

# FCC TEST REPORT (15.407)

**REPORT NO.:** RF110513E02-1

MODEL NO.: RTL8192DE

FCC ID: TX2-RTL8192DE

**RECEIVED:** May 13, 2011

**TESTED:** June 23 to July 06, 2011

**ISSUED:** July 18, 2011

**APPLICANT:** Realtek Semiconductor Corp.

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**ISSUED BY:** Bureau Veritas Consumer Products Services (H.K.)

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# **RELEASE CONTROL RECORD**

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED	
RF110513E02-1	Original release	July 18, 2011	



## 1. CERTIFICATION

PRODUCT: 802.11a/b/g/n RTL8192DE miniCard

**BRAND NAME:** Realtek

MODEL NO.: RTL8192DE

**TEST SAMPLE:** ENGINEERING SAMPLE

APPLICANT: Realtek Semiconductor Corp.

TESTED: June 23 to July 06, 2011

STANDARDS: FCC Part 15, Subpart E (Section 15.407)

> ANSI C63.4-2003 ANSI C63.10-2009

The above equipment (Model: RTL8192DE) has been tested by Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

PREPARED BY: Midole Per, DATE: July 18, 2011

(Midoli Peng, Specialist)

( May Chen, Deputy Manager ) DATE: July 18, 2011 APPROVED BY



## 2. SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: FCC Part 15, Subpart E (Section 15.407)						
Standard Section	Test Type	Result	Remark			
15.407(b)(5)	AC Power Conducted Emission	PASS	Meet the requirement of limit. Minimum passing margin is -10.64dB at 0.189MHz			
15.407(b/1/2/3) (b)(5)	Electric Field Strength Spurious Emissions, 30MHz ~ 40000MHz	PASS	Meet the requirement of limit. Minimum passing margin is -0.5dB at 5460.00MHz, 5350.00MHz & 7453.33MHz			
15.407(a/1/2/3)	Output Transmit Power	PASS	Meet the requirement of limit.			
15.407(a)(6)	Peak Power Excursion	PASS	Meet the requirement of limit.			
15.407(a/1/2/3)	Peak Power Spectral Density	PASS	Meet the requirement of limit.			
15.407(g)	Frequency Stability	PASS	Meet the requirement of limit.			
15.203	Antenna Requirement	PASS	Antenna connector is IPEX not a standard connector.			

#### NOTE:

- 1. The EUT was operating in 2400 ~ 2483.5MHz, 5.15~5.35GHz, 5.47~5.725GHz and 5.725~5.850GHz frequencies band. This report was recorded the RF parameters including 5.15~5.35GHz and 5.47~5.725GHz. For the 2400 ~ 2483.5MHz and 5.725~5.85GHz RF parameters was recorded in another test report.
- 2. The DFS report was recorded in another test report<Report No.: RF110513E02-2>.



## **2.1 MEASUREMENT UNCERTAINTY**

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

Measurement	Value
Conducted emissions	2.45 dB
Radiated emissions (30MHz-1GHz)	3.81 dB
Radiated emissions (1GHz -18GHz)	2.19 dB
Radiated emissions (18GHz -40GHz)	2.56 dB



# 3. GENERAL INFORMATION

## 3.1 GENERAL DESCRIPTION OF EUT

PRODUCT	802.11a/b/g/n RTL8192DE miniCard		
MODEL NO.	RTL8192DE		
FCC ID	TX2-RTL8192DE		
POWER SUPPLY	DC 3.3V $\pm$ 9% from host equipment		
MODULATION TYPE	CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM		
MODULATION TECHNOLOGY	DSSS, OFDM		
TRANSFER RATE	802.11a/g: 54 / 48 / 36 / 24 / 18 / 12 / 9 / 6Mbps 802.11b:11 / 5.5 /2 / 1Mbps 802.11n (20MHz, 800ns GI): 6.5/13/19.5/26/39/52/58.5/65(for one stream) 13/26/39/52/78/104/117/130(for two streams) 802.11n (40MHz, 800ns GI): 13.5/27/40.5/54/81/108/121.5/135(for one stream) 27/54/81/108/162/216/243/270(for two streams) 802.11n (20MHz, 400ns GI): 7.2/14.4/21.7/28.9/43.3/57.8/65.0/72.2Mbps(for one stream) 14.444 / 28.889 / 43.333 / 57.778 / 86.667 /115.556/ 130/ 144.444Mbps(for two streams) 802.11n (40MHz, 400ns GI): 15/30/45/60/90/120/135/150Mbps(for one stream) 30/60/90/120/180/240/270/300Mbps(for two streams)		
OPERATING FREQUENCY	For 15.407 802.11a: 5.18 ~ 5.24GHz, 5.26 ~ 5.32GHz, 5.50 ~ 5.70GHz For 15.247 802.11b & 802.11g: 2.412 ~ 2.462GHz 802.11a: 5.745 ~ 5.825GHz		
NUMBER OF CHANNEL	For 15.407 19 for 802.11a, 802.11n (20MHz) 9 for 802.11n (40MHz)  For 15.247(2.4GHz) 11 for 802.11b, 802.11g, 802.11n (20MHz) 7 for 802.11n (40MHz)  For 15.247(5GHz) 5 for 802.11a, 802.11n (20MHz) 2 for 802.11n (40MHz)		



	For 15.407
	802.11a: 60.3mW
	802.11n (20MHz): 126.2mW
	802.11n (40MHz): 113.8mW
	For 15.247(2.4GHz)
	802.11b: 114.8mW
MAXIMUM OUTPUT POWER	802.11g: 371.5mW
POWER	802.11n (20MHz): 670.0mW
	802.11n (40MHz): 463.5mW
	For 15.247(5GHz)
	802.11a: 229.1mW
	802.11n (20MHz): 427.7mW
	802.11n (40MHz): 413.1mW
ANTENNA TYPE	Please see note
DATA CABLE	NA
I/O PORTS	NA
ASSOCIATED DEVICES	NA

## NOTE:

1. The EUT has four different samples could be chosen and please refer the below table:

No.	miniCard Interface	Source	Difference
1	PCIe Interface (miniCard)		Components are same spec. but provided by different manufacturers.
2	PCIe Interface (miniCard)		(except for main chip.)
3	USB Interface (miniCard)		Components are same spec. but provided by different manufacturers.
4	USB Interface (miniCard)	Second Source	(except for main chip.)

<sup>\*</sup> Both PCIe and USB interface are the same RF circuit.

2. Conducted emission and Radiated emission of the simultaneous operation has been evaluated and no non-compliance found.



## 3. There are two sets of antennas provided to this EUT, please refer to the following table:

## **Set 1:**

No.	Brand	Model	Antenna Type	Connector	Gain (dBi) include cable loss	Cable Loss(dB)	Cable Length (mm)
1&2	LYNwave	ALA110-222050 (Main) ALA110-222050 (Aux)	PIFA	IPEX	2.4GHz : 3.2 5GHz : 5	2.4GHz : 0.7 5GHz : 1.2	150

#### Set 2:

No.	Brand	Model	Antenna Type	Connector	Gain (dBi) include cable loss	Cable Loss(dB)	Cable Length (mm)
1&2	JOYMAX	TWF-614XMPXX-500 (Main) TWF-614XMPXX-500 (Aux)	Dipole	IPEX	2.4GHz : 3 5GHz : 5	2.4GHz : 0.9 5GHz : 1.5	200

<sup>\*</sup> The software will set one antenna to 2.4GHz, another one to 5GHz if 2.4G/5G co-transmission mode is on.

4. For radiated test: The EUT was pre-tested under the following modes:

For radiated(below 1GHz)				
Test Mode	Description			
Mode A	USB Interface (Main Source) + PIFA antenna (X-Y Plane)			
Mode B	USB Interface (Main Source) + PIFA antenna (Y-Z Plane)			
Mode C	USB Interface (Main Source) + PIFA antenna (Z-X Plane)			
Mode D	USB Interface (Second Source) + PIFA antenna (X-Y Plane)			
Mode E	PCIe Interface (Main Source) + PIFA antenna (X-Y Plane)			
Mode F	PCIe Interface (Second Source) + PIFA antenna (X-Y Plane)			
Mode G	USB Interface (Main Source) + Dipole antenna			
For radiated(	above 1GHz)			
Test Mode	Description			
Mode H	USB Interface (Main Source) + Dipole antenna			
Mode I	USB Interface (Second Source) + Dipole antenna			
Mode J	USB Interface (Second Source) + PIFA antenna (X-Y Plane)			
Mode K	USB Interface (Second Source) + PIFA antenna (Y-Z Plane)			
Mode K	USB Interface (Second Source) + PIFA antenna (Z-X Plane)			

From the above modes, the worst radiated<below 1GHz> test was found in **Mode A & Mode G** and the worst radiated<above 1GHz> test was found in **Mode I & J**. Therefore only the test data of the mode was recorded in this report.



- 5. The EUT is 2 \* 2 spatial MIMO (2Tx & 2Rx) without beam forming function. The 11a, 11b and 11g legacy mode is limited to single transmitter only.
- 6. When the EUT operating in 802.11n, the software operation, which is defined by manufacturer, MCS (Modulation and Coding Schemes) from 0 to 15.
- 7. The above EUT information was declared by the manufacturer and for more detailed features description, please refer to the manufacturer's specifications or User's Manual.



## 3.2 DESCRIPTION OF TEST MODES

## Operated in 5150MHz ~ 5350MHz bands:

Eight channels are provided for 802.11a and 802.11n (20MHz):

CHANNEL	FREQUENCY
36	5180 MHz
40	5200 MHz
44	5220 MHz
48	5240 MHz
52	5260 MHz
56	5280 MHz
60	5300 MHz
64	5320 MHz

Four channels are provided for 802.11n (40MHz):

CHANNEL	FREQUENCY
38	5190 MHz
46	5230 MHz
54	5270 MHz
62	5310 MHz



# Operated in 5470MHz ~ 5725MHz bands:

Eleven channels are provided for 802.11a and 802.11n (20MHz):

CHANNEL	FREQUENCY
100	5500 MHz
104	5520 MHz
108	5540 MHz
112	5560 MHz
116	5580 MHz
120	5600 MHz
124	5620 MHz
128	5640 MHz
132	5660 MHz
136	5680 MHz
140	5700 MHz

Five channels are provided for 802.11n (40MHz):

CHANNEL	FREQUENCY
102	5510 MHz
110	5550 MHz
118	5590 MHz
126	5630 MHz
134	5670 MHz



## 3.2.1 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL

EUT		APPLICA	ABLE TO		DESCRIPTION	
CONFIGURE MODE	PLC	RE < 1G	RE 3 1G	APCM		
1	<b>√</b>	V	-	-	USB Interface (Main Source) + PIFA antenna (X-Y Plane)	
2	1	V	-	-	USB Interface (Main Source) + Dipole antenna	
3	1	1	$\checkmark$	<b>√</b>	USB Interface (Second Source) + PIFA antenna (X-Y Plane)	
4	-	-	V	-	USB Interface (Second Source) + Dipole antenna	

Where **PLC:** Power Line Conducted Emission

RE < 1G: Radiated Emission below 1GHz

RE <sup>3</sup> 1G: Radiated Emission above 1GHz

**APCM:** Antenna Port Conducted Measurement

## **ANTENNA COMBINATION MODE:**

COMBINATION MODE	OPERATION MODE	TX CHAIN(0)	TX CHAIN(1)
А	802.11 a	$\checkmark$	
В	802.11 a		$\checkmark$
С	802.11n(20MHz) for MCS0~7	√	
D	802.11n(20MHz) for MCS0~7		$\checkmark$
E	802.11n(20MHz) for MCS8~15	√	$\checkmark$
F	802.11n(40MHz) for MCS0~7	<b>V</b>	
G	802.11n(40MHz) for MCS0~7		<b>V</b>
Н	802.11n(40MHz) for MCS8~15	V	V

Note: 1. The above information was declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or user's manual.

<sup>2.</sup> Mode A, C, E, F & H the worst modes were selected as representative mode for the report.



## **POWER LINE CONDUCTED EMISSION TEST:**

- Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
- Following channel(s) was (were) selected for the final test as listed below.

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)	COMBINATION / CONFIGURE
For 5 GHz 802.11n (20MHz)	36 to 140	120	OFDM	BPSK	13	E / 1

## **RADIATED EMISSION TEST (BELOW 1 GHz):**

- Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
- Following channel(s) was (were) selected for the final test as listed below.

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)	COMBINATION / CONFIGURE
For 5 GHz 802.11n (20MHz)	36 to 140	120	OFDM	BPSK	13	E / 1, 2



## **RADIATED EMISSION TEST (ABOVE 1 GHz):**

- Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
- Following channel(s) was (were) selected for the final test as listed below.

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)	COMBINATION / CONFIGURE
802.11a	36 to 140	36, 40, 48, 52, 60, 64, 100, 120, 140	OFDM	BPSK	6	A/3,4
For 5 GHz 802.11n (20MHz)	36 to 140	36, 40, 48, 52, 60, 64, 100, 120, 140	OFDM	BPSK	6.5	C/3,4
For 5 GHz 802.11n (20MHz)	36 to 140	36, 40, 48, 52, 60, 64, 100, 120, 140	OFDM	BPSK	13	E / 3, 4
For 5 GHz 802.11n (40MHz)	38 to 134	38, 46, 54, 62, 102, 118, 134	OFDM	BPSK	13.5	F/3,4
For 5 GHz 802.11n (40MHz)	38 to 134	38, 46, 54, 62, 102, 118, 134	OFDM	BPSK	27	H/3,4

#### **CONDUCTED OUT-BAND EMISSION MEASUREMENT:**

- Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
- Following channel(s) was (were) selected for the final test as listed below.

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)	COMBINATION / CONFIGURE
802.11a	36 to 140	36, 64, 100, 140	OFDM	BPSK	6	A/3
For 5 GHz 802.11n (20MHz)	36 to 140	36, 64, 100, 140	OFDM	BPSK	6.5	C/3
For 5 GHz 802.11n (20MHz)	36 to 140	36, 64, 100, 140	OFDM	BPSK	13	E/3
For 5 GHz 802.11n (40MHz)	38 to 134	38, 62, 102, 134	OFDM	BPSK	13.5	F/3
For 5 GHz 802.11n (40MHz)	38 to 134	38, 62, 102, 134	OFDM	BPSK	27	H/3



## **ANTENNA PORT CONDUCTED MEASUREMENT:**

- This item includes all test value of each mode, but only includes spectrum plot of worst value of each mode.
- Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
- Following channel(s) was (were) selected for the final test as listed below.

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)	COMBINATION / CONFIGURE
802.11a	36 to 140	36, 40, 48, 52, 60, 64, 100, 120, 140	OFDM	BPSK	6	A/3
For 5 GHz 802.11n (20MHz)	36 to 140	36, 40, 48, 52, 60, 64, 100, 120, 140	OFDM	BPSK	6.5	C/3
For 5 GHz 802.11n (20MHz)	36 to 140	36, 40, 48, 52, 60, 64, 100, 120, 140	OFDM	BPSK	13	E/3
For 5 GHz 802.11n (40MHz)	38 to 134	38, 46, 54, 62, 102, 118, 134	OFDM	BPSK	13.5	F/3
For 5 GHz 802.11n (40MHz)	38 to 134	38, 46, 54, 62, 102, 118, 134	OFDM	BPSK	27	H/3

<sup>\*</sup> After verification, bandwidth as show worst chain in report by investigations.

## **TEST CONDITION:**

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER (SYSTEM)	TESTED BY
RE <sup>3</sup> 1G	22deg. C, 64%RH, 1004 hPa	120Vac, 60Hz	Kent Liu
RE<1G	22deg. C, 64%RH, 1004 hPa	120Vac, 60Hz	Kent Liu
PLC	15deg. C, 67%RH, 1004 hPa	120Vac, 60Hz	Kent Liu
APCM	25deg. C, 64%RH, 1004 hPa	120Vac, 60Hz	Kent Liu



## 3.3 GENERAL DESCRIPTION OF APPLIED STANDARDS

The EUT is a RF product. According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

FCC Part 15, Subpart E (Section 15.407)
ANSI C63.4-2003
ANSI C63.10-2009

All test items have been performed and recorded as per the above standards.

**NOTE**: The EUT has been verified to comply with the requirements of FCC Part 15, Subpart B, Class B (DoC). The test report has been issued separately.



## 3.4 DESCRIPTION OF SUPPORT UNITS

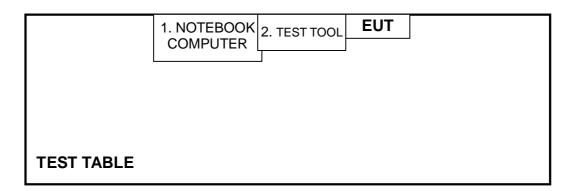
The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
	NOTEBOOK COMPUTER	DELL	IPP19L	CN-OHC416-70166-5CA- 0448	PIW632500516610
2	TEST TOOL	Realtek	NA	NA	NA

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	NA
2	NA

NOTE: All power cords of the above support units are non shielded (1.8m).

## 3.5 CONFIGURATION OF SYSTEM UNDER TEST





## 4. TEST TYPES AND RESULTS

## 4.1 CONDUCTED EMISSION MEASUREMENT

## 4.1.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT

FREQUENCY OF EMISSION (MHz)	CONDUCTED	LIMIT (dBµV)
	Quasi-peak	Average
0.15-0.5	66 to 56	56 to 46
0.5-5	56	46
5-30	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 0.50 MHz.
- 3. All emanations from a class A/B digital device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified above.

## 4.1.2 TEST INSTRUMENTS

Test date: July 06, 2011

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Test Receiver	ESCS 30	100375	Mar. 09, 2011	Mar. 08, 2012
Line-Impedance Stabilization Network (for EUT)	NSLK 8127	8127-522	Sep. 08, 2010	Sep. 07, 2011
Line-Impedance Stabilization Network (for Peripheral)	ESH3-Z5	848773/004	Nov. 03, 2010	Nov. 02, 2011
RF Cable (JYEBAO)	5DFB	COCCAB-002	Aug. 30, 2010	Aug. 29, 2011
50 ohms Terminator	50	3	Nov. 03, 2010	Nov. 02, 2011
Software	BV ADT_Cond_V7.3.7	NA	NA	NA

#### Note:

- 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
- 2. The test was performed in Shielded Room No. C.
- 3 The VCCI Con C Registration No. is C-3611.



## 4.1.3 TEST PROCEDURES

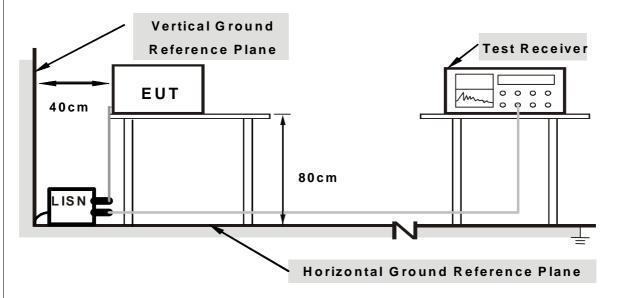
- a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN.
- b. The two LISNs provide 50 ohm/ 50uH of coupling impedance for the measuring instrument.
- c. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.
- d. The frequency range from 150kHz to 30MHz was searched. Emission level under (Limit 20dB) was not recorded.

414	DEVIATI	ION FRO	OM TEST	<sup>-</sup> STANDARD

No deviation



#### 4.1.5 TEST SETUP



Note: 1.Support units were connected to second LISN.

2.Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes

For the actual test configuration, please refer to the related item – Photographs of the Test Configuration.

## 4.1.6 EUT OPERATING CONDITIONS

- 1. Plug the EUT into the support unit 1 (Notebook Computer) which placed on a testing table.
- 2. The communication partner run test program "REALTEK 11n Dual MAC 9xD USB WLAN NIC Massproduction kit" to enable EUT under transmission/receiving condition continuously at specific channel frequency.



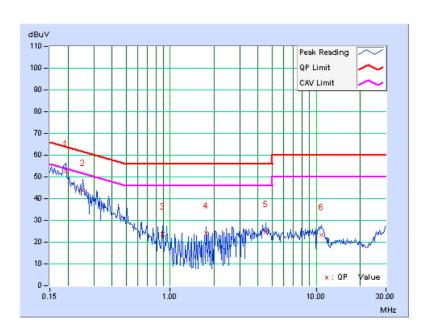
## 4.1.7 TEST RESULTS

PHASE	Line (L)	6dB BANDWIDTH	9 kHz

	Freq.	Corr.	Read Val	ding lue	Emis Le	sion vel	Lir	nit	Mar	gin
No		Factor	[dB (	(uV)]	[dB	(uV)]	[dB	(uV)]	(dl	B)
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.193	0.13	52.38	-	52.51	-	63.91	53.91	-11.40	-
2	0.252	0.13	43.66	-	43.79	-	61.71	51.71	-17.92	-
3	0.884	0.14	23.42	-	23.56	-	56.00	46.00	-32.44	-
4	1.773	0.16	23.83	-	23.99	-	56.00	46.00	-32.01	-
5	4.496	0.22	24.52	-	24.74	-	56.00	46.00	-31.26	-
6	10.902	0.50	22.76	-	23.26	-	60.00	50.00	-36.74	-

**REMARKS:** 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.

- 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
- 3. The emission levels of other frequencies were very low against the limit.
- 4. Margin value = Emission level Limit value
- 5. Correction factor = Insertion loss + Cable loss
- 6. Emission Level = Correction Factor + Reading Value.

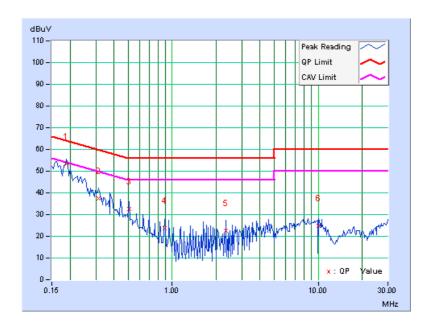




	Freq.	Corr.	Read Val	ding lue	Emis Le		Lir	nit	Mar	gin
No		Factor	[dB (	(uV)]	[dB (	(uV)]	[dB	(uV)]	(dl	3)
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.189	0.13	53.30	-	53.43	-	64.08	54.08	-10.64	-
2	0.314	0.15	37.42	-	37.57	-	59.86	49.86	-22.30	-
3	0.505	0.15	32.45	-	32.60	-	56.00	46.00	-23.40	-
4	0.884	0.16	23.58	-	23.74	-	56.00	46.00	-32.26	-
5	2.344	0.21	22.28	-	22.49	-	56.00	46.00	-33.51	-
6	10.078	0.83	24.01	-	24.84	-	60.00	50.00	-35.16	-

**REMARKS:** 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.

- 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
- 3. The emission levels of other frequencies were very low against the limit.
- 4. Margin value = Emission level Limit value
- 5. Correction factor = Insertion loss + Cable loss
- 6. Emission Level = Correction Factor + Reading Value.





#### 4.2 RADIATED EMISSION MEASUREMENT

## 4.2.1 LIMITS OF RADIATED EMISSION MEASUREMENT

Emissions radiated outside of the specified bands, shall be according to the general radiated limits in 15.209 as following:

Frequencies (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

### NOTE:

- 1. The lower limit shall apply at the transition frequencies.
- 2. Emission level (dBuV/m) = 20 log Emission level (uV/m).
- 3. As shown in 15.35(b), for frequencies above 1000MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20dB under any condition of modulation.
- 4. Section 15.205 restricted bands of operation shall compliance with the limits in Section 15.209.



## 4.2.2 LIMITS OF UNWANTED EMISSION OUT OF THE RESTRICTED BANDS

Frequencies (MHz)	EIRP Limit (dBm)	Equivalent Field Strength at 3m (dBµV/m) *note 3
5150~5250	5150~5250 -27 68	
5250~5350	-27	68.3
5470~5725	~5725 -27 68.3	
5725~5825	-27 *note 1	68.3
5725~5625	-17 *note 2	78.3

#### NOTE:

- 1. For frequencies 10MHz or greater above or below the band edge.
- 2. All emissions within the frequency range from the band edge to 10MHz above or below the band edge.
- 3. The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength

$$E = \frac{1000000\sqrt{30P}}{3}$$
 µV/m, where P is the eirp (Watts)



## 4.2.3 TEST INSTRUMENTS

Test date: June 24 to 25, 2011

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Agilent Spectrum Analyzer	E4446A	MY48250254	July 14, 2010	July 13, 2011
Agilent Pre-Selector	N9039A	MY46520311	July 14, 2010	July 13, 2011
Agilent Signal Generator	N5181A	MY49060517	July 14, 2010	July 13, 2011
Mini-Circuits Pre-Amplifier	ZFL-1000VH2B	AMP-ZFL-03	Nov. 16, 2010	Nov. 15, 2011
Agilent Pre-Amplifier	8449B	3008A02578	July 05, 2010	July 04, 2011
Miteq Pre-Amplifier	AFS33-1800265 0-30-8P-44	881786	NA	NA
SCHWARZBECK Trilog Broadband Antenna	VULB 9168	9168-360	Apr. 14, 2011	Apr. 13, 2012
AISI Horn_Antenna	AIH.8018	0000320091110	Nov. 12, 2010	Nov. 11, 2011
SCHWARZBECK Horn_Antenna	BBHA 9170	9170-424	Oct. 08, 2010	Oct. 07, 2011
RF CABLE	NA	RF104-201 RF104-203 RF104-204	Dec. 27, 2010	Dec. 26, 2011
RF Cable	NA	CHGCAB_001	NA	NA
Software	ADT_Radiated_ V8.7.05	NA	NA	NA
CT Antenna Tower & Turn Table	NA	NA	NA	NA

Note: 1. The calibration interval of the above test instruments is 12 months and the calibrations are

- The Calibration Interval of the above test instruments is 12 months and the calibrations traceable to NML/ROC and NIST/USA.
   The horn antenna, preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.
   The test was performed in 966 Chamber No. G.
   The FCC Site Registration No. is 966073.
   The VCCI Site Registration No. is 6-137.

- 6. The CANADA Site Registration No. is IC 7450H-2.



#### 4.2.4 TEST PROCEDURES

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meters chamber room. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The height of antanna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

#### NOTE:

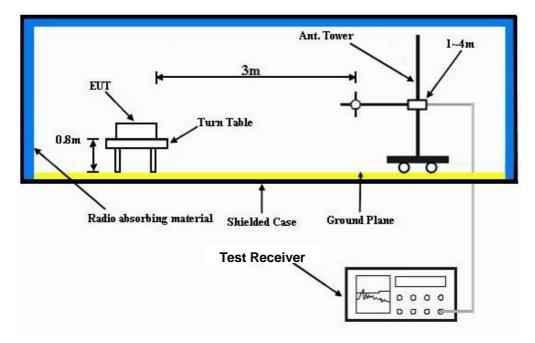
- 1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Peak detection (PK) and Quasi-peak detection (QP) at frequency below 1GHz.
- 2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.
- 3. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 10 Hz for Average detection (AV) at frequency above 1GHz.

#### 4.2.5 DEVIATION FROM TEST STANDARD

No deviation



## 4.2.6 TEST SETUP



For the actual test configuration, please refer to the related item – Photographs of the Test Configuration.

## 4.2.7 EUT OPERATING CONDITION

Same as 4.1.6



## 4.2.8 TEST RESULTS (With PIFA antenna)

## BELOW 1GHz WORST-CASE DATA: 802.11n (20MHz) OFDM MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL		
CHANNEL	NNEL Channel 120 FREQUENCY RANGE		Below 1000MHz	
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak	
ENVIRONMENTAL CONDITIONS	22deg. C, 64%RH 1004 hPa	TESTED BY	Kent Liu	

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M							
NO.	FREQ. (MHz)	EMISSION	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	64.46	32.8 QP	40.0	-7.2	1.25 H	140	20.05	12.76
2	199.90	40.8 QP	43.5	-2.7	1.38 H	297	30.25	10.59
3	299.99	41.3 QP	46.0	-4.7	2.00 H	310	26.12	15.20
4	324.44	39.2 QP	46.0	-6.9	1.75 H	265	23.42	15.73
5	537.87	35.8 QP	46.0	-10.2	1.00 H	193	15.24	20.55
6	796.25	38.5 QP	46.0	-7.5	1.25 H	337	14.04	24.43
		ANTENNA	A POLARIT	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	237.28	36.0 QP	46.0	-10.0	1.25 V	13	23.48	12.52
2	325.19	34.4 QP	46.0	-11.6	1.25 V	359	18.64	15.75
3	349.65	37.5 QP	46.0	-8.5	1.25 V	2	21.23	16.28
4	625.21	37.4 QP	46.0	-8.6	1.25 V	22	15.17	22.25
5	799.52	39.2 QP	46.0	-6.8	1.00 V	297	14.77	24.47
6	874.90	40.2 QP	46.0	-5.8	1.00 V	360	14.37	25.81

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.



## **ABOVE 1GHz WORST-CASE DATA**

#### **802.11a OFDM MODULATION**

EUT TEST CONDITION		MEASUREMENT DETAIL		
CHANNEL Channel 36		FREQUENCY RANGE	1 ~ 40GHz	
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)	
ENVIRONMENTAL CONDITIONS	22deg. C, 64%RH 1004 hPa	TESTED BY	Kent Liu	

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M							
		ANIENNA	POLARITY	& TEST DIS	I ANCE: HO	RIZONTAL	AI 3 M	1
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	66.8 PK	74.0	-7.2	1.19 H	45	26.86	39.94
2	5150.00	52.3 AV	54.0	-1.7	1.19 H	45	12.36	39.94
3	*5180.00	110.1 PK			1.19 H	45	70.08	40.02
4	*5180.00	101.1 AV			1.19 H	45	61.08	40.02
5	#10360.00	55.3 PK	68.3	-13.0	1.18 H	64	8.77	46.53
6	15540.00	61.9 PK	74.0	-12.1	1.61 H	31	10.53	51.37
7	15540.00	50.3 AV	54.0	-3.7	1.61 H	31	-1.07	51.37
		ANTENNA	POLARIT	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	61.6 PK	74.0	-12.4	1.19 V	284	21.66	39.94
2	5150.00	47.6 AV	54.0	-6.4	1.19 V	284	7.66	39.94
3	*5180.00	102.6 PK			1.19 V	284	62.58	40.02
4	*5180.00	93.9 AV			1.19 V	284	53.88	40.02
5	#10360.00	53.6 PK	68.3	-14.7	1.47 V	137	7.07	46.53
6	15540.00	61.0 PK	74.0	-13.0	1.00 V	36	9.63	51.37
7	15540.00	49.4 AV	54.0	-4.6	1.00 V	36	-1.97	51.37

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.
- 6. "#":The radiated frequency is out the restricted band.



EUT TEST CONDITION		MEASUREMENT DETAIL		
CHANNEL	Channel 40	FREQUENCY RANGE	1 ~ 40GHz	
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)	
ENVIRONMENTAL CONDITIONS	22deg. C, 64%RH 1004 hPa	TESTED BY	Kent Liu	

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)	
1	*5200.00	109.8 PK			1.12 H	50	69.73	40.07	
2	*5200.00	100.8 AV			1.12 H	50	60.73	40.07	
3	#10400.00	54.7 PK	68.3	-13.6	1.21 H	68	8.13	46.57	
4	15600.00	61.7 PK	74.0	-12.3	1.60 H	28	10.23	51.47	
5	15600.00	50.5 AV	54.0	-3.5	1.60 H	28	-0.97	51.47	
		ANTENNA	A POLARIT	Y & TEST DI	STANCE: V	ERTICAL A	T 3 M		
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)	
1	*5200.00	103.0 PK			1.15 V	264	62.93	40.07	
2	*5200.00	94.2 AV			1.15 V	264	54.13	40.07	
3	#10400.00	53.7 PK	68.3	-14.6	1.57 V	141	7.13	46.57	
4	15600.00	60.4 PK	74.0	-13.6	1.03 V	40	8.93	51.47	
5	15600.00	49.4 AV	54.0	-4.6	1.03 V	40	-2.07	51.47	

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.
- 6. "#":The radiated frequency is out the restricted band.



EUT TEST CONDITION		MEASUREMENT DETAIL		
CHANNEL	Channel 48	FREQUENCY RANGE	1 ~ 40GHz	
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)	
ENVIRONMENTAL CONDITIONS	22deg. C, 64%RH 1004 hPa	TESTED BY	Kent Liu	

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M							
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	109.5 PK			1.20 H	58	69.33	40.17
2	*5240.00	100.6 AV			1.20 H	58	60.43	40.17
3	#10480.00	55.3 PK	68.3	-13.0	1.23 H	75	8.63	46.67
4	15720.00	61.8 PK	74.0	-12.2	1.58 H	43	10.29	51.51
5	15720.00	50.0 AV	54.0	-4.0	1.58 H	43	-1.51	51.51
		ANTENNA	A POLARIT	Y & TEST DI	STANCE: V	ERTICAL A	T 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	102.7 PK			1.13 V	294	62.53	40.17
2	*5240.00	94.0 AV			1.13 V	294	53.83	40.17
3	#10480.00	53.8 PK	68.3	-14.5	1.52 V	147	7.13	46.67
4	15720.00	61.0 PK	74.0	-13.0	1.00 V	27	9.49	51.51
5	15720.00	49.7 AV	54.0	-4.3	1.00 V	27	-1.81	51.51

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.
- 6. "#":The radiated frequency is out the restricted band.



EUT TEST CONDITION		MEASUREMENT DETAIL		
CHANNEL	Channel 52	FREQUENCY RANGE	1 ~ 40GHz	
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)	
ENVIRONMENTAL CONDITIONS	22deg. C, 64%RH 1004 hPa	TESTED BY	Kent Liu	

		ANTENNA	POLARITY	& TEST DIS	TANCE: HO	RIZONTAL	AT 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5260.00	113.3 PK			1.22 H	62	73.07	40.23
2	*5260.00	104.1 AV			1.22 H	62	63.87	40.23
3	#10520.00	55.0 PK	68.3	-13.3	1.17 H	80	8.28	46.72
4	15780.00	62.1 PK	74.0	-11.9	1.62 H	46	10.52	51.58
5	15780.00	50.4 AV	54.0	-3.6	1.62 H	46	-1.18	51.58
		ANTENNA	A POLARIT	Y & TEST DI	STANCE: V	ERTICAL A	T 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5260.00	105.7 PK			1.16 V	299	65.47	40.23
2	*5260.00	97.0 AV			1.16 V	299	56.77	40.23
3	#10520.00	54.0 PK	68.3	-14.3	1.56 V	148	7.28	46.72
4	15780.00	60.7 PK	74.0	-13.3	1.03 V	45	9.12	51.58
5	15780.00	40 7 AV	54.0	-43	1.03.\/	45	-1.88	51 58

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.
- 6. "#":The radiated frequency is out the restricted band.



EUT TEST CONDITION		MEASUREMENT DETAIL		
CHANNEL	Channel 60	FREQUENCY RANGE	1 ~ 40GHz	
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)	
ENVIRONMENTAL CONDITIONS	22deg. C, 64%RH 1004 hPa	TESTED BY	Kent Liu	

		ANTENNA	POLARITY	& TEST DIS	TANCE: HO	RIZONTAL	AT 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	112.3 PK			1.22 H	48	71.97	40.33
2	*5300.00	102.9 AV			1.22 H	48	62.57	40.33
3	10600.00	55.4 PK	74.0	-18.6	1.18 H	76	8.58	46.82
4	10600.00	43.3 AV	54.0	-10.7	1.18 H	76	-3.52	46.82
5	15900.00	62.2 PK	74.0	-11.8	1.62 H	57	10.54	51.66
6	15900.00	50.4 AV	54.0	-3.6	1.62 H	57	-1.26	51.66
		ANTENNA	A POLARIT	Y & TEST DI	STANCE: V	ERTICAL A	T 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	104.4 PK			1.05 V	290	64.07	40.33
2	*5300.00	95.9 AV			1.05 V	290	55.57	40.33
3	10600.00	54.0 PK	74.0	-20.0	1.53 V	149	7.18	46.82
4	10600.00	43.7 AV	54.0	-10.3	1.53 V	149	-3.12	46.82
5	15900.00	61.0 PK	74.0	-13.0	1.09 V	44	9.34	51.66
6	15900.00	50.2 AV	54.0	-3.8	1.09 V	44	-1.46	51.66

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.



EUT TEST CONDITION		MEASUREMENT DETAIL		
CHANNEL	Channel 64	FREQUENCY RANGE	1 ~ 40GHz	
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)	
ENVIRONMENTAL CONDITIONS	22deg. C, 64%RH 1004 hPa	TESTED BY	Kent Liu	

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	108.9 PK			1.20 H	33	68.51	40.39
2	*5320.00	100.5 AV			1.20 H	33	60.11	40.39
3	5350.00	69.8 PK	74.0	-4.2	1.20 H	33	29.33	40.47
4	5350.00	51.9 AV	54.0	-2.1	1.20 H	33	11.43	40.47
5	10640.00	55.2 PK	74.0	-18.8	1.23 H	87	8.33	46.87
6	10640.00	43.0 AV	54.0	-11.0	1.23 H	87	-3.87	46.87
7	15960.00	62.3 PK	74.0	-11.7	1.61 H	69	10.57	51.73
8	15960.00	50.1 AV	54.0	-3.9	1.61 H	69	-1.63	51.73
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	100.8 PK			1.25 V	294	60.41	40.39
2	*5320.00	91.5 AV			1.25 V	294	51.11	40.39
3	5350.00	59.9 PK	74.0	-14.1	1.25 V	294	19.43	40.47
4	5350.00	46.6 AV	54.0	-7.4	1.25 V	294	6.13	40.47
5	10640.00	54.4 PK	74.0	-19.6	1.67 V	168	7.53	46.87
6	10640.00	43.4 AV	54.0	-10.6	1.67 V	168	-3.47	46.87
7	15960.00	61.3 PK	74.0	-12.7	1.09 V	59	9.57	51.73
8	15960.00	50.6 AV	54.0	-3.4	1.09 V	59	-1.13	51.73

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.



EUT TEST CONDITION		MEASUREMENT DETAIL		
CHANNEL	Channel 100	FREQUENCY RANGE	1 ~ 40GHz	
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)	
ENVIRONMENTAL CONDITIONS	22deg. C, 64%RH 1004 hPa	TESTED BY	Kent Liu	

	_	ANTENNA I	POLARITY	& TEST DIS	TANCE: HO	RIZONTAL	AT 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	69.5 PK	74.0	-4.5	1.16 H	34	28.74	40.76
2	5460.00	52.9 AV	54.0	-1.1	1.16 H	34	12.14	40.76
3	#5470.00	63.2 PK	68.3	-5.1	1.16 H	34	22.42	40.78
4	*5500.00	110.4 PK			1.16 H	34	69.54	40.86
5	*5500.00	101.4 AV			1.16 H	34	60.54	40.86
6	7333.33	57.4 PK	74.0	-16.6	1.08 H	159	10.78	46.62
7	7333.33	48.6 AV	54.0	-5.4	1.08 H	159	1.98	46.62
8	11000.00	55.1 PK	74.0	-18.9	1.21 H	62	7.82	47.28
9	11000.00	43.2 AV	54.0	-10.8	1.21 H	62	-4.08	47.28
10	#16500.00	62.5 PK	68.3	-5.8	1.59 H	59	9.47	53.03
		ANTENNA	A POLARIT	Y & TEST DI	STANCE: V	ERTICAL A	T 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	60.6 PK	74.0	-13.4	1.23 V	281	19.84	40.76
2	5460.00	47.1 AV	54.0	-6.9	1.23 V	281	6.34	40.76
3	#5470.00	55.8 PK	68.3	-12.5	1.23 V	281	15.02	40.78
4	*5500.00	102.2 PK			1.23 V	281	61.34	40.86
5	*5500.00	93.6 AV			1.23 V	281	52.74	40.86
6	7333.33	56.2 PK	74.0	-17.8	1.43 V	106	9.58	46.62
7	7333.33	47.9 AV	54.0	-6.1	1.43 V	106	1.28	46.62
8	11000.00	54.8 PK	74.0	-19.2	1.62 V	164	7.52	47.28
9	11000.00	43.7 AV	54.0	-10.3	1.62 V	164	-3.58	47.28
10	#16500.00	61.2 PK	68.3	-7.1	1.07 V	61	8.17	53.03

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.
- 6. "#":The radiated frequency is out the restricted band.



<b>EUT TEST CONDITION</b>		MEASUREMENT DETAI	L
CHANNEL	Channel 120	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	22deg. C, 64%RH 1004 hPa	TESTED BY	Kent Liu

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M											
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)				
1	*5600.00	112.5 PK			1.12 H	16	71.35	41.15				
2	*5600.00	103.7 AV			1.12 H	16	62.55	41.15				
3	7466.67	57.1 PK	74.0	-16.9	1.11 H	170	10.56	46.54				
4	7466.67	48.5 AV	54.0	-5.5	1.11 H	170	1.96	46.54				
5	11200.00	55.0 PK	74.0	-19.0	1.17 H	42	7.58	47.42				
6	11200.00	43.0 AV	54.0	-11.0	1.17 H	42	-4.42	47.42				
7	#16800.00	62.7 PK	68.3	-5.6	1.59 H	73	9.07	53.63				
		ANTENNA	A POLARIT	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M					
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	NO. FREQ. (MHz)  EMISSION LEVEL  LIMIT (dBuV/m)  MARGIN (dB) HEIGHT (m)  TABLE RAW VALUE (dBuV) FACTOR							
1								= =				
	*5600.00	104.7 PK			1.14 V	264	63.55	41.15				
2	*5600.00 *5600.00	104.7 PK 95.9 AV			1.14 V 1.14 V	264 264	63.55 54.75	41.15 41.15				
<u> </u>			74.0	-17.8								
2	*5600.00	95.9 AV	74.0 54.0	-17.8 -6.1	1.14 V	264	54.75	41.15				
2	*5600.00 7466.67	95.9 AV 56.2 PK			1.14 V 1.40 V	264 116	54.75 9.66	41.15 46.54				
3 4	*5600.00 7466.67 7466.67	95.9 AV 56.2 PK 47.9 AV	54.0	-6.1	1.14 V 1.40 V 1.40 V	264 116 116	54.75 9.66 1.36	41.15 46.54 46.54				

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.
- 6. "#":The radiated frequency is out the restricted band.



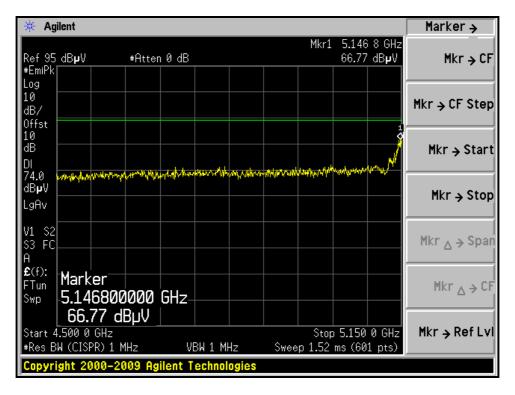
EUT TEST CONDITION		MEASUREMENT DETAI	L
CHANNEL	Channel 140	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	22deg. C, 64%RH 1004 hPa	TESTED BY	Kent Liu

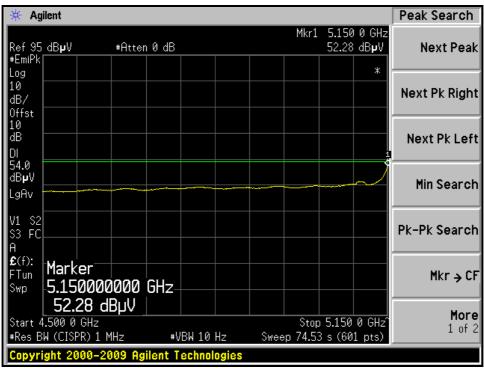
		ANTENNA	POLARITY	& TEST DIS	TANCE: HO	RIZONTAL	AT 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	109.6 PK			1.08 H	26	68.18	41.42
2	*5700.00	100.6 AV			1.08 H	26	59.18	41.42
3	#5725.00	63.4 PK	68.3	-4.9	1.20 H	38	21.91	41.49
4	7600.00	57.0 PK	74.0	-17.0	1.09 H	181	10.59	46.41
5	7600.00	48.6 AV	54.0	-5.4	1.09 H	181	2.19	46.41
6	11400.00	54.8 PK	74.0	-19.2	1.14 H	47	7.18	47.62
7	11400.00	42.9 AV	54.0	-11.1	1.14 H	47	-4.72	47.62
8	#17100.00	62.7 PK	68.3	-5.6	1.54 H	61	8.50	54.20
		ANTENNA	A POLARIT	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	101.7 PK			1.27 V	271	60.28	41.42
2	*5700.00	92.9 AV			1.27 V	271	51.48	41.42
3	#5725.00	58.9 PK	68.3	-9.4	1.27 V	271	17.41	41.49
4	7600.00	56.1 PK	74.0	-17.9	1.40 V	126	9.69	46.41
5	7600.00	47.7 AV	54.0	-6.3	1.40 V	126	1.29	46.41
6	11400.00	54.8 PK	74.0	-19.2	1.59 V	126	7.18	47.62
7	11400.00	43.7 AV	54.0	-10.3	1.59 V	126	-3.92	47.62
8	#17100.00	61.6 PK	68.3	-6.7	1.00 V	45	7.40	54.20

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.
- 6. "#":The radiated frequency is out the restricted band.



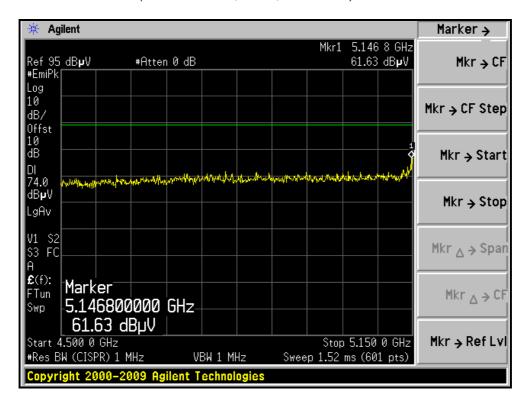
#### RESTRICTED BANDEDGE (802.11a MODE, CH36, HORIZONTAL)

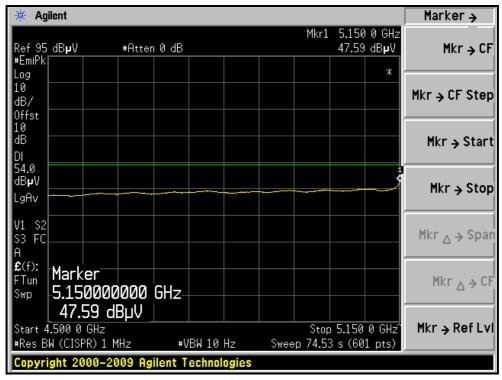






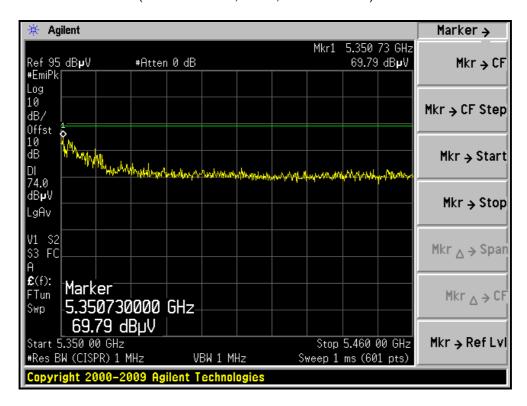
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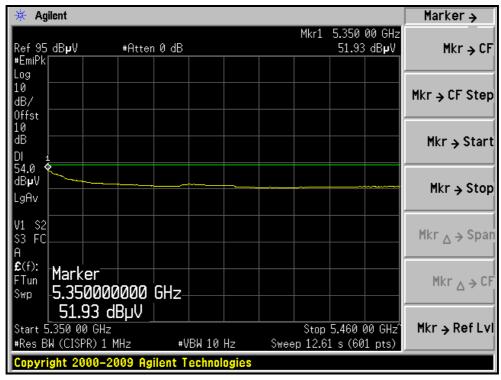






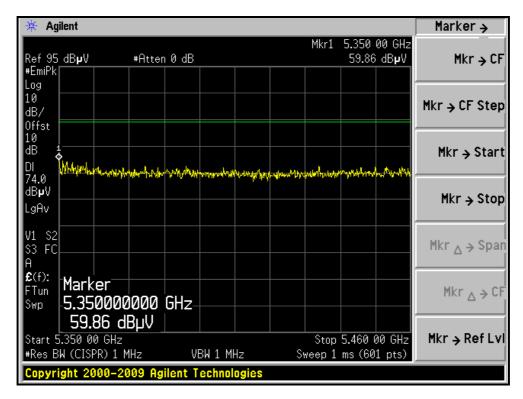
#### RESTRICTED BANDEDGE (802.11a MODE, CH64, HORIZONTAL)

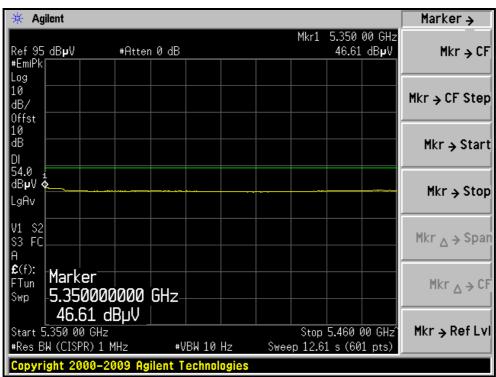






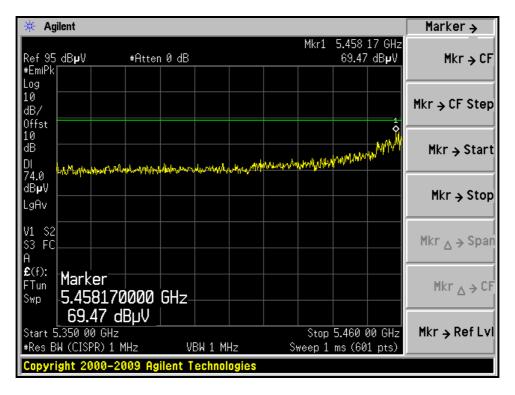
# RESTRICTED BANDEDGE (802.11a MODE, CH64, VERTICAL)

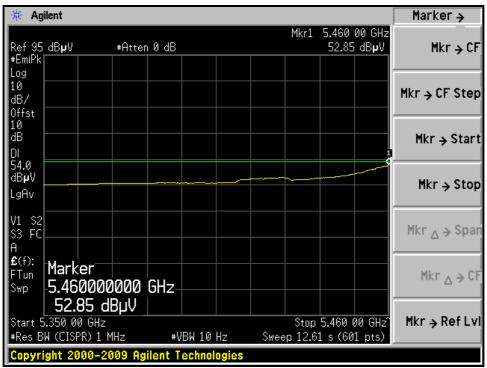






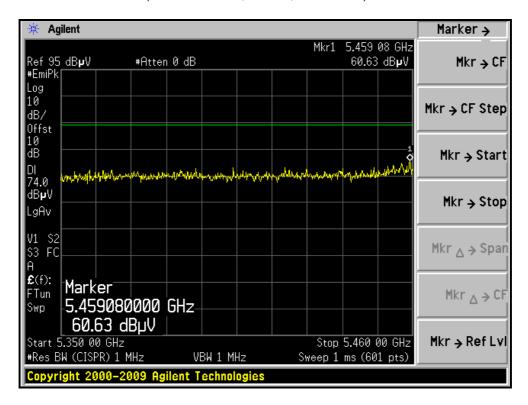
# RESTRICTED BANDEDGE (802.11a MODE, CH100, HORIZONTAL)

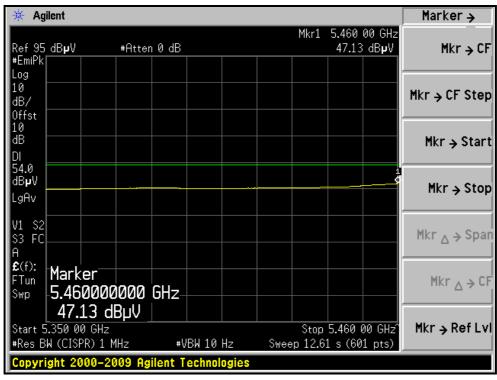






# RESTRICTED BANDEDGE (802.11a MODE, CH100, VERTICAL)







# Single chain: 802.11n (20MHz) OFDM MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL		
CHANNEL	Channel 36	FREQUENCY RANGE	1 ~ 40GHz	
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)	
ENVIRONMENTAL CONDITIONS	22deg. C, 64%RH 1004 hPa	TESTED BY	Kent Liu	

		ANTENNA	POLARITY	& TEST DIS	TANCE: HO	RIZONTAL	AT 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	65.9 PK	74.0	-8.1	1.16 H	58	25.96	39.94
2	5150.00	52.2 AV	54.0	-1.8	1.16 H	58	12.26	39.94
3	*5180.00	110.2 PK			1.16 H	58	70.18	40.02
4	*5180.00	101.2 AV			1.16 H	58	61.18	40.02
5	#10360.00	55.6 PK	68.3	-12.7	1.18 H	65	9.07	46.53
6	15540.00	62.2 PK	74.0	-11.8	1.66 H	37	10.83	51.37
7	15540.00	50.5 AV	54.0	-3.5	1.66 H	37	-0.87	51.37
		ANTENNA	A POLARIT	Y & TEST DI	STANCE: V	ERTICAL A	T 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	61.2 PK	74.0	-12.8	1.16 V	294	21.26	39.94
2	5150.00	47.5 AV	54.0	-6.5	1.16 V	294	7.56	39.94
3	*5180.00	102.8 PK			1.16 V	294	62.78	40.02
4	*5180.00	94.1 AV			1.16 V	294	54.08	40.02
5	#10360.00	54.0 PK	68.3	-14.3	1.50 V	126	7.47	46.53
6	15540.00	60.9 PK	74.0	-13.1	1.00 V	28	9.53	51.37
7	15540.00	49.3 AV	54.0	-4.7	1.00 V	28	-2.07	51.37

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.
- 6. "#":The radiated frequency is out the restricted band.



EUT TEST CONDITION		MEASUREMENT DETAIL		
CHANNEL	Channel 40	FREQUENCY RANGE	1 ~ 40GHz	
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)	
ENVIRONMENTAL CONDITIONS	22deg. C, 64%RH 1004 hPa	TESTED BY	Kent Liu	

		ANTENNA	POLARITY	& TEST DIS	TANCE: HO	RIZONTAL	AT 3 M		
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)	
1	*5200.00	110.2 PK			1.16 H	45	70.13	40.07	
2	*5200.00	101.1 AV			1.16 H	45	61.03	40.07	
3	#10400.00	54.9 PK	68.3	-13.4	1.26 H	86	8.33	46.57	
4	15600.00	62.7 PK	74.0	-11.3	1.66 H	61	11.23	51.47	
5	15600.00	50.3 AV	54.0	-3.7	1.66 H	61	-1.17	51.47	
		ANTENNA	A POLARIT	Y & TEST DI	STANCE: V	ERTICAL A	T 3 M		
NO.	NO. FREQ. (MHz) EMISSION LEVEL (dBuV/m) LEVEL (dBuV/m) RARGIN (dB) ANTENNA HEIGHT (m) (Degree) CORRECT (dBuV)								
1	*5200.00	103.2 PK			1.16 V	300	63.13	40.07	
2	*5200.00	94.2 AV			1.16 V	300	54.13	40.07	
3	#10400.00	54.9 PK	68.3	-13.4	1.68 V	155	8.33	46.57	
4	15600.00	61.6 PK	74.0	-12.4	1.11 V	63	10.13	51.47	
5	15600.00	50 9 Δ\/	54.0	-3.1	1 11 \/	63	-0.57	51 <i>1</i> 7	

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.
- 6. "#":The radiated frequency is out the restricted band.



EUT TEST CONDITION		MEASUREMENT DETAIL		
CHANNEL	Channel 48	FREQUENCY RANGE	1 ~ 40GHz	
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)	
ENVIRONMENTAL CONDITIONS	22deg. C, 64%RH 1004 hPa	TESTED BY	Kent Liu	

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M									
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	*5240.00	109.9 PK			1.11 H	38	69.73	40.17		
2	*5240.00	100.9 AV			1.11 H	38	60.73	40.17		
3	#10480.00	54.8 PK	68.3	-13.5	1.24 H	98	8.13	46.67		
4	15720.00	62.8 PK	74.0	-11.2	1.67 H	71	11.29	51.51		
5	15720.00	50.2 AV	54.0	-3.8	1.67 H	71	-1.31	51.51		
		ANTENNA	A POLARIT	Y & TEST DI	STANCE: V	ERTICAL A	T 3 M			
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	*5240.00	102.7 PK			1.15 V	313	62.53	40.17		
2	*5240.00	94.0 AV			1.15 V	313	53.83	40.17		
3	#10480.00	55.1 PK	68.3	-13.2	1.63 V	168	8.43	46.67		
4	15720.00	61.7 PK	74.0	-12.3	1.05 V	61	10.19	51.51		
5	15720.00	50.9 AV	54.0	-3.1	1.05 V	61	-0.61	51.51		

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.
- 6. "#":The radiated frequency is out the restricted band.



EUT TEST CONDITION		MEASUREMENT DETAIL		
CHANNEL	Channel 52	FREQUENCY RANGE	1 ~ 40GHz	
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)	
ENVIRONMENTAL CONDITIONS	22deg. C, 64%RH 1004 hPa	TESTED BY	Kent Liu	

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M									
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	*5260.00	112.5 PK			1.14 H	24	72.27	40.23		
2	*5260.00	103.7 AV			1.14 H	24	63.47	40.23		
3	#10520.00	54.4 PK	68.3	-13.9	1.26 H	85	7.68	46.72		
4	15780.00	62.4 PK	74.0	-11.6	1.70 H	57	10.82	51.58		
5	15780.00	50.1 AV	54.0	-3.9	1.70 H	57	-1.48	51.58		
		ANTENNA	A POLARIT	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M			
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	*5260.00	105.8 PK			1.14 V	307	65.57	40.23		
2	*5260.00	97.0 AV			1.14 V	307	56.77	40.23		
3	#10520.00	55.1 PK	68.3	-13.2	1.68 V	174	8.38	46.72		
4	15780.00	61.6 PK	74.0	-12.4	1.05 V	55	10.02	51.58		
5	15780.00	51.1 AV	54.0	-2.9	1.05 V	55	-0.48	51.58		

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.
- 6. "#":The radiated frequency is out the restricted band.



EUT TEST CONDITION		MEASUREMENT DETAIL		
CHANNEL	Channel 60	FREQUENCY RANGE	1 ~ 40GHz	
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)	
ENVIRONMENTAL CONDITIONS	22deg. C, 64%RH 1004 hPa	TESTED BY	Kent Liu	

		ANTENNA	POLARITY	& TEST DIS	TANCE: HO	RIZONTAL	AT 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	111.4 PK			1.08 H	31	71.07	40.33
2	*5300.00	102.4 AV			1.08 H	31	62.07	40.33
3	10600.00	54.1 PK	74.0	-19.9	1.31 H	76	7.28	46.82
4	10600.00	43.8 AV	54.0	-10.2	1.31 H	76	-3.02	46.82
5	15900.00	62.3 PK	74.0	-11.7	1.68 H	51	10.64	51.66
6	15900.00	50.2 AV	54.0	-3.8	1.68 H	51	-1.46	51.66
		ANTENNA	A POLARIT	Y & TEST DI	STANCE: V	ERTICAL A	T 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	104.8 PK			1.14 V	307	64.47	40.33
2	*5300.00	96.0 AV			1.14 V	307	55.67	40.33
3	10600.00	55.4 PK	74.0	-18.6	1.70 V	162	8.58	46.82
4	10600.00	43.5 AV	54.0	-10.5	1.70 V	162	-3.32	46.82
5	15900.00	61.7 PK	74.0	-12.3	1.04 V	44	10.04	51.66
6	15900.00	51.1 AV	54.0	-2.9	1.04 V	44	-0.56	51.66

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.



EUT TEST CONDITION		MEASUREMENT DETAIL		
CHANNEL	Channel 64	FREQUENCY RANGE	1 ~ 40GHz	
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)	
ENVIRONMENTAL CONDITIONS	22deg. C, 64%RH 1004 hPa	TESTED BY	Kent Liu	

		ANTENNA	POLARITY	& TEST DIS	TANCE: HO	RIZONTAL	AT 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	108.4 PK			1.03 H	40	68.01	40.39
2	*5320.00	99.2 AV			1.03 H	40	58.81	40.39
3	5350.00	71.5 PK	74.0	-2.5	1.03 H	40	31.03	40.47
4	5350.00	53.0 AV	54.0	-1.0	1.03 H	40	12.53	40.47
5	10640.00	53.7 PK	74.0	-20.3	1.34 H	70	6.83	46.87
6	10640.00	42.4 AV	54.0	-11.6	1.34 H	70	-4.47	46.87
7	15960.00	62.2 PK	74.0	-11.8	1.62 H	58	10.47	51.73
8	15960.00	50.2 AV	54.0	-3.8	1.62 H	58	-1.53	51.73
		ANTENNA	A POLARIT	Y & TEST DI	STANCE: V	ERTICAL A	T 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	101.9 PK			1.12 V	299	61.51	40.39
2	*5320.00	93.0 AV			1.12 V	299	52.61	40.39
3	5350.00	60.0 PK	74.0	-14.0	1.12 V	299	19.53	40.47
4	5350.00	48.2 AV	54.0	-5.8	1.12 V	299	7.73	40.47
5	10640.00	55.5 PK	74.0	-18.5	1.70 V	163	8.63	46.87
6	10640.00	44.4 AV	54.0	-9.6	1.70 V	163	-2.47	46.87
7	15960.00	61.9 PK	74.0	-12.1	1.03 V	34	10.17	51.73
8	15960.00	50.1 AV	54.0	-3.9	1.03 V	34	-1.63	51.73

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.



EUT TEST CONDITION		MEASUREMENT DETAIL		
CHANNEL	Channel 100	FREQUENCY RANGE	1 ~ 40GHz	
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)	
ENVIRONMENTAL CONDITIONS	22deg. C, 64%RH 1004 hPa	TESTED BY	Kent Liu	

		ANTENNA I	POLARITY	& TEST DIS	TANCE: HO	RIZONTAL	AT 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	67.1 PK	74.0	-6.9	1.02 H	46	26.34	40.76
2	5460.00	51.2 AV	54.0	-2.8	1.02 H	46	10.44	40.76
3	#5470.00	63.8 PK	68.3	-4.5	1.02 H	46	23.02	40.78
4	*5500.00	110.6 PK			1.02 H	46	69.74	40.86
5	*5500.00	101.3 AV			1.02 H	46	60.44	40.86
6	7333.33	57.1 PK	74.0	-16.9	1.07 H	149	10.48	46.62
7	7333.33	48.4 AV	54.0	-5.6	1.07 H	149	1.78	46.62
8	11000.00	53.2 PK	74.0	-20.8	1.39 H	72	5.92	47.28
9	11000.00	42.2 AV	54.0	-11.8	1.39 H	72	-5.08	47.28
10	#16500.00	62.1 PK	68.3	-6.2	1.68 H	52	9.07	53.03
		ANTENNA	A POLARIT	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	59.7 PK	74.0	-14.3	1.08 V	292	18.94	40.76
2	5460.00	47.0 AV	54.0	-7.0	1.08 V	292	6.24	40.76
3	#5470.00	55.4 PK	68.3	-12.9	1.08 V	292	14.62	40.78
4	*5500.00	103.8 PK			1.08 V	292	62.94	40.86
5	*5500.00	94.8 AV			1.08 V	292	53.94	40.86
6	7333.33	56.0 PK	74.0	-18.0	1.43 V	102	9.38	46.62
7	7333.33	48.0 AV	54.0	-6.0	1.43 V	102	1.38	46.62
8	11000.00	55.5 PK	74.0	-18.5	1.74 V	164	8.22	47.28
9	11000.00	44.4 AV	54.0	-9.6	1.74 V	164	-2.88	47.28
10	#16500.00	61.7 PK	68.3	-6.6	1.00 V	22	8.67	53.03

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.
- 6. "#":The radiated frequency is out the restricted band.



EUT TEST CONDITION		MEASUREMENT DETAIL		
CHANNEL	Channel 120	FREQUENCY RANGE	1 ~ 40GHz	
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)	
ENVIRONMENTAL CONDITIONS	22deg. C, 64%RH 1004 hPa	TESTED BY	Kent Liu	

		ANTENNA	POLARITY	& TEST DIS	TANCE: HO	RIZONTAL	AT 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5600.00	112.6 PK			1.01 H	56	71.45	41.15
2	*5600.00	103.2 AV			1.01 H	56	62.05	41.15
3	7466.67	56.9 PK	74.0	-17.1	1.10 H	152	10.36	46.54
4	7466.67	48.4 AV	54.0	-5.6	1.10 H	152	1.86	46.54
5	11200.00	53.5 PK	74.0	-20.5	1.35 H	75	6.08	47.42
6	11200.00	42.2 AV	54.0	-11.8	1.35 H	75	-5.22	47.42
7	#16800.00	62.3 PK	68.3	-6.0	1.64 H	52	8.67	53.63
		ANTENNA	A POLARIT	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5600.00	105.6 PK			1.13 V	302	64.45	41.15
2	*5600.00	96.8 AV			1.13 V	302	55.65	41.15
3	7466.67	56.0 PK	74.0	-18.0	1.49 V	96	9.46	46.54
4	7466.67	48.1 AV	54.0	-5.9	1.49 V	96	1.56	46.54
5	11200.00	55.8 PK	74.0	-18.2	1.74 V	156	8.38	47.42
6	11200.00	44.5 AV	54.0	-9.5	1.74 V	156	-2.92	47.42
7	#16800.00	62.0 PK	68.3	-6.3	1.00 V	17	8.37	53.63

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.
- 6. "#":The radiated frequency is out the restricted band.



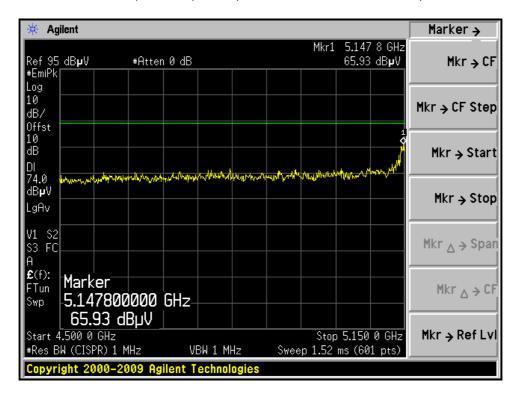
EUT TEST CONDITION		MEASUREMENT DETAIL		
CHANNEL	Channel 140	FREQUENCY RANGE	1 ~ 40GHz	
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)	
ENVIRONMENTAL CONDITIONS	22deg. C, 64%RH 1004 hPa	TESTED BY	Kent Liu	

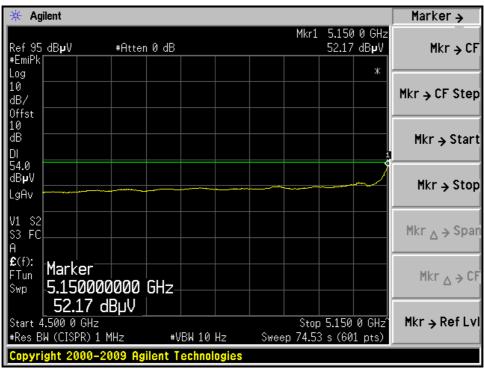
	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)	
1	*5700.00	112.7 PK			1.00 H	43	71.28	41.42	
2	*5700.00	103.1 AV			1.00 H	43	61.68	41.42	
3	#5725.00	65.4 PK	68.3	-2.9	1.00 H	43	23.91	41.49	
4	7600.00	56.7 PK	74.0	-17.3	1.09 H	156	10.29	46.41	
5	7600.00	48.3 AV	54.0	-5.7	1.09 H	156	1.89	46.41	
6	11400.00	53.5 PK	74.0	-20.5	1.30 H	71	5.88	47.62	
7	11400.00	42.3 AV	54.0	-11.7	1.30 H	71	-5.32	47.62	
8	#17100.00	62.1 PK	68.3	-6.2	1.59 H	53	7.90	54.20	
		ANTENNA	POLARITY	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M		
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)	
1	*5700.00	105.5 PK			1.14 V	300	64.08	41.42	
2	*5700.00	96.9 AV			1.14 V	300	55.48	41.42	
3	#5725.00	56.8 PK	68.3	-11.5	1.14 V	300	15.31	41.49	
4	7600.00	56.1 PK	74.0	-17.9	1.48 V	108	9.69	46.41	
5	7600.00	48.3 AV	54.0	-5.7	1.48 V	108	1.89	46.41	
6	11400.00	55.9 PK	74.0	-18.1	1.79 V	165	8.28	47.62	
7	11400.00	44.5 AV	54.0	-9.5	1.79 V	165	-3.12	47.62	
8	#17100.00	61.7 PK	68.3	-6.6	1.03 V	6	7.50	54.20	

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.
- 6. "#":The radiated frequency is out the restricted band.



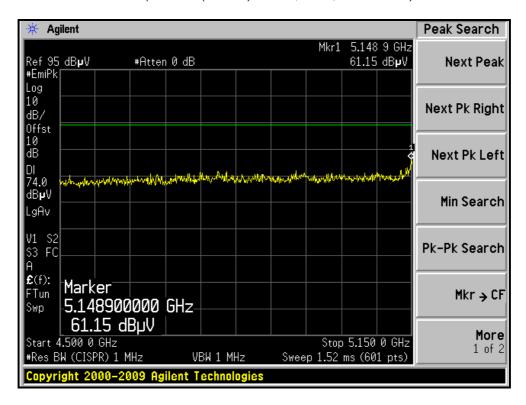
# RESTRICTED BANDEDGE (802.11n (20MHz) MODE, CH36, HORIZONTAL)

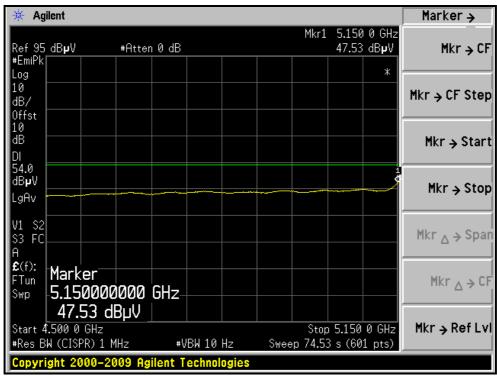






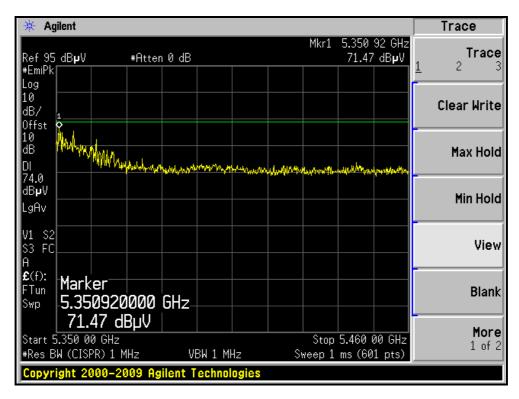
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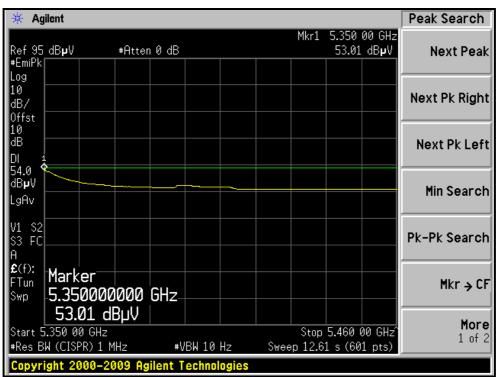






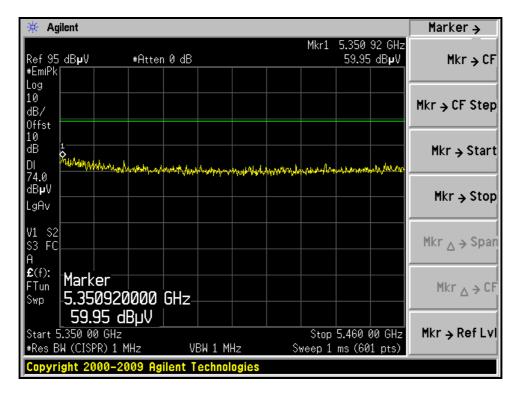
#### RESTRICTED BANDEDGE (802.11n (20MHz) MODE,CH 64, HORIZONTAL)







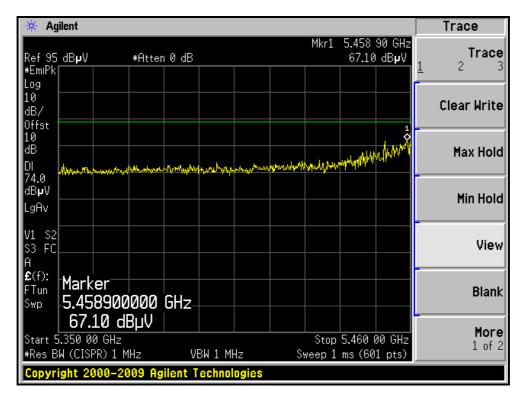
# RESTRICTED BANDEDGE (802.11n (20MHz) MODE,CH 64, VERTICAL)

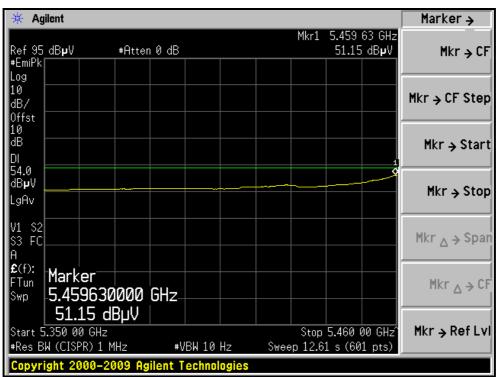






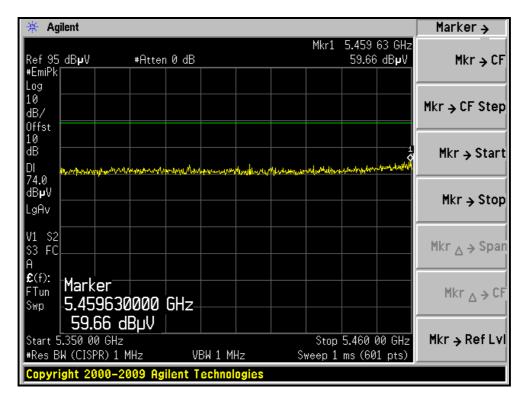
#### RESTRICTED BANDEDGE (802.11n (20MHz) MODE,CH 100, HORIZONTAL)

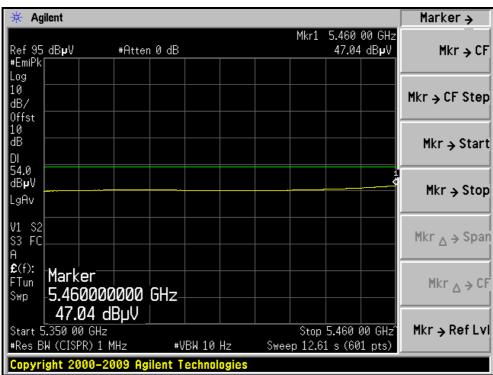






# RESTRICTED BANDEDGE (802.11n (20MHz) MODE, CH 100, VERTICAL)







# Multiple chain: 802.11n (20MHz) OFDM MODULATION

<b>EUT TEST CONDITION</b>		MEASUREMENT DETAIL		
CHANNEL Channel 36		FREQUENCY RANGE	1 ~ 40GHz	
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)	
ENVIRONMENTAL CONDITIONS	22deg. C, 64%RH 1004 hPa	TESTED BY	Kent Liu	

		ANTENNA	POLARITY	& TEST DIS	TANCE: HO	RIZONTAL	AT 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	62.8 PK	74.0	-11.2	1.13 H	32	22.86	39.94
2	5150.00	48.0 AV	54.0	-6.0	1.13 H	32	8.06	39.94
3	*5180.00	108.3 PK			1.24 H	16	68.28	40.02
4	*5180.00	99.8 AV			1.24 H	16	59.78	40.02
5	#10360.00	55.3 PK	68.3	-13.0	1.30 H	108	8.77	46.53
6	15540.00	63.1 PK	74.0	-10.9	1.56 H	66	11.73	51.37
7	15540.00	50.8 AV	54.0	-3.2	1.56 H	66	-0.57	51.37
		ANTENNA	A POLARIT	Y & TEST DI	STANCE: V	ERTICAL A	T 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	59.9 PK	74.0	-14.1	1.12 V	295	19.96	39.94
2	5150.00	46.4 AV	54.0	-7.6	1.12 V	295	6.46	39.94
3	*5180.00	102.5 PK			1.22 V	329	62.48	40.02
4	*5180.00	93.0 AV			1.22 V	329	52.98	40.02
5	#10360.00	54.1 PK	68.3	-14.2	1.64 V	189	7.57	46.53
6	15540.00	60.5 PK	74.0	-13.5	1.00 V	69	9.13	51.37
7	15540.00	50.3 AV	54.0	-3.7	1.00 V	69	-1.07	51.37

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.
- 6. "#":The radiated frequency is out the restricted band.



EUT TEST CONDITION		MEASUREMENT DETAIL		
CHANNEL Channel 40		FREQUENCY RANGE	1 ~ 40GHz	
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)	
ENVIRONMENTAL CONDITIONS	22deg. C, 64%RH 1004 hPa	TESTED BY	Kent Liu	

		ANTENNA	POLARITY	& TEST DIS	TANCE: HO	RIZONTAL	AT 3 M		
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)	
1	*5200.00	109.2 PK			1.23 H	25	69.13	40.07	
2	*5200.00	100.5 AV			1.23 H	25	60.43	40.07	
3	#10400.00	55.2 PK	68.3	-13.1	1.35 H	117	8.63	46.57	
4	15600.00	62.9 PK	74.0	-11.1	1.58 H	62	11.43	51.47	
5	15600.00	50.6 AV	54.0	-3.4	1.58 H	62	-0.87	51.47	
		ANTENNA	A POLARIT	Y & TEST DI	STANCE: V	ERTICAL A	T 3 M		
NO.	ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M  EMISSION LEVEL (dBuV/m)  MARGIN (dB) ANTENNA HEIGHT (m)  HEIGHT (m)  CORRECTION ANGLE (dBuV)  (dBuV)  (dB/m)								
1	*5200.00	103.0 PK			1.19 V	320	62.93	40.07	
2	*5200.00	93.5 AV			1.19 V	320	53.43	40.07	
3	#10400.00	54.6 PK	68.3	-13.7	1.70 V	177	8.03	46.57	
4	15600.00	61.0 PK	74.0	-13.0	1.02 V	68	9.53	51.47	
5	15600.00	50.6.4\/	54.0	-3.4	1.02.\/	68	-0.87	51 /7	

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.
- 6. "#":The radiated frequency is out the restricted band.



EUT TEST CONDITION		MEASUREMENT DETAIL		
CHANNEL Channel 48		FREQUENCY RANGE	1 ~ 40GHz	
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)	
ENVIRONMENTAL CONDITIONS	22deg. C, 64%RH 1004 hPa	TESTED BY	Kent Liu	

		ANTENNA	POLARITY	& TEST DIS	TANCE: HO	RIZONTAL	AT 3 M			
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	*5240.00	109.0 PK			1.29 H	36	68.83	40.17		
2	*5240.00	100.4 AV			1.29 H	36	60.23	40.17		
3	#10480.00	55.5 PK	68.3	-12.8	1.31 H	118	8.83	46.67		
4	15720.00	62.6 PK	74.0	-11.4	1.61 H	66	11.09	51.51		
5	15720.00	50.5 AV	54.0	-3.5	1.61 H	66	-1.01	51.51		
		ANTENNA	A POLARIT	Y & TEST DI	STANCE: V	ERTICAL A	T 3 M			
NO.	EMISSION LIMIT ANTENNA TABLE RAW VALUE CORRECTION									
1	*5240.00	102.8 PK			1.18 V	310	62.63	40.17		
2	*5240.00	93.4 AV			1.18 V	310	53.23	40.17		
3	#10480.00	54.6 PK	68.3	-13.7	1.70 V	178	7.93	46.67		
4	15720.00	61.7 PK	74.0	-12.3	1.12 V	64	10.19	51.51		
5	15720.00	51 1 AV	54.0	-29	1 12 V	64	-0.41	51 51		

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.
- 6. "#":The radiated frequency is out the restricted band.



EUT TEST CONDITION		MEASUREMENT DETAIL		
CHANNEL Channel 52		FREQUENCY RANGE	1 ~ 40GHz	
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)	
ENVIRONMENTAL CONDITIONS	22deg. C, 64%RH 1004 hPa	TESTED BY	Kent Liu	

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)			
1	*5260.00	113.9 PK			1.33 H	36	73.67	40.23			
2	*5260.00	106.0 AV			1.33 H	36	65.77	40.23			
3	#10520.00	55.8 PK	68.3	-12.5	1.34 H	125	9.08	46.72			
4	15780.00	62.5 PK	74.0	-11.5	1.66 H	69	10.92	51.58			
5	15780.00	50.3 AV	54.0	-3.7	1.66 H	69	-1.28	51.58			
		ANTENNA	A POLARIT	Y & TEST DI	STANCE: V	ERTICAL A	T 3 M				
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)			
1	*5260.00	108.2 PK			1.16 V	292	67.97	40.23			
2	*5260.00	99.4 AV			1.16 V	292	59.17	40.23			
3	#10520.00	54.4 PK	68.3	-13.9	1.73 V	183	7.68	46.72			
4	15780.00	61.4 PK	74.0	-12.6	1.09 V	78	9.82	51.58			
5	15780.00	50.9 AV	54.0	-3.1	1.09 V	78	-0.68	51.58			

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.
- 6. "#":The radiated frequency is out the restricted band.



EUT TEST CONDITION		MEASUREMENT DETAIL		
CHANNEL Channel 60		FREQUENCY RANGE	1 ~ 40GHz	
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)	
ENVIRONMENTAL CONDITIONS	22deg. C, 64%RH 1004 hPa	TESTED BY	Kent Liu	

		ANTENNA	POLARITY	& TEST DIS	TANCE: HO	RIZONTAL	AT 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	112.10 PK			1.31 H	41	71.77	40.33
2	*5300.00	104.00 AV			1.31 H	41	63.67	40.33
3	10600.00	55.70 PK	74.00	-18.30	1.27 H	103	8.88	46.82
4	10600.00	46.40 AV	54.00	-7.60	1.27 H	103	-0.42	46.82
5	15900.00	62.50 PK	74.00	-11.50	1.62 H	86	10.84	51.66
6	15900.00	50.40 AV	54.00	-3.60	1.62 H	86	-1.26	51.66
		ANTENNA	A POLARIT	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	106.20 PK			1.14 V	291	65.87	40.33
2	*5300.00	97.20 AV			1.14 V	291	56.87	40.33
3	10600.00	54.40 PK	74.00	-19.60	1.67 V	178	7.58	46.82
4	10600.00	45.20 AV	54.00	-8.80	1.67 V	178	-1.62	46.82
5	15900.00	61.20 PK	74.00	-12.80	1.14 V	71	9.54	51.66
6	15900.00	50.70 AV	54.00	-3.30	1.14 V	71	-0.96	51.66

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.



EUT TEST CONDITION		MEASUREMENT DETAIL		
CHANNEL Channel 64		FREQUENCY RANGE	1 ~ 40GHz	
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)	
ENVIRONMENTAL CONDITIONS	22deg. C, 64%RH 1004 hPa	TESTED BY	Kent Liu	

		ANTENNA I	POLARITY	& TEST DIS	TANCE: HO	RIZONTAL	AT 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	109.2 PK			1.28 H	46	68.81	40.39
2	*5320.00	100.8 AV			1.28 H	46	60.41	40.39
3	5350.00	67.3 PK	74.0	-6.7	1.28 H	46	26.83	40.47
4	5350.00	52.4 AV	54.0	-1.6	1.28 H	46	11.93	40.47
5	10640.00	55.7 PK	74.0	-18.3	1.29 H	113	8.83	46.87
6	10640.00	43.6 AV	54.0	-10.4	1.29 H	113	-3.27	46.87
7	15960.00	62.2 PK	74.0	-11.8	1.62 H	77	10.47	51.73
8	15960.00	50.2 AV	54.0	-3.8	1.62 H	77	-1.53	51.73
		ANTENNA	A POLARIT	Y & TEST DI	STANCE: V	ERTICAL A	T 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	103.7 PK			1.12 V	296	63.31	40.39
2	*5320.00	94.5 AV			1.12 V	296	54.11	40.39
3	5350.00	60.0 PK	74.0	-14.0	1.12 V	296	19.53	40.47
4	5350.00	48.8 AV	54.0	-5.2	1.12 V	296	8.33	40.47
5	10640.00	54.4 PK	74.0	-19.6	1.67 V	168	7.53	46.87
6	10640.00	43.4 AV	54.0	-10.6	1.67 V	168	-3.47	46.87
7	15960.00	61.3 PK	74.0	-12.7	1.09 V	59	9.57	51.73
8	15960.00	50.6 AV	54.0	-3.4	1.09 V	59	-1.13	51.73

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.



EUT TEST CONDITION		MEASUREMENT DETAIL		
CHANNEL	Channel 100	FREQUENCY RANGE	1 ~ 40GHz	
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)	
ENVIRONMENTAL CONDITIONS	22deg. C, 64%RH 1004 hPa	TESTED BY	Kent Liu	

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M							
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	67.0 PK	74.0	-7.0	1.22 H	35	26.24	40.76
2	5460.00	53.4 AV	54.0	-0.6	1.22 H	35	12.64	40.76
3	#5470.00	63.8 PK	68.3	-4.5	1.22 H	35	23.02	40.78
4	*5500.00	110.8 PK			1.30 H	32	69.94	40.86
5	*5500.00	102.6 AV			1.30 H	32	61.74	40.86
6	7333.33	54.1 PK	74.0	-19.9	1.16 H	162	7.48	46.62
7	7333.33	42.7 AV	54.0	-11.3	1.16 H	162	-3.92	46.62
8	11000.00	55.1 PK	74.0	-18.9	1.32 H	105	7.82	47.28
9	11000.00	43.2 AV	54.0	-10.8	1.32 H	105	-4.08	47.28
10	#16500.00	62.1 PK	68.3	-6.2	1.56 H	77	9.07	53.03
		ANTENNA	A POLARIT	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	62.0 PK	74.0	-12.0	1.13 V	290	21.24	40.76
2	5460.00	48.0 AV	54.0	-6.0	1.13 V	290	7.24	40.76
3	#5470.00	55.5 PK	68.3	-12.8	1.13 V	290	14.72	40.78
4	*5500.00	105.0 PK			1.13 V	296	64.14	40.86
5	*5500.00	00.0.417			1.13 V	296	55.34	40.86
	0000.00	96.2 AV			1.13 V	290	33.34	+0.00
6	7333.33	96.2 AV 54.9 PK	74.0	-19.1	1.42 V	96	8.28	46.62
6 7			74.0 54.0	-19.1 -10.9	_			
H	7333.33	54.9 PK			1.42 V	96	8.28	46.62
7	7333.33 7333.33	54.9 PK 43.1 AV	54.0	-10.9	1.42 V 1.42 V	96 96	8.28 -3.52	46.62 46.62

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.
- 6. "#":The radiated frequency is out the restricted band.



EUT TEST CONDITION		MEASUREMENT DETAIL		
CHANNEL	Channel 120	FREQUENCY RANGE	1 ~ 40GHz	
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)	
ENVIRONMENTAL CONDITIONS	22deg. C, 64%RH 1004 hPa	TESTED BY	Kent Liu	

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)	
1	*5600.00	113.7 PK			1.29 H	15	72.55	41.15	
2	*5600.00	105.2 AV			1.29 H	15	64.05	41.15	
3	7466.67	54.2 PK	74.0	-19.8	1.19 H	154	7.66	46.54	
4	7466.67	42.6 AV	54.0	-11.4	1.19 H	154	-3.94	46.54	
5	11200.00	55.3 PK	74.0	-18.7	1.35 H	118	7.88	47.42	
6	11200.00	43.4 AV	54.0	-10.6	1.35 H	118	-4.02	47.42	
7	#16800.00	62.1 PK	68.3	-6.2	1.57 H	72	8.47	53.63	
		ANTENNA	A POLARIT	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M		
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)	
1	*5600.00	107.6 PK			1.19 V	294	66.45	41.15	
2	*5600.00	99.0 AV			1.19 V	294	57.85	41.15	
3	7466.67	54.9 PK	74.0	-19.1	1.38 V	100	8.36	46.54	
4	7466.67	42.9 AV	54.0	-11.1	1.38 V	100	-3.64	46.54	
5	11200.00	54.4 PK	74.0	-19.6	1.63 V	166	6.98	47.42	
6	11200.00	43.4 AV	54.0	-10.6	1.63 V	166	-4.02	47.42	
7	#16800.00	61.5 PK	68.3	-6.8	1.12 V	62	7.87	53.63	

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.
- 6. "#":The radiated frequency is out the restricted band.



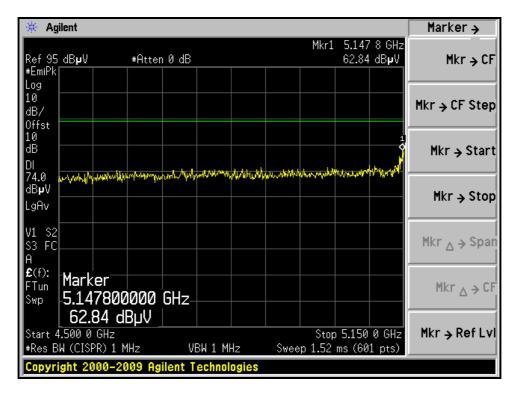
EUT TEST CONDITION		MEASUREMENT DETAIL		
CHANNEL	Channel 140	FREQUENCY RANGE	1 ~ 40GHz	
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)	
ENVIRONMENTAL CONDITIONS	22deg. C, 64%RH 1004 hPa	TESTED BY	Kent Liu	

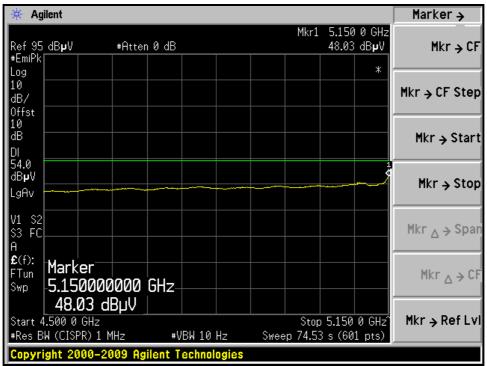
	ANTENNA DOLADITY O TECT DICTANCE, HODIZONTAL AT OM							
	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M							
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	109.3 PK			1.33 H	37	67.88	41.42
2	*5700.00	101.1 AV			1.33 H	37	59.68	41.42
3	#5725.00	60.4 PK	68.3	-7.9	1.33 H	37	18.91	41.49
4	7600.00	54.0 PK	74.0	-20.0	1.22 H	150	7.59	46.41
5	7600.00	42.6 AV	54.0	-11.4	1.22 H	150	-3.81	46.41
6	11400.00	55.1 PK	74.0	-18.9	1.31 H	127	7.48	47.62
7	11400.00	43.3 AV	54.0	-10.7	1.31 H	127	-4.32	47.62
8	#17100.00	61.9 PK	68.3	-6.4	1.56 H	84	7.70	54.20
		ANTENNA	A POLARIT	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	103.5 PK			1.09 V	309	62.08	41.42
2	*5700.00	94.4 AV			1.09 V	309	52.98	41.42
3	#5725.00	55.8 PK	68.3	-12.5	1.09 V	309	14.31	41.49
4	7600.00	54.7 PK	74.0	-19.3	1.38 V	91	8.29	46.41
5	7600.00	42.8 AV	54.0	-11.2	1.38 V	91	-3.61	46.41
6	11400.00	54.6 PK	74.0	-19.4	1.62 V	154	6.98	47.62
7	11400.00	43.5 AV	54.0	-10.5	1.62 V	154	-4.12	47.62
8	#17100.00	61.4 PK	68.3	-6.9	1.12 V	53	7.20	54.20

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.
- 6. "#":The radiated frequency is out the restricted band.



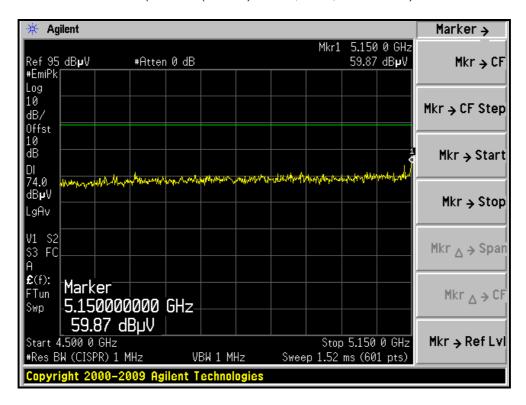
#### RESTRICTED BANDEDGE (802.11n (20MHz) MODE, CH36, HORIZONTAL)

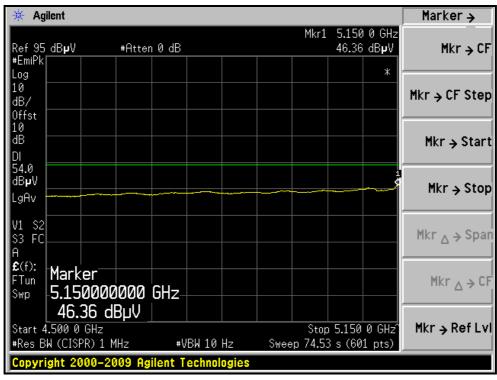






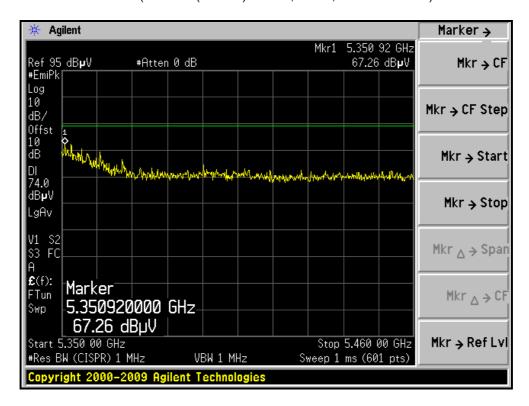
# RESTRICTED BANDEDGE (802.11n (20MHz) MODE, CH36, VERTICAL)

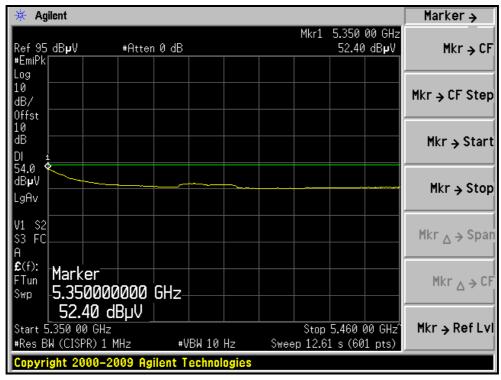






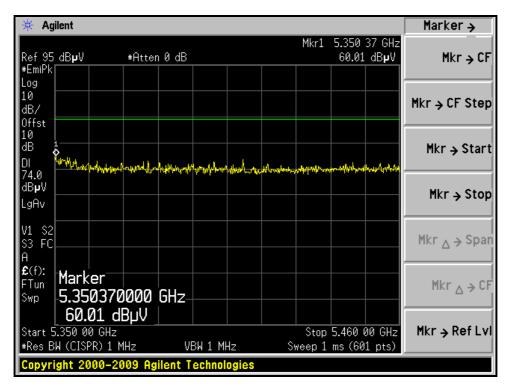
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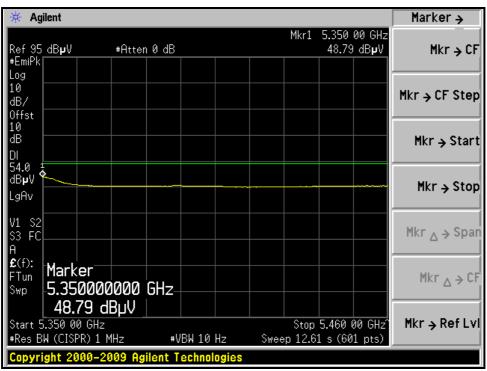






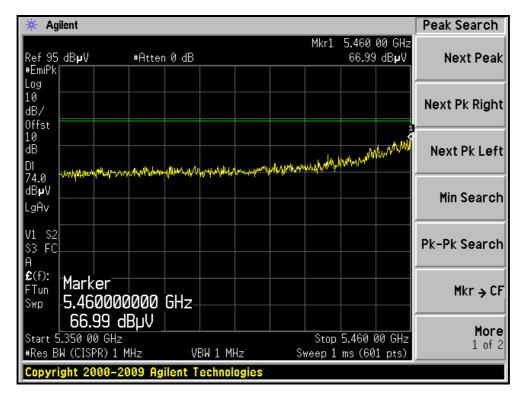
#### RESTRICTED BANDEDGE (802.11n (20MHz) MODE,CH 64, VERTICAL)

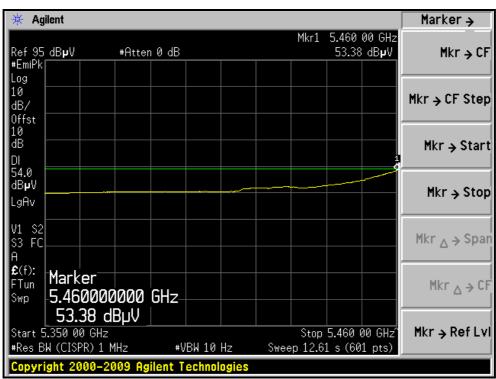






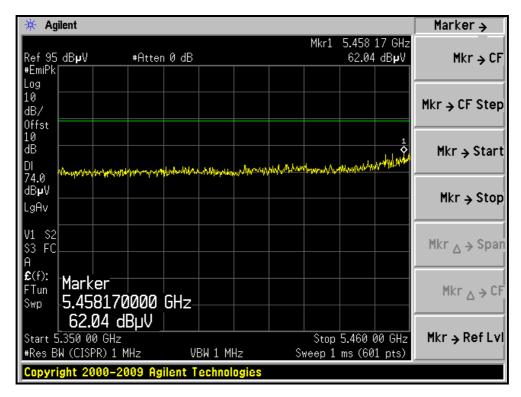
#### RESTRICTED BANDEDGE (802.11n (20MHz) MODE,CH 100, HORIZONTAL)

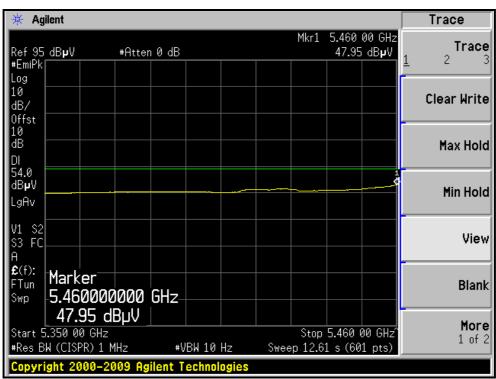






#### RESTRICTED BANDEDGE (802.11n (20MHz) MODE, CH 100, VERTICAL)







## Single Chain: 802.11n (40MHz) OFDM MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL		
CHANNEL Channel 38  INPUT POWER (SYSTEM)  120Vac, 60 Hz  ENVIRONMENTAL 22deg. C, 64%RH		FREQUENCY RANGE	1 ~ 40GHz	
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)	
ENVIRONMENTAL CONDITIONS		TESTED BY	Kent Liu	

		ANTENNA	POLARITY	& TEST DIS	TANCE: HO	RIZONTAL	AT 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	65.1 PK	74.0	-8.9	1.00 H	40	25.16	39.94
2	5150.00	53.1 AV	54.0	-0.9	1.00 H	40	13.16	39.94
3	*5190.00	108.6 PK			1.00 H	40	68.56	40.04
4	*5190.00	98.9 AV			1.00 H	40	58.86	40.04
5	#10380.00	53.0 PK	68.3	-15.3	1.29 H	71	6.45	46.55
6	15570.00	62.5 PK	74.0	-11.5	1.57 H	64	11.08	51.42
7	15570.00	50.2 AV	54.0	-3.8	1.57 H	64	-1.22	51.42
		ANTENNA	A POLARIT	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	59.3 PK	74.0	-14.7	1.12 V	310	19.36	39.94
2	5150.00	48.1 AV	54.0	-5.9	1.12 V	310	8.16	39.94
3	*5190.00	101.3 PK			1.12 V	310	61.26	40.04
4	*5190.00	92.9 AV			1.12 V	310	52.86	40.04
5	#10380.00	56.4 PK	68.3	-11.9	1.75 V	172	9.85	46.55
6	15570.00	61.9 PK	74.0	-12.1	1.06 V	1	10.48	51.42
7	15570.00	50.3 AV	54.0	-3.7	1.06 V	1	-1.12	51.42

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.
- 6. "#":The radiated frequency is out the restricted band.



<b>EUT TEST CONDITION</b>		MEASUREMENT DETAI	L
CHANNEL	Channel 46	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	22deg. C, 64%RH 1004 hPa	TESTED BY	Kent Liu

		ANTENNA I	POLARITY	& TEST DIS	TANCE: HO	RIZONTAL	AT 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5230.00	112.9 PK			1.00 H	51	72.75	40.15
2	*5230.00	102.9 AV			1.00 H	51	62.75	40.15
3	#10460.00	53.3 PK	68.3	-15.0	1.24 H	78	6.65	46.65
4	15690.00	62.4 PK	74.0	-11.6	1.53 H	71	10.91	51.49
5	15690.00	50.2 AV	54.0	-3.8	1.53 H	71	-1.29	51.49
		ANTENNA	A POLARIT	Y & TEST DI	STANCE: V	ERTICAL A	T 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5230.00	105.4 PK			1.13 V	320	65.25	40.15
2	*5230.00	96.8 AV			1.13 V	320	56.65	40.15
3	#10460.00	56.1 PK	68.3	-12.2	1.71 V	167	9.45	46.65
4	15690.00	61.8 PK	74.0	-12.2	1.09 V	5	10.31	51.49
5	15690.00	51.1 AV	54.0	-2.9	1.09 V	5	-0.39	51.49

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.
- 6. "#":The radiated frequency is out the restricted band.



EUT TEST CONDITION		MEASUREMENT DETAI	L
CHANNEL	Channel 54	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	22deg. C, 64%RH 1004 hPa	TESTED BY	Kent Liu

		ANTENNA	POLARITY	& TEST DIS	TANCE: HO	RIZONTAL	AT 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5270.00	111.7 PK			1.00 H	51	71.45	40.25
2	*5270.00	101.9 AV			1.00 H	51	61.65	40.25
3	#10540.00	53.1 PK	68.3	-15.2	1.28 H	91	6.35	46.75
4	15810.00	61.9 PK	74.0	-12.1	1.56 H	84	10.29	51.61
5	15810.00	50.0 AV	54.0	-4.0	1.56 H	84	-1.61	51.61
		ANTENNA	A POLARIT	Y & TEST DI	STANCE: V	ERTICAL A	T 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5270.00	104.6 PK			1.18 V	332	64.35	40.25
2	*5270.00	95.9 AV			1.18 V	332	55.65	40.25
3	#10540.00	56.6 PK	68.3	-11.7	1.77 V	158	9.85	46.75
4	15810.00	61.8 PK	74.0	-12.2	1.13 V	1	10.19	51.61
5	15810.00	51 4 A\/	54.0	-26	1 13 V	1	-0.21	51 61

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.
- 6. "#":The radiated frequency is out the restricted band.



EUT TEST CONDITION		MEASUREMENT DETAI	L
CHANNEL	Channel 62	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	22deg. C, 64%RH 1004 hPa	TESTED BY	Kent Liu

		ANTENNA	POLARITY	& TEST DIS	TANCE: HO	RIZONTAL	AT 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5310.00	107.8 PK			1.00 H	63	67.44	40.36
2	*5310.00	97.9 AV			1.00 H	63	57.54	40.36
3	5350.00	67.5 PK	74.0	-6.5	1.00 H	63	27.03	40.47
4	5350.00	53.0 AV	54.0	-1.0	1.00 H	63	12.53	40.47
5	10620.00	53.2 PK	74.0	-20.8	1.27 H	95	6.36	46.84
6	10620.00	42.3 AV	54.0	-11.7	1.27 H	95	-4.54	46.84
7	15930.00	62.3 PK	74.0	-11.7	1.55 H	76	10.61	51.69
8	15930.00	50.2 AV	54.0	-3.8	1.55 H	76	-1.49	51.69
		ANTENNA	A POLARIT	Y & TEST DI	STANCE: V	ERTICAL A	T 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5310.00	100.5 PK			1.20 V	320	60.14	40.36
2	*5310.00	92.0 AV			1.20 V	320	51.64	40.36
3	5350.00	61.8 PK	74.0	-12.2	1.20 V	320	21.33	40.47
4	5350.00	49.2 AV	54.0	-4.8	1.20 V	320	8.73	40.47
5	10620.00	56.3 PK	74.0	-17.7	1.81 V	162	9.46	46.84
6	10620.00	44.6 AV	54.0	-9.4	1.81 V	162	-2.24	46.84
7	15930.00	61.6 PK	74.0	-12.4	1.08 V	2	9.91	51.69
8	15930.00	51.1 AV	54.0	-2.9	1.08 V	2	-0.59	51.69

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.



EUT TEST CONDITION		MEASUREMENT DETAI	L
CHANNEL	Channel 102	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	22deg. C, 64%RH 1004 hPa	TESTED BY	Kent Liu

		ANTENNA	POLARITY	& TEST DIS	TANCE: HO	RIZONTAL	AT 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	69.6 PK	74.0	-4.4	1.00 H	52	28.84	40.76
2	5460.00	53.3 AV	54.0	-0.7	1.00 H	52	12.54	40.76
3	#5470.00	65.5 PK	68.3	-2.8	1.00 H	52	24.72	40.78
4	*5510.00	109.8 PK			1.00 H	52	68.91	40.89
5	*5510.00	100.1 AV			1.00 H	52	59.21	40.89
6	7346.67	57.2 PK	74.0	-16.8	1.15 H	158	10.58	46.62
7	7346.67	48.4 AV	54.0	-5.6	1.15 H	158	1.78	46.62
8	11020.00	52.9 PK	74.0	-21.1	1.22 H	95	5.61	47.29
9	11020.00	42.3 AV	54.0	-11.7	1.22 H	95	-4.99	47.29
10	#16530.00	62.1 PK	68.3	-6.2	1.55 H	79	9.02	53.08
		ANTENNA	A POLARIT	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	59.1 PK	74.0	-14.9	1.23 V	327	18.34	40.76
2	5460.00	47.4 AV	54.0	-6.6	1.23 V	327	6.64	40.76
3	#5470.00	57.4 PK	68.3	-10.9	1.23 V	327	16.62	40.78
4	*5510.00	102.0 PK			1.23 V	327	61.11	40.89
5	*5510.00	93.8 AV			1.23 V	327	52.91	40.89
6	7346.67	56.1 PK	74.0	-17.9	1.44 V	92	9.48	46.62
7	7346.67	48.3 AV	54.0	-5.7	1.44 V	92	1.68	46.62
8	11020.00	56.5 PK	74.0	-17.5	1.82 V	167	9.21	47.29
9	11020.00	44.6 AV	54.0	-9.4	1.82 V	167	-2.69	47.29
10	#16530.00	61.5 PK	68.3	-6.8	1.03 V	2	8.42	53.08

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.
- 6. "#":The radiated frequency is out the restricted band.



EUT TEST CONDITION		MEASUREMENT DETAIL		
CHANNEL	Channel 118	FREQUENCY RANGE	1 ~ 40GHz	
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)	
ENVIRONMENTAL CONDITIONS	22deg. C, 64%RH 1004 hPa	TESTED BY	Kent Liu	

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		ANTENNA I	POLARITY	& TEST DIS	TANCE: HO	RIZONTAL	AT 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5590.00	113.7 PK			1.00 H	45	72.58	41.12
2	*5590.00	104.2 AV			1.00 H	45	63.08	41.12
3	7453.33	57.2 PK	74.0	-16.8	1.09 H	154	10.65	46.55
4	7453.33	48.3 AV	54.0	-5.7	1.09 H	154	1.75	46.55
5	11180.00	53.0 PK	74.0	-21.0	1.25 H	107	5.59	47.41
6	11180.00	42.5 AV	54.0	-11.5	1.25 H	107	-4.91	47.41
7	#16770.00	62.1 PK	68.3	-6.2	1.50 H	79	8.54	53.56
		ANTENNA	A POLARIT	Y & TEST DI	STANCE: V	ERTICAL A	T 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5590.00	105.7 PK			1.23 V	332	64.58	41.12
2	*5590.00	97.6 AV			1.23 V	332	56.48	41.12
3	7453.33	56.0 PK	74.0	-18.0	1.40 V	84	9.45	46.55
4	7453.33	48.1 AV	54.0	-5.9	1.40 V	84	1.55	46.55
5	11180.00	56.3 PK	74.0	-17.7	1.83 V	174	8.89	47.41
6	11180.00	44.4 AV	54.0	-9.6	1.83 V	174	-3.01	47.41
7	#16770.00	61.2 PK	68.3	-7.1	1.08 V	5	7.64	53.56

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.
- 6. "#":The radiated frequency is out the restricted band.



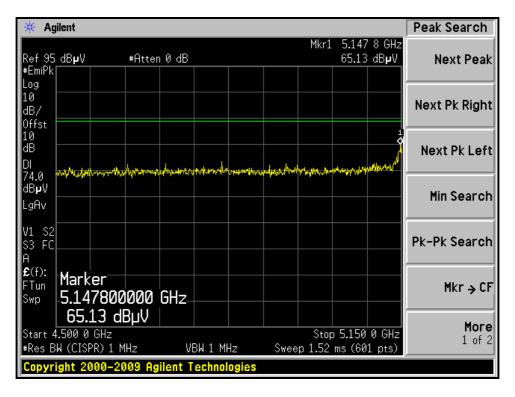
EUT TEST CONDITION		MEASUREMENT DETAIL		
CHANNEL	Channel 134	FREQUENCY RANGE	1 ~ 40GHz	
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)	
ENVIRONMENTAL CONDITIONS	22deg. C, 64%RH 1004 hPa	TESTED BY	Kent Liu	

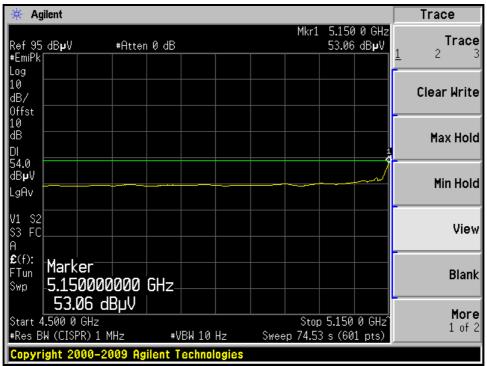
		ANTENNA	POLARITY	& TEST DIS	TANCE: HO	RIZONTAL	AT 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5670.00	111.4 PK			1.01 H	42	70.06	41.34
2	*5670.00	101.9 AV			1.01 H	42	60.56	41.34
3	#5725.00	66.9 PK	68.3	-11.4	1.01 H	42	25.41	41.49
4	7560.00	57.6 PK	74.0	-16.4	1.05 H	145	11.15	46.45
5	7560.00	48.4 AV	54.0	-5.6	1.05 H	145	1.95	46.45
6	11340.00	52.9 PK	74.0	-21.1	1.21 H	117	5.33	47.57
7	11340.00	42.5 AV	54.0	-11.5	1.21 H	117	-5.07	47.57
8	#17010.00	62.4 PK	68.3	-5.9	1.51 H	81	8.31	54.09
		ANTENNA	POLARITY	Y & TEST DI	STANCE: V	ERTICAL A	T 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5670.00	103.4 PK			1.18 V	319	62.06	41.34
2	*5670.00	95.3 AV			1.18 V	319	53.96	41.34
3	#5725.00	59.2 PK	68.3	-19.1	1.18 V	319	17.71	41.49
4	7560.00	56.4 PK	74.0	-17.6	1.46 V	81	9.95	46.45
5	7560.00	48.2 AV	54.0	-5.8	1.46 V	81	1.75	46.45
6	11340.00	56.5 PK	74.0	-17.5	1.89 V	165	8.93	47.57
7	11340.00	44.6 AV	54.0	-9.4	1.89 V	165	-2.97	47.57
8	#17010.00	61.4 PK	68.3	-6.9	1.11 V	5	7.31	54.09

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.
- 6. "#":The radiated frequency is out the restricted band.



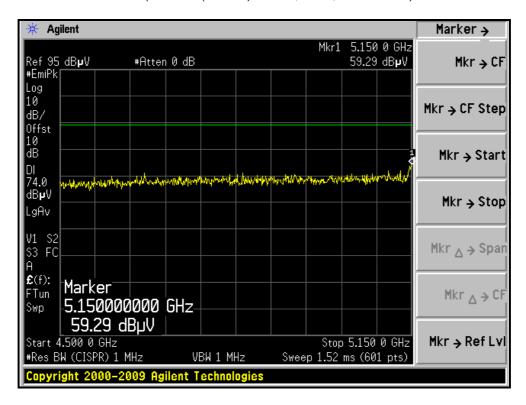
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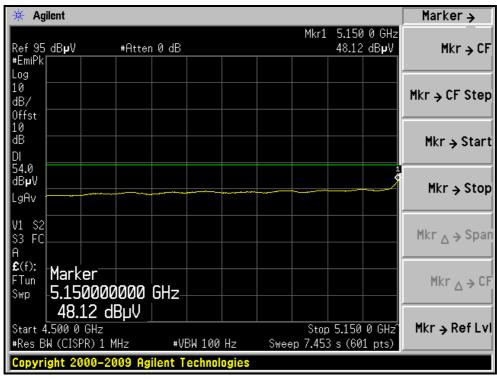






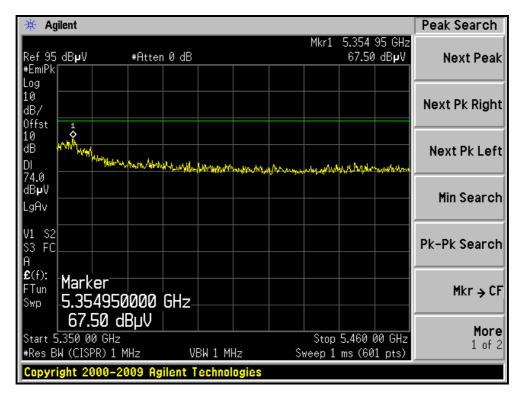
#### RESTRICTED BANDEDGE (802.11n (40MHz) MODE, CH38, VERTICAL)

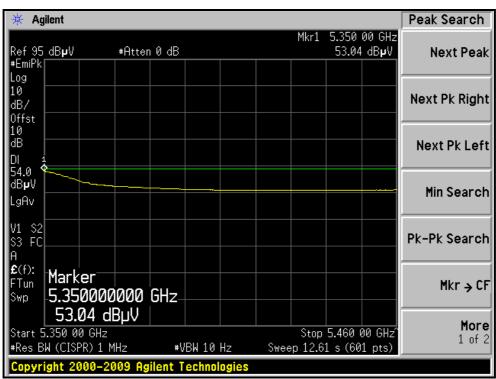






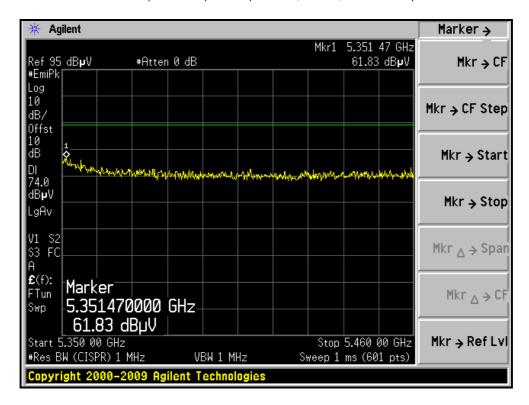
#### RESTRICTED BANDEDGE (802.11n (40MHz) MODE, CH62, HORIZONTAL)

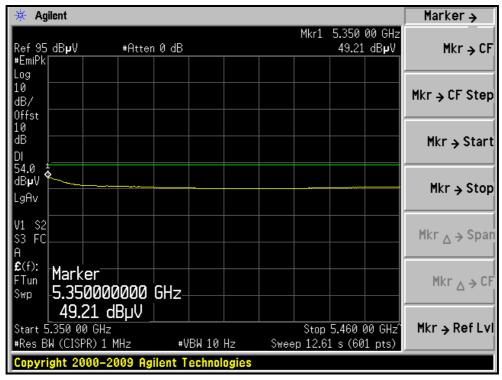






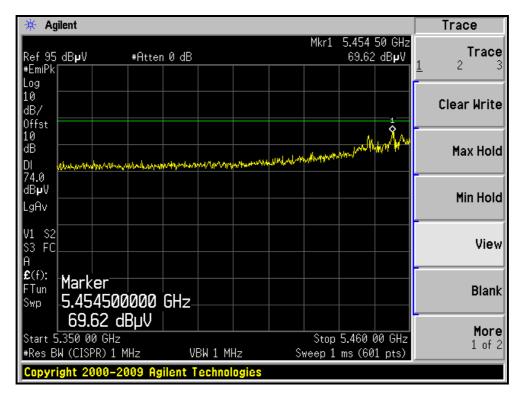
#### RESTRICTED BANDEDGE (802.11n (40MHz) MODE, CH62, VERTICAL)

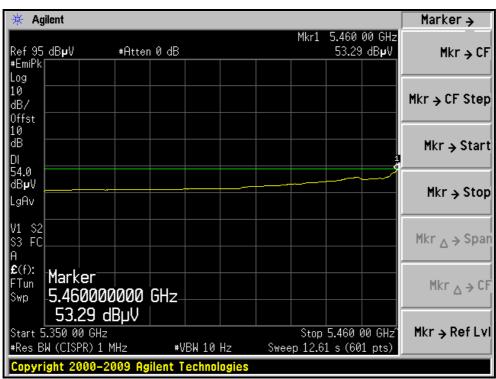






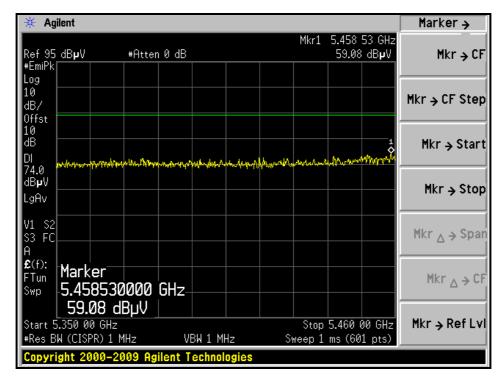
#### RESTRICTED BANDEDGE (802.11n (40MHz) MODE, CH102, HORIZONTAL)

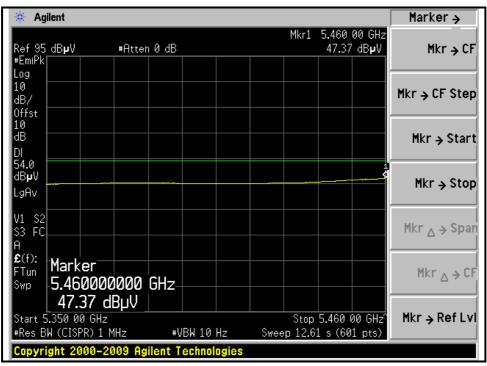






#### RESTRICTED BANDEDGE (802.11n (40MHz) MODE, CH102, VERTICAL)







## Multiple chain: 802.11n (40MHz) OFDM MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL		
CHANNEL	Channel 38	FREQUENCY RANGE	1 ~ 40GHz	
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)	
ENVIRONMENTAL CONDITIONS	22deg. C, 64%RH 1004 hPa	TESTED BY	Kent Liu	

		ANTENNA	POLARITY	& TEST DIS	TANCE: HO	RIZONTAL	AT 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	63.7 PK	74.0	-10.3	1.19 H	39	23.76	39.94
2	5150.00	50.5 AV	54.0	-3.5	1.19 H	39	10.56	39.94
3	*5190.00	106.8 PK			1.19 H	39	66.76	40.04
4	*5190.00	96.5 AV			1.19 H	39	56.46	40.04
5	#10380.00	55.2 PK	68.3	-13.1	1.18 H	116	8.65	46.55
6	15570.00	62.0 PK	74.0	-12.0	1.59 H	57	10.58	51.42
7	15570.00	50.2 AV	54.0	-3.8	1.59 H	57	-1.22	51.42
		ANTENNA	A POLARIT	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	59.0 PK	74.0	-15.0	1.00 V	0	19.06	39.94
2	5150.00	48.3 AV	54.0	-5.7	1.00 V	0	8.36	39.94
3	*5190.00	99.7 PK			1.20 V	283	59.66	40.04
4	*5190.00	89.8 AV			1.20 V	283	49.76	40.04
5	#10380.00	53.2 PK	68.3	-15.1	1.59 V	170	6.65	46.55
6	15570.00	59.8 PK	74.0	-14.2	1.06 V	55	8.38	51.42
7	15570.00	50.2 AV	54.0	-3.8	1.06 V	55	-1.22	51.42

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.
- 6. "#":The radiated frequency is out the restricted band.



EUT TEST CONDITION		MEASUREMENT DETAIL		
CHANNEL	Channel 46	FREQUENCY RANGE	1 ~ 40GHz	
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)	
ENVIRONMENTAL CONDITIONS	22deg. C, 64%RH 1004 hPa	TESTED BY	Kent Liu	

		ANTENNA	POLARITY	& TEST DIS	TANCE: HO	RIZONTAL	AT 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5230.00	108.3 PK			1.16 H	44	68.15	40.15
2	*5230.00	98.6 AV			1.16 H	44	58.45	40.15
3	#10460.00	54.4 PK	68.3	-13.9	1.19 H	112	7.75	46.65
4	15690.00	60.0 PK	74.0	-14.0	1.61 H	57	8.51	51.49
5	15690.00	49.6 AV	54.0	-4.4	1.61 H	57	-1.89	51.49
		ANTENNA	A POLARIT	Y & TEST DI	STANCE: V	ERTICAL A	T 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5230.00	101.2 PK			1.17 V	262	61.05	40.15
2	*5230.00	91.8 AV			1.17 V	262	51.65	40.15
3	#10460.00	52.8 PK	68.3	-15.5	1.54 V	160	6.15	46.65
4	15690.00	59.6 PK	74.0	-14.4	1.04 V	45	8.11	51.49
5	15690.00	<b>ΔΩ Ω Δ\</b> /	54.0	-4.1	1 04 V	45	-1 50	51 /0

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.
- 6. "#":The radiated frequency is out the restricted band.



EUT TEST CONDITION		MEASUREMENT DETAIL		
CHANNEL	Channel 54	FREQUENCY RANGE	1 ~ 40GHz	
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)	
ENVIRONMENTAL CONDITIONS	22deg. C, 64%RH 1004 hPa	TESTED BY	Kent Liu	

		ANTENNA I	POLARITY	& TEST DIS	TANCE: HO	RIZONTAL	AT 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5270.00	110.4 PK			1.23 H	13	70.15	40.25
2	*5270.00	101.3 AV			1.23 H	13	61.05	40.25
3	#10540.00	54.6 PK	68.3	-13.7	1.26 H	94	7.85	46.75
4	15810.00	61.7 PK	74.0	-12.3	1.51 H	75	10.09	51.61
5	15810.00	50.5 AV	54.0	-3.5	1.51 H	75	-1.11	51.61
		ANTENNA	A POLARIT	Y & TEST DI	STANCE: V	ERTICAL A	T 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5270.00	104.1 PK			1.35 V	285	63.85	40.25
2	*5270.00	94.6 AV			1.35 V	285	54.35	40.25
3	#10540.00	53.1 PK	68.3	-15.2	1.61 V	166	6.35	46.75
4	15810.00	60.0 PK	74.0	-14.0	1.05 V	37	8.39	51.61
5	15810.00	50.2 AV	54.0	-3.8	1.05 V	37	-1 41	51 61

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.
- 6. "#":The radiated frequency is out the restricted band.



EUT TEST CONDITION		MEASUREMENT DETAIL		
CHANNEL	Channel 62	FREQUENCY RANGE	1 ~ 40GHz	
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)	
ENVIRONMENTAL CONDITIONS	22deg. C, 64%RH 1004 hPa	TESTED BY	Kent Liu	

		ANTENNA	POLARITY	& TEST DIS	TANCE: HO	RIZONTAL	AT 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5310.00	106.3 PK			1.19 H	31	65.94	40.36
2	*5310.00	97.2 AV			1.19 H	31	56.84	40.36
3	5350.00	65.2 PK	74.0	-8.8	1.19 H	33	24.73	40.47
4	5350.00	51.9 AV	54.0	-2.1	1.19 H	33	11.43	40.47
5	10620.00	55.2 PK	74.0	-18.8	1.21 H	107	8.36	46.84
6	10620.00	43.3 AV	54.0	-10.7	1.21 H	107	-3.54	46.84
7	15930.00	61.7 PK	74.0	-12.3	1.59 H	65	10.01	51.69
8	15930.00	50.2 AV	54.0	-3.8	1.59 H	65	-1.49	51.69
		ANTENNA	POLARIT	Y & TEST DI	STANCE: V	ERTICAL A	T 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5310.00	100.5 PK			1.32 V	285	60.14	40.36
2	*5310.00	90.9 AV			1.32 V	285	50.54	40.36
3	5350.00	60.2 PK	74.0	-13.8	1.36 V	296	19.73	40.47
4	5350.00	48.6 AV	54.0	-5.4	1.36 V	296	8.13	40.47
5	10620.00	53.2 PK	74.0	-20.8	1.57 V	172	6.36	46.84
6	10620.00	42.8 AV	54.0	-11.2	1.57 V	172	-4.04	46.84
7	15930.00	60.4 PK	74.0	-13.6	1.09 V	49	8.71	51.69
8	15930.00	50.2 AV	54.0	-3.8	1.09 V	49	-1.49	51.69

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.



EUT TEST CONDITION		MEASUREMENT DETAIL		
CHANNEL	Channel 102	FREQUENCY RANGE	1 ~ 40GHz	
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)	
ENVIRONMENTAL CONDITIONS	22deg. C, 64%RH 1004 hPa	TESTED BY	Kent Liu	

		ANTENNA	POLARITY	& TEST DIS	TANCE: HO	RIZONTAL	AT 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	64.4 PK	74.0	-9.6	1.14 H	38	23.64	40.76
2	5460.00	51.6 AV	54.0	-2.4	1.14 H	38	10.84	40.76
3	#5470.00	56.2 PK	68.3	-12.1	1.14 H	38	15.42	40.78
4	*5510.00	106.4 PK			1.14 H	38	65.51	40.89
5	*5510.00	97.1 AV			1.14 H	38	56.21	40.89
6	7346.67	56.8 PK	74.0	-17.2	1.13 H	148	10.18	46.62
7	7346.67	48.5 AV	54.0	-5.5	1.13 H	148	1.88	46.62
8	11020.00	54.9 PK	74.0	-19.1	1.19 H	117	7.61	47.29
9	11020.00	43.5 AV	54.0	-10.5	1.19 H	117	-3.79	47.29
10	#16530.00	61.0 PK	68.3	-7.3	1.60 H	52	7.92	53.08
		ANTENNA	A POLARIT	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	60.5 PK	74.0	-13.5	1.35 V	277	19.74	40.76
2	5460.00	48.9 AV	54.0	-5.1	1.35 V	277	8.14	40.76
3	#5470.00	54.8 PK	68.3	-13.5	1.35 V	277	14.02	40.78
4	*5510.00	100.5 PK			1.35 V	277	59.61	40.89
5	*5510.00	90.7 AV			1.35 V	277	49.81	40.89
6	7346.67	55.8 PK	74.0	-18.2	1.39 V	108	9.18	46.62
7	7346.67	47.9 AV	54.0	-6.1	1.39 V	108	1.28	46.62
8	11020.00	52.6 PK	74.0	-21.4	1.48 V	168	5.31	47.29
9	11020.00	42.6 AV	54.0	-11.4	1.48 V	168	-4.69	47.29
10	#16530.00	60.7 PK	68.3	-7.6	1.06 V	38	7.62	53.08

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.
- 6. "#":The radiated frequency is out the restricted band.



EUT TEST CONDITION		MEASUREMENT DETAI	L	
CHANNEL	Channel 118	FREQUENCY RANGE	1 ~ 40GHz	
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)	
ENVIRONMENTAL CONDITIONS	22deg. C, 64%RH 1004 hPa	TESTED BY	Kent Liu	

		ANTENNA	POLARITY	& TEST DIS	TANCE: HO	RIZONTAL	AT 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5590.00	112.7 PK			1.01 H	42	71.58	41.12
2	*5590.00	103.5 AV			1.01 H	42	62.38	41.12
3	7453.33	56.7 PK	74.0	-17.3	1.10 H	139	10.15	46.55
4	7453.33	48.2 AV	54.0	-5.8	1.10 H	139	1.65	46.55
5	11180.00	54.1 PK	74.0	-19.9	1.14 H	126	6.69	47.41
6	11180.00	42.9 AV	54.0	-11.1	1.14 H	126	-4.51	47.41
7	#16770.00	60.3 PK	68.3	-8.0	1.55 H	40	6.74	53.56
		ANTENNA	A POLARIT	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5590.00	106.4 PK			1.23 V	250	65.28	41.12
2	*5590.00	96.6 AV			1.23 V	250	55.48	41.12
3	7453.33	55.8 PK	74.0	-18.2	1.34 V	120	9.25	46.55
4	7453.33	47.9 AV	54.0	-6.1	1.34 V	120	1.35	46.55
5	11180.00	52.8 PK	74.0	-21.2	1.50 V	129	5.39	47.41
6	11180.00	42.9 AV	54.0	-11.1	1.50 V	129	-4.51	47.41
7	#16770.00	60.2 PK	68.3	-8.1	1.00 V	17	6.64	53.56

2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).

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- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.
- 6. "#":The radiated frequency is out the restricted band.



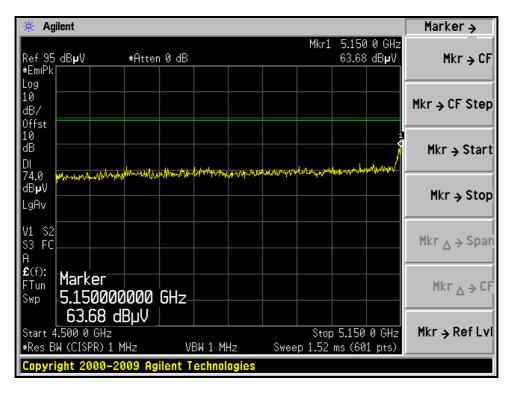
EUT TEST CONDITION		MEASUREMENT DETAIL		
CHANNEL	Channel 134	FREQUENCY RANGE	1 ~ 40GHz	
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)	
ENVIRONMENTAL CONDITIONS	22deg. C, 64%RH 1004 hPa	TESTED BY	Kent Liu	

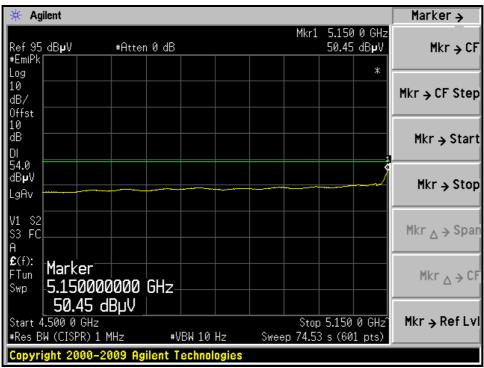
	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
	1	ANIENNA	POLARITY	& LEST DIS	I ANCE: HO	RIZONTAL	AI 3 M	1	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)	
1	*5670.00	109.2 PK			1.06 H	36	67.86	41.34	
2	*5670.00	100.1 AV			1.06 H	36	58.76	41.34	
3	#5725.00	62.1 PK	68.3	-6.2	1.06 H	36	20.61	41.49	
4	7560.00	56.7 PK	74.0	-17.3	1.13 H	145	10.25	46.45	
5	7560.00	48.3 AV	54.0	-5.7	1.13 H	145	1.85	46.45	
6	11340.00	54.9 PK	74.0	-19.1	1.16 H	123	7.33	47.57	
7	11340.00	43.3 AV	54.0	-10.7	1.16 H	123	-4.27	47.57	
8	#17010.00	60.7 PK	68.3	-7.6	1.60 H	46	6.61	54.09	
		ANTENNA	A POLARIT	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M		
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)	
1	*5670.00	103.2 PK			1.28 V	267	61.86	41.34	
2	*5670.00	93.4 AV			1.28 V	267	52.06	41.34	
3	#5725.00	56.8 PK	68.3	-11.5	1.28 V	267	15.31	41.49	
4	7560.00	55.6 PK	74.0	-18.4	1.35 V	104	9.15	46.45	
5	7560.00	48.0 AV	54.0	-6.0	1.35 V	104	1.55	46.45	
6	11340.00	52.8 PK	74.0	-21.2	1.49 V	151	5.23	47.57	
7	11340.00	42.7 AV	54.0	-11.3	1.49 V	151	-4.87	47.57	
8	#17010.00	60.7 PK	68.3	-7.6	1.02 V	19	6.61	54.09	

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.
- 6. "#":The radiated frequency is out the restricted band.



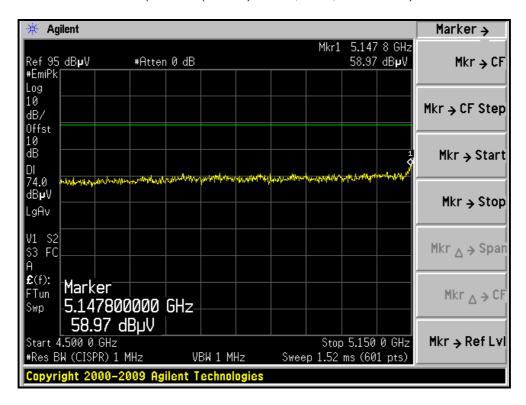
#### RESTRICTED BANDEDGE (802.11n (40MHz) MODE, CH38, HORIZONTAL)

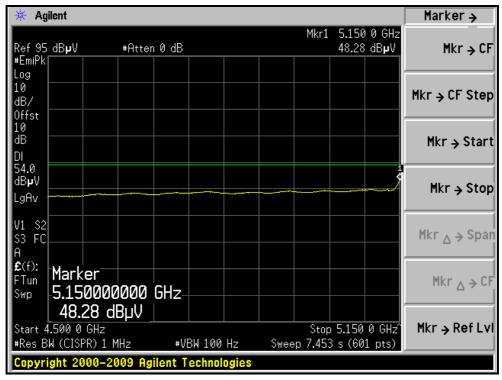






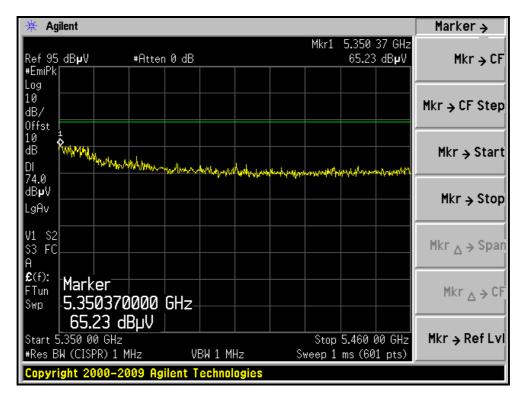
#### RESTRICTED BANDEDGE (802.11n (40MHz) MODE, CH38, VERTICAL)

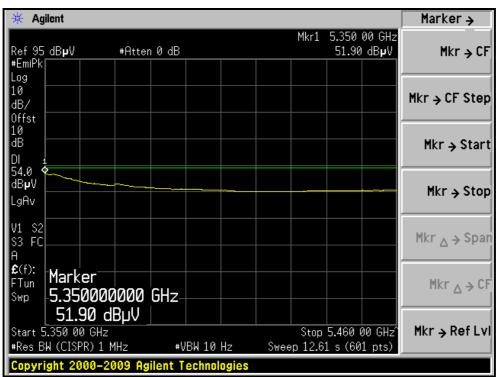






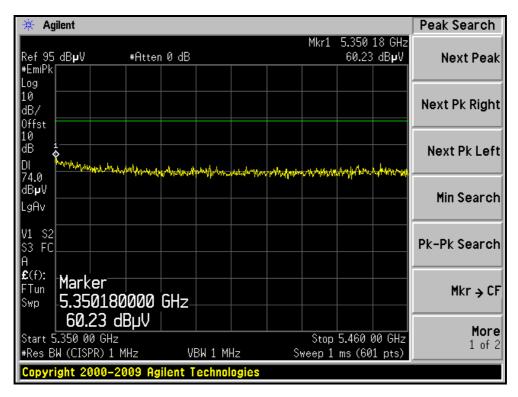
#### RESTRICTED BANDEDGE (802.11n (40MHz) MODE, CH62, HORIZONTAL)

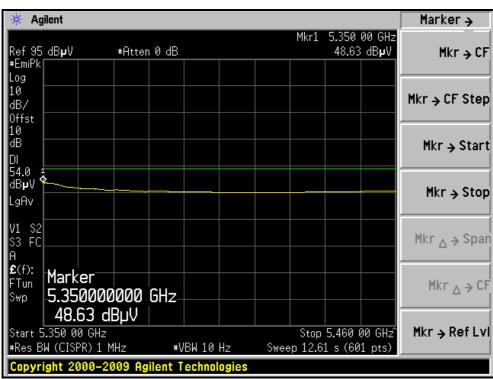






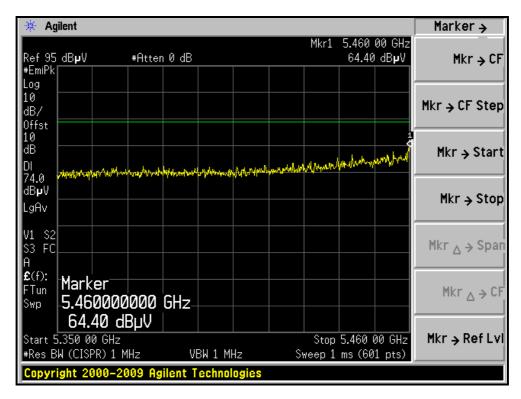
#### RESTRICTED BANDEDGE (802.11n (40MHz) MODE, CH62, VERTICAL)

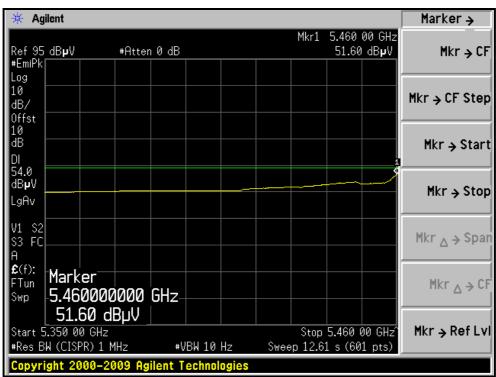






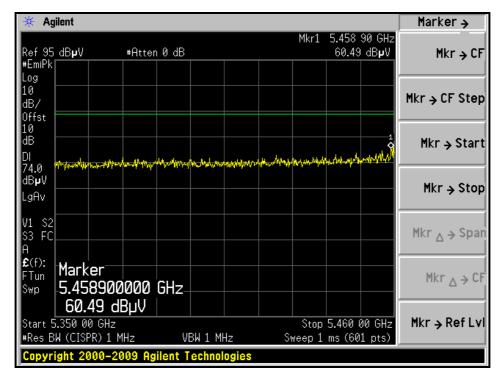
#### RESTRICTED BANDEDGE (802.11n (40MHz) MODE, CH102, HORIZONTAL)

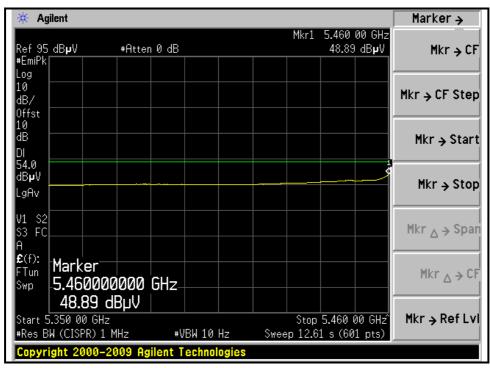






#### RESTRICTED BANDEDGE (802.11n (40MHz) MODE, CH102, VERTICAL)







# 4.2.9 TEST RESULTS (With Dipole antenna)

## BELOW 1GHz WORST-CASE DATA: 802.11n (20MHz) OFDM MODULATION

<b>EUT TEST CONDITION</b>		MEASUREMENT DETAIL		
CHANNEL	Channel 120	FREQUENCY RANGE Below 1000MHz		
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak	
ENVIRONMENTAL CONDITIONS	22deg. C, 64%RH 1004 hPa	TESTED BY	Kent Liu	

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M									
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	64.00	32.6 QP	40.0	-7.5	1.25 H	136	19.73	12.82		
2	200.04	40.9 QP	43.5	-2.6	1.38 H	313	30.34	10.59		
3	300.33	40.8 QP	46.0	-5.3	2.00 H	317	25.54	15.21		
4	324.42	39.5 QP	46.0	-6.5	1.75 H	247	23.77	15.73		
5	538.01	36.2 QP	46.0	-9.8	1.00 H	197	15.62	20.56		
6	796.01	38.7 QP	46.0	-7.3	1.25 H	356	14.24	24.43		
		ANTENNA	A POLARITY	Y & TEST DI	STANCE: V	ERTICAL A	T 3 M			
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	237.70	36.0 QP	46.0	-10.0	1.25 V	16	23.43	12.55		
2	325.51	34.8 QP	46.0	-11.2	1.25 V	342	19.02	15.75		
3	349.89	37.3 QP	46.0	-8.8	1.25 V	3	20.97	16.28		
4	625.25	37.2 QP	46.0	-8.8	1.25 V	23	14.92	22.25		
5	799.51	39.2 QP	46.0	-6.8	1.00 V	302	14.76	24.47		
6	875.08	40.1 QP	46.0	-5.9	1.00 V	357	14.27	25.81		

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.



### **ABOVE 1GHz WORST-CASE DATA**

#### **802.11a OFDM MODULATION**

EUT TEST CONDITION		MEASUREMENT DETAIL			
CHANNEL	Channel 36	FREQUENCY RANGE	1 ~ 40GHz		
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)		
ENVIRONMENTAL CONDITIONS	22deg. C, 64%RH 1004 hPa	TESTED BY	Kent Liu		

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M									
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	5150.00	59.1 PK	74.0	-14.9	1.04 H	249	19.16	39.94		
2	5150.00	46.6 AV	54.0	-7.4	1.04 H	249	6.66	39.94		
3	*5180.00	101.2 PK			1.04 H	249	61.18	40.02		
4	*5180.00	91.1 AV			1.04 H	249	51.08	40.02		
5	#10360.00	55.3 PK	68.3	-13.0	1.50 H	16	8.77	46.53		
6	15540.00	61.8 PK	74.0	-12.2	1.06 H	217	10.43	51.37		
7	15540.00	50.5 AV	54.0	-3.5	1.06 H	217	-0.87	51.37		
		ANTENNA	A POLARIT	Y & TEST DI	STANCE: V	ERTICAL A	T 3 M			
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	5150.00	69.2 PK	74.0	-4.8	1.20 V	232	29.26	39.94		
2	5150.00	53.2 AV	54.0	-0.8	1.20 V	232	13.26	39.94		
3	*5180.00	111.9 PK			1.20 V	232	71.88	40.02		
4	*5180.00	102.9 AV			1.20 V	232	62.88	40.02		
5	#10360.00	54.9 PK	68.3	-13.4	1.31 V	154	8.37	46.53		
6	15540.00	60.9 PK	74.0	-13.1	1.19 V	184	9.53	51.37		
7	15540.00	50.1 AV	54.0	-3.9	1.19 V	184	-1.27	51.37		

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.
- 6. "#":The radiated frequency is out the restricted band.



EUT TEST CONDITION		MEASUREMENT DETAIL		
CHANNEL	Channel 40	FREQUENCY RANGE	1 ~ 40GHz	
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)	
ENVIRONMENTAL CONDITIONS	22deg. C, 64%RH 1004 hPa	TESTED BY	Kent Liu	

		ANTENNA	POLARITY	& TEST DIS	TANCE: HO	RIZONTAL	AT 3 M			
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	*5200.00	101.3 PK			1.09 H	243	61.23	40.07		
2	*5200.00	91.3 AV			1.09 H	243	51.23	40.07		
3	#10400.00	55.0 PK	68.3	-13.3	1.52 H	24	8.43	46.57		
4	15600.00	61.7 PK	74.0	-12.3	1.06 H	210	10.23	51.47		
5	15600.00	50.3 AV	54.0	-3.7	1.06 H	210	-1.17	51.47		
		ANTENNA	A POLARIT	Y & TEST DI	STANCE: V	ERTICAL A	T 3 M			
NO.	ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M  EMISSION LEVEL (dBuV/m) MARGIN (dB) ANTENNA HEIGHT (m) (dBuV) (dBuV) (dBuV)  MARGIN (dB) HEIGHT (m) (Degree) (dBuV)									
1	*5200.00	112.0 PK			1.22 V	228	71.93	40.07		
2	*5200.00	102.9 AV			1.22 V	228	62.83	40.07		
3	#10400.00	54.6 PK	68.3	-13.7	1.30 V	141	8.03	46.57		
4	15600.00	61.2 PK	74.0	-12.8	1.21 V	194	9.73	51.47		
5	15600.00	50.2 AV	54.0	-3.8	1 21 \/	10/	-1 27	51 <i>1</i> 7		

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.
- 6. "#":The radiated frequency is out the restricted band.



EUT TEST CONDITION		MEASUREMENT DETAIL		
CHANNEL	Channel 48	FREQUENCY RANGE	1 ~ 40GHz	
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)	
ENVIRONMENTAL CONDITIONS	22deg. C, 64%RH 1004 hPa	TESTED BY	Kent Liu	

		ANTENNA	POLARITY	& TEST DIS	TANCE: HO	RIZONTAL	AT 3 M			
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	*5240.00	101.5 PK			1.05 H	247	61.33	40.17		
2	*5240.00	91.3 AV			1.05 H	247	51.13	40.17		
3	#10480.00	55.1 PK	68.3	-13.2	1.54 H	21	8.43	46.67		
4	15720.00	61.8 PK	74.0	-12.2	1.06 H	214	10.29	51.51		
5	15720.00	50.4 AV	54.0	-3.6	1.06 H	214	-1.11	51.51		
		ANTENNA	A POLARIT	Y & TEST DI	STANCE: V	ERTICAL A	T 3 M			
NO.	ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M  EMISSION LEVEL (dBuV/m) MARGIN (dB) ANTENNA HEIGHT (m) (Degree) (dBuV) (dB/m)									
1	*5240.00	112.0 PK			1.25 V	219	71.83	40.17		
2	*5240.00	103.0 AV			1.25 V	219	62.83	40.17		
3	#10480.00	54.2 PK	68.3	-14.1	1.36 V	152	7.53	46.67		
4	15720.00	61.2 PK	74.0	-12.8	1.25 V	192	9.69	51.51		
5	15720.00	50 3 AV	54.0	-3.7	1 25 V	102	-1 21	51 51		

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.
- 6. "#":The radiated frequency is out the restricted band.



EUT TEST CONDITION		MEASUREMENT DETAIL		
CHANNEL Channel 52		FREQUENCY RANGE	1 ~ 40GHz	
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)	
ENVIRONMENTAL CONDITIONS	22deg. C, 64%RH 1004 hPa	TESTED BY	Kent Liu	

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)	
1	*5260.00	104.7 PK			1.10 H	238	64.47	40.23	
2	*5260.00	94.3 AV			1.10 H	238	54.07	40.23	
3	#10520.00	55.1 PK	68.3	-13.2	1.58 H	11	8.38	46.72	
4	15780.00	61.8 PK	74.0	-12.2	1.09 H	220	10.22	51.58	
5	15780.00	50.2 AV	54.0	-3.8	1.09 H	220	-1.38	51.58	
		ANTENNA	A POLARIT	Y & TEST DI	STANCE: V	ERTICAL A	T 3 M		
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)	
1	*5260.00	115.0 PK			1.29 V	208	74.77	40.23	
2	*5260.00	106.0 AV			1.29 V	208	65.77	40.23	
3	#10520.00	53.9 PK	68.3	-14.4	1.33 V	164	7.18	46.72	
4	15780.00	61.0 PK	74.0	-13.0	1.29 V	201	9.42	51.58	
5	15780 00	50 1 A\/	54.0	-3.9	1 29 V	201	-1 48	51 58	

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.
- 6. "#":The radiated frequency is out the restricted band.



EUT TEST CONDITION		MEASUREMENT DETAIL		
CHANNEL Channel 60		FREQUENCY RANGE	1 ~ 40GHz	
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)	
ENVIRONMENTAL CONDITIONS	22deg. C, 64%RH 1004 hPa	TESTED BY	Kent Liu	

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M							
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	104.2 PK			1.09 H	239	63.87	40.33
2	*5300.00	93.8 AV			1.09 H	239	53.47	40.33
3	10600.00	54.9 PK	74.0	-19.1	1.52 H	8	8.08	46.82
4	10600.00	43.3 AV	54.0	-10.7	1.52 H	8	-3.51	46.82
5	15900.00	62.0 PK	74.0	-12.0	1.05 H	210	10.34	51.66
6	15900.00	50.4 AV	54.0	-3.6	1.05 H	210	-1.26	51.66
		ANTENNA	A POLARITY	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
<b>NO.</b>	FREQ. (MHz) *5300.00	LEVEL		MARGIN (dB)		ANGLE		FACTOR
	` ,	LEVEL (dBuV/m)		MARGIN (dB)	HEIGHT (m)	ANGLE (Degree)	(dBuV)	FACTOR (dB/m)
1	*5300.00	LEVEL (dBuV/m) 114.6 PK		MARGIN (dB) -6.5	<b>HEIGHT (m)</b>	ANGLE (Degree)	(dBuV) 74.27	FACTOR (dB/m) 40.33
1 2	*5300.00 *5300.00	LEVEL (dBuV/m) 114.6 PK 105.6 AV	(dBuV/m)		1.28 V 1.28 V	ANGLE (Degree) 218 218	(dBuV) 74.27 65.27	FACTOR (dB/m) 40.33 40.33
1 2 3	*5300.00 *5300.00 5350.00	LEVEL (dBuV/m) 114.6 PK 105.6 AV 67.5 PK	(dBuV/m) 74.0	-6.5	1.28 V 1.28 V 1.21 V	ANGLE (Degree) 218 218 265	(dBuV) 74.27 65.27 27.03	FACTOR (dB/m) 40.33 40.33 40.47
1 2 3 4	*5300.00 *5300.00 5350.00	LEVEL (dBuV/m) 114.6 PK 105.6 AV 67.5 PK 52.9 AV	74.0 54.0	-6.5 -1.1	1.28 V 1.28 V 1.21 V 1.21 V	ANGLE (Degree)  218  218  265  265	(dBuV) 74.27 65.27 27.03 12.43	FACTOR (dB/m) 40.33 40.33 40.47 40.47
1 2 3 4 5	*5300.00 *5300.00 5350.00 5350.00 10600.00	LEVEL (dBuV/m) 114.6 PK 105.6 AV 67.5 PK 52.9 AV 54.0 PK	74.0 54.0 74.0	-6.5 -1.1 -20.0	1.28 V 1.28 V 1.21 V 1.21 V 1.35 V	ANGLE (Degree)  218  218  265  265  158	(dBuV)  74.27  65.27  27.03  12.43  7.18	FACTOR (dB/m) 40.33 40.33 40.47 40.47 46.82

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.



EUT TEST CONDITION		MEASUREMENT DETAIL		
CHANNEL	Channel 64		1 ~ 40GHz	
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)	
ENVIRONMENTAL CONDITIONS	22deg. C, 64%RH 1004 hPa	TESTED BY	Kent Liu	

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)	
1	*5320.00	99.80 PK			1.26 H	244	59.41	40.39	
2	*5320.00	90.20 AV			1.26 H	244	49.81	40.39	
3	5350.00	60.70 PK	74.00	-13.30	1.26 H	244	20.23	40.47	
4	5350.00	47.00 AV	54.00	-7.00	1.26 H	244	6.53	40.47	
5	10640.00	54.70 PK	74.00	-19.30	1.47 H	21	7.83	46.87	
6	10640.00	42.80 AV	54.00	-11.20	1.47 H	21	-4.07	46.87	
7	15960.00	61.90 PK	74.00	-12.10	1.00 H	221	10.17	51.73	
8	15960.00	50.20 AV	54.00	-3.80	1.00 H	221	-1.53	51.73	
		ANTENNA	A POLARIT	Y & TEST DI	STANCE: V	ERTICAL A	T 3 M		
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)	
1	*5320.00	110.10 PK			1.11 V	261	69.71	40.39	
2	*5320.00	101.90 AV			1.11 V	261	61.51	40.39	
3	5350.00	69.50 PK	74.00	-4.50	1.11 V	261	29.03	40.47	
4	5350.00	53.40 AV	54.00	-0.60	1.11 V	261	12.93	40.47	
5	10640.00	54.40 PK	74.00	-19.60	1.31 V	145	7.53	46.87	
6	10640.00	42.60 AV	54.00	-11.40	1.31 V	145	-4.27	46.87	
7	15960.00	60.90 PK	74.00	-13.10	1.39 V	214	9.17	51.73	
8	15960.00	50.40 AV	54.00	-3.60	1.39 V	214	-1.33	51.73	

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.



EUT TEST CONDITION		MEASUREMENT DETAIL			
CHANNEL	Channel 100	FREQUENCY RANGE	1 ~ 40GHz		
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)		
ENVIRONMENTAL CONDITIONS	22deg. C, 64%RH 1004 hPa	TESTED BY	Kent Liu		

		ANTENNA I	POLARITY	& TEST DIS	TANCE: HO	RIZONTAL	AT 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	60.3 PK	74.0	-13.7	1.21 H	242	19.54	40.76
2	5460.00	46.1 AV	54.0	-7.9	1.21 H	242	5.34	40.76
3	#5470.00	56.8 PK	68.3	-11.5	1.21 H	242	16.02	40.78
4	*5500.00	101.2 PK			1.21 H	242	60.34	40.86
5	*5500.00	91.5 AV			1.21 H	242	50.64	40.86
6	7333.33	50.8 PK	74.0	-23.2	1.38 H	62	4.18	46.62
7	7333.33	40.2 AV	54.0	-13.8	1.38 H	62	-6.42	46.62
8	11000.00	54.5 PK	74.0	-19.5	1.44 H	22	7.22	47.28
9	11000.00	42.5 AV	54.0	-11.5	1.44 H	22	-4.78	47.28
10	#16500.00	61.6 PK	68.3	-6.7	1.02 H	218	8.57	53.03
		ANTENNA	A POLARITY	Y & TEST DI	STANCE: V	ERTICAL A	T 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	68.6 PK	74.0	-5.4	1.12 V	236	27.84	40.76
2	5460.00	52.9 AV	54.0	-1.1	1.12 V	236	12.14	40.76
3	#5470.00	66.2 PK	68.3	-2.1	1.12 V	236	25.42	40.78
4	*5500.00	111.5 PK			1.12 V	236	70.64	40.86
5	*5500.00	102.7 AV			1.12 V	236	61.84	40.86
6	7333.33	56.3 PK	74.0	-17.7	1.00 V	98	9.68	46.62
7	7333.33	50.4 AV	54.0	-3.6	1.00 V	98	3.78	46.62
8	11000.00	54.4 PK	74.0	-19.6	1.31 V	159	7.12	47.28
9	11000.00	42.8 AV	54.0	-11.2	1.31 V	159	-4.48	47.28
10	#16500.00	61.0 PK	68.3	-7.3	1.42 V	221	7.97	53.03

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.
- 6. "#":The radiated frequency is out the restricted band.



EUT TEST CONDITION		MEASUREMENT DETAIL		
CHANNEL	Channel 120	FREQUENCY RANGE	1 ~ 40GHz	
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)	
ENVIRONMENTAL CONDITIONS	22deg. C, 64%RH 1004 hPa	TESTED BY	Kent Liu	

		ANTENNA I	POLARITY	& TEST DIS	TANCE: HO	RIZONTAL	AT 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5600.00	103.2 PK			1.26 H	254	62.05	41.15
2	*5600.00	93.5 AV			1.26 H	254	52.35	41.15
3	7466.67	51.0 PK	74.0	-23.0	1.43 H	49	4.46	46.54
4	7466.67	40.2 AV	54.0	-13.8	1.43 H	49	-6.34	46.54
5	11200.00	54.2 PK	74.0	-19.8	1.49 H	26	6.78	47.42
6	11200.00	42.2 AV	54.0	-11.8	1.49 H	26	-5.22	47.42
7	#16800.00	61.6 PK	68.3	-6.7	1.00 H	206	7.97	53.63
		ANTENNA	A POLARIT	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5600.00	113.5 PK			1.06 V	230	72.35	41.15
2	*5600.00	104.8 AV			1.06 V	230	63.65	41.15
3	7466.67	56.7 PK	74.0	-17.3	1.03 V	101	10.16	46.54
4	7466.67	50.5 AV	54.0	-3.5	1.03 V	101	3.96	46.54
5	11200.00	54.3 PK	74.0	-19.7	1.37 V	166	6.88	47.42
6	11200.00	43.0 AV	54.0	-11.0	1.37 V	166	-4.42	47.42
7	#16800.00	60.9 PK	68.3	-7.4	1.43 V	214	7.27	53.63

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.
- 6. "#":The radiated frequency is out the restricted band.



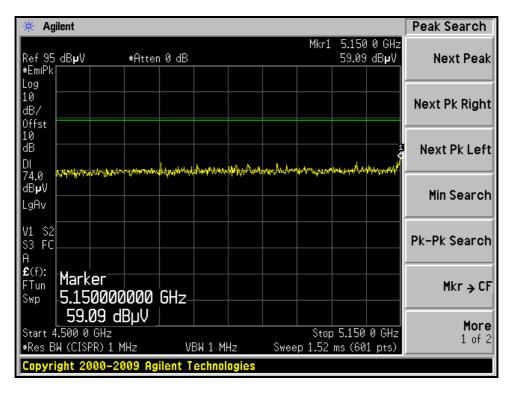
<b>EUT TEST CONDITION</b>		MEASUREMENT DETAIL			
CHANNEL	Channel 140	FREQUENCY RANGE	1 ~ 40GHz		
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)		
ENVIRONMENTAL CONDITIONS	22deg. C, 64%RH 1004 hPa	TESTED BY	Kent Liu		

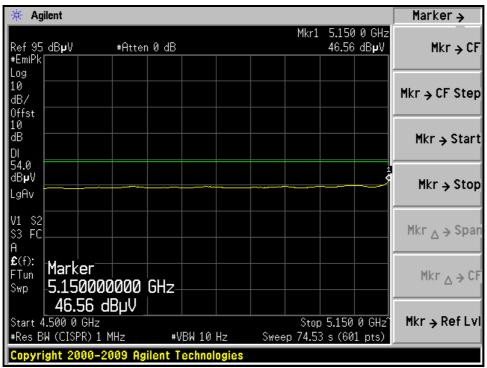
		ANTENNA	POLARITY	& TEST DIS	TANCE: HO	RIZONTAL	AT 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	100.2 PK			1.26 H	250	58.78	41.42
2	*5700.00	90.7 AV			1.26 H	250	49.28	41.42
3	#5725.00	57.8 PK	68.3	-10.5	1.15 H	237	16.31	41.49
4	7600.00	50.9 PK	74.0	-23.1	1.38 H	73	4.49	46.41
5	7600.00	40.1 AV	54.0	-13.9	1.38 H	73	-6.31	46.41
6	11400.00	54.5 PK	74.0	-19.5	1.41 H	27	6.88	47.62
7	11400.00	42.8 AV	54.0	-11.2	1.41 H	27	-4.82	47.62
8	#17100.00	61.5 PK	68.3	-6.8	1.08 H	217	7.30	54.20
		ANTENNA	A POLARIT	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	110.2 PK			1.09 V	224	68.78	41.42
2	*5700.00	101.3 AV			1.09 V	224	59.88	41.42
3	#5725.00	67.1 PK	68.3	-1.2	1.09 V	224	25.61	41.49
4	7600.00	54.3 PK	74.0	-19.7	1.20 V	276	7.89	46.41
5	7600.00	47.0 AV	54.0	-7.0	1.20 V	276	0.59	46.41
6	11400.00	54.6 PK	74.0	-19.4	1.29 V	166	6.98	47.62
7	11400.00	42.8 AV	54.0	-11.2	1.29 V	166	-4.82	47.62
	#17100.00	60.9 PK	68.3	-7.4	1.45 V	223	6.70	54.20

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.
- 6. "#":The radiated frequency is out the restricted band.



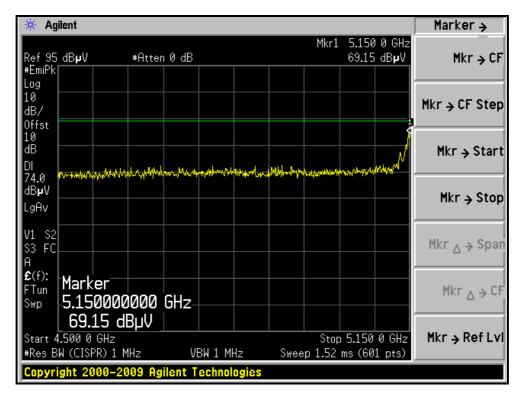
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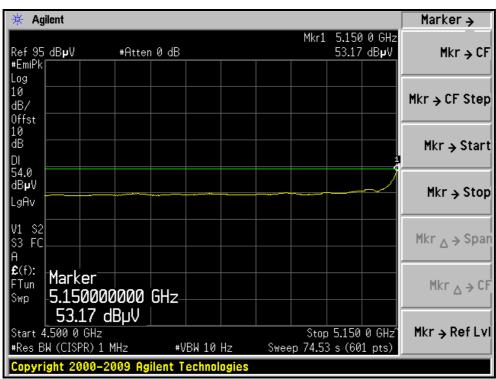






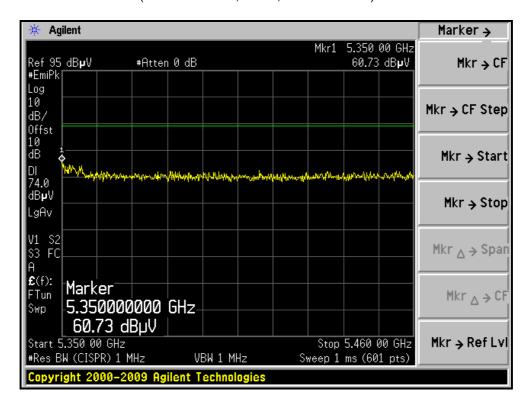
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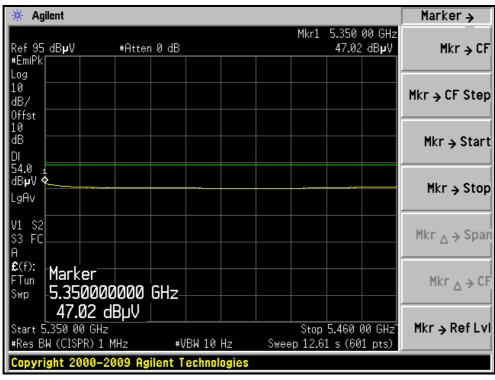






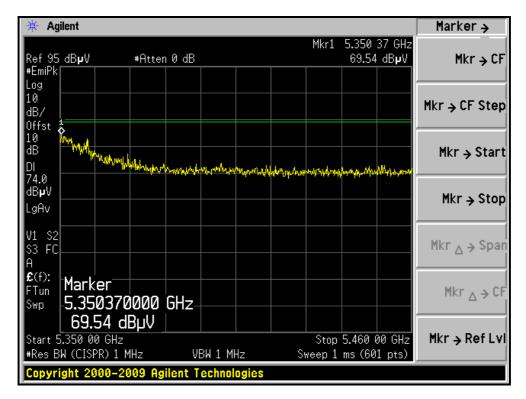
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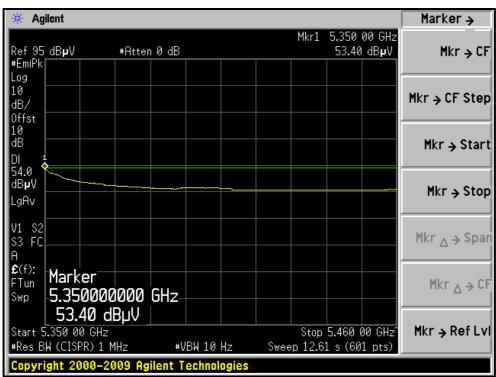






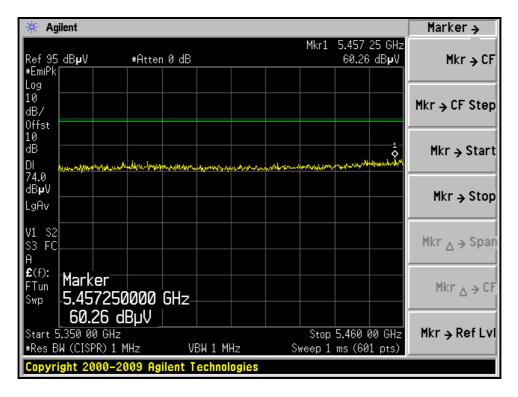
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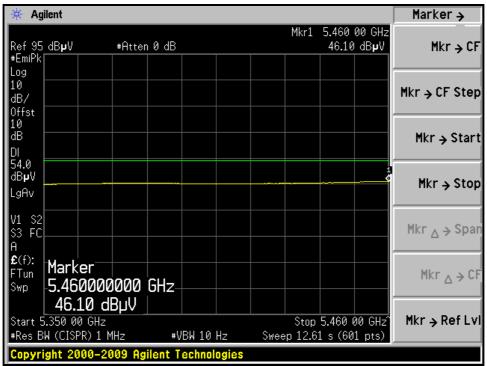






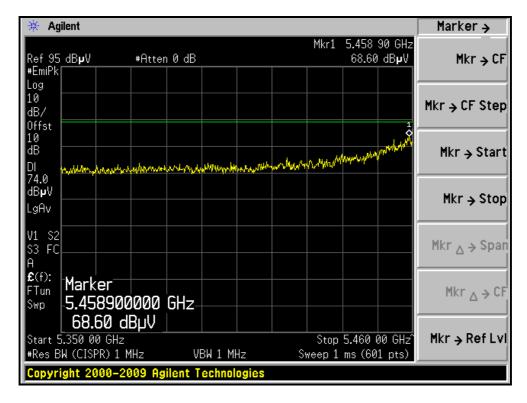
## RESTRICTED BANDEDGE (802.11a MODE, CH100, HORIZONTAL)

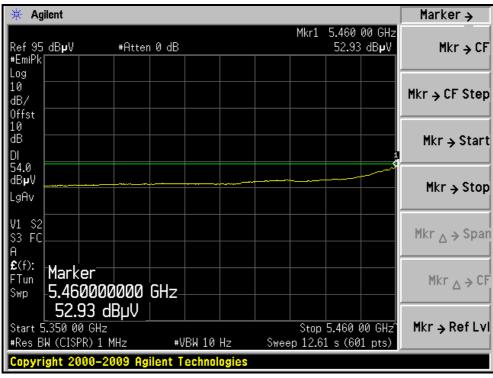






## RESTRICTED BANDEDGE (802.11a MODE, CH100, VERTICAL)







# Single chain: 802.11n (20MHz) OFDM MODULATION

<b>EUT TEST CONDITION</b>		MEASUREMENT DETAIL		
CHANNEL Channel 36		FREQUENCY RANGE	1 ~ 40GHz	
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)	
ENVIRONMENTAL CONDITIONS	22deg. C, 64%RH 1004 hPa	TESTED BY	Kent Liu	

		ANTENNA	POLARITY	& TEST DIS	TANCE: HO	RIZONTAL	AT 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	61.8 PK	74.0	-12.2	1.19 H	239	21.86	39.94
2	5150.00	46.7 AV	54.0	-7.3	1.19 H	239	6.76	39.94
3	*5180.00	103.4 PK			1.18 H	308	63.38	40.02
4	*5180.00	93.3 AV			1.18 H	308	53.28	40.02
5	#10360.00	54.9 PK	68.3	-13.4	1.33 H	12	8.37	46.53
6	15540.00	62.8 PK	74.0	-11.2	1.22 H	121	11.43	51.37
7	15540.00	50.6 AV	54.0	-3.4	1.22 H	121	-0.77	51.37
		ANTENNA	A POLARIT	Y & TEST DI	STANCE: V	ERTICAL A	T 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	69.4 PK	74.0	-4.6	1.05 V	66	29.46	39.94
2	5150.00	52.6 AV	54.0	-1.4	1.05 V	66	12.66	39.94
3	*5180.00	111.3 PK			1.12 V	25	71.28	40.02
4	*5180.00	102.1 AV			1.12 V	25	62.08	40.02
5	#10360.00	53.0 PK	68.3	-15.3	1.17 V	150	6.47	46.53
6	15540.00	59.8 PK	74.0	-14.2	1.60 V	223	8.43	51.37
7	15540.00	49.0 AV	54.0	-5.0	1.60 V	223	-2.37	51.37

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.
- 6. "#":The radiated frequency is out the restricted band.



EUT TEST CONDITION		MEASUREMENT DETAIL		
CHANNEL	Channel 40	FREQUENCY RANGE	1 ~ 40GHz	
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)	
ENVIRONMENTAL CONDITIONS	22deg. C, 64%RH 1004 hPa	TESTED BY	Kent Liu	

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)			
1	*5200.00	103.4 PK			1.16 H	301	63.33	40.07			
2	*5200.00	93.1 AV			1.16 H	301	53.03	40.07			
3	#10400.00	54.9 PK	68.3	-13.4	1.35 H	22	8.33	46.57			
4	15600.00	62.6 PK	74.0	-11.4	1.20 H	133	11.13	51.47			
5	15600.00	50.5 AV	54.0	-3.5	1.20 H	133	-0.97	51.47			
		ANTENNA	A POLARIT	Y & TEST DI	STANCE: V	ERTICAL A	T 3 M				
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)			
1	*5200.00	111.6 PK			1.06 V	36	71.53	40.07			
2	*5200.00	102.3 AV			1.06 V	36	62.23	40.07			
3	#10400.00	53.0 PK	68.3	-15.3	1.21 V	143	6.43	46.57			
4	15600.00	60.1 PK	74.0	-13.9	1.55 V	223	8.63	51.47			
5	15600.00	49.3 AV	54.0	-4.7	1.55 V	223	-2.17	51.47			

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.
- 6. "#":The radiated frequency is out the restricted band.



<b>EUT TEST CONDITION</b>		MEASUREMENT DETAIL		
CHANNEL	Channel 48	FREQUENCY RANGE	1 ~ 40GHz	
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)	
ENVIRONMENTAL CONDITIONS	22deg. C, 64%RH 1004 hPa	TESTED BY	Kent Liu	

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M									
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	*5240.00	103.3 PK			1.11 H	287	63.13	40.17		
2	*5240.00	93.2 AV			1.11 H	287	53.03	40.17		
3	#10480.00	54.9 PK	68.3	-13.4	1.37 H	34	8.23	46.67		
4	15720.00	62.5 PK	74.0	-11.5	1.18 H	128	10.99	51.51		
5	15720.00	50.4 AV	54.0	-3.6	1.18 H	128	-1.11	51.51		
		ANTENNA	A POLARIT	Y & TEST DI	STANCE: V	ERTICAL A	T 3 M			
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	*5240.00	111.5 PK			1.02 V	32	71.33	40.17		
2	*5240.00	102.4 AV			1.02 V	32	62.23	40.17		
3	#10480.00	53.3 PK	68.3	-15.0	1.25 V	152	6.63	46.67		
4	15720.00	60.6 PK	74.0	-13.4	1.50 V	210	9.09	51.51		
5	15720.00	40 6 AV	54.0	-4.4	1.50 V	210	-1 01	51 51		

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.
- 6. "#":The radiated frequency is out the restricted band.



EUT TEST CONDITION		MEASUREMENT DETAIL		
CHANNEL	Channel 52	FREQUENCY RANGE	1 ~ 40GHz	
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)	
ENVIRONMENTAL CONDITIONS	22deg. C, 64%RH 1004 hPa	TESTED BY	Kent Liu	

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)	
1	*5260.00	106.2 PK			1.14 H	297	65.97	40.23	
2	*5260.00	96.0 AV			1.14 H	297	55.77	40.23	
3	#10520.00	54.7 PK	68.3	-13.6	1.41 H	35	7.98	46.72	
4	15780.00	62.6 PK	74.0	-11.4	1.19 H	116	11.02	51.58	
5	15780.00	50.4 AV	54.0	-3.6	1.19 H	116	-1.18	51.58	
		ANTENNA	A POLARIT	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M		
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)	
1	*5260.00	114.4 PK			1.00 V	43	74.17	40.23	
2	*5260.00	105.4 AV			1.00 V	43	65.17	40.23	
3	#10520.00	52.9 PK	68.3	-15.4	1.31 V	154	6.18	46.72	
4	15780.00	60.6 PK	74.0	-13.4	1.49 V	197	9.02	51.58	
5	15780.00	49.9 AV	54.0	-4.1	1.49 V	197	-1.68	51.58	

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.
- 6. "#":The radiated frequency is out the restricted band.



EUT TEST CONDITION		MEASUREMENT DETAIL		
CHANNEL	Channel 60	FREQUENCY RANGE	1 ~ 40GHz	
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)	
ENVIRONMENTAL CONDITIONS	22deg. C, 64%RH 1004 hPa	TESTED BY	Kent Liu	

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)	
1	*5300.00	104.7 PK			1.14 H	300	64.37	40.33	
2	*5300.00	94.8 AV			1.14 H	300	54.47	40.33	
3	10600.00	55.0 PK	74.0	-19.0	1.43 H	28	8.18	46.82	
4	10600.00	43.6 AV	54.0	-10.4	1.43 H	28	-3.22	46.82	
5	15900.00	62.7 PK	74.0	-11.3	1.16 H	118	11.04	51.66	
6	15900.00	50.3 AV	54.0	-3.7	1.16 H	118	-1.36	51.66	
		ANTENNA	A POLARITY	Y & TEST DI	STANCE: V	ERTICAL A	T 3 M		
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)	
<b>NO.</b>	*5300.00	LEVEL		MARGIN (dB)		ANGLE		FACTOR	
	, ,	LEVEL (dBuV/m)		MARGIN (dB)	HEIGHT (m)	ANGLE (Degree)	(dBuV)	FACTOR (dB/m)	
1	*5300.00	LEVEL (dBuV/m) 113.3 PK		MARGIN (dB) -6.5	<b>HEIGHT (m)</b> 1.00 V	ANGLE (Degree)	(dBuV) 72.97	FACTOR (dB/m) 40.33	
1 2	*5300.00 *5300.00	LEVEL (dBuV/m) 113.3 PK 104.3 AV	(dBuV/m)		1.00 V 1.00 V	ANGLE (Degree) 48 48	(dBuV) 72.97 63.97	FACTOR (dB/m) 40.33 40.33	
1 2 3	*5300.00 *5300.00 5350.00	LEVEL (dBuV/m) 113.3 PK 104.3 AV 67.5 PK	(dBuV/m) 74.0	-6.5	1.00 V 1.00 V 1.05 V	48 48 64	(dBuV) 72.97 63.97 27.03	FACTOR (dB/m) 40.33 40.33 40.47	
1 2 3 4	*5300.00 *5300.00 5350.00	LEVEL (dBuV/m) 113.3 PK 104.3 AV 67.5 PK 53.1 AV	74.0 54.0	-6.5 -0.9	1.00 V 1.00 V 1.05 V 1.05 V	48 48 64 64	(dBuV) 72.97 63.97 27.03 12.63	FACTOR (dB/m) 40.33 40.33 40.47 40.47	
1 2 3 4 5	*5300.00 *5300.00 5350.00 5350.00 10600.00	LEVEL (dBuV/m) 113.3 PK 104.3 AV 67.5 PK 53.1 AV 53.0 PK	74.0 54.0 74.0	-6.5 -0.9 -21.0	1.00 V 1.00 V 1.05 V 1.05 V 1.32 V	48 48 64 64 159	(dBuV)  72.97  63.97  27.03  12.63  6.18	FACTOR (dB/m) 40.33 40.33 40.47 40.47 46.82	

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.



EUT TEST CONDITION		MEASUREMENT DETAIL		
CHANNEL	Channel 64	FREQUENCY RANGE	1 ~ 40GHz	
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)	
ENVIRONMENTAL CONDITIONS	22deg. C, 64%RH 1004 hPa	TESTED BY	Kent Liu	

		ANTENNA	POLARITY	& TEST DIS	TANCE: HO	RIZONTAL	AT 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	101.7 PK			1.12 H	291	61.31	40.39
2	*5320.00	91.6 AV			1.12 H	291	51.21	40.39
3	5350.00	60.1 PK	74.0	-13.9	1.12 H	291	19.63	40.47
4	5350.00	46.4 AV	54.0	-7.6	1.12 H	291	5.93	40.47
5	10640.00	54.9 PK	74.0	-19.1	1.43 H	37	8.03	46.87
6	10640.00	42.7 AV	54.0	-11.3	1.43 H	37	-4.17	46.87
7	15960.00	62.3 PK	74.0	-11.7	1.22 H	115	10.57	51.73
8	15960.00	50.1 AV	54.0	-3.9	1.22 H	115	-1.63	51.73
		ANTENNA	A POLARIT	Y & TEST DI	STANCE: V	ERTICAL A	T 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	110.0 PK			1.04 V	57	69.61	40.39
2	*5320.00	101.1 AV			1.04 V	57	60.71	40.39
3	5350.00	70.4 PK	74.0	-3.6	1.04 V	57	29.93	40.47
4	5350.00	53.2 AV	54.0	-0.8	1.04 V	57	12.73	40.47
5	10640.00	53.0 PK	74.0	-21.0	1.30 V	153	6.13	46.87
6	10640.00	41.8 AV	54.0	-12.2	1.30 V	153	-5.07	46.87
7	15960.00	61.3 PK	74.0	-12.7	1.49 V	205	9.57	51.73
8	15960.00	50.1 AV	54.0	-3.9	1.49 V	205	-1.63	51.73

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.



EUT TEST CONDITION		MEASUREMENT DETAIL		
CHANNEL	Channel 100	FREQUENCY RANGE	1 ~ 40GHz	
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)	
ENVIRONMENTAL CONDITIONS	22deg. C, 64%RH 1004 hPa	TESTED BY	Kent Liu	

		ANTENNA I	POLARITY	& TEST DIS	TANCE: HO	RIZONTAL	AT 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	58.1 PK	74.0	-15.9	1.13 H	291	17.34	40.76
2	5460.00	46.7 AV	54.0	-7.3	1.13 H	291	5.94	40.76
3	#5470.00	56.1 PK	68.3	-12.2	1.13 H	291	15.32	40.78
4	*5500.00	102.9 PK			1.13 H	291	62.04	40.86
5	*5500.00	92.7 AV			1.13 H	291	51.84	40.86
6	7333.33	53.7 PK	74.0	-20.3	1.37 H	49	7.08	46.62
7	7333.33	43.1 AV	54.0	-10.9	1.37 H	49	-3.52	46.62
8	11000.00	54.9 PK	74.0	-19.1	1.43 H	37	7.62	47.28
9	11000.00	42.7 AV	54.0	-11.3	1.43 H	37	-4.58	47.28
10	#16500.00	62.3 PK	68.3	-6.0	1.22 H	115	9.27	53.03
		ANTENNA	A POLARIT	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	67.3 PK	74.0	-6.7	1.14 V	258	26.54	40.76
2	5460.00	52.2 AV	54.0	-1.8	1.14 V	258	11.44	40.76
3	#5470.00	63.0 PK	68.3	-5.3	1.14 V	258	22.22	40.78
4	*5500.00	112.1 PK			1.14 V	132	71.24	40.86
5	*5500.00	102.5 AV			1.14 V	132	61.64	40.86
6	7333.33	56.4 PK	74.0	-17.6	1.01 V	109	9.78	46.62
7	7333.33	50.4 AV	54.0	-3.6	1.01 V	109	3.78	46.62
8	11000.00	53.7 PK	74.0	-20.3	1.32 V	141	6.42	47.28
9	11000.00	42.3 AV	54.0	-11.7	1.32 V	141	-4.98	47.28
10	#16500.00	61.5 PK	68.3	-6.8	1.44 V	193	8.47	53.03

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.
- 6. "#":The radiated frequency is out the restricted band.



<b>EUT TEST CONDITION</b>		MEASUREMENT DETAI	L
CHANNEL	Channel 120	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	22deg. C, 64%RH 1004 hPa	TESTED BY	Kent Liu

		ANTENNA I	POLARITY	& TEST DIS	TANCE: HO	RIZONTAL	AT 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5600.00	105.5 PK			1.14 H	279	64.35	41.15
2	*5600.00	95.5 AV			1.14 H	279	54.35	41.15
3	7466.67	53.4 PK	74.0	-20.6	1.36 H	53	6.86	46.54
4	7466.67	42.8 AV	54.0	-11.2	1.36 H	53	-3.74	46.54
5	11200.00	55.3 PK	74.0	-18.7	1.37 H	35	7.88	47.42
6	11200.00	42.8 AV	54.0	-11.2	1.37 H	35	-4.62	47.42
7	#16800.00	62.5 PK	68.3	-5.8	1.21 H	115	8.87	53.63
		ANTENNA	A POLARIT	Y & TEST DI	STANCE: V	ERTICAL A	T 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5600.00	115.1 PK			1.17 V	119	73.95	41.15
2	*5600.00	105.5 AV			1.17 V	119	64.35	41.15
3	7466.67	56.5 PK	74.0	-17.5	1.06 V	107	9.96	46.54
4	7466.67	50.4 AV	54.0	-3.6	1.06 V	107	3.86	46.54
5	11200.00	53.4 PK	74.0	-20.6	1.35 V	130	5.98	47.42
6	11200.00	42.1 AV	54.0	-11.9	1.35 V	130	-5.32	47.42
7	#16800.00	61.1 PK	68.3	-7.2	1.38 V	201	7.47	53.63

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.
- 6. "#":The radiated frequency is out the restricted band.



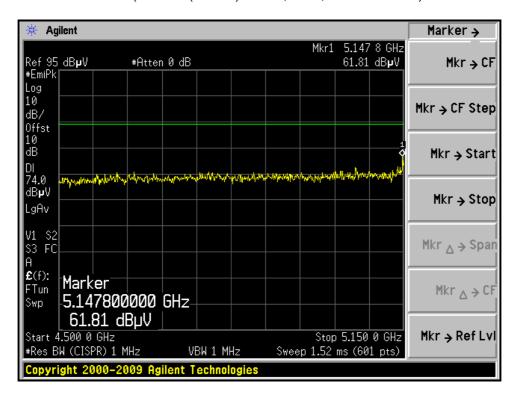
EUT TEST CONDITION		MEASUREMENT DETAIL		
CHANNEL	Channel 140	FREQUENCY RANGE	1 ~ 40GHz	
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)	
ENVIRONMENTAL CONDITIONS	22deg. C, 64%RH 1004 hPa	TESTED BY	Kent Liu	

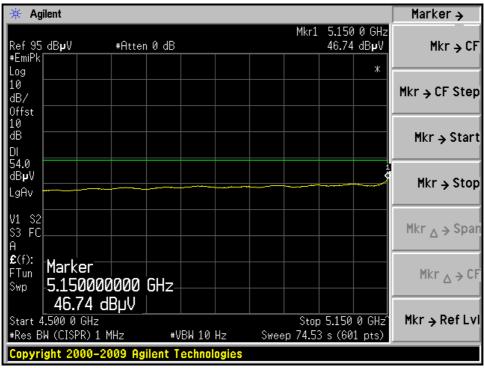
		ANTENNA	POLARITY	& TEST DIS	TANCE: HO	RIZONTAL	AT 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	101.4 PK			1.19 H	266	59.98	41.42
2	*5700.00	91.4 AV			1.19 H	266	49.98	41.42
3	#5725.00	58.9 PK	68.3	-19.4	1.19 H	266	17.41	41.49
4	7600.00	53.0 PK	74.0	-21.0	1.36 H	43	6.59	46.41
5	7600.00	42.7 AV	54.0	-11.3	1.36 H	43	-3.71	46.41
6	11400.00	54.8 PK	74.0	-19.2	1.42 H	30	7.18	47.62
7	11400.00	42.5 AV	54.0	-11.5	1.42 H	30	-5.12	47.62
8	#17100.00	62.5 PK	68.3	-5.8	1.27 H	115	8.30	54.20
		ANTENNA	POLARITY	Y & TEST DI	STANCE: V	ERTICAL A	T 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	111.1 PK			1.14 V	130	69.68	41.42
2	*5700.00	100.9 AV			1.14 V	130	59.48	41.42
3	#5725.00	67.1 PK	68.3	-11.2	1.17 V	247	25.61	41.49
4	7600.00	56.7 PK	74.0	-17.3	1.07 V	116	10.29	46.41
5	7600.00	50.3 AV	54.0	-3.7	1.07 V	116	3.89	46.41
6	11400.00	53.4 PK	74.0	-20.6	1.33 V	140	5.78	47.62
7	11400.00	42.2 AV	54.0	-11.8	1.33 V	140	-5.42	47.62
8	#17100.00	60.9 PK	68.3	-7.4	1.42 V	193	6.70	54.20

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.
- 6. "#":The radiated frequency is out the restricted band.



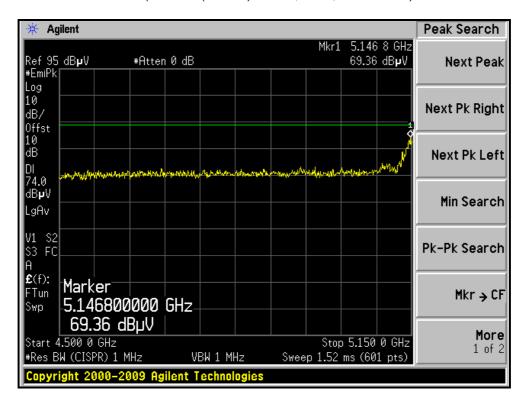
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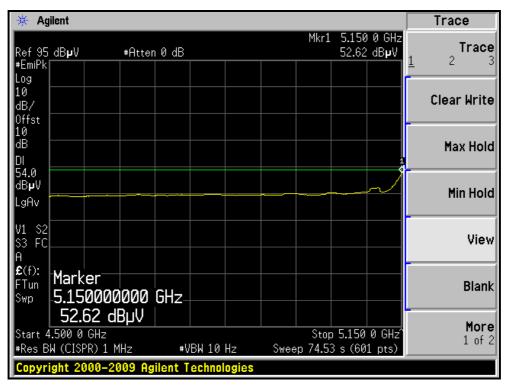






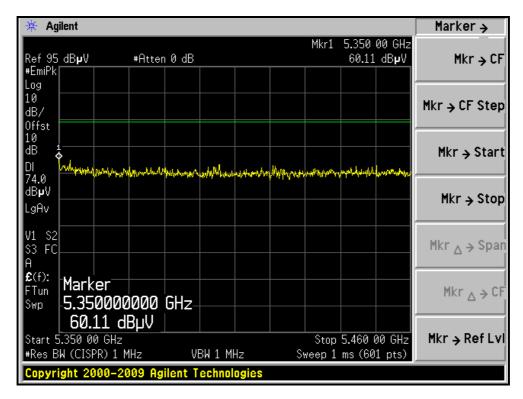
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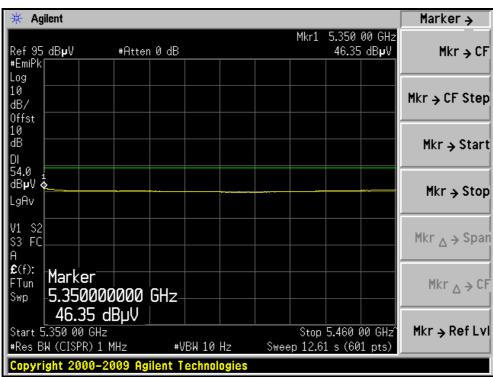






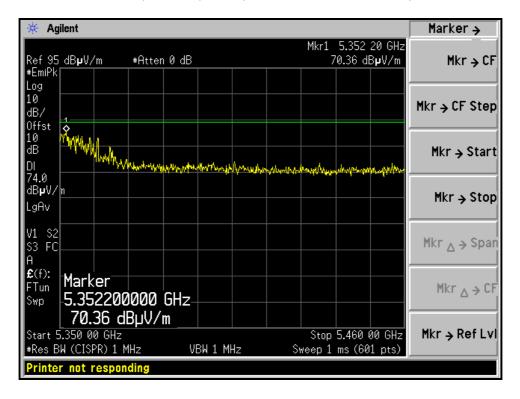
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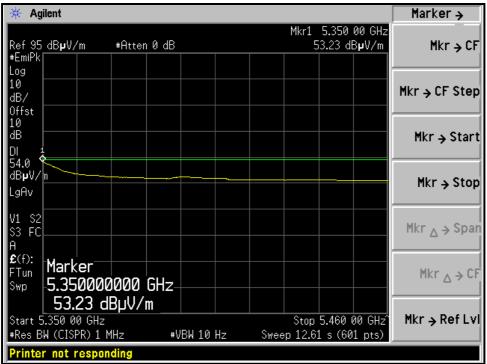






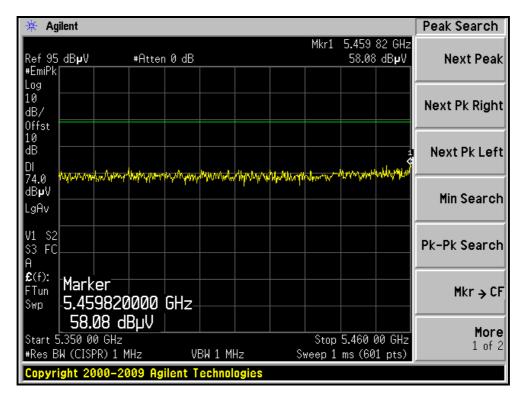
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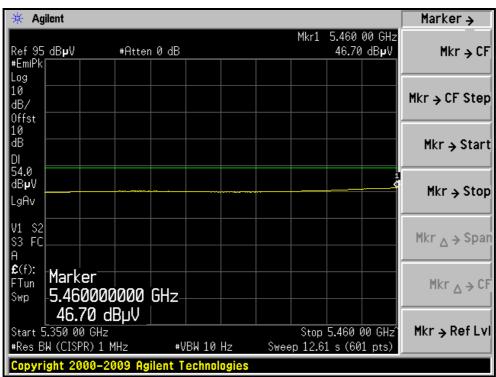






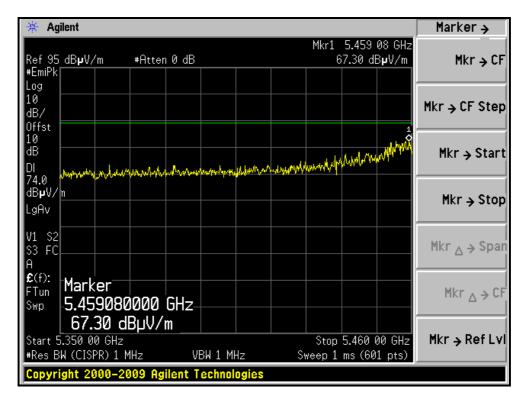
#### RESTRICTED BANDEDGE (802.11n (20MHz) MODE,CH 100, HORIZONTAL)

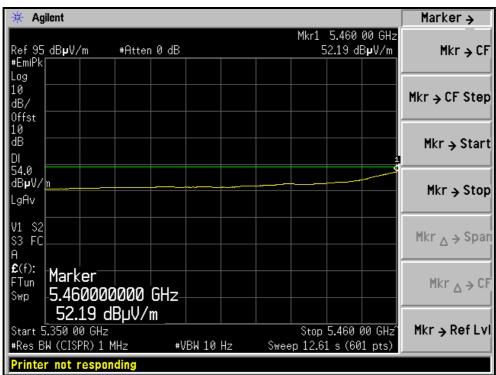






## RESTRICTED BANDEDGE (802.11n (20MHz) MODE, CH 100, VERTICAL)







# Multiple chain: 802.11n (20MHz) OFDM MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL		
CHANNEL	Channel 36	FREQUENCY RANGE	1 ~ 40GHz	
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)	
ENVIRONMENTAL CONDITIONS	22deg. C, 64%RH 1004 hPa	TESTED BY	Kent Liu	

		ANTENNA	POLARITY	& TEST DIS	TANCE: HO	RIZONTAL	AT 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	58.1 PK	74.0	-15.9	1.17 H	259	18.16	39.94
2	5150.00	45.9 AV	54.0	-8.1	1.17 H	259	5.96	39.94
3	*5180.00	102.1 PK			1.17 H	259	62.08	40.02
4	*5180.00	90.8 AV			1.17 H	259	50.78	40.02
5	#10360.00	54.6 PK	68.3	-13.7	1.46 H	18	8.07	46.53
6	15540.00	61.8 PK	74.0	-12.2	1.00 H	214	10.43	51.37
7	15540.00	50.0 AV	54.0	-4.0	1.00 H	214	-1.37	51.37
		ANTENNA	A POLARIT	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	61.5 PK	74.0	-12.5	1.08 V	286	21.56	39.94
2	5150.00	49.4 AV	54.0	-4.6	1.08 V	286	9.46	39.94
3	*5180.00	112.3 PK			1.08 V	286	72.28	40.02
4	*5180.00	101.9 AV			1.08 V	286	61.88	40.02
5	#10360.00	54.4 PK	68.3	-13.9	1.35 V	149	7.87	46.53
6	15540.00	61.0 PK	74.0	-13.0	1.41 V	233	9.63	51.37
7	15540.00	50.0 AV	54.0	-4.0	1.41 V	233	-1.37	51.37

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.
- 6. "#":The radiated frequency is out the restricted band.



EUT TEST CONDITION		MEASUREMENT DETAIL		
CHANNEL Channel 40		FREQUENCY RANGE	1 ~ 40GHz	
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)	
ENVIRONMENTAL CONDITIONS	22deg. C, 64%RH 1004 hPa	TESTED BY	Kent Liu	

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)			
1	*5200.00	103.0 PK			1.16 H	267	62.93	40.07			
2	*5200.00	91.7 AV			1.16 H	267	51.63	40.07			
3	#10400.00	55.0 PK	68.3	-13.3	1.51 H	9	8.43	46.57			
4	15600.00	62.0 PK	74.0	-12.0	1.00 H	223	10.53	51.47			
5	15600.00	49.9 AV	54.0	-4.1	1.00 H	223	-1.57	51.47			
		ANTENNA	A POLARIT	Y & TEST DI	STANCE: V	ERTICAL A	T 3 M				
NO.	ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M  EMISSION LIMIT (dBuV/m)  HEIGHT (m)  ANTENNA ANGLE (Degree)  CORRECTION FACTOR (dB/m)										
1	*5200.00	113.6 PK			1.09 V	296	73.53	40.07			
2	*5200.00	103.0 AV			1.09 V	296	62.93	40.07			
3	#10400.00	54.0 PK	68.3	-14.3	1.34 V	162	7.43	46.57			
4	15600.00	61.3 PK	74.0	-12.7	1.45 V	244	9.83	51.47			
5	15600.00	50.2 AV	54.0	-3.8	1.45 V	244	-1 27	51 <i>1</i> 7			

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.
- 6. "#":The radiated frequency is out the restricted band.



EUT TEST CONDITION		MEASUREMENT DETAIL		
CHANNEL	Channel 48	FREQUENCY RANGE	1 ~ 40GHz	
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)	
ENVIRONMENTAL CONDITIONS	22deg. C, 64%RH 1004 hPa	TESTED BY	Kent Liu	

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)			
1	*5240.00	102.8 PK			1.18 H	258	62.63	40.17			
2	*5240.00	91.5 AV			1.18 H	258	51.33	40.17			
3	#10480.00	54.2 PK	68.3	-14.1	1.51 H	10	7.53	46.67			
4	15720.00	62.0 PK	74.0	-12.0	1.00 H	215	10.49	51.51			
5	15720.00	50.3 AV	54.0	-3.7	1.00 H	215	-1.21	51.51			
		ANTENNA	A POLARIT	Y & TEST DI	STANCE: V	ERTICAL A	T 3 M				
NO.	ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M  EMISSION LIMIT (dBuV/m) MARGIN (dB) ANTENNA HEIGHT (m) TABLE (ABUV) FACTOR (dB/m)										
1	*5240.00	113.3 PK			1.07 V	292	73.13	40.17			
2	*5240.00	102.9 AV			1.07 V	292	62.73	40.17			
3	#10480.00	53.5 PK	68.3	-14.8	1.28 V	155	6.83	46.67			
4	15720.00	61.8 PK	74.0	-12.2	1.43 V	235	10.29	51.51			
5	15720 00	50 5 AV	54.0	-3.5	1 43 V	235	-1 01	51 51			

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.
- 6. "#":The radiated frequency is out the restricted band.



EUT TEST CONDITION		MEASUREMENT DETAIL		
CHANNEL Channel 52		FREQUENCY RANGE	1 ~ 40GHz	
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)	
ENVIRONMENTAL CONDITIONS	22deg. C, 64%RH 1004 hPa	TESTED BY	Kent Liu	

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M									
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	*5260.00	107.8 PK			1.19 H	256	67.57	40.23		
2	*5260.00	96.3 AV			1.19 H	256	56.07	40.23		
3	#10520.00	54.8 PK	68.3	-13.5	1.42 H	24	8.08	46.72		
4	15780.00	61.9 PK	74.0	-12.1	1.00 H	215	10.32	51.58		
5	15780.00	50.0 AV	54.0	-4.0	1.00 H	215	-1.58	51.58		
		ANTENNA	A POLARITY	Y & TEST DI	STANCE: V	ERTICAL A	T 3 M			
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	*5260.00	118.0 PK			1.12 V	278	77.77	40.23		
2	*5260.00	107.6 AV			1.12 V	278	67.37	40.23		
3	#10520.00	53.4 PK	68.3	-14.9	1.32 V	142	6.68	46.72		
4	15780.00	61.9 PK	74.0	-12.1	1.47 V	230	10.32	51.58		
5	15780.00	50.8 AV	54.0	-3.2	1.47 V	230	-0.78	51.58		

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.
- 6. "#":The radiated frequency is out the restricted band.



EUT TEST CONDITION		MEASUREMENT DETAIL		
CHANNEL	Channel 60	FREQUENCY RANGE	1 ~ 40GHz	
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)	
ENVIRONMENTAL CONDITIONS	22deg. C, 64%RH 1004 hPa	TESTED BY	Kent Liu	

		ANTENNA	POLARITY	& TEST DIS	TANCE: HO	RIZONTAL	AT 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	105.60 PK			1.16 H	242	65.27	40.33
2	*5300.00	94.20 AV			1.16 H	242	53.87	40.33
3	10600.00	54.30 PK	74.00	-19.70	1.42 H	15	7.48	46.82
4	10600.00	40.40 AV	54.00	-13.60	1.42 H	15	-6.42	46.82
5	15900.00	61.70 PK	74.00	-12.30	1.00 H	205	10.04	51.66
6	15900.00	50.10 AV	54.00	-3.90	1.00 H	205	-1.56	51.66
		ANTENNA	POLARITY	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	115.40 PK			1.06 V	110	75.07	40.33
2	*5300.00	105.20 AV			1.06 V	110	64.87	40.33
3	5350.00	67.50 PK	74.00	-6.50	1.08 V	263	27.03	40.47
4	5350.00	52.80 AV	54.00	-1.20	1.08 V	263	12.33	40.47
5	10600.00	53.50 PK	74.00	-20.50	1.25 V	145	6.68	46.82
6	10600.00	41.20 AV	54.00	-12.80	1.25 V	145	-5.62	46.82
7	15900.00	61.60 PK	74.00	-12.40	1.46 V	227	9.94	51.66
8	15900.00	50.30 AV	54.00	-3.70	1.46 V	227	-1.36	51.66

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.



EUT TEST CONDITION		MEASUREMENT DETAIL		
CHANNEL Channel 64		FREQUENCY RANGE	1 ~ 40GHz	
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)	
ENVIRONMENTAL CONDITIONS	22deg. C, 64%RH 1004 hPa	TESTED BY	Kent Liu	

		ANTENNA	POLARITY	& TEST DIS	TANCE: HO	RIZONTAL	AT 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	101.9 PK			1.14 H	260	61.51	40.39
2	*5320.00	91.6 AV			1.14 H	260	51.21	40.39
3	5350.00	59.3 PK	74.0	-14.7	1.14 H	260	18.83	40.47
4	5350.00	46.8 AV	54.0	-7.2	1.14 H	260	6.33	40.47
5	10640.00	55.0 PK	74.0	-19.0	1.53 H	10	8.13	46.87
6	10640.00	42.7 AV	54.0	-11.3	1.53 H	10	-4.17	46.87
7	15960.00	62.4 PK	74.0	-11.6	1.00 H	210	10.67	51.73
8	15960.00	50.2 AV	54.0	-3.8	1.00 H	210	-1.53	51.73
		ANTENNA	A POLARITY	Y & TEST DI	STANCE: V	ERTICAL A	T 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	113.2 PK			1.09 V	263	72.81	40.39
2	*5320.00	102.4 AV			1.09 V	263	62.01	40.39
3	5350.00	70.2 PK	74.0	-3.8	1.09 V	262	29.73	40.47
4	5350.00	53.4 AV	54.0	-0.6	1.09 V	262	12.93	40.47
5	10640.00	53.4 PK	74.0	-20.6	1.30 V	141	6.53	46.87
6	10640.00	42.3 AV	54.0	-11.7	1.30 V	141	-4.57	46.87
7	15960.00	62.1 PK	74.0	-11.9	1.44 V	221	10.37	51.73
8	15960.00	50.9 AV	54.0	-3.1	1.44 V	221	-0.83	51.73

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.



EUT TEST CONDITION		MEASUREMENT DETAIL		
CHANNEL Channel 100		FREQUENCY RANGE	1 ~ 40GHz	
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)	
ENVIRONMENTAL CONDITIONS	22deg. C, 64%RH 1004 hPa	TESTED BY	Kent Liu	

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	59.8 PK	74.0	-14.2	1.18 H	243	19.04	40.76
2	5460.00	46.8 AV	54.0	-7.2	1.18 H	243	6.04	40.76
3	#5470.00	55.4 PK	68.3	-12.9	1.18 H	243	14.62	40.78
4	*5500.00	104.0 PK			1.08 H	269	63.14	40.86
5	*5500.00	93.7 AV			1.08 H	269	52.84	40.86
6	7333.33	53.8 PK	74.0	-20.2	1.38 H	59	7.18	46.62
7	7333.33	43.2 AV	54.0	-10.8	1.38 H	59	-3.42	46.62
8	11000.00	55.4 PK	74.0	-18.6	1.55 H	22	8.12	47.28
9	11000.00	42.8 AV	54.0	-11.2	1.55 H	22	-4.48	47.28
10	#16500.00	62.6 PK	68.3	-5.7	1.00 H	218	9.57	53.03
		ANTENNA	A POLARIT	Y & TEST DI	STANCE: V	ERTICAL A	T 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	68.4 PK	74.0	-5.6	1.09 V	262	27.64	40.76
2	5460.00	53.5 AV	54.0	-0.5	1.09 V	262	12.74	40.76
3	#5470.00	63.4 PK	68.3	-4.9	1.09 V	262	22.62	40.78
4	*5500.00	114.9 PK			1.09 V	278	74.04	40.86
5	*5500.00	104.1 AV			1.09 V	278	63.24	40.86
6	7333.33	58.2 PK	74.0	-15.8	1.11 V	288	11.58	46.62
7	7333.33	53.1 AV	54.0	-0.9	1.11 V	288	6.48	46.62
8	11000.00	53.4 PK	74.0	-20.6	1.25 V	150	6.12	47.28
9	11000.00	42.3 AV	54.0	-11.7	1.25 V	150	-4.98	47.28
10	#16500.00	62.2 PK	68.3	-6.1	1.38 V	208	9.17	53.03

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.
- 6. "#":The radiated frequency is out the restricted band.



EUT TEST CONDITION		MEASUREMENT DETAIL		
CHANNEL Channel 120		FREQUENCY RANGE	1 ~ 40GHz	
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)	
ENVIRONMENTAL CONDITIONS	22deg. C, 64%RH 1004 hPa	TESTED BY	Kent Liu	

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)	
1	*5600.00	106.5 PK			1.12 H	272	65.35	41.15	
2	*5600.00	96.4 AV			1.12 H	272	55.25	41.15	
3	7466.67	53.5 PK	74.0	-20.5	1.39 H	56	6.96	46.54	
4	7466.67	42.9 AV	54.0	-11.1	1.39 H	56	-3.64	46.54	
5	11200.00	55.2 PK	74.0	-18.8	1.52 H	23	7.78	47.42	
6	11200.00	42.5 AV	54.0	-11.5	1.52 H	23	-4.92	47.42	
7	#16800.00	62.7 PK	68.3	-5.6	1.00 H	207	9.07	53.63	
		ANTENNA	A POLARIT	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M		
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)	
1	*5600.00	117.4 PK			1.10 V	282	76.25	41.15	
2	*5600.00	106.9 AV			1.10 V	282	65.75	41.15	
3	7466.67	58.4 PK	74.0	-15.6	1.16 V	301	11.86	46.54	
4	7466.67	53.2 AV	54.0	-0.8	1.16 V	301	6.66	46.54	
5	11200.00	53.0 PK	74.0	-21.0	1.27 V	156	5.58	47.42	
6	11200.00	42.1 AV	54.0	-11.9	1.27 V	156	-5.32	47.42	
7	#16800.00	62.0 PK	68.3	-6.3	1.43 V	213	8.37	53.63	

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.
- 6. "#":The radiated frequency is out the restricted band.



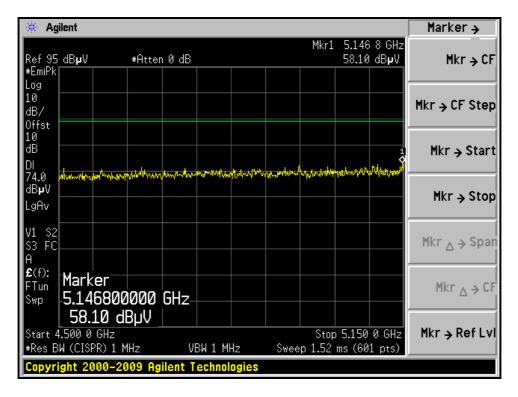
EUT TEST CONDITION		MEASUREMENT DETAIL		
CHANNEL Channel 140		FREQUENCY RANGE	1 ~ 40GHz	
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)	
ENVIRONMENTAL CONDITIONS	22deg. C, 64%RH 1004 hPa	TESTED BY	Kent Liu	

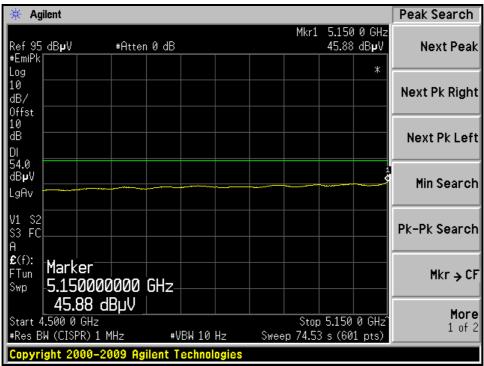
	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M							
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	102.0 PK			1.16 H	274	60.58	41.42
2	*5700.00	92.0 AV			1.16 H	274	50.58	41.42
3	#5725.00	60.2 PK	68.3	-8.1	1.16 H	274	18.71	41.49
4	7600.00	53.2 PK	74.0	-20.8	1.38 H	45	6.79	46.41
5	7600.00	42.7 AV	54.0	-11.3	1.38 H	45	-3.71	46.41
6	11400.00	54.7 PK	74.0	-19.3	1.46 H	17	7.08	47.62
7	11400.00	42.3 AV	54.0	-11.7	1.46 H	17	-5.32	47.62
8	#17100.00	62.6 PK	68.3	-5.7	1.00 H	217	8.40	54.20
		ANTENNA	POLARITY	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	113.5 PK			1.03 V	262	72.08	41.42
2	*5700.00	102.7 AV			1.03 V	262	61.28	41.42
3	#5725.00	67.4 PK	68.3	-0.9	1.03 V	262	25.91	41.49
4	7600.00	58.2 PK	74.0	-15.8	1.21 V	296	11.79	46.41
5	7600.00	53.2 AV	54.0	-0.8	1.21 V	296	6.79	46.41
6	11400.00	53.0 PK	74.0	-21.0	1.26 V	152	5.38	47.62
7	11400.00	41.9 AV	54.0	-12.1	1.26 V	152	-5.72	47.62
8	#17100.00	61.5 PK	68.3	-6.8	1.47 V	213	7.30	54.20

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.
- 6. "#":The radiated frequency is out the restricted band.



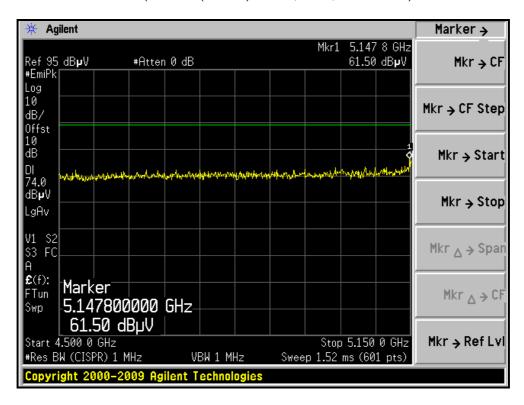
#### RESTRICTED BANDEDGE (802.11n (20MHz) MODE, CH36, HORIZONTAL)

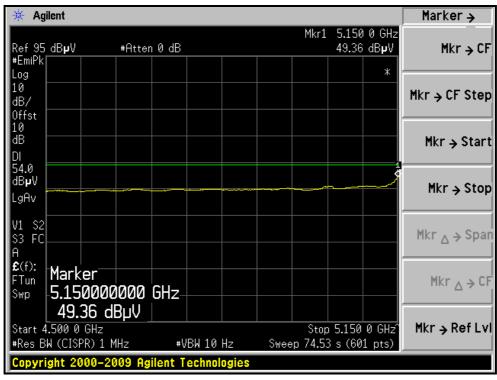






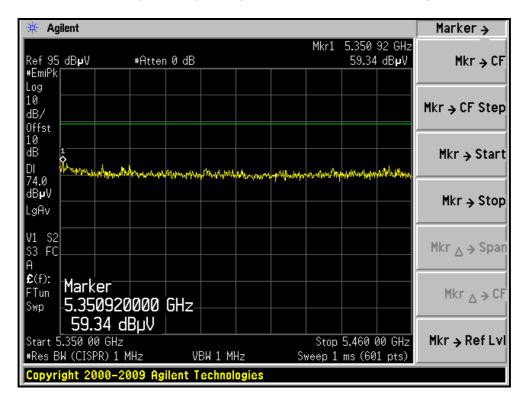
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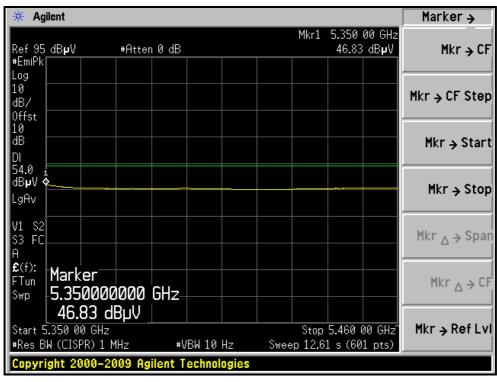






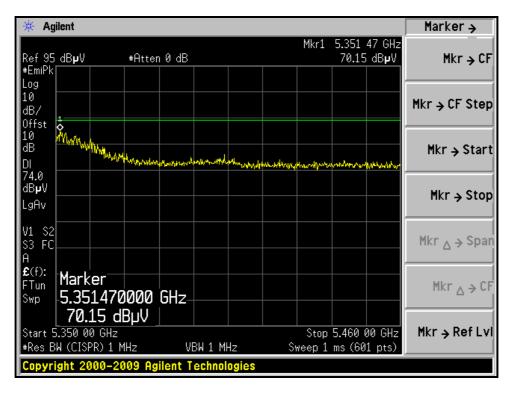
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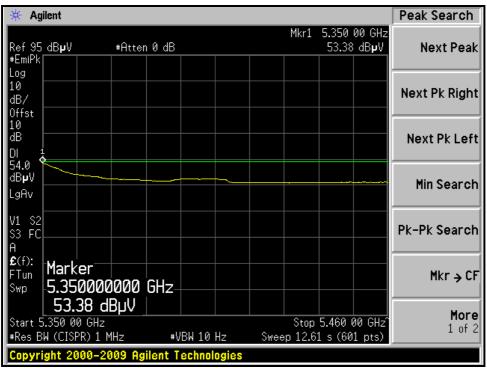






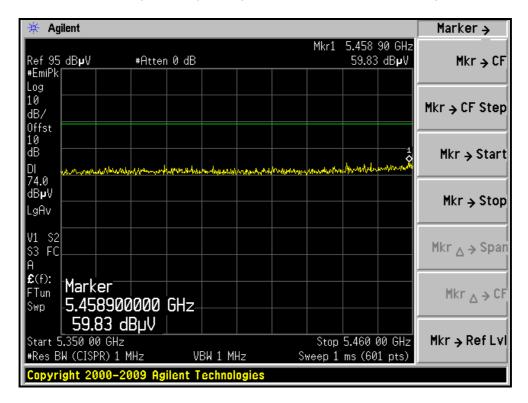
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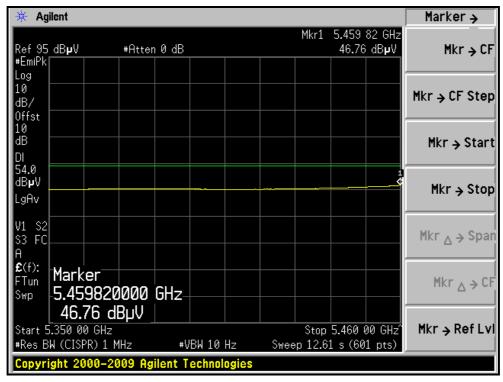






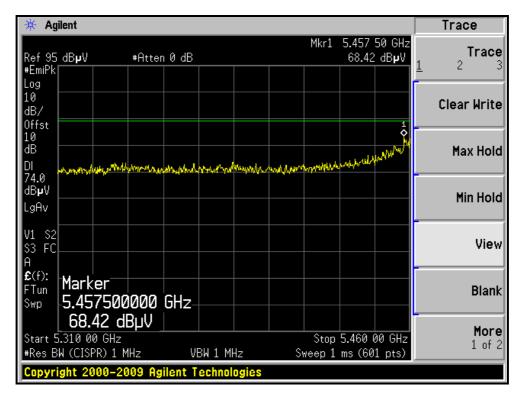
# RESTRICTED BANDEDGE (802.11n (20MHz) MODE,CH 100, HORIZONTAL)

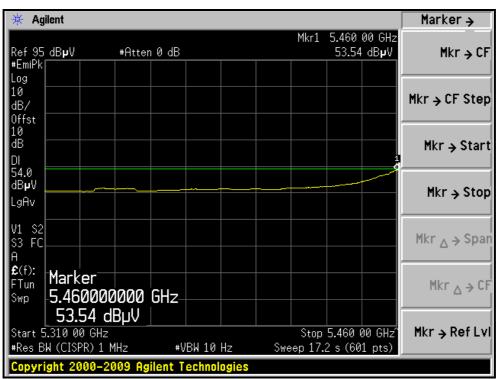






# RESTRICTED BANDEDGE (802.11n (20MHz) MODE, CH 100, VERTICAL)







# Single Chain: 802.11n (40MHz) OFDM MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL		
CHANNEL	Channel 38	FREQUENCY RANGE	1 ~ 40GHz	
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)	
ENVIRONMENTAL CONDITIONS	22deg. C, 64%RH 1004 hPa	TESTED BY	Kent Liu	

		ANTENNA	POLARITY	& TEST DIS	TANCE: HO	RIZONTAL	AT 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	58.8 PK	74.0	-15.2	1.28 H	244	18.86	39.94
2	5150.00	47.9 AV	54.0	-6.1	1.28 H	244	7.96	39.94
3	*5190.00	96.5 PK			1.17 H	268	56.46	40.04
4	*5190.00	86.3 AV			1.17 H	268	46.26	40.04
5	#10380.00	54.4 PK	68.3	-13.9	1.48 H	38	7.85	46.55
6	15570.00	62.1 PK	74.0	-11.9	1.26 H	120	10.68	51.42
7	15570.00	50.1 AV	54.0	-3.9	1.26 H	120	-1.32	51.42
		ANTENNA	A POLARIT	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	64.6 PK	74.0	-9.4	1.20 V	240	24.66	39.94
2	5150.00	53.1 AV	54.0	-0.9	1.20 V	240	13.16	39.94
3	*5190.00	106.1 PK			1.20 V	239	66.06	40.04
4	*5190.00	96.6 AV			1.20 V	239	56.56	40.04
5	#10380.00	53.1 PK	68.3	-15.2	1.38 V	133	6.55	46.55
6	15570.00	61.2 PK	74.0	-12.8	1.36 V	195	9.78	51.42
7	15570.00	50.5 AV	54.0	-3.5	1.36 V	195	-0.92	51.42

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.
- 6. "#":The radiated frequency is out the restricted band.



EUT TEST CONDITION		MEASUREMENT DETAI	L
CHANNEL	Channel 46	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	22deg. C, 64%RH 1004 hPa	TESTED BY	Kent Liu

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M									
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	*5230.00	100.5 PK			1.21 H	276	60.35	40.15		
2	*5230.00	90.4 AV			1.21 H	276	50.25	40.15		
3	#10460.00	54.1 PK	68.3	-14.2	1.46 H	50	7.45	46.65		
4	15690.00	61.7 PK	74.0	-12.3	1.27 H	125	10.21	51.49		
5	15690.00	50.0 AV	54.0	-4.0	1.27 H	125	-1.49	51.49		
		ANTENNA	A POLARIT	Y & TEST DI	STANCE: V	ERTICAL A	T 3 M			
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	*5230.00	110.0 PK			1.21 V	248	69.85	40.15		
2	*5230.00	100.8 AV			1.21 V	248	60.65	40.15		
3	#10460.00	53.0 PK	68.3	-15.3	1.44 V	125	6.35	46.65		
4	15690.00	61.2 PK	74.0	-12.8	1.36 V	199	9.71	51.49		
5	15600.00	50 5 AV	54.0	-3.5	1361/	100	-0.00	51 /0		

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.
- 6. "#":The radiated frequency is out the restricted band.



EUT TEST CONDITION		MEASUREMENT DETAIL		
CHANNEL	Channel 54	FREQUENCY RANGE	1 ~ 40GHz	
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)	
ENVIRONMENTAL CONDITIONS	22deg. C, 64%RH 1004 hPa	TESTED BY	Kent Liu	

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M									
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	*5270.00	99.4 PK			1.24 H	263	59.15	40.25		
2	*5270.00	89.4 AV			1.24 H	263	49.15	40.25		
3	#10540.00	53.9 PK	68.3	-14.4	1.43 H	56	7.15	46.75		
4	15810.00	61.8 PK	74.0	-12.2	1.31 H	118	10.19	51.61		
5	15810.00	50.1 AV	54.0	-3.9	1.31 H	118	-1.51	51.61		
		ANTENNA	A POLARIT	Y & TEST DI	STANCE: V	ERTICAL A	T 3 M			
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	*5270.00	108.9 PK			1.18 V	234	68.65	40.25		
2	*5270.00	99.6 AV			1.18 V	234	59.35	40.25		
3	#10540.00	52.8 PK	68.3	-15.5	1.48 V	123	6.05	46.75		
4	15810.00	61.1 PK	74.0	-12.9	1.36 V	194	9.49	51.61		
5	15810.00	50.7 AV	54.0	-3.3	1.36 V	194	-0.91	51.61		

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.
- 6. "#":The radiated frequency is out the restricted band.



EUT TEST CONDITION		MEASUREMENT DETAIL		
CHANNEL	Channel 62	FREQUENCY RANGE	1 ~ 40GHz	
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)	
ENVIRONMENTAL CONDITIONS	22deg. C, 64%RH 1004 hPa	TESTED BY	Kent Liu	

		ANTENNA	POLARITY	& TEST DIS	TANCE: HO	RIZONTAL	AT 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5310.00	95.4 PK			1.13 H	270	55.04	40.36
2	*5310.00	85.2 AV			1.13 H	270	44.84	40.36
3	5350.00	59.3 PK	74.0	-14.7	1.13 H	270	18.83	40.47
4	5350.00	47.5 AV	54.0	-6.5	1.13 H	270	7.03	40.47
5	10620.00	54.1 PK	74.0	-19.9	1.51 H	45	7.26	46.84
6	10620.00	42.2 AV	54.0	-11.8	1.51 H	45	-4.64	46.84
7	15930.00	62.0 PK	74.0	-12.0	1.29 H	109	10.31	51.69
8	15930.00	50.2 AV	54.0	-3.8	1.29 H	109	-1.49	51.69
		ANTENNA	POLARITY	Y & TEST DI	STANCE: V	ERTICAL A	T 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5310.00	104.3 PK			1.17 V	264	63.94	40.36
2	*5310.00	95.2 AV			1.17 V	264	54.84	40.36
3	5350.00	70.0 PK	74.0	-4.0	1.16 V	265	29.53	40.47
4	5350.00	53.2 AV	54.0	-0.8	1.16 V	265	12.73	40.47
5	10620.00	53.6 PK	74.0	-20.4	1.40 V	142	6.76	46.84
6	10620.00	42.3 AV	54.0	-11.7	1.40 V	142	-4.54	46.84
7	15930.00	61.7 PK	74.0	-12.3	1.31 V	199	10.01	51.69
8	15930.00	50.7 AV	54.0	-3.3	1.31 V	199	-0.99	51.69

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.



EUT TEST CONDITION		MEASUREMENT DETAIL		
CHANNEL	Channel 102	FREQUENCY RANGE	1 ~ 40GHz	
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)	
ENVIRONMENTAL CONDITIONS	22deg. C, 64%RH 1004 hPa	TESTED BY	Kent Liu	

		ANTENNA	POLARITY	& TEST DIS	TANCE: HO	RIZONTAL	AT 3 M		
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)	
1	5460.00	59.8 PK	74.0	-14.2	1.13 H	271	19.04	40.76	
2	5460.00	46.7 AV	54.0	-7.3	1.13 H	271	5.94	40.76	
3	#5470.00	56.3 PK	68.3	-12.0	1.13 H	271	15.52	40.78	
4	*5510.00	97.5 PK			1.13 H	271	56.61	40.89	
5	*5510.00	87.3 AV			1.13 H	271	46.41	40.89	
6	7346.67	53.1 PK	74.0	-20.9	1.33 H	53	6.48	46.62	
7	7346.67	42.8 AV	54.0	-11.2	1.33 H	53	-3.82	46.62	
8	11020.00	54.6 PK	74.0	-19.4	1.45 H	57	7.31	47.29	
9	11020.00	42.5 AV	54.0	-11.5	1.45 H	57	-4.79	47.29	
10	#16530.00	62.1 PK	68.3	-6.2	1.34 H	104	9.02	53.08	
		ANTENNA	A POLARIT	Y & TEST DI	STANCE: V	ERTICAL A	T 3 M		
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)	
1	5460.00	66.7 PK	74.0	-7.3	1.14 V	264	25.94	40.76	
2	5460.00	53.5 AV	54.0	-0.5	1.14 V	264	12.74	40.76	
3	#5470.00	65.8 PK	68.3	-2.5	1.14 V	264	25.02	40.78	
4	*5510.00	106.2 PK			1.15 V	251	65.31	40.89	
5	*5510.00	97.0 AV			1.15 V	251	56.11	40.89	
6	7346.67	56.8 PK	74.0	-17.2	1.02 V	117	10.18	46.62	
7	7346.67	50.3 AV	54.0	-3.7	1.02 V	117	3.68	46.62	
8	11020.00	53.5 PK	74.0	-20.5	1.44 V	137	6.21	47.29	
9	11020.00	42.2 AV	54.0	-11.8	1.44 V	137	-5.09	47.29	
10	#16530.00	61.5 PK	68.3	-6.8	1.31 V	211	8.42	53.08	

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.
- 6. "#":The radiated frequency is out the restricted band.



<b>EUT TEST CONDITION</b>		MEASUREMENT DETAIL		
CHANNEL	Channel 118	FREQUENCY RANGE	1 ~ 40GHz	
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)	
ENVIRONMENTAL CONDITIONS	22deg. C, 64%RH 1004 hPa	TESTED BY	Kent Liu	

		ANTENNA I	POLARITY	& TEST DIS	TANCE: HO	RIZONTAL	AT 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5590.00	101.7 PK			1.11 H	273	60.58	41.12
2	*5590.00	91.2 AV			1.11 H	273	50.08	41.12
3	7453.33	53.0 PK	74.0	-21.0	1.31 H	63	6.45	46.55
4	7453.33	42.7 AV	54.0	-11.3	1.31 H	63	-3.85	46.55
5	11180.00	54.2 PK	74.0	-19.8	1.50 H	45	6.79	47.41
6	11180.00	42.3 AV	54.0	-11.7	1.50 H	45	-5.11	47.41
7	#16770.00	62.5 PK	68.3	-5.8	1.29 H	93	8.94	53.56
		ANTENNA	POLARITY	Y & TEST DI	STANCE: V	ERTICAL A	T 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5590.00	110.1 PK			1.13 V	250	68.98	41.12
2	*5590.00	101.1 AV			1.13 V	250	59.98	41.12
3	7453.33	56.6 PK	74.0	-17.4	1.08 V	125	10.05	46.55
4	7453.33	50.0 AV	54.0	-4.0	1.08 V	125	3.45	46.55
5	11180.00	53.9 PK	74.0	-20.1	1.45 V	138	6.49	47.41
6	11180.00	42.5 AV	54.0	-11.5	1.45 V	138	-4.91	47.41
7	#16770.00	61.4 PK	68.3	-6.9	1.37 V	209	7.84	53.56

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.
- 6. "#":The radiated frequency is out the restricted band.



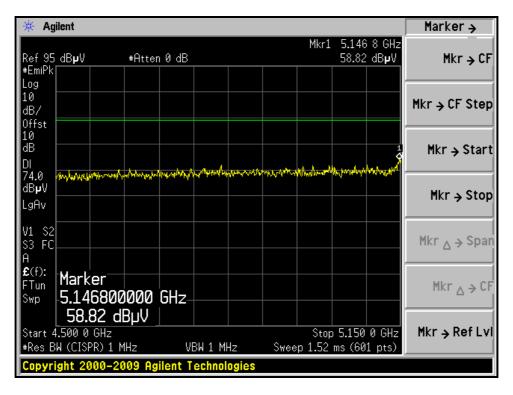
EUT TEST CONDITION		MEASUREMENT DETAIL		
CHANNEL	Channel 134	FREQUENCY RANGE	1 ~ 40GHz	
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)	
ENVIRONMENTAL CONDITIONS	22deg. C, 64%RH 1004 hPa	TESTED BY	Kent Liu	

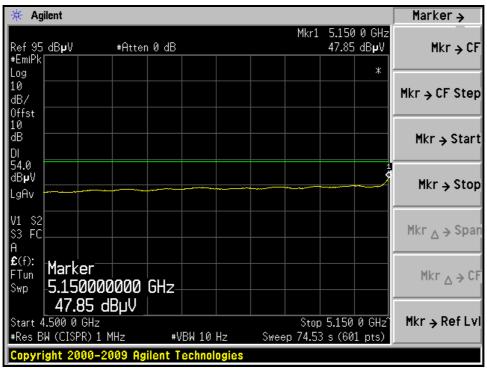
	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
		ANTENNA I	POLARITY	& TEST DIS	TANCE: HO	RIZONTAL	AT 3 M		
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)	
1	*5670.00	99.5 PK			1.16 H	275	58.16	41.34	
2	*5670.00	89.0 AV			1.16 H	275	47.66	41.34	
3	#5725.00	58.9 PK	68.3	-19.4	1.16 H	275	17.41	41.49	
4	7560.00	53.4 PK	74.0	-20.6	1.32 H	51	6.95	46.45	
5	7560.00	42.8 AV	54.0	-11.2	1.32 H	51	-3.65	46.45	
6	11340.00	54.1 PK	74.0	-19.9	1.50 H	36	6.53	47.57	
7	11340.00	42.3 AV	54.0	-11.7	1.50 H	36	-5.27	47.57	
8	#17010.00	62.4 PK	68.3	-5.9	1.33 H	90	8.31	54.09	
		ANTENNA	A POLARIT	Y & TEST DI	STANCE: V	ERTICAL A	T 3 M		
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)	
1	*5670.00	107.8 PK			1.08 V	257	66.46	41.34	
2	*5670.00	99.0 AV			1.08 V	257	57.66	41.34	
3	#5725.00	67.5 PK	68.3	-10.8	1.14 V	72	26.01	41.49	
4	7560.00	56.7 PK	74.0	-17.3	1.07 V	134	10.25	46.45	
5	7560.00	50.1 AV	54.0	-3.9	1.07 V	134	3.65	46.45	
6	11340.00	53.7 PK	74.0	-20.3	1.47 V	141	6.13	47.57	
7	11340.00	42.4 AV	54.0	-11.6	1.47 V	141	-5.17	47.57	
8	#17010.00	61.8 PK	68.3	-6.5	1.32 V	215	7.71	54.09	

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.
- 6. "#":The radiated frequency is out the restricted band.



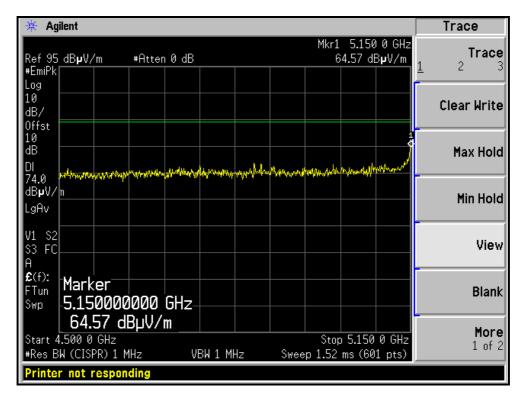
#### RESTRICTED BANDEDGE (802.11n (40MHz) MODE, CH38, HORIZONTAL)

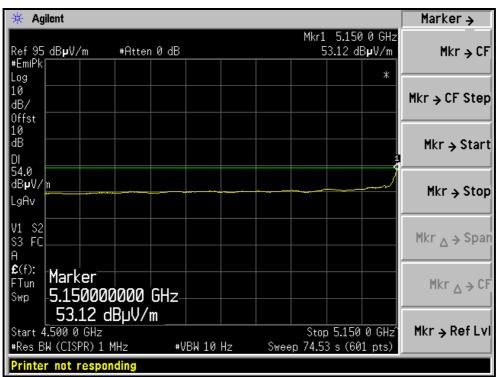






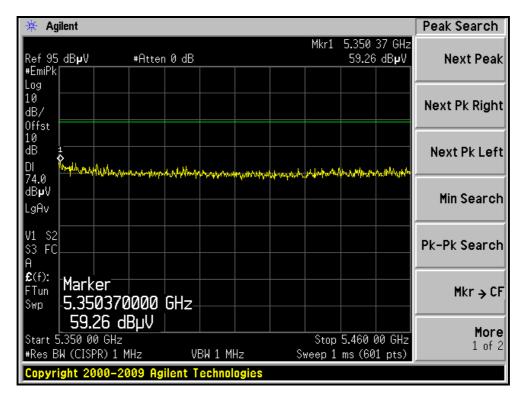
# RESTRICTED BANDEDGE (802.11n (40MHz) MODE, CH38, VERTICAL)

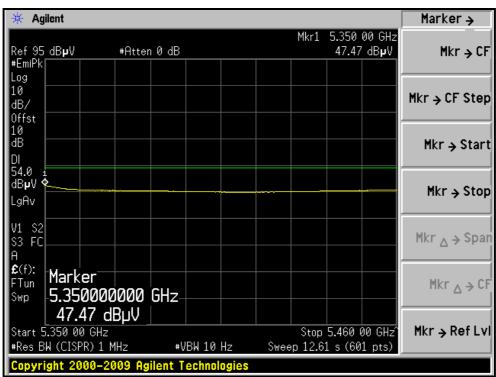






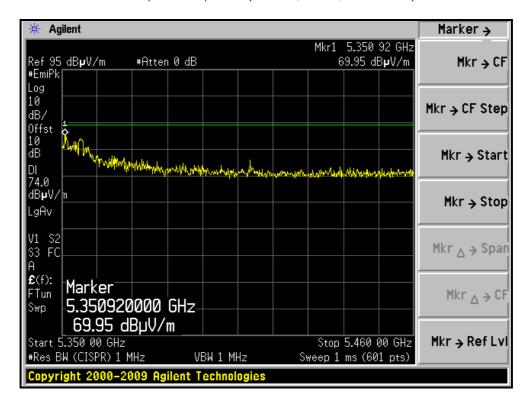
# RESTRICTED BANDEDGE (802.11n (40MHz) MODE, CH62, HORIZONTAL)







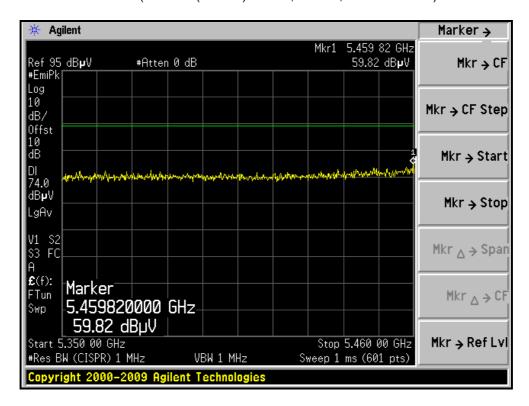
# RESTRICTED BANDEDGE (802.11n (40MHz) MODE, CH62, VERTICAL)

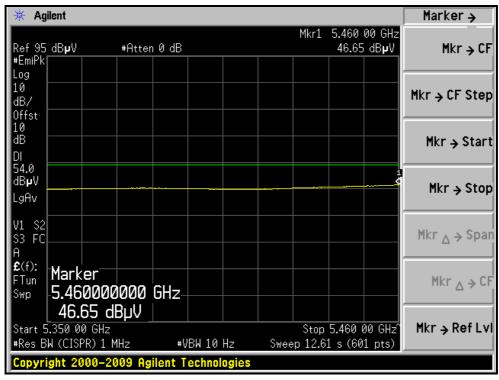






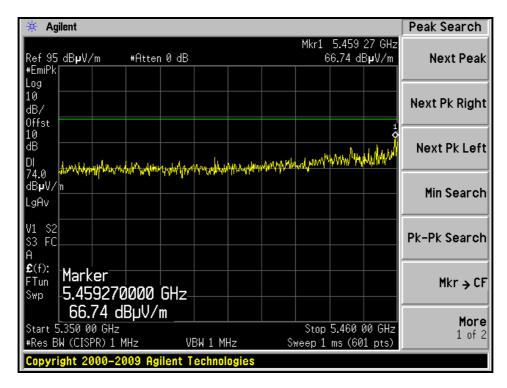
#### RESTRICTED BANDEDGE (802.11n (40MHz) MODE, CH102, HORIZONTAL)

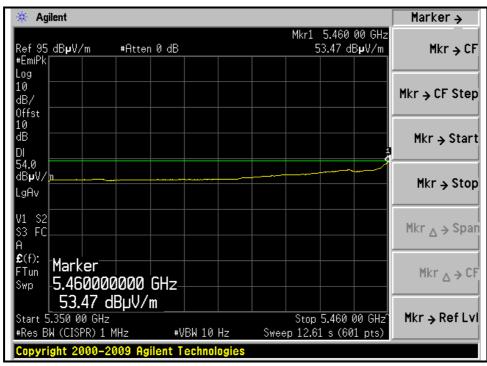






# RESTRICTED BANDEDGE (802.11n (40MHz) MODE, CH102, VERTICAL)







# Multiple chain: 802.11n (40MHz) OFDM MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL		
CHANNEL	Channel 38	FREQUENCY RANGE	1 ~ 40GHz	
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)	
ENVIRONMENTAL CONDITIONS	22deg. C, 64%RH 1004 hPa	TESTED BY	Kent Liu	

		ANTENNA	POLARITY	& TEST DIS	TANCE: HO	RIZONTAL	AT 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	59.1 PK	74.0	-14.9	1.19 H	239	19.16	39.94
2	5150.00	49.7 AV	54.0	-4.3	1.19 H	239	9.76	39.94
3	*5190.00	98.5 PK			1.18 H	279	58.46	40.04
4	*5190.00	88.2 AV			1.18 H	279	48.16	40.04
5	#10380.00	55.5 PK	68.3	-12.8	1.51 H	29	8.95	46.55
6	15570.00	62.5 PK	74.0	-11.5	1.00 H	210	11.08	51.42
7	15570.00	50.5 AV	54.0	-3.5	1.00 H	210	-0.92	51.42
		ANTENNA	A POLARIT	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	64.7 PK	74.0	-9.3	1.05 V	290	24.76	39.94
2	5150.00	53.4 AV	54.0	-0.6	1.05 V	290	13.46	39.94
3	*5190.00	107.3 PK			1.08 V	290	67.26	40.04
4	*5190.00	98.1 AV			1.08 V	290	58.06	40.04
5	#10380.00	53.1 PK	68.3	-15.2	1.25 V	152	6.55	46.55
6	15570.00	61.5 PK	74.0	-12.5	1.46 V	205	10.08	51.42
7	15570.00	50.5 AV	54.0	-3.5	1.46 V	205	-0.92	51.42

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.
- 6. "#":The radiated frequency is out the restricted band.



EUT TEST CONDITION		MEASUREMENT DETAIL		
CHANNEL	Channel 46	FREQUENCY RANGE	1 ~ 40GHz	
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)	
ENVIRONMENTAL CONDITIONS	22deg. C, 64%RH 1004 hPa	TESTED BY	Kent Liu	

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)	
1	*5230.00	101.1 PK			1.14 H	284	60.95	40.15	
2	*5230.00	90.7 AV			1.14 H	284	50.55	40.15	
3	#10460.00	55.1 PK	68.3	-13.2	1.57 H	26	8.45	46.65	
4	15690.00	62.3 PK	74.0	-11.7	1.00 H	212	10.81	51.49	
5	15690.00	50.5 AV	54.0	-3.5	1.00 H	212	-0.99	51.49	
		ANTENNA	A POLARIT	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M		
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)	
1	*5230.00	110.3 PK			1.08 V	276	70.15	40.15	
2	*5230.00	100.8 AV			1.08 V	276	60.65	40.15	
3	#10460.00	53.2 PK	68.3	-15.1	1.25 V	166	6.55	46.65	
4	15690.00	61.1 PK	74.0	-12.9	1.51 V	207	9.61	51.49	
5	15690.00	50.3 AV	54.0	-3.7	1.51 V	207	-1.19	51.49	

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.
- 6. "#":The radiated frequency is out the restricted band.



EUT TEST CONDITION		MEASUREMENT DETAIL		
CHANNEL	Channel 54	FREQUENCY RANGE	1 ~ 40GHz	
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)	
ENVIRONMENTAL CONDITIONS	22deg. C, 64%RH 1004 hPa	TESTED BY	Kent Liu	

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)	
1	*5270.00	102.2 PK			1.20 H	273	61.95	40.25	
2	*5270.00	92.1 AV			1.20 H	273	51.85	40.25	
3	#10540.00	55.0 PK	68.3	-13.3	1.56 H	32	8.25	46.75	
4	15810.00	62.1 PK	74.0	-11.9	1.00 H	206	10.49	51.61	
5	15810.00	50.3 AV	54.0	-3.7	1.00 H	206	-1.31	51.61	
		ANTENNA	POLARIT	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M		
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)	
<b>NO</b> .	*5270.00	LEVEL		MARGIN (dB)	7	ANGLE		FACTOR	
	` '	LEVEL (dBuV/m)		MARGIN (dB)	HEIGHT (m)	ANGLE (Degree)	(dBuV)	FACTOR (dB/m)	
1	*5270.00	<b>LEVEL</b> (dBuV/m) 111.5 PK		<b>MARGIN (dB)</b> -9.1	<b>HEIGHT (m)</b>	ANGLE (Degree)	(dBuV) 71.25	FACTOR (dB/m) 40.25	
1 2	*5270.00 *5270.00	LEVEL (dBuV/m) 111.5 PK 102.3 AV	(dBuV/m)		1.06 V 1.06 V	ANGLE (Degree)  281 281	(dBuV) 71.25 62.05	FACTOR (dB/m) 40.25 40.25	
1 2 3	*5270.00 *5270.00 5350.00	LEVEL (dBuV/m) 111.5 PK 102.3 AV 64.9 PK	(dBuV/m)	-9.1	1.06 V 1.06 V 1.08 V	ANGLE (Degree) 281 281 234	(dBuV) 71.25 62.05 24.43	FACTOR (dB/m) 40.25 40.25 40.47	
1 2 3 4	*5270.00 *5270.00 5350.00 5350.00	LEVEL (dBuV/m) 111.5 PK 102.3 AV 64.9 PK 53.5 AV	74.0 54.0	-9.1 -0.5	1.06 V 1.06 V 1.08 V 1.08 V	281 281 234 234	(dBuV) 71.25 62.05 24.43 13.03	FACTOR (dB/m) 40.25 40.25 40.47 40.47	

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.
- 6. "#":The radiated frequency is out the restricted band.



EUT TEST CONDITION		MEASUREMENT DETAIL		
CHANNEL	Channel 62	FREQUENCY RANGE	1 ~ 40GHz	
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)	
ENVIRONMENTAL CONDITIONS	22deg. C, 64%RH 1004 hPa	TESTED BY	Kent Liu	

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
		ANTENNA	POLARITY	& IESI DIS	I ANCE: HO	RIZONTAL	AIJW		
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)	
1	*5310.00	98.1 PK			1.22 H	270	57.74	40.36	
2	*5310.00	87.9 AV			1.22 H	270	47.54	40.36	
3	5350.00	59.6 PK	74.0	-14.4	1.27 H	231	19.13	40.47	
4	5350.00	46.9 AV	54.0	-7.1	1.27 H	231	6.43	40.47	
5	10620.00	55.3 PK	74.0	-18.7	1.51 H	31	8.46	46.84	
6	10620.00	42.9 AV	54.0	-11.1	1.51 H	31	-3.94	46.84	
7	15930.00	62.3 PK	74.0	-11.7	1.01 H	203	10.61	51.69	
8	15930.00	50.2 AV	54.0	-3.8	1.01 H	203	-1.49	51.69	
		ANTENNA	A POLARIT	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M		
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)	
1	*5310.00	107.0 PK			1.08 V	289	66.64	40.36	
2	*5310.00	97.8 AV			1.08 V	289	57.44	40.36	
3	5350.00	66.5 PK	74.0	-7.5	1.08 V	289	26.03	40.47	
4	5350.00	53.1 AV	54.0	-0.9	1.08 V	289	12.63	40.47	
5	10620.00	53.4 PK	74.0	-20.6	1.31 V	165	6.56	46.84	
6	10620.00	42.1 AV	54.0	-11.9	1.31 V	165	-4.74	46.84	
7	15930.00	61.0 PK	74.0	-13.0	1.53 V	218	9.31	51.69	
8	15930.00	50.0 AV	54.0	-4.0	1.53 V	218	-1.69	51.69	

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.



EUT TEST CONDITION		MEASUREMENT DETAIL		
CHANNEL	Channel 102	FREQUENCY RANGE	1 ~ 40GHz	
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)	
ENVIRONMENTAL CONDITIONS	22deg. C, 64%RH 1004 hPa	TESTED BY	Kent Liu	

		ANTENNA	POLARITY	& TEST DIS	TANCE: HO	RIZONTAL	AT 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	59.8 PK	74.0	-14.2	1.24 H	281	19.04	40.76
2	5460.00	47.6 AV	54.0	-6.4	1.24 H	281	6.84	40.76
3	#5470.00	56.3 PK	68.3	-12.0	1.24 H	281	15.52	40.78
4	*5510.00	98.6 PK			1.24 H	281	57.71	40.89
5	*5510.00	88.1 AV			1.24 H	281	47.21	40.89
6	7346.67	53.4 PK	74.0	-20.6	1.40 H	52	6.78	46.62
7	7346.67	42.8 AV	54.0	-11.2	1.40 H	52	-3.82	46.62
8	11020.00	55.2 PK	74.0	-18.8	1.47 H	21	7.91	47.29
9	11020.00	42.9 AV	54.0	-11.1	1.47 H	21	-4.39	47.29
10	#16530.00	62.3 PK	68.3	-6.0	1.00 H	214	9.22	53.08
		ANTENNA	A POLARIT	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	64.9 PK	74.0	-9.1	1.20 V	249	24.14	40.76
2	5460.00	53.1 AV	54.0	-0.9	1.20 V	249	12.34	40.76
3	#5470.00	64.2 PK	68.3	-4.1	1.20 V	249	23.42	40.78
4	*5510.00	108.0 PK			1.20 V	249	67.11	40.89
5	*5510.00	98.3 AV			1.20 V	249	57.41	40.89
6	7346.67	57.7 PK	74.0	-16.3	1.10 V	288	11.08	46.62
7	7346.67	53.3 AV	54.0	-0.7	1.10 V	288	6.68	46.62
8	11020.00	53.3 PK	74.0	-20.7	1.33 V	166	6.01	47.29
9	11020.00	42.2 AV	54.0	-11.8	1.33 V	166	-5.09	47.29
10	#16530.00	61.0 PK	68.3	-7.3	1.56 V	215	7.92	53.08

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.
- 6. "#":The radiated frequency is out the restricted band.



EUT TEST CONDITION		MEASUREMENT DETAIL		
CHANNEL Channel 118		FREQUENCY RANGE	1 ~ 40GHz	
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)	
ENVIRONMENTAL CONDITIONS	22deg. C, 64%RH 1004 hPa	TESTED BY	Kent Liu	

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)	
1	*5590.00	105.0 PK			1.21 H	294	63.88	41.12	
2	*5590.00	94.4 AV			1.21 H	294	53.28	41.12	
3	7453.33	53.4 PK	74.0	-20.6	1.39 H	59	6.85	46.55	
4	7453.33	42.5 AV	54.0	-11.5	1.39 H	59	-4.05	46.55	
5	11180.00	55.2 PK	74.0	-18.8	1.51 H	23	7.79	47.41	
6	11180.00	43.2 AV	54.0	-10.8	1.51 H	23	-4.21	47.41	
7	#16770.00	62.1 PK	68.3	-6.2	1.00 H	220	8.54	53.56	
		ANTENNA	POLARITY	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M		
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)	
1	*5590.00	114.9 PK			1.18 V	250	73.78	41.12	
2	*5590.00	105.7 AV			1.18 V	250	64.58	41.12	
3	7453.33	58.2 PK	74.0	-15.8	1.05 V	299	11.65	46.55	
4	7453.33	53.5 AV	54.0	-0.5	1.05 V	299	6.95	46.55	
5	11180.00	53.0 PK	74.0	-21.0	1.37 V	166	5.59	47.41	
6	11180.00	42.1 AV	54.0	-11.9	1.37 V	166	-5.31	47.41	
7	#16770.00	60.7 PK	68.3	-7.6	1.59 V	227	7.14	53.56	

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.
- 6. "#":The radiated frequency is out the restricted band.



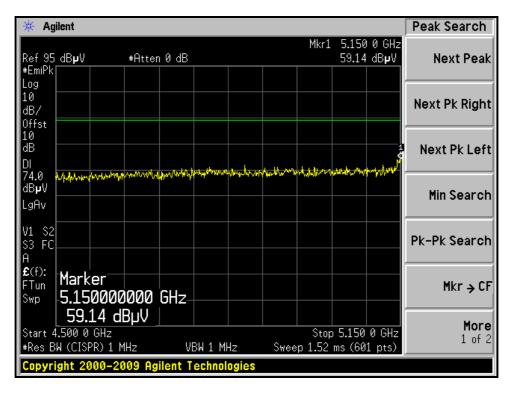
EUT TEST CONDITION		MEASUREMENT DETAIL		
CHANNEL	Channel 134	FREQUENCY RANGE	1 ~ 40GHz	
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)	
ENVIRONMENTAL CONDITIONS	22deg. C, 64%RH 1004 hPa	TESTED BY	Kent Liu	

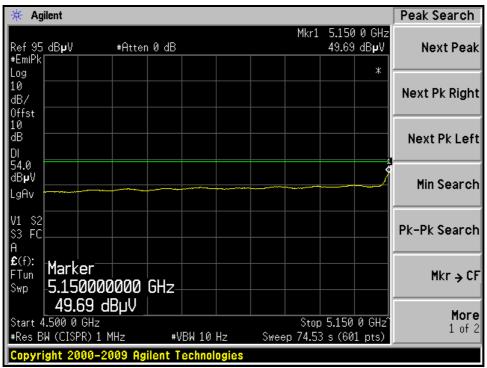
	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)	
1	*5670.00	101.6 PK			1.28 H	280	60.26	41.34	
2	*5670.00	91.3 AV			1.28 H	280	49.96	41.34	
3	#5725.00	57.3 PK	68.3	-11.0	1.28 H	280	15.81	41.49	
4	7560.00	53.2 PK	74.0	-20.8	1.46 H	50	6.75	46.45	
5	7560.00	42.5 AV	54.0	-11.5	1.46 H	50	-3.95	46.45	
6	11340.00	55.4 PK	74.0	-18.6	1.48 H	16	7.83	47.57	
7	11340.00	43.2 AV	54.0	-10.8	1.48 H	16	-4.37	47.57	
8	#17010.00	62.4 PK	68.3	-5.9	1.00 H	220	8.31	54.09	
		ANTENNA	A POLARIT	Y & TEST DI	STANCE: V	ERTICAL A	T 3 M		
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)	
1	*5670.00	111.2 PK			1.25 V	247	69.86	41.34	
2	*5670.00	101.6 AV			1.25 V	247	60.26	41.34	
3	#5725.00	66.7 PK	68.3	-1.6	1.21 V	243	25.21	41.49	
4	7560.00	57.6 PK	74.0	-16.4	1.07 V	292	11.15	46.45	
5	7560.00	53.1 AV	54.0	-0.9	1.07 V	292	6.65	46.45	
6	11340.00	52.9 PK	74.0	-21.1	1.37 V	170	5.33	47.57	
7	11340.00	42.0 AV	54.0	-12.0	1.37 V	170	-5.57	47.57	
8	#17010.00	60.8 PK	68.3	-7.5	1.62 V	237	6.71	54.09	

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- $3. \ \mbox{The other emission levels were very low against the limit.}$
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.
- 6. "#":The radiated frequency is out the restricted band.



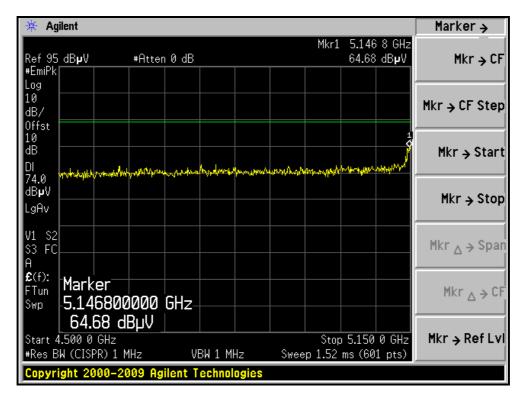
# RESTRICTED BANDEDGE (802.11n (40MHz) MODE, CH38, HORIZONTAL)

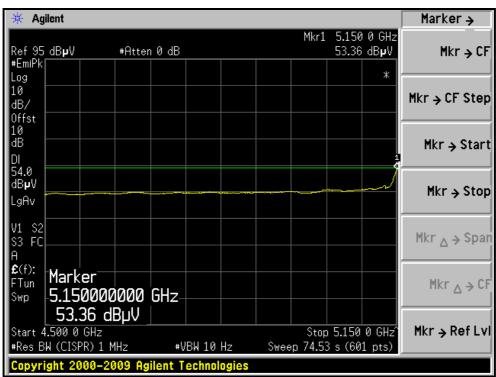






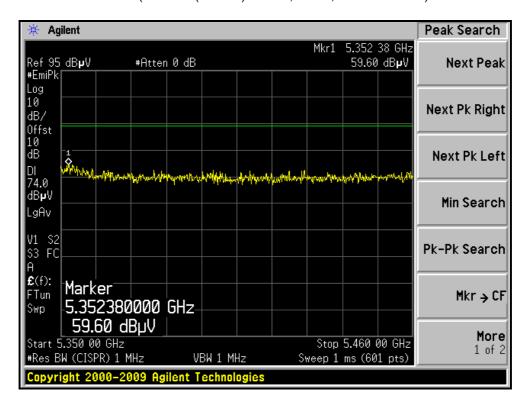
# RESTRICTED BANDEDGE (802.11n (40MHz) MODE, CH38, VERTICAL)

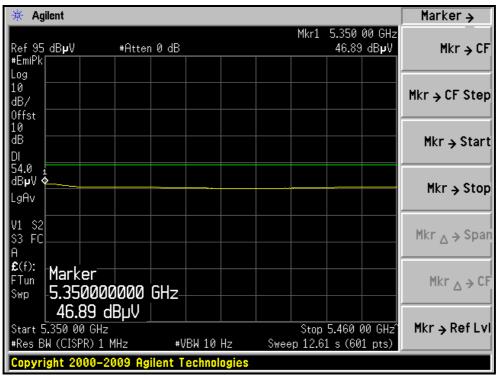






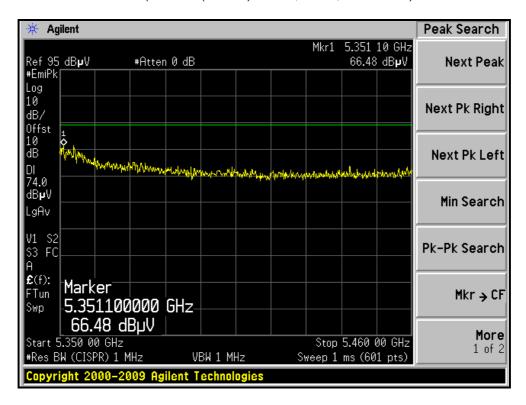
#### RESTRICTED BANDEDGE (802.11n (40MHz) MODE, CH62, HORIZONTAL)

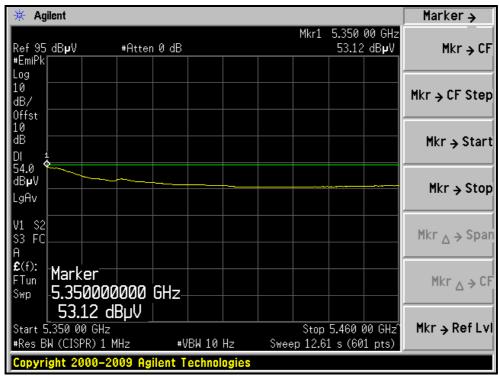






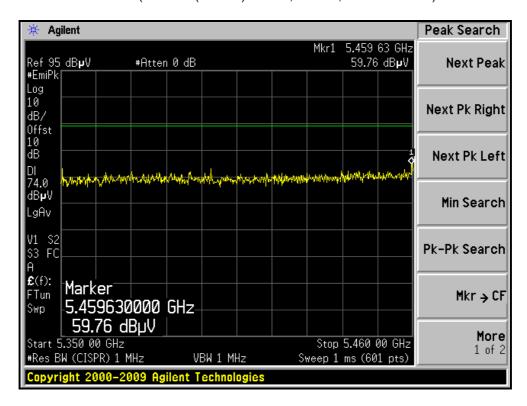
# RESTRICTED BANDEDGE (802.11n (40MHz) MODE, CH62, VERTICAL)

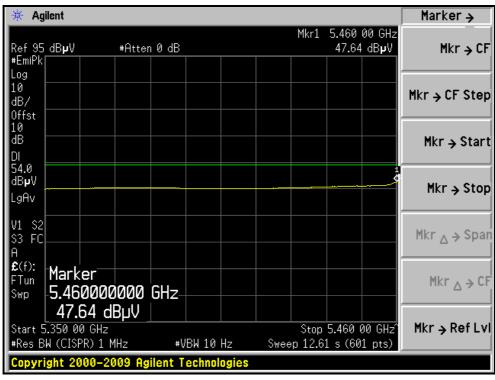






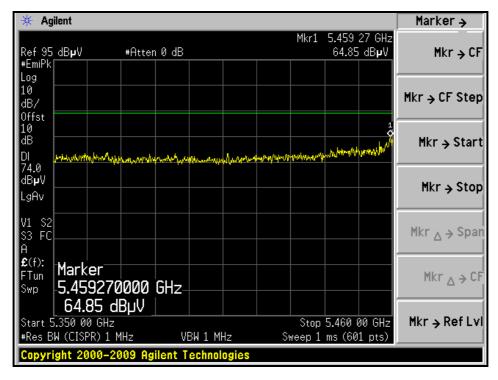
#### RESTRICTED BANDEDGE (802.11n (40MHz) MODE, CH102, HORIZONTAL)

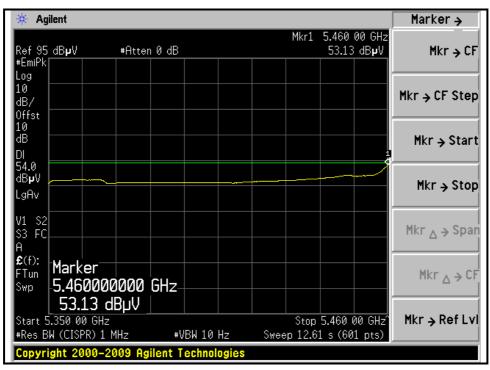






# RESTRICTED BANDEDGE (802.11n (40MHz) MODE, CH102, VERTICAL)







# 4.3 OUTPUT TRANSMIT POWER MEASUREMENT

# 4.3.1 LIMITS OF OUTPUT TRANSMIT POWER MEASUREMENT

Frequency Band	Limit
5.15 – 5.25GHz	The lesser of 50mW (17dBm) or 4dBm + 10logB
5.25 – 5.35GHz	The lesser of 250mW (24dBm) or 11dBm + 10logB
5.47 – 5.725GHz	The lesser of 250mW (24dBm) or 11dBm + 10logB
5.725 – 5.825GHz	The lesser of 1W (30dBm) or 17dBm + 10logB

**NOTE:** Where B is the 26dB emission bandwidth in MHz.

# 4.3.2 TEST INSTRUMENTS

**Test date: June 23, 2011** 

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Spectrum Analyzer	E4446A	MY48250254	July 14, 2010	July 13, 2011

**NOTE:** The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

# 4.3.3 TEST PROCEDURE

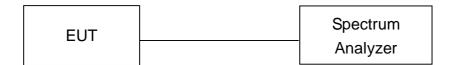
- 1. The transmitter output was connected to the spectrum analyzer.
- 2. Set span to encompass the entire emission bandwidth of the signal.
- 3. Set RBW to 1MHz, VBW to 3MHz.
- 4. Using the spectrum analyzer's channel power measurement function to measure the output power.

# 4.3.4 DEVIATION FROM TEST STANDARD

No deviation



# 4.3.5 TEST SETUP



# 4.3.6 EUT OPERATING CONDITIONS

The software provided by client to enable the EUT under transmission condition continuously at specific channel frequencies individually.



# 4.3.7 TEST RESULTS

# **802.11a OFDM MODULATION:**

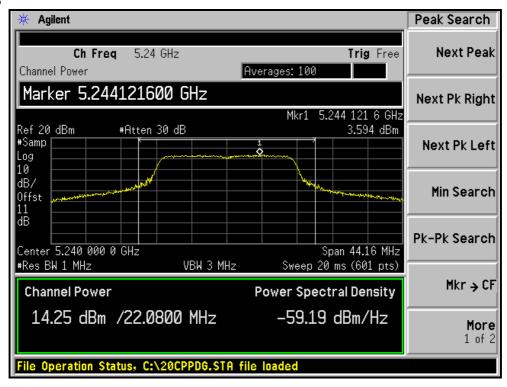
CHANNEL	CHANNEL FREQUENCY (MHz)	OUTPUT POWER (mW)	OUTPUT POWER (dBm)	OUTPUT POWER LIMIT (dBm)	26dBc Occupied Bandwidth (MHz)	PASS/ FAIL
36	5180	25.7	14.1	17	23.33	PASS
40	5200	25.1	14.0	17	22.42	PASS
48	5240	26.9	14.3	17	22.08	PASS
52	5260	60.3	17.8	24	22.83	PASS
60	5300	56.2	17.5	24	23.50	PASS
64	5320	22.9	13.6	24	22.92	PASS
100	5500	32.4	15.1	24	23.42	PASS
120	5600	58.9	17.7	24	25.92	PASS
140	5700	21.9	13.4	24	22.83	PASS

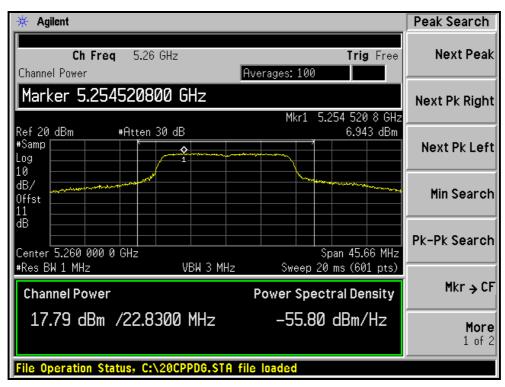
**NOTE:** The 26dBc Occupied Bandwidth plot, please refer to the following pages.



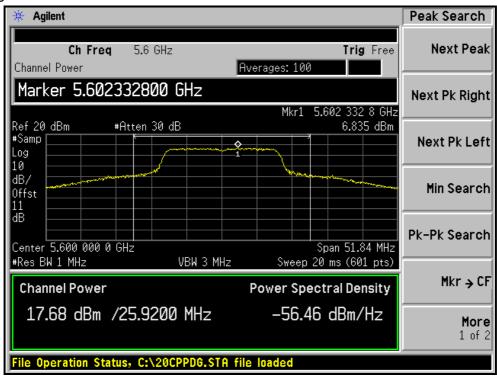
# **Peak Power Output:**

#### **CH48**





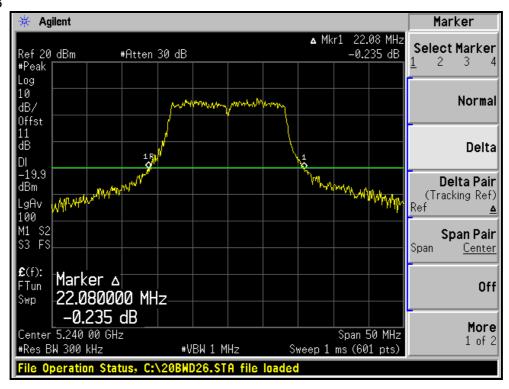


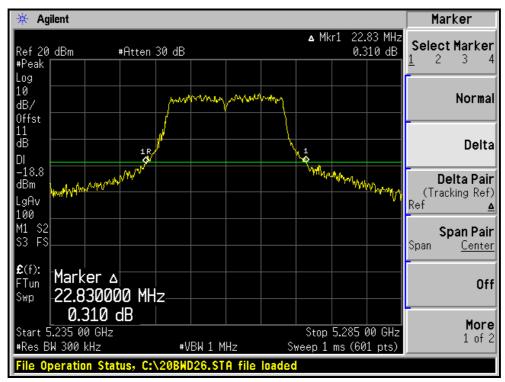




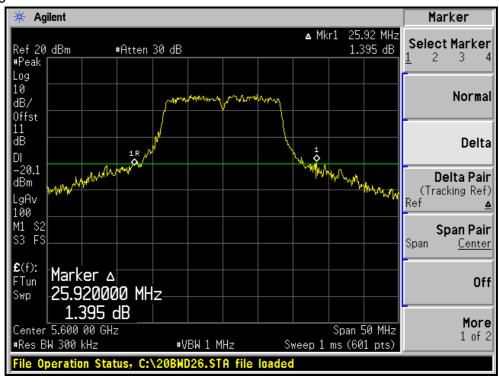
# 26dB Occupied Bandwidth:

**CH48** 











# Single Chain - 802.11n (20MHz) OFDM MODULATION:

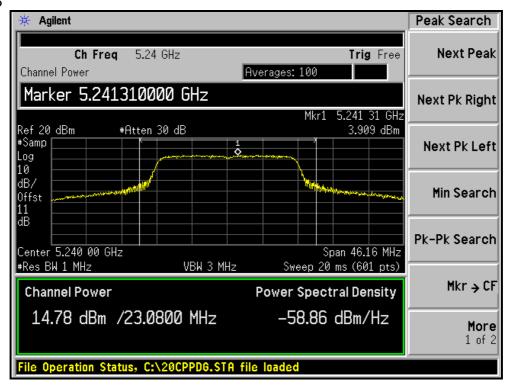
CHANNEL	CHANNEL FREQUENCY (MHz)	OUTPUT POWER (mW)	OUTPUT POWER (dBm)	OUTPUT POWER LIMIT (dBm)	26dBc Occupied Bandwidth (MHz)	PASS/ FAIL
36	5180	29.5	14.7	17	23.58	PASS
40	5200	29.5	14.7	17	23.58	PASS
48	5240	30.2	14.8	17	23.08	PASS
52	5260	64.6	18.1	24	24.17	PASS
60	5300	41.7	16.2	24	24.25	PASS
64	5320	23.4	13.7	24	23.25	PASS
100	5500	30.9	14.9	24	23.67	PASS
120	5600	58.9	17.7	24	27.17	PASS
140	5700	23.4	13.7	24	23.83	PASS

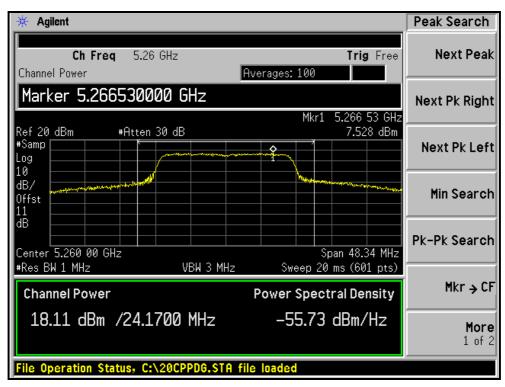
NOTE: The 26dBc Occupied Bandwidth plot, please refer to the following pages.



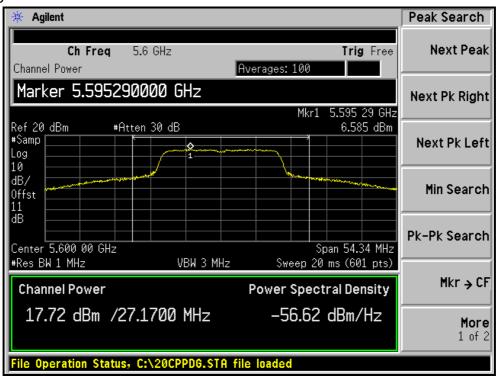
# Peak Power Output:

#### **CH48**





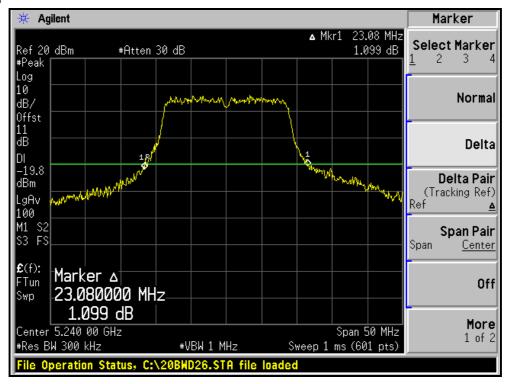


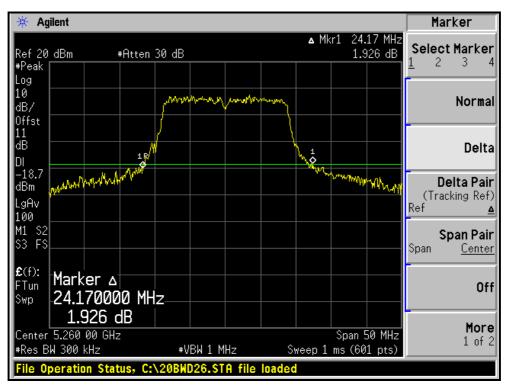




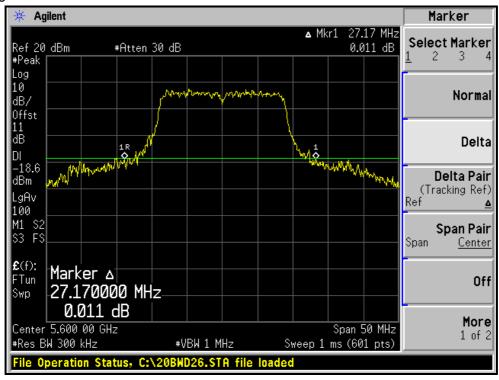
# 26dB Occupied Bandwidth:













# Multiple chain - 802.11n (20MHz) OFDM MODULATION:

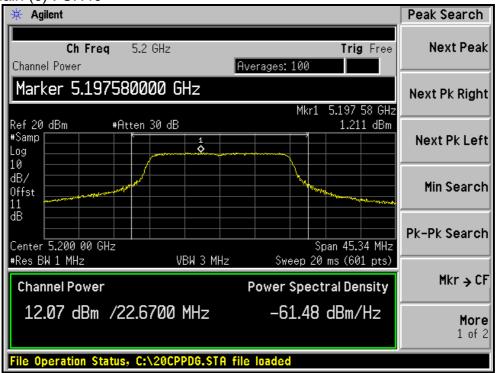
	CHANNEL		OUTPUT POWER (dBm)		TOTAL OUTPUT	ОИТРИТ	26dBc Occupied	
CHANNEL FREQUENC (MHz)	FREQUENCY (MHz)	CHAIN(0)	CHAIN(1)	OUTPUT POWER (mW)	POWER (dBm)	POWER LIMIT (dBm)	Bandwidth (MHz)	PASS / FAIL
36	5180	11.1	11.6	27.3	14.4	17	23.50	PASS
40	5200	12.1	11.6	30.7	14.9	17	22.67	PASS
48	5240	11.8	12.0	31.0	14.9	17	23.17	PASS
52	5260	17.8	17.9	121.9	20.9	24	24.33	PASS
60	5300	15.4	15.6	71.0	18.5	24	24.00	PASS
64	5320	12.7	12.8	37.7	15.8	24	24.08	PASS
100	5500	14.5	14.9	59.1	17.7	24	24.67	PASS
120	5600	18.0	18.0	126.2	21.0	24	25.17	PASS
140	5700	12.5	12.8	36.8	15.7	24	23.75	PASS

NOTE: The 26dBc Occupied Bandwidth plot, please refer to the following pages.

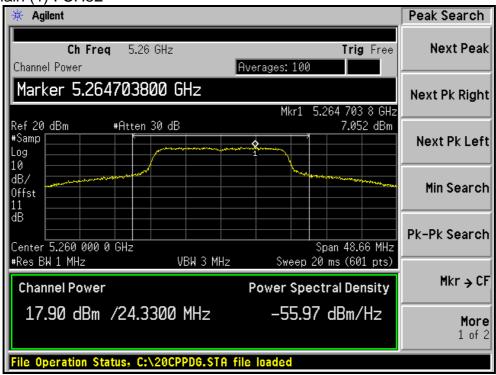


# Peak Power Output:

For Chain (0): CH40

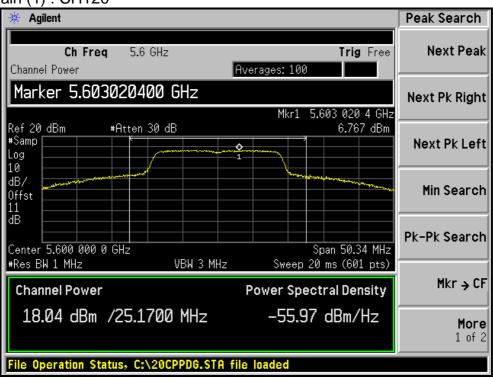


For Chain (1): CH52





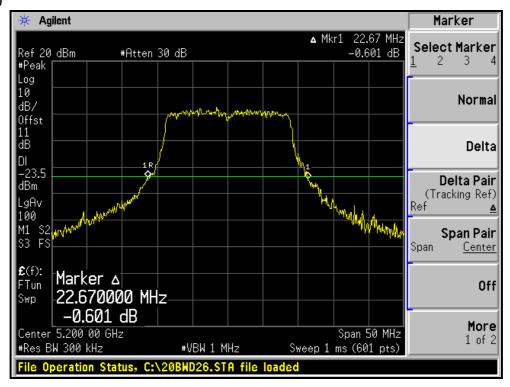
For Chain (1): CH120

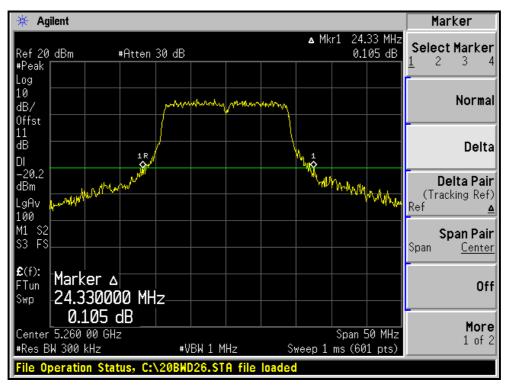




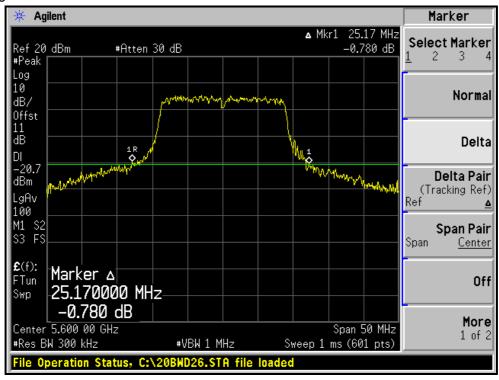
# 26dB Occupied Bandwidth:













# Single Chain - 802.11n (40MHz) OFDM MODULATION:

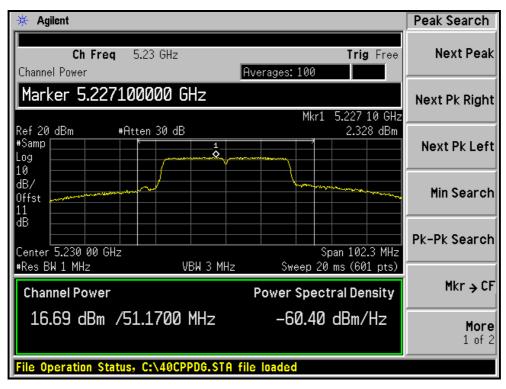
CHANNEL	CHANNEL FREQUENCY (MHz)	OUTPUT POWER (mW)	OUTPUT POWER (dBm)	OUTPUT POWER LIMIT (dBm)	26dBc Occupied Bandwidth (MHz)	PASS/ FAIL
38	5190	18.2	12.6	17	40.83	PASS
46	5230	46.8	16.7	17	51.17	PASS
54	5270	37.2	15.7	24	54.67	PASS
62	5310	14.1	11.5	24	40.83	PASS
102	5510	23.4	13.7	24	42.17	PASS
118	5590	60.3	17.8	24	62.83	PASS
134	5670	38.0	15.8	24	61.50	PASS

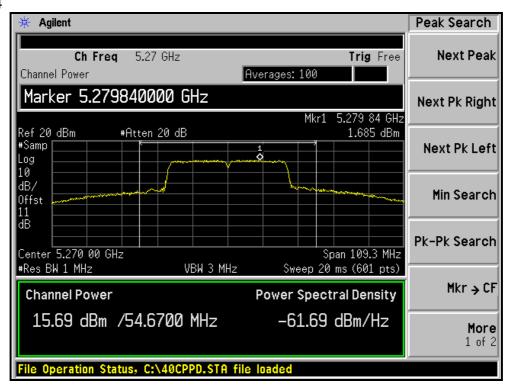
**NOTE:** The 26dBc Occupied Bandwidth plot, please refer to the following pages.



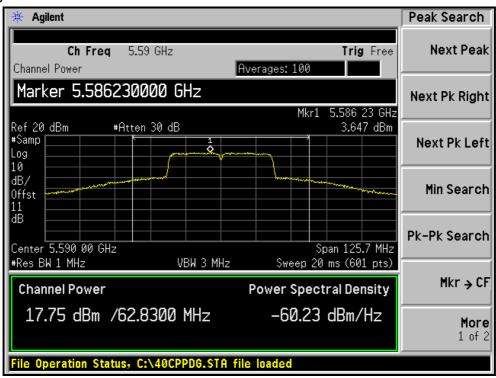
# Peak Power Output:

#### **CH46**





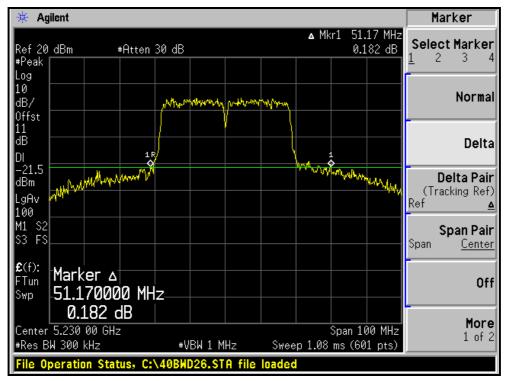


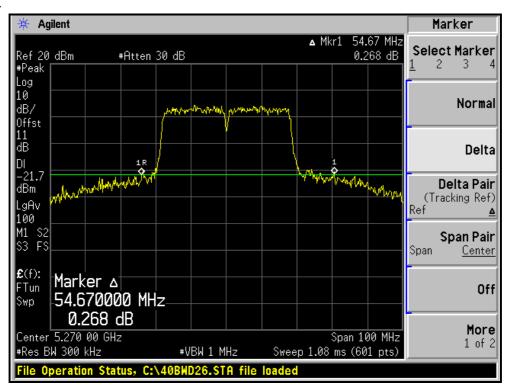




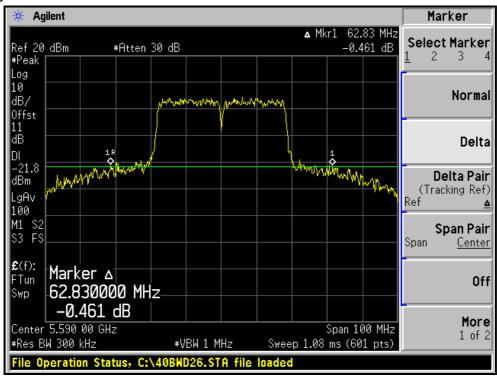
# 26dB Occupied Bandwidth:













# Multiple chain - 802.11n (40MHz) OFDM MODULATION:

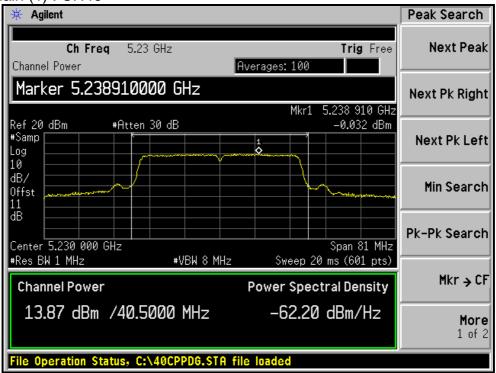
	CHANNEL		OUTPUT POWER (dBm)		TOTAL OUTPUT	OUTPUT	26dBc Occupied	
CHANNEL		CHAIN(0)	CHAIN(1)	OUTPUT POWER (mW)	POWER (dBm)	POWER LIMIT (dBm)	Bandwidth (MHz)	PASS / FAIL
38	5190	10.4	10.4	21.9	13.4	17	40.50	PASS
46	5230	13.4	13.9	46.4	16.7	17	40.50	PASS
54	5270	15.3	15.4	68.6	18.4	24	43.83	PASS
62	5310	13.2	13.5	43.3	16.4	24	41.00	PASS
102	5510	10.8	10.8	24.0	13.8	24	40.50	PASS
118	5590	17.4	17.7	113.8	20.6	24	54.50	PASS
134	5670	13.7	13.9	48.0	16.8	24	54.00	PASS

NOTE: The 26dBc Occupied Bandwidth plot, please refer to the following pages.

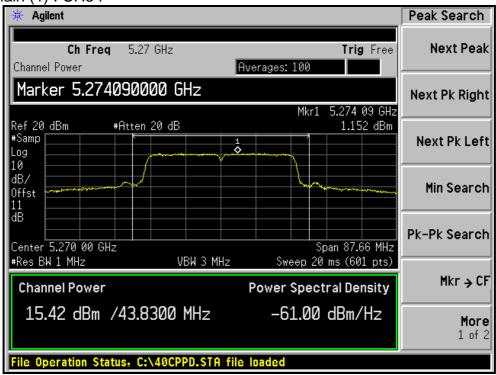


# Peak Power Output:

For Chain (1): CH46

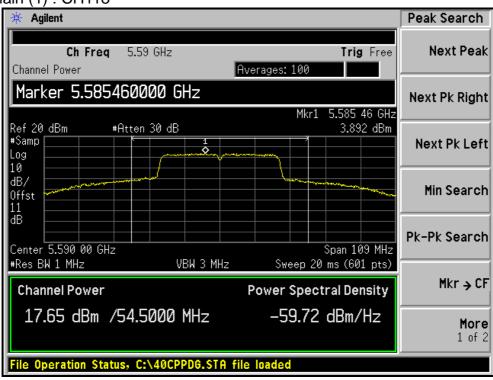


For Chain (1): CH54



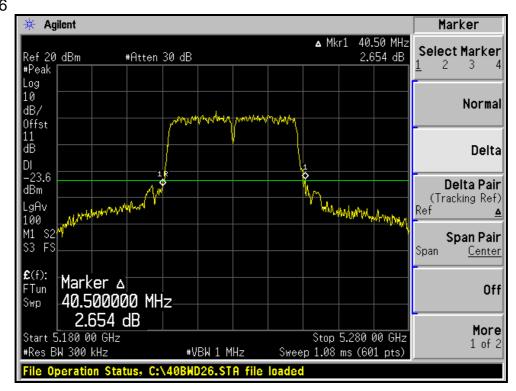


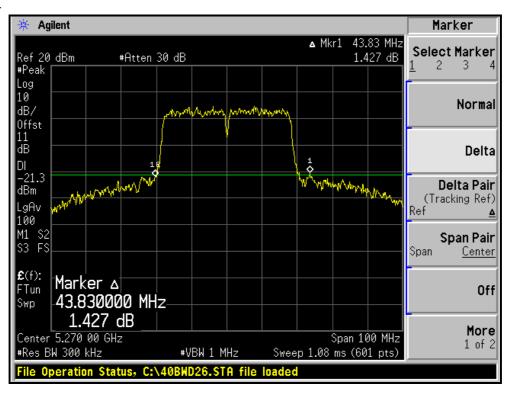
# For Chain (1): CH118



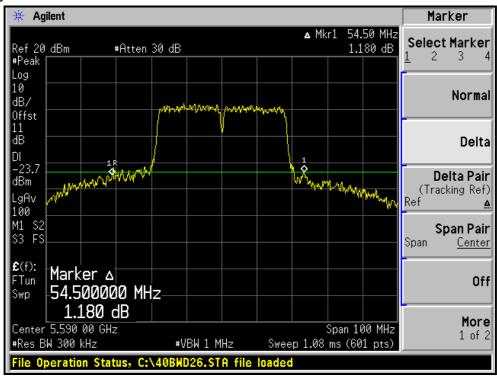


# 26dB Occupied Bandwidth: CH46











#### 4.4 PEAK POWER EXCURSION MEASUREMENT

#### 4.4.1 LIMITS OF PEAK POWER EXCURSION MEASUREMENT

Frequency Band	Limit
5.15 – 5.25 GHz	13dB
5.25 – 5.35 GHz	13dB
5.47 – 5.725GHz	13dB
5.725 – 5.825 GHz	13dB

#### 4.4.2 TEST INSTRUMENTS

**Test date: June 23, 2011** 

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Spectrum Analyzer	E4446A	MY48250254	July 14, 2010	July 13, 2011

**NOTE:** The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

# 4.4.3 TEST PROCEDURE

- 1. Connect the cable from the spectrum analyzer to the EUT antenna port using an appropriate RF attenuator.
- 2. Verify the antenna port selected is the active one if the system has more then one antenna.
- 3. Verify the unlicensed wireless device is set to operate at 100 % duty cycle at the maximum allowed power for operation.
- 4. Testing shall be done on the center frequency of each U-NII band.
- 5. Set the spectrum analyzer span to view the entire emission bandwidth. The largest difference between the following two traces must be 13 dB for all frequencies across the emission bandwidth.
- a. First trace: set RBW = 1 MHz, VBW = 3 MHz with peak detector and max hold settings.
- b. Second trace: set RBW = 1 MHz, VBW = 3 MHz with sample detector and trace average across 100 traces in power averaging mode.

#### 4.4.4 DEVIATION FROM TEST STANDARD

No deviation



# 4.4.5 TEST SETUP

EUT	SPECTRUM

# 4.4.6 EUT OPERATING CONDITIONS

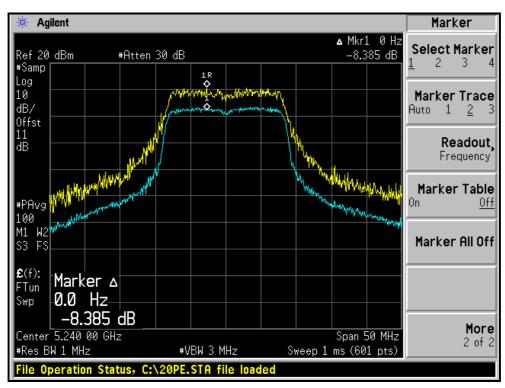
The software provided by client to enable the EUT under transmission condition continuously at specific channel frequencies individually.



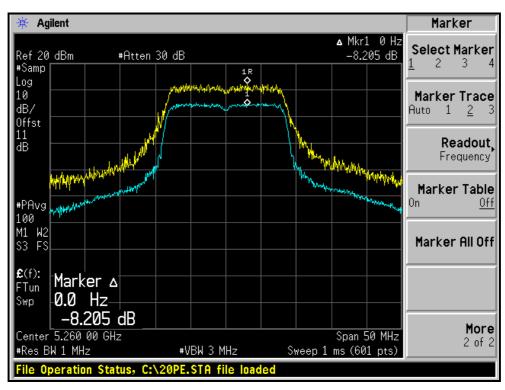
# 4.4.7 TEST RESULTS

# **802.11a OFDM MODULATION**

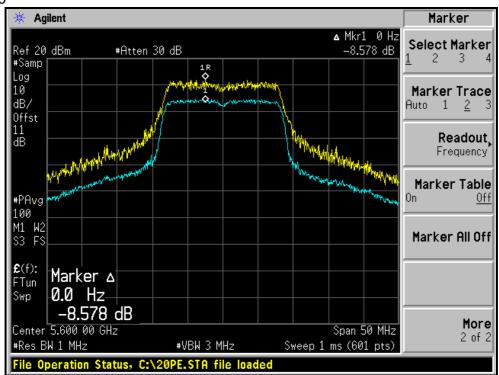
CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER EXCURSION (dB)	PEAK to AVERAGE EXCURSION LIMIT (dB)	PASS/FAIL
36	5180	8.0	13	PASS
40	5200	8.0	13	PASS
48	5240	8.4	13	PASS
52	5260	8.2	13	PASS
60	5300	8.0	13	PASS
64	5320	7.7	13	PASS
100	5500	7.4	13	PASS
120	5600	8.6	13	PASS
140	5700	7.9	13	PASS







#### CH120

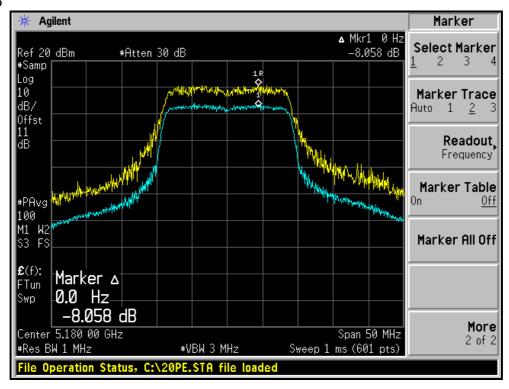


204

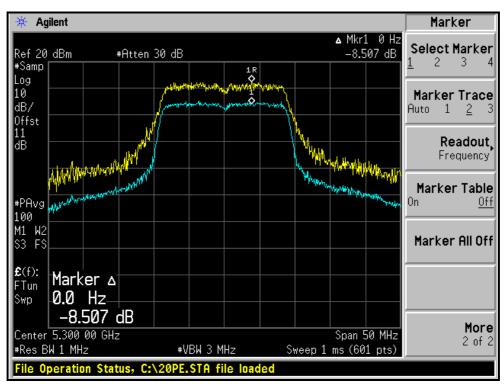


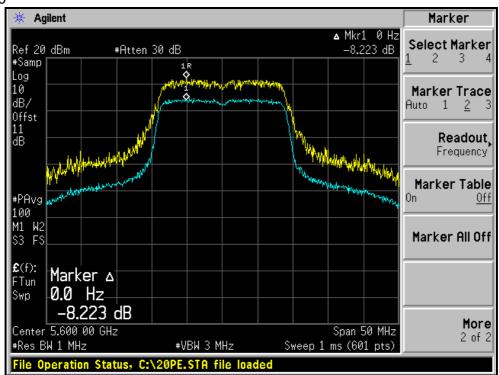
# Single Chain - 802.11n (20MHz) OFDM MODULATION:

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER EXCURSION (dB)	PEAK to AVERAGE EXCURSION LIMIT (dB)	PASS/FAIL
36	5180	8.1	13	PASS
40	5200	8.0	13	PASS
48	5240	8.0	13	PASS
52	5260	7.9	13	PASS
60	5300	8.5	13	PASS
64	5320	8.4	13	PASS
100	5500	7.8	13	PASS
120	5600	8.2	13	PASS
140	5700	7.7	13	PASS





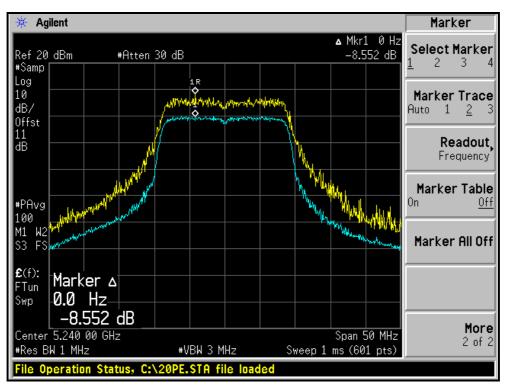




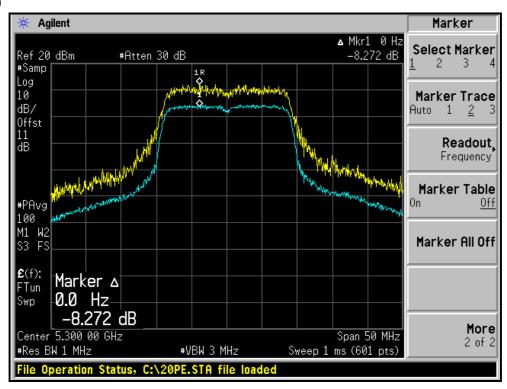


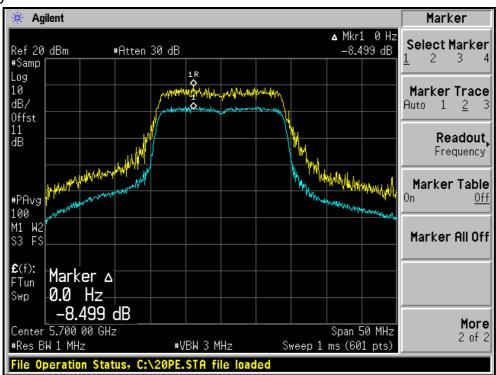
# Multiple chain - 802.11n (20MHz) OFDM MODULATION:

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER EXCURSION (dB)	PEAK to AVERAGE EXCURSION LIMIT (dB)	PASS/FAIL
36	5180	8.5	13	PASS
40	5200	7.8	13	PASS
48	5240	8.6	13	PASS
52	5260	8.1	13	PASS
60	5300	8.3	13	PASS
64	5320	7.5	13	PASS
100	5500	7.5	13	PASS
120	5600	8.1	13	PASS
140	5700	8.5	13	PASS





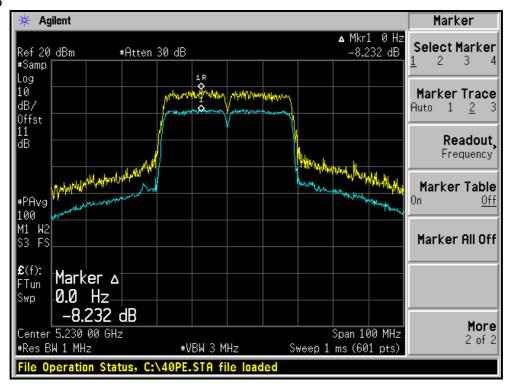




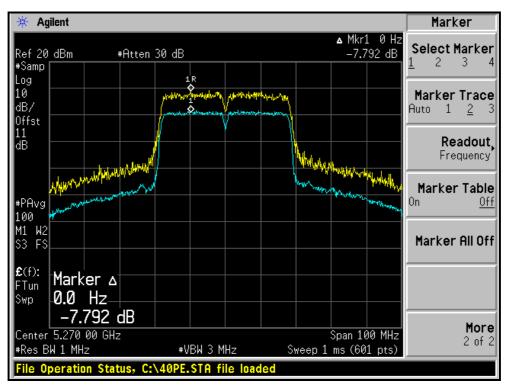


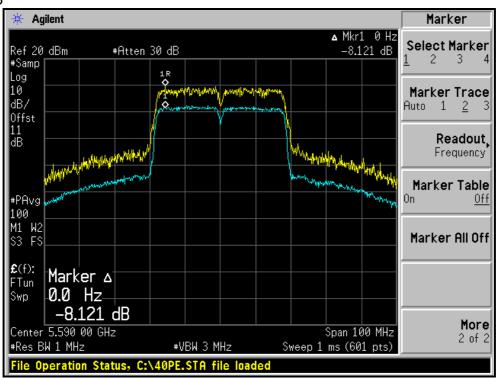
# Single Chain - 802.11n (40MHz) OFDM MODULATION:

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER EXCURSION (dB)	PEAK to AVERAGE EXCURSION LIMIT (dB)	PASS/FAIL
38	5190	7.5	13	PASS
46	5230	8.2	13	PASS
54	5270	7.8	13	PASS
62	5310	7.8	13	PASS
102	5510	7.3	13	PASS
118	5590	8.1	13	PASS
134	5670	7.7	13	PASS





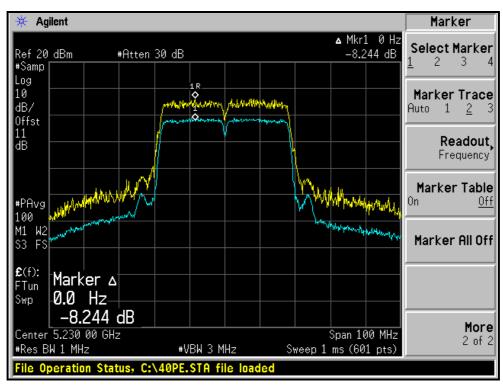




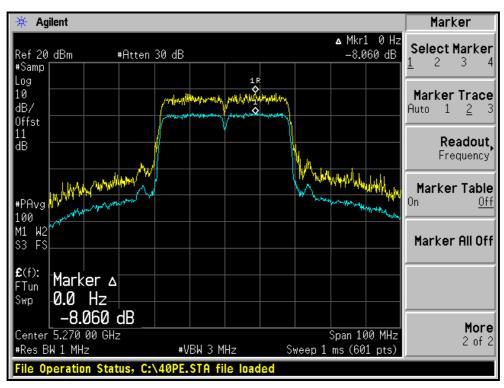


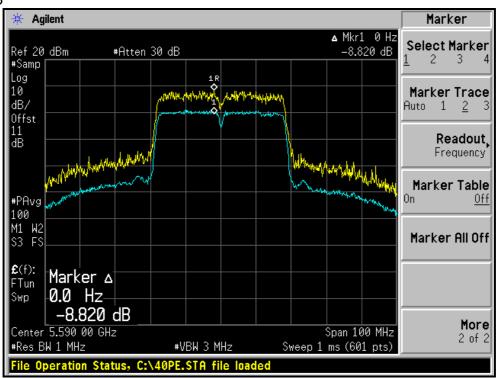
# Multiple chain - 802.11n (40MHz) OFDM MODULATION:

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER EXCURSION (dB)	PEAK to AVERAGE EXCURSION LIMIT (dB)	PASS/FAIL
38	5190	8.1	13	PASS
46	5230	8.2	13	PASS
54	5270	8.1	13	PASS
62	5310	8.0	13	PASS
102	5510	7.7	13	PASS
118	5590	8.8	13	PASS
134	5670	7.5	13	PASS











# 4.5 PEAK POWER SPECTRAL DENSITY MEASUREMENT

#### 4.5.1 LIMITS OF PEAK POWER SPECTRAL DENSITY MEASUREMENT

Frequency Band	Limit
5.15 ~ 5.25GHz	4dBm
5.25 ~ 5.35GHz	11dBm
5.47 – 5.725GHz	11dBm
5.725 ~ 5.825GHz	17dBm

#### 4.5.2 TEST INSTRUMENTS

**Test date: June 23, 2011** 

DESCRIPTION &	MODEL NO.	SERIAL NO.	CALIBRATED	CALIBRATED
MANUFACTURER			DATE	UNTIL
Spectrum Analyzer	E4446A	MY48250254	July 14, 2010	July 13, 2011

**NOTE:** The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

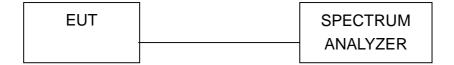
# 4.5.3 TEST PROCEDURES

- 1. The transmitter output was connected to the spectrum analyzer.
- 2. Set RBW=1MHz, VBW=3MHz. The PPSD is the highest level found across the emission in any 1MHz band.

#### 4.5.4 DEVIATION FROM TEST STANDARD

No deviation

#### 4.5.5 TEST SETUP



#### 4.5.6 EUT OPERATING CONDITIONS

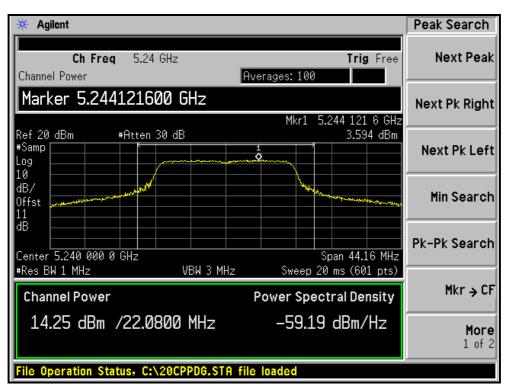
Same as 4.3.6



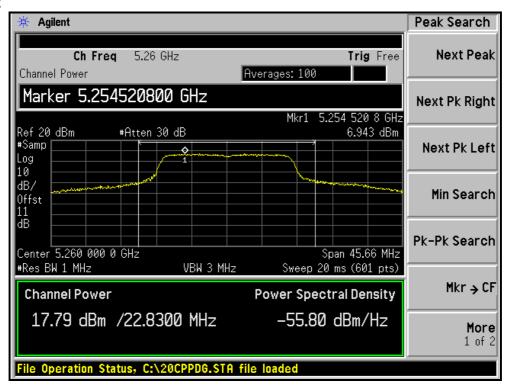
#### 4.5.7 TEST RESULTS

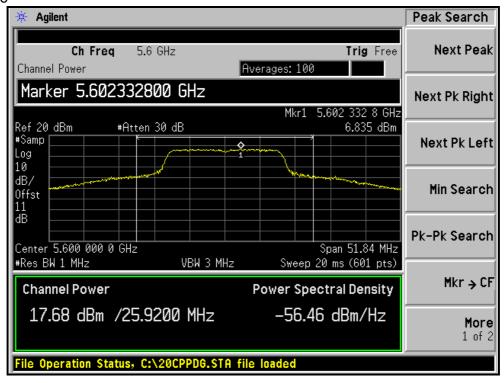
#### **802.11a OFDM MODULATION**

CHANNEL	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 1MHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
36	5180	3.2	4	PASS
40	5200	3.3	4	PASS
48	5240	3.6	4	PASS
52	5260	6.9	11	PASS
60	5300	6.6	11	PASS
64	5320	2.5	11	PASS
100	5500	4.4	11	PASS
120	5600	6.8	11	PASS
140	5700	2.4	11	PASS





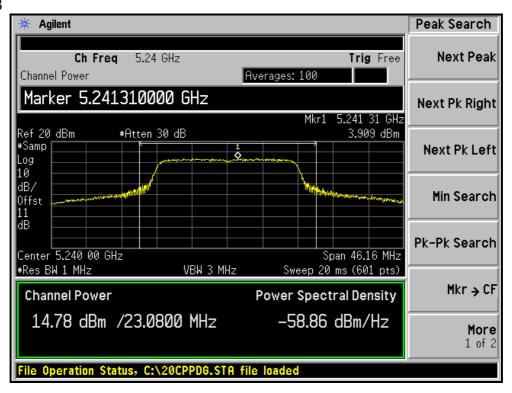






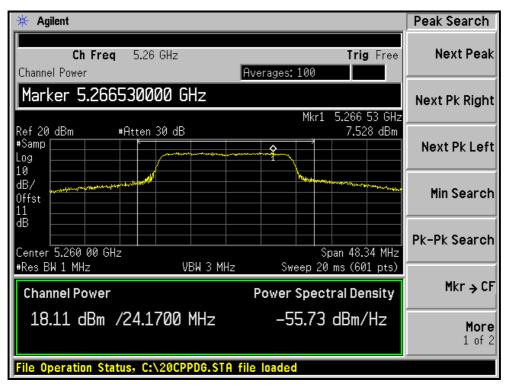
# Single Chain - 802.11n (20MHz) OFDM MODULATION:

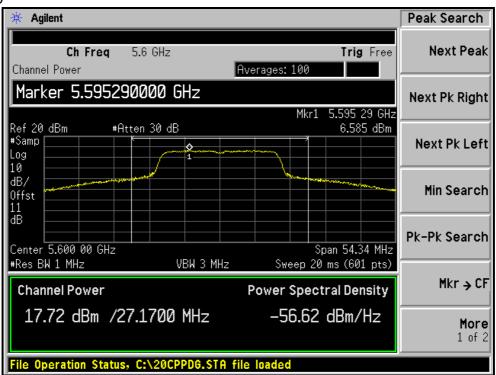
CHANNEL	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 1MHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
36	5180	3.7	4	PASS
40	5200	3.8	4	PASS
48	5240	3.9	4	PASS
52	5260	7.5	11	PASS
60	5300	5.4	11	PASS
64	5320	3.0	11	PASS
100	5500	4.5	11	PASS
120	5600	6.6	11	PASS
140	5700	2.6	11	PASS





#### CH52



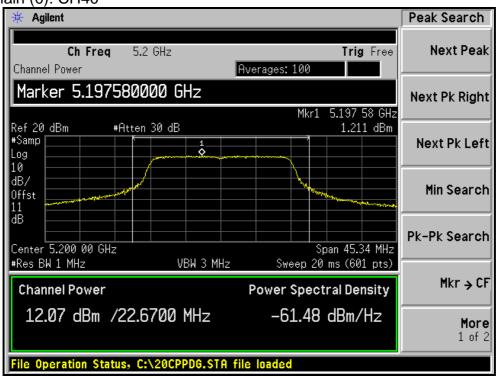




### Multiple chain - 802.11n (20MHz) OFDM MODULATION:

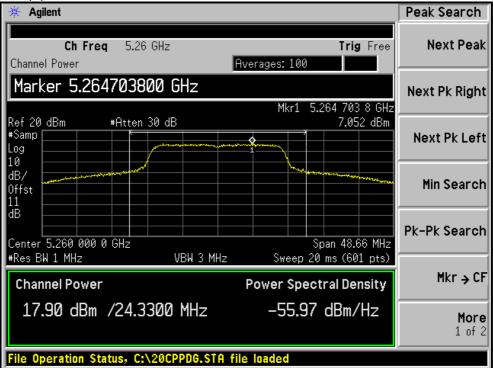
CHANNEL	CHANNEL FREQUENCY	RF POWER LEVEL IN 3kHz BW (dBm)		TOTAL POWER	MAXIMUM LIMIT	PASS / FAIL
	(MHz)	CHAIN(0)	CHAIN(1)	DENSITY (dBm)	(dBm)	
36	5180	-0.3	0.4	3.1	4	PASS
40	5200	1.2	0.4	3.8	4	PASS
48	5240	0.8	0.7	3.8	4	PASS
52	5260	6.6	7.1	9.9	11	PASS
60	5300	4.3	4.6	7.5	11	PASS
64	5320	1.8	2.1	5.0	11	PASS
100	5500	3.3	3.6	6.5	11	PASS
120	5600	6.9	6.8	9.9	11	PASS
140	5700	1.5	1.6	4.6	11	PASS

For Chain (0): CH40

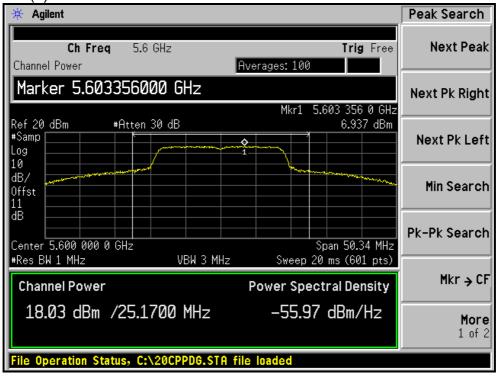




### For Chain (1): CH52



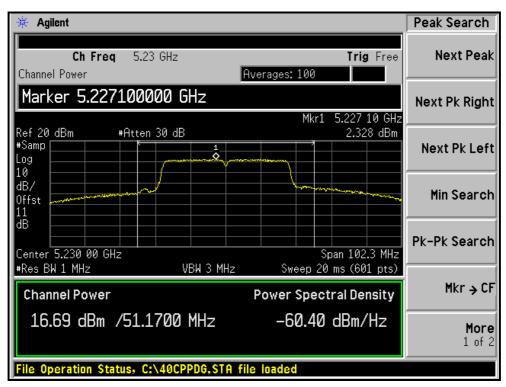
### For Chain (0): CH120





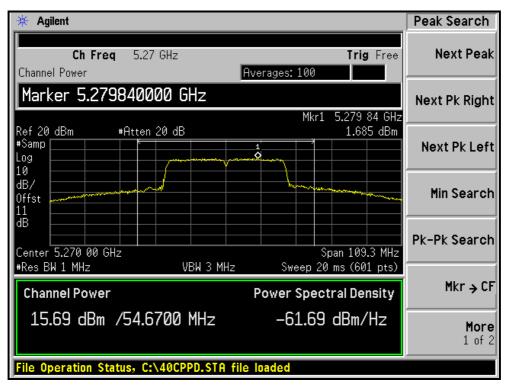
### Single Chain - 802.11n (40MHz) OFDM MODULATION:

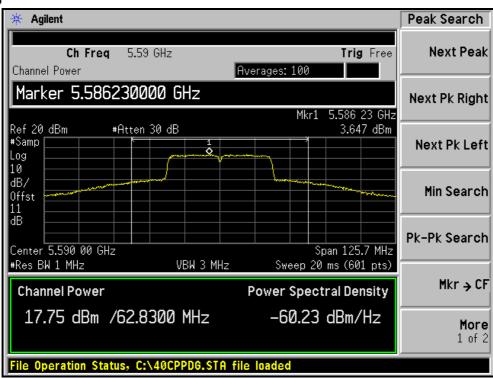
CHANNEL	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 1MHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
38	5190	-1.5	4	PASS
46	5230	2.3	4	PASS
54	5270	1.7	11	PASS
62	5310	-2.7	11	PASS
102	5510	-0.4	11	PASS
118	5590	3.6	11	PASS
134	5670	1.5	11	PASS





#### CH54



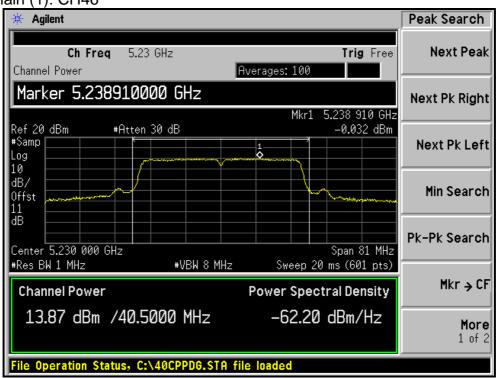




### Multiple chain - 802.11n (20MHz) OFDM MODULATION:

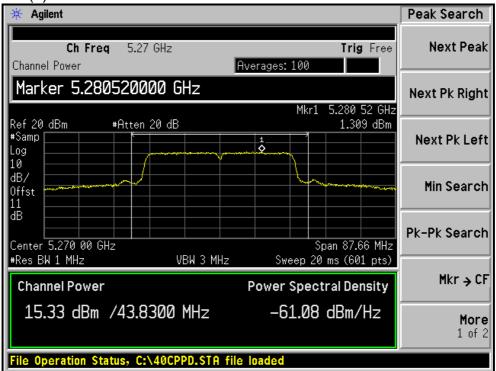
CHANNEL	CHANNEL FREQUENCY	RF POWER LEVEL IN 3kHz BW (dBm)		TOTAL POWER	MAXIMUM LIMIT	PASS / FAIL
	(MHz)	CHAIN(0)	CHAIN(1)	DENSITY (dBm)	(dBm)	
38	5190	-3.4	-3.5	-0.4	4	PASS
46	5230	-0.5	0.0	2.8	4	PASS
54	5270	1.3	1.2	4.3	11	PASS
62	5310	-0.9	-0.8	2.2	11	PASS
102	5510	-3.1	-3.2	-0.1	11	PASS
118	5590	3.1	3.9	6.5	11	PASS
134	5670	-0.3	0.0	2.9	11	PASS

### For Chain (1): CH46

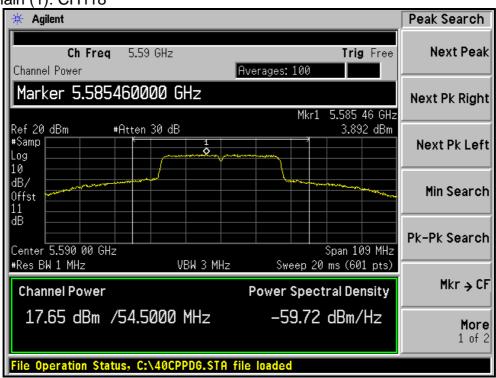




### For Chain (0): CH54



### For Chain (1): CH118





#### 4.6 FREQUENCY STABILITY

### 4.6.1 LIMITS OF FREQUENCY STABILITY MEASUREMENT

The frequency tolerance of the carrier signal shall be maintained within the band of the operating frequency over a temperature variation of –30 degrees to 50 degrees C at normal supply voltage, and for a variation in the primary supply voltage from 85% to 115% of the rated supply voltage at a temperature of 20 degrees C.

#### 4.6.2 TEST INSTRUMENTS

**Test date: June 23, 2011** 

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
R&S SPECTRUM ANALYZER	FSP 40	100060	May 17, 2010	May 16, 2011

**NOTE:** The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

#### 4.6.3 TEST PROCEDURE

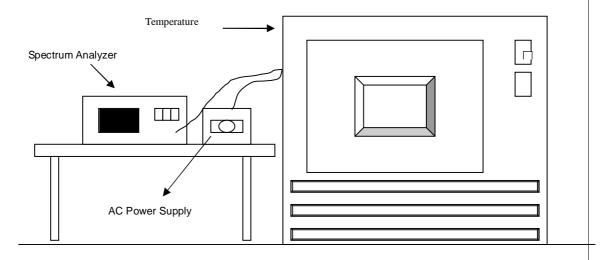
- 1. The EUT was placed inside the environmental test chamber and powered by nominal AC voltage.
- 2. Turn the EUT on and couple its output to a spectrum analyzer.
- 3. Turn the EUT off and set the chamber to the highest temperature specified.
- 4. Allow sufficient time (approximately 30 min) for the temperature of the chamber to stabilize, turn the EUT on and measure the operating frequency after 2, 5, and 10 minutes.
- 5. Repeat step 2 and 3 with the temperature chamber set to the lowest temperature.
- 6. The test chamber was allowed to stabilize at +20 degree C for a minimum of 30 minutes. The supply voltage was then adjusted on the EUT from 85% to 115% and the frequency record.



### 4.6.4 DEVIATION FROM TEST STANDARD

No deviation

### 4.6.5 TEST SETUP



### 4.6.6 EUT OPERATING CONDITION

The software provided by client to enable the EUT under transmission condition continuously at specific channel frequencies individually.



# 4.6.7 TEST RESULTS

	Operating frequency: 5320MHz								
Temp.	Power	0 minute		2 minute		5 minute		10 minute	
(°C)	supply (VAC)	(MHz)	(%)	(MHz)	(%)	(MHz)	(%)	(MHz)	(%)
	138	5179.9871	-2.4903	5179.989	-2.1236	5179.991	-1.7375	5179.9877	-2.3745
50	120	5179.9882	-2.2780	5179.9874	-2.4324	5179.9899	-1.9498	5179.9876	-2.3938
	102	5179.9879	-2.3359	5179.9877	-2.3745	5179.991	-1.7375	5179.988	-2.3166
	138	5180.0094	1.8147	5180.0137	2.6448	5180.0122	2.3552	5180.0141	2.7220
40	120	5180.0102	1.9691	5180.0142	2.7413	5180.0139	2.6834	5180.0142	2.7413
	102	5180.0111	2.1429	5180.0153	2.9537	5180.0123	2.3745	5180.0129	2.4903
	138	5180.0095	1.8340	5180.007	1.3514	5180.0064	1.2355	5180.0072	1.3900
30	120	5180.0091	1.7568	5180.0077	1.4865	5180.0059	1.1390	5180.0074	1.4286
	102	5180.0093	1.7954	5180.0071	1.3707	5180.0053	1.0232	5180.0085	1.6409
	138	5180.0065	1.2548	5180.0118	2.2780	5180.0136	2.6255	5180.0123	2.3745
20	120	5180.0074	1.4286	5180.0127	2.4517	5180.0142	2.7413	5180.0133	2.5676
	102	5180.0075	1.4479	5180.0126	2.4324	5180.0131	2.5290	5180.0128	2.4710
	138	5179.9949	-0.9846	5179.9964	-0.6950	5179.9964	-0.6950	5180	0.0000
10	120	5179.9944	-1.0811	5179.9968	-0.6178	5179.9964	-0.6950	5180.0002	0.0386
	102	5179.9958	-0.8108	5179.9976	-0.4633	5179.9981	-0.3668	5180.0002	0.0386
	138	5179.9977	-0.4440	5179.9996	-0.0772	5179.9976	-0.4633	5180.0016	0.3089
0	120	5179.9971	-0.5598	5180.001	0.1931	5179.9987	-0.2510	5180.001	0.1931
	102	5179.9977	-0.4440	5179.9999	-0.0193	5179.9975	-0.4826	5180.0007	0.1351
	138	5179.9879	-2.3359	5179.9825	-3.3784	5179.9788	-4.0927	5179.984	-3.0888
-10	120	5179.987	-2.5097	5179.9828	-3.3205	5179.9783	-4.1892	5179.9835	-3.1853
	102	5179.9866	-2.5869	5179.9826	-3.3591	5179.978	-4.2471	5179.9834	-3.2046
	138	5180.0014	0.2703	5180.0066	1.2741	5180.0102	1.9691	5180.0128	2.4710
-20	120	5180.0025	0.4826	5180.0076	1.4672	5180.0111	2.1429	5180.0121	2.3359
	102	5180.0019	0.3668	5180.007	1.3514	5180.0116	2.2394	5180.012	2.3166
	138	5179.9985	-0.2896	5180.0007	0.1351	5180.0021	0.4054	5180.0027	0.5212
-30	120	5179.9979	-0.4054	5180.0007	0.1351	5180.0026	0.5019	5180.0036	0.6950
	102	5179.9977	-0.4440	5179.9999	-0.0193	5180.0029	0.5598	5180.0039	0.7529



### 4.7 CONDUCTED OUT-BAND EMISSION MEASUREMENT

#### 4.7.1 TEST INSTRUMENTS

Test date : June 23, 2011

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
R&S SPECTRUM ANALYZER	FSP40	100036	Dec. 08, 2010	Dec. 07, 2011

**NOTE:** The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

#### 4.7.2 TEST PROCEDURE

The transmitter output was connected to the spectrum analyzer via a low lose cable. Set RBW of spectrum analyzer to 1MHz with suitable frequency span including 100 MHz or 200 MHz bandwidth from band edge. The band edges was measured and recorded.

### 4.7.3 EUT OPERATING CONDITION

The software provided by client to enable the EUT under transmission condition continuously at specific channel frequencies individually.

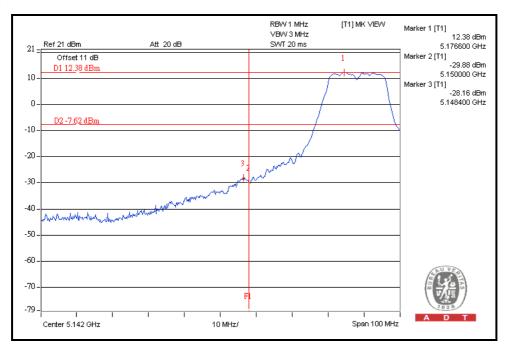
### 4.7.4 TEST RESULTS

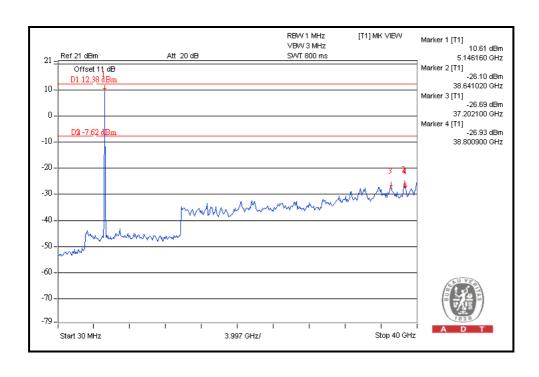
For 5.15 to 5.35GHz band:

The spectrum plots (Peak RBW=1MHz, VBW=3MHz) are attached on the following pages.

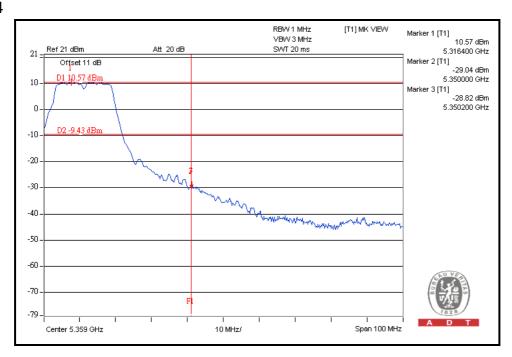


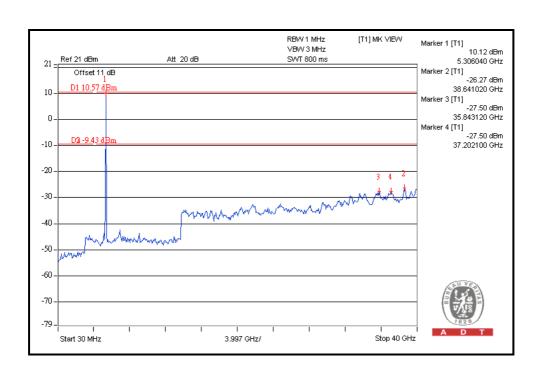
#### **802.11a OFDM MODULATION**





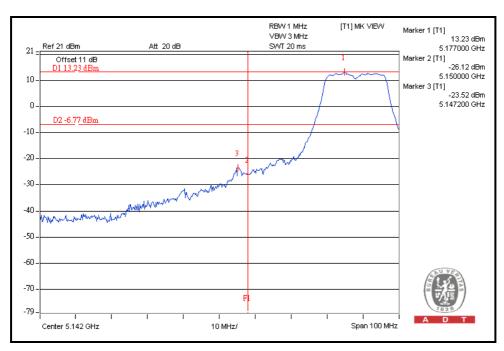


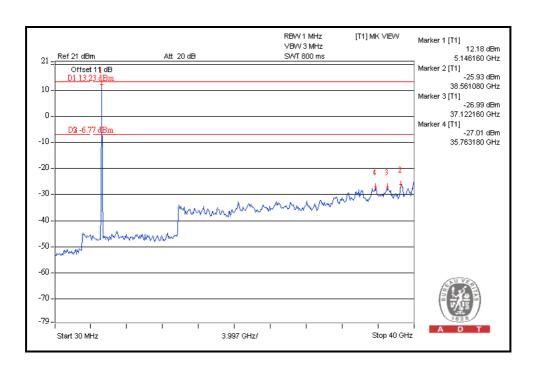




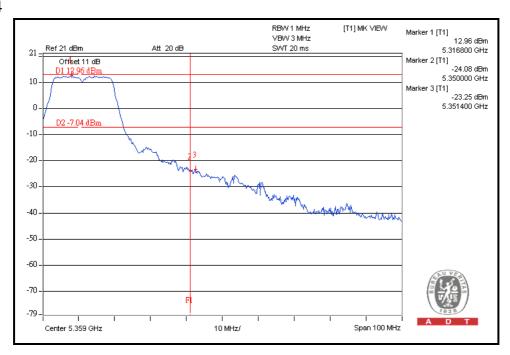


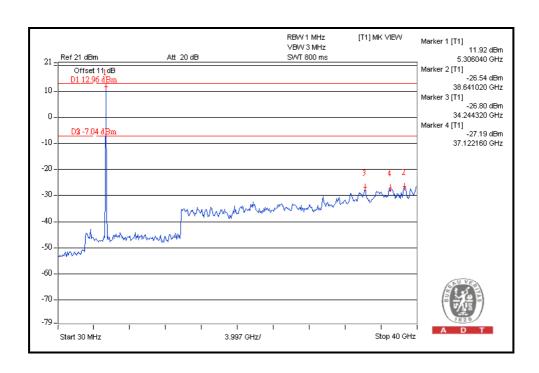
# Single Chain - 802.11n (20MHz) OFDM MODULATION:







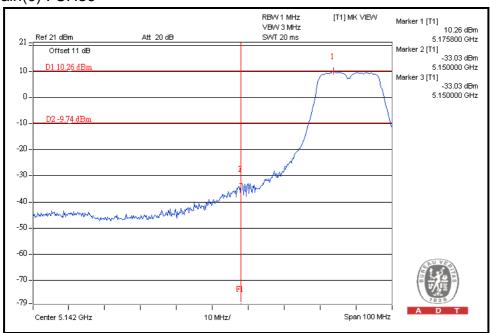


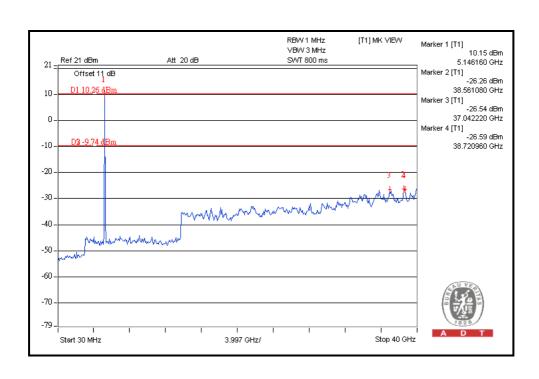




### Multiple chain - 802.11n (20MHz) OFDM MODULATION:

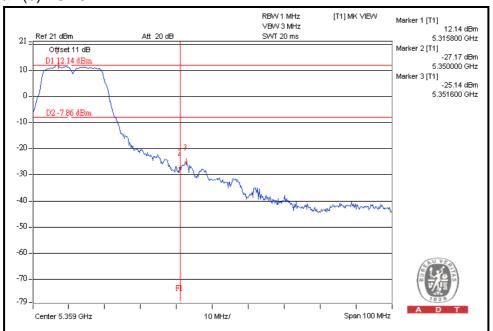
For Chain(0): CH36

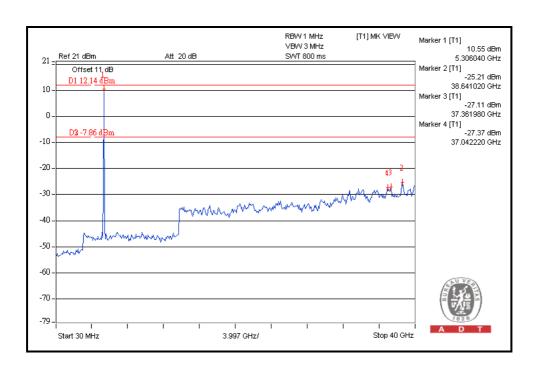






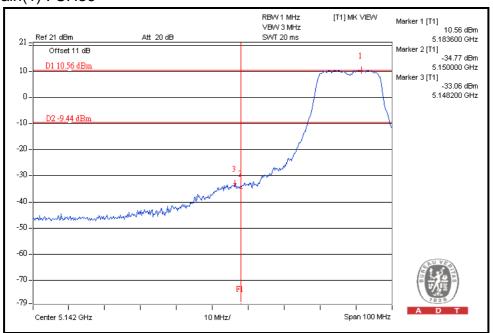
# For Chain(0): CH64

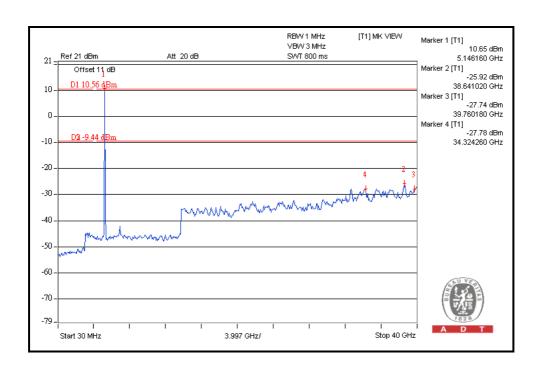






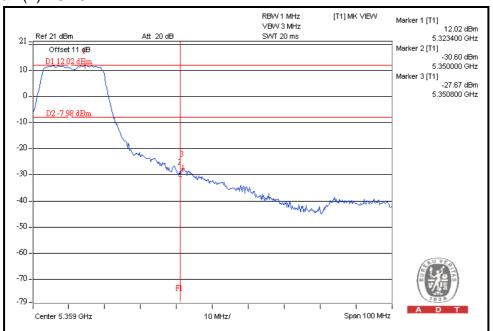
# For Chain(1): CH36

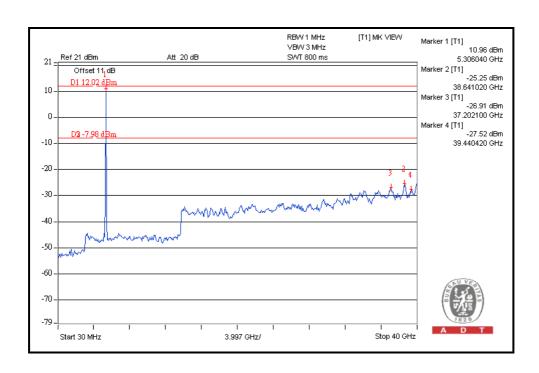






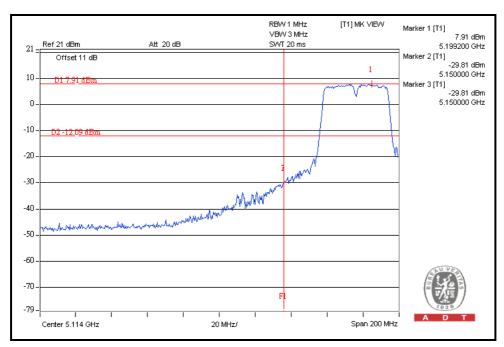
# For Chain(1): CH64

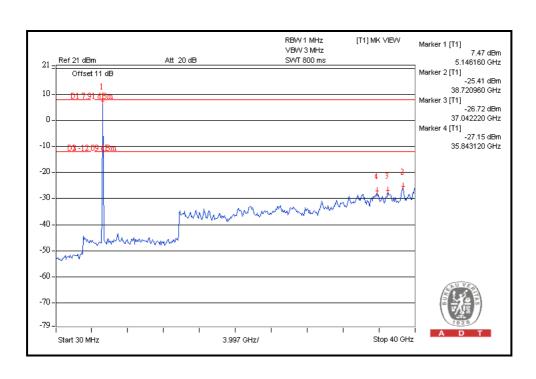




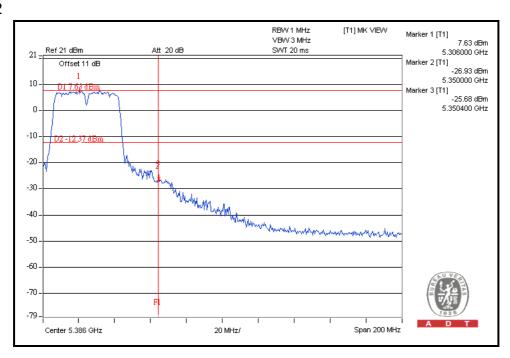


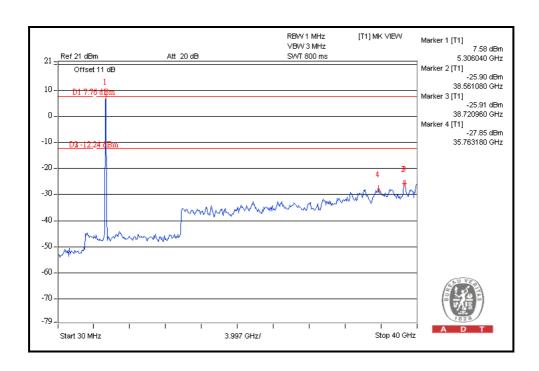
# Single Chain - 802.11n (40MHz) OFDM MODULATION:







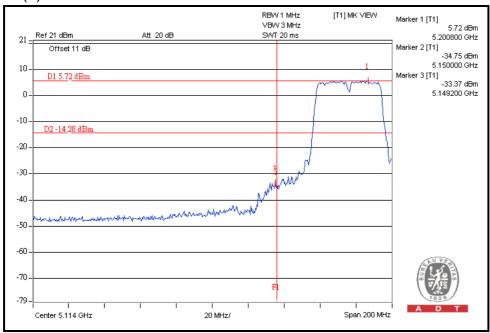


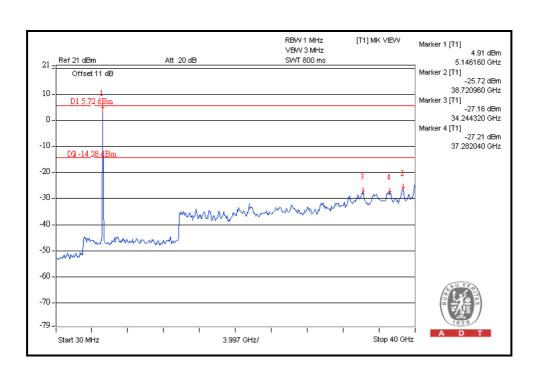




### Multiple chain - 802.11n (40MHz) OFDM MODULATION:

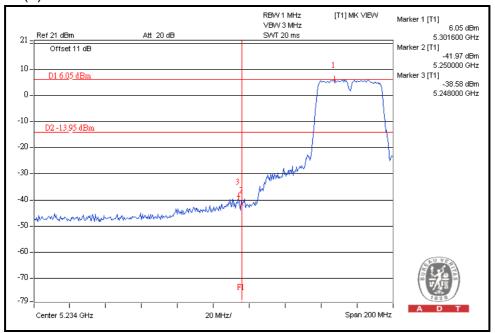
For Chain(0): CH38

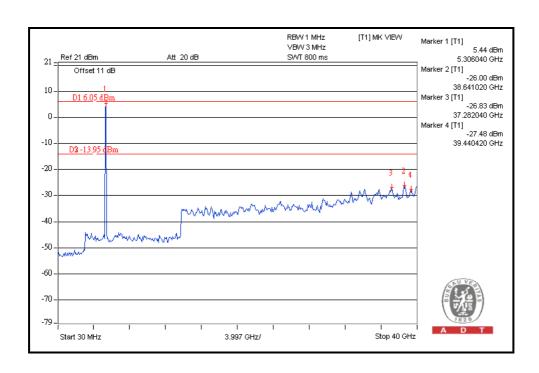






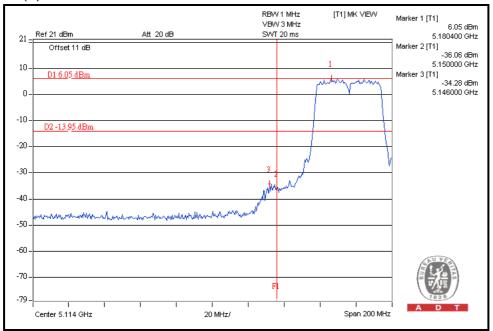
# For Chain(0): CH62

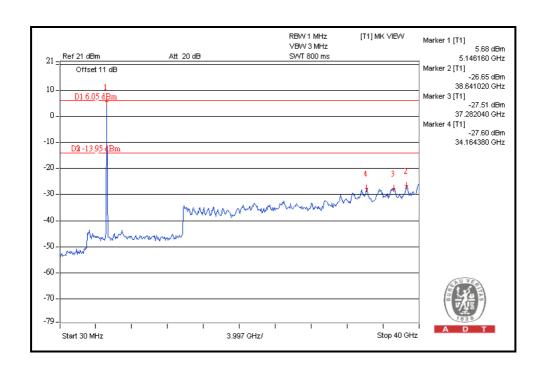






# For Chain(1): CH38

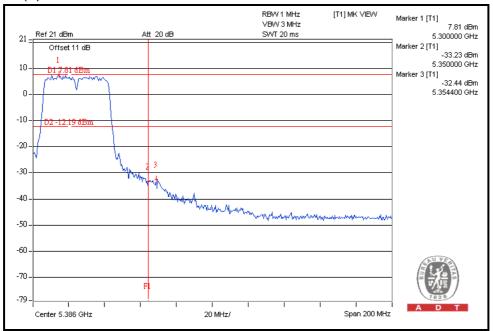


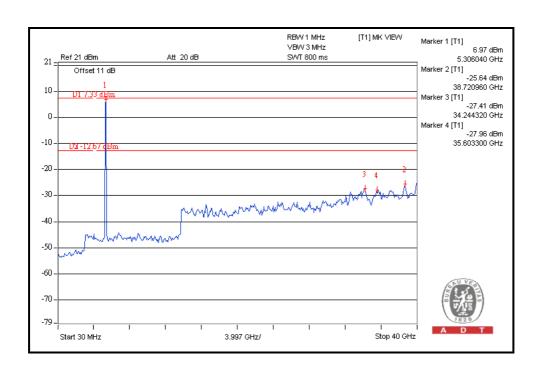


240



# For Chain(1): CH62



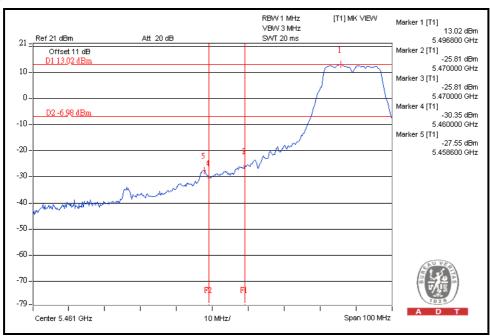


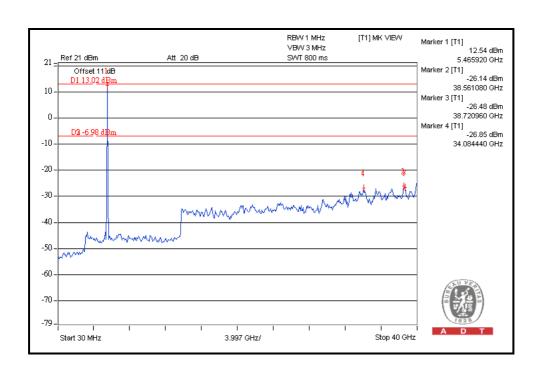


A D	T T
For 5.47 to 5.725GHz band: The spectrum plots (Peak RBW=1MHz, VBW=3MHz) are attached on the follow pages.	ving

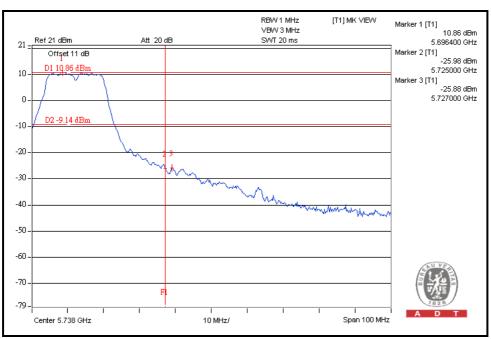


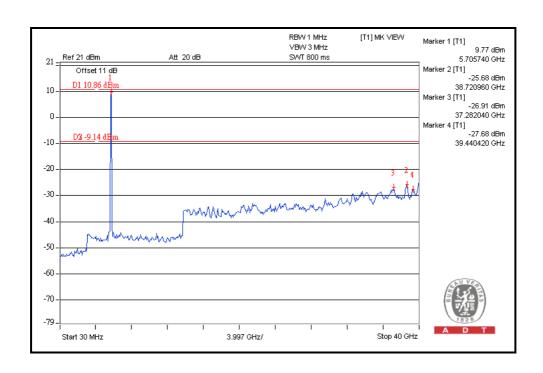
### **802.11a OFDM MODULATION**





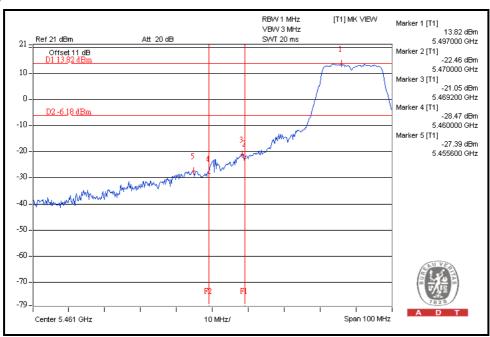


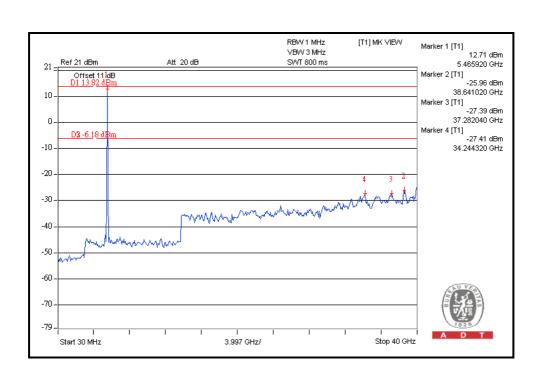




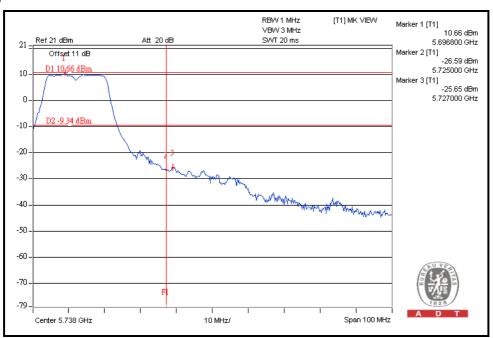


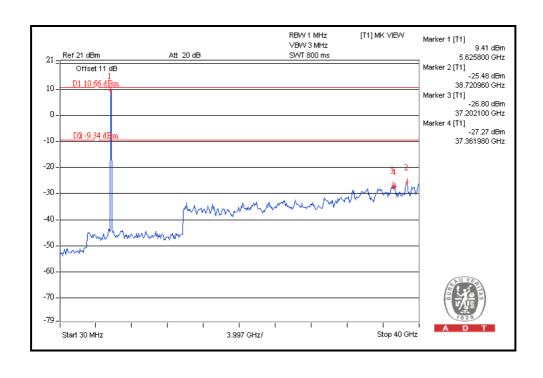
# Single Chain - 802.11n (20MHz) OFDM MODULATION:







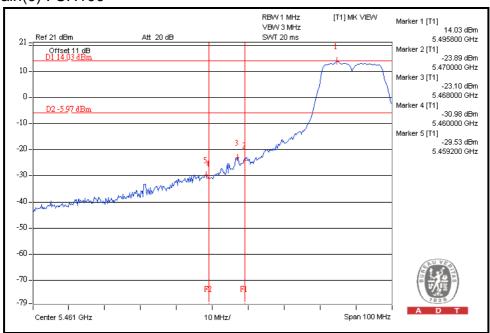


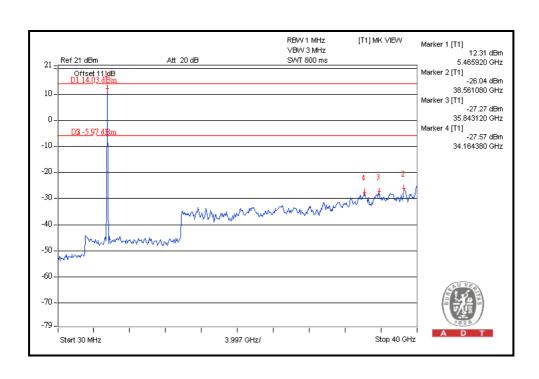




# Multiple chain - 802.11n (20MHz) OFDM MODULATION:

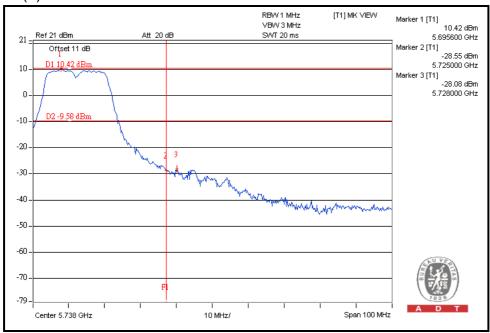
For Chain(0): CH100

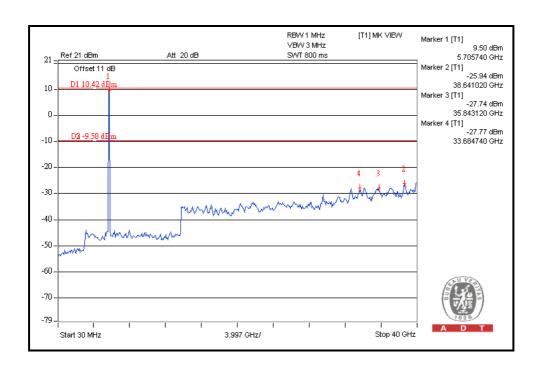






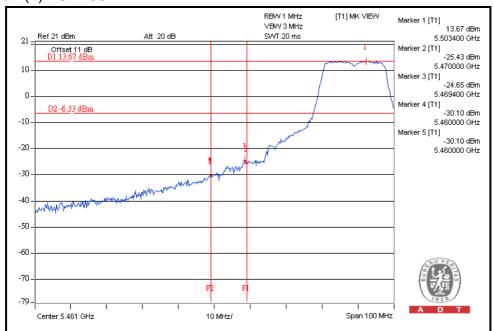
# For Chain(0): CH140

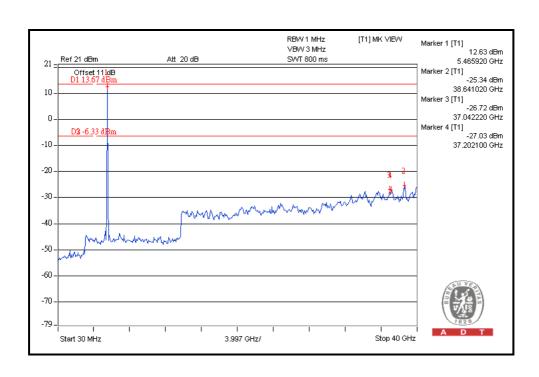






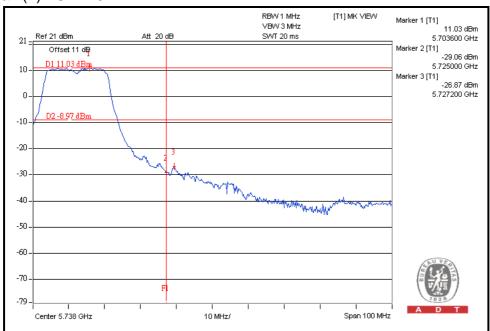
# For Chain(1): CH100

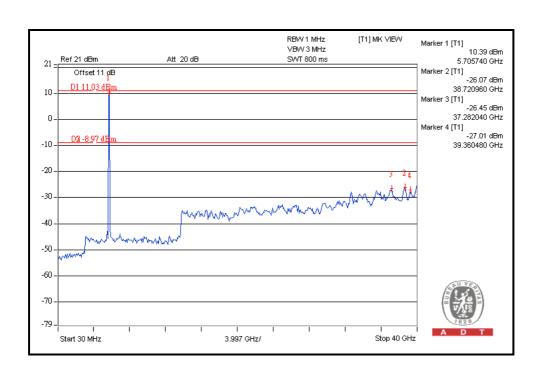






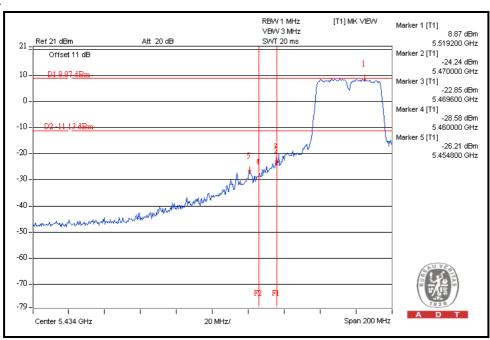
# For Chain(1): CH140

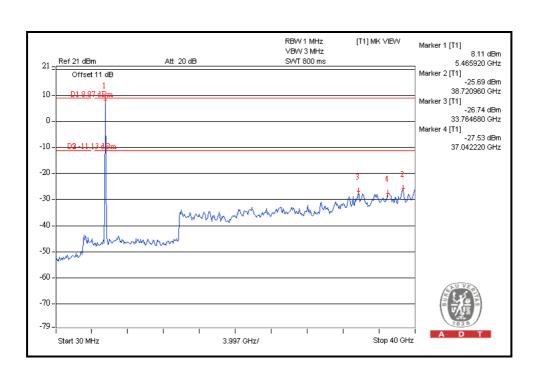




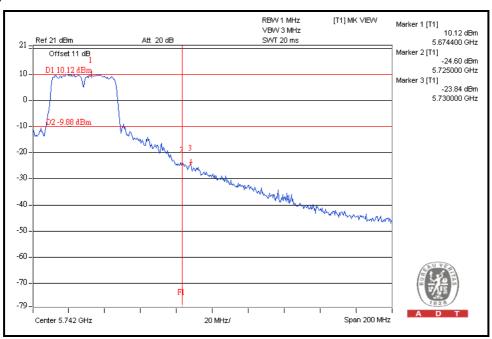


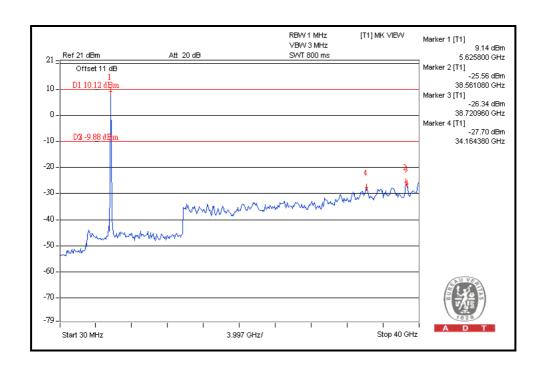
# Single Chain - 802.11n (40MHz) OFDM MODULATION:







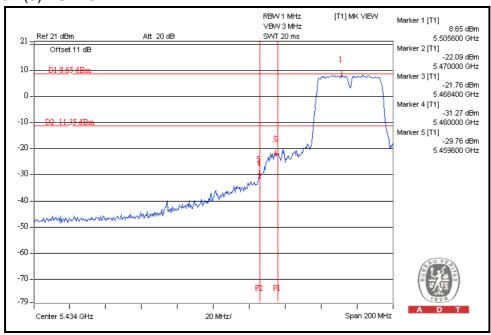


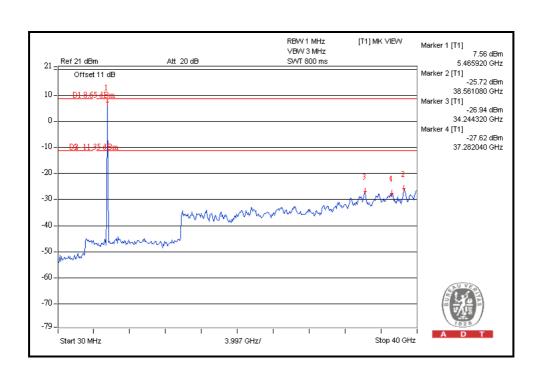




# Multiple chain - 802.11n (40MHz) OFDM MODULATION:

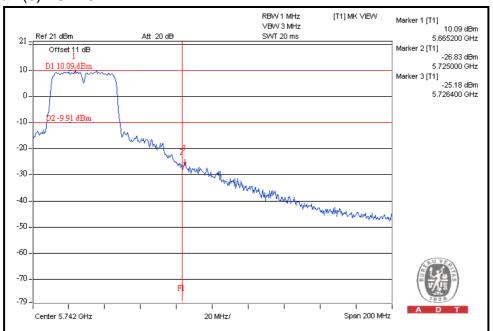
# For Chain(0): CH102

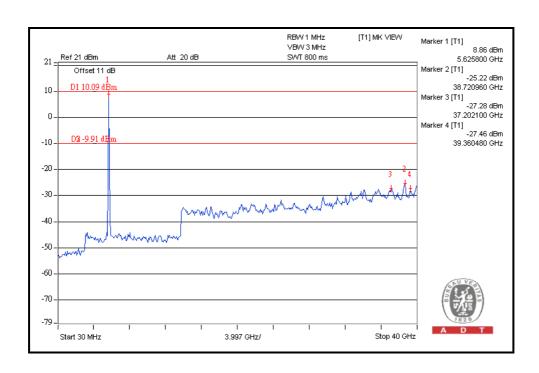






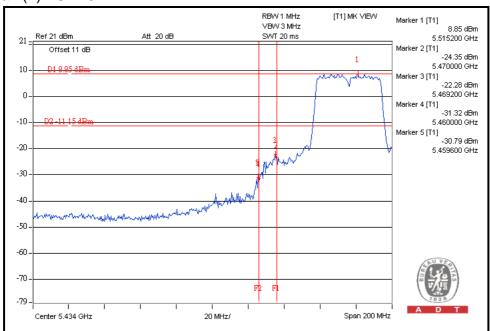
# For Chain(0): CH134

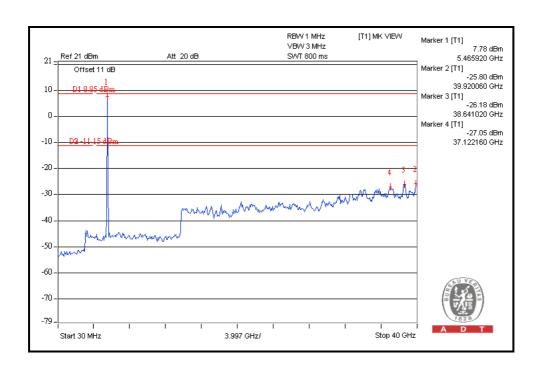






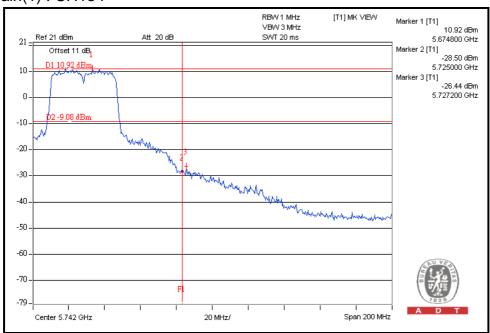
# For Chain(1): CH102

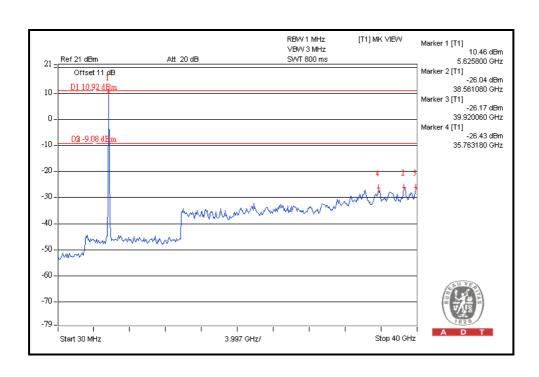






# For Chain(1): CH134







### 5. INFORMATION ON THE TESTING LABORATORIES

We, Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch, were founded in 1988 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are accredited and approved according to ISO/IEC 17025.

Copies of accreditation certificates of our laboratories obtained from approval agencies can be downloaded from our web site: <a href="www.adt.com.tw/index.5.phtml">www.adt.com.tw/index.5.phtml</a>. If you have any comments, please feel free to contact us at the following:

Linko EMC/RF Lab: Hsin Chu EMC/RF Lab:

Tel: 886-2-26052180 Tel: 886-3-5935343 Fax: 886-2-26052943 Fax: 886-3-5935342

### Hwa Ya EMC/RF/Safety/Telecom Lab:

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Email: service.adt@tw.bureauveritas.com

Web Site: www.adt.com.tw

The address and road map of all our labs can be found in our web site also.



# 6.APPENDIX A - MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB

No any modifications are made to the EUT by the lab during the test.
END