



Test Report

Product Name : Bluetooth Stereo handsets

Model No. : BTSHS102

FCC ID. : TQ6BTSHS102

Applicant : Shanghai Flaircomm Technologies

Address : No211 North Urumqi Road, Suite 616, Shanghai 200040 P.R. China

Date of Receipt : April 20, 2006

Issued Date : June 13, 2006

Report No. : 066L054-RF-US-P05V01

The Test Results relate only to the samples tested.

The test report shall not be reproduced except in full without the written approval of QuietTek Corporation.
This report must not be used to claim product endorsement by NVLAP any agency of the U.S. Government

Test Report Certification

Issued Date: June 13, 2006

Report No.: 066L054-RF-US-P05V01



Product Name : Bluetooth Stereo handsets
Applicant : Shanghai Flaircomm Technologies
Address : No211 North Urumqi Road, Suite 616, Shanghai 200040 P.R. China
Manufacturer : Shanghai Flaircomm Technologies
Model No. : BTSHS102
FCC ID. : TQ6BTSHS102
Rated Voltage : AC 120V/60Hz
Working Voltage : DC 3.7V
Trade Name : Flaircomm
Applicable Standard : FCC CFR Title 47 Part 15 Subpart C: 2005
ANSI C63.4: 2003
CISPR 22: 2005
Test Result : Complied

The Test Results relate only to the samples tested.

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Documented By :

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(A l e x C h i u)

Approved By :

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(G e n e Z h a n g)

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1. GENERAL INFORMATION

1.1. EUT Description

Product Name : Bluetooth Stereo handsets
Trade Name : Flaircomm
FCC ID. : TQ6BTSHS102
Model No. : BTSHS102
Frequency Range : 2402 - 2480MHz
Channel Number : 79
Type of Modulation : FHSS
Antenna Type : Printed
Channel Control : Auto

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 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 hopsets 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 Bluetooth Stereo handsets including a 2.4GHz transceiver.
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, then shown on this report.
4. This device is a composite device in accordance with Part 15 Subpart B regulations. The function for the receiver was measured and made a test report that the report number is 066L054-IT-US-P01V02, certified under Declaration of Conformity.
5. QuieTek verified among construction and function in typical operation, then shown in this test report.

1.2. Operational Description

The EUT is a Bluetooth Stereo handsets with 79 channels.

This device provides wireless technology that revolutionizes personal connectivity. It is the solution for the seamless integration of Bluetooth technology into personal computer enabling short-range wireless connections between desktop/laptop computers, Bluetooth-enabled peripherals, and portable handheld devices.

Test Mode:	Mode 1: Transmitter
------------	---------------------

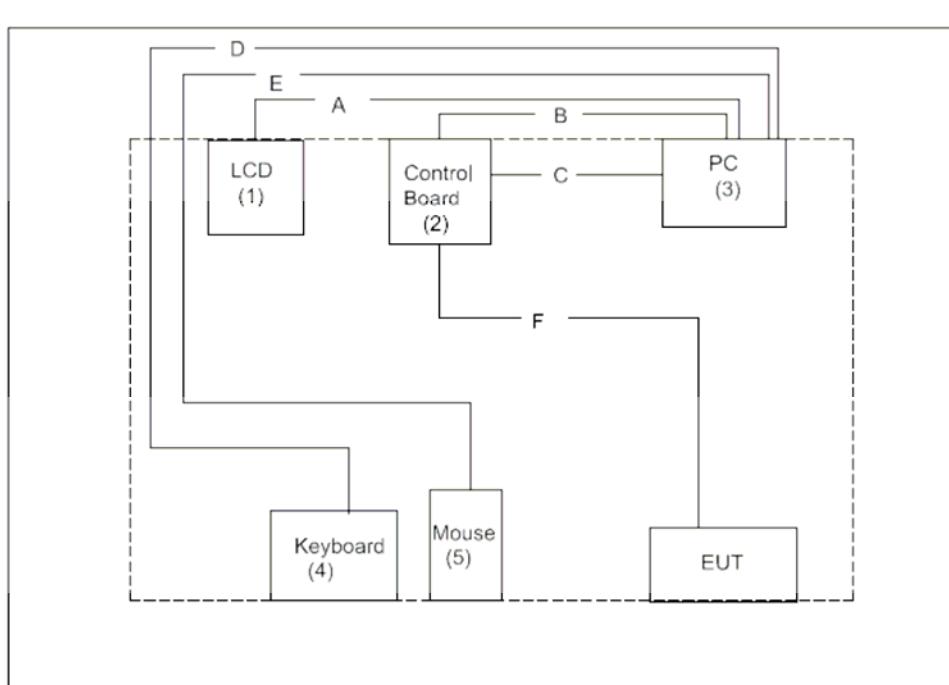
1.3. Tested System Details

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

Product		Manufacturer	Model No.	Serial No.	Power Cord
(1)	LCD Monitor	CHIMEI	A170E1-03	36C112338M41164	Non-Shielded, 1.8m
(2)	Control Board	Faircomm	N/A	N/A	N/A
(3)	PC	HP	DC 7600 CMT	CNG5460DC6	Non-Shielded, 1.8m
(4)	Keyboard	HP	KB-0316	B94330AUBSD01K	N/A
(5)	Mouse	HP	M-UV96	F93A90AN3SB1XRT	N/A

Signal Cable Type		Signal cable Description
A.	VGA Cable	Non-Shielded, 1.5m with two ferrite core bonded
B.	RS-232 Control Cable	Non-Shielded, 1.0m
C.	USB Cable#1	Shielded, 1.2m
D.	P/S Keyboard Cable	Non-Shielded, 1.8m
E.	USB Mouse Cable	Shielded, 1.8m
F.	USB Cable#2	Shielded, 1.2m

1.4. Configuration of Tested System



1.5. EUT Exercise Software

- (1) Setup the EUT as shown in Section 1.4.
- (2) Connect the EUT to the notebook via a control board and a RS232 cable.
- (3) Execute the BlueTest program on the notebook.
- (4) Setup the test channel and the data mode.
- (5) Press OK to start the continuous transmission.
- (6) Verify the EUT operation properly.

1.6. Test Facility

Ambient conditions in the laboratory:

Items	Required (IEC 68-1)	Actual
Temperature (°C)	15-35	20-35
Humidity (%RH)	25-75	30-65
Barometric pressure (mbar)	860-1060	950-1000

Site Description: December 14, 2005 File on
Federal Communications Commission
FCC Engineering Laboratory
7435 Oakland Mills Road
Columbia, MD 21046

Site Name: Quietek Corporation

Site Address: No.99 Hongye Rd., Suzhou Industrial Park Loufeng
Hi-Tech Development Zone., SuZhou, China
TEL: +86-512-6251-5088 / FAX : 86-512-6251-5098
E-Mail : service@quietek.com

2. Conducted Emission

2.1. Test Equipment

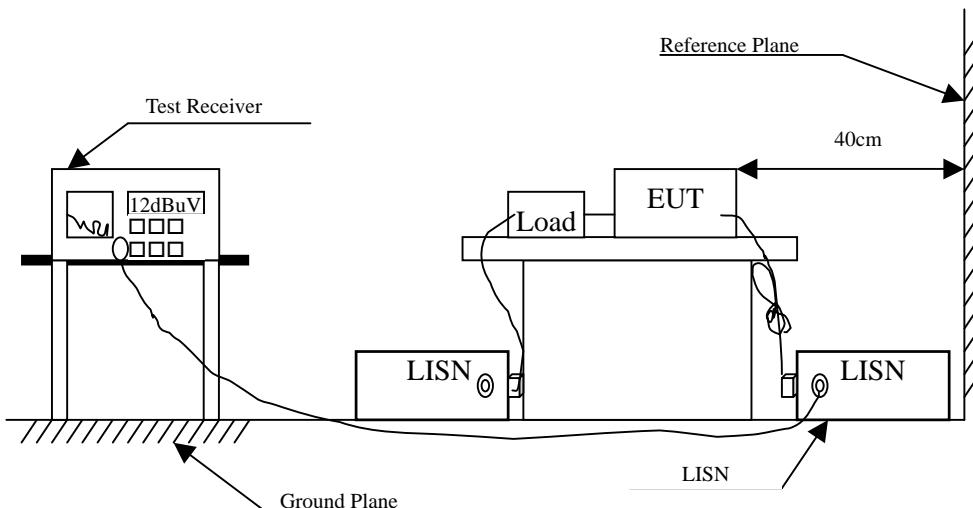
The following test equipment are used during the conducted emission test:

Conducted Emission / SR-1

Instrument	Manufacturer	Type No.	Serial No	Cal. Date
EMI Test Receiver	R&S	ESCI	100175	2005/07/25
Two-Line V-Network	R&S	ENV216	100013	2006/03/31
Two-Line V-Network	R&S	ENV216	100014	2006/04/25
V-Network		ESH3-Z6	100248	2005/07/13
V-Network		ESH3-Z6	100249	2005/07/13
ISN	Schaffner	ISN T400	21648	2005/08/03
50ohm Coaxial Switch	ANRITSU	MP59B	6200447305	2005/11/25
50ohm Impedance	SHX	50ohmI	QT-IM001	2006/03/20
Temperature/Humidity Meter	zhicheng	ZC1-2	QT-TH004	2006/03/30

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 (dBuV) Limit		
Frequency MHz	Limits	
	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 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.

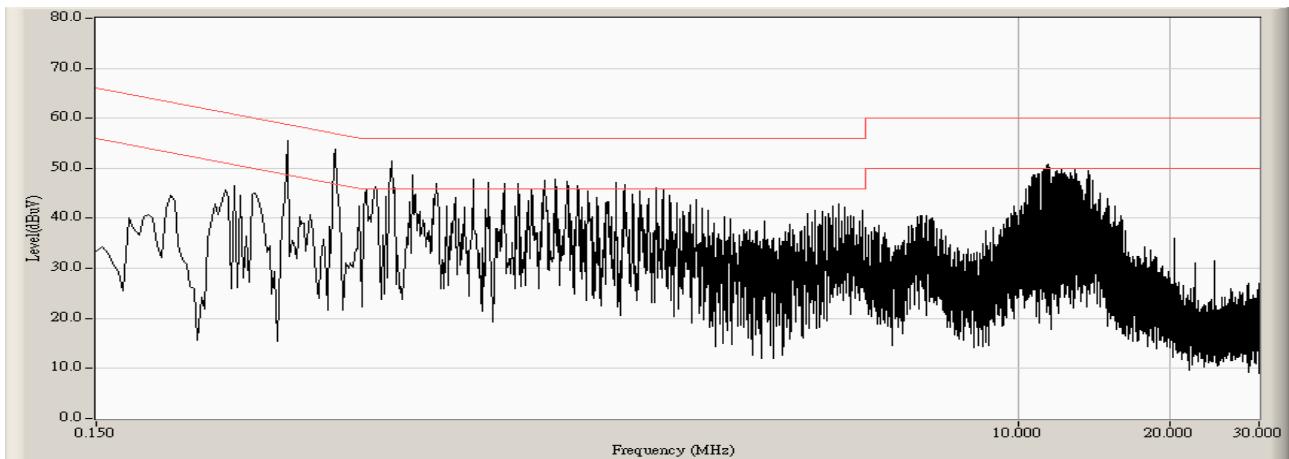
Conducted emissions were invested over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9kHz.

2.5. Uncertainty

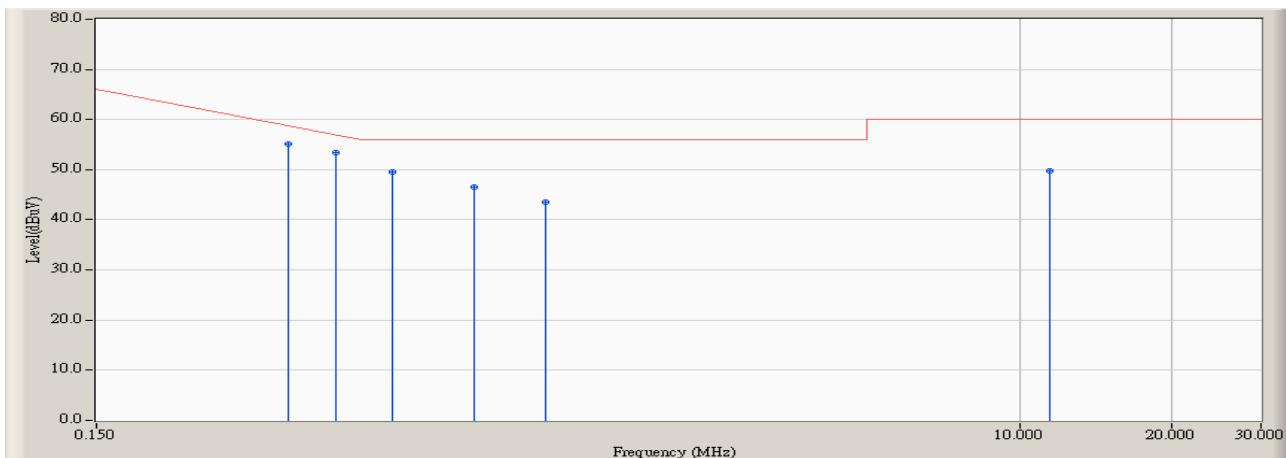
The measurement uncertainty is defined as \pm 2.02 dB

2.6. Test Result of Conducted Emission

Engineer : John	
Site : SR-1	Time : 2006/06/02 - 10:51
Limit : FCC_Part15_C_00M_QP	Margin : 10
EUT : Bluetooth Stereo handsets	Probe : ENV216 - Line1
Power : AC 120V/60Hz	Note : Mode 1: Transmitter (2441MHz)



Engineer : John	
Site : SR-1	Time : 2006/06/02 - 10:36
Limit : FCC_Part15_C_00M_QP	Margin : 0
EUT : Bluetooth Stereo handsets	Probe : ENV216 - Line1
Power : AC 120V/60Hz	Note : Mode 1: Transmitter (2441MHz)



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.358	9.469	45.600	55.069	-4.988	60.057	QUASIPEAK
2	*	0.446	9.557	43.900	53.457	-4.086	57.543	QUASIPEAK
3		0.578	9.650	39.800	49.450	-6.550	56.000	QUASIPEAK
4		0.834	9.670	36.800	46.470	-9.530	56.000	QUASIPEAK
5		1.158	9.660	33.900	43.560	-12.440	56.000	QUASIPEAK
6		11.482	9.940	39.800	49.740	-10.260	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

Engineer : John	
Site : SR-1	Time : 2006/06/02 - 10:36
Limit : FCC_Part15_C_00M_AV	Margin : 0
EUT : Bluetooth Stereo handsets	Probe : ENV216 - Line1
Power : AC 120V/60Hz	Note : Mode 1: Transmitter (2441MHz)

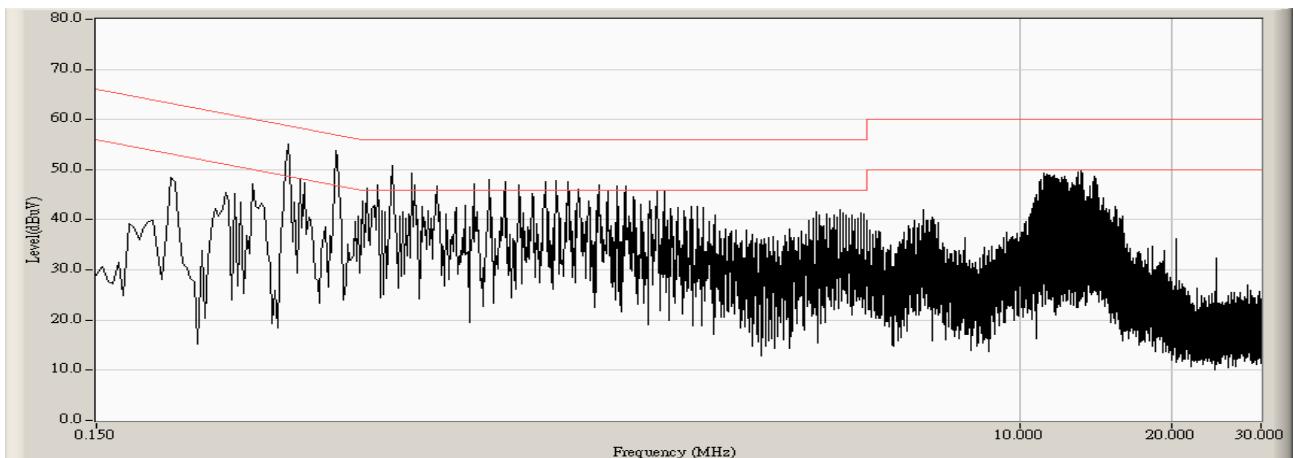


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.358	9.469	34.290	43.759	-6.298	50.057	AVERAGE
2		0.446	9.557	35.370	44.927	-2.616	47.543	AVERAGE
3	*	0.578	9.650	34.410	44.060	-1.940	46.000	AVERAGE
4		0.834	9.670	32.800	42.470	-3.530	46.000	AVERAGE
5		1.158	9.660	28.100	37.760	-8.240	46.000	AVERAGE
6		11.482	9.940	35.400	45.340	-4.660	50.000	AVERAGE

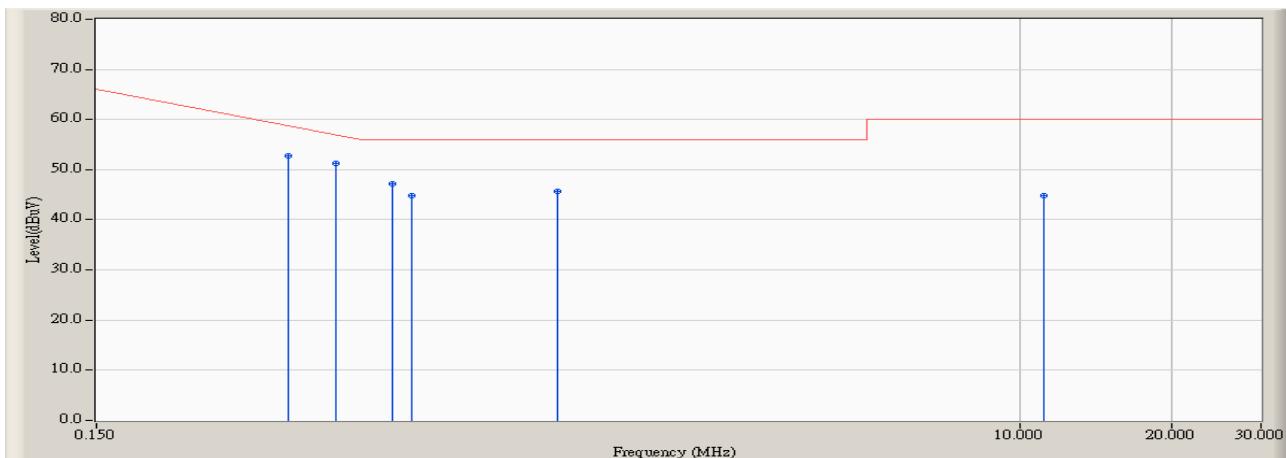
Note:

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

Engineer : John	
Site : SR-1	Time : 2006/06/02 - 10:58
Limit : FCC_Part15_C_00M_QP	Margin : 10
EUT : Bluetooth Stereo handsets	Probe : ENV216 - Line2
Power : AC 120V/60Hz	Note : Mode 1: Transmitter (2441MHz)



Engineer : John	
Site : SR-1	Time : 2006/06/02 - 11:22
Limit : FCC_Part15_C_00M_QP	Margin : 0
EUT : Bluetooth Stereo handsets	Probe : ENV216 - Line2
Power : AC 120V/60Hz	Note : Mode 1: Transmitter (2441MHz)



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.358	9.579	43.100	52.679	-7.378	60.057	QUASIPEAK
2	*	0.446	9.657	41.700	51.357	-6.186	57.543	QUASIPEAK
3		0.578	9.681	37.600	47.281	-8.719	56.000	QUASIPEAK
4		0.630	9.663	35.200	44.863	-11.137	56.000	QUASIPEAK
5		1.218	9.750	35.900	45.650	-10.350	56.000	QUASIPEAK
6		11.150	10.015	34.800	44.815	-15.185	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

Engineer : John	
Site : SR-1	Time : 2006/06/07 - 17:44
Limit : FCC_Part15_C_00M_AV	Margin : 0
EUT : Bluetooth Stereo handsets	Probe : ENV216 - Line2
Power : AC 120V/60Hz	Note : Mode 1: Transmitter (2441MHz)



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.358	9.579	34.680	44.259	-5.798	50.057	AVERAGE
2	*	0.446	9.657	35.520	45.177	-2.366	47.543	AVERAGE
3		0.578	9.681	33.790	43.471	-2.529	46.000	AVERAGE
4		0.630	9.663	33.620	43.283	-2.717	46.000	AVERAGE
5		1.218	9.750	32.440	42.190	-3.810	46.000	AVERAGE
6		11.150	10.015	31.400	41.415	-8.585	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 radiated emission tests:

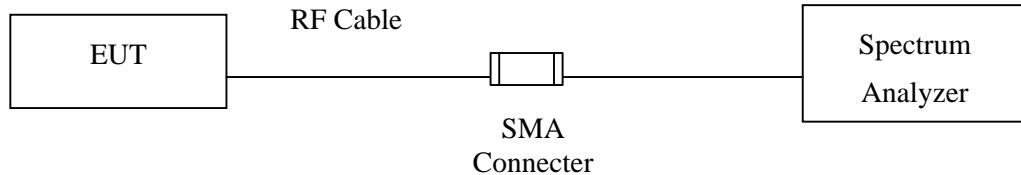
Radiated Emission / AC-3

Instrument	Manufacturer	Type No.	Serial No	Cal. Date
Spectrum Analyzer	Agilent	E4446A	MY45300103	2006/03/11

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

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

3.2. Test Setup



3.3. Limit

The maximum peak power shall be less 1Watt.

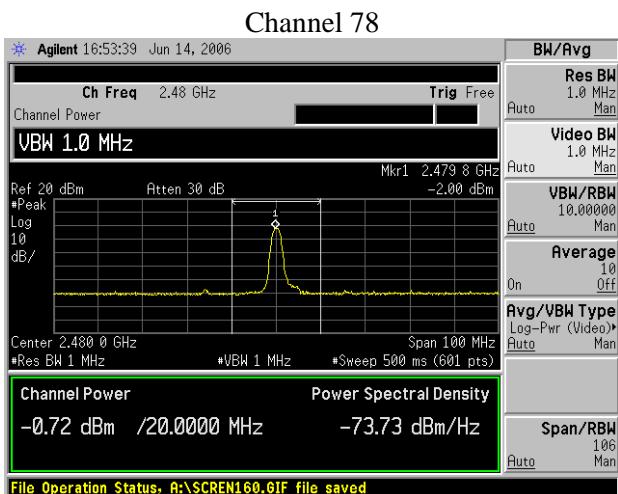
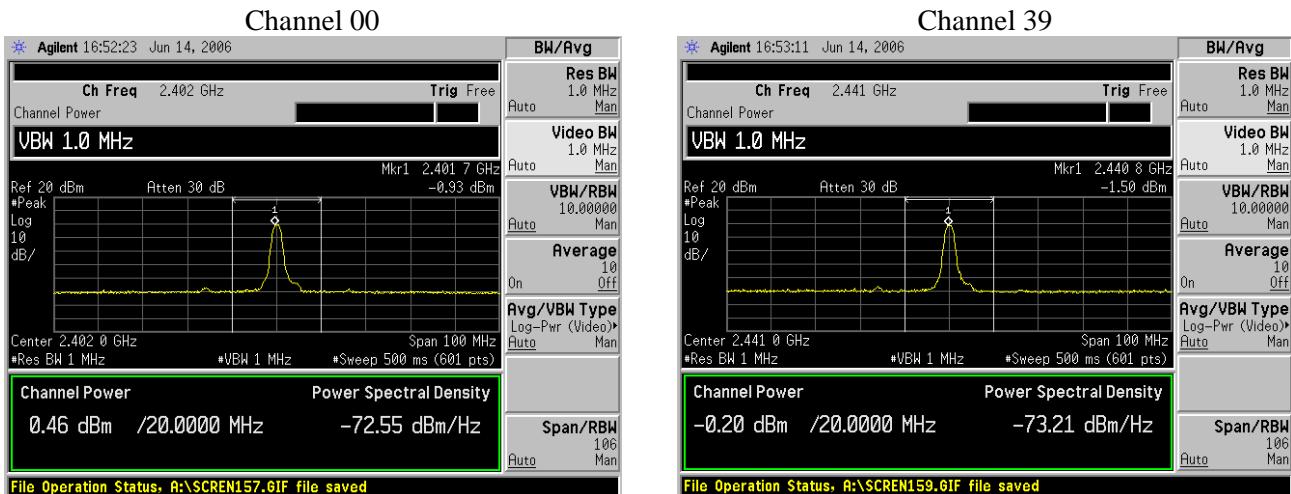
3.4. Uncertainty

The measurement uncertainty is defined as ± 1.27 dB

3.5. Test Result of Peak Power Output

Product : Bluetooth AV Adapter
 Test Item : Peak Power Output
 Test Site : AC-3
 Test Mode : Mode 1: Transmitter

Channel No.	Frequency (MHz)	Measurement	Required Limit	Result
Channel 00	2402.00	0.46dBm	1 Watt= 30 dBm	Pass
Channel 39	2441.00	-0.20dBm	1 Watt= 30 dBm	Pass
Channel 78	2480.00	-0.72dBm	1 Watt= 30 dBm	Pass



4. Radiated Emission

4.1. Test Equipment

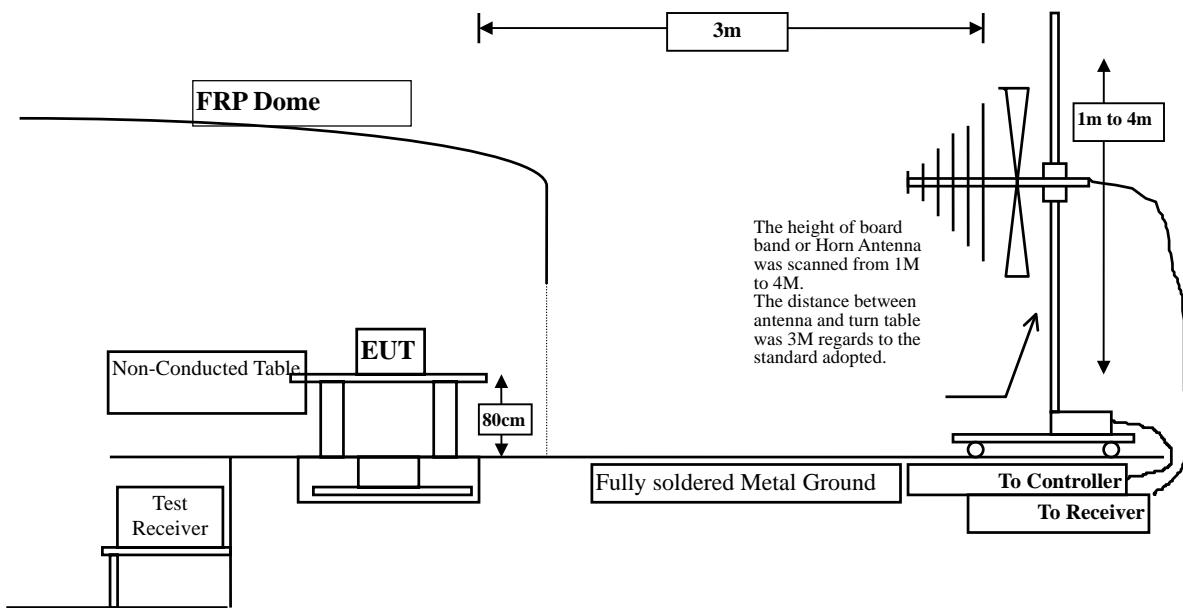
The following test equipment are used during the radiated emission test:

Radiated Emission / AC-2

Instrument	Manufacturer	Type No.	Serial No	Cal. Date
Spectrum Analyzer	Agilent	E4408B	MY45102679	2005/07/07
EMI Test Receiver	R&S	ESCI	100175	2005/07/25
Preamplifier	Quietek	AP-025C	QT-AP003	2005/11/25
Preamplifier	Quietek	AP-180C	CHM-0602013	2006/03/20
Bilog Type Antenna	Schaffner	CBL6112B	2932	2005/10/26
Broad-Band Horn Antenna	Schwarzbeck	BBHA9120D	496	2005/09/30
Temperature/Humidity Meter	zhicheng	ZC1-2	QT-TH002	2006/03/30

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.

4.2. Test Setup



4.3. Limits

➤ General Radiated Emission 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 @3m	dBuV/m@3m
30-88	100	40
88-216	150	43.5
216-960	200	46
Above 960	500	54

Remarks:

1. RF Voltage (dBuV) = $20 \log_{10}$ 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 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.

The additional latch filter below 1GHz was used to measure the level of harmonics radiated emission during field strength of harmonics measurement.

The bandwidth below 1GHz setting on the field strength meter (R&S Test Receiver ESCS 30)is 120 kHz, above 1GHz are 1 MHz.

The frequency range from 30MHz to 10th harmonics is checked.

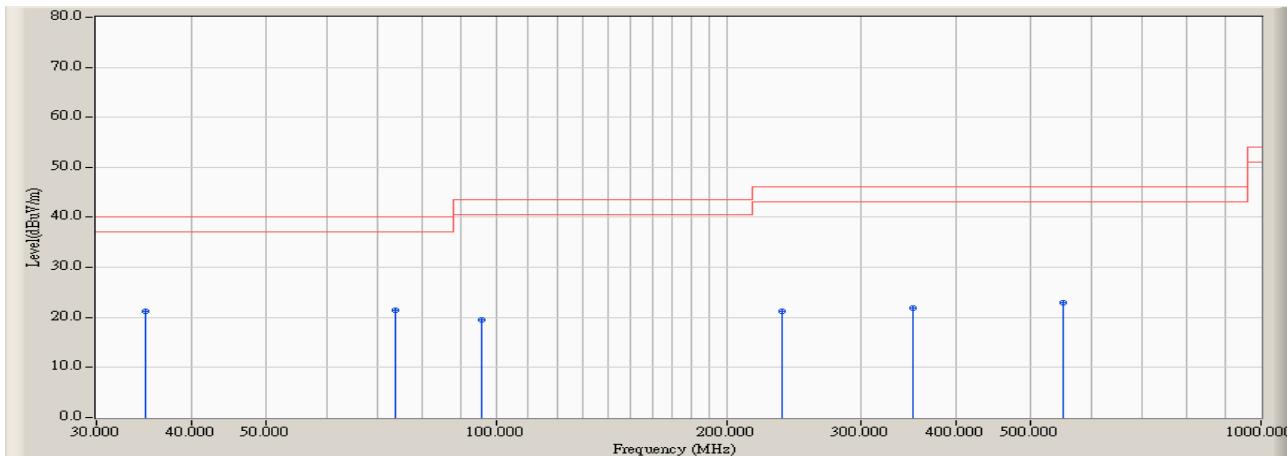
4.5. Uncertainty

The measurement uncertainty above 1G is defined as ± 3.9 dB

under 1G is defined as ± 3.8 dB

4.6. Test Result of Radiated Emission

Engineer : John	
Site : AC-2	Time : 2006/06/12 - 15:44
Limit : FCC_SpartC_15.209_03M_QP	Margin : 3
EUT : Bluetooth Stereo handsets	Probe : CBL6112B_2932 - HORIZONTAL
Power : AC 120V/60Hz	Note : Mode 1: Transmitter (2402MHz)

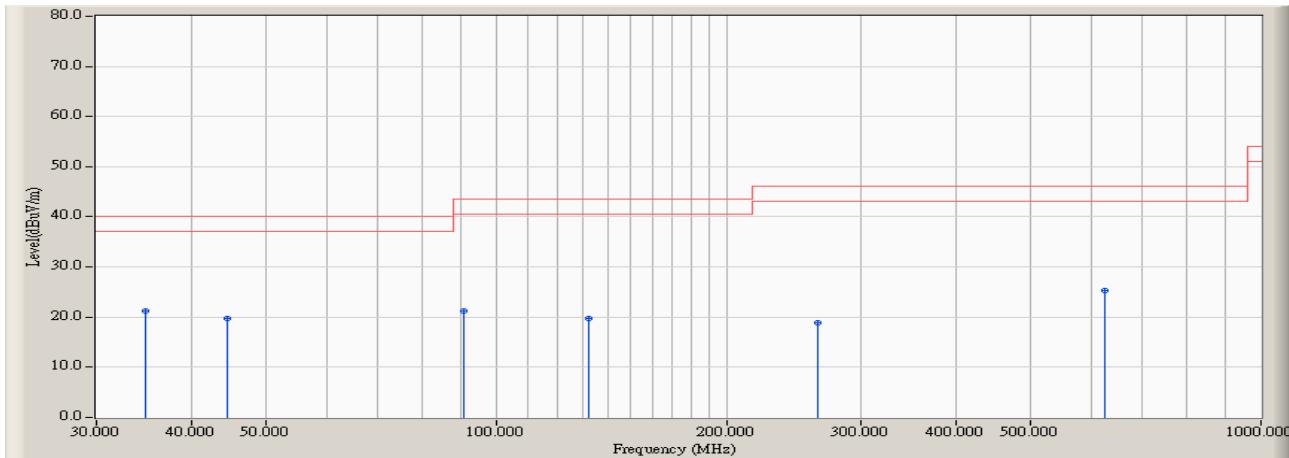


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1	34.850	-7.224	28.544	21.320	-18.680	40.000	QUASIPEAK
2 *	73.650	-16.443	37.942	21.499	-18.501	40.000	QUASIPEAK
3	95.475	-12.229	31.820	19.591	-23.929	43.520	QUASIPEAK
4	236.125	-10.853	31.998	21.145	-24.875	46.020	QUASIPEAK
5	350.100	-6.336	28.113	21.777	-24.243	46.020	QUASIPEAK
6	551.375	-1.157	24.150	22.993	-23.027	46.020	QUASIPEAK

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

Engineer : John	
Site : AC-2	Time : 2006/06/12 - 15:45
Limit : FCC_SpartC_15.209_03M_QP	Margin : 3
EUT : Bluetooth Stereo handsets	Probe : CBL6112B_2932 - VERTICAL
Power : AC 120V/60Hz	Note : Mode 1: Transmitter (2402MHz)

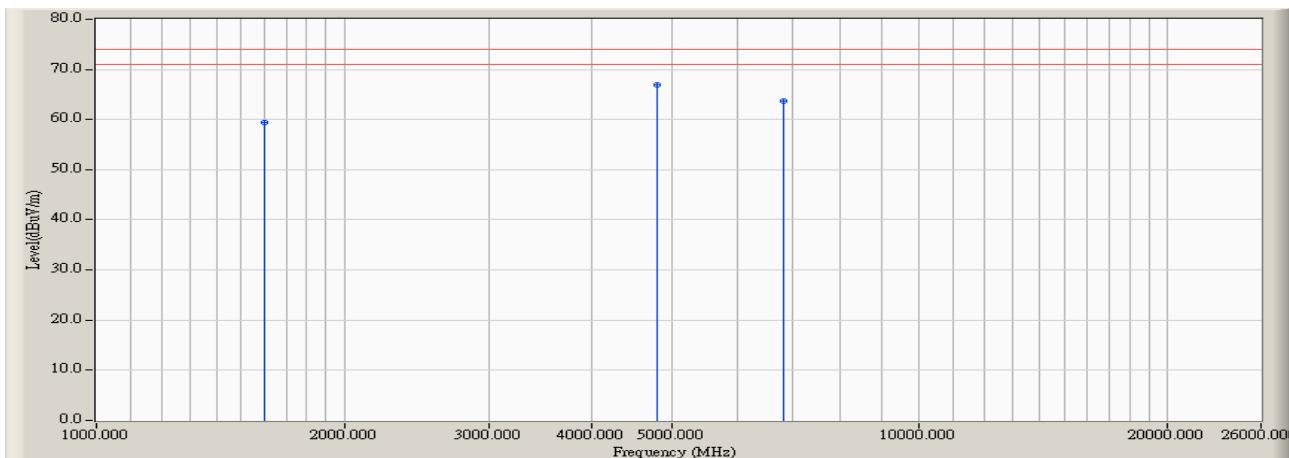


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1	*	34.850	-7.224	28.544	21.320	-18.680	40.000	QUASIPEAK
2		44.550	-12.343	32.035	19.692	-20.308	40.000	QUASIPEAK
3		90.625	-13.148	34.371	21.223	-22.297	43.520	QUASIPEAK
4		131.850	-10.305	30.049	19.744	-23.776	43.520	QUASIPEAK
5		262.800	-8.270	27.077	18.807	-27.213	46.020	QUASIPEAK
6		624.125	-0.847	26.240	25.393	-20.627	46.020	QUASIPEAK

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

Engineer : John	
Site : AC-2	Time : 2006/06/11 - 13:12
Limit : FCC_SpartC_15.209_03M_PK	Margin : 3
EUT : Bluetooth Stereo handsets	Probe : BBHA9120D_499 - HORIZONTAL
Power : AC 120V/60Hz	Note : Mode 1: Transmitter (2402MHz)

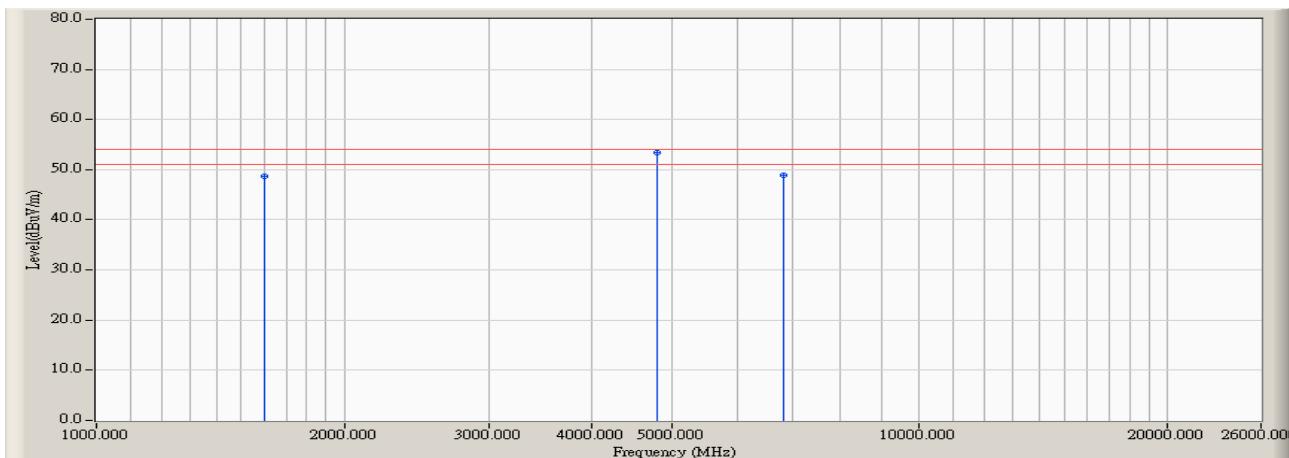


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1	1601.333	3.300	56.120	59.420	-14.550	73.970	PEAK
2	*	13.188	53.640	66.829	-7.141	73.970	PEAK
3	6823.300	21.611	42.010	63.621	-10.349	73.970	PEAK

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

Engineer : John	
Site : AC-2	Time : 2006/06/11 - 13:12
Limit : FCC_SpartC_15.209_03M_AV	Margin : 3
EUT : Bluetooth Stereo handsets	Probe : BBHA9120D_499 - HORIZONTAL
Power : AC 120V/60Hz	Note : Mode 1: Transmitter (2402MHz)

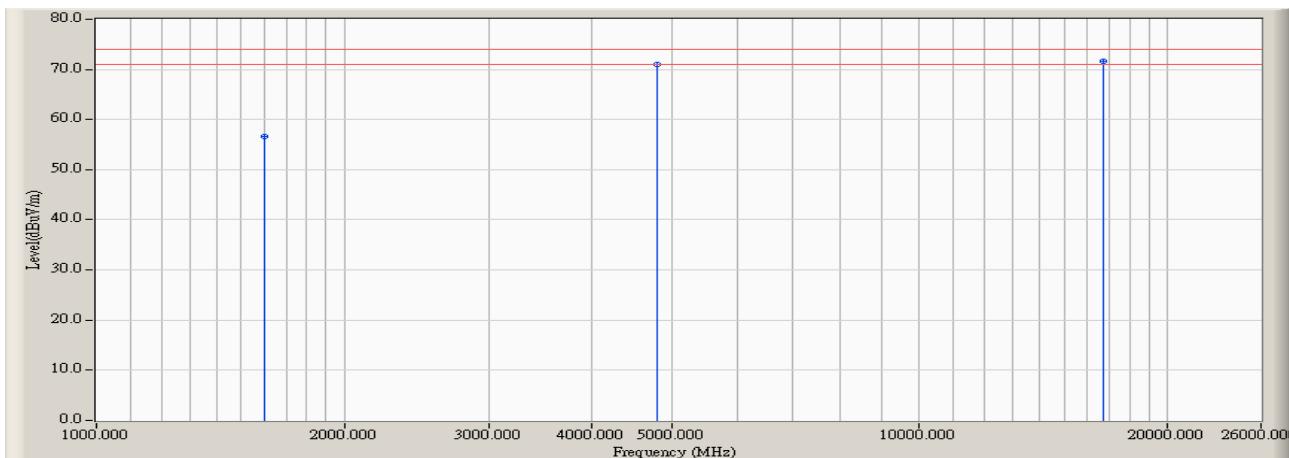


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		1601.333	3.300	45.360	48.660	-5.310	53.970	AVERAGE
2	*	4804.008	13.188	40.130	53.319	-0.651	53.970	AVERAGE
3		6823.300	21.611	27.240	48.851	-5.119	53.970	AVERAGE

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

Engineer : John	
Site : AC-2	Time : 2006/06/11 - 13:24
Limit : FCC_SpartC_15.209_03M_PK	Margin : 3
EUT : Bluetooth Stereo handsets	Probe : BBHA9120D_499 - VERTICAL
Power : AC 120V/60Hz	Note : Mode 1: Transmitter (2402MHz)

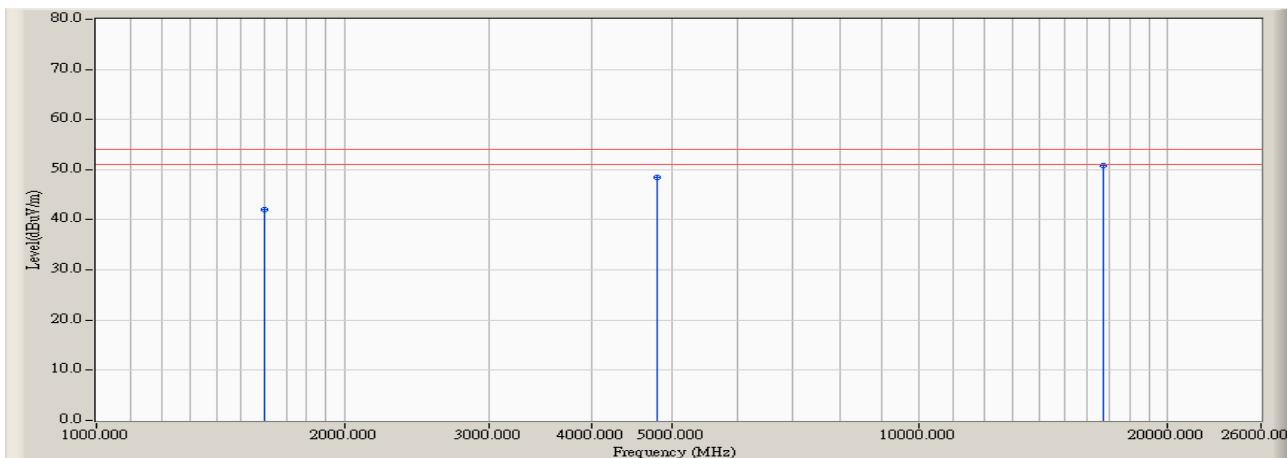


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1	1601.402	3.299	53.360	56.660	-17.310	73.970	PEAK
2	4804.000	13.188	57.730	70.919	-3.051	73.970	PEAK
3	*	30.383	41.220	71.603	-2.367	73.970	PEAK

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

Engineer : John	
Site : AC-2	Time : 2006/06/11 - 13:24
Limit : FCC_SpartC_15.209_03M_AV	Margin : 3
EUT : Bluetooth Stereo handsets	Probe : BBHA9120D_499 - VERTICAL
Power : AC 120V/60Hz	Note : Mode 1: Transmitter (2402MHz)

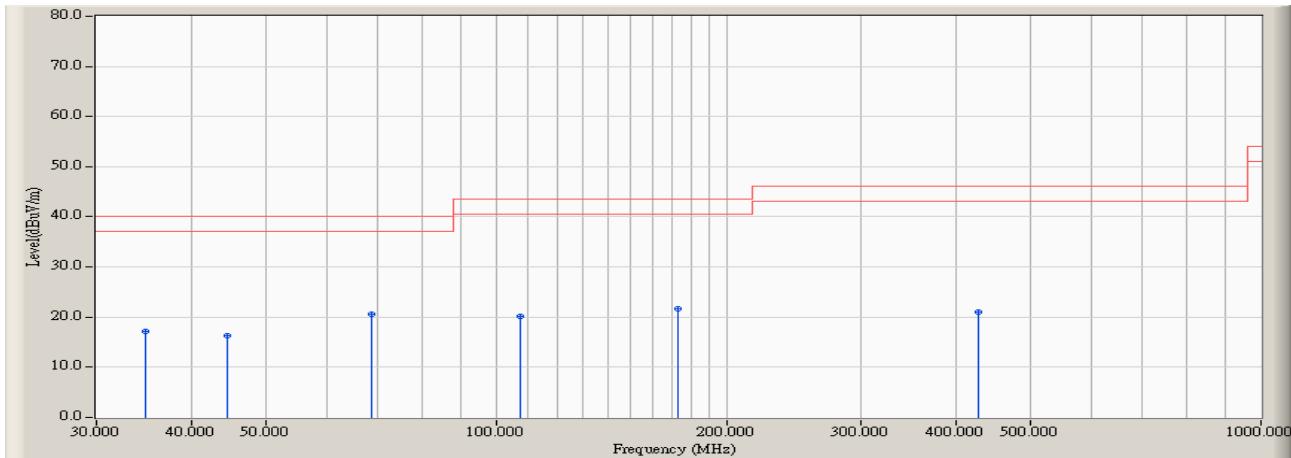


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		1601.402	3.299	38.720	42.020	-11.950	53.970	AVERAGE
2		4804.000	13.188	35.320	48.509	-5.461	53.970	AVERAGE
3	*	16720.300	30.382	20.360	50.743	-3.227	53.970	AVERAGE

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

Engineer : John	
Site : AC-2	Time : 2006/06/12 - 15:50
Limit : FCC_SpartC_15.209_03M_QP	Margin : 3
EUT : Bluetooth Stereo handsets	Probe : CBL6112B_2932 - HORIZONTAL
Power : AC 120V/60Hz	Note : Mode 1: Transmitter (2441MHz)

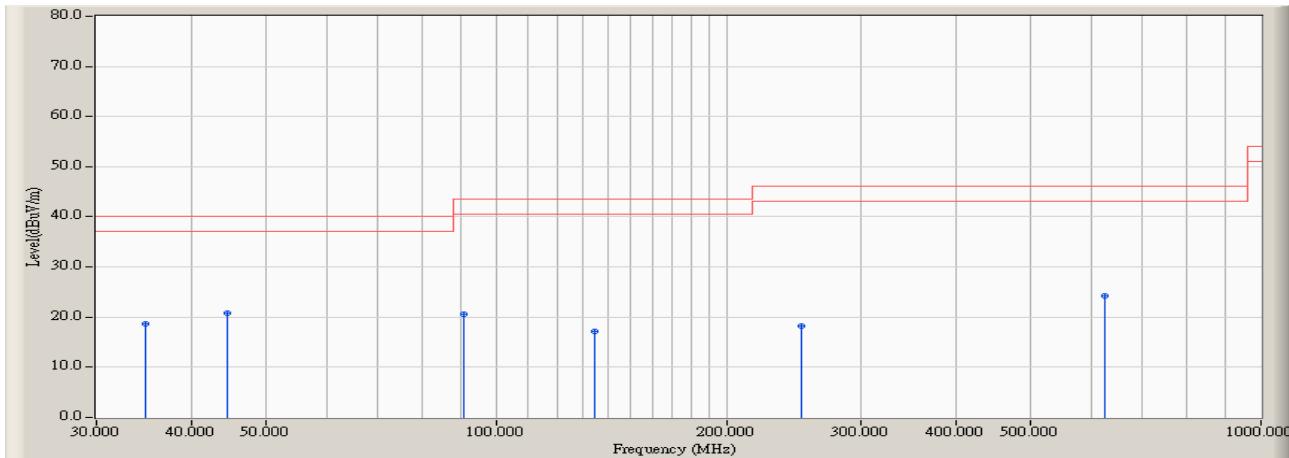


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1	34.850	-7.224	24.418	17.194	-22.806	40.000	QUASIPEAK
2	44.550	-12.343	28.744	16.401	-23.599	40.000	QUASIPEAK
3	* 68.800	-17.000	37.533	20.533	-19.467	40.000	QUASIPEAK
4	107.600	-10.691	30.880	20.189	-23.331	43.520	QUASIPEAK
5	173.075	-12.745	34.486	21.741	-21.779	43.520	QUASIPEAK
6	427.700	-4.005	25.123	21.118	-24.902	46.020	QUASIPEAK

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

Engineer : John	
Site : AC-2	Time : 2006/06/12 - 15:51
Limit : FCC_SpartC_15.209_03M_QP	Margin : 3
EUT : Bluetooth Stereo handsets	Probe : CBL6112B_2932 - VERTICAL
Power : AC 120V/60Hz	Note : Mode 1: Transmitter (2441MHz)

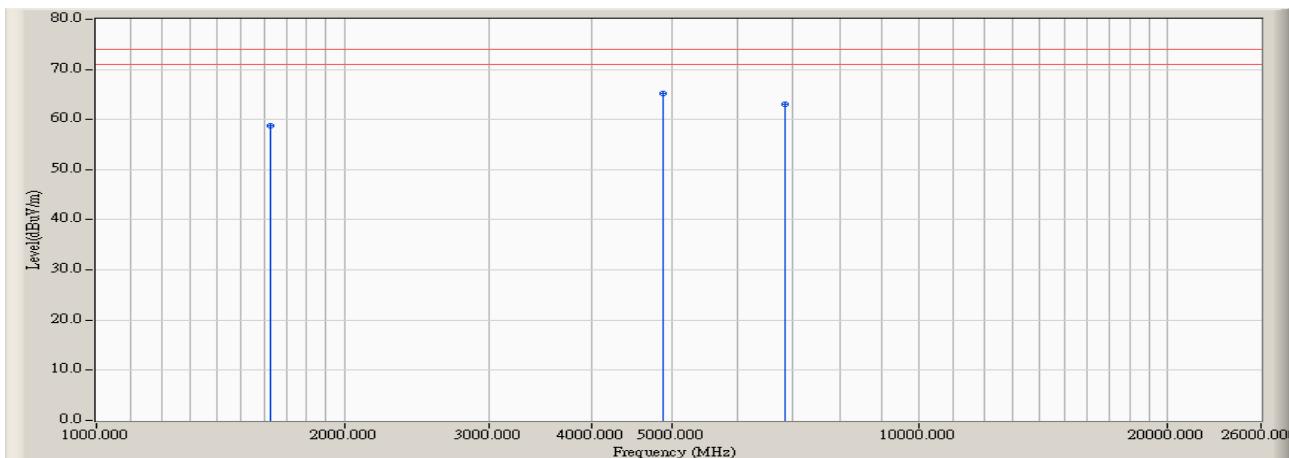


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1	34.850	-7.224	25.963	18.739	-21.261	40.000	QUASIPEAK
2 *	44.550	-12.343	33.159	20.816	-19.184	40.000	QUASIPEAK
3	90.625	-13.148	33.635	20.487	-23.033	43.520	QUASIPEAK
4	134.275	-10.490	27.680	17.190	-26.330	43.520	QUASIPEAK
5	250.675	-9.192	27.442	18.250	-27.770	46.020	QUASIPEAK
6	624.125	-0.847	25.122	24.275	-21.745	46.020	QUASIPEAK

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

Engineer : John	
Site : AC-2	Time : 2006/06/11 - 13:28
Limit : FCC_SpartC_15.209_03M_PK	Margin : 3
EUT : Bluetooth Stereo handsets	Probe : BBHA9120D_499 - HORIZONTAL
Power : AC 120V/60Hz	Note : Mode 1: Transmitter (2441MHz)

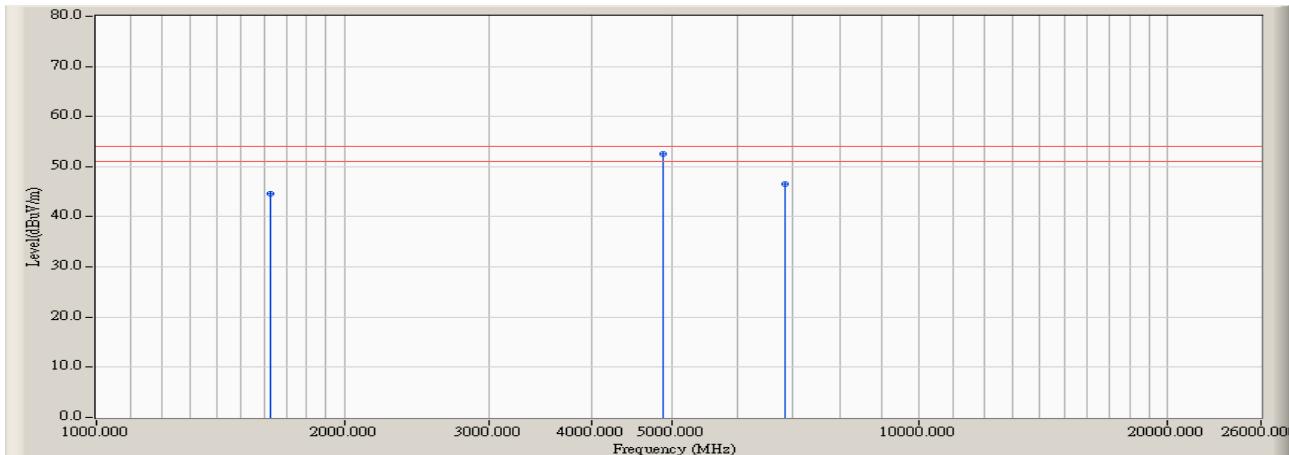


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1	1627.317	3.273	55.580	58.853	-15.117	73.970	PEAK
2	*	13.723	51.520	65.243	-8.727	73.970	PEAK
3	6864.200	21.423	41.690	63.113	-10.857	73.970	PEAK

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

Engineer : John	
Site : AC-2	Time : 2006/06/11 - 13:28
Limit : FCC_SpartC_15.209_03M_AV	Margin : 3
EUT : Bluetooth Stereo handsets	Probe : BBHA9120D_499 - HORIZONTAL
Power : AC 120V/60Hz	Note : Mode 1: Transmitter (2441MHz)

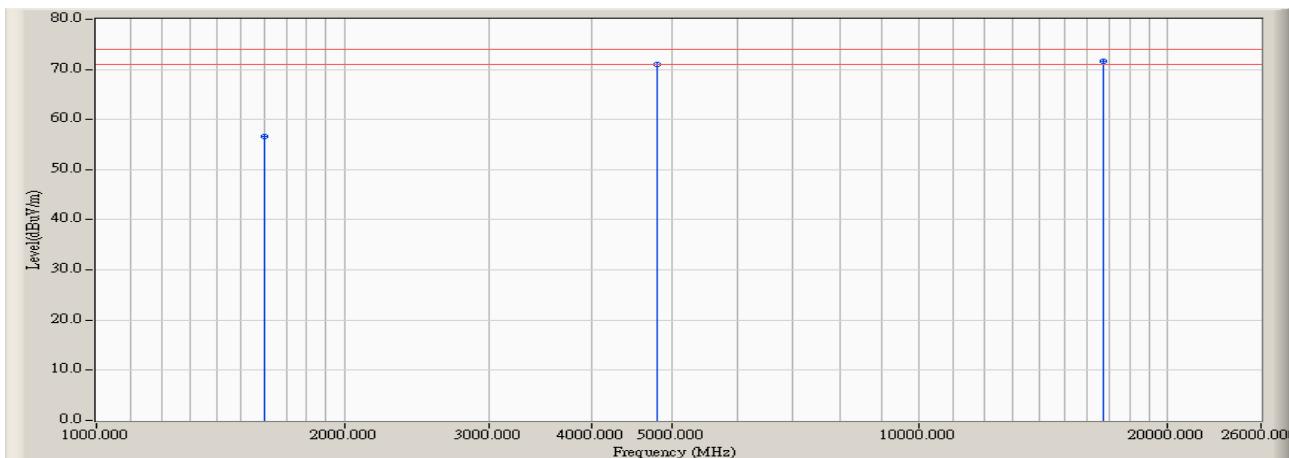


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1	1627.317	3.273	41.350	44.623	-9.347	53.970	AVERAGE
2 *	4882.058	13.723	38.720	52.443	-1.527	53.970	AVERAGE
3	6864.200	21.423	25.110	46.533	-7.437	53.970	AVERAGE

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

Engineer : John	
Site : AC-2	Time : 2006/06/11 - 13:24
Limit : FCC_SpartC_15.209_03M_PK	Margin : 3
EUT : Bluetooth Stereo handsets	Probe : BBHA9120D_499 - VERTICAL
Power : AC 120V/60Hz	Note : Mode 1: Transmitter (2441MHz)

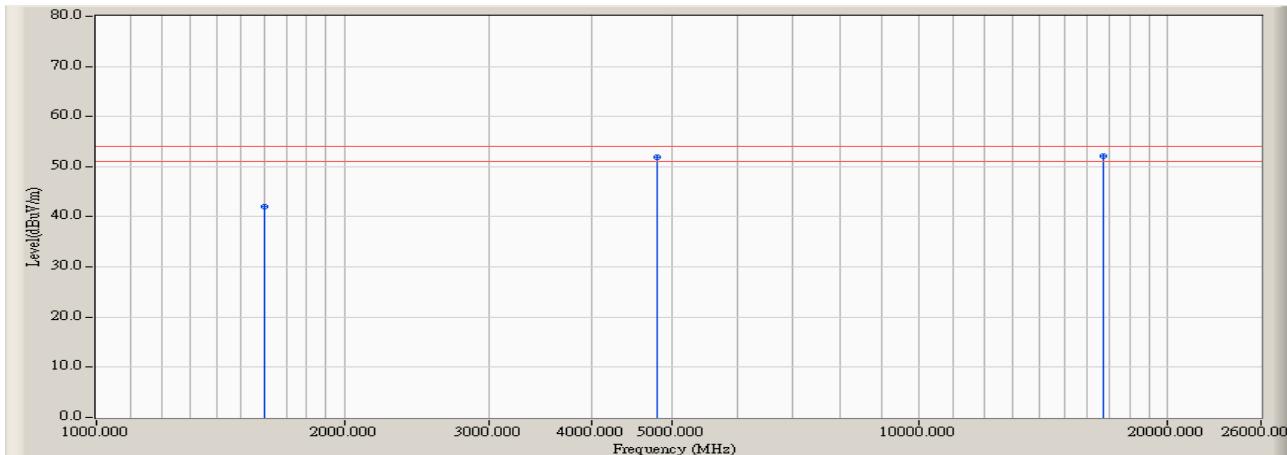


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1	1601.402	3.299	53.360	56.660	-17.310	73.970	PEAK
2	4804.000	13.188	57.730	70.919	-3.051	73.970	PEAK
3	*	30.383	41.220	71.603	-2.367	73.970	PEAK

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

Engineer : John	
Site : AC-2	Time : 2006/06/11 - 13:24
Limit : FCC_SpartC_15.209_03M_AV	Margin : 3
EUT : Bluetooth Stereo handsets	Probe : BBHA9120D_499 - VERTICAL
Power : AC 120V/60Hz	Note : Mode 1: Transmitter (2441MHz)

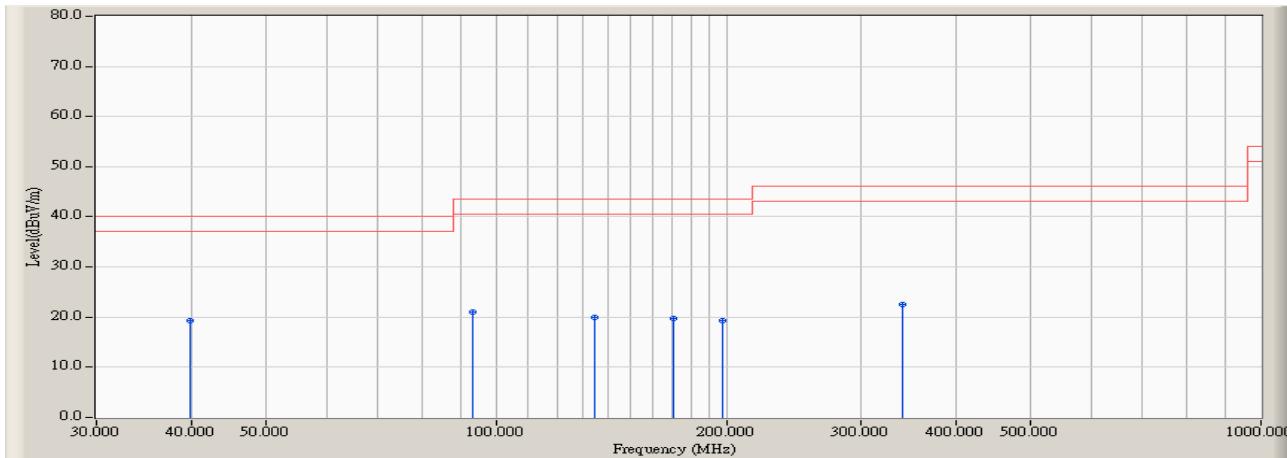


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		1601.402	3.299	38.720	42.020	-11.950	53.970	AVERAGE
2		4804.000	13.188	38.770	51.959	-2.011	53.970	AVERAGE
3	*	16720.300	30.382	21.760	52.143	-1.827	53.970	AVERAGE

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

Engineer : John	
Site : AC-2	Time : 2006/06/12 - 15:53
Limit : FCC_SpartC_15.209_03M_QP	Margin : 3
EUT : Bluetooth Stereo handsets	Probe : CBL6112B_2932 - HORIZONTAL
Power : AC 120V/60Hz	Note : Mode 1: Transmitter (2480MHz)

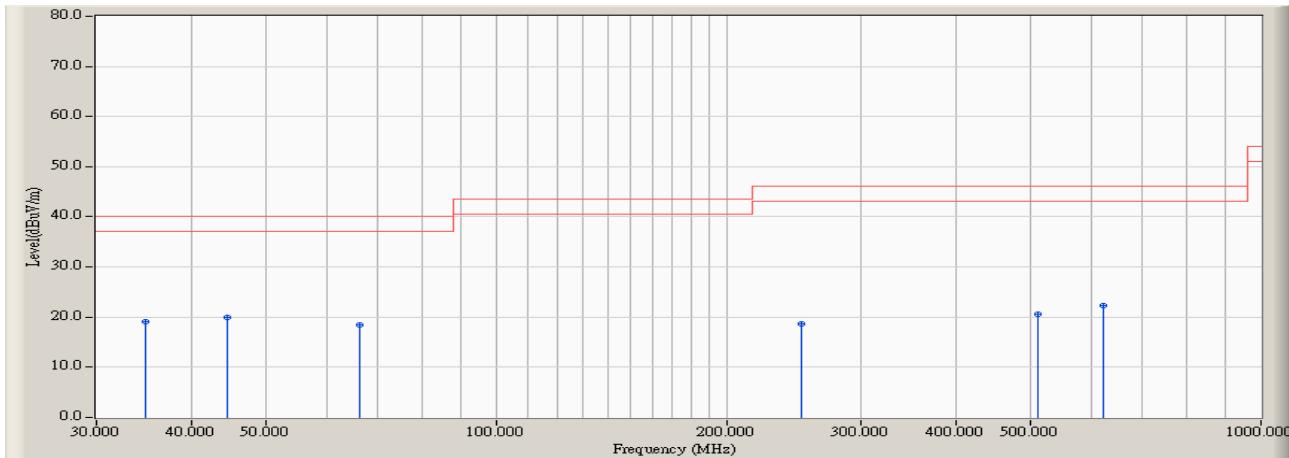


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1	*	39.700	-9.781	29.026	19.245	-20.755	40.000	QUASIPEAK
2		93.050	-12.658	33.747	21.089	-22.431	43.520	QUASIPEAK
3		134.275	-10.490	30.431	19.941	-23.579	43.520	QUASIPEAK
4		170.650	-12.541	32.254	19.713	-23.807	43.520	QUASIPEAK
5		197.325	-12.858	32.212	19.354	-24.166	43.520	QUASIPEAK
6		340.400	-6.872	29.382	22.510	-23.510	46.020	QUASIPEAK

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

Engineer : John	
Site : AC-2	Time : 2006/06/12 - 15:54
Limit : FCC_SpartC_15.209_03M_QP	Margin : 3
EUT : Bluetooth Stereo handsets	Probe : CBL6112B_2932 - VERTICAL
Power : AC 120V/60Hz	Note : Mode 1: Transmitter (2480MHz)

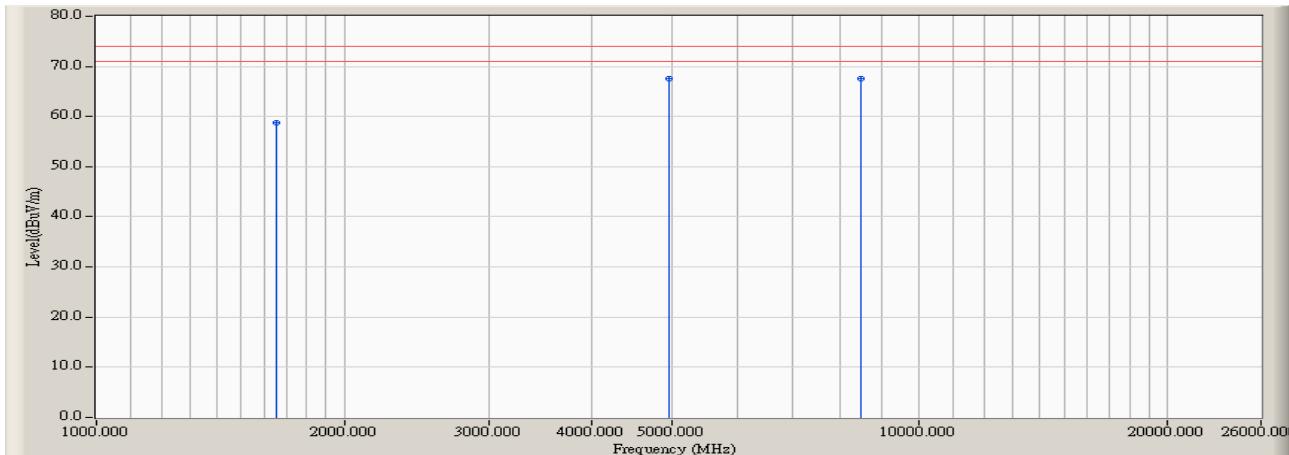


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1	34.850	-7.224	26.366	19.142	-20.858	40.000	QUASIPEAK
2 *	44.550	-12.343	32.369	20.026	-19.974	40.000	QUASIPEAK
3	66.375	-17.094	35.605	18.511	-21.489	40.000	QUASIPEAK
4	250.675	-9.192	27.845	18.653	-27.367	46.020	QUASIPEAK
5	510.150	-2.491	23.093	20.602	-25.418	46.020	QUASIPEAK
6	621.700	-0.837	23.239	22.402	-23.618	46.020	QUASIPEAK

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

Engineer : John	
Site : AC-2	Time : 2006/06/11 - 13:40
Limit : FCC_SpartC_15.209_03M_PK	Margin : 3
EUT : Bluetooth Stereo handsets	Probe : BBHA9120D_499 - HORIZONTAL
Power : AC 120V/60Hz	Note : Mode 1: Transmitter (2480MHz)

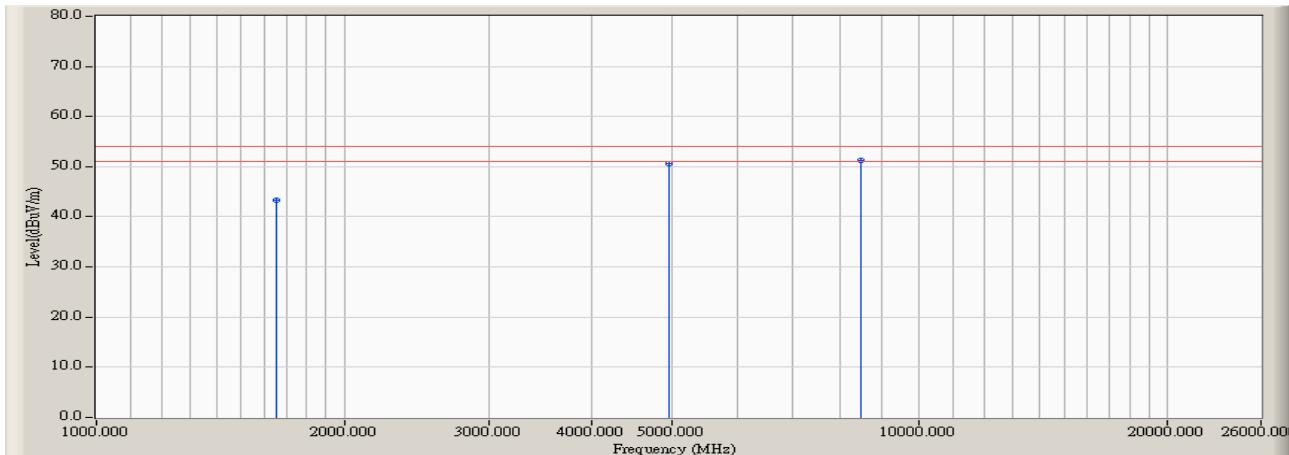


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		1653.420	3.237	55.520	58.757	-15.213	73.970	PEAK
2		4960.731	14.279	53.190	67.468	-6.502	73.970	PEAK
3	*	8494.705	21.721	45.780	67.501	-6.469	73.970	PEAK

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

Engineer : John	
Site : AC-2	Time : 2006/06/11 - 13:40
Limit : FCC_SpartC_15.209_03M_AV	Margin : 3
EUT : Bluetooth Stereo handsets	Probe : BBHA9120D_499 - HORIZONTAL
Power : AC 120V/60Hz	Note : Mode 1: Transmitter (2480MHz)

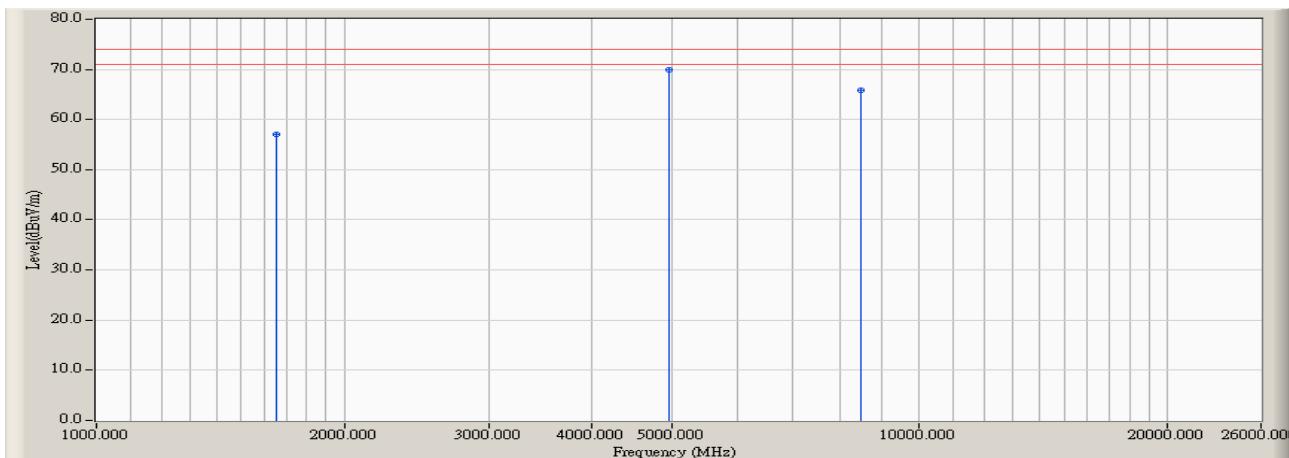


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1	1653.420	3.237	40.160	43.397	-10.573	53.970	AVERAGE
2	4960.731	14.279	36.250	50.528	-3.442	53.970	AVERAGE
3	*	21.721	29.480	51.201	-2.769	53.970	AVERAGE

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

Engineer : John	
Site : AC-2	Time : 2006/06/11 - 13:43
Limit : FCC_SpartC_15.209_03M_PK	Margin : 3
EUT : Bluetooth Stereo handsets	Probe : BBHA9120D_499 - VERTICAL
Power : AC 120V/60Hz	Note : Mode 1: Transmitter (2480MHz)

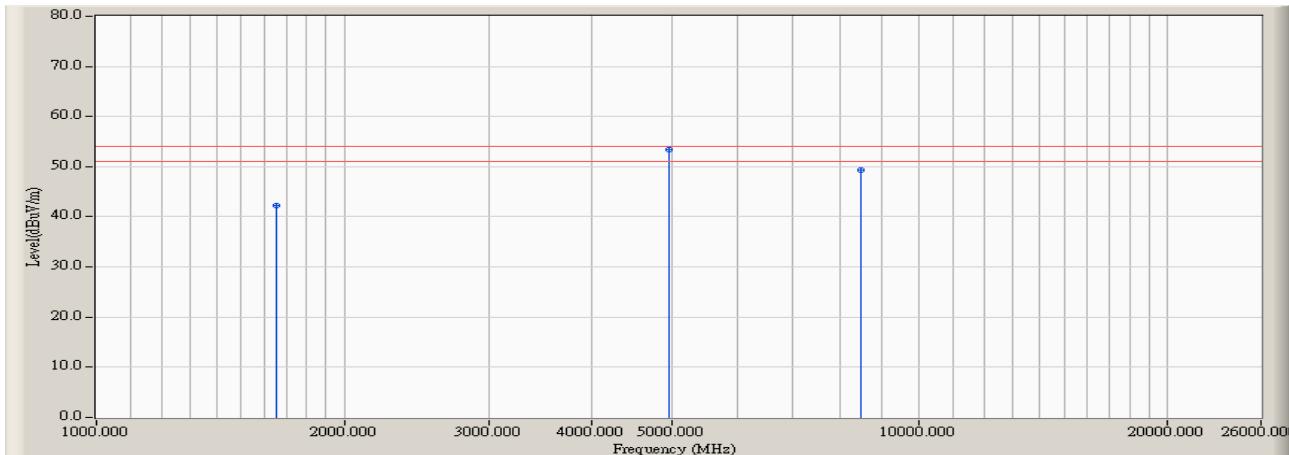


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1	1653.330	3.237	53.840	57.077	-16.893	73.970	PEAK
2 *	4960.025	14.273	55.620	69.893	-4.077	73.970	PEAK
3	8494.700	21.721	44.230	65.951	-8.019	73.970	PEAK

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

Engineer : John	
Site : AC-2	Time : 2006/06/11 - 13:43
Limit : FCC_SpartC_15.209_03M_AV	Margin : 3
EUT : Bluetooth Stereo handsets	Probe : BBHA9120D_499 - VERTICAL
Power : AC 120V/60Hz	Note : Mode 1: Transmitter (2480MHz)



	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1	1653.330	3.237	39.070	42.307	-11.663	53.970	AVERAGE
2	*	14.273	39.100	53.373	-0.597	53.970	AVERAGE
3	8494.700	21.721	27.660	49.381	-4.589	53.970	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

5. Band Edge

5.1. Test Equipment

The following test equipments are used during the band edge tests:

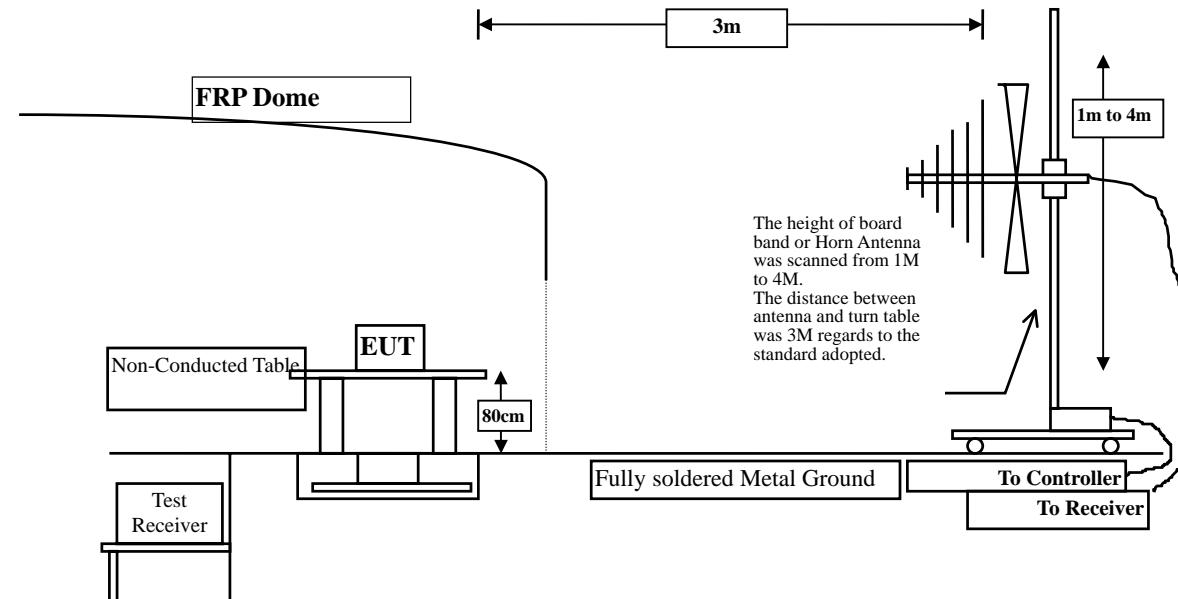
Radiated Emission / AC-2

Instrument	Manufacturer	Type No.	Serial No	Cal. Date
Spectrum Analyzer	Agilent	E4408B	MY45102679	2005/07/07
EMI Test Receiver	R&S	ESCI	100175	2005/07/25
Preamplifier	Quietek	AP-025C	QT-AP003	2005/11/25
Preamplifier	Quietek	AP-180C	CHM-0602013	2006/03/20
Bilog Type Antenna	Schaffner	CBL6112B	2932	2005/10/26
Broad-Band Horn Antenna	Schwarzbeck	BBHA9120D	496	2005/09/30
Temperature/Humidity Meter	zhicheng	ZC1-2	QT-TH002	2006/03/30

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 Radiated Measurement:



5.3. Limit

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 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.

The bandwidth below 1GHz setting on the field strength meter (R&S Test Receiver ESCS 30)is 120 kHz, above 1GHz are 1 MHz.

5.5. Uncertainty

The measurement uncertainty above 1G is defined as \pm 3.9 dB

under 1G is defined as \pm 3.8 dB

5.6. Test Result of Band Edge

Product : Bluetooth Stereo handsets
Test Item : Band Edge
Test Site : AC-2
Test Mode : Mode 1: Transmitter (2402MHz)

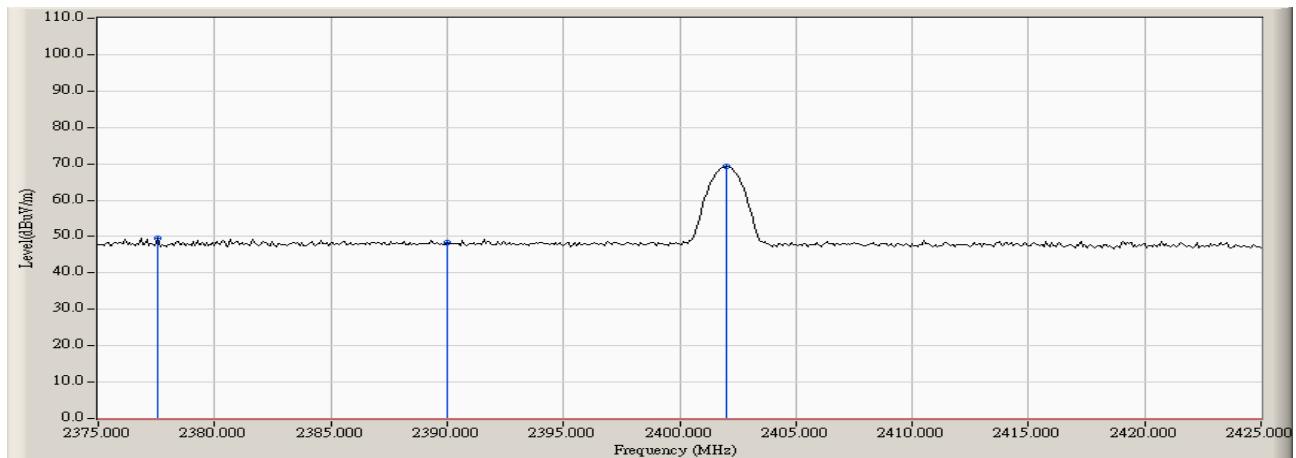
RF Radiated Measurement:

Channel No.	Frequency (MHz)	Required Limit (dBc)	Result
00	<2400	>20	Pass

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
00 (Peak)	2384.750	40.530	48.579	74.00	54.00	Pass
00 (Average)	--	--	--	74.00	54.00	Pass

Figure Channel 00: (Horizontal)



Note:

RBW=1MHz, VBW=1MHz, Sweep Time=500ms.

Note: 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.

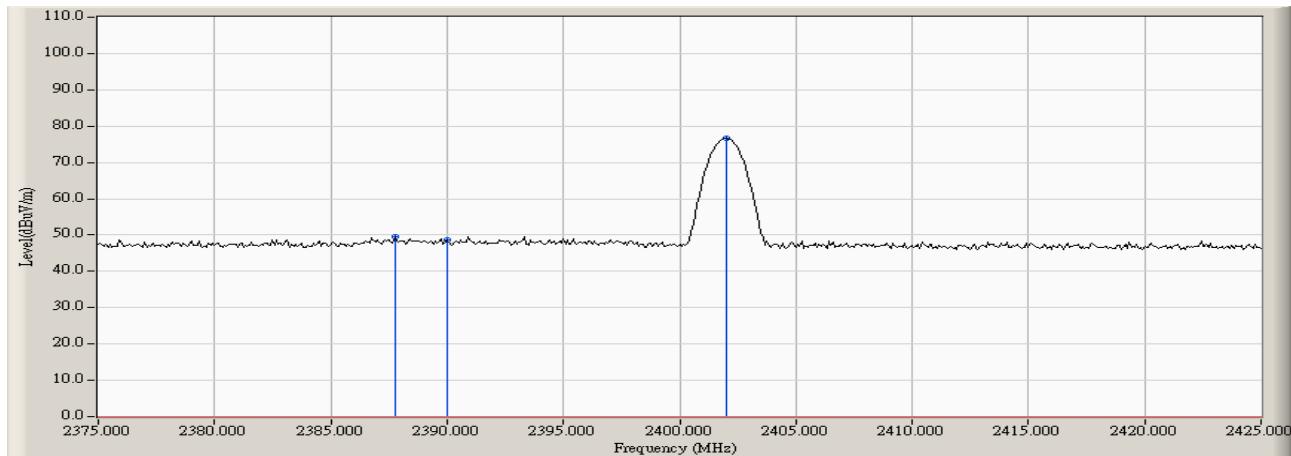
Product : Bluetooth Stereo handsets
Test Item : Band Edge
Test Site : AC-2
Test Mode : Mode 1: Transmitter (2402MHz)

RF Radiated Measurement:

Channel No.	Frequency (MHz)	Required Limit (dBc)	Result
00	<2400	>20	Pass

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
00 (Peak)	2387.75	40.393	49.430	74.00	54.00	Pass
00(Average)	--	--	--	74.00	54.00	Pass

Figure Channel 00: (Vertical)

Note:

RBW=1MHz, VBW=1MHz, Sweep Time=500ms.

Note: 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.

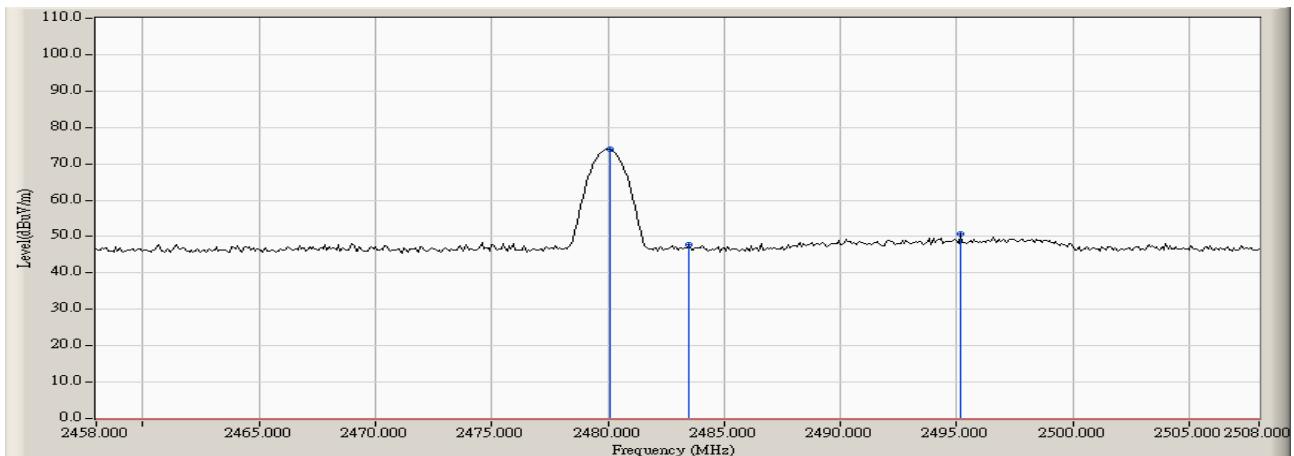
Product : Bluetooth Stereo handsets
Test Item : Band Edge
Test Site : AC-2
Test Mode : Mode 1: Transmitter (2480MHz)

RF Radiated Measurement:

Channel No.	Frequency (MHz)	Required Limit (dBc)	Result
78	>2483.5	>20	Pass

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
78(Peak)	2495.167	42.168	50.782	74.00	54.00	Pass
78(Average)	--	--	--	74.00	54.00	Pass

Figure Channel 78: (Horizontal)

Note:

RBW=1MHz, VBW=1MHz, Sweep Time=500ms.

Note: 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.

Product : Bluetooth Stereo handsets
Test Item : Band Edge
Test Site : AC-2
Test Mode : Mode 1: Transmitter (2480MHz)

RF Radiated Measurement:

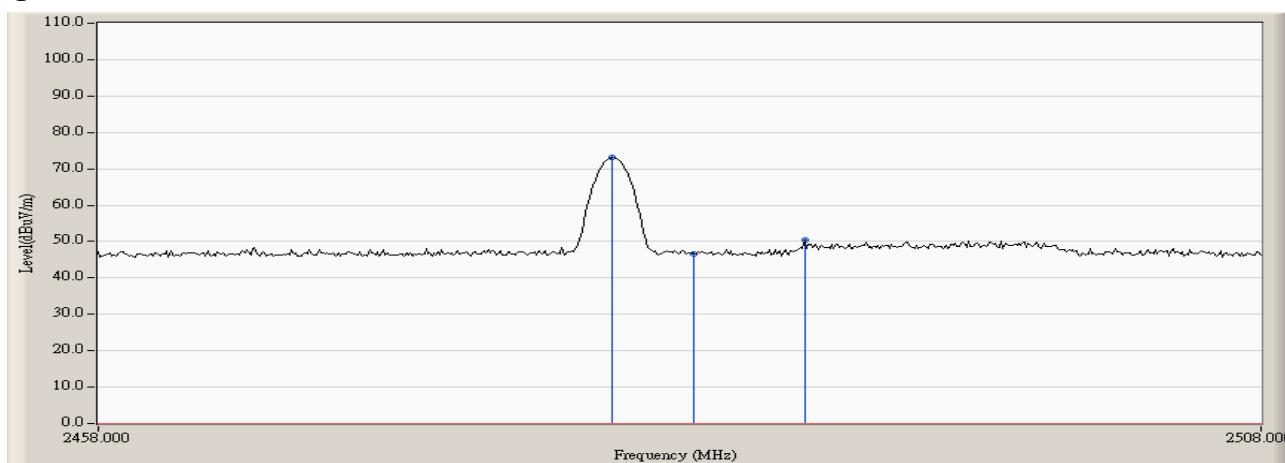
Channel No.	Frequency (MHz)	Required Limit (dBc)	Result
78	>2483.5	>20	Pass

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
78(Peak)	2488.250	41.782	50.482	74.00	54.00	Pass
78(Average)	--	--	--	74.00	54.00	Pass

Figure Channel 78:

(Vertical)



Note:

RBW=1MHz, VBW=1MHz, Sweep Time=500ms.

Note: 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.

6. Channel Number

6.1. Test Equipment

The following test equipments are used during the radiated emission tests:

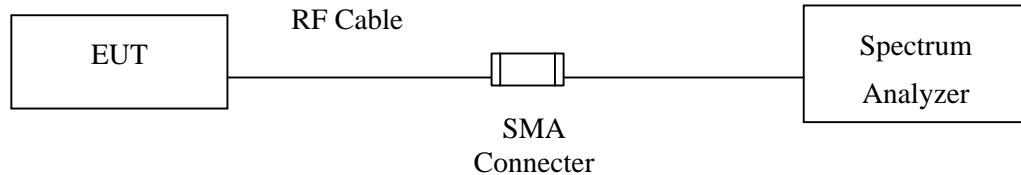
Radiated Emission / AC-3

Instrument	Manufacturer	Type No.	Serial No	Cal. Date
Spectrum Analyzer	Agilent	E4446A	MY45300103	2006/03/11

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

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

6.2. Test Setup



6.3. Limit

Frequency hopping systems operating in the 2400-2483.5 MHz bands shall use at least 75 hopping frequencies.

6.4. Uncertainty

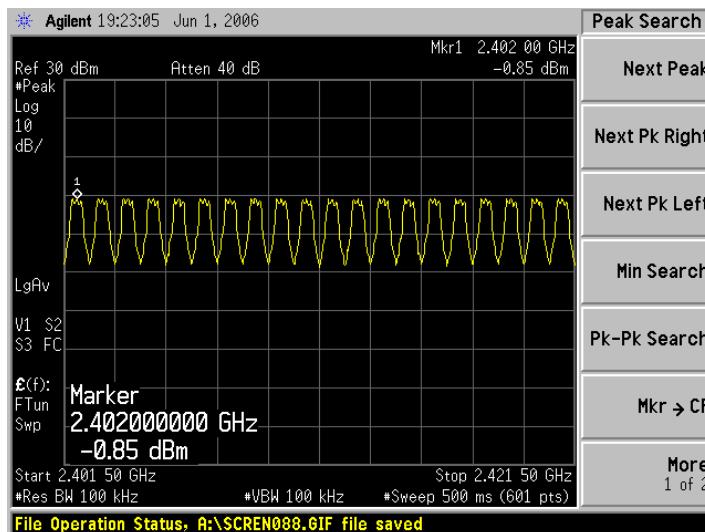
The measurement uncertainty is defined as $\pm 200\text{kHz}$

6.5. Test Result of Channel Number

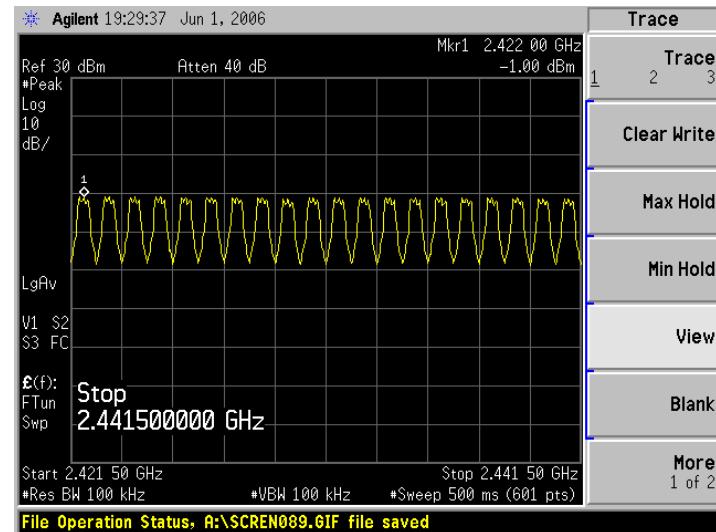
Product : Bluetooth Stereo handsets
 Test Item : Channel Number
 Test Site : AC-3
 Test Mode : Mode 1: Transmitter

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

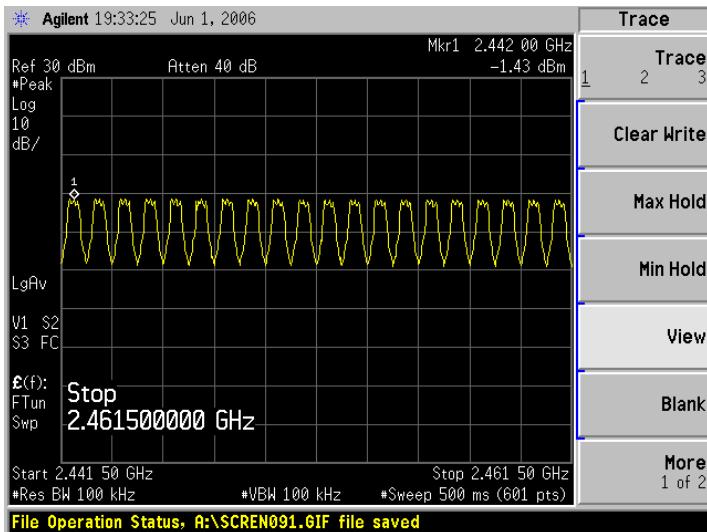
2402-2421MHz



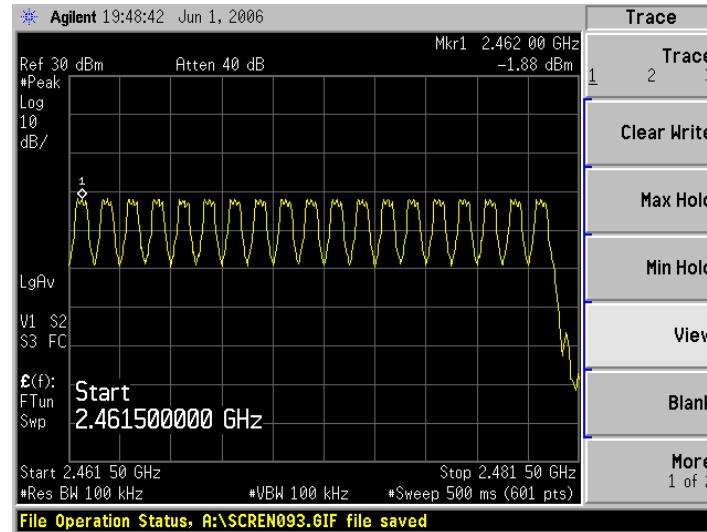
2422-2441MHz



2442-2471MHz



2472-2480MHz



7. Channel Separation

7.1. Test Equipment

The following test equipments are used during the radiated emission tests:

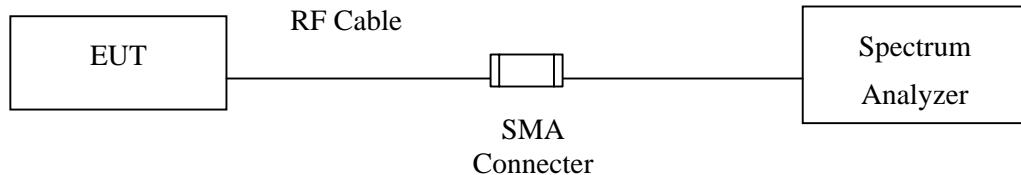
Radiated Emission / AC-3

Instrument	Manufacturer	Type No.	Serial No	Cal. Date
Spectrum Analyzer	Agilent	E4446A	MY45300103	2006/03/11

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

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

7.2. Test Setup



7.3. Limit

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.

7.4. Uncertainty

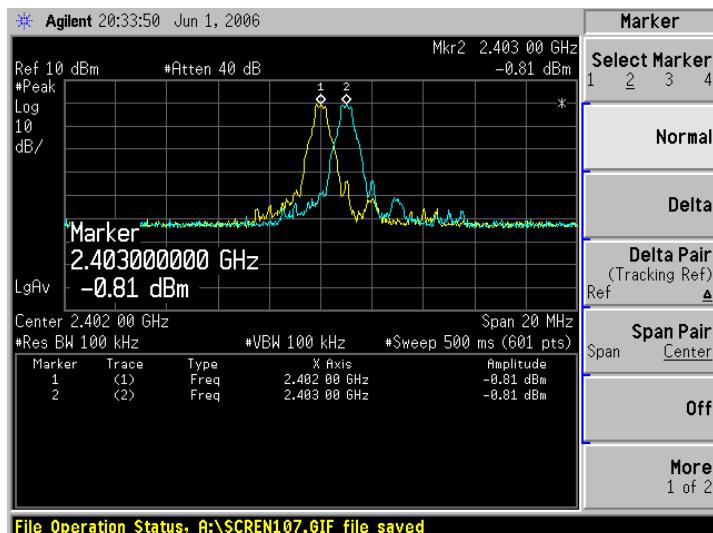
The measurement uncertainty is defined as $\pm 150\text{Hz}$

7.5. Test Result of Channel Separation

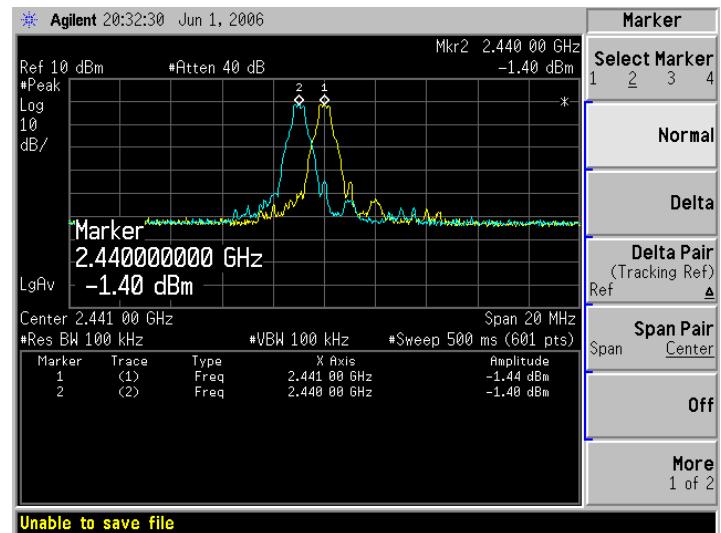
Product : Bluetooth Stereo handsets
 Test Item : Channel Separation
 Test Site : AC-3
 Test Mode : Mode 1: Transmitter

Frequency (MHz)	Measurement Level (MHz)	Required Limit	Result
2402	1.00	>25 kHz or 2/3 * 20 dB BW	Pass
2441	1.00	>25 kHz or 2/3 * 20 dB BW	Pass
2480	1.00	>25 kHz or 2/3 * 20 dB BW	Pass

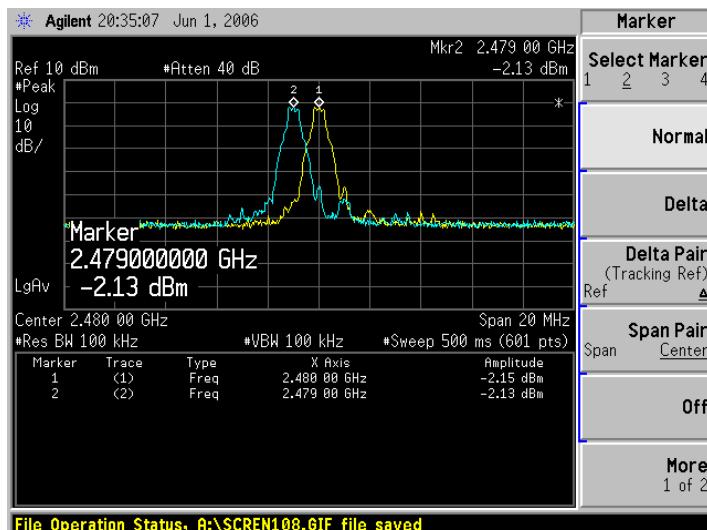
Channel 00 2402MHz



Channel 39 2441MHz



Channel 78 2480 MHz



8. Dwell Time

8.1. Test Equipment

The following test equipments are used during the radiated emission tests:

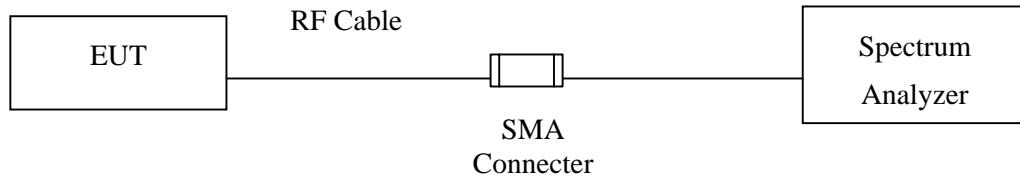
Radiated Emission / AC-3

Instrument	Manufacturer	Type No.	Serial No	Cal. Date
Spectrum Analyzer	Agilent	E4446A	MY45300103	2006/03/11

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

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

8.2. Test Setup



8.3. Limit

The dwell time shall be the average time of occupancy on any frequency shall not be greater than 0.4 seconds within a period of 0.4 seconds multiplied by the number of hopping channels employed.

8.4. Uncertainty

The measurement uncertainty is defined as \pm 25msec

8.5. Test Result of Dwell Time

Product : Bluetooth Stereo handsets

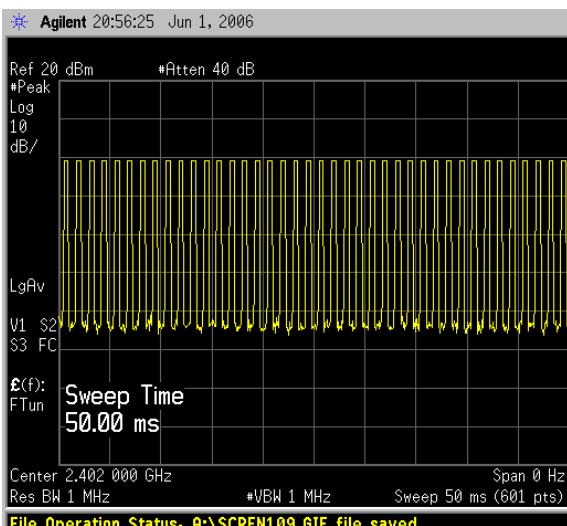
Test Item : Dwell Time

Test Site : No.3 OATS

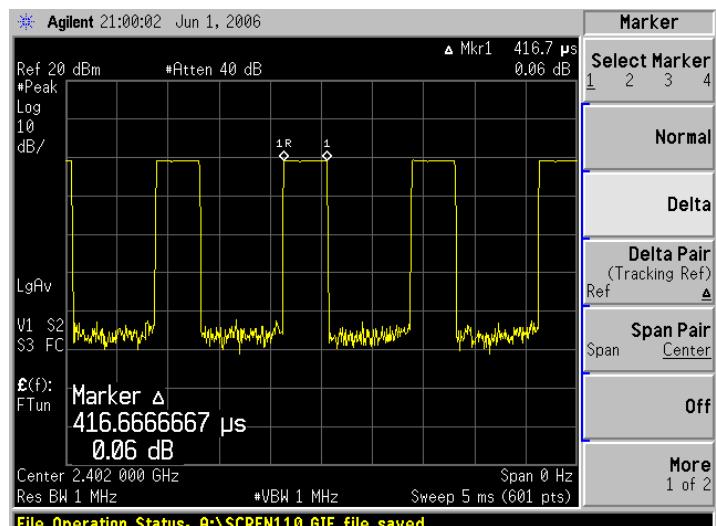
Test Mode : Mode 1: Transmitter

Channel (MHz)	Measurement Level (ms)	Required Limit (sec.)	Result
CH 00 2402	133.344	< 0.4	Pass
CH 39 2441	133.344	< 0.4	Pass
CH 78 2480	133.344	< 0.4	Pass

CH 00 2402MHz

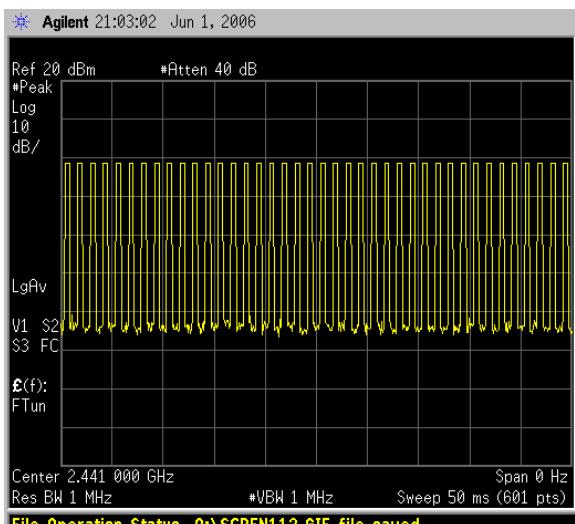


Trace
1
2
3
Clear Write
Max Hold
Min Hold
View
Blank
More 1 of 2

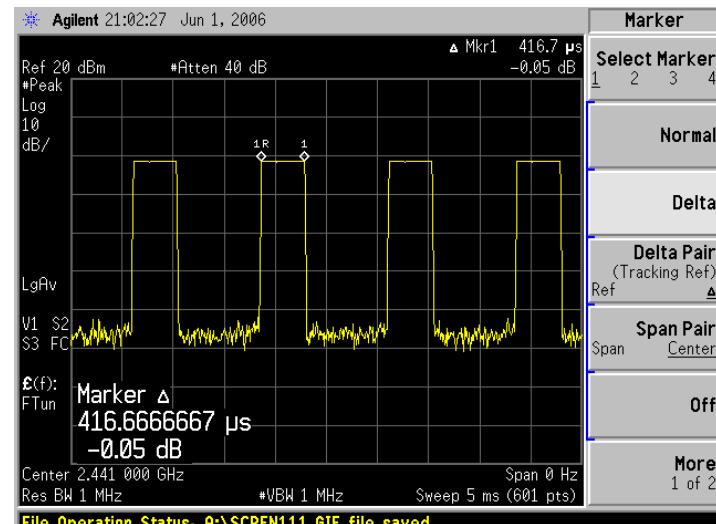


Marker
Select Marker 1 2 3 4
Normal
Delta
Delta Pair (Tracking Ref) Ref
Span Pair Span Center
Off
More 1 of 2

CH 39 2441MHz

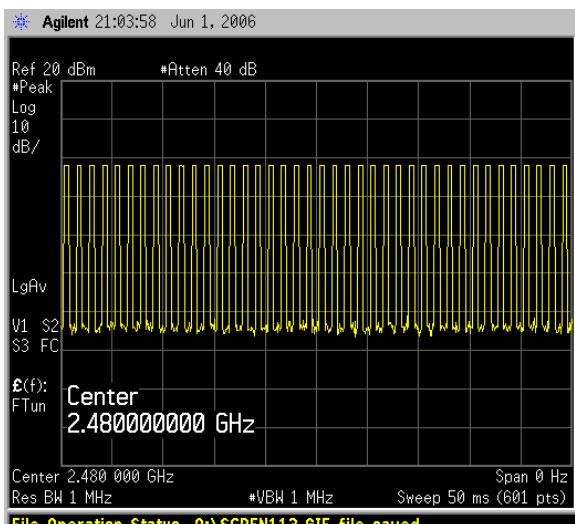


Marker
Select Marker 1 2 3 4
Normal
Delta
Delta Pair (Tracking Ref) Ref
Span Pair Span Center
Off
More 1 of 2

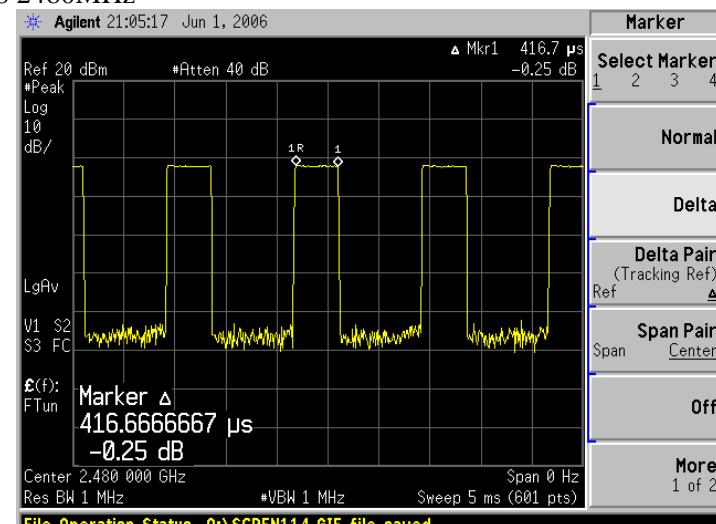


Marker
Select Marker 1 2 3 4
Normal
Delta
Delta Pair (Tracking Ref) Ref
Span Pair Span Center
Off
More 1 of 2

CH 78 2480MHz



Trace
1
2
3
Clear Write
Max Hold
Min Hold
View
Blank
More 1 of 2



Marker
Select Marker 1 2 3 4
Normal
Delta
Delta Pair (Tracking Ref) Ref
Span Pair Span Center
Off
More 1 of 2

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

Occupancy Time of Frequency Hopping System

Test Time Period: $0.4*79=31.6$ sec , Hopping Times Within 1sec: $40/50\text{msec}=800$ hops/sec.

A) 2402MHz The Maximum Occupancy Time Within 31.6sec: $(416.7 \mu\text{s}*800)/(79*31.6)= 133.344\text{msec}$.

B) 2441MHz The Maximum Occupancy Time Within 31.6sec: $(416.7 \mu\text{s}*800)/(79*31.6)= 133.344\text{msec}$.

C) 2480MHz The Maximum Occupancy Time Within 31.6sec: $(416.7 \mu\text{s}*800)/(79*31.6)= 133.344\text{msec}$.

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

PS: (1) From Bluetooth Specification , It Hops 1640 Times in 1sec . The Average Occupancy Time of Each 79 Channels is $1640/79$ Times , Therefore , We Calculate The Maximum Occupancy Time (worse case)As Below:

A) 2402Mhz The Occupancy Time of Each Pulse is 0.4msec , The Maximum Occupancy Time within 31.6sec is $0.4\text{msec}*1640/79*31.6=289.056\text{msec}$

B) 2441MHz The Occupancy Time of Each Pulse is 0.4msec , The Maximum Occupancy Time within 31.6sec is $0.4\text{msec}*1640/79*31.6=289.056\text{msec}$

C) 2480MHz The Occupancy Time of Each Pulse is 0.4msec , The Maximum Occupancy Time within 31.6sec is $0.4\text{msec}*1640/79*31.6=289.056\text{msec}$

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

9. Occupied Bandwidth

9.1. Test Equipment

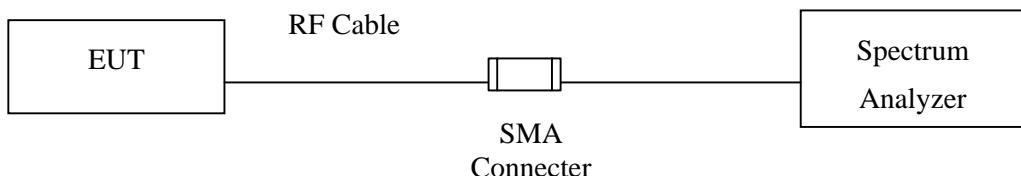
The following test equipments are used during the radiated emission tests:

Radiated Emission / AC-3

Instrument	Manufacturer	Type No.	Serial No	Cal. Date
Spectrum Analyzer	Agilent	E4446A	MY45300103	2006/03/11

Note: 1. All equipment upon which need to calibrated are with calibration period of 1 year.
2. Mark “X” test instruments are used to measure the final test results.

9.2. Test Setup



9.3. Limits

The minimum bandwidth shall be at least 500kHz.

9.4. Uncertainty

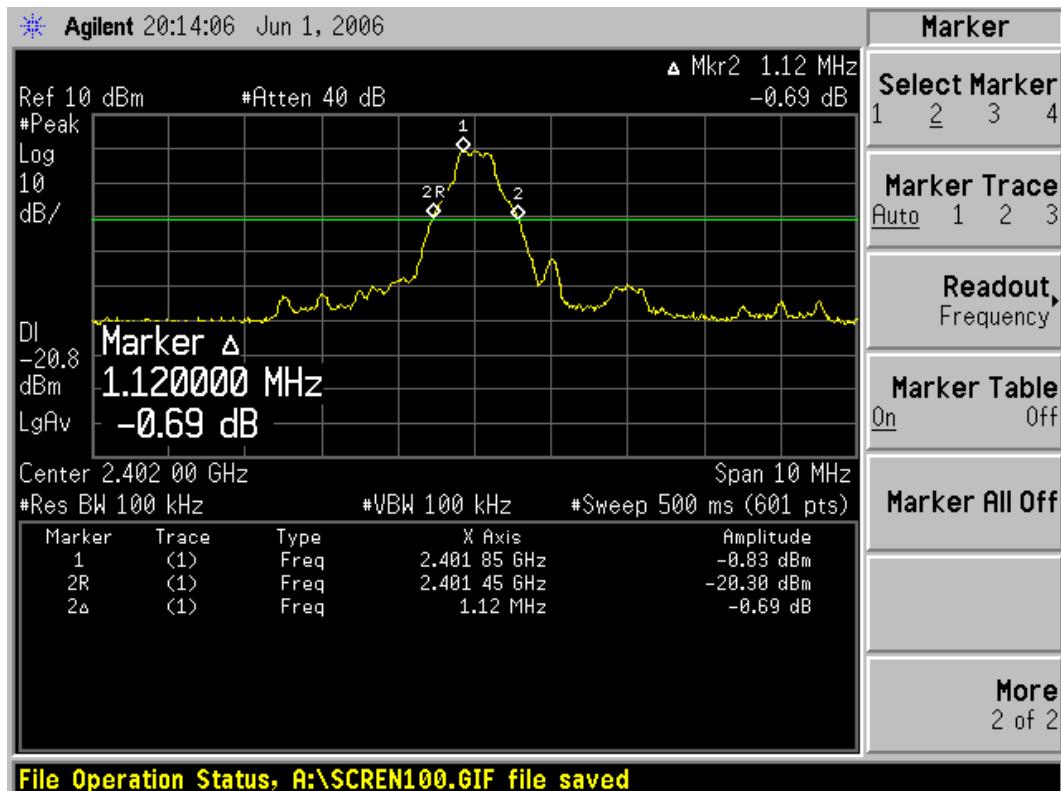
The measurement uncertainty is defined as ± 1.27 dB

9.5. Test Result of Occupied Bandwidth

Product : Bluetooth Stereo handsets
 Test Item : Occupied Bandwidth Data
 Test Site : AC-3
 Test Mode : Mode 1: Transmitter (2402MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
00	2402	1120	--	Pass

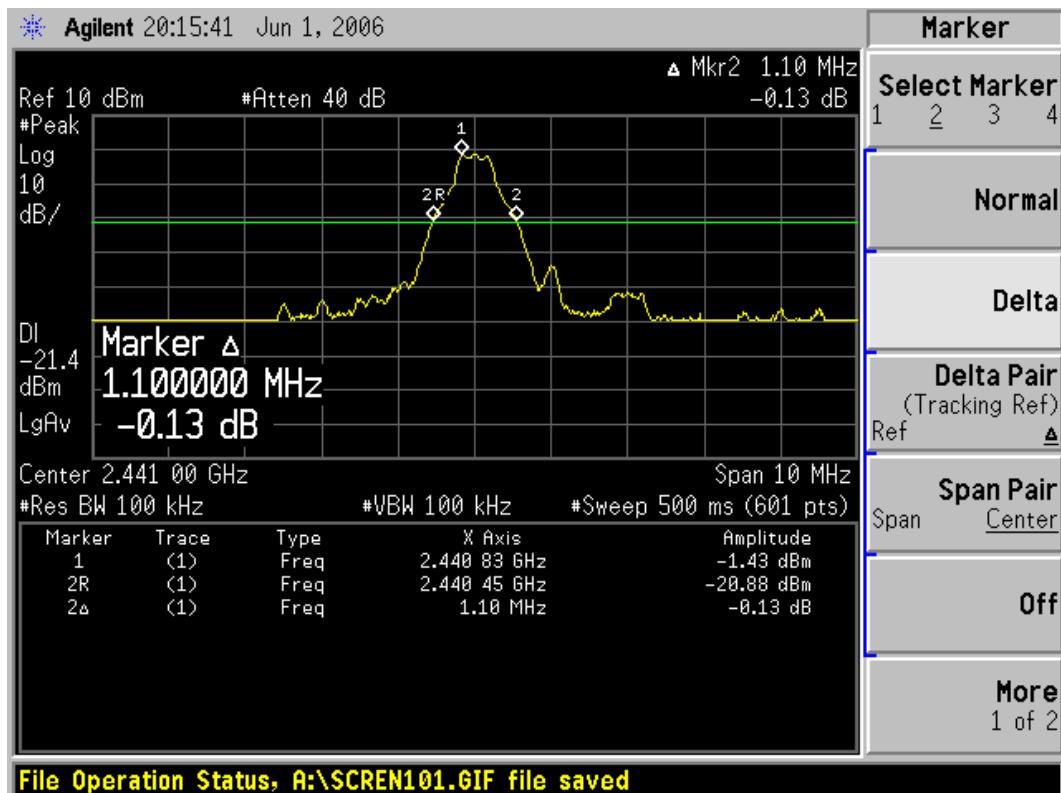
Figure Channel 00 (2402MHz)



Product : Bluetooth Stereo handsets
 Test Item : Occupied Bandwidth Data
 Test Site : AC-3
 Test Mode : Mode 1: Transmitter (2441MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
39	2441	1100	--	Pass

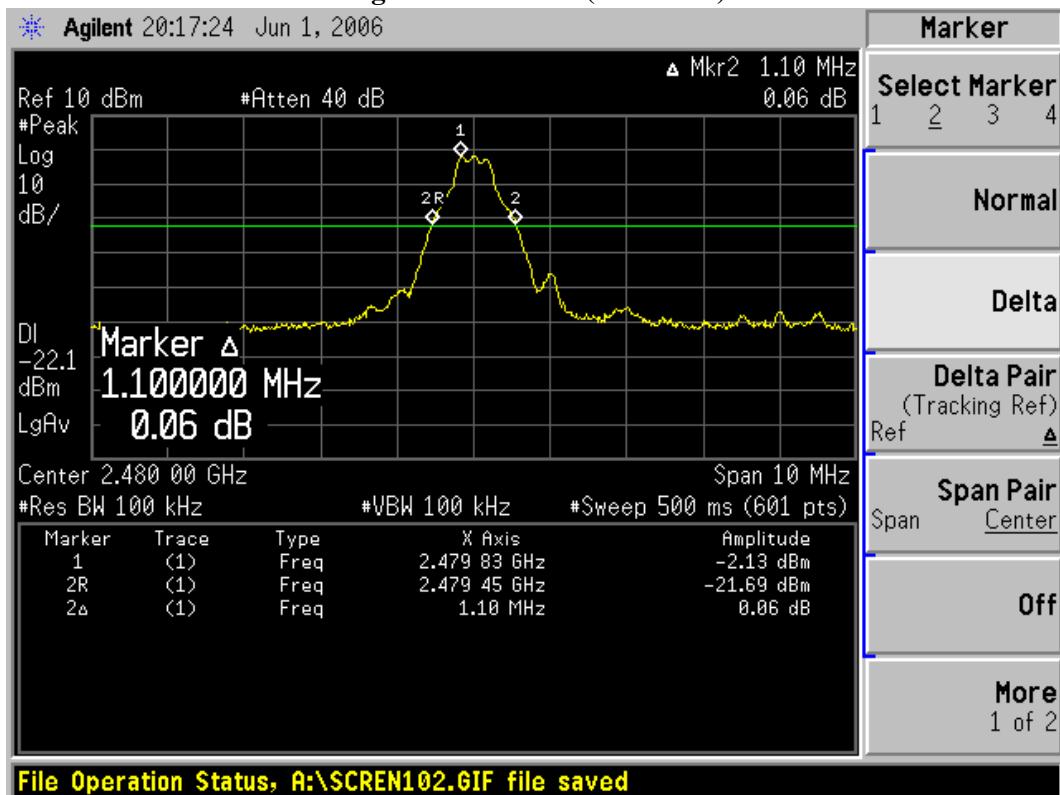
Figure Channel 39 (2402MHz)



Product : Bluetooth Stereo handsets
 Test Item : Occupied Bandwidth Data
 Test Site : AC-3
 Test Mode : Mode 1: Transmitter (2480MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
78	2480	1100	--	Pass

Figure Channel 78 (2480MHz)



10. EMI Reduction Method During Compliance Testing

No modification was made during testing.