FCC RF Test Report

APPLICANT	:	**Motorola Solutions, Inc.**
EQUIPMENT	:	**Touch Computer**
BRAND NAME	:	**Motorola**
MODEL NAME	:	**TC55AH**
FCC ID	:	**UZ7TC55AH**
STANDARD	:	**FCC Part 15 Subpart E §15.407**
CLASSIFICATION	:	**(NII) Unlicensed National Information Infrastructure**

The product was received on Jun. 13, 2013 and completely tested on Jul. 22, 2013. We, SPORTON INTERNATIONAL INC., would like to declare that the tested sample has been evaluated in accordance with the procedures and shown the compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC., the test report shall not be reproduced except in full.

Louis Wu

Reviewed by: Louis Wu / Manager

Jones Tsai

Approved by: Jones Tsai / Manager

Testing Laboratory
1190

SPORTON INTERNATIONAL INC.
No. 52, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C.

TABLE OF CONTENTS

REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FR322304-07D	Rev. 01	Initial issue of report	Aug. 14, 2013

SUMMARY OF TEST RESULT

Report Section	FCC Rule	IC Rule	Description	Limit	Result	Remark
3.1	15.403(i)	RSS-210 A9.2	26dB & 99% Bandwidth	-	Pass	-
3.2	15.407(a)	RSS-210 A9.2	Maximum Conducted Output Power	≤ 17, 24, 30 dBm (depend on band)	Pass	-
3.3	15.407(a)	RSS-210 A9.2	Power Spectral Density	≤ 4, 11, 17 dBm (depend on band)	Pass	-
3.4	15.407(a)(6)	RSS-210 A9.3	Peak Excursion Ratio	≤ 13dB	Pass	-
3.5	15.407(b)	RSS-210 A9.3	Unwanted Emissions	≤ -17, -27 dBm (depend on band)&15.209(a)	Pass	Under limit 1.01 dB at 5350.110 MHz
3.6	15.207	RSS-Gen 7.2.4	AC Conducted Emission	15.207(a)	Pass	Under limit 5.40 dB at 13.558 MHz
3.7	15.407(g)	-	Frequency Stability	Within Operation Band	Pass	-
3.8	15.407(c)	RSS-210 A9.4	Automatically Discontinue Transmission	Discontinue Transmission	Pass	-
3.9	15.203 & 15.407(a)	RSS-210 A9.2	Antenna Requirement	N/A	Pass	-

1 General Description

1.1 Applicant

Motorola Solutions, Inc.
One Motorola Plaza, Holtsville, NY 11742-1300 USA

1.2 Manufacturer

Motorola Solutions, Inc.
One Motorola Plaza, Holtsville, NY 11742-1300 USA

1.3 Feature of Equipment Under Test

Product Feature	
Equipment	Touch Computer
Brand Name	Motorola
Model Name	TC55AH
FCC ID	UZ7TC55AH
Sample 1	EUT with Scanner
Sample 2	EUT without Scanner
EUT supports Radios application	GSM/EGPRS/WCDMA/HSPA/LTE WLAN 11abgn / Bluetooth 2.1/3.0/4.0 / NFC
HW Version	DV1
SW Version	Android 4.1.2
FW Version	BSP 1.27
EUT Stage	Identical Prototype

Remark: The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.

1.4 Product Specification of Equipment Under Test

Product Specification subjective to this standard	
Tx/Rx Channel Frequency Range	5180 MHz ~ 5240 MHz 5260 MHz ~ 5320 MHz 5500 MHz ~ 5700 MHz
Maximum Output Power	**<5180 MHz ~ 5240 MHz>** 802.11a : 16.97 dBm / 0.0498 W 802.11n HT20 : 15.99 dBm / 0.0397 W 802.11n HT40 : 14.88 dBm / 0.0308 W **<5260 MHz ~ 5320 MHz>** 802.11a : 16.51 dBm / 0.0448 W 802.11n HT20 : 15.67 dBm / 0.0369 W 802.11n HT40 : 14.94 dBm / 0.0312 W **<5500 ~ 5700 MHz>** 802.11a : 17.00 dBm / 0.0501 W 802.11n HT20 : 15.99 dBm / 0.0397 W 802.11n HT40 : 14.97 dBm / 0.0314 W
99% Occupied Bandwidth	802.11a : 20.35 MHz 802.11n HT20 : 19.90 MHz 802.11n HT40 : 37.08 MHz
Antenna Type	**<5180 MHz ~ 5240 MHz>** **Antenna :** PIFA Antenna with gain 2.71 dBi(Battery1) **Antenna :** PIFA Antenna with gain 2.26 dBi(Battery2) **<5260 MHz ~ 5320 MHz>** **Antenna :** PIFA Antenna with gain 2.30 dBi(Battery1) **Antenna :** PIFA Antenna with gain 2.71 dBi(Battery2) **<5500 MHz ~ 5700 MHz>** **Antenna :** PIFA Antenna with gain 2.52 dBi(Battery1) **Antenna :** PIFA Antenna with gain 2.93 dBi(Battery2)
Type of Modulation	OFDM (BPSK / QPSK / 16QAM / 64QAM)

The wifi antenna is not changed while using battery cover 1 or 2. The antenna gain difference is due to antenna gain measurement result by using different battery covers.

1.5 Testing Site

Test Site	SPORTON INTERNATIONAL INC.			
Test Site Location	No. 52, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C. TEL: +886-3-3273456 / FAX: +886-3-3284978			
Test Site No.	Sporton Site No.			FCC/IC Registration No.
	TH02-HY	CO05-HY	03CH07-HY	722060/4086B-1

1.6 Applied Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- FCC Part 15 Subpart E
- FCC KDB 789033 D01 General UNII Test Procedures v01r03
- ANSI C63.4-2003

Remark:

1. All test items were verified and recorded according to the standards and without any deviation during the test.
2. This EUT has also been tested and complied with the requirements of FCC Part 15, Subpart B, recorded in a separate test report.

2 Test Configuration of Equipment Under Test

The EUT has been associated with peripherals and configuration operated in a manner tended to maximize its emission characteristics in a typical application. Frequency range investigated: conducted emission (150 kHz to 30 MHz) and radiated emission (9 kHz to the 10th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower). For radiated measurement, pre-scanned in three orthogonal panels, X, Y, Z was recorded in this report.

The final configuration from all the combinations and the worst-case data rates were investigated by measuring the maximum power across all the data rates and modulation modes under section 2.2.

Based on the worst configuration found above, the RF power setting is set individually to meet FCC compliance limit for the final conducted and radiated tests shown in section 2.3.

2.1 Carrier Frequency and Channel

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
5150-5250 MHz Band 1	36	5180	44	5220
	38	**5190**	**46**	**5230**
	40	5200	48	5240

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
5250-5350 MHz Band 2	52	5260	60	5300
	54	**5270**	**62**	**5310**
	56	5280	64	5320

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
5470-5725 MHz Band 3	100	5500	116	5580
	102	**5510**	132	5660
	104	5520	**134**	**5670**
	108	5540	136	5680
	110	**5550**	140	5700
	112	5560		

Note: The above Frequency and Channel in boldface were 802.11n HT40.

2.2 RF Power

Preliminary tests were performed in different data rate and antenna configurations as following table and the highest power data rates were chosen for full test in the following tables. Final Output Power equals to Measured Output Power adds the duty factor.

Channel	Frequency	5GHz 802.11a RF Power (dBm)							
		OFDM Data Rate							
		6M bps	9M bps	12M bps	18M bps	24M bps	36M bps	48M bps	54M bps
CH 36	5180 MHz	13.89	13.88	13.86	13.88	13.83	13.81	13.85	13.86
CH 44	5220 MHz	16.90	16.84	16.87	16.86	16.83	16.89	16.88	16.83
CH 48	5240 MHz	16.97	16.66	16.60	16.65	16.62	16.49	16.53	16.58
CH 52	5260 MHz	16.45	16.41	16.38	16.38	16.31	16.42	16.42	16.37
CH 60	5300 MHz	16.51	16.46	16.44	16.49	16.40	16.46	16.45	16.38
CH 64	5320 MHz	13.24	13.12	13.10	13.23	13.20	13.21	13.20	13.11
CH 100	5500 MHz	15.15	15.13	15.11	15.13	15.15	15.04	15.13	15.08
CH 116	5580 MHz	**17.00**	16.79	16.75	16.81	16.86	16.93	16.94	16.94
CH 140	5700 MHz	14.27	14.24	14.25	14.23	14.16	14.16	14.21	14.21

Channel	Frequency	5GHz 802.11a/n HT20 RF Power (dBm)							
		OFDM Data Rate							
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
CH 36	5180 MHz	12.97	12.81	12.93	12.91	12.96	12.91	12.83	12.94
CH 44	5220 MHz	**15.99**	15.98	15.95	15.84	15.93	15.93	15.80	15.85
CH 48	5240 MHz	15.58	15.51	15.48	15.37	15.46	15.46	15.33	15.38
CH 52	5260 MHz	15.67	15.54	15.51	15.40	15.49	15.49	15.36	15.41
CH 60	5300 MHz	15.66	15.45	15.42	15.31	15.40	15.40	15.27	15.32
CH 64	5320 MHz	12.11	12.07	11.94	11.89	12.06	12.11	11.95	12.05
CH 100	5500 MHz	14.24	14.21	14.23	14.09	14.20	14.14	14.11	14.13
CH 116	5580 MHz	15.99	15.96	15.94	15.92	15.91	15.89	15.94	15.93
CH 140	5700 MHz	13.46	13.44	13.38	13.44	13.43	13.43	13.34	13.45

Channel	Frequency	5GHz 802.11a/n HT40 RF Power (dBm)							
		OFDM Data Rate							
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
CH 38	5190 MHz	11.71	11.67	11.65	11.69	11.64	11.63	11.60	11.68
CH 46	5230 MHz	14.88	14.71	14.74	14.71	14.87	14.79	14.64	14.67
CH 54	5270 MHz	14.94	14.91	14.85	14.83	14.89	14.80	14.81	14.85
CH 62	5310 MHz	11.32	11.27	11.29	11.18	11.20	11.19	11.17	11.20
CH 102	5510 MHz	10.24	10.18	10.09	10.07	10.17	10.15	10.23	10.17
CH 110	5550 MHz	**14.97**	14.91	14.84	14.81	14.89	14.89	14.91	14.85
CH 134	5670 MHz	14.42	14.27	14.37	14.39	14.39	14.31	14.28	14.21

2.3 Test Mode

Final results of test modes, data rates and test channels are shown as following table.

Test Cases						
	Test Items	Mode	Data rate	Test Channel	Note	Test Plane
Conducted TCs	26dB and 99% BW Power Spectral Density	802.11a	6 Mbps	L/M/H	-	-
		802.11n HT20	MCS0	L/M/H	-	-
		802.11n HT40	MCS0	L/M/H	-	-
	Output Power	802.11a	6 Mbps	L/M/H	-	-
		802.11n HT20	MCS0	L/M/H	-	-
		802.11n HT40	MCS0	L/M/H	-	-
	Peak Excursion	802.11a	6 Mbps	L/M/H	-	-
		802.11n HT20	MCS0	L/M/H	-	-
		802.11n HT40	MCS0	L/M/H	-	-
	Frequency Stability	802.11a	6 Mbps	L/M/H	-	-
		802.11n HT20	MCS0	L/M/H	-	-
		802.11n HT40	MCS0	L/M/H	-	-
Radiated TCs	Radiated Band Edge	802.11a	6 Mbps	L/H	Sample 1 with Battery 2	Y
		802.11n HT20	MCS0	L/H	Sample 1 with Battery 2	Y
		802.11n HT40	MCS0	L/H	Sample 1 with Battery 2	Y
				H	Sample 1 with Battery 1	Z
				H	Sample 2 with Battery 2	Z
	Radiated Spurious Emission	802.11a	6 Mbps	L/M/H	Sample 1 with Battery 2	Y
		802.11n HT20	MCS0	L/M/H	Sample 1 with Battery 2	Y
		802.11n HT40	MCS0	L/M/H	Sample 1 with Battery 2	Y
				H	Sample 1 with Battery 1	Z
				H	Sample 2 with Battery 2	Z

Note: After pre-scanned the EUT by rotating three orthogonal orientations and configuring with possible used accessories, the radiated spurious emissions were mainly tested by sample 1 + Battery 2, and verified Radiated Band edge(s) on worst channels listed above.

Test Cases	
AC Conducted Emission	Mode 1 : GSM850 Idle + WLAN (5G) Link + Bluetooth Link + NFC active + Scanner + USB Cable (USB File transfer) + Battery 2 for Sample 1 Mode 2 : WCDMA Band V Idle + WLAN (5G) Link + Bluetooth Link + NFC active + Scanner + USB Cable (USB File transfer) + Battery 1 for Sample 1 Mode 3 : LTE Band 5 Idle + WLAN (5G) Link + Bluetooth Link + NFC active + USB Cable (USB File transfer) + Battery 1 for Sample 2

Remark:

1. "Bluetooth Link" means EUT linked with Bluetooth headset.
2. "WLAN Link" means EUT associated with AP at 5GHz band.
3. "Scanner" means scanning and decoding a barcode by scanner.
4. "USB File transfer" means data application transferred mode between EUT and Notebook through USB port.
5. "NFC active" means turning on NFC function of EUT.

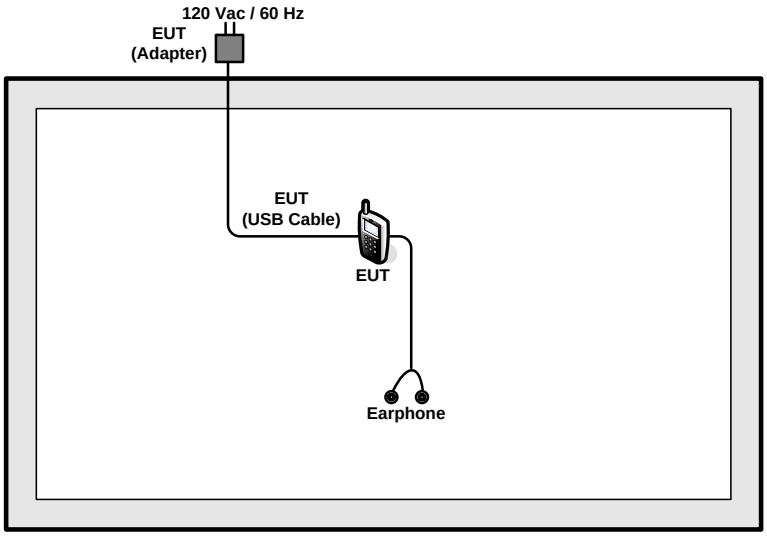
Ch. #		Band I : 5150-5250 MHz	Band II : 5250-5350 MHz	Band III : 5470-5725MHz
		802.11a	802.11a	802.11a
L	Low	36	52	100
M	Middle	44	60	116
H	High	48	64	140

Ch. #		Band I : 5150-5250 MHz	Band II : 5250-5350 MHz	Band III : 5470-5725MHz
		802.11n HT20	802.11n HT20	802.11n HT20
L	Low	36	52	100
M	Middle	44	60	116
H	High	48	64	140

Ch. #		Band I : 5150-5250 MHz	Band II : 5250-5350 MHz	Band III : 5470-5725MHz
		802.11n HT40	802.11n HT40	802.11n HT40
L	Low	38	54	102
M	Middle	-	-	110
H	High	46	62	134

2.4 Connection Diagram of Test System

<WLAN Tx Mode>



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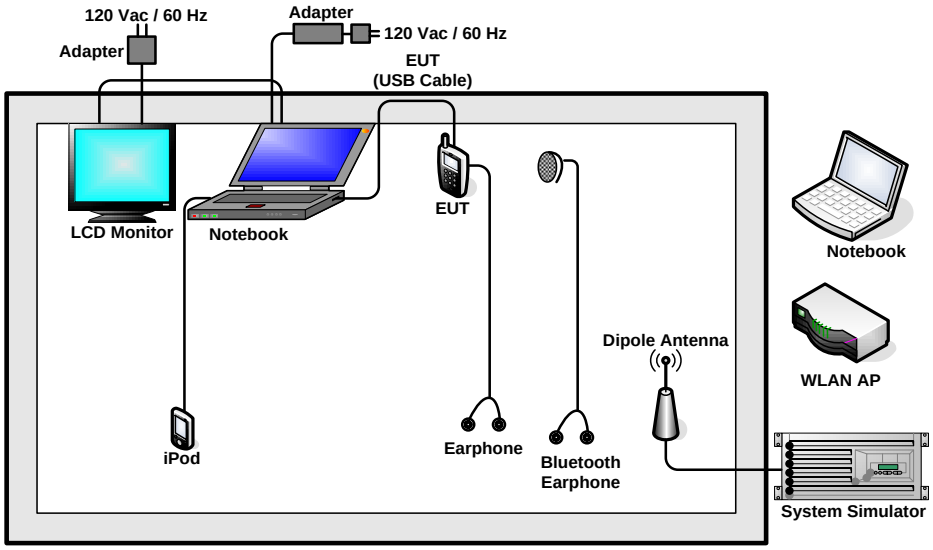


2.5 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	System Simulator	R&S	CMU 200	N/A	N/A	Unshielded, 1.8 m
2.	LTE Base Station	Anritsu	MT8820C	N/A	N/A	Unshielded, 1.8 m
3.	Bluetooth Earphone	Sony Ericsson	MW600	PY7DDA-2029	N/A	N/A
4.	WLAN AP	D-Link	DIR-628	KA2DIR628A2	N/A	Unshielded, 1.8 m
5.	Notebook	DELL	Latitude E6320	FCC DoC	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
6.	iPod	Apple	A1285	FCC DoC	Shielded, 1.0 m	N/A
7.	LCD Monitor	DELL	U2410	FCC DoC	Shielded, 1.6 m	Unshielded, 1.8 m
8.	SD Card	SanDisk	MicroSD HC	FCC DoC	N/A	N/A
9.	Earphone	Cotron	MAX-300	N/A	Unshielded, 1.2 m	N/A

2.6 Description of RF Function Operation Test Setup

For WLAN function, programmed RF utility, “ADB” installed in the notebook make the EUT provides functions like channel selection and power level for continuous transmitting and receiving signals.

2.7 Measurement Results Explanation Example

For all conducted test items:

The offset level is set in the spectrum analyzer to compensate the RF cable loss and attenuator factor between EUT conducted output port and spectrum analyzer. With the offset compensation, the spectrum analyzer reading level is exactly the EUT RF output level.

Example :

The spectrum analyzer offset is derived from RF cable loss and attenuator factor.

Offset = RF cable loss + attenuator factor.

Following shows an offset computation example with cable loss 4.2 dB and 10dB attenuator.

Offset(dB) = RF cable loss(dB) + attenuator factor(dB).

= 4.2 + 10 = 14.2 (dB)

3 Test Result

3.1 26dB & 99% Bandwidth Measurement

3.1.1 Description of 26dB & 99% Bandwidth

There is no restriction limits for bandwidth. The maximum conducted output power can be limited by measured emission bandwidth (B). For the band 5150-5250 MHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 50 mW (17dBm) or 4 dBm + 10log B. For the bands 5250-5350 MHz and 5470-5725MHz, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW (24dBm) or 11 dBm + 10log B.

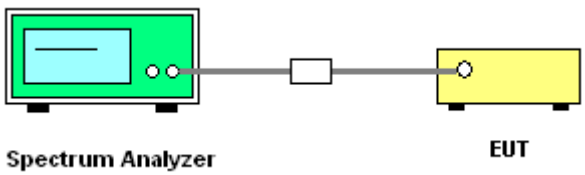
3.1.2 Measuring Instruments

See list of measuring instruments of this test report.

3.1.3 Test Procedures

1. The testing follows FCC KDB 789033 D01 General UNII Test Procedures v01r03. Section C) Emission bandwidth
2. Set RBW = approximately 1% of the emission bandwidth.
3. Set the VBW > RBW.
4. Detector = Peak.
5. Trace mode = max hold
6. Measure the maximum width of the emission that is 26 dB down from the peak of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.
7. For 99% Bandwidth Measurement, the spectrum analyzer's resolution bandwidth (RBW) is set 1MHz and set the Video bandwidth (VBW) ≥ 3 * RBW.
8. Measure and record the results in the test report.

3.1.4 Test Setup



3.1.5 Test Result of 26dB & 99% Occupied Bandwidth

Test Band :	5GHz band 1,2,3	Temperature :	24~26℃
Test Engineer :	Coyote Lin	Relative Humidity :	55~58%

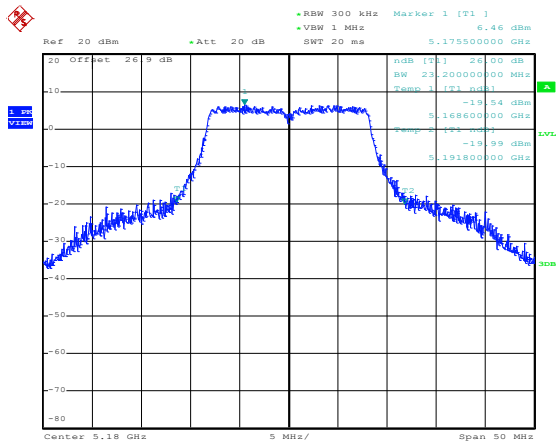
Mod.	Data Rate	N_{TX}	Channel	Freq. (MHz)	99% Bandwidth (MHz)	26dB Bandwidth (MHz)	FCC 26dB Power Limit (dBm)
11a	6Mbps	1	36	5180	18.35	23.20	17
11a	6Mbps	1	44	5220	19.90	36.60	17
11a	6Mbps	1	48	5240	19.65	34.35	17
HT20	MCS0	1	36	5180	18.95	22.85	17
HT20	MCS0	1	44	5220	19.70	29.90	17
HT20	MCS0	1	48	5240	19.70	29.45	17
HT40	MCS0	1	38	5190	36.36	45.00	17
HT40	MCS0	1	46	5230	36.81	47.61	17

Mod.	Data Rate	N_{TX}	Channel	Freq. (MHz)	99% Bandwidth (MHz)	26dB Bandwidth (MHz)	FCC 26dB Power Limit (dBm)
11a	6Mbps	1	52	5260	20.35	35.15	24
11a	6Mbps	1	60	5300	20.25	36.30	24
11a	6Mbps	1	64	5320	18.15	22.60	24
HT20	MCS0	1	52	5260	19.80	31.25	24
HT20	MCS0	1	60	5300	19.90	30.75	24
HT20	MCS0	1	64	5320	19.00	22.85	24
HT40	MCS0	1	54	5270	36.81	50.94	24
HT40	MCS0	1	62	5310	36.45	45.00	24

Mod.	Data Rate	N_{TX}	Channel	Freq. (MHz)	99% Bandwidth (MHz)	26dB Bandwidth (MHz)	FCC 26dB Power Limit (dBm)
11a	6Mbps	1	100	5500	18.70	25.25	24
11a	6Mbps	1	116	5580	19.95	34.15	24
11a	6Mbps	1	140	5700	18.60	24.50	24
HT20	MCS0	1	100	5500	19.15	23.55	24
HT20	MCS0	1	116	5580	19.70	30.40	24
HT20	MCS0	1	140	5700	19.15	23.05	24
HT40	MCS0	1	102	5510	36.63	44.91	24
HT40	MCS0	1	110	5550	36.81	48.24	24
HT40	MCS0	1	134	5670	37.08	55.35	24

26dB Bandwidth

802.11a CH36 5180MHz



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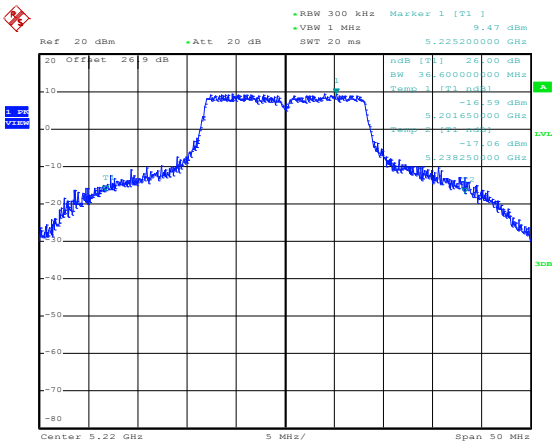
802.11a CH44 5220MHz



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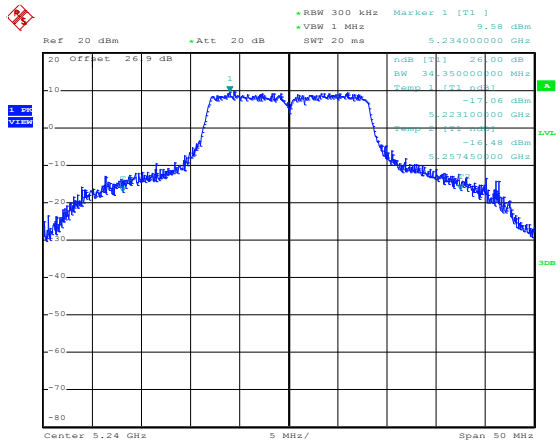
802.11a CH48 5240MHz



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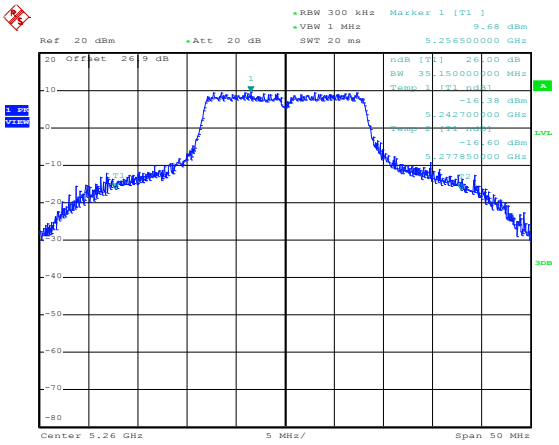
802.11a CH52 5260MHz



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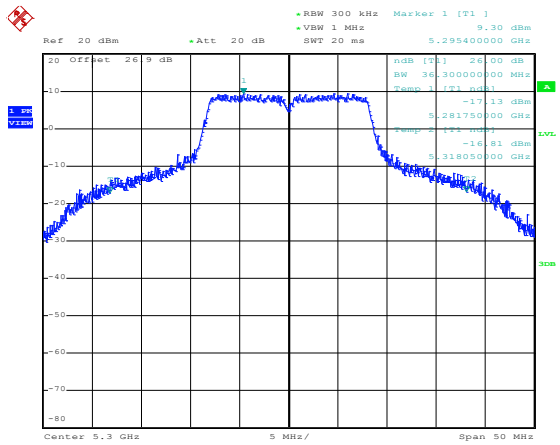
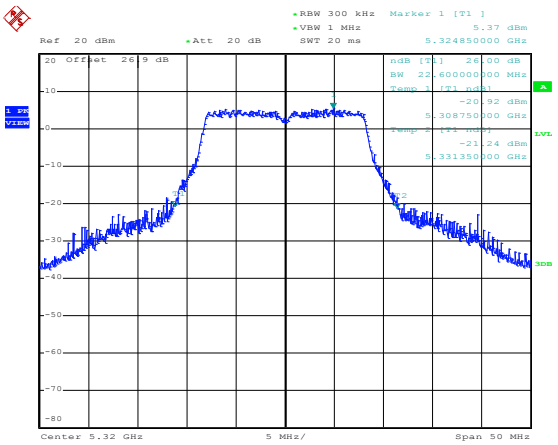
802.11a CH60 5300MHz	802.11a CH64 5320MHz
	
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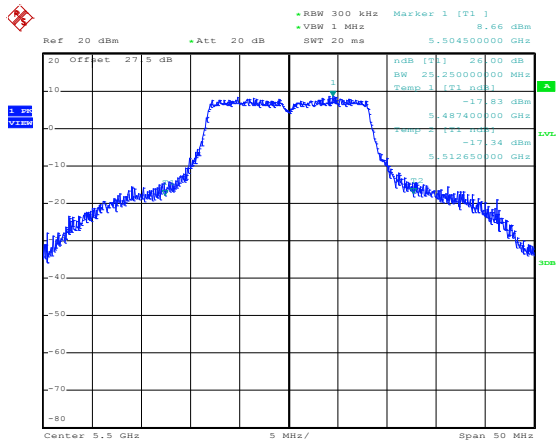	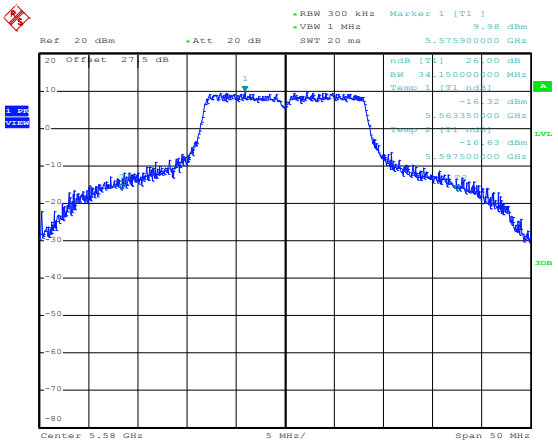
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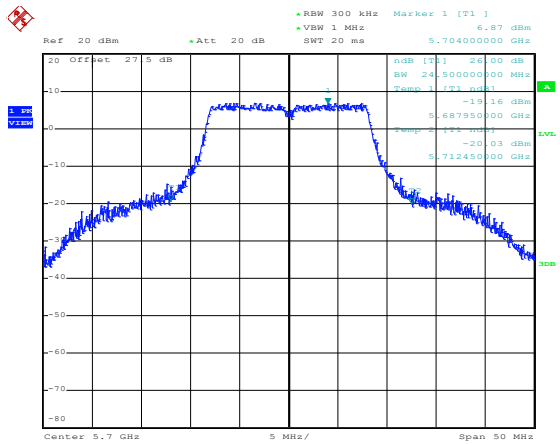
802.11a CH140 5700MHz	
 Date: 27.JUN.2013 00:28:35	

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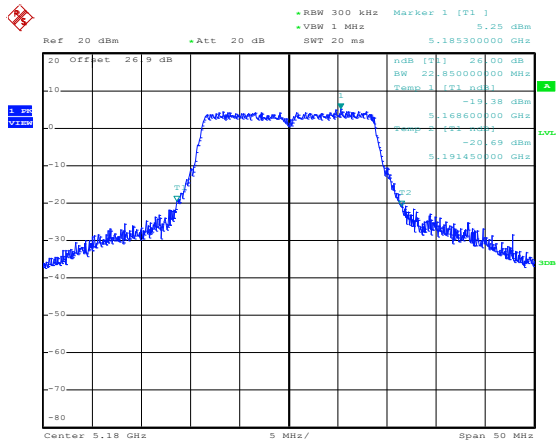
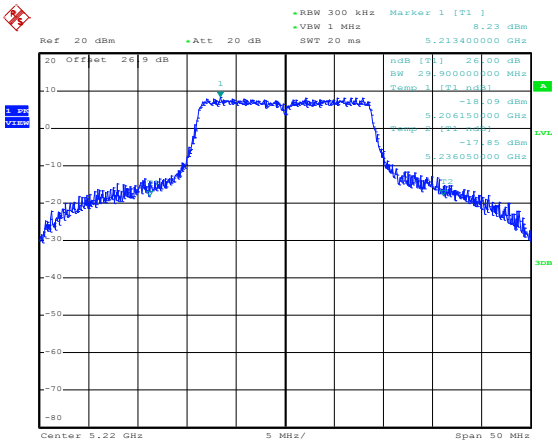
 Date: 27.JUN.2013 00:55:29	 Date: 27.JUN.2013 01:03:48

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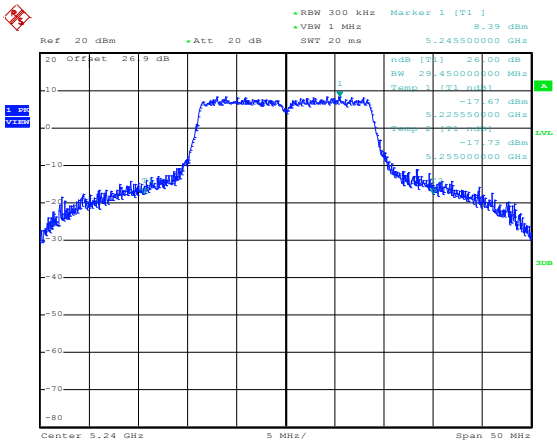	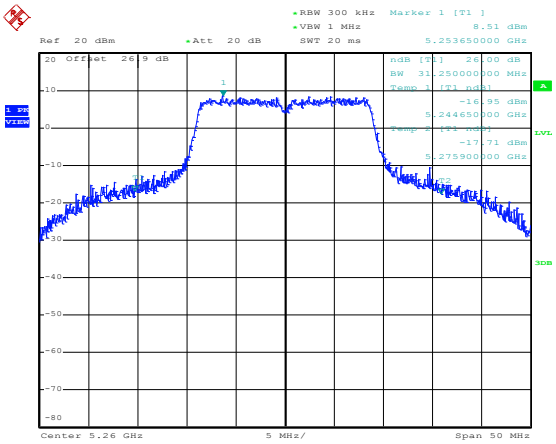
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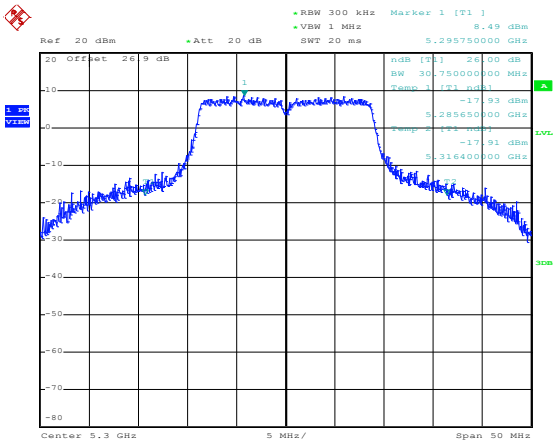	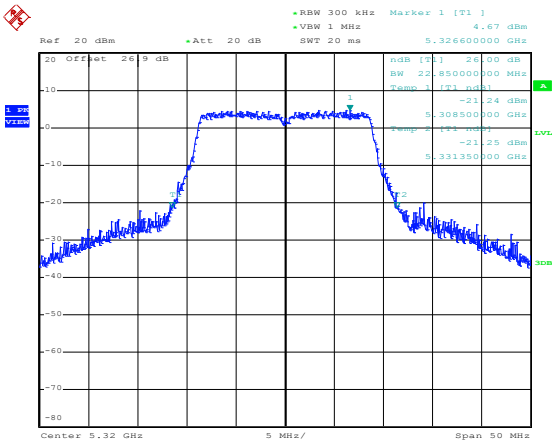
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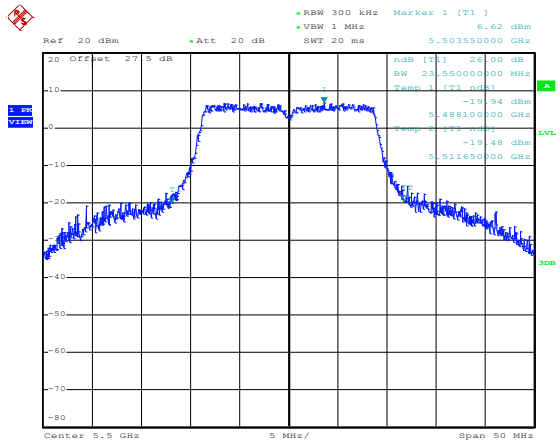
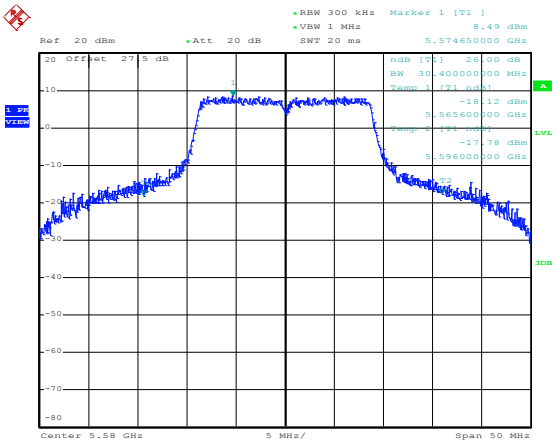
 Date: 27.JUN.2013 00:52:02	 Date: 27.JUN.2013 00:48:00
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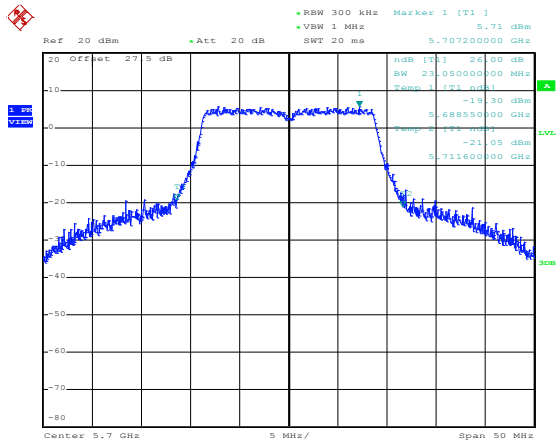 Date: 27.JUN.2013 00:41:59	

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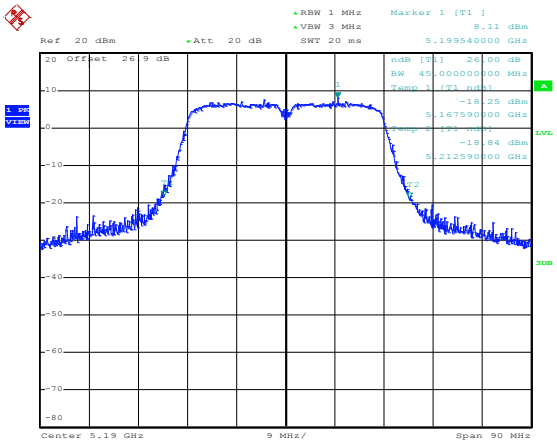	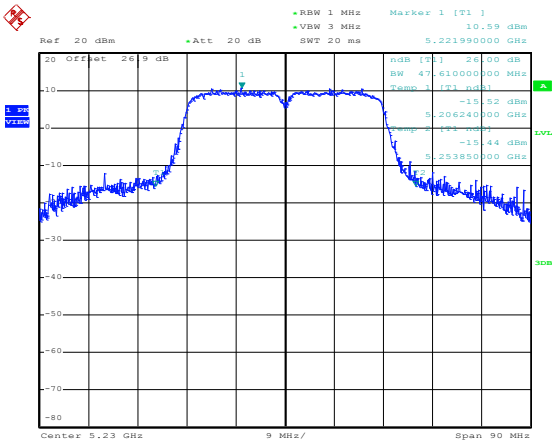
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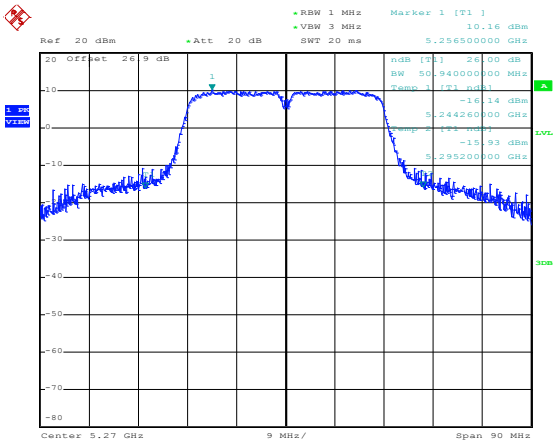	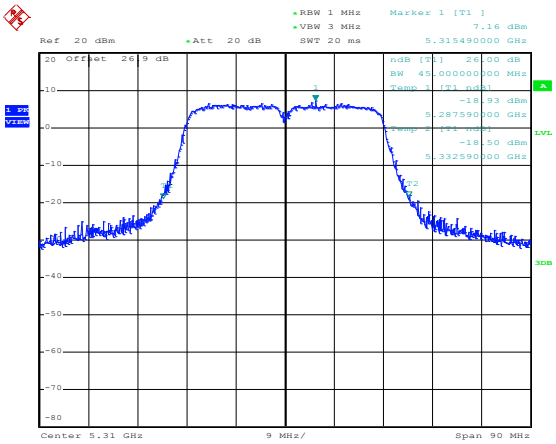
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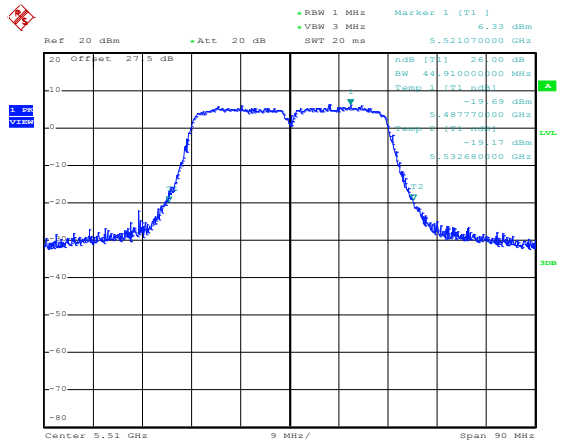
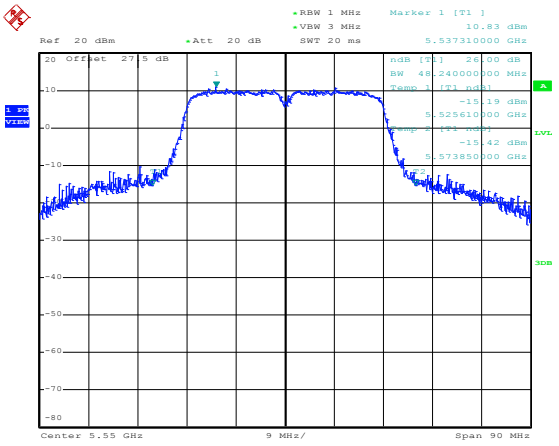
 Date: 27.JUN.2013 01:41:13	 Date: 27.JUN.2013 01:45:19
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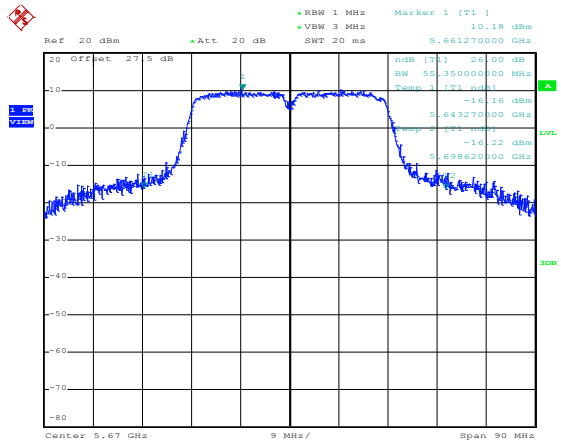 Date: 27.JUN.2013 01:48:31	

99% Occupied Bandwidth	
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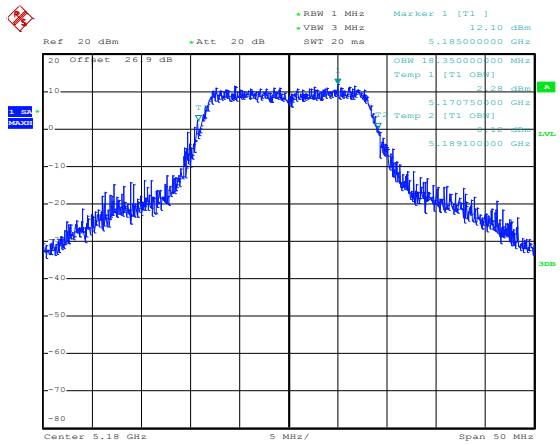	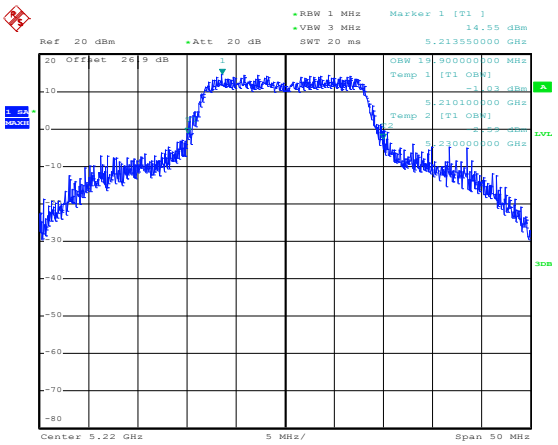
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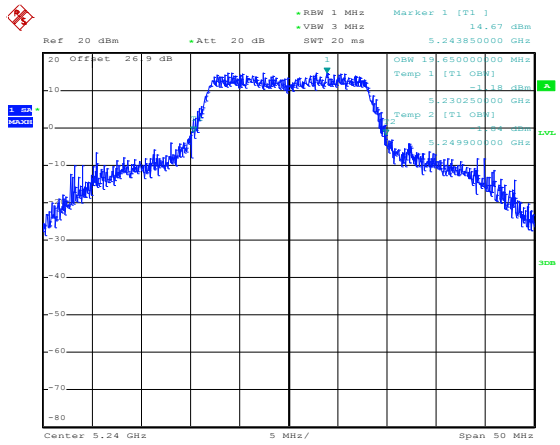	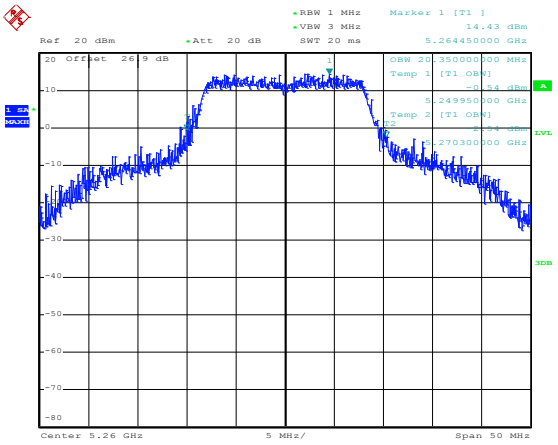
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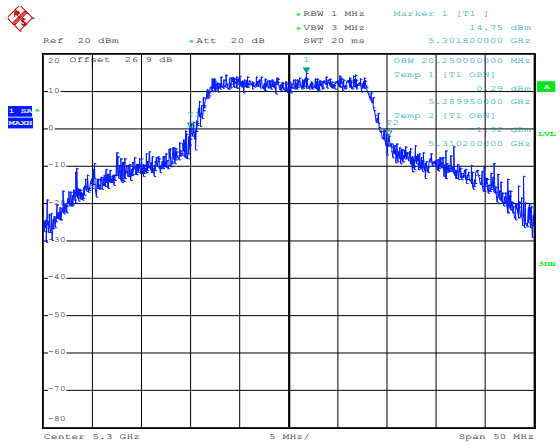	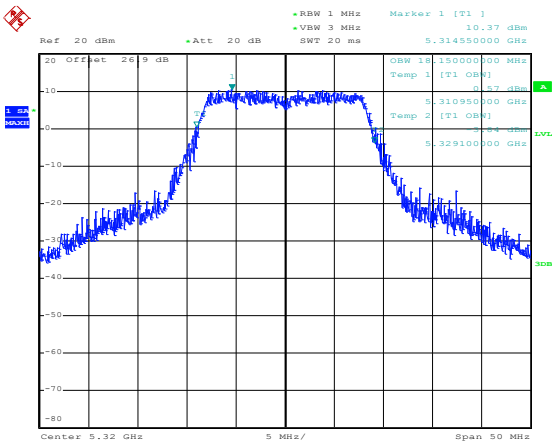
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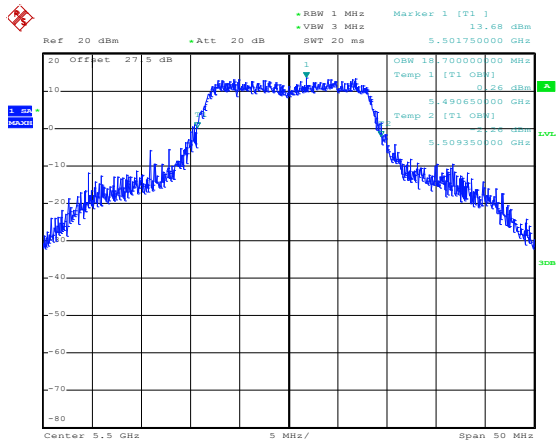	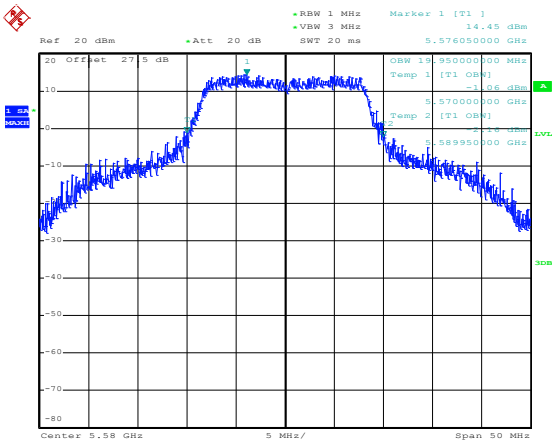
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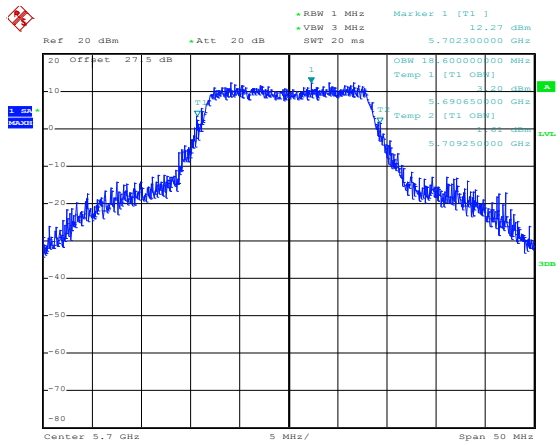 Date: 27.JUN.2013 00:31:26	

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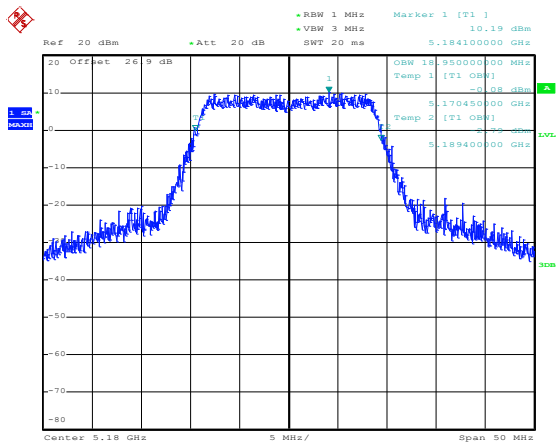
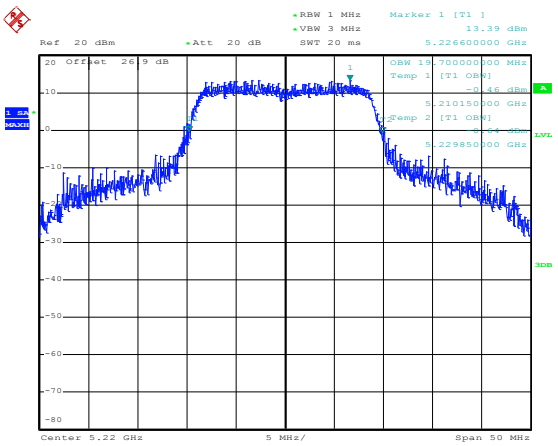
 Date: 27.JUN.2013 01:03:09	 Date: 27.JUN.2013 01:06:07

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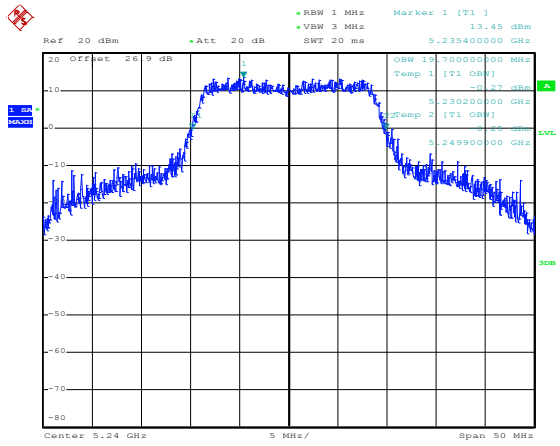	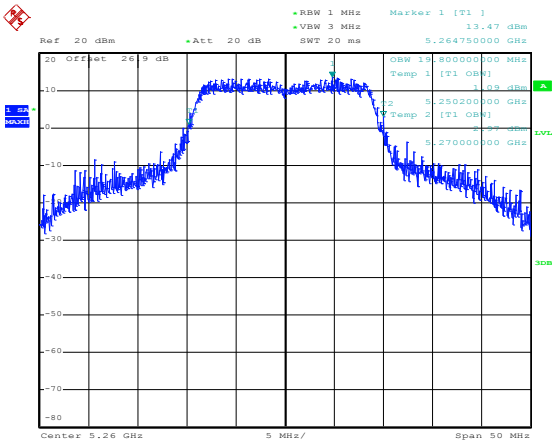
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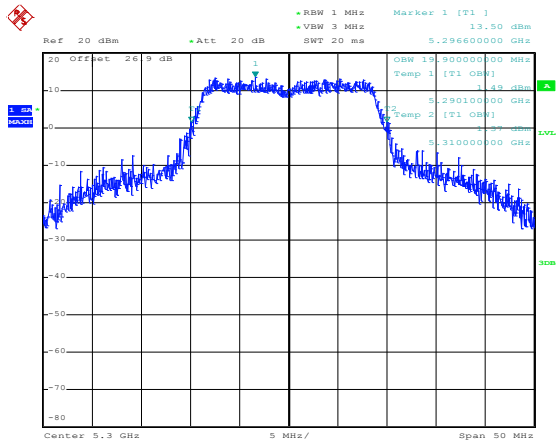	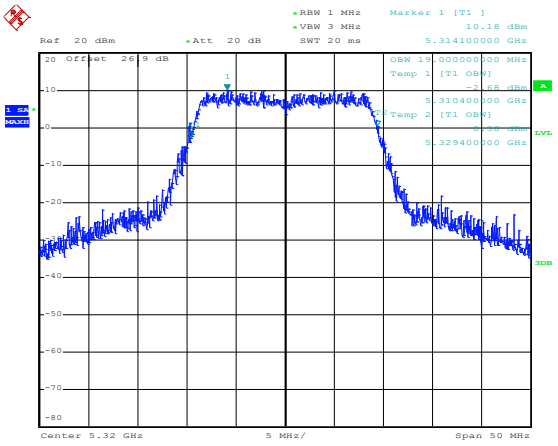
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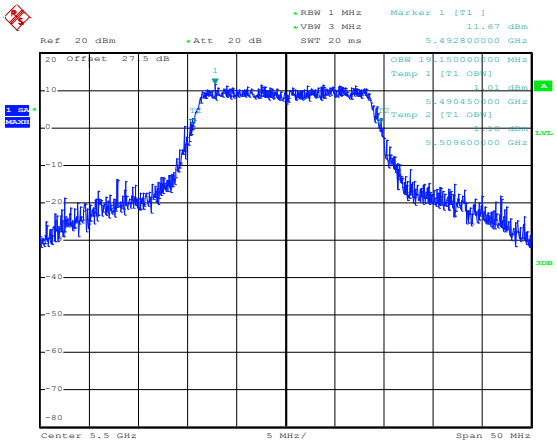	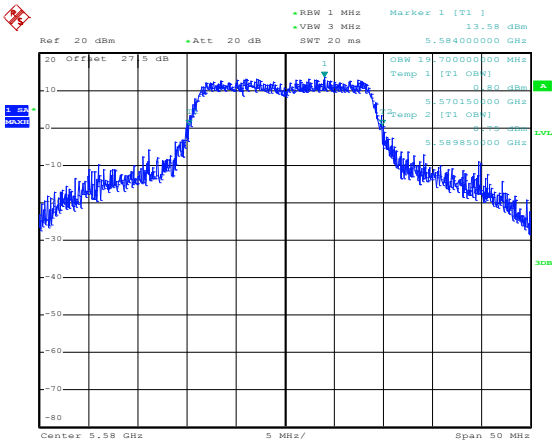
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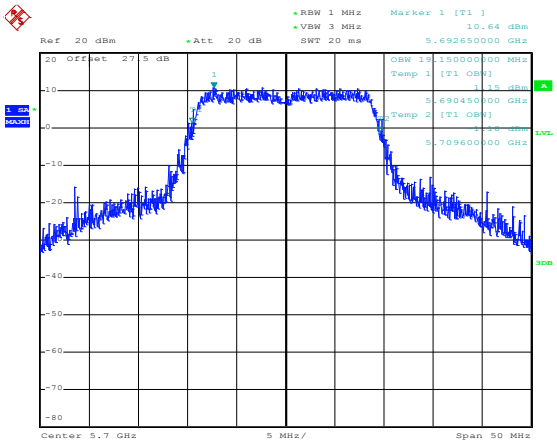	
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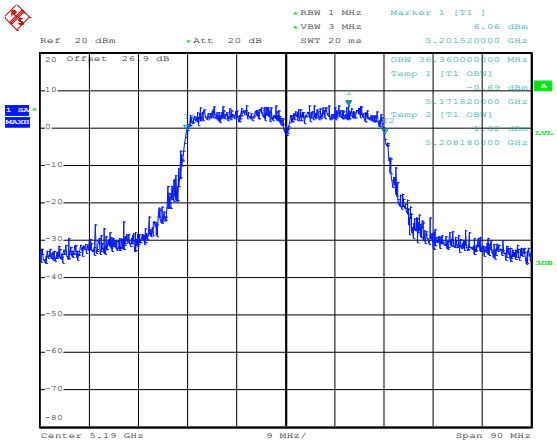	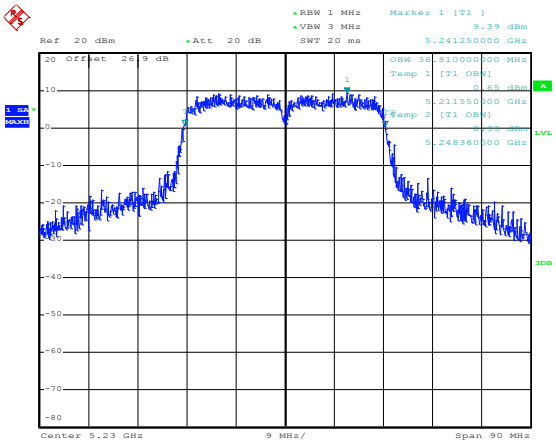
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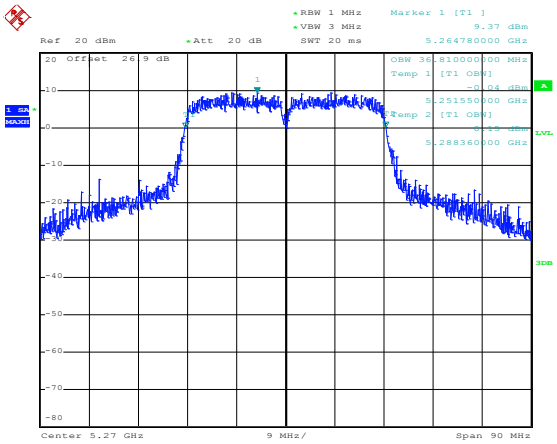	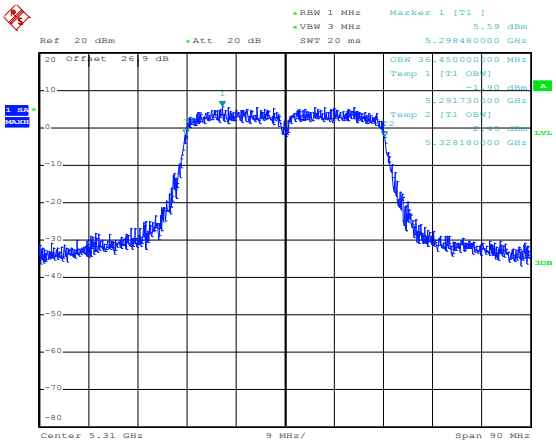
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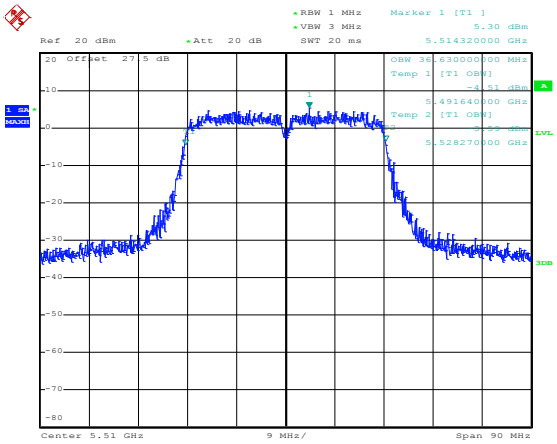
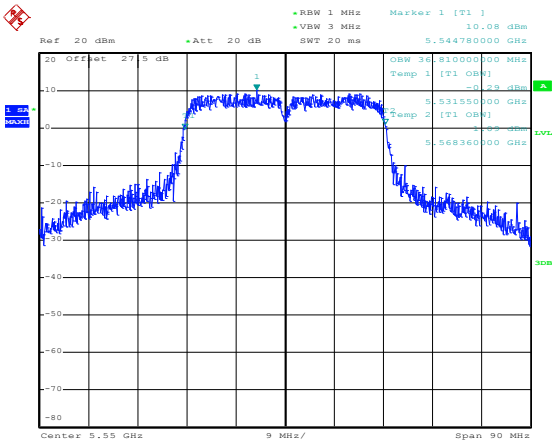
802.11a/n HT40 CH102 5510MHz	802.11a/n HT20 CH110 5550MHz
	
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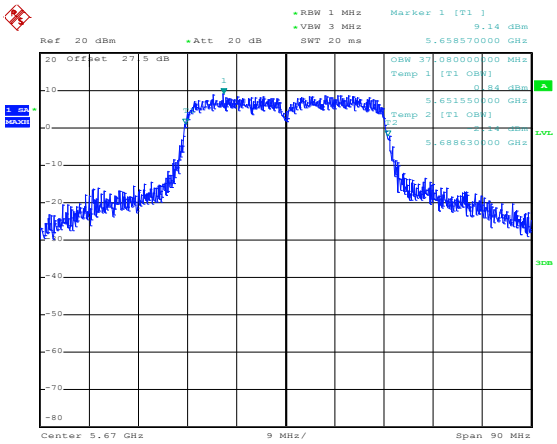
	
Date: 27.JUN.2013 01:49:21	

3.2 Maximum Conducted Output Power Measurement

3.2.1 Limit of Maximum Conducted Output Power

For the band 5150-5250 MHz, the maximum conducted output power shall not exceed the lesser of 50 mW (17dBm) or 4 dBm + 10log B, where B is the 26 dB emissions bandwidth in 1-MHz. If transmitting antenna directional gain is greater than 6 dBi, the peak output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

For the bands 5250-5350 MHz and 5470-5725 MHz, bands, the maximum conducted output power shall not exceed the lesser of 250 mW (24dBm) or 11 dBm + 10log B, where B is the 26 dB emissions bandwidth in 1-MHz. If transmitting antenna directional gain is greater than 6 dBi, the peak output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

3.2.2 Measuring Instruments

See list of measuring instruments of this test report.

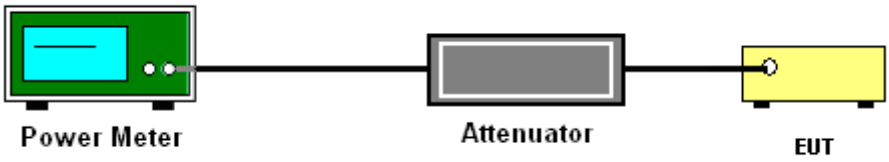
3.2.3 Test Procedures

The testing follows Method PM of FCC KDB 789033 D01 General UNII Test Procedures v01r03.

Method PM (Measurement using an RF average power meter):

1. Measurement is performed using a wideband RF power meter.
2. The EUT is configured to transmit continuously with a consistent duty cycle at its maximum power control level.
3. Measure the average power of the transmitter, and the average power is corrected with duty factor, 10 log(1/x), where x is the duty cycle.

3.2.4 Test Setup



3.2.5 Test Result of Maximum Conducted Output Power

Test Band :	5GHz band 1,2,3	Temperature :	24~26℃
Test Engineer :	Coyote Lin	Relative Humidity :	55~58%

Mod.	Data Rate	N_{TX}	Channel	Freq. (MHz)	Duty Factor (dB)	RF Output Power (dBm)	Power Limit (dBm)	DG (dBi)	Pass/Fail
11a	6Mbps	1	36	5180	0.59	13.89	17	2.71	Pass
11a	6Mbps	1	44	5220	0.59	16.90	17	2.71	Pass
11a	6Mbps	1	48	5240	0.59	16.97	17	2.71	Pass
HT20	MCS0	1	36	5180	0.63	12.97	17	2.71	Pass
HT20	MCS0	1	44	5220	0.63	15.99	17	2.71	Pass
HT20	MCS0	1	48	5240	0.63	15.58	17	2.71	Pass
HT40	MCS0	1	38	5190	0.63	11.71	17	2.71	Pass
HT40	MCS0	1	46	5230	0.63	14.88	17	2.71	Pass

Note:

1. Final Output Power equals to Measured Output Power adds the duty factor.
2. For the band 5150-5250 MHz, the maximum conducted output power shall not exceed the lesser of 50 mW (17dBm) or 4 dBm + 10log (26dB BW).

Mod.	Data Rate	N_{TX}	Channel	Freq. (MHz)	Duty Factor (dB)	RF Output Power (dBm)	Power Limit (dBm)	DG (dBi)	Pass/Fail
11a	6Mbps	1	52	5260	0.59	16.45	24	2.71	Pass
11a	6Mbps	1	60	5300	0.59	16.51	24	2.71	Pass
11a	6Mbps	1	64	5320	0.59	13.24	24	2.71	Pass
HT20	MCS0	1	52	5260	0.63	15.67	24	2.71	Pass
HT20	MCS0	1	60	5300	0.63	15.66	24	2.71	Pass
HT20	MCS0	1	64	5320	0.63	12.11	24	2.71	Pass
HT40	MCS0	1	54	5270	0.63	14.94	24	2.71	Pass
HT40	MCS0	1	62	5310	0.63	11.32	24	2.71	Pass

Note:

1. Final Output Power equals to Measured Output Power adds the duty factor.
2. For the 5250-5350 MHz and 5470-5725MHz bands, the maximum conducted output power shall not exceed the lesser of 250 mW (24dBm) or 11 dBm + 10log (26dB BW).

Mod.	Data Rate	N_{TX}	Channel	Freq. (MHz)	Duty Factor (dB)	RF Output Power (dBm)	Power Limit (dBm)	DG (dBi)	Pass/Fail
11a	6Mbps	1	100	5500	0.59	15.15	24	2.93	Pass
11a	6Mbps	1	116	5580	0.59	17.00	24	2.93	Pass
11a	6Mbps	1	140	5700	0.59	14.27	24	2.93	Pass
HT20	MCS0	1	100	5500	0.63	14.24	24	2.93	Pass
HT20	MCS0	1	116	5580	0.63	15.99	24	2.93	Pass
HT20	MCS0	1	140	5700	0.63	13.46	24	2.93	Pass
HT40	MCS0	1	102	5510	0.63	10.24	24	2.93	Pass
HT40	MCS0	1	110	5550	0.63	14.97	24	2.93	Pass
HT40	MCS0	1	134	5670	0.63	14.42	24	2.93	Pass

Note:

1. Final Output Power equals to Measured Output Power adds the duty factor.
2. For the 5250-5350 MHz and 5470-5725MHz bands, the maximum conducted output power shall not exceed the lesser of 250 mW (24dBm) or 11 dBm + 10log (26dB BW).

3.3 Power Spectral Density Measurement

3.3.1 Limit of Power Spectral Density

For the band 5150-5250 MHz, the peak power spectral density shall not exceed 4 dBm in any 1-MHz band. For the bands 5250-5350 MHz and 5470-5725 MHz, the peak power spectral density shall not exceed 11 dBm in any 1-MHz band. If transmitting antenna directional gain is greater than 6 dBi, both the maximum conducted output power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

3.3.2 Measuring Instruments

See list of measuring instruments of this test report.

3.3.3 Test Procedures

The testing follows FCC KDB 789033 D01 General UNII Test Procedures v01r03.

Section F) Peak power spectral density (PPSD).

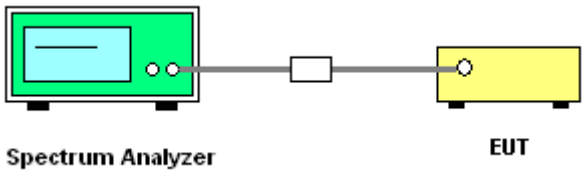
Note: Though the rule refers to “peak power spectral density”, the intent is to measure the maximum value of the time average of the power spectral density measured during a period of continuous transmission.

 # Method SA-2 #

(trace averaging across on and off times of the EUT transmissions, followed by duty cycle correction).

1. The testing follows Method SA-2 of FCC KDB 789033 D01 General UNII Test Procedures v01r03.
   - Measure the duty cycle.
   - Set span to encompass the entire emission bandwidth (EBW) of the signal.
   - Set RBW = 1 MHz.
   - Set VBW ≥ 3 MHz.
   - Number of points in sweep ≥ 2 Span / RBW.
   - Sweep time = auto.
   - Detector = sample
   - Trace average at least 100 traces in power averaging mode.
   - Add 10 log(1/x), where x is the duty cycle, to the measured power in order to compute the average power during the actual transmission times. For example, add 10 log(1/0.25) = 6 dB if the duty cycle is 25 percent.
2. The RF output of EUT was connected to the spectrum analyzer by a low loss cable.
3. Each plot has already offset with cable loss, and attenuator loss. Measure the PPSD and record it.

3.3.4 Test Setup



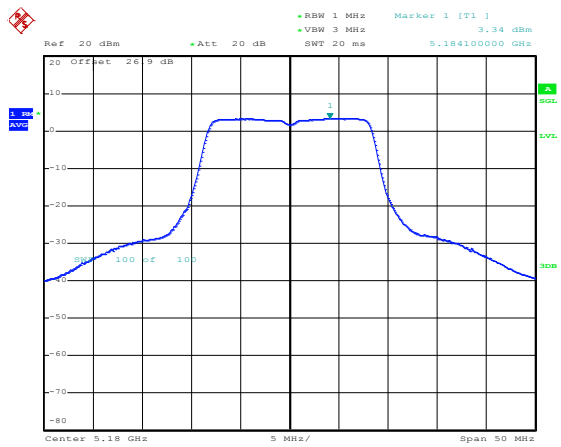
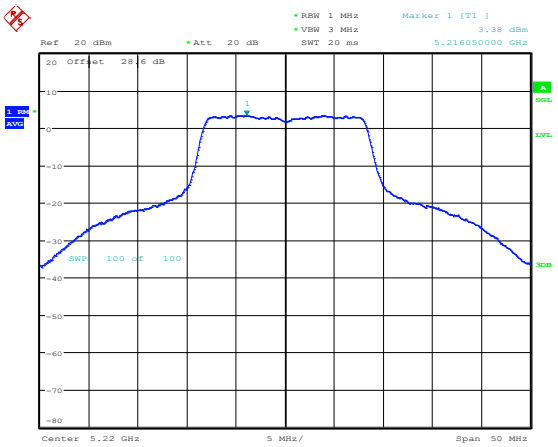
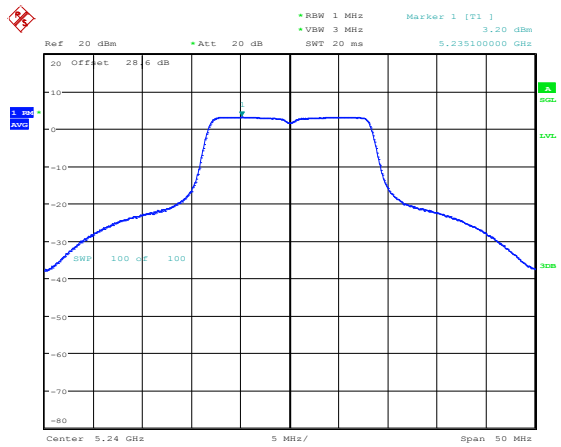
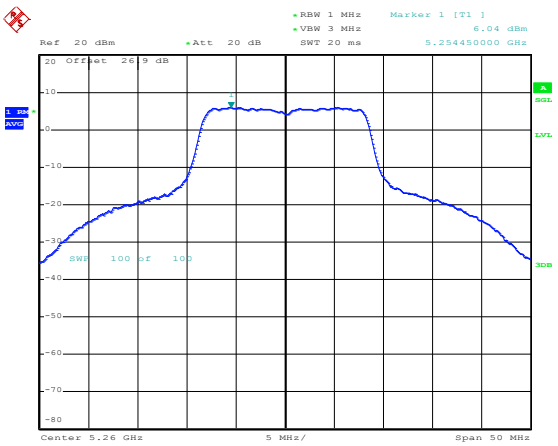
3.3.5 Test Result of Power Spectral Density

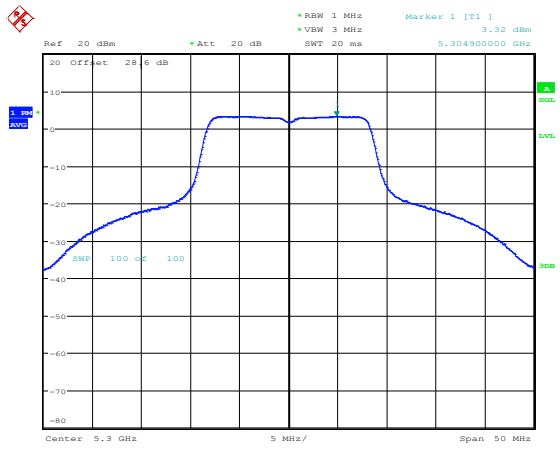
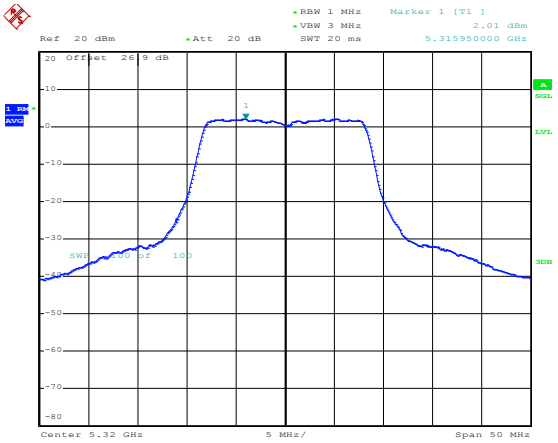
Test Band :	5GHz band 1,2,3	Temperature :	24~26℃
Test Engineer :	Coyote Lin	Relative Humidity :	55~58%

Mod.	Data Rate	N_{TX}	Channel	Freq. (MHz)	Duty Factor (dB)	Average Power Density (dBm/MHz)	Max. Limits (dBm/MHz)	DG (dBi)	Pass/ Fail
11a	6Mbps	1	36	5180	0.59	3.93	4	2.71	Pass
11a	6Mbps	1	44	5220	0.59	3.97	4	2.71	Pass
11a	6Mbps	1	48	5240	0.59	3.79	4	2.71	Pass
HT20	MCS0	1	36	5180	0.63	1.85	4	2.71	Pass
HT20	MCS0	1	44	5220	0.63	3.17	4	2.71	Pass
HT20	MCS0	1	48	5240	0.63	3.30	4	2.71	Pass
HT40	MCS0	1	38	5190	0.63	-1.84	4	2.71	Pass
HT40	MCS0	1	46	5230	0.63	1.30	4	2.71	Pass

Mod.	Data Rate	N_{TX}	Channel	Freq. (MHz)	Duty Factor (dB)	Average Power Density (dBm/MHz)	Max. Limits (dBm/MHz)	DG (dBi)	Pass/ Fail
11a	6Mbps	1	52	5260	0.59	6.63	11	2.71	Pass
11a	6Mbps	1	60	5300	0.59	3.91	11	2.71	Pass
11a	6Mbps	1	64	5320	0.59	2.60	11	2.71	Pass
HT20	MCS0	1	52	5260	0.63	5.38	11	2.71	Pass
HT20	MCS0	1	60	5300	0.63	2.31	11	2.71	Pass
HT20	MCS0	1	64	5320	0.63	1.97	11	2.71	Pass
HT40	MCS0	1	54	5270	0.63	1.29	11	2.71	Pass
HT40	MCS0	1	62	5310	0.63	-2.38	11	2.71	Pass

Mod.	Data Rate	N_{TX}	Channel	Freq. (MHz)	Duty Factor (dB)	Average Power Density (dBm/MHz)	Max. Limits (dBm/MHz)	DG (dBi)	Pass/ Fail
11a	6Mbps	1	100	5500	0.59	5.68	11	2.93	Pass
11a	6Mbps	1	116	5580	0.59	6.67	11	2.93	Pass
11a	6Mbps	1	140	5700	0.59	4.57	11	2.93	Pass
HT20	MCS0	1	100	5500	0.63	3.89	11	2.93	Pass
HT20	MCS0	1	116	5580	0.63	5.57	11	2.93	Pass
HT20	MCS0	1	140	5700	0.63	3.17	11	2.93	Pass
HT40	MCS0	1	102	5510	0.63	-2.82	11	2.93	Pass
HT40	MCS0	1	110	5550	0.63	1.72	11	2.93	Pass
HT40	MCS0	1	134	5670	0.63	1.11	11	2.93	Pass

Power Spectral Density(dBm/MHz)	
802.11a CH36 5180MHz	802.11a CH44 5220MHz
 Date: 26.JUN.2013 23:49:20	 Date: 4.JUL.2013 11:42:33
802.11a CH48 5240MHz	802.11a CH52 5260MHz
 Date: 4.JUL.2013 11:45:35	 Date: 27.JUN.2013 00:06:48

802.11a CH60 5300MHz	802.11a CH64 5320MHz
	
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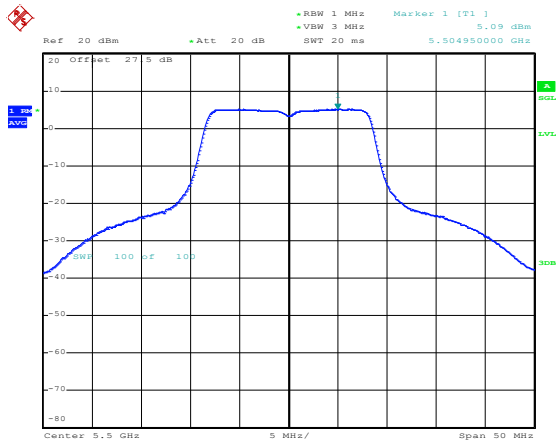
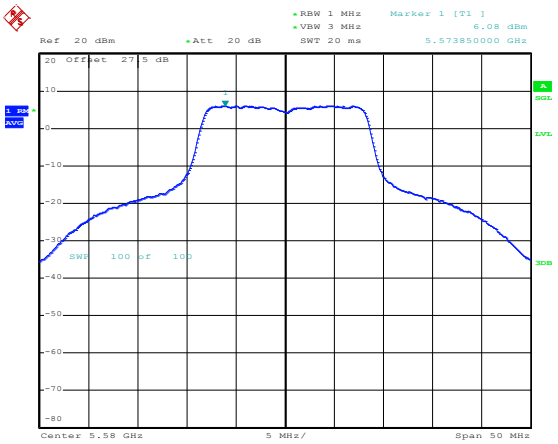
802.11a CH100 5500MHz	**802.11a CH116 5580MHz**
	
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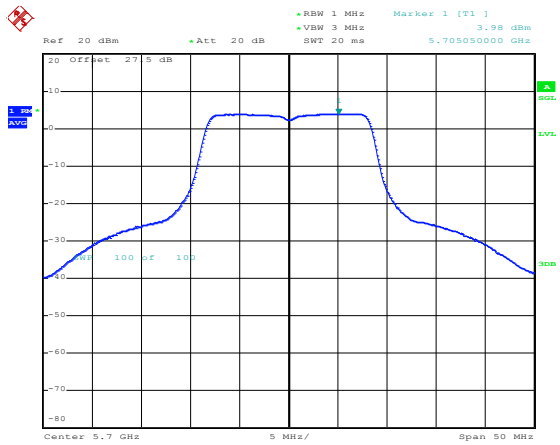
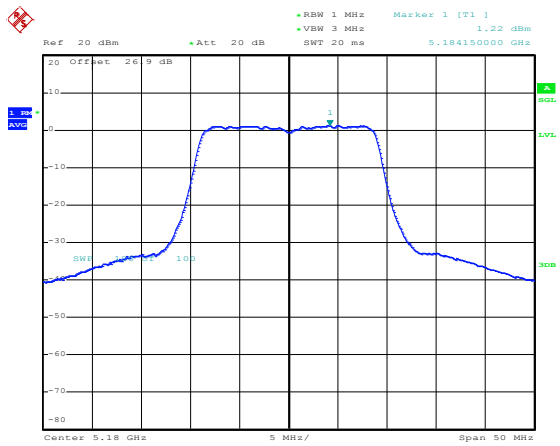
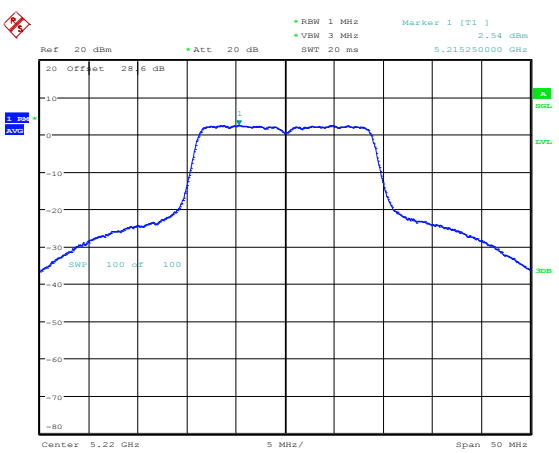
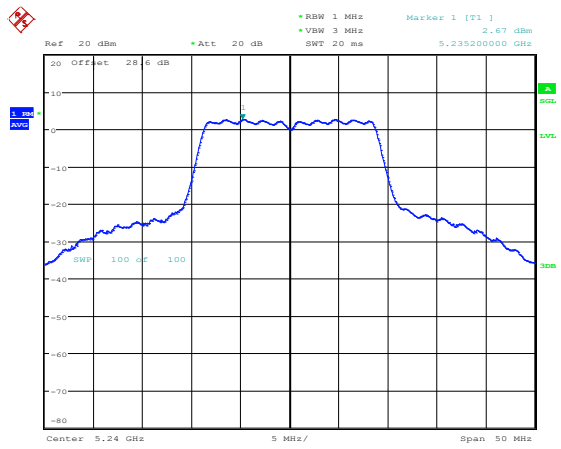
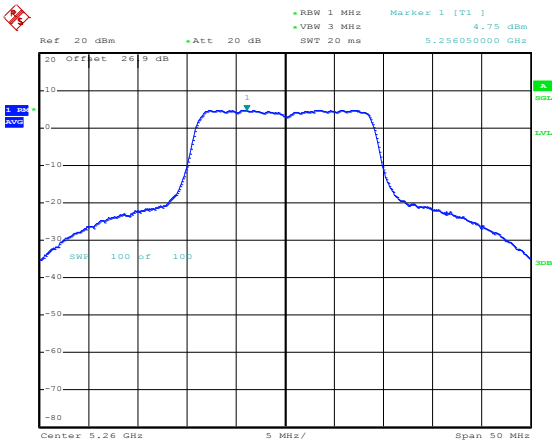
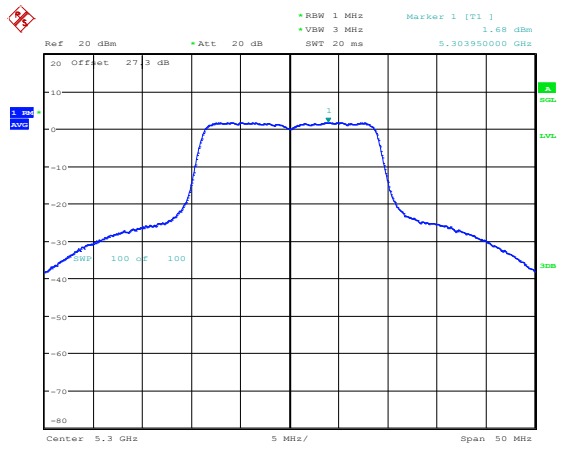
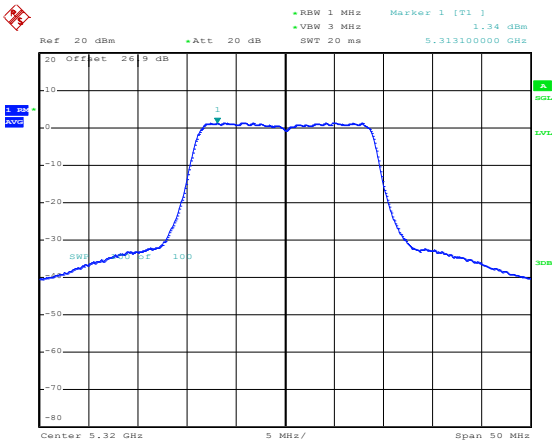
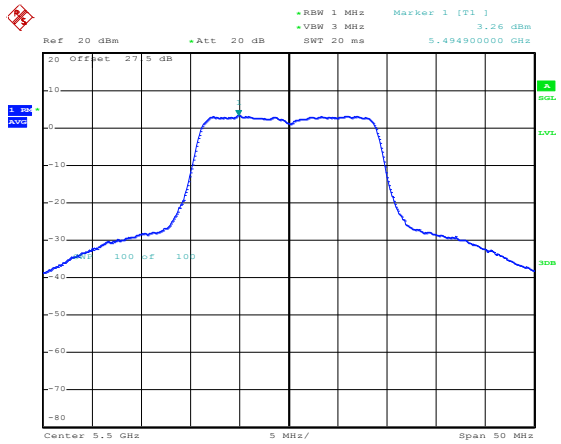
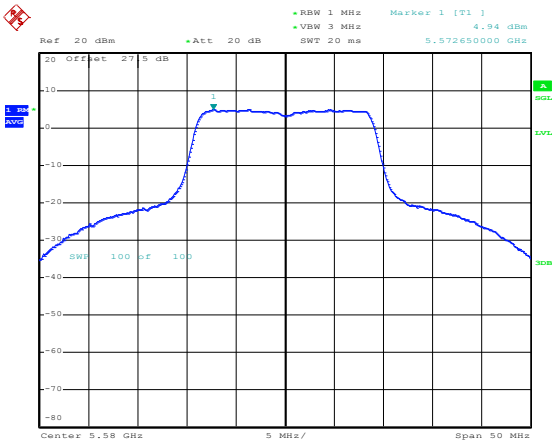
802.11a CH140 5700MHz	
 Date: 27.JUN.2013 00:28:59	

802.11a/n HT20 CH36 5180MHz	802.11a/n HT20 CH44 5220MHz
 Date: 27.JUN.2013 00:55:54	 Date: 27.JUN.2013 15:22:39

802.11a/n HT20 CH48 5240MHz	802.11a/n HT20 CH52 5260MHz
 Date: 27.JUN.2013 15:21:44	 Date: 27.JUN.2013 01:12:02
802.11a/n HT20 CH60 5300MHz	**802.11a/n HT20 CH64 5320MHz**
 Date: 22.JUL.2013 10:27:03	 Date: 27.JUN.2013 01:20:07

802.11a/n HT20 CH100 5500MHz	802.11a/n HT20 CH116 5580MHz
 Date: 27.JUN.2013 00:52:24	 Date: 27.JUN.2013 00:48:20
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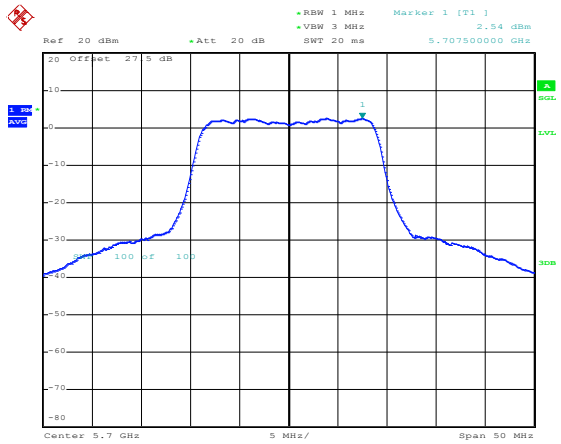
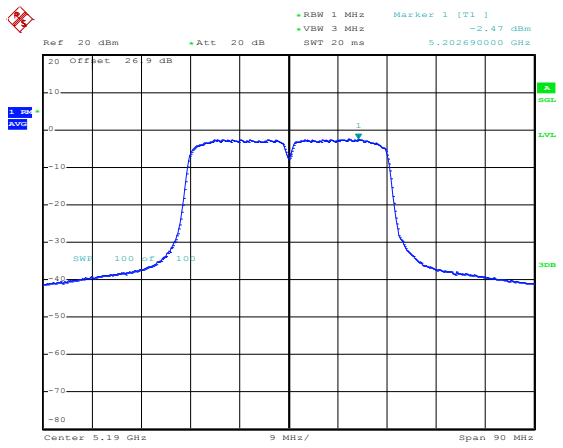
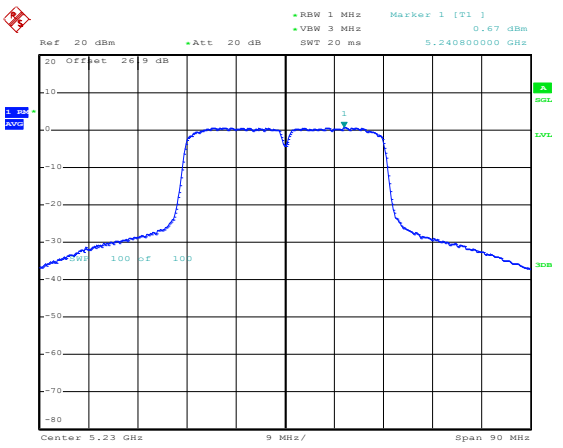
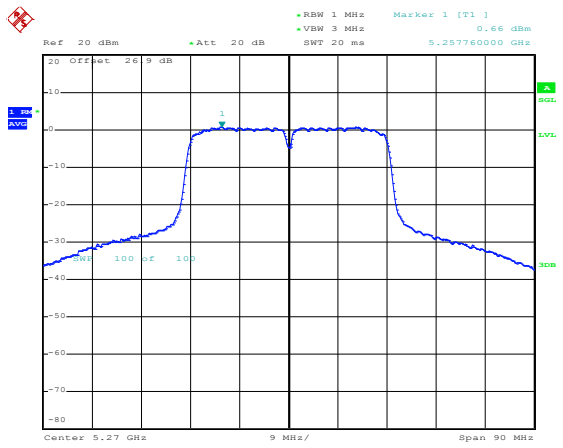
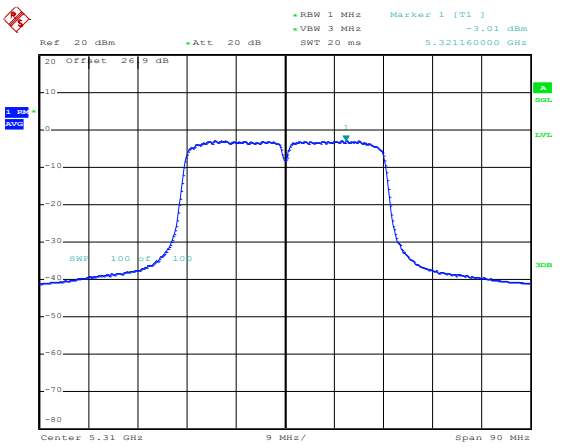
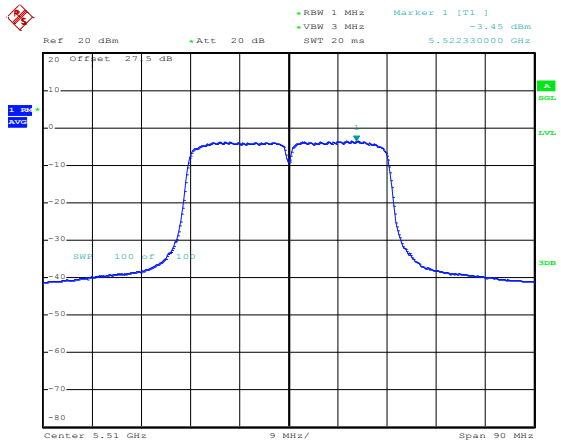
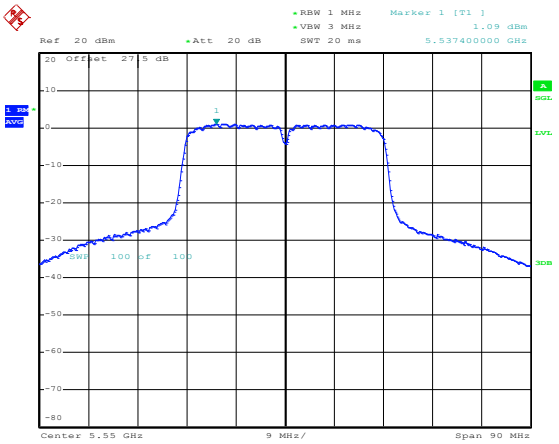
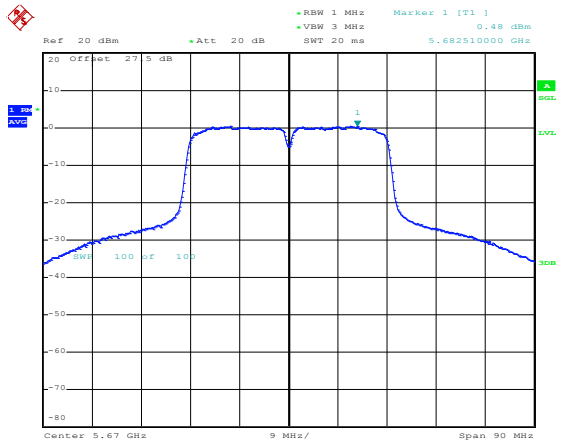
 Date: 27.JUN.2013 00:42:17	

802.11a/n HT40 CH38 5190MHz	802.11a/n HT40 CH46 5230MHz
 Date: 27.JUN.2013 01:29:14	 Date: 27.JUN.2013 01:32:59
802.11a/n HT40 CH54 5270MHz	**802.11a/n HT40 CH62 5310MHz**
 Date: 27.JUN.2013 01:35:48	 Date: 27.JUN.2013 01:38:45

802.11a/n HT40 CH102 5510MHz	802.11a/n HT20 CH110 5550MHz
 Date: 27.JUN.2013 01:41:42	 Date: 27.JUN.2013 01:45:43
802.11a/n HT40 CH134 5670MHz	
 Date: 27.JUN.2013 01:48:50	

Note: Average Power Density (dB) = Measured value+ Duty Factor

3.4 Peak Excursion Ratio Measurement

3.4.1 Limit of Peak Excursion Ratio

The ratio of the peak excursion of the modulation envelope (measured using a peak hold function) to the maximum conducted output power (measured as specified above) shall not exceed 13 dB across any 1 MHz bandwidth or the emission bandwidth whichever is less.

3.4.2 Measuring Instruments

See list of measuring instruments of this test report.

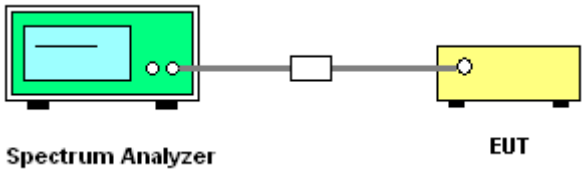
3.4.3 Test Procedures

The testing follows FCC KDB 789033 D01 General UNII Test Procedures v01r03.

Section G) Peak excursion measurement

1. The transmitter output is connected to the spectrum analyzer.
2. Set the spectrum analyzer span to view the entire emission bandwidth.
3. Find the maximum of the peak-max-hold spectrum.
   *Set RBW = 1MHz.
   *Set VBW ≥ 3MHz.
   *Detector = peak.
   *Trace mode = max-hold.
   *Allow the sweeps to continue until the trace stabilizes.
   *Use the peak search function to find the peak of the spectrum.
4. Use the procedure found under section 3.3 to measure the PPSD.
5. Compute the ratio of the maximum of the peak-max-hold spectrum to the PPSD.

3.4.4 Test Setup



3.4.5 Test Result of Peak Excursion Ratio

Test Band :	5GHz band 1,2,3	Temperature :	24~26℃
Test Engineer :	Coyote Lin	Relative Humidity :	55~58%

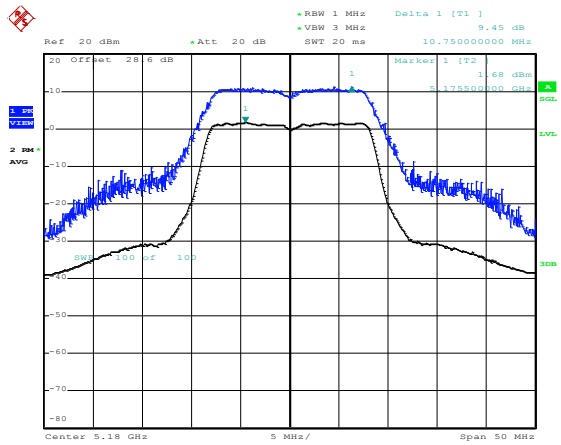
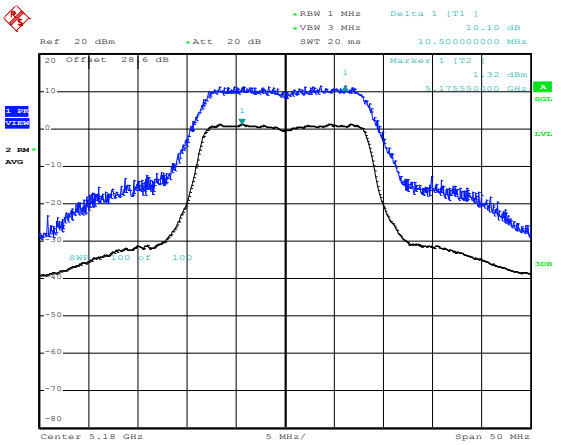
Duty Factor (dB)					
Mod.	BPSK	QPSK	16QAM	64QAM	256QAM
11a	0.59	1.09	1.95	3.19	-
HT20	0.63	1.15	1.93	3.10	-
HT40	0.63	1.15	1.85	2.77	-

Mod.	N_{TX}	Channel	Freq. (MHz)	Peak Excursion Ratio (dB)					Max. Limits (dB)	Pass/Fail
				BPSK	QPSK	16QAM	64QAM	256QAM		
11a	1	36	5180	8.86	9.01	9.64	9.30	-	13	Pass
HT20	1	36	5180	8.90	9.21	9.41	10.58	-	13	Pass
HT40	1	38	5190	9.55	9.07	9.11	9.31	-	13	Pass

Mod.	N_{TX}	Channel	Freq. (MHz)	Peak Excursion Ratio (dB)					Max. Limits (dB)	Pass/Fail
				BPSK	QPSK	16QAM	64QAM	256QAM		
11a	1	52	5260	9.39	9.13	9.53	10.57	-	13	Pass
HT20	1	52	5260	9.37	9.76	9.42	10.04	-	13	Pass
HT40	1	54	5270	8.89	9.13	9.45	9.13	-	13	Pass

Mod.	N_{TX}	Channel	Freq. (MHz)	Peak Excursion Ratio (dB)					Max. Limits (dB)	Pass/Fail
				BPSK	QPSK	16QAM	64QAM	256QAM		
11a	1	100	5500	8.96	9.77	9.74	9.23	-	13	Pass
HT20	1	100	5500	9.80	9.40	9.57	9.70	-	13	Pass
HT40	1	102	5510	9.86	10.13	9.35	9.41	-	13	Pass

Note: All modulation measured based on the minimum data rate setting.

Peak Excursion Ratio (dB)	
802.11a CH36 5180MHz BPSK	802.11a CH36 5180MHz QPSK
	
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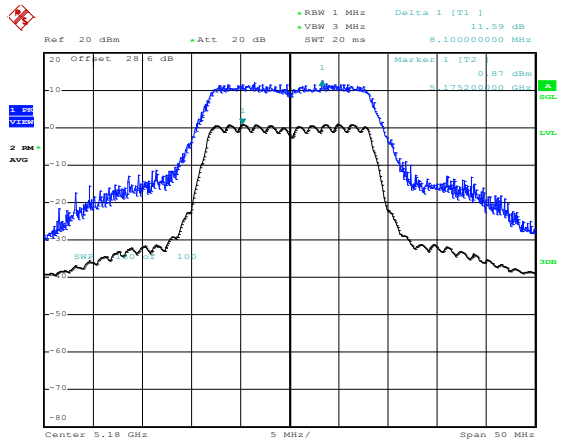
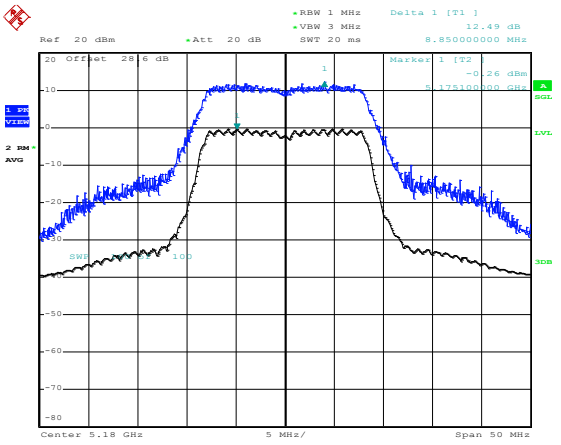
802.11a CH36 5180MHz 16QAM	802.11a CH36 5180MHz 64QAM
	
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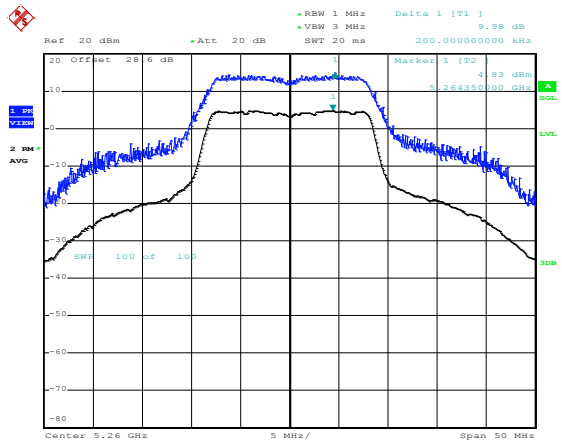
802.11a CH52 5260MHz BPSK



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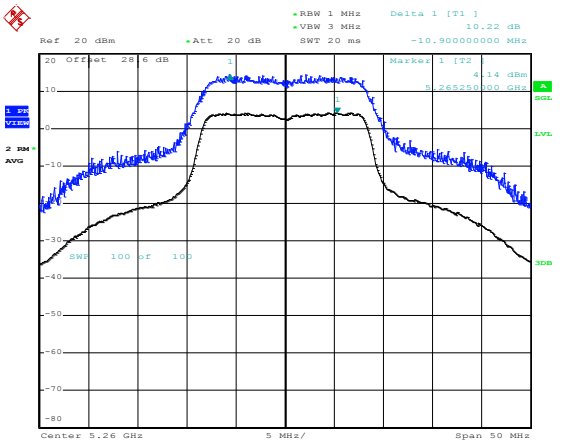
802.11a CH52 5260MHz QPSK



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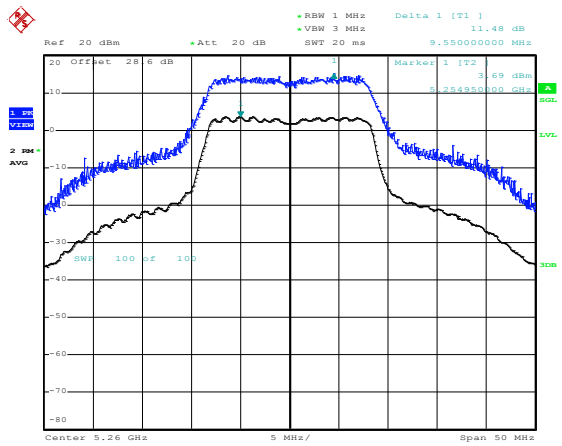
802.11a CH52 5260MHz 16QAM



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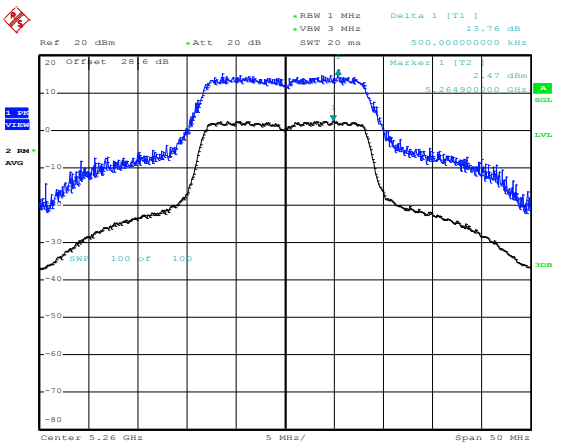
802.11a CH52 5260MHz 64QAM



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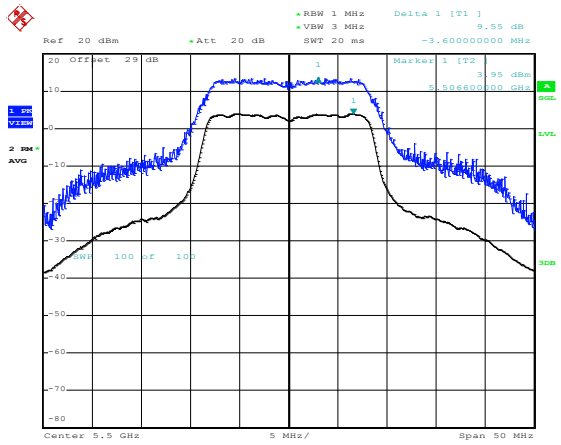
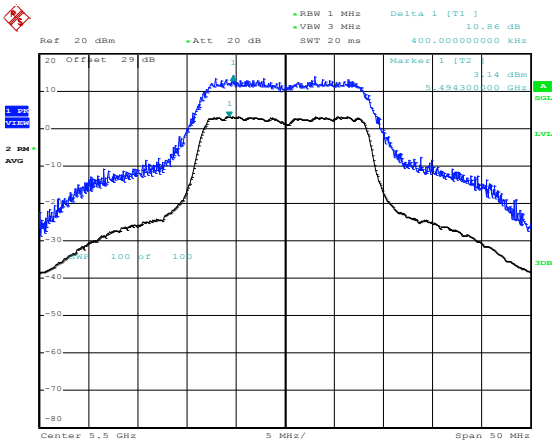
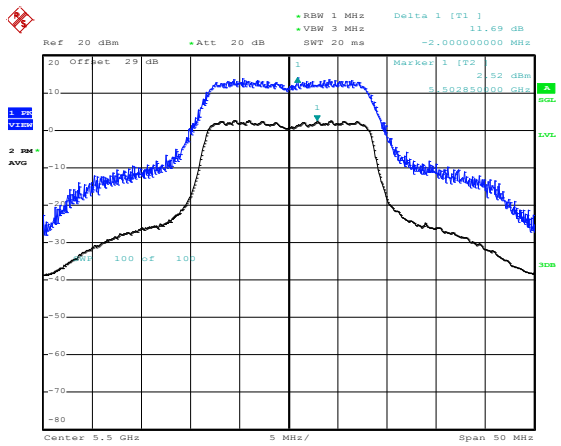
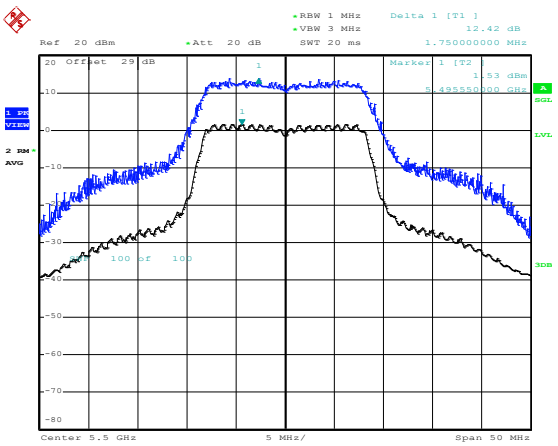
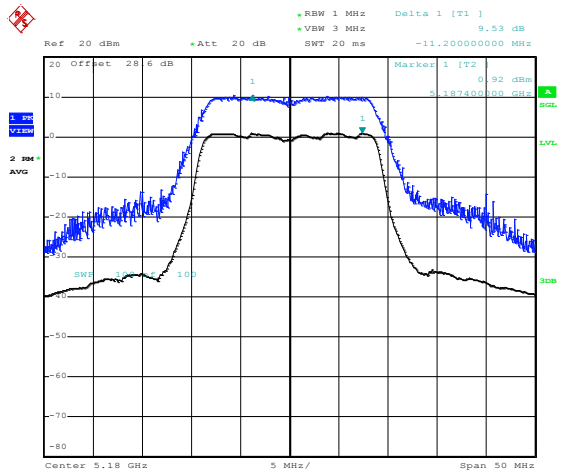
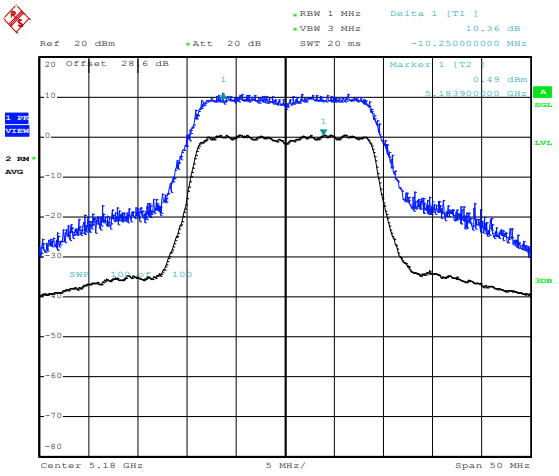
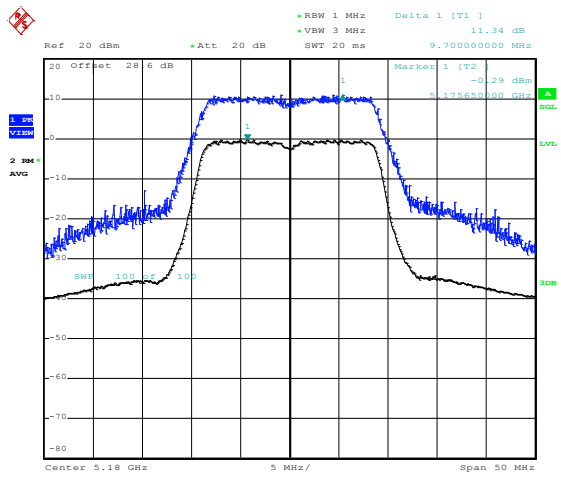
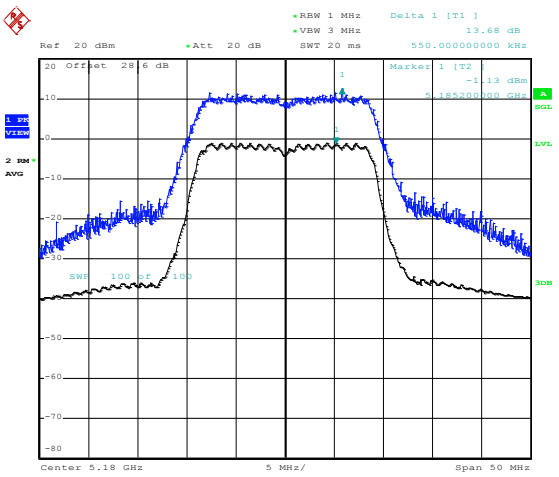
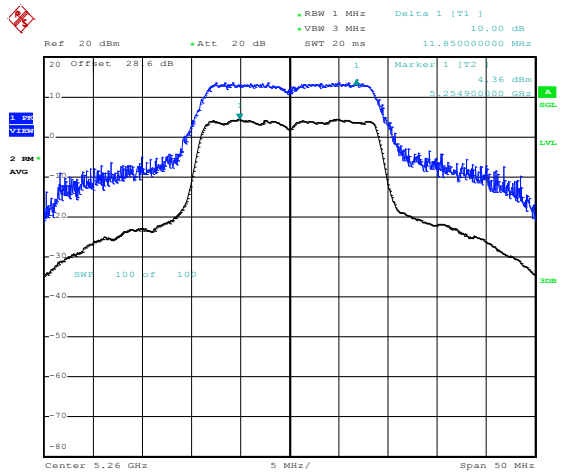
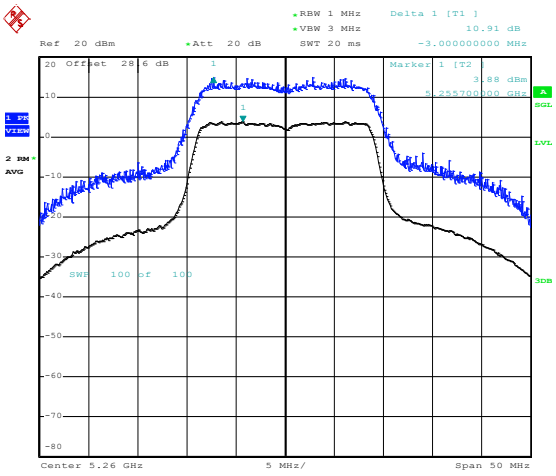
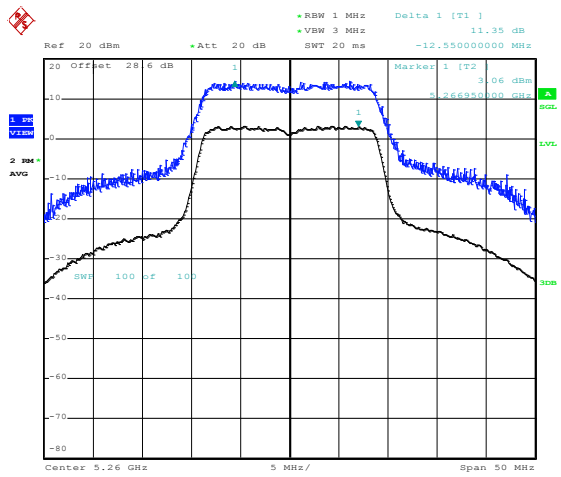
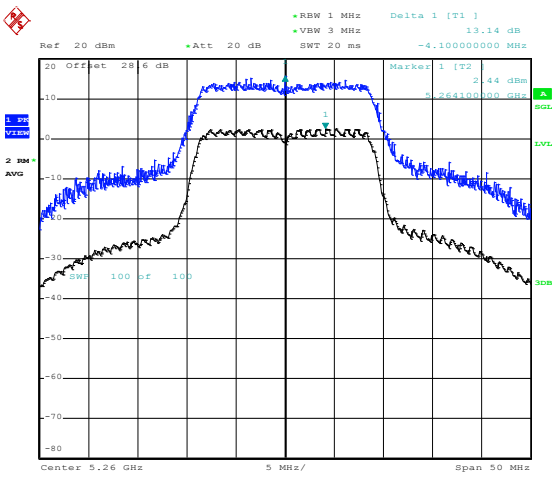
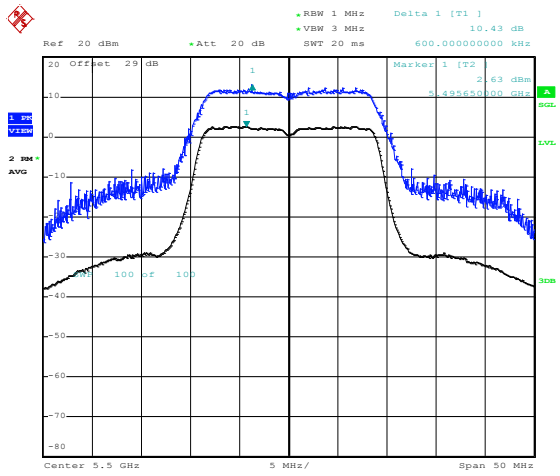
802.11a CH100 5500MHz BPSK	802.11a CH100 5500MHz QPSK
	
Date: 27.JUN.2013 10:01:30	Date: 27.JUN.2013 10:10:17
802.11a CH100 5500MHz 16QAM	**802.11a CH100 5500MHz 64QAM**
	
Date: 27.JUN.2013 10:10:51	Date: 27.JUN.2013 10:12:28

802.11a/n HT20 CH36 5180MHz BPSK	802.11a/n HT20 CH36 5180MHz QPSK
	
Date: 27.JUN.2013 11:00:39	Date: 27.JUN.2013 11:03:11
802.11a/n HT20 CH36 5180MHz 16QAM	**802.11a/n HT20 CH36 5180MHz 64QAM**
	
Date: 27.JUN.2013 11:04:04	Date: 27.JUN.2013 11:04:37

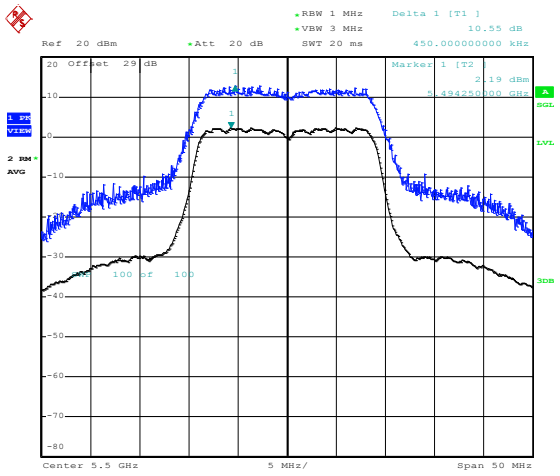
802.11a/n HT20 CH52 5260MHz BPSK	802.11a/n HT20 CH52 5260MHz QPSK
	
Date: 27.JUN.2013 11:29:28	Date: 27.JUN.2013 11:30:13
802.11a/n HT20 CH52 5260MHz 16QAM	**802.11a/n HT20 CH52 5260MHz 64QAM**
	
Date: 27.JUN.2013 11:31:21	Date: 27.JUN.2013 11:31:57

802.11a/n HT20 CH100 5500MHz BPSK



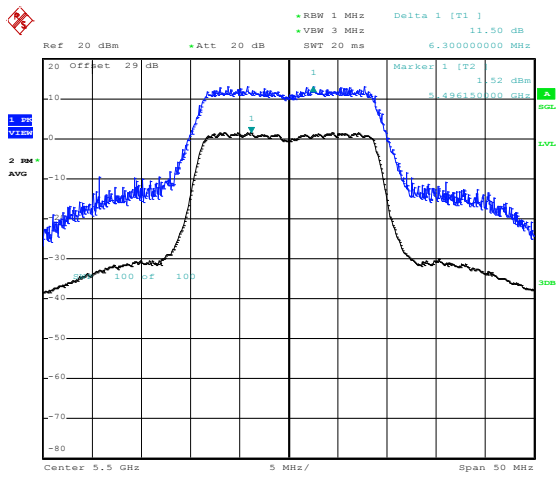
Date: 27.JUN.2013 11:38:34

802.11a/n HT20 CH100 5500MHz QPSK



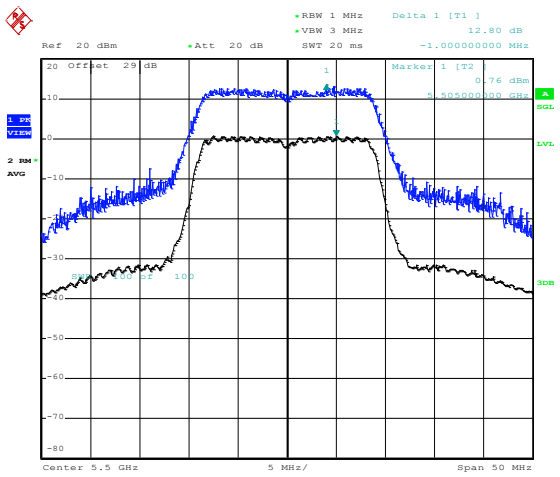
Date: 27.JUN.2013 11:39:05

802.11a/n HT20 CH100 5500MHz 16QAM

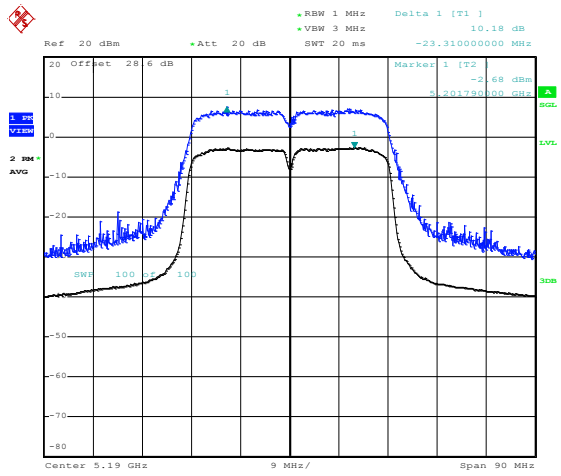
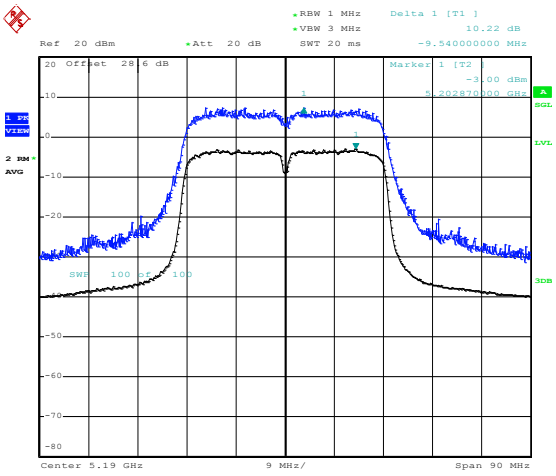
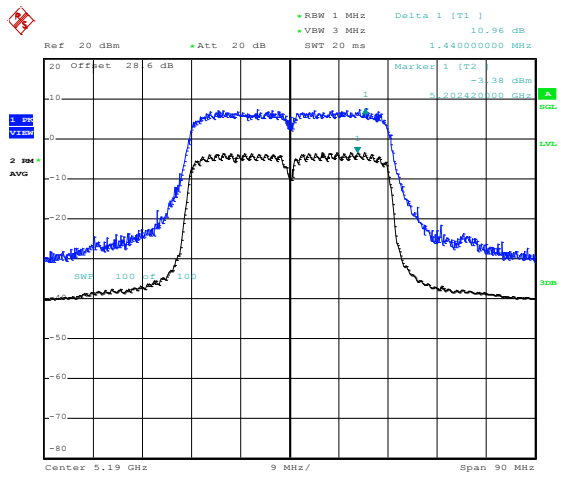
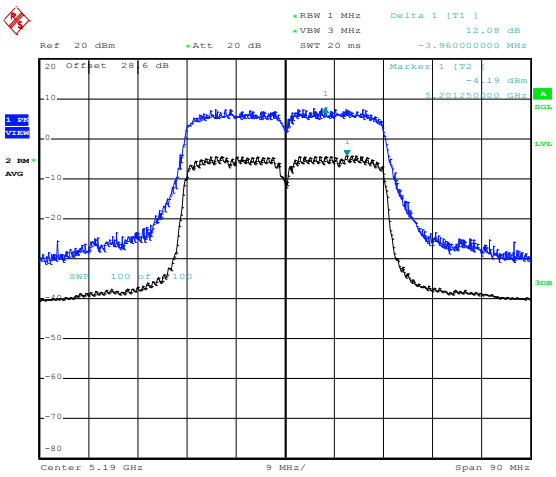


Date: 27.JUN.2013 11:39:37

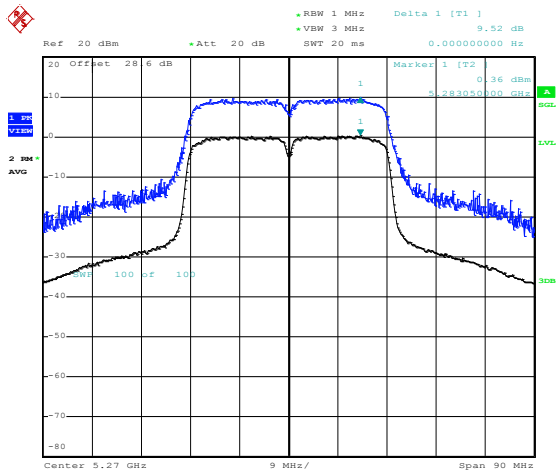
802.11a/n HT20 CH100 5500MHz 64QAM



Date: 27.JUN.2013 11:40:08

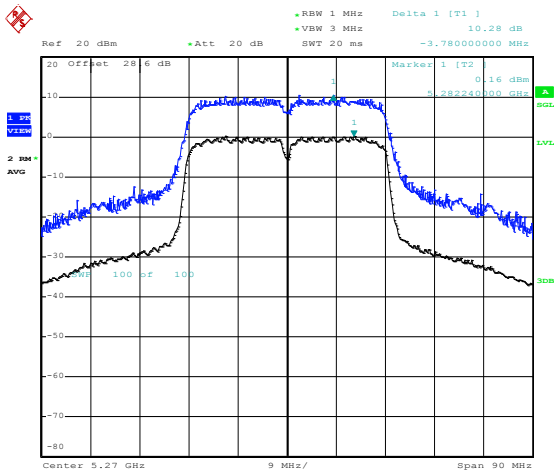
802.11a/n HT40 CH38 5190MHz BPSK	802.11a/n HT40 CH38 5190MHz QPSK
	
Date: 27.JUN.2013 11:53:10	Date: 27.JUN.2013 11:53:42
802.11a/n HT40 CH38 5190MHz 16QAM	**802.11a/n HT40 CH38 5190MHz 64QAM**
	
Date: 27.JUN.2013 11:54:14	Date: 27.JUN.2013 11:54:38

802.11a/n HT40 CH54 5270MHz BPSK



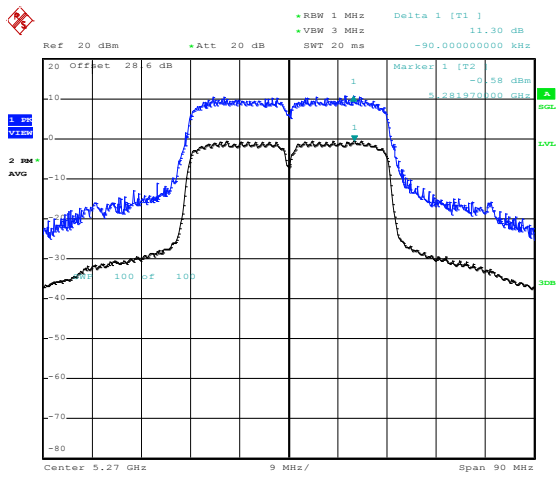
Date: 27.JUN.2013 11:51:11

802.11a/n HT40 CH54 5270MHz QPSK



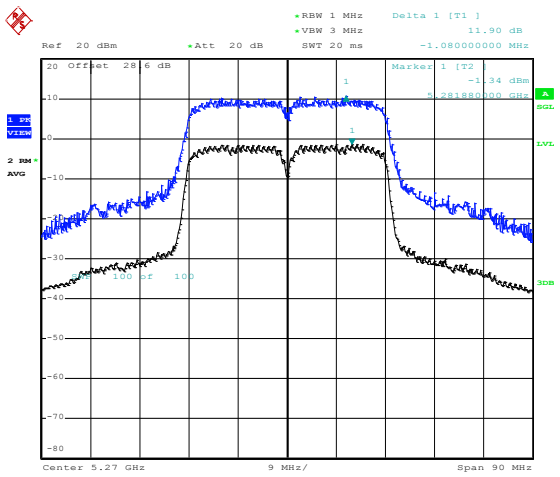
Date: 27.JUN.2013 11:51:39

802.11a/n HT40 CH54 5270MHz 16QAM

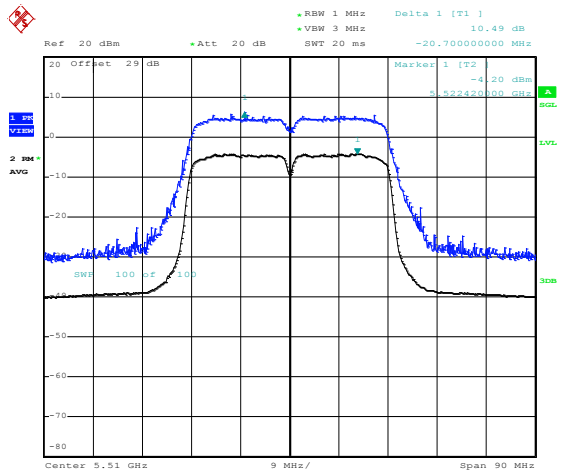
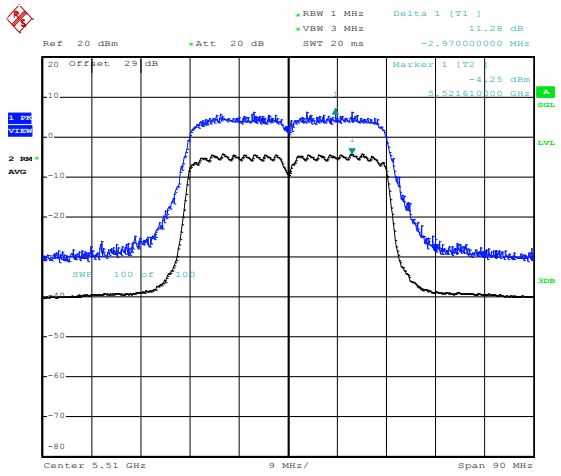
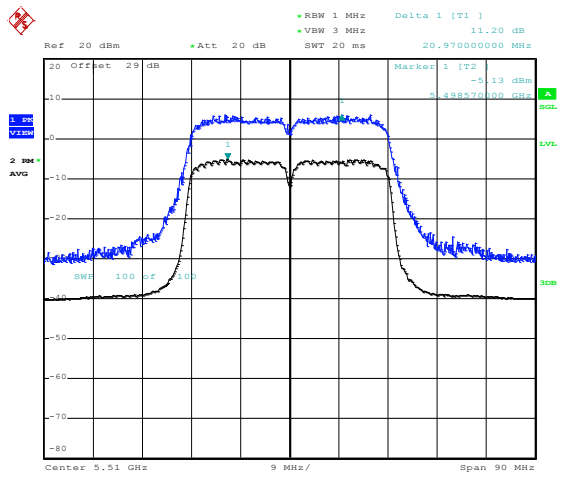
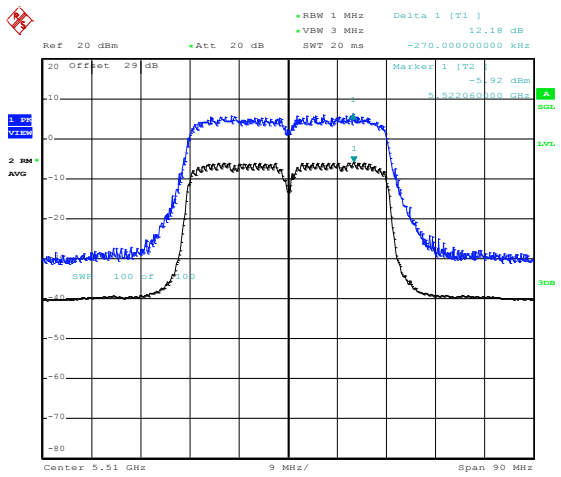


Date: 27.JUN.2013 11:52:06

802.11a/n HT40 CH54 5270MHz 64QAM



Date: 27.JUN.2013 11:52:34

802.11a/n HT40 CH102 5510MHz BPSK	802.11a/n HT40 CH102 5510MHz QPSK
	
Date: 27.JUN.2013 11:41:35	Date: 27.JUN.2013 11:42:05
802.11a/n HT40 CH102 5510MHz 16QAM	**802.11a/n HT40 CH102 5510MHz 64QAM**
	
Date: 27.JUN.2013 11:43:05	Date: 27.JUN.2013 11:43:53

Note: Peak Excursion Ratio (dB) = Peak – (Average + Duty Cycle Offset)

3.5 Unwanted Emissions Measurement

This section as specified in FCC Part 15.407(b) is to measure unwanted emissions through radiated measurement for band edge spurious emissions and out of band emissions measurement. The unwanted emissions shall comply with 15.407(b)(1) to (6), and restricted bands per FCC Part15.205.

3.5.1 Limit of Unwanted Emissions

(1) For transmitters operating in the 5150-5250 MHz band: all emissions outside of the 5150-5350 MHz band shall not exceed an EIRP of –27dBm/MHz.

For transmitters operating in the 5250-5350 MHz band: all emissions outside of the 5150-5350 MHz band shall not exceed an EIRP of -27 dBm/MHz. Devices operating in the 5250-5350 MHz band that generate emissions in the 5150-5250 MHz band must meet all applicable technical requirements for operation in the 5150-5250 MHz band (including indoor use) or alternatively meet an out-of-band emission EIRP limit of -27 dBm/MHz in the 5150-5250 MHz band.

For transmitters operating in the 5470-5725MHz band: all emissions outside of the 5470-5725MHz band shall not exceed an EIRP of -27 dBm/MHz.

(2) Unwanted spurious emissions fallen in restricted bands per FCC Part15.205 shall comply with the general field strength limits set forth in § 15.209 as below table,

Frequency (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: The following formula is used to convert the EIRP to field strength.

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

EIRP (dBm)	Field Strength at 3m (dBμV/m)
-17	78.3
- 27	68.3

(3) KDB789033 v01r03 H)2)c)(i) As specified in 15.407(b), emissions above 1000 MHz that are outside of the restricted bands are subject to a peak emission limit of -27 dBm/MHz (or -17 dBm/MHz as specified in 15.407(b)(4)). However, an out-of-band emission that complies with both the average and peak limits of 15.209 is not required to satisfy the -27 dBm/MHz or -17 dBm/MHz peak emission limit.

3.5.2 Measuring Instruments

See list of measuring instruments of this test report.

3.5.3 Test Procedures

1. The testing follows the guidelines in ANSI C63.10-2009 test site requirement and FCC KDB 789033 D01 General UNII Test Procedures v01r03.

   Section H) Unwanted emissions measurement.

   (1) Procedure for Unwanted Emissions Measurements Below 1000MHz

   - RBW = 120 kHz
   - VBW = 300 kHz
   - Detector = Peak
   - Trace mode = max hold

   (2) Procedure for Peak Unwanted Emissions Measurements Above 1000 MHz

   - The setting follows the H) 5) of FCC KDB 789033.
   - RBW = 1 MHz
   - VBW ≥ 3 MHz
   - Detector = Peak
   - Sweep time = auto
   - Trace mode = max hold

   (3) Procedures for Average Unwanted Emissions Measurements Above 1000MHz

   - The setting follows H) 6) of FCC KDB 789033.
   - RBW = 1 MHz
   - VBW = 10 Hz, when duty cycle is no less than 98 percent.
   - VBW ≥ 1/T, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.

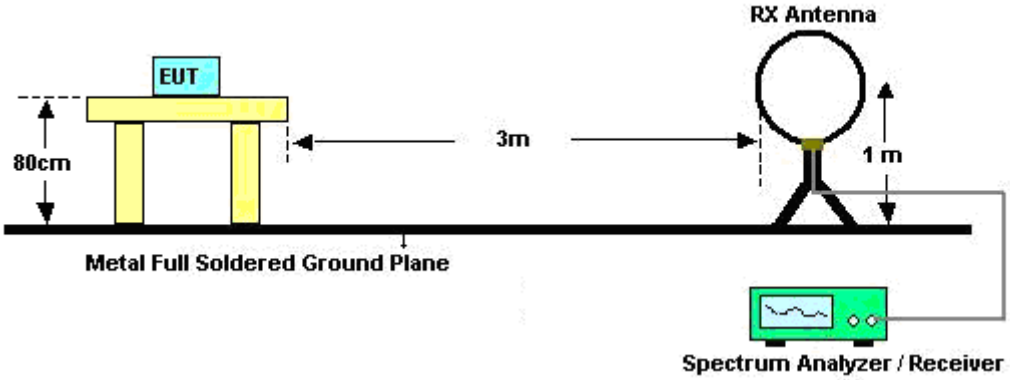
Band	Duty Cycle(%)	T(us)	1/T(kHz)	VBW Setting
802.11a	87.26	1370.00	0.73	1kHz
802.11n HT20	86.49	1280.00	0.78	1kHz
802.11n HT40	86.49	640.00	1.56	3kHz

2. The EUT was placed on a rotatable table top 0.8 meter above ground.
3. The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
4. The antenna is a broadband antenna and its height is adjusted between one meter and four meters above ground to find the maximum value of the field strength for both horizontal polarization and vertical polarization of the antenna.

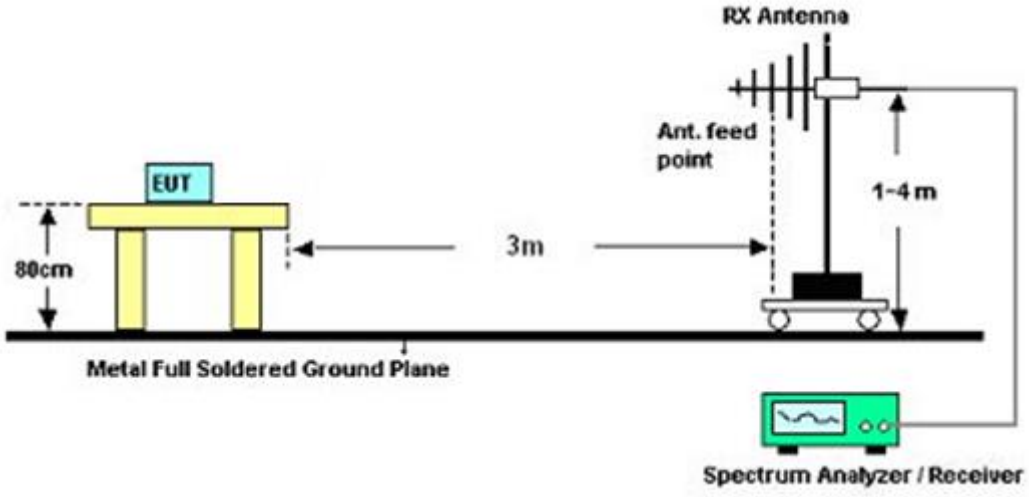
5. For each suspected emission, the EUT was arranged to its worst case and then adjust the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading.
6. For testing below 1GHz, if the emission level of the EUT in peak mode was 3 dB lower than the limit specified, then peak values of EUT will be reported, otherwise, the emissions will be repeated one by one using the CISPR quasi-peak method and reported.
7. For testing above 1GHz, the emission level of the EUT in peak mode was 20dB lower than average limit (that means the emission level in average mode also complies with the limit in average mode), then peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.

3.5.4 Test Setup

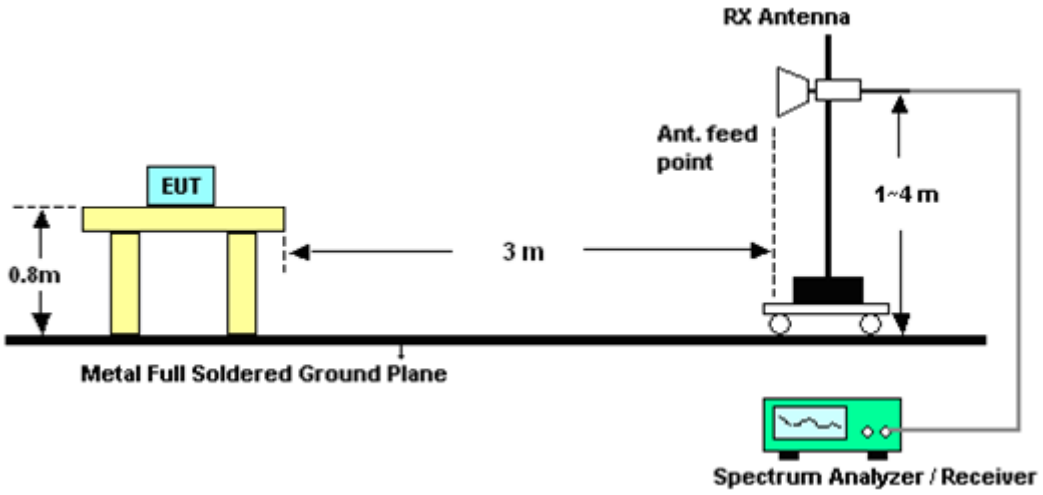
For radiated emissions below 30MHz



For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz



3.5.5 Test Results of Radiated Emissions (9 kHz ~ 30 MHz)

The low frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit line per 15.31(o) was not reported.

3.5.6 Test Result of Radiated Band Edges

<Sample 1 with Battery 2>

Test Mode :	802.11a	**Temperature :**	21~23°C
Test Channel :	36	**Relative Humidity :**	51~53%
Test Engineer :	Eric Shih		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5148.05	68.03	-5.97	74	57.01	34.29	9.22	32.49	100	325	Peak
5150	49.75	-4.25	54	38.73	34.29	9.22	32.49	100	325	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5149.1	62.8	-11.2	74	51.78	34.29	9.22	32.49	100	341	Peak
5150	45.67	-8.33	54	34.65	34.29	9.22	32.49	100	341	Average

Test Mode :	802.11a	**Temperature :**	21~23°C
Test Channel :	48	**Relative Humidity :**	51~53%
Test Engineer :	Eric Shih		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5140.4	54.72	-19.28	74	43.66	34.29	9.22	32.45	119	322	Peak
5049.35	41.59	-12.41	54	30.86	34.03	9.05	32.35	119	322	Average
5363.2	54.05	-19.95	74	42.77	34.85	9.61	33.18	119	322	Peak
5352.53	41.58	-12.42	54	30.39	34.81	9.56	33.18	119	322	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5042.15	53.83	-20.17	74	43.14	34.03	9.01	32.35	100	333	Peak
5045.75	41.37	-12.63	54	30.64	34.03	9.05	32.35	100	333	Average
5352.2	54.26	-19.74	74	43.07	34.81	9.56	33.18	100	333	Peak
5426.23	41.67	-12.33	54	30.48	34.98	9.69	33.48	100	333	Average

Test Mode :	802.11a	Temperature :	21~23°C
Test Channel :	52	Relative Humidity :	51~53%
Test Engineer :	Eric Shih		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5064.95	53.62	-20.38	74	42.85	34.07	9.05	32.35	182	0	Peak
5072.9	41.34	-12.66	54	30.51	34.12	9.1	32.39	182	0	Average
5356.93	54.45	-19.55	74	43.21	34.81	9.61	33.18	182	0	Peak
5353.74	42.04	-11.96	54	30.85	34.81	9.56	33.18	182	0	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5120.15	53.4	-20.6	74	42.47	34.2	9.18	32.45	101	286	Peak
5015.9	41.07	-12.93	54	30.45	33.94	8.97	32.29	101	286	Average
5373.21	54.49	-19.51	74	43.21	34.85	9.61	33.18	101	286	Peak
5351.87	42.01	-11.99	54	30.82	34.81	9.56	33.18	101	286	Average

Test Mode :	802.11a	Temperature :	21~23°C
Test Channel :	64	Relative Humidity :	51~53%
Test Engineer :	Eric Shih		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5356.82	64.09	-9.91	74	52.85	34.81	9.61	33.18	118	344	Peak
5350.33	47.08	-6.92	54	35.89	34.81	9.56	33.18	118	344	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5350	61.82	-12.18	74	50.63	34.81	9.56	33.18	108	8	Peak
5350	44.47	-9.53	54	33.28	34.81	9.56	33.18	108	8	Average

Test Mode :	802.11a	Temperature :	21~23°C
Test Channel :	100	Relative Humidity :	51~53%
Test Engineer :	Eric Shih		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5469.36	61.6	-12.4	74	50.28	35.11	9.78	33.57	103	205	Peak
5469.52	46.4	-7.6	54	35.08	35.11	9.78	33.57	103	205	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5468.88	64.9	-9.1	74	53.58	35.11	9.78	33.57	118	280	Peak
5468.88	44.78	-9.22	54	33.46	35.11	9.78	33.57	118	280	Average

Test Mode :	802.11a	Temperature :	21~23°C
Test Channel :	140	Relative Humidity :	51~53%
Test Engineer :	Eric Shih		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5726.52	64.8	-9.2	74	53.58	35.33	10.04	34.15	179	343	Peak
5725	49.3	-4.7	54	38.08	35.33	10.04	34.15	179	343	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5730.68	66.02	-7.98	74	54.82	35.33	10.04	34.17	100	318	Peak
5725	48.54	-5.46	54	37.32	35.33	10.04	34.15	100	318	Average

Test Mode :	802.11n HT20	Temperature :	21~23°C
Test Channel :	36	Relative Humidity :	51~53%
Test Engineer :	Eric Shih		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5148.2	63.16	-10.84	74	52.14	34.29	9.22	32.49	108	325	Peak
5150	45.84	-8.16	54	34.82	34.29	9.22	32.49	108	325	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5149.1	58.86	-15.14	74	47.84	34.29	9.22	32.49	100	5	Peak
5149.55	43.88	-10.12	54	32.86	34.29	9.22	32.49	100	5	Average

Test Mode :	802.11n HT20	Temperature :	21~23°C
Test Channel :	48	Relative Humidity :	51~53%
Test Engineer :	Eric Shih		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5053.7	53.68	-20.32	74	42.95	34.03	9.05	32.35	100	0	Peak
5052.05	42	-12	54	31.27	34.03	9.05	32.35	100	0	Average
5388.61	53.76	-20.24	74	42.49	34.9	9.65	33.28	100	0	Peak
5428.76	41.6	-12.4	54	30.32	35.03	9.73	33.48	100	0	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5148.2	53.99	-20.01	74	42.97	34.29	9.22	32.49	100	332	Peak
5051.6	41.5	-12.5	54	30.77	34.03	9.05	32.35	100	332	Average
5354.62	54.25	-19.75	74	43.06	34.81	9.56	33.18	100	332	Peak
5425.13	41.67	-12.33	54	30.48	34.98	9.69	33.48	100	332	Average

Test Mode :	802.11n HT20	Temperature :	21~23°C
Test Channel :	52	Relative Humidity :	51~53%
Test Engineer :	Eric Shih		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5010.5	54.08	-19.92	74	43.46	33.94	8.97	32.29	106	339	Peak
5061.65	42	-12	54	31.23	34.07	9.05	32.35	106	339	Average
5364.19	54.87	-19.13	74	43.59	34.85	9.61	33.18	106	339	Peak
5352.42	42.28	-11.72	54	31.09	34.81	9.56	33.18	106	339	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5131.85	54.69	-19.31	74	43.71	34.25	9.18	32.45	136	13	Peak
5067.35	41.45	-12.55	54	30.72	34.07	9.05	32.39	136	13	Average
5384.1	54.09	-19.91	74	42.82	34.9	9.65	33.28	136	13	Peak
5357.15	42	-12	54	30.76	34.81	9.61	33.18	136	13	Average

Test Mode :	802.11n HT20	Temperature :	21~23°C
Test Channel :	64	Relative Humidity :	51~53%
Test Engineer :	Eric Shih		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5351.65	64.02	-9.98	74	52.83	34.81	9.56	33.18	107	336	Peak
5350	46.5	-7.5	54	35.31	34.81	9.56	33.18	107	336	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5352.2	60.22	-13.78	74	49.03	34.81	9.56	33.18	123	5	Peak
5350.22	43.88	-10.12	54	32.69	34.81	9.56	33.18	123	5	Average

Test Mode :	802.11n HT20	Temperature :	21~23°C
Test Channel :	100	Relative Humidity :	51~53%
Test Engineer :	Eric Shih		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5468.72	67.66	-6.34	74	56.34	35.11	9.78	33.57	110	351	Peak
5470	47.1	-6.9	54	35.78	35.11	9.78	33.57	110	351	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5470	64.9	-9.1	74	53.58	35.11	9.78	33.57	107	313	Peak
5468.72	45.44	-8.56	54	34.12	35.11	9.78	33.57	107	313	Average

Test Mode :	802.11n HT20	Temperature :	21~23°C
Test Channel :	140	Relative Humidity :	51~53%
Test Engineer :	Eric Shih		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5725.56	68.63	-5.37	74	57.41	35.33	10.04	34.15	106	58	Peak
5725.08	50.81	-3.19	54	39.59	35.33	10.04	34.15	106	58	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5725	65.89	-8.11	74	54.67	35.33	10.04	34.15	101	316	Peak
5725	49.2	-4.8	54	37.98	35.33	10.04	34.15	101	316	Average

Test Mode :	802.11n HT40	Temperature :	21~23°C
Test Channel :	38	Relative Humidity :	51~53%
Test Engineer :	Eric Shih		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5149.4	61.97	-12.03	74	50.95	34.29	9.22	32.49	107	339	Peak
5149.4	46.75	-7.25	54	35.73	34.29	9.22	32.49	107	339	Average
5367.49	54.42	-19.58	74	43.14	34.85	9.61	33.18	107	339	Peak
5387.18	42.77	-11.23	54	31.5	34.9	9.65	33.28	107	339	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5149.1	58.09	-15.91	74	47.07	34.29	9.22	32.49	114	298	Peak
5150	44.83	-9.17	54	33.81	34.29	9.22	32.49	114	298	Average
5442.84	54.68	-19.32	74	43.4	35.03	9.73	33.48	114	298	Peak
5351.43	42.38	-11.62	54	31.19	34.81	9.56	33.18	114	298	Average

Test Mode :	802.11n HT40	Temperature :	21~23°C
Test Channel :	46	Relative Humidity :	51~53%
Test Engineer :	Eric Shih		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5148.95	59.47	-14.53	74	48.45	34.29	9.22	32.49	118	334	Peak
5148.05	43.2	-10.8	54	32.18	34.29	9.22	32.49	118	334	Average
5413.36	54.79	-19.21	74	43.51	34.98	9.69	33.39	118	334	Peak
5418.64	43.22	-10.78	54	31.94	34.98	9.69	33.39	118	334	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5147.75	55.12	-18.88	74	44.1	34.29	9.22	32.49	111	340	Peak
5047.25	42.08	-11.92	54	31.35	34.03	9.05	32.35	111	340	Average
5392.46	55.1	-18.9	74	43.83	34.9	9.65	33.28	111	340	Peak
5358.14	42.46	-11.54	54	31.22	34.81	9.61	33.18	111	340	Average

Test Mode :	802.11n HT40	Temperature :	21~23°C
Test Channel :	54	Relative Humidity :	51~53%
Test Engineer :	Eric Shih		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5140.7	54.01	-19.99	74	42.95	34.29	9.22	32.45	105	341	Peak
5080.4	42.02	-11.98	54	31.19	34.12	9.1	32.39	105	341	Average
5350.11	59.74	-14.26	74	48.55	34.81	9.56	33.18	105	341	Peak
5351.32	44.82	-9.18	54	33.63	34.81	9.56	33.18	105	341	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5021.3	53.79	-20.21	74	43.11	33.99	9.01	32.32	100	320	Peak
5054.9	41.87	-12.13	54	31.1	34.07	9.05	32.35	100	320	Average
5354.73	57.92	-16.08	74	46.73	34.81	9.56	33.18	100	320	Peak
5352.09	44.06	-9.94	54	32.87	34.81	9.56	33.18	100	320	Average

Test Mode :	802.11n HT40	Temperature :	21~23°C
Test Channel :	62	Relative Humidity :	51~53%
Test Engineer :	Eric Shih		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5019.35	54.27	-19.73	74	43.68	33.94	8.97	32.32	123	104	Peak
5020.55	41.85	-12.15	54	31.17	33.99	9.01	32.32	123	104	Average
5352.42	72.98	-1.02	74	61.79	34.81	9.56	33.18	123	104	Peak
5350.11	52.99	-1.01	54	41.8	34.81	9.56	33.18	123	104	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5038.1	54.42	-19.58	74	43.7	34.03	9.01	32.32	144	182	Peak
5037.35	41.66	-12.34	54	30.98	33.99	9.01	32.32	144	182	Average
5350.22	69.31	-4.69	74	58.12	34.81	9.56	33.18	144	182	Peak
5350.22	49.35	-4.65	54	38.16	34.81	9.56	33.18	144	182	Average

Test Mode :	802.11n HT40	Temperature :	21~23°C
Test Channel :	102	Relative Humidity :	51~53%
Test Engineer :	Eric Shih		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5469.84	63.15	-10.85	74	51.83	35.11	9.78	33.57	110	54	Peak
5469.68	49.38	-4.62	54	38.06	35.11	9.78	33.57	110	54	Average
5748.2	53.96	-20.04	74	42.73	35.34	10.06	34.17	110	54	Peak
5735.96	42.19	-11.81	54	30.98	35.34	10.04	34.17	110	54	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5469.84	63.7	-10.3	74	52.38	35.11	9.78	33.57	114	304	Peak
5469.84	48.22	-5.78	54	36.9	35.11	9.78	33.57	114	304	Average
5760.28	53.72	-20.28	74	42.5	35.36	10.06	34.2	114	304	Peak
5728.12	41.79	-12.21	54	30.57	35.33	10.04	34.15	114	304	Average

Test Mode :	802.11n HT40	Temperature :	21~23°C
Test Channel :	134	Relative Humidity :	51~53%
Test Engineer :	Eric Shih		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5436.88	54.26	-19.74	74	42.98	35.03	9.73	33.48	100	31	Peak
5467.76	42.5	-11.5	54	31.18	35.11	9.78	33.57	100	31	Average
5727.16	60.28	-13.72	74	49.06	35.33	10.04	34.15	100	31	Peak
5725.56	46.47	-7.53	54	35.25	35.33	10.04	34.15	100	31	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5388.08	54.12	-19.88	74	42.85	34.9	9.65	33.28	100	351	Peak
5435.44	41.57	-12.43	54	30.29	35.03	9.73	33.48	100	351	Average
5727.08	61.05	-12.95	74	49.83	35.33	10.04	34.15	100	351	Peak
5725.4	47.63	-6.37	54	36.41	35.33	10.04	34.15	100	351	Average

<Sample 1 with Battery 1>

Test Mode :	802.11n HT40	**Temperature :**	21~23°C
Test Channel :	62	**Relative Humidity :**	51~53%
Test Engineer :	Eric Shih		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5031.65	54.39	-19.61	74	43.71	33.99	9.01	32.32	100	88	Peak
5035.4	41.61	-12.39	54	30.93	33.99	9.01	32.32	100	88	Average
5350.33	72.53	-1.47	74	61.34	34.81	9.56	33.18	100	88	Peak
5350.11	52.7	-1.3	54	41.51	34.81	9.56	33.18	100	88	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5000.6	53.84	-20.16	74	43.26	33.9	8.97	32.29	144	18	Peak
5000.45	41.65	-12.35	54	31.07	33.9	8.97	32.29	144	18	Average
5352.2	69.69	-4.31	74	58.5	34.81	9.56	33.18	144	18	Peak
5351.32	50.79	-3.21	54	39.6	34.81	9.56	33.18	144	18	Average

<Sample 2 with Battery 2>

Test Mode :	802.11n HT40	**Temperature :**	21~23°C
Test Channel :	62	**Relative Humidity :**	51~53%
Test Engineer :	Eric Shih		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5004.95	53.82	-20.18	74	43.2	33.94	8.97	32.29	117	344	Peak
5013.35	41.83	-12.17	54	31.21	33.94	8.97	32.29	117	344	Average
5354.29	70.69	-3.31	74	59.5	34.81	9.56	33.18	117	344	Peak
5350.33	51.15	-2.85	54	39.96	34.81	9.56	33.18	117	344	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5015.6	53.5	-20.5	74	42.88	33.94	8.97	32.29	168	295	Peak
5017.85	42.01	-11.99	54	31.42	33.94	8.97	32.32	168	295	Average
5350.44	68.98	-5.02	74	57.79	34.81	9.56	33.18	168	295	Peak
5350.22	49.79	-4.21	54	38.6	34.81	9.56	33.18	168	295	Average

3.5.7 Test Result of Unwanted Radiated Emission (30MHz ~ 10th Harmonic)

<Sample 1 with Battery 2>

Test Mode :	802.11a	**Temperature :**	21~23°C
Test Channel :	36	**Relative Humidity :**	51~53%
Test Engineer :	Eric Shih	**Polarization :**	Horizontal
Remark :	1. 5180 MHz is fundamental signal which can be ignored. 2. 10359 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
49.17	30.7	-9.3	40	52.71	8.5	0.69	31.2	120	61	Peak
148.53	22.78	-20.72	43.5	41.43	11.24	1.21	31.1	-	-	Peak
219.54	18.26	-27.74	46	37.4	10.45	1.41	31	-	-	Peak
456.8	22.66	-23.34	46	33.94	17.19	2.31	30.78	-	-	Peak
605.2	24.99	-21.01	46	33.04	19.84	2.7	30.59	-	-	Peak
937	25.79	-20.21	46	29.08	23.65	3.43	30.37	-	-	Peak
5180	100.66	-	-	89.53	34.38	9.27	32.52	100	325	Average
5180	110.38	-	-	99.25	34.38	9.27	32.52	100	325	Peak
10359	43.98	-30.02	74	51.85	37.29	13.71	58.87	100	0	Peak
15540	47.15	-26.85	74	48.75	40.33	15.56	57.49	100	0	Peak

Test Mode :	802.11a	Temperature :	21~23°C
Test Channel :	36	Relative Humidity :	51~53%
Test Engineer :	Eric Shih	Polarization :	Vertical
Remark :	1. 5180 MHz is fundamental signal which can be ignored. 2. 10359 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
48.9	32.36	-7.64	40	53.98	8.9	0.68	31.2	136	86	Peak
138.81	19.22	-24.28	43.5	37.7	11.42	1.2	31.1	-	-	Peak
219.27	19.88	-26.12	46	39.03	10.45	1.41	31.01	-	-	Peak
468	18.92	-27.08	46	29.94	17.43	2.35	30.8	-	-	Peak
713.7	22.43	-23.57	46	29.06	20.8	2.97	30.4	-	-	Peak
945.4	25.57	-20.43	46	28.73	23.78	3.45	30.39	-	-	Peak
5180	96.2	-	-	85.07	34.38	9.27	32.52	100	341	Average
5180	107.21	-	-	96.08	34.38	9.27	32.52	100	341	Peak
10359	43.89	-30.11	74	51.76	37.29	13.71	58.87	100	0	Peak
15540	46.64	-27.36	74	48.24	40.33	15.56	57.49	100	0	Peak

Test Mode :	802.11a	Temperature :	21~23°C
Test Channel :	44	Relative Humidity :	51~53%
Test Engineer :	Eric Shih	Polarization :	Horizontal
Remark :	1. 5220 MHz is fundamental signal which can be ignored. 2. 10440 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
49.17	33.13	-6.87	40	55.14	8.5	0.69	31.2	150	256	Peak
149.34	26.59	-16.91	43.5	45.26	11.22	1.21	31.1	-	-	Peak
248.43	22.47	-23.53	46	39.47	12.47	1.53	31	-	-	Peak
456.8	22.61	-23.39	46	33.89	17.19	2.31	30.78	-	-	Peak
795.6	23.58	-22.42	46	28.73	22.03	3.13	30.31	-	-	Peak
909.7	26.08	-19.92	46	29.79	23.25	3.36	30.32	-	-	Peak
5220	103.19	-	-	91.93	34.46	9.35	32.55	105	328	Average
5220	113.54	-	-	102.28	34.46	9.35	32.55	105	328	Peak
10440	44.01	-29.99	74	51.83	37.35	13.71	58.88	100	0	Peak
15660	47.12	-26.88	74	48.36	40.46	15.65	57.35	100	0	Peak

Test Mode :	802.11a	Temperature :	21~23°C
Test Channel :	44	Relative Humidity :	51~53%
Test Engineer :	Eric Shih	Polarization :	Vertical
Remark :	1. 5220 MHz is fundamental signal which can be ignored. 2. 10440 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
49.17	32.25	-7.75	40	54.26	8.5	0.69	31.2	160	321	Peak
139.62	19.01	-24.49	43.5	37.51	11.4	1.2	31.1	-	-	Peak
214.68	20.12	-23.38	43.5	39.68	10.11	1.38	31.05	-	-	Peak
446.3	19.98	-26.02	46	31.45	16.97	2.29	30.73	-	-	Peak
855.1	24.99	-21.01	46	29.45	22.65	3.28	30.39	-	-	Peak
973.4	26.19	-27.81	54	28.81	24.21	3.48	30.31	-	-	Peak
5220	99.94	-	-	88.68	34.46	9.35	32.55	116	347	Average
5220	110.23	-	-	98.97	34.46	9.35	32.55	116	347	Peak
10440	44.4	-29.6	74	52.22	37.35	13.71	58.88	100	0	Peak
15660	47.23	-26.77	74	48.47	40.46	15.65	57.35	100	0	Peak

Test Mode :	802.11a	Temperature :	21~23°C
Test Channel :	48	Relative Humidity :	51~53%
Test Engineer :	Eric Shih	Polarization :	Horizontal
Remark :	1. 5240 MHz is fundamental signal which can be ignored. 2. 10479 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
48.9	33.05	-6.95	40	54.67	8.9	0.68	31.2	261	180	Peak
150.15	25.85	-17.65	43.5	44.54	11.2	1.21	31.1	-	-	Peak
250.32	23.08	-22.92	46	39.95	12.6	1.53	31	-	-	Peak
456.8	22.59	-23.41	46	33.87	17.19	2.31	30.78	-	-	Peak
605.2	24.18	-21.82	46	32.23	19.84	2.7	30.59	-	-	Peak
944	26.15	-19.85	46	29.33	23.76	3.45	30.39	-	-	Peak
5240	99.93	-	-	88.68	34.51	9.39	32.65	119	322	Average
5240	110.71	-	-	99.46	34.51	9.39	32.65	119	322	Peak
10479	45.5	-28.5	74	53.28	37.39	13.72	58.89	100	0	Peak
15720	45.96	-28.04	74	47.02	40.52	15.69	57.27	100	0	Peak

Test Mode :	802.11a	Temperature :	21~23°C
Test Channel :	48	Relative Humidity :	51~53%
Test Engineer :	Eric Shih	Polarization :	Vertical
Remark :	1. 5240 MHz is fundamental signal which can be ignored. 2. 10479 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
49.17	32.41	-7.59	40	54.42	8.5	0.69	31.2	150	100	Peak
141.24	19.21	-24.29	43.5	37.75	11.36	1.2	31.1	-	-	Peak
217.38	20.82	-25.18	46	40.14	10.31	1.4	31.03	-	-	Peak
445.6	19.68	-26.32	46	31.17	16.95	2.29	30.73	-	-	Peak
642.3	22.53	-23.47	46	30.1	20.13	2.82	30.52	-	-	Peak
956.6	26.39	-19.61	46	29.36	23.94	3.47	30.38	-	-	Peak
5240	98.98	-	-	87.73	34.51	9.39	32.65	100	333	Average
5240	109.46	-	-	98.21	34.51	9.39	32.65	100	333	Peak
10479	43.99	-30.01	74	51.77	37.39	13.72	58.89	100	0	Peak
15720	45.82	-28.18	74	46.88	40.52	15.69	57.27	100	0	Peak

Test Mode :	802.11a	Temperature :	21~23°C
Test Channel :	52	Relative Humidity :	51~53%
Test Engineer :	Eric Shih	Polarization :	Horizontal
Remark :	1. 5260 MHz is fundamental signal which can be ignored. 2. 10521 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
48.9	32.21	-7.79	40	53.83	8.9	0.68	31.2	170	110	Peak
149.34	26.03	-17.47	43.5	44.7	11.22	1.21	31.1	-	-	Peak
250.32	23.16	-22.84	46	40.03	12.6	1.53	31	-	-	Peak
541.5	24.82	-21.18	46	34.27	18.79	2.53	30.77	-	-	Peak
605.2	25.03	-20.97	46	33.08	19.84	2.7	30.59	-	-	Peak
932.1	25.58	-20.42	46	28.94	23.58	3.42	30.36	-	-	Peak
5260	99.2	-	-	87.93	34.59	9.44	32.76	182	0	Average
5260	110.05	-	-	98.78	34.59	9.44	32.76	182	0	Peak
10521	43.94	-30.06	74	51.64	37.42	13.72	58.84	100	0	Peak
15780	46.76	-27.24	74	47.65	40.58	15.75	57.22	100	0	Peak

Test Mode :	802.11a	Temperature :	21~23°C
Test Channel :	52	Relative Humidity :	51~53%
Test Engineer :	Eric Shih	Polarization :	Vertical
Remark :	1. 5262 MHz is fundamental signal which can be ignored. 2. 10521 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
49.17	32.72	-7.28	40	54.73	8.5	0.69	31.2	169	193	Peak
139.08	19.33	-24.17	43.5	37.81	11.42	1.2	31.1	-	-	Peak
217.38	21.45	-24.55	46	40.77	10.31	1.4	31.03	-	-	Peak
498.8	19.52	-26.48	46	29.63	18.06	2.44	30.61	-	-	Peak
709.5	22.87	-23.13	46	29.56	20.75	2.96	30.4	-	-	Peak
874.7	25.31	-20.69	46	29.51	22.85	3.3	30.35	-	-	Peak
5262	98.89	-	-	87.62	34.59	9.44	32.76	101	286	Average
5262	109.33	-	-	98.06	34.59	9.44	32.76	101	286	Peak
10521	43.82	-30.18	74	51.52	37.42	13.72	58.84	100	0	Peak
15780	46.86	-27.14	74	47.75	40.58	15.75	57.22	100	0	Peak

Test Mode :	802.11a	Temperature :	21~23°C
Test Channel :	60	Relative Humidity :	51~53%
Test Engineer :	Eric Shih	Polarization :	Horizontal
Remark :	1. 5301 MHz is fundamental signal which can be ignored. 2. 10599 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
49.17	32.18	-7.82	40	54.19	8.5	0.69	31.2	146	189	Peak
149.34	26.14	-17.36	43.5	44.81	11.22	1.21	31.1	-	-	Peak
234.93	22.05	-23.95	46	40.03	11.52	1.5	31	-	-	Peak
456.8	22.27	-23.73	46	33.55	17.19	2.31	30.78	-	-	Peak
605.9	25.12	-20.88	46	33.15	19.85	2.71	30.59	-	-	Peak
935.6	25.39	-20.61	46	28.69	23.64	3.43	30.37	-	-	Peak
5301	99.19	-	-	88	34.68	9.48	32.97	100	282	Average
5301	109.82	-	-	98.63	34.68	9.48	32.97	100	282	Peak
10599	42.45	-31.55	74	49.83	37.5	13.73	58.61	100	0	Peak
15900	46.62	-27.38	74	47.16	40.7	15.84	57.08	100	0	Peak

Test Mode :	802.11a	Temperature :	21~23°C
Test Channel :	60	Relative Humidity :	51~53%
Test Engineer :	Eric Shih	Polarization :	Vertical
Remark :	1. 5299 MHz is fundamental signal which can be ignored. 2. 10599 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
48.36	32.16	-7.84	40	53.78	8.9	0.68	31.2	160	98	Peak
139.08	20.26	-23.24	43.5	38.74	11.42	1.2	31.1	-	-	Peak
217.38	20.35	-25.65	46	39.67	10.31	1.4	31.03	-	-	Peak
435.1	20.09	-25.91	46	31.8	16.75	2.26	30.72	-	-	Peak
717.9	22.68	-23.32	46	29.24	20.86	2.98	30.4	-	-	Peak
848.8	27.32	-18.68	46	31.86	22.59	3.27	30.4	-	-	Peak
5299	98.51	-	-	87.32	34.68	9.48	32.97	169	307	Average
5299	108.87	-	-	97.68	34.68	9.48	32.97	169	307	Peak
10599	43.52	-30.48	74	50.9	37.5	13.73	58.61	100	0	Peak
15900	46.13	-27.87	74	46.67	40.7	15.84	57.08	100	0	Peak

Test Mode :	802.11a	Temperature :	21~23°C
Test Channel :	64	Relative Humidity :	51~53%
Test Engineer :	Eric Shih	Polarization :	Horizontal
Remark :	1. 5320 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
49.17	32.85	-7.15	40	54.86	8.5	0.69	31.2	140	230	Peak
148.26	26.71	-16.79	43.5	45.36	11.24	1.21	31.1	-	-	Peak
247.62	22.42	-23.58	46	39.49	12.4	1.53	31	-	-	Peak
445.6	22.7	-23.3	46	34.19	16.95	2.29	30.73	-	-	Peak
605.2	25.21	-20.79	46	33.26	19.84	2.7	30.59	-	-	Peak
966.4	26.21	-27.79	54	28.97	24.09	3.48	30.33	-	-	Peak
5320	98.95	-	-	87.68	34.72	9.52	32.97	118	344	Average
5320	109.17	-	-	97.9	34.72	9.52	32.97	118	344	Peak
10641	43.68	-30.32	74	50.93	37.54	13.73	58.52	100	0	Peak
15960	46.32	-27.68	74	46.67	40.77	15.88	57	100	0	Peak

Test Mode :	802.11a	Temperature :	21~23°C
Test Channel :	64	Relative Humidity :	51~53%
Test Engineer :	Eric Shih	Polarization :	Vertical
Remark :	1. 5320 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
49.17	21.13	-18.87	40	43.14	8.5	0.69	31.2	-	-	Peak
142.05	19.15	-24.35	43.5	37.7	11.35	1.2	31.1	-	-	Peak
217.11	19.79	-26.21	46	39.11	10.31	1.4	31.03	-	-	Peak
605.2	22.39	-23.61	46	30.44	19.84	2.7	30.59	-	-	Peak
809.6	25.47	-20.53	46	30.42	22.2	3.17	30.32	-	-	Peak
848.8	29.85	-16.15	46	34.39	22.59	3.27	30.4	110	354	Peak
5320	93.09	-	-	81.82	34.72	9.52	32.97	108	8	Average
5320	103.34	-	-	92.07	34.72	9.52	32.97	108	8	Peak
10641	44.76	-29.24	74	52.01	37.54	13.73	58.52	100	0	Peak
15960	46.97	-27.03	74	47.32	40.77	15.88	57	100	0	Peak

Test Mode :	802.11a	Temperature :	21~23°C
Test Channel :	100	Relative Humidity :	51~53%
Test Engineer :	Eric Shih	Polarization :	Horizontal
Remark :	1. 5500 MHz is fundamental signal which can be ignored. 2. 16500 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
48.9	30.97	-9.03	40	52.59	8.9	0.68	31.2	132	80	Peak
148.53	26.46	-17.04	43.5	45.11	11.24	1.21	31.1	-	-	Peak
252.75	22.6	-23.4	46	39.41	12.64	1.55	31	-	-	Peak
446.3	22.74	-23.26	46	34.21	16.97	2.29	30.73	-	-	Peak
626.9	24.54	-21.46	46	32.31	20.01	2.77	30.55	-	-	Peak
848.8	29.24	-16.76	46	33.78	22.59	3.27	30.4	-	-	Peak
5500	96.8	-	-	85.4	35.2	9.86	33.66	103	205	Average
5500	108.11	-	-	96.71	35.2	9.86	33.66	103	205	Peak
11001	44.59	-29.41	74	50.49	37.9	13.76	57.56	100	0	Peak
16500	47.13	-26.87	74	45.47	41.5	16.13	55.97	100	0	Peak

Test Mode :	802.11a	Temperature :	21~23°C
Test Channel :	100	Relative Humidity :	51~53%
Test Engineer :	Eric Shih	Polarization :	Vertical
Remark :	1. 5500 MHz is fundamental signal which can be ignored. 2. 16500 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
46.74	28.26	-11.74	40	49.09	9.7	0.67	31.2	102	310	Peak
139.35	20.28	-23.22	43.5	38.78	11.4	1.2	31.1	-	-	Peak
216.3	20.63	-25.37	46	40.03	10.24	1.4	31.04	-	-	Peak
498.8	19.63	-26.37	46	29.74	18.06	2.44	30.61	-	-	Peak
752.9	22.93	-23.07	46	28.87	21.39	3.06	30.39	-	-	Peak
848.8	28.62	-17.38	46	33.16	22.59	3.27	30.4	-	-	Peak
5500	95.9	-	-	84.5	35.2	9.86	33.66	118	280	Average
5500	106.02	-	-	94.62	35.2	9.86	33.66	118	280	Peak
11001	44.86	-29.14	74	50.76	37.9	13.76	57.56	100	0	Peak
16500	46.74	-27.26	74	45.08	41.5	16.13	55.97	100	0	Peak

Test Mode :	802.11a	Temperature :	21~23°C
Test Channel :	116	Relative Humidity :	51~53%
Test Engineer :	Eric Shih	Polarization :	Horizontal
Remark :	1. 5581 MHz is fundamental signal which can be ignored. 2. 16740 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
48.36	31.17	-8.83	40	52.79	8.9	0.68	31.2	100	85	Peak
148.53	25.82	-17.68	43.5	44.47	11.24	1.21	31.1	-	-	Peak
249.78	22.48	-23.52	46	39.35	12.6	1.53	31	-	-	Peak
456.8	22.65	-23.35	46	33.93	17.19	2.31	30.78	-	-	Peak
605.2	25.12	-20.88	46	33.17	19.84	2.7	30.59	-	-	Peak
848.8	27.36	-18.64	46	31.9	22.59	3.27	30.4	-	-	Peak
5581	98.93	-	-	87.78	35.24	9.92	34.01	100	344	Average
5581	109.81	-	-	98.66	35.24	9.92	34.01	100	344	Peak
11160	46.34	-27.66	74	51.7	38.07	13.93	57.36	100	0	Peak
16740	48.36	-25.64	74	46.44	41.74	16.23	56.05	100	0	Peak

Test Mode :	802.11a	Temperature :	21~23°C
Test Channel :	116	Relative Humidity :	51~53%
Test Engineer :	Eric Shih	Polarization :	Vertical
Remark :	1. 5582 MHz is fundamental signal which can be ignored. 2. 16740 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
30	32.69	-7.31	40	43.66	20	0.53	31.5	119	102	Peak
138	19.64	-23.86	43.5	38.11	11.44	1.19	31.1	-	-	Peak
219.81	20.14	-25.86	46	39.21	10.51	1.42	31	-	-	Peak
499.5	20.38	-25.62	46	30.45	18.08	2.45	30.6	-	-	Peak
704.6	22.99	-23.01	46	29.78	20.66	2.95	30.4	-	-	Peak
848.8	28.97	-17.03	46	33.51	22.59	3.27	30.4	-	-	Peak
5582	98.04	-	-	86.88	35.25	9.92	34.01	100	327	Average
5582	108.66	-	-	97.5	35.25	9.92	34.01	100	327	Peak
11160	46.65	-27.35	74	52.01	38.07	13.93	57.36	100	0	Peak
16740	48.11	-25.89	74	46.19	41.74	16.23	56.05	100	0	Peak

Test Mode :	802.11a	Temperature :	21~23°C
Test Channel :	140	Relative Humidity :	51~53%
Test Engineer :	Eric Shih	Polarization :	Horizontal
Remark :	1. 5701 MHz is fundamental signal which can be ignored. 2. 17100 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
49.17	32.47	-7.53	40	54.48	8.5	0.69	31.2	128	136	Peak
148.53	25.83	-17.67	43.5	44.48	11.24	1.21	31.1	-	-	Peak
253.02	22.55	-23.45	46	39.36	12.64	1.55	31	-	-	Peak
456.8	21.86	-24.14	46	33.14	17.19	2.31	30.78	-	-	Peak
584.2	26.38	-19.62	46	34.88	19.52	2.64	30.66	-	-	Peak
848.8	25.92	-20.08	46	30.46	22.59	3.27	30.4	-	-	Peak
5701	95.15	-	-	83.93	35.32	10.02	34.12	179	343	Average
5701	105.66	-	-	94.44	35.32	10.02	34.12	179	343	Peak
11400	48.09	-25.91	74	52.65	38.3	14.21	57.07	100	0	Peak
17100	48.74	-25.26	74	46.5	41.94	16.46	56.16	100	0	Peak

Test Mode :	802.11a	Temperature :	21~23°C
Test Channel :	140	Relative Humidity :	51~53%
Test Engineer :	Eric Shih	Polarization :	Vertical
Remark :	1. 5702 MHz is fundamental signal which can be ignored. 2. 17100 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
49.17	21.21	-18.79	40	43.22	8.5	0.69	31.2	-	-	Peak
139.89	18.88	-24.62	43.5	37.38	11.4	1.2	31.1	-	-	Peak
218.19	20.31	-25.69	46	39.54	10.38	1.41	31.02	-	-	Peak
456.8	18.96	-27.04	46	30.24	17.19	2.31	30.78	-	-	Peak
694.8	22.69	-23.31	46	29.62	20.55	2.93	30.41	-	-	Peak
848.8	28.68	-17.32	46	33.22	22.59	3.27	30.4	110	256	Peak
5702	96.27	-	-	85.05	35.32	10.02	34.12	100	318	Average
5702	106.64	-	-	95.42	35.32	10.02	34.12	100	318	Peak
11400	49.49	-24.51	74	54.05	38.3	14.21	57.07	100	0	Peak
17100	47.85	-26.15	74	45.61	41.94	16.46	56.16	100	0	Peak

Test Mode :	802.11n HT20	Temperature :	21~23°C
Test Channel :	36	Relative Humidity :	51~53%
Test Engineer :	Eric Shih	Polarization :	Horizontal
Remark :	1. 5179 MHz is fundamental signal which can be ignored. 2. 10359 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
49.17	32.59	-7.41	40	54.6	8.5	0.69	31.2	102	333	Peak
147.99	25.76	-17.74	43.5	44.41	11.24	1.21	31.1	-	-	Peak
250.59	22.57	-23.43	46	39.44	12.6	1.53	31	-	-	Peak
563.2	24.26	-21.74	46	33.25	19.17	2.59	30.75	-	-	Peak
668.2	21.88	-24.12	46	29.12	20.34	2.88	30.46	-	-	Peak
932.1	26.29	-19.71	46	29.65	23.58	3.42	30.36	-	-	Peak
5179	95.94	-	-	84.81	34.38	9.27	32.52	108	325	Average
5179	106.46	-	-	95.33	34.38	9.27	32.52	108	325	Peak
10359	43.55	-30.45	74	51.42	37.29	13.71	58.87	100	0	Peak
15540	45.5	-28.5	74	47.1	40.33	15.56	57.49	100	0	Peak

Test Mode :	802.11n HT20	Temperature :	21~23°C
Test Channel :	36	Relative Humidity :	51~53%
Test Engineer :	Eric Shih	Polarization :	Vertical
Remark :	1. 5181 MHz is fundamental signal which can be ignored. 2. 10359 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
48.9	20.74	-19.26	40	42.36	8.9	0.68	31.2	-	-	Peak
137.73	18.94	-24.56	43.5	37.41	11.44	1.19	31.1	-	-	Peak
216.3	20.19	-25.81	46	39.59	10.24	1.4	31.04	-	-	Peak
626.9	22.08	-23.92	46	29.85	20.01	2.77	30.55	-	-	Peak
815.2	24.57	-21.43	46	29.47	22.25	3.18	30.33	-	-	Peak
848.8	27.69	-18.31	46	32.23	22.59	3.27	30.4	144	269	Peak
5181	94.34	-	-	83.21	34.38	9.27	32.52	100	5	Average
5181	104.94	-	-	93.81	34.38	9.27	32.52	100	5	Peak
10359	43.6	-30.4	74	51.47	37.29	13.71	58.87	100	0	Peak
15540	45.97	-28.03	74	47.57	40.33	15.56	57.49	100	0	Peak

Test Mode :	802.11n HT20	Temperature :	21~23°C
Test Channel :	44	Relative Humidity :	51~53%
Test Engineer :	Eric Shih	Polarization :	Horizontal
Remark :	1. 5219 MHz is fundamental signal which can be ignored. 2. 10440 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
49.17	31.79	-8.21	40	53.8	8.5	0.69	31.2	110	126	Peak
148.53	25.27	-18.23	43.5	43.92	11.24	1.21	31.1	-	-	Peak
249.24	22.9	-23.1	46	39.84	12.53	1.53	31	-	-	Peak
633.9	19.63	-26.37	46	27.3	20.07	2.79	30.53	-	-	Peak
830.6	22.6	-23.4	46	27.34	22.4	3.22	30.36	-	-	Peak
967.1	24.78	-29.22	54	27.53	24.1	3.48	30.33	-	-	Peak
5219	98.86	-	-	87.6	34.46	9.35	32.55	122	339	Average
5219	109.53	-	-	98.27	34.46	9.35	32.55	122	339	Peak
10440	44.16	-29.84	74	51.98	37.35	13.71	58.88	100	0	Peak
15561	46.07	-27.93	74	47.57	40.37	15.58	57.45	100	0	Peak

Test Mode :	802.11n HT20	Temperature :	21~23°C
Test Channel :	44	Relative Humidity :	51~53%
Test Engineer :	Eric Shih	Polarization :	Vertical
Remark :	1. 5220 MHz is fundamental signal which can be ignored. 2. 10440 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
48.9	17.49	-22.51	40	39.11	8.9	0.68	31.2	-	-	Peak
151.23	12.95	-30.55	43.5	31.72	11.13	1.21	31.11	-	-	Peak
273	14.15	-31.85	46	30.55	12.93	1.64	30.97	-	-	Peak
486.2	19.36	-26.64	46	29.9	17.8	2.4	30.74	-	-	Peak
750.8	23.04	-22.96	46	29.02	21.36	3.06	30.4	-	-	Peak
949.6	25.89	-20.11	46	28.99	23.84	3.46	30.4	136	354	Peak
5220	96.92	-	-	85.66	34.46	9.35	32.55	100	320	Average
5220	107.34	-	-	96.08	34.46	9.35	32.55	100	320	Peak
10440	44.54	-29.46	74	52.36	37.35	13.71	58.88	100	0	Peak
15561	45.86	-28.14	74	47.36	40.37	15.58	57.45	100	0	Peak

Test Mode :	802.11n HT20	Temperature :	21~23°C
Test Channel :	48	Relative Humidity :	51~53%
Test Engineer :	Eric Shih	Polarization :	Horizontal
Remark :	1. 5241 MHz is fundamental signal which can be ignored. 2. 10479 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
49.17	31.83	-8.17	40	53.84	8.5	0.69	31.2	105	248	Peak
149.34	25.87	-17.63	43.5	44.54	11.22	1.21	31.1	-	-	Peak
252.75	22.59	-23.41	46	39.4	12.64	1.55	31	-	-	Peak
456.8	22.12	-23.88	46	33.4	17.19	2.31	30.78	-	-	Peak
584.2	27.01	-18.99	46	35.51	19.52	2.64	30.66	-	-	Peak
958	26.14	-19.86	46	29.07	23.97	3.47	30.37	-	-	Peak
5241	98.15	-	-	86.9	34.51	9.39	32.65	100	0	Average
5241	108.68	-	-	97.43	34.51	9.39	32.65	100	0	Peak
10479	44.21	-29.79	74	51.99	37.39	13.72	58.89	100	0	Peak
15720	45.09	-28.91	74	46.15	40.52	15.69	57.27	100	0	Peak

Test Mode :	802.11n HT20	Temperature :	21~23°C
Test Channel :	48	Relative Humidity :	51~53%
Test Engineer :	Eric Shih	Polarization :	Vertical
Remark :	1. 5240 MHz is fundamental signal which can be ignored. 2. 10479 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
46.47	29.34	-10.66	40	50.17	9.7	0.67	31.2	132	347	Peak
138	19.11	-24.39	43.5	37.58	11.44	1.19	31.1	-	-	Peak
214.68	20.94	-22.56	43.5	40.5	10.11	1.38	31.05	-	-	Peak
512.1	19.67	-26.33	46	29.55	18.3	2.47	30.65	-	-	Peak
711.6	22.63	-23.37	46	29.29	20.77	2.97	30.4	-	-	Peak
937.7	26.47	-19.53	46	29.75	23.67	3.43	30.38	-	-	Peak
5240	98.78	-	-	87.53	34.51	9.39	32.65	100	332	Average
5240	109.57	-	-	98.32	34.51	9.39	32.65	100	332	Peak
10479	44.53	-29.47	74	52.31	37.39	13.72	58.89	100	0	Peak
15720	46.66	-27.34	74	47.72	40.52	15.69	57.27	100	0	Peak

Test Mode :	802.11n HT20	Temperature :	21~23°C
Test Channel :	52	Relative Humidity :	51~53%
Test Engineer :	Eric Shih	Polarization :	Horizontal
Remark :	1. 5264 MHz is fundamental signal which can be ignored. 2. 10521 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
49.17	31.55	-8.45	40	53.56	8.5	0.69	31.2	103	198	Peak
149.34	26.1	-17.4	43.5	44.77	11.22	1.21	31.1	-	-	Peak
214.68	22.16	-21.34	43.5	41.72	10.11	1.38	31.05	-	-	Peak
456.8	23.4	-22.6	46	34.68	17.19	2.31	30.78	-	-	Peak
584.2	28.31	-17.69	46	36.81	19.52	2.64	30.66	-	-	Peak
933.5	25.46	-20.54	46	28.81	23.6	3.42	30.37	-	-	Peak
5264	100.08	-	-	88.81	34.59	9.44	32.76	106	339	Average
5264	110.54	-	-	99.27	34.59	9.44	32.76	106	339	Peak
10521	43.69	-30.31	74	51.39	37.42	13.72	58.84	100	0	Peak
15780	46.49	-27.51	74	47.38	40.58	15.75	57.22	100	0	Peak

Test Mode :	802.11n HT20	Temperature :	21~23°C
Test Channel :	52	Relative Humidity :	51~53%
Test Engineer :	Eric Shih	Polarization :	Vertical
Remark :	1. 5262 MHz is fundamental signal which can be ignored. 2. 10521 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
48.9	25.77	-14.23	40	47.39	8.9	0.68	31.2	108	140	Peak
142.05	19.34	-24.16	43.5	37.89	11.35	1.2	31.1	-	-	Peak
217.11	20.68	-25.32	46	40	10.31	1.4	31.03	-	-	Peak
445.6	19.65	-26.35	46	31.14	16.95	2.29	30.73	-	-	Peak
668.2	22.28	-23.72	46	29.52	20.34	2.88	30.46	-	-	Peak
845.3	24.77	-21.23	46	29.34	22.56	3.26	30.39	-	-	Peak
5262	96.64	-	-	85.37	34.59	9.44	32.76	136	13	Average
5262	107.35	-	-	96.08	34.59	9.44	32.76	136	13	Peak
10521	44.23	-29.77	74	51.93	37.42	13.72	58.84	100	0	Peak
15780	46.05	-27.95	74	46.94	40.58	15.75	57.22	100	0	Peak

Test Mode :	802.11n HT20	Temperature :	21~23°C
Test Channel :	60	Relative Humidity :	51~53%
Test Engineer :	Eric Shih	Polarization :	Horizontal
Remark :	1. 5304 MHz is fundamental signal which can be ignored. 2. 10599 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
48.36	31.11	-8.89	40	52.73	8.9	0.68	31.2	110	236	Peak
150.15	24.87	-18.63	43.5	43.56	11.2	1.21	31.1	-	-	Peak
249.78	22.36	-23.64	46	39.23	12.6	1.53	31	-	-	Peak
446.3	22.2	-23.8	46	33.67	16.97	2.29	30.73	-	-	Peak
661.2	22.79	-23.21	46	30.12	20.29	2.86	30.48	-	-	Peak
974.8	26.47	-27.53	54	29.06	24.22	3.49	30.3	-	-	Peak
5304	99.83	-	-	88.64	34.68	9.48	32.97	107	339	Average
5304	111.02	-	-	99.83	34.68	9.48	32.97	107	339	Peak
10599	43.51	-30.49	74	50.89	37.5	13.73	58.61	100	0	Peak
15900	46.26	-27.74	74	46.8	40.7	15.84	57.08	100	0	Peak

Test Mode :	802.11n HT20	Temperature :	21~23°C
Test Channel :	60	Relative Humidity :	51~53%
Test Engineer :	Eric Shih	Polarization :	Vertical
Remark :	1. 5302 MHz is fundamental signal which can be ignored. 2. 10599 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
31.35	23.71	-16.29	40	35.31	19.28	0.54	31.42	120	189	Peak
139.35	20.16	-23.34	43.5	38.66	11.4	1.2	31.1	-	-	Peak
219.81	21.11	-24.89	46	40.18	10.51	1.42	31	-	-	Peak
456.8	19.42	-26.58	46	30.7	17.19	2.31	30.78	-	-	Peak
626.9	22.36	-23.64	46	30.13	20.01	2.77	30.55	-	-	Peak
866.3	26.08	-19.92	46	30.4	22.76	3.29	30.37	-	-	Peak
5302	106.37	-	-	95.18	34.68	9.48	32.97	169	285	Peak
5302	95.52	-	-	84.33	34.68	9.48	32.97	169	285	Average
10599	43.48	-30.52	74	50.86	37.5	13.73	58.61	100	0	Peak
15900	45.94	-28.06	74	46.48	40.7	15.84	57.08	100	0	Peak

Test Mode :	802.11n HT20	Temperature :	21~23°C
Test Channel :	64	Relative Humidity :	51~53%
Test Engineer :	Eric Shih	Polarization :	Horizontal
Remark :	1. 5320 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
49.17	30.65	-9.35	40	52.66	8.5	0.69	31.2	100	210	Peak
139.62	25.45	-18.05	43.5	43.95	11.4	1.2	31.1	-	-	Peak
252.75	22.33	-23.67	46	39.14	12.64	1.55	31	-	-	Peak
435.1	21.51	-24.49	46	33.22	16.75	2.26	30.72	-	-	Peak
605.2	25.49	-20.51	46	33.54	19.84	2.7	30.59	-	-	Peak
799.1	24.93	-21.07	46	30	22.09	3.14	30.3	-	-	Peak
5320	96.88	-	-	85.61	34.72	9.52	32.97	107	336	Average
5320	107.11	-	-	95.84	34.72	9.52	32.97	107	336	Peak
10641	43.37	-30.63	74	50.62	37.54	13.73	58.52	100	0	Peak
15960	46.3	-27.7	74	46.65	40.77	15.88	57	100	0	Peak

Test Mode :	802.11n HT20	Temperature :	21~23°C
Test Channel :	64	Relative Humidity :	51~53%
Test Engineer :	Eric Shih	Polarization :	Vertical
Remark :	1. 5324 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
49.17	31.91	-8.09	40	53.92	8.5	0.69	31.2	100	210	Peak
140.43	20.31	-23.19	43.5	38.83	11.38	1.2	31.1	-	-	Peak
217.38	21.31	-24.69	46	40.63	10.31	1.4	31.03	-	-	Peak
520.5	20.31	-25.69	46	30.05	18.45	2.49	30.68	-	-	Peak
738.9	23.46	-22.54	46	29.65	21.18	3.03	30.4	-	-	Peak
952.4	26.34	-19.66	46	29.38	23.89	3.46	30.39	-	-	Peak
5324	92.02	-	-	80.86	34.72	9.52	33.08	123	5	Average
5324	102.41	-	-	91.25	34.72	9.52	33.08	123	5	Peak
10641	43.26	-30.74	74	50.51	37.54	13.73	58.52	100	0	Peak
15960	46.58	-27.42	74	46.93	40.77	15.88	57	100	0	Peak

Test Mode :	802.11n HT20	Temperature :	21~23°C
Test Channel :	100	Relative Humidity :	51~53%
Test Engineer :	Eric Shih	Polarization :	Horizontal
Remark :	1. 5498 MHz is fundamental signal which can be ignored. 2. 16500 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
48.9	31.83	-8.17	40	53.45	8.9	0.68	31.2	102	178	Peak
149.34	26.13	-17.37	43.5	44.8	11.22	1.21	31.1	-	-	Peak
249.24	22.24	-23.76	46	39.18	12.53	1.53	31	-	-	Peak
498.8	22	-24	46	32.11	18.06	2.44	30.61	-	-	Peak
584.2	27.19	-18.81	46	35.69	19.52	2.64	30.66	-	-	Peak
912.5	25.57	-20.43	46	29.23	23.29	3.37	30.32	-	-	Peak
5498	96.34	-	-	84.98	35.2	9.82	33.66	110	351	Average
5498	106.85	-	-	95.49	35.2	9.82	33.66	110	351	Peak
11000	44.69	-29.31	74	50.59	37.9	13.76	57.56	100	0	Peak
16500	48	-26	74	46.34	41.5	16.13	55.97	100	0	Peak

Test Mode :	802.11n HT20	Temperature :	21~23°C
Test Channel :	100	Relative Humidity :	51~53%
Test Engineer :	Eric Shih	Polarization :	Vertical
Remark :	1. 5496 MHz is fundamental signal which can be ignored. 2. 16500 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
49.17	31.72	-8.28	40	53.73	8.5	0.69	31.2	156	210	Peak
139.89	19.97	-23.53	43.5	38.47	11.4	1.2	31.1	-	-	Peak
216.3	20.17	-25.83	46	39.57	10.24	1.4	31.04	-	-	Peak
456.8	19.91	-26.09	46	31.19	17.19	2.31	30.78	-	-	Peak
751.5	23.06	-22.94	46	29.03	21.37	3.06	30.4	-	-	Peak
904.8	25.25	-20.75	46	29.04	23.17	3.35	30.31	-	-	Peak
5496	96.2	-	-	84.88	35.16	9.82	33.66	107	313	Average
5496	106.47	-	-	95.15	35.16	9.82	33.66	107	313	Peak
11000	45.05	-28.95	74	50.95	37.9	13.76	57.56	100	0	Peak
16500	48.27	-25.73	74	46.61	41.5	16.13	55.97	100	0	Peak

Test Mode :	802.11n HT20	Temperature :	21~23°C
Test Channel :	116	Relative Humidity :	51~53%
Test Engineer :	Eric Shih	Polarization :	Horizontal
Remark :	1. 5577 MHz is fundamental signal which can be ignored. 2. 16740 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
49.17	31.91	-8.09	40	53.92	8.5	0.69	31.2	102	45	Peak
148.53	26.25	-17.25	43.5	44.9	11.24	1.21	31.1	-	-	Peak
246	22.5	-23.5	46	39.64	12.33	1.53	31	-	-	Peak
445.6	23.24	-22.76	46	34.73	16.95	2.29	30.73	-	-	Peak
720.7	23.75	-22.25	46	30.25	20.91	2.99	30.4	-	-	Peak
944.7	26.61	-19.39	46	29.78	23.77	3.45	30.39	-	-	Peak
5577	96.69	-	-	85.45	35.24	9.92	33.92	100	339	Average
5577	107.08	-	-	95.84	35.24	9.92	33.92	100	339	Peak
11160	46.48	-27.52	74	51.84	38.07	13.93	57.36	100	0	Peak
16740	47.96	-26.04	74	46.04	41.74	16.23	56.05	100	0	Peak

Test Mode :	802.11n HT20	Temperature :	21~23°C
Test Channel :	116	Relative Humidity :	51~53%
Test Engineer :	Eric Shih	Polarization :	Vertical
Remark :	1. 5580 MHz is fundamental signal which can be ignored. 2. 16740 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
49.17	31.87	-8.13	40	53.88	8.5	0.69	31.2	106	210	Peak
136.92	19.62	-23.88	43.5	38.07	11.46	1.19	31.1	-	-	Peak
220.35	20.12	-25.88	46	39.19	10.51	1.42	31	-	-	Peak
503.7	19.7	-26.3	46	29.71	18.15	2.46	30.62	-	-	Peak
623.4	22.46	-23.54	46	30.26	19.99	2.76	30.55	-	-	Peak
983.9	27.21	-26.79	54	29.64	24.35	3.49	30.27	-	-	Peak
5580	94.66	-	-	83.51	35.24	9.92	34.01	116	342	Average
5580	104.89	-	-	93.65	35.24	9.92	33.92	116	342	Peak
11160	45.17	-28.83	74	50.53	38.07	13.93	57.36	100	0	Peak
16740	47.73	-26.27	74	45.81	41.74	16.23	56.05	100	0	Peak

Test Mode :	802.11n HT20	Temperature :	21~23°C
Test Channel :	140	Relative Humidity :	51~53%
Test Engineer :	Eric Shih	Polarization :	Horizontal
Remark :	1. 5696 MHz is fundamental signal which can be ignored. 2. 17100 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
49.17	31.25	-8.75	40	53.26	8.5	0.69	31.2	100	156	Peak
150.15	24.64	-18.86	43.5	43.33	11.2	1.21	31.1	-	-	Peak
250.86	22	-24	46	38.85	12.61	1.54	31	-	-	Peak
456.8	22.29	-23.71	46	33.57	17.19	2.31	30.78	-	-	Peak
605.2	24.35	-21.65	46	32.4	19.84	2.7	30.59	-	-	Peak
890.1	25.11	-20.89	46	29.1	23	3.33	30.32	-	-	Peak
5696	94.62	-	-	83.41	35.31	10.02	34.12	106	58	Average
5696	105.09	-	-	93.88	35.31	10.02	34.12	106	58	Peak
11400	48.53	-25.47	74	53.09	38.3	14.21	57.07	100	0	Peak
17100	48.86	-25.14	74	46.62	41.94	16.46	56.16	100	0	Peak

Test Mode :	802.11n HT20	Temperature :	21~23°C
Test Channel :	140	Relative Humidity :	51~53%
Test Engineer :	Eric Shih	Polarization :	Vertical
Remark :	1. 5700 MHz is fundamental signal which can be ignored. 2. 17100 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
49.17	32.21	-7.79	40	54.22	8.5	0.69	31.2	105	254	Peak
138	19.55	-23.95	43.5	38.02	11.44	1.19	31.1	-	-	Peak
219.54	20.11	-25.89	46	39.25	10.45	1.41	31	-	-	Peak
446.3	19.63	-26.37	46	31.1	16.97	2.29	30.73	-	-	Peak
743.1	23.16	-22.84	46	29.28	21.24	3.04	30.4	-	-	Peak
917.4	26.23	-19.77	46	29.82	23.36	3.38	30.33	-	-	Peak
5700	95.37	-	-	84.16	35.31	10.02	34.12	101	316	Average
5700	104.79	-	-	93.6	35.32	10.02	34.15	101	316	Peak
11400	47.8	-26.2	74	52.36	38.3	14.21	57.07	100	0	Peak
17100	49.47	-24.53	74	47.23	41.94	16.46	56.16	100	0	Peak

Test Mode :	802.11n HT40	Temperature :	21~23°C
Test Channel :	38	Relative Humidity :	51~53%
Test Engineer :	Eric Shih	Polarization :	Horizontal
Remark :	1. 5186 MHz is fundamental signal which can be ignored. 2. 10308 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
49.17	32.08	-7.92	40	54.09	8.5	0.69	31.2	109	211	Peak
148.53	26.97	-16.53	43.5	45.62	11.24	1.21	31.1	-	-	Peak
250.59	22.59	-23.41	46	39.46	12.6	1.53	31	-	-	Peak
584.2	24.46	-21.54	46	32.96	19.52	2.64	30.66	-	-	Peak
698.3	23.11	-22.89	46	29.99	20.58	2.94	30.4	-	-	Peak
907.6	25.78	-20.22	46	29.52	23.22	3.36	30.32	-	-	Peak
5186	93.57	-	-	82.44	34.38	9.27	32.52	107	339	Average
5186	103.4	-	-	92.27	34.38	9.27	32.52	107	339	Peak
10380	45.03	-28.97	74	52.88	37.31	13.71	58.87	100	0	Peak
15570	47.91	-26.09	74	49.41	40.37	15.58	57.45	100	0	Peak

Test Mode :	802.11n HT40	Temperature :	21~23°C
Test Channel :	38	Relative Humidity :	51~53%
Test Engineer :	Eric Shih	Polarization :	Vertical
Remark :	1. 5190 MHz is fundamental signal which can be ignored. 2. 10380 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
48.9	32.08	-7.92	40	53.7	8.9	0.68	31.2	109	241	Peak
140.97	20.18	-23.32	43.5	38.7	11.38	1.2	31.1	-	-	Peak
213.06	22.93	-20.57	43.5	42.58	10.04	1.38	31.07	-	-	Peak
435.1	20.21	-25.79	46	31.92	16.75	2.26	30.72	-	-	Peak
584.2	22.87	-23.13	46	31.37	19.52	2.64	30.66	-	-	Peak
849.5	25.14	-20.86	46	29.67	22.6	3.27	30.4	-	-	Peak
5190	91.4	-	-	80.23	34.38	9.31	32.52	114	298	Average
5190	101.94	-	-	90.81	34.38	9.27	32.52	114	298	Peak
10380	43.98	-30.02	74	51.83	37.31	13.71	58.87	100	0	Peak
15570	47.91	-26.09	74	49.41	40.37	15.58	57.45	100	0	Peak

Test Mode :	802.11n HT40	Temperature :	21~23°C
Test Channel :	46	Relative Humidity :	51~53%
Test Engineer :	Eric Shih	Polarization :	Horizontal
Remark :	1. 5228 MHz is fundamental signal which can be ignored. 2. 10461 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
49.17	32	-8	40	54.01	8.5	0.69	31.2	170	150	Peak
148.53	26.48	-17.02	43.5	45.13	11.24	1.21	31.1	-	-	Peak
250.05	22.93	-23.07	46	39.8	12.6	1.53	31	-	-	Peak
498.8	22.64	-23.36	46	32.75	18.06	2.44	30.61	-	-	Peak
626.9	22.68	-23.32	46	30.45	20.01	2.77	30.55	-	-	Peak
938.4	25.6	-20.4	46	28.88	23.67	3.43	30.38	-	-	Peak
5228	99.1	-	-	87.89	34.51	9.35	32.65	118	334	Average
5228	109.39	-	-	98.18	34.51	9.35	32.65	118	334	Peak
10461	45.66	-28.34	74	53.45	37.37	13.72	58.88	100	0	Peak
15690	47.42	-26.58	74	48.57	40.49	15.67	57.31	100	0	Peak

Test Mode :	802.11n HT40	Temperature :	21~23°C
Test Channel :	46	Relative Humidity :	51~53%
Test Engineer :	Eric Shih	Polarization :	Vertical
Remark :	1. 5230 MHz is fundamental signal which can be ignored. 2. 10461 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
49.17	31.55	-8.45	40	53.56	8.5	0.69	31.2	136	100	Peak
139.89	19.65	-23.85	43.5	38.15	11.4	1.2	31.1	-	-	Peak
213.33	23.35	-20.15	43.5	43	10.04	1.38	31.07	-	-	Peak
510	20.39	-25.61	46	30.29	18.27	2.47	30.64	-	-	Peak
810.3	24.71	-21.29	46	29.66	22.2	3.17	30.32	-	-	Peak
946.8	26.35	-19.65	46	29.49	23.8	3.45	30.39	-	-	Peak
5230	95.61	-	-	84.4	34.51	9.35	32.65	111	340	Average
5230	105.34	-	-	94.18	34.46	9.35	32.65	111	340	Peak
10461	44.67	-29.33	74	52.46	37.37	13.72	58.88	100	0	Peak
15690	48.5	-25.5	74	49.65	40.49	15.67	57.31	100	0	Peak

Test Mode :	802.11n HT40	Temperature :	21~23°C
Test Channel :	54	Relative Humidity :	51~53%
Test Engineer :	Eric Shih	Polarization :	Horizontal
Remark :	1. 5266 MHz is fundamental signal which can be ignored. 2. 10539 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
48.09	32.46	-7.54	40	54.08	8.9	0.68	31.2	131	109	Peak
148.53	27.03	-16.47	43.5	45.68	11.24	1.21	31.1	-	-	Peak
255.72	22.48	-23.52	46	39.23	12.68	1.57	31	-	-	Peak
541.5	23.76	-22.24	46	33.21	18.79	2.53	30.77	-	-	Peak
584.2	23.34	-22.66	46	31.84	19.52	2.64	30.66	-	-	Peak
965.7	26.26	-27.74	54	29.03	24.09	3.48	30.34	-	-	Peak
5266	98.68	-	-	87.41	34.59	9.44	32.76	105	341	Average
5266	108.88	-	-	97.61	34.59	9.44	32.76	105	341	Peak
10539	45.83	-28.17	74	53.48	37.43	13.72	58.8	100	0	Peak
15810	48.9	-25.1	74	49.7	40.61	15.77	57.18	100	0	Peak

Test Mode :	802.11n HT40	Temperature :	21~23°C
Test Channel :	54	Relative Humidity :	51~53%
Test Engineer :	Eric Shih	Polarization :	Vertical
Remark :	1. 5270 MHz is fundamental signal which can be ignored. 2. 10539 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
48.9	31.67	-8.33	40	53.29	8.9	0.68	31.2	100	89	Peak
142.05	19.2	-24.3	43.5	37.75	11.35	1.2	31.1	-	-	Peak
211.71	21.69	-21.81	43.5	41.5	9.91	1.37	31.09	-	-	Peak
563.2	21.39	-24.61	46	30.38	19.17	2.59	30.75	-	-	Peak
788.6	24.71	-21.29	46	29.98	21.93	3.12	30.32	-	-	Peak
975.5	27.18	-26.82	54	29.75	24.24	3.49	30.3	-	-	Peak
5270	95.75	-	-	84.48	34.59	9.44	32.76	100	320	Average
5270	107.05	-	-	95.78	34.59	9.44	32.76	100	320	Peak
10539	44.61	-29.39	74	52.26	37.43	13.72	58.8	100	0	Peak
15810	48.8	-25.2	74	49.6	40.61	15.77	57.18	100	0	Peak

Test Mode :	802.11n HT40	Temperature :	21~23°C
Test Channel :	62	Relative Humidity :	51~53%
Test Engineer :	Eric Shih	Polarization :	Horizontal
Remark :	1. 5308 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
47.82	31.78	-8.22	40	53.01	9.3	0.67	31.2	116	182	Peak
149.34	27.67	-15.83	43.5	46.34	11.22	1.21	31.1	-	-	Peak
249.78	23.08	-22.92	46	39.95	12.6	1.53	31	-	-	Peak
498.8	22.52	-23.48	46	32.63	18.06	2.44	30.61	-	-	Peak
794.2	23.69	-22.31	46	28.86	22.01	3.13	30.31	-	-	Peak
957.3	26.27	-19.73	46	29.21	23.96	3.47	30.37	-	-	Peak
5308	95.7	-	-	84.47	34.68	9.52	32.97	123	106	Average
5308	105.45	-	-	94.22	34.68	9.52	32.97	123	106	Peak
10620	44.35	-29.65	74	51.67	37.52	13.73	58.57	100	0	Peak
15930	48.54	-25.46	74	48.99	40.73	15.86	57.04	100	0	Peak

Test Mode :	802.11n HT40	Temperature :	21~23°C
Test Channel :	62	Relative Humidity :	51~53%
Test Engineer :	Eric Shih	Polarization :	Vertical
Remark :	1. 5310 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
48.9	31.17	-8.83	40	52.79	8.9	0.68	31.2	187	210	Peak
137.19	19.52	-23.98	43.5	37.99	11.44	1.19	31.1	-	-	Peak
213.6	22.64	-20.86	43.5	42.29	10.04	1.38	31.07	-	-	Peak
541.5	20.51	-25.49	46	29.96	18.79	2.53	30.77	-	-	Peak
801.2	24.96	-21.04	46	30.01	22.11	3.14	30.3	-	-	Peak
977.6	26.89	-27.11	54	29.42	24.27	3.49	30.29	-	-	Peak
5310	91.3	-	-	80.03	34.72	9.52	32.97	144	182	Average
5310	100.9	-	-	89.63	34.72	9.52	32.97	144	182	Peak
10620	45.33	-28.67	74	52.65	37.52	13.73	58.57	100	0	Peak
15930	48.41	-25.59	74	48.86	40.73	15.86	57.04	100	0	Peak

Test Mode :	802.11n HT40	Temperature :	21~23°C
Test Channel :	102	Relative Humidity :	51~53%
Test Engineer :	Eric Shih	Polarization :	Horizontal
Remark :	1. 5508 MHz is fundamental signal which can be ignored. 2. 16530 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
49.17	32.3	-7.7	40	54.31	8.5	0.69	31.2	108	36	Peak
149.34	26.89	-16.61	43.5	45.56	11.22	1.21	31.1	-	-	Peak
250.05	22.65	-23.35	46	39.52	12.6	1.53	31	-	-	Peak
498.8	21.96	-24.04	46	32.07	18.06	2.44	30.61	-	-	Peak
755	23.56	-22.44	46	29.46	21.42	3.07	30.39	-	-	Peak
988.1	26.37	-27.63	54	28.69	24.43	3.5	30.25	-	-	Peak
5508	91.25	-	-	79.93	35.2	9.86	33.74	110	54	Average
5508	101.02	-	-	89.7	35.2	9.86	33.74	110	54	Peak
11019	43.15	-30.85	74	49.01	37.92	13.76	57.54	100	0	Peak
16530	50.06	-23.94	74	48.37	41.53	16.14	55.98	100	0	Peak

Test Mode :	802.11n HT40	Temperature :	21~23°C
Test Channel :	102	Relative Humidity :	51~53%
Test Engineer :	Eric Shih	Polarization :	Vertical
Remark :	1. 5510 MHz is fundamental signal which can be ignored. 2. 16530 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
48.9	31.49	-8.51	40	53.11	8.9	0.68	31.2	136	263	Peak
137.73	19.76	-23.74	43.5	38.23	11.44	1.19	31.1	-	-	Peak
213.33	23.45	-20.05	43.5	43.1	10.04	1.38	31.07	-	-	Peak
531	20.88	-25.12	46	30.49	18.61	2.51	30.73	-	-	Peak
822.2	23.98	-22.02	46	28.81	22.32	3.2	30.35	-	-	Peak
927.2	25.42	-20.58	46	28.85	23.51	3.41	30.35	-	-	Peak
5510	89.86	-	-	78.53	35.21	9.86	33.74	114	304	Average
5510	99.96	-	-	88.63	35.21	9.86	33.74	114	304	Peak
11019	44.05	-29.95	74	49.91	37.92	13.76	57.54	100	0	Peak
16530	49.85	-24.15	74	48.16	41.53	16.14	55.98	100	0	Peak

Test Mode :	802.11n HT40	Temperature :	21~23°C
Test Channel :	110	Relative Humidity :	51~53%
Test Engineer :	Eric Shih	Polarization :	Horizontal
Remark :	1. 5548 MHz is fundamental signal which can be ignored. 2. 16650 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
49.17	32.33	-7.67	40	54.34	8.5	0.69	31.2	120	170	Peak
149.34	27.01	-16.49	43.5	45.68	11.22	1.21	31.1	-	-	Peak
251.94	22.54	-23.46	46	39.37	12.63	1.54	31	-	-	Peak
445.6	21.67	-24.33	46	33.16	16.95	2.29	30.73	-	-	Peak
669.6	22.99	-23.01	46	30.22	20.35	2.88	30.46	-	-	Peak
957.3	26.16	-19.84	46	29.1	23.96	3.47	30.37	-	-	Peak
5548	93.08	-	-	81.78	35.23	9.9	33.83	100	72	Average
5548	102.86	-	-	91.56	35.23	9.9	33.83	100	72	Peak
11100	45.96	-28.04	74	51.53	38	13.87	57.44	100	0	Peak
16650	49.21	-24.79	74	47.38	41.66	16.19	56.02	100	0	Peak

Test Mode :	802.11n HT40	Temperature :	21~23°C
Test Channel :	110	Relative Humidity :	51~53%
Test Engineer :	Eric Shih	Polarization :	Vertical
Remark :	1. 5548 MHz is fundamental signal which can be ignored. 2. 16650 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
49.17	31.57	-8.43	40	53.58	8.5	0.69	31.2	136	85	Peak
140.7	19.55	-23.95	43.5	38.07	11.38	1.2	31.1	-	-	Peak
212.52	23.1	-20.4	43.5	42.83	9.98	1.37	31.08	-	-	Peak
498.8	21.06	-24.94	46	31.17	18.06	2.44	30.61	-	-	Peak
626.9	23.47	-22.53	46	31.24	20.01	2.77	30.55	-	-	Peak
937	26.32	-19.68	46	29.61	23.65	3.43	30.37	-	-	Peak
5548	92.3	-	-	81	35.23	9.9	33.83	114	286	Average
5548	102.23	-	-	90.93	35.23	9.9	33.83	114	286	Peak
11100	45.92	-28.08	74	51.49	38	13.87	57.44	100	0	Peak
16650	49.25	-24.75	74	47.42	41.66	16.19	56.02	100	0	Peak

Test Mode :	802.11n HT40	Temperature :	21~23°C
Test Channel :	134	Relative Humidity :	51~53%
Test Engineer :	Eric Shih	Polarization :	Horizontal
Remark :	1. 5668 MHz is fundamental signal which can be ignored. 2. 17010 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
47.82	32.12	-7.88	40	53.35	9.3	0.67	31.2	110	149	Peak
148.53	27.67	-15.83	43.5	46.32	11.24	1.21	31.1	-	-	Peak
255.45	22.5	-23.5	46	39.27	12.67	1.56	31	-	-	Peak
446.3	20.86	-25.14	46	32.33	16.97	2.29	30.73	-	-	Peak
584.2	23.75	-22.25	46	32.25	19.52	2.64	30.66	-	-	Peak
965	26.11	-27.89	54	28.89	24.08	3.48	30.34	-	-	Peak
5668	94.89	-	-	83.7	35.3	9.98	34.09	100	31	Average
5668	104.84	-	-	93.65	35.3	9.98	34.09	100	31	Peak
11340	45.13	-28.87	74	49.89	38.23	14.16	57.15	100	0	Peak
17010	49.61	-24.39	74	47.41	41.99	16.34	56.13	100	0	Peak

Test Mode :	802.11n HT40	Temperature :	21~23°C
Test Channel :	134	Relative Humidity :	51~53%
Test Engineer :	Eric Shih	Polarization :	Vertical
Remark :	1. 5672 MHz is fundamental signal which can be ignored. 2. 17010 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
49.17	31.47	-8.53	40	53.48	8.5	0.69	31.2	120	140	Peak
141.51	19.9	-23.6	43.5	38.44	11.36	1.2	31.1	-	-	Peak
213.6	21.89	-21.61	43.5	41.54	10.04	1.38	31.07	-	-	Peak
446.3	20.15	-25.85	46	31.62	16.97	2.29	30.73	-	-	Peak
626.9	23.87	-22.13	46	31.64	20.01	2.77	30.55	-	-	Peak
990.9	26.74	-27.26	54	29.01	24.47	3.5	30.24	-	-	Peak
5672	94.18	-	-	82.97	35.3	10	34.09	100	351	Average
5672	104.36	-	-	93.15	35.3	10	34.09	100	351	Peak
11340	46.52	-27.48	74	51.28	38.23	14.16	57.15	100	0	Peak
17010	50.29	-23.71	74	48.09	41.99	16.34	56.13	100	0	Peak

<Sample 1 with Battery 1>

Test Mode :	802.11n HT40	**Temperature :**	21~23°C
Test Channel :	62	**Relative Humidity :**	51~53%
Test Engineer :	Eric Shih	**Polarization :**	Horizontal
Remark :	1. 5308 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
49.44	31.01	-8.99	40	53.02	8.5	0.69	31.2	101	196	Peak
149.34	27.27	-16.23	43.5	45.94	11.22	1.21	31.1	-	-	Peak
248.7	22.76	-23.24	46	39.76	12.47	1.53	31	-	-	Peak
498.8	22.21	-23.79	46	32.32	18.06	2.44	30.61	-	-	Peak
801.9	24.48	-21.52	46	29.51	22.12	3.15	30.3	-	-	Peak
896.4	26.27	-19.73	46	30.19	23.06	3.33	30.31	-	-	Peak
5308	94.36	-	-	83.13	34.68	9.52	32.97	100	88	Average
5308	104.56	-	-	93.33	34.68	9.52	32.97	100	88	Peak
10620	44.77	-29.23	74	52.09	37.52	13.73	58.57	100	0	Peak
15930	49	-25	74	49.45	40.73	15.86	57.04	100	0	Peak

Test Mode :	802.11n HT40	Temperature :	21~23°C
Test Channel :	62	Relative Humidity :	51~53%
Test Engineer :	Eric Shih	Polarization :	Vertical
Remark :	1. 5312 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
30.81	24.85	-15.15	40	36.49	19.28	0.54	31.46	140	26	Peak
148.53	18.94	-24.56	43.5	37.59	11.24	1.21	31.1	-	-	Peak
211.71	19.48	-24.02	43.5	39.29	9.91	1.37	31.09	-	-	Peak
584.2	24.44	-21.56	46	32.94	19.52	2.64	30.66	-	-	Peak
884.5	25.23	-20.77	46	29.3	22.94	3.32	30.33	-	-	Peak
964.3	26.51	-27.49	54	29.33	24.06	3.47	30.35	-	-	Peak
5312	93.82	-	-	82.55	34.72	9.52	32.97	144	18	Average
5312	103.93	-	-	92.66	34.72	9.52	32.97	144	18	Peak
10620	45.08	-28.92	74	52.4	37.52	13.73	58.57	100	0	Peak
15930	47.88	-26.12	74	48.33	40.73	15.86	57.04	100	0	Peak

<Sample 2 with Battery 2>

Test Mode :	802.11n HT40	**Temperature :**	21~23°C
Test Channel :	62	**Relative Humidity :**	51~53%
Test Engineer :	Eric Shih	**Polarization :**	Horizontal
Remark :	1. 5308 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
49.44	26.43	-13.57	40	48.44	8.5	0.69	31.2	109	59	Peak
149.34	27.26	-16.24	43.5	45.93	11.22	1.21	31.1	-	-	Peak
253.02	22.65	-23.35	46	39.46	12.64	1.55	31	-	-	Peak
446.3	21.77	-24.23	46	33.24	16.97	2.29	30.73	-	-	Peak
573.7	22.94	-23.06	46	31.67	19.35	2.62	30.7	-	-	Peak
953.1	26.5	-19.5	46	29.53	23.9	3.46	30.39	-	-	Peak
5308	93.2	-	-	81.97	34.68	9.52	32.97	117	344	Average
5308	103.21	-	-	91.98	34.68	9.52	32.97	117	344	Peak
10620	44.4	-29.6	74	51.72	37.52	13.73	58.57	100	0	Peak
15930	48.64	-25.36	74	49.09	40.73	15.86	57.04	100	0	Peak

Test Mode :	802.11n HT40	Temperature :	21~23°C
Test Channel :	62	Relative Humidity :	51~53%
Test Engineer :	Eric Shih	Polarization :	Vertical
Remark :	1. 5312 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
30.81	21.09	-18.91	40	32.73	19.28	0.54	31.46	112	129	Peak
140.97	19.92	-23.58	43.5	38.44	11.38	1.2	31.1	-	-	Peak
213.33	22.89	-20.61	43.5	42.54	10.04	1.38	31.07	-	-	Peak
520.5	20.34	-25.66	46	30.08	18.45	2.49	30.68	-	-	Peak
626.9	23.48	-22.52	46	31.25	20.01	2.77	30.55	-	-	Peak
987.4	26.38	-27.62	54	28.72	24.41	3.5	30.25	-	-	Peak
5312	92.09	-	-	80.82	34.72	9.52	32.97	168	295	Average
5312	101.95	-	-	90.68	34.72	9.52	32.97	168	295	Peak
10620	44.52	-29.48	74	51.84	37.52	13.73	58.57	100	0	Peak
15930	48.72	-25.28	74	49.17	40.73	15.86	57.04	100	0	Peak

3.6 AC Conducted Emission Measurement

3.6.1 Limit of AC Conducted Emission

For equipment that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table.

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

*Decreases with the logarithm of the frequency.

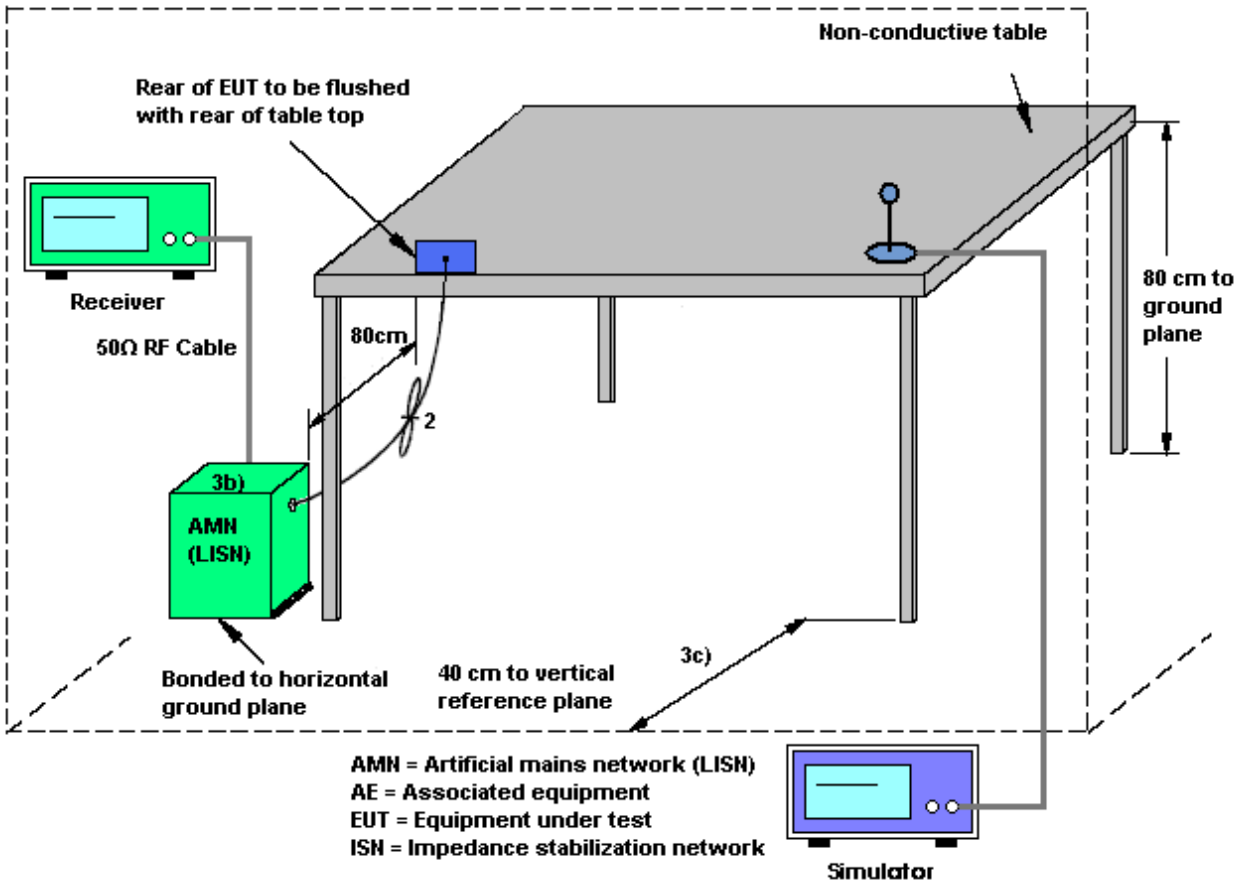
3.6.2 Measuring Instruments

See list of measuring instruments of this test report.

3.6.3 Test Procedures

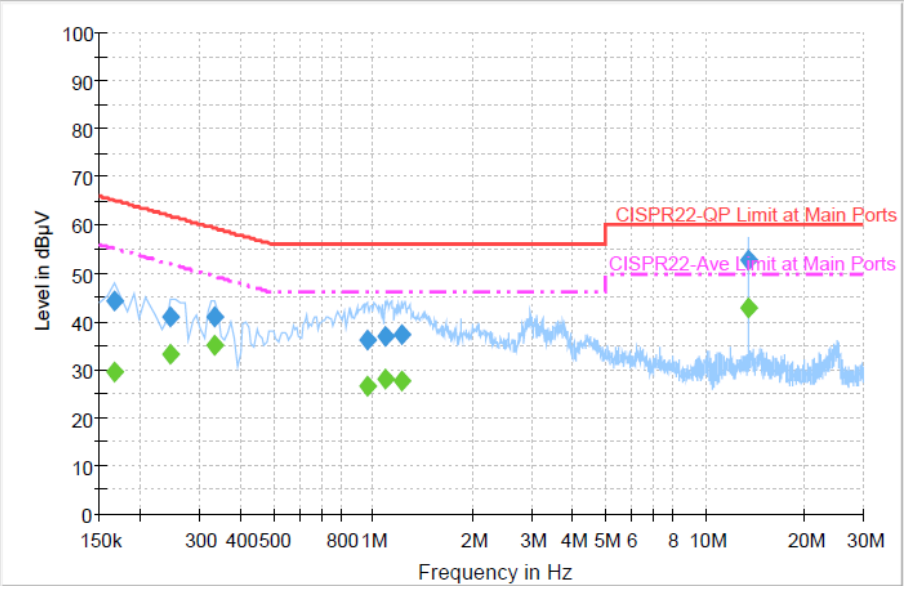
1. The testing follows the guidelines in ANSI C63.4-2003 test site requirement.
2. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
3. Connect EUT to the power mains through a line impedance stabilization network (LISN).
4. All the support units are connecting to the other LISN.
5. The LISN provides 50 ohm coupling impedance for the measuring instrument.
6. The FCC states that a 50 ohm, 50 microhenry LISN should be used.
7. Both sides of AC line were checked for maximum conducted interference.
8. The frequency range from 150 kHz to 30 MHz was searched.
9. Set the test-receiver system to Peak Detect Function and specified bandwidth with Maximum Hold Mode.

3.6.4 Test Setup



3.6.5 Test Result of AC Conducted Emission

Test Mode :	Mode 1	Temperature :	20~22℃
Test Engineer :	Slash Huang	Relative Humidity :	45~47%
Test Voltage :	120Vac / 60Hz	Phase :	Line
Function Type :	GSM850 Idle + WLAN (5G) Link + Bluetooth Link + NFC active + Scanner + USB Cable (USB File transfer) + Battery 2 for Sample 1		



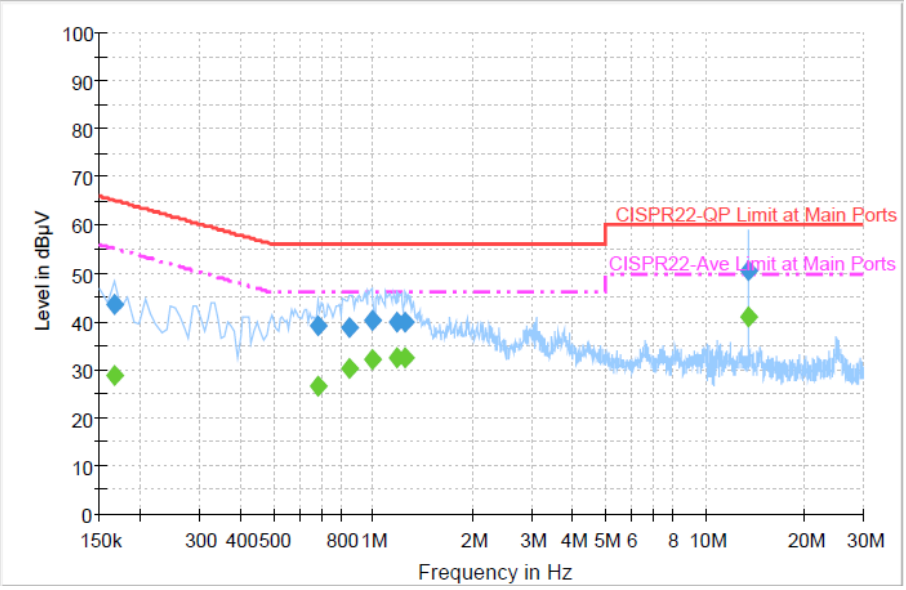
Final Result : QuasiPeak

Frequency (MHz)	QuasiPeak (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.166000	44.1	Off	L1	19.4	21.1	65.2
0.246000	41.1	Off	L1	19.4	20.8	61.9
0.334000	41.0	Off	L1	19.4	18.4	59.4
0.958000	36.2	Off	L1	19.4	19.8	56.0
1.086000	37.0	Off	L1	19.4	19.0	56.0
1.214000	37.3	Off	L1	19.5	18.7	56.0
13.558000	52.8	Off	L1	19.8	7.2	60.0

Final Result : Average

Frequency (MHz)	Average (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.166000	29.5	Off	L1	19.4	25.7	55.2
0.246000	33.1	Off	L1	19.4	18.8	51.9
0.334000	35.2	Off	L1	19.4	14.2	49.4
0.958000	26.6	Off	L1	19.4	19.4	46.0
1.086000	28.0	Off	L1	19.4	18.0	46.0
1.214000	27.8	Off	L1	19.5	18.2	46.0
13.558000	42.7	Off	L1	19.8	7.3	50.0

Test Mode :	Mode 1	Temperature :	20~22℃
Test Engineer :	Slash Huang	Relative Humidity :	45~47%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral
Function Type :	GSM850 Idle + WLAN (5G) Link + Bluetooth Link + NFC active + Scanner + USB Cable (USB File transfer) + Battery 2 for Sample 1		



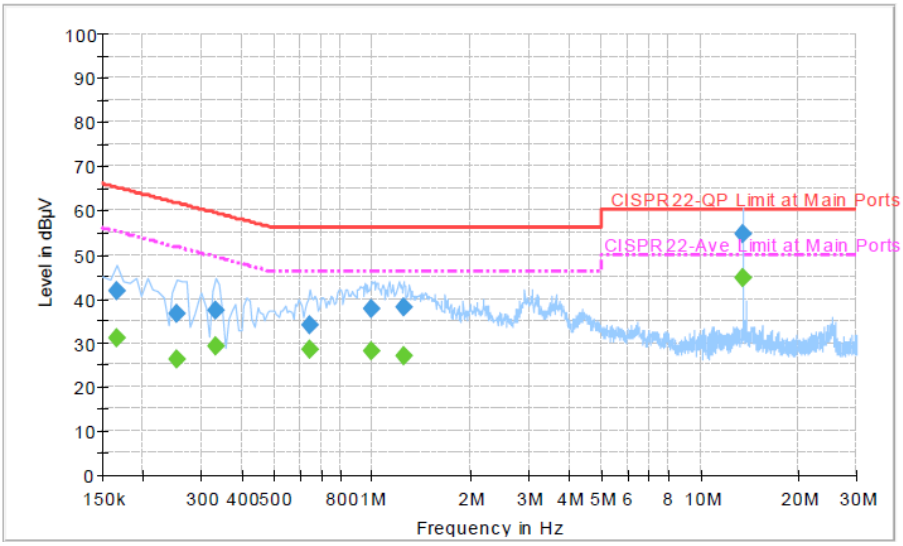
Final Result : QuasiPeak

Frequency (MHz)	QuasiPeak (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.166000	43.7	Off	N	19.4	21.5	65.2
0.686000	39.0	Off	N	19.5	17.0	56.0
0.846000	38.9	Off	N	19.6	17.1	56.0
0.990000	40.3	Off	N	19.4	15.7	56.0
1.174000	39.9	Off	N	19.5	16.1	56.0
1.254000	39.8	Off	N	19.5	16.2	56.0
13.558000	50.6	Off	N	19.9	9.4	60.0

Final Result : Average

Frequency (MHz)	Average (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.166000	28.9	Off	N	19.4	26.3	55.2
0.686000	26.4	Off	N	19.5	19.6	46.0
0.846000	30.1	Off	N	19.6	15.9	46.0
0.990000	32.2	Off	N	19.4	13.8	46.0
1.174000	32.6	Off	N	19.5	13.4	46.0
1.254000	32.3	Off	N	19.5	13.7	46.0
13.558000	41.1	Off	N	19.9	8.9	50.0

Test Mode :	Mode 2	Temperature :	20~22℃
Test Engineer :	Slash Huang	Relative Humidity :	45~47%
Test Voltage :	120Vac / 60Hz	Phase :	Line
Function Type :	WCDMA Band V Idle + WLAN (5G) Link + Bluetooth Link + NFC active + Scanner + USB Cable (USB File transfer) + Battery 1 for Sample 1		



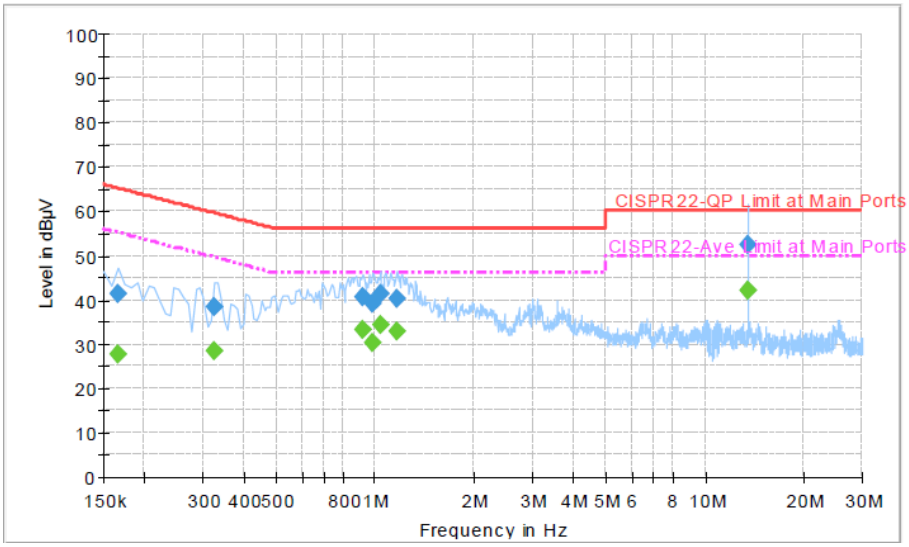
Final Result : QuasiPeak

Frequency (MHz)	QuasiPeak (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.166000	41.7	Off	L1	19.4	23.5	65.2
0.254000	36.4	Off	L1	19.5	25.2	61.6
0.334000	37.4	Off	L1	19.4	22.0	59.4
0.646000	34.0	Off	L1	19.4	22.0	56.0
0.998000	37.7	Off	L1	19.4	18.3	56.0
1.246000	38.0	Off	L1	19.5	18.0	56.0
13.558000	54.6	Off	L1	19.8	5.4	60.0

Final Result : Average

Frequency (MHz)	Average (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.166000	31.0	Off	L1	19.4	24.2	55.2
0.254000	26.3	Off	L1	19.5	25.3	51.6
0.334000	29.0	Off	L1	19.4	20.4	49.4
0.646000	28.4	Off	L1	19.4	17.6	46.0
0.998000	28.1	Off	L1	19.4	17.9	46.0
1.246000	26.9	Off	L1	19.5	19.1	46.0
13.558000	44.5	Off	L1	19.8	5.5	50.0

Test Mode :	Mode 2	Temperature :	20~22℃
Test Engineer :	Slash Huang	Relative Humidity :	45~47%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral
Function Type :	WCDMA Band V Idle + WLAN (5G) Link + Bluetooth Link + NFC active + Scanner + USB Cable (USB File transfer) + Battery 1 for Sample 1		



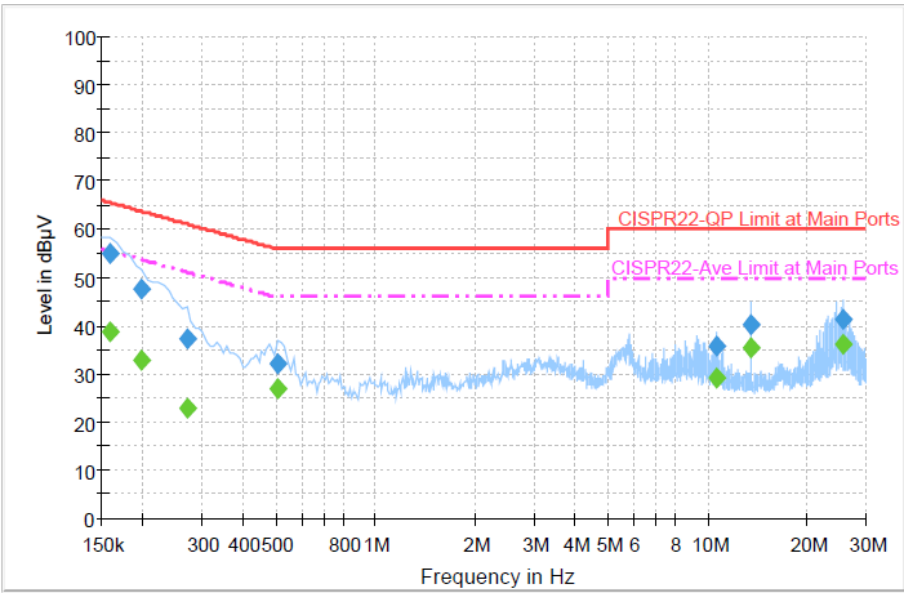
Final Result : QuasiPeak

Frequency (MHz)	QuasiPeak (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.166000	41.3	Off	N	19.4	23.9	65.2
0.326000	38.4	Off	N	19.4	21.2	59.6
0.918000	40.7	Off	N	19.4	15.3	56.0
0.982000	39.0	Off	N	19.5	17.0	56.0
1.038000	41.3	Off	N	19.5	14.7	56.0
1.166000	40.3	Off	N	19.5	15.7	56.0
13.558000	52.5	Off	N	19.9	7.5	60.0

Final Result : Average

Frequency (MHz)	Average (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.166000	27.8	Off	N	19.4	27.4	55.2
0.326000	28.3	Off	N	19.4	21.3	49.6
0.918000	33.1	Off	N	19.4	12.9	46.0
0.982000	30.2	Off	N	19.5	15.8	46.0
1.038000	34.2	Off	N	19.5	11.8	46.0
1.166000	32.8	Off	N	19.5	13.2	46.0
13.558000	42.2	Off	N	19.9	7.8	50.0

Test Mode :	Mode 3	**Temperature :**	20~22℃
Test Engineer :	Slash Huang	**Relative Humidity :**	45~47%
Test Voltage :	120Vac / 60Hz	**Phase :**	Line
Function Type :	LTE Band 5 Idle + WLAN (5G) Link + Bluetooth Link + NFC active + USB Cable (USB File transfer) + Battery 1 for Sample 2		



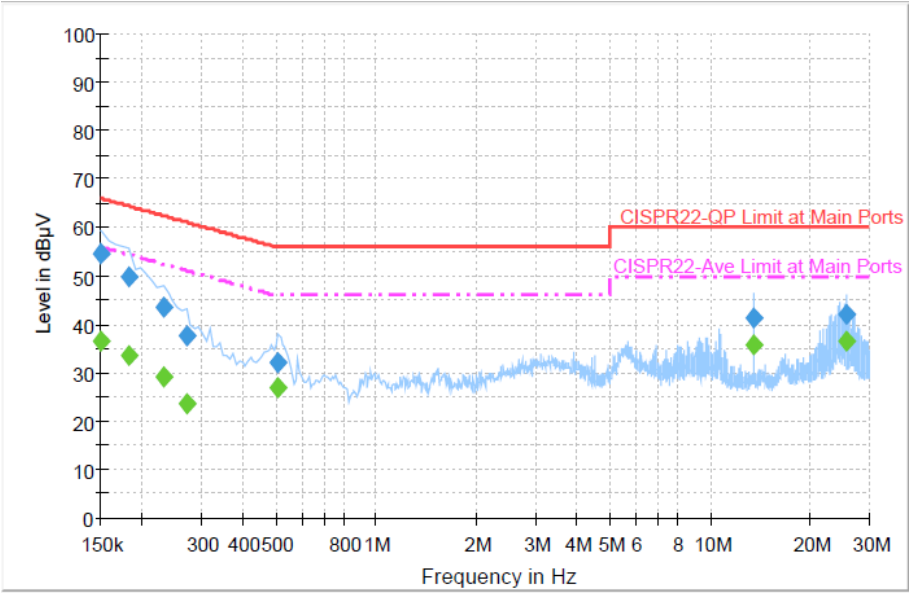
Final Result : QuasiPeak

Frequency (MHz)	QuasiPeak (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.158000	54.9	Off	L1	19.3	10.7	65.6
0.198000	47.8	Off	L1	19.3	15.9	63.7
0.270000	37.1	Off	L1	19.3	24.0	61.1
0.510000	32.1	Off	L1	19.4	23.9	56.0
10.638000	35.8	Off	L1	19.7	24.2	60.0
13.558000	40.4	Off	L1	19.8	19.6	60.0
25.574000	41.5	Off	L1	19.9	18.5	60.0

Final Result : Average

Frequency (MHz)	Average (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.158000	38.9	Off	L1	19.3	26.7	55.6
0.198000	32.7	Off	L1	19.3	21.0	53.7
0.270000	22.9	Off	L1	19.3	28.2	51.1
0.510000	27.0	Off	L1	19.4	19.0	46.0
10.638000	29.2	Off	L1	19.7	20.8	50.0
13.558000	35.5	Off	L1	19.8	14.5	50.0
25.574000	36.2	Off	L1	19.9	13.8	50.0

Test Mode :	Mode 3	Temperature :	20~22℃
Test Engineer :	Slash Huang	Relative Humidity :	45~47%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral
Function Type :	LTE Band 5 Idle + WLAN (5G) Link + Bluetooth Link + NFC active + USB Cable (USB File transfer) + Battery 1 for Sample 2		



Final Result : QuasiPeak

Frequency (MHz)	QuasiPeak (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.150000	54.5	Off	N	19.4	11.5	66.0
0.182000	49.9	Off	N	19.4	14.5	64.4
0.230000	43.7	Off	N	19.4	18.7	62.4
0.270000	37.6	Off	N	19.4	23.5	61.1
0.510000	32.2	Off	N	19.4	23.8	56.0
13.558000	41.3	Off	N	19.9	18.7	60.0
25.574000	42.0	Off	N	20.0	18.0	60.0

Final Result : Average

Frequency (MHz)	Average (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.150000	36.7	Off	N	19.4	19.3	56.0
0.182000	33.5	Off	N	19.4	20.9	54.4
0.230000	29.1	Off	N	19.4	23.3	52.4
0.270000	23.5	Off	N	19.4	27.6	51.1
0.510000	27.0	Off	N	19.4	19.0	46.0
13.558000	35.8	Off	N	19.9	14.2	50.0
25.574000	36.6	Off	N	20.0	13.4	50.0

3.7 Frequency Stability Measurement

3.7.1 Limit of Frequency Stability

Manufacturers of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual.

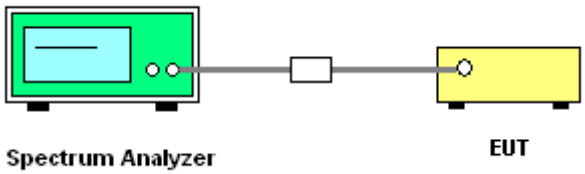
3.7.2 Measuring Instruments

See list of measuring instruments of this test report.

3.7.3 Test Procedures

1. To ensure emission at the band edge is maintained within the authorized band, those values shall be measured by radiation emissions at upper and lower frequency points, and finally compensated by frequency deviation as procedures below.
2. The EUT was operated at the maximum output power, and connected to the spectrum analyzer, which is set to maximum hold function and peak detector. The peak value of the power envelope was measured and noted. The upper and lower frequency points were respectively measured relatively 10dB lower than the measured peak value.
3. The frequency deviation was calculated by adding the upper frequency point and the lower frequency point divided by two. Those detailed values of frequency deviation are provided in table below.

3.7.4 Test Setup



3.7.5 Test Result of Frequency Stability

Test Band :	5GHz band 1,2,3	Temperature :	24~26℃
Test Engineer :	Coyote Lin	Relative Humidity :	55~58%

Mod.	Data Rate	N_{TX}	Channel	Frequency (MHz)	Low Frequency (MHz)	High Frequency (MHz)	Mid Frequency (MHz)	Frequency Stability (ppm)
11a	6Mbps	1	36	5180	5171.70	5188.30	5180.00	0.00
11a	6Mbps	1	44	5220	5211.70	5228.30	5220.00	0.00
11a	6Mbps	1	48	5240	5231.70	5248.30	5240.00	0.00
HT20	MCS0	1	36	5180	5171.15	5188.90	5180.03	4.83
HT20	MCS0	1	44	5220	5211.15	5228.90	5220.03	4.79
HT20	MCS0	1	48	5240	5231.10	5248.95	5240.03	4.77
HT40	MCS0	1	38	5190	5171.82	5208.36	5190.09	17.34
HT40	MCS0	1	46	5230	5211.73	5248.18	5229.96	-8.60

Mod.	Data Rate	N_{TX}	Channel	Freq. (MHz)	Low Frequency (MHz)	High Frequency (MHz)	Mid Frequency (MHz)	Frequency Stability (ppm)
11a	6Mbps	1	52	5260	5251.70	5268.30	5260.00	0.00
11a	6Mbps	1	60	5300	5291.70	5308.25	5299.98	-4.72
11a	6Mbps	1	64	5320	5311.75	5328.25	5320.00	0.00
HT20	MCS0	1	52	5260	5251.10	5268.90	5260.00	0.00
HT20	MCS0	1	60	5300	5291.15	5308.90	5300.03	4.72
HT20	MCS0	1	64	5320	5311.15	5328.90	5320.03	4.70
HT40	MCS0	1	54	5270	5251.73	5288.27	5270.00	0.00
HT40	MCS0	1	62	5310	5291.73	5328.18	5309.96	-8.47

Mod.	Data Rate	N_{TX}	Channel	Freq. (MHz)	Low Frequency (MHz)	High Frequency (MHz)	Mid Frequency (MHz)	Frequency Stability (ppm)
11a	6Mbps	1	100	5500	5491.70	5508.30	5500.00	0.00
11a	6Mbps	1	116	5580	5571.75	5588.25	5580.00	0.00
11a	6Mbps	1	140	5700	5691.70	5708.30	5700.00	0.00
HT20	MCS0	1	100	5500	5491.15	5508.95	5500.05	9.09
HT20	MCS0	1	116	5580	5571.15	5588.95	5580.05	8.96
HT20	MCS0	1	140	5700	5691.10	5708.90	5700.00	0.00
HT40	MCS0	1	102	5510	5491.82	5528.36	5510.09	16.33
HT40	MCS0	1	110	5550	5531.82	5568.27	5550.05	8.11
HT40	MCS0	1	134	5670	5651.91	5688.27	5670.09	15.87

Note: Mid Frequency = (Low Frequency + High Frequency) / 2.

3.8 Automatically Discontinue Transmission

3.8.1 Limit of Automatically Discontinue Transmission

The device shall automatically discontinue transmission in case of either absence of information to transmit or operational failure. These provisions are not intended to preclude the transmission of control or signaling information or the use of repetitive codes used by certain digital technologies to complete frame or burst intervals. Applicants shall include in their application for equipment authorization to describe how this requirement is met.

3.8.2 Measuring Instruments

See list of measuring instruments of this test report.

3.8.3 Test Result of Automatically Discontinue Transmission

During no any information transmission, the EUT can automatically discontinue transmission and become standby mode for power saving. The EUT can detect the controlling signal of ACK message transmitting from remote device and verify whether it shall resend or discontinue transmission.

3.9 Antenna Requirements

3.9.1 Standard Applicable

According to FCC 47 CFR Section 15.407(a)(1)(2) ,if transmitting antenna directional gain is greater than 6 dBi, both the peak transmit power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

3.9.2 Antenna Connected Construction

Non-standard connector used.

3.9.3 Antenna Gain

The antenna gain is less than 6 dBi. Therefore, it is not necessary to reduce maximum peak output power limit.

4 List of Measuring Equipments

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Spectrum Analyzer	Rohde & Schwarz	FSP40	100055	9kHz ~ 40GHz	Jun. 07, 2013	Jun. 23, 2013~ Jul. 22, 2013	Jun. 06, 2014	Conducted (TH02-HY)
Power Meter	Anritsu	ML2495A	1036004	300MHz ~ 40GHz	Sep. 08, 2012	Jun. 23, 2013~ Jul. 22, 2013	Sep. 07, 2013	Conducted (TH02-HY)
Power Sensor	Anritsu	MA2411B	1027253	300MHz ~ 40GHz	Sep. 08, 2012	Jun. 23, 2013~ Jul. 22, 2013	Sep. 07, 2013	Conducted (TH02-HY)
EMI Test Receiver	Rohde & Schwarz	ESCS 30	100356	9kHz ~ 2.75GHz	Nov. 13, 2012	Jun. 13, 2013	Nov. 12, 2013	Conduction (CO05-HY)
Two-LISN (for auxiliary equipment)	Rohde & Schwarz	ENV216	100081	9kHz ~ 30MHz	Dec. 12, 2012	Jun. 13, 2013	Dec. 11, 2013	Conduction (CO05-HY)
Two-LISN	Rohde & Schwarz	ENV216	100080	9kHz ~ 30MHz	Dec. 06, 2012	Jun. 13, 2013	Dec. 05, 2013	Conduction (CO05-HY)
AC Power Source	APC	APC-1000W	N/A	N/A	N/A	Jun. 13, 2013	N/A	Conduction (CO05-HY)
Spectrum Analyzer	Rohde & Schwarz	FSP30	101067	9kHz ~ 30GHz	Nov. 30, 2012	Jul. 05, 2013~ Jul. 08, 2013	Nov. 29, 2013	Radiation (03CH07-HY)
EMI Test Receiver	Rohde & Schwarz	ESCI 7	100724	9kHz ~ 7GHz	Sep. 03, 2012	Jul. 05, 2013~ Jul. 08, 2013	Sep. 02, 2013	Radiation (03CH07-HY)
Bilog Antenna	Schaffner	CBL6111C	2726	30MHz ~1GHz	Oct. 06, 2012	Jul. 05, 2013~ Jul. 08, 2013	Oct. 05, 2013	Radiation (03CH07-HY)
Double Ridge Horn Antenna	ESCO	3117	75962	1GHz ~18GHz	Aug. 22, 2012	Jul. 05, 2013~ Jul. 08, 2013	Aug. 21, 2013	Radiation (03CH07-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170251	18GHz ~ 40GHz	Sep. 28, 2012	Jul. 05, 2013~ Jul. 08, 2013	Sep. 27, 2013	Radiation (03CH07-HY)
Preamplifier	COM-POWER	PA-103A	161241	30MHz ~ 1GHz	Feb. 26, 2013	Jul. 05, 2013~ Jul. 08, 2013	Feb. 25, 2014	Radiation (03CH07-HY)
Preamplifier	Agilent	8449B	3008A02362	1GHz ~ 26.5GHz	Dec. 01, 2012	Jul. 05, 2013~ Jul. 08, 2013	Nov. 30, 2013	Radiation (03CH07-HY)
Preamplifier	MITEQ	AMF-7D-00101800-30-10P	159088	DC ~ 18GHz High Gain	Feb. 27, 2013	Jul. 05, 2013~ Jul. 08, 2013	Feb. 26, 2014	Radiation (03CH07-HY)
Turn Table	ChainTek	ChainTek 3000	N/A	0 ~ 360 degree	N/A	Jul. 05, 2013~ Jul. 08, 2013	N/A	Radiation (03CH07-HY)
Antenna Mast	ChainTek	ChainTek 3000	N/A	N/A	N/A	Jul. 05, 2013~ Jul. 08, 2013	N/A	Radiation (03CH07-HY)
Loop Antenna	Rohde & Schwarz	HFH2-Z2	860004/0001	9kHz ~ 30MHz	Jul. 03, 2012	Jul. 05, 2013~ Jul. 08, 2013	Jul. 03, 2014	Radiation (03CH07-HY)

5 Uncertainty of Evaluation

Uncertainty of Conducted Emission Measurement (150kHz ~ 30MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**2.26**

Uncertainty of Radiated Emission Measurement (30MHz ~ 1000MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**2.54**

Uncertainty of Radiated Emission Measurement (1GHz ~ 40GHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**4.72**