ELECTROMAGNETIC EMISSIONS COMPLIANCE REPORT
INTENTIONAL RADIATOR CERTIFICATION TO
FCC PART 15 SUBPART C REQUIREMENT

OF

RADIOCUBO.IT

MODEL No.: TS525

BRAND NAME: BRIONVEGA COLLECTION

FCC ID: Y3U-BV-TS525

REPORT NO: KAD101029063E

ISSUE DATE: November 13, 2010

Prepared for

BV, srl.
Viale Lino Zanussi, 11 33170 Pordenone Italy

Prepared by

DONGGUAN EMTEK CO., LTD.

No.281, Guantai Road, Nancheng District,
Dongguan, Guangdong, China
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FAX: 86-769-22807079

VERIFICATION OF COMPLIANCE

Applicant:	BV, srl. Viale Lino Zanussi, 11 33170 Pordenone Italy
Manufacturer:	BV, srl. Viale Lino Zanussi, 11 33170 Pordenone Italy
Product Description:	RADIOCUBO.IT
Brand Name:	BRIONVEGA COLLECTION
Model Number:	TS525
Serial Number:	N/A
File Number:	KAD101029063E
Date of Test:	October 29, 2010 to November 13, 2010

We hereby certify that:

The above equipment was tested by DONGGUAN EMTEK CO., LTD. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.4 (2009) and the energy emitted by the sample EUT tested as described in this report is in compliance with conducted and radiated emission limits of FCC Rules Part 15.247. also, the model complies with Canadian RSS-210 Issue 6 standard.

The test results of this report relate only to the tested sample identified in this report.

Approved By

Nicol Lee

Nicol Lee / Q.A. Manager
DONGGUAN EMTEK CO., LTD.

Table of Contents

1. GENERAL INFORMATION

1.1 Product Description

A major technical descriptions of EUT is described as following:

A). Operation Frequency: 2412-2462MHz
B). Modulation: DBPSK, DQPSK, BPSK, QPSK
C). Number of Channel: 802.11b Mode: 11 channels
802.11g Mode: 11 channels
D). Channel space: 5MHz
E). Rated RF Output Power: 13.70dBm
F). BIT Rate of Transmission: 11Mbps(11b), 54Mbps(11g)
G). Antenna Type: Internal Antenna
H). Antena GAIN: 0dBi
I). Power Supply: AC 100-240V 50/60Hz Come from Adapter, DC 9V Battery
Adapter: Model: GPE302-120250-1
Input: AC 100-240V 50/60Hz 0.85A
Output: DC 12V 2500mA 30VA

Channel 01-11 for 802.11b, 802.11g

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
CH01	2412	CH05	2432	CH09	2452
CH02	2417	CH06	2437	CH10	2457
CH03	2422	CH07	2442	CH11	2462
CH04	2427	CH08	2447		

Note:
1. This device is a 2.4GHz RADIOCUBO.IT included 802.11b and 802.11g 2.4GHz transceiver function.
2. Test of channel was included the lowest middle and highest frequency in highest data rate and to perform the test, then record on this report.

1.2 Related Submittal(s) / Grant (s)

This submittal(s) (test report) is intended for FCC ID: Y3U-BV-TS525 filing to comply with Section 15.247 of the FCC Part 15, Subpart C Rules. The composite system (receiver) is compliance with Subpart B is authorized under a DoC procedure.

1.3 Test Methodology

Both conducted and radiated testing were performed according to the procedures in ANSI C63.4 (2009). Radiated testing was performed at an antenna to EUT distance 3 meters.

1.4 Special Accessories

Not available for this EUT intended for grant.

1.5 Equipment Modifications

Not available for this EUT intended for grant.

1.6 Test Facility

Site Description

EMC Lab. : Accredited by CNAS, 2007.07.27
The certificate is valid until 2012.07.26
The Laboratory has been assessed and proved to be in compliance with CNAS/CL01:2006
The Certificate Registration Number is L3150

Accredited by TUV Rheinland Shenzhen 2009.09.16
The certificate is valid until 2011.03.16
The Laboratory has been assessed according to the requirements ISO/IEC 17025: 2005

Accredited by FCC, Nov. 05, 2008
The Certificate Number is 247565.

Accredited by Industry Canada, March 05, 2010
The Certificate Registration Number. is 46405-4480

Name of Firm : DONGGUAN EMTEK CO., LTD
Site Location : No.281, Guantai Road, Nancheng District,
Dongguan, Guangdong, China

2. System Test Configuration

2.1 EUT Configuration

The EUT configuration for testing is installed on RF field strength measurement to meet the Commissions requirement and operating in a manner which intends to maximize its emission characteristics in a continuous normal application.

2.2 EUT Exercise

The Transmitter was operated in the normal operating mode. the Tx frequency was fixed which was for the purpose of the measurements.

2.3 Test Procedure

2.3.1 Conducted Emissions

The EUT is a placed on as turn table which is 0.8 m above ground plane. According to the requirements in Section 13.1.4.1 of ANSI C63.4-2009.Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30MHz using CISPR Quasi-Peak and average detector mode.

2.3.2 Radiated Emissions

The EUT is a placed on as turn table which is 0.8 m above ground plane. The turn table shall rotate 360 degrees to determine the position of maximum emission level. EUT is set 3m away from the receiving antenna which varied from 1m to 4m to find out the highest emission. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical. In order to find out the max. emission, the relative positions of this hand-held transmitter(EUT) was rotated through three orthogonal axes according to the requirements in Section 13.1.4.1 of ANSI C63.4-2009.

2.4 Configuration of Tested System

Fig. 2-1 Configuration of Tested System

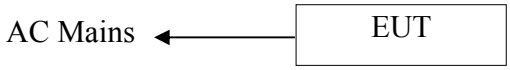


Table 2-1 Equipment Used in Tested System

Item	Equipment	Mfr/Brand	Model/Type No.	FCC ID	Series No.	Note
1.	RADIOCUBO.IT	BRIONVEGA COLLECTION	TS525	Y3U-BV-TS525	N/A	***EUT***

Note:

(1) Unless otherwise denoted as EUT in『Remark』column , device(s) used in tested system is a support equipment.

3. Description of test modes

The Transmitter of EUT is RADIOCUBO.IT. This is Digital Transmission system(DTS) and have four type of modulation DBPSK, DQPSK, BPSK & QPSK. The data rates are 54Mbps and 11Mbps.
The equipment enables high-speed access without wires to network assets.

WLAN802.11b

1. For lowest channel: 2412MHz(Channel 01)
2. For middle channel: 2437MHz(Channel 06)
3. For highest channel: 2462MHz(Channel 11)

WLAN802.11g

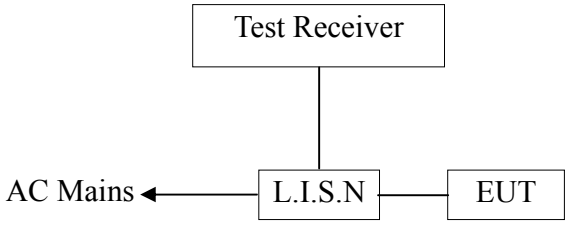
1. For lowest channel: 2412MHz(Channel 01)
2. For middle channel: 2437MHz(Channel 06)
3. For highest channel: 2462MHz(Channel 11)

4. Conducted Emissions Test

4.1 Measurement Procedure:

1. The EUT was placed on a table, which is 0.8m above ground plane.
2. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
3. Repeat above procedures until all frequency measured was complete.

4.2 Test SET-UP (Block Diagram of Configuration)



4.3 Measurement Equipment Used:

Conducted Emission Test Site # 4					
EQUIPMENT TYPE	**MFR**	**MODEL NUMBER**	**SERIAL NUMBER**	**LAST CAL.**	**CAL DUE.**
Test Receiver	Rohde & Schwarz	ESCS30	828985/018	05/29/2010	05/29/2011
L.I.S.N	Rohde & Schwarz	ESH2-Z5	834549/005	05/29/2010	05/29/2011
L.I.S.N	Rohde & Schwarz	ESH2-Z5	834549/005	05/29/2010	05/29/2011
50ΩCoaxial Switch	Anritsu	MP59B	M20531	005/29/2010	05/29/2011

4.4 Conducted Emission Limit

Conducted Emission

Frequency(MHz)	Quasi-peak	Average
0.15-0.5	66-56	56-46
0.5-5.0	56	46
5.0-30.0	60	50

Note:

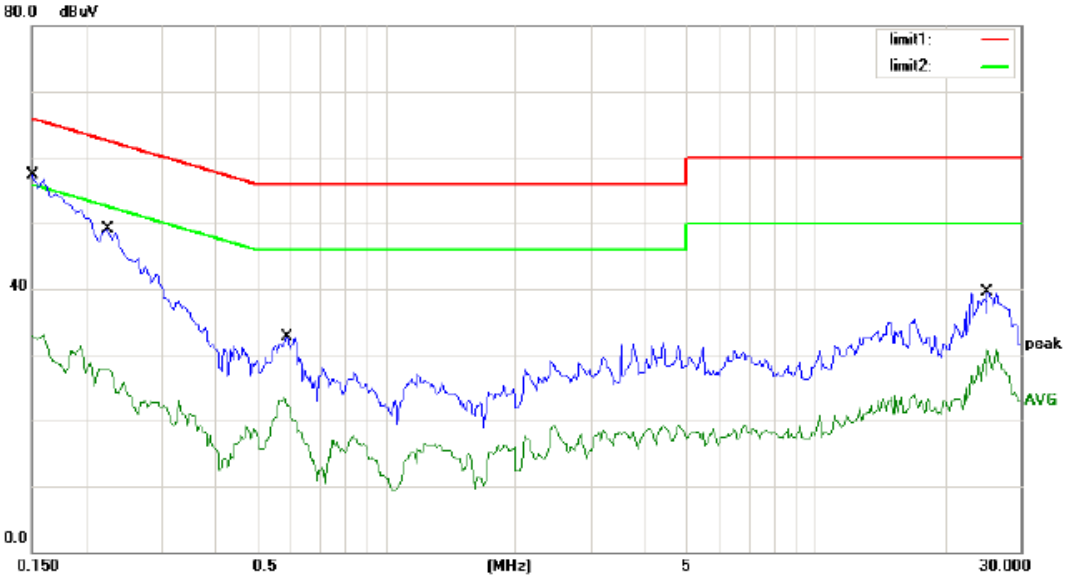
1. The lower limit shall apply at the transition frequencies
2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.

4.5 Measurement Result:

PASS

Conducted Emission Measurement

File :TS525 Data :#49 Date: 2010/11/01 Time: 21:27:36

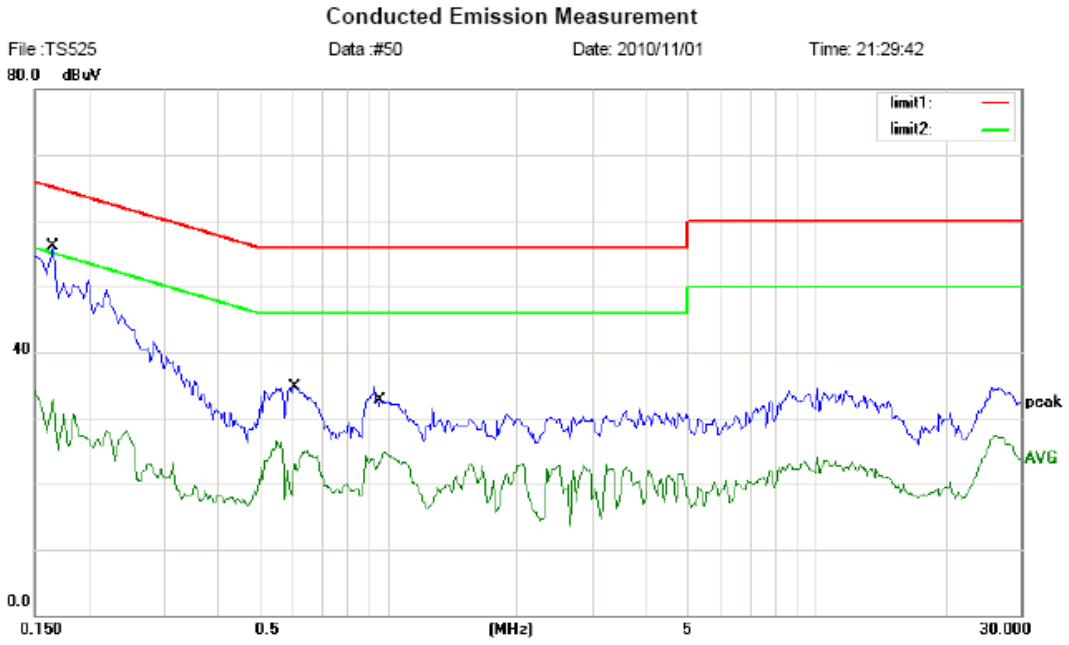


Site site #1 Phase: *L1* Temperature: 25
Limit: (CE)FCC PART 15 C _QP Power: AC 120V/60Hz Humidity: 50 %
EUT: RADIOCUBO.IT
M/N: TS525
Mode: TX
Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	*	0.1500	54.25	0.00	54.25	66.00	-11.75	QP	
2		0.1500	33.08	0.00	33.08	56.00	-22.92	AVG	
3		0.2250	47.05	0.00	47.05	62.63	-15.58	QP	
4		0.2250	28.60	0.00	28.60	52.63	-24.03	AVG	
5		0.5900	30.70	0.00	30.70	56.00	-25.30	QP	
6		0.5900	23.53	0.00	23.53	46.00	-22.47	AVG	
7		25.1500	37.57	0.00	37.57	60.00	-22.43	QP	
8		25.1500	30.67	0.00	30.67	50.00	-19.33	AVG	

*:Maximum data x:Over limit !:over margin Comment: Factor build in receiver. Operator: Andy

File :TS525\Data :#49 *Page: 1*



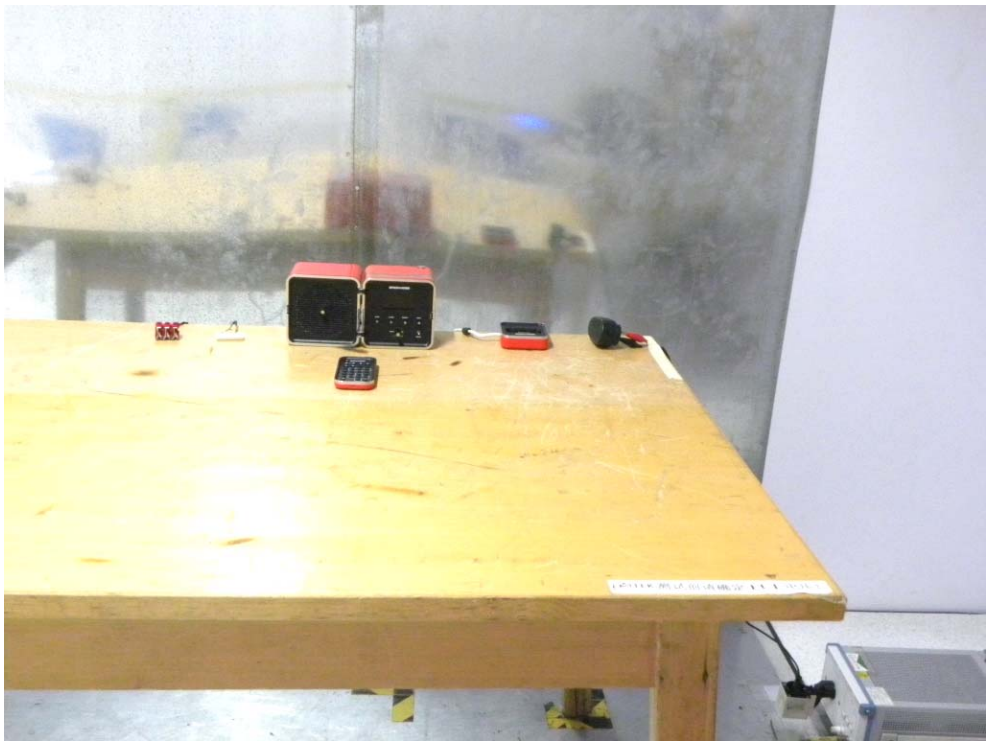
Site site #1 Phase: N Temperature: 25
Limit: (CE)FCC PART 15 C _QP Power: AC 120V/60Hz Humidity: 50 %
EUT: RADIOCUBO.IT
M/N: TS525
Mode: TX
Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	*	0.1650	54.12	0.00	54.12	65.21	-11.09	QP	
2		0.1650	34.02	0.00	34.02	55.21	-21.19	AVG	
3		0.6050	32.79	0.00	32.79	56.00	-23.21	QP	
4		0.6050	26.44	0.00	26.44	46.00	-19.56	AVG	
5		0.9600	31.02	0.00	31.02	56.00	-24.98	QP	
6		0.9600	24.75	0.00	24.75	46.00	-21.25	AVG	

*:Maximum data x:Over limit !:over margin Comment: Factor build in receiver. Operator: Andy

File :TS525\Data :#50 *Page: 1*

4.6 Conducted Measurement Photos:



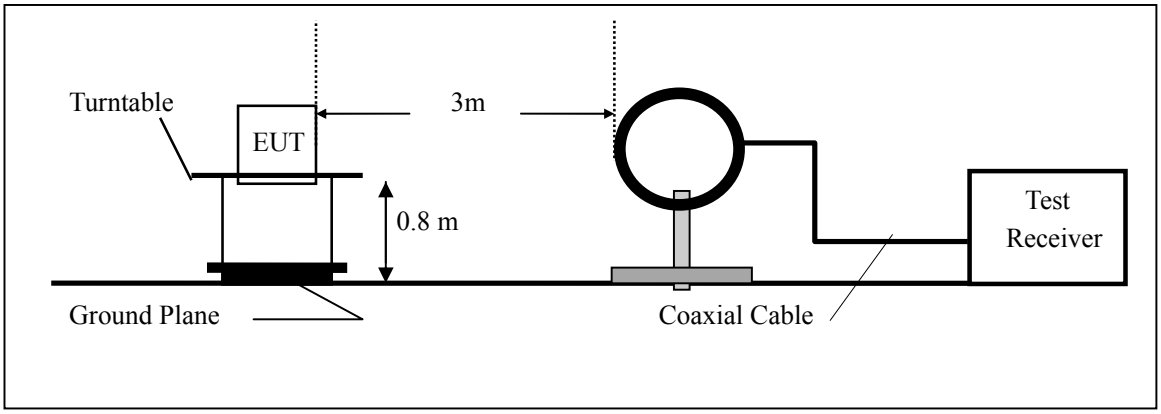
5. Radiated Emission Test

5.1 Measurement Procedure

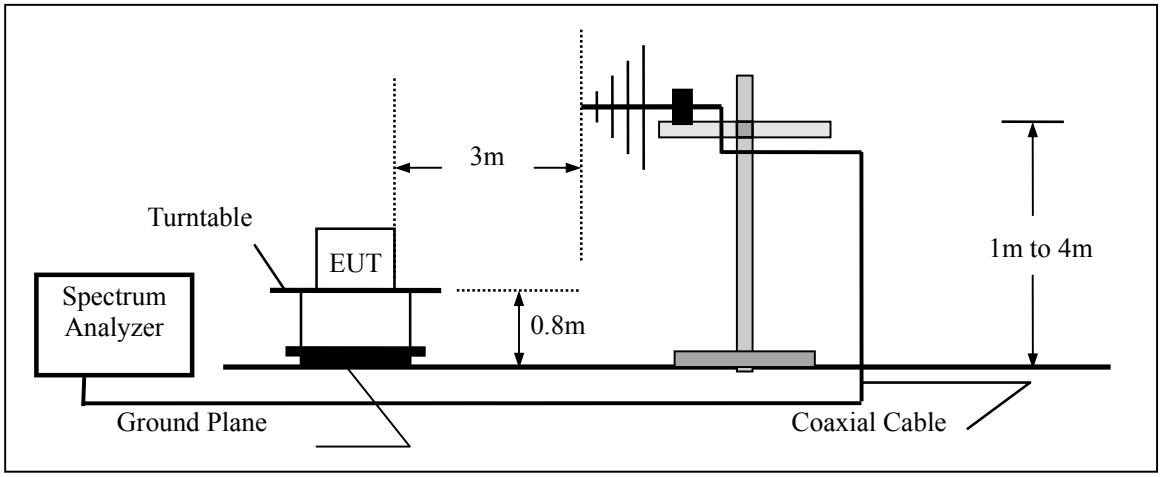
1 The EUT was placed on a turn table which is 0.8m above ground plane.
2. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
3. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
4. Repeat above procedures until all frequency measured were complete.

5.2 Test SET-UP (Block Diagram of Configuration)

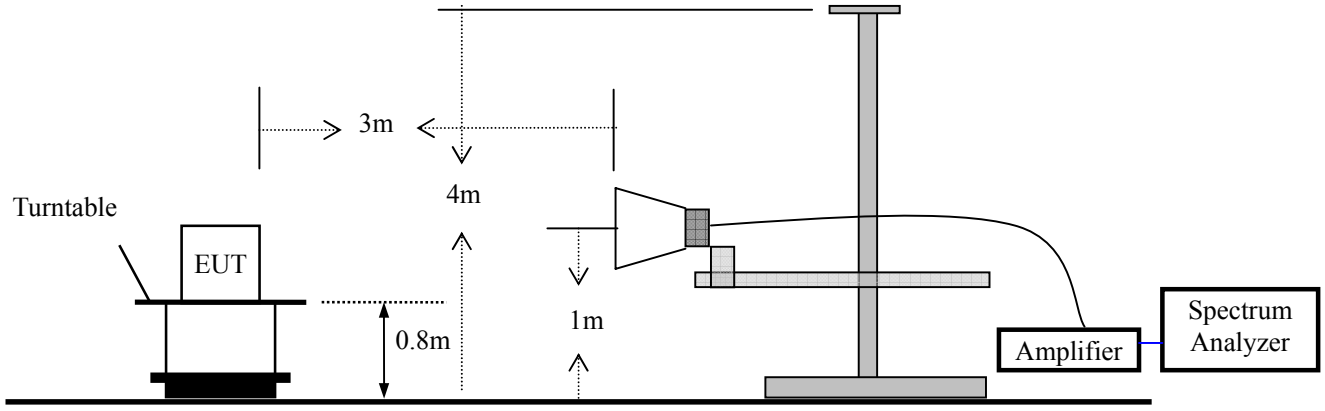
(A) Radiated Emission Test Set-Up, Frequency Below 30MHz



(B) Radiated Emission Test Set-Up, Frequency Below 1000MHz



(C) Radiated Emission Test Set-Up, Frequency above 1000MHz



5.3 Measurement Equipment Used:

EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL.	CAL DUE.
Spectrum Analyzer	Rohde & Schwarz	FSP7	839511/010	05/29/2010	05/29/2011
Spectrum Analyzer	HP	E4407B	839840481	05/29/2010	05/29/2011
EMI Test Receiver	Rohde & Schwarz	ESU	1302.6005.26	05/29/2010	05/29/2011
Pre-Amplifier	HP	8447D	2944A07999	05/29/2010	05/29/2011
Bilog Antenna	Schwarzbeck	VULB9163	142	05/29/2010	05/29/2011
Loop Antenna	ARA	PLA-1030/B	1029	05/29/2010	05/29/2011
Horn Antenna	Schwarzbeck	BBHA9170	BBHA9170399	05/29/2010	05/29/2011
Horn Antenna	Schwarzbeck	BBHA 9120	D143	05/29/2010	05/29/2011

5.4 Radiated emission limit

FCC Class B Limit at 3m

Frequency	Distance	Field Strength	
MHz	Meter	uV/m	dBuV/m
30~88	3	100	40.0
88~216	3	150	43.5
216~960	3	200	46.0
Above 960	3	500	54.0

Note: The frequencies above 1000MHz, as measured using instrumentation with a peak detector function was corresponding to 20dB above maximum permitted average limit.

5.5 Measurement Result

Operation Mode:	TX Mode	Test Date :	November 01, 2010
Frequency Range:	30~1000MHz	Temperature :	28 ℃
Test Result:	PASS	Humidity :	65 %
Measured Distance:	3m	Test By:	Andy

Freq. (MHz)	Ant.Pol. H/V	Emission Level (dBuV)	Limit 3m (dBuV/m)	Margin (dB)	Note
83.350	V	18.65	40.00	-21.35	PK
95.960	V	22.54	43.50	-20.96	PK
132.820	V	23.48	43.50	-20.02	PK
191.990	V	23.36	43.50	-20.14	PK
242.000	V	22.90	46.00	-23.10	PK
505.710	V	23.50	46.00	-22.50	PK
85.298	H	19.22	40.00	-20.78	PK
105.660	H	21.42	43.50	-22.08	PK
159.010	H	25.56	43.50	-17.94	PK
182.630	H	23.43	43.50	-20.07	PK
264.500	H	23.02	46.00	-22.98	PK
518.420	H	22.69	46.00	-23.31	PK

No others harmonics emissions are higher than 20dB below the limits of 47 CFR Part 15.209.

Note: (1) All Readings are Peak Value.
(2) Emission Level= Reading Level+Probe Factor +Cable Loss
(3) The average measurement was not performed when the peak measured data under the limit of average detection.

Operation Mode:	802.11b Channel 01: 2412MHz	Test Date :	November 01, 2010
Frequency Range:	1-25GHz	Temperature :	28 ℃
Test Result:	PASS	Humidity :	65 %
Measured Distance:	3m	Test By:	Andy

Freq.	Ant.Pol.	Emission Level(dBuV)		Limit 3m(dBuV/m)		Margin(dB)	
(MHz)	H/V	PK	AV	PK	AV	PK	AV
4824.000	V	63.72	44.12	74.00	54.00	-10.28	-9.88
7236.000	V	61.20	42.25	74.00	54.00	-12.80	-11.75
9648.000	V	60.55	40.63	74.00	54.00	-13.45	-13.37
12060.000	V	58.25	42.66	74.00	54.00	-15.75	-11.34
14472.000	V	61.68	41.24	74.00	54.00	-12.32	-12.76
4824.000	H	63.26	43.75	74.00	54.00	-10.74	-10.25
7236.000	H	60.29	40.27	74.00	54.00	-13.71	-13.73
9648.000	H	61.76	41.99	74.00	54.00	-12.24	-12.01
12060.000	H	59.22	42.58	74.00	54.00	-14.78	-11.42
14472.000	H	62.78	40.46	74.00	54.00	-11.22	-13.54

No others harmonics emissions are higher than 20dB below the limits of 47 CFR Part 15.247.

Note: (1) All Readings are Peak Value and AV.
(2) Emission Level= Reading Level+Probe Factor +Cable Loss
(3) The average measurement was not performed when the peak measured data under the limit of average detection.

Operation Mode:	802.11b Channel 06: 2437MHz	Test Date :	November 01, 2010
Frequency Range:	1-25GHz	Temperature :	28 ℃
Test Result:	PASS	Humidity :	65 %
Measured Distance:	3m	Test By:	Andy

Freq. (MHz)	Ant.Pol. H/V	Emission Level(dBuV)		Limit 3m(dBuV/m)		Margin(dB)	
		PK	AV	PK	AV	PK	AV
4874.000	V	65.25	43.61	74.00	54.00	-8.75	-10.39
7311.000	V	63.60	39.14	74.00	54.00	-10.40	-14.86
9748.000	V	58.51	41.58	74.00	54.00	-15.49	-12.42
12185.000	V	58.67	41.39	74.00	54.00	-15.33	-12.61
14622.000	V	56.88	38.74	74.00	54.00	-17.12	-15.26
4874.000	H	63.32	42.40	74.00	54.00	-10.68	-11.60
7311.000	H	64.86	40.53	74.00	54.00	-9.14	-13.47
9748.000	H	58.63	41.76	74.00	54.00	-15.37	-12.24
12185.000	H	59.49	41.84	74.00	54.00	-14.51	-12.16
14622.000	H	55.82	39.40	74.00	54.00	-18.18	-14.60

No others harmonics emissions are higher than 20dB below the limits of 47 CFR Part 15.247.

Note: (1) All Readings are Peak Value and AV.
(2) Emission Level= Reading Level+Probe Factor +Cable Loss
(3) The average measurement was not performed when the peak measured data under the limit of average detection.

Operation Mode:	802.11b Channel 11: 2462MHz	Test Date :	November 01, 2010
Frequency Range:	1-25GHz	Temperature :	28 ℃
Test Result:	PASS	Humidity :	65 %
Measured Distance:	3m	Test By:	Andy

Freq.	Ant.Pol.	Emission Level(dBuV)		Limit 3m(dBuV/m)		Margin(dB)	
(MHz)	H/V	PK	AV	PK	AV	PK	AV
4934.000	V	59.77	45.55	74.00	54.00	-14.23	-8.45
7386.000	V	59.28	42.43	74.00	54.00	-14.72	-11.57
9848.000	V	64.14	40.24	74.00	54.00	-9.86	-13.76
12310.000	V	60.37	40.56	74.00	54.00	-13.63	-13.44
14772.000	V	60.51	39.33	74.00	54.00	-13.49	-14.67
4934.000	H	59.86	45.32	74.00	54.00	-14.14	-8.68
7386.000	H	59.37	40.42	74.00	54.00	-14.63	-13.58
9848.000	H	63.15	41.14	74.00	54.00	-10.85	-12.86
12310.000	H	59.13	40.62	74.00	54.00	-14.87	-13.38
14772.000	H	62.51	38.96	74.00	54.00	-11.49	-15.04

No others harmonics emissions are higher than 20dB below the limits of 47 CFR Part 15.247.

Note: (1) All Readings are Peak Value and AV.

(2) Emission Level= Reading Level+Probe Factor +Cable Loss

(3) The average measurement was not performed when the peak measured data under the limit of average detection.

Operation Mode:	802.11g Channel 01: 2412MHz	Test Date :	November 01, 2010
Frequency Range:	1-25GHz	Temperature :	28 ℃
Test Result:	PASS	Humidity :	65 %
Measured Distance:	3m	Test By:	Andy

Freq.	Ant.Pol.	Emission Level(dBuV)		Limit 3m(dBuV/m)		Margin(dB)	
(MHz)	H/V	PK	AV	PK	AV	PK	AV
4824.000	V	58.24	43.65	74.00	54.00	-15.76	-10.35
7236.000	V	57.87	40.62	74.00	54.00	-16.13	-13.38
9648.000	V	55.48	41.65	74.00	54.00	-18.52	-12.35
12060.000	V	60.03	41.80	74.00	54.00	-13.97	-12.20
14472.000	V	59.72	39.53	74.00	54.00	-14.28	-14.47
4824.000	H	57.75	42.43	74.00	54.00	-16.25	-11.57
7236.000	H	58.62	41.28	74.00	54.00	-15.38	-12.72
9648.000	H	57.34	39.74	74.00	54.00	-16.66	-14.26
12060.000	H	63.21	40.37	74.00	54.00	-10.79	-13.63
14472.000	H	58.38	38.25	74.00	54.00	-15.62	-15.75

No others harmonics emissions are higher than 20dB below the limits of 47 CFR Part 15.247.

Note: (1) All Readings are Peak Value and AV.
(2) Emission Level= Reading Level+Probe Factor +Cable Loss
(3) The average measurement was not performed when the peak measured data under the limit of average detection.

Operation Mode:	802.11g Channel 06: 2437MHz	Test Date :	November 01, 2010
Frequency Range:	1-25GHz	Temperature :	28 ℃
Test Result:	PASS	Humidity :	65 %
Measured Distance:	3m	Test By:	Andy

Freq.	Ant.Pol.	Emission Level(dBuV)		Limit 3m(dBuV/m)		Margin(dB)	
(MHz)	H/V	PK	AV	PK	AV	PK	AV
4874.000	V	59.84	45.13	74.00	54.00	-14.16	-8.87
7311.000	V	54.22	43.26	74.00	54.00	-19.78	-10.74
9748.000	V	57.71	40.29	74.00	54.00	-16.29	-13.71
12185.000	V	62.43	39.54	74.00	54.00	-11.57	-14.46
14622.000	V	59.65	43.18	74.00	54.00	-14.35	-10.82
4874.000	H	57.76	44.03	74.00	54.00	-16.24	-9.97
7311.000	H	53.63	44.26	74.00	54.00	-20.37	-9.74
9748.000	H	59.99	40.08	74.00	54.00	-14.01	-13.92
12185.000	H	60.64	41.37	74.00	54.00	-13.36	-12.63
14622.000	H	58.37	43.39	74.00	54.00	-15.63	-10.61

No others harmonics emissions are higher than 20dB below the limits of 47 CFR Part 15.247.

Note: (1) All Readings are Peak Value and AV.
(2) Emission Level= Reading Level+Probe Factor +Cable Loss
(3) The average measurement was not performed when the peak measured data under the limit of average detection.

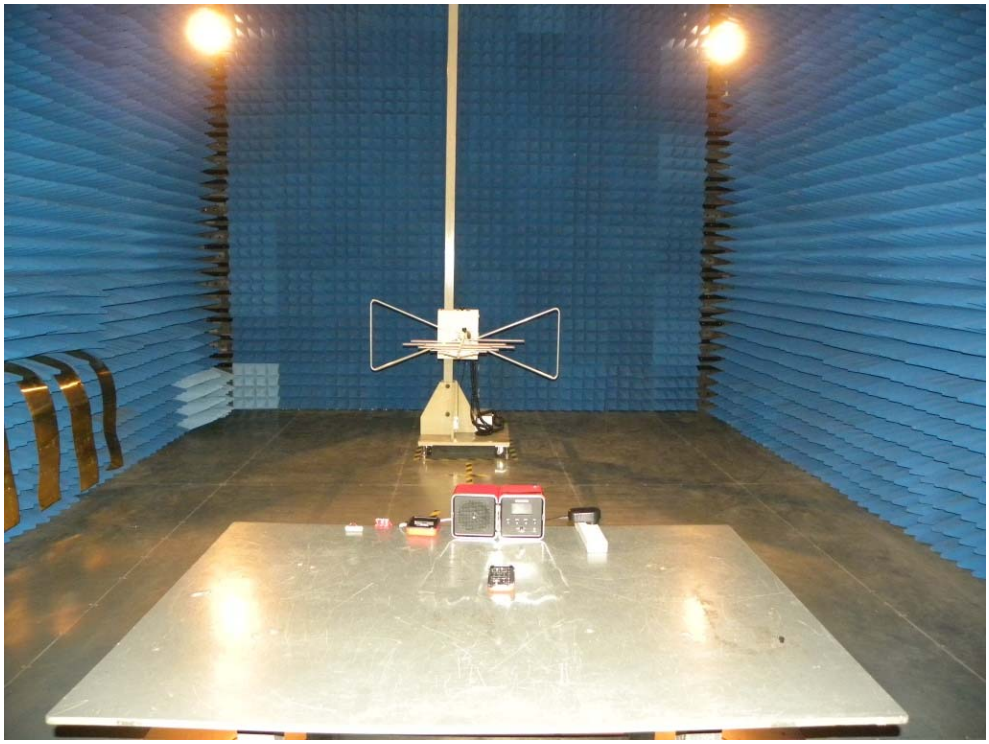
Operation Mode:	802.11g Channel 11: 2462MHz	Test Date :	November 01, 2010
Frequency Range:	1-25GHz	Temperature :	28 ℃
Test Result:	PASS	Humidity :	65 %
Measured Distance:	3m	Test By:	Andy

Freq.	Ant.Pol.	Emission Level(dBuV)		Limit 3m(dBuV/m)		Margin(dB)	
(MHz)	H/V	PK	AV	PK	AV	PK	AV
4934.000	V	60.19	42.98	74.00	54.00	-13.81	-11.02
7386.000	V	59.26	43.64	74.00	54.00	-14.74	-10.36
9848.000	V	54.35	40.25	74.00	54.00	-19.65	-13.75
12310.000	V	55.26	40.07	74.00	54.00	-18.74	-13.93
14772.000	V	48.73	42.37	74.00	54.00	-25.27	-11.63
4934.000	H	59.11	43.54	74.00	54.00	-14.89	-10.46
7386.000	H	59.43	44.17	74.00	54.00	-14.57	-9.83
9848.000	H	56.72	42.46	74.00	54.00	-17.28	-11.54
12310.000	H	57.92	38.38	74.00	54.00	-16.08	-15.62
14772.000	H	50.36	42.32	74.00	54.00	-23.64	-11.68

No others harmonics emissions are higher than 20dB below the limits of 47 CFR Part 15.247.

Note: (1) All Readings are Peak Value and AV.
(2) Emission Level= Reading Level+Probe Factor +Cable Loss
(3) The average measurement was not performed when the peak measured data under the limit of average detection.

5.6 Radiated Measurement Photos:

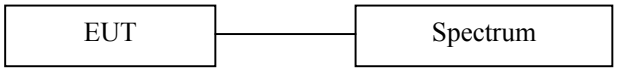


6. Occupied Bandwidth test

6.1 Measurement Procedure

The EUT was operating in IEEE 802.11b, 802.11g mode or could be controlled its channel. Printed out the test result from the spectrum by hard copy function.

6.2 Test SET-UP (Block Diagram of Configuration)



6.3 Measurement Equipment Used:

Same as 5.3 Radiated Emission Measurement.

6.4 Limit

The minimum 6dB bandwidth shall be at least 500kHz.

6.5 Measurement Results:

Refer to attached data chart.

Spectrum Detector:	PK	Test Date :	November 09, 2010
Test By:	Andy	Temperature :	28 ℃
Test Result:	PASS	Humidity :	65 %

802.11b:

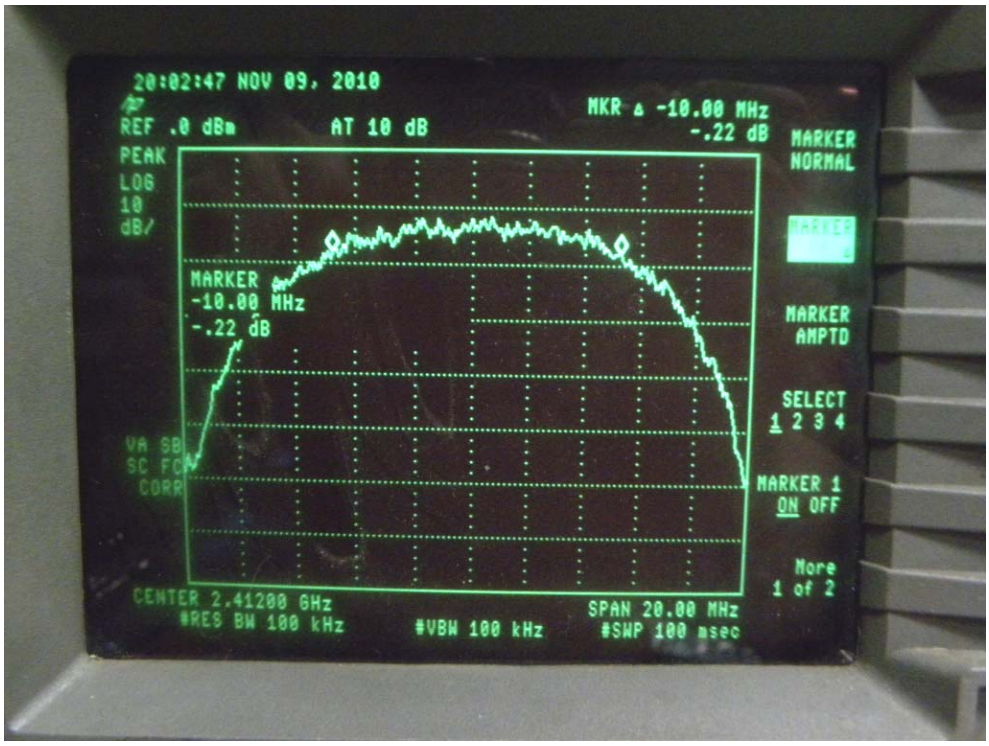
Channel number	Channel frequency (MHz)	Measurement level (MHz)	Required Limit (KHz)
01	2412	10.00	>500
06	2437	9.80	>500
11	2462	11.10	>500

802.11g:

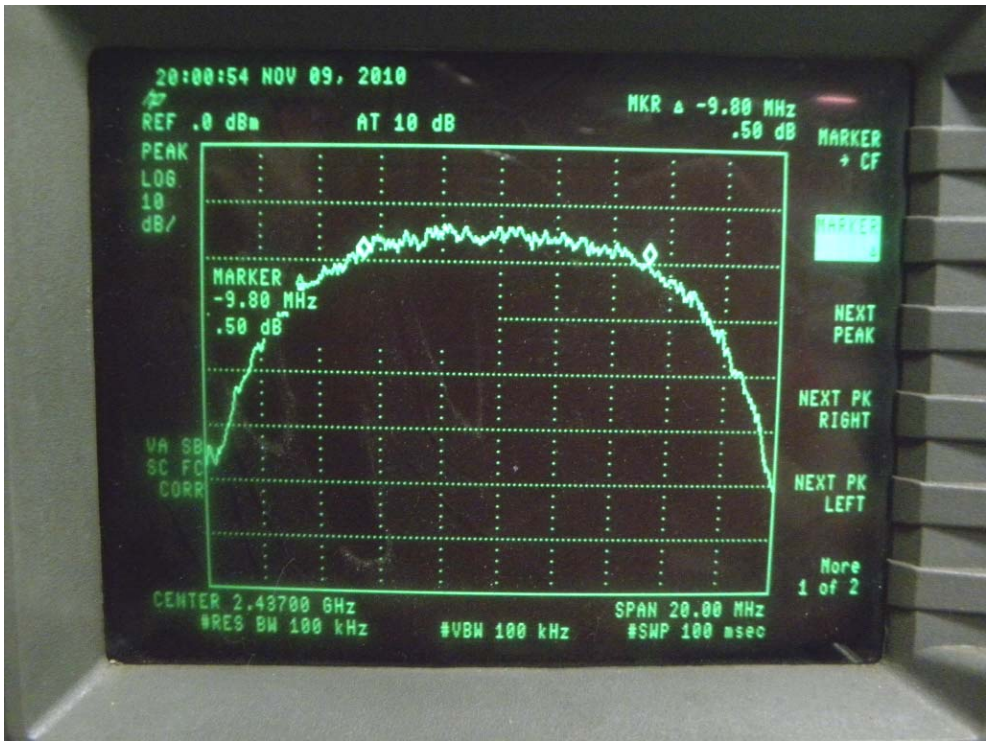
Channel number	Channel frequency (MHz)	Measurement level (MHz)	Required Limit (KHz)
01	2412	16.60	>500
06	2437	16.60	>500
11	2462	16.65	>500

802.11b

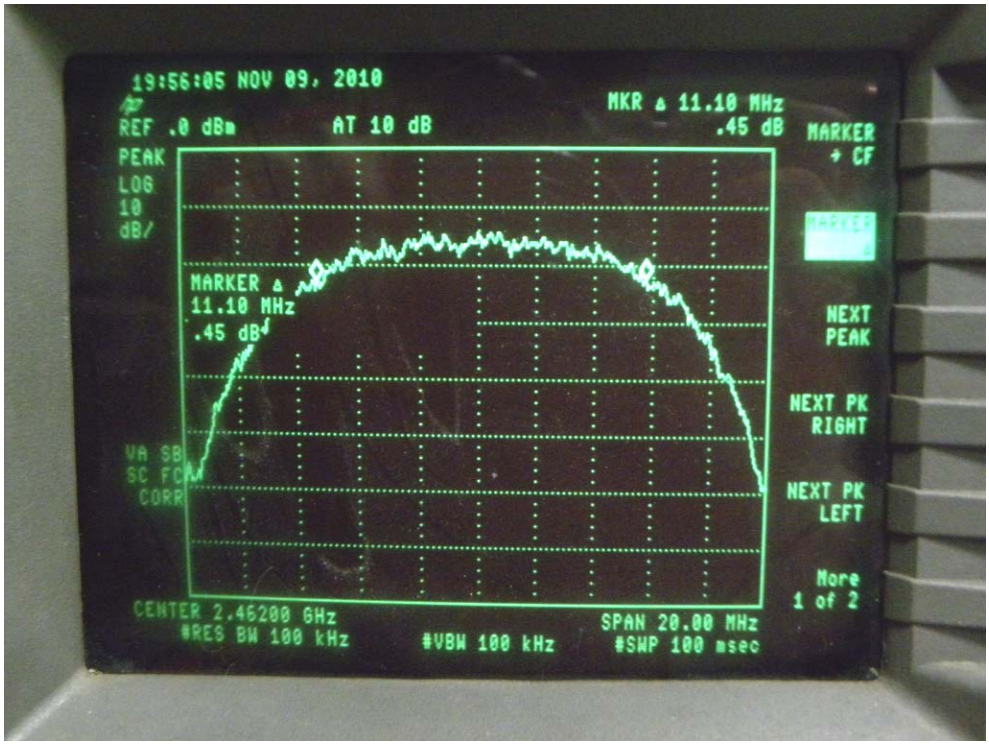
Channel 01



Channel 06

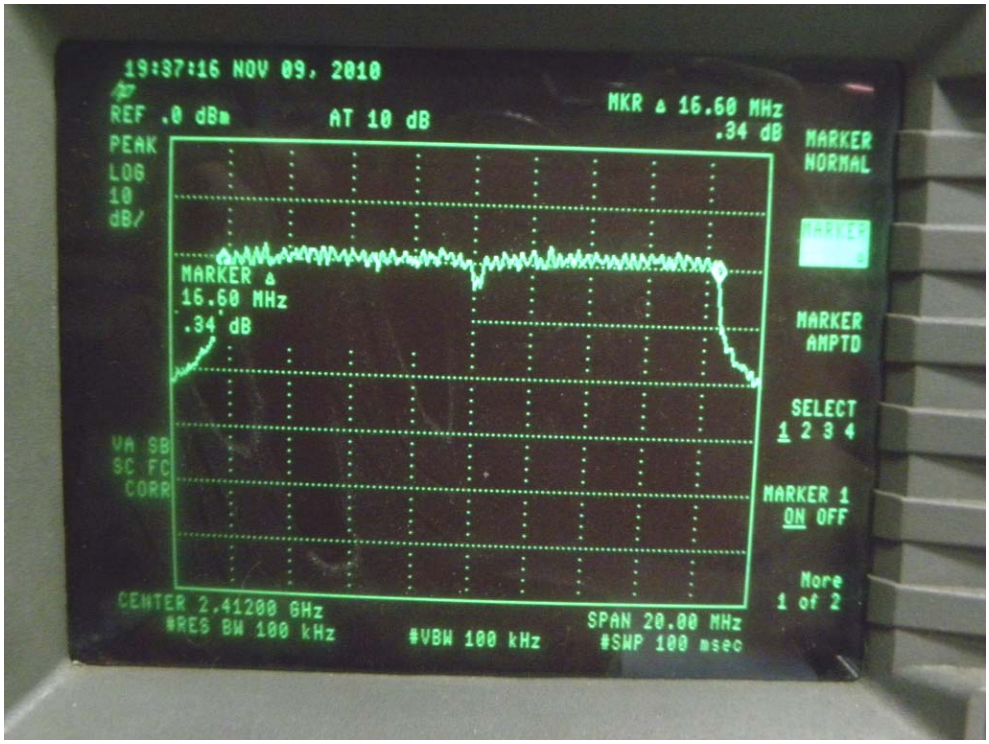


Channel 11

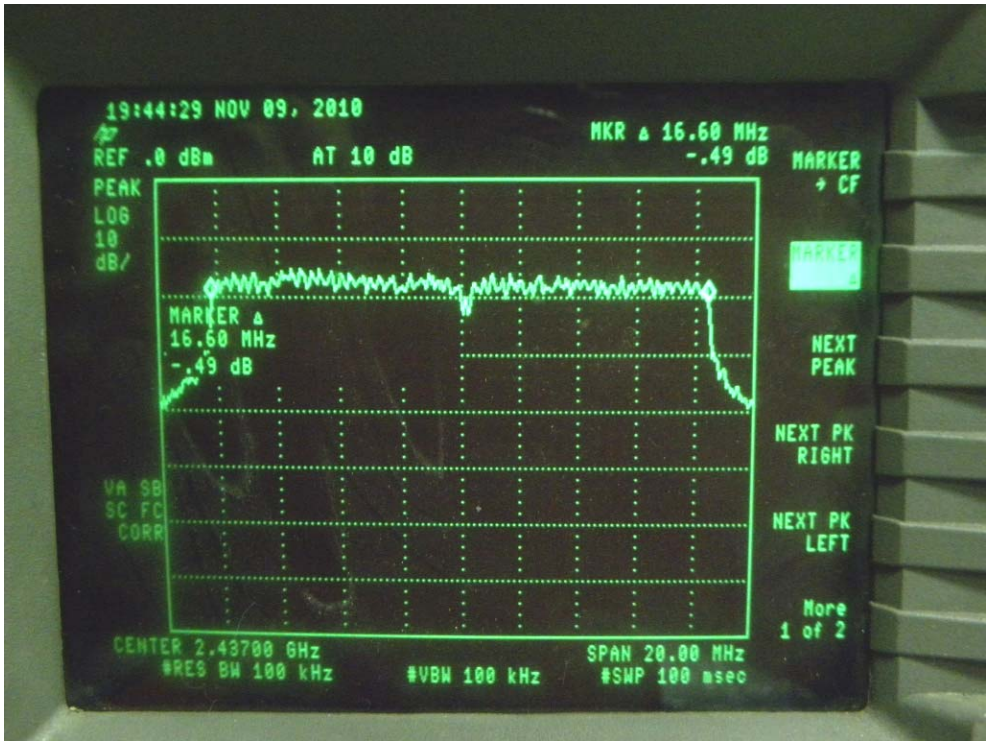


802.11g

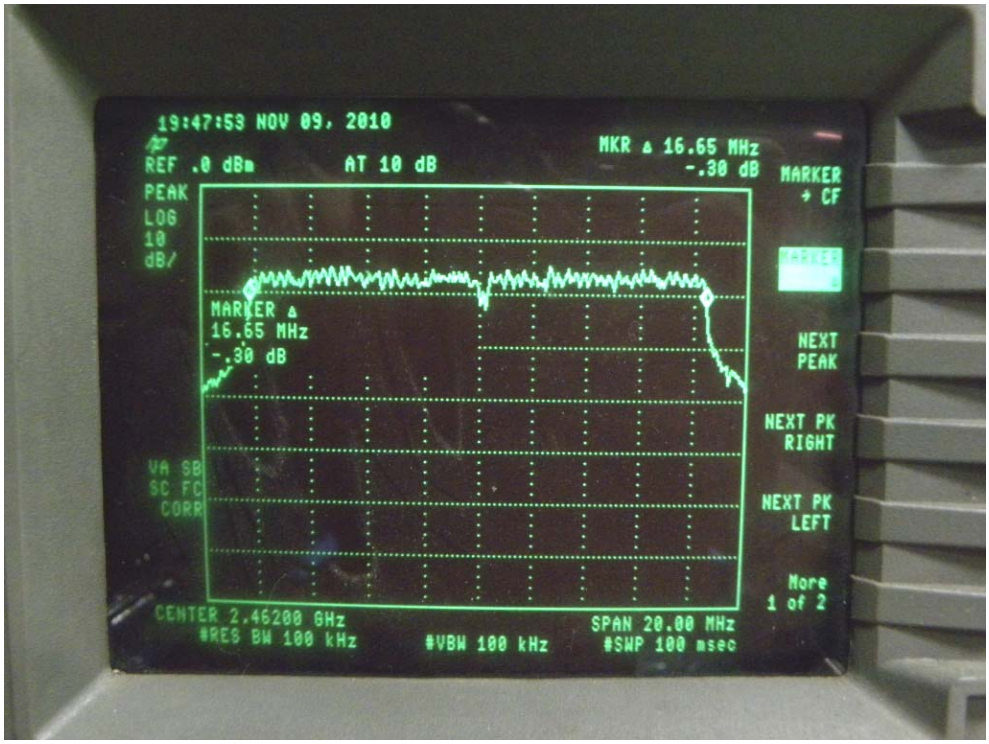
Channel 1



Channel 06



Channel 11

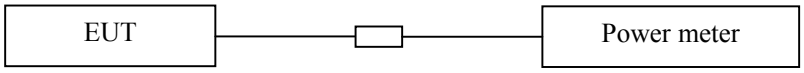


7. MAX IMUM PEAK OUTPUT POWER TEST

7.1 Measurement Procedure

a. The Transmitter output (antenna port) was connected to the power meter.
b. Turn on the EUT and power meter and then record the peak power value.
c. Repeat above procedures on all channels needed to be tested.

7.2 Test SET-UP (Block Diagram of Configuration)



7.3 Measurement Equipment Used:

EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL.	CAL DUE.
Power meter	Boonton	4232A	29001	05/29/2010	05/29/2011
Power sensor	Boonton	51011-EMC	31184	05/29/2010	05/29/2011

7.4 Peak Power output limit

The maximum peak power shall be less 1 Watt.

7.5 Measurement Results:
Refer to attached data chart.

Spectrum Detector:	PK	Test Date :	November 10, 2010
Test By:	Andy	Temperature :	28 ℃
Test Result:	PASS	Humidity :	65 %

802.11b

Channel number	Channel Frequency (MHz)	Peak Power output(dBm)	Peak Power Limit(W)	Pass/Fail
01	2412	13.55	1W(30dBm)	PASS
06	2437	13.70	1W(30dBm)	PASS
11	2462	13.04	1W(30dBm)	PASS

802.11g

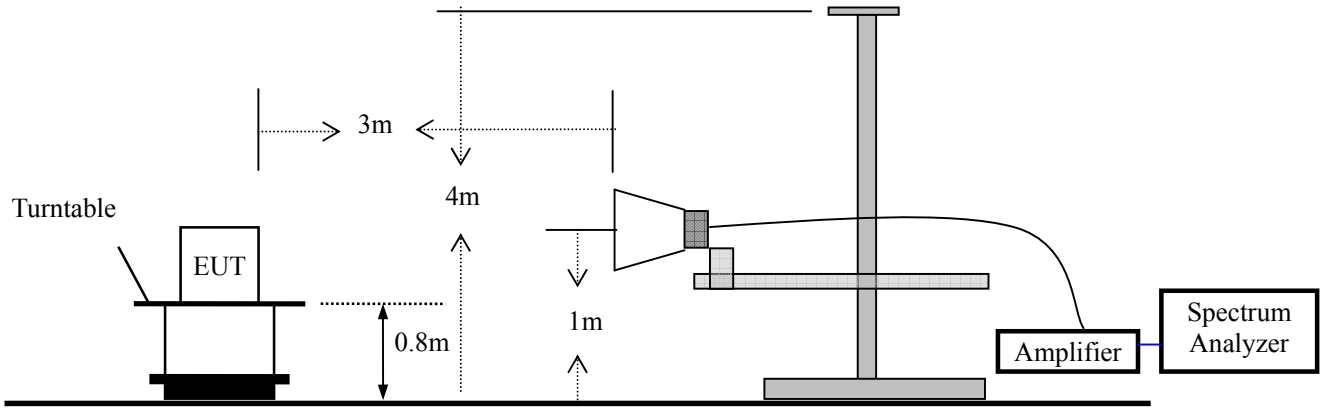
Channel number	Channel Frequency (MHz)	Peak Power output(dBm)	Peak Power Limit(W)	Pass/Fail
01	2412	12.25	1W(30dBm)	PASS
06	2437	12.63	1W(30dBm)	PASS
11	2462	13.49	1W(30dBm)	PASS

8. Band EDGE test

8.1 Measurement Procedure

1. The EUT was Operating in hopping mode or could be controlled its channel. Printed out test result from the spectrum by hard copy function.
2. The EUT was placed on a turn table which is 0.8m above ground plane.
3. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
4. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
5. Repeat above procedures until all frequency measured were complete.

8.2 Test SET-UP (Block Diagram of Configuration)



8.3 Measurement Equipment Used:

Same as 4.3 Radiated Emission Measurement.

8.4 Measurement Results:

Refer to attached data chart.

Spectrum Detector:	PK	Test Date :	November 10, 2010
Test By:	Andy	Temperature :	28 ℃
Test Result:	PASS	Humidity :	65 %

802.11b:

1.Conducted Test

Frequency (MHz)	Peak Power Output(dBm)	Emission read Value(dBm)	Result of Band edge(dBc)	Band edge Limit(dBc)
<2400	-15.17	-60.68	45.51	>20dBc
>2483.5	-14.12	-70.09	55.97	>20dBc

2.Radiated emission test

Frequency (MHz)	Antenna polarization (H/V)	Emission (dBuV/m)		Band edge Limit (dBuV/m)	
		PK	AV	PK	AV
<2400	V	59.34	40.79	74.00	54.00
>2483.5	V	60.20	42.12	74.00	54.00

802.11g:

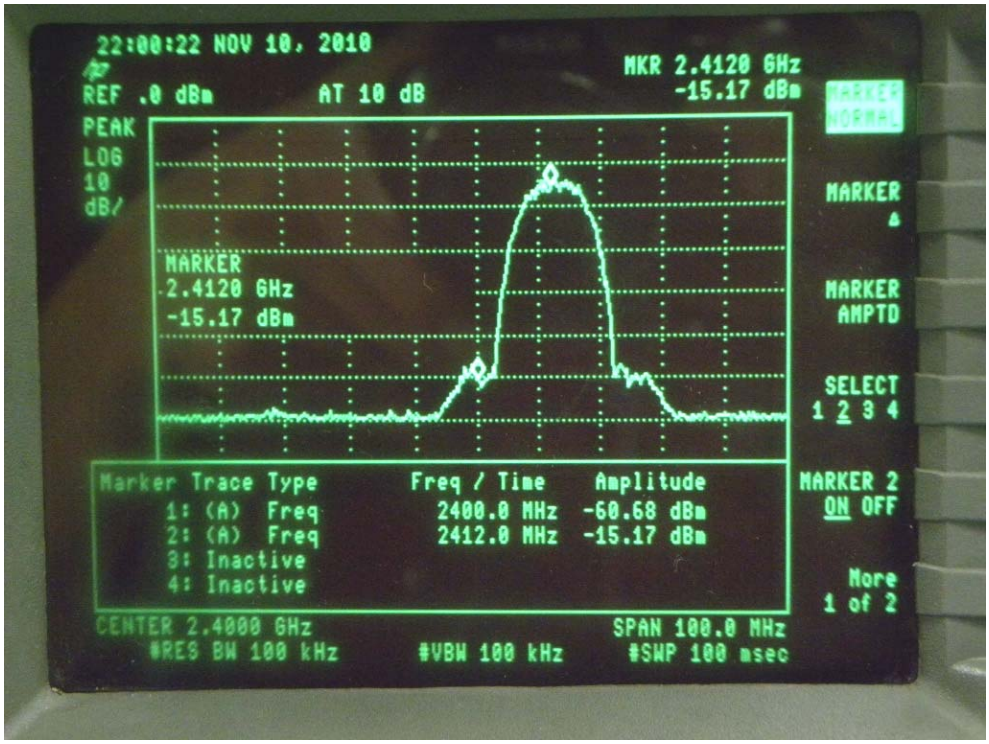
1.Conducted Test

Frequency (MHz)	Peak Power Output(dBm)	Emission read Value(dBm)	Result of Band edge(dBc)	Band edge Limit(dBc)
<2400	-21.44	-49.55	28.11	>20dBc
>2483.5	-18.66	-53.79	35.13	>20dBc

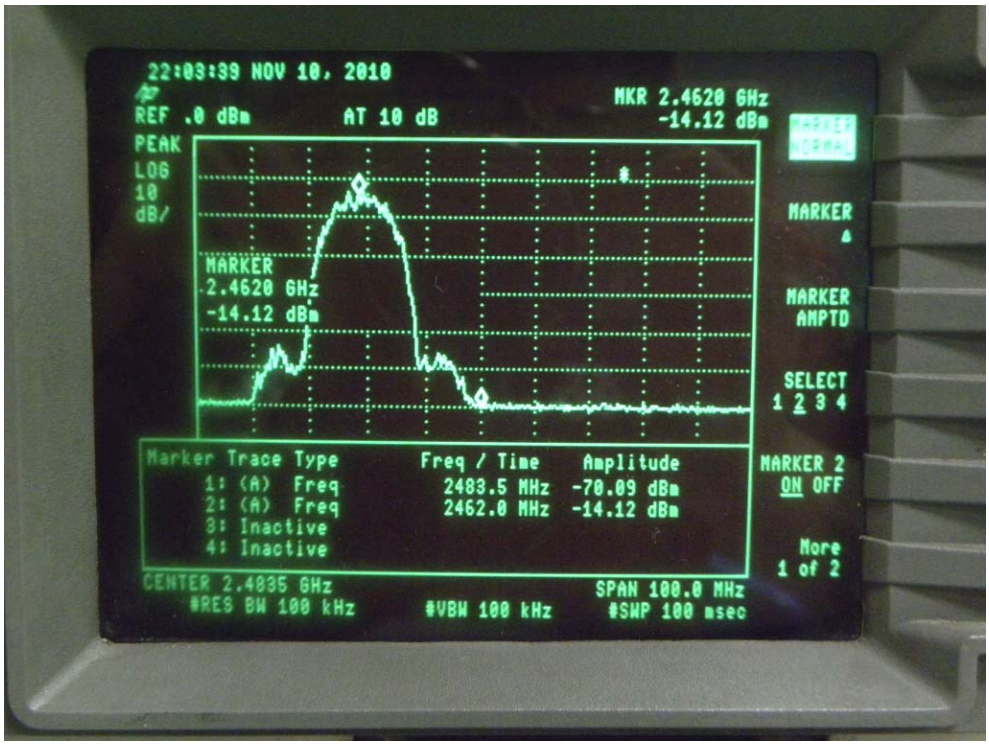
2.Radiated emission test

Frequency (MHz)	Antenna polarization (H/V)	Emission (dBuV/m)		Band edge Limit (dBuV/m)	
		PK	AV	PK	AV
<2400	V	62.68	44.48	74.00	54.00
>2483.5	V	60.22	41.13	74.00	54.00

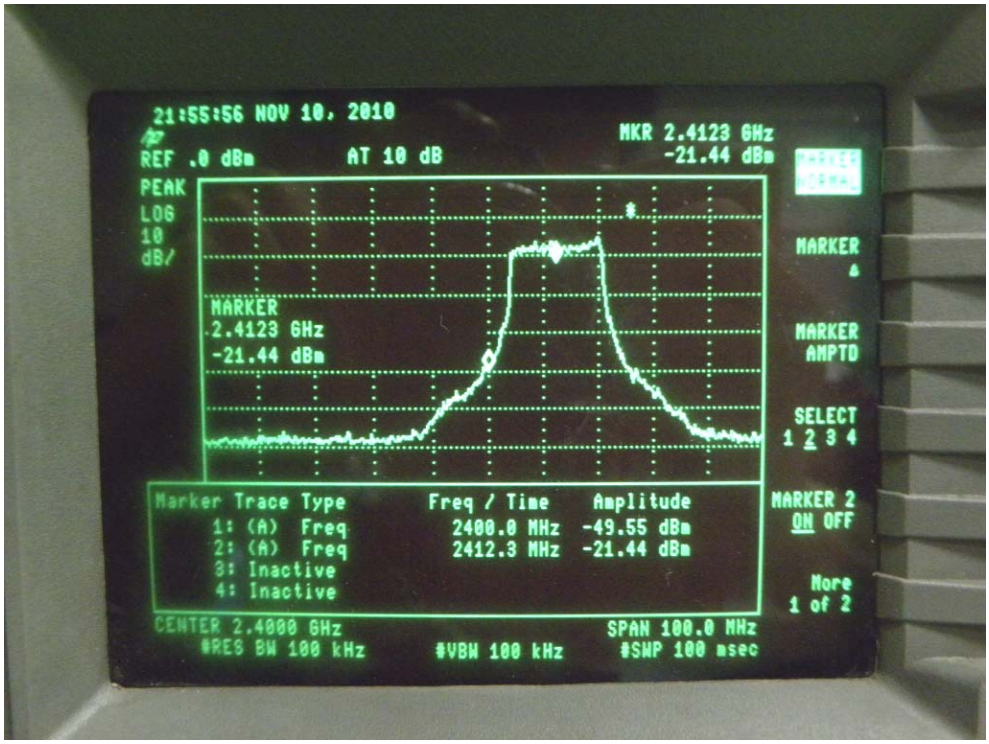
802.11b
CH01



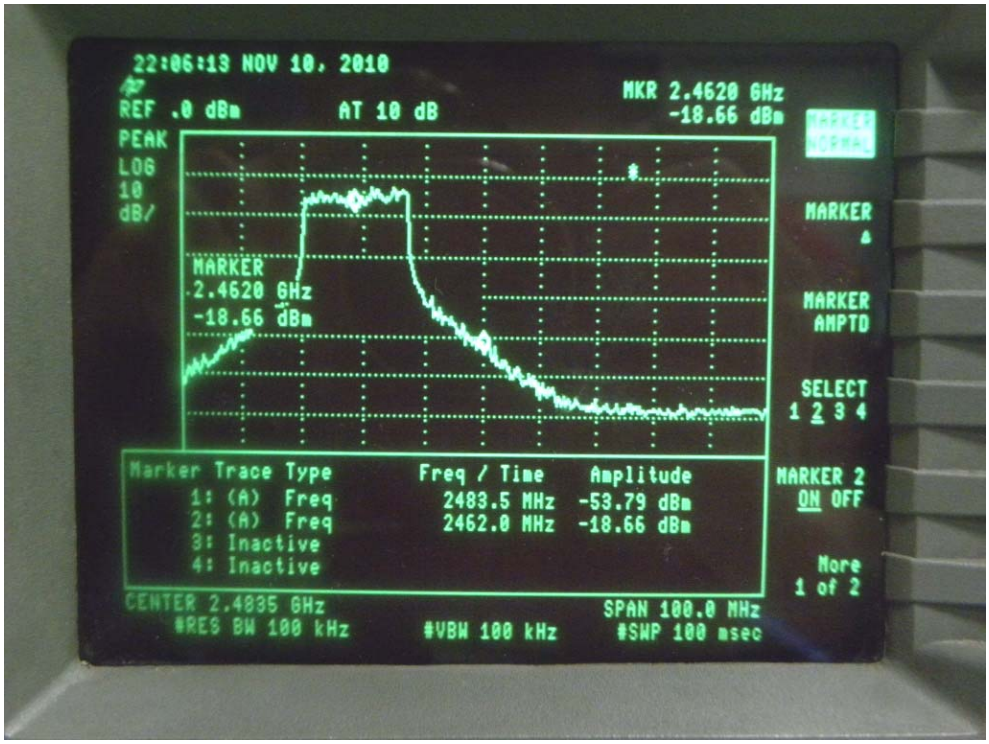
CH11



802.11g
CH01



CH11



9. Power density

9.1 Test Equipment

EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL.	CAL DUE.
Spectrum Analyzer	Rohde & Schwarz	FSP7	839511/010	05/29/2010	05/29/2011

9.2 Measuring Instruments and setting

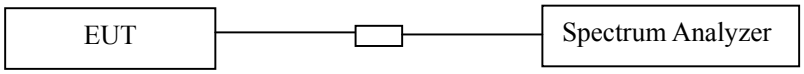
The following table is the setting of spectrum analyzer.

Spectrum analyzer	Setting
Attenuation	Auto
Span Frequency	1.5MHz
RB	3kHz
VB	30kHz
Detector	Peak
Trace	Max hold
Sweep Time	500s

9.3 Test Procedures

a. The transmitter output (antenna port) was connected to the spectrum analyzer.
b. Set RBW of spectrum analyzer to 3kHz and VBW to 30kHz, Set Detector to Peak, Trace to Max Hold.
c. Mark the frequency with maximum peak power as the center of the display of the spectrum.
d. Set the span to 1.5MHz and the sweep time to 500s and record the maximum peak value.

9.4 Block Diagram of Test setup



9.5 Limit

The transmitted power density averaged over any 1 second interval shall not be greater +8dBm in any 3KHz bandwidth.

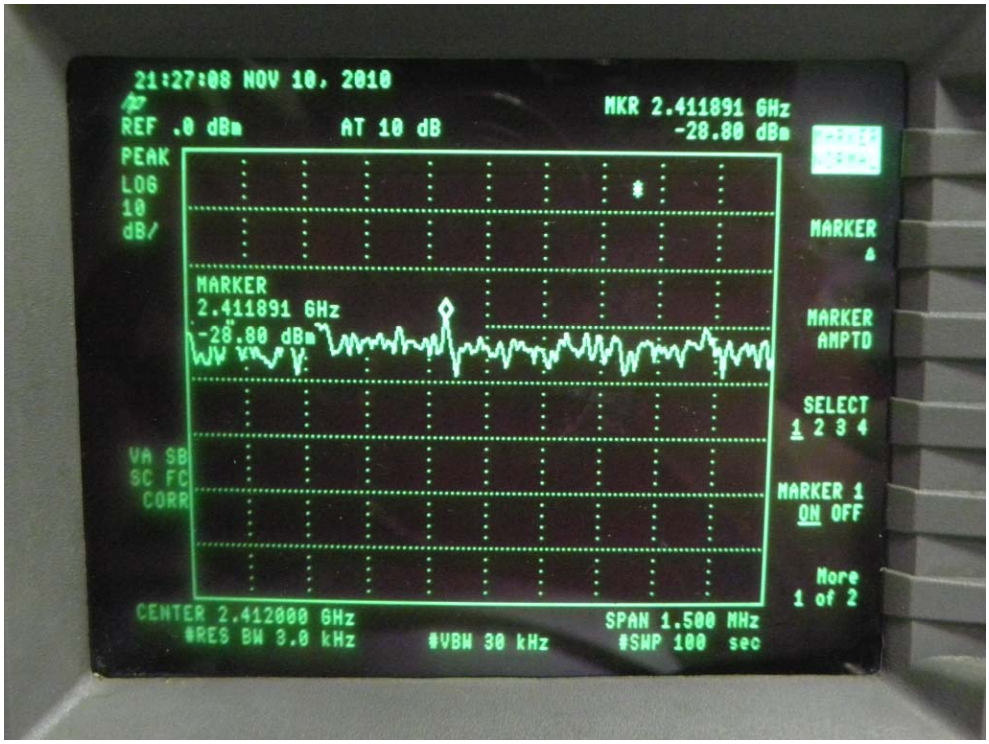
9.6. Test Result

Spectrum Detector:	PK	Test Date :	November 10, 2010
Test By:	Andy	Temperature :	28 ℃
Test Result:	PASS	Humidity :	65 %

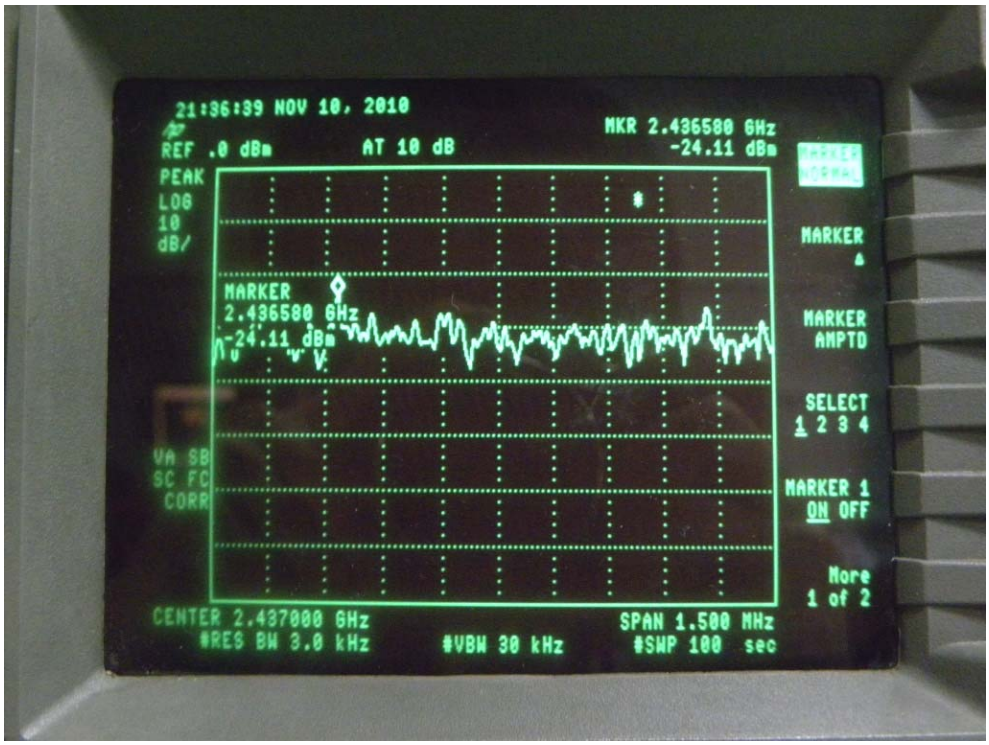
802.11b

Frequency (MHz)	Measurement Level (dBm)	Required limit (dBm)	Result
2412.00	-28.80	<8dBm	PASS
2437.00	-24.11	<8dBm	PASS
2462.00	-27.09	<8dBm	PASS

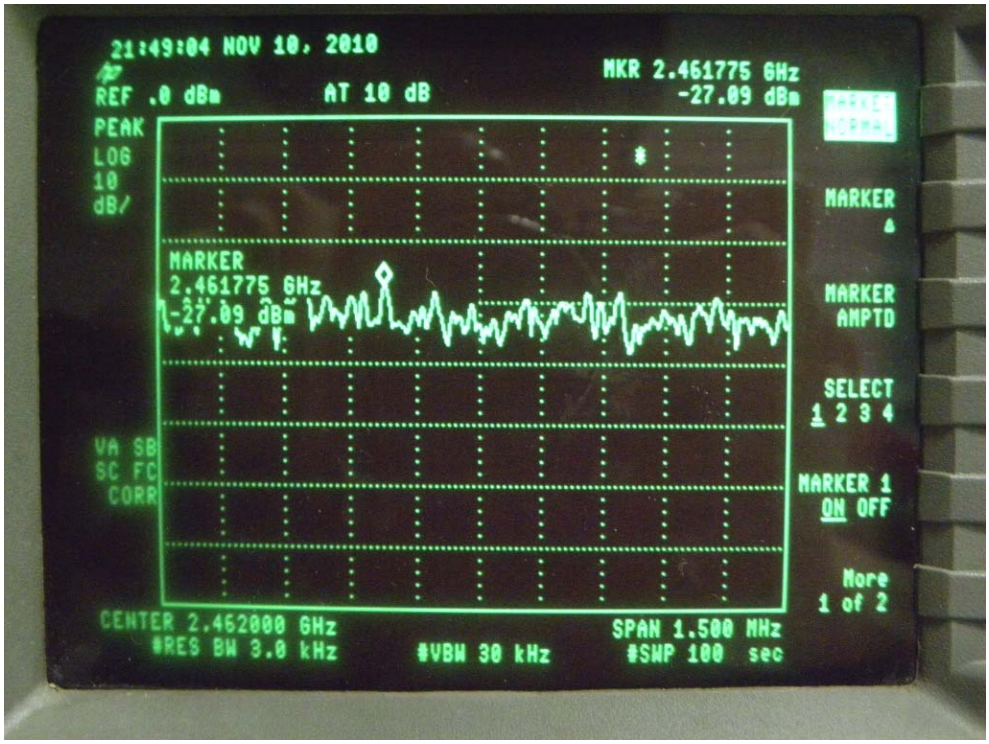
802.11b
CH01



CH06



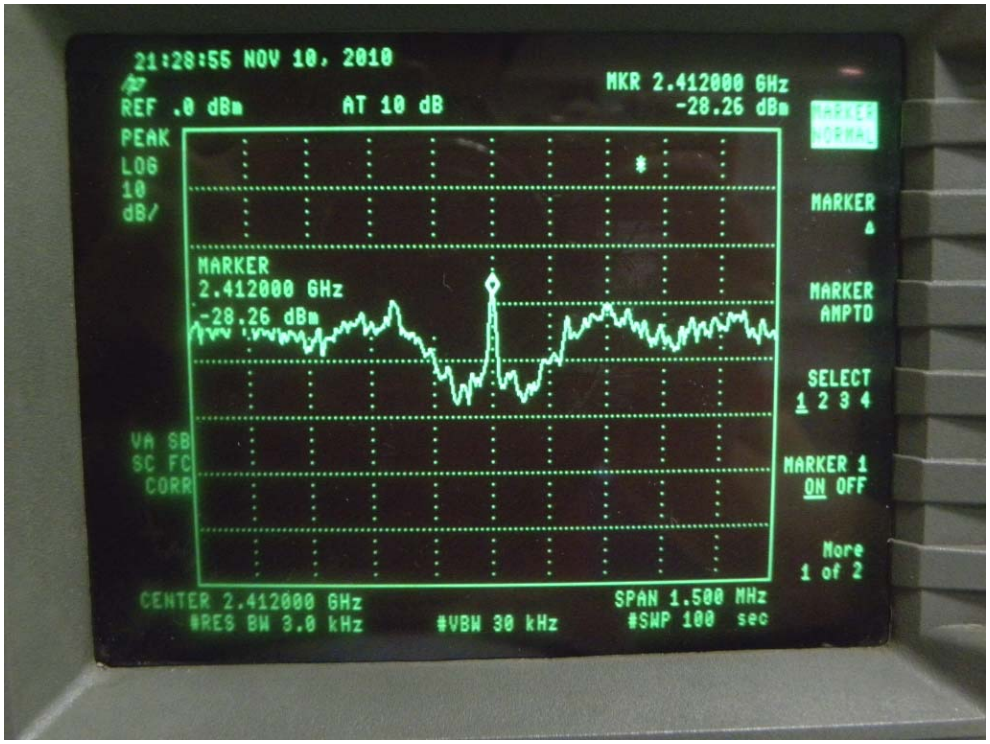
CH11



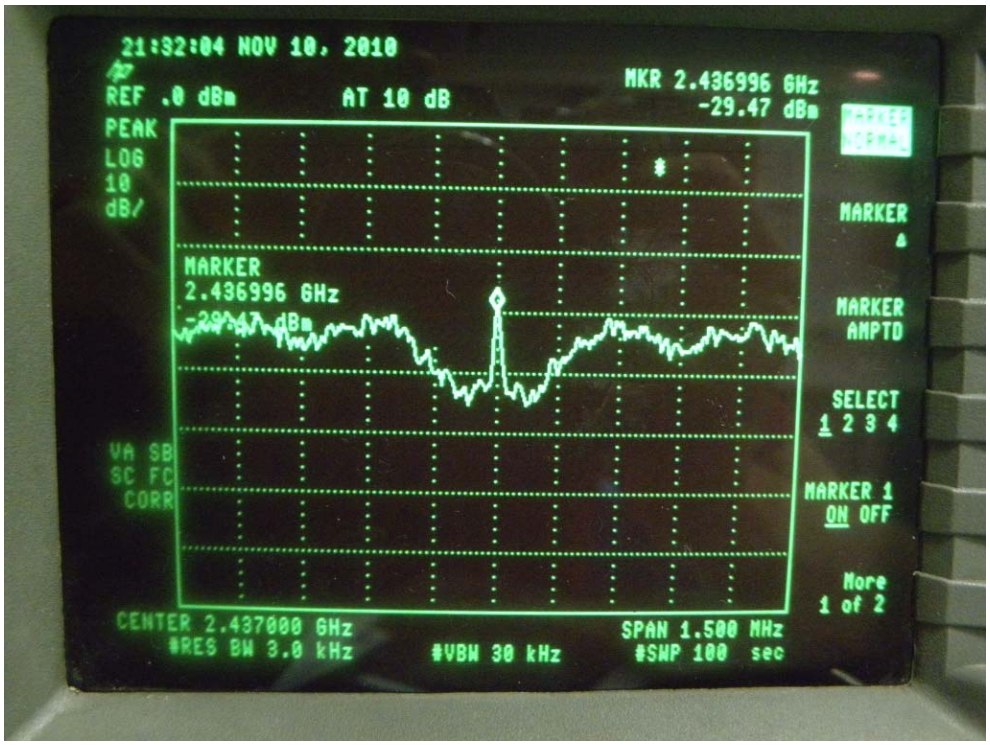
802.11g

Frequency (MHz)	Measurement Level (dBm)	Required limit (dBm)	Result
2412.00	-28.26	<8dBm	PASS
2437.00	-29.47	<8dBm	PASS
2462.00	-26.74	<8dBm	PASS

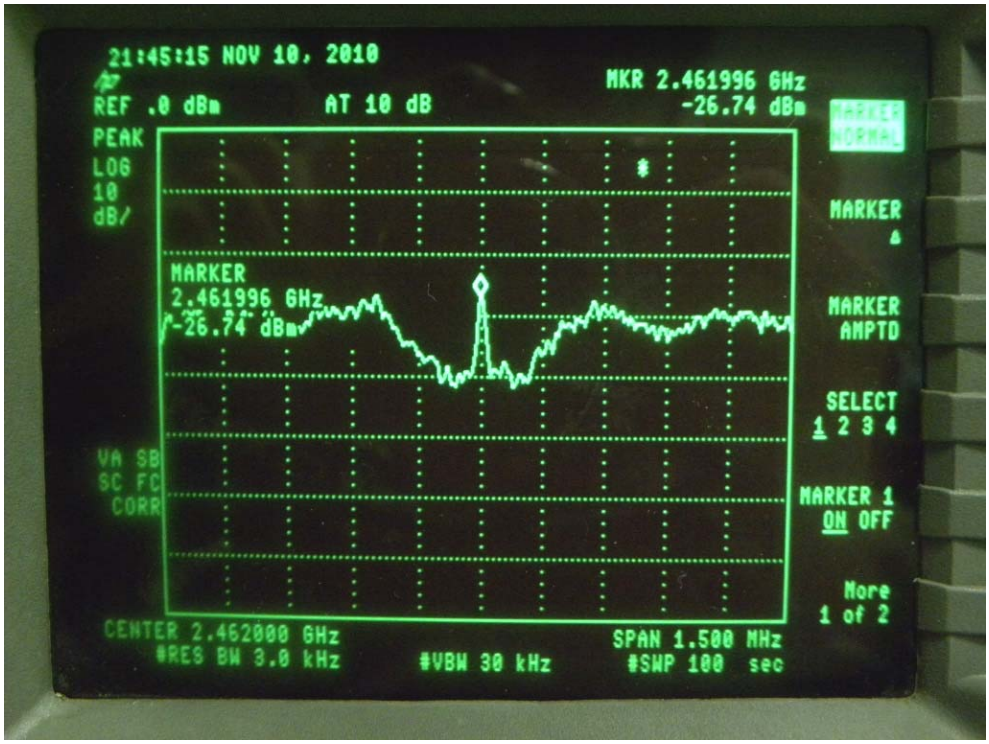
802.11g
CH01



CH06



CH11


21:45:15 NOV 10, 2010
REF .0 dBm
AT 10 dB
MKR 2.461996 GHz
-26.74 dBm
PEAK
LOG
10
dB/
MARKER
2.461996 GHz
-26.74 dBm
MARKER
MARKER
AMPTD
SELECT
1 2 3 4
MARKER 1
ON OFF
More
1 of 2
VA SB
SC FC
CORR
CENTER 2.462000 GHz
#RES BW 3.0 kHz
#VBW 30 kHz
SPAN 1.500 MHz
#SWP 100 sec

10 Antenna Application

10.1 Antenna requirement

The EUT'S antenna is met the requirement of FCC part 15C section 15.203.

10.2 Result

The antenna is detached which the model name is TS525 and no consideration of replacement. The best case gain of the antenna is 2.5dBi

11.Antenna Port Emission

11.1 Test Equipment

EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL.	CAL DUE.
Spectrum Analyzer	Rohde & Schwarz	FSP7	839511/010	05/29/2010	05/29/2011

11.2 Measuring Instruments and setting

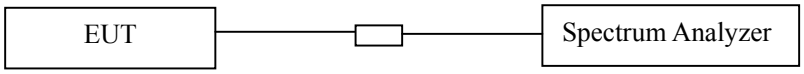
The following table is the setting of spectrum analyzer.

Spectrum analyzer	Setting
Attenuation	Auto
RB	100kHz
VB	300kHz
Detector	Peak
Trace	Max hold

11.3 Test Procedures

The conducted spurious emissions were measured conducted using a spectrum analyzer at low, mid, and hi channels, The limit was determined by attenuation 20dB of the RF peak power output.

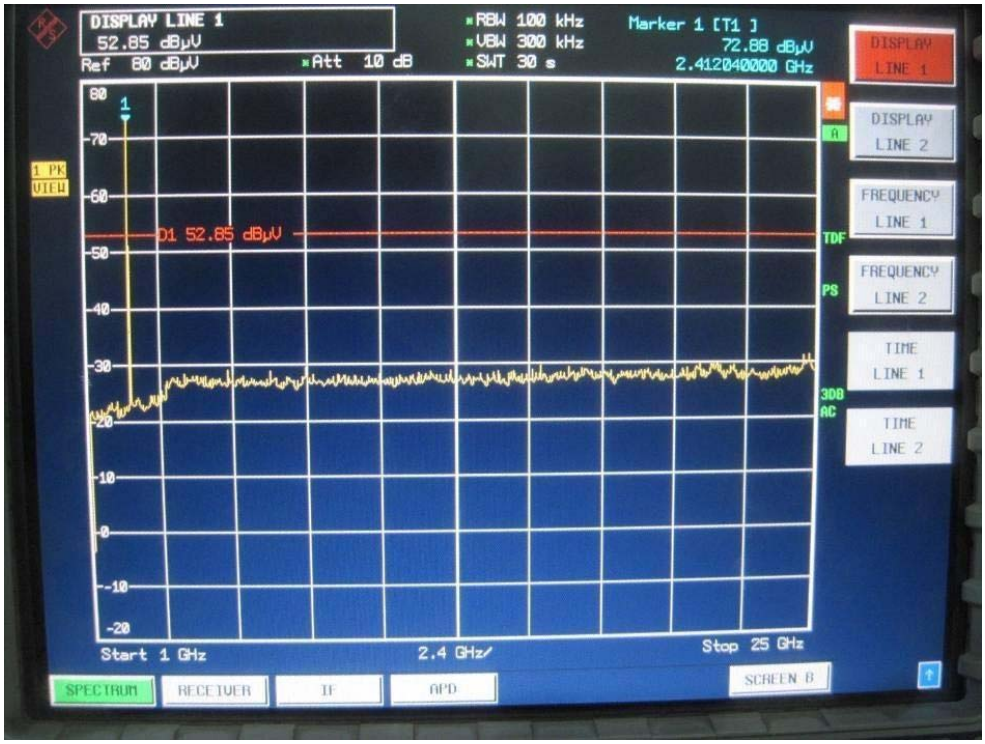
11.4 Block Diagram of Test setup



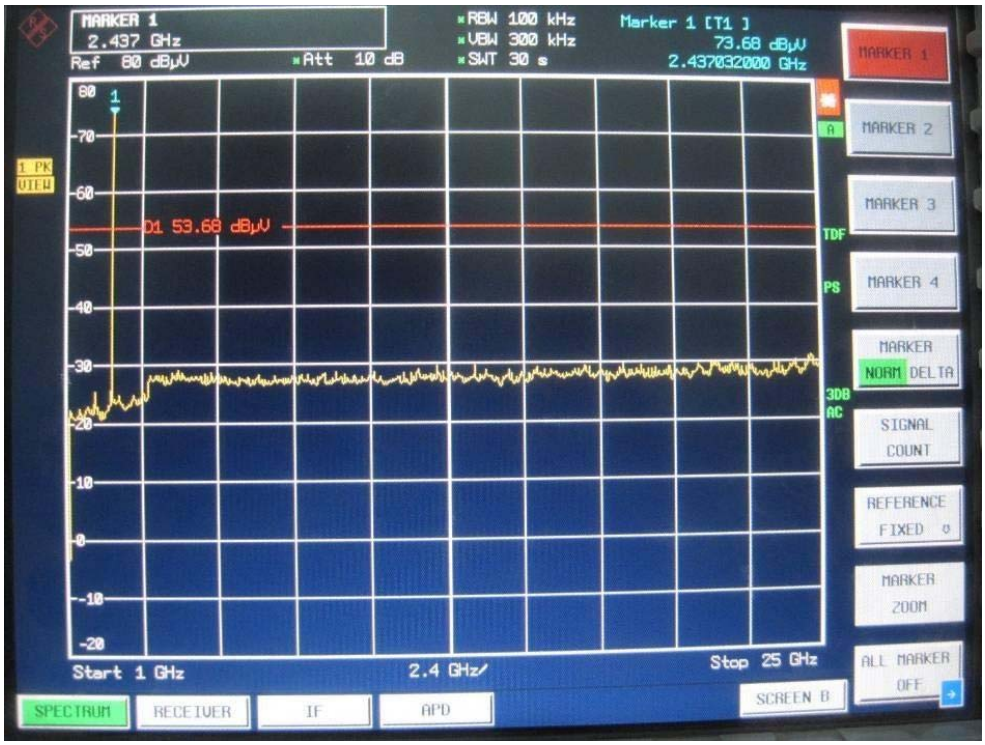
11.5. Test Result

PASS.

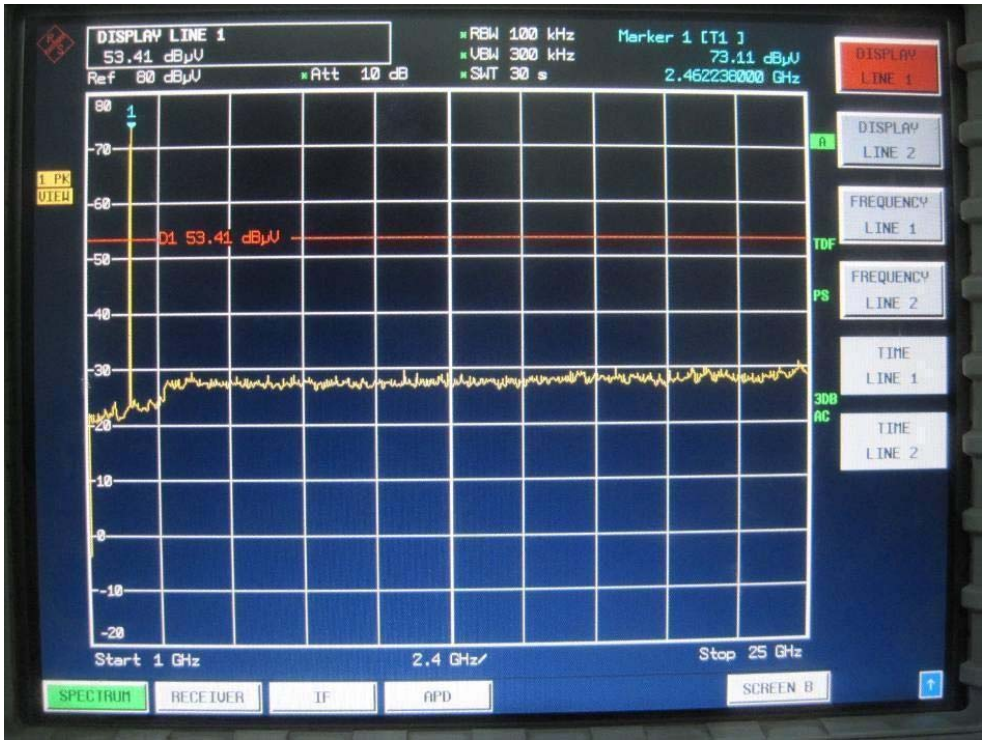
802.11b CH01



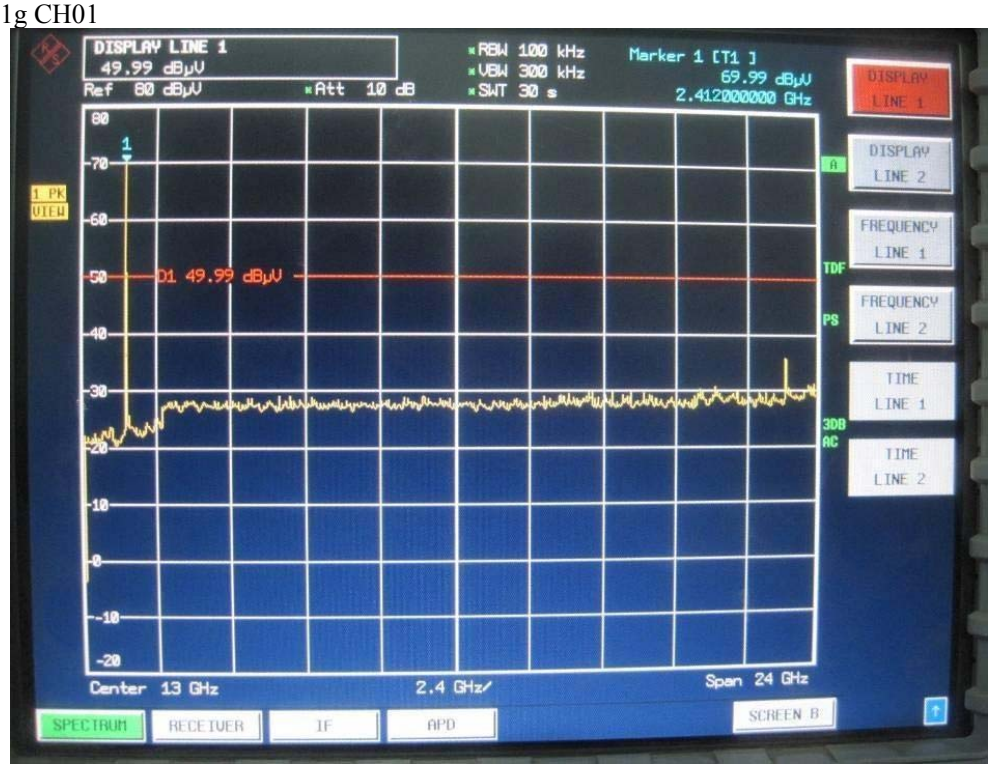
802.11b CH06



802.11b CH11

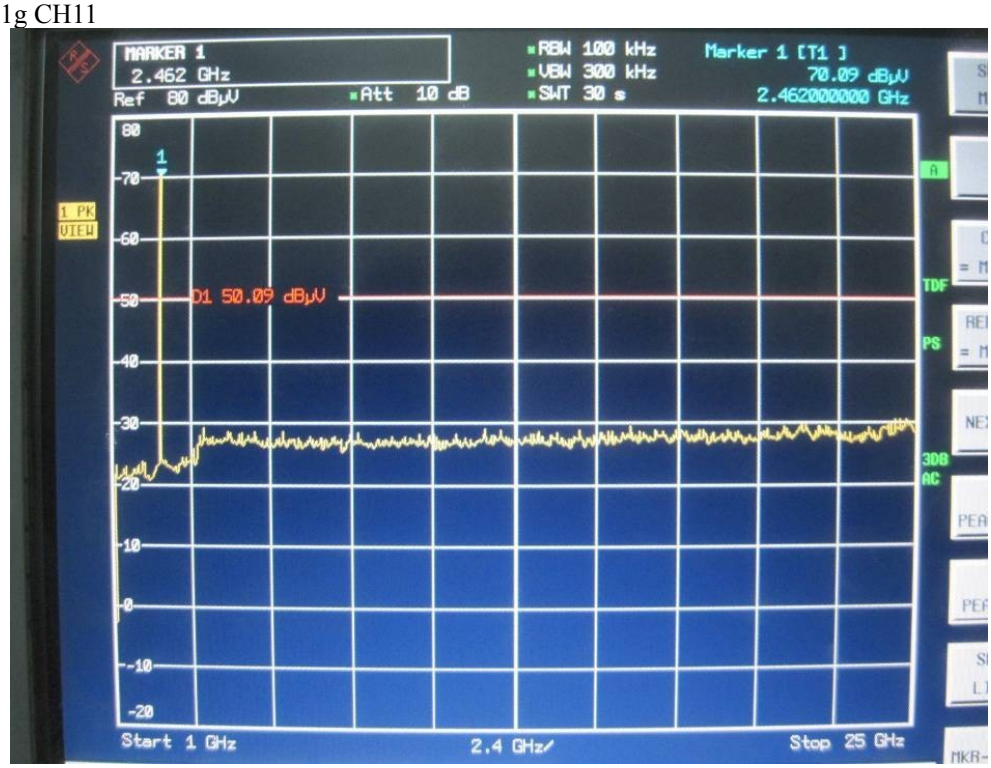


802.11g CH01



802.11g CH06

802.11g CH11



General Appearance of the EUT