



# FCC Test Report

for

## 47 CFR Part 15 Subpart C

**Equipment** : Pocket PC Phone  
**Model No.** : FOMA HT1100(Neon100)  
**FCC ID** : NM8NEON100  
**Filing Type** : Certification  
**Applicant** : High Tech Computer Corp.  
1F, No.6-3, Baoqiang Rd, Xindian City, Taipei, Taiwan

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- The data shown in this test report were carried out on Jan. 12, 2008 at **Sporton International Inc. LAB.**
- Report No.: FR792103-04, Report Version: Rev.01

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# Table of Contents

**History of this test report** ..... ii

**1. General Description of Equipment under Test**..... 1

    1.1 Applicant..... 1

    1.2 Manufacturer ..... 1

    1.3 Basic Description of Equipment under Test..... 2

    1.4 Feature of Equipment under Test..... 3

**2. Test Configuration of Equipment under Test**..... 4

    2.1 Test Manner ..... 4

    2.2 Test Mode ..... 4

    2.3 Ancillary Equipment List ..... 5

    2.4 Connection Diagram of Test System..... 5

**3. RF Utility**..... 7

**4. General Information of Test**..... 8

    4.1 Test Voltage ..... 8

    4.2 Standard for Methods of Measurement ..... 8

    4.3 Test Compliance ..... 8

    4.4 Frequency Range ..... 8

    4.5 Test Distance ..... 8

**5. Test Data and Test Result**..... 9

    5.1 List of Measurements and Examinations..... 9

    5.2 Band Edges Measurement ..... 10

    5.3 Hopping Channel Separation ..... 19

    5.4 Number of Hopping Frequency ..... 30

    5.5 Hopping Channel Bandwidth ..... 35

    5.6 Dwell Time of Each Frequency..... 46

    5.7 Peak Output Power Measurement ..... 66

    5.8 Conducted Emission..... 77

    5.9 Radiated Emission Measurement..... 96

    5.10 Antenna Requirements..... 122

**6. List of Measuring Equipment** ..... 123

**7. Uncertainty Evaluation**..... 125

**Appendix A. Photographs of EUT External**

**Appendix B. Photographs of EUT Internal**

**Appendix C. Photographs of Setup**





## **1. General Description of Equipment under Test**

### **1.1 Applicant**

**High Tech Computer Corp.**

1F, No.6-3, Baoqiang Rd, Xindian City, Taipei, Taiwan

### **1.2 Manufacturer**

**High Tech Computer Corp.**

1F, No.6-3, Baoqiang Rd, Xindian City, Taipei, Taiwan



### 1.3 Basic Description of Equipment under Test

<b>Equipment</b>		Pocket PC Phone
<b>Model Name</b>		FOMA HT1100(Neon100)
<b>FCC ID</b>		NM8NEON100
<b>AC Adapter A</b>	<b>Brand Name</b>	PhiHong
	<b>Model Name</b>	PSA105R-050Q
	<b>Power Rating</b>	I/P:100-240Vac, 50-60Hz, 0.3A; O/P: 5Vdc, 1A
	<b>AC Power Cord Type</b>	1.8 meter shielded cable without ferrite non-core
<b>AC Adapter B</b>	<b>Brand Name</b>	PhiHong
	<b>Model Name</b>	PSAA05X-050
	<b>Power Rating</b>	I/P:100-240Vac, 50-60Hz, 200mA; O/P: 5Vdc, 1A
	<b>AC Power Cord Type</b>	1.8 meter shielded cable without ferrite non-core
<b>Battery</b>	<b>Manufacturer</b>	Simplo
	<b>Brand Name</b>	hTC
	<b>Model Name</b>	NEON160
	<b>Power Rating</b>	3.7Vdc, 1000mAh
	<b>Type</b>	Li-ion
<b>Earphone A</b>	<b>Brand Name</b>	HTC
	<b>Model Name</b>	HS S168
	<b>Signal Line Type</b>	1.5 meter non-shielded cable without ferrite non-core
<b>Earphone B</b>	<b>Brand Name</b>	HTC
	<b>Model Name</b>	HS S200
	<b>Signal Line Type</b>	1.7 meter non-shielded cable without ferrite non-core
<b>USB Cable</b>	<b>Brand Name</b>	MEC
	<b>Model Name</b>	60-4251-100
	<b>Signal Line Type</b>	1.2 meter shielded cable with ferrite non-core
<b>Holster</b>	<b>Brand Name</b>	NewTech
	<b>Model Name</b>	HTC494-31

Remark:

1. Above EUT's information was declared by manufacturer. Please refer to the specifications of manufacturer or User's Manual for more detailed features description.
2. PSAA05X-050(X=A,C,E,K or S), have the same circuit design, the difference between these models are plug, only PSAA05E-050 used for testing.



### 1.4 Feature of Equipment under Test

Product Feature & Specification			
1. Type of Modulation	1Mbps : GFSK 2Mbps : /4-DQPSK 3Mbps : 8-DPSK		
2. Number of Channels	2400 MHz ~ 2483.5 MHz		
3. Frequency Band	79		
4. Carrier Frequency of each channel	2402+n x 1 MHz; n = 0~78		
5. Channel Spacing	1 MHz		
6. HW Version	XC01 A01		
7. SW Version	25.50.30.01 25.70.30.05		
8. Maximum Output Power to Antenna	1.18 dBm (BT_1Mbps) 2.23 dBm (BT_EDR_2Mbps) 2.47 dBm (BT_EDR_3Mbps)		
9. Type of Antenna Connector	N/A		
10. Antenna Type	PIFA Antenna		
11. Antenna Gain	1 dBi		
12. 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 data rate, 3Mbps, was chosen to being tested, due to the highest RF output power.

Channel	Frequency	Data Rate/ Modulation		
		GFSK	/4-DQPSK	8-DPSK
		1Mbps	2Mbps	3Mbps
Ch00	2400MHz	1.18 dBm	2.23 dBm	2.47 dBm
Ch39	2441MHz	0.71 dBm	1.63 dBm	1.85 dBm
Ch78	2480MHz	0.32 dBm	1.19 dBm	1.46 dBm

Bluetooth uses frequency hopping spread spectrum (FHSS) operation which also facilitates Bluetooth multiple access and coexistence among other types of wireless systems. The basic frequency-hopping pattern is a pseudo-random ordering of 79 channel frequencies in the ISM band and the hopping rate is nominally 1600 hops per second. The EDR modulation format uses one of two types of DPSK (Pi/4-DQPSK or 8-DPSK) in the payload section of the packet. As shown in figure, the EDR packet begins using GFSK modulation during the access code and header portions of the packet but changes to DPSK modulation after the guard time. Changing to a DPSK format allows increased data rates of 2 Mb/s or 3 Mb/s.

- c. The EUT is programmed to transmit signal continuously for all testings.
- d. Frequency range investigated: conduction 150 kHz to 30 MHz, radiation 30 MHz to 25000MHz.

### 2.2 Test Mode

Application		
Radiated Emission	<b>BT Tx</b>	<b>BT Tx(EDR 2Mbps)</b>
	Mode 1: CH78_2480 MHz for HW:XC01	Mode 2: CH78_2480 MHz for HW:XC01
	Mode 6: CH78_2480 MHz for HW:A01	
	<b>BT Tx(EDR 3Mbps)</b>	
	Mode 3: CH00_2402 MHz for HW:XC01	
	Mode 4: CH39_2441 MHz for HW:XC01	
	Mode 5: CH78_2480 MHz for HW:XC01	

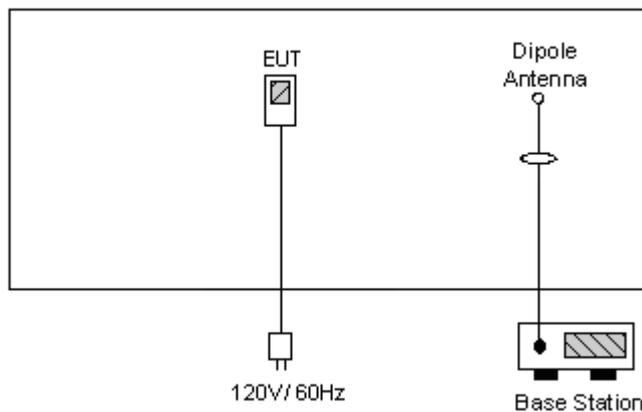
<b>Conducted Emission</b>	Mode 1: GSM850 Idle Mode + BT Link + Camera A + Adapter A for HW:XC01
	Mode 2: GSM850 Idle Mode + BT Link + Camera B + Adapter A for HW:XC01
	Mode 3: GSM850 Idle Mode + BT Link + Camera A + Adapter B for HW:XC01
	Mode 4: GSM850 Idle Mode + BT Link + Camera A + USB Link for HW:XC01
	Mode 5: EDGE Idle Mode + BT Link + Camera A + Adapter B for HW:XC01
	Mode 6: WCDMA Idle Mode + BT Link + Camera A + Adapter B for HW:XC01
	Mode 7: HSDPA Idle Mode + BT Link + Camera A + Adapter B for HW:XC01
	Mode 8: PCS1900 Idle Mode + BT Link + Camera A + Adapter B for HW:XC01
	Mode 9: HSDPA Idle Mode + BT Link + Camera A + Adapter B for HW:A01

### 2.3 Ancillary Equipment List

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable / Power Cord
1.	NOTEBOOK	DELL	D400	E2K24GBRL	1.2m
2.	Base Station	Anritus	8852A	N/A	1.8m
3.	Bluetooth Earphone	Engotech	ET-BH111	PQY471087	N/A
4.	(RS-232)Mouse	State	MS-303	DoC	Weave-shielded, 1.2 m
5.	iPod	Apple	A1199	DoC	1.2m

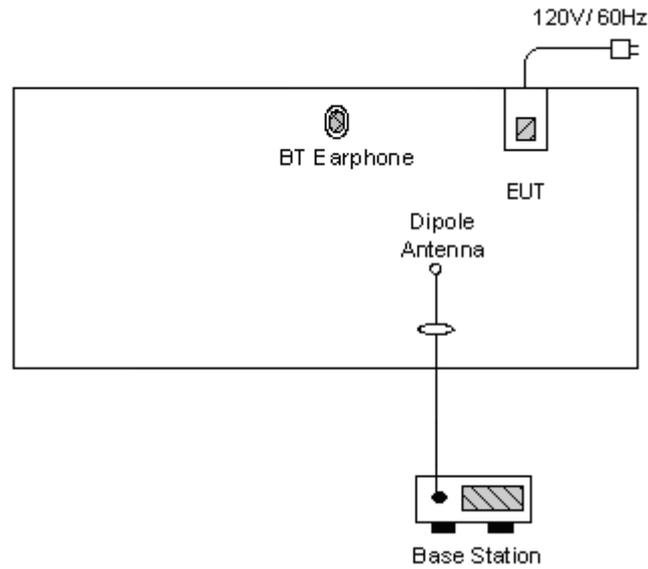
### 2.4 Connection Diagram of Test System

<Radiated Emission>

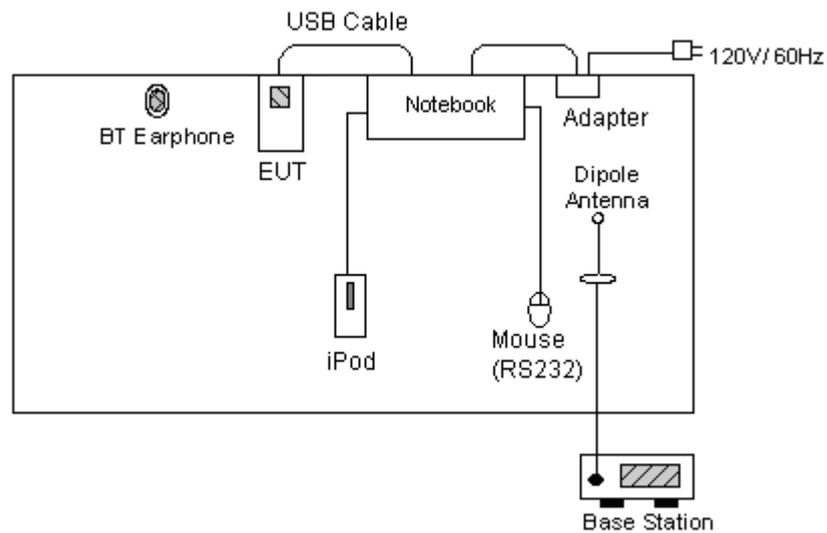


<Conducted Emission>

Phone with Adapter Mode



Phone with USB Link Mode





### **3. RF Utility**

The programmed RF Utility is installed in EUT to provide channel selection, power level, data rate and the application type. RF Utility can send transmitting signal for all testings.



## **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 : 886-3-328-4978

Test Site No : CO01-HY, CO04-HY, 03CH04-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: Bluetooth

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	Pass
15.247(d)	Power Spectral Density	Pass
15.203 15.247(b)(4)	Antenna Requirement	Pass



## 5.2 Band Edges 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 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.

### 5.2.3 Test Result :

- Application Type : Bluetooth
- Temperature : 26~27
- Relative Humidity : 49~51%
- Test Enginner : Ken
  
- Test Result in BT lower band : PASS
- Test Result in BT higher band : PASS
- Test Result in BT EDR(2Mbps) lower band : PASS
- Test Result in BT EDR(2Mbps) higher band : PASS
- Test Result in BT EDR(3Mbps) lower band : PASS
- Test Result in BT EDR(3Mbps) higher band : PASS



5.2.4 Note on Band Edge Emission :

➤BT

CH78 (Horizontal)

Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
( MHz )	( dBuV/m )	( dB )	( dBuV/m )	( dBuV )	( dB )	( dB )	( dB )	( cm )	( deg )	
2483.500	62.90	-11.10	74.00	64.60	28.26	3.84	33.80	100	0	Peak
2483.500	39.74	-14.26	54.00	41.44	28.26	3.84	33.80	100	358	Average

CH78 (Vertical)

Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
( MHz )	( dBuV/m )	( dB )	( dBuV/m )	( dBuV )	( dB )	( dB )	( dB )	( cm )	( deg )	
2483.500	59.73	-14.27	74.00	61.43	28.26	3.84	33.80	100	0	Peak
2483.500	38.86	-15.14	54.00	40.56	28.26	3.84	33.80	100	153	Average

➤BT EDR(2Mbps)

CH78 (Horizontal)

Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
( MHz )	( dBuV/m )	( dB )	( dBuV/m )	( dBuV )	( dB )	( dB )	( dB )	( cm )	( deg )	
2483.500	70.72	-3.28	74.00	72.42	28.26	3.84	33.80	100	0	Peak
2483.500	40.50	-13.50	54.00	42.20	28.26	3.84	33.80	100	359	Average

CH78 (Vertical)

Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
( MHz )	( dBuV/m )	( dB )	( dBuV/m )	( dBuV )	( dB )	( dB )	( dB )	( cm )	( deg )	
2483.500	67.87	-6.13	74.00	69.57	28.26	3.84	33.80	100	0	Peak
2483.500	39.56	-14.44	54.00	41.26	28.26	3.84	33.80	100	154	Average



>BT EDR(3Mbps)

CH00 (Horizontal)

Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
( MHz )	( dBuV/m )	( dB )	( dBuV/m )	( dBuV )	( dB )	( dB )	( dB )	( cm )	( deg )	
2390.000	57.16	-16.84	74.00	59.13	28.07	3.74	33.78	100	0	Peak
2390.000	30.26	-23.74	54.00	32.33	28.07	3.74	33.78	100	354	Average

CH00 (Vertical)

Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
( MHz )	( dBuV/m )	( dB )	( dBuV/m )	( dBuV )	( dB )	( dB )	( dB )	( cm )	( deg )	
2390.000	52.86	-21.14	74.00	54.83	28.07	3.74	33.78	100	0	Peak
2390.000	29.42	-24.58	54.00	31.39	28.07	3.74	33.78	100	150	Average

CH78 (Horizontal)

Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
( MHz )	( dBuV/m )	( dB )	( dBuV/m )	( dBuV )	( dB )	( dB )	( dB )	( cm )	( deg )	
2483.500	70.52	-3.48	74.00	72.22	28.26	3.84	33.80	100	0	Peak
2483.500	40.68	-13.32	54.00	42.38	28.26	3.84	33.80	100	359	Average

CH78 (Vertical)

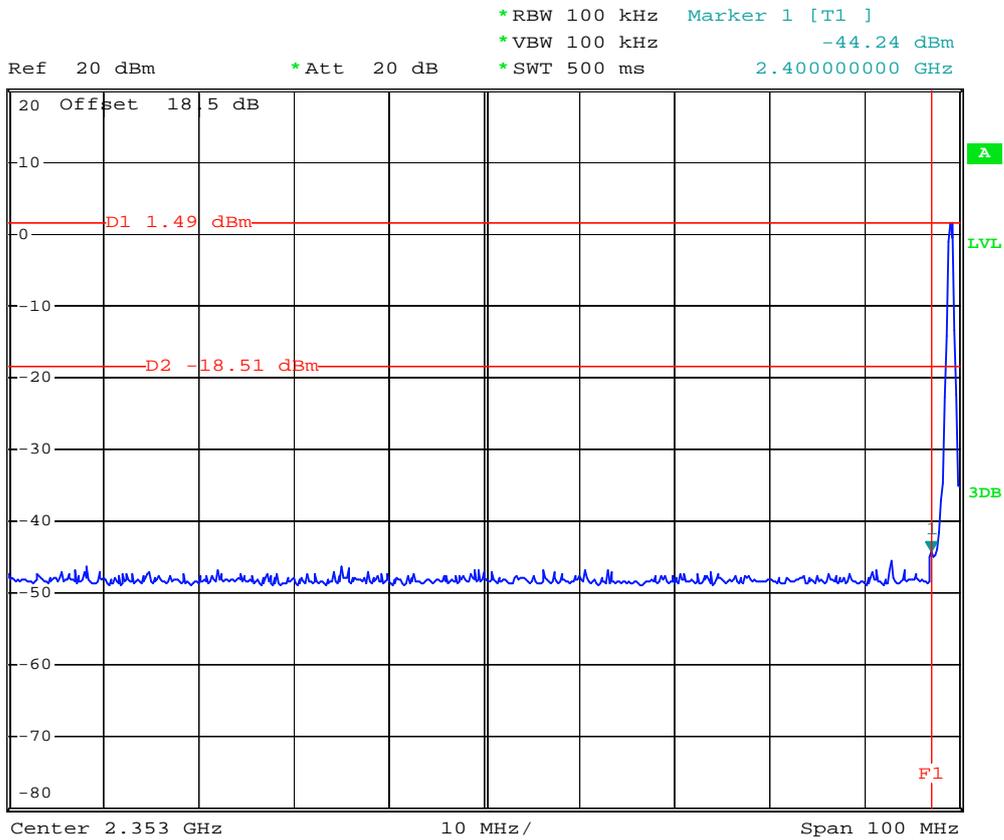
Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
( MHz )	( dBuV/m )	( dB )	( dBuV/m )	( dBuV )	( dB )	( dB )	( dB )	( cm )	( deg )	
2483.500	67.47	-6.53	74.00	69.17	28.26	3.84	33.80	100	0	Peak
2483.500	39.64	-14.36	54.00	41.34	28.26	3.84	33.80	100	154	Average



5.2.5 20dB Band Edge

BT

CH00



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CH78

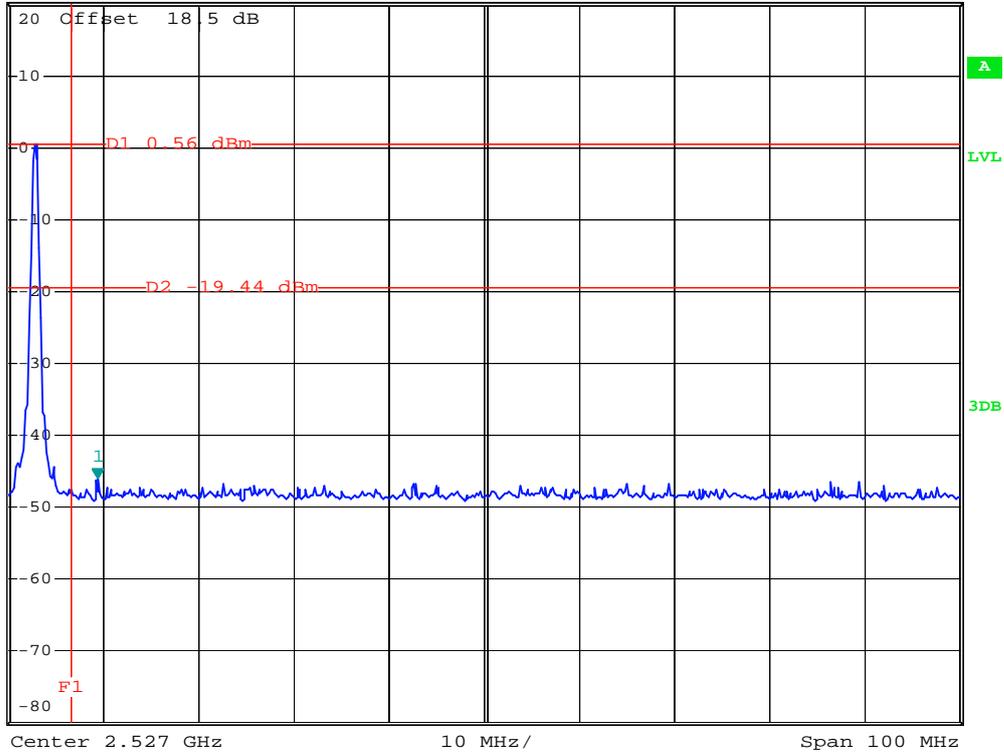


\*RBW 100 kHz Marker 1 [T1 ]  
\*VBW 100 kHz -46.02 dBm  
\*SWT 500 ms 2.486400000 GHz

Ref 20 dBm

\*Att 20 dB

1 PK  
MAXH



Date: 27.SEP.2007 22:02:46

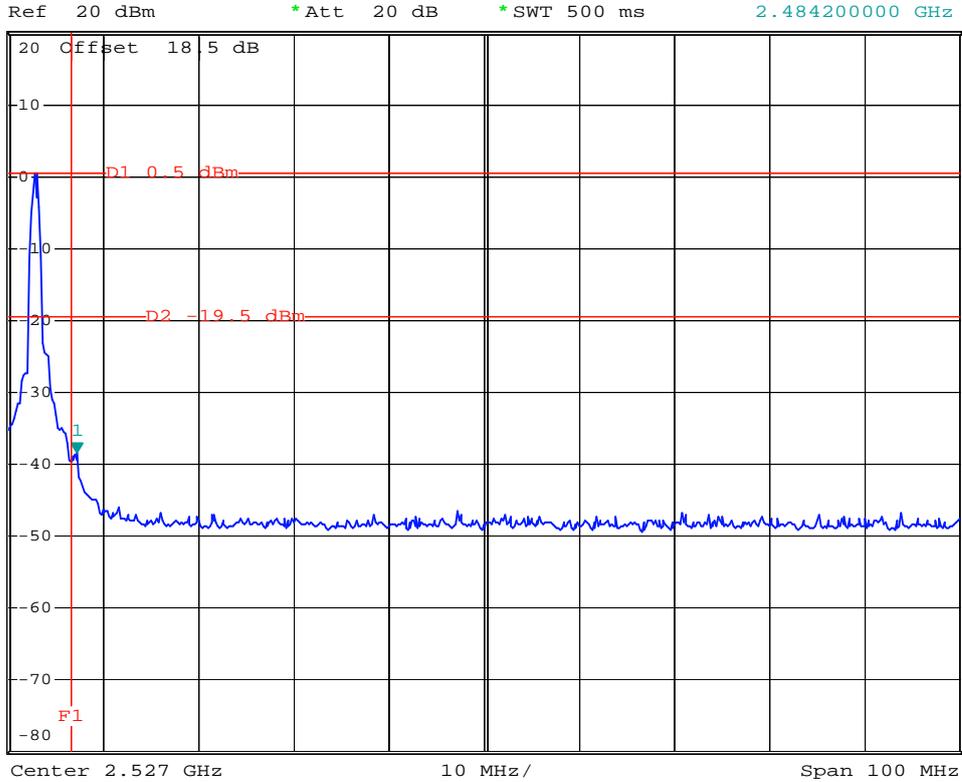




CH78



\*RBW 100 kHz Marker 1 [T1 ]  
\*VBW 100 kHz -38.40 dBm  
\*SWT 500 ms 2.484200000 GHz

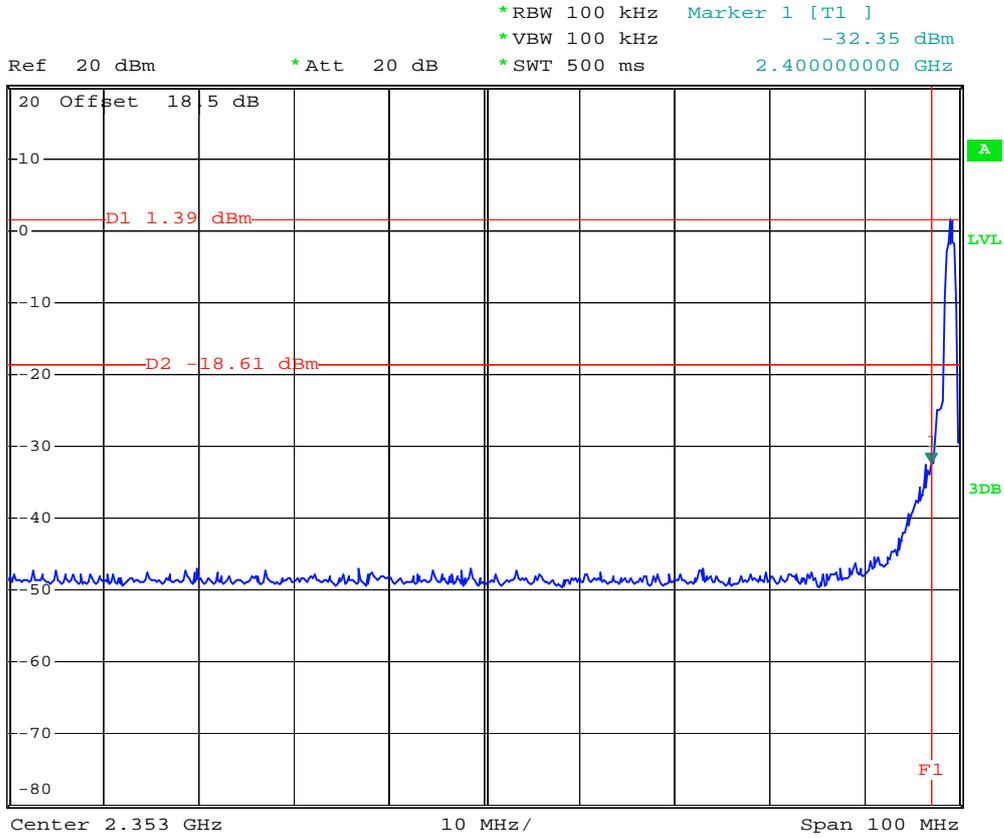


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BT EDR(3Mbps)

CH00



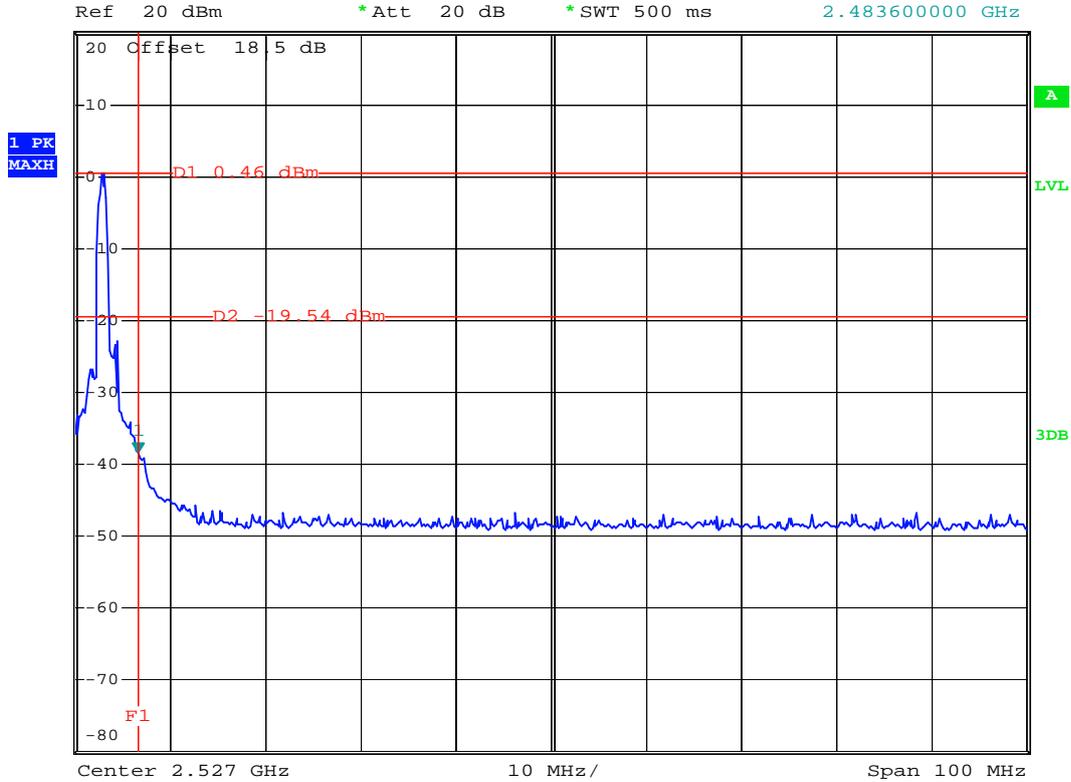
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CH78



\*RBW 100 kHz    Marker 1 [T1 ]  
 \*VBW 100 kHz    -38.38 dBm  
 \*Att 20 dB        \*SWT 500 ms        2.483600000 GHz



Date: 27.SEP.2007 21:06:05

### 5.3 Hopping Channel Separation

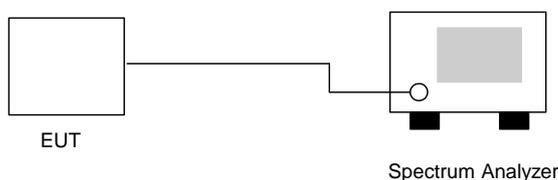
#### 5.3.1 Measuring Instruments :

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 30kHz and VBW to 100kHz.
3. The Hopping Channel Separation is defined as the channel is separated with the next channel.

#### 5.3.3 Test Setup Layout :



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

- Application Type : BT
- Temperature : 26~27
- Relative Humidity : 49~51%
- Test Engineer : Ken

Channel	Frequency (MHz)	Carrier Frequency Separation ( MHz )	Limits ( MHz )	Plot Ref. No.
00	2402	1.000	0.504	Mode 1
39	2441	1.004	0.509	Mode 2
78	2480	1.000	0.507	Mode 3

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



- Application Type : BT EDR(2Mbps)
- Temperature : 26~27
- Relative Humidity : 49~51%
- Test Enginner : Ken

Channel	Frequency (MHz)	Carrier Frequency Separation ( MHz )	Limits ( MHz )	Plot Ref. No.
00	2402	1.000	0.853	Mode 4
39	2441	1.000	0.867	Mode 5
78	2480	1.008	0.883	Mode 6

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

- Application Type : BT EDR(3Mbps)
- Temperature : 26~27
- Relative Humidity : 49~51%
- Test Enginner : Ken

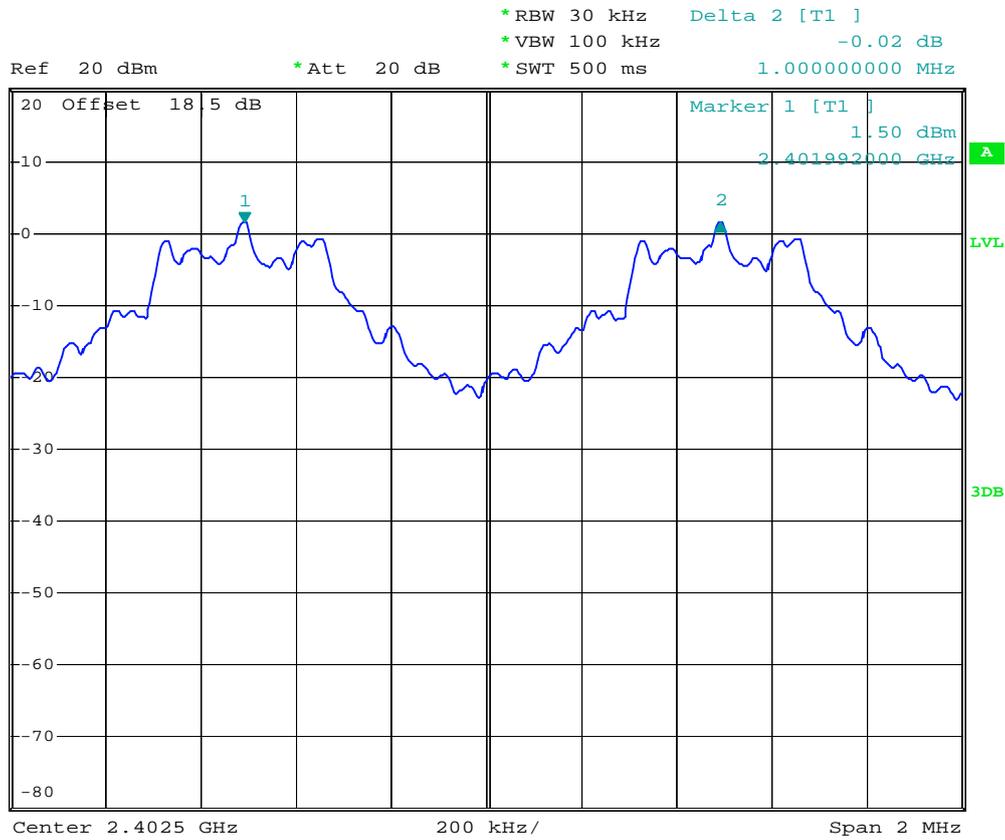
Channel	Frequency (MHz)	Carrier Frequency Separation ( MHz )	Limits ( MHz )	Plot Ref. No.
00	2402	1.000	0.848	Mode 7
39	2441	1.000	0.851	Mode 8
78	2480	1.008	0.859	Mode 9

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



5.3.5 Hopping Channel Separation

Mode 1



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Mode 2

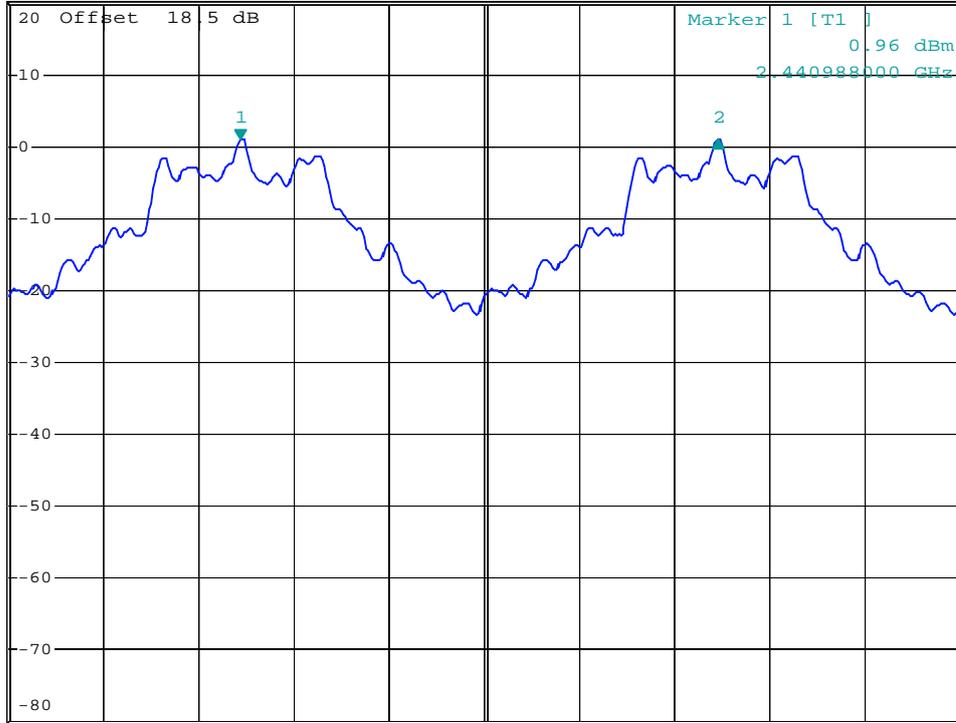


\*RBW 30 kHz    Delta 2 [T1 ]  
 \*VBW 100 kHz    0.02 dB  
 \*SWT 500 ms    1.004000000 MHz

Ref 20 dBm

\*Att 20 dB

1 PK  
MAXH



Center 2.4415 GHz    200 kHz/    Span 2 MHz

Date: 27.SEP.2007 22:05:20



Mode 3

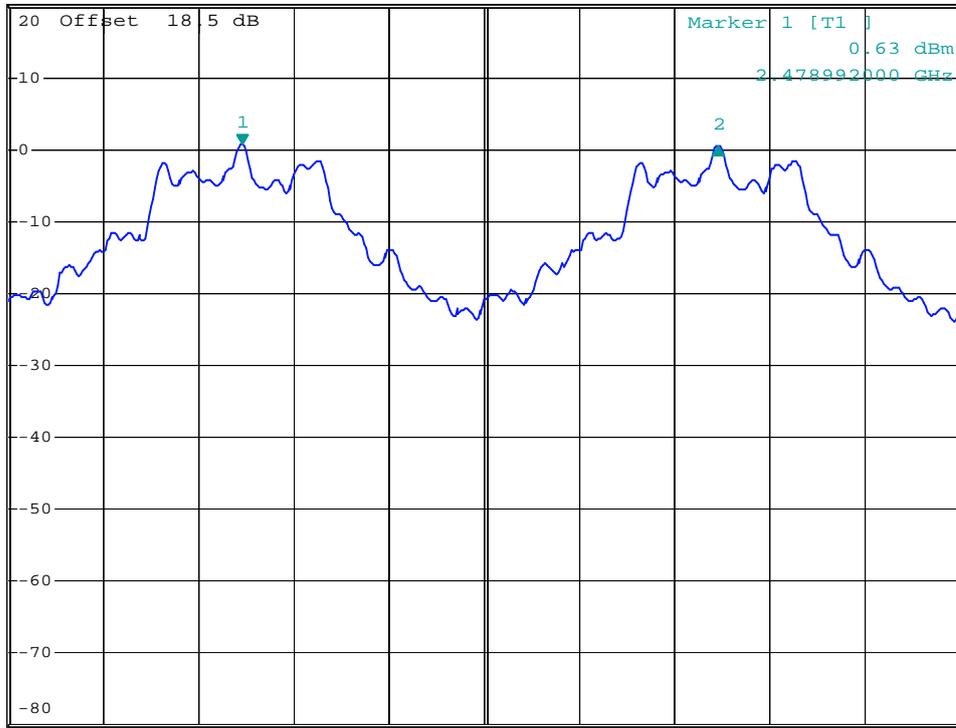


\*RBW 30 kHz    Delta 2 [T1 ]  
 \*VBW 100 kHz    -0.06 dB  
 \*SWT 500 ms    1.000000000 MHz

Ref 20 dBm

\*Att 20 dB

1 PK  
MAXH



Center 2.4795 GHz                      200 kHz/                      Span 2 MHz

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Mode 4

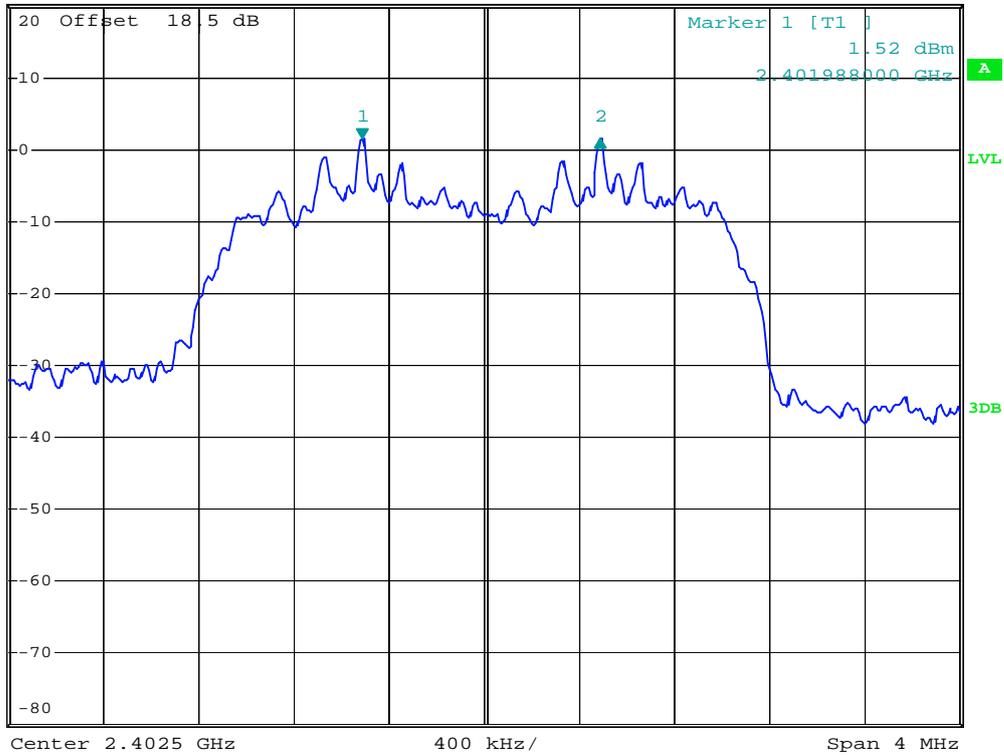


\*RBW 30 kHz Delta 2 [T1 ]  
\*VBW 100 kHz -0.02 dB  
\*SWT 500 ms 1.000000000 MHz

Ref 20 dBm

\*Att 20 dB

1 PK  
MAXH



Date: 27.SEP.2007 21:10:06



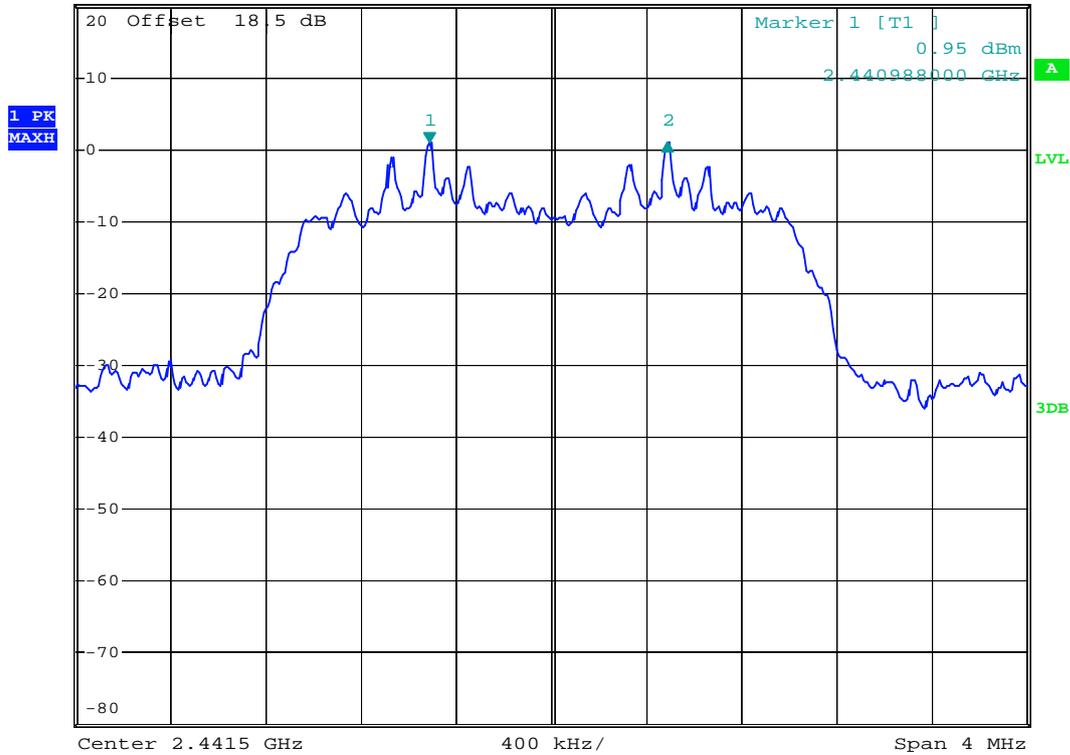
Mode 5



\*RBW 30 kHz    Delta 2 [T1 ]  
 \*VBW 100 kHz    0.00 dB  
 \*SWT 500 ms    1.000000000 MHz

Ref 20 dBm

\*Att 20 dB



Date: 27.SEP.2007 21:11:00



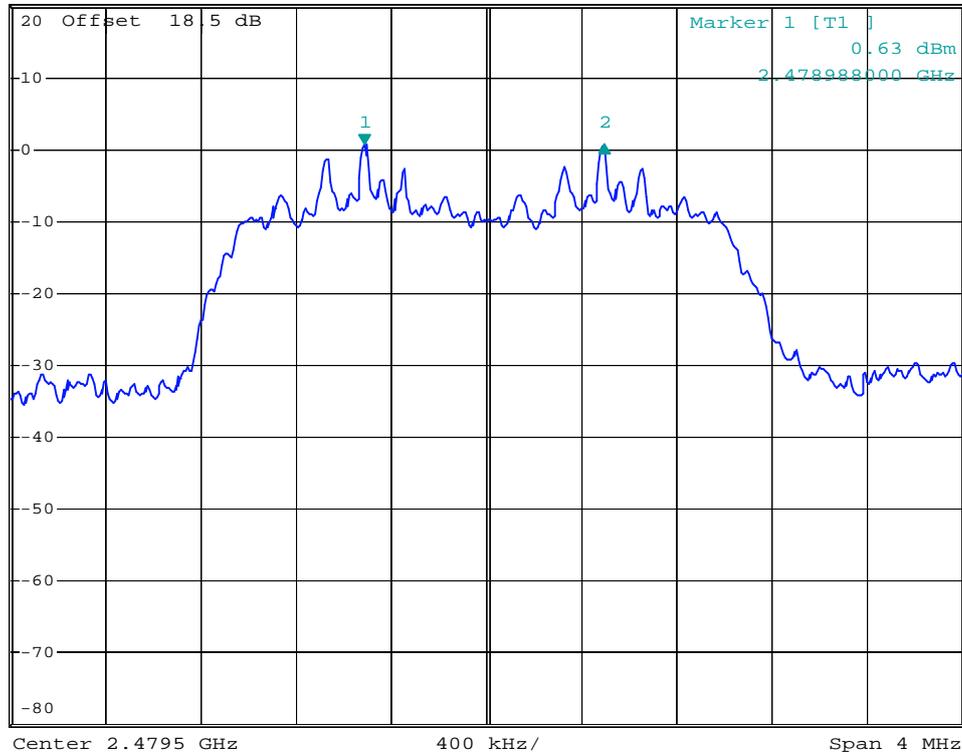
Mode 6



\*RBW 30 kHz    Delta 2 [T1 ]  
 \*VBW 100 kHz    -0.06 dB  
 \*SWT 500 ms    1.008000000 MHz

Ref 20 dBm

\*Att 20 dB



Date: 27.SEP.2007 21:12:00



Mode 7

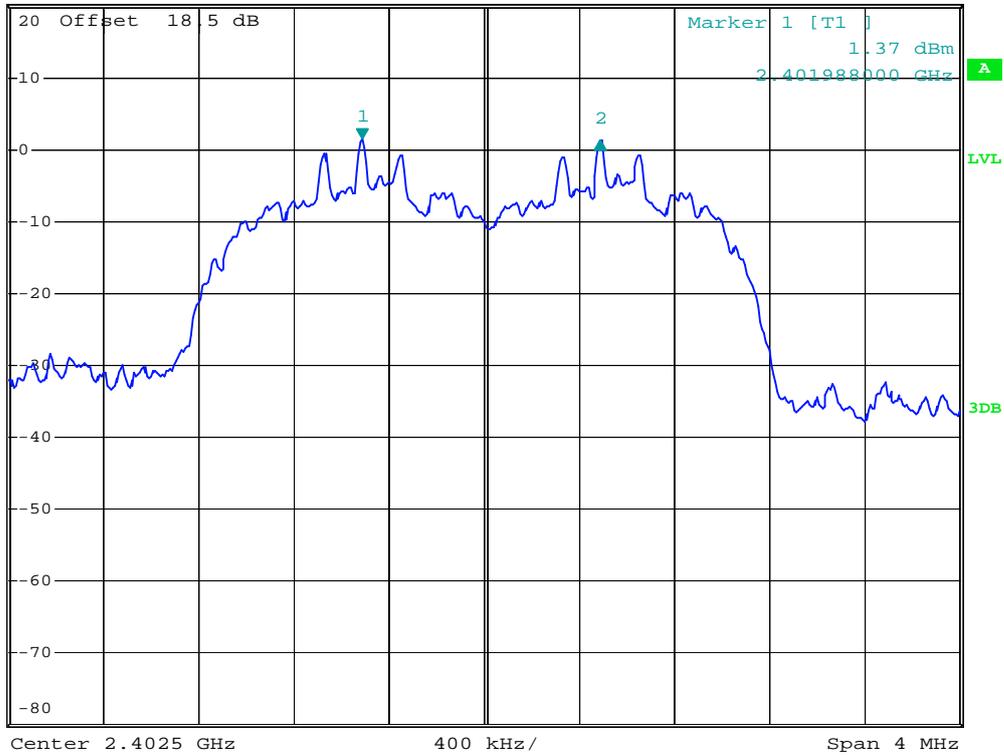


\*RBW 30 kHz Delta 2 [T1 ]  
\*VBW 100 kHz -0.03 dB  
\*SWT 500 ms 1.000000000 MHz

Ref 20 dBm

\*Att 20 dB

1 PK  
MAXH



Date: 27.SEP.2007 21:13:22



Mode 8

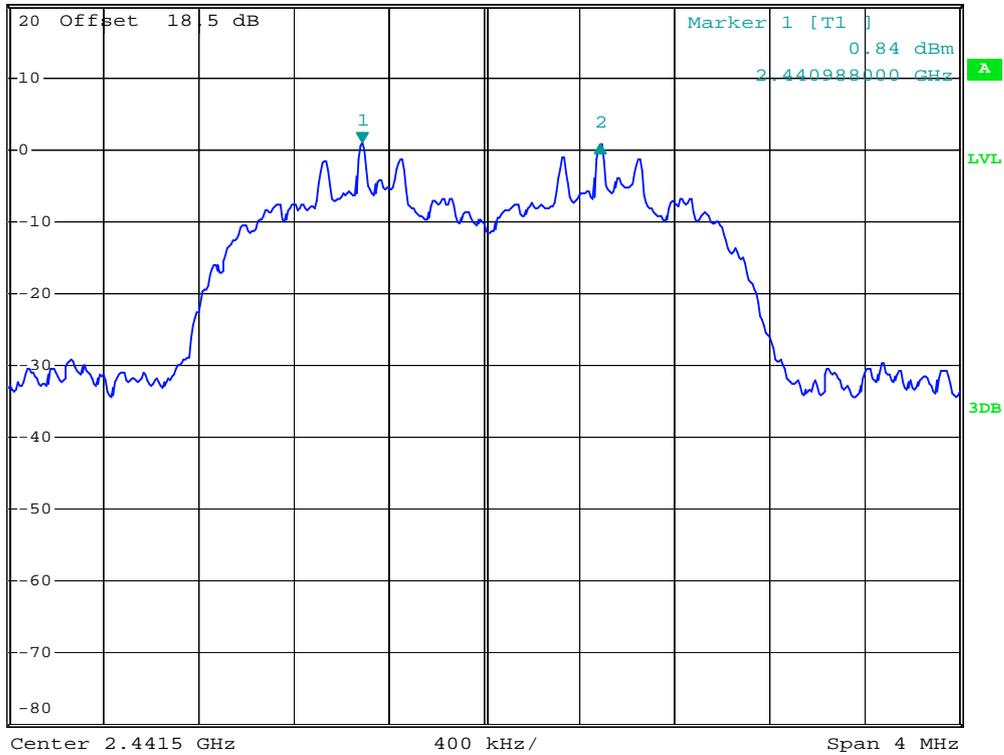


\*RBW 30 kHz Delta 2 [T1 ]  
\*VBW 100 kHz -0.01 dB  
\*SWT 500 ms 1.000000000 MHz

Ref 20 dBm

\*Att 20 dB

1 PK  
MAXH



Date: 27.SEP.2007 21:14:25



Mode 9

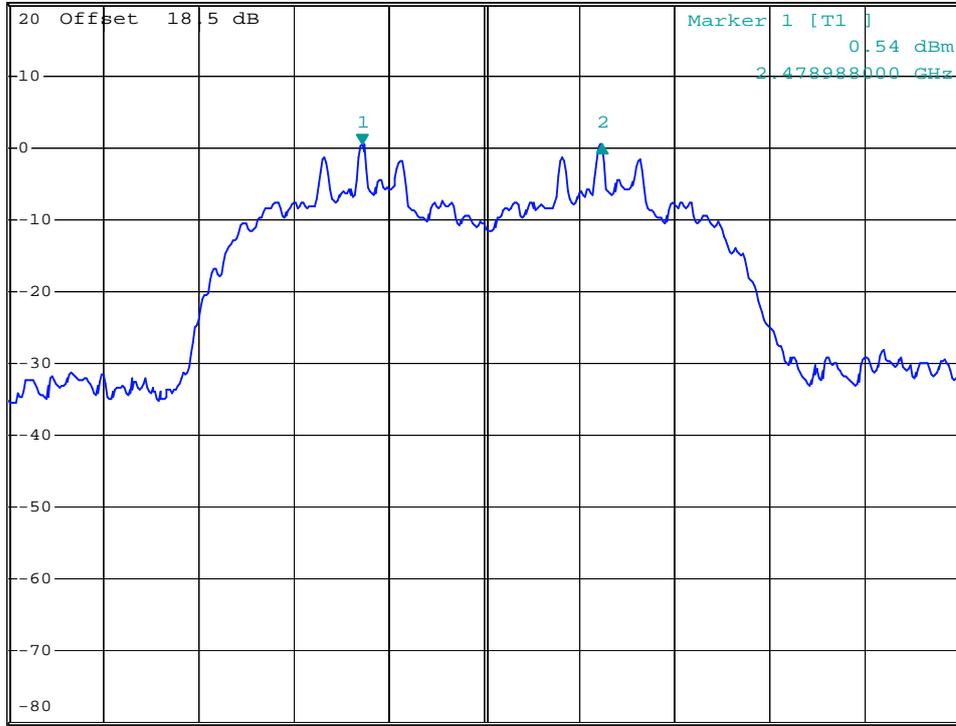


\*RBW 30 kHz Delta 2 [T1 ]  
\*VBW 100 kHz -0.06 dB  
\*SWT 500 ms 1.008000000 MHz

Ref 20 dBm

\*Att 20 dB

1 PK  
MAXH



Date: 27.SEP.2007 21:15:30

## 5.4 Number of Hopping Frequency

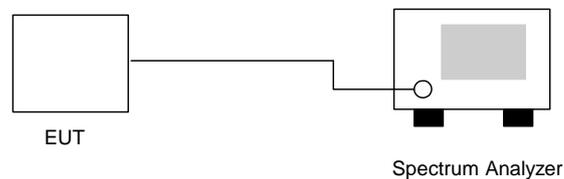
### 5.4.1 Measuring Instruments :

As described in chapter 9 of this test report.

### 5.4.2 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.

### 5.4.3 Test Setup Layout :





5.4.4 Test Result : See spectrum analyzer plots below

- Application Type : BT
- Temperature : 26~27
- Relative Humidity : 49~51%
- Test Enginner : Ken

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

- Application Type : BT EDR(2Mbps)
- Temperature : 26~27
- Relative Humidity : 49~51%
- Test Enginner : Ken

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

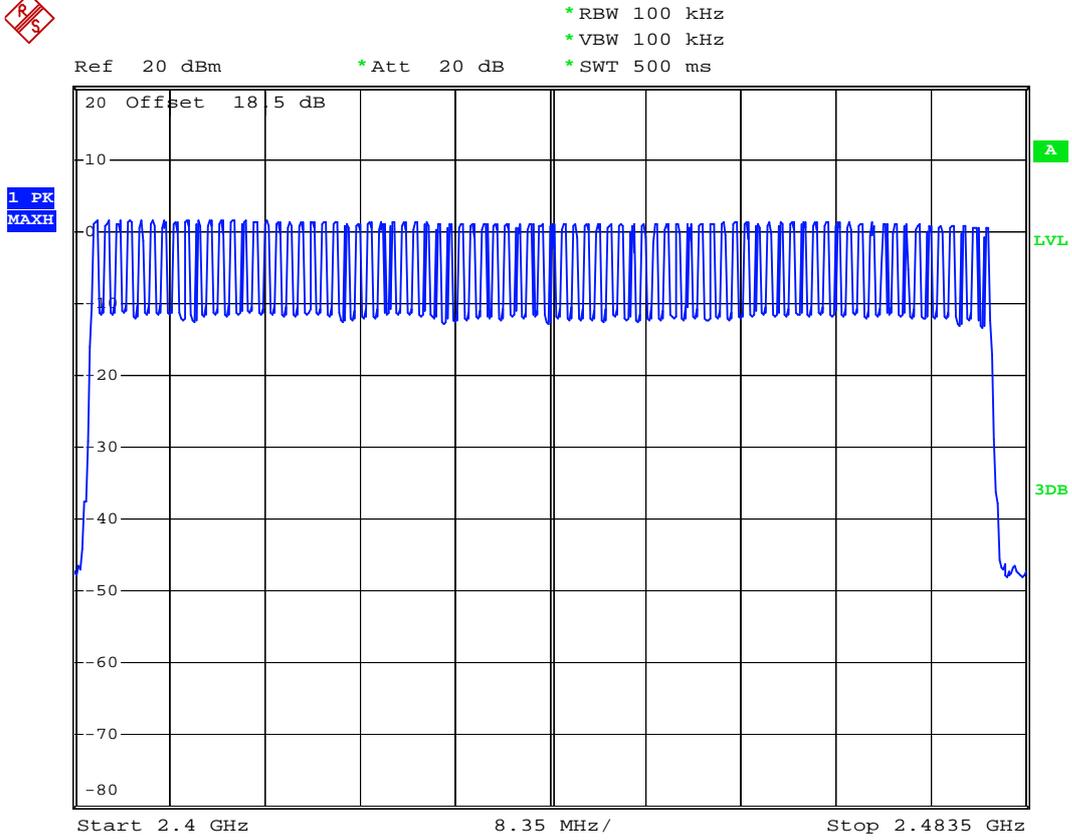
- Application Type : BT EDR(3Mbps)
- Temperature : 26~27
- Relative Humidity : 49~51%
- Test Enginner : Ken

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



5.4.5 Number of Hopping Frequency

BT



Date: 27.SEP.2007 22:21:29



BT EDR(2Mbps)

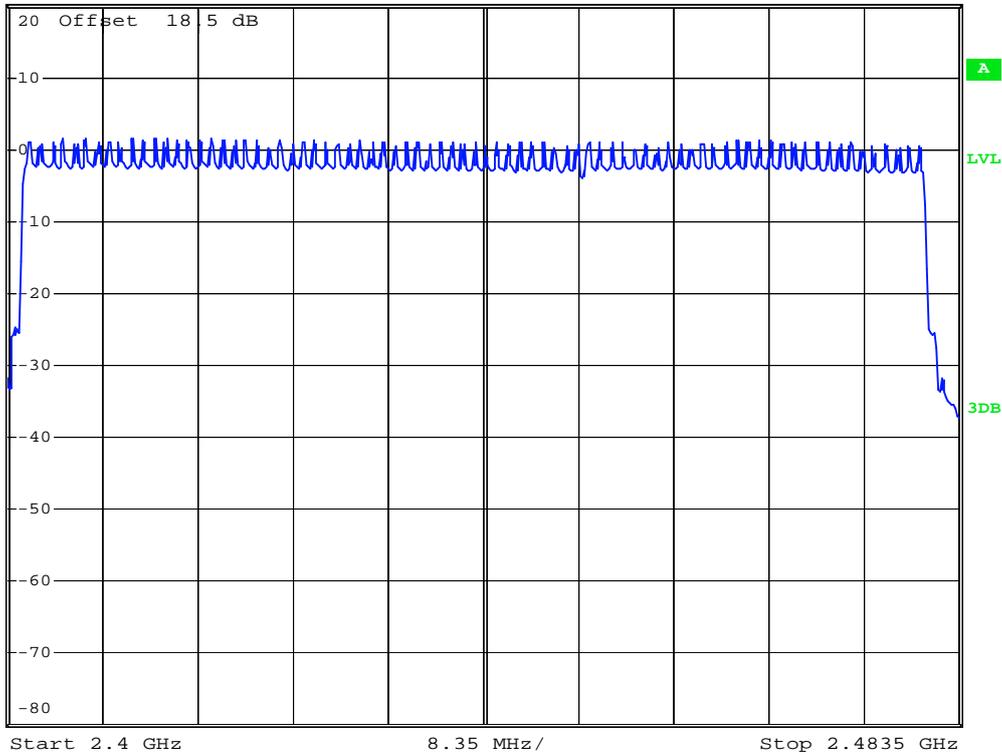


\*RBW 100 kHz  
\*VBW 100 kHz  
\*SWT 500 ms

Ref 20 dBm

\*Att 20 dB

1 PK  
MAXH



Date: 27.SEP.2007 21:36:21



BT EDR(3Mbps)

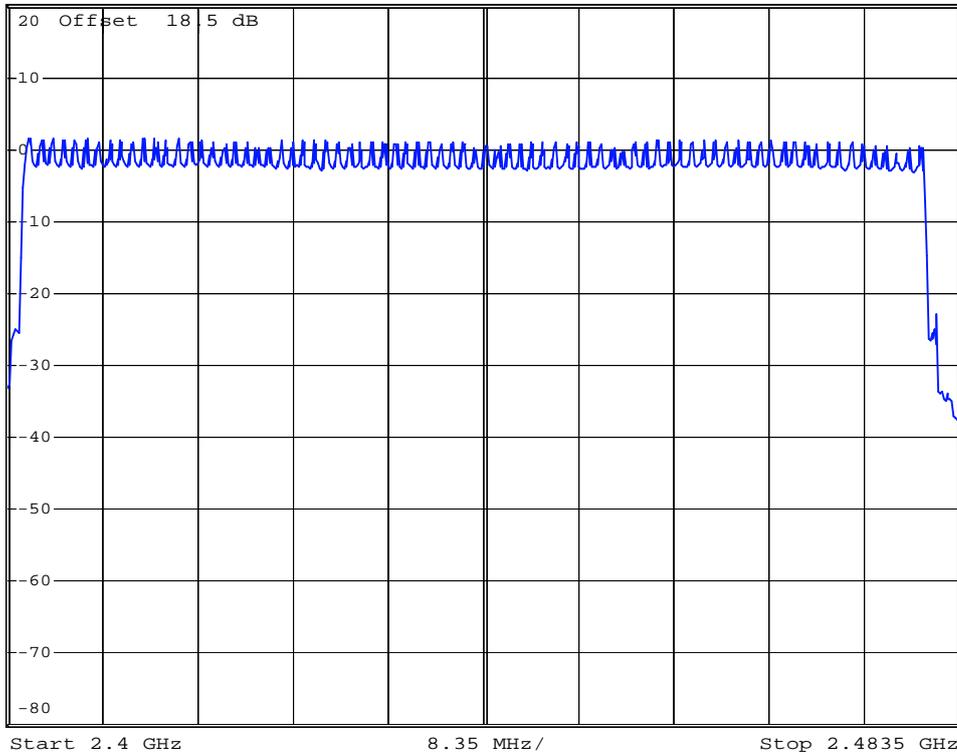


\*RBW 100 kHz  
\*VBW 100 kHz  
\*SWT 500 ms

Ref 20 dBm

\*Att 20 dB

1 PK  
MAXH



Date: 27.SEP.2007 21:46:49

## 5.5 Hopping Channel Bandwidth

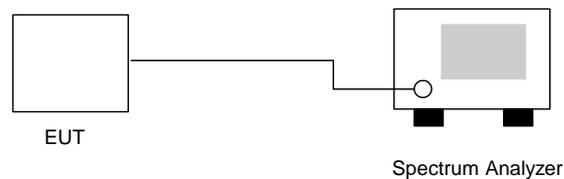
### 5.5.1 Measuring Instruments :

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 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.

### 5.5.3 Test Setup Layout :





5.5.4 Test Result : See spectrum analyzer plots below

- Application Type : BT
- Temperature : 26~27
- Relative Humidity : 49~51%
- Test Enginner : Ken

Channel	Frequency (MHz)	Hopping Channel Bandwidth (MHz)	Plot Ref. No.
00	2402	0.756	Mode 1
39	2441	0.764	Mode 2
78	2480	0.760	Mode 3

- Application Type : BT EDR(2Mbps)
- Temperature : 26~27
- Relative Humidity : 49~51%
- Test Enginner : Ken

Channel	Frequency (MHz)	Hopping Channel Bandwidth (MHz)	Plot Ref. No.
00	2402	1.280	Mode 4
39	2441	1.300	Mode 5
78	2480	1.324	Mode 6

- Application Type : BT EDR(3Mbps)
- Temperature : 26~27
- Relative Humidity : 49~51%
- Test Enginner : Ken

Channel	Frequency (MHz)	Hopping Channel Bandwidth (MHz)	Plot Ref. No.
00	2402	1.272	Mode 7
39	2441	1.276	Mode 8
78	2480	1.288	Mode 9

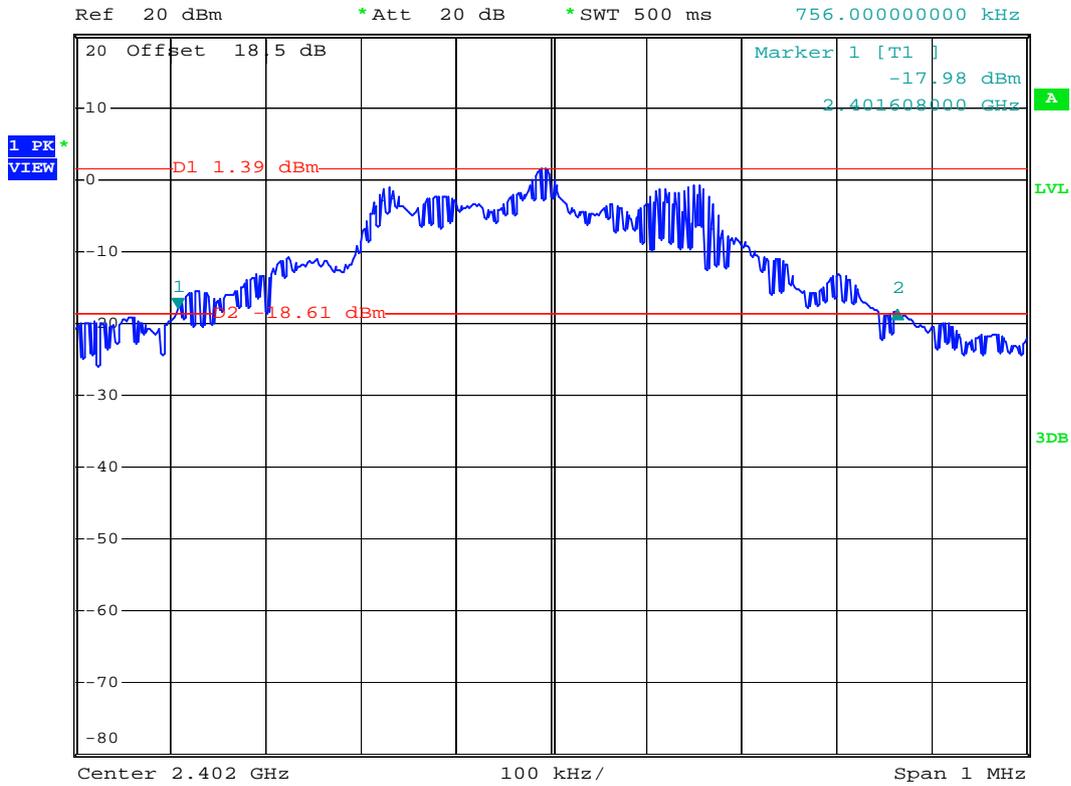


5.5.5 Hopping Channel Bandwidth

Mode 1



\*RBW 30 kHz Delta 2 [T1 ]
\*VBW 300 kHz -0.32 dB
\*SWT 500 ms 756.00000000 kHz



Date: 27.SEP.2007 21:54:21



Mode 2

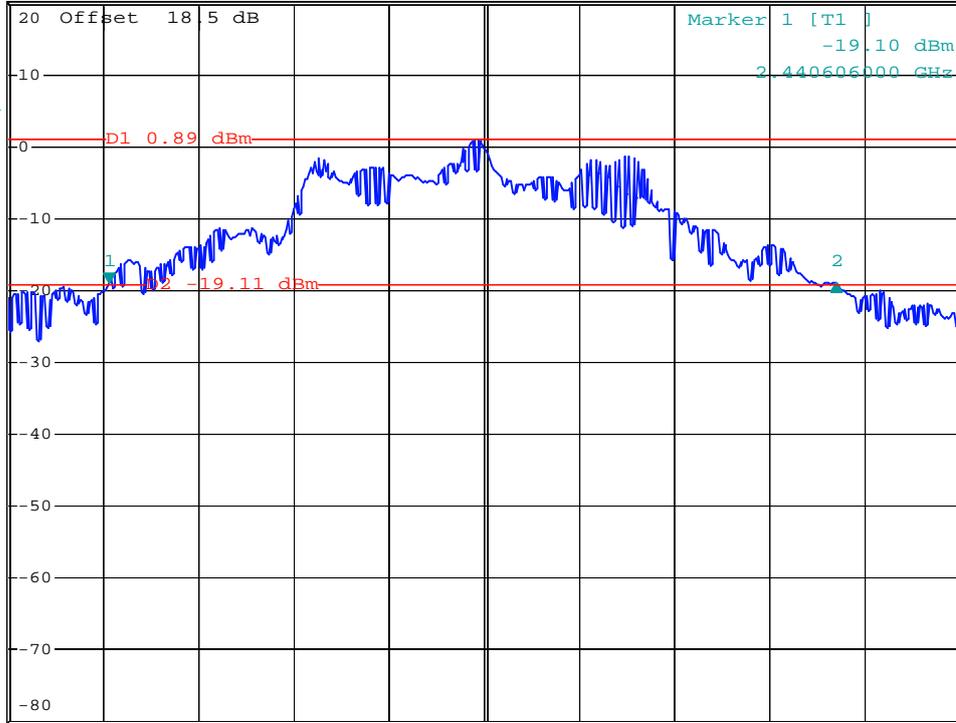


\*RBW 30 kHz Delta 2 [T1 ]  
\*VBW 300 kHz 0.03 dB  
\*SWT 500 ms 764.00000000 kHz

Ref 20 dBm

\*Att 20 dB

1 PK\*  
VIEW



Center 2.441 GHz 100 kHz/ Span 1 MHz

Date: 27.SEP.2007 21:55:38



Mode 3

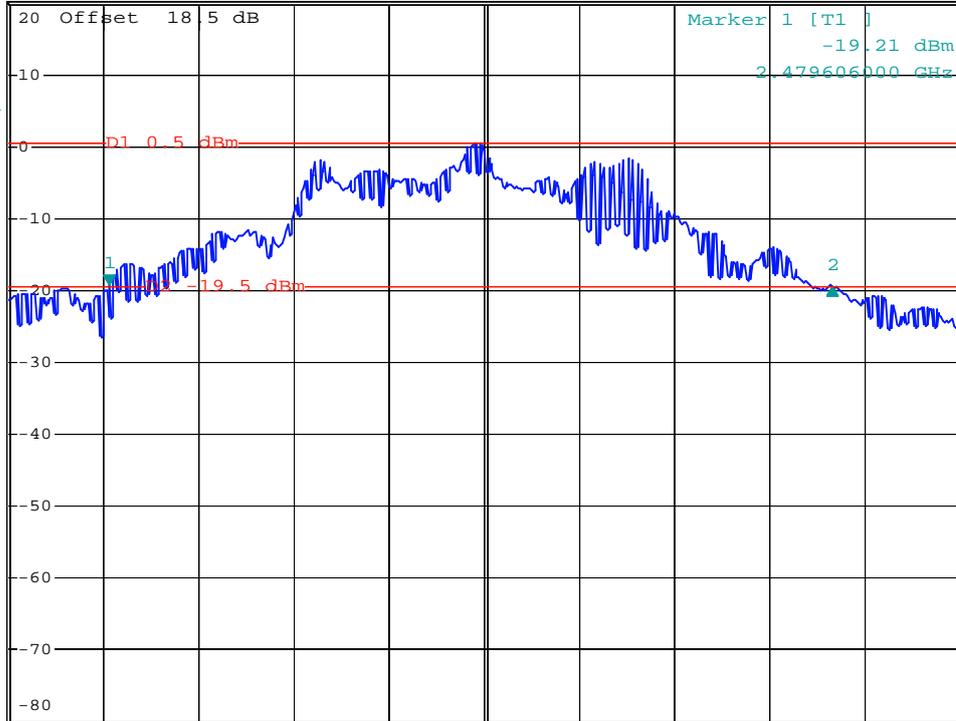


\*RBW 30 kHz Delta 2 [T1 ]  
\*VBW 300 kHz -0.24 dB  
\*SWT 500 ms 760.00000000 kHz

Ref 20 dBm

\*Att 20 dB

1 PK\*  
VIEW



Date: 27.SEP.2007 21:56:44



Mode 4



\*RBW 30 kHz    Delta 2 [T1 ]  
 \*VBW 300 kHz    -0.14 dB  
 \*SWT 500 ms    1.280000000 MHz

Ref 20 dBm

\*Att 20 dB

1 PK\*  
VIEW



Date: 27.SEP.2007 21:00:52



Mode 5

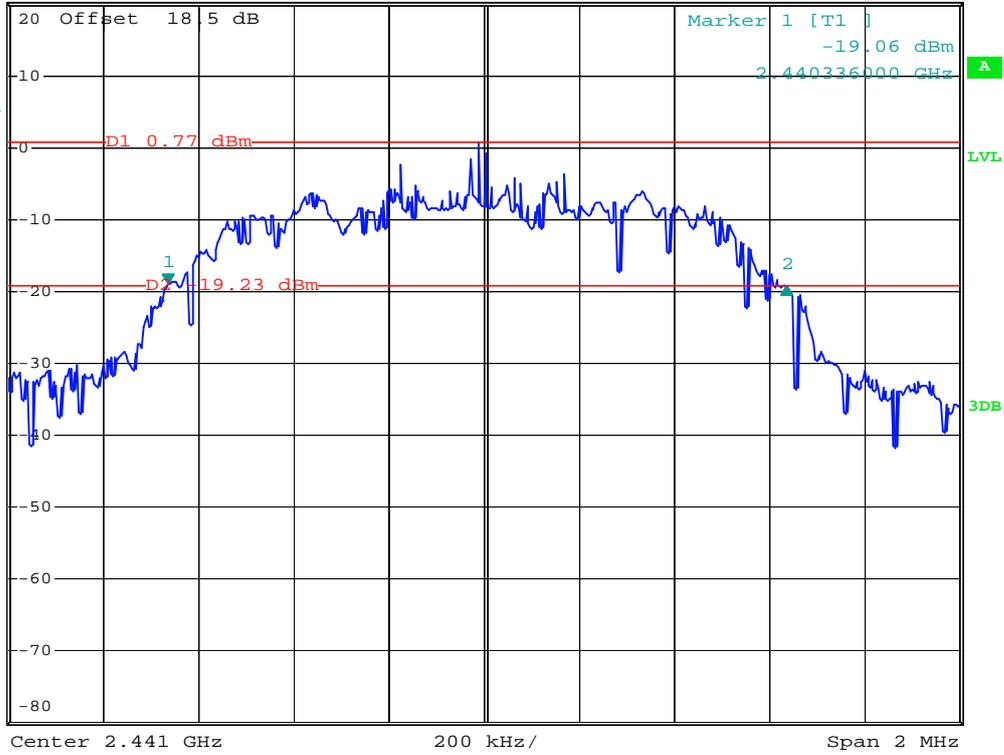


\*RBW 30 kHz    Delta 2 [T1 ]  
 \*VBW 300 kHz    -0.13 dB  
 \*SWT 500 ms    1.300000000 MHz

Ref 20 dBm

\*Att 20 dB

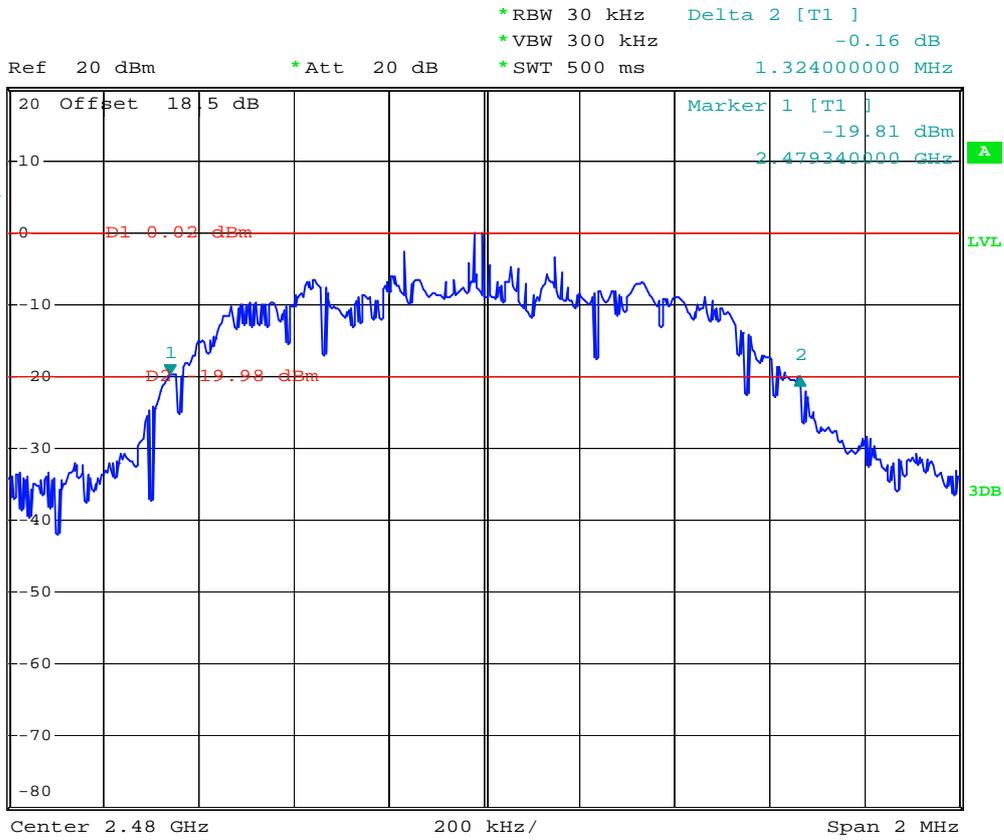
1 PK\*  
VIEW



Date: 27.SEP.2007 20:58:04



Mode 6



Date: 27.SEP.2007 20:57:04



Mode 7

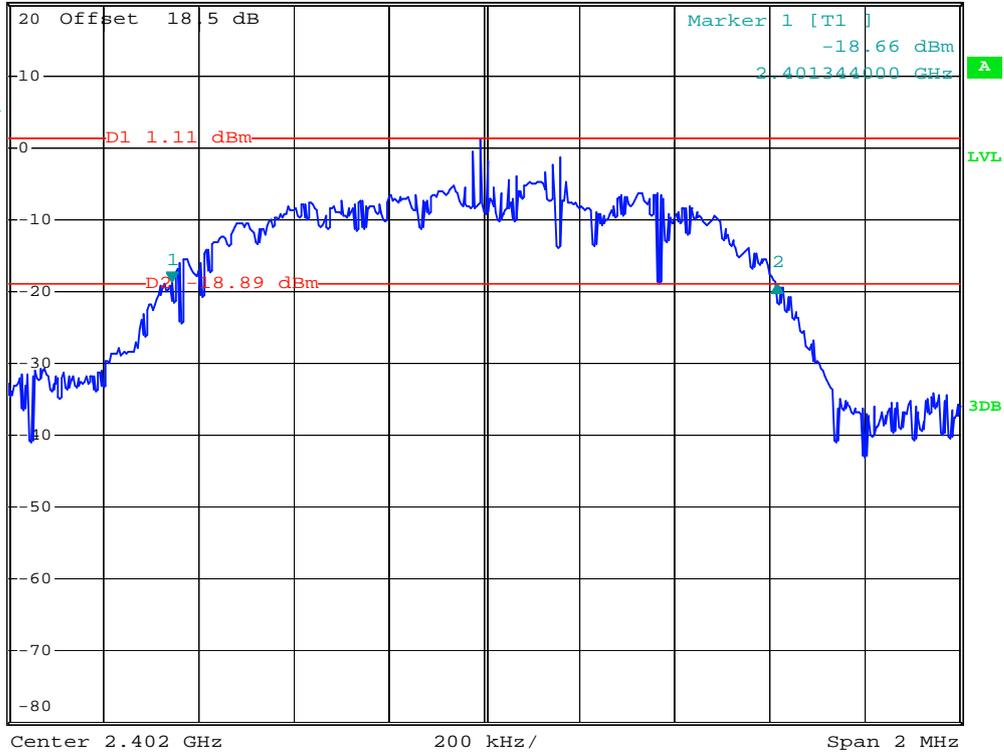


\*RBW 30 kHz    Delta 2 [T1 ]  
 \*VBW 300 kHz    -0.20 dB  
 \*SWT 500 ms    1.27200000 MHz

Ref 20 dBm

\*Att 20 dB

1 PK\*  
VIEW



Date: 27.SEP.2007 20:54:04



Mode 8

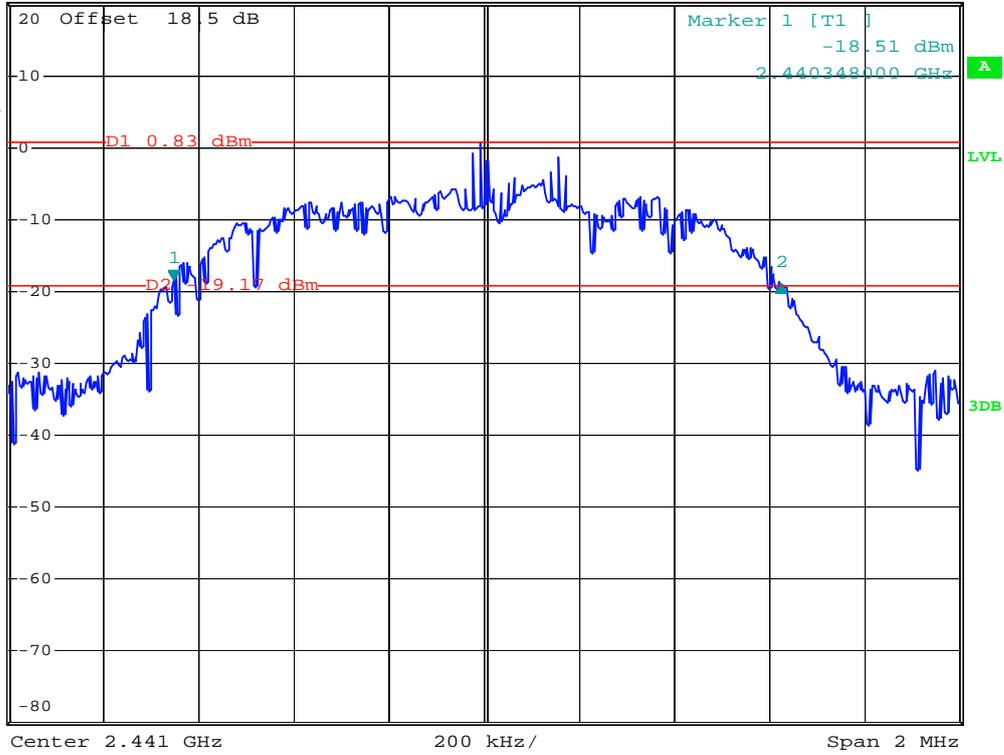


\*RBW 30 kHz    Delta 2 [T1 ]  
 \*VBW 300 kHz    -0.38 dB  
 \*SWT 500 ms    1.276000000 MHz

Ref 20 dBm

\*Att 20 dB

1 PK\*  
VIEW



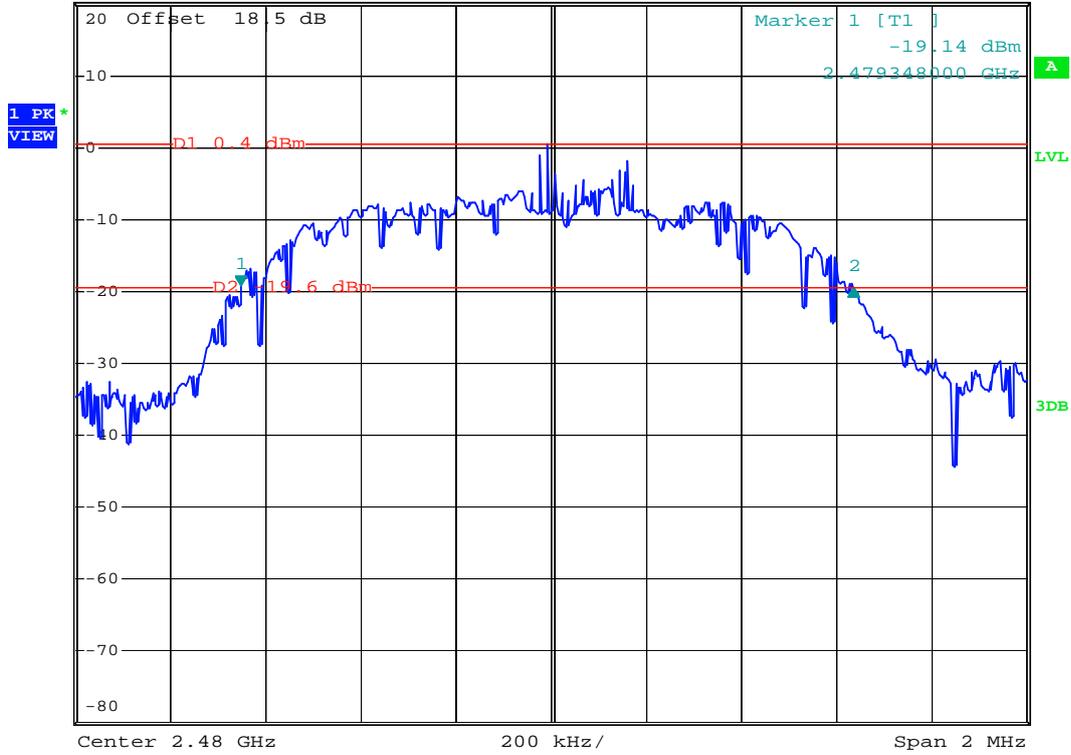
Date: 27.SEP.2007 21:49:25



Mode 9



Ref 20 dBm      \*Att 20 dB      \*RBW 30 kHz      Delta 2 [T1 ]  
 \*VBW 300 kHz      -0.37 dB  
 \*SWT 500 ms      1.288000000 MHz



Date: 27.SEP.2007 20:56:11

## 5.6 Dwell Time of Each Frequency

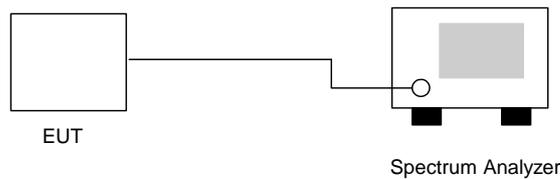
### 5.6.1 Measuring Instruments :

As described in chapter 9 of this test report.

### 5.6.2 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 )

### 5.6.3 Test Setup Layout :



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

- Application Type : BT
- Temperature : 26~27
- Relative Humidity : 49~51%
- Test Enginner : Ken

CH39

Package Mode	Average Hopping Channel	Package Transfer Time (us)	Dwell Time (s)	Limit (s)
DH1	8.7	452	0.124	0.4
DH3	4.2	1720	0.229	0.4
DH5	3.1	3080	0.302	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)



- Application Type : BT EDR(2Mbps)
- Temperature : 26~27
- Relative Humidity : 49~51%
- Test Enginner : Ken

CH39

Package Mode	Average Hopping Channel	Package Transfer Time (us)	Dwell Time (s)	Limit (s)
DH1	8.8	452	0.126	0.4
DH3	4.4	1710	0.238	0.4
DH5	3.6	3000	0.341	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)

- Application Type : BT EDR(3Mbps)
- Temperature : 26~27
- Relative Humidity : 49~51%
- Test Enginner : Ken

CH39

Package Mode	Average Hopping Channel	Package Transfer Time (us)	Dwell Time (s)	Limit (s)
DH1	8.7	448	0.123	0.4
DH3	4.7	1750	0.260	0.4
DH5	3.5	3000	0.332	0.4

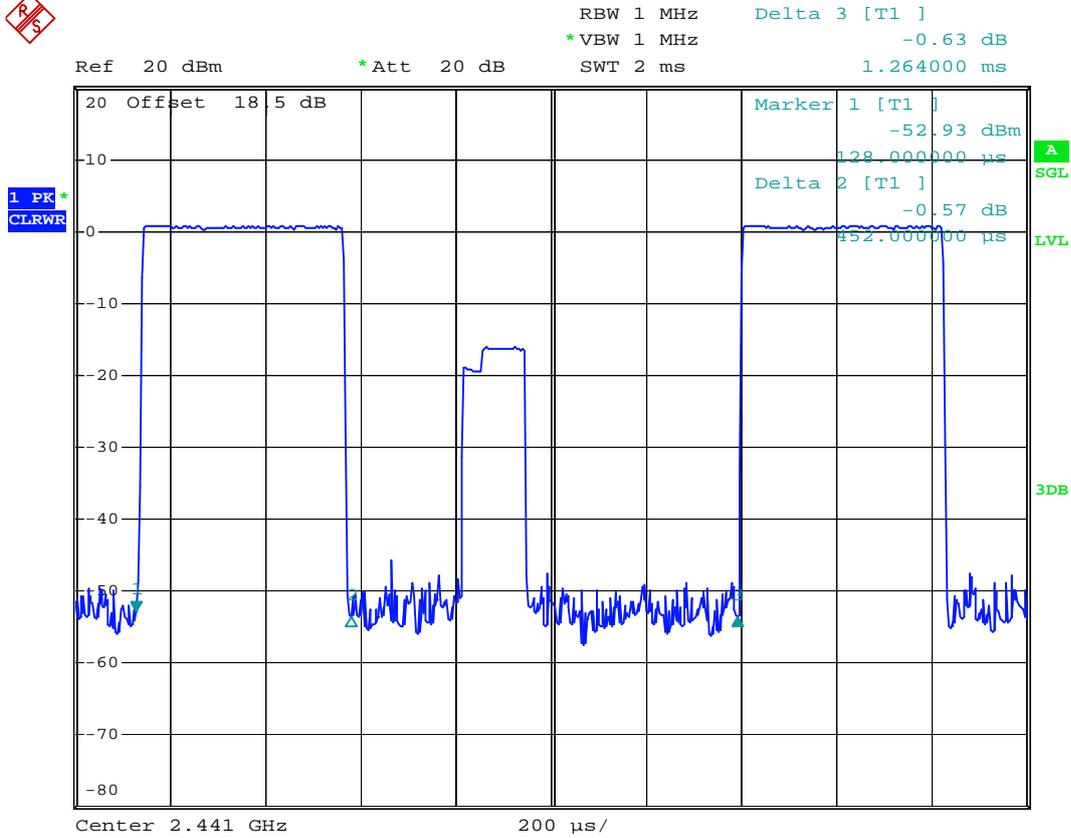
Remark:

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)



5.6.5 Dwell Time

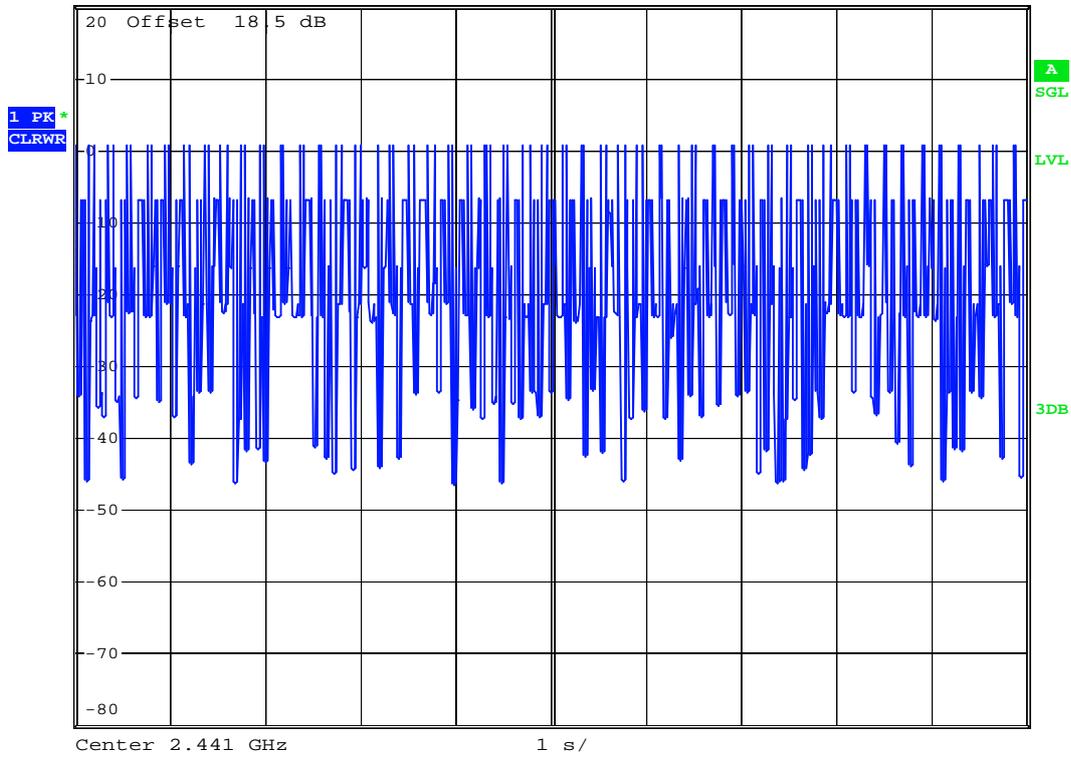
DH1 (CH39)



Date: 27.SEP.2007 22:08:16



Ref 20 dBm      \*Att 20 dB      RBW 1 MHz  
\*VBW 1 MHz      SWT 10 s



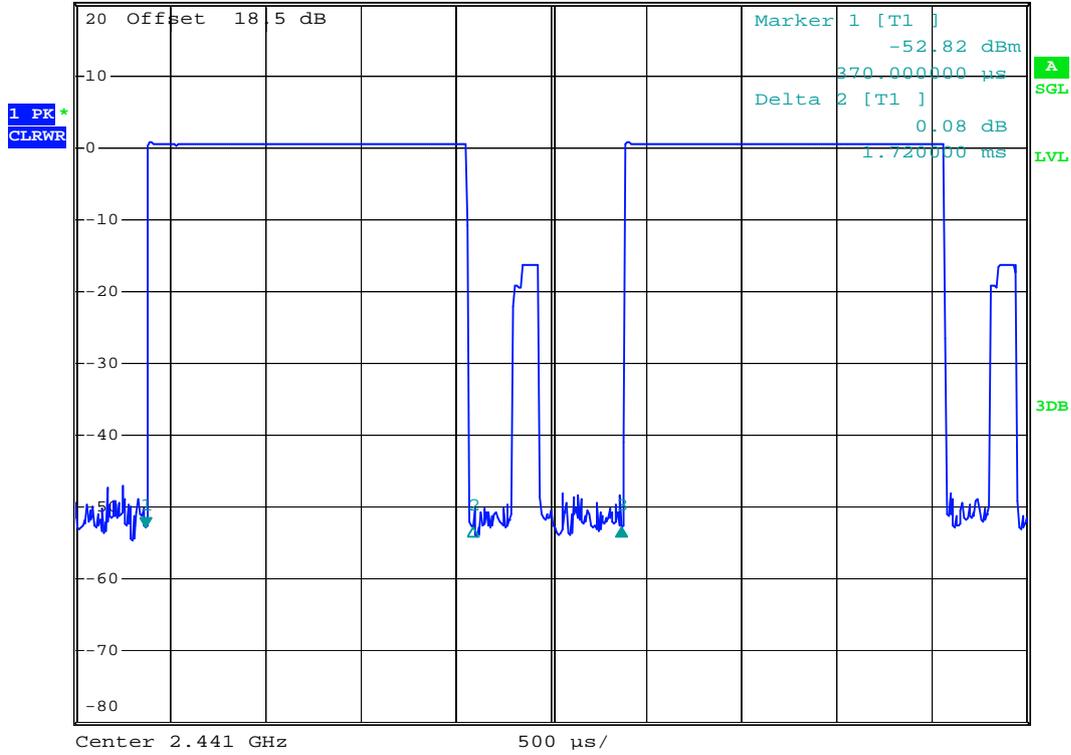
Date: 27.SEP.2007 22:10:17



DH3 (CH39)



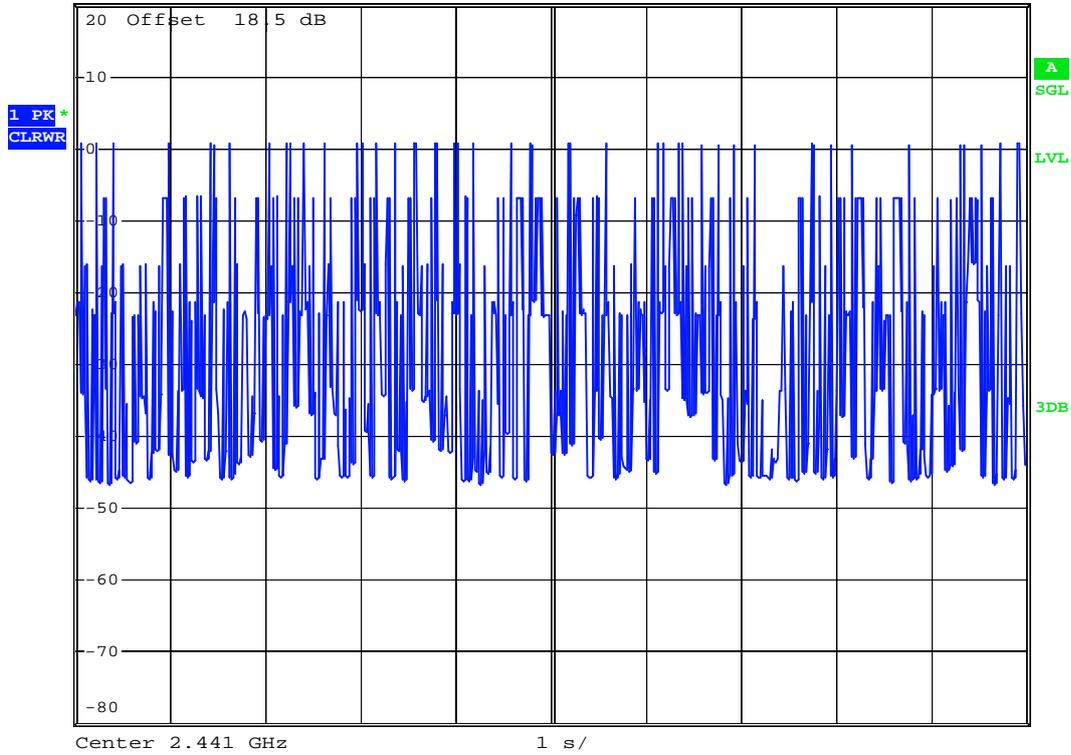
RBW 1 MHz      Delta 3 [T1 ]  
 \*VBW 1 MHz      -0.03 dB  
 Ref 20 dBm      \*Att 20 dB      SWT 5 ms      2.500000 ms



Date: 27.SEP.2007 22:08:56



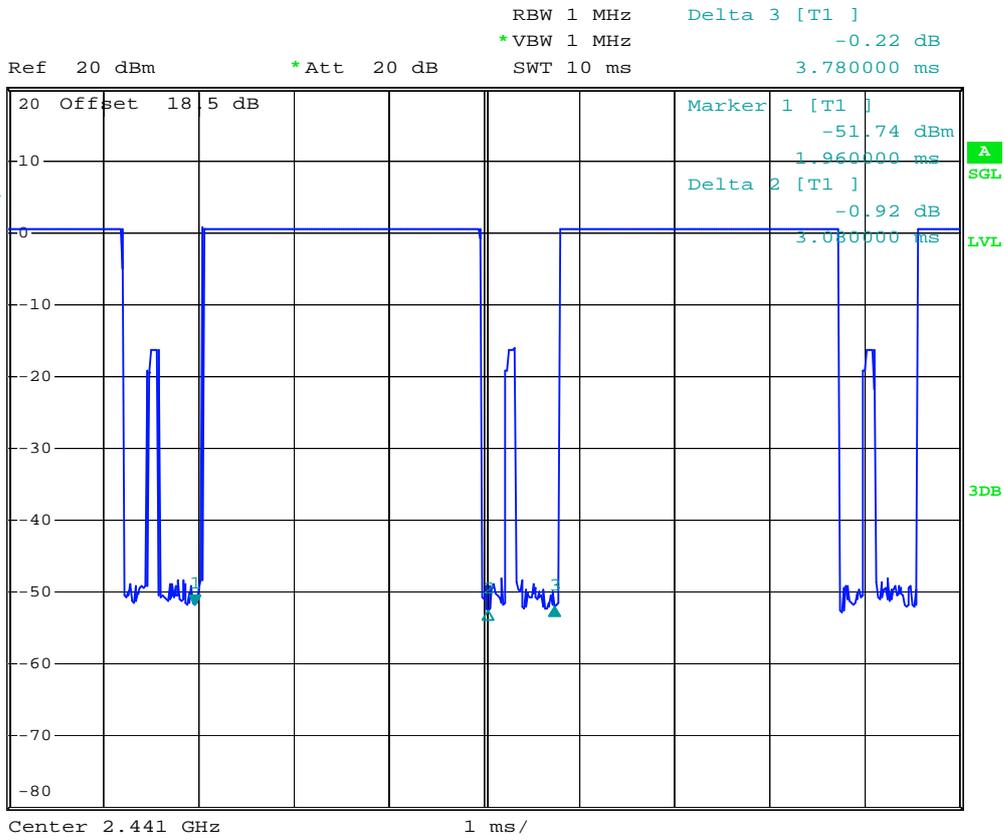
Ref 20 dBm      \*Att 20 dB      RBW 1 MHz  
\*VBW 1 MHz      SWT 10 s



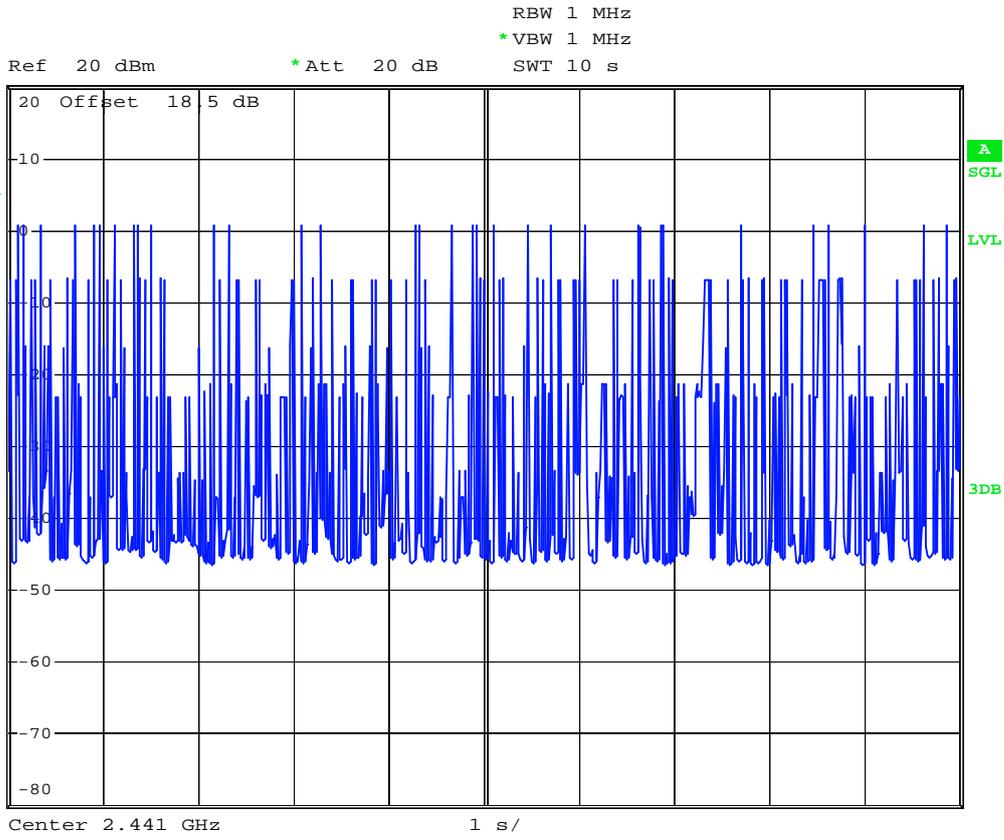
Date: 27.SEP.2007 22:10:45



DH5 (CH39)

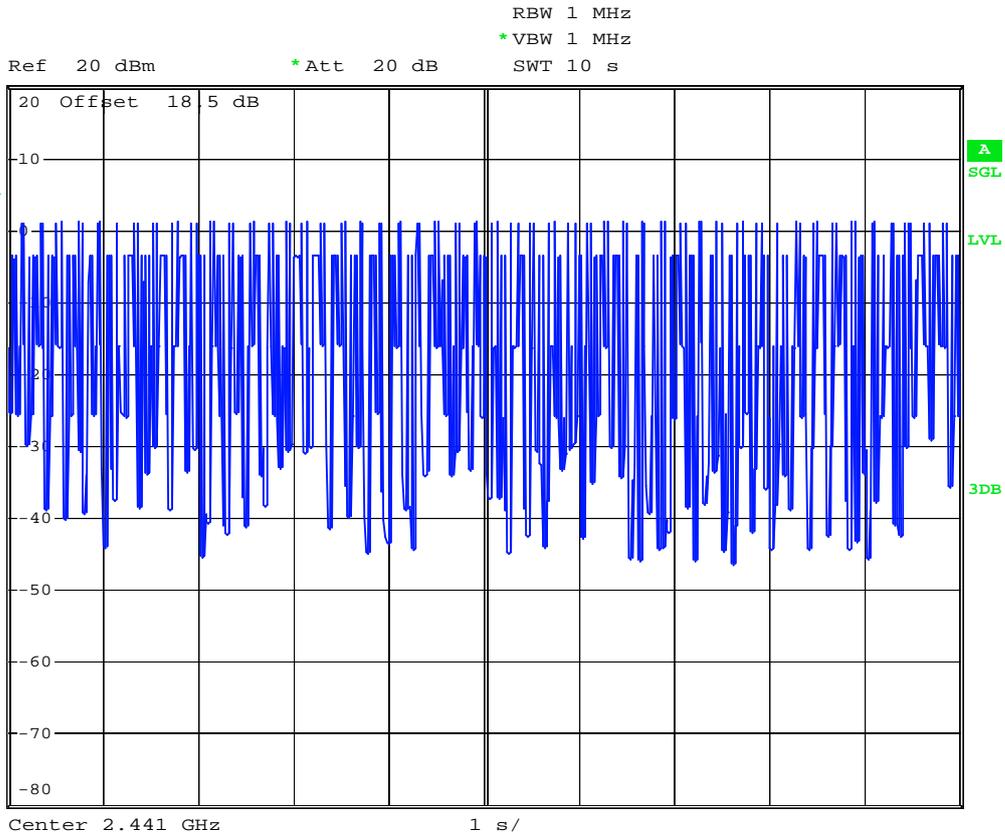


Date: 27.SEP.2007 22:09:40



Date: 27.SEP.2007 22:11:19

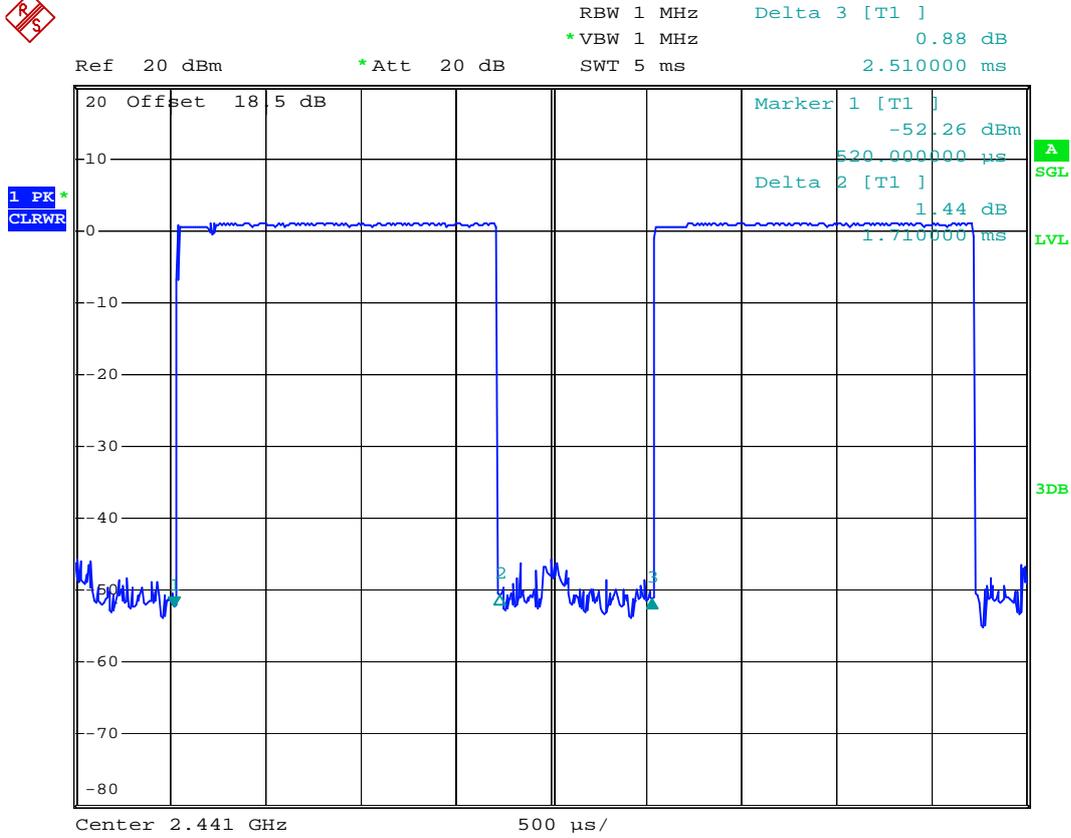




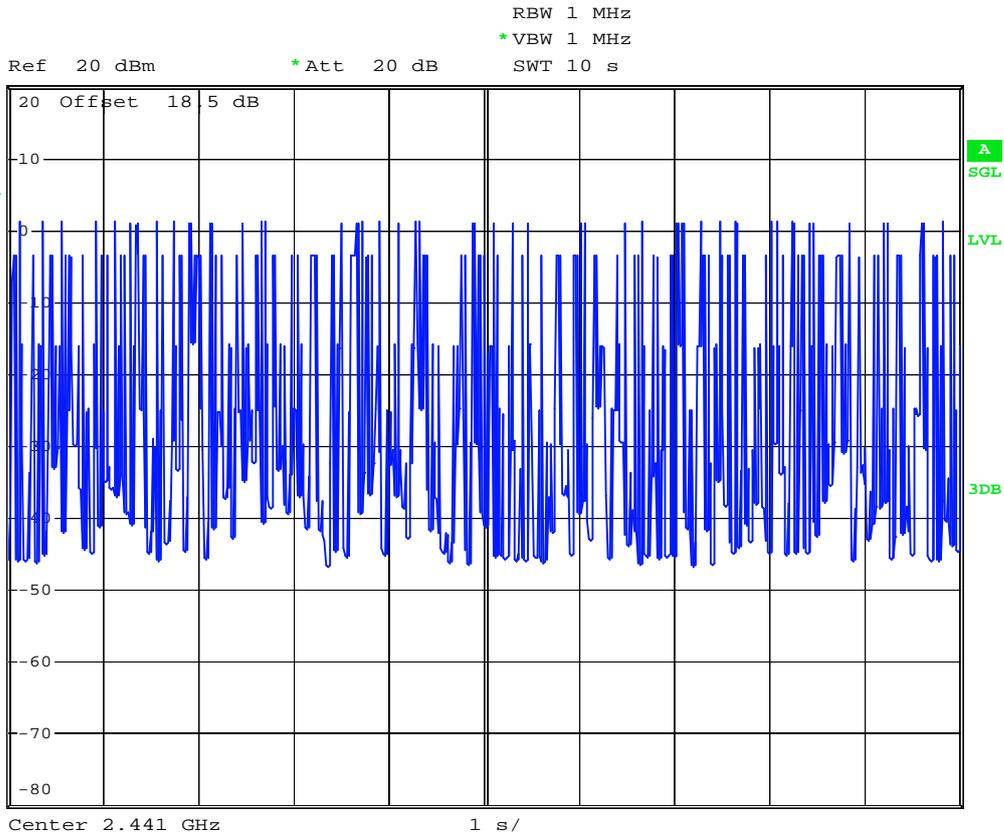
Date: 27.SEP.2007 21:23:56



2DH3 (CH39)



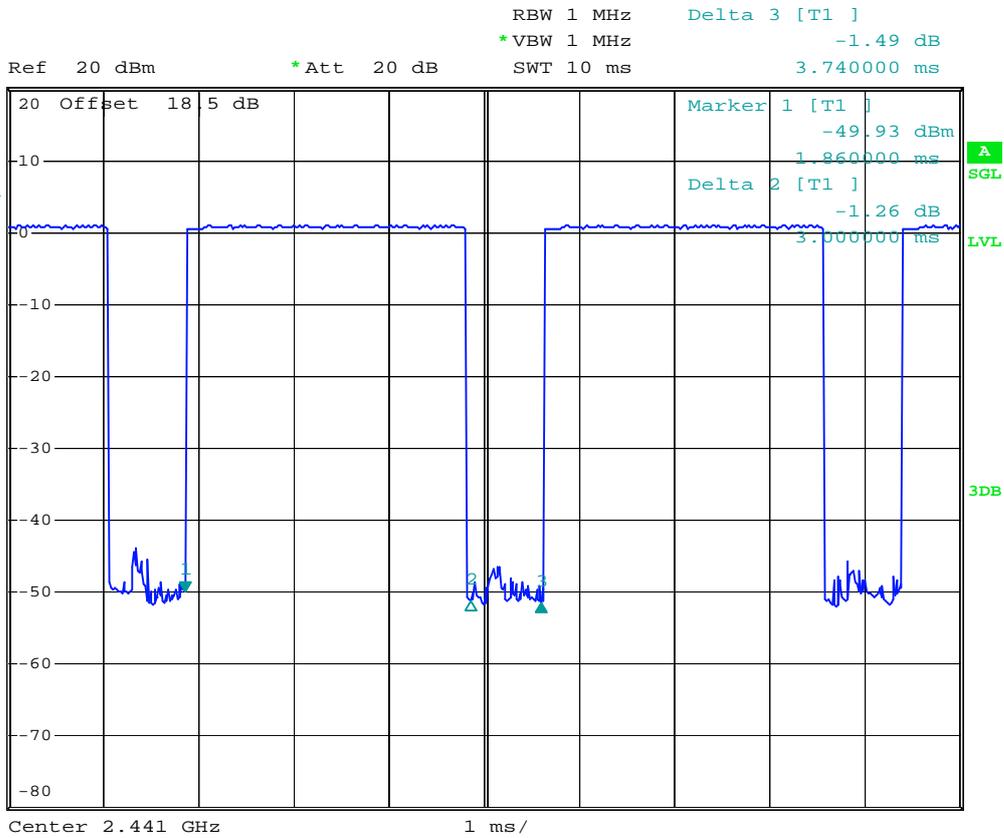
Date: 27.SEP.2007 21:19:17



Date: 27.SEP.2007 21:24:24



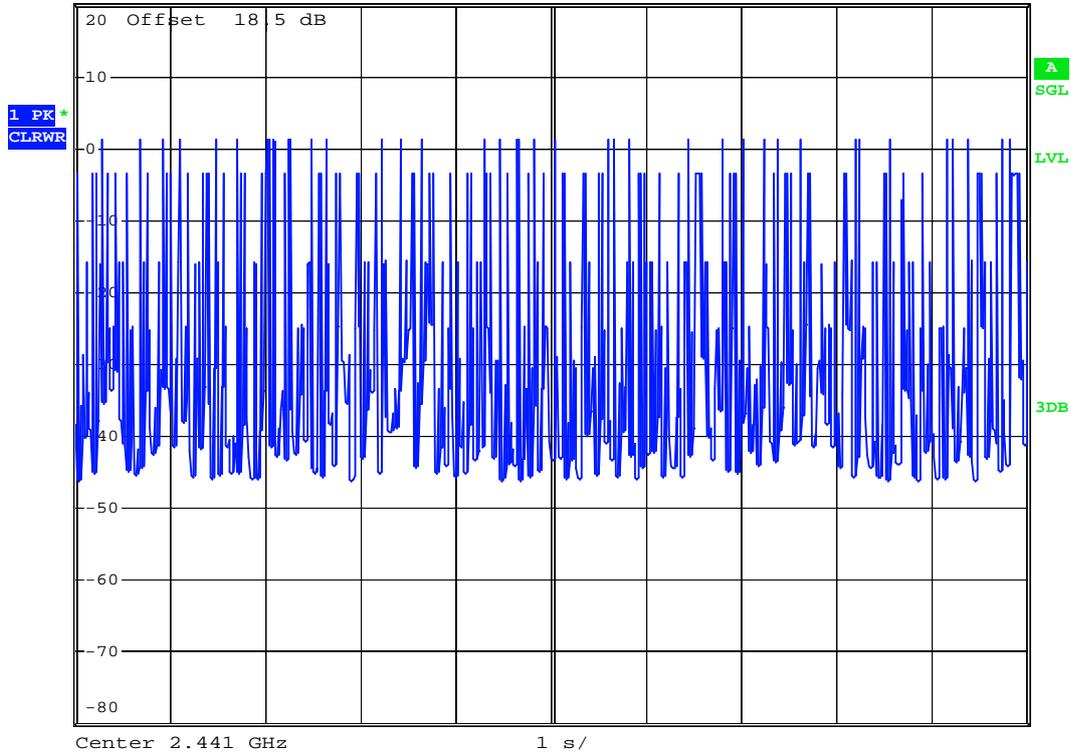
2DH5 (CH39)



Date: 27.SEP.2007 21:19:52



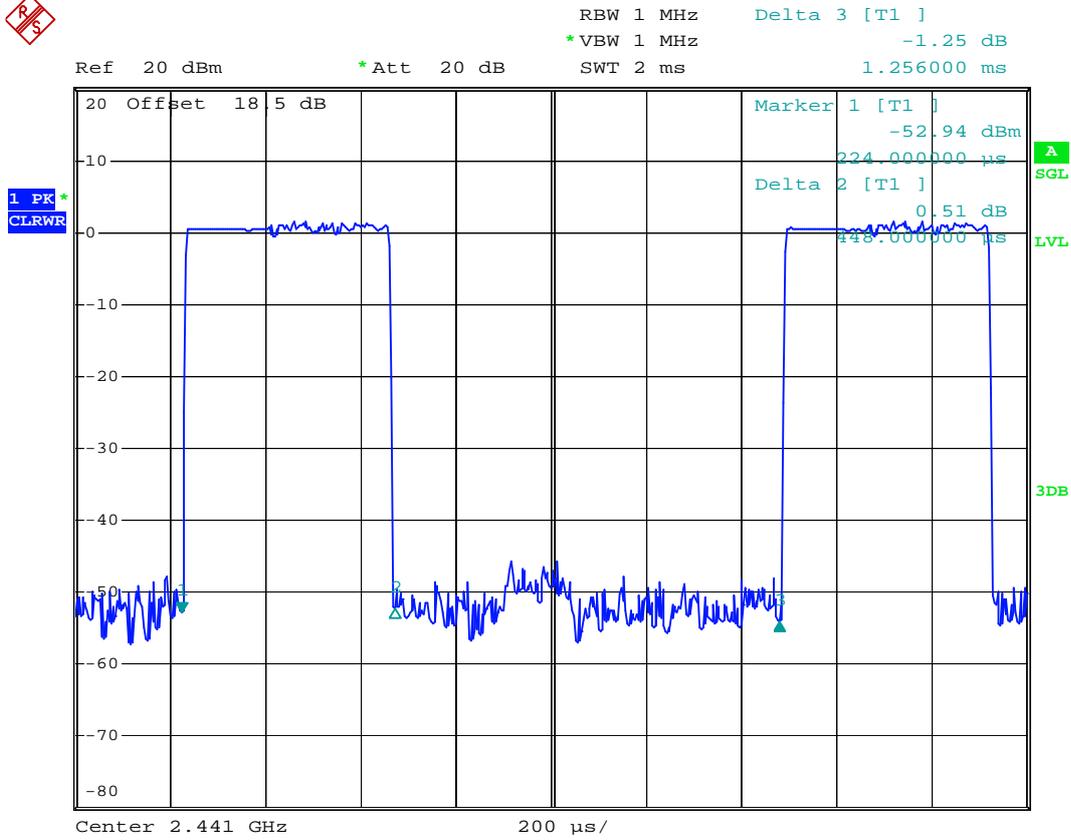
Ref 20 dBm      \*Att 20 dB      RBW 1 MHz  
\*VBW 1 MHz  
SWT 10 s



Date: 27.SEP.2007 21:24:54



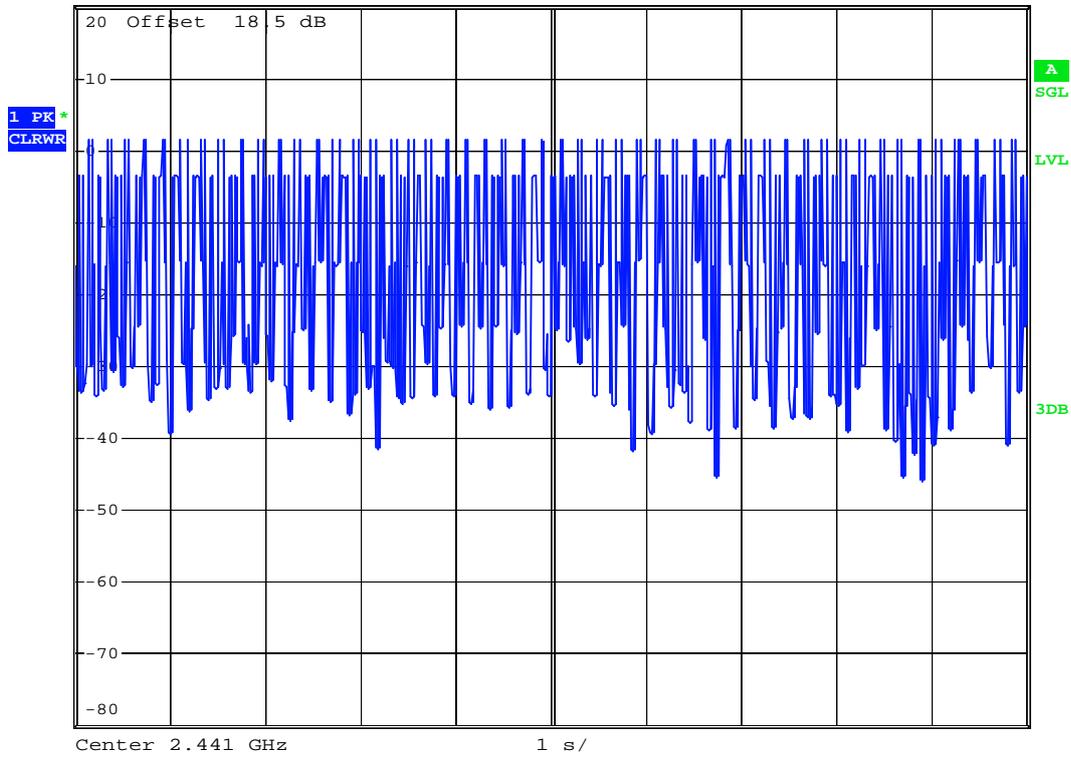
3DH1 (CH39)



Date: 27.SEP.2007 21:20:52



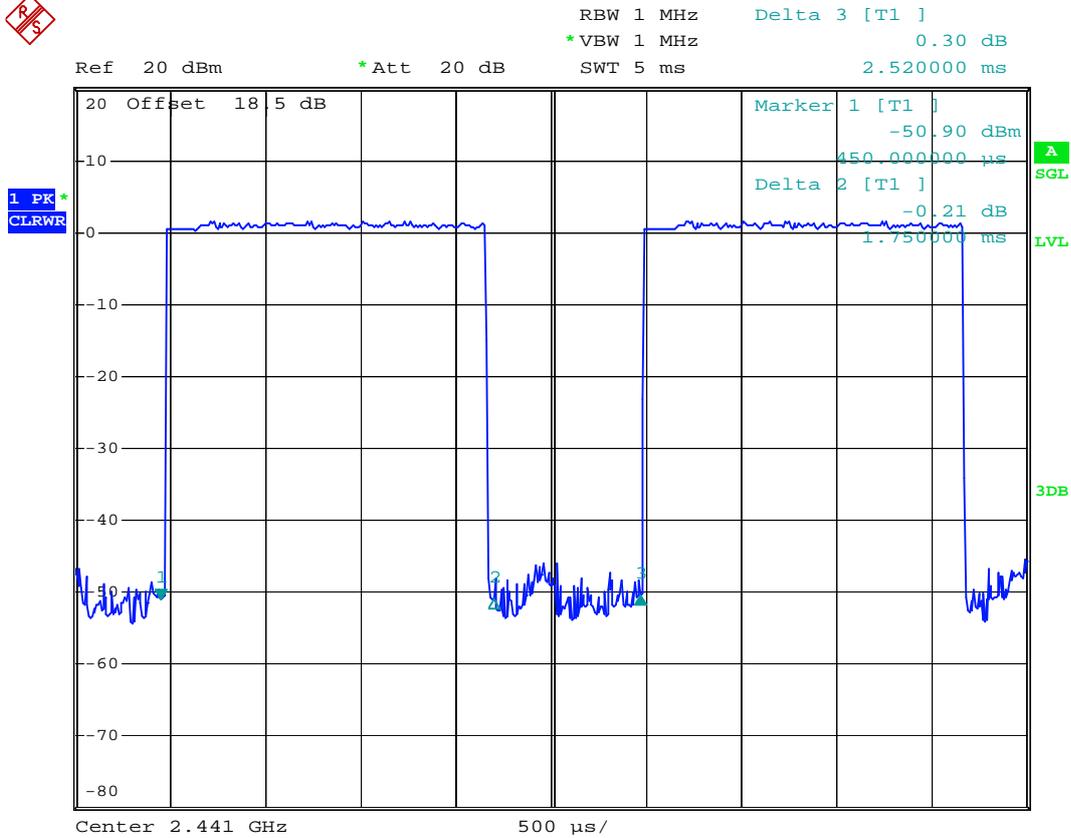
Ref 20 dBm      \*Att 20 dB      RBW 1 MHz  
\*VBW 1 MHz      SWT 10 s



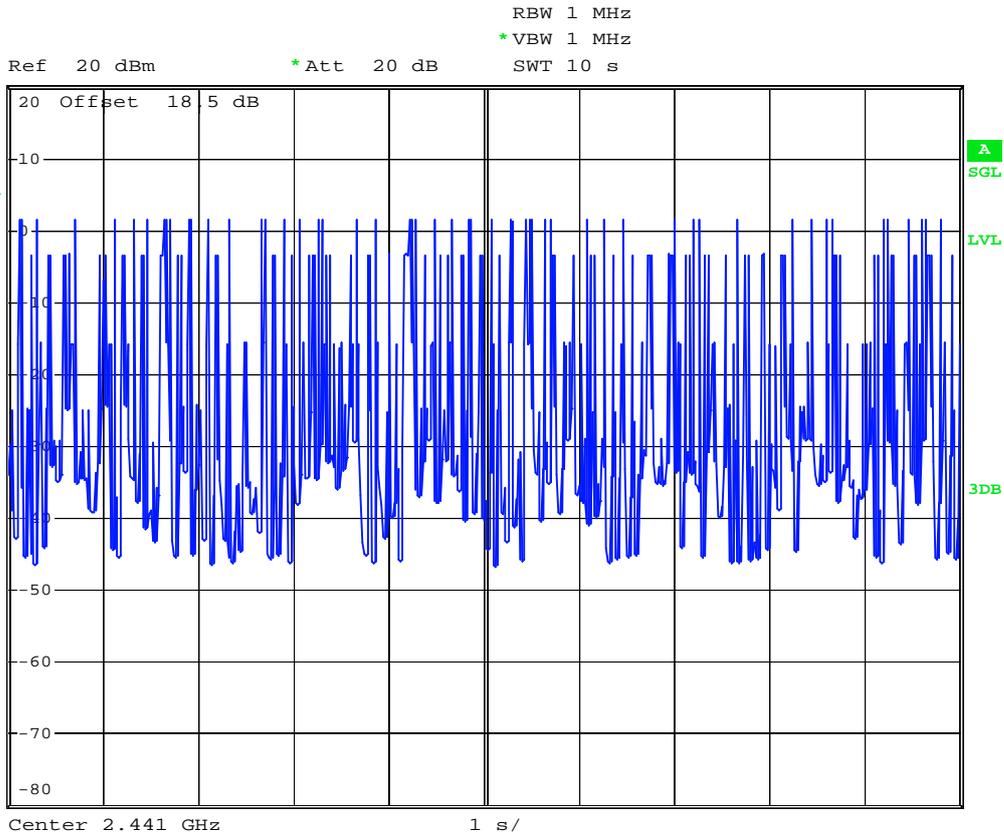
Date: 27.SEP.2007 21:25:23



3DH3 (CH39)



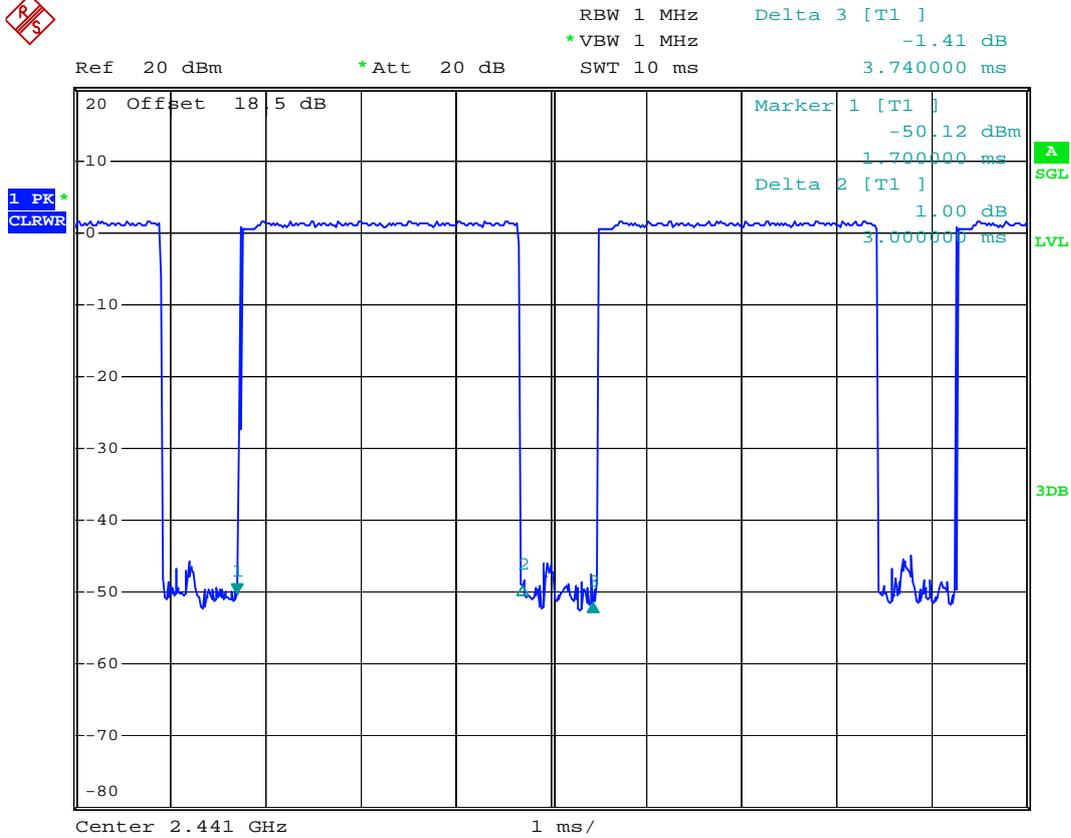
Date: 27.SEP.2007 21:22:12



Date: 27.SEP.2007 21:25:49



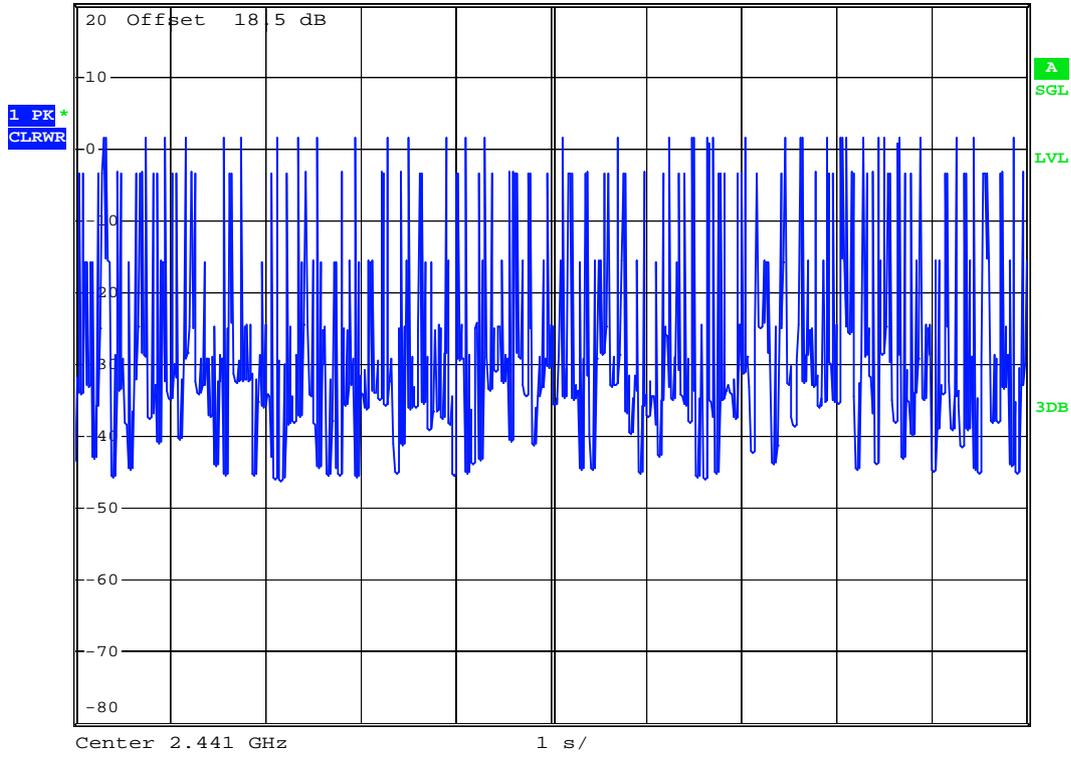
3DH5 (CH39)



Date: 27.SEP.2007 21:22:49



Ref 20 dBm      \*Att 20 dB      RBW 1 MHz  
\*VBW 1 MHz      SWT 10 s



Date: 27.SEP.2007 21:26:15

## 5.7 Peak Output Power Measurement

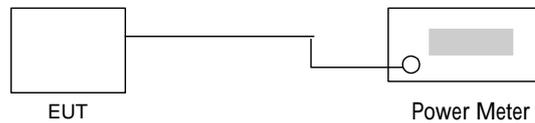
### 5.7.1 Measuring Instruments :

As described in chapter 6 of this test report.

### 5.7.2 Test Procedure :

The antenna port (RF output) of the EUT was connected to the input (RF input) of a spectrum analyzer for BT measurement. RBW and VBW are set to 3MHz. The cable loss has been offset before testing.

### 5.7.3 Test Setup Layout :



### 5.7.4 Test Result :

- Application Type : BT
- Temperature : 26~27
- Relative Humidity : 49~51%
- Test Engineer : Ken

Channel	Frequency (MHz)	Measured Output Power (dBm)	Limits (Watt/dBm )
00	2402	1.18	1W/30 dBm
39	2441	0.71	1W/30 dBm
78	2480	0.32	1W/30 dBm



- Application Type : BT EDR(2Mbps)
- Temperature : 26~27
- Relative Humidity : 49~51%
- Test Enginner : Ken

Channel	Frequency (MHz)	Measured Output Power (dBm)	Limits (Watt/dBm )
00	2402	2.23	1W/30 dBm
39	2441	1.63	1W/30 dBm
78	2480	1.19	1W/30 dBm

- Application Type : BT EDR(3Mbps)
- Temperature : 26~27
- Relative Humidity : 49~51%
- Test Enginner : Ken

Channel	Frequency (MHz)	Measured Output Power (dBm)	Limits (Watt/dBm )
00	2402	2.47	1W/30 dBm
39	2441	1.85	1W/30 dBm
78	2480	1.46	1W/30 dBm

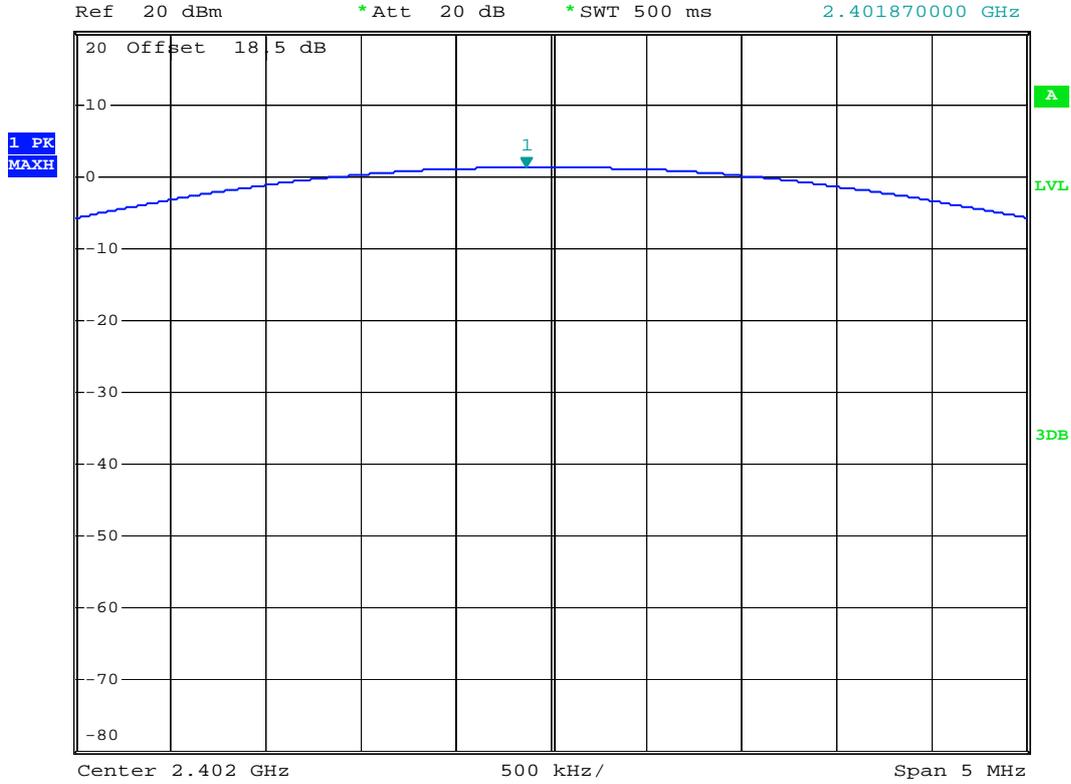


5.7.5 Output Power

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



\*RBW 3 MHz      Marker 1 [T1 ]  
\*VBW 3 MHz      1.18 dBm  
\*SWT 500 ms      2.401870000 GHz



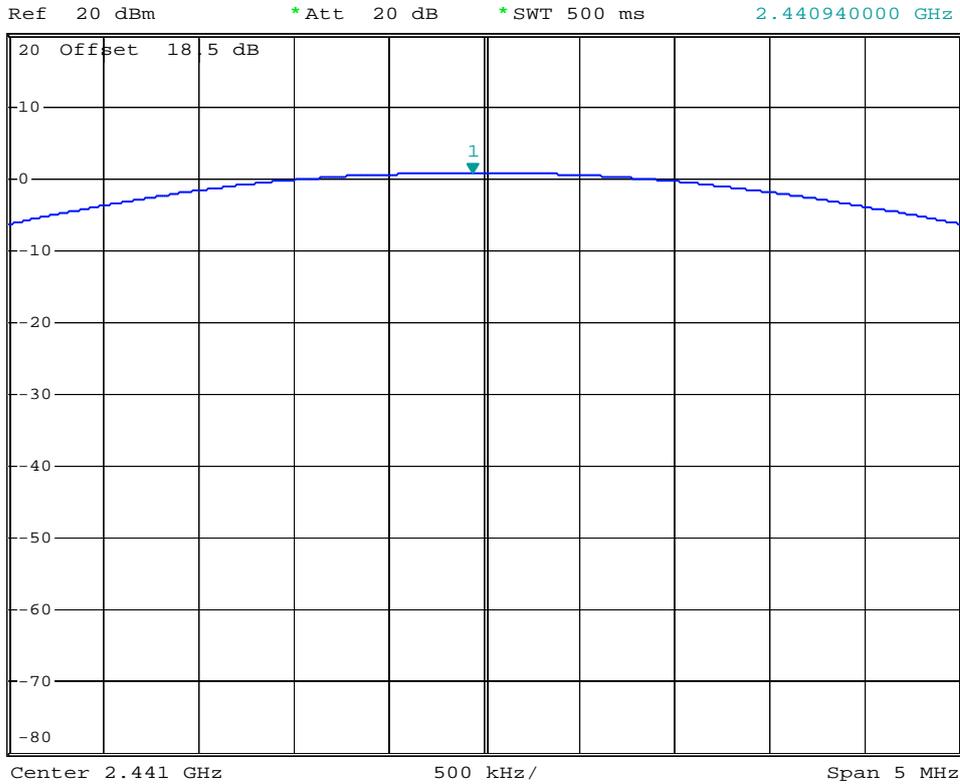
Date: 27.SEP.2007 21:57:50



Bluetooth(1Mbps) Mode : CH39 (2441MHz)



\*RBW 3 MHz    Marker 1 [T1 ]  
\*VBW 3 MHz    0.71 dBm  
\*SWT 500 ms    2.440940000 GHz



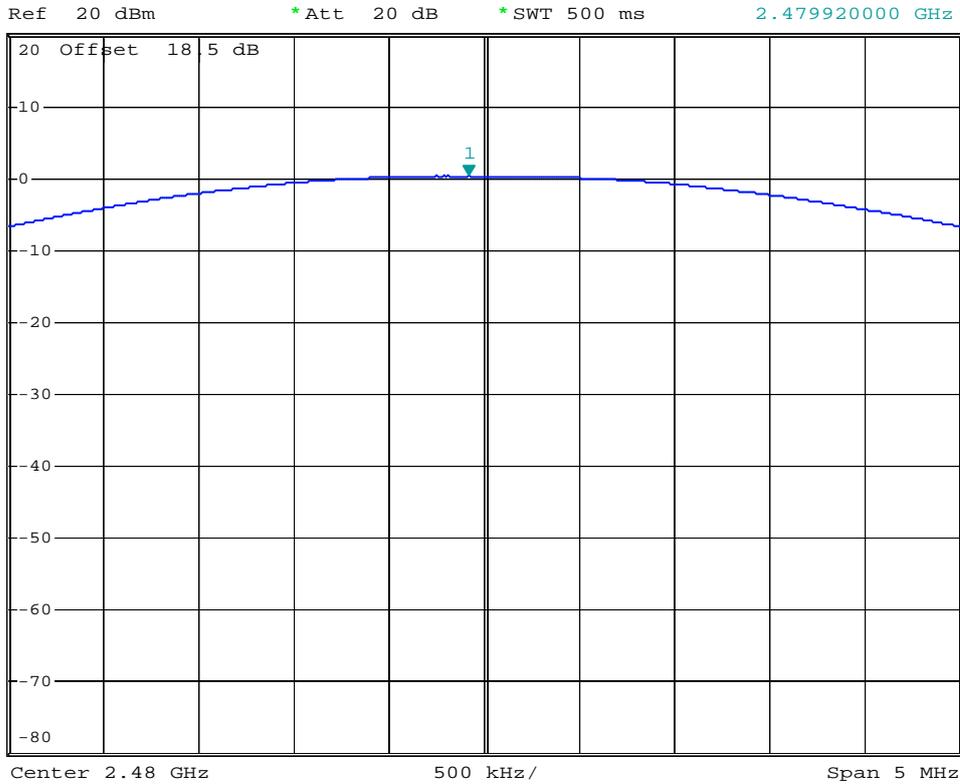
Date: 27.SEP.2007 21:58:16



Bluetooth(1Mbps) Mode : CH78 (2480MHz)



\*RBW 3 MHz    Marker 1 [T1 ]  
\*VBW 3 MHz    0.32 dBm  
\*SWT 500 ms    2.479920000 GHz



Date: 27.SEP.2007 21:58:48



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

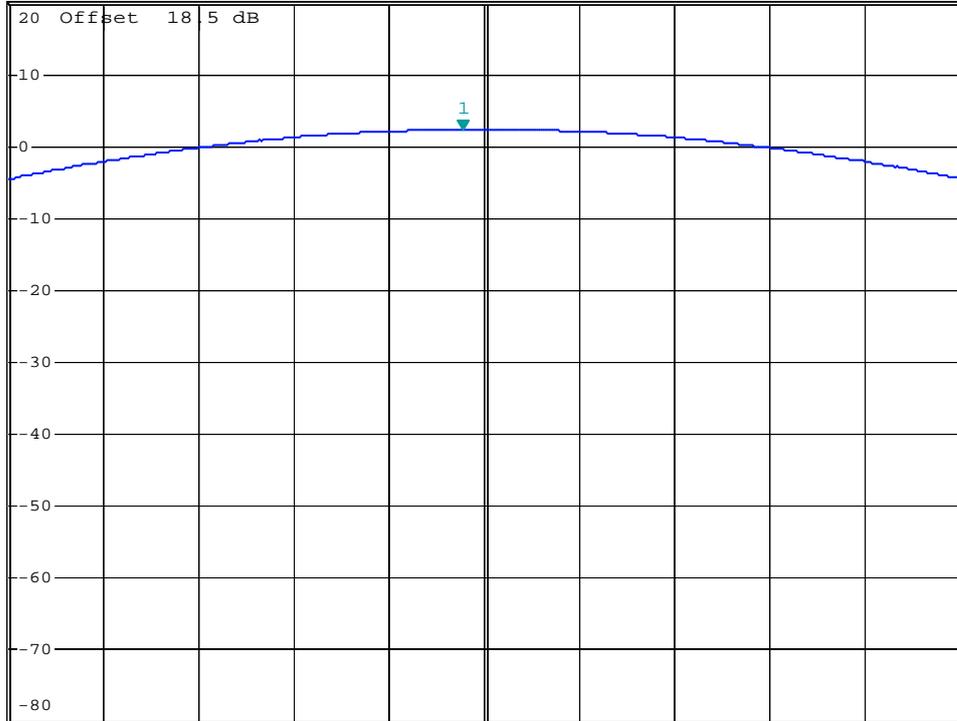


\*RBW 3 MHz    Marker 1 [T1 ]  
\*VBW 3 MHz    2.23 dBm  
\*SWT 500 ms    2.401890000 GHz

Ref 20 dBm

\*Att 20 dB

1 PK  
MAXH



Center 2.402 GHz    500 kHz/    Span 5 MHz

Date: 27.SEP.2007 20:48:01



Bluetooth(2Mbps) Mode : CH39 (2441MHz)

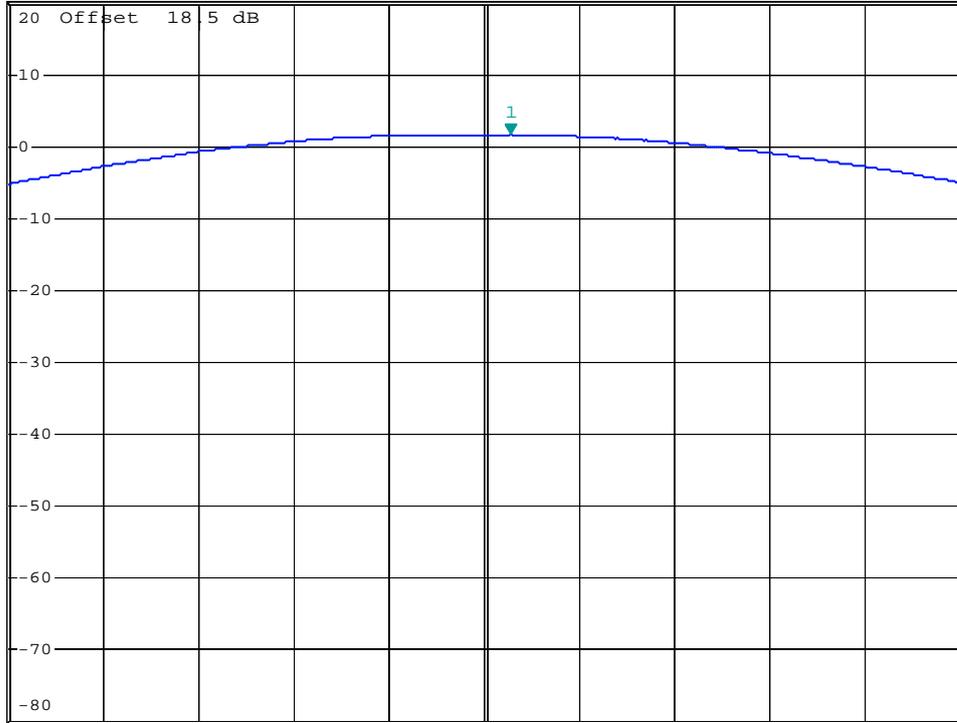


\*RBW 3 MHz    Marker 1 [T1 ]  
\*VBW 3 MHz    1.63 dBm  
\*SWT 500 ms    2.441140000 GHz

Ref 20 dBm

\*Att 20 dB

1 PK  
MAXH



Date: 27.SEP.2007 20:48:45



Bluetooth(2Mbps) Mode : CH78 (2480MHz)

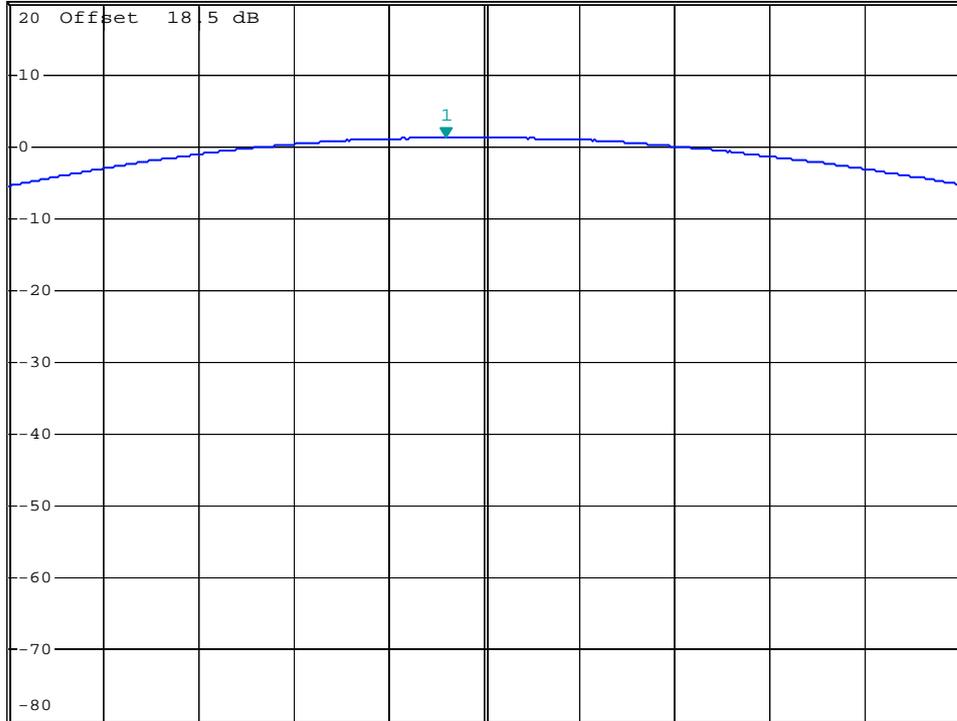


\*RBW 3 MHz    Marker 1 [T1 ]  
\*VBW 3 MHz    1.19 dBm  
\*SWT 500 ms    2.479800000 GHz

Ref 20 dBm

\*Att 20 dB

1 PK  
MAXH



Center 2.48 GHz

500 kHz/

Span 5 MHz

Date: 27.SEP.2007 20:49:14



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

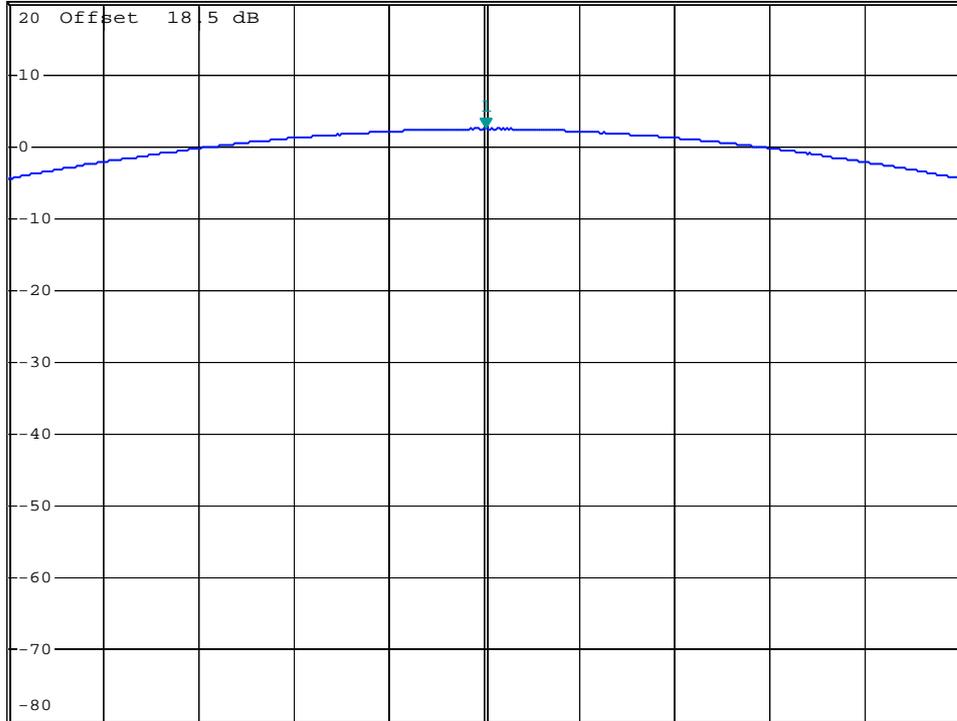


\*RBW 3 MHz    Marker 1 [T1 ]  
\*VBW 3 MHz                    2.47 dBm  
\*SWT 500 ms                    2.402010000 GHz

Ref 20 dBm

\*Att 20 dB

1 PK  
MAXH



Center 2.402 GHz                    500 kHz/                    Span 5 MHz

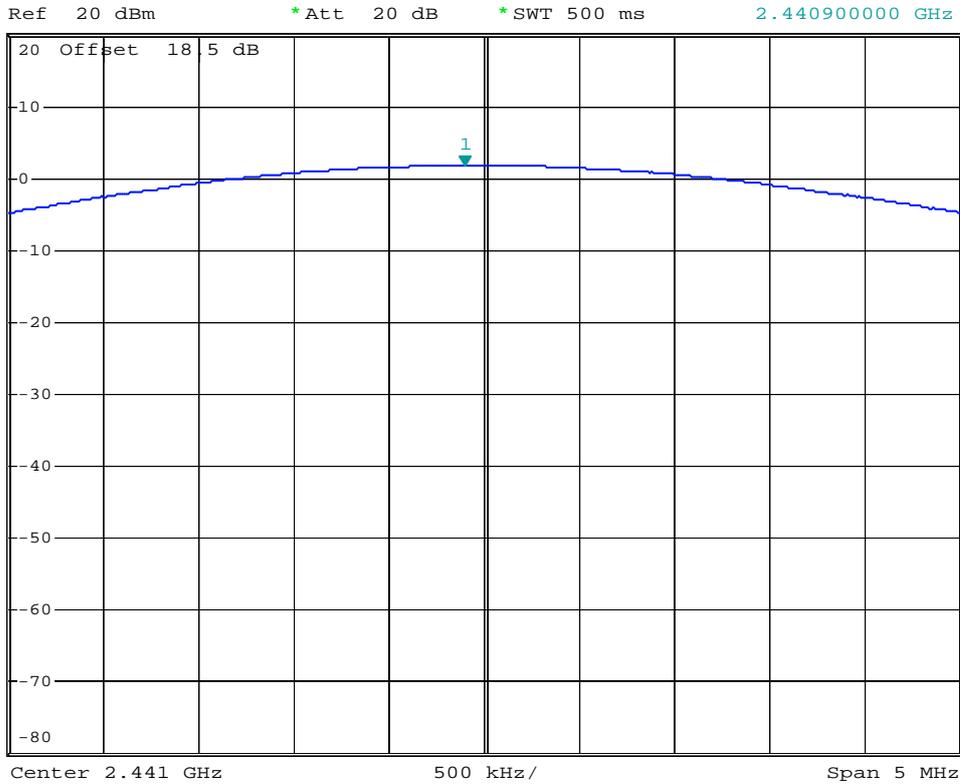
Date: 27.SEP.2007 20:51:50



Bluetooth(3Mbps) Mode : CH39 (2441MHz)



\*RBW 3 MHz    Marker 1 [T1 ]  
\*VBW 3 MHz                    1.85 dBm  
\*SWT 500 ms                    2.440900000 GHz



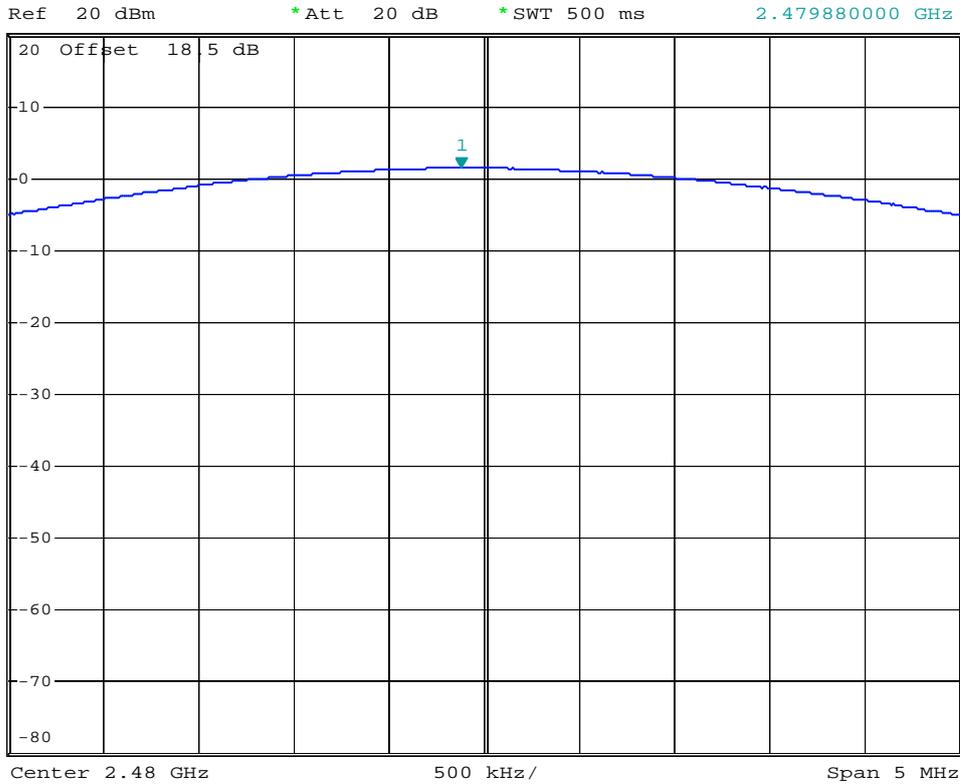
Date: 27.SEP.2007 20:51:21



Bluetooth(3Mbps) Mode : CH78 (2480MHz)



\*RBW 3 MHz    Marker 1 [T1 ]  
\*VBW 3 MHz    1.46 dBm  
\*SWT 500 ms    2.479880000 GHz



Date: 27.SEP.2007 20:50:53



## **5.8 Conducted Emission**

### **5.8.1 Measuring Instruments**

As described in chapter 6 of this test Report.

### **5.8.2 Test Procedures :**

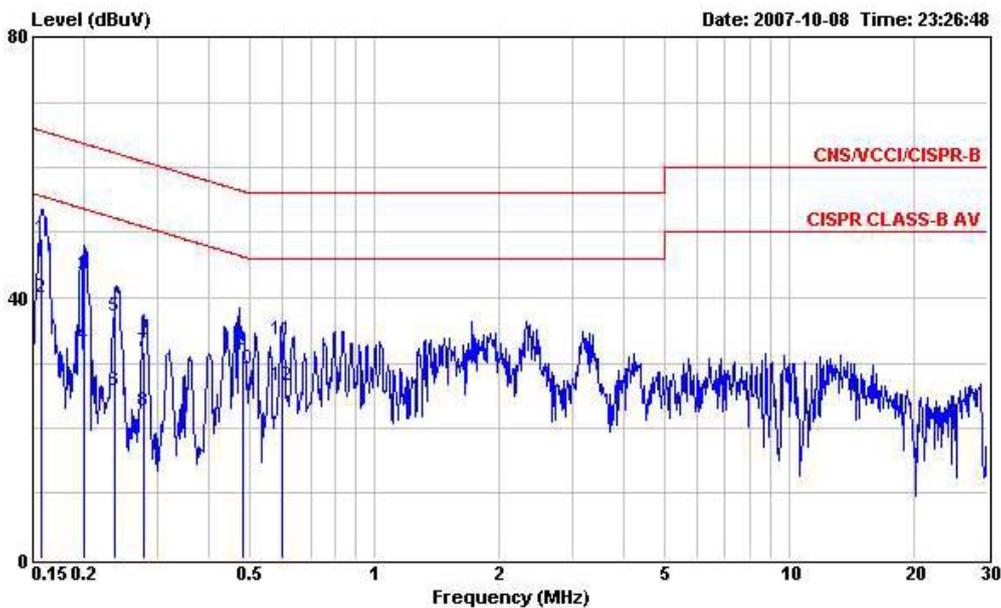
- a. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
- b. Connect EUT to the power port of a line impedance stabilization network (LISN).
- c. All the support units are connected to the other LISN.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



5.8.3 Test Data

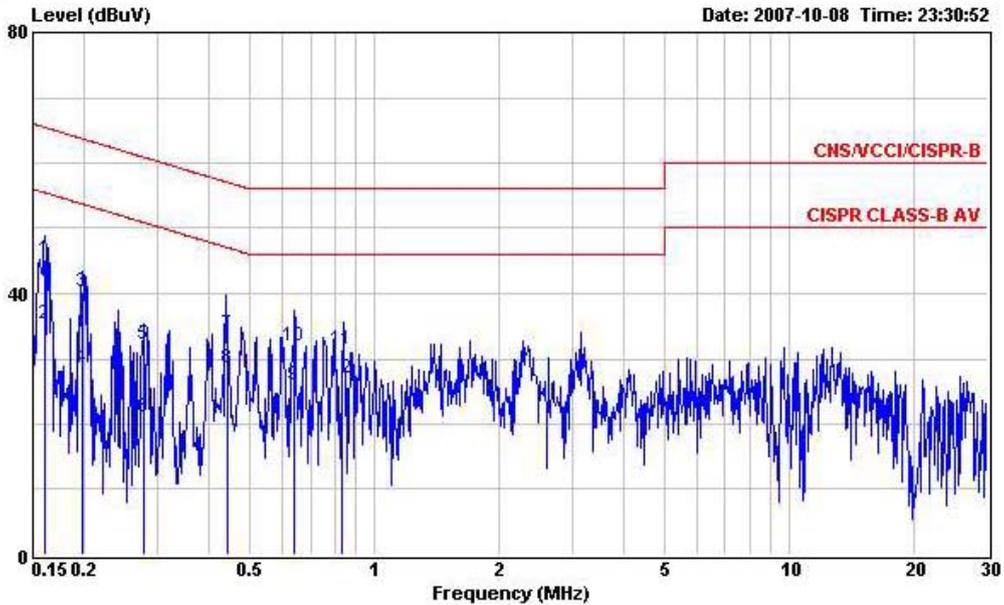
- Temperature : 26~27
- Relative Humidity : 49~51%
- Test Enginner : Sun
- Test Mode : Mode 1

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



Site : CO01-HY  
 Condition : CNS/VCCI/CISPR-B 2001/004 200604 LINE  
 EUT : GSM/EDGE(Class 12) 850/900/1800/1900  
 : UMTS/HSDPA 850/2100(Band I and V)with  
 : BT\_EDR Phone\_Slide Type  
 Power : 120Vac/60Hz  
 Model : FR 792103  
 Memo : GSM850 Idle+BT Link+Camera A+Adaptor A

	Over	Limit	Read	Cable	Probe		
Freq	Level	Limit	Line	Level	Loss	Factor	Remark
MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.158	48.97	-16.60	65.57	48.78	0.09	0.10 QP
2	0.158	39.95	-15.62	55.57	39.76	0.09	0.10 Average
3	0.199	43.33	-20.32	63.65	43.15	0.08	0.10 QP
4	0.199	32.64	-21.01	53.65	32.46	0.08	0.10 Average
5	0.237	37.24	-24.95	62.19	37.05	0.09	0.10 QP
6	0.237	25.64	-26.55	52.19	25.45	0.09	0.10 Average
7	0.277	31.67	-29.24	60.91	31.47	0.10	0.10 QP
8	0.277	22.68	-28.23	50.91	22.48	0.10	0.10 Average
9	0.480	31.99	-24.36	56.35	31.76	0.13	0.10 QP
10	0.480	29.11	-17.24	46.35	28.88	0.13	0.10 Average
11	0.599	33.54	-22.46	56.00	33.30	0.14	0.10 QP
12	0.599	26.52	-19.48	46.00	26.28	0.14	0.10 Average



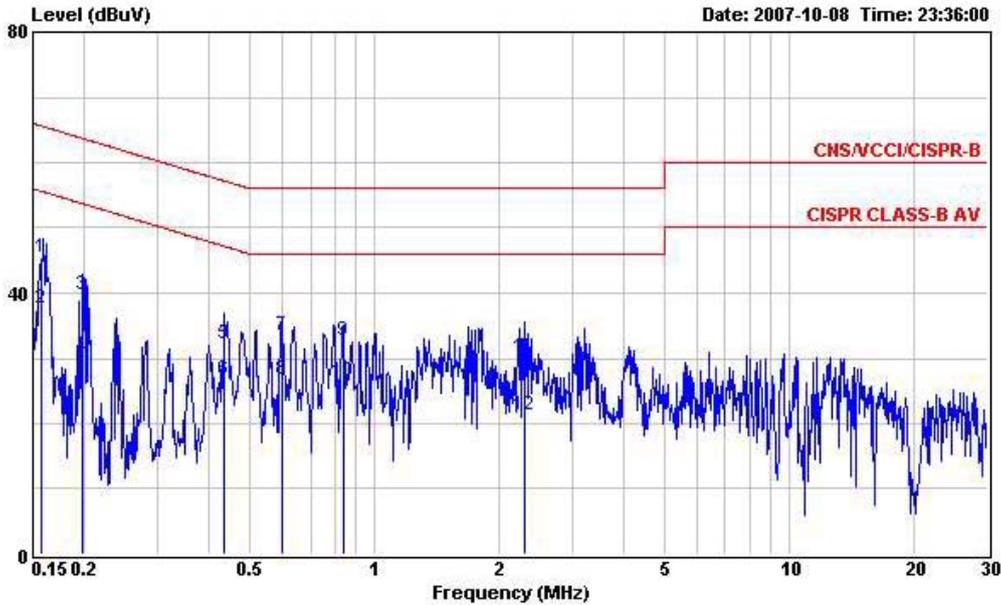
Site : CO01-HY  
 Condition : CNS/VCCI/CISPR-B 2001/004 200604 NEUTRAL  
 EUT : GSM/EDGE(Class 12) 850/900/1800/1900  
 : UMTS/HSDPA 850/2100(Band I and V)with  
 : BT\_EDR Phone\_Slide Type  
 Power : 120Vac/60Hz  
 Model : FR 792103  
 Memo : GSM850 Idle+BT Link+Camera A+Adaptor A

	Freq	Level	Over Limit	Limit Line	Read Level	Cable Loss	Probe Factor	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.161	45.24	-20.17	65.41	45.05	0.09	0.10	QP
2	0.161	35.41	-20.00	55.41	35.22	0.09	0.10	Average
3	0.198	40.16	-23.53	63.69	39.98	0.08	0.10	QP
4	0.198	28.69	-25.00	53.69	28.51	0.08	0.10	Average
5	0.279	32.23	-28.62	60.85	32.03	0.10	0.10	QP
6	0.279	21.05	-29.80	50.85	20.85	0.10	0.10	Average
7	0.440	33.76	-23.30	57.06	33.54	0.12	0.10	QP
8	0.440	28.51	-18.55	47.06	28.29	0.12	0.10	Average
9	0.641	25.96	-20.04	46.00	25.71	0.15	0.10	Average
10	0.641	31.85	-24.15	56.00	31.60	0.15	0.10	QP
11	0.837	31.37	-24.63	56.00	31.11	0.16	0.10	QP
12	0.837	26.89	-19.11	46.00	26.63	0.16	0.10	Average



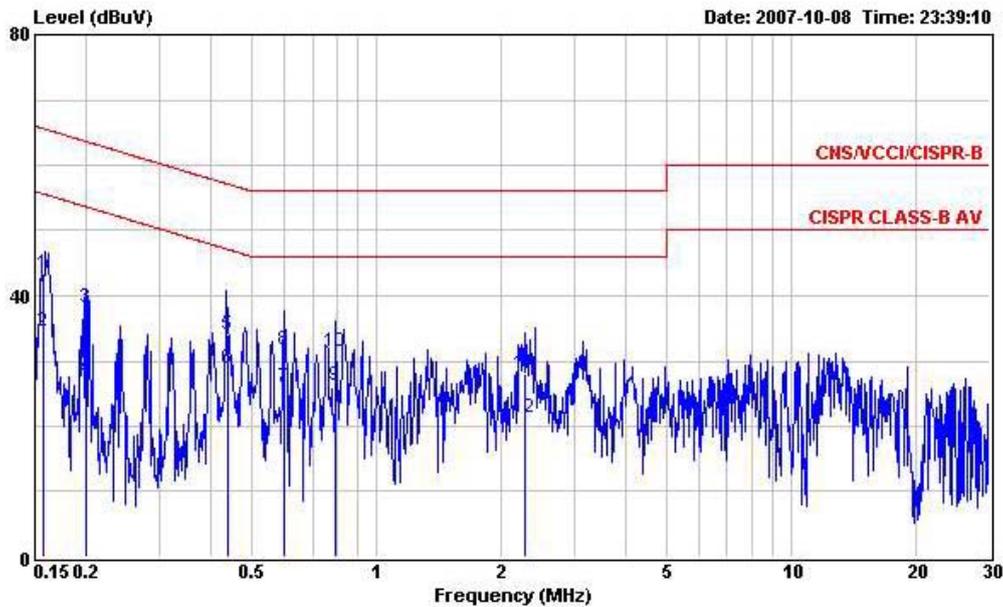
- Temperature : 26~27
- Relative Humidity : 49~51%
- Test Enginner : Sun
- Test Mode : Mode 2

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



Site : CO01-HY  
 Condition : CNS/VCCI/CISPR-B 2001/004 200604 LINE  
 EUT : GSM/EDGE(Class 12)850/900/1800/1900  
 : UMTS/HSDPA 850/2100(Band I and V)with  
 : BT\_EDR Phone\_Slide Type  
 Power : 120Vac/60Hz  
 Model : FR 792103  
 Memo : GSM850 Idle+BT Link+Camera B+Adaptor A

Freq	Level	Over	Limit	Read	Cable	Probe	Remark
		Limit	Line	Level	Loss	Factor	
MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.158	45.44	-20.13	65.57	45.25	0.09	0.10 QP
2	0.158	37.70	-17.87	55.57	37.51	0.09	0.10 Average
3	0.198	39.84	-23.85	63.69	39.66	0.08	0.10 QP
4	0.198	30.10	-23.59	53.69	29.92	0.08	0.10 Average
5	0.435	32.24	-24.92	57.16	32.02	0.12	0.10 QP
6	0.435	26.65	-20.51	47.16	26.43	0.12	0.10 Average
7	0.599	33.44	-22.56	56.00	33.20	0.14	0.10 QP
8	0.599	26.65	-19.35	46.00	26.41	0.14	0.10 Average
9	0.839	32.75	-23.25	56.00	32.49	0.16	0.10 QP
10	0.839	26.42	-19.58	46.00	26.16	0.16	0.10 Average
11	2.310	30.02	-25.98	56.00	29.73	0.17	0.12 QP
12	2.310	21.38	-24.62	46.00	21.09	0.17	0.12 Average



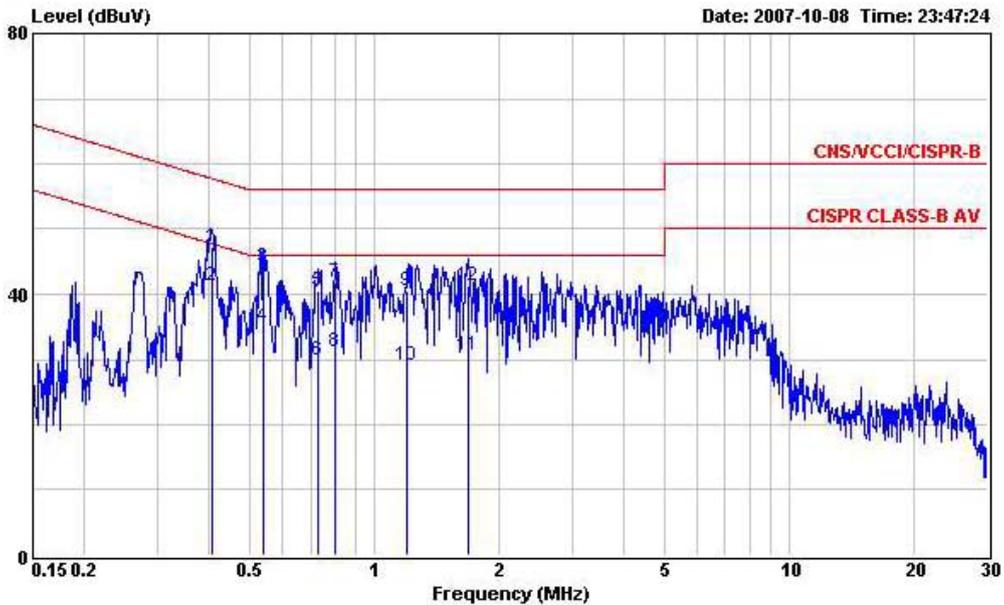
Site : CO01-HY  
 Condition : CNS/VCCI/CISPR-B 2001/004 200604 NEUTRAL  
 EUT : GSM/EDGE(Class 12) 850/900/1800/1900  
 : UMTS/HSDPA 850/2100(Band I and V)with  
 : BT\_EDR Phone\_Slide Type  
 Power : 120Vac/60Hz  
 Model : FR 792103  
 Memo : GSM850 Idle+BT Link+Camera B+Adaptor A

	Freq	Level	Over Limit	Limit Line	Read Level	Cable Loss	Probe Factor	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.158	43.47	-22.10	65.57	43.28	0.09	0.10	QP
2	0.158	34.44	-21.13	55.57	34.25	0.09	0.10	Average
3	0.199	38.16	-25.49	63.65	37.98	0.08	0.10	QP
4	0.199	27.19	-26.46	53.65	27.01	0.08	0.10	Average
5	0.438	33.94	-23.15	57.09	33.72	0.12	0.10	QP
6	0.438	28.83	-18.26	47.09	28.61	0.12	0.10	Average
7	0.601	26.10	-19.90	46.00	25.86	0.14	0.10	Average
8	0.601	31.70	-24.30	56.00	31.46	0.14	0.10	QP
9	0.796	26.34	-19.66	46.00	26.08	0.16	0.10	Average
10	0.796	31.32	-24.68	56.00	31.06	0.16	0.10	QP
11	2.270	28.03	-27.97	56.00	27.76	0.17	0.10	QP
12	2.270	21.40	-24.60	46.00	21.13	0.17	0.10	Average



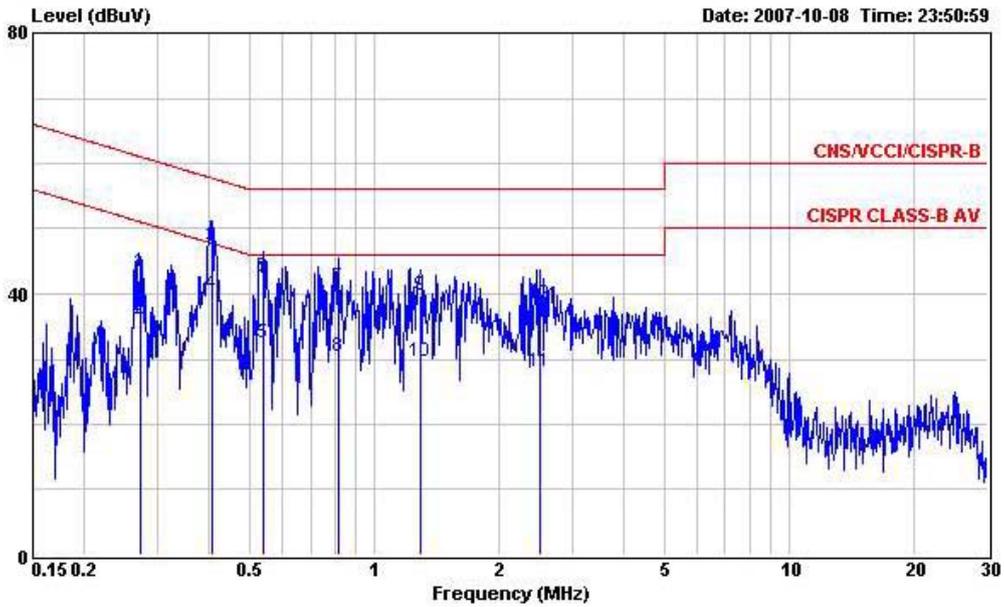
- Temperature : 26~27
- Relative Humidity : 49~51%
- Test Enginner : Sun
- Test Mode : Mode 3

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



Site : CO01-HY  
 Condition : CNS/VCCI/CISPR-B 2001/004 200604 LINE  
 EUT : GSM/EDGE(Class 12) 850/900/1800/1900  
 : UMTS/HSDPA 850/2100(Band I and V)with  
 : BT\_EDR Phone\_Slide Type  
 Power : 120Vac/60Hz  
 Model : FR 792103  
 Memo : GSM850 Idle+BT Link+Camera A+Adaptor B

	Freq	Level	Over Limit	Limit Line	Read Level	Cable Loss	Probe Factor	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
<b>1</b>	<b>0.404</b>	<b>47.28</b>	<b>-10.49</b>	<b>57.77</b>	<b>47.06</b>	<b>0.12</b>	<b>0.10</b>	<b>QP</b>
<b>2</b>	<b>0.404</b>	<b>41.41</b>	<b>-6.36</b>	<b>47.77</b>	<b>41.19</b>	<b>0.12</b>	<b>0.10</b>	<b>Average</b>
3	0.539	44.26	-11.74	56.00	44.02	0.14	0.10	QP
4	0.539	35.14	-10.86	46.00	34.90	0.14	0.10	Average
5	0.731	40.46	-15.54	56.00	40.21	0.15	0.10	QP
6	0.731	29.89	-16.11	46.00	29.64	0.15	0.10	Average
7	0.804	41.95	-14.05	56.00	41.69	0.16	0.10	QP
8	0.804	31.07	-14.93	46.00	30.81	0.16	0.10	Average
9	1.200	40.64	-15.36	56.00	40.38	0.16	0.10	QP
10	1.200	29.17	-16.83	46.00	28.91	0.16	0.10	Average
11	1.680	30.59	-15.41	46.00	30.35	0.14	0.10	Average
12	1.680	41.39	-14.61	56.00	41.15	0.14	0.10	QP



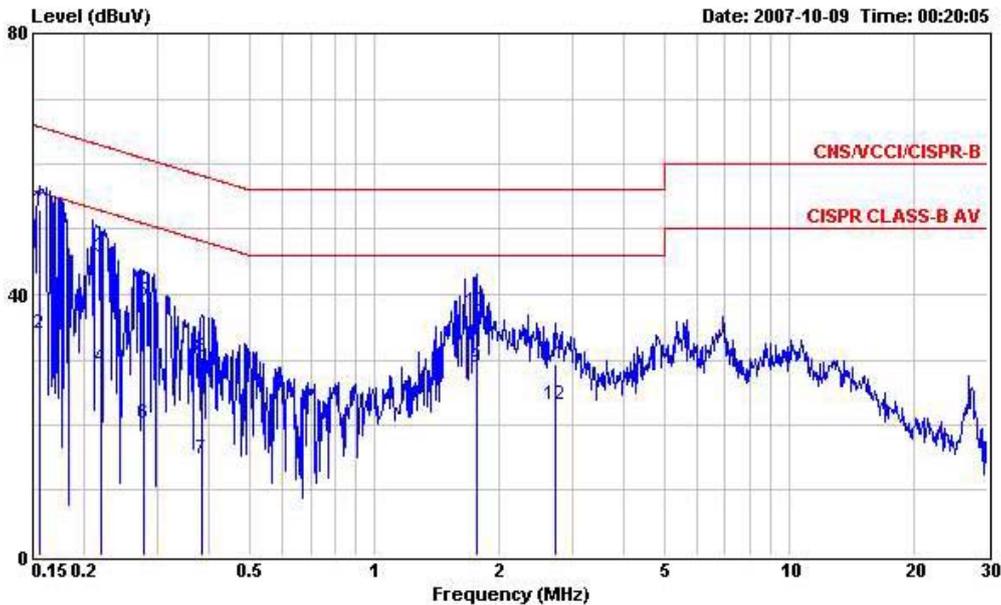
Site : CO01-HY  
 Condition : CNS/VCCI/CISPR-B 2001/004 200604 NEUTRAL  
 EUT : GSM/EDGE(Class 12) 850/900/1800/1900  
 : UMTS/HSDPA 850/2100(Band I and V)with  
 : BT\_EDR Phone\_Slide Type  
 Power : 120Vac/60Hz  
 Model : FR 792103  
 Memo : GSM850 Idle+BT Link+Camera A+Adaptor B

	Over	Limit	Read	Probe				
Freq	Level	Limit	Line	Level	Cable	Factor		
MHz	dBuV	dB	dBuV	dBuV	dB	dB		
1	0.273	43.29	-17.74	61.03	43.09	0.10	0.10	QP
2	0.273	36.18	-14.85	51.03	35.98	0.10	0.10	Average
3	0.406	47.35	-10.38	57.73	47.13	0.12	0.10	QP
4	0.406	39.98	-7.75	47.73	39.76	0.12	0.10	Average
5	0.538	32.41	-13.59	46.00	32.17	0.14	0.10	Average
6	0.538	42.72	-13.28	56.00	42.48	0.14	0.10	QP
7	0.817	41.12	-14.88	56.00	40.86	0.16	0.10	QP
8	0.817	30.47	-15.53	46.00	30.21	0.16	0.10	Average
9	1.290	39.76	-16.24	56.00	39.50	0.16	0.10	QP
10	1.290	29.62	-16.38	46.00	29.36	0.16	0.10	Average
11	2.500	28.02	-17.98	46.00	27.72	0.20	0.10	Average
12	2.500	38.37	-17.63	56.00	38.07	0.20	0.10	QP



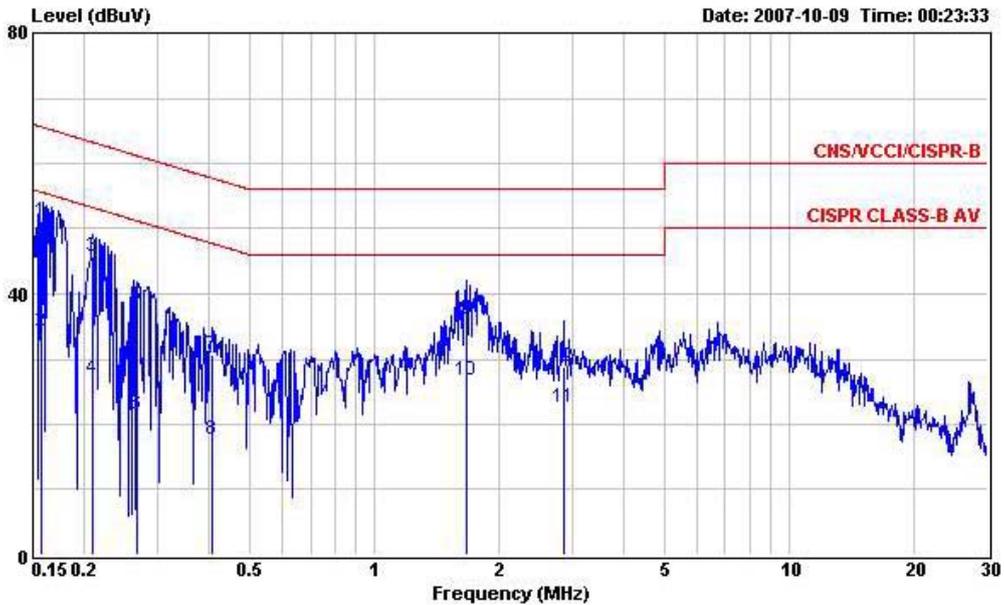
- Temperature : 26~27
- Relative Humidity : 49~51%
- Test Enginner : Sun
- Test Mode : Mode 4

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



Site : CO01-HY  
 Condition : CNS/VCCI/CISPR-B 2001/004 200604 LINE  
 EUT : GSM/EDGE(Class 12)850/900/1800/1900  
 : UMTS/HSDPA 850/2100(Band I and V)with  
 : BT\_EDR Phone\_Slide Type  
 Power : From System  
 Model : FR 792103  
 Memo : GSM850 Idle+BT Link+Camera A+USB Link

Freq	Level	Over Limit	Limit Line	Read Level	Cable Loss	Probe Factor	Remark
1	0.156	52.98	-12.69	65.67	52.79	0.09	0.10 QP
2	0.156	33.92	-21.75	55.67	33.73	0.09	0.10 Average
3	0.220	45.79	-17.02	62.81	45.60	0.09	0.10 QP
4	0.220	28.78	-24.03	52.81	28.59	0.09	0.10 Average
5	0.277	39.08	-21.83	60.91	38.88	0.10	0.10 QP
6	0.277	20.37	-30.54	50.91	20.17	0.10	0.10 Average
7	0.383	14.86	-33.35	48.21	14.64	0.12	0.10 Average
8	0.383	30.42	-27.79	58.21	30.20	0.12	0.10 QP
9	1.770	28.93	-17.07	46.00	28.69	0.14	0.10 Average
10	1.770	37.37	-18.63	56.00	37.13	0.14	0.10 QP
11	2.720	29.37	-26.63	56.00	29.01	0.22	0.14 QP
12	2.720	23.17	-22.83	46.00	22.81	0.22	0.14 Average



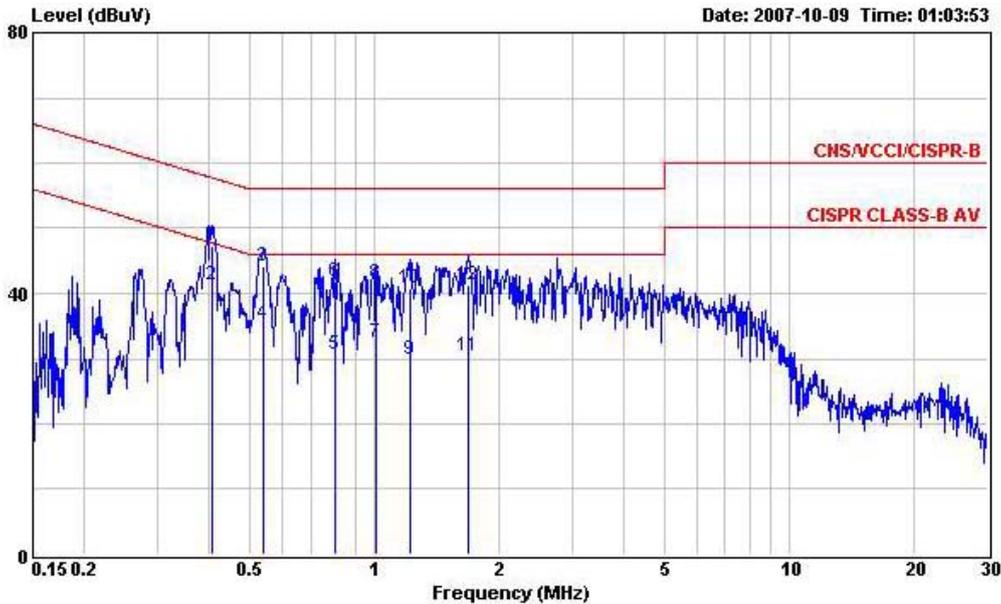
Site : CO01-HY  
 Condition : CNS/VCCI/CISPR-B 2001/004 200604 NEUTRAL  
 EUT : GSM/EDGE(Class 12)850/900/1800/1900  
 : UMTS/HSDPA 850/2100(Band I and V)with  
 : BT\_EDR Phone\_Slide Type  
 Power : From System  
 Model : FR 792103  
 Memo : GSM850 Idle+BT Link+Camera A+USB Link

	Freq	Level	Over Limit	Limit Line	Read Level	Cable Loss	Probe Factor	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.158	51.29	-14.28	65.57	51.10	0.09	0.10	QP
2	0.158	34.33	-21.24	55.57	34.14	0.09	0.10	Average
3	0.209	45.62	-17.62	63.24	45.44	0.08	0.10	QP
4	0.209	27.00	-26.24	53.24	26.82	0.08	0.10	Average
5	0.267	38.22	-22.99	61.21	38.02	0.10	0.10	QP
6	0.267	21.56	-29.65	51.21	21.36	0.10	0.10	Average
7	0.406	30.53	-27.20	57.73	30.31	0.12	0.10	QP
8	0.406	17.72	-30.01	47.73	17.50	0.12	0.10	Average
9	1.670	36.14	-19.86	56.00	35.90	0.14	0.10	QP
10	1.670	26.70	-19.30	46.00	26.46	0.14	0.10	Average
11	2.850	22.65	-23.35	46.00	22.31	0.24	0.10	Average
12	2.850	28.76	-27.24	56.00	28.42	0.24	0.10	QP



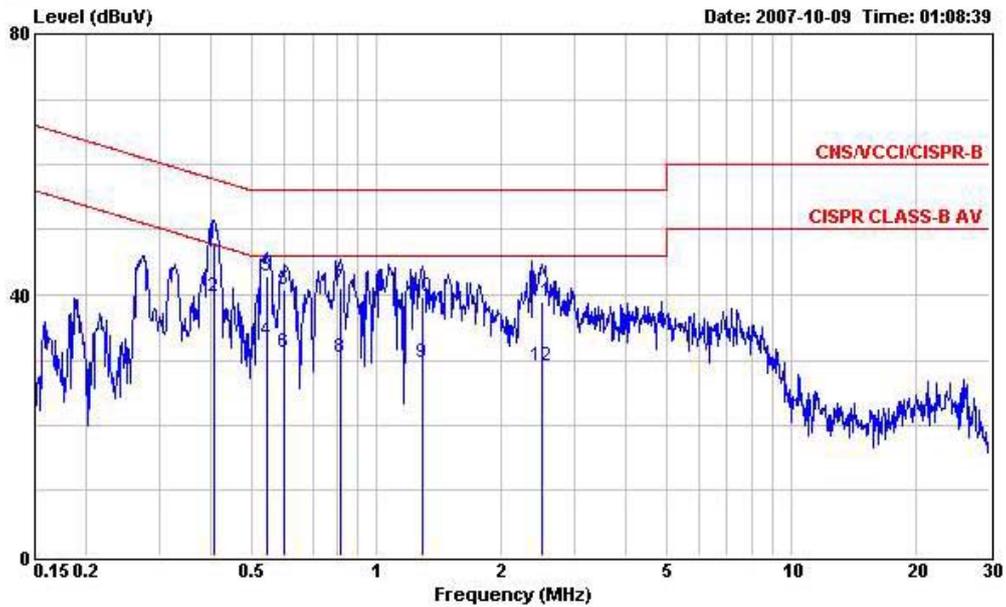
- Temperature : 26~27
- Relative Humidity : 49~51%
- Test Enginner : Win
- Test Mode : Mode 5

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



Site : CO01-HY  
 Condition : CNS/VCCI/CISPR-B 2001/004 200604 LINE  
 EUT : GSM/EDGE(Class 12)850/900/1800/1900  
 : UMTS/HSDPA 850/2100(Band I and V)with  
 : BT\_EDR Phone\_Slide Type  
 Power : 120Vac/60Hz  
 Model : FR 792103  
 Memo : EDGE Idle+BT Link+Camera A+Adaptor B

Freq	Level	Over Limit	Limit Line	Read Level	Cable Loss	Probe Factor	Remark
MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.406	47.22	-10.51	57.73	47.00	0.12	0.10 QP
2	0.406	41.36	-6.37	47.73	41.14	0.12	0.10 Average
3	0.541	44.19	-11.81	56.00	43.95	0.14	0.10 QP
4	0.541	35.39	-10.61	46.00	35.15	0.14	0.10 Average
5	0.804	30.64	-15.36	46.00	30.38	0.16	0.10 Average
6	0.804	41.77	-14.23	56.00	41.51	0.16	0.10 QP
7	1.010	32.56	-13.44	46.00	32.29	0.17	0.10 Average
8	1.010	41.56	-14.44	56.00	41.29	0.17	0.10 QP
9	1.220	29.94	-16.06	46.00	29.68	0.16	0.10 Average
10	1.220	40.68	-15.32	56.00	40.42	0.16	0.10 QP
11	1.680	30.42	-15.58	46.00	30.18	0.14	0.10 Average
12	1.680	41.23	-14.77	56.00	40.99	0.14	0.10 QP



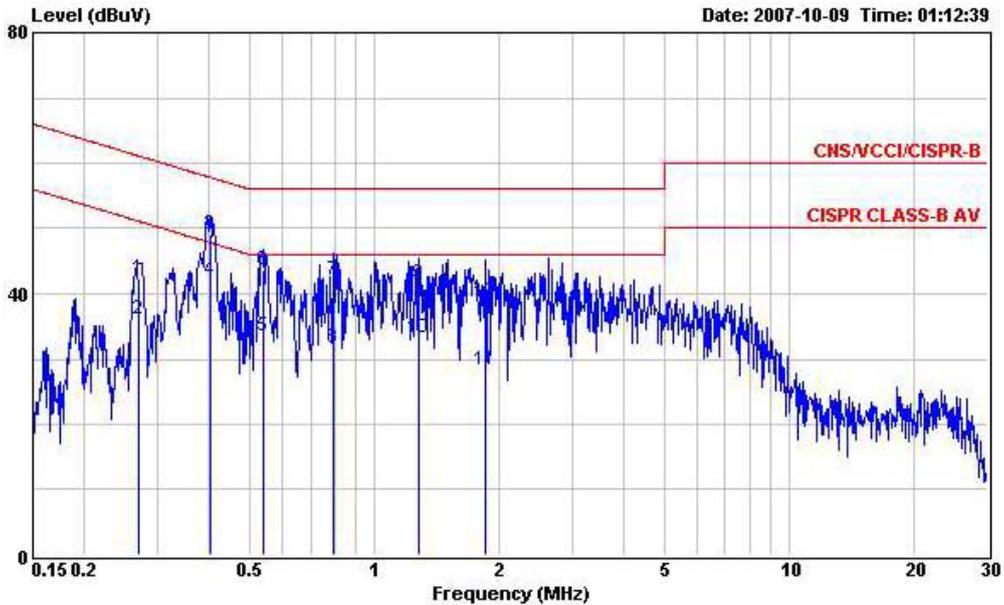
Site : CO01-HY  
 Condition : CNS/VCCI/CISPR-B 2001/004 200604 NEUTRAL  
 EUT : GSM/EDGE(Class 12) 850/900/1800/1900  
 : UMTS/HSDPA 850/2100(Band I and V)with  
 : BT\_EDR Phone\_Slide Type  
 Power : 120Vac/60Hz  
 Model : FR 792103  
 Memo : EDGE Idle+BT Link+Camera A+Adaptor B

	Freq	Level	Over Limit	Limit Line	Read Level	Cable Loss	Probe Factor	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.404	47.91	-9.86	57.77	47.69	0.12	0.10	QP
2	0.404	39.80	-7.97	47.77	39.58	0.12	0.10	Average
3	0.544	42.92	-13.08	56.00	42.68	0.14	0.10	QP
4	0.544	32.90	-13.10	46.00	32.66	0.14	0.10	Average
5	0.601	40.83	-15.17	56.00	40.59	0.14	0.10	QP
6	0.601	31.04	-14.96	46.00	30.80	0.14	0.10	Average
7	0.817	41.10	-14.90	56.00	40.84	0.16	0.10	QP
8	0.817	30.38	-15.62	46.00	30.12	0.16	0.10	Average
9	1.290	29.72	-16.28	46.00	29.46	0.16	0.10	Average
10	1.290	39.64	-16.36	56.00	39.38	0.16	0.10	QP
11	2.510	38.87	-17.13	56.00	38.57	0.20	0.10	QP
12	2.510	29.14	-16.86	46.00	28.84	0.20	0.10	Average



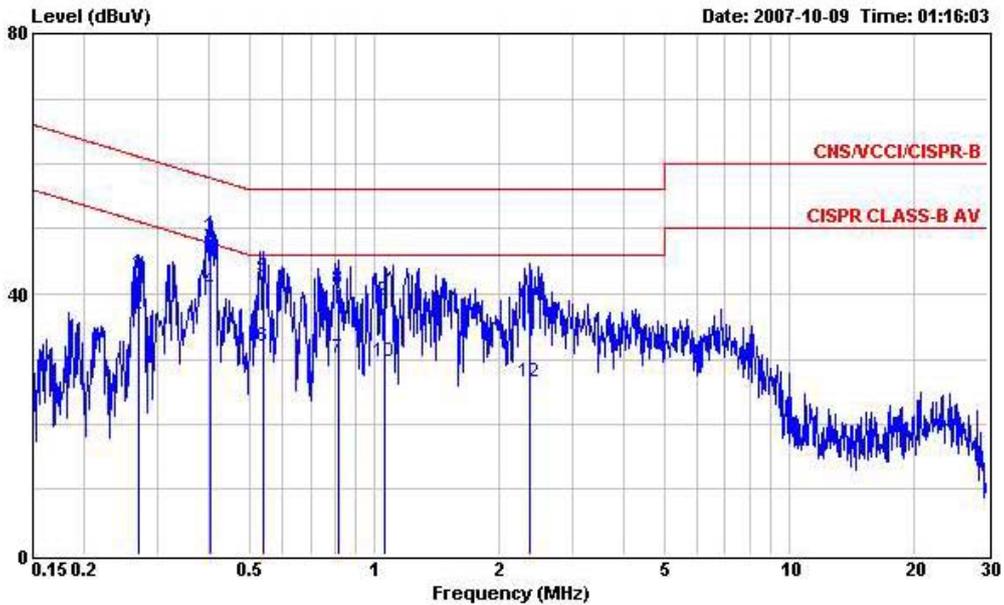
- Temperature : 26~27
- Relative Humidity : 49~51%
- Test Enginner : Sun
- Test Mode : Mode 6

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



Site : CO01-HY  
 Condition : CNS/VCCI/CISPR-B 2001/004 200604 LINE  
 EUT : GSM/EDGE(Class 12) 850/900/1800/1900  
 : UMTS/HSDPA 850/2100(Band I and V)with  
 : BT\_EDR Phone\_Slide Type  
 Power : 120Vac/60Hz  
 Model : FR 792103  
 Memo : WCDMA Idle+BT Link+Camera A+Adaptor B

Freq	Level	Over Limit	Limit Line	Read Level	Cable Loss	Probe Factor	Remark
MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.270	42.42	-18.69	61.11	42.22	0.10	0.10 QP
2	0.270	35.98	-15.13	51.11	35.78	0.10	0.10 Average
3	0.403	49.00	-8.80	57.80	48.78	0.12	0.10 QP
4	0.403	42.02	-5.78	47.80	41.80	0.12	0.10 Average
5	0.538	33.41	-12.59	46.00	33.17	0.14	0.10 Average
6	0.538	43.71	-12.29	56.00	43.47	0.14	0.10 QP
7	0.792	42.21	-13.79	56.00	41.95	0.16	0.10 QP
8	0.792	31.78	-14.22	46.00	31.52	0.16	0.10 Average
9	1.280	41.61	-14.39	56.00	41.35	0.16	0.10 QP
10	1.280	33.33	-12.67	46.00	33.07	0.16	0.10 Average
11	1.850	28.37	-17.63	46.00	28.14	0.13	0.10 Average
12	1.850	38.58	-17.42	56.00	38.35	0.13	0.10 QP



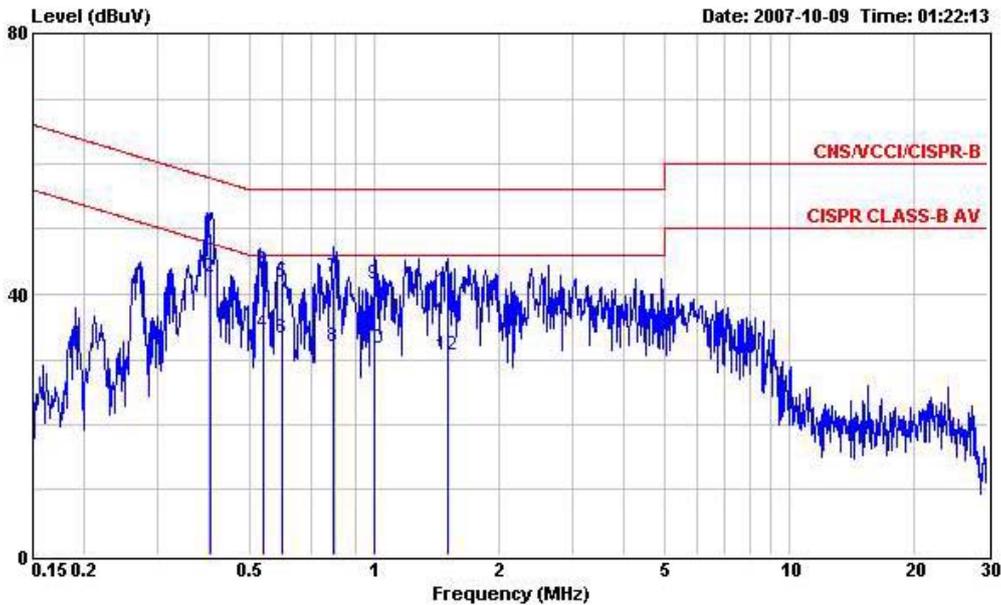
Site : CO01-HY  
 Condition : CNS/VCCI/CISPR-B 2001/004 200604 NEUTRAL  
 EUT : GSM/EDGE(Class 12) 850/900/1800/1900  
 : UMTS/HSDPA 850/2100(Band I and V)with  
 : BT\_EDR Phone\_Slide Type  
 Power : 120Vac/60Hz  
 Model : FR 792103  
 Memo : WCDMA Idle+BT Link+Camera A+Adaptor B

	Freq	Level	Over	Limit	Read	Cable	Probe	Remark
	MHz	dBuV	Limit	Line	Level	Loss	Factor	
			dB	dBuV	dBuV	dB	dB	
1	0.270	43.15	-17.97	61.12	42.95	0.10	0.10	QP
2	0.270	36.97	-14.15	51.12	36.77	0.10	0.10	Average
3	0.403	48.47	-9.31	57.78	48.25	0.12	0.10	QP
4	0.403	40.61	-7.17	47.78	40.39	0.12	0.10	Average
5	0.538	42.64	-13.36	56.00	42.40	0.14	0.10	QP
6	0.538	32.04	-13.96	46.00	31.80	0.14	0.10	Average
7	0.817	30.13	-15.87	46.00	29.87	0.16	0.10	Average
8	0.817	40.84	-15.16	56.00	40.58	0.16	0.10	QP
9	1.060	38.90	-17.10	56.00	38.63	0.17	0.10	QP
10	1.060	29.59	-16.41	46.00	29.32	0.17	0.10	Average
11	2.370	38.05	-17.95	56.00	37.77	0.18	0.10	QP
12	2.370	26.48	-19.52	46.00	26.20	0.18	0.10	Average



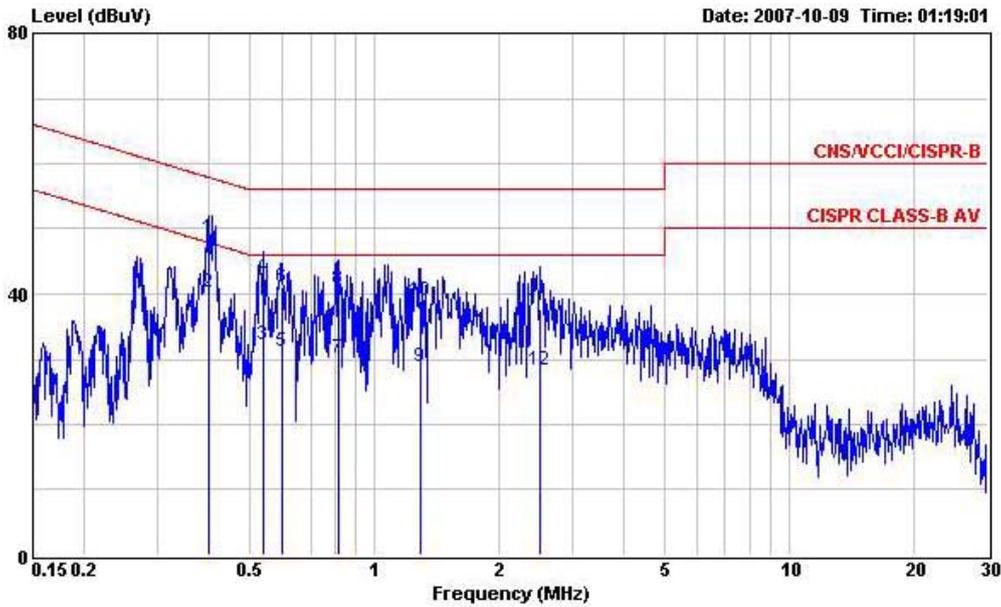
- Temperature : 26~27
- Relative Humidity : 49~51%
- Test Enginner : Sun
- Test Mode : Mode 7

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



Site : CO01-HY  
 Condition : CNS/VCCI/CISPR-B 2001/004 200604 LINE  
 EUT : GSM/EDGE(Class 12) 850/900/1800/1900  
 : UMTS/HSDPA 850/2100(Band I and V)with  
 : BT\_EDR Phone\_Slide Type  
 Power : 120Vac/60Hz  
 Model : FR 792103  
 Memo : HSDPA Idle+BT Link+Camera A+Adaptor B

Freq	Level	Over Limit	Limit Line	Read Level	Cable Loss	Probe Factor	Remark
MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.402	49.42	-8.39	57.81	49.20	0.12	0.10 QP
2	0.402	42.55	-5.26	47.81	42.33	0.12	0.10 Average
3	0.538	43.69	-12.31	56.00	43.45	0.14	0.10 QP
4	0.538	33.91	-12.09	46.00	33.67	0.14	0.10 Average
5	0.598	41.76	-14.24	56.00	41.52	0.14	0.10 QP
6	0.598	33.16	-12.84	46.00	32.92	0.14	0.10 Average
7	0.792	42.61	-13.39	56.00	42.35	0.16	0.10 QP
8	0.792	32.07	-13.93	46.00	31.81	0.16	0.10 Average
9	1.000	41.66	-14.34	56.00	41.39	0.17	0.10 QP
10	1.000	31.61	-14.39	46.00	31.34	0.17	0.10 Average
11	1.500	40.45	-15.55	56.00	40.20	0.15	0.10 QP
12	1.500	30.54	-15.46	46.00	30.29	0.15	0.10 Average



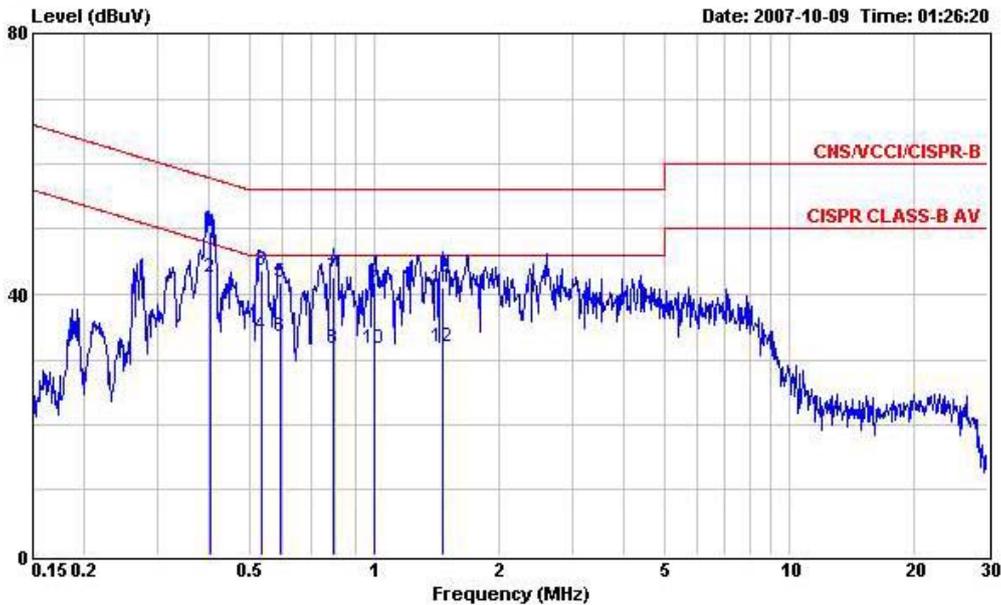
Site : CO01-HY  
 Condition : CNS/VCCI/CISPR-B 2001/004 200604 NEUTRAL  
 EUT : GSM/EDGE(Class 12) 850/900/1800/1900  
 : UMTS/HSDPA 850/2100(Band I and V)with  
 : BT\_EDR Phone\_Slide Type  
 Power : 120Vac/60Hz  
 Model : FR 792103  
 Memo : HSDPA Idle+BT Link+Camera A+Adaptor B

	Freq	Level	Over	Limit	Read	Cable	Probe	Remark
	MHz	dBuV	Limit	Line	Level	Loss	Factor	
			dB	dBuV	dBuV	dB	dB	
1	0.400	48.70	-9.15	57.85	48.48	0.12	0.10	QP
2	0.400	40.33	-7.52	47.85	40.11	0.12	0.10	Average
3	0.538	32.27	-13.73	46.00	32.03	0.14	0.10	Average
4	0.538	42.68	-13.32	56.00	42.44	0.14	0.10	QP
5	0.598	31.28	-14.72	46.00	31.04	0.14	0.10	Average
6	0.598	41.11	-14.89	56.00	40.87	0.14	0.10	QP
7	0.817	30.08	-15.92	46.00	29.82	0.16	0.10	Average
8	0.817	40.84	-15.16	56.00	40.58	0.16	0.10	QP
9	1.290	28.77	-17.23	46.00	28.51	0.16	0.10	Average
10	1.290	39.01	-16.99	56.00	38.75	0.16	0.10	QP
11	2.510	37.65	-18.35	56.00	37.35	0.20	0.10	QP
12	2.510	28.19	-17.81	46.00	27.89	0.20	0.10	Average



- Temperature : 26~27
- Relative Humidity : 49~51%
- Test Enginner : Sun
- Test Mode : Mode 8

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



Site : CO01-HY  
 Condition : CNS/VCCI/CISPR-B 2001/004 200604 LINE  
 EUT : GSM/EDGE(Class 12) 850/900/1800/1900  
 : UMTS/HSDPA 850/2100(Band I and V)with  
 : BT\_EDR Phone\_Slide Type  
 Power : 120Vac/60Hz  
 Model : FR 792103  
 Memo : PCS1900 Idle+BT Link+Camera A+Adaptor B

Freq	Level	Over Limit	Limit Line	Read Level	Cable Loss	Probe Factor	Remark
MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.402	49.50	-8.32	57.82	49.28	0.12	0.10 QP
2	0.402	42.55	-5.27	47.82	42.33	0.12	0.10 Average
3	0.536	43.75	-12.25	56.00	43.51	0.14	0.10 QP
4	0.536	33.73	-12.27	46.00	33.49	0.14	0.10 Average
5	0.595	41.84	-14.16	56.00	41.60	0.14	0.10 QP
6	0.595	33.41	-12.59	46.00	33.17	0.14	0.10 Average
7	0.796	42.57	-13.43	56.00	42.31	0.16	0.10 QP
8	0.796	31.70	-14.30	46.00	31.44	0.16	0.10 Average
9	1.000	41.79	-14.21	56.00	41.52	0.17	0.10 QP
10	1.000	31.76	-14.24	46.00	31.49	0.17	0.10 Average
11	1.460	41.05	-14.95	56.00	40.80	0.15	0.10 QP
12	1.460	31.90	-14.10	46.00	31.65	0.15	0.10 Average