Test Report

Product Name ： Shot Navi Pocket
Model No. ： PAR72SNP01
FCC ID. ： RJI PAR72SNP01

Applicant ： Holux Technology, Inc.
Address ： 1F, No.30, R&D Rd. II, Hsinchu City 300, Taiwan (R.O.C.)

Date of Receipt ： 2008/02/01
Issued Date ： 2008/02/20
Report No. ： 082065R-RFUSP06V0101

Test Report Certification

Issued Date : 2008/02/20
Report No. : 082065R-RFUSP06V01

QuieTek

Product Name	：	Shot Navi Pocket
Applicant	：	Holux Technology, Inc.
Address	：	1F, No.30, R&D Rd. II, Hsinchu City 300, Taiwan (R.O.C.)
Manufacturer	：	Holux Technology, Inc.
Model No.	：	PAR72SNP01
FCC ID.	：	RJI PAR72SNP01
Rated Voltage	：	AC 120 V / 60 Hz
EUT Voltage	：	DC 3.0~3.6V, Battery 2.4~3.0V
Trade Name	：	HOLUX
Applicable Standard	：	FCC CFR Title 47 Part 15 Subpart C Section 15.247:2006
Test Result	：	Complied

The test results relate only to the samples tested.

The test report shall not be reproduced except in full without the written approval of QuieTek Corporation.

Documented By ： Sandy Chuang
(Sandy Chuang / Adm. Specialist)

Tested By ： Lucia Lu
(Lucia Lu / Assistant Engineer)

Approved By ： Roy Wang
(Roy Wang / Manager)

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1. General Information

1.1. EUT Description

Product Name	Shot Navi Pocket
Trade Name	HOLUX
Model No.	PAR72SNP01
Frequency Range	2400~2483.5MHz
Channel Number	79
Type of Modulation	GFSK
Channel Control	Auto
Antenna Type	Soldered on PCB
Antenna Gain	0dBi

Component	
USB Cable	Shielded, 1.4m

Working Frequency of Each Channel							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
Channel 00	2402 MHz	Channel 20	2422 MHz	Channel 40	2442 MHz	Channel 60	2462 MHz
Channel 01	2403 MHz	Channel 21	2423 MHz	Channel 41	2443 MHz	Channel 61	2463 MHz
Channel 02	2404 MHz	Channel 22	2424 MHz	Channel 42	2444 MHz	Channel 62	2464 MHz
Channel 03	2405 MHz	Channel 23	2425 MHz	Channel 43	2445 MHz	Channel 63	2465 MHz
Channel 04	2406 MHz	Channel 24	2426 MHz	Channel 44	2446 MHz	Channel 64	2466 MHz
Channel 05	2407 MHz	Channel 25	2427 MHz	Channel 45	2447 MHz	Channel 65	2467 MHz
Channel 06	2408 MHz	Channel 26	2428 MHz	Channel 46	2448 MHz	Channel 66	2468 MHz
Channel 07	2409 MHz	Channel 27	2429 MHz	Channel 47	2449 MHz	Channel 67	2469 MHz
Channel 08	2410 MHz	Channel 28	2430 MHz	Channel 48	2450 MHz	Channel 68	2470 MHz
Channel 09	2411 MHz	Channel 29	2431 MHz	Channel 49	2451 MHz	Channel 69	2471 MHz
Channel 10	2412 MHz	Channel 30	2432 MHz	Channel 50	2452 MHz	Channel 70	2472 MHz
Channel 11	2413 MHz	Channel 31	2433 MHz	Channel 51	2453 MHz	Channel 71	2473 MHz
Channel 12	2414 MHz	Channel 32	2434 MHz	Channel 52	2454 MHz	Channel 72	2474 MHz
Channel 13	2415 MHz	Channel 33	2435 MHz	Channel 53	2455 MHz	Channel 73	2475 MHz
Channel 14	2416 MHz	Channel 34	2436 MHz	Channel 54	2456 MHz	Channel 74	2476 MHz
Channel 15	2417 MHz	Channel 35	2437 MHz	Channel 55	2457 MHz	Channel 75	2477 MHz
Channel 16	2418 MHz	Channel 36	2438 MHz	Channel 56	2458 MHz	Channel 76	2478 MHz
Channel 17	2419 MHz	Channel 37	2439 MHz	Channel 57	2459 MHz	Channel 77	2479 MHz
Channel 18	2420 MHz	Channel 38	2440 MHz	Channel 58	2460 MHz	Channel 78	2480 MHz
Channel 19	2421 MHz	Channel 39	2441 MHz	Channel 59	2461 MHz		

The system receivers have input bandwidths that match the hopping channel bandwidths of their corresponding transmitters and shift frequencies in synchronization with the transmitted signals Frequency hopping spread spectrum systems are not required to employ all available hopping channels during each transmission. The transmitter is presented with a continuous data stream. In addition, a system employing short transmission bursts must comply with the definition of a frequency hopping system and must distribute its 79 channels and over the minimum number of hopping channels (75 channels).

The incorporation of intelligence within a frequency hopping spread spectrum system that permits the system to recognize other users within the spectrum band so that it individually and independently chooses and adapts its hop sets to avoid hopping on occupied channels is permitted. The coordination of frequency hopping systems in any other manner for the express purpose of avoiding the simultaneous occupancy of individual hopping frequencies by multiple transmitters is not permitted.

Note:

1. This device is a Shot Navi Pocket included a 2.4GHz receiving function, and 2.4GHz transmitting function.
2. These tests were conducted on a sample of the equipment for the purpose of demonstrating compliance with Part 15 Subpart C Paragraph 15.247 for spread spectrum devices.
3. Regards to the frequency band operation; the lowest、middle and highest frequency of channel were selected to perform the test, and then shown on this report.
4. This device is a composite device in accordance with Part 15 regulations. The function receiving was measured and made a test report that the report number is 082065R-RFUSP01V02under Declaration of Conformity.

1.3. Test Mode

QuieTek has verified the construction and function in typical operation. All the test modes were carried out with the EUT in transmitting operation, which was shown in this test report and defined as follows:

Pre-Test Mode	
EMI	Mode 1: Transmit
Final Test Mode	
EMI	Mode 1: Transmit

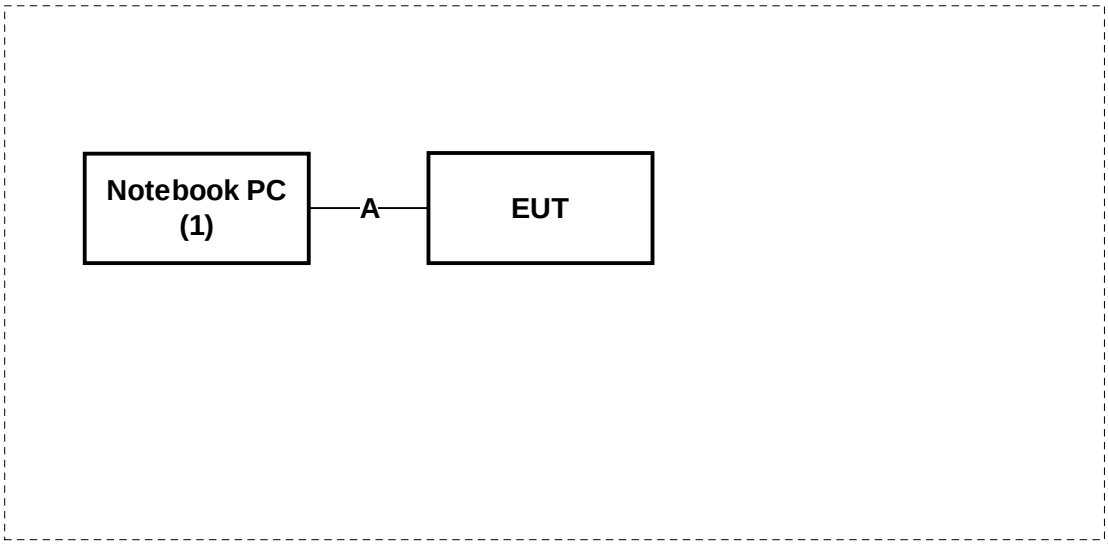
Emission	
Conducted Emission	Yes
Peak Power Output	Yes
Radiated Emission	Yes
Band Edge	Yes
Channel of Number	Yes
Channel Separation	Yes
Occupied Bandwidth	Yes
Dwell Time	Yes

1.4. Tested System Details

The types for all equipments, plus descriptions of all cables used in the tested system (including inserted cards) are:

Product		Manufacturer	Model No.	Serial No.	FCC ID	Power Cord
1	Notebook PC	DELL	LATITUDE D400	N/A	DoC	Non-shielded, 1.7m, a ferrite core bonded

1.5. Configuration of tested System

Connection Diagram


Signal Cable Type		Signal cable Description
A	USB Cable	Shielded, 1.4m

1.6. EUT Exercise Software

1	Setup the EUT and simulators as shown on 1.4.
2	Turn on the power of all equipment.
3	The EUT will play the function from Bluetooth program.
4	Verify the model operation.
5	Repeat the above procedure (3) to (4).

1.7. Test Facility

Ambient conditions in the laboratory:

Items	Test Item	Required (IEC 68-1)	Actual
Temperature (°C)	FCC PART 15 B 15.107 Conducted Emission	15 - 35	25
Humidity (%RH)		25 - 75	50
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 C 15.247 Peak Power Output (FHSS)	15 - 35	25
Humidity (%RH)		25 - 75	58
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 C 15.247 Radiated Emission (FHSS)	15 - 35	25
Humidity (%RH)		25 - 75	54
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 C 15.247 Band Edge (FHSS)	15 - 35	25
Humidity (%RH)		25 - 75	50
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 C 15.247 Channel Of Number (FHSS)	15 - 35	25
Humidity (%RH)		25 - 75	53
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 C 15.247 Channel Separation (FHSS)	15 - 35	25
Humidity (%RH)		25 - 75	54
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 C 15.247 Occupied Bandwidth (FHSS)	15 - 35	24
Humidity (%RH)		25 - 75	57
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 C 15.247 Dwell Time (FHSS)	15 - 35	25
Humidity (%RH)		25 - 75	58
Barometric pressure (mbar)		860 - 1060	950-1000

Site Description:

Accredited by NVLAP
NVLAP Lab Code: 200347-0
Effective through: September 30, 2008

Accredited by TAF
Accreditation Number: 1313
Effective through: December 27, 2010

February 23, 1999 Accreditation on DNV
Statement No. : 413-99-LAB11

February 02, 2007 Accreditation on TUV Rheinland
Certificate No.: 10011438-2-2005

October 31, 2007 Accreditation on Nemko
Certificate No.: ELA 165

Site Name: Quietek Corporation

Site Address: No.75-1, Wang-Yeh Valley, Yung-Hsing,
Chiung-Lin, Hsin-Chu County,
Taiwan, R.O.C.

TEL : 886-3-5928858 / FAX : 886-3-5928859
E-Mail : service@quietek.com

2. Conducted Emission

2.1. Test Equipment

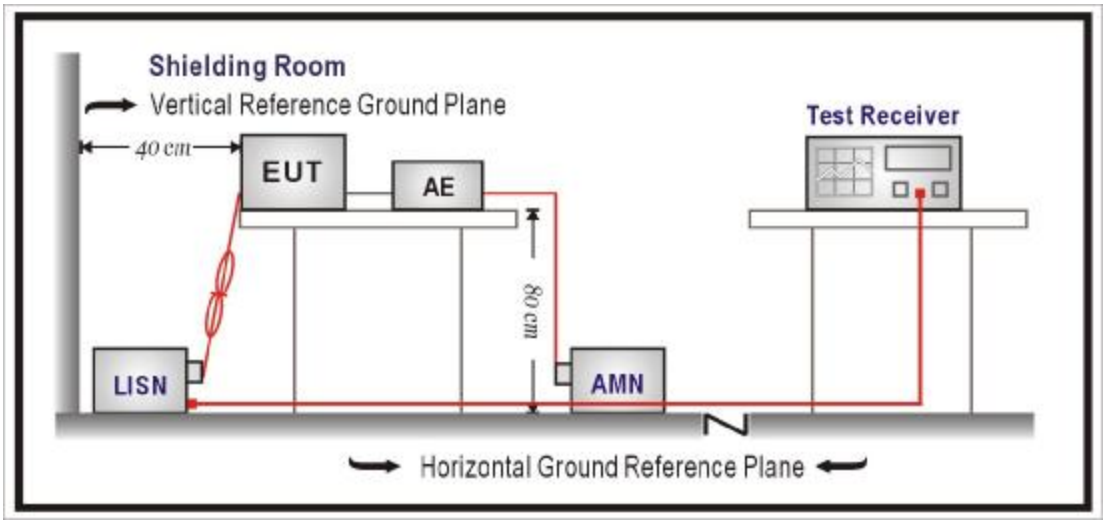
The following test equipment are used during the test:

Conducted Emission / SR2

Instrument	Manufacturer	Type No.	Serial No	Cal. Date
4-Wire ISN	R & S	ENY 41	837032/001	2007/04/15
Artificial Mains Network	R & S	ENV4200	848411/010	2007/03/13
Double 2-Wire ISN	R & S	ENY 22	835354/008	2007/04/15
LISN	R & S	ESH3-Z5	825562/002	2007/03/31
Pulse Limiter	R & S	ZSH3Z2	357.8810.54	2007/07/19
Test Receiver	R & S	ESCS 30	100122	2007/02/21

Note: All equipment upon which need to calibrated are with calibration period of 1 year.

2.2. Test Setup



2.3. Limits

FCC Part 15 Subpart C Paragraph 15.207 Limits (dBuV)		
Frequency MHz	QP	AV
0.15 - 0.50	66-56	56-46
0.50-5.0	56	46
5.0 - 30	60	50

Remarks : In the above table, the tighter limit applies at the band edges.

2.4. Test Procedure

The EUT was setup and tested according to ANSI C63.4, 2003.

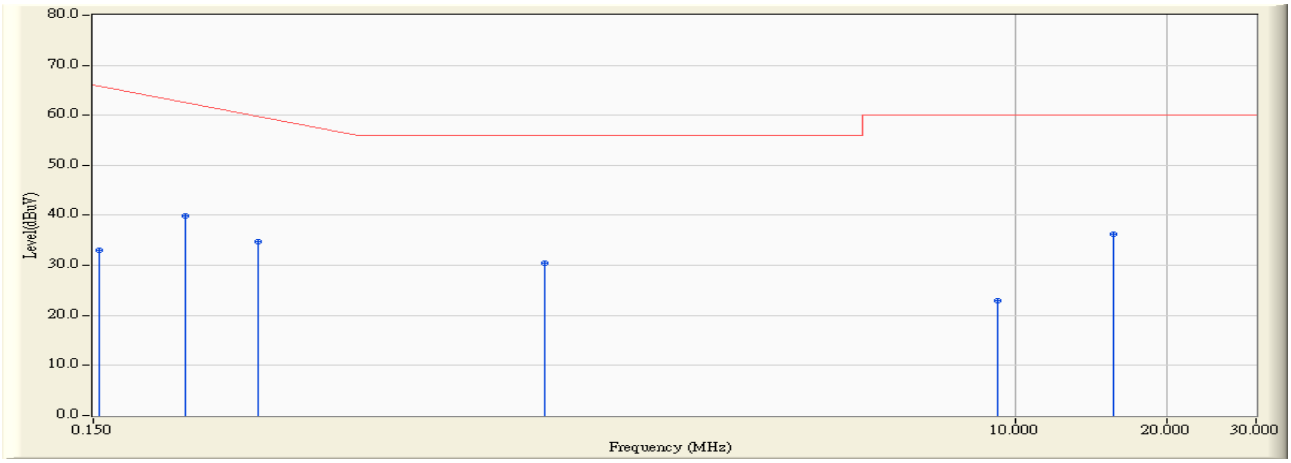
The EUT and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 50 ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm/50uH coupling impedance with 50ohm termination. (Please refers to the block diagram of the test setup and photographs.) Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.4: 2003 on conducted measurement. Conducted emissions were invested over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9kHz.

2.5. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.207: 2006

2.6. Test Result

Site : ShieldingrRoom 2	Time : 2008/02/17 - 15:48
Limit : CISPR_B_00M_QP	Margin : 0
EUT : Shot Navi Pocket	Probe : QTK-LISN-SR2 - Line1
Power : AC 120V/60Hz	Note : TX

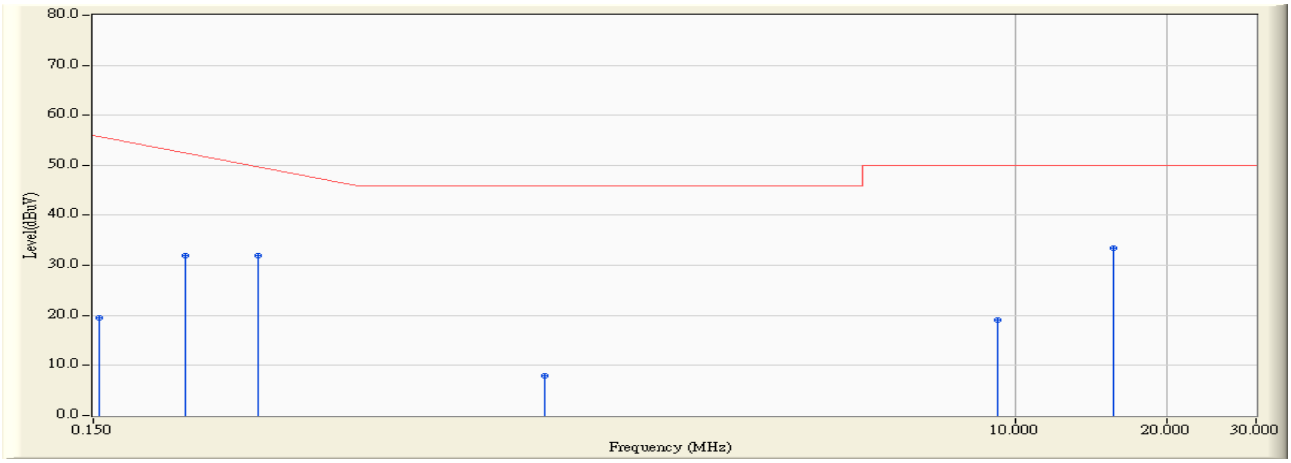


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.154	0.060	32.870	32.930	-32.956	65.886	QUASIPEAK
2		0.228	0.060	39.840	39.900	-23.871	63.771	QUASIPEAK
3		0.318	0.060	34.740	34.800	-26.400	61.200	QUASIPEAK
4		1.170	0.087	30.400	30.487	-25.513	56.000	QUASIPEAK
5		1.170	0.087	30.380	30.467	-25.533	56.000	QUASIPEAK
6		9.236	0.480	22.500	22.980	-37.020	60.000	QUASIPEAK
7	*	15.634	0.940	35.320	36.260	-23.740	60.000	QUASIPEAK

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.

Site : ShieldingrRoom 2	Time : 2008/02/17 - 15:48
Limit : CISPR_B_00M_AV	Margin : 0
EUT : Shot Navi Pocket	Probe : QTK-LISN-SR2 - Line1
Power : AC 120V/60Hz	Note : TX

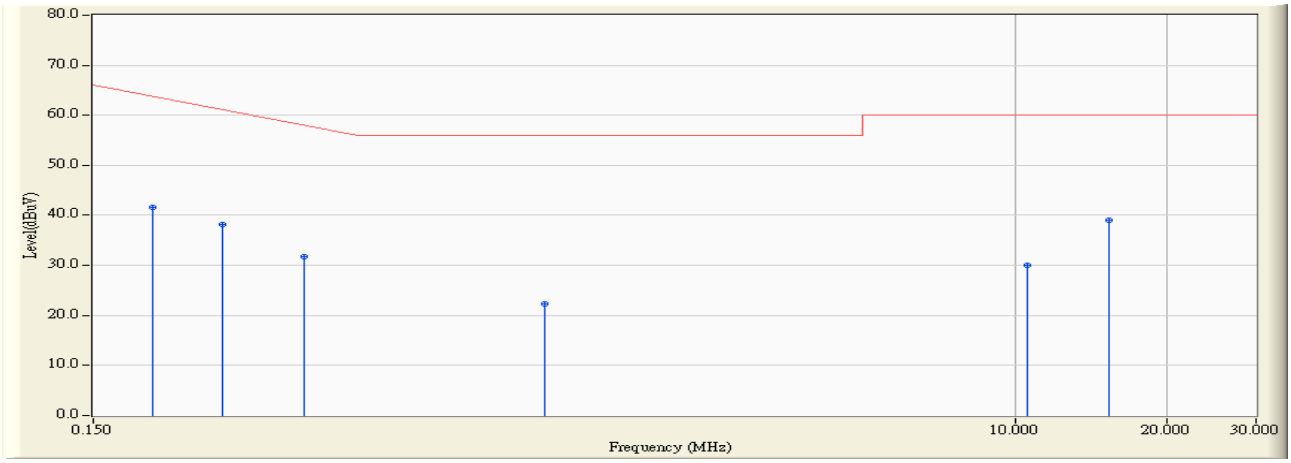


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.154	0.060	19.440	19.500	-36.386	55.886	AVERAGE
2		0.228	0.060	31.810	31.870	-21.901	53.771	AVERAGE
3		0.318	0.060	31.940	32.000	-19.200	51.200	AVERAGE
4		1.170	0.087	7.900	7.987	-38.013	46.000	AVERAGE
5		9.236	0.480	18.570	19.050	-30.950	50.000	AVERAGE
6	*	15.634	0.940	32.500	33.440	-16.560	50.000	AVERAGE

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.

Site : ShieldingrRoom 2	Time : 2008/02/17 - 15:52
Limit : CISPR_B_00M_QP	Margin : 0
EUT : Shot Navi Pocket	Probe : QTK-LISN-SR2 - Line2
Power : AC 120V/60Hz	Note : TX

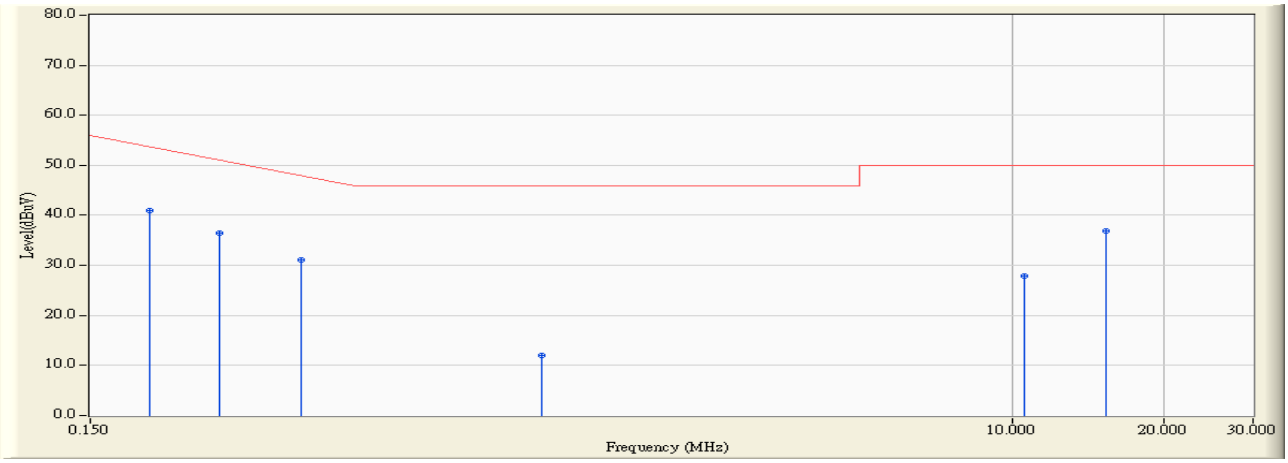


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.197	0.060	41.540	41.600	-23.057	64.657	QUASIPEAK
2		0.271	0.060	38.030	38.090	-24.453	62.543	QUASIPEAK
3		0.392	0.070	31.650	31.720	-27.366	59.086	QUASIPEAK
4		1.177	0.070	22.150	22.220	-33.780	56.000	QUASIPEAK
5		10.603	0.452	29.640	30.092	-29.908	60.000	QUASIPEAK
6	*	15.357	0.730	38.260	38.990	-21.010	60.000	QUASIPEAK

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.

Site : ShieldingrRoom 2	Time : 2008/02/17 - 15:52
Limit : CISPR_B_00M_AV	Margin : 0
EUT : Shot Navi Pocket	Probe : QTK-LISN-SR2 - Line2
Power : AC 120V/60Hz	Note : TX



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.197	0.060	40.880	40.940	-13.717	54.657	AVERAGE
2		0.271	0.060	36.500	36.560	-15.983	52.543	AVERAGE
3		0.392	0.070	30.960	31.030	-18.056	49.086	AVERAGE
4		1.177	0.070	11.910	11.980	-34.020	46.000	AVERAGE
5		10.603	0.452	27.400	27.852	-22.148	50.000	AVERAGE
6	*	15.357	0.730	36.080	36.810	-13.190	50.000	AVERAGE

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.

3. Peak Power Output

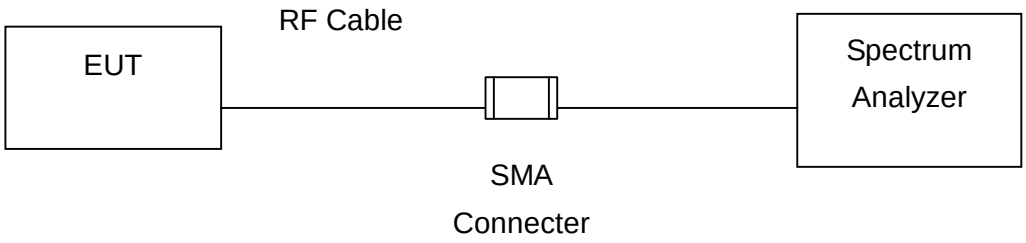
3.1. Test Equipment

The following test equipments are used during the test:

Item	Equipment	Manufacturer	Model No. / Serial No.	Last Cal.
1	Spectrum Analyzer	R&S	FSP/ 100005	Oct., 2007
2	No.1 OATS			Sep., 2007

Note: All equipment upon which need to calibrated are with calibration period of 1 year.

3.2. Test Setup



3.3. Test procedures

The EUT was setup according to ANSI C63.4, 2003 and tested according to FHSS test procedure of FCC Public Notice DA 00-705 for compliance to FCC 47CFR 15.247 requirements

3.4. Limits

For frequency hopping systems operating in the 902-928 MHz band: 1 Watt for systems employing at least 50 hopping channels; and, 0.25 Watts for systems employing less than 50 hopping channels.
For frequency hopping systems in the 2400-2483.5 MHz band employing at least 75 hopping channels, and all frequency hopping systems in the 5725-5850 MHz band: 1Watt. For all other frequency hopping systems in the 2400-2483.5 MHz band: 0.125 Watt.

3.5. Test Specification

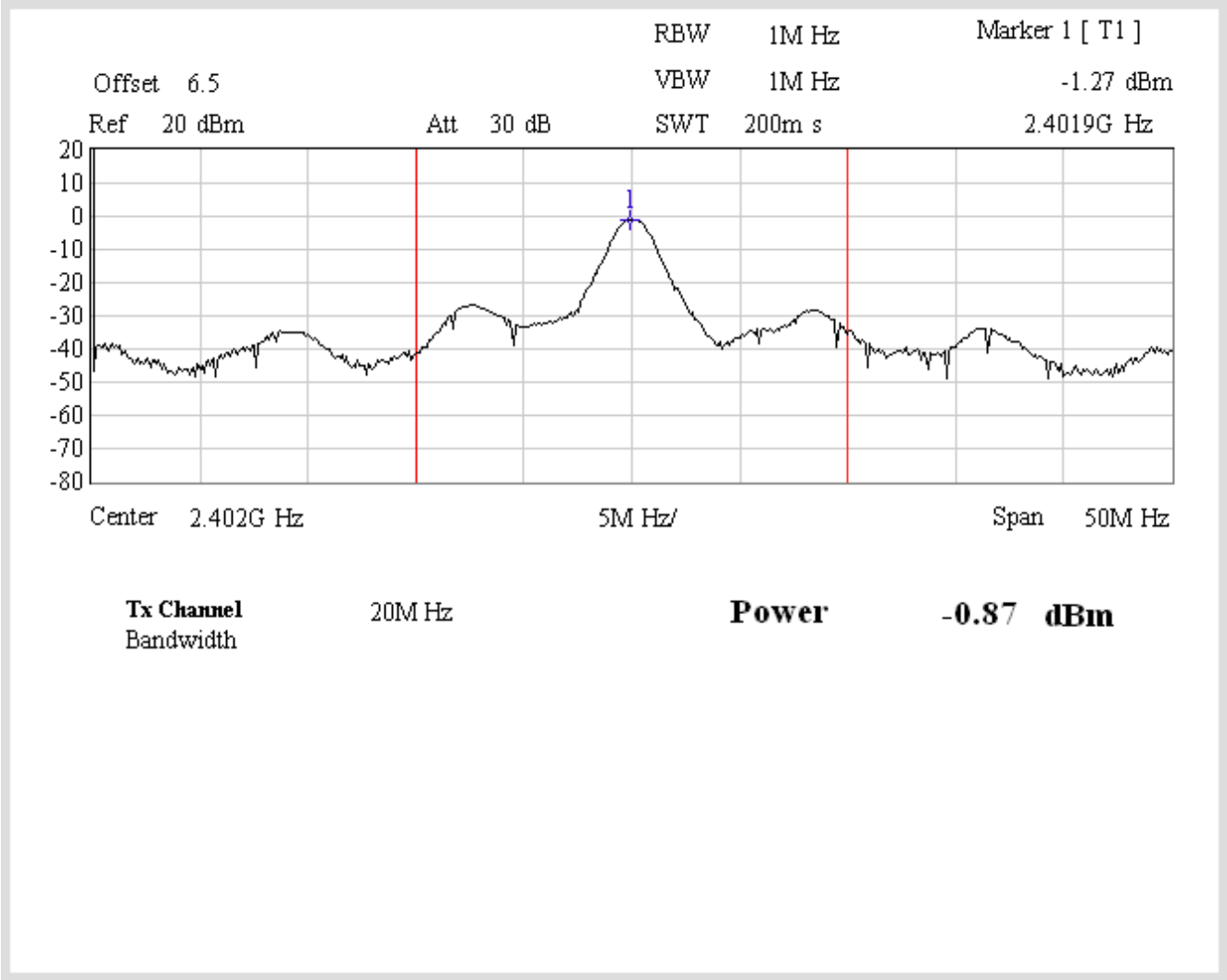
According to FCC Part 15 Subpart C Paragraph 15.247: 2006

3.6. Test Result

Product	Shot Navi Pocket		
Test Item	Peak Power Output		
Test Mode	Mode 1: Transmit		
Date of Test	2008/02/05	Test Site	No.1 OATS

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
00	2402.00	-0.87	1Watt= 30 dBm	Pass

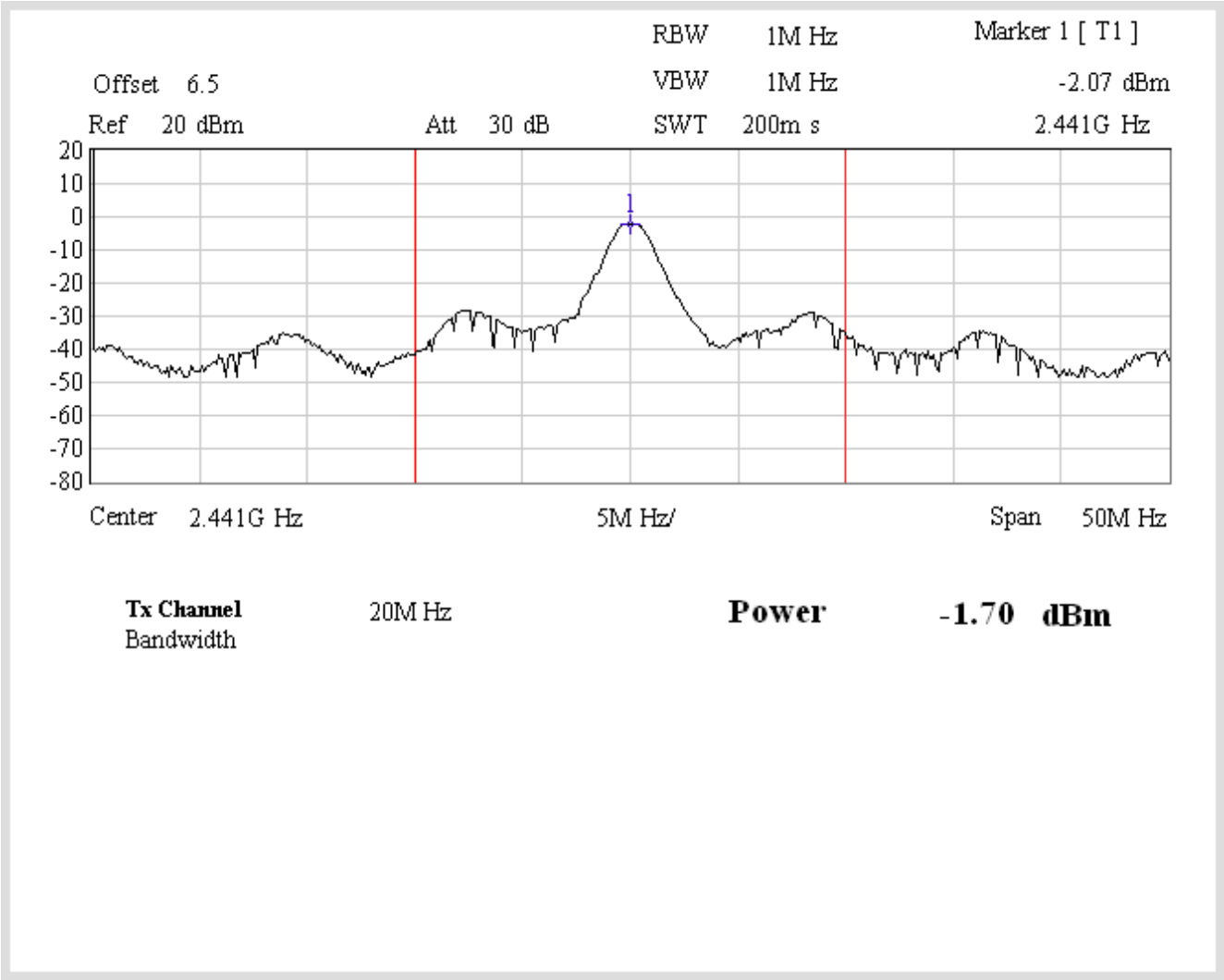
Channel 00



Product	Shot Navi Pocket		
Test Item	Peak Power Output		
Test Mode	Mode 1: Transmit		
Date of Test	2008/02/05	Test Site	No.1 OATS

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
39	2441.00	-1.7	1Watt= 30 dBm	Pass

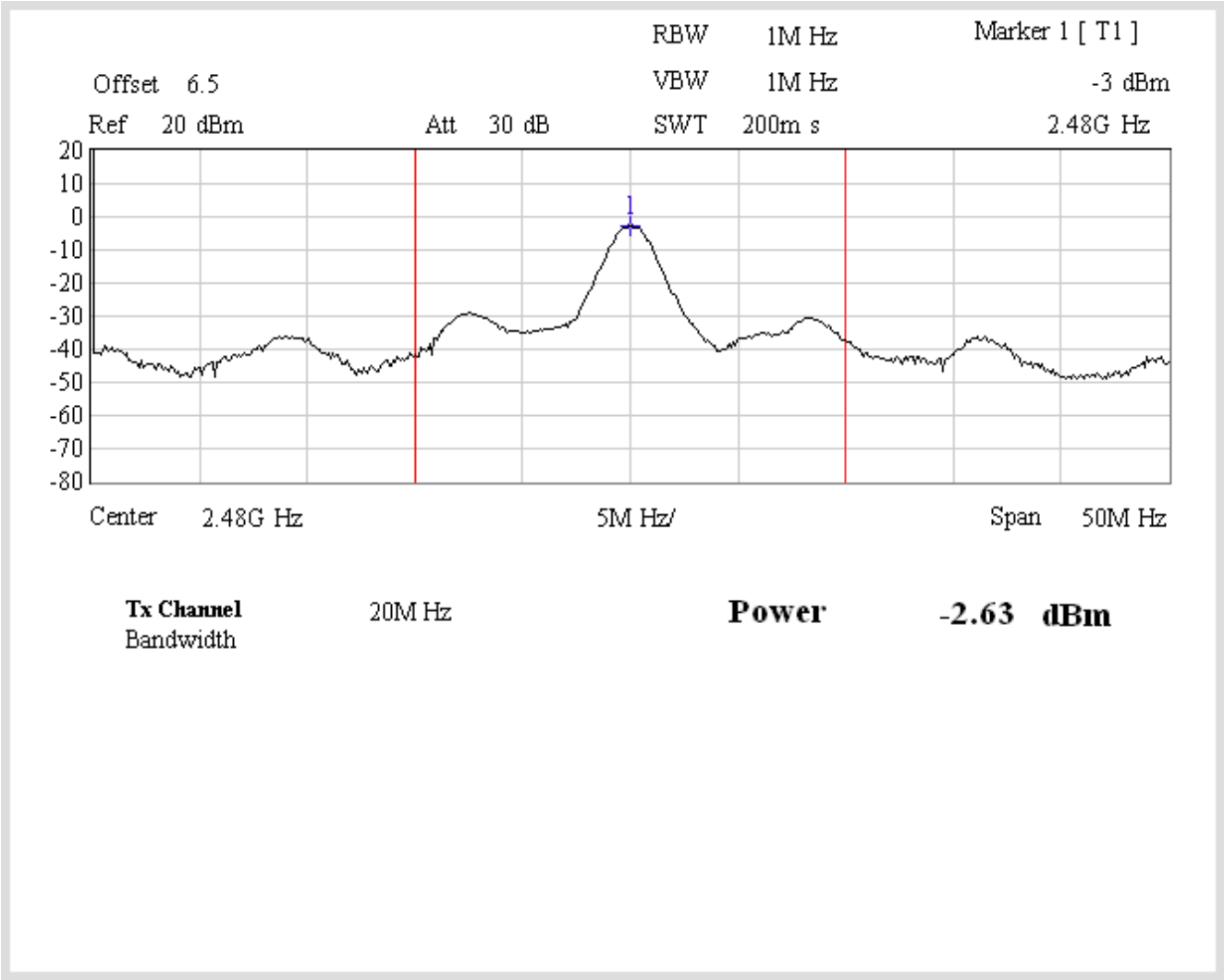
Channel 39



Product	Shot Navi Pocket		
Test Item	Peak Power Output		
Test Mode	Mode 1: Transmit		
Date of Test	2008/02/05	Test Site	No.1 OATS

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
78	2480.00	-2.63	1Watt= 30 dBm	Pass

Channel 78



4. Radiated Emission

4.1. Test Equipment

The following test equipment are used during the test:

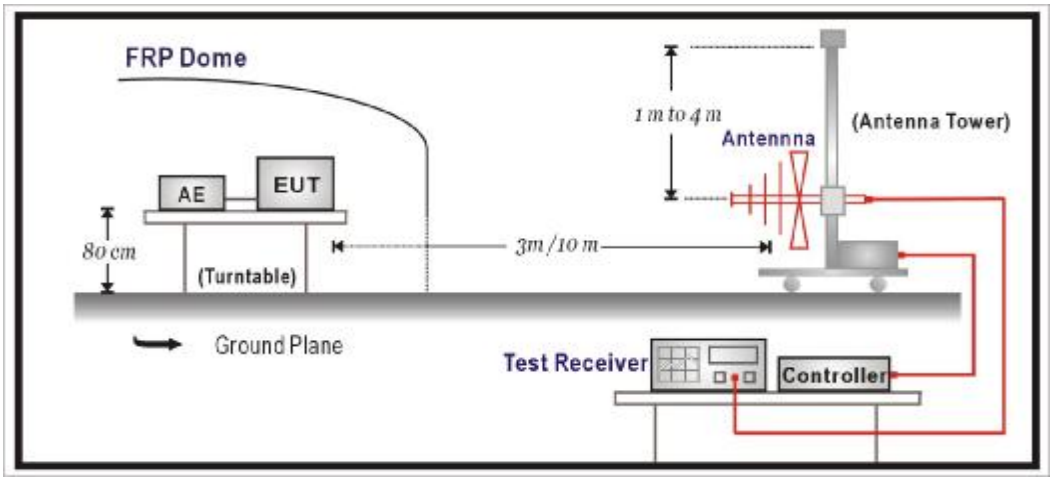
Radiated Emission / Site1

Instrument	Manufacturer	Type No.	Serial No	Cal. Date
Bilog Antenna	Schaffner Chase	CBL6112B	2895	2007/09/03
Horn Antenna	Electro Metrics	EM-6961	103325	2007/03/15
Pre-Amplifier	HP	8449B	3008A01123	2007/11/15
Pre-Amplifier	Quietek	AP-025C	N/A	N/A
Spectrum Analyzer	R & S	FSP40	100005	2007/08/25
Spectrum Analyzer	Advantest	R3162	120300649	2006/11/24
Test Receiver	R & S	ESCS 30	825442/017	2007/02/13

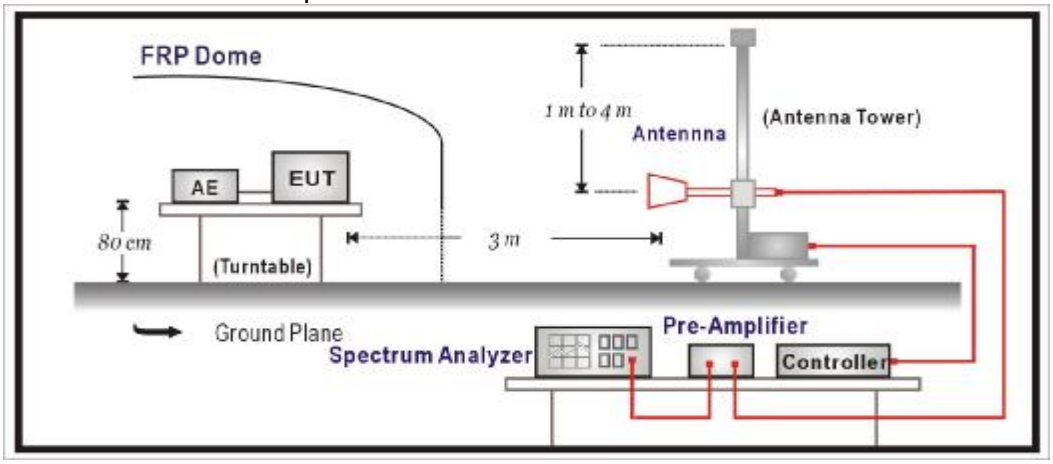
Note: 1. All equipments that need to calibrate are with calibration period of 1 year.
2. “N/A” Ca1.Date is used to Pre-test, not final test.

4.2. Test Setup

Under 1GHz Test Setup:



Above 1GHz Test Setup:



4.3. Limits

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 20dB below the level of the fundamental or to the general radiated emission limits in paragraph 15.209, whichever is the lesser attenuation.

FCC Part 15 Subpart C Paragraph 15.209 Limits		
Frequency MHz	uV/m	dBuV/m
30-88	100	40
88-216	150	43.5
216-960	200	46
Above 960	500	54

Remarks : 1. RF Voltage (dBuV) = 20 log RF Voltage (uV)

2. In the Above Table, the tighter limit applies at the band edges.

3. Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.

4.4. Test Procedure

The EUT and its simulators are placed on a turn table which is 0.8 meter above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level.

Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated according to ANSI C63.4:2003 on radiated measurement.

On any frequency or frequencies below or equal to 1000 MHz, the limits shown are based on measuring equipment employing a quasi-peak detector function and on any frequency or frequencies above 1000 MHz the radiated limits shown are based upon the use of measurement instrumentation employing an average detector function. When average radiated emission measurement are included emission measurement below 1000 MHz, there also is a limit on the radio frequency emissions, as measured using instrumentation with a peak detector function, corresponding to 20 dB above the maximum permitted average limit. The bandwidth below 1GHz setting on the field strength meter is 120 kHz and above 1GHz is 1MHz.

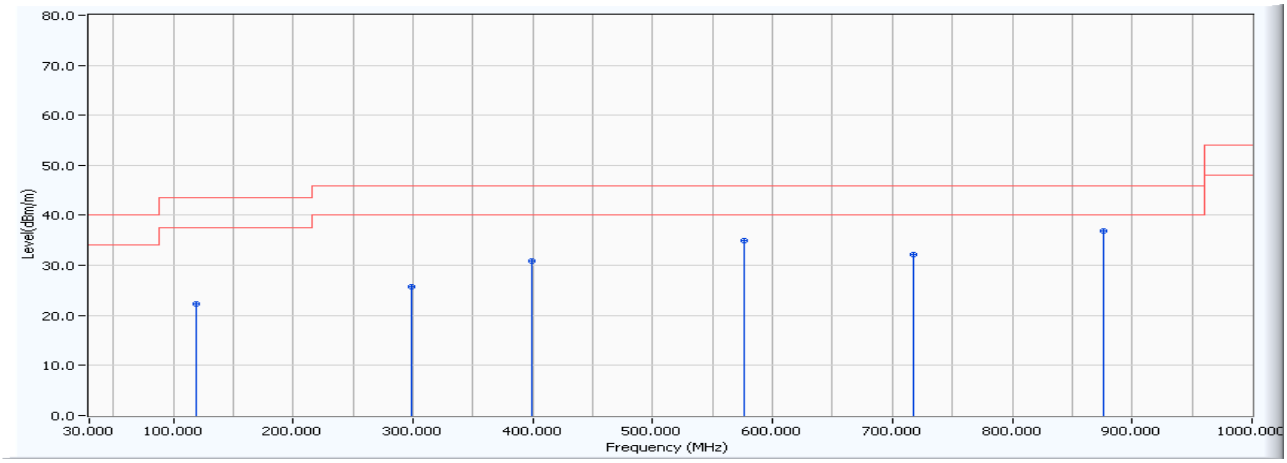
4.5. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.247: 2006

4.6. Test Result

30MHz-1GHz Spurious:

Site : Site 1	Time : 2008/02/17 - 14:27
Limit : FCC_CLASS_B_03M_QP	Margin : 6
EUT : Shot Navi Pocket	Probe : CB3_FCC_30-1G(2007) - HORIZONTAL
Power : AC 120V/60Hz	Note : TX-2441

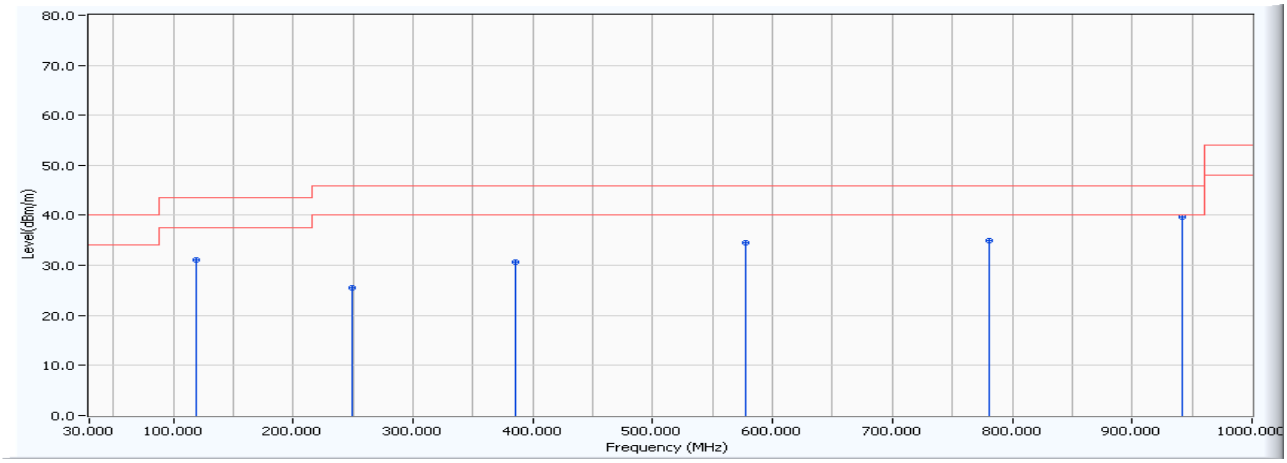


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Detector Type
1		119.419	-1.178	23.564	22.386	-21.114	43.500	QUASIPEAK
2		298.257	5.778	19.953	25.731	-20.269	46.000	QUASIPEAK
3		399.339	10.661	20.123	30.784	-15.216	46.000	QUASIPEAK
4		576.232	13.930	20.938	34.868	-11.132	46.000	QUASIPEAK
5		718.136	11.055	21.026	32.081	-13.919	46.000	QUASIPEAK
6	*	875.591	14.086	22.773	36.859	-9.141	46.000	QUASIPEAK

Note:

1. All Reading Levels are Quasi-Peak value.
2. “ * ”, means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.

Site : Site 1	Time : 2008/02/17 - 14:28
Limit : FCC_CLASS_B_03M_QP	Margin : 6
EUT : Shot Navi Pocket	Probe : CB3_FCC_30-1G(2007) - VERTICAL
Power : AC 120V/60Hz	Note : TX-2441



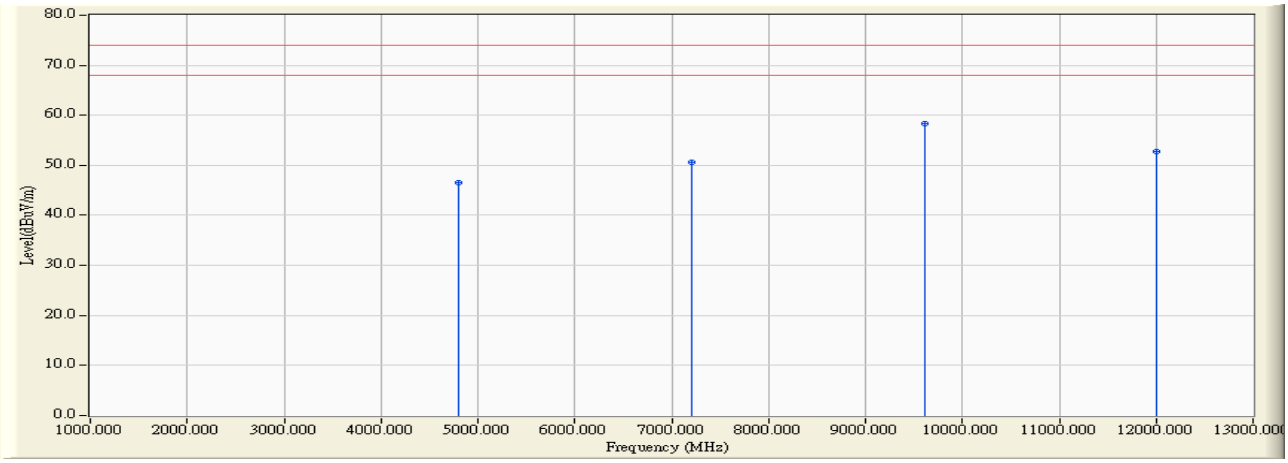
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Detector Type
1		119.419	5.890	25.180	31.070	-12.430	43.500	QUASIPEAK
2		249.659	1.604	23.946	25.550	-20.450	46.000	QUASIPEAK
3		385.731	8.778	21.827	30.604	-15.396	46.000	QUASIPEAK
4		578.176	13.025	21.446	34.470	-11.530	46.000	QUASIPEAK
5		780.341	14.363	20.665	35.028	-10.972	46.000	QUASIPEAK
6	*	941.683	17.406	22.227	39.633	-6.367	46.000	QUASIPEAK

Note:

1. All Reading Levels are Quasi-Peak value.
2. “ * ”, means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.

Harmonic & Spurious:

Site : Site 1	Time : 2008/02/14 - 17:29
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
EUT : Shot Navi Pocket	Probe : CB4_FCC_1-18G(2007) - HORIZONTAL
Power : AC 120V/60Hz	Note : TX-2402

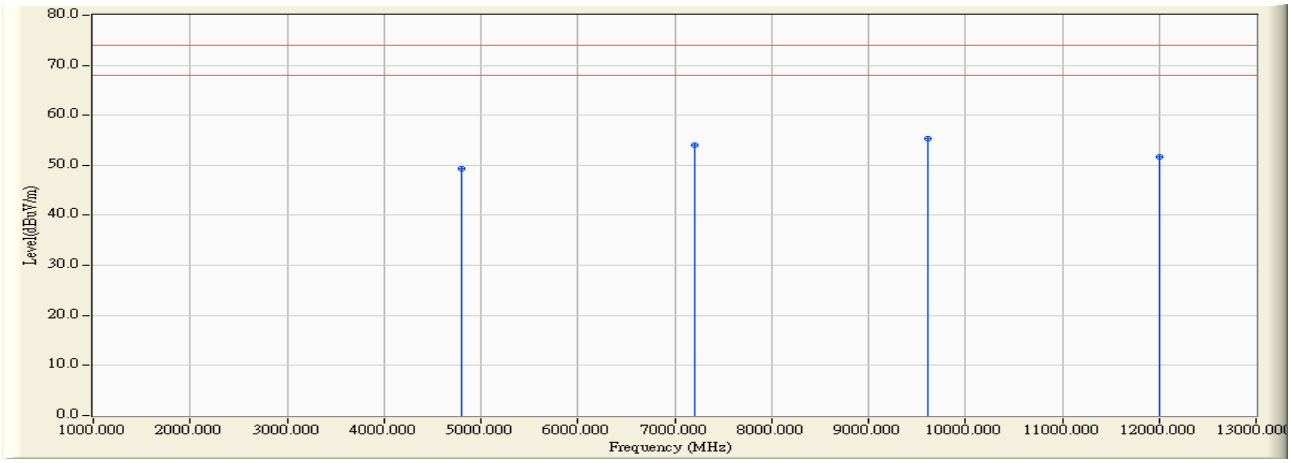


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1		4804.020	3.899	42.540	46.438	-27.562	74.000	54.000	PEAK
2		7206.040	11.362	39.330	50.692	-23.308	74.000	54.000	PEAK
3	*	9608.020	15.952	42.360	58.311	-15.689	74.000	54.000	PEAK
4		12010.040	17.382	35.360	52.742	-21.258	74.000	54.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : Site 1	Time : 2008/02/14 - 20:32
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
EUT : Shot Navi Pocket	Probe : CB4_FCC_1-18G(2007) - VERTICAL
Power : AC 120V/60Hz	Note : TX-2402

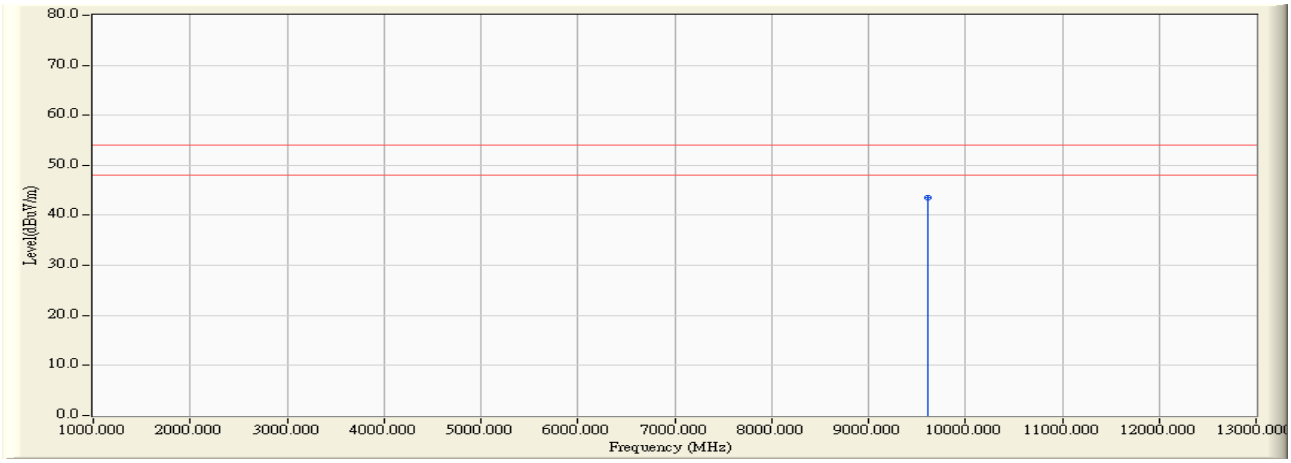


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1		4804.360	3.899	45.410	49.309	-24.691	74.000	54.000	PEAK
2		7206.260	11.775	42.310	54.085	-19.915	74.000	54.000	PEAK
3	*	9608.240	14.738	40.520	55.257	-18.743	74.000	54.000	PEAK
4		12010.280	17.363	34.290	51.653	-22.347	74.000	54.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : Site 1	Time : 2008/02/14 - 17:30
Limit : FCC_SpartC_15.247_H_03M_AV	Margin : 6
EUT : Shot Navi Pocket	Probe : CB4_FCC_1-18G(2007) - HORIZONTAL
Power : AC 120V/60Hz	Note : TX-2402

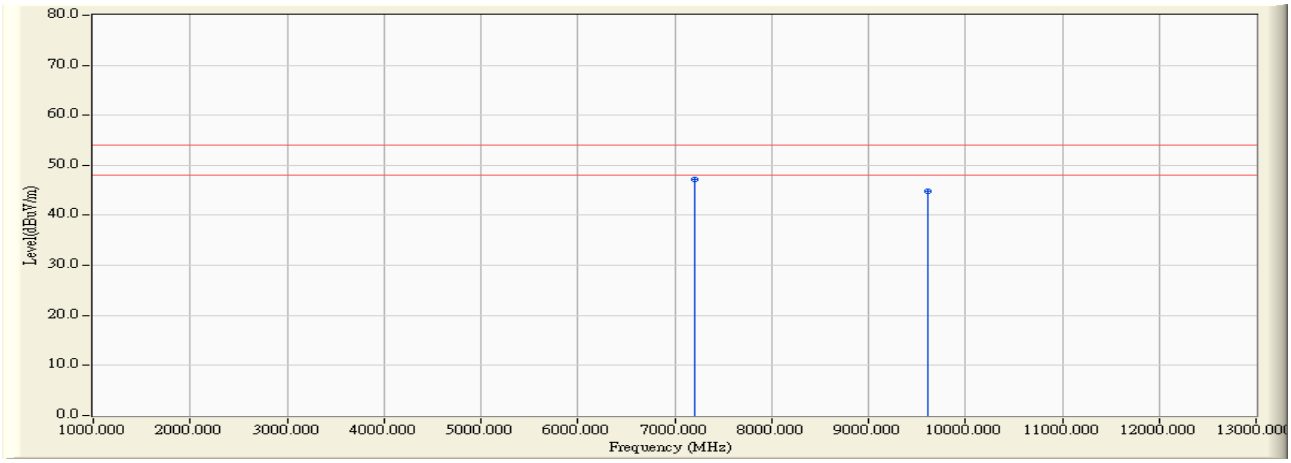


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1	*	9607.900	15.950	27.530	43.481	-10.519	74.000	54.000	AVERAGE

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : Site 1	Time : 2008/02/14 - 20:44
Limit : FCC_SpartC_15.247_H_03M_AV	Margin : 6
EUT : Shot Navi Pocket	Probe : CB4_FCC_1-18G(2007) - VERTICAL
Power : AC 120V/60Hz	Note : TX-2402

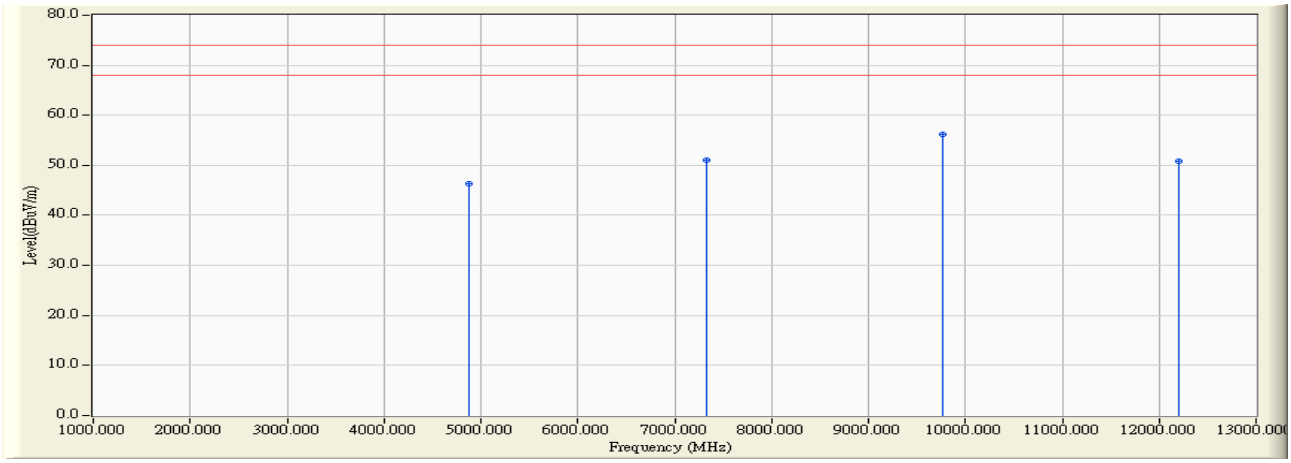


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1	*	7206.030	11.774	35.400	47.174	-6.826	74.000	54.000	AVERAGE
2		9608.030	14.738	30.170	44.907	-9.093	74.000	54.000	AVERAGE

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : Site 1	Time : 2008/02/14 - 21:31
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
EUT : Shot Navi Pocket	Probe : CB4_FCC_1-18G(2007) - HORIZONTAL
Power : AC 120V/60Hz	Note : TX-2441

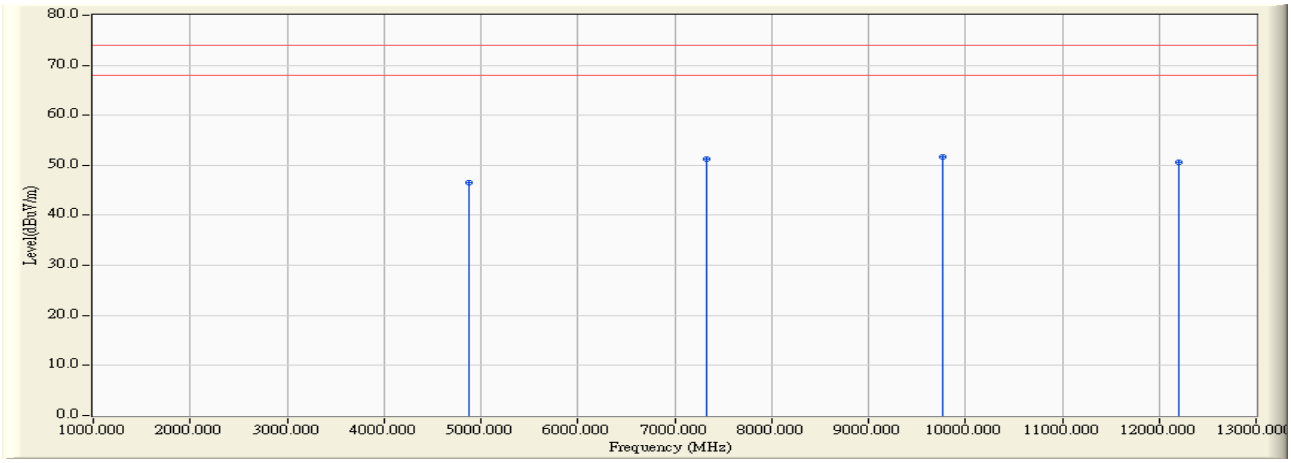


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1		4881.880	4.167	42.190	46.357	-27.643	74.000	54.000	PEAK
2		7323.040	11.668	39.320	50.988	-23.012	74.000	54.000	PEAK
3	*	9764.120	16.461	39.670	56.131	-17.869	74.000	54.000	PEAK
4		12205.160	17.947	32.830	50.776	-23.224	74.000	54.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. “ * ”, means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : Site 1	Time : 2008/02/14 - 21:53
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
EUT : Shot Navi Pocket	Probe : CB4_FCC_1-18G(2007) - VERTICAL
Power : AC 120V/60Hz	Note : TX-2441

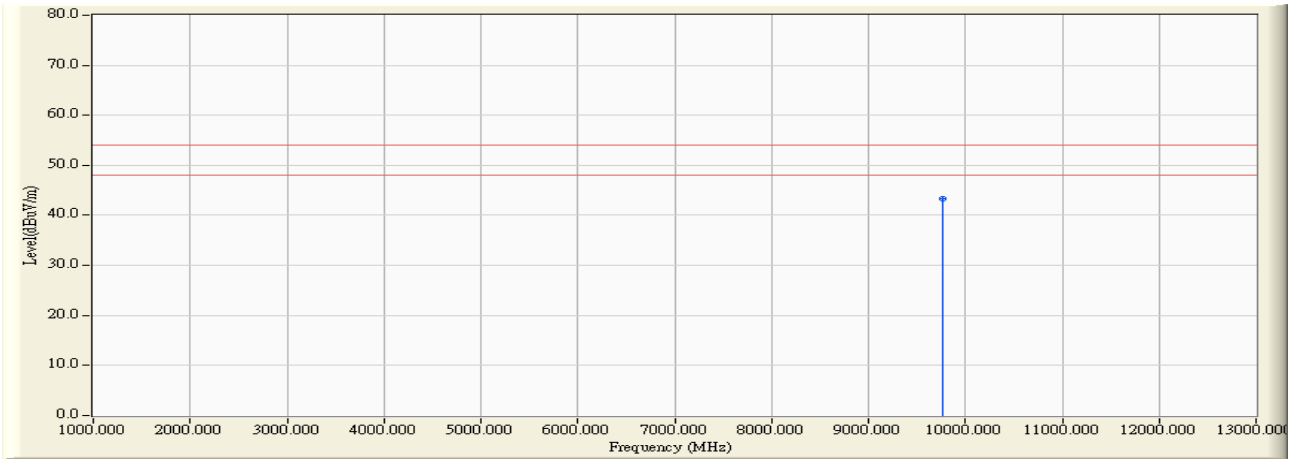


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1		4881.920	4.167	42.290	46.457	-27.543	74.000	54.000	PEAK
2		7323.210	12.316	38.990	51.306	-22.694	74.000	54.000	PEAK
3	*	9764.010	14.935	36.710	51.645	-22.355	74.000	54.000	PEAK
4		12205.270	17.533	33.030	50.563	-23.437	74.000	54.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. “ * ”, means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : Site 1	Time : 2008/02/14 - 21:37
Limit : FCC_SpartC_15.247_H_03M_AV	Margin : 6
EUT : Shot Navi Pocket	Probe : CB4_FCC_1-18G(2007) - HORIZONTAL
Power : AC 120V/60Hz	Note : TX-2441

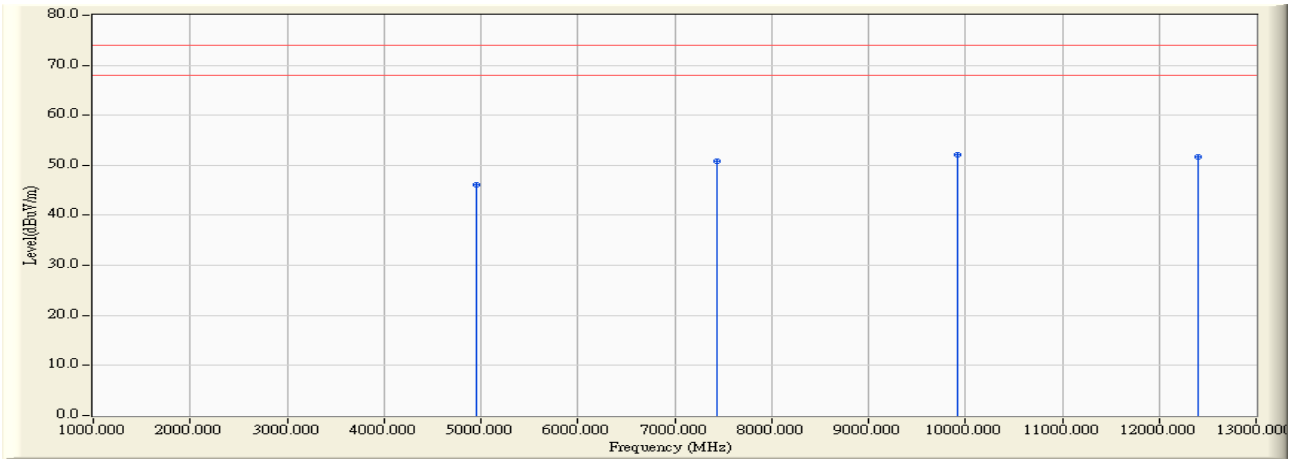


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1	*	9764.300	16.462	26.780	43.242	-10.758	74.000	54.000	AVERAGE

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : Site 1	Time : 2008/02/14 - 22:27
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
EUT : Shot Navi Pocket	Probe : CB4_FCC_1-18G(2007) - HORIZONTAL
Power : AC 120V/60Hz	Note : TX-2480

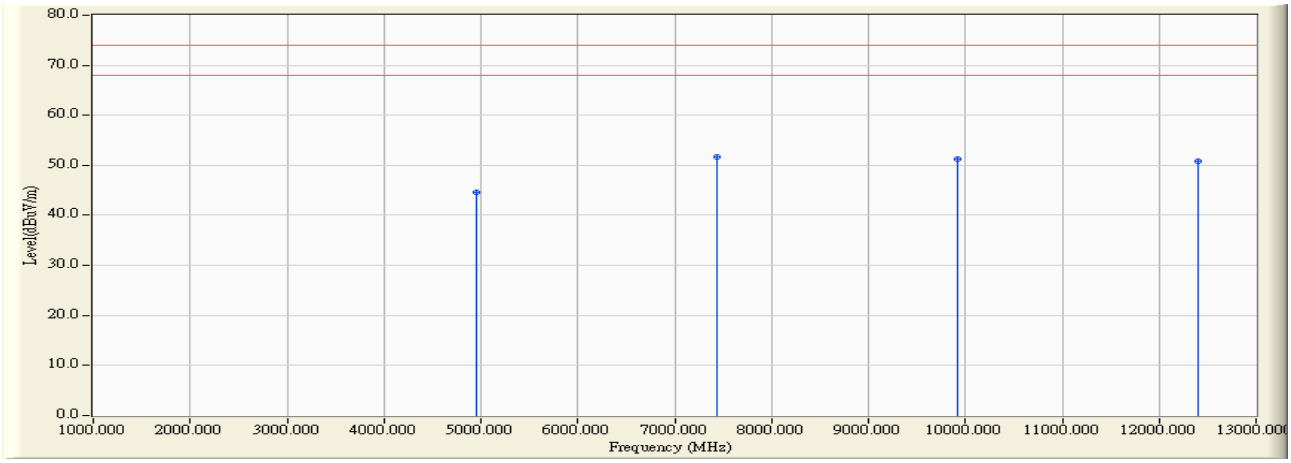


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1		4960.200	4.428	41.630	46.058	-27.942	74.000	54.000	PEAK
2		7440.120	12.002	38.860	50.862	-23.138	74.000	54.000	PEAK
3	*	9920.210	16.976	35.120	52.096	-21.904	74.000	54.000	PEAK
4		12400.090	18.520	33.200	51.720	-22.280	74.000	54.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. “ * ”, means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : Site 1	Time : 2008/02/14 - 22:29
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
EUT : Shot Navi Pocket	Probe : CB4_FCC_1-18G(2007) - VERTICAL
Power : AC 120V/60Hz	Note : TX-2480



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1		4960.300	4.428	40.110	44.538	-29.462	74.000	54.000	PEAK
2	*	7440.070	12.885	38.870	51.754	-22.246	74.000	54.000	PEAK
3		9920.040	15.134	36.180	51.314	-22.686	74.000	54.000	PEAK
4		12400.050	17.722	33.200	50.922	-23.078	74.000	54.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. “ * ”, means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

5. RF Conducted Emission

5.1. Test Equipment

The following test equipments are used during the test:

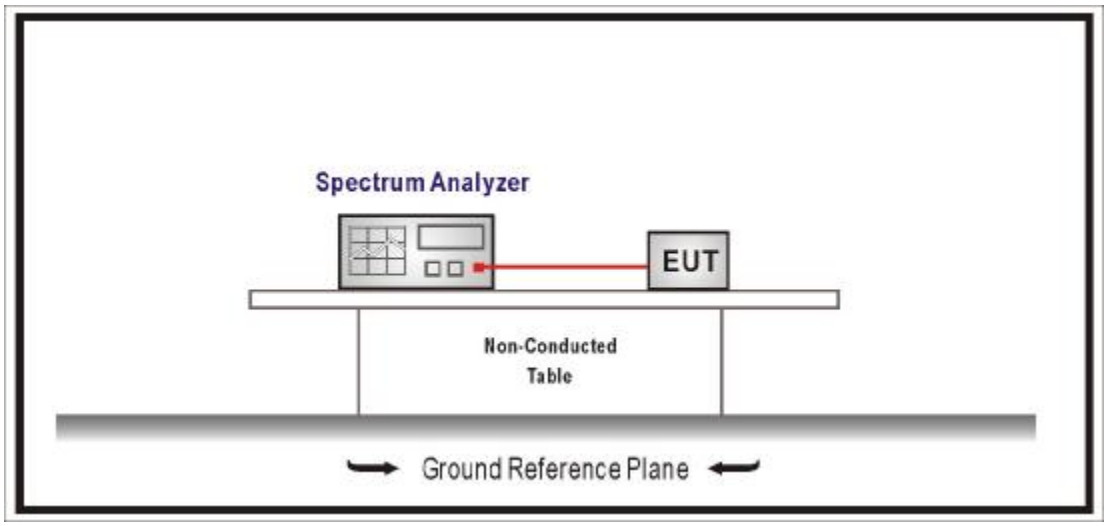
RF Conducted Measurement:				
Item	Equipment	Manufacturer	Model No. / Serial No.	Last Cal.
1	Spectrum Analyzer	R & S	FSP / 100561	Mar., 2007
2	No.1 OATS			Sep., 2007

Note: 1. All equipments that need to calibrate are with calibration period of 1 year.

2. Mark “X” test instruments are used to measure the final test results.

5.2. Test Setup

RF Conducted Measurement:



5.3. Limits

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

5.4. Test Procedure

The EUT was setup according to ANSI C63.4, 2003 and tested according to FHSS test procedure of FCC Public Notice DA 00-705 for compliance to FCC 47CFR 15.247 requirements.

5.5. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.247: 2006

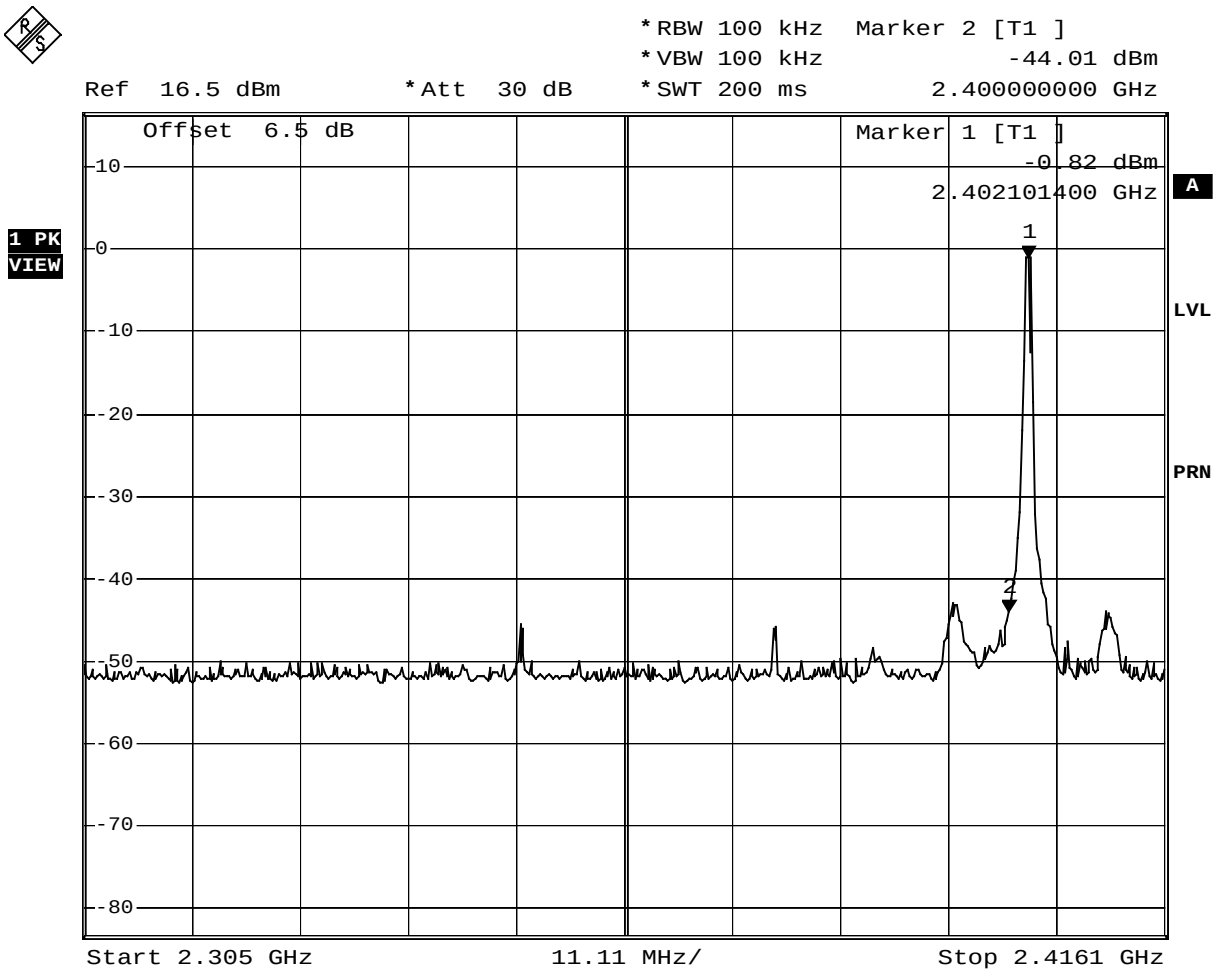
5.6. Test Result

Product	Shot Navi Pocket		
Test Item	RF Conducted Emissions		
Test Mode	Mode 1: Transmit		
Date of Test	2008/02/12	Test Site	No.1 OATS

Channel No.	Frequency (MHz)	Required Limit (dBc)	Result
00	2402	>20	Pass

Figure Channel 1:

Channel 1

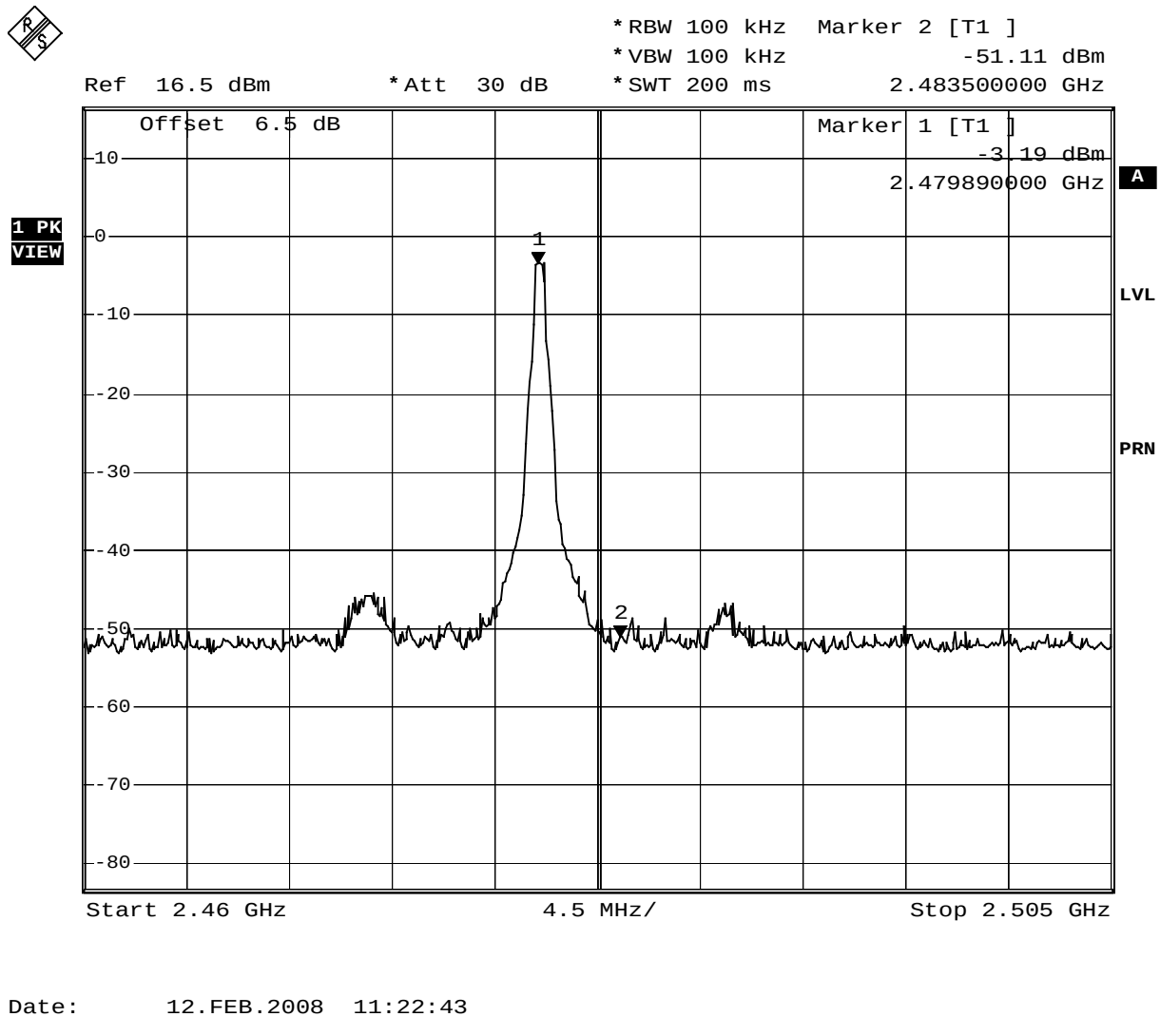


Product	Shot Navi Pocket		
Test Item	RF Conducted Emissions		
Test Mode	Mode 1: Transmit		
Date of Test	2008/02/12	Test Site	No.1 OATS

Channel No.	Frequency (MHz)	Required Limit (dBc)	Result
78	2480	>20	Pass

Figure Channel 78:

Channel 78



6. Band Edge

6.1. Test Equipment

The following test equipments are used during the test:

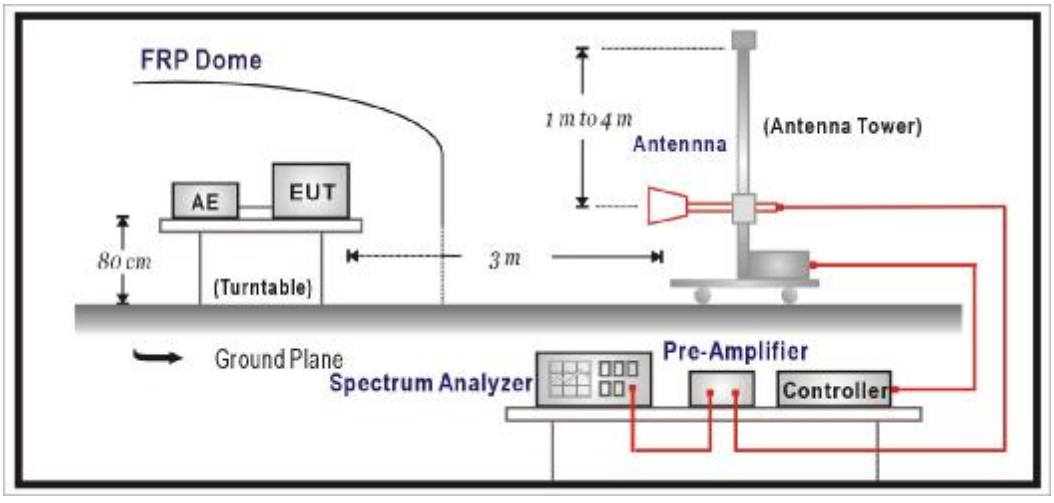
RF Radiated Measurement:					
Item	Equipment		Manufacturer	Model No. / Serial No.	Last Cal.
1	X	Spectrum Analyzer	R & S	FSP40 / 100005	Aug., 2007
2	X	Pre-Amplifier	HP	8449B / 3008A01123	Feb., 2007
3		Loop Antenna	R & S	HFH2-Z2 / 833799/004	Sep., 2007
4		BiconiLog Antenna	Schwarzbeck	VULB 9166 / 1061	Sep., 2007
5		Bilog Antenna	Chase	CBL6112B / 2455	Sep., 2007
6	X	Horn Antenna	Schwarzbeck	BBHA 9120D / BBHA9120D312	Sep., 2007
7	No.1 OATS				Sep., 2007

Note: 1. All equipments that need to calibrate are with calibration period of 1 year.

2. Mark “X” test instruments are used to measure the final test results.

6.2. Test Setup

RF Radiated Measurement:



6.3. Limits

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 20dB below the level of the fundamental or to the general radiated emission limits in paragraph 15.209, whichever is the lesser attenuation.

6.4. Test Procedure

The EUT was setup according to ANSI C63.4, 2003 and tested according to FHSS test procedure of FCC Public Notice DA 00-705 for compliance to FCC 47CFR 15.247 requirements

The EUT and its simulators are placed on a turn table which is 0.8 meter above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.

The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level.

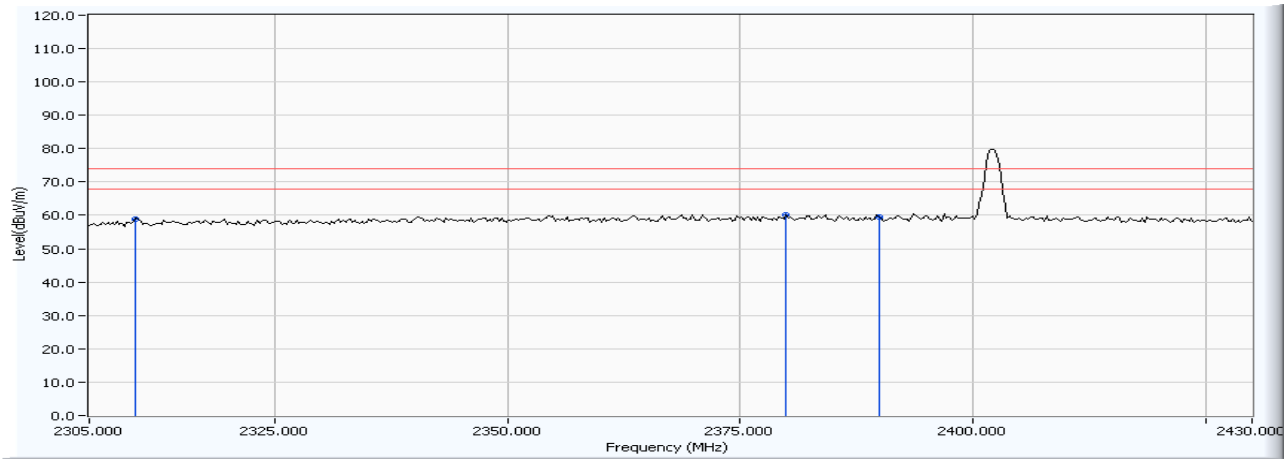
Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated according to ANSI C63.4:2003 on radiated measurement.

6.5. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.247: 2006

6.6. Test Result

Site : Site 1	Time : 2008/02/17 - 11:30
Limit : FCC_15.209(961011)_03M_PK	Margin : 0
EUT : Shot Navi Pocket	Probe : CB3_FCC_1-18G(2007) - HORIZONTAL
Power : AC 120V/60Hz	Note : TX-2402

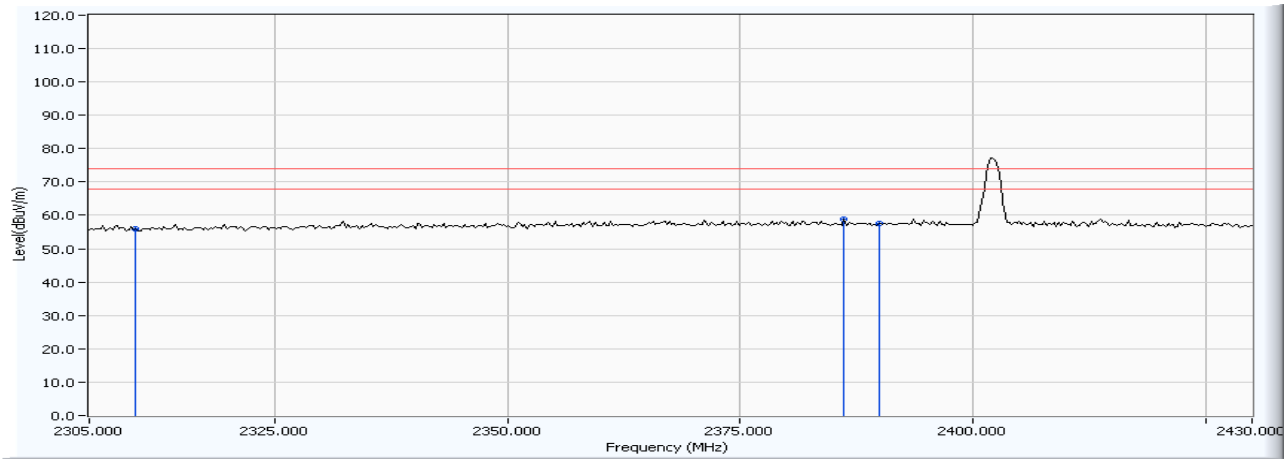


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	30.412	28.605	59.016	-14.984	74.000	PEAK
2	*	2379.900	30.525	29.716	60.241	-13.759	74.000	PEAK
3		2390.000	30.543	28.847	59.390	-14.610	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : Site 1	Time : 2008/02/17 - 11:53
Limit : FCC_15.209(961011)_03M_PK	Margin : 0
EUT : Shot Navi Pocket	Probe : CB3_FCC_1-18G(2007) - VERTICAL
Power : AC 120V/60Hz	Note : TX-2402

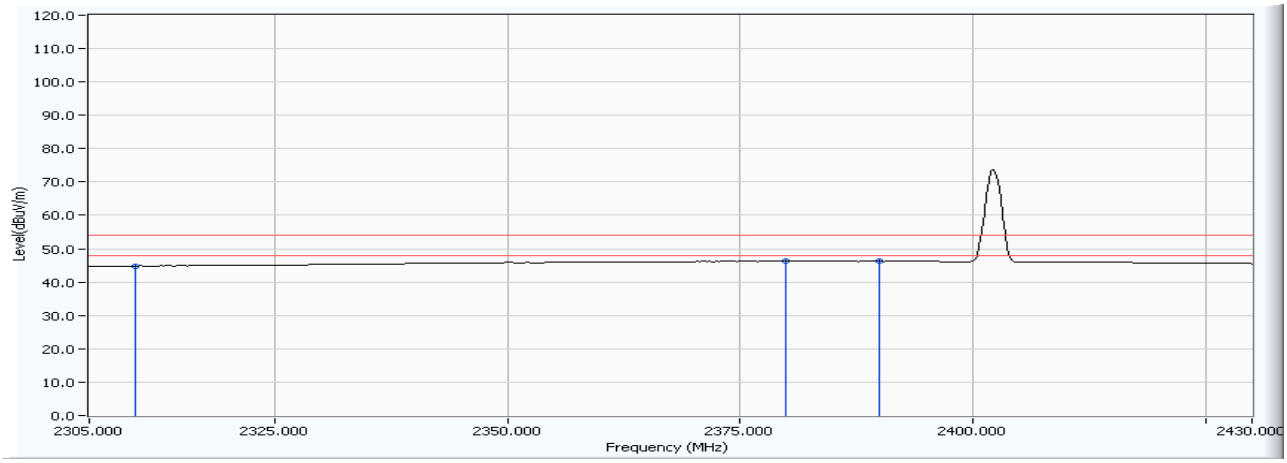


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	28.433	27.594	56.027	-17.973	74.000	PEAK
2	*	2386.162	28.707	30.094	58.802	-15.198	74.000	PEAK
3		2390.000	28.724	28.705	57.429	-16.571	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : Site 1	Time : 2008/02/17 - 11:38
Limit : FCC_15.209(961011)_03M_AV	Margin : 0
EUT : Shot Navi Pocket	Probe : CB3_FCC_1-18G(2007) - HORIZONTAL
Power : AC 120V/60Hz	Note : TX-2402

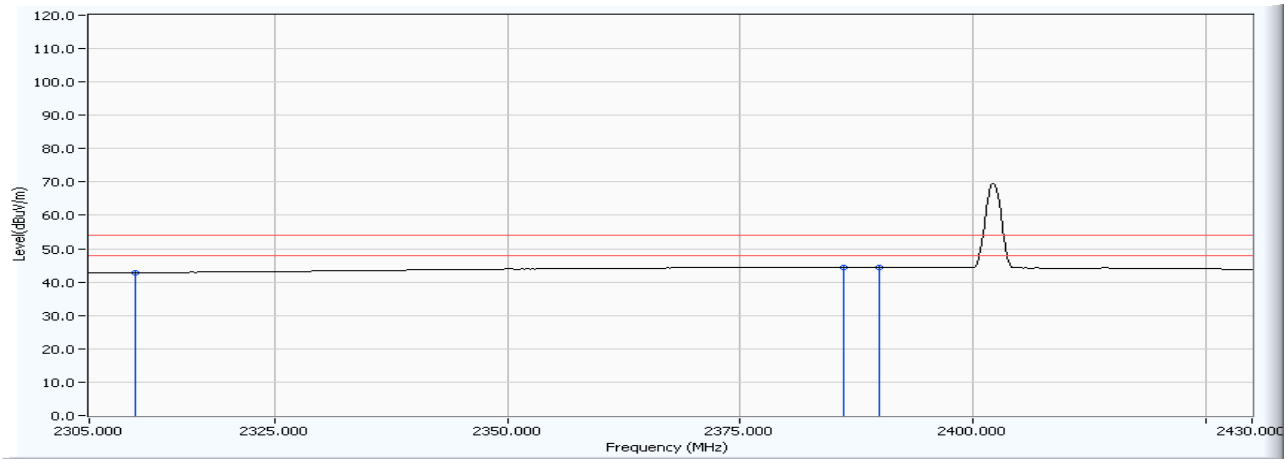


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	30.412	14.446	44.857	-9.143	54.000	AVERAGE
2	*	2379.900	30.525	15.677	46.202	-7.798	54.000	AVERAGE
3		2390.000	30.543	15.640	46.183	-7.817	54.000	AVERAGE

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. “ * ”, means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : Site 1	Time : 2008/02/17 - 11:56
Limit : FCC_15.209(961011)_03M_AV	Margin : 6
EUT : Shot Navi Pocket	Probe : CB3_FCC_1-18G(2007) - VERTICAL
Power : AC 120V/60Hz	Note : TX-2402

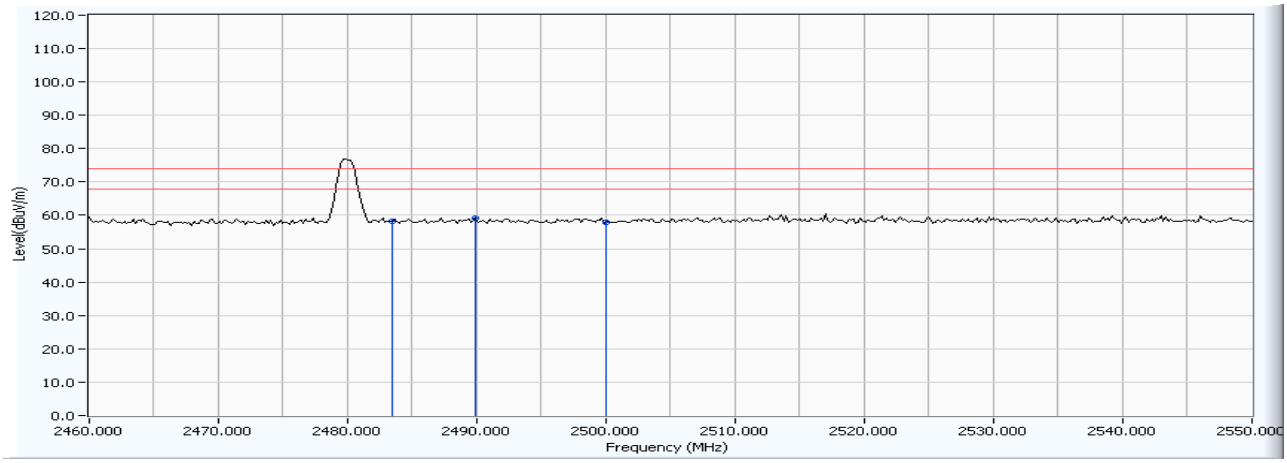


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	28.433	14.412	42.845	-11.155	54.000	AVERAGE
2	*	2386.162	28.707	15.668	44.376	-9.624	54.000	AVERAGE
3		2390.000	28.724	15.604	44.328	-9.672	54.000	AVERAGE

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : Site 1	Time : 2008/02/17 - 12:07
Limit : FCC_15.209(961011)_03M_PK	Margin : 6
EUT : Shot Navi Pocket	Probe : CB3_FCC_1-18G(2007) - HORIZONTAL
Power : AC 120V/60Hz	Note : TX-2480

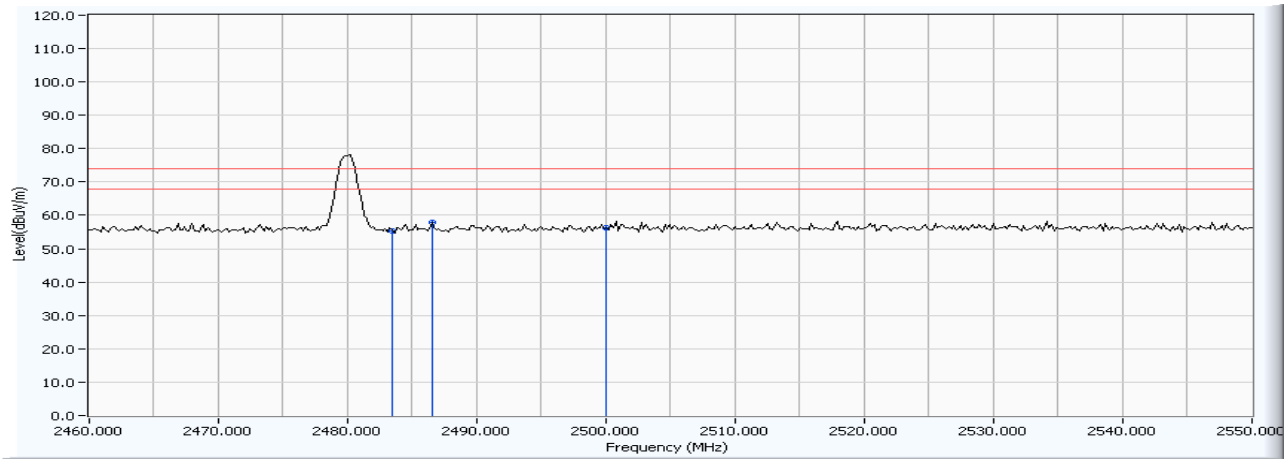


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2483.500	30.696	27.587	58.282	-15.718	74.000	PEAK
2	*	2489.940	30.702	28.621	59.324	-14.676	74.000	PEAK
3		2500.000	30.722	27.308	58.030	-15.970	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. “ * ”, means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : Site 1	Time : 2008/02/17 - 12:15
Limit : FCC_15.209(961011)_03M_PK	Margin : 6
EUT : Shot Navi Pocket	Probe : CB3_FCC_1-18G(2007) - VERTICAL
Power : AC 120V/60Hz	Note : TX-2480

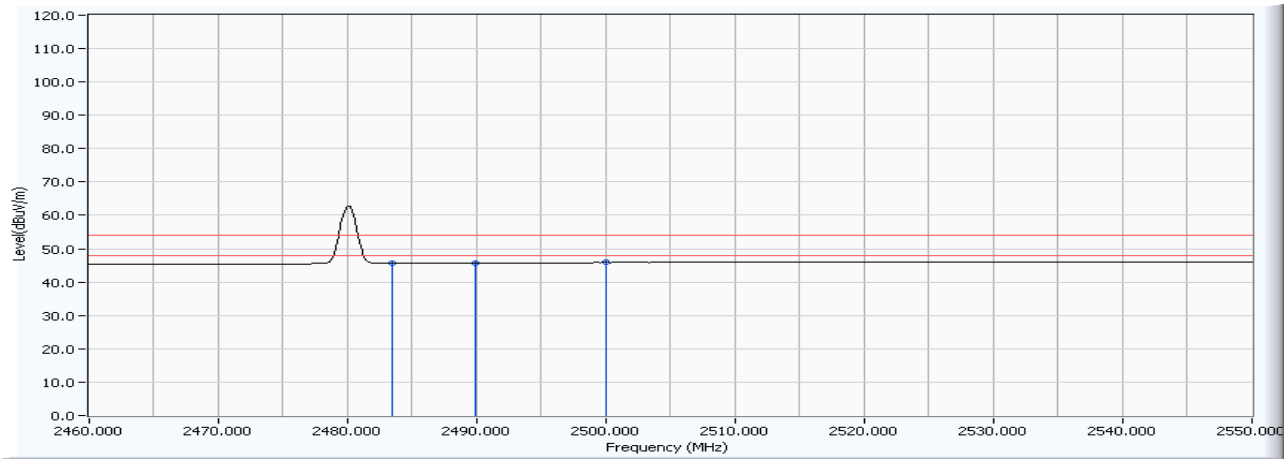


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2483.500	29.064	26.151	55.214	-18.786	74.000	PEAK
2	*	2486.513	29.072	28.746	57.818	-16.182	74.000	PEAK
3		2500.000	29.114	27.128	56.242	-17.758	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : Site 1	Time : 2008/02/17 - 12:11
Limit : FCC_15.209(961011)_03M_AV	Margin : 6
EUT : Shot Navi Pocket	Probe : CB3_FCC_1-18G(2007) - HORIZONTAL
Power : AC 120V/60Hz	Note : TX-2480

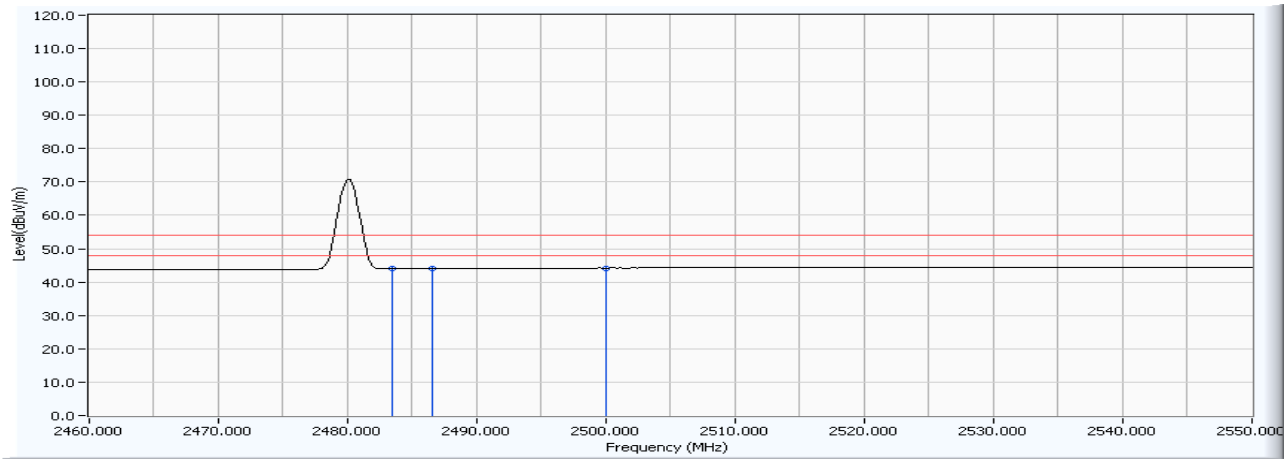


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2483.500	30.696	14.943	45.638	-8.362	54.000	AVERAGE
2		2489.940	30.702	15.052	45.755	-8.245	54.000	AVERAGE
3	*	2500.000	30.722	15.162	45.884	-8.116	54.000	AVERAGE

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. “ * ”, means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : Site 1	Time : 2008/02/17 - 12:18
Limit : FCC_15.209(961011)_03M_AV	Margin : 6
EUT : Shot Navi Pocket	Probe : CB3_FCC_1-18G(2007) - VERTICAL
Power : AC 120V/60Hz	Note : TX-2480



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2483.500	29.064	14.937	44.000	-10.000	54.000	AVERAGE
2		2486.513	29.072	14.985	44.057	-9.943	54.000	AVERAGE
3	*	2500.000	29.114	15.090	44.204	-9.796	54.000	AVERAGE

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

7. Number of hopping frequency

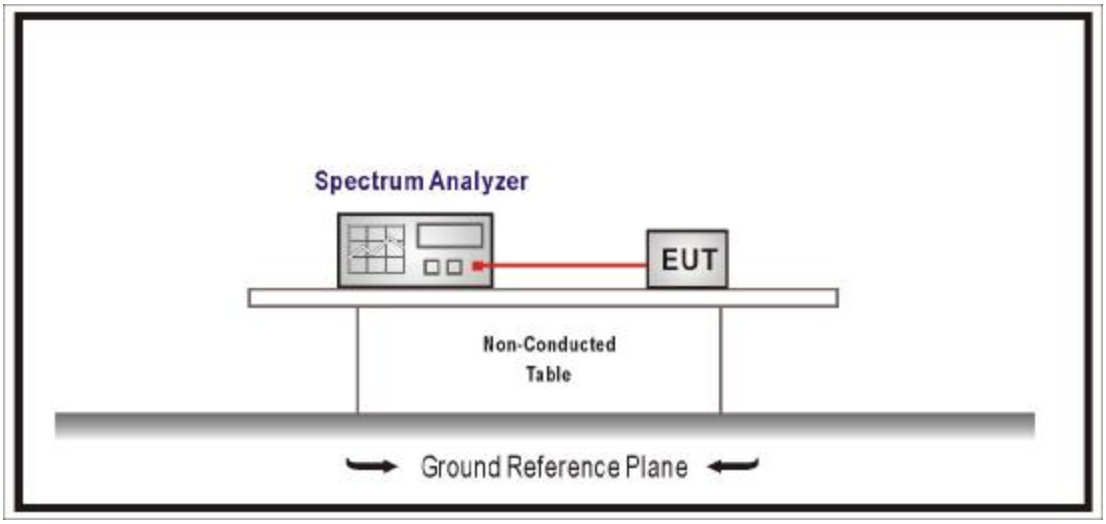
7.1. Test Equipment

The following test equipments are used during the test:

Item	Equipment	Manufacturer	Model No. / Serial No.	Last Cal.
1	Spectrum Analyzer	R & S	FSP / 100561	Mar., 2007
2	No.1 OATS			Sep., 2007

Note: 1. All equipments that need to calibrate are with calibration period of 1 year.

7.2. Test Setup



7.3. Limits

For frequency hopping systems operating in the 902-928 MHz band: if the 20 dB bandwidth of the hopping channel is less than 250 kHz, the system shall use at least 50 hopping frequencies and the average time of occupancy on any frequency shall not be greater than 0.4 seconds within a 20 second period; if the 20 dB bandwidth of the hopping channel is 250 kHz or greater, the system shall use at least 25 hopping frequencies and the average time of occupancy on any frequency shall not be greater than 0.4 seconds within a 10 second period. The maximum allowed 20 dB bandwidth of the hopping channel is 500 kHz.

For frequency hopping systems operating in the 2400-2483.5 MHz bands, which use fewer than 75 hopping frequencies, may employ intelligent hopping techniques to avoid interference to other transmissions. Frequency hopping systems may avoid or suppress transmissions on a particular hopping frequency provided that a minimum of 15 non-overlapping channels are used.

For frequency hopping systems operating in the 5725-5850 MHz band shall use at least 75 hopping frequencies.

7.4. Test Procedures

The EUT was setup according to ANSI C63.4, 2003 and tested according to FHSS test procedure of FCC Public Notice DA 00-705 for compliance to FCC 47CFR 15.247 requirements

Span = the frequency band of operation

RBW ≥ 1% of the span , VBW ≥ RBW

Sweep = auto, Detector function = peak, Trace = max hold

7.5. Test Specification

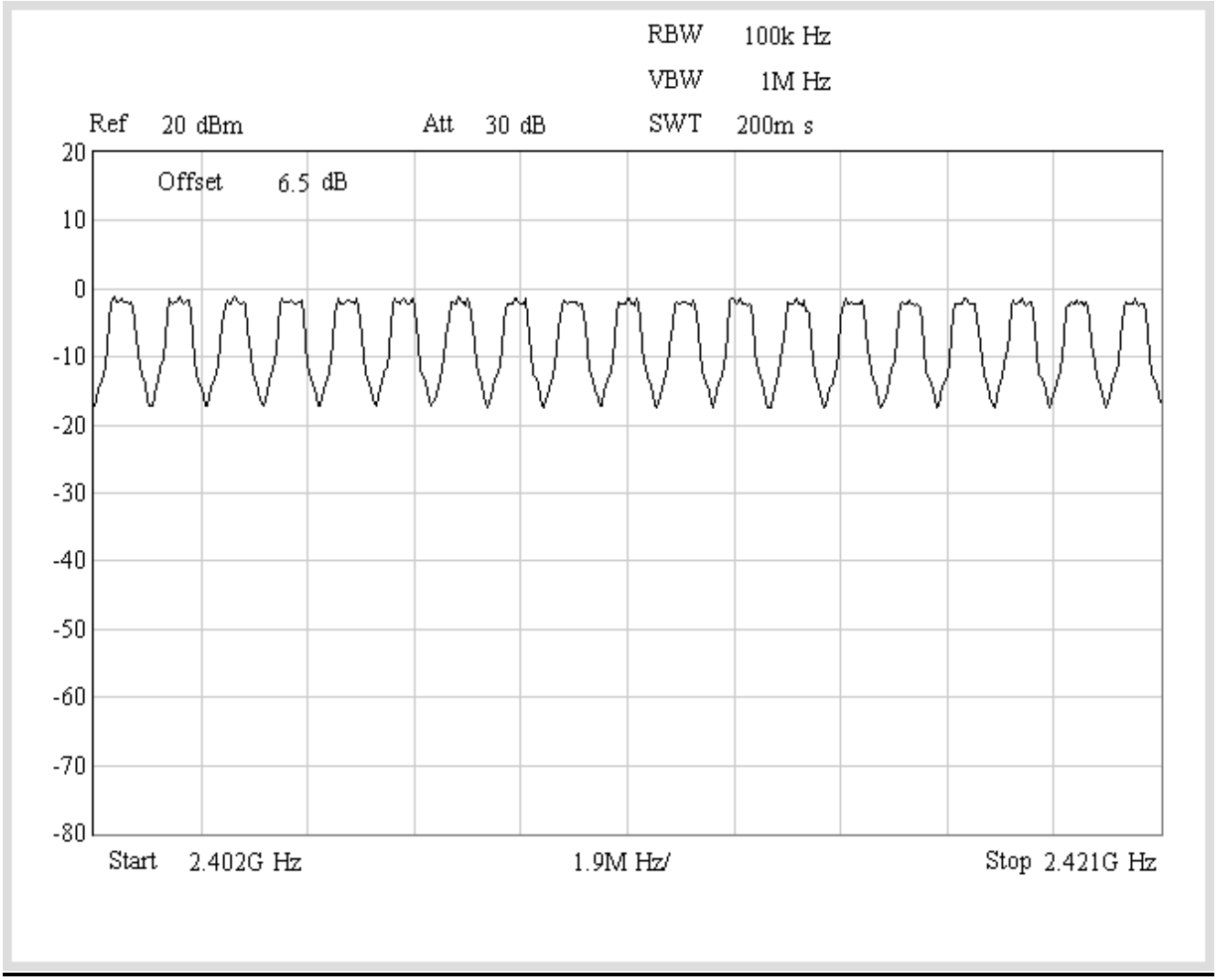
According to FCC Part 15 Subpart C Paragraph 15.247: 2006

7.6. Test Result

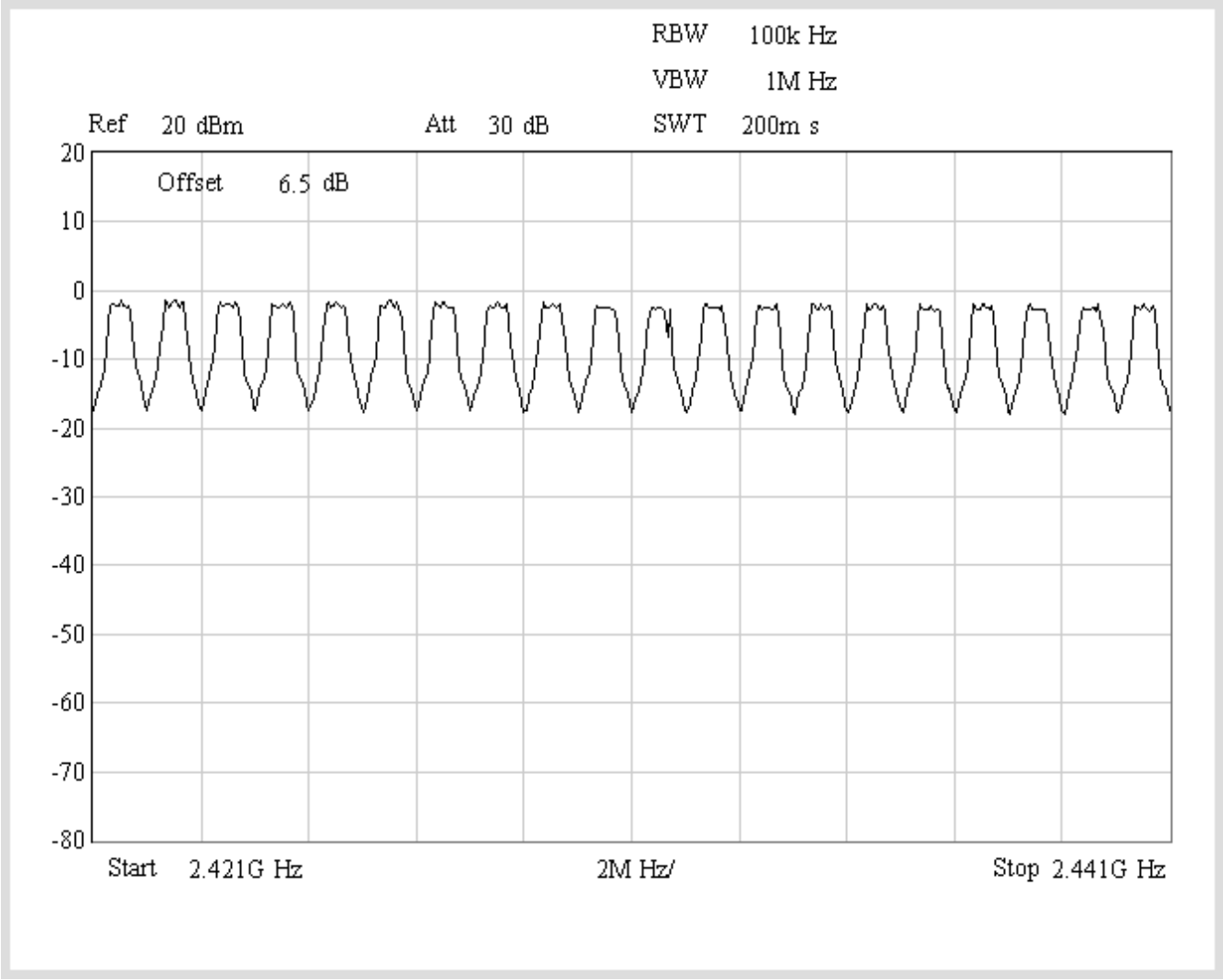
Product	Shot Navi Pocket		
Test Item	Number of hopping frequency		
Test Mode	Mode 1: Transmit		
Date of Test	2008/02/05	Test Site	No.1 OATS

Frequency Range (MHz)	Measure Level (Hopping Channel)	Limit (Hopping Channel)	Result
2402 ~ 2480	79	>75	Pass

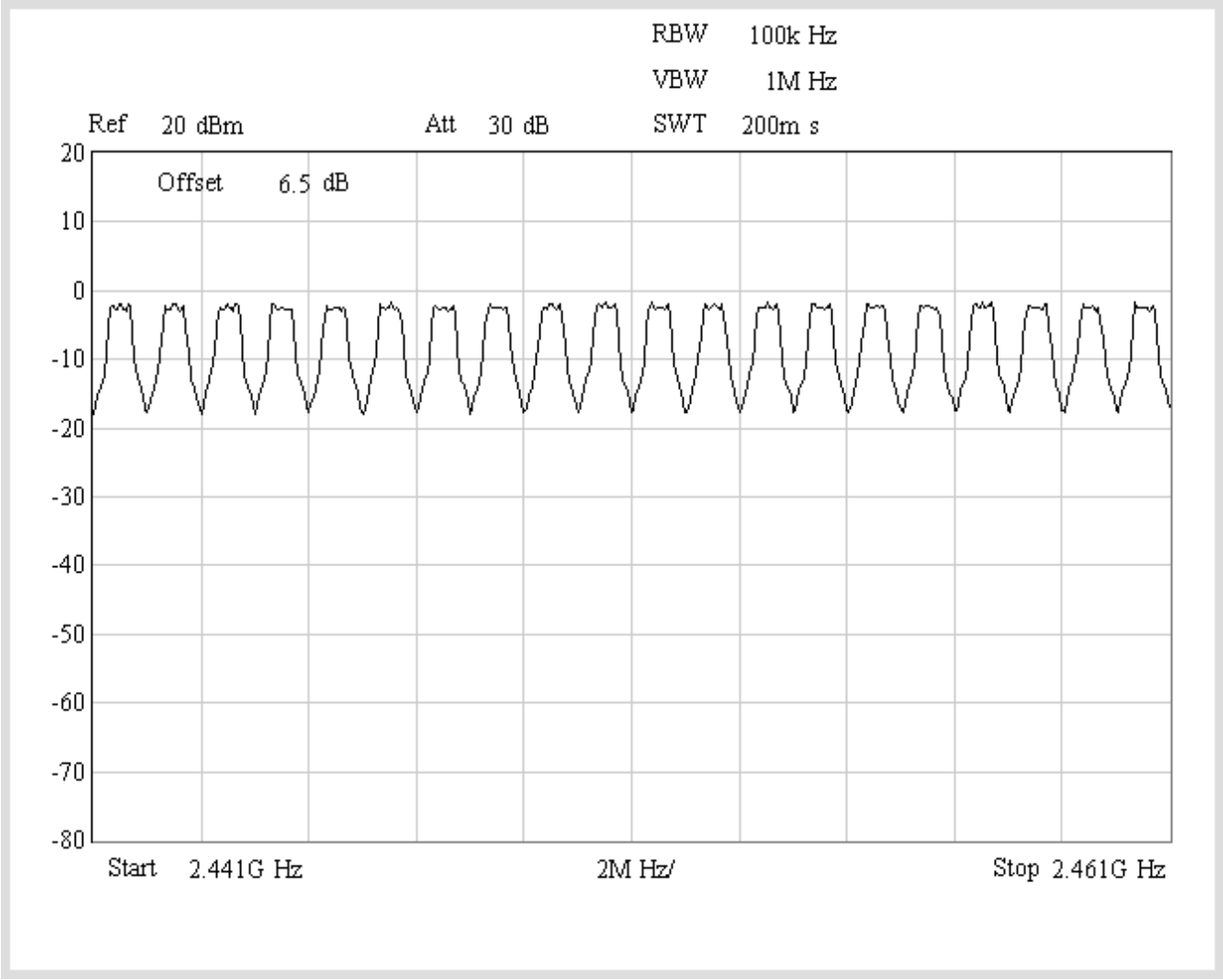
2402-2420MHz



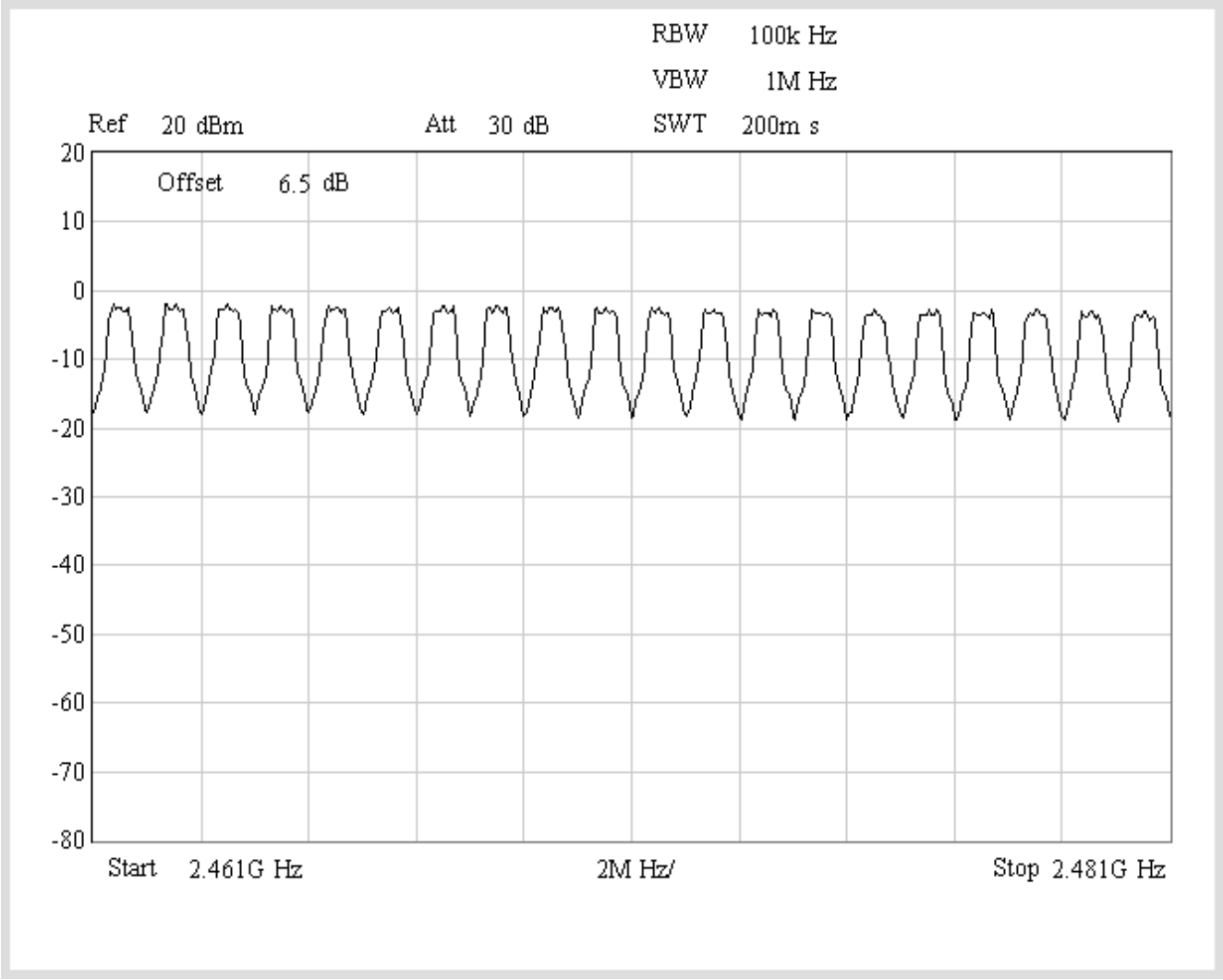
2421-2440MHz



2441-2460MHz



2461-2480MHz



8. Carrier Frequency Separation

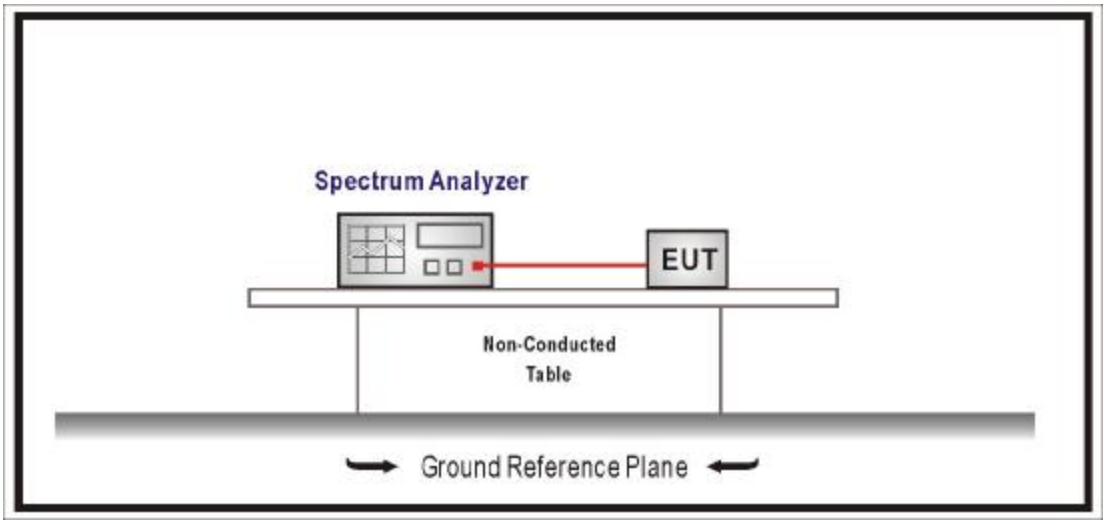
8.1. Test Equipment

The following test equipment are used during the test:

Item	Equipment	Manufacturer	Model No. / Serial No.	Last Cal.
1	Spectrum Analyzer	R & S	FSP / 100561	Mar., 2007
2	No.1 OATS			Sep., 2007

Note: 1. All equipments that need to calibrate are with calibration period of 1 year.

8.2. Test Setup



8.3. Limits

For frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the hopping channel, whichever is greater.

8.4. Test Procedures

The EUT was setup according to ANSI C63.4, 2003 and tested according to FHSS test procedure of FCC Public Notice DA 00-705 for compliance to FCC 47CFR 15.247 requirements

Span = wide enough to capture the peaks of two adjacent channels

Resolution Bandwidth (RBW) ≥ 1% of the span, VBW ≥ RBW

Sweep = auto, Detector function = peak, Trace = max hold

8.5. Test Specification

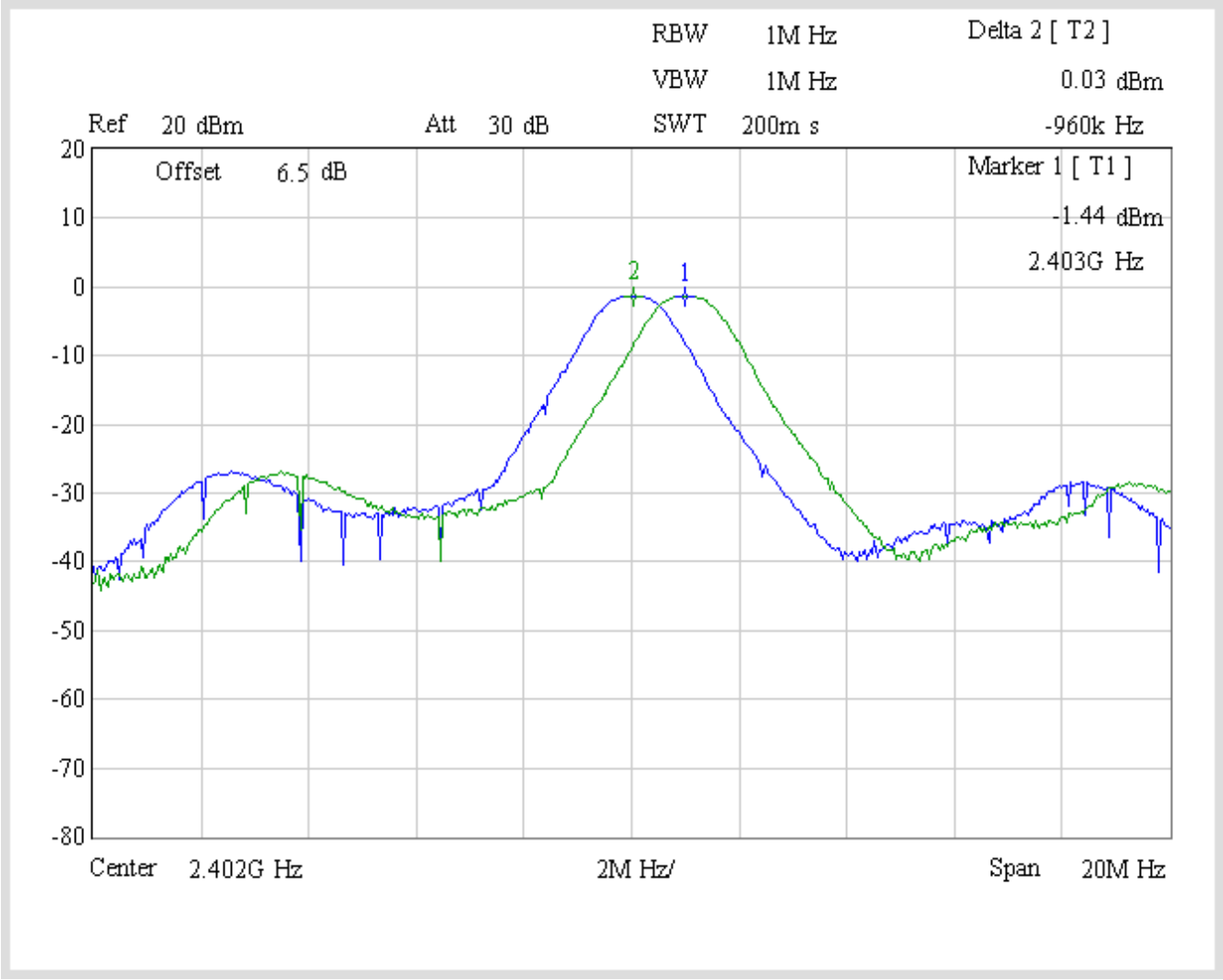
According to FCC Part 15 Subpart C Paragraph 15.247: 2006

8.6. Test Result

Product	Shot Navi Pocket		
Test Item	Carrier Frequency Separation		
Test Mode	Mode 1: Transmit		
Date of Test	2008/02/05	Test Site	No.1 OATS

Channel No.	Frequency (MHz)	Measure Level (kHz)	Limit (kHz)	Result
00	2402.00	960	>746	Pass

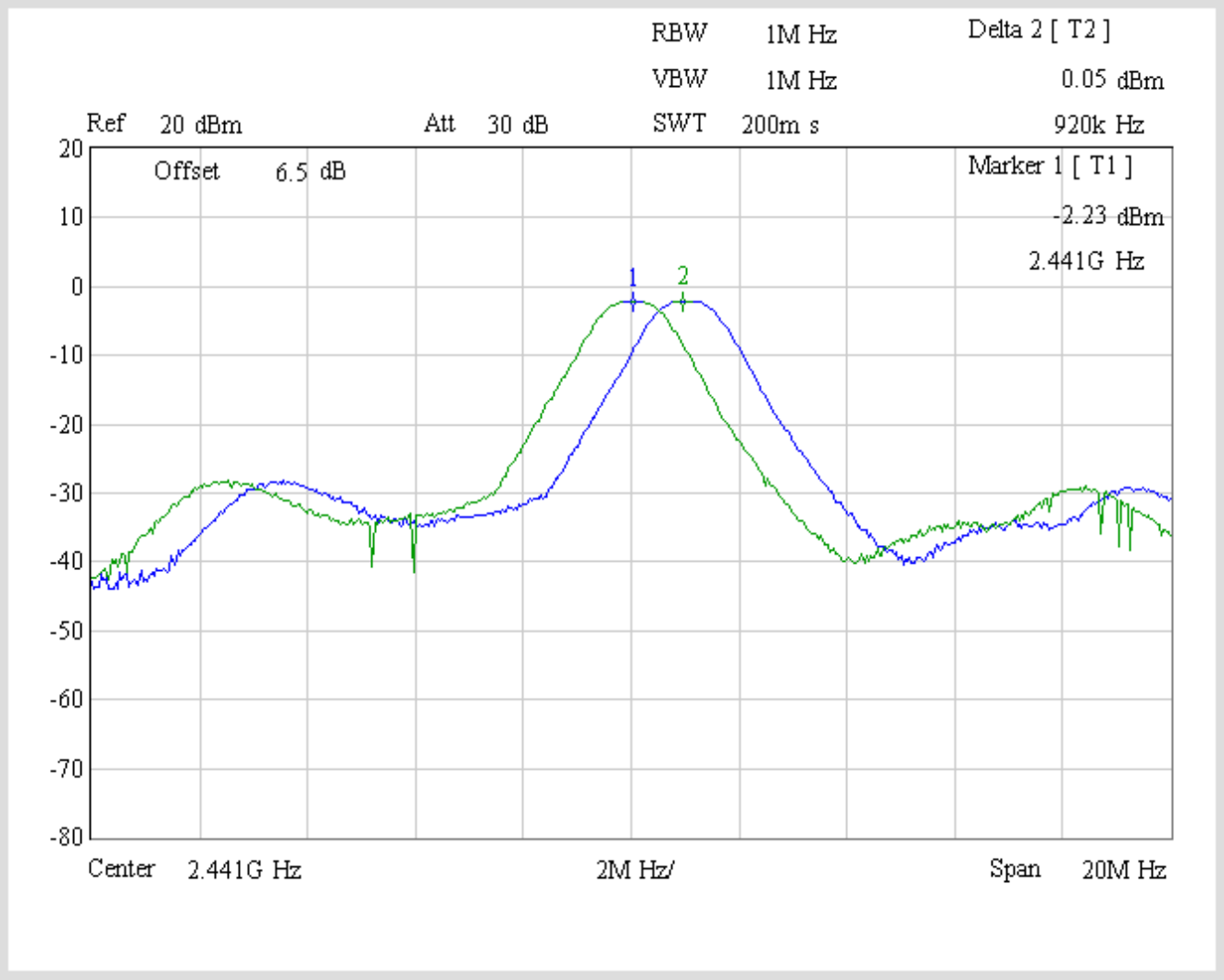
Channel 00



Product	Shot Navi Pocket		
Test Item	Carrier Frequency Separation		
Test Mode	Mode 1: Transmit		
Date of Test	2008/02/05	Test Site	No.1 OATS

Channel No.	Frequency (MHz)	Measure Level (kHz)	Limit (kHz)	Result
39	2441.00	920	>766	Pass

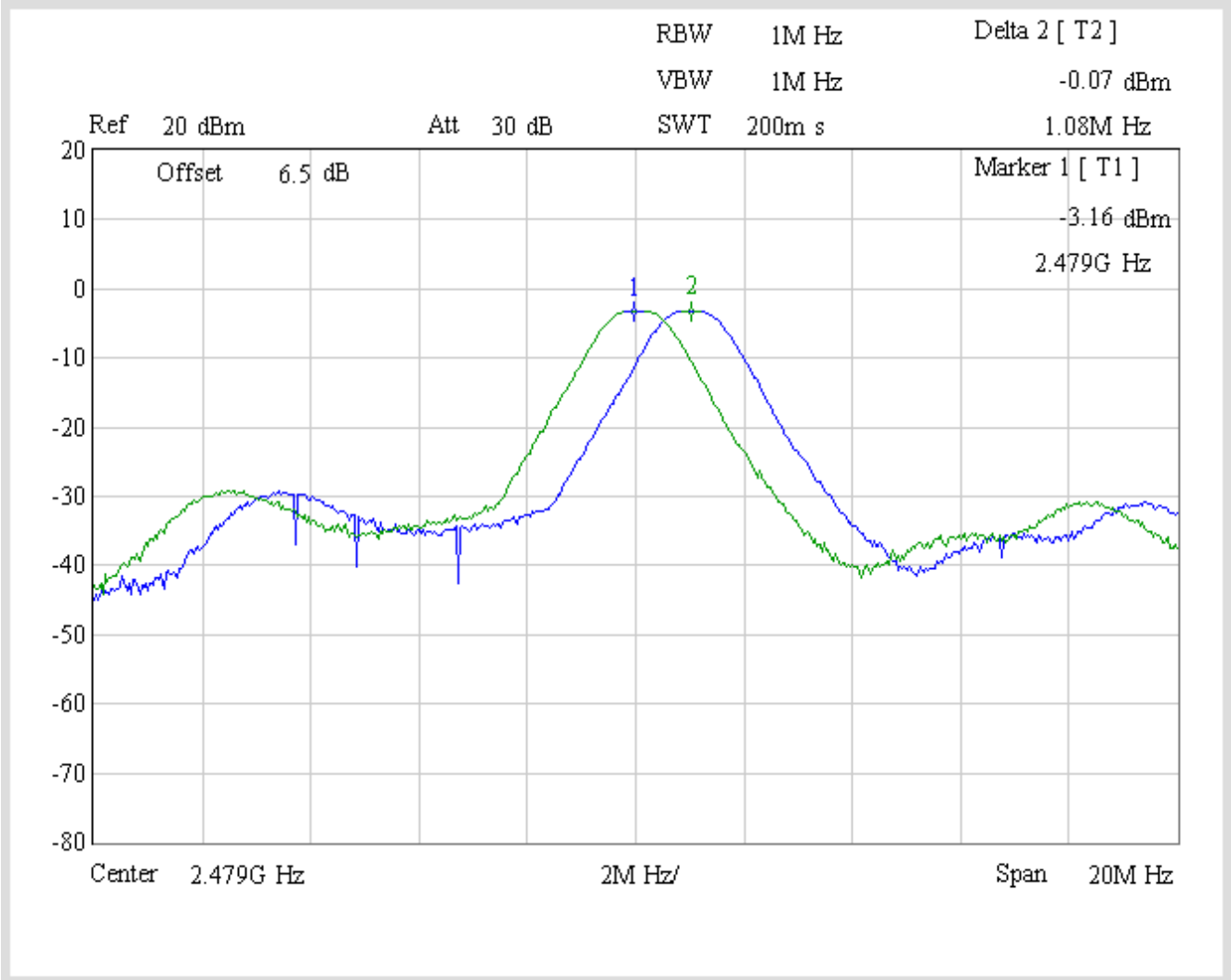
Channel 39



Product	Shot Navi Pocket		
Test Item	Carrier Frequency Separation		
Test Mode	Mode 1: Transmit		
Date of Test	2008/02/05	Test Site	No.1 OATS

Channel No.	Frequency (MHz)	Measure Level (kHz)	Limit (kHz)	Result
78	2480.00	1080	>760	Pass

Channel 78



9. Occupied Bandwidth

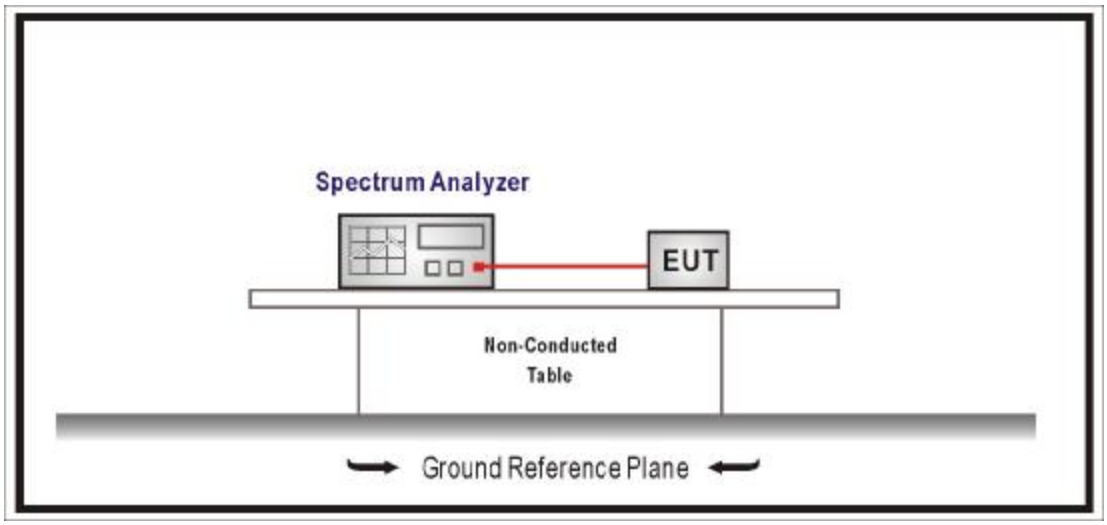
9.1. Test Equipment

The following test equipment are used during the test:

Item	Equipment	Manufacturer	Model No. / Serial No.	Last Cal.
1	Spectrum Analyzer	R & S	FSP / 100561	Mar., 2007
2	No.1 OATS			Sep., 2007

Note: 1. All equipments that need to calibrate are with calibration period of 1 year.

9.2. Test Setup



9.3. Limits

For frequency hopping systems operating in the 902-928 MHz band: if the 20 dB bandwidth of the hopping channel is less than 250 kHz, the system shall use at least 50 hopping frequencies and the average time of occupancy on any frequency shall not be greater than 0.4 seconds within a 20 second period; if the 20 dB bandwidth of the hopping channel is 250 kHz or greater, the system shall use at least 25 hopping frequencies and the average time of occupancy on any frequency shall not be greater than 0.4 seconds within a 10 second period. The maximum allowed 20 dB bandwidth of the hopping channel is 500 kHz.
For frequency hopping systems operating in the 5725-5850 MHz bands. The maximum 20 dB bandwidth of the hopping channel is 1 MHz.
For frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the hopping channel, whichever is greater.

9.4. Test Procedures

The EUT was setup according to ANSI C63.4, 2003 and tested according to FHSS test procedure of FCC Public Notice DA 00-705 for compliance to FCC 47CFR 15.247 requirements

Use the following spectrum analyzer settings:
Span = approximately 2 to 3 times the 20 dB bandwidth, centered on a hopping channel
RBW ≥ 1% of the 20 dB bandwidth, VBW ≥ RBW
Sweep = auto, Detector function = peak, Trace = max hold
The EUT should be transmitting at its maximum data rate.

9.5. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.247: 2006

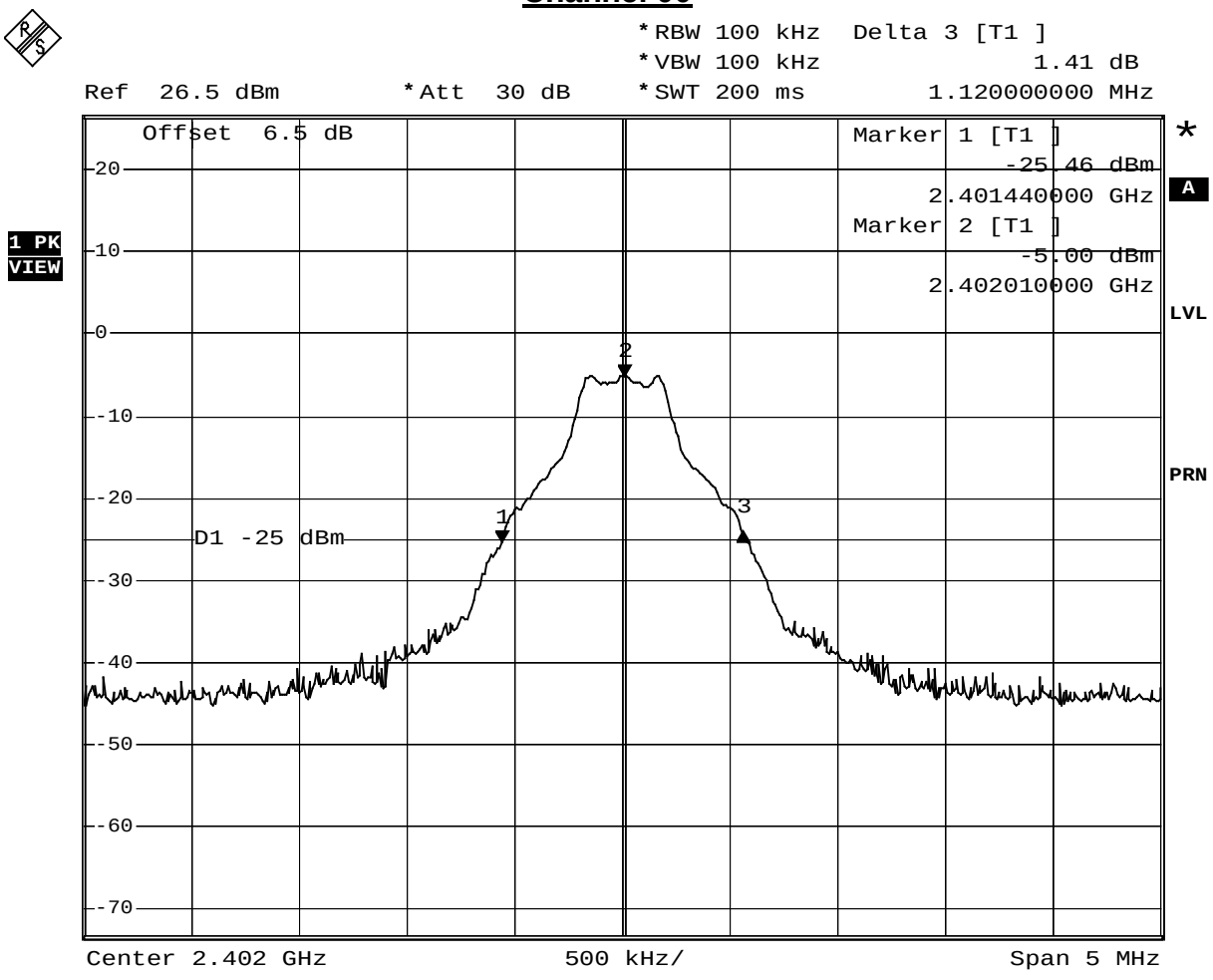
9.6. Test Result

Product	Shot Navi Pocket		
Test Item	Occupied Bandwidth		
Test Mode	Mode 1: Transmit		
Date of Test	2008/02/18	Test Site	No.1 OATS

1M-GFSK Modulation, PRBS Packet Type

Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
00	2402.00	1.12	--	Pass

Channel 00

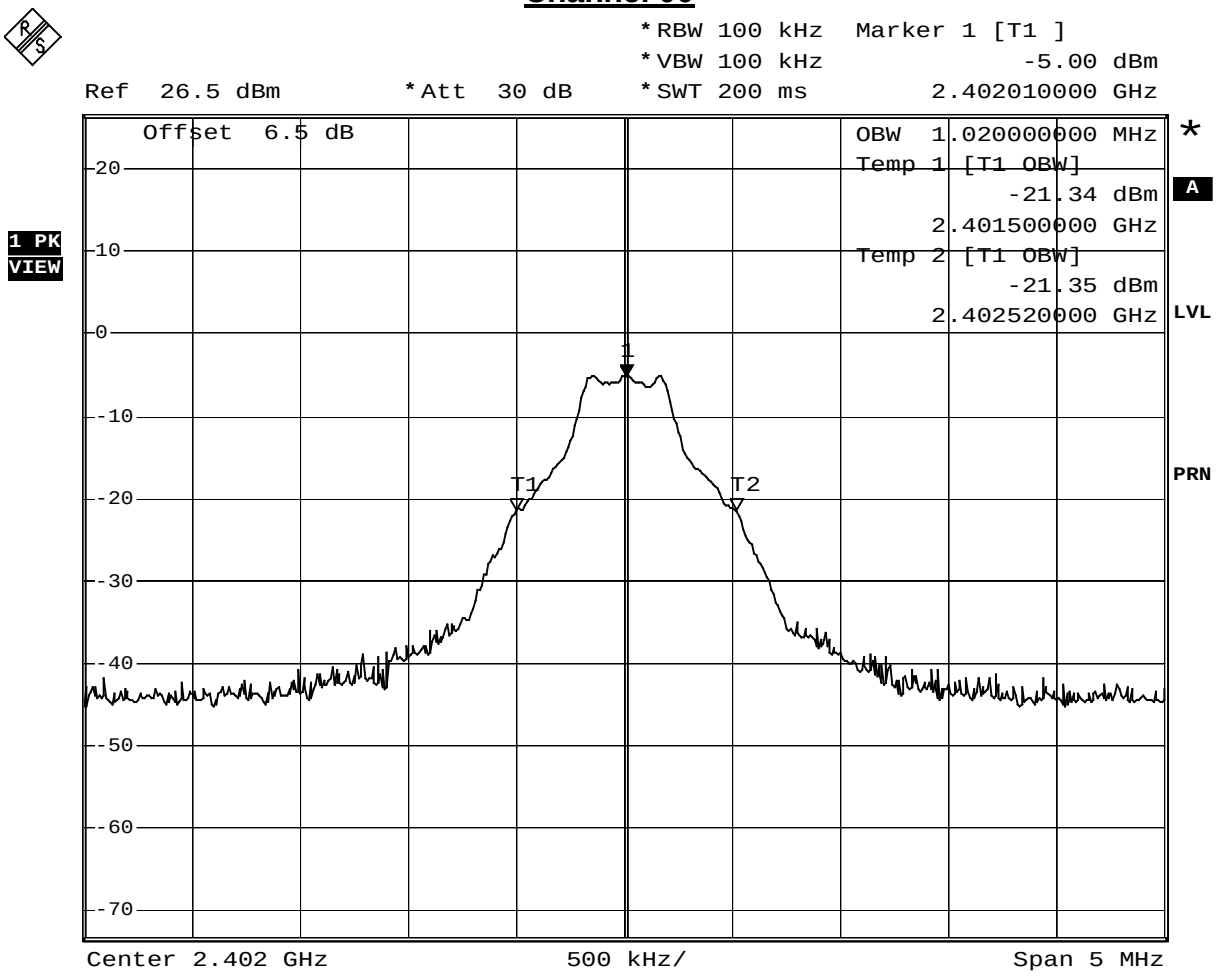


Product	Shot Navi Pocket		
Test Item	Occupied Bandwidth		
Test Mode	Mode 1: Transmit		
Date of Test	2008/02/18	Test Site	No.1 OATS

1M-GFSK Modulation, PRBS Packet Type (99%)

Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
00	2402.00	1.02	--	Pass

Channel 00

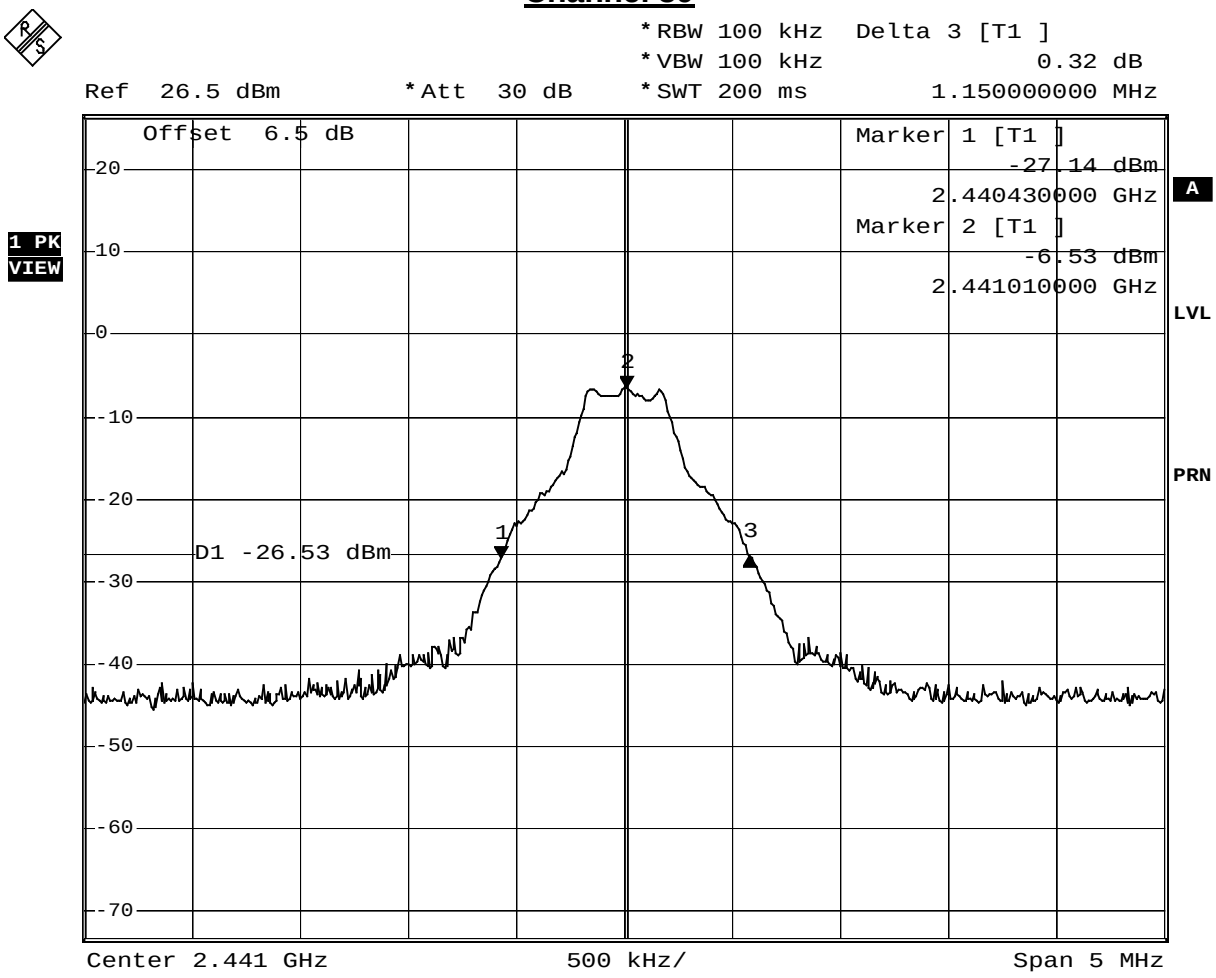


Product	Shot Navi Pocket		
Test Item	Occupied Bandwidth		
Test Mode	Mode 1: Transmit		
Date of Test	2008/02/18	Test Site	No.1 OATS

1M-GFSK Modulation, PRBS Packet Type

Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
39	2441.00	1.15	--	Pass

Channel 39

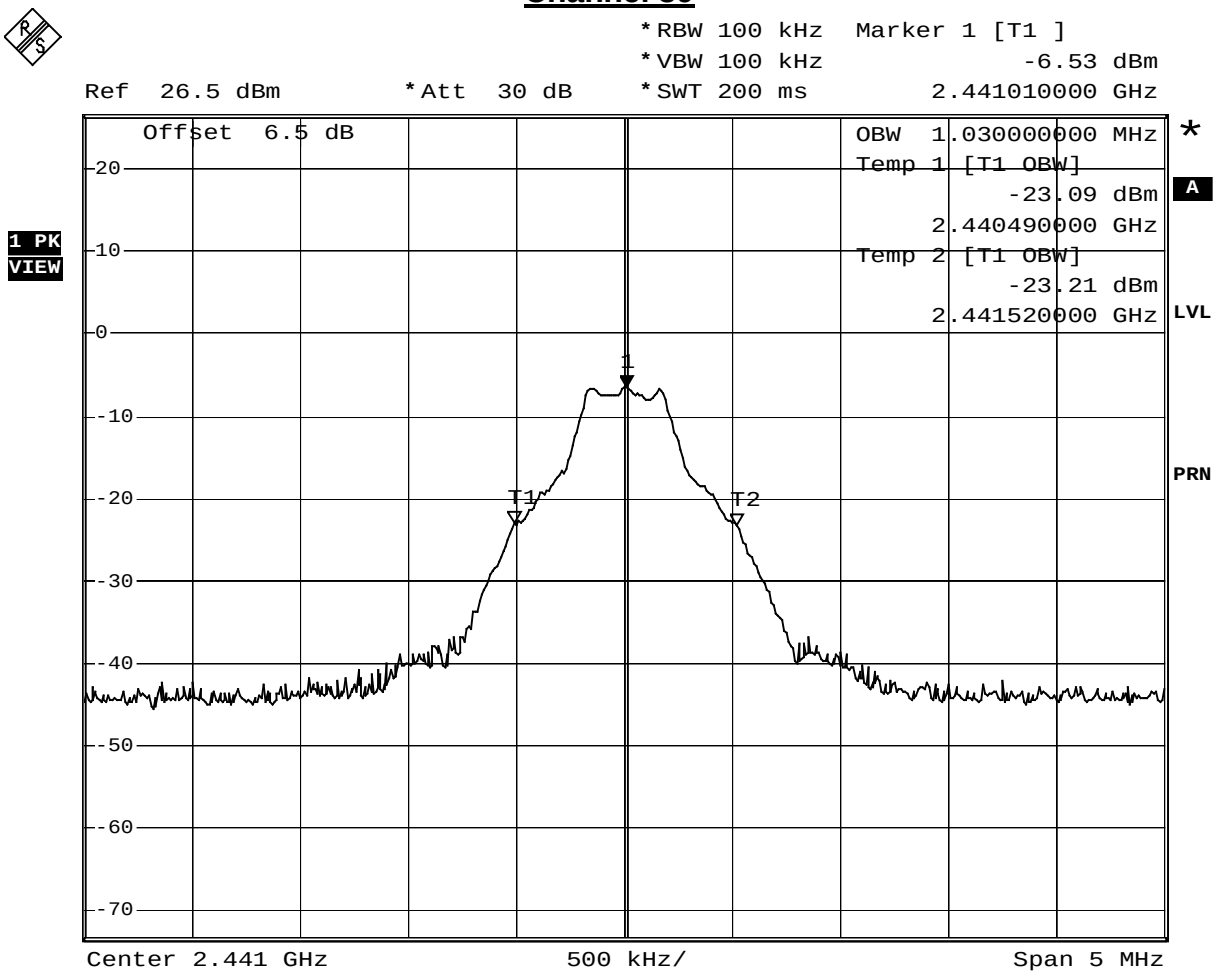


Product	Shot Navi Pocket		
Test Item	Occupied Bandwidth		
Test Mode	Mode 1: Transmit		
Date of Test	2008/02/18	Test Site	No.1 OATS

1M-GFSK Modulation, PRBS Packet Type (99%)

Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
39	2441.00	1.03	--	Pass

Channel 39

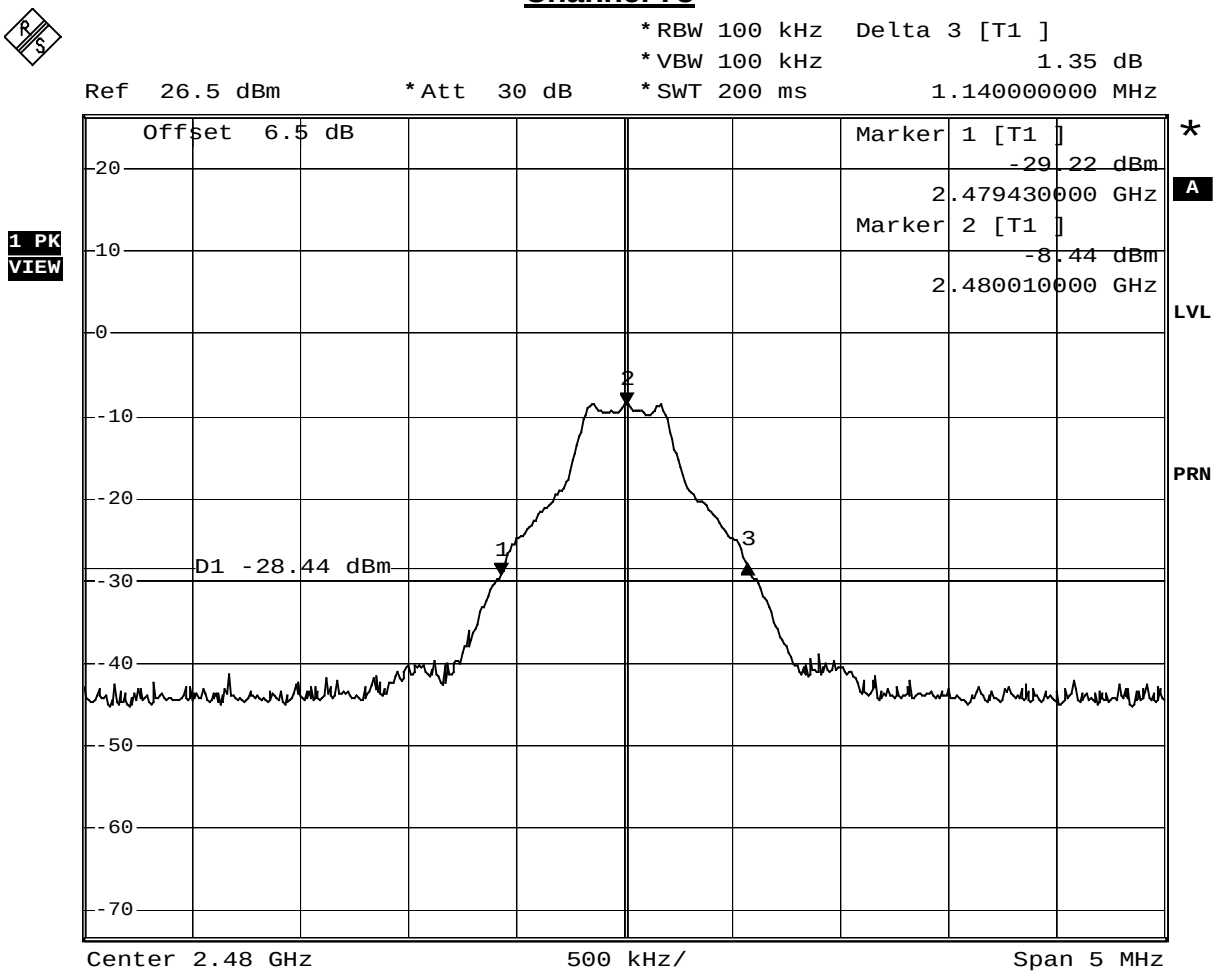


Product	Shot Navi Pocket		
Test Item	Occupied Bandwidth		
Test Mode	Mode 1: Transmit		
Date of Test	2008/02/18	Test Site	No.1 OATS

1M-GFSK Modulation, PRBS Packet Type

Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
78	2480.00	1.14	--	Pass

Channel 78

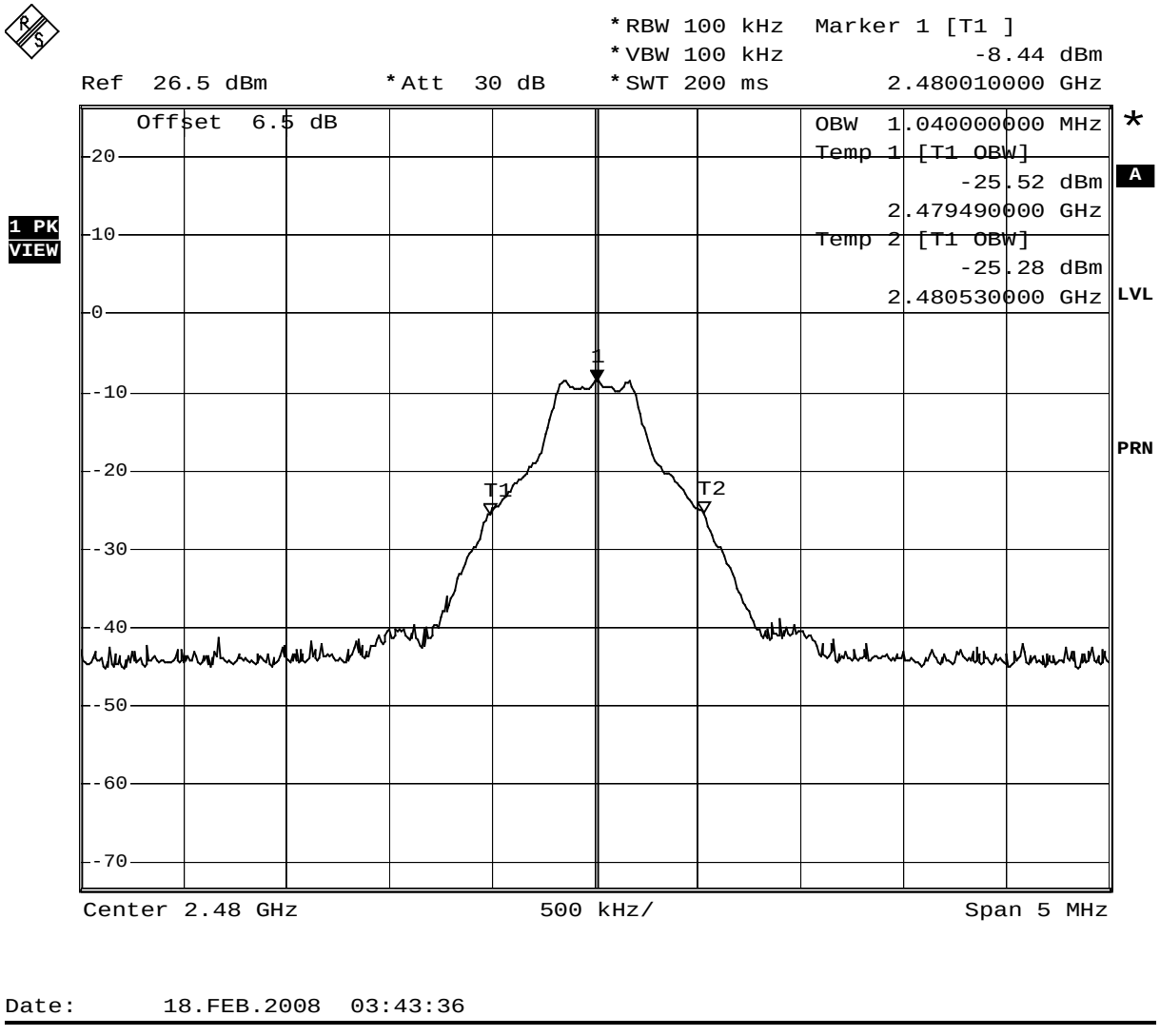


Product	Shot Navi Pocket		
Test Item	Occupied Bandwidth		
Test Mode	Mode 1: Transmit		
Date of Test	2008/02/18	Test Site	No.1 OATS

1M-GFSK Modulation, PRBS Packet Type (99%)

Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
78	2480.00	1.04	--	Pass

Channel 78



10. Dwell Time

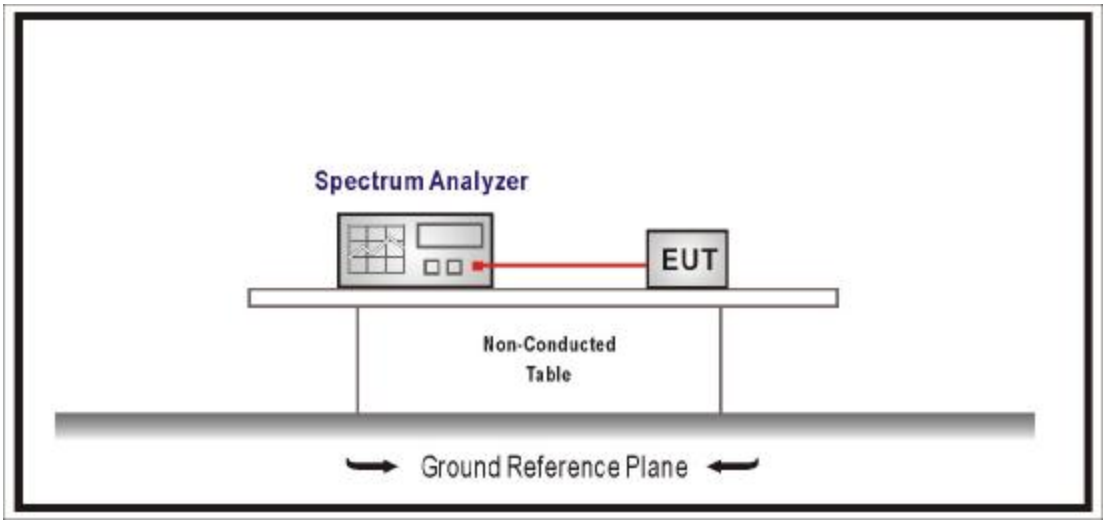
10.1. Test Equipment

The following test equipment are used during the test:

Item	Equipment	Manufacturer	Model No. / Serial No.	Last Cal.
1	Spectrum Analyzer	R & S	FSP / 100561	Mar., 2007
2	No.1 OATS			Sep., 2007

Note: 1. All equipments that need to calibrate are with calibration period of 1 year.

10.2. Test Setup



10.3. Limits

For frequency hopping systems operating in the 902-928 MHz band: if the 20 dB bandwidth of the hopping channel is less than 250 kHz, the system shall use at least 50 hopping frequencies and the average time of occupancy on any frequency shall not be greater than 0.4 seconds within a 20 second period; if the 20 dB bandwidth of the hopping channel is 250 kHz or greater, the system shall use at least 25 hopping frequencies and the average time of occupancy on any frequency shall not be greater than 0.4 seconds within a 10 second period.
For frequency hopping systems operating in the 2400-2483.5 MHz bands. The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds multiplied by the number of hopping channels employed.
For frequency hopping systems operating in the 5725-5850 MHz bands. The average time of occupancy on any frequency shall not be greater than 0.4 seconds within a 30 second period.

10.4. Test Procedures

The EUT was setup according to ANSI C63.4, 2003 and tested according to FHSS test procedure of FCC Public Notice DA 00-705 for compliance to FCC 47CFR 15.247 requirements

Span = zero span, centered on a hopping channel
RBW = 1 MHz, VBW ≥ RBW
Sweep = as necessary to capture the entire dwell time per hopping channel
Detector function = peak, Trace = max hold

10.5. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.247: 2006

10.6. Test Result

Product	Shot Navi Pocket		
Test Item	Dwell Time		
Test Mode	Mode 1: Transmit		
Date of Test	2008/02/05	Test Site	No.1 OATS

Occupancy Time of Frequency Hopping System-DH 1

A) 2402MHz Test Time Period: 0.4*79=31.6sec，Hopping Times Within 1sec: 16/20msec=800 /sec

The Maximum Occupancy Time Within 31.6sec: 0.000444*(800/79)*31.6=0.14208sec。

B) 2441MHz Test Time Period: 0.4*79=31.6sec，Hopping Times Within 1sec: 16/20msec=800 /sec

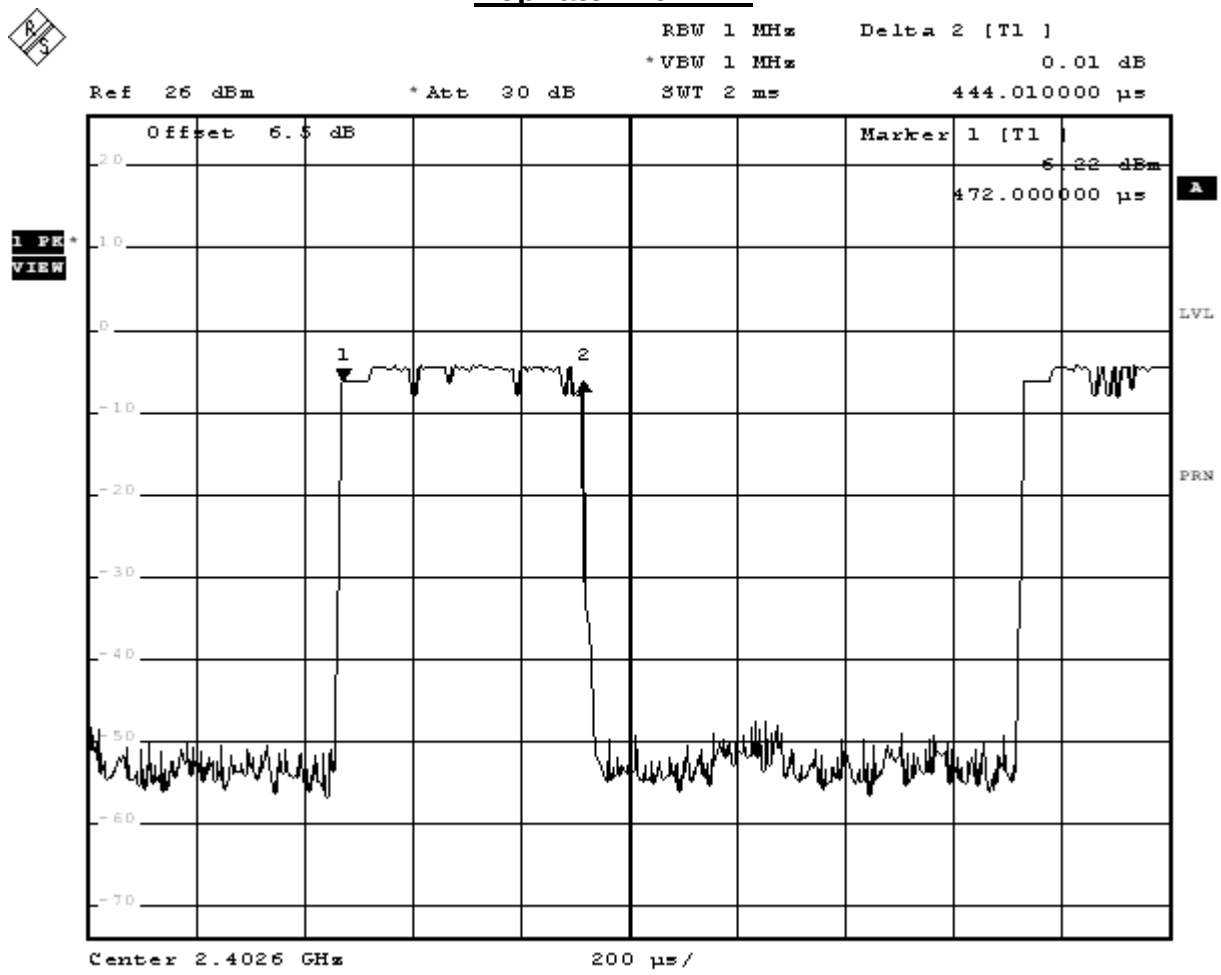
The Maximum Occupancy Time Within 31.6sec: 0.000448*(800/79)*31.6=0.14336sec。

C) 2480MHz Test Time Period: 0.4*79=31.6sec，Hopping Times Within 1sec: 16/20msec=800 /sec

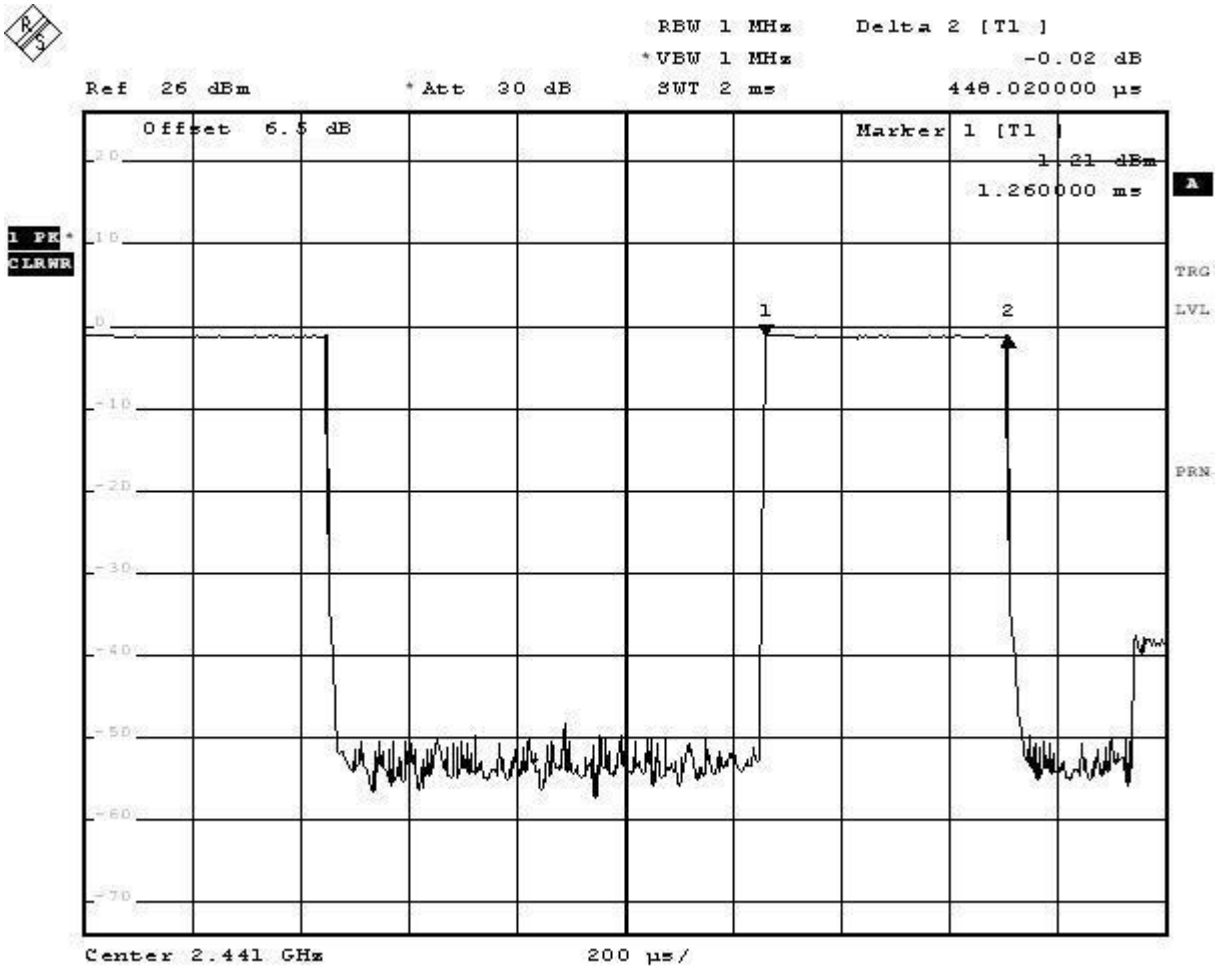
The Maximum Occupancy Time Within 31.6sec: 0.000448*(800/79)*31.6=0.14336sec。

Test Result: The Average Occupancy Time of Each Highest，Middle and Lowest Channel Is Less Than 0.4sec，And Corresponds to The Standard。

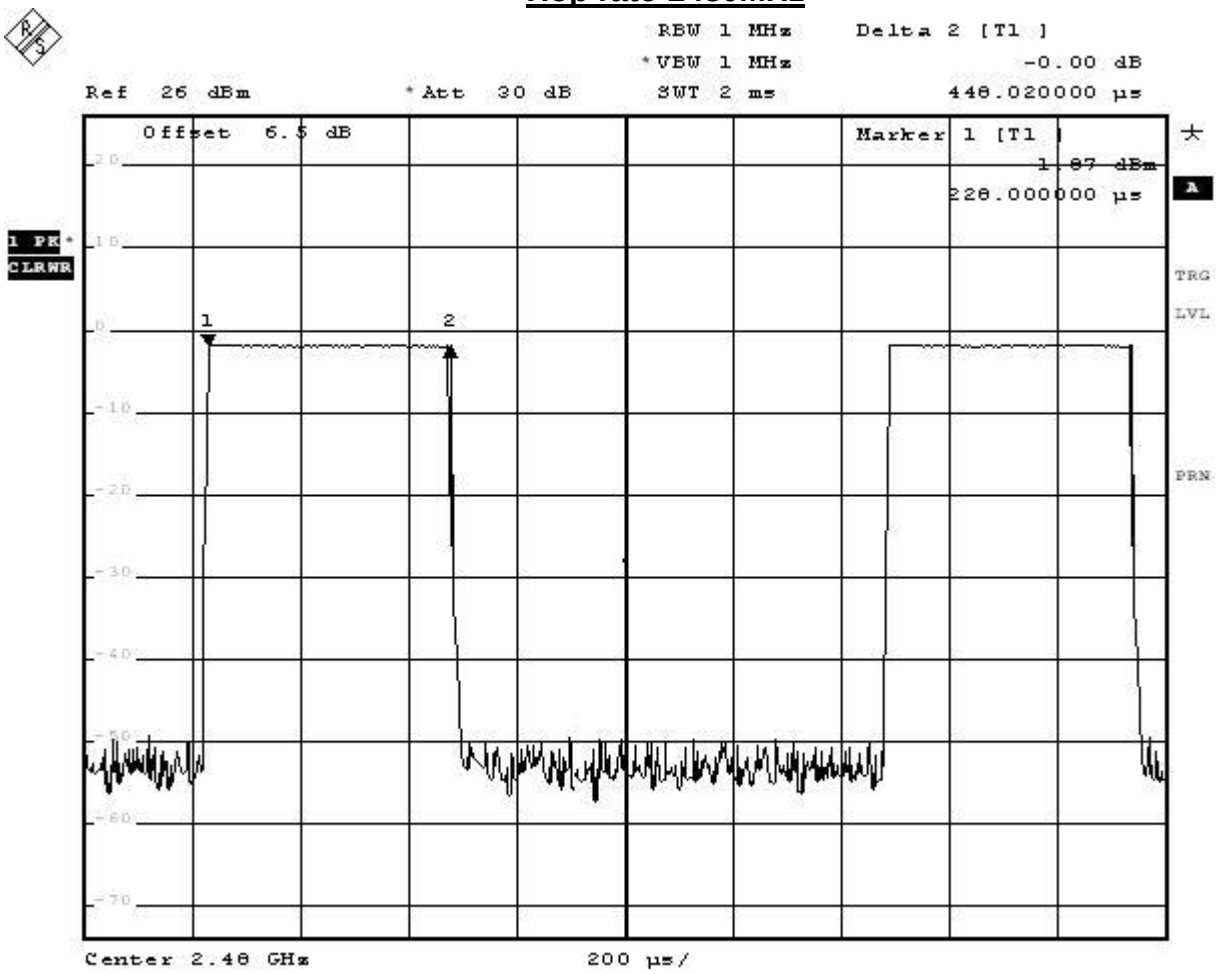
Hop rate-2402MHz



Hop rate-2441MHz

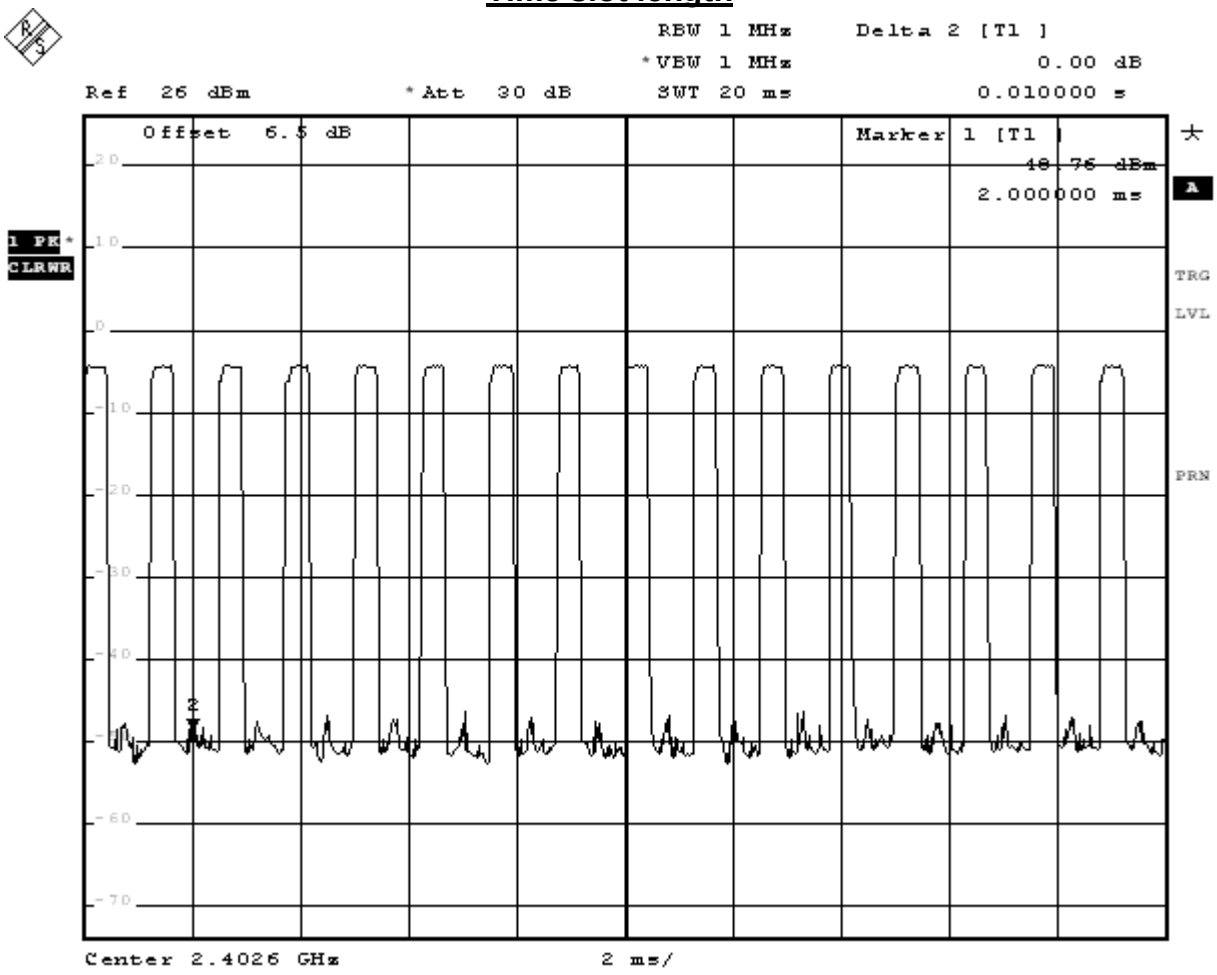


Hop rate-2480MHz



Note: Dwell time＝time slot length * hop rate / number of hopping channels * period

Time slot length



Product	Shot Navi Pocket		
Test Item	Dwell Time		
Test Mode	Mode 1: Transmit		
Date of Test	2008/02/05	Test Site	No.1 OATS

Occupancy Time of Frequency Hopping System-DH 3

A) 2402MHz Test Time Period: 0.4*79=31.6sec，Hopping Times Within 1sec: 8/20msec=400 /sec

The Maximum Occupancy Time Within 31.6sec: 0.00173*(400/79)*31.6=0.2768sec。

B) 2441MHz Test Time Period: 0.4*79=31.6sec，Hopping Times Within 1sec: 8/20msec=400 /sec

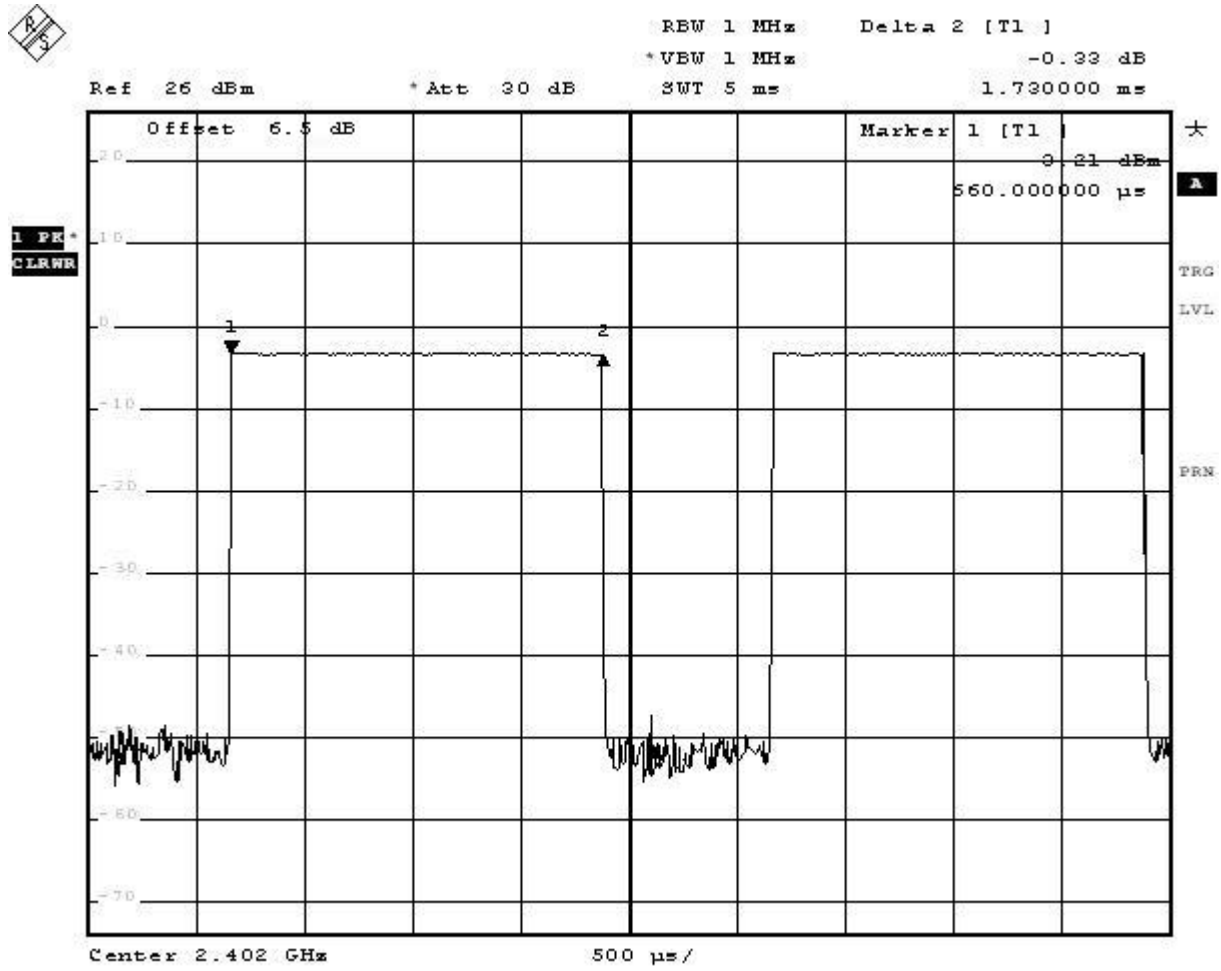
The Maximum Occupancy Time Within 31.6sec: 0.00172*(400/79)*31.6=0.2752sec。

C) 2480MHz Test Time Period: 0.4*79=31.6sec，Hopping Times Within 1sec: 8/20msec=400 /sec

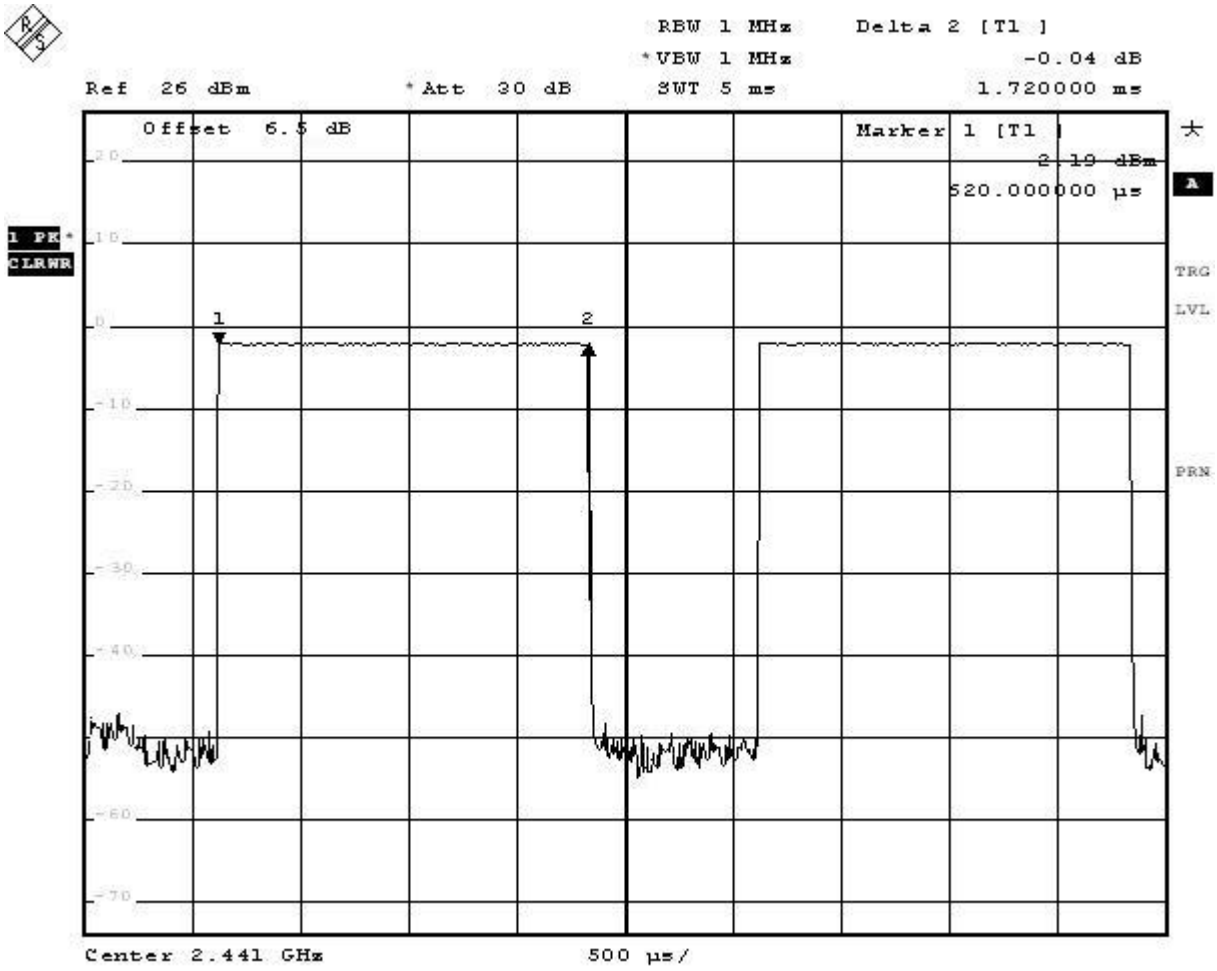
The Maximum Occupancy Time Within 31.6sec: 0.00174*(400/79)*31.6=0.2784sec。

Test Result: The Average Occupancy Time of Each Highest，Middle and Lowest Channel Is Less Than 0.4sec，And Corresponds to The Standard。

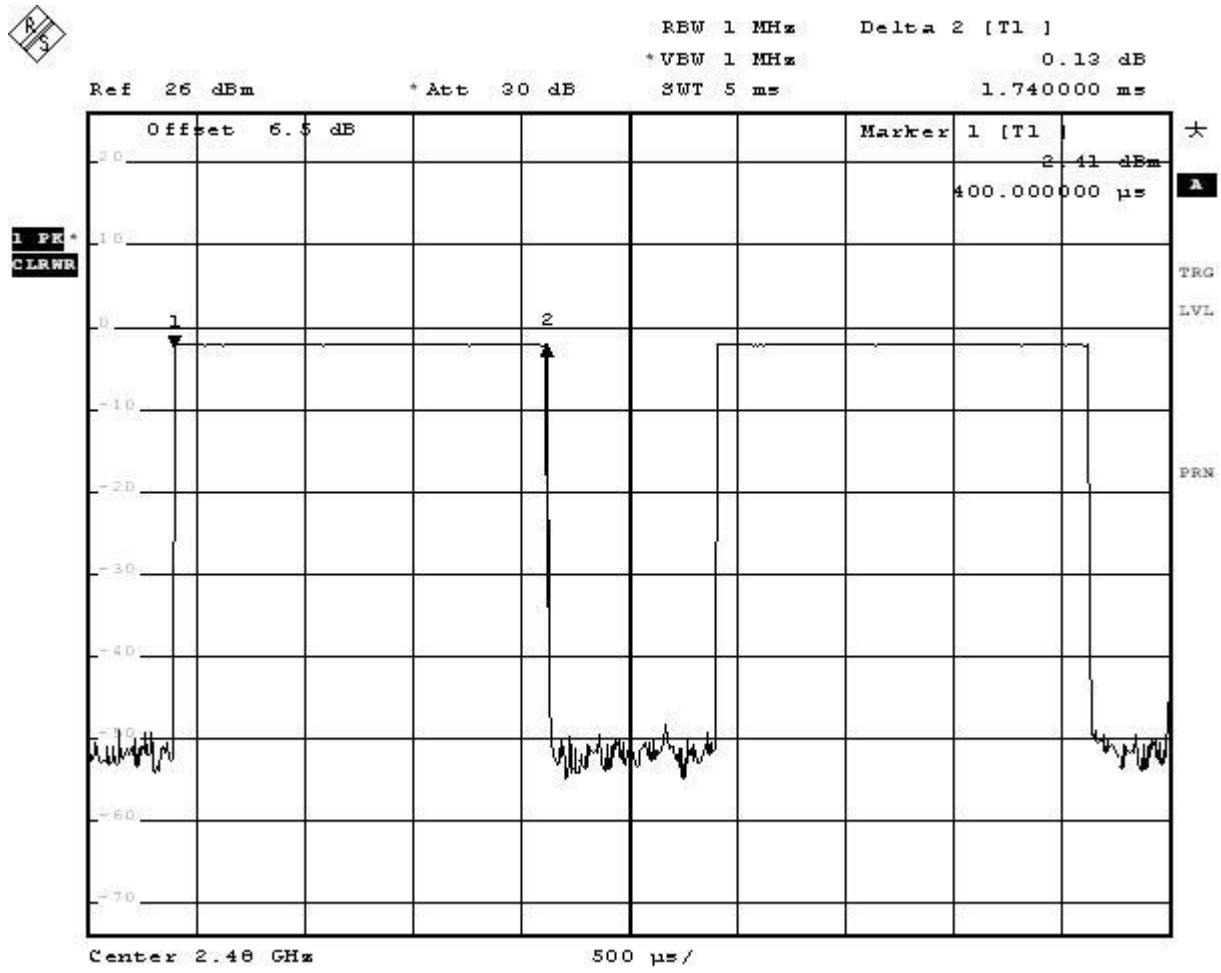
Hop rate-2402MHz



Hop rate-2441MHz

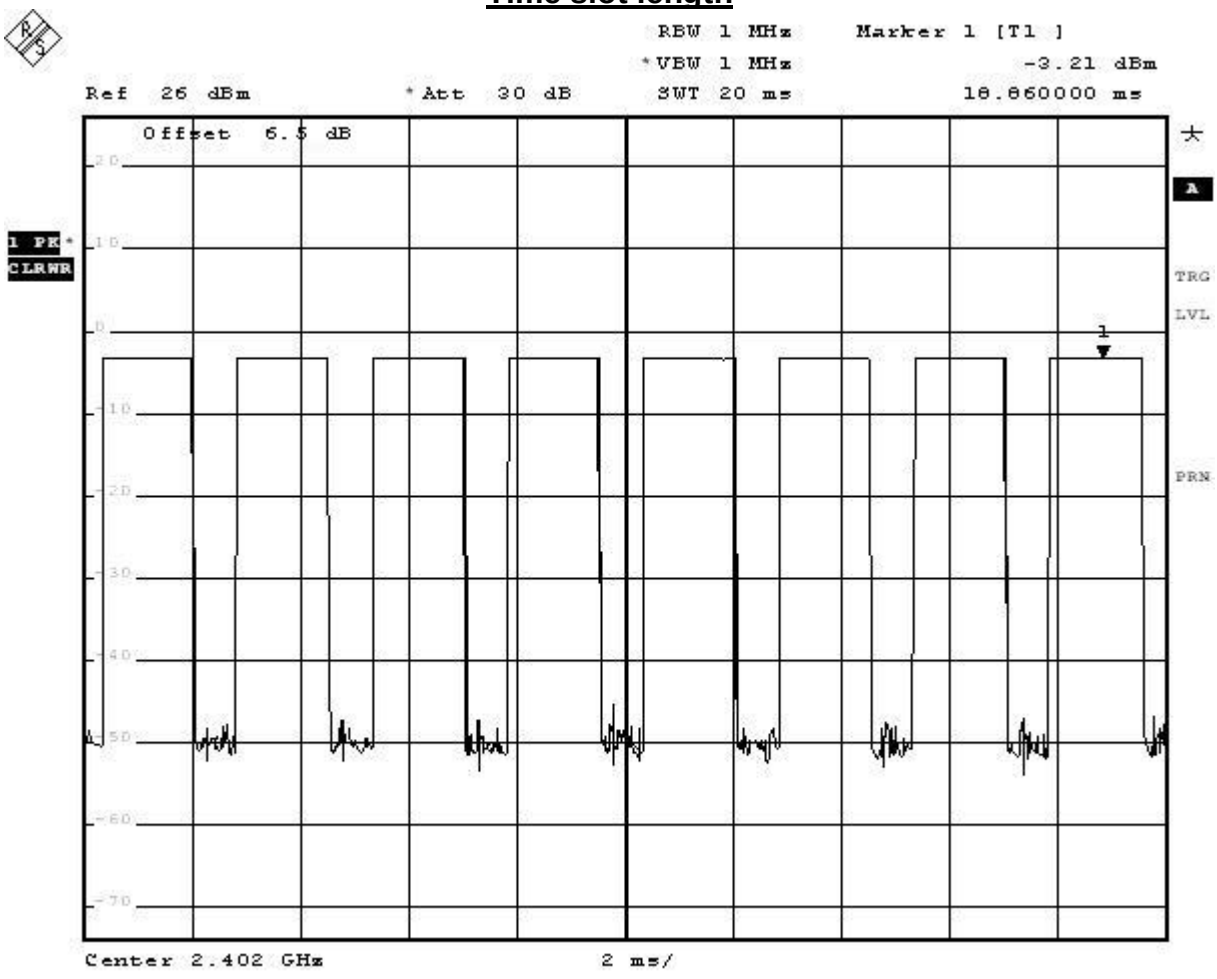


Hop rate-2480MHz



Note: Dwell time＝time slot length * hop rate / number of hopping channels * period

Time slot length



Product	Shot Navi Pocket		
Test Item	Dwell Time		
Test Mode	Mode 1: Transmit		
Date of Test	2008/02/05	Test Site	No.1 OATS

Occupancy Time of Frequency Hopping System-DH 5

A) 2402MHz Test Time Period: 0.4*79=31.6sec，Hopping Times Within 1sec: 5/20msec=250 /sec

The Maximum Occupancy Time Within 31.6sec: 0.00297*(250/79)*31.6=0.297sec。

B) 2441MHz Test Time Period: 0.4*79=31.6sec，Hopping Times Within 1sec: 5/20msec=250 /sec

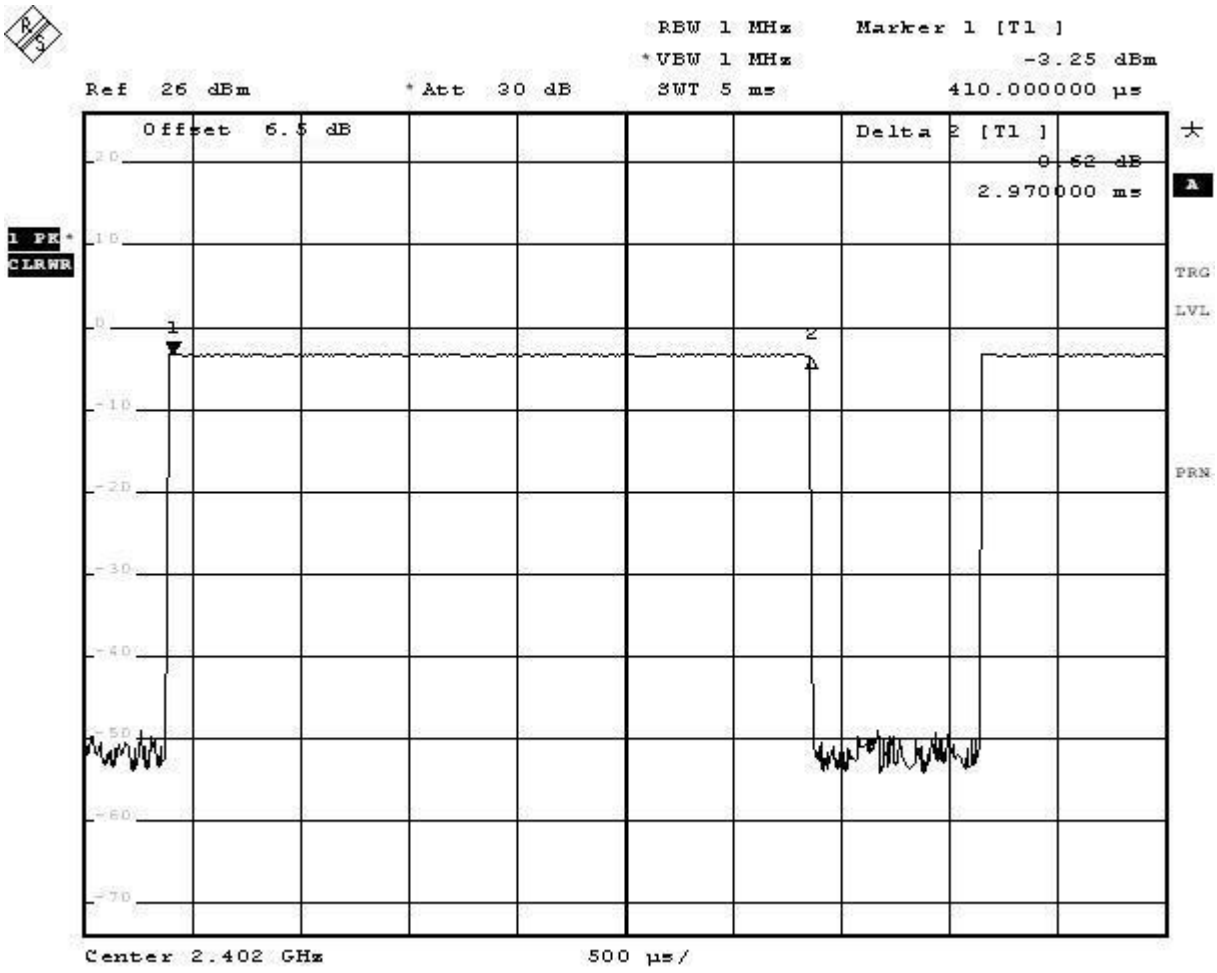
The Maximum Occupancy Time Within 31.6sec: 0.00297*(250/79)*31.6=0.297sec。

C) 2480MHz Test Time Period: 0.4*79=31.6sec，Hopping Times Within 1sec: 5/20msec=250 /sec

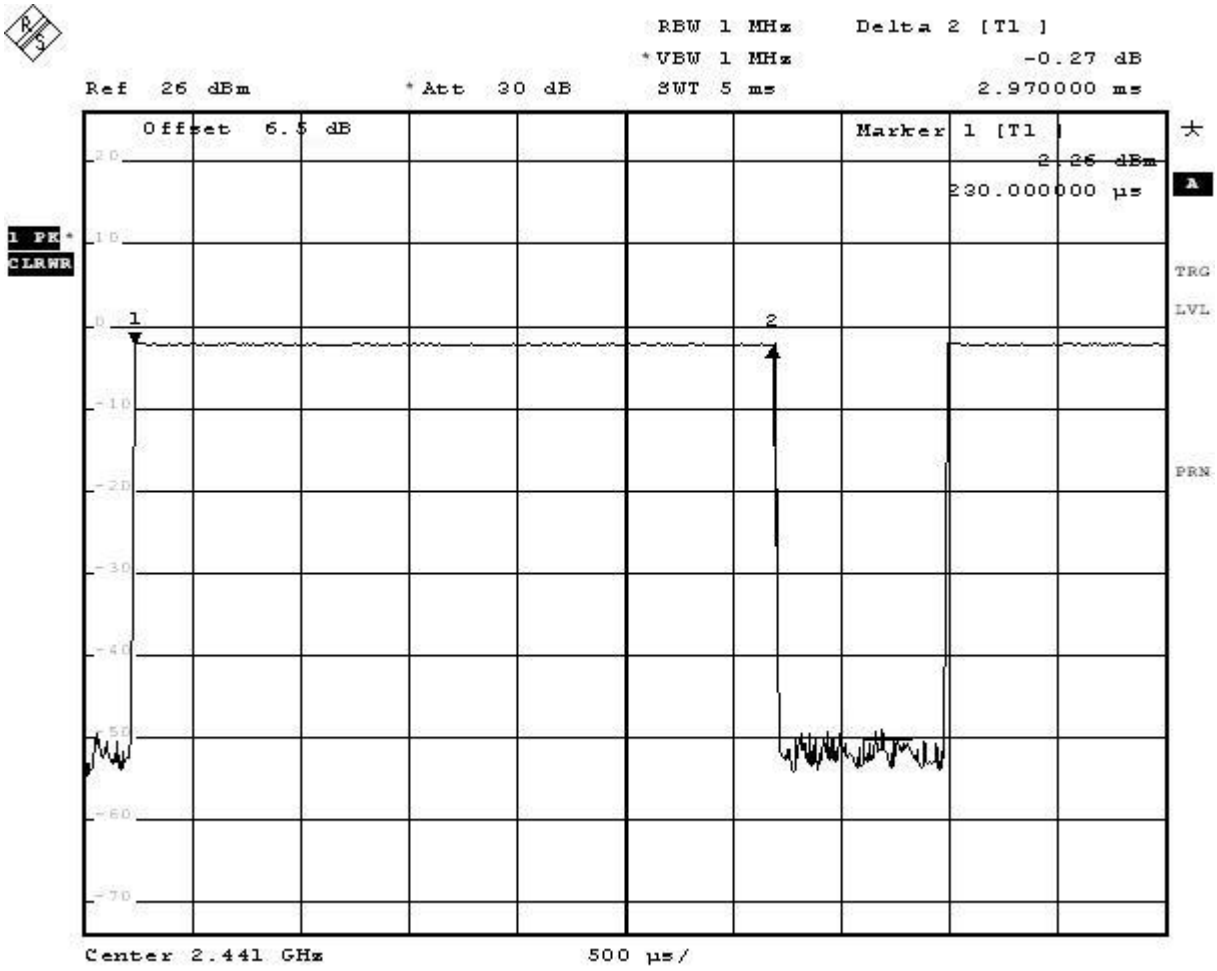
The Maximum Occupancy Time Within 31.6sec: 0.00296*(250/79)*31.6=0.296sec。

Test Result: The Average Occupancy Time of Each Highest，Middle and Lowest Channel Is Less Than 0.4sec，And Corresponds to The Standard。

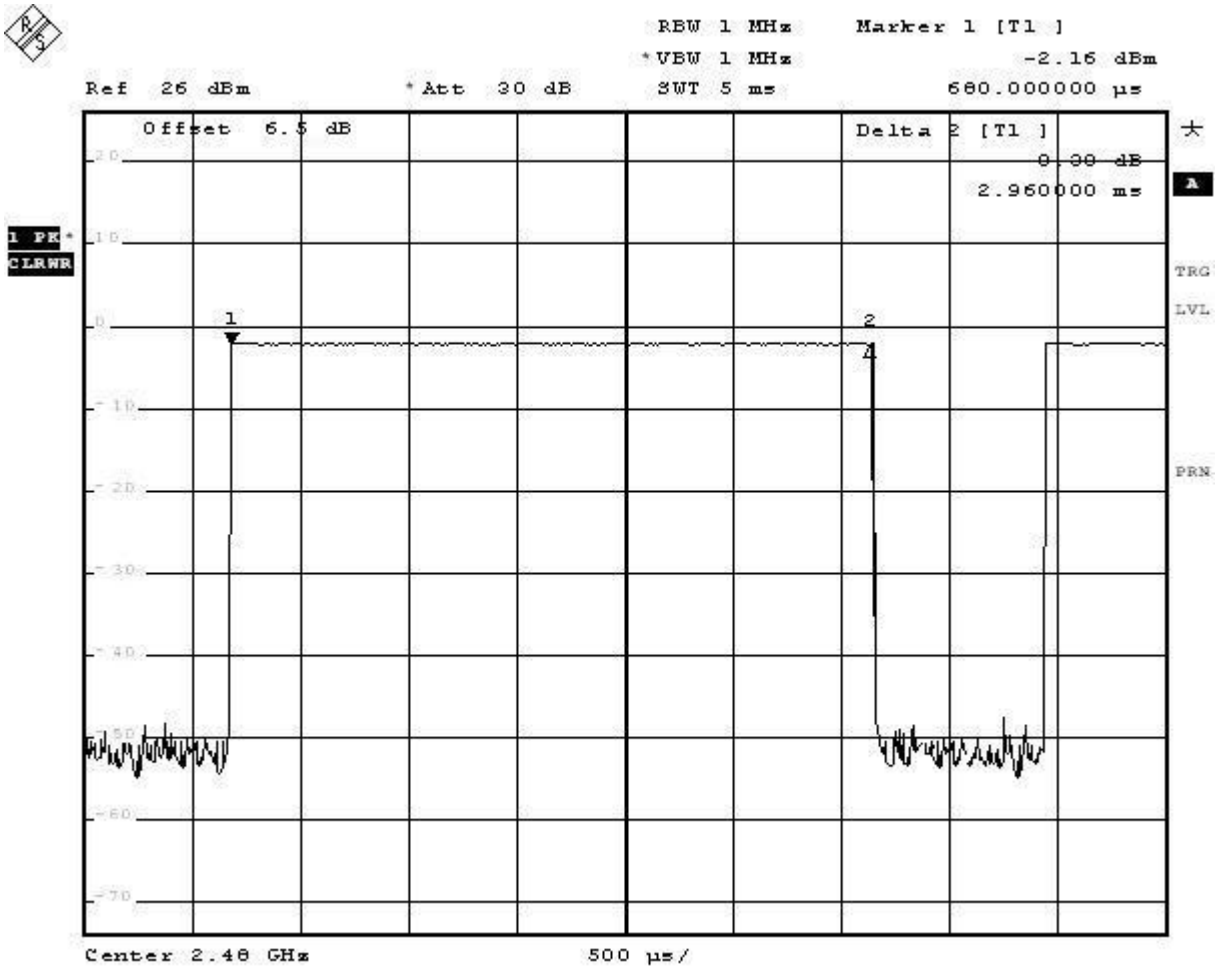
Hop rate-2402MHz



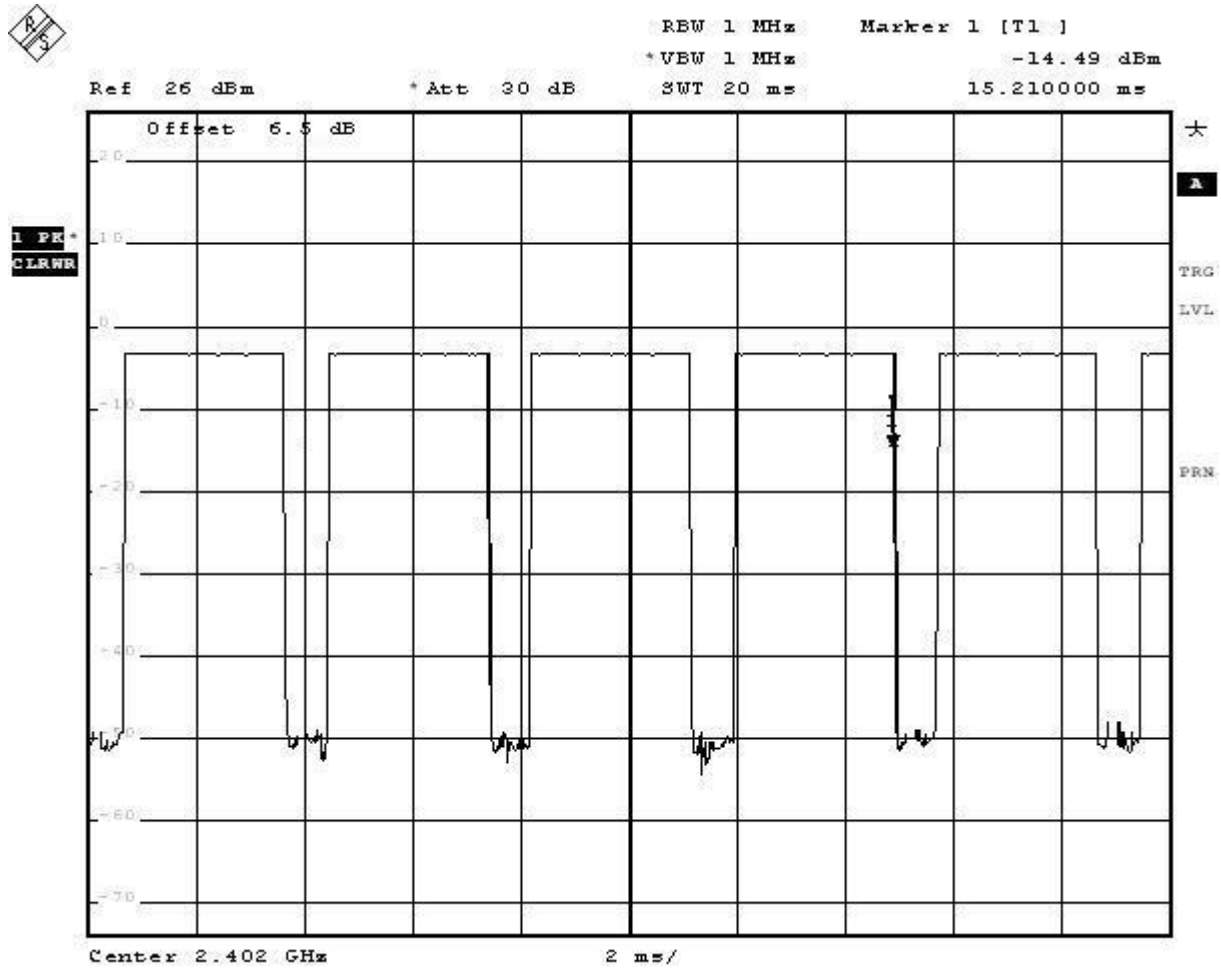
Hop rate-2441MHz



Hop rate-2480MHz



Time slot length



Note: Dwell time＝time slot length * hop rate / number of hopping channels * period