



FCC / IC TEST REPORT

for

47 CFR Part 15 Subpart C and RSS-210

Equipment : PDA Phone
Trade Name : palm
Model No. : Treo 680
FCC ID : O8F-850
IC ID : 3905A-850
Filing Type : Certification
Applicant : **Palm, Inc**
950 W Maude Avenue MS22L02 Sunnyvale, CA 94085-2801

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- The data shown in this test report were carried out during Oct. 15, 2005 and Jun. 02, 2006 at **Sporton International Inc. LAB.**
- Report No.: FR660617, Report Version: Rev. 01.

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EMC/SAR Director

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Report Version: Rev. 01



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Appendix A. Setup Photograph



History of this test report

Report Issue Date: Jun. 12, 2006

Report No.	Description



1. General Description of Equipment under Test

1.1. Applicant

Palm, Inc

950 W Maude Avenue MS22L02 Sunnyvale, CA 94085-2801

1.2. Manufacturer

Inventec Appliances(Shanghai) Co., Ltd.

7 GuiQing Road, Shanghai 200233, China P.R.C.

1.3. Basic Description of Equipment under Test

Equipment	: PDA Phone
Trade Name	: palm
Model No.	: Treo 680
FCC ID	: O8F-850
IC ID	: 3905A-850
Power Supply Type	: Switching
AC Power Cord	: AC 120V, Non-shielded, Wall-mount, 1.8 meter, 2 pin
Adapter 1	: Leader, MU03-W052100-A1
Adapter 2	: Netbit, DSC51F series
Adapter 3	: MEI, SCPxxxxyyyP series
Adapter 4	: Pie, P005WA050J01200
Battery 1	: SAMSUNG, ICP653450U
Battery 2	: TYCO, B6177

Remark: Battery 1 and Battery 2 have the same circuit design.

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 (Normal condition)	0.47 dBm		
7. Type of Antenna Connector	N/A		
8. Antenna Type	Chip Antenna		
9. Antenna Gain	3 dBi		
10. HW Version	EVT3		
11. SW Version	PalmOS Garnet v.5.4.9-ROM build ver: 3007		
12. Function Type	Transmitter		Transceiver V
13. Power Rating (DC/AC , Voltage)	DC 3.7V		
14. DUT Stage	Identical Prototype		

2. Test Configuration of Equipment under Test

2.1. Test Manner

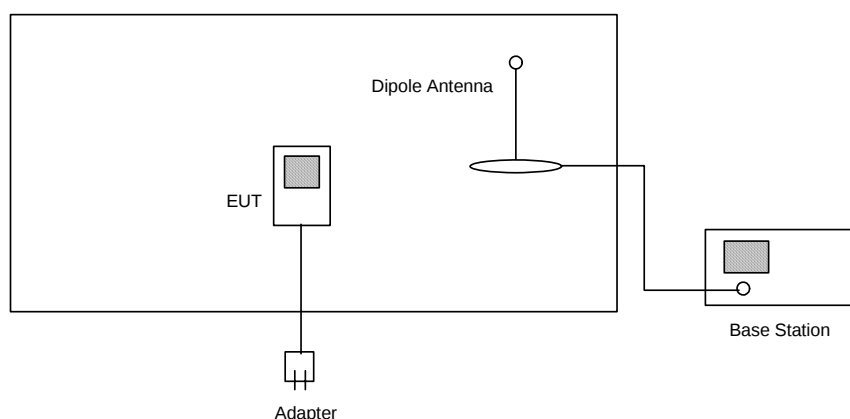
- The EUT has been associated with peripherals pursuant to ANSI C63.4-2003 and configuration operated in a manner tended to maximize its emission characteristics in a typical application.
- For spurious emission below 1GHz, only one channel of each application was tested because it is not related to channel selection.
- The EUT is programmed to transmit signal continuously for all testings.
- Frequency range investigated: conduction 150 kHz to 30 MHz, radiation 30 MHz to 25000MHz.

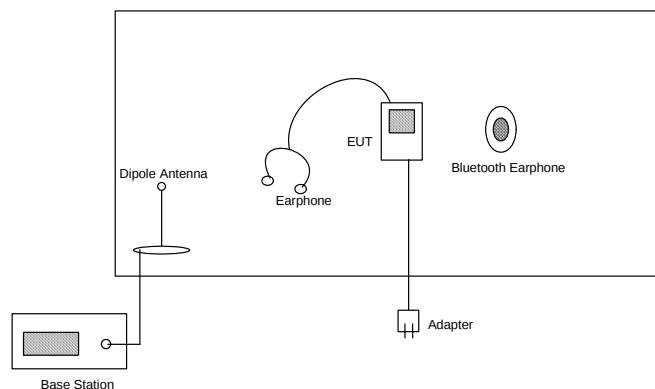
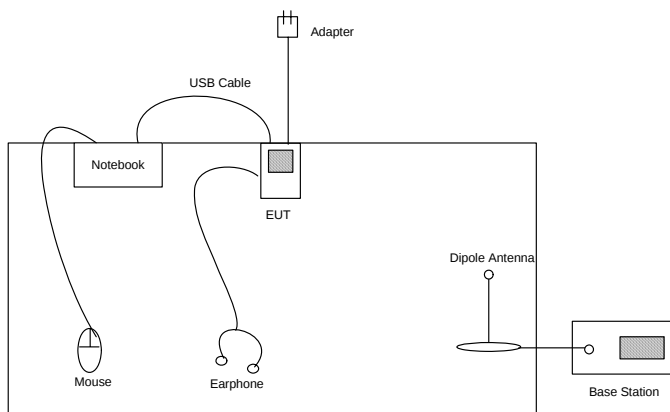
2.2. Test Mode

Application	Bluetooth
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: PCS1900 Idle Mode + Earphone + H Pattern + Adapter 1 + BT Link
	Mode 2: PCS1900 Idle Mode + Earphone + H Pattern + Adapter 1+ USB Link
	Mode 3: PCS1900 Idle Mode + Earphone + H Pattern + Adapter 2 + BT Link
	Mode 4: PCS1900 Idle Mode + Earphone + H Pattern + Adapter 2+ USB Link
	Mode 5: PCS1900 Idle Mode + Earphone + H Pattern + Adapter 3 + BT Link
	Mode 6: PCS1900 Idle Mode + Earphone + H Pattern + Adapter 3+ USB Link
	Mode 7: PCS1900 Idle Mode + Earphone + H Pattern + Adapter 4 + BT Link
	Mode 8: PCS1900 Idle Mode + Earphone + H Pattern + Adapter 4+ USB Link

2.3. Connection Diagram of Test System

<Radiation Emission>



<Conducted Emission>
BT Link Mode

USB Link Mode

2.4. Ancillary Equipment List

Item	Equipment	Model No.	Power Cord
1.	Base Station (R&S)	CMU200	N/A



3. RF Utility

The EUT is in BT link mode with BT earphone for conducted emission or in BT continuous Tx Mode controlled by RF utility and base station simulator 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 and IC RSS-210 Issue 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

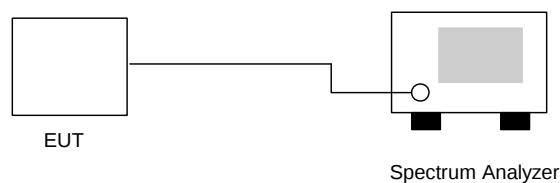
5.2.1. Measuring Instruments :

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 30kHz 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: 24°C
- Relative Humidity: 51%
- Test Engineer : James

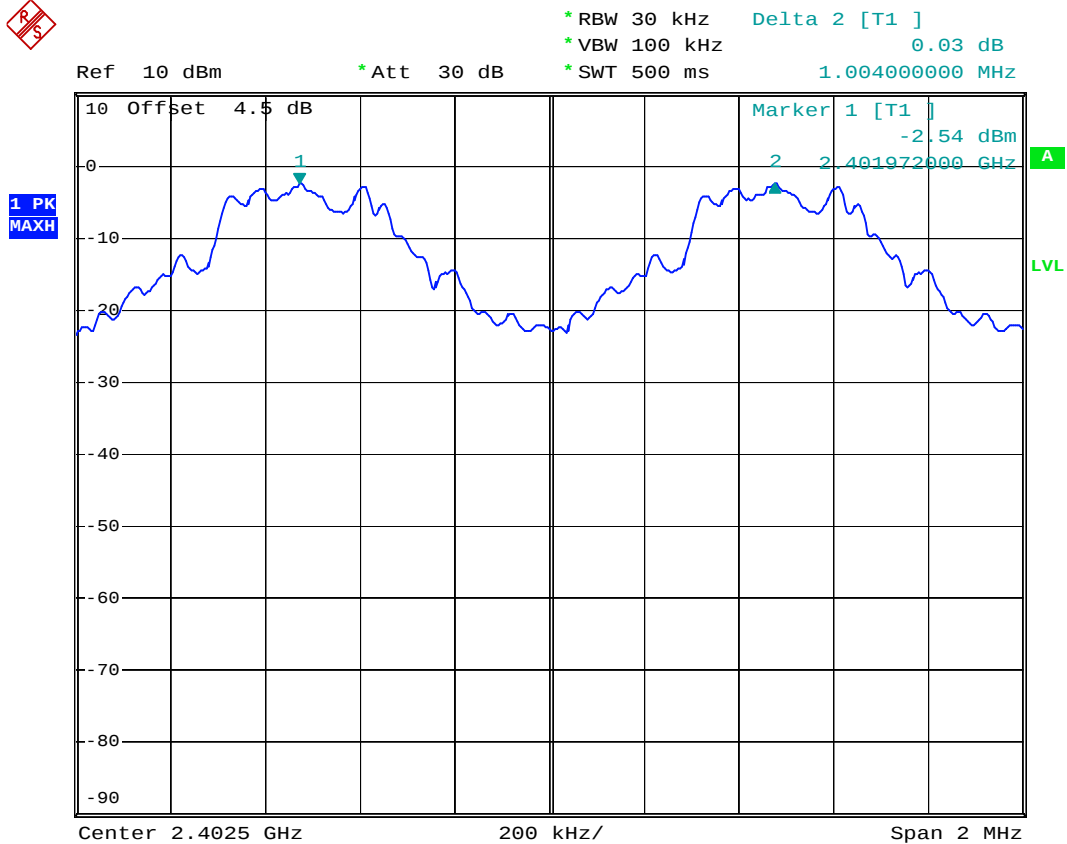
Channel	Frequency (MHz)	Hopping Channel Separation (MHz)	Limits (MHz)	Plot Ref. No.
00	2402	1.004	0.976	Mode 1
39	2441	1.000	0.980	Mode 2
78	2480	1.000	0.996	Mode 3

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



5.2.5 Hopping Channel Separation

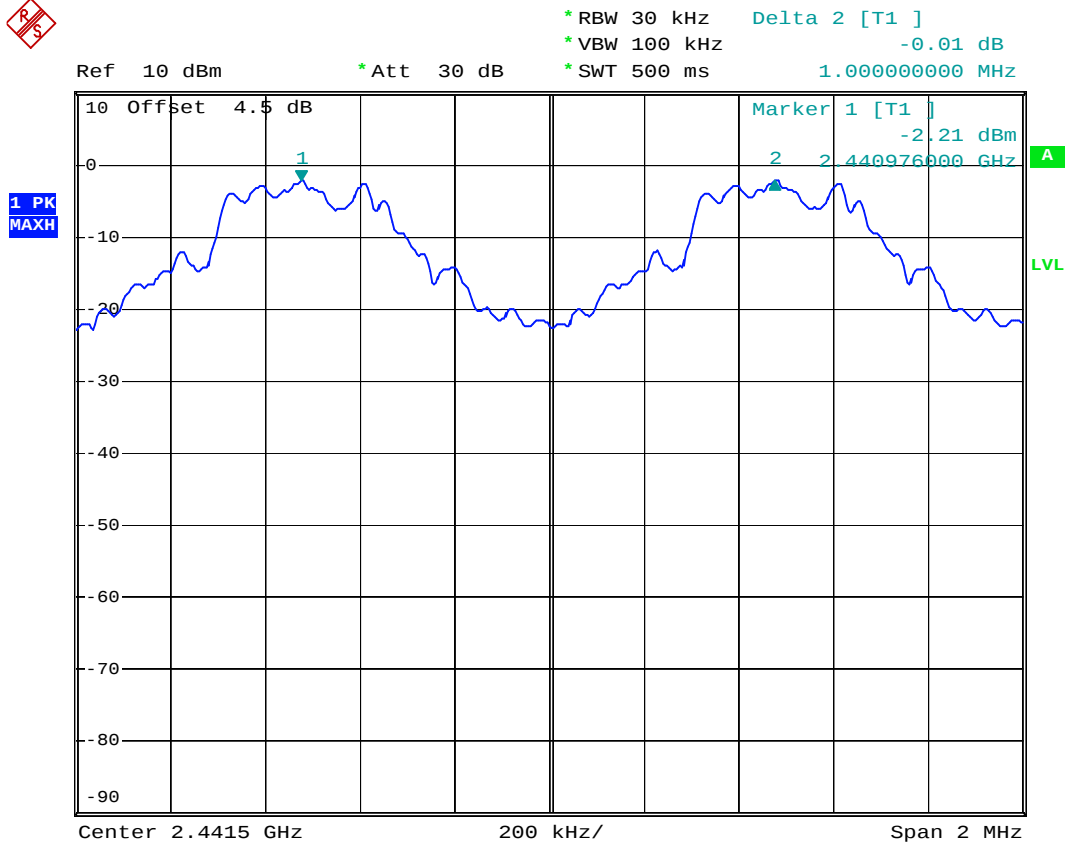
Mode 1: CH00 (2402MHz)



Date: 18.OCT.2005 10:38:02



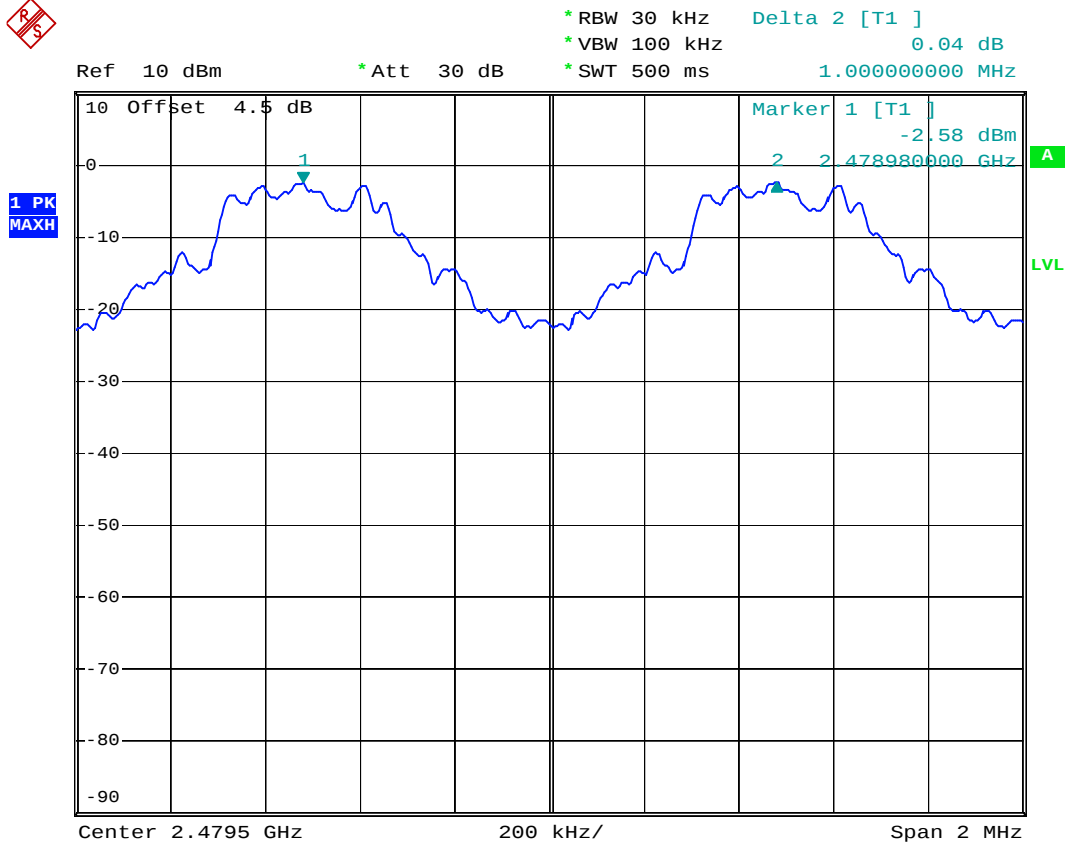
Mode 2: CH39 (2441MHz)



Date: 18.OCT.2005 10:43:49



Mode 3: CH78 (2480MHz)



Date: 18.OCT.2005 10:52:35

5.3. Number of Hopping Frequency

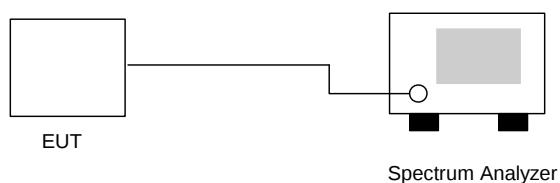
5.3.1. Measuring Instruments :

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 :

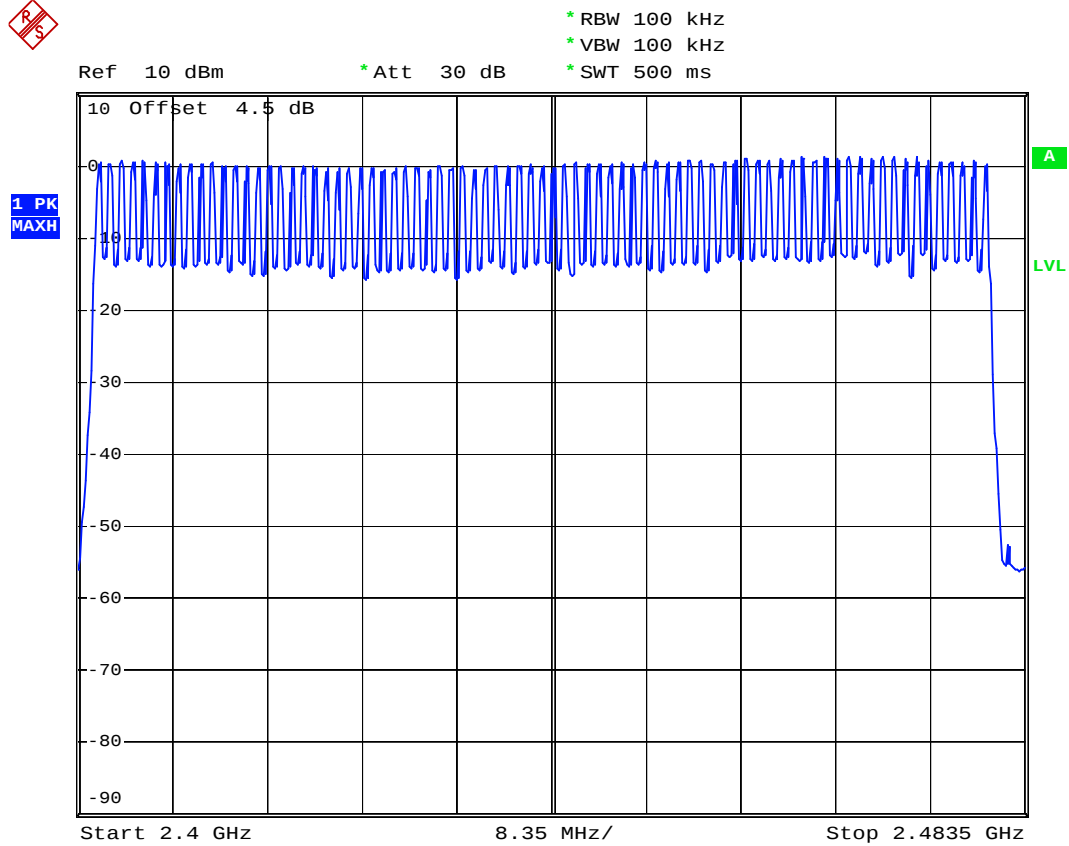


5.3.4. Test Result : See spectrum analyzer plots below

- Temperature: 24°C
- Relative Humidity: 51%
- Test Engineer : James

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

5.3.5 Number of Hopping Frequency



Date: 18.OCT.2005 11:46:03

5.4 Hopping Channel Bandwidth

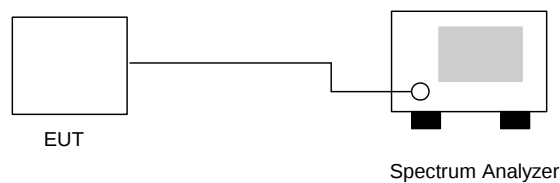
5.4.1 Measuring Instruments :

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

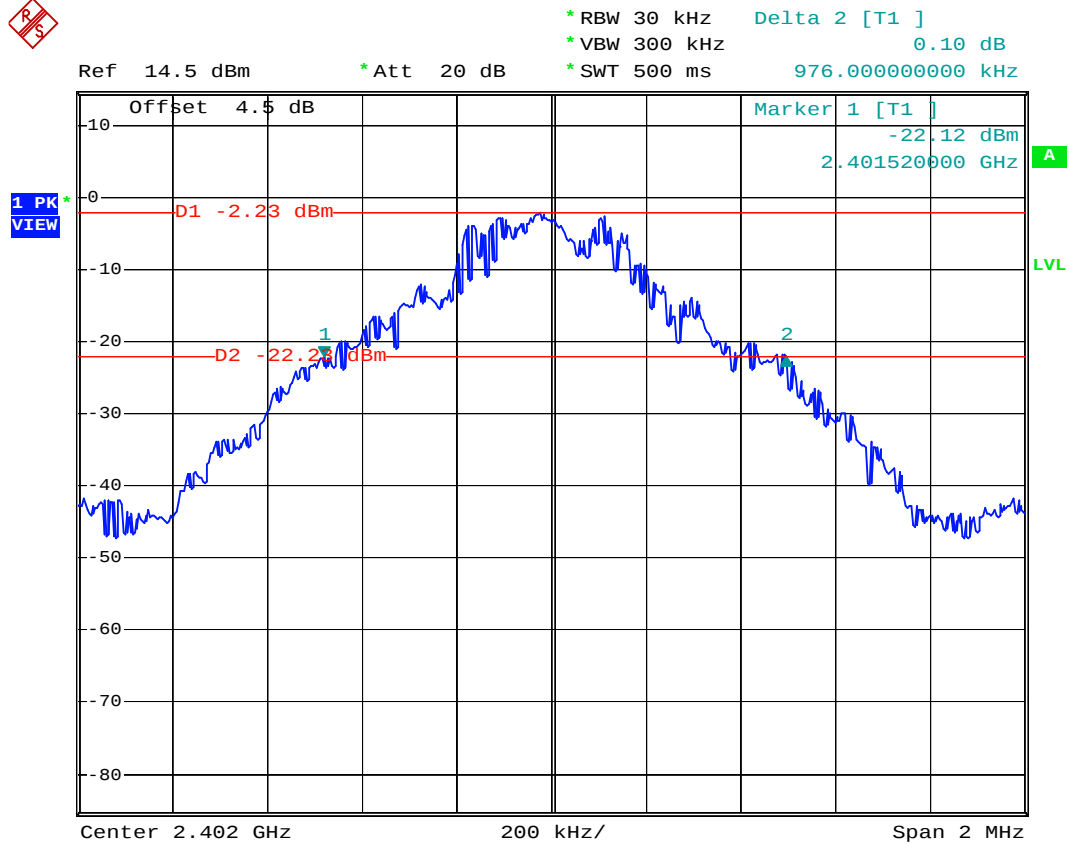
- Temperature: 24°C
- Relative Humidity: 51%
- Test Engineer : James

Channel	Frequency (MHz)	Hopping Channel Bandwidth (MHz)	Limits (MHz)	Plot Ref. No.
00	2402	0.976	1.0	Mode 1
39	2441	0.980	1.0	Mode 2
78	2480	0.996	1.0	Mode 3



5.4.5 Hopping Channel Bandwidth

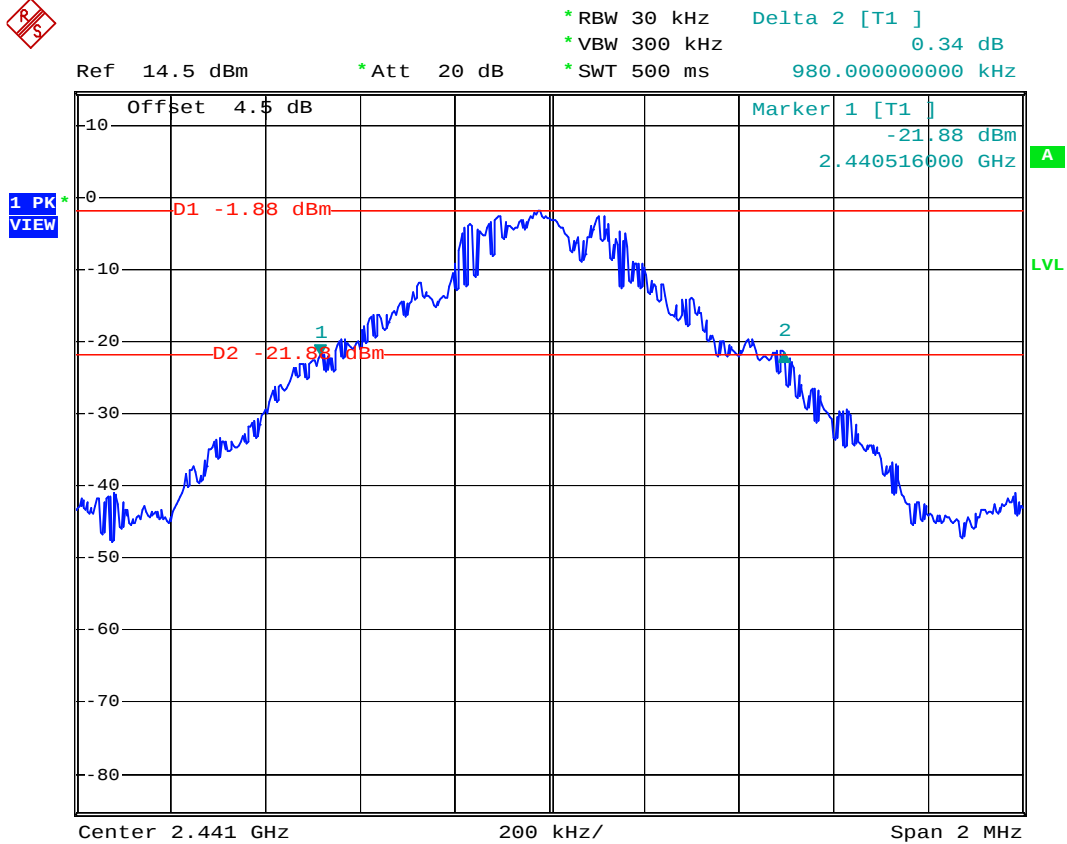
Mode 1: CH00 (2402MHz)



Date: 18.OCT.2005 19:27:15



Mode 2: CH39 (2441MHz)



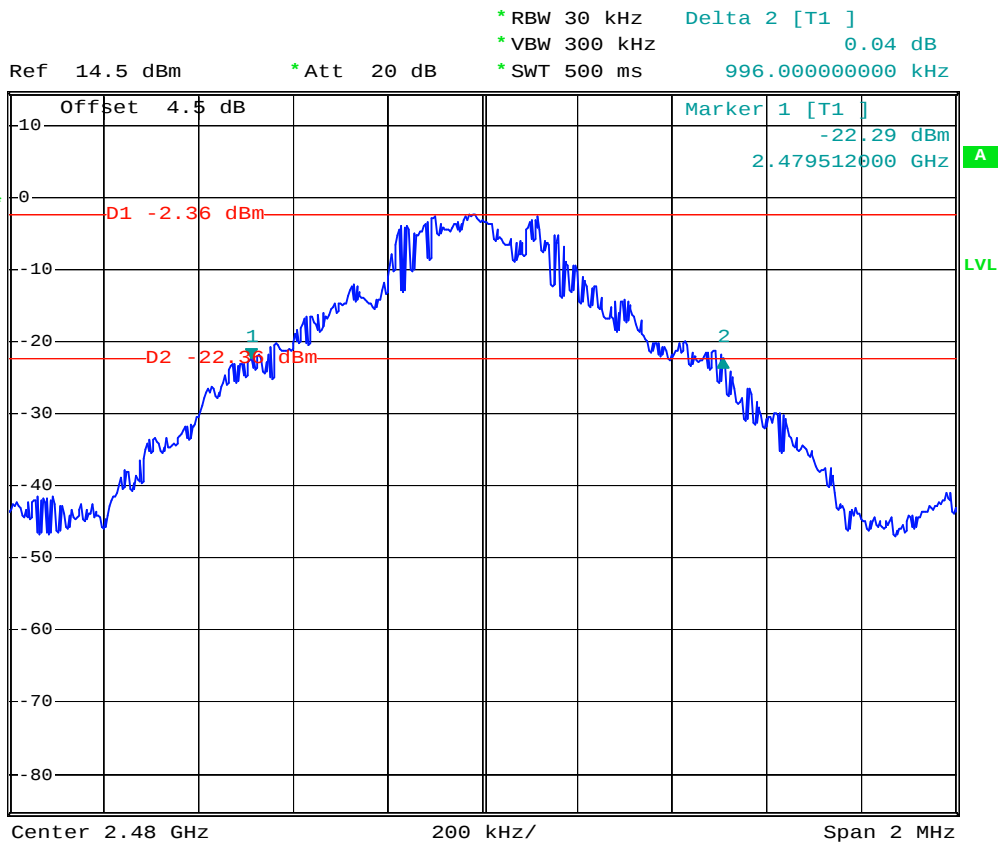
Date: 18.OCT.2005 19:37:42



Mode 3: CH78 (2480MHz)



1 PK
VIEW



Date: 18.OCT.2005 19:32:11

5.5 Dwell Time of Each Frequency

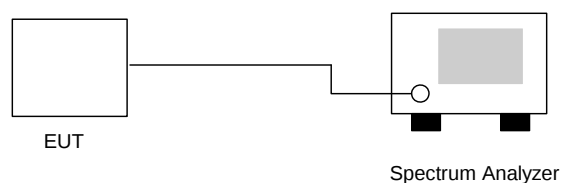
5.5.1 Measuring Instruments :

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 = $79 \times 0.4 \times (1600/79) \times t$ (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: 24°C
- Relative Humidity: 51%
- Test Engineer : James

Ch00

Package Mode	Average Hopping Channel	Package Transfer Time (us)	Dwell Time (s)	Limit (s)
DH1	9.4	460	0.137	0.4
DH3	5	1764	0.279	0.4
DH5	4	3044	0.385	0.4

**CH39**

Package Mode	Average Hopping Channel	Package Transfer Time (us)	Dwell Time (s)	Limit (s)
DH1	9	464	0.132	0.4
DH3	4.7	1760	0.261	0.4
DH5	2.8	3038	0.269	0.4

CH78

Package Mode	Average Hopping Channel	Package Transfer Time (us)	Dwell Time (s)	Limit (s)
DH1	9.4	468	0.139	0.4
DH3	4.7	1738	0.258	0.4
DH5	3.1	3058	0.300	0.4

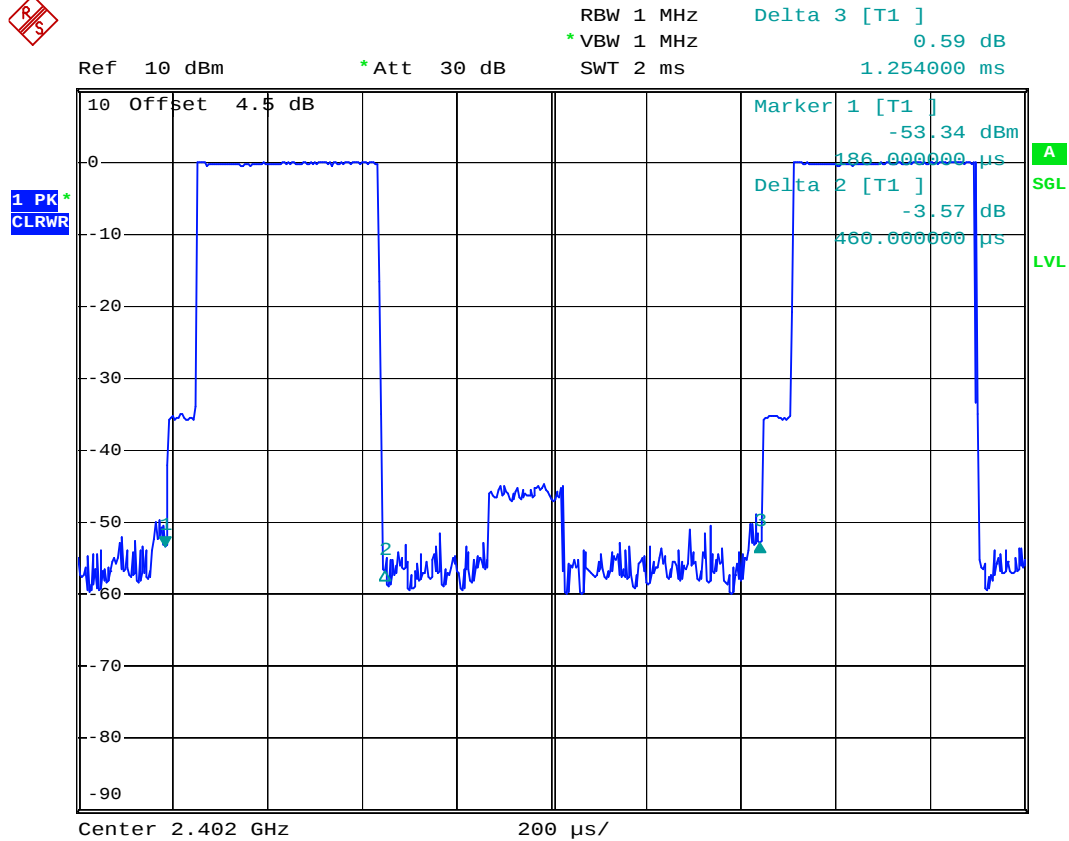
Remark:

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)

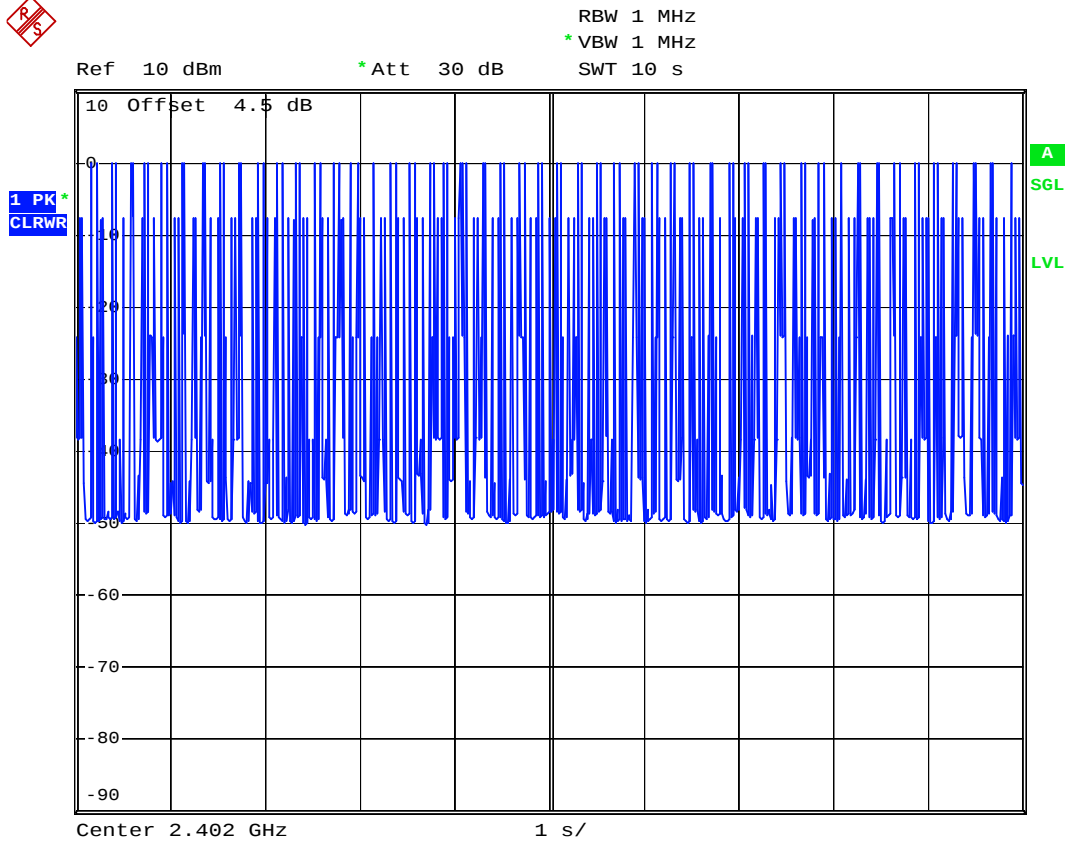


5.5.5 Dwell Time

DH1 (CH00)



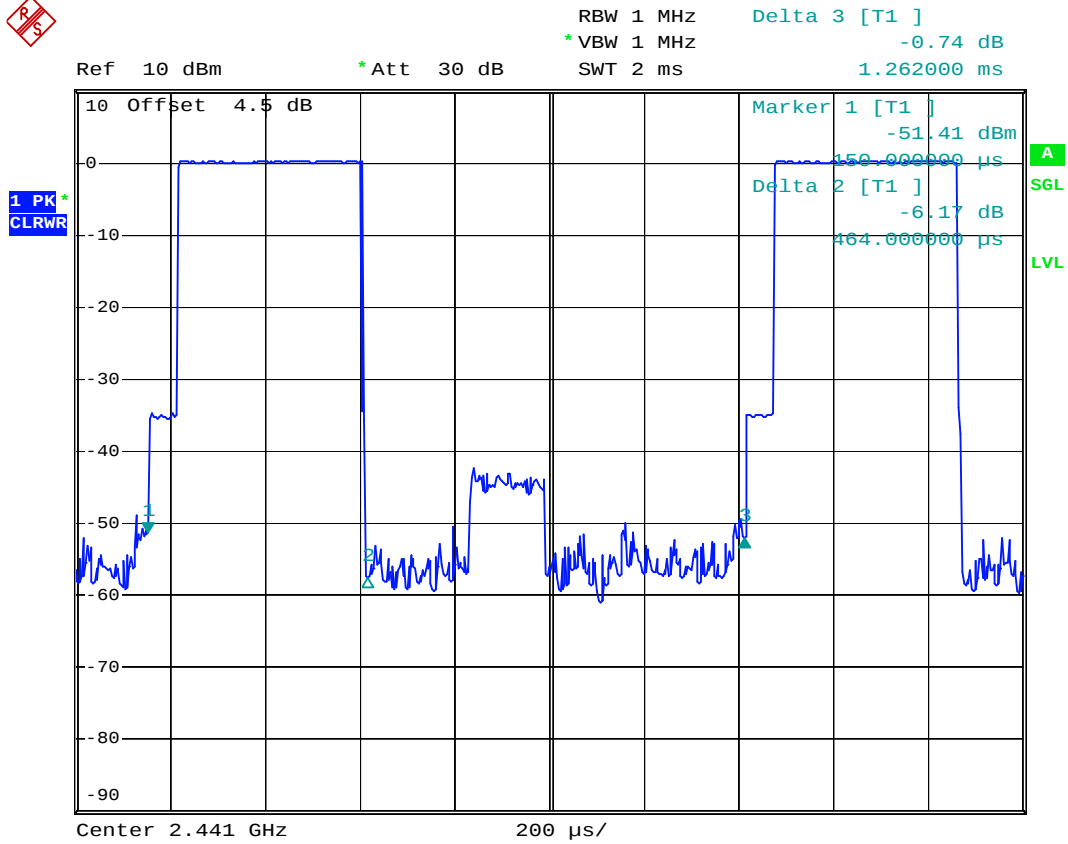
Date: 18.OCT.2005 11:03:39



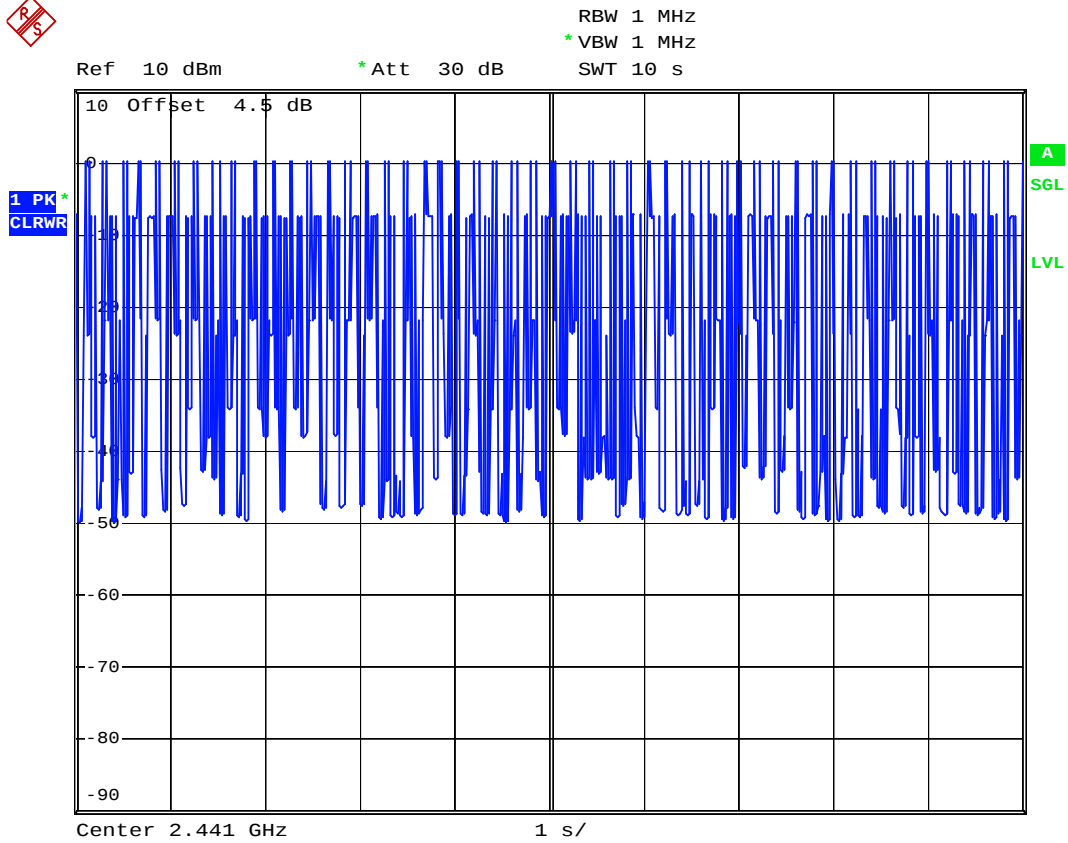
Date: 18.OCT.2005 11:16:10



DH1 (CH39)



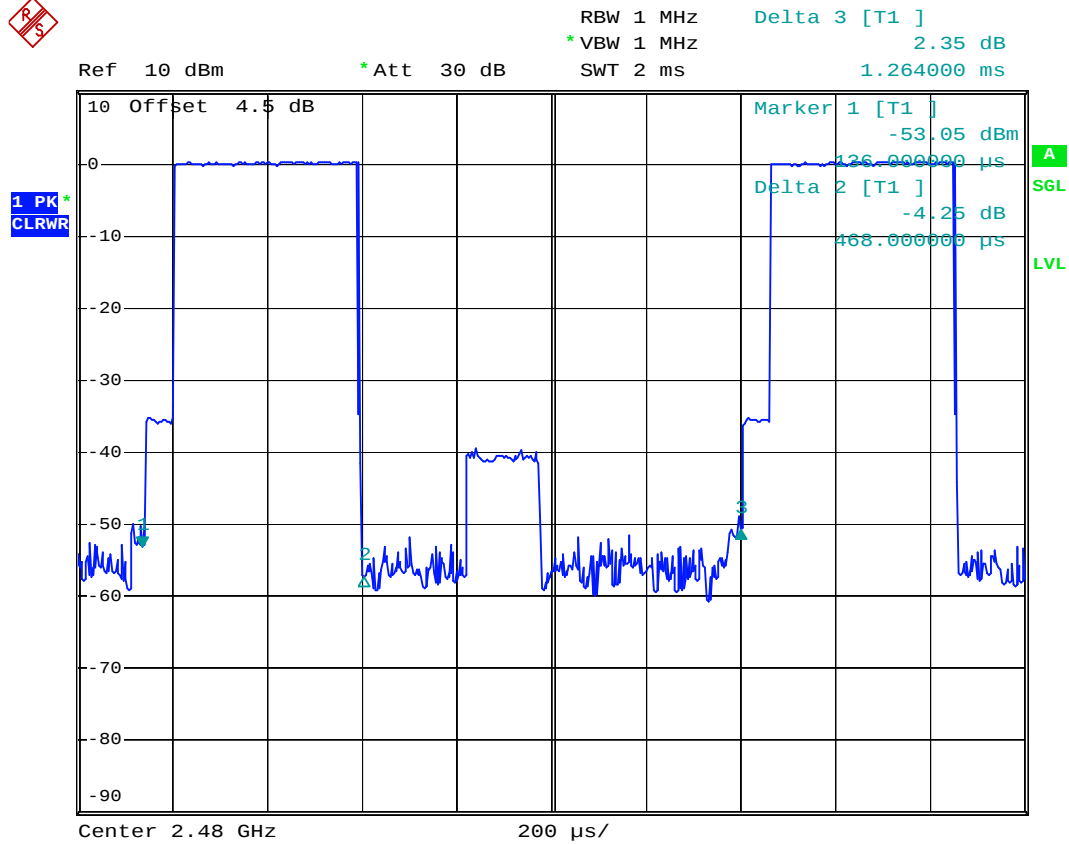
Date: 18.OCT.2005 11:02:35



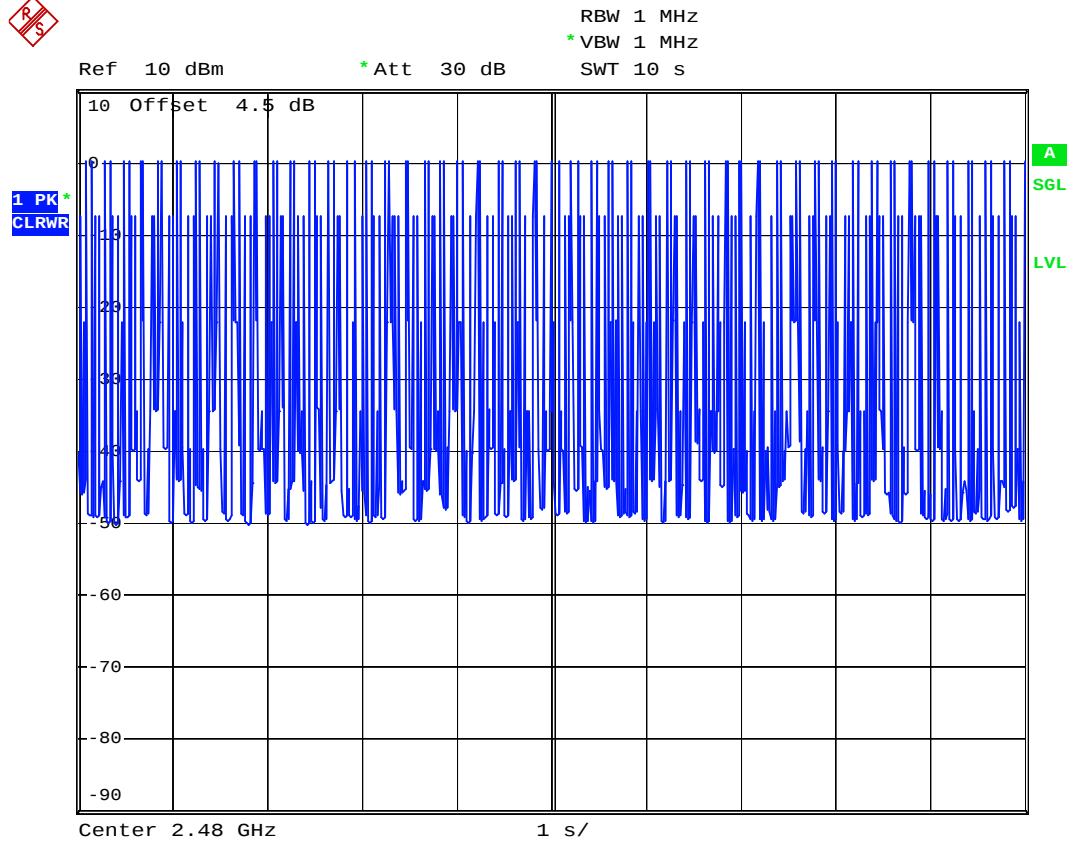
Date: 18.OCT.2005 11:16:53



DH1 (CH78)



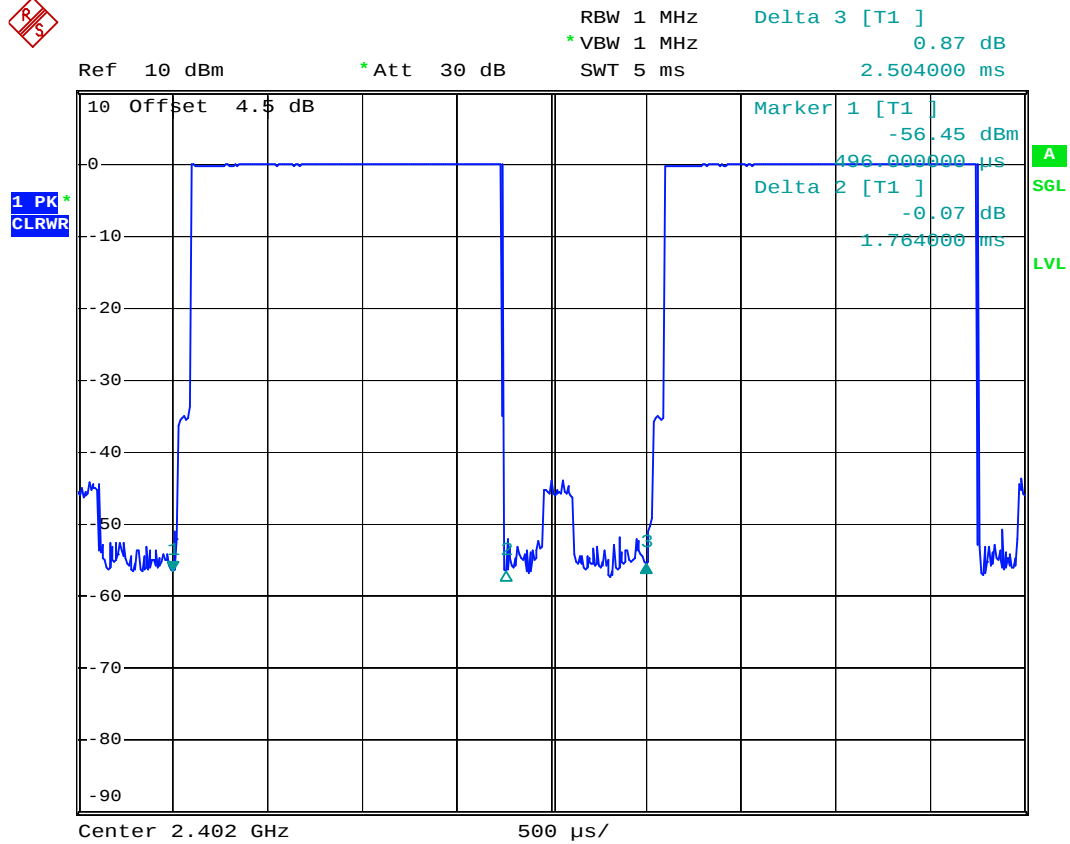
Date: 18.OCT.2005 10:56:21



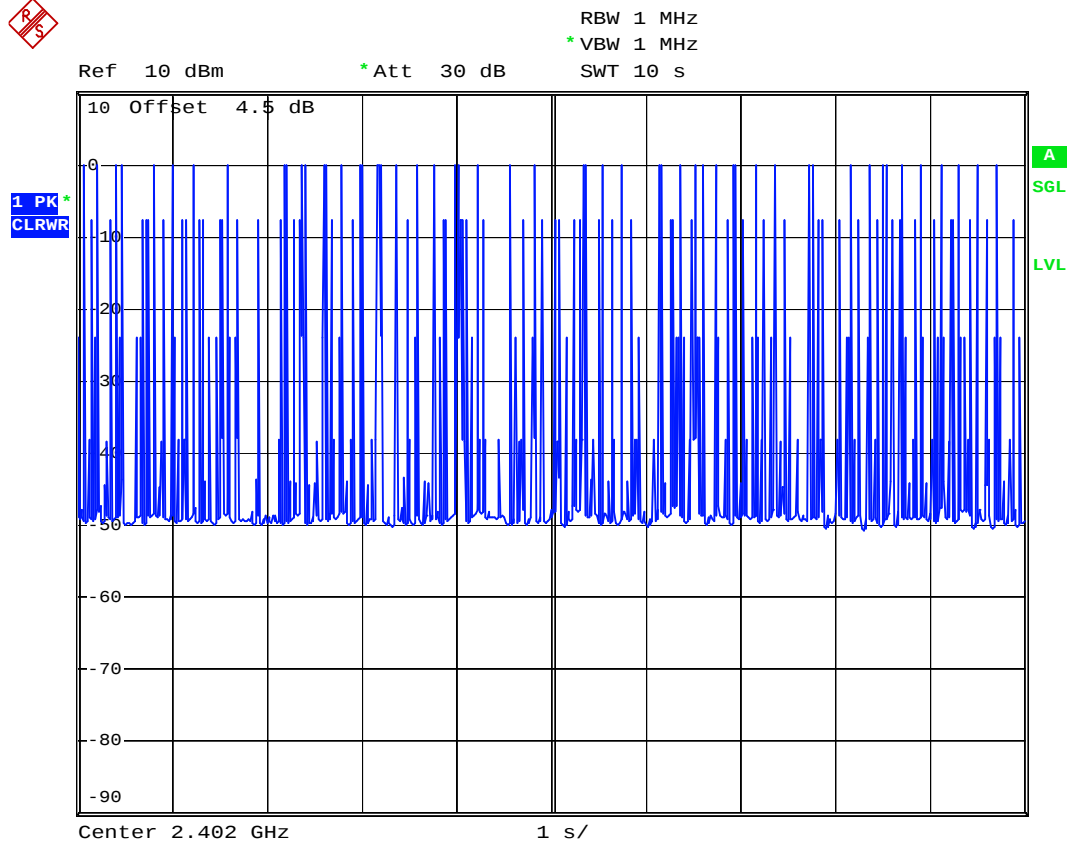
Date: 18.OCT.2005 11:17:35



DH3 (CH00)



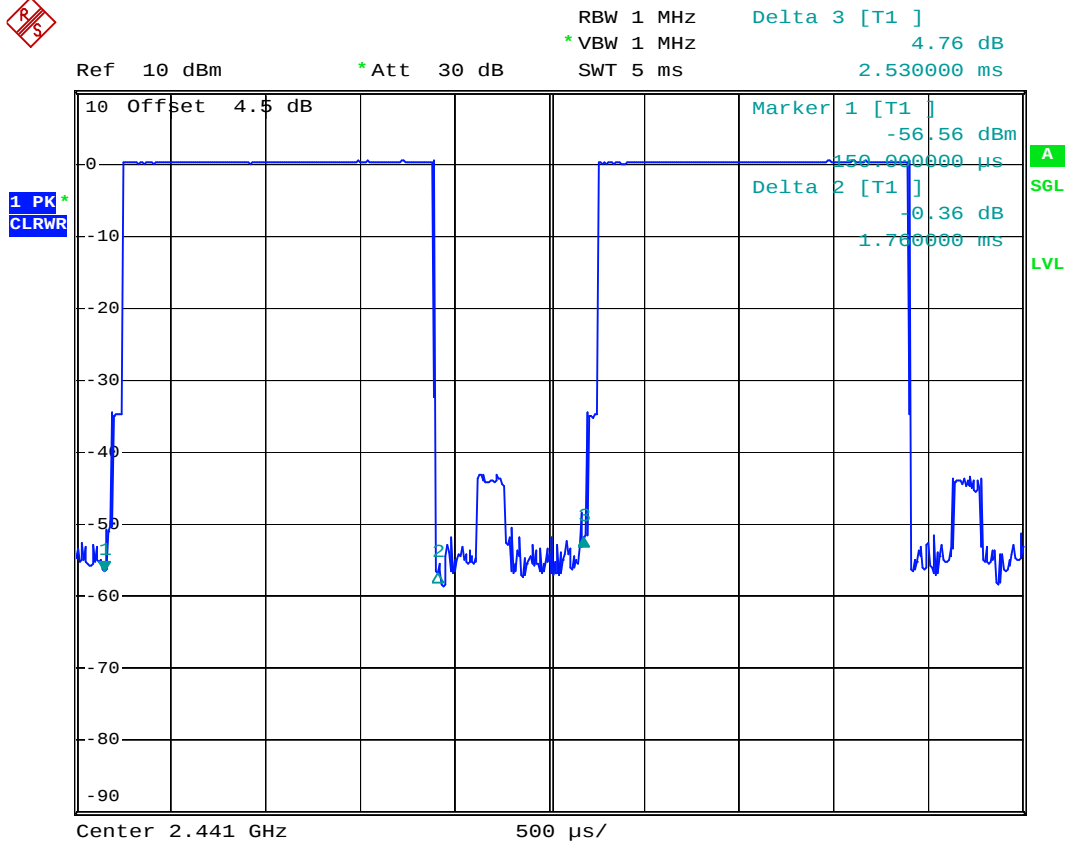
Date: 18.OCT.2005 11:04:32



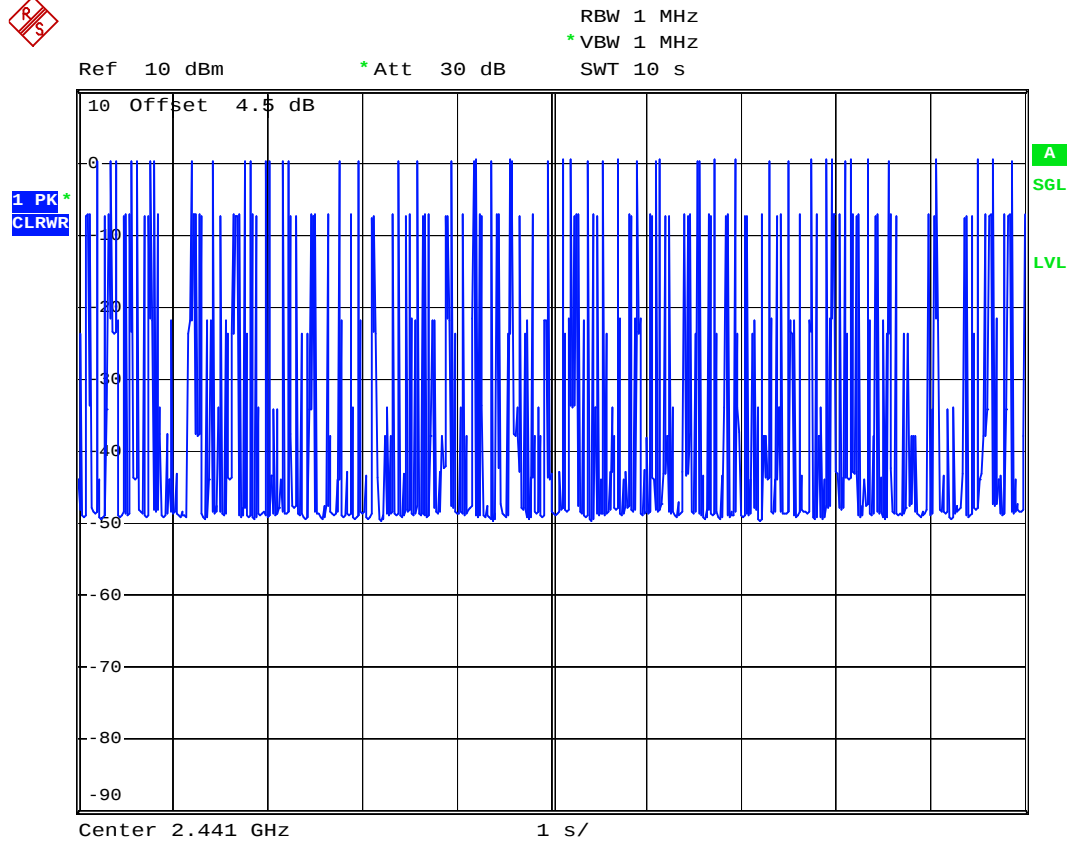
Date: 18.OCT.2005 11:15:27



DH3 (CH39)



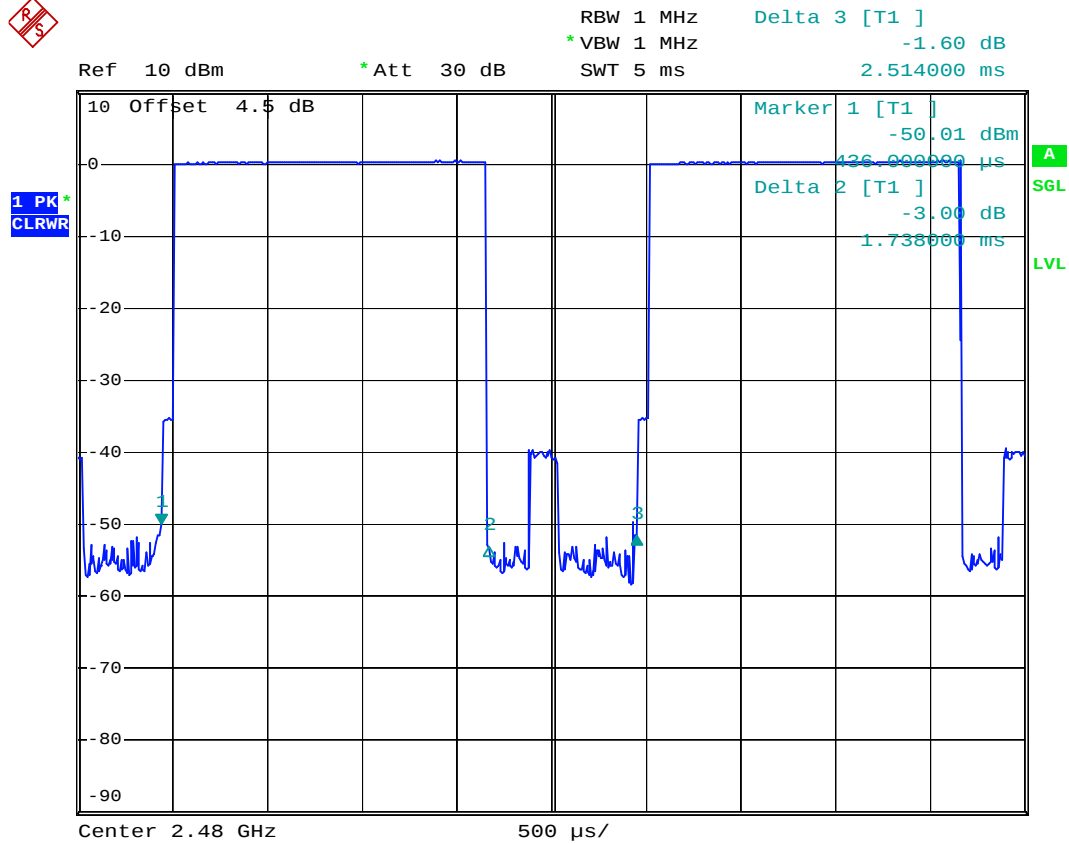
Date: 18.OCT.2005 11:01:38



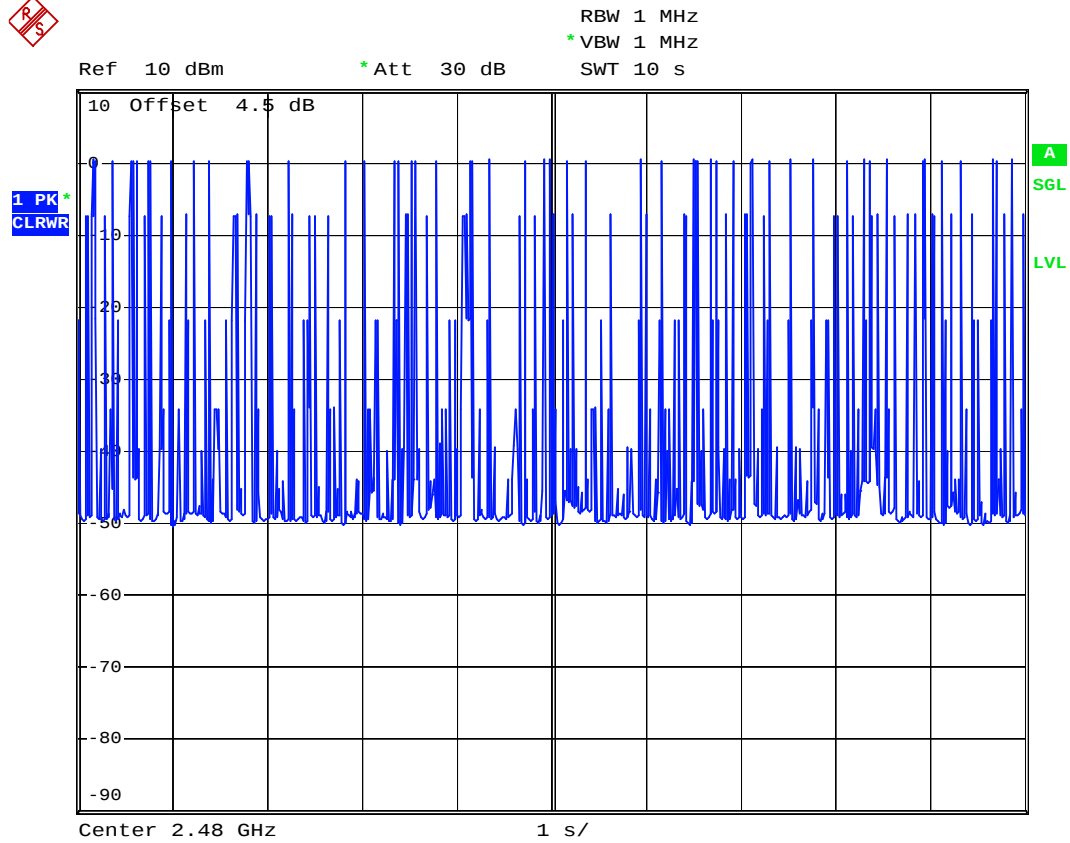
Date: 18.OCT.2005 11:14:39



DH3 (CH78)



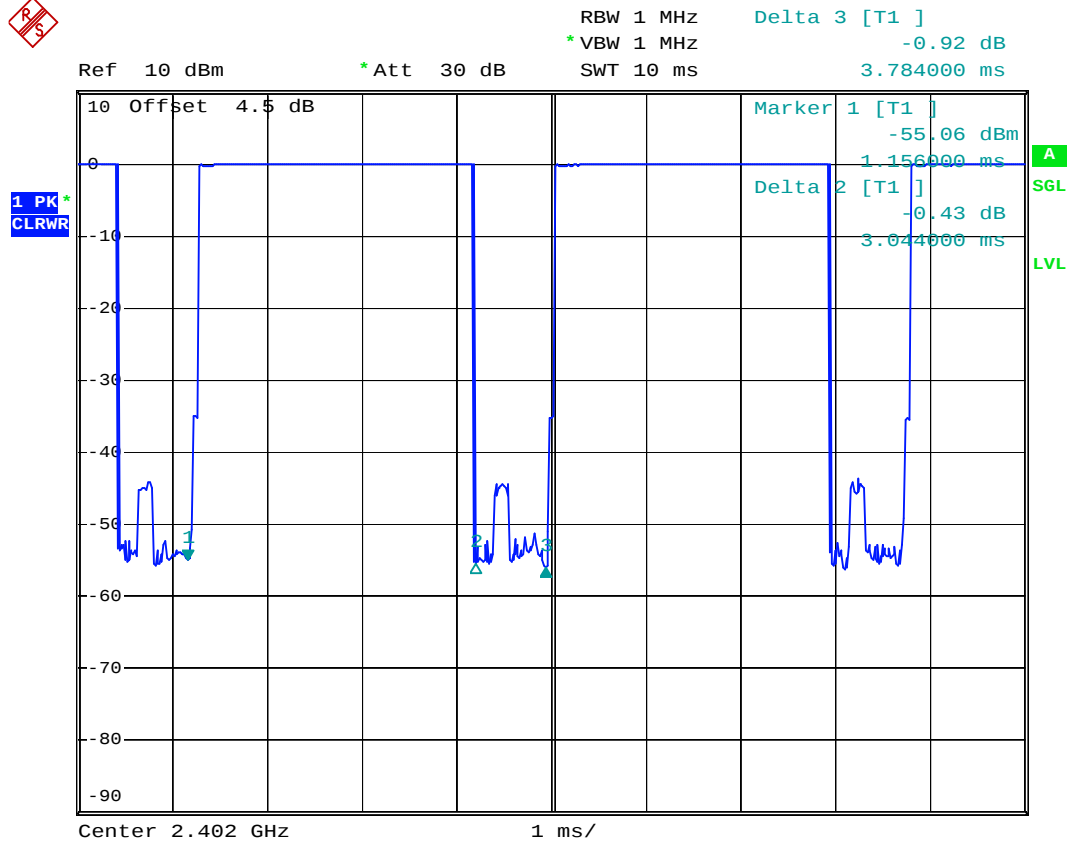
Date: 18.OCT.2005 10:57:51



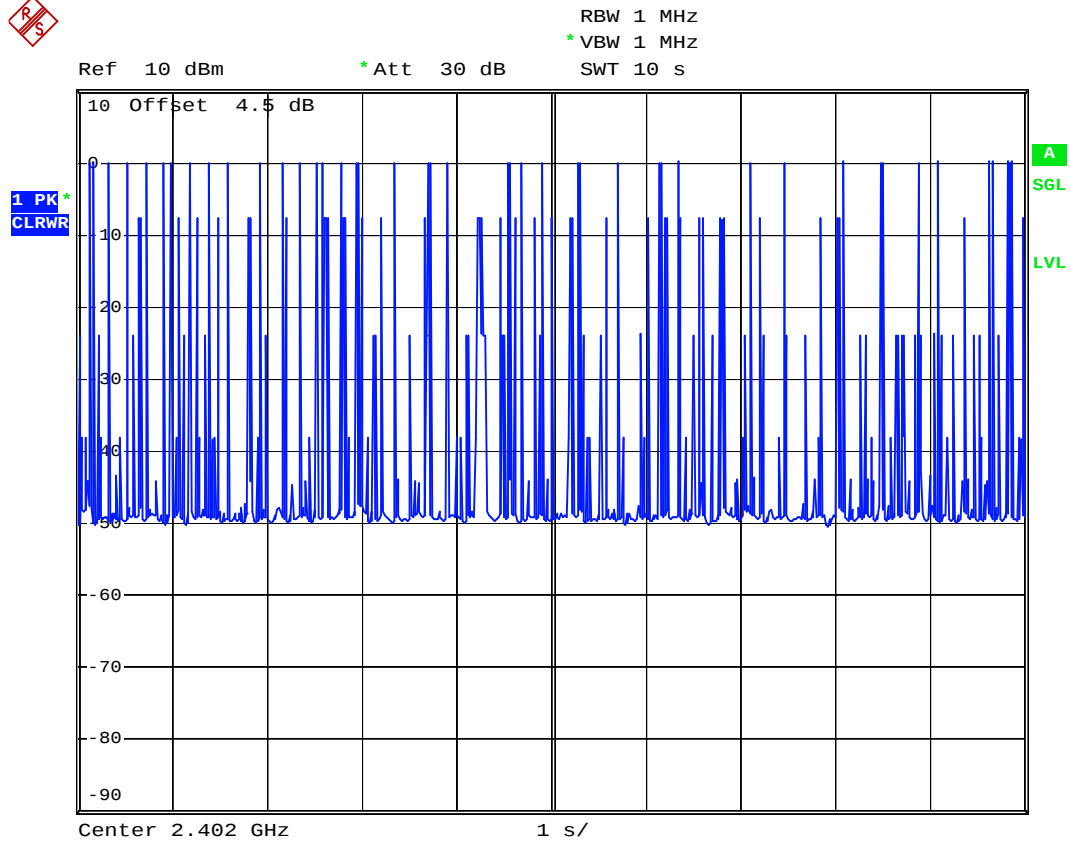
Date: 18.OCT.2005 11:13:45



DH5 (CH00)



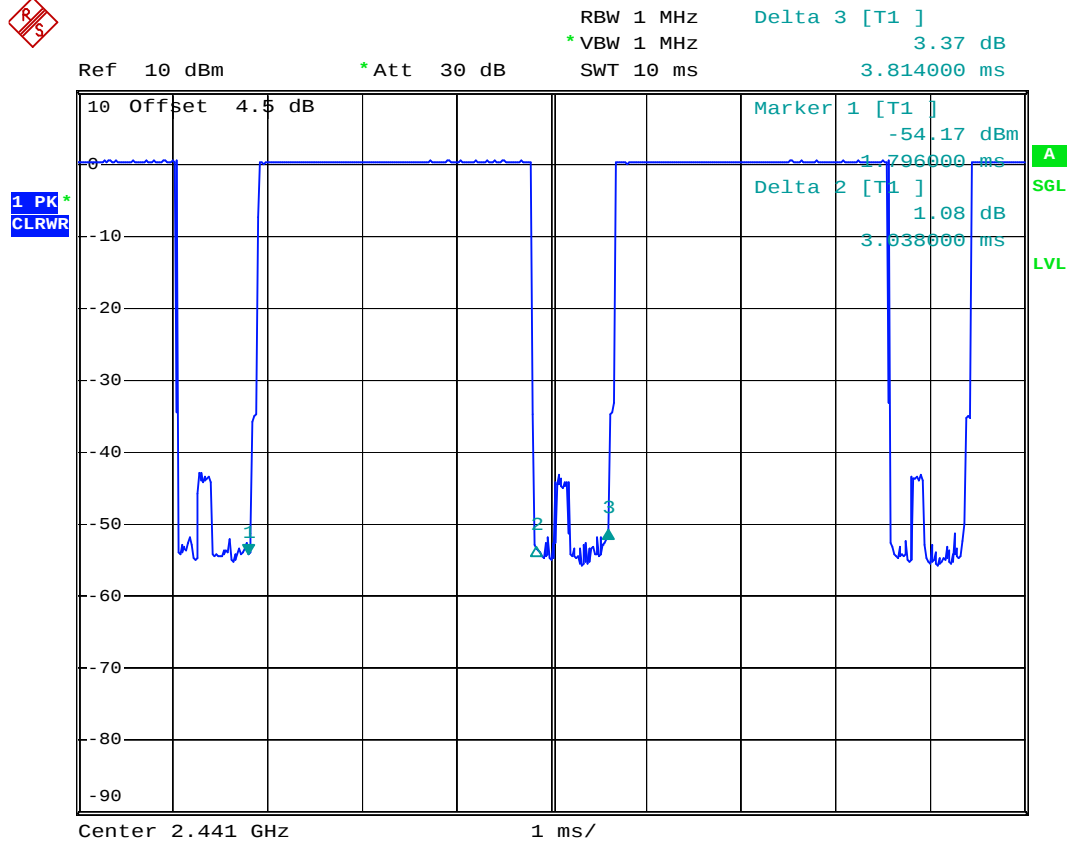
Date: 18.OCT.2005 11:05:27



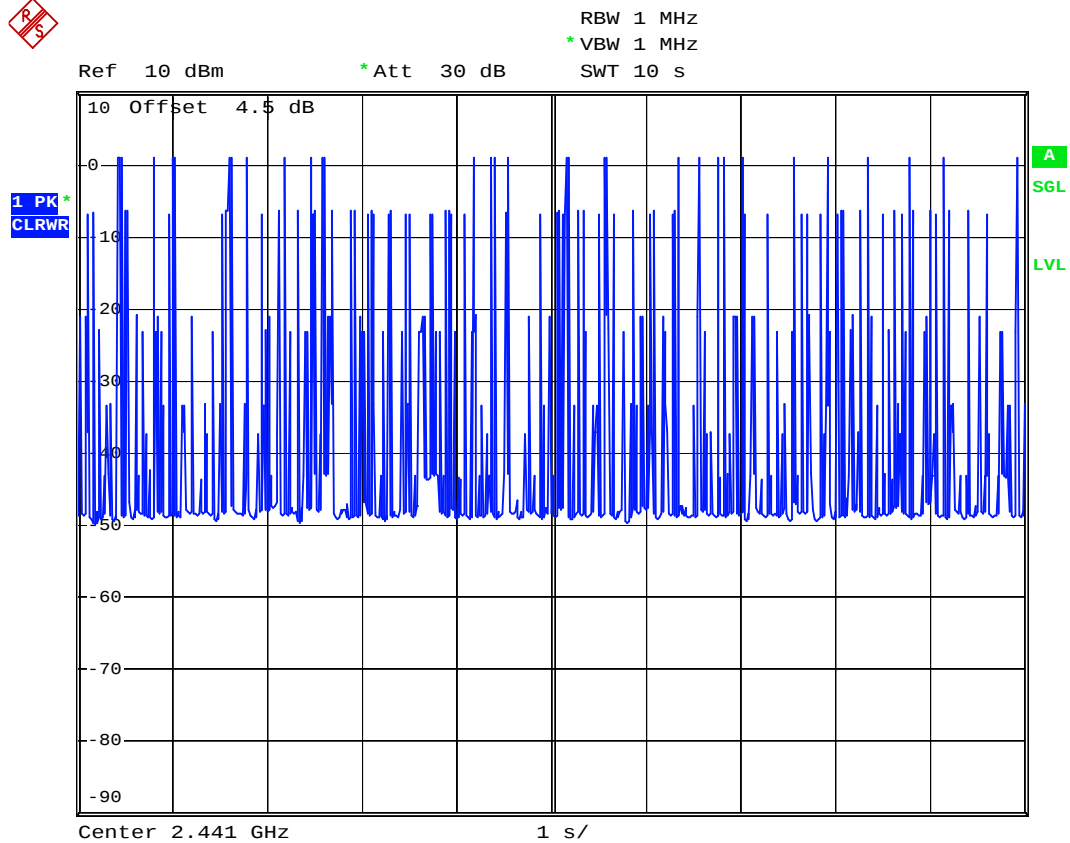
Date: 18.OCT.2005 11:06:42



DH5 (CH39)



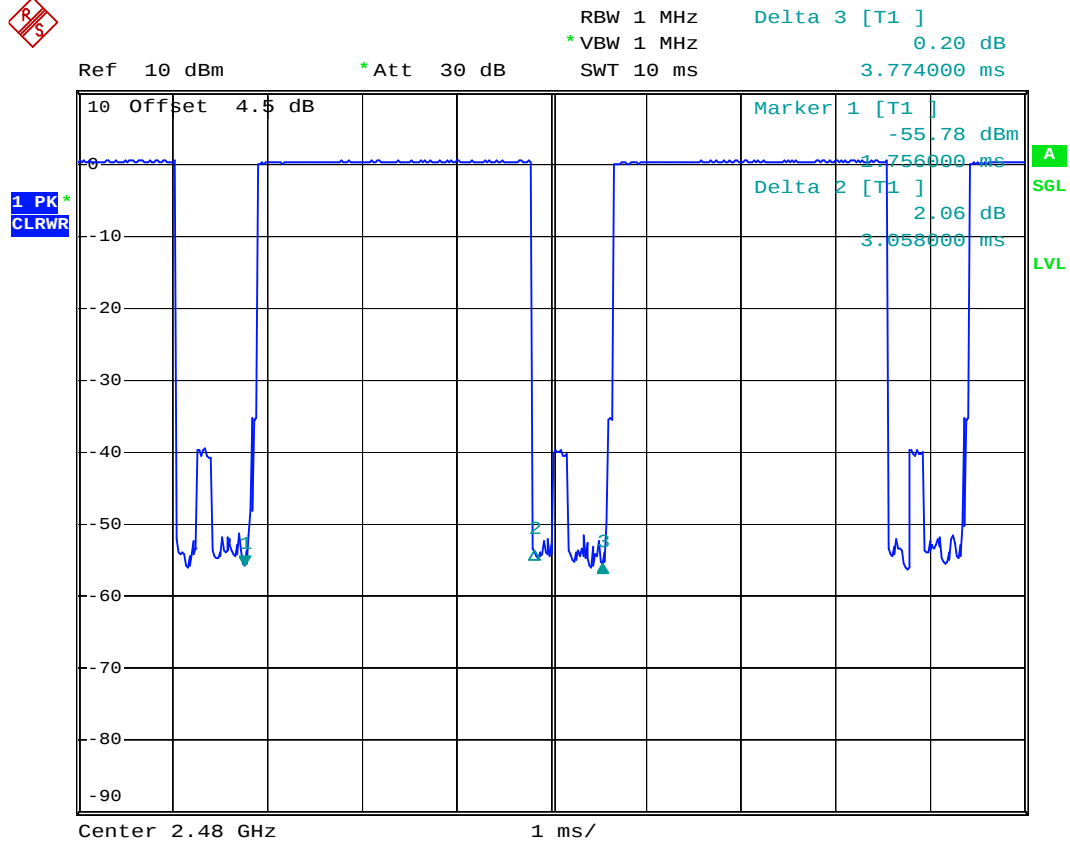
Date: 18.OCT.2005 11:00:09



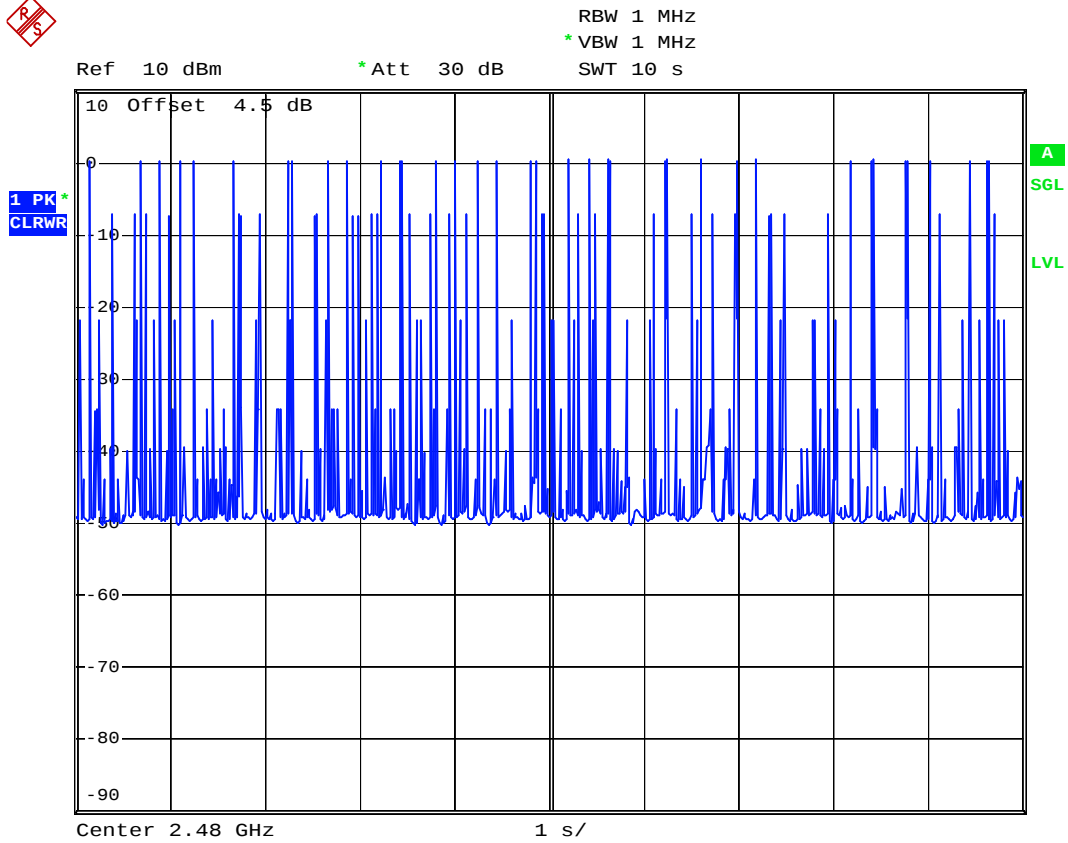
Date: 18.OCT.2005 13:35:19



DH5 (CH78)



Date: 18.OCT.2005 10:58:50



Date: 18.OCT.2005 11:12:43

5.6 Output Power

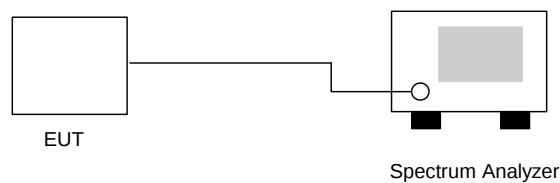
5.6.1 Measuring Instruments :

As described in chapter 6 of this test report.

5.6.2 Test Procedure :

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

5.6.3 Test Setup Layout :



5.6.4 Test Result : See spectrum analyzer plots below

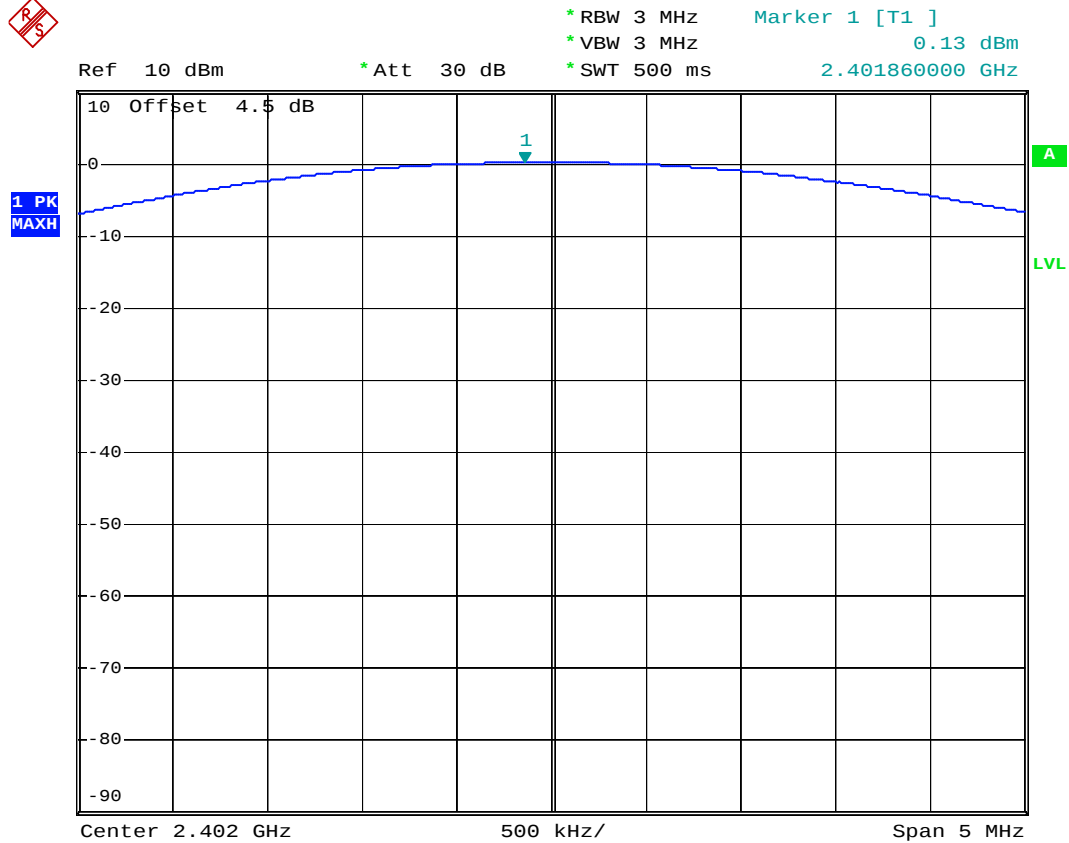
- Temperature: 24°C
- Relative Humidity: 51%
- Test Engineer : James

Channel	Frequency (MHz)	Measured Output Power (dBm)	Limits (Watt/dBm)	Plot Ref. No.
00	2402	0.13	1W/30 dBm	Mode 1
39	2441	0.47	1W/30 dBm	Mode 2
78	2480	0.39	1W/30 dBm	Mode 3



5.6.5 Output Power

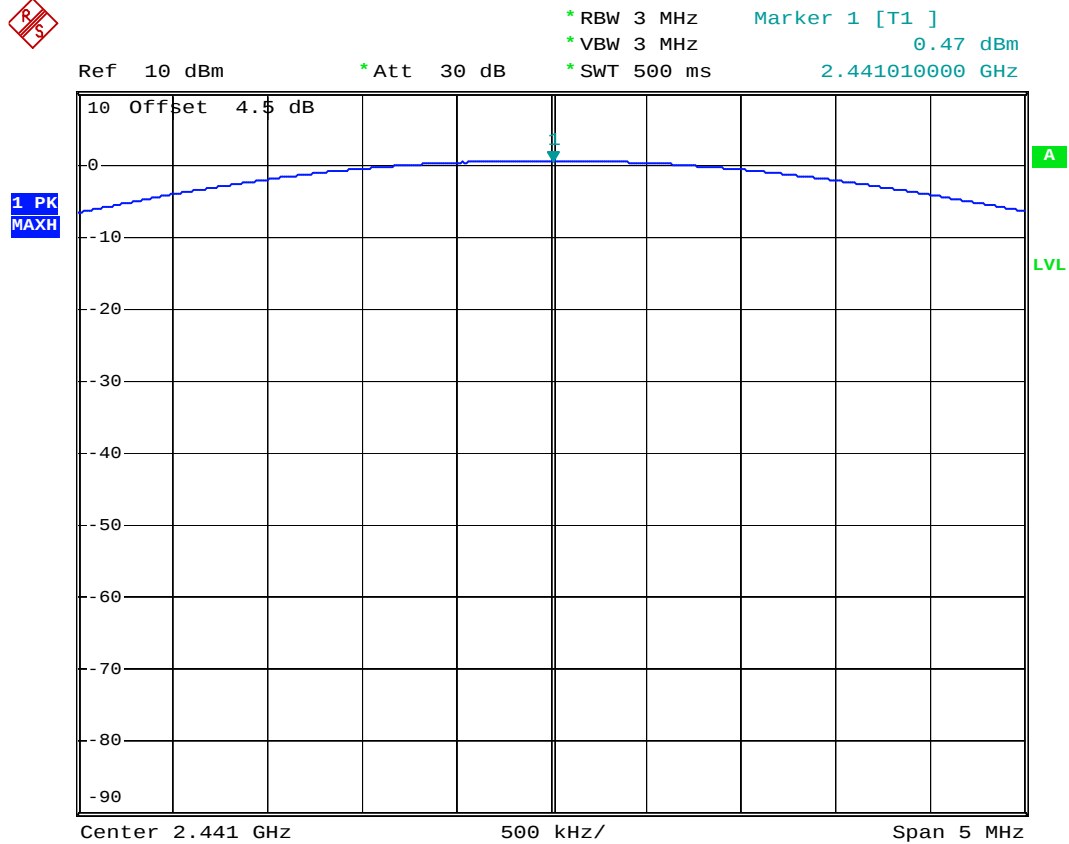
Mode 1: CH00 (2402MHz)



Date: 18.OCT.2005 10:40:10



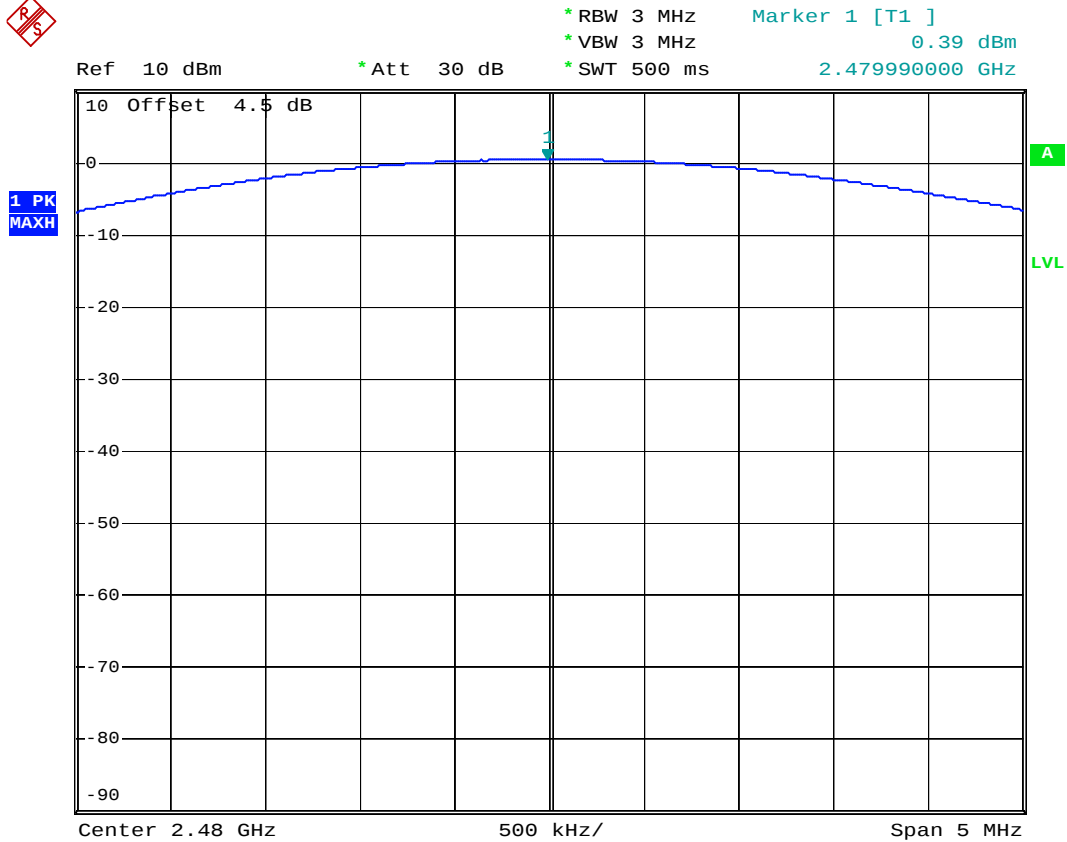
Mode 2: CH39 (2441MHz)



Date: 18.OCT.2005 10:44:58



Mode 3: CH78 (2480MHz)



Date: 18.OCT.2005 10:53:43

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: 24°C
- Relative Humidity: 51%
- Test Engineer : James

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)	Preamp Factor (dB)	Cable Loss (dB)	Ant Pos (cm)	Table Pos (deg)	Detect Mode
2390.00	59.69	-14.31	74.00	60.40	30.48	4.26	35.46	100	360	Peak
2390.00	41.96	-12.04	54.00	42.67	30.48	4.26	35.46	100	201	Average

CH00 (Vertical)

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Preamp Factor (dB)	Cable Loss (dB)	Ant Pos (cm)	Table Pos (deg)	Detect Mode
2390.00	57.92	-16.08	74.00	58.63	30.48	4.26	35.46	100	360	Peak
2390.00	41.68	-12.32	54.00	42.39	30.48	4.26	35.46	100	147	Average

**CH78 (Horizontal)**

Frequency	Level	Over	Limit	Read	Antenna	Preamp	Cable	Ant	Table	Detect
(MHz)	(dBuV/m)	Limit	Line	Level	Factor	Factor	Loss	Pos	Pos	Mode
(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV)	(dB)	(dB)	(dB)	(cm)	(deg)	
2483.50	60.26	-13.74	74.00	61.00	30.41	4.36	35.51	100	360	Peak
2483.50	44.32	-9.68	54.00	45.06	30.41	4.36	35.51	100	199	Average

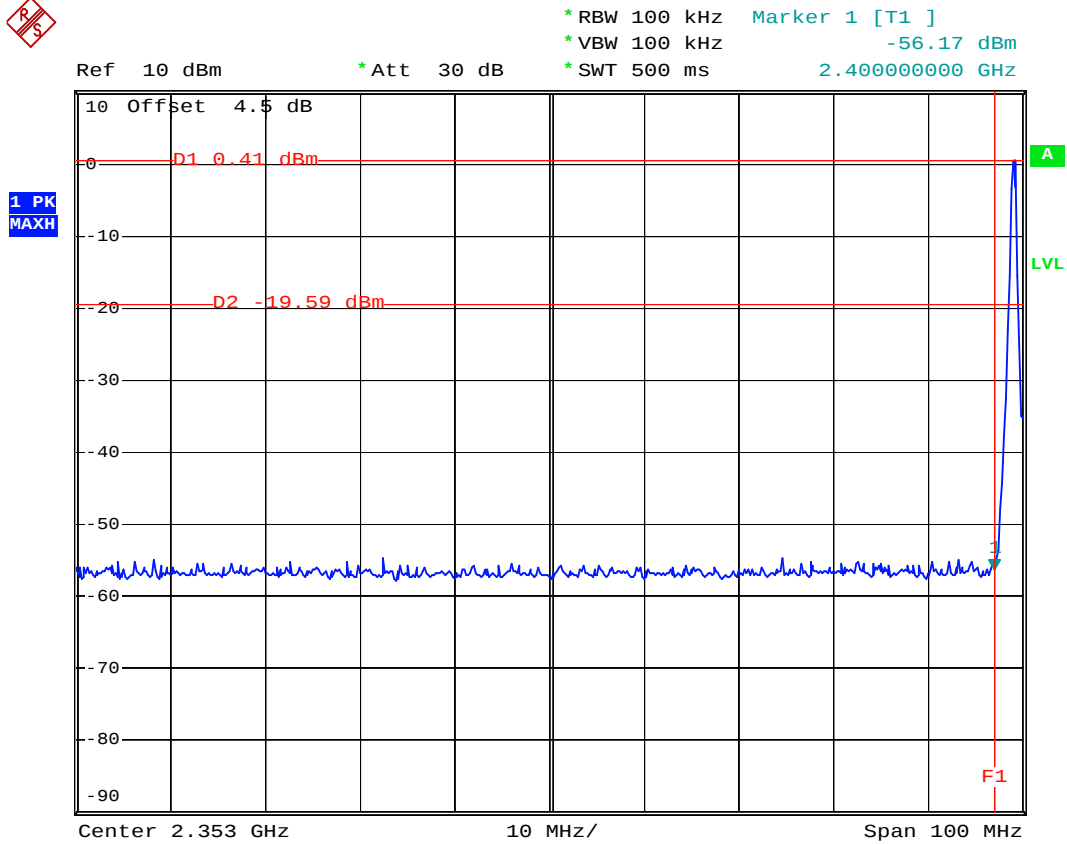
CH78 (Vertical)

Frequency	Level	Over	Limit	Read	Antenna	Preamp	Cable	Ant	Table	Detect
(MHz)	(dBuV/m)	Limit	Line	Level	Factor	Factor	Loss	Pos	Pos	Mode
(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV)	(dB)	(dB)	(dB)	(cm)	(deg)	
2484.00	61.82	-12.18	74.00	62.56	30.41	4.36	35.51	100	0	Peak
2484.00	43.71	-10.29	54.00	44.45	30.41	4.36	35.51	100	284	Average



5.7.5 Frequency Band Edge

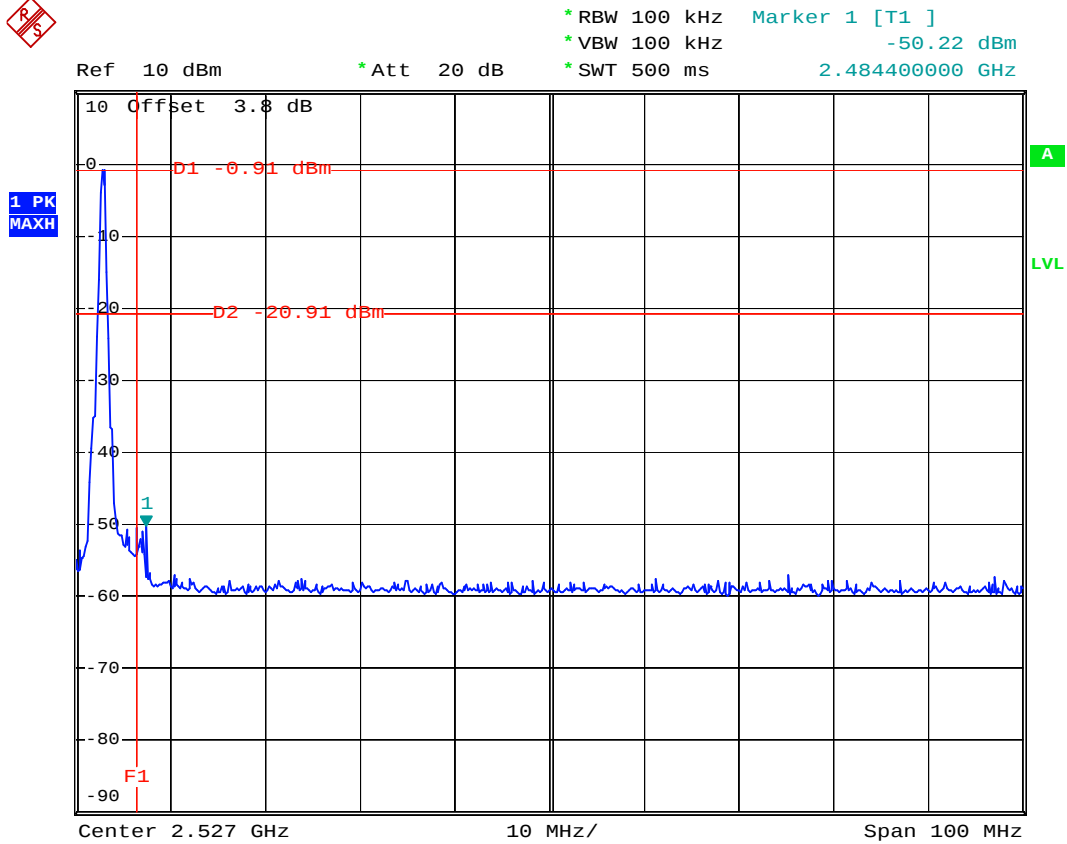
Mode 1: CH00 (2402 MHz)



Date: 18.OCT.2005 13:48:26



Mode 3: CH78 (2480 MHz)



Date: 27.OCT.2005 18:27:19

5.8 Conducted Emission

5.8.1 Measuring Instruments

As described in chapter 6 of this test Report.

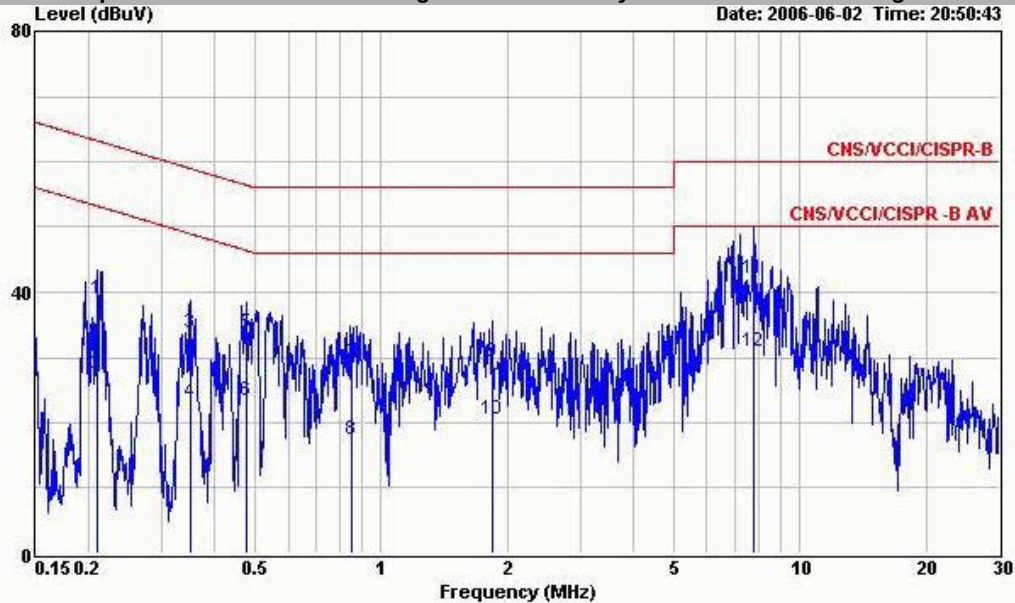
5.8.2 Test Procedures :

- a. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
- b. Connect EUT to the power port of a line impedance stabilization network (LISN).
- c. All the support units are connected to the other LISN.
- d. The LISN provides 50 ohm coupling impedance for the measuring instrument.
- e. The FCC states that a 50 ohm, 50 microhenry LISN should be used.
- f. Both sides of AC line were checked for maximum conducted interference.
- g. The frequency range from 150 kHz to 30 MHz was searched.
- h. Set the test-receiver system to Peak Detect Function and specified bandwidth with Maximum Hold Mode.

5.8.3 Test Mode: Mode 1

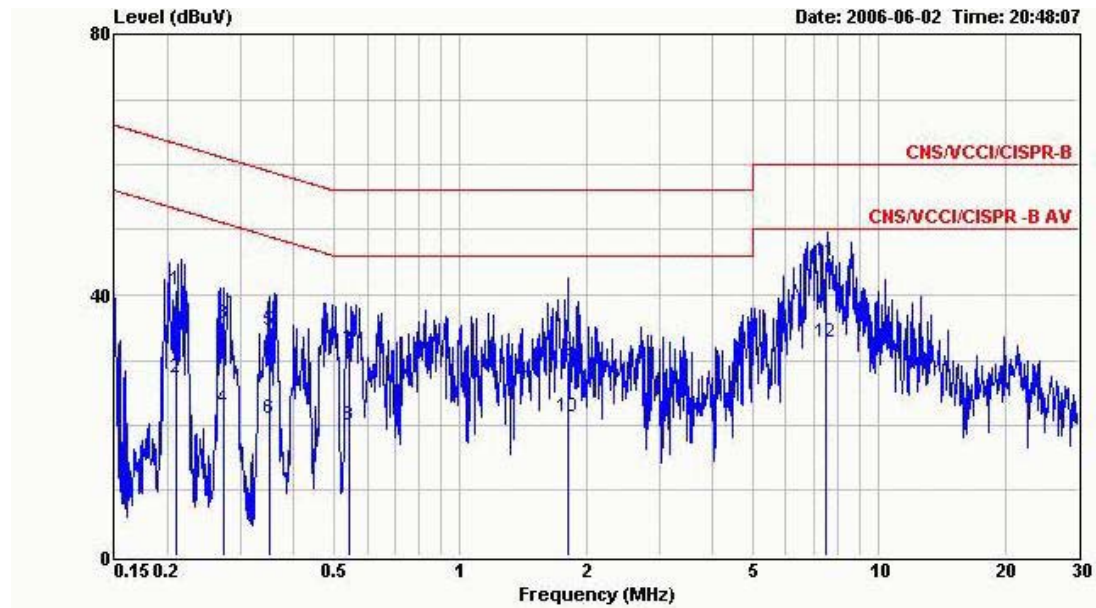
- Frequency Range of Test: from 0.15 MHz to 30 MHz
- Temperature: 24°C
- Relative Humidity: 48%
- Test Engineer: Sam
- All emissions not reported here are more than 10 dB below the prescribed limit.

■ 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 2001/004 200604 LINE
EUT : PDA Phone
Power : 120V/60Hz
Model : CAMINO(S/N:CD2GP4B6B631)
Memo : PCS1900 IDLE+ADAPTER+EARPHONE
Memo : +BT LINK+H PATTERN
CHARGER : MU03-W052100-A1(LEADER)
BATTERY : 20%

	Freq	Level	Over	Limit	Read	Probe	Cable	
	MHz	dBuV	Limit	Line	Level	Factor	Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.209	39.02	-24.22	63.24	38.86	0.10	0.06	QP
2	0.209	27.56	-25.68	53.24	27.40	0.10	0.06	Average
3	0.349	33.80	-25.18	58.98	33.62	0.10	0.08	QP
4	0.349	23.01	-25.97	48.98	22.83	0.10	0.08	Average
5	0.479	33.86	-22.50	56.36	33.69	0.10	0.07	QP
6	0.479	23.48	-22.88	46.36	23.31	0.10	0.07	Average
7	0.847	29.04	-26.96	56.00	28.89	0.10	0.05	QP
8	0.847	17.34	-28.66	46.00	17.19	0.10	0.05	Average
9	1.839	29.41	-26.59	56.00	29.20	0.10	0.11	QP
10	1.839	20.63	-25.37	46.00	20.42	0.10	0.11	Average
11	7.726	42.19	-17.81	60.00	41.79	0.27	0.13	QP
12	7.726	30.81	-19.19	50.00	30.41	0.27	0.13	Average



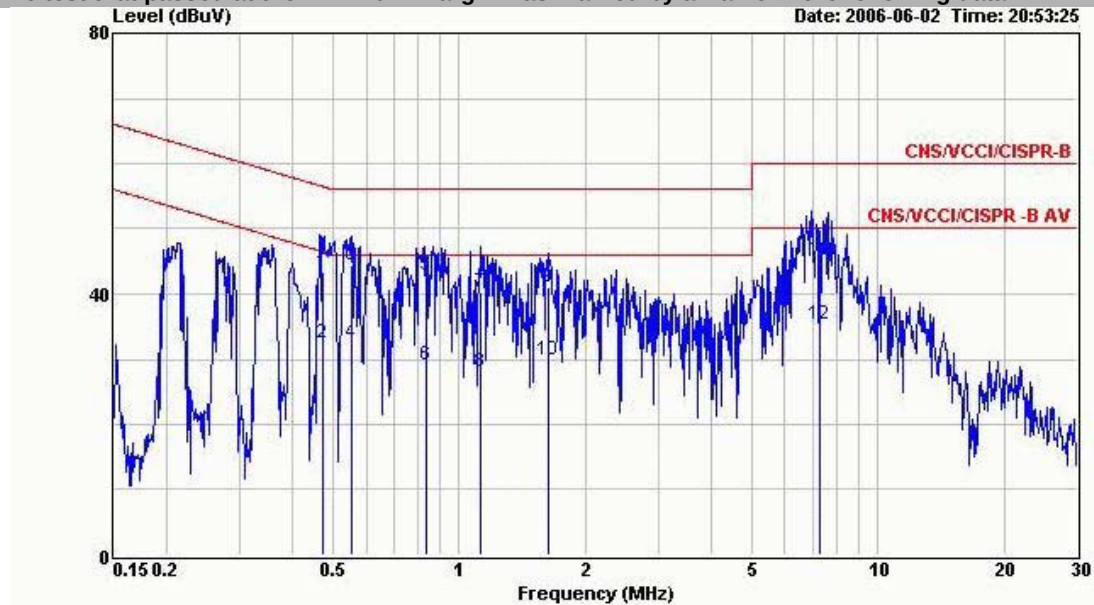
Site : CO01-HY
 Condition : CNS/VCCI/CISPR-B 2001/004 200604 NEUTRAL
 EUT : PDA Phone
 Power : 120V/60Hz
 Model : CAMINO(S/N:CD2GP4B6B631)
 Memo : PCS1900 IDLE+ADAPTER+EARPHONE
 Memo : +BT LINK+H PATTERN
 CHARGER : MU03-W052100-A1(LEADER)
 BATTERY : 20%

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.209	40.71	-22.52	63.23	40.55	0.10	0.06	QP
2	0.209	27.18	-26.05	53.23	27.02	0.10	0.06	Average
3	0.273	35.65	-25.37	61.02	35.48	0.10	0.07	QP
4	0.273	22.50	-28.52	51.02	22.33	0.10	0.07	Average
5	0.351	34.45	-24.50	58.95	34.27	0.10	0.08	QP
6	0.351	21.05	-27.90	48.95	20.87	0.10	0.08	Average
7	0.544	31.35	-24.65	56.00	31.18	0.10	0.07	QP
8	0.544	19.90	-26.10	46.00	19.73	0.10	0.07	Average
9	1.811	29.92	-26.08	56.00	29.71	0.10	0.11	QP
10	1.811	21.33	-24.67	46.00	21.12	0.10	0.11	Average
11	7.446	45.12	-14.88	60.00	44.82	0.17	0.13	QP
12	7.446	32.76	-17.24	50.00	32.46	0.17	0.13	Average

5.8.4 Test Mode: Mode 2

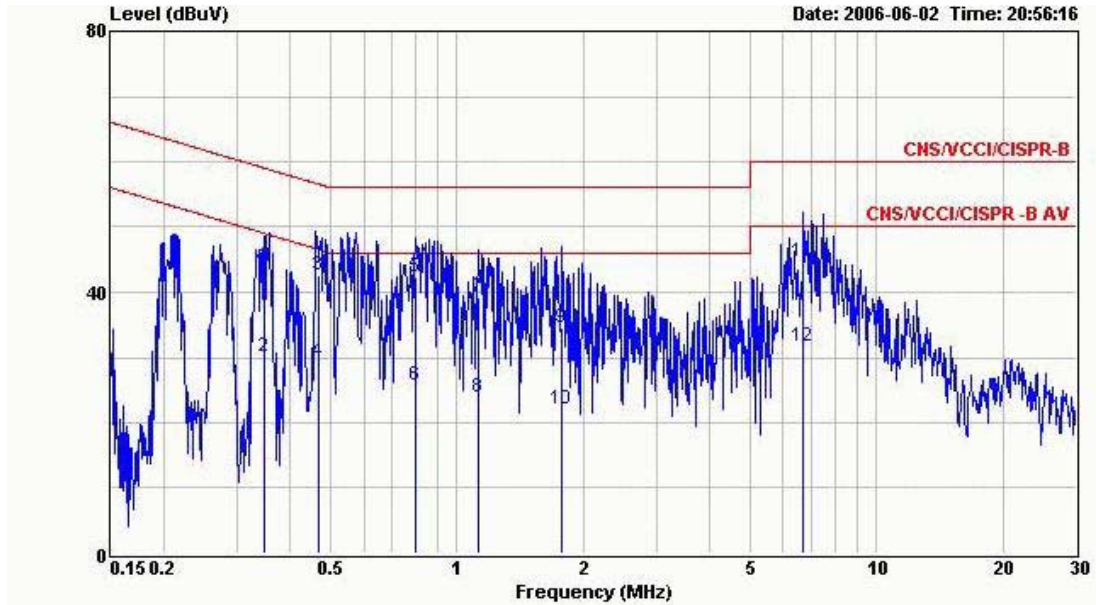
- Frequency Range of Test: from 0.15 MHz to 30 MHz
- Temperature: 24°C
- Relative Humidity: 48%
- Test Engineer: Sam
- All emissions not reported here are more than 10 dB below the prescribed limit.

■ 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 2001/004 200604 LINE
EUT : PDA Phone
Power : 120V/60Hz
Model : CAMINO(S/N:CD2GP4B6B631)
Memo : PCS1900 IDLE+ADAPTER+EARPHONE
Memo : +USB LINK+H PATTERN
CHARGER : MU03-W052100-A1(LEADER)
BATTERY : 20%

	Freq	Level	Over	Limit	Read	Probe	Cable	
	MHz	dBuV	Limit	Line	Level	Factor	Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.470	43.33	-13.18	56.51	43.16	0.10	0.07	QP
2	0.470	32.51	-14.00	46.51	32.34	0.10	0.07	Average
3	0.555	44.38	-11.62	56.00	44.21	0.10	0.07	QP
4	0.555	32.53	-13.47	46.00	32.36	0.10	0.07	Average
5	0.831	42.89	-13.11	56.00	42.74	0.10	0.05	QP
6	0.831	28.98	-17.02	46.00	28.83	0.10	0.05	Average
7	1.125	40.19	-15.81	56.00	40.04	0.10	0.05	QP
8	1.125	27.96	-18.04	46.00	27.81	0.10	0.05	Average
9	1.636	40.96	-15.04	56.00	40.76	0.10	0.10	QP
10	1.636	29.81	-16.19	46.00	29.61	0.10	0.10	Average
11	7.250	45.29	-14.71	60.00	44.90	0.26	0.13	QP
12	7.250	35.36	-14.64	50.00	34.97	0.26	0.13	Average



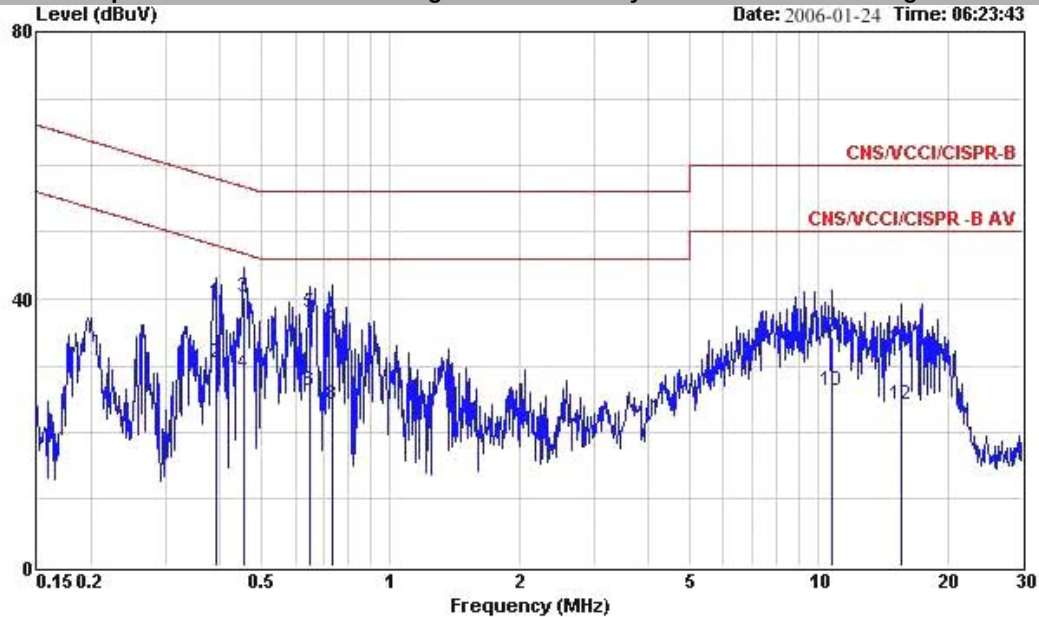
Site : CO01-HY
 Condition : CNS/VCCI/CISPR-B 2001/004 200604 NEUTRAL
 EUT : PDA Phone
 Power : 120V/60Hz
 Model : CAMINO(S/N:CD2GP4B6B631)
 Memo : PCS1900 IDLE+ADAPTER+EARPHONE
 Memo : +USB LINK+H PATTERN
 CHARGER : MU03-W052100-A1(LEADER)
 BATTERY : 20%

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Remark
	MHz	dBuV		dB	dBuV	dB	dB	
1	0.348	43.91	-15.10	59.01	43.73	0.10	0.08	QP
2	0.348	30.19	-18.82	49.01	30.01	0.10	0.08	Average
3	0.470	42.64	-13.88	56.52	42.47	0.10	0.07	QP
4	0.470	29.27	-17.25	46.52	29.10	0.10	0.07	Average
5	0.800	42.22	-13.78	56.00	42.07	0.10	0.05	QP
6	0.800	25.63	-20.37	46.00	25.48	0.10	0.05	Average
7	1.126	39.16	-16.84	56.00	39.01	0.10	0.05	QP
8	1.126	23.84	-22.16	46.00	23.69	0.10	0.05	Average
9	1.781	34.57	-21.43	56.00	34.36	0.10	0.11	QP
10	1.781	22.21	-23.79	46.00	22.00	0.10	0.11	Average
11	6.699	44.59	-15.41	60.00	44.30	0.16	0.13	QP
12	6.699	31.57	-18.43	50.00	31.28	0.16	0.13	Average

5.8.5 Test Mode: Mode 3

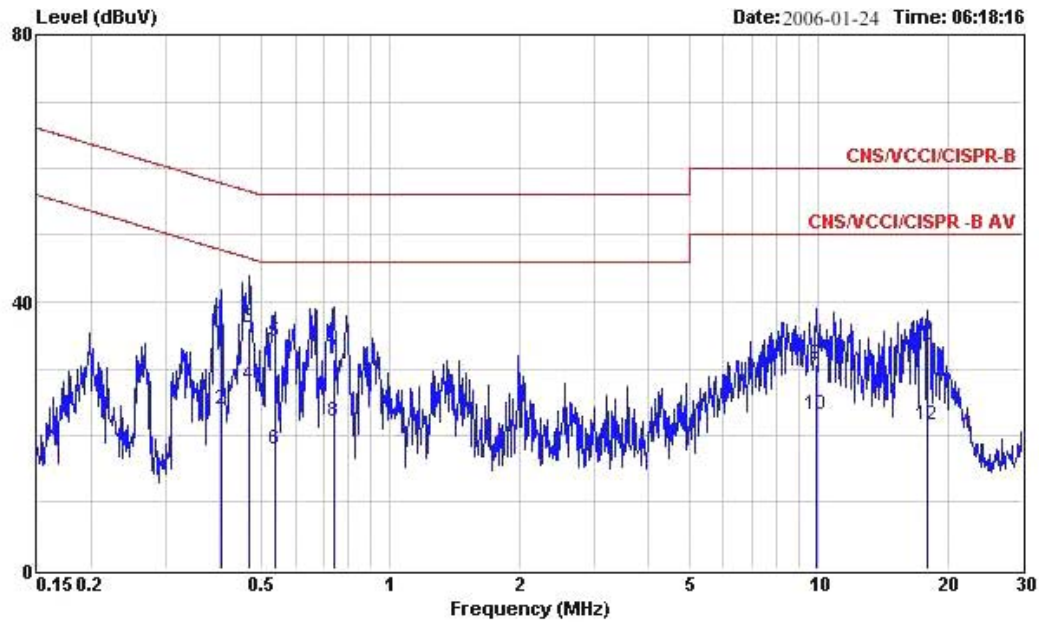
- Frequency Range of Test: from 0.15 MHz to 30 MHz
- Temperature: 24°C
- Relative Humidity: 52%
- Test Engineer: Andy
- All emissions not reported here are more than 10 dB below the prescribed limit.

■ 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 2001/004 200505 LINE
EUT : PDA Phone
Power : 120V/60Hz
Model : CE3GP1D60574
Memo : PCS1900 Idle + Adapter + Earphone+BT Link + H Patten

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.393	39.49	-18.51	58.00	39.39	0.06	0.04	QP
2	0.393	30.33	-17.67	48.00	30.23	0.06	0.04	Average
3	0.456	40.31	-16.46	56.77	40.19	0.07	0.05	QP
4	0.456	28.95	-17.82	46.77	28.83	0.07	0.05	Average
5	0.651	37.99	-18.01	56.00	37.84	0.09	0.06	QP
6	0.651	26.14	-19.86	46.00	25.99	0.09	0.06	Average
7	0.731	35.38	-20.62	56.00	35.22	0.09	0.07	QP
8	0.731	24.10	-21.90	46.00	23.94	0.09	0.07	Average
9	10.790	34.22	-25.78	60.00	33.79	0.21	0.22	QP
10	10.790	26.29	-23.71	50.00	25.86	0.21	0.22	Average
11	15.630	32.60	-27.40	60.00	32.13	0.22	0.25	QP
12	15.630	24.17	-25.83	50.00	23.70	0.22	0.25	Average



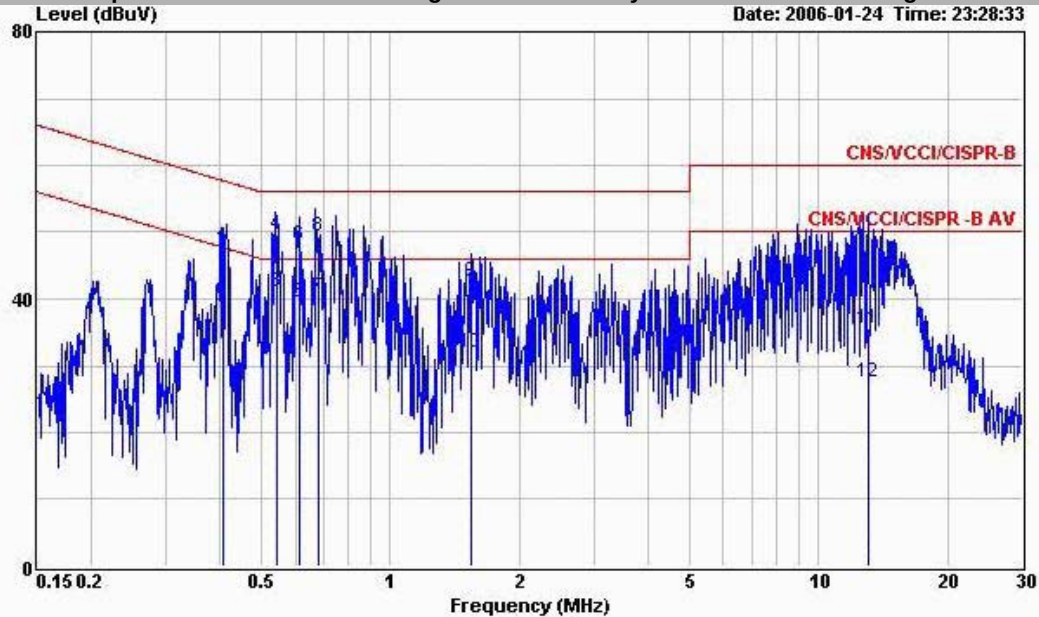
Site : CO01-HY
 Condition : CNS/VCCI/CISPR-B 2001/004 200505 NEUTRAL
 EUT : PDA Phone
 Power : 120V/60Hz
 Model : CE3GP1D60574
 Memo : PCS1900 Idle + Adapter + Earphone+BT Link + H Patten

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.402	36.55	-21.26	57.81	36.40	0.11	0.04	QP
2	0.402	23.97	-23.84	47.81	23.82	0.11	0.04	Average
3	0.469	36.10	-20.43	56.53	35.92	0.13	0.05	QP
4	0.469	27.41	-19.12	46.53	27.23	0.13	0.05	Average
5	0.538	34.08	-21.92	56.00	33.88	0.15	0.05	QP
6	0.538	17.91	-28.09	46.00	17.71	0.15	0.05	Average
7	0.739	31.53	-24.47	56.00	31.27	0.19	0.07	QP
8	0.739	22.11	-23.89	46.00	21.85	0.19	0.07	Average
9	9.910	30.70	-29.30	60.00	30.15	0.33	0.22	QP
10	9.910	23.22	-26.78	50.00	22.67	0.33	0.22	Average
11	18.040	31.84	-28.16	60.00	31.17	0.39	0.28	QP
12	18.040	21.62	-28.38	50.00	20.95	0.39	0.28	Average

5.8.6 Test Mode: Mode 4

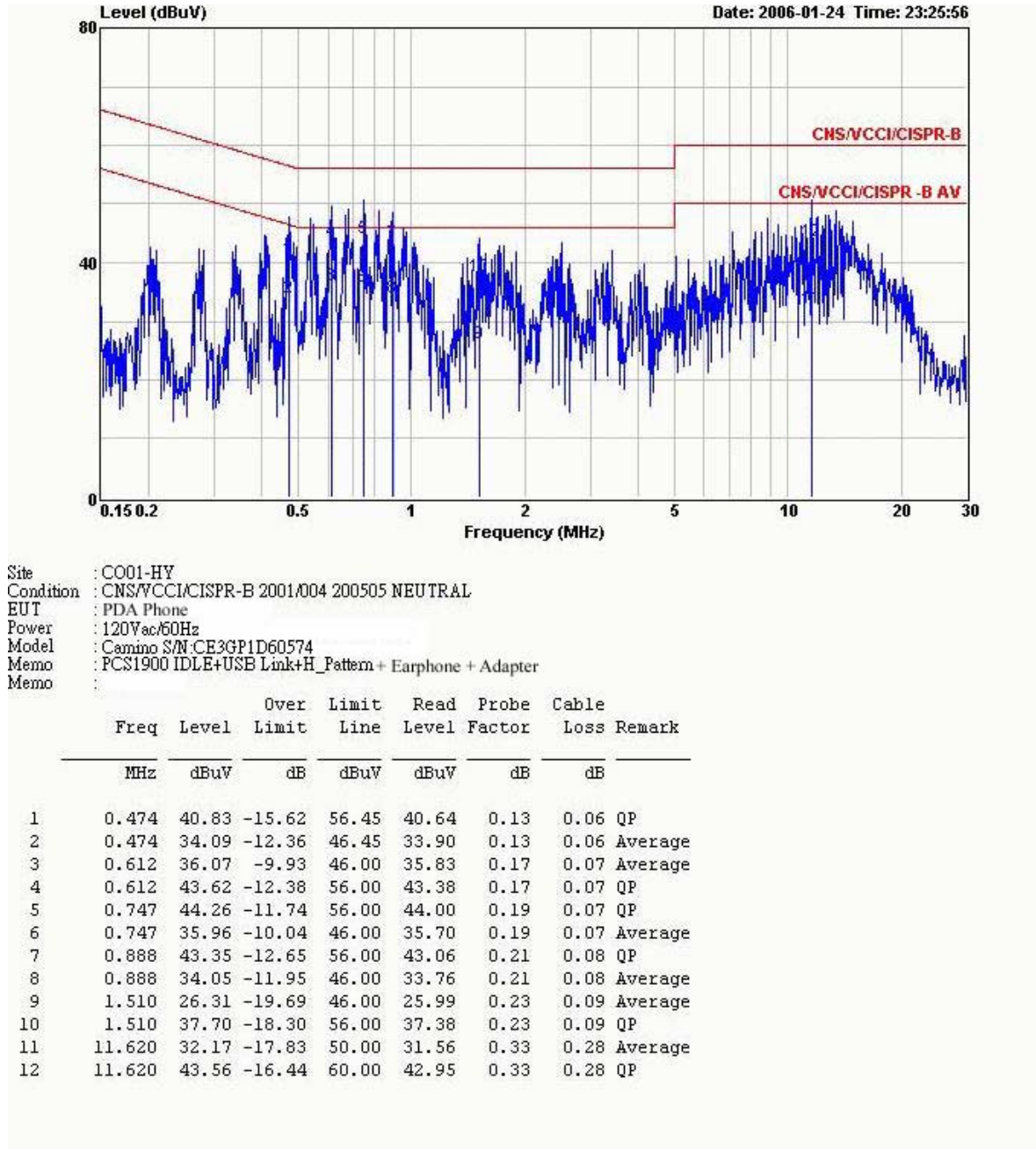
- Frequency Range of Test: from 0.15 MHz to 30 MHz
- Temperature: 24°C
- Relative Humidity: 52%
- Test Engineer: Andy
- All emissions not reported here are more than 10 dB below the prescribed limit.

■ 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 2001/004 200505 LINE
EUT : PDA Phone
Power : 120Vac/50Hz
Model : Camino S/N:CE3GP1D60574
Memo : PCS1900 IDLE+USB Link+H_Pattern + Earphone + Adapter
Memo :

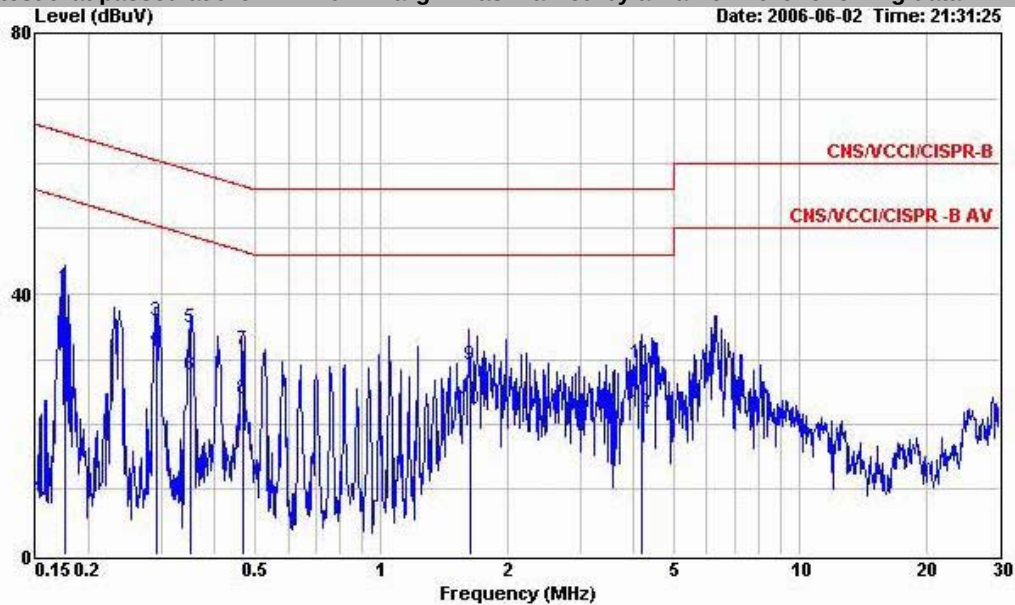
	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.408	47.48	-10.21	57.69	47.36	0.06	0.06	QP
2	0.408	38.87	-8.82	47.69	38.75	0.06	0.06	Average
3	0.541	41.06	-4.94	46.00	40.91	0.08	0.07	Average
4	0.541	49.71	-6.29	56.00	49.56	0.08	0.07	QP
5	0.611	39.42	-6.58	46.00	39.27	0.08	0.07	Average
6	0.611	47.92	-8.08	56.00	47.77	0.08	0.07	QP
7	0.677	40.22	-5.78	46.00	40.06	0.09	0.07	Average
8	0.677	49.27	-6.73	56.00	49.11	0.09	0.07	QP
9	1.540	42.64	-13.36	56.00	42.44	0.11	0.09	QP
10	1.540	32.07	-13.93	46.00	31.87	0.11	0.09	Average
11	13.060	35.67	-24.33	60.00	35.15	0.21	0.31	QP
12	13.060	27.50	-22.50	50.00	26.98	0.21	0.31	Average



5.8.7 Test Mode: Mode 5

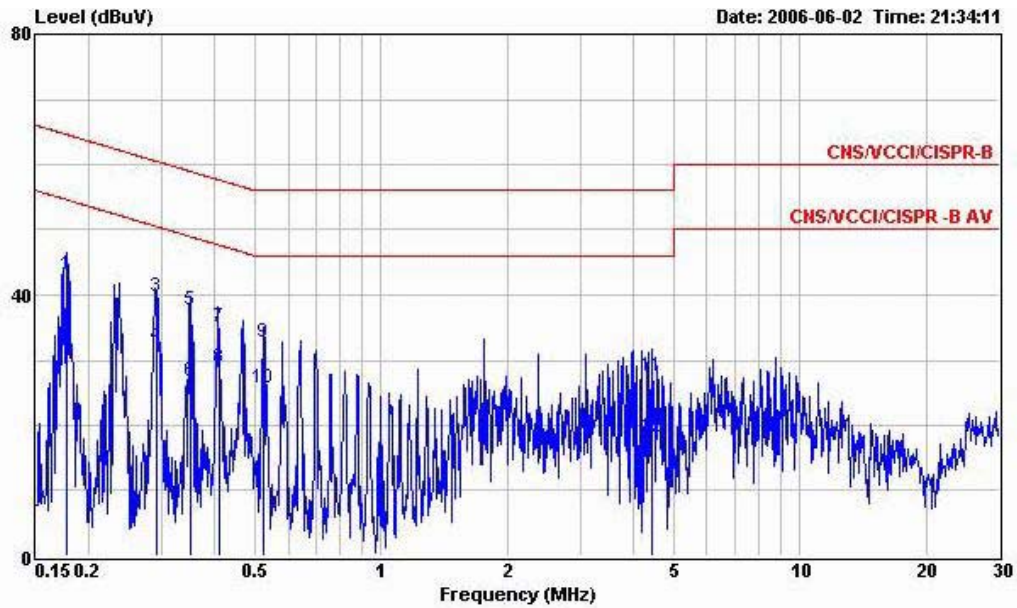
- Frequency Range of Test: from 0.15 MHz to 30 MHz
- Temperature: 24°C
- Relative Humidity: 48%
- Test Engineer: Sam
- All emissions not reported here are more than 10 dB below the prescribed limit.

■ 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 2001/004 200604 LINE
 EUT : PDA Phone
 Power : 120V/60Hz
 Model : CAMINO(S/N:CD2GP4B6B631)
 Memo : PCS1900 IDLE+ADAPTER+EARPHONE
 Memo : +BT LINK+H PATTERN
 CHARGER : SCP0501000PU(MEI)
 BATTERY : 20%

	Freq	Level	Over	Limit	Read	Probe	Cable	
	MHz	dBuV	Limit	Line	Level	Factor	Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.176	41.15	-23.52	64.67	40.99	0.10	0.06	QP
2	0.176	31.46	-23.21	54.67	31.30	0.10	0.06	Average
3	0.290	35.97	-24.55	60.52	35.80	0.10	0.07	QP
4	0.290	31.56	-18.96	50.52	31.39	0.10	0.07	Average
5	0.351	34.74	-24.21	58.95	34.56	0.10	0.08	QP
6	0.351	27.47	-21.48	48.95	27.29	0.10	0.08	Average
7	0.466	31.36	-25.23	56.59	31.19	0.10	0.07	QP
8	0.466	23.79	-22.80	46.59	23.62	0.10	0.07	Average
9	1.629	29.22	-26.78	56.00	29.02	0.10	0.10	QP
10	1.629	22.46	-23.54	46.00	22.26	0.10	0.10	Average
11	4.196	29.23	-26.77	56.00	28.90	0.21	0.12	QP
12	4.196	21.82	-24.18	46.00	21.49	0.21	0.12	Average



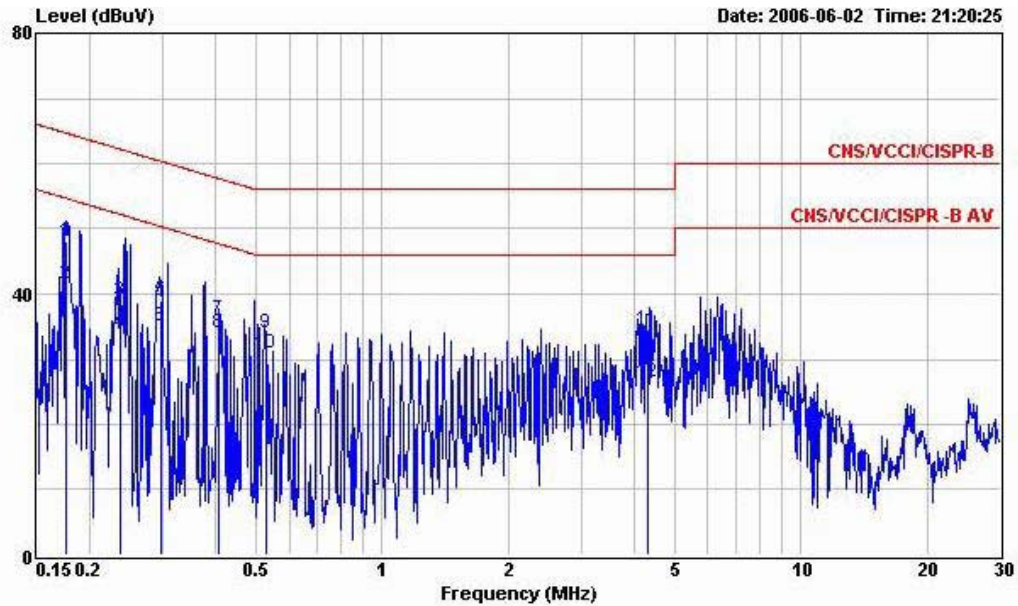
Site : CO01-HY
 Condition : CNS/VCCI/CISPR-B 2001/004 200604 NEUTRAL
 EUT : PDA Phone
 Power : 120V/60Hz
 Model : CAMINO(S/N:CD2GP4B6B31)
 Memo : PCS1900 IDLE+ADAPTER+EARPHONE
 Memo : +BT LINK+H PATTERN
 CHARGER : SCP0501000PU(MEI)
 BATTERY : 20%

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.177	43.11	-21.52	64.63	42.95	0.10	0.06	QP
2	0.177	32.23	-22.40	54.63	32.07	0.10	0.06	Average
3	0.290	39.68	-20.84	60.52	39.51	0.10	0.07	QP
4	0.290	32.08	-18.44	50.52	31.91	0.10	0.07	Average
5	0.351	37.56	-21.39	58.95	37.38	0.10	0.08	QP
6	0.351	26.71	-22.24	48.95	26.53	0.10	0.08	Average
7	0.409	35.14	-22.52	57.66	34.96	0.10	0.08	QP
8	0.409	28.73	-18.93	47.66	28.55	0.10	0.08	Average
9	0.524	32.83	-23.17	56.00	32.66	0.10	0.07	QP
10	0.524	25.80	-20.20	46.00	25.63	0.10	0.07	Average
11	4.426	27.50	-28.50	56.00	27.27	0.11	0.12	QP
12	4.426	18.13	-27.87	46.00	17.90	0.11	0.12	Average

5.8.8 Test Mode: Mode 6

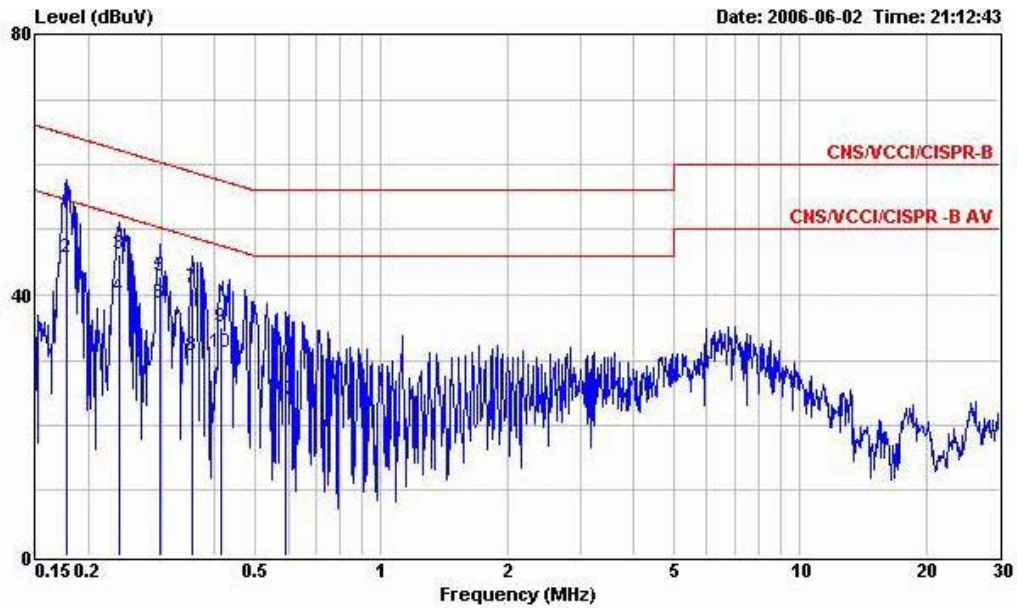
- Frequency Range of Test: from 0.15 MHz to 30 MHz
- Temperature: 24°C
- Relative Humidity: 48%
- Test Engineer: Sam
- All emissions not reported here are more than 10 dB below the prescribed limit.

■ 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 2001/004 200604 LINE
EUT : PDA Phone
Power : 120V/60Hz
Model : CAMINO(S/N:CD2GP4B6B631)
Memo : PCS1900 IDLE+ADAPTER+EARPHONE
Memo : +USB LINK+H PATTERN
CHARGER : SCP0501000PU(MEI)
BATTERY : 20%

	Freq	Level	Over	Limit	Read	Probe	Cable	
	MHz	dBuV	Limit	Line	Level	Factor	Loss	Remark
			dB	dBuV	dBuV	dB	dB	
1	0.176	48.10	-16.57	64.67	47.94	0.10	0.06	QP
2	0.176	41.55	-13.12	54.67	41.39	0.10	0.06	Average
3	0.238	38.91	-23.27	62.18	38.74	0.10	0.07	QP
4	0.238	34.05	-18.13	52.18	33.88	0.10	0.07	Average
5	0.297	38.99	-21.35	60.34	38.82	0.10	0.07	QP
6	0.297	35.11	-15.23	50.34	34.94	0.10	0.07	Average
7	0.408	36.10	-21.58	57.68	35.92	0.10	0.08	QP
8	0.408	34.06	-13.62	47.68	33.88	0.10	0.08	Average
9	0.526	33.93	-22.07	56.00	33.76	0.10	0.07	QP
10	0.526	30.92	-15.08	46.00	30.75	0.10	0.07	Average
11	4.329	34.57	-21.43	56.00	34.24	0.21	0.12	QP
12	4.329	26.51	-19.49	46.00	26.18	0.21	0.12	Average



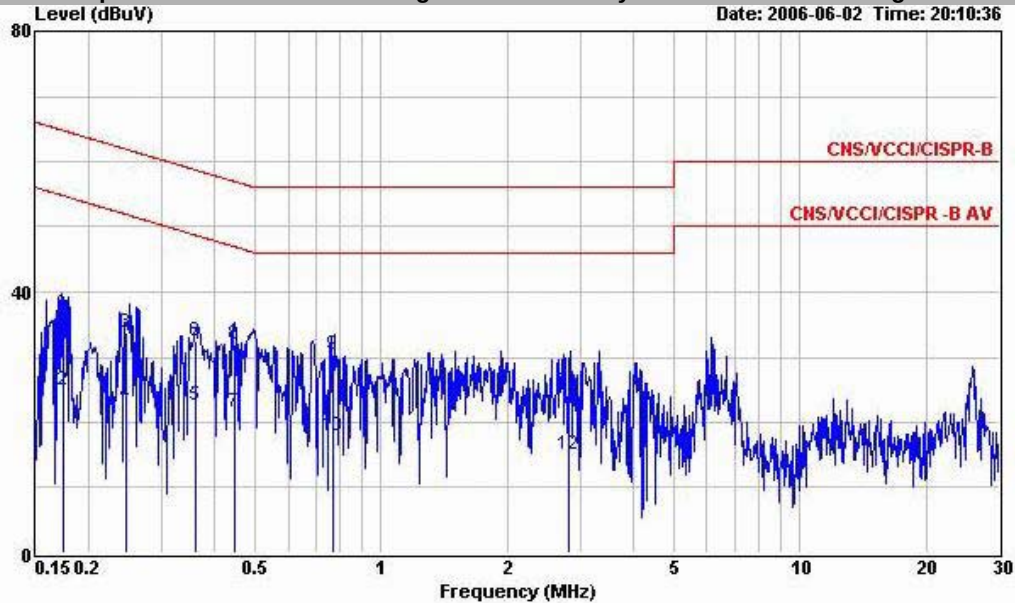
Site : CO01-HY
 Condition : CNS/VCCI/CISPR-B 2001/004 200604 NEUTRAL
 EUT : PDA Phone
 Power : 120V/60Hz
 Model : CAMINO(S/N:CD2GP4B6B31)
 Memo : PCS1900 IDLE+ADAPTER+EARPHONE
 Memo : +USB LINK+H PATTERN
 CHARGER : SCP0501000PU(MEI)
 BATTERY : 20%

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Remark
	MHz	dBuV		dB	dBuV	dB	dB	
1	0.177	52.48	-12.16	64.64	52.32	0.10	0.06	QP
2	0.177	45.72	-8.92	54.64	45.56	0.10	0.06	Average
3	0.237	46.33	-15.87	62.20	46.17	0.10	0.06	QP
4	0.237	39.86	-12.34	52.20	39.70	0.10	0.06	Average
5	0.297	42.81	-17.52	60.33	42.64	0.10	0.07	QP
6	0.297	38.63	-11.70	50.33	38.46	0.10	0.07	Average
7	0.354	41.07	-17.80	58.87	40.89	0.10	0.08	QP
8	0.354	30.66	-18.21	48.87	30.48	0.10	0.08	Average
9	0.415	34.95	-22.60	57.55	34.77	0.10	0.08	QP
10	0.415	31.16	-16.39	47.55	30.98	0.10	0.08	Average
11	0.591	31.37	-24.63	56.00	31.21	0.10	0.06	QP
12	0.591	23.87	-22.13	46.00	23.71	0.10	0.06	Average

5.8.9 Test Mode: Mode 7

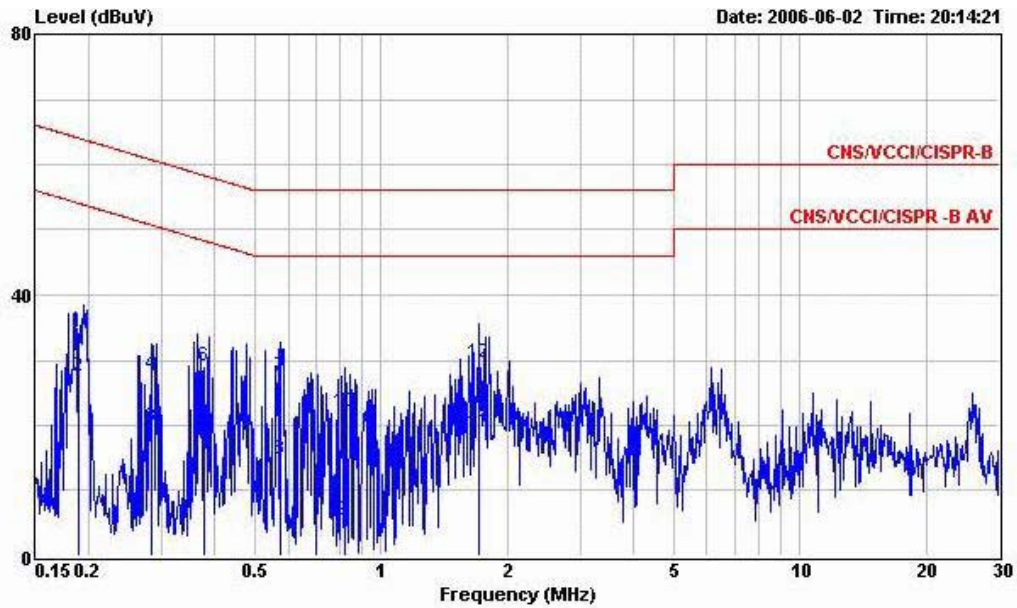
- Frequency Range of Test: from 0.15 MHz to 30 MHz
- Temperature: 24°C
- Relative Humidity: 48%
- Test Engineer: Sam
- All emissions not reported here are more than 10 dB below the prescribed limit.

■ 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 2001/004 200604 LINE
EUT : PDA Phone
Power : 120V/60Hz
Model : CAMINO(S/N:CD2GP4B6B631)
Memo : PCS1900 IDLE+ADAPTER+EARPHONE
Memo : +BT LINK+H PATTERN
CHARGER : P005WA050J01200(PIE)
BATTERY : 20%

	Freq	Level	Over	Limit	Read	Probe	Cable	
	MHz	dBuV	Limit	Line	Level	Factor	Loss	Remark
			dB	dBuV	dBuV	dB	dB	
1	0.174	36.99	-27.79	64.78	36.83	0.10	0.06	QP
2	0.174	24.91	-29.87	54.78	24.75	0.10	0.06	Average
3	0.246	33.80	-28.09	61.89	33.63	0.10	0.07	QP
4	0.246	22.83	-29.06	51.89	22.66	0.10	0.07	Average
5	0.362	22.53	-26.16	48.69	22.35	0.10	0.08	Average
6	0.362	32.49	-26.20	58.69	32.31	0.10	0.08	QP
7	0.446	21.63	-25.32	46.95	21.45	0.10	0.08	Average
8	0.446	31.86	-25.09	56.95	31.68	0.10	0.08	QP
9	0.765	30.39	-25.61	56.00	30.24	0.10	0.05	QP
10	0.765	17.90	-28.10	46.00	17.75	0.10	0.05	Average
11	2.817	25.03	-30.97	56.00	24.76	0.15	0.12	QP
12	2.817	15.09	-30.91	46.00	14.82	0.15	0.12	Average



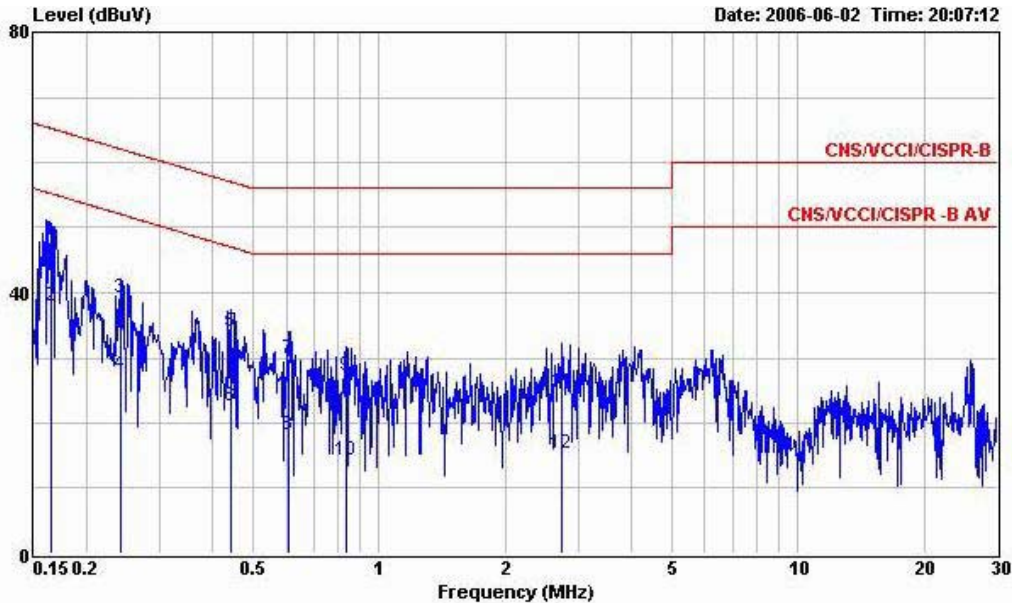
Site : CO01-HY
 Condition : CNS/VCCI/CISPR-B 2001/004 200604 NEUTRAL
 EUT : PDA Phone
 Power : 120V/60Hz
 Model : CAMINO(S/N:CD2GP4B6B631)
 Memo : PCS1900 IDLE+ADAPTER+EARPHONE
 Memo : +BT LINK+H PATTERN
 CHARGER : P005WA050J01200(PIE)
 BATTERY : 20%

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.190	34.23	-29.80	64.03	34.07	0.10	0.06	QP
2	0.190	27.50	-26.53	54.03	27.34	0.10	0.06	Average
3	0.283	19.67	-31.06	50.73	19.50	0.10	0.07	Average
4	0.283	27.80	-32.93	60.73	27.63	0.10	0.07	QP
5	0.378	18.13	-30.19	48.32	17.95	0.10	0.08	Average
6	0.378	29.04	-29.28	58.32	28.86	0.10	0.08	QP
7	0.573	27.52	-28.48	56.00	27.36	0.10	0.06	QP
8	0.573	14.89	-31.11	46.00	14.73	0.10	0.06	Average
9	0.817	5.51	-40.49	46.00	5.36	0.10	0.05	Average
10	0.817	22.01	-33.99	56.00	21.86	0.10	0.05	QP
11	1.717	18.85	-27.15	46.00	18.65	0.10	0.10	Average
12	1.717	29.69	-26.31	56.00	29.49	0.10	0.10	QP

5.8.10 Test Mode: Mode 8

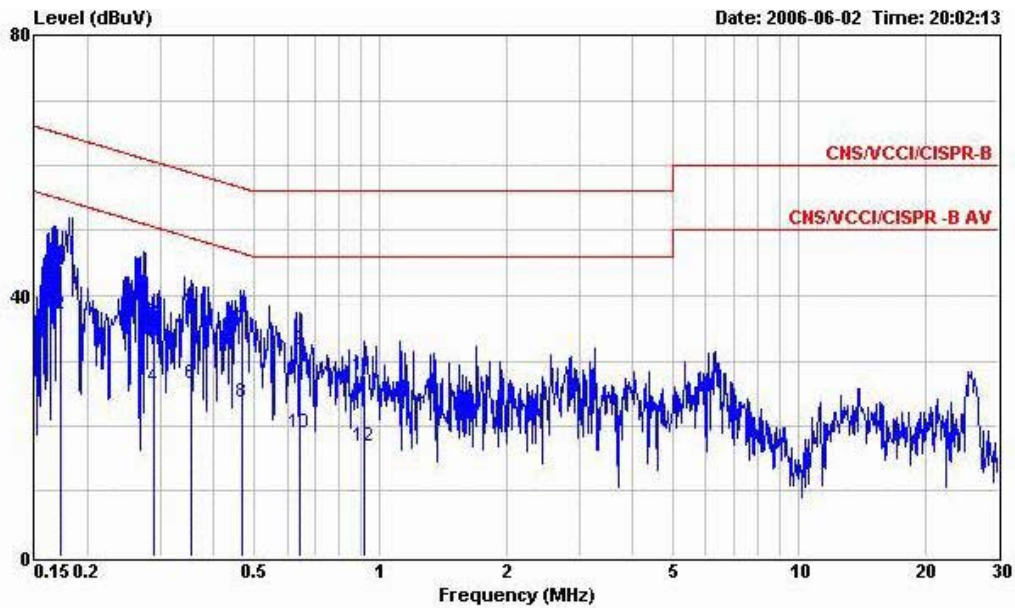
- Frequency Range of Test: from 0.15 MHz to 30 MHz
- Temperature: 24°C
- Relative Humidity: 48%
- Test Engineer: Sam
- All emissions not reported here are more than 10 dB below the prescribed limit.

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



Site : CO01-HV
Condition : CNS/VCCI/CISPR-B 2001/004 200604 LINE
EUT : PDA Phone
Power : 120V/60Hz
Model : CAMINO(S/N:CD2GP4B6B31)
Memo : PCS1900 IDLE+ADAPTER+EARPHONE
Memo : +USB LINK+H PATTERN
CHARGER : P005WA050J01200(PIE)
BATTERY : 20%

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.165	47.96	-17.24	65.20	47.81	0.10	0.05	QP
2	0.165	37.81	-17.39	55.20	37.66	0.10	0.05	Average
3	0.241	39.18	-22.87	62.05	39.01	0.10	0.07	QP
4	0.241	27.53	-24.52	52.05	27.36	0.10	0.07	Average
5	0.443	33.92	-23.08	57.00	33.74	0.10	0.08	QP
6	0.443	22.66	-24.34	47.00	22.48	0.10	0.08	Average
7	0.608	29.90	-26.10	56.00	29.74	0.10	0.06	QP
8	0.608	18.27	-27.73	46.00	18.11	0.10	0.06	Average
9	0.834	27.25	-28.75	56.00	27.10	0.10	0.05	QP
10	0.834	14.39	-31.61	46.00	14.24	0.10	0.05	Average
11	2.737	24.78	-31.22	56.00	24.51	0.15	0.12	QP
12	2.737	15.34	-30.66	46.00	15.07	0.15	0.12	Average



Site : CO01-HY
 Condition : CNS/VCCI/CISPR-B 2001/004 200604 NEUTRAL
 EUT : PDA Phone
 Power : 120V/60Hz
 Model : CAMINO(S/N:CD2GP4B6B631)
 Memo : PCS1900 IDLE+ADAPTER+EARPHONE
 Memo : +USB LINK+H PATTERN
 CHARGER : P005WA050J01200(PIE)
 BATTERY : 20%

	Freq	Level	Over	Limit	Read	Probe	Cable	
	MHz	dBuV	Limit	Line	Level	Factor	Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.173	44.72	-20.09	64.81	44.56	0.10	0.06	QP
2	0.173	37.18	-17.63	54.81	37.02	0.10	0.06	Average
3	0.287	35.84	-24.76	60.60	35.67	0.10	0.07	QP
4	0.287	26.08	-24.52	50.60	25.91	0.10	0.07	Average
5	0.355	37.83	-21.00	58.83	37.65	0.10	0.08	QP
6	0.355	26.37	-22.46	48.83	26.19	0.10	0.08	Average
7	0.467	34.85	-21.73	56.58	34.68	0.10	0.07	QP
8	0.467	23.74	-22.84	46.58	23.57	0.10	0.07	Average
9	0.641	31.68	-24.32	56.00	31.52	0.10	0.06	QP
10	0.641	19.08	-26.92	46.00	18.92	0.10	0.06	Average
11	0.913	27.69	-28.31	56.00	27.55	0.10	0.04	QP
12	0.913	16.87	-29.13	46.00	16.73	0.10	0.04	Average

5.9 Radiated Emission Measurement

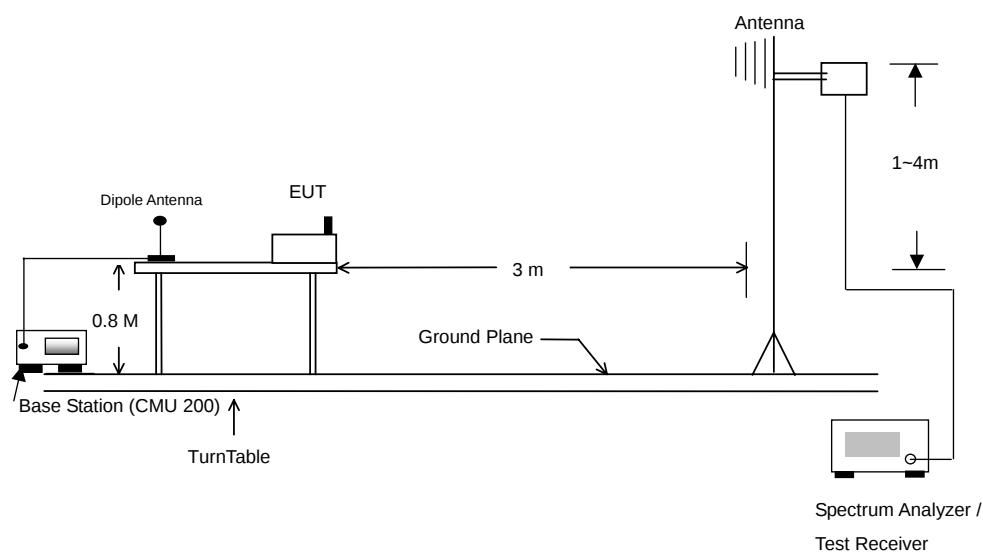
5.9.1 Measuring Instruments

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.

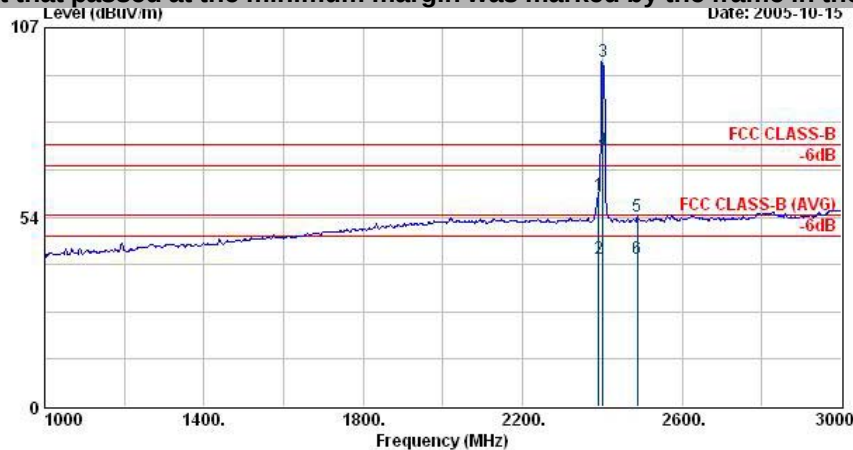
5.9.3 Typical Test Setup Layout of Radiated Emission



5.9.4 Test Data

- Temperature : 26 °C
- Relating Humidity : 53 %
- Test Enginner : Anderson
- Test Mode : Mode 1
- Polarization : Horizontal

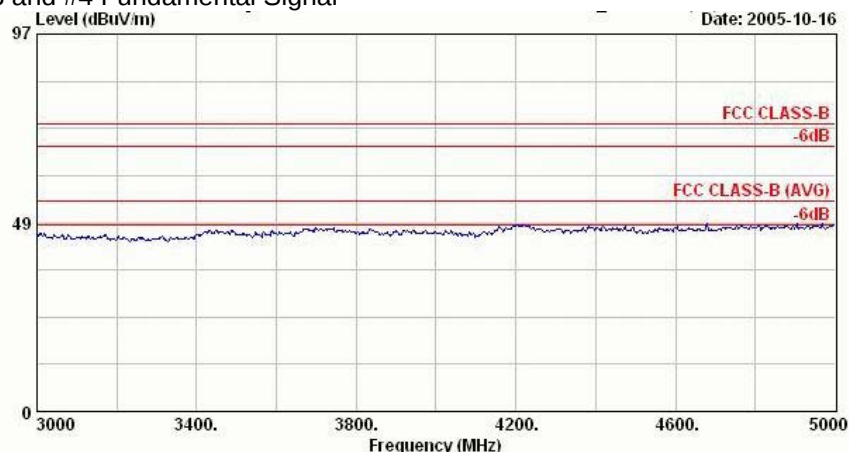
■ The test that passed at the minimum margin was marked by the frame in the following test record



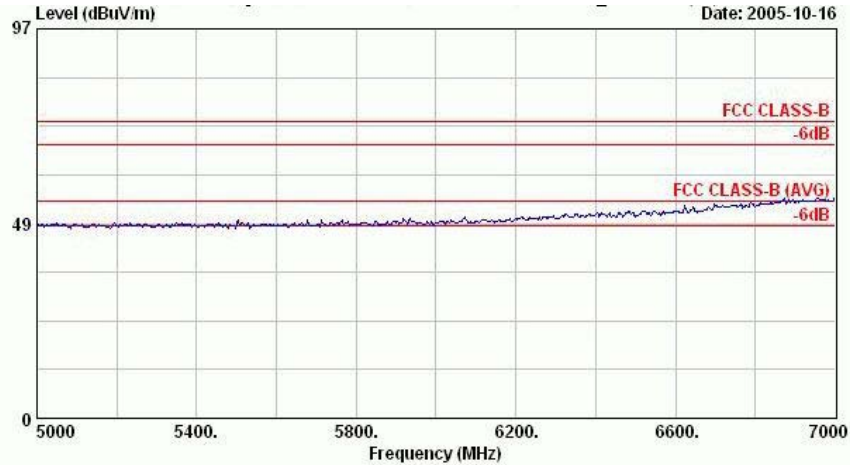
Site : 03CH06-HY
 Condition : HF-ANT-071025-940201 HORIZONTAL
 EUT : Smart Phone with BT+GSM+GPRS+EDGE
 Power : 120Vac/60Hz Netbit (DSC-S1F S2P)
 Model : FD502601
 Memo : TX_CH00,2402MHz,Plane E2
 S/N : LEVT29T5V060

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1 @	2390.00	59.69	-14.31	74.00	60.40	30.48	4.26	35.46	100	360
2 @	2390.00	41.96	-12.04	54.00	42.67	30.48	4.26	35.46	100	201
3 @	2402.00	97.41			98.12	30.48	4.26	35.46	100	360
4 @	2402.00	72.26			72.97	30.48	4.26	35.46	100	201
5 @	2488.00	53.65	-20.35	74.00	54.40	30.40	4.36	35.51	100	360
6 @	2488.00	41.78	-12.22	54.00	42.53	30.40	4.36	35.51	100	201

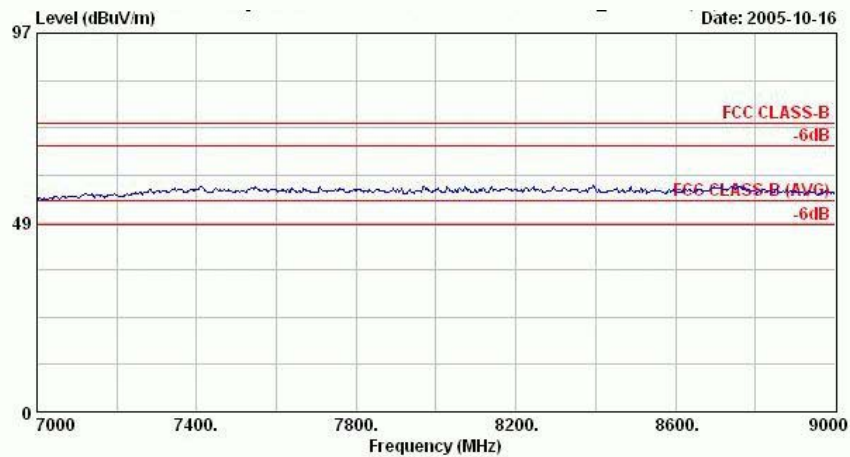
Remark: #3 and #4 Fundamental Signal



Site : 03CH06-HY
 Condition : HF-ANT-071025-940201 HORIZONTAL
 EUT : Smart Phone with BT+GSM+GPRS+EDGE
 Power : 120Vac/60Hz Netbit (DSC-S1F S2P)
 Model : FD502601
 Memo : TX_CH00,2402MHz,Plane E2
 S/N : LEVT29T5V060



Site : 03CH06-HY
 Condition : HF-ANT-071025-940201 HORIZONTAL
 EUT : Smart Phone with BT+GSM+GPRS+EDGE
 Power : 120Vac/60Hz Netbit (DSC-51F S2P)
 Model : FD502601
 Memo : TX_CH00,2402MHz,Plane E2
 S/N : LEVT29T5W060

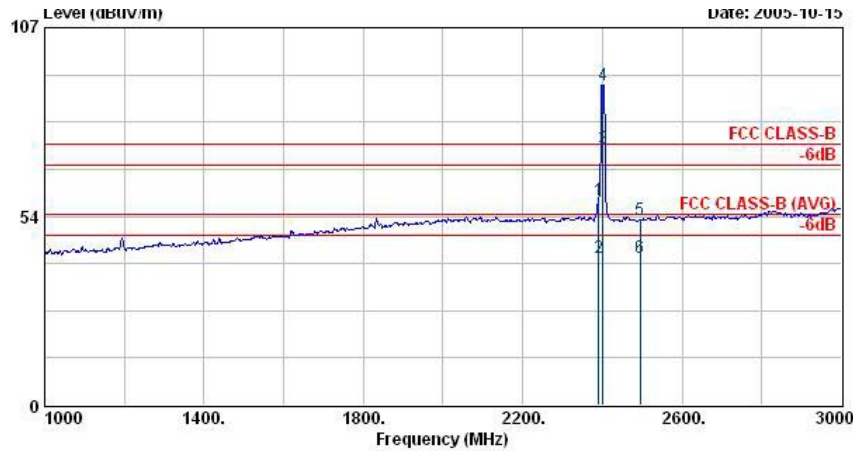


Site : 03CH06-HY
 Condition : HF-ANT-071025-940201 HORIZONTAL
 EUT : Smart Phone with BT+GSM+GPRS+EDGE
 Power : 120Vac/60Hz Netbit (DSC-51F S2P)
 Model : FD502601
 Memo : TX_CH00,2402MHz,Plane E2
 S/N : LEVT29T5W060



- Test Mode : Mode 1
- Polarization : Vertical

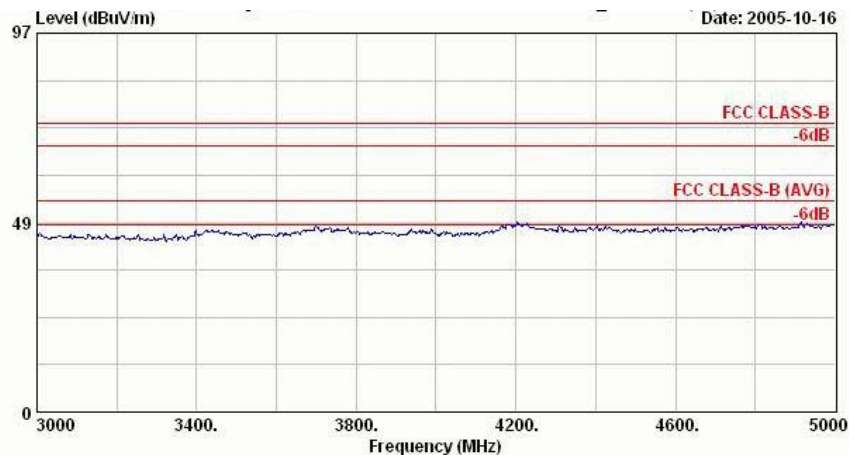
■ The test that passed at minimum margin was marked by the frame in the following table.



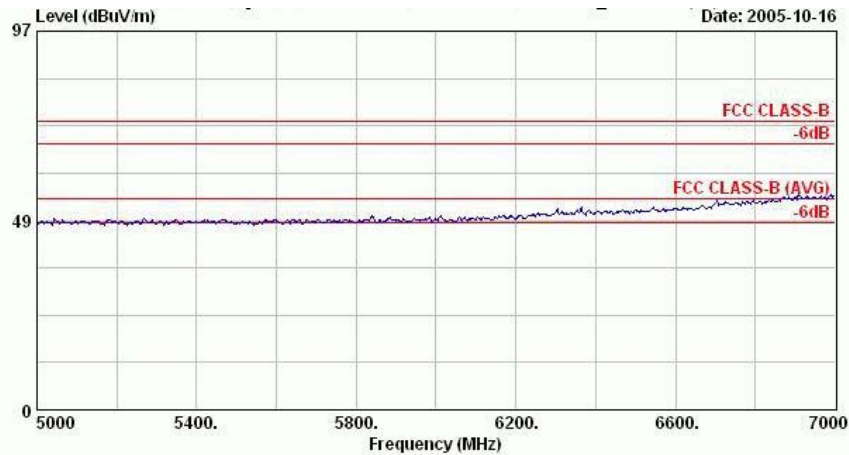
Site : 03CH06-HY
Condition : HF-ANT-071025-940201 VERTICAL
EUT : Smart Phone with BT+GSM+GPRS+EDGE
Power : 120Vac/60Hz Netbit (DSC-S1F 52P)
Model : FD502601
Memo : TX_CH00,2402MHz,Plane E2
S/N : LEVT29T5V060

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1 @	2390.00	57.92	-16.08	74.00	58.63	30.48	4.26	35.46	100	360
2 @	2390.00	41.68	-12.32	54.00	42.39	30.48	4.26	35.46	100	147
3 @	2402.00	72.83			73.55	30.47	4.26	35.46	100	147
4 @	2402.00	90.82			91.54	30.47	4.26	35.46	100	360
5 @	2494.00	52.41	-21.59	74.00	53.15	30.40	4.39	35.53	100	360
6 @	2494.00	41.66	-12.34	54.00	42.40	30.40	4.39	35.53	100	147

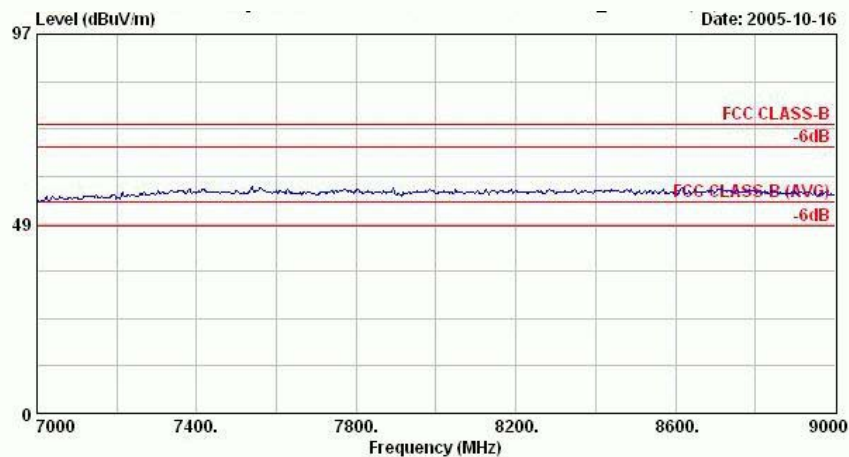
Remark: #3 and #4 Fundamental Signal



Site : 03CH06-HY
Condition : HF-ANT-071025-940201 VERTICAL
EUT : Smart Phone with BT+GSM+GPRS+EDGE
Power : 120Vac/60Hz Netbit (DSC-S1F 52P)
Model : FD502601
Memo : TX_CH00,2402MHz,Plane E2
S/N : LEVT29T5V060



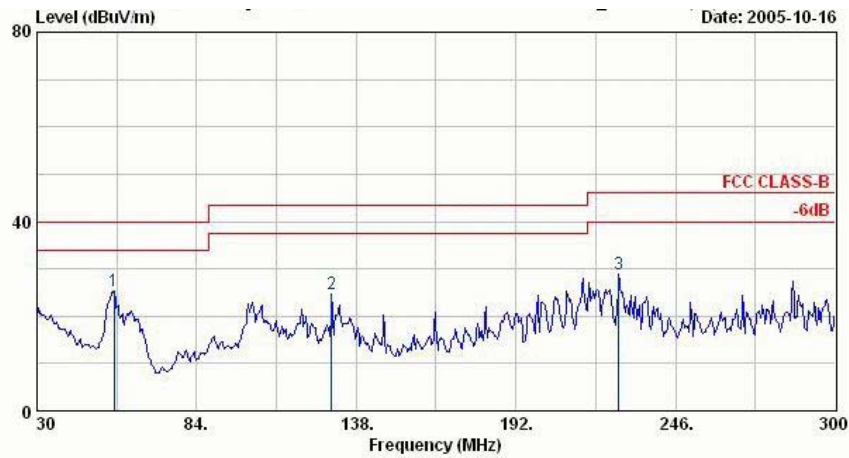
Site : 03CH06-HY
Condition : HF-ANT-071025-940201 VERTICAL
EUT : Smart Phone with BT+GSM+GPRS+EDGE
Power : 120Vac/60Hz Netbit (DSC-51F S2P)
Model : FD502601
Memo : TX_CH00,2402MHz,Plane E2
S/N : LEVT29T5V060



Site : 03CH06-HY
Condition : HF-ANT-071025-940201 VERTICAL
EUT : Smart Phone with BT+GSM+GPRS+EDGE
Power : 120Vac/60Hz Netbit (DSC-51F S2P)
Model : FD502601
Memo : TX_CH00,2402MHz,Plane E2
S/N : LEVT29T5V060

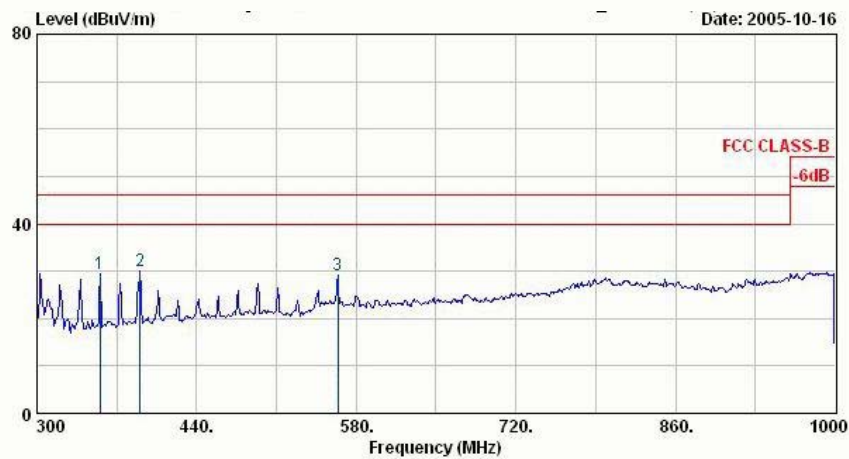
- Test Mode : Mode 2
- Polarization : Horizontal

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



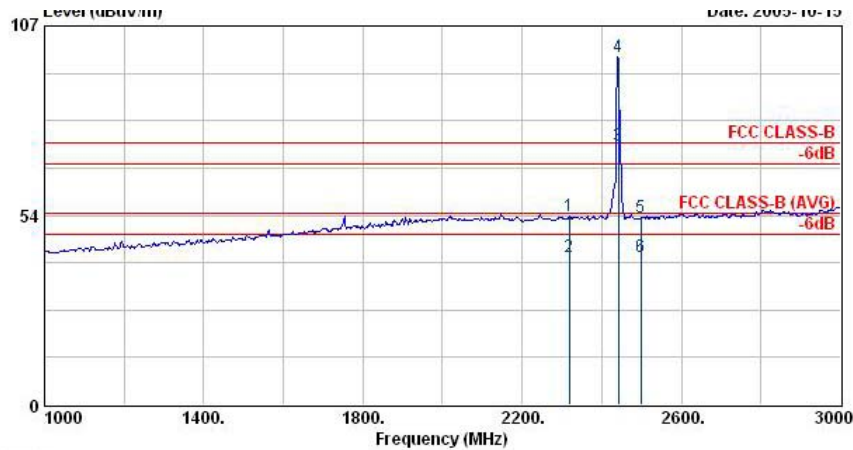
Site : 03CH06-HY
Condition : BI-LOG-2004-1122 HORIZONTAL
EUT : Smart Phone with BT+GSM+GPRS+EDGE
Power : 120Vac/60Hz Netbit (DSC-51F 52P)
Model : FD502601
Memo : TX_CH39,2441MHz,Plane E2
S/N : LEVT29T5V060

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	56.19	25.18	-14.82	40.00	47.70	7.86	1.06	31.44	124	223 Peak
2	129.63	24.62	-18.88	43.50	43.03	11.65	1.55	31.60	400	0 Peak
3	226.83	28.91	-17.09	46.00	47.98	10.00	2.16	31.24	400	0 Peak



Site : 03CH06-HY
Condition : BI-LOG-2004-1122 HORIZONTAL
EUT : Smart Phone with BT+GSM+GPRS+EDGE
Power : 120Vac/60Hz Netbit (DSC-51F 52P)
Model : FD502601
Memo : TX_CH39,2441MHz,Plane E2
S/N : LEVT29T5V060

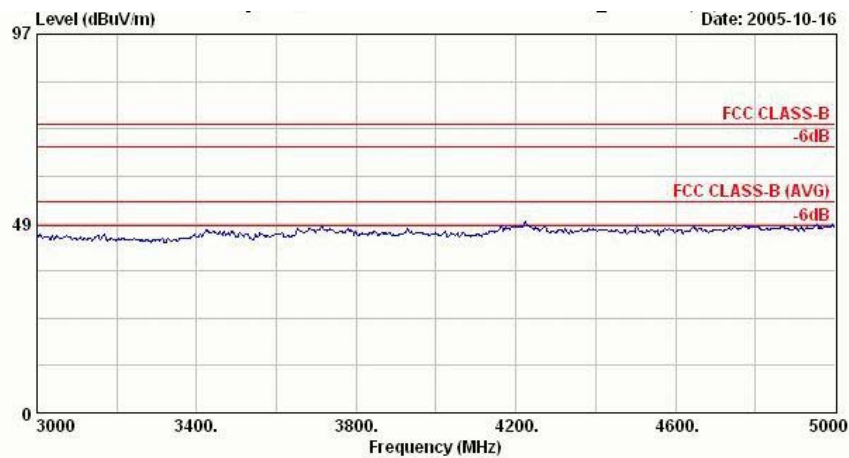
	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	355.30	29.40	-16.60	46.00	42.88	14.56	2.76	30.79	100	0 Peak
2	390.30	30.13	-15.87	46.00	42.47	15.59	2.94	30.86	100	0 Peak
3	563.90	29.20	-16.80	46.00	37.45	18.49	3.93	30.67	100	0 Peak



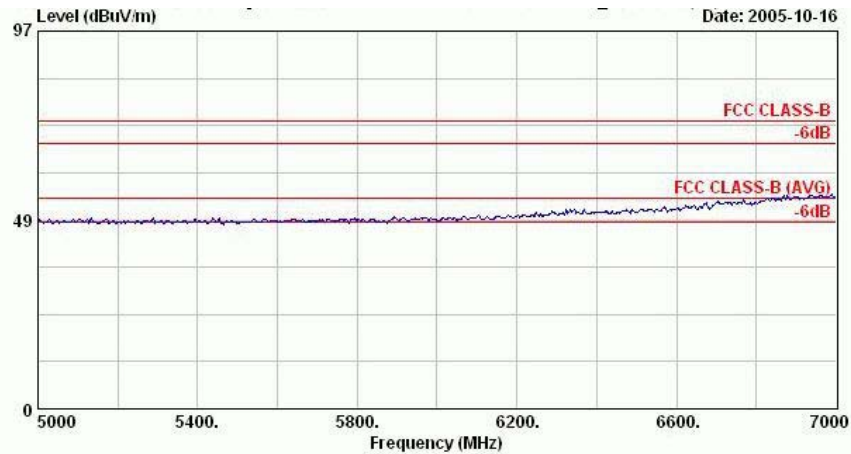
Site : 03CH06-HY
Condition : HF-ANT-071025-940201 HORIZONTAL
EUT : Smart Phone with BT+GSM+GPRS+EDGE
Power : 120Vac/60Hz Netbit (DSC-51F 52P)
Model : FD502601
Memo : TX_CH39,2441MHz,Plane E2
S/N : LEVT29T5V060

	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	2318.00	53.48	-20.52	74.00	54.17	30.54	4.17	35.40	100	360	Peak
2	2318.00	41.80	-12.20	54.00	42.50	30.54	4.17	35.40	100	199	Average
3 @	2441.00	73.25			73.99	30.44	4.29	35.47	100	199	Average
4 @	2441.00	98.13			98.87	30.44	4.29	35.47	100	360	Peak
5	2498.00	52.72	-21.28	74.00	53.46	30.40	4.39	35.53	100	360	Peak
6	2498.00	41.76	-12.24	54.00	42.50	30.40	4.39	35.53	100	199	Average

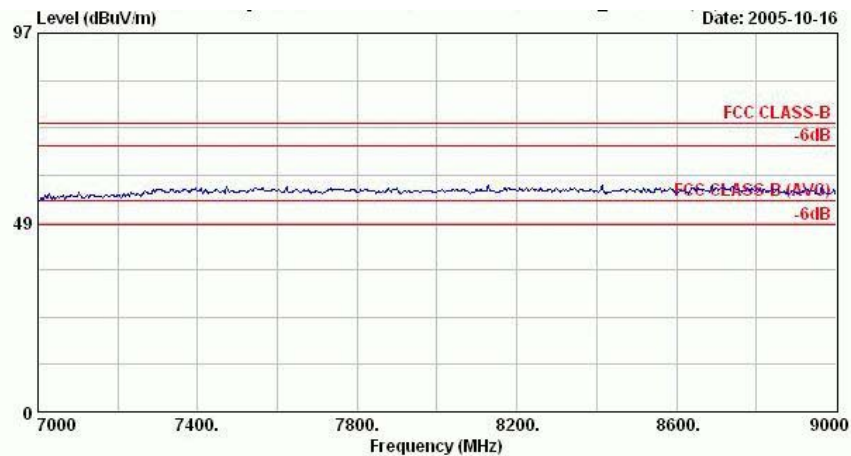
Remark: #3 and #4 Fundamental Signal



Site : 03CH06-HY
Condition : HF-ANT-071025-940201 HORIZONTAL
EUT : Smart Phone with BT+GSM+GPRS+EDGE
Power : 120Vac/60Hz Netbit (DSC-51F 52P)
Model : FD502601
Memo : TX_CH39,2441MHz,Plane E2
S/N : LEVT29T5V060



Site : 03CH06-HY
Condition : HF-ANT-071025-940201 HORIZONTAL
EUT : Smart Phone with BT+GSM+GPRS+EDGE
Power : 120Vac/60Hz Netbit (DSC-51F 52P)
Model : FD502601
Memo : TX_CH39,2441MHz,Plane E2
S/N : LEVT29T5V060

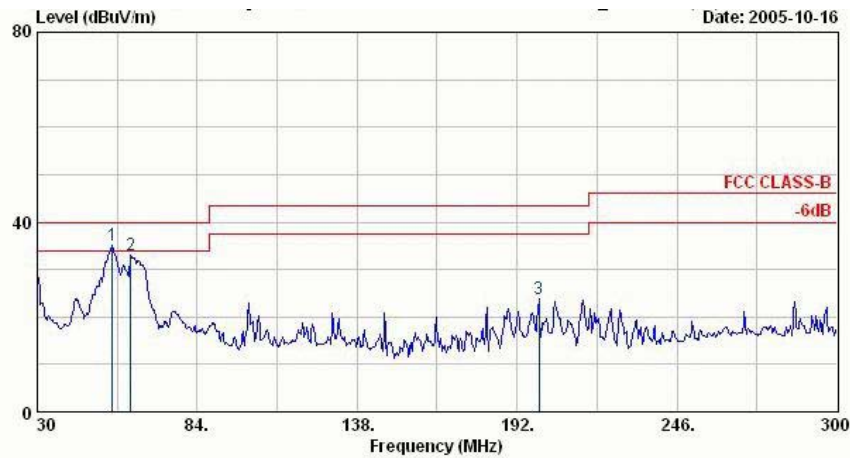


Site : 03CH06-HY
Condition : HF-ANT-071025-940201 HORIZONTAL
EUT : Smart Phone with BT+GSM+GPRS+EDGE
Power : 120Vac/60Hz Netbit (DSC-51F 52P)
Model : FD502601
Memo : TX_CH39,2441MHz,Plane E2
S/N : LEVT29T5V060



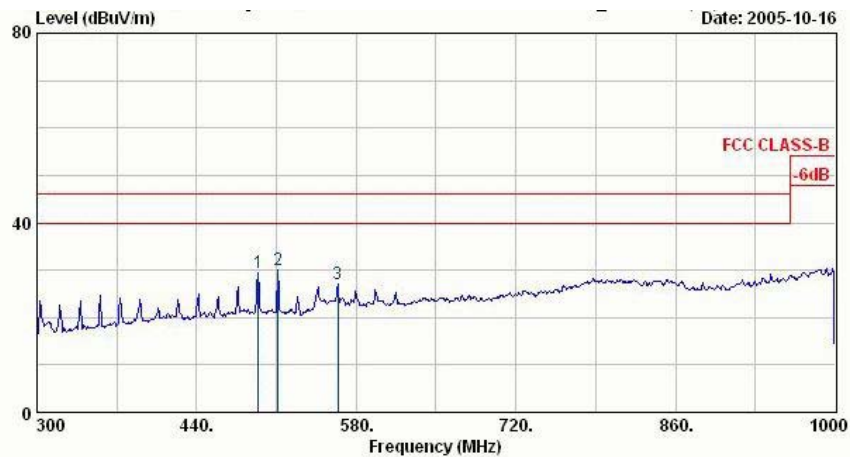
- Test Mode : Mode 2
- Polarization : Vertical

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



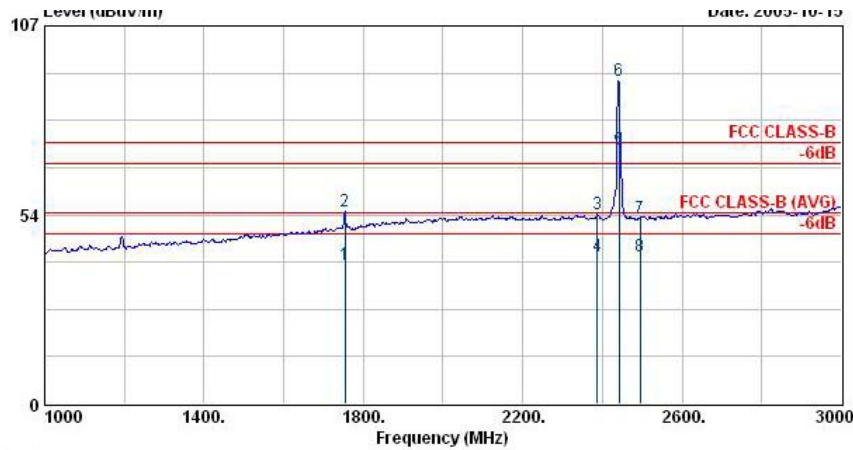
Site : 03CH06-HY
Condition : BI-LOG-2004-1122 VERTICAL
EUT : Smart Phone with BT+GSM+GPRS+EDGE
Power : 120Vac/60Hz Netbit (DSC-51F S2P)
Model : FD5O2601
Memo : TX_CH39,2441MHz,Plane E2
S/N : LEVT29TSV060

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	
	MHz	dBUV/m	Limit	Line	Level	Factor	Loss	Factor	Pos	Pos
			dB	dBUV/m	dBuV		dB	dB	cm	deg
1	55.38	35.06	-4.94	40.00	57.30	8.18	1.02	31.44	100	99
2	61.59	33.06	-6.94	40.00	56.84	6.51	1.15	31.44	400	0
3	199.29	23.85	-19.65	43.50	43.30	9.93	1.96	31.34	400	0



Site : 03CH06-HY
Condition : BI-LOG-2004-1122 VERTICAL
EUT : Smart Phone with BT+GSM+GPRS+EDGE
Power : 120Vac/60Hz Netbit (DSC-51F S2P)
Model : FD5O2601
Memo : TX_CH39,2441MHz,Plane E2
S/N : LEVT29TSV060

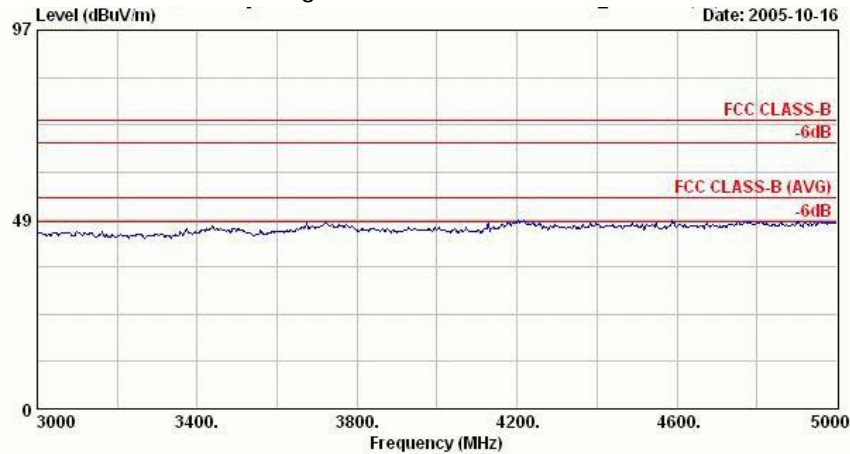
	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	
	MHz	dBUV/m	Limit	Line	Level	Factor	Loss	Factor	Pos	Pos
			dB	dBUV/m	dBuV		dB	dB	cm	deg
1	493.90	29.42	-16.58	46.00	39.36	17.10	3.42	30.46	100	0
2	511.40	29.93	-16.07	46.00	40.06	16.97	3.53	30.63	100	0
3	563.90	27.12	-18.88	46.00	35.37	18.49	3.93	30.67	100	0



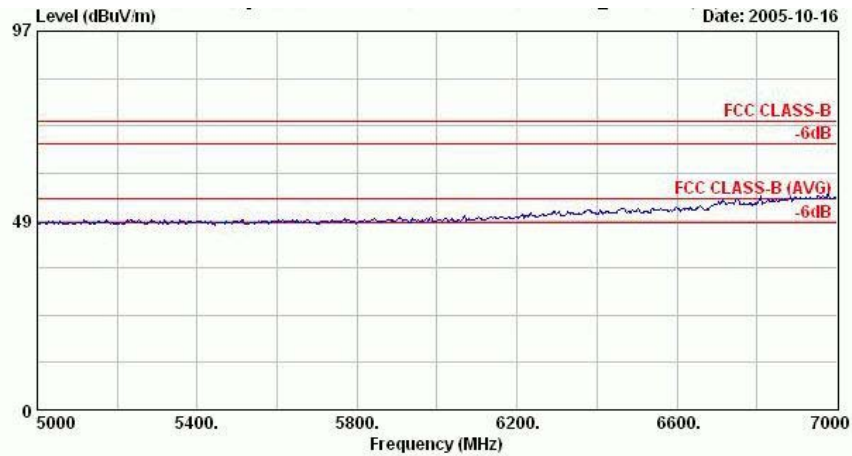
Site : 03CH06-HY
Condition : HF-ANT-071025-940201 VERTICAL
EUT : Smart Phone with BT+GSM+GPRS+EDGE
Power : 120Vac/60Hz Netbit (DSC-51F 52P)
Model : FD502601
Memo : TX_CH39,2441MHz,Plane E2
S/N : LEVT29T5V060

	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	1754.00	39.33	-14.67	54.00	42.51	28.65	3.59	35.42	100	201	Average
2	1754.00	54.43	-19.57	74.00	57.61	28.65	3.59	35.42	100	360	Peak
3	2388.00	53.86	-20.14	74.00	54.58	30.48	4.23	35.44	100	360	Peak
4	2388.00	41.59	-12.41	54.00	42.31	30.48	4.23	35.44	100	201	Average
5 @	2441.00	72.10			72.84	30.44	4.29	35.47	100	201	Average
6 X	2441.00	91.54			92.28	30.44	4.29	35.47	100	360	Peak
7	2494.00	52.70	-21.30	74.00	53.44	30.40	4.39	35.53	100	360	Peak
8	2494.00	41.76	-12.24	54.00	42.50	30.40	4.39	35.53	100	201	Average

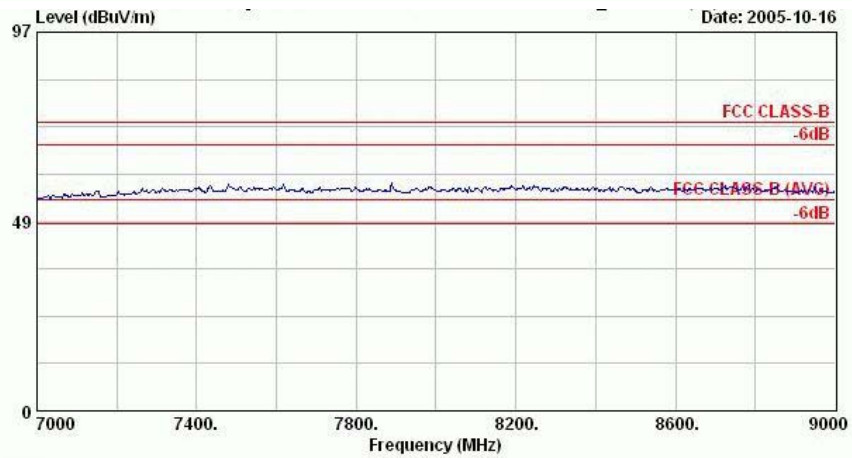
Remark: #5 and #6 Fundamental Signal



Site : 03CH06-HY
Condition : HF-ANT-071025-940201 VERTICAL
EUT : Smart Phone with BT+GSM+GPRS+EDGE
Power : 120Vac/60Hz Netbit (DSC-51F 52P)
Model : FD502601
Memo : TX_CH39,2441MHz,Plane E2
S/N : LEVT29T5V060



Site : 03CH06-HY
Condition : HF-ANT-071025-940201 VERTICAL
EUT : Smart Phone with BT+GSM+GPRS+EDGE
Power : 120Vac/60Hz Netbit (DSC-51F 52P)
Model : FD502601
Memo : TX_CH39,2441MHz,Plane E2
S/N : LEVT29T5V060

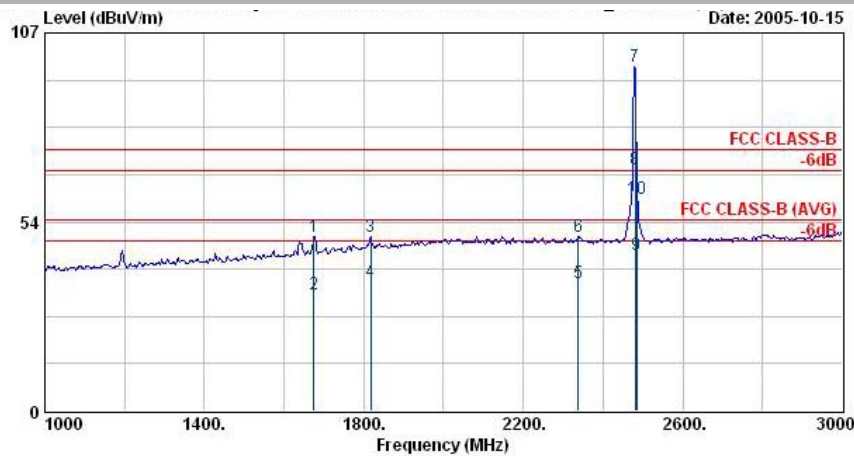


Site : 03CH06-HY
Condition : HF-ANT-071025-940201 VERTICAL
EUT : Smart Phone with BT+GSM+GPRS+EDGE
Power : 120Vac/60Hz Netbit (DSC-51F 52P)
Model : FD502601
Memo : TX_CH39,2441MHz,Plane E2
S/N : LEVT29T5V060



- Test Mode : Mode 3
- Polarization : Horizontal

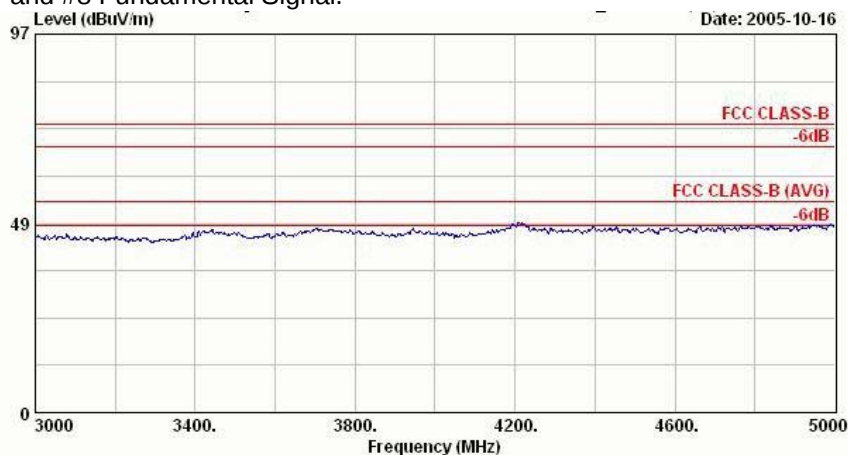
■ The test that passed at minimum margin was marked by the frame in the following table.



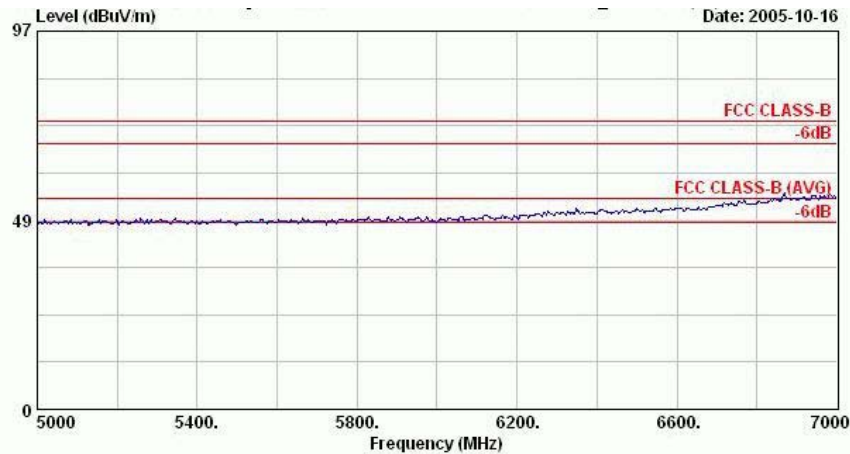
Site : 03CH06-HY
Condition : HF-ANT-071025-940201 HORIZONTAL
EUT : Smart Phone with BT+GSM+GPRS+EDGE
Power : 120Vac/60Hz Netbit (DSC-51F 52P)
Model : FD502601
Memo : TX_CH78,2480MHz,Plane E2
S/N : LEVT29T5V060

	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	dB	dBuV/m	Level	Factor	Loss	Factor	Pos	Pos	
					dBm		dB	dB	cm	deg	
1	1674.00	49.21	-24.79	74.00	53.15	28.08	3.51	35.53	100	360	Peak
2	1674.00	33.13	-20.87	54.00	37.07	28.08	3.51	35.53	100	199	Average
3	1818.00	49.22	-24.78	74.00	51.74	29.22	3.63	35.37	100	360	Peak
4	1818.00	36.56	-17.44	54.00	39.08	29.22	3.63	35.37	100	199	Average
5	2338.00	36.35	-17.65	54.00	37.06	30.52	4.17	35.40	100	199	Average
6	2338.00	49.40	-24.60	74.00	50.11	30.52	4.17	35.40	100	360	Peak
7 @	2480.00	97.40			98.14	30.41	4.36	35.51	100	360	Peak
8 X	2480.00	68.59			69.33	30.41	4.36	35.51	100	199	Average
9	2483.50	44.32	-9.68	54.00	45.06	30.41	4.36	35.51	100	199	Average
10	2483.50	60.26	-13.74	74.00	61.00	30.41	4.36	35.51	100	360	Peak

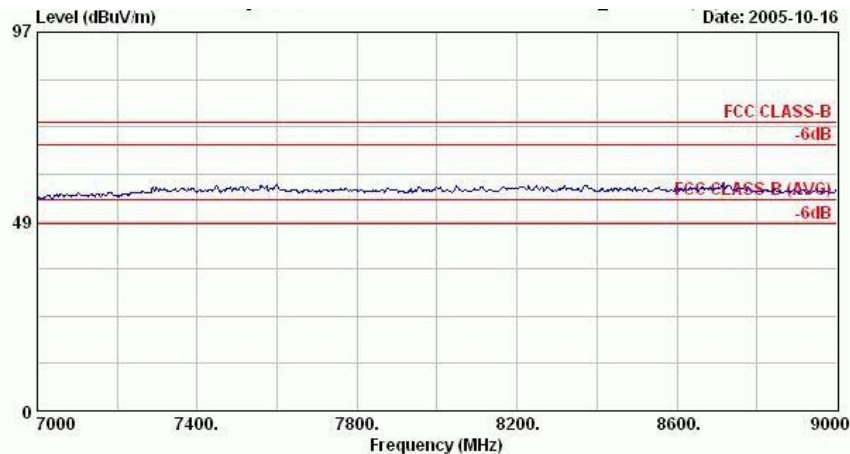
Remark: #7 and #8 Fundamental Signal.



Site : 03CH06-HY
Condition : HF-ANT-071025-940201 HORIZONTAL
EUT : Smart Phone with BT+GSM+GPRS+EDGE
Power : 120Vac/60Hz Netbit (DSC-51F 52P)
Model : FD502601
Memo : TX_CH78,2480MHz,Plane E2
S/N : LEVT29T5V060



Site : 03CH06-HY
Condition : HF-ANT-071025-940201 HORIZONTAL
EUT : Smart Phone with BT+GSM+GPRS+EDGE
Power : 120Vac/60Hz Netbit (DSC-51F 52P)
Model : FD502601
Memo : TX_CH78,2480MHz,Plane E2
S/N : LEVT29T5V060

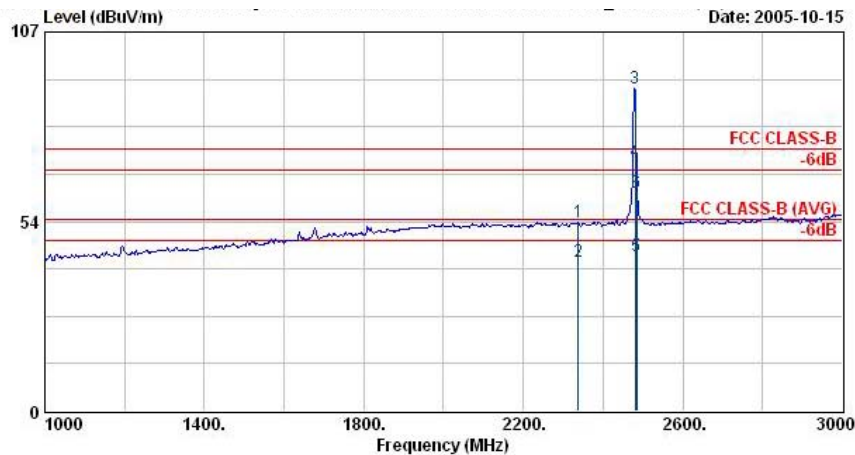


Site : 03CH06-HY
Condition : HF-ANT-071025-940201 HORIZONTAL
EUT : Smart Phone with BT+GSM+GPRS+EDGE
Power : 120Vac/60Hz Netbit (DSC-51F 52P)
Model : FD502601
Memo : TX_CH78,2480MHz,Plane E2
S/N : LEVT29T5V060



- Test Mode : Mode 3
- Polarization : Vertical

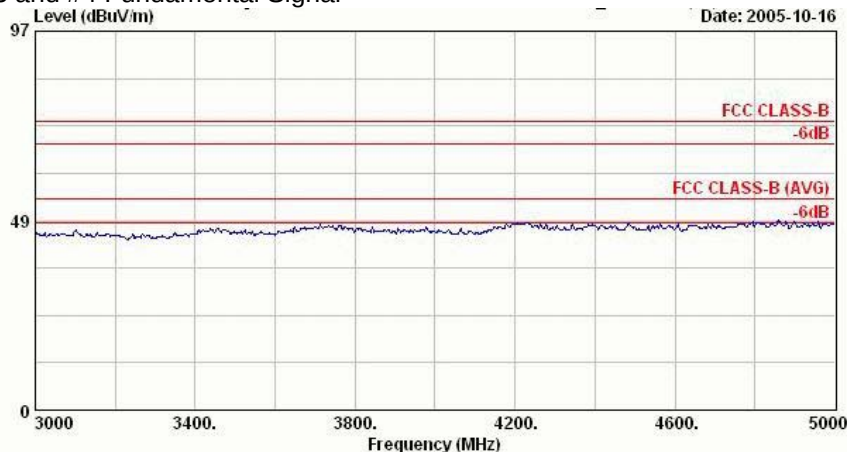
■ The test that passed at minimum margin was marked by the frame in the following table.



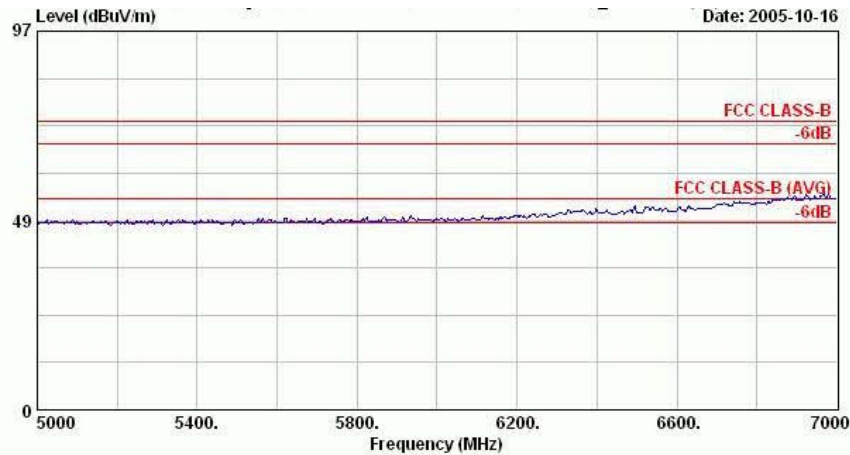
Site : 03CH06-HY
Condition : HF-ANT-071025-940201 VERTICAL
EUT : Smart Phone with BT+GSM+GPRS+EDGE
Power : 120Vac/60Hz Netbit (DSC-51F 52P)
Model : FD502601
Memo : TX_CH78,2480MHz,Plane E2
S/N : LEVT29T5V060

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	2338.00	53.45	-20.55	74.00	54.16	30.52	4.17	35.40	100	0 Peak
2	2338.00	42.11	-11.89	54.00	42.82	30.52	4.17	35.40	100	284 Average
3 X	2480.00	91.12			91.86	30.41	4.36	35.51	100	0 Peak
4 X	2480.00	70.49			71.23	30.41	4.36	35.51	100	284 Average
5	2484.00	43.71	-10.29	54.00	44.45	30.41	4.36	35.51	100	284 Average
6	2484.00	61.82	-12.18	74.00	62.56	30.41	4.36	35.51	100	0 Peak

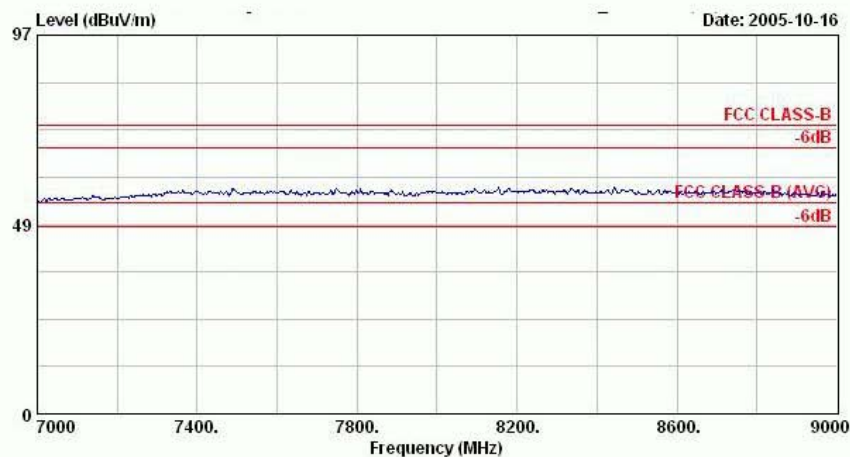
Remark: #3 and #4 Fundamental Signal



Site : 03CH06-HY
Condition : HF-ANT-071025-940201 VERTICAL
EUT : Smart Phone with BT+GSM+GPRS+EDGE
Power : 120Vac/60Hz Netbit (DSC-51F 52P)
Model : FD502601
Memo : TX_CH78,2480MHz,Plane E2
S/N : LEVT29T5V060



Site : 03CH06-HY
Condition : HF-ANT-071025-940201 VERTICAL
EUT : Smart Phone with BT+GSM+GPRS+EDGE
Power : 120Vac/60Hz Netbit (DSC-51F 52P)
Model : FD502601
Memo : TX_CH78,2480MHz,Plane E2
S/N : LEVT29TSV060



Site : 03CH06-HY
Condition : HF-ANT-071025-940201 VERTICAL
EUT : Smart Phone with BT+GSM+GPRS+EDGE
Power : 120Vac/60Hz Netbit (DSC-51F 52P)
Model : FD502601
Memo : TX_CH78,2480MHz,Plane E2
S/N : LEVT29TSV060

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



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 antenna used in this product is a Chip antenna 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 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
EMC Receiver	R&S	ESCS 30	100132	9kHz – 2.75GHz	Jun. 28, 2005	Jun. 28, 2006	Conduction (CO01-HY)
LISN	MessTec	NNB-2/16Z	2001/004	9kHz – 30MHz	Apr. 28, 2006	Apr. 28, 2007	Conduction (CO01-HY)
LISN (Support Unit)	MessTec	NNB-2/16Z	2001/009	9kHz – 30MHz	Apr. 19, 2006	Apr. 19, 2007	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)
RF Cable-CON	Suhner Switzerland	RG223/U	CB029	9kHz – 30MHz	Dec. 22, 2005	Dec. 22, 2006	Conduction (CO01-HY)
Spectrum analyzer	Agilent	E4408B	MY44211030	9KHz-26.5GHz	Jul. 25, 2005	Jul. 24, 2006	Radiation (03CH06-HY)
Receiver	R&S	ESCS30	100356	9KHz-2.75GHz	Jun. 28, 2005	Jun. 27, 2006	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. 22, 2004	Nov. 22, 2006	Radiation (03CH06-HY)
Horn Antenna	Com-Power	AH118	071025	1G-18G	Feb. 22, 2006	Feb. 22, 2007	Radiation (03CH06-HY)
SHF-EHF Horn	SCHWARZBECK	BBHA 9170	9170-249	14G - 40G	Jul. 21, 2005	Jul. 20, 2006	Radiation (03CH06-HY)
HF Amplifier	MITEQ	AFS44	973248	0.1G - 26.5G	Nov. 23, 2005	Nov. 22, 2006	Radiation (03CH06-HY)
Amplifier	MITEQ	AMF-6F	997165	26G - 40G	Jul. 21, 2005	Jul. 20, 2006	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		$u(x_i)$	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 Uc(y)	2.36				
Measuring uncertainty for a level of confidence of 95% U=2Ue(y)	4.72				