



# Test Report

Industry Canada RSS-Gen Issue 2/RSS-210 Issue 7  
FCC Part15 Subpart C

Product Name : Bluetooth Headset

Model No. : Discovery ELAN

FCC ID : AL8-D975

IC ID : 457A-D975

Applicant : Plantronics Inc

Address : 345 Encinal Street, P.O. Box 635, Santa Cruz,  
CA95060 USA

Date of Receipt : 2009/03/20

Issued Date : 2009/03/30

Report No. : 094S011R-RF-US-P06V01

Version : V1.0

The test results relate only to the samples tested.

The test results shown in the test report are traceable to the national/international standard through the calibration of the equipment and evaluated measurement uncertainty herein.

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# Test Report Certification


Issued Date : 2009/03/30


Report No. : 094S011R-RF-US-P06V01



Product Name : Bluetooth Headset  
Applicant : Plantronics Inc  
Address : 345 Encinal Street, P.O. Box 635, Santa Cruz, CA95060 USA  
Manufacturer : Plantronics Communication Technology (Suzhou) Co., Ltd  
Model No. : Discovery ELAN  
FCC ID : AL8-D975  
Rated Voltage : AC 120 V / 60 Hz  
EUT Voltage : AC 100-240 V / 50-60 Hz  
Trade Name : Plantronics  
Applicable Standard : FCC CFR Title 47 Part 15 Subpart C / ANSI C63.4: 2003  
Industry Canada RSS-Gen Issue 2 / RSS-210 Issue 7  
Test Result : Complied  
Performed Location : SuZhou EMC laboratory  
No.99 Hongye Rd., Suzhou Industrial Park Loufeng Hi-Tech  
Development Zone., SuZhou, China  
TEL: +86-512-6251-5088 / FAX: +86-512-6251-5098  
FCC Registration Number: 800392; IC Lab Code: 4075B

Documented By :   
\_\_\_\_\_  
( Any Liu )

Reviewed By :   
\_\_\_\_\_  
( Marlin Chen )

Approved By :   
\_\_\_\_\_  
( Gene Chang )

## Laboratory Information

We , **Quietek Corporation**, are an independent EMC and safety consultancy that was established the whole facility in our laboratories. The test facility has been accredited by the following accreditation Bodies in compliance with ISO 17025, EN 45001 and Guide 25:

Taiwan R.O.C.	: BSMI, DGT, CNLA
Germany	: TUV Rheinland
Norway	: Nemko, DNV
USA	: FCC, NVLAP
Japan	: VCCI

The related certificate for our laboratories about the test site and management system can be downloaded from Quietek Corporation's Web Site : <http://tw.quietek.com/modules/myalbum/>  
 The address and introduction of Quietek Corporation's laboratories can be founded in our Web site : <http://www.quietek.com/>  
 If you have any comments, Please don't hesitate to contact us. Our contact information is as below:

### HsinChu Testing Laboratory :

No.75-2, 3rd Lin, Wangye Keng, Yonghxing Tsuen, Qionglin Shiang, Hsinchu County 307, Taiwan, R.O.C.  
 TEL:+886-3-592-8858 / FAX:+886-3-592-8859 E-Mail : service@quietek.com



### LinKou Testing Laboratory :

No. 5, Ruei-Shu Valley, Ruei-Ping Tsuen, Lin-Kou Shiang, Taipei, Taiwan, R.O.C.  
 TEL : +886-2-8601-3788 / FAX : 886-2-8601-3789 E-Mail : service@quietek.com



### Suzhou Testing Laboratory :

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



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## 1. General Information

### 1.1. EUT Description

Product Name	Bluetooth Headset
Trade Name	Plantronics
Model No.	Discovery ELAN
FCC ID	AL8-D975
Working Voltage	DC 3.7V
Frequency Range	2402 - 2480 MHz
Channel Number	79
Type of Modulation	FHSS
Data Rate	1Mbps(GFSK), 2Mbps(8DPSK), 3Mbps (Pi/4 DQPSK)
Channel Control	Auto
Antenna Type	Trace Antenna
Antenna Gain	Refer to the "Antenna List"

Component	
AC Adapter	PLANTRONICS POWER SUPPLY P/N: 77394-04 M/N: SSA-3W-05 05 0035F Input: AC100-240V~, 50/60Hz, 0.2A(0.2A) Output: DC5.0V(5.0V), 350mA

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

### Antenna List

Antenna	Manufacturer	Model No.	Peak Gain
Bluetooth Antenna	PLANTRONICS	Discovery675	-1.13dBi



**1.2. Mode of Operation**

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

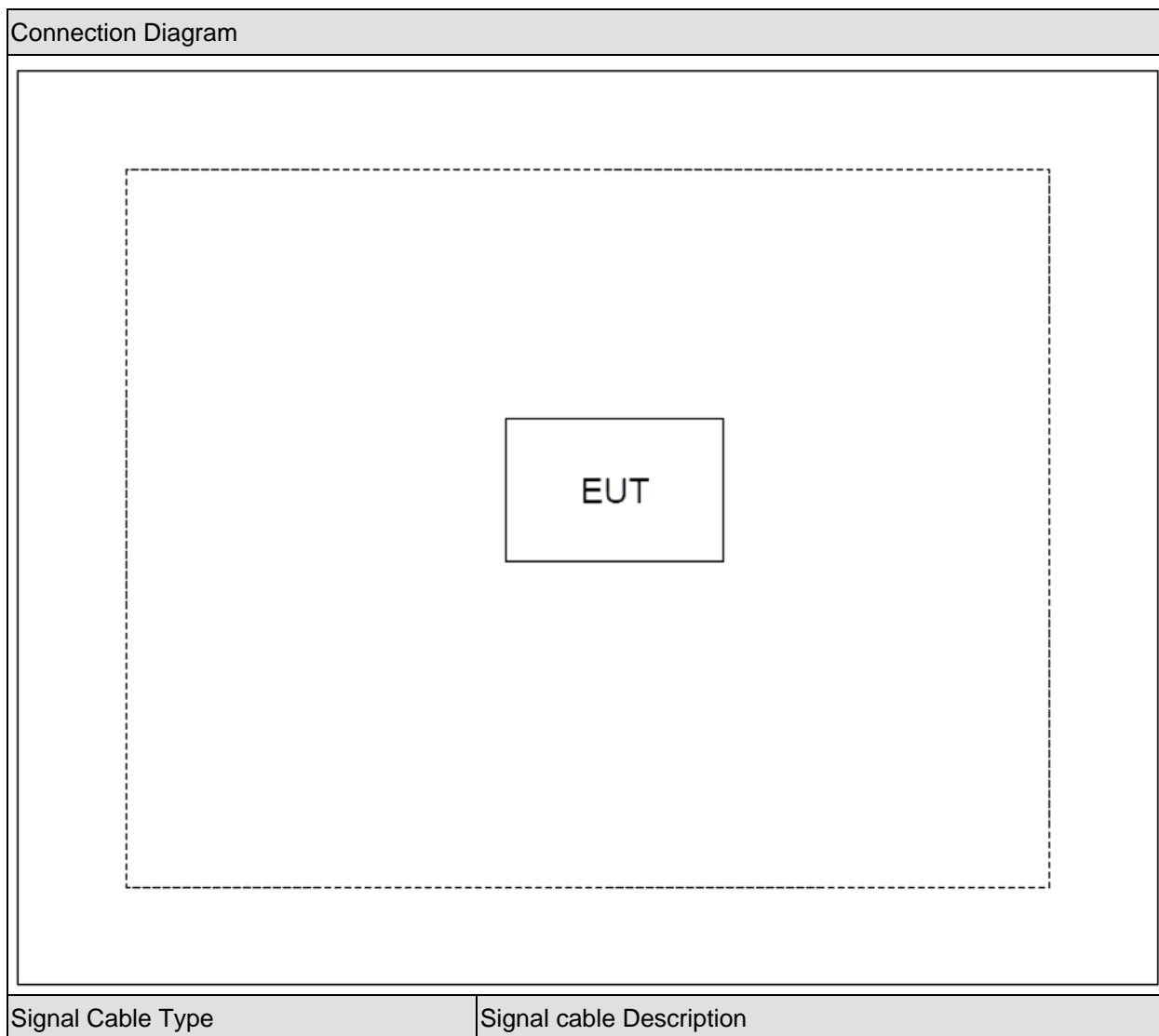
Test Mode
Mode 1: Transmit (DH5)
Mode 2: Transmit (3DH5)

**1.3. Tested System Details**

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

Product		Manufacturer	Model No.	Serial No.	Power Cord
1	N/A	N/A	N/A	N/A	N/A

### 1.4. Configuration of Tested System



**1.5. EUT Exercise Software**

1	Setup the EUT and simulators as shown on 1.4.
2	Turn on the power of all equipment.
3	Execute the Bluetest V1.20 Test program on the PC.
4	Setup the test channel and the test mode press ok to start the Continue Transmit.

## 2. Technical Test

### 2.1. Summary of Test Result

No deviations from the test standards

Deviations from the test standards as below description:

Performed Test Item	Normative References	Test Performed	Deviation
Conducted Emission	FCC CFR Title 47 Part 15 Subpart C: 2008 Section 15.207 RSS-Gen Issue 2 June 2007 Section 7.2.2	Yes	No
Radiated Emission	FCC CFR Title 47 Part 15 Subpart C: 2008 Section 15.209 RSS-210 Issue 2 June 2007 Section 2.7 Table 2 and Table 3	Yes	No
20dB Bandwidth	FCC CFR Title 47 Part 15 Subpart C: 2008 Section 15.247(a)(1) RSS-210 Issue 7 June 2007 Section A8.1	Yes	No
99% Occupied Bandwidth	RSS-Gen Issue 2 June 2007 Section 4.6.1	Yes	No
Carrier Frequency Separation	FCC CFR Title 47 Part 15 Subpart C: 2008 Section 15.247(a)(1) RSS-210 Issue 7 June 2007 Section A8.1	Yes	No
Number of Hopping Frequencies	FCC CFR Title 47 Part 15 Subpart C: 2008 Section 15.247(a)(1)(iii) RSS-210 Issue 7 June 2007 Section A8.1	Yes	No
Time of Occupancy (Dwell Time)	FCC CFR Title 47 Part 15 Subpart C: 2008 Section 15.247(a)(1)(iii) RSS-210 Issue 7 June 2007 Section A8.1	Yes	No
Peak Output Power	FCC CFR Title 47 Part 15 Subpart C: 2008 Section 15.247(b)(1) RSS-210 Issue 7 June 2007 Section A8.4	Yes	No
Band-edge Compliance of RF Conducted Emissions	FCC CFR Title 47 Part 15 Subpart C: 2008 Section 15.215(c), 15.247(d)	Yes	No
Spurious RF Conducted Emissions	FCC CFR Title 47 Part 15 Subpart C: 2008 15.247(d) RSS-210 Issue 7 June 2007 Section A8.5	Yes	No
Radiated Emission Band Edge	FCC CFR Title 47 Part 15 Subpart C: 2008 15.247(d) RSS-210 Issue 7 June 2007 Section A8.5	Yes	No

**2.2. Test Environment**

Items	Required (IEC 68-1)	Actual
Temperature (°C)	15-35	21
Humidity (%RH)	25-75	50
Barometric pressure (mbar)	860-1060	950-1000

### 3. Conducted Emission

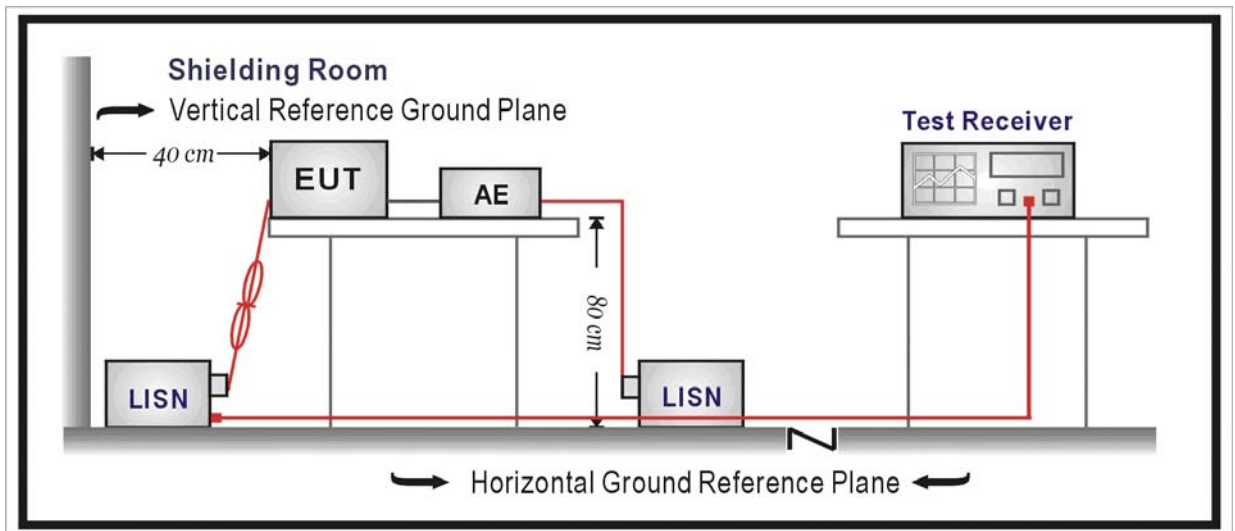
#### 3.1. Test Equipment

Conducted Emission / SR-1

Instrument	Manufacturer	Type No.	Serial No.	Cal. Date
EMI Test Receiver	R&S	ESCI	100726	2008/06/28
Two-Line V-Network	R&S	ENV216	100013	2008/06/28
Two-Line V-Network	R&S	ENV216	100014	2008/06/28
50ohm Coaxial Switch	Anritsu	MP59B	6200464462	2008/11/24
50ohm Termination	SHX	TF2	07081401	2008/09/28
Coaxial Cable	Luthi	RG214	519358	2008/11/24
Temperature/Humidity Meter	zhicheng	ZC1-2	QT-TH004	2009/03/30

Note: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

#### 3.2. Test Setup



**3.3. Limit**

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

Note 1: The lower limit shall apply at the transition frequencies.

Note 2: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.

**3.4. Test Procedure**

According to FCC Public Notice DA 00-705, March 30, 2000.

The EUT was placed on a platform of nominal size, 1 m by 1.5 m, raised 80 cm above the conducting ground plane. The vertical conducting plane was located 40 cm to the rear of the EUT. All other surfaces of EUT were at least 80 cm from any other grounded conducting surface. The EUT and simulators are connected to the main power through a line impedance stabilization network (LISN). The LISN provides a 50 ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN. (Please refer to the block diagram of the test setup and photographs)

Each current-carrying conductor of the EUT power cord, except the ground (safety) conductor, was individually connected through a LISN to the input power source.

The excess length of the power cord between the EUT and the LISN receptacle were folded back and forth at the center of the lead to form a bundle not exceeding 40 cm in length.

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

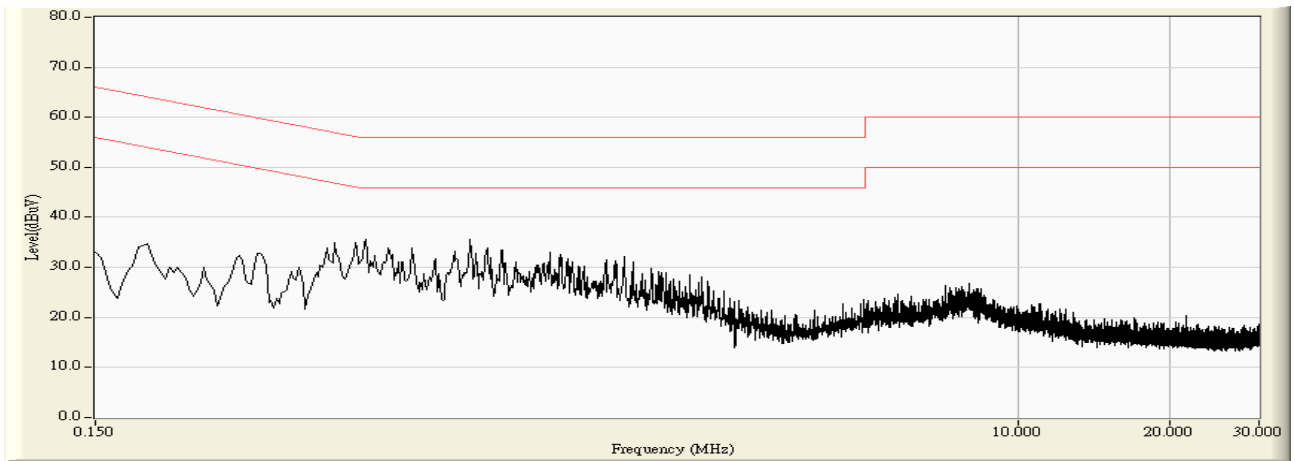
**3.5. Uncertainty**

The measurement uncertainty is defined as  $\pm 2.02$  dB

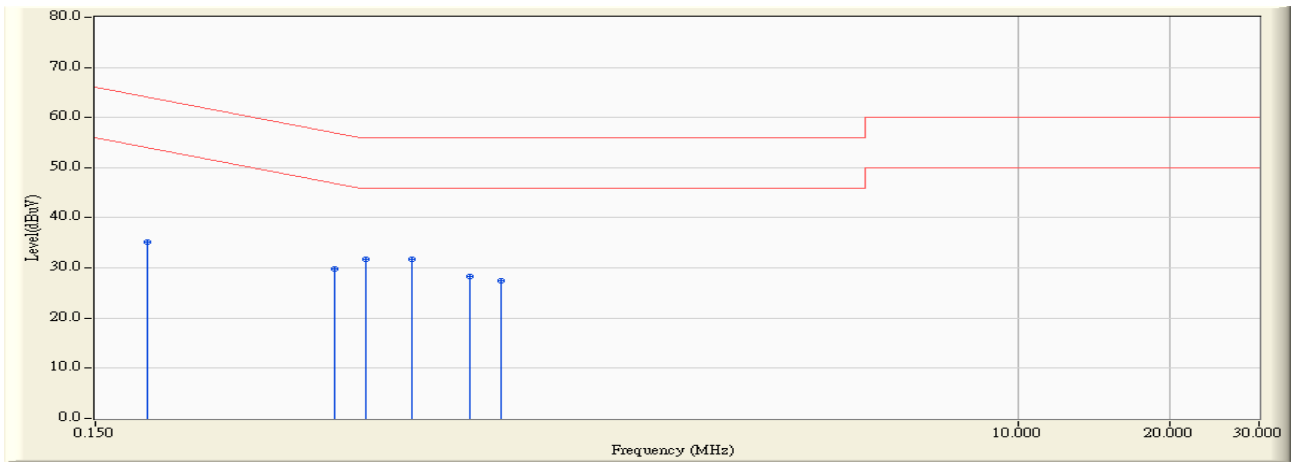


**3.6. Test Result**

Engineer : Jame	
Site : SR-1 (Conducted Emission and Power Disturbance Test)	Time : 2009/03/25 - 10:25
Limit : FCC_PartC_15.207_00M_QP	Margin : 10
EUT : Bluetooth Headset	Probe : ENV216_100014(0.009-30MHz) - Line1
Power : AC 120V/60Hz	Note : Mode 1: Transmit (DH5)

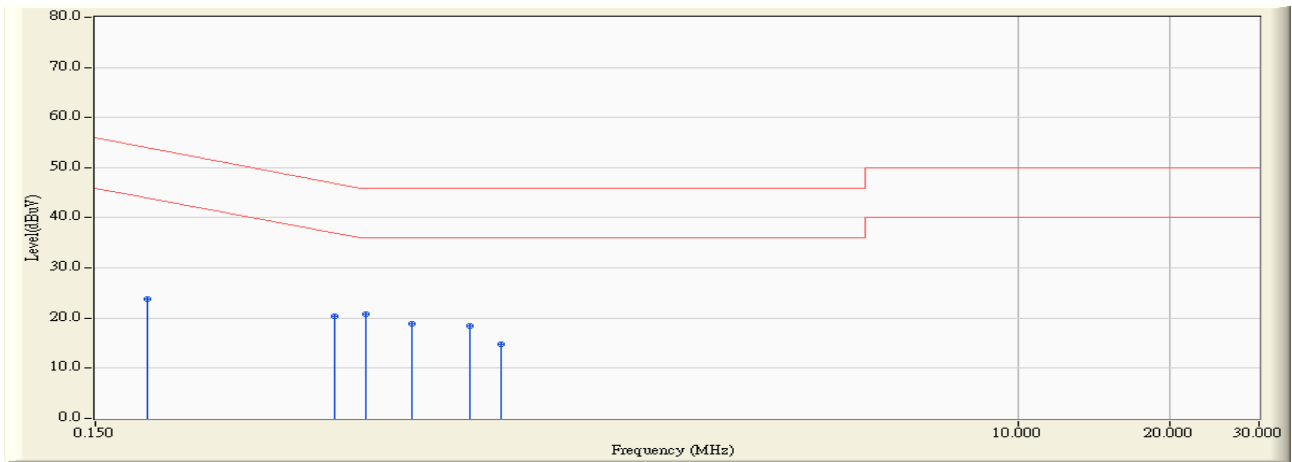


<b>Engineer : Jame</b>	
<b>Site : SR-1 (Conducted Emission and Power Disturbance Test)</b>	<b>Time : 2009/03/25 - 10:28</b>
<b>Limit : FCC_PartC_15.207_00M_QP</b>	<b>Margin : 10</b>
<b>EUT : Bluetooth Headset</b>	<b>Probe : ENV216_100014(0.009-30MHz) - Line1</b>
<b>Power : AC 120V/60Hz</b>	<b>Note : Mode 1: Transmit (DH5)</b>



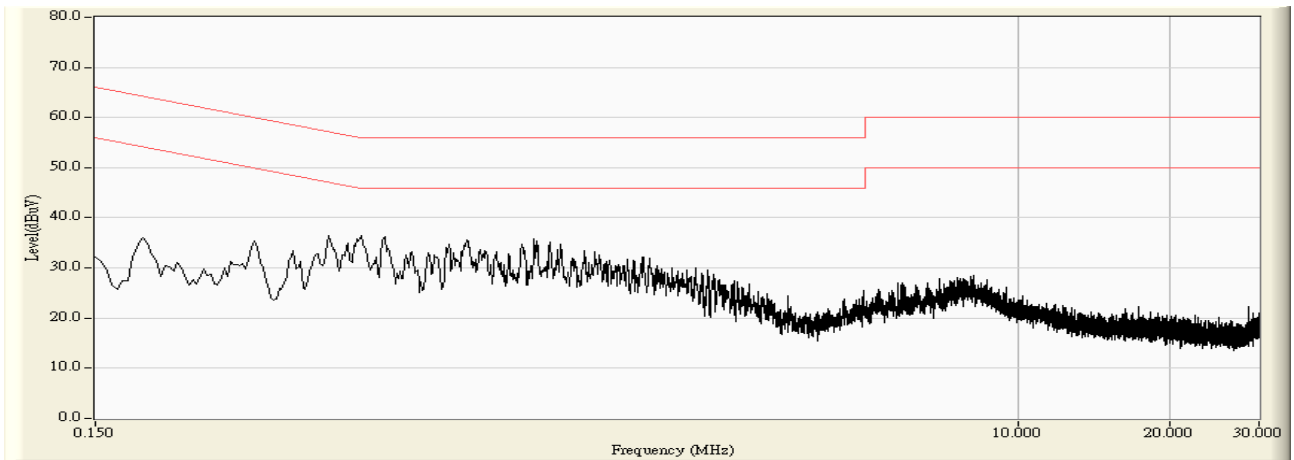
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.190	9.633	25.500	35.133	-29.724	64.857	QUASIPeAK
2		0.446	9.591	20.200	29.791	-27.752	57.543	QUASIPeAK
3	*	0.514	9.628	22.200	31.828	-24.172	56.000	QUASIPeAK
4		0.634	9.658	22.100	31.758	-24.242	56.000	QUASIPeAK
5		0.826	9.690	18.700	28.390	-27.610	56.000	QUASIPeAK
6		0.954	9.715	17.700	27.415	-28.585	56.000	QUASIPeAK

<b>Engineer : Jame</b>	
<b>Site : SR-1 (Conducted Emission and Power Disturbance Test)</b>	<b>Time : 2009/03/25 - 10:28</b>
<b>Limit : FCC_PartC_15.207_00M_AV</b>	<b>Margin : 10</b>
<b>EUT : Bluetooth Headset</b>	<b>Probe : ENV216_100014(0.009-30MHz) - Line1</b>
<b>Power : AC 120V/60Hz</b>	<b>Note : Mode 1: Transmit (DH5)</b>

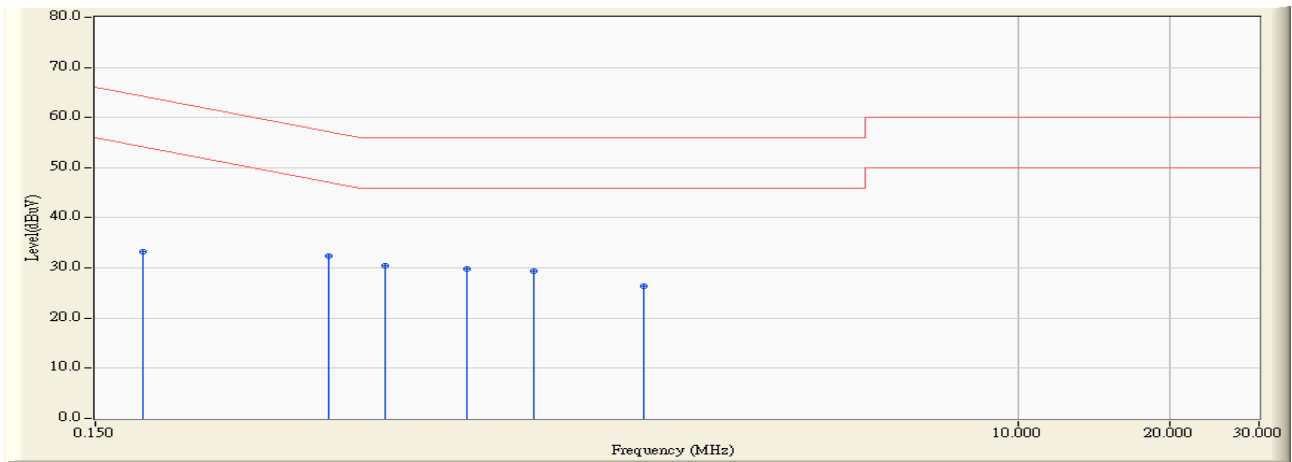


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.190	9.633	14.100	23.733	-31.124	54.857	AVERAGE
2		0.446	9.591	10.800	20.391	-27.152	47.543	AVERAGE
3	*	0.514	9.628	11.100	20.728	-25.272	46.000	AVERAGE
4		0.634	9.658	9.300	18.958	-27.042	46.000	AVERAGE
5		0.826	9.690	8.700	18.390	-27.610	46.000	AVERAGE
6		0.954	9.715	5.100	14.815	-31.185	46.000	AVERAGE

Engineer : Jame	
Site : SR-1 (Conducted Emission and Power Disturbance Test)	Time : 2009/03/25 - 10:19
Limit : FCC_PartC_15.207_00M_QP	Margin : 10
EUT : Bluetooth Headset	Probe : ENV216_100014(0.009-30MHz) - Line2
Power : AC 120V/60Hz	Note : Mode 1: Transmit (DH5)

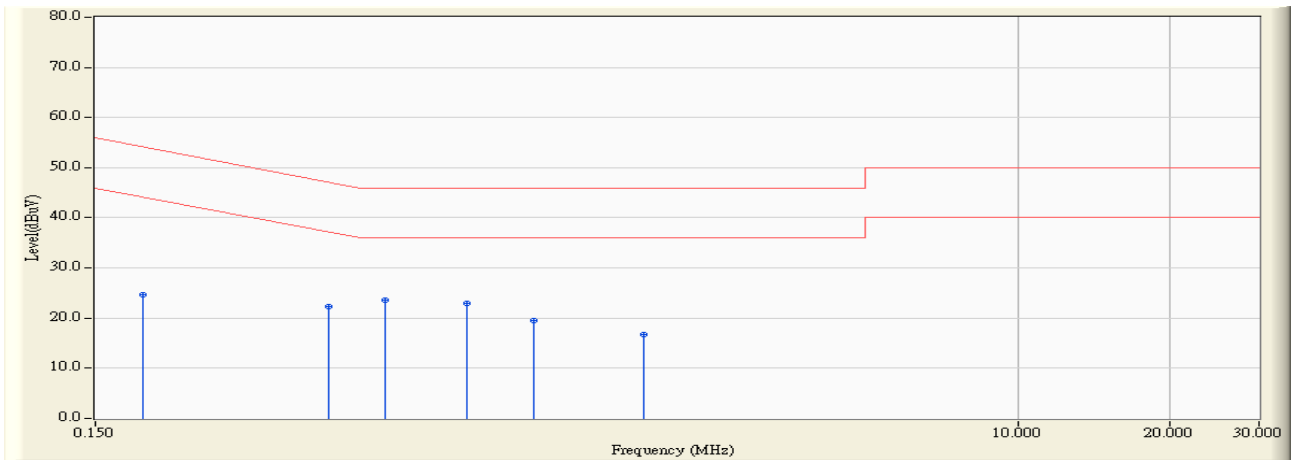


Engineer : Jame	
Site : SR-1 (Conducted Emission and Power Disturbance Test)	Time : 2009/03/25 - 10:22
Limit : FCC_PartC_15.207_00M_QP	Margin : 10
EUT : Bluetooth Headset	Probe : ENV216_100014(0.009-30MHz) - Line2
Power : AC 120V/60Hz	Note : Mode 1: Transmit (DH5)



	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1	0.186	9.732	23.600	33.332	-31.639	64.971	QUASIPeAK
2	0.434	9.612	22.700	32.312	-25.574	57.886	QUASIPeAK
3	* 0.562	9.663	20.900	30.563	-25.437	56.000	QUASIPeAK
4	0.814	9.760	20.000	29.760	-26.240	56.000	QUASIPeAK
5	1.106	9.754	19.600	29.354	-26.646	56.000	QUASIPeAK
6	1.818	9.670	16.800	26.470	-29.530	56.000	QUASIPeAK

<b>Engineer : Jame</b>	
<b>Site : SR-1 (Conducted Emission and Power Disturbance Test)</b>	<b>Time : 2009/03/25 - 10:22</b>
<b>Limit : FCC_PartC_15.207_00M_AV</b>	<b>Margin : 10</b>
<b>EUT : Bluetooth Headset</b>	<b>Probe : ENV216_100014(0.009-30MHz) - Line2</b>
<b>Power : AC 120V/60Hz</b>	<b>Note : Mode 1: Transmit (DH5)</b>



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.186	9.732	14.900	24.632	-30.339	54.971	AVERAGE
2		0.434	9.612	12.800	22.412	-25.474	47.886	AVERAGE
3	*	0.562	9.663	14.000	23.663	-22.337	46.000	AVERAGE
4		0.814	9.760	13.100	22.860	-23.140	46.000	AVERAGE
5		1.106	9.754	9.700	19.454	-26.546	46.000	AVERAGE
6		1.818	9.670	7.100	16.770	-29.230	46.000	AVERAGE

## 4. Radiated Emission

### 4.1. Test Equipment

Radiated Emission / AC-2

Instrument	Manufacturer	Type No.	Serial No.	Cal. Date
Spectrum Analyzer	Agilent	E4408B	MY45102679	2008/06/28
EMI Test Receiver	R&S	ESCI	100573	2008/05/10
Preamplifier	Quietek	AP-025C	QT-AP003	2008/11/24
Preamplifier	Quietek	AP-180C	CHM-0602012	2008/11/24
Bilog Type Antenna	Schaffner	CBL6112B	2932	2008/11/21
Broad-Band Horn Antenna	Schwarzbeck	BBHA9120D	496	2008/11/24
High-Pass Filter	Wainwright	WHKX2.8/18G-12SS	SN1	2009/03/01
Band Reject Filter	Wainwright	WRCG2400/2485-2375 /2510-60/11SS	SN9	2009/03/01
High-Pass Filter	Wainwright	WHKX7.0/18G-8SS	SN16	2009/03/01
Low-Pass Filter	Wainwright	WLKS4500-9SS	SN2	2009/03/01
50ohm Coaxial Switch	Anritsu	MP59B	6200447304	2008/11/24
Coaxial Cable	Huber+Suhner	AC2-C	04	2008/11/24
Temperature/Humidity Meter	zhicheng	ZC1-2	QT-TH002	2009/03/30

Radiated Emission / AC-3

Instrument	Manufacturer	Type No.	Serial No.	Cal. Date
Spectrum Analyzer	Agilent	N9010A	MY48030494	2009/04/23
EMI Test Receiver	R&S	ESCI	100176	2008/11/15
Preamplifier	Quietek	AP-025C	QT-AP004	2008/11/24
Preamplifier	Quietek	AP-180C	CHM-0602012	2008/11/24
Bilog Type Antenna	Schaffner	CBL6112D	22254	2008/11/21
Broad-Band Horn Antenna	Schwarzbeck	BBHA9120D	496	2008/11/24
High-Pass Filter	Wainwright	WHKX2.8/18G-12SS	SN1	2009/03/01
Band Reject Filter	Wainwright	WRCG2400/2485-2375 /2510-60/11SS	SN9	2009/03/01
High-Pass Filter	Wainwright	WHKX7.0/18G-8SS	SN16	2009/03/01
Low-Pass Filter	Wainwright	WLKS4500-9SS	SN2	2009/03/01
50ohm Coaxial Switch	Anritsu	MP59B	6200464463	2008/11/24
Coaxial Cable	Huber+Suhner	AC2-C	05	2008/11/24

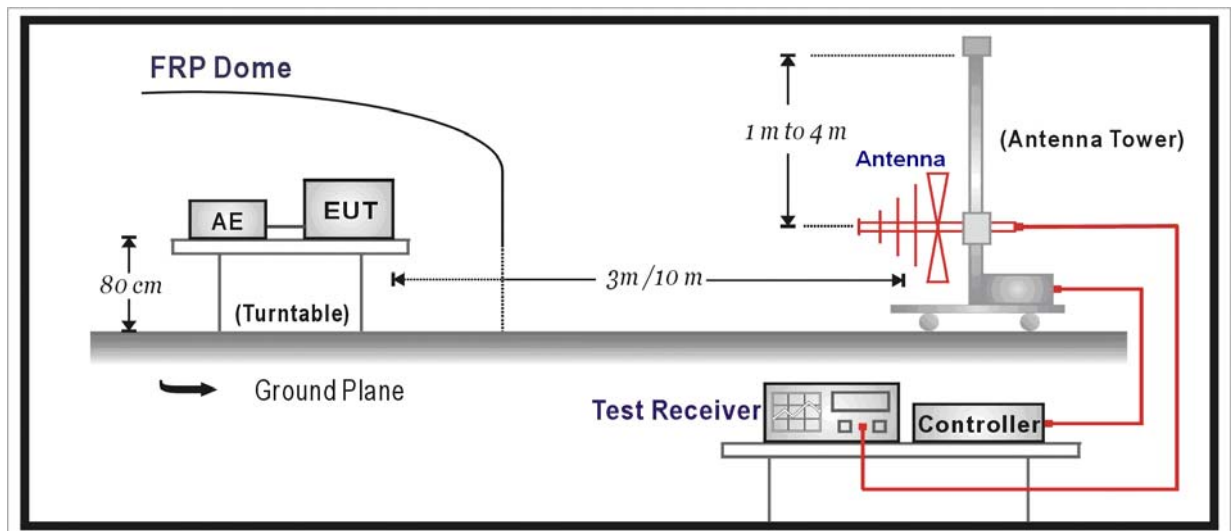
Temperature/Humidity Meter	zhicheng	ZC1-2	QT-TH003	2009/03/30
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Note 1: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

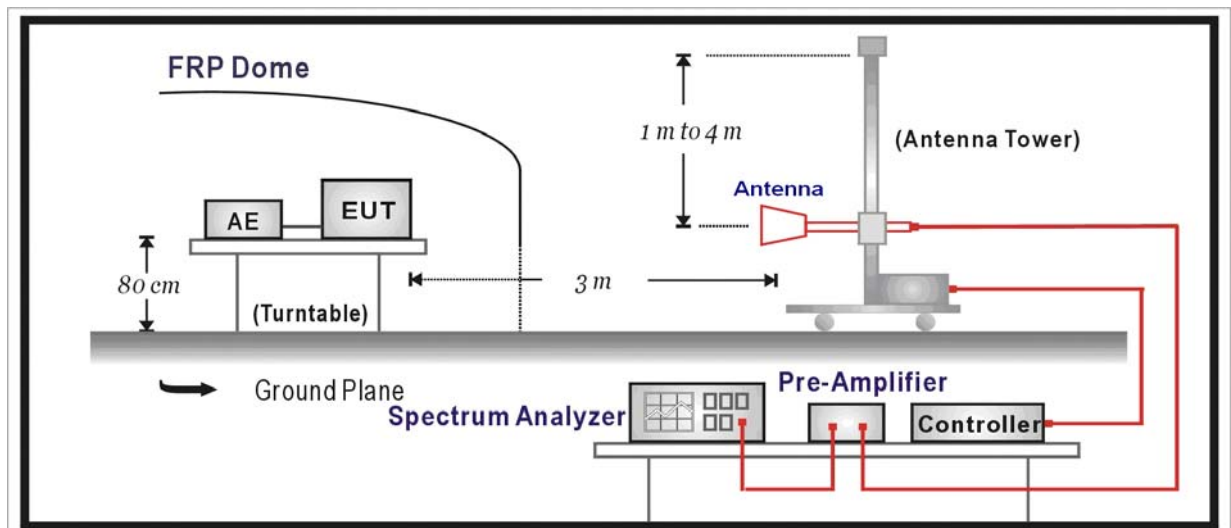
Note 2: The test instruments marked with "X" are used to measure the final test results.

## 4.2. Test Setup

Under 1GHz Test Setup:



Above 1GHz Test Setup:





**4.3. Limit**

FCC Part 15 Subpart C Paragraph 15.209		
Frequency (MHz)	Distance (m)	Level (dBuV/m)
30 - 88	3	40
88 - 216	3	43.5
216 - 960	3	46
Above 960	3	54

Note 1: The lower limit shall apply at the transition frequency.

Note 2: Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.

Note 3: E field strength (dBuV/m) = 20 log E field strength (uV/m)

**4.4. Test Procedure**

According to FCC Public Notice DA 00-705, March 30, 2000.

The EUT is placed on a turn table which is 0.8 meter above ground. The turn table is rotated 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 is scanned from 1 meter to 4 meters to find out the maximum emission level. This is repeated for both horizontal and vertical polarization of the antenna. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.4:2003 on radiated measurement.

The resolution bandwidth below 1GHz setting on the field strength meter is 120 kHz and above 1GHz is 1MHz.

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

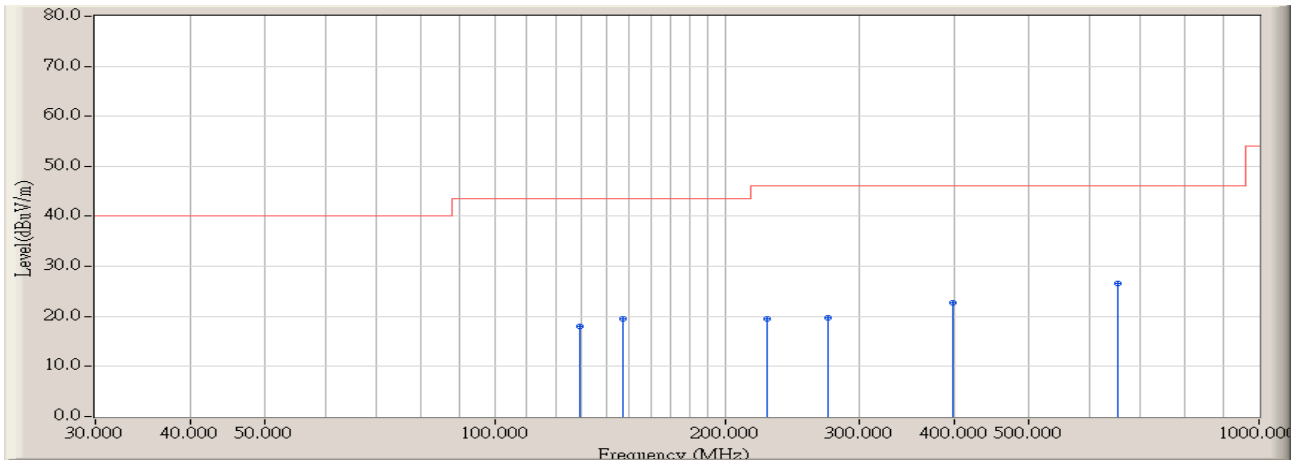
Note: When measurement above 1GHz, the horn antenna will bend down a little (as horn antenna have the narrow beamwidth) in order to find the maximum emission of EUT.

**4.5. Uncertainty**

The measurement uncertainty above 1G is defined as ± 3.9 dB  
 below 1G is defined as ± 3.8 dB

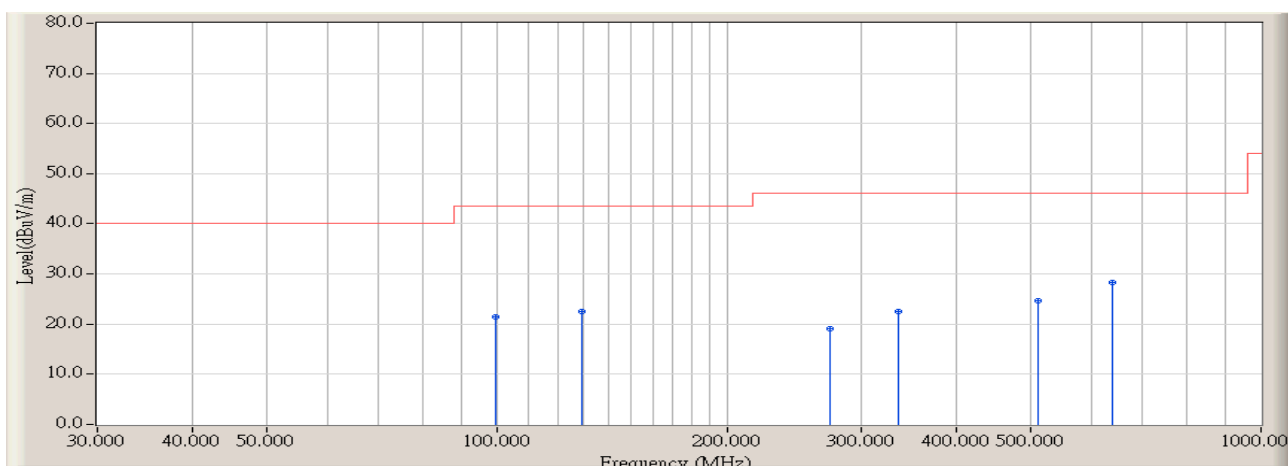
4.6. Test Result

Engineer : Robin	
Site : AC-2 (3m Semi-Anechoic Chamber)	Time : 2008/11/11 - 09:42
Limit : FCC_SpartC_15.209_03M_QP	Margin : 0
EUT : Bluetooth Headset	Probe : CBL6112D_22254(30-2000MHz) - HORIZONTAL
Power : DC 3.7V	Note : Mode 1: Transmit (DH5) at channel 2402MHz



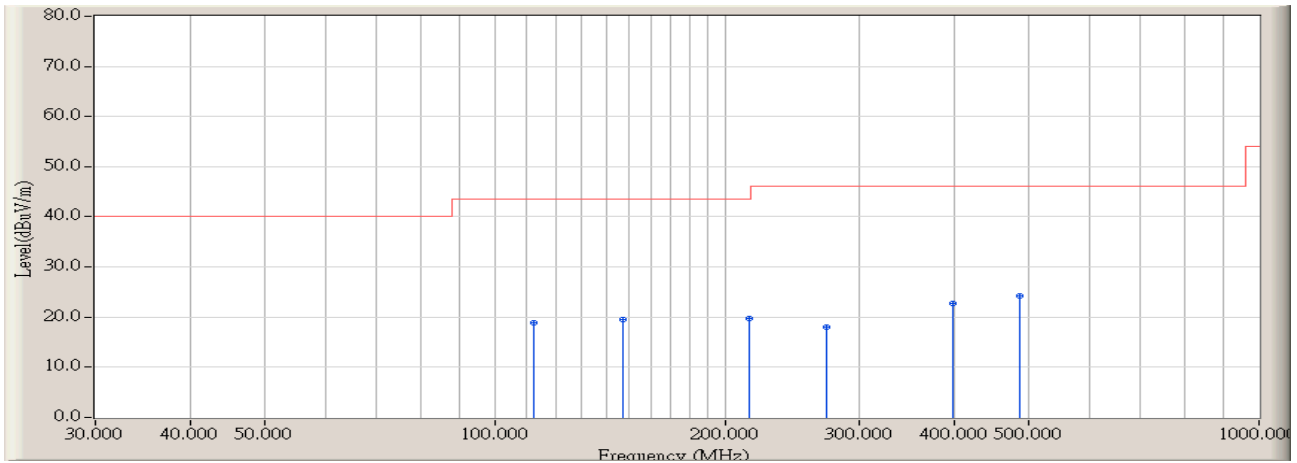
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1	128.940	-9.467	27.575	18.108	-25.412	43.520	QUASIPeAK	100.000	68.900
2	147.370	-9.299	28.795	19.496	-24.024	43.520	QUASIPeAK	142.000	84.500
3	226.910	-8.914	28.391	19.477	-26.543	46.020	QUASIPeAK	112.000	177.500
4	272.500	-8.594	28.219	19.625	-26.395	46.020	QUASIPeAK	100.000	154.600
5	397.630	-5.007	27.806	22.799	-23.221	46.020	QUASIPeAK	100.000	148.500
6	* 652.740	-0.110	26.655	26.545	-19.475	46.020	QUASIPeAK	100.000	136.600

Engineer : Robin	
Site : AC-2 (3m Semi-Anechoic Chamber)	Time : 2008/11/11 - 09:42
Limit : FCC_SpartC_15.209_03M_QP	Margin : 0
EUT : Bluetooth Headset	Probe : CBL6112D_22254(30-2000MHz) - VERTICAL
Power : DC 3.7V	Note : Mode 1: Transmit (DH5) at channel 2402MHz



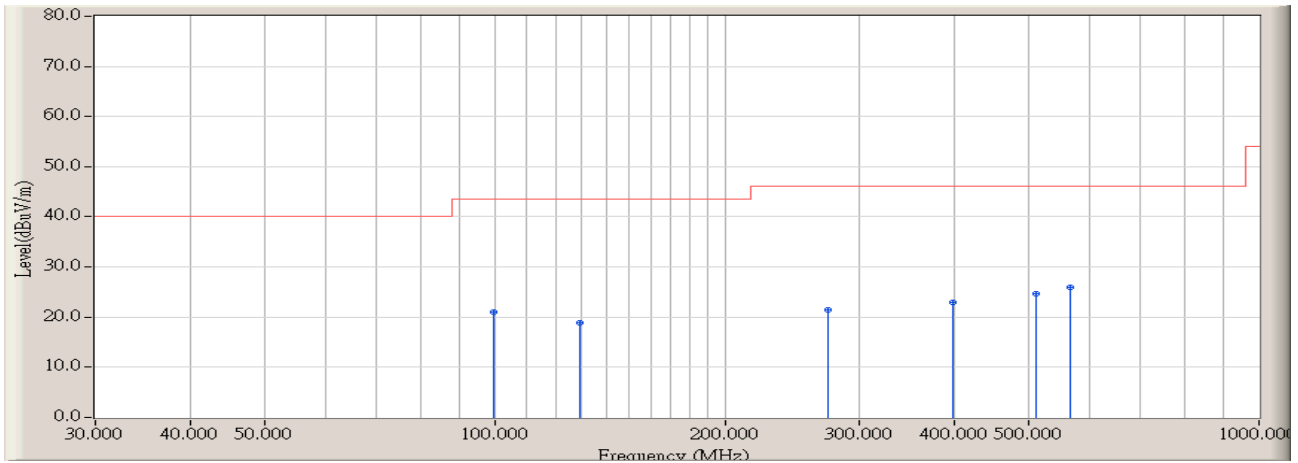
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1	99.840	-11.550	32.931	21.381	-22.139	43.520	QUASIPeAK	100.000	248.000
2	128.940	-9.467	32.027	22.560	-20.960	43.520	QUASIPeAK	100.000	211.700
3	272.500	-8.594	27.773	19.179	-26.841	46.020	QUASIPeAK	105.600	225.000
4	334.580	-6.570	29.006	22.436	-23.584	46.020	QUASIPeAK	100.000	247.700
5	511.120	-3.214	27.858	24.644	-21.376	46.020	QUASIPeAK	125.500	48.600
6	* 638.190	-0.567	28.837	28.270	-17.750	46.020	QUASIPeAK	100.000	287.500

Engineer : Robin	
Site : AC-2 (3m Semi-Anechoic Chamber)	Time : 2008/11/11 - 09:43
Limit : FCC_SpartC_15.209_03M_QP	Margin : 0
EUT : Bluetooth Headset	Probe : CBL6112D_22254(30-2000MHz) - HORIZONTAL
Power : DC 3.7V	Note : Mode 1: Transmit (DH5) at channel 2441MHz



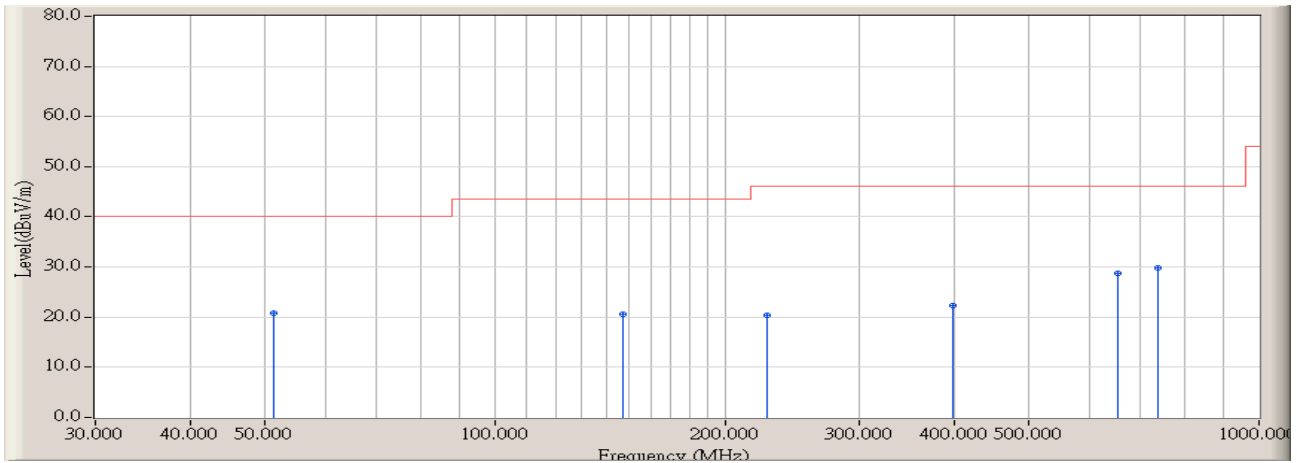
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1	112.450	-10.465	29.289	18.824	-24.696	43.520	QUASIPeAK	100.000	215.000
2	147.370	-9.299	28.795	19.496	-24.024	43.520	QUASIPeAK	128.000	88.500
3	215.270	-9.607	29.325	19.718	-23.802	43.520	QUASIPeAK	100.000	274.000
4	271.530	-8.564	26.482	17.918	-28.102	46.020	QUASIPeAK	145.500	209.000
5	397.630	-5.007	27.806	22.799	-23.221	46.020	QUASIPeAK	177.500	93.800
6	* 486.870	-3.453	27.681	24.228	-21.792	46.020	QUASIPeAK	100.000	174.000

Engineer : Robin	
Site : AC-2 (3m Semi-Anechoic Chamber)	Time : 2008/11/11 - 09:45
Limit : FCC_SpartC_15.209_03M_QP	Margin : 0
EUT : Bluetooth Headset	Probe : CBL6112D_22254(30-2000MHz) - VERTICAL
Power : DC 3.7V	Note : Mode 1: Transmit (DH5) at channel 2441MHz



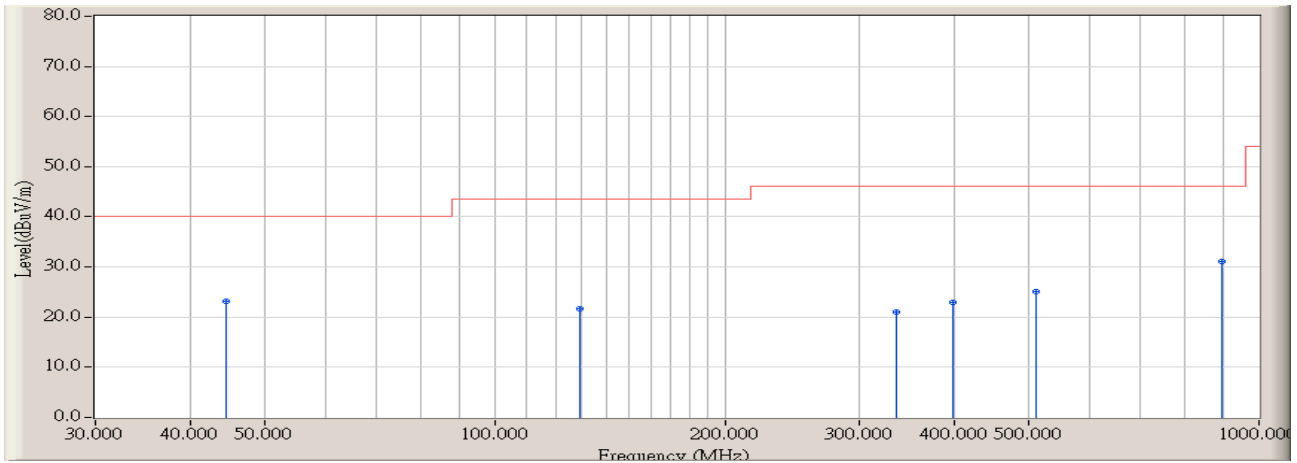
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1	99.840	-11.550	32.531	20.981	-22.539	43.520	QUASIPeAK	100.000	74.600
2	128.940	-9.467	28.327	18.860	-24.660	43.520	QUASIPeAK	100.000	116.500
3	272.500	-8.594	29.973	21.379	-24.641	46.020	QUASIPeAK	106.500	44.800
4	397.630	-5.007	28.008	23.001	-23.019	46.020	QUASIPeAK	113.600	210.400
5	511.120	-3.214	27.858	24.644	-21.376	46.020	QUASIPeAK	102.600	95.000
6	* 565.440	-1.332	27.254	25.922	-20.098	46.020	QUASIPeAK	100.000	135.200

Engineer : Robin	
Site : AC-2 (3m Semi-Anechoic Chamber)	Time : 2008/11/11 - 09:46
Limit : FCC_SpartC_15.209_03M_QP	Margin : 0
EUT : Bluetooth Headset	Probe : CBL6112D_22254(30-2000MHz) - HORIZONTAL
Power : DC 3.7V	Note : Mode 1: Transmit (DH5) at channel 2480MHz



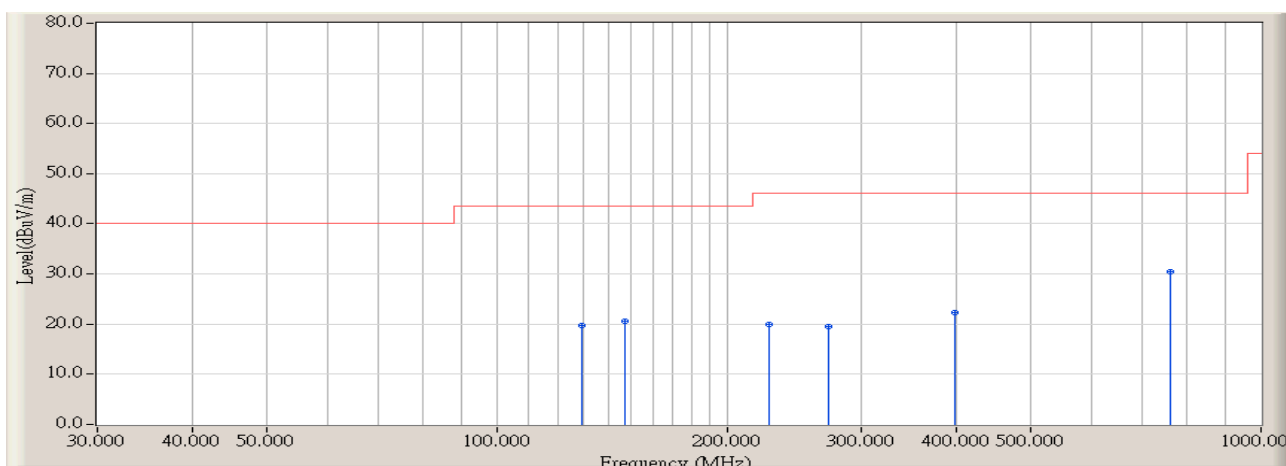
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1	51.340	-8.886	29.644	20.758	-19.242	40.000	QUASIPeAK	100.000	118.500
2	147.370	-9.299	29.795	20.496	-23.024	43.520	QUASIPeAK	114.600	45.800
3	226.910	-8.914	29.391	20.477	-25.543	46.020	QUASIPeAK	100.000	315.000
4	397.630	-5.007	27.306	22.299	-23.721	46.020	QUASIPeAK	100.000	188.000
5	652.740	-0.110	28.855	28.745	-17.275	46.020	QUASIPeAK	105.600	325.000
6	* 738.100	1.293	28.551	29.844	-16.176	46.020	QUASIPeAK	100.000	156.500

Engineer : Robin	
Site : AC-2 (3m Semi-Anechoic Chamber)	Time : 2008/11/11 - 09:47
Limit : FCC_SpartC_15.209_03M_QP	Margin : 0
EUT : Bluetooth Headset	Probe : CBL6112D_22254(30-2000MHz) - VERTICAL
Power : DC 3.7V	Note : Mode 1: Transmit (DH5) at channel 2480MHz



	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1	44.550	-5.645	28.760	23.115	-16.885	40.000	QUASIPeAK	100.000	185.000
2	128.940	-9.467	31.027	21.560	-21.960	43.520	QUASIPeAK	120.000	163.000
3	334.580	-6.570	27.506	20.936	-25.084	46.020	QUASIPeAK	113.600	154.000
4	397.630	-5.007	28.008	23.001	-23.019	46.020	QUASIPeAK	122.500	96.500
5	511.120	-3.214	28.358	25.144	-20.876	46.020	QUASIPeAK	100.000	85.900
6	* 892.330	2.377	28.637	31.014	-15.006	46.020	QUASIPeAK	105.200	93.500

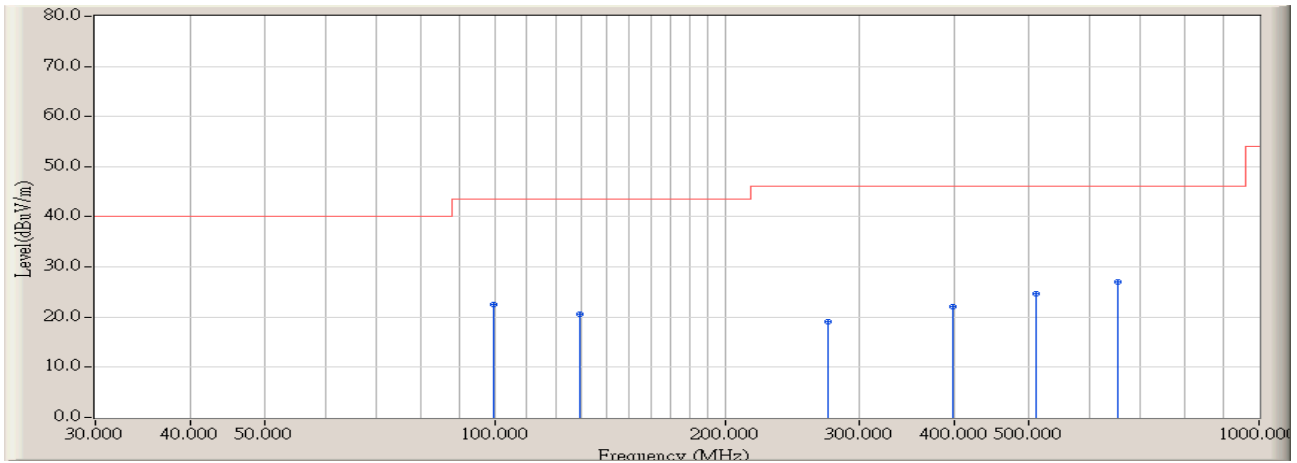
Engineer : Robin	
Site : AC-2 (3m Semi-Anechoic Chamber)	Time : 2008/11/11 - 09:47
Limit : FCC_SpartC_15.209_03M_QP	Margin : 0
EUT : Bluetooth Headset	Probe : CBL6112D_22254(30-2000MHz) - HORIZONTAL
Power : DC 3.7V	Note : Mode 2: Transmit (3DH5) at channel 2402MHz



	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1	128.940	-9.467	29.275	19.808	-23.712	43.520	QUASIPeAK	100.000	163.000
2	147.370	-9.299	29.795	20.496	-23.024	43.520	QUASIPeAK	100.000	193.000
3	226.910	-8.914	28.891	19.977	-26.043	46.020	QUASIPeAK	143.600	55.800
4	271.530	-8.564	28.182	19.618	-26.402	46.020	QUASIPeAK	100.000	136.000
5	397.630	-5.007	27.306	22.299	-23.721	46.020	QUASIPeAK	106.500	95.800
6	* 759.440	1.570	28.881	30.451	-15.569	46.020	QUASIPeAK	112.600	82.900

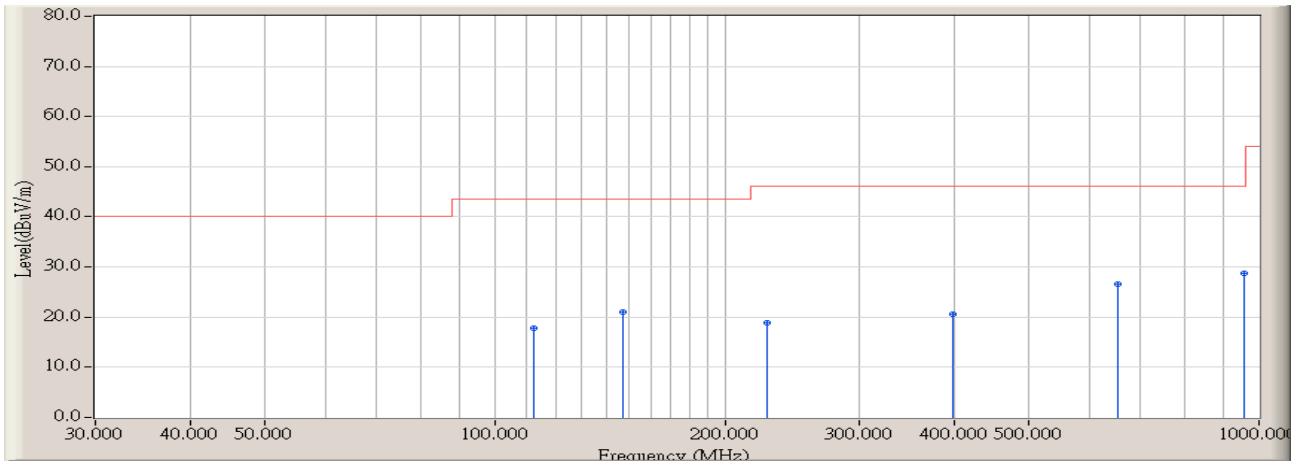


Engineer : Robin	
Site : AC-2 (3m Semi-Anechoic Chamber)	Time : 2008/11/11 - 09:48
Limit : FCC_SpartC_15.209_03M_QP	Margin : 0
EUT : Bluetooth Headset	Probe : CBL6112D_22254(30-2000MHz) - VERTICAL
Power : DC 3.7V	Note : Mode 2: Transmit (3DH5) at channel 2402MHz



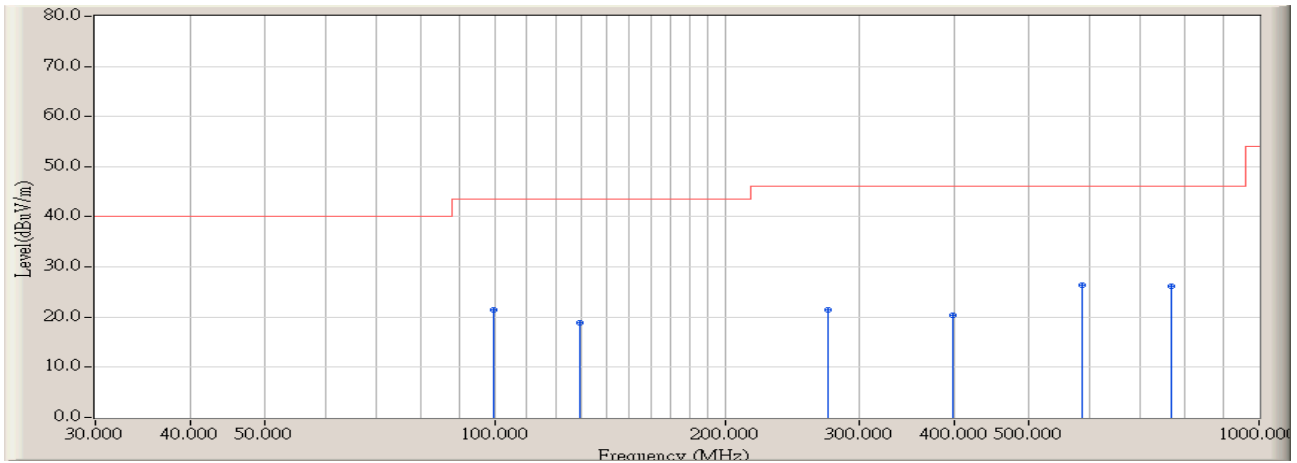
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1	99.840	-11.550	34.031	22.481	-21.039	43.520	QUASIPeAK	112.500	93.500
2	128.940	-9.467	30.027	20.560	-22.960	43.520	QUASIPeAK	100.000	188.000
3	272.500	-8.594	27.773	19.179	-26.841	46.020	QUASIPeAK	105.600	325.000
4	397.630	-5.007	27.108	22.101	-23.919	46.020	QUASIPeAK	105.600	174.800
5	511.120	-3.214	27.858	24.644	-21.376	46.020	QUASIPeAK	100.000	185.000
6	* 652.740	-0.110	27.218	27.108	-18.912	46.020	QUASIPeAK	110.600	193.500

Engineer : Robin	
Site : AC-2 (3m Semi-Anechoic Chamber)	Time : 2008/11/11 - 09:48
Limit : FCC_SpartC_15.209_03M_QP	Margin : 0
EUT : Bluetooth Headset	Probe : CBL6112D_22254(30-2000MHz) - HORIZONTAL
Power : DC 3.7V	Note : Mode 2: Transmit (3DH5) at channel 2441MHz



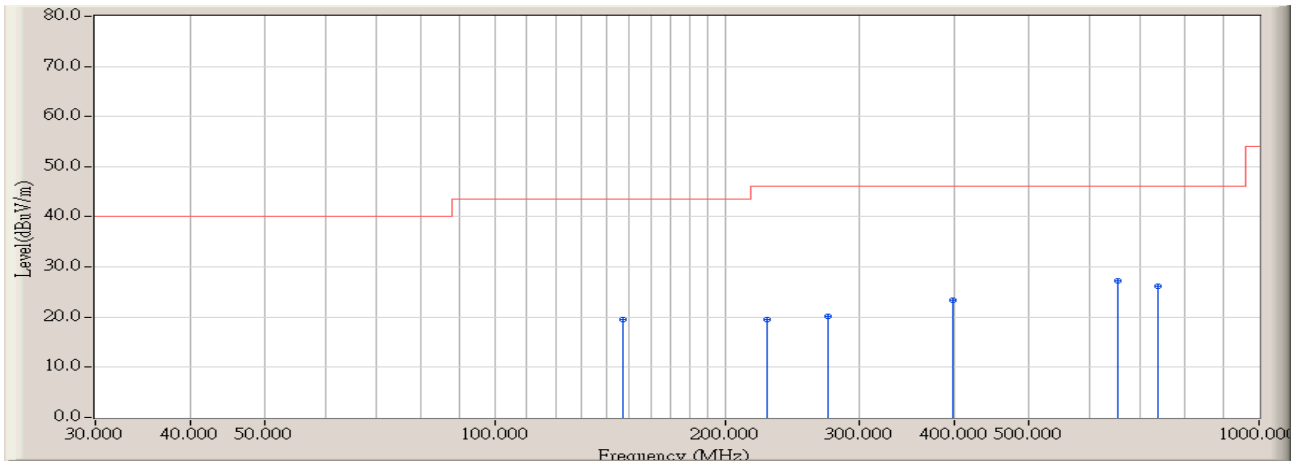
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1	112.450	-10.465	28.189	17.724	-25.796	43.520	QUASIPeAK	114.500	172.600
2	147.370	-9.299	30.295	20.996	-22.524	43.520	QUASIPeAK	100.000	158.000
3	226.910	-8.914	27.891	18.977	-27.043	46.020	QUASIPeAK	100.000	163.000
4	397.630	-5.007	25.606	20.599	-25.421	46.020	QUASIPeAK	123.600	75.000
5	652.740	-0.110	26.655	26.545	-19.475	46.020	QUASIPeAK	112.600	82.900
6	* 956.350	3.892	24.754	28.646	-17.374	46.020	QUASIPeAK	145.500	49.600

Engineer : Robin	
Site : AC-2 (3m Semi-Anechoic Chamber)	Time : 2008/11/11 - 09:48
Limit : FCC_SpartC_15.209_03M_QP	Margin : 0
EUT : Bluetooth Headset	Probe : CBL6112D_22254(30-2000MHz) - VERTICAL
Power : DC 3.7V	Note : Mode 2: Transmit (3DH5) at channel 2441MHz



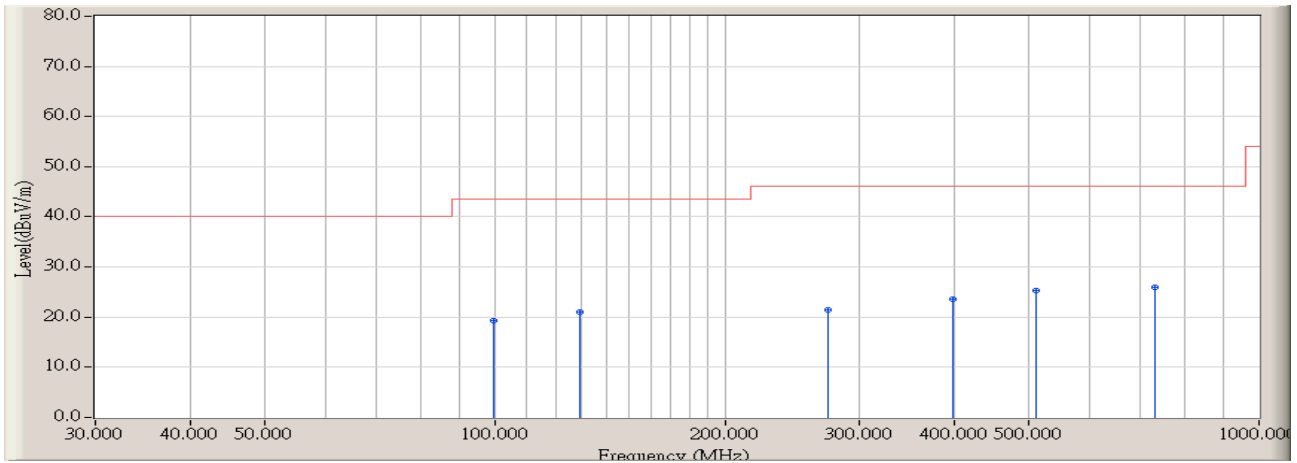
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1	99.840	-11.550	33.031	21.481	-22.039	43.520	QUASIPeAK	100.000	185.000
2	128.940	-9.467	28.327	18.860	-24.660	43.520	QUASIPeAK	104.000	117.000
3	272.500	-8.594	29.973	21.379	-24.641	46.020	QUASIPeAK	105.900	54.000
4	397.630	-5.007	25.308	20.301	-25.719	46.020	QUASIPeAK	152.600	188.000
5	* 585.810	-1.417	27.888	26.471	-19.549	46.020	QUASIPeAK	104.000	85.000
6	766.230	1.453	24.747	26.200	-19.820	46.020	QUASIPeAK	100.000	136.000

Engineer : Robin	
Site : AC-2 (3m Semi-Anechoic Chamber)	Time : 2008/11/11 - 09:49
Limit : FCC_SpartC_15.209_03M_QP	Margin : 0
EUT : Bluetooth Headset	Probe : CBL6112D_22254(30-2000MHz) - HORIZONTAL
Power : DC 3.7V	Note : Mode 2: Transmit (3DH5) at channel 2480MHz



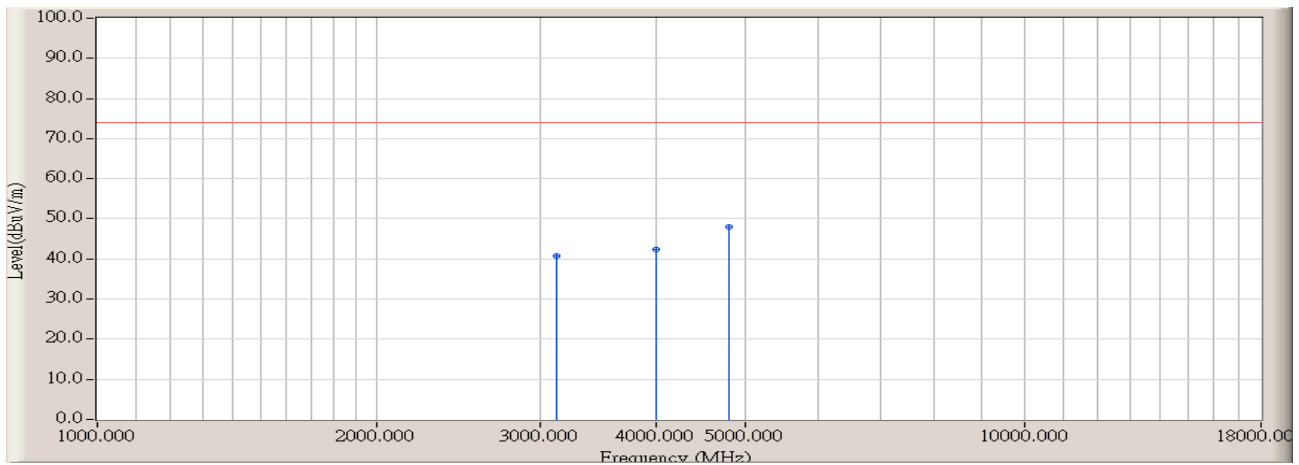
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1	147.370	-9.299	28.795	19.496	-24.024	43.520	QUASIPeAK	114.500	196.500
2	226.910	-8.914	28.391	19.477	-26.543	46.020	QUASIPeAK	100.000	185.000
3	272.500	-8.594	28.719	20.125	-25.895	46.020	QUASIPeAK	120.000	163.000
4	397.630	-5.007	28.306	23.299	-22.721	46.020	QUASIPeAK	113.600	154.000
5	* 652.740	-0.110	27.255	27.145	-18.875	46.020	QUASIPeAK	122.500	96.500
6	738.100	1.293	24.851	26.144	-19.876	46.020	QUASIPeAK	100.000	82.000

Engineer : Robin	
Site : AC-2 (3m Semi-Anechoic Chamber)	Time : 2008/11/11 - 09:49
Limit : FCC_SpartC_15.209_03M_QP	Margin : 0
EUT : Bluetooth Headset	Probe : CBL6112D_22254(30-2000MHz) - VERTICAL
Power : DC 3.7V	Note : Mode 2: Transmit (3DH5) at channel 2480MHz



	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1	99.840	-11.550	30.831	19.281	-24.239	43.520	QUASIPeAK	100.000	85.900
2	128.940	-9.467	30.527	21.060	-22.460	43.520	QUASIPeAK	105.200	93.500
3	272.500	-8.594	29.973	21.379	-24.641	46.020	QUASIPeAK	100.000	193.000
4	397.630	-5.007	28.508	23.501	-22.519	46.020	QUASIPeAK	143.600	55.800
5	511.120	-3.214	28.458	25.244	-20.776	46.020	QUASIPeAK	100.000	136.000
6	* 732.280	1.155	24.771	25.926	-20.094	46.020	QUASIPeAK	106.500	95.800

Engineer : Robin	
Site : AC-2 (3m Semi-Anechoic Chamber)	Time : 2008/11/11 - 09:27
Limit : FCC_SpartC_15.209_03M_PK	Margin : 0
EUT : Bluetooth Headset	Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL
Power : DC 3.7V	Note : Mode 1: Transmit (DH5) at channel 2402MHz

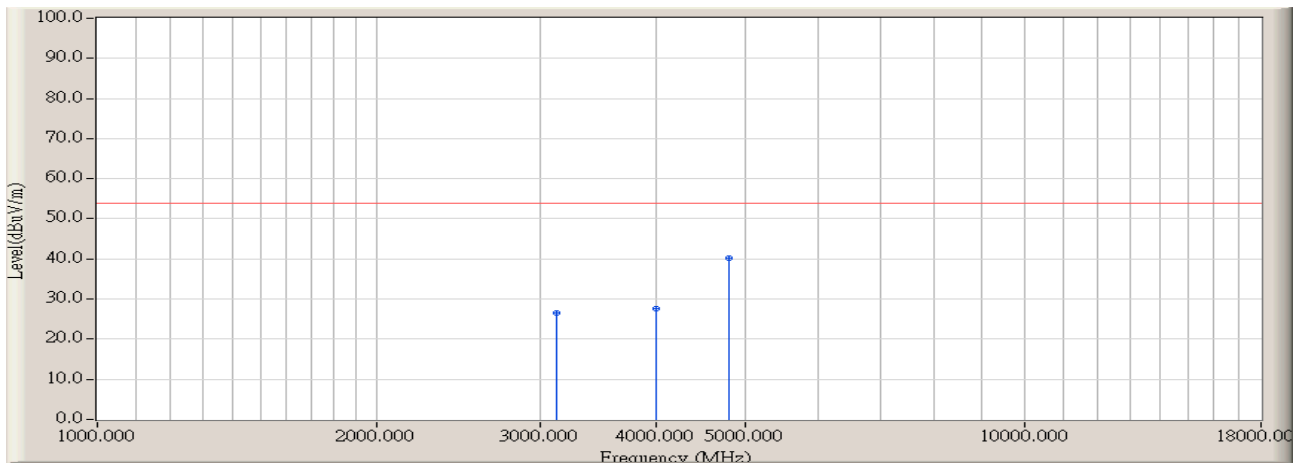


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1	3125.000	-1.470	42.191	40.721	-33.249	73.970	PEAK	124.000	268.000
2	4009.000	1.140	41.214	42.354	-31.616	73.970	PEAK	115.000	184.000
3	* 4808.000	3.550	44.380	47.930	-26.040	73.970	PEAK	114.000	195.000

**Note:**

- (1). RBW = 1MHz, VBW = 3MHz, Sweep time = 500ms.
- (2). There is no emission above 18GHz or too low.

Engineer : Robin	
Site : AC-2 (3m Semi-Anechoic Chamber)	Time : 2008/11/11 - 09:27
Limit : FCC_SpartC_15.209_03M_AV	Margin : 0
EUT : Bluetooth Headset	Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL
Power : DC 3.7V	Note : Mode 1: Transmit (DH5) at channel 2402MHz

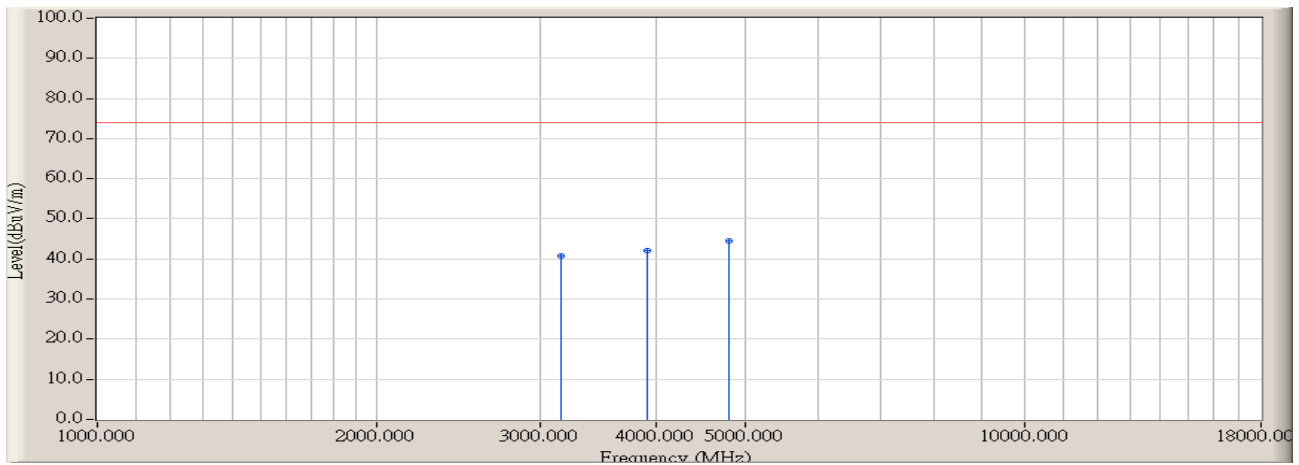


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1	3125.000	-1.470	28.100	26.630	-27.340	53.970	AVERAGE	124.000	268.000
2	4009.000	1.140	26.400	27.540	-26.430	53.970	AVERAGE	115.000	184.000
3	* 4808.000	3.550	36.700	40.250	-13.720	53.970	AVERAGE	114.000	195.000

**Note:**

- (1). RBW = 1MHz, VBW = 10Hz, Sweep time = Auto.
- (2). There is no emission above 18GHz or too low.

Engineer : Robin	
Site : AC-2 (3m Semi-Anechoic Chamber)	Time : 2008/11/11 - 09:27
Limit : FCC_SpartC_15.209_03M_PK	Margin : 0
EUT : Bluetooth Headset	Probe : BBHA9120D_496(1-18GHz) - VERTICAL
Power : DC 3.7V	Note : Mode 1: Transmit (DH5) at channel 2402MHz



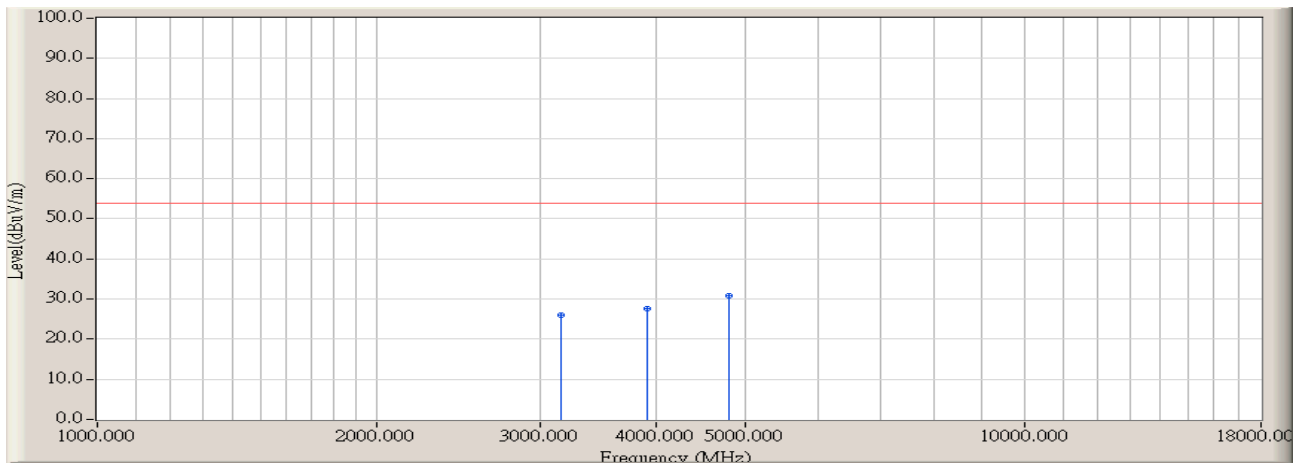
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1	3159.000	-1.570	42.327	40.757	-33.213	73.970	PEAK	100.000	195.000
2	3924.000	0.690	41.358	42.048	-31.922	73.970	PEAK	102.000	224.000
3	* 4808.000	3.550	40.983	44.533	-29.437	73.970	PEAK	100.000	165.000

**Note:**

- (1). RBW = 1MHz, VBW = 3MHz, Sweep time = 500ms.
- (2). There is no emission above 18GHz or too low.



Engineer : Robin	
Site : AC-2 (3m Semi-Anechoic Chamber)	Time : 2008/11/11 - 09:27
Limit : FCC_SpartC_15.209_03M_AV	Margin : 0
EUT : Bluetooth Headset	Probe : BBHA9120D_496(1-18GHz) - VERTICAL
Power : DC 3.7V	Note : Mode 1: Transmit (DH5) at channel 2402MHz

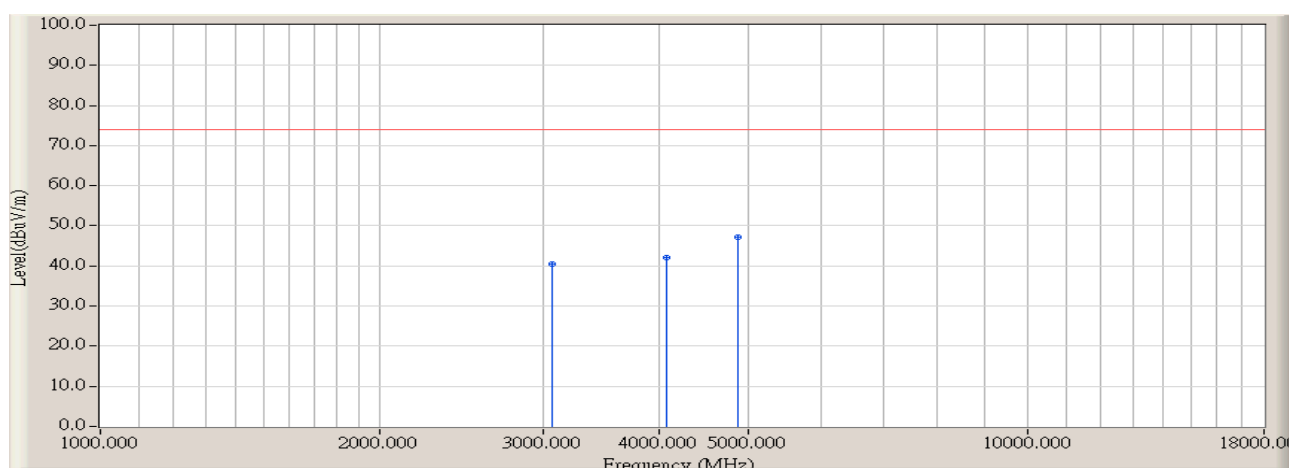


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1	3159.000	-1.570	27.500	25.930	-28.040	53.970	AVERAGE	100.000	195.000
2	3924.000	0.690	26.800	27.490	-26.480	53.970	AVERAGE	102.000	224.000
3	* 4808.000	3.550	27.200	30.750	-23.220	53.970	AVERAGE	100.000	165.000

**Note:**

- (1). RBW = 1MHz, VBW = 10Hz, Sweep time = Auto.
- (2). There is no emission above 18GHz or too low.

Engineer : Robin	
Site : AC-2 (3m Semi-Anechoic Chamber)	Time : 2008/11/11 - 09:27
Limit : FCC_SpartC_15.209_03M_PK	Margin : 0
EUT : Bluetooth Headset	Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL
Power : DC 3.7V	Note : Mode 1: Transmit (DH5) at channel 2441MHz

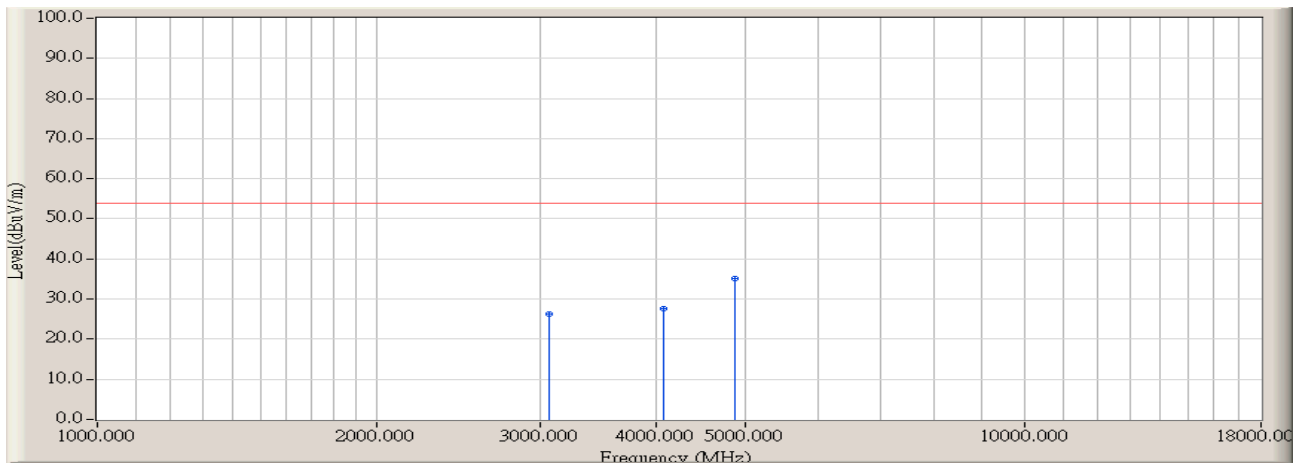


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1	3074.000	-1.410	41.937	40.527	-33.443	73.970	PEAK	132.000	158.000
2	4077.000	1.130	40.907	42.037	-31.933	73.970	PEAK	113.000	264.000
3	* 4876.000	3.640	43.427	47.067	-26.903	73.970	PEAK	120.000	139.000

**Note:**

- (1). RBW = 1MHz, VBW = 3MHz, Sweep time = 500ms.
- (2). There is no emission above 18GHz or too low.

Engineer : Robin	
Site : AC-2 (3m Semi-Anechoic Chamber)	Time : 2008/11/11 - 09:27
Limit : FCC_SpartC_15.209_03M_AV	Margin : 0
EUT : Bluetooth Headset	Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL
Power : DC 3.7V	Note : Mode 1: Transmit (DH5) at channel 2441MHz

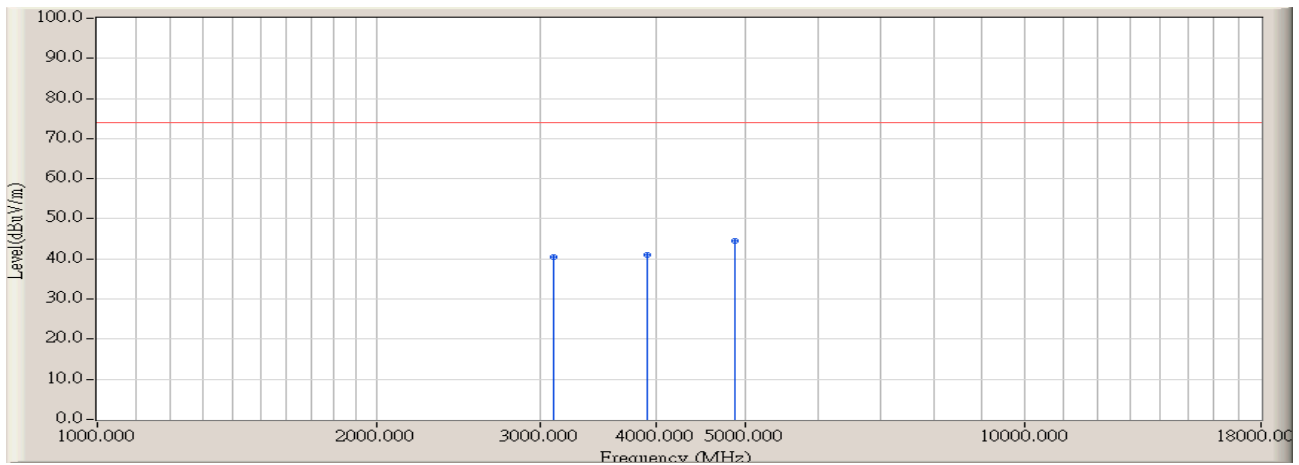


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1	3074.000	-1.410	27.800	26.390	-27.580	53.970	AVERAGE	132.000	158.000
2	4077.000	1.130	26.500	27.630	-26.340	53.970	AVERAGE	113.000	264.000
3	* 4876.000	3.640	31.400	35.040	-18.930	53.970	AVERAGE	120.000	139.000

**Note:**

- (1). RBW = 1MHz, VBW = 10Hz, Sweep time = Auto.
- (2). There is no emission above 18GHz or too low.

Engineer : Robin	
Site : AC-2 (3m Semi-Anechoic Chamber)	Time : 2008/11/11 - 09:27
Limit : FCC_SpartC_15.209_03M_PK	Margin : 0
EUT : Bluetooth Headset	Probe : BBHA9120D_496(1-18GHz) - VERTICAL
Power : DC 3.7V	Note : Mode 1: Transmit (DH5) at channel 2441MHz

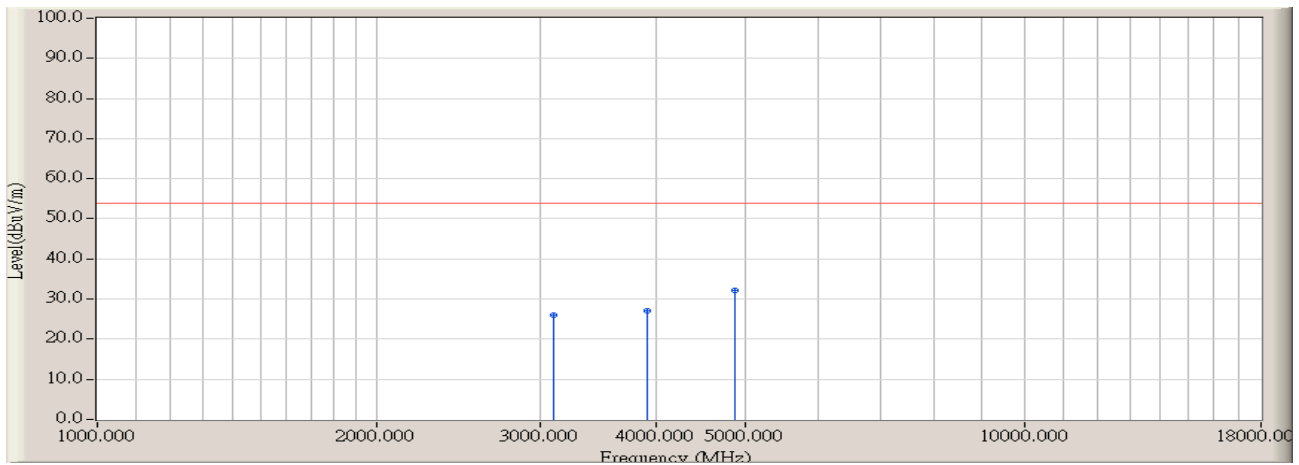


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1	3108.000	-1.370	41.777	40.407	-33.563	73.970	PEAK	100.000	196.000
2	3924.000	0.690	40.396	41.086	-32.884	73.970	PEAK	106.400	208.000
3	* 4876.000	3.640	40.742	44.382	-29.588	73.970	PEAK	100.000	167.000

**Note:**

- (1). RBW = 1MHz, VBW = 3MHz, Sweep time = 500ms.
- (2). There is no emission above 18GHz or too low.

Engineer : Robin	
Site : AC-2 (3m Semi-Anechoic Chamber)	Time : 2008/11/11 - 09:27
Limit : FCC_SpartC_15.209_03M_AV	Margin : 0
EUT : Bluetooth Headset	Probe : BBHA9120D_496(1-18GHz) - VERTICAL
Power : DC 3.7V	Note : Mode 1: Transmit (DH5) at channel 2441MHz

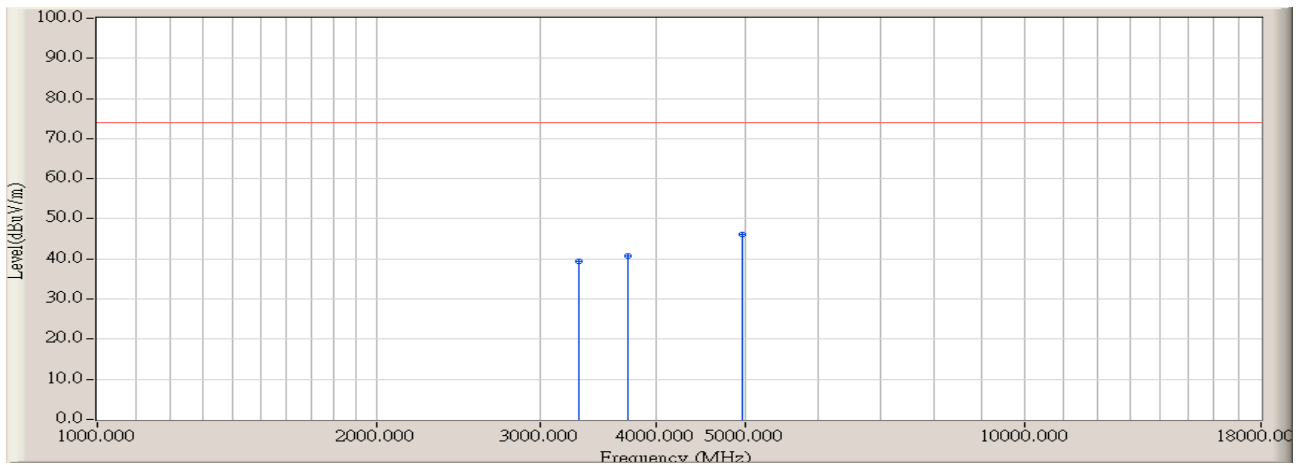


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1	3108.000	-1.370	27.400	26.030	-27.940	53.970	AVERAGE	100.000	196.000
2	3924.000	0.690	26.400	27.090	-26.880	53.970	AVERAGE	106.400	208.000
3	* 4876.000	3.640	28.400	32.040	-21.930	53.970	AVERAGE	100.000	167.000

**Note:**

- (1). RBW = 1MHz, VBW = 10Hz, Sweep time = Auto.
- (2). There is no emission above 18GHz or too low.

Engineer : Robin	
Site : AC-2 (3m Semi-Anechoic Chamber)	Time : 2008/11/11 - 09:27
Limit : FCC_SpartC_15.209_03M_PK	Margin : 0
EUT : Bluetooth Headset	Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL
Power : DC 3.7V	Note : Mode 1: Transmit (DH5) at channel 2480MHz

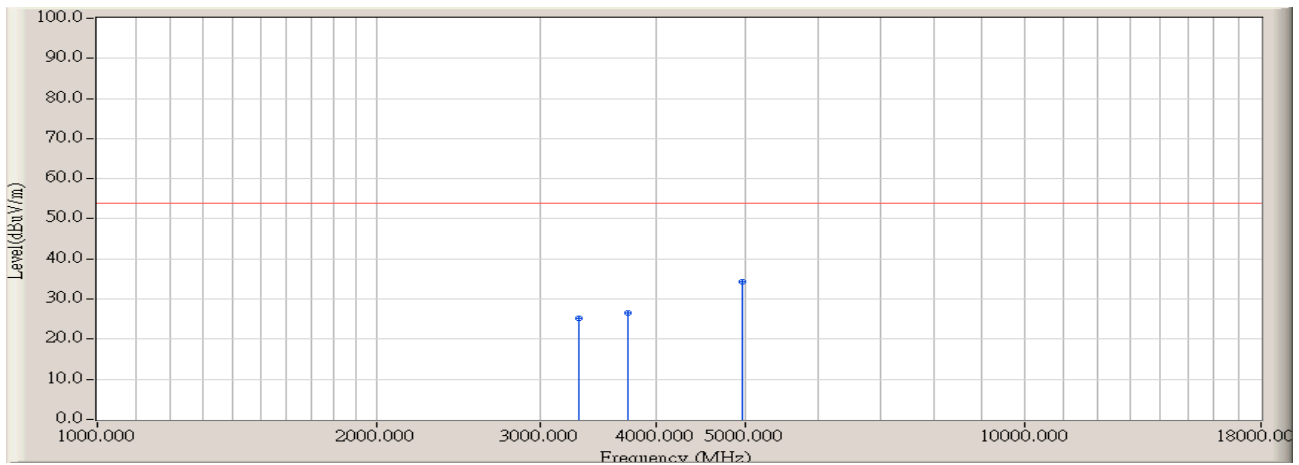


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1	3312.000	-1.680	41.120	39.440	-34.530	73.970	PEAK	115.000	227.000
2	3737.000	-0.280	41.036	40.756	-33.214	73.970	PEAK	100.000	147.000
3	* 4961.000	4.110	42.014	46.124	-27.846	73.970	PEAK	100.000	206.000

**Note:**

- (1). RBW = 1MHz, VBW = 3MHz, Sweep time = 500ms.
- (2). There is no emission above 18GHz or too low.

Engineer : Robin	
Site : AC-2 (3m Semi-Anechoic Chamber)	Time : 2008/11/11 - 09:27
Limit : FCC_SpartC_15.209_03M_AV	Margin : 0
EUT : Bluetooth Headset	Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL
Power : DC 3.7V	Note : Mode 1: Transmit (DH5) at channel 2480MHz

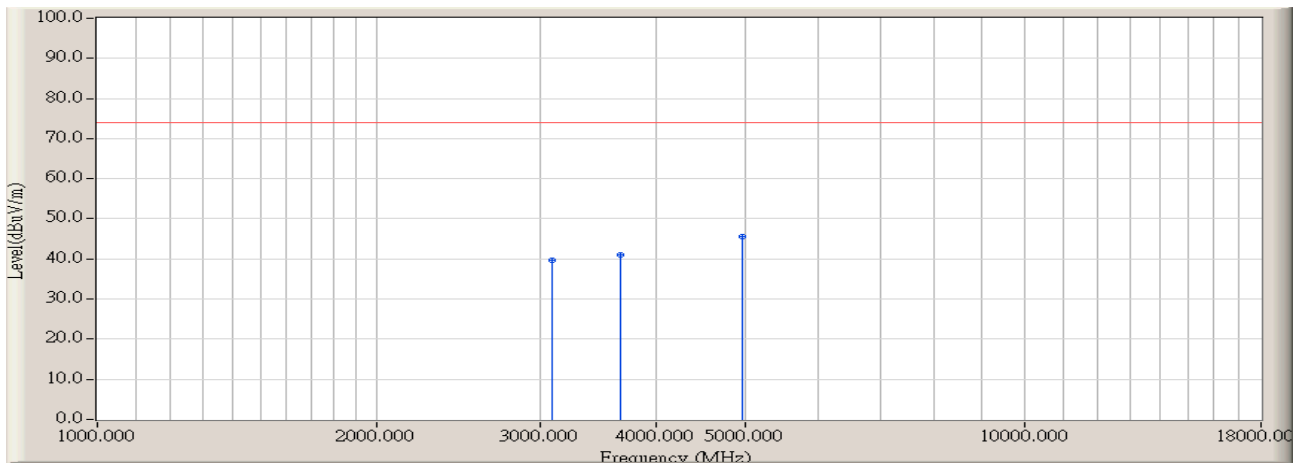


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1	3312.000	-1.680	26.800	25.120	-28.850	53.970	AVERAGE	115.000	227.000
2	3737.000	-0.280	26.900	26.620	-27.350	53.970	AVERAGE	100.000	147.000
3	* 4961.000	4.110	30.100	34.210	-19.760	53.970	AVERAGE	100.000	206.000

**Note:**

- (1). RBW = 1MHz, VBW = 10Hz, Sweep time = Auto.
- (2). There is no emission above 18GHz or too low.

Engineer : Robin	
Site : AC-2 (3m Semi-Anechoic Chamber)	Time : 2008/11/11 - 09:27
Limit : FCC_SpartC_15.209_03M_PK	Margin : 0
EUT : Bluetooth Headset	Probe : BBHA9120D_496(1-18GHz) - VERTICAL
Power : DC 3.7V	Note : Mode 1: Transmit (DH5) at channel 2480MHz



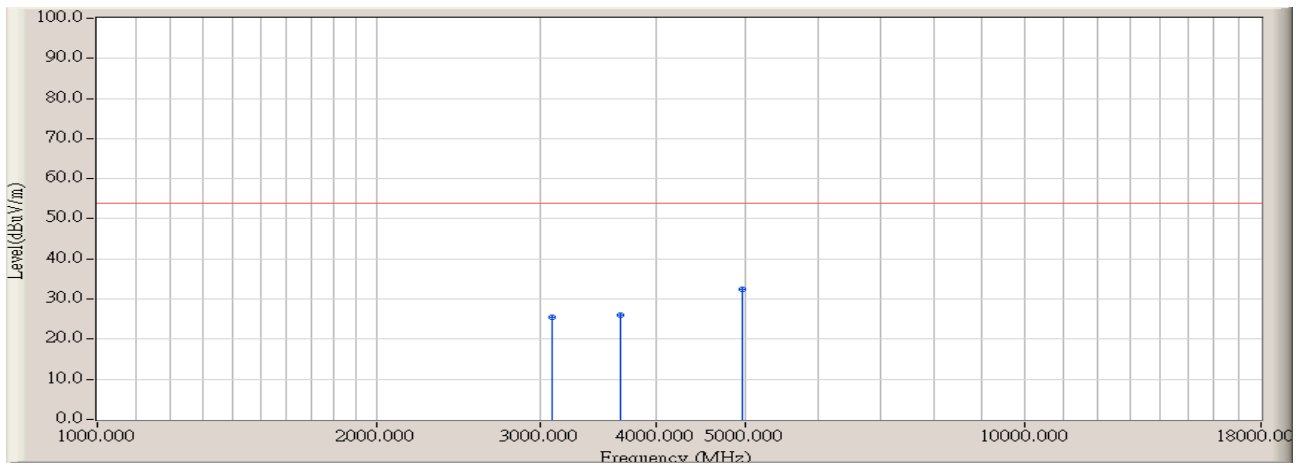
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1	3091.000	-1.350	41.028	39.678	-34.292	73.970	PEAK	100.000	146.000
2	3669.000	-0.600	41.614	41.014	-32.956	73.970	PEAK	102.000	184.000
3	* 4961.000	4.110	41.569	45.679	-28.291	73.970	PEAK	100.000	208.000

**Note:**

- (1). RBW = 1MHz, VBW = 3MHz, Sweep time = 500ms.
- (2). There is no emission above 18GHz or too low.



Engineer : Robin	
Site : AC-2 (3m Semi-Anechoic Chamber)	Time : 2008/11/11 - 09:27
Limit : FCC_SpartC_15.209_03M_AV	Margin : 0
EUT : Bluetooth Headset	Probe : BBHA9120D_496(1-18GHz) - VERTICAL
Power : DC 3.7V	Note : Mode 1: Transmit (DH5) at channel 2480MHz

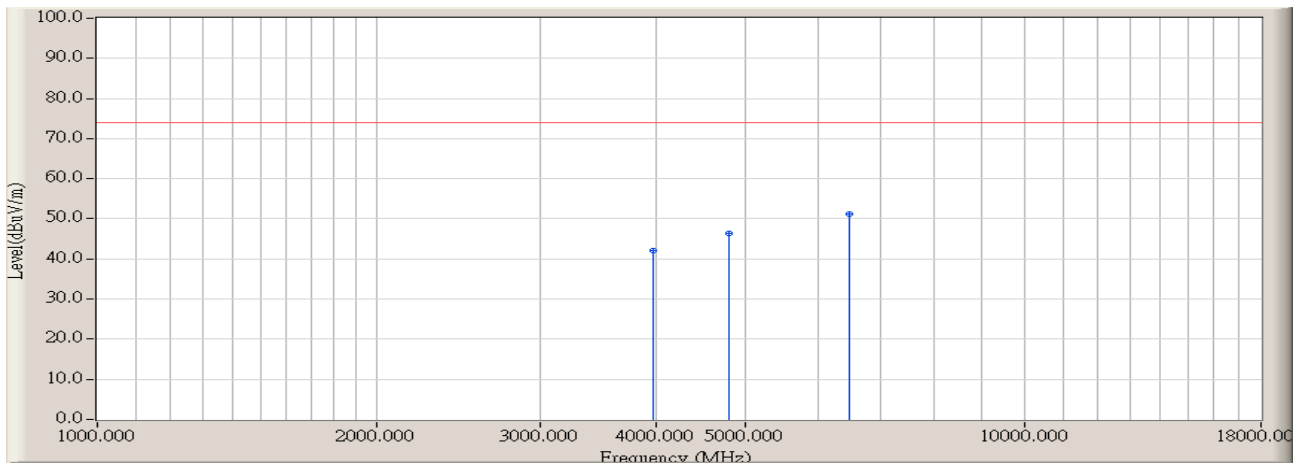


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1	3091.000	-1.350	26.900	25.550	-28.420	53.970	AVERAGE	100.000	146.000
2	3669.000	-0.600	26.700	26.100	-27.870	53.970	AVERAGE	102.000	184.000
3	* 4961.000	4.110	28.400	32.510	-21.460	53.970	AVERAGE	100.000	208.000

**Note:**

- (1). RBW = 1MHz, VBW = 10Hz, Sweep time = Auto.
- (2). There is no emission above 18GHz or too low.

Engineer : Robin	
Site : AC-2 (3m Semi-Anechoic Chamber)	Time : 2008/11/11 - 09:27
Limit : FCC_SpartC_15.209_03M_PK	Margin : 0
EUT : Bluetooth Headset	Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL
Power : DC 3.7V	Note : Mode 2: Transmit (3DH5) at channel 2402MHz

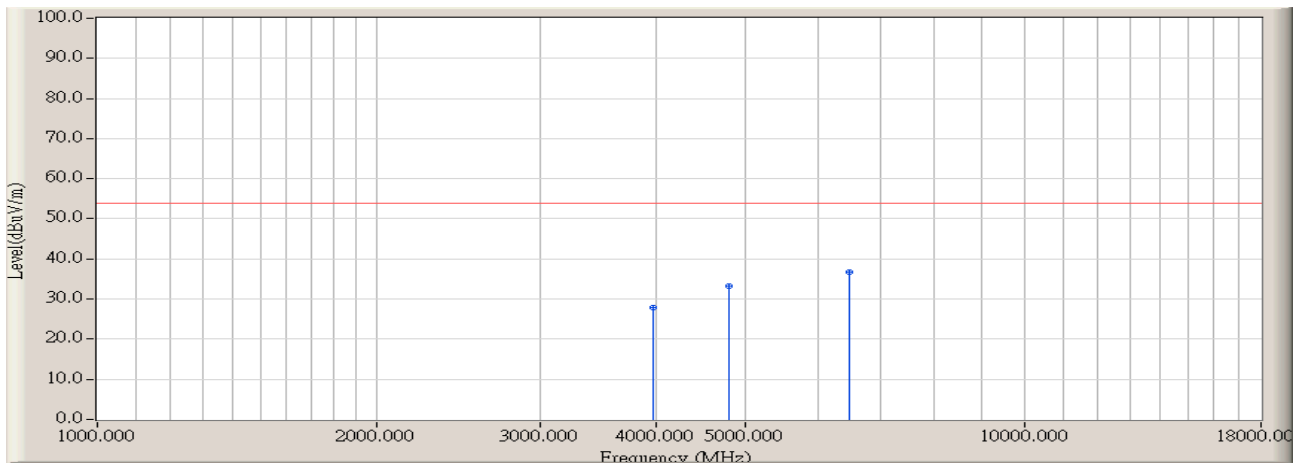


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1	3975.000	0.960	41.075	42.035	-31.935	73.970	PEAK	108.000	177.000
2	4808.000	3.550	42.849	46.399	-27.571	73.970	PEAK	106.000	247.000
3	* 6474.000	8.340	42.755	51.095	-22.875	73.970	PEAK	100.000	108.000

**Note:**

- (1). RBW = 1MHz, VBW = 3MHz, Sweep time = 500ms.
- (2). There is no emission above 18GHz or too low.

Engineer : Robin	
Site : AC-2 (3m Semi-Anechoic Chamber)	Time : 2008/11/11 - 09:27
Limit : FCC_SpartC_15.209_03M_AV	Margin : 0
EUT : Bluetooth Headset	Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL
Power : DC 3.7V	Note : Mode 2: Transmit (3DH5) at channel 2402MHz

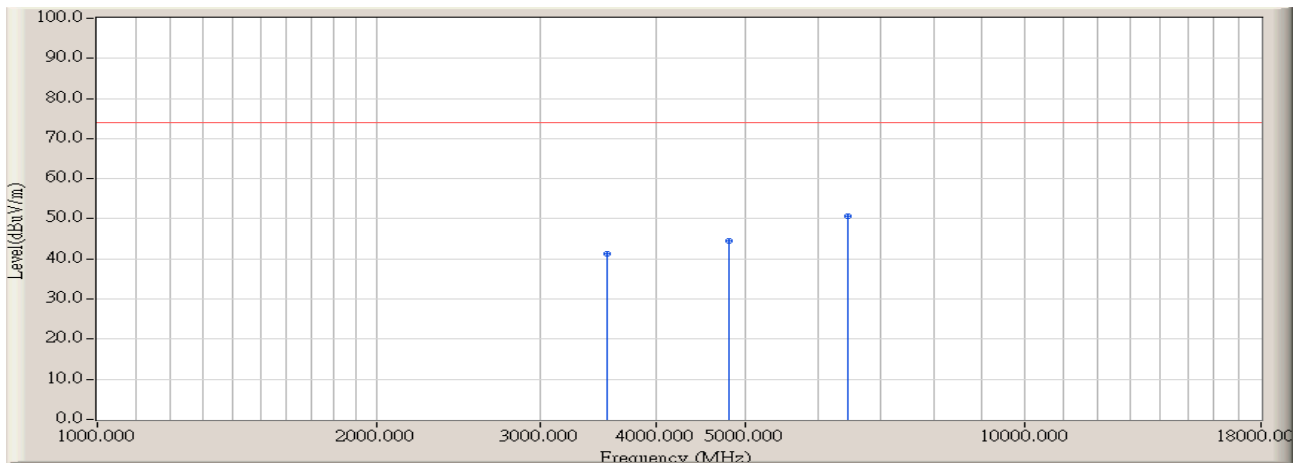


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1	3975.000	0.960	26.800	27.760	-26.210	53.970	AVERAGE	108.000	177.000
2	4808.000	3.550	29.700	33.250	-20.720	53.970	AVERAGE	106.000	247.000
3	* 6474.000	8.340	28.400	36.740	-17.230	53.970	AVERAGE	100.000	108.000

**Note:**

- (1). RBW = 1MHz, VBW = 10Hz, Sweep time = Auto.
- (2). There is no emission above 18GHz or too low.

Engineer : Robin	
Site : AC-2 (3m Semi-Anechoic Chamber)	Time : 2008/11/11 - 09:27
Limit : FCC_SpartC_15.209_03M_PK	Margin : 0
EUT : Bluetooth Headset	Probe : BBHA9120D_496(1-18GHz) - VERTICAL
Power : DC 3.7V	Note : Mode 2: Transmit (3DH5) at channel 2402MHz

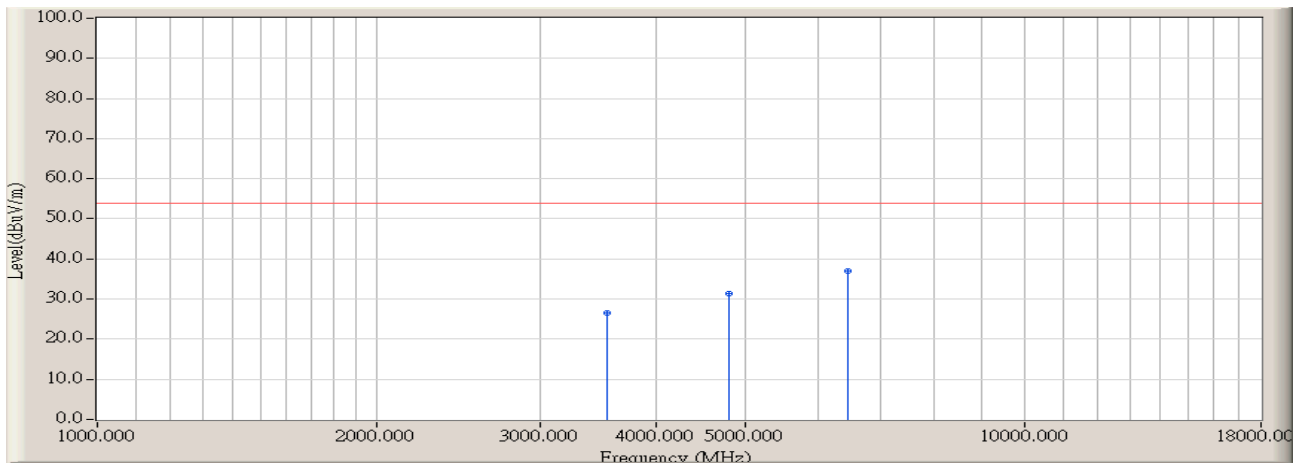


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1	3550.000	-0.740	42.072	41.332	-32.638	73.970	PEAK	100.000	185.000
2	4808.000	3.550	40.834	44.384	-29.586	73.970	PEAK	100.000	208.000
3	* 6440.000	8.320	42.461	50.781	-23.189	73.970	PEAK	100.000	186.000

**Note:**

- (1). RBW = 1MHz, VBW = 3MHz, Sweep time = 500ms.
- (2). There is no emission above 18GHz or too low.

Engineer : Robin	
Site : AC-2 (3m Semi-Anechoic Chamber)	Time : 2008/11/11 - 09:27
Limit : FCC_SpartC_15.209_03M_AV	Margin : 0
EUT : Bluetooth Headset	Probe : BBHA9120D_496(1-18GHz) - VERTICAL
Power : DC 3.7V	Note : Mode 2: Transmit (3DH5) at channel 2402MHz

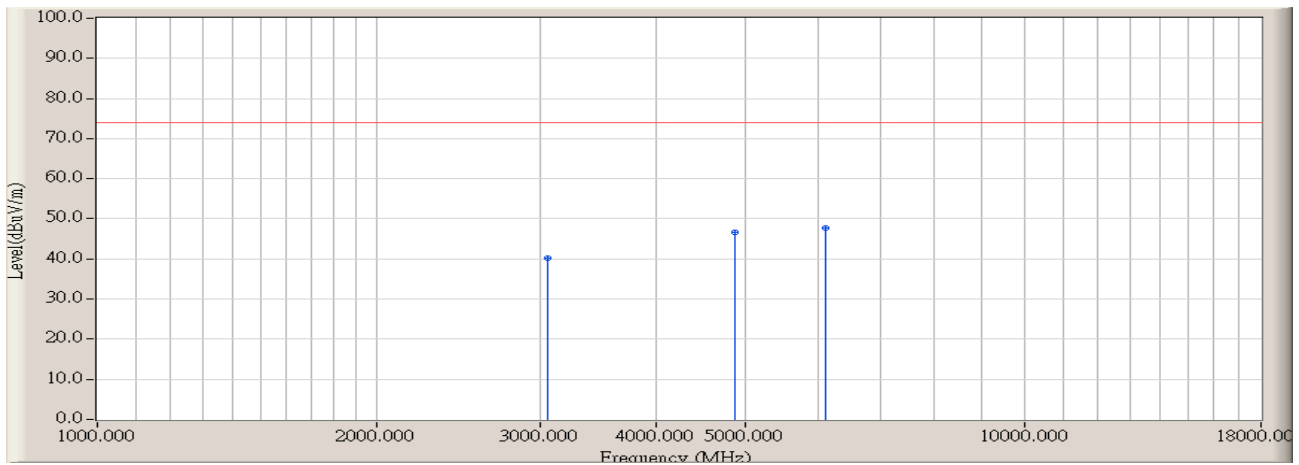


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1	3550.000	-0.740	27.400	26.660	-27.310	53.970	AVERAGE	100.000	185.000
2	4808.000	3.550	27.900	31.450	-22.520	53.970	AVERAGE	100.000	208.000
3	* 6440.000	8.320	28.600	36.920	-17.050	53.970	AVERAGE	100.000	186.000

**Note:**

- (1). RBW = 1MHz, VBW = 10Hz, Sweep time = Auto.
- (2). There is no emission above 18GHz or too low.

Engineer : Robin	
Site : AC-2 (3m Semi-Anechoic Chamber)	Time : 2008/11/11 - 09:27
Limit : FCC_SpartC_15.209_03M_PK	Margin : 0
EUT : Bluetooth Headset	Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL
Power : DC 3.7V	Note : Mode 2: Transmit (3DH5) at channel 2441MHz

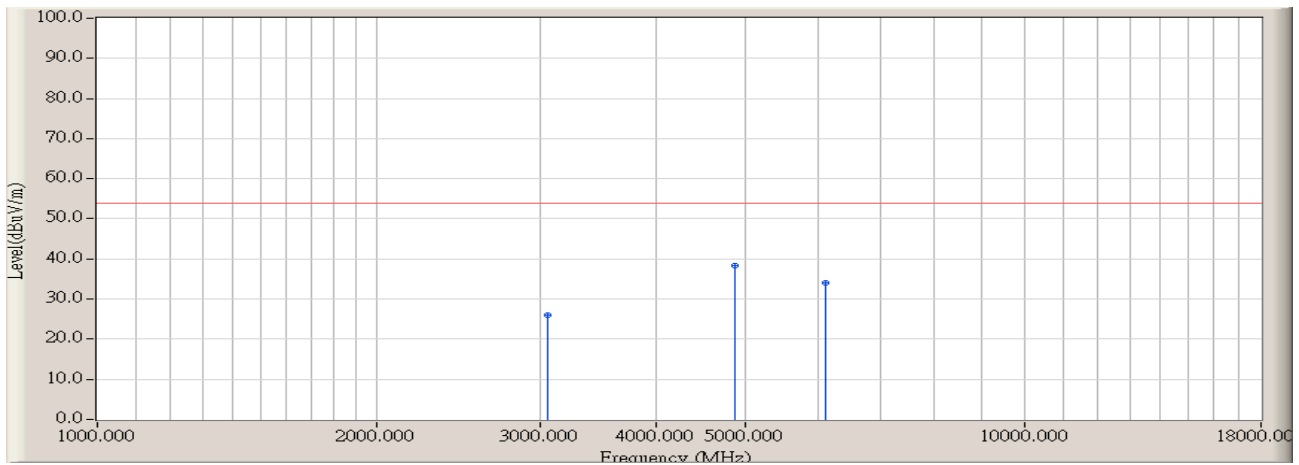


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1	3057.000	-1.450	41.675	40.225	-33.745	73.970	PEAK	114.000	197.000
2	4876.000	3.640	43.044	46.684	-27.286	73.970	PEAK	108.000	184.000
3	* 6100.000	6.630	41.177	47.807	-26.163	73.970	PEAK	100.000	228.000

**Note:**

- (1). RBW = 1MHz, VBW = 3MHz, Sweep time = 500ms.
- (2). There is no emission above 18GHz or too low.

Engineer : Robin	
Site : AC-2 (3m Semi-Anechoic Chamber)	Time : 2008/11/11 - 09:27
Limit : FCC_SpartC_15.209_03M_AV	Margin : 0
EUT : Bluetooth Headset	Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL
Power : DC 3.7V	Note : Mode 2: Transmit (3DH5) at channel 2441MHz

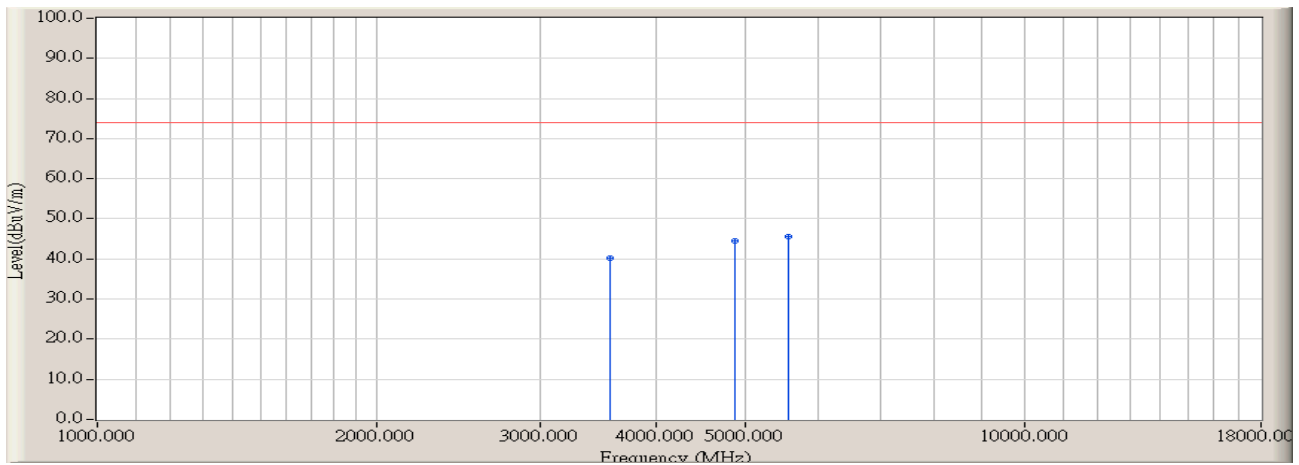


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1	3057.000	-1.450	27.500	26.050	-27.920	53.970	AVERAGE	114.000	197.000
2	* 4876.000	3.640	34.600	38.240	-15.730	53.970	AVERAGE	108.000	184.000
3	6100.000	6.630	27.400	34.030	-19.940	53.970	AVERAGE	100.000	228.000

**Note:**

- (1). RBW = 1MHz, VBW = 10Hz, Sweep time = Auto.
- (2). There is no emission above 18GHz or too low.

Engineer : Robin	
Site : AC-2 (3m Semi-Anechoic Chamber)	Time : 2008/11/11 - 09:27
Limit : FCC_SpartC_15.209_03M_PK	Margin : 0
EUT : Bluetooth Headset	Probe : BBHA9120D_496(1-18GHz) - VERTICAL
Power : DC 3.7V	Note : Mode 2: Transmit (3DH5) at channel 2441MHz



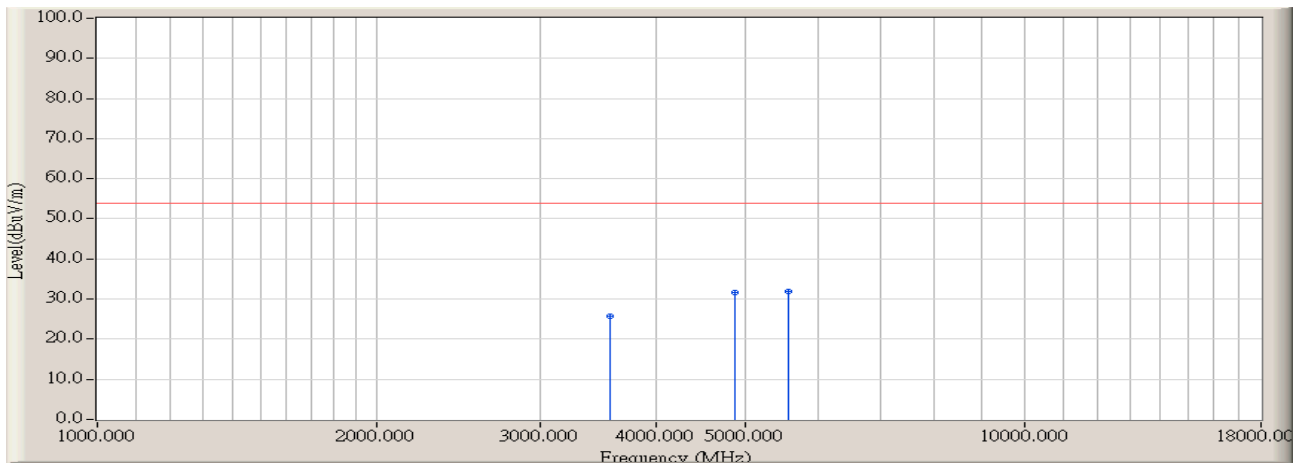
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1	3567.000	-0.670	40.978	40.308	-33.662	73.970	PEAK	100.000	195.000
2	4876.000	3.640	40.916	44.556	-29.414	73.970	PEAK	100.000	188.000
3	* 5556.000	5.170	40.518	45.688	-28.282	73.970	PEAK	100.000	226.000

**Note:**

- (1). RBW = 1MHz, VBW = 3MHz, Sweep time = 500ms.
- (2). There is no emission above 18GHz or too low.



Engineer : Robin	
Site : AC-2 (3m Semi-Anechoic Chamber)	Time : 2008/11/11 - 09:27
Limit : FCC_SpartC_15.209_03M_AV	Margin : 0
EUT : Bluetooth Headset	Probe : BBHA9120D_496(1-18GHz) - VERTICAL
Power : DC 3.7V	Note : Mode 2: Transmit (3DH5) at channel 2441MHz

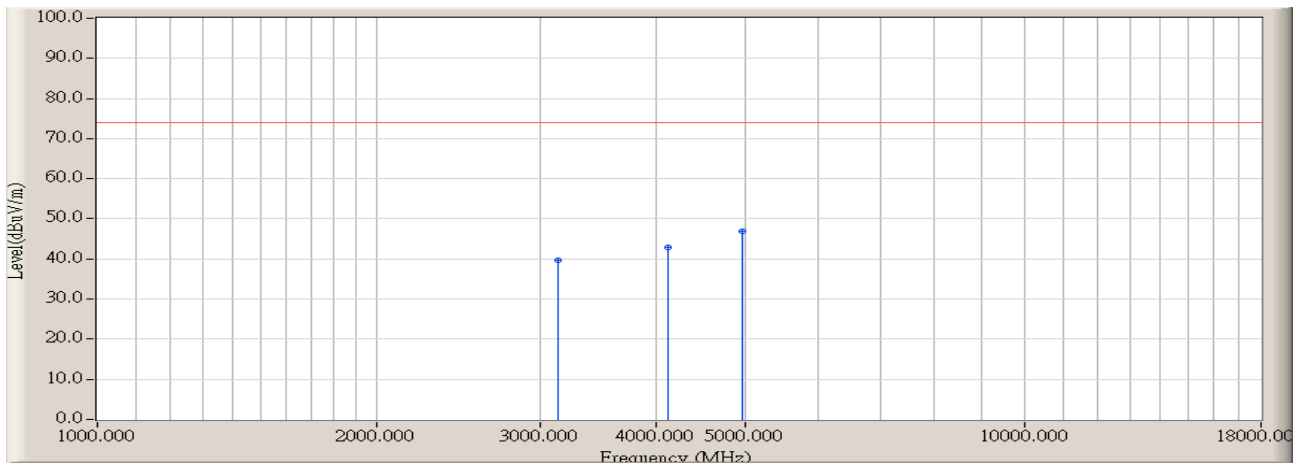


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1	3567.000	-0.670	26.500	25.830	-28.140	53.970	AVERAGE	100.000	195.000
2	4876.000	3.640	28.100	31.740	-22.230	53.970	AVERAGE	100.000	188.000
3	* 5556.000	5.170	26.700	31.870	-22.100	53.970	AVERAGE	100.000	226.000

**Note:**

- (1). RBW = 1MHz, VBW = 10Hz, Sweep time = Auto.
- (2). There is no emission above 18GHz or too low.

Engineer : Robin	
Site : AC-2 (3m Semi-Anechoic Chamber)	Time : 2008/11/11 - 09:28
Limit : FCC_SpartC_15.209_03M_PK	Margin : 0
EUT : Bluetooth Headset	Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL
Power : DC 3.7V	Note : Mode 2: Transmit (3DH5) at channel 2480MHz

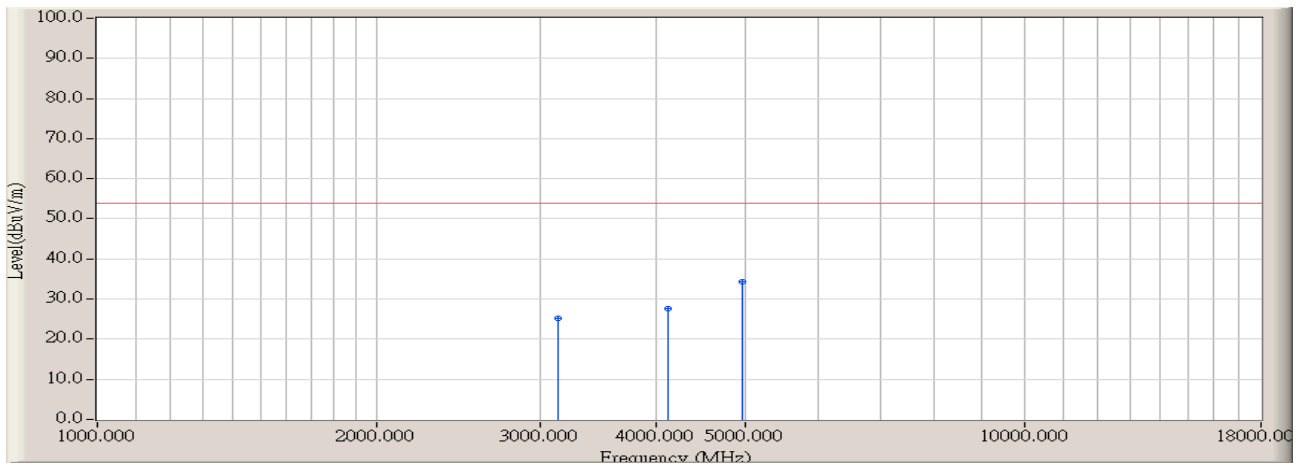


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1	3142.000	-1.560	41.357	39.797	-34.173	73.970	PEAK	115.000	168.000
2	4128.000	1.180	41.831	43.011	-30.959	73.970	PEAK	120.000	165.000
3	* 4961.000	4.110	42.745	46.855	-27.115	73.970	PEAK	106.000	202.000

**Note:**

- (1). RBW = 1MHz, VBW = 3MHz, Sweep time = 500ms.
- (2). There is no emission above 18GHz or too low.

Engineer : Robin	
Site : AC-2 (3m Semi-Anechoic Chamber)	Time : 2008/11/11 - 09:28
Limit : FCC_SpartC_15.209_03M_AV	Margin : 0
EUT : Bluetooth Headset	Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL
Power : DC 3.7V	Note : Mode 2: Transmit (3DH5) at channel 2480MHz

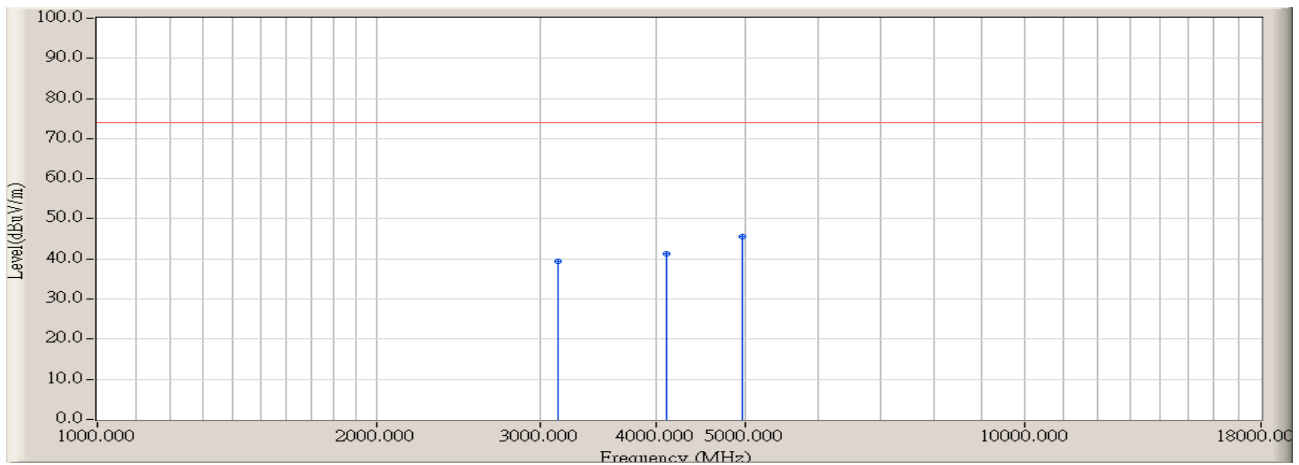


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1	3142.000	-1.560	26.800	25.240	-28.730	53.970	AVERAGE	115.000	168.000
2	4128.000	1.180	26.400	27.580	-26.390	53.970	AVERAGE	120.000	165.000
3	* 4961.000	4.110	30.200	34.310	-19.660	53.970	AVERAGE	106.000	202.000

**Note:**

- (1). RBW = 1MHz, VBW = 10Hz, Sweep time = Auto.
- (2). There is no emission above 18GHz or too low.

Engineer : Robin	
Site : AC-2 (3m Semi-Anechoic Chamber)	Time : 2008/11/11 - 09:28
Limit : FCC_SpartC_15.209_03M_PK	Margin : 0
EUT : Bluetooth Headset	Probe : BBHA9120D_496(1-18GHz) - VERTICAL
Power : DC 3.7V	Note : Mode 2: Transmit (3DH5) at channel 2480MHz

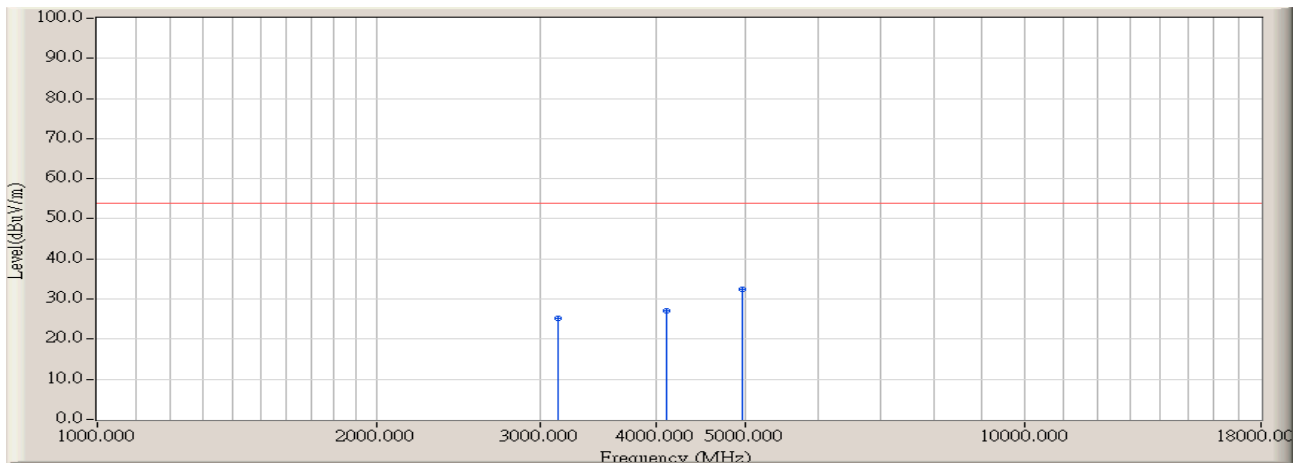


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1	3142.000	-1.560	41.015	39.455	-34.515	73.970	PEAK	100.000	198.000
2	4111.000	1.190	40.060	41.250	-32.720	73.970	PEAK	100.000	265.000
3	* 4961.000	4.110	41.418	45.528	-28.442	73.970	PEAK	100.000	205.000

**Note:**

- (1). RBW = 1MHz, VBW = 3MHz, Sweep time = 500ms.
- (2). There is no emission above 18GHz or too low.

Engineer : Robin	
Site : AC-2 (3m Semi-Anechoic Chamber)	Time : 2008/11/11 - 09:28
Limit : FCC_SpartC_15.209_03M_AV	Margin : 0
EUT : Bluetooth Headset	Probe : BBHA9120D_496(1-18GHz) - VERTICAL
Power : DC 3.7V	Note : Mode 2: Transmit (3DH5) at channel 2480MHz



	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1	3142.000	-1.560	26.800	25.240	-28.730	53.970	AVERAGE	100.000	198.000
2	4111.000	1.190	26.000	27.190	-26.780	53.970	AVERAGE	100.000	265.000
3	* 4961.000	4.110	28.300	32.410	-21.560	53.970	AVERAGE	100.000	205.000

**Note:**

- (1). RBW = 1MHz, VBW = 10Hz, Sweep time = Auto.
- (2). There is no emission above 18GHz or too low.

**5. 20dB Bandwidth**

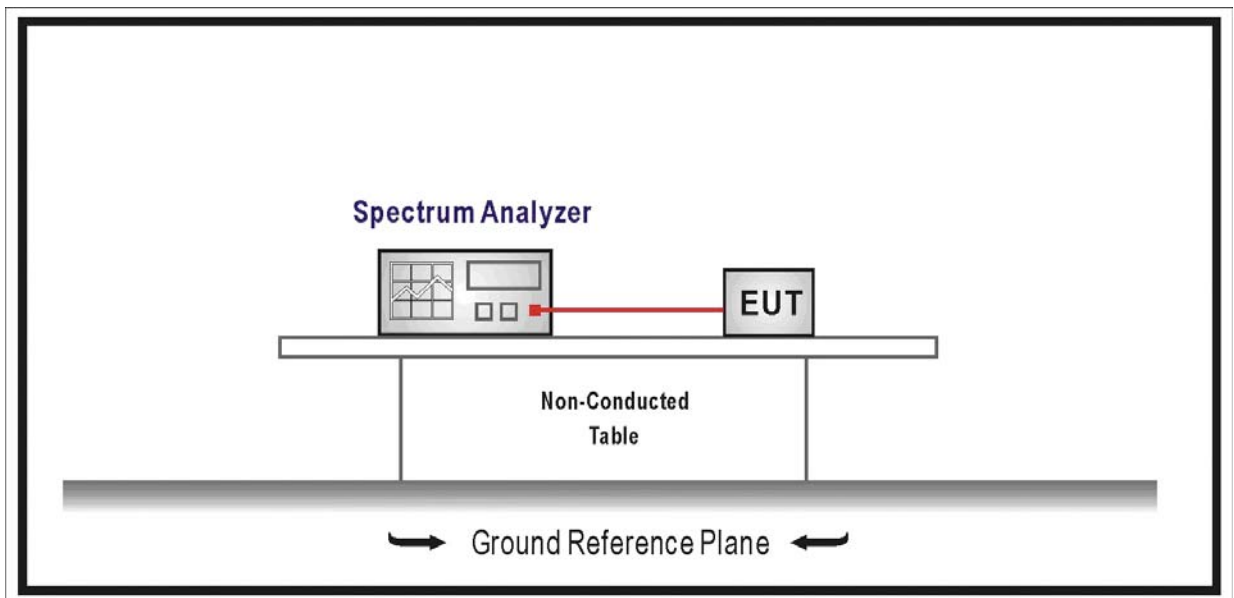
**5.1. Test Equipment**

20dB Bandwidth / AC-4

Instrument	Manufacturer	Type No.	Serial No.	Cal. Date
Spectrum Analyzer	Agilent	E4446A	MY45300103	2008/06/11
Coaxial Cable	Huber+Suhner	AC4-RF	09	2008/11/24
Temperature/Humidity Meter	zhicheng	ZC1-2	QT-TH007	2009/03/30

Note: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

**5.2. Test Setup**



**5.3. Limit**

- For frequency hopping systems operating in 2400-2483.5 MHz band, no limitation.
- For frequency hopping systems operating in 902-928 MHz band, the maximum allowed 20 dB bandwidth of the hopping channel is 500 kHz.
- For frequency hopping systems operating in 5725-5850 MHz band, the maximum 20 dB bandwidth of the hopping channel is 1 MHz.

## 5.4. Test Procedure

According to FCC Public Notice DA 00-705, March 30, 2000.

Use the following spectrum analyzer settings:

Span = approximately 2 to 3 times the 20dB bandwidth, centered on a hopping channel

RBW  $\geq$  1% of the 20dB bandwidth

VBW  $\geq$  RBW

Sweep = auto

Detector function = peak

Trace = max hold

The EUT should be transmitting at its maximum data rate. Allow the trace to stabilize.

Use the marker-to-peak function to set the marker to the peak of the emission. Use the marker-delta function to measure 20 dB down one side of the emission. Reset the marker-delta function, and move the marker to the other side of the emission, until it is (as close as possible to) even with the reference marker level. The marker-delta reading at this point is the 20 dB bandwidth of the emission. If this value varies with different modes of operation (e.g., data rate, modulation format, etc.), repeat this test for each variation.

## 5.5. Uncertainty

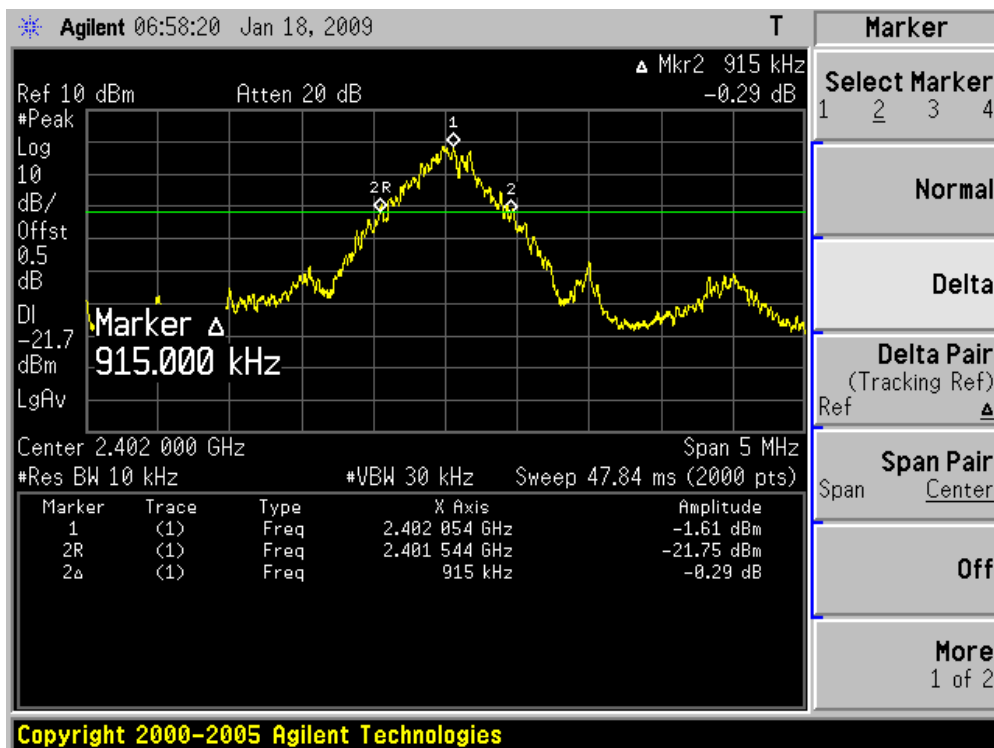
The measurement uncertainty is defined as  $\pm 1$  kHz

## 5.6. Test Result

Product	:	Bluetooth Headset
Test Item	:	20dB Bandwidth
Test Site	:	AC-4
Test Mode	:	Mode 1: Transmit (DH5)

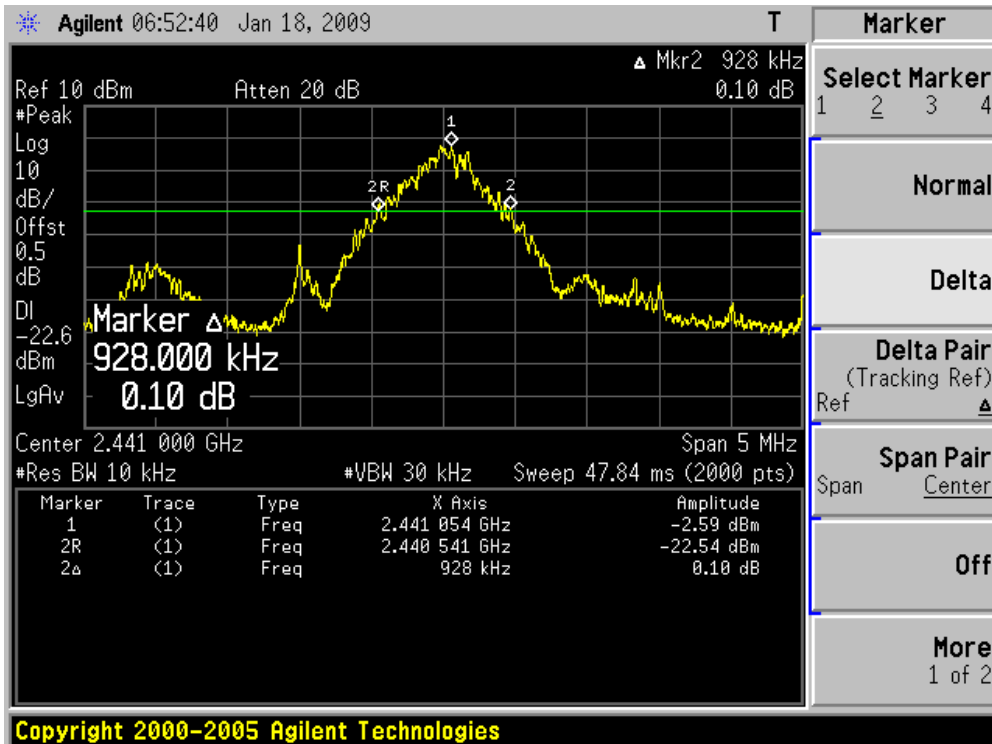
Channel No.	Frequency (MHz)	20dB Bandwidth (kHz)	Limit (kHz)	Result
00	2402	915	N/A	Pass
39	2441	928	N/A	Pass
78	2480	905	N/A	Pass

Channel 00 (2402MHz)

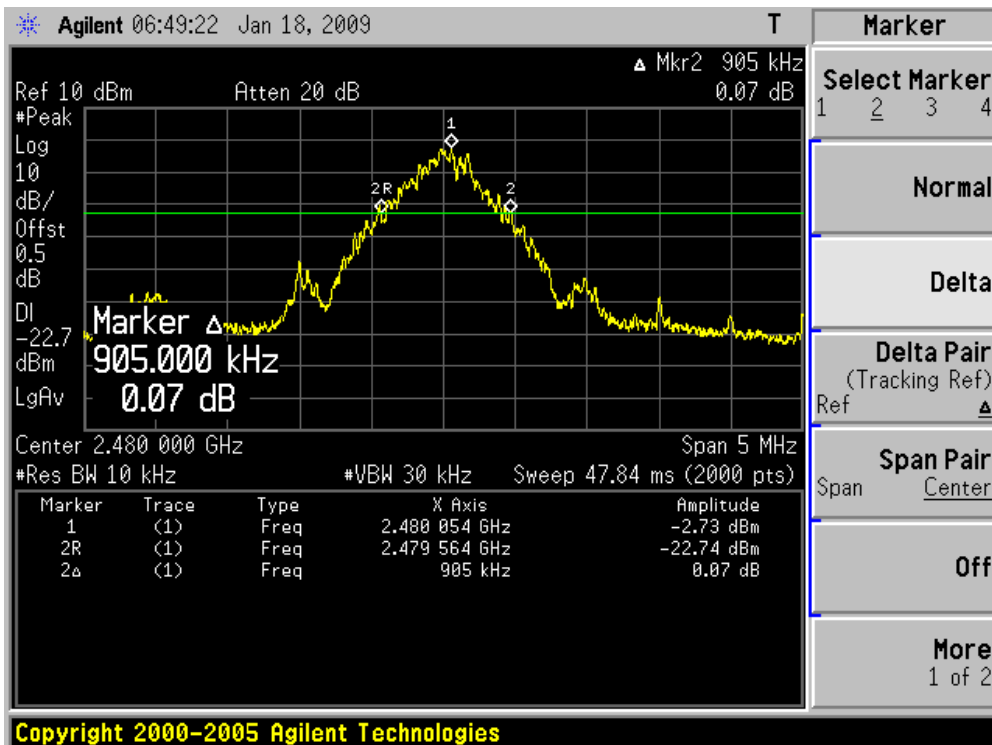




Channel 39 (2441MHz)



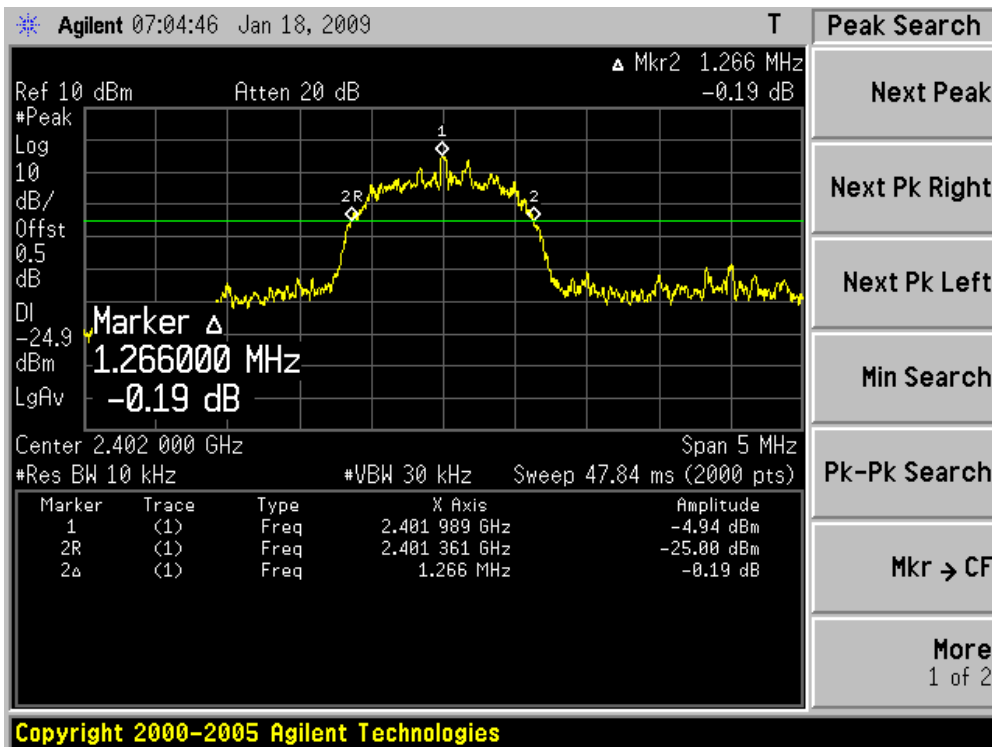
Channel 78 (2480MHz)



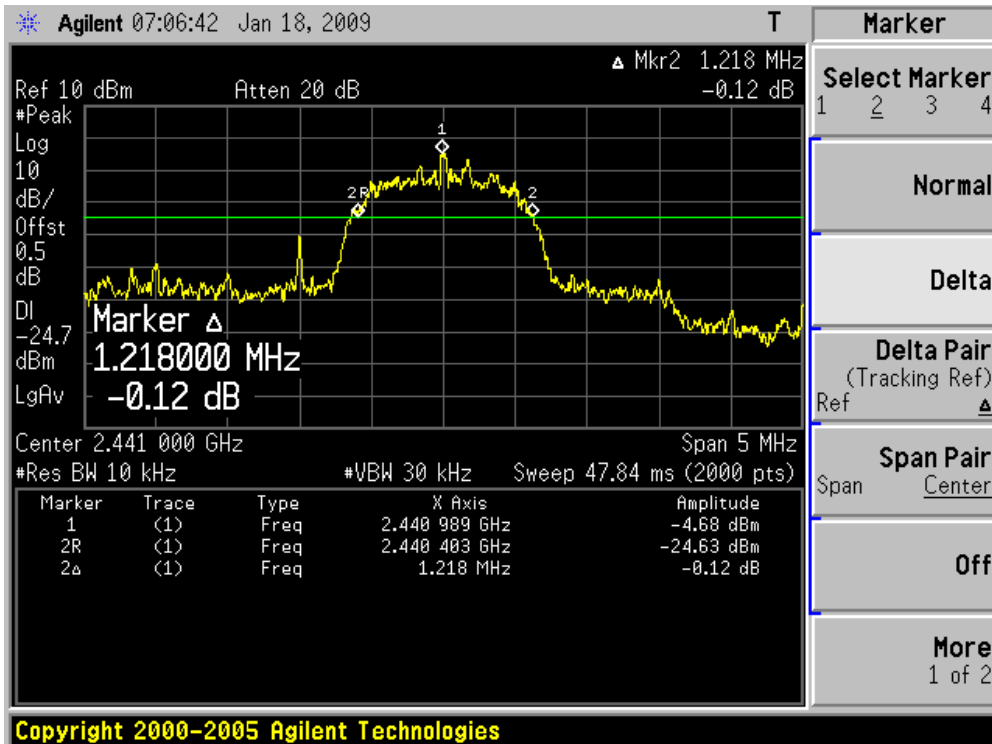
Product	:	Bluetooth Headset
Test Item	:	20dB Bandwidth
Test Site	:	AC-4
Test Mode	:	Mode 2: Transmit (3DH5)

Channel No.	Frequency (MHz)	20dB Bandwidth (kHz)	Limit (kHz)	Result
00	2402	1266	N/A	Pass
39	2441	1218	N/A	Pass
78	2480	1218	N/A	Pass

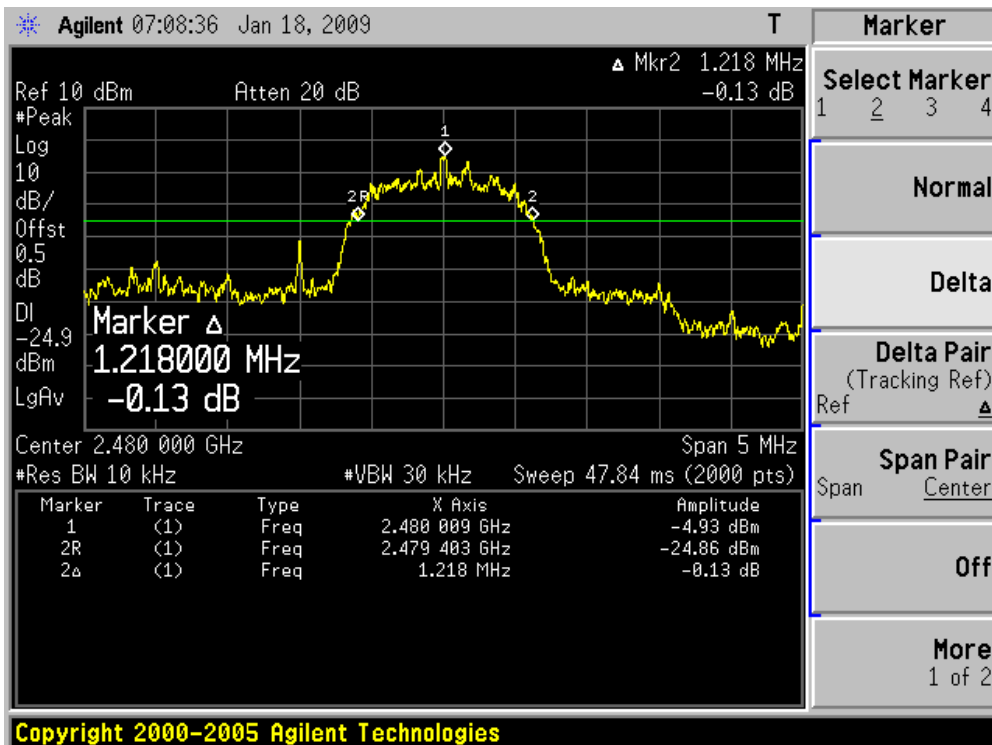
### Channel 00 (2402MHz)



Channel 39 (2441MHz)



Channel 78 (2480MHz)



**6. 99% Occupied Bandwidth**

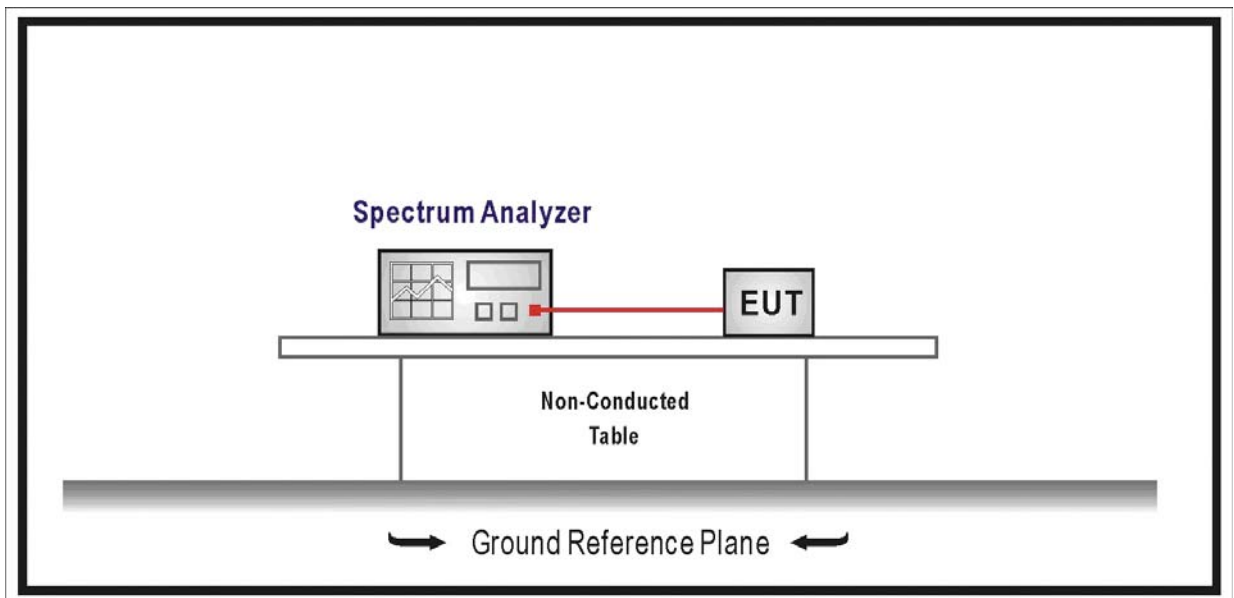
**6.1. Test Equipment**

99% Occupied Bandwidth / AC-4

Instrument	Manufacturer	Type No.	Serial No.	Cal. Date
Spectrum Analyzer	Agilent	E4446A	MY45300103	2008/06/11
Coaxial Cable	Huber+Suhner	AC4-RF	09	2008/11/24
Temperature/Humidity Meter	zhicheng	ZC1-2	QT-TH007	2009/03/30

Note: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

**6.2. Test Setup**



**6.3. Limit**

N/A

**6.4. Test Procedure**

Use the following spectrum analyzer settings:

Span = capture all products of the modulation process, including the emission skirts

RBW = as close to 1% of the selected span as is possible without being below 1%

VBW = 3 times RBW

Sweep = auto

Detector function = sampling

The trace data points are recovered and are directly summed in linear terms. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5% of the total is reached and that frequency recorded. The process is repeated for the highest frequency data points. This frequency is recorded.

The span between the two recorded frequencies is the occupied bandwidth.

## 6.5. Uncertainty

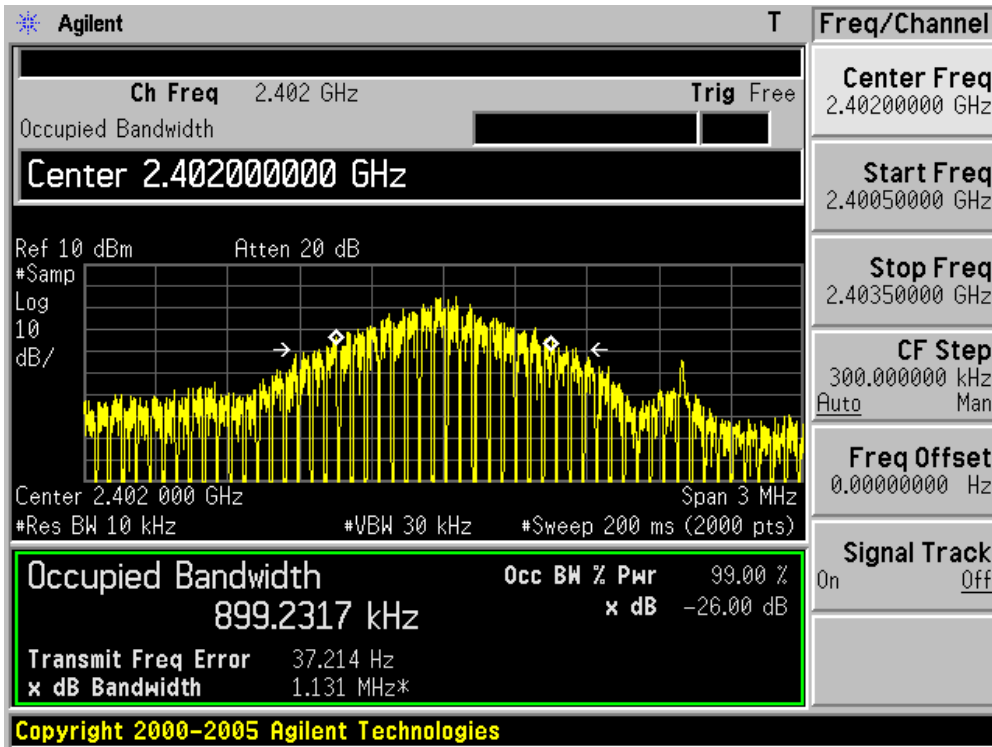
The measurement uncertainty is defined as  $\pm 1$  kHz

6.6. Test Result

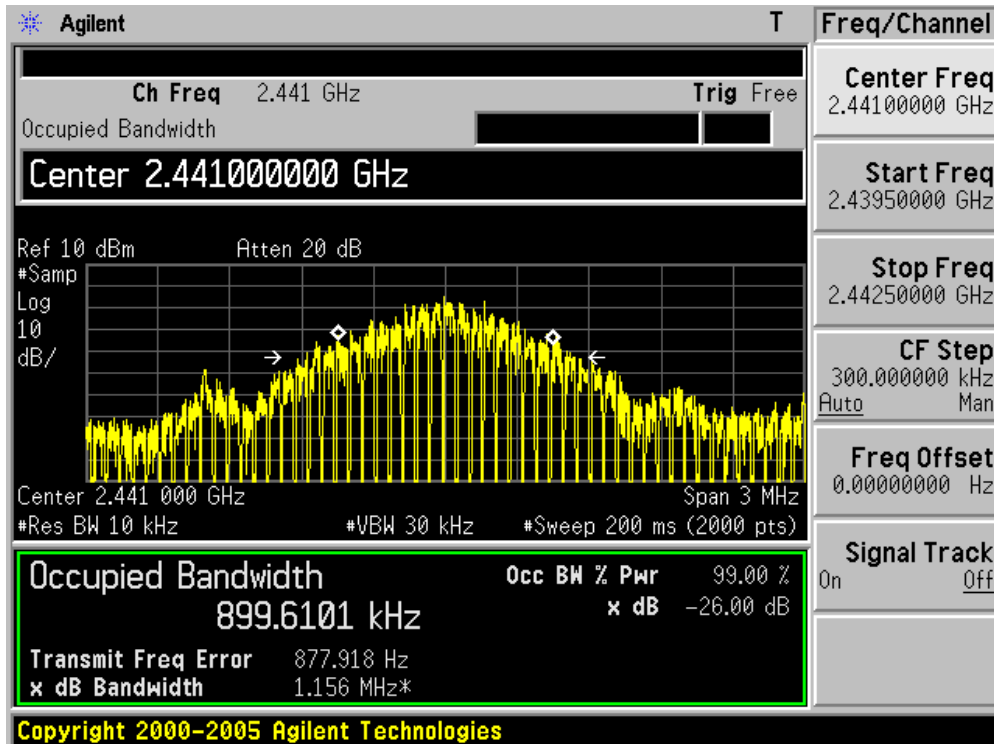
Product	:	Bluetooth Headset
Test Item	:	99% Occupied Bandwidth
Test Site	:	AC-4
Test Mode	:	Mode 1: Transmit (DH5)

Channel No.	Frequency (MHz)	99% Occupied Bandwidth (kHz)	Limit (kHz)	Result
00	2402	899.2317	N/A	Pass
39	2441	899.6101	N/A	Pass
78	2480	864.7612	N/A	Pass

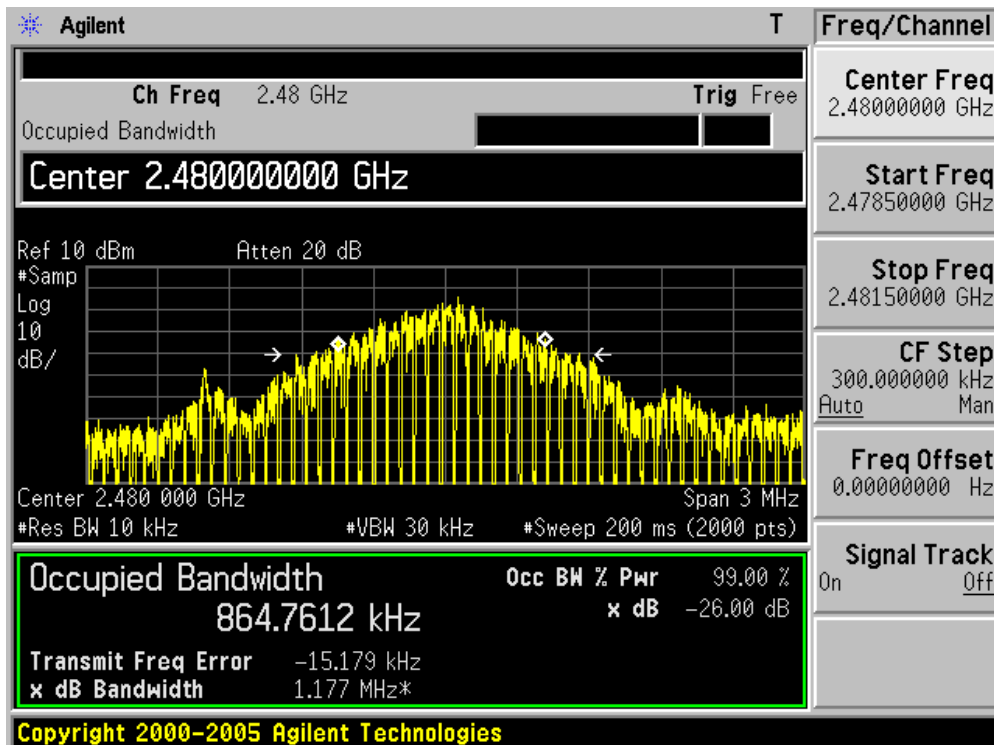
Channel 00 (2402MHz)



Channel 39 (2441MHz)



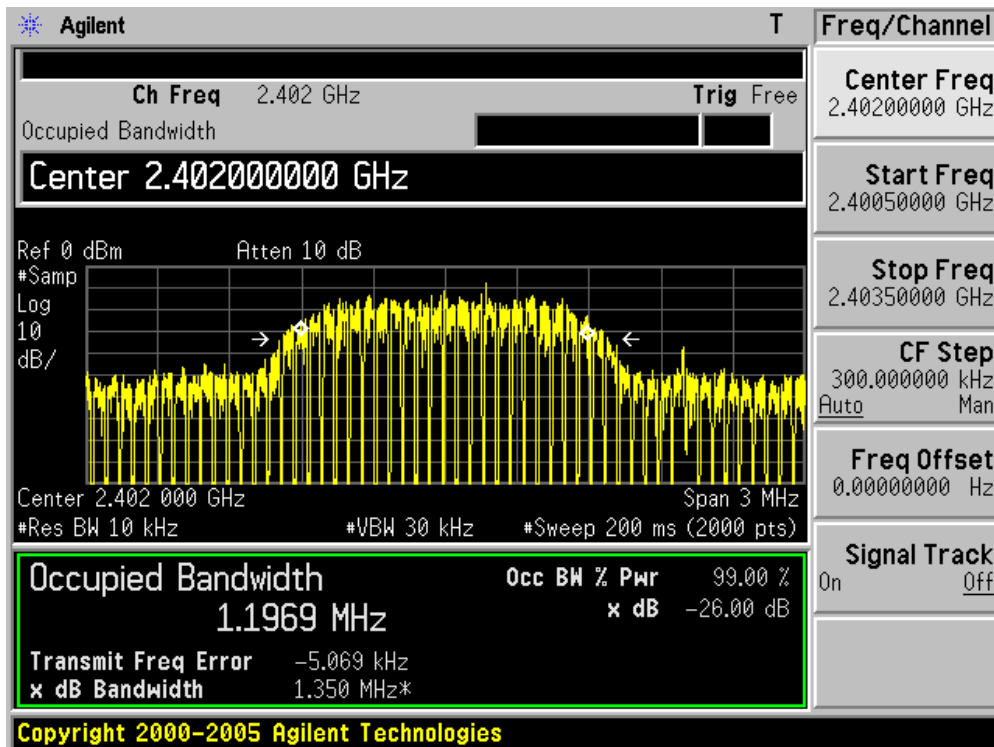
Channel 78 (2480MHz)



Product	:	Bluetooth Headset
Test Item	:	99% Occupied Bandwidth
Test Site	:	AC-4
Test Mode	:	Mode 2: Transmit (3DH5)

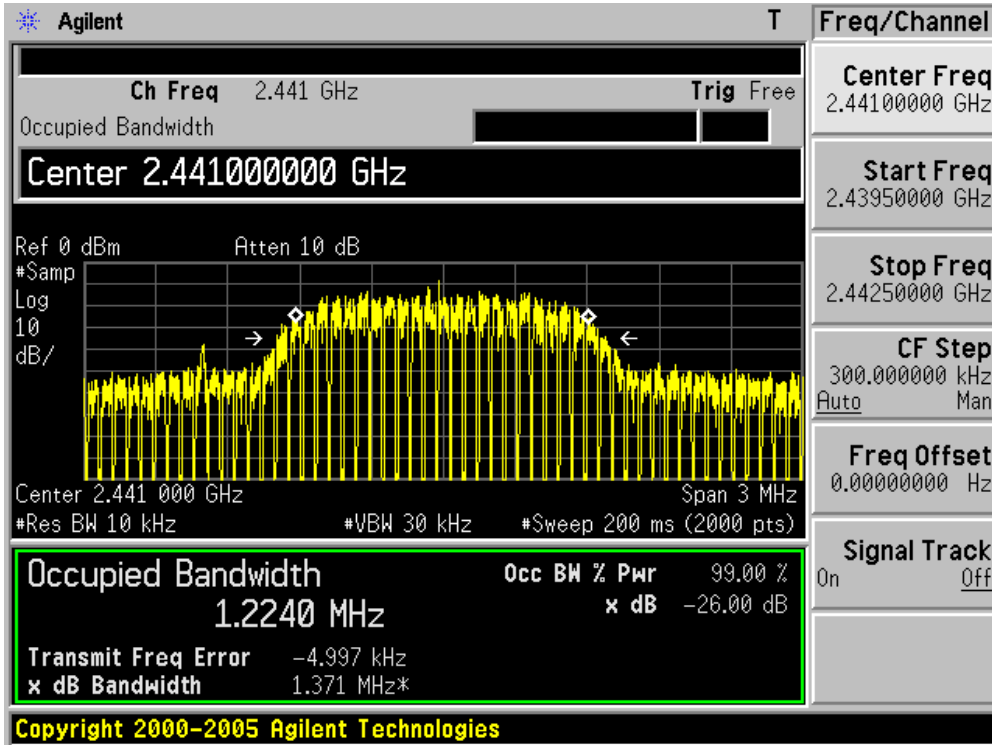
Channel No.	Frequency (MHz)	99% Occupied Bandwidth (kHz)	Limit (kHz)	Result
00	2402	11969	N/A	Pass
39	2441	12240	N/A	Pass
78	2480	12231	N/A	Pass

### Channel 00 (2402MHz)

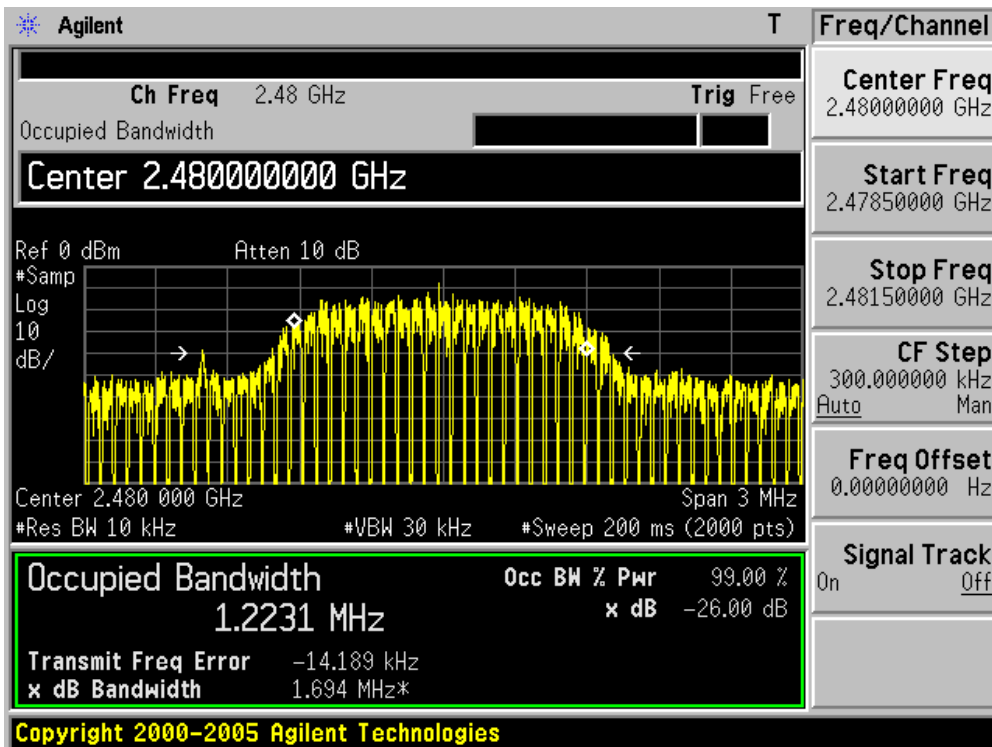




Channel 39 (2441MHz)



Channel 78 (2480MHz)



## 7. Carrier Frequency Separation

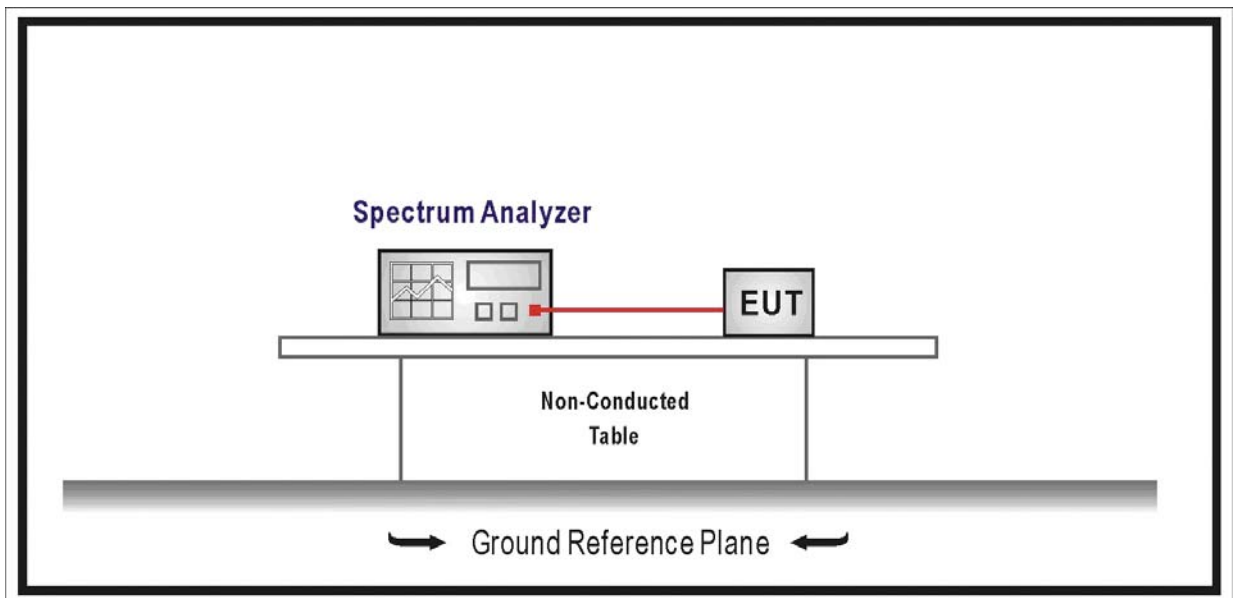
### 7.1. Test Equipment

Carrier Frequency Separation / AC-4

Instrument	Manufacturer	Type No.	Serial No.	Cal. Date
Spectrum Analyzer	Agilent	E4446A	MY45300103	2008/06/11
Coaxial Cable	Huber+Suhner	AC4-RF	09	2008/11/24
Temperature/Humidity Meter	zhicheng	ZC1-2	QT-TH007	2009/03/30

Note: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

### 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. Alternatively, frequency hopping systems operating in the 2400-2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater, provided the systems operate with an output power no greater than 125mW. The system shall hop to channel frequencies that are selected at the system hopping rate from a pseudorandomly ordered list of hopping frequencies. Each frequency must be used equally on the average by each

transmitter. The system receivers shall have input bandwidths that match the hopping channel bandwidths of their corresponding transmitters and shall shift frequencies in synchronization with the transmitted signals.

- 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.
- Frequency hopping systems operating in the 5725-5850 MHz band shall use at least 75 hopping frequencies. The maximum 20 dB bandwidth of the hopping channel is 1 MHz. The average time of occupancy on any frequency shall not be greater than 0.4 seconds within a 30 second period.

#### 7.4. Test Procedure

According to FCC Public Notice DA 00-705, March 30, 2000.

The EUT must have its hopping function enabled. Use the following spectrum analyzer settings:

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

Resolution (or IF) Bandwidth (RBW)  $\geq$  1% of the span

Video (or Average) Bandwidth VBW  $\geq$  RBW

Sweep = auto

Detector function = peak

Trace = max hold

Allow the trace to stabilize. Use the marker-delta function to determine the separation between the peaks of the adjacent channels.

#### 7.5. Uncertainty

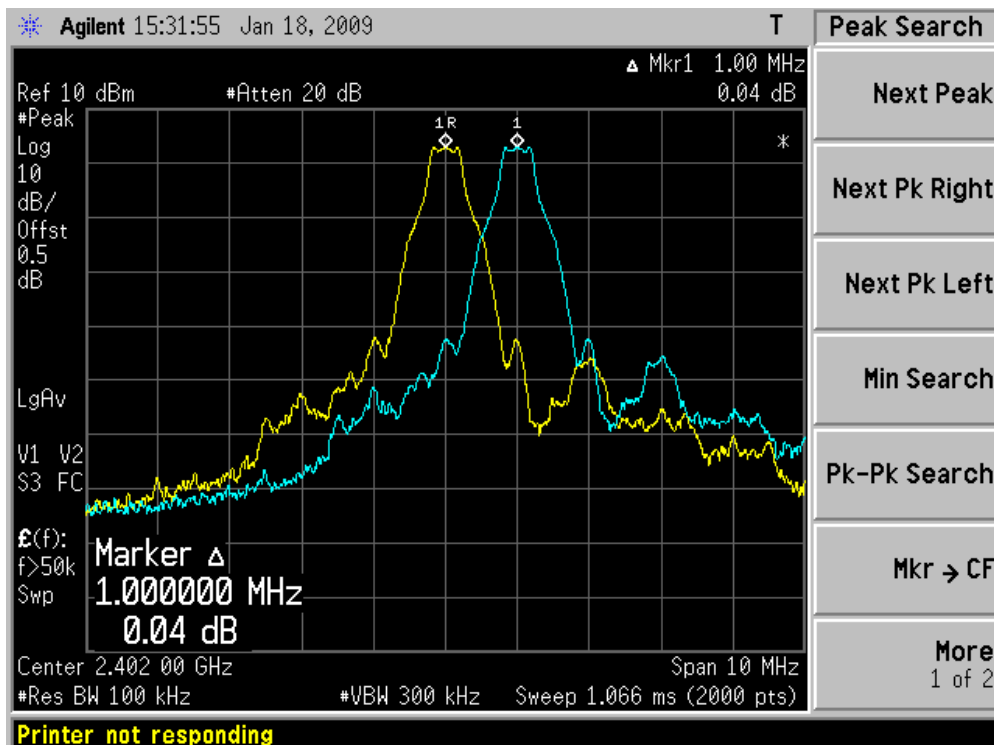
The measurement uncertainty is defined as  $\pm 1$  kHz

## 7.6. Test Result

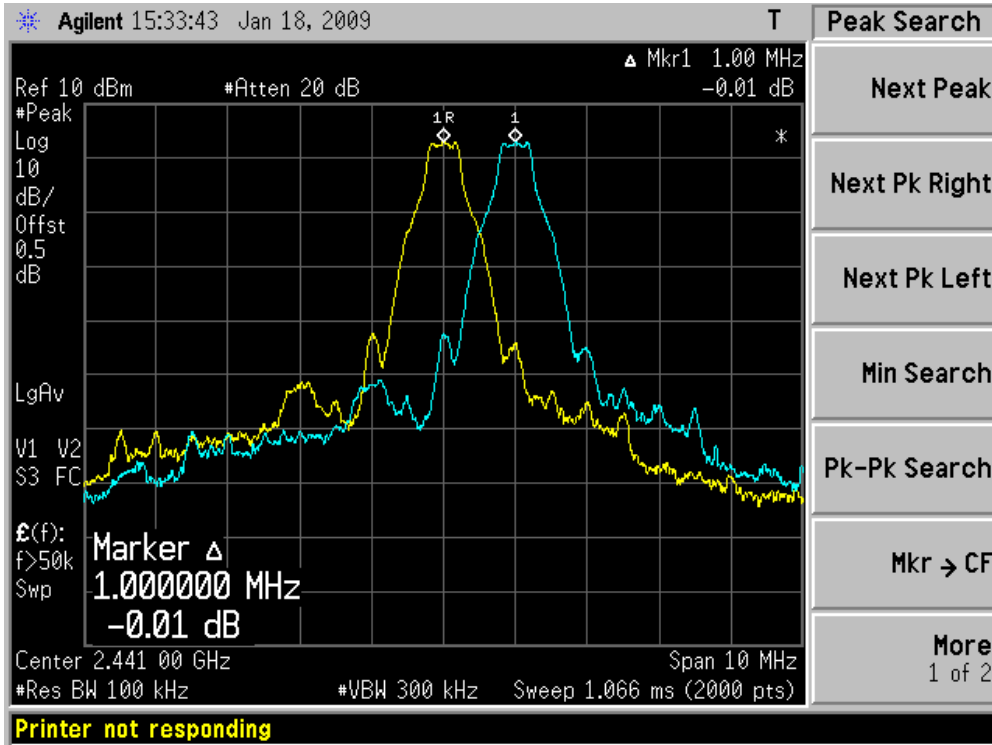
Product	:	Bluetooth Headset
Test Item	:	Carrier Frequency Separation
Test Site	:	AC-4
Test Mode	:	Mode 1: Transmit (DH5)

Channel No.	Frequency (MHz)	Carrier Frequency Separation (kHz)	Limit (kHz)	Result
00	2402	1000	>25 kHz or 2/3 of 20 dB BW	Pass
39	2441	1000	>25 kHz or 2/3 of 20 dB BW	Pass
78	2480	1000	>25 kHz or 2/3 of 20 dB BW	Pass

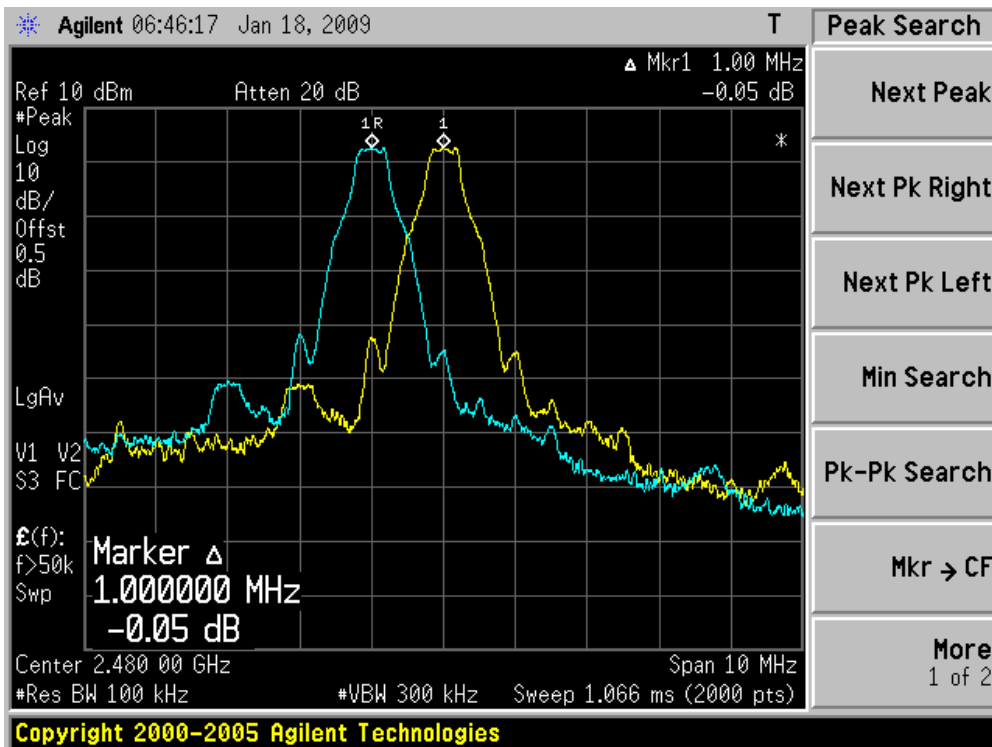
Channel 00 (2402MHz)



Channel 39 (2441MHz)



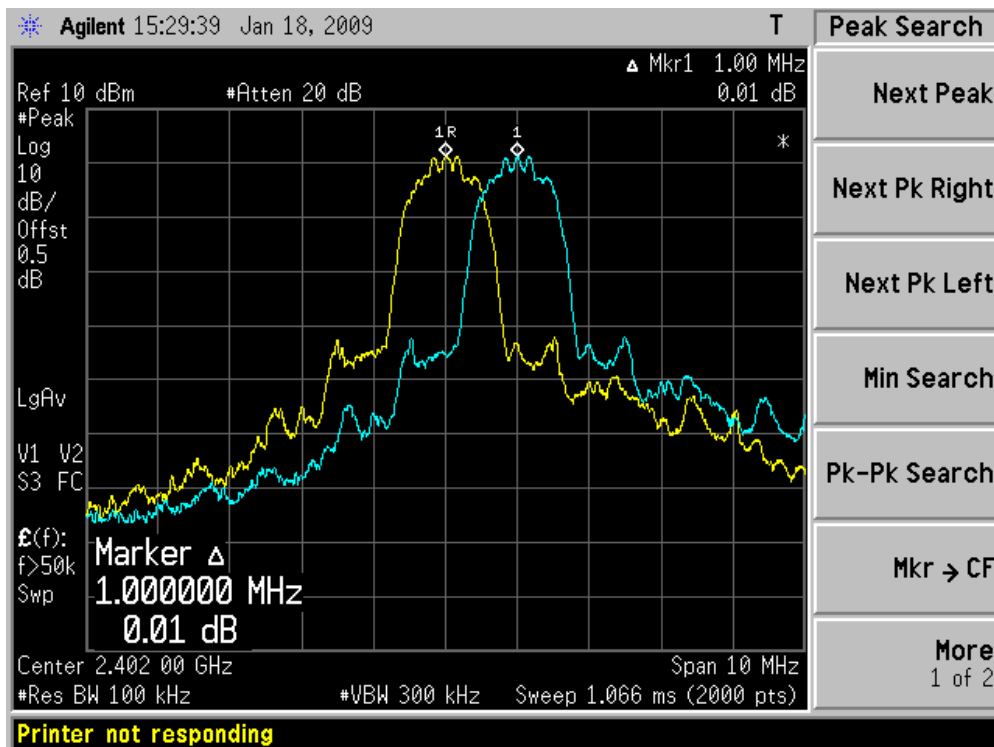
Channel 78 (2480MHz)



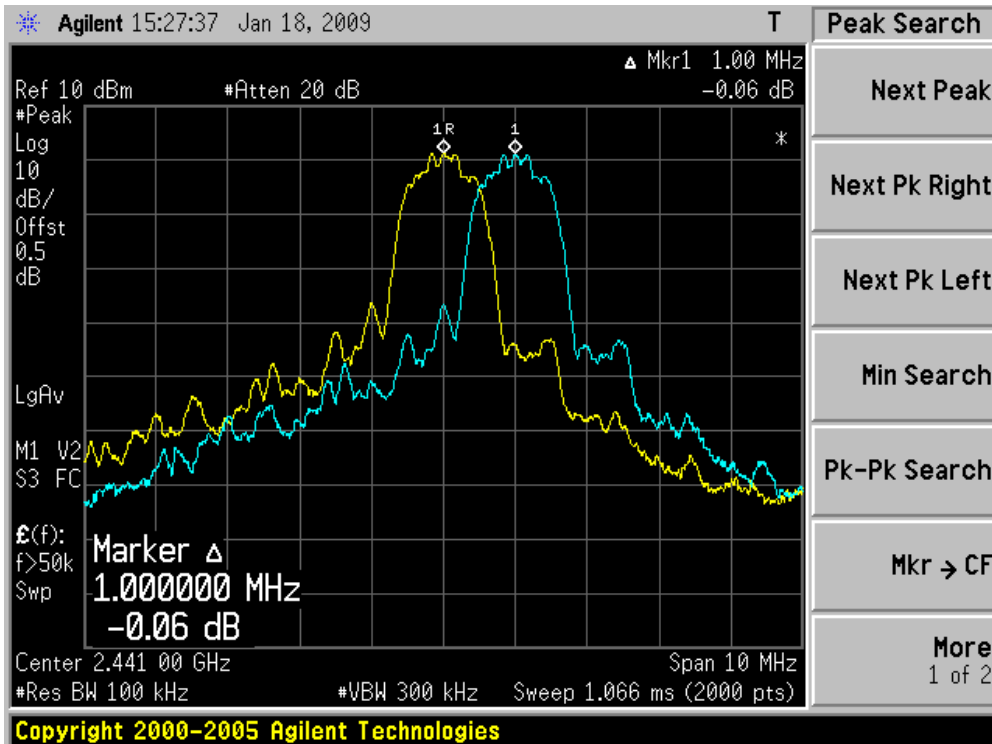
Product	:	Bluetooth Headset
Test Item	:	Carrier Frequency Separation
Test Site	:	AC-4
Test Mode	:	Mode 2: Transmit (3DH5)

Channel No.	Frequency (MHz)	Carrier Frequency Separation (kHz)	Limit (kHz)	Result
00	2402	1000	>25 kHz or 2/3 of 20 dB BW	Pass
39	2441	1000	>25 kHz or 2/3 of 20 dB BW	Pass
78	2480	1000	>25 kHz or 2/3 of 20 dB BW	Pass

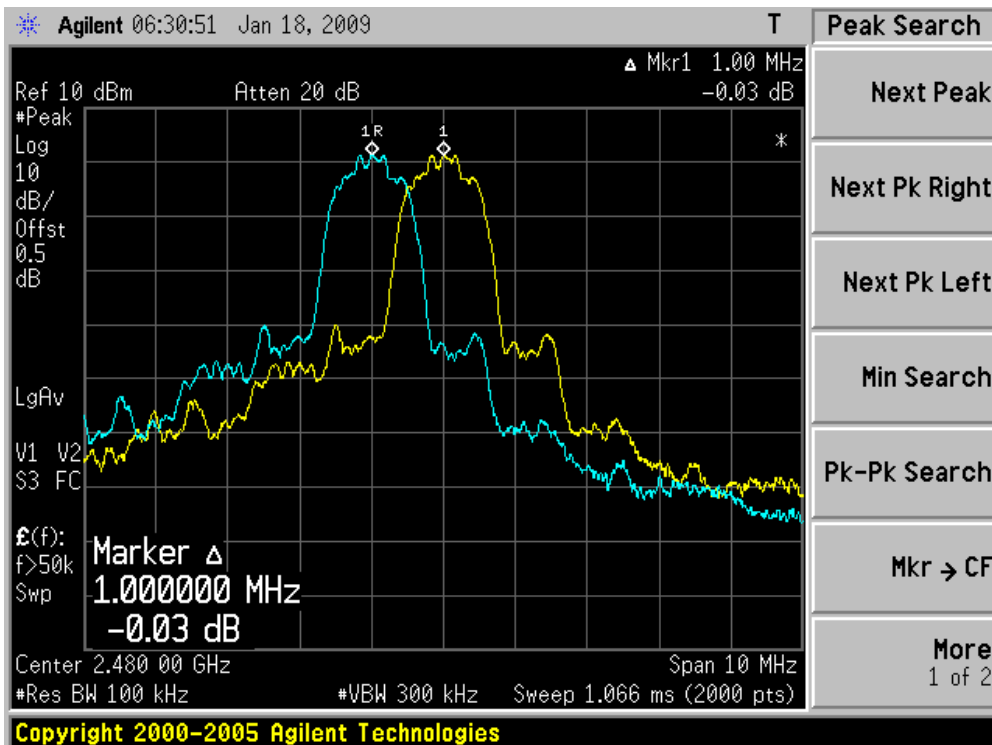
### Channel 00 (2402MHz)



Channel 39 (2441MHz)



Channel 78 (2480MHz)



## 8. Number of Hopping Frequencies

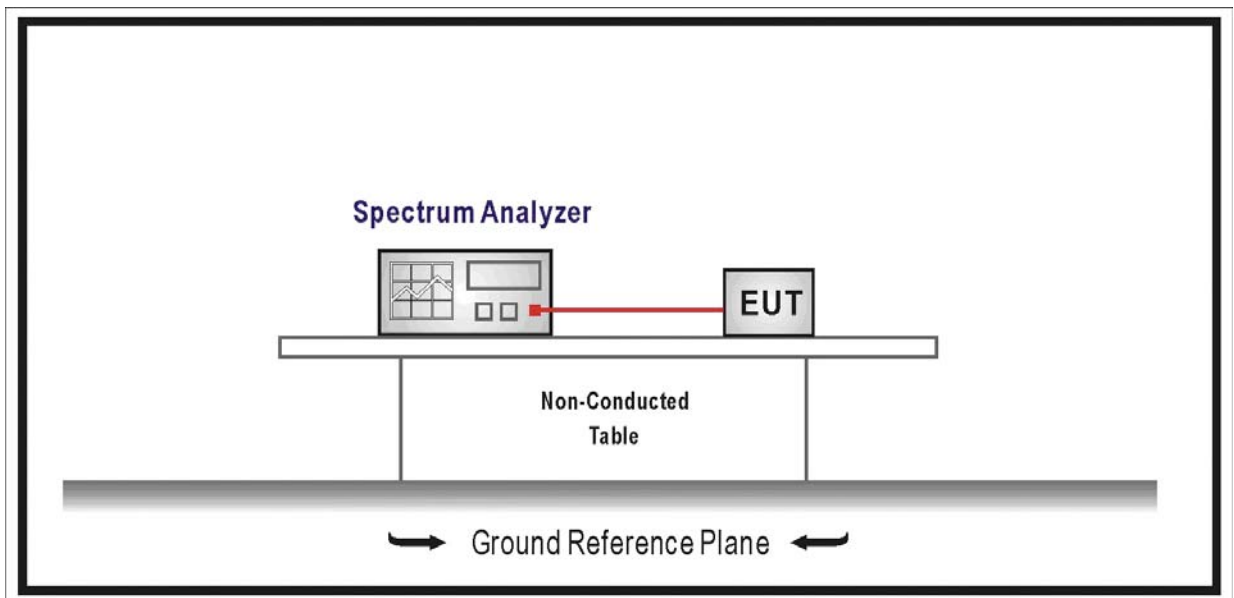
### 8.1. Test Equipment

Number of Hopping Frequencies / AC-4

Instrument	Manufacturer	Type No.	Serial No.	Cal. Date
Spectrum Analyzer	Agilent	E4446A	MY45300103	2008/06/11
Coaxial Cable	Huber+Suhner	AC4-RF	09	2008/11/24
Temperature/Humidity Meter	zhicheng	ZC1-2	QT-TH007	2009/03/30

Note: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

### 8.2. Test Setup



### 8.3. Limit

- For frequency hopping systems operating in the 2400-2483.5 MHz band shall use at least 15 hopping frequencies.
- For frequency hopping systems operating in 902-928 MHz band shall use at least 50 hopping frequencies.
- For frequency hopping systems operating in the 5725-5850 MHz band shall use at least 75 hopping frequencies.



#### 8.4. Test Procedure

According to FCC Public Notice DA 00-705, March 30, 2000.

The EUT must have its hopping function enabled. Use the following spectrum analyzer settings:

Span = the frequency band of operation

RBW  $\geq$  1% of the span

VBW  $\geq$  RBW

Sweep = auto

Detector function = peak

Trace = max hold

Allow the trace to stabilize. It may prove necessary to bread the span up to sections, in order to clearly show all of the hopping frequencies.

#### 8.5. Uncertainty

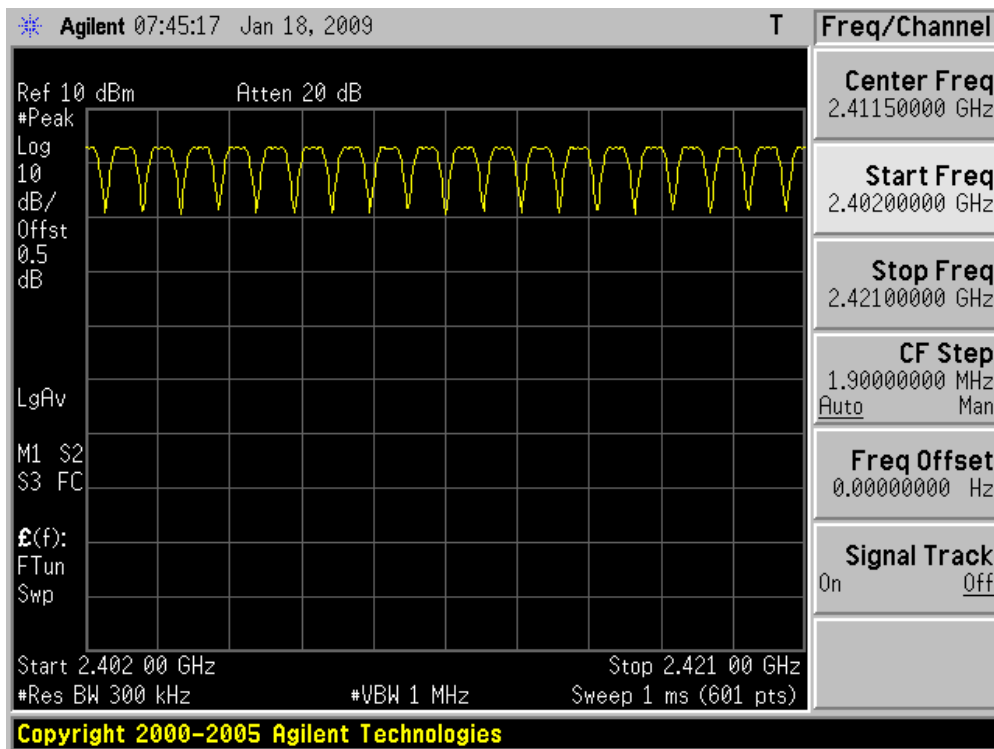
The measurement uncertainty is defined as  $\pm 1$  kHz

8.6. Test Result

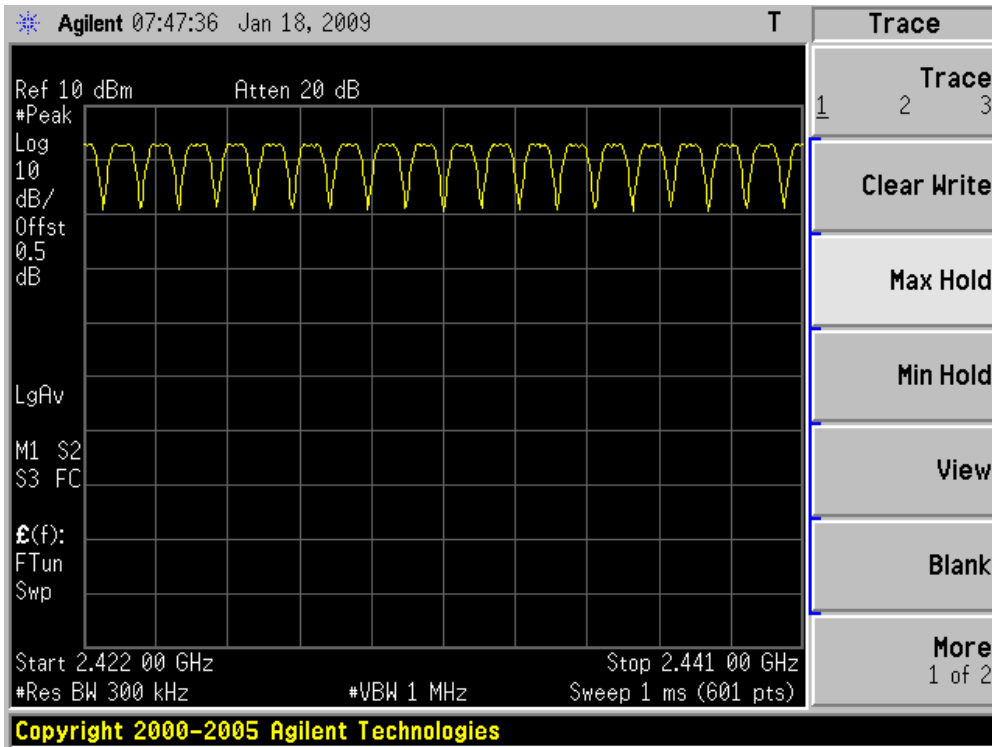
Product	:	Bluetooth Headset
Test Item	:	Number of Hopping Frequencies
Test Site	:	AC-4
Test Mode	:	Mode 1: Transmit (DH5)

Frequency Band (MHz)	Number of Hopping Frequencies	Limit	Result
2400 - 2483.5	79	>15	Pass

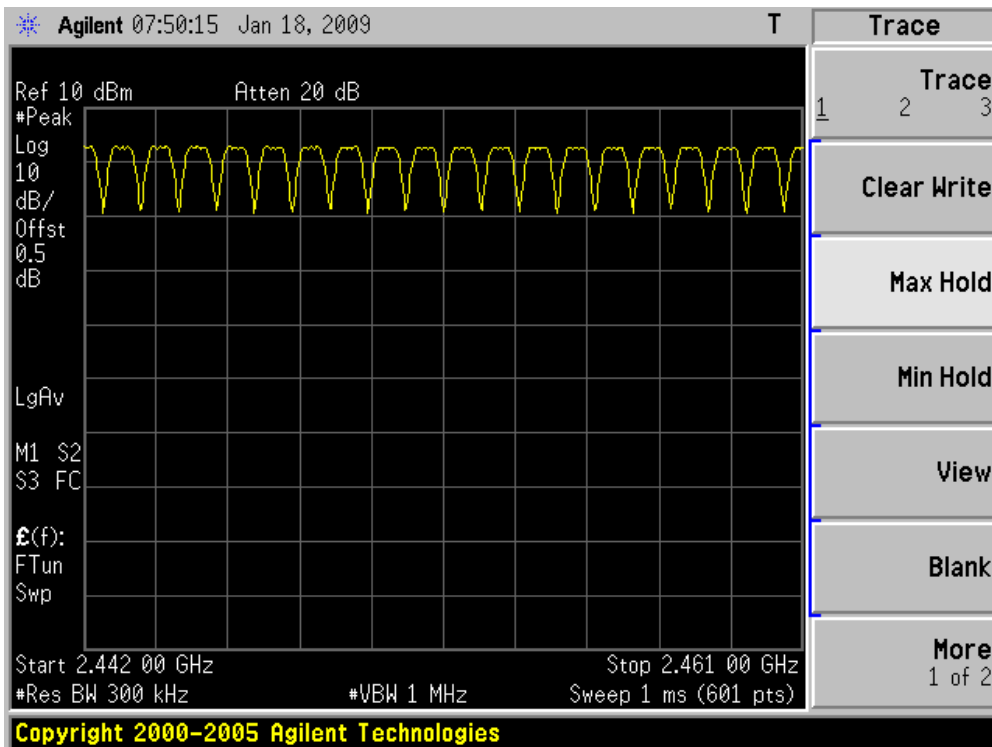
2402 - 2421 MHz



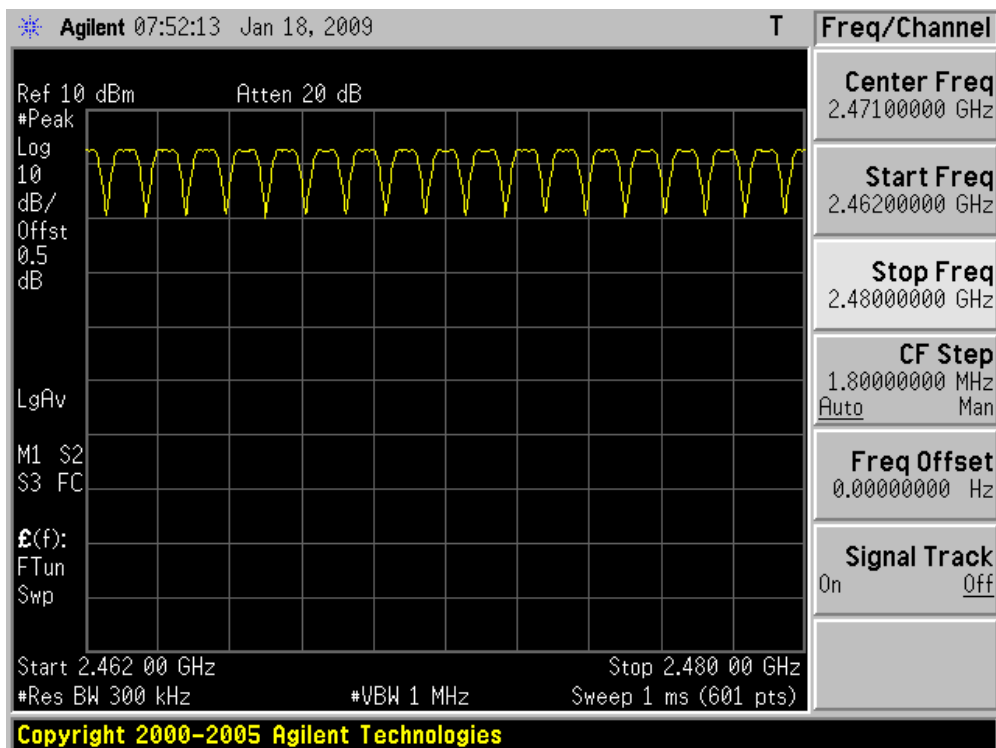
2422 - 2441 MHz



2442 - 2461 MHz



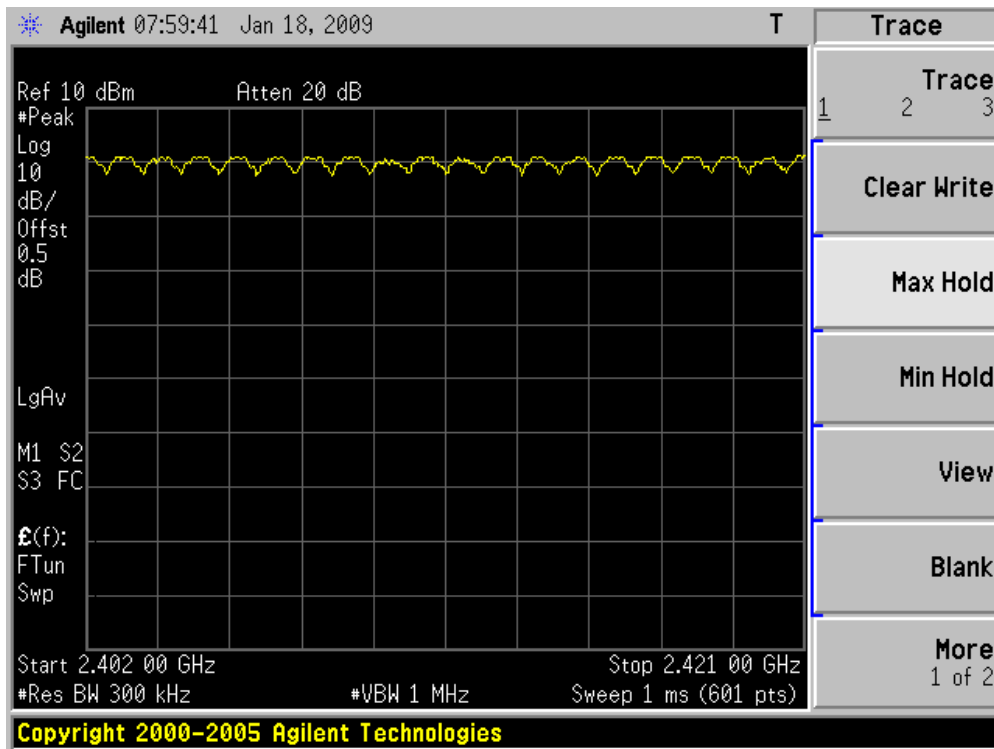
## 2462 - 2480 MHz



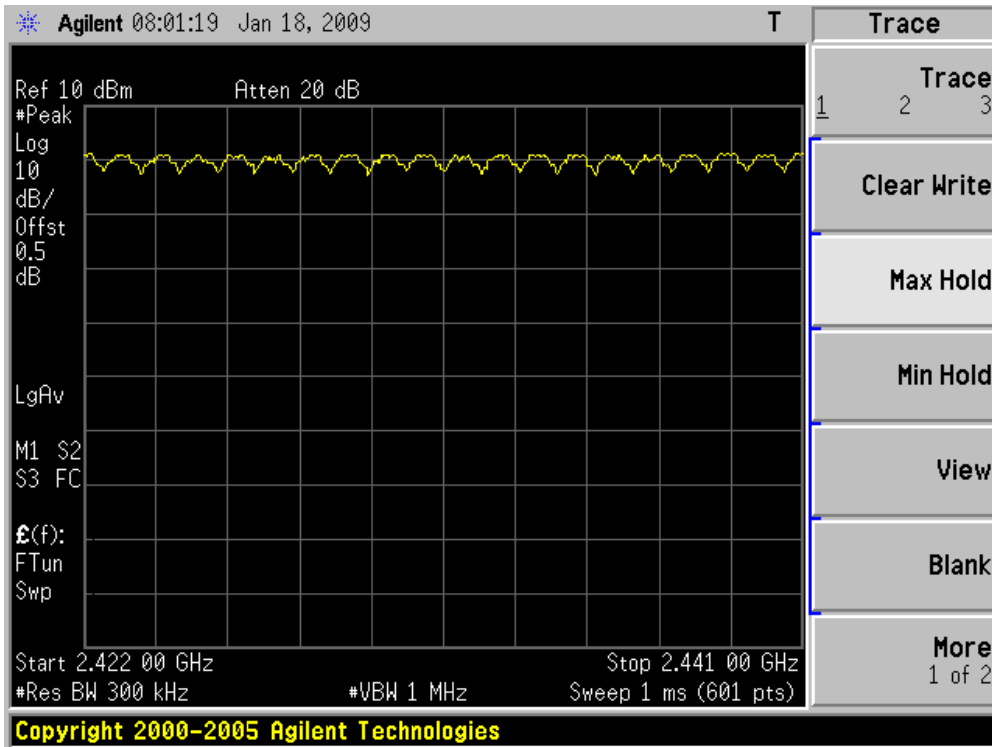
Product	:	Bluetooth Headset
Test Item	:	Number of Hopping Frequencies
Test Site	:	AC-4
Test Mode	:	Mode 2: Transmit (3DH5)

Frequency Band (MHz)	Number of Hopping Frequencies	Limit	Result
2400 - 2483.5	79	>15	Pass

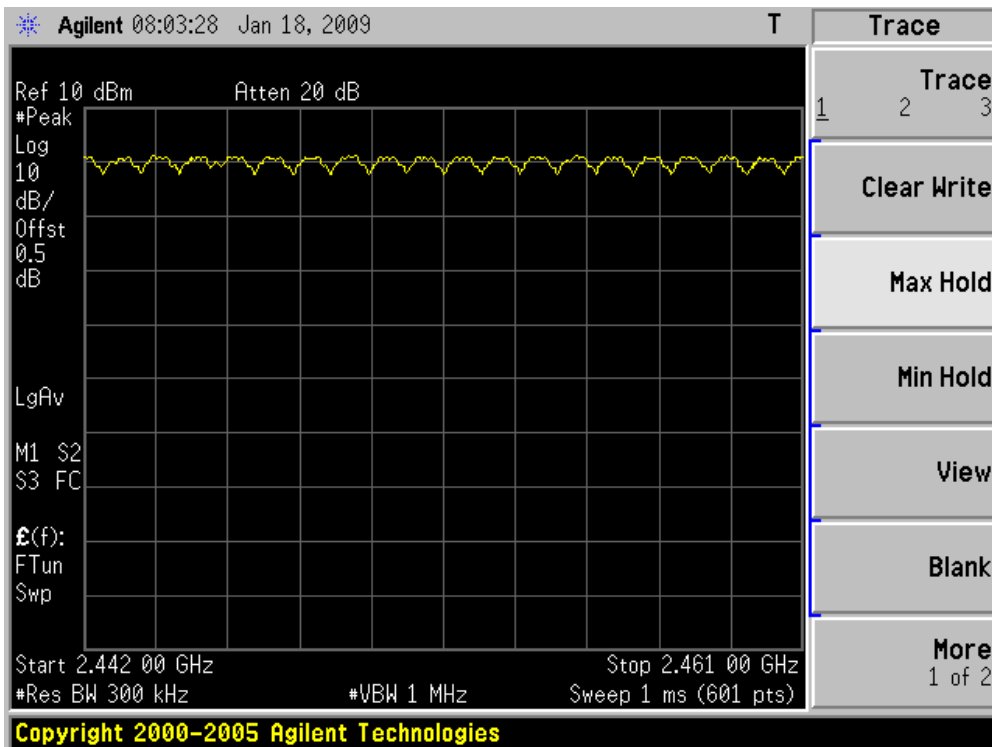
2402 - 2421 MHz



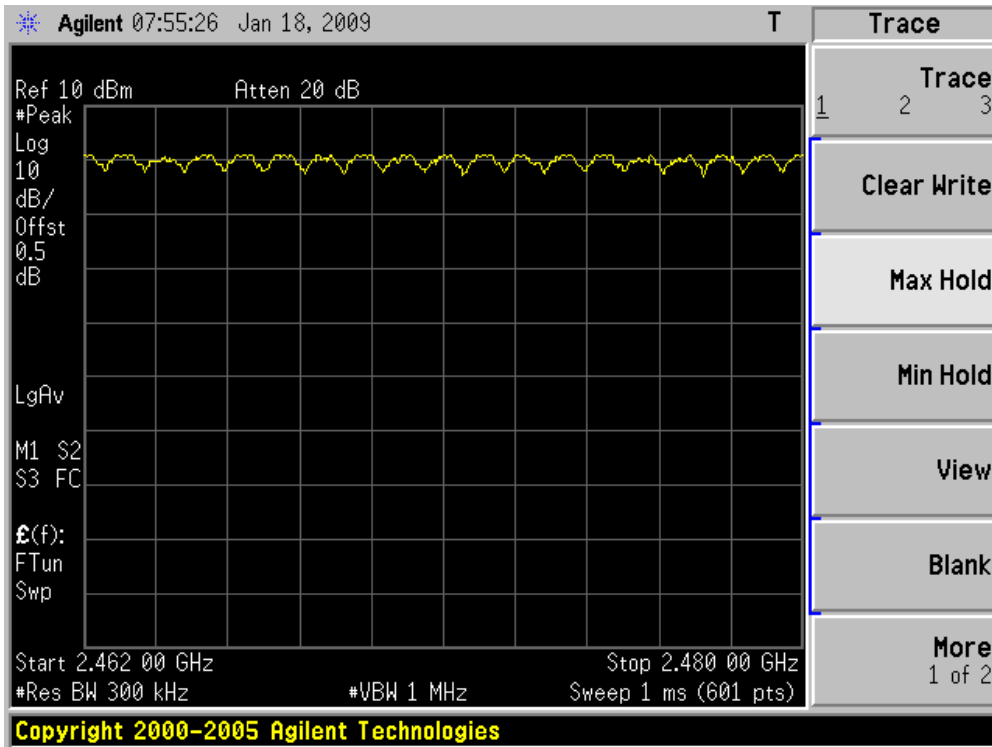
2422 - 2441 MHz



2442 - 2461 MHz



2462 - 2480 MHz



## 9. Time of Occupancy (Dwell Time)

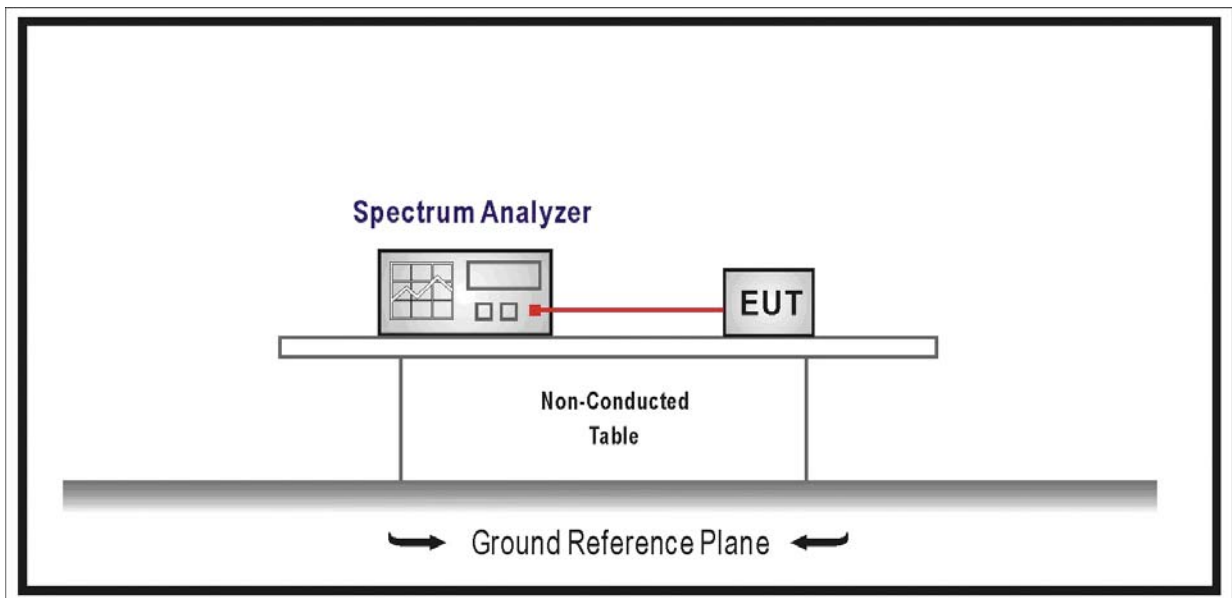
### 9.1. Test Equipment

Time of Occupancy (Dwell Time) / AC-4

Instrument	Manufacturer	Type No.	Serial No.	Cal. Date
Spectrum Analyzer	Agilent	E4446A	MY45300103	2008/06/11
Coaxial Cable	Huber+Suhner	AC4-RF	09	2008/11/24
Temperature/Humidity Meter	zhicheng	ZC1-2	QT-TH007	2009/03/30

Note: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

### 9.2. Test Setup



### 9.3. Limit

- 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.



- Frequency hopping systems operating in the 5725-5850 MHz band shall use at least 75 hopping frequencies. The maximum 20 dB bandwidth of the hopping channel is 1 MHz. The average time of occupancy on any frequency shall not be greater than 0.4 seconds within a 30 second period.
- Frequency hopping systems in the 2400-2483.5 MHz band shall use at least 15 channels. 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. Frequency hopping systems may avoid or suppress transmissions on a particular hopping frequency provided that a minimum of 15 channels are used.

#### 9.4. Test Procedure

According to FCC Public Notice DA 00-705, March 30, 2000.

The EUT must have its hopping function enabled. Use the following spectrum analyzer settings:

Span = zero span, centered on a hopping channel

RBW = 1MHz

VBW  $\geq$  RBW

Sweep = as necessary to capture the entire dwell time per hopping channel

Detector function = peak

Trace = max hold

If possible, use the marker-delta function to determine the dwell time. If this value varies with different modes of operation (e.g., data rate, modulation format, etc.), repeat this test for each variation.

#### 9.5. Uncertainty

The measurement uncertainty is defined as  $\pm 0.1$  us

9.6. Test Result

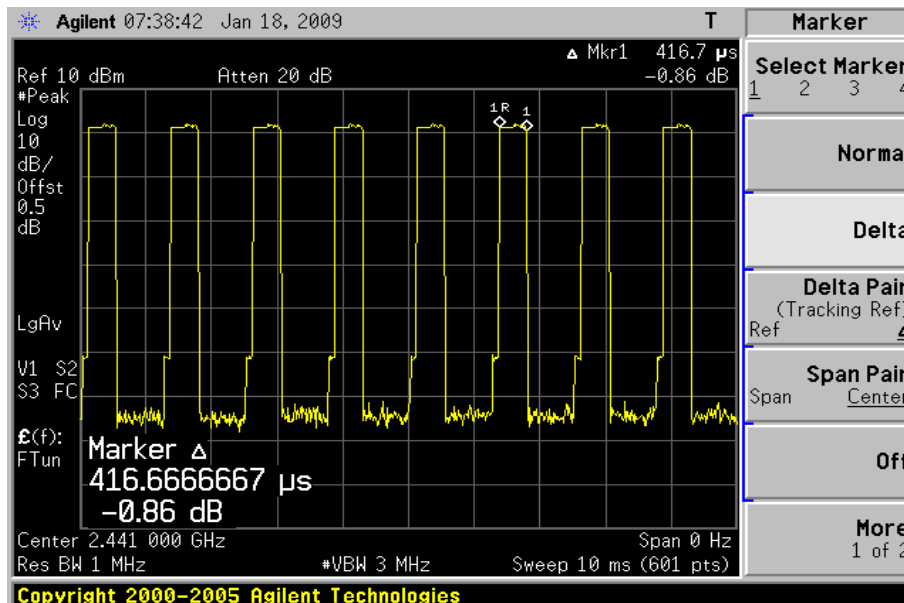
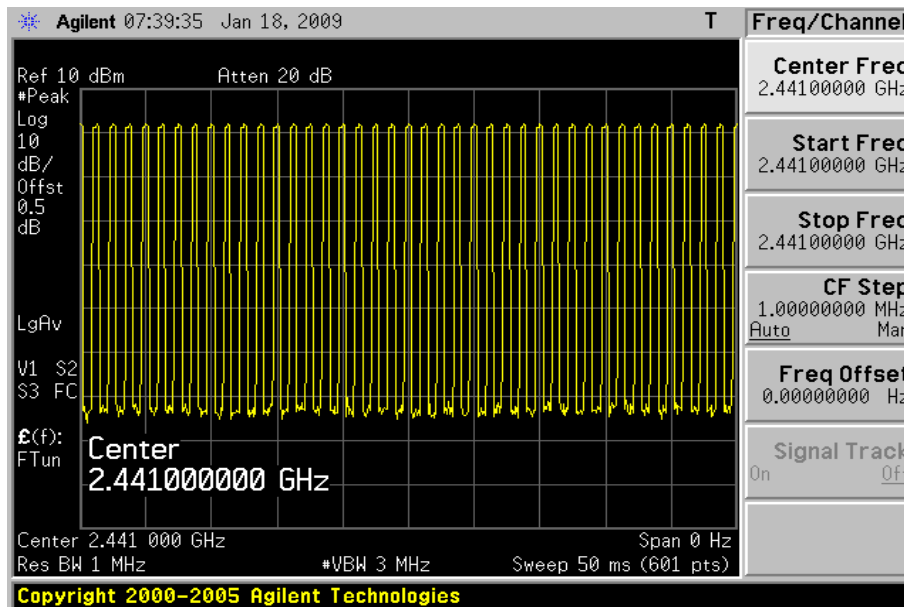
Product	:	Bluetooth Headset
Test Item	:	Time of Occupancy (Dwell Time)
Test Site	:	AC-4
Test Mode	:	Transmit (3DH1)

Channel No.	Frequency (MHz)	Time of Occupancy (ms)	Limit (ms)	Result
39	2441	133.344	< 400	Pass

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

- 2441MHz, The Maximum Occupancy Time Within 31.6sec:  $[(416.7 \mu\text{s} \times 800) / 79] \times 31.6 = 133.344 \text{msec}$

Channel 39 (2441MHz)-(3DH1)



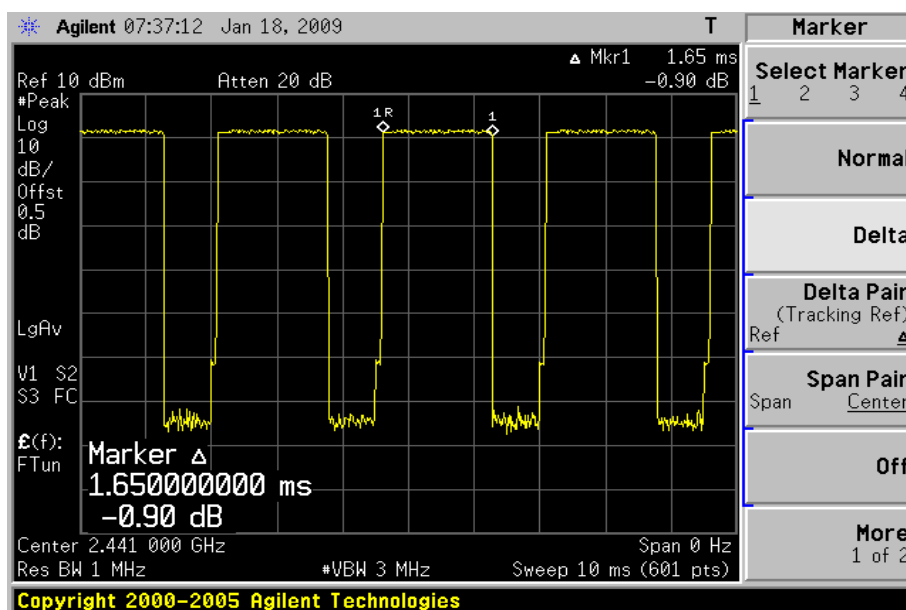
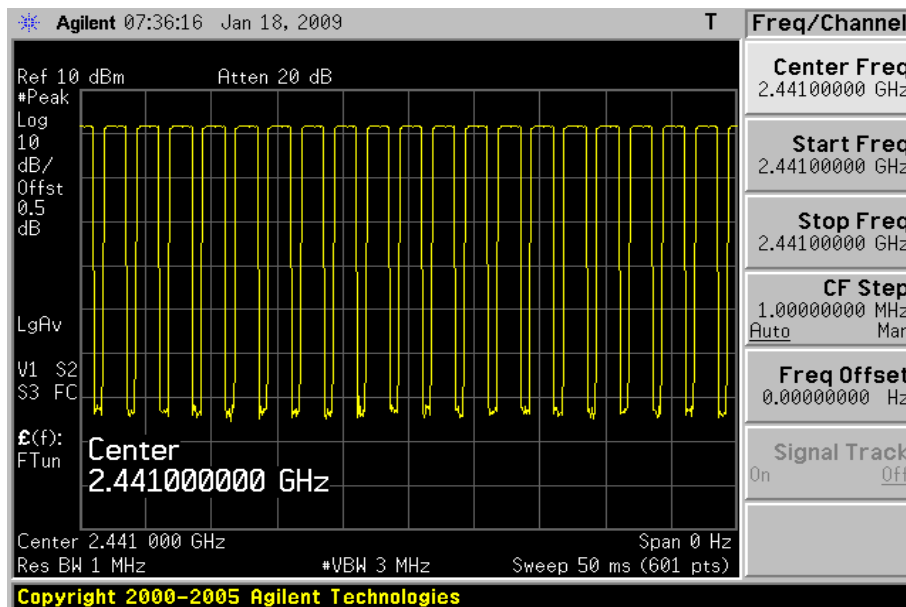
Product	: Bluetooth Headset
Test Item	: Time of Occupancy (Dwell Time)
Test Site	: AC-4
Test Mode	: Transmit (3DH3)

Channel No.	Frequency (MHz)	Time of Occupancy (ms)	Limit (ms)	Result
39	2441	264.00	< 400	Pass

Test Time Period:  $0.4 \times 79 = 31.6$ sec, Hopping Times Within 1sec:  $20/50$ msec= $400$ hops/sec.

- 2441MHz, The Maximum Occupancy Time Within 31.6sec:  $[(1.65 \text{ ms} \times 400) / 79] \times 31.6 = 264$ msec

### Channel 39 (2441MHz) - (3DH3)



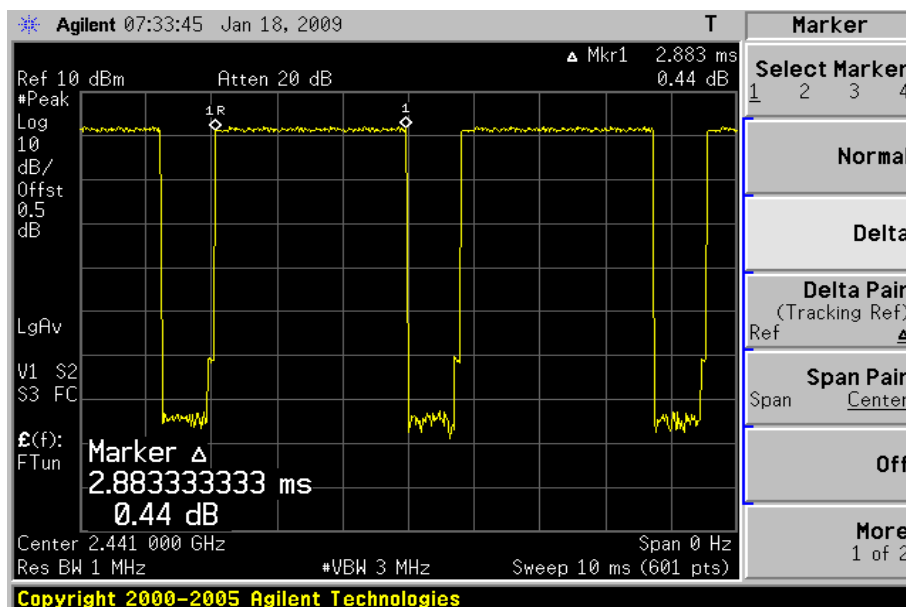
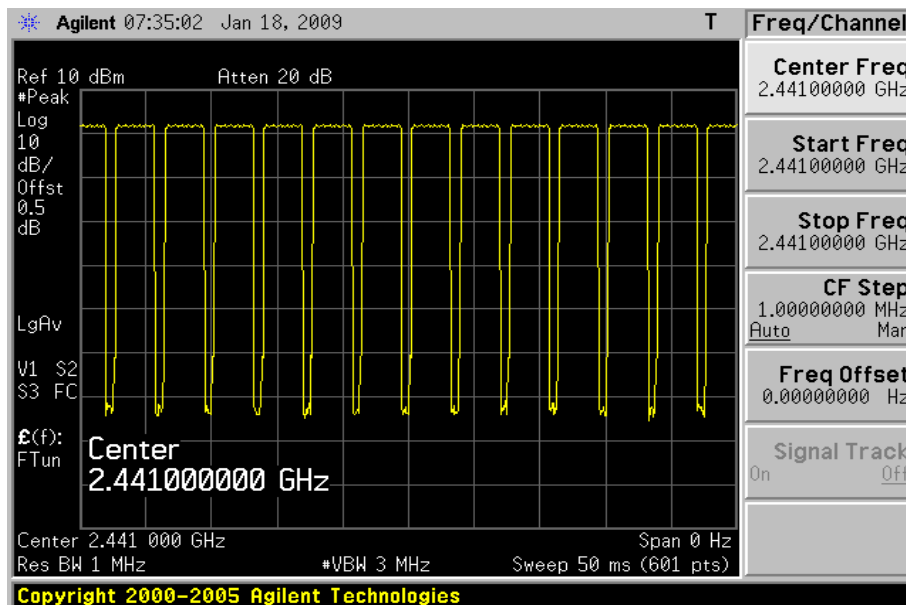
Product	:	Bluetooth Headset
Test Item	:	Time of Occupancy (Dwell Time)
Test Site	:	AC-4
Test Mode	:	Transmit (3DH5)

Channel No.	Frequency (MHz)	Time of Occupancy (ms)	Limit (ms)	Result
39	2441	322.896	< 400	Pass

Test Time Period:  $0.4 \times 79 = 31.6$ sec, Hopping Times Within 1sec:  $14/50$ msec=280 hops/sec.

- 2441MHz, The Maximum Occupancy Time Within 31.6sec:  $[(2.883 \text{ ms} \times 280)/79] \times 31.6 = 322.896$ msec

### Channel 39 (2441MHz) - (3DH5)



## 10. Peak Output Power

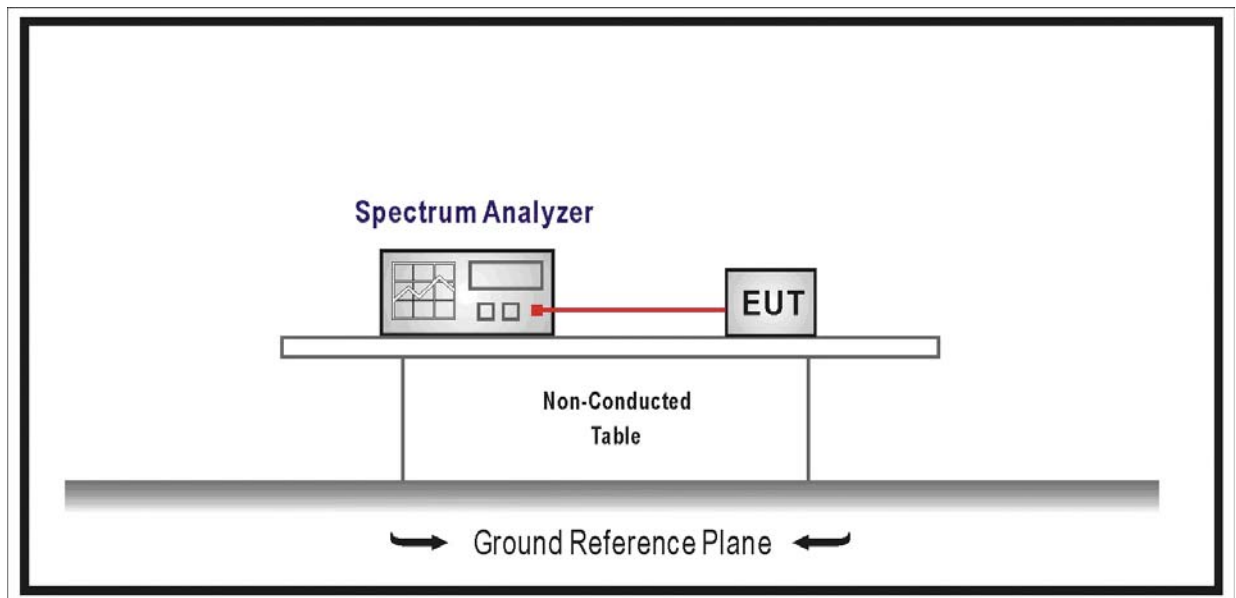
### 10.1. Test Equipment

Peak Output Power / AC-4

Instrument	Manufacturer	Type No.	Serial No.	Cal. Date
Spectrum Analyzer	Agilent	E4446A	MY45300103	2008/06/11
Coaxial Cable	Huber+Suhner	AC4-RF	09	2008/11/24
Temperature/Humidity Meter	zhicheng	ZC1-2	QT-TH007	2009/03/30

Note: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

### 10.2. Test Setup



### 10.3. Limit

- For frequency hopping systems operating in the 2400-2483.5 MHz band employing at least 75 non-overlapping hopping channels, and all frequency hopping systems in the 5725-5850 MHz band: 1 watt. For all other frequency hopping systems in the 2400-2483.5 MHz band: 0.125 watts.
- 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, but at least 25 hopping channels.

Note: the conducted output power limit specified above is based on the use the antennas with directional gains that do not exceed 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values above, as appropriate, by the amount in dB that the directional gain of antenna exceeds 6 dBi.

#### 10.4. Test Procedure

According to FCC Public Notice DA 00-705, March 30, 2000.

Use the following spectrum analyzer settings:

Span = approximately 5 times the 20dB bandwidth, centered on a hopping channel

RBW > the 20 dB bandwidth of the emission being measured.

VBW  $\geq$  RBW

Sweep = auto

Detector function = peak

Trace = max hold

Allow the trace to stabilize. Use the marker-to-peak function to set the marker to the peak of the emission. The indicated level is the peak output power (don't forget added the external attenuation and cable loss).

#### 10.5. Uncertainty

The measurement uncertainty is defined as  $\pm 1.0$  dB

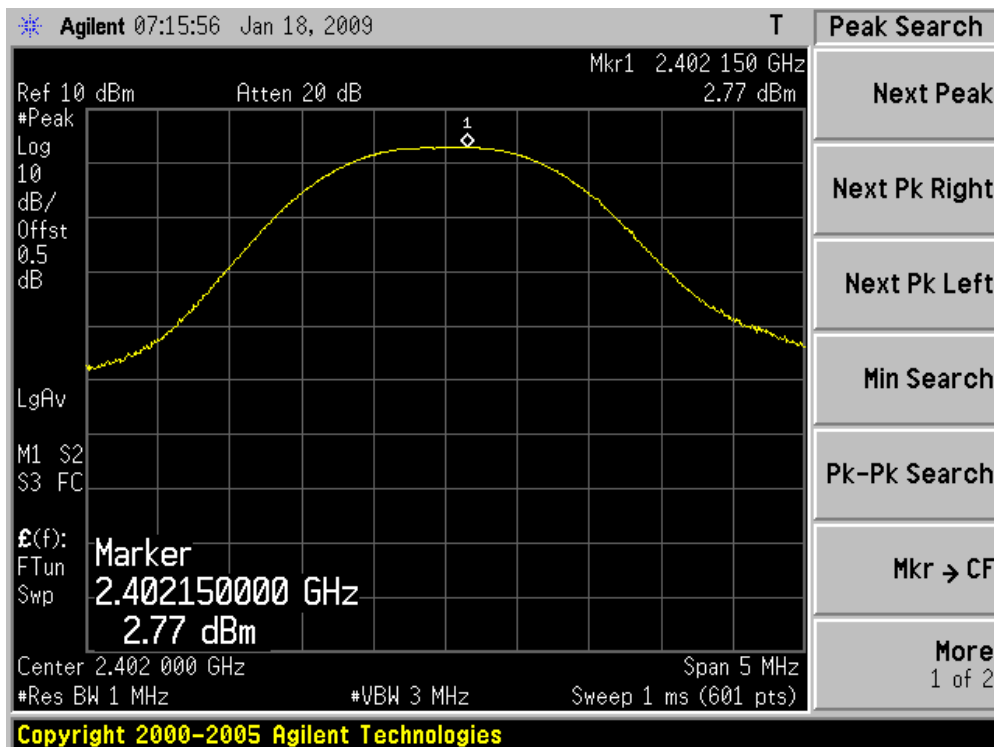
10.6. Test Result

Product	:	Bluetooth Headset
Test Item	:	Peak Output Power
Test Site	:	AC-4
Test Mode	:	Mode 1: Transmit (DH5)

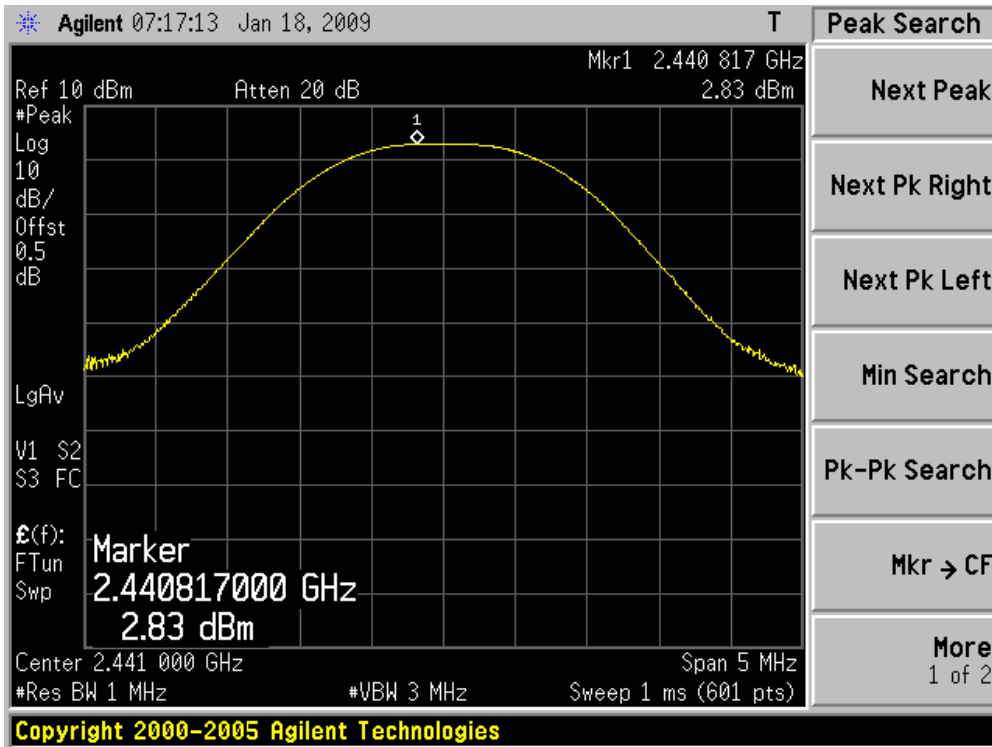
Channel No.	Frequency (MHz)	Measurement Level (dBm)	External Attenuation (dBm)	Peak Output Power (dBm)	Limit (dBm)	Result
00	2402	2.77	0.32	3.02	30	Pass
39	2441	2.83	0.35	3.18	30	Pass
78	2480	2.63	0.40	3.03	30	Pass

Note: The antenna gain of transmitter is less than 6 dBi and other than fixed, point-to-point operation, therefore the limit is 30 dBm.

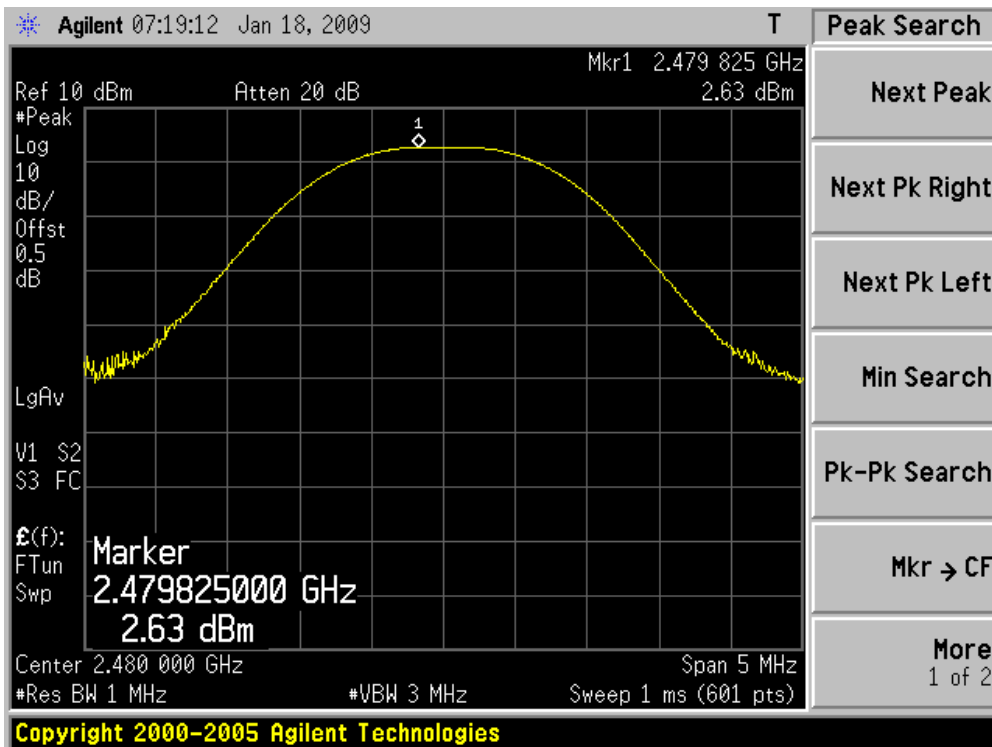
Channel 00 (2402MHz)



Channel 39 (2441MHz)



Channel 78 (2480MHz)



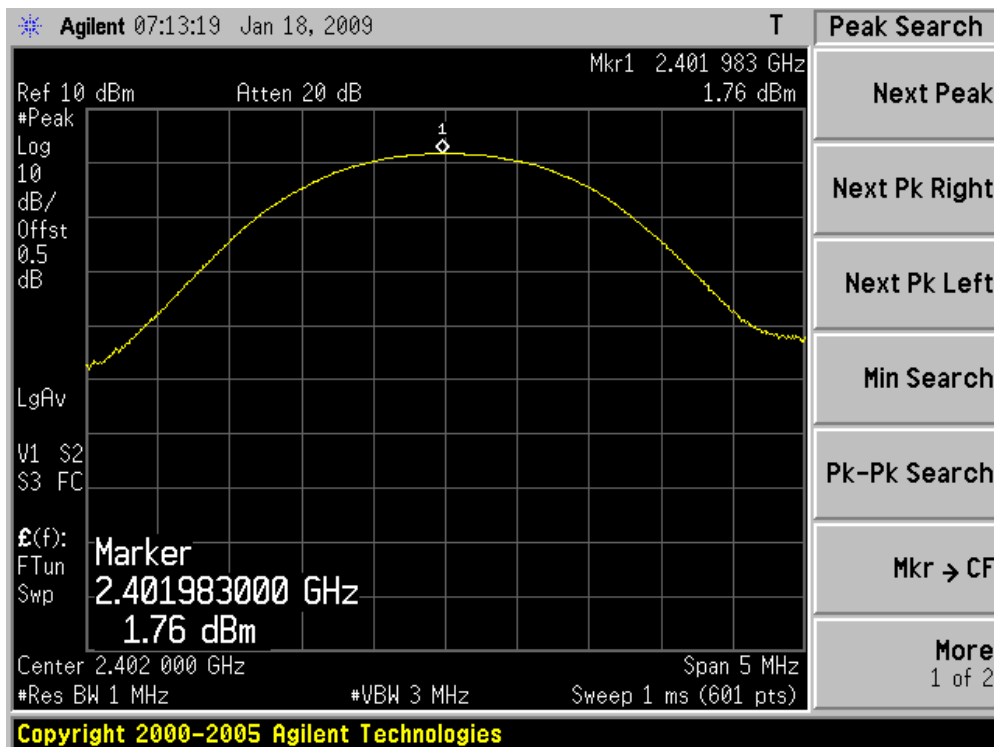


Product	:	Bluetooth Headset
Test Item	:	Peak Output Power
Test Site	:	AC-4
Test Mode	:	Mode 2: Transmit (3DH5)

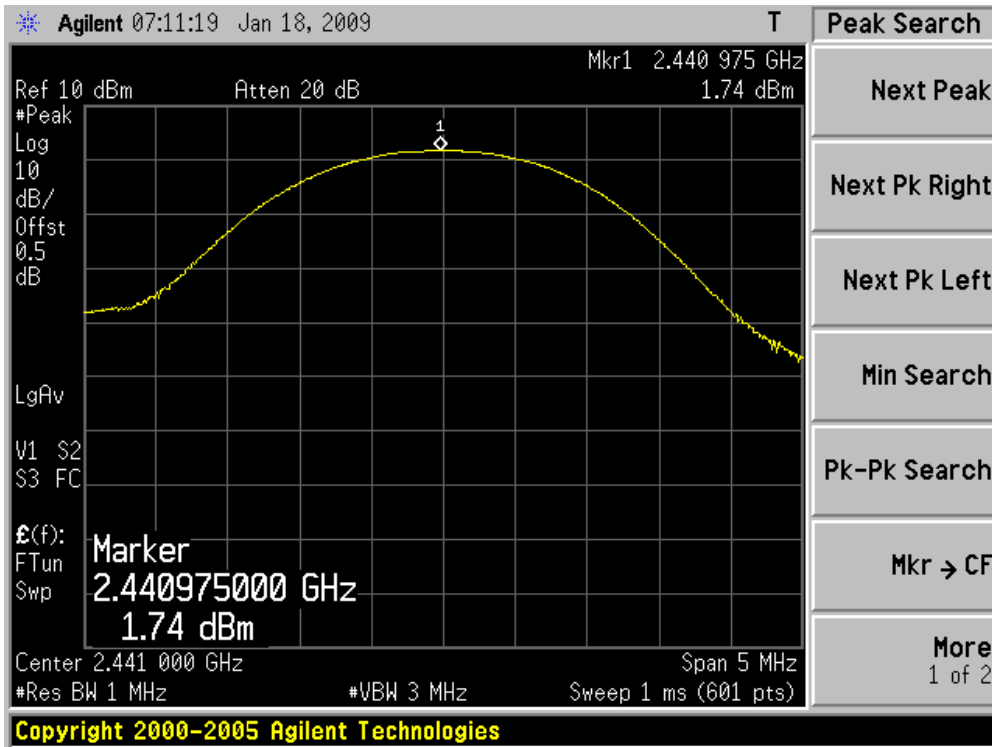
Channel No.	Frequency (MHz)	Measurement Level (dBm)	External Attenuation (dBm)	Peak Output Power (dBm)	Limit (dBm)	Result
00	2402	1.76	0.32	2.08	30	Pass
39	2441	1.74	0.35	2.09	30	Pass
78	2480	1.58	0.40	1.98	30	Pass

Note: The antenna gain of transmitter is less than 6 dBi and other than fixed, point-to-point operation, therefore the limit is 30 dBm.

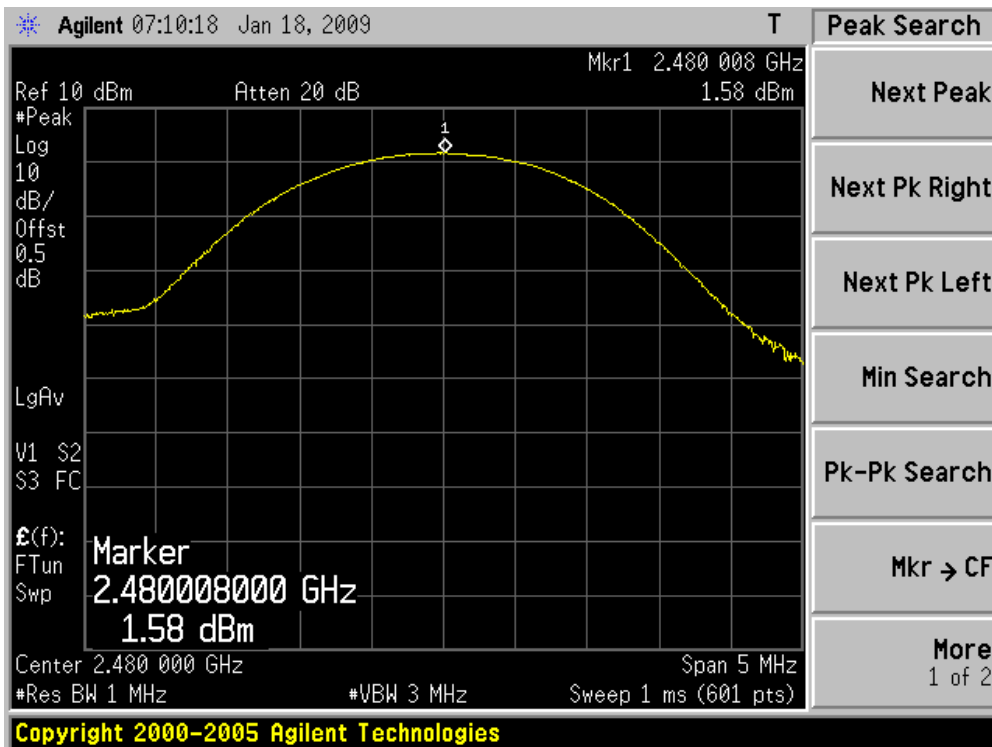
### Channel 00 (2402MHz)



Channel 39 (2441MHz)



Channel 78 (2480MHz)



## 11. Band-edge Compliance of RF Conducted Emissions

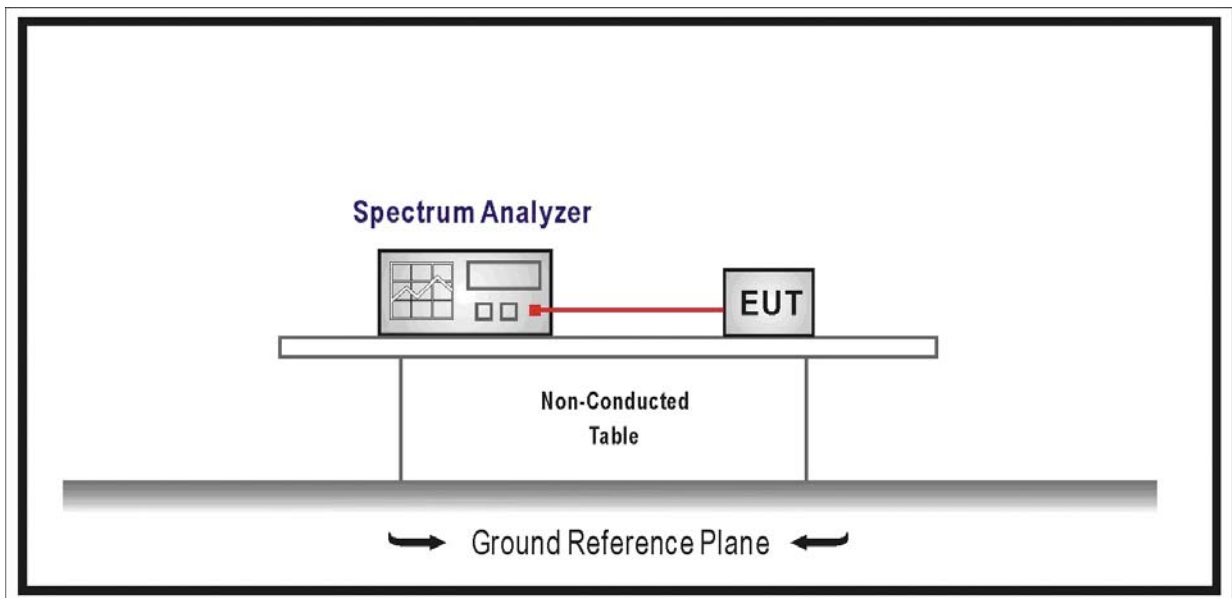
### 11.1. Test Equipment

Band-edge Compliance of RF Conducted Emissions / AC-4

Instrument	Manufacturer	Type No.	Serial No.	Cal. Date
Spectrum Analyzer	Agilent	E4446A	MY45300103	2008/06/11
Coaxial Cable	Huber+Suhner	AC4-RF	09	2008/11/24
Temperature/Humidity Meter	zhicheng	ZC1-2	QT-TH007	2009/03/30

Note: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

### 11.2. Test Setup



### 11.3. Limit

- Intentional radiators operating under the alternative provisions to the general emission limits as contained in 15.217 through 15.257 and in Subpart E of FCC part 15, must be designed to ensure that 20 dB bandwidth of the emission, or whatever bandwidth may otherwise be specified in the specific rule section under which the equipment operates, is contained within the frequency band designated in the rule section under which the equipment is operated.
- In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated 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, provided the transmitter demonstrates compliance with the peak conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in Section 15.209(a) of FCC part 15 is not required.

#### 11.4. Test Procedure

According to FCC Public Notice DA 00-705, March 30, 2000.

Use the following spectrum analyzer settings:

Span = wide enough to capture the peak level of the emission operating on the channel closest to the bandedge, as well as any modulation products which fall outside of the authorized band of operation.

RBW  $\geq$  1% of the span

VBW  $\geq$  RBW

Sweep = auto

Detector function = peak

Trace = max hold

Allow the trace to stabilize. Set the marker on the emission at the bandedge, or on the highest modulation product outside of the band, if this level is greater than that at the bandedge.

Enable the marker-delta function, then use the marker-to-peak function to move the marker to the peak of the in-band emission. The marker-delta value now displayed must comply with the limit specified in this Section.

Now, using the same instrument settings, enable the hopping function of the EUT. Allow the trace to stabilize. Follow the same procedure listed above to determine if any spurious emissions caused by the hopping function also comply with the specified limit.

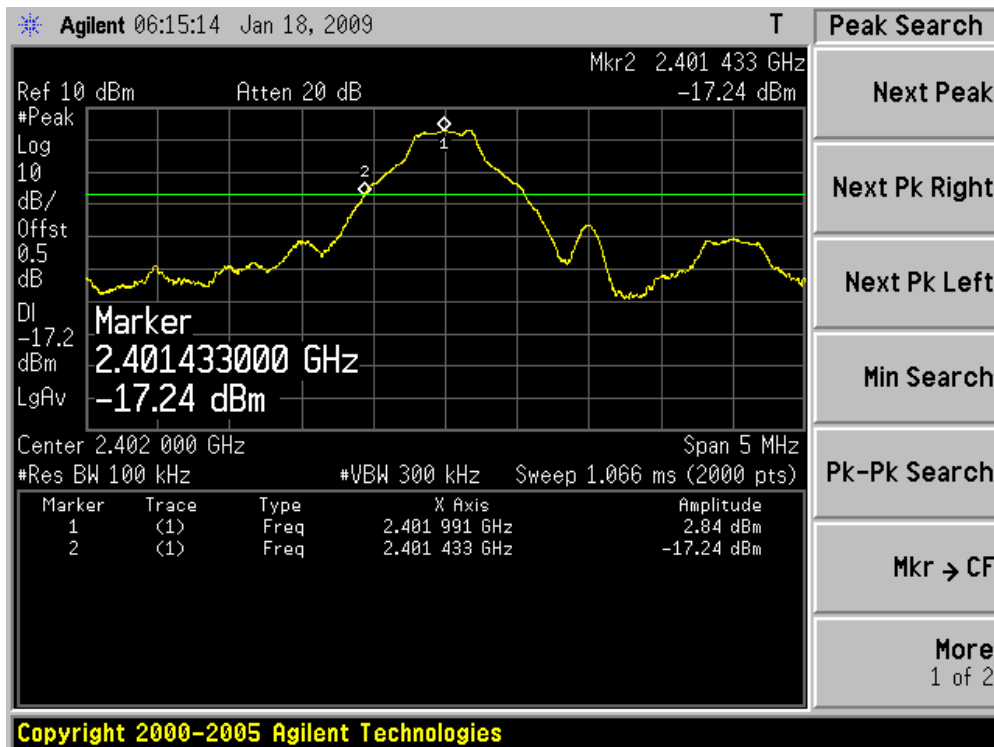
#### 11.5. Uncertainty

The measurement uncertainty is defined as  $\pm 1.0$  dB

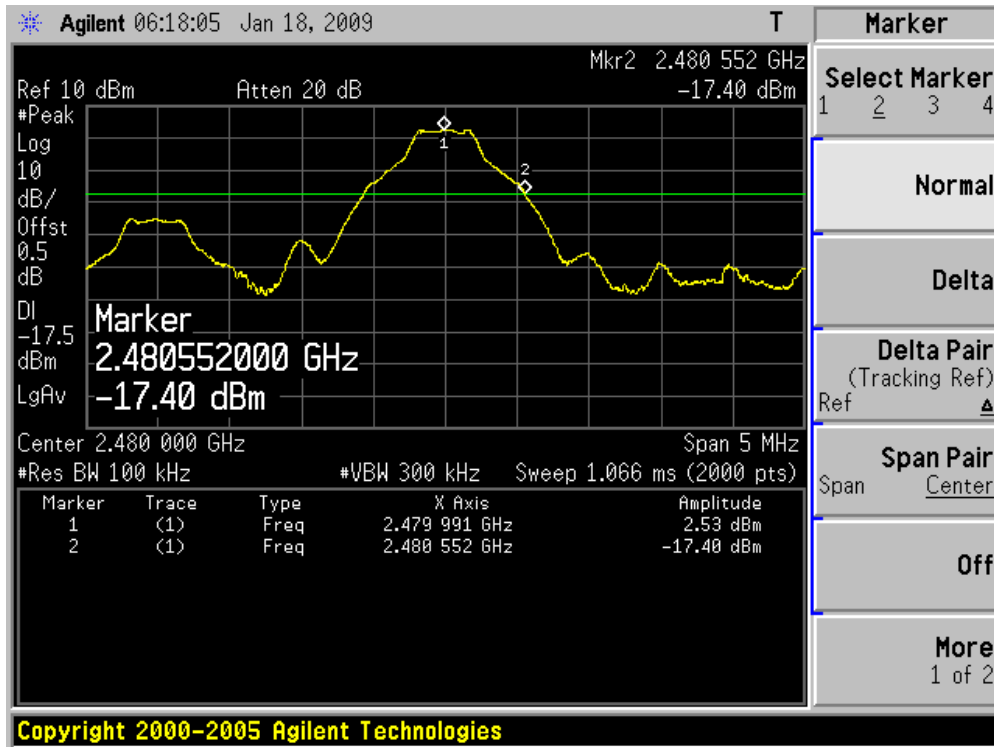
11.6. Test Result

Product	:	Bluetooth Headset
Test Item	:	Band-edge Compliance of RF Conducted Emissions
Test Site	:	AC-4
Test Mode	:	Mode 1: Transmit (DH5)

Channel 00 (2402MHz)

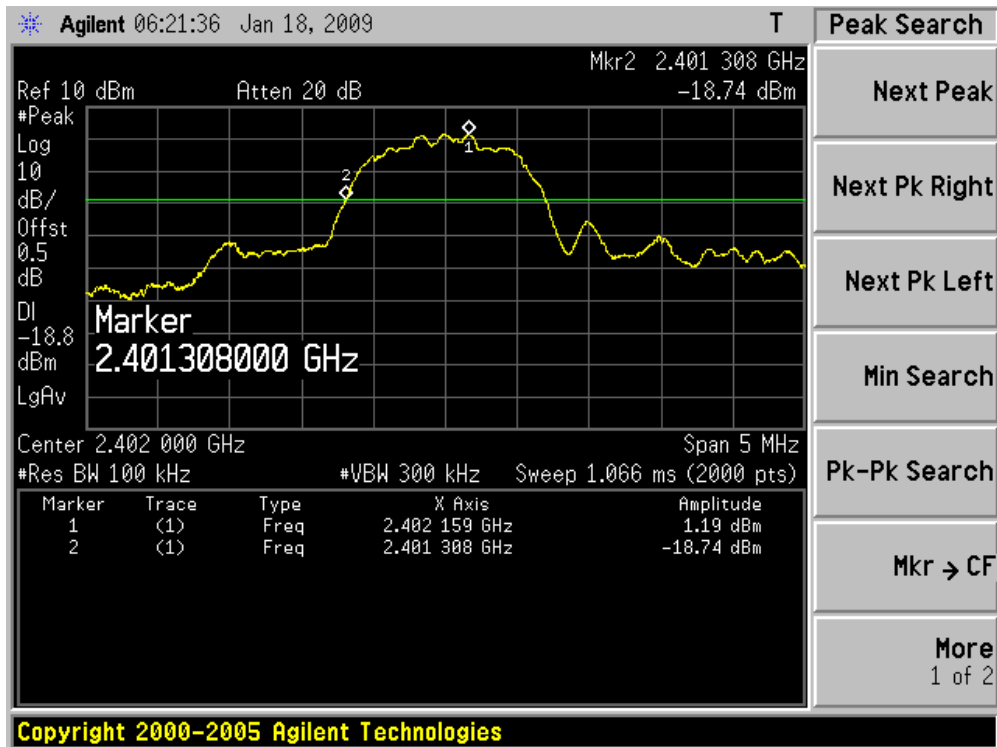


Channel 78 (2480MHz)

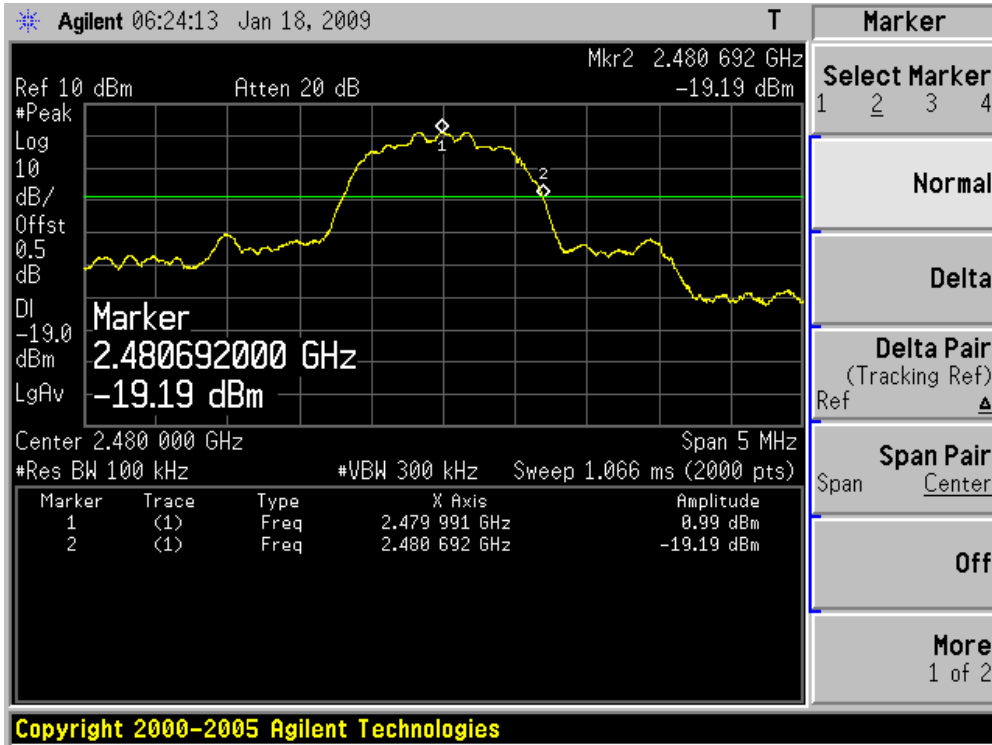


Product	:	Bluetooth Headset
Test Item	:	Band-edge Compliance of RF Conducted Emissions
Test Site	:	AC-4
Test Mode	:	Mode 2: Transmit (3DH5)

### Channel 00 (2402MHz)



Channel 78 (2480MHz)





## 12. Spurious RF Conducted Emissions

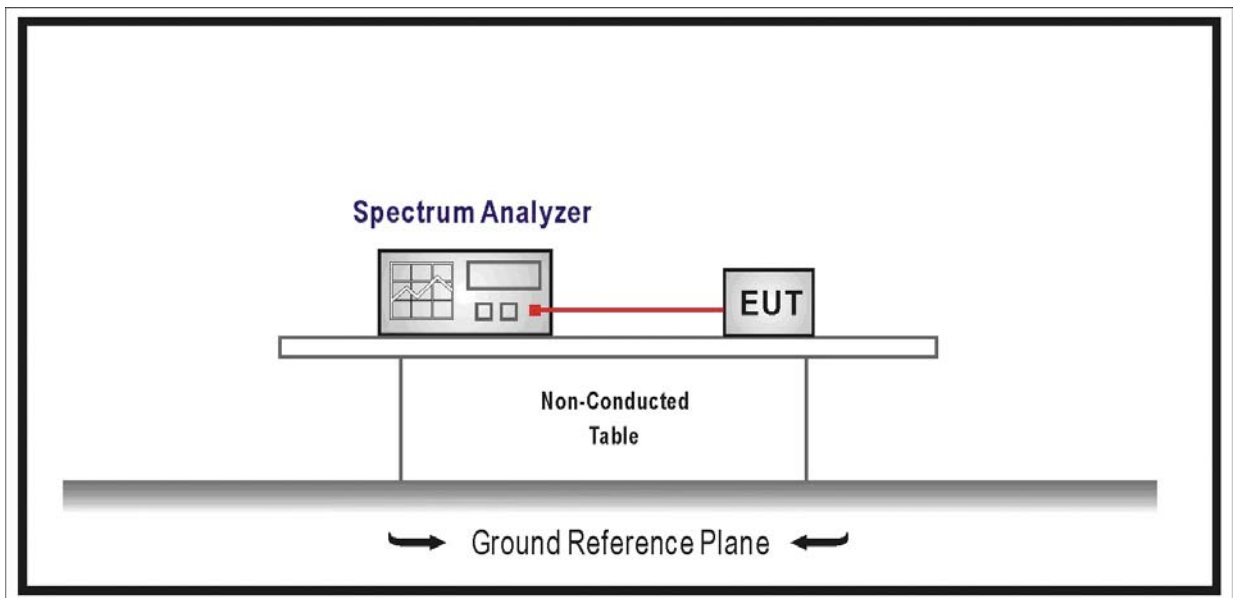
### 12.1. Test Equipment

Spurious RF Conducted Emissions / AC-4

Instrument	Manufacturer	Type No.	Serial No.	Cal. Date
Spectrum Analyzer	Agilent	E4446A	MY45300103	2008/06/11
Coaxial Cable	Huber+Suhner	AC4-RF	09	2008/11/24
Temperature/Humidity Meter	zhicheng	ZC1-2	QT-TH007	2009/03/30

Note: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

### 12.2. Test Setup



### 12.3. Limit

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated 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, provided the transmitter demonstrates compliance with the peak conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, the attenuation required under this

paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in Section 15.209(a) of FCC part 15 is not required.

#### **12.4. Test Procedure**

According to FCC Public Notice DA 00-705, March 30, 2000.

Use the following spectrum analyzer settings:

Span = wide enough to capture the peak level of the in-band emission and all spurious emissions (e.g., harmonics) from the lowest frequency generated in the EUT up through the 10<sup>th</sup> harmonic. Typically, several plots are required to cover this entire span.

RBW = 100 kHz

VBW  $\geq$  RBW

Sweep = auto

Detector function = peak

Trace = max hold

Allow the trace to stabilize. Set the marker on the peak of any spurious emission recorded. The level displayed must comply with the limit specified in this section.

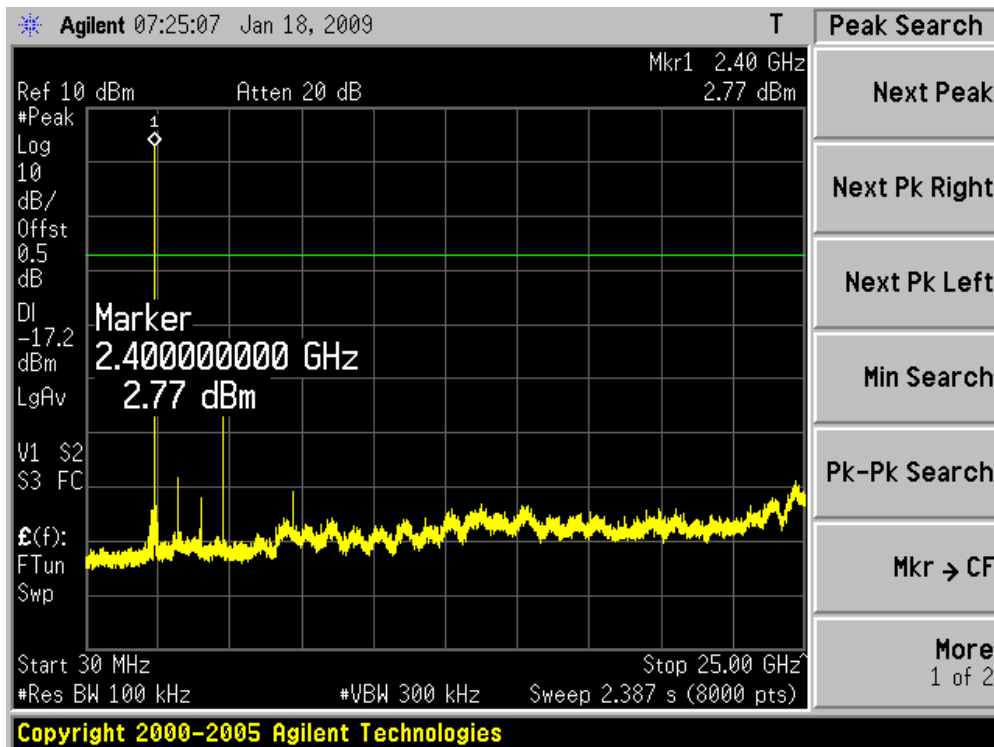
#### **12.5. Uncertainty**

The measurement uncertainty is defined as  $\pm 1.0$  dB

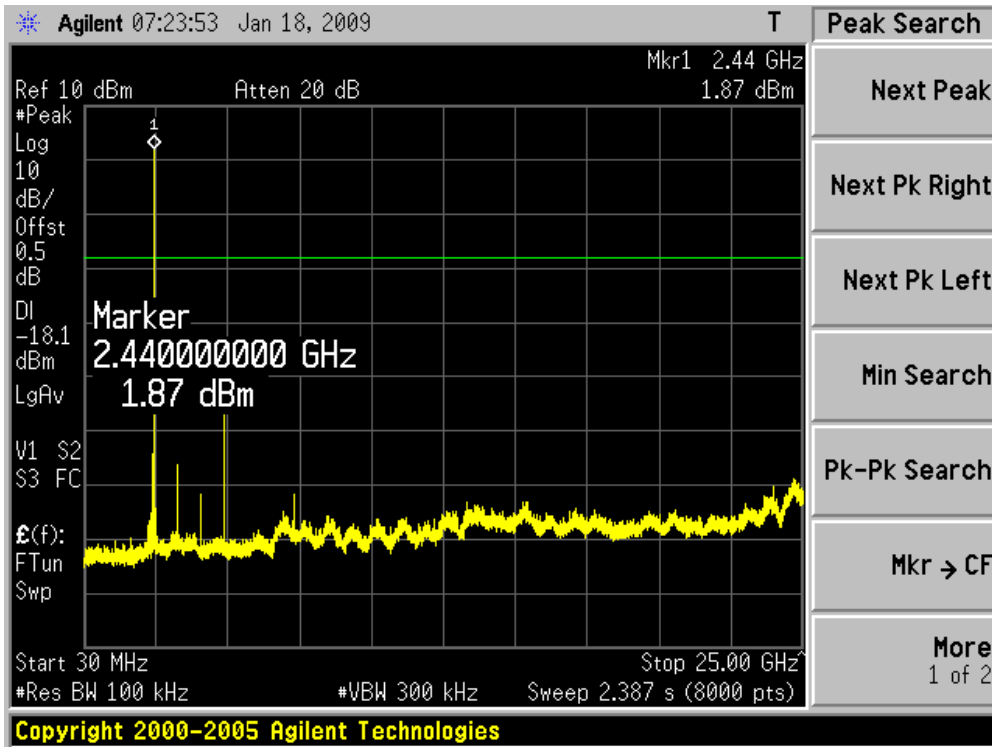
12.6. Test Result

Product	:	Bluetooth Headset
Test Item	:	Spurious RF Conducted Emissions
Test Site	:	AC-4
Test Mode	:	Mode 1: Transmit (DH5)

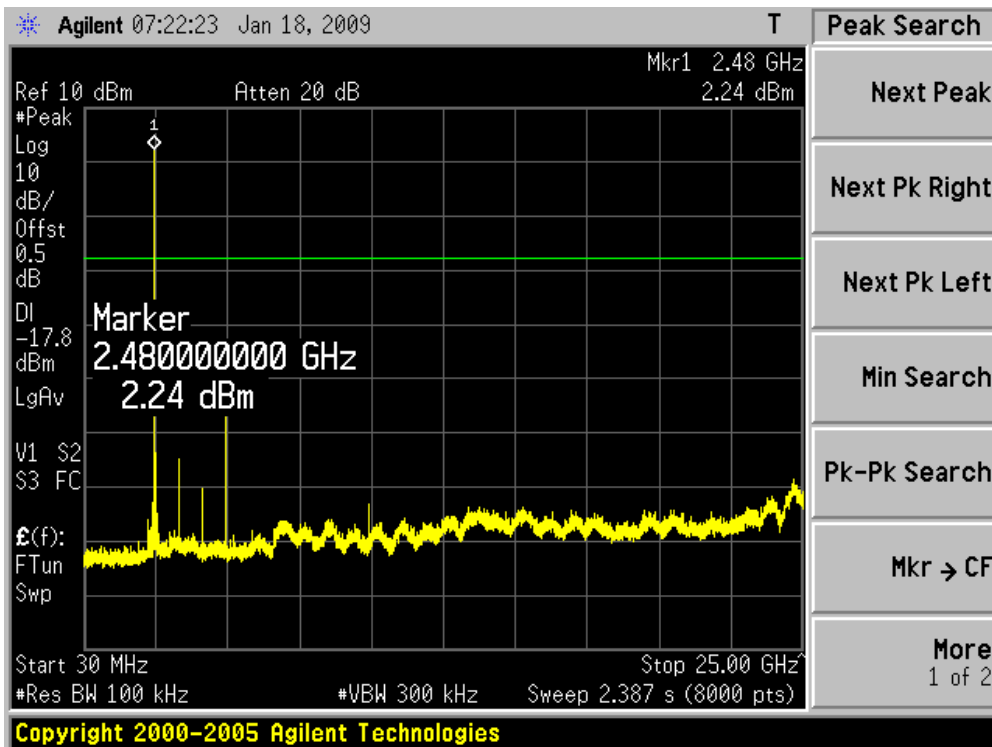
Channel 00 (2402MHz)



Channel 39 (2441MHz)

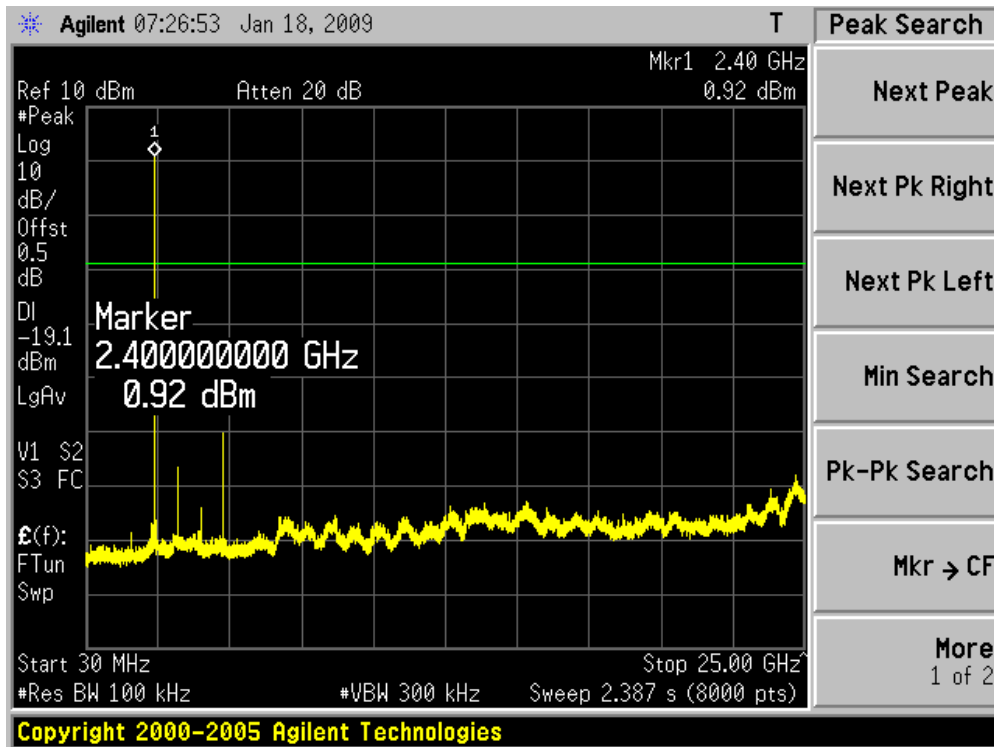


Channel 78 (2480MHz)

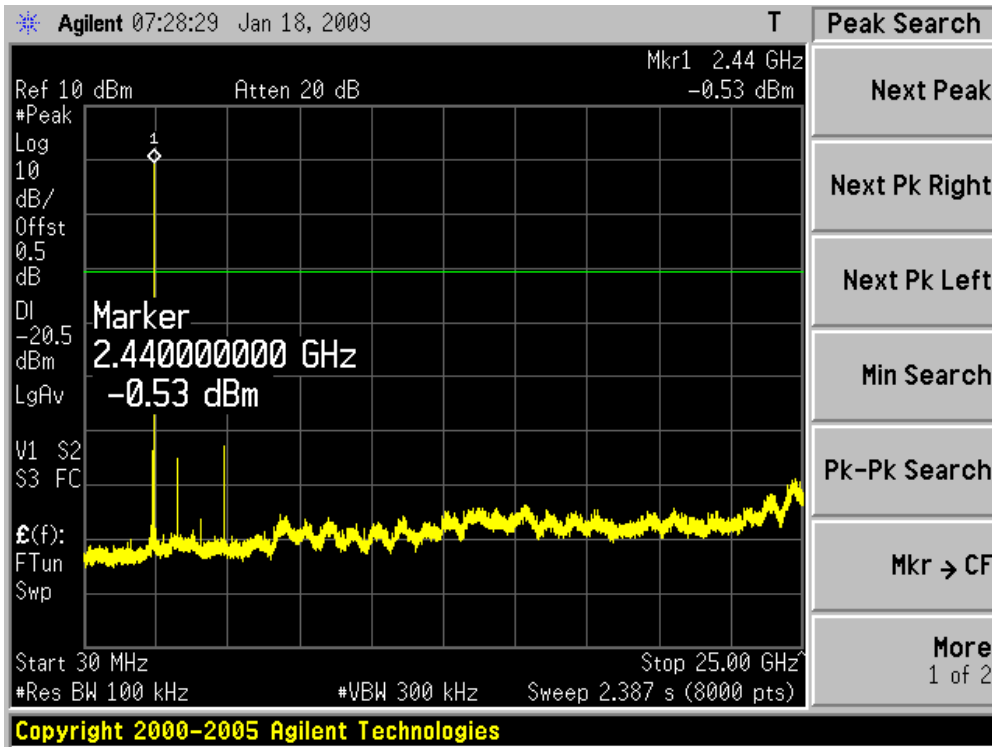


Product	:	Bluetooth Headset
Test Item	:	Spurious RF Conducted Emissions
Test Site	:	AC-4
Test Mode	:	Mode 2: Transmit (3DH5)

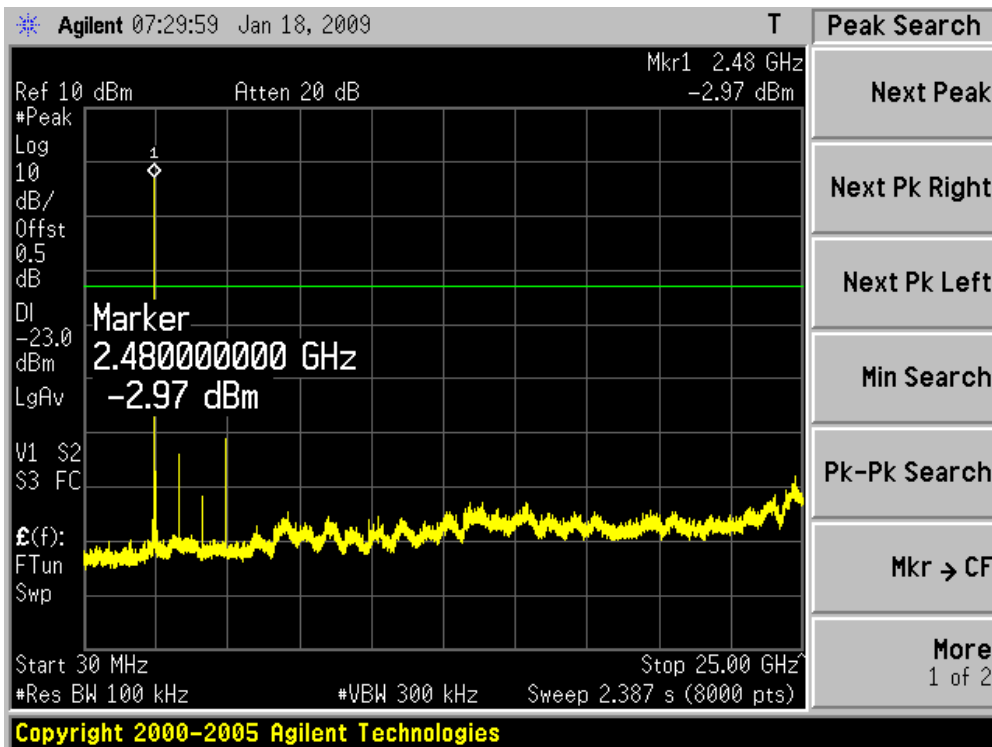
### Channel 00 (2402MHz)



Channel 39 (2441MHz)



Channel 78 (2480MHz)



**13. Radiated Emission Band Edge**

**13.1. Test Equipment**

Radiated Emission Band Edge / AC-2

Instrument	Manufacturer	Type No.	Serial No.	Cal. Date
Spectrum Analyzer	Agilent	E4408B	MY45102679	2008/06/28
EMI Test Receiver	R&S	ESCI	100573	2008/05/10
Preamplifier	Quietek	AP-025C	QT-AP003	2008/11/24
Preamplifier	Quietek	AP-180C	CHM-0602012	2008/11/24
Bilog Type Antenna	Schaffner	CBL6112B	2932	2008/11/21
Broad-Band Horn Antenna	Schwarzbeck	BBHA9120D	496	2008/11/24
50ohm Coaxial Switch	Anritsu	MP59B	6200447304	2008/11/24
Coaxial Cable	Huber+Suhner	AC2-C	04	2008/11/24
Temperature/Humidity Meter	zhicheng	ZC1-2	QT-TH002	2009/03/30

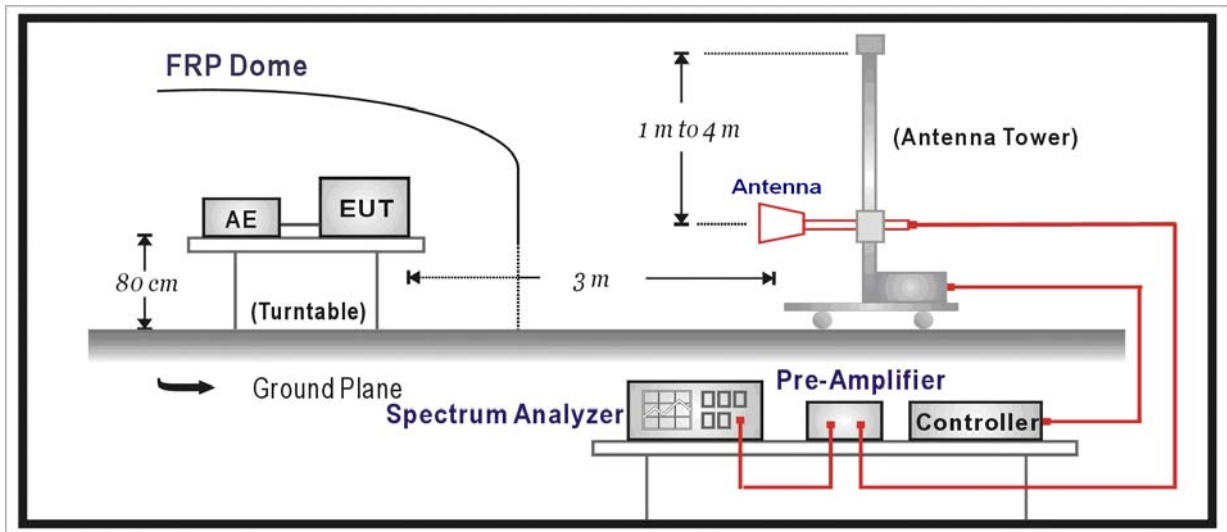
Radiated Emission Band Edge / AC-3

Instrument	Manufacturer	Type No.	Serial No.	Cal. Date
Spectrum Analyzer	Agilent	N9010A	MY48030494	2009/04/23
EMI Test Receiver	R&S	ESCI	100176	2008/11/15
Preamplifier	Quietek	AP-025C	QT-AP004	2008/11/24
Preamplifier	Quietek	AP-180C	CHM-0602012	2008/11/24
Bilog Type Antenna	Schaffner	CBL6112D	22254	2008/11/24
Broad-Band Horn Antenna	Schwarzbeck	BBHA9120D	496	2008/11/24
50ohm Coaxial Switch	Anritsu	MP59B	6200464463	2008/11/24
Coaxial Cable	Huber+Suhner	AC2-C	05	2008/11/24
Temperature/Humidity Meter	zhicheng	ZC1-2	QT-TH003	2009/03/30

Note 1: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

Note 2: The test instruments marked with "X" are used to measure the final test results.

13.2. Test Setup



13.3. Limit

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a) of FCC part 15, must also comply with the radiated emission limits specified in Section 15.209(a) of FCC part 15.

13.4. Test Procedure

According to FCC Public Notice DA 00-705, March 30, 2000.

This test is required for any spurious emission or modulation product that falls in a Restricted Band, as defined in Section 15.205 of FCC part 15. It must be performed with the highest gain of each type of antenna proposed for use with the EUT. Use the following spectrum analyzer settings:

Span = wide enough to fully capture the emission being measured

RBW = 1 MHz for  $f \geq 1$  GHz, 100 kHz for  $f < 1$ GHz

VBW  $\geq$  RBW

Sweep = auto

Detector function = peak

Trace = max hold

Follow the guidelines in ANSI C63.4 with respect to maximizing the emission by rotating the EUT, measuring the emission while the EUT is situated in three orthogonal planes (if appropriate), adjusting the measurement antenna height and polarization, etc. A pre-amp and a high pass filter are required for this test, in order to provide the measuring system with sufficient sensitivity. Allow the trace to stabilize. The peak reading of the emission, after being



corrected by the antenna factor, cable loss, pre-amp gain, etc., is the peak field strength, which must comply with the limit specified in Section 15.35(b) of FCC part 15.

Now set the VBW to 10 Hz, while maintaining all of the other instrument settings. This peak level, once corrected, must comply with the limit specified in Section 15.209 of FCC Part 15. If the dwell time per channel of the hopping signal is less than 100 ms, then the reading obtained with the 10 Hz VBW may be further adjusted by a “duty cycle correction factor”, derived from  $20\log(\text{dwell time}/100 \text{ ms})$ , in an effort to demonstrate compliance with the 15.209 limit of FCC part 15.

If the emission on which a radiated measurement must be made is located at the edge of the authorized band of operation, then the alternative “marker-delta” method may be employed.

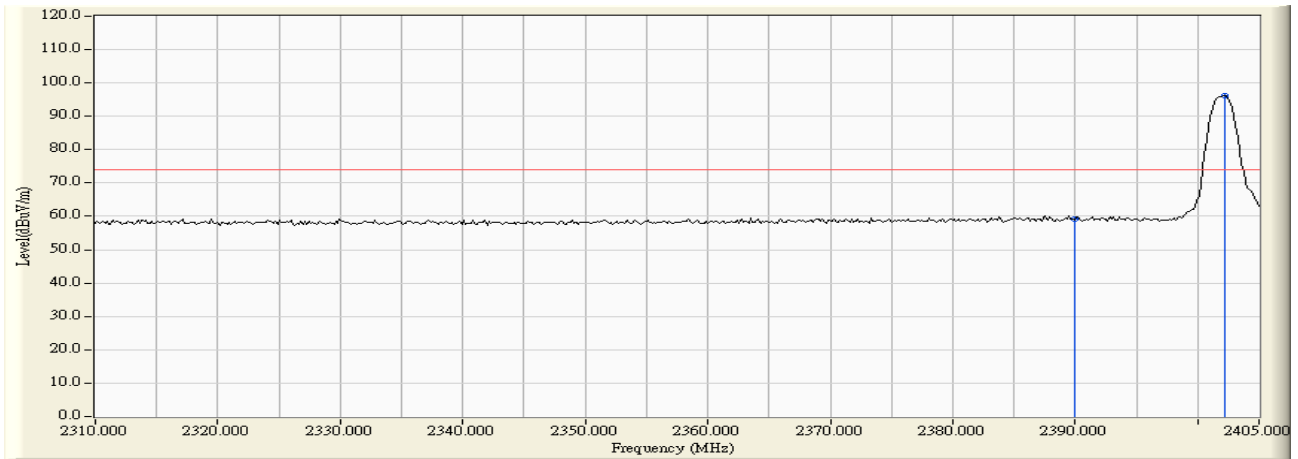
### **13.5. Uncertainty**

The measurement uncertainty above 1G is defined as  $\pm 3.9 \text{ dB}$

below 1G is defined as  $\pm 3.8 \text{ dB}$

13.6. Test Result

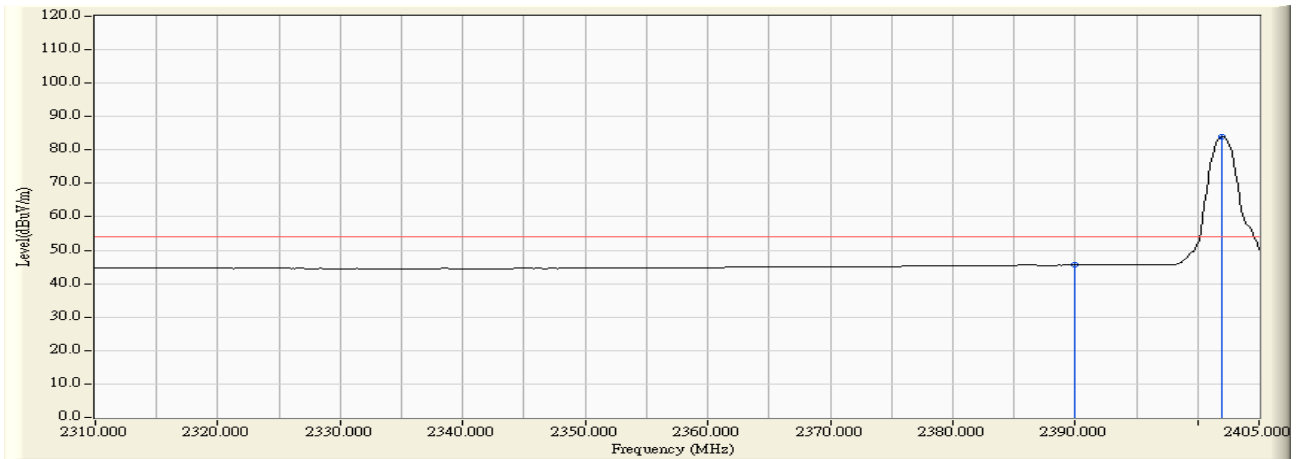
Engineer : Jame	
Site : AC-2 (3m Semi-Anechoic Chamber)	Time : 2009/03/23 - 21:23
Limit : FCC_SpartC_15.209_03M_PK	Margin : 0
EUT : Bluetooth headset	Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL
Power : AC 120V/60Hz	Note : Mode 1: Transmit (DH5) at channel 2402MHz



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2390.000	31.595	27.480	59.075	-14.895	73.970	PEAK
2	*	2402.150	31.654	64.497	96.151	N/A	N/A	PEAK

Note: RBW = 1MHz, VBW = 3MHz, Sweep time = 500ms.

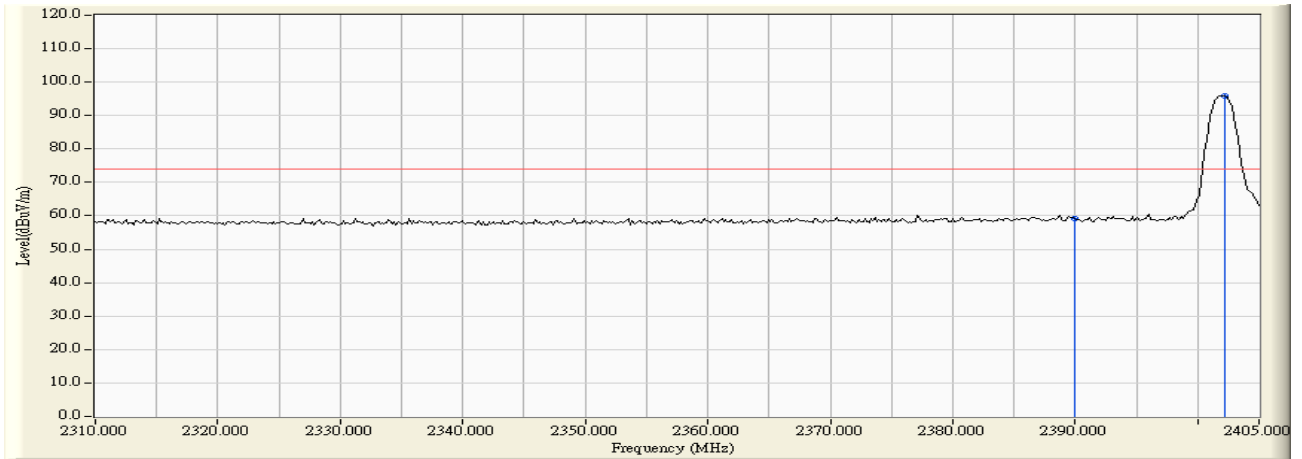
Engineer : Jame	
Site : AC-2 (3m Semi-Anechoic Chamber)	Time : 2009/03/23 - 21:23
Limit : FCC_SpartC_15.209_03M_AV	Margin : 0
EUT : Bluetooth headset	Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL
Power : AC 120V/60Hz	Note : Mode 1: Transmit (DH5) at channel 2402MHz



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2390.000	31.595	14.026	45.621	-8.349	53.970	AVERAGE
2	*	2401.992	31.653	52.345	83.999	N/A	N/A	AVERAGE

Note: RBW = 1MHz, VBW = 10Hz, Sweep time = Auto.

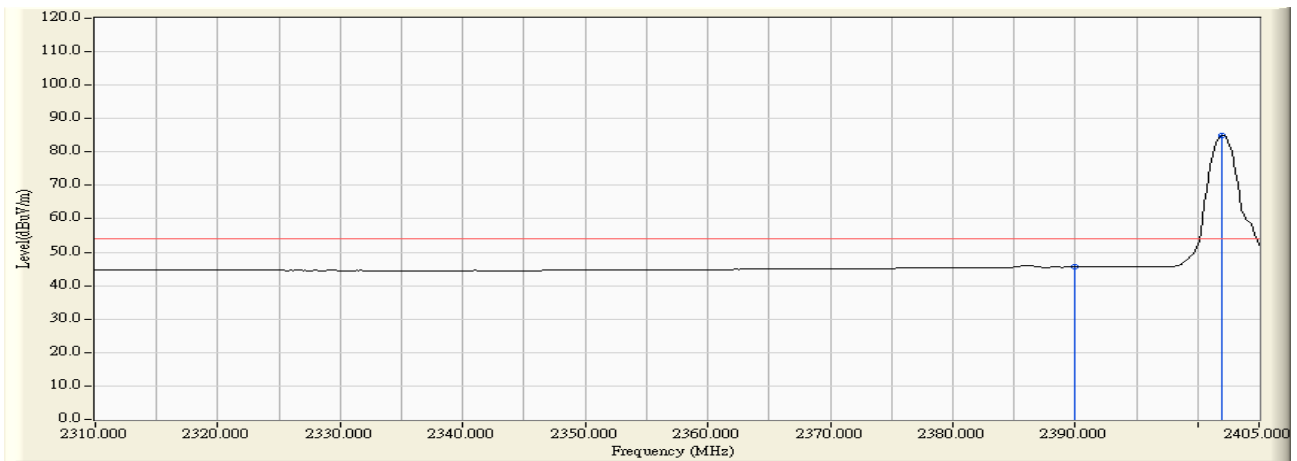
Engineer : Jame	
Site : AC-2 (3m Semi-Anechoic Chamber)	Time : 2009/03/23 - 21:19
Limit : FCC_SpartC_15.209_03M_PK	Margin : 0
EUT : Bluetooth headset	Probe : BBHA9120D_496(1-18GHz) - VERTICAL
Power : AC 120V/60Hz	Note : Mode 1: Transmit (DH5) at channel 2402MHz



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2390.000	31.595	27.536	59.131	-14.839	73.970	PEAK
2	*	2402.150	31.654	64.372	96.026	N/A	N/A	PEAK

Note: RBW = 1MHz, VBW = 3MHz, Sweep time = 500ms.

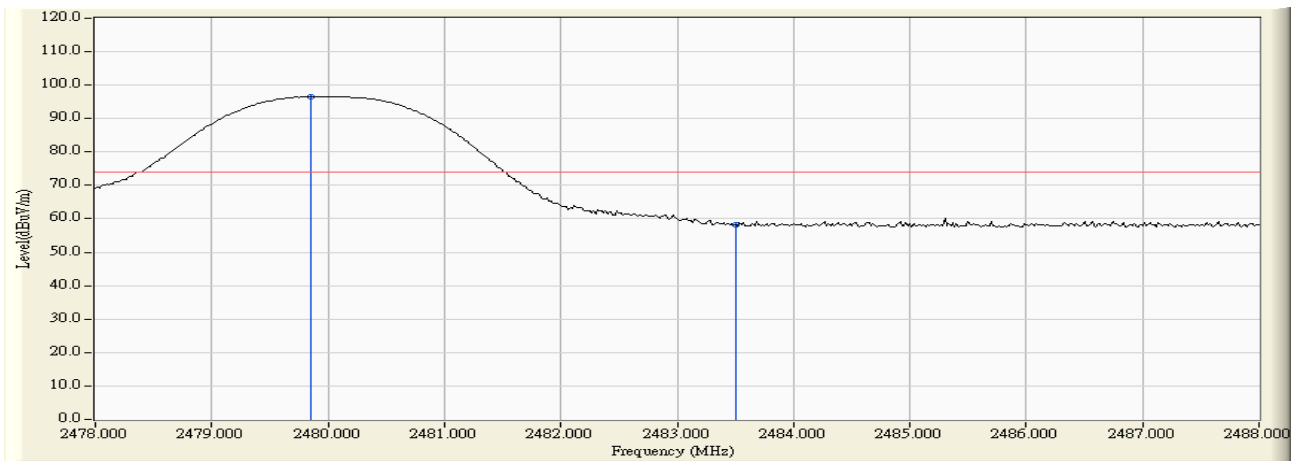
Engineer : Jame	
Site : AC-2 (3m Semi-Anechoic Chamber)	Time : 2009/03/23 - 21:19
Limit : FCC_SpartC_15.209_03M_AV	Margin : 0
EUT : Bluetooth headset	Probe : BBHA9120D_496(1-18GHz) - VERTICAL
Power : AC 120V/60Hz	Note : Mode 1: Transmit (DH5) at channel 2402MHz



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2390.000	31.595	14.012	45.607	-8.363	53.970	AVERAGE
2	*	2401.992	31.653	53.199	84.853	N/A	N/A	AVERAGE

Note: RBW = 1MHz, VBW = 10Hz, Sweep time = Auto.

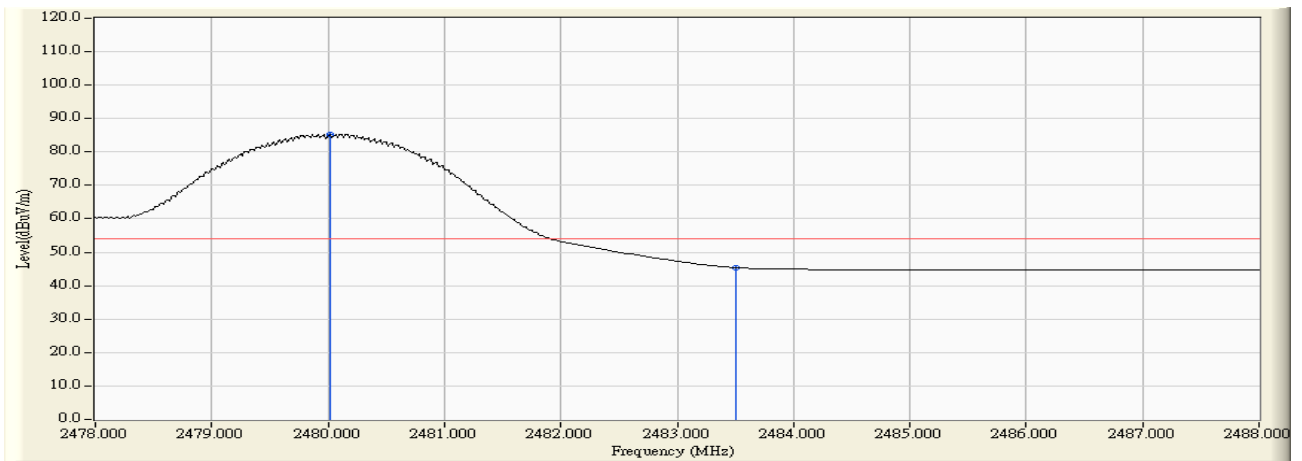
Engineer : Jame	
Site : AC-2 (3m Semi-Anechoic Chamber)	Time : 2009/03/23 - 21:29
Limit : FCC_SpartC_15.209_03M_PK	Margin : 0
EUT : Bluetooth headset	Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL
Power : AC 120V/60Hz	Note : Mode 1: Transmit (DH5) at channel 2480MHz



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2479.850	31.259	65.241	96.499	N/A	N/A	PEAK
2		2483.500	31.206	27.156	58.362	-15.608	73.970	PEAK

Note: RBW = 1MHz, VBW = 3MHz, Sweep time = 500ms.

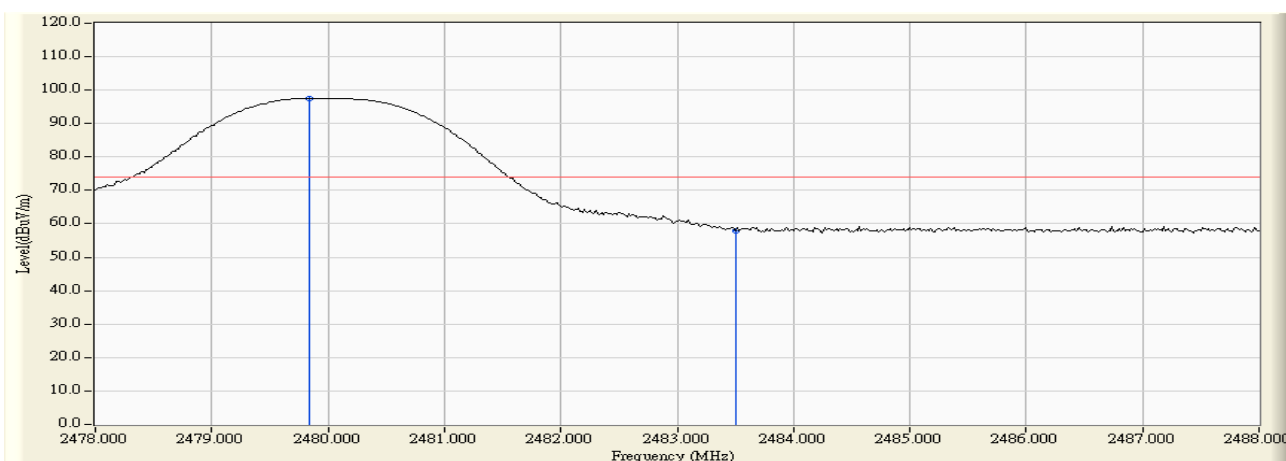
Engineer : Jame	
Site : AC-2 (3m Semi-Anechoic Chamber)	Time : 2009/03/23 - 21:29
Limit : FCC_SpartC_15.209_03M_AV	Margin : 0
EUT : Bluetooth headset	Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL
Power : AC 120V/60Hz	Note : Mode 1: Transmit (DH5) at channel 2480MHz



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2480.017	31.255	54.112	85.368	N/A	N/A	AVERAGE
2		2483.500	31.206	14.178	45.384	-8.586	53.970	AVERAGE

Note: RBW = 1MHz, VBW = 10Hz, Sweep time = Auto.

Engineer : Jame	
Site : AC-2 (3m Semi-Anechoic Chamber)	Time : 2009/03/23 - 21:31
Limit : FCC_SpartC_15.209_03M_PK	Margin : 0
EUT : Bluetooth headset	Probe : BBHA9120D_496(1-18GHz) - VERTICAL
Power : AC 120V/60Hz	Note : Mode 1: Transmit (DH5) at channel 2480MHz

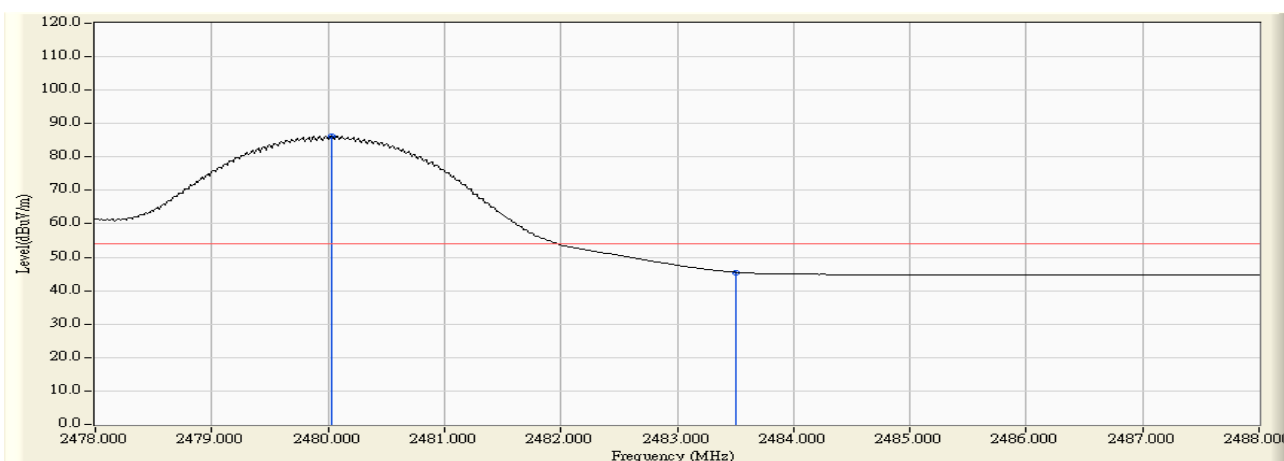


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2479.833	31.259	66.292	97.550	N/A	N/A	PEAK
2		2483.500	31.206	26.739	57.945	-16.025	73.970	PEAK

Note: RBW = 1MHz, VBW = 3MHz, Sweep time = 500ms.



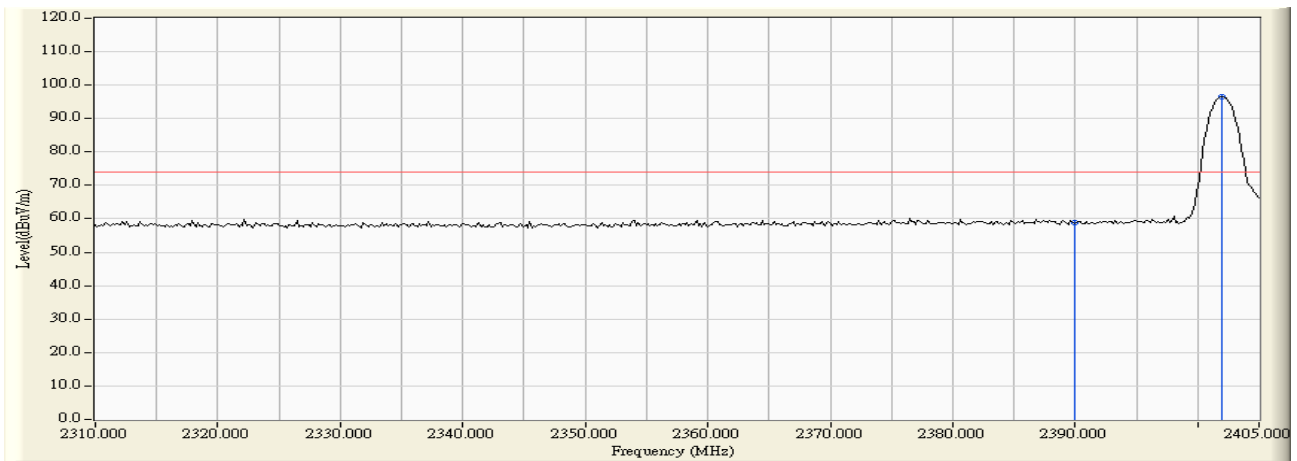
Engineer : Jame	
Site : AC-2 (3m Semi-Anechoic Chamber)	Time : 2009/03/23 - 21:32
Limit : FCC_SpartC_15.209_03M_AV	Margin : 0
EUT : Bluetooth headset	Probe : BBHA9120D_496(1-18GHz) - VERTICAL
Power : AC 120V/60Hz	Note : Mode 1: Transmit (DH5) at channel 2480MHz



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2480.033	31.255	54.984	86.239	N/A	N/A	AVERAGE
2		2483.500	31.206	14.287	45.493	-8.477	53.970	AVERAGE

Note: RBW = 1MHz, VBW = 10Hz, Sweep time = Auto.

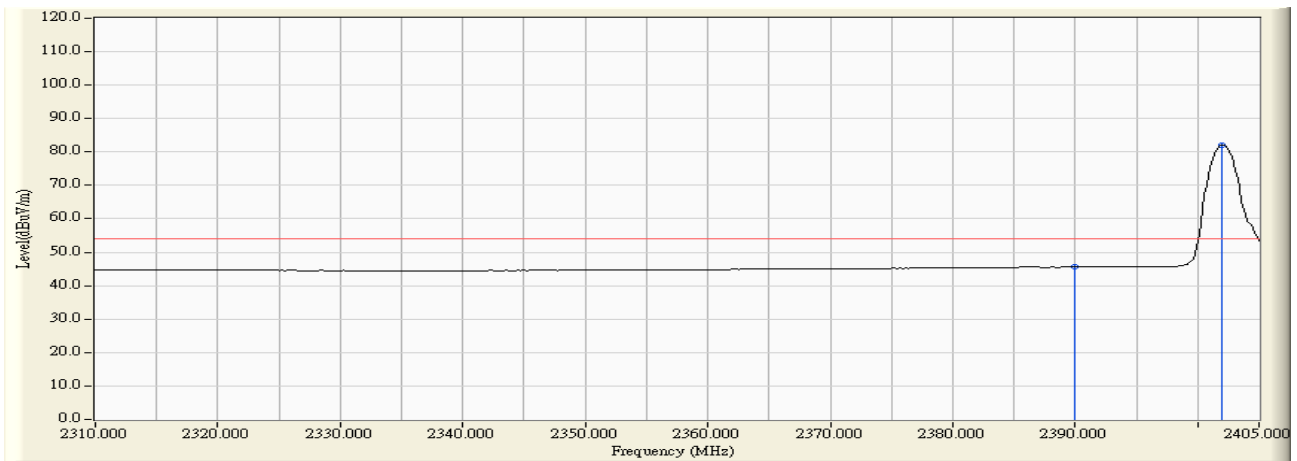
Engineer : Jame	
Site : AC-2 (3m Semi-Anechoic Chamber)	Time : 2009/03/23 - 21:46
Limit : FCC_SpartC_15.209_03M_PK	Margin : 0
EUT : Bluetooth headset	Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL
Power : AC 120V/60Hz	Note : Mode 2: Transmit (3DH5) at channel 2402MHz



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2390.000	31.595	27.160	58.755	-15.215	73.970	PEAK
2	*	2401.992	31.653	64.786	96.440	N/A	N/A	PEAK

Note: RBW = 1MHz, VBW = 3MHz, Sweep time = 500ms.

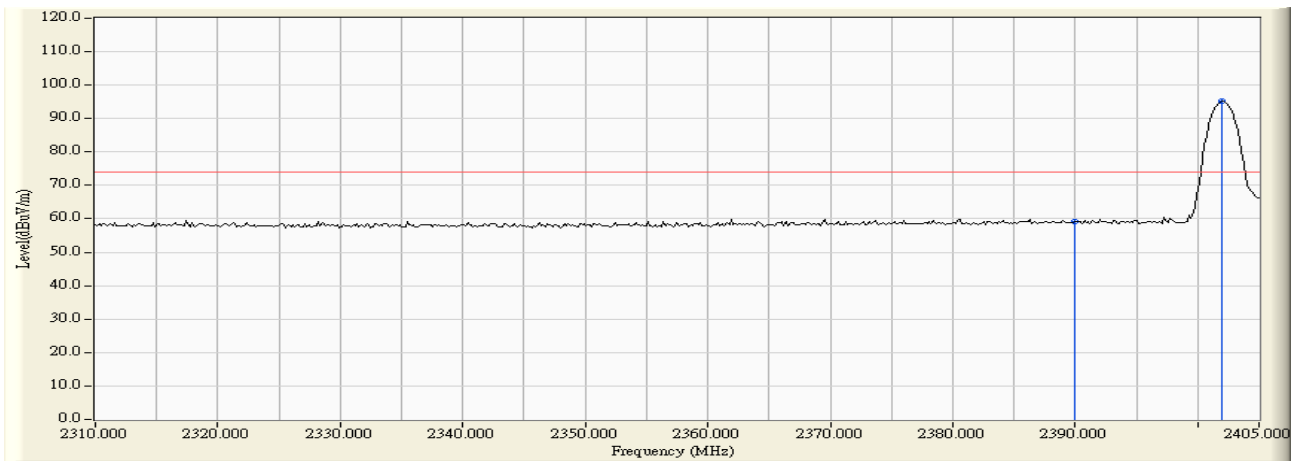
Engineer : Jame	
Site : AC-2 (3m Semi-Anechoic Chamber)	Time : 2009/03/23 - 21:46
Limit : FCC_SpartC_15.209_03M_AV	Margin : 0
EUT : Bluetooth headset	Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL
Power : AC 120V/60Hz	Note : Mode 2: Transmit (3DH5) at channel 2402MHz



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2390.000	31.595	13.967	45.562	-8.408	53.970	AVERAGE
2	*	2401.992	31.653	50.394	82.048	N/A	N/A	AVERAGE

Note: RBW = 1MHz, VBW = 10Hz, Sweep time = Auto.

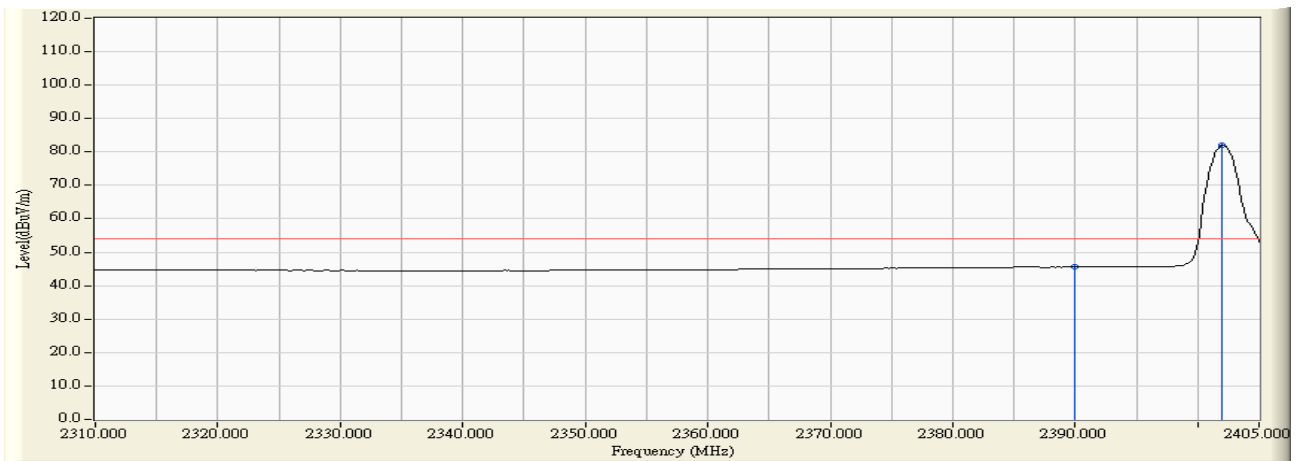
Engineer : Jame	
Site : AC-2 (3m Semi-Anechoic Chamber)	Time : 2009/03/23 - 21:49
Limit : FCC_SpartC_15.209_03M_PK	Margin : 0
EUT : Bluetooth headset	Probe : BBHA9120D_496(1-18GHz) - VERTICAL
Power : AC 120V/60Hz	Note : Mode 2: Transmit (3DH5) at channel 2402MHz



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2390.000	31.595	27.648	59.243	-14.727	73.970	PEAK
2	*	2401.992	31.653	63.563	95.217	N/A	N/A	PEAK

Note: RBW = 1MHz, VBW = 3MHz, Sweep time = 500ms.

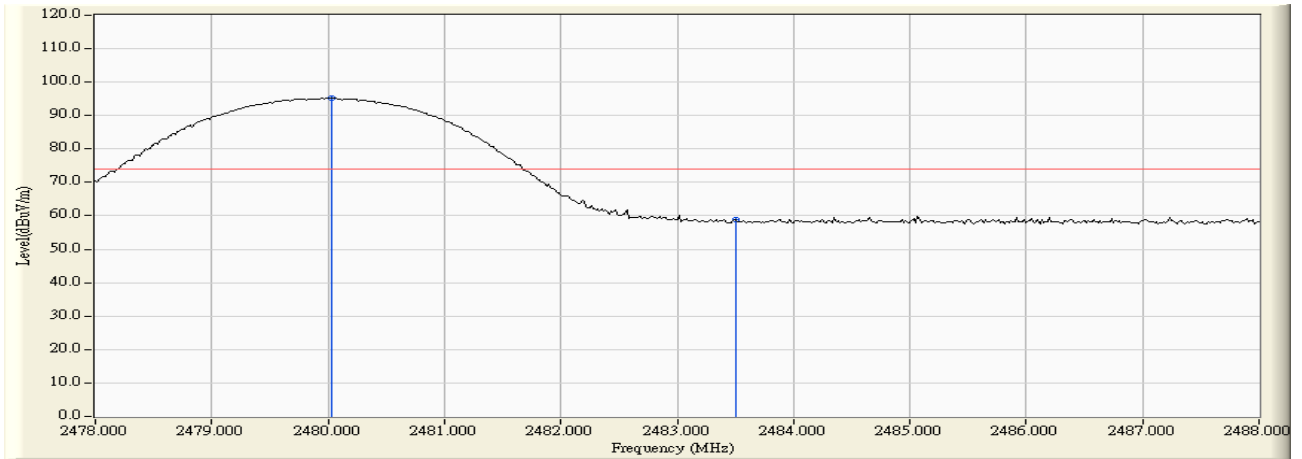
Engineer : Jame	
Site : AC-2 (3m Semi-Anechoic Chamber)	Time : 2009/03/23 - 21:50
Limit : FCC_SpartC_15.209_03M_AV	Margin : 0
EUT : Bluetooth headset	Probe : BBHA9120D_496(1-18GHz) - VERTICAL
Power : AC 120V/60Hz	Note : Mode 2: Transmit (3DH5) at channel 2402MHz



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2390.000	31.595	14.012	45.607	-8.363	53.970	AVERAGE
2	*	2401.992	31.653	50.258	81.912	N/A	N/A	AVERAGE

Note: RBW = 1MHz, VBW = 10Hz, Sweep time = Auto.

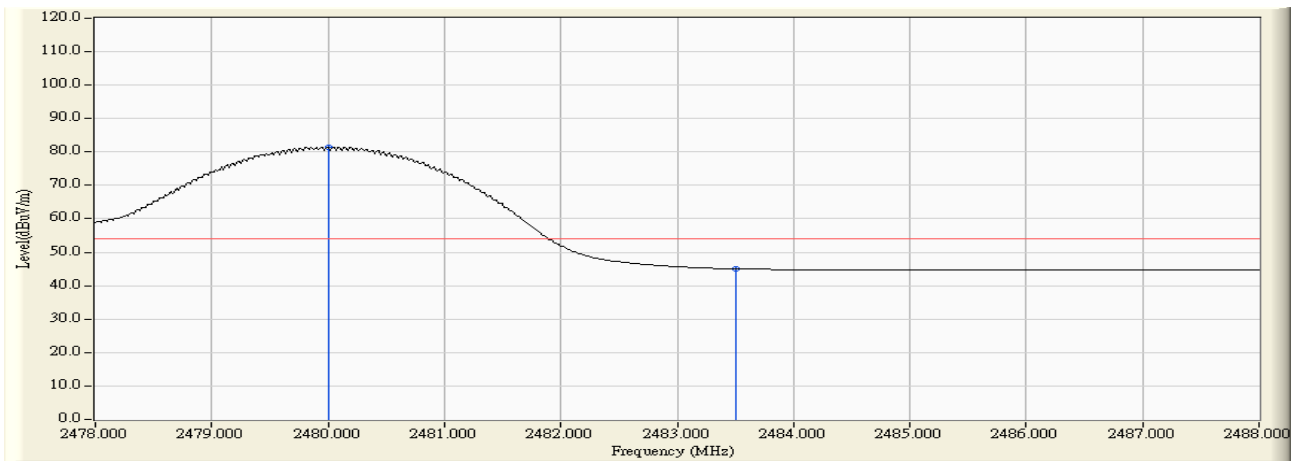
Engineer : Jame	
Site : AC-2 (3m Semi-Anechoic Chamber)	Time : 2009/03/23 - 21:41
Limit : FCC_SpartC_15.209_03M_PK	Margin : 0
EUT : Bluetooth headset	Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL
Power : AC 120V/60Hz	Note : Mode 2: Transmit (3DH5) at channel 2480MHz



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2480.033	31.255	63.894	95.149	N/A	N/A	PEAK
2		2483.500	31.206	27.767	58.973	-14.997	73.970	PEAK

Note: RBW = 1MHz, VBW = 3MHz, Sweep time = 500ms.

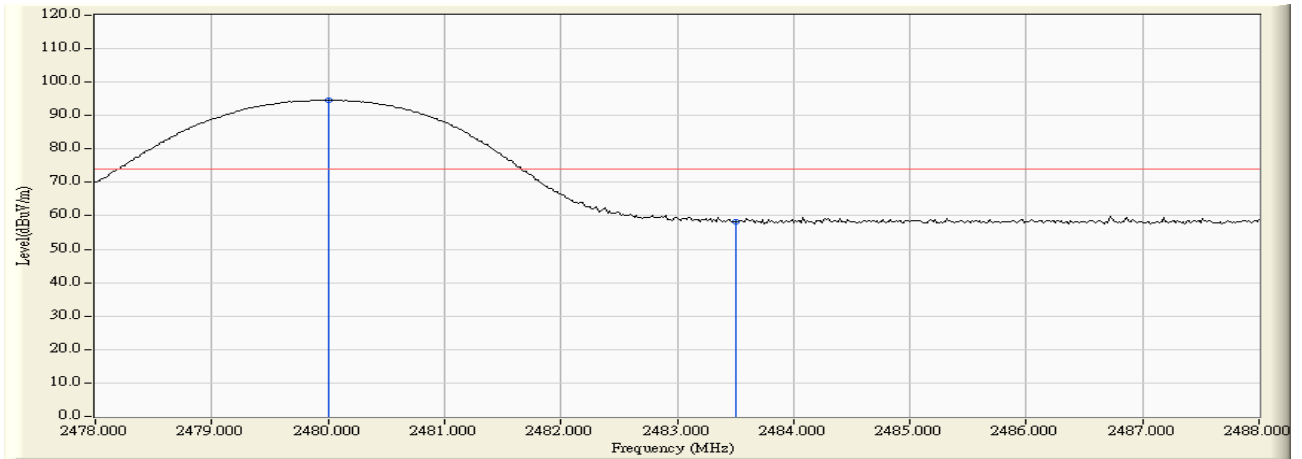
Engineer : Jame	
Site : AC-2 (3m Semi-Anechoic Chamber)	Time : 2009/03/23 - 21:41
Limit : FCC_SpartC_15.209_03M_AV	Margin : 0
EUT : Bluetooth headset	Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL
Power : AC 120V/60Hz	Note : Mode 2: Transmit (3DH5) at channel 2480MHz



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2480.000	31.255	50.295	81.551	N/A	N/A	AVERAGE
2		2483.500	31.206	13.832	45.038	-8.932	53.970	AVERAGE

Note: RBW = 1MHz, VBW = 10Hz, Sweep time = Auto.

Engineer : Jame	
Site : AC-2 (3m Semi-Anechoic Chamber)	Time : 2009/03/23 - 21:37
Limit : FCC_SpartC_15.209_03M_PK	Margin : 0
EUT : Bluetooth headset	Probe : BBHA9120D_496(1-18GHz) - VERTICAL
Power : AC 120V/60Hz	Note : Mode 2: Transmit (3DH5) at channel 2480MHz

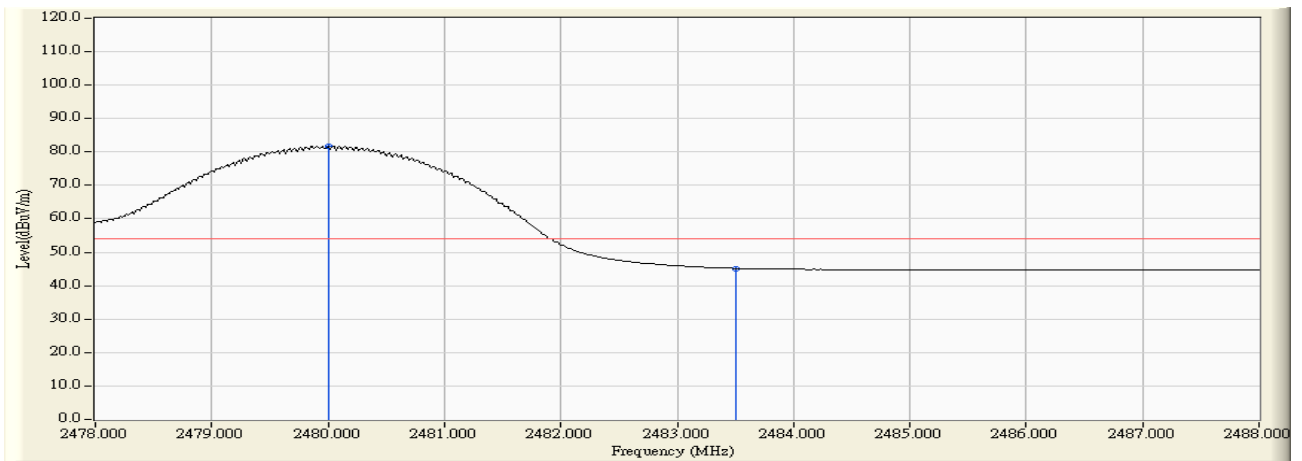


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2480.000	31.255	63.421	94.677	N/A	N/A	PEAK
2		2483.500	31.206	26.972	58.178	-15.792	73.970	PEAK

Note: RBW = 1MHz, VBW = 3MHz, Sweep time = 500ms.



Engineer : Jame	
Site : AC-2 (3m Semi-Anechoic Chamber)	Time : 2009/03/23 - 21:38
Limit : FCC_SpartC_15.209_03M_AV	Margin : 0
EUT : Bluetooth headset	Probe : BBHA9120D_496(1-18GHz) - VERTICAL
Power : AC 120V/60Hz	Note : Mode 2: Transmit (3DH5) at channel 2480MHz



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2480.000	31.255	50.506	81.762	N/A	N/A	AVERAGE
2		2483.500	31.206	13.951	45.157	-8.813	53.970	AVERAGE

Note: RBW = 1MHz, VBW = 10Hz, Sweep time = Auto.