Test Report

Product Name ： GPSmile 62 Car Navigator

Model No. ： GPSmile 62

FCC ID. ： RJINAV-62XX

Applicant ： Holux Technology, Inc.

Address ： No. 1-1, Innovation Road 1 Hsinchu City, 300 Taiwan

Date of Receipt ： 2008/10/16

Issued Date ： 2008/11/25

Report No. ： 08A191R-RFUSP06V01

Version ： V3.0

Test Report Certification

Issued Date : 2008/11/25
Report No. : 08A191R-RFUSP06V01

QuieTek

Product Name	:	GPSmile 62 Car Navigator
Applicant	:	Holux Technology, Inc.
Address	:	No. 1-1, Innovation Road 1 Hsinchu City, 300 Taiwan
Manufacturer	:	Holux Technology, Inc.
Model No.	:	GPSmile 62
FCC ID.	:	RJINAV-62XX
Rated Voltage	:	Mode 1: AC 120 V / 60 Hz Mode 2: DC 12V
EUT Voltage	:	DC4.75~5.25C, Battery3.3~4.2V
Trade Name	:	***HOLUX***
Applicable Standard	:	FCC CFR Title 47 Part 15 Subpart C Section 15.247: 2007
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 : Sheena Huang
(Sheena Huang / Engineer)

Approved By : Roy Wang
(Roy Wang / Manager)

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1. General Information

1.1. EUT Description

Product Name	GPSmile 62 Car Navigator
Trade Name	***HOLUX***
Model No.	GPSmile 62
Frequency Range	2402~2480MHz
Channel Number	79
Type of Modulation	GFSK
Channel Control	Auto
Antenna Type	Soldered on PCB
Antenna Gain	2dBi

Component	
Battery	1 Set
Earphone Cable	Phone, GP-DEH-903600-3, Non-Shielded, 1.0m
Car Charger	SEMDITECH, IC-MUB-GPSH-G
Gooseneck	ARKON, CM014-KST
Power Adapter	DVE, DSA-15P-05 US 050100 I/P: 100-240V 50~60Hz 0.5A O/P: +5V, 2A Cable Out: Non-Shielded, 1.8m

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 GPSmile 62 Car Navigator 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 08A191R-RFUSP01V02 under 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 (Adapter) Mode 2: Transmit (Car Charger)
Final Test Mode	
EMI	Mode 1: Transmit (Adapter) Mode 2: Transmit (Car Charger)

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

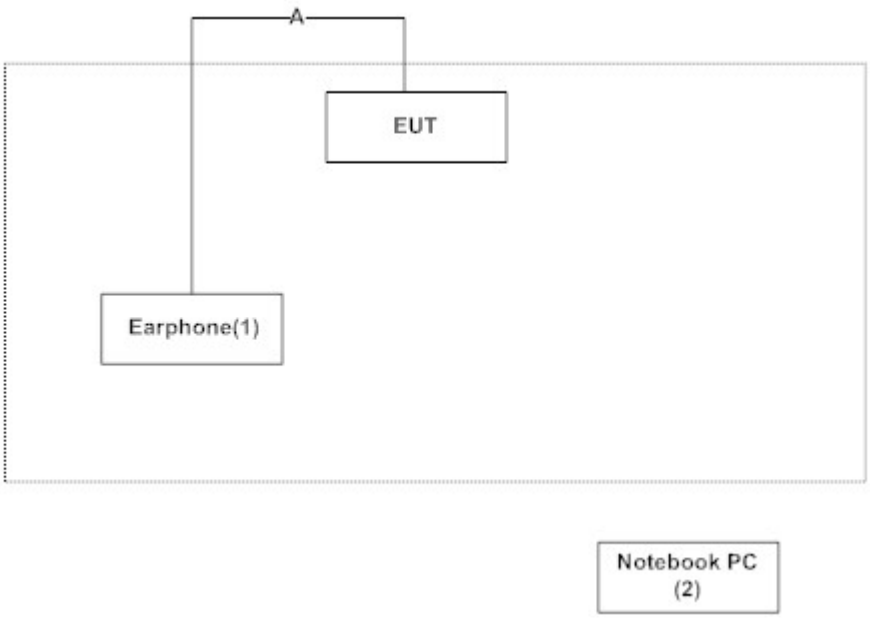
The types for all equipments, plus descriptions of all cables used in the tested system (including inserted cards) are:

Test Mode		Mode 1: Transmit (Adapter)				
	Product	Manufacturer	Model No.	Serial No.	FCC ID	Power Cord
1	Earphone	Fujiei	SBZ-38	N/A	DoC	--

Test Mode		Mode 2: Transmit (Car Charger)				
	Product	Manufacturer	Model No.	Serial No.	FCC ID	Power Cord
1	Earphone	Fujiei	SBZ-38	N/A	DoC	--
2	Notebook PC	DELL	LATITUDE D400	GK43D1S	DoC	Non-shielded, 1.7m, a ferrite core bonded
3	Car Charger	SEMDITECH	IC-MUB-GPSH	N/A	DoC	--
4	Battery	YUASA	75D-32R	N/A	DoC	--

1.5. Configuration of tested System

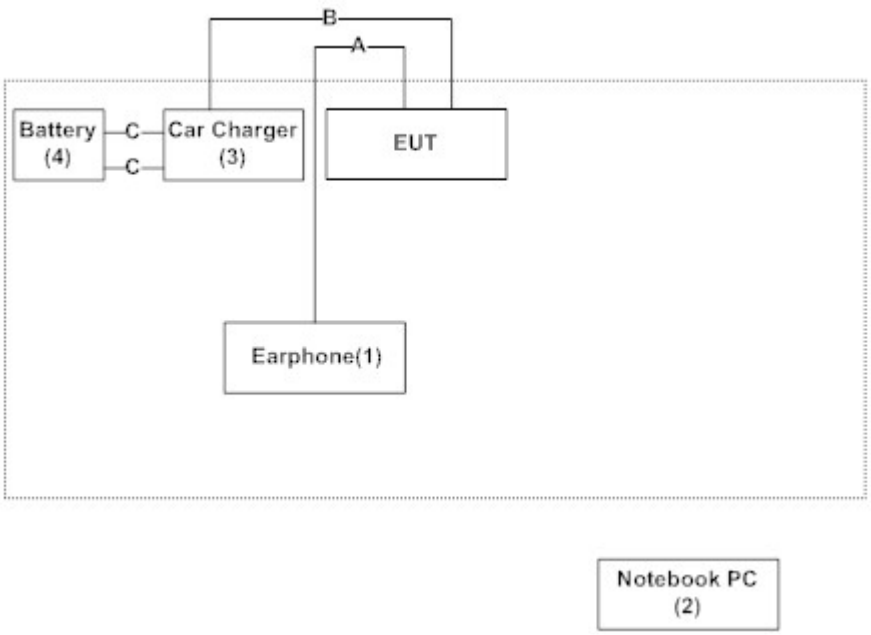
Test Mode	Mode 1: Transmit (Adapter)
Connection Diagram	



Signal Cable Type		Signal cable Description
A	Earphone Cable	Non-Shielded, 1.0m

Test Mode	Mode 2: Transmit (Car Charger)

Connection Diagram



Signal Cable Type		Signal cable Description
A	Earphone Cable	Non-Shielded, 1.0m
B	Power Line	Non-Shielded, 1.8m
C	Power Line	Non-Shielded, 1.8m, 2PCS

1.6. EUT Exercise Software

1	Setup the EUT and simulators as shown on 1.5.
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:

August 30, 2007 File on
Federal Communications Commission
Laboratory Division
7435 Oakland Mills Road
Columbia, MD 21046
Registration Number: 365520

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

Accredited by NVLAP
NVLAP Lab Code: 200347-0
Effective through: September 30, 2009

Site Name: Quietek Corporation

Site Address: No.75-1, Wang-Yeh Valley, Yung-Hsing,
Chiung-Lin, Hsin-Chu County,
Taiwan, R.O.C.
TEL : 886-3-592-8858 / FAX : 886-3-592-8859
E-Mail : service@quietek.com

2. Conducted Emission

2.1. Test Equipment

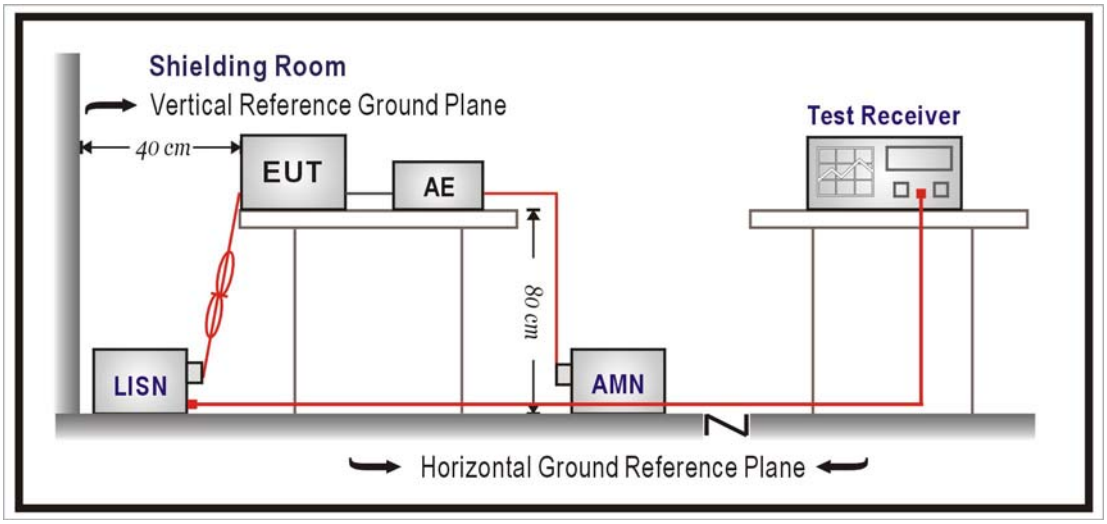
The following test equipment are used during the test:

Conducted Emission / SR2

Instrument	Manufacturer	Type No.	Serial No	Cal. Date
4-Wire ISN	R & S	ENY 41	837032/001	2008/04/15
Artificial Mains Network	R & S	ENV4200	848411/010	2008/03/13
Double 2-Wire ISN	R & S	ENY 22	835354/008	2008/04/15
LISN	R & S	ESH3-Z5	825562/002	2008/03/31
Pulse Limiter	R & S	ZSH3Z2	357.8810.54	2008/07/19
Test Receiver	R & S	ESCS 30	100122	2008/02/21

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.

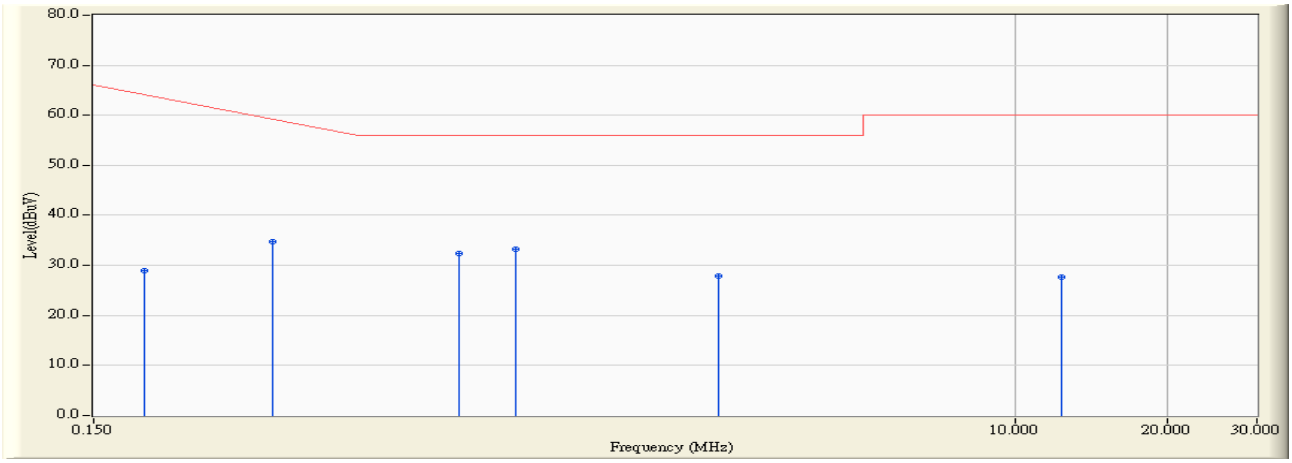
Conducted emissions were invested over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9kHz.

2.5. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.207: 2007

2.6. Test Result

Site : SR2	Time : 2008/11/17 - 19:14
Limit : CISPR_B_00M_QP	Margin : 0
Probe : SR2-LISN(16A) - Line1	Power : AC 120V/60Hz
EUT : GPSmile 62 Car Navigator	Note : Mode 1: Transmit (Adapter)

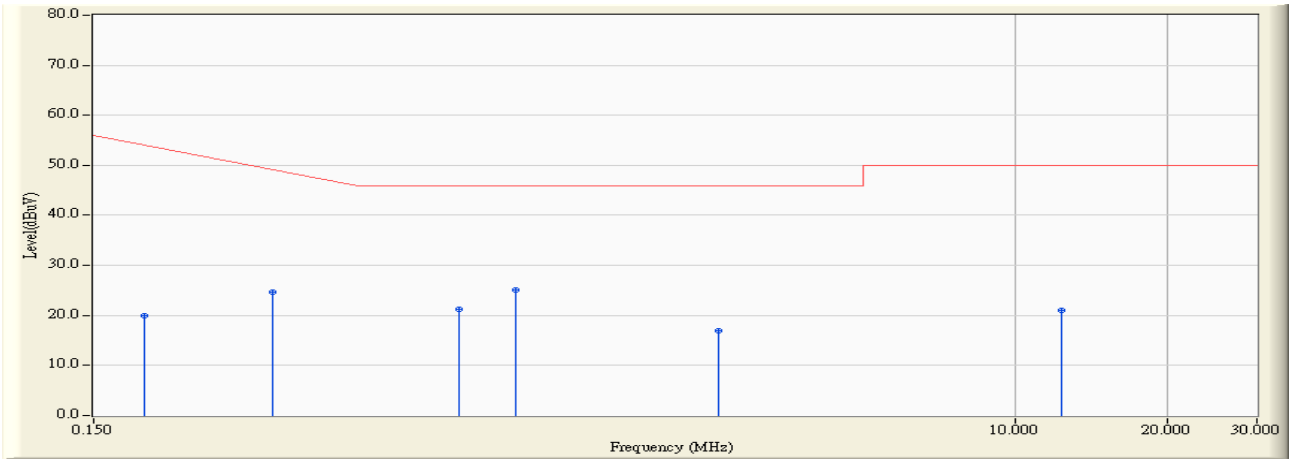


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.189	9.657	19.330	28.987	-35.899	64.886	QUASIPEAK
2		0.338	9.732	24.920	34.652	-25.977	60.629	QUASIPEAK
3		0.791	9.820	22.660	32.480	-23.520	56.000	QUASIPEAK
4	*	1.025	9.820	23.320	33.140	-22.860	56.000	QUASIPEAK
5		2.587	9.818	18.080	27.898	-28.102	56.000	QUASIPEAK
6		12.287	10.111	17.530	27.641	-32.359	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 : SR2	Time : 2008/11/17 - 19:14
Limit : CISPR_B_00M_AV	Margin : 0
Probe : SR2-LISN(16A) - Line1	Power : AC 120V/60Hz
EUT : GPSmile 62 Car Navigator	Note : Mode 1: Transmit (Adapter)

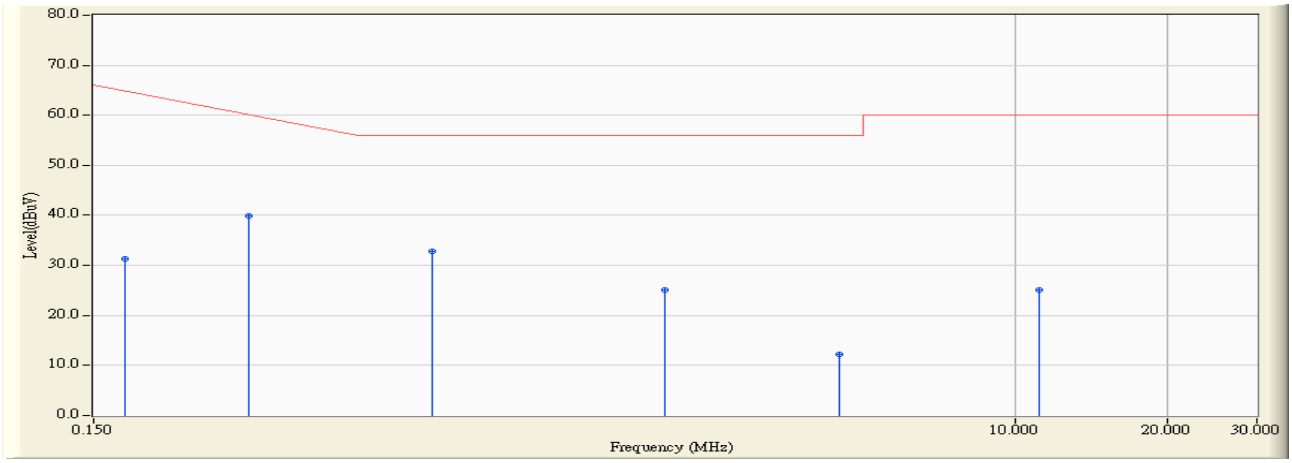


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.189	9.657	10.190	19.847	-35.039	54.886	AVERAGE
2		0.338	9.732	15.000	24.732	-25.897	50.629	AVERAGE
3		0.791	9.820	11.520	21.340	-24.660	46.000	AVERAGE
4	*	1.025	9.820	15.250	25.070	-20.930	46.000	AVERAGE
5		2.587	9.818	7.050	16.868	-29.132	46.000	AVERAGE
6		12.287	10.111	10.980	21.091	-28.909	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 : SR2	Time : 2008/11/17 - 19:25
Limit : CISPR_B_00M_QP	Margin : 0
Probe : SR2-LISN(16A) - Line2	Power : AC 120V/60Hz
EUT : GPSmile 62 Car Navigator	Note : Mode 1: Transmit (Adapter)

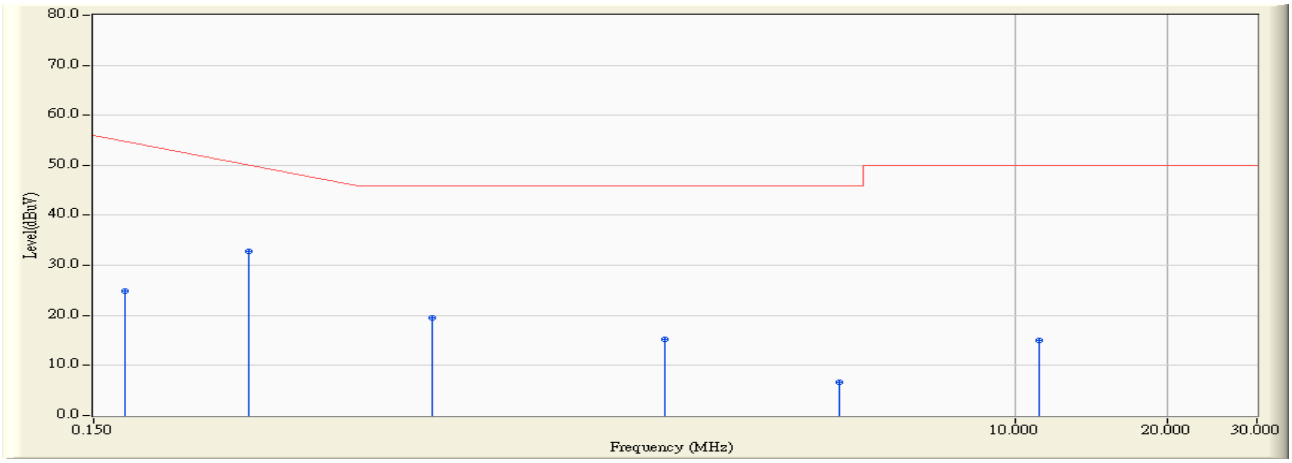


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.173	9.707	21.510	31.217	-34.126	65.343	QUASIPEAK
2	*	0.304	9.723	30.110	39.834	-21.766	61.600	QUASIPEAK
3		0.701	9.810	23.070	32.880	-23.120	56.000	QUASIPEAK
4		2.021	9.830	15.220	25.050	-30.950	56.000	QUASIPEAK
5		4.482	9.838	2.310	12.148	-43.852	56.000	QUASIPEAK
6		11.107	10.121	14.890	25.011	-34.989	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 : SR2	Time : 2008/11/17 - 19:25
Limit : CISPR_B_00M_AV	Margin : 0
Probe : SR2-LISN(16A) - Line2	Power : AC 120V/60Hz
EUT : GPSmile 62 Car Navigator	Note : Mode 1: Transmit (Adapter)



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.173	9.707	15.270	24.977	-30.366	55.343	AVERAGE
2	*	0.304	9.723	23.040	32.764	-18.836	51.600	AVERAGE
3		0.701	9.810	9.750	19.560	-26.440	46.000	AVERAGE
4		2.021	9.830	5.430	15.260	-30.740	46.000	AVERAGE
5		4.482	9.838	-3.160	6.678	-39.322	46.000	AVERAGE
6		11.107	10.121	4.810	14.931	-35.069	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

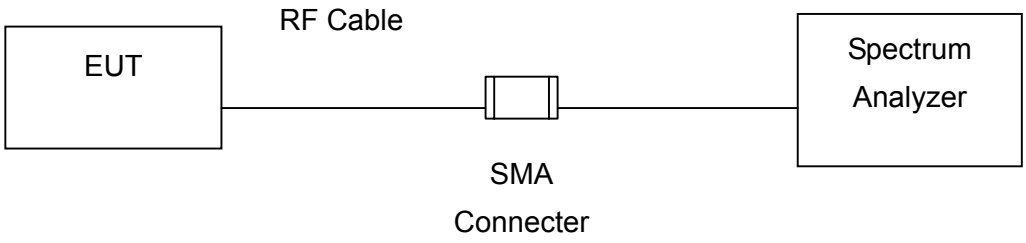
3.1. Test Equipment

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., 2008
2	No.1 OATS			Sep., 2008

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

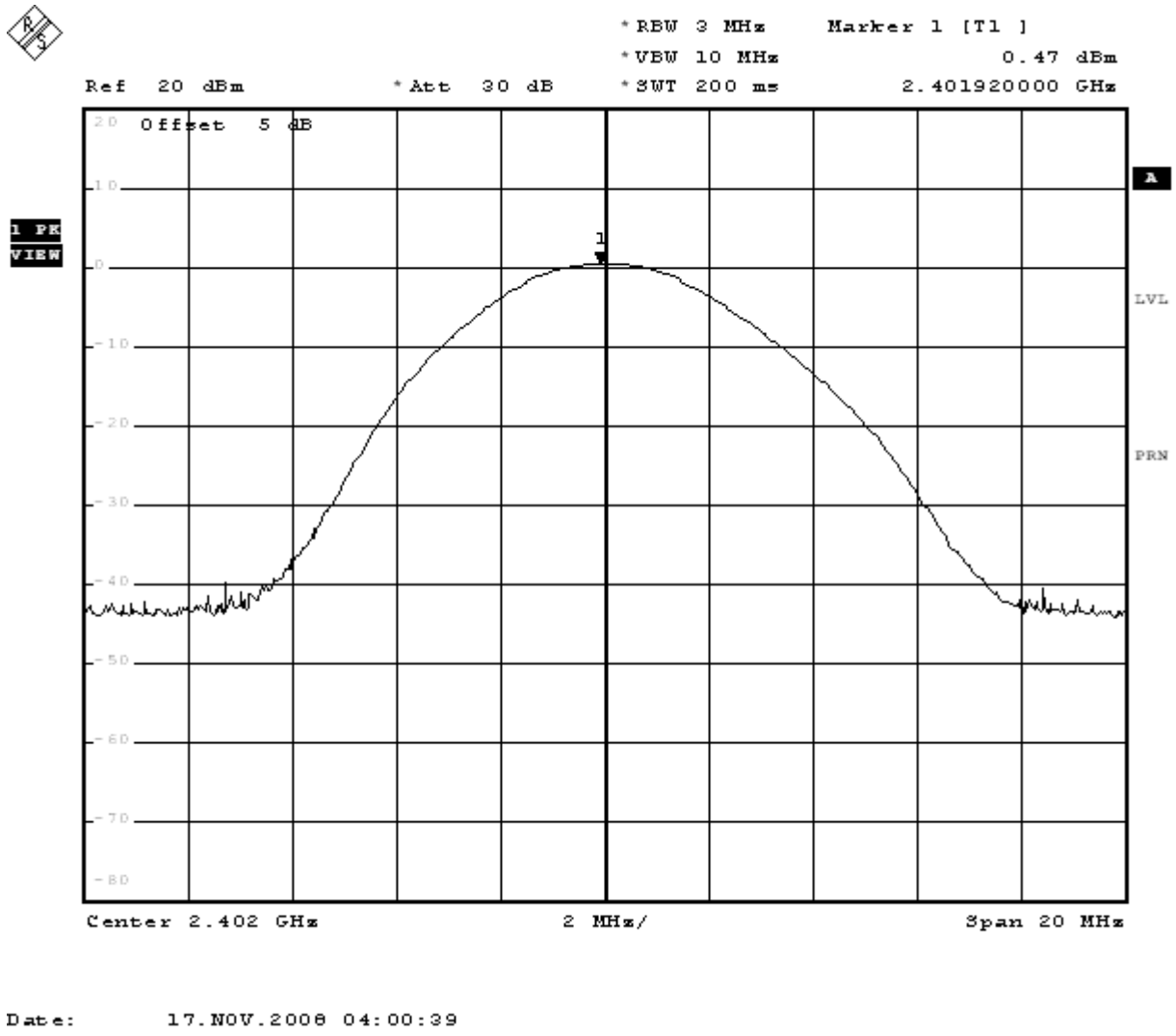
According to FCC Part 15 Subpart C Paragraph 15.247: 2007

3.6. Test Result

Product	GPSmile 62 Car Navigator		
Test Item	Peak Power Output		
Test Mode	Transmit		
Date of Test	2008/11/17	Test Site	No.1 OATS

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
00	2402.00	0.47	1Watt= 30 dBm	Pass

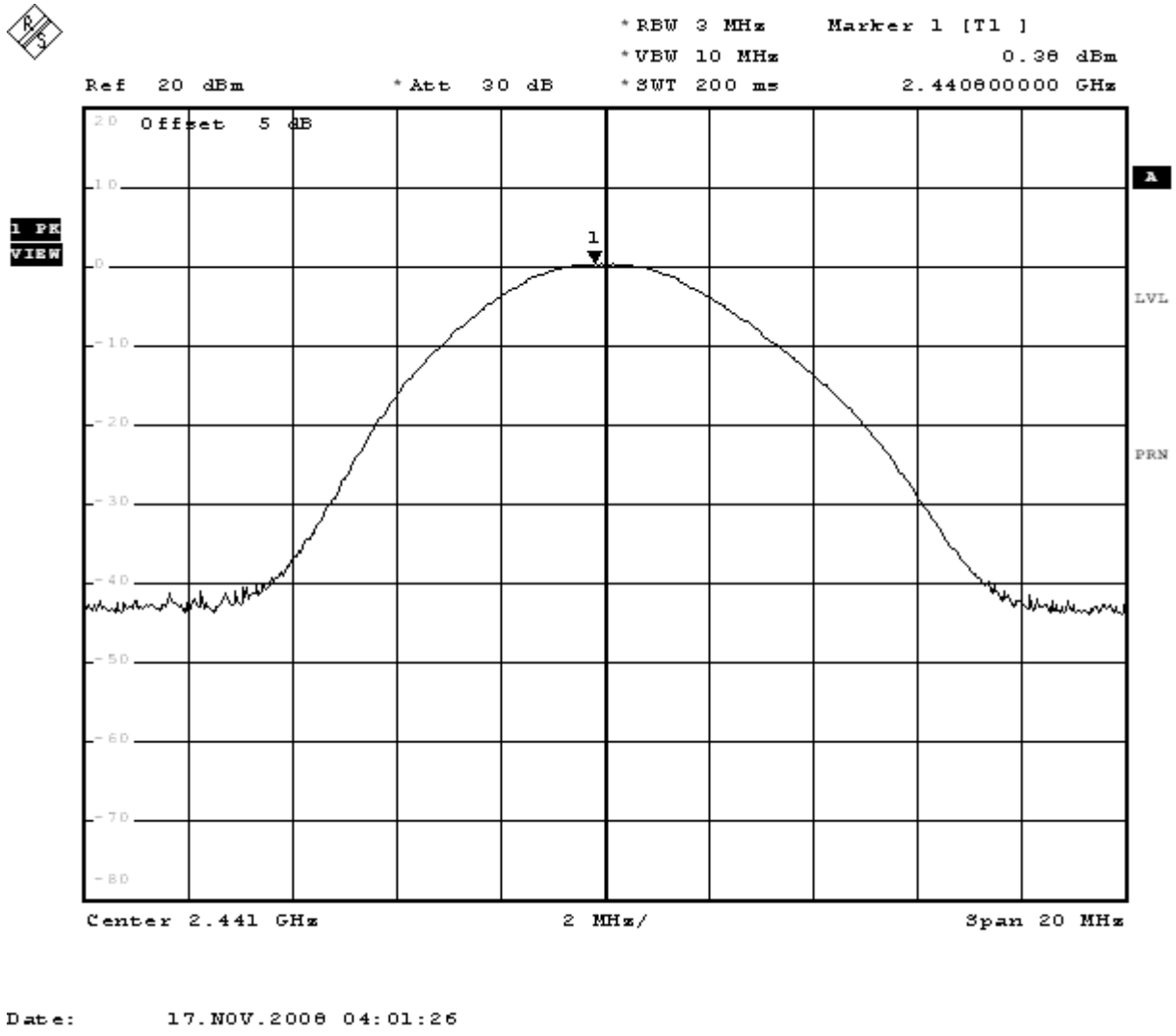
Channel 00



Product	GPSmile 62 Car Navigator		
Test Item	Peak Power Output		
Test Mode	Transmit		
Date of Test	2008/11/17	Test Site	No.1 OATS

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
39	2441.00	0.38	1Watt= 30 dBm	Pass

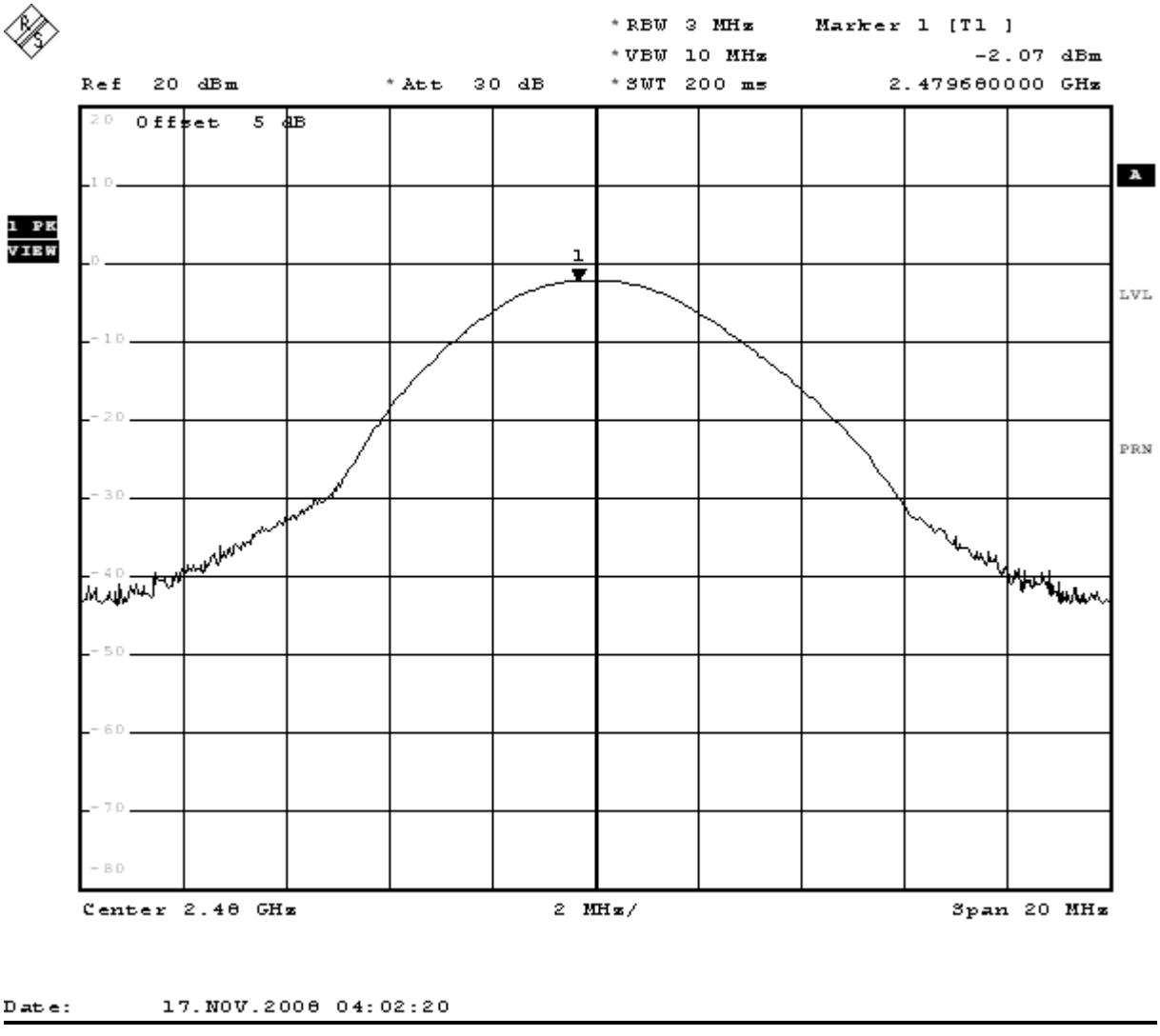
Channel 39



Product	GPSmile 62 Car Navigator		
Test Item	Peak Power Output		
Test Mode	Transmit		
Date of Test	2008/11/17	Test Site	No.1 OATS

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
78	2480.00	-2.07	1Watt= 30 dBm	Pass

Channel 78



4. Radiated Emission

4.1. Test Equipment

The following test equipment are used during the test:

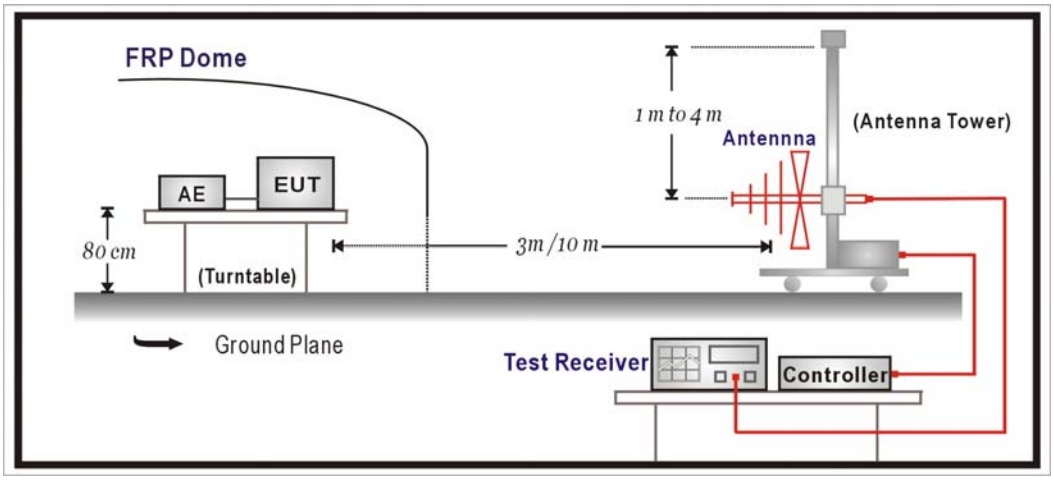
Radiated Emission / Site1

Instrument	Manufacturer	Type No.	Serial No	Cal. Date
Bilog Antenna	Schaffner Chase	CBL6112B	2895	2008/09/03
Horn Antenna	Electro Metrics	EM-6961	103325	2008/03/15
Pre-Amplifier	HP	8449B	3008A01123	2007/12/12
Pre-Amplifier	Quietek	AP-025C	N/A	N/A
Spectrum Analyzer	R & S	FSP40	100005	2008/08/25
Spectrum Analyzer	Advantest	R3162	120300649	2007/11/24
Test Receiver	R & S	ESCS 30	825442/017	2008/02/13

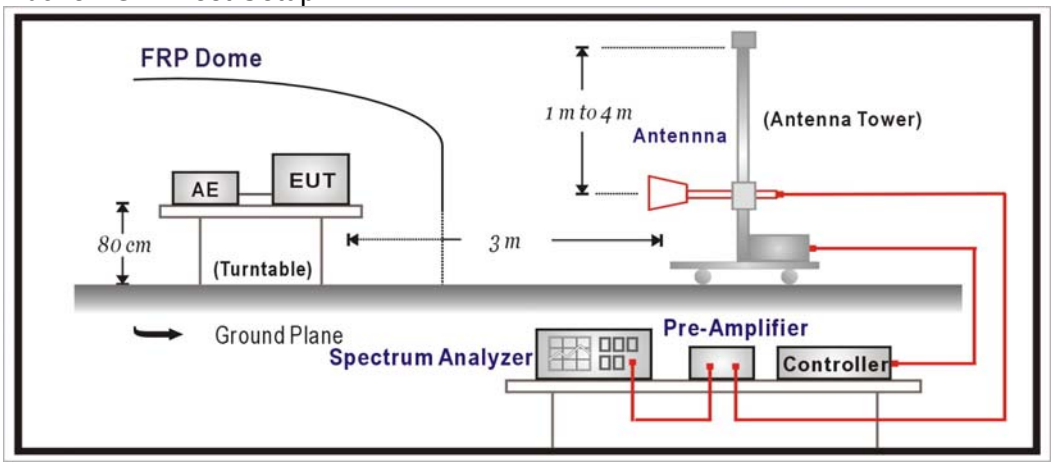
Note: 1. All equipments that need to calibrate are with calibration period of 1 year.
2. “N/A” Ca1.Date is used to Pre-test, not final test.

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.

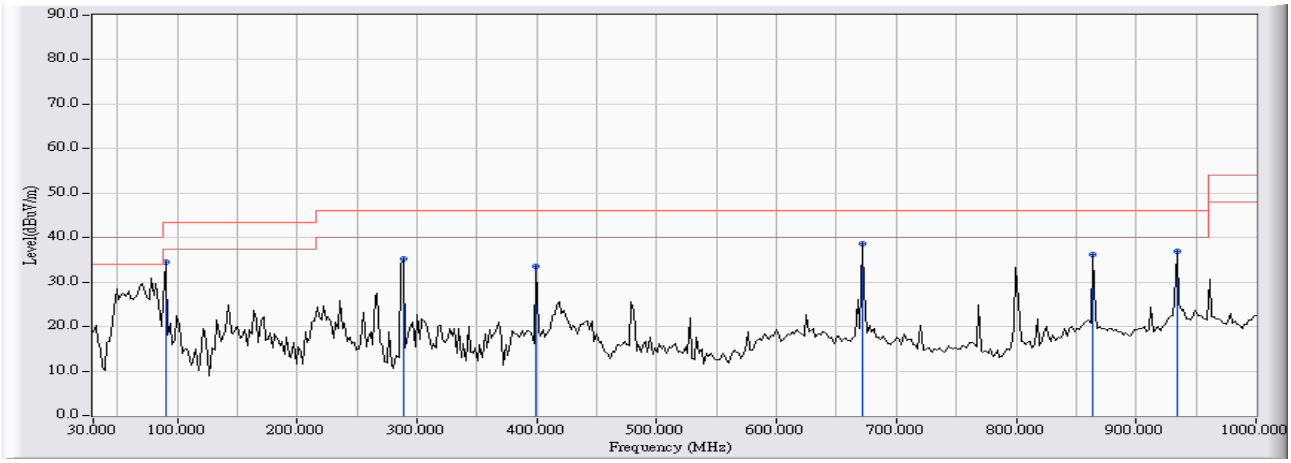
4.5. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.247: 2007

4.6. Test Result

30MHz-1GHz Spurious:

Site : Site 1	Time : 2008/11/14 - 17:39
Limit : FCC_CLASS_B_03M_QP	Margin : 6
Probe : CB3_FCC_30-1G(2008-9) - HORIZONTAL	Power : AC 120V/60Hz
EUT : GPSmile 62 Car Navigator	Note : Mode 1: Transmit (Adapter)

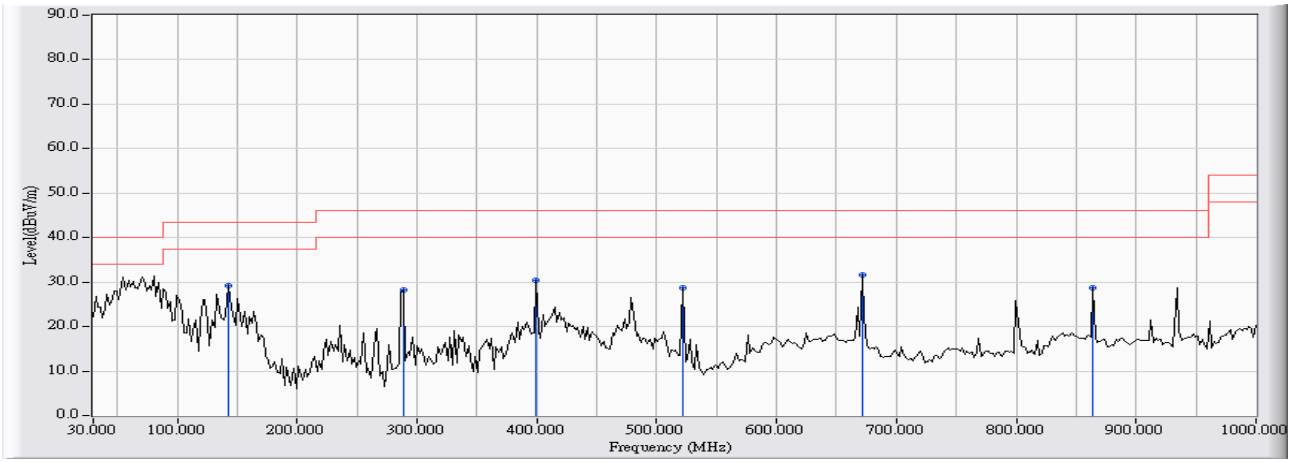


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		90.261	-43.234	77.769	34.536	-8.964	43.500	QUASIPEAK
2		288.537	-38.585	73.799	35.214	-10.786	46.000	QUASIPEAK
3		399.339	-35.118	68.765	33.647	-12.353	46.000	QUASIPEAK
4	*	671.483	-31.476	70.029	38.553	-7.447	46.000	QUASIPEAK
5		863.928	-28.855	65.035	36.180	-9.820	46.000	QUASIPEAK
6		933.908	-28.419	65.296	36.877	-9.123	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 : 2008/11/14 - 17:43
Limit : FCC_CLASS_B_03M_QP	Margin : 6
Probe : CB3_FCC_30-1G(2008-9) - VERTICAL	Power : AC 120V/60Hz
EUT : GPSmile 62 Car Navigator	Note : Mode 1: Transmit (Adapter)

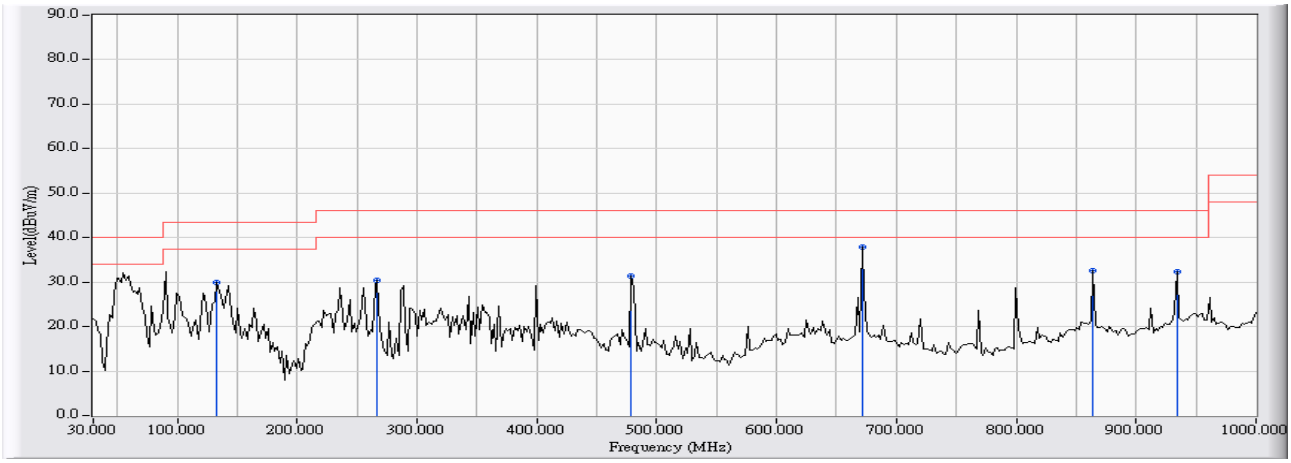


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	142.745	-40.991	70.185	29.194	-14.306	43.500	QUASIPEAK
2		288.537	-40.708	68.866	28.158	-17.842	46.000	QUASIPEAK
3		399.339	-34.927	65.312	30.385	-15.615	46.000	QUASIPEAK
4		521.804	-37.657	66.254	28.597	-17.403	46.000	QUASIPEAK
5		671.483	-32.311	63.923	31.612	-14.388	46.000	QUASIPEAK
6		863.928	-31.518	60.124	28.606	-17.394	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 : 2008/11/14 - 19:52
Limit : FCC_CLASS_B_03M_QP	Margin : 6
Probe : CB3_FCC_30-1G(2008-9) - HORIZONTAL	Power : DC 12V
EUT : GPSmile 62 Car Navigator	Note : Mode 2: Transmit (Car Charger)

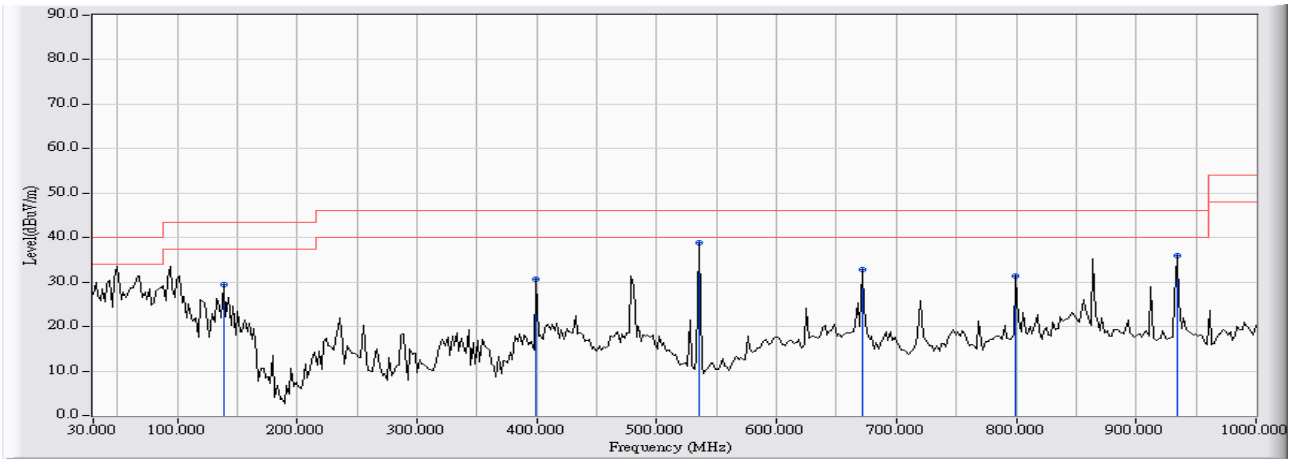


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		133.026	-43.621	73.645	30.024	-13.476	43.500	QUASIPEAK
2		267.154	-39.714	70.145	30.431	-15.569	46.000	QUASIPEAK
3		479.038	-35.800	67.227	31.427	-14.573	46.000	QUASIPEAK
4	*	671.483	-31.476	69.478	38.002	-7.998	46.000	QUASIPEAK
5		863.928	-28.855	61.354	32.499	-13.501	46.000	QUASIPEAK
6		933.908	-28.419	60.828	32.409	-13.591	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 : 2008/11/14 - 19:55
Limit : FCC_CLASS_B_03M_QP	Margin : 6
Probe : CB3_FCC_30-1G(2008-9) - VERTICAL	Power : DC 12V
EUT : GPSmile 62 Car Navigator	Note : Mode 2: Transmit (Car Charger)



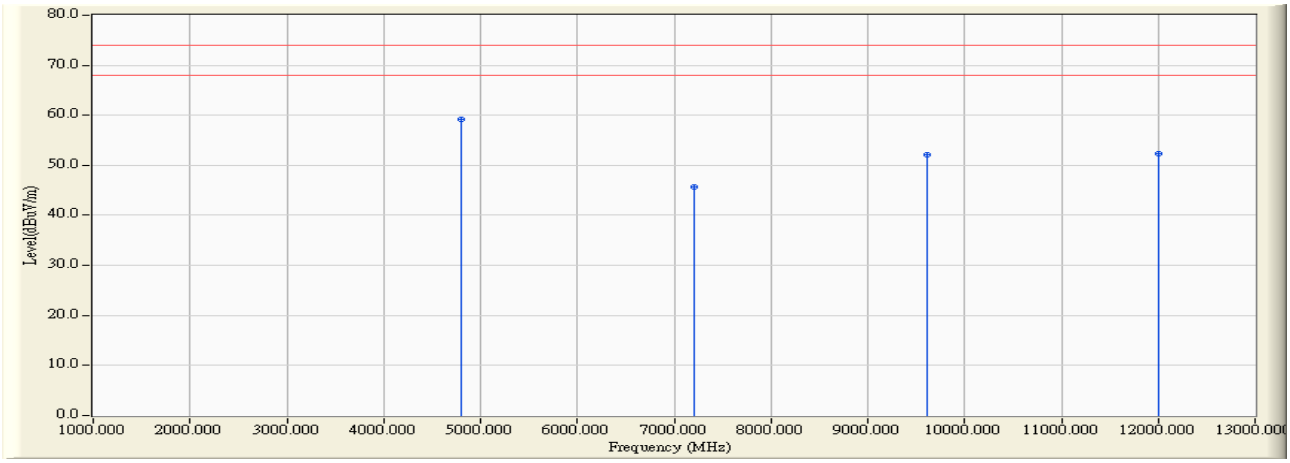
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		138.858	-40.164	69.656	29.492	-14.008	43.500	QUASIPEAK
2		399.339	-34.927	65.652	30.725	-15.275	46.000	QUASIPEAK
3	*	535.411	-38.369	77.262	38.893	-7.107	46.000	QUASIPEAK
4		671.483	-32.311	65.121	32.810	-13.190	46.000	QUASIPEAK
5		799.780	-35.161	66.579	31.418	-14.582	46.000	QUASIPEAK
6		933.908	-33.503	69.542	36.039	-9.961	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 : 2008/11/18 - 16:39
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB4_FCC_1-18G(2008-05) - HORIZONTAL	Power : AC 120V/60Hz
EUT : GPSmile 62 Car Navigator	Note : TX-CH00

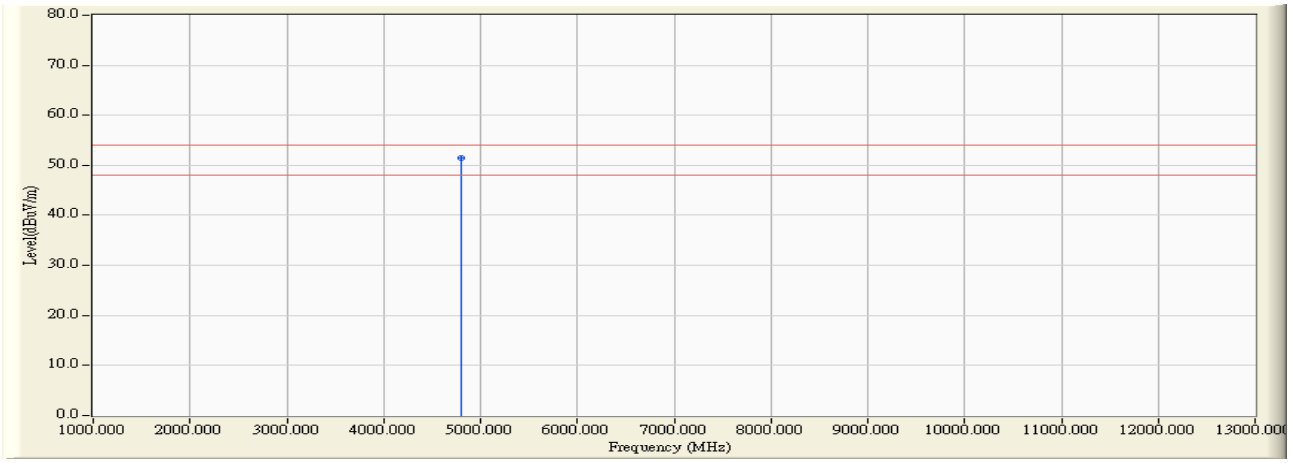


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1	*	4803.780	3.053	56.110	59.162	-14.838	74.000	54.000	PEAK
2		7206.140	6.950	38.770	45.720	-28.280	74.000	54.000	PEAK
3		9607.850	14.963	37.060	52.023	-21.977	74.000	54.000	PEAK
4		12010.020	16.678	35.730	52.408	-21.592	74.000	54.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 13GHz were not included is because their levels are too low.

Site : Site 1	Time : 2008/11/18 - 16:50
Limit : FCC_SpartC_15.247_H_03M_AV	Margin : 6
Probe : CB4_FCC_1-18G(2008-05) - HORIZONTAL	Power : AC 120V/60Hz
EUT : GPSmile 62 Car Navigator	Note : TX-CH00

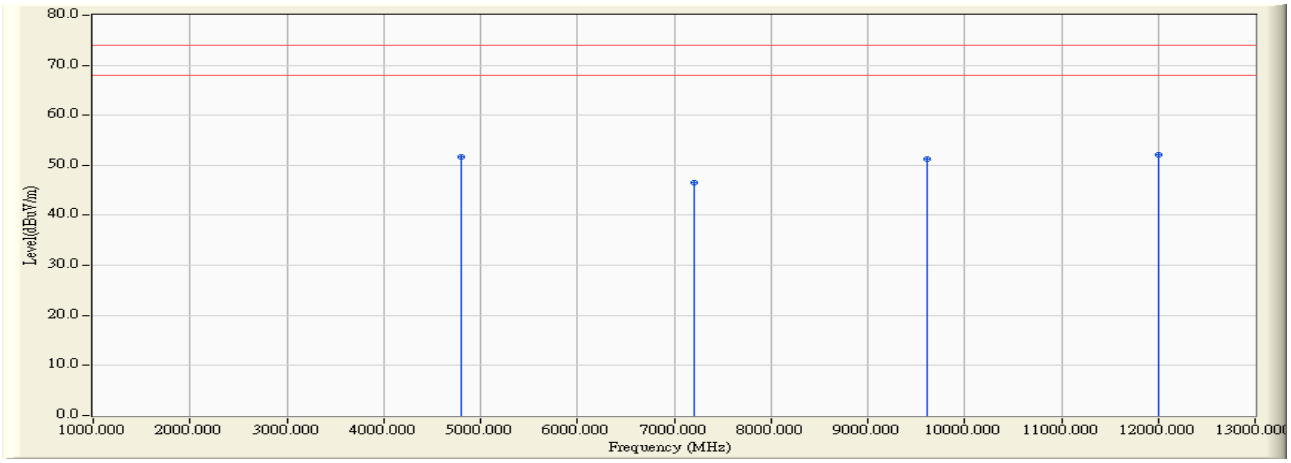


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1	*	4804.070	3.053	48.450	51.503	-2.497	74.000	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 13GHz were not included is because their levels are too low.

Site : Site 1	Time : 2008/11/18 - 16:58
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB4_FCC_1-18G(2008-05) - VERTICAL	Power : AC 120V/60Hz
EUT : GPSmile 62 Car Navigator	Note : TX-CH00

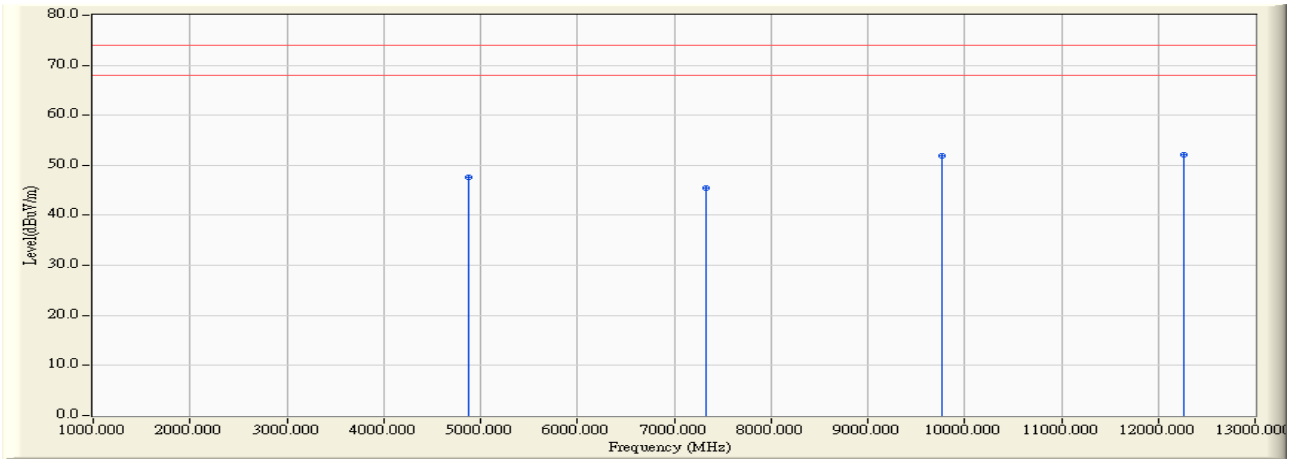


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1		4804.150	3.054	48.670	51.723	-22.277	74.000	54.000	PEAK
2		7206.590	7.363	39.170	46.533	-27.467	74.000	54.000	PEAK
3		9608.120	13.750	37.430	51.180	-22.820	74.000	54.000	PEAK
4	*	12010.420	16.658	35.480	52.139	-21.861	74.000	54.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 13GHz were not included is because their levels are too low.

Site : Site 1	Time : 2008/11/18 - 17:15
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB4_FCC_1-18G(2008-05) - HORIZONTAL	Power : AC 120V/60Hz
EUT : GPSmile 62 Car Navigator	Note : TX-CH39

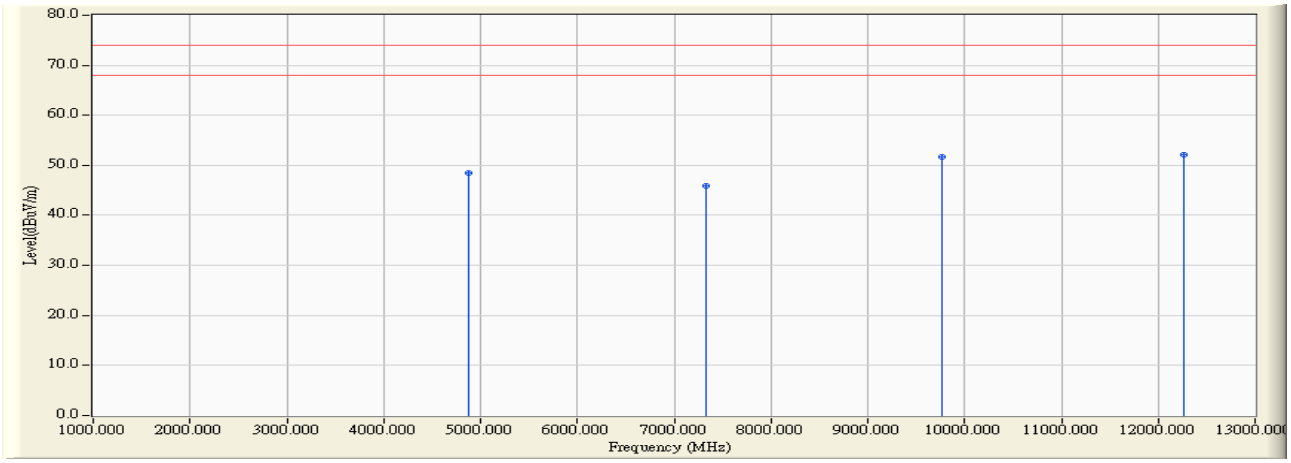


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1		4882.070	3.306	44.400	47.705	-26.295	74.000	54.000	PEAK
2		7323.040	7.022	38.500	45.522	-28.478	74.000	54.000	PEAK
3		9764.050	15.492	36.330	51.822	-22.178	74.000	54.000	PEAK
4	*	12265.020	17.448	34.660	52.108	-21.892	74.000	54.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 13GHz were not included is because their levels are too low.

Site : Site 1	Time : 2008/11/18 - 17:23
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB4_FCC_1-18G(2008-05) - VERTICAL	Power : AC 120V/60Hz
EUT : GPSmile 62 Car Navigator	Note : TX-CH39

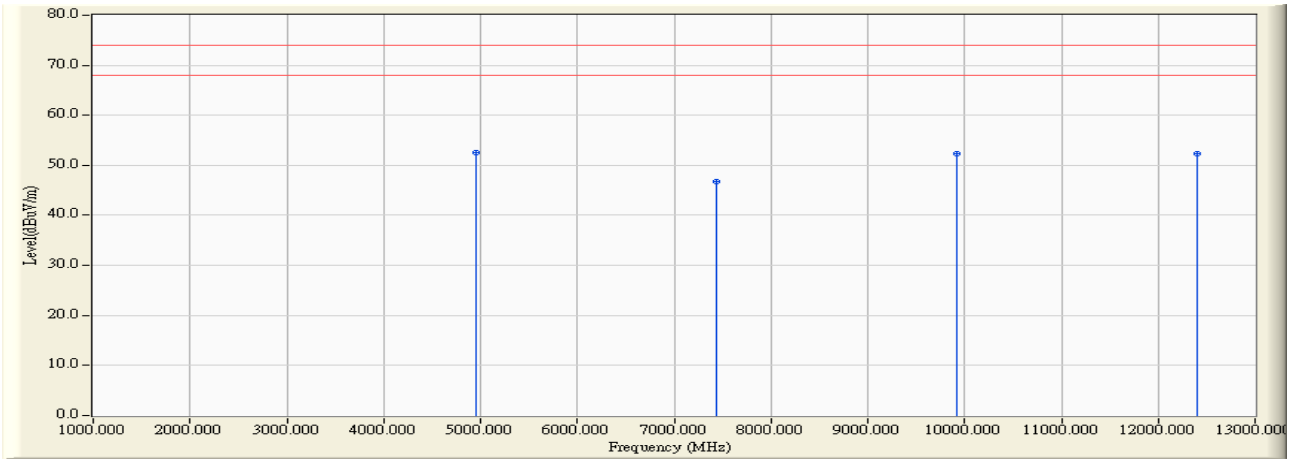


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1		4882.460	3.306	45.240	48.546	-25.454	74.000	54.000	PEAK
2		7323.380	7.670	38.220	45.890	-28.110	74.000	54.000	PEAK
3		9764.240	13.967	37.660	51.627	-22.373	74.000	54.000	PEAK
4	*	12265.520	16.920	35.140	52.059	-21.941	74.000	54.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 13GHz were not included is because their levels are too low.

Site : Site 1	Time : 2008/11/18 - 17:34
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB4_FCC_1-18G(2008-05) - HORIZONTAL	Power : AC 120V/60Hz
EUT : GPSmile 62 Car Navigator	Note : TX-CH78

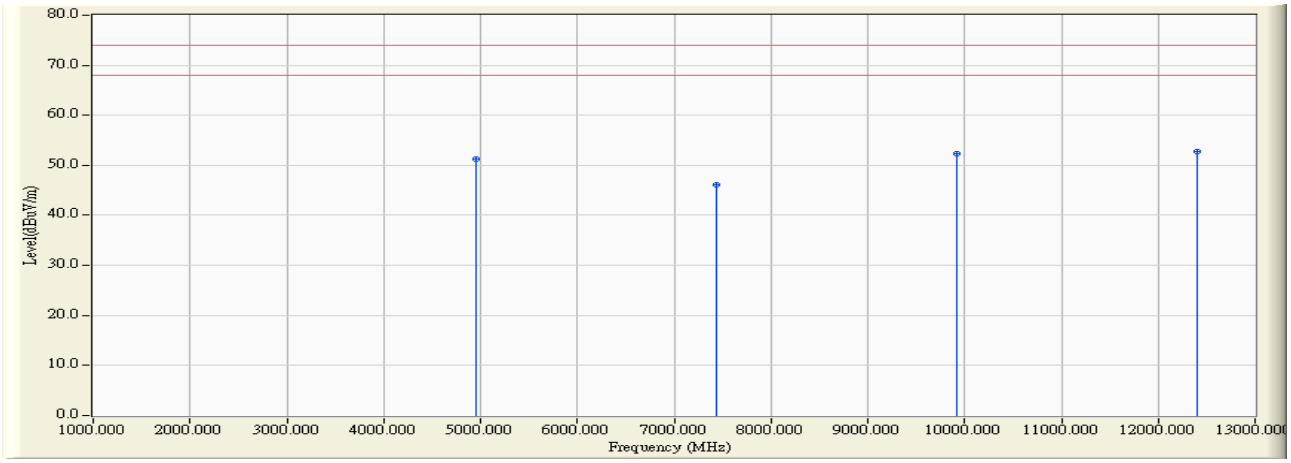


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1	*	4960.120	3.547	48.970	52.517	-21.483	74.000	54.000	PEAK
2		7440.080	7.122	39.560	46.681	-27.319	74.000	54.000	PEAK
3		9920.060	16.025	36.310	52.335	-21.665	74.000	54.000	PEAK
4		12400.100	17.861	34.550	52.411	-21.589	74.000	54.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 13GHz were not included is because their levels are too low.

Site : Site 1	Time : 2008/11/18 - 17:43
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB4_FCC_1-18G(2008-05) - VERTICAL	Power : AC 120V/60Hz
EUT : GPSmile 62 Car Navigator	Note : TX-CH78



		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		4960.680	3.549	47.670	51.219	-22.781	74.000	54.000	PEAK
2		7440.140	8.005	38.090	46.095	-27.905	74.000	54.000	PEAK
3		9920.040	14.184	38.140	52.324	-21.676	74.000	54.000	PEAK
4	*	12400.260	17.063	35.680	52.743	-21.257	74.000	54.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 13GHz were not included is because their levels are too low.

5. RF Conducted Emission

5.1. Test Equipment

The following test equipments are used during the test:

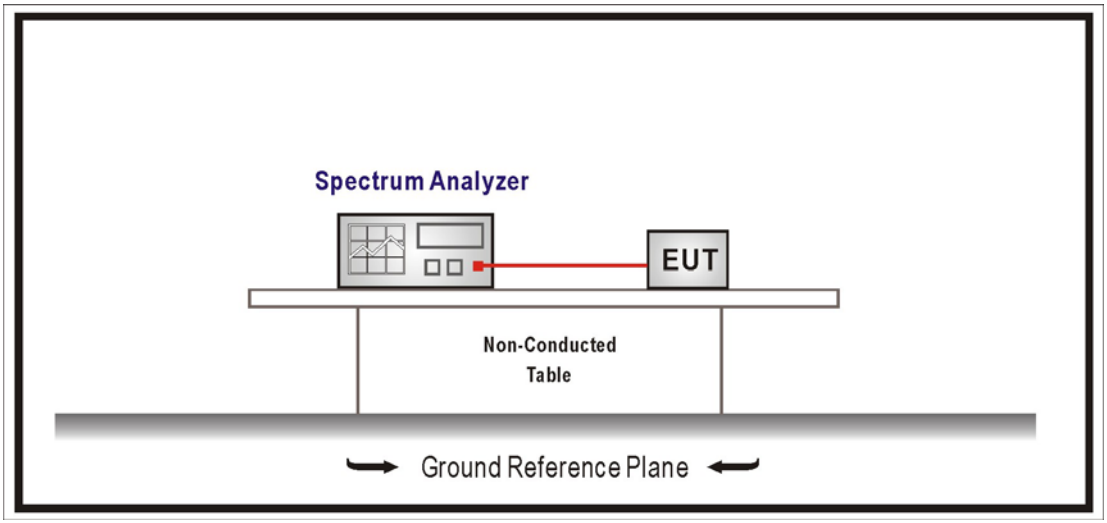
RF Conducted Measurement:				
Item	Equipment	Manufacturer	Model No. / Serial No.	Last Cal.
1	Spectrum Analyzer	R & S	FSP / 100561	Mar., 2008
2	No.1 OATS			Sep., 2008

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: 2007

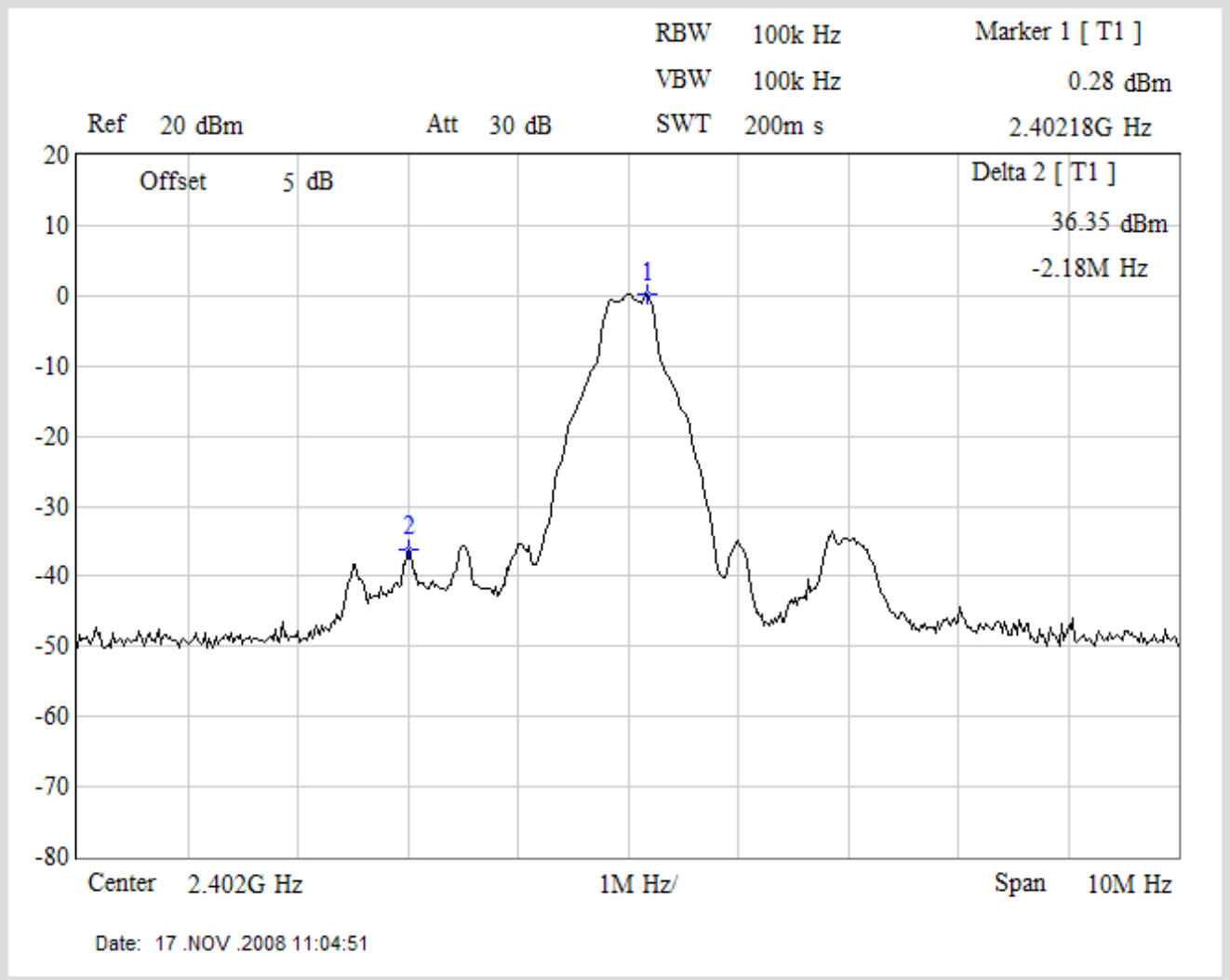
5.6. Test Result

Product	GPSmile 62 Car Navigator		
Test Item	RF Conducted Emissions		
Test Mode	Mode 1: Transmit		
Date of Test	2008/11/17	Test Site	No.1 OATS

Channel No.	Frequency (MHz)	Measure Level (dBc)	Required Limit (dBc)	Result
00	2402	36.35	≧20	Pass

Figure Channel 00:

Channel 1

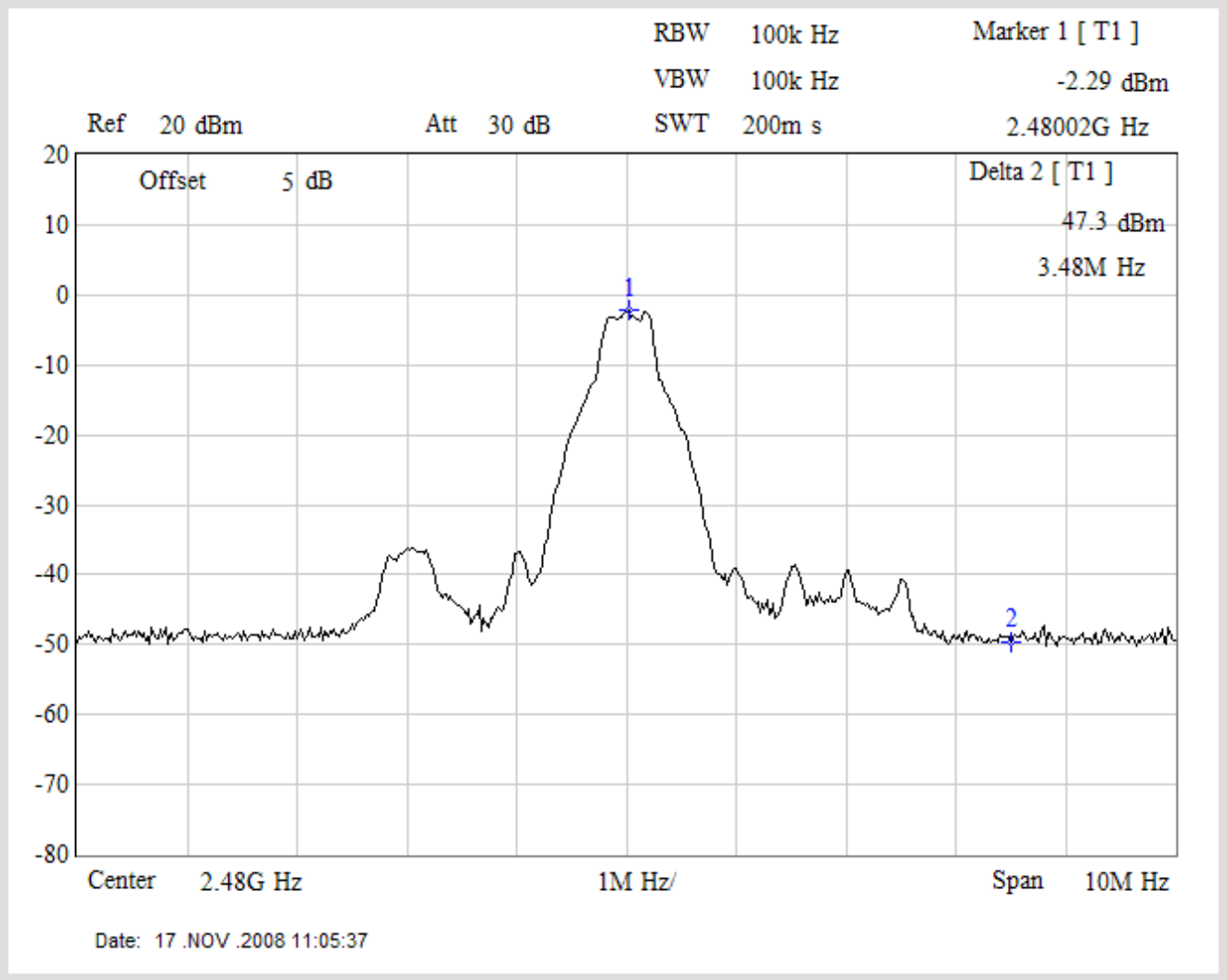


Product	GPSmile 62 Car Navigator		
Test Item	RF Conducted Emissions		
Test Mode	Mode 1: Transmit		
Date of Test	2008/11/17	Test Site	No.1 OATS

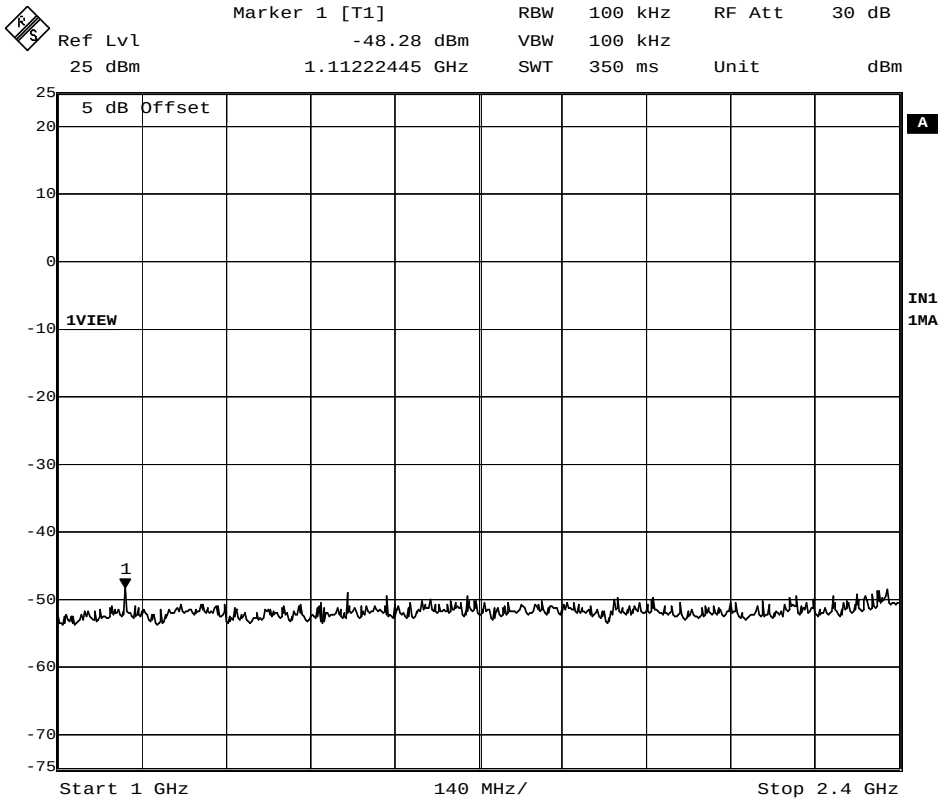
Channel No.	Frequency (MHz)	Measure Level (dBc)	Required Limit (dBc)	Result
78	2480	47.30	≧20	Pass

Figure Channel 78:

Channel 78

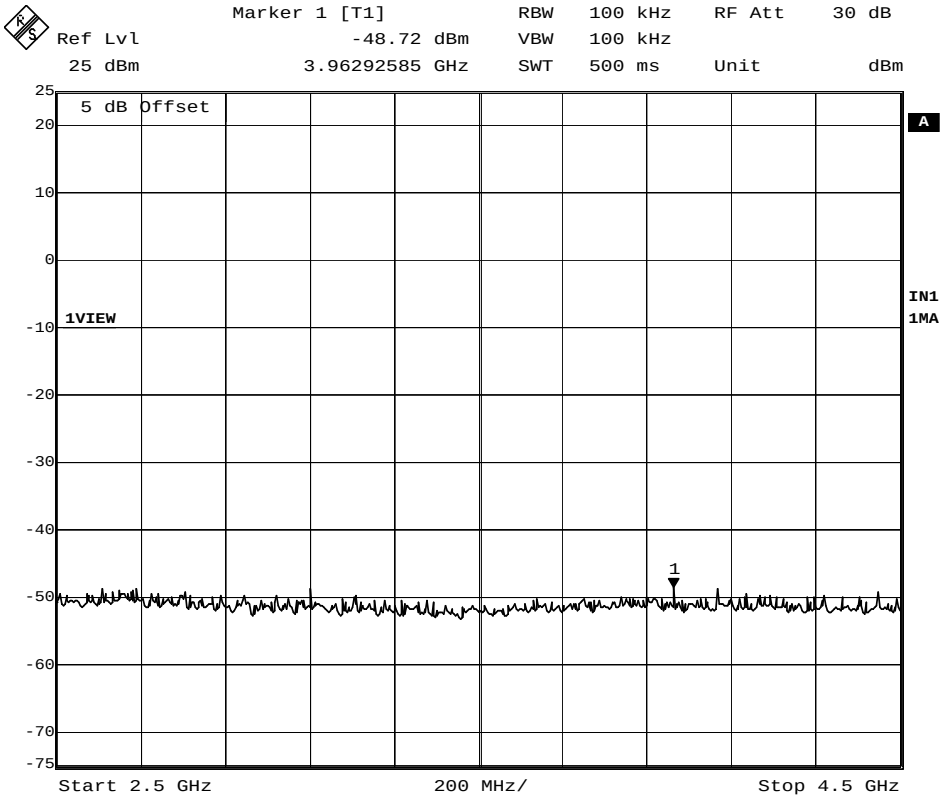


(1~2.4G)



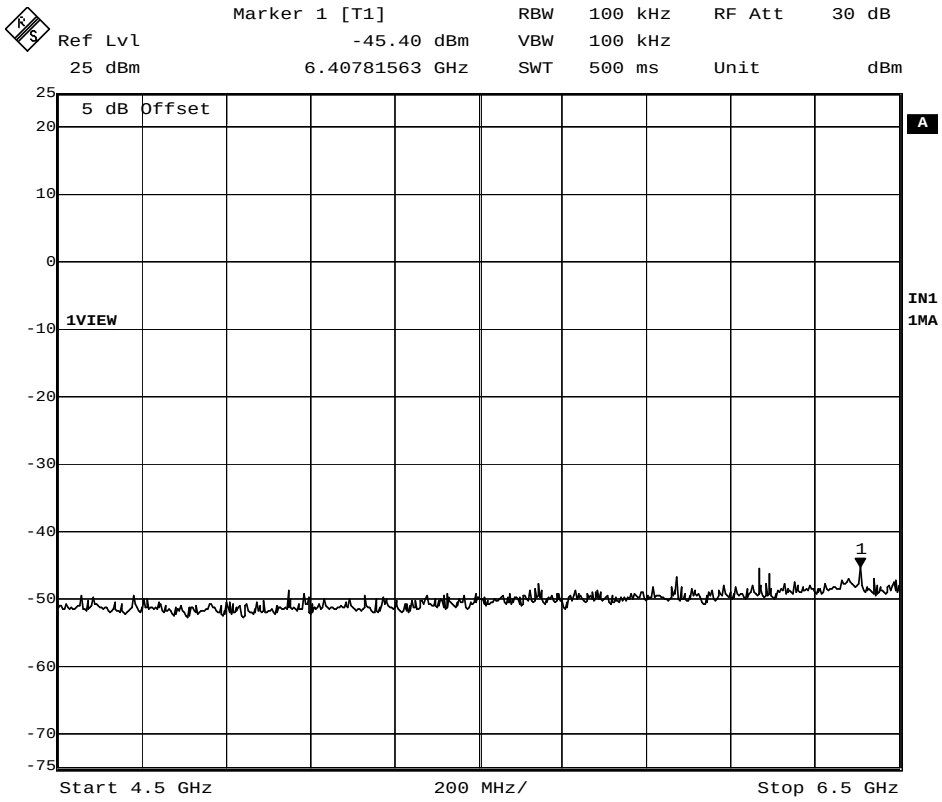
Date: 20.NOV.2008 15:03:27

(2.5-4.5G)



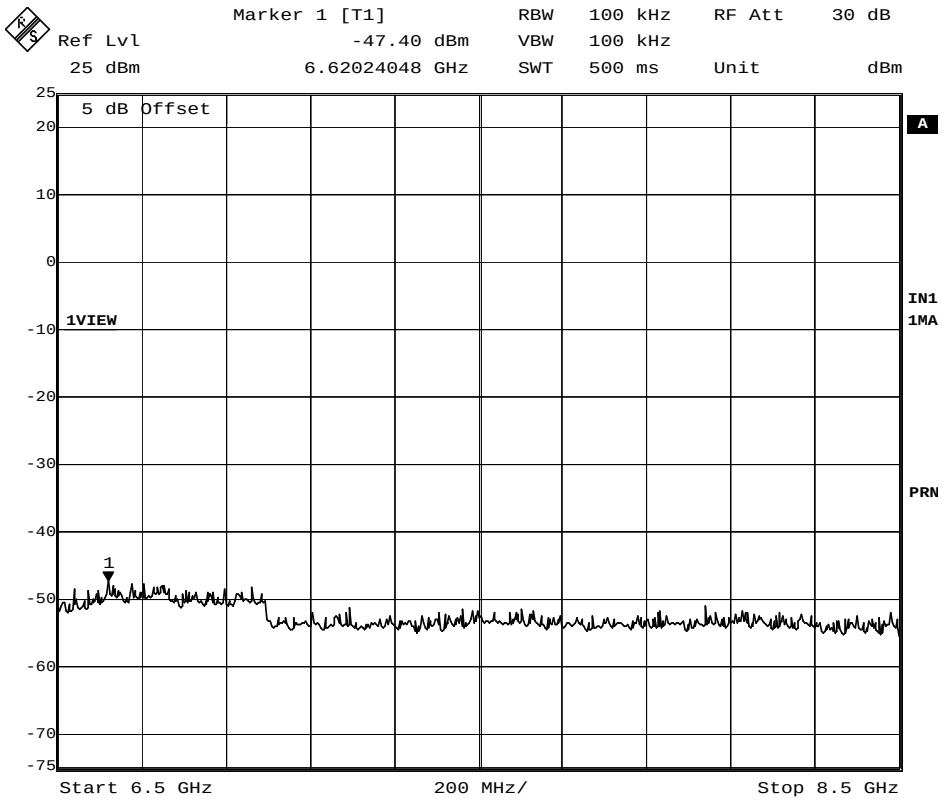
Date: 20.NOV.2008 15:05:01

(4.5-6.5G)



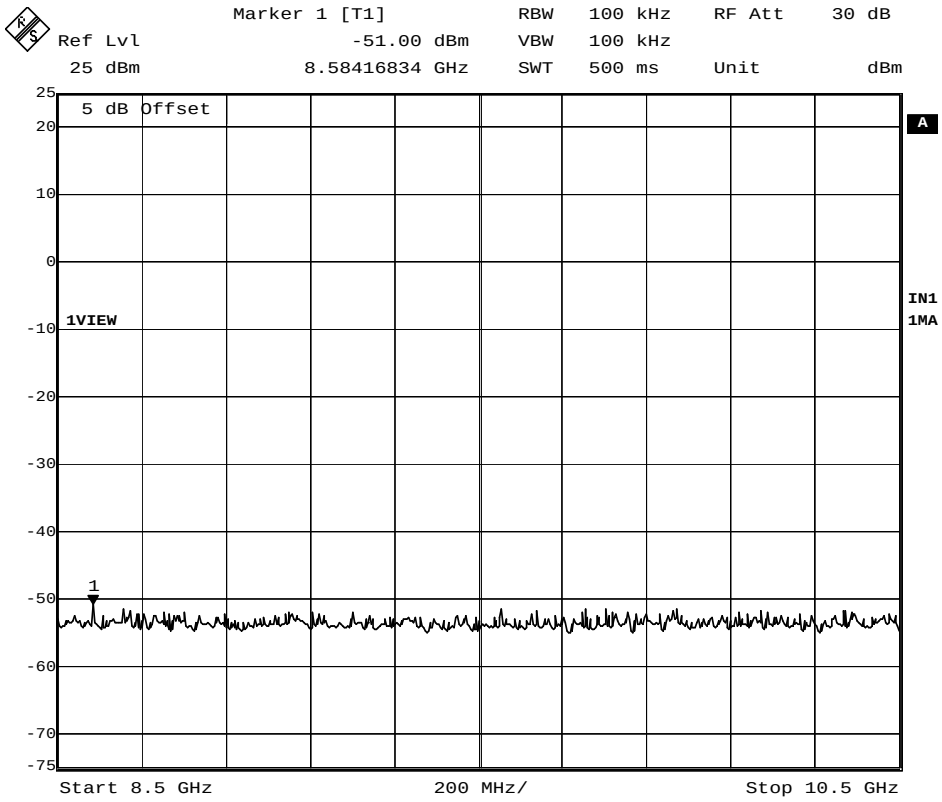
Date: 20.NOV.2008 15:06:00

(6.5-8.5G)



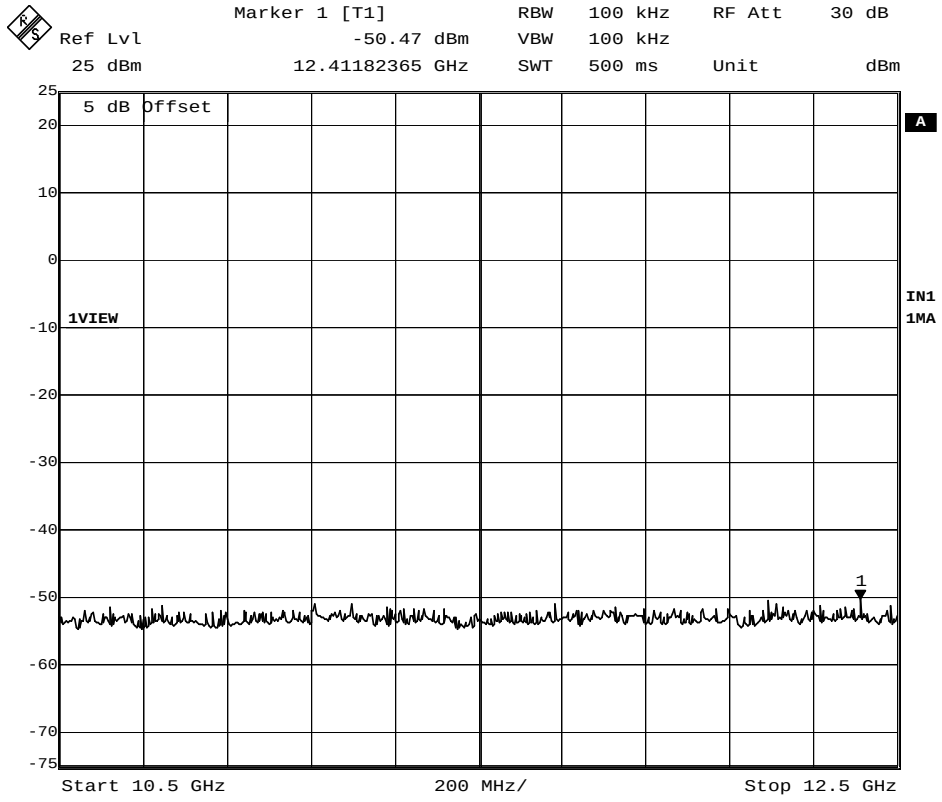
Date: 20.NOV.2008 15:06:58

(8.5-10.5G)



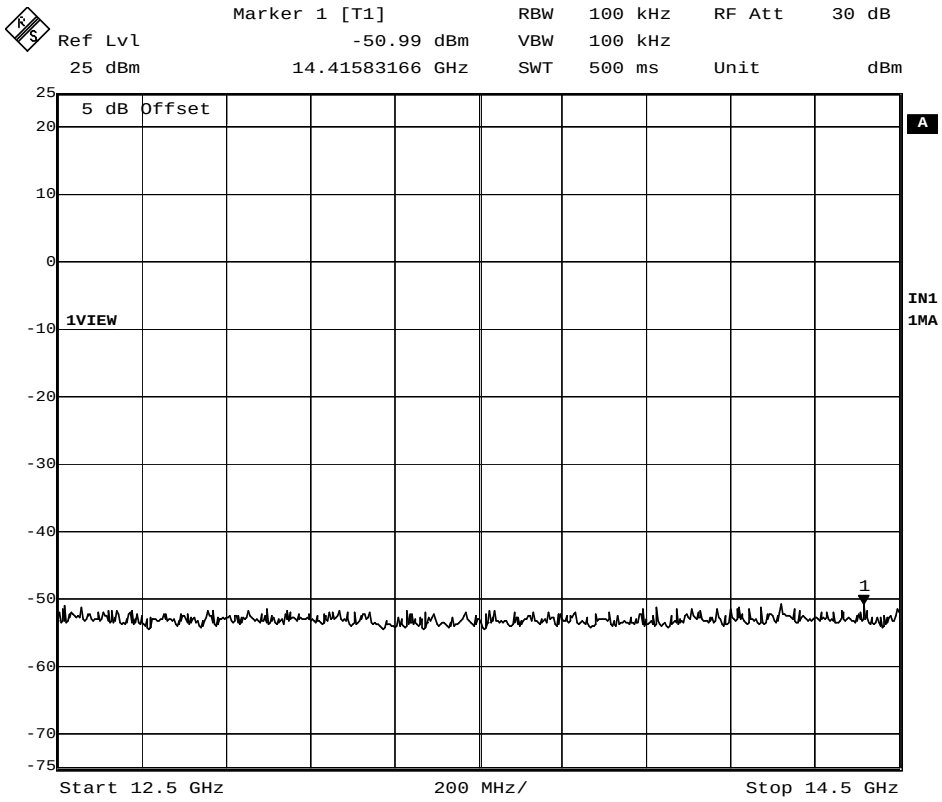
Date: 20.NOV.2008 15:07:38

(10.5-12.5G)



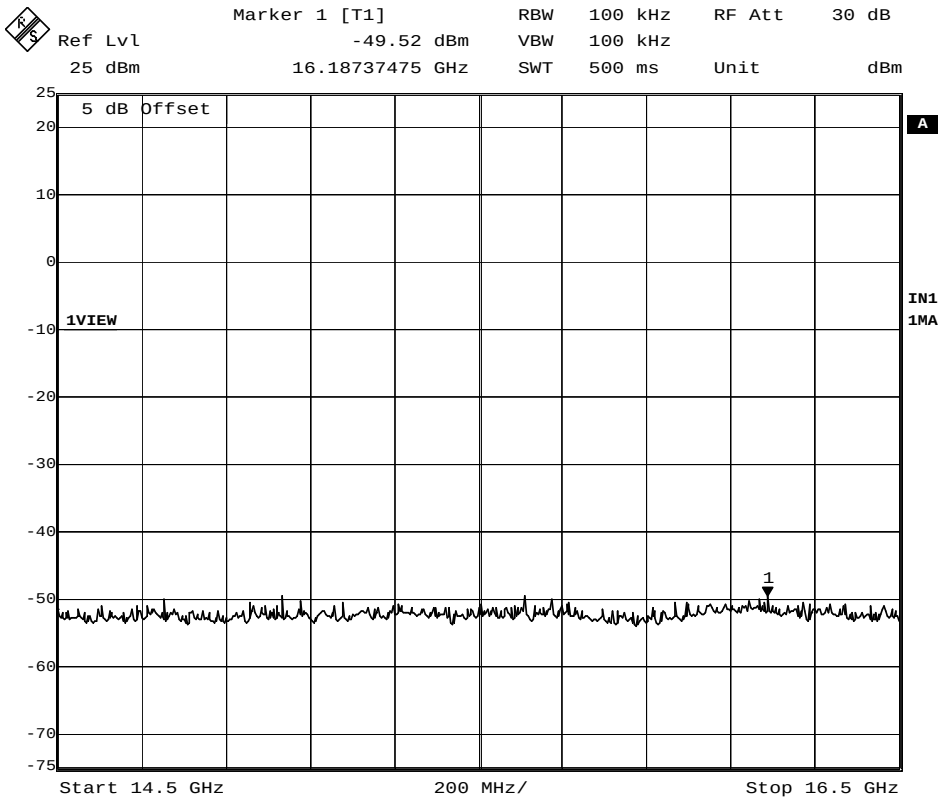
Date: 20.NOV.2008 15:08:17

(12.5-14.5G)



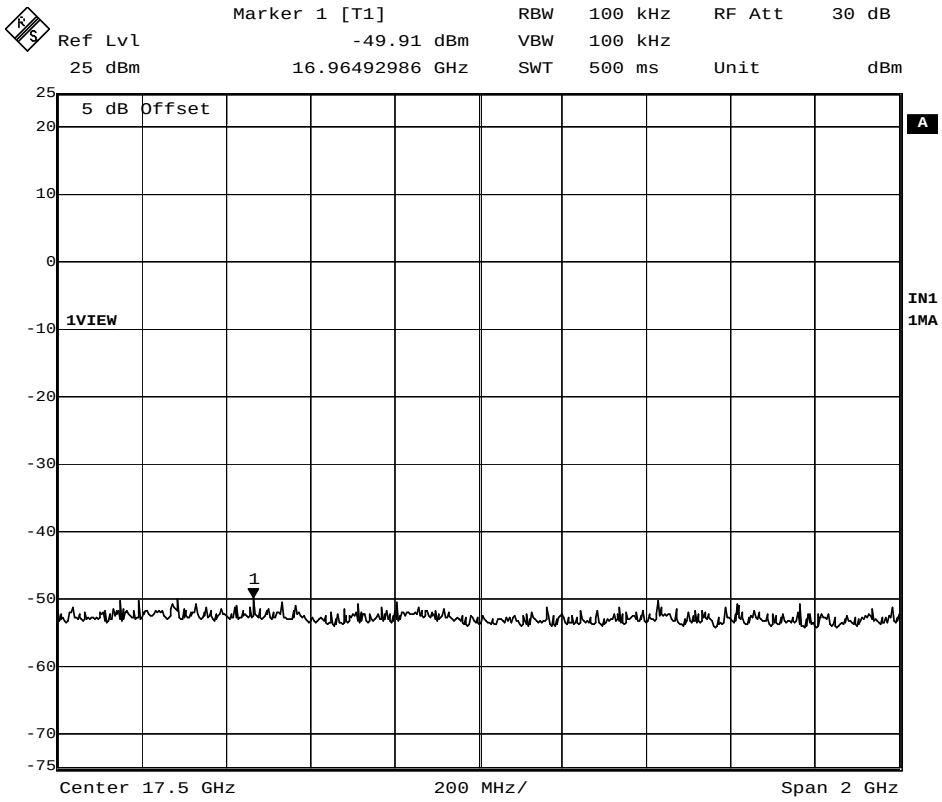
Date: 20.NOV.2008 15:11:37

(14.5-16.5G)

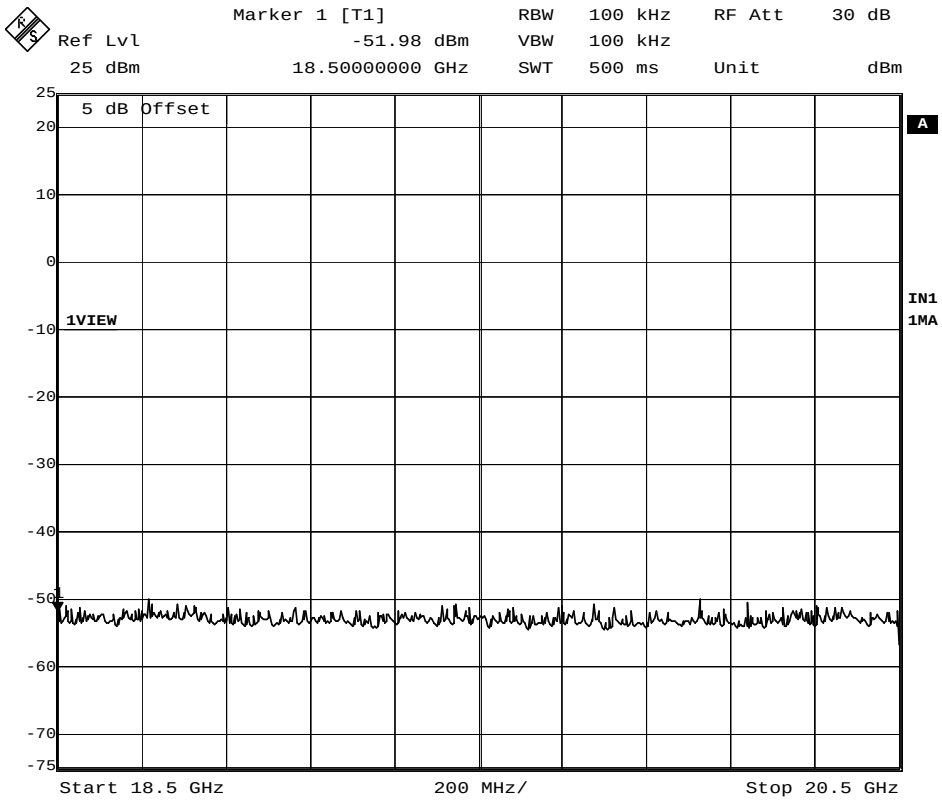


Date: 20.NOV.2008 15:12:16

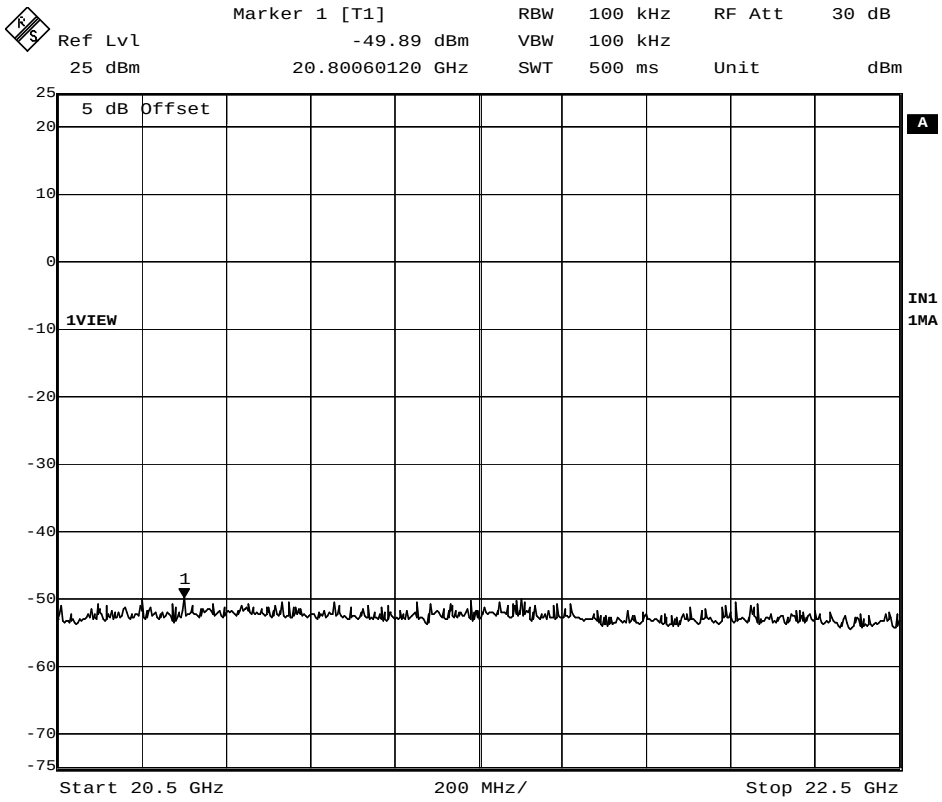
(16.8-18.5G)



(18.5-20.5G)

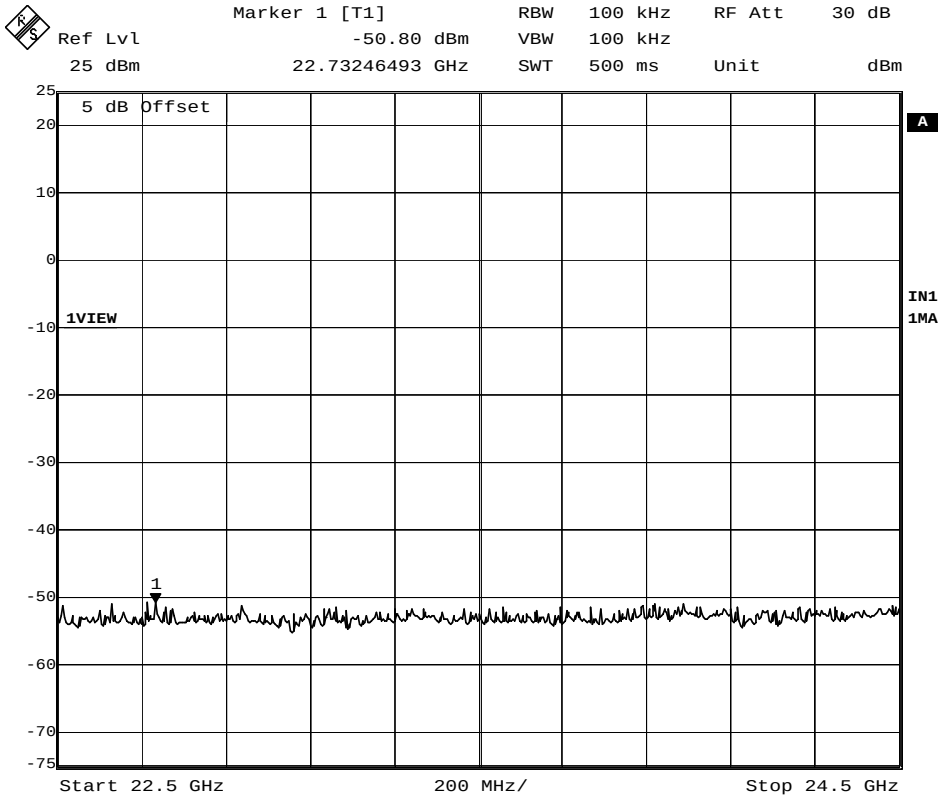


(20.5-22.5G)



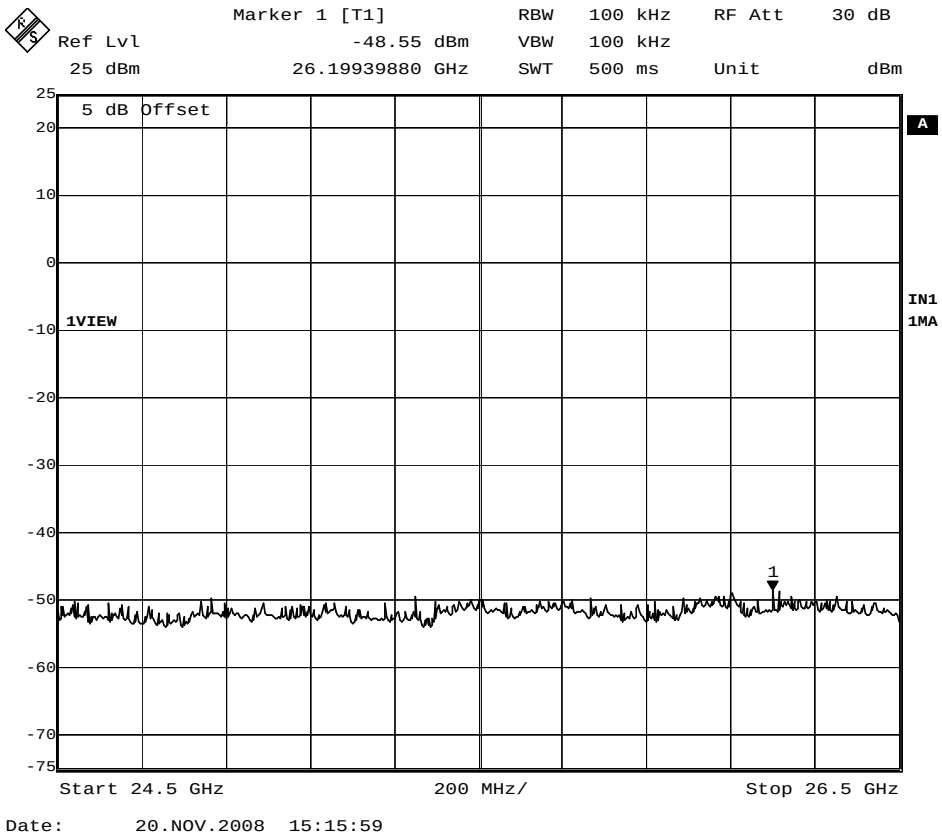
Date: 20.NOV.2008 15:14:40

(22.5-24.5G)



Date: 20.NOV.2008 15:15:14

(24.5-26.5G)


Marker 1 [T1]
RBW 100 kHz
RF Att 30 dB
Ref Lvl
-48.55 dBm
VBW 100 kHz
25 dBm
26.19939880 GHz
SWT 500 ms
Unit dBm
5 dB Offset
A
1VIEW
IN1
1MA
25
20
10
0
-10
-20
-30
-40
-50
-60
-70
-75
1
Start 24.5 GHz
200 MHz/
Stop 26.5 GHz
Date: 20.NOV.2008 15:15:59

6. Band Edge

6.1. Test Equipment

The following test equipments are used during the test:

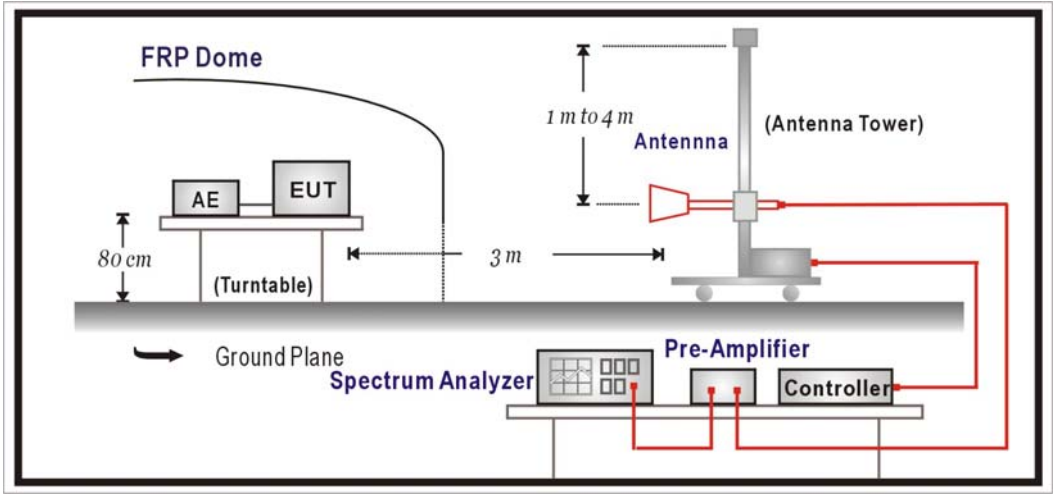
RF Radiated Measurement:					
Item	Equipment		Manufacturer	Model No. / Serial No.	Last Cal.
1	X	Spectrum Analyzer	R & S	FSP40 / 100005	Aug., 2008
2	X	Pre-Amplifier	HP	8449B / 3008A01123	Feb., 2008
3		Loop Antenna	R & S	HFH2-Z2 / 833799/004	Sep., 2008
4		BiconiLog Antenna	Schwarzbeck	VULB 9166 / 1061	Sep., 2008
5		Bilog Antenna	Chase	CBL6112B / 2455	Sep., 2008
6	X	Horn Antenna	Schwarzbeck	BBHA 9120D / BBHA9120D312	Sep., 2008
7	No.1 OATS				Sep., 2008

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.

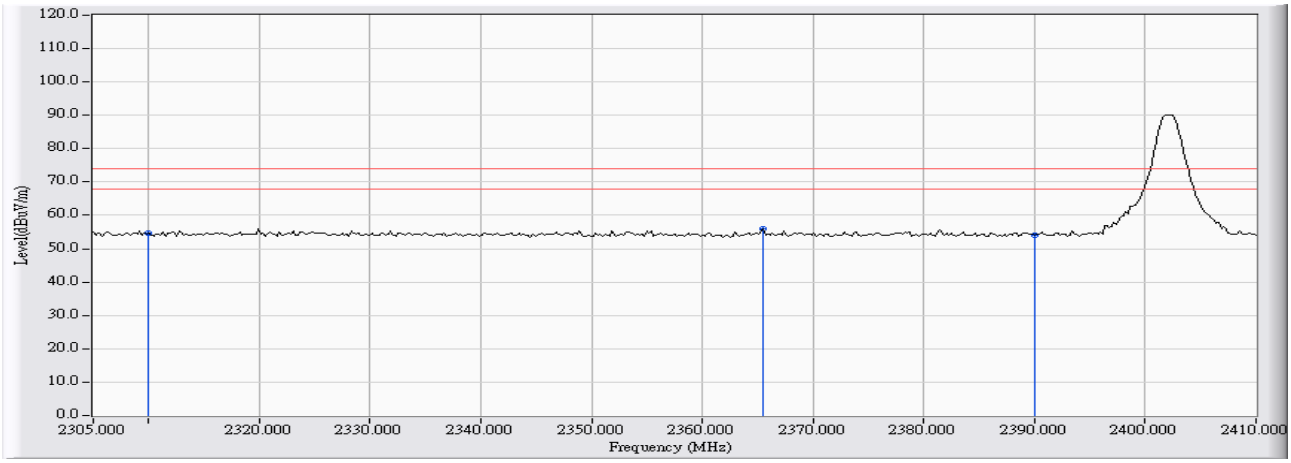
Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated according to ANSI C63.4:2003 on radiated measurement.

6.5. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.247: 2007

6.6. Test Result

Site : Site 1	Time : 2008/11/19 - 09:57
Limit : FCC_15.209(961011)_03M_PK	Margin : 6
Probe : CB3_FCC_1-18G(2008-8) - HORIZONTAL	Power : AC 120V/60Hz
EUT : GPSmile 62 Car Navigator	Note : CH00

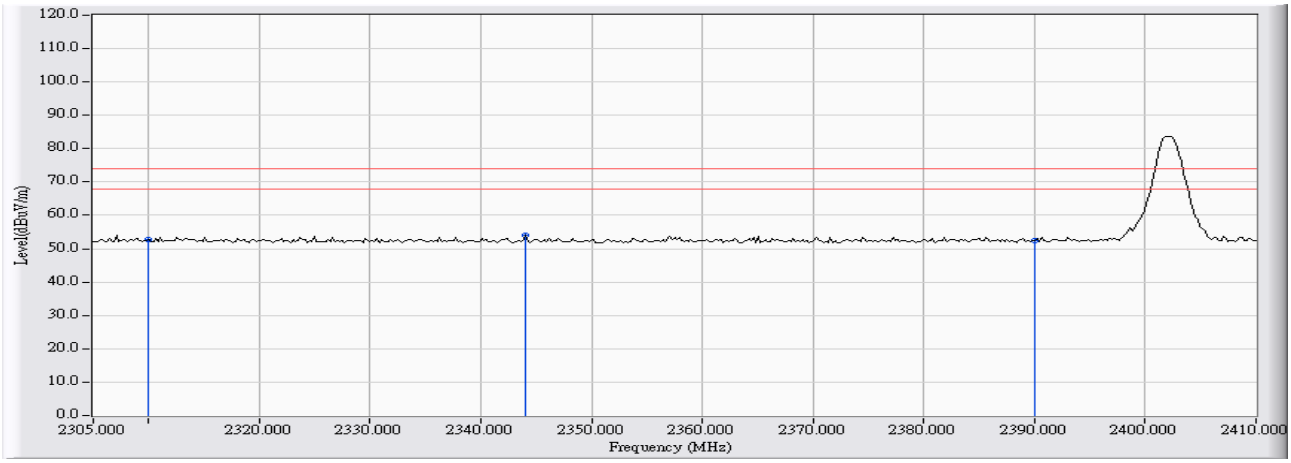


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1		2310.000	30.412	24.219	54.630	-19.370	74.000	54.000	PEAK
2	*	2365.480	30.499	25.462	55.962	-18.038	74.000	54.000	PEAK
3		2390.000	30.543	23.474	54.017	-19.983	74.000	54.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 13GHz were not included is because their levels are too low.

Site : Site 1	Time : 2008/11/19 - 11:10
Limit : FCC_15.209(961011)_03M_PK	Margin : 6
Probe : CB3_FCC_1-18G(2008-8) - VERTICAL	Power : AC 120V/60Hz
EUT : GPSmile 62 Car Navigator	Note : CH00

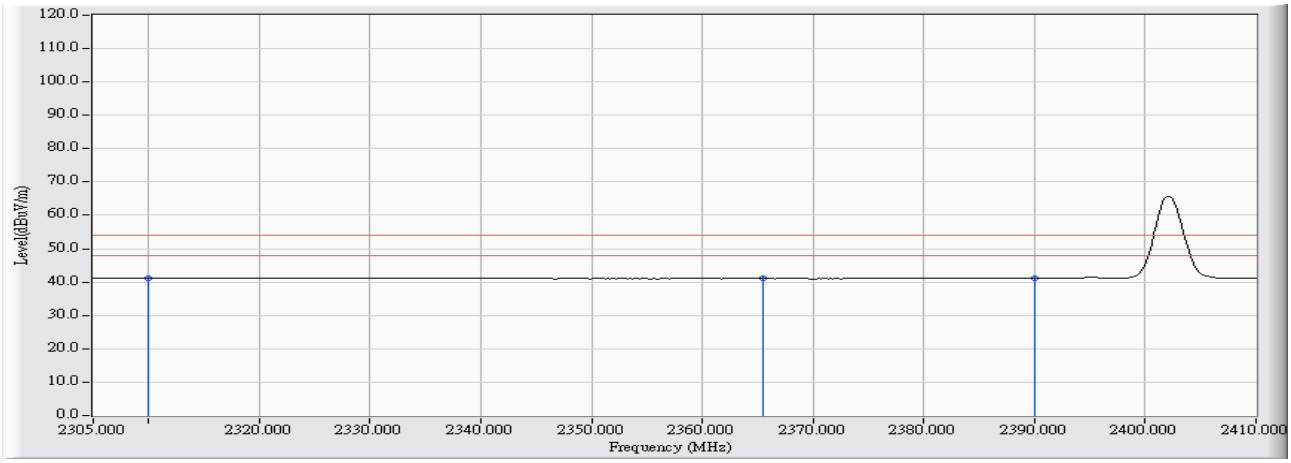


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1		2310.000	28.433	24.246	52.679	-21.321	74.000	54.000	PEAK
2	*	2344.060	28.553	25.442	53.996	-20.004	74.000	54.000	PEAK
3		2390.000	28.724	23.782	52.506	-21.494	74.000	54.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 13GHz were not included is because their levels are too low.

Site : Site 1	Time : 2008/11/19 - 09:59
Limit : FCC_15.209(961011)_03M_AV	Margin : 6
Probe : CB3_FCC_1-18G(2008-8) - HORIZONTAL	Power : AC 120V/60Hz
EUT : GPSmile 62 Car Navigator	Note : CH00

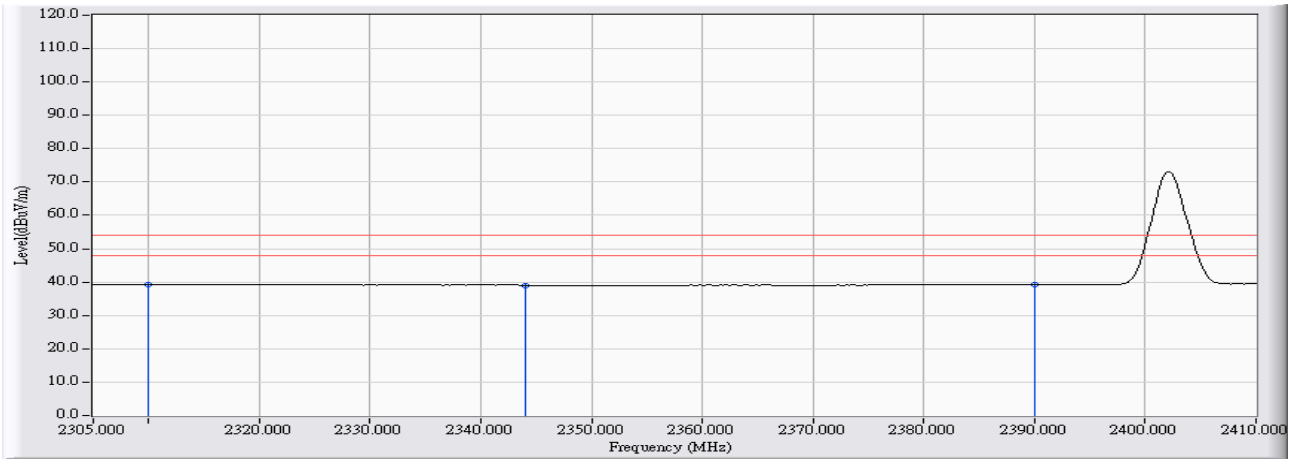


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1		2310.000	30.412	10.802	41.213	-12.787	74.000	54.000	AVERAGE
2	*	2365.480	30.499	10.560	41.060	-12.940	74.000	54.000	AVERAGE
3		2390.000	30.543	10.615	41.158	-12.842	74.000	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 13GHz were not included is because their levels are too low.

Site : Site 1	Time : 2008/11/19 - 11:12
Limit : FCC_15.209(961011)_03M_AV	Margin : 6
Probe : CB3_FCC_1-18G(2008-8) - VERTICAL	Power : AC 120V/60Hz
EUT : GPSmile 62 Car Navigator	Note : CH00

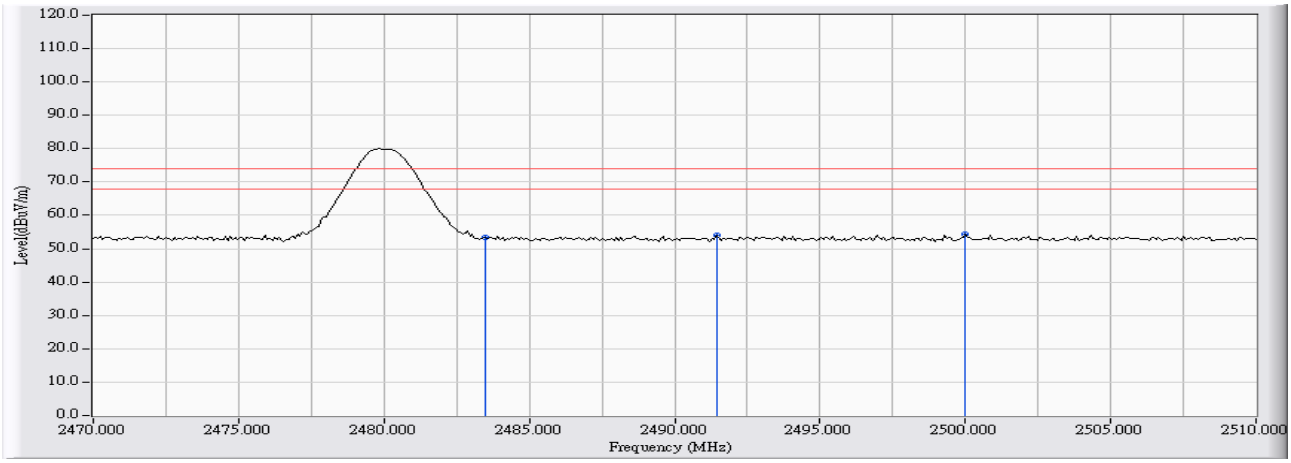


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1		2310.000	28.433	10.702	39.135	-14.865	74.000	54.000	AVERAGE
2	*	2344.060	28.553	10.519	39.073	-14.927	74.000	54.000	AVERAGE
3		2390.000	28.724	10.539	39.263	-14.737	74.000	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 13GHz were not included is because their levels are too low.

Site : Site 1	Time : 2008/11/19 - 10:38
Limit : FCC_15.209(961011)_03M_PK	Margin : 6
Probe : CB3_FCC_1-18G(2008-8) - VERTICAL	Power : AC 120V/60Hz
EUT : GPSmile 62 Car Navigator	Note : CH78

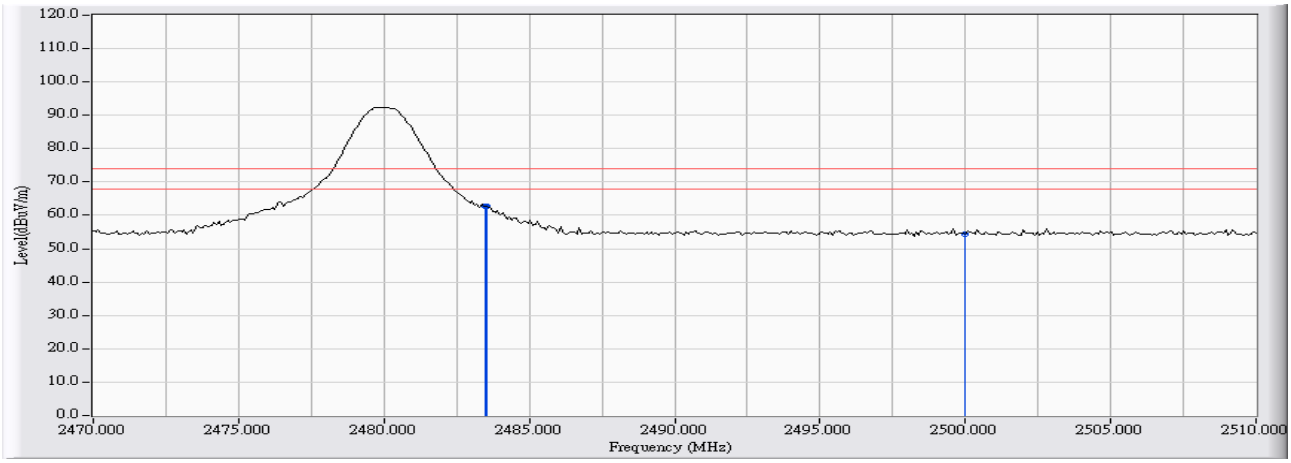


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1		2483.500	29.064	24.221	53.284	-20.716	74.000	54.000	PEAK
2	*	2491.440	29.086	25.074	54.161	-19.839	74.000	54.000	PEAK
3		2500.000	29.114	25.213	54.327	-19.673	74.000	54.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 13GHz were not included is because their levels are too low.

Site : Site 1	Time : 2008/11/19 - 10:56
Limit : FCC_15.209(961011)_03M_PK	Margin : 6
Probe : CB3_FCC_1-18G(2008-8) - HORIZONTAL	Power : AC 120V/60Hz
EUT : GPSmile 62 Car Navigator	Note : CH78

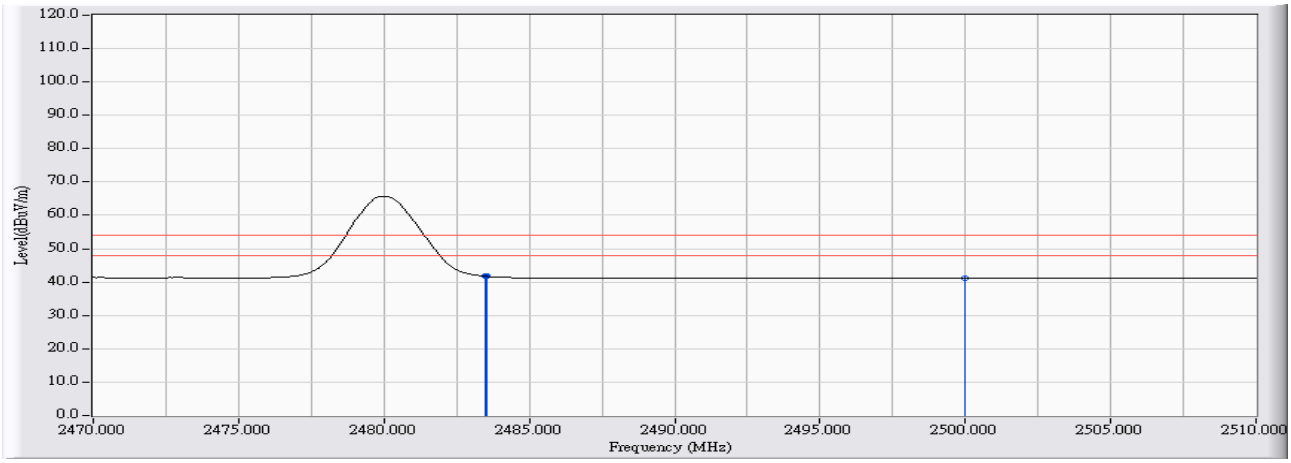


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1		2483.500	30.696	32.093	62.788	-11.212	74.000	54.000	PEAK
2	*	2483.520	30.696	32.111	62.806	-11.194	74.000	54.000	PEAK
3		2500.000	30.722	23.585	54.307	-19.693	74.000	54.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 13GHz were not included is because their levels are too low.

Site : Site 1	Time : 2008/11/19 - 10:57
Limit : FCC_15.209(961011)_03M_AV	Margin : 6
Probe : CB3_FCC_1-18G(2008-8) - HORIZONTAL	Power : AC 120V/60Hz
EUT : GPSmile 62 Car Navigator	Note : CH78

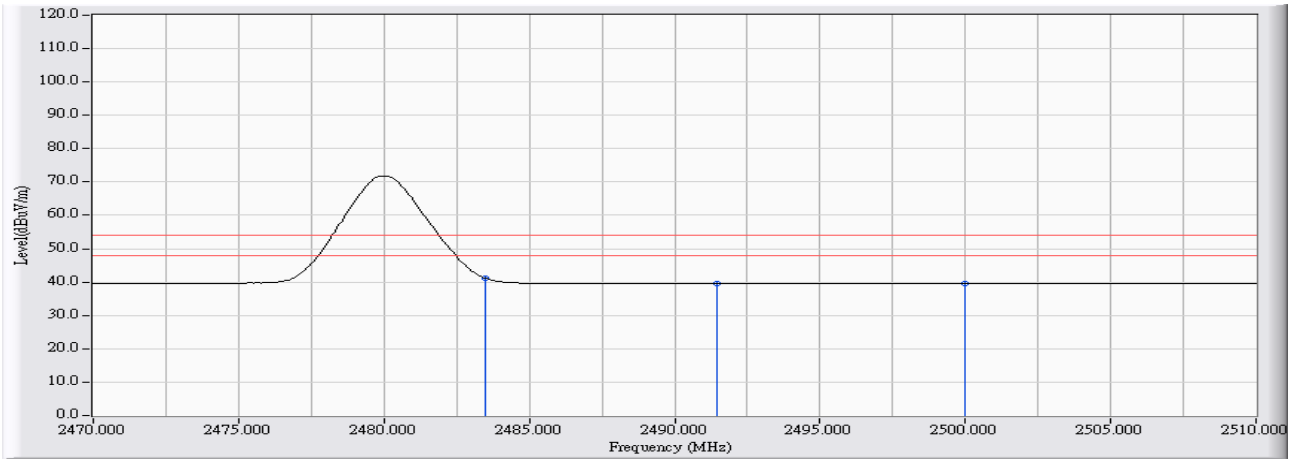


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1		2483.500	30.696	11.018	41.713	-12.287	74.000	54.000	AVERAGE
2	*	2483.520	30.696	11.000	41.695	-12.305	74.000	54.000	AVERAGE
3		2500.000	30.722	10.404	41.126	-12.874	74.000	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 13GHz were not included is because their levels are too low.

Site : Site 1	Time : 2008/11/19 - 10:39
Limit : FCC_15.209(961011)_03M_AV	Margin : 6
Probe : CB3_FCC_1-18G(2008-8) - VERTICAL	Power : AC 120V/60Hz
EUT : GPSmile 62 Car Navigator	Note : CH78



		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		2483.500	29.064	12.033	41.096	-12.904	74.000	54.000	AVERAGE
2	*	2491.440	29.086	10.485	39.572	-14.428	74.000	54.000	AVERAGE
3		2500.000	29.114	10.440	39.554	-14.446	74.000	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 13GHz were not included is because their levels are too low.

7. Number of hopping frequency

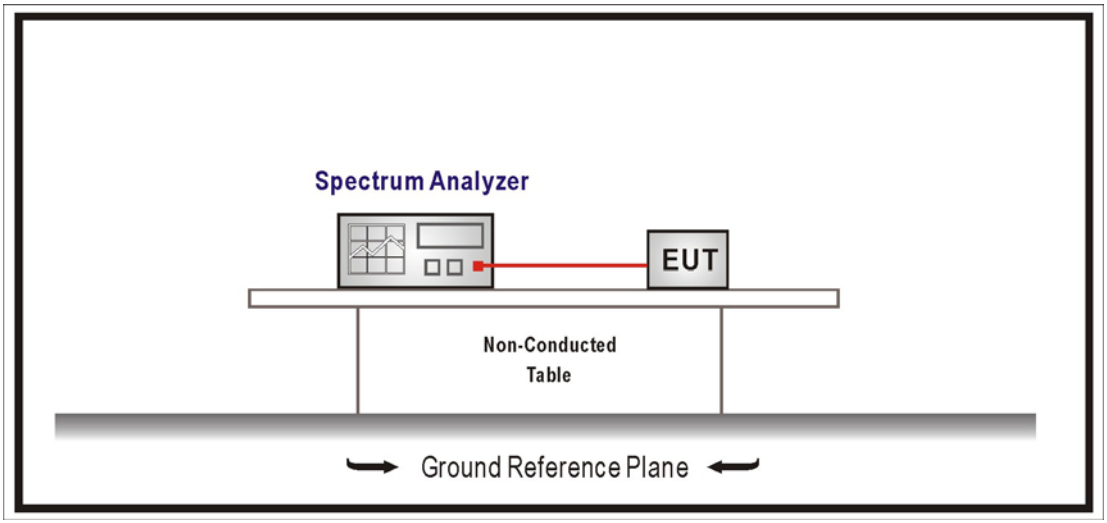
7.1. Test Equipment

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., 2008
2	No.1 OATS			Sep., 2008

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

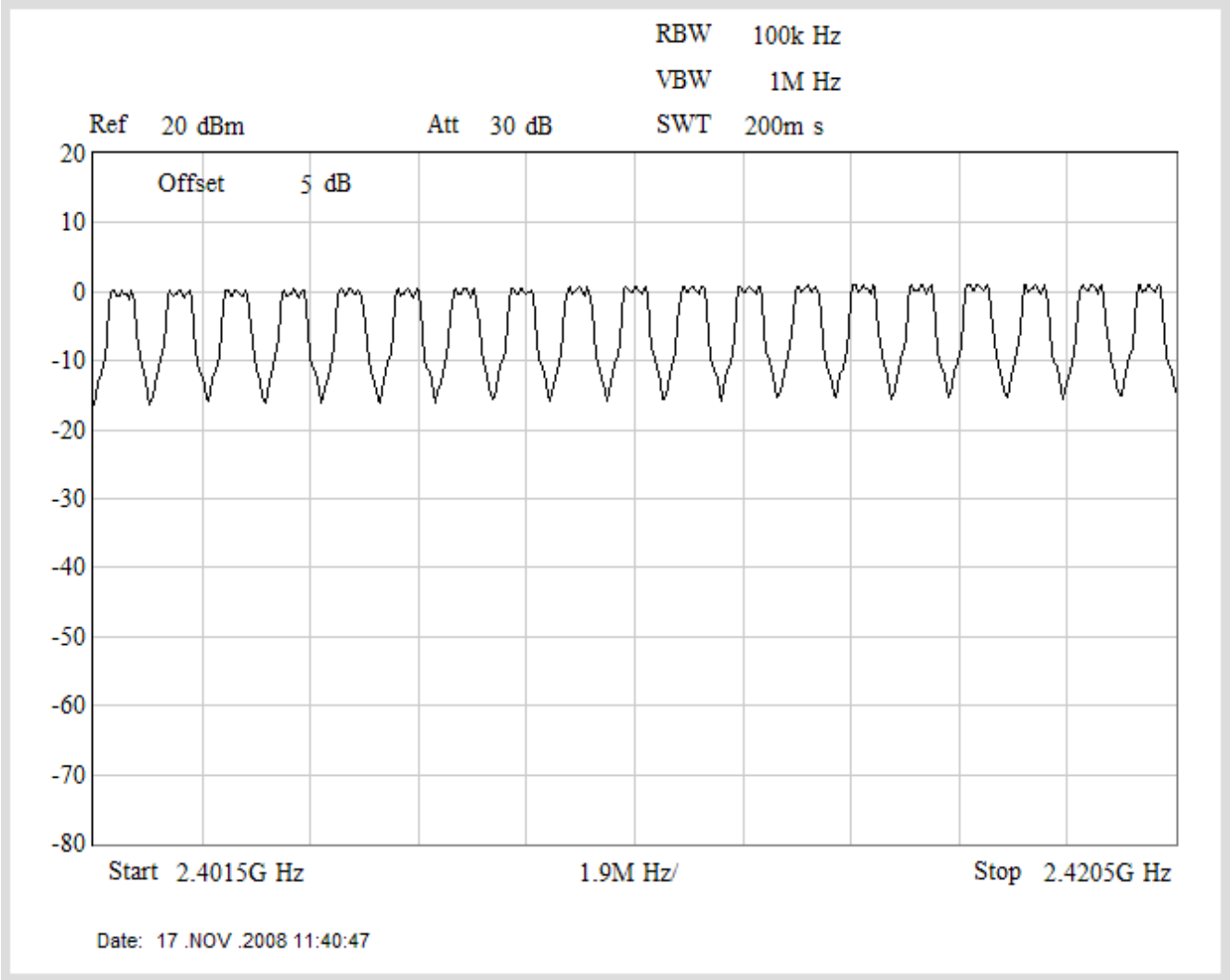
According to FCC Part 15 Subpart C Paragraph 15.247: 2007

7.6. Test Result

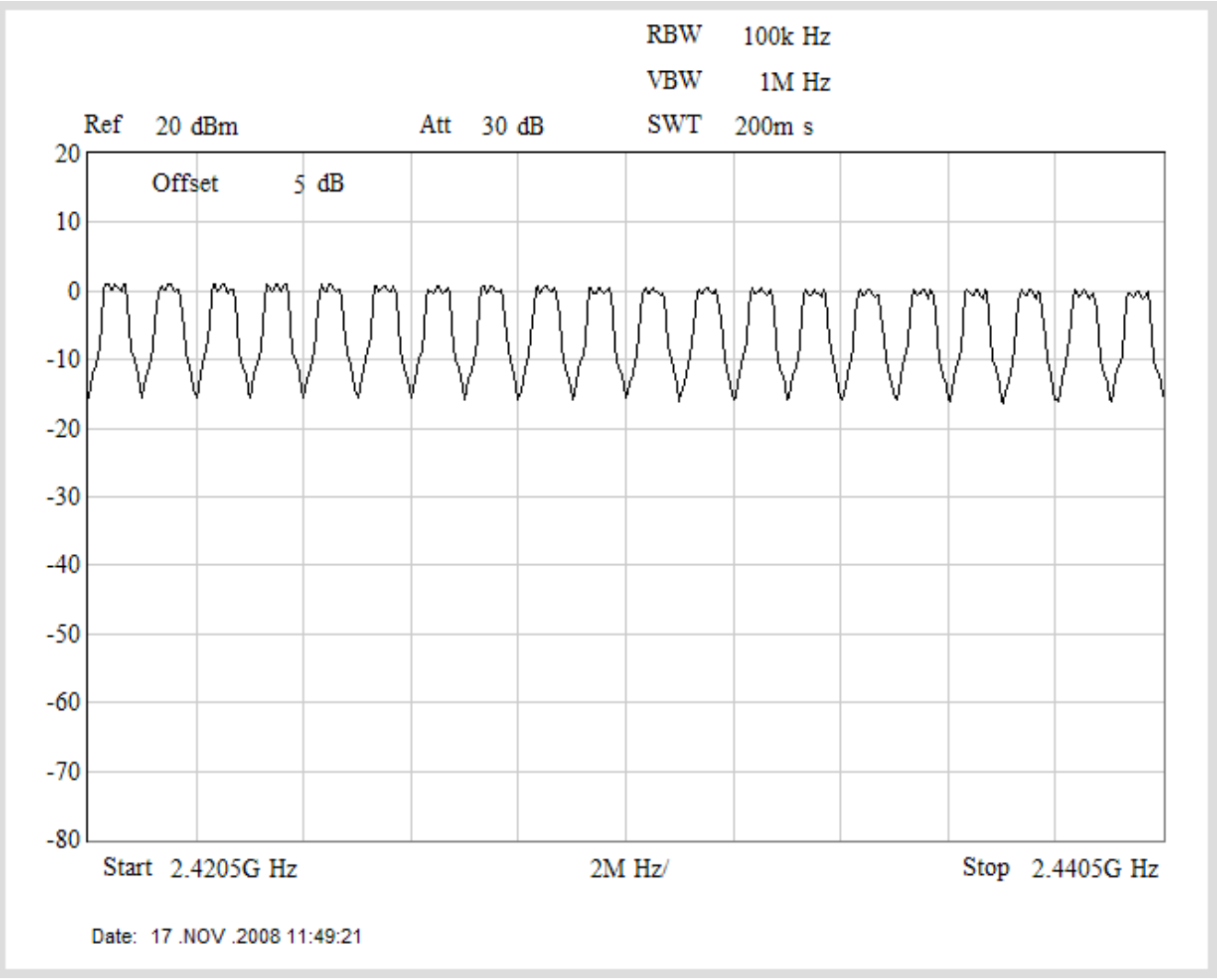
Product	GPSmile 62 Car Navigator		
Test Item	Number of hopping frequency		
Test Mode	Transmit		
Date of Test	2008/11/17	Test Site	No.1 OATS

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

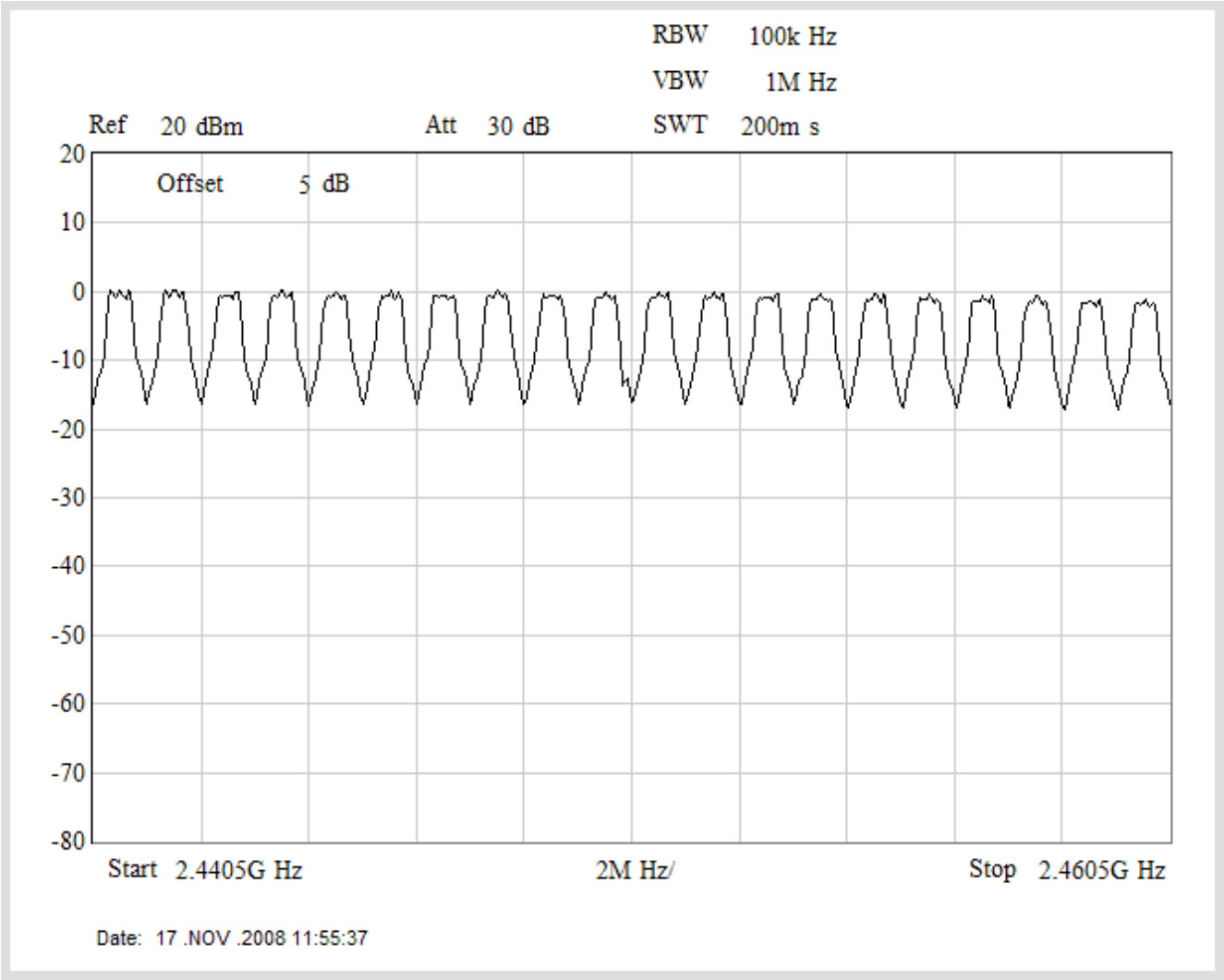
2402-2420MHz



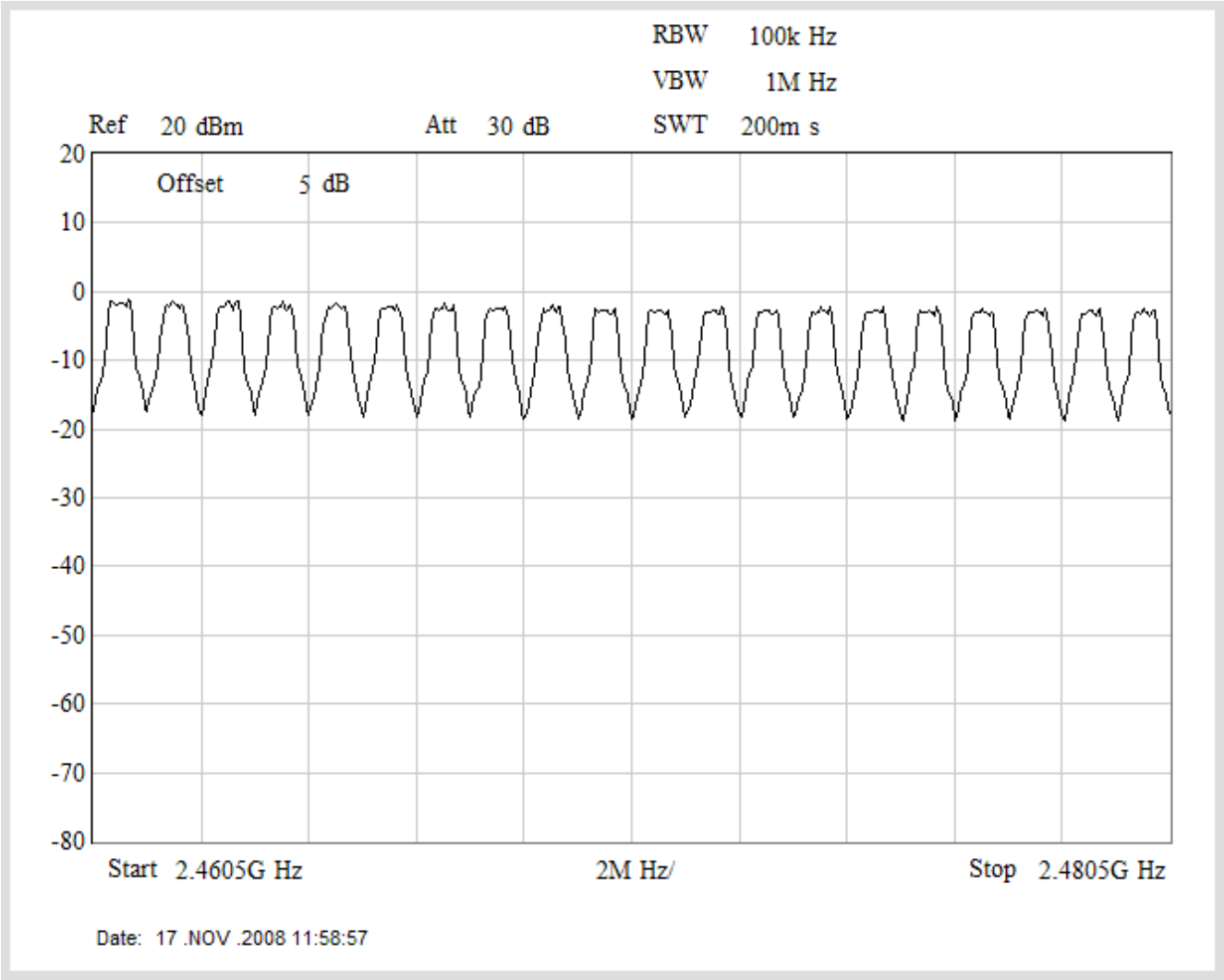
2421-2440MHz



2441-2460MHz



2461-2480MHz



8. Carrier Frequency Separation

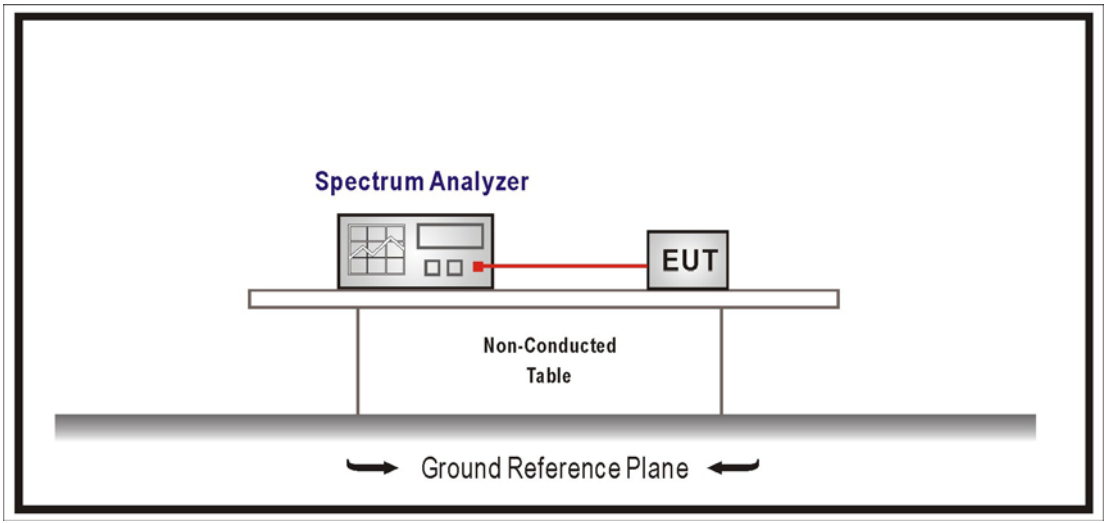
8.1. Test Equipment

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., 2008
2	No.1 OATS			Sep., 2008

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

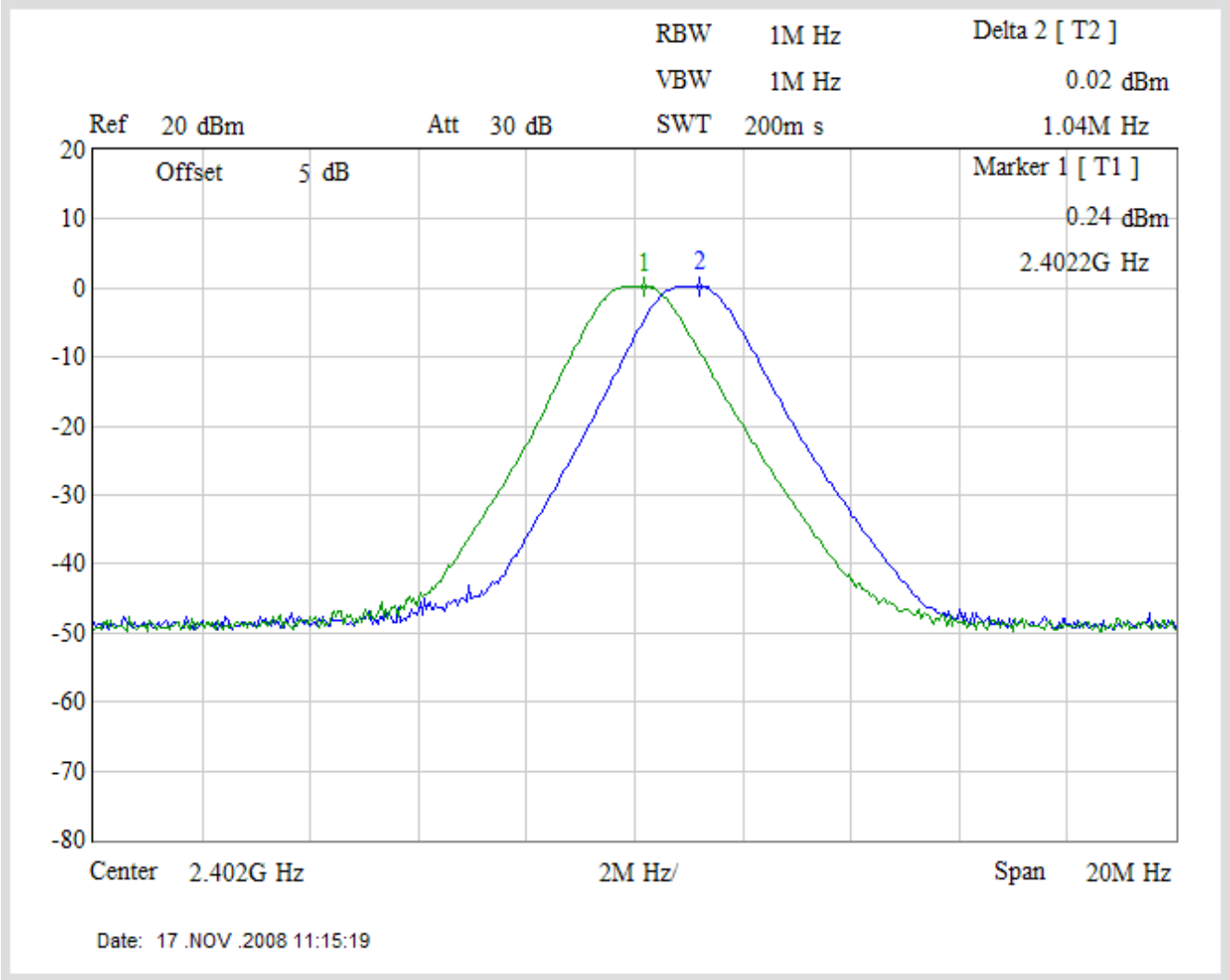
According to FCC Part 15 Subpart C Paragraph 15.247: 2007

8.6. Test Result

Product	GPSmile 62 Car Navigator		
Test Item	Carrier Frequency Separation		
Test Mode	Transmit		
Date of Test	2008/11/17	Test Site	No.1 OATS

Channel No.	Frequency (MHz)	Measure Level (kHz)	Limit (kHz)	Result
00	2402.00	1040	>746.4	Pass

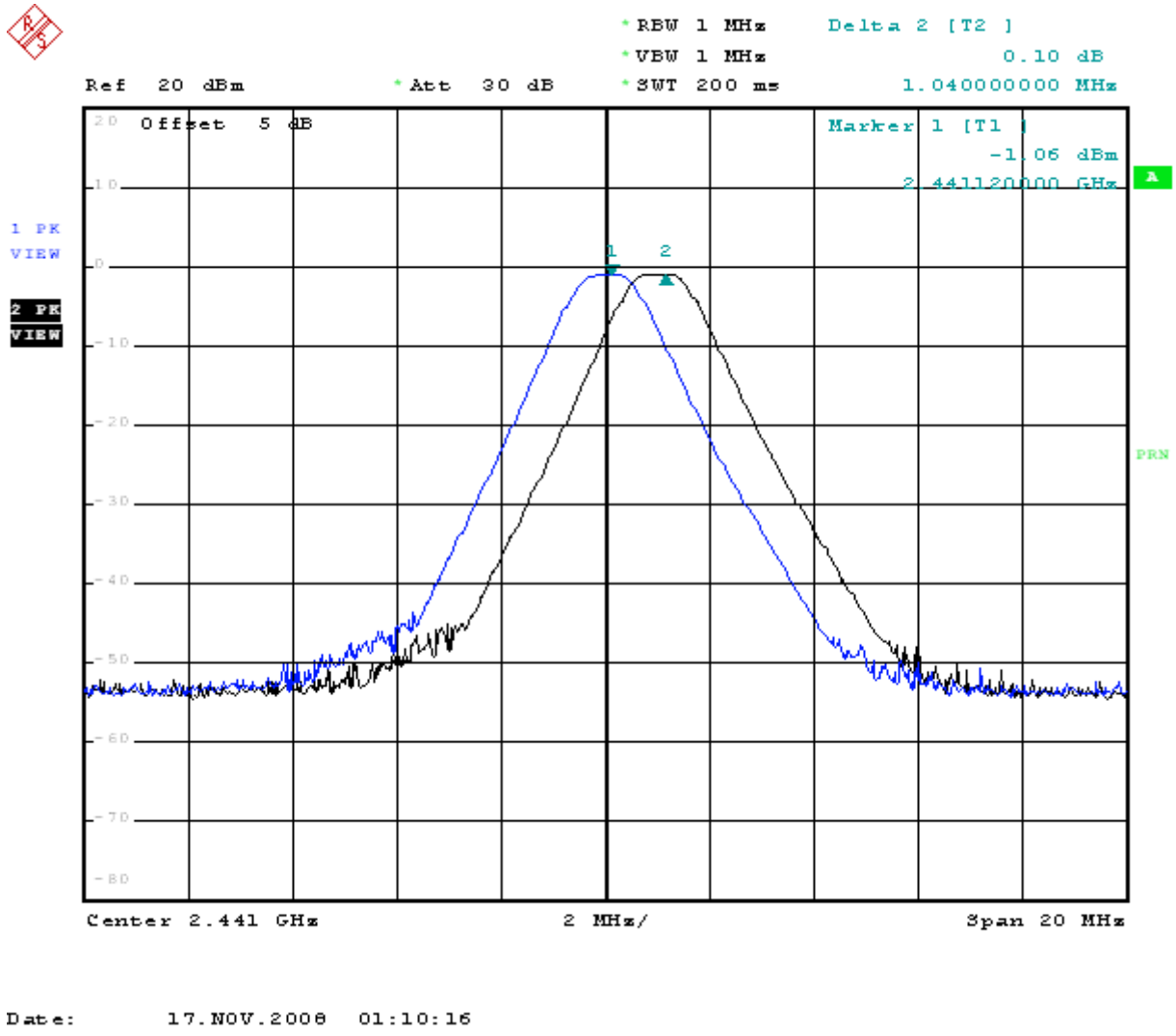
Channel 00



Product	GPSmile 62 Car Navigator		
Test Item	Carrier Frequency Separation		
Test Mode	Transmit		
Date of Test	2008/11/17	Test Site	No.1 OATS

Channel No.	Frequency (MHz)	Measure Level (kHz)	Limit (kHz)	Result
39	2441.00	1040	>746.6	Pass

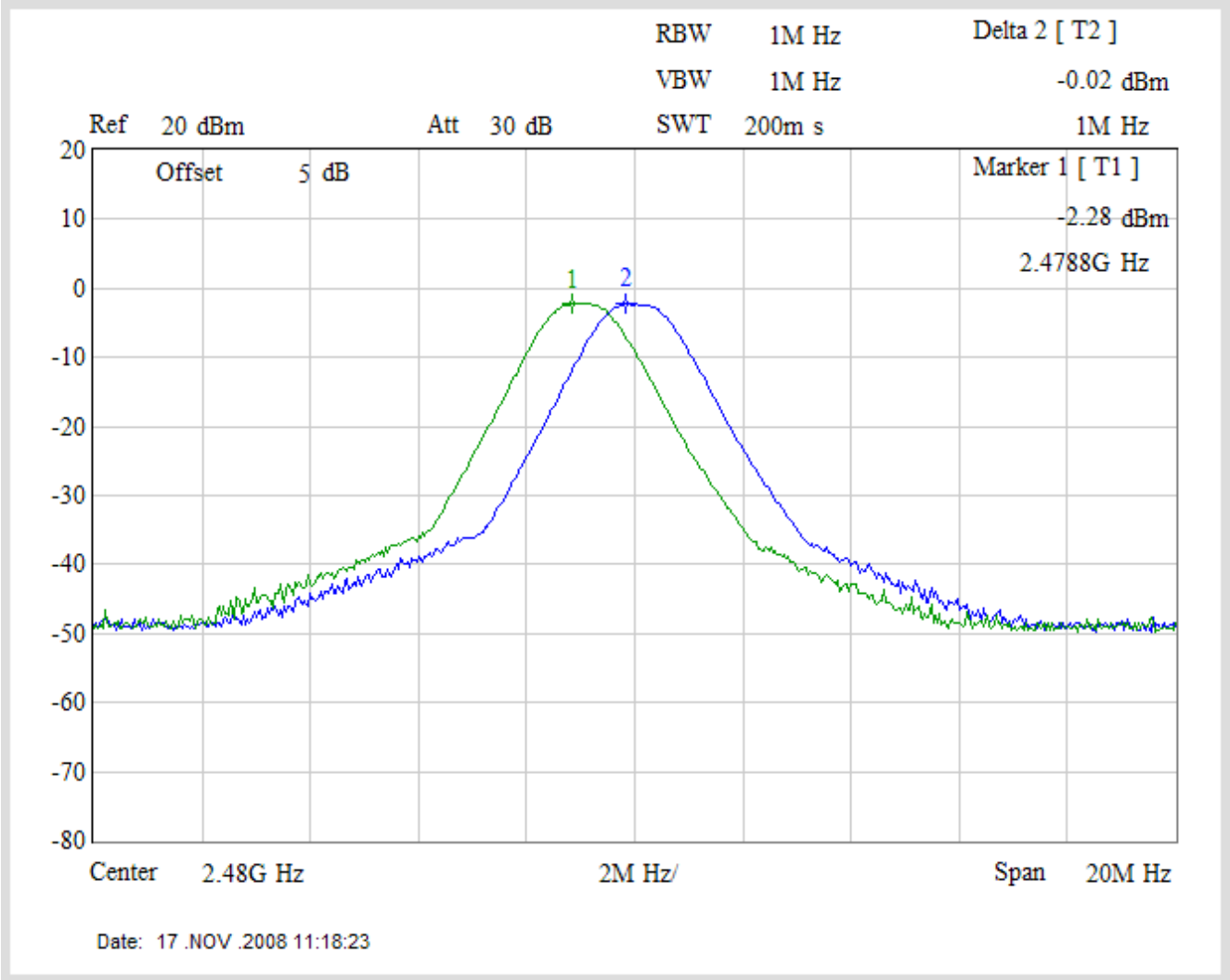
Channel 39



Product	GPSmile 62 Car Navigator		
Test Item	Carrier Frequency Separation		
Test Mode	Transmit		
Date of Test	2008/11/17	Test Site	No.1 OATS

Channel No.	Frequency (MHz)	Measure Level (kHz)	Limit (kHz)	Result
78	2480.00	1040	>746.8	Pass

Channel 78



9. Occupied Bandwidth

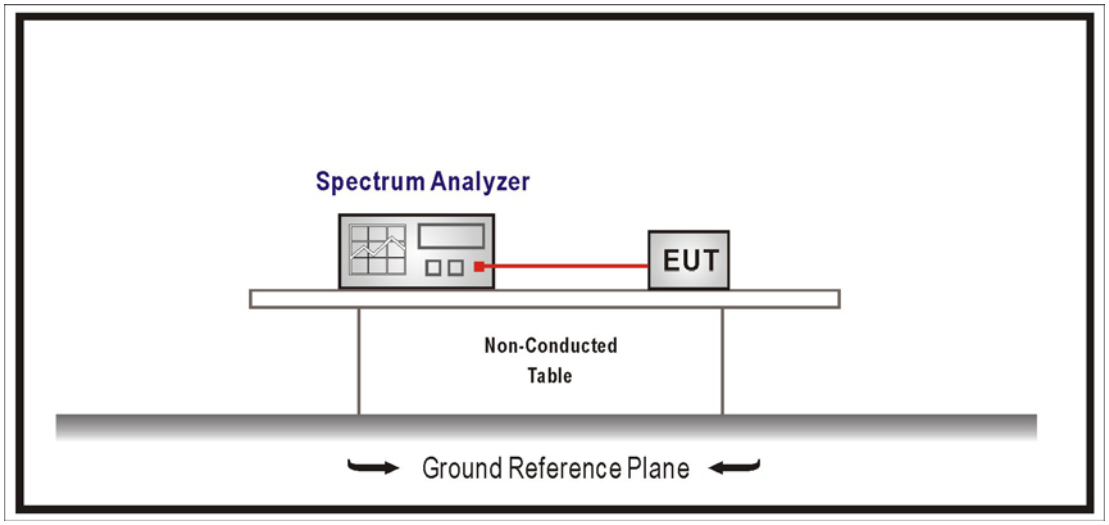
9.1. Test Equipment

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., 2008
2	No.1 OATS			Sep., 2008

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: 2007

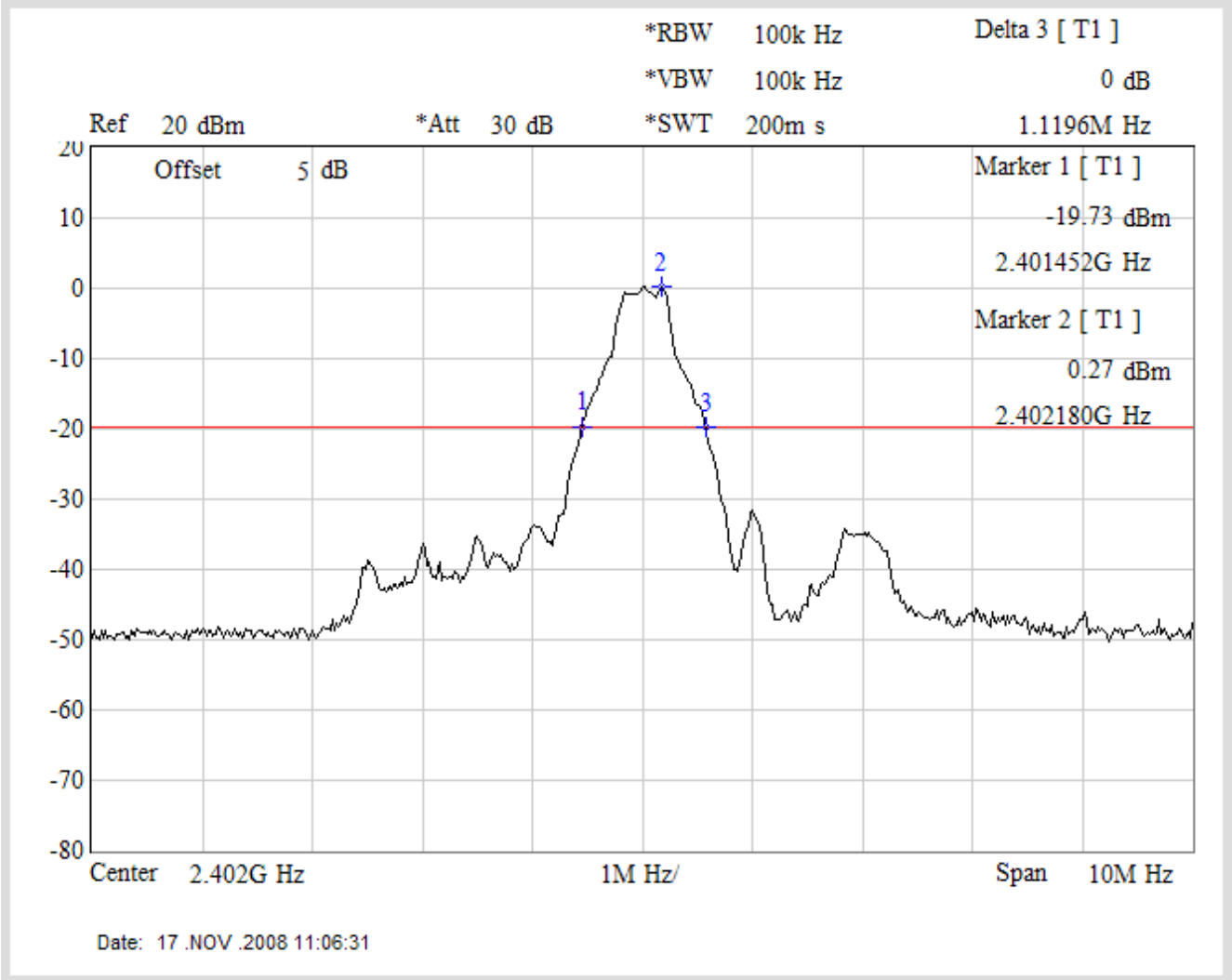
9.6. Test Result

Product	GPSmile 62 Car Navigator		
Test Item	Occupied Bandwidth		
Test Mode	Transmit		
Date of Test	2008/11/17	Test Site	No.1 OATS

1M-GFSK Modulation, PRBS Packet Type

Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
00	2402.00	1.1196	--	Pass

Channel 00

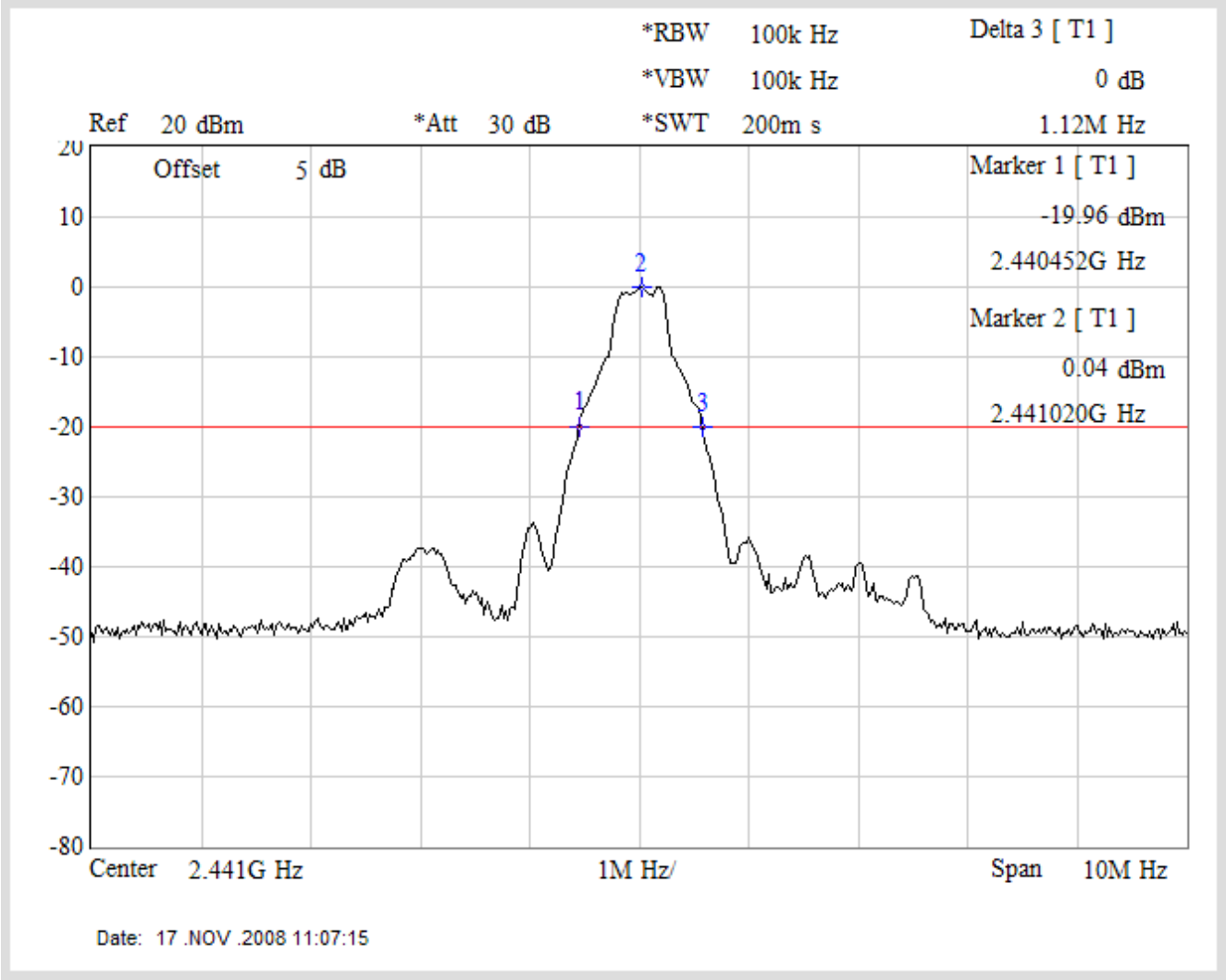


Product	GPSmile 62 Car Navigator		
Test Item	Occupied Bandwidth		
Test Mode	Transmit		
Date of Test	2008/11/17	Test Site	No.1 OATS

1M-GFSK Modulation, PRBS Packet Type

Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
39	2441.00	1.1200	--	Pass

Channel 39

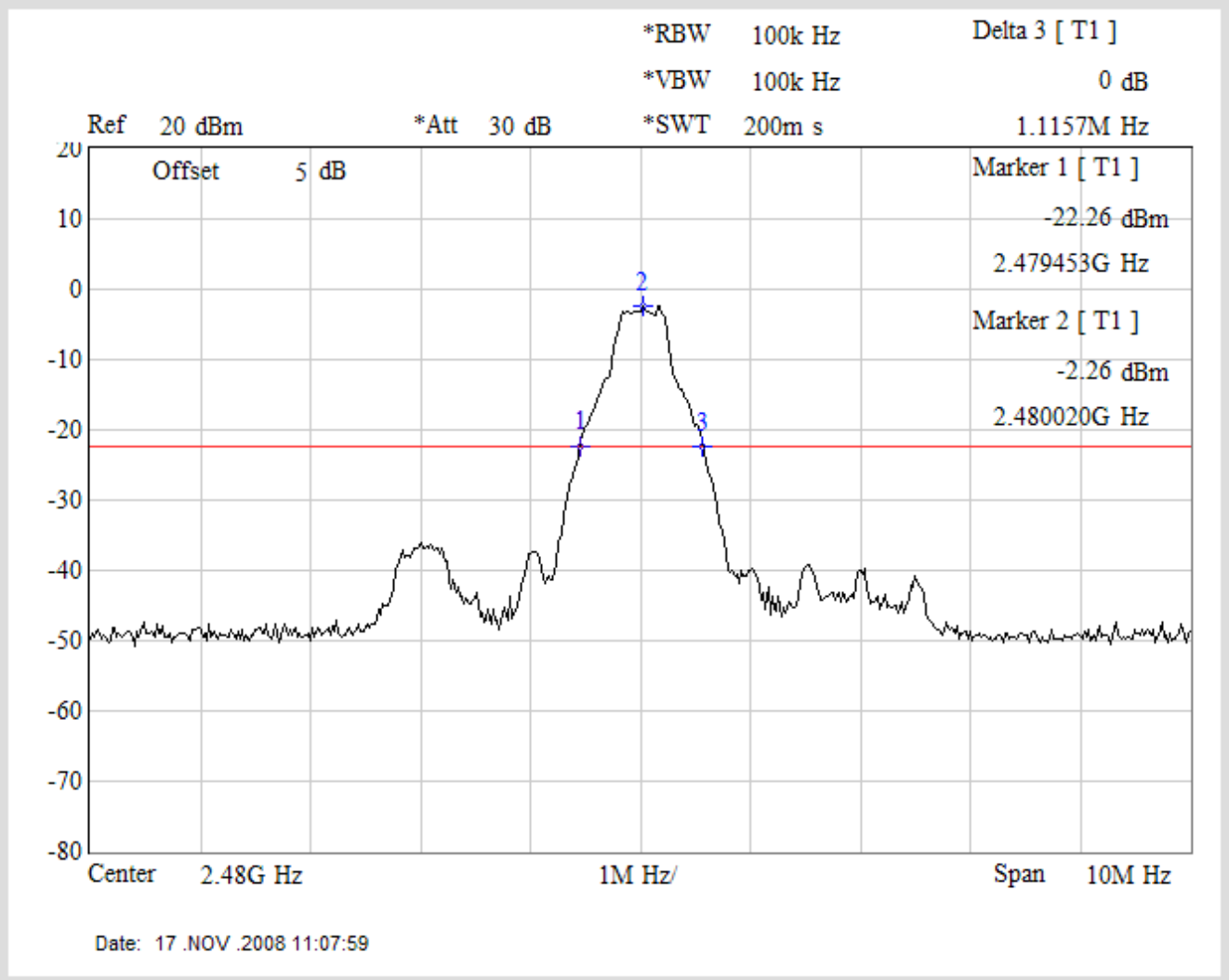


Product	GPSmile 62 Car Navigator		
Test Item	Occupied Bandwidth		
Test Mode	Transmit		
Date of Test	2008/11/17	Test Site	No.1 OATS

1M-GFSK Modulation, PRBS Packet Type

Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
78	2480.00	1.1157	--	Pass

Channel 78



10. Dwell Time

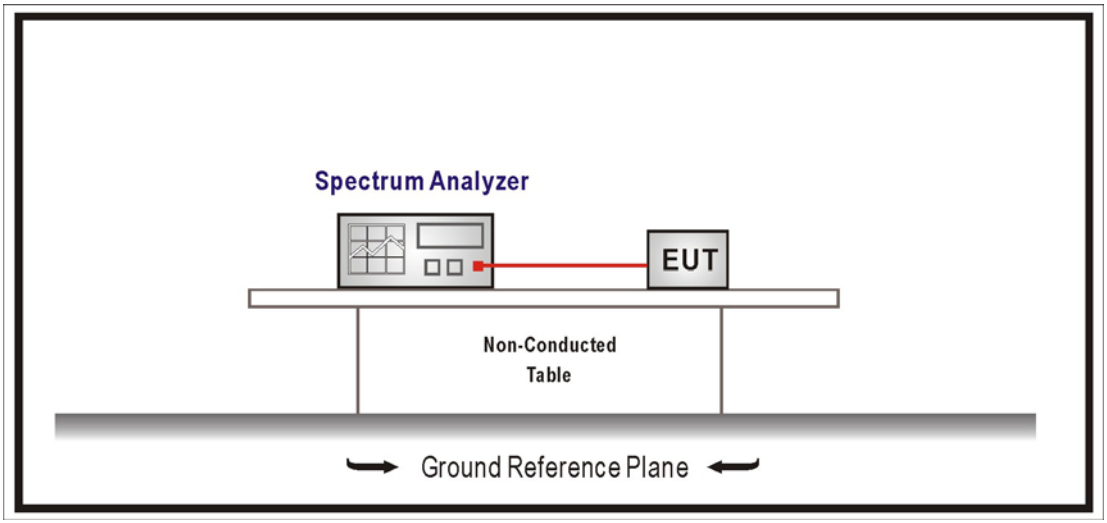
10.1. Test Equipment

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., 2008
2	No.1 OATS			Sep., 2008

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: 2007

10.6. Test Result

Product	GPSmile 62 Car Navigator		
Test Item	Dwell Time		
Test Mode	Transmit		
Date of Test	2008/11/17	Test Site	No.1 OATS

Occupancy Time of Frequency Hopping System

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: 0.00306*(250/79)*31.6=0.306sec。

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

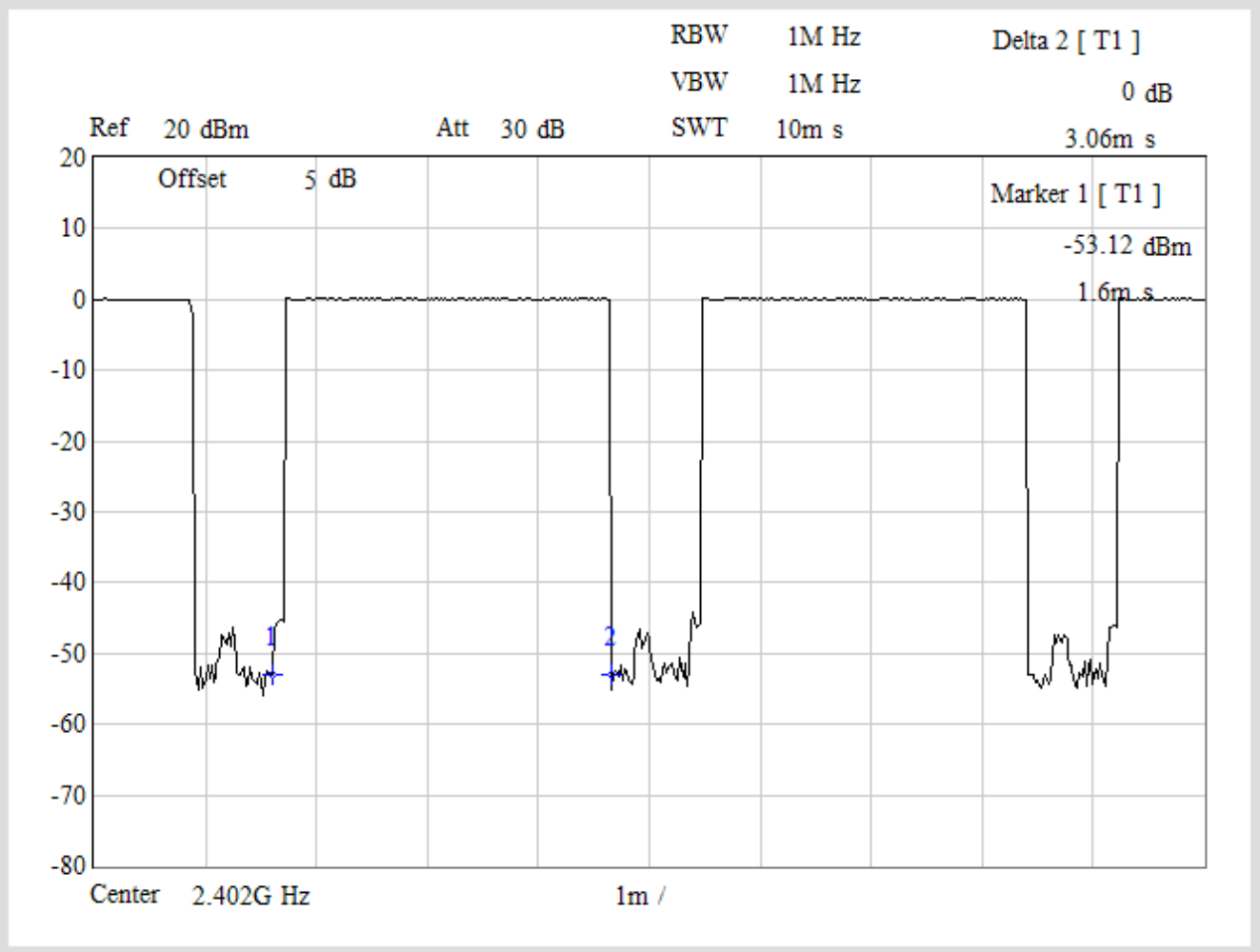
The Maximum Occupancy Time Within 31.6sec: 0.00309*(250/79)*31.6=0.309sec。

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

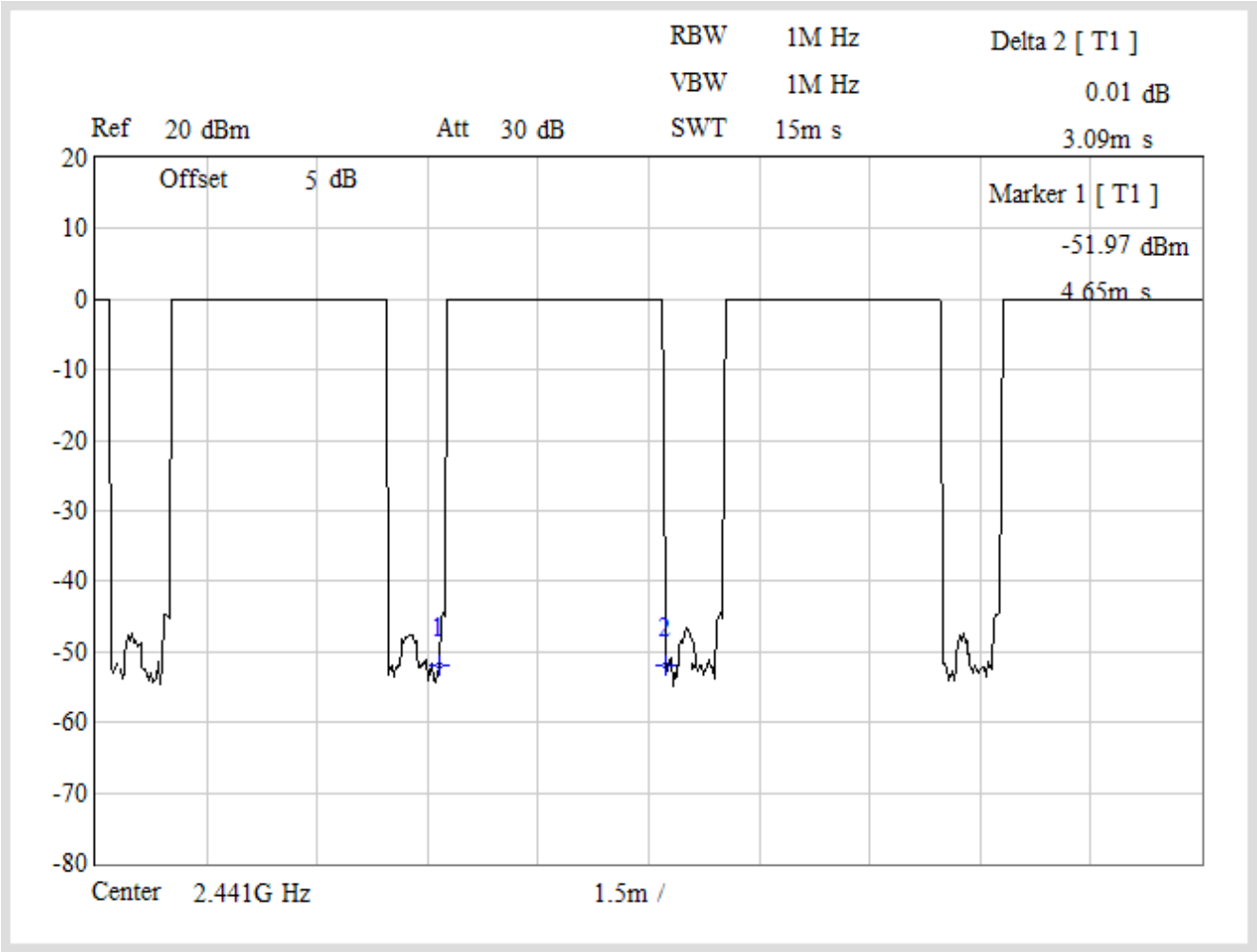
The Maximum Occupancy Time Within 31.6sec: 0.00305*(250/79)*31.6=0.305sec。

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

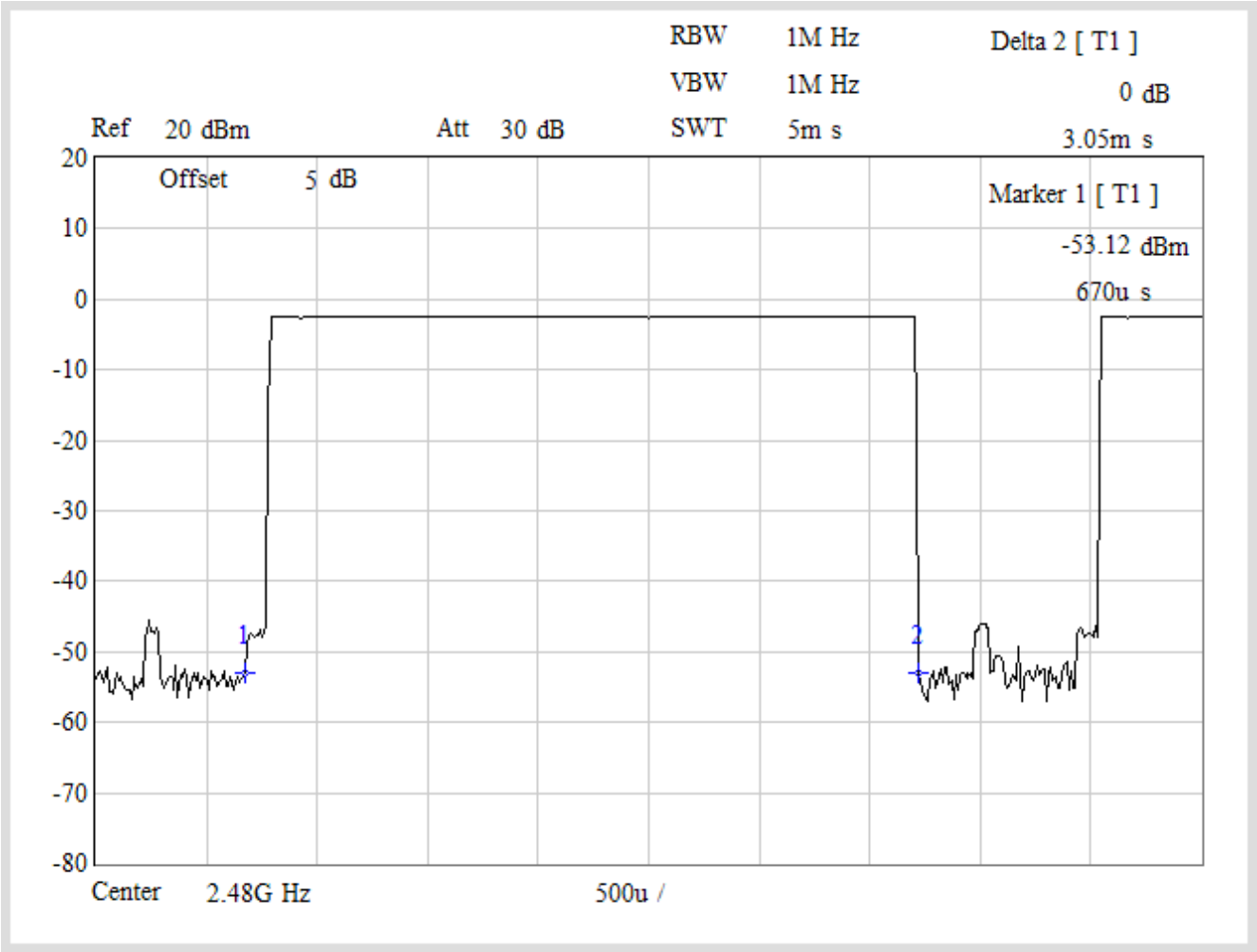
Hop rate-2402MHz



Hop rate-2441MHz



Hop rate-2480MHz



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

Time slot length