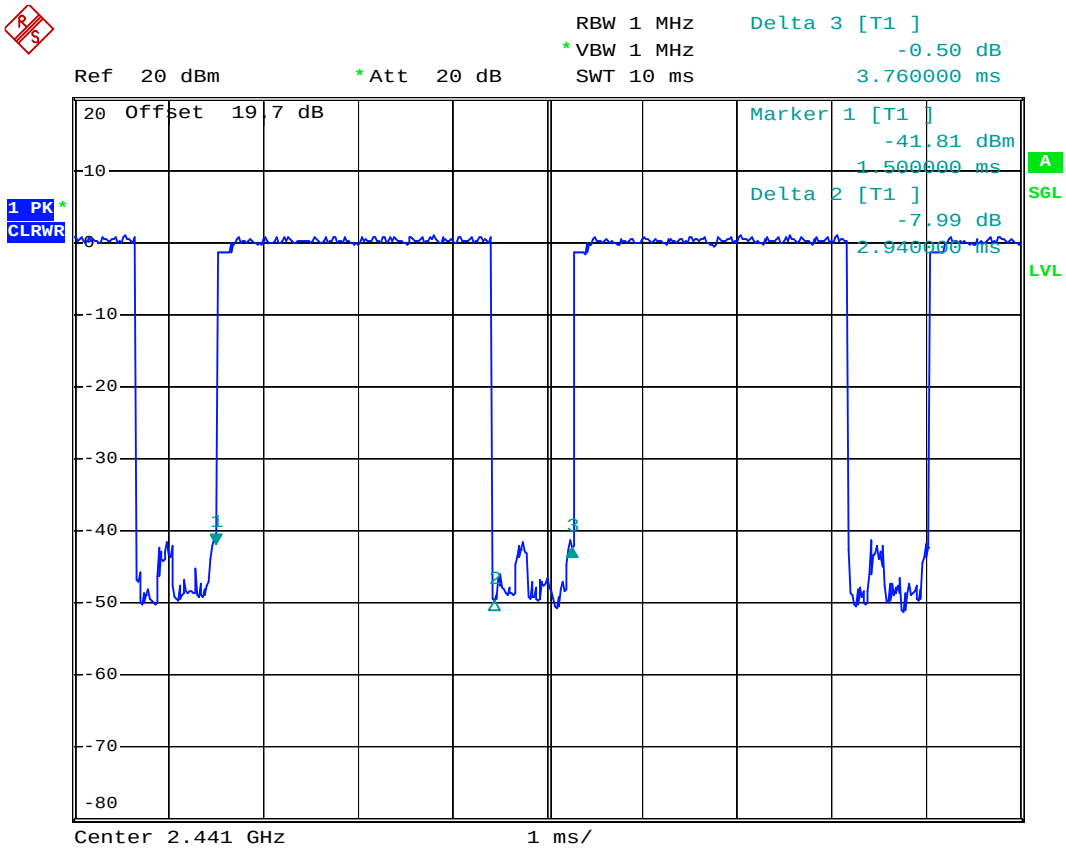


Date: 8.SEP.2007 05:37:10

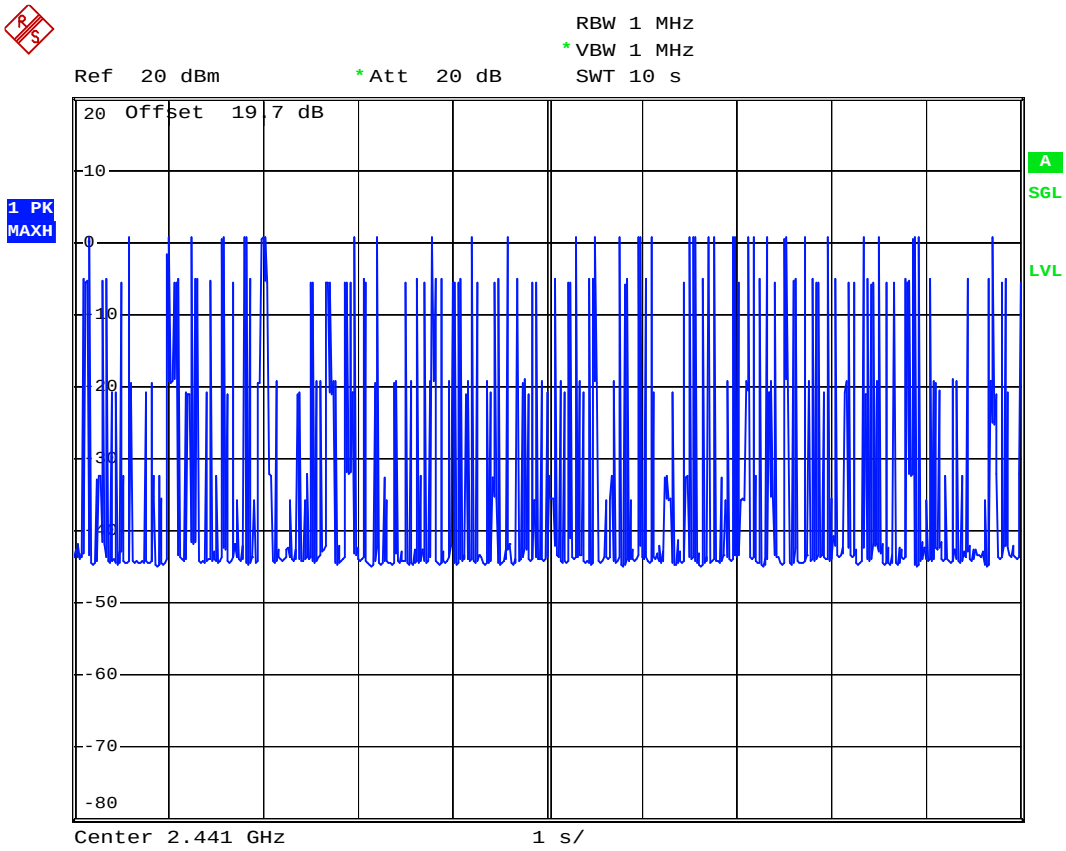


Date: 8.SEP.2007 06:22:27

BT-EDR(3Mbps)_DH5 (CH39)



Date: 8.SEP.2007 05:40:10



Date: 8.SEP.2007 06:22:50

5.9 Peak Output Power Measurement

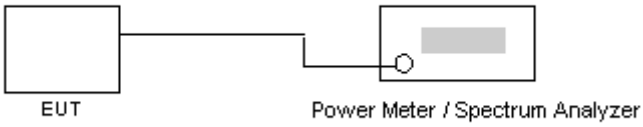
5.9.1 Measuring Instruments：

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 : 26~27℃
Relative Humidity : 49~52%
Test Enginner : Sun

WLAN 802.11b

Channel	Frequency (MHz)	Measured Output Power (dBm)	Limits (Watt/dBm)
01	2412	17.85	1W/30 dBm
06	2437	17.64	1W/30 dBm
11	2462	17.03	1W/30 dBm

WLAN 802.11g

Channel	Frequency (MHz)	Measured Output Power (dBm)	Limits (Watt/dBm)
01	2412	17.66	1W/30 dBm
06	2437	17.47	1W/30 dBm
11	2462	17.45	1W/30 dBm

BT(1Mbps)

Channel	Frequency (MHz)	Measured Output Power (dBm)	Limits (Watt/dBm)
00	2402	-1.83	1W/30 dBm
39	2441	-1.13	1W/30 dBm
78	2480	-0.51	1W/30 dBm

BT-EDR(2Mbps)

Channel	Frequency (MHz)	Measured Output Power (dBm)	Limits (Watt/dBm)
00	2402	0.69	1W/30 dBm
39	2441	1.35	1W/30 dBm
78	2480	1.93	1W/30 dBm

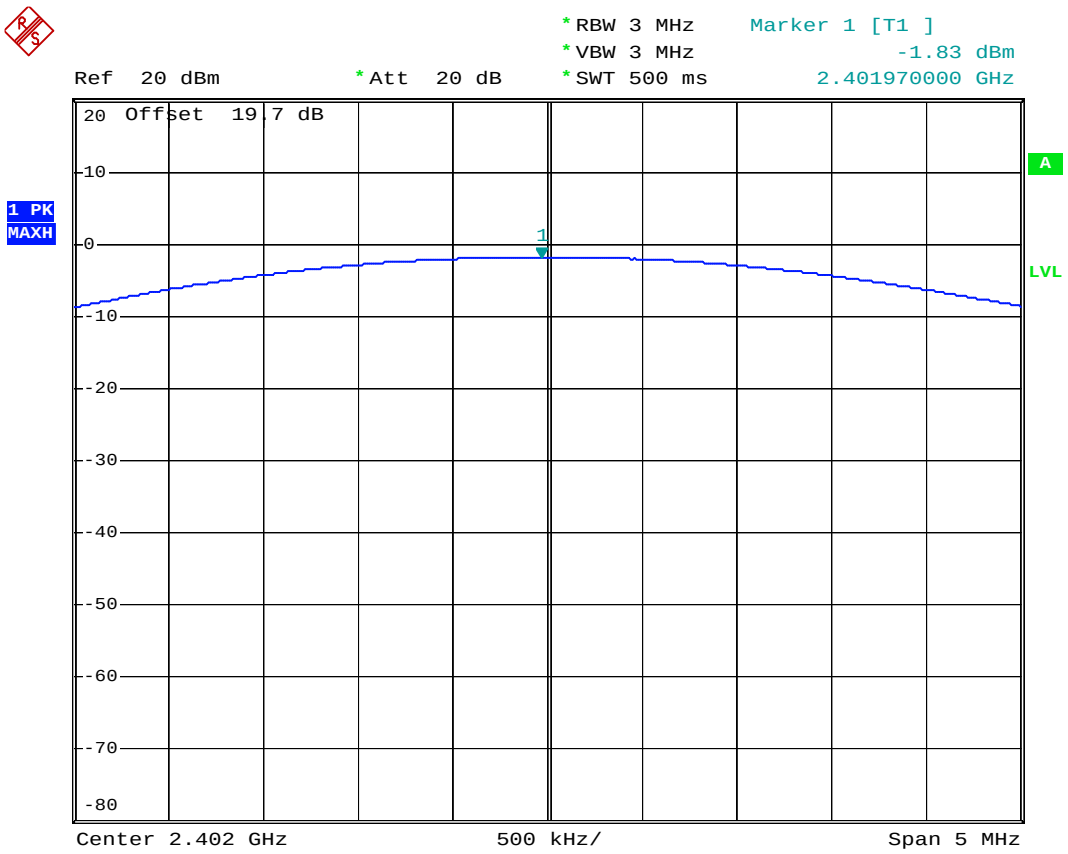
BT-EDR(3Mbps)

Channel	Frequency (MHz)	Measured Output Power (dBm)	Limits (Watt/dBm)
00	2402	1.09	1W/30 dBm
39	2441	1.78	1W/30 dBm
78	2480	1.95	1W/30 dBm

5.9.5 Output Power

BT(1Mbps)

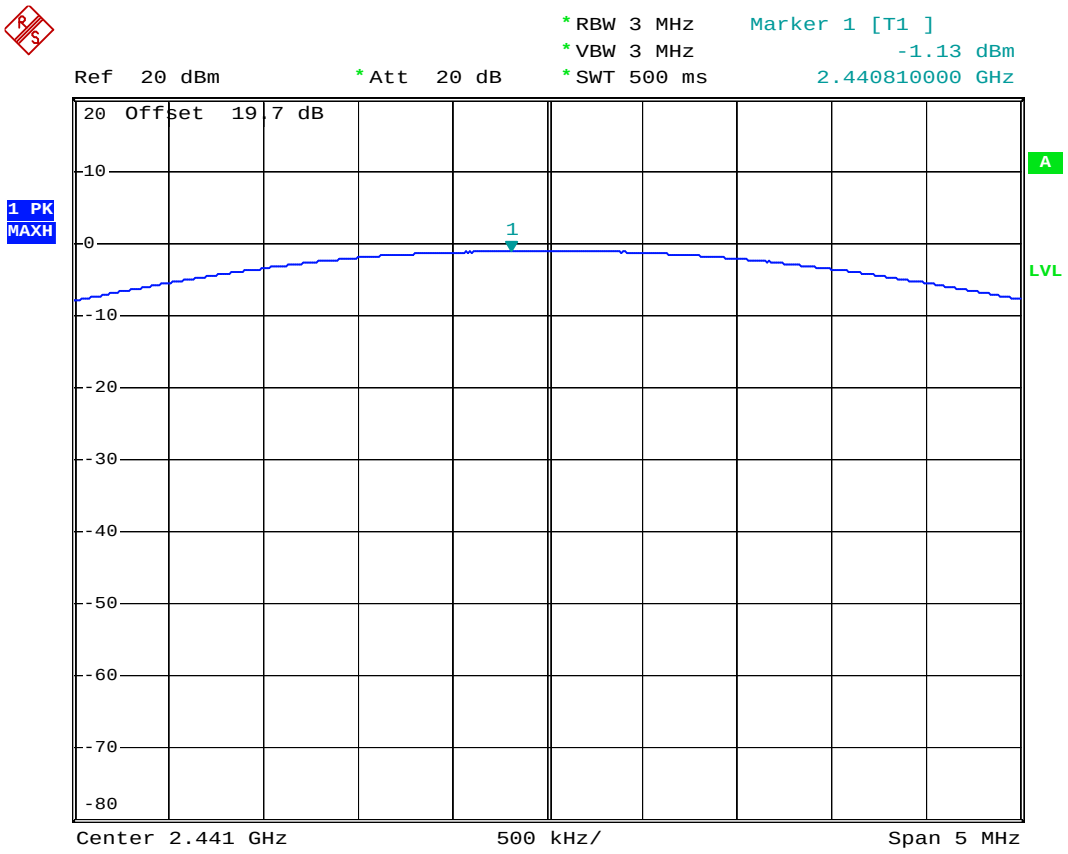
Mode : CH00 (2402MHz)



Date: 8.SEP.2007 03:41:53

BT(1Mbps)

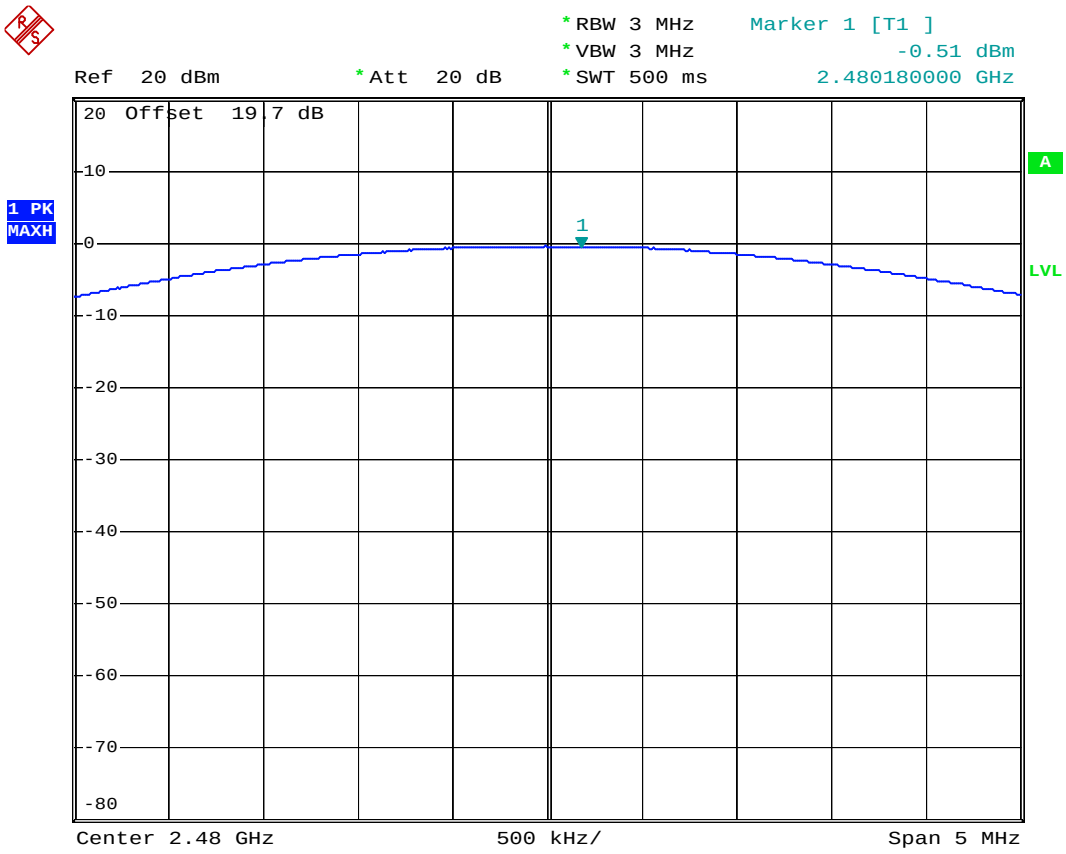
Mode : CH39 (2441MHz)



Date: 8.SEP.2007 03:42:15

BT(1Mbps)

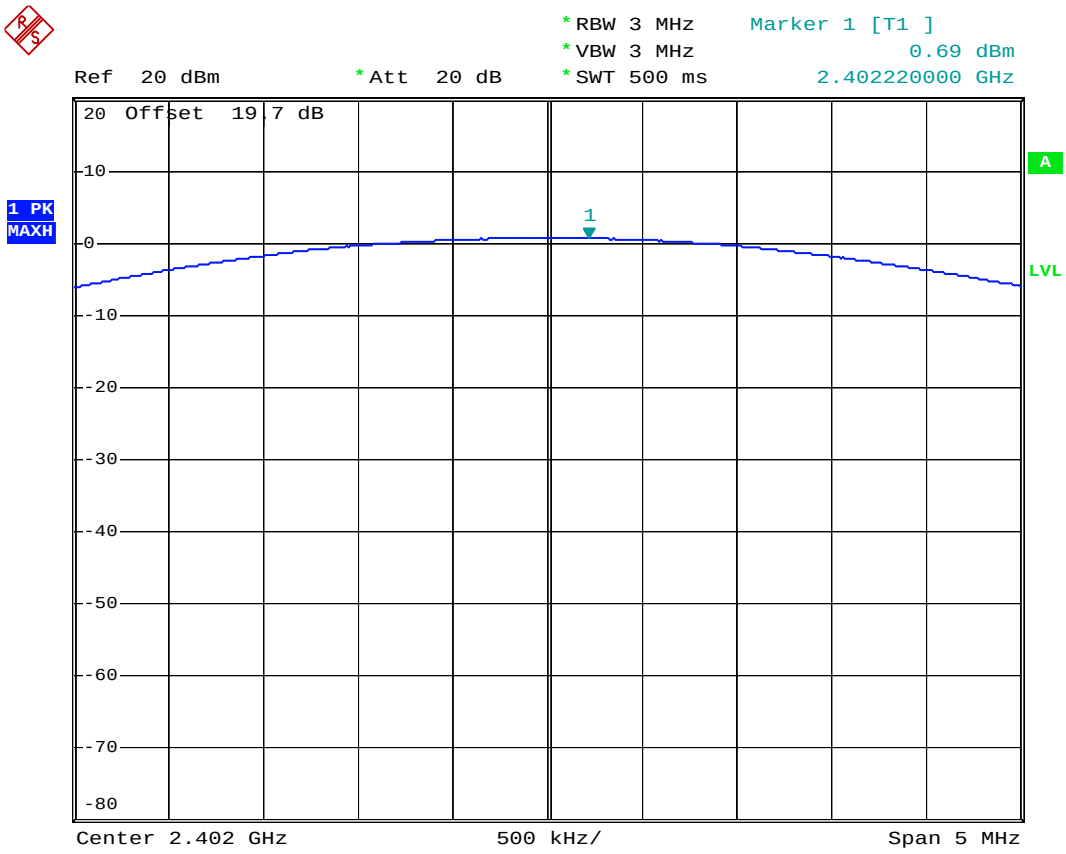
Mode : CH78 (2480MHz)



Date: 8.SEP.2007 03:42:37

BT-EDR(2Mbps)

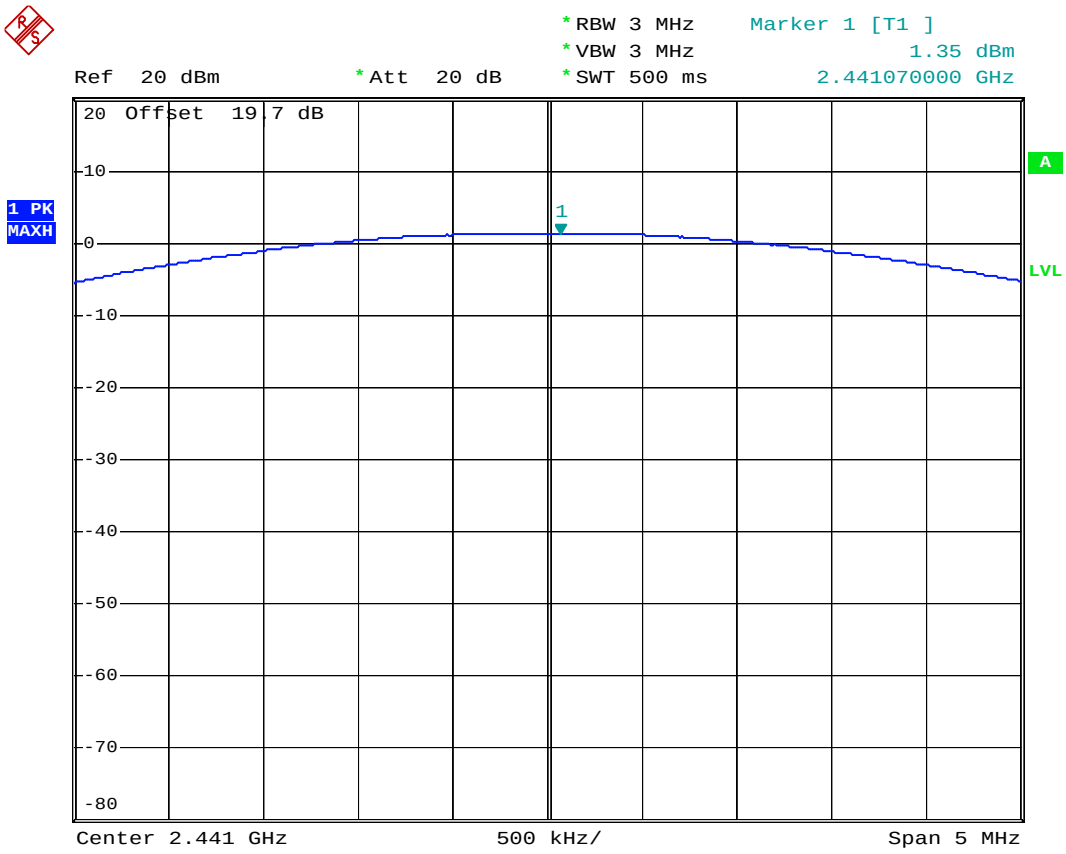
Mode : CH00 (2402MHz)



Date: 8.SEP.2007 04:56:46

BT-EDR(2Mbps)

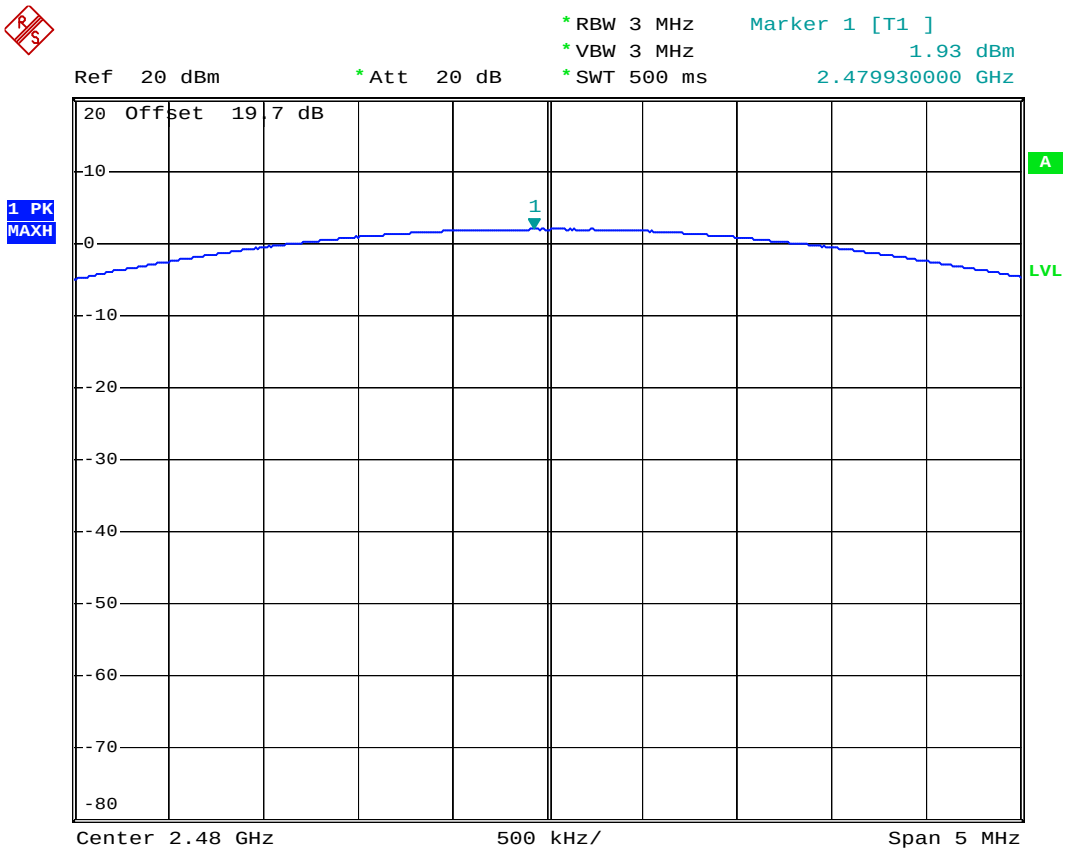
Mode : CH39 (2441MHz)



Date: 8.SEP.2007 04:57:47

BT-EDR(2Mbps)

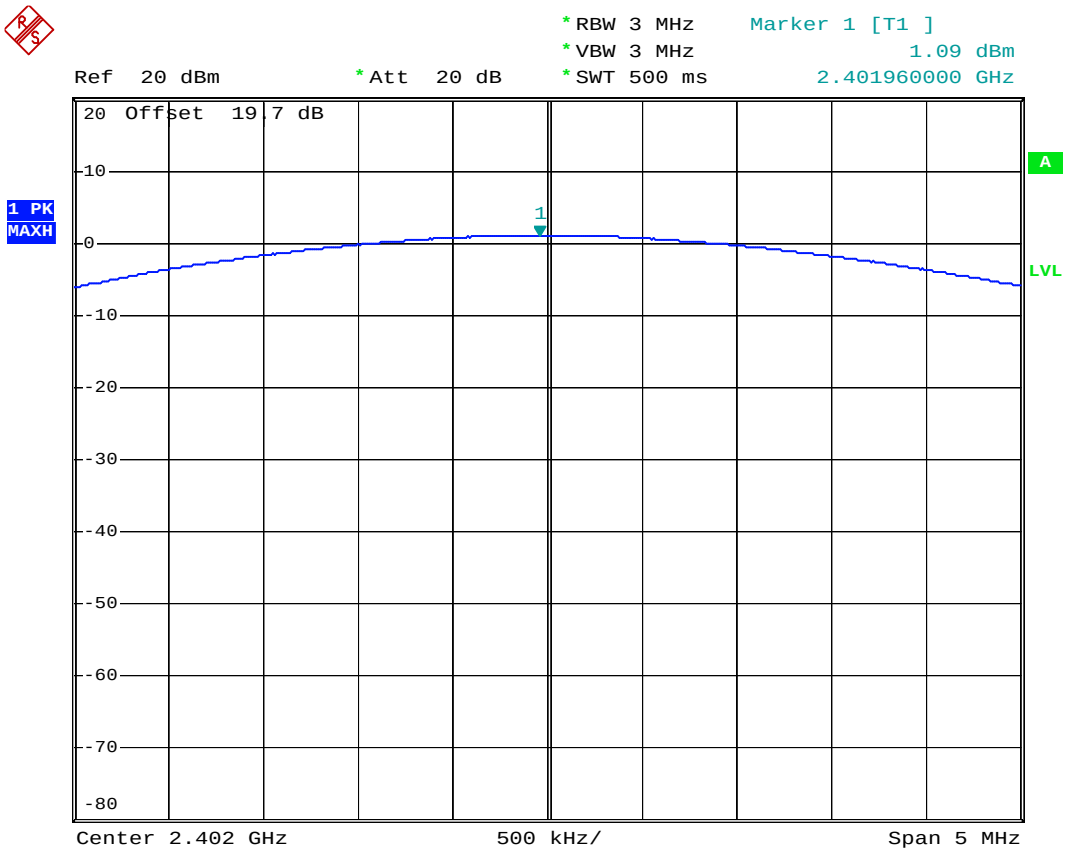
Mode : CH78 (2480MHz)



Date: 8.SEP.2007 04:59:14

BT-EDR(3Mbps)

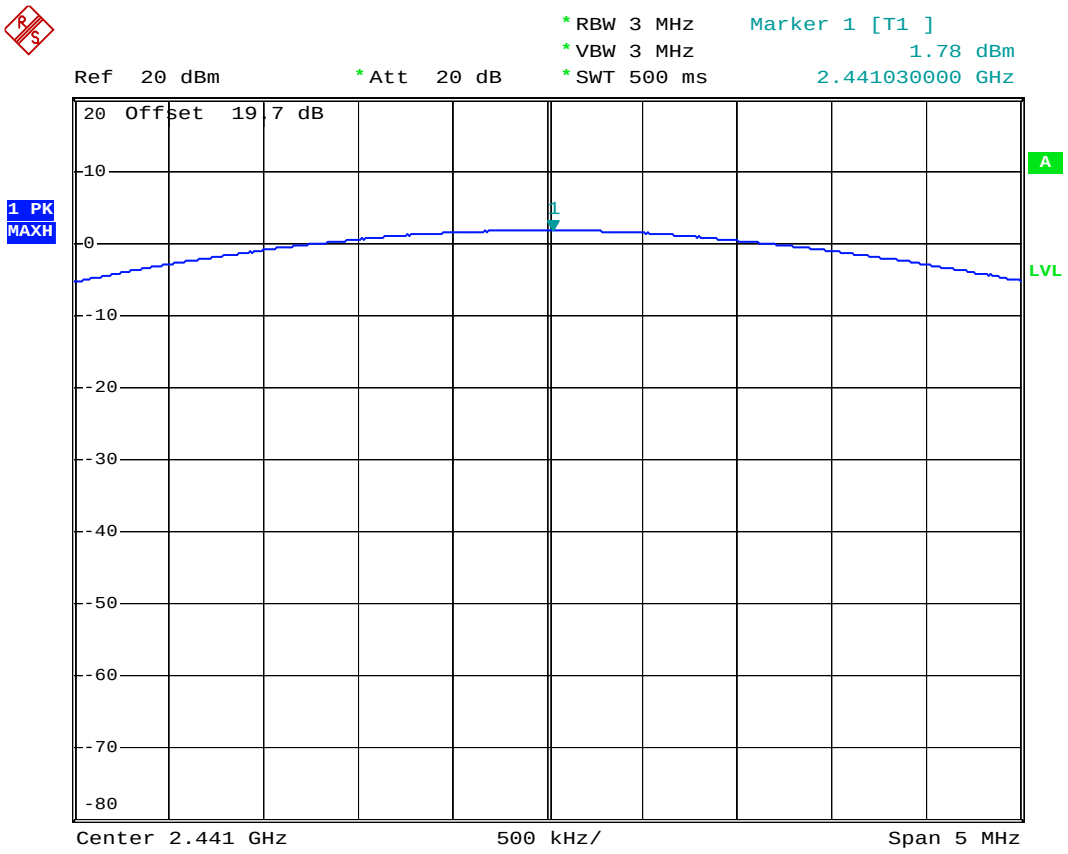
Mode : CH00 (2402MHz)



Date: 8.SEP.2007 04:57:06

BT-EDR(3Mbps)

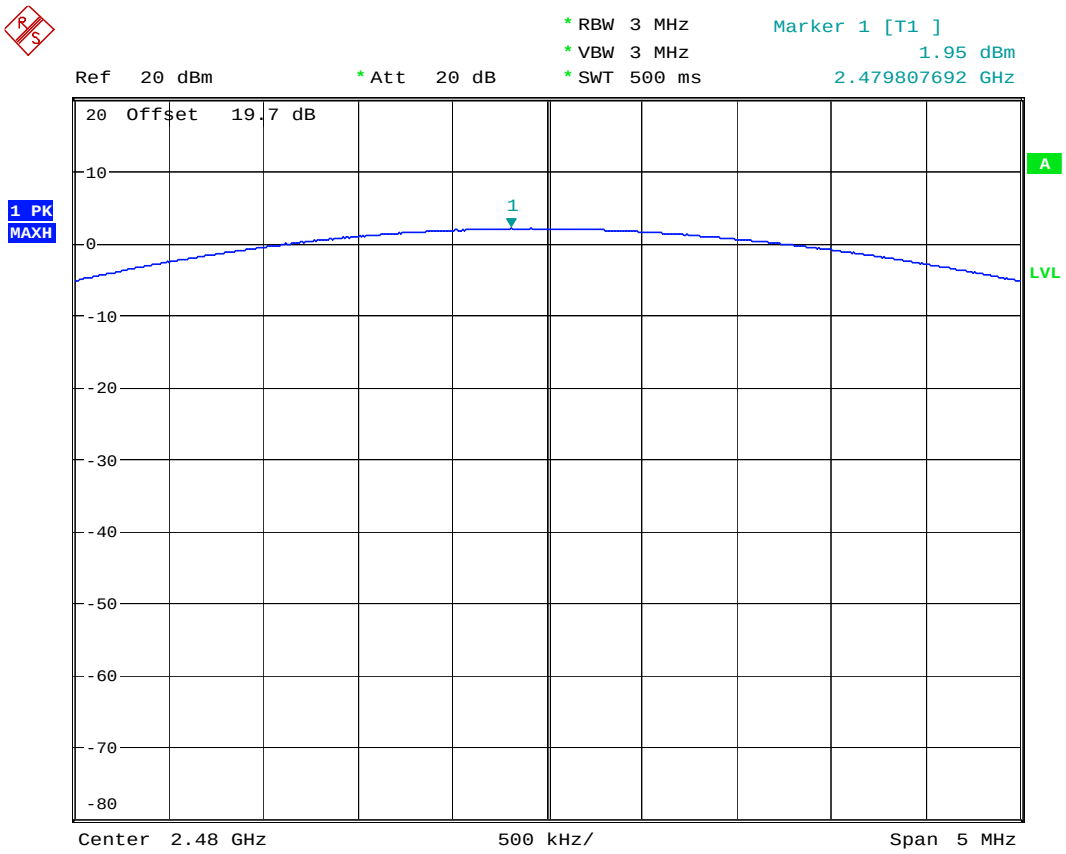
Mode : CH39 (2441MHz)



Date: 8.SEP.2007 04:58:08

BT-EDR(3Mbps)

Mode : CH78 (2480MHz)



444

Date: 25.SEP.2007 16:01:36

5.10 Conducted Emission

5.10.1 Measuring Instruments

As describ ed in chapter 6 of this test Report.

The receiver setting :

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

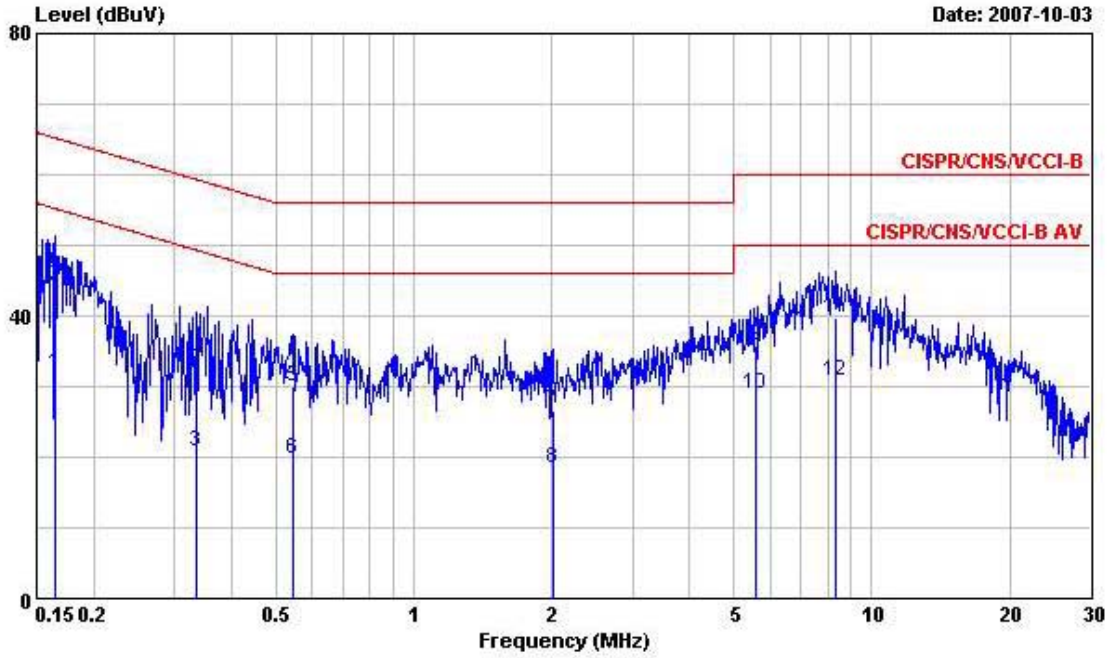
5.10.2 Test Procedures：

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.

5.6.8 Test Data

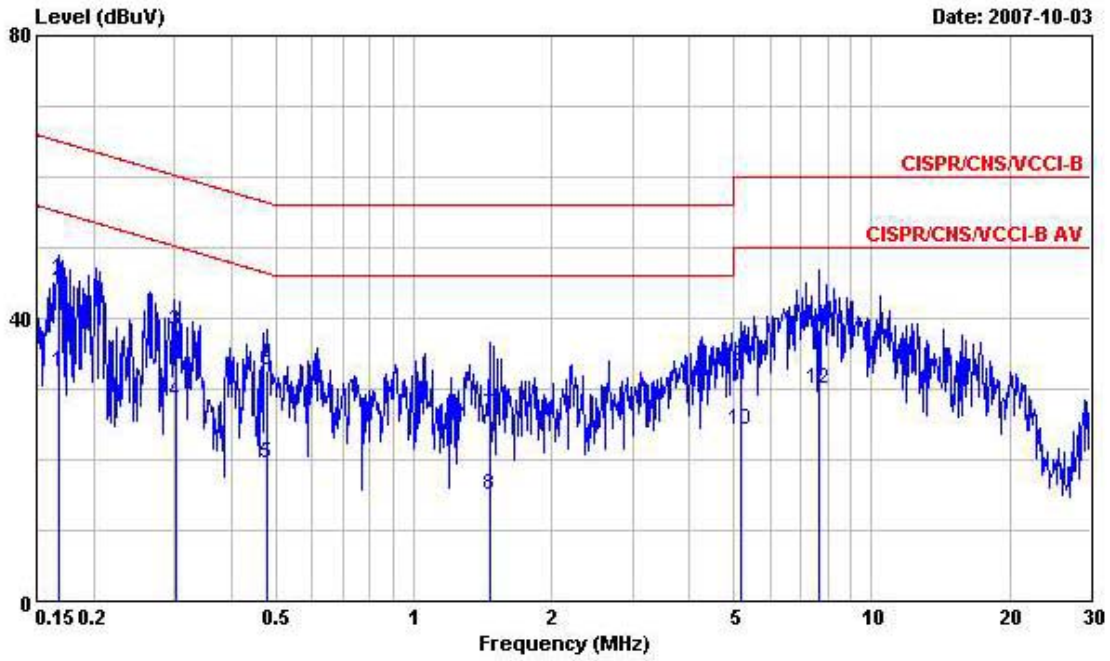
Temperature : 26~27℃
Relative Humidity : 49~52%
Test Enginner : Sun
Test Mode : Mode 1

■ **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 200704 99041 LINE
EUT : PDA Smart Phone (WiF_802.11b/g/BT_v2.0
: EDR_VOIP)
POWER: 120Vac/60Hz
Model : FR 783112
Memo : WLAN Link+BT Link+Adaptor1

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.1650100	31.91	-23.30	55.21	31.67	0.10	0.14	Average
2	@0.1650100	44.13	-21.08	65.21	43.89	0.10	0.14	QP
3	0.3356200	20.88	-28.43	49.31	20.20	0.10	0.58	Average
4	0.3356200	32.71	-26.60	59.31	32.03	0.10	0.58	QP
5	0.5464400	29.89	-26.11	56.00	29.16	0.10	0.63	QP
6	0.5464400	19.82	-26.18	46.00	19.09	0.10	0.63	Average
7	2.010	26.58	-29.42	56.00	26.05	0.10	0.43	QP
8	2.010	18.52	-27.48	46.00	17.99	0.10	0.43	Average
9	5.572	35.78	-24.22	60.00	35.36	0.14	0.28	QP
10	5.572	28.90	-21.10	50.00	28.48	0.14	0.28	Average
11	@ 8.320	39.66	-20.34	60.00	39.24	0.18	0.24	QP
12	@ 8.320	30.90	-19.10	50.00	30.48	0.18	0.24	Average

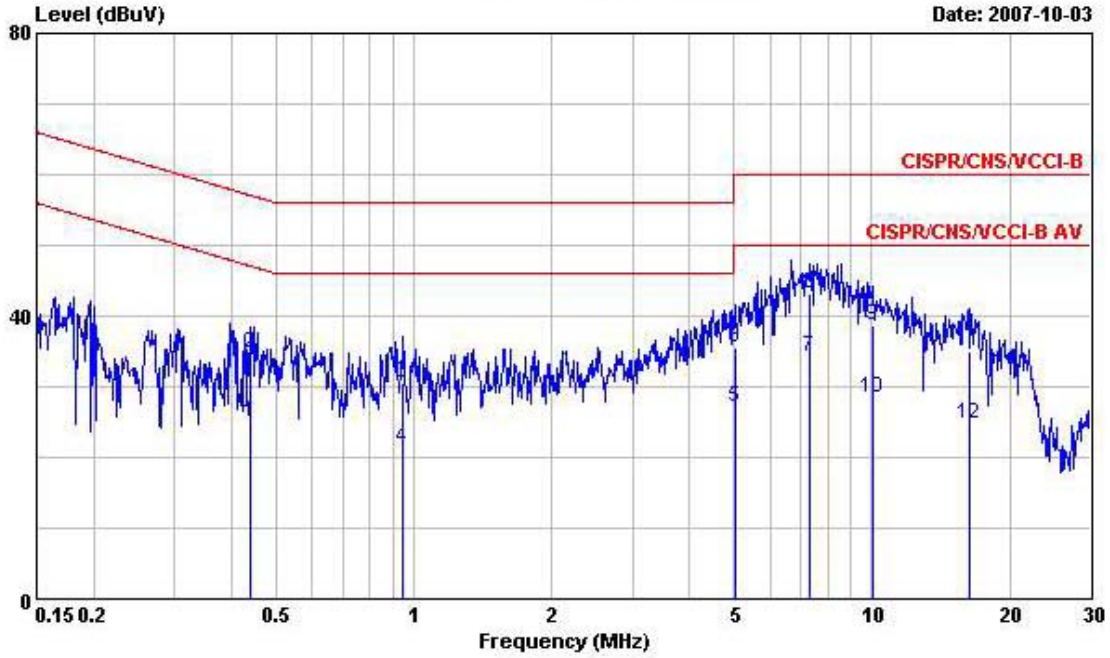


Site : CO04-HY
Condition : CISPR/CNS/VCCI-B LISN 200704 99041 NEUTRAL
EUT : PDA Smart Phone (WiF_802.11b/g/BT_v2.0
: EDR_VOIP)
POWER: 120Vac/60Hz
Model : FR 783112
Memo : WLAN Link+BT Link+Adaptor1

		Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
		MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1		0.1685440	32.41	-22.62	55.03	32.17	0.10	0.14	Average
2	@	0.1685440	45.15	-19.88	65.03	44.91	0.10	0.14	QP
3		0.3030790	38.26	-21.90	60.16	37.66	0.10	0.50	QP
4		0.3030790	28.28	-21.88	50.16	27.68	0.10	0.50	Average
5		0.4786490	19.47	-26.89	46.36	18.70	0.10	0.67	Average
6		0.4786490	32.50	-23.86	56.36	31.73	0.10	0.67	QP
7		1.460	26.19	-29.81	56.00	25.66	0.10	0.43	QP
8		1.460	15.11	-30.89	46.00	14.58	0.10	0.43	Average
9		5.190	33.08	-26.92	60.00	32.56	0.23	0.29	QP
10		5.190	24.13	-25.87	50.00	23.61	0.23	0.29	Average
11		7.690	38.53	-21.47	60.00	38.01	0.27	0.25	QP
12	@	7.690	30.11	-19.89	50.00	29.59	0.27	0.25	Average

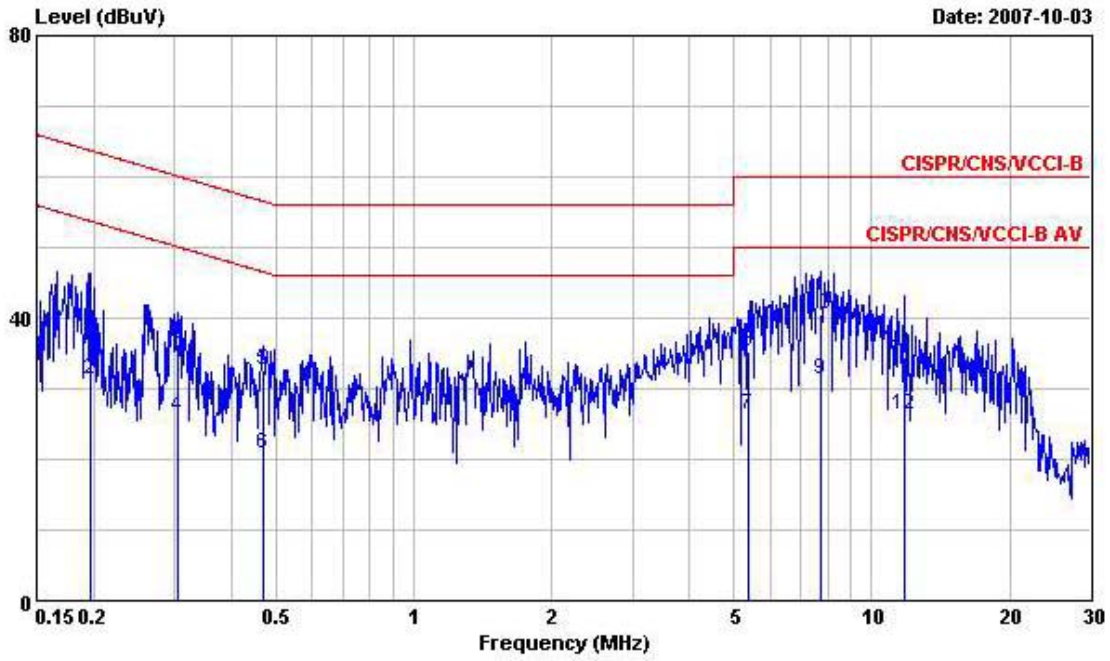
Temperature : 26~27℃
Relative Humidity : 49~52%
Test Enginner : Sun
Test Mode : Mode 2

■ **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 Smart Phone (WiF_802.11b/g/BT_v2.0
: EDR_VOIP)
POWER: 120Vac/60Hz
Model : FR 783112
Memo : WLAN Link+BT Link+Adaptor2+USB Link

		Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
		MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1		0.4376710	25.00	-22.11	47.11	24.20	0.10	0.70	Average
2		0.4376710	34.77	-22.34	57.11	33.97	0.10	0.70	QP
3		0.9415900	30.40	-25.60	56.00	29.84	0.10	0.46	QP
4		0.9415900	21.38	-24.62	46.00	20.82	0.10	0.46	Average
5		5.030	27.14	-22.86	50.00	26.71	0.13	0.30	Average
6		5.030	35.58	-24.42	60.00	35.15	0.13	0.30	QP
7	@	7.330	34.23	-15.77	50.00	33.81	0.17	0.25	Average
8	@	7.330	43.19	-16.81	60.00	42.77	0.17	0.25	QP
9		10.020	38.65	-21.35	60.00	38.23	0.20	0.22	QP
10		10.020	28.40	-21.60	50.00	27.98	0.20	0.22	Average
11		16.400	34.94	-25.06	60.00	34.36	0.47	0.11	QP
12		16.400	24.65	-25.35	50.00	24.07	0.47	0.11	Average



Site : CO04-HY
Condition : CISPR/CNS/VCCI-B LISN 200704 99041 NEUTRAL
EUT : PDA Smart Phone (WiF_802.11b/g/BT_v2.0
: EDR_VOIP)
POWER: 120Vac/60Hz
Model : FR 783112
Memo : WLAN Link+BT Link+Adaptor2+USB Link

		Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
		MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1		0.1965370	38.77	-24.99	63.76	38.53	0.10	0.14	QP
2		0.1965370	31.44	-22.32	53.76	31.20	0.10	0.14	Average
3		0.3050910	36.20	-23.90	60.10	35.60	0.10	0.50	QP
4		0.3050910	26.18	-23.92	50.10	25.58	0.10	0.50	Average
5		0.4676090	32.66	-23.90	56.56	31.88	0.10	0.68	QP
6		0.4676090	20.85	-25.71	46.56	20.07	0.10	0.68	Average
7		5.360	26.35	-23.65	50.00	25.83	0.23	0.29	Average
8		5.360	35.16	-24.84	60.00	34.64	0.23	0.29	QP
9	@	7.730	31.40	-18.60	50.00	30.88	0.27	0.25	Average
10	@	7.730	40.60	-19.40	60.00	40.08	0.27	0.25	QP
11		11.740	34.40	-25.60	60.00	33.91	0.30	0.19	QP
12		11.740	26.28	-23.72	50.00	25.79	0.30	0.19	Average

5.11 Radiated Emission Measurement

5.11.1 Measuring Instruments

As described in chapter 6 of this Report.

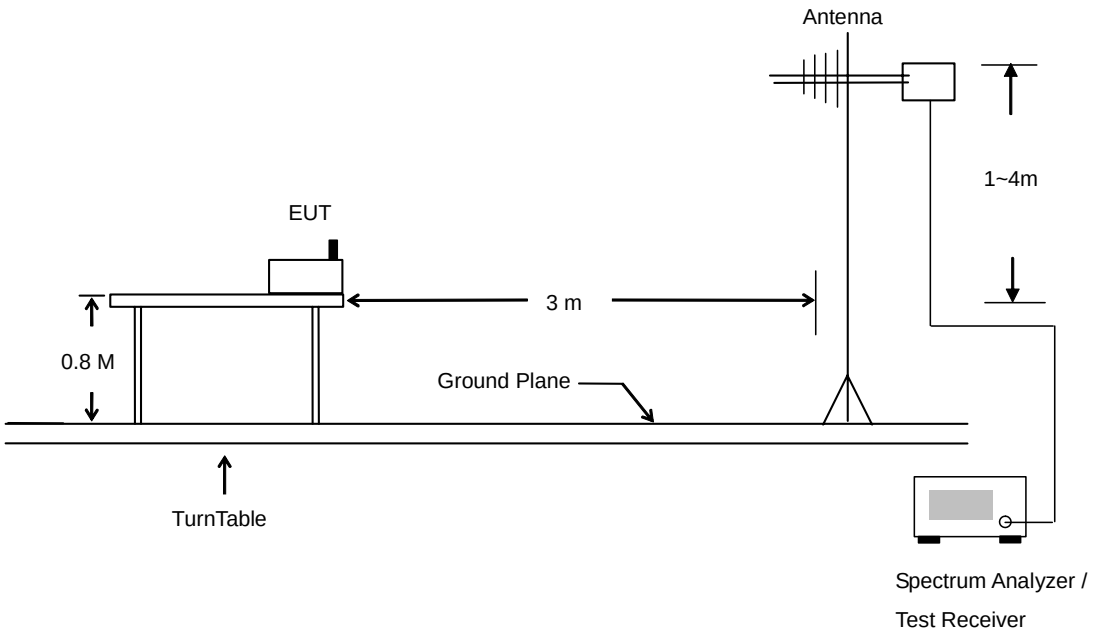
The spectrum analyzer setting :

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

5.11.2 Test Procedures

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 : 25~26℃

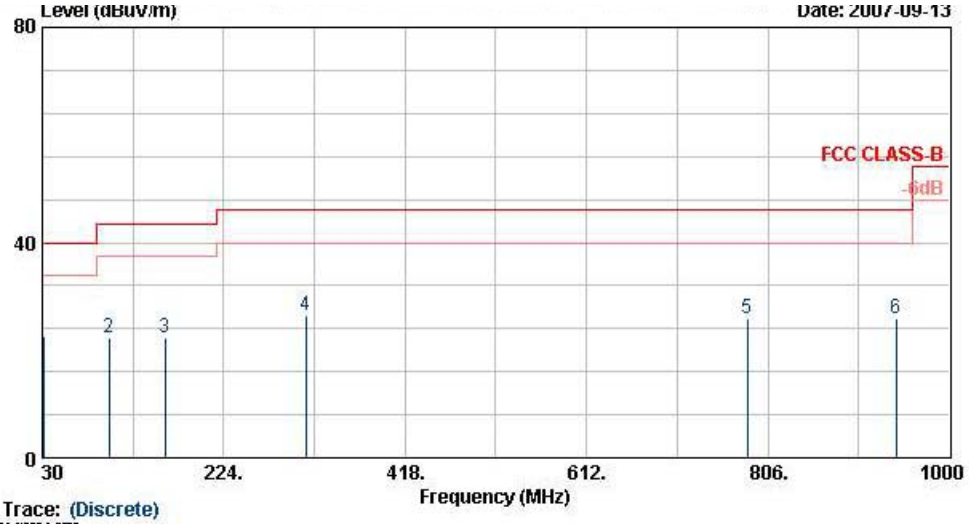
Relating Humidity : 52~54%

Test Enginner : Andrew

Test Mode : Mode 1

Polarization : Horizontal

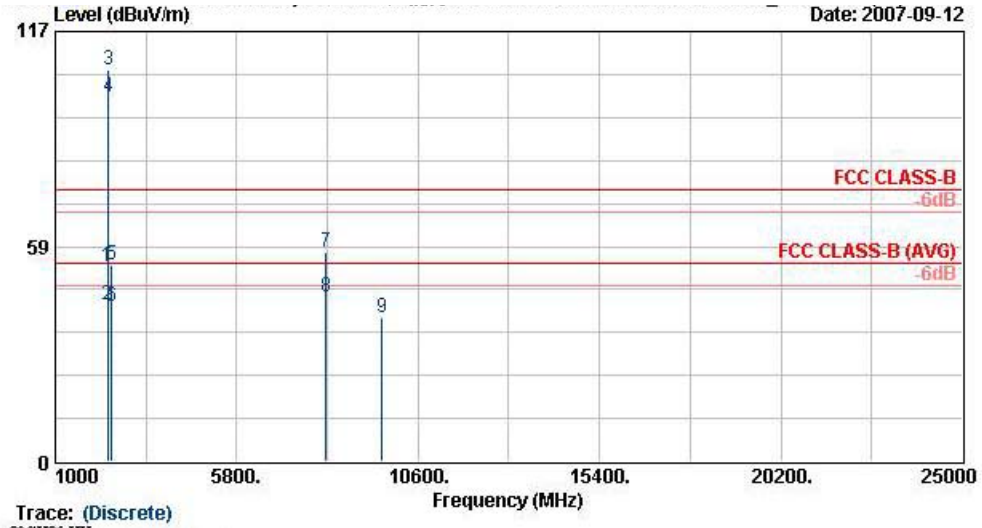
■ **The test that passed at minimum margin was marked by the frame in the following table.**



Trace: (Discrete)

Site : 03CH06-HY
Condition : LF-ANT(951121) HORIZONTAL
EUT : PDA Smart Phone (WiFi_802.11b/g/BT_v2.0 : EDR_VOIP)
Power : 120Vac/60Hz
Model : FR 783112
Mode : 11b_Tx_Ch01;2412MHz
Plane : E2
Data Rate : 11

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	31.6	22.63	-17.37	40.00	35.13	18.25	0.65	31.39	100	203	Peak
2	101.3	22.34	-21.16	43.50	41.36	11.07	1.07	31.15	---	---	Peak
3	161.5	22.29	-21.21	43.50	41.83	10.09	1.39	31.02	---	---	Peak
4	311.9	26.55	-19.45	46.00	41.96	13.53	1.98	30.92	---	---	Peak
5	784.4	25.82	-20.18	46.00	33.26	19.68	3.39	30.50	---	---	Peak
6	943.3	25.97	-20.03	46.00	31.52	20.84	3.91	30.29	---	---	Peak



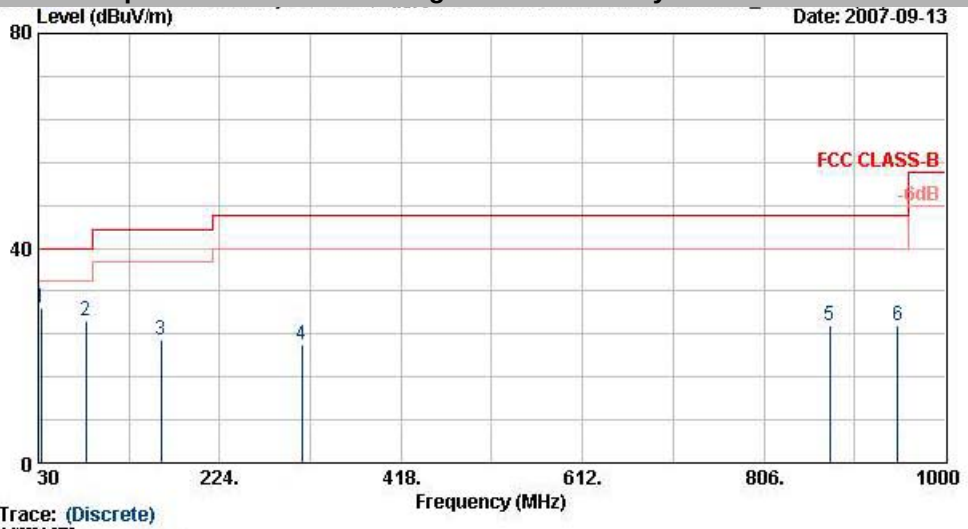
Site : 03CH06-HY
Condition : SHF-EHF HORN HORIZONTAL
EUT : PDA Smart Phone (WiFi_802.11b/g/BT_v2.0 EDR_VOIP)
Power : 120Vac/60Hz
Model : FR 783112
Mode : 11b_Tx_Ch01;2412MHz
Plane : E2
Data Rate : 11

		Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
		MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1		2387.3	52.86	-21.14	74.00	54.29	30.26	3.75	35.44	100	0	Peak
2	@	2387.3	42.48	-11.52	54.00	43.91	30.26	3.75	35.44	100	7	Average
3	@	2412.0	106.41			107.83	30.27	3.77	35.46	100	0	Peak
4	@	2412.0	99.08			100.50	30.27	3.77	35.46	100	7	Average
5		2494.0	53.61	-20.39	74.00	54.96	30.30	3.88	35.53	100	0	Peak
6	@	2494.0	42.25	-11.75	54.00	43.60	30.30	3.88	35.53	100	7	Average
7	@	8166.0	56.76	-17.24	74.00	45.27	39.46	7.98	35.94	100	0	Peak
8	@	8166.0	44.78	-9.22	54.00	33.28	39.46	7.98	35.94	100	167	Average
9		9651.0	38.94	-35.06	74.00	76.57	-10.07	9.12	36.68	100	0	Peak

Remark: #3 and #4 Fundamental Signal

Polarization : Vertical

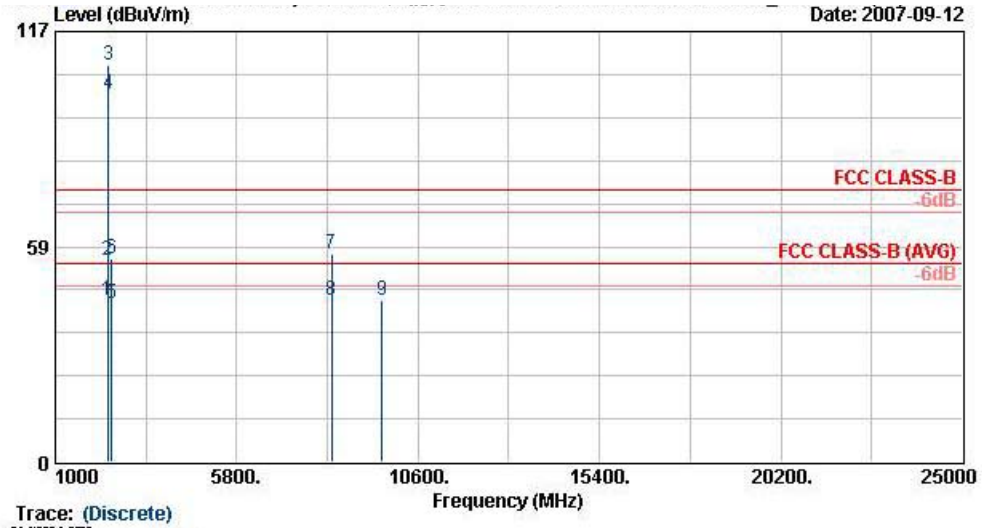
■ **The test that passed at minimum margin was marked by the frame in the following table.**



Trace: (Discrete)

Site : 03CH06-HY
Condition : LF-ANT(951121) VERTICAL
EUT : PDA Smart Phone (WiFi_802.11b/g/BT_v2.0 EDR_VOIP)
Power : 120Vac/60Hz
Model : FR 783112
Mode : 11b_Tx_Ch01;2412MHz
Plane : E2
Data Rate : 11

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	33.2	28.72	-11.28	40.00	41.87	17.54	0.66	31.36	100	345	Peak
2 @	81.0	26.58	-13.42	40.00	49.03	7.67	0.98	31.09	---	---	Peak
3	161.5	22.85	-20.65	43.50	42.39	10.09	1.39	31.02	---	---	Peak
4	311.9	21.99	-24.01	46.00	37.40	13.53	1.98	30.92	---	---	Peak
5	876.8	25.70	-20.30	46.00	32.01	20.36	3.72	30.40	---	---	Peak
6	948.9	25.54	-20.46	46.00	31.03	20.87	3.92	30.28	---	---	Peak



Site : 03CH06-HY
Condition : SHF-EHF HORN VERTICAL
EUT : PDA Smart Phone (WiFi_802.11b/g/BT_v2.0 EDR_VOIP)
Power : 120Vac/60Hz
Model : FR 783112
Mode : 11b_Tx_Ch01;2412MHz
Plane : E2
Data Rate : 11

		Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
		MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	@	2386.4	43.98	-10.02	54.00	45.41	30.26	3.75	35.44	100	280	Average
2		2386.4	54.82	-19.18	74.00	56.25	30.26	3.75	35.44	100	0	Peak
3	@	2412.0	107.65			109.07	30.27	3.77	35.46	100	0	Peak
4	@	2412.0	100.18			101.60	30.27	3.77	35.46	100	280	Average
5	@	2488.0	43.01	-10.99	54.00	44.36	30.30	3.86	35.51	100	280	Average
6		2488.0	55.28	-18.72	74.00	56.63	30.30	3.86	35.51	100	0	Peak
7		8322.0	56.38	-17.62	74.00	44.93	39.34	8.14	36.02	100	0	Peak
8	@	8322.0	44.06	-9.94	54.00	32.60	39.34	8.14	36.02	100	243	Average
9		9642.0	44.10	-29.90	74.00	81.75	-10.09	9.12	36.68	100	0	Peak

Remark: #3 and #4 Fundamental Signal