



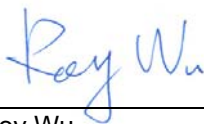
FCC Test Report

According to

47 CFR Part 15 Subpart C

Equipment : PDA Phone
Model Name : RAPH101
FCC ID : NM8RPLT
Filing Type : Certification
Applicant : **HTC Corporation**
23 Xinghua Rd., Taoyuan 330, Taiwan

- The test result refers exclusively to the test presented test model / sample.
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- The data shown in this test report were carried out on July 24, 2008 at **Sporton International Inc. LAB.**
- Report No.: FR830416-03B, Report Version: Rev.02



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Report Version: Rev.02

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1. General Description of Equipment under Test

1.1 Applicant

HTC Corporation
23 Xinghua Rd., Taoyuan 330, Taiwan

1.2 Manufacturer

HTC Corporation
23 Xinghua Rd., Taoyuan 330, Taiwan

1.3 Basic Description of Equipment under Test

PDA Phone A	PDA with Camera 1
PDA Phone B	PDA with Camera 2

1.4 Feature of Equipment under Test

Product Feature & Specification			
DUT Type :	PDA Phone		
Model Name :	RAPH101		
FCC ID :	NM8RPLT		
Tx Frequency :	2400 MHz ~ 2483.5 MHz		
Rx Frequency :	2400 MHz ~ 2483.5 MHz		
Maximum Output Power to Antenna :	Bluetooth: -0.09 dBm (1Mbps) Bluetooth EDR: 1.00dBm (2Mbps) / 0.61dBm (3Mbps)		
Type of Antenna Connector :	N/A		
Antenna Type :	PIFA Antenna		
Antenna Gain :	1 dBi		
Type of Modulation :	Bluetooth (1Mbps) : GFSK Bluetooth EDR (2Mbps) : $\pi/4$ -DQPSK Bluetooth EDR (3Mbps) : 8-DPSK		
Function Type :	Transmitter		Transceiver V
DUT Stage :	Identical Prototype		

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, 2Mbps, was chosen to being tested, due to the highest RF output power.

Channel	Frequency	Data Rate / Modulation		
		GFSK	$\pi/4$ -DQPSK	8-DPSK
		1Mbps	2Mbps	3Mbps
Ch00	2400MHz	-0.97 dBm	0.12 dBm	-0.28 dBm
Ch39	2441MHz	-0.09 dBm	1.00 dBm	0.61 dBm
Ch78	2480MHz	-0.70 dBm	0.35 dBm	-0.07 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 25000 MHz.

2.2 Test Mode

Test Item	Test Mode		
Radiated Emission / RF Conducted	Bluetooth Tx	Bluetooth Tx(EDR 2Mbps)	Bluetooth Tx(EDR 3Mbps)
	Mode 1: CH00_2402 MHz	Mode 4: CH00_2402 MHz	Mode 7: CH00_2402 MHz
	Mode 2: CH39_2441 MHz	Mode 5: CH39_2441 MHz	Mode 8: CH39_2441 MHz
	Mode 3: CH78_2480 MHz	Mode 6: CH78_2480 MHz	Mode 9: CH78_2480 MHz
Conducted Emission	Mode 1: PDA Phone A + BT Link + WLAN Link + Adapter 1		
	Mode 2: PDA Phone A + BT Link + WLAN Link + Adapter 2		
	Mode 3: PDA Phone A + BT Link + WLAN Link + Adapter 3 + USB Cable 1		
	Mode 4: PDA Phone A + BT Link + WLAN Link + Adapter 3 + USB Cable 2		
	Mode 5: PDA Phone A + BT Link + WLAN Link + Adapter 4		
	Mode 6: PDA Phone B + BT Link + WLAN Link + Adapter 1		

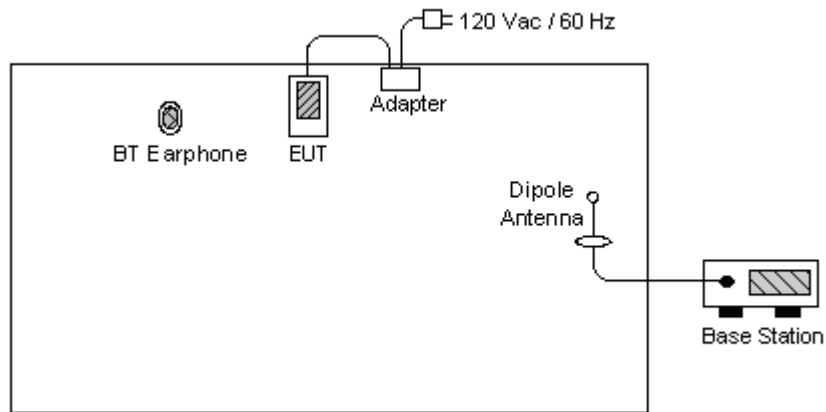
Remark : The worst cases for radiated emission are mode 4~6; only the test data of mode 4~6 was reported.

2.3 Ancillary Equipment List

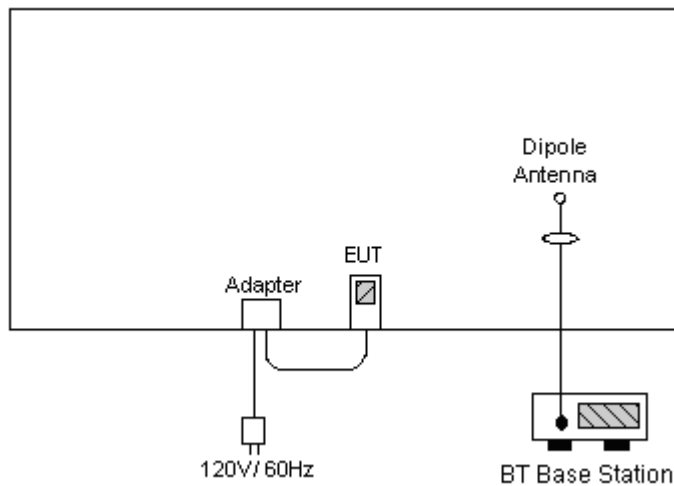
Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	Base Station	R&S	CMU 200	N/A	N/A	Unshielded, 1.8 m
2.	Bluetooth Earphone	Engotech	ET-BH111	PQY471087	N/A	N/A
3.	BT Base Station	Anritus	8852A	N/A	N/A	Unshielded, 1.8 m

2.4 Connection Diagram of Test System

<Conducted Emission>



<Radiated Emission>





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, 03CH06-HY
FCC Designation No : TW1022

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)(1)(iii)	Hopping Channel Bandwidth	Pass
15.247(a)(1)	Hopping Channel Separation	Pass
15.247(a)(1)(iii)	Number of Hopping Frequency	Pass
15.247(a)(1)(iii)	Dwell Time of Each Frequency	Pass
15.247(b)(1)	Output Power	Pass
15.247(d)	100 KHz Bandwidth of Frequency Band Edges	Pass
15.209(a) 15.247(d)	Radiated Emission	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 100 KHz 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 : 24~25°C
- Relative Humidity : 51~52%
- Test Engineer : C.K.C.

Test Result in Bluetooth lower band	:	PASS
Test Result in Bluetooth higher band	:	PASS
Test Result in Bluetooth EDR(2Mbps) lower band	:	PASS
Test Result in Bluetooth EDR(2Mbps) higher band	:	PASS
Test Result in Bluetooth EDR(3Mbps) lower band	:	PASS
Test Result in Bluetooth EDR(3Mbps) higher band	:	PASS

5.2.4 Note on Band Edge Emission

➤ Bluetooth EDR(2Mbps)

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
2389.61	46.41	-27.59	74.00	46.31	31.86	3.92	35.68	100	0	Peak
2389.61	31.55	-22.45	54.00	31.45	31.86	3.92	35.68	127	26	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
2387.14	44.04	-29.96	74.00	44.05	31.81	3.86	35.67	100	0	Peak
2387.14	31.03	-22.97	54.00	30.93	31.86	3.92	35.68	100	306	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	61.34	-12.66	74.00	61.01	31.98	4.05	35.70	100	0	Peak
2483.50	50.43	-3.57	54.00	50.10	31.98	4.05	35.70	100	3	Average

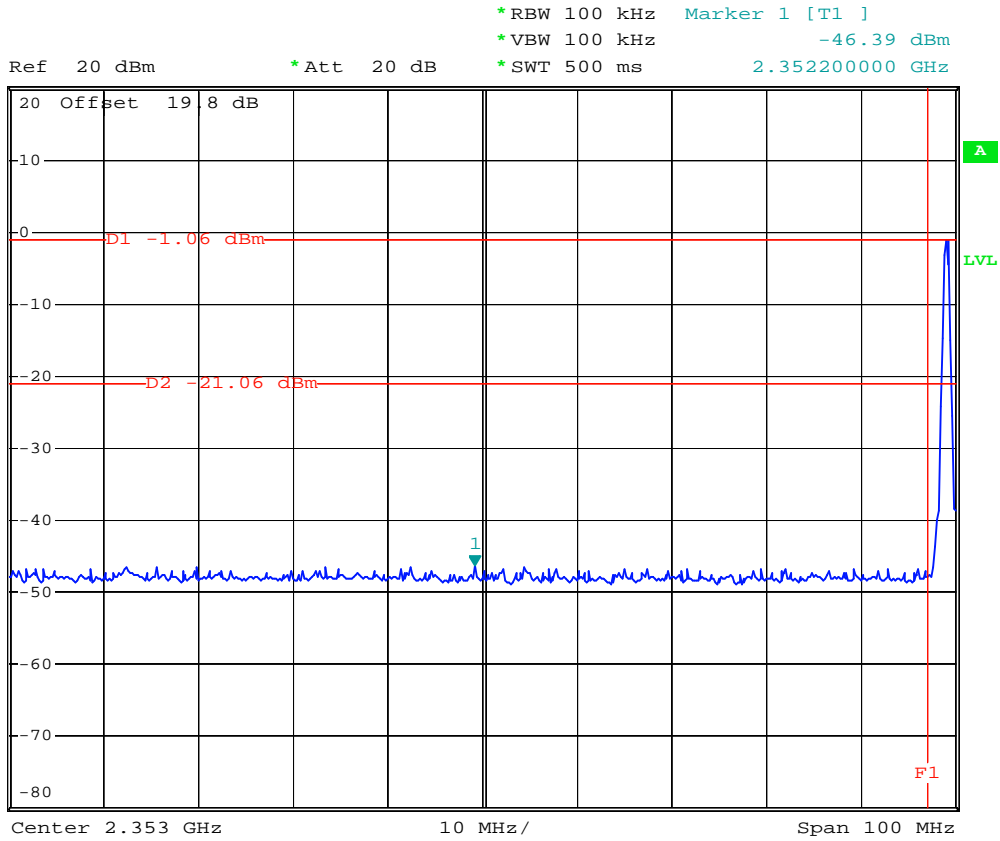
CH78 (Vertical)

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
2483.50	54.38	-19.62	74.00	54.05	31.98	4.05	35.70	100	0	Peak
2483.50	45.02	-8.98	54.00	44.69	31.98	4.05	35.70	100	299	Average

5.2.5 20dB Band Edge

Bluetooth

CH00



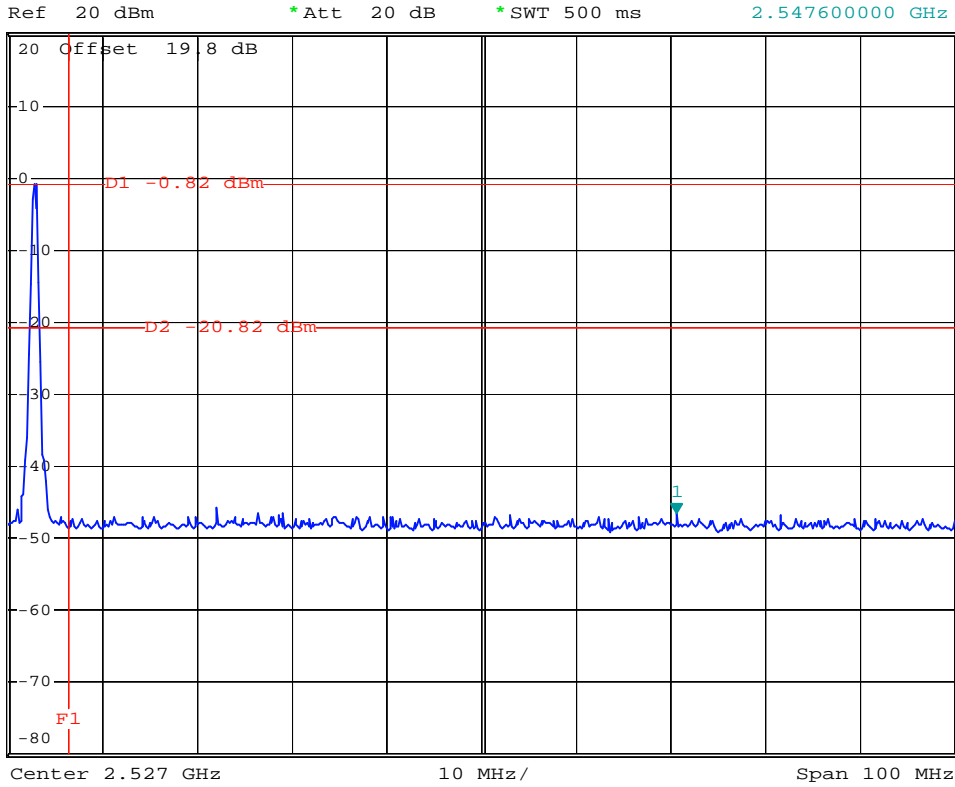
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Date: 24.JUL.2008 05:53:33

CH78



*RBW 100 kHz Marker 1 [T1]
 *VBW 100 kHz -46.47 dBm
 *SWT 500 ms 2.547600000 GHz



2nd comment ...

Date: 24.JUL.2008 05:51:55

Bluetooth EDR(2Mbps)

CH00

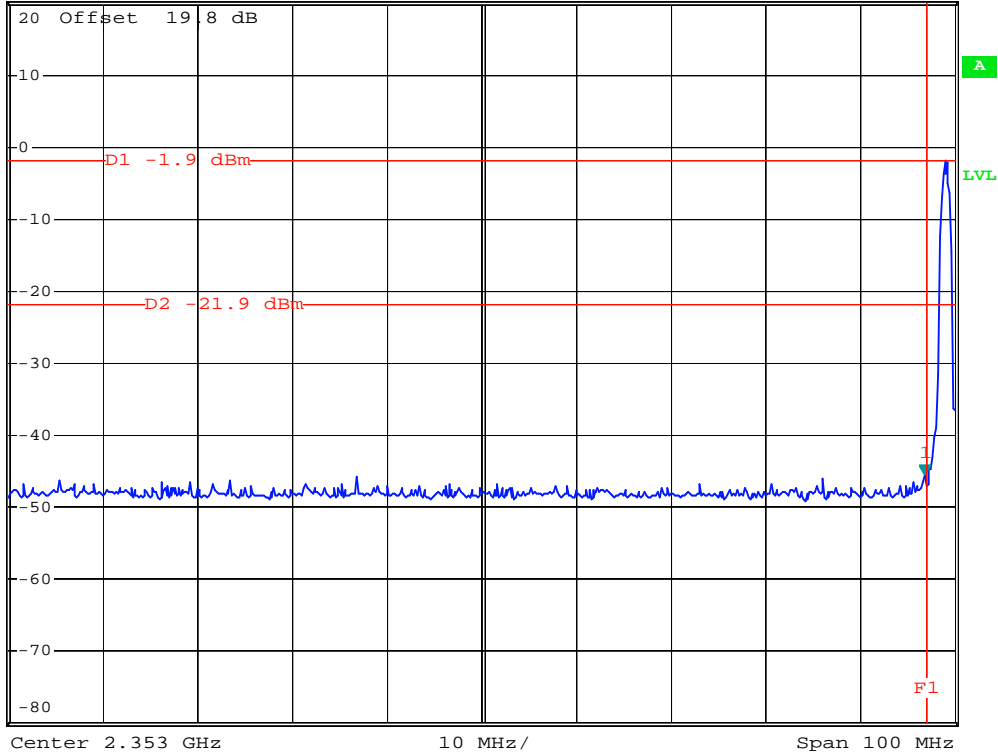


*RBW 100 kHz Marker 1 [T1]
 *VBW 100 kHz -45.55 dBm
 *SWT 500 ms 2.399800000 GHz

Ref 20 dBm

*Att 20 dB

1 PK
MAXH



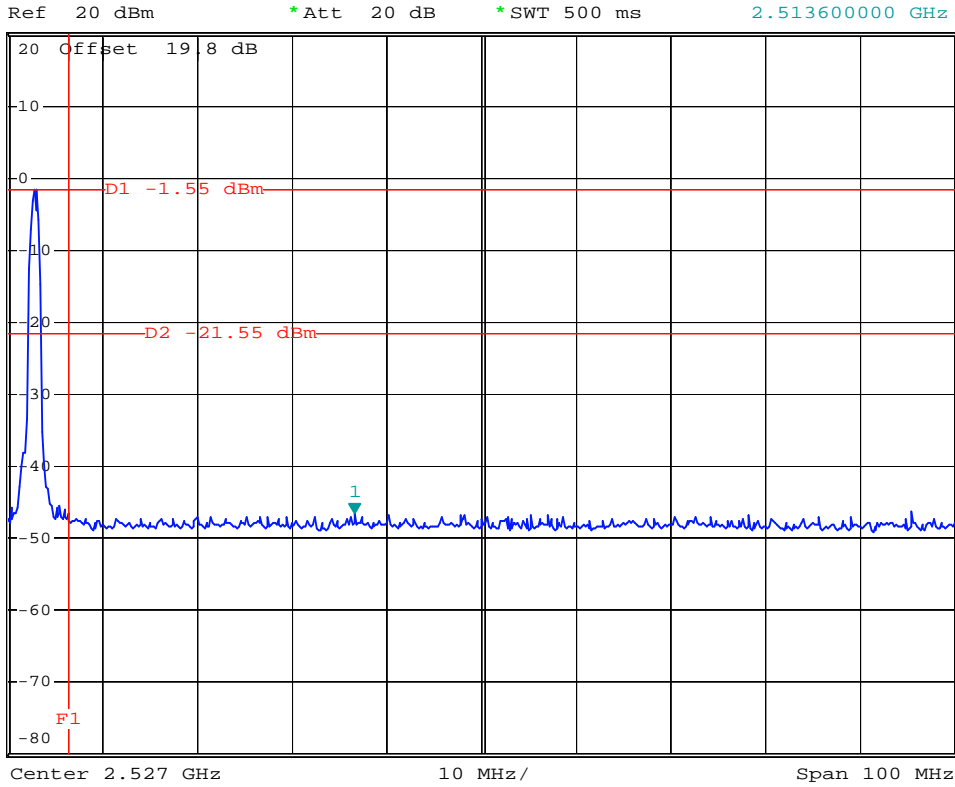
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Date: 24.JUL.2008 06:45:35

CH78



*RBW 100 kHz Marker 1 [T1]
 *VBW 100 kHz -46.61 dBm
 *SWT 500 ms 2.513600000 GHz



2nd comment ...

Date: 24.JUL.2008 06:44:24

CH78

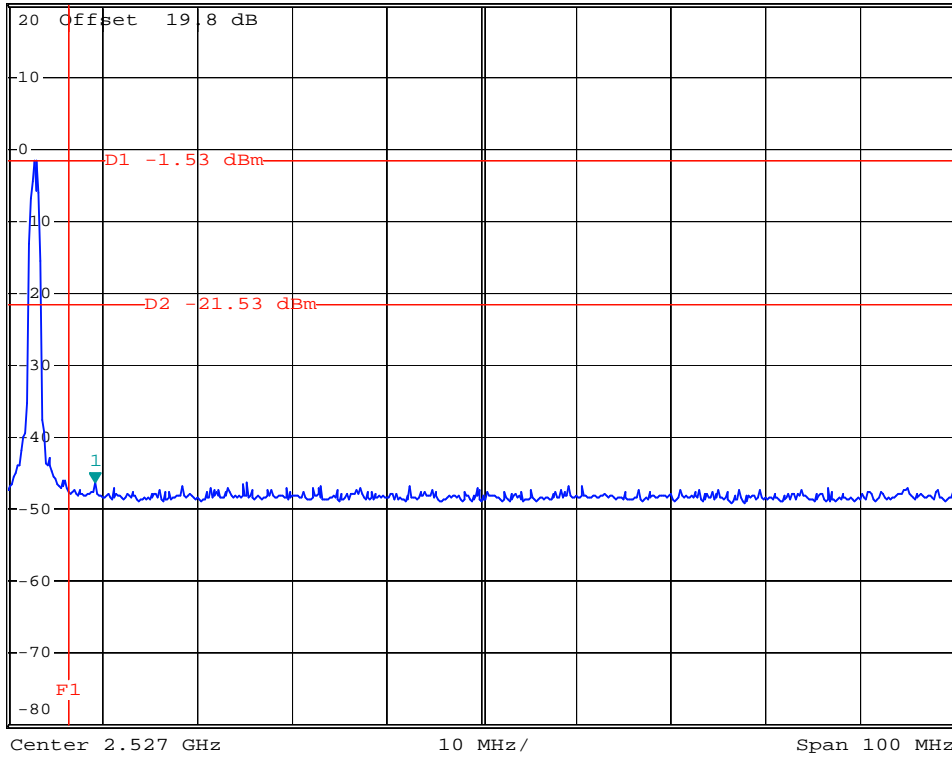


*RBW 100 kHz Marker 1 [T1]
 *VBW 100 kHz -46.39 dBm
 *SWT 500 ms 2.486200000 GHz

Ref 20 dBm

*Att 20 dB

1 PK
MAXH



2nd comment ...

Date: 24.JUL.2008 06:52:54

5.3 Hopping Channel Separation

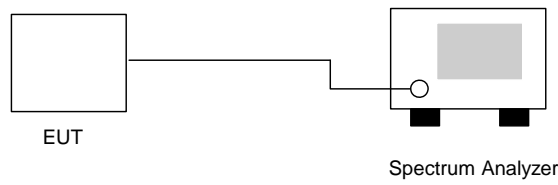
5.3.1 Measuring Instruments

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 30 KHz and VBW to 100 KHz.
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 : Bluetooth
- Temperature : 24~25°C
- Relative Humidity : 51~52%
- Test Engineer : C.K.C.

Channel	Frequency (MHz)	Carrier Frequency Separation (MHz)	Limits (MHz)	Plot Ref. No.
00	2402	1.004	0.568	Mode 1
39	2441	1.004	0.572	Mode 2
78	2480	1.004	0.570	Mode 3

Remark: Hopping Channel Separation shall be greater 2/3 of 20dB bandwidth.

- Application Type : Bluetooth EDR(2Mbps)
- Temperature : 24~25°C
- Relative Humidity : 51~52%
- Test Engineer : C.K.C.

Channel	Frequency (MHz)	Carrier Frequency Separation (MHz)	Limits (MHz)	Plot Ref. No.
00	2402	1.000	0.853	Mode 4
39	2441	1.000	0.851	Mode 5
78	2480	1.000	0.853	Mode 6

Remark: Hopping Channel Separation shall be greater 2/3 of 20dB bandwidth.

- Application Type : Bluetooth EDR(3Mbps)
- Temperature : 24~25°C
- Relative Humidity : 51~52%
- Test Engineer : C.K.C.

Channel	Frequency (MHz)	Carrier Frequency Separation (MHz)	Limits (MHz)	Plot Ref. No.
00	2402	1.000	0.835	Mode 7
39	2441	1.008	0.840	Mode 8
78	2480	1.000	0.840	Mode 9

Remark: Hopping Channel Separation shall be greater 2/3 of 20dB bandwidth.

5.3.5 Hopping Channel Separation

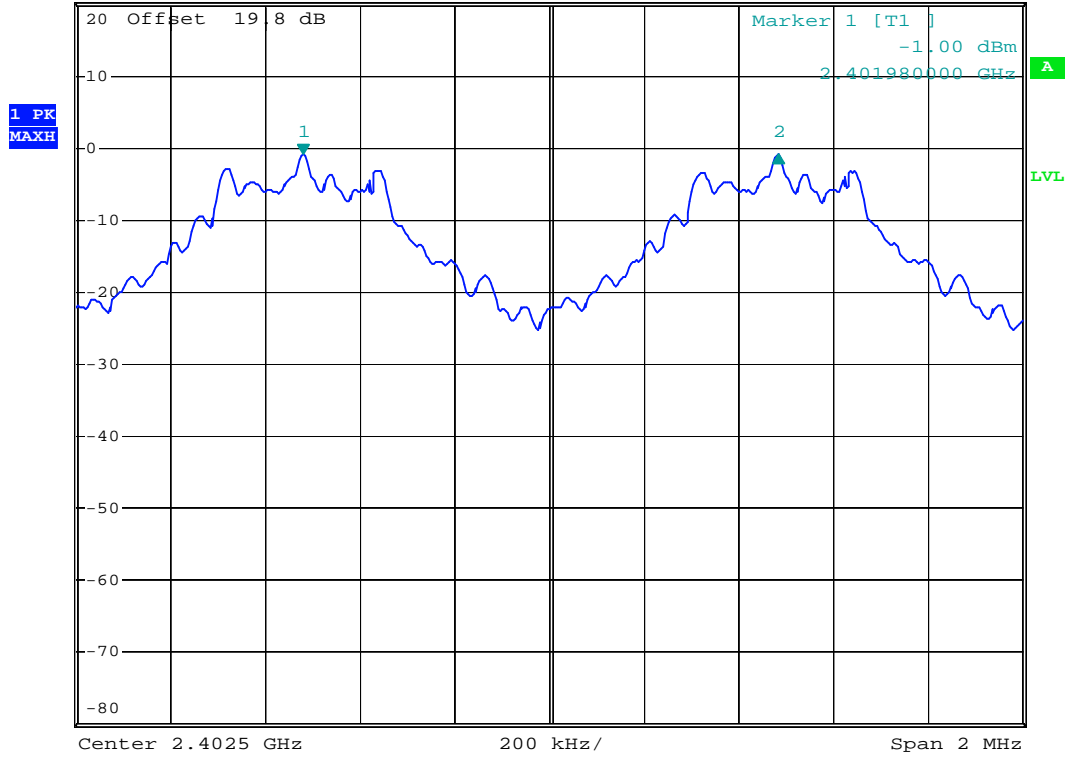
Mode 1



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

Ref 20 dBm

*Att 20 dB



2nd comment ...

Date: 24.JUL.2008 05:54:27

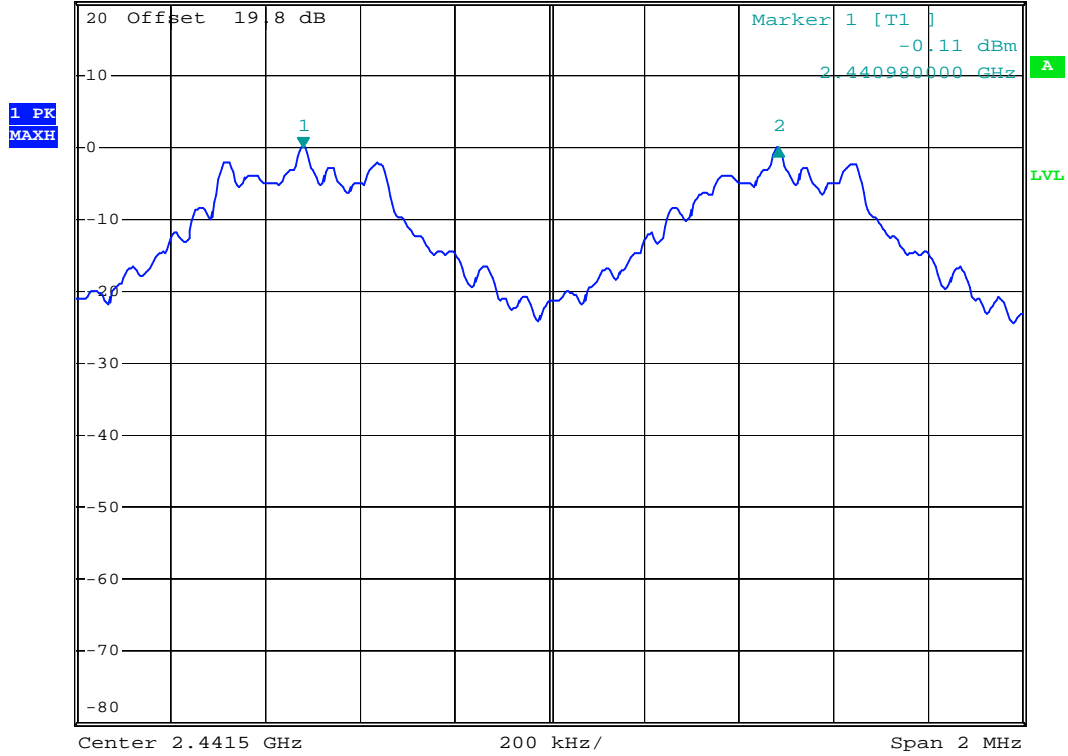
Mode 2



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

Ref 20 dBm

*Att 20 dB



2nd comment ...

Date: 24.JUL.2008 05:56:42

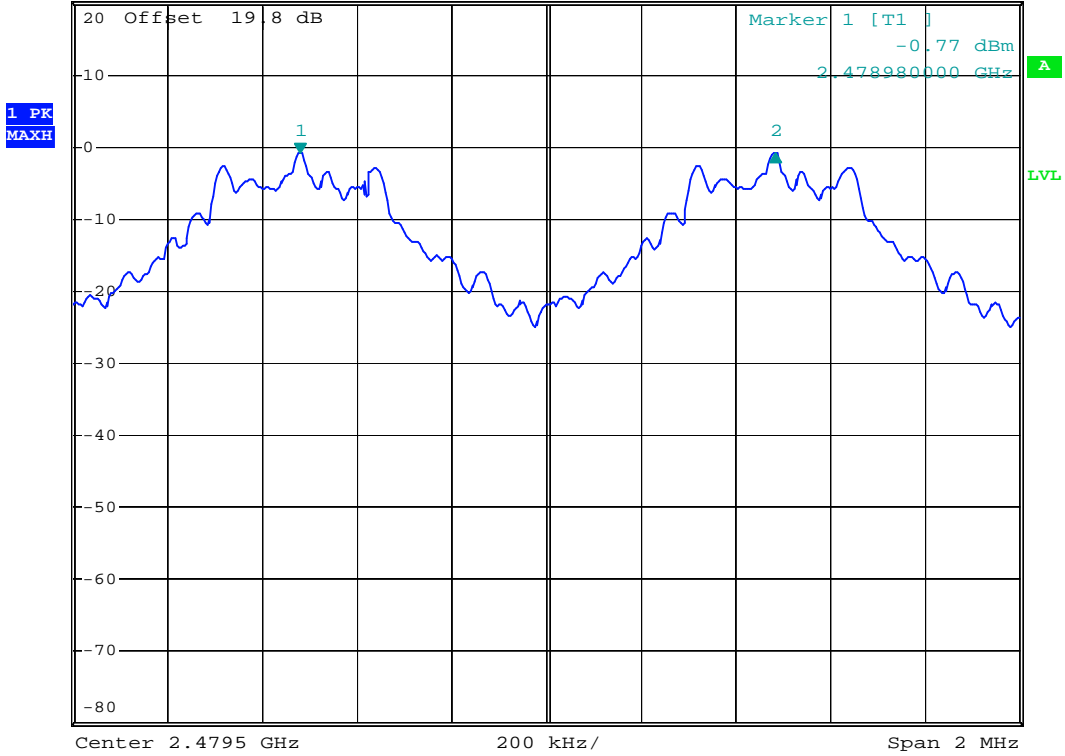
Mode 3



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

Ref 20 dBm

*Att 20 dB



2nd comment ...

Date: 24.JUL.2008 05:57:37

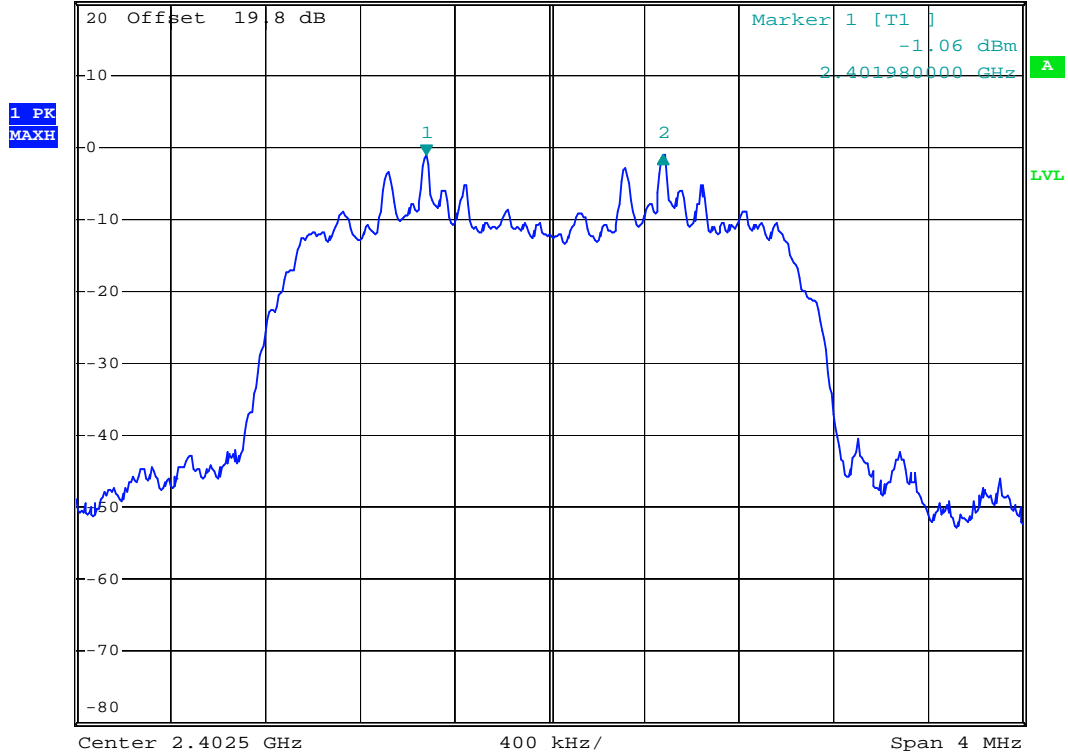
Mode 4



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

Ref 20 dBm

*Att 20 dB



2nd comment ...

Date: 24.JUL.2008 06:46:29

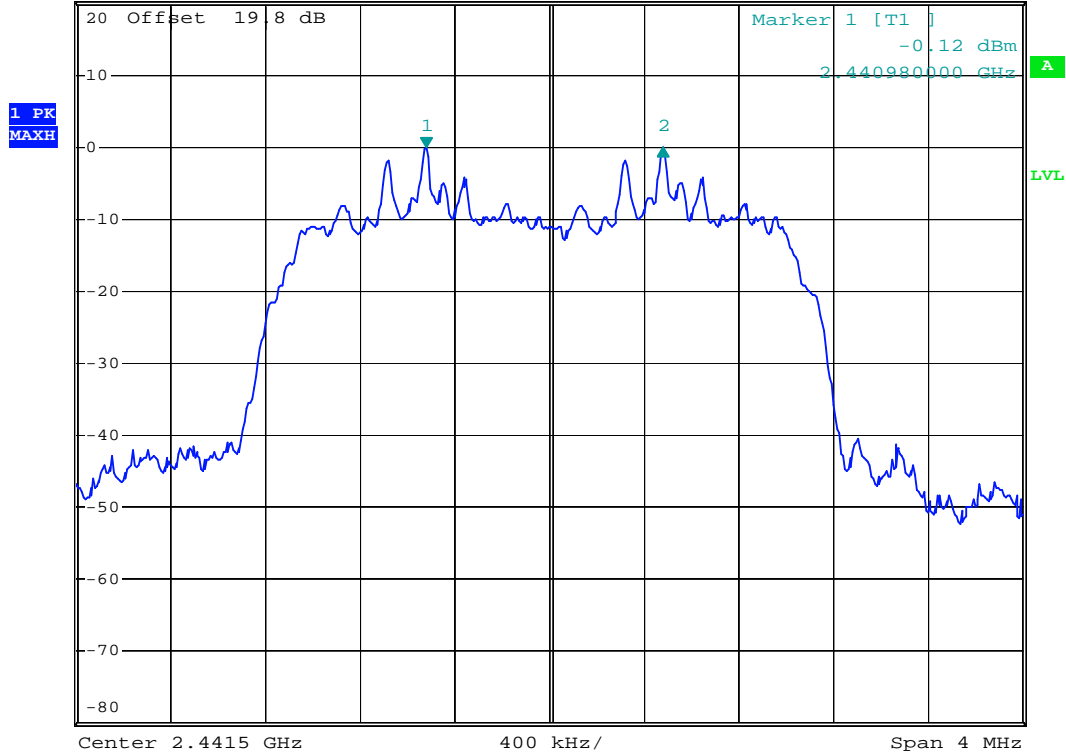
Mode 5



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

Ref 20 dBm

*Att 20 dB



2nd comment ...

Date: 24.JUL.2008 06:47:16

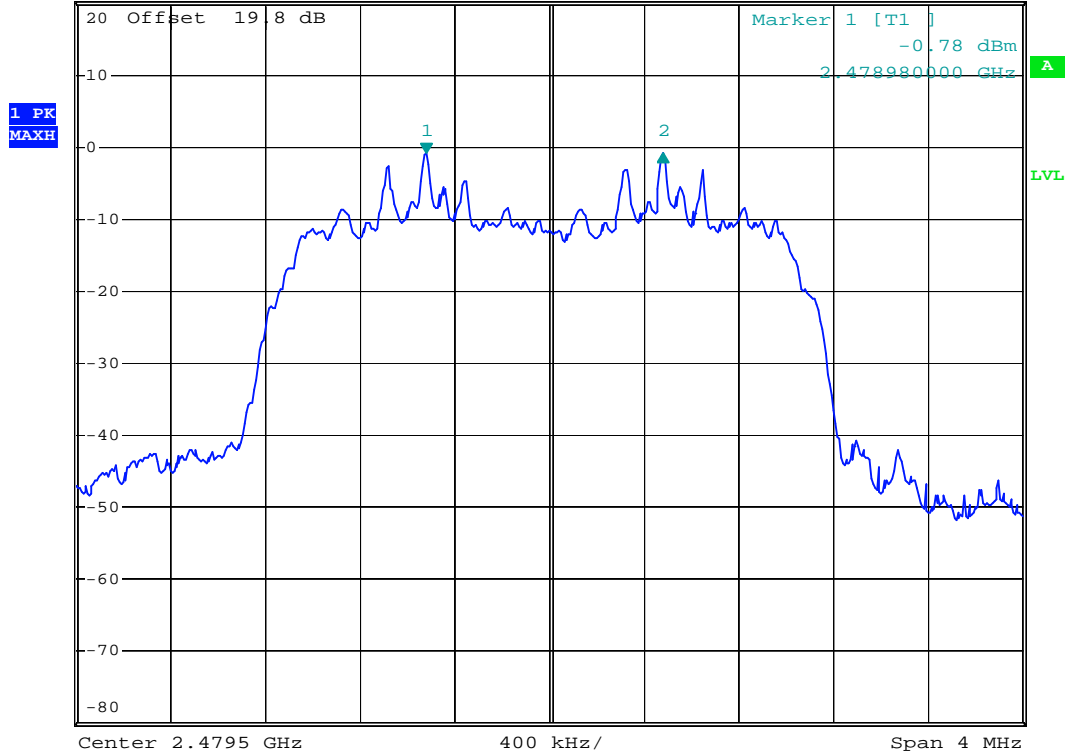
Mode 6



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

Ref 20 dBm

*Att 20 dB



2nd comment ...

Date: 24.JUL.2008 06:48:22

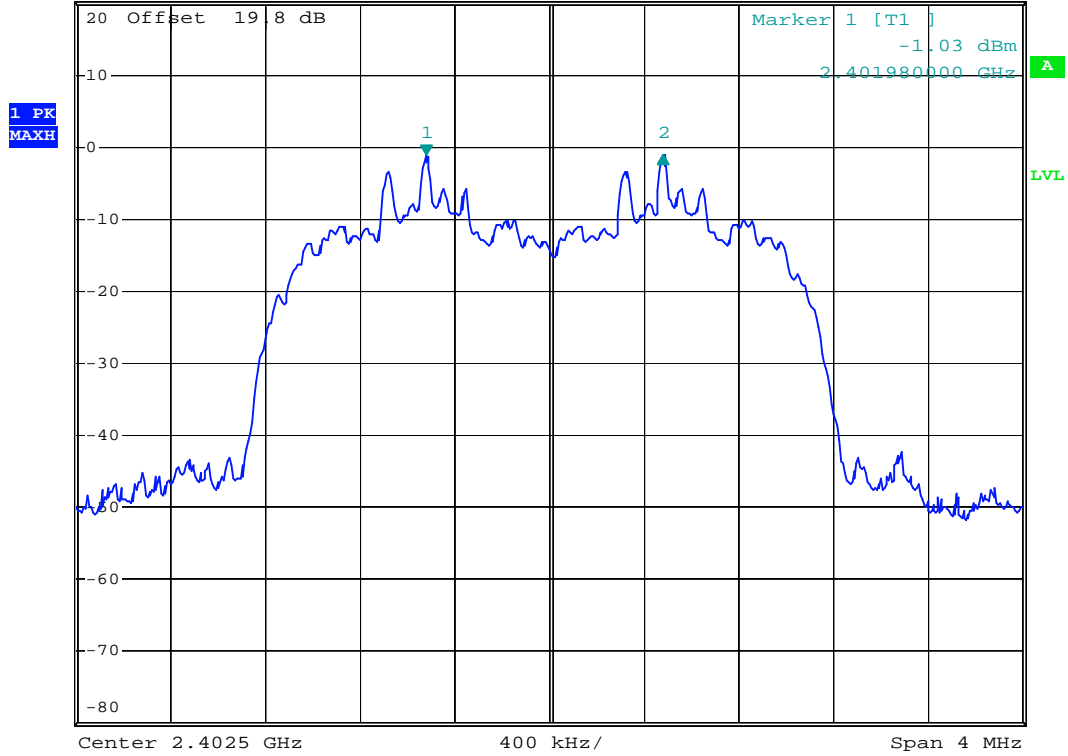
Mode 7



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

Ref 20 dBm

*Att 20 dB



2nd comment ...

Date: 24.JUL.2008 06:54:08

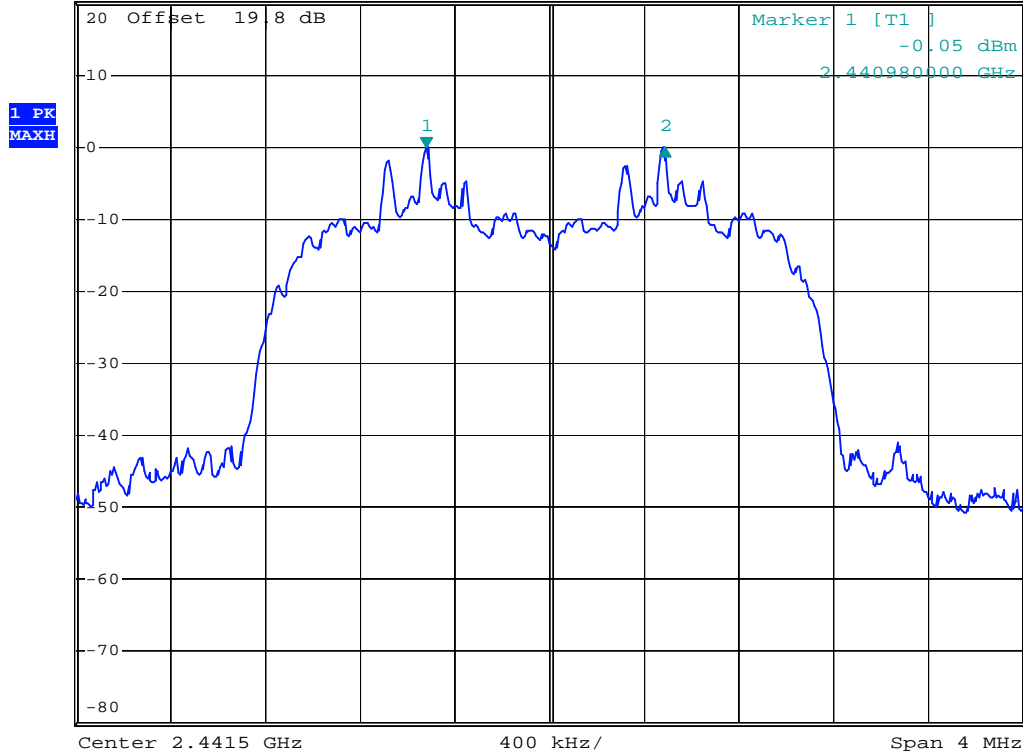
Mode 8



*RBW 30 kHz Delta 2 [T1]
 *VBW 100 kHz -0.12 dB
 *SWT 500 ms 1.008000000 MHz

Ref 20 dBm

*Att 20 dB



2nd comment ...

Date: 24.JUL.2008 06:54:59

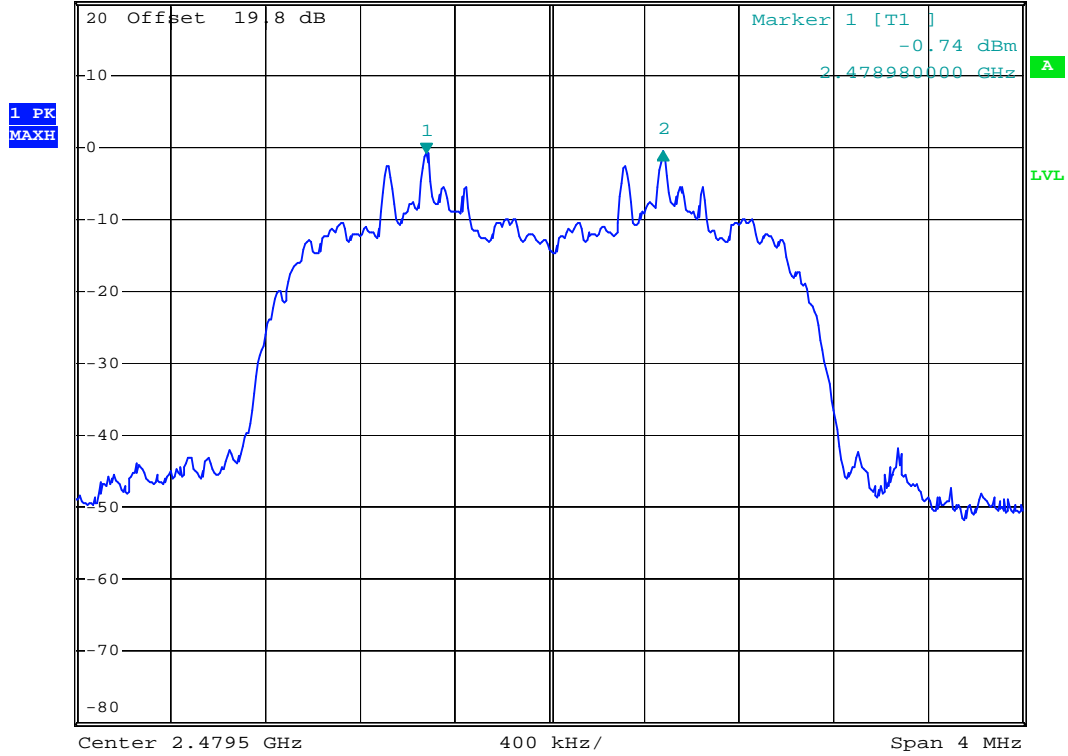
Mode 9



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

Ref 20 dBm

*Att 20 dB



2nd comment ...

Date: 24.JUL.2008 06:55:43

5.4 Number of Hopping Frequency

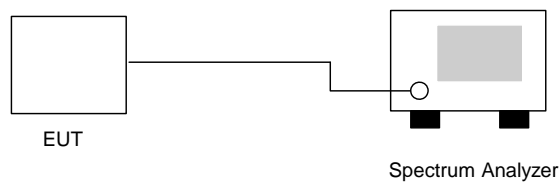
5.4.1 Measuring Instruments

As described in chapter 9 of this test report.

5.4.2 Test Procedure

- a. The output of EUT was connected to the spectrum analyzer by a low loss cable.
- b. Set RBW of spectrum analyzer to 100 KHz and VBW to 100 KHz.
- c. 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 : Bluetooth
- Temperature : 24~25°C
- Relative Humidity : 51~52%
- Test Engineer : C.K.C.

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

- Application Type : Bluetooth EDR(2Mbps)
- Temperature : 24~25°C
- Relative Humidity : 51~52%
- Test Engineer : C.K.C.

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

- Application Type : Bluetooth EDR(3Mbps)
- Temperature : 24~25°C
- Relative Humidity : 51~52%
- Test Engineer : C.K.C.

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

5.5 Hopping Channel Bandwidth

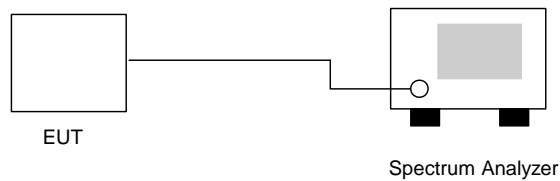
5.5.1 Measuring Instruments

As described in chapter 9 of this test report.

5.5.2 Test Procedure

- a. The transmitter output was connected to the spectrum analyzer by a low loss cable.
- b. Set RBW of spectrum analyzer to 30 KHz and VBW to 300 KHz.
- c. 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 : Bluetooth
- Temperature : 24~25°C
- Relative Humidity : 51~52%
- Test Engineer : C.K.C.

Channel	Frequency (MHz)	Hopping Channel Bandwidth (MHz)	Plot Ref. No.
00	2402	0.852	Mode 1
39	2441	0.858	Mode 2
78	2480	0.856	Mode 3

- Application Type : Bluetooth EDR(2Mbps)
- Temperature : 24~25°C
- Relative Humidity : 51~52%
- Test Engineer : C.K.C.

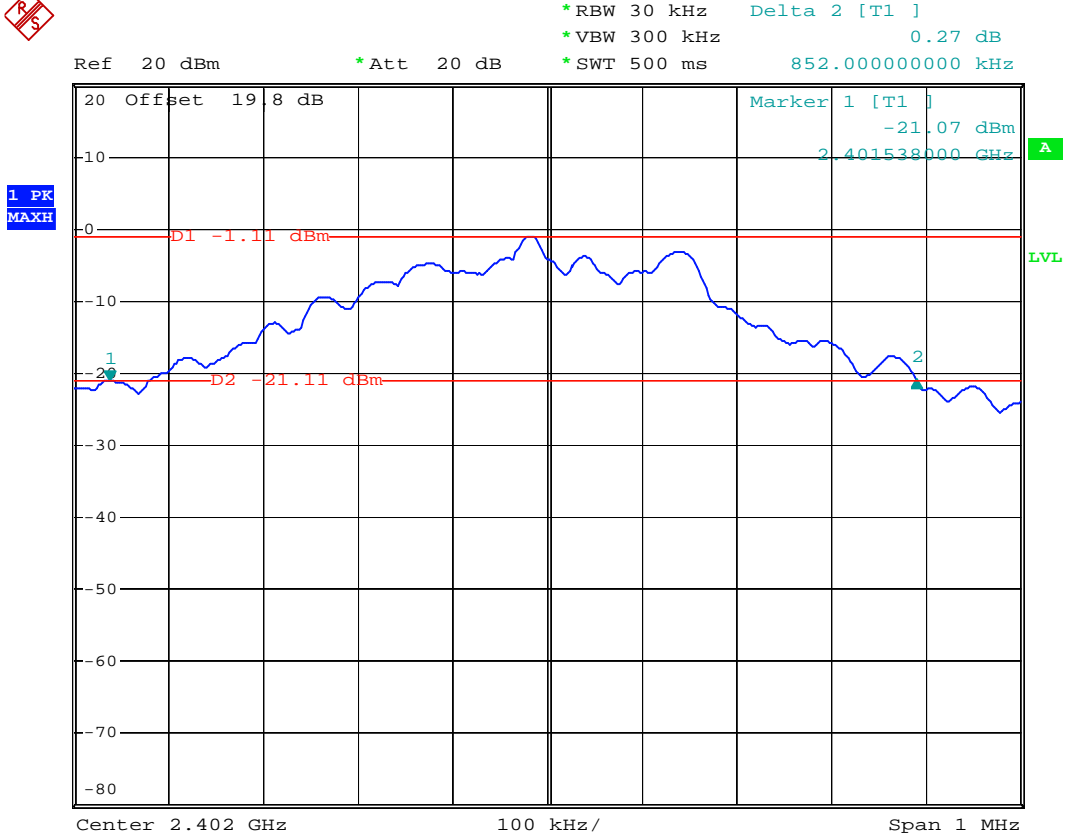
Channel	Frequency (MHz)	Hopping Channel Bandwidth (MHz)	Plot Ref. No.
00	2402	1.280	Mode 4
39	2441	1.276	Mode 5
78	2480	1.280	Mode 6

- Application Type : Bluetooth EDR(3Mbps)
- Temperature : 24~25°C
- Relative Humidity : 51~52%
- Test Engineer : C.K.C.

Channel	Frequency (MHz)	Hopping Channel Bandwidth (MHz)	Plot Ref. No.
00	2402	1.252	Mode 7
39	2441	1.260	Mode 8
78	2480	1.260	Mode 9

5.5.5 Hopping Channel Bandwidth

Mode 1



2nd comment ...

Date: 24.JUL.2008 05:48:32

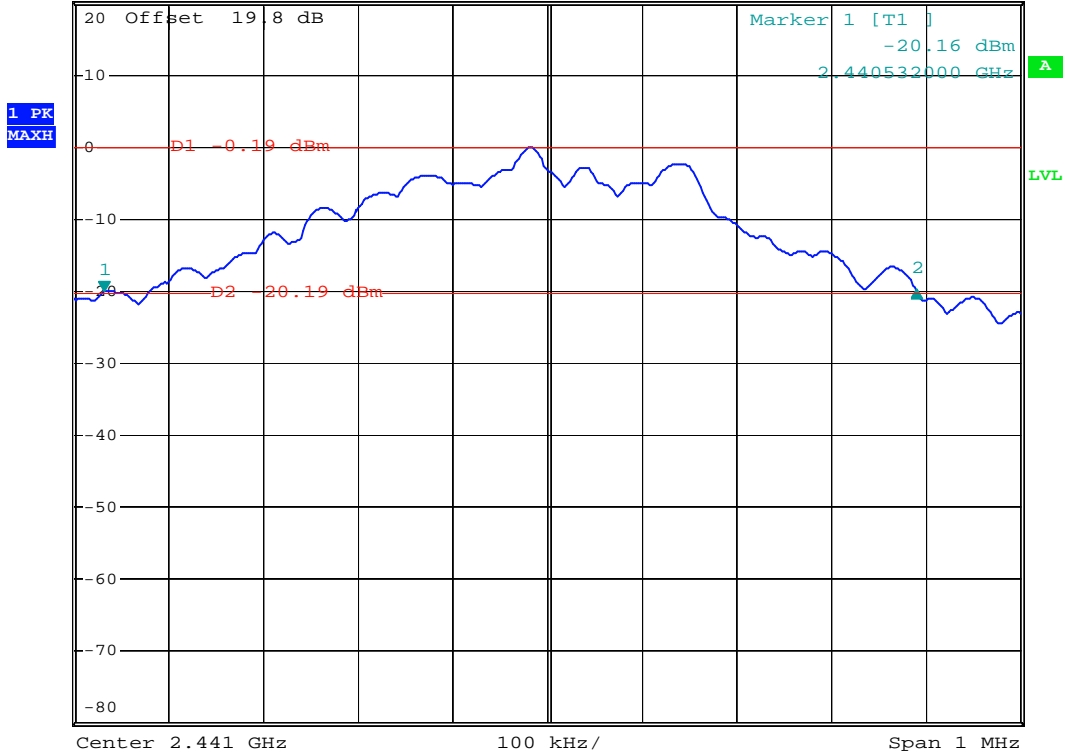
Mode 2



*RBW 30 kHz Delta 2 [T1]
 *VBW 300 kHz 0.35 dB
 *SWT 500 ms 858.000000000 kHz

Ref 20 dBm

*Att 20 dB



2nd comment ...

Date: 24.JUL.2008 05:49:35

Mode 3

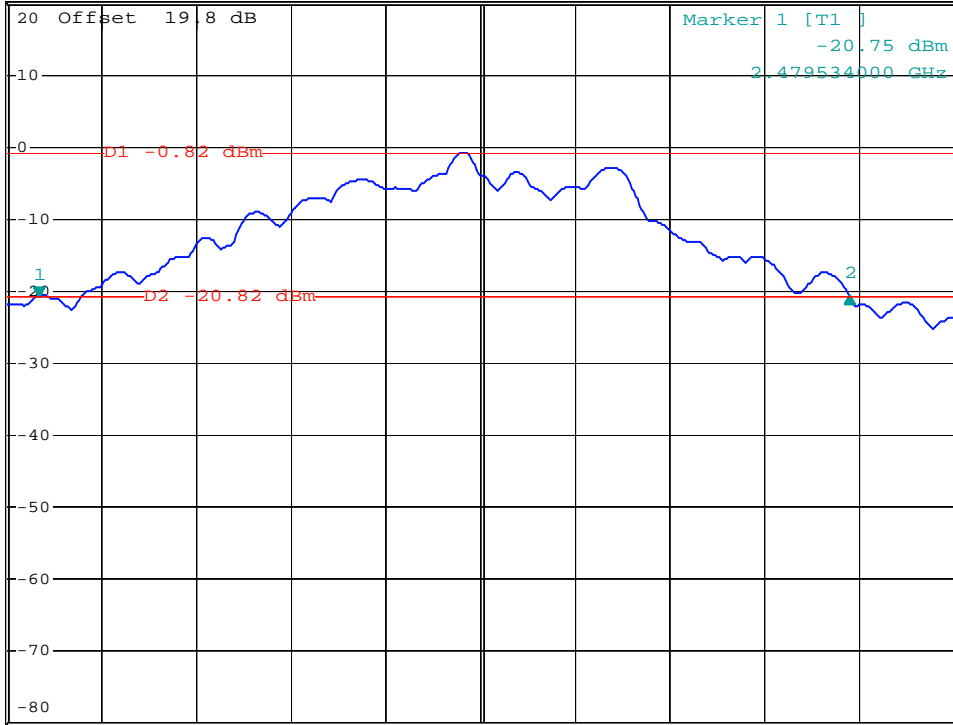


*RBW 30 kHz Delta 2 [T1]
 *VBW 300 kHz 0.11 dB
 *SWT 500 ms 856.000000000 kHz

Ref 20 dBm

*Att 20 dB

1 PK
MAXH



Center 2.48 GHz

100 kHz/

Span 1 MHz

2nd comment ...

Date: 24.JUL.2008 05:50:33

Mode 4

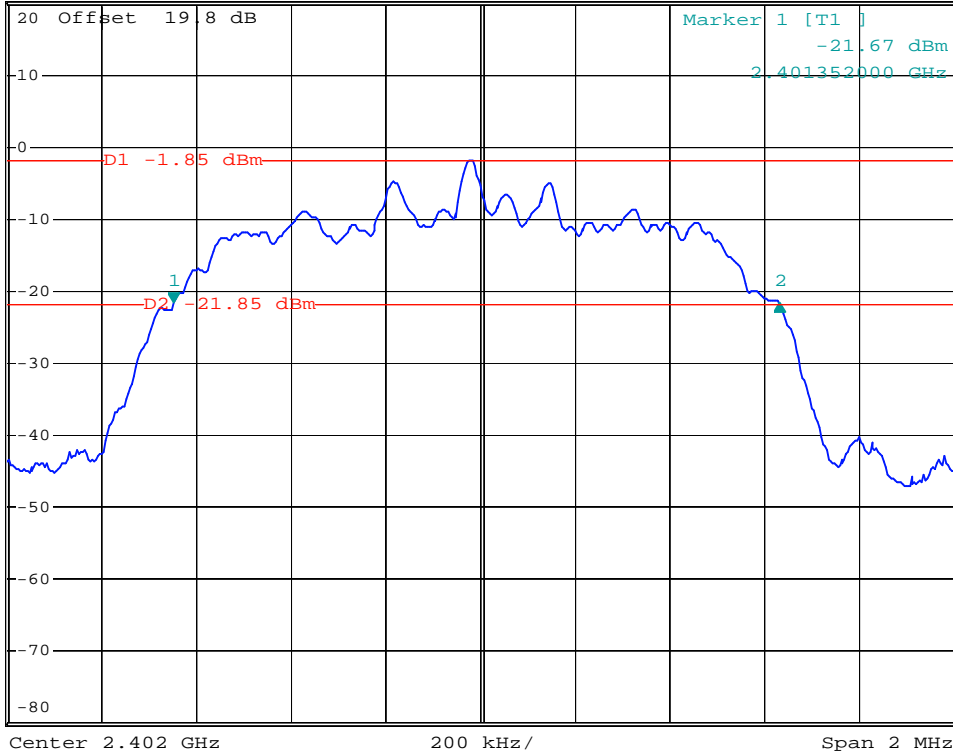


*RBW 30 kHz Delta 2 [T1]
 *VBW 300 kHz -0.03 dB
 *SWT 500 ms 1.280000000 MHz

Ref 20 dBm

*Att 20 dB

1 PK
MAXH



2nd comment ...

Date: 24.JUL.2008 06:40:57

Mode 5

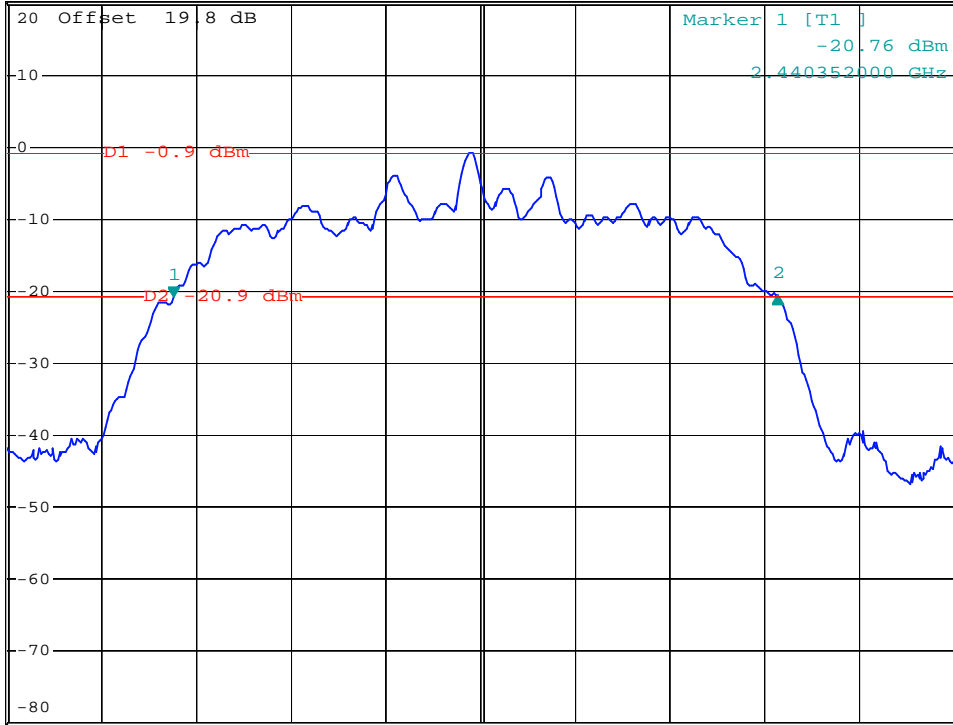


*RBW 30 kHz Delta 2 [T1]
 *VBW 300 kHz 0.13 dB
 *SWT 500 ms 1.276000000 MHz

Ref 20 dBm

*Att 20 dB

1 PK
MAXH



Center 2.441 GHz 200 kHz/ Span 2 MHz

2nd comment ...

Date: 24.JUL.2008 06:41:43

Mode 6

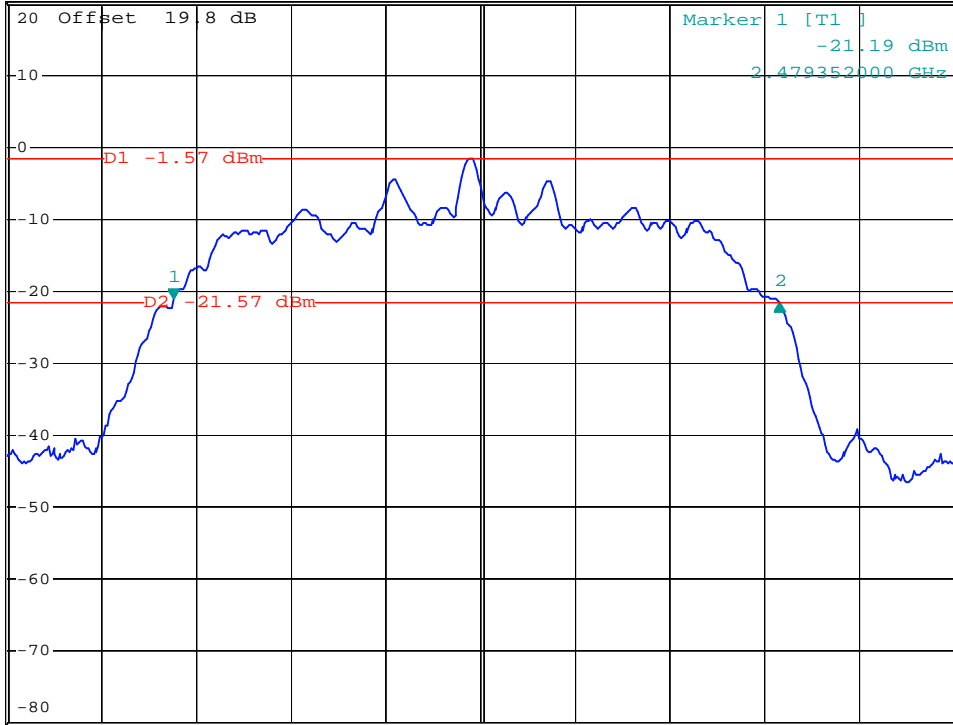


*RBW 30 kHz Delta 2 [T1]
 *VBW 300 kHz -0.29 dB
 *SWT 500 ms 1.280000000 MHz

Ref 20 dBm

*Att 20 dB

1 PK
MAXH



Center 2.48 GHz

200 kHz/

Span 2 MHz

2nd comment ...

Date: 24.JUL.2008 06:43:10

Mode 7

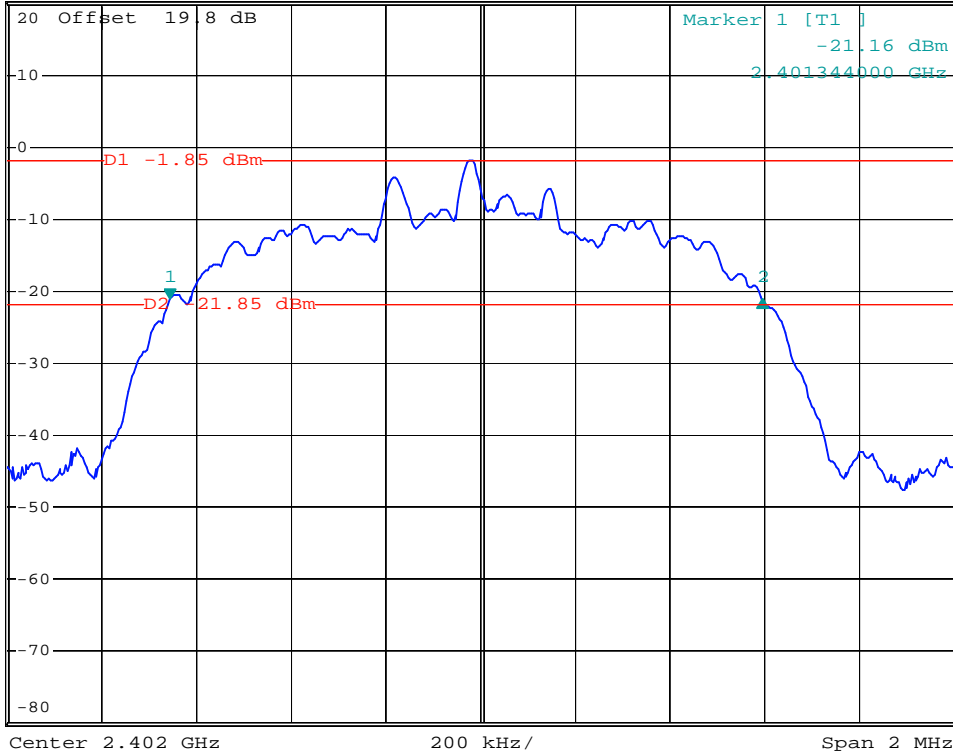


*RBW 30 kHz Delta 2 [T1]
 *VBW 300 kHz 0.08 dB
 *SWT 500 ms 1.252000000 MHz

Ref 20 dBm

*Att 20 dB

1 PK
MAXH



2nd comment ...

Date: 24.JUL.2008 06:49:25

Mode 8

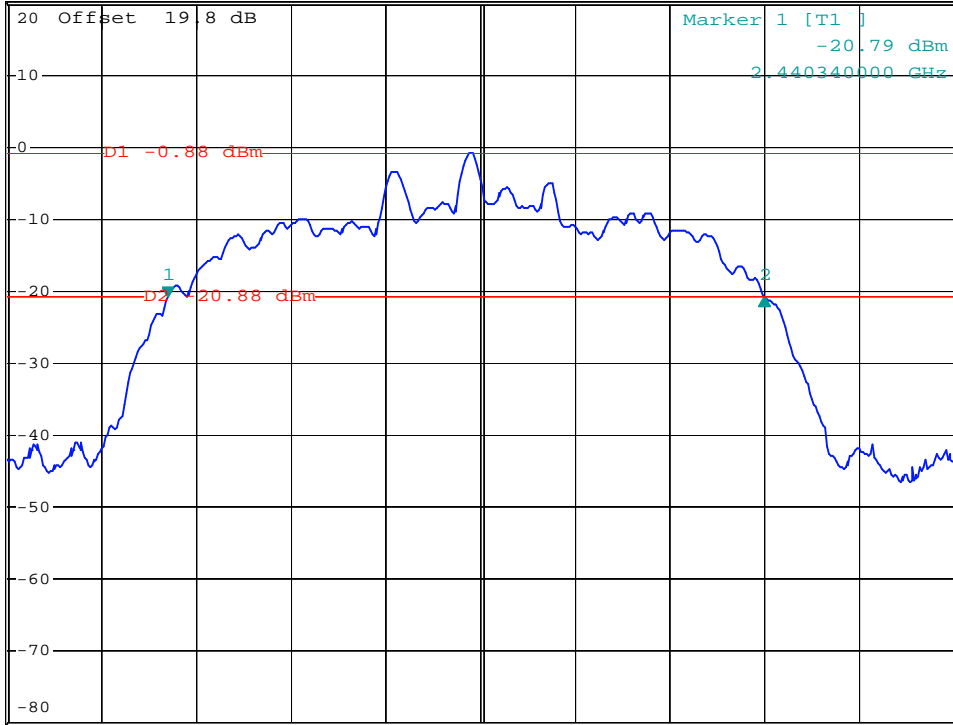


*RBW 30 kHz Delta 2 [T1]
 *VBW 300 kHz -0.06 dB
 *SWT 500 ms 1.260000000 MHz

Ref 20 dBm

*Att 20 dB

1 PK
MAXH



Center 2.441 GHz

200 kHz/

Span 2 MHz

2nd comment ...

Date: 24.JUL.2008 06:50:18

Mode 9

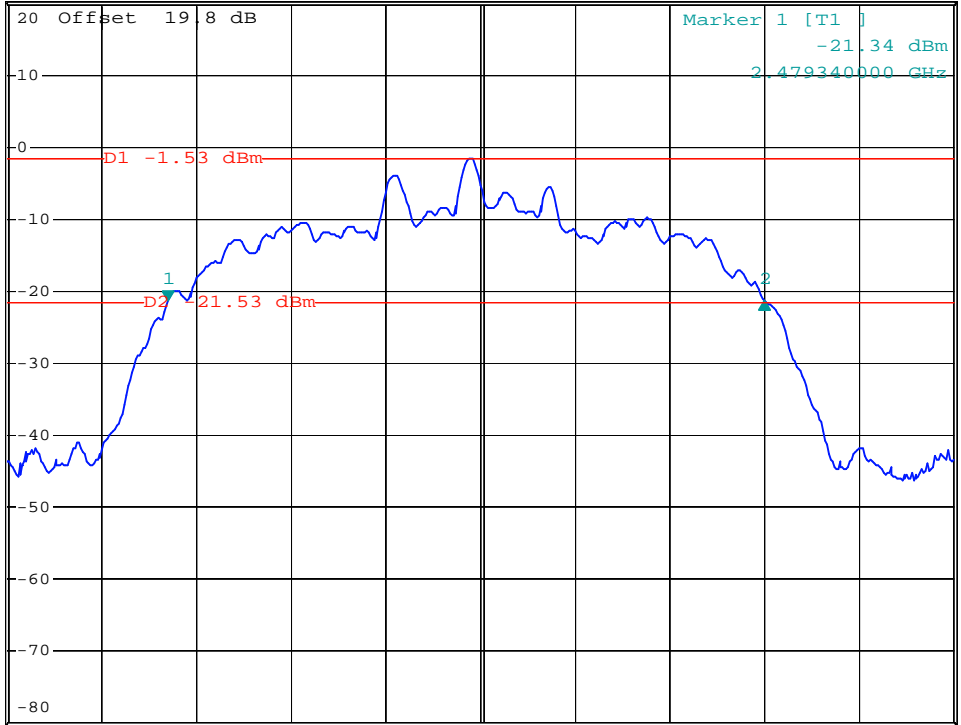


*RBW 30 kHz Delta 2 [T1]
 *VBW 300 kHz -0.09 dB
 *SWT 500 ms 1.260000000 MHz

Ref 20 dBm

*Att 20 dB

1 PK
MAXH



Center 2.48 GHz 200 kHz/ Span 2 MHz

2nd comment ...

Date: 24.JUL.2008 06:51:56

5.6 Dwell Time of Each Frequency

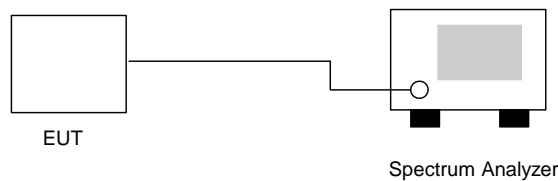
5.6.1 Measuring Instruments

As described in chapter 9 of this test report.

5.6.2 Test Procedure

- a. The transmitter output was connected to the spectrum analyzer by a low loss cable.
- b. Set RBW of spectrum analyzer to 1MHz and VBW to 1MHz.
- c. Set the center frequency on any frequency would be measure and set the frequency span to zero span.
- d. 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 : Bluetooth
- Temperature : 24~25°C
- Relative Humidity : 51~52%
- Test Engineer : C.K.C.

CH39

Package Mode	Average Hopping Channel	Package Transfer Time (us)	Dwell Time (s)	Limit (s)
DH1	9.50	448.00	0.134	0.4
DH3	4.90	1710.00	0.265	0.4
DH5	3.70	3020.00	0.353	0.4

- Application Type : Bluetooth EDR(2Mbps)
- Temperature : 24~25°C
- Relative Humidity : 51~52%
- Test Engineer : C.K.C.

CH39

Package Mode	Average Hopping Channel	Package Transfer Time (us)	Dwell Time (s)	Limit (s)
DH1	9.70	452.00	0.139	0.4
DH3	5.00	1742.00	0.275	0.4
DH5	3.40	3040.00	0.327	0.4

- Application Type : Bluetooth EDR(3Mbps)
- Temperature : 24~25°C
- Relative Humidity : 51~52%
- Test Engineer : C.K.C.

CH39

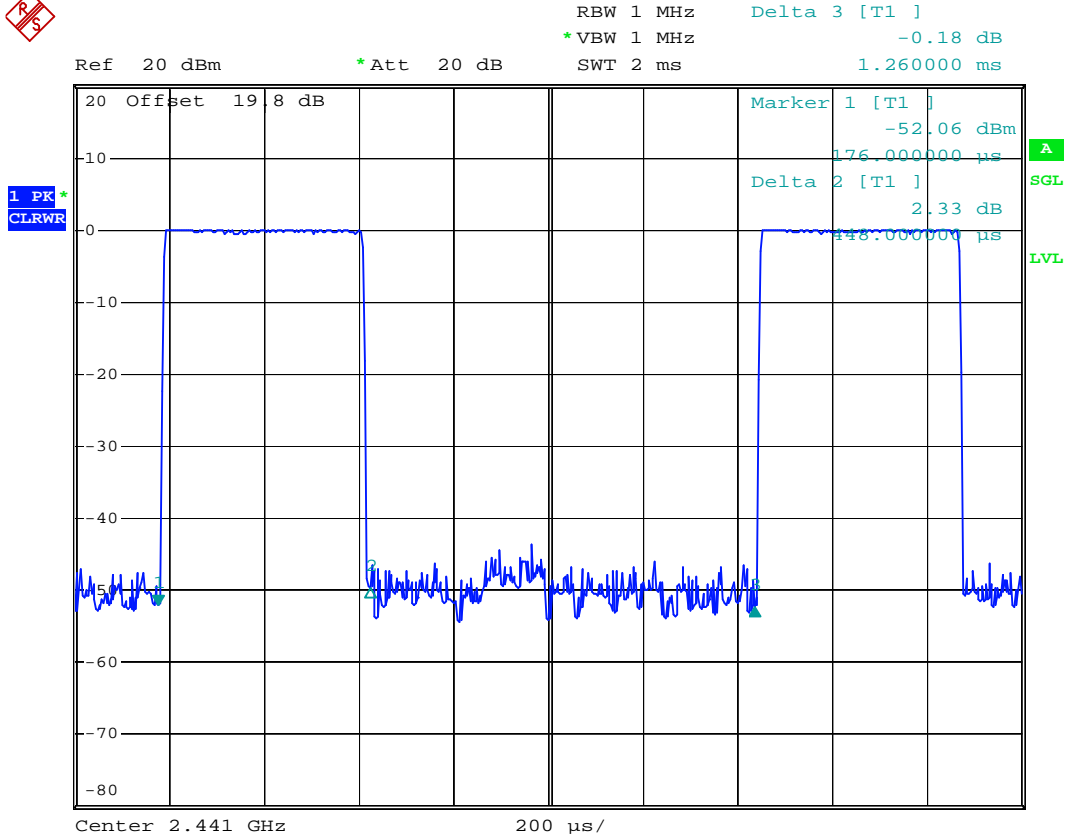
Package Mode	Average Hopping Channel	Package Transfer Time (us)	Dwell Time (s)	Limit (s)
DH1	9.20	460.00	0.134	0.4
DH3	4.80	1720.00	0.261	0.4
DH5	3.90	3040.00	0.375	0.4

※ Remark:

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

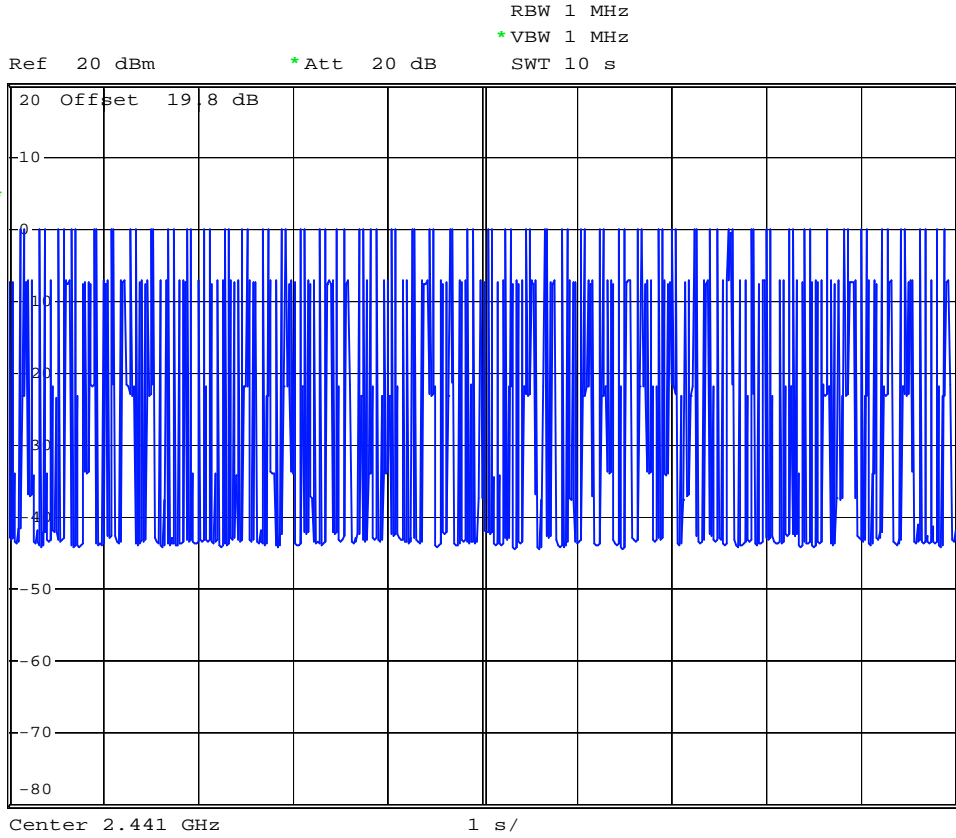
5.6.5 Dwell Time

DH1 (CH39)



2nd comment ...

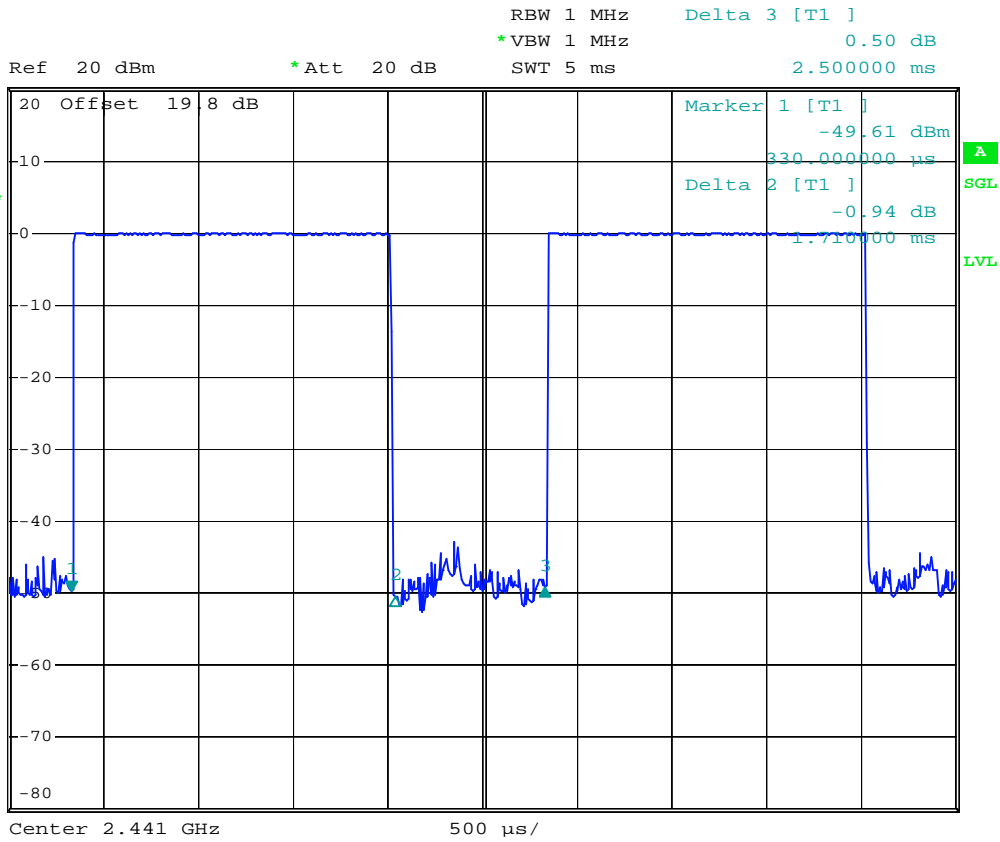
Date: 24.JUL.2008 05:58:31



2nd comment ...

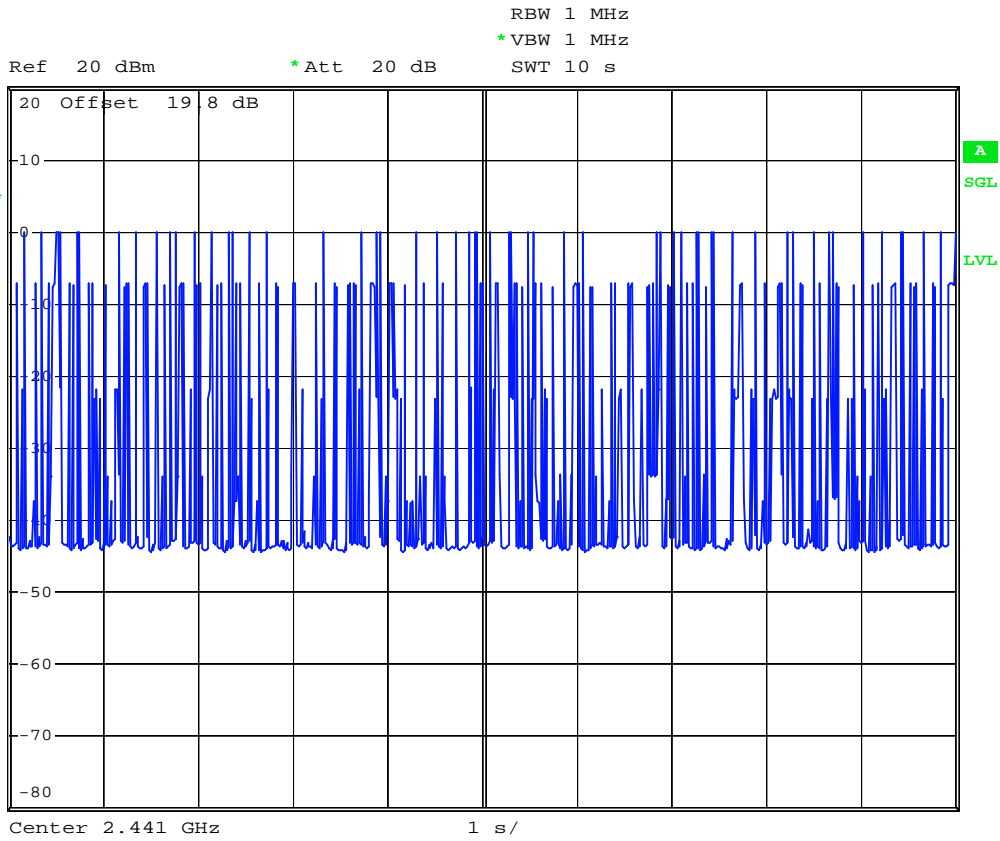
Date: 24.JUL.2008 06:01:44

DH3 (CH39)



2nd comment ...

Date: 24.JUL.2008 05:59:33



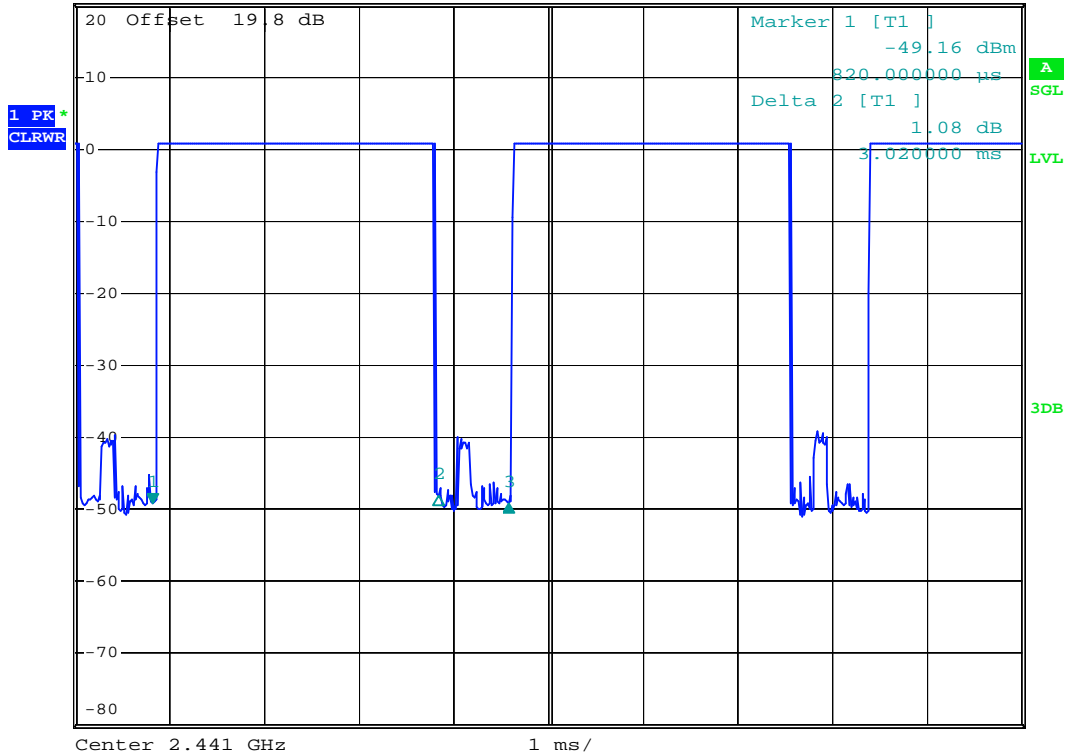
2nd comment ...

Date: 24.JUL.2008 06:02:06

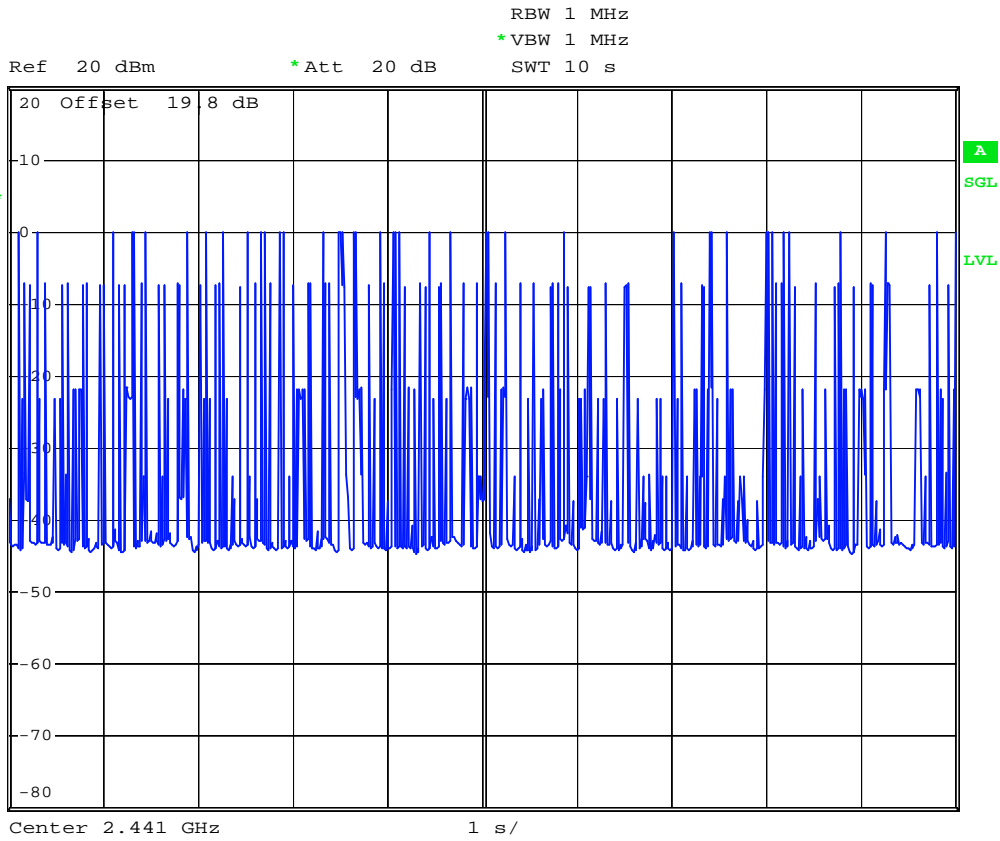
DH5 (CH39)



Ref 20 dBm *Att 20 dB RBW 1 MHz Delta 3 [T1] -0.05 dB
 *VBW 1 MHz SWT 10 ms 3.760000 ms



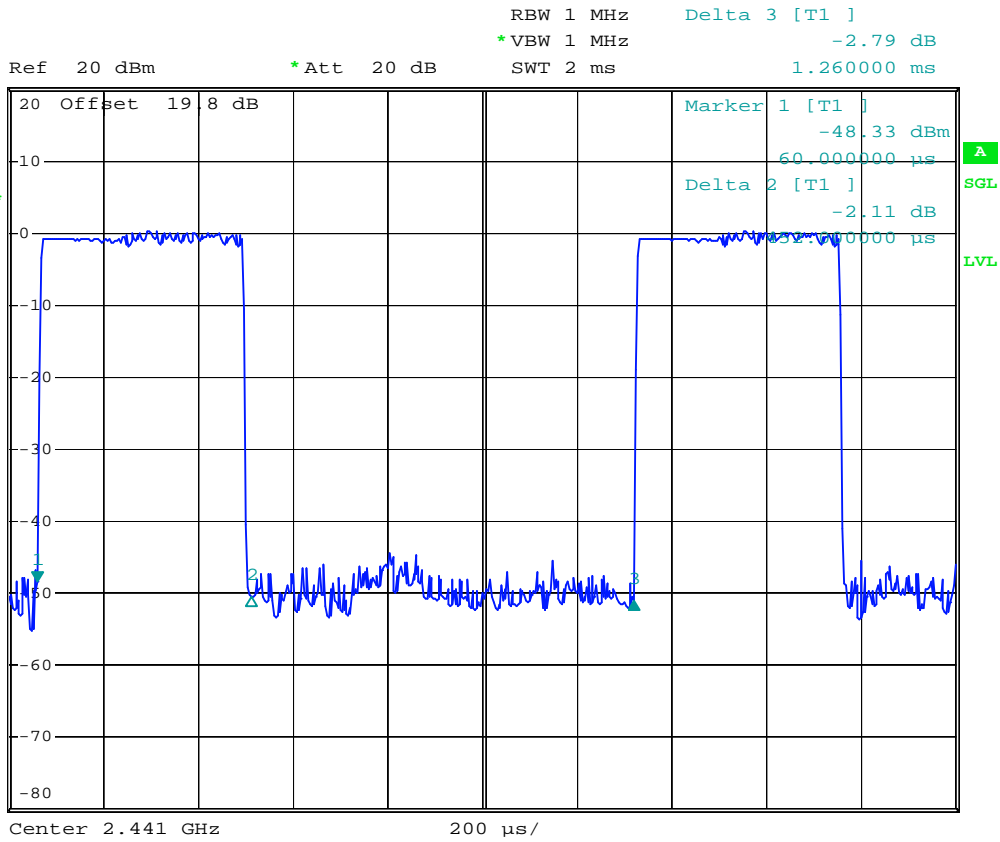
Date: 21.JUL.2008 15:46:21



2nd comment ...

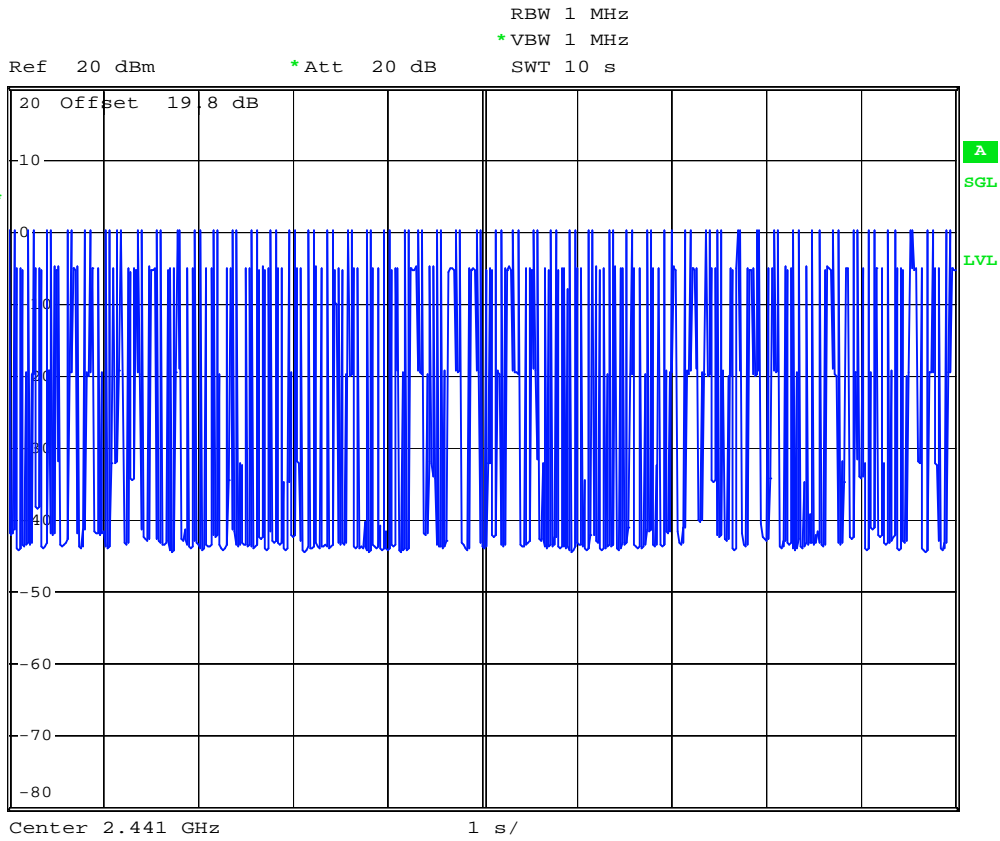
Date: 24.JUL.2008 07:10:24

2DH1 (CH39)



2nd comment ...

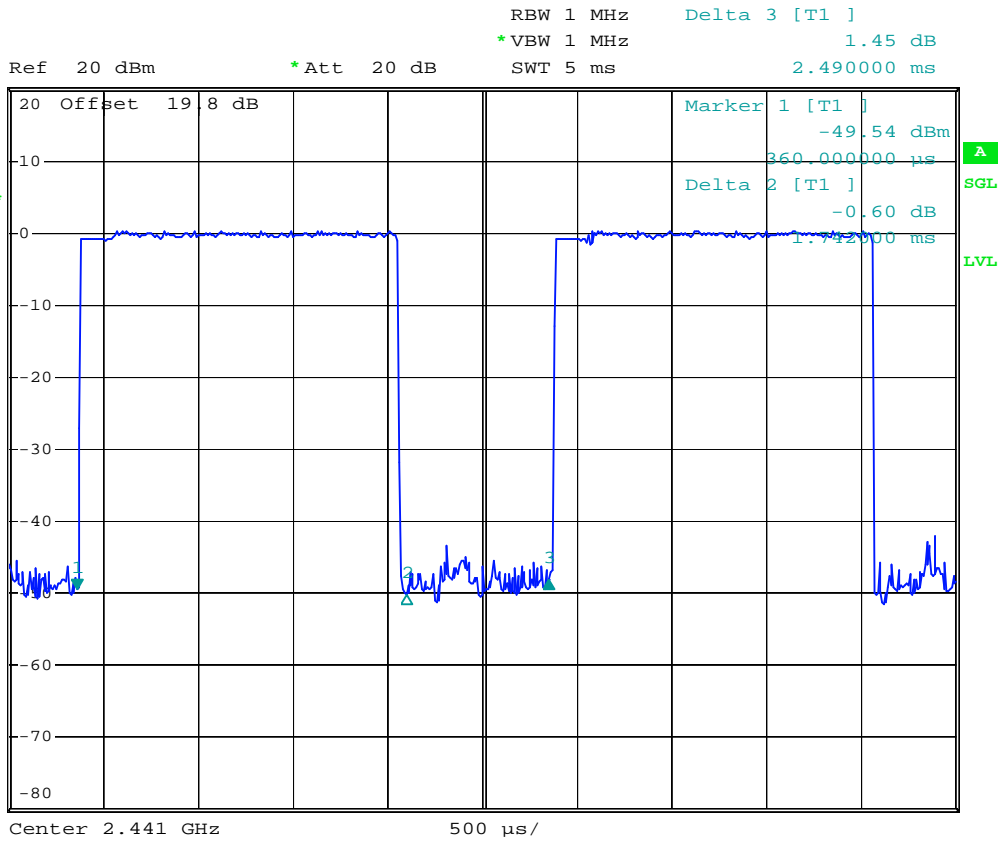
Date: 24.JUL.2008 06:38:29



2nd comment ...

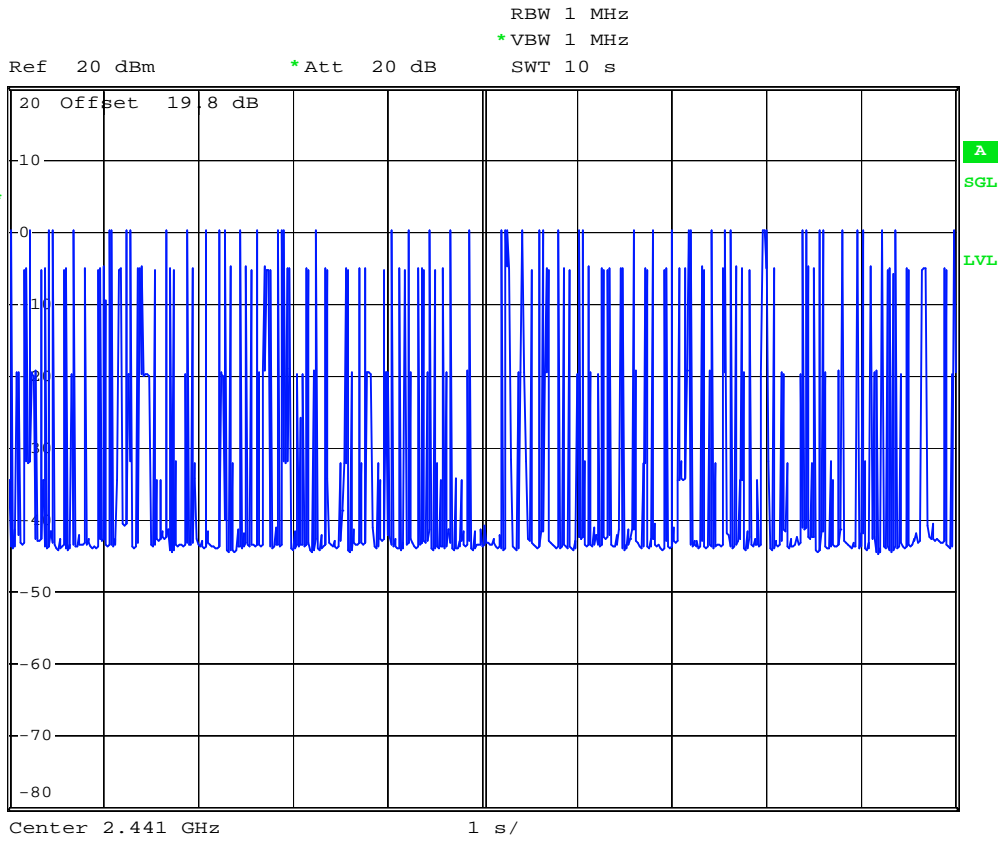
Date: 24.JUL.2008 06:27:53

2 DH3 (CH39)



2nd comment ...

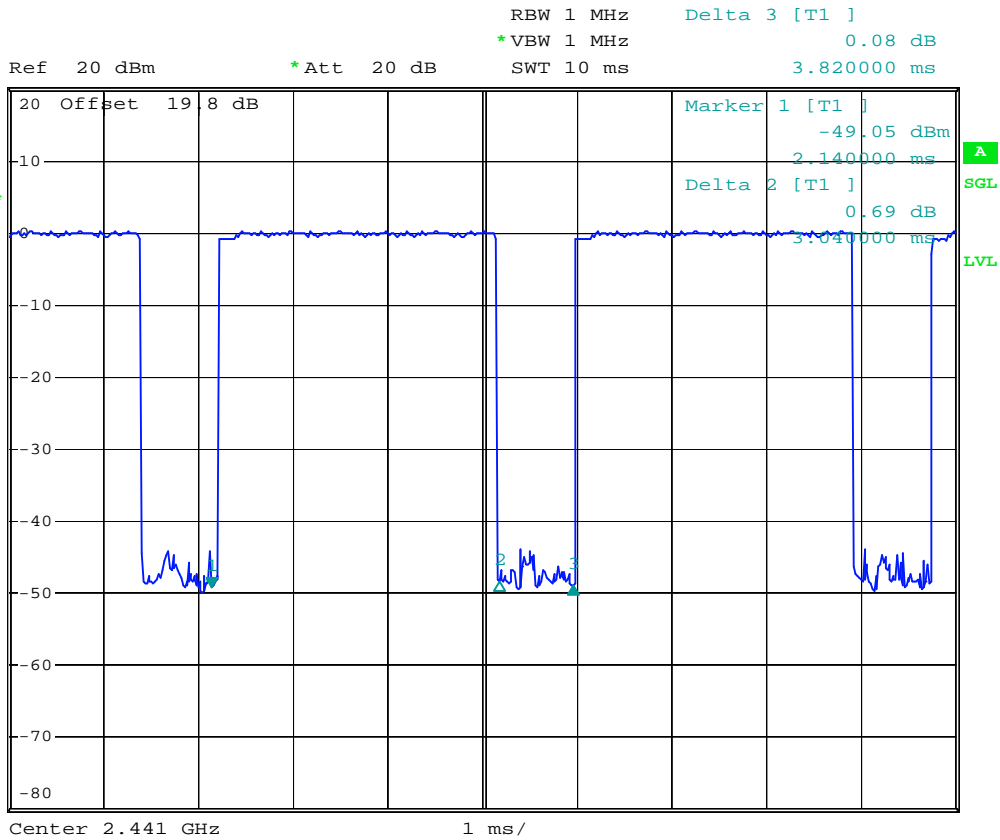
Date: 24.JUL.2008 06:39:07



2nd comment ...

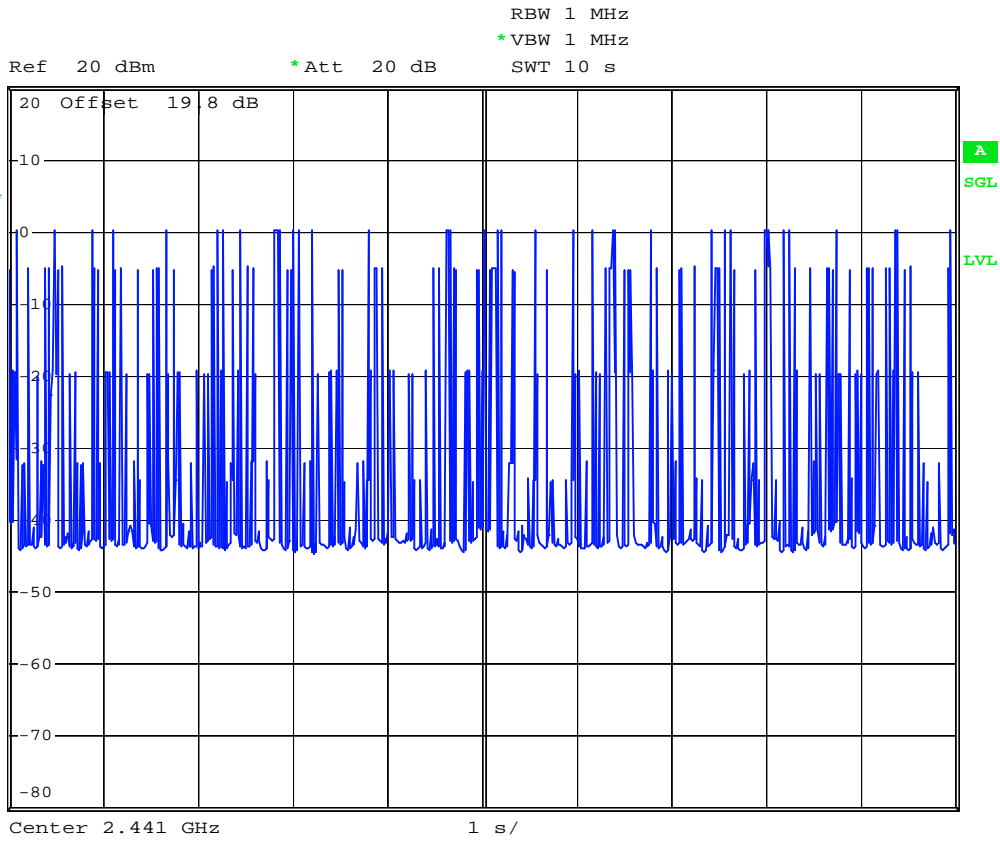
Date: 24.JUL.2008 06:28:15

2 DH5 (CH39)



2nd comment ...

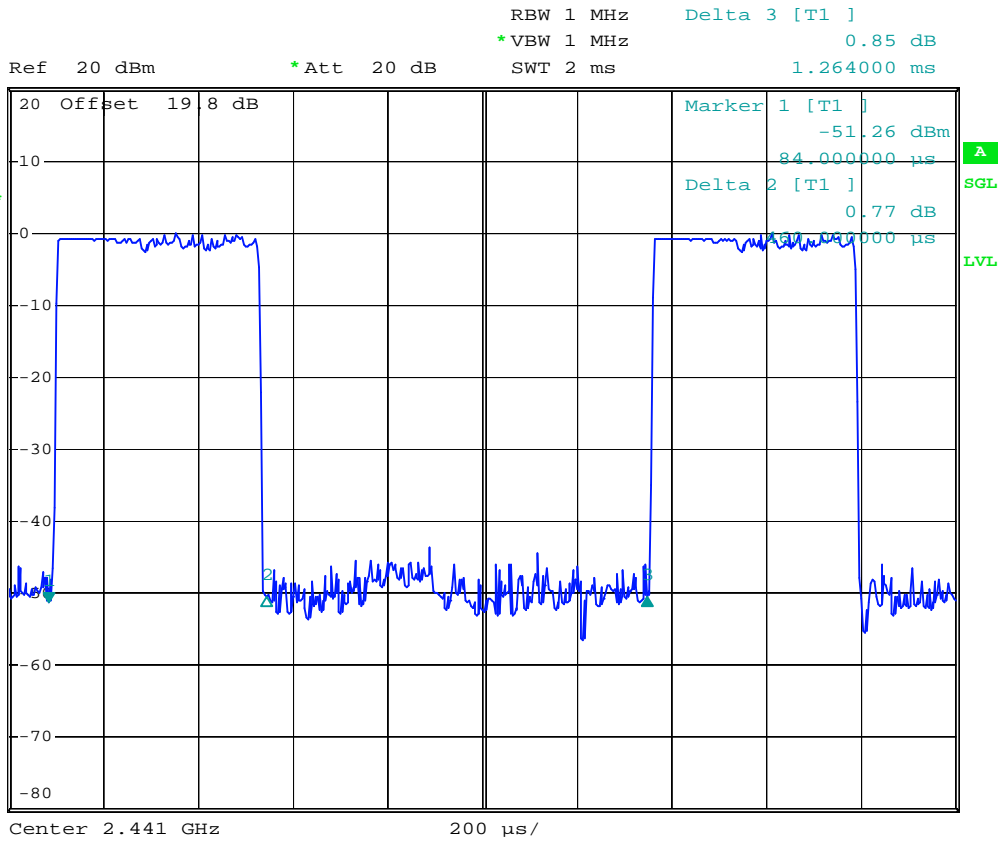
Date: 24.JUL.2008 06:39:43



2nd comment ...

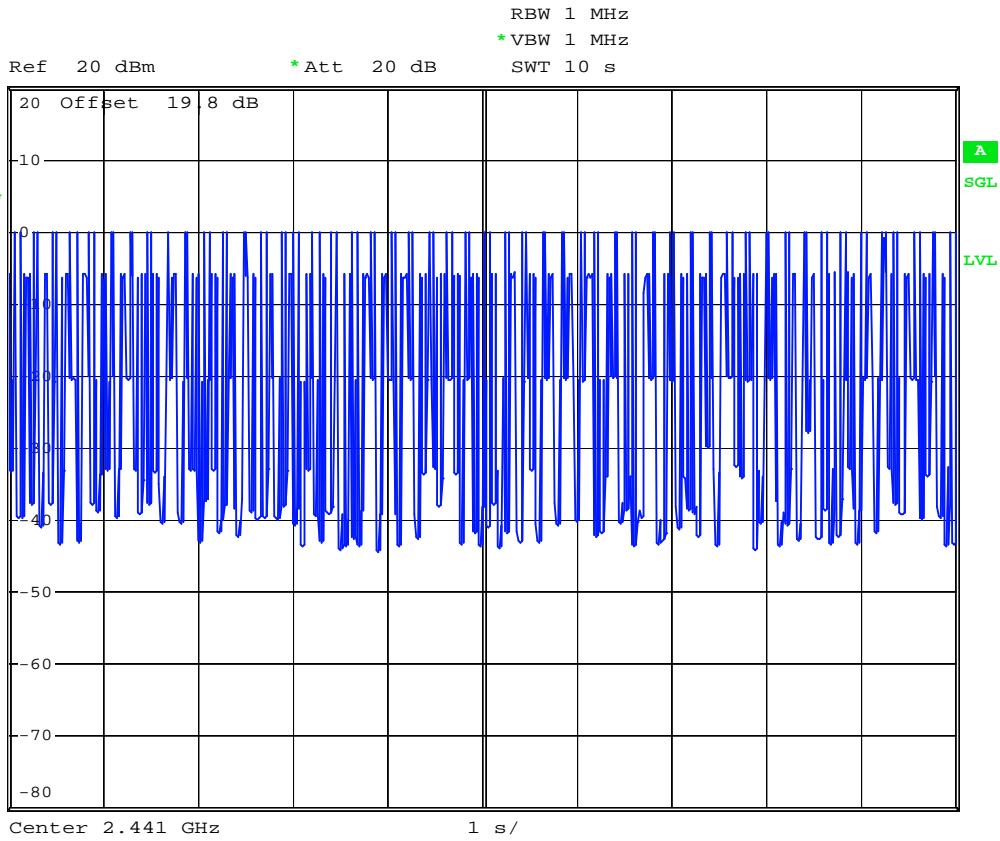
Date: 24.JUL.2008 06:28:35

3DH1 (CH39)



2nd comment ...

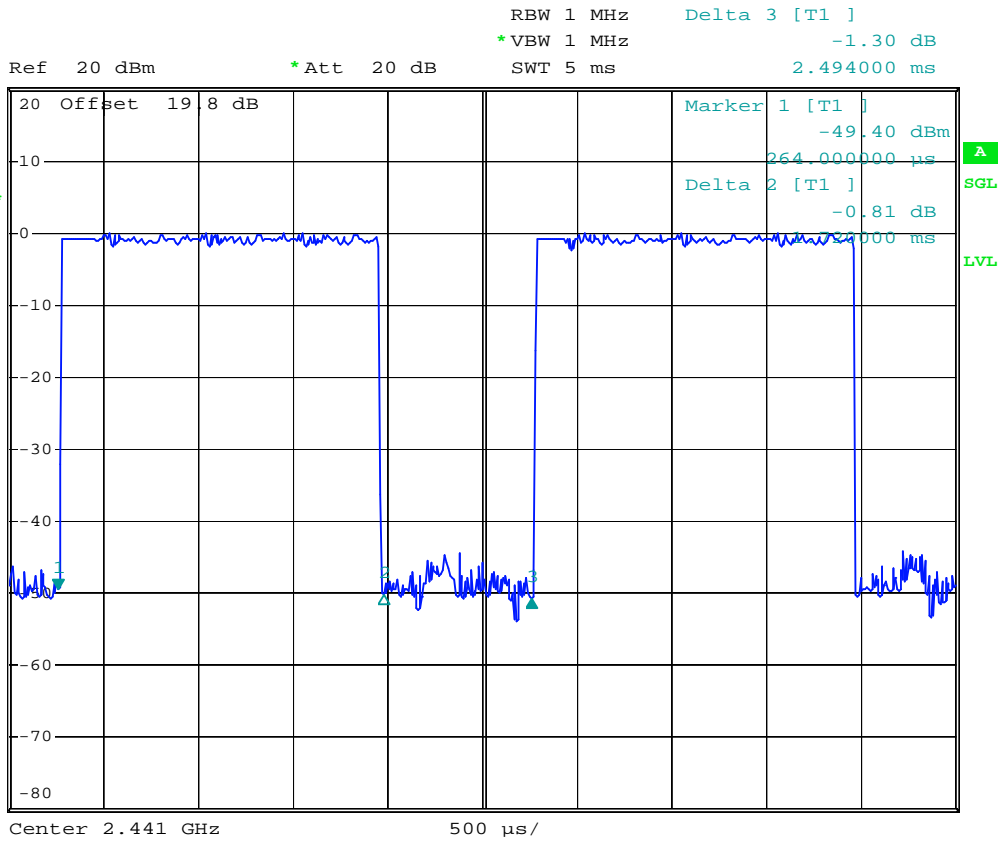
Date: 24.JUL.2008 06:36:47



2nd comment ...

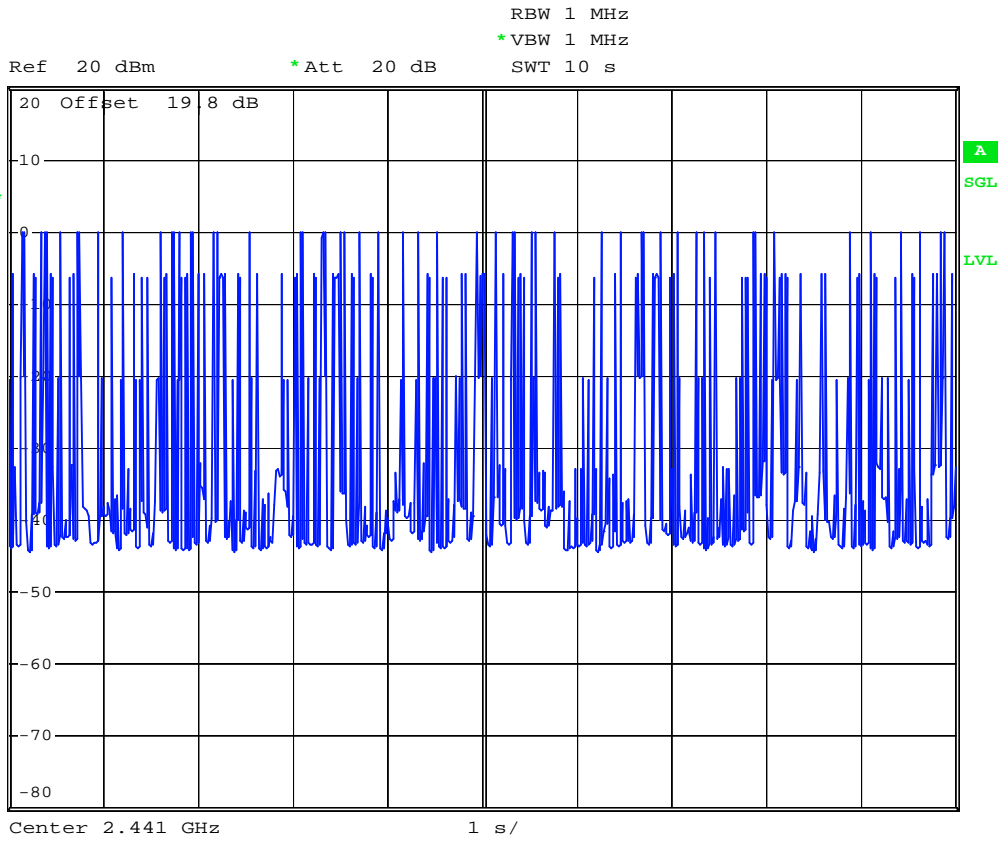
Date: 24.JUL.2008 06:27:04

3DH3 (CH39)



2nd comment ...

Date: 24.JUL.2008 06:37:17



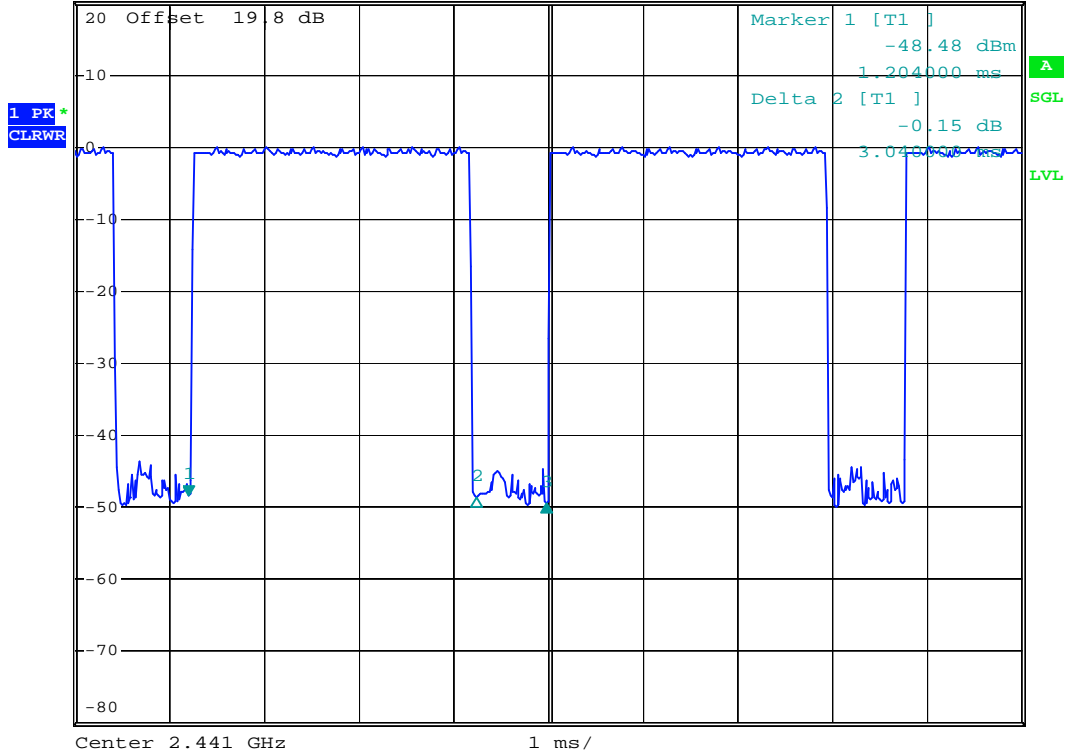
2nd comment ...

Date: 24.JUL.2008 06:26:31

3DH5 (CH39)

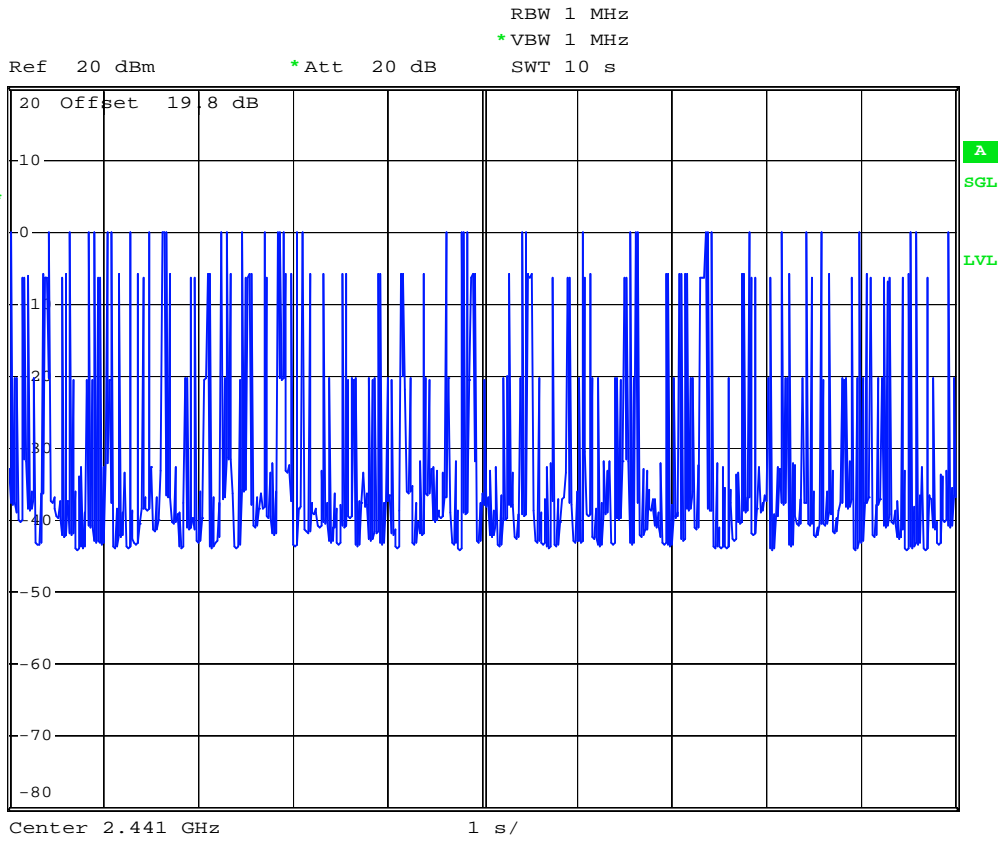


Ref 20 dBm *Att 20 dB RBW 1 MHz Delta 3 [T1] -0.94 dB
 *VBW 1 MHz SWT 10 ms 3.774000 ms



2nd comment ...

Date: 24.JUL.2008 06:37:48



2nd comment ...

Date: 24.JUL.2008 06:27:29

5.7 Peak Output Power Measurement

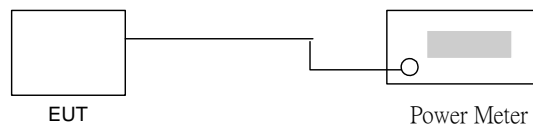
5.7.1 Measuring Instruments

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 Bluetooth 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 : Bluetooth
- Temperature : 24~25°C
- Relative Humidity : 51~52%
- Test Engineer : C.K.C.

▪ Bluetooth(1Mbps)

Channel	Frequency (MHz)	Measured Output Power (dBm)	Limits (Watt/dBm)
00	2402	-0.97	1W/30 dBm
39	2441	-0.09	1W/30 dBm
78	2480	-0.70	1W/30 dBm

▪ Bluetooth EDR(2Mbps)

Channel	Frequency (MHz)	Measured Output Power (dBm)	Limits (Watt/dBm)
00	2402	0.12	1W/30 dBm
39	2441	1.00	1W/30 dBm
78	2480	0.35	1W/30 dBm

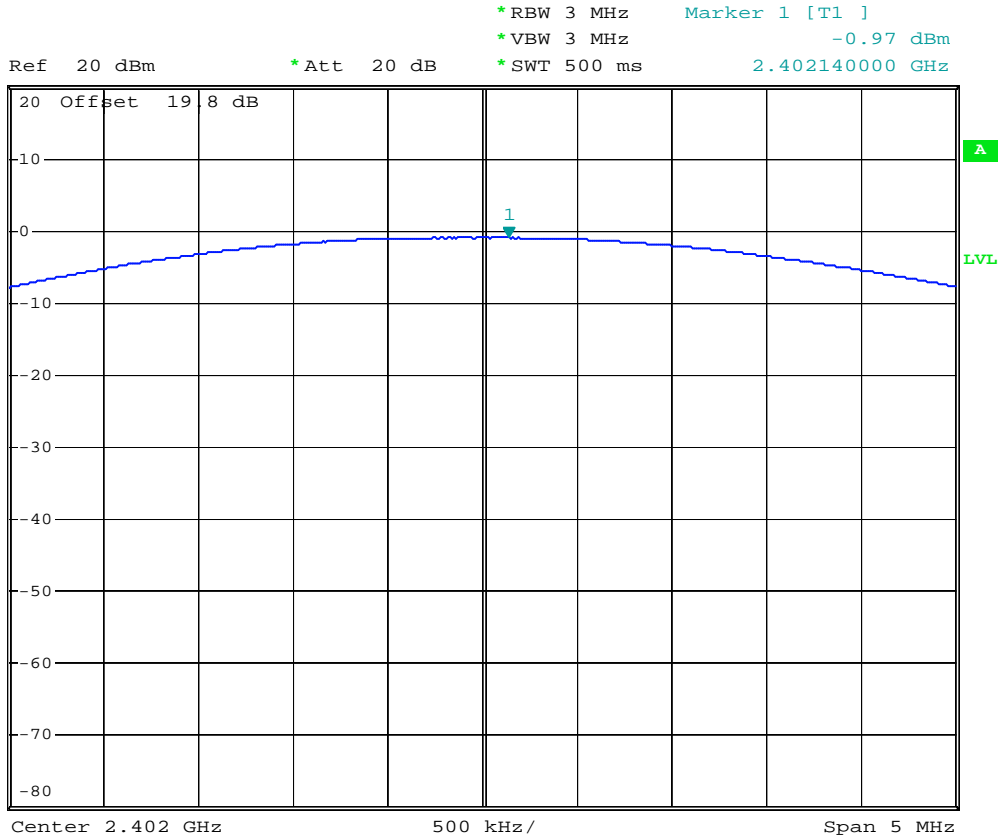
▪ Bluetooth EDR(3Mbps)

Channel	Frequency (MHz)	Measured Output Power (dBm)	Limits (Watt/dBm)
00	2402	-0.28	1W/30 dBm
39	2441	0.61	1W/30 dBm
78	2480	-0.07	1W/30 dBm

5.7.5 Output Power

Bluetooth(1Mbps)

Mode : CH00 (2402MHz)

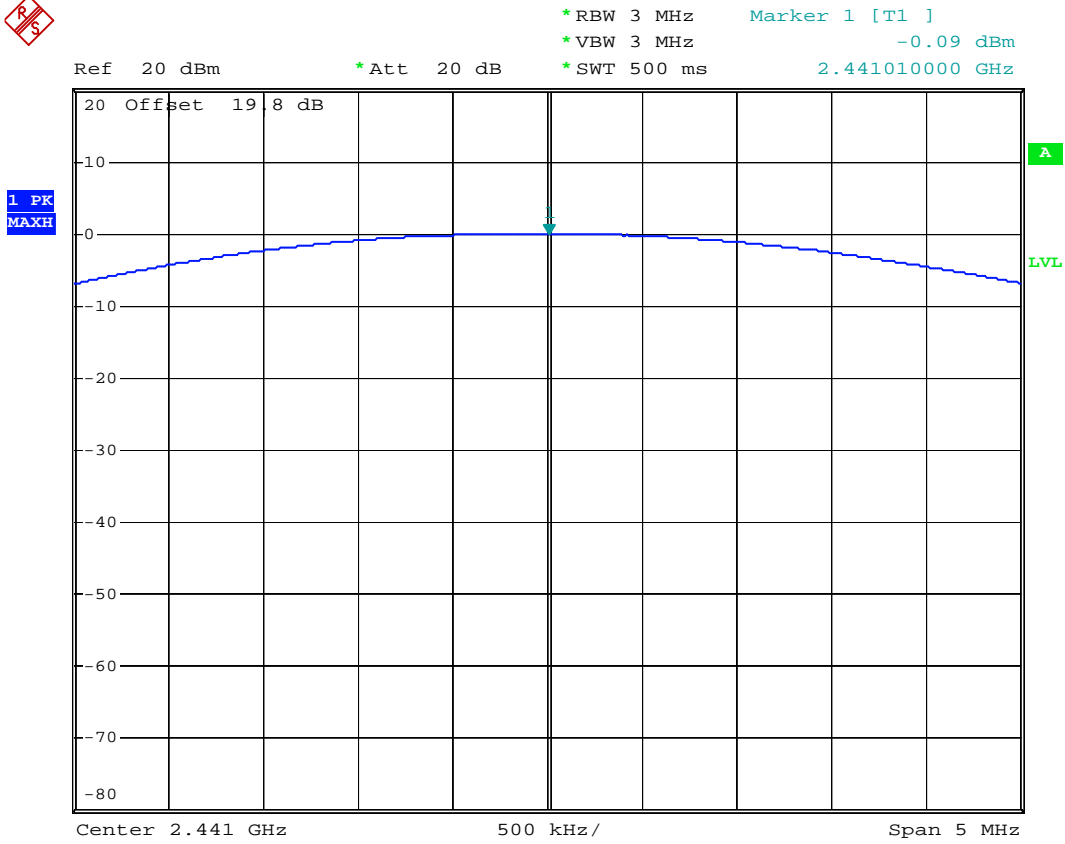


2nd comment ...

Date: 24.JUL.2008 05:32:25

Bluetooth(1Mbps)

Mode : CH39 (2441MHz)



2nd comment ...

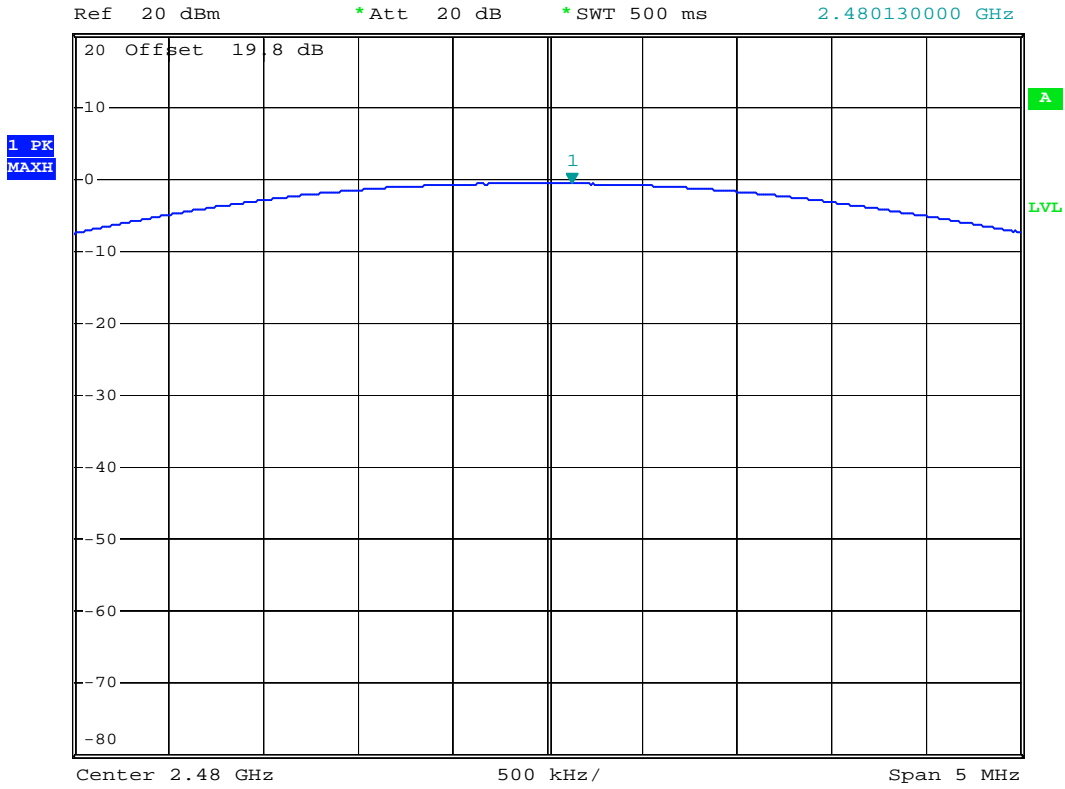
Date: 24.JUL.2008 05:33:05

Bluetooth(1Mbps)

Mode : CH78 (2480MHz)



*RBW 3 MHz Marker 1 [T1]
 *VBW 3 MHz -0.70 dBm
 *SWT 500 ms 2.480130000 GHz



2nd comment ...

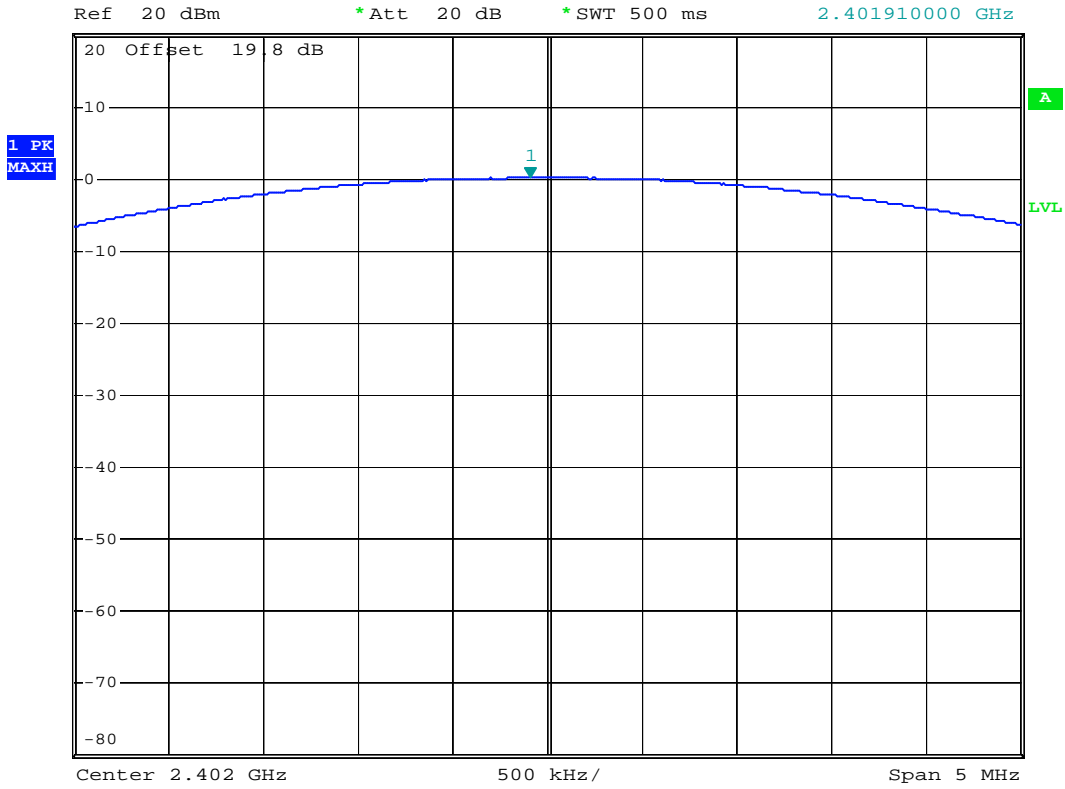
Date: 24.JUL.2008 05:33:18

Bluetooth(2Mbps)

Mode : CH00 (2402MHz)



*RBW 3 MHz Marker 1 [T1]
 *VBW 3 MHz 0.12 dBm
 *SWT 500 ms 2.401910000 GHz



2nd comment ...

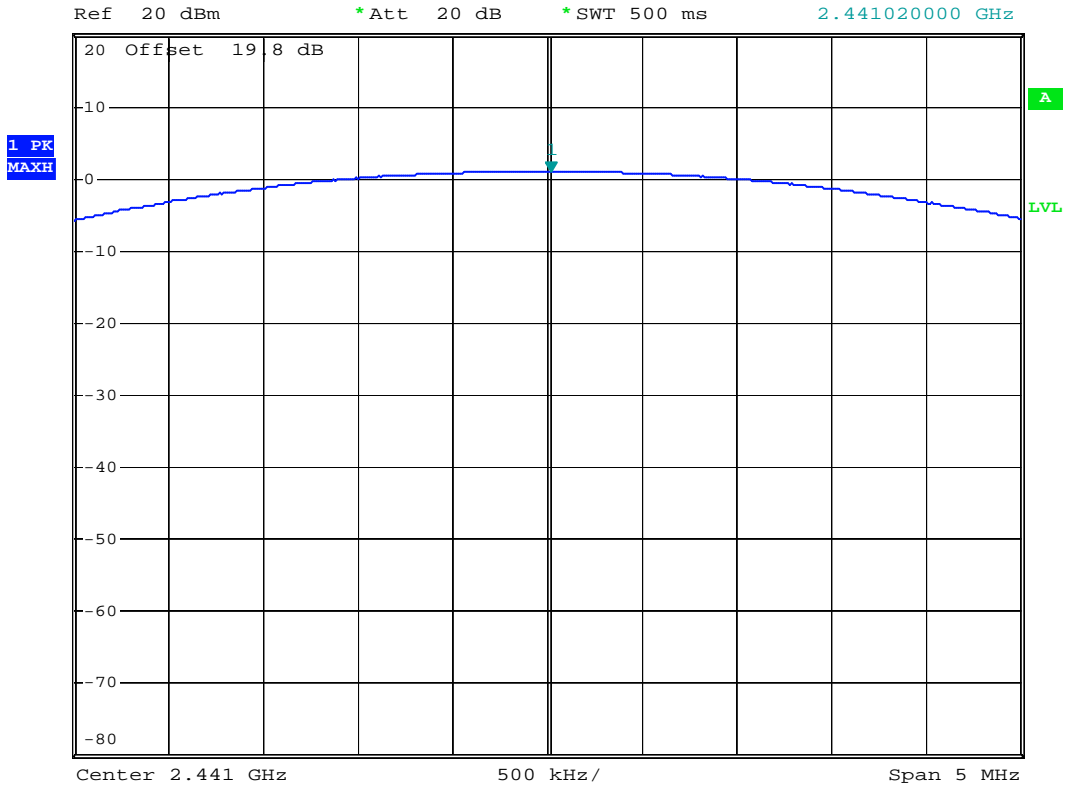
Date: 24.JUL.2008 05:35:20

Bluetooth(2Mbps)

Mode : CH39 (2441MHz)



*RBW 3 MHz Marker 1 [T1]
 *VBW 3 MHz 1.00 dBm
 *SWT 500 ms 2.441020000 GHz

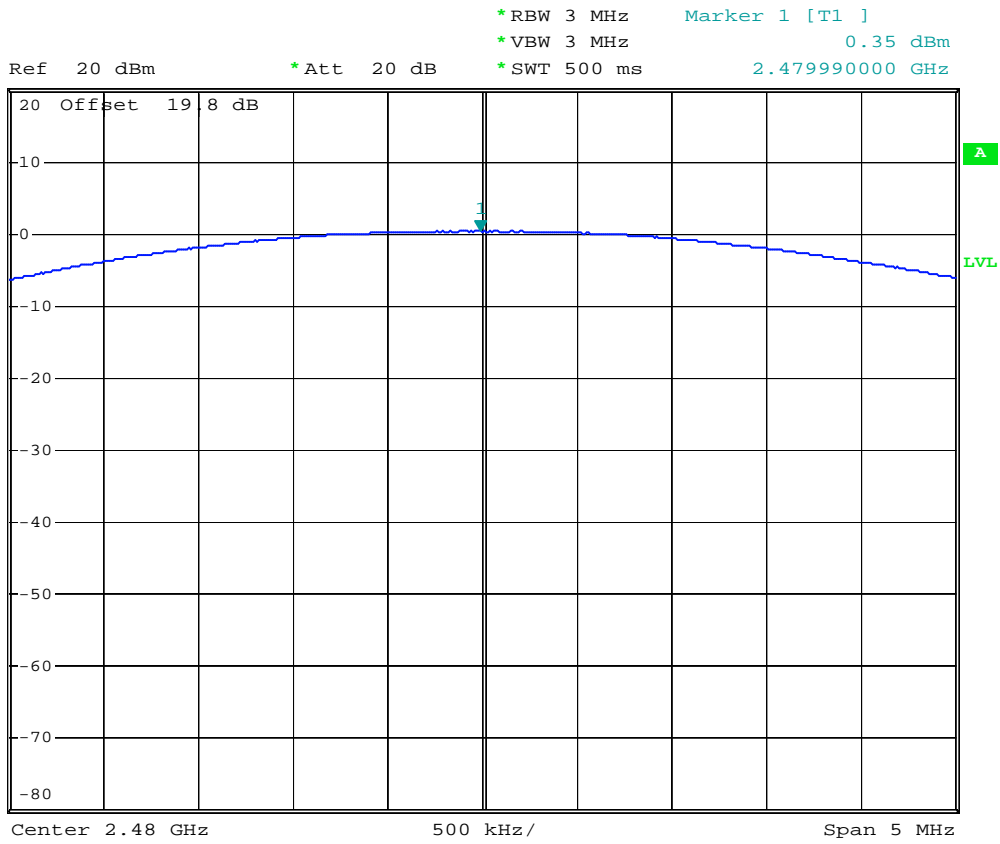


2nd comment ...

Date: 24.JUL.2008 05:35:34

Bluetooth(2Mbps)

Mode : CH78 (2480MHz)



2nd comment ...

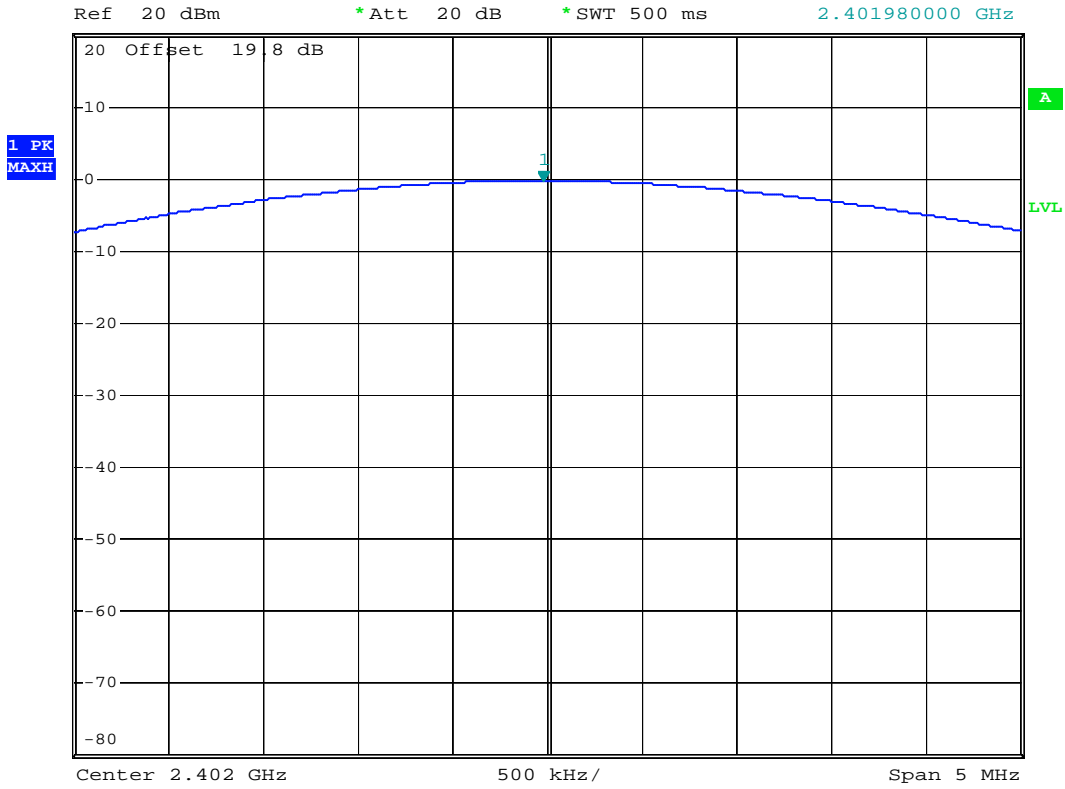
Date: 24.JUL.2008 05:35:48

Bluetooth(3Mbps)

Mode : CH00 (2402MHz)



*RBW 3 MHz Marker 1 [T1]
 *VBW 3 MHz -0.28 dBm
 *SWT 500 ms 2.401980000 GHz



2nd comment ...

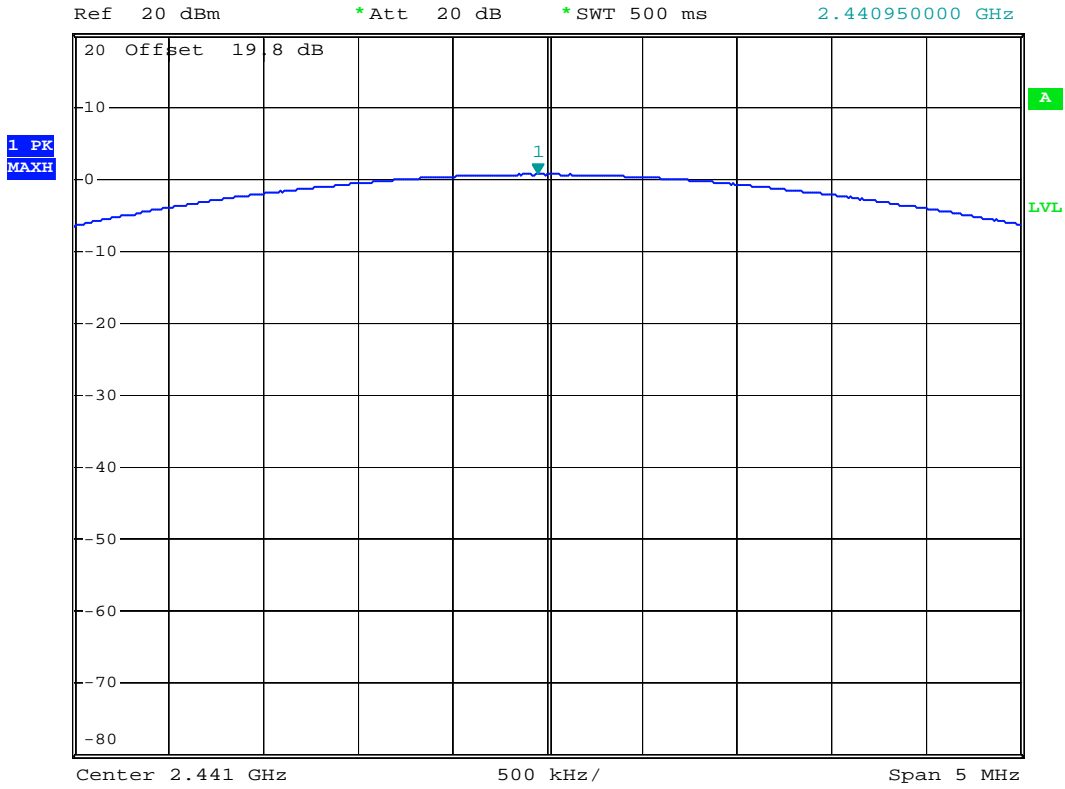
Date: 24.JUL.2008 05:36:59

Bluetooth(3Mbps)

Mode : CH39 (2441MHz)



*RBW 3 MHz Marker 1 [T1]
 *VBW 3 MHz 0.61 dBm
 *SWT 500 ms 2.440950000 GHz

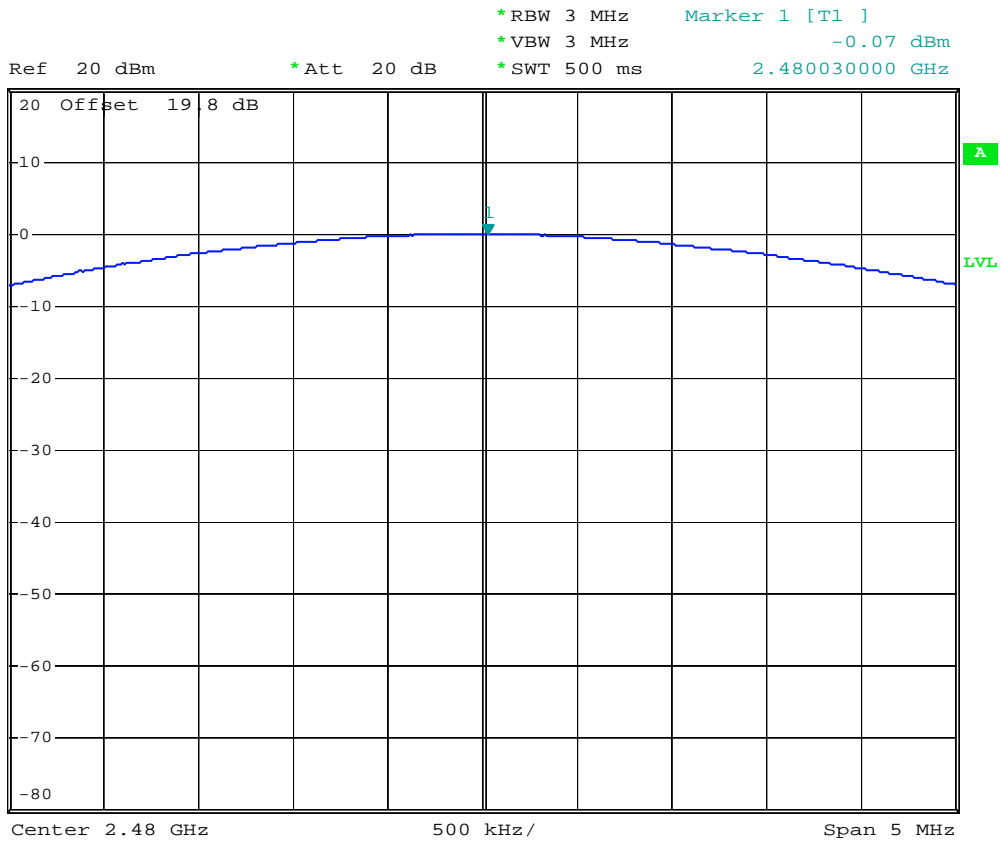


2nd comment ...

Date: 24.JUL.2008 05:37:14

Bluetooth(3Mbps)

Mode : CH78 (2480MHz)



2nd comment ...

Date: 24.JUL.2008 05:37:28

5.8 Conducted Emission

5.8.1 Measuring Instruments

As described in chapter 6 of this test Report.

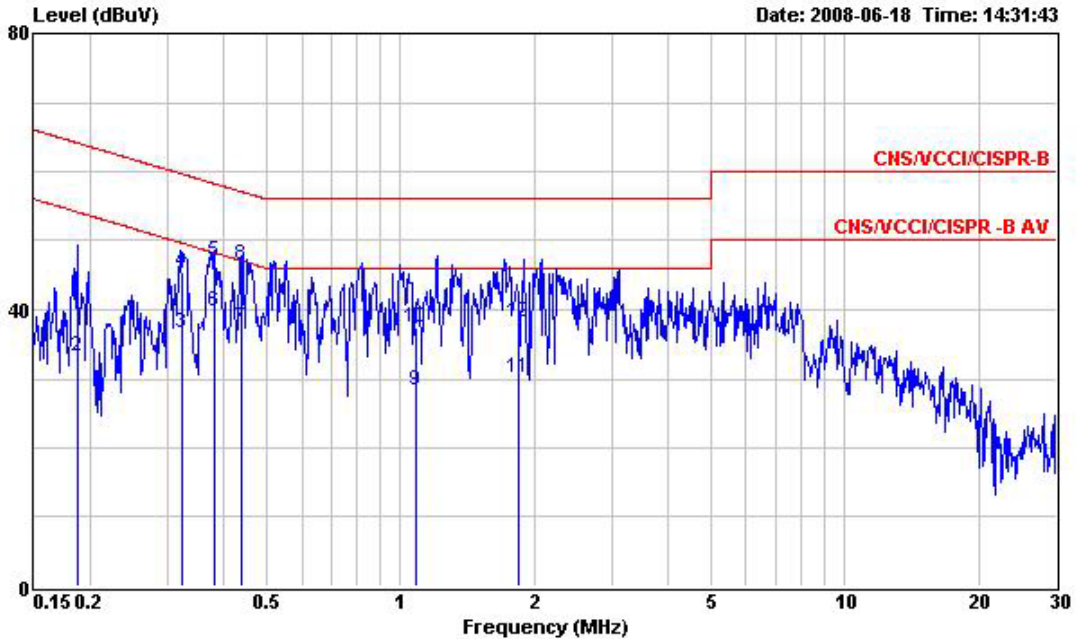
5.8.2 Test Procedures

1. 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.
2. Connect EUT to the power port of a line impedance stabilization network (LISN).
3. All the support units are connected to the other LISN.
4. The LISN provides 50 ohm coupling impedance for the measuring instrument.
5. The FCC states that a 50 ohm, 50 microhenry LISN should be used.
6. Both sides of AC line were checked for maximum conducted interference.
7. The frequency range from 150 KHz to 30 MHz was searched.
8. Set the test-receiver system to Peak Detect Function and specified bandwidth with Maximum Hold Mode.

5.8.3 Test Data

- Test Mode : Mode 1
- Temperature : 24~25°C
- Relative Humidity : 51~52%
- Test Enginner : Darren
- Test Condition : Line

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

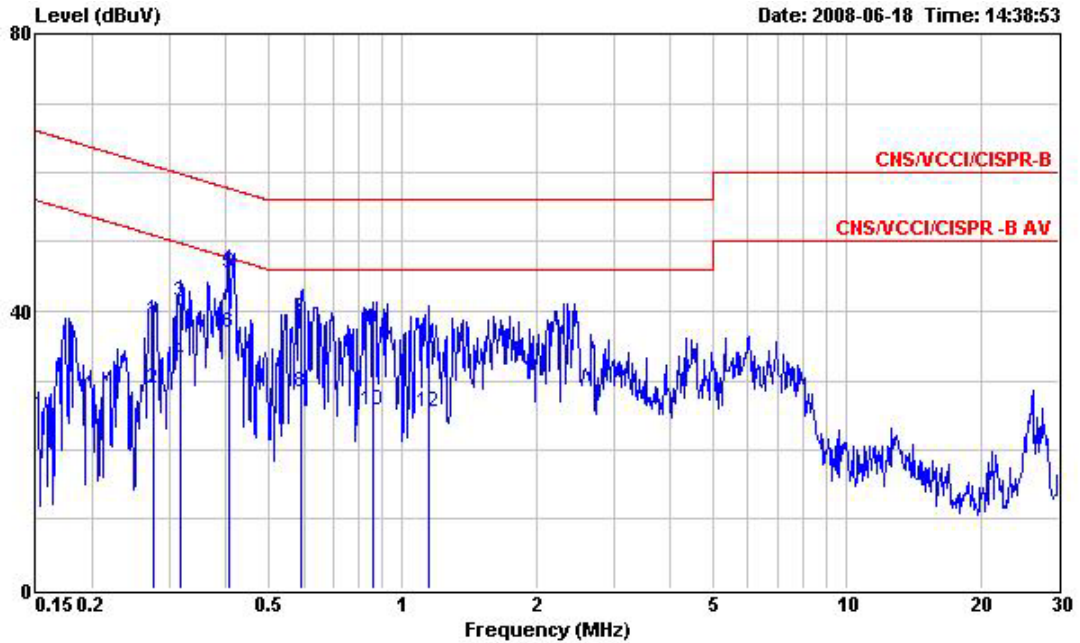


Site : CO01-HY
 Condition : CNS/VCCI/CISPR-B LISN 2001/004 LINE
 EUT : PDA Phone
 Power : 120V/60Hz
 Model : (FR) 830416-03
 Memo : Model
 IMEI : 35835301006778401
 Sample : A

	Freq	Level	Over	Limit	Read	Probe	Cable	
	MHz	dBuV	Limit	Line	Level	Factor	Loss	Remark
			dB	dBuV	dBuV	dB	dB	
1	0.187	42.67	-21.50	64.17	42.56	0.08	0.03	QP
2	0.187	33.21	-20.96	54.17	33.10	0.08	0.03	Average
3	0.323	36.72	-12.91	49.63	36.58	0.09	0.05	Average
4	0.323	45.45	-14.18	59.63	45.31	0.09	0.05	QP
5	0.381	46.90	-11.36	58.26	46.75	0.09	0.06	QP
6	0.381	39.81	-8.45	48.26	39.66	0.09	0.06	Average
7	0.437	37.49	-9.63	47.12	37.34	0.09	0.06	Average
8	0.437	46.44	-10.68	57.12	46.29	0.09	0.06	QP
9	1.084	28.42	-17.58	46.00	28.22	0.12	0.08	Average
10	1.084	37.46	-18.54	56.00	37.26	0.12	0.08	QP
11	1.843	30.07	-15.93	46.00	29.86	0.14	0.07	Average
12	1.843	38.25	-17.75	56.00	38.04	0.14	0.07	QP

• Test Condition: Neutral

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

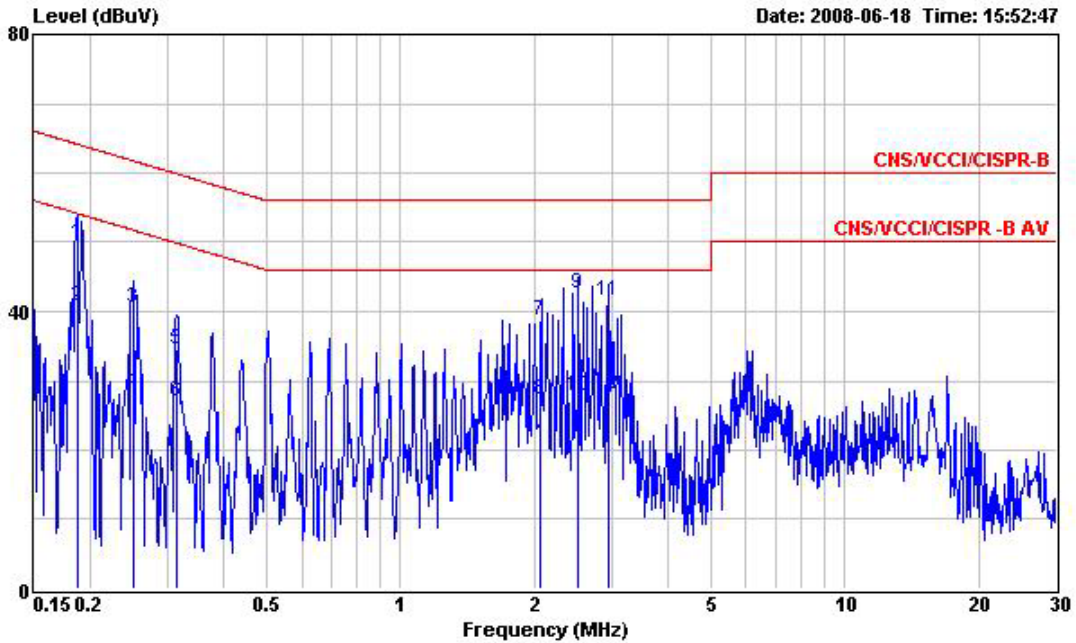


Site : CO01-HY
 Condition : CNS/VCCI/CISPR-B LISN 2001/004 NEUTRAL
 EUT : PDA Phone
 Power : 120V/60Hz
 Model : (FR) 830416-03
 Memo : Model
 IMEI : 35835301006778401
 Sample : A

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.274	38.73	-22.25	60.98	38.62	0.07	0.04	QP
2	0.274	28.92	-22.06	50.98	28.81	0.07	0.04	Average
3	0.315	41.39	-18.45	59.84	41.27	0.07	0.05	QP
4	0.315	32.71	-17.13	49.84	32.59	0.07	0.05	Average
5	0.406	45.43	-12.30	57.73	45.30	0.07	0.06	QP
6	0.406	36.95	-10.78	47.73	36.82	0.07	0.06	Average
7	0.589	39.05	-16.95	56.00	38.90	0.08	0.07	QP
8	0.589	28.39	-17.61	46.00	28.24	0.08	0.07	Average
9	0.861	37.27	-18.73	56.00	37.10	0.09	0.08	QP
10	0.861	25.59	-20.41	46.00	25.42	0.09	0.08	Average
11	1.142	35.45	-20.55	56.00	35.28	0.09	0.08	QP
12	1.142	25.50	-20.50	46.00	25.33	0.09	0.08	Average

- Test Mode : Mode 2
- Temperature : 24~25°C
- Relative Humidity : 51~52%
- Test Condition : Line
- Test Engineer: Darren

■ The test that passed at the minimum margin was marked by a frame in the following data

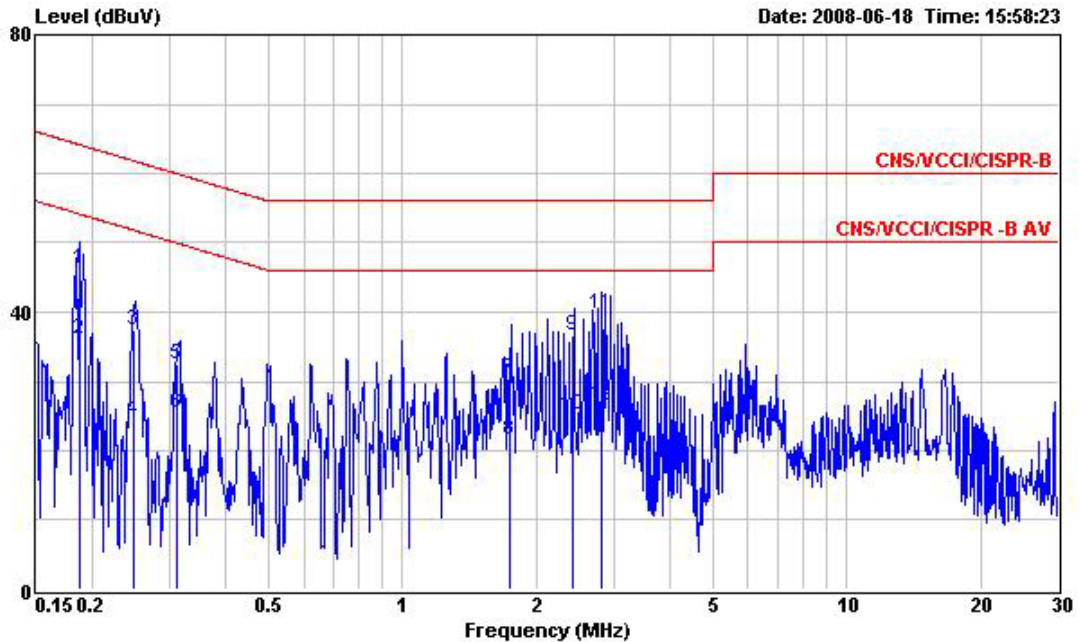


Site : CO01-HY
 Condition : CNS/VCCI/CISPR-B LISN 2001/004 LINE
 EUT : PDA Phone
 Power : 120V/60Hz
 Model : (FR) 830416-03
 Memo : Mode2
 IMEI : 35835301006778401
 Sample : A

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.187	49.91	-14.26	64.17	49.80	0.08	0.03	QP
2	0.187	40.72	-13.45	54.17	40.61	0.08	0.03	Average
3	0.251	40.58	-21.14	61.72	40.47	0.08	0.03	QP
4	0.251	28.42	-23.30	51.72	28.31	0.08	0.03	Average
5	0.313	34.59	-25.30	59.89	34.45	0.09	0.05	QP
6	0.313	27.02	-22.87	49.89	26.88	0.09	0.05	Average
7	2.067	38.58	-17.42	56.00	38.37	0.14	0.07	QP
8	2.067	27.26	-18.74	46.00	27.05	0.14	0.07	Average
9	2.501	42.73	-13.27	56.00	42.49	0.15	0.09	QP
10	2.501	27.67	-18.33	46.00	27.43	0.15	0.09	Average
11	2.936	41.50	-14.50	56.00	41.24	0.16	0.10	QP
12	2.936	28.00	-18.00	46.00	27.74	0.16	0.10	Average

• Test Condition: Neutral

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

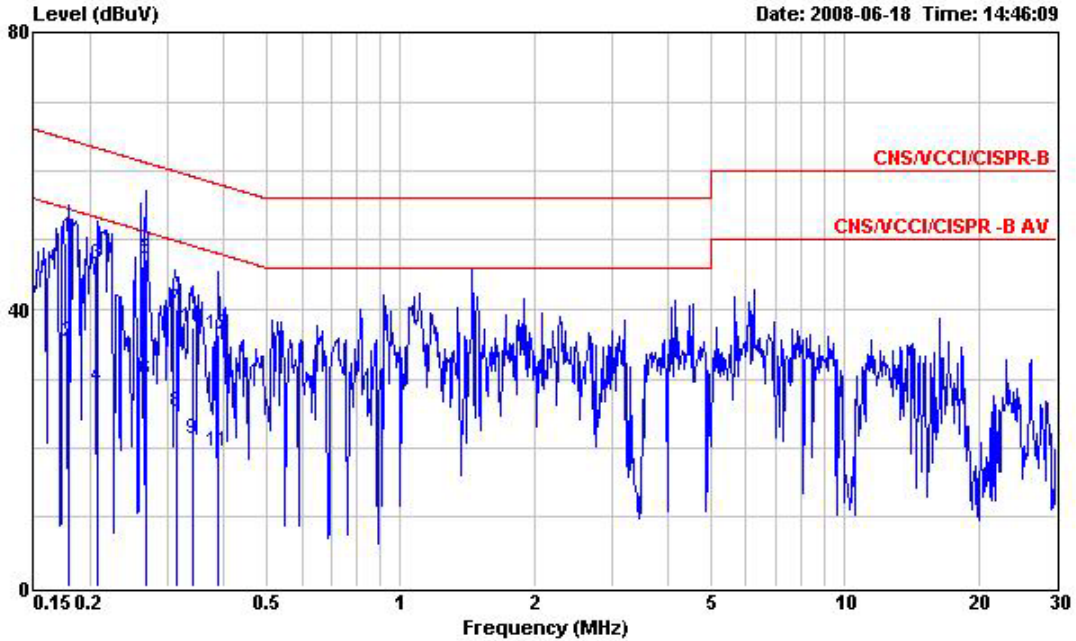


Site : CO01-HY
 Condition : CNS/VCCI/CISPR-B LISN 2001/004 NEUTRAL
 EUT : PDA Phone
 Power : 120V/60Hz
 Model : (FR) 830416-03
 Memo : Mode2
 IMEI : 35835301006778401
 Sample : A

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.187	46.11	-18.06	64.17	46.01	0.07	0.03	QP
2	0.187	36.13	-18.04	54.17	36.03	0.07	0.03	Average
3	0.249	37.51	-24.28	61.79	37.41	0.07	0.03	QP
4	0.249	24.48	-27.31	51.79	24.38	0.07	0.03	Average
5	0.312	32.49	-27.43	59.92	32.37	0.07	0.05	QP
6	0.312	25.58	-24.34	49.92	25.46	0.07	0.05	Average
7	1.748	30.41	-25.59	56.00	30.23	0.11	0.07	QP
8	1.748	21.68	-24.32	46.00	21.50	0.11	0.07	Average
9	2.427	36.55	-19.45	56.00	36.35	0.12	0.08	QP
10	2.427	25.15	-20.85	46.00	24.95	0.12	0.08	Average
11	2.802	39.78	-16.22	56.00	39.56	0.13	0.09	QP
12	2.802	26.51	-19.49	46.00	26.29	0.13	0.09	Average

- Test Mode : Mode 3
- Temperature : 24~25°C
- Relative Humidity : 51~52%
- Test Condition : Line
- Test Engineer: Darren

■ The test that passed at the minimum margin was marked by a frame in the following data

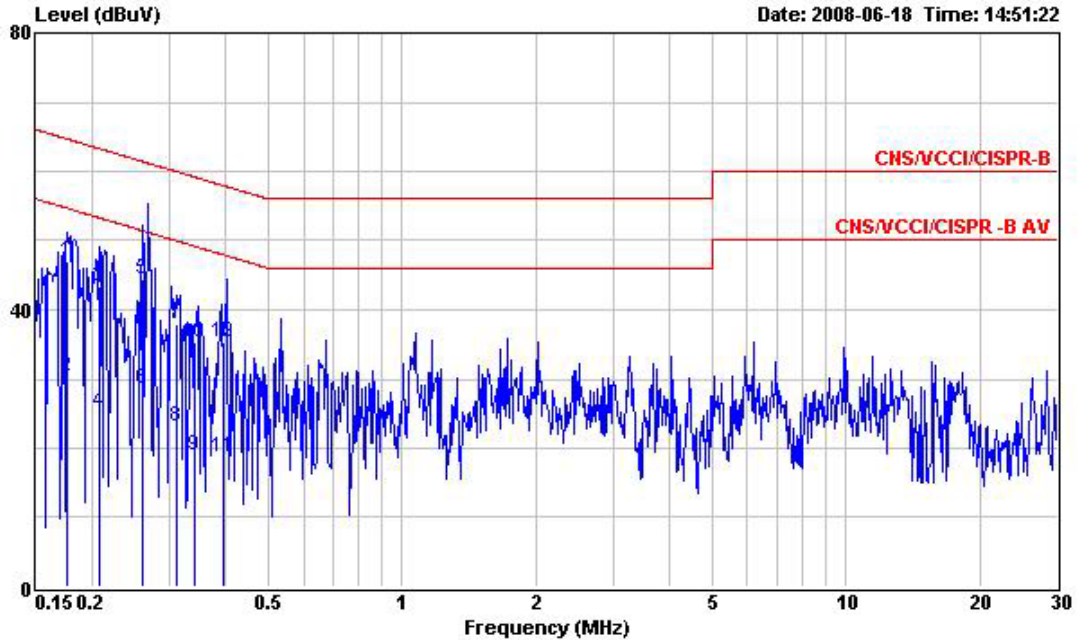


Site : CO01-HY
 Condition : CNS/VCCI/CISPR-B LISN 2001/004 LINE
 EUT : PDA Phone
 Power : 120V/60Hz
 Model : (FR) 830416-03
 Memo : Mode3
 IMEI : 35835301006778401
 Sample : A

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.179	50.28	-14.25	64.53	50.16	0.08	0.04	QP
2	0.179	35.36	-19.17	54.53	35.24	0.08	0.04	Average
3	0.208	46.40	-16.88	63.28	46.30	0.08	0.02	QP
4	0.208	28.75	-24.53	53.28	28.65	0.08	0.02	Average
5	0.267	47.26	-13.95	61.21	47.14	0.08	0.04	QP
6	0.267	29.76	-21.45	51.21	29.64	0.08	0.04	Average
7	0.312	39.90	-20.02	59.92	39.76	0.09	0.05	QP
8	0.312	25.30	-24.62	49.92	25.16	0.09	0.05	Average
9	0.341	21.29	-27.89	49.18	21.15	0.09	0.05	Average
10	0.341	37.53	-21.65	59.18	37.39	0.09	0.05	QP
11	0.389	19.41	-28.68	48.09	19.26	0.09	0.06	Average
12	0.389	36.25	-21.84	58.09	36.10	0.09	0.06	QP

• Test Condition: Neutral

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

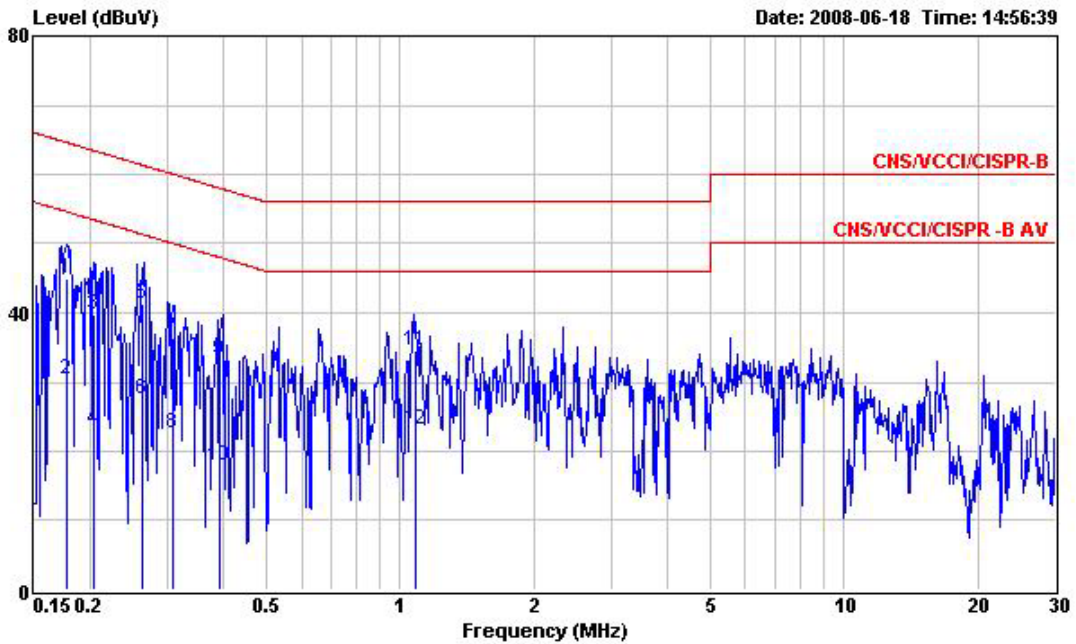


Site : CO01-HY
 Condition : CNS/VCCI/CISPR-B LISN 2001/004 NEUTRAL
 EUT : PDA Phone
 Power : 120V/60Hz
 Model : (FR) 830416-03
 Memo : Mode3
 IMEI : 35835301006778401
 Sample : A

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.176	46.94	-17.73	64.67	46.83	0.07	0.04	QP
2	0.176	30.35	-24.32	54.67	30.24	0.07	0.04	Average
3	0.208	43.34	-19.94	63.28	43.25	0.07	0.02	QP
4	0.208	25.13	-28.15	53.28	25.04	0.07	0.02	Average
5	0.261	44.36	-17.03	61.39	44.25	0.07	0.04	QP
6	0.261	28.67	-22.72	51.39	28.56	0.07	0.04	Average
7	0.310	38.04	-21.92	59.96	37.92	0.07	0.05	QP
8	0.310	23.05	-26.91	49.96	22.93	0.07	0.05	Average
9	0.341	18.89	-30.29	49.18	18.77	0.07	0.05	Average
10	0.341	35.42	-23.76	59.18	35.30	0.07	0.05	QP
11	0.395	18.74	-29.23	47.97	18.61	0.07	0.06	Average
12	0.395	35.36	-22.61	57.97	35.23	0.07	0.06	QP

- Test Mode : Mode 4
- Temperature : 24~25°C
- Relative Humidity : 51~52%
- Test Condition : Line
- Test Engineer: Darren

■ The test that passed at the minimum margin was marked by a frame in the following data

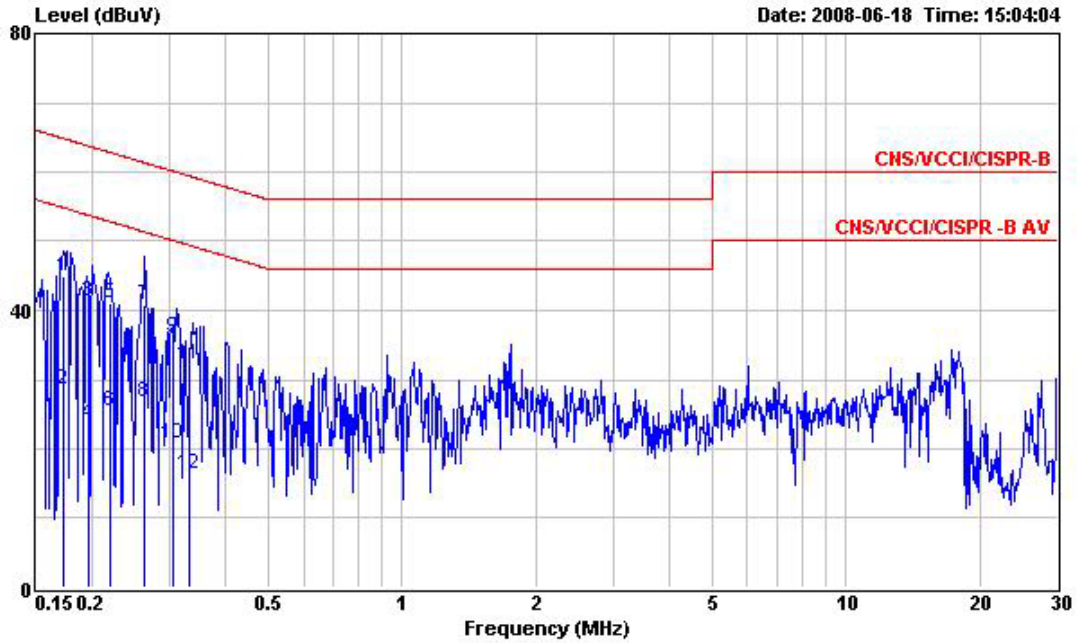


Site : CO01-HY
 Condition : CNS/VCCI/CISPR-B LISN 2001/004 LINE
 EUT : PDA Phone
 Power : 120V/60Hz
 Model : (FR) 830416-03
 Memo : Mode4
 IMEI : 35835301006778401
 Sample : A

	Freq	Level	Over	Limit	Read	Probe	Cable	
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	Remark
1	0.178	45.04	-19.54	64.58	44.92	0.08	0.04	QP
2	0.178	30.44	-24.14	54.58	30.32	0.08	0.04	Average
3	0.204	39.78	-23.67	63.45	39.68	0.08	0.02	QP
4	0.204	23.01	-30.44	53.45	22.91	0.08	0.02	Average
5	0.262	41.20	-20.17	61.37	41.08	0.08	0.04	QP
6	0.262	27.63	-23.74	51.37	27.51	0.08	0.04	Average
7	0.307	36.47	-23.59	60.06	36.34	0.09	0.04	QP
8	0.307	22.60	-27.46	50.06	22.47	0.09	0.04	Average
9	0.393	33.28	-24.73	58.01	33.13	0.09	0.06	QP
10	0.393	17.84	-30.17	48.01	17.69	0.09	0.06	Average
11	1.080	34.51	-21.49	56.00	34.31	0.12	0.08	QP
12	1.080	23.09	-22.91	46.00	22.89	0.12	0.08	Average

• Test Condition: Neutral

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

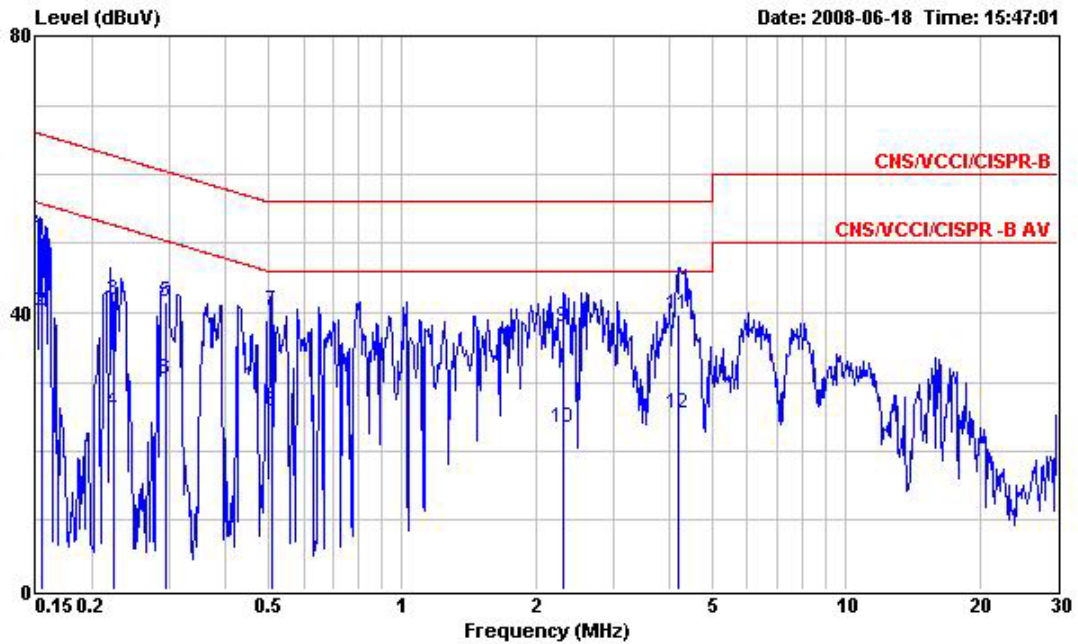


Site : CO01-HY
 Condition : CNS/VCCI/CISPR-B LISN 2001/004 NEUTRAL
 EUT : PDA Phone
 Power : 120V/60Hz
 Model : (FR) 830416-03
 Memo : Mode4
 IMEI : 35835301006778401
 Sample : A

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.173	44.87	-19.95	64.82	44.76	0.07	0.04	QP
2	0.173	28.47	-26.35	54.82	28.36	0.07	0.04	Average
3	0.197	41.18	-22.55	63.73	41.09	0.07	0.02	QP
4	0.197	23.54	-30.19	53.73	23.45	0.07	0.02	Average
5	0.220	41.16	-21.65	62.81	41.06	0.07	0.03	QP
6	0.220	25.43	-27.38	52.81	25.33	0.07	0.03	Average
7	0.264	40.76	-20.56	61.32	40.65	0.07	0.04	QP
8	0.264	26.79	-24.53	51.32	26.68	0.07	0.04	Average
9	0.305	36.02	-24.08	60.10	35.91	0.07	0.04	QP
10	0.305	20.73	-29.37	50.10	20.62	0.07	0.04	Average
11	0.332	32.28	-27.13	59.41	32.16	0.07	0.05	QP
12	0.332	16.25	-33.16	49.41	16.13	0.07	0.05	Average

- Test Mode : Mode 5
- Temperature : 24~25°C
- Relative Humidity : 51~52%
- Test Condition : Line
- Test Engineer: Darren

■ The test that passed at the minimum margin was marked by a frame in the following data

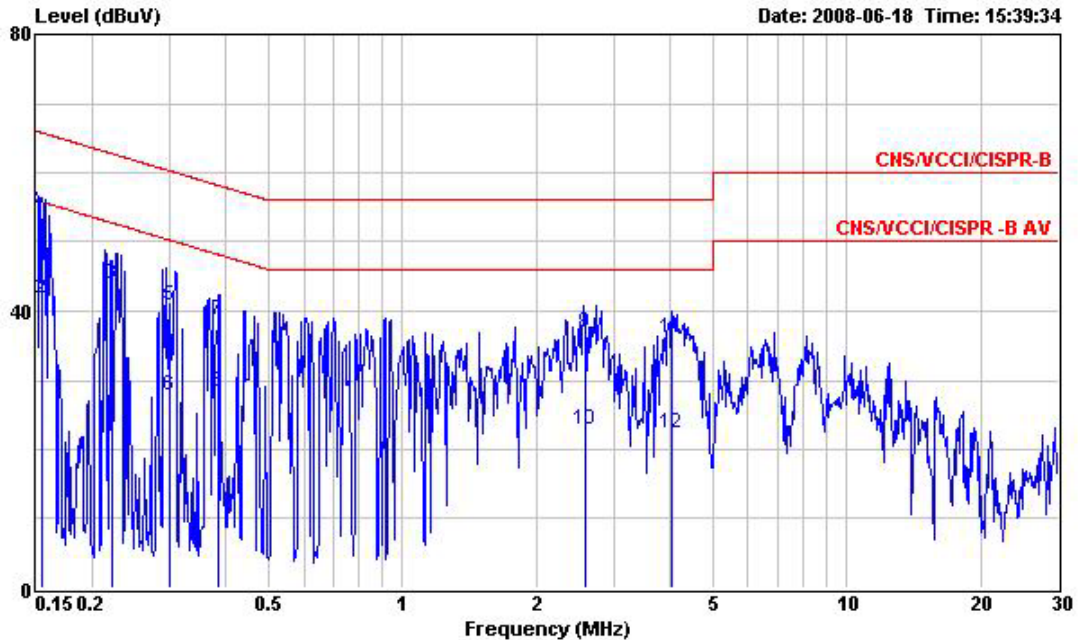


Site : CO01-HY
 Condition : CNS/VCCI/CISPR-B LISN 2001/004 LINE
 EUT : PDA Phone
 Power : 120V/60Hz
 Model : (FR) 830416-03
 Memo : Mode5
 IMEI : 35835301006778401
 Sample : A

	Freq	Level	Over	Limit	Read	Probe	Cable	
	MHz	dBuV	Limit	Line	Level	Factor	Loss	Remark
			dB	dBuV	dBuV	dB	dB	
1	0.154	50.98	-14.80	65.78	50.84	0.08	0.06	QP
2	0.154	40.29	-15.49	55.78	40.15	0.08	0.06	Average
3	0.224	41.80	-20.87	62.67	41.69	0.08	0.03	QP
4	0.224	25.82	-26.85	52.67	25.71	0.08	0.03	Average
5	0.293	41.59	-18.86	60.45	41.46	0.09	0.04	QP
6	0.293	30.29	-20.16	50.45	30.16	0.09	0.04	Average
7	0.508	40.38	-15.62	56.00	40.21	0.10	0.07	QP
8	0.508	25.59	-20.41	46.00	25.42	0.10	0.07	Average
9	2.310	37.81	-18.19	56.00	37.58	0.15	0.08	QP
10	2.310	23.43	-22.57	46.00	23.20	0.15	0.08	Average
11	4.200	39.71	-16.29	56.00	39.41	0.18	0.12	QP
12	4.200	25.35	-20.65	46.00	25.05	0.18	0.12	Average

• Test Condition: Neutral

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

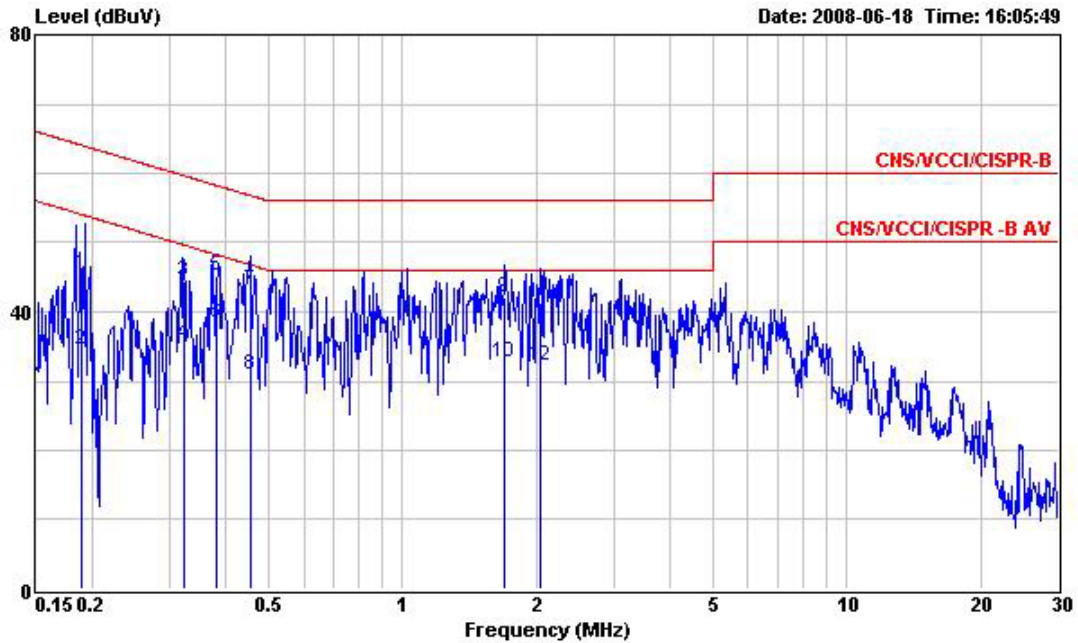


Site : CO01-HY
 Condition : CNS/VCCI/CISPR-B LISN 2001/004 NEUTRAL
 EUT : PDA Phone
 Power : 120V/60Hz
 Model : (FR) 830416-03
 Memo : Mode5
 IMEI : 35835301006778401
 Sample : A

	Freq	Level	Over	Limit	Read	Probe	Cable	
	MHz	dBuV	Limit	Line	Level	Factor	Loss	Remark
			dB	dBuV	dBuV	dB	dB	
1	0.154	53.42	-12.36	65.78	53.28	0.08	0.06	QP
2	0.154	41.71	-14.07	55.78	41.57	0.08	0.06	Average
3	0.222	43.79	-18.96	62.75	43.69	0.07	0.03	QP
4	0.222	24.79	-27.96	52.75	24.69	0.07	0.03	Average
5	0.301	40.89	-19.34	60.23	40.78	0.07	0.04	QP
6	0.301	27.80	-22.43	50.23	27.69	0.07	0.04	Average
7	0.385	38.82	-19.35	58.17	38.69	0.07	0.06	QP
8	0.385	28.26	-19.91	48.17	28.13	0.07	0.06	Average
9	2.570	36.83	-19.17	56.00	36.62	0.12	0.09	QP
10	2.570	22.83	-23.17	46.00	22.62	0.12	0.09	Average
11	4.050	36.19	-19.81	56.00	35.92	0.15	0.12	QP
12	4.050	22.43	-23.57	46.00	22.16	0.15	0.12	Average

- Test Mode : Mode 6
- Temperature : 24~25°C
- Relative Humidity : 51~52%
- Test Condition : Line
- Test Engineer: Darren

■ The test that passed at the minimum margin was marked by a frame in the following data

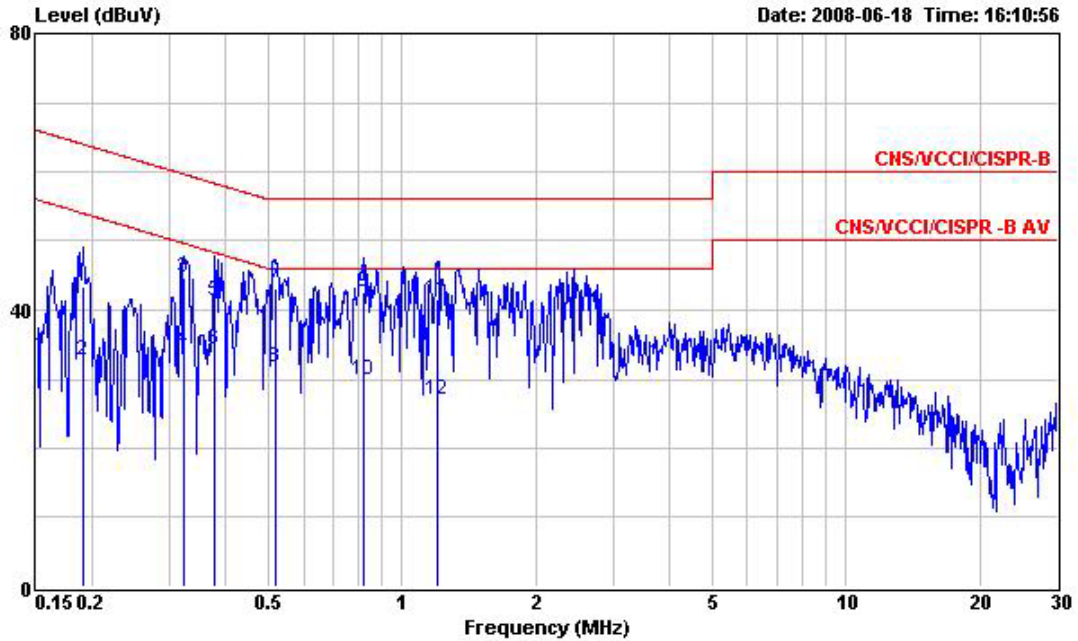


Site : CO01-HY
 Condition : CNS/VCCI/CISPR-B LISN 2001/004 LINE
 EUT : PDA Phone
 Power : 120V/60Hz
 Model : (FR) 830416-03
 Memo : Mode6
 IMEI : 35835301006781801
 Sample : B

	Freq	Level	Over	Limit	Read	Probe	Cable	
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	Remark
1	0.189	45.42	-18.66	64.08	45.31	0.08	0.03	QP
2	0.189	34.53	-19.55	54.08	34.42	0.08	0.03	Average
3	0.322	44.52	-15.13	59.65	44.38	0.09	0.05	QP
4	0.322	35.28	-14.37	49.65	35.14	0.09	0.05	Average
5	0.382	45.31	-12.92	58.23	45.16	0.09	0.06	QP
6	0.382	38.40	-9.83	48.23	38.25	0.09	0.06	Average
7	0.454	43.15	-13.65	56.80	43.00	0.09	0.06	QP
8	0.454	30.82	-15.98	46.80	30.67	0.09	0.06	Average
9	1.700	41.97	-14.03	56.00	41.76	0.14	0.07	QP
10	1.700	32.77	-13.23	46.00	32.56	0.14	0.07	Average
11	2.040	41.31	-14.69	56.00	41.10	0.14	0.07	QP
12	2.040	32.30	-13.70	46.00	32.09	0.14	0.07	Average

• Test Condition: Neutral

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



Site : CO01-HY
 Condition : CNS/VCCI/CISPR-B LISN 2001/004 NEUTRAL
 EUT : PDA Phone
 Power : 120V/60Hz
 Model : (FR) 830416-03
 Memo : Mode6
 IMEI : 35835301006781801
 Sample : B

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.191	43.29	-20.70	63.99	43.19	0.07	0.03	QP
2	0.191	32.61	-21.38	53.99	32.51	0.07	0.03	Average
3	0.323	44.75	-14.88	59.63	44.63	0.07	0.05	QP
4	0.323	34.16	-15.47	49.63	34.04	0.07	0.05	Average
5	0.379	41.21	-17.09	58.30	41.08	0.07	0.06	QP
6	0.379	34.17	-14.13	48.30	34.04	0.07	0.06	Average
7	0.518	43.18	-12.82	56.00	43.03	0.08	0.07	QP
8	0.518	31.67	-14.33	46.00	31.52	0.08	0.07	Average
9	0.822	42.57	-13.43	56.00	42.40	0.09	0.08	QP
10	0.822	29.86	-16.14	46.00	29.69	0.09	0.08	Average
11	1.200	41.64	-14.36	56.00	41.46	0.10	0.08	QP
12	1.200	27.04	-18.96	46.00	26.86	0.10	0.08	Average

5.9 Radiated Emission Measurement

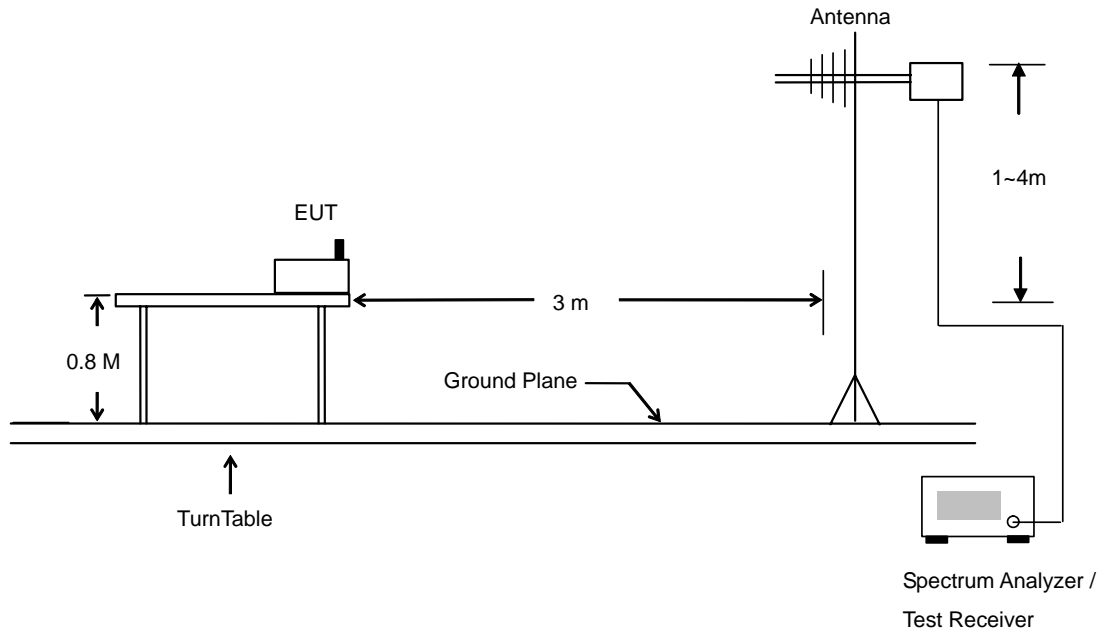
5.9.1 Measuring Instruments

As described in chapter 6 of this Report.

5.9.2 Test Procedures

1. The EUT was placed on a rotatable table top 0.8 meter above ground.
2. The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
3. The table was rotated 360 degrees to determine the position of the highest radiation.
4. The antenna is a broadband antenna and its height is varied between one meter and four meters above ground to find the maximum value of the field strength for both horizontal polarization and vertical polarization of the antenna.
5. For each suspected emission, the EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading.
6. Set the test-receiver system to Peak or CISPR quasi-peak Detect Function and specified bandwidth with Maximum Hold Mode.
7. For testing below 1GHz, If the emission level of the EUT in peak mode was 3 dB lower than the limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be repeated one by one using the quasi-peak method and reported.
8. For testing above 1GHz, the emission level of the EUT in peak mode was 20dB lower than average limit (that means the emission level in average mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.

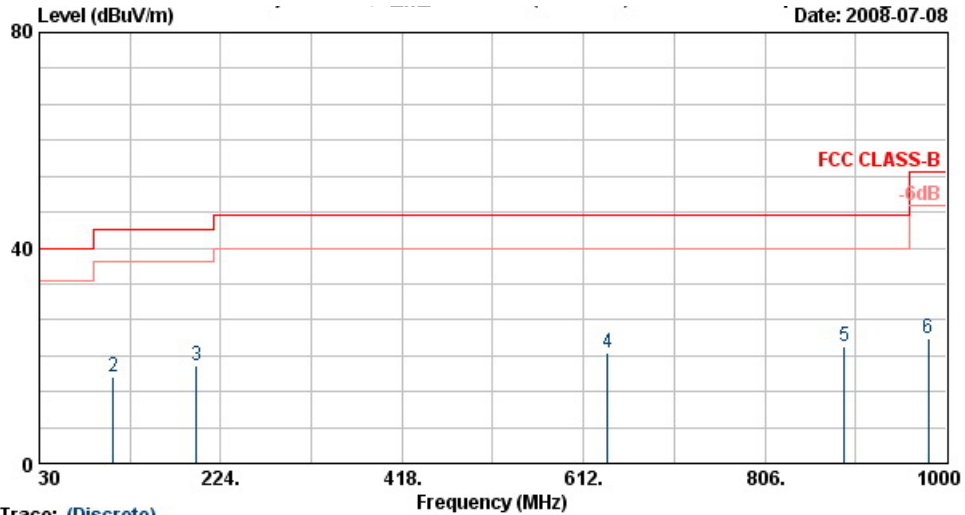
5.9.3 Typical Test Setup Layout of Radiated Emission



5.9.4 Test Data

- Test Mode : Mode 4
- Temperature : 21~26°C
- Relating Humidity : 47~58%
- Test Engineer : Sun
- Polarization : Horizontal (30MHz-1GHz)

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

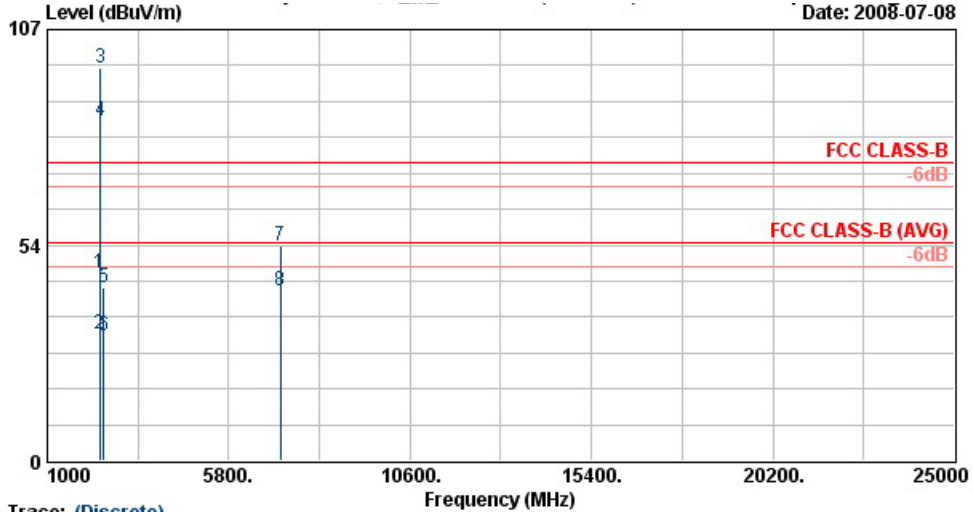


Trace: (Discrete)
 Site : 03CH06-HY
 Condition : FCC CLASS-B 3m LF-ANT(951121) HORIZONTAL
 EUT : PDA Phone WCDMA(band 1/T1/Y)
 : +GSM/GPRS/EDGE(850/900/1800/1900)
 Power : 120Vac/60Hz
 Model : FR 830416-03
 Memo :
 Data Rate :
 Plane : E2 (slide off)
 TIME1 : 35835301006778401
 Sample : A

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	30.54	18.45	-21.55	40.00	30.81	18.95	0.30	31.61	---	---	Peak
2	109.38	16.08	-27.42	43.50	35.70	11.75	0.50	31.86	100	292	Peak
3	198.48	18.08	-25.42	43.50	40.27	9.31	0.60	32.10	---	---	Peak
4	637.40	20.43	-25.57	46.00	32.69	18.62	1.07	31.96	---	---	Peak
5	890.80	21.75	-24.25	46.00	31.80	20.46	1.30	31.81	---	---	Peak
6	980.40	23.06	-30.94	54.00	31.67	21.10	1.30	31.01	---	---	Peak

• Polarization : Horizontal (1GHz-25GHz)

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



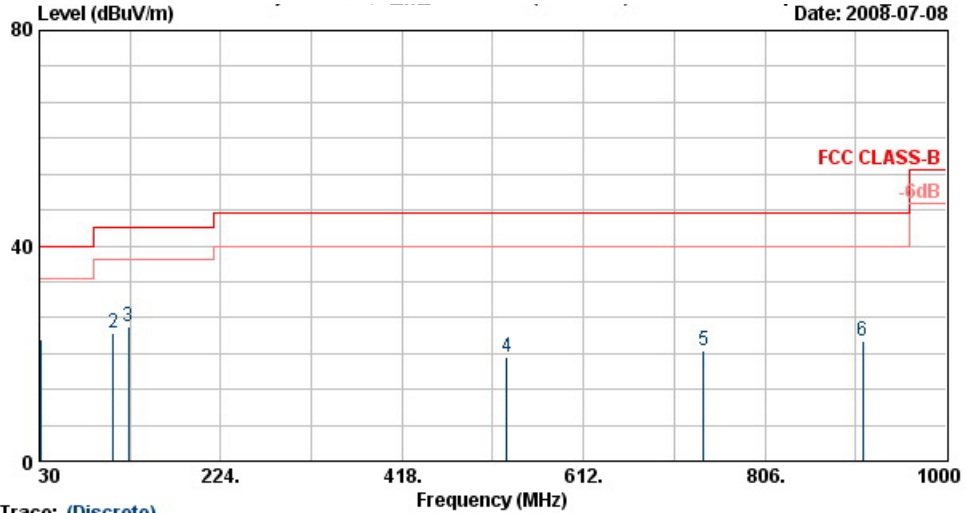
Trace: (Discrete)
 Site : 03CH06-HY
 Condition : FCC CLASS-B 3m SHF-EHF HORN HORIZONTAL
 EUT : PDA Phone WCDMA(band 1/II/Y)
 : +GSM/GPRS/EDGE(850/900/1600/1900)
 Power : 120Vac/60Hz
 Model : FR 830416-03
 Memo :
 Data Rate :
 Plane : E2 (slide off)
 IMEI : 35835301006778401
 Sample : A

	Freq	Level	Over Limit	Limit Line	ReadAntenna	Cable Preamp	Ant Table	Table	Remark	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm deg	
1	2389.61	46.41	-27.59	74.00	46.31	31.86	3.92	35.68	100	0 Peak
2	2389.61	31.55	-22.45	54.00	31.45	31.86	3.92	35.68	127	26 Average
3 X	2402.00	97.47			97.35	31.88	3.92	35.68	100	0 Peak
4 @	2402.00	84.51			84.41	31.86	3.92	35.68	127	26 Average
5	2500.00	43.14	-30.86	74.00	42.79	32.00	4.05	35.70	100	0 Peak
6	2500.00	30.96	-23.04	54.00	30.61	32.00	4.05	35.70	127	26 Average
7	7161.00	53.22	-20.78	74.00	46.40	35.74	7.15	36.07	100	0 Peak
8	7161.00	42.03	-11.97	54.00	35.21	35.74	7.15	36.07	100	190 Average

Remark: #3 and #4 are Fundamental Signals

• Polarization : Vertical (30MHz-1GHz)

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

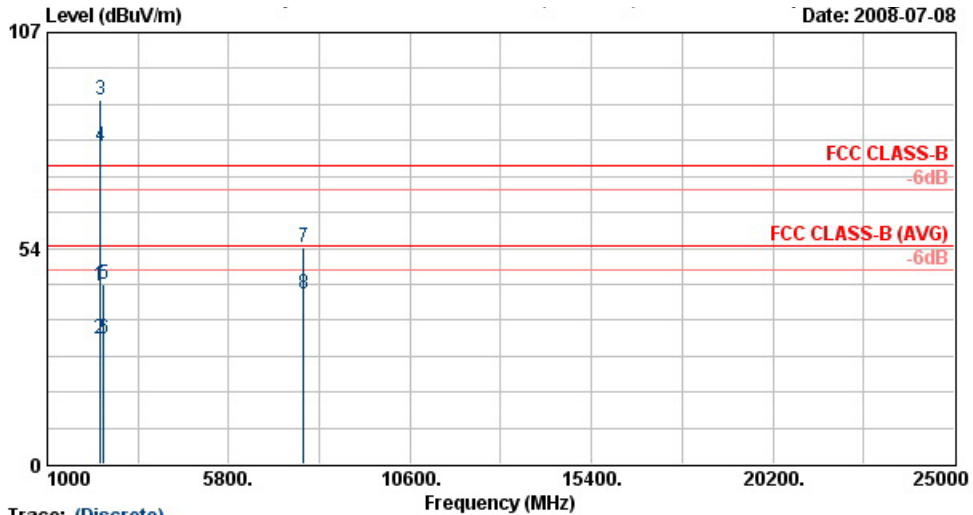


Trace: (Discrete)
 Site : 03CH06-HY
 Condition : FCC CLASS-B 3m LF-ANT(951121) VERTICAL
 EUT : PDA Phone WCDMA(band 1/T11/V)
 : +GSM/GPRS/EDGE(850/900/1800/1900)
 Power : 120Vac/60Hz
 Model : FR 830416-03
 Memo :
 Data Rate :
 Plane : E2 (slide off)
 IMET : 35835301006778401
 Sample : A

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	Limit	Line	Level	Loss	Factor	Pos	Pos	
			dB	dBuV/m	dBuV	dB	dB	cm	deg	
1	31.08	22.48	-17.52	40.00	34.84	18.95	0.30	31.61	100	304 Peak
2	109.38	23.68	-19.82	43.50	43.30	11.75	0.50	31.86	---	Peak
3	125.58	25.07	-18.43	43.50	43.78	12.50	0.50	31.71	---	Peak
4	530.30	19.29	-26.71	46.00	32.73	17.74	0.91	32.10	---	Peak
5	740.30	20.47	-25.53	46.00	32.25	19.26	1.10	32.14	---	Peak
6	910.40	22.26	-23.74	46.00	31.98	20.61	1.29	31.62	---	Peak

• Polarization : Vertical (1GHz-25GHz)

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



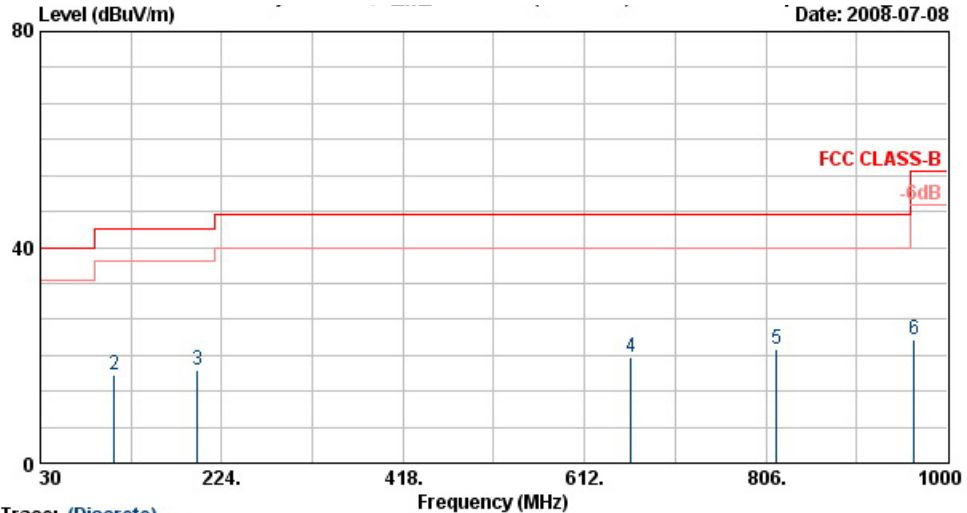
Trace: (Discrete)
 Site : 03CH06-HY
 Condition : FCC CLASS-B 3m SHF-EHF HORN VERTICAL
 EUT : PDA Phone WCDMA(band 1/T1/Y)
 : +GSM/GPRS/EDGE(850/900/1800/1900)
 Power : 120Vac/60Hz
 Model : FR 830416-03
 Memo :
 Data Rate :
 Plane : E2 (slide off)
 IMEI : 35835301006778401
 Sample : A

	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
			dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	2387.14	44.04	-29.96	74.00	44.05	31.81	3.86	35.67	100	0	Peak
2	2387.14	31.03	-22.97	54.00	30.93	31.86	3.92	35.68	100	306	Average
3 X	2402.00	90.15			90.06	31.86	3.92	35.68	100	0	Peak
4 @	2402.00	78.72			78.62	31.86	3.92	35.68	100	306	Average
5	2484.00	44.63	-29.37	74.00	44.30	31.98	4.05	35.70	100	0	Peak
6	2484.00	30.95	-23.05	54.00	30.62	31.98	4.05	35.70	100	306	Average
7	7776.00	53.58	-20.42	74.00	46.77	35.66	7.40	36.26	100	0	Peak
8	7776.00	42.30	-11.70	54.00	35.50	35.66	7.40	36.26	100	231	Average

Remark: #3 and #4 are Fundamental Signals

- Test Mode : Mode 5
- Temperature : 21~26°C
- Relative Humidity : 47~58%
- Test Engineer: Sun
- Polarization : Horizontal (30MHz-1GHz)

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



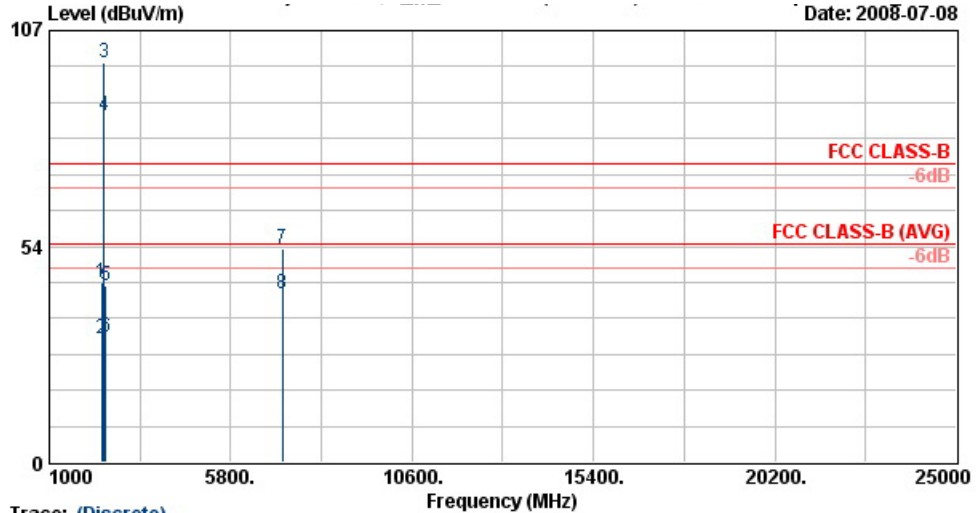
Trace: (Discrete)

Site : 03CH06-HY
 Condition : FCC CLASS-B 3m LP-ANT(951121) HORIZONTAL
 EUT : PDA Phone WCDMA(band 1/TI/Y)
 : +GSM/GPRS/EDGE(850/900/1800/1900)
 Power : 120Vac/60Hz
 Model : FR 830416-03
 Memo :
 Data Rate :
 Plane : E2 (slide off)
 TMET : 35635301006778401
 Sample : A

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	30.54	18.96	-21.04	40.00	31.32	18.95	0.30	31.61	100	123	Peak
2	109.38	16.35	-27.15	43.50	35.97	11.75	0.50	31.86	---	---	Peak
3	197.94	17.14	-26.36	43.50	39.31	9.31	0.60	32.09	---	---	Peak
4	661.90	19.64	-23.86	46.00	31.85	18.73	1.08	32.02	---	---	Peak
5	817.30	21.03	-24.97	46.00	32.14	19.94	1.20	32.26	---	---	Peak
6	964.30	22.96	-23.04	54.00	31.91	20.98	1.30	31.23	---	---	Peak

• Polarization : Horizontal (1GHz-25GHz)

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



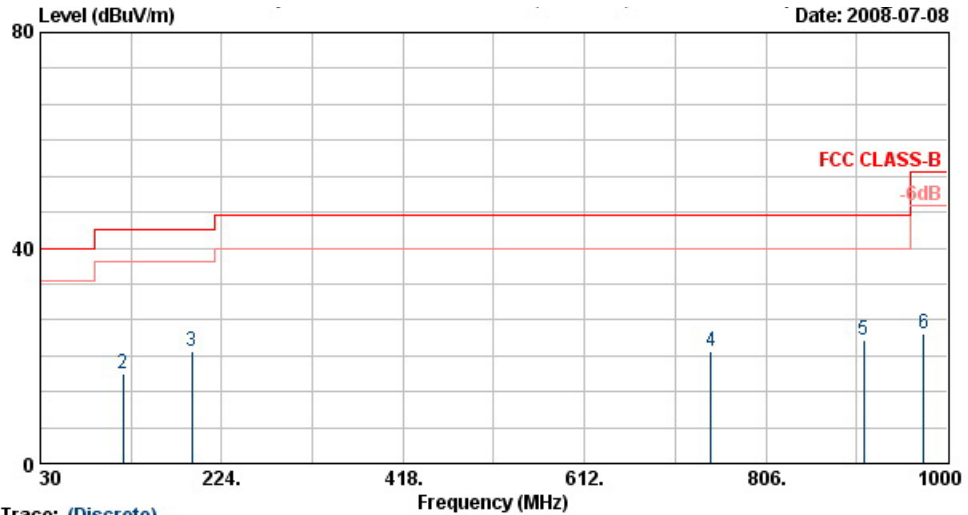
Trace: (Discrete)
 Site : 03CH06-HY
 Condition : FCC CLASS-B 3m SHF-EHF HORN HORIZONTAL
 EUT : PDA Phone WCDMA(band 1/11/Y)
 : +GSM/GPRS/EDGE(850/900/1800/1900)
 Power : 120Vac/60Hz
 Model : FR 830416-03
 Memo :
 Data Rate :
 Plane : E2 (slide off)
 IMET : 35835301006778401
 Sample : A

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBUV/m	Limit	Line	Level	Loss	Factor	Pos	Pos	
			dB	dBUV/m	dBUV	dB	dB	cm	deg	
1	2388.00	44.37	-29.63	74.00	44.27	31.86	3.92	35.68	100	0 Peak
2	2388.00	30.71	-23.29	54.00	30.61	31.86	3.92	35.68	153	9 Average
3 @	2441.00	99.01			98.79	31.93	3.99	35.69	100	0 Peak
4 @	2441.00	85.91			85.69	31.93	3.99	35.69	153	9 Average
5	2494.00	43.84	-30.16	74.00	43.49	32.00	4.05	35.70	100	0 Peak
6	2494.00	30.90	-23.10	54.00	30.55	32.00	4.05	35.70	153	9 Average
7	7161.00	52.81	-21.19	74.00	45.99	35.74	7.15	36.07	100	0 Peak
8	7161.00	41.57	-12.43	54.00	34.75	35.74	7.15	36.07	100	109 Average

Remark: #3 and #4 are Fundamental Signals

• Polarization : Vertical (30MHz-1GHz)

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

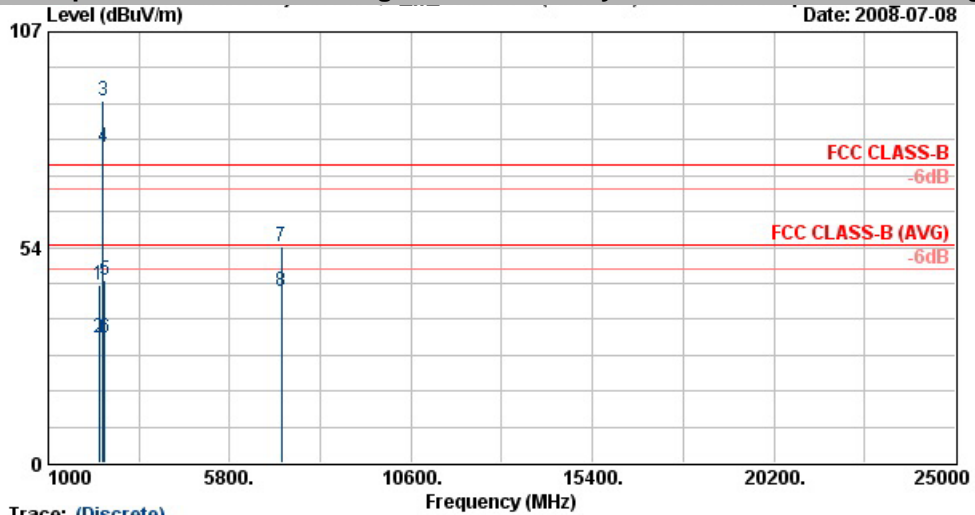


Trace: (Discrete)
 Site : 03CH06-HY
 Condition : FCC CLASS-B 3m IF-ANT(851121) VERTICAL
 EUT : PDA Phone WCDMA(band 1/II/V)
 : +GSM/GPRS/EDGE(850/900/1800/1900)
 Power : 120Vac/60Hz
 Model : FR 830416-03
 Memo :
 Data Rate :
 Plane : E2 (slide off)
 IMET : 35835301006778401
 Sample : A

	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
			dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	30.00	19.81	-20.19	40.00	31.41	19.66	0.30	31.56	100	202	Peak
2	118.29	16.65	-26.85	43.50	35.47	12.43	0.50	31.75	---	---	Peak
3	191.73	20.70	-22.80	43.50	42.78	9.36	0.60	32.04	---	---	Peak
4	747.30	20.82	-25.18	46.00	32.48	19.32	1.10	32.08	---	---	Peak
5	910.40	22.82	-23.18	46.00	32.54	20.61	1.29	31.62	---	---	Peak
6	974.80	24.18	-29.82	54.00	32.91	21.06	1.30	31.09	---	---	Peak

• Polarization : Vertical (1GHz-25GHz)

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



Trace: (Discrete)

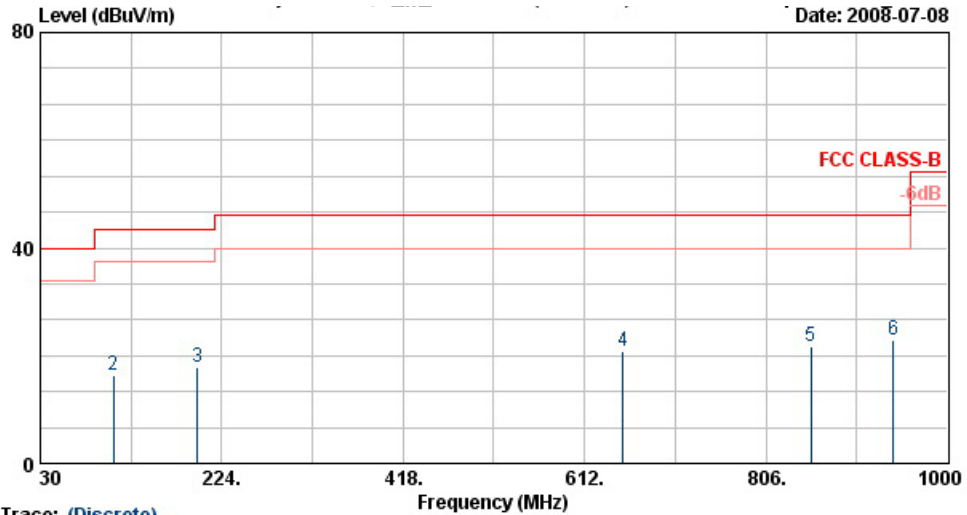
Site : 03CH06-HY
 Condition : FCC CLASS-B 3m SHF-EHF HORN VERTICAL
 EUT : PDA Phone WCDMA(band 1/11/V)
 +GSM/GPRS/EDGE(850/900/1800/1900)
 Power : 120Vac/60Hz
 Model : FR 830416-03
 Memo :
 Data Rate :
 Plane : E2 (slide off)
 IMEI : 35835301006778401
 Sample : A

	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
			dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	2342.00	44.33	-29.67	74.00	44.36	31.78	3.86	35.67	100	0	Peak
2	2342.00	30.86	-23.14	54.00	30.89	31.78	3.86	35.67	100	299	Average
3 X	2441.00	89.85			89.62	31.93	3.99	35.69	100	0	Peak
4 @	2441.00	78.49			78.27	31.93	3.99	35.69	100	299	Average
5	2500.00	45.47	-28.53	74.00	45.12	32.00	4.05	35.70	100	0	Peak
6	2500.00	30.92	-23.08	54.00	30.57	32.00	4.05	35.70	100	299	Average
7	7176.00	53.55	-20.45	74.00	46.74	35.73	7.15	36.07	100	0	Peak
8	7176.00	42.42	-11.58	54.00	35.61	35.73	7.15	36.07	100	307	Average

Remark: #3 and #4 are Fundamental Signals

- Test Mode : Mode 6
- Temperature : 21~26°C
- Relative Humidity : 47~58%
- Test Engineer: Sun
- Polarization : Horizontal (30MHz-1GHz)

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



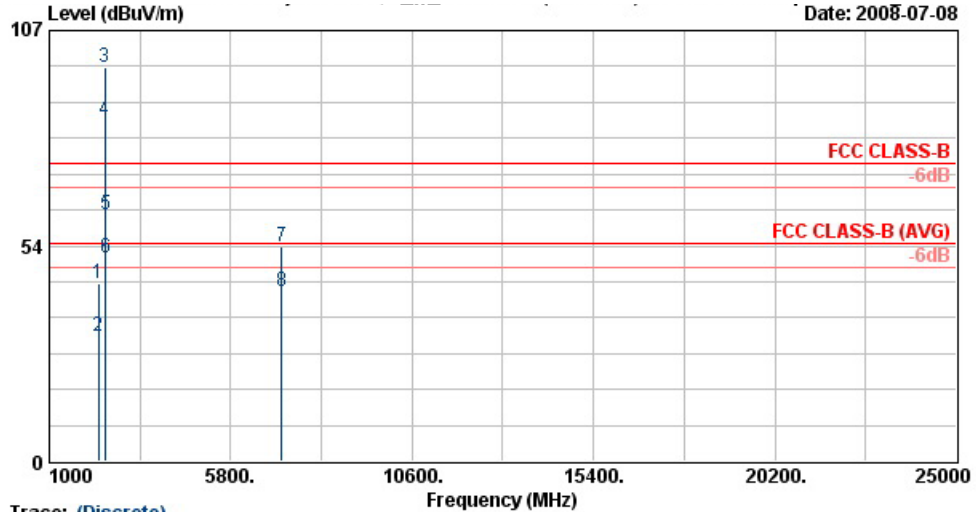
Trace: (Discrete)

Site : 03CH06-HY
 Condition : FCC CLASS-B 3m LF-ANT(951121) HORIZONTAL
 EUT : PDA Phone WCDMA(band 1/T1/V)
 : +GSM/GPRS/EDGE(850/900/1800/1900)
 Power : 120Vac/60Hz
 Model : FR 830416-03
 Memo :
 Data Rate :
 Plane : E2 (slide off)
 TMET : 35635301006778401
 Sample : A

	Freq	Level	Over Limit	Limit Line	ReadAntenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	30.00	19.03	-20.97	40.00	30.63	19.66	0.30	31.56	100	92 Peak
2	108.03	16.49	-27.01	43.50	36.29	11.60	0.50	31.90	---	---
3	198.48	17.82	-25.68	43.50	40.02	9.31	0.60	32.10	---	---
4	652.80	20.71	-25.29	46.00	32.84	18.69	1.10	31.91	---	---
5	854.40	21.75	-24.25	46.00	32.67	20.21	1.20	32.33	---	---
6	941.90	22.77	-23.23	46.00	32.21	20.83	1.20	31.47	---	---

• Polarization : Horizontal (1GHz-25GHz)

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



Trace: (Discrete)

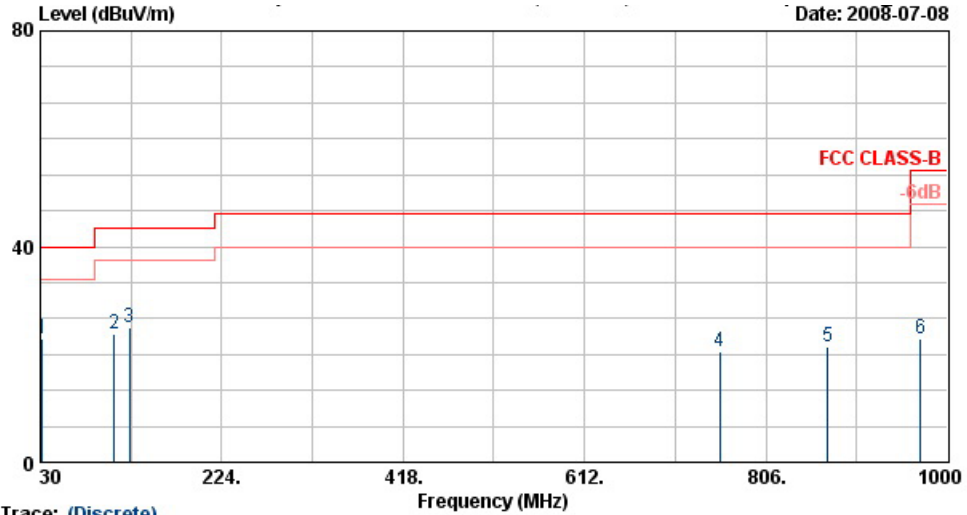
Site : 03CH06-HY
 Condition : FCC CLASS-B 3m SHF-EHF HORN HORIZONTAL
 EUT : PDA Phone WCDMA(band 1/11/V)
 : +GSM/GPRS/EDGE(850/900/1800/1900)
 Power : 120Vac/60Hz
 Model : FR 830416-03
 Memo :
 Data Rate :
 Plane : E2 (slide off)
 IMEI : 35835301006778401
 Sample : A

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	Limit	Line	Level	Loss	Factor	Pos	Pos	
			dB	dBuV/m	dBuV	dB	dB	cm	deg	
1	2310.00	44.20	-29.80	74.00	44.30	31.73	3.82	35.66	100	0 Peak
2	2310.00	30.97	-23.03	54.00	31.07	31.73	3.82	35.66	100	3 Average
3 X	2480.00	97.72			97.39	31.98	4.05	35.70	100	0 Peak
4 @	2480.00	84.62			84.29	31.98	4.05	35.70	100	3 Average
5	2483.50	61.34	-12.66	74.00	61.01	31.98	4.05	35.70	100	0 Peak
6 !	2483.50	50.43	-3.57	54.00	50.10	31.98	4.05	35.70	100	3 Average
7	7152.00	53.28	-20.72	74.00	46.46	35.74	7.14	36.06	100	0 Peak
8	7152.00	42.10	-11.90	54.00	35.28	35.74	7.14	36.06	100	152 Average

Remark: #3 and #4 are Fundamental Signals

- Polarization : Vertical (30MHz-1GHz)

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



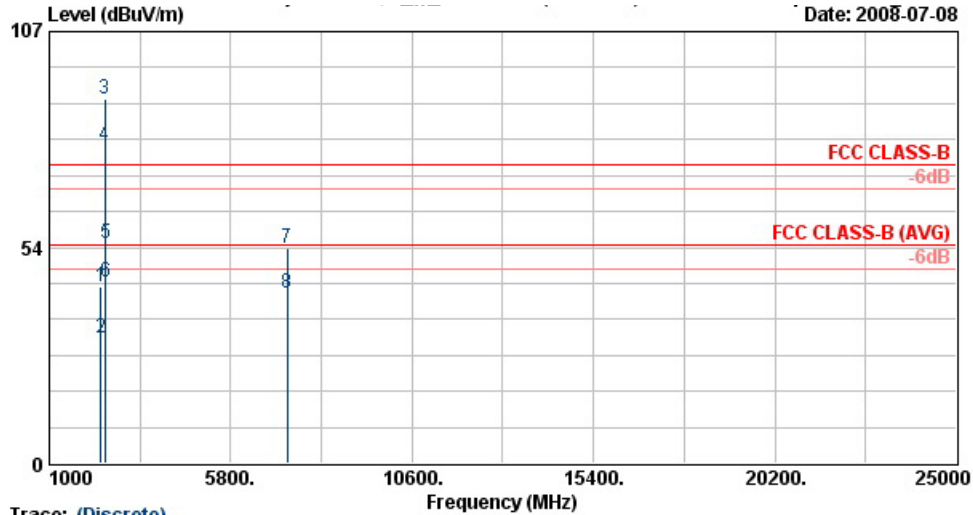
Trace: (Discrete)

Site : 03CH06-HY
 Condition : FCC CLASS-B 3m LF-ANT(951121) VERTICAL
 EUT : PDA Phone WCDMA(band 1/11/V)
 : +GSM/GPRS/EDGE(850/900/1800/1900)
 Power : 120Vac/60Hz
 Model : FR 830416-03
 Memo :
 Data Rate :
 Plane : E2 (slide off)
 IMET : 35835301006778401
 Sample : A

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	Remark	
	MHz	dBuV/m	Limit	Line	Level	Loss	Factor	Pos	Pos		
			dB	dBuV/m	dBuV	dB	dB	cm	deg		
1	32.43	22.91	-17.09	40.00	36.79	17.54	0.30	31.72	100	183 Peak	
2	109.38	23.91	-19.59	43.50	43.52	11.75	0.50	31.86	---	---	Peak
3	125.04	24.92	-18.58	43.50	43.47	12.66	0.50	31.71	---	---	Peak
4	756.40	20.63	-25.37	46.00	32.19	19.41	1.10	32.08	---	---	Peak
5	871.90	21.48	-24.52	46.00	31.93	20.33	1.30	32.08	---	---	Peak
6	971.30	22.94	-31.06	54.00	31.74	21.03	1.30	31.14	---	---	Peak

• Polarization : Vertical (1GHz-25GHz)

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



Trace: (Discrete)
 Site : 03CH06-HY
 Condition : FCC CLASS-B 3m SHF-EHF HORN VERTICAL
 EUT : PDA Phone WCDMA(band 1/II/Y)
 : +GSM/GPRS/EDGE(850/900/1800/1900)
 Power : 120Vac/60Hz
 Model : FR 830416-03
 Memo :
 Data Rate :
 Plane : E2 (slide off)
 IMET : 35835301006778401
 Sample : A

	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
			dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	2366.00	43.74	-30.26	74.00	43.72	31.81	3.89	35.68	100	0	Peak
2	2366.00	30.89	-23.11	54.00	30.87	31.81	3.89	35.68	100	299	Average
3 X	2480.00	90.30			89.97	31.98	4.05	35.70	100	0	Peak
4 @	2480.00	78.83			78.50	31.98	4.05	35.70	100	299	Average
5	2483.50	54.38	-19.62	74.00	54.05	31.98	4.05	35.70	100	0	Peak
6	2483.50	45.02	-8.98	54.00	44.69	31.98	4.05	35.70	100	299	Average
7	7302.00	53.30	-20.70	74.00	46.54	35.68	7.20	36.12	100	0	Peak
8	7302.00	42.05	-11.95	54.00	35.29	35.68	7.20	36.12	100	173	Average

Remark: #3 and #4 are Fundamental Signals

5.10 Antenna Requirements

5.10.1 Standard Applicable

For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no other antenna except assembled by the responsible party shall be used with the device.

And according to FCC 47 CFR Section 15.247 (b), if directional gain of transmitting antennas is greater than 6dBi, the power shall be reduced by the same level in dB comparing to gain minus 6dBi.

5.10.2 Antenna Connected Construction

The antennas used in this product is PIFA Antenna for Bluetooth without connector and it is considered to meet antenna requirement of FCC.

5.10.3 Antenna Gain

The antenna gain of EUT is less than 6 dBi. Therefore, it is not necessary to reduce maximum peak output power limit.

6. List of Measuring Equipments

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Due Date	Remark
Power Meter	Agilent	E4416A	GB41292344	N/A	Feb. 21, 2008	Feb. 20, 2009	Conducted (TH02-HY)
Power Sensor	Agilent	E9327A	US40441548	N/A	Feb. 21, 2008	Feb. 20, 2009	Conducted (TH02-HY)
Spectrum	R&S	FSP40	100055	9KHz~40GHz	Jun. 26, 2008	Jun. 25, 2009	Conducted (TH02-HY)
EMC Receiver	R&S	ESCS 30	100132	9kHz – 2.75GHz	Jul. 14, 2008	Jul. 13, 2009	Conduction (CO01-HY)
LISN	MessTec	NNB-2/16Z	2001/004	9kHz – 30MHz	Mar. 24, 2008	Mar. 23, 2009	Conduction (CO01-HY)
LISN (Support Unit)	MessTec	NNB-2/16Z	2001/009	9kHz – 30MHz	Mar. 13, 2008	Mar. 12, 2009	Conduction (CO01-HY)
EMI Filter	LINDGREN	LRE-2060	1004	< 450Hz	N/A	N/A	Conduction (CO01-HY)
EMI Filter	LINDGREN	N6006	201052	0 – 60Hz	N/A	N/A	Conduction (CO01-HY)
Impedance Stabilization Network	SCHAFFNER	ST08	22589	150kHz – 230MHz	Mar. 03, 2008	Mar. 02, 2009	Conduction (CO01-HY)
Impedance Stabilization Network	SCHAFFNER	T400	21653	150kHz – 230MHz	May 09, 2008	May 08, 2009	Conduction (CO01-HY)
Impedance Stabilization Network	SCHAFFNER	T800	23342	150kHz – 230MHz	Mar. 03, 2008	Mar. 02, 2009	Conduction (CO01-HY)
Bilog Antenna	SCHAFFNER	CBL6112B	2885	30MHz~2GHz	Dec. 01, 2007	Nov. 31, 2008	Radiation (03CH06-HY)
Double Ridge Horn Antenna	EMCO	3117	66583	1G~18G	Aug. 29, 2007	Aug. 28, 2008	Radiation (03CH06-HY)
SHF-EHF Horn	SCHWARZBECK	BBHA 9170	9170-251	15G~40GHz	Oct. 17, 2007	Oct. 16, 2008	Radiation (03CH06-HY)
Spectrum Analyzer	Agilent	E4408B	MY44211028	9KHz~26.5GHz	Oct. 17, 2007	Oct. 16, 2008	Radiation (03CH06-HY)
EMI Test Receiver	R&S	ESVS10	834468/003	20~1000MHz	Apr. 24, 2008	Apr. 23, 2009	Radiation (03CH06-HY)

7. Uncertainty Evaluation

Uncertainty of Conducted Emission Measurement (150 KHz ~ 30 MHz)

Contribution	Uncertainty of x_i		$u(x_i)$
	dB	Probability Distribution	
Receiver reading	0.10	Normal(k=2)	0.05
Cable loss	0.10	Normal(k=2)	0.05
AMN insertion loss	2.50	Rectangular	0.63
Receiver Spec	1.50	Rectangular	0.43
Site imperfection	1.39	Rectangular	0.80
Mismatch	+0.34/-0.35	U-shape	0.24
Combined standard uncertainty Uc(y)	1.13		
Measuring uncertainty for a level of Confidence of 95% U=2Uc(y)	2.26		

Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Contribution	Uncertainty of x_i		$u(x_i)$
	dB	Probability Distribution	
Receiver reading	0.11	Normal(k=2)	0.06
Antenna factor calibration	0.91	Normal(k=2)	0.46
Cable loss calibration	0.12	Normal(k=2)	0.06
Pre Amplifier Gain calibration	0.15	Normal(k=2)	0.08
RCV/SPA specification	2.50	Rectangular	0.72
Antenna Factor Interpolation for Frequency	1.00	Rectangular	0.29
Site imperfection	1.52	Rectangular	0.88
Mismatch	+0.45/-0.48	U-shaped	0.33
Combined standard uncertainty Uc(y)	1.30		
Measuring uncertainty for a level of Confidence of 95% U=2Uc(y)	2.60		

Uncertainty of Radiated Emission Measurement (1 GHz ~ 40 GHz)

Contribution	Uncertainty of x_i		$u(x_i)$	C_i	$C_i * u(x_i)$
	dB	Probability Distribution			
Receiver reading	±0.10	Normal(k=1)	0.10	1	0.10
Antenna factor calibration	±1.70	Normal(k=2)	0.85	1	0.85
Cable loss calibration	±0.50	Normal(k=2)	0.25	1	0.25
Receiver Correction	±2.00	Rectangular	1.15	1	1.15
Antenna Factor Directional	±1.50	Rectangular	0.87	1	0.87
Site imperfection	±2.80	Triangular	1.14	1	1.14
Mismatch Receiver VSWR $\Gamma_1 = 0.197$ Antenna VSWR $\Gamma_2 = 0.194$ Uncertainty = $20 \log(1 - \Gamma_1 * \Gamma_2 * \Gamma_3)$	+0.34/-0.35	U-shaped	0.244	1	0.244
Combined standard uncertainty $U_c(y)$	2.36				
Measuring uncertainty for a level of Confidence of 95% $U = 2U_c(y)$	4.72				

The measured result is : y dBuV \pm U dB
for a level of confidence of approximately 95% , ($k = 2$)



Appendix A. Photographs of EUT

Please refer to Sporton report number EP830416-03 as below.