

Test Report

Product Name : IP-Set Top Box
Model No. : S179L, S179C, S179, S179H
FCC ID : DXLC-IH-9000

Applicant : LUNG HWA Electronics Co., LTD
Address : 3F. 248, Pei Sheng Rd Sec. 3. Sheng Keng Taipei
Hsien(222), Taiwan.R.O.C

Date of Receipt : 2006/11/10
Issued Date : 2006/12/14
Report No. : 06BS006-RF-US-P05V01

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.

This report must not be used to claim product endorsement by CNLA, NVLAP, NIST or any agency of the Government.

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Test Report Certification

Issued Date : 2006/12/14

Report No. : 06BS006-RF-US-P05V01



Product Name : IP-Set Top Box

Applicant : LUNG HWA Electronics Co.,LTD

Address : 3F. 248, Pei Sheng Rd Sec. 3. Sheng Keng Taipei
Hsien(222), Taiwan.R.O.C

Manufacturer : Expert Electronics (Wujiang)Co.,LTD

Model No. : S179L, S179C, S179, S179H

FCC ID : DXLC-IH-9000

Rated Voltage : AC 120 V / 60 Hz

EUT Voltage : AC 100-240V, 50/60Hz

Trade Name : N/A

Applicable Standard : FCC CFR Title 47 Part 15 Subpart C: 2006
ANSI C63.4: 2003

Test Result : Complied

Performed Location : SuZhou EMC laboratory
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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	: TÜV 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/>

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E-Mail : service@quietek.com



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1. General Information

1.1. EUT Description

Product Name	IP-Set Top Box
Trade Name	N/A
Model No.	S179L, S179C, S179, S179H
FCC ID	DXLC-IH-9000
Working Voltage	AC 100-240 V / 50-60 Hz
Frequency Range	802.11b/g: 2412-2462MHz
Channel Number	11
Antenna Gain	2dBi
Type of Modulation	802.11b: DSSS 802.11g: OFDM
Channel Control	Auto
Antenna type	Dipole

Component	
AC Adapter	Manufacturer: EDACPOWER ELEC. M/N: EA1050A-120 Input: 100-240V~, 1.8A Output: 12VDC, 5.0A Cable Out: Non-Shielded, 1.2m with one ferrite core bonded
Power Cord	Non-Shielded, 1.8m

Antenna List

No.	Manufacturer	Model No.	Part No.	Peak Gain
1	Ling Cheng Tech. Int'l Co., Ltd.	2.4GHz S-Ant. RP-SAM-P Black+PE Bag	F1B_003405-52	2dBi

Frequency of Each Channel:

802.11b/g Working Frequency of Each Channel:							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
01	2412 MHz	02	2417 MHz	03	2422 MHz	04	2427 MHz
05	2432 MHz	06	2437 MHz	07	2442 MHz	08	2447 MHz
09	2452 MHz	10	2457 MHz	11	2462 MHz	--	--

1.2. Model Difference Description

Products Comparison Table

Specification		Model		
		S179L	S179C (S179)	S179H
CPU	INTEL 600M Celeron® M	V	V	V
Chip Set	INTEL 82854/82801	V	V	V
Memory	DDR 128MB/256MB/512MB	128MB	256MB	256MB
Storage	80 GB/ 160GB	-	80GB	160GB
DVD Player	DOM 64MB	V	Optional	Optional
HDMI	(1) Slim DVD ROM	-	-	Optional
Analog Audio/Video Ports	SiL 9030 video output (Back)	-	V	V
	(1) Stereo RCA (Back)	V	V	V
	(1) Composite RCA (Back)	V	V	V
Digital Audio/Video Ports	(1) S-Video (Back)	V	V	V
	(1) Optical S/PDIF audio output (Back)	V	V	V
Peripheral Ports	(1) USB 2.0 (Front)	V	V	V
	(1) CIR infrared remote control interface (Front)	V	V	V
	(2) USB 2.0 (Back)	V	V	V
	(1) VGA (Back)	Optional	Optional	Optional
	(1) RJ-45 (Back)	V	V	V
Expansion Slots	(1) Internal PCI Slot	V	V	V
	(1) Internal Mini PCI	V	V	V
Remote Control	Karaoke	Optional	V	V
PVR	(1) Smart Card port on the front panel	V	V	V
WLAN	Wireless Remote Control	V	V	V
Power	PCI Card	Optional	Optional	Optional
Dimension	802.11b/g mini - PCI Module	Optional	Optional	V
Weight	12VDC external AC adaptor	V	V	V

Note: 1. " V " is means the four models have the same of the component.
2. The new model of S179 is identical to the model S179C except the model name, just for different marketing requirement.
3. The model of S179C was selected as representative models for the test and the data were recorded in this report.

1.3. Mode of Operation

QuietTek 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:

Pre-Test Mode	
Mode 1: Transmit by 802.11b	
Mode 2: Transmit by 802.11g	
Final Test Mode	
Emission	Mode 1: Transmit by 802.11b
	Mode 2: Transmit by 802.11g

Note:

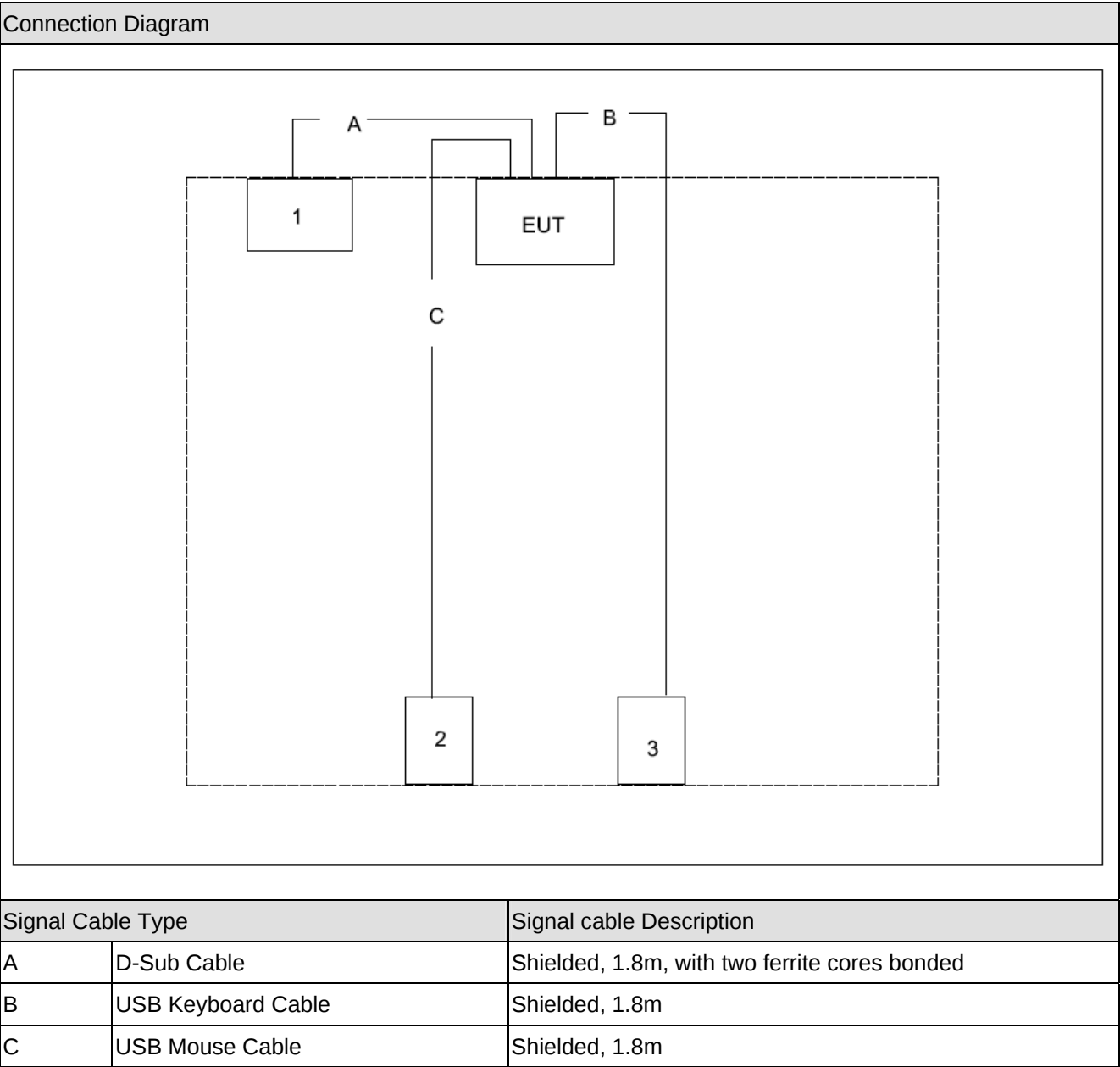
1. Regards to the frequency band operation: the lowest, middle and highest frequency of channel were selected to perform the test, then shown on this report.
2. This device is a composite device in accordance with Part 15 Subpart B regulations. The function for the receiver was measured and made a test report that the report number is 06BS006-RF-US-P01V02-W, certified under Declaration of Conformity.

1.4. Tested System Details

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

Product		Manufacturer	Model No.	Serial No.	Power Cord
1	LCD Monitor	cmv	A170E1-03	36C112338M41164	Non-Shielded, 1.8m
2	USB Keyboard	DELL	SK-8115	N/A	Power by EUT
3	USB Mouse	Microsoft	ITE78CJ	N/A	Power by EUT

1.5. Configuration of Tested System



1.6. EUT Exercise Software

1	Setup the EUT and simulators as shown on 1.5.
2	Execute the test software on the EUT.
3	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:

Emission			
Performed Test Item	Normative References	Test Performed	Deviation
Conducted Emission	FCC CFR Title 47 Part 15 Subpart C: 2006 Section 15.207	Yes	No
Radiated Emission	FCC CFR Title 47 Part 15 Subpart C: 2006 Section 15.209	Yes	No
Peak Output Power	FCC CFR Title 47 Part 15 Subpart C: 2006 Section 15.247(b)(3)	Yes	No
Occupied Bandwidth	FCC CFR Title 47 Part 15 Subpart C: 2006 Section 15.247(a)(2)	Yes	No
Band Edge	FCC CFR Title 47 Part 15 Subpart C: 2006 Section 15.247(d)	Yes	No
Peak Power Spectral Density	FCC CFR Title 47 Part 15 Subpart C: 2006 Section 15.247(e)	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

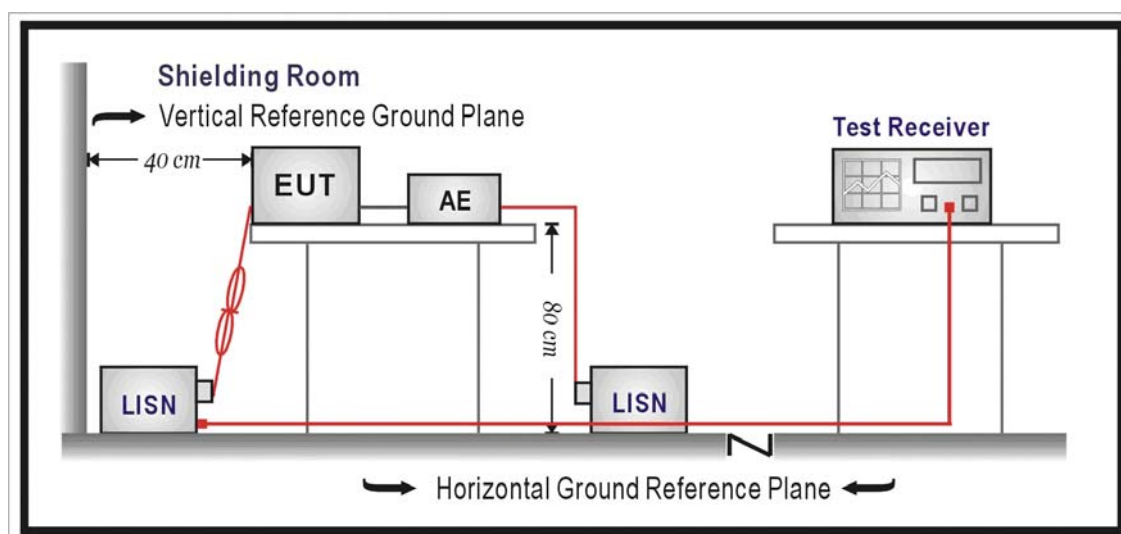
3. Conducted Emission

3.1. Test Equipment

Conducted Emission / SR-1

Instrument	Manufacturer	Type No.	Serial No	Cal. Date
EMI Test Receiver	R&S	ESCI	100175	2006/11/20
Two-Line V-Network	R&S	ENV216	100013	2006/11/20
Two-Line V-Network	R&S	ENV216	100014	2006/11/20
V-Network	R&S	ESH3-Z6	100248	2006/11/20
V-Network	R&S	ESH3-Z6	100249	2006/11/20
ISN	Schaffner	ISN T400	21648	2006/11/20
Current Probe	R&S	EZ-17	100252	2006/04/18
50ohm Coaxial Switch	ANRITSU	MP59B	6200447305	2006/11/25
50ohm Impedance	SHX	50ohmI	QT-IM001	2006/03/20
Matching network	SHX	TZ25	06062901	N/A
Matching network	SHX	TZ25	06062902	N/A
Matching network	SHX	TZ25	06062903	N/A
Combining network	SHX	N-50KKK	N/A	N/A
Temperature/Humidity Meter	zhicheng	ZC1-2	QT-TH004	2006/03/30

3.2. Test Setup



3.3. Limit

FCC Part 15 Subpart C Paragraph 15.207 Limits (dBuV)		
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

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

3.4. Test Procedure

The EUT and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 50 ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm/50uH coupling impedance with 50ohm termination.

(Please refers to the block diagram of the test setup and photographs.)

Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed on conducted measurement.

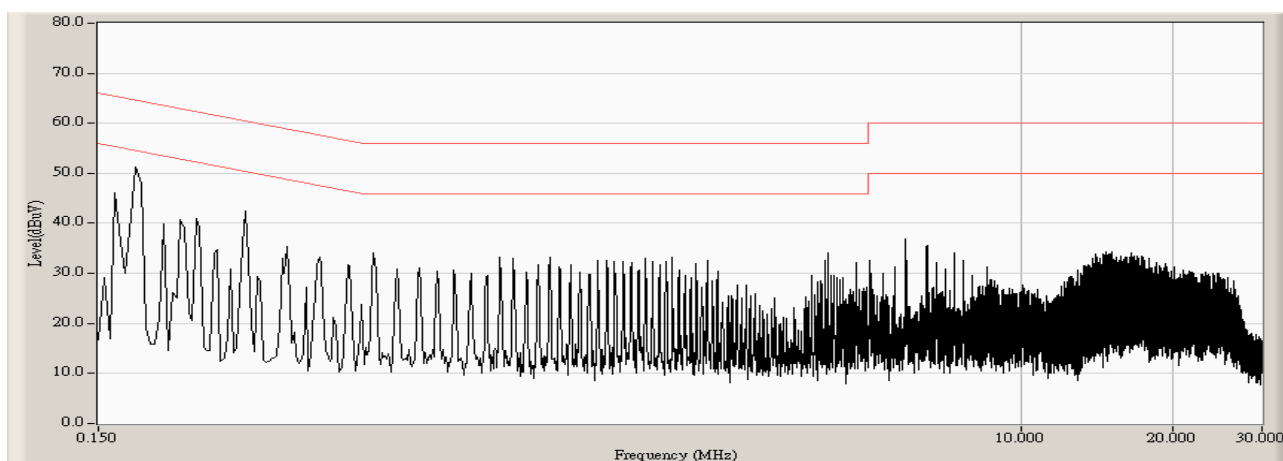
Conducted emissions were invested over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9kHz.

3.5. Uncertainty

The measurement uncertainty is defined as ± 2.02 dB

3.6. Test Result

Engineer : John	
Site : SR-1 (Conducted Emission and Power Test)	Time : 2006/12/04 - 23:05
Limit : FCC_Part15_B_00M_QP	Margin : 10
EUT : IP-Set Top Box	Probe : ENV216 - Line1
Power : AC 120V/60Hz	Note : Mode 1: Transmit by 802.11b (2437MHz)



Engineer : John	
Site : SR-1 (Conducted Emission and Power Test)	Time : 2006/12/04 - 23:08
Limit : FCC_Part15_B_00M_QP	Margin : 0
EUT : IP-Set Top Box	Probe : ENV216 - Line1
Power : AC 120V/60Hz	Note : Mode 1: Transmit by 802.11b (2437MHz)



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1	*	0.178	9.772	41.453	51.225	-13.975	65.200	QUASIPeAK
2		0.294	9.395	33.033	42.428	-19.458	61.886	QUASIPeAK
3		1.170	9.660	23.510	33.170	-22.830	56.000	QUASIPeAK
4		4.150	9.810	24.391	34.201	-21.799	56.000	QUASIPeAK
5		5.926	9.810	27.068	36.878	-23.122	60.000	QUASIPeAK
6		6.526	9.830	25.827	35.657	-24.343	60.000	QUASIPeAK

Note:

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

Engineer : John	
Site : SR-1 (Conducted Emission and Power Test)	Time : 2006/12/04 - 23:08
Limit : FCC_Part15_B_00M_AV	Margin : 0
EUT : IP-Set Top Box	Probe : ENV216 - Line1
Power : AC 120V/60Hz	Note : Mode 1: Transmit by 802.11b (2437MHz)

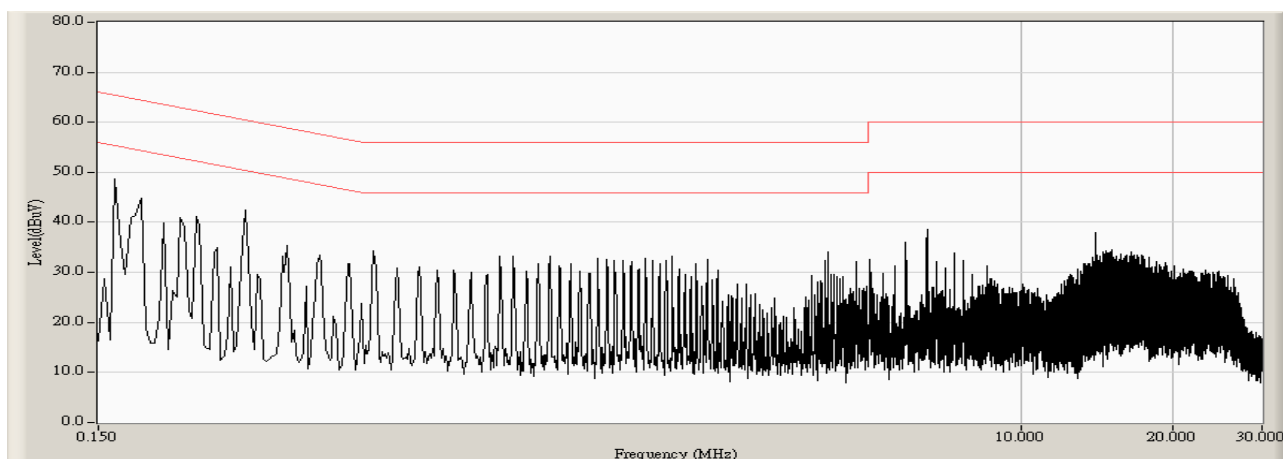


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1	*	0.178	9.772	39.620	49.392	-5.808	55.200	AVERAGE
2		0.294	9.395	20.750	30.145	-21.741	51.886	AVERAGE
3		1.170	9.660	16.650	26.310	-19.690	46.000	AVERAGE
4		4.150	9.810	14.270	24.080	-21.920	46.000	AVERAGE
5		5.926	9.810	15.220	25.030	-24.970	50.000	AVERAGE
6		6.526	9.830	14.860	24.690	-25.310	50.000	AVERAGE

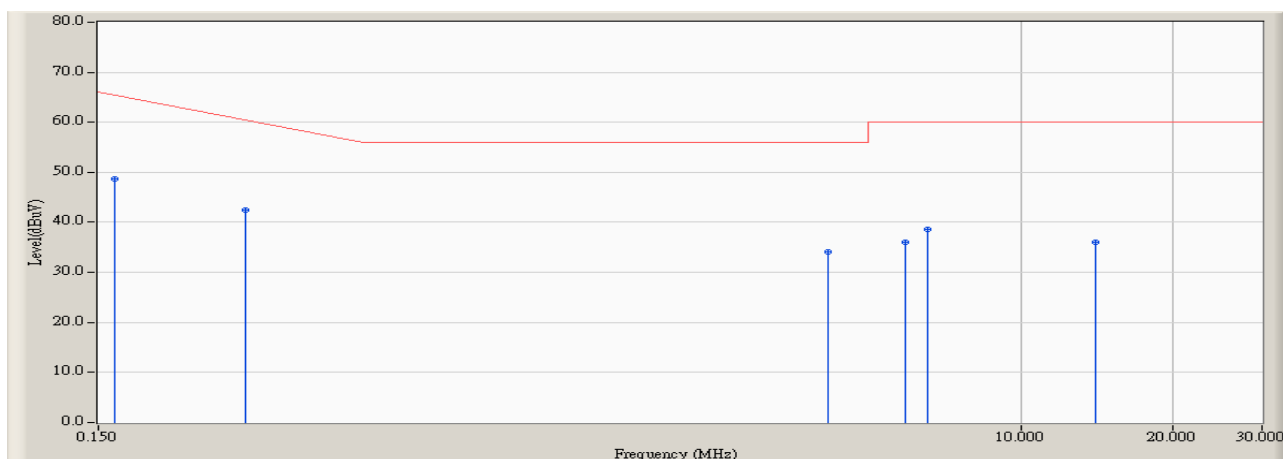
Note:

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

Engineer : John	
Site : SR-1 (Conducted Emission and Power Test)	Time : 2006/12/04 - 23:08
Limit : FCC_Part15_B_00M_QP	Margin : 10
EUT : IP-Set Top Box	Probe : ENV216 - Line2
Power : AC 120V/60Hz	Note : Mode 1: Transmit by 802.11b (2437MHz)



Engineer : John	
Site : SR-1 (Conducted Emission and Power Test)	Time : 2006/12/04 - 23:11
Limit : FCC_Part15_B_00M_QP	Margin : 0
EUT : IP-Set Top Box	Probe : ENV216 - Line2
Power : AC 120V/60Hz	Note : Mode 1: Transmit by 802.11b (2437MHz)

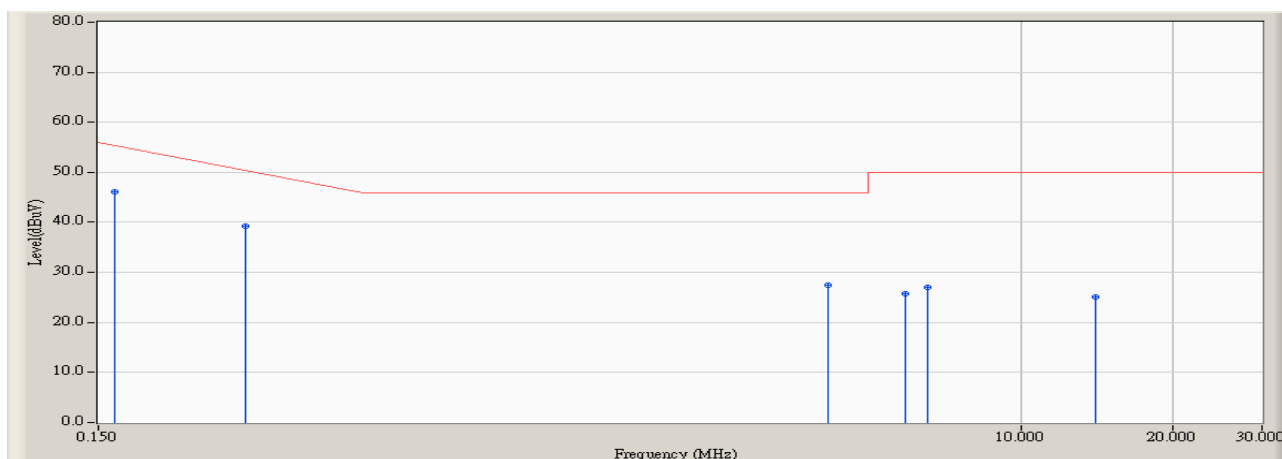


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1	*	0.162	9.641	39.002	48.643	-17.014	65.657	QUASIPeAK
2		0.294	9.515	33.033	42.548	-19.338	61.886	QUASIPeAK
3		4.150	9.740	24.391	34.131	-21.869	56.000	QUASIPeAK
4		5.922	9.730	26.311	36.041	-23.959	60.000	QUASIPeAK
5		6.526	9.750	28.927	38.677	-21.323	60.000	QUASIPeAK
6		14.073	10.130	25.807	35.937	-24.063	60.000	QUASIPeAK

Note:

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

Engineer : John	
Site : SR-1 (Conducted Emission and Power Test)	Time : 2006/12/04 - 23:11
Limit : FCC_Part15_B_00M_AV	Margin : 0
EUT : IP-Set Top Box	Probe : ENV216 - Line2
Power : AC 120V/60Hz	Note : Mode 1: Transmit by 802.11b (2437MHz)

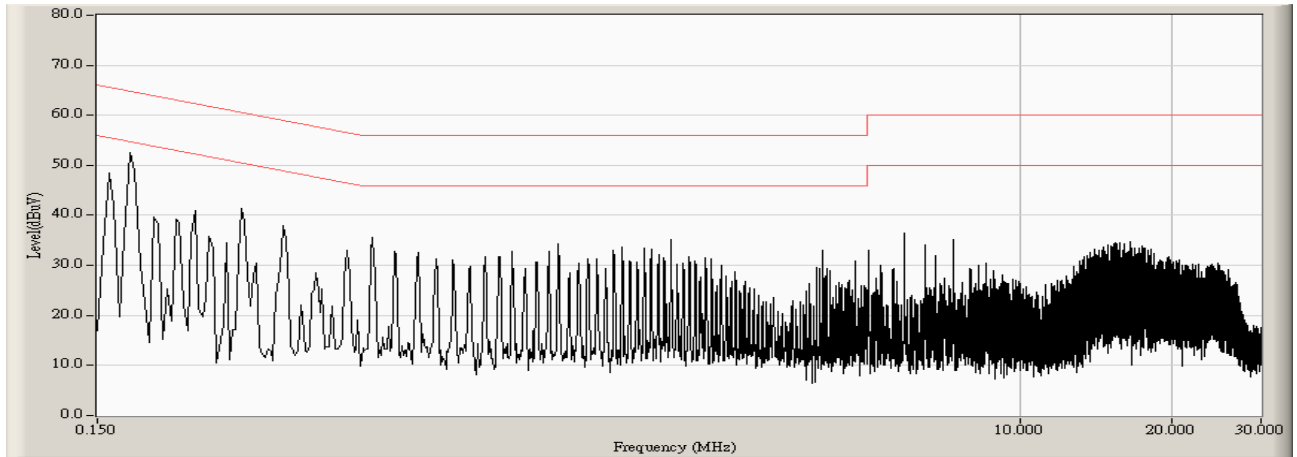


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1	*	0.162	9.641	36.570	46.211	-9.446	55.657	AVERAGE
2		0.294	9.515	29.640	39.155	-12.731	51.886	AVERAGE
3		4.150	9.740	17.690	27.430	-18.570	46.000	AVERAGE
4		5.922	9.730	15.950	25.680	-24.320	50.000	AVERAGE
5		6.526	9.750	17.330	27.080	-22.920	50.000	AVERAGE
6		14.073	10.130	14.900	25.030	-24.970	50.000	AVERAGE

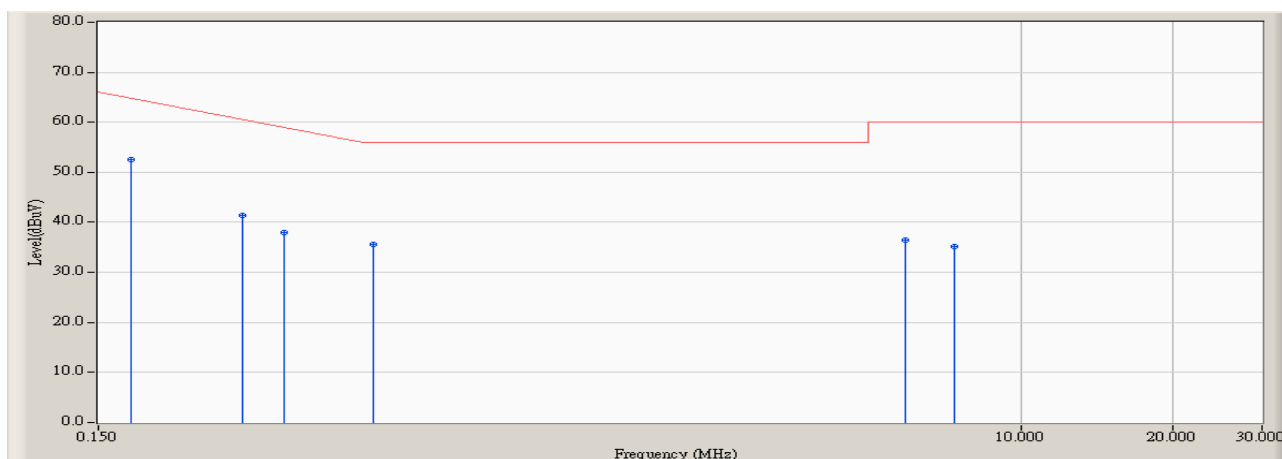
Note:

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

Engineer : John	
Site : SR-1 (Conducted Emission and Power Test)	Time : 2006/12/04 - 23:26
Limit : FCC_Part15_B_00M_QP	Margin : 10
EUT : IP-Set Top Box	Probe : ENV216 - Line1
Power : AC 120V/60Hz	Note : Mode 2: Transmit by 802.11g (2437MHz)



Engineer : John	
Site : SR-1 (Conducted Emission and Power Test)	Time : 2006/12/04 - 23:28
Limit : FCC_Part15_B_00M_QP	Margin : 0
EUT : IP-Set Top Box	Probe : ENV216 - Line1
Power : AC 120V/60Hz	Note : Mode 2: Transmit by 802.11g (2437MHz)

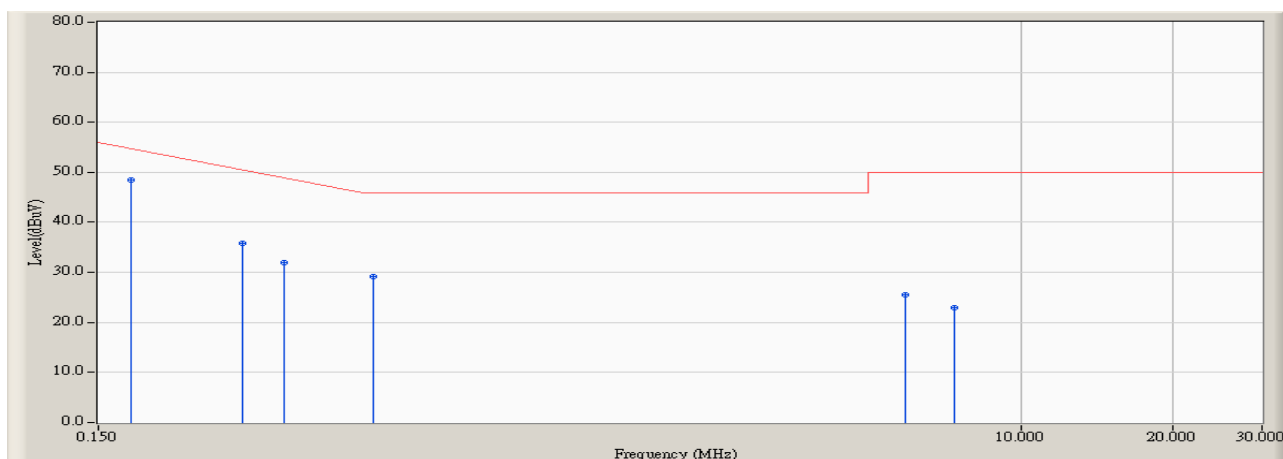


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1	*	0.174	9.864	42.784	52.648	-12.666	65.314	QUASIPeAK
2		0.290	9.391	32.020	41.411	-20.589	62.000	QUASIPeAK
3		0.350	9.461	28.478	37.939	-22.347	60.286	QUASIPeAK
4		0.526	9.640	25.871	35.511	-20.489	56.000	QUASIPeAK
5		5.914	9.810	26.717	36.527	-23.473	60.000	QUASIPeAK
6		7.398	9.862	25.398	35.260	-24.740	60.000	QUASIPeAK

Note:

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

Engineer : John	
Site : SR-1 (Conducted Emission and Power Test)	Time : 2006/12/04 - 23:28
Limit : FCC_Part15_B_00M_AV	Margin : 0
EUT : IP-Set Top Box	Probe : ENV216 - Line1
Power : AC 120V/60Hz	Note : Mode 2: Transmit by 802.11g (2437MHz)

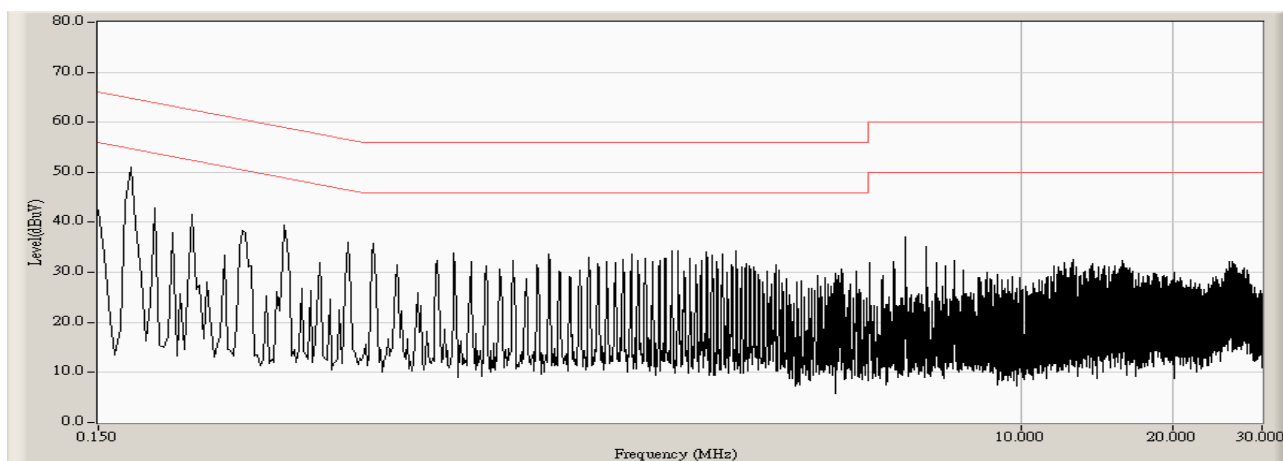


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1	*	0.174	9.864	38.590	48.454	-6.860	55.314	AVERAGE
2		0.290	9.391	26.440	35.831	-16.169	52.000	AVERAGE
3		0.350	9.461	22.430	31.891	-18.395	50.286	AVERAGE
4		0.526	9.640	19.570	29.210	-16.790	46.000	AVERAGE
5		5.914	9.810	15.630	25.440	-24.560	50.000	AVERAGE
6		7.398	9.862	13.080	22.942	-27.058	50.000	AVERAGE

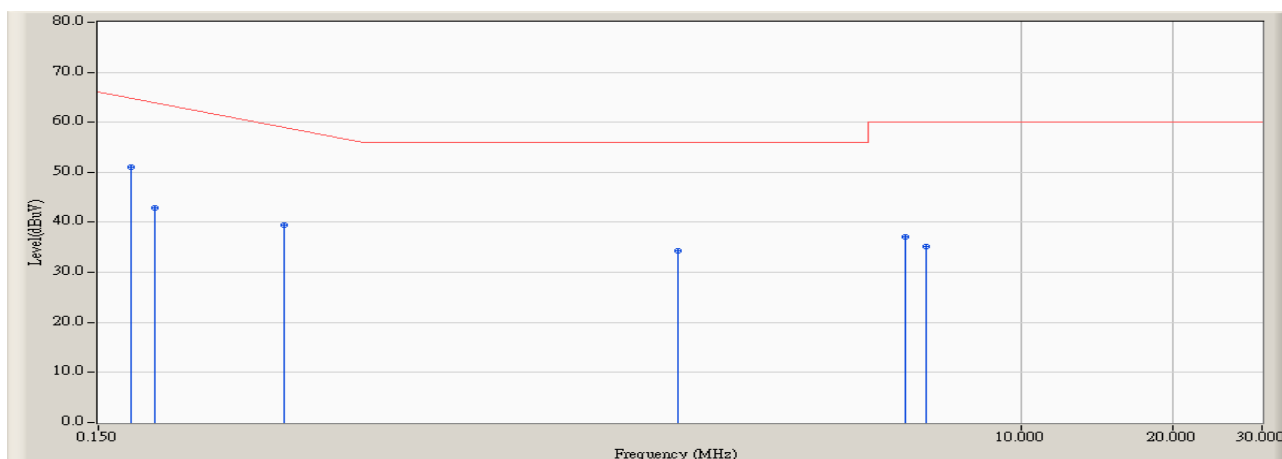
Note:

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

Engineer : John	
Site : SR-1 (Conducted Emission and Power Test)	Time : 2006/12/04 - 23:30
Limit : FCC_Part15_B_00M_QP	Margin : 10
EUT : IP-Set Top Box	Probe : ENV216 - Line2
Power : AC 120V/60Hz	Note : Mode 2: Transmit by 802.11g (2437MHz)



Engineer : John	
Site : SR-1 (Conducted Emission and Power Test)	Time : 2006/12/04 - 23:32
Limit : FCC_Part15_B_00M_QP	Margin : 0
EUT : IP-Set Top Box	Probe : ENV216 - Line2
Power : AC 120V/60Hz	Note : Mode 2: Transmit by 802.11g (2437MHz)

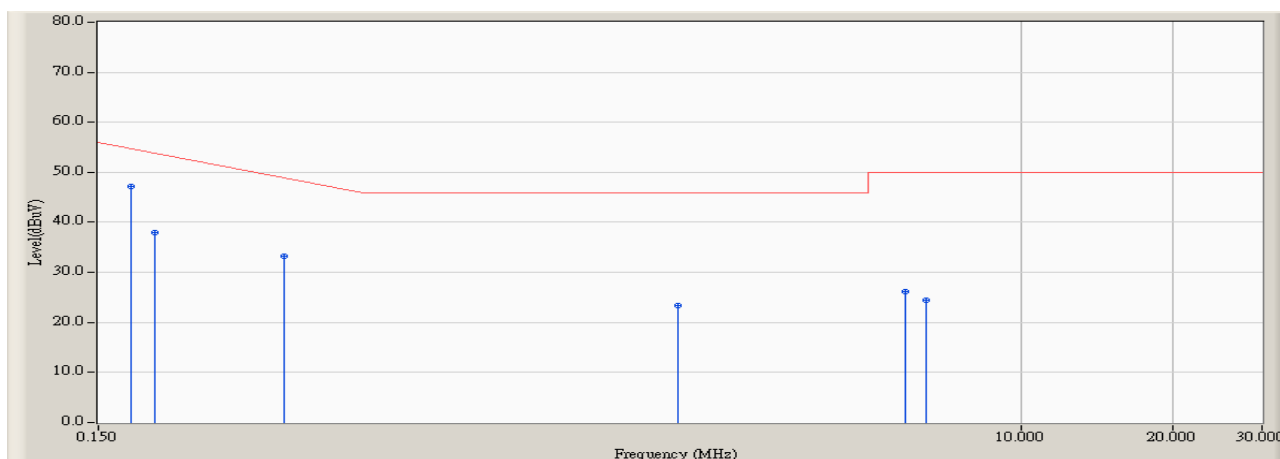


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1	*	0.174	9.565	41.412	50.977	-14.337	65.314	QUASIPeAK
2		0.194	9.467	33.522	42.988	-21.755	64.743	QUASIPeAK
3		0.350	9.571	29.882	39.453	-20.833	60.286	QUASIPeAK
4		2.102	9.772	24.458	34.230	-21.770	56.000	QUASIPeAK
5		5.918	9.730	27.274	37.004	-22.996	60.000	QUASIPeAK
6		6.514	9.750	25.472	35.222	-24.778	60.000	QUASIPeAK

Note:

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

Engineer : John	
Site : SR-1 (Conducted Emission and Power Test)	Time : 2006/12/04 - 23:32
Limit : FCC_Part15_B_00M_AV	Margin : 0
EUT : IP-Set Top Box	Probe : ENV216 - Line2
Power : AC 120V/60Hz	Note : Mode 2: Transmit by 802.11g (2437MHz)



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1	*	0.174	9.565	37.540	47.105	-8.209	55.314	AVERAGE
2		0.194	9.467	28.450	37.916	-16.827	54.743	AVERAGE
3		0.350	9.571	23.710	33.281	-17.005	50.286	AVERAGE
4		2.102	9.772	13.560	23.332	-22.668	46.000	AVERAGE
5		5.918	9.730	16.480	26.210	-23.790	50.000	AVERAGE
6		6.514	9.750	14.650	24.400	-25.600	50.000	AVERAGE

Note:

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

3.7. Test Photograph

Test Mode: Mode 1: Transmit by 802.11b

Description: Front View of Conduction Test



Test Mode: Mode 1: Transmit by 802.11b

Description: Back View of Conduction Test



Test Mode: Mode 2: Transmit by 802.11g

Description: Front View of Conduction Test



Test Mode: Mode 2: Transmit by 802.11g

Description: Back View of Conduction Test



4. Radiated Emission

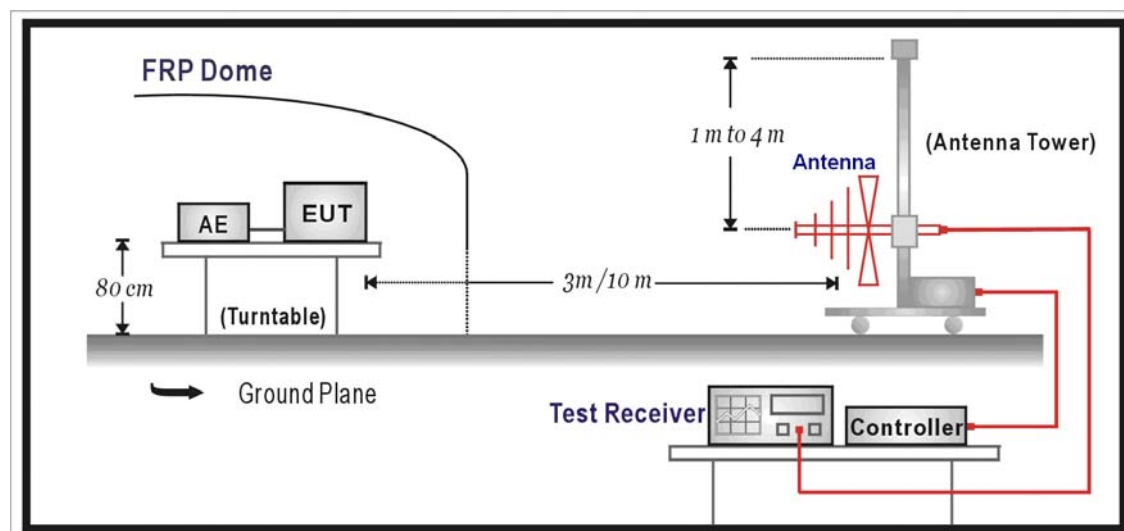
4.1. Test Equipment

Radiated Emission / AC-2

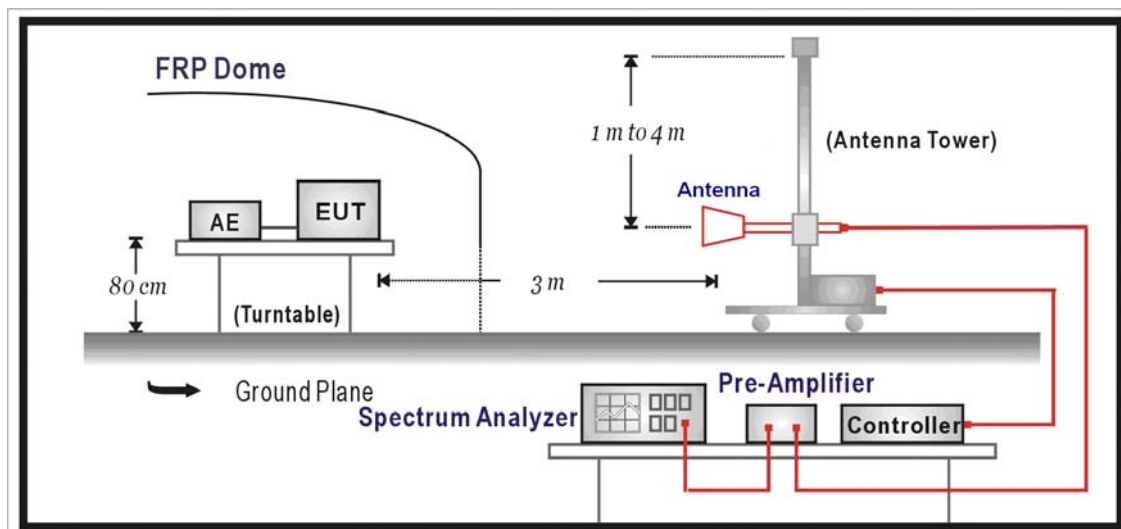
Instrument	Manufacturer	Type No.	Serial No	Cal. Date
Spectrum Analyzer	Agilent	E4408B	MY45102679	2006/11/20
EMI Test Receiver	R&S	ESCI	100175	2006/11/25
Preamplifier	Quietek	AP-025C	QT-AP003	2006/11/25
Preamplifier	Quietek	AP-180C	CHM-0602013	2006/03/20
Bilog Type Antenna	Schaffner	CBL6112B	2932	2006/10/26
Broad-Band Horn Antenna	Schwarzbeck	BBHA9120D	496	2006/11/30
Broad-Band Horn Antenna	Schwarzbeck	BBHA9170	294	2006/11/30
Temperature/Humidity Meter	zhicheng	ZC1-2	QT-TH002	2006/03/30

4.2. Test Setup

Under 1GHz Test Setup:



Above 1GHz Test Setup:



4.3. Limit

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

Remark:

1. The tighter limit shall apply at the edge between two frequency bands.
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.
3. $RF \text{ Voltage (dBuV/m)} = 20 \log RF \text{ Voltage (uV/m)}$

4.4. Test Procedure

The EUT and its simulators are placed on a turn table which is 0.8 meter above ground.

The turn table can rotate 360 degrees to determine the position of the maximum emission level and the antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level.

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

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

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

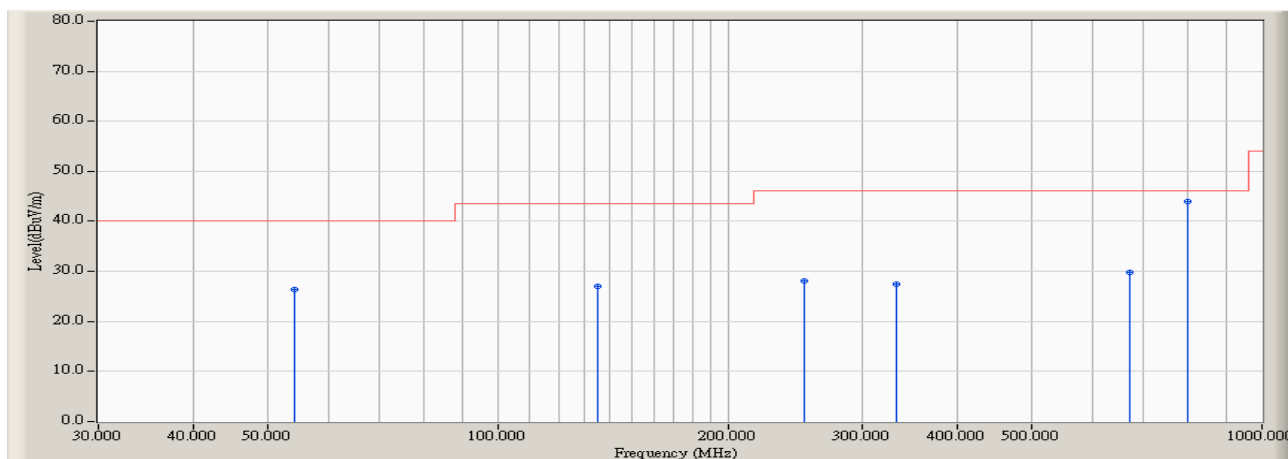
The frequency range from 30MHz to 10th harmonic is checked.

4.5. Uncertainty

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

4.6. Test Result

Engineer : Johnwang	
Site : AC-2	Time : 2006/11/19 - 12:36
Limit : FCC_SpartC_15.209_03M_QP	Margin : 0
EUT : IP-Set Top Box	Probe : CBL6141A_4278(30-2000MHz) - HORIZONTAL
Power : AC 120V/60Hz	Note : Mode 1: Transmit by 802.11b (2412MHz)

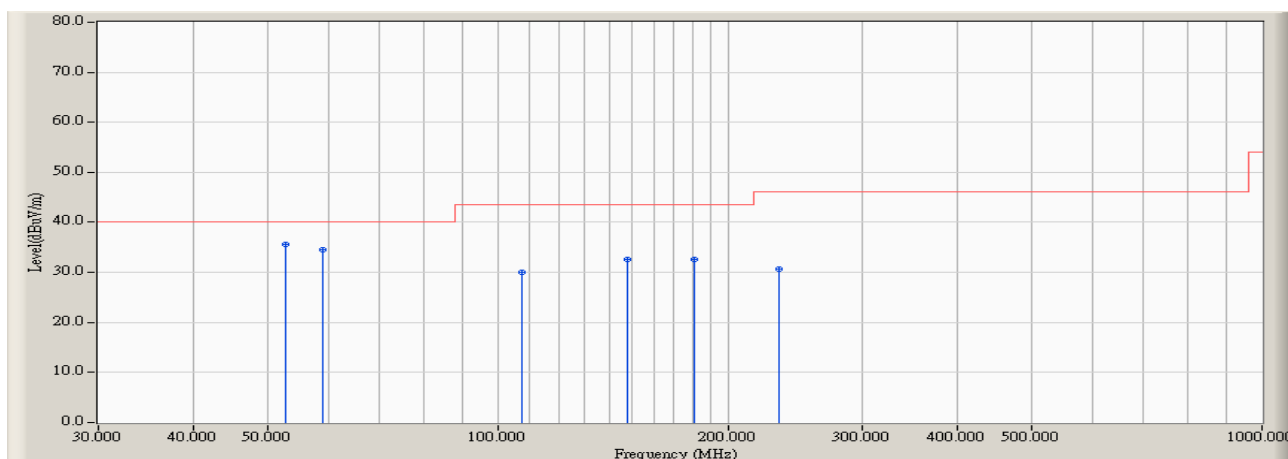


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		54.250	-13.047	39.436	26.389	-13.611	40.000	QUASIPeAK
2		135.083	-11.900	39.013	27.113	-16.407	43.520	QUASIPeAK
3		251.483	-11.016	39.186	28.170	-17.850	46.020	QUASIPeAK
4		332.317	-8.840	36.212	27.372	-18.648	46.020	QUASIPeAK
5		671.817	-1.971	31.751	29.780	-16.240	46.020	QUASIPeAK
6	*	799.533	-0.713	44.766	44.053	-1.967	46.020	QUASIPeAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Engineer : Johnwang	
Site : AC-2	Time : 2006/11/19 - 12:43
Limit : FCC_SpartC_15.209_03M_QP	Margin : 0
EUT : IP-Set Top Box	Probe : CBL6141A_4278(30-2000MHz) - VERTICAL
Power : AC 120V/60Hz	Note : Mode 1: Transmit by 802.11b (2412MHz)

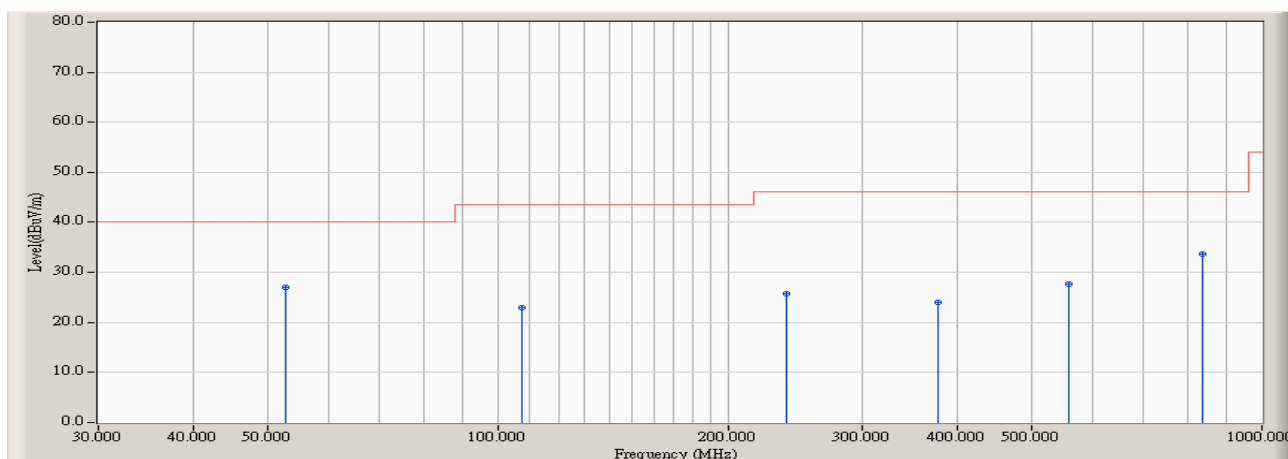


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	52.633	-12.297	47.957	35.661	-4.339	40.000	QUASIPeAK
2		59.100	-15.083	49.694	34.611	-5.389	40.000	QUASIPeAK
3		107.600	-13.384	43.497	30.113	-13.407	43.520	QUASIPeAK
4		148.017	-11.732	44.259	32.527	-10.993	43.520	QUASIPeAK
5		180.350	-13.789	46.412	32.623	-10.897	43.520	QUASIPeAK
6		233.700	-11.812	42.458	30.646	-15.374	46.020	QUASIPeAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Engineer : Johnwang	
Site : AC-2	Time : 2006/11/19 - 12:47
Limit : FCC_SpartC_15.209_03M_QP	Margin : 0
EUT : IP-Set Top Box	Probe : CBL6141A_4278(30-2000MHz) - HORIZONTAL
Power : AC 120V/60Hz	Note : Mode 1: Transmit by 802.11b (2437MHz)

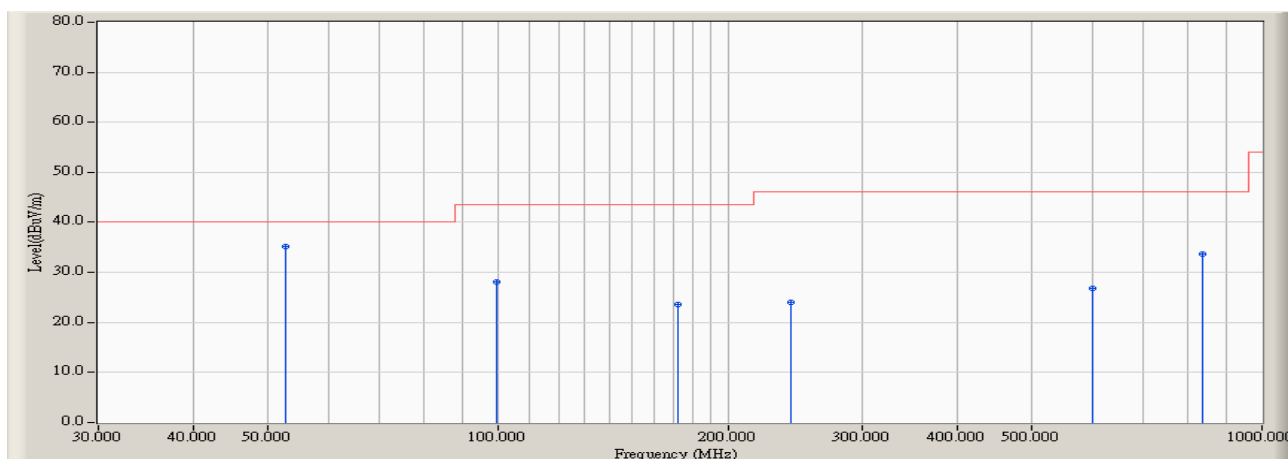


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		52.633	-12.297	39.419	27.123	-12.877	40.000	QUASIPeak
2		107.600	-13.384	36.286	22.902	-20.618	43.520	QUASIPeak
3		238.550	-11.687	37.530	25.843	-20.177	46.020	QUASIPeak
4		375.967	-8.005	32.054	24.048	-21.972	46.020	QUASIPeak
5		558.650	-3.657	31.303	27.646	-18.374	46.020	QUASIPeak
6	*	835.100	-0.002	33.613	33.611	-12.409	46.020	QUASIPeak

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Engineer : Johnwang	
Site : AC-2	Time : 2006/11/19 - 12:51
Limit : FCC_SpartC_15.209_03M_QP	Margin : 0
EUT : IP-Set Top Box	Probe : CBL6141A_4278(30-2000MHz) - VERTICAL
Power : AC 120V/60Hz	Note : Mode 1: Transmit by 802.11b (2437MHz)

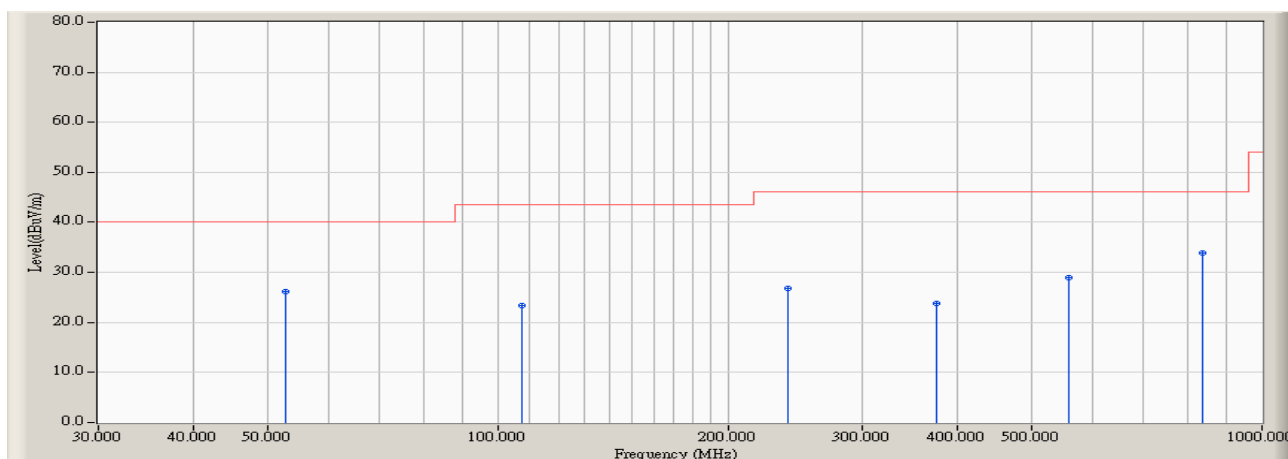


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	52.633	-12.297	47.540	35.244	-4.756	40.000	QUASIPeAK
2		99.517	-14.125	42.245	28.119	-15.401	43.520	QUASIPeAK
3		172.267	-13.312	36.873	23.561	-19.959	43.520	QUASIPeAK
4		241.783	-11.540	35.601	24.061	-21.959	46.020	QUASIPeAK
5		599.067	-3.790	30.630	26.840	-19.180	46.020	QUASIPeAK
6		835.100	-0.002	33.569	33.567	-12.453	46.020	QUASIPeAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Engineer : Johnwang	
Site : AC-2	Time : 2006/11/19 - 12:55
Limit : FCC_SpartC_15.209_03M_QP	Margin : 0
EUT : IP-Set Top Box	Probe : CBL6141A_4278(30-2000MHz) - HORIZONTAL
Power : AC 120V/60Hz	Note : Mode 1: Transmit by 802.11b (2462MHz)

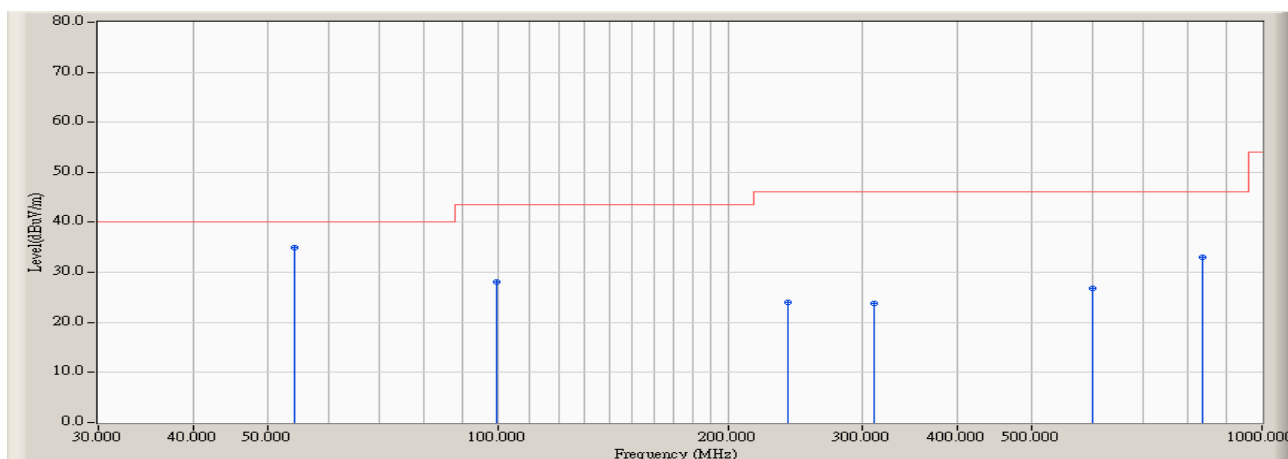


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		52.633	-12.297	38.436	26.140	-13.860	40.000	QUASIPeAK
2		107.600	-13.384	36.730	23.346	-20.174	43.520	QUASIPeAK
3		240.167	-11.618	38.481	26.862	-19.158	46.020	QUASIPeAK
4		374.350	-8.090	31.937	23.847	-22.173	46.020	QUASIPeAK
5		558.650	-3.657	32.554	28.897	-17.123	46.020	QUASIPeAK
6	*	835.100	-0.002	33.911	33.909	-12.111	46.020	QUASIPeAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Engineer : Johnwang	
Site : AC-2	Time : 2006/11/19 - 13:00
Limit : FCC_SpartC_15.209_03M_QP	Margin : 0
EUT : IP-Set Top Box	Probe : CBL6141A_4278(30-2000MHz) - VERTICAL
Power : AC 120V/60Hz	Note : Mode 1: Transmit by 802.11b (2462MHz)

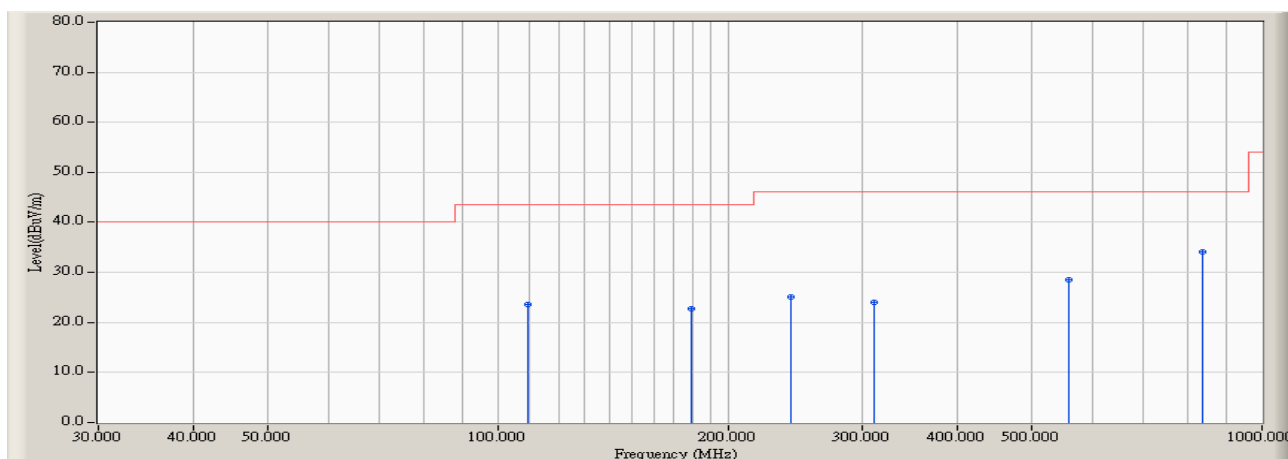


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	54.250	-13.047	47.986	34.939	-5.061	40.000	QUASIPeAK
2		99.517	-14.125	42.271	28.145	-15.375	43.520	QUASIPeAK
3		240.167	-11.618	35.705	24.086	-21.934	46.020	QUASIPeAK
4		311.300	-9.278	33.100	23.822	-22.198	46.020	QUASIPeAK
5		599.067	-3.790	30.528	26.738	-19.282	46.020	QUASIPeAK
6		835.100	-0.002	33.029	33.027	-12.993	46.020	QUASIPeAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Engineer : Johnwang	
Site : AC-2	Time : 2006/11/19 - 13:07
Limit : FCC_SpartC_15.209_03M_QP	Margin : 0
EUT : IP-Set Top Box	Probe : CBL6141A_4278(30-2000MHz) - HORIZONTAL
Power : AC 120V/60Hz	Note : Mode 2: Transmit by 802.11g (2412MHz)

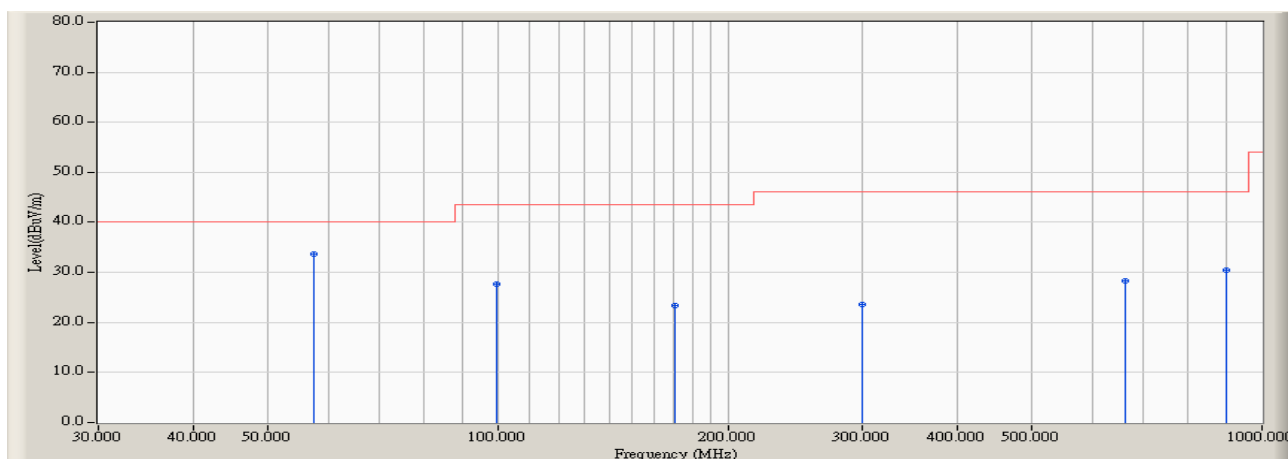


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		109.217	-13.240	36.935	23.695	-19.825	43.520	QUASIPeAK
2		178.733	-13.722	36.445	22.723	-20.797	43.520	QUASIPeAK
3		241.783	-11.540	36.701	25.161	-20.859	46.020	QUASIPeAK
4		311.300	-9.278	33.315	24.037	-21.983	46.020	QUASIPeAK
5		558.650	-3.657	32.077	28.420	-17.600	46.020	QUASIPeAK
6	*	835.100	-0.002	34.088	34.086	-11.934	46.020	QUASIPeAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Engineer : Johnwang	
Site : AC-2	Time : 2006/11/19 - 13:13
Limit : FCC_SpartC_15.209_03M_QP	Margin : 0
EUT : IP-Set Top Box	Probe : CBL6141A_4278(30-2000MHz) - VERTICAL
Power : AC 120V/60Hz	Note : Mode 2: Transmit by 802.11g (2412MHz)

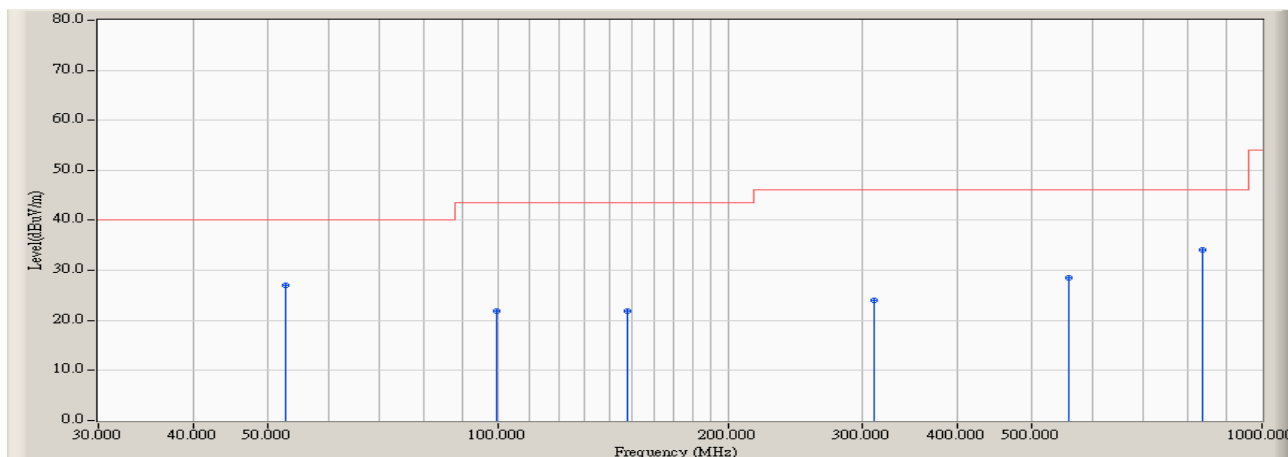


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	57.483	-14.485	48.185	33.701	-6.299	40.000	QUASIPeAK
2		99.517	-14.125	41.898	27.772	-15.748	43.520	QUASIPeAK
3		170.650	-13.181	36.639	23.458	-20.062	43.520	QUASIPeAK
4		299.983	-10.132	33.677	23.545	-22.475	46.020	QUASIPeAK
5		663.733	-2.132	30.432	28.299	-17.721	46.020	QUASIPeAK
6		898.150	0.167	30.198	30.365	-15.655	46.020	QUASIPeAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Engineer : Johnwang	
Site : AC-2	Time : 2006/11/19 - 13:08
Limit : FCC_SpartC_15.209_03M_QP	Margin : 0
EUT : IP-Set Top Box	Probe : CBL6141A_4278(30-2000MHz) - HORIZONTAL
Power : AC 120V/60Hz	Note : Mode 2: Transmit by 802.11g (2437MHz)

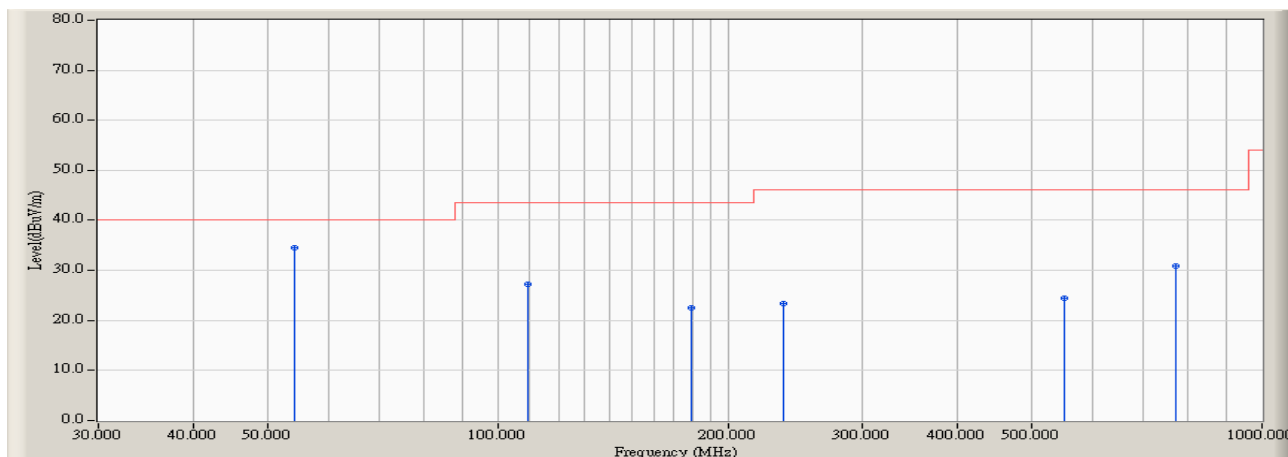


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		52.633	-12.297	39.364	27.068	-12.932	40.000	QUASIPeAK
2		99.517	-14.125	36.080	21.954	-21.566	43.520	QUASIPeAK
3		148.017	-11.732	33.565	21.833	-21.687	43.520	QUASIPeAK
4		311.300	-9.278	33.315	24.037	-21.983	46.020	QUASIPeAK
5		558.650	-3.657	32.077	28.420	-17.600	46.020	QUASIPeAK
6	*	835.100	-0.002	34.088	34.086	-11.934	46.020	QUASIPeAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Engineer : Johnwang	
Site : AC-2	Time : 2006/11/19 - 13:13
Limit : FCC_SpartC_15.209_03M_QP	Margin : 0
EUT : IP-Set Top Box	Probe : CBL6141A_4278(30-2000MHz) - VERTICAL
Power : AC 120V/60Hz	Note : Mode 2: Transmit by 802.11g (2437MHz)

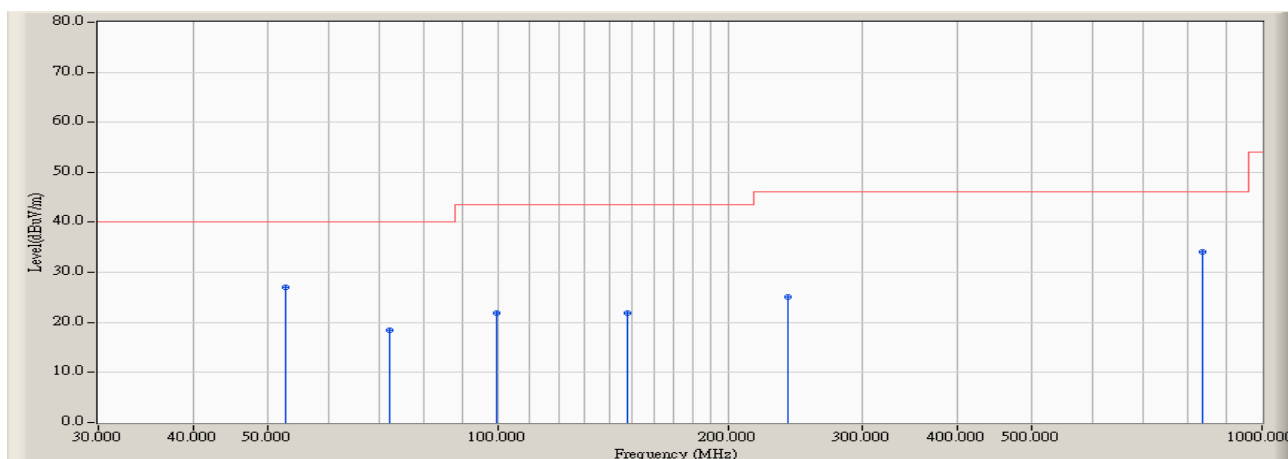


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	54.250	-13.047	47.518	34.471	-5.529	40.000	QUASIPeAK
2		109.217	-13.240	40.580	27.340	-16.180	43.520	QUASIPeAK
3		178.733	-13.722	36.318	22.596	-20.924	43.520	QUASIPeAK
4		236.933	-11.762	35.077	23.316	-22.704	46.020	QUASIPeAK
5		552.183	-4.166	28.538	24.372	-21.648	46.020	QUASIPeAK
6		770.433	-0.403	31.197	30.794	-15.226	46.020	QUASIPeAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Engineer : Johnwang	
Site : AC-2	Time : 2006/11/19 - 13:08
Limit : FCC_SpartC_15.209_03M_QP	Margin : 0
EUT : IP-Set Top Box	Probe : CBL6141A_4278(30-2000MHz) - HORIZONTAL
Power : AC 120V/60Hz	Note : Mode 2: Transmit by 802.11g (2462MHz)

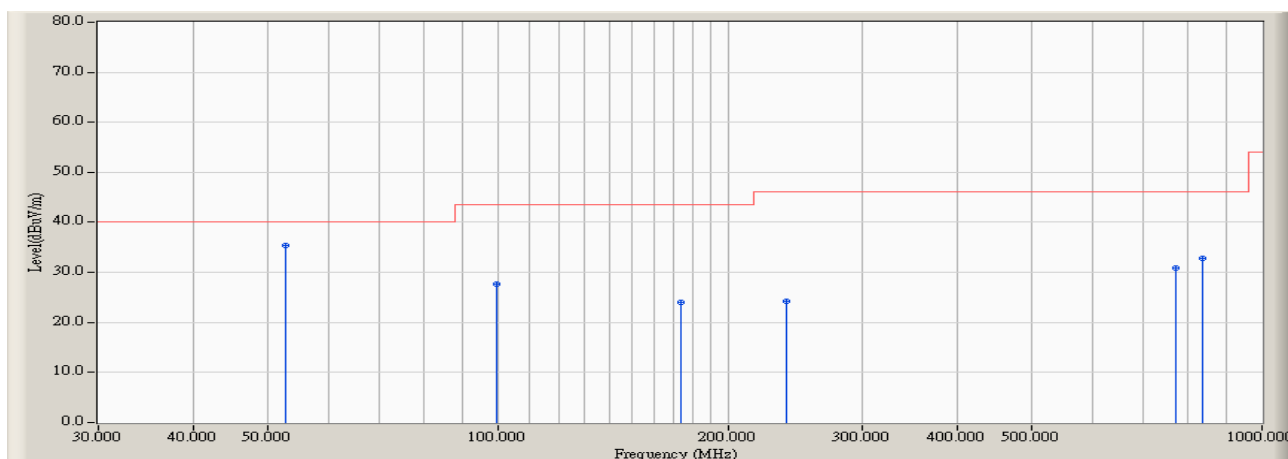


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		52.633	-12.297	39.364	27.068	-12.932	40.000	QUASIPeAK
2		72.033	-17.063	35.453	18.390	-21.610	40.000	QUASIPeAK
3		99.517	-14.125	36.080	21.954	-21.566	43.520	QUASIPeAK
4		148.017	-11.732	33.565	21.833	-21.687	43.520	QUASIPeAK
5		240.167	-11.618	36.609	24.990	-21.030	46.020	QUASIPeAK
6	*	835.100	-0.002	34.088	34.086	-11.934	46.020	QUASIPeAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Engineer : Johnwang	
Site : AC-2	Time : 2006/11/19 - 13:12
Limit : FCC_SpartC_15.209_03M_QP	Margin : 0
EUT : IP-Set Top Box	Probe : CBL6141A_4278(30-2000MHz) - VERTICAL
Power : AC 120V/60Hz	Note : Mode 2: Transmit by 802.11g (2462MHz)

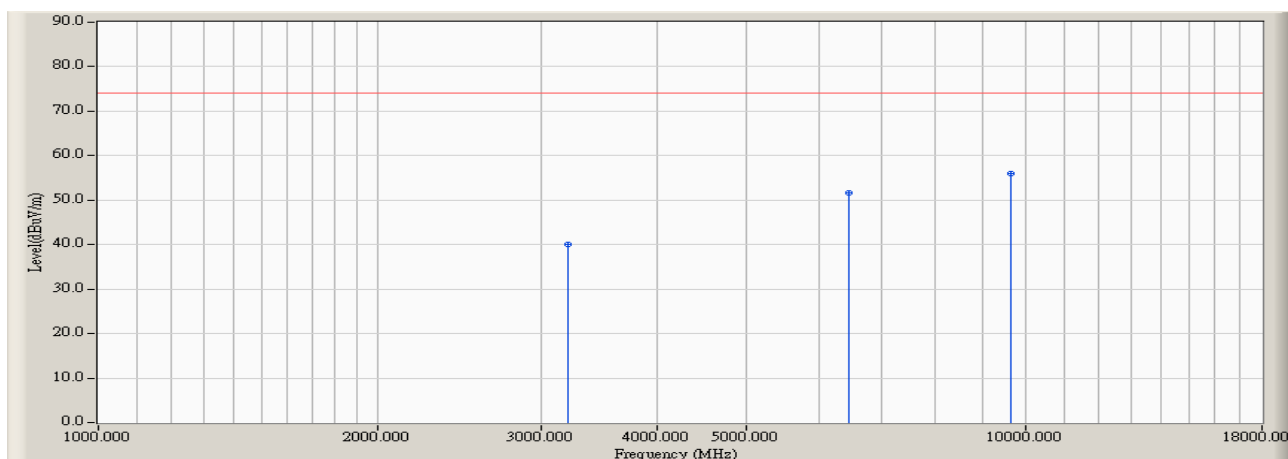


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	52.633	-12.297	47.735	35.439	-4.561	40.000	QUASIPeAK
2		99.517	-14.125	41.898	27.772	-15.748	43.520	QUASIPeAK
3		173.883	-13.449	37.365	23.916	-19.604	43.520	QUASIPeAK
4		238.550	-11.687	35.847	24.160	-21.860	46.020	QUASIPeAK
5		770.433	-0.403	31.197	30.794	-15.226	46.020	QUASIPeAK
6		835.100	-0.002	32.778	32.776	-13.244	46.020	QUASIPeAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Engineer : Johnwang	
Site : AC-2)	Time : 2006/11/20 - 15:33
Limit : FCC_SpartC_15.209_03M_PK	Margin : 0
EUT : IP-Set Top Box	Probe : 9120D_(1G-18G) - HORIZONTAL
Power : AC 120V/60Hz	Note : Mode 1: Transmit by 802.11b (2412MHz)

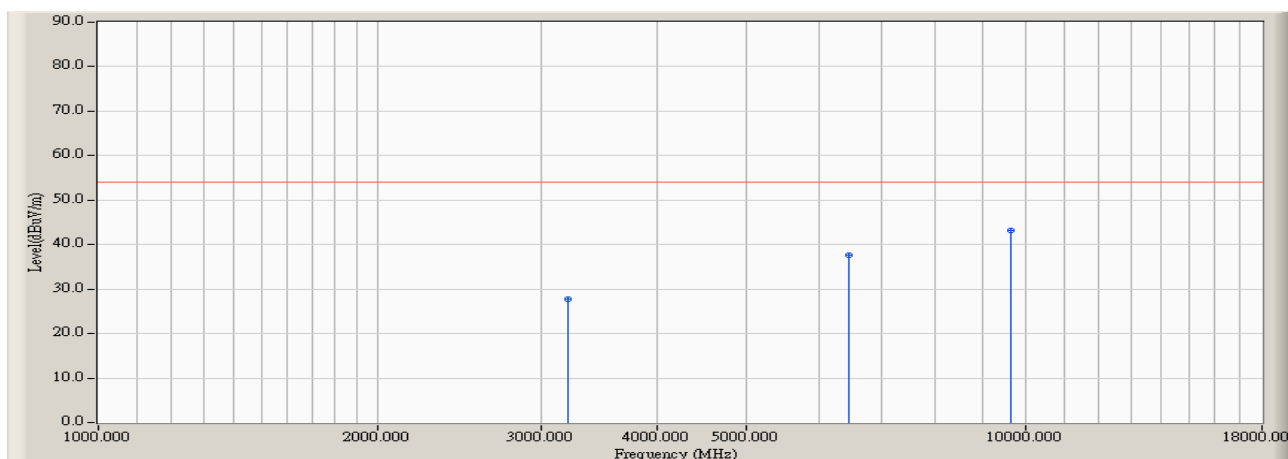


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		3210.000	-0.190	40.290	40.100	-33.870	73.970	PEAK
2		6440.000	11.430	40.110	51.540	-22.430	73.970	PEAK
3	*	9641.000	17.071	38.970	56.041	-17.929	73.970	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Engineer : Johnwang	
Site : AC-2)	Time : 2006/11/20 - 15:33
Limit : FCC_SpartC_15.209_03M_AV	Margin : 0
EUT : IP-Set Top Box	Probe : 9120D_(1G-18G) - HORIZONTAL
Power : AC 120V/60Hz	Note : Mode 1: Transmit by 802.11b (2412MHz)

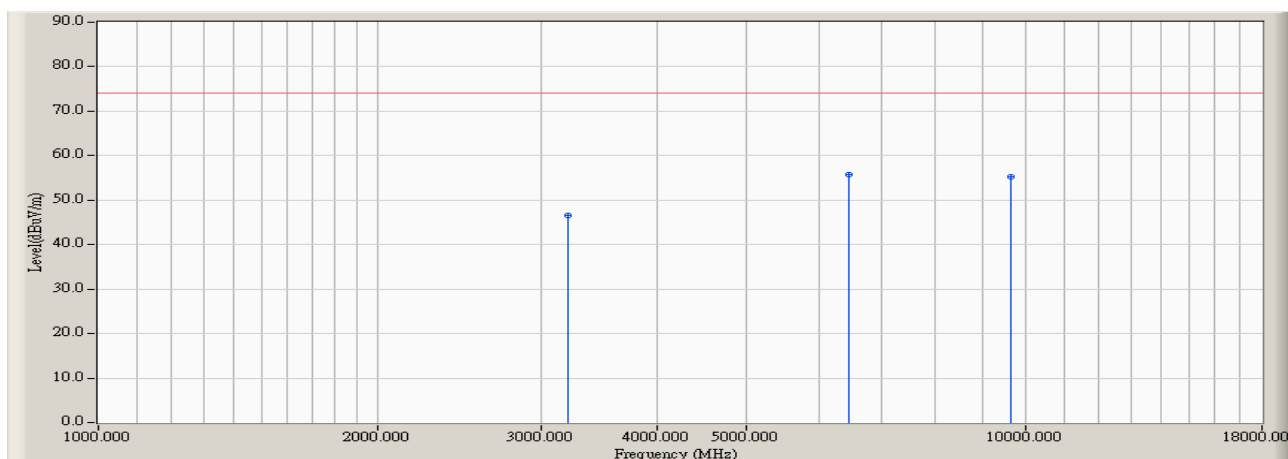


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		3210.000	-0.190	27.818	27.628	-26.342	53.970	AVERAGE
2		6440.000	11.430	26.212	37.642	-16.328	53.970	AVERAGE
3	*	9641.667	17.074	26.037	43.110	-10.860	53.970	AVERAGE

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Engineer : Johnwang	
Site : AC-2)	Time : 2006/11/20 - 15:35
Limit : FCC_SpartC_15.209_03M_PK	Margin : 0
EUT : IP-Set Top Box	Probe : 9120D_(1G-18G) - VERTICAL
Power : AC 120V/60Hz	Note : Mode 1: Transmit by 802.11b (2412MHz)

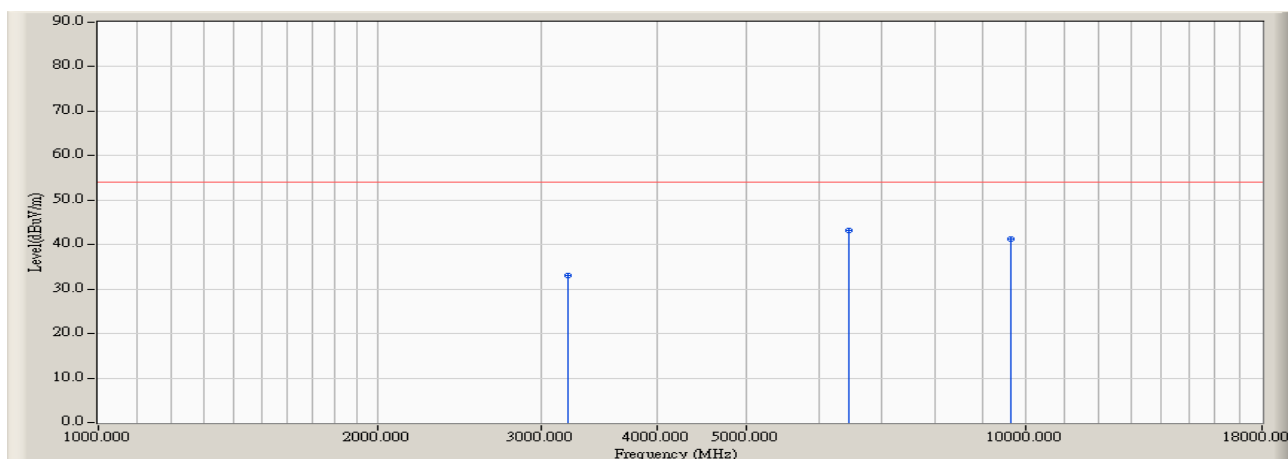


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		3210.000	-0.190	46.816	46.626	-27.344	73.970	PEAK
2	*	6440.000	11.430	44.288	55.718	-18.252	73.970	PEAK
3		9641.667	17.074	38.095	55.168	-18.802	73.970	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Engineer : Johnwang	
Site : AC-2)	Time : 2006/11/20 - 15:35
Limit : FCC_SpartC_15.209_03M_AV	Margin : 0
EUT : IP-Set Top Box	Probe : 9120D_(1G-18G) - VERTICAL
Power : AC 120V/60Hz	Note : Mode 1: Transmit by 802.11b (2412MHz)

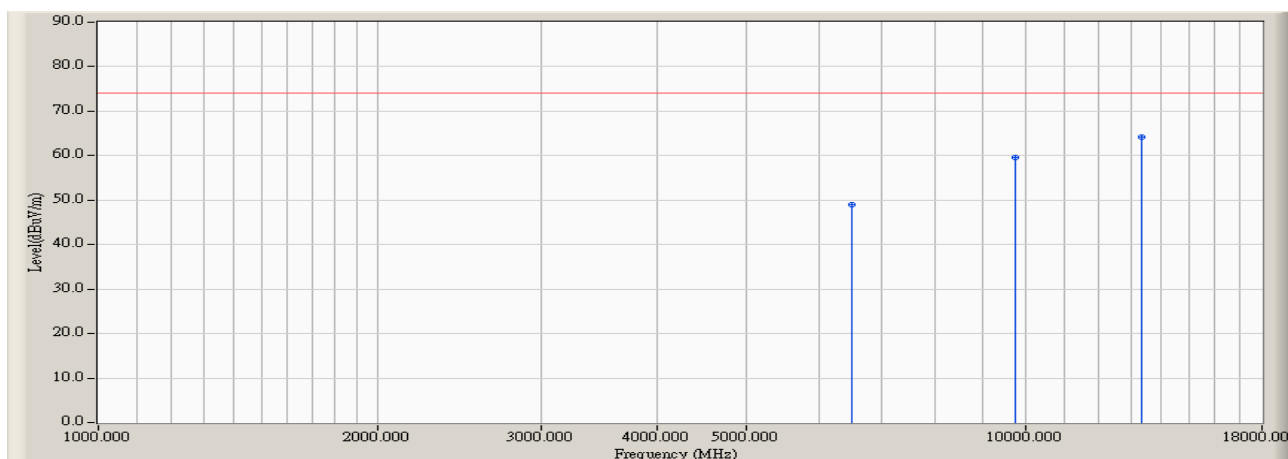


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		3210.000	-0.190	33.254	33.064	-20.906	53.970	AVERAGE
2	*	6440.000	11.430	31.652	43.082	-10.888	53.970	AVERAGE
3		9641.667	17.074	24.089	41.162	-12.808	53.970	AVERAGE

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Engineer : Johnwang	
Site : AC-2)	Time : 2006/11/20 - 15:40
Limit : FCC_SpartC_15.209_03M_PK	Margin : 0
EUT : IP-Set Top Box	Probe : 9120D_(1G-18G) - HORIZONTAL
Power : AC 120V/60Hz	Note : Mode 1: Transmit by 802.11b (2437MHz)

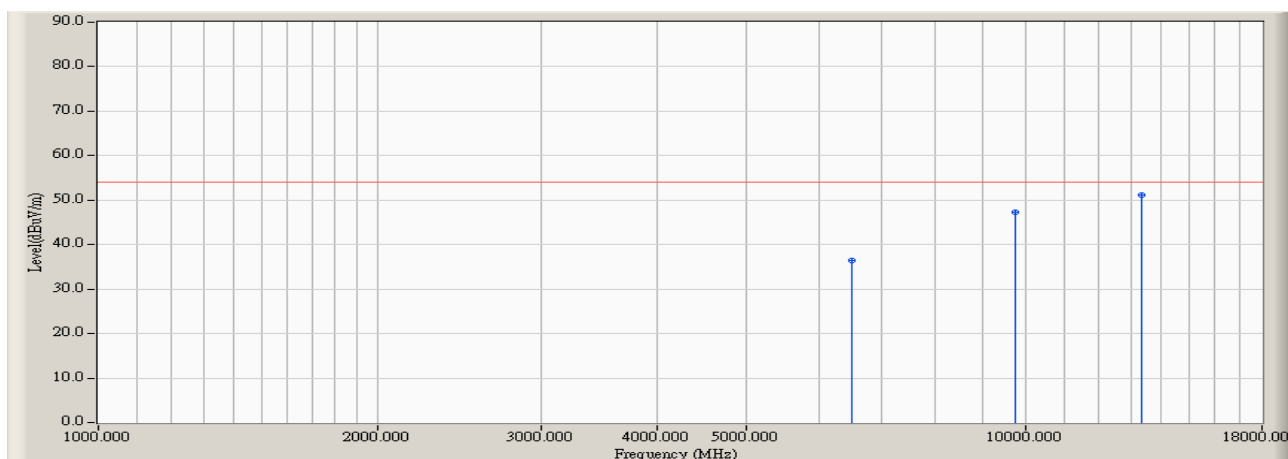


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		6496.667	11.763	37.310	49.073	-24.897	73.970	PEAK
2		9755.000	17.520	42.150	59.670	-14.300	73.970	PEAK
3	*	13353.333	22.311	41.830	64.140	-9.830	73.970	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Engineer : Johnwang	
Site : AC-2)	Time : 2006/11/20 - 15:40
Limit : FCC_SpartC_15.209_03M_AV	Margin : 0
EUT : IP-Set Top Box	Probe : 9120D_(1G-18G) - HORIZONTAL
Power : AC 120V/60Hz	Note : Mode 1: Transmit by 802.11b (2437MHz)

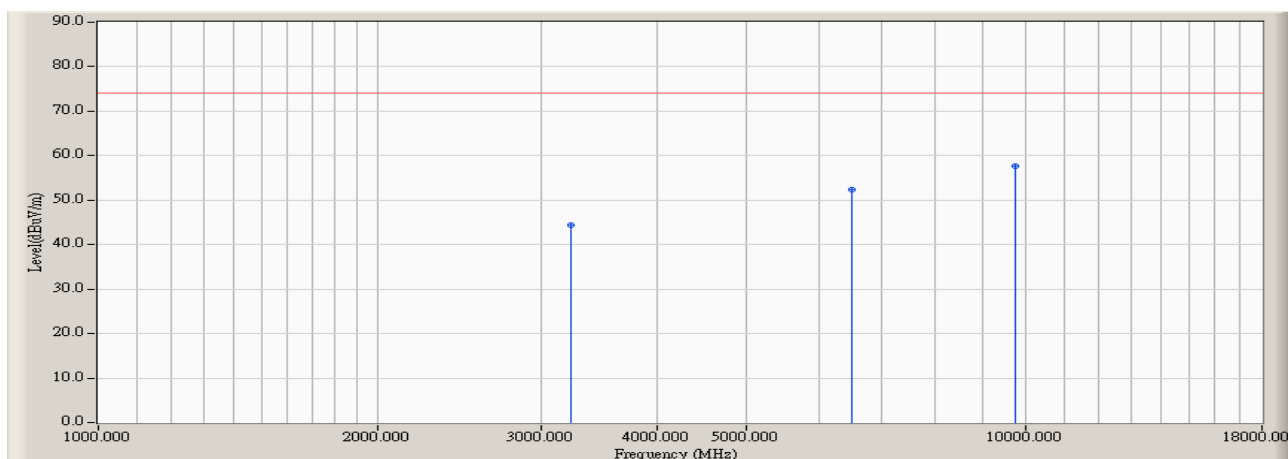


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		6496.667	11.763	24.558	36.321	-17.649	53.970	AVERAGE
2		9755.000	17.520	29.695	47.215	-6.755	53.970	AVERAGE
3	*	13353.333	22.311	28.956	51.266	-2.704	53.970	AVERAGE

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Engineer : Johnwang	
Site : AC-2	Time : 2006/11/20 - 15:45
Limit : FCC_SpartC_15.209_03M_PK	Margin : 0
EUT : IP-Set Top Box	Probe : 9120D_(1G-18G) - VERTICAL
Power : AC 120V/60Hz	Note : Mode 1: Transmit by 802.11b (2437MHz)

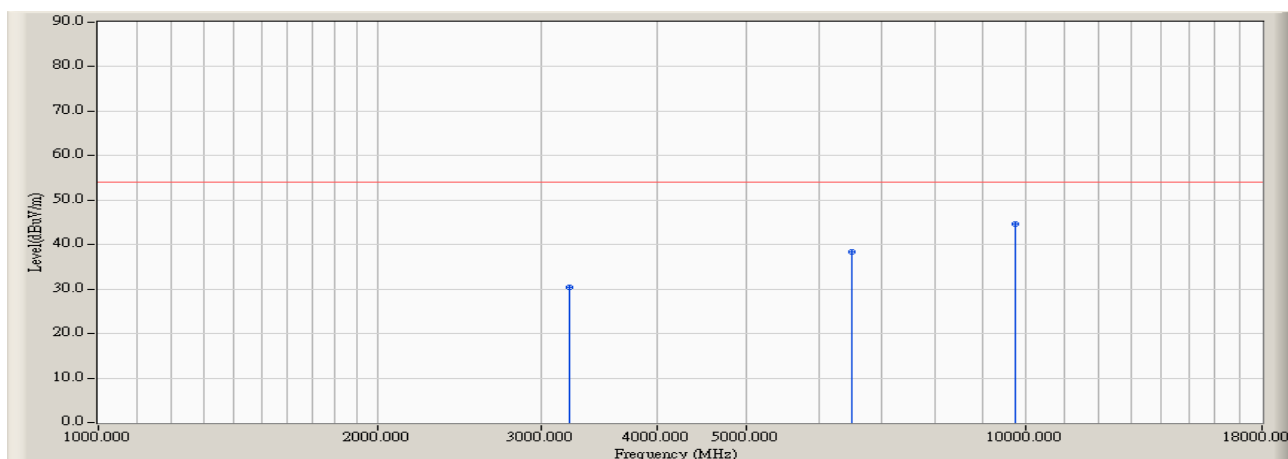


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		3238.333	-0.251	44.623	44.373	-29.597	73.970	PEAK
2		6496.667	11.763	40.506	52.269	-21.701	73.970	PEAK
3	*	9755.000	17.520	40.137	57.657	-16.313	73.970	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Engineer : Johnwang	
Site : AC-2	Time : 2006/11/20 - 15:45
Limit : FCC_SpartC_15.209_03M_AV	Margin : 0
EUT : IP-Set Top Box	Probe : 9120D_(1G-18G) - VERTICAL
Power : AC 120V/60Hz	Note : Mode 1: Transmit by 802.11b (2437MHz)

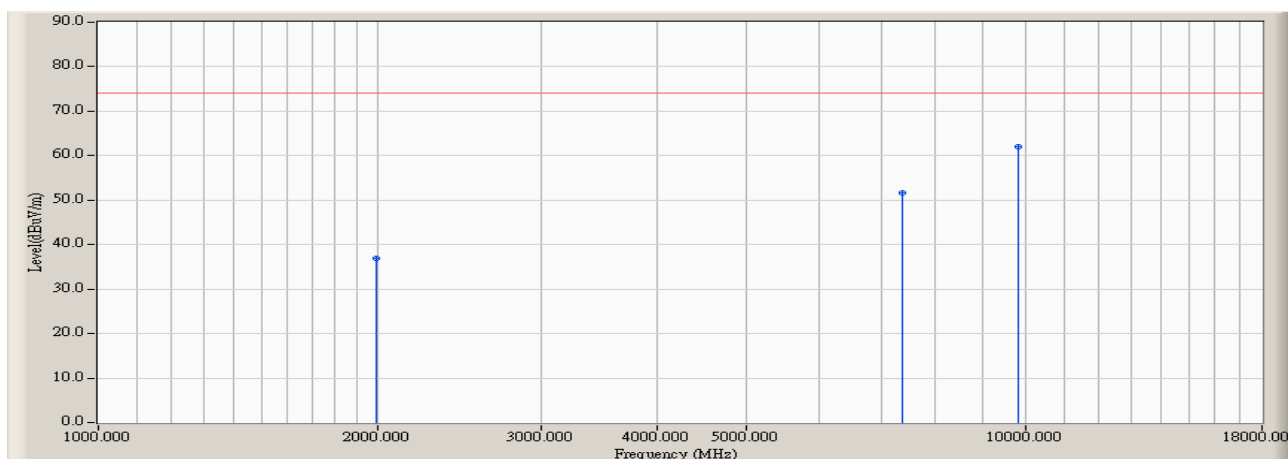


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		3228.333	-0.231	30.522	30.290	-23.680	53.970	AVERAGE
2		6496.667	11.763	26.547	38.310	-15.660	53.970	AVERAGE
3	*	9755.000	17.520	27.116	44.636	-9.334	53.970	AVERAGE

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Engineer : Johnwang	
Site : AC-2)	Time : 2006/11/20 - 15:50
Limit : FCC_SpartC_15.209_03M_PK	Margin : 0
EUT : IP-Set Top Box	Probe : 9120D_(1G-18G) - HORIZONTAL
Power : AC 120V/60Hz	Note : Mode 1: Transmit by 802.11b (2462MHz)

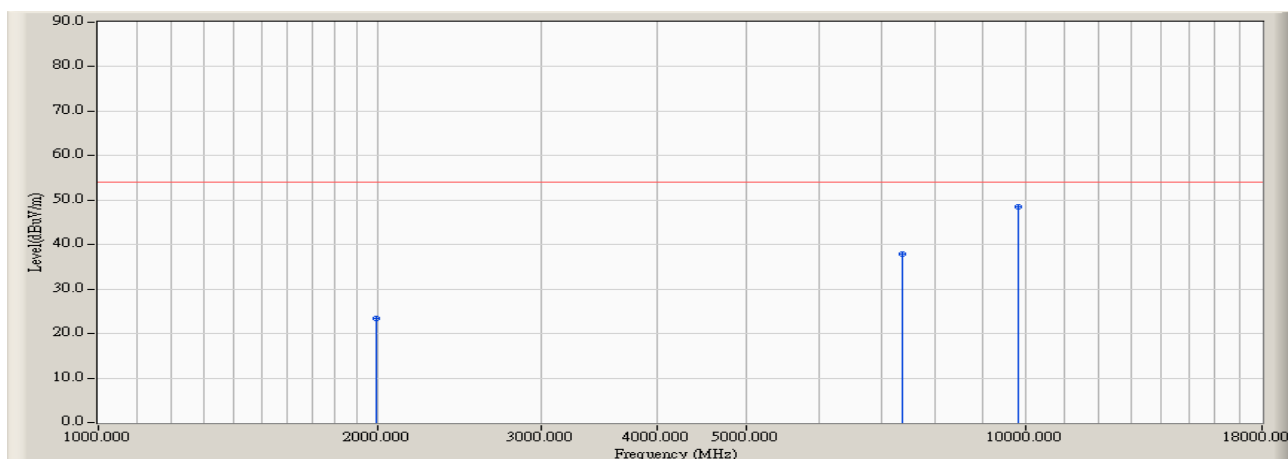


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		1991.667	-3.880	40.863	36.983	-36.987	73.970	PEAK
2		7375.000	15.250	36.360	51.610	-22.360	73.970	PEAK
3	*	9840.000	17.790	44.161	61.951	-12.019	73.970	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Engineer : Johnwang	
Site : AC-2)	Time : 2006/11/20 - 15:50
Limit : FCC_SpartC_15.209_03M_AV	Margin : 0
EUT : IP-Set Top Box	Probe : 9120D_(1G-18G) - HORIZONTAL
Power : AC 120V/60Hz	Note : Mode 1: Transmit by 802.11b (2462Hz)

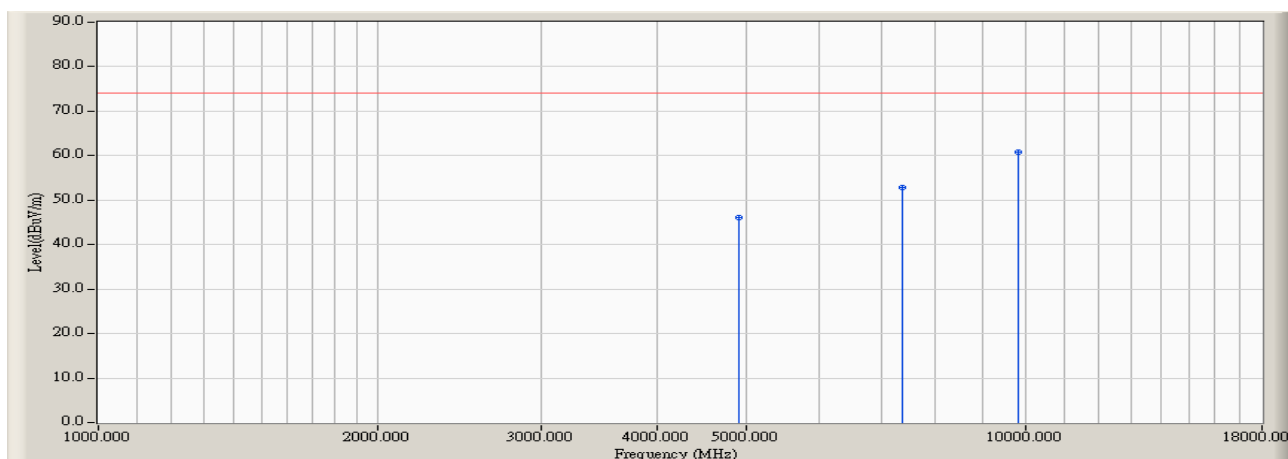


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		1991.667	-3.880	27.266	23.386	-30.584	53.970	AVERAGE
2		7375.000	15.250	22.577	37.827	-16.143	53.970	AVERAGE
3	*	9840.000	17.790	30.628	48.418	-5.552	53.970	AVERAGE

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Engineer : Johnwang	
Site : AC-2)	Time : 2006/11/20 - 15:52
Limit : FCC_SpartC_15.209_03M_PK	Margin : 0
EUT : IP-Set Top Box	Probe : 9120D_(1G-18G) - VERTICAL
Power : AC 120V/60Hz	Note : Mode 1: Transmit by 802.11b (2462Hz)

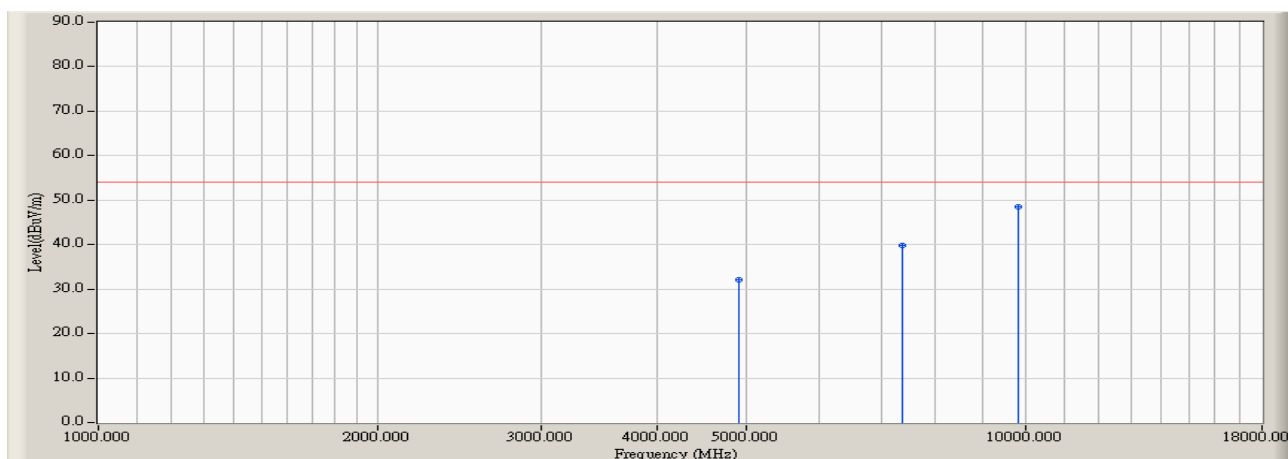


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4910.000	5.100	40.967	46.067	-27.903	73.970	PEAK
2		7375.000	15.250	37.660	52.910	-21.060	73.970	PEAK
3	*	9840.000	17.790	42.994	60.784	-13.186	73.970	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Engineer : Johnwang	
Site : AC-2)	Time : 2006/11/20 - 15:52
Limit : FCC_SpartC_15.209_03M_AV	Margin : 0
EUT : IP-Set Top Box	Probe : 9120D_(1G-18G) - VERTICAL
Power : AC 120V/60Hz	Note : Mode 1: Transmit by 802.11b (2462Hz)

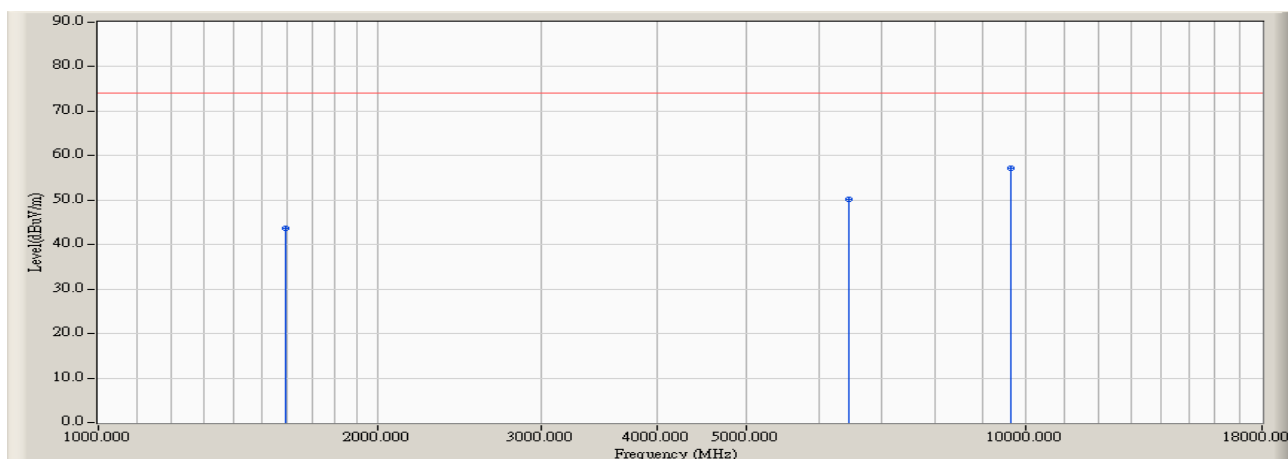


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4910.000	5.100	26.889	31.989	-21.981	53.970	AVERAGE
2		7375.000	15.250	24.556	39.806	-14.164	53.970	AVERAGE
3	*	9840.000	17.790	30.821	48.611	-5.359	53.970	AVERAGE

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Engineer : Johnwang	
Site : AC-2	Time : 2006/11/20 - 16:37
Limit : FCC_SpartC_15.209_03M_PK	Margin : 0
EUT : IP-Set Top Box	Probe : 9120D_(1G-18G) - HORIZONTAL
Power : AC 120V/60Hz	Note : Mode 2: Transmit by 802.11g (2412MHz)

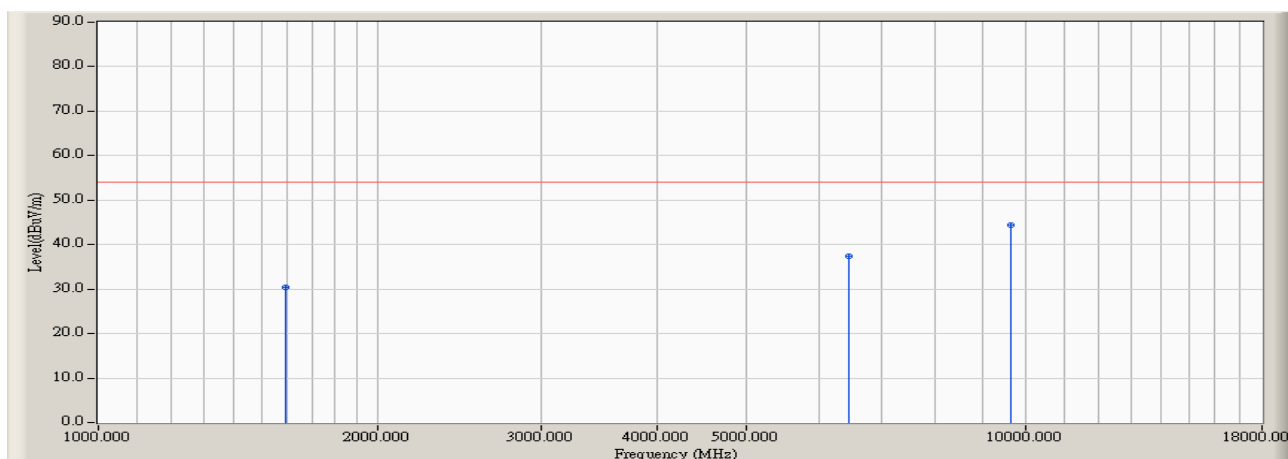


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		1595.000	-5.930	49.620	43.690	-30.280	73.970	PEAK
2		6440.000	11.430	38.852	50.282	-23.688	73.970	PEAK
3	*	9641.667	17.074	40.044	57.117	-16.853	73.970	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Engineer : Johnwang	
Site : AC-2	Time : 2006/11/20 - 16:37
Limit : FCC_SpartC_15.209_03M_AV	Margin : 0
EUT : IP-Set Top Box	Probe : 9120D_(1G-18G) - HORIZONTAL
Power : AC 120V/60Hz	Note : Mode 2: Transmit by 802.11g (2412MHz)

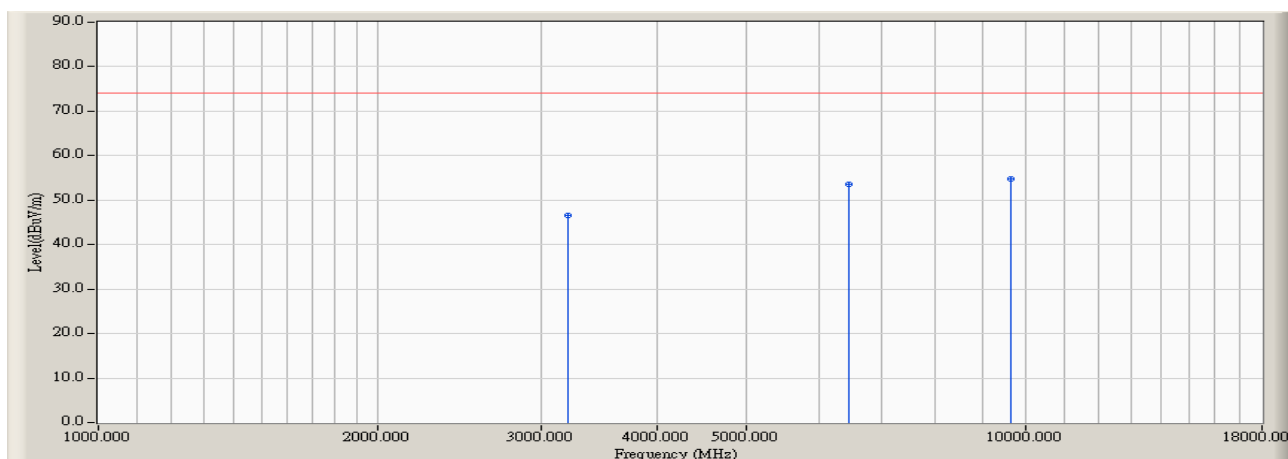


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		1595.000	-5.930	36.253	30.323	-23.647	53.970	AVERAGE
2		6440.000	11.430	25.955	37.385	-16.585	53.970	AVERAGE
3	*	9641.667	17.074	27.268	44.341	-9.629	53.970	AVERAGE

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Engineer : Johnwang	
Site : AC-2	Time : 2006/11/20 - 16:39
Limit : FCC_SpartC_15.209_03M_PK	Margin : 0
EUT : IP-Set Top Box	Probe : 9120D_(1G-18G) - VERTICAL
Power : AC 120V/60Hz	Note : Mode 2: Transmit by 802.11g (2412MHz)

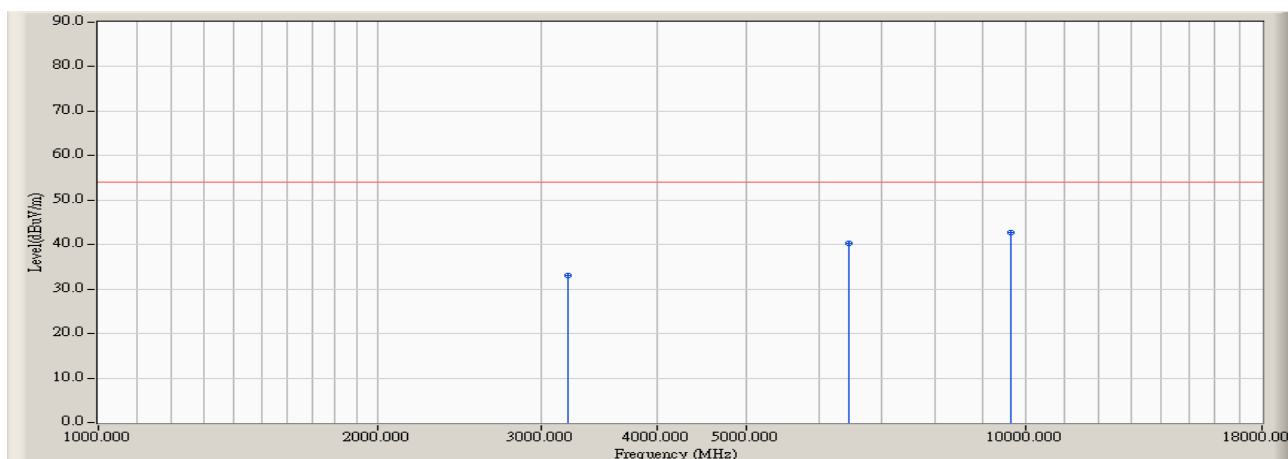


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		3210.000	-0.190	46.870	46.680	-27.290	73.970	PEAK
2		6440.000	11.430	42.061	53.491	-20.479	73.970	PEAK
3	*	9641.667	17.074	37.641	54.714	-19.256	73.970	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Engineer : Johnwang	
Site : AC-2	Time : 2006/11/20 - 16:39
Limit : FCC_SpartC_15.209_03M_AV	Margin : 0
EUT : IP-Set Top Box	Probe : 9120D_(1G-18G) - VERTICAL
Power : AC 120V/60Hz	Note : Mode 2: Transmit by 802.11g (2412MHz)

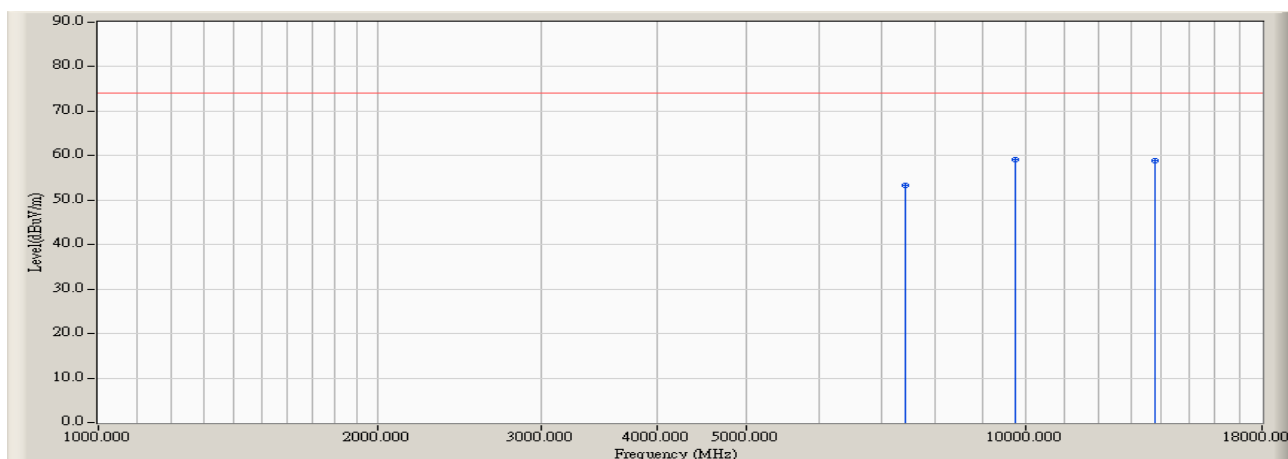


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		3210.000	-0.190	33.226	33.036	-20.934	53.970	AVERAGE
2		6440.000	11.430	28.793	40.223	-13.747	53.970	AVERAGE
3	*	9641.667	17.074	25.668	42.741	-11.229	53.970	AVERAGE

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Engineer : Johnwang	
Site : AC-2	Time : 2006/11/20 - 16:43
Limit : FCC_SpartC_15.209_03M_PK	Margin : 0
EUT : IP-Set Top Box	Probe : 9120D_(1G-18G) - HORIZONTAL
Power : AC 120V/60Hz	Note : Mode 2: Transmit by 802.11g (2437MHz)

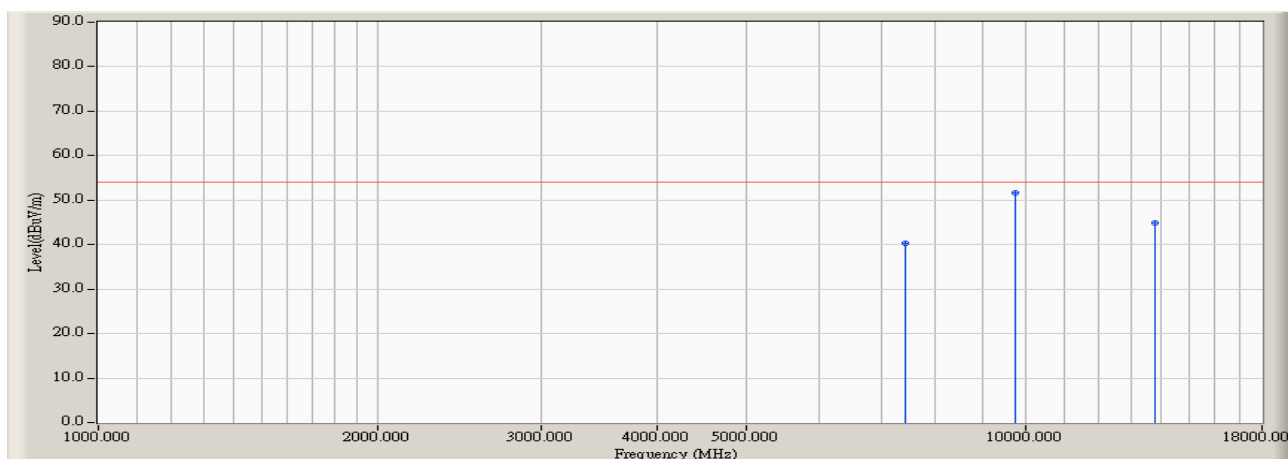


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		7431.667	15.147	38.297	53.444	-20.526	73.970	PEAK
2	*	9755.000	17.520	41.645	59.165	-14.805	73.970	PEAK
3		13806.667	24.054	34.887	58.940	-15.030	73.970	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Engineer : Johnwang	
Site : AC-2	Time : 2006/11/20 - 16:43
Limit : FCC_SpartC_15.209_03M_AV	Margin : 0
EUT : IP-Set Top Box	Probe : 9120D_(1G-18G) - HORIZONTAL
Power : AC 120V/60Hz	Note : Mode 2: Transmit by 802.11g (2437MHz)

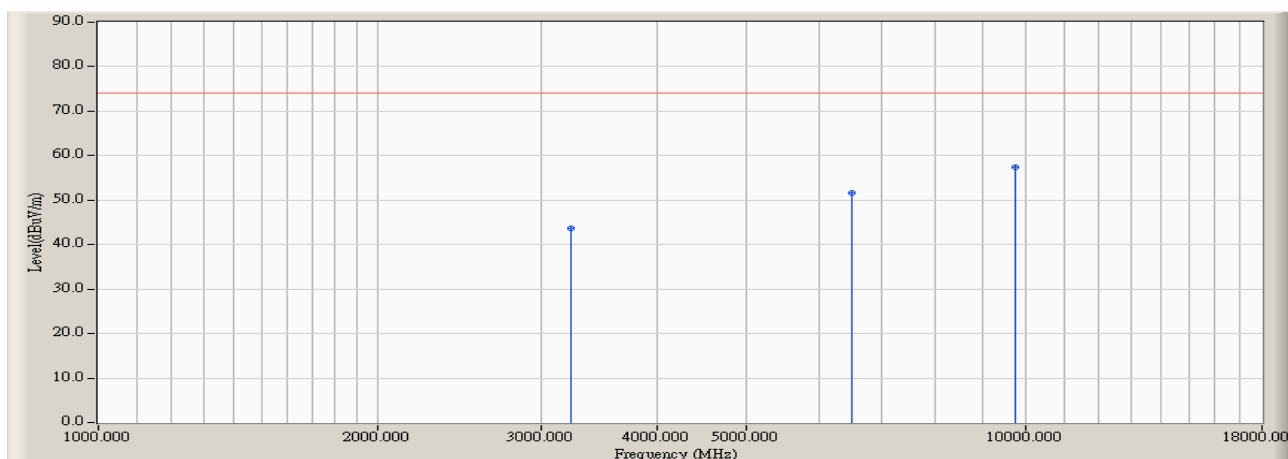


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		7431.667	15.147	25.105	40.252	-13.718	53.970	AVERAGE
2	*	9755.000	17.520	34.068	51.588	-2.382	53.970	AVERAGE
3		13806.667	24.054	20.846	44.899	-9.071	53.970	AVERAGE

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Engineer : Johnwang	
Site : AC-2	Time : 2006/11/20 - 16:46
Limit : FCC_SpartC_15.209_03M_PK	Margin : 0
EUT : IP-Set Top Box	Probe : 9120D_(1G-18G) - VERTICAL
Power : AC 120V/60Hz	Note : Mode 2: Transmit by 802.11g (2437MHz)

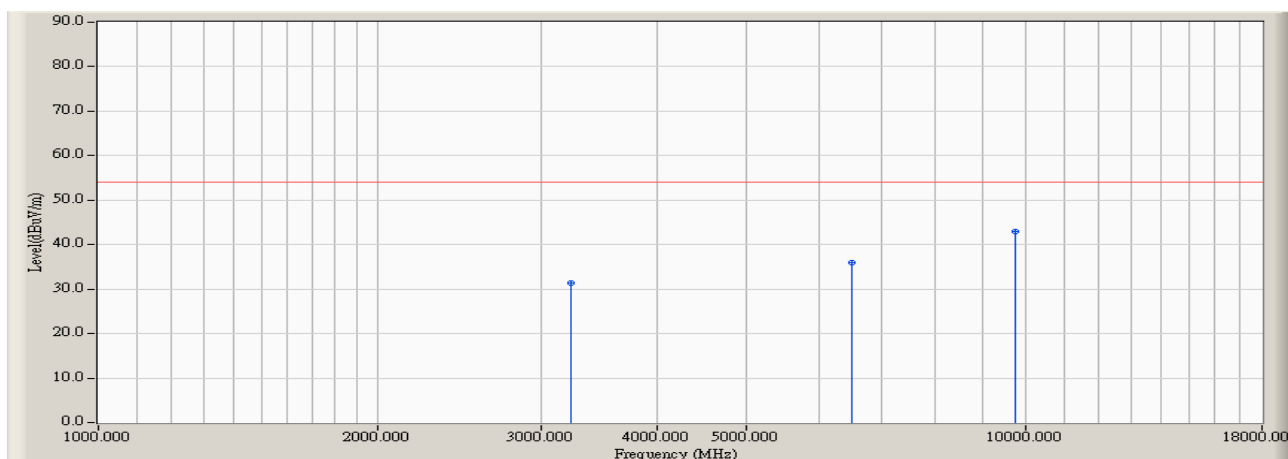


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		3238.333	-0.251	44.041	43.791	-30.179	73.970	PEAK
2		6496.667	11.763	39.831	51.594	-22.376	73.970	PEAK
3	*	9755.000	17.520	39.823	57.343	-16.627	73.970	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Engineer : Johnwang	
Site : AC-2	Time : 2006/11/20 - 16:46
Limit : FCC_SpartC_15.209_03M_AV	Margin : 0
EUT : IP-Set Top Box	Probe : 9120D_(1G-18G) - VERTICAL
Power : AC 120V/60Hz	Note : Mode 2: Transmit by 802.11g (2437MHz)

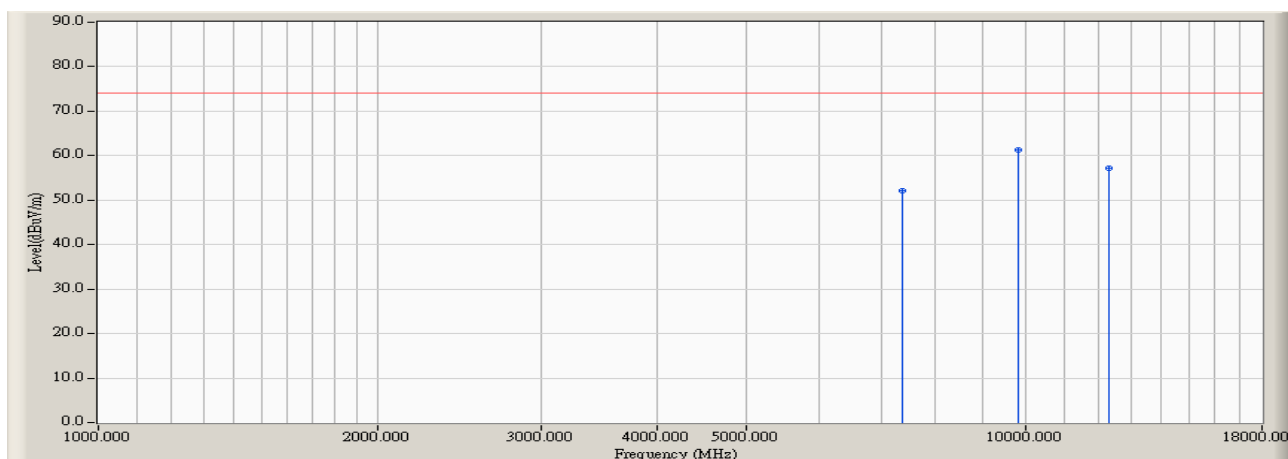


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		3238.333	-0.251	31.552	31.302	-22.668	53.970	AVERAGE
2		6496.667	11.763	24.108	35.871	-18.099	53.970	AVERAGE
3	*	9755.000	17.520	25.465	42.985	-10.985	53.970	AVERAGE

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Engineer : Johnwang	
Site : AC-2	Time : 2006/11/20 - 16:51
Limit : FCC_SpartC_15.209_03M_PK	Margin : 0
EUT : IP-Set Top Box	Probe : 9120D_(1G-18G) - HORIZONTAL
Power : AC 120V/60Hz	Note : Mode 2: Transmit by 802.11g (2462MHz)

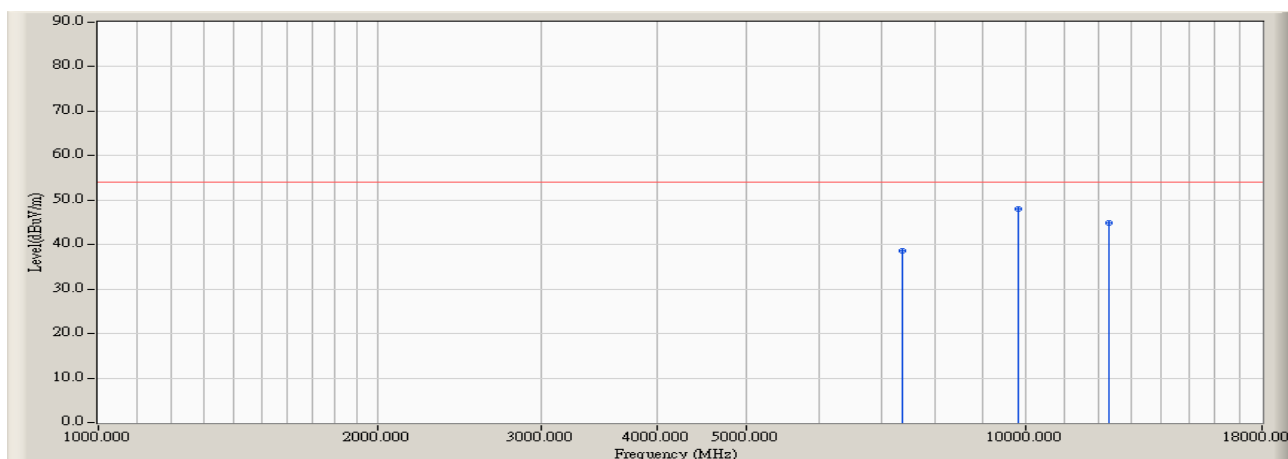


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		7375.000	15.250	36.868	52.118	-21.852	73.970	PEAK
2	*	9840.000	17.790	43.446	61.236	-12.734	73.970	PEAK
3		12305.000	19.530	37.586	57.116	-16.854	73.970	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Engineer : Johnwang	
Site : AC-2	Time : 2006/11/20 - 16:51
Limit : FCC_SpartC_15.209_03M_AV	Margin : 0
EUT : IP-Set Top Box	Probe : 9120D_(1G-18G) - HORIZONTAL
Power : AC 120V/60Hz	Note : Mode 2: Transmit by 802.11g (2462MHz)

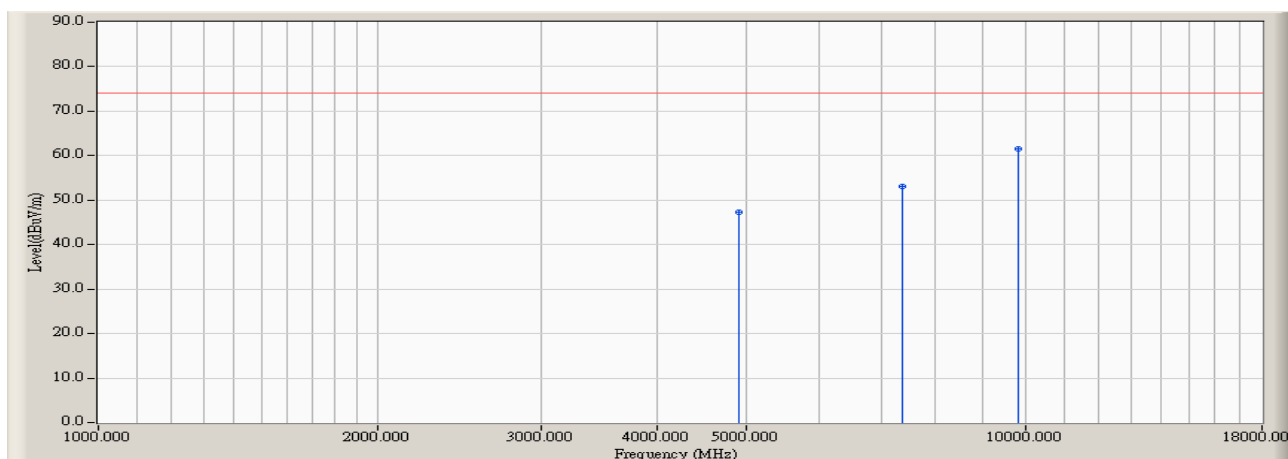


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		7375.000	15.250	23.336	38.586	-15.384	53.970	AVERAGE
2	*	9840.000	17.790	30.220	48.010	-5.960	53.970	AVERAGE
3		12305.000	19.530	25.338	44.868	-9.102	53.970	AVERAGE

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Engineer : Johnwang	
Site : AC-2	Time : 2006/11/20 - 16:54
Limit : FCC_SpartC_15.209_03M_PK	Margin : 0
EUT : IP-Set Top Box	Probe : 9120D_(1G-18G) - VERTICAL
Power : AC 120V/60Hz	Note : Mode 2: Transmit by 802.11g (2462MHz)

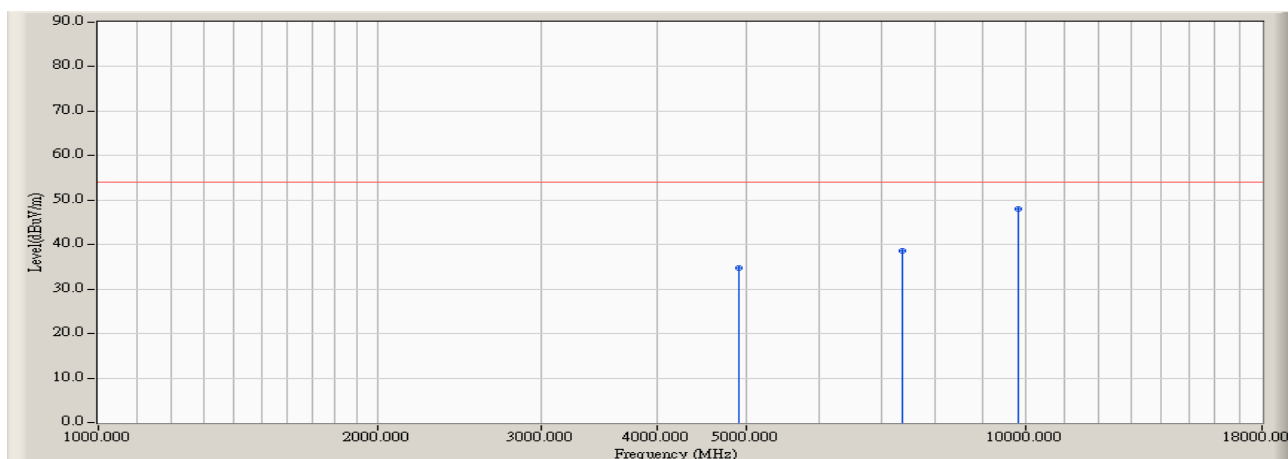


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4910.000	5.100	42.233	47.333	-26.637	73.970	PEAK
2		7375.000	15.250	37.872	53.122	-20.848	73.970	PEAK
3	*	9840.000	17.790	43.800	61.590	-12.380	73.970	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Engineer : Johnwang	
Site : AC-2	Time : 2006/11/20 - 16:54
Limit : FCC_SpartC_15.209_03M_AV	Margin : 0
EUT : IP-Set Top Box	Probe : 9120D_(1G-18G) - VERTICAL
Power : AC 120V/60Hz	Note : Mode 2: Transmit by 802.11g (2462MHz)

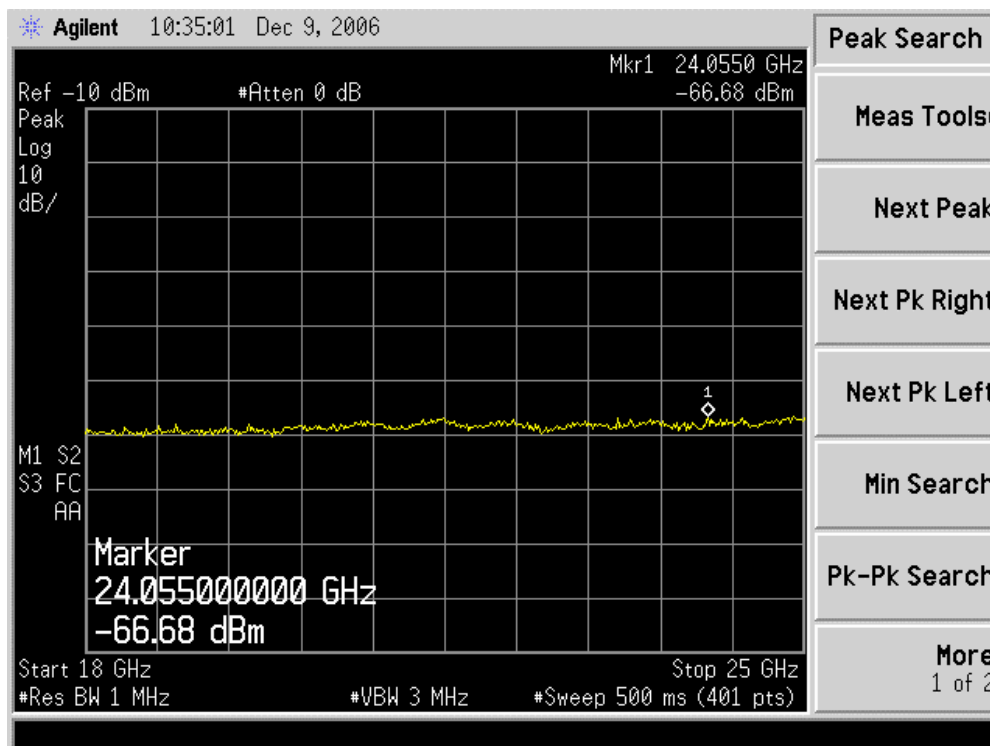


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4910.000	5.100	29.663	34.763	-19.207	53.970	AVERAGE
2		7375.000	15.250	23.384	38.634	-15.336	53.970	AVERAGE
3	*	9840.000	17.790	30.118	47.908	-6.062	53.970	AVERAGE

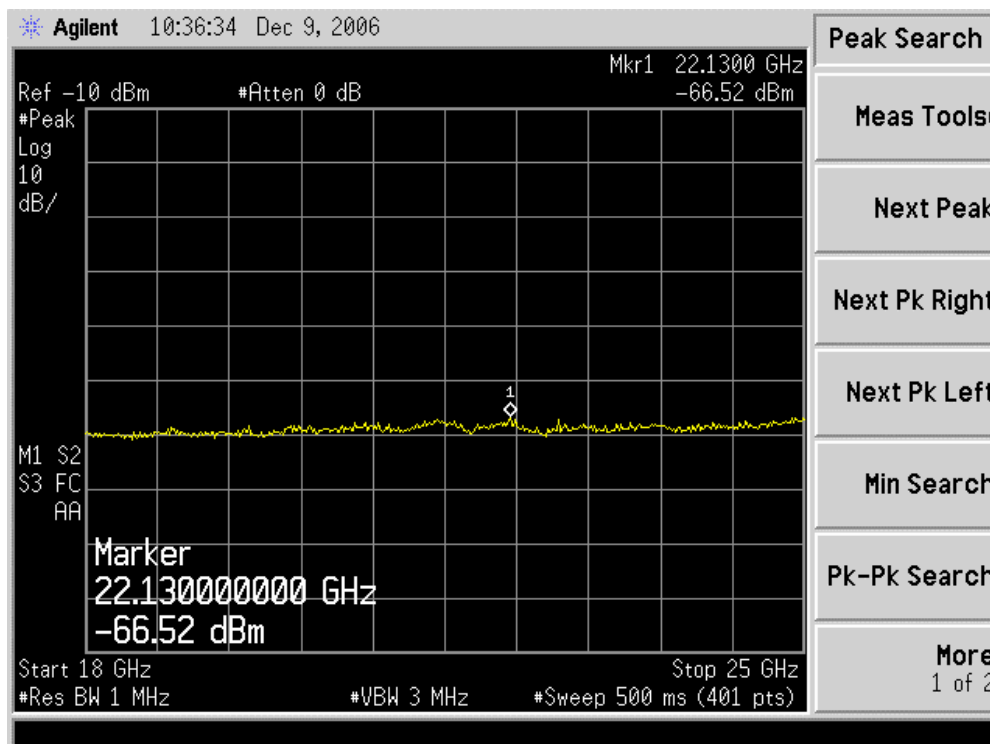
Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

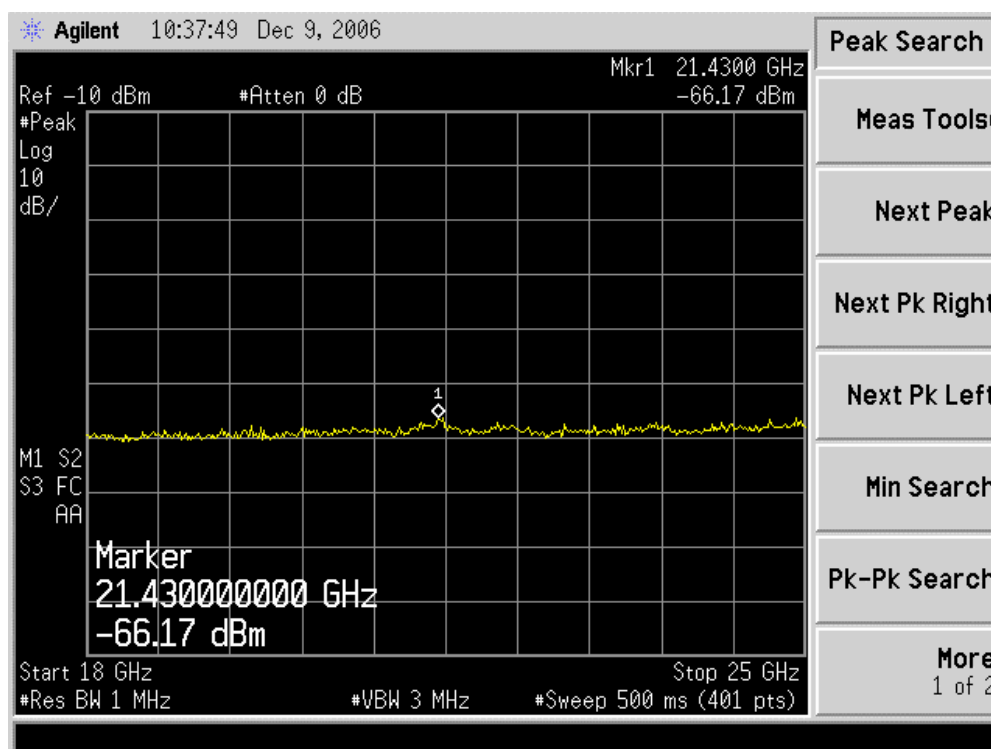
Conducted Spurious - Channel 01 (2412MHz) - 802.11b



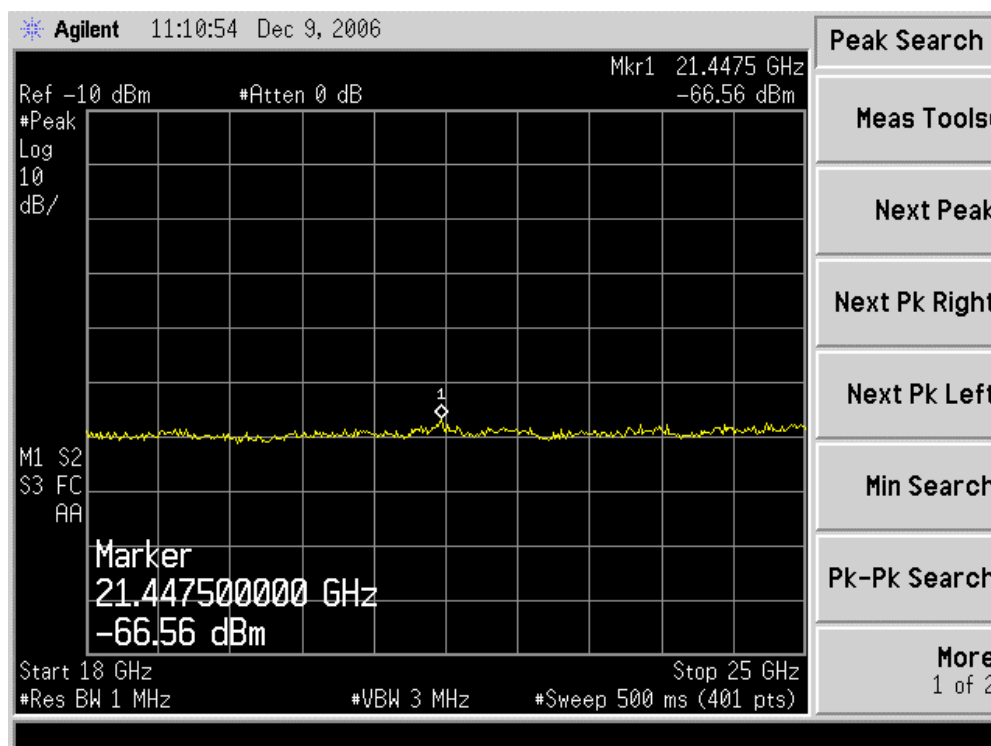
Conducted Spurious - Channel 06 (2437MHz) - 802.11b



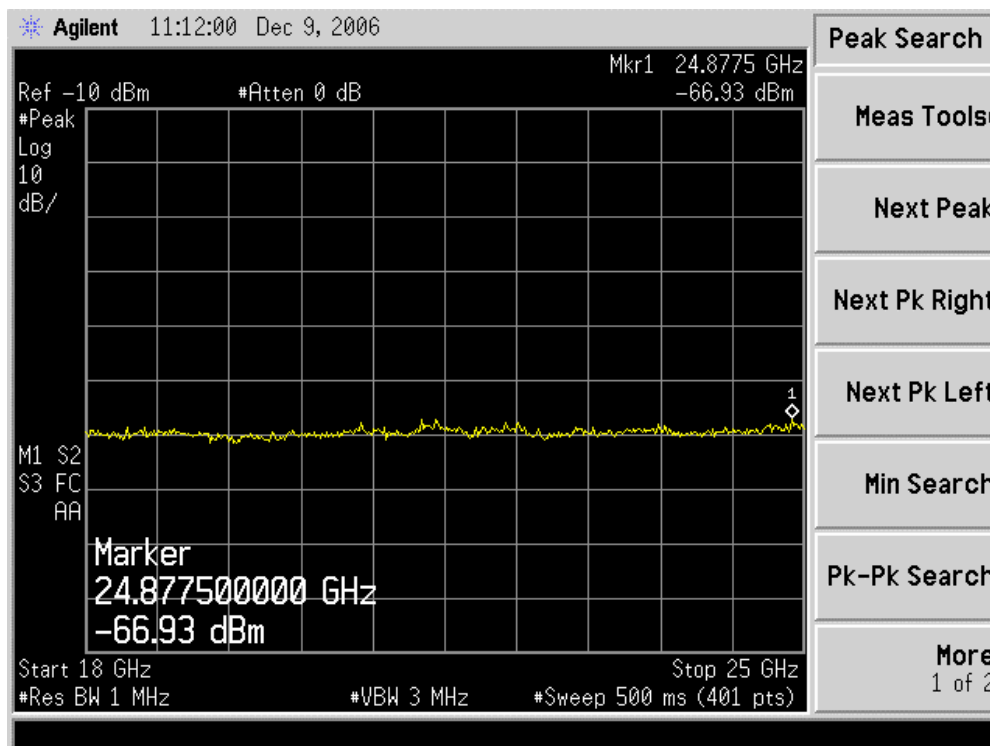
Conducted Spurious - Channel 11 (2462MHz) - 802.11b



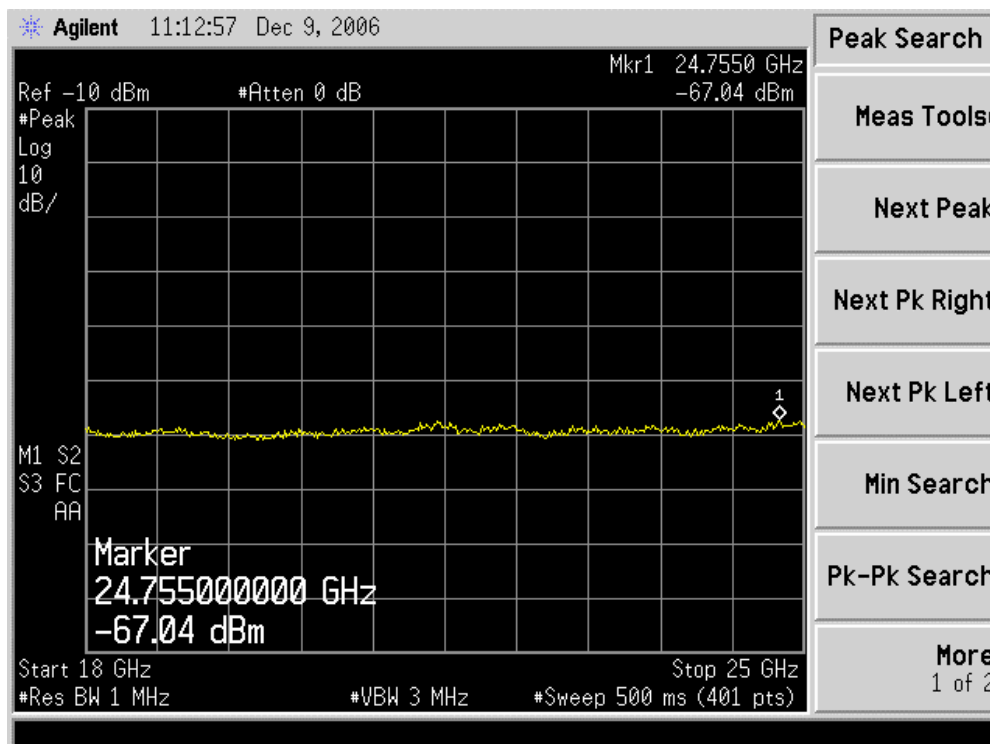
Conducted Spurious - Channel 01 (2412MHz) - 802.11g



Conducted Spurious - Channel 06 (2437MHz) - 802.11g



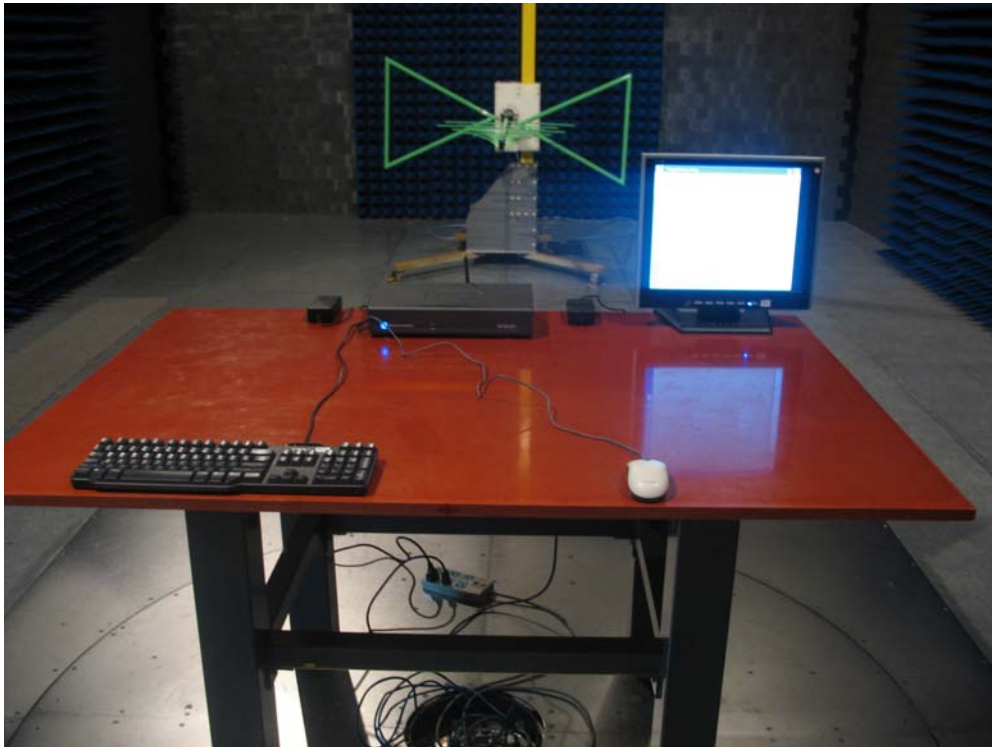
Conducted Spurious - Channel 11 (2462MHz) - 802.11g



4.7. Test Photograph

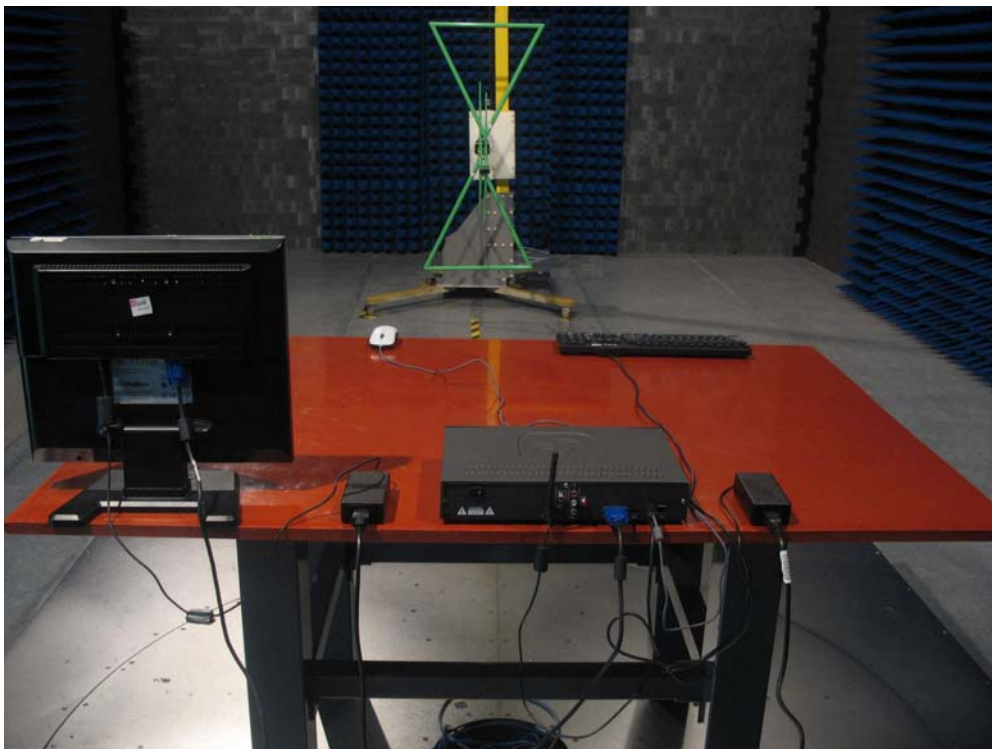
Test Mode: Mode 1: Transmit by 802.11b

Description: Front View of Radiated Test for Under 1GHz



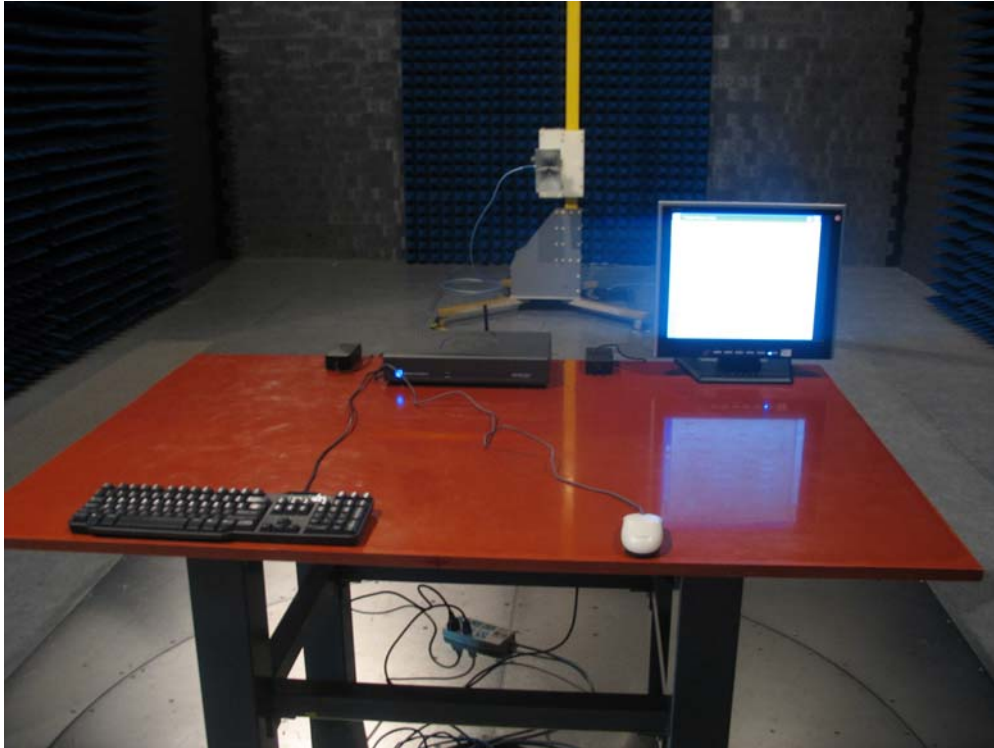
Test Mode: Mode 1: Transmit by 802.11b

Description: Back View of Radiated Test for Under 1GHz



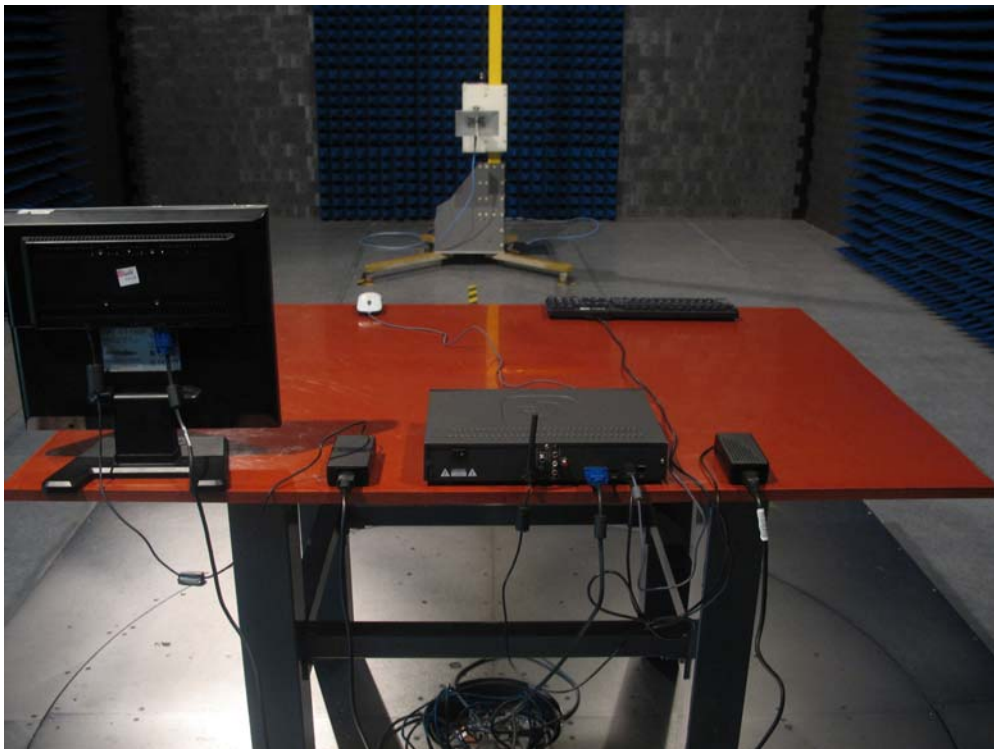
Test Mode: Mode 1: Transmit by 802.11b

Description: Front View of Radiated Test for Above 1GHz



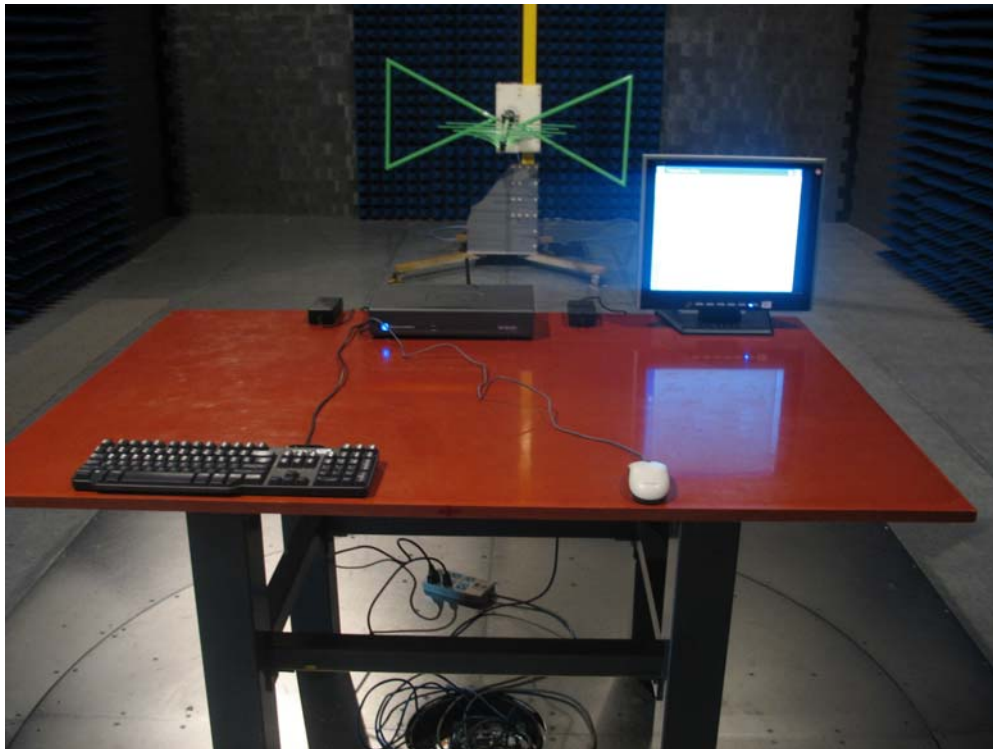
Test Mode: Mode 1: Transmit by 802.11b

Description: Back View of Radiated Test for Above 1GHz



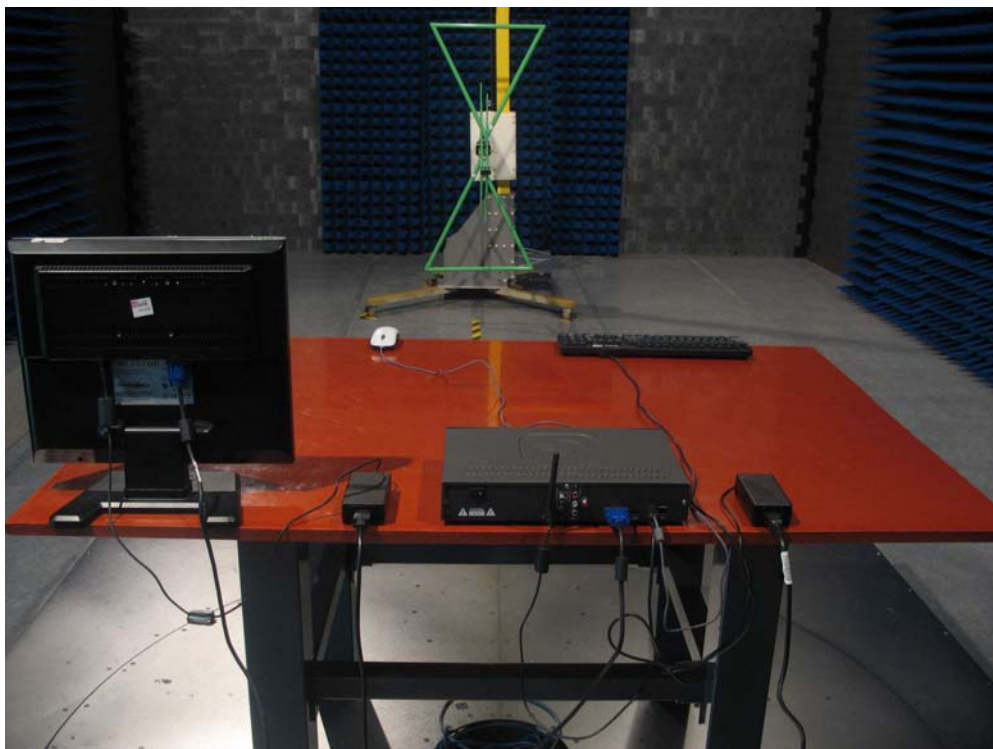
Test Mode: Mode 2: Transmit by 802.11g

Description: Front View of Radiated Test for Under 1GHz



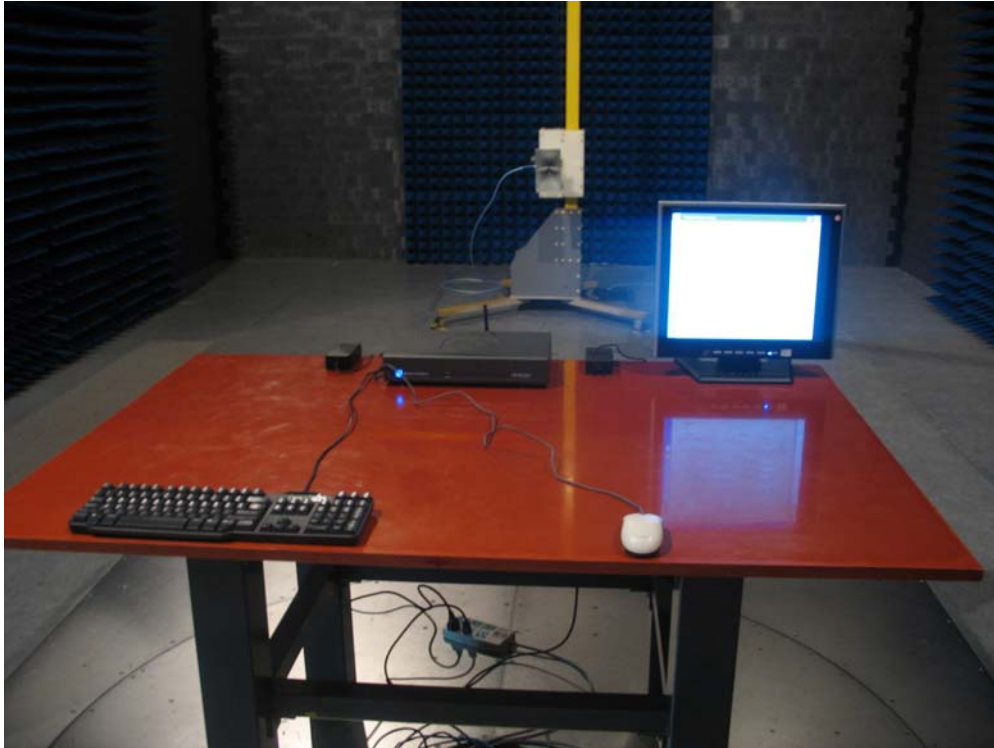
Test Mode: Mode 2: Transmit by 802.11g

Description: Back View of Radiated Test for Under 1GHz



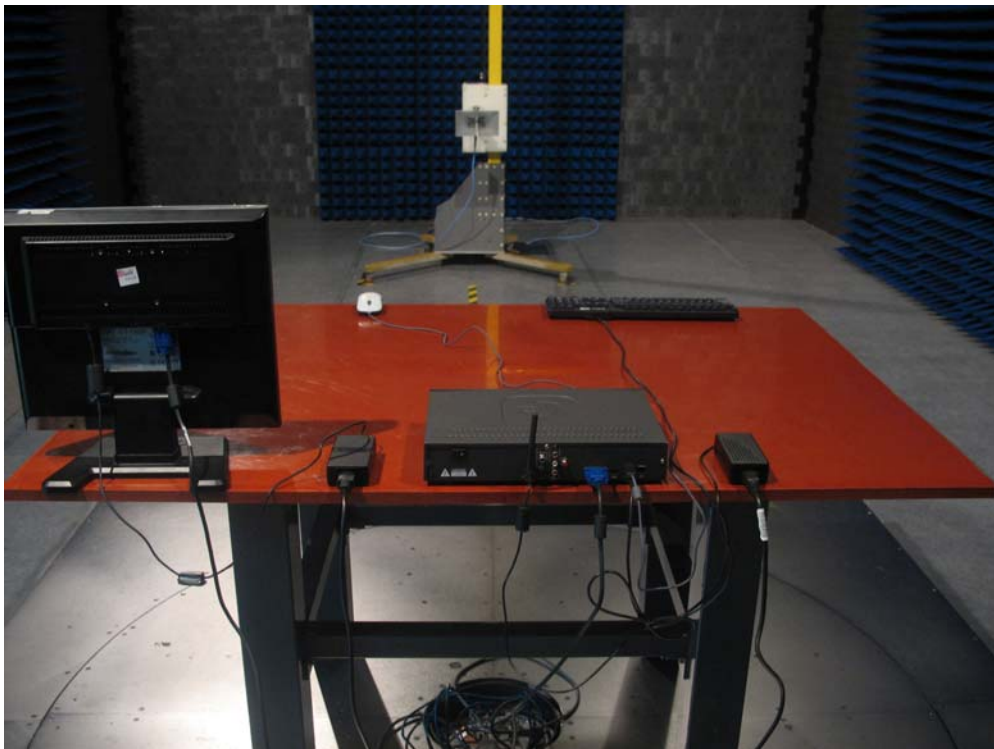
Test Mode: Mode 2: Transmit by 802.11g

Description: Front View of Radiated Test for Above 1GHz



Test Mode: Mode 2: Transmit by 802.11g

Description: Back View of Radiated Test for Above 1GHz



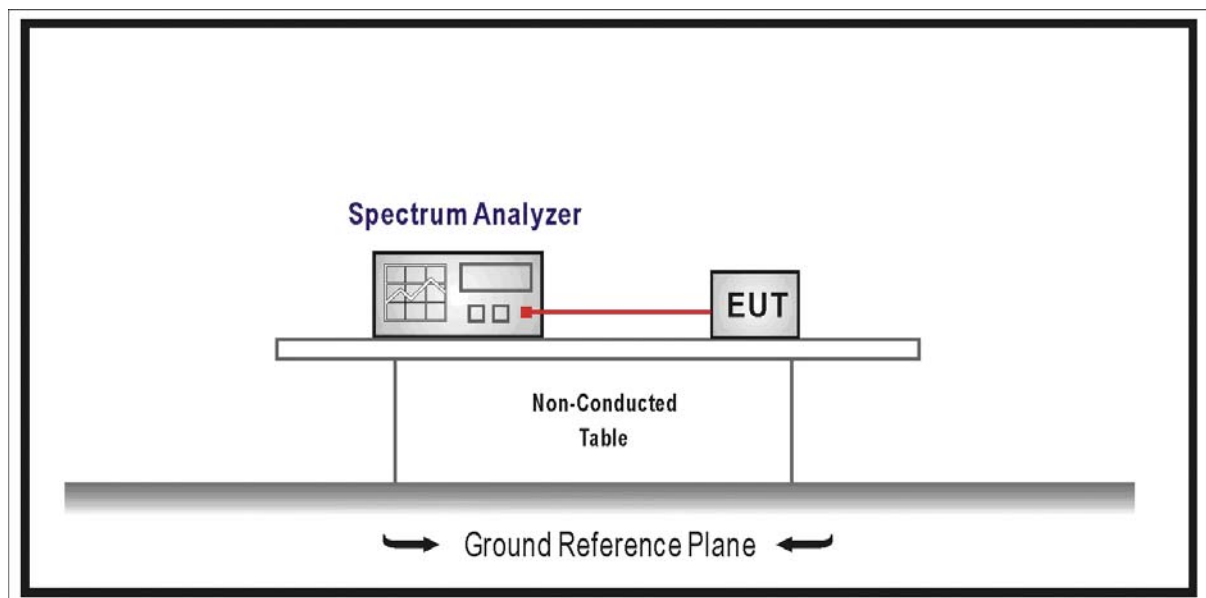
5. Peak Power Output

5.1. Test Equipment

Radiated Emission / AC-3

Instrument	Manufacturer	Type No.	Serial No	Cal. Date
Spectrum Analyzer	Agilent	E4446A	MY45300103	2006/03/23
Temperature/Humidity Meter	zhicheng	ZC1-2	QT-TH003	2006/03/30

5.2. Test Setup



5.3. Limit

The maximum peak power shall be less 1Watt.

5.4. Test Procedure

- a) Place the EUT on a bench and set it in transmitting mode.
- b) Connect a low loss RF cable from the antenna port to a spectrum analyzer.
- c) Add a correction factor to the display, and then test.

5.5. Uncertainty

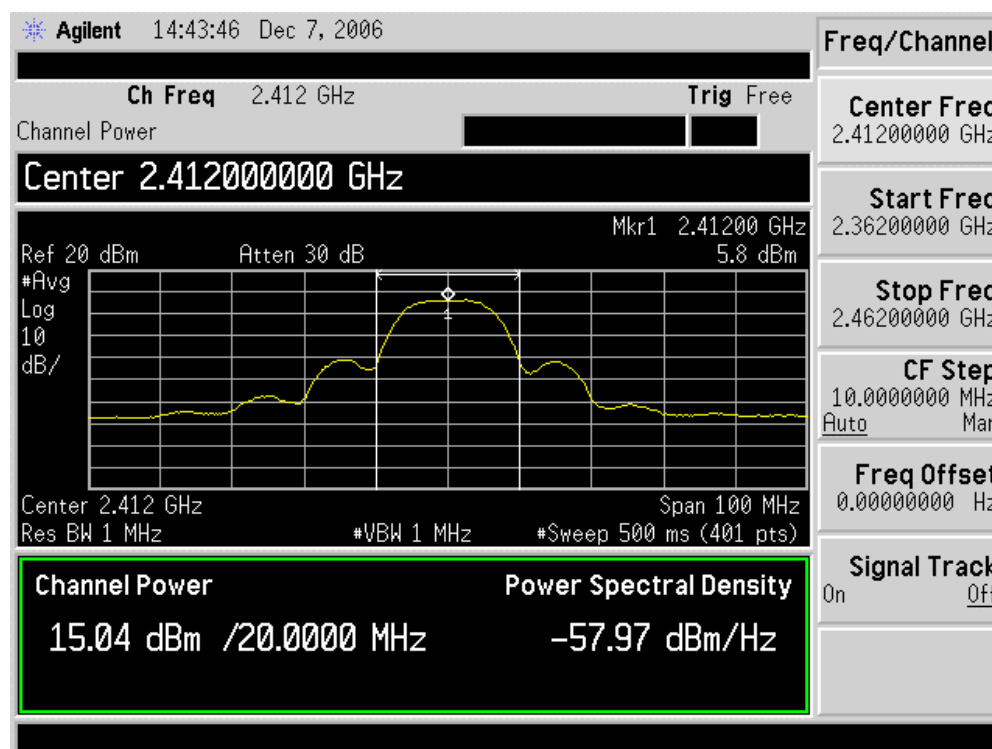
The measurement uncertainty is defined as ± 1.27 dB

5.6. Test Result

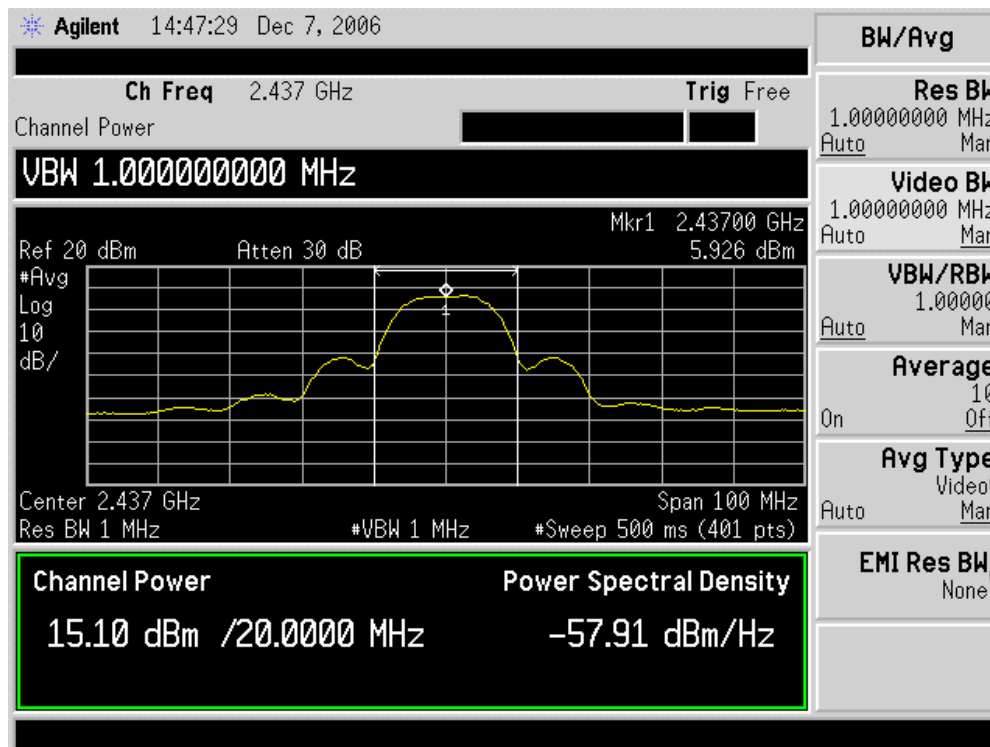
Product	:	IP-Set Top Box
Test Item	:	Peak Power Output
Test Site	:	AC-3
Test Mode	:	Mode 1: Transmitter by 802.11b

Channel No.	Frequency (MHz)	Measurement (dBm)	Required Limit (dBm)	Result
Channel 01	2412.00	15.04	1 Watt= 30 dBm	Pass
Channel 06	2437.00	15.10	1 Watt= 30 dBm	Pass
Channel 11	2462.00	15.00	1 Watt= 30 dBm	Pass

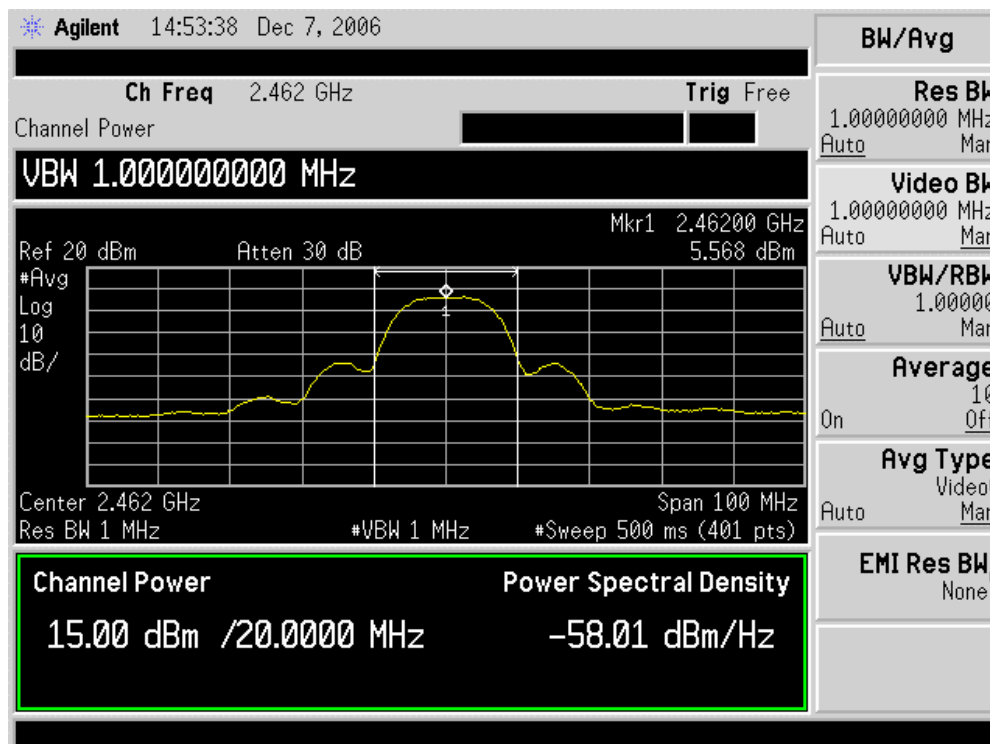
Channel 01 (2412MHz)



Channel 06 (2437MHz)



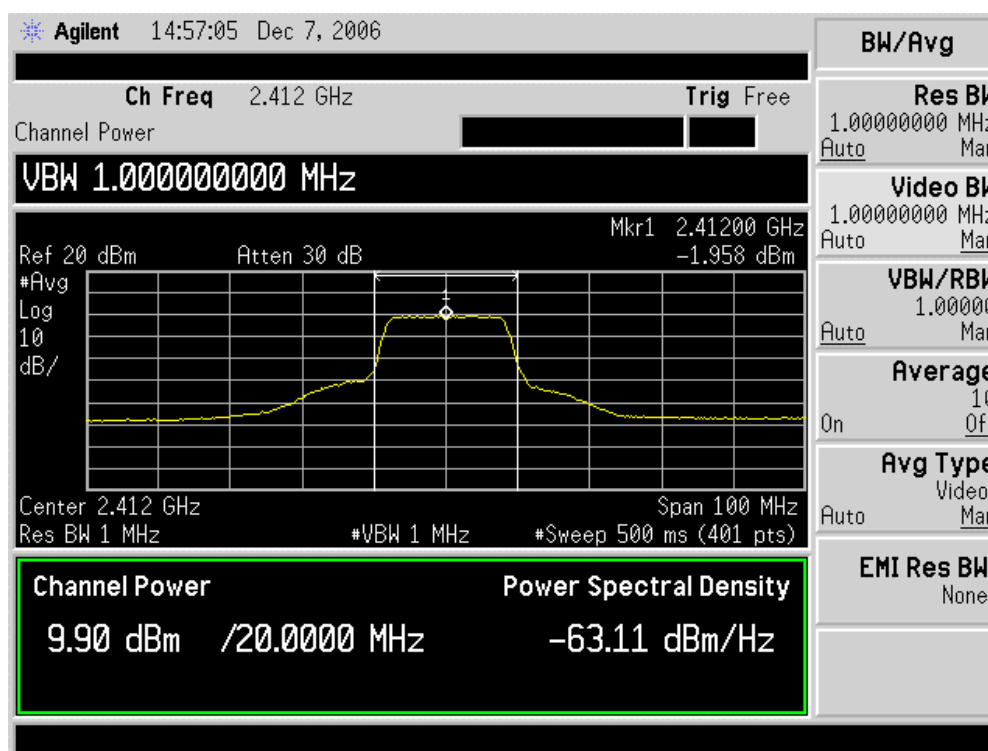
Channel 11 (2462MHz)



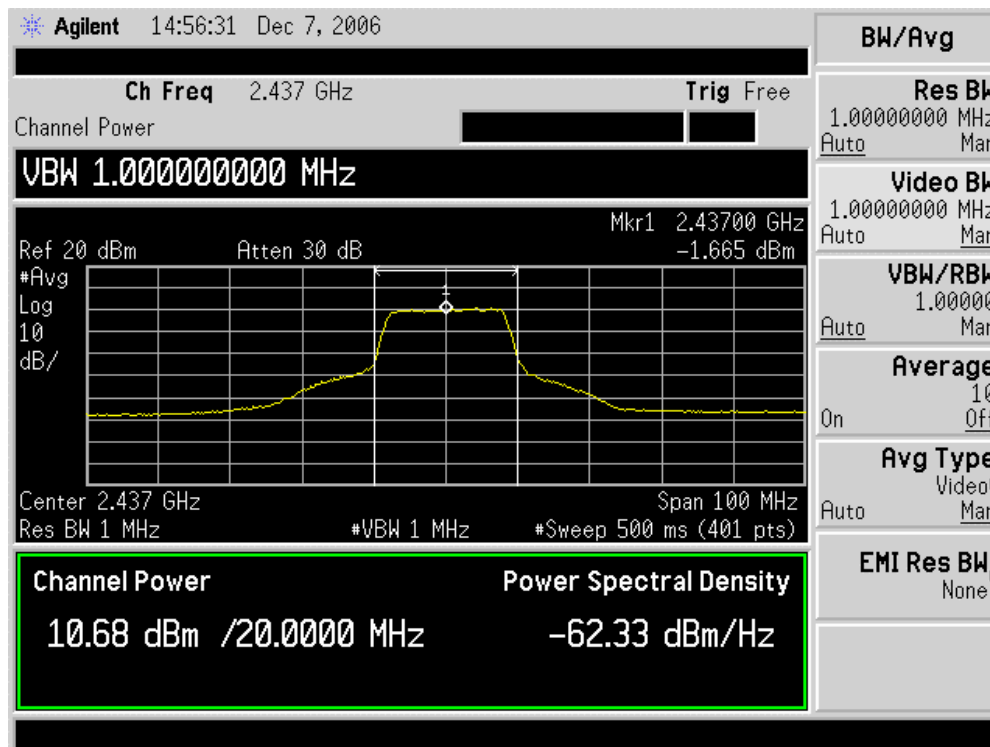
Product	:	IP-Set Top Box
Test Item	:	Peak Power Output
Test Site	:	AC-3
Test Mode	:	Mode 2: Transmitter by 802.11g

Channel No.	Frequency (MHz)	Measurement (dBm)	Required Limit (dBm)	Result
Channel 01	2412.00	9.90	1 Watt= 30 dBm	Pass
Channel 06	2437.00	10.68	1 Watt= 30 dBm	Pass
Channel 11	2462.00	10.49	1 Watt= 30 dBm	Pass

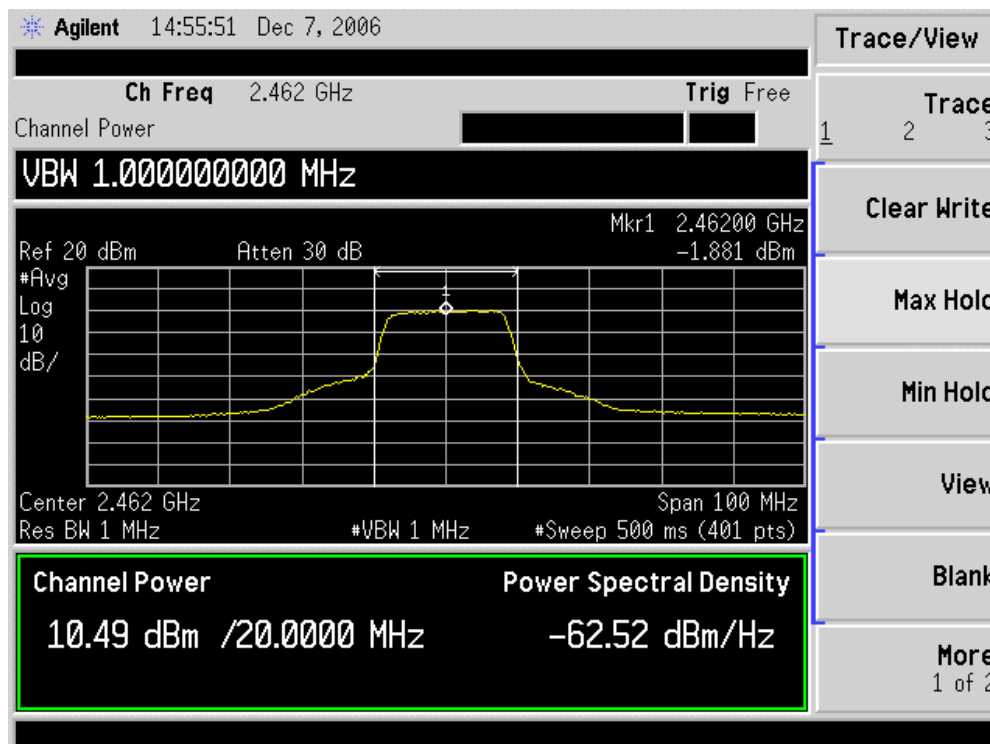
Channel 01 (2412MHz)



Channel 06 (2437MHz)



Channel 11 (2462MHz)



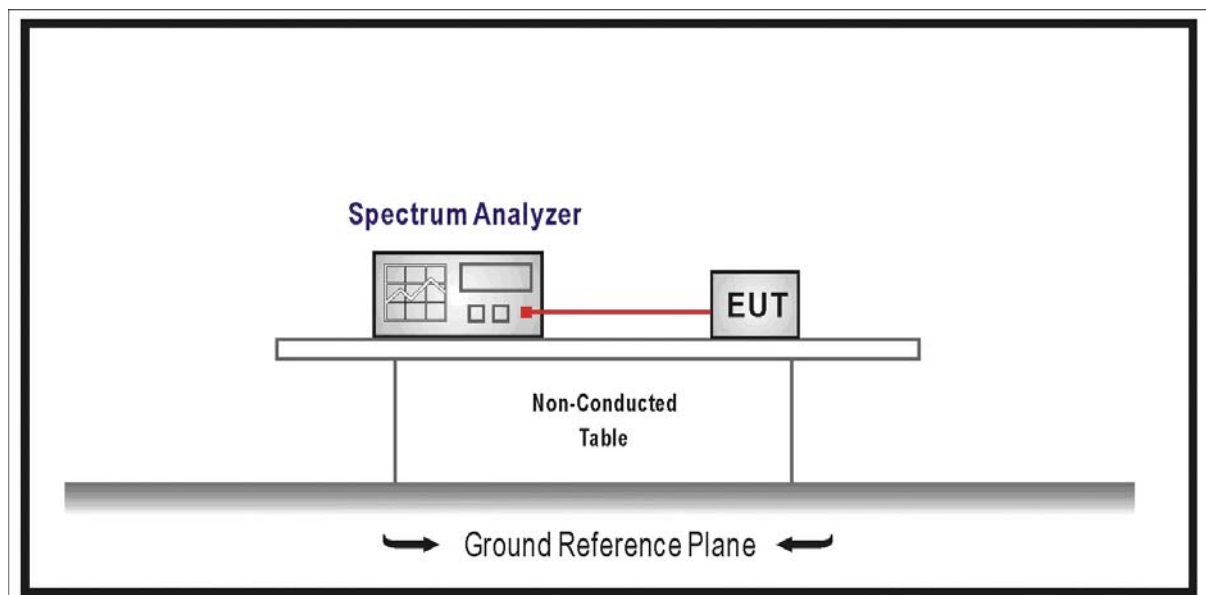
6. Occupied Bandwidth

6.1. Test Equipment

Radiated Emission / AC-3

Instrument	Manufacturer	Type No.	Serial No	Cal. Date
Spectrum Analyzer	Agilent	E4446A	MY45300103	2006/03/23
Temperature/Humidity Meter	zhicheng	ZC1-2	QT-TH003	2006/03/30

6.2. Test Setup



6.3. Limit

Systems using digital modulation techniques may operate in the 902 – 928 MHz, 2400 – 2483.5 MHz, and 5725 5850 MHz band. The minimum 6 dB bandwidth shall be at least 500 kHz.

6.4. Test Procedure

- a) Place the EUT on a bench and set it in transmitting mode.
- b) Connect a low loss RF cable from the antenna port to a spectrum analyzer.
- c) Add a correction factor to the display, and then test.

6.5. Uncertainty

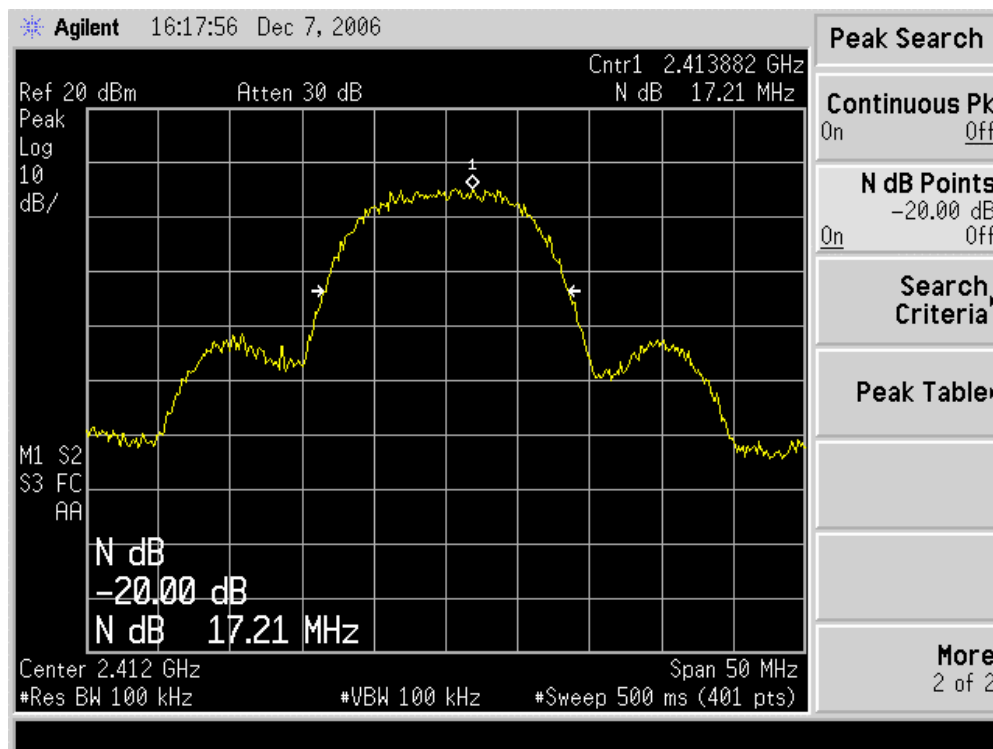
The measurement uncertainty is defined as ± 1.27 dB

6.6. Test Result

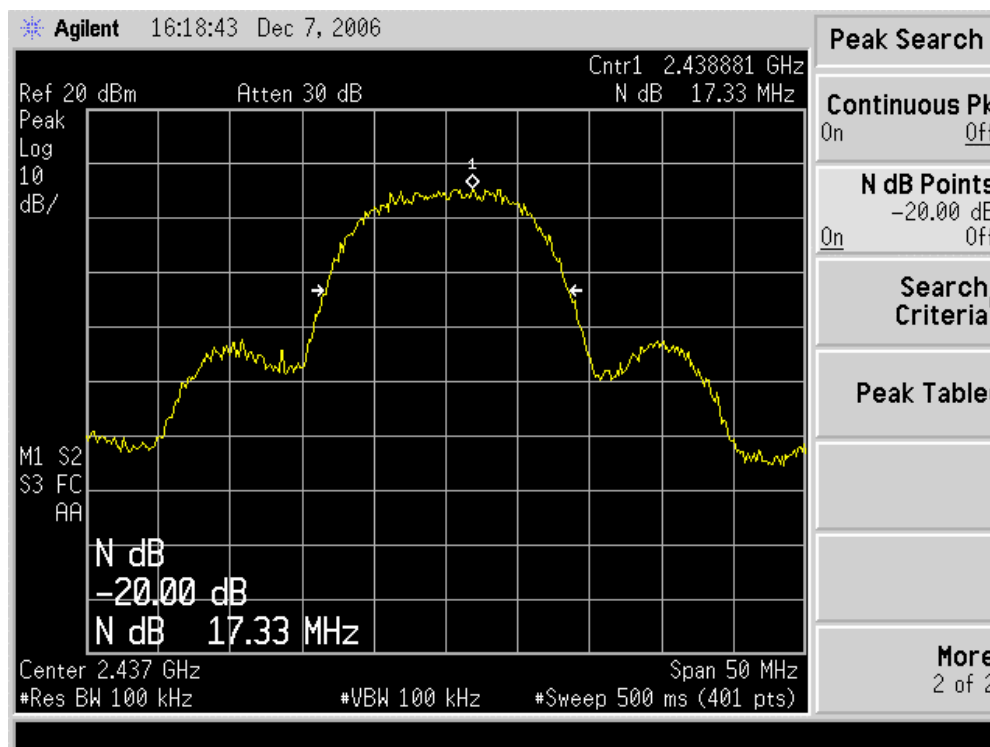
Product	:	IP-Set Top Box
Test Item	:	Occupied Bandwidth
Test Site	:	AC-3
Test Mode	:	Mode 1: Transmitter by 802.11b

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
Channel 01	2412	17210	500	Pass
Channel 06	2437	17330	500	Pass
Channel 11	2462	17330	500	Pass

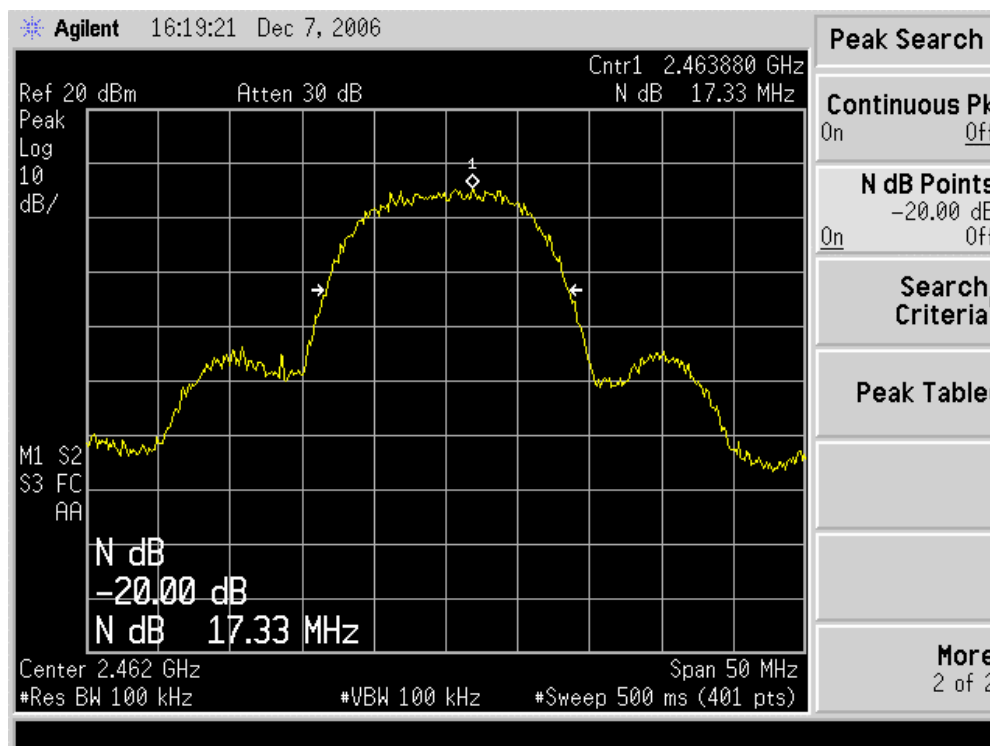
Channel 01 (2412MHz)



Channel 06 (2437MHz)



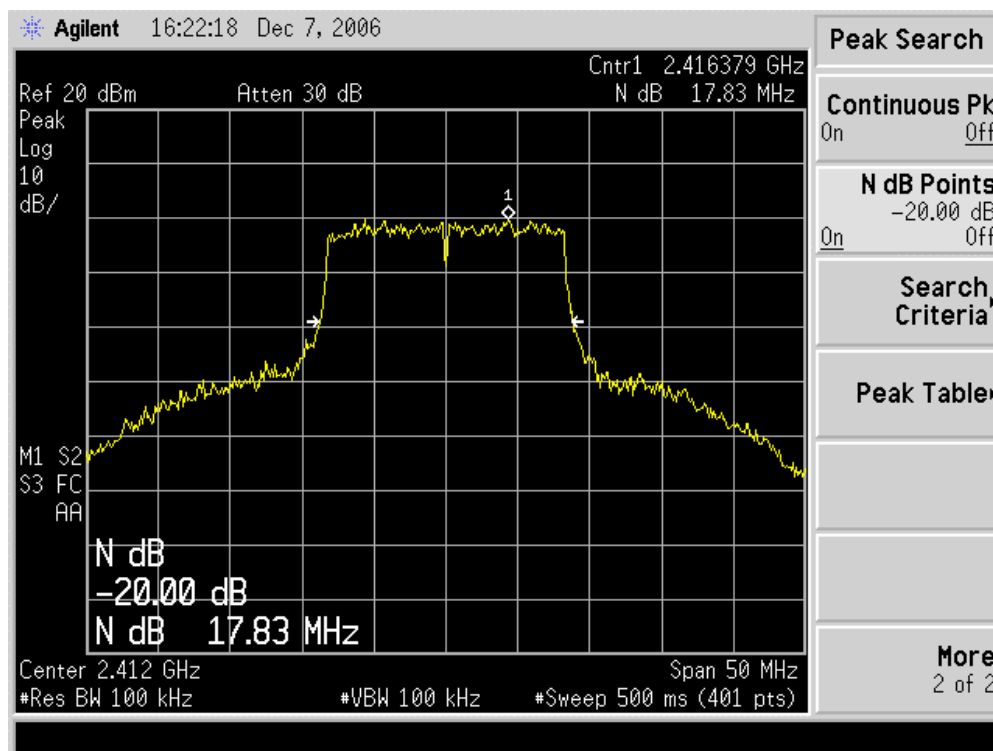
Channel 11 (2462MHz)



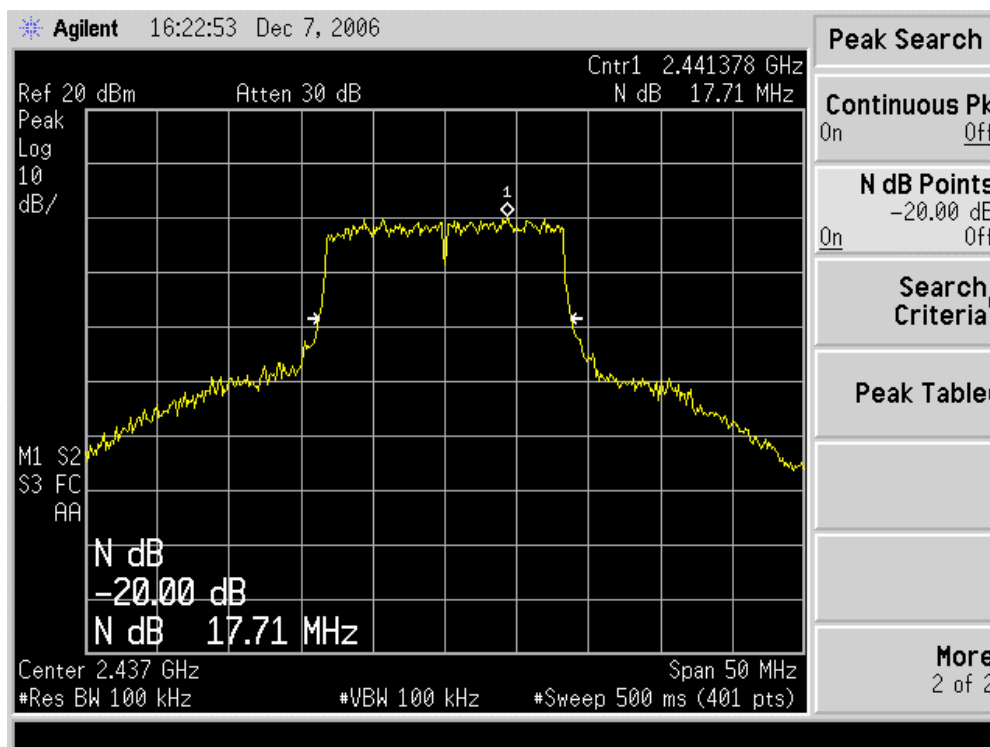
Product	:	IP-Set Top Box
Test Item	:	Occupied Bandwidth
Test Site	:	AC-3
Test Mode	:	Mode 2: Transmitter by 802.11g

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
Channel 01	2412	17830	500	Pass
Channel 06	2437	17710	500	Pass
Channel 11	2462	17710	500	Pass

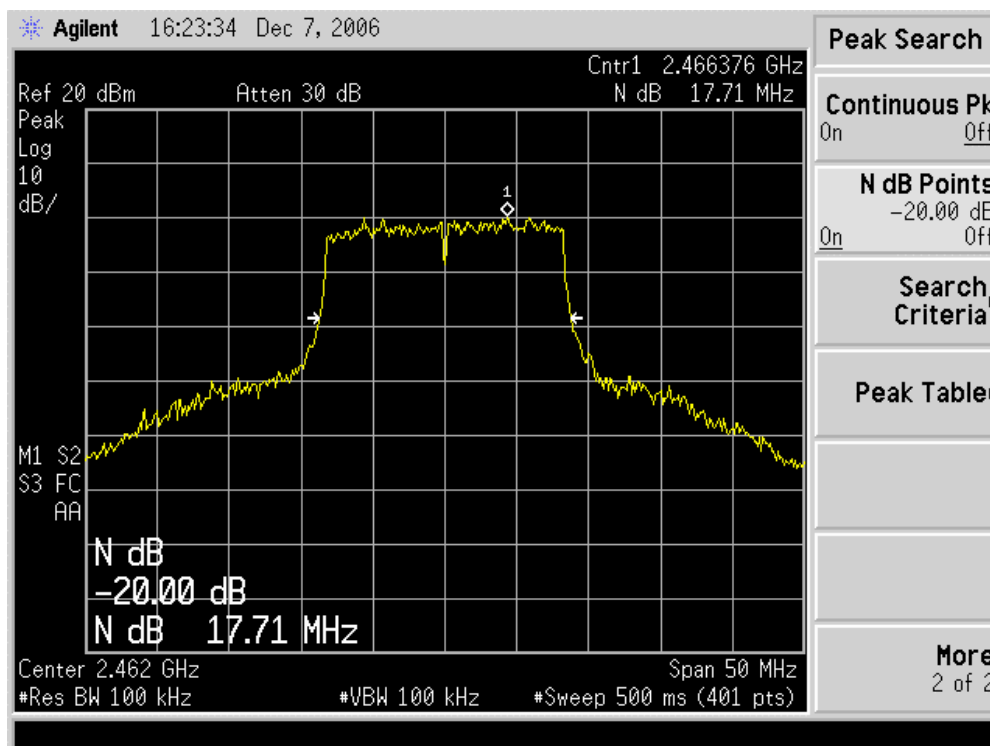
Channel 01 (2412MHz)



Channel 06 (2437MHz)



Channel 11 (2462MHz)



7. Band Edge

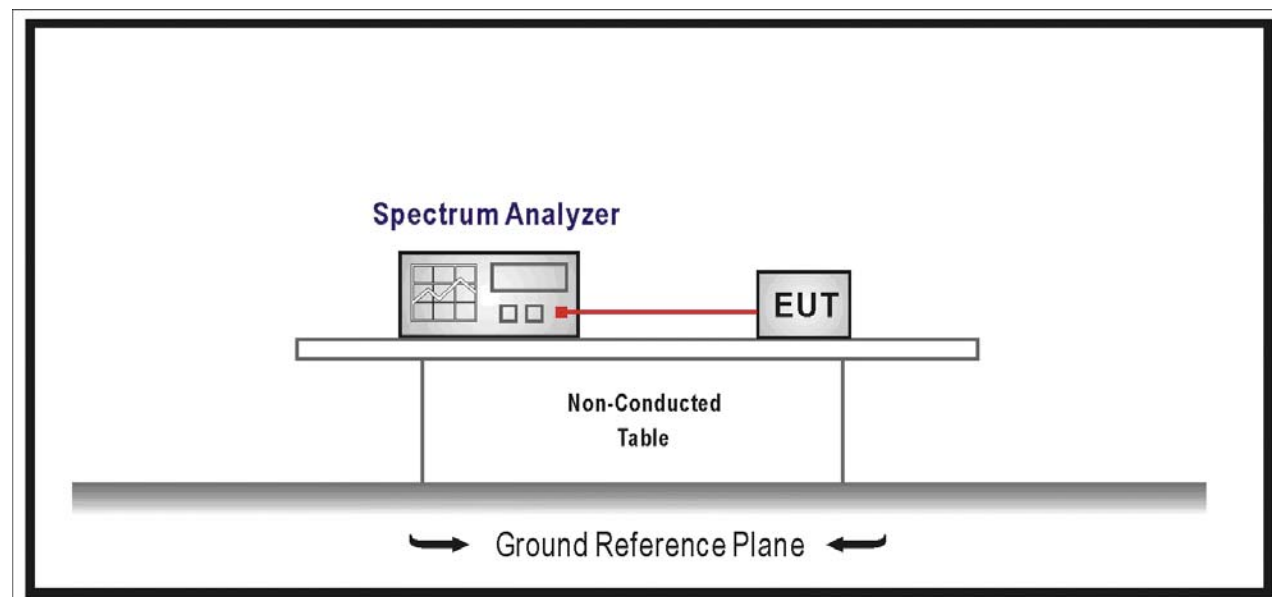
7.1. Test Equipment

Radiated Emission / AC-2

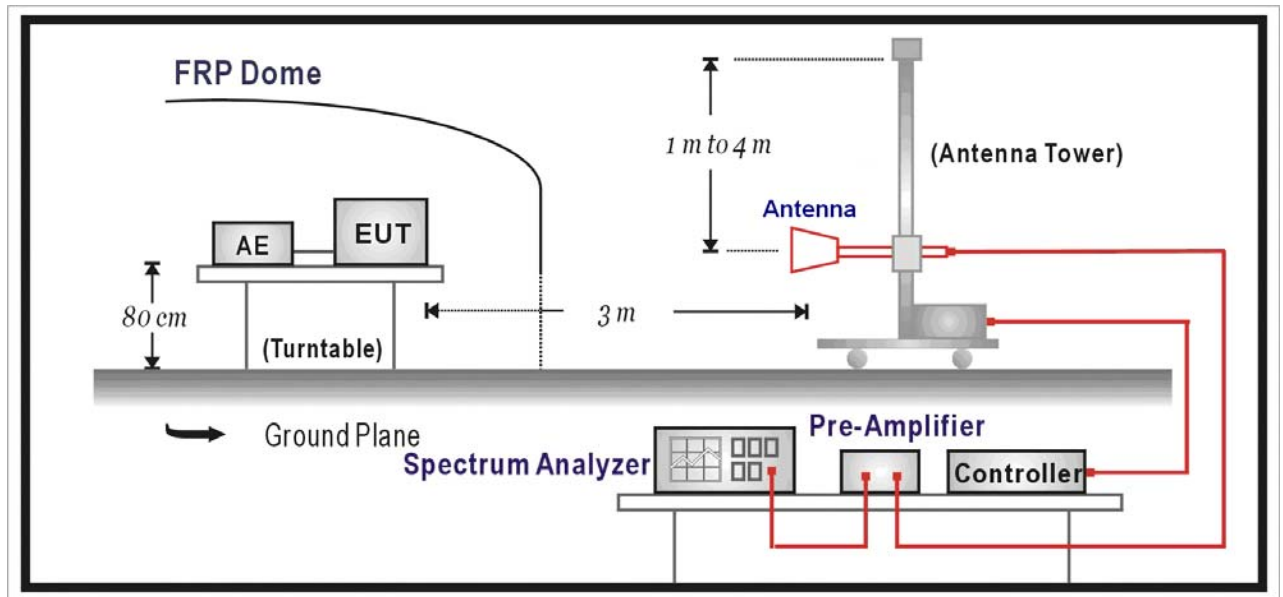
Instrument	Manufacturer	Type No.	Serial No	Cal. Date
Spectrum Analyzer	Agilent	E4408B	MY45102679	2006/11/20
EMI Test Receiver	R&S	ESCI	100175	2006/11/25
Preamplifier	Quietek	AP-025C	QT-AP003	2006/11/25
Preamplifier	Quietek	AP-180C	CHM-0602013	2006/03/20
Bilog Type Antenna	Schaffner	CBL6112B	2932	2006/10/26
Broad-Band Horn Antenna	Schwarzbeck	BBHA9120D	496	2006/11/30
Broad-Band Horn Antenna	Schwarzbeck	BBHA9170	294	2006/11/30
Temperature/Humidity Meter	zhicheng	ZC1-2	QT-TH002	2006/03/30

7.2. Test Setup

RF Conducted Measurement



RF Radiated Measurement



7.3. Limit

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

7.4. Test Procedure

The EUT and its simulators are placed on a turn table which is 0.8 meter above ground.

The turn table can rotate 360 degrees to determine the position of the maximum emission level and the antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level.

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

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

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

7.5. Uncertainty

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

7.6. Test Result

Product	:	IP-Set Top Box
Test Item	:	Band Edge
Test Site	:	AC-2
Test Mode	:	Mode 1: Transmitter by 802.11b (2412MHz)

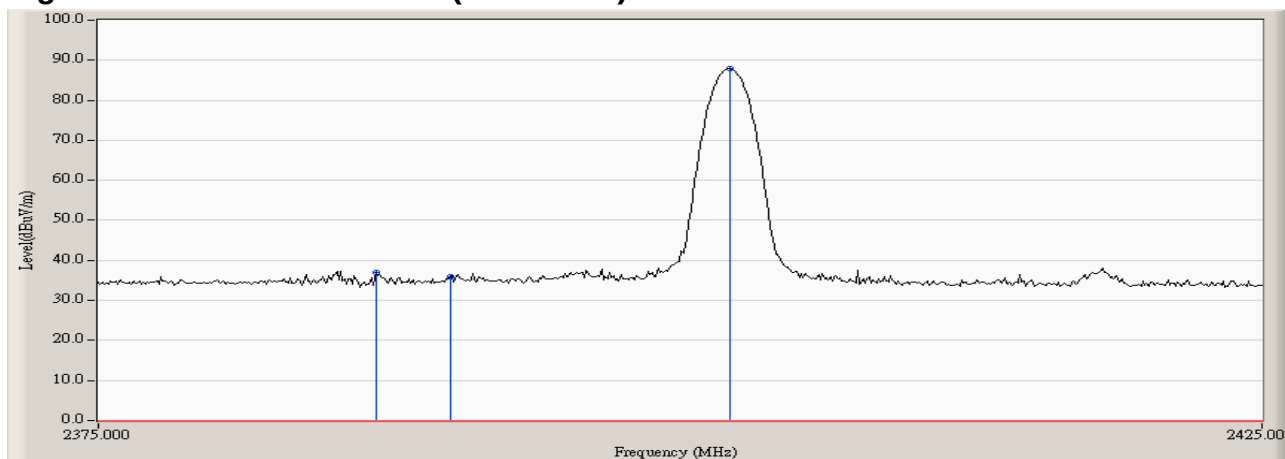
RF Radiated Measurement:

Channel No.	Frequency (MHz)	Required Limit (dBc)	Result
01	<2400	>20	Pass

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
01 (Peak)	2373.500	55.616	53.968	74.00	54.00	Pass
01 (Average)	--	--	--	74.00	54.00	Pass

Figure Channel 01: 2412MHz (Horizontal)



Note:

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

Note: The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Product	:	IP-Set Top Box
Test Item	:	Band Edge
Test Site	:	AC-2
Test Mode	:	Mode 1: Transmitter by 802.11b (2412MHz)

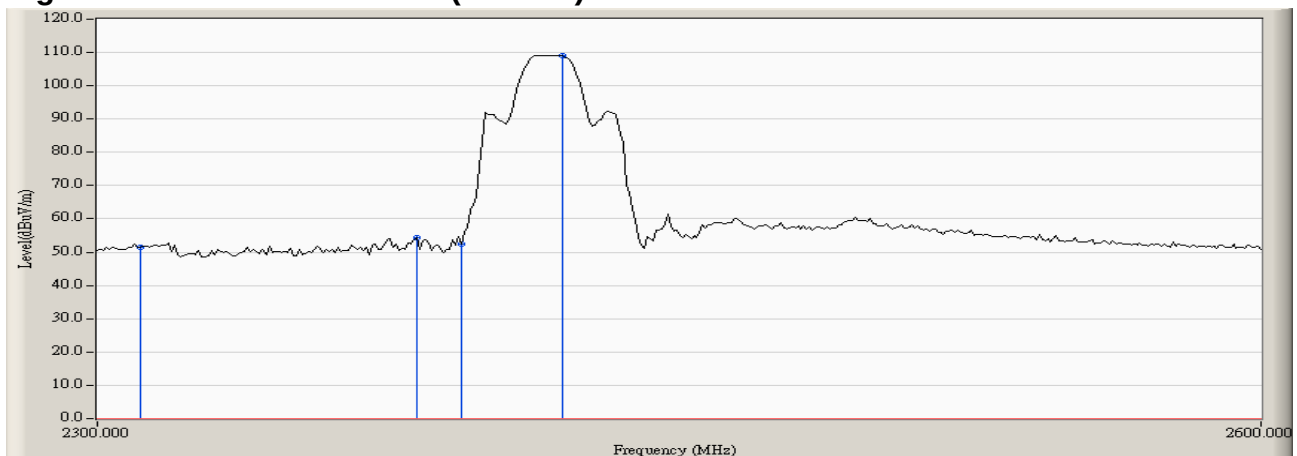
RF Radiated Measurement:

Channel No.	Frequency (MHz)	Required Limit (dBc)	Result
01	<2400	>20	Pass

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
01 (Peak)	2378.750	55.873	54.221	74.00	54.00	Pass
00 (Average)	--	--	--	74.00	54.00	Pass

Figure Channel 01: 2412MHz (Vertical)



Note:

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

Note: The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Product	:	IP-Set Top Box
Test Item	:	Band Edge
Test Site	:	AC-2
Test Mode	:	Mode 1: Transmitter by 802.11b (2462MHz)

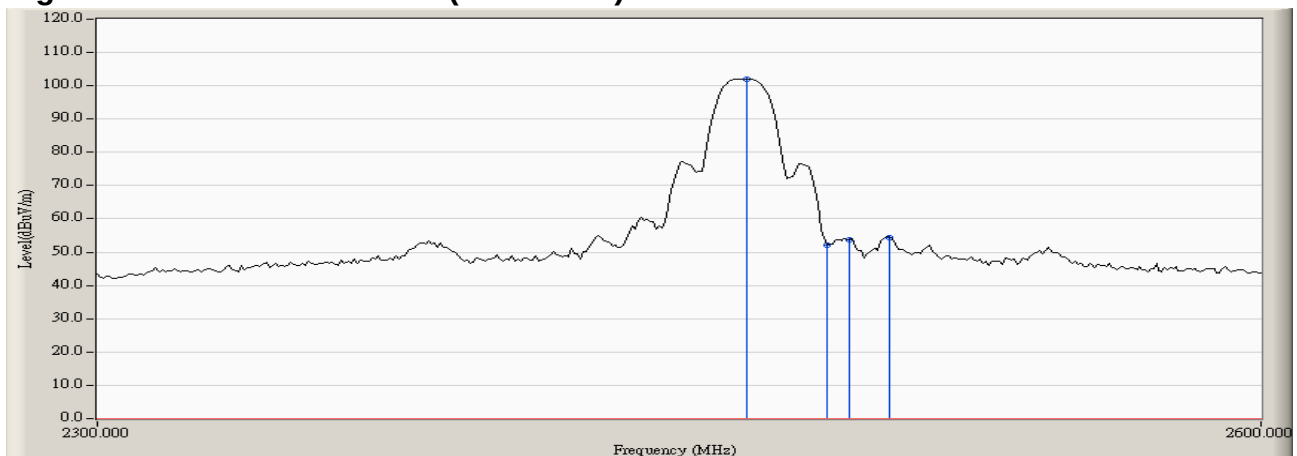
RF Radiated Measurement:

Channel No.	Frequency (MHz)	Required Limit (dBc)	Result
11	>2483.5	>20	Pass

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
11(Peak)	2500.000	55.854	54.234	74.00	54.00	Pass
11(Average)	--	--	--	74.00	54.00	Pass

Figure Channel 11: 2462MHz (Horizontal)



Note:

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

Note: The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Product	:	IP-Set Top Box
Test Item	:	Band Edge
Test Site	:	AC-2
Test Mode	:	Mode 1: Transmitter by 802.11b (2462MHz)

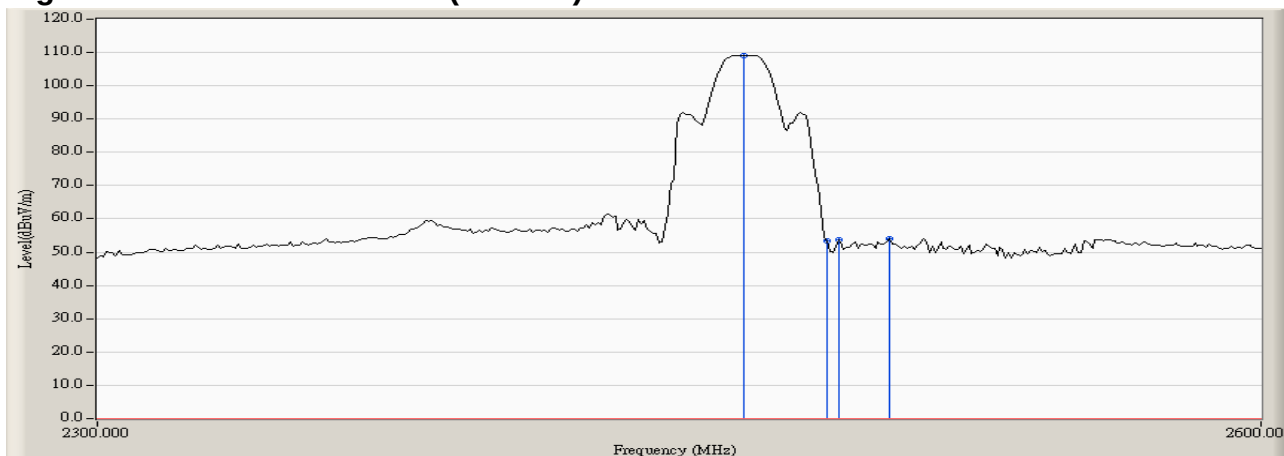
RF Radiated Measurement:

Channel No.	Frequency (MHz)	Required Limit (dBc)	Result
11	>2483.5	>20	Pass

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
11(Peak)	2500.000	55.618	53.998	74.00	54.00	Pass
11(Average)	--	--	--	74.00	54.00	Pass

Figure Channel 11: 2462MHz (Vertical)



Note:

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

Note: The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Product	:	IP-Set Top Box
Test Item	:	Band Edge
Test Site	:	AC-2
Test Mode	:	Mode 2: Transmitter by 802.11g (2412MHz)

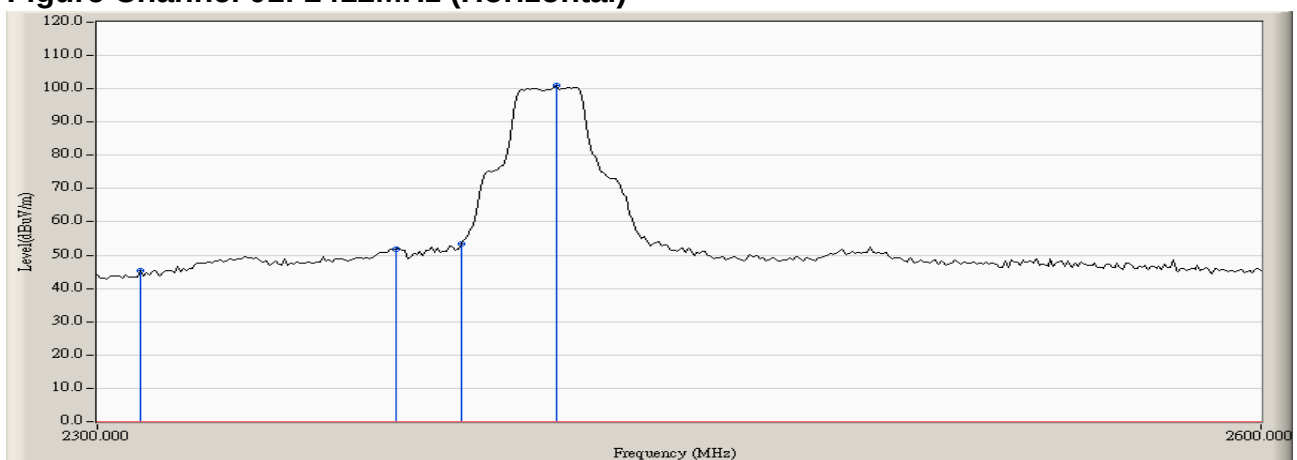
RF Radiated Measurement:

Channel No.	Frequency (MHz)	Required Limit (dBc)	Result
01	<2400	>20	Pass

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
01 (Peak)	2390.000	55.090	53.425	74.00	54.00	Pass
01 (Average)	--	--	--	74.00	54.00	Pass

Figure Channel 01: 2412MHz (Horizontal)



Note:

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

Note: The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Product	:	IP-Set Top Box
Test Item	:	Band Edge
Test Site	:	AC-2
Test Mode	:	Mode 2: Transmitter by 802.11g (2412MHz)

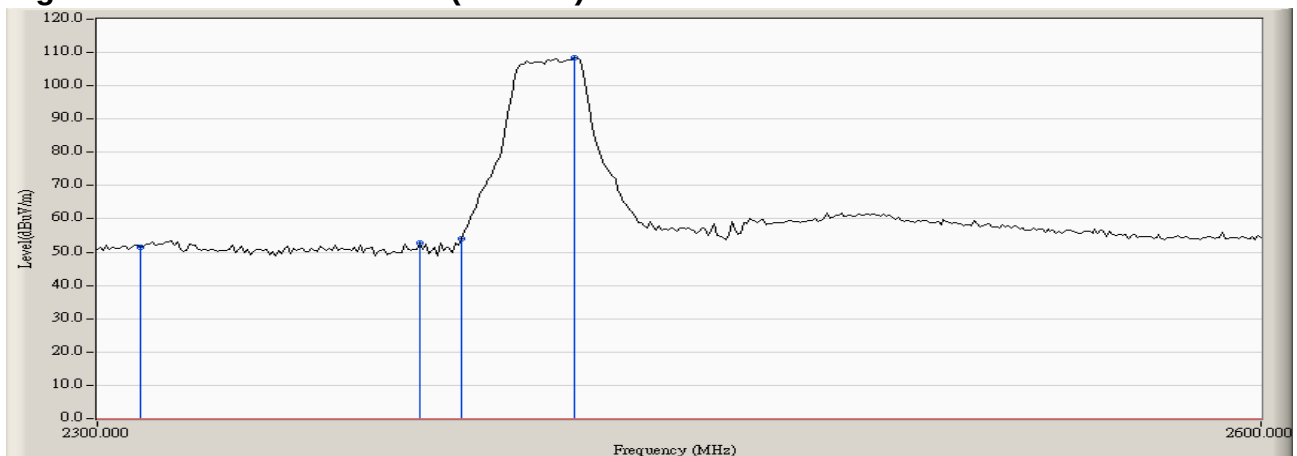
RF Radiated Measurement:

Channel No.	Frequency (MHz)	Required Limit (dBc)	Result
01	<2400	>20	Pass

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
01 (Peak)	2390.000	55.630	53.965	74.00	54.00	Pass
00 (Average)	--	--	--	74.00	54.00	Pass

Figure Channel 01: 2412MHz (Vertical)



Note:

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

Note: The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Product	:	IP-Set Top Box
Test Item	:	Band Edge
Test Site	:	AC-2
Test Mode	:	Mode 2: Transmitter by 802.11g (2462MHz)

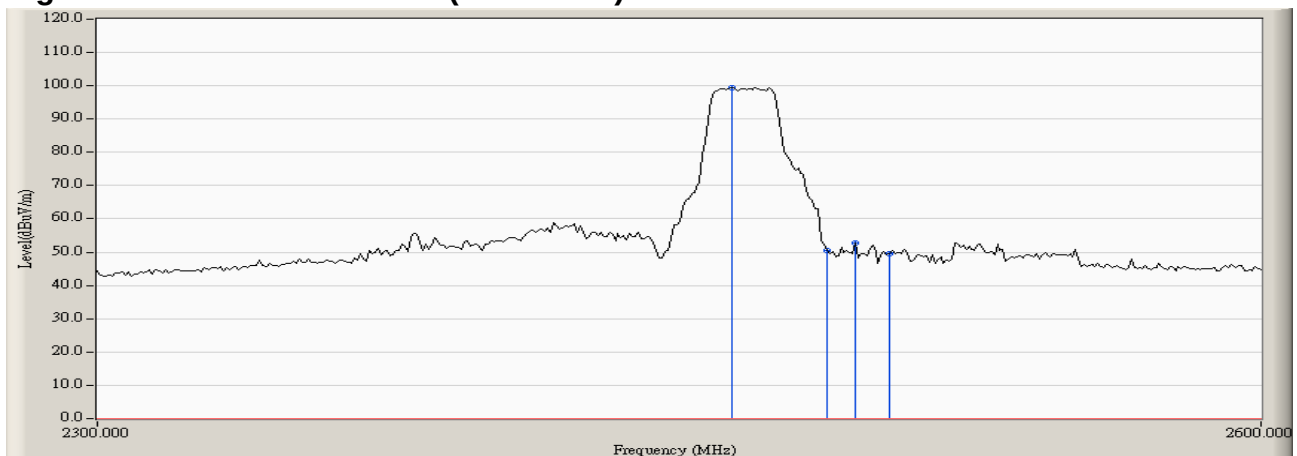
RF Radiated Measurement:

Channel No.	Frequency (MHz)	Required Limit (dBc)	Result
11	>2483.5	>20	Pass

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
11(Peak)	2491.250	54.242	52.612	74.00	54.00	Pass
11(Average)	--	--	--	74.00	54.00	Pass

Figure Channel 11: 2462MHz (Horizontal)



Note:

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

Note: The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Product	:	IP-Set Top Box
Test Item	:	Band Edge
Test Site	:	AC-2
Test Mode	:	Mode 2: Transmitter by 802.11g (2462MHz)

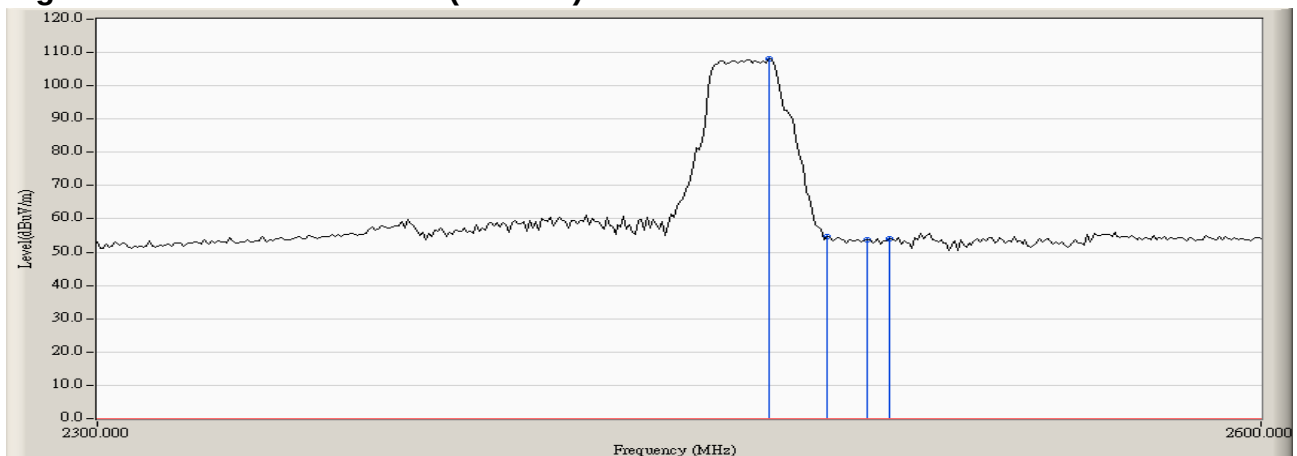
RF Radiated Measurement:

Channel No.	Frequency (MHz)	Required Limit (dBc)	Result
11	>2483.5	>20	Pass

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
11(Peak)	2483.500	56.224	54.594	74.00	54.00	Pass
11(Average)	--	--	--	74.00	54.00	Pass

Figure Channel 11: 2462MHz (Vertical)



Note:

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

Note: The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

8. Peak Power Spectral Density

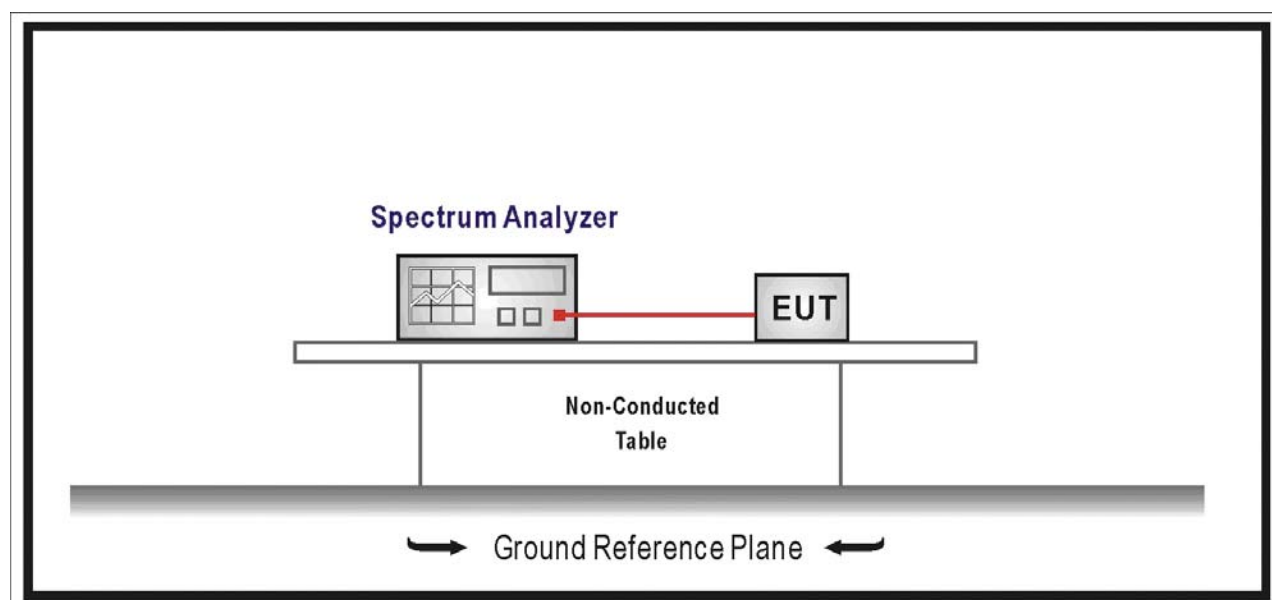
8.1. Test Equipment

Radiated Emission / AC-2

Instrument	Manufacturer	Type No.	Serial No	Cal. Date
Spectrum Analyzer	Agilent	E4446A	MY45300103	2006/03/11
Temperature/Humidity Meter	zhicheng	ZC1-2	QT-TH003	2006/03/30

8.2. Test Setup

RF Conducted Measurement



8.3. Limit

For digitally modulated systems, the power spectral density conducted from the intentional radiated to the antenna shall not be greater than 8dBm in any 3kHz band during any time interval of continuous transmission.

8.4. Test Procedure

- a) Place the EUT on a bench and set it in transmitting mode.
- b) Connect a low loss RF cable from the antenna port to a spectrum analyzer.
- c) Add a correction factor to the display, and then test.

8.5. Uncertainty

The measurement uncertainty is defined as ± 1.27 dB

8.6. Test Result

Product	:	IP-Set Top Box
Test Item	:	Peak Power Spectral Density
Test Site	:	AC-3
Test Mode	:	Mode 1: Transmitter by 802.11b

Channel	Freq. (MHz)	Power Spectral Density (dBm/3kHz)	Limit (dBm /3kHz)	Result
01	2412	-10.100	8	Pass
06	2437	-9.915	8	Pass
11	2462	-10.070	8	Pass

Figure Channel 01 (2412MHz)

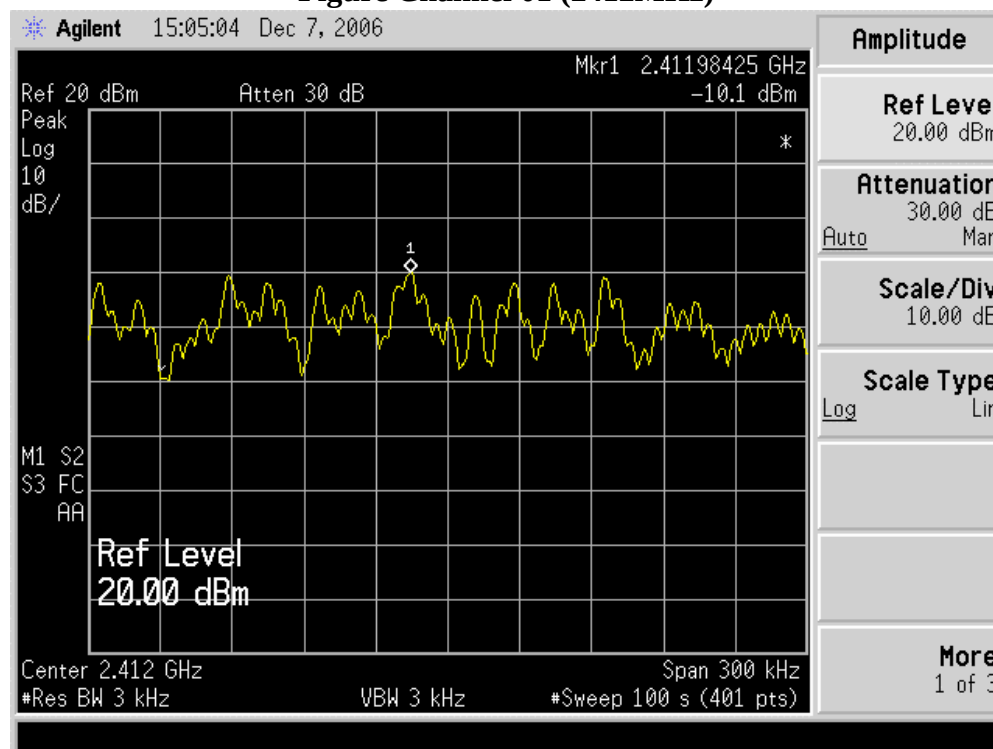


Figure Channel 06 (2437MHz)

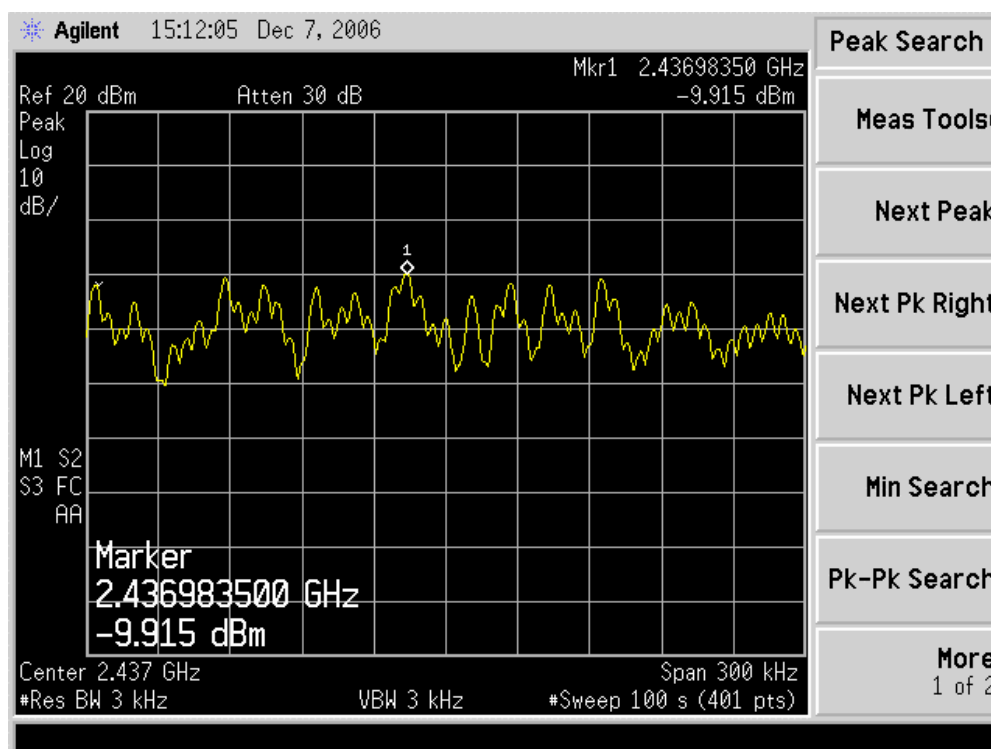
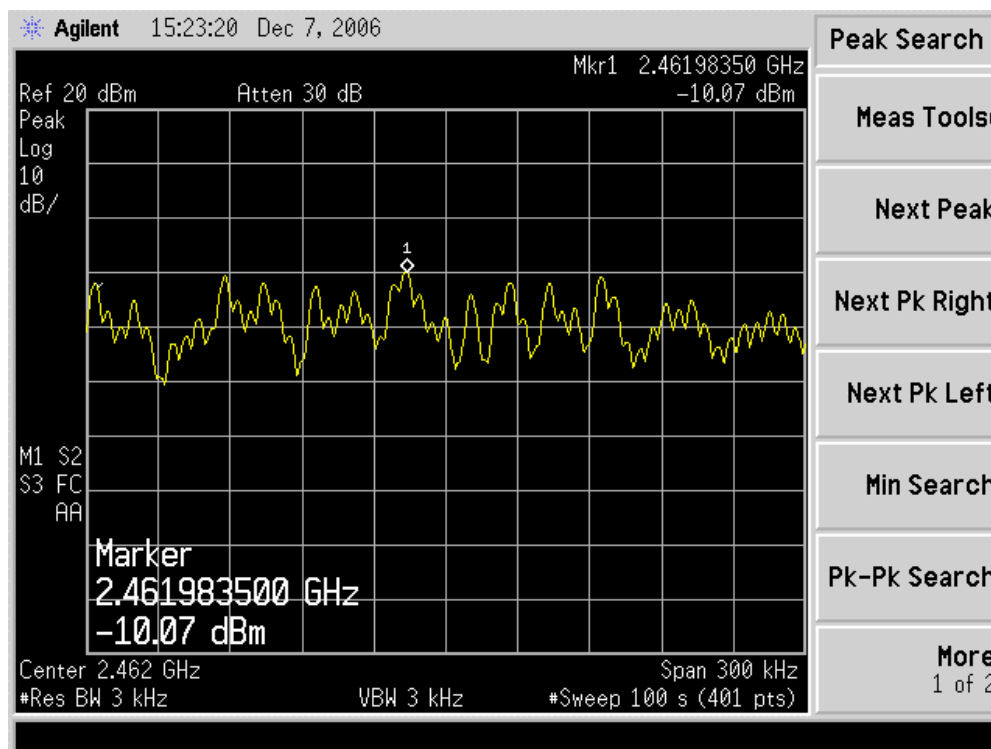


Figure Channel 11 (2462MHz)



Product	:	IP-Set Top Box
Test Item	:	Peak Power Spectral Density
Test Site	:	AC-3
Test Mode	:	Mode 2: Transmitter by 802.11g

Channel	Freq. (MHz)	Power Spectral Density (dBm/3kHz)	Limit (dBm /3kHz)	Result
01	2412	-19.560	8	Pass
06	2437	-19.480	8	Pass
11	2462	-20.080	8	Pass

Figure Channel 01 (2412MHz)

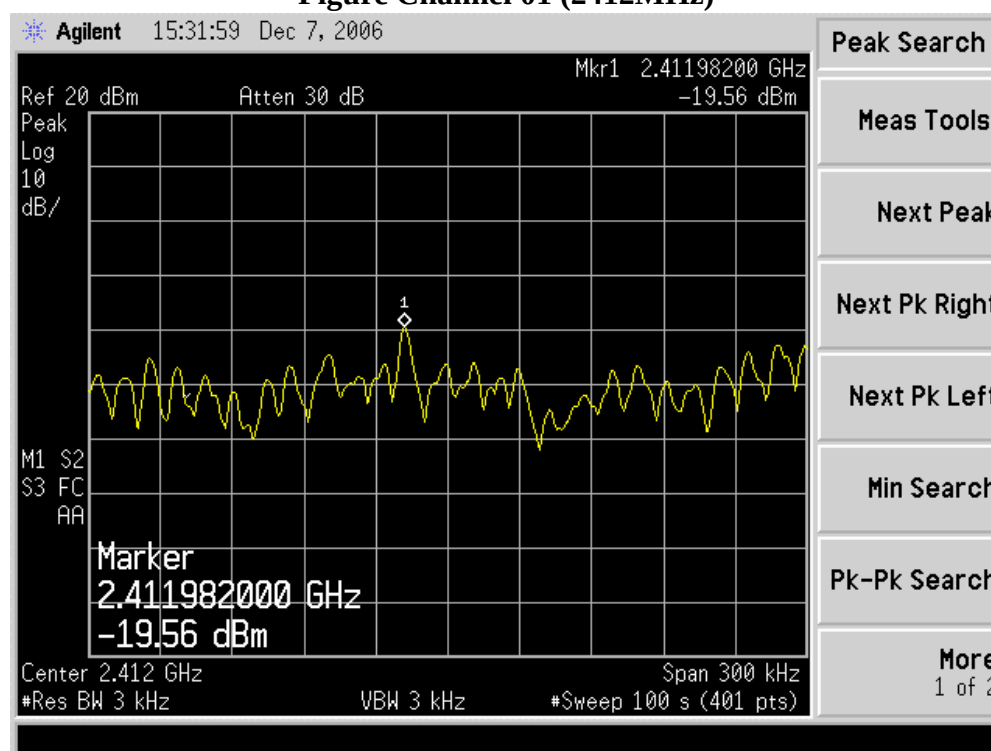


Figure Channel 06 (2437MHz)

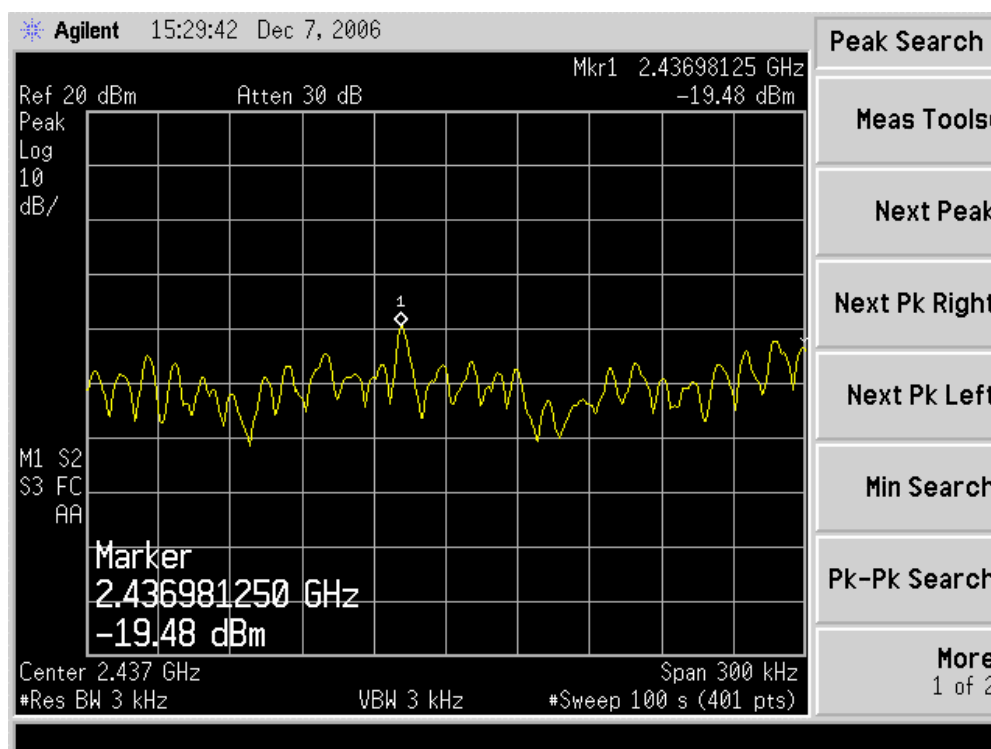


Figure Channel 11 (2462MHz)

