FCC/IC TEST REPORT

for

47 CFR Part 15 Subpart C, IC RSS-210

Equipment	:	**Bluetooth Dongle**
Trade Name	:	**MOTOROLA**
Model No.	:	**D200**
FCC ID	:	**OHH-D200**
IC ID	:	**109O-D200**
Filing Type	:	**Certification**
Applicant	:	**MOTOROLA INC.** 600 North US Highway 45, Libertyville, Illinois 60048, USA

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- **Certificate or Test Report must not be used by the applicant to claim the product in this test report endorsement by NVLAP or any agency of U.S. government.**
- The data shown in this test report were carried out on Jan. 19, 2007 at **Sporton International Inc. LAB.**
- Report No.: FR6D1421, Report Version: Rev. 01.

Roy Wu
Deputy Manager

SPORTON International Inc.

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

Table of Contents

History of this test report

Report Issue Date: Jan. 22, 2007

Report No.	Description

1. General Description of Equipment under Test

1.1. Applicant

MOTOROLA INC.
600 North US Highway 45, Libertyville, Illinois 60048, USA

1.2. Manufacturer

Cal-Comp Electronics & Communications Company Limited
191/54, 57, 18th FL., Rachadapisek Rd., Klongtoey, Bangkok, Thailand

1.3. Basic Description of Equipment under Test

Equipment : Bluetooth Dongle
Trade Name : MOTOROLA
Model No. : D200
FCC ID : OHH-D200
IC ID : 109O-D200
Power Supply Type : From System

1.4. Feature of Equipment under Test

Product Feature & Specification				
1. Modulation Type/Data Rate	GFSK			
2. Frequency Range.	2400 MHz ~ 2483.5 MHz			
3. Number of Channels	79			
4. Carrier Frequency of each channel	2402+ n*1 MHz, n= 0~78			
5. Channel Spacing	1 MHz			
6. Maximum Output Power to Antenna	8.15 dBm			
7. Type of Antenna Connector	N/A			
8. Antenna Type	PIFA Antenna			
9. Antenna Gain	3 dBi			
10. HW Version	BT-1947-03			
11. SW Version	RC2.4			
12. DUT Stage	Production Unit			
13. 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. For spurious emission below 1GHz, only one channel of each application was tested because it is not related to channel selection.
c. The EUT is programmed to transmit signal continuously for all tasting.
d. Frequency range investigated: conduction 150 kHz to 30 MHz, radiation 30 MHz to 25000MHz.

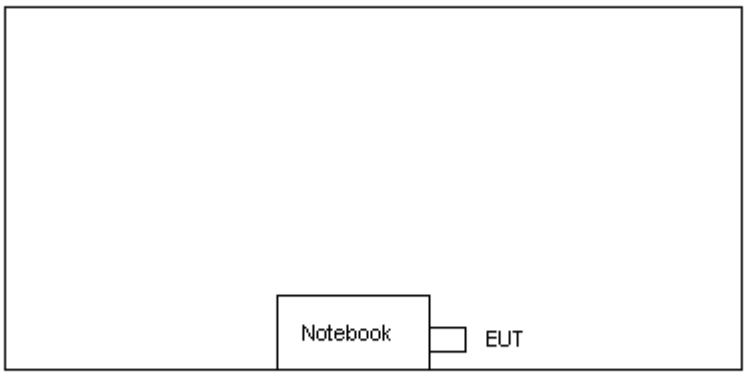
2.2. Test Mode

Application	Bluetooth
Radiated Emission and conducted test items	Mode 1: Tx_CH00_2402 MHz Mode 2: Tx_CH39_2441 MHz Mode 3: Tx_CH78_2480 MHz
Conducted Emission	Mode 1: BT Link Mode

2.3. Ancillary Equipment List

Item	Equipment	Model No.	Power Cord
1.	Notebook (DELL)	D400	N/A

2.4. Connection Diagram of Test System



3. RF Utility

The EUT is in BT link mode with notebook for conducted emission or in BT continuous Tx Mode controlled by RF utility for radiation emission and other conducted tests.

4. General Information of Test

Test Site Location	:	No. 52, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C. TEL : 886-3-327-3456 FAX : 886-3-318-0055
Test Site No	:	CO01-HY, 03CH06-HY

4.1. Test Voltage

AC 120V

4.2. Standard for Methods of Measurement

ANSI C63.4-2003

4.3. Test in Compliance with

47 CFR Part 15 Subpart C, IC RSS-210 Issued 6

4.4. Frequency Range Investigated

Conduction: from 150 kHz to 30 MHz
Radiation: from 30 MHz to 25000MHz

4.5. Test Distance

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

5. Report of Measurements and Examinations

5.1. List of Measurements and Examinations

FCC Rule	IC Rule	Description of Test	Result	Section
15.247(a)(1)	A8.1 (2)	Hopping Channel Separation	Pass	5.2
15.247(a)(1)(iii)	A8.1 (4)	Number of Hopping Frequency Used	Pass	5.3
15.247(a)(1)	A8.1 (1)	Hopping Channel Bandwidth	Pass	5.4
15.247(a)(1)(iii)	A8.1 (4)	Dwell Time of Each Frequency	Pass	5.5
15.247(b)(1)	A8.4 (2)	Output Power	Pass	5.6
15.247(c)	A8.5	100kHz Bandwidth of Frequency Band Edges	Pass	5.7
15.207	RSS-Gen 7.2.2	Conducted Emission	Pass	5.8
15.209	2.6	Radiated Emission	Pass	5.9
15.203	A8.4 (6)	Antenna Requirement	Pass	5.10

5.2. Hopping Channel Separation

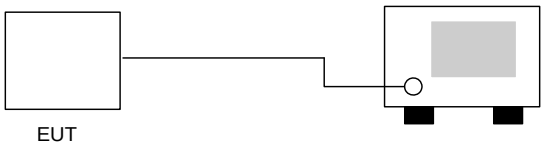
5.2.1. Measuring Instruments：

As described in chapter 6 of this test report.

5.2.2. Test Procedure：

1. The transmitter output was connected to the spectrum analyzer directly.
2. Set RBW of spectrum analyzer to 100kHz and VBW to 100kHz.
3. The Hopping Channel Separation is defined as the channel is separated with the next channel.

5.2.3. Test Setup Layout：



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

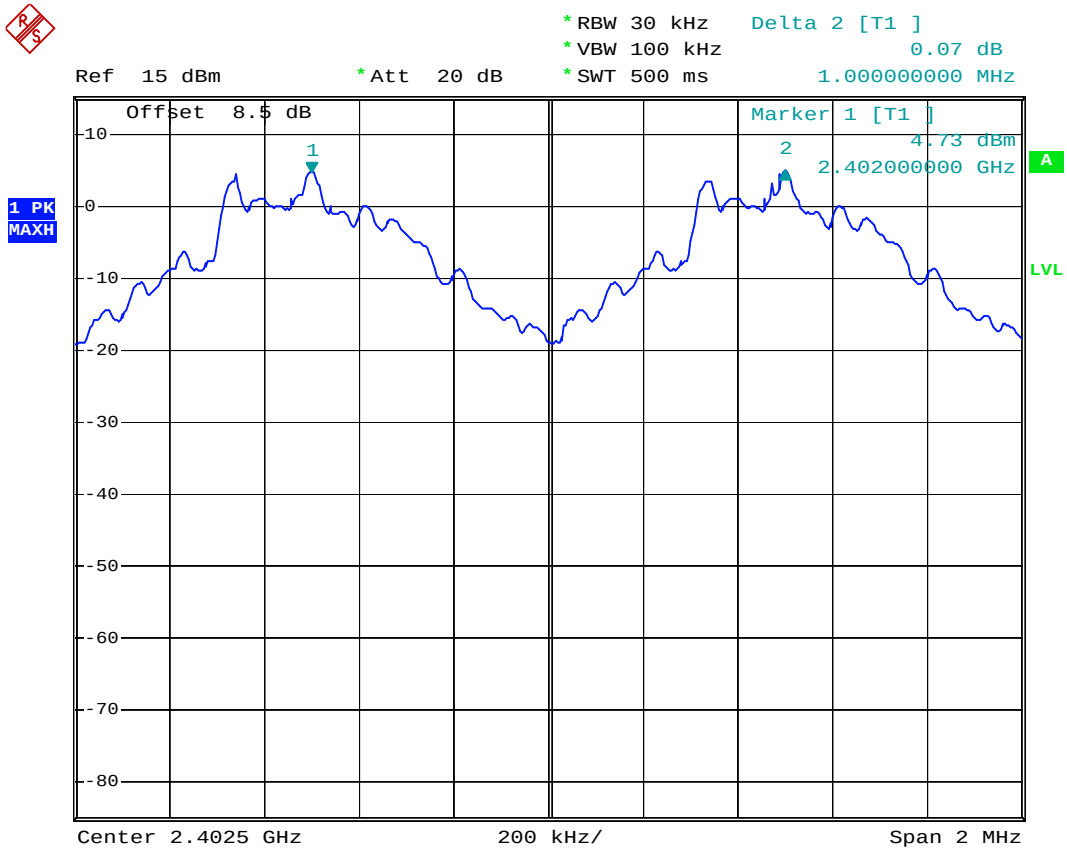
- Temperature: 20.3°C
- Relative Humidity: 57%
- Test Engineer : James Huang

Channel	Frequency (MHz)	Hopping Channel Separation (MHz)	Limits (MHz)	Plot Ref. No.
00	2402	1.000	0.832	Mode 1
39	2441	1.000	0.830	Mode 2
78	2480	1.000	0.830	Mode 3

Remark: Limit is the greater one of 25kHz or the 20dB bandwidth of the hopping channel.

5.2.5 Hopping Channel Separation

Mode 1: CH00 (2402MHz)



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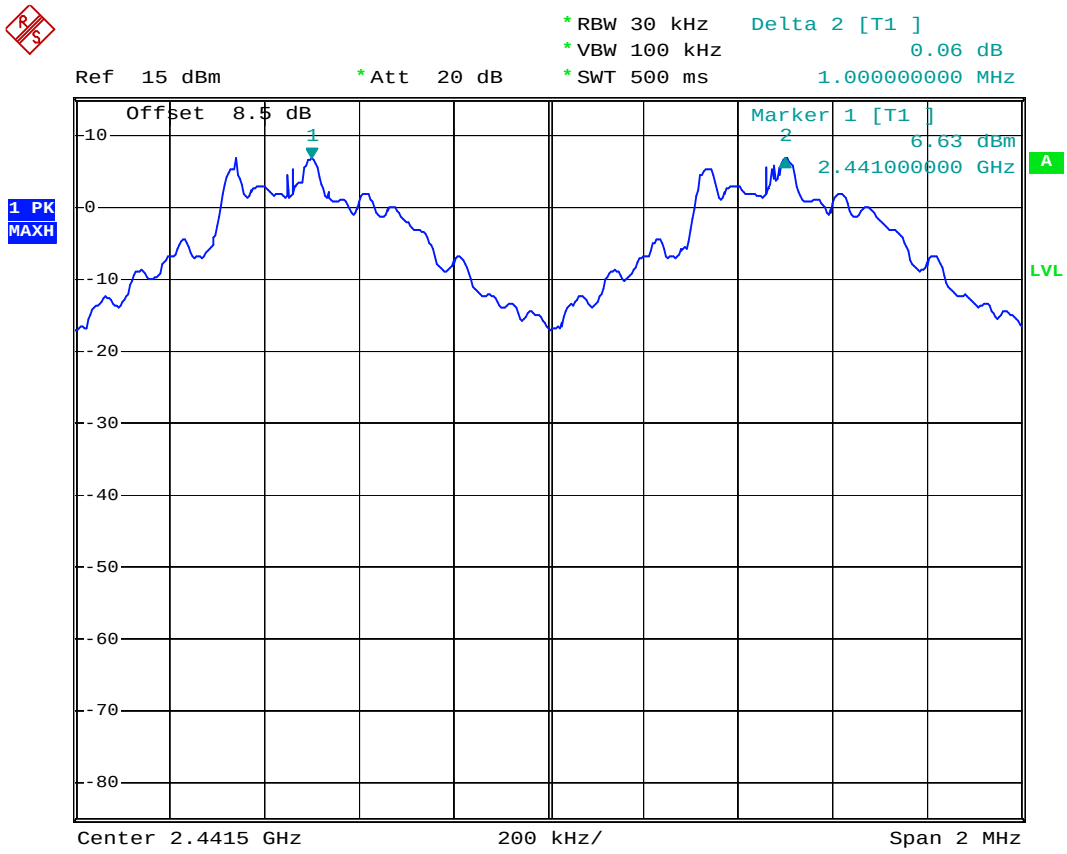
Mode 2: CH39 (2441MHz)



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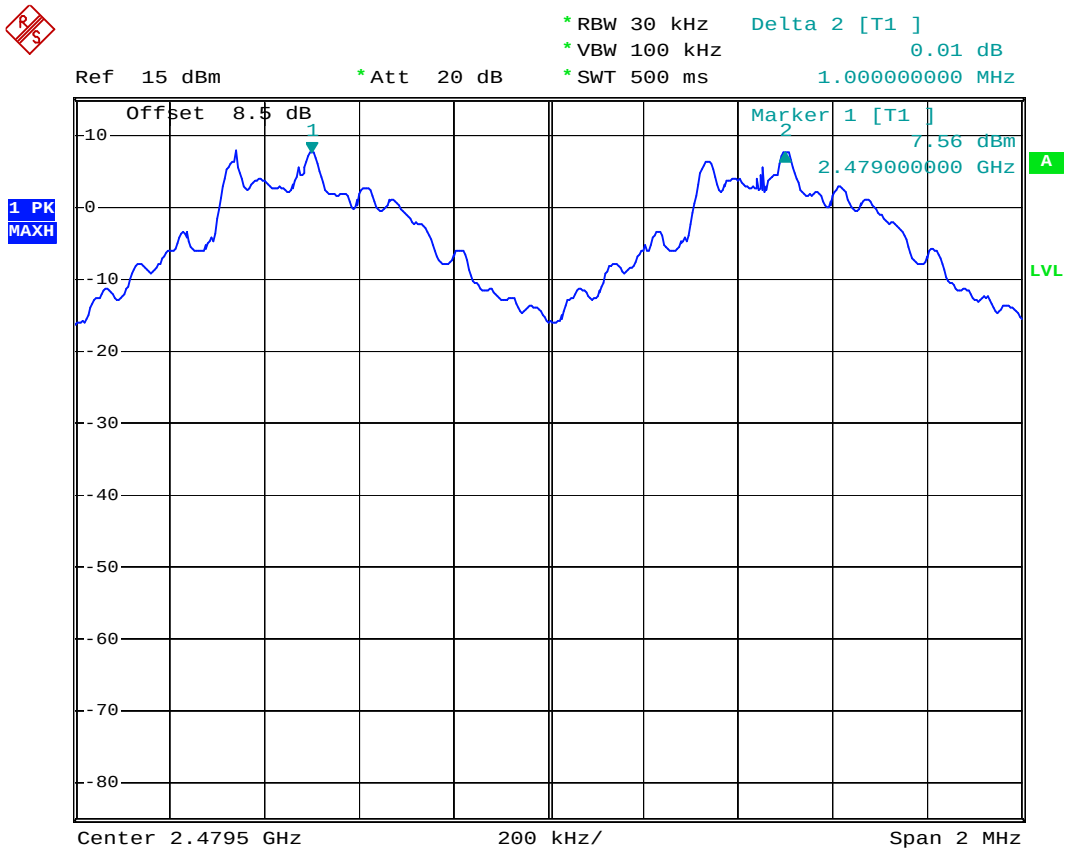
Mode 3: CH78 (2480MHz)



Date: 18.JAN.2007 18:36:32

5.3. Number of Hopping Frequency

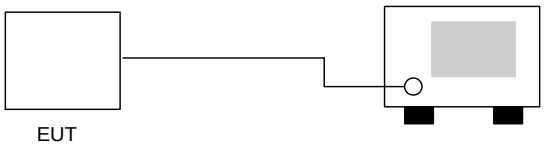
5.3.1. Measuring Instruments：

As described in chapter 6 of this test report.

5.3.2. Test Procedure：

1. The transmitter output was connected to the spectrum analyzer directly.
2. Set RBW of spectrum analyzer to 100kHz and VBW to 100kHz.
3. The number of hopping frequency used is defined as the device has the numbers of total channel.

5.3.3. Test Setup Layout：

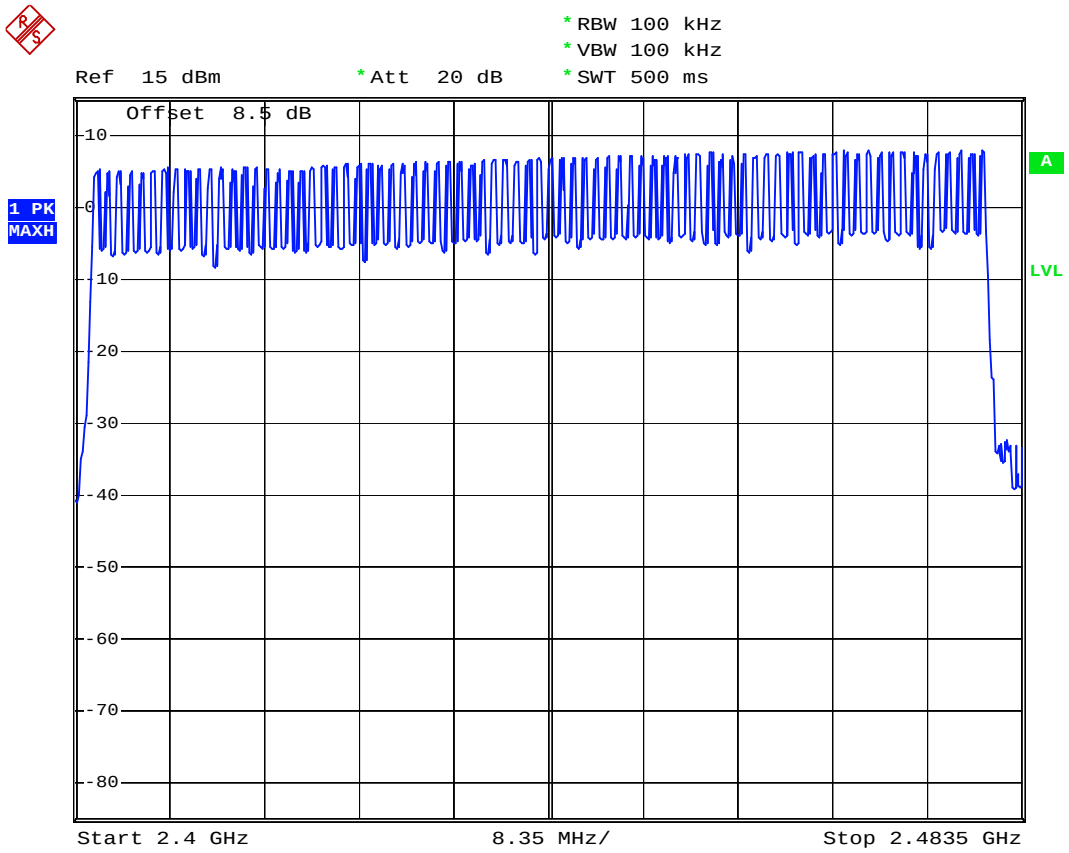


5.3.4. Test Result：See spectrum analyzer plots below

- Temperature: 20.3°C
- Relative Humidity: 57%
- Test Engineer : James Huang

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

5.3.5 Number of Hopping Frequency



Date: 18.JAN.2007 18:56:30

5.4 Hopping Channel Bandwidth

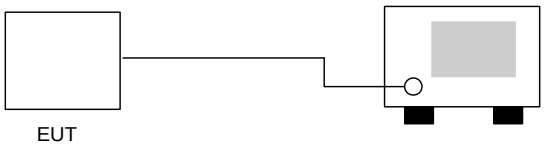
5.4.1 Measuring Instruments：

As described in chapter 6 of this test report.

5.4.2 Test Procedure：

1. The transmitter output was connected to the spectrum analyzer directly.
2. Set RBW of spectrum analyzer to 30kHz and VBW to 300kHz.
3. The Hopping Channel bandwidth is defined as the frequency range where the power is higher than peak power minus 20dB.

5.4.3 Test Setup Layout：



5.4.4 Test Result：See spectrum analyzer plots below

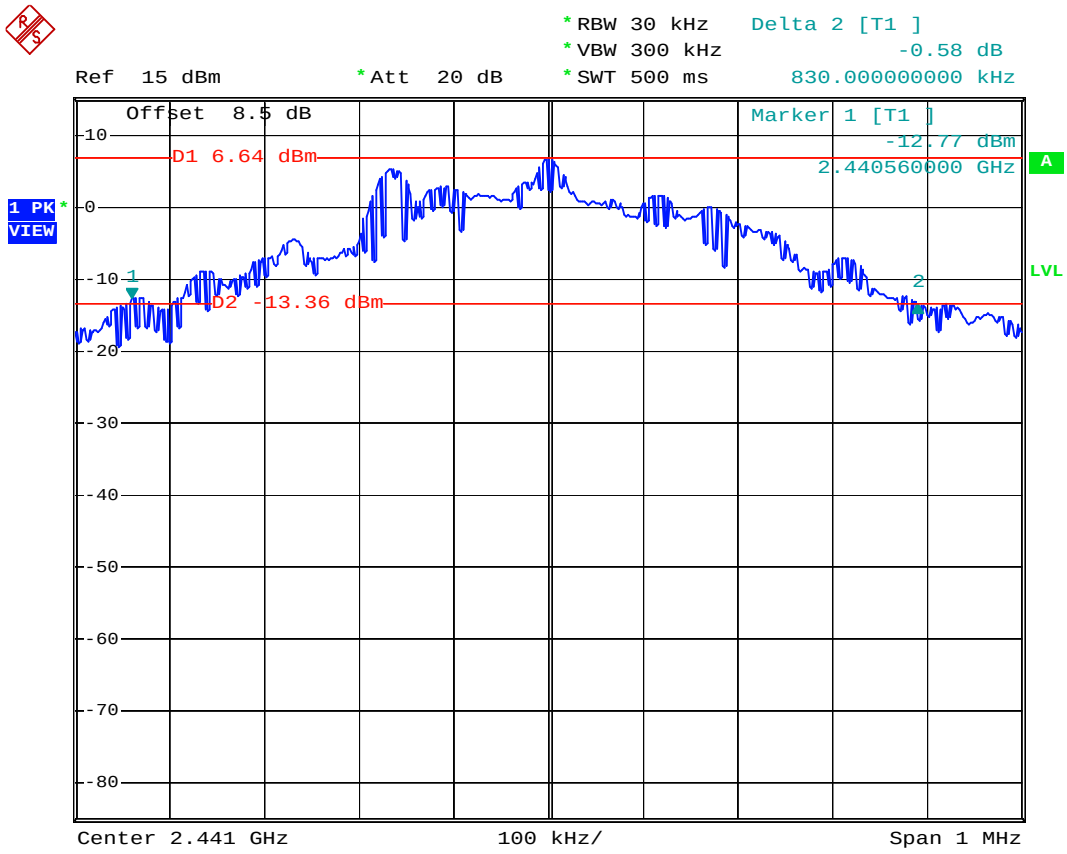
- Temperature: 20.3°C
- Relative Humidity: 57%
- Test Engineer : James Huang

Channel	Frequency (MHz)	Hopping Channel Bandwidth (MHz)	Plot Ref. No.
00	2402	0.832	Mode 1
39	2441	0.830	Mode 2
78	2480	0.830	Mode 3

5.4.5 Hopping Channel Bandwidth

Mode 1: CH00 (2402MHz)

Mode 2: CH39 (2441MHz)



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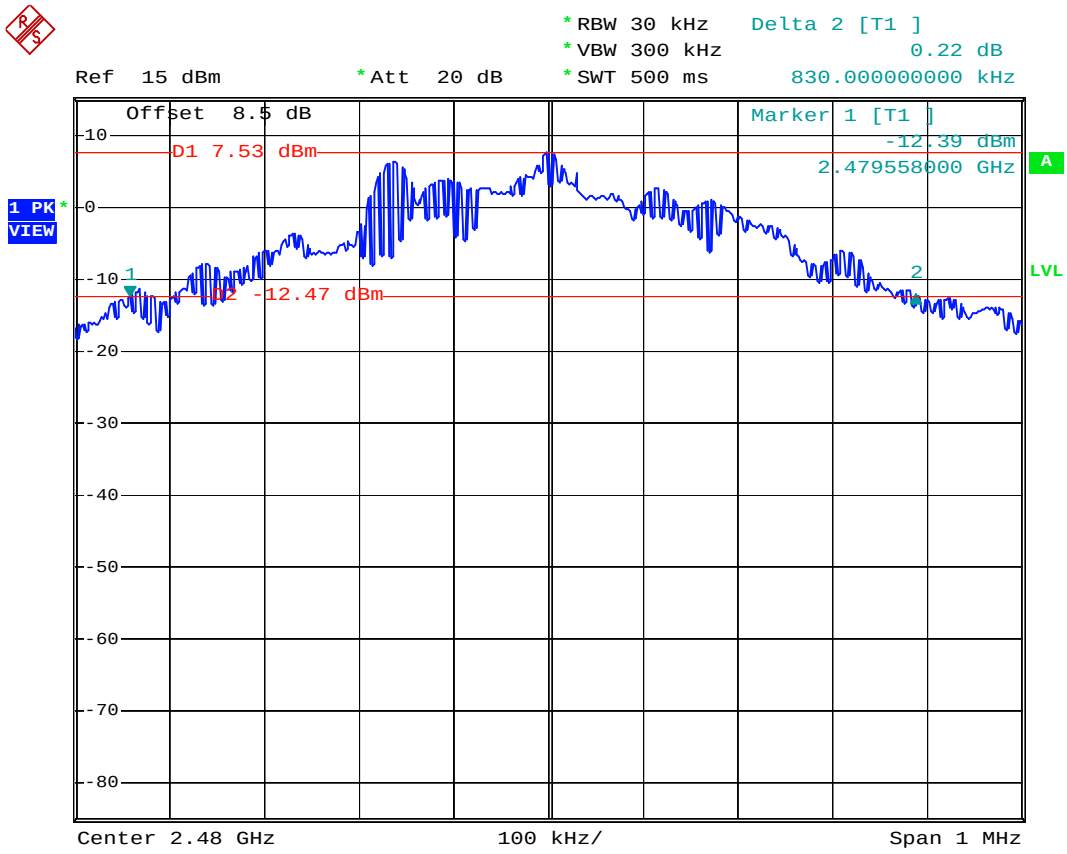
Mode 3: CH78 (2480MHz)



5.5 Dwell Time of Each Frequency

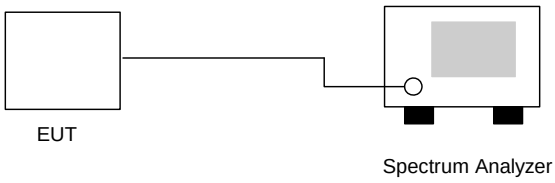
5.5.1 Measuring Instruments：

As described in chapter 6 of this test report.

5.5.2 Test Procedure：

1. The transmitter output was connected to the spectrum analyzer directly.
2. Set RBW of spectrum analyzer to 1MHz and VBW to 1MHz.
3. Set the center frequency on any frequency would be measured and set the frequency span to zero span.
4. The equation = 79*0.4*(1600/79)*t (t = the time duration of one single pulse)

5.5.3 Test Setup Layout：



5.5.4 Test Result：See spectrum analyzer plots below

- Temperature: 20.3°C
- Relative Humidity: 57%
- Test Engineer : James Huang

Ch00

Package Mode	Average Hopping Channel	Package Transfer Time (us)	Dwell Time (s)	Limit (s)
DH1	10.1	436	0.139	0.4
DH3	5	1710	0.270	0.4
DH5	3.4	3010	0.323	0.4

CH39

Package Mode	Average Hopping Channel	Package Transfer Time (us)	Dwell Time (s)	Limit (s)
DH1	10	436	0.138	0.4
DH3	5	1730	0.273	0.4
DH5	3.4	3010	0.323	0.4

CH78

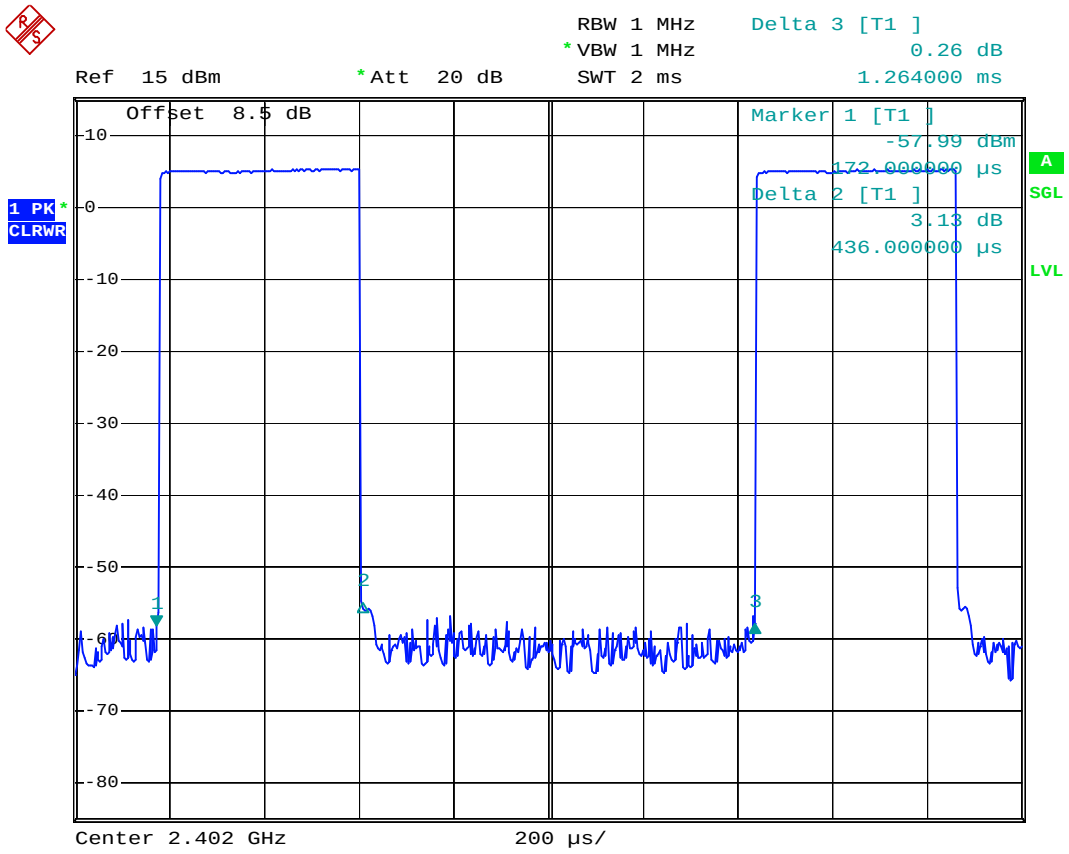
Package Mode	Average Hopping Channel	Package Transfer Time (us)	Dwell Time (s)	Limit (s)
DH1	10	436	0.138	0.4
DH3	5	1710	0.270	0.4
DH5	3.3	3010	0.314	0.4

※ Remark:

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

5.5.5 Dwell Time

DH1 (CH00)



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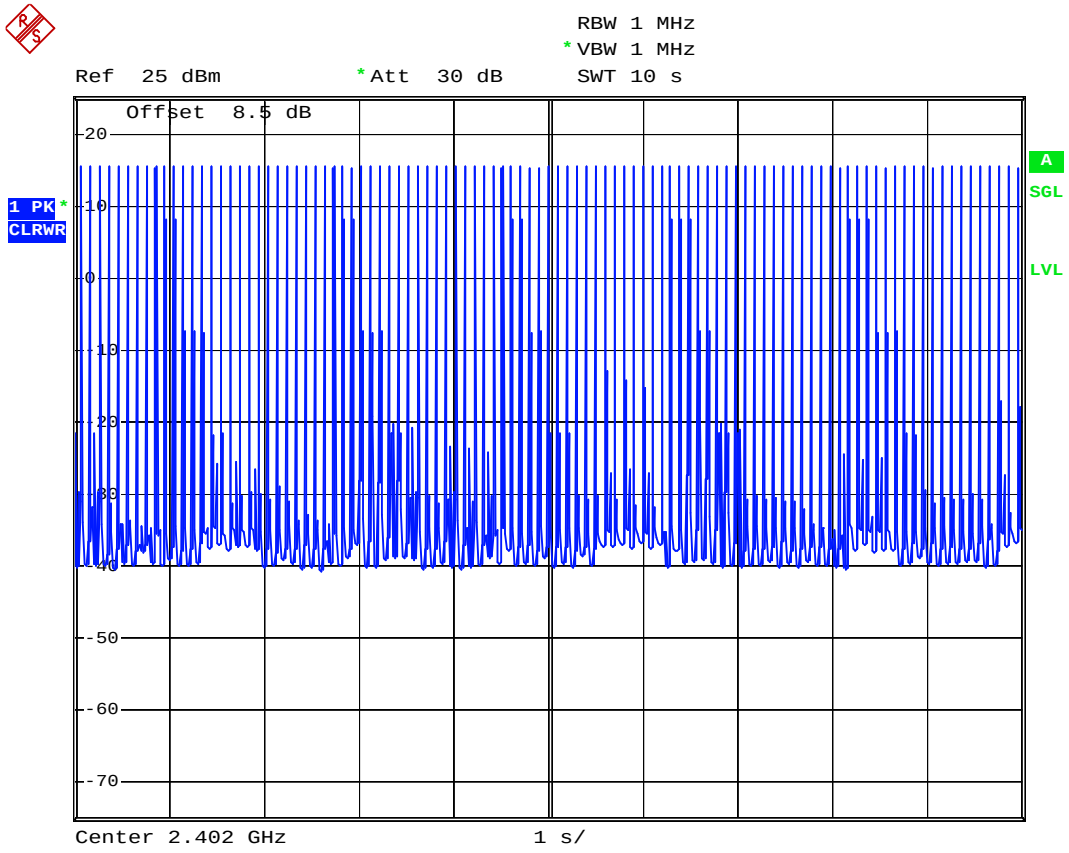
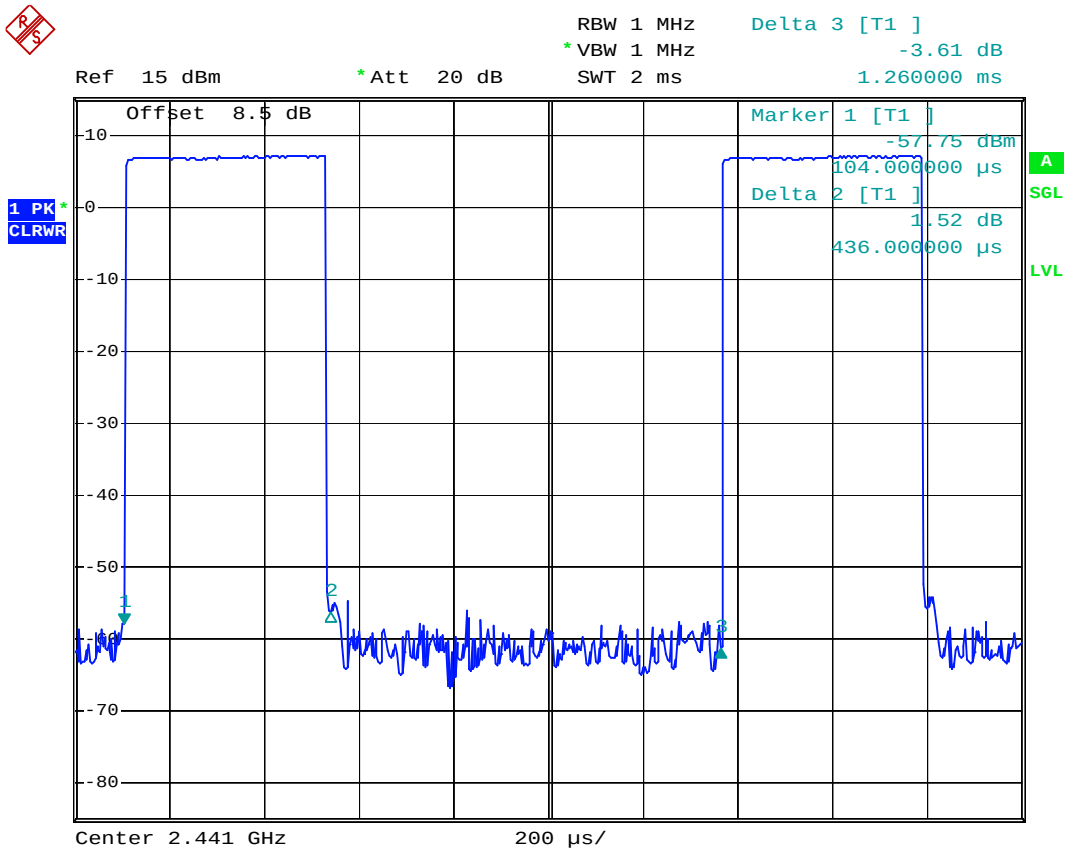


Date: 21.DEC.2006 17:57:00

DH1 (CH39)



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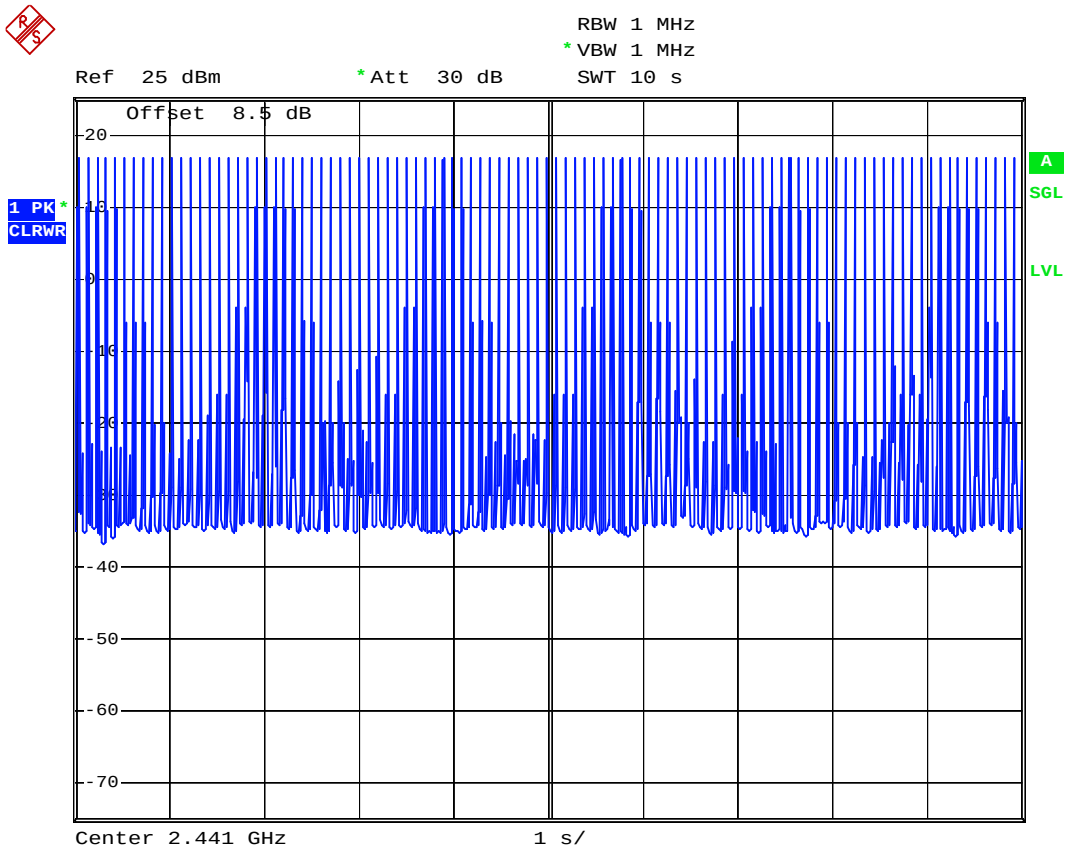

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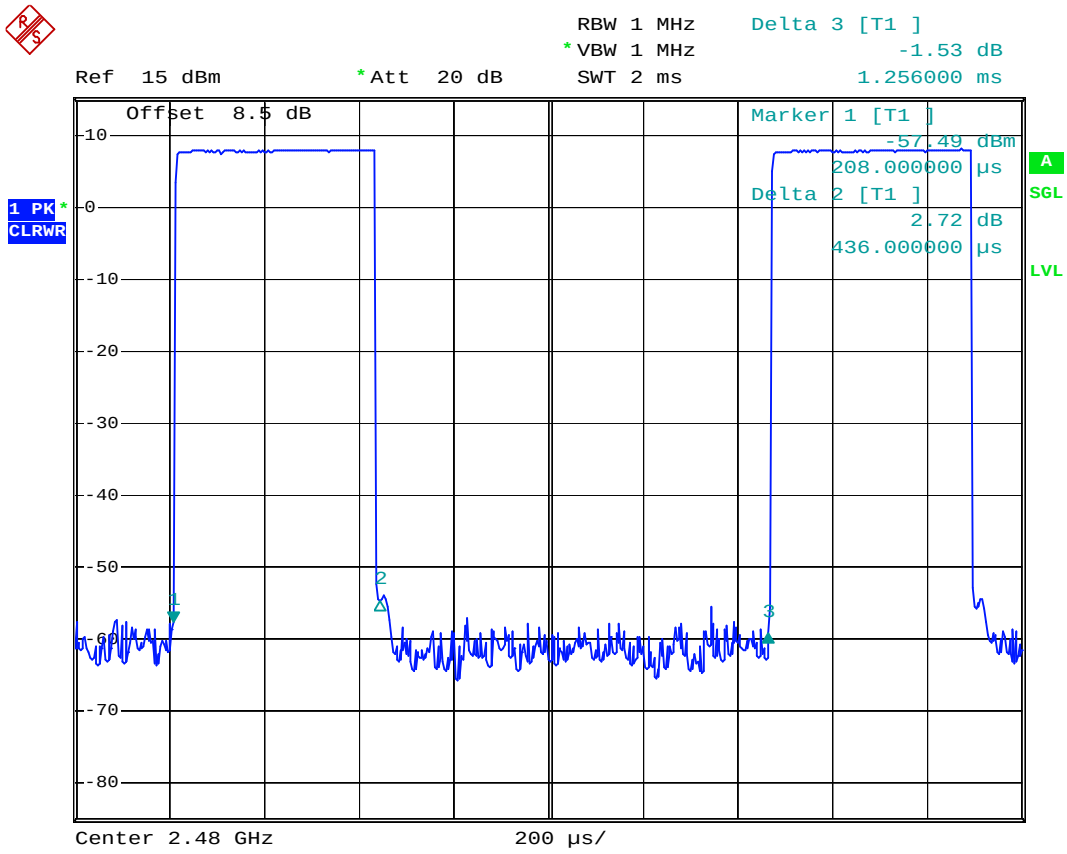
DH1 (CH78)



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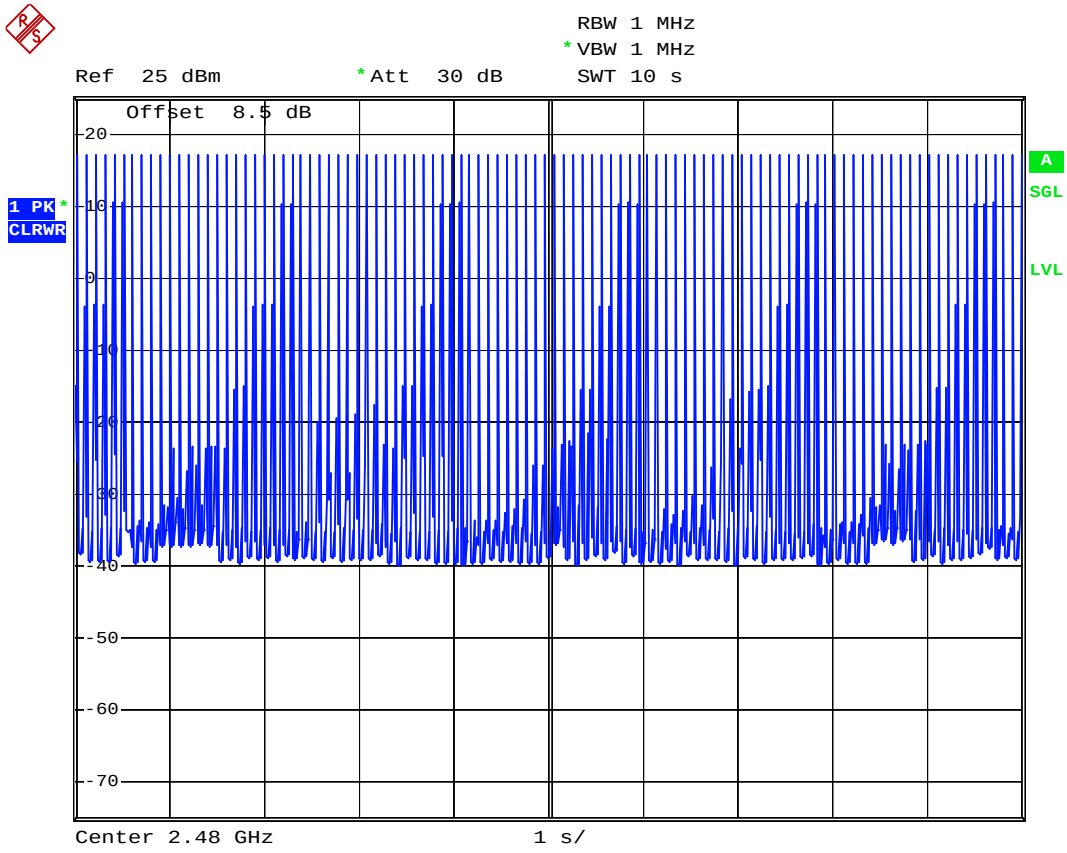
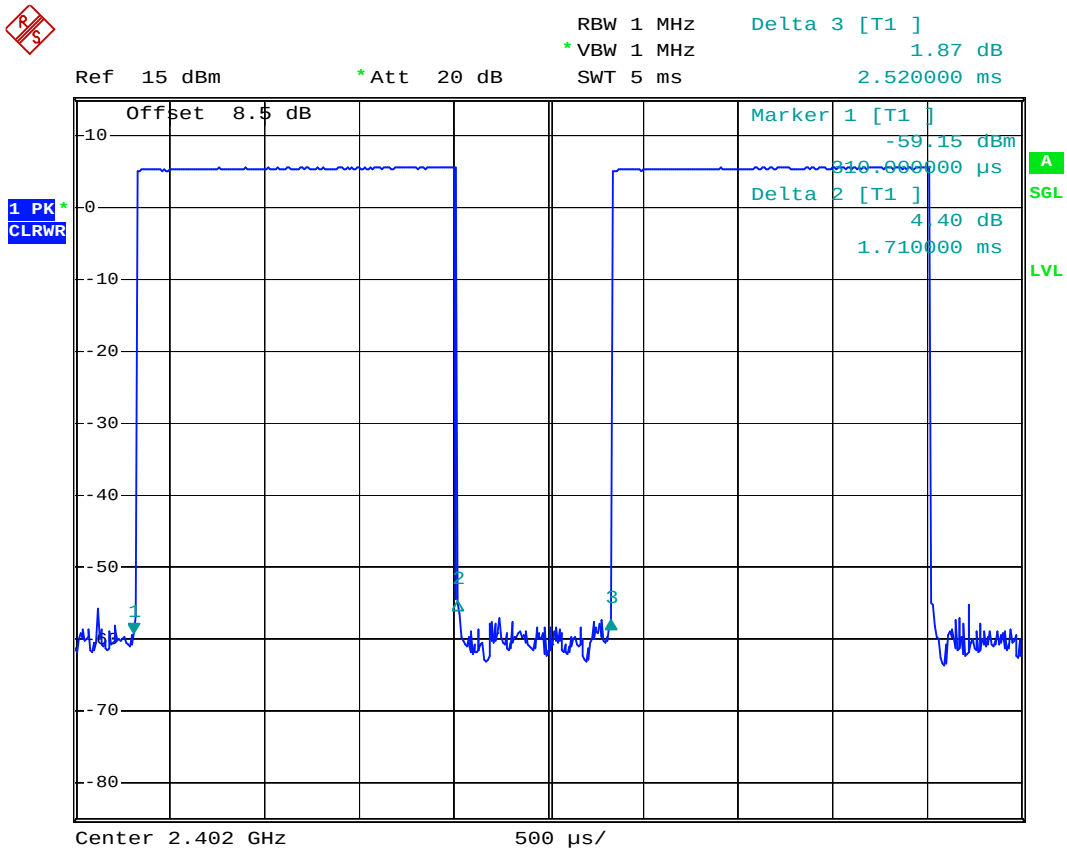


Date: 21.DEC.2006 17:58:01

DH3 (CH00)



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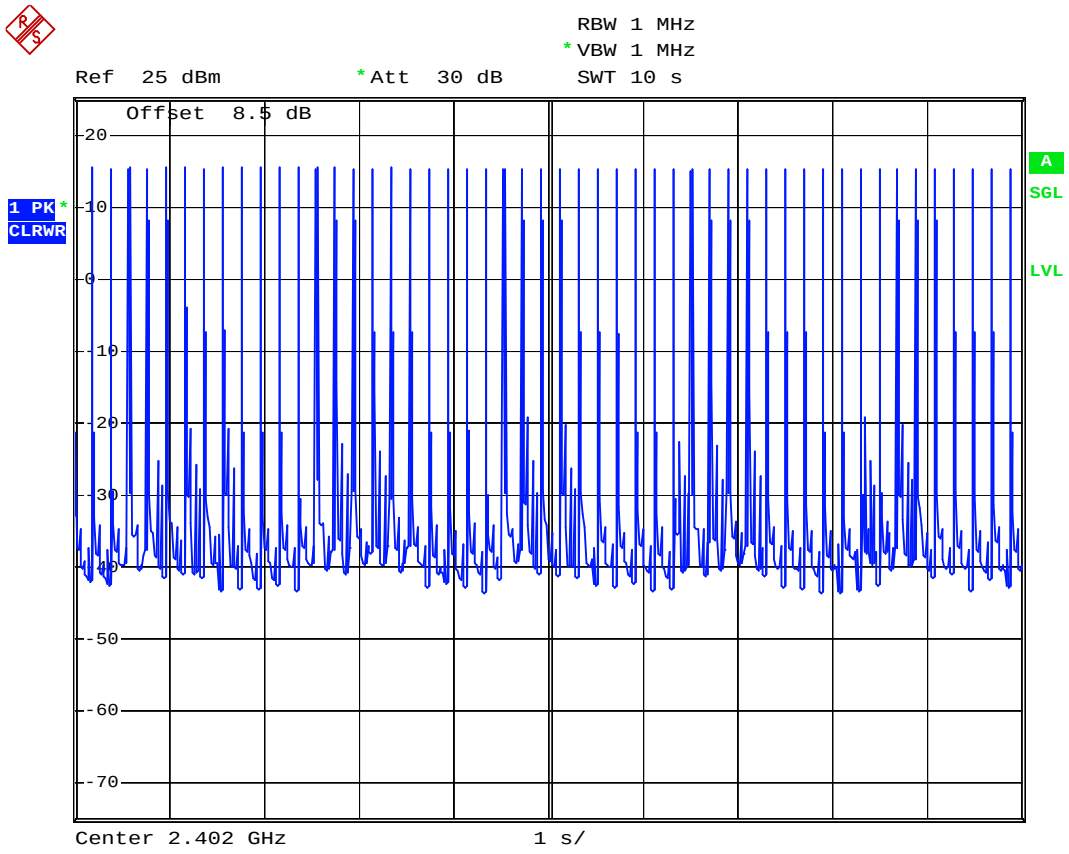

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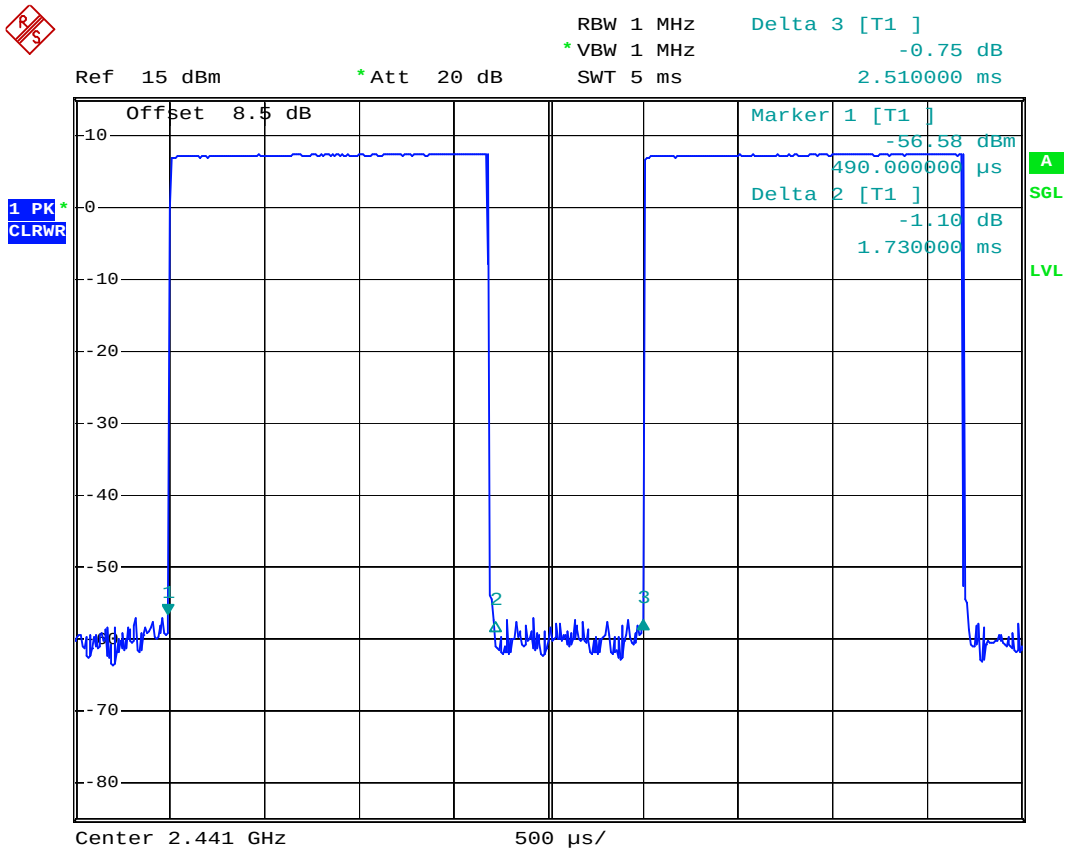
DH3 (CH39)



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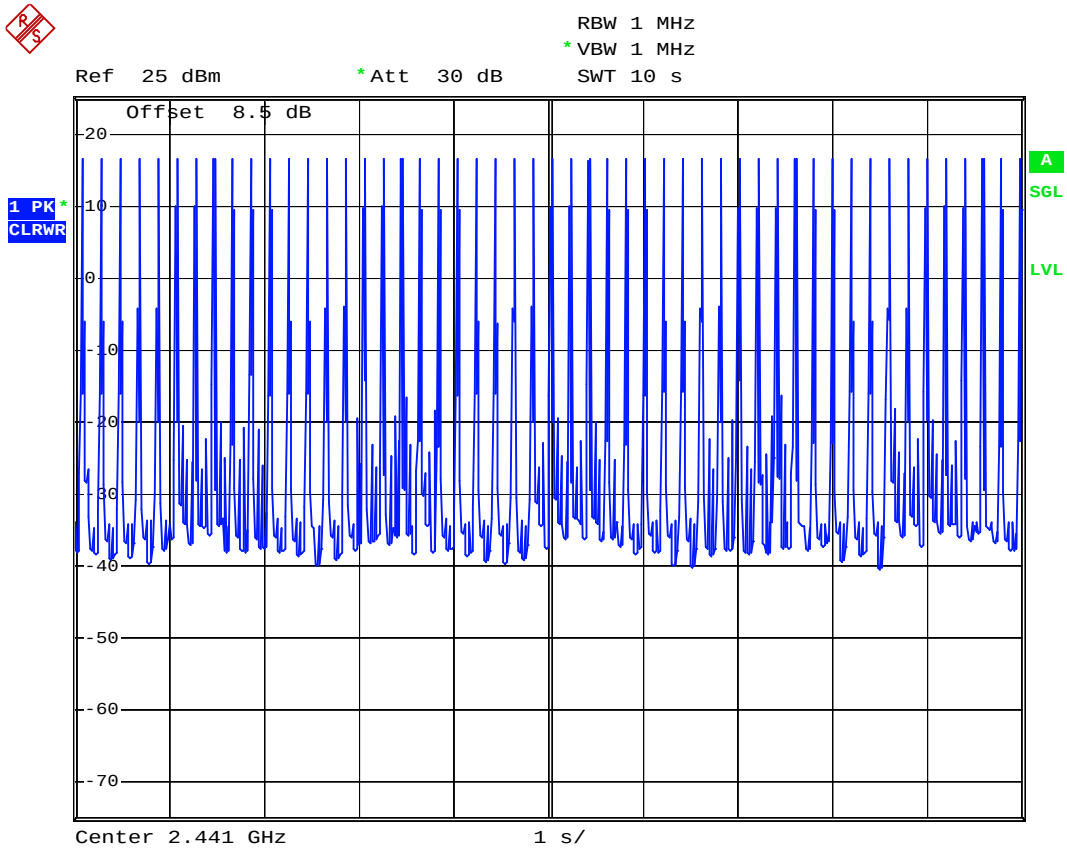

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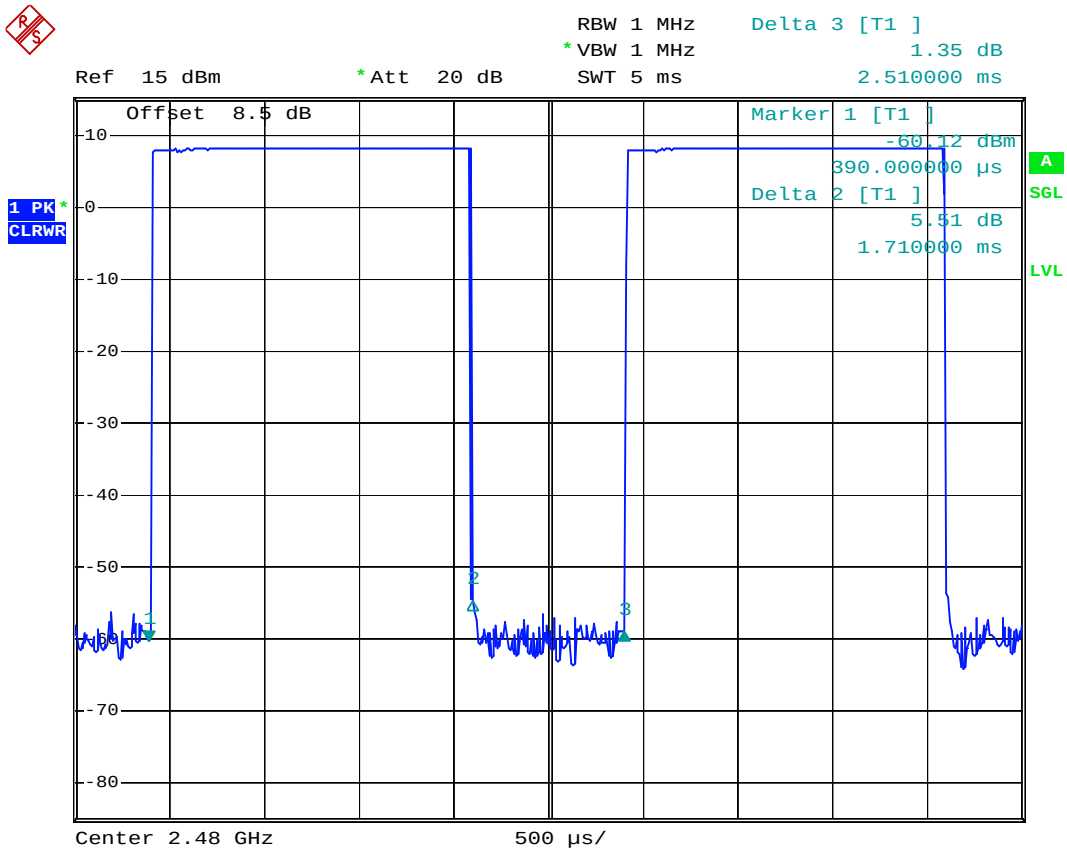
DH3 (CH78)



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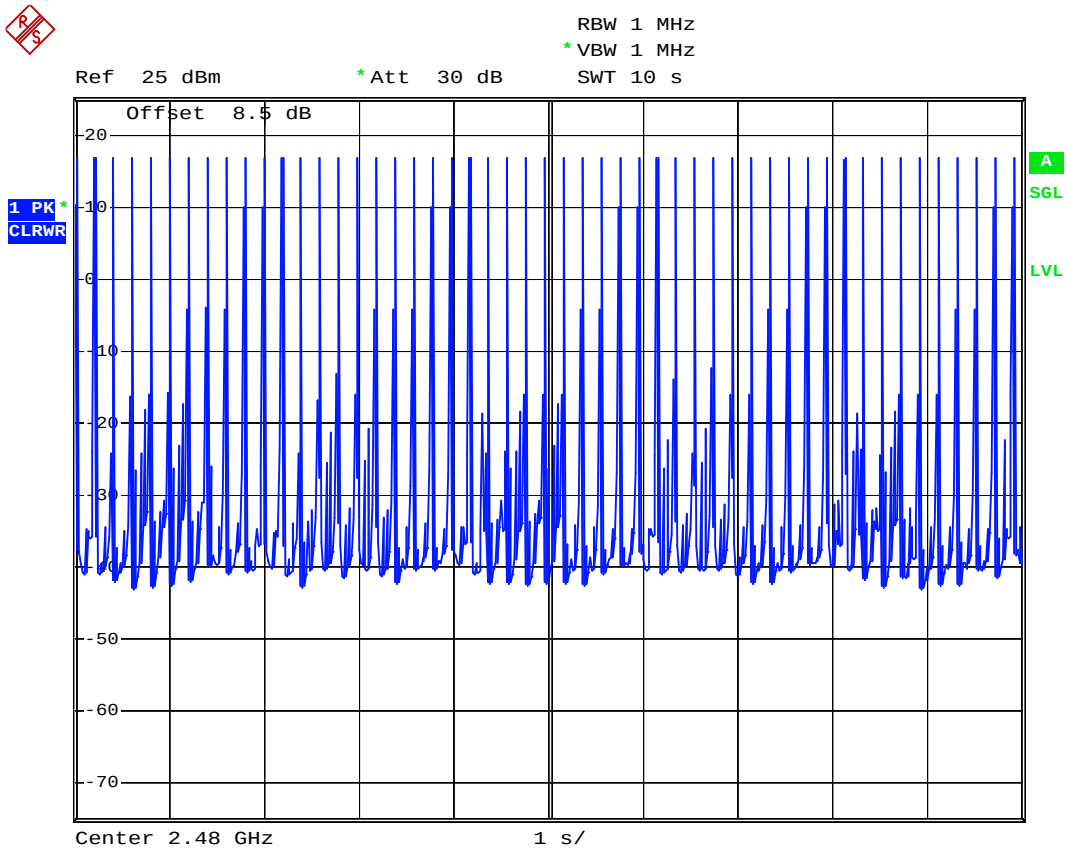

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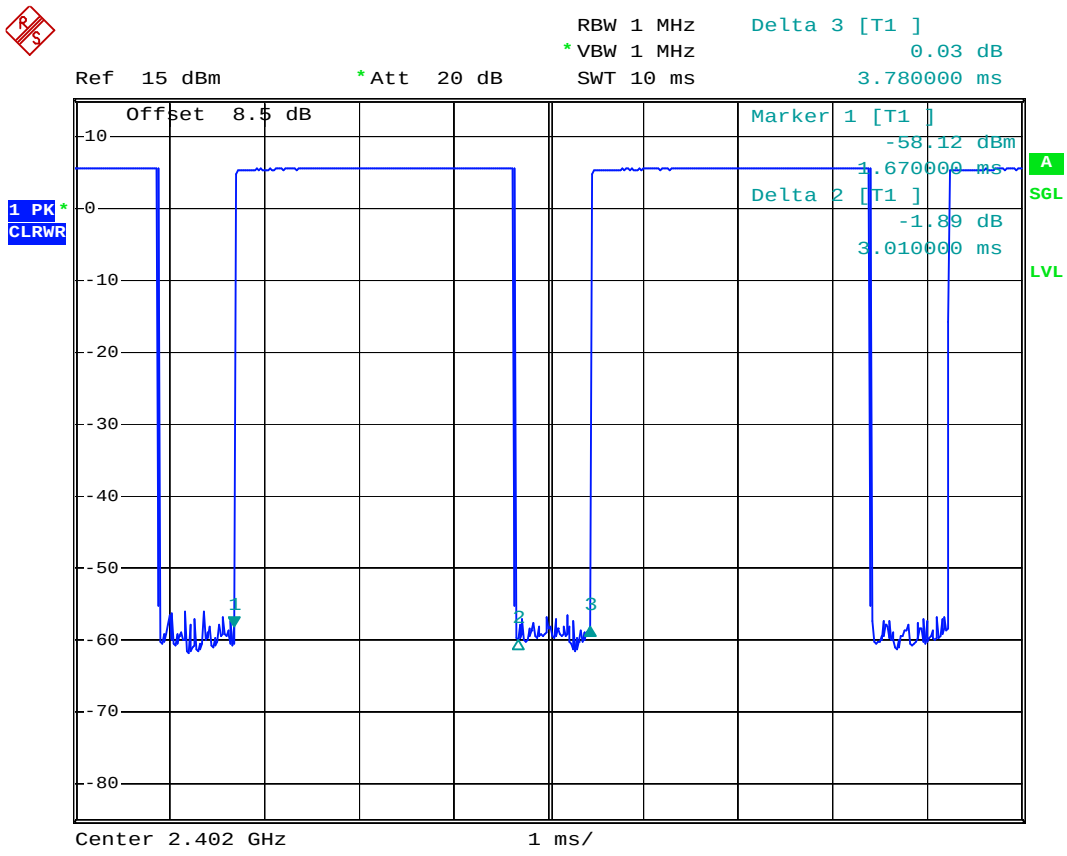
DH5 (CH00)



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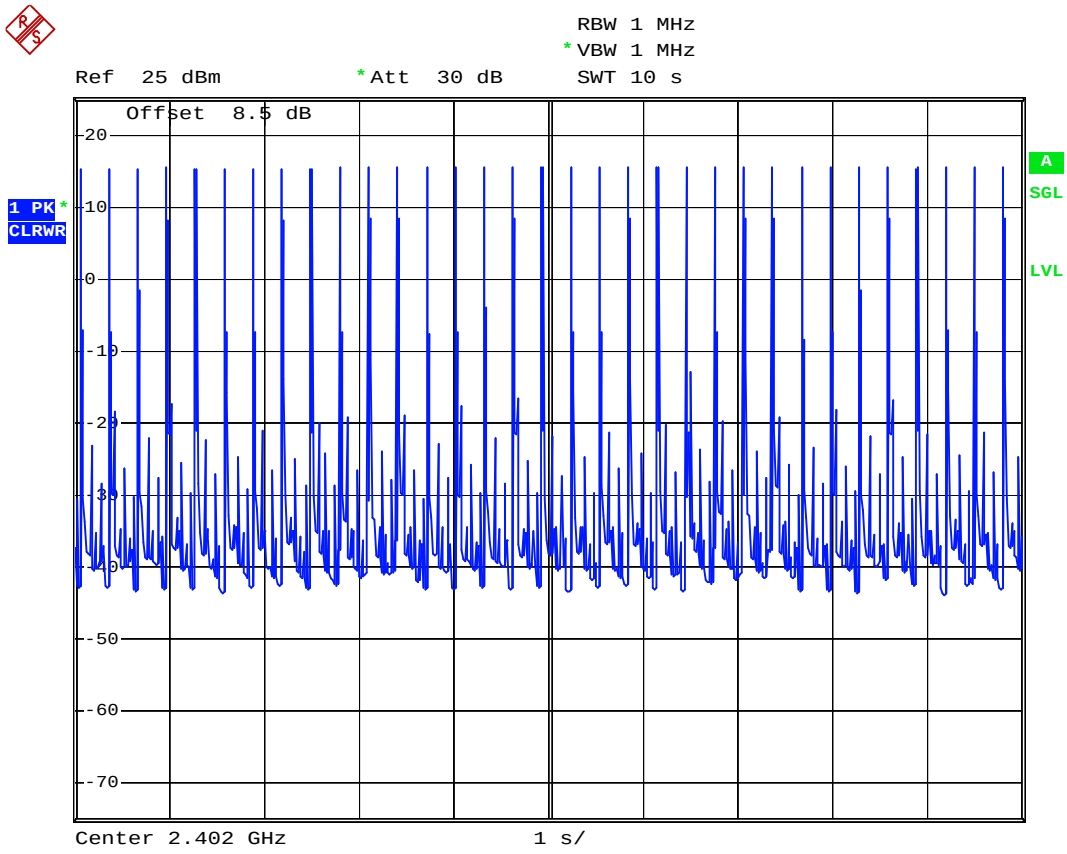

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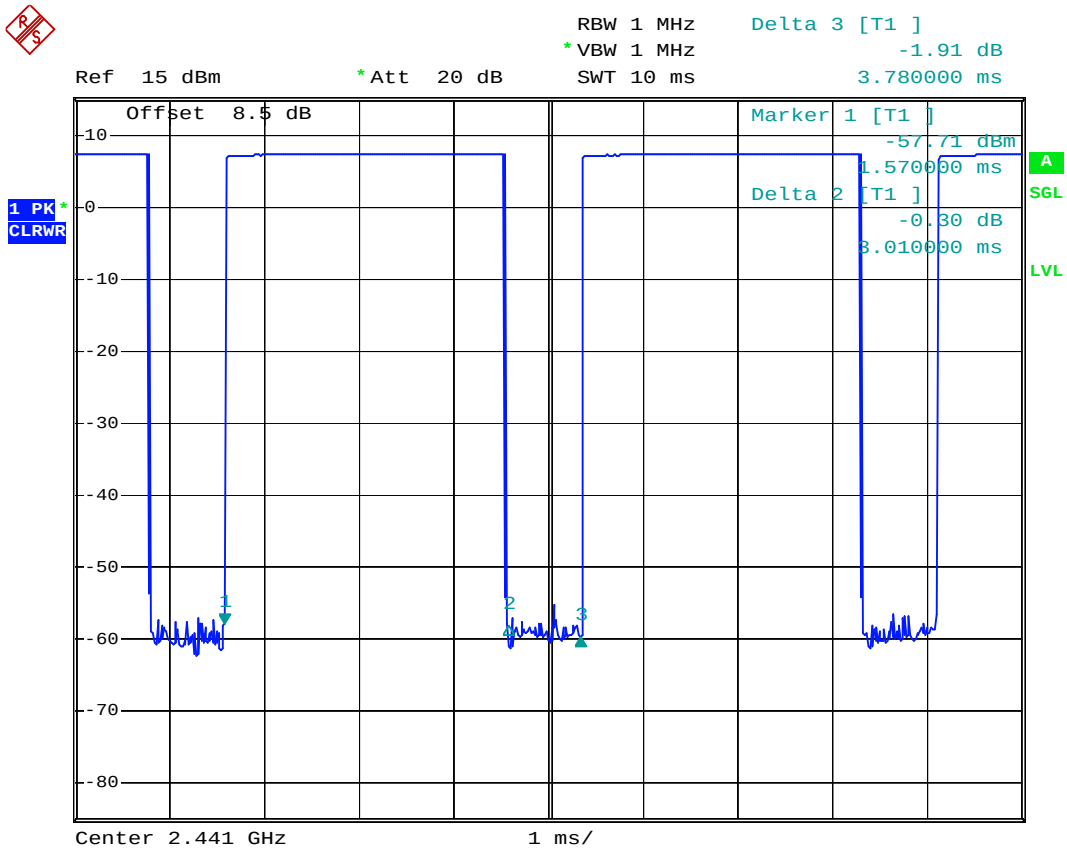
DH5 (CH39)



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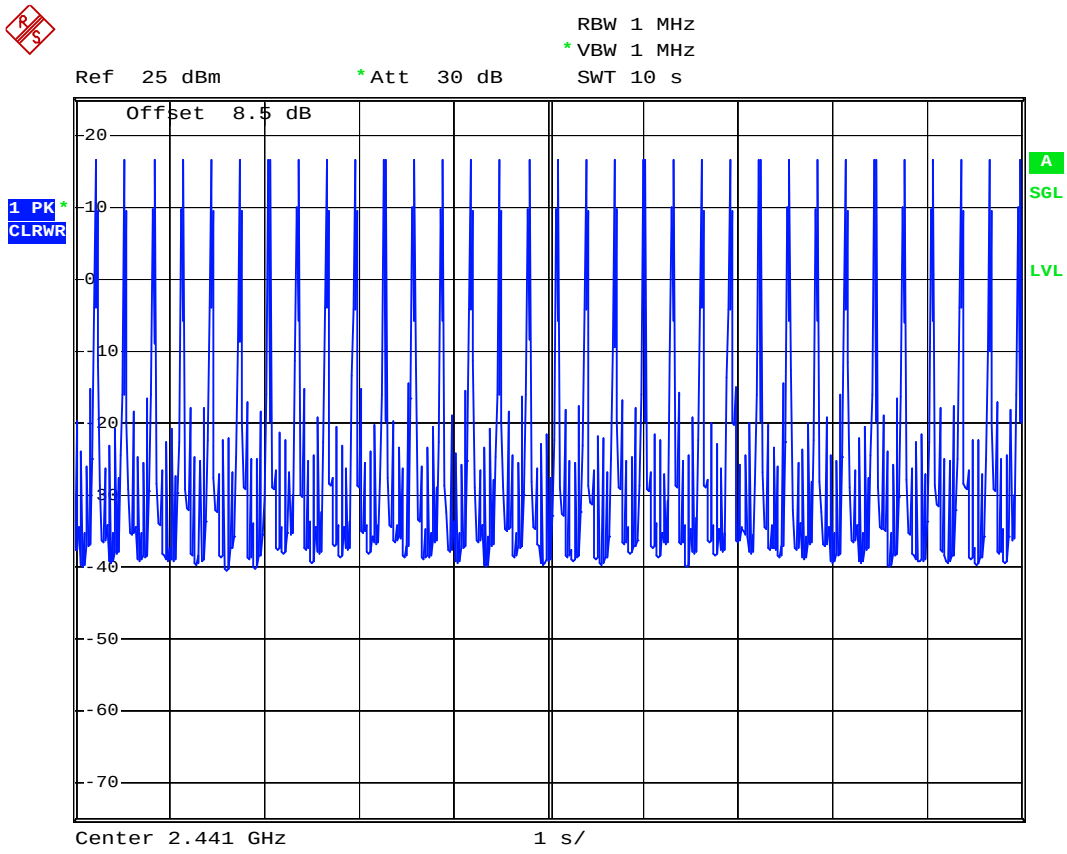

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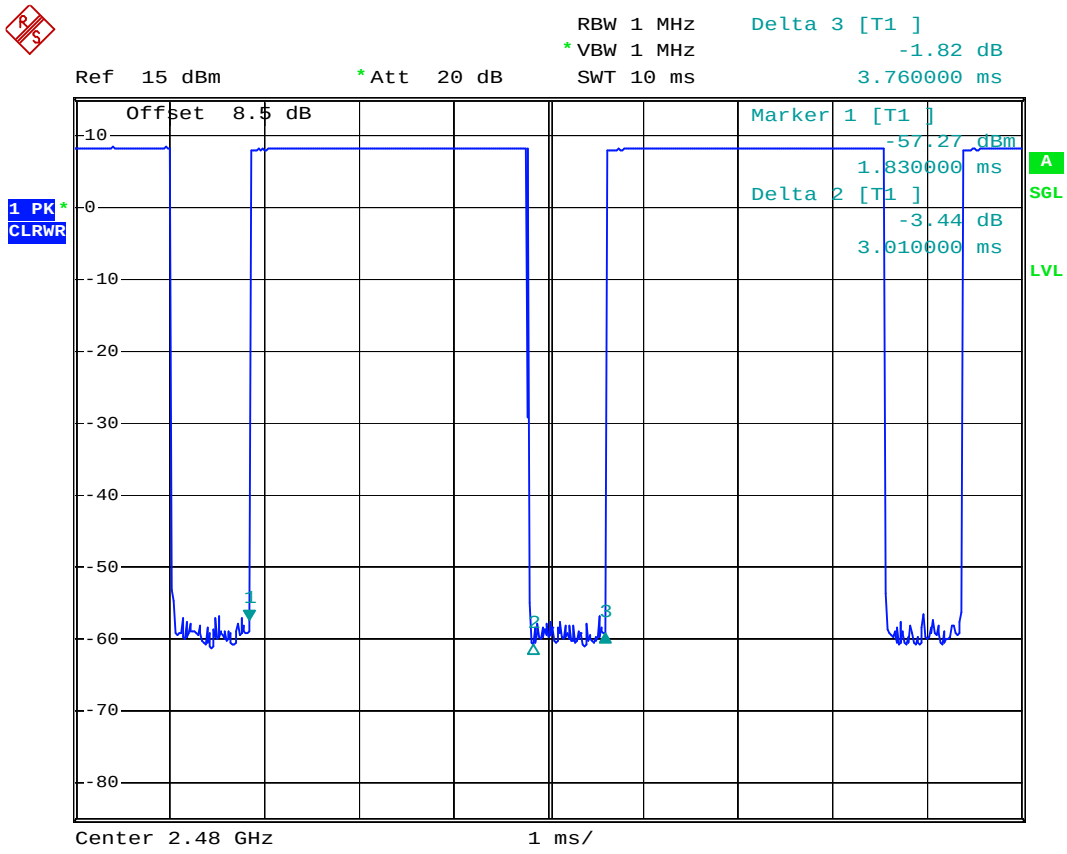
DH5 (CH78)



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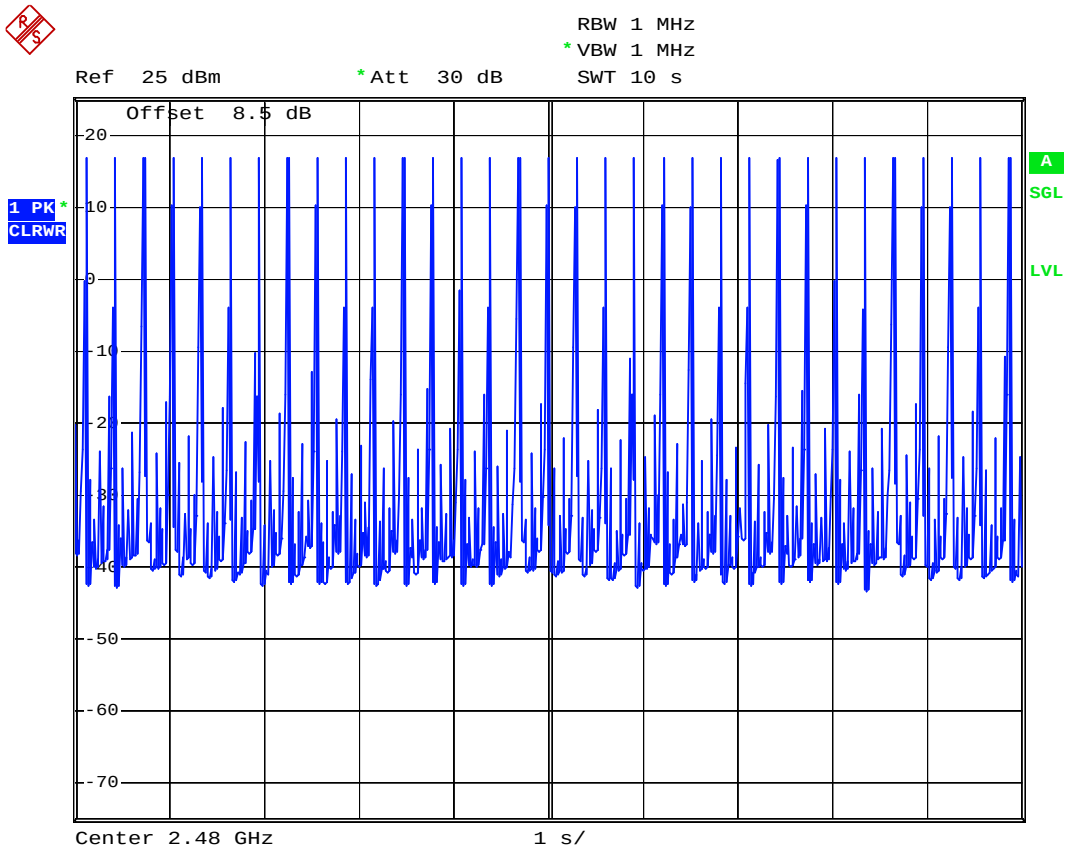


Date: 21.DEC.2006 18:01:20

5.6 Output Power

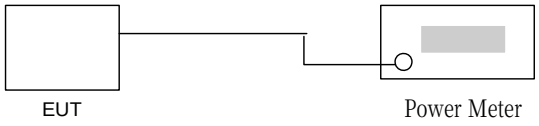
5.6.1 Measuring Instruments：

As described in chapter 6 of this test report.

5.6.2 Test Procedure：

1. The antenna port（RF output） of the EUT was connected to the input（RF input）of a power meter for WLAN measurement. The power is equal to the reading level on power meter plus cable loss at the EUT antenna terminal.
2. The antenna port (RF output) of the EUT was connected to the input (RF input) of a spectrum analyzer for BT measurement. The cable loss has been offset before testing.

5.6.3 Test Setup Layout：



5.6.4 Test Result：See spectrum analyzer plots below

- Temperature: 20.3°C
- Relative Humidity: 57%
- Test Engineer : James Huang

Channel	Frequency (MHz)	Measured Output Power (dBm)	Limits (Watt/dBm)	Plot Ref. No.
00	2402	5.34	1W/30 dBm	Mode 1
39	2441	7.19	1W/30 dBm	Mode 2
78	2480	8.15	1W/30 dBm	Mode 3

5.7 100kHz Bandwidth of Frequency Band Edges

5.7.1 Measuring Instruments：

As described in chapter 6 of this test report.

5.7.2 Test Procedure：

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

5.7.3 Test Result：

- Temperature: 20.3°C
- Relative Humidity: 57%
- Test Engineer : James Huang

Test Result in lower band (Channel 00)： PASS

Test Result in higher band(Channel 78)： PASS

5.7.4 Note on Band edge Emission

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)	Detect Mode
2389.8	49.20	-24.80	74.00	50.65	30.26	3.75	35.46	100	0	Peak
2389.8	38.49	-15.51	54.00	39.94	30.26	3.75	35.46	105	59	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)	Detect Mode
2370.3	49.77	-24.23	74.00	51.23	30.25	3.73	35.44	100	0	Peak
2370.3	39.30	-14.70	54.00	40.76	30.25	3.73	35.44	106	325	Average

CH78 (Horizontal)

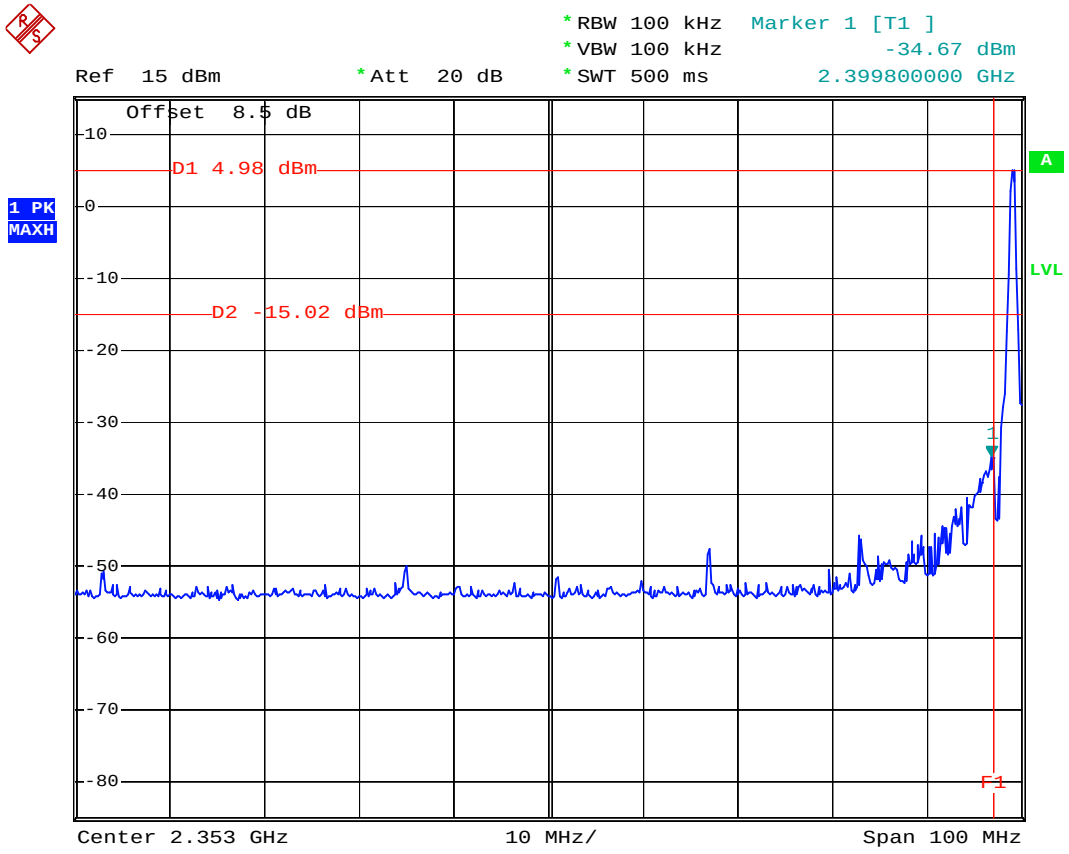
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Detect Mode
2483.5	69.02	-4.98	74.00	70.38	30.29	3.86	35.51	100	0	Peak
2483.5	45.97	-28.03	74.00	47.33	30.29	3.86	35.51	119	344	Average

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)	Detect Mode
2483.5	46.37	-7.63	54.00	47.73	30.29	3.86	35.51	118	15	Average
2483.5	65.87	-8.13	74.00	67.23	30.29	3.86	35.51	100	0	Peak

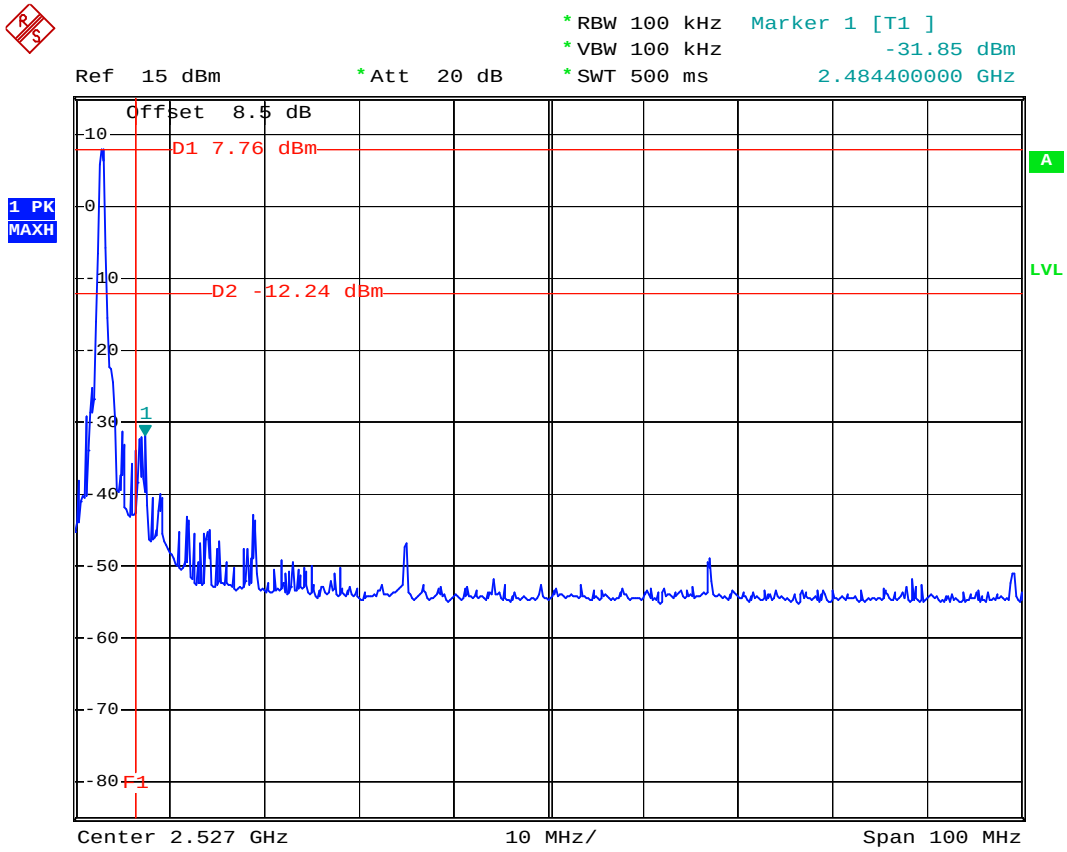
5.7.5 Frequency Band Edge

Mode 1: CH00 (2402 MHz)



Date: 18.JAN.2007 18:33:21

Mode 3: CH78 (2480 MHz)



Date: 18.JAN.2007 18:34:18

5.8 Radiated Emission Measurement

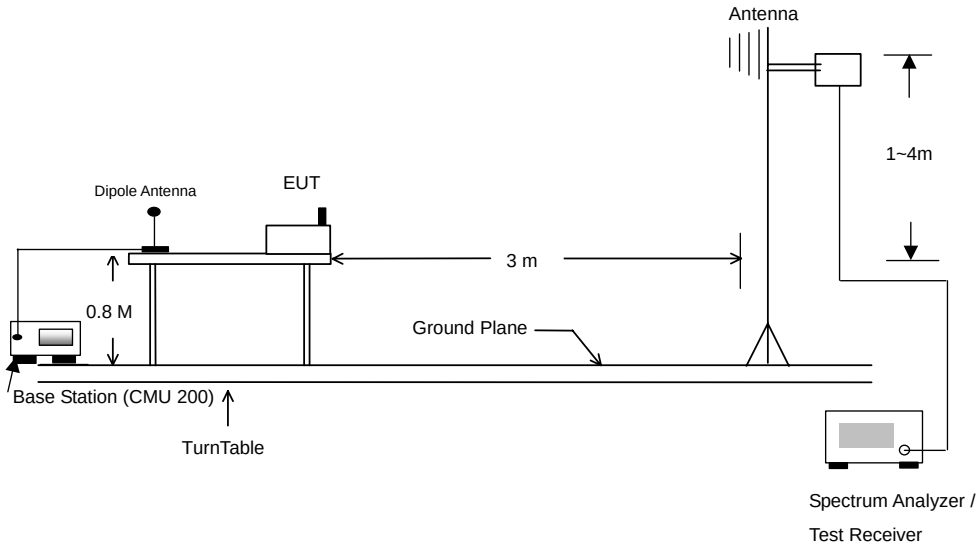
5.8.1 Measuring Instruments

As described in chapter 6 of this Report.

5.8.2 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.

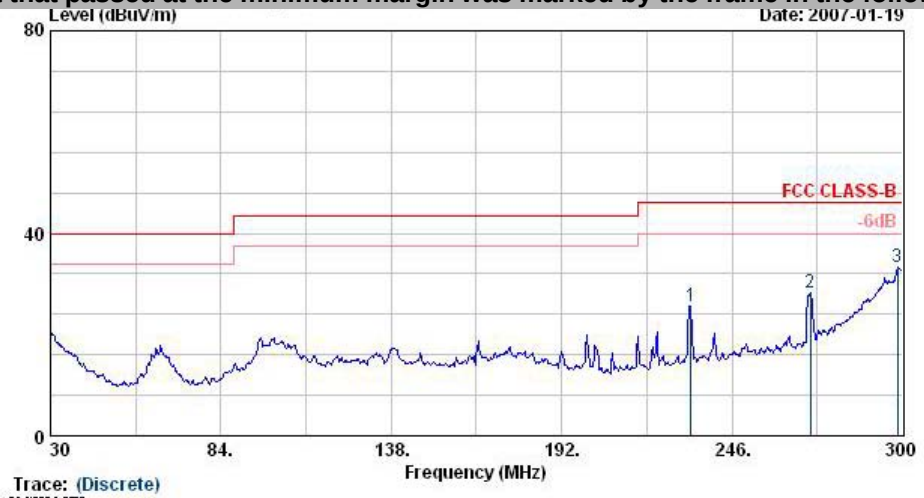
5.8.3 Typical Test Setup Layout of Radiated Emission



5.8.4 Test Data

- Temperature : 20.3 °C
- Relating Humidity : 57 %
- Test Engineer : Sam Lu
- Test Mode : Mode 1
- Polarization : Horizontal

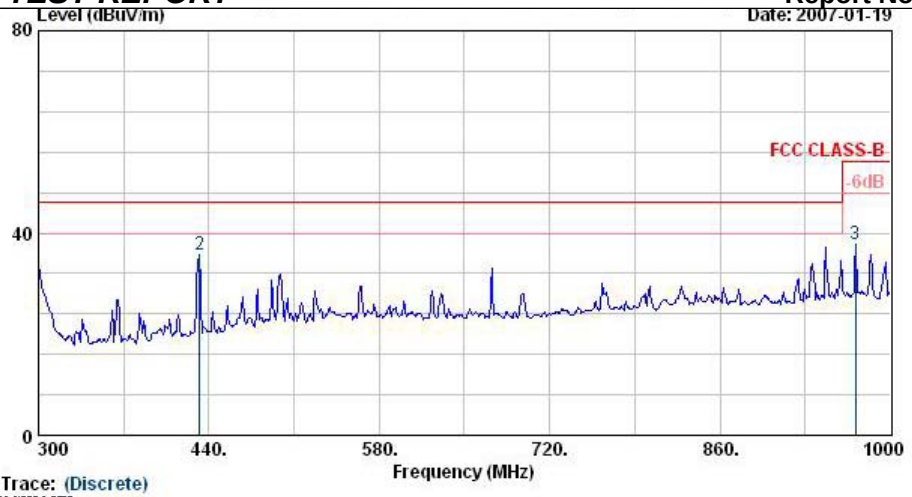
■ The test that passed at the minimum margin was marked by the frame in the following test record



Trace: (Discrete)

Site : 03CH06-HY
Condition : LF-ANT(951121) HORIZONTAL
EUT : Bluetooth Dongle (Class D
Power : From System
Model : TR 6D1421
Mode : Bluetooth TX_CH00;2402MHz
Data Rate : DH1

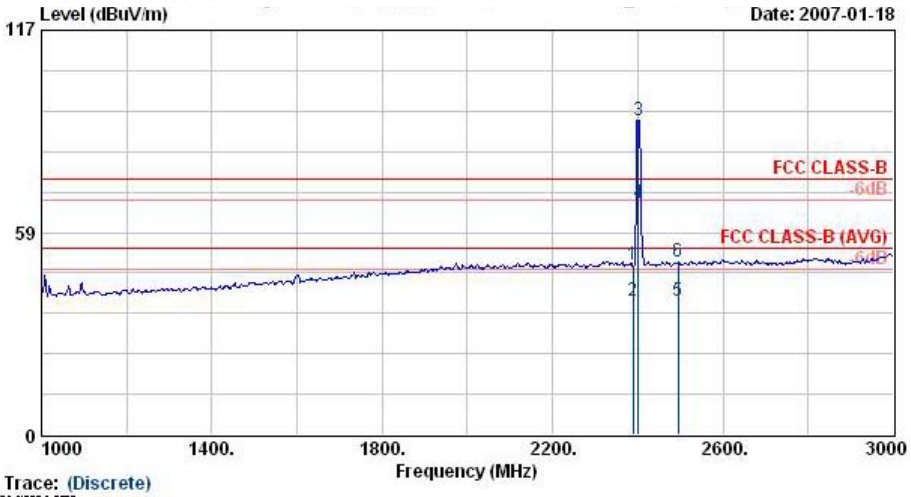
	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	233.0	25.65	-20.35	46.00	43.09	11.24	2.24	30.93	---	---	Peak
2	270.8	28.15	-17.85	46.00	43.93	12.66	2.53	30.96	---	---	Peak
3 @	298.4	33.33	-12.67	46.00	48.45	13.19	2.63	30.94	---	---	Peak



Trace: (Discrete)

Site : 03CH06-HY
Condition : LF-ANT(951121) HORIZONTAL
EUT : Bluetooth Dongle (Class D
Power : From System
Model : TR 6D1421
Mode : Bluetooth TX_CH00;2402MHz
Data Rate : DH1

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	300.0	33.58	-12.42	46.00	48.67	13.21	2.63	30.93	---	---	Peak
2 @	432.3	35.58	-10.42	46.00	46.85	16.31	3.26	30.83	100	159	Peak
3	971.3	37.77	-16.23	54.00	41.98	21.03	5.04	30.28	---	---	Peak

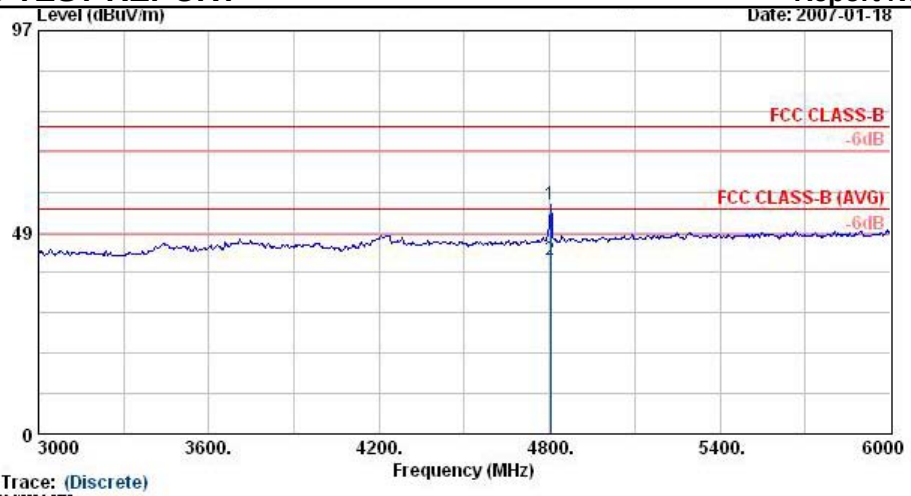


Trace: (Discrete)

Site : 03CH06-HY
Condition : HF-ANT-060410 HORIZONTAL
EUT : Bluetooth Dongle (Class D
Power : From System
Model : TR 6D1421
Mode : Bluetooth TX_CH00;2402MHz
Data Rate : DH1

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	2389.8	49.20	-24.80	74.00	50.65	30.26	3.75	35.46	100	0	Peak
2	2389.8	38.49	-15.51	54.00	39.94	30.26	3.75	35.46	105	59	Average
3 @	2402.0	91.05			92.48	30.26	3.77	35.46	100	0	Peak
4 @	2402.0	66.91			68.34	30.26	3.77	35.46	105	59	Average
5	2494.0	38.78	-15.22	54.00	40.13	30.30	3.88	35.53	105	59	Average
6	2494.0	49.82	-24.18	74.00	51.17	30.30	3.88	35.53	100	0	Peak

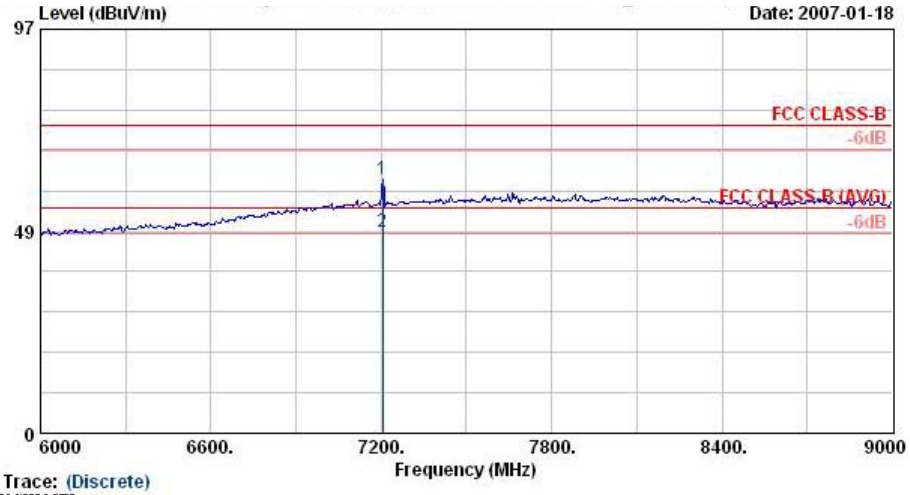
Remark: #3 and #4 Fundamental Signal



Trace: (Discrete)

Site : 03CH06-HY
Condition : HF-ANT-060410 HORIZONTAL
EUT : Bluetooth Dongle (Class I)
Power : From System
Model : TR 6D1421
Mode : Bluetooth TX_CH00;2402MHz
Data Rate : DH1

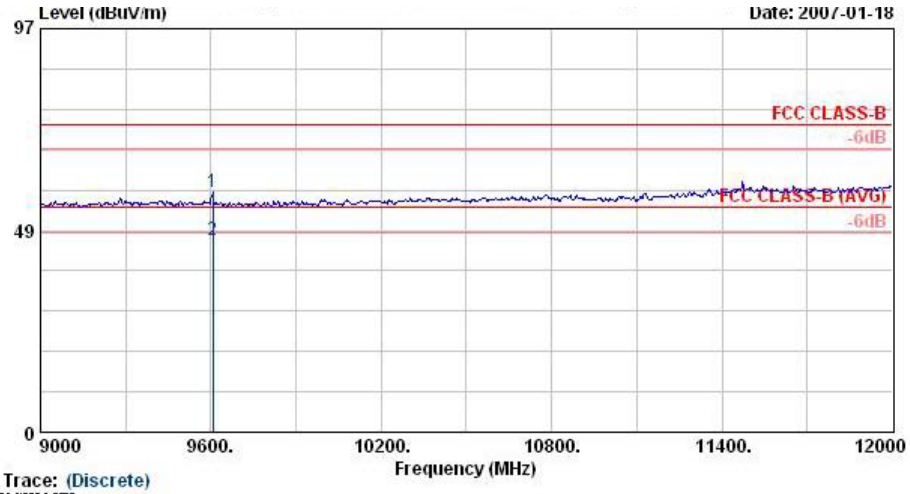
	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	4804.0	55.07	-18.93	74.00	52.46	32.88	5.83	36.10	100	0	Peak
2 @	4804.0	41.92	-12.08	54.00	39.31	32.88	5.83	36.10	100	312	Average



Trace: (Discrete)

Site : 03CH06-HY
Condition : HF-ANT-060410 HORIZONTAL
EUT : Bluetooth Dongle (Class I)
Power : From System
Model : TR 6D1421
Mode : Bluetooth TX_CH00;2402MHz
Data Rate : DH1

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	7206.0	60.81	-13.19	74.00	50.65	38.26	7.79	35.88	100	0	Peak
2 @	7206.0	48.35	-5.65	54.00	38.19	38.26	7.79	35.88	100	44	Average



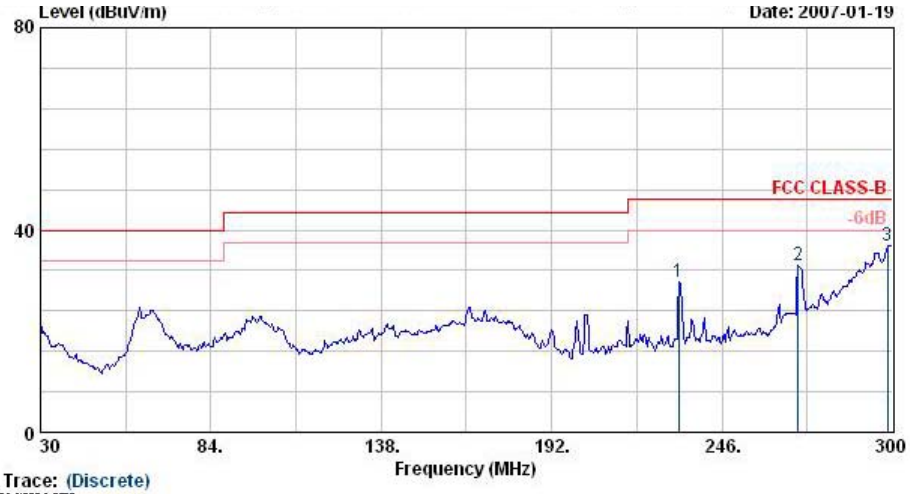
Trace: (Discrete)

Site : 03CH06-HY
Condition : HF-ANT-060410 HORIZONTAL
EUT : Bluetooth Dongle (Class I)
Power : From System
Model : TR 6D1421
Mode : Bluetooth TX_CH00;2402MHz
Data Rate : DH1

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	9606.0	57.55	-16.45	74.00	46.36	38.80	9.11	36.72	100	0	Peak
2 @	9608.0	46.10	-7.90	54.00	34.89	38.80	9.11	36.70	100	328	Average

- Test Mode : Mode 1
- Polarization : Vertical

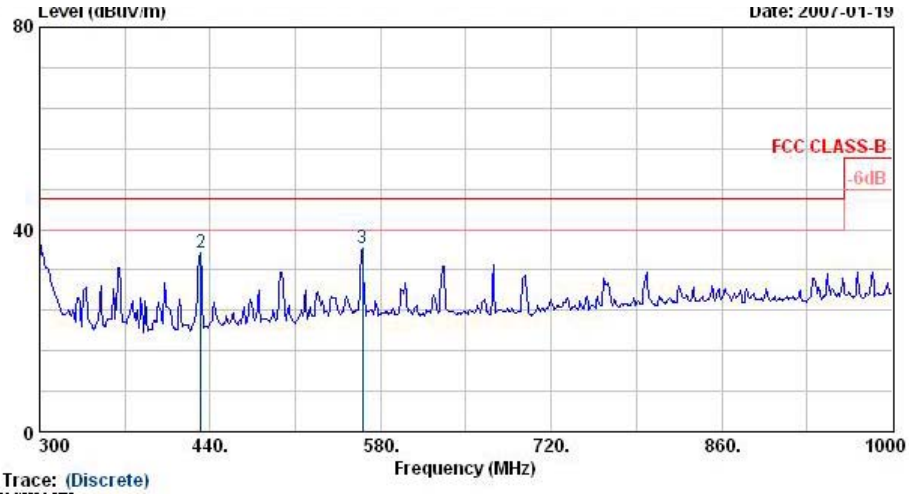
■ The test that passed at minimum margin was marked by the frame in the following table.



Trace: (Discrete)

Site : 03CH06-HY
Condition : LF-ANT(951121) VERTICAL
EUT : Bluetooth Dongle (Class I)
Power : From System
Model : TR 6D1421
Mode : Bluetooth TX_CH00;2402MHz
Data Rate : DH1

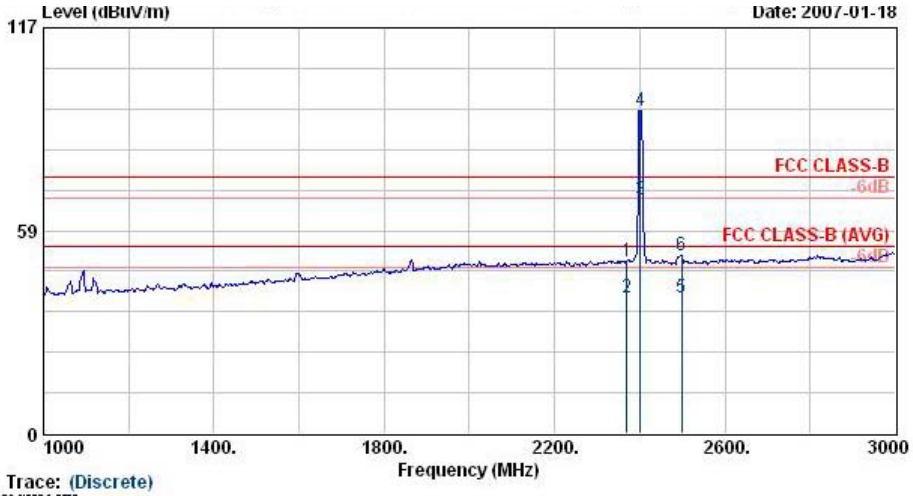
	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	232.2	29.60	-16.40	46.00	47.11	11.18	2.23	30.93	---	---	Peak
2	270.0	32.97	-13.03	46.00	48.77	12.64	2.52	30.96	---	---	Peak
3 @	298.4	37.01	-8.99	46.00	52.12	13.19	2.63	30.94	100	163	Peak



Trace: (Discrete)

Site : 03CH06-HY
Condition : LF-ANT(951121) VERTICAL
EUT : Bluetooth Dongle (Class I)
Power : From System
Model : TR 6D1421
Mode : Bluetooth TX_CH00;2402MHz
Data Rate : DH1

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	300.0	37.77	-8.23	46.00	52.86	13.21	2.63	30.93	---	---	Peak
2 @	432.3	35.47	-10.53	46.00	46.74	16.31	3.26	30.83	---	---	Peak
3 @	565.3	36.22	-9.78	46.00	45.05	18.11	3.77	30.71	---	---	Peak

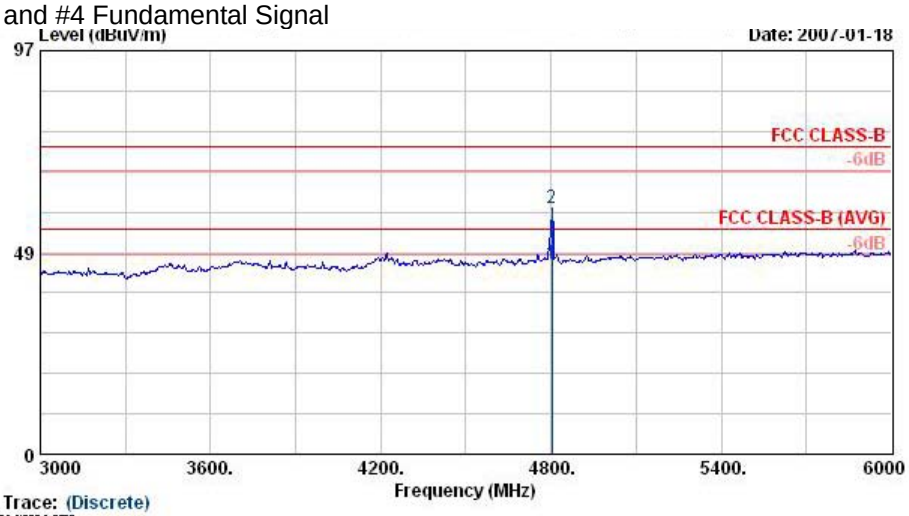


Trace: (Discrete)

Site : 03CH06-HY
Condition : HF-ANT-060410 VERTICAL
EUT : Bluetooth Dongle (Class I)
Power : From System
Model : TR 6D1421
Mode : Bluetooth TX_CH00;2402MHz
Data Rate : DH1

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	2370.3	49.77	-24.23	74.00	51.23	30.25	3.73	35.44	100	0	Peak
2	2370.3	39.30	-14.70	54.00	40.76	30.25	3.73	35.44	106	325	Average
3 @	2402.0	67.26			68.69	30.26	3.77	35.46	106	325	Average
4 @	2402.0	93.25			94.67	30.26	3.77	35.46	100	0	Peak
5	2498.0	38.99	-15.01	54.00	40.34	30.30	3.88	35.53	106	325	Average
6	2498.0	51.22	-22.78	74.00	52.57	30.30	3.88	35.53	100	0	Peak

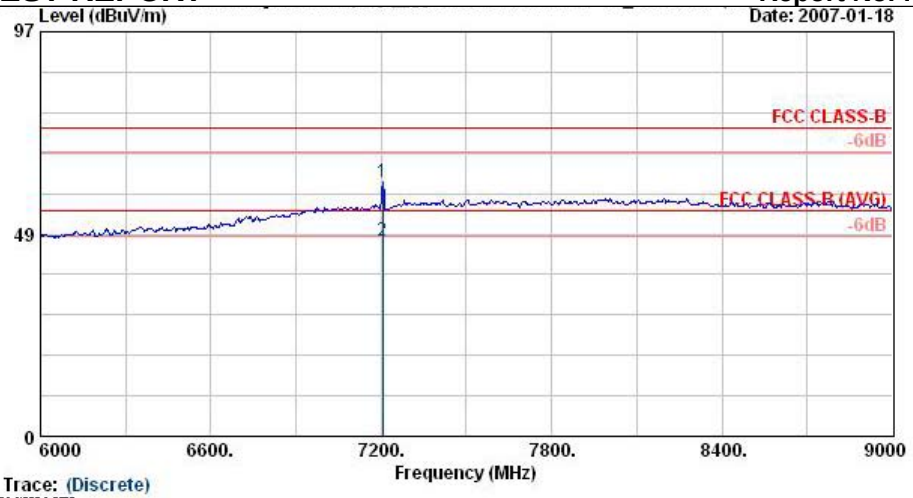
Remark: #3 and #4 Fundamental Signal



Trace: (Discrete)

Site : 03CH06-HY
Condition : HF-ANT-060410 VERTICAL
EUT : Bluetooth Dongle (Class I)
Power : From System
Model : TR 6D1421
Mode : Bluetooth TX_CH00;2402MHz
Data Rate : DH1

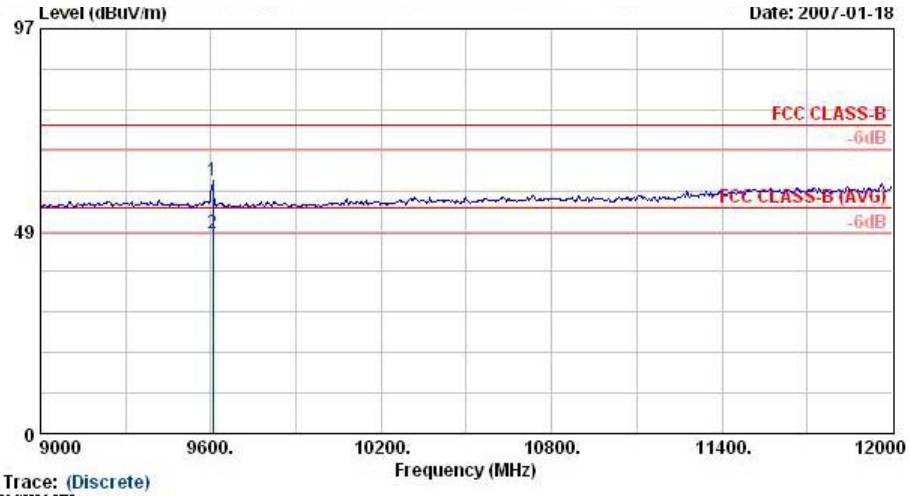
	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	4804.0	45.64	-8.36	54.00	43.03	32.88	5.83	36.10	100	39	Average
2	4804.0	59.09	-14.91	74.00	56.48	32.88	5.83	36.10	100	0	Peak



Trace: (Discrete)

Site : 03CH06-HY
Condition : HF-ANT-060410 VERTICAL
EUT : Bluetooth Dongle (Class D)
Power : From System
Model : TR 6D1421
Mode : Bluetooth TX_CH00;2402MHz
Data Rate : DH1

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	7206.0	61.08	-12.92	74.00	50.92	38.26	7.79	35.88	---	---	Peak
2 @	7206.0	46.85	-7.15	54.00	36.69	38.26	7.79	35.88	100	128	Average



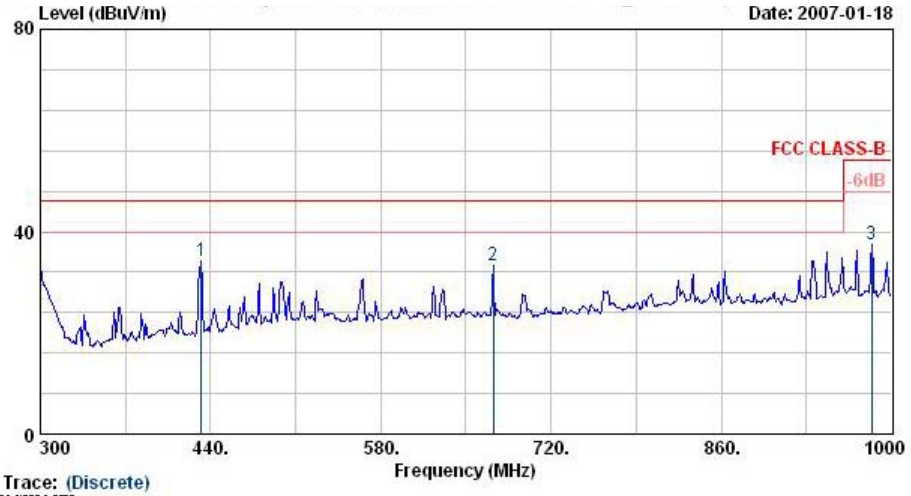
Trace: (Discrete)

Site : 03CH06-HY
Condition : HF-ANT-060410 VERTICAL
EUT : Bluetooth Dongle (Class D)
Power : From System
Model : TR 6D1421
Mode : Bluetooth TX_CH00;2402MHz
Data Rate : DH1

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	9608.0	60.55	-13.45	74.00	49.35	38.80	9.11	36.72	100	0	Peak
2 @	9608.0	47.80	-6.20	54.00	36.59	38.80	9.11	36.70	100	63	Average

- Test Mode : Mode 2
- Polarization : Horizontal

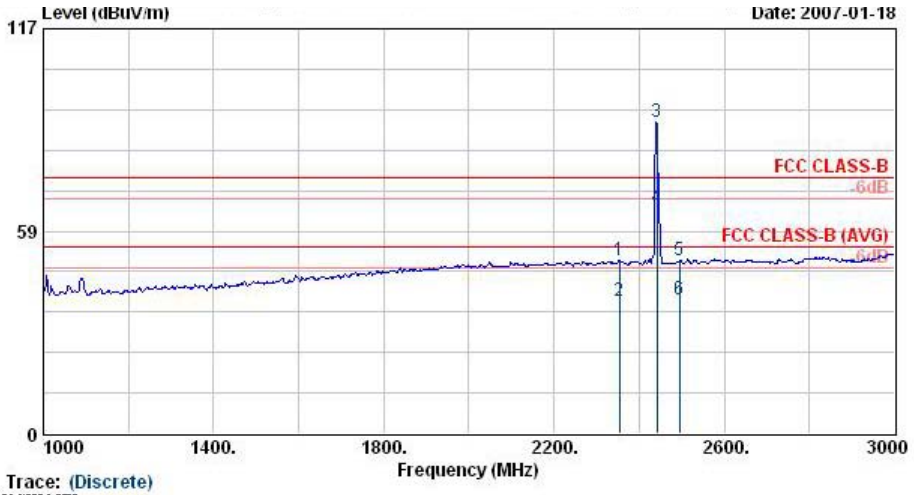
■ The test that passed at minimum margin was marked by the frame in the following table.



Trace: (Discrete)

Site : 03CH06-HY
Condition : LF-ANT(951121) HORIZONTAL
EUT : Bluetooth Dongle (Class I)
Power : From System
Model : TR 6D1421
Mode : Bluetooth TX_CH39;2441MHz
Data Rate : DH1

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	432.3	34.26	-11.74	46.00	45.52	16.31	3.26	30.83	100	256	Peak
2	672.4	33.37	-12.63	46.00	41.04	18.77	4.18	30.62	---	---	Peak
3	983.9	37.45	-16.55	54.00	41.52	21.12	5.08	30.27	---	---	Peak

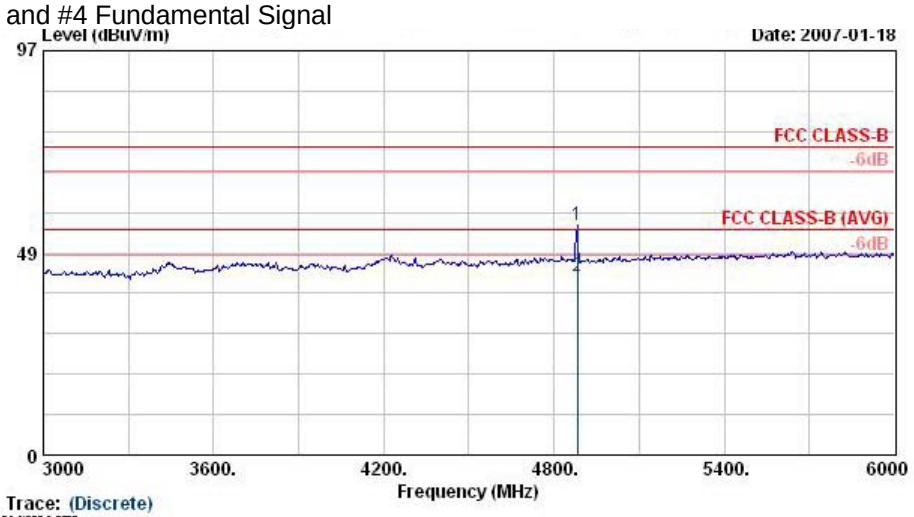


Trace: (Discrete)

Site : 03CH06-HY
Condition : HF-ANT-060410 HORIZONTAL
EUT : Bluetooth Dongle (Class D)
Power : From System
Model : TR 6D1421
Mode : Bluetooth TX_CH39;2441MHz
Data Rate : DH1

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	2354.0	50.22	-23.78	74.00	51.69	30.24	3.71	35.42	100	0	Peak
2	2354.0	38.43	-15.57	54.00	39.90	30.24	3.71	35.42	100	298	Average
3 @	2441.0	90.09			91.47	30.28	3.82	35.47	100	0	Peak
4 @	2441.0	65.38			66.78	30.28	3.82	35.49	100	298	Average
5	2494.0	49.86	-24.14	74.00	51.21	30.30	3.88	35.53	100	0	Peak
6	2494.0	38.63	-15.37	54.00	39.98	30.30	3.88	35.53	100	298	Average

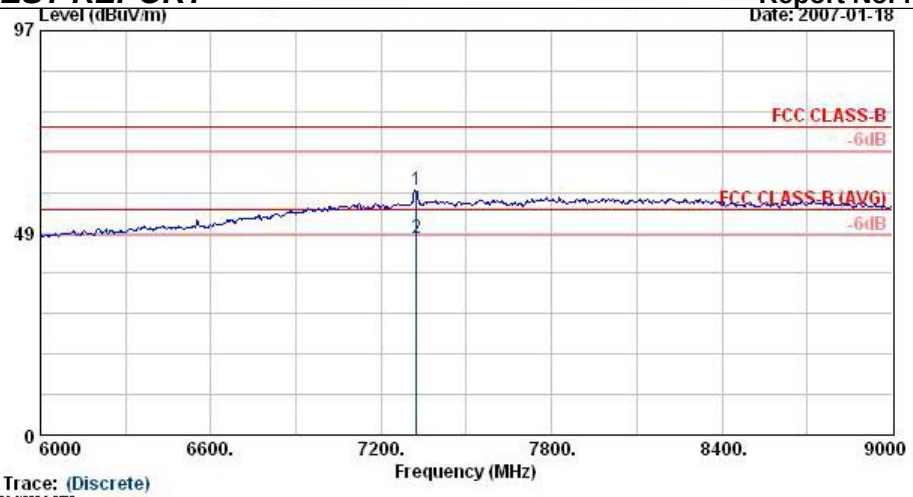
Remark: #3 and #4 Fundamental Signal



Trace: (Discrete)

Site : 03CH06-HY
Condition : HF-ANT-060410 HORIZONTAL
EUT : Bluetooth Dongle (Class D)
Power : From System
Model : TR 6D1421
Mode : Bluetooth TX_CH39;2441MHz
Data Rate : DH1

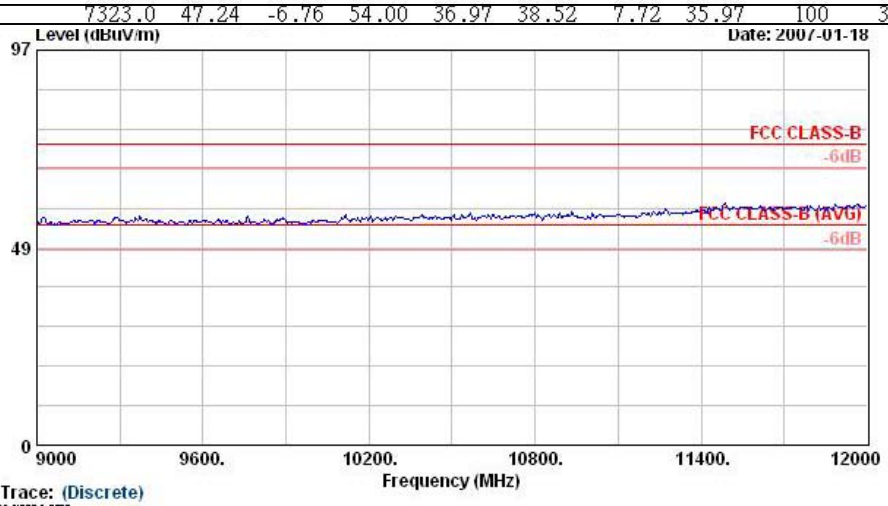
	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	4882.0	55.02	-18.98	74.00	52.16	33.14	5.88	36.16	100	0	Peak
2 @	4882.0	42.76	-11.24	54.00	39.90	33.14	5.88	36.16	100	305	Average



Trace: (Discrete)

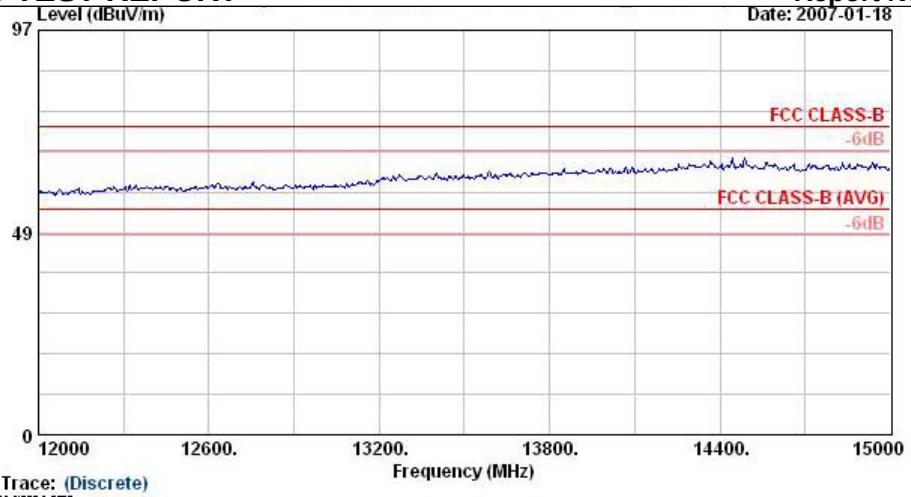
Site : 03CH06-HY
Condition : HF-ANT-060410 HORIZONTAL
EUT : Bluetooth Dongle (Class I)
Power : From System
Model : TR 6D1421
Mode : Bluetooth TX_CH39;2441MHz
Data Rate : DH1

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	7323.0	58.61	-15.39	74.00	48.33	38.52	7.73	35.97	100	0	Peak
2 @	7323.0	47.24	-6.76	54.00	36.97	38.52	7.72	35.97	100	352	Average



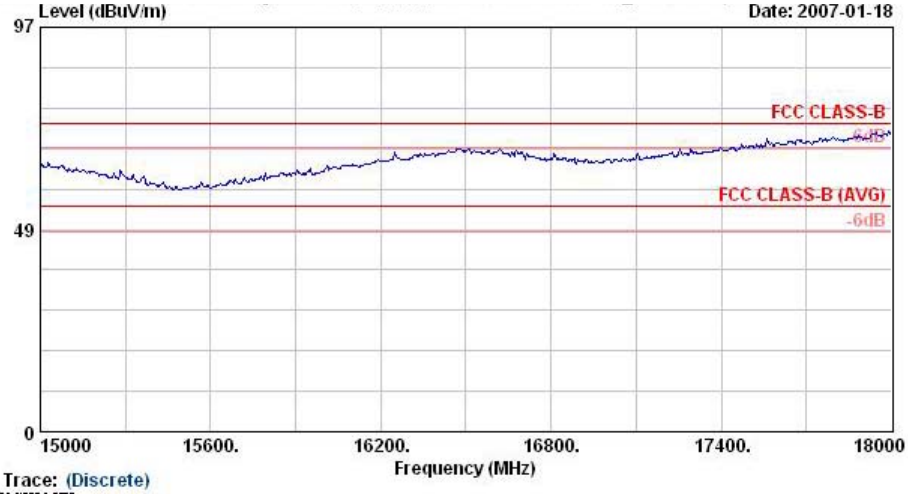
Trace: (Discrete)

Site : 03CH06-HY
Condition : HF-ANT-060410 HORIZONTAL
EUT : Bluetooth Dongle (Class I)
Power : From System
Model : TR 6D1421
Mode : Bluetooth TX_CH39;2441MHz
Data Rate : DH1



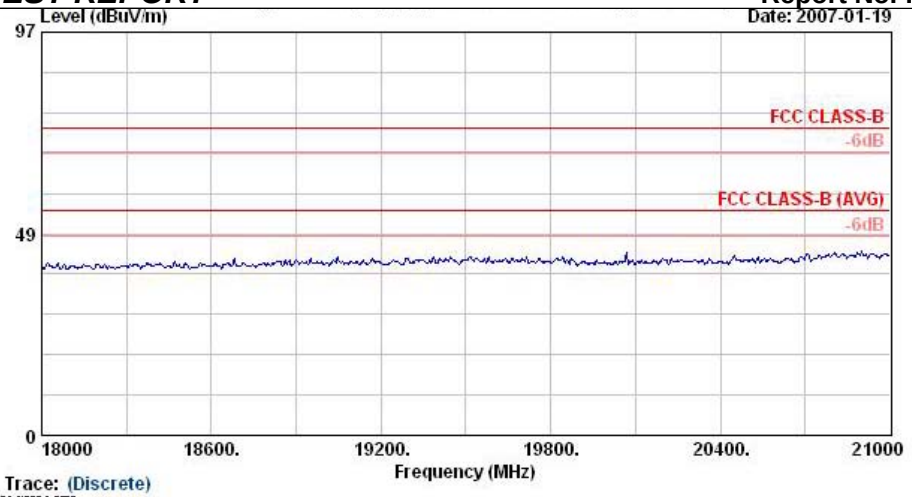
Trace: (Discrete)

Site	: 03CH06-HY
Condition	: HF-ANT-060410 HORIZONTAL
EUT	: Bluetooth Dongle (Class I)
Power	: From System
Model	: TR 6D1421
Mode	: Bluetooth TX_CH39;2441MHz
Data Rate	: DH1



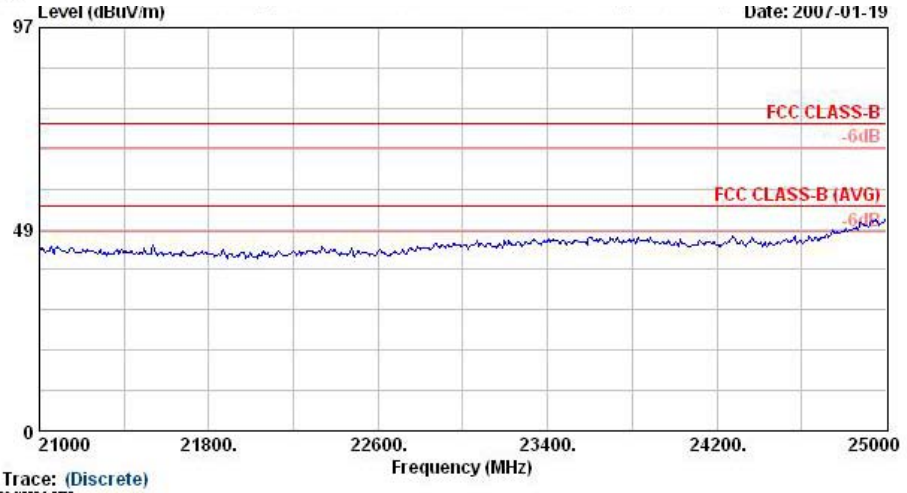
Trace: (Discrete)

Site	: 03CH06-HY
Condition	: HF-ANT-060410 HORIZONTAL
EUT	: Bluetooth Dongle (Class I)
Power	: From System
Model	: TR 6D1421
Mode	: Bluetooth TX_CH39;2441MHz
Data Rate	: DH1



Trace: (Discrete)

Site	:	03CH06-HY
Condition	:	SHF-EHF HORN HORIZONTAL
EUT	:	Bluetooth Dongle (Class I)
Power	:	From System
Model	:	TR 6D1421
Mode	:	Bluetooth TX_CH39;2441MHz
Data Rate	:	DH1

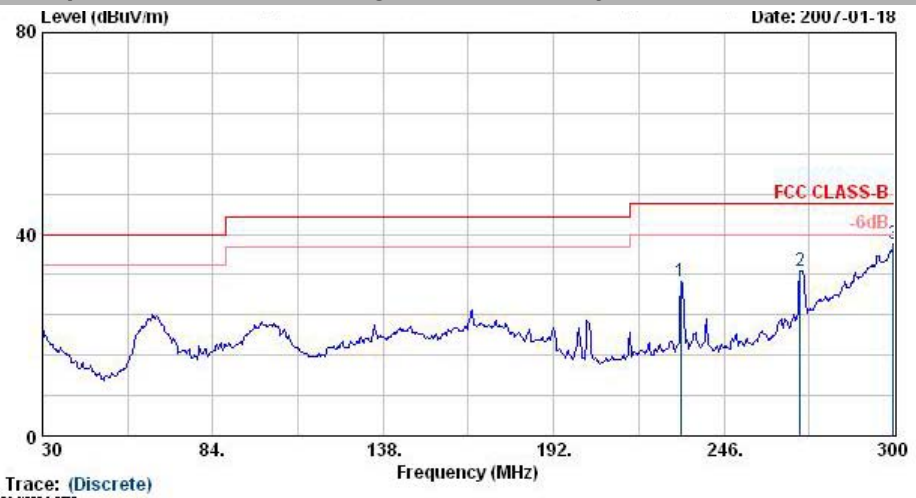


Trace: (Discrete)

Site	:	03CH06-HY
Condition	:	SHF-EHF HORN HORIZONTAL
EUT	:	Bluetooth Dongle (Class I)
Power	:	From System
Model	:	TR 6D1421
Mode	:	Bluetooth TX_CH39;2441MHz
Data Rate	:	DH1

- Test Mode : Mode 2
- Polarization : Vertical

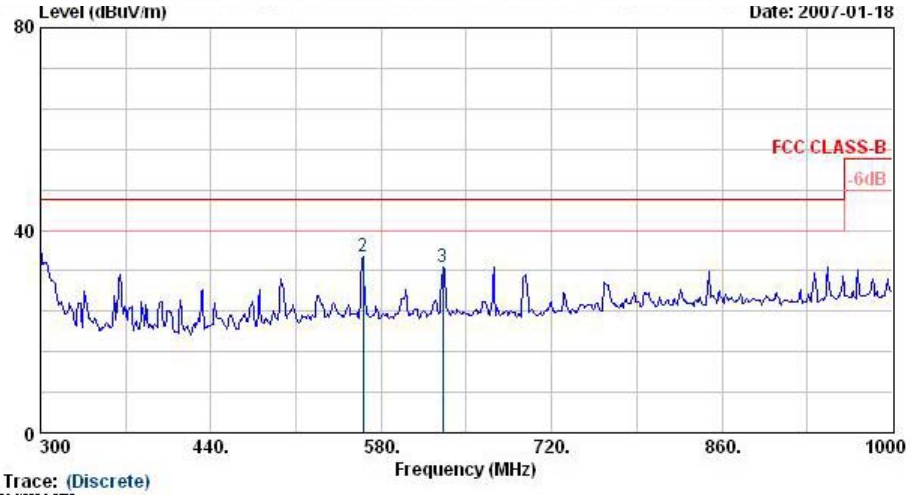
■ The test that passed at minimum margin was marked by the frame in the following table.



Trace: (Discrete)

Site : 03CH06-HY
Condition : LF-ANT(951121) VERTICAL
EUT : Bluetooth Dongle (Class D)
Power : From System
Model : TR 6D1421
Mode : Bluetooth TX_CH39;2441MHz
Data Rate : DH1

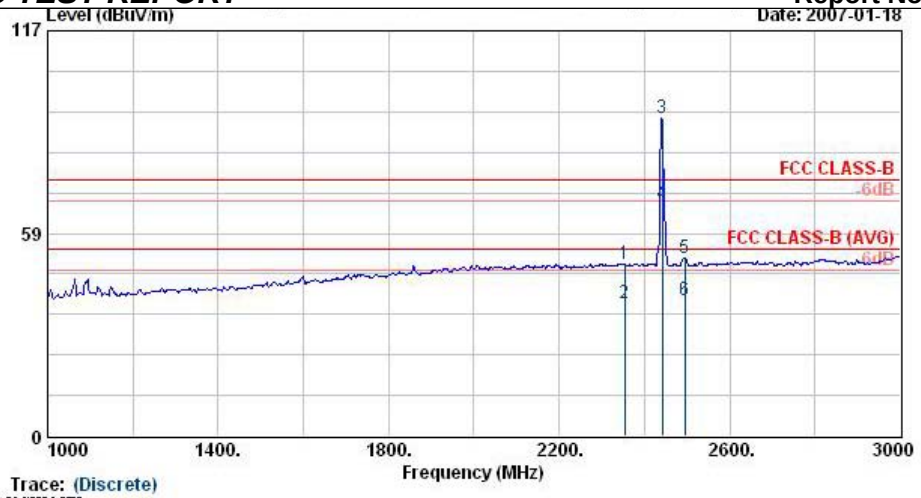
	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	232.2	30.55	-15.45	46.00	48.06	11.18	2.23	30.93	---	---	Peak
2	270.0	32.81	-13.19	46.00	48.61	12.64	2.52	30.96	---	---	Peak
3 @	299.7	37.99	-8.01	46.00	53.08	13.21	2.63	30.93	100	313	Peak



Trace: (Discrete)

Site : 03CH06-HY
Condition : LF-ANT(951121) VERTICAL
EUT : Bluetooth Dongle (Class D)
Power : From System
Model : TR 6D1421
Mode : Bluetooth TX_CH39;2441MHz
Data Rate : DH1

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	300.0	36.47	-9.53	46.00	51.56	13.21	2.63	30.93	---	---	Peak
2 @	565.3	34.68	-11.32	46.00	43.51	18.11	3.77	30.71	---	---	Peak
3	630.4	32.81	-13.19	46.00	40.84	18.60	4.02	30.65	---	---	Peak

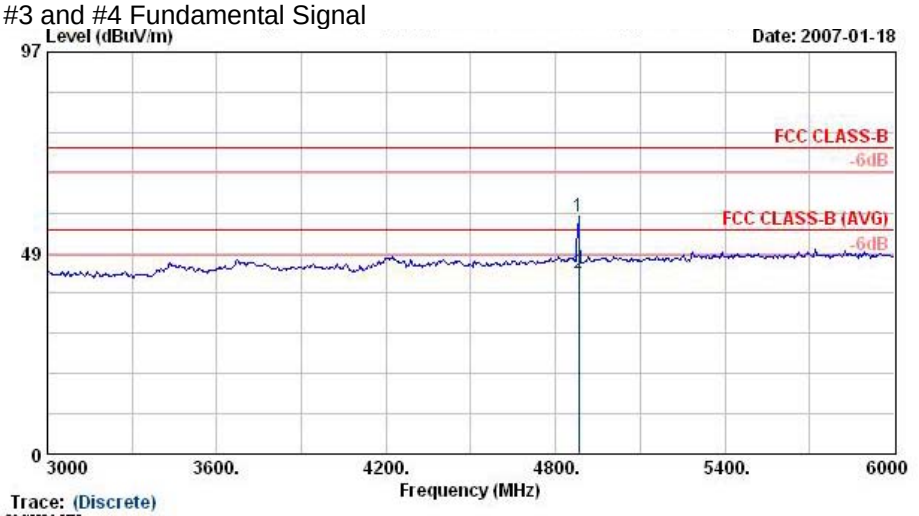


Trace: (Discrete)

Site : 03CH06-HY
Condition : HF-ANT-060410 VERTICAL
EUT : Bluetooth Dongle (Class I)
Power : From System
Model : TR 6D1421
Mode : Bluetooth TX_CH39;2441MHz
Data Rate : DH1

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	2354.0	49.68	-24.32	74.00	51.15	30.24	3.71	35.42	100	0	Peak
2	2354.0	38.41	-15.59	54.00	39.88	30.24	3.71	35.42	100	15	Average
3 @	2441.0	91.94			93.32	30.28	3.82	35.47	100	0	Peak
4 @	2441.0	66.93			68.33	30.28	3.82	35.49	100	15	Average
5	2494.0	51.51	-22.49	74.00	52.86	30.30	3.88	35.53	100	0	Peak
6	2494.0	38.94	-15.06	54.00	40.29	30.30	3.88	35.53	100	15	Average

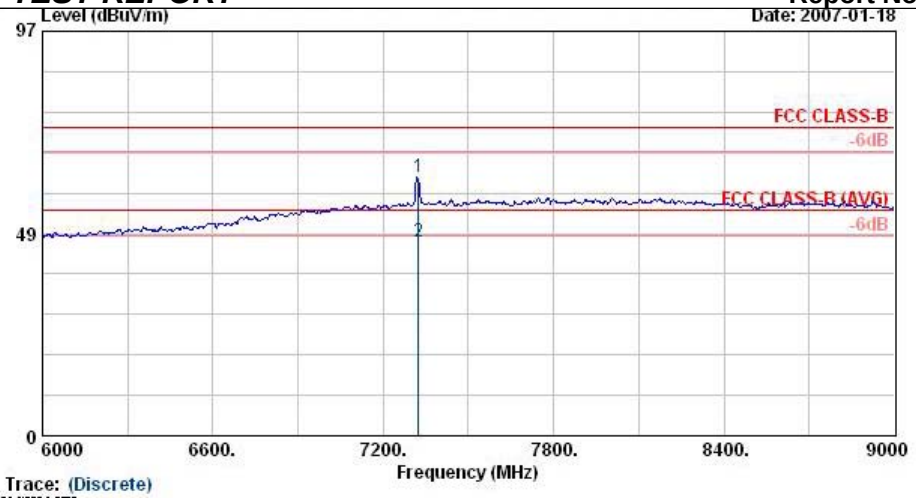
Remark: #3 and #4 Fundamental Signal



Trace: (Discrete)

Site : 03CH06-HY
Condition : HF-ANT-060410 VERTICAL
EUT : Bluetooth Dongle (Class I)
Power : From System
Model : TR 6D1421
Mode : Bluetooth TX_CH39;2441MHz
Data Rate : DH1

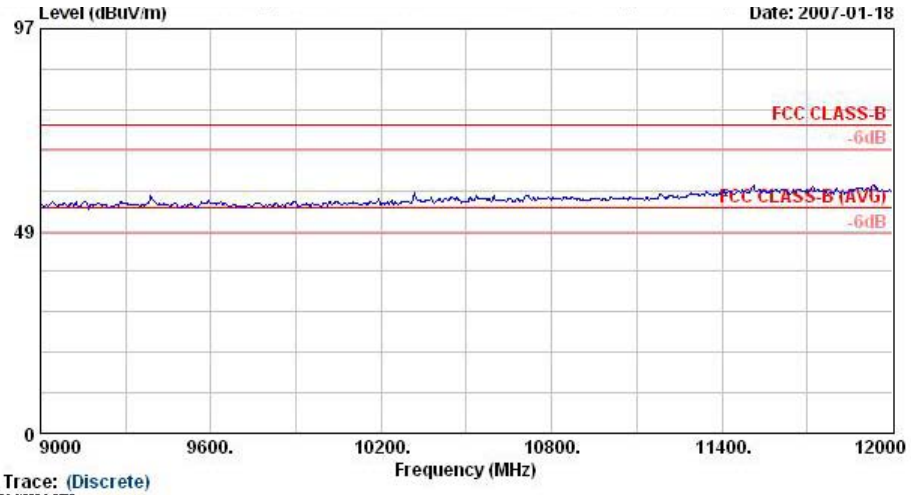
	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	4882.0	57.51	-16.49	74.00	54.65	33.14	5.88	36.16	100	0	Peak
2 @	4882.0	43.49	-10.51	54.00	40.63	33.14	5.88	36.16	100	45	Average



Trace: (Discrete)

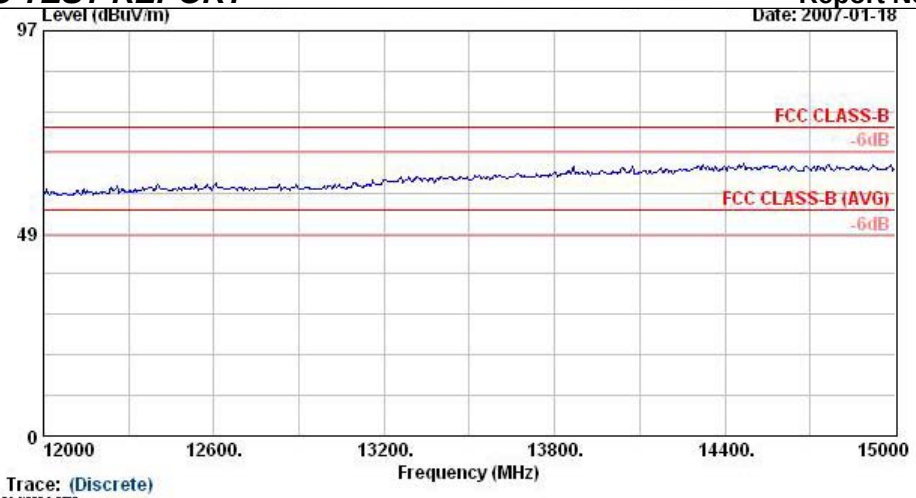
Site : 03CH06-HY
Condition : HF-ANT-060410 VERTICAL
EUT : Bluetooth Dongle (Class D)
Power : From System
Model : TR 6D1421
Mode : Bluetooth TX_CH39;2441MHz
Data Rate : DH1

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	7323.0	61.98	-12.02	74.00	51.70	38.52	7.73	35.97	100	0	Peak
2 @	7323.0	46.42	-7.58	54.00	36.15	38.52	7.72	35.97	100	323	Average



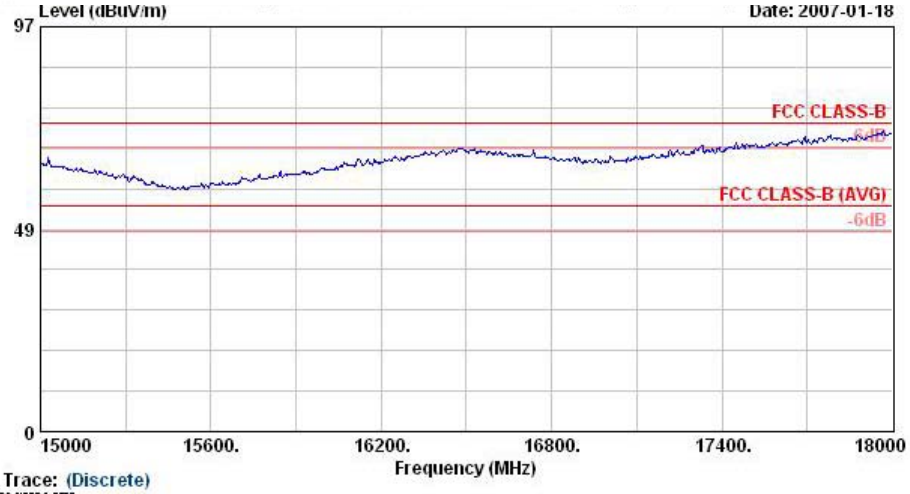
Trace: (Discrete)

Site : 03CH06-HY
Condition : HF-ANT-060410 VERTICAL
EUT : Bluetooth Dongle (Class D)
Power : From System
Model : TR 6D1421
Mode : Bluetooth TX_CH39;2441MHz
Data Rate : DH1



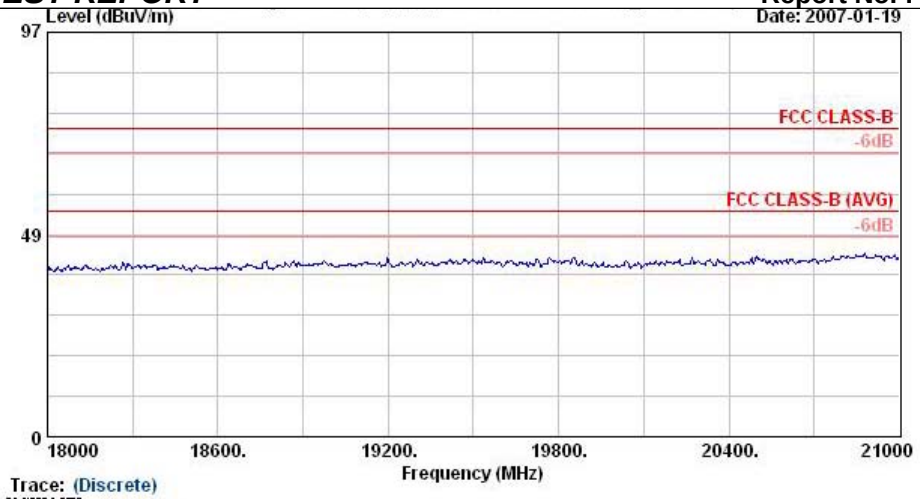
Trace: (Discrete)

Site	: 03CH06-HY
Condition	: HF-ANT-060410 VERTICAL
EUT	: Bluetooth Dongle (Class I)
Power	: From System
Model	: TR 6D1421
Mode	: Bluetooth TX_CH39;2441MHz
Data Rate	: DH1



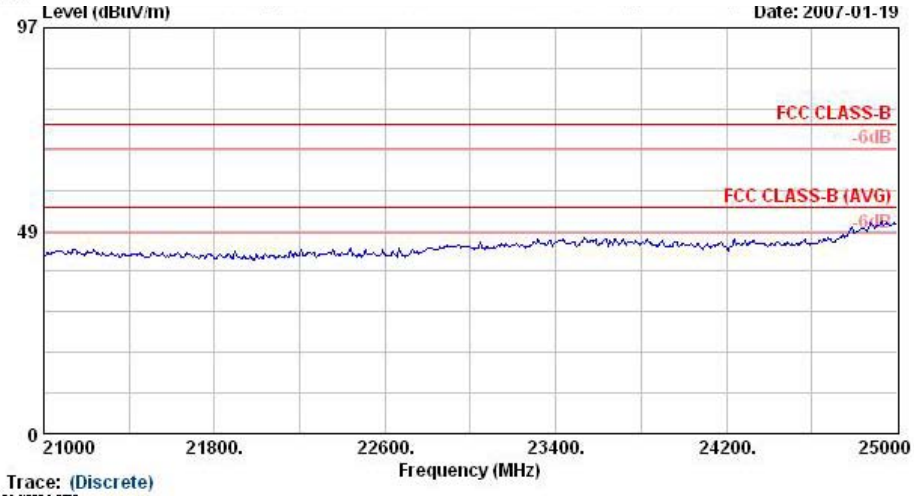
Trace: (Discrete)

Site	: 03CH06-HY
Condition	: HF-ANT-060410 VERTICAL
EUT	: Bluetooth Dongle (Class I)
Power	: From System
Model	: TR 6D1421
Mode	: Bluetooth TX_CH39;2441MHz
Data Rate	: DH1



Trace: (Discrete)

Site	: 03CH06-HY
Condition	: SHF-EHF HORN VERTICAL
EUT	: Bluetooth Dongle (Class I)
Power	: From System
Model	: TR 6D1421
Mode	: Bluetooth TX_CH39;2441MHz
Data Rate	: DH1

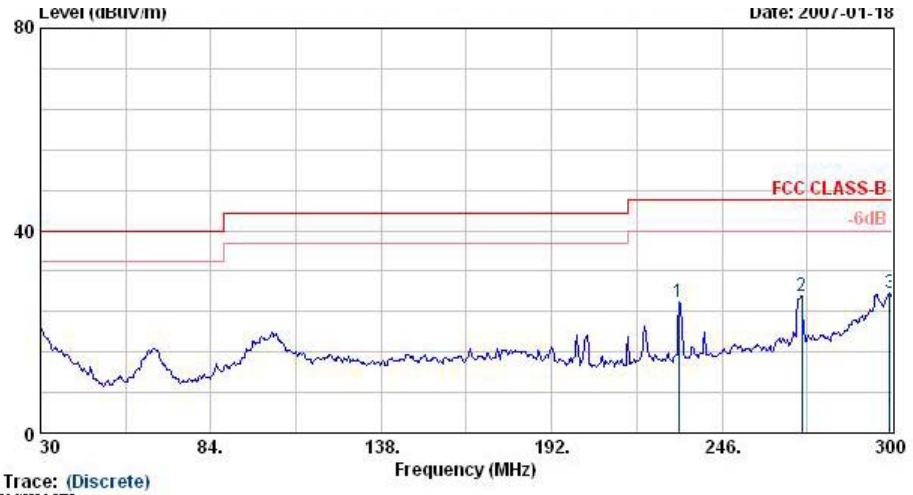


Trace: (Discrete)

Site	: 03CH06-HY
Condition	: SHF-EHF HORN VERTICAL
EUT	: Bluetooth Dongle (Class I)
Power	: From System
Model	: TR 6D1421
Mode	: Bluetooth TX_CH39;2441MHz
Data Rate	: DH1

- Test Mode : Mode 3
- Polarization : Horizontal

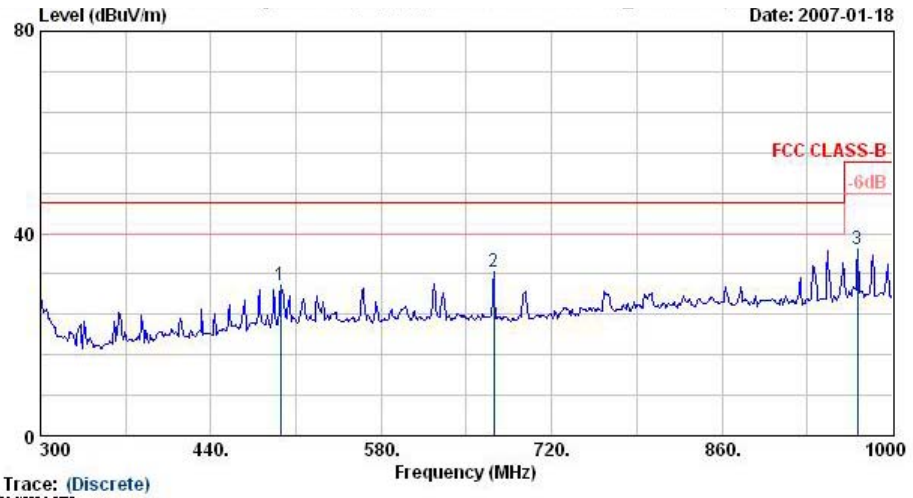
■ The test that passed at minimum margin was marked by the frame in the following table.



Trace: (Discrete)

Site : 03CH06-HY
Condition : LF-ANT(951121) HORIZONTAL
EUT : Bluetooth Dongle (Class I)
Power : From System
Model : TR 6D1421
Mode : Bluetooth TX_CH78;2480MHz
Data Rate : DH1

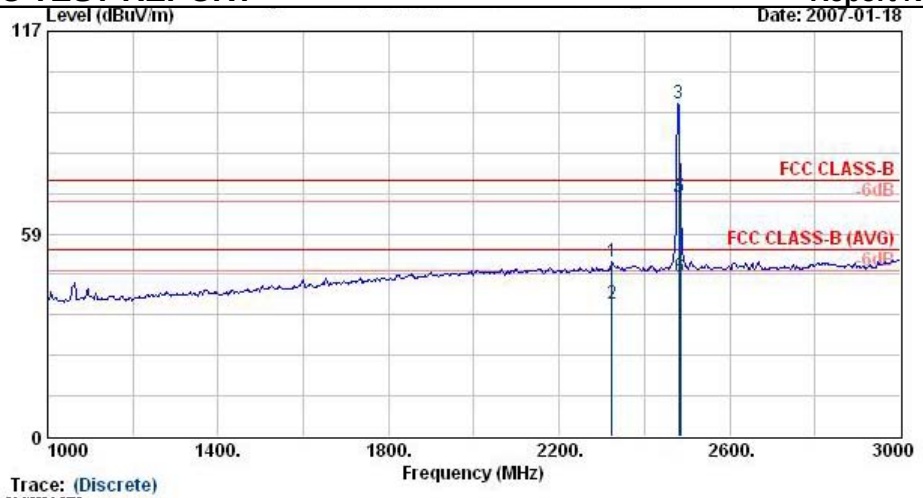
	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	232.2	25.77	-20.23	46.00	43.28	11.18	2.23	30.93	---	---	Peak
2	271.4	27.16	-18.84	46.00	42.92	12.68	2.53	30.96	---	---	Peak
3	299.2	27.78	-18.22	46.00	42.87	13.21	2.63	30.93	---	---	Peak



Trace: (Discrete)

Site : 03CH06-HY
Condition : LF-ANT(951121) HORIZONTAL
EUT : Bluetooth Dongle (Class I)
Power : From System
Model : TR 6D1421
Mode : Bluetooth TX_CH78;2480MHz
Data Rate : DH1

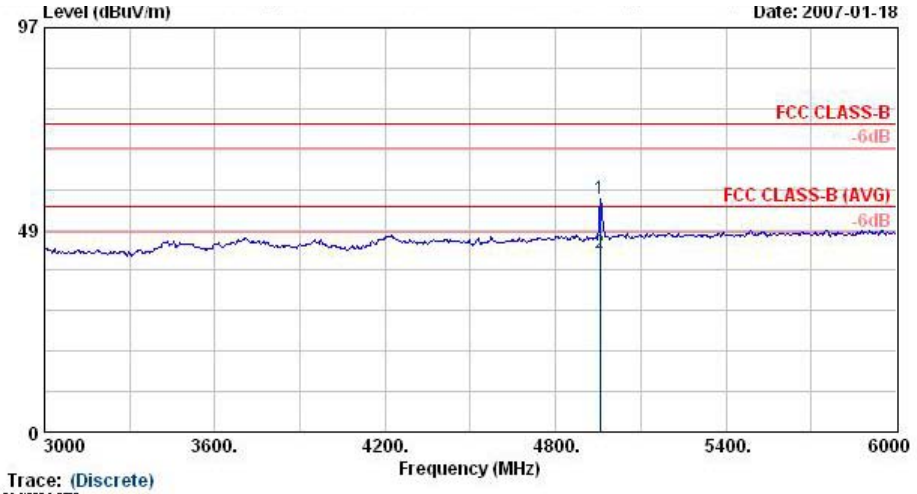
	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	497.4	29.76	-16.24	46.00	39.67	17.38	3.50	30.79	---	---	Peak
2	672.4	32.50	-13.50	46.00	40.17	18.77	4.18	30.62	100	64	Peak
3	971.3	36.75	-17.25	54.00	40.96	21.03	5.04	30.28	---	---	Peak



Site : 03CH06-HY
Condition : HF-ANT-060410 HORIZONTAL
EUT : Bluetooth Dongle (Class I)
Power : From System
Model : TR 6D1421
Mode : Bluetooth TX_CH78;2480MHz
Data Rate : DH1

		Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
		MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1		2324.0	50.25	-23.75	74.00	51.73	30.23	3.69	35.40	100	0	Peak
2		2324.0	38.34	-15.66	54.00	39.83	30.23	3.69	35.40	119	344	Average
3	@	2480.0	96.23			97.58	30.29	3.86	35.51	100	0	Peak
4	@	2480.0	68.41			69.77	30.29	3.86	35.51	119	344	Average
5	@	2483.5	69.02	-4.98	74.00	70.38	30.29	3.86	35.51	100	0	Peak
6		2483.5	45.97	-28.03	74.00	47.33	30.29	3.86	35.51	119	344	Average

Remark: #3 and #4 Fundamental Signal

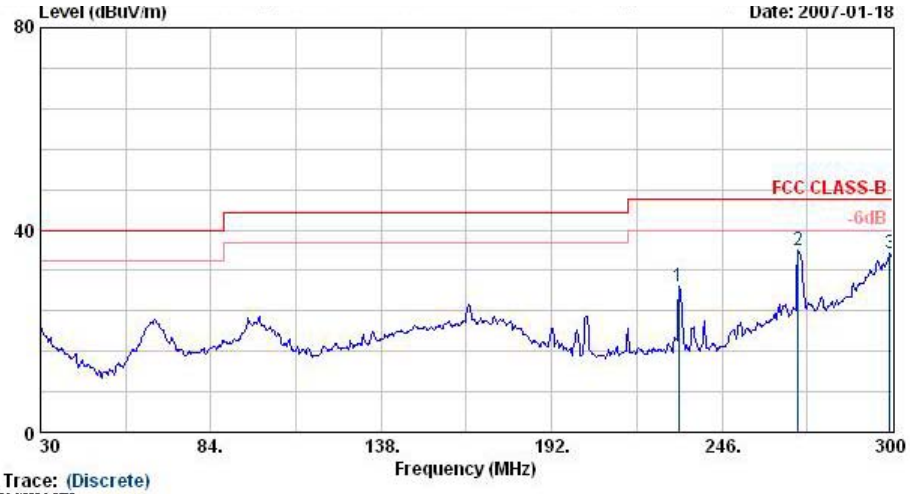


Site : 03CH06-HY
Condition : HF-ANT-060410 HORIZONTAL
EUT : Bluetooth Dongle (Class I)
Power : From System
Model : TR 6D1421
Mode : Bluetooth TX_CH78;2480MHz
Data Rate : DH1

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	4956.0	56.03	-17.97	74.00	52.86	33.47	5.93	36.23	100	0	Peak
2	4956.0	42.76	-11.24	54.00	39.59	33.47	5.93	36.23	100	176	Average

- Test Mode : Mode 3
- Polarization : Vertical

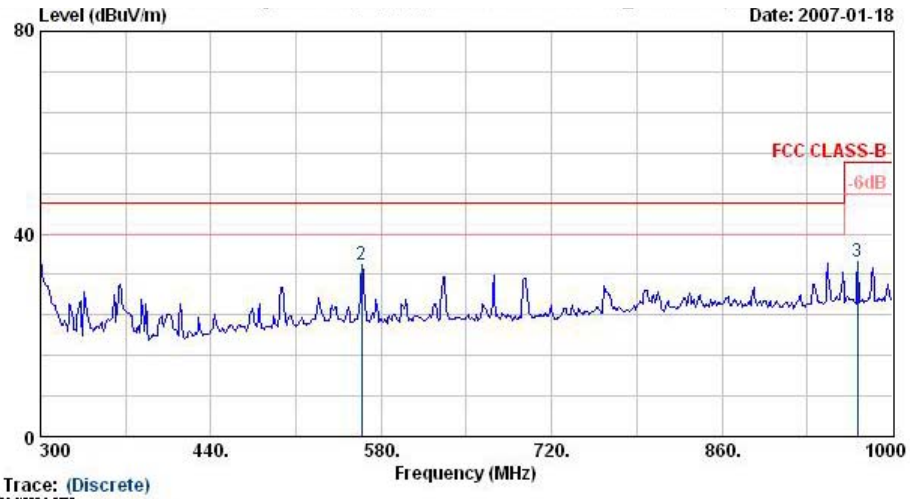
■ The test that passed at minimum margin was marked by the frame in the following table.



Trace: (Discrete)

Site : 03CH06-HY
Condition : LF-ANT(951121) VERTICAL
EUT : Bluetooth Dongle (Class I)
Power : From System
Model : TR 6D1421
Mode : Bluetooth TX_CH78;2480MHz
Data Rate : DH1

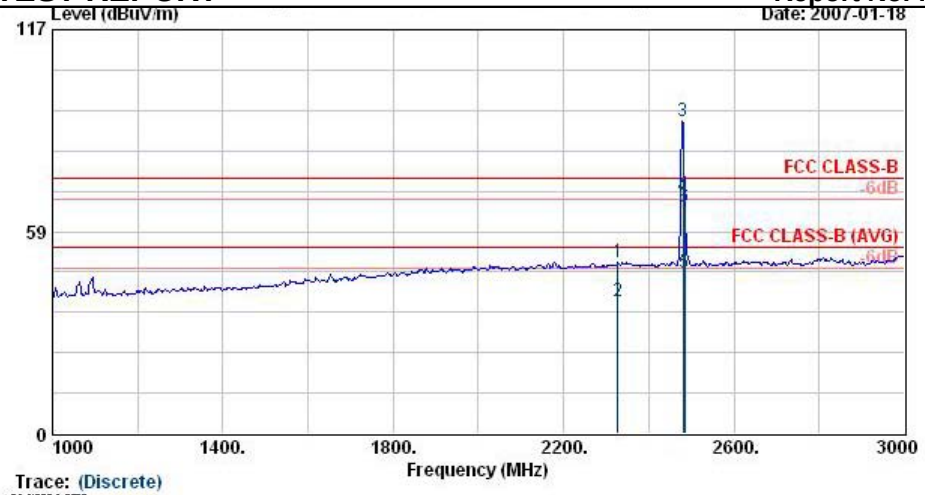
	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	232.2	28.73	-17.27	46.00	46.25	11.18	2.23	30.93	---	---	Peak
2	270.0	36.03	-9.97	46.00	51.83	12.64	2.52	30.96	100	64	Peak
3	299.2	35.28	-10.72	46.00	50.37	13.21	2.63	30.93	---	---	Peak



Trace: (Discrete)

Site : 03CH06-HY
Condition : LF-ANT(951121) VERTICAL
EUT : Bluetooth Dongle (Class I)
Power : From System
Model : TR 6D1421
Mode : Bluetooth TX_CH78;2480MHz
Data Rate : DH1

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	300.0	35.18	-10.82	46.00	50.27	13.21	2.63	30.93	---	---	Peak
2	563.9	33.77	-12.23	46.00	42.62	18.09	3.77	30.71	---	---	Peak
3	971.3	34.64	-19.36	54.00	38.85	21.03	5.04	30.28	---	---	Peak

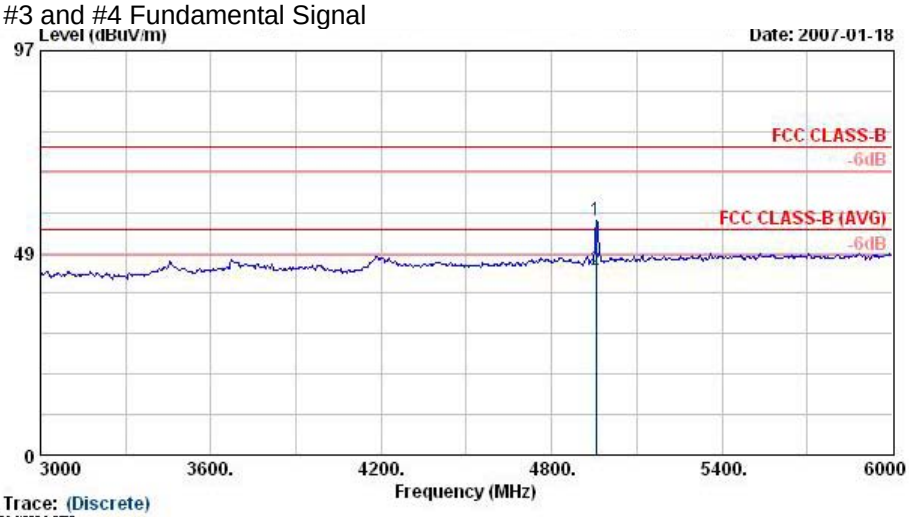


Trace: (Discrete)

Site : 03CH06-HY
Condition : HF-ANT-060410 VERTICAL
EUT : Bluetooth Dongle (Class I)
Power : From System
Model : TR 6D1421
Mode : Bluetooth TX_CH78;2480MHz
Data Rate : DH1

		Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
		MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1		2328.0	49.51	-24.49	74.00	51.00	30.23	3.69	35.40	100	0	Peak
2		2328.0	38.42	-15.58	54.00	39.91	30.23	3.69	35.40	118	15	Average
3	@	2480.0	90.27			91.63	30.29	3.86	35.51	100	0	Peak
4	@	2480.0	68.89			70.25	30.29	3.86	35.51	118	15	Average
5	@	2483.5	46.37	-7.63	54.00	47.73	30.29	3.86	35.51	118	15	Average
6		2483.5	65.87	-8.13	74.00	67.23	30.29	3.86	35.51	100	0	Peak

Remark: #3 and #4 Fundamental Signal



Trace: (Discrete)

Site : 03CH06-HY
Condition : HF-ANT-060410 VERTICAL
EUT : Bluetooth Dongle (Class I)
Power : From System
Model : TR 6D1421
Mode : Bluetooth TX_CH78;2480MHz
Data Rate : DH1

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	4956.0	56.38	-17.62	74.00	53.21	33.47	5.93	36.23	100	0	Peak
2	4956.0	44.50	-9.50	54.00	41.33	33.47	5.93	36.23	100	210	Average

Remark: There is no more obvious emission except the listings above.

5.9 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 antenna used in this product is a PIFA antenna without connecter and it is considered to meet antenna requirement of FCC.

5.10.3 Antenna Gain

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

6. List of Measuring Equipments Used

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Due Date	Remark
Spectrum analyzer	Agilent	E4408B	MY44211030	9KHz-26.5GHz	Oct. 05, 2006	Oct. 05, 2007	Radiation (03CH06-HY)
Receiver	R&S	ESCS30	100356	9KHz-2.75GHz	Jul. 13, 2006	Jul. 13, 2007	Radiation (03CH06-HY)
Controller	CT	SC100	N/A	N/A	N/A	N/A	Radiation (03CH06-HY)
Bilog Antenna	SCHAFFNER	CBL6112B	2885	30MHz -2GHz	Nov. 20, 2006	Nov. 20, 2007	Radiation (03CH06-HY)
Horn Antenna	Com-Power	AH118	071025	1G-18G	Mar. 29, 2006	Mar. 29, 2007	Radiation (03CH06-HY)
SHF-EHF Horn	SCHWARZBECK	BBHA 9170	9170-249	14G - 40G	Nov. 20, 2006	Nov. 20, 2008	Radiation (03CH06-HY)
HF Amplifier	Agilent	8449B	3008A01917	1G - 26.5G	Nov. 15, 2006	Nov. 15, 2007	Radiation (03CH06-HY)
Turn Table	HD	DS 420	420/650/00	0 ~ 360 degree	N/A	N/A	Radiation (03CH06-HY)
Antenna Mast	HD	MA 240	240/560/00	1 m - 4 m	N/A	N/A	Radiation (03CH06-HY)

7. Uncertainty Evaluation

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

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 (30MHz ~ 1000MHz)

Contribution	Uncertainty of x_i		$u(x_i)$
	dB	Probability Distribution	
Receiver reading	0.41	Normal(k=2)	0.21
Antenna factor calibration	0.83	Normal(k=2)	0.42
Cable loss calibration	0.25	Normal(k=2)	0.13
Pre Amplifier Gain calibration	0.27	Normal(k=2)	0.14
RCV/SPA specification	2.50	Rectangular	0.72
Antenna Factor Interpolation for Frequency	1.00	Rectangular	0.29
Site imperfection	1.43	Rectangular	0.83
Mismatch	+0.39/-0.41	U-shaped	0.28
combined standard uncertainty Uc(y)	**1.27**		
Measuring uncertainty for a level of confidence of 95% U=2Uc(y)	**2.54**		

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

Contribution	Uncertainty of x_i		$u(x_i)$	Ci	$Ci*u(x_i)$
	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 Γ1= 0.197 Antenna VSWR Γ2= 0.194 Uncertainty=20log(1-Γ1*Γ2*Γ3)	+0.34/-0.35	U-shaped	0.244	1	0.244
Combined standard uncertainty Uc(y)	**2.36**				
Measuring uncertainty for a level of confidence of 95% U=2Ue(y)	**4.72**				