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

OF

Mobile internet device

MODEL No.: CT704; PT07102-46-XXX(X=A-Z , 0-9 , a-z)

BRAND NAME: N/A

FCC ID: V37-PTT-B726

REPORT NO: KAD110616034F

ISSUE DATE: July 15, 2011

Prepared for

WIN ACCORD LTD.
12F, NO. 225, SEC 5, 105 SONG SHAN DIST.,
NAN JING EAST ROAD, TAIPEI, TAIWAN

Prepared by

DONGGUAN EMTEK CO., LTD

No.281, Guantai Road, Nancheng District,
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VERIFICATION OF COMPLIANCE

Applicant:	WIN ACCORD LTD. 12F, NO. 225, SEC 5, 105 SONG SHAN DIST., NAN JING EAST ROAD, TAIPEI, TAIWAN
Manufacturer:	WIN ACCORD LTD. Guangdong Nanhai Road, Nanshan District, Shenzhen City, Garden City, 1079 7th Floor, Block A, Cyber Tower
Product Description:	Mobile internet device
Brand Name:	N/A
Model Number:	CT704; PT07102-46-XXX(X=A-Z , 0-9 , a-z) (Note: These samples are the same except model number, so we prepare CT704 for EMC test.)
Serial Number:	N/A
File Number:	KAD110616034F
Date of Test:	June 16, 2011 to July 15, 2011

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

Sam.Lv / 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). Standards: WLAN802.11b/g/n
B). Operation Frequency: 2400-2483.5MHz
C). Modulation: OFDM (11g), BPSK, QPSK, CCK (11b), OFDM (11n)
D). Number of Channel: 802.11b/g Mode:11 channels
802.11n(20M) Mode: 11channels
802.11n(40M) Mode: 7channels
E). Data Rate: 54Mbps(11g), 11Mbps(11b), 150Mbps(11n)
F). Transmit Power: 13dBm
G). Antenna GAIN: 3dBi
H). Antenna Type: Internal PCB antenna
I). Power Supply: AC 100-240V 50/60Hz by AC adaptor
Adapter: Model:GP302U-050-200
Input: AC 100-240V~0.5A 50/60Hz
Output: DC5V 2.0A

Channel 1-11 for 802.11b, 802.11g, 802.11n(20M)
Channel 3-9 for 802.11n(40M)

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	2412	5	2432	9	2452
2	2417	6	2437	10	2457
3	2422	7	2442	11	2462
4	2427	8	2447		

Note:
1. This device is a 2.4GHz Mobile internet device included 802.11b, 802.11g and 802.11n 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: V37-PTT-B726 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 (2003). 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 Product Service Group 2011.07.05
The certificate is valid until 2012.07.05
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, January 13, 2011
The Certificate Registration Number. is 46405-9444

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

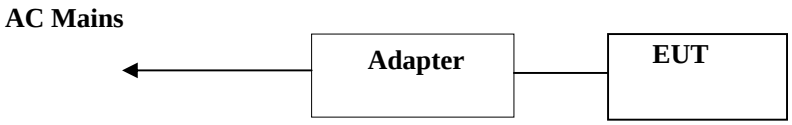


Table 2-1 Equipment Used in Tested System

Item	Equipment	Mfr/Brand	Model/Type No.	FCC ID	Series No.	Note
1.	Mobile internet device	N/A	CT704	V37-PTT-B726	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 a Mobile internet device and powered by host equipment. This is Digital Transmission system(DTS) and have four type of modulation DBPSK DQPSK CCK&OFDM. The data rates are 54Mbps and 150Mbps..
The equipment enables high-speed access without wires to network assets. This adapter uses the WLAN802.11b/g/n protocol to enable wireless communications between the host computer and computers, in the same way that the computer would use an Ethernet adapter.

IEEE802.11b/g, IEEE802.11n(20M)

1. For lowest channel : 2412MHz(Channel 1)
2. For middle channel : 2437MHz(Channel 6)
3. For highest channel: 2462MHz(Channel 11)

IEEE802.11n(40M)

1. For lowest channel : 2422MHz(Channel 3)
2. For middle channel : 2437MHz(Channel 6)
3. For highest channel: 2452MHz(Channel 9)

EUT operating conditions:

The EUT exercise program used during conducted testing was designed to exercise the EUT in a manner similar to typical use, The exercise sequence is listed as below:

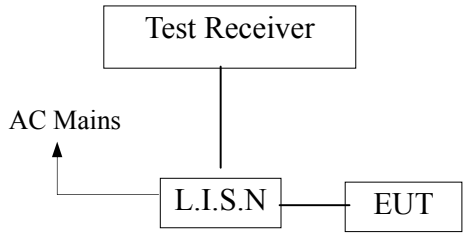
1. Setup the EUT and simulators as shown on 2.4.
2. Turn on the power of all equipments.
3. The EUT Ping with the wireless router.
4. Repeat the above steps.

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.**	**Due date**
Test Receiver	Rohde & Schwarz	ESCS30	828985/018	05/29/2011	05/29/2012
L.I.S.N	Rohde & Schwarz	ESH2-Z5	834549/005	05/29/2011	05/29/2012
L.I.S.N	Rohde & Schwarz	ESH2-Z5	834549/005	05/29/2011	05/29/2012
50ΩCoaxial Switch	Anritsu	MP59B	M20531	005/29/2011	05/29/2012

4.4 Conducted Emission Limit

(7) 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

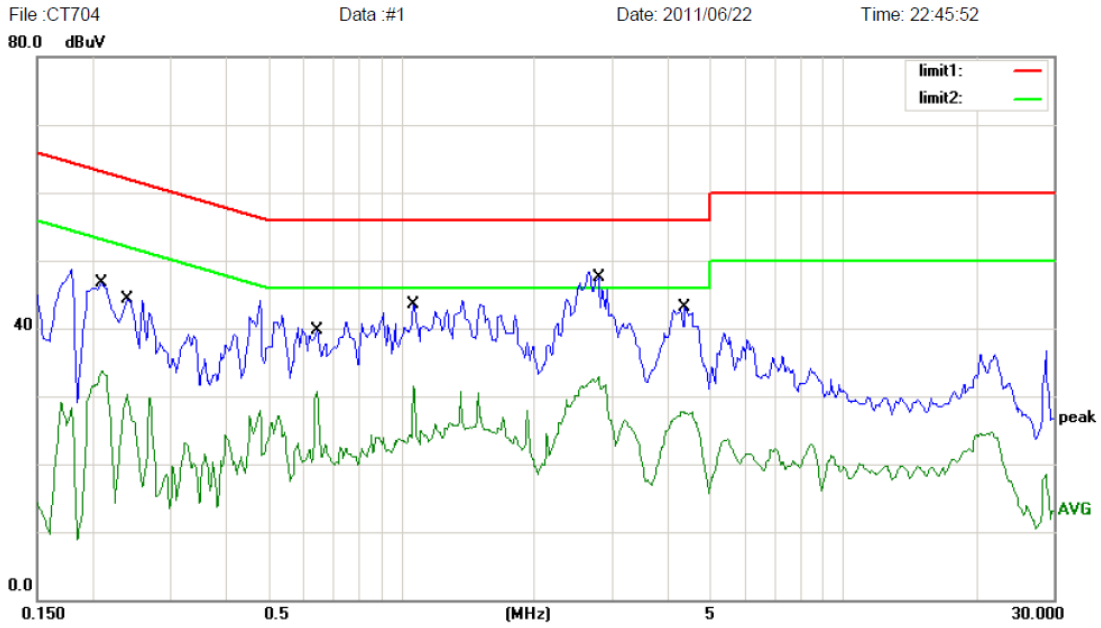
Note:

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



Site site #1 Phase: L1 Temperature: 25

Limit: (CE)FCC PART 15 class C_QP Power: AC 120V/60Hz Humidity: 50 %

EUT: Mobile internet device

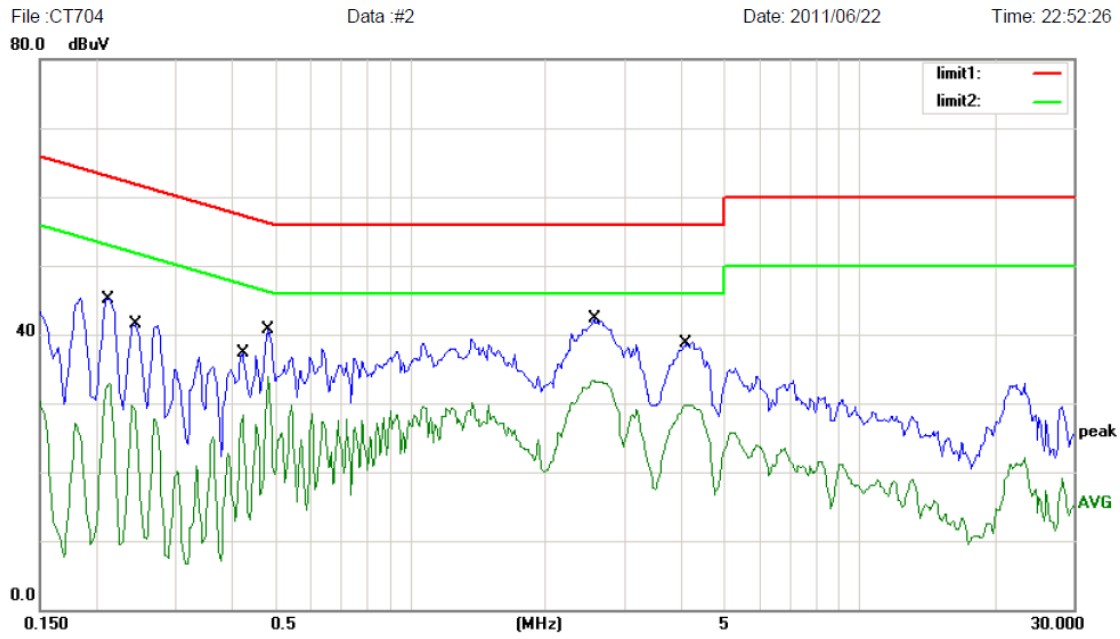
M/N: CT704

Mode: TX

Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.2100	46.61	0.00	46.61	63.21	-16.60	QP	
2		0.2100	33.72	0.00	33.72	53.21	-19.49	AVG	
3		0.2400	44.31	0.00	44.31	62.10	-17.79	QP	
4		0.2400	29.95	0.00	29.95	52.10	-22.15	AVG	
5		0.6450	39.78	0.00	39.78	56.00	-16.22	QP	
6		0.6450	30.69	0.00	30.69	46.00	-15.31	AVG	
7		1.0700	43.59	0.00	43.59	56.00	-12.41	QP	
8		1.0700	31.55	0.00	31.55	46.00	-14.45	AVG	
9	*	2.8000	47.42	0.00	47.42	56.00	-8.58	QP	
10		2.8000	32.83	0.00	32.83	46.00	-13.17	AVG	
11		4.3600	43.02	0.00	43.02	56.00	-12.98	QP	
12		4.3600	27.74	0.00	27.74	46.00	-18.26	AVG	

Conducted Emission Measurement



Site site #1 Phase: N Temperature: 25
Limit: (CE)FCC PART 15 class C_QP Power: AC 120V/60Hz Humidity: 50 %
EUT: Mobile internet device
M/N: CT704
Mode: TX
Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.2150	45.18	0.00	45.18	63.01	-17.83	QP	
2		0.2150	32.88	0.00	32.88	53.01	-20.13	AVG	
3		0.2450	41.50	0.00	41.50	61.92	-20.42	QP	
4		0.2450	29.76	0.00	29.76	51.92	-22.16	AVG	
5		0.4250	37.21	0.00	37.21	57.35	-20.14	QP	
6		0.4250	28.37	0.00	28.37	47.35	-18.98	AVG	
7		0.4850	40.64	0.00	40.64	56.25	-15.61	QP	
8	*	0.4850	33.89	0.00	33.89	46.25	-12.36	AVG	
9		2.5700	42.33	0.00	42.33	56.00	-13.67	QP	
10		2.5700	33.40	0.00	33.40	46.00	-12.60	AVG	
11		4.0900	38.96	0.00	38.96	56.00	-17.04	QP	
12		4.0900	29.73	0.00	29.73	46.00	-16.27	AVG	

4.6 Conducted Measurement Photos:

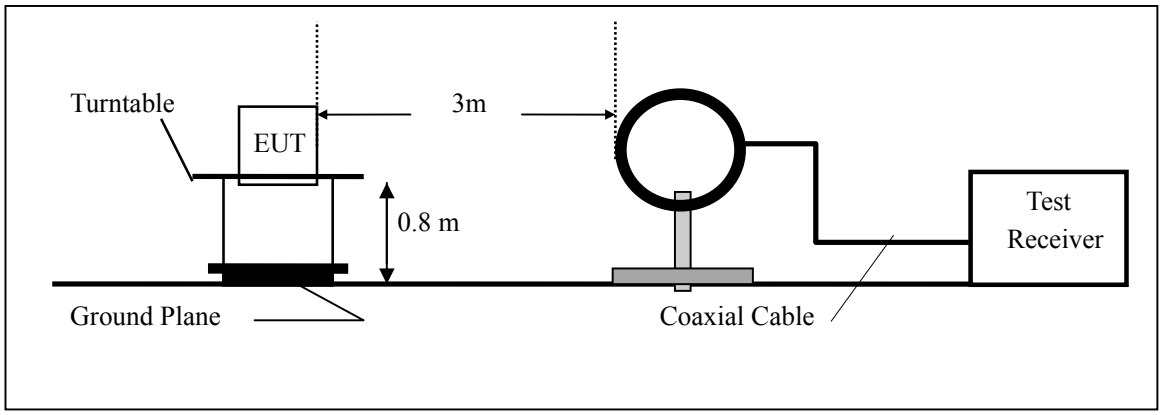
5. Radiated Emission Test

5.1 Measurement Procedure

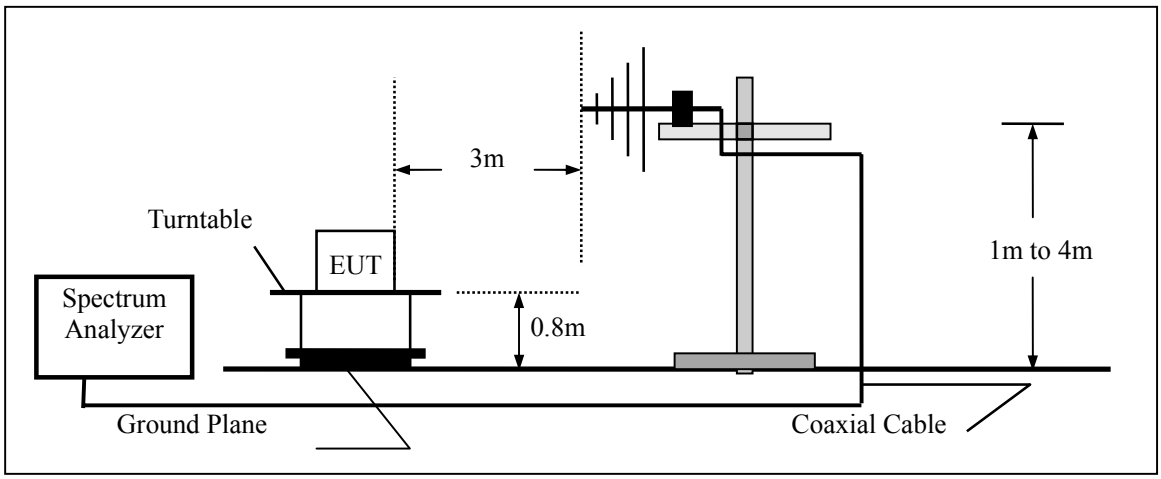
1 The EUT was placed on a turn table which is 0.8m above ground plane.
2. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
3. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
4. Repeat above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

5.2 Test SET-UP (Block Diagram of Configuration)

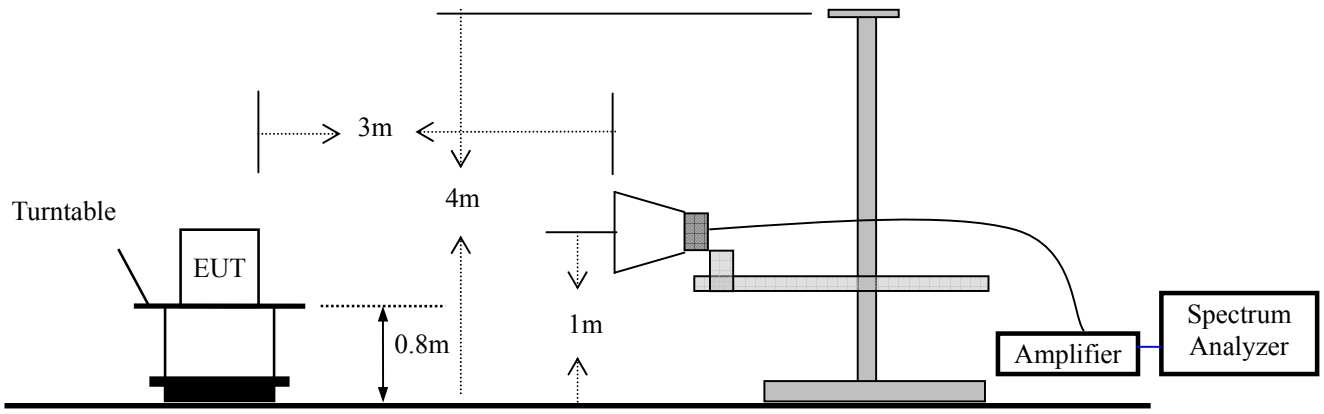
(A) Radiated Emission Test Set-Up, Frequency Below 30MHz



(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	05/29/2011	05/29/2012
Spectrum Analyzer	HP	E4407B	839840481	05/29/2011	05/29/2012
EMI Test Receiver	Rohde & Schwarz	ESU	1302.6005.26	05/29/2011	05/29/2012
Pre-Amplifier	HP	8447D	2944A07999	05/29/2011	05/29/2012
Bilog Antenna	Schwarzbeck	VULB9163	142	05/29/2011	05/29/2012
Loop Antenna	ARA	PLA-1030/B	1029	05/29/2011	05/29/2012
Horn Antenna	Schwarzbeck	BBHA9170	BBHA9170399	05/29/2011	05/29/2012
Horn Antenna	Schwarzbeck	BBHA 9120	D143	05/29/2011	05/29/2012

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:	Channel 1	Test Date :	06/29/2011
Frequency Range:	30~1000MHz	Temperature :	28 ℃
Test Result:	PASS	Humidity :	65 %
Measured Distance:	3m	Test By:	Jees

Freq. (MHz)	Ant.Pol. H/V	Emission Level (dBuV)	Limit 3m (dBuV/m)	Margin (dB)	Note
33.340	V	35.46	40.00	-4.54	PK
105.43	V	38.35	43.50	-5.15	PK
154.21	V	32.25	43.50	-11.25	PK
205.54	V	42.39	46.00	-3.61	PK
265.52	V	40.62	46.00	-5.38	PK
350.15	V	42.26	46.00	-3.74	PK
33.975	H	36.45	40.00	-3.55	PK
94.453	H	40.26	43.50	-3.24	PK
124.45	H	39.87	43.50	-3.63	PK
200.74	H	40.23	43.50	-3.27	PK
487.52	H	42.21	46.00	-3.79	PK
512.85	H	42.54	46.00	-3.46	PK

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:	Channel 6	Test Date :	06/29/2011
Frequency Range:	30~1000MHz	Temperature :	28 ℃
Test Result:	PASS	Humidity :	65 %
Measured Distance:	3m	Test By:	Jees

Freq. (MHz)	Ant.Pol. H/V	Emission Level (dBuV)	Limit 3m (dBuV/m)	Margin (dB)	Note
35.240	V	34.20	40.00	-5.80	PK
125.360	V	32.24	43.50	-11.26	PK
436.260	V	35.26	46.00	-10.74	PK
510.103	V	32.14	46.00	-13.86	PK
702.325	V	30.14	46.00	-15.86	PK
786.927	V	32.00	46.00	-14.00	PK
105.260	H	30.27	43.50	-13.23	PK
250.140	H	32.25	46.00	-13.75	PK
357.544	H	30.19	46.00	-15.81	PK
468.590	H	38.25	46.00	-7.75	PK
586.370	H	27.20	46.00	-18.80	PK
638.752	H	30.15	46.00	-15.85	PK

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:	Channel 11	Test Date :	06/29/2011
Frequency Range:	30~1000MHz	Temperature :	28 ℃
Test Result:	PASS	Humidity :	65 %
Measured Distance:	3m	Test By:	Jees

Freq. (MHz)	Ant.Pol. H/V	Emission Level (dBuV)	Limit 3m (dBuV/m)	Margin (dB)	Note
36.91	V	35.89	40	-4.11	PK
134.21	V	38.67	43.5	-4.83	PK
275.74	V	39.25	46	-6.75	PK
339.62	V	41.39	46	-4.61	PK
552.03	V	40.06	46	-5.94	PK
742.26	V	41.28	46	-4.72	PK
35.39	H	34.44	40	-5.56	PK
121.42	H	37.41	43.5	-6.09	PK
296.79	H	41.86	46	-4.14	PK
378.25	H	39.56	46	-6.44	PK
747.45	H	40.11	46	-5.89	PK

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 1)	Test Date :	06/29/2011
Frequency Range:	Above 1GHz	Temperature :	28 ℃
Test Result:	PASS	Humidity :	65 %
Measured Distance:	3m	Test By:	Jees

Freq.	Ant.Pol.	Emission Level(dBuV)		Limit 3m(dBuV/m)		Margin(dB)	
(MHz)	H/V	PK	AV	PK	AV	PK	AV
4824.13	V	54.17	45.62	74.00	54.00	-19.83	-8.38
7236.25	V	40.93	42.39	74.00	54.00	-33.07	-11.61
9648.68	V	39.60	35.71	74.00	54.00	-34.40	-18.29
--	V	--	--	--	--	--	--
--	V	--	--	--	--	--	--
4824.34	H	55.64	45.42	74.00	54.00	-18.36	-8.58
7236.22	H	40.15	38.86	74.00	54.00	-33.85	-15.14
9647.47	H	38.29	36.52	74.00	54.00	-35.71	-17.48
--	H	--	--	--	--	--	--
--	H	--	--	--	--	--	--

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) Data of measurement within this frequency range shown "--" in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
(4) EUT lying on the table position is the worst case result in the report.

Operation Mode:	802.11b(Channel 6)	Test Date :	06/29/2011
Frequency Range:	Above 1GHz	Temperature :	28 ℃
Test Result:	PASS	Humidity :	65 %
Measured Distance:	3m	Test By:	Jees

Freq.	Ant.Pol.	Emission Level(dBuV)		Limit 3m(dBuV/m)		Margin(dB)	
(MHz)	H/V	PK	AV	PK	AV	PK	AV
4874.14	V	51.63	40.84	74.00	54.00	-22.37	-13.16
7310.44	V	43.46	39.53	74.00	54.00	-30.54	-14.47
9748.35	V	48.25	42.56	74.00	54.00	-25.75	-11.44
--	V	--	--	--	--	--	--
--	V	--	--	--	--	--	--
4873.42	H	51.21	39.78	74.00	54.00	-22.79	-14.22
7311.28	H	42.39	40.44	74.00	54.00	-31.61	-13.56
9747.40	H	40.54	36.52	74.00	54.00	-33.46	-17.48
--	H	--	--	--	--	--	--
--	H	--	--	--	--	--	--

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) Data of measurement within this frequency range shown "--" in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
(4) EUT lying on the table position is the worst case result in the report.

Operation Mode:	802.11b (Channel 11)	Test Date :	06/29/2011
Frequency Range:	Above 1GHz	Temperature :	28 ℃
Test Result:	PASS	Humidity :	65 %
Measured Distance:	3m	Test By:	Jees

Freq.	Ant.Pol.	Emission Level(dBuV)		Limit 3m(dBuV/m)		Margin(dB)	
(MHz)	H/V	PK	AV	PK	AV	PK	AV
4923.41	V	52.44	42.71	74.00	54.00	-21.56	-11.29
7386.12	V	49.75	38.26	74.00	54.00	-24.25	-15.74
9848.54	V	45.68	37.23	74.00	54.00	-28.32	-16.77
--	V	--	--	--	--	--	--
--	V	--	--	--	--	--	--
4923.19	H	52.28	39.65	74.00	54.00	-21.72	-14.35
7386.35	H	46.45	38.16	74.00	54.00	27.55	-15.84
9848.36	H	45.76	40.12	74.00	54.00	-28.24	-13.88
--	H	--	--	--	--	--	--
--	H	--	--	--	--	--	--

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) Data of measurement within this frequency range shown "--" in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
(4) EUT lying on the table position is the worst case result in the report.

Operation Mode:	802.11g(Channel 1)	Test Date :	06/29/2011
Frequency Range:	Above 1GHz	Temperature :	28 ℃
Test Result:	PASS	Humidity :	65 %
Measured Distance:	3m	Test By:	Jees

Freq. (MHz)	Ant.Pol. H/V	Emission Level(dBuV) PK	Emission Level(dBuV) AV	Limit 3m(dBuV/m) PK	Limit 3m(dBuV/m) AV	Margin(dB) PK	Margin(dB) AV
4824.27	V	54.75	45.27	74.00	54.00	-19.25	-8.73
7236.11	V	50.13	42.32	74.00	54.00	-23.87	-10.68
9648.15	V	46.54	40.97	74.00	54.00	-27.46	-13.03
--	V	--	--	--	--	--	--
--	V	--	--	--	--	--	--
4824.12	H	53.25	45.60	74.00	54.00	-20.75	-8.40
7236.23	H	45.32	42.05	74.00	54.00	-28.68	-11.95
9647.46	H	43.26	39.52	74.00	54.00	-30.74	-14.48
--	H	--	--	--	--	--	--
--	H	--	--	--	--	--	--

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) Data of measurement within this frequency range shown "--" in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
(4) EUT lying on the table position is the worst case result in the report.

Operation Mode:	802.11g(Channel 6)	Test Date :	06/29/2011
Frequency Range:	Above 1GHz	Temperature :	28 ℃
Test Result:	PASS	Humidity :	65 %
Measured Distance:	3m	Test By:	Jees

Freq.	Ant.Pol.	Emission Level(dBuV)		Limit 3m(dBuV/m)		Margin(dB)	
(MHz)	H/V	PK	AV	PK	AV	PK	AV
4874.13	V	54.16	46.26	74.00	54.00	-19.84	-7.74
7310.26	V	50.78	42.08	74.00	54.00	-23.22	-11.92
9748.19	V	48.29	40.85	74.00	54.00	-45.71	-13.15
--	V	--	--	--	--	--	--
--	V	--	--	--	--	--	--
4874.03	H	52.23	42.74	74.00	54.00	-21.77	-11.26
7310.26	H	53.37	44.37	74.00	54.00	-20.63	-9.63
9748.08	H	49.28	43.02	74.00	54.00	-24.72	-10.98
--	H	--	--	--	--	--	--
--	H	--	--	--	--	--	--

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) Data of measurement within this frequency range shown "--" in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
(4) EUT lying on the table position is the worst case result in the report.

Operation Mode:	802.11g(Channel 11)	Test Date :	06/29/2011
Frequency Range:	Above 1GHz	Temperature :	28 ℃
Test Result:	PASS	Humidity :	65 %
Measured Distance:	3m	Test By:	Jees

Freq.	Ant.Pol.	Emission Level(dBuV)		Limit 3m(dBuV/m)		Margin(dB)	
(MHz)	H/V	PK	AV	PK	AV	PK	AV
4924.19	V	53.27	36.74	74.00	54.00	-20.73	-17.26
7386.21	V	48.91	33.48	74.00	54.00	-25.09	-20.52
9848.32	V	53.25	44.10	74.00	54.00	-20.75	-9.90
--	V	--	--	--	--	--	--
--	V	--	--	--	--	--	--
4924.11	H	53.26	44.20	74.00	54.00	-20.74	-9.80
7386.43	H	55.49	42.28	74.00	54.00	-18.51	-11.72
9848.72	H	48.52	40.31	74.00	54.00	-25.48	-13.69
--	H	--	--	--	--	--	--
--	H	--	--	--	--	--	--

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) Data of measurement within this frequency range shown "--" in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
(4) EUT lying on the table position is the worst case result in the report.

We took 802.11n HT20, HT 40 to test, and the worst operation mode is 802.11n HT20. Test data as the next pages.

Operation Mode:	802.11n(20M)(Channel 1)	Test Date :	06/29/2011
Frequency Range:	Above 1GHz	Temperature :	28 ℃
Test Result:	PASS	Humidity :	65 %
Measured Distance:	3m	Test By:	Jees

Freq.	Ant.Pol.	Emission Level(dBuV)		Limit 3m(dBuV/m)		Margin(dB)	
(MHz)	H/V	PK	AV	PK	AV	PK	AV
4824.07	V	53.47	45.59	74.00	54.00	-20.53	-8.41
7236.37	V	49.38	40.28	74.00	54.00	-24.62	-13.72
9648.35	V	46.14	39.41	74.00	54.00	-27.86	-14.59
--	V	--	--	--	--	--	--
--	V	--	--	--	--	--	--
4824.54	H	54.60	46.15	74.00	54.00	-19.40	-7.85
7236.37	H	48.37	41.24	74.00	54.00	-25.63	-12.76
9647.56	H	47.07	39.76	74.00	54.00	-26.93	-14.24
--	H	--	--	--	--	--	--
--	H	--	--	--	--	--	--

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) Data of measurement within this frequency range shown "--" in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
(4) EUT lying on the table position is the worst case result in the report.

Operation Mode:	802.11n(20M) (Channel 6)	Test Date :	06/29/2011
Frequency Range:	Above 1GHz	Temperature :	28 ℃
Test Result:	PASS	Humidity :	65 %
Measured Distance:	3m	Test By:	Jees

Freq.	Ant.Pol.	Emission Level(dBuV)		Limit 3m(dBuV/m)		Margin(dB)	
(MHz)	H/V	PK	AV	PK	AV	PK	AV
4874.24	V	50.34	39.35	74.00	54.00	-23.66	-14.65
7310.75	V	43.34	33.69	74.00	54.00	-30.66	-20.31
9748.15	V	42.36	40.46	74.00	54.00	-31.64	-13.54
--	V	--	--	--	--	--	--
--	V	--	--	--	--	--	--
4873.36	H	52.13	40.20	74.00	54.00	-21.87	-13.80
7311.27	H	45.69	33.68	74.00	54.00	-28.31	-20.32
9747.25	H	49.85	39.54	74.00	54.00	-24.15	-14.46
--	H	--	--	--	--	--	--
--	H	--	--	--	--	--	--

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) Data of measurement within this frequency range shown "--" in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
(4) EUT lying on the table position is the worst case result in the report.

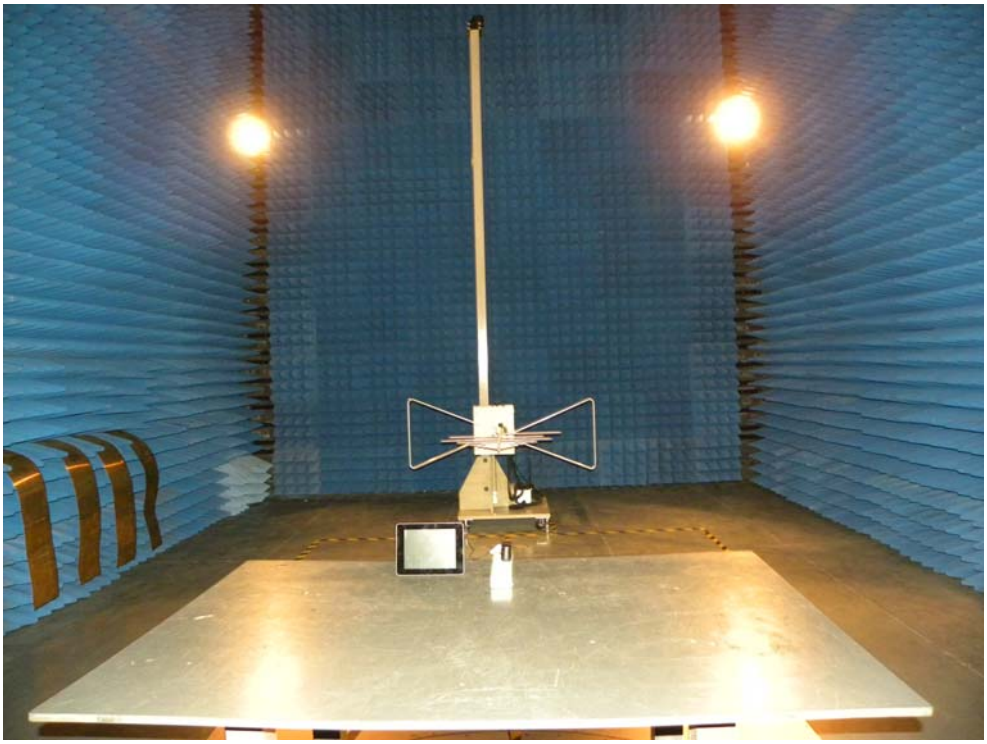
Operation Mode: 802.11n(20M)(Channel 11) Test Date : 06/29/2011
Frequency Range: Above 1GHz Temperature : 28 ℃
Test Result: PASS Humidity : 65 %
Measured Distance: 3m Test By: Jees

Freq.	Ant.Pol.	Emission Level(dBuV)		Limit 3m(dBuV/m)		Margin(dB)	
(MHz)	H/V	PK	AV	PK	AV	PK	AV
4923.16	V	55.06	43.57	74.00	54.00	-18.94	-10.43
7386.29	V	50.86	42.36	74.00	54.00	-23.14	-11.64
9848.32	V	49.23	40.48	74.00	54.00	-24.77	-13.52
--	V	--	--	--	--	--	--
--	V	--	--	--	--	--	--
4923.34	H	54.31	44.49	74.00	54.00	-19.69	-9.51
7386.51	H	50.74	39.45	74.00	54.00	-23.26	-14.55
9848.27	H	49.62	40.27	74.00	54.00	-24.38	-13.73
--	H	--	--	--	--	--	--
--	H	--	--	--	--	--	--

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) Data of measurement within this frequency range shown "--" in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
(4) EUT lying on the table position is the worst case result in the report.

5.6 Radiated Measurement Photos:

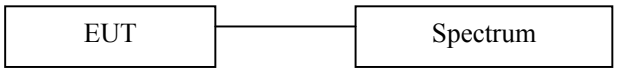


6. Occupied Bandwidth test

6.1 Measurement Procedure

The EUT was operating in IEEE 802.11b/g/n 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 :	06/29/2011
Test By:	Andy	Temperature :	28 ℃
Test Result:	PASS	Humidity :	65 %

802.11b:

Channel number	Channel frequency (MHz)	Measurement level (MHz)	Required Limit (KHz)
1	2412	7.6	>500
6	2437	7.7	>500
11	2462	7.5	>500

802.11g:

Channel number	Channel frequency (MHz)	Measurement level (MHz)	Required Limit (KHz)
1	2412	15.0	>500
6	2437	15.5	>500
11	2462	15.7	>500

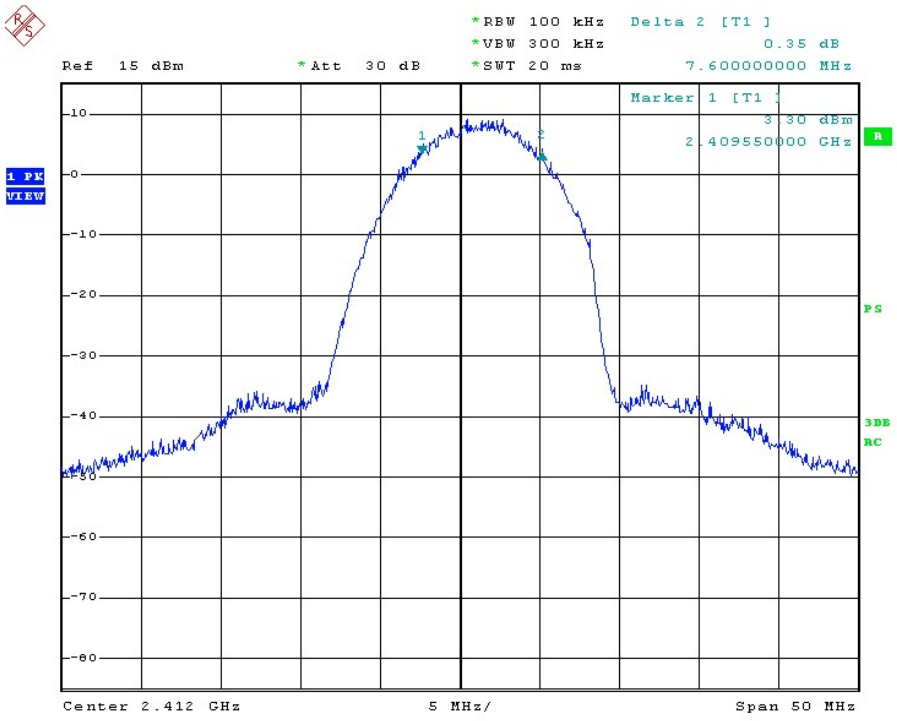
802.11n(20M):

Channel number	Channel frequency (MHz)	Measurement level (MHz)	Required Limit (KHz)
1	2412	16.6	>500
6	2437	16.6	>500
11	2462	16.9	>500

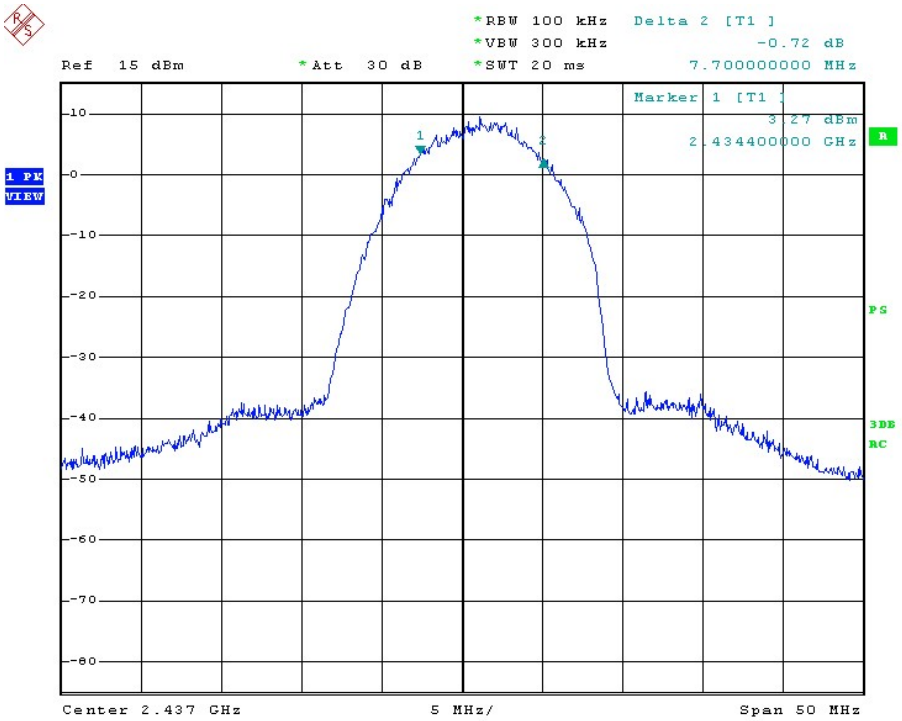
802.11n(40M):

Channel number	Channel frequency (MHz)	Measurement level (MHz)	Required Limit (KHz)
3	2422	36.6	>500
6	2437	36.6	>500
9	2452	36.6	>500

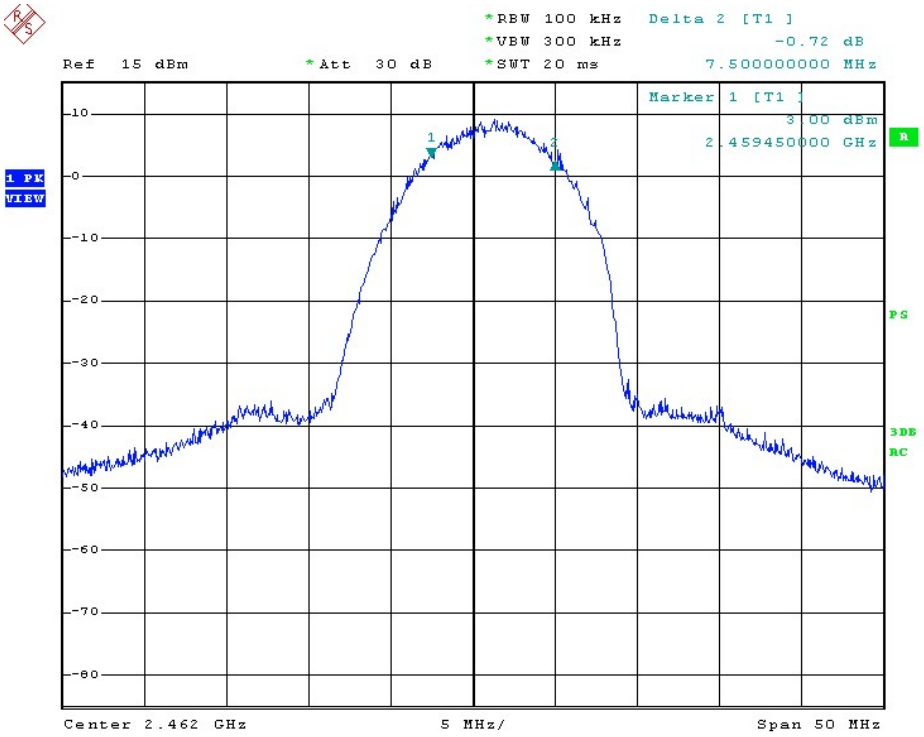
802.11b Channel 1



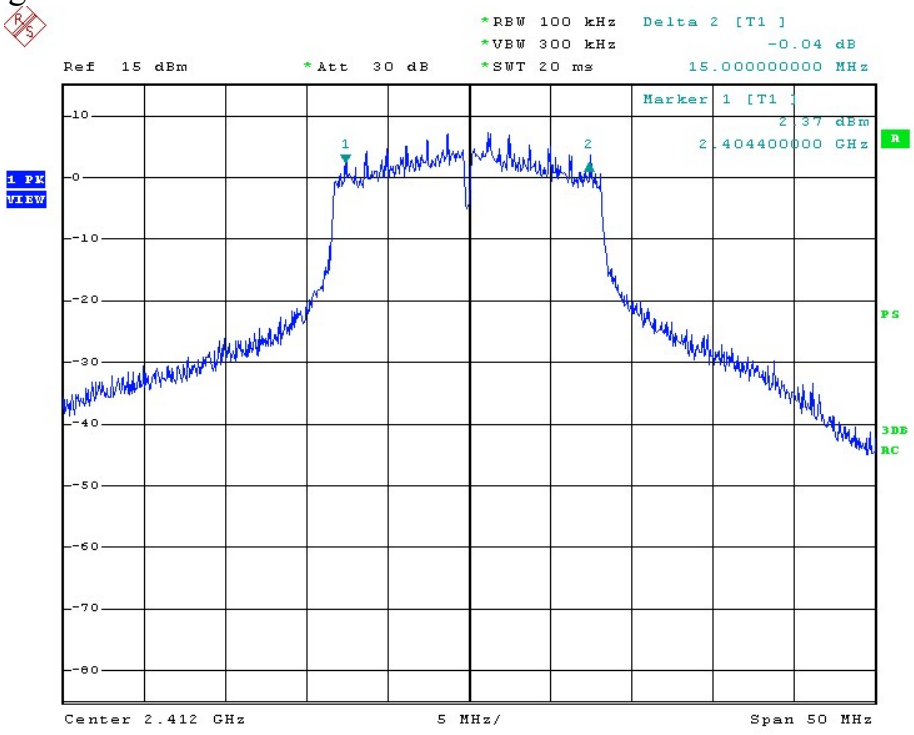
Channel 6



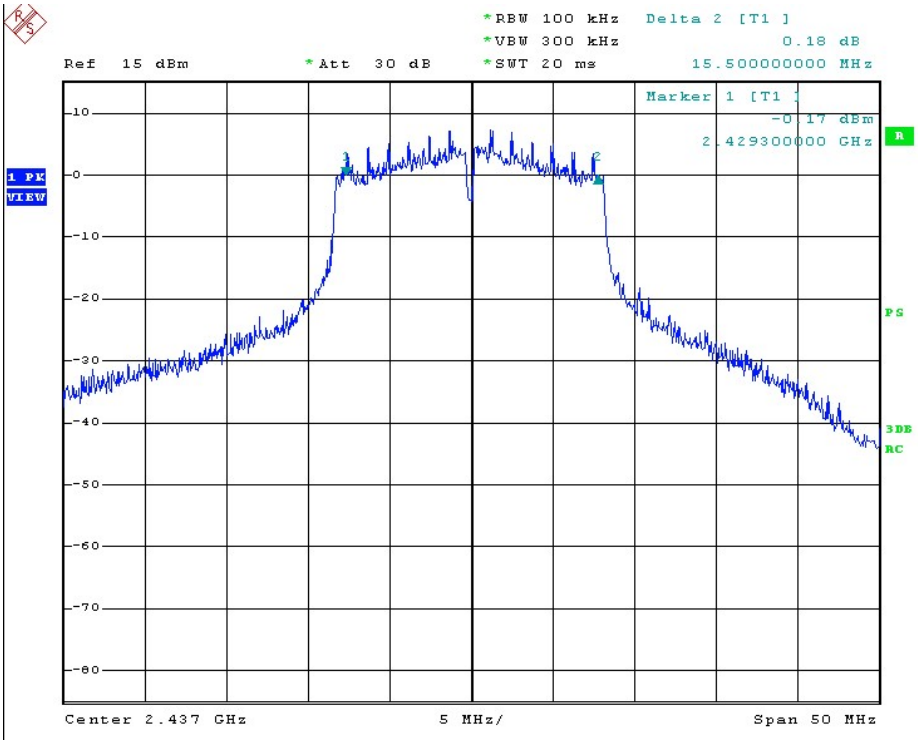
Channel 11



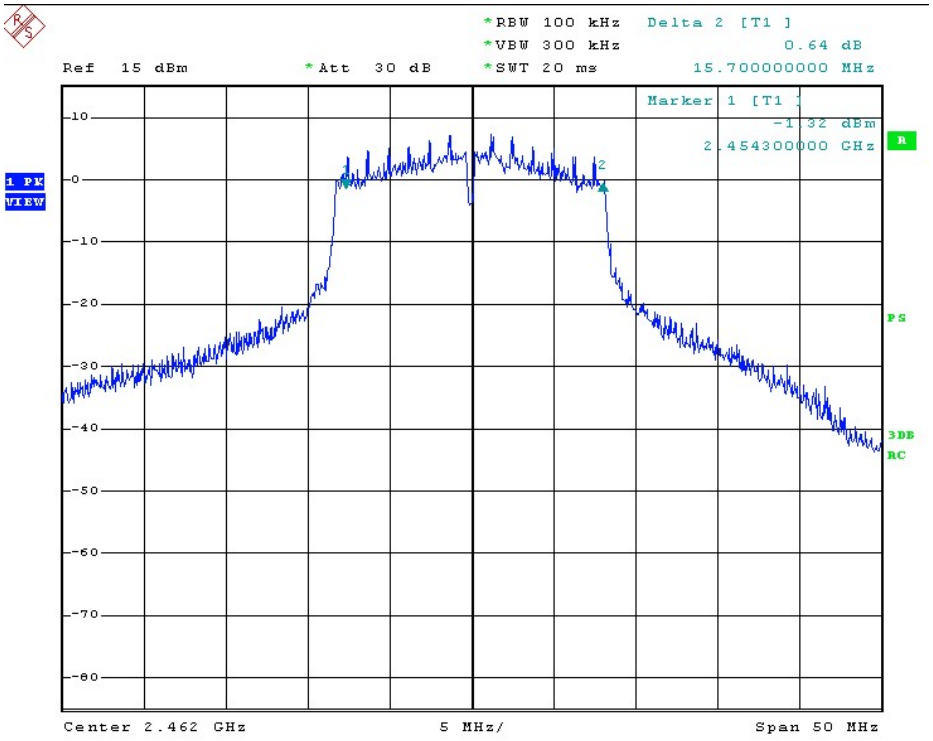
802.11g Channel 1



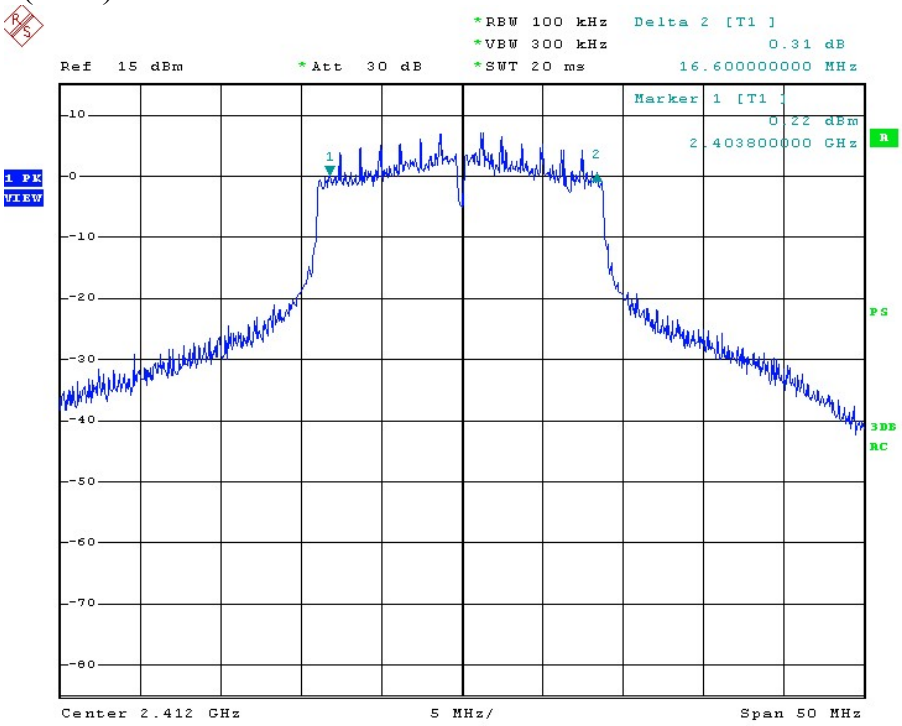
Channel 6



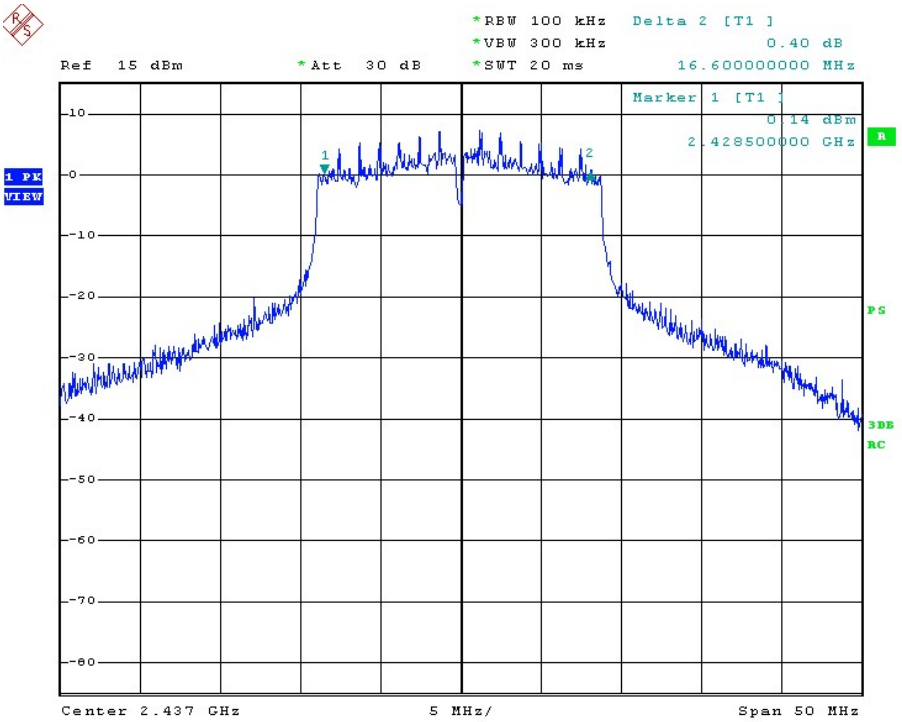
Channel 11



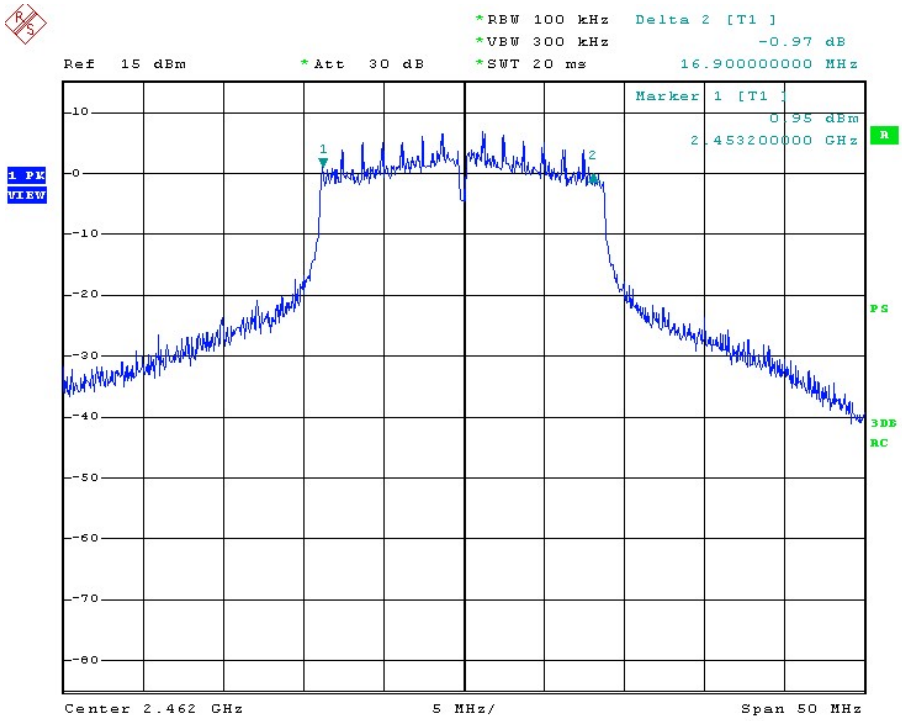
802.11n(20M)Channel 1



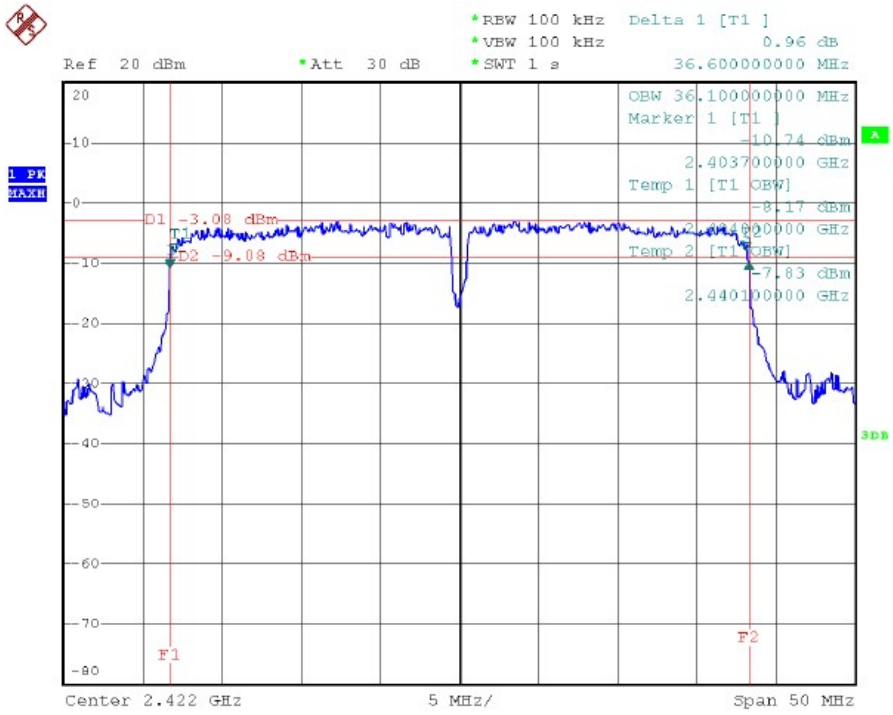
Channel 6



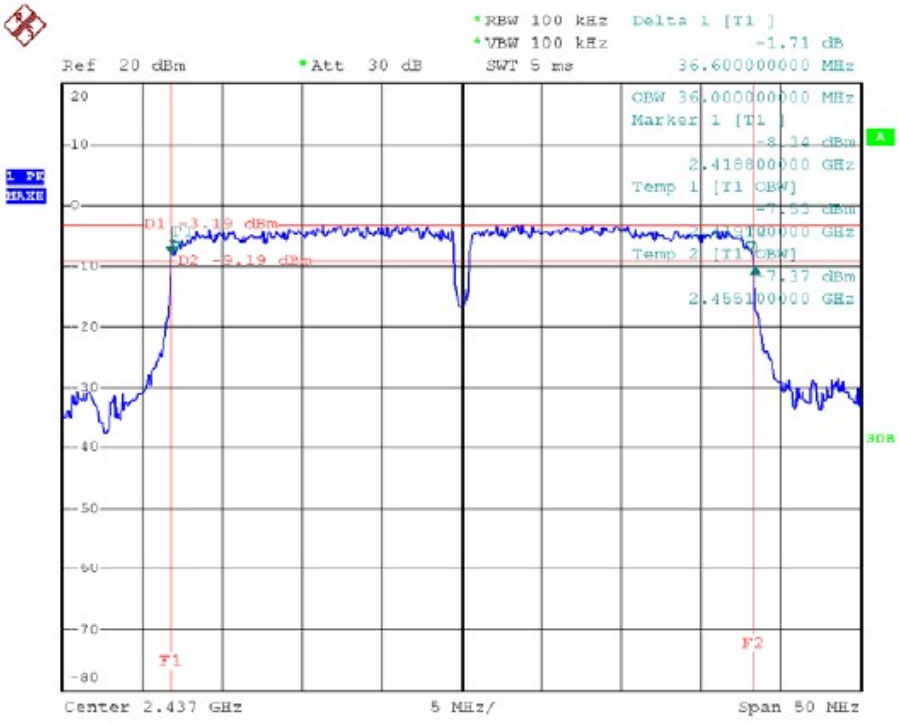
Channel 11



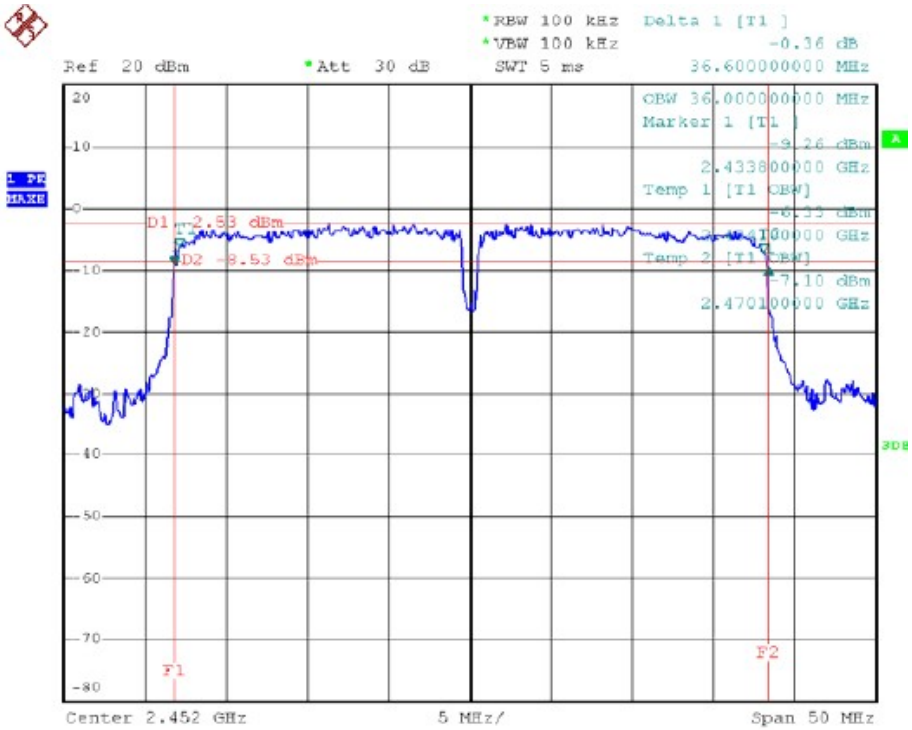
802.11n(40M)Channel 3



Channel 6



Channel 9

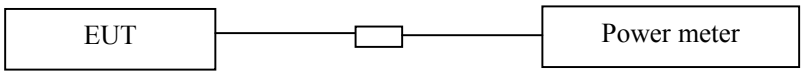


7. MAX IMUM PEAK OUTPUT POWER TEST

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	05/29/2011	05/29/2012
Power sensor	Boonton	51011-EMC	31184	05/29/2011	05/29/2012

7.4 Peak Power output limit

The maximum peak power shall be less 1Watt.

7.5 Measurement Results:
Refer to attached data chart.

Spectrum Detector:	PK	Test Date :	06/29/2011
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
1	2412.00	11.67	1W(30dBm)	PASS
6	2437.00	12.12	1W(30dBm)	PASS
11	2462.00	12.28	1W(30dBm)	PASS

802.11g

Channel number	Channel Frequency (MHz)	Peak Power output(dBm)	Peak Power Limit(W)	Pass/Fail
1	2412.00	12.22	1W(30dBm)	PASS
6	2437.00	12.98	1W(30dBm)	PASS
11	2462.00	12.78	1W(30dBm)	PASS

802.11n(20M)

Channel number	Channel Frequency (MHz)	Peak Power output(dBm)	Peak Power Limit(W)	Pass/Fail
1	2412.00	12.21	1W(30dBm)	PASS
6	2437.00	12.45	1W(30dBm)	PASS
11	2462.00	12.53	1W(30dBm)	PASS

802.11N(40M)

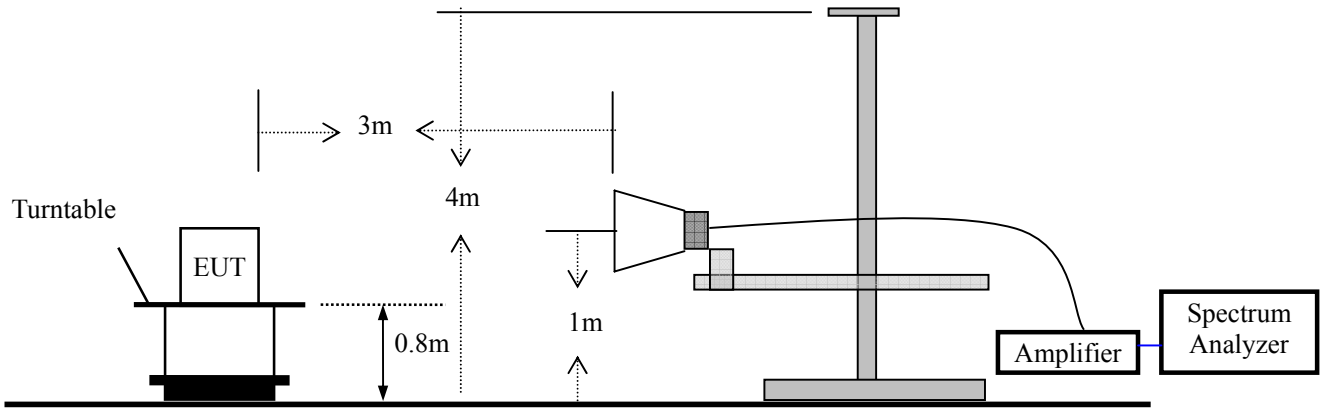
Channel number	Channel Frequency (MHz)	Peak Power output(dBm)	Peak Power Limit(W)	Pass/Fail
3	2422.00	12.09	1W(30dBm)	PASS
6	2437.00	12.12	1W(30dBm)	PASS
9	2452.00	12.65	1W(30dBm)	PASS

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/AV	Test Date :	July 07, 2011
Test By:	Andy	Temperature :	28 ℃
Test channel:	01	Humidity :	65 %

Frequency (MHz)	Polarity	Level (dBuV/m)		Limited (dBuV/m)	
		PK	AV	PK	AV
2395.45	H	53.45	39.12	74	54
2394.58	V	51.20	38.45	74	54

Spectrum Detector:	PK/AV	Test Date :	July 07, 2011
Test By:	Andy	Temperature :	28 ℃
Test channel:	11	Humidity :	65 %

Frequency (MHz)	Polarity	Level (dBuV/m)		Limited (dBuV/m)	
		PK	AV	PK	AV
2484.43	H	52.42	39.17	74	54
2483.70	V	50.26	39.02	74	54

9. Power density

9.1 Test Equipment

EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL.	CAL DUE.
EMI Test Receiver	Rohde & Schwarz	ESU	1302.6005.26	05/29/2011	05/29/2012

9.2 Measuring Instruments and setting

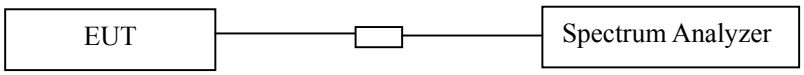
The following table is the setting of spectrum analyzer.

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.

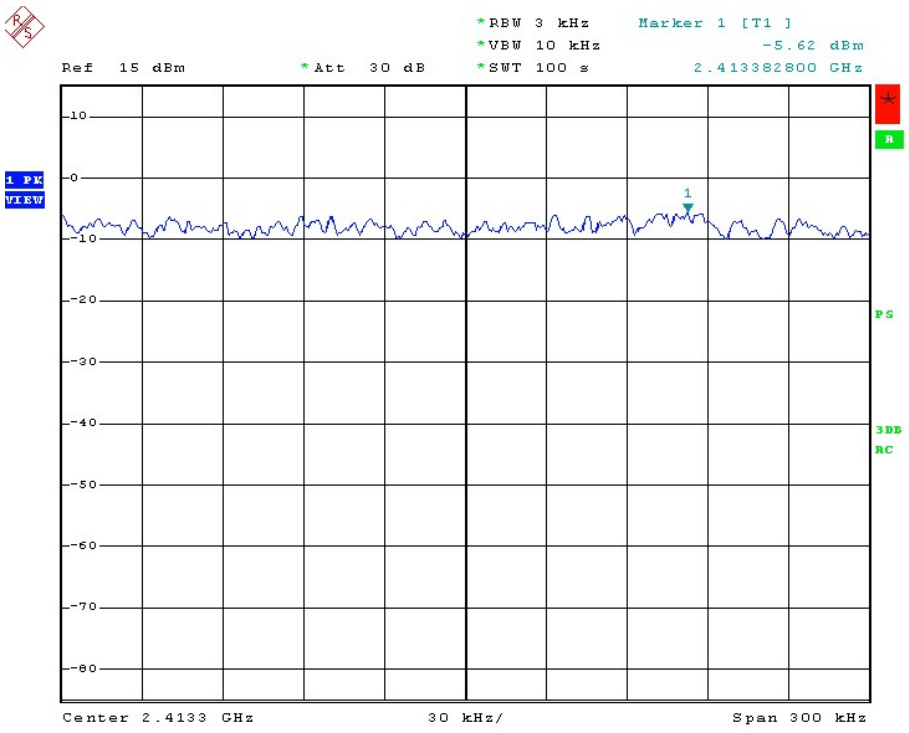
9.6. Test Result

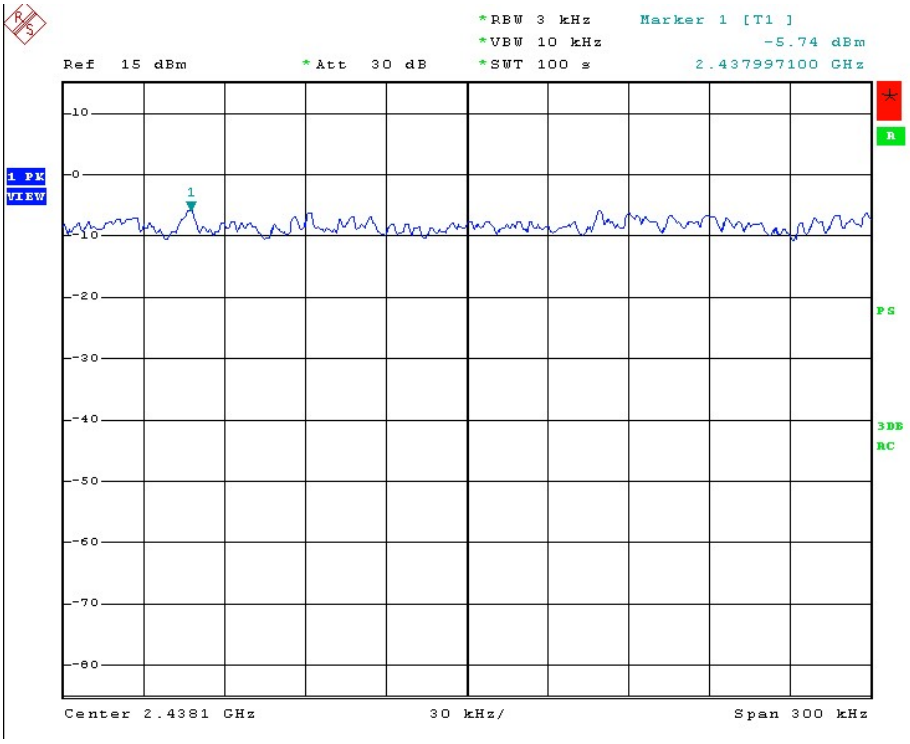
Spectrum Detector:	PK	Test Date :	07/02/2011
Test By:	Andy	Temperature :	28 ℃
Test Result:	PASS	Humidity :	65 %

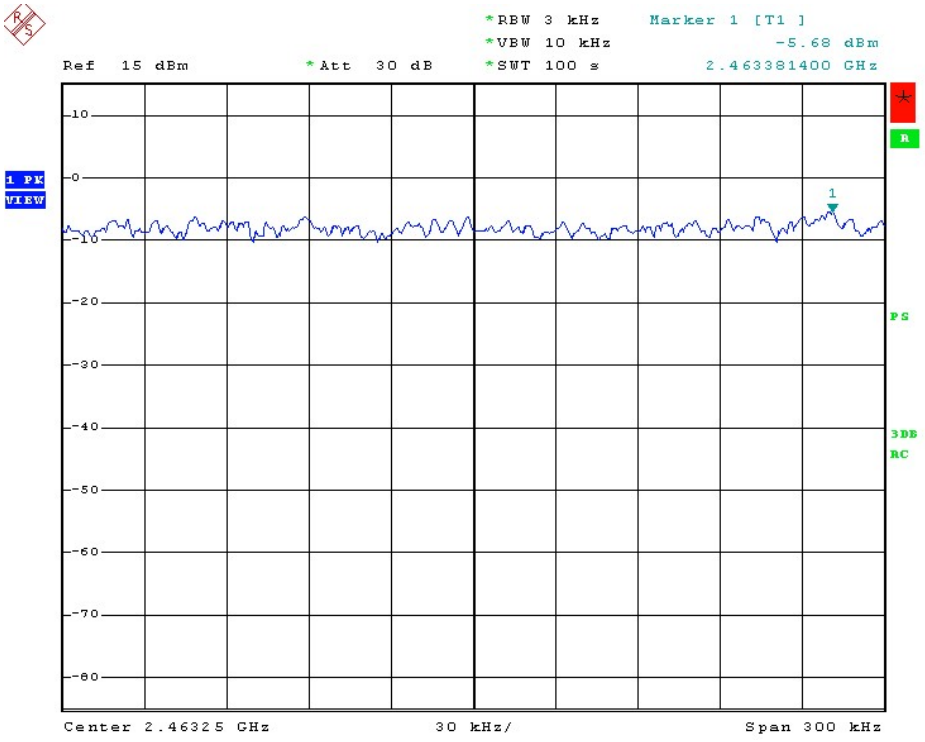
802.11b

Frequency (MHz)	Measurement Level (dBm)	Required limit (dBm)	Result
2412.00	-5.62	<8dBm	PASS
2437.00	-5.74	<8dBm	PASS
2462.00	-5.68	<8dBm	PASS

4

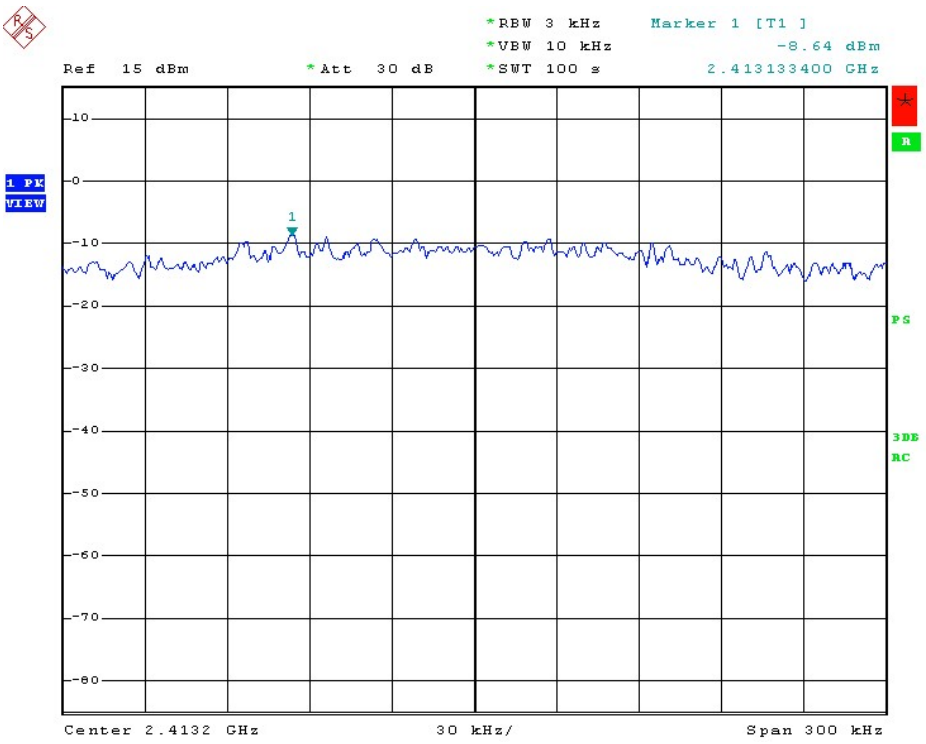


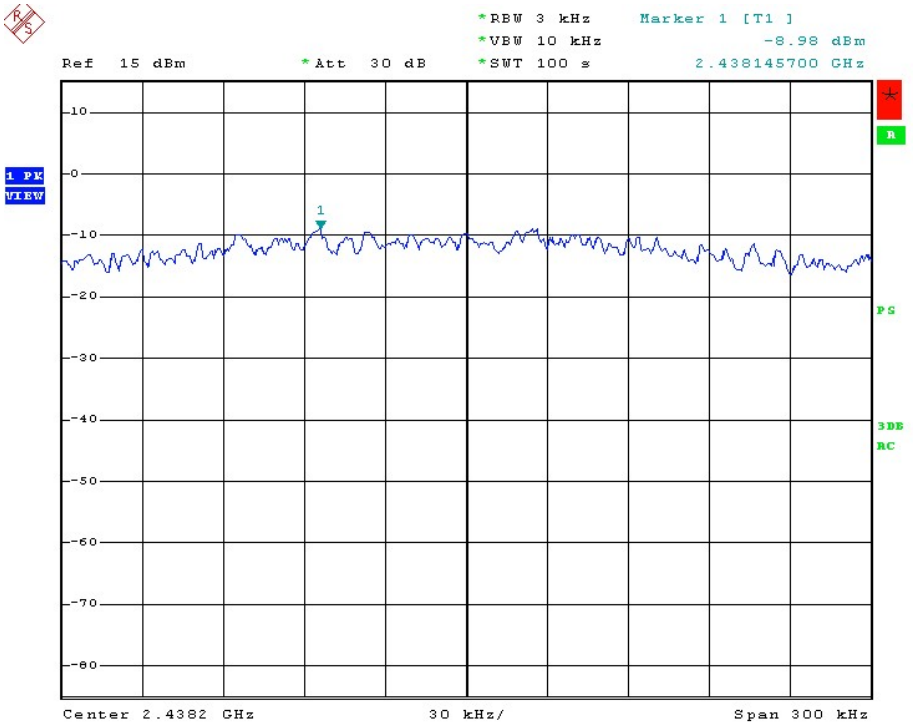

*RBW 3 kHz
Marker 1 [T1]
*VBW 10 kHz
-5.74 dBm
Ref 15 dBm
*Att 30 dB
*SWT 100 s
2.437997100 GHz
1 PK
VIEW
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
R
PS
3DB
RC
Center 2.4381 GHz
30 kHz/
Span 300 kHz

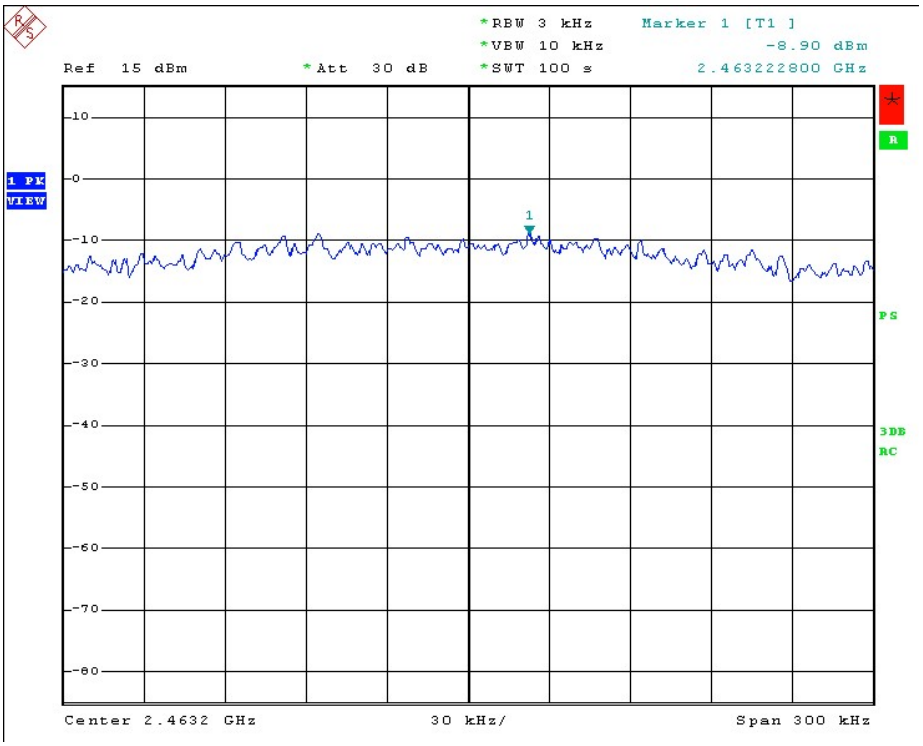

*RBW 3 kHz
Marker 1 [T1]
*VBW 10 kHz
-5.68 dBm
Ref 15 dBm
*Att 30 dB
*SWT 100 s
2.463381400 GHz
1 PK
VIEW
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
R
PS
3DB
RC
Center 2.46325 GHz
30 kHz/
Span 300 kHz

802.11g

Frequency (MHz)	Measurement Level (dBm)	Required limit (dBm)	Result
2412.00	-8.64	<8dBm	PASS
2437.00	-8.98	<8dBm	PASS
2462.00	-8.90	<8dBm	PASS

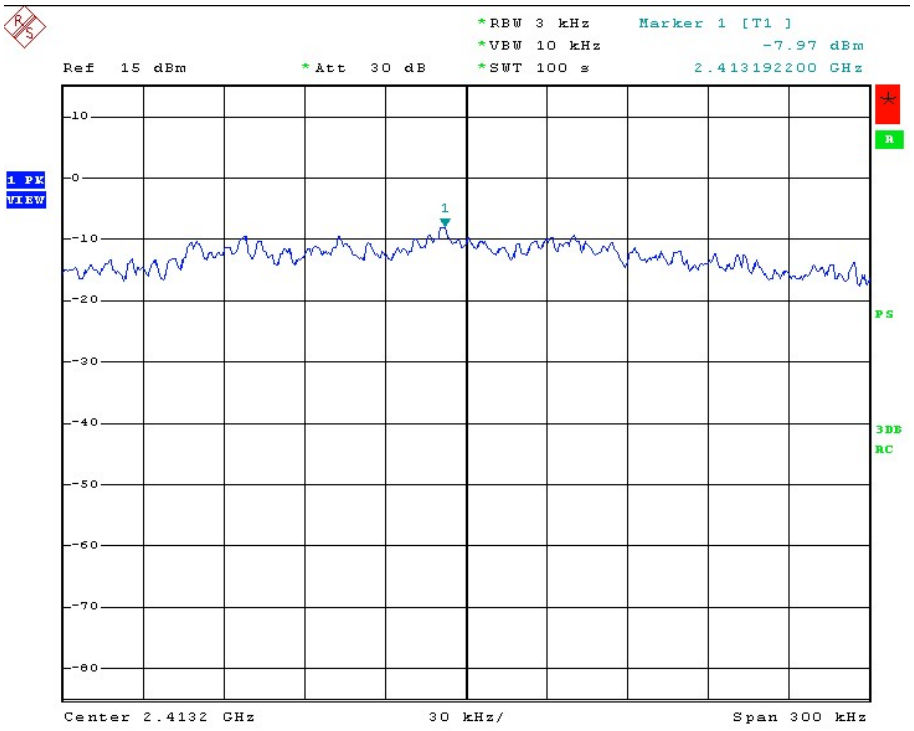


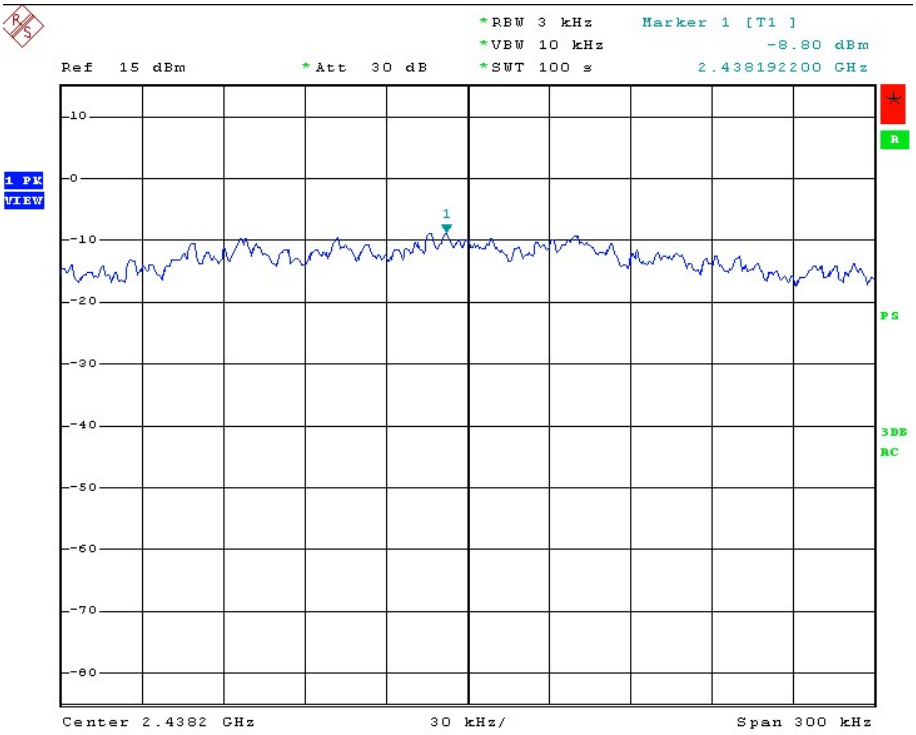

*RBW 3 kHz
Marker 1 [T1]
*VBW 10 kHz
-8.98 dBm
Ref 15 dBm
*Att 30 dB
*SWT 100 s
2.438145700 GHz
1 PK
VIEW
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
R
PS
3DB
RC
Center 2.4382 GHz
30 kHz/
Span 300 kHz

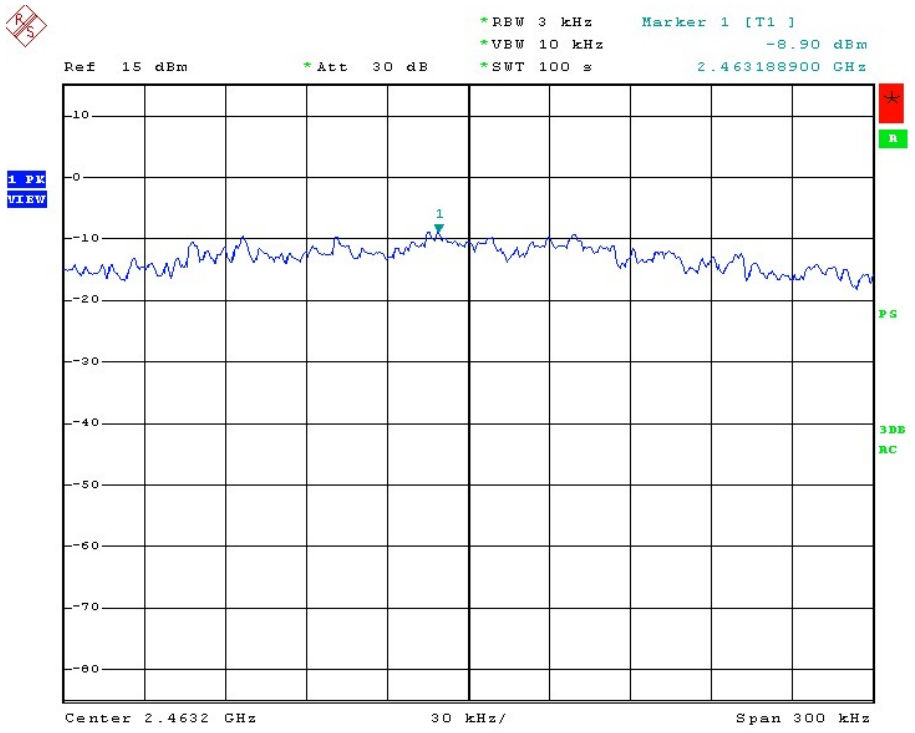

*RBW 3 kHz
Marker 1 [T1]
*VBW 10 kHz
-8.90 dBm
Ref 15 dBm
*Att 30 dB
*SWT 100 s
2.463222800 GHz
1 PK
VIEW
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
R
PS
3DB
RC
Center 2.4632 GHz
30 kHz/
Span 300 kHz

802.11n(20M)

Frequency (MHz)	Measurement Level (dBm)	Required limit (dBm)	Result
2412.00	-7.97	<8dBm	PASS
2437.00	-8.80	<8dBm	PASS
2462.00	-8.90	<8dBm	PASS

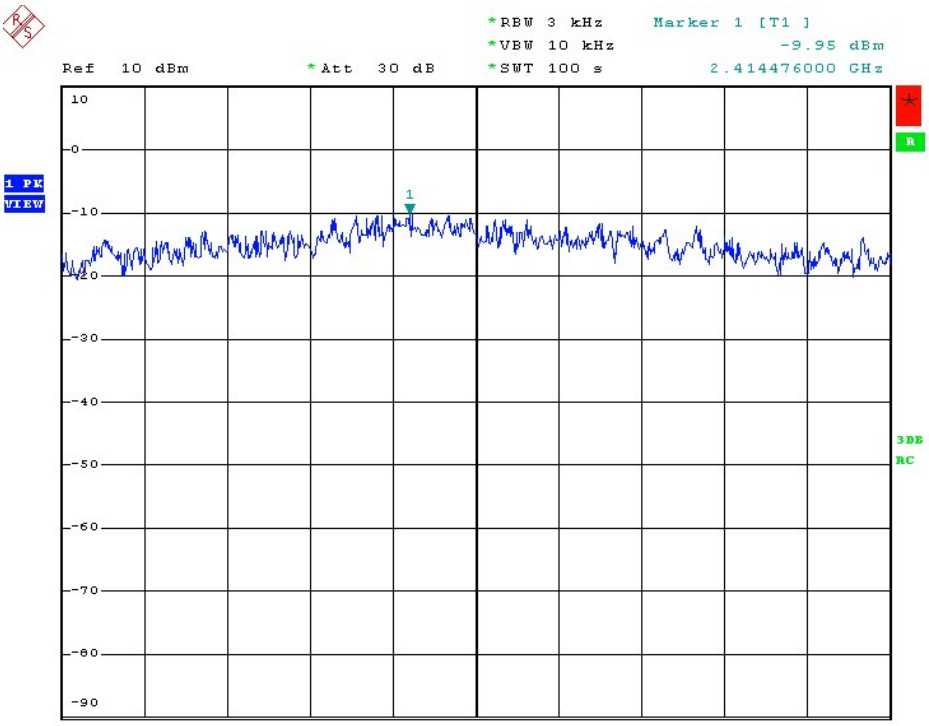


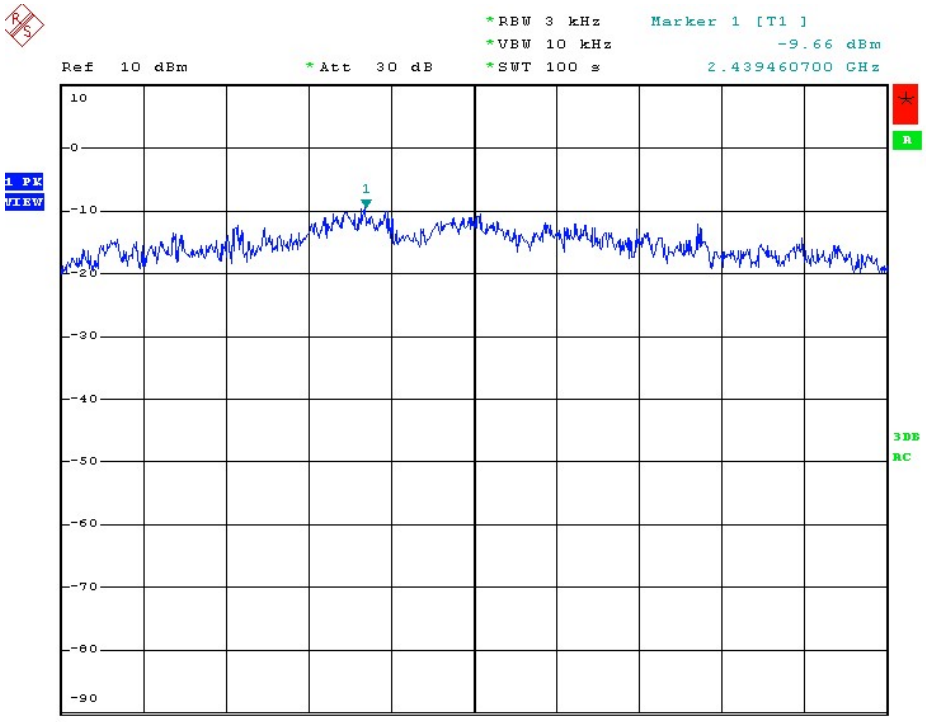

*RBW 3 kHz
Marker 1 [T1]
*VBW 10 kHz
-8.80 dBm
Ref 15 dBm
*Att 30 dB
*SWT 100 s
2.438192200 GHz
1 PK VIEW
R
PS
3DB RC
Center 2.4382 GHz
30 kHz/
Span 300 kHz

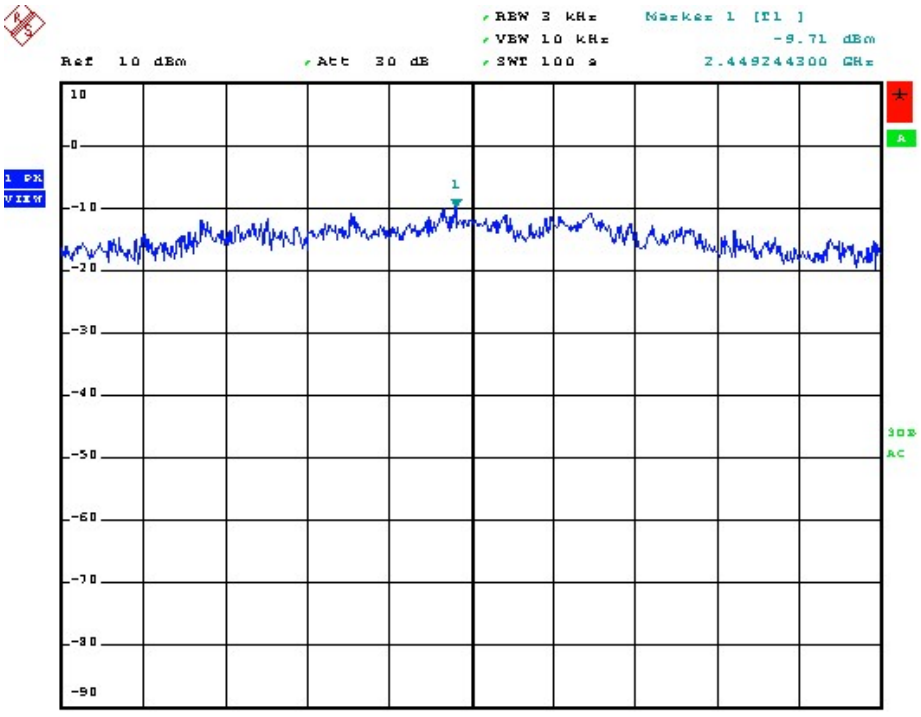

*RBW 3 kHz
Marker 1 [T1]
*VBW 10 kHz
-8.90 dBm
Ref 15 dBm
*Att 30 dB
*SWT 100 s
2.463188900 GHz
1 PK VIEW
R
PS
3DB RC
Center 2.4632 GHz
30 kHz/
Span 300 kHz

802.11n(40M)

Frequency (MHz)	Measurement Level (dBm)	Required limit (dBm)	Result
2422.00	-9.95	<8dBm	PASS
2437.00	-9.66	<8dBm	PASS
2462.00	-9.71	<8dBm	PASS




*RBW 3 kHz
Marker 1 [T1]
*VBW 10 kHz
-9.66 dBm
Ref 10 dBm
*Att 30 dB
*SWT 100 s
2.439460700 GHz
10
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
1 PK
VIEW
1
R
3DB
RC


RBW 3 kHz
Marker 1 [T1]
VBW 10 kHz
-9.71 dBm
Ref 10 dBm
Att 30 dB
SWT 100 s
2.449244300 GHz
10
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
1 PK
VIEW
1
A
3DB
RC

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 CT704 and no consideration of replacement. The best case gain of the antenna is 3dBi

11.Antenna Port Emission

11.1 Test Equipment

EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL.	CAL DUE.
EMI Test Receiver	Rohde & Schwarz	ESU	1302.6005.26	05/29/2011	05/29/2012

11.2 Measuring Instruments and setting

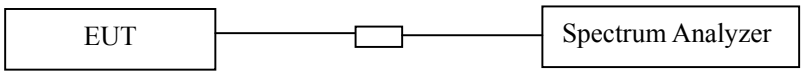
The following table is the setting of spectrum analyzer.

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.

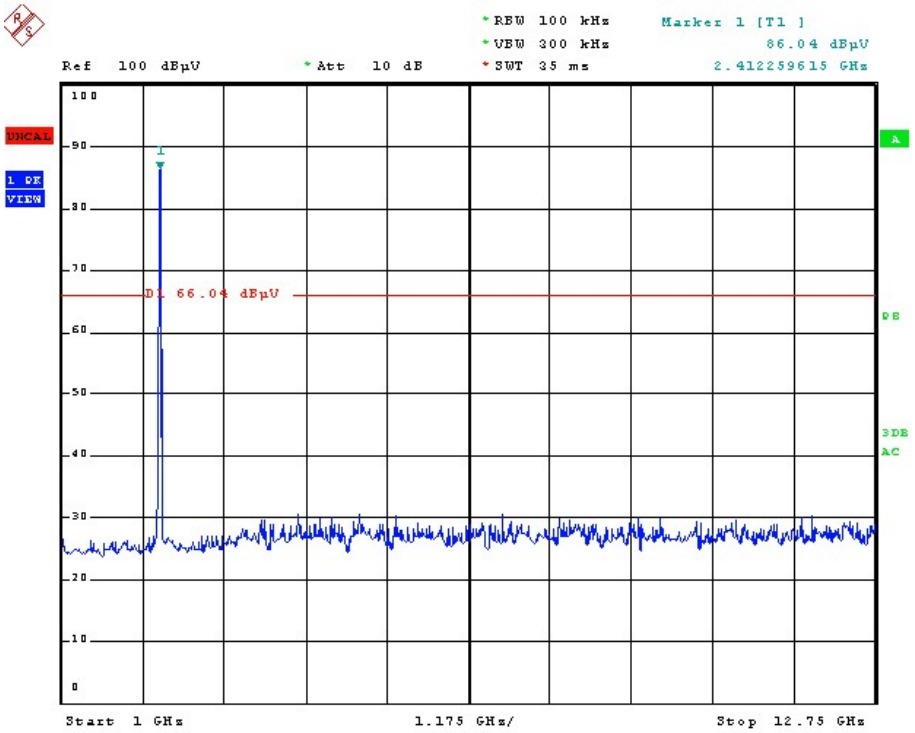
11.4 Block Diagram of Test setup



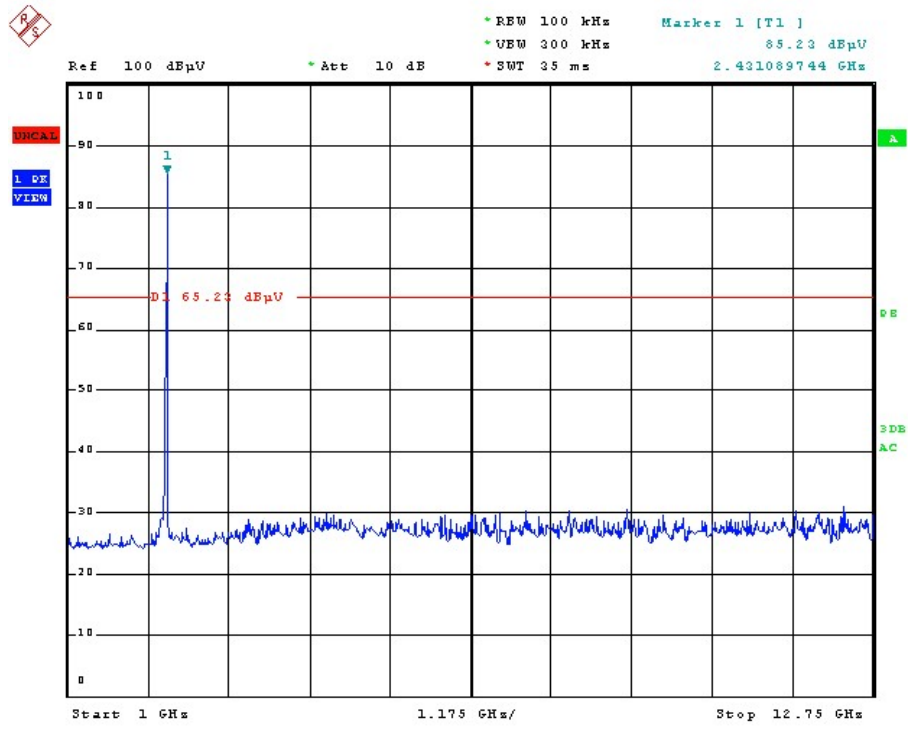
11.5. Test Result

PASS.

802.11b Low Channel 1



802.11g Mid Channel 6



802.11n High Channel 11