



# FCC / IC Test Report

for

## 47 CFR Part 15 Subpart C and IC RSS-210

**Equipment** : iPAQ 600 series  
**Trade Name** : HP  
**Model No.** : HSTNH-I14C-N  
**FCC ID** : B94HHI14CN  
**IC ID** : 466Q-HHI14CN  
**Filing Type** : Certification  
**Applicant** : **Hewlett-Packard Company**  
11445 Compaq Center Drive West Houston, Texas 77070

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- **Certificate or Test Report must not be used by the applicant to claim the product in this test report endorsement by NVLAP or any agency of U.S. government.**
- The data shown in this test report were carried out on Jun. 16, 2007 at **Sporton International Inc. LAB.**
- Report No.: FR750203-B, 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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# 1. General Description of Equipment under Test

## 1.1 Applicant

**Hewlett-Packard Company**  
11445 Compaq Center Drive West Houston, Texas 77070

## 1.2 Manufacturer

**Inventec Appliances(Pudong) Corp.**  
699, Pu Xin Road, Shanghai, PRC

## 1.3 Basic Description of Equipment under Test

<b>Equipment</b>		iPAQ 600 series
<b>Trade Name</b>		HP
<b>Model Name</b>		HSTNH-I14C-N
<b>AC Adapter 1</b>	<b>Manufacturer Name</b>	Phihong Technology Co., Ltd.
	<b>Brand Name</b>	HP / Phihong
	<b>Model Name</b>	PSB05R-050Q
	<b>Power Rating</b>	I/P:100-240Vac, 50-60Hz, 200mA; O/P: 5Vdc, 1A
	<b>AC Power Cord Type</b>	1.4 meter shielded cable without ferrite core
<b>AC Adapter 2</b>	<b>Manufacturer Name</b>	Phihong Technology Co., Ltd.
	<b>Brand Name</b>	HP / Phihong
	<b>Model Name</b>	PSAA05X-050 (X=A, C, E, K or S)
	<b>Power Rating</b>	I/P:100-240Vac, 50-60Hz, 200mA, 13-20VA; O/P: 5Vdc, 1A
	<b>AC Power Cord Type</b>	1.8 meter shielded cable without ferrite core
<b>Battery</b>	<b>Brand Name</b>	HP
	<b>Model Name</b>	HSTNH-K14B-CS
	<b>Rating</b>	3.7Vdc, 1590mAh
	<b>Type</b>	Li-polymer
<b>Earphone</b>	<b>Brand Name</b>	Merry
	<b>Model Name</b>	EMC147-021-01
	<b>Signal line Type</b>	1.6 meter non-shielded cable without ferrite core
<b>USB Cable</b>	<b>Brand Name</b>	Phihong
	<b>Model Name</b>	419184-001
	<b>Signal line Type</b>	1.4 meter shielded cable without ferrite core
<b>LCD Panel</b>	<b>Brand Name</b>	Hitachi
	<b>Model Name</b>	TX07D05VM0APA
<b>Camera</b>	<b>Brand Name</b>	LITE-ON Semi
	<b>Model Name</b>	DCM-300MBD

Remark : PSAA05X-050 (X=A, C, E, K or S) have the same circuit design. The difference between these models is plug, only PSAA05A-050 used for testing.

**1.4 Feature of Equipment under Test**

Product Feature & Specification			
1. Type of Modulation	Bluetooth (1Mbps) : GFSK Bluetooth EDR (2Mbps) : /4-DQPSK Bluetooth EDR (3Mbps) : 8-DPSK		
2. Number of Channels	79		
3. Frequency Band	2400MHz~2483.5MHz		
4. Carrier Frequency of each channel	2402 + n * 1MHz, n= 0~78		
5. Channel Spacing	1MHz		
6. Maximum Output Power to Antenna (Normal Condition)	Bluetooth (1Mbps) : 1.45 dBm Bluetooth EDR (2Mbps) : 2.13 dBm Bluetooth EDR (3Mbps) : 2.39 dBm		
7. HW Version	EVT1		
8. SW Version	WWE v0.18.01		
9. Type of Antenna Connector	N/A		
10. Antenna Type	PIFA Antenna		
11. Antenna Gain	-4 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.
- For spurious emission below 1GHz, only one channel of each application was tested because it is not related to channel selection.
- The EUT is programmed to transmit signal continuously for all testings.
- Frequency range investigated: conduction 150 kHz to 30 MHz, radiation 30 MHz to 25000MHz.

### 2.2 Test Mode

Application			
	Bluetooth (1Mbps)	Bluetooth EDR (2Mbps)	Bluetooth EDR (3Mbps)
Radiated Emission, RF Conducted	Mode 1: CH00_2402 MHz	Mode 4: CH78_2480 MHz	Mode 5: CH00_2402 MHz
	Mode 2: CH39_2441 MHz		Mode 6: CH39_2441 MHz
	Mode 3: CH78_2480 MH		Mode 7: CH78_2480 MHz
Conducted Emission	Mode 1: GSM850 Idle + BT Link + WLAN Link + MPEG4 + Camera + Adapter 1		
	Mode 2: GSM850 Idle + BT Link + WLAN Link + MPEG4 + Camera + USB Link		
	Mode 3: PCS1900 Idle + BT Link + WLAN Link + MPEG4 + Camera + Adapter 1		
	Mode 4: GSM850 Idle + BT Link + WLAN Link + MPEG4 + Camera + Adapter 2		

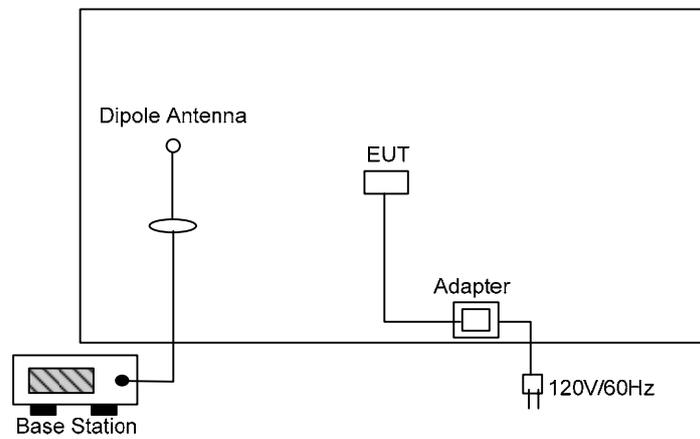
### 2.3 Ancillary Equipment List

Item	Equipment	Trade Name	Model Name	FCC ID	Power Cord
1.	Notebook	DELL	D400	E2K24GBRL	1.2m
2.	Base Station	R&S	CMU200	N/A	N/A
3.	BT Base Station	Anritus	8852A	N/A	N/A
4.	RS-232 MOUSE	State	MS-303	DoC	1.8 meter
5.	Bluetooth Device	Engotech	ET-BD201	PQY471087	N/A

## 2.4 Connection Diagram of Test System

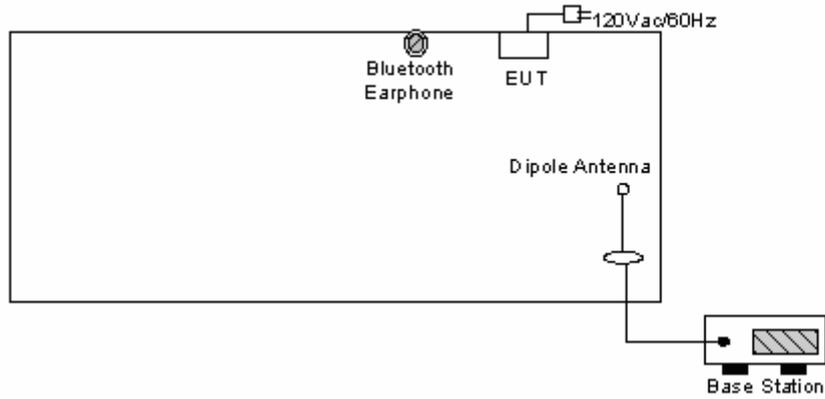
<Radiated Emission>

Bluetooth

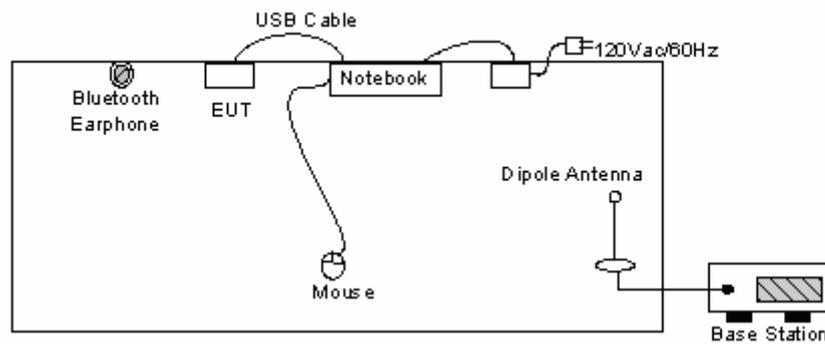


<Conducted Emission>

Mode 1



Mode 2





### **3. RF Utility**

The EUT is in BT Link mode with mobile phone for conducted emission or in BT continuous Tx Mode controlled by base station simulator for radiation emission.



## 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 and IC RSS-210 Issued 7

### 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

FCC Rule	IC Rule	Description of Test	Result	Section
15.247(a)(1)	RSS-Gen 7.2.2	Hopping Channel Separation	Pass	5.2
15.247(a)(1)(iii)	A8.1 (a)	Number of Hopping Frequency Used	Pass	5.3
15.247(a)(1)	A8.1 (b)	Hopping Channel Bandwidth	Pass	5.4
15.247(a)(1)(iii)	A8.1 (d) (e)	Dwell Time of Each Frequency	Pass	5.5
15.247(b)(1)	A8.1 (d)	Output Power	Pass	5.6
15.247(c)	A8.4 (b)	100kHz Bandwidth of Frequency Band Edges	Pass	5.7
15.207	A8.5	Conducted Emission	Pass	5.8
15.209	2.6	Radiated Emission	Pass	5.9
15.203	A8.4 (6)	Antenna Requirement	Pass	5.10

## 5.2 Hopping Channel Separation

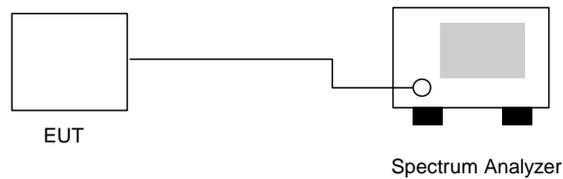
### 5.2.1 Measuring Instruments :

As described in chapter 9 of this test report.

### 5.2.2 Test Procedure :

1. The output of EUT was connected to the spectrum analyzer by a low loss cable..
2. Set RBW of spectrum analyzer to 100kHz and VBW to 100kHz.
3. The Hopping Channel Separation is defined as the channel is separated with the next channel.

### 5.2.3 Test Setup Layout :



### 5.2.4 Test Result : The spectrum analyzer plots are attached as below

- Application Type : BT (1Mbps)
- Temperature : 26
- Relative Humidity : 59%
- Test Enginner : Andy

Channel	Carrier Frequency		Limits	Plot
	Frequency (MHz)	Separation ( MHz )		
00	2402	1.004	0.876	Mode 1
39	2441	1.004	0.878	Mode 2
78	2480	1.004	0.874	Mode 3

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



- Application Type : BT EDR (2Mbps)
- Temperature : 27~28
- Relative Humidity : 49~50%
- Test Enginner : Sun

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Channel	Carrier Frequency		Limits	Plot
	Frequency (MHz)	Separation ( MHz )		
00	2402	1.008	0.821	Mode 4
39	2441	1.000	0.819	Mode 5
78	2480	1.000	0.819	Mode 6

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

- Application Type : BT EDR (3Mbps)
- Temperature : 27~28
- Relative Humidity : 49~50%
- Test Enginner : Sun

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Channel	Carrier Frequency		Limits	Plot
	Frequency (MHz)	Separation ( MHz )		
00	2402	1.008	0.832	Mode 7
39	2441	1.008	0.832	Mode 8
78	2480	1.008	0.832	Mode 9

---



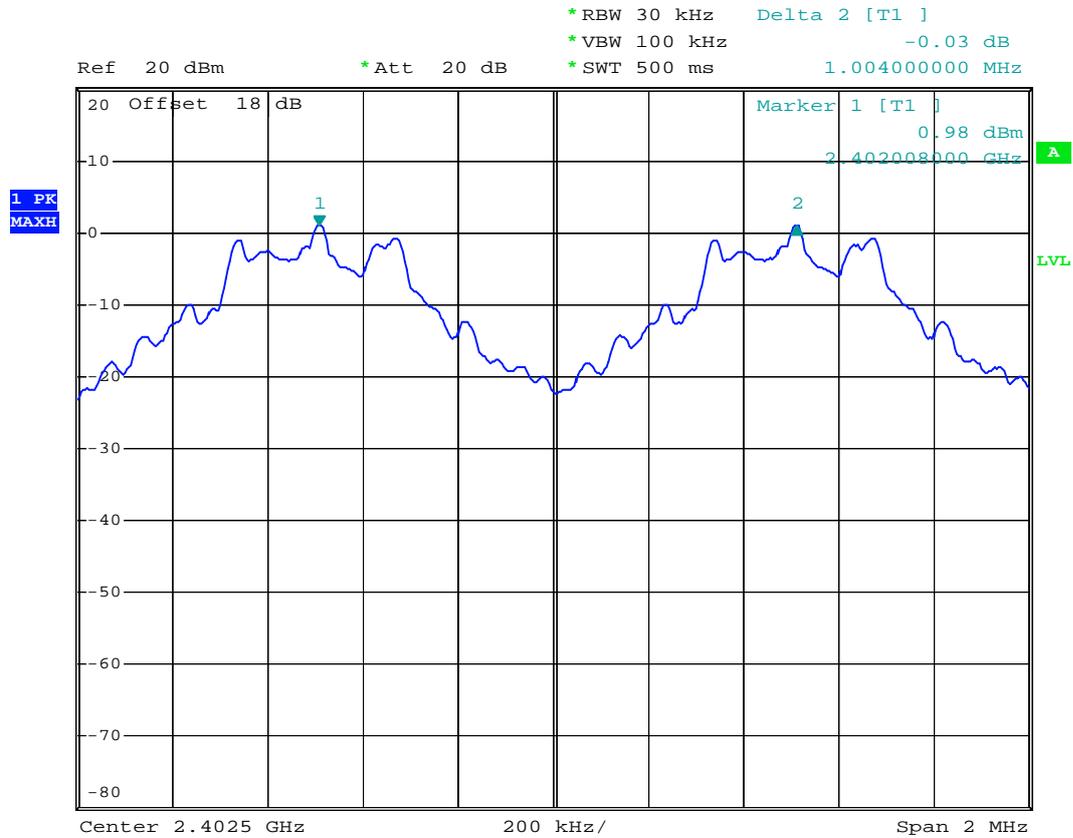
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Note: Limits =25kHz or the 20dB bandwidth of the hopping channel, which ever is greater



5.2.5 Hopping Channel Separation

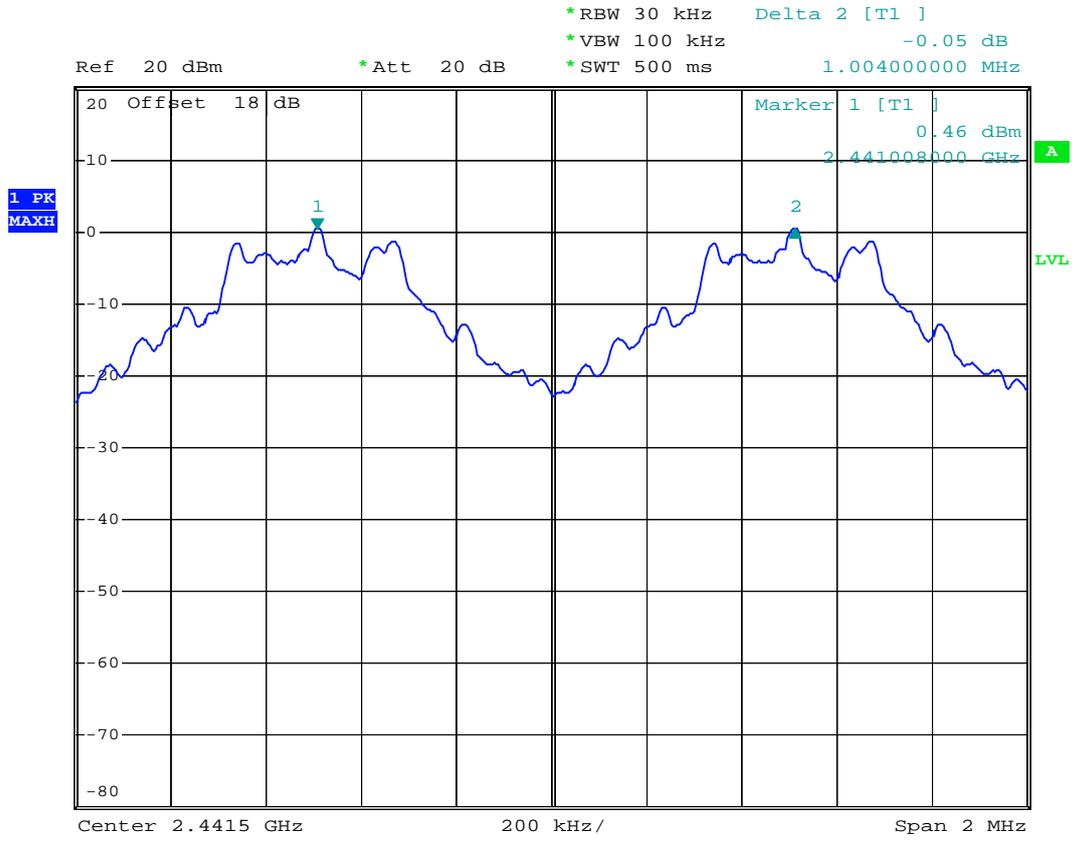
Mode 1: CH00 (2402MHz)



Date: 6.JUN.2007 20:57:12



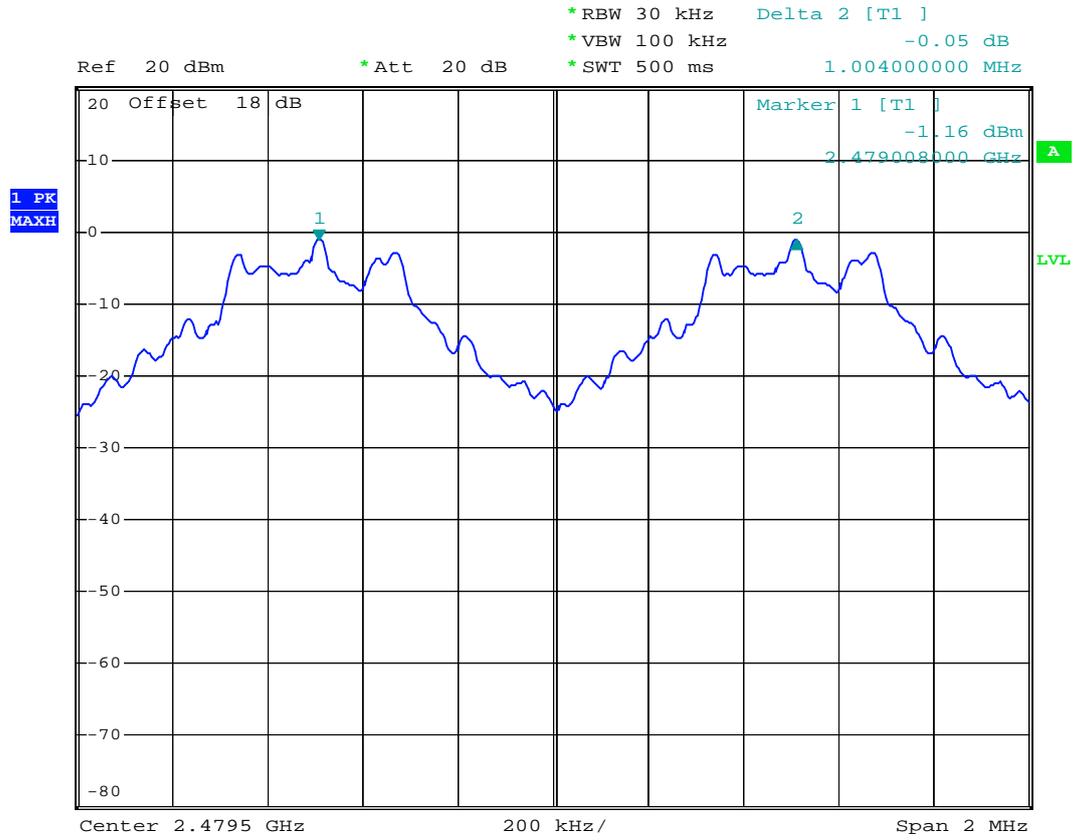
Mode 2: CH39 (2441MHz)



Date: 6.JUN.2007 20:58:07



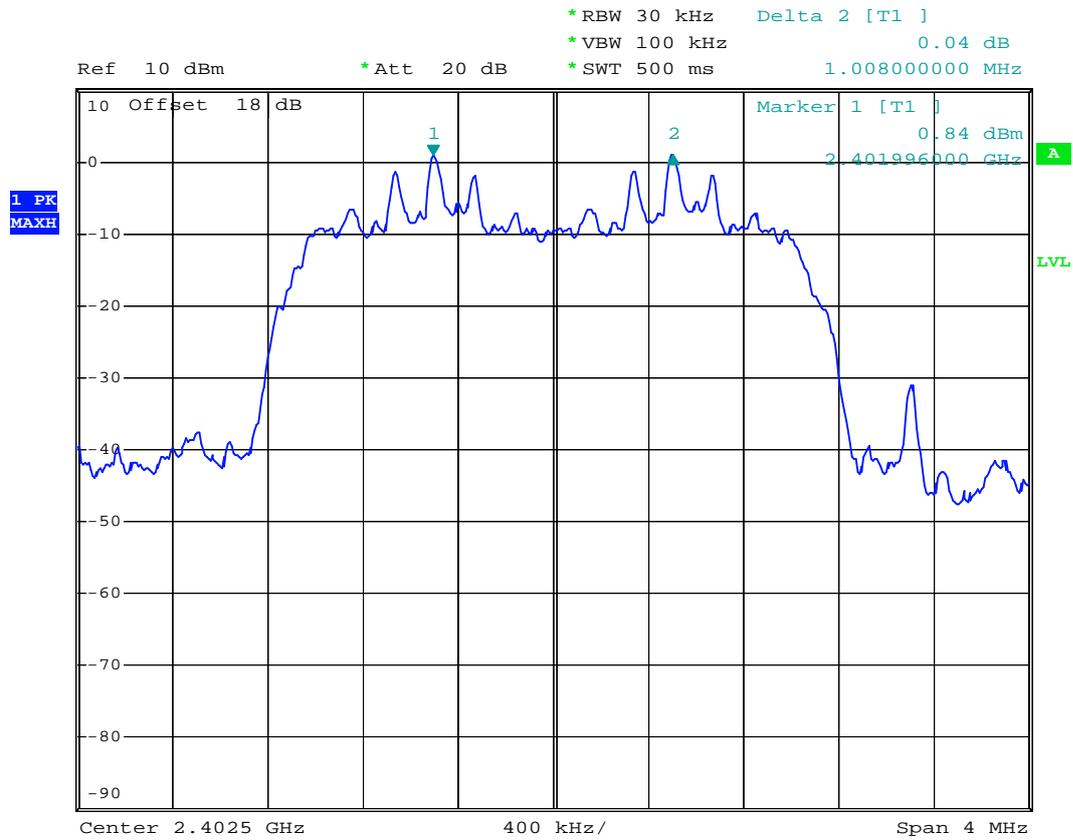
Mode 3: CH78 (2480MHz)



Date: 6.JUN.2007 20:59:11



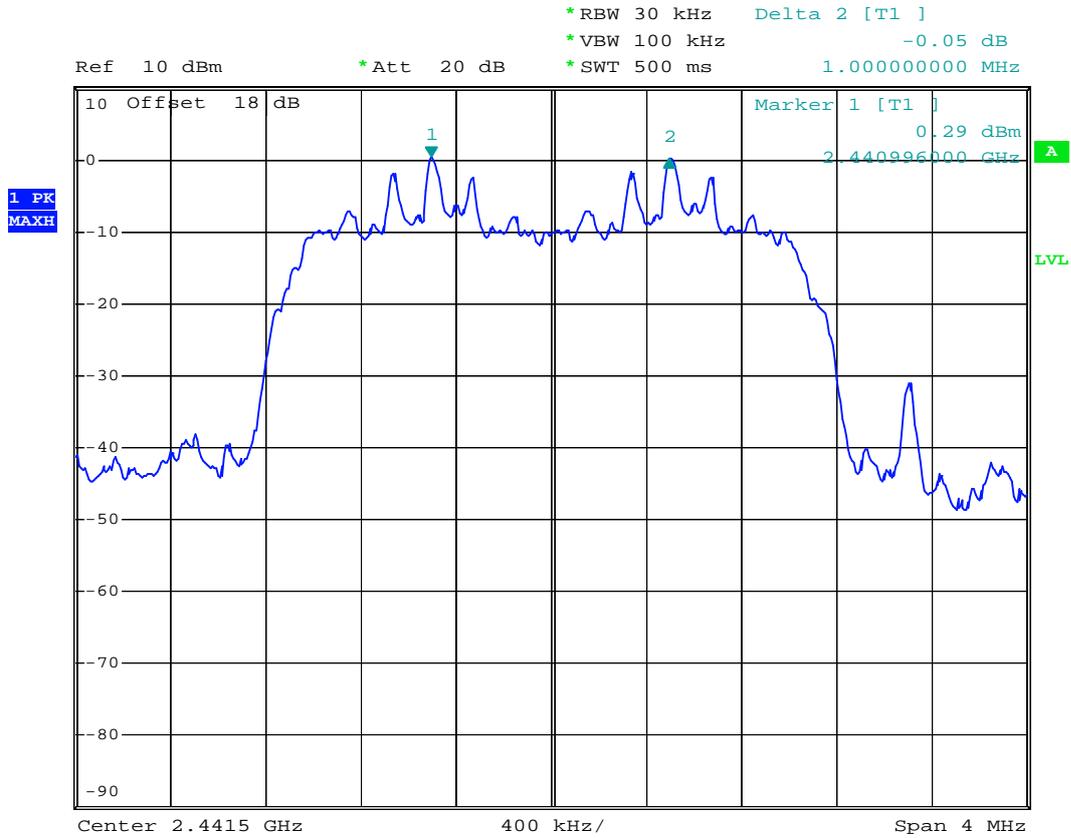
Mode 4: CH00 (2402MHz)



Date: 24.AUG.2007 01:40:11



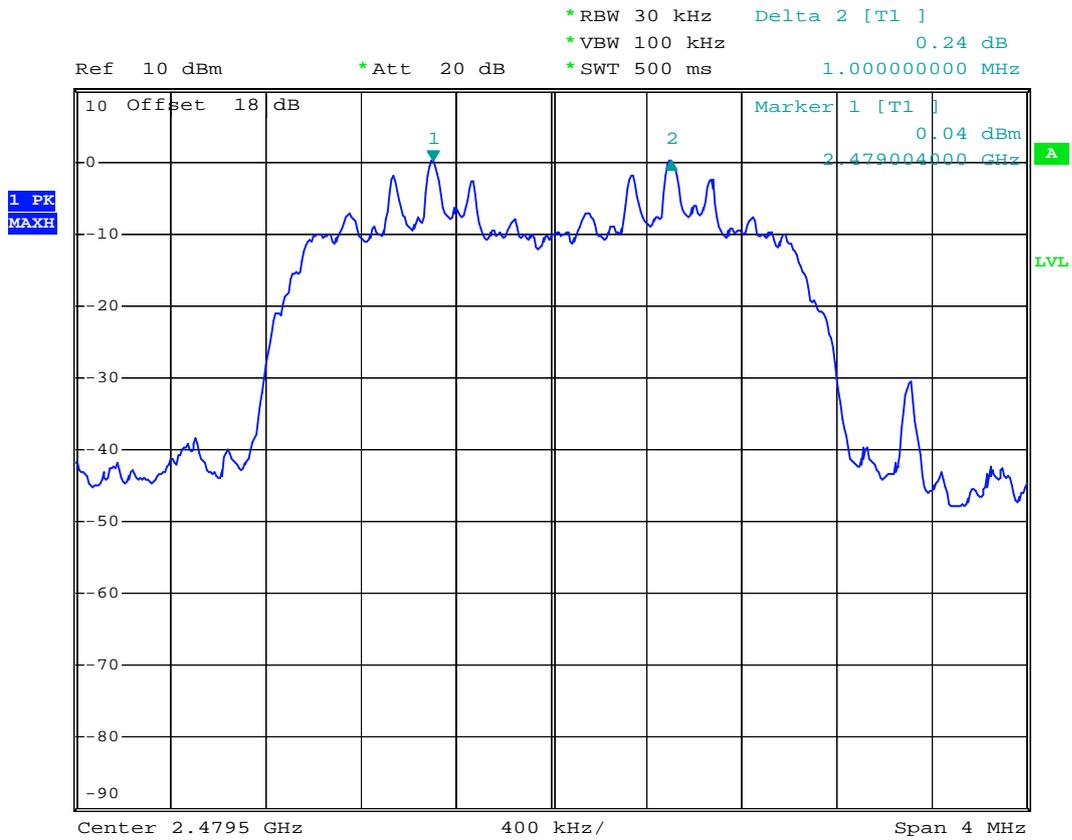
Mode 5: CH39 (2441MHz)



Date: 24.AUG.2007 01:41:35



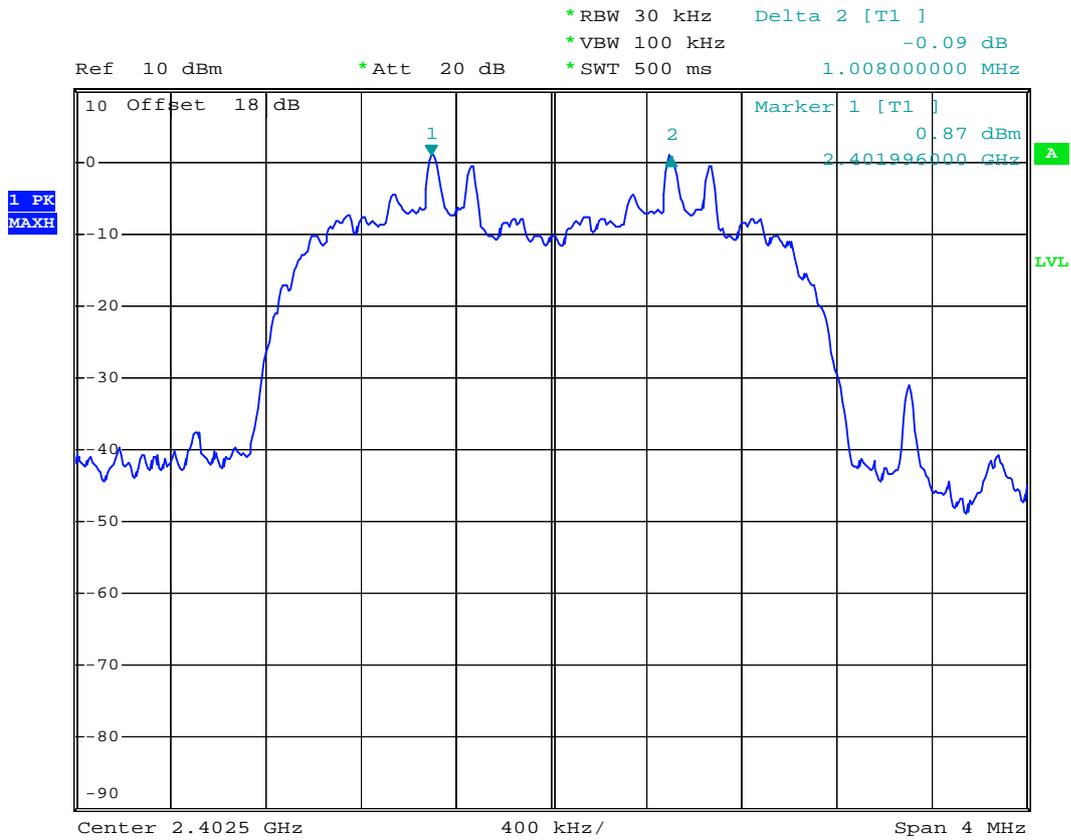
Mode 6: CH78 (2480MHz)



Date: 24.AUG.2007 01:51:46



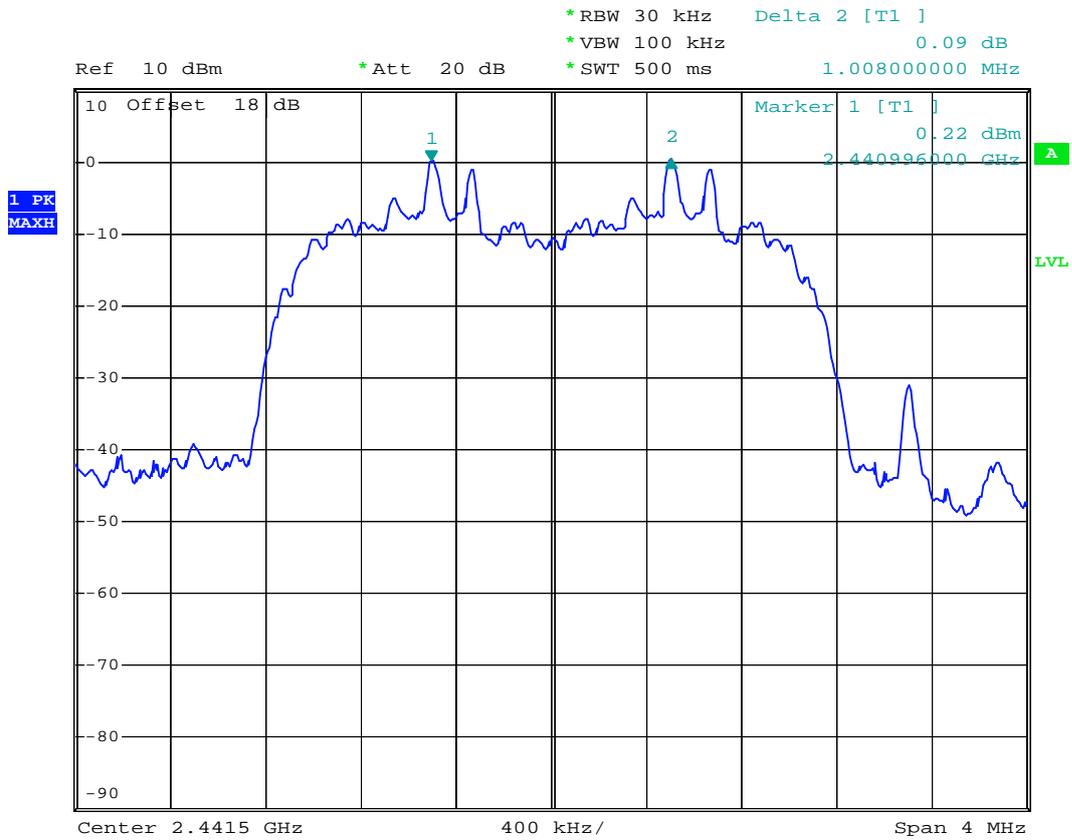
Mode 7: CH00 (2402MHz)



Date: 24.AUG.2007 01:38:47



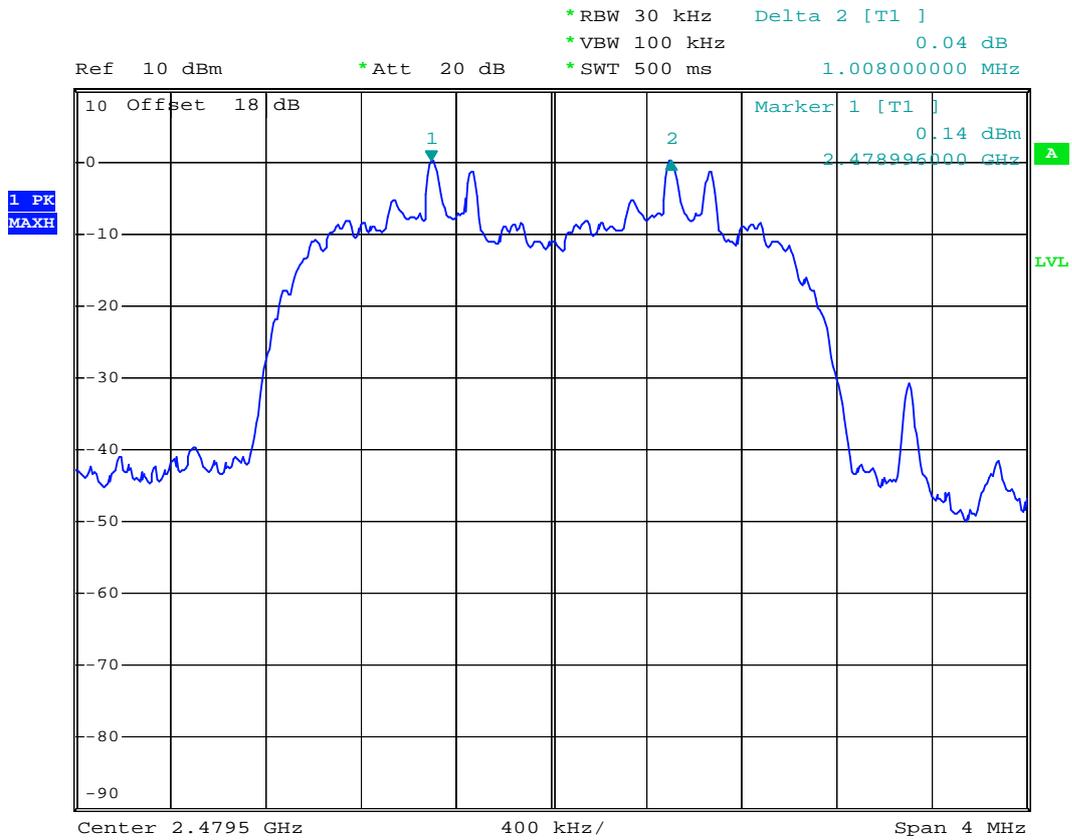
Mode 8: CH39 (2441MHz)



Date: 24.AUG.2007 01:43:10



Mode 9: CH78 (2480MHz)



Date: 24.AUG.2007 01:45:14

### 5.3 Number of Hopping Frequency

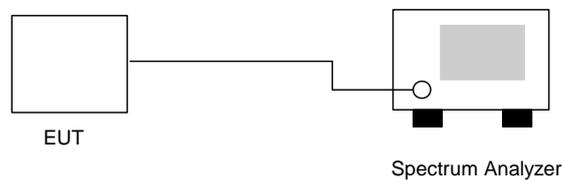
#### 5.3.1 Measuring Instruments :

As described in chapter 9 of this test report.

#### 5.3.2 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.

#### 5.3.3 Test Setup Layout :



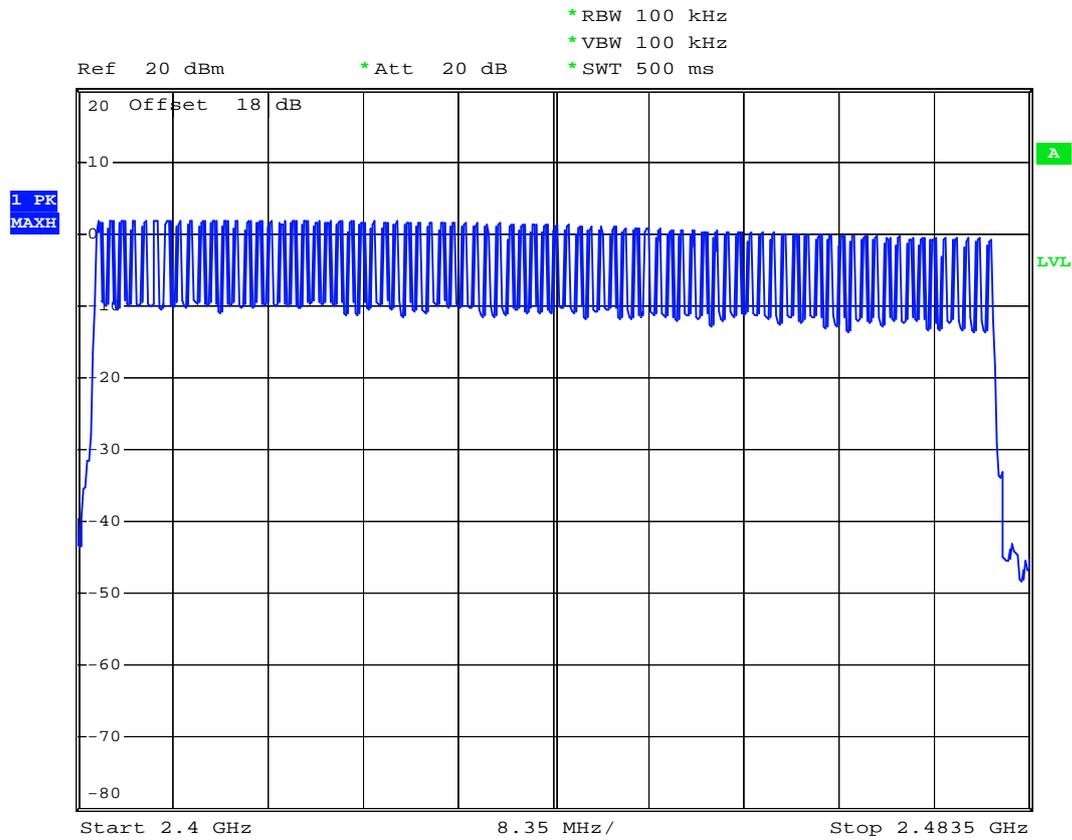
#### 5.3.4 Test Result : See spectrum analyzer plots below

- Application Type : Bluetooth (1/2/3 Mbps)
- Temperature : 26 and 27~28
- Relative Humidity : 59% and 49~50%
- Test Enginner : Andy and Sun

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



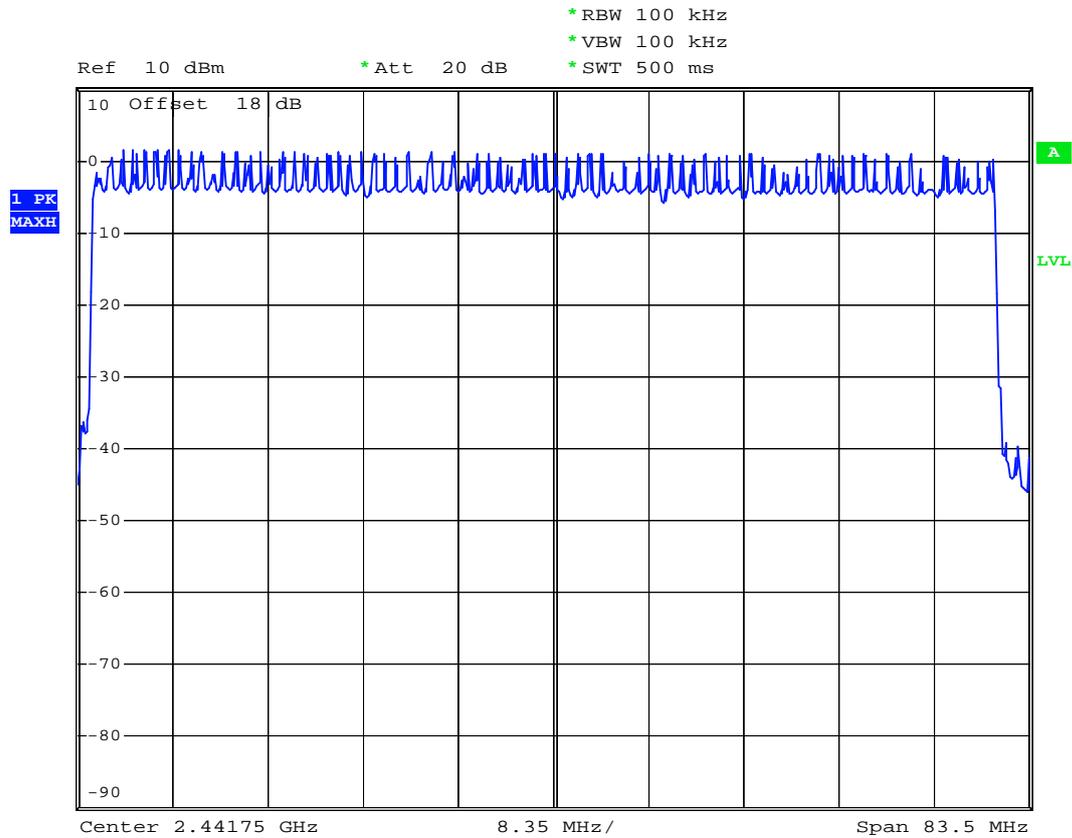
5.3.5 Number of Hopping Frequency  
Bluetooth (1Mbps)



Date: 6.JUN.2007 21:25:17



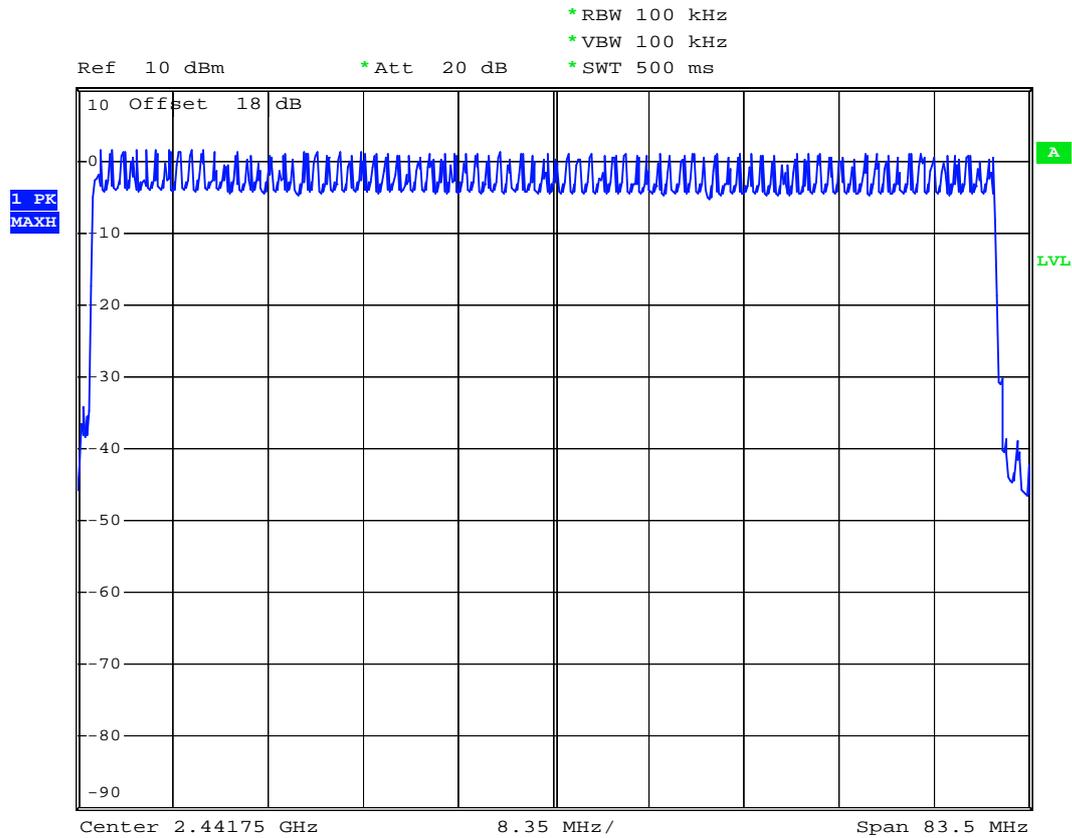
Bluetooth EDR (2Mbps)



Date: 24.AUG.2007 03:54:12



Bluetooth EDR (3Mbps)



Date: 24.AUG.2007 03:50:01

## 5.4 Hopping Channel Bandwidth

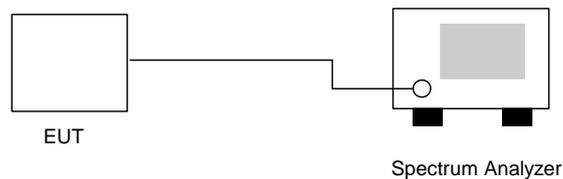
### 5.4.1 Measuring Instruments :

As described in chapter 9 of this test report.

### 5.4.2 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.

### 5.4.3 Test Setup Layout :



### 5.4.4 Test Result : See spectrum analyzer plots below

- Application Type : Bluetooth (1/2/3 Mbps)
- Temperature : 26 and 27~28
- Relative Humidity : 59% and 49~50%
- Test Engineer : Andy and Sun

#### ➤ Bluetooth (1Mbps)

Channel	Frequency (MHz)	Hopping Channel Bandwidth (MHz)	Limits (MHz)	Plot Ref. No.
00	2402	0.876	1.000	Mode 1
39	2441	0.878	1.000	Mode 2
78	2480	0.874	1.000	Mode 3



➤ **Bluetooth (2Mbps)**

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Channel	Frequency (MHz)	Hopping Channel Bandwidth (MHz)	Limits (MHz)	Plot Ref. No.
00	2402	1.232	1.000	Mode 4
39	2441	1.228	1.000	Mode 5
78	2480	1.228	1.000	Mode 6

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➤ **Bluetooth (3Mbps)**

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Channel	Frequency (MHz)	Hopping Channel Bandwidth (MHz)	Limits (MHz)	Plot Ref. No.
00	2402	1.248	1.000	Mode 7
39	2441	1.248	1.000	Mode 8
78	2480	1.248	1.000	Mode 9

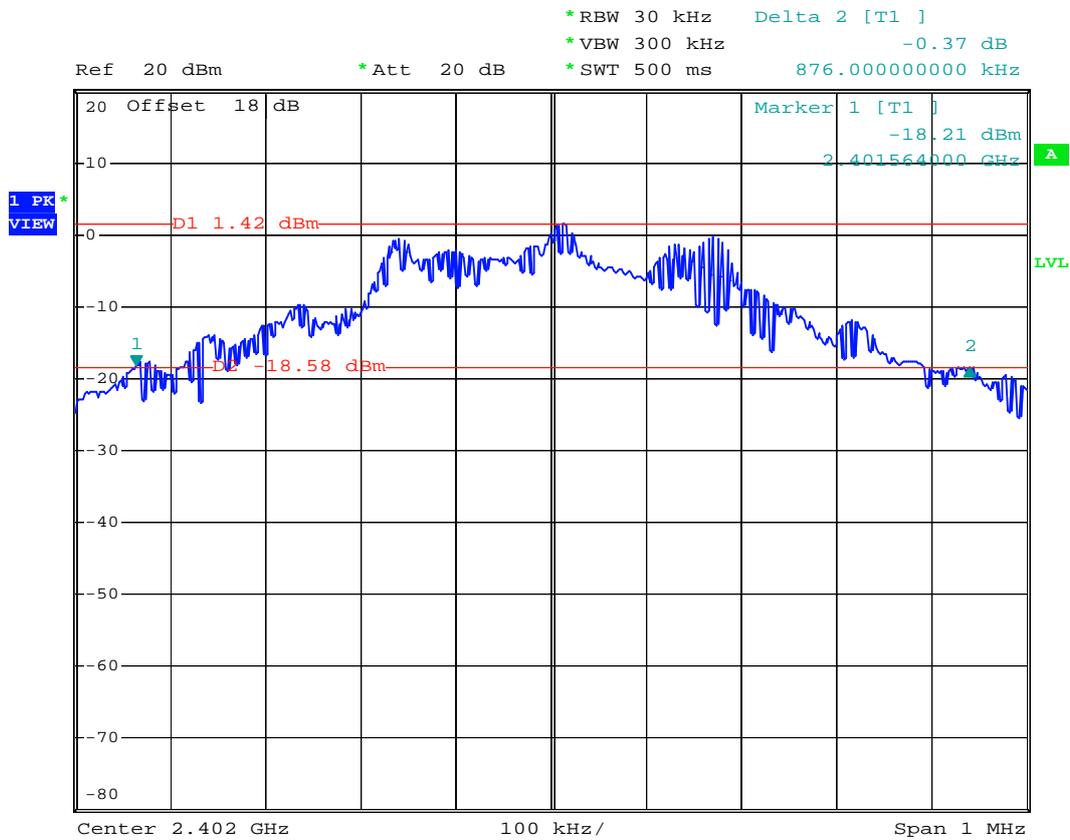
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5.4.5 Hopping Channel Bandwidth

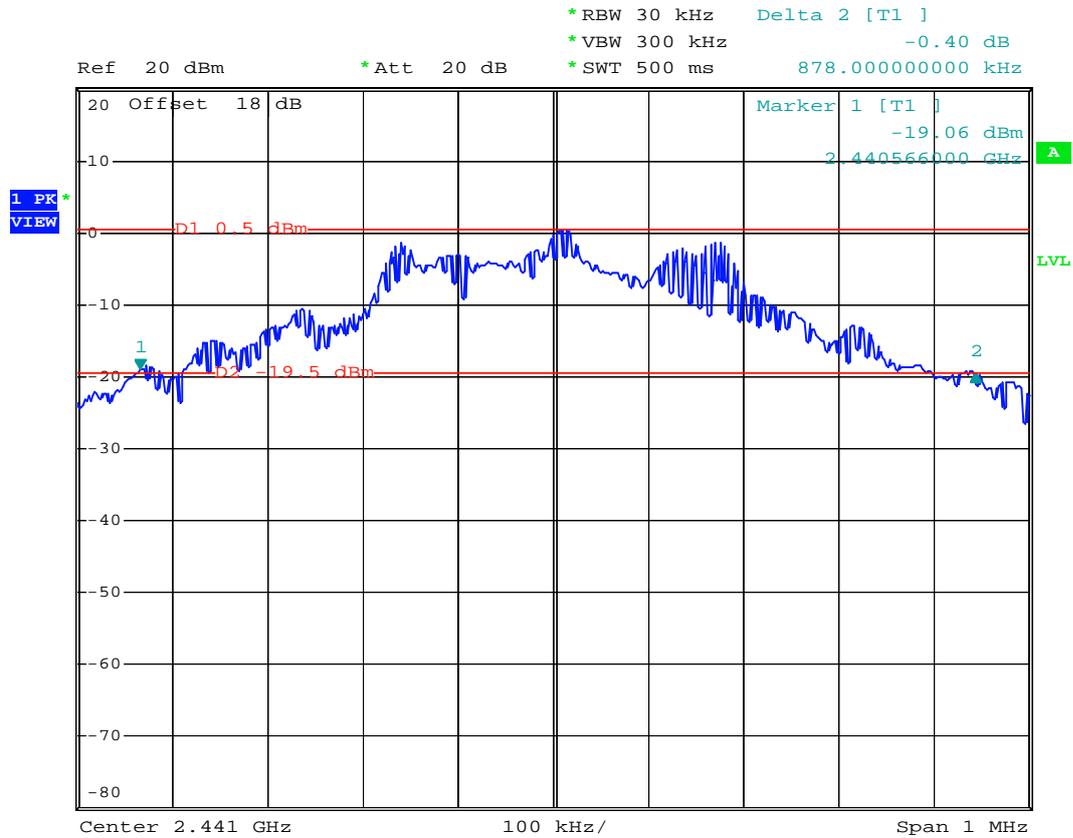
Mode 1: CH00 (2402MHz)



Date: 6.JUN.2007 20:52:06



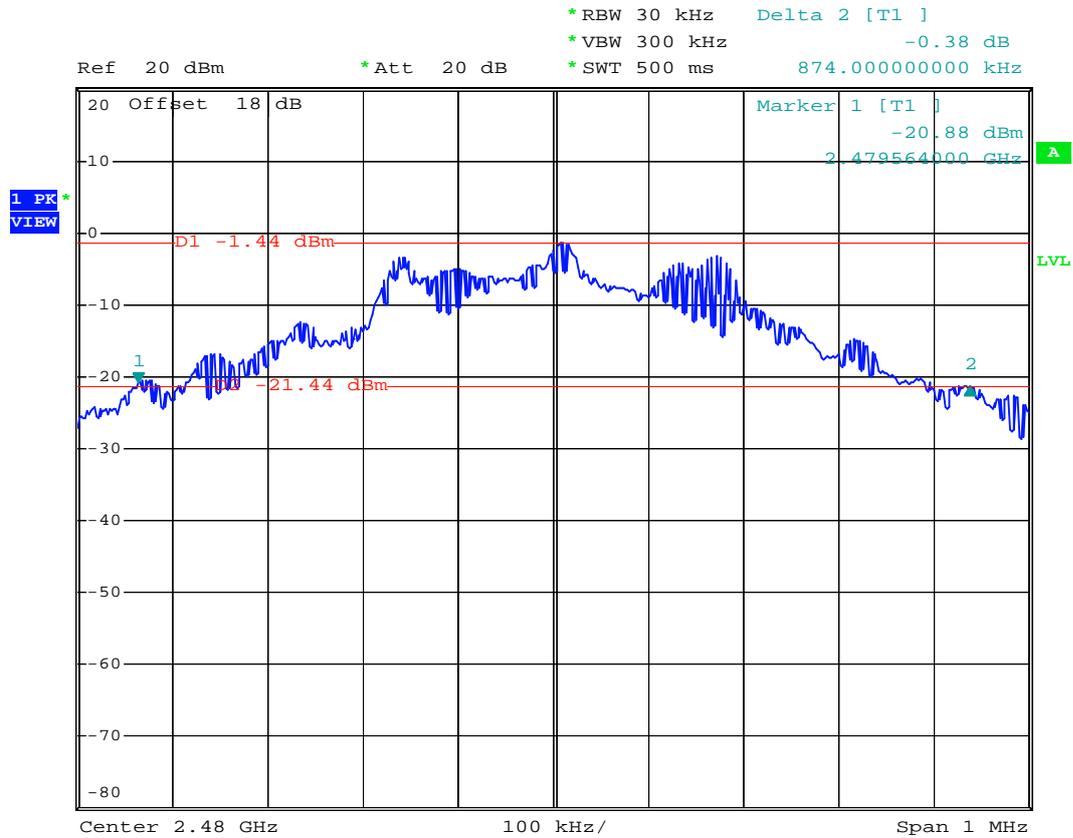
Mode 2: CH39 (2441MHz)



Date: 6.JUN.2007 20:49:04



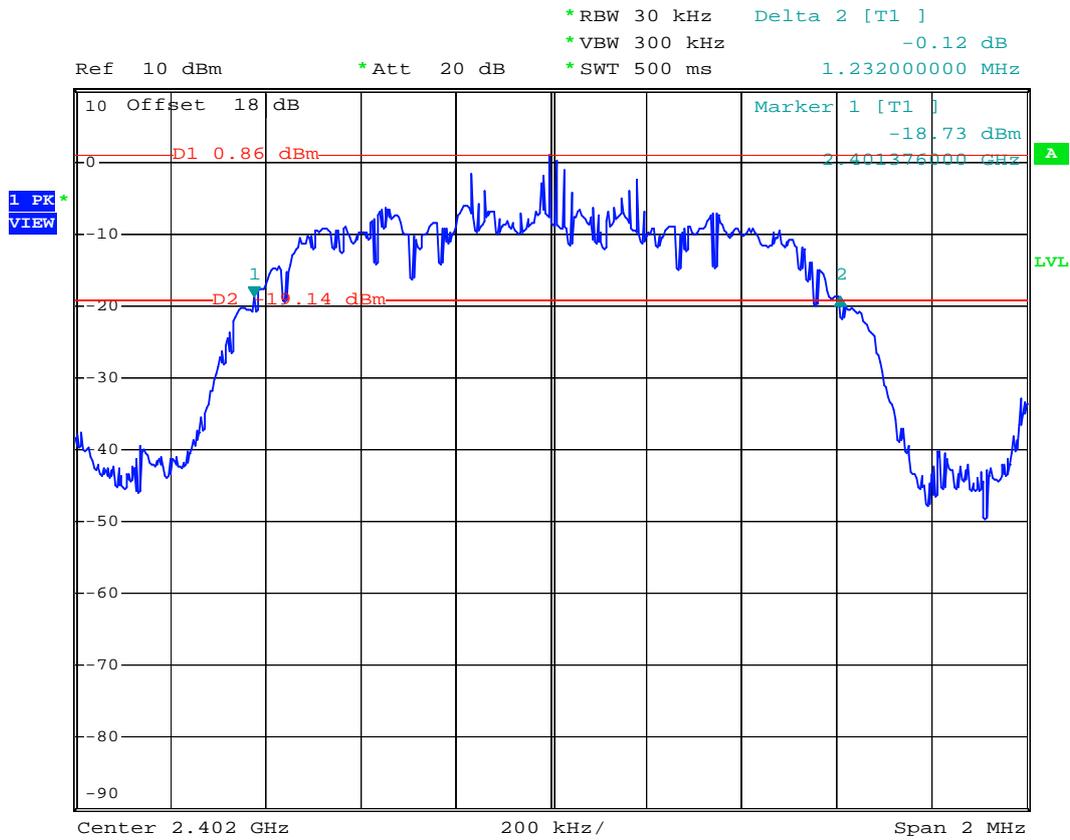
Mode 3: CH78 (2480MHz)



Date: 6.JUN.2007 20:49:41



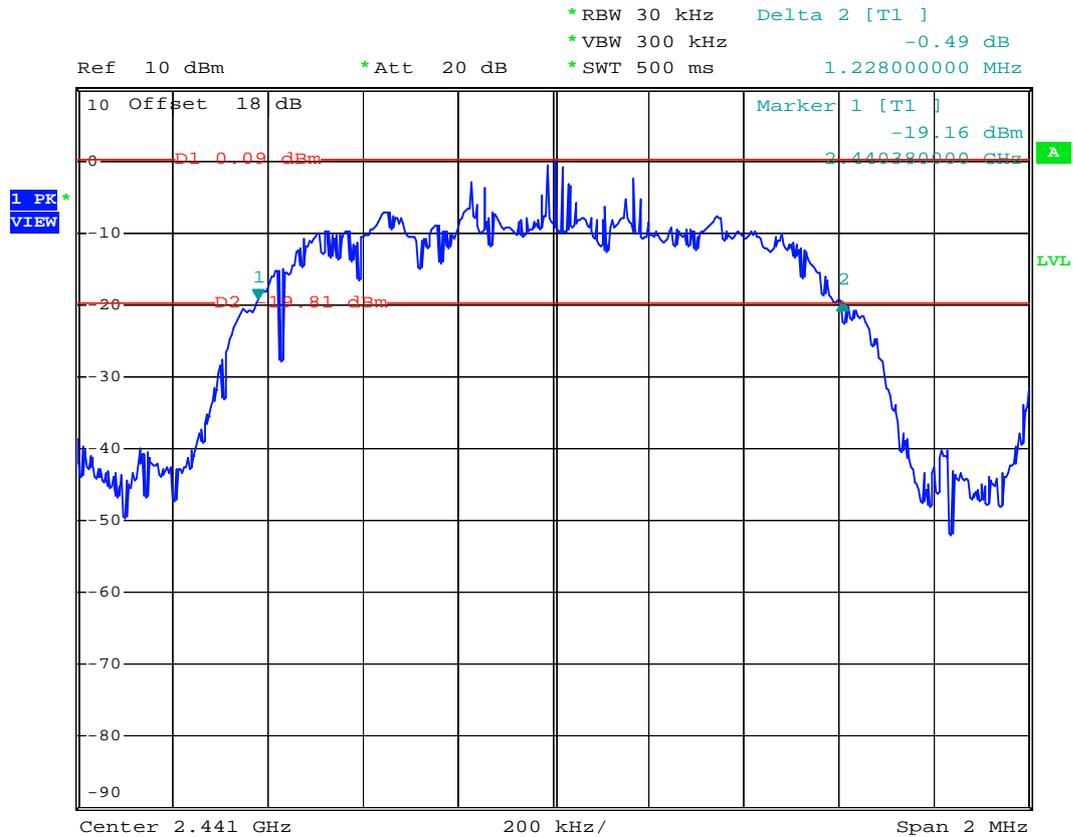
Mode 4: CH00 (2402MHz)



Date: 24.AUG.2007 01:23:43



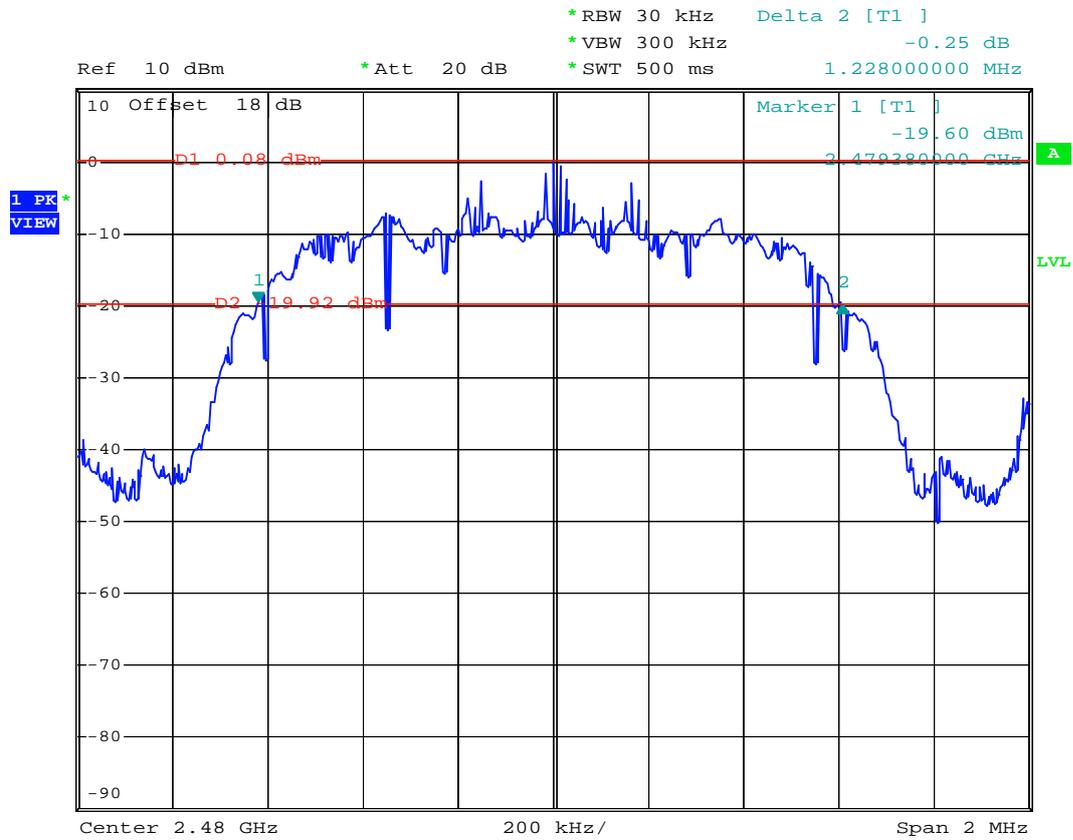
Mode 5: CH39 (2441MHz)



Date: 24.AUG.2007 01:22:05



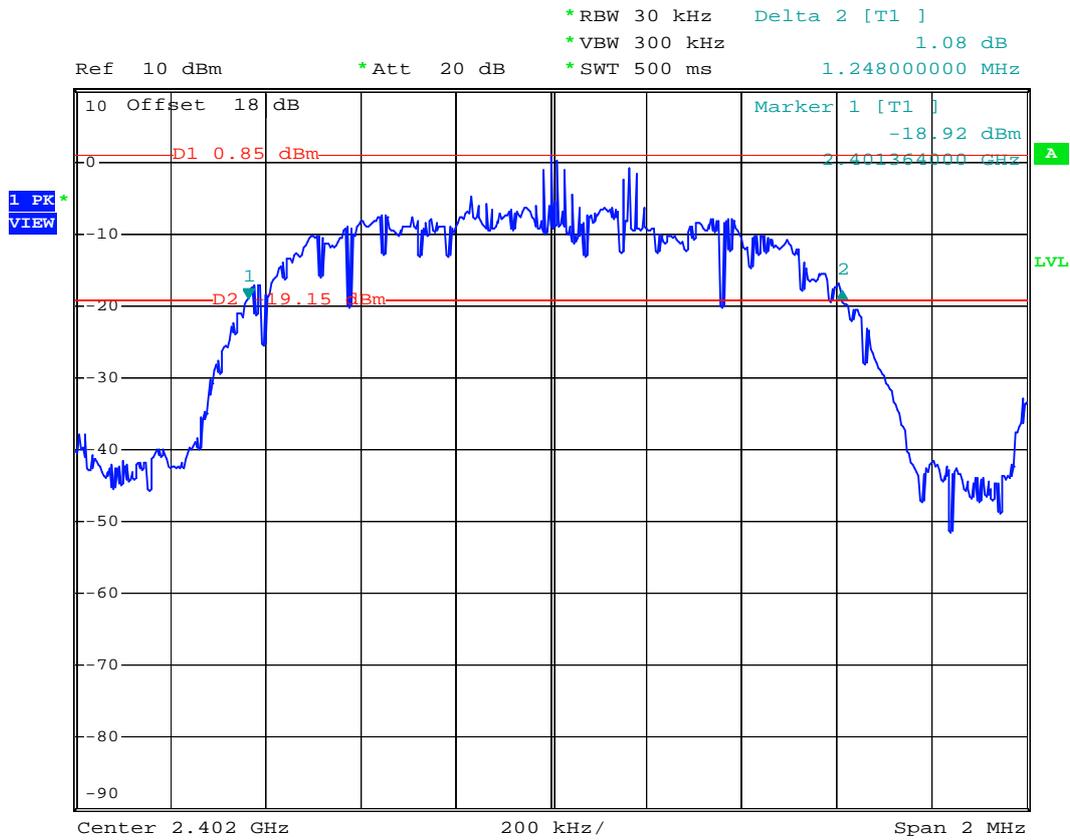
Mode 6: CH78 (2480MHz)



Date: 24.AUG.2007 01:20:38



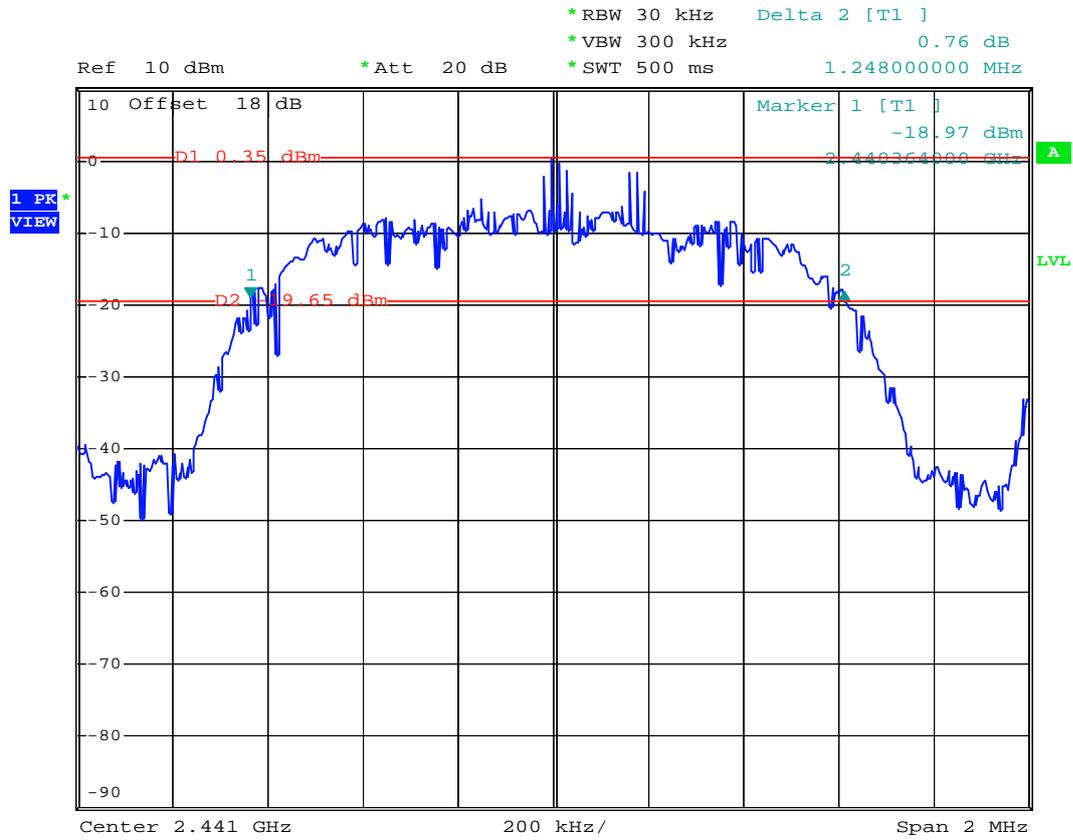
Mode 7: CH00 (2402MHz)



Date: 24.AUG.2007 01:25:00



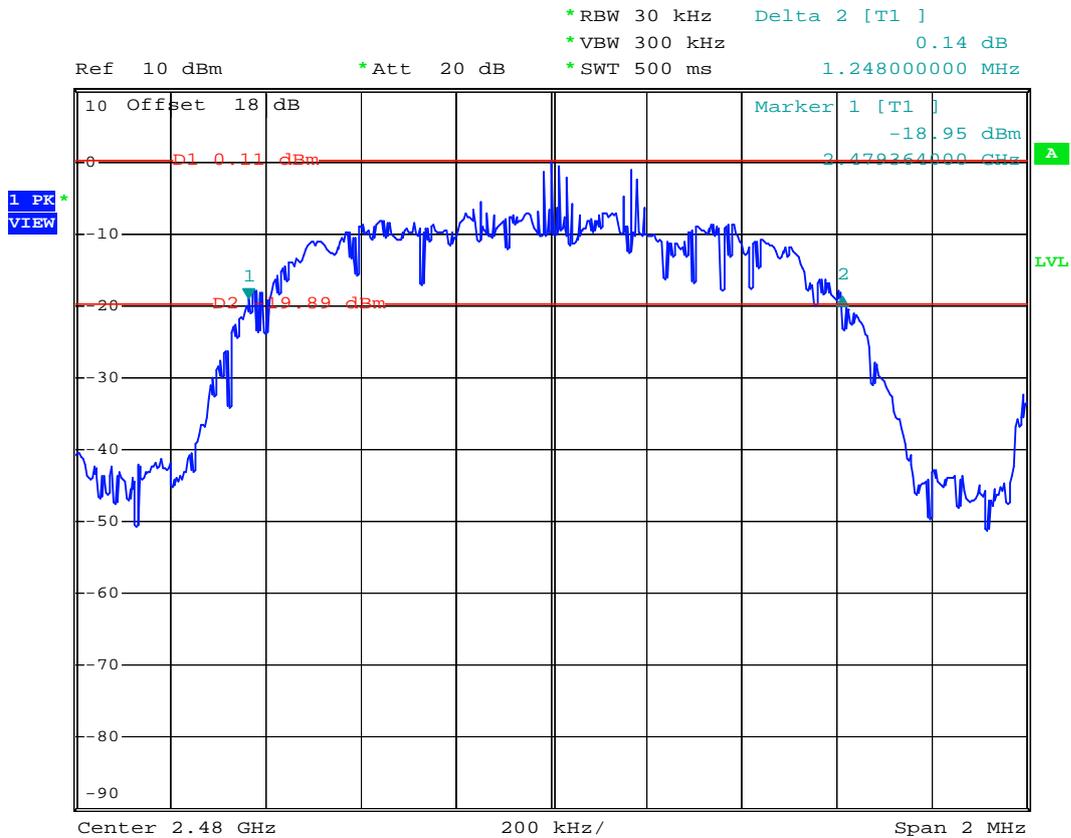
Mode 8: CH39 (2441MHz)



Date: 24.AUG.2007 01:26:38



Mode 9: CH78 (2480MHz)



Date: 24.AUG.2007 01:27:56

### 5.5 Dwell Time of Each Frequency

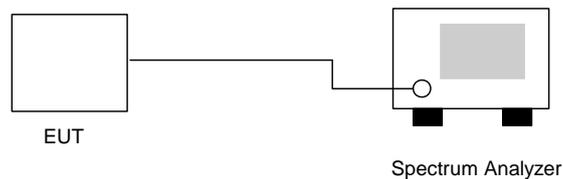
#### 5.5.1 Measuring Instruments :

As described in chapter 9 of this test report.

#### 5.5.2 Test Procedure :

1. The transmitter output was connected to the spectrum analyzer by a low loss cable.
2. Set RBW of spectrum analyzer to 1MHz and VBW to 1MHz.
3. Set the center frequency on any frequency would be measure and set the frequency span to zero span.
4. The calculate =  $79 * 0.4 * (1600/79) * t$  (t = the time duration of one single pulse )

#### 5.5.3 Test Setup Layout :



#### 5.5.4 Test Result : See spectrum analyzer plots below

- Application Type : Bluetooth (1/2/3Mbps)
- Temperature : : 26 and 27~28
- Relative Humidity : 59% and 49~50%
- Test Enginner : Andy and Sun

➤ Bluetooth (1Mbps)

Ch00

Package Mode	Average Hopping Channel	Package Transfer Time (us)	Dwell Time (s)	Limit (s)
DH1	9.2	440.00	0.128	0.4
DH3	5.5	1696.00	0.295	0.4
DH5	3.6	3020.00	0.344	0.4



CH39

Package Mode	Average Hopping Channel	Package Transfer Time (us)	Dwell Time (s)	Limit (s)
DH1	9.3	436.00	0.128	0.4
DH3	5.9	1710.00	0.319	0.4
DH5	3.8	3020.00	0.363	0.4

CH78

Package Mode	Average Hopping Channel	Package Transfer Time (us)	Dwell Time (s)	Limit (s)
DH1	9.4	456.00	0.135	0.4
DH3	5.4	1720.00	0.294	0.4
DH5	3.9	3000.00	0.370	0.4

➤ Bluetooth EDR (2Mbps)

Ch39

Package Mode	Average Hopping Channel	Package Transfer Time (us)	Dwell Time (s)	Limit (s)
DH1	9.1	456	0.131	0.4
DH3	4.8	1736	0.263	0.4
DH5	3.2	2996	0.303	0.4



➤ Bluetooth EDR (3Mbps)

Ch39

Package Mode	Average Hopping Channel	Package Transfer Time (us)	Dwell Time (s)	Limit (s)
DH1	8.4	455	0.121	0.4
DH3	5.3	1705	0.286	0.4
DH5	3.3	3005	0.313	0.4

Remark:

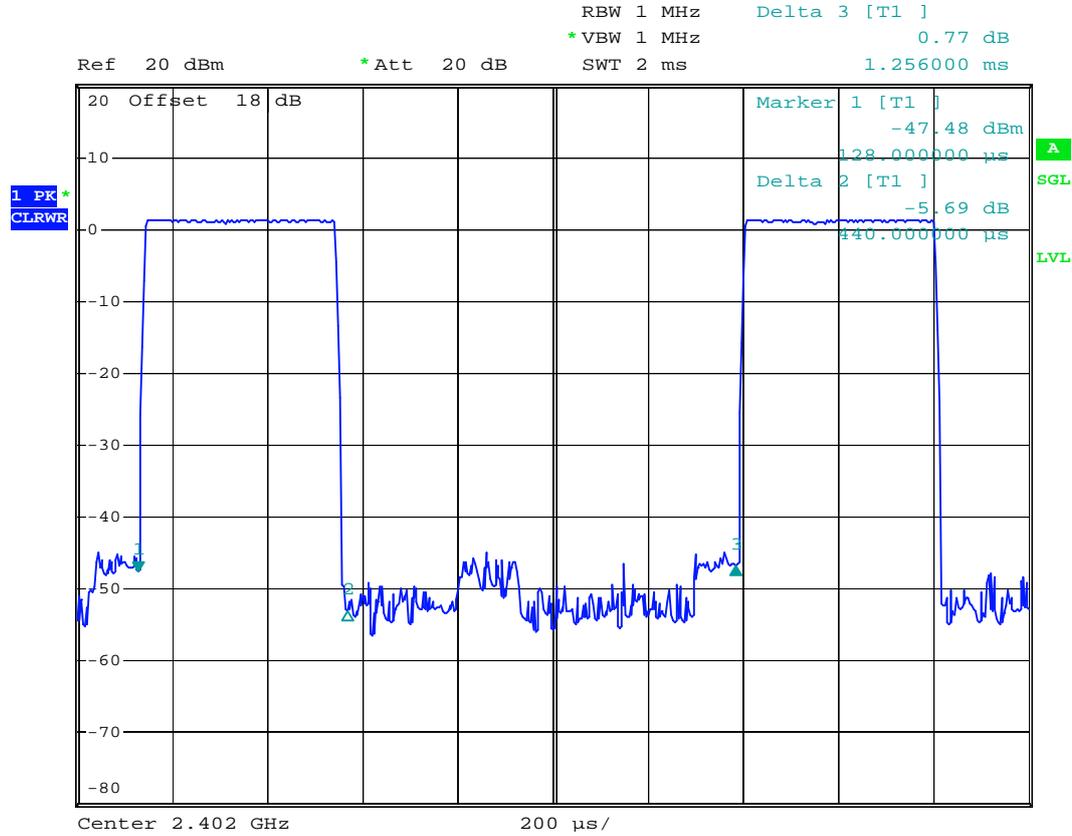
1. Dwell Time=79(channels) x 0.4(s) x average hopping channel x package transfer time
2. 79channels come from the Hopping Channel number.
3. Average Hopping Channel = hops/sweep time
4. t: Package Transfer Time(us)



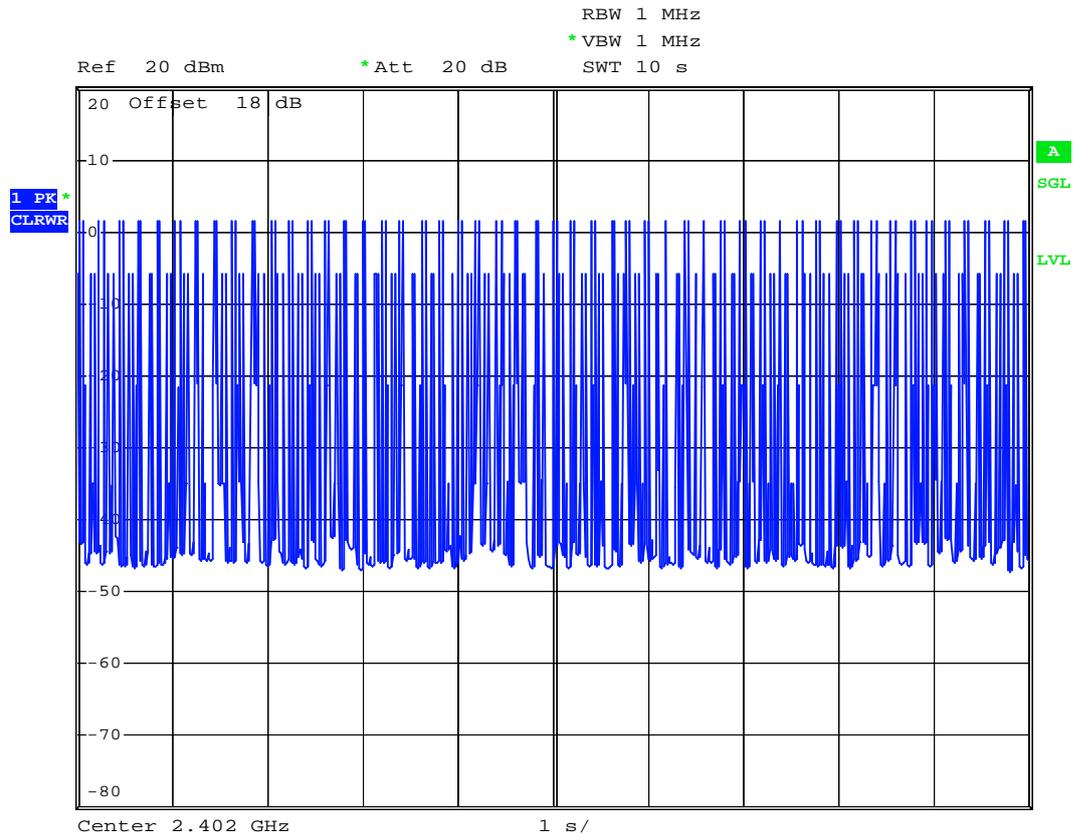
5.5.5 Dwell Time

- Bluetooth (1Mbps)

DH1 (CH00)



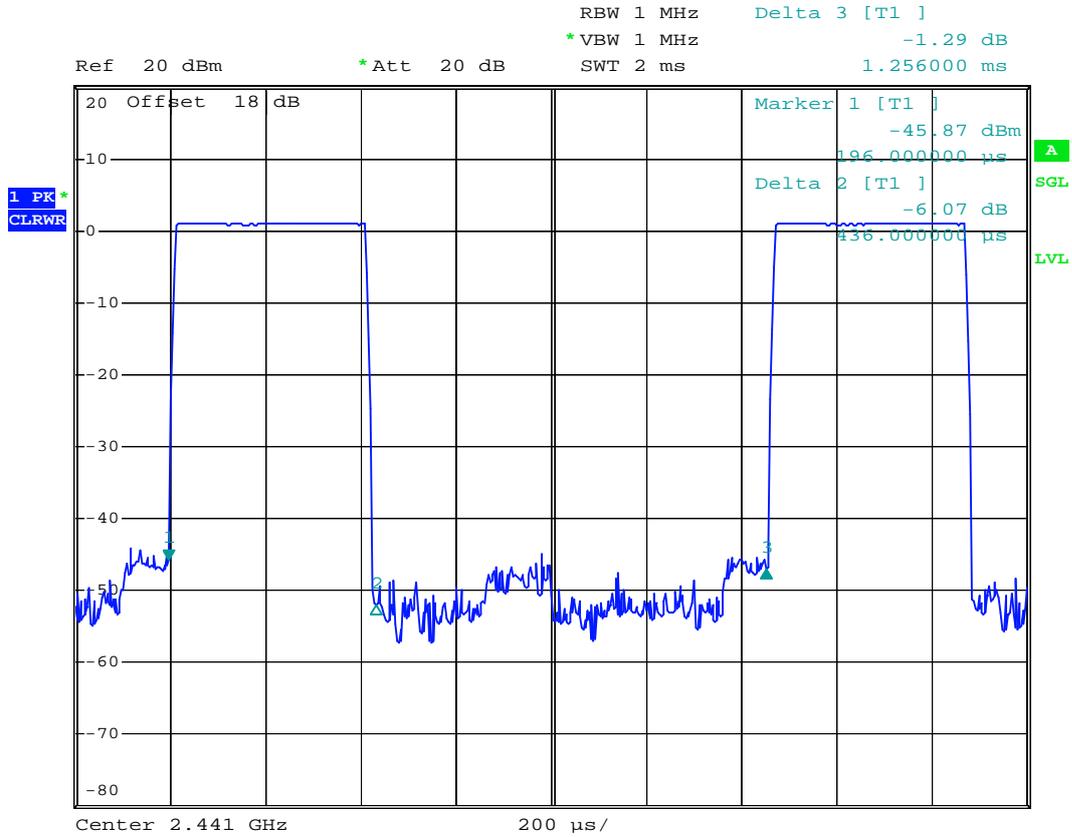
Date: 6.JUN.2007 21:00:41



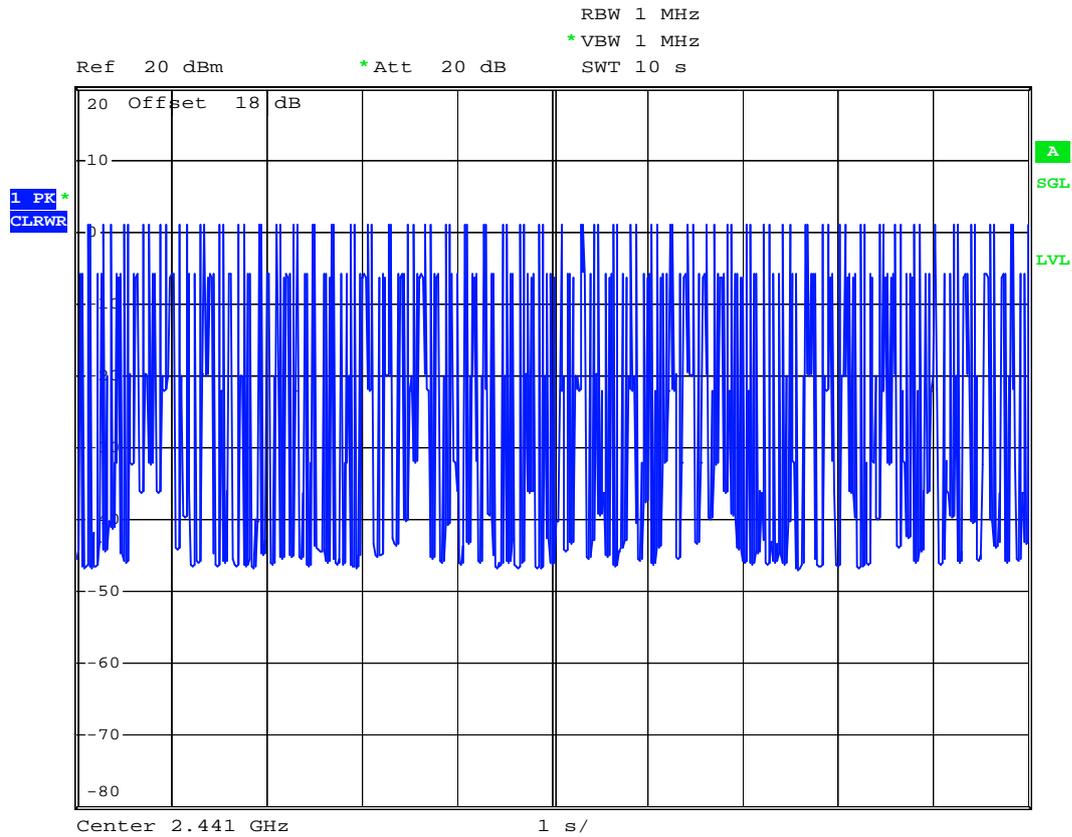
Date: 6.JUN.2007 21:07:37



DH1 (CH39)



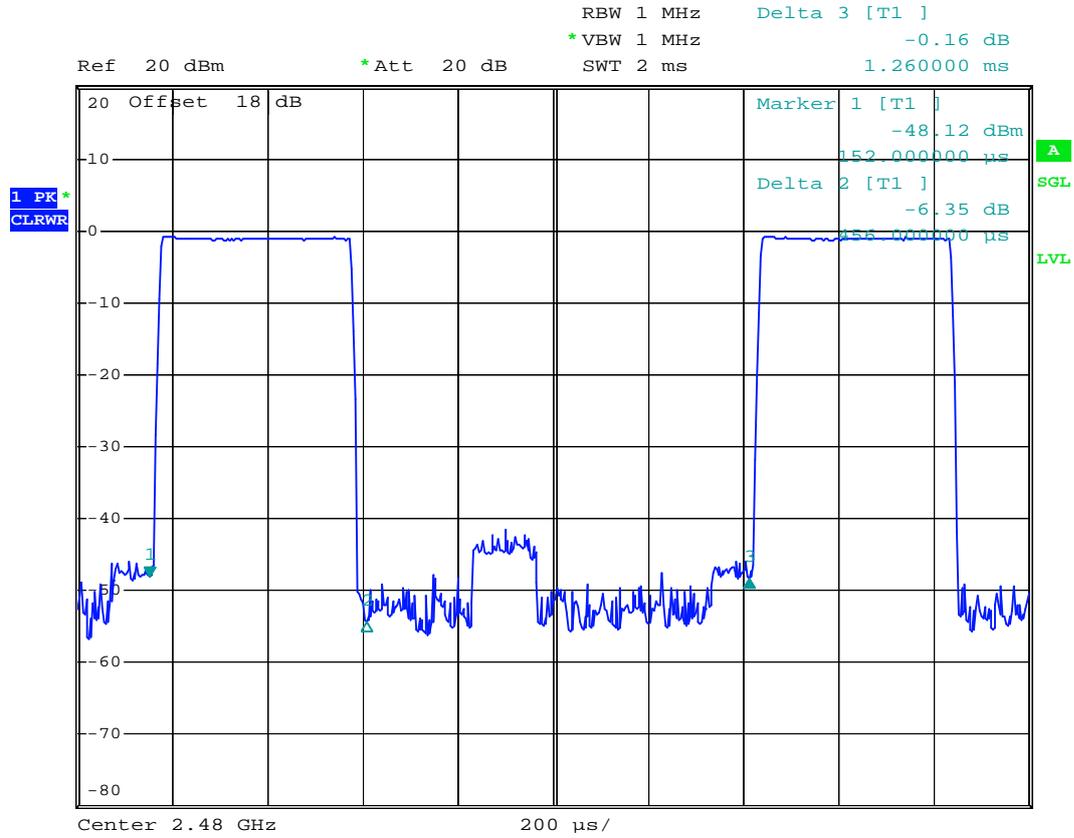
Date: 6.JUN.2007 21:01:20



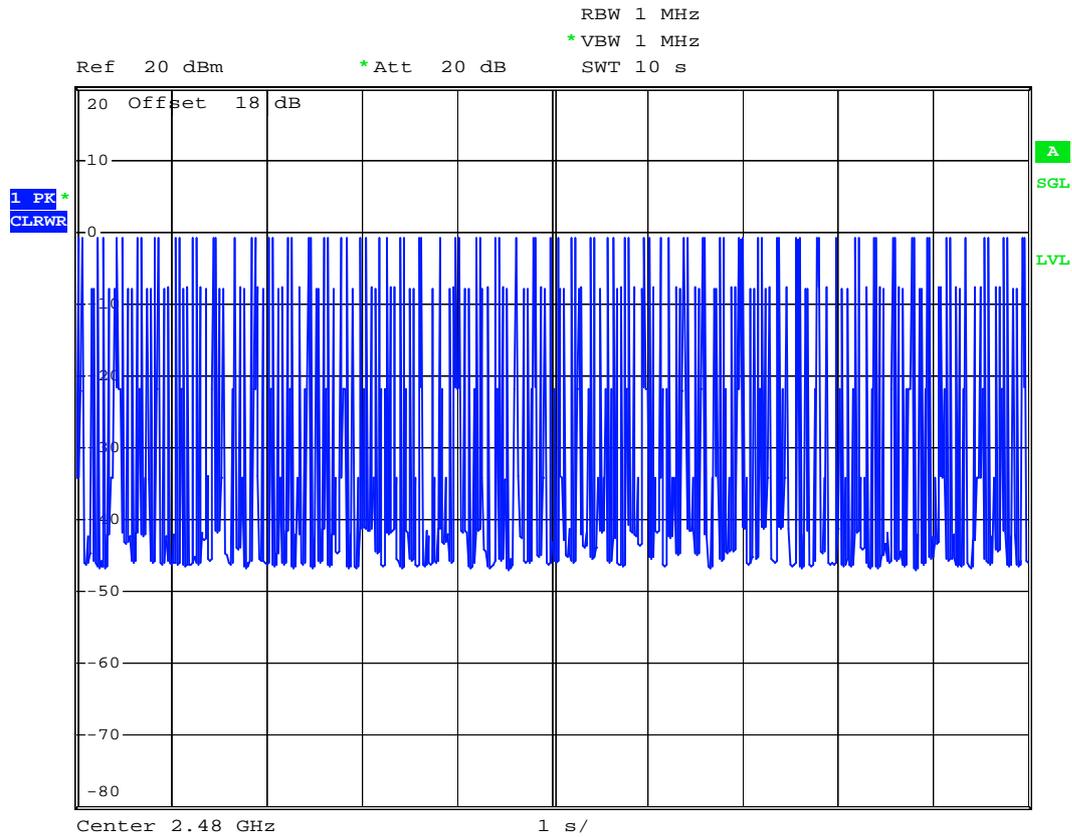
Date: 6.JUN.2007 21:08:01



DH1 (CH78)



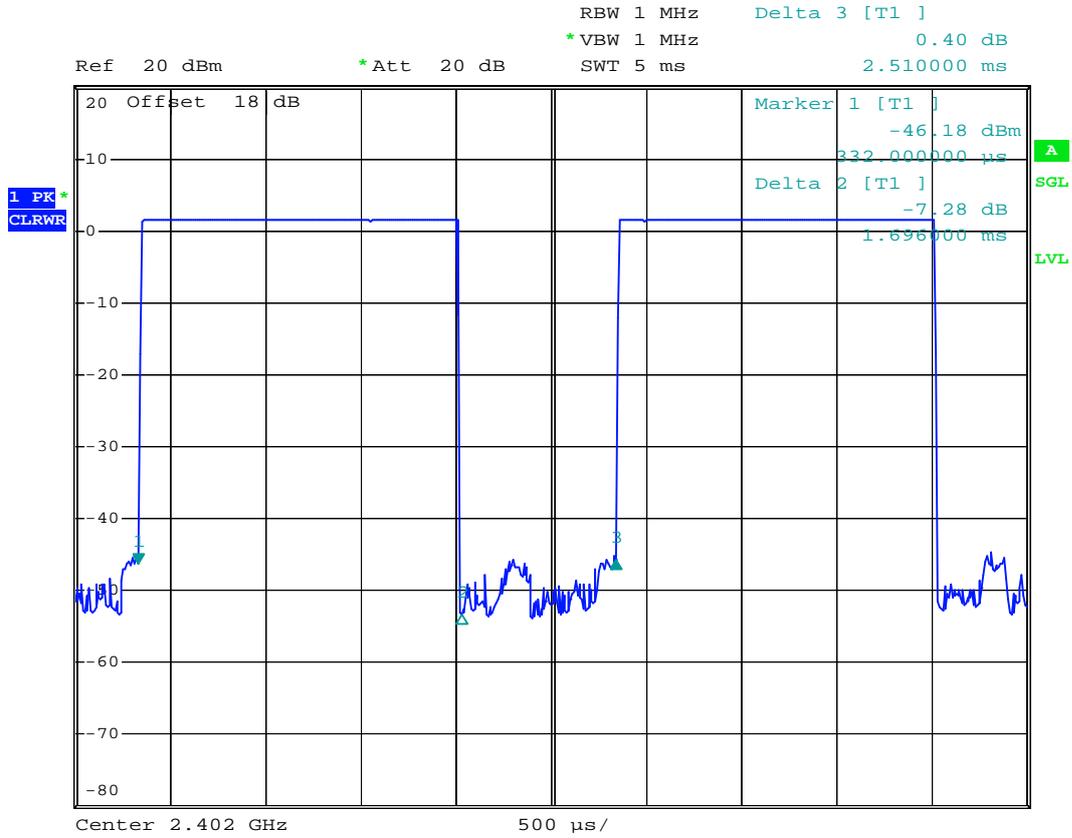
Date: 6.JUN.2007 21:02:02



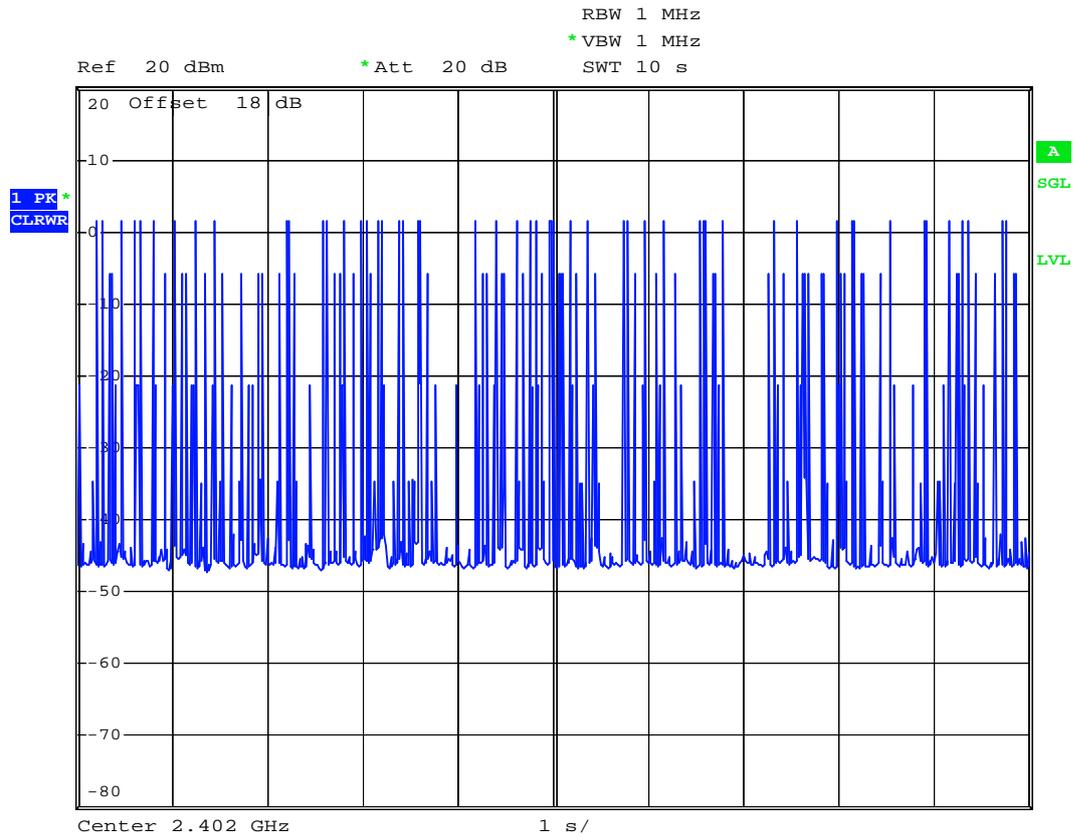
Date: 6.JUN.2007 21:08:21



DH3 (CH00)



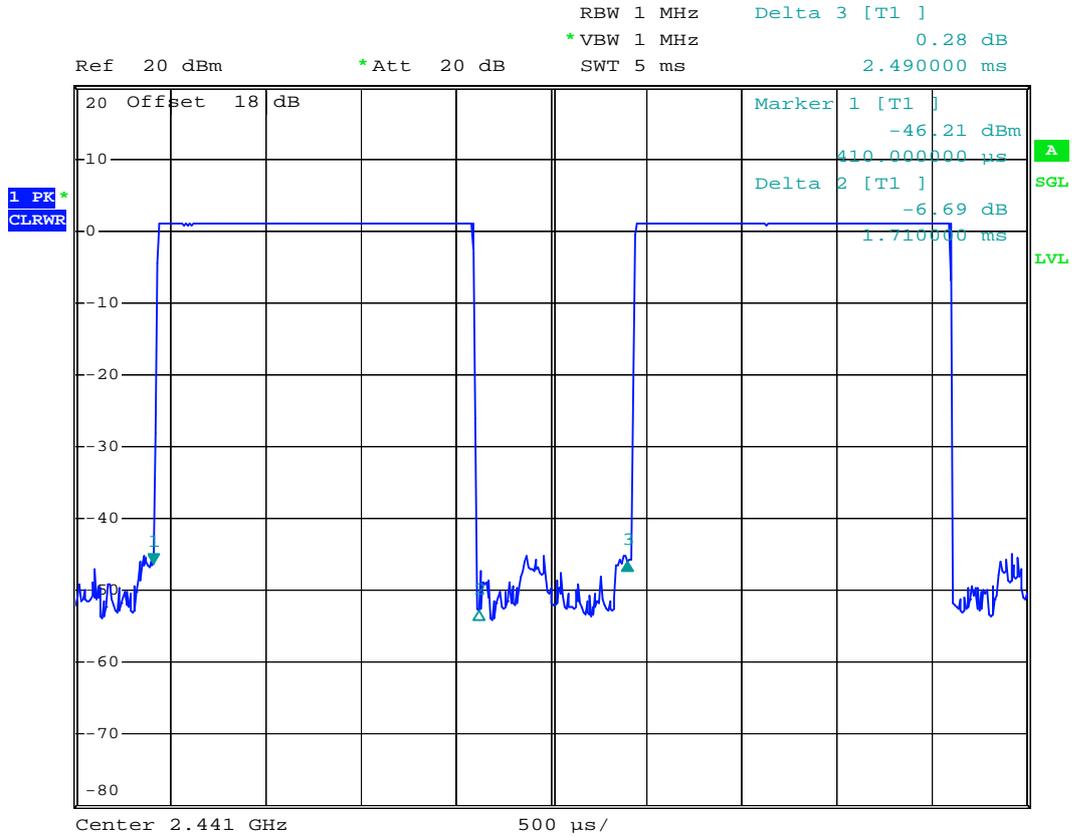
Date: 6.JUN.2007 21:02:54



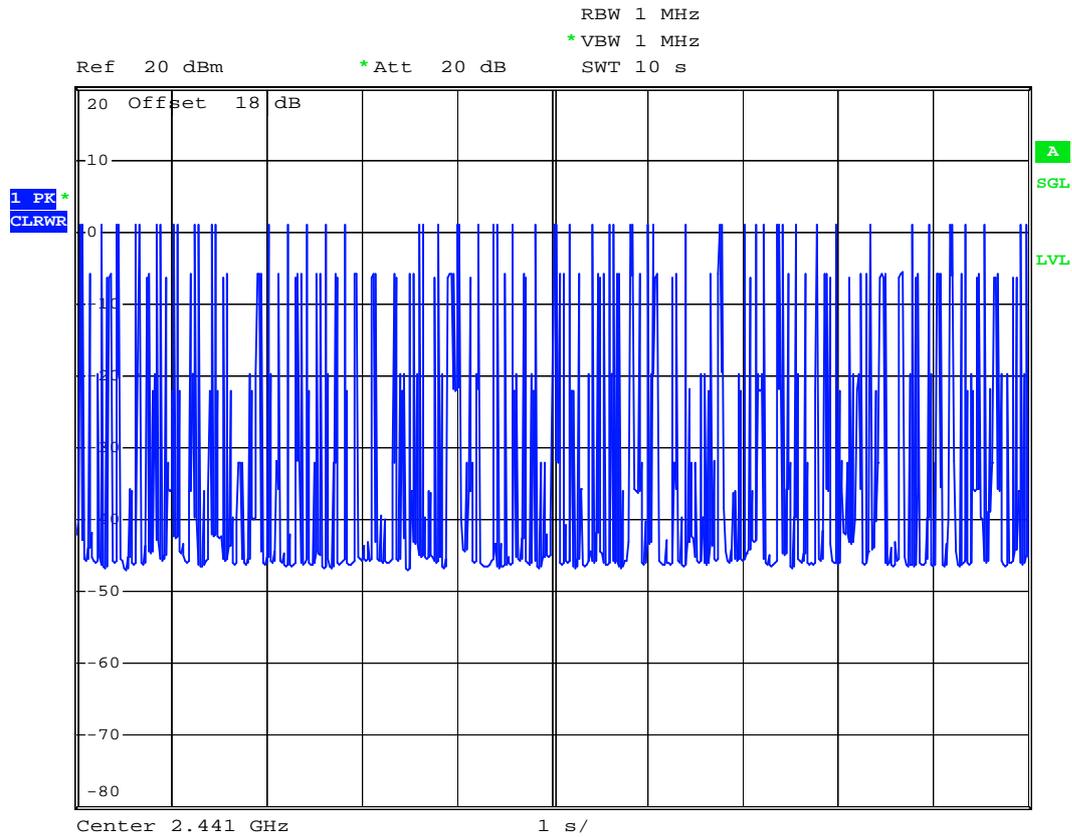
Date: 6.JUN.2007 21:10:28



DH3 (CH39)



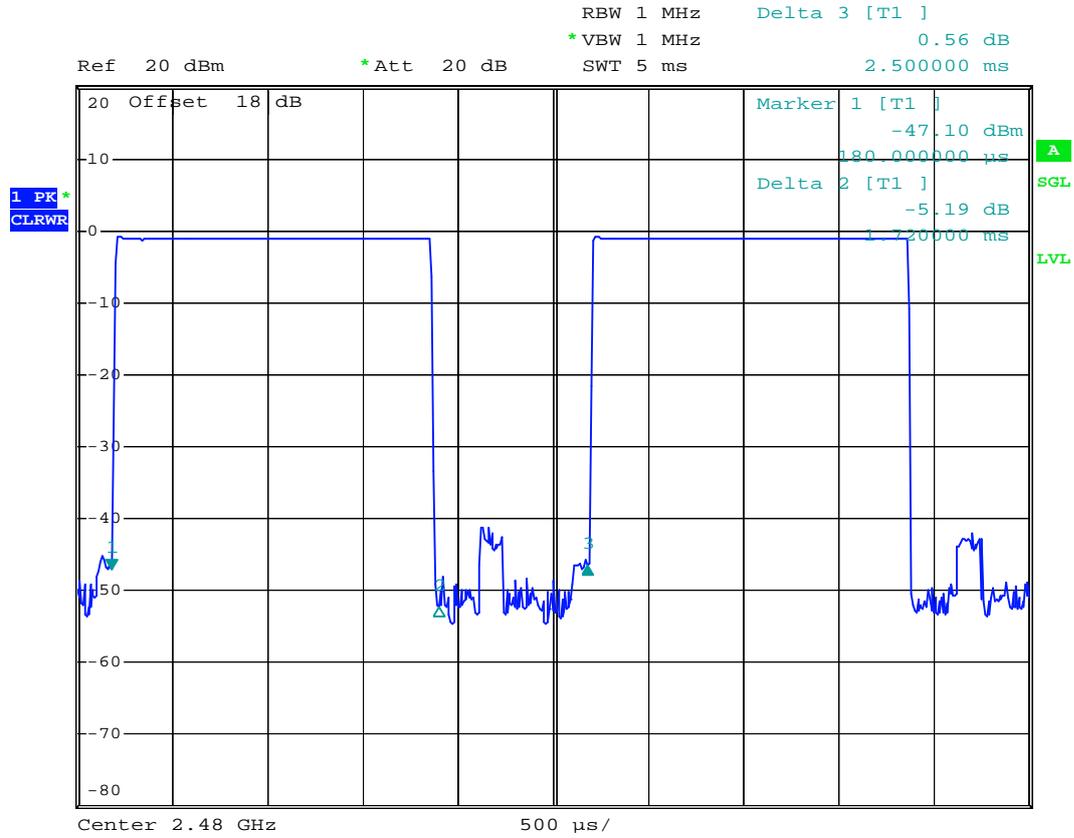
Date: 6.JUN.2007 21:03:33



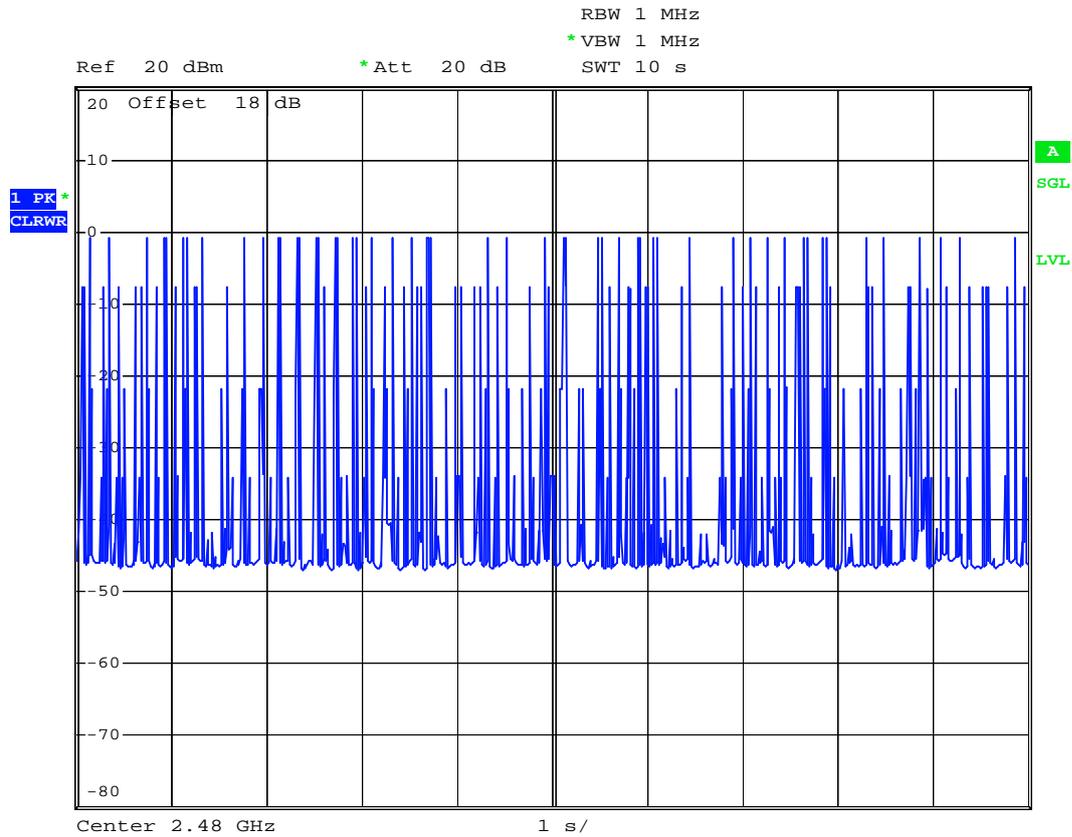
Date: 6.JUN.2007 21:10:55



DH3 (CH78)



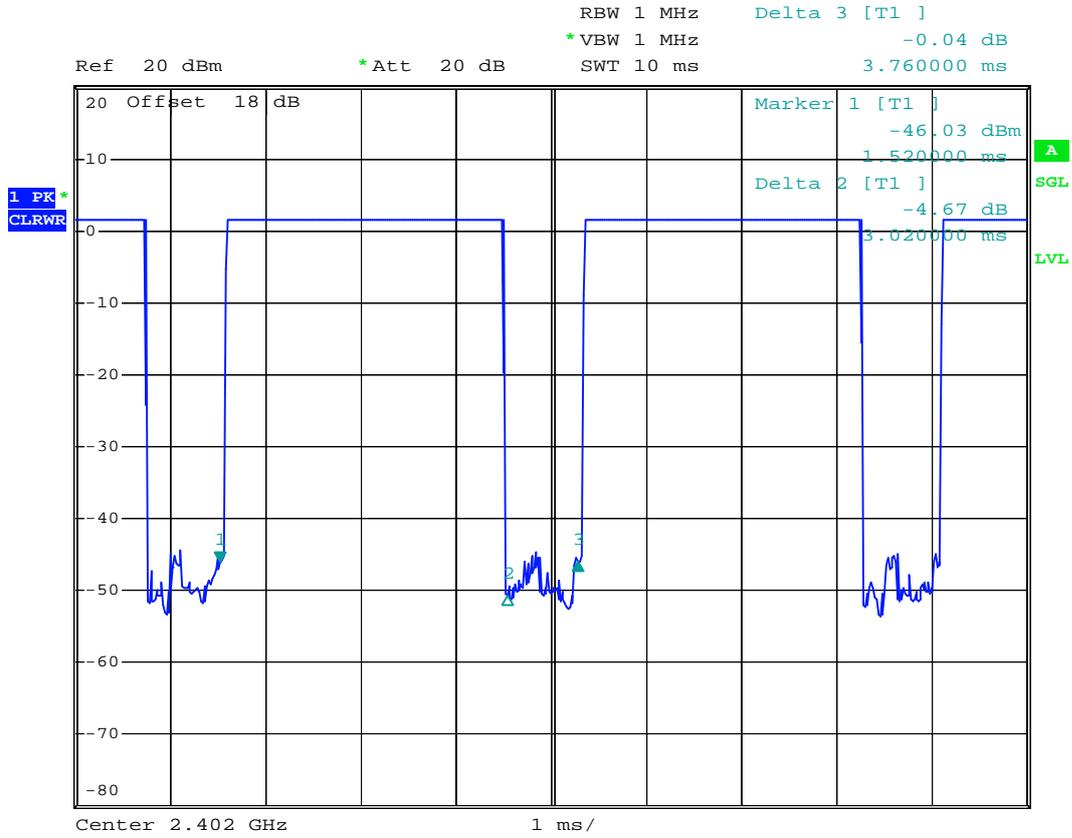
Date: 6.JUN.2007 21:04:09



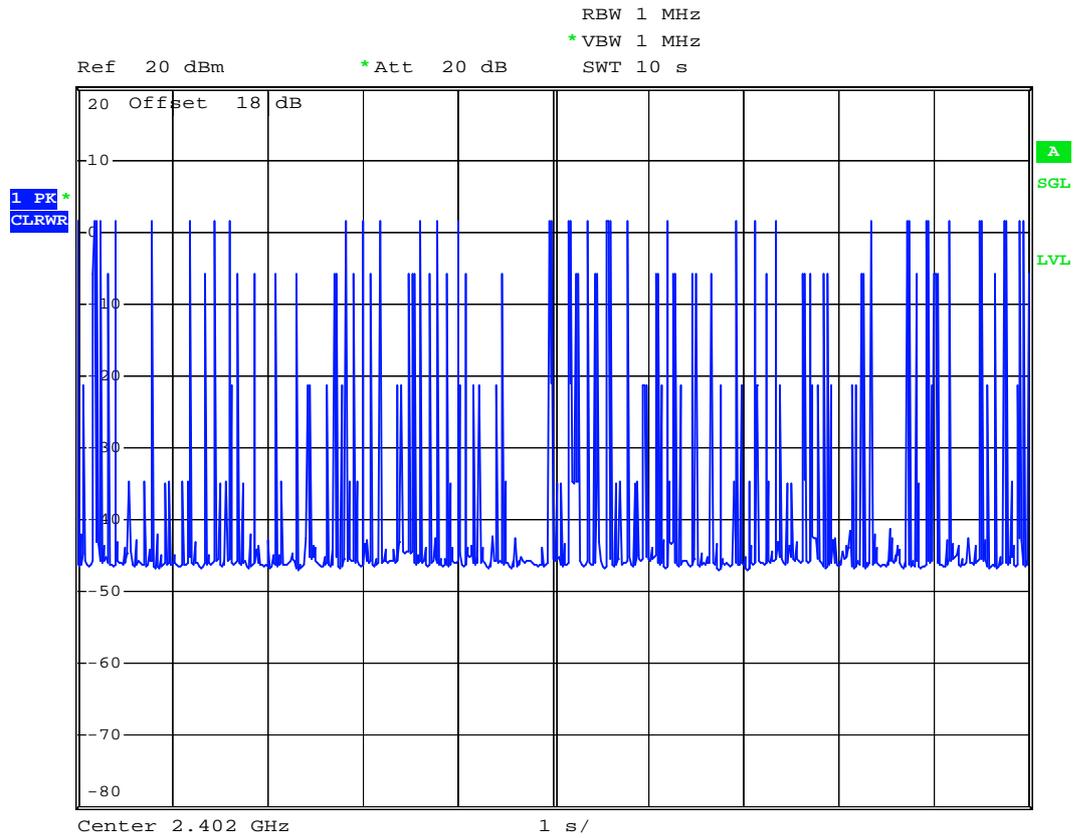
Date: 6.JUN.2007 21:11:24



DH5 (CH00)



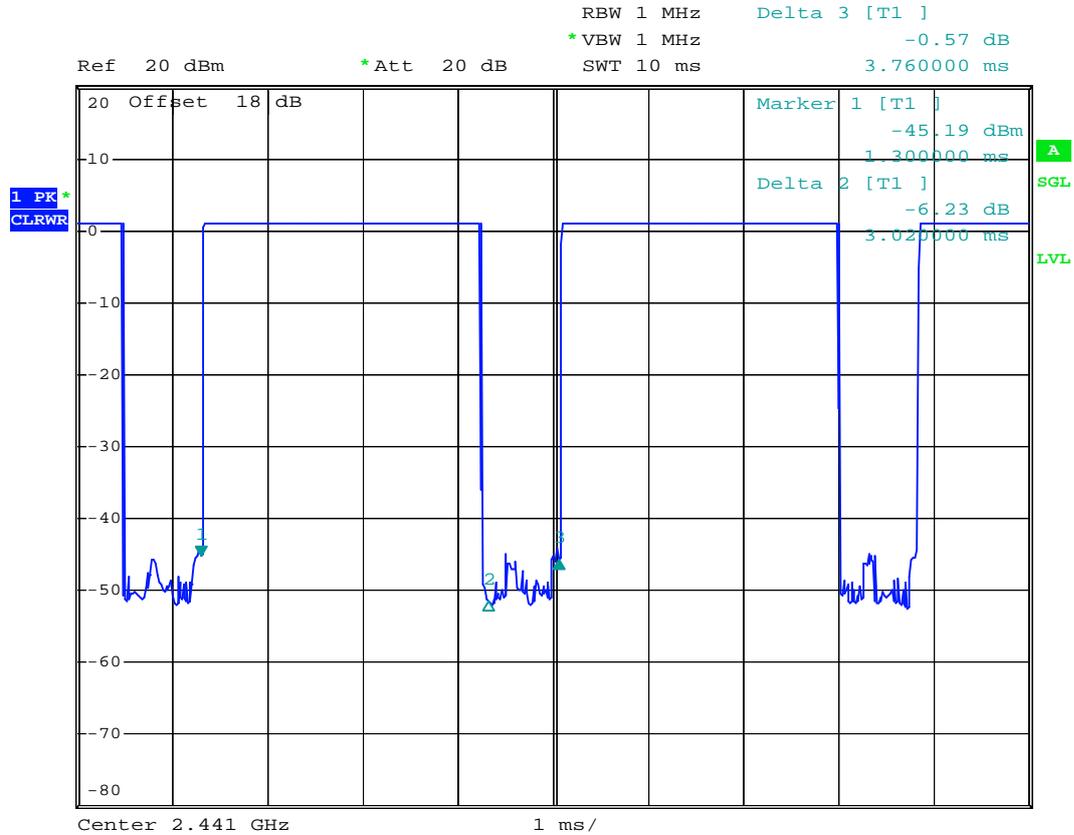
Date: 6.JUN.2007 21:05:30



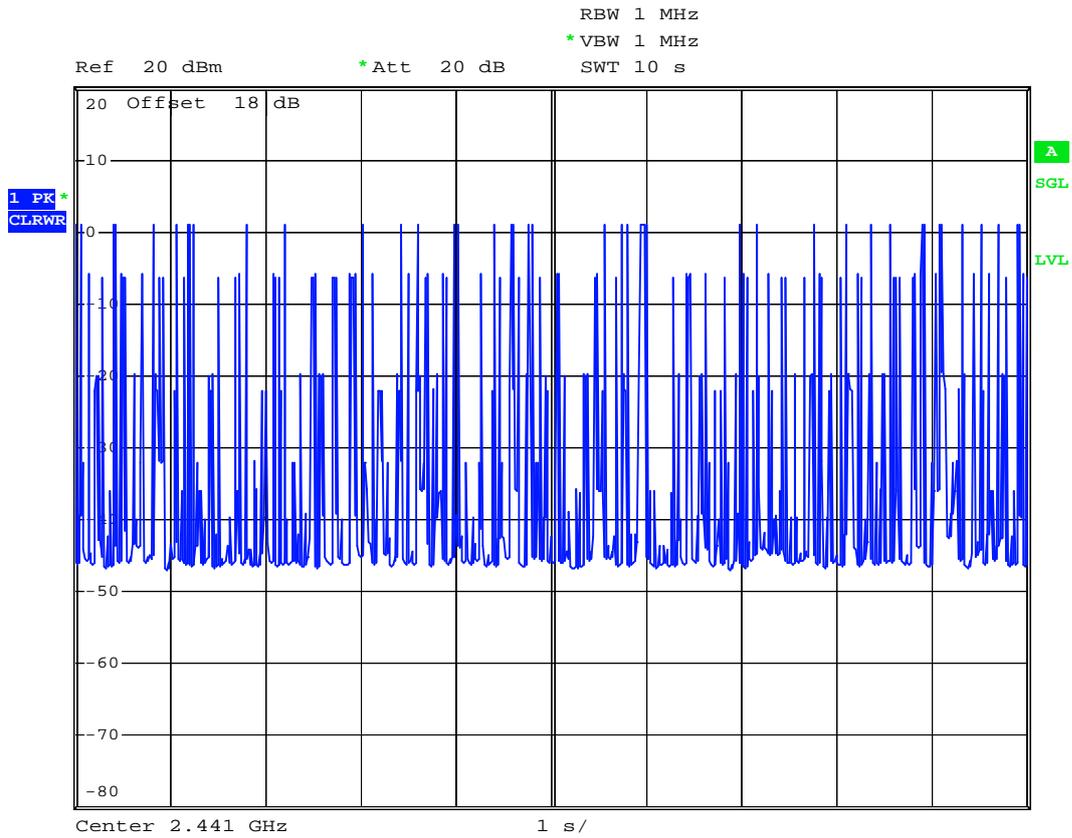
Date: 6.JUN.2007 21:12:04



DH5 (CH39)



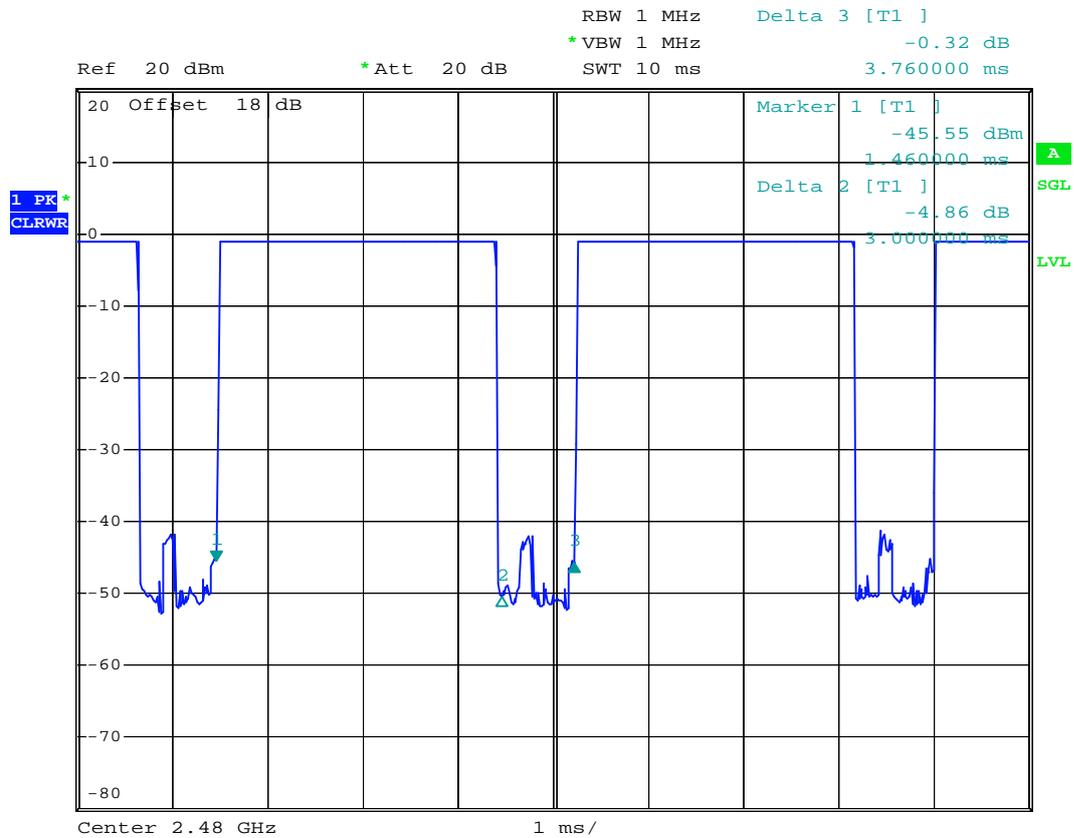
Date: 6.JUN.2007 21:05:58



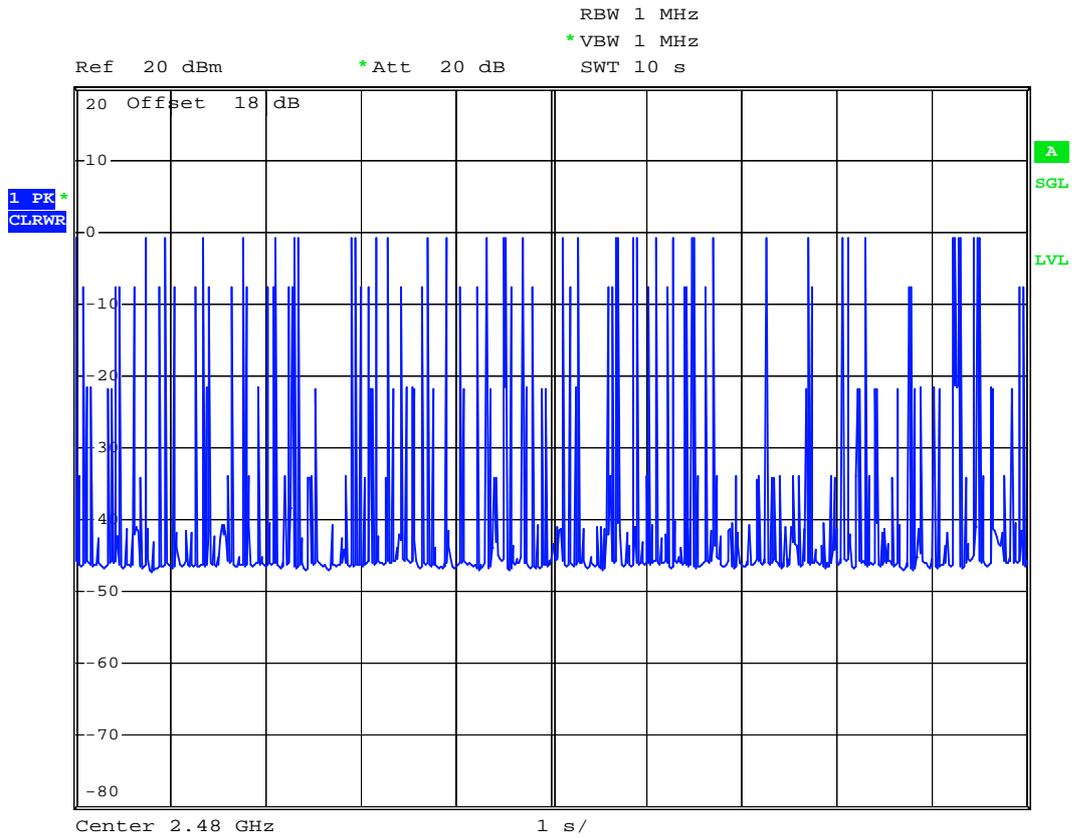
Date: 6.JUN.2007 21:12:23



DH5 (CH78)



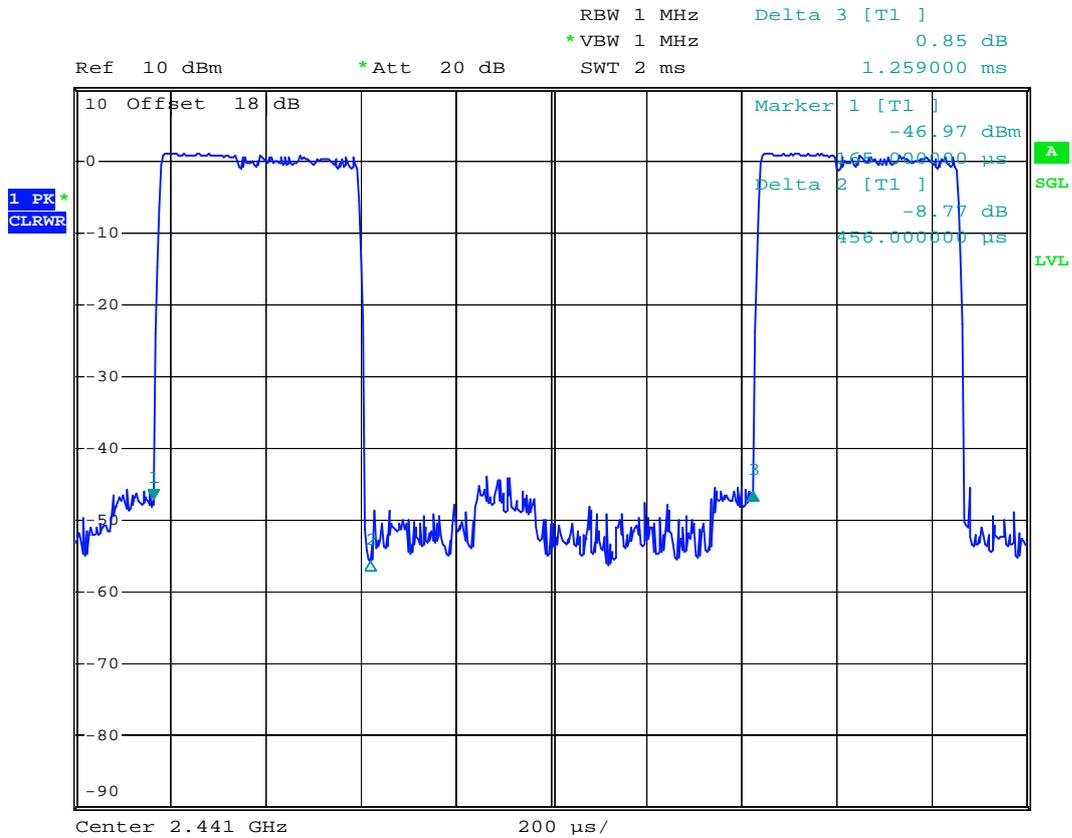
Date: 6.JUN.2007 21:06:32



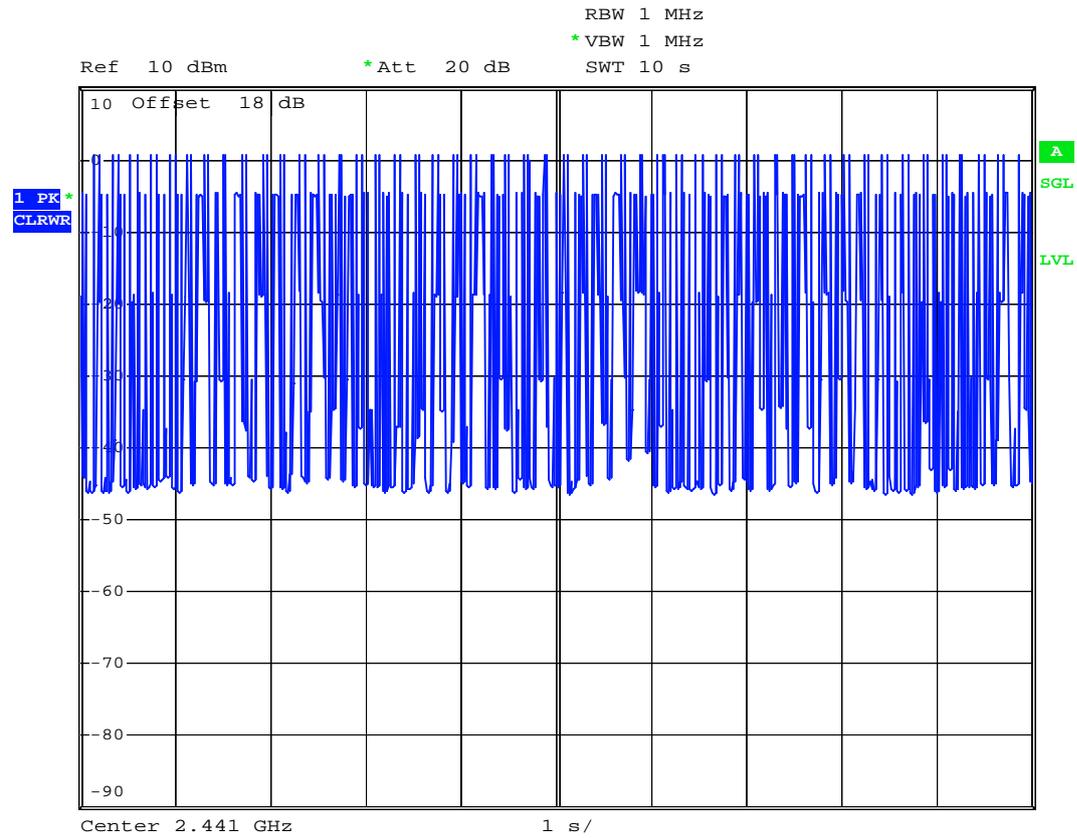
Date: 6.JUN.2007 21:12:48



➤ Bluetooth (2Mbps)  
DH1 (CH39)



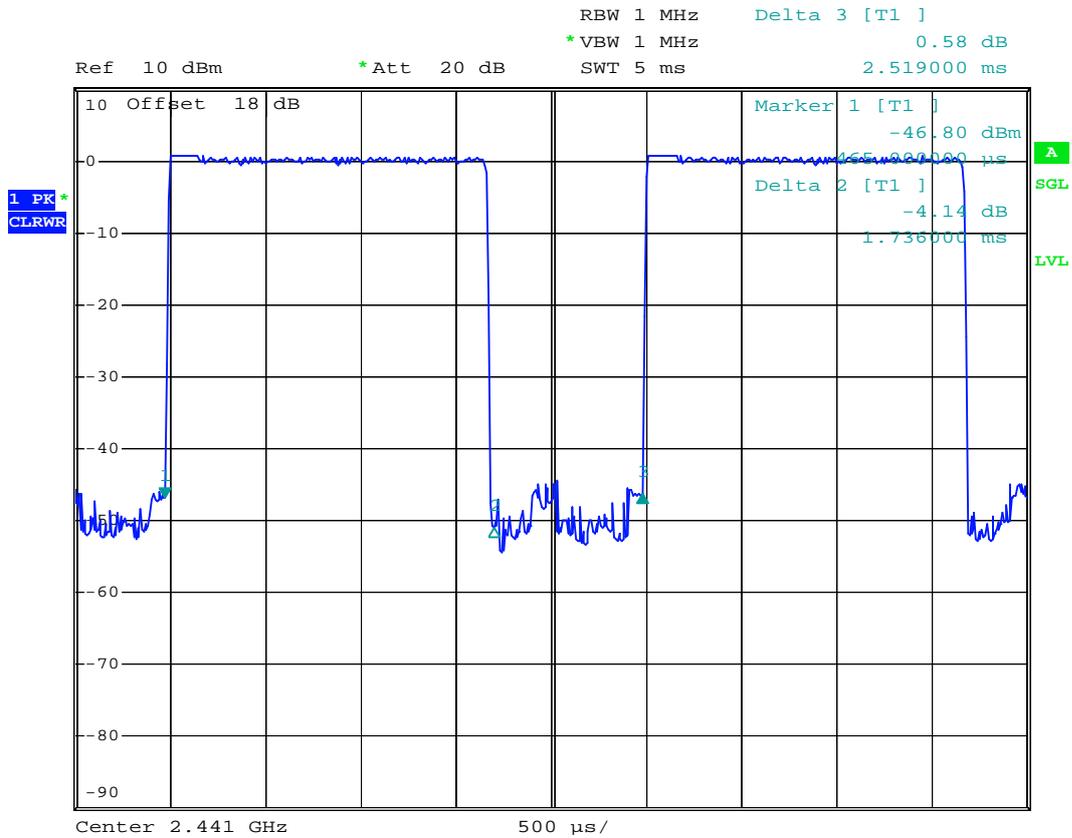
Date: 24.AUG.2007 01:56:02



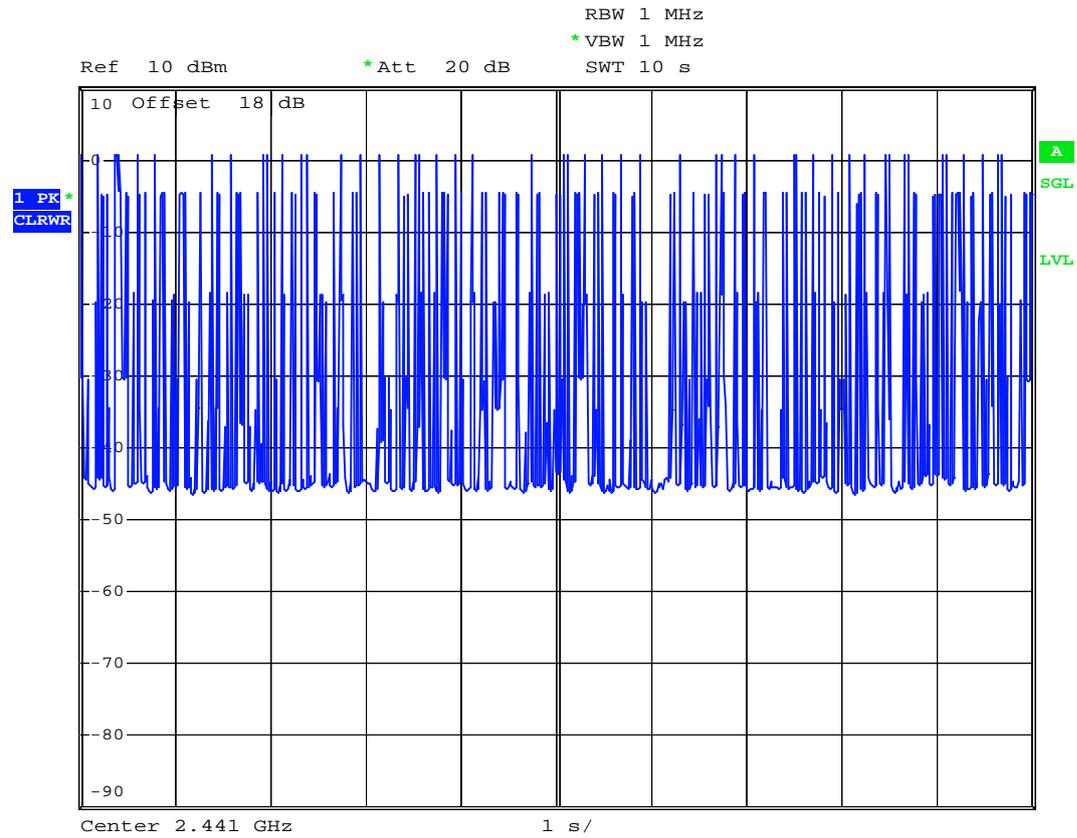
Date: 24.AUG.2007 02:13:01



DH3 (CH39)



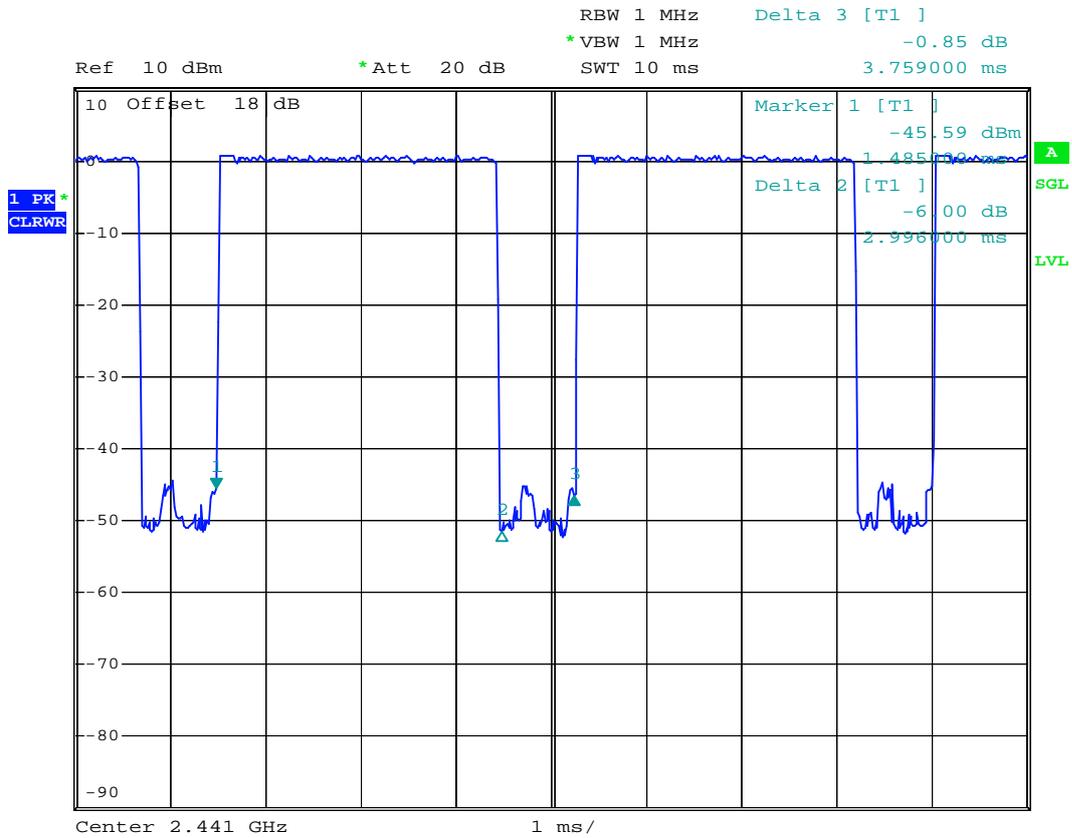
Date: 24.AUG.2007 01:57:34



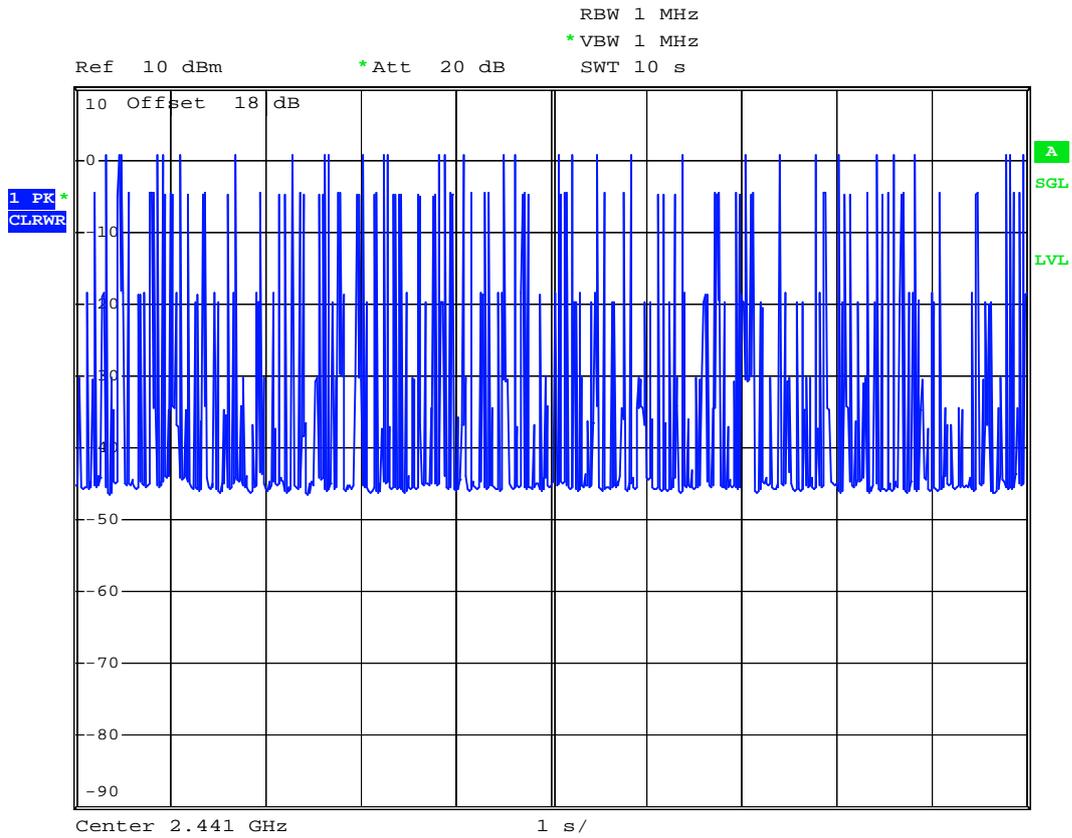
Date: 24.AUG.2007 02:24:48



DH5 (CH39)



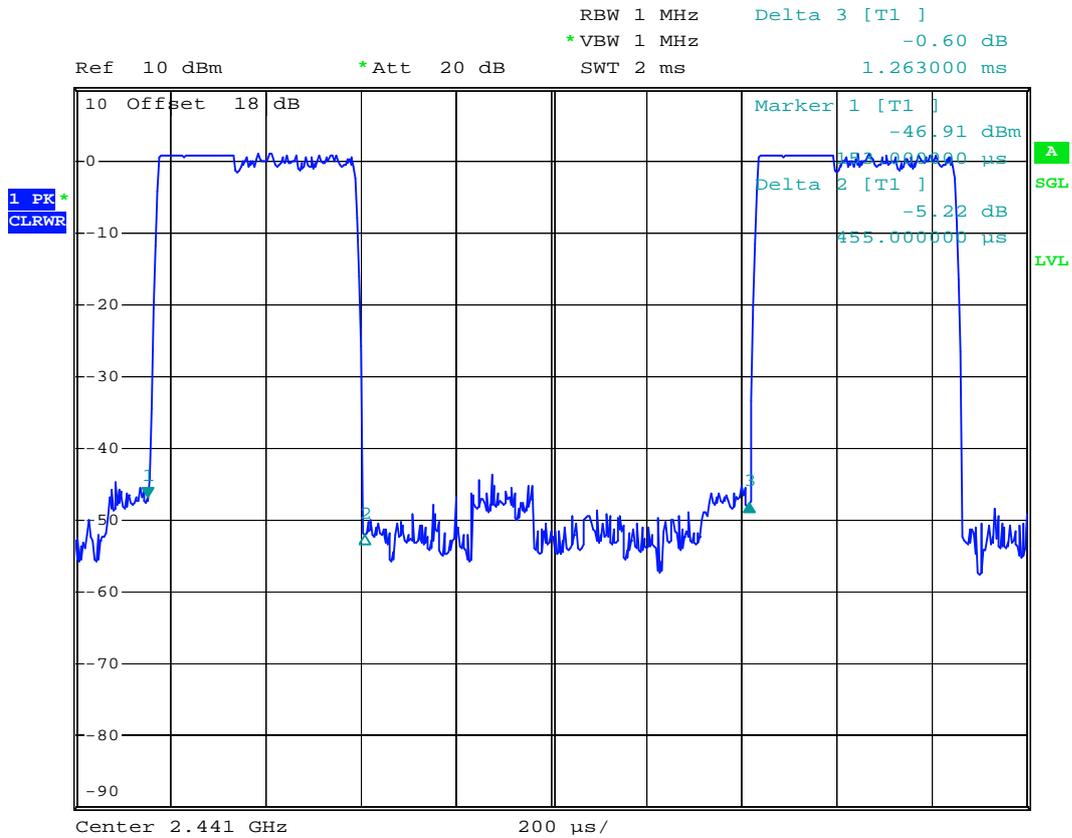
Date: 24.AUG.2007 01:59:03



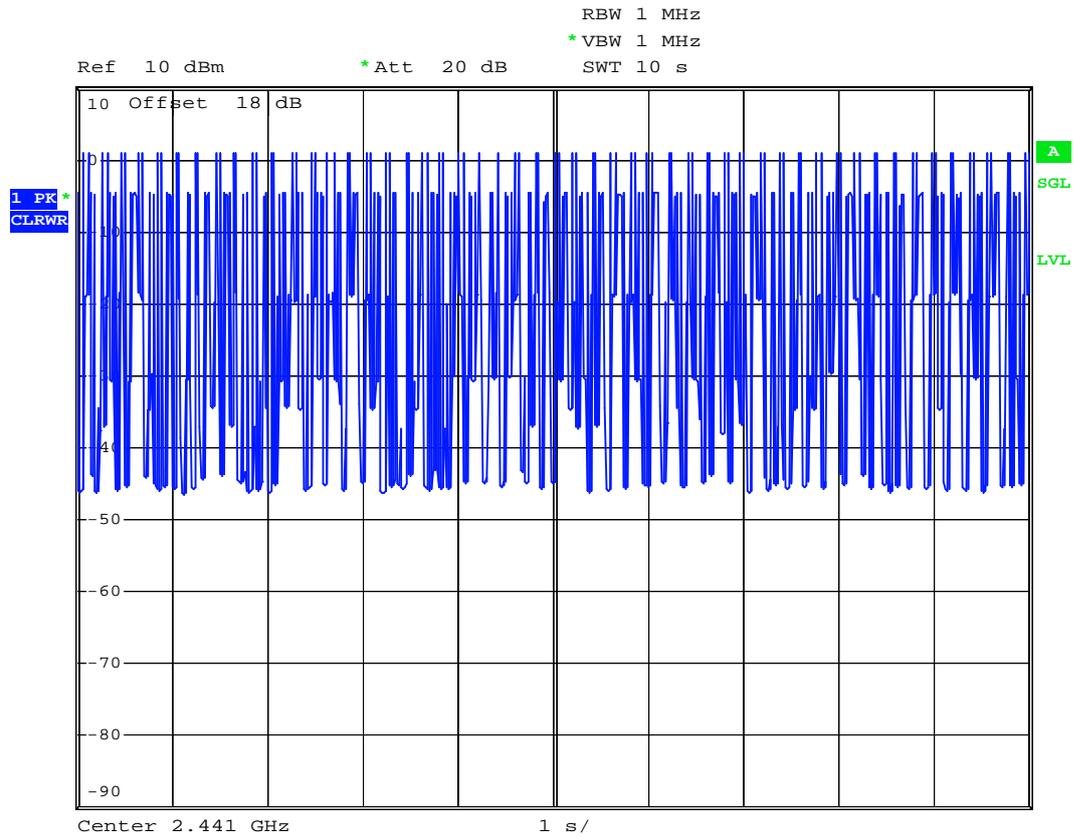
Date: 24.AUG.2007 02:23:56



➤ Bluetooth (3Mbps)  
DH1 (CH39)



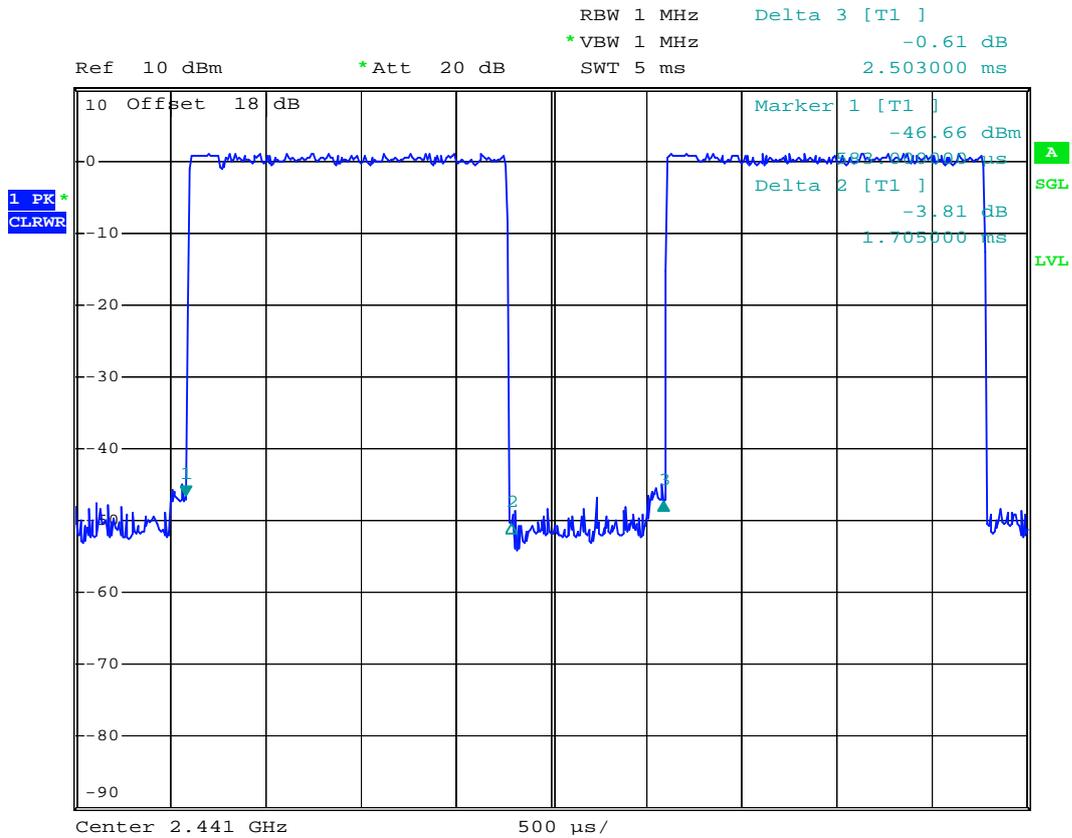
Date: 24.AUG.2007 02:00:17



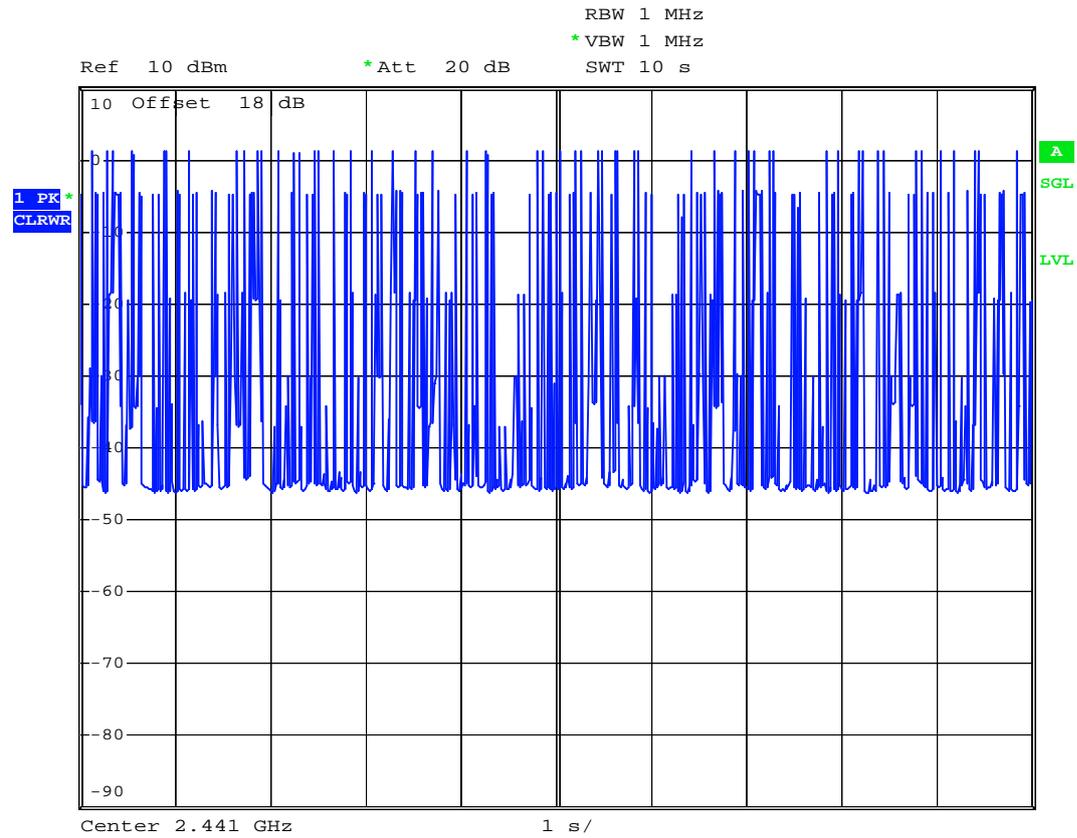
Date: 24.AUG.2007 02:10:55



DH3 (CH39)



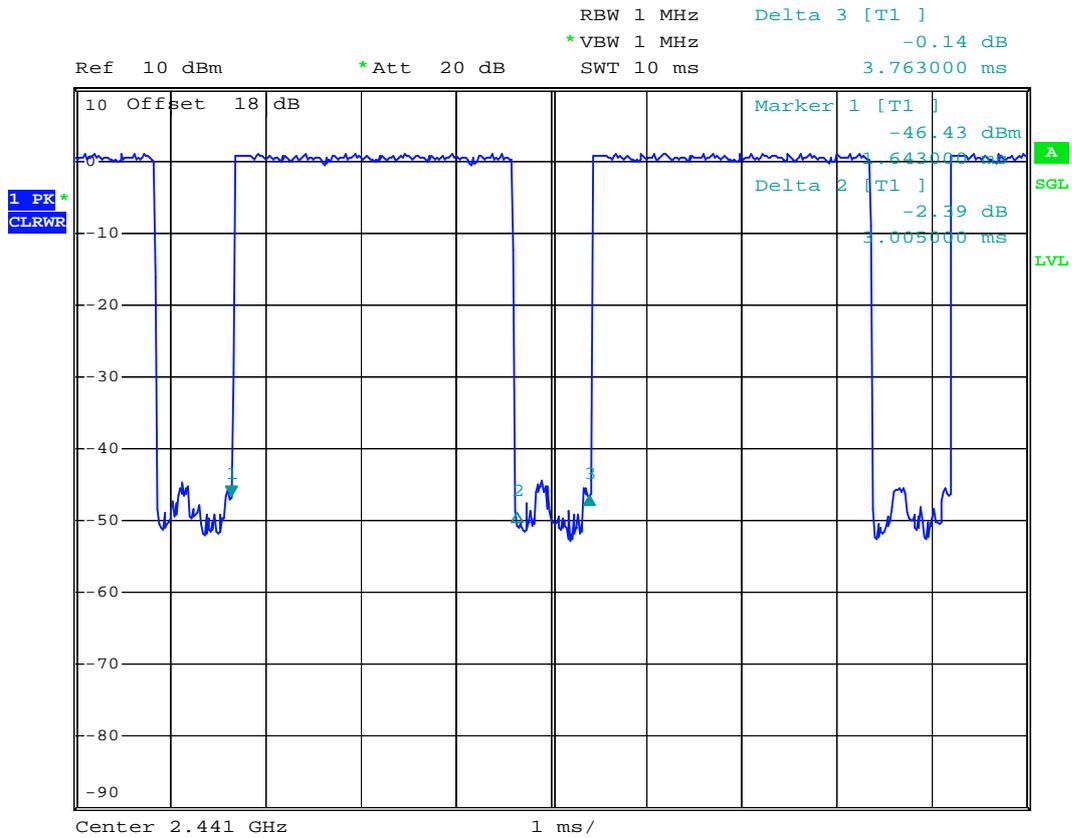
Date: 24.AUG.2007 02:01:36



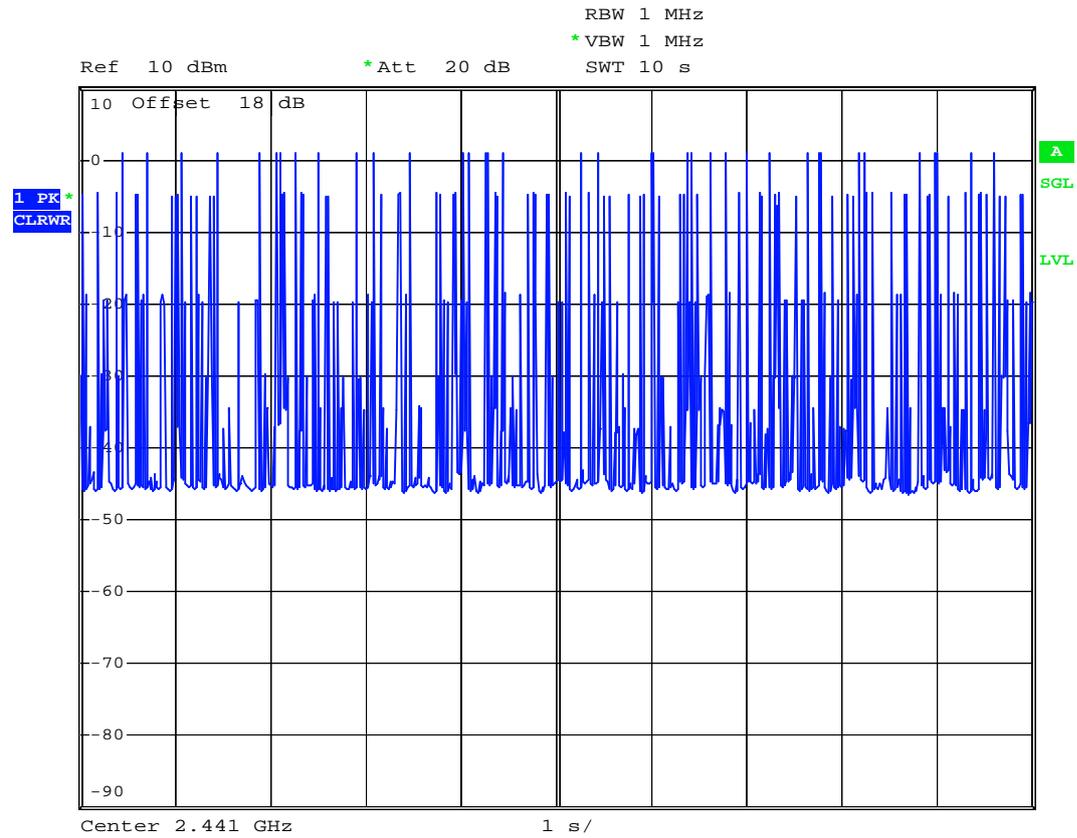
Date: 24.AUG.2007 03:56:38



DH5 (CH39)



Date: 24.AUG.2007 02:03:24



Date: 24.AUG.2007 02:09:43

## 5.6 Output Power

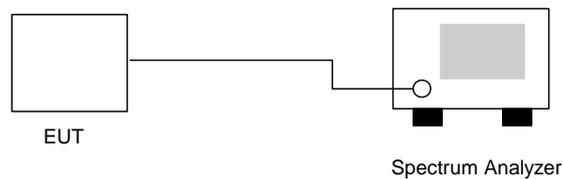
### 5.6.1 Measuring Instruments :

As described in chapter 6 of this test report.

### 5.6.2 Test Procedure :

1. The transmitter output was connected to the spectrum analyzer directly.
2. The center frequency of the spectrum analyzer was set to the fundamental frequency and set RBW to 3MHz and VBW to 3MHz.

### 5.6.3 Test Setup Layout :



### 5.6.4 Test Result :

- Application Type : Bluetooth (1Mbps)
- Temperature : 26
- Relative Humidity : 59%
- Test Enginner : Andy

#### **Bluetooth (1Mbps)**

Channel	Frequency (MHz)	Measured Output Power (dBm)	Limits (Watt/dBm )
00	2402	1.45	1W/30 dBm
39	2441	1.37	1W/30 dBm
78	2480	-0.62	1W/30 dBm



- Application Type : Bluetooth (2/3Mbps)
- Temperature : 27~28
- Relative Humidity : 49~50%
- Test Engineer : Sun

**Bluetooth (2Mbps)**

Channel	Frequency (MHz)	Measured Output Power (dBm)	Limits (Watt/dBm )
00	2402	2.13	1W/30 dBm
39	2441	1.68	1W/30 dBm
78	2480	1.55	1W/30 dBm

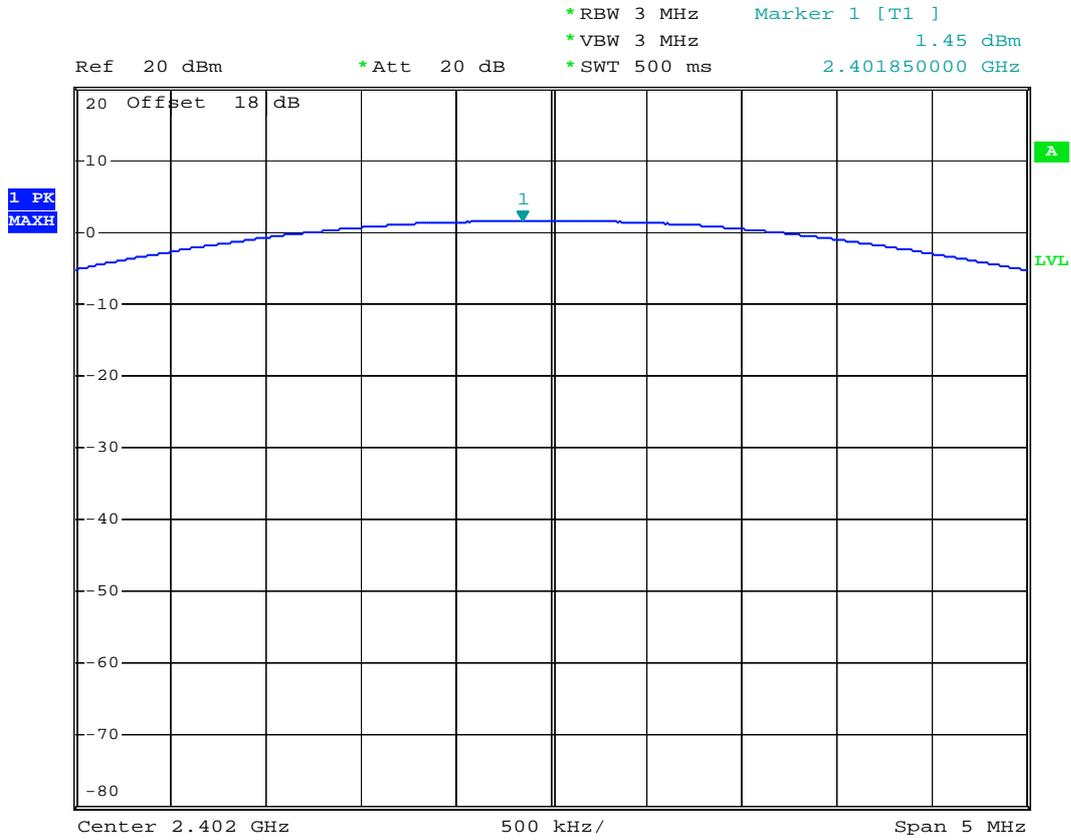
**Bluetooth (3Mbps)**

Channel	Frequency (MHz)	Measured Output Power (dBm)	Limits (Watt/dBm )
00	2402	2.39	1W/30 dBm
39	2441	1.97	1W/30 dBm
78	2480	1.97	1W/30 dBm



5.6.5 Output Power

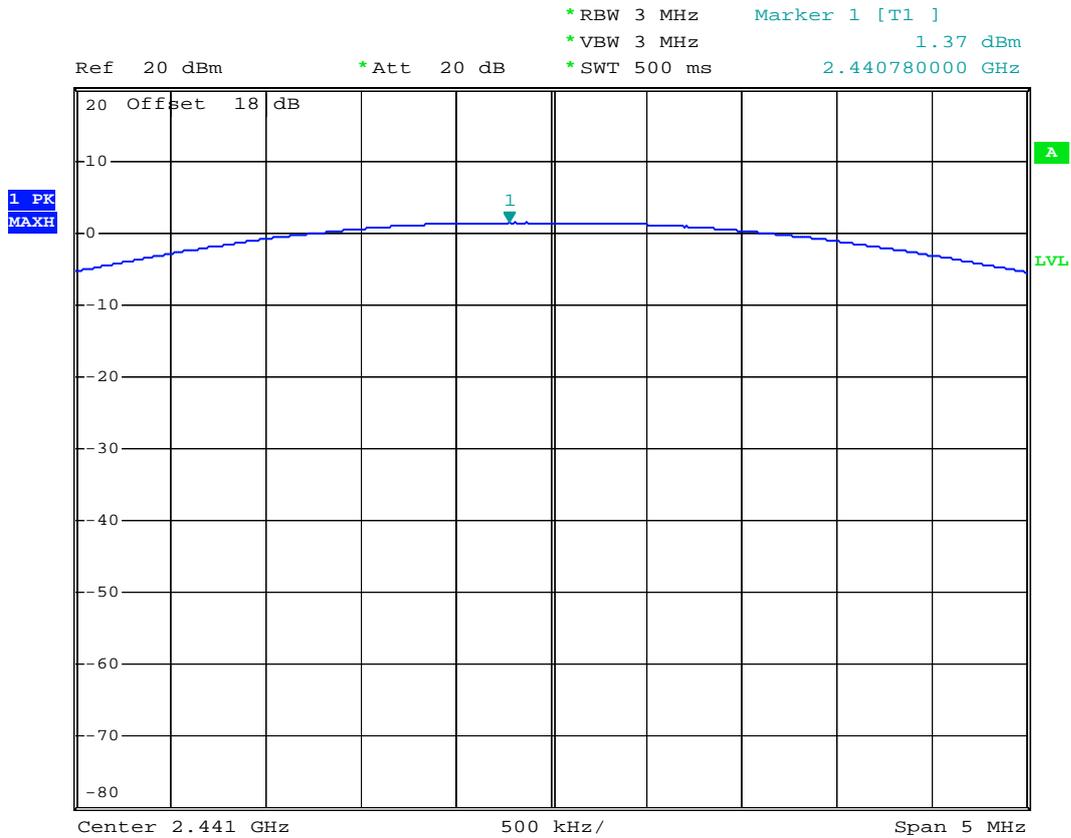
- Bluetooth (1Mbps)  
Mode : CH00 (2402MHz)



Date: 6.JUN.2007 20:45:05



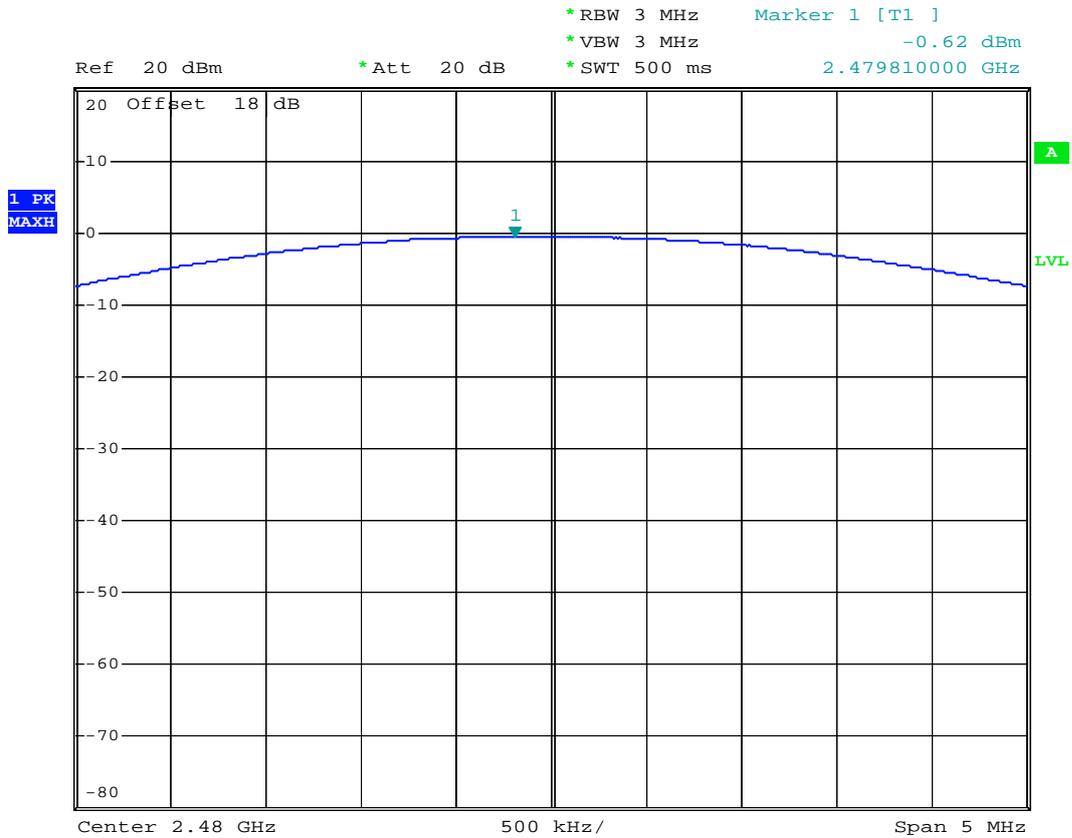
Mode : CH39 (2441MHz)



Date: 6.JUN.2007 20:45:26



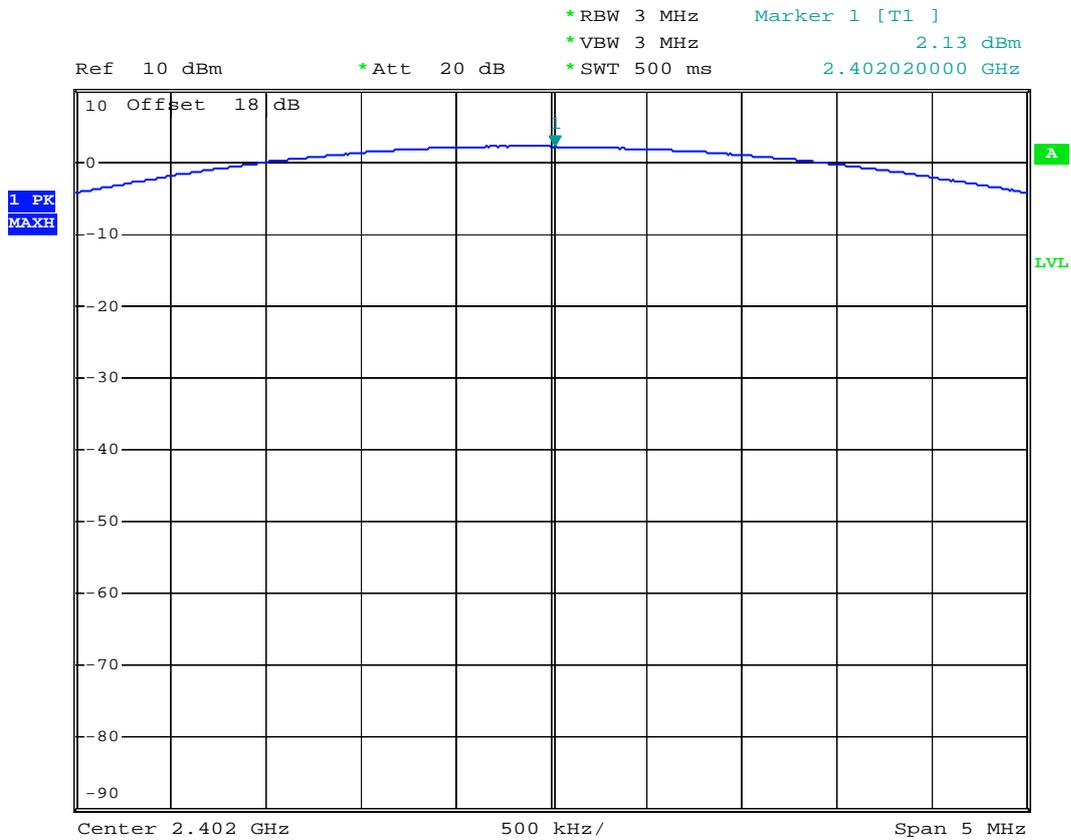
Mode : CH78 (2480MHz)



Date: 6.JUN.2007 20:45:41



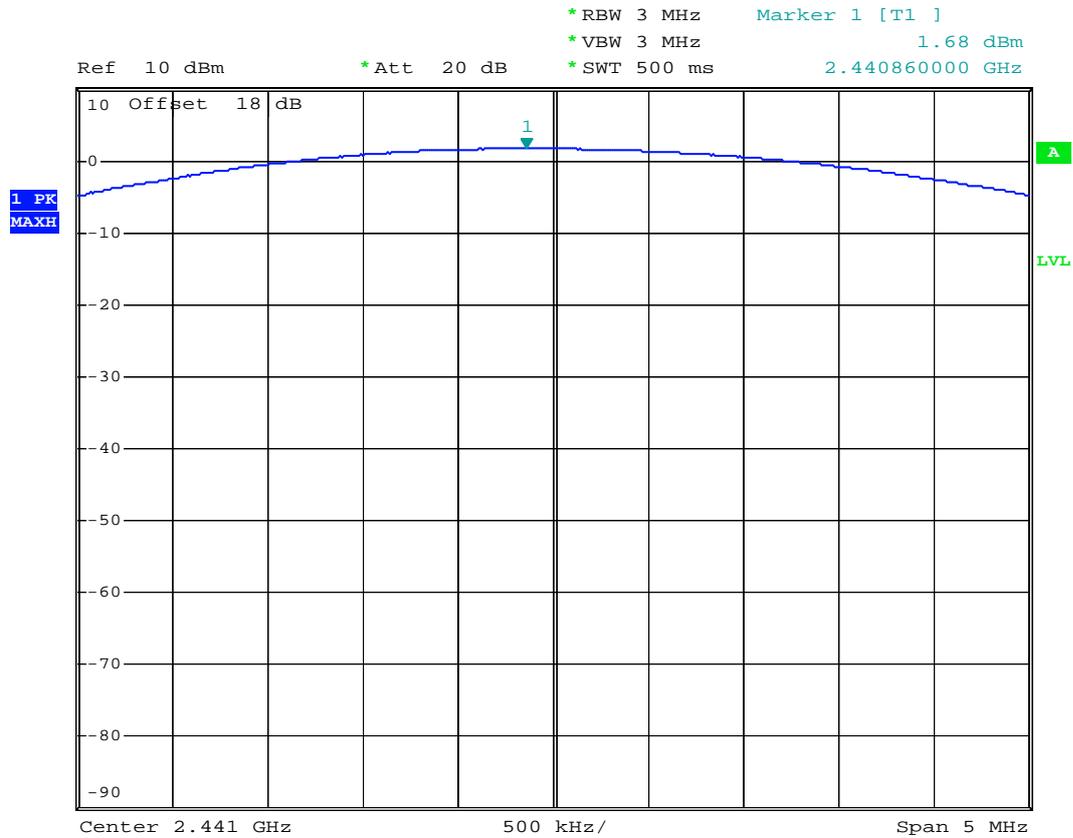
➤ Bluetooth (2Mbps)  
Mode : CH00 (2402MHz)



Date: 24.AUG.2007 01:17:50



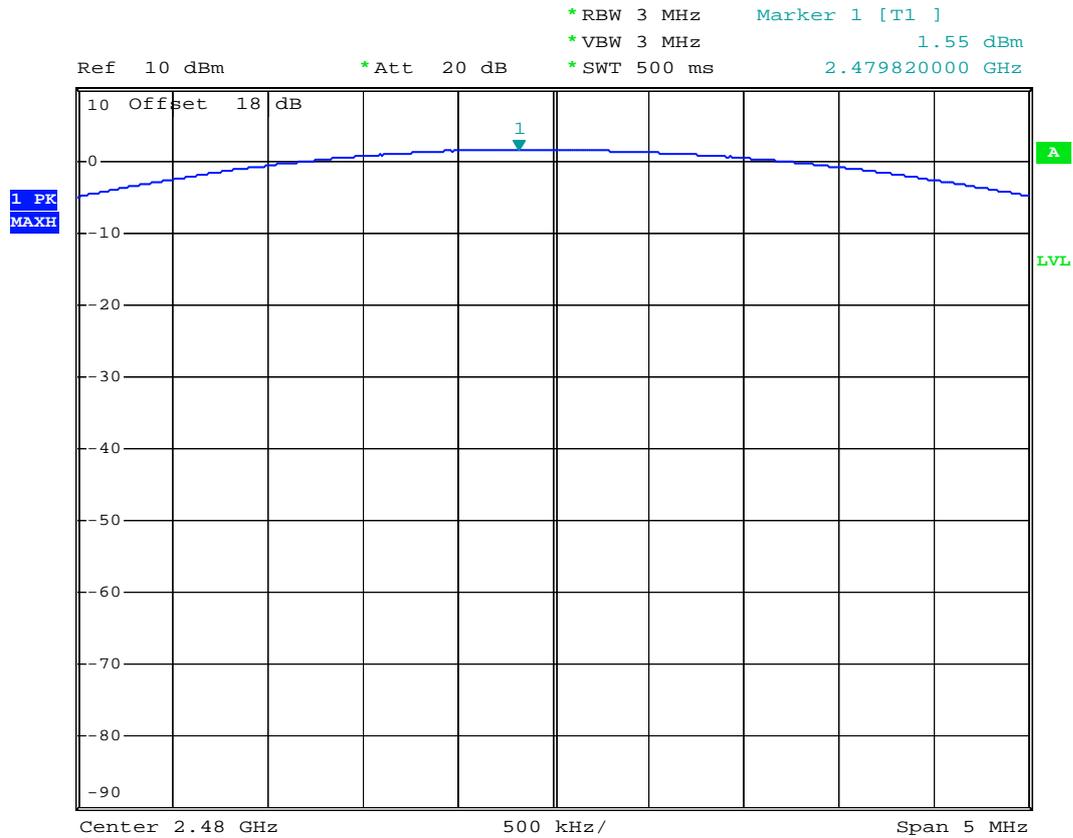
Mode : CH39 (2441MHz)



Date: 24.AUG.2007 01:18:18



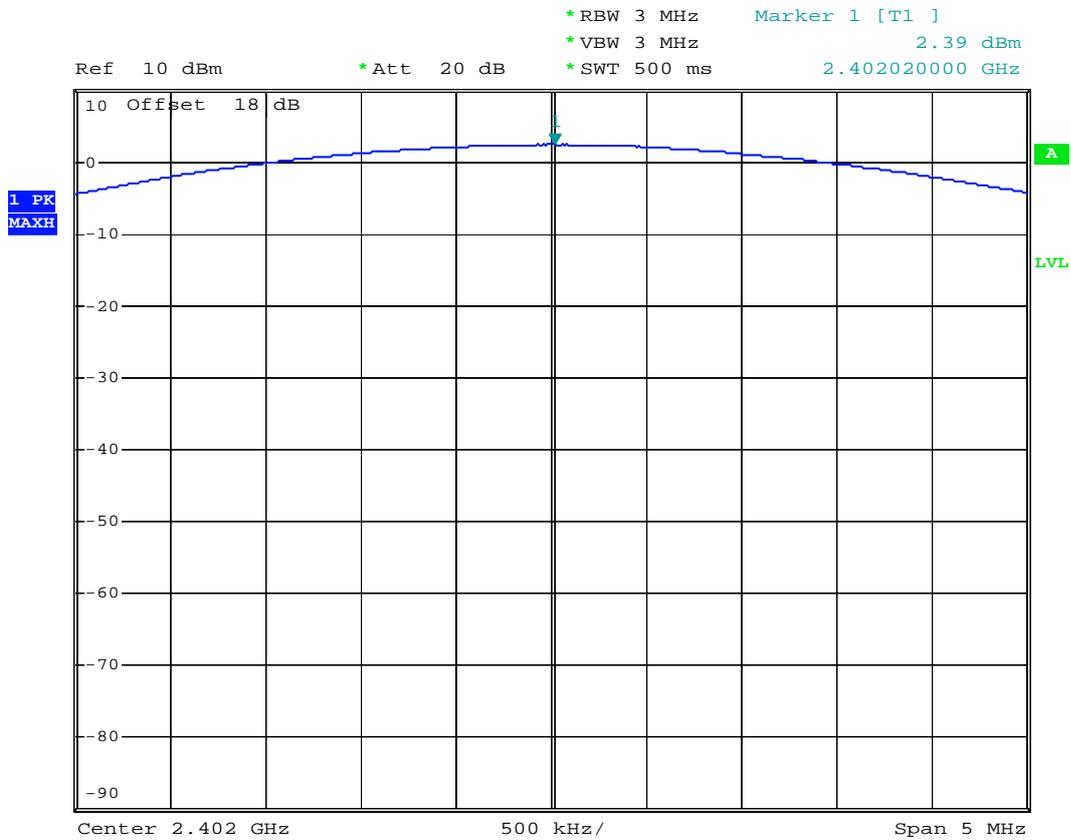
Mode : CH78 (2480MHz)



Date: 24.AUG.2007 01:18:50



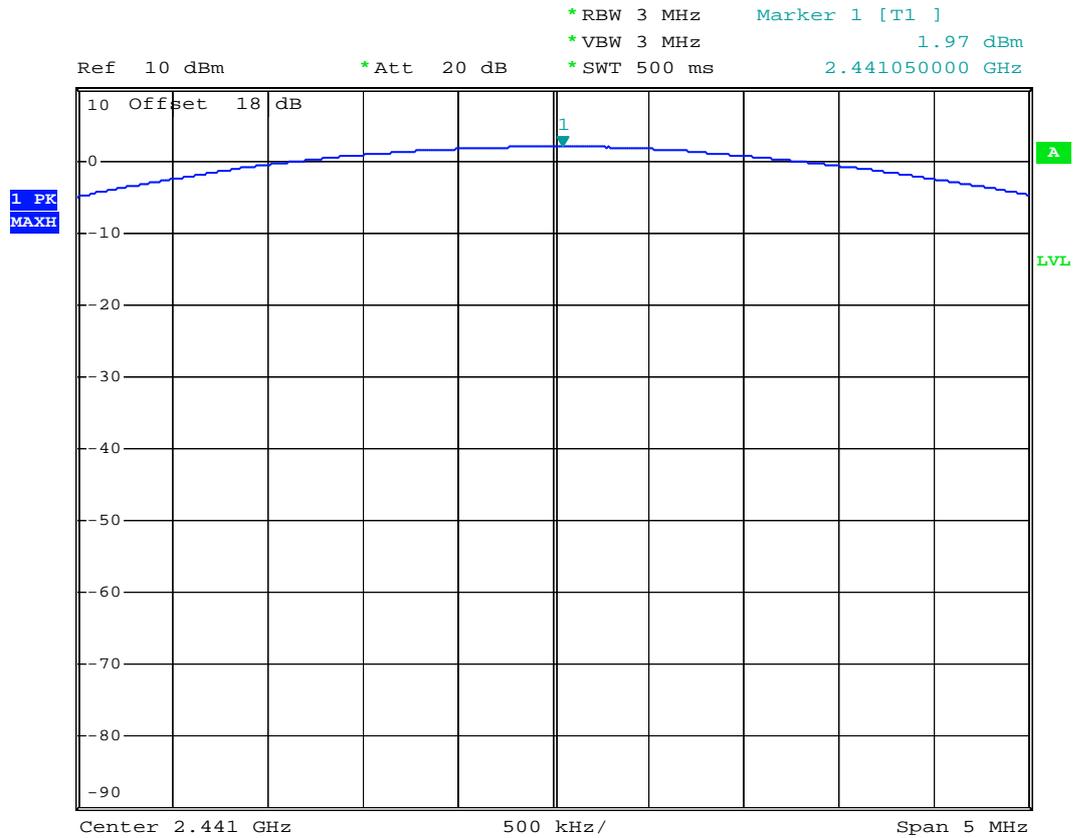
➤ Bluetooth (3Mbps)  
Mode : CH00 (2402MHz)



Date: 24.AUG.2007 01:17:16



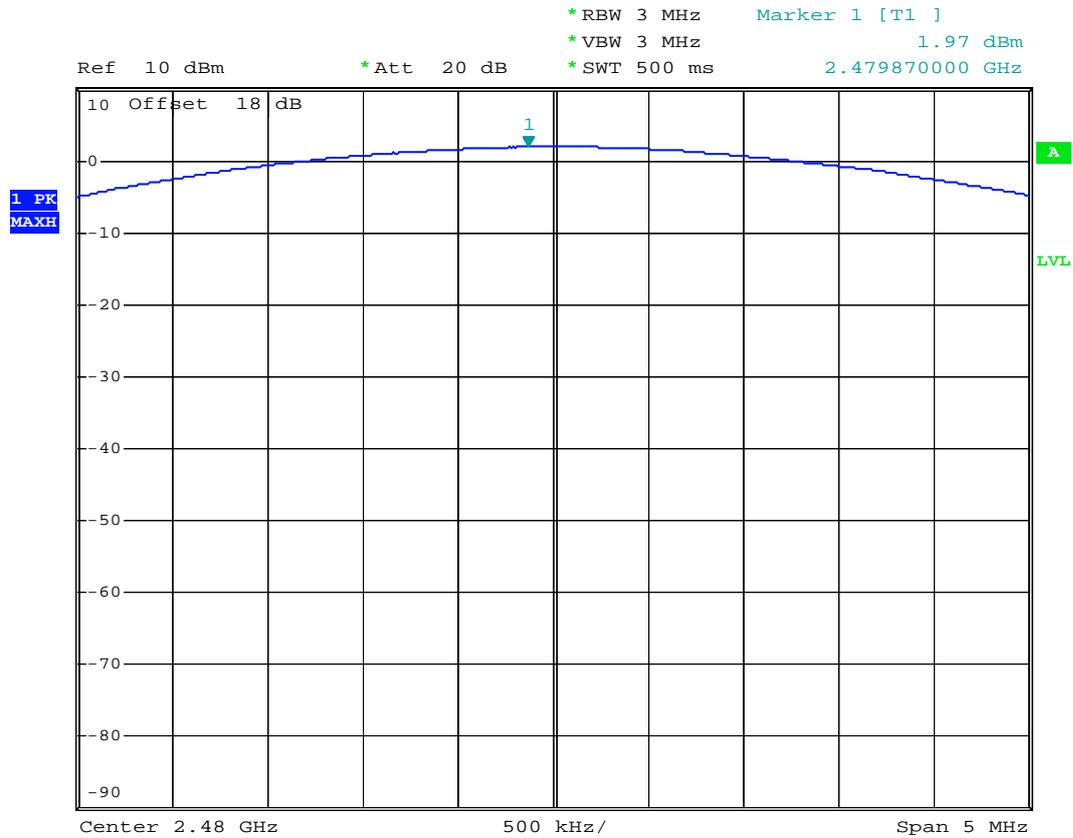
Mode : CH39 (2441MHz)



Date: 24.AUG.2007 01:16:36



Mode : CH78 (2480MHz)



Date: 24.AUG.2007 01:15:26



### 5.7 100kHz Bandwidth of Frequency Band Edges

#### 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 via a low lose cable.
2. Set both RBW and VBW of spectrum analyzer to 100kHz with suitable frequency span for the conducted measurement, and RBW/VBW=1MHz/1MHz for peak measurement and RBW/VBW=1MHz/300Hz for average measurement in the radiated measurement.
3. The band edges was measured and recorded.

#### 5.7.3 Test Result :

- Application Type : WLAN 802.11b/g and Bluetooth (1Mbps)
- Temperature : 26
- Relative Humidity : 59%
- Test Enginner : Andy

Test Result in lower band (Channel 00) : PASS

Test Result in higher band(Channel 78) : PASS

#### 5.7.4 Note on Band Edge Emission :

##### ➤Bluetooth (1Mbps)

##### 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
2326.56	48.33	-25.67	74.00	49.82	30.23	3.69	35.40	100	0	Peak
2326.56	38.69	-15.31	54.00	40.18	30.23	3.69	35.40	100	49	Average

##### 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
2357.92	48.35	-25.65	74.00	49.82	30.24	3.71	35.42	100	0	Peak
2357.92	38.55	-15.45	54.00	40.02	30.24	3.71	35.42	100	35	Average



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
2483.50	57.54	-16.46	74.00	58.90	30.29	3.86	35.51	100	0	Peak
2483.50	39.69	-14.31	54.00	41.05	30.29	3.86	35.51	100	92	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
2483.53	62.12	-11.88	74.00	63.48	30.29	3.86	35.51	100	0	Peak
2483.53	40.46	-13.54	54.00	41.82	30.29	3.86	35.51	100	207	Average

- Application Type : Bluetooth EDR (2/3Mbps)
- Temperature : 27~28
- Relative Humidity : 49~50%
- Test Enginner : Sun

➤Bluetooth 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	63.07	-10.93	74.00	64.43	30.29	3.86	35.51	100	0	Peak
2483.5	45.03	-8.97	54.00	46.39	30.29	3.86	35.51	100	99	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	65.88	-8.12	74.00	67.33	30.24	3.73	35.42	100	0	Peak
2483.5	47.03	-6.97	54.00	48.48	30.24	3.73	35.42	100	204	Average



➤Bluetooth 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
2326.6	48.33	-25.67	74.00	49.82	30.23	3.69	35.40	100	0	Peak
2326.6	38.69	-15.31	54.00	40.18	30.23	3.69	35.40	100	49	Average

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
2357.9	48.35	-25.65	74.00	49.82	30.24	3.71	35.42	100	0	Peak
2357.9	38.55	-15.45	54.00	40.02	30.24	3.71	35.42	100	35	Average

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	61.75	-12.25	74.00	63.11	30.29	3.86	35.51	100	0	Peak
2483.5	43.31	-10.69	54.00	44.67	30.29	3.86	35.51	100	154	Average

CH78 (Vertical)

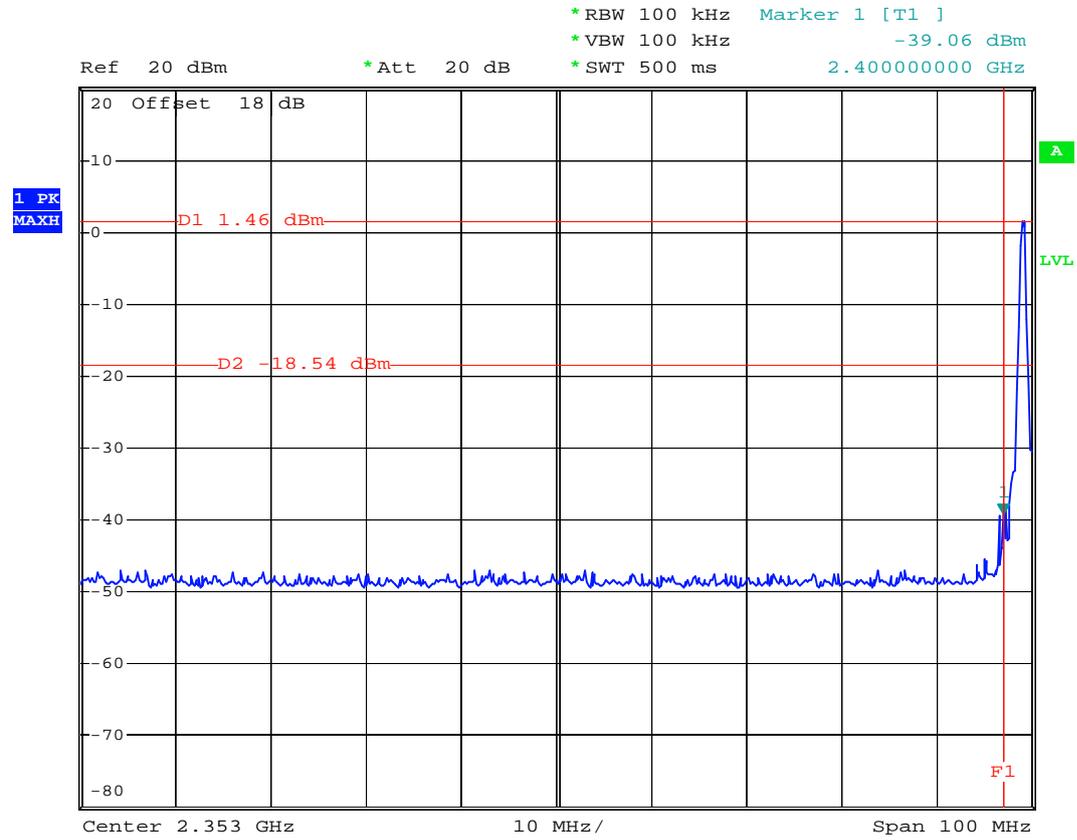
Frequency ( MHz )	Level ( dBuV/m )	Over Limit ( dB )	Limit Line ( dBuV/m )	Read Level ( dBuV )	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
2483.5	63.23	-10.32	74.00	65.04	30.29	3.86	35.51	100	0	Peak
2483.5	46.23	-7.77	54.00	47.59	30.29	3.86	35.51	100	100	Average



5.7.5 Frequency Band Edge

Bluetooth (1Mbps)

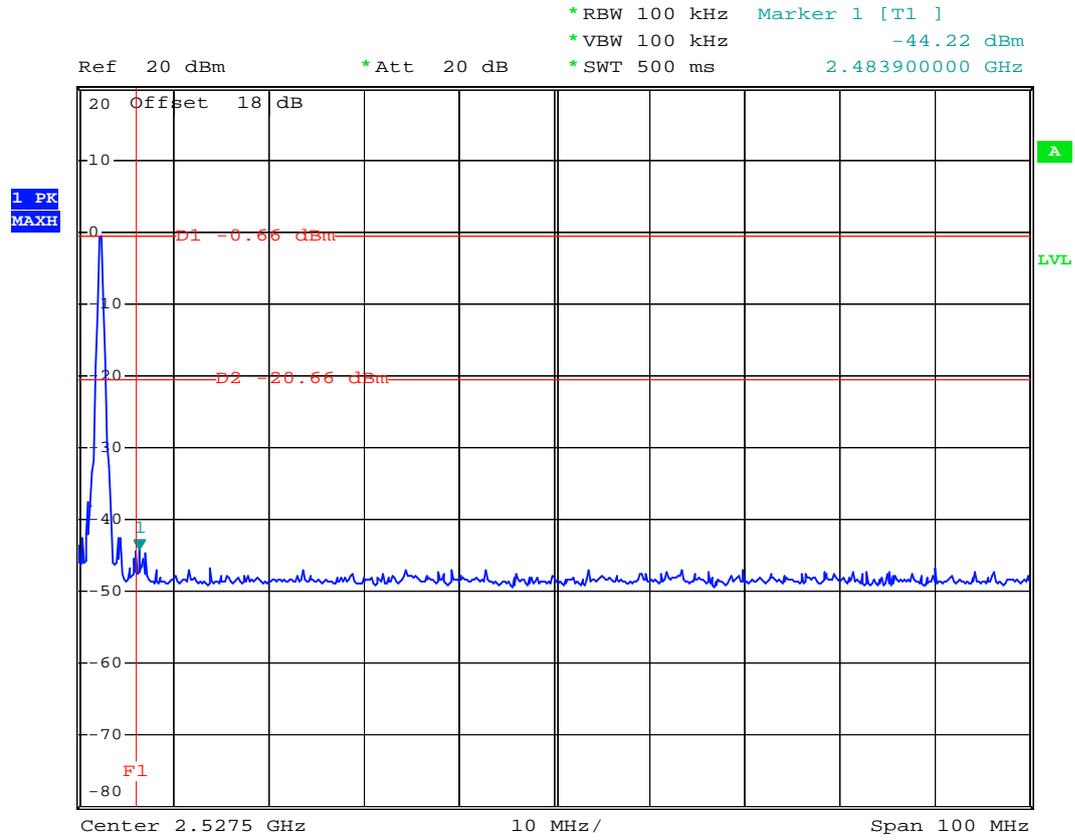
CH00(2402 MHz)



Date: 6.JUN.2007 20:53:57



CH78 (2480 MHz)

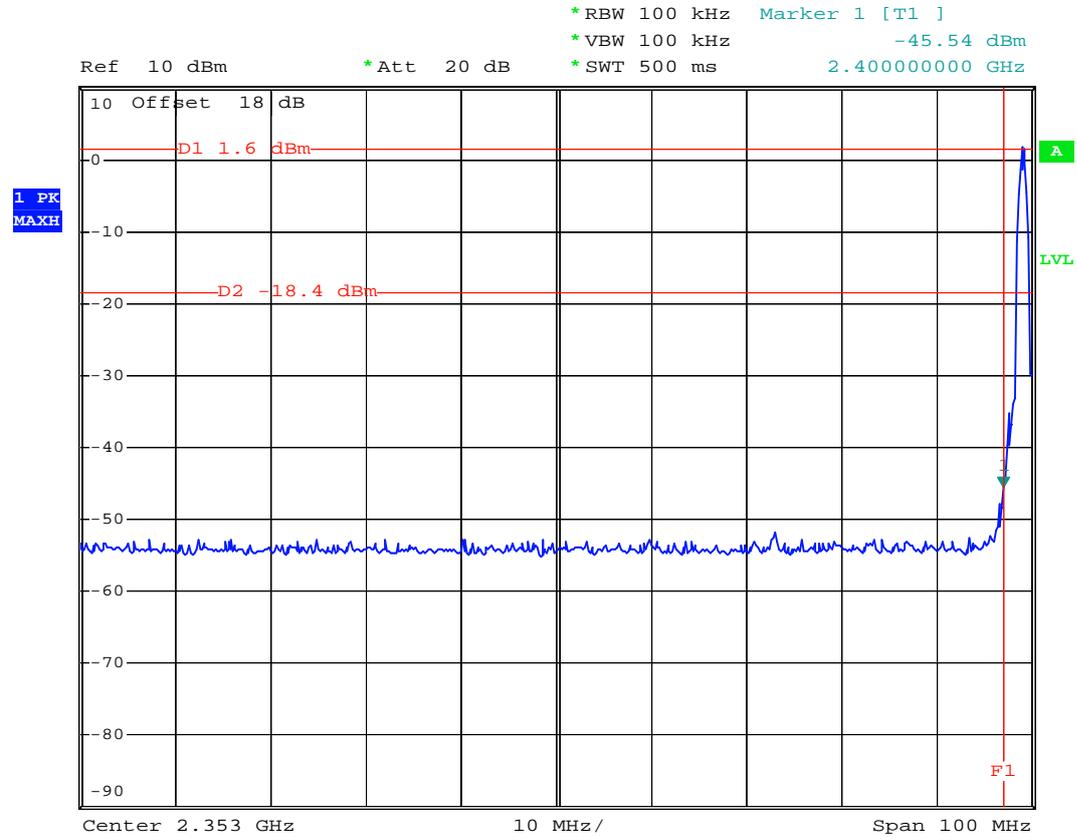


Date: 6.JUN.2007 20:55:55



Bluetooth EDR (2Mbps)

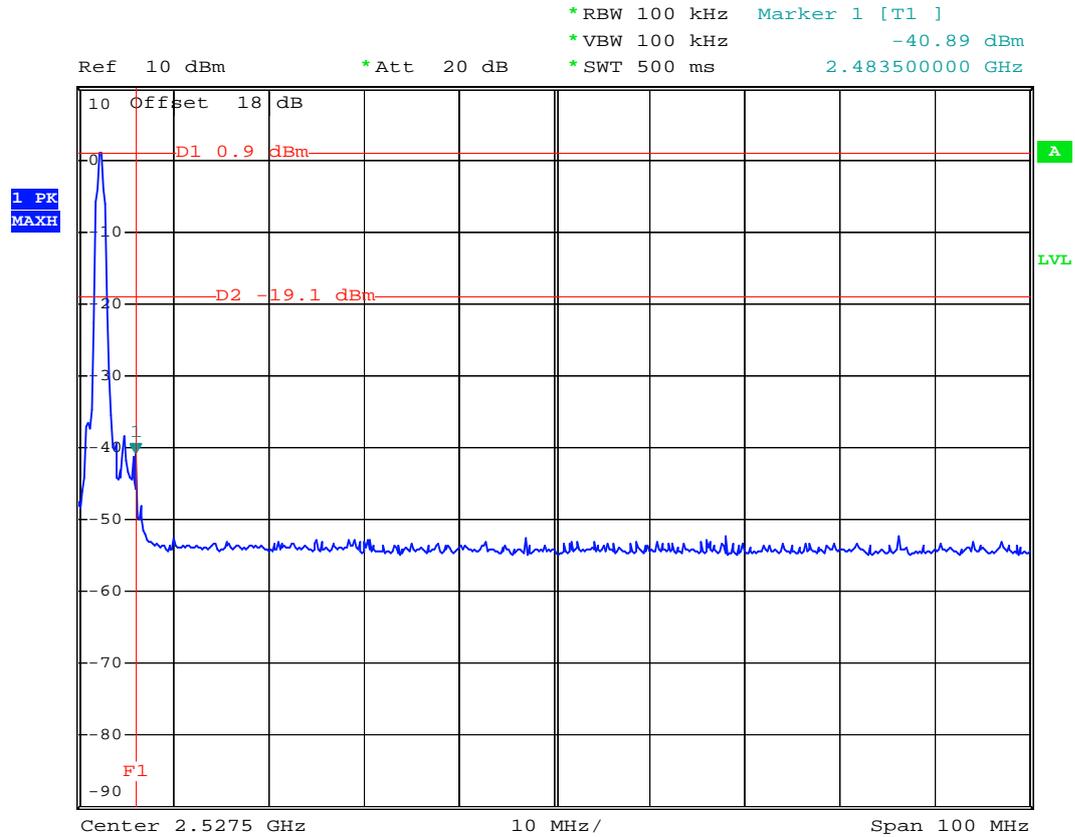
CH00 (2402 MHz)



Date: 24.AUG.2007 01:34:45



CH78 (2480 MHz)

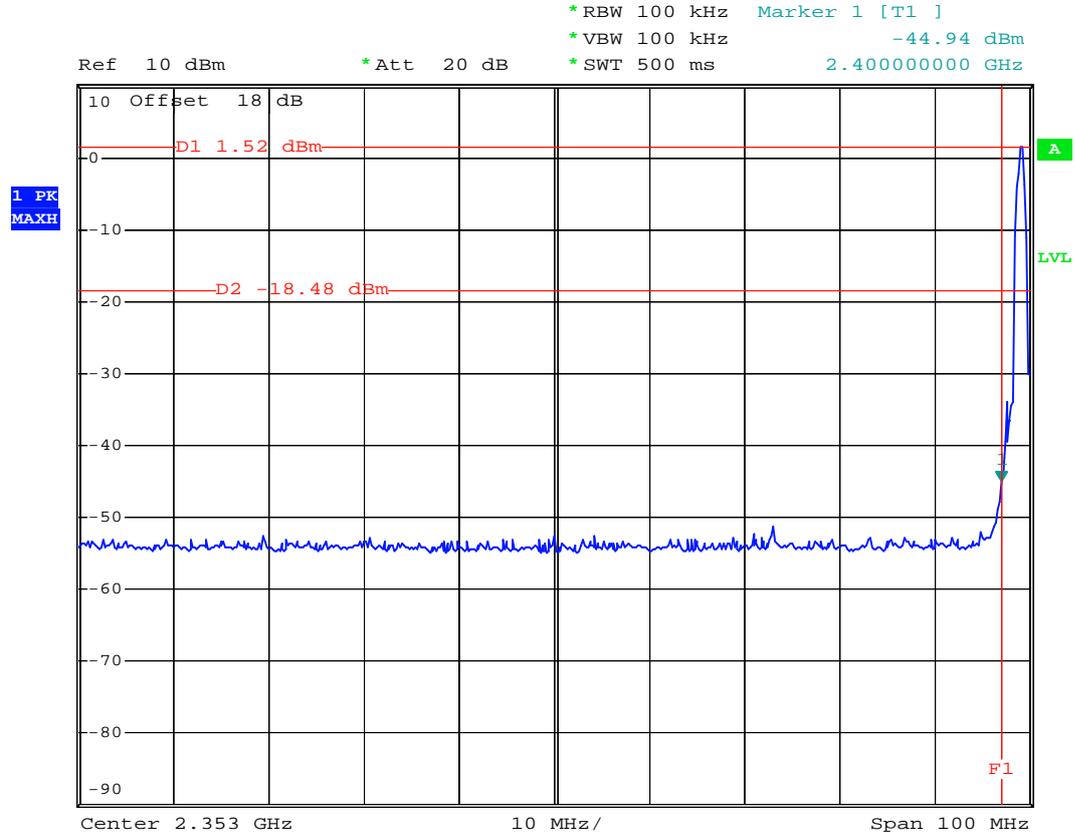


Date: 24.AUG.2007 01:32:52



Bluetooth EDR (3Mbps)

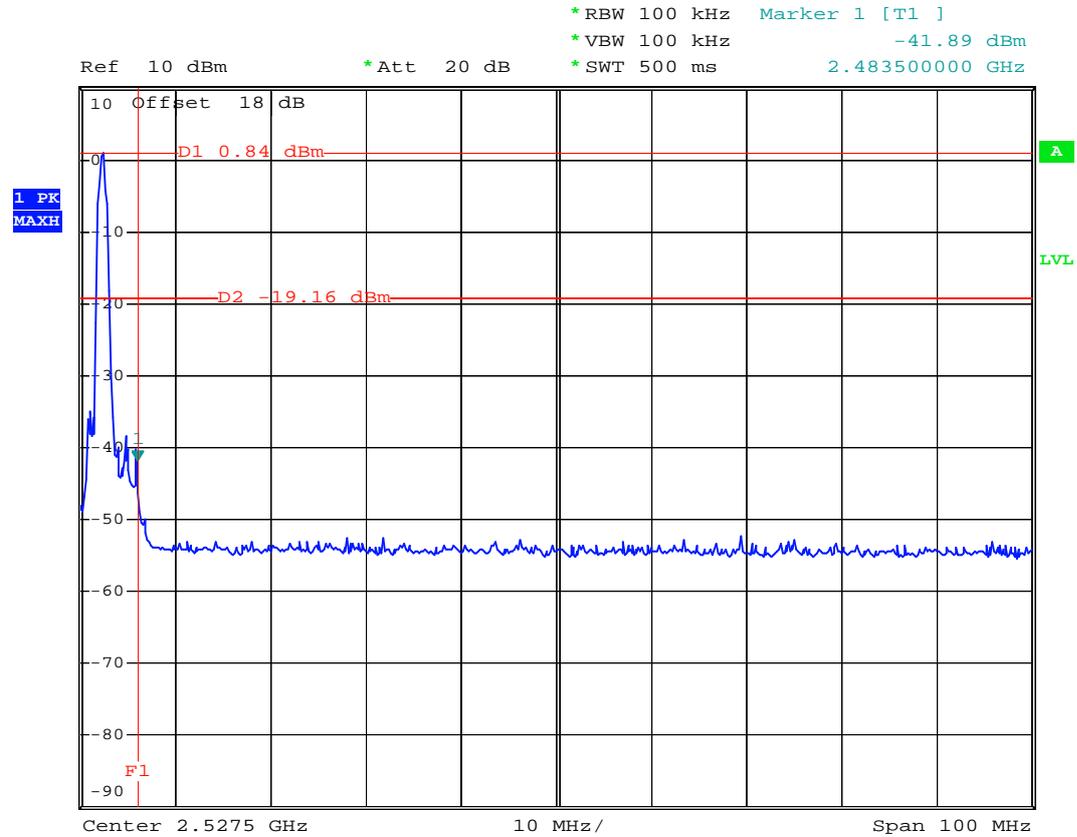
CH00 (2402 MHz)



Date: 24.AUG.2007 01:36:52



CH78 (2480 MHz)



Date: 24.AUG.2007 01:30:00