



FCC RF Test Report

APPLICANT : Yulong Computer Telecommunication
Scientific (Shenzhen) Co., Ltd.

EQUIPMENT : Mobile Phone

BRAND NAME : Vodafone Smart 4G/Smartphone Android™
by SFR STARADDICT III

MODEL NAME : Coolpad 8860U/Coolpad 8861U

MARKETING NAME : Vodafone Smart 4G/Smartphone Android™
by SFR STARADDICT III

FCC ID : R38YL8860U

STANDARD : FCC Part 15 Subpart C §15.247

CLASSIFICATION : (DTS) Digital Transmission System

The product was received on Apr. 04, 2013 and testing was completed on Sep. 05, 2013. We, SPORTON INTERNATIONAL (SHENZHEN) INC., would like to declare that the tested sample has been evaluated in accordance with the procedures and shown to be compliant with the applicable technical standards.

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



Reviewed by: Joseph Lin / Supervisor

Approved by: Jones Tsai / Manager



SPORTON INTERNATIONAL (SHENZHEN) INC.

**No. 3 Building, the third floor of south, Shahe River west, Fengzeyuan warehouse, Nanshan District,
Shenzhen, Guangdong, P.R.C.**



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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FR340403C	Rev. 01	Initial issue of report	Sep. 11, 2013

SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.1	15.247(a)(2)	6dB Bandwidth	$\geq 0.5\text{MHz}$	Pass	-
3.2	15.247(b)	Power Output Measurement	$\leq 30\text{dBm}$	Pass	-
3.3	15.247(e)	Power Spectral Density	$\leq 8\text{dBm}/3\text{kHz}$	Pass	-
3.4	15.247(d)	Conducted Band Edges	$\leq 20\text{dBc}$	Pass	-
		Conducted Spurious Emission		Pass	-
3.5	15.247(d)	Radiated Band Edges and Radiated Spurious Emission	15.209(a) & 15.247(d)	Pass	Under limit 3.16 dB at 2388.840 MHz
3.6	15.207	AC Conducted Emission	15.207(a)	Pass	Under limit 6.12 dB at 0.440 MHz
3.7	15.203 & 15.247(b)	Antenna Requirement	N/A	Pass	-

1 General Description

1.1 Applicant

Yulong Computer Telecommunication Scientific (Shenzhen) Co., Ltd.

Coolpad Information Harbor, 2nd Mengxi Road, Northern Part of Science&Technology Park, Nanshan district, Shenzhen, P.R.China

1.2 Manufacturer

Yulong Computer Telecommunication Scientific (Shenzhen) Co., Ltd.

Coolpad Information Harbor, 2nd Mengxi Road, Northern Part of Science&Technology Park, Nanshan district, Shenzhen, P.R.China

1.3 Feature of Equipment Under Test

Product Feature	
Equipment	Mobile Phone
Brand Name	Vodafone Smart 4G/Smartphone Android™ by SFR STARADDICT III
Model Name	Coolpad 8860U/Coolpad 8861U
Marketing Name	Vodafone Smart 4G/Smartphone Android™ by SFR STARADDICT III
FCC ID	R38YL8860U
EUT supports Radios application	GSM/GPRS/EGPRS/LTE/WLAN 802.11abgn HT 20/ Bluetooth v3.0 + EDR/Bluetooth v4.0/NFC
HW Version	T3
SW Version	082.12.T3.130819.CP8860U (for Vodafone Smart 4G) 082.12.T3.130819.CP8861U (for Smartphone Android™ by SFR STARADDICT III)
EUT Stage	Production Unit

Remark:

1. The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.
2. There are two types of EUT for this project. The differences between them are summary below:

Sample List	Function Type	Brand name	Model name
Sample 1	With NFC	Vodafone Smart 4G	Coolpad 8860U
Sample 2	With NFC	Smartphone Android™ by SFR STARADDICT III	Coolpad 8861U

Sample 1 and sample 2 are identical on hardware. The only difference is for different market purpose. In this report, we use with sample 1 to perform the test.

1.4 Product Specification of Equipment Under Test

Product Specification subjective to this standard	
Tx/Rx Channel Frequency Range	802.11b/g/n : 2412 MHz ~ 2462 MHz 802.11a/n: 5745~5805MHz.
Maximum Output Power to Antenna	<2412 MHz ~ 2462 MHz> 802.11b : 19.43 dBm (0.0877 W) 802.11g : 21.87 dBm (0.1538 W) 802.11n HT20 : 21.91 dBm (0.1552 W) <5745 MHz ~ 5805 MHz> 802.11a : 20.42 dBm (0.1102 W) 802.11n HT20 : 20.31 dBm (0.1074 W)
Antenna Type	802.11b/g/n : PIFA Antenna with gain -0.90 dBi 802.11a/n : PIFA Antenna with gain -1.70 dBi
Type of Modulation	802.11b : DSSS (DBPSK / DQPSK / CCK) 802.11a/g/n : OFDM (BPSK / QPSK / 16QAM / 64QAM)

1.5 Modification of EUT

No modifications are made to the EUT during all test items.

1.6 Testing Site

Test Site	SPORTON INTERNATIONAL (SHENZHEN) INC.			
Test Site Location	No. 3 Building, the third floor of south, Shahe River west, Fengzeyuan warehouse, Nanshan District, Shenzhen, Guangdong, P.R.C. TEL: +86-755-3320-2398			
Test Site No.	Sporton Site No.			FCC Registration No.
	TH01-SZ	CO01-SZ	03CH01-SZ	831040

Note: The test site complies with ANSI C63.4 2003 requirement.

1.7 Applied Standards

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

- FCC Part 15 Subpart C §15.247
- FCC KDB Publication No. 558074 D01 DTS Meas. Guidance v03r01
- 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. The worst cases (Y plane) were 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 Channel

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
2400-2483.5 MHz	1	2412	7	2442
	2	2417	8	2447
	3	2422	9	2452
	4	2427	10	2457
	5	2432	11	2462
	6	2437		

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
5725-5850 MHz Band 4	149	5745	159	5795
	151	5755	161	5805
	153	5765	-	-
	157	5785	-	-

2.2 Pre-Scanned RF Power

Preliminary tests were performed in different data rate and the highest data rates of peak power were chosen for full test shown in the following tables.

Channel	Frequency	2.4GHz 802.11b RF Power (dBm)			
		DSSS Data Rate			
		1 Mbps	2 Mbps	5.5 Mbps	11 Mbps
CH 01	2412 MHz	18.22	18.06	18.17	18.19
CH 06	2437 MHz	18.63	18.60	18.61	18.60
CH 11	2462 MHz	19.43	19.36	19.35	19.40

Channel	Frequency	2.4GHz 802.11g RF Power (dBm)							
		OFDM Data Rate							
		6 Mbps	9 Mbps	12 Mbps	18 Mbps	24 Mbps	36 Mbps	48 Mbps	54 Mbps
CH 01	2412 MHz	21.11	21.13	21.15	21.2	21.23	21.26	21.27	21.29
CH 06	2437 MHz	21.45	21.5	21.56	21.59	21.68	21.63	21.68	21.74
CH 11	2462 MHz	21.64	21.68	21.74	21.75	21.8	21.79	21.85	21.87

Channel	Frequency	2.4GHz 802.11n HT20 RF Power (dBm)							
		OFDM Data Rate							
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
CH 01	2412 MHz	21.19	21.21	21.24	21.27	21.25	21.29	21.32	21.34
CH 06	2437 MHz	21.54	21.56	21.55	21.58	21.56	21.59	21.60	21.62
CH 11	2462 MHz	21.74	21.77	21.79	21.85	21.86	21.84	21.88	21.91



Channel	Frequency	5GHz 802.11a RF Power (dBm)							
		OFDM Data Rate							
		6 Mbps	9 Mbps	12 Mbps	18 Mbps	24 Mbps	36 Mbps	48 Mbps	54 Mbps
CH 149	5745 MHz	20.15	20.19	20.21	20.25	20.27	20.29	20.31	20.35
CH 157	5785 MHz	19.85	19.88	19.95	19.99	20.05	20.08	20.15	20.17
CH 161	5805 MHz	20.22	20.24	20.26	20.29	20.32	20.33	20.38	20.42

Channel	Frequency	5GHz 802.11n HT20 RF Power (dBm)							
		OFDM Data Rate							
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
CH 149	5745 MHz	20.20	20.22	20.23	20.27	20.25	20.24	20.25	20.26
CH 157	5785 MHz	19.96	19.99	20.02	20.06	20.10	20.08	20.12	20.15
CH 161	5805 MHz	20.23	20.21	20.25	20.28	20.29	20.28	20.29	20.31



2.3 Test Mode

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

<2.4GHz>

Test Cases				
	Test Items	Mode	Data Rate	Test Channel
Conducted TCs	6dB BW Power Spectral Density	802.11b	1 Mbps	1/6/11
		802.11g	54 Mbps	1/6/11
		802.11n HT20	MCS7	1/6/11
	Output Power	802.11b	1 Mbps	1/6/11
		802.11g	54 Mbps	1/6/11
		802.11n HT20	MCS7	1/6/11
	Conducted Band Edge	802.11b	1 Mbps	1/11
		802.11g	54 Mbps	1/11
		802.11n HT20	MCS7	1/11
	Conducted Spurious Emission	802.11b	1 Mbps	1/6/11
		802.11g	54 Mbps	1/6/11
		802.11n HT20	MCS7	1/6/11
Radiated TCs	Radiated Band Edge	802.11b	1 Mbps	1/11
		802.11g	54 Mbps	1/11
		802.11n HT20	MCS7	1/11
	Radiated Spurious Emission	802.11b	1 Mbps	1/6/11
		802.11g	54 Mbps	1/6/11
		802.11n HT20	MCS7	1/6/11



<5GHz>

Test Cases				
	Test Items	Mode	Data Rate	Test Channel
Conducted TCs	6dB BW Power Spectral Density	802.11a	54 Mbps	149/157/161
		802.11n HT20	MCS7	149/157/161
	Output Power	802.11a	54 Mbps	149/157/161
		802.11n HT20	MCS7	149/157/161
	Conducted Band Edge	802.11a	54 Mbps	149/161
		802.11n HT20	MCS7	149/161
	Conducted Spurious Emission	802.11a	54 Mbps	149/157/161
		802.11n HT20	MCS7	149/157/161
Radiated TCs	Radiated Band Edge	802.11a	54 Mbps	149/161
		802.11n HT20	MCS7	149/161
	Radiated Spurious Emission	802.11a	54 Mbps	149/157/161
		802.11n HT20	MCS7	149/157/161

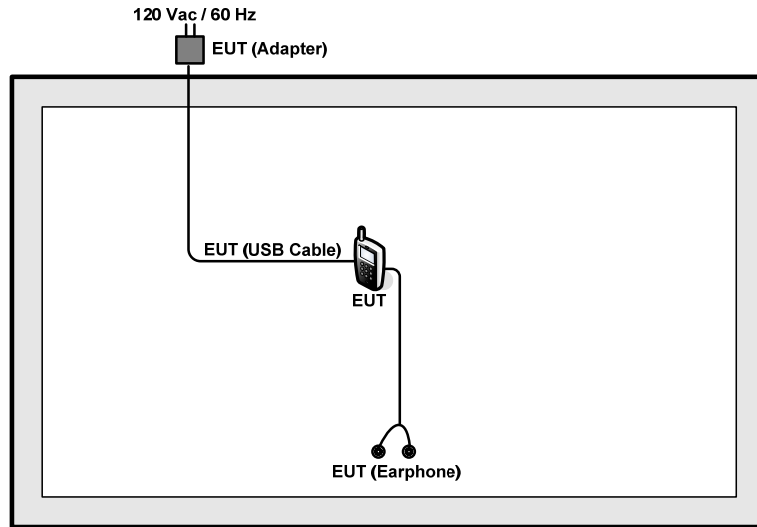
Test Cases	
AC Conducted Emission	Mode 1 : GSM1900 Idle + WLAN (2.4GHz) Link + Bluetooth Link + USB Cable (Charging from Adapter) + Earphone + NFC on + Battery 1
	Mode 2 : GSM1900 Idle + WLAN (5GHz) Link + Bluetooth Link + USB Cable (Charging from Adapter) + Earphone + Battery 2

Remark:

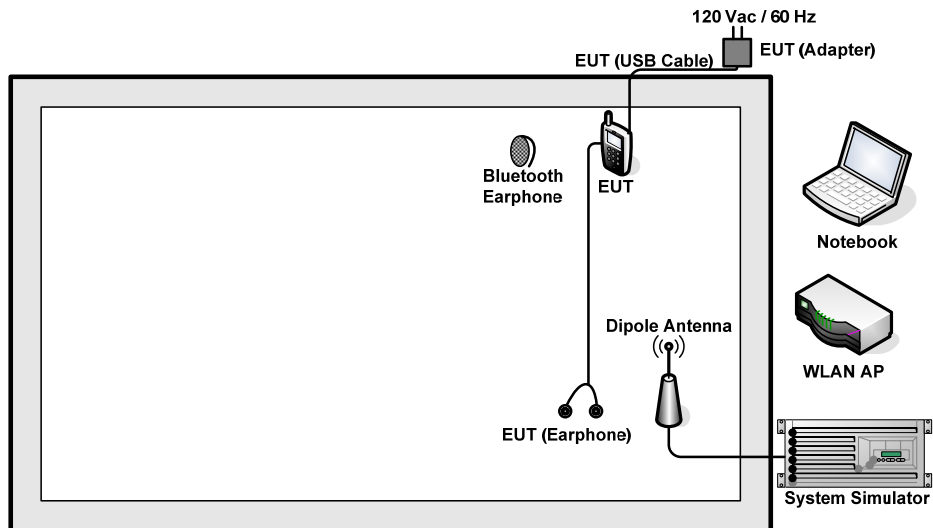
1. The worst case of conducted emission is mode 1; only the test data of it was reported.
2. For Radiated TCs, all the test modes are performed with Battery 1, only the worst mode (802.11n HT20 CH01) based on Battery 1 need to verify Battery 2.

2.4 Connection Diagram of Test System

<WLAN Tx Mode>



<AC Conducted Emission Mode>



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	Agilent	E5515C	N/A	N/A	Unshielded, 1.8 m
2.	DC Power Supply	TOPWORD	3303DR	N/A	N/A	Unshielded, 1.8 m
3.	WLAN AP	LINKSYS	WRT600N	Q87-WRT600NV11	N/A	Unshielded, 1.8 m
4.	Notebook	DELL	P08S	QDS-BRCM1030	N/A	AC I/P: Unshielded, 1.8 m DC O/P: Shielded, 1.8 m
5.	Bluetooth Earphone	Nokia	BH-102	PYAHS-107W	N/A	N/A

2.6 Description of RF Function Operation Test Setup

For WLAN RF test items, an engineering test program was provided and enabled to make EUT continuous transmit/receive.

For AC power line conducted emissions, the EUT was set to connect with the WLAN AP under large package sizes transmission.

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 7.5 dB and 10dB attenuator.

$$\begin{aligned}
 \text{Offset(dB)} &= \text{RF cable loss(dB)} + \text{attenuator factor(dB)}. \\
 &= 7.5 + 10 = 17.5 \text{ (dB)}
 \end{aligned}$$

3 Test Result

3.1 6dB Bandwidth Measurement

3.1.1 Limit of 6dB Bandwidth

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

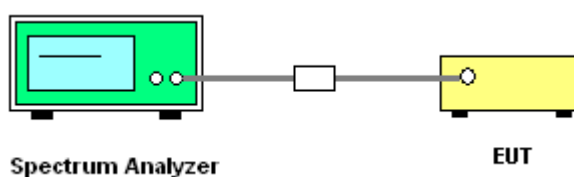
3.1.2 Measuring Instruments

See list of measuring instruments of this test report.

3.1.3 Test Procedures

1. The testing follows FCC KDB Publication No. 558074 DTS D01 Meas. Guidance v03r01.
2. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
3. Set to the maximum power setting and enable the EUT transmit continuously.
4. Make the measurement with the spectrum analyzer's resolution bandwidth (RBW) = 100 kHz. Set the Video bandwidth (VBW) = 300 kHz. In order to make an accurate measurement. The 6 dB bandwidth must be greater than 500 kHz.
5. Measure and record the results in the test report.

3.1.4 Test Setup



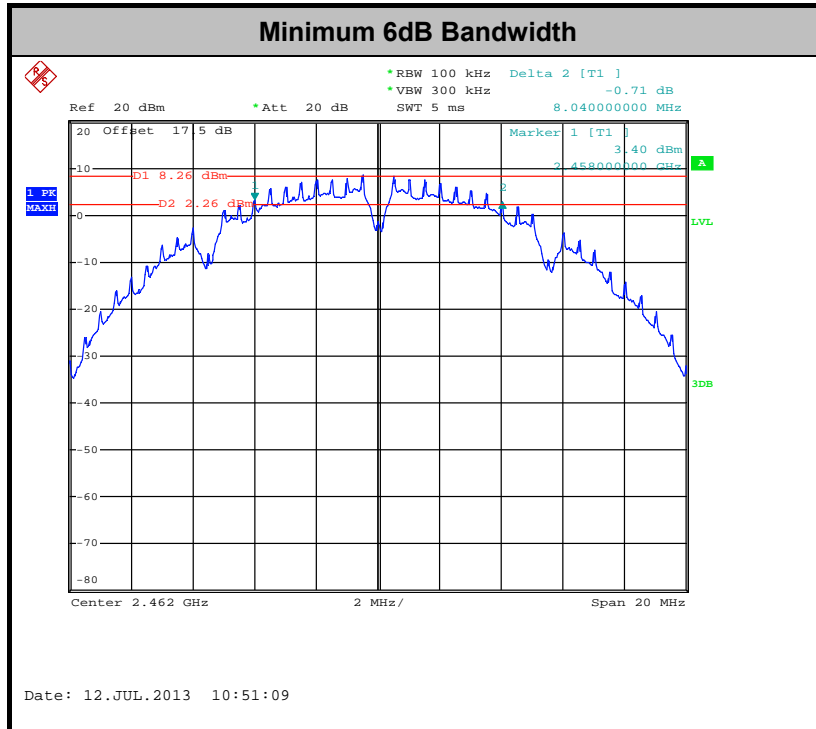


3.1.5 Test Result of 6dB Occupied Bandwidth

Test Band :	2.4GHz + 5GHz band 4	Temperature :	24~26°C
Test Engineer :	Fly Chen	Relative Humidity :	50~53%

Mod.	Data Rate	N _{TX}	Channel	Freq. (MHz)	6dB Bandwidth (MHz)	6dB Bandwidth Min. Limit (MHz)	Pass/Fail
11b	1Mbps	1	1	2412	9.00	0.5	Pass
11b	1Mbps	1	6	2437	8.52	0.5	Pass
11b	1Mbps	1	11	2462	8.04	0.5	Pass
11g	54Mbps	1	1	2412	16.52	0.5	Pass
11g	54Mbps	1	6	2437	16.48	0.5	Pass
11g	54Mbps	1	11	2462	16.40	0.5	Pass
HT20	MCS7	1	1	2412	17.68	0.5	Pass
HT20	MCS7	1	6	2437	17.74	0.5	Pass
HT20	MCS7	1	11	2462	17.68	0.5	Pass

Mod.	Data Rate	N _{TX}	Channel	Freq. (MHz)	6dB Bandwidth (MHz)	6dB Bandwidth Min. Limit (MHz)	Pass/Fail
11a	54Mbps	1	149	5745	16.52	0.5	Pass
11a	54Mbps	1	157	5785	16.52	0.5	Pass
11a	54Mbps	1	161	5805	16.48	0.5	Pass
HT20	MCS7	1	149	5745	17.72	0.5	Pass
HT20	MCS7	1	157	5785	17.72	0.5	Pass
HT20	MCS7	1	161	5805	17.66	0.5	Pass



3.2 Output Power Measurement

3.2.1 Limit of Output Power

For systems using digital modulation in the 2400-2483.5MHz and 5725-5850MHz, the limit for peak output power is 30dBm. If transmitting Antenna of directional gain greater than 6dBi are used the peak output power from the intentional radiator shall be reduced below the above stated value by the amount in dB that the directional gain of the Antenna exceeds 6 dBi. In case of point-to-point operation, the limit has to be reduced by 1dB for every 3dB that the directional gain of the Antenna exceeds 6dBi.

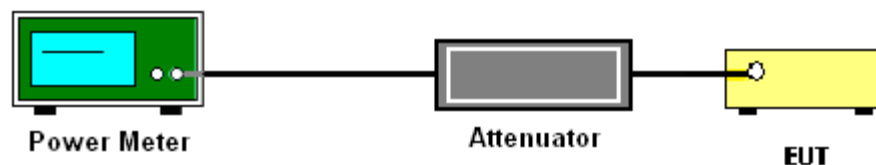
3.2.2 Measuring Instruments

See list of measuring instruments of this test report.

3.2.3 Test Procedures

1. The testing follows the Measurement Procedure of FCC KDB No. 558074 DTS D01 Meas. Guidance v03r01.
2. The RF output of EUT was connected to the power meter by RF cable and attenuator. The path loss was compensated to the results for each measurement.
3. Set to the maximum power setting and enable the EUT transmit continuously.
4. Measure the conducted output power and record the results in the test report.

3.2.4 Test Setup





3.2.5 Test Result of Peak Output Power

Test Mode :	2.4GHz + 5GHz band 4	Temperature :	24~26°C
Test Engineer :	Fly Chen	Relative Humidity :	50~53%

Mod.	Data Rate	N _{TX}	Channel	Freq. (MHz)	RF Output Power (dBm)	Power Limit (dBm)	DG (dBi)	Pass/Fail
11b	1Mbps	1	1	2412	18.22	30	-0.90	Pass
11b	1Mbps	1	6	2437	18.63	30	-0.90	Pass
11b	1Mbps	1	11	2462	19.43	30	-0.90	Pass
11g	54Mbps	1	1	2412	21.29	30	-0.90	Pass
11g	54Mbps	1	6	2437	21.74	30	-0.90	Pass
11g	54Mbps	1	11	2462	21.87	30	-0.90	Pass
HT20	MCS7	1	1	2412	21.34	30	-0.90	Pass
HT20	MCS7	1	6	2437	21.62	30	-0.90	Pass
HT20	MCS7	1	11	2462	21.91	30	-0.90	Pass

Mod.	Data Rate	N _{TX}	Channel	Freq. (MHz)	RF Output Power (dBm)	Power Limit (dBm)	DG (dBi)	Pass/Fail
11a	54Mbps	1	149	5745	20.35	30	-1.70	Pass
11a	54Mbps	1	157	5785	20.17	30	-1.70	Pass
11a	54Mbps	1	161	5805	20.42	30	-1.70	Pass
HT20	MCS7	1	149	5745	20.26	30	-1.70	Pass
HT20	MCS7	1	157	5785	20.15	30	-1.70	Pass
HT20	MCS7	1	161	5805	20.31	30	-1.70	Pass

Note: Measured power (dBm) has offset with cable loss.



3.2.6 Test Result of Average output Power (Reporting Only)

Test Mode :	2.4GHz + 5GHz band 4	Temperature :	24~26°C
Test Engineer :	Fly Chen	Relative Humidity :	50~53%

Mod.	Data Rate	N _{TX}	Channel	Freq. (MHz)	Duty Factor (dB)	Average Output Power (dBm)	Power Limit (dBm)	DG (dBi)	Pass/Fail
11b	1Mbps	1	1	2412	0.10	15.66	30	-0.90	Pass
11b	1Mbps	1	6	2437	0.10	16.42	30	-0.90	Pass
11b	1Mbps	1	11	2462	0.10	16.75	30	-0.90	Pass
11g	54Mbps	1	1	2412	0.58	13.67	30	-0.90	Pass
11g	54Mbps	1	6	2437	0.58	13.97	30	-0.90	Pass
11g	54Mbps	1	11	2462	0.58	14.38	30	-0.90	Pass
HT20	MCS7	1	1	2412	0.63	13.82	30	-0.90	Pass
HT20	MCS7	1	6	2437	0.63	14.11	30	-0.90	Pass
HT20	MCS7	1	11	2462	0.63	14.35	30	-0.90	Pass

Mod.	Data Rate	N _{TX}	Channel	Freq. (MHz)	Duty Factor (dB)	Average Output Power (dBm)	Power Limit (dBm)	DG (dBi)	Pass/Fail
11a	54Mbps	1	149	5745	0.59	13.91	30	-1.70	Pass
11a	54Mbps	1	157	5785	0.59	13.84	30	-1.70	Pass
11a	54Mbps	1	161	5805	0.59	14.11	30	-1.70	Pass
HT20	MCS7	1	149	5745	0.63	13.98	30	-1.70	Pass
HT20	MCS7	1	157	5785	0.63	13.83	30	-1.70	Pass
HT20	MCS7	1	161	5805	0.63	14.02	30	-1.70	Pass

Note: Measured power (dBm) has offset with cable loss and duty factor.

3.3 Power Spectral Density Measurement

3.3.1 Limit of Power Spectral Density

The peak power spectral density shall not be greater than 8dBm in any 3kHz band at any time interval of continuous transmission.

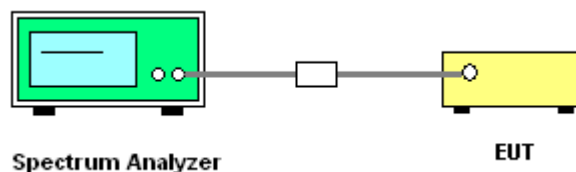
3.3.2 Measuring Instruments

See list of measuring instruments of this test report.

3.3.3 Test Procedures

1. The testing follows Measurement Procedure 10.2 Method PKPSD of FCC KDB Publication No. 558074 D01 DTS Meas. Guidance v03r01
2. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
3. Set to the maximum power setting and enable the EUT transmit continuously.
4. Make the measurement with the spectrum analyzer's resolution bandwidth (RBW) = 3 kHz. Video bandwidth VBW = 10 kHz In order to make an accurate measurement, set the span to 1.5 times DTS Channel Bandwidth. (6dB BW)
5. Detector = peak, Sweep time = auto couple, Trace mode = max hold, Allow trace to fully stabilize. Use the peak marker function to determine the maximum power level.
6. Measure and record the results in the test report.

3.3.4 Test Setup



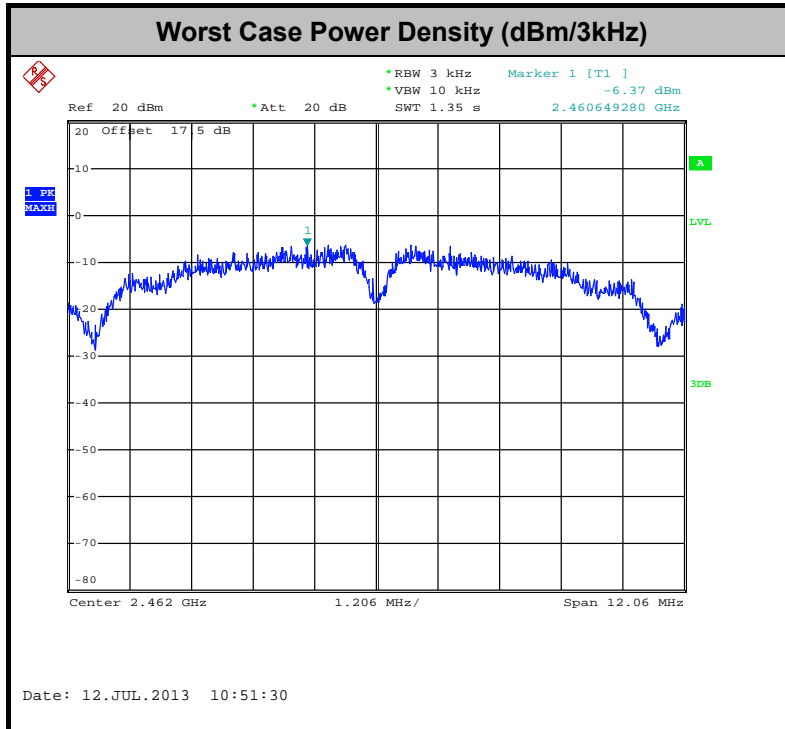
3.3.5 Test Result of Power Spectral Density

Test Mode :	2.4GHz + 5GHz band 4	Temperature :	24~26°C
Test Engineer :	Fly Chen	Relative Humidity :	50~53%

Mod.	Data Rate	N _{TX}	Channel	Freq. (MHz)	Peak Power Density (dBm/3kHz)	Max. Limits (dBm/3kHz)	DG (dBi)	Pass/Fail
11b	1Mbps	1	1	2412	-6.70	8	-0.90	Pass
11b	1Mbps	1	6	2437	-6.87	8	-0.90	Pass
11b	1Mbps	1	11	2462	-6.37	8	-0.90	Pass
11g	54Mbps	1	1	2412	-13.36	8	-0.90	Pass
11g	54Mbps	1	6	2437	-12.42	8	-0.90	Pass
11g	54Mbps	1	11	2462	-12.34	8	-0.90	Pass
HT20	MCS7	1	1	2412	-12.69	8	-0.90	Pass
HT20	MCS7	1	6	2437	-13.04	8	-0.90	Pass
HT20	MCS7	1	11	2462	-13.67	8	-0.90	Pass

Mod.	Data Rate	N _{TX}	Channel	Freq. (MHz)	Peak Power Density (dBm/3kHz)	Max. Limits (dBm/3kHz)	DG (dBi)	Pass/Fail
11a	54Mbps	1	149	5745	-12.09	8	-1.70	Pass
11a	54Mbps	1	157	5785	-11.68	8	-1.70	Pass
11a	54Mbps	1	161	5805	-11.94	8	-1.70	Pass
HT20	MCS7	1	149	5745	-11.24	8	-1.70	Pass
HT20	MCS7	1	157	5785	-11.65	8	-1.70	Pass
HT20	MCS7	1	161	5805	-12.20	8	-1.70	Pass

Note: Measured power density (dBm) has offset with cable loss.



3.4 Conducted Band Edges and Spurious Emission Measurement

3.4.1 Limit of Conducted Band Edges and Spurious Emission Measurement

In any 100 kHz bandwidth outside of the authorized frequency band, the emissions which fall in the non-restricted bands shall be attenuated at least 20 dB / 30dB relative to the maximum PSD level in 100 kHz by RF conducted measurement and radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a).

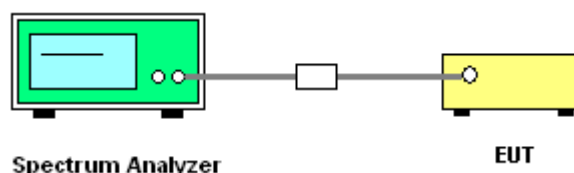
3.4.2 Measuring Instruments

See list of measuring instruments of this test report.

3.4.3 Test Procedures

1. The testing follows FCC KDB Publication No. 558074 D01 DTS Meas. Guidance v03r01.
2. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
3. Set to the maximum power setting and enable the EUT transmit continuously.
4. Set RBW = 100 kHz, VBW=300 kHz, Peak Detector. Unwanted Emissions measured in any 100 kHz bandwidth outside of the authorized frequency band shall be attenuated by at least 20 dB relative to the maximum in-band peak PSD level in 100 kHz when maximum peak conducted output power procedure is used. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, the attenuation required under this paragraph shall be 30 dB instead of 20 dB per 15.247(d).
5. Measure and record the results in the test report.
6. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.

3.4.4 Test Setup

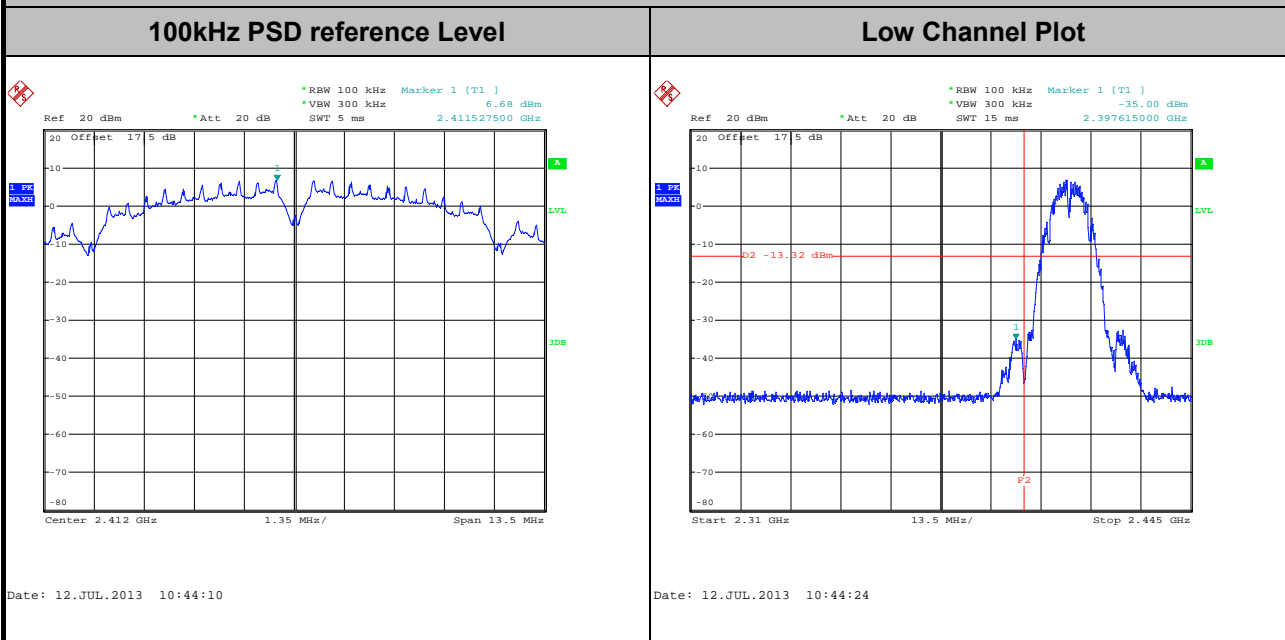




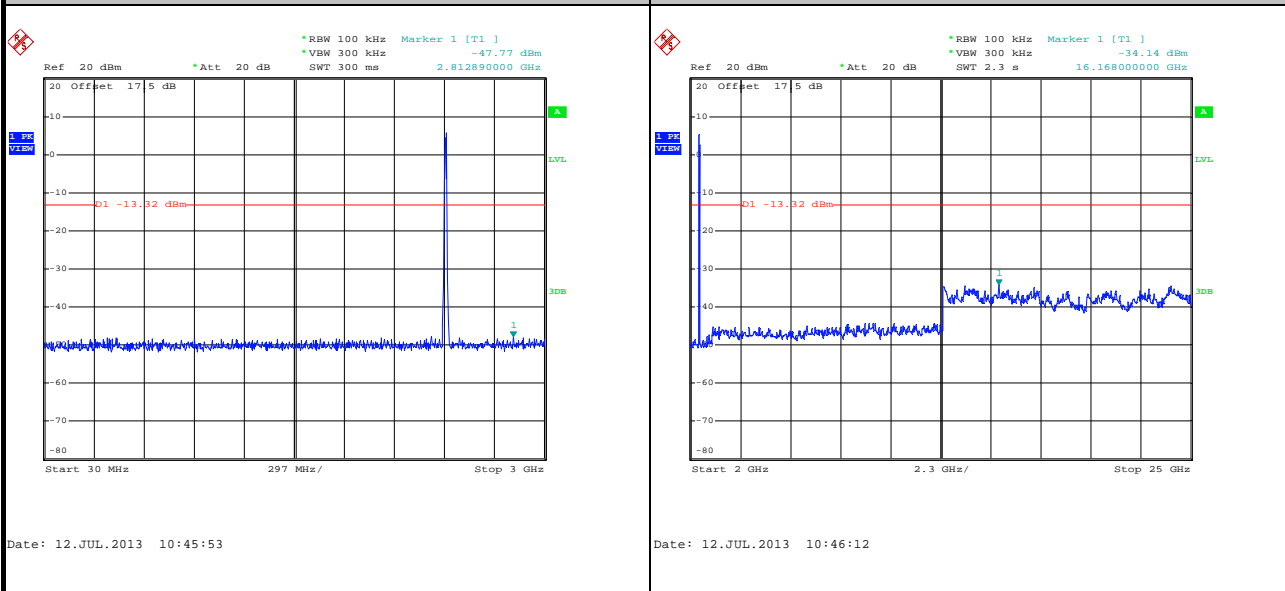
3.4.5 Test Result of Conducted Band Edges and Spurious Emission

Test Mode :	802.11b	Temperature :	24~26°C
Test Band :	2.4GHz Low	Relative Humidity :	50~53%
Test Channel :	01	Test Engineer :	Fly Chen

WLAN 802.11b Channel 01



Spurious Emission 30MHz~3GHz	Spurious Emission 2GHz~25GHz
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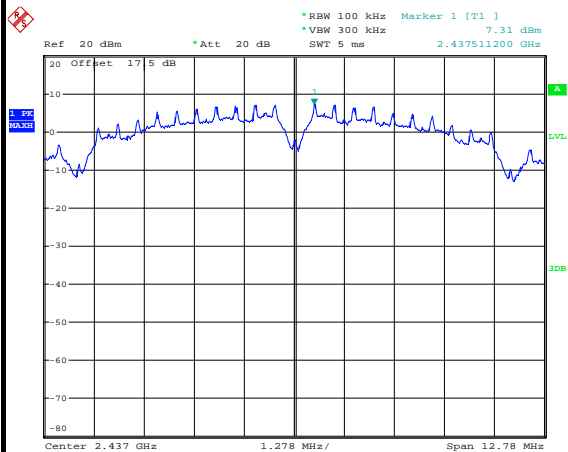




Test Mode :	802.11b	Temperature :	24~26°C
Test Band :	2.4GHz Mid	Relative Humidity :	50~53%
Test Channel :	06	Test Engineer :	Fly Chen

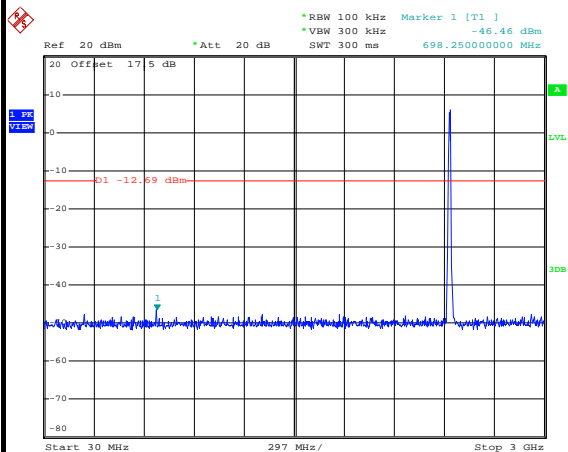
WLAN 802.11b Channel 06

100kHz PSD reference Level



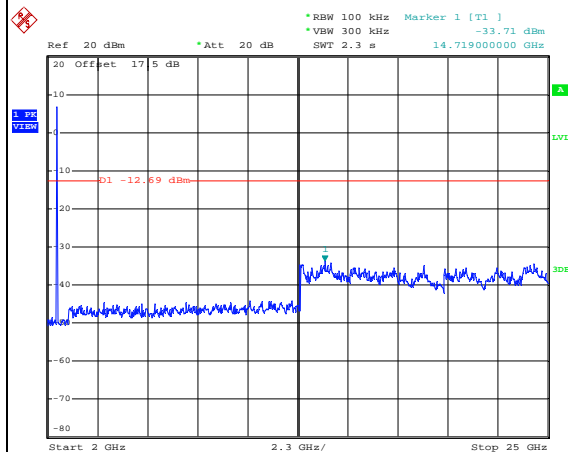
Date: 12.JUL.2013 10:48:26

Spurious Emission 30MHz~3GHz



Date: 12.JUL.2013 10:48:45

Spurious Emission 2GHz~25GHz



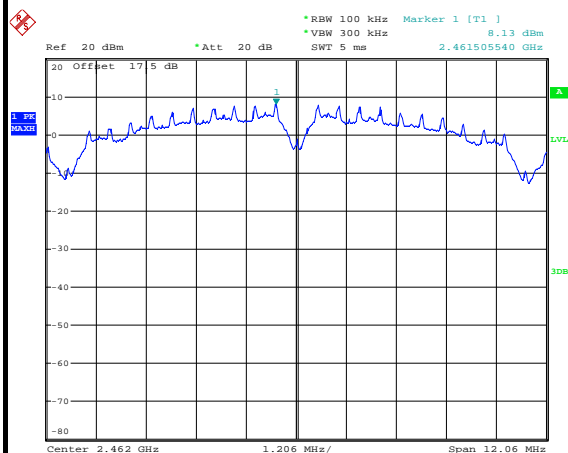
Date: 12.JUL.2013 10:49:04



Test Mode :	802.11b	Temperature :	24~26°C
Test Band :	2.4GHz High	Relative Humidity :	50~53%
Test Channel :	11	Test Engineer :	Fly Chen

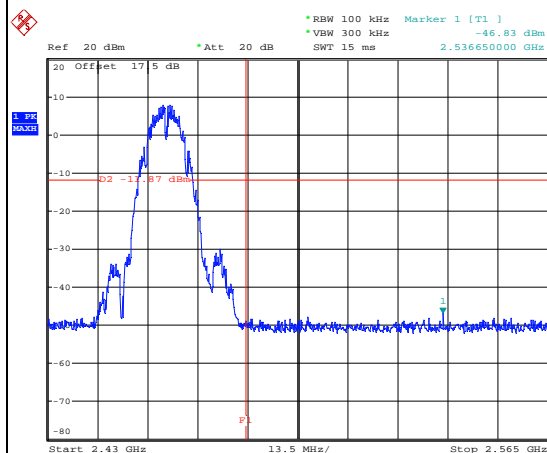
WLAN 802.11b Channel 11

100kHz PSD reference Level



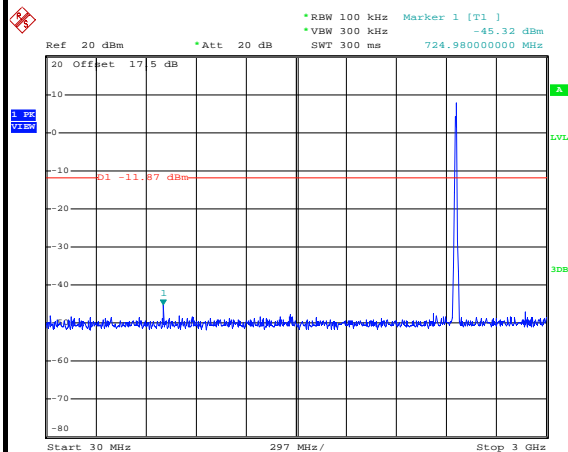
Date: 12.JUL.2013 10:51:39

High Channel Plot



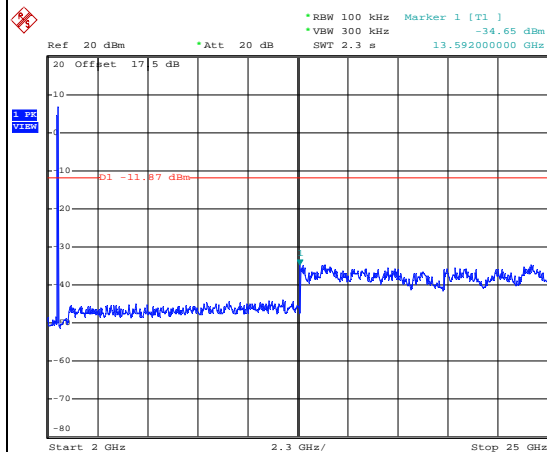
Date: 12.JUL.2013 10:51:53

Spurious Emission 30MHz~3GHz



Date: 12.JUL.2013 10:52:12

Spurious Emission 2GHz~25GHz



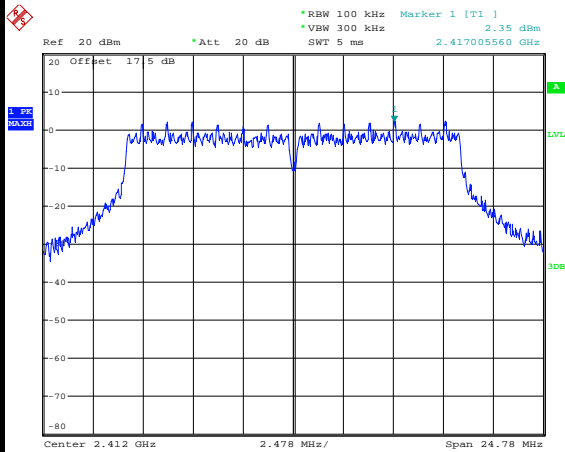
Date: 12.JUL.2013 10:52:31



Test Mode :	802.11g	Temperature :	24~26°C
Test Band :	2.4GHz Low	Relative Humidity :	50~53%
Test Channel :	01	Test Engineer :	Fly Chen

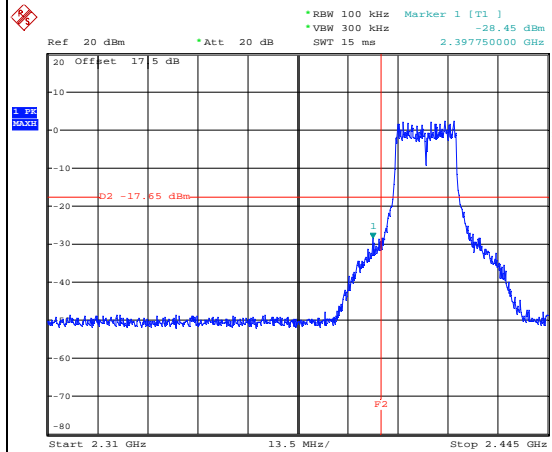
WLAN 802.11g Channel 01

100kHz PSD reference Level



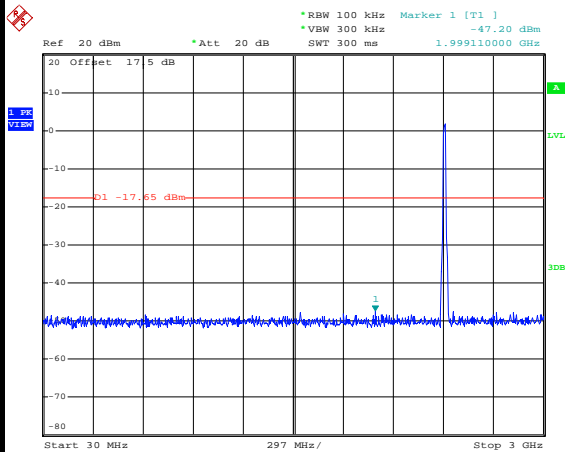
Date: 12.JUL.2013 11:02:11

Low Channel Plot



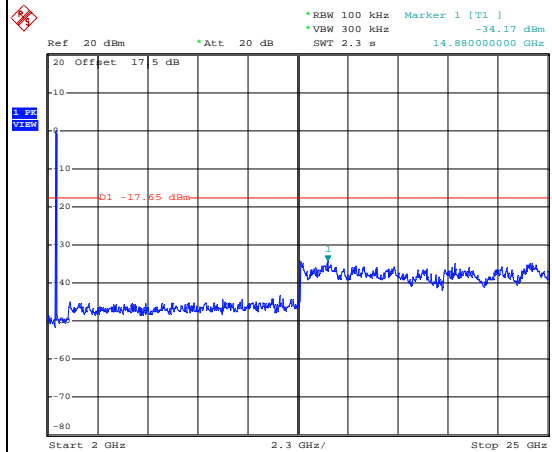
Date: 12.JUL.2013 11:02:25

Spurious Emission 30MHz~3GHz



Date: 12.JUL.2013 11:02:44

Spurious Emission 2GHz~25GHz



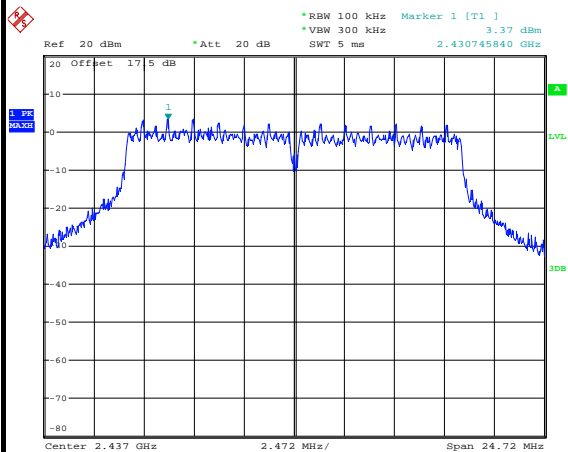
Date: 12.JUL.2013 11:03:03



Test Mode :	802.11g	Temperature :	24~26°C
Test Band :	2.4GHz Mid	Relative Humidity :	50~53%
Test Channel :	06	Test Engineer :	Fly Chen

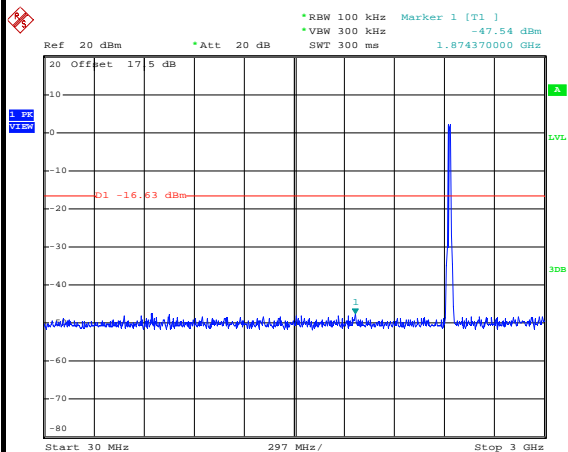
WLAN 802.11g Channel 06

100kHz PSD reference Level



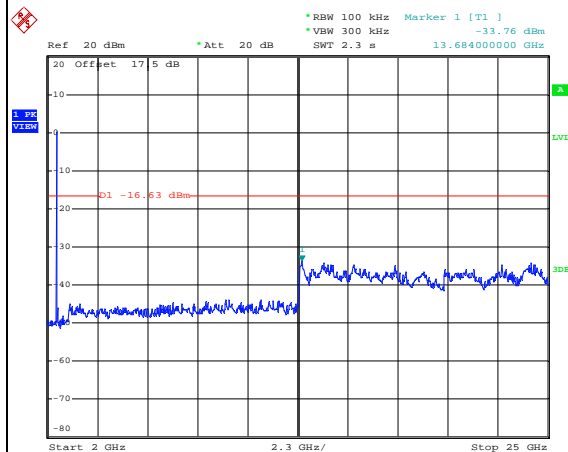
Date: 12.JUL.2013 11:10:51

Spurious Emission 30MHz~3GHz



Date: 12.JUL.2013 11:11:10

Spurious Emission 2GHz~25GHz



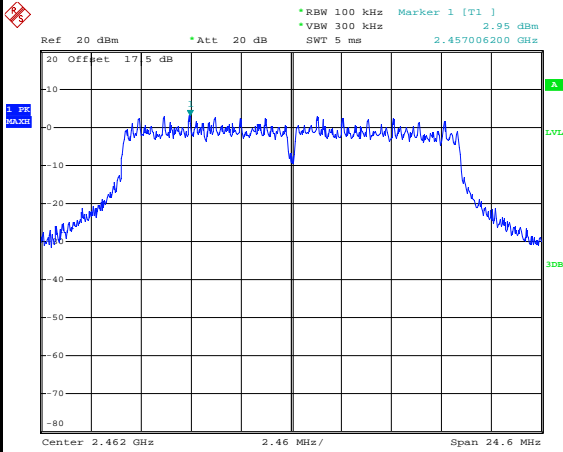
Date: 12.JUL.2013 11:11:29



Test Mode :	802.11g	Temperature :	24~26°C
Test Band :	2.4GHz High	Relative Humidity :	50~53%
Test Channel :	11	Test Engineer :	Fly Chen

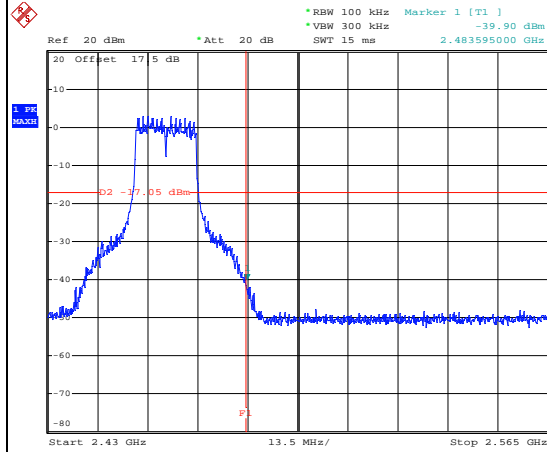
WLAN 802.11g Channel 11

100kHz PSD reference Level



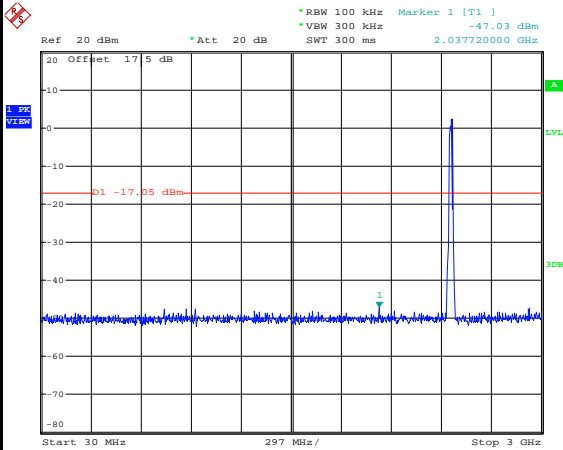
Date: 13.JUL.2013 12:34:48

High Channel Plot



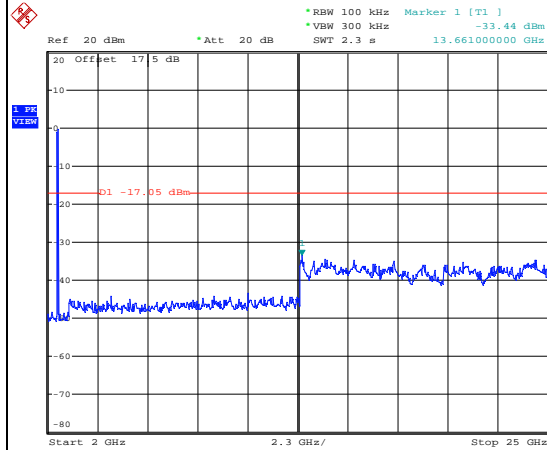
Date: 13.JUL.2013 12:35:02

Spurious Emission 30MHz~3GHz



Date: 13.JUL.2013 15:22:07

Spurious Emission 2GHz~25GHz



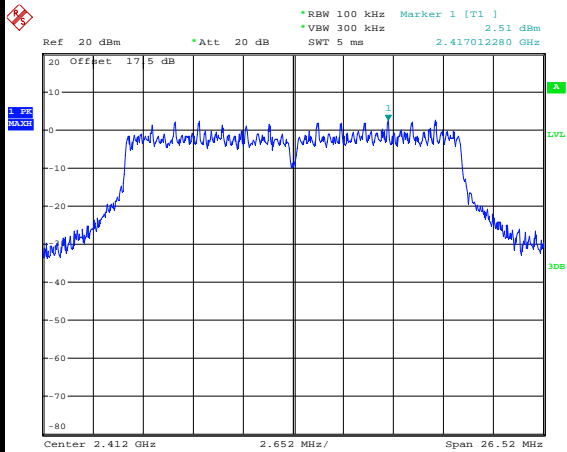
Date: 13.JUL.2013 15:22:26



Test Mode :	802.11n HT20	Temperature :	24~26°C
Test Band :	2.4GHz Low	Relative Humidity :	50~53%
Test Channel :	01	Test Engineer :	Fly Chen

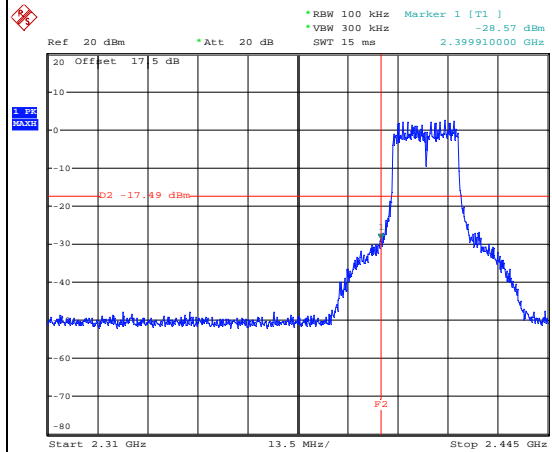
WLAN 802.11n HT20 Channel 01

100kHz PSD reference Level



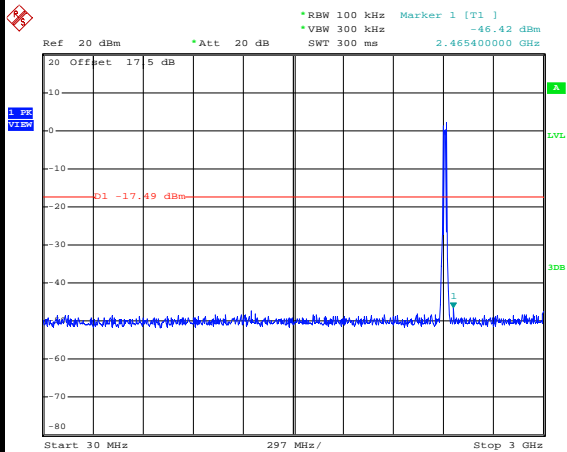
Date: 12.JUL.2013 11:17:07

Low Channel Plot



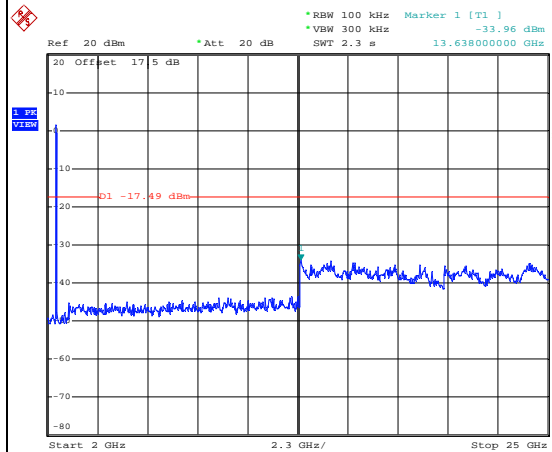
Date: 12.JUL.2013 11:17:20

Spurious Emission 30MHz~3GHz



Date: 12.JUL.2013 11:17:40

Spurious Emission 2GHz~25GHz



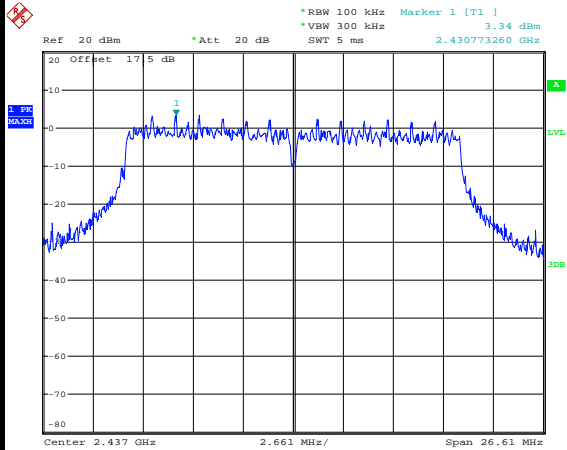
Date: 12.JUL.2013 11:17:58



Test Mode :	802.11n HT20	Temperature :	24~26°C
Test Band :	2.4GHz Mid	Relative Humidity :	50~53%
Test Channel :	06	Test Engineer :	Fly Chen

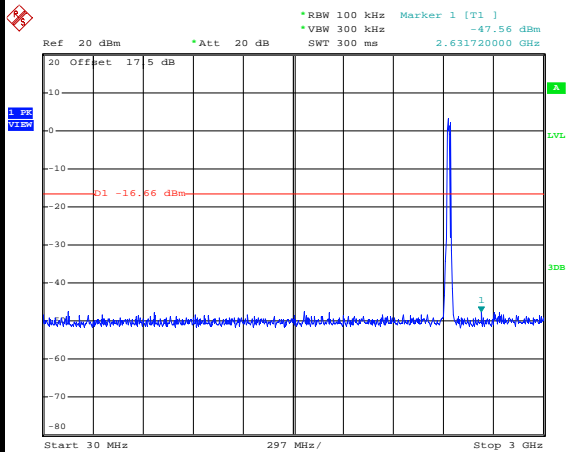
WLAN 802.11n HT20 Channel 06

100kHz PSD reference Level



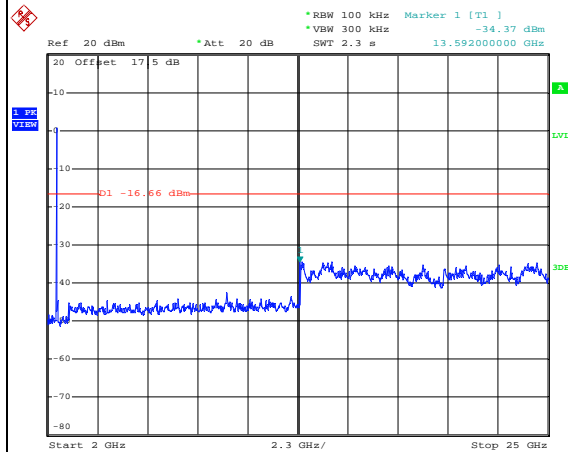
Date: 12.JUL.2013 11:13:57

Spurious Emission 30MHz~3GHz



Date: 12.JUL.2013 11:14:17

Spurious Emission 2GHz~25GHz



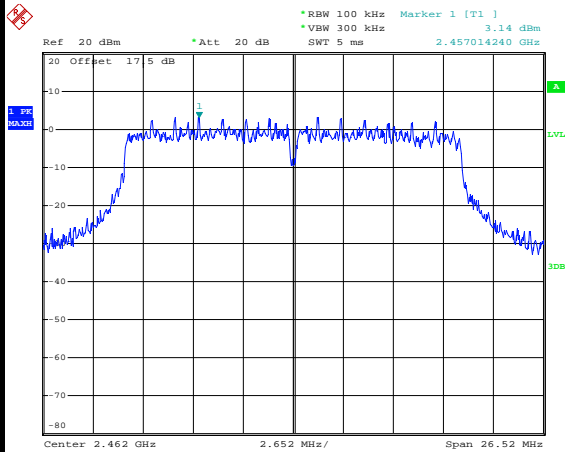
Date: 12.JUL.2013 11:14:35



Test Mode :	802.11n HT20	Temperature :	24~26°C
Test Band :	2.4GHz High	Relative Humidity :	50~53%
Test Channel :	11	Test Engineer :	Fly Chen

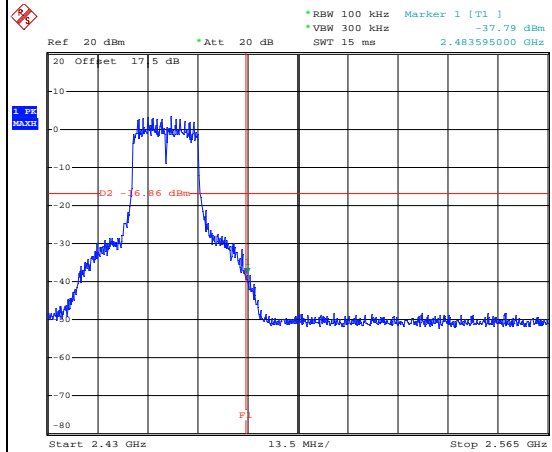
WLAN 802.11n HT20 Channel 11

100kHz PSD reference Level



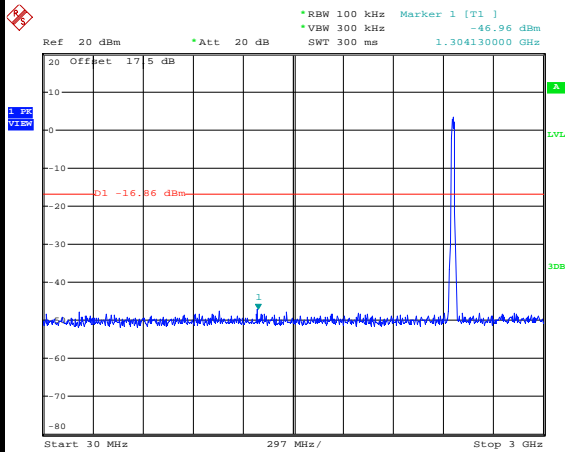
Date: 12.JUL.2013 11:20:05

High Channel Plot



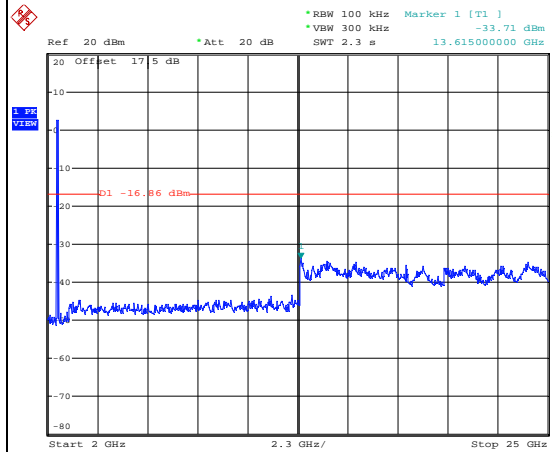
Date: 12.JUL.2013 11:20:19

Spurious Emission 30MHz~3GHz



Date: 12.JUL.2013 11:20:38

Spurious Emission 2GHz~25GHz



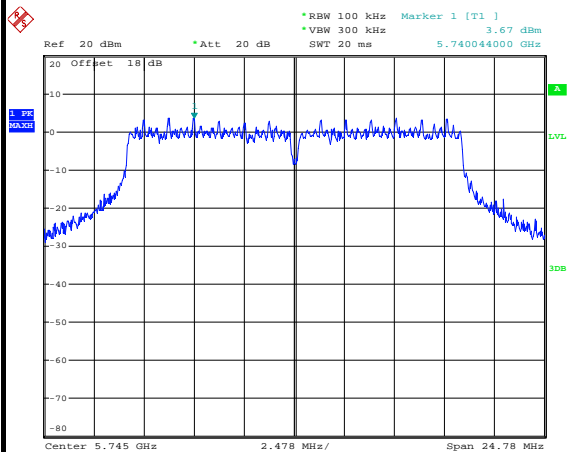
Date: 12.JUL.2013 11:20:57



Test Mode :	802.11a	Temperature :	24~26°C
Test Band :	5GHz Low	Relative Humidity :	50~53%
Test Channel :	149	Test Engineer :	Fly Chen

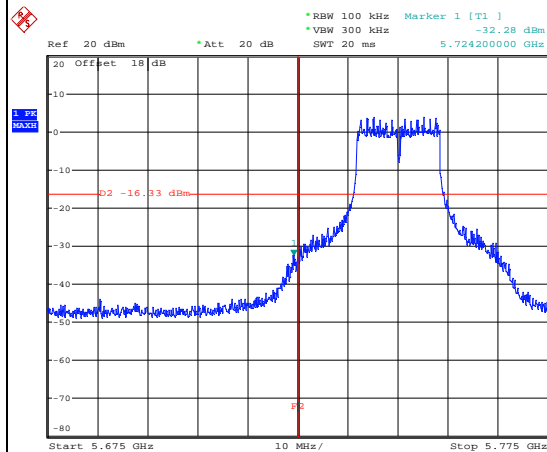
WLAN 802.11a Channel 149

100kHz PSD reference Level



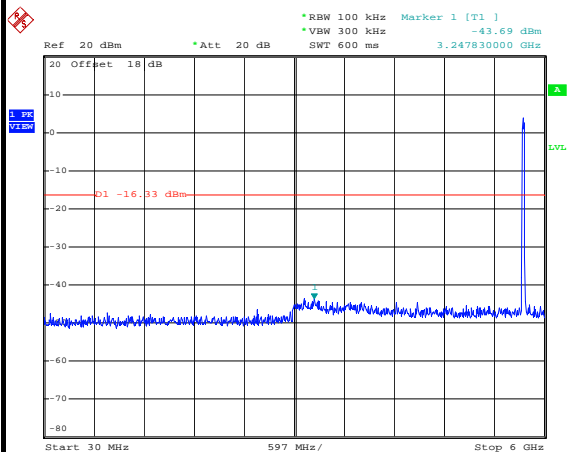
Date: 4.SEP.2013 23:25:15

Low Channel Plot



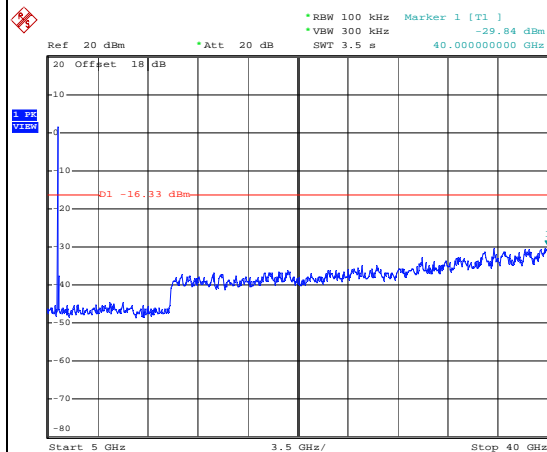
Date: 5.SEP.2013 01:07:35

Spurious Emission 30MHz~6GHz



Date: 1.SEP.2013 17:12:10

Spurious Emission 5GHz~40GHz



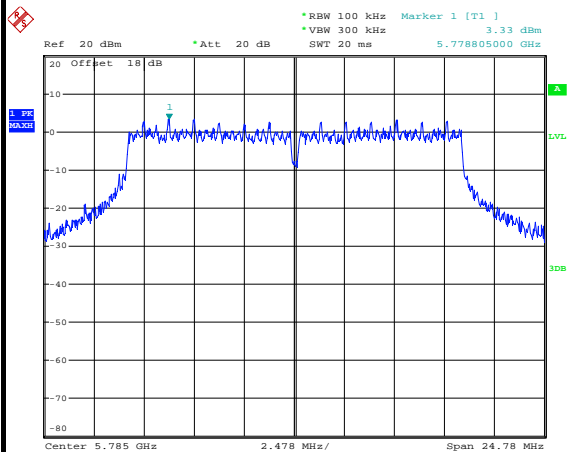
Date: 1.SEP.2013 17:12:30



Test Mode :	802.11a	Temperature :	24~26°C
Test Band :	5GHz Mid	Relative Humidity :	50~53%
Test Channel :	157	Test Engineer :	Fly Chen

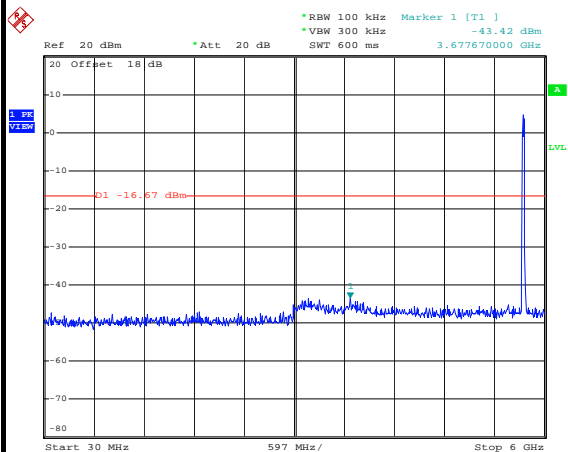
WLAN 802.11a Channel 157

100kHz PSD reference Level



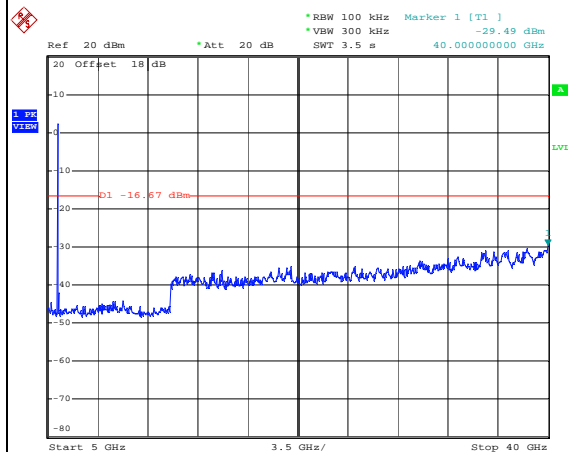
Date: 4.SEP.2013 23:38:15

Spurious Emission 30MHz~6GHz



Date: 1.SEP.2013 17:14:14

Spurious Emission 5GHz~40GHz



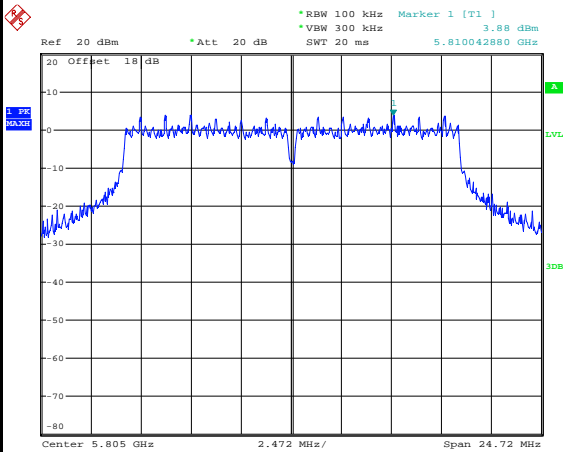
Date: 1.SEP.2013 17:14:33



Test Mode :	802.11a	Temperature :	24~26°C
Test Band :	5GHz High	Relative Humidity :	50~53%
Test Channel :	161	Test Engineer :	Fly Chen

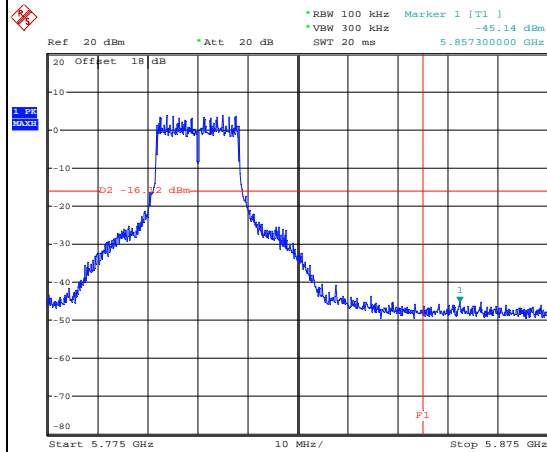
WLAN 802.11a Channel 161

100kHz PSD reference Level



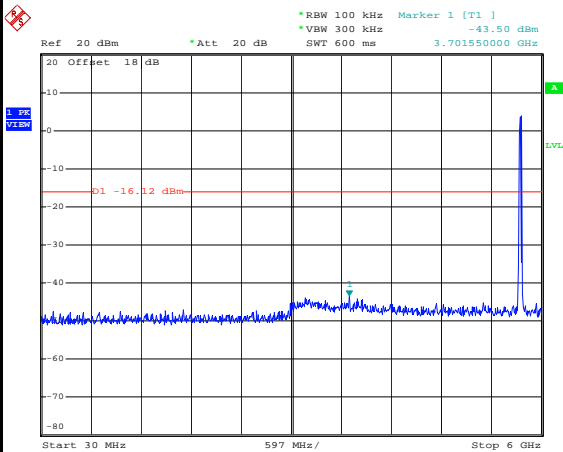
Date: 5.SEP.2013 16:50:35

High Channel Plot



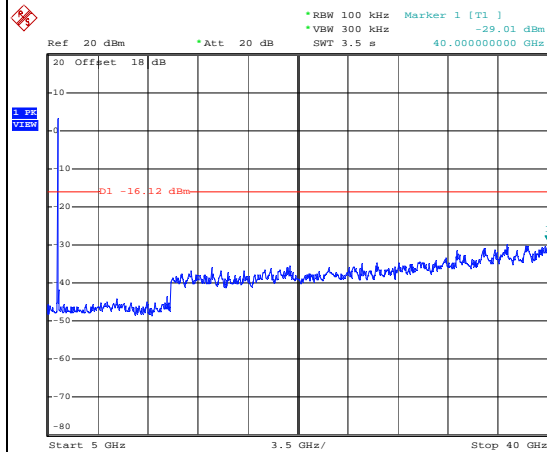
Date: 5.SEP.2013 16:50:49

Spurious Emission 30MHz~6GHz



Date: 1.SEP.2013 17:15:28

Spurious Emission 5GHz~40GHz



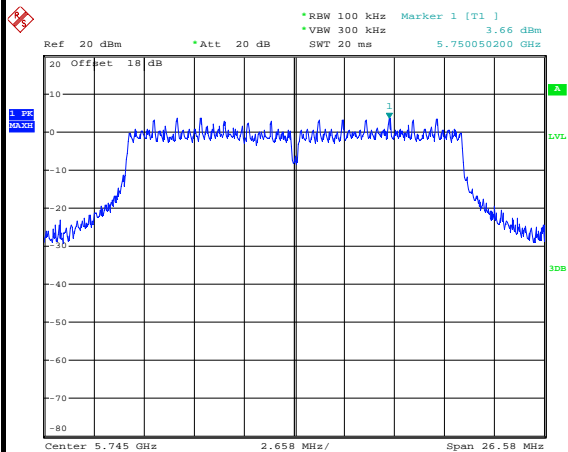
Date: 1.SEP.2013 17:15:47



Test Mode :	802.11n HT20	Temperature :	24~26°C
Test Band :	5GHz Low	Relative Humidity :	50~53%
Test Channel :	149	Test Engineer :	Fly Chen

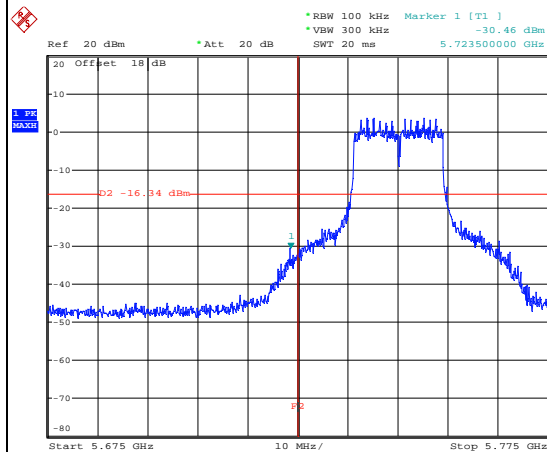
WLAN 802.11n HT20 Channel 149

100kHz PSD reference Level



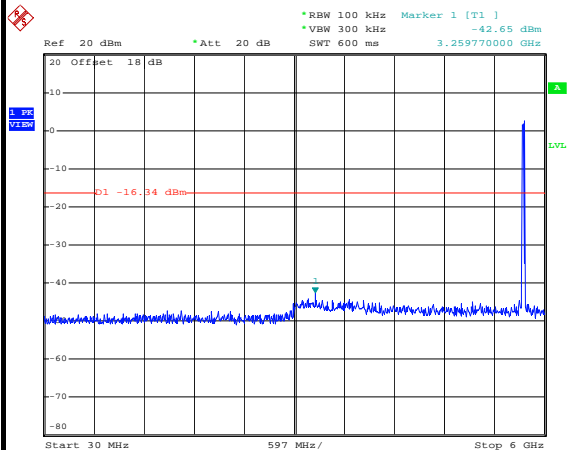
Date: 5.SEP.2013 00:08:57

Low Channel Plot



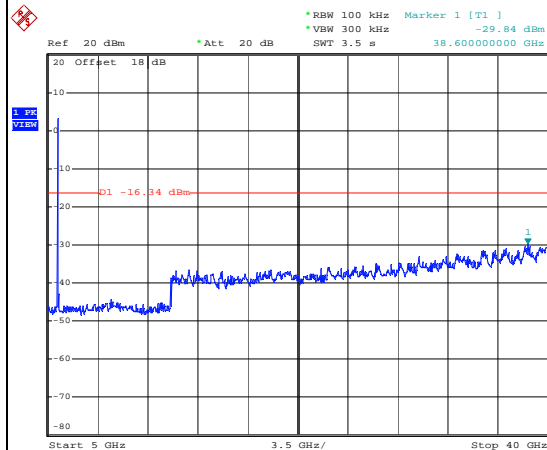
Date: 5.SEP.2013 00:09:11

Spurious Emission 30MHz~6GHz



Date: 1.SEP.2013 19:05:15

Spurious Emission 5GHz~40GHz



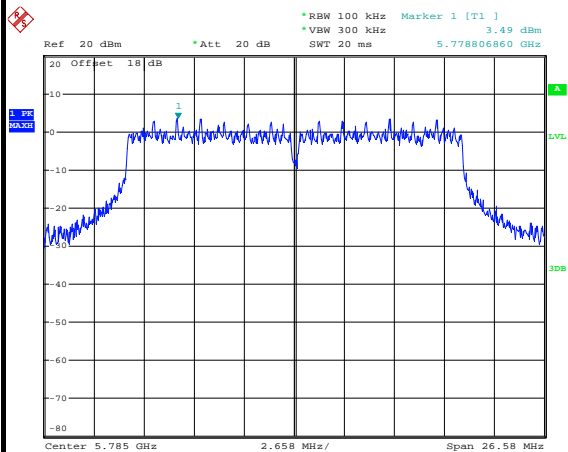
Date: 1.SEP.2013 19:05:34



Test Mode :	802.11n HT20	Temperature :	24~26°C
Test Band :	5GHz Mid	Relative Humidity :	50~53%
Test Channel :	157	Test Engineer :	Fly Chen

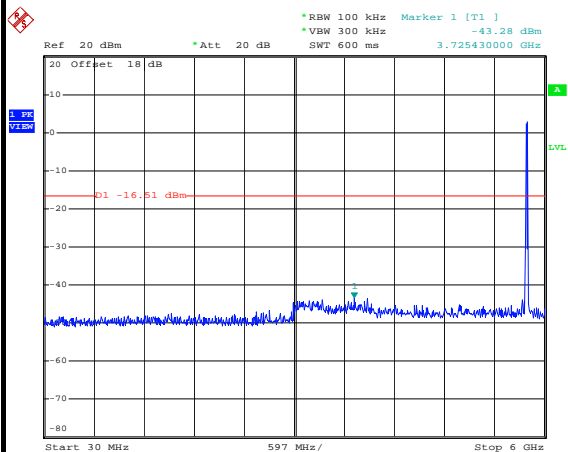
WLAN 802.11n HT20 Channel 157

100kHz PSD reference Level



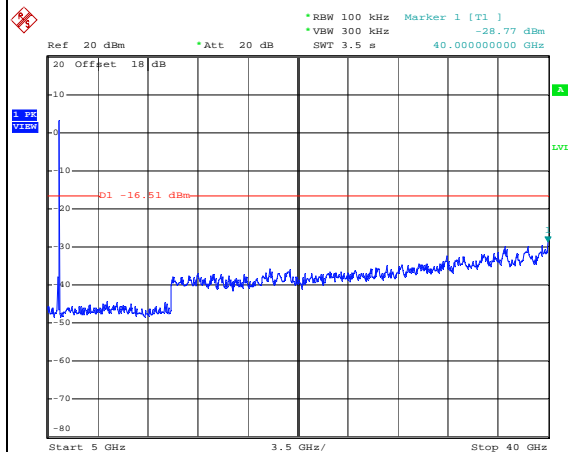
Date: 5.SEP.2013 00:03:21

Spurious Emission 30MHz~6GHz



Date: 1.SEP.2013 18:55:34

Spurious Emission 5GHz~40GHz



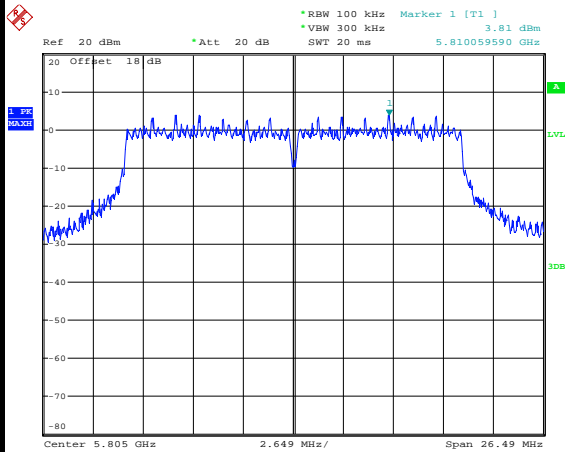
Date: 1.SEP.2013 18:55:53



Test Mode :	802.11n HT20	Temperature :	24~26°C
Test Band :	5GHz High	Relative Humidity :	50~53%
Test Channel :	161	Test Engineer :	Fly Chen

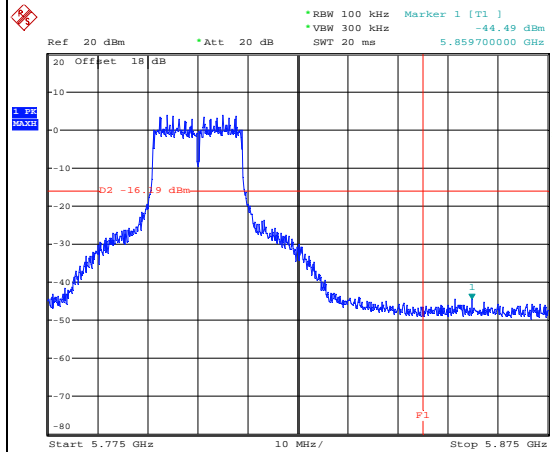
WLAN 802.11n HT20 Channel 161

100kHz PSD reference Level



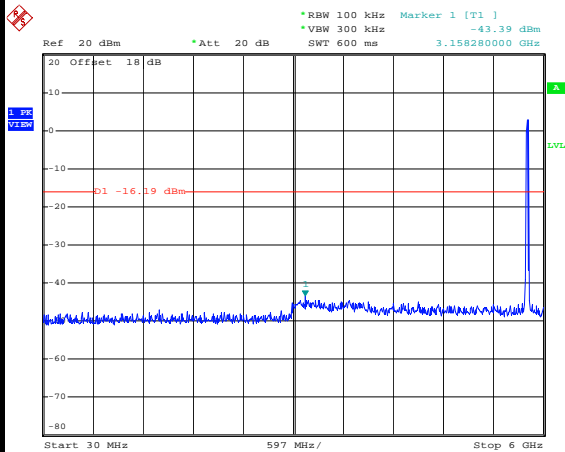
Date: 5.SEP.2013 16:56:55

High Channel Plot



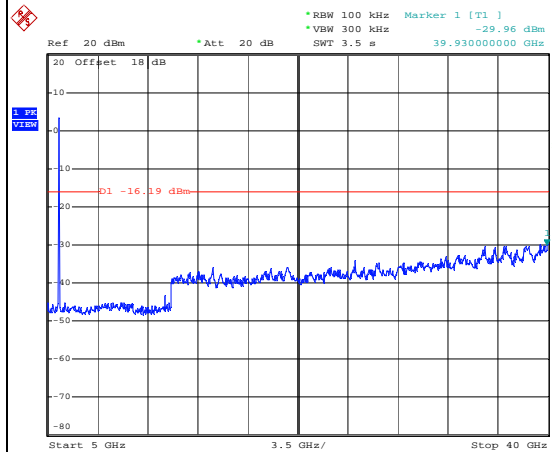
Date: 5.SEP.2013 16:57:09

Spurious Emission 30MHz~6GHz



Date: 1.SEP.2013 19:00:36

Spurious Emission 5GHz~40GHz



Date: 1.SEP.2013 19:00:55

3.5 Radiated Band Edges and Spurious Emission Measurement

3.5.1 Limit of Radiated band edge and Spurious Emission Measurement

In any 100 kHz bandwidth outside the intentional radiator frequency band, all harmonics/spurious must be at least 20 dB below the highest emission level within the authorized band. If the output power of this device was measured by spectrum analyzer, the attenuation under this paragraph shall be 30 dB instead of 20 dB. In addition, radiated emissions which fall in the restricted bands must also comply with the FCC section 15.209 limits as below.

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

3.5.2 Measuring Instruments

See list of measuring instruments of this test report.



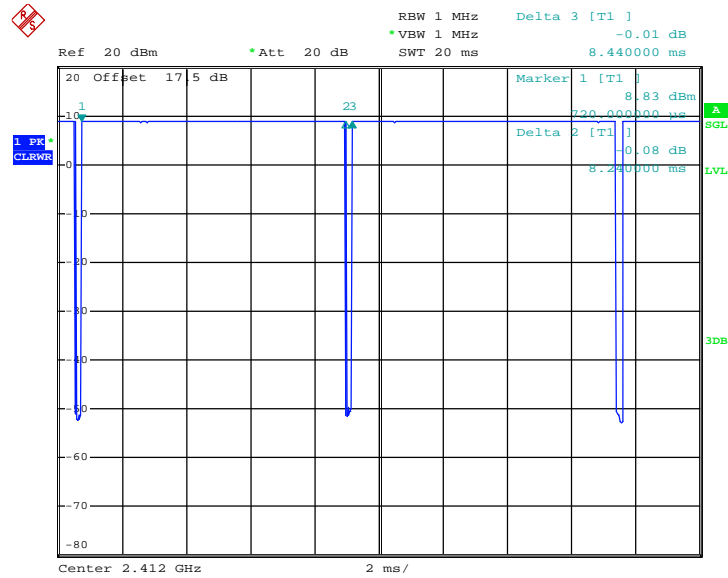
3.5.3 Test Procedures

1. The testing follows FCC KDB Publication No. 558074 D01 DTS Meas. Guidance v03r01.
2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level.
3. The EUT was placed on a turntable with 0.8 meter above ground.
4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
5. Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level
6. For measurement below 1GHz, If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak detector and reported.
7. Use the following spectrum analyzer settings:
 - (1) Span shall wide enough to fully capture the emission being measured;
 - (2) Set RBW=100 kHz for f < 1 GHz; VBW ≥ RBW; Sweep = auto; Detector function = peak; Trace = max hold;
 - (3) Set RBW = 1 MHz, VBW= 3MHz for f ≥ 1 GHz for peak measurement.
 For average measurement:
 - 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(ms)	1/T(kHz)	VBW Setting
802.11b	97.630	8.240	0.121	300Hz
802.11g	46.417	0.174	5.760	10kHz
2.4GHz 802.11n HT20	44.751	0.162	6.173	10kHz
802.11a	45.722	0.171	5.848	10kHz
5GHz 802.11n HT20	44.475	0.161	6.211	10kHz



2.4GHz 802.11b Duty Cycle



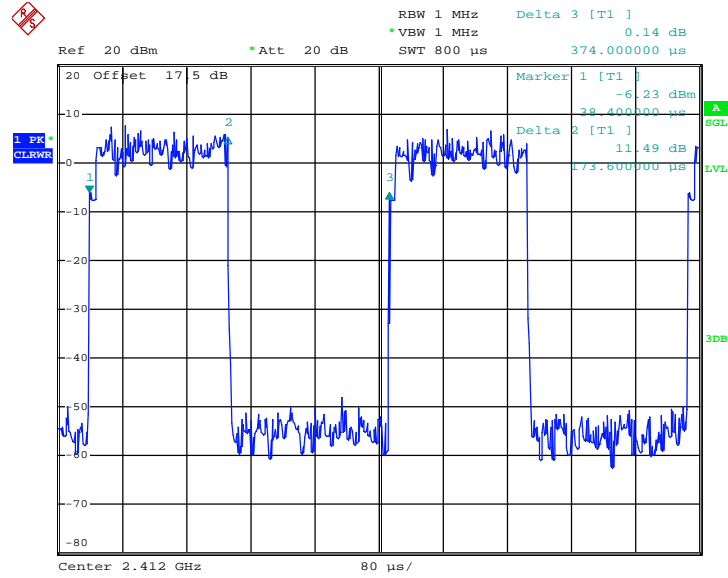
Date: 9.JUL.2013 01:56:09

Note:

The total loss is 17.5dB of the RF cable and attenuator, and has been compensated to the spectrum analyzer by setting into the amplitude level offset. That means the measured result shown on the spectrum analyzer has added the total loss and been compliance with the limit line.



2.4GHz 802.11g Duty Cycle



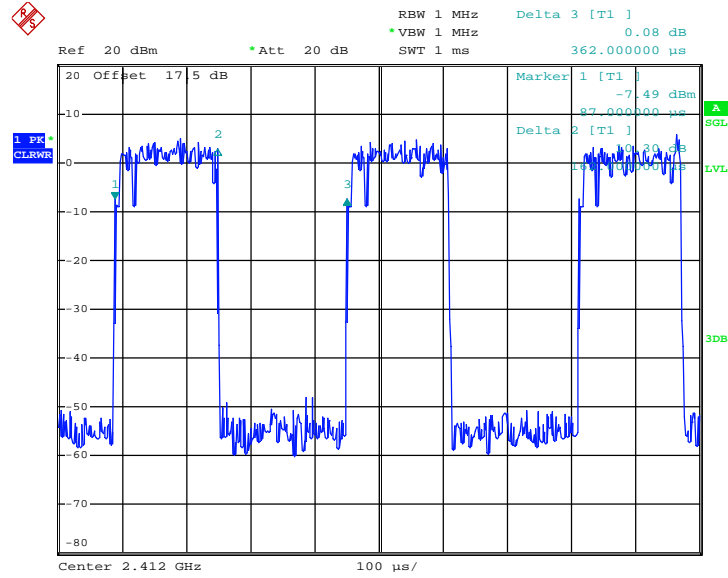
Date: 9.JUL.2013 03:02:11

Note:

The total loss is 17.5dB of the RF cable and attenuator, and has been compensated to the spectrum analyzer by setting into the amplitude level offset. That means the measured result shown on the spectrum analyzer has added the total loss and been compliance with the limit line.



2.4GHz 802.11n HT20 Duty Cycle



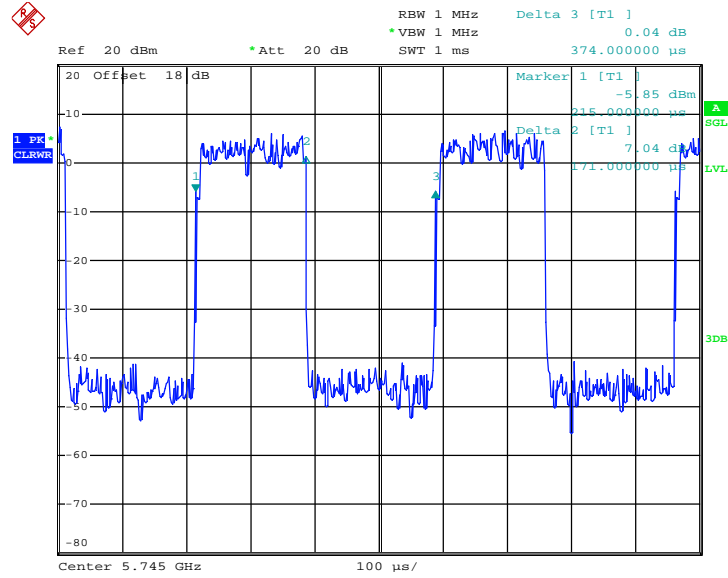
Date: 9.JUL.2013 03:57:31

Note:

The total loss is 17.5dB of the RF cable and attenuator, and has been compensated to the spectrum analyzer by setting into the amplitude level offset. That means the measured result shown on the spectrum analyzer has added the total loss and been compliance with the limit line.



5GHz 802.11a Duty Cycle



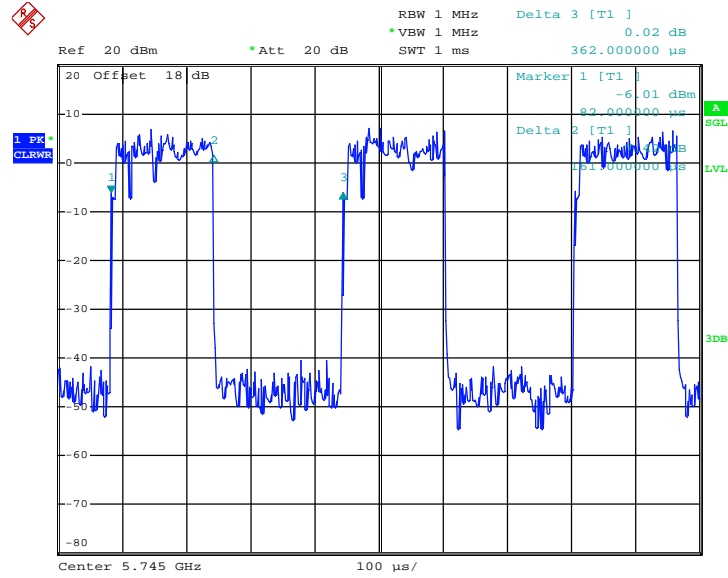
Date: 9.JUL.2013 04:43:20

Note:

The total loss is 18dB of the RF cable and attenuator, and has been compensated to the spectrum analyzer by setting into the amplitude level offset. That means the measured result shown on the spectrum analyzer has added the total loss and been compliance with the limit line.



5GHz 802.11n HT20 Duty Cycle



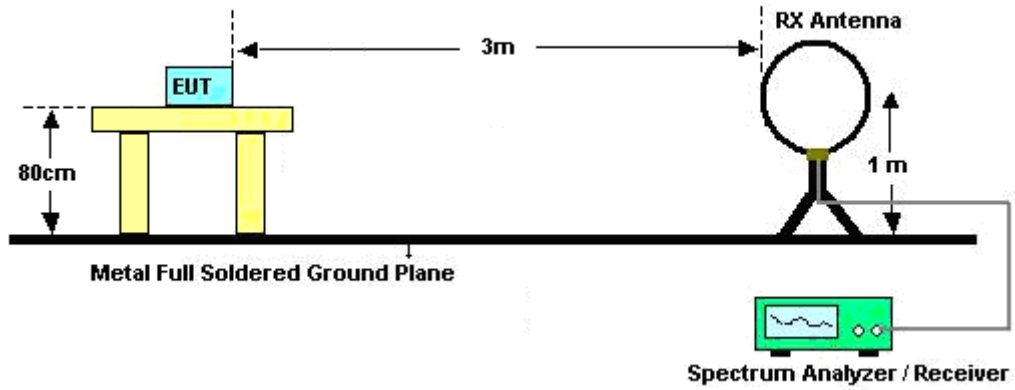
Date: 9.JUL.2013 04:58:34

Note:

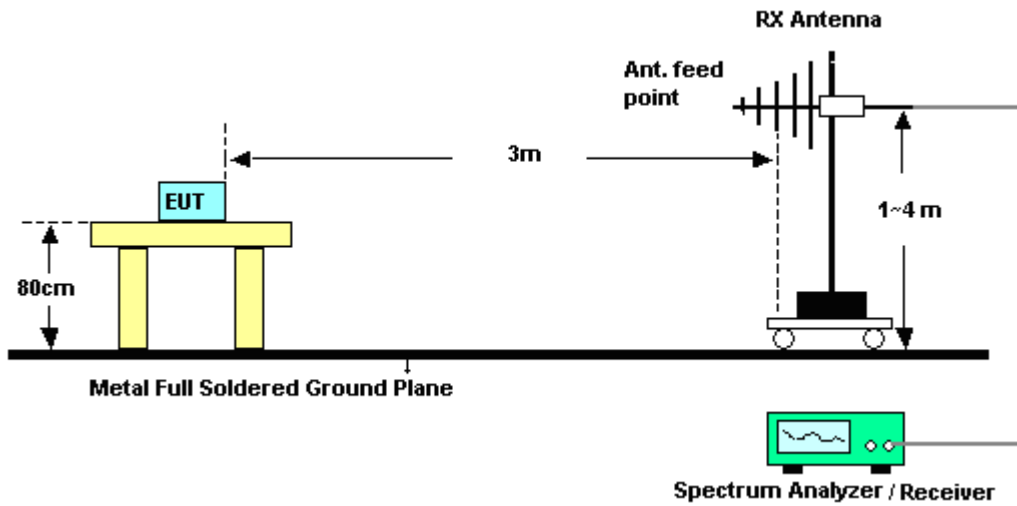
The total loss is 18dB of the RF cable and attenuator, and has been compensated to the spectrum analyzer by setting into the amplitude level offset. That means the measured result shown on the spectrum analyzer has added the total loss and been compliance with the limit line.

3.5.4 Test Setup

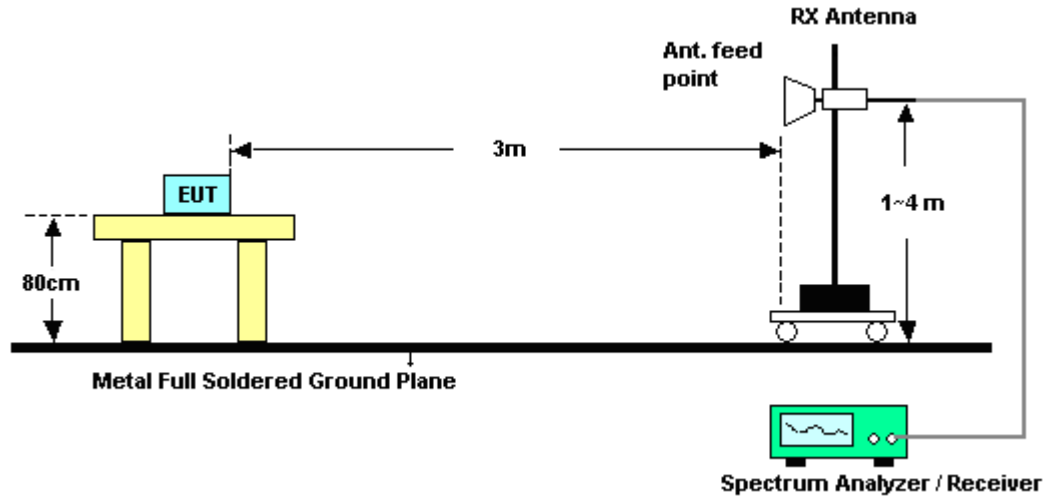
For radiated emissions below 30MHz



For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz



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

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 Spurious at Band Edges

<Battery 1>

Test Mode :	802.11b	Temperature :	24~25°C
Test Band :	Low	Relative Humidity :	49~52%
Test Channel :	01	Test Engineer :	Gavin Zhang

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
2387.94	46.54	-27.46	74	38.6	32.14	5.59	29.79	180	327	Peak
2388.03	35.32	-18.68	54	27.38	32.14	5.59	29.79	180	327	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
2336.64	46.49	-27.51	74	38.69	32.07	5.53	29.8	111	358	Peak
2388.21	35.23	-18.77	54	27.29	32.14	5.59	29.79	111	358	Average

Test Mode :	802.11b	Temperature :	24~25°C
Test Band :	High	Relative Humidity :	49~52%
Test Channel :	11	Test Engineer :	Gavin Zhang

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
2491.15	47.11	-26.89	74	38.87	32.29	5.71	29.76	118	316	Peak
2486.47	36.1	-17.9	54	27.88	32.27	5.71	29.76	118	316	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
2483.8	47.54	-26.46	74	39.32	32.27	5.71	29.76	134	75	Peak
2486.44	36.85	-17.15	54	28.63	32.27	5.71	29.76	134	75	Average



Test Mode :	802.11g	Temperature :	24~25°C
Test Band :	Low	Relative Humidity :	49~52%
Test Channel :	01	Test Engineer :	Gavin Zhang

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
2390	62.49	-11.51	74	54.51	32.14	5.62	29.78	148	313	Peak
2388.66	48.1	-5.9	54	40.16	32.14	5.59	29.79	148	313	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
2390	64.69	-9.31	74	56.71	32.14	5.62	29.78	133	360	Peak
2389.02	48.85	-5.15	54	40.91	32.14	5.59	29.79	133	360	Average

Test Mode :	802.11g	Temperature :	24~25°C
Test Band :	High	Relative Humidity :	49~52%
Test Channel :	11	Test Engineer :	Gavin Zhang

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
2484.22	62.05	-11.95	74	53.83	32.27	5.71	29.76	121	319	Peak
2483.77	48.74	-5.26	54	40.52	32.27	5.71	29.76	121	319	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
2483.95	65.9	-8.1	74	57.68	32.27	5.71	29.76	107	71	Peak
2483.5	49.81	-4.19	54	41.59	32.27	5.71	29.76	107	71	Average



Test Mode :	2.4GHz 802.11n HT20	Temperature :	24~25°C
Test Band :	Low	Relative Humidity :	49~52%
Test Channel :	01	Test Engineer :	Gavin Zhang

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
2389.56	64.7	-9.3	74	56.76	32.14	5.59	29.79	147	319	Peak
2388.84	50.84	-3.16	54	42.9	32.14	5.59	29.79	147	319	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
2389.83	60.1	-13.9	74	52.12	32.14	5.62	29.78	121	304	Peak
2388.66	45.32	-8.68	54	37.38	32.14	5.59	29.79	121	304	Average

Test Mode :	2.4GHz 802.11n HT20	Temperature :	24~25°C
Test Band :	High	Relative Humidity :	49~52%
Test Channel :	11	Test Engineer :	Gavin Zhang

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
2484.67	60.13	-13.87	74	51.91	32.27	5.71	29.76	122	187	Peak
2483.59	45.76	-8.24	54	37.54	32.27	5.71	29.76	122	187	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
2483.68	64.65	-9.35	74	56.43	32.27	5.71	29.76	108	77	Peak
2483.71	50.54	-3.46	54	42.32	32.27	5.71	29.76	108	77	Average



Test Mode :	802.11a	Temperature :	24~25°C
Test Band :	Low	Relative Humidity :	49~52%
Test Channel :	149	Test Engineer :	Gavin Zhang

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
5745	102.17	-	-	88.24	34.18	9.14	29.39	106	307	Peak
5745	95.14	-	-	81.21	34.18	9.14	29.39	106	307	Average
5725	75.63	-6.54	82.17	61.74	34.15	9.13	29.39	106	307	Peak

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
5745	105.25	-	-	91.32	34.18	9.14	29.39	100	64	Peak
5745	98.33	-	-	84.4	34.18	9.14	29.39	100	64	Average
5725	76.55	-8.7	85.25	62.66	34.15	9.13	29.39	100	65	Peak

Remark: 5725 MHz is not within a restricted band, and its limit line is 20dB below the highest emission level. For example, 102.17 dBμV/m - 20dB = 82.17 dBμV/m.

Test Mode :	802.11a	Temperature :	24~25°C
Test Band :	High	Relative Humidity :	49~52%
Test Channel :	161	Test Engineer :	Gavin Zhang

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
5805	100.38	-	-	86.32	34.29	9.16	29.39	106	283	Peak
5805	92.42	-	-	78.36	34.29	9.16	29.39	106	283	Average
5850	50.05	-30.33	80.38	35.92	34.34	9.18	29.39	106	283	Peak

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
5805	105.23	-	-	91.17	34.29	9.16	29.39	109	45	Peak
5805	98.26	-	-	84.2	34.29	9.16	29.39	109	45	Average
5850	49.88	-35.35	85.23	35.75	34.34	9.18	29.39	109	45	Peak

Remark: 5850 MHz is not within a restricted band, and its limit line is 20dB below the highest emission level.



Test Mode :	5GHz 802.11n HT20	Temperature :	24~25°C
Test Band :	Low	Relative Humidity :	49~52%
Test Channel :	149	Test Engineer :	Gavin Zhang

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
5745	99.68	-	-	85.75	34.18	9.14	29.39	108	294	Peak
5745	93.22	-	-	79.29	34.18	9.14	29.39	108	294	Average
5725	74.31	-5.37	79.68	60.42	34.15	9.13	29.39	108	294	Peak

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
5745	105.74	-	-	91.81	34.18	9.14	29.39	100	45	Peak
5745	97.66	-	-	83.73	34.18	9.14	29.39	100	45	Average
5725	77.04	-8.7	85.74	63.15	34.15	9.13	29.39	100	46	Peak

Remark: 5725 MHz is not within a restricted band, and its limit line is 20dB below the highest emission level.

Test Mode :	5GHz 802.11n HT20	Temperature :	24~25°C
Test Band :	High	Relative Humidity :	49~52%
Test Channel :	161	Test Engineer :	Gavin Zhang

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
5805	99.81	-	-	85.75	34.29	9.16	29.39	117	292	Peak
5805	92.4	-	-	78.34	34.29	9.16	29.39	117	292	Average
5850	47.66	-32.15	79.81	33.53	34.34	9.18	29.39	117	292	Peak

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
5805	104.22	-	-	90.16	34.29	9.16	29.39	100	50	Peak
5805	97.79	-	-	83.73	34.29	9.16	29.39	100	50	Average
5850	50.1	-34.12	84.22	35.97	34.34	9.18	29.39	100	51	Peak

Remark: 5850 MHz is not within a restricted band, and its limit line is 20dB below the highest emission level.



<Battery 2>

Test Mode :	2.4GHz 802.11n HT20	Temperature :	24~25°C
Test Band :	Low	Relative Humidity :	49~52%
Test Channel :	01	Test Engineer :	Gavin Zhang

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
2389.56	63.7	-10.3	74	55.76	32.14	5.59	29.79	147	319	Peak
2388.84	49.84	-4.16	54	41.9	32.14	5.59	29.79	147	319	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
2389.83	59.1	-14.9	74	51.12	32.14	5.62	29.78	121	304	Peak
2388.66	44.32	-9.68	54	36.38	32.14	5.59	29.79	121	304	Average



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

Note: Pre-scanned all test modes and only choose the worst case mode recorded in the test report for radiated spurious emission below 1GHz.

<Battery 1>

Test Mode :	802.11b	Temperature :	24~25°C
Test Channel :	01	Relative Humidity :	49~52%
Test Engineer :	Gavin Zhang	Polarization :	Horizontal
Remark :	<ol style="list-style-type: none"> 2412 MHz is fundamental signal which can be ignored. 7236MHz is not within a restricted band, and its limit line is 20dB below the highest emission level. For example, 100.52dBμV/m - 20dB = 80.52 dBμV/m. Average measurement was not performed if peak level went lower than the average limit. 		

Frequency (MHz)	Level (dB μ V/m)	Over Limit (dB)	Limit Line (dB μ V/m)	Read Level (dB μ V)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2412	100.52	-	-	92.51	32.17	5.62	29.78	180	327	Peak
2412	98.41	-	-	90.4	32.17	5.62	29.78	180	327	Average
4824	38.87	-35.13	74	54.09	33.68	8.36	57.26	129	259	Peak
7236	39.05	-41.47	80.52	51.03	35.29	9.97	57.24	125	198	Peak

Test Mode :	802.11b	Temperature :	24~25°C
Test Channel :	01	Relative Humidity :	49~52%
Test Engineer :	Gavin Zhang	Polarization :	Vertical
Remark :	<ol style="list-style-type: none"> 2412 MHz is fundamental signal which can be ignored. 7236MHz is not within a restricted band, and its limit line is 20dB below the highest emission level. Average measurement was not performed if peak level went lower than the average limit. 		

Frequency (MHz)	Level (dB μ V/m)	Over Limit (dB)	Limit Line (dB μ V/m)	Read Level (dB μ V)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2412	101.22	-	-	93.21	32.17	5.62	29.78	111	358	Peak
2412	99.25	-	-	91.24	32.17	5.62	29.78	111	358	Average
4824	38.91	-35.09	74	54.13	33.68	8.36	57.26	153	284	Peak
7236	38.82	-42.4	81.22	50.8	35.29	9.97	57.24	165	268	Peak



Test Mode :	802.11b	Temperature :	24~25°C
Test Channel :	06	Relative Humidity :	49~52%
Test Engineer :	Gavin Zhang	Polarization :	Horizontal
Remark :	1. 2437 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
2437	101.24	-	-	93.14	32.22	5.65	29.77	119	318	Peak
2437	99.12	-	-	91.02	32.22	5.65	29.77	119	318	Average
4874	38.58	-35.42	74	53.54	33.8	8.41	57.17	158	254	Peak
7311	39.64	-34.36	74	51.5	35.31	9.99	57.16	198	250	Peak

Test Mode :	802.11b	Temperature :	24~25°C
Test Channel :	06	Relative Humidity :	49~52%
Test Engineer :	Gavin Zhang	Polarization :	Vertical
Remark :	1. 2437 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
2437	101.16	-	-	93.06	32.22	5.65	29.77	163	73	Peak
2437	99.16	-	-	91.06	32.22	5.65	29.77	163	73	Average
4874	37.8	-36.2	74	52.76	33.8	8.41	57.17	130	230	Peak
7311	39.85	-34.15	74	51.71	35.31	9.99	57.16	182	268	Peak



Test Mode :	802.11b	Temperature :	24~25°C
Test Channel :	11	Relative Humidity :	49~52%
Test Engineer :	Gavin Zhang	Polarization :	Horizontal
Remark :	1. 2462 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
2462	100.17	-	-	92.01	32.24	5.68	29.76	118	316	Peak
2462	98.06	-	-	89.9	32.24	5.68	29.76	118	316	Average
4924	37.42	-36.58	74	52.12	33.92	8.46	57.08	125	320	Peak
7386	40.57	-33.43	74	52.25	35.35	10.02	57.05	105	230	Peak

Test Mode :	802.11b	Temperature :	24~25°C
Test Channel :	11	Relative Humidity :	49~52%
Test Engineer :	Gavin Zhang	Polarization :	Vertical
Remark :	1. 2462 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
2462	102.1	-	-	93.94	32.24	5.68	29.76	134	75	Peak
2462	100.14	-	-	91.98	32.24	5.68	29.76	134	75	Average
4924	37.32	-36.68	74	52.02	33.92	8.46	57.08	156	346	Peak
7386	39.49	-34.51	74	51.17	35.35	10.02	57.05	189	256	Peak



Test Mode :	802.11g	Temperature :	24~25°C
Test Channel :	01	Relative Humidity :	49~52%
Test Engineer :	Gavin Zhang	Polarization :	Horizontal
Remark :	<ol style="list-style-type: none"> 2412 MHz is fundamental signal which can be ignored. 7236MHz is not within a restricted band, and its limit line is 20dB below the highest emission level. 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
2412	101.46	-	-	93.45	32.17	5.62	29.78	148	313	Peak
2412	94.27	-	-	86.26	32.17	5.62	29.78	148	313	Average
4824	39.32	-34.68	74	54.54	33.68	8.36	57.26	105	198	Peak
7236	38.38	-43.08	81.46	50.36	35.29	9.97	57.24	125	215	Peak

Test Mode :	802.11g	Temperature :	24~25°C
Test Channel :	01	Relative Humidity :	49~52%
Test Engineer :	Gavin Zhang	Polarization :	Vertical
Remark :	<ol style="list-style-type: none"> 2412 MHz is fundamental signal which can be ignored. 7236MHz is not within a restricted band, and its limit line is 20dB below the highest emission level. 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
2412	104.01	30.01	74	96	32.17	5.62	29.78	133	360	Peak
2412	96.86	42.86	-	-	32.17	5.62	29.78	133	360	Average
4824	37.09	-36.91	-	-	33.68	8.36	57.26	158	254	Peak
7236	39.02	-44.99	84.01	51	35.29	9.97	57.24	169	326	Peak



Test Mode :	802.11g	Temperature :	24~25°C
Test Channel :	06	Relative Humidity :	49~52%
Test Engineer :	Gavin Zhang	Polarization :	Horizontal
Remark :	1. 2437 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
2437	104.2	-	-	96.1	32.22	5.65	29.77	151	325	Peak
2437	96.13	-	-	88.03	32.22	5.65	29.77	151	325	Average
4874	38.31	-35.69	74	53.27	33.8	8.41	57.17	156	230	Peak
7311	40.29	-33.71	74	52.15	35.31	9.99	57.16	165	237	Peak

Test Mode :	802.11g	Temperature :	24~25°C
Test Channel :	06	Relative Humidity :	49~52%
Test Engineer :	Gavin Zhang	Polarization :	Vertical
Remark :	1. 2437 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
2437	100.94	-	-	92.84	32.22	5.65	29.77	123	300	Peak
2437	93.3	-	-	85.2	32.22	5.65	29.77	123	300	Average
4874	37.92	-36.08	74	52.88	33.8	8.41	57.17	145	265	Peak
7311	40.39	-33.61	74	52.25	35.31	9.99	57.16	174	321	Peak



Test Mode :	802.11g	Temperature :	24~25°C
Test Channel :	11	Relative Humidity :	49~52%
Test Engineer :	Gavin Zhang	Polarization :	Horizontal
Remark :	1. 2462 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
2462	104.51	-	-	96.35	32.24	5.68	29.76	121	319	Peak
2462	96.74	-	-	88.58	32.24	5.68	29.76	121	319	Average
4924	37.82	-36.18	74	52.52	33.92	8.46	57.08	152	236	Peak
7386	39.09	-34.91	74	50.77	35.35	10.02	57.05	120	150	Peak

Test Mode :	802.11g	Temperature :	24~25°C
Test Channel :	11	Relative Humidity :	49~52%
Test Engineer :	Gavin Zhang	Polarization :	Vertical
Remark :	1. 2462 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
2462	106.08	-	-	97.92	32.24	5.68	29.76	107	71	Peak
2462	97.91	-	-	89.75	32.24	5.68	29.76	107	71	Average
4924	38.02	-35.98	74	52.72	33.92	8.46	57.08	158	258	Peak
7386	39.91	-34.09	74	51.59	35.35	10.02	57.05	165	321	Peak



Test Mode :	2.4GHz 802.11n HT20	Temperature :	24~25°C
Test Channel :	01	Relative Humidity :	49~52%
Test Engineer :	Gavin Zhang	Polarization :	Horizontal
Remark :	1. 2412 MHz is fundamental signal which can be ignored. 2. 7236MHz is not within a restricted band, and its limit line is 20dB below the highest emission level. 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
266.68	28.89	-17.11	46	44.07	13.03	1.9	30.11	-	-	Peak
354.95	31.43	-14.57	46	44.24	14.85	2.16	29.82	-	-	Peak
460.68	31.76	-14.24	46	41.95	16.84	2.43	29.46	-	-	Peak
546.04	36.64	-9.36	46	44.71	18.56	2.64	29.27	-	-	Peak
729.37	34.91	-11.09	46	40.51	20.4	3.03	29.03	-	-	Peak
770.11	37.35	-8.65	46	42.82	20.4	3.1	28.97	125	325	Peak
2412	103.06	-	-	95.05	32.17	5.62	29.78	147	319	Peak
2412	95.05	-	-	87.04	32.17	5.62	29.78	147	319	Average
4824	37.96	-36.04	74	53.18	33.68	8.36	57.26	105	198	Peak
7236	38.97	-44.09	83.06	50.95	35.29	9.97	57.24	189	185	Peak



Test Mode :	2.4GHz 802.11n HT20	Temperature :	24~25°C
Test Channel :	01	Relative Humidity :	49~52%
Test Engineer :	Gavin Zhang	Polarization :	Vertical
Remark :	1. 2412 MHz is fundamental signal which can be ignored. 2. 7236MHz is not within a restricted band, and its limit line is 20dB below the highest emission level. 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
110.51	16.66	-26.84	43.5	33.77	12.2	1.32	30.63	-	-	Peak
264.74	20.15	-25.85	46	35.27	13.1	1.9	30.12	-	-	Peak
399.57	26.04	-19.96	46	36.92	16.5	2.29	29.67	-	-	Peak
547.98	34.24	-11.76	46	42.14	18.72	2.65	29.27	158	245	Peak
667.29	30.32	-15.68	46	37.31	19.22	2.9	29.11	-	-	Peak
762.35	32.04	-13.96	46	37.62	20.32	3.08	28.98	-	-	Peak
2412	101.5	-	-	93.49	32.17	5.62	29.78	121	304	Peak
2412	93.56	-	-	85.55	32.17	5.62	29.78	121	304	Average
4824	37.97	-36.03	74	53.19	33.68	8.36	57.26	123	352	Peak
7236	39.77	-41.73	81.5	51.75	35.29	9.97	57.24	158	254	Peak



Test Mode :	2.4GHz 802.11n HT20	Temperature :	24~25°C
Test Channel :	06	Relative Humidity :	49~52%
Test Engineer :	Gavin Zhang	Polarization :	Horizontal
Remark :	1. 2437 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
2437	102.23	-	-	94.13	32.22	5.65	29.77	176	190	Peak
2437	93.55	-	-	85.45	32.22	5.65	29.77	176	190	Average
4874	38.38	-35.62	74	53.34	33.8	8.41	57.17	145	265	Peak
7311	40.64	-33.36	74	52.5	35.31	9.99	57.16	174	321	Peak

Test Mode :	2.4GHz 802.11n HT20	Temperature :	24~25°C
Test Channel :	06	Relative Humidity :	49~52%
Test Engineer :	Gavin Zhang	Polarization :	Vertical
Remark :	1. 2437 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
2437	102.67	-	-	94.57	32.22	5.65	29.77	112	118	Peak
2437	94.82	-	-	86.72	32.22	5.65	29.77	112	118	Average
4874	38.18	-35.82	74	53.14	33.8	8.41	57.17	168	156	Peak
7311	40.66	-33.34	74	52.52	35.31	9.99	57.16	115	125	Peak



Test Mode :	2.4GHz 802.11n HT20	Temperature :	24~25°C
Test Channel :	11	Relative Humidity :	49~52%
Test Engineer :	Gavin Zhang	Polarization :	Horizontal
Remark :	1. 2462 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
2462	101.1	-	-	92.94	32.24	5.68	29.76	122	187	Peak
2462	93.01	-	-	84.85	32.24	5.68	29.76	122	187	Average
4924	37.32	-36.68	74	52.02	33.92	8.46	57.08	146	347	Peak
7386	39.66	-34.34	74	51.34	35.35	10.02	57.05	145	274	Peak

Test Mode :	2.4GHz 802.11n HT20	Temperature :	24~25°C
Test Channel :	11	Relative Humidity :	49~52%
Test Engineer :	Gavin Zhang	Polarization :	Vertical
Remark :	1. 2462 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
2462	104.66	-	-	96.5	32.24	5.68	29.76	108	77	Peak
2462	96.56	-	-	88.4	32.24	5.68	29.76	108	77	Average
4924	38.2	-35.8	74	52.9	33.92	8.46	57.08	158	162	Peak
7386	39.15	-34.85	74	50.83	35.35	10.02	57.05	125	214	Peak



Test Mode :	802.11a	Temperature :	24~25°C
Test Channel :	149	Relative Humidity :	49~52%
Test Engineer :	Gavin Zhang	Polarization :	Horizontal
Remark :	<ol style="list-style-type: none"> 5745MHz is fundamental signal which can be ignored. 5725MHz and 17235MHz are not within restricted bands, and their limit lines are 20dB below the highest emission level. 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
5725	75.63	-6.54	82.17	61.74	34.15	9.13	29.39	106	307	Peak
5745	102.17	-	-	88.24	34.18	9.14	29.39	106	307	Peak
5745	95.14	-	-	81.21	34.18	9.14	29.39	106	307	Average
11490	44.26	-29.74	74	48.18	39.11	13.39	56.42	145	265	Peak
17235	40.98	-41.19	82.17	40.05	39.82	17.5	56.39	174	321	Peak

Test Mode :	802.11a	Temperature :	24~25°C
Test Channel :	149	Relative Humidity :	49~52%
Test Engineer :	Gavin Zhang	Polarization :	Vertical
Remark :	<ol style="list-style-type: none"> 5745 MHz is fundamental signal which can be ignored. 5725MHz and 17235MHz are not within restricted bands, and their limit lines are 20dB below the highest emission level. 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
5725	76.55	-8.7	85.25	62.66	34.15	9.13	29.39	100	64	Peak
5745	105.25	-	-	91.32	34.18	9.14	29.39	100	64	Peak
5745	98.33	-	-	84.4	34.18	9.14	29.39	100	64	Average
11490	44.05	-29.95	74	47.97	39.11	13.39	56.42	158	258	Peak
17235	41.69	-43.56	85.25	40.76	39.82	17.5	56.39	174	321	Peak



Test Mode :	802.11a	Temperature :	24~25°C
Test Channel :	157	Relative Humidity :	49~52%
Test Engineer :	Gavin Zhang	Polarization :	Horizontal
Remark :	1. 5785 MHz is fundamental signal which can be ignored. 2. 17355MHz is not within a restricted band, and its limit line is 20dB below the highest emission level. 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
5785	99.2	-	-	85.2	34.23	9.16	29.39	103	317	Peak
5785	94.2	-	-	80.2	34.23	9.16	29.39	103	317	Average
11570	43.92	-30.08	74	47.47	39.4	13.41	56.36	105	198	Peak
17355	40.22	-38.98	79.2	39.34	39.63	17.54	56.29	189	185	Peak

Test Mode :	802.11a	Temperature :	24~25°C
Test Channel :	157	Relative Humidity :	49~52%
Test Engineer :	Gavin Zhang	Polarization :	Vertical
Remark :	1. 5785 MHz is fundamental signal which can be ignored. 2. 17355MHz is not within a restricted band, and its limit line is 20dB below the highest emission level. 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
5785	105.2	-	-	91.2	34.23	9.16	29.39	119	41	Peak
5785	98.35	-	-	84.35	34.23	9.16	29.39	119	41	Average
11570	43.87	-30.13	74	47.42	39.4	13.41	56.36	152	215	Peak
17355	40.76	-44.44	85.2	39.88	39.63	17.54	56.29	198	360	Peak



Test Mode :	802.11a	Temperature :	24~25°C
Test Channel :	161	Relative Humidity :	49~52%
Test Engineer :	Gavin Zhang	Polarization :	Horizontal
Remark :	1. 5805 MHz is fundamental signal which can be ignored. 2. 5850MHz and 17415MHz are not within restricted bands, and their limit lines are 20dB below the highest emission level. 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
5805	100.38	-	-	86.32	34.29	9.16	29.39	106	283	Peak
5805	92.42	-	-	78.36	34.29	9.16	29.39	106	283	Average
5850	50.05	-23.95	80.38	35.92	34.34	9.18	29.39	106	283	Peak
11610	44.29	-29.71	74	47.72	39.5	13.41	56.34	146	347	Peak
17415	40.13	-40.25	80.38	39.26	39.52	17.58	56.23	145	274	Peak

Test Mode :	802.11a	Temperature :	24~25°C
Test Channel :	161	Relative Humidity :	49~52%
Test Engineer :	Gavin Zhang	Polarization :	Vertical
Remark :	1. 5805 MHz is fundamental signal which can be ignored. 2. 5850MHz and 17415MHz are not within restricted bands, and their limit lines are 20dB below the highest emission level. 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
5805	105.23	-	-	91.17	34.29	9.16	29.39	109	45	Peak
5805	98.26	-	-	84.2	34.29	9.16	29.39	109	45	Average
5850	49.88	-24.12	85.23	35.75	34.34	9.18	29.39	109	45	Peak
11610	44.15	-29.85	74	47.58	39.5	13.41	56.34	108	269	Peak
17415	39.92	-45.31	85.23	39.05	39.52	17.58	56.23	168	268	Peak

Test Mode :	5GHz 802.11n HT20	Temperature :	24~25°C
Test Channel :	149	Relative Humidity :	49~52%
Test Engineer :	Gavin Zhang	Polarization :	Horizontal
Remark :	1. 5745 MHz is fundamental signal which can be ignored. 2. 5725MHz and 17235MHz are not within restricted bands, and their limit lines are 20dB below the highest emission level. 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
5725	74.31	-5.37	79.68	60.42	34.15	9.13	29.39	108	294	Peak
5745	99.68	-	-	85.75	34.18	9.14	29.39	108	294	Peak
5745	93.22	-	-	79.29	34.18	9.14	29.39	108	294	Average
11490	44.26	-29.74	74	48.18	39.11	13.39	56.42	156	236	Peak
17235	40.98	-38.7	79.68	40.05	39.82	17.5	56.39	158	263	Peak

Test Mode :	5GHz 802.11n HT20	Temperature :	24~25°C
Test Channel :	149	Relative Humidity :	49~52%
Test Engineer :	Gavin Zhang	Polarization :	Vertical
Remark :	1. 5745 MHz is fundamental signal which can be ignored. 2. 5725MHz and 17235MHz are not within restricted bands, and their limit lines are 20dB below the highest emission level. 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
5725	77.04	-8.7	85.74	63.15	34.15	9.13	29.39	100	46	Peak
5745	105.74	-	-	91.81	34.18	9.14	29.39	100	45	Peak
5745	97.66	-	-	83.73	34.18	9.14	29.39	100	45	Average
11490	44.05	-29.95	74	47.97	39.11	13.39	56.42	189	253	Peak
17235	41.69	-44.05	85.74	40.76	39.82	17.5	56.39	174	321	Peak



Test Mode :	5GHz 802.11n HT20	Temperature :	24~25°C
Test Channel :	157	Relative Humidity :	49~52%
Test Engineer :	Gavin Zhang	Polarization :	Horizontal
Remark :	1. 5785 MHz is fundamental signal which can be ignored. 2. 17355MHz is not within a restricted band, and its limit line is 20dB below the highest emission level. 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
5785	99.36	-	-	85.36	34.23	9.16	29.39	106	316	Peak
5785	92.66	-	-	78.66	34.23	9.16	29.39	106	316	Average
11570	43.92	-30.08	74	47.47	39.4	13.41	56.36	158	251	Peak
17355	40.22	-39.14	79.36	39.34	39.63	17.54	56.29	190	239	Peak

Test Mode :	5GHz 802.11n HT20	Temperature :	24~25°C
Test Channel :	157	Relative Humidity :	49~52%
Test Engineer :	Gavin Zhang	Polarization :	Vertical
Remark :	1. 5785 MHz is fundamental signal which can be ignored. 2. 17355MHz is not within a restricted band, and its limit line is 20dB below the highest emission level. 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
5785	102.63	-	-	88.63	34.23	9.16	29.39	108	74	Peak
5785	96.08	-	-	82.08	34.23	9.16	29.39	108	74	Average
11570	43.87	-30.13	74	47.42	39.4	13.41	56.36	152	208	Peak
17355	40.76	-41.87	82.63	39.88	39.63	17.54	56.29	189	185	Peak



Test Mode :	5GHz 802.11n HT20	Temperature :	24~25°C
Test Channel :	161	Relative Humidity :	49~52%
Test Engineer :	Gavin Zhang	Polarization :	Horizontal
Remark :	1. 5805 MHz is fundamental signal which can be ignored. 2. 5850MHz and 17415MHz are not within restricted bands, and their limit lines are 20dB below the highest emission level. 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
5805	99.81	-	-	85.75	34.29	9.16	29.39	117	292	Peak
5805	92.4	-	-	78.34	34.29	9.16	29.39	117	292	Average
5850	47.66	-32.15	79.81	33.53	34.34	9.18	29.39	117	292	Peak
11610	44.29	-29.71	74	47.72	39.5	13.41	56.34	159	260	Peak
17415	40.13	-39.68	79.81	39.26	39.52	17.58	56.23	169	350	Peak

Test Mode :	5GHz 802.11n HT20	Temperature :	24~25°C
Test Channel :	161	Relative Humidity :	49~52%
Test Engineer :	Gavin Zhang	Polarization :	Vertical
Remark :	1. 5805 MHz is fundamental signal which can be ignored. 2. 5850MHz and 17415MHz are not within restricted bands, and their limit lines are 20dB below the highest emission level. 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
5805	104.22	-	-	90.16	34.29	9.16	29.39	100	50	Peak
5805	97.79	-	-	83.73	34.29	9.16	29.39	100	50	Average
5850	50.1	-34.12	84.22	35.97	34.34	9.18	29.39	100	50	Peak
11610	44.15	-29.85	74	47.58	39.5	13.41	56.34	138	265	Peak
17415	39.92	-44.3	84.22	39.05	39.52	17.58	56.23	136	325	Peak



<Battery 2>

Test Mode :	2.4GHz 802.11n HT20	Temperature :	24~25°C
Test Channel :	01	Relative Humidity :	49~52%
Test Engineer :	Gavin Zhang	Polarization :	Horizontal
Remark :	1. 2412 MHz is fundamental signal which can be ignored. 2. 7236MHz is not within a restricted band, and its limit line is 20dB below the highest emission level. 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
2412	103.04	-	-	95.03	32.17	5.62	29.78	147	319	Peak
2412	95.01	-	-	87	32.17	5.62	29.78	147	319	Average
4824	37.96	-36.04	74	53.18	33.68	8.36	57.26	100	360	Peak
7236	38.97	-44.07	83.04	50.95	35.29	9.97	57.24	200	360	Peak

Test Mode :	2.4GHz 802.11n HT20	Temperature :	24~25°C
Test Channel :	01	Relative Humidity :	49~52%
Test Engineer :	Gavin Zhang	Polarization :	Vertical
Remark :	1. 2412 MHz is fundamental signal which can be ignored. 2. 7236MHz is not within a restricted band, and its limit line is 20dB below the highest emission level. 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
2412	101.3	-	-	93.29	32.17	5.62	29.78	121	304	Peak
2412	93.45	-	-	85.44	32.17	5.62	29.78	121	304	Average
4824	37.97	-36.03	74	53.19	33.68	8.36	57.26	200	320	Peak
7236	39.77	-41.53	81.3	51.75	35.29	9.97	57.24	100	360	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 (dB μ V)	
	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.

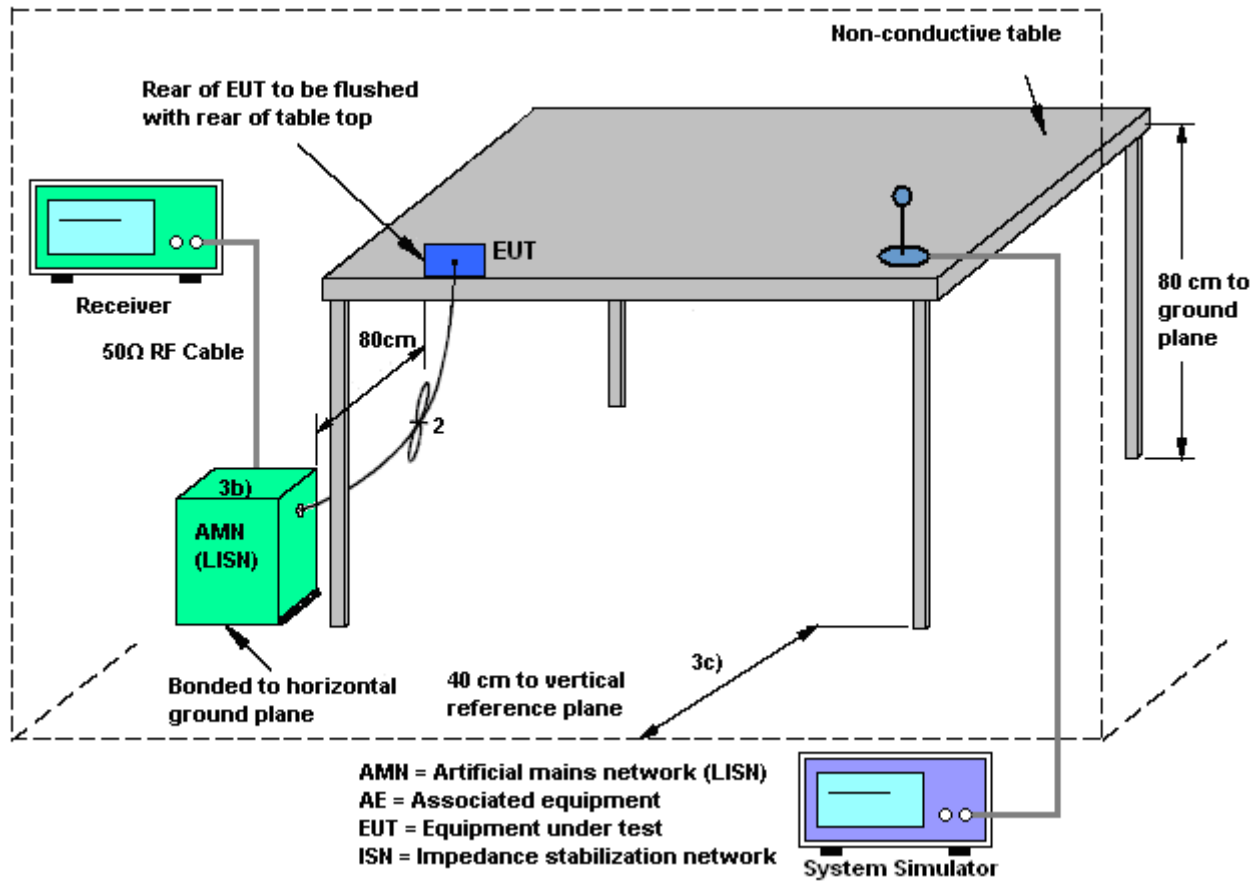
3.6.2 Measuring Instruments

See list of measuring instruments of this test report.

3.6.3 Test Procedures

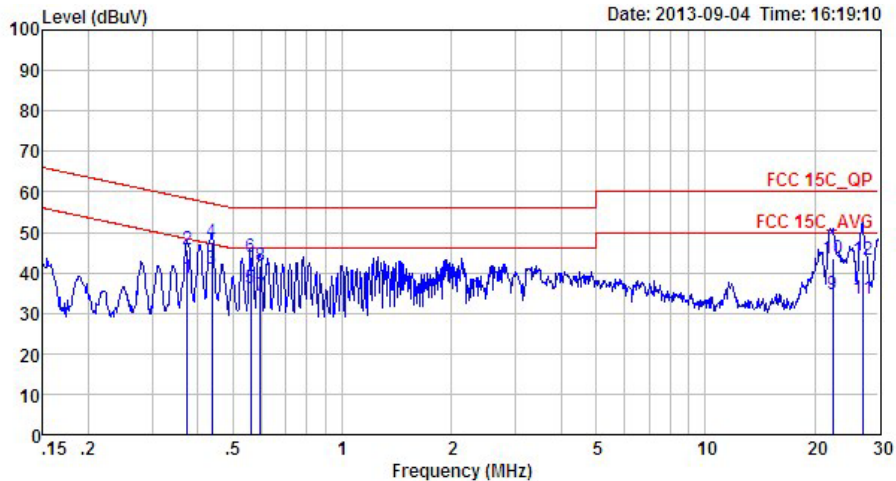
1. The EUT was placed 0.4 meter from the conducting wall of the shielding room, and it was kept at least 80 centimeters from any other grounded conducting surface.
2. Connect EUT to the power mains through a line impedance stabilization network (LISN).
3. All the support units are connecting to the other LISN.
4. The LISN provides 50 ohm coupling impedance for the measuring instrument.
5. The FCC states that a 50 ohm, 50 microhenry LISN should be used.
6. Both sides of AC line were checked for maximum conducted interference.
7. The frequency range from 150 kHz to 30 MHz was searched.
8. 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 :	23~24°C
Test Engineer :	Henry Chen	Relative Humidity :	49~50%
Test Voltage :	120Vac / 60Hz	Phase :	Line
Function Type :	GSM1900 Idle + WLAN (2.4GHz) Link + Bluetooth Link + USB Cable (Charging from Adapter) + Earphone + NFC on + Battery 1		



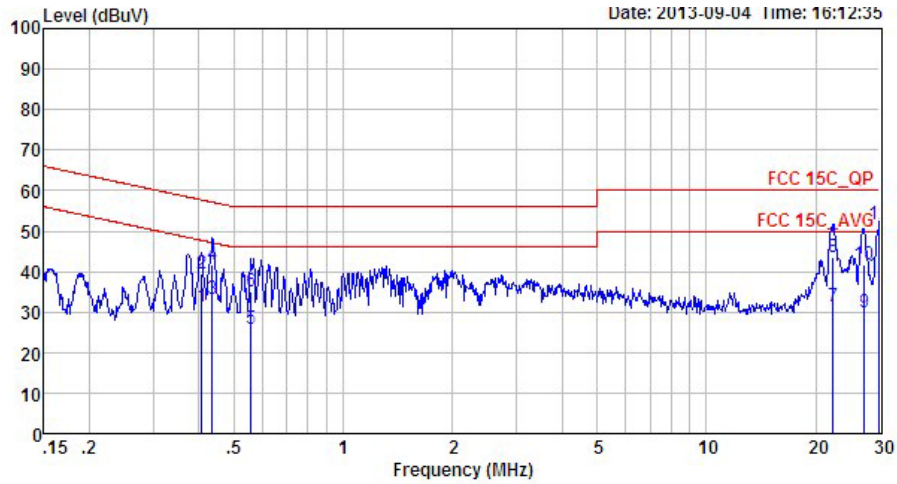
Site : CO01-S2
 Condition: FCC 15C_QP LISN_L_20130328 LINE

Mode : Mode 1

	Freq	Level	Over	Limit	Read	LISN	Cable	
	MHz	dBuV	Limit	Line	Level	Factor	Loss	Remark
			dB	dBuV	dBuV	dB	dB	
1	0.38	38.79	-9.60	48.39	28.50	0.12	10.17	Average
2	0.38	45.69	-12.70	58.39	35.40	0.12	10.17	QP
3	0.44	40.99	-6.12	47.11	30.70	0.13	10.16	Average
4	0.44	47.69	-9.42	57.11	37.40	0.13	10.16	QP
5	0.56	36.00	-10.00	46.00	25.70	0.15	10.15	Average
6	0.56	43.80	-12.20	56.00	33.50	0.15	10.15	QP
7	0.59	34.40	-11.60	46.00	24.10	0.15	10.15	Average
8	0.59	41.80	-14.20	56.00	31.50	0.15	10.15	QP
9	22.42	34.65	-15.35	50.00	22.40	1.68	10.57	Average
10	22.42	43.45	-16.55	60.00	31.20	1.68	10.57	QP
11	27.13	33.72	-16.28	50.00	21.31	1.85	10.56	Average
12	27.13	43.02	-16.98	60.00	30.61	1.85	10.56	QP



Test Mode :	Mode 1	Temperature :	23~24°C
Test Engineer :	Henry Chen	Relative Humidity :	49~50%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral
Function Type :	GSM1900 Idle + WLAN (2.4GHz) Link + Bluetooth Link + USB Cable (Charging from Adapter) + Earphone + NFC on + Battery 1		



Site : CO01-SZ
 Condition: FCC 15C_QP LISN_N_20130328 NEUTRAL
 Mode : Mode 1

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.41	31.21	-16.47	47.68	21.00	0.04	10.17	Average
2	0.41	39.51	-18.17	57.68	29.30	0.04	10.17	QP
3	0.44	33.20	-13.95	47.15	23.00	0.04	10.16	Average
4	0.44	41.60	-15.55	57.15	31.40	0.04	10.16	QP
5	0.56	25.79	-20.21	46.00	15.60	0.04	10.15	Average
6	0.56	35.19	-20.81	56.00	25.00	0.04	10.15	QP
7	22.30	31.22	-18.78	50.00	19.70	0.95	10.57	Average
8	22.30	43.62	-16.38	60.00	32.10	0.95	10.57	QP
9	27.27	29.87	-20.13	50.00	18.10	1.20	10.57	Average
10	27.27	41.57	-18.43	60.00	29.80	1.20	10.57	QP
11	30.00	39.21	-10.79	50.00	27.20	1.38	10.63	Average
12 *	30.00	51.71	-8.29	60.00	39.70	1.38	10.63	QP



3.7 Antenna Requirements

3.7.1 Standard Applicable

If directional gain of transmitting antennas is greater than 6dBi, the power shall be reduced by the same level in dB comparing to gain minus 6dBi. For the fixed point-to-point operation, the power shall be reduced by one dB for every 3 dB that the directional gain of the antenna exceeds 6 dBi. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the FCC rule.

3.7.2 Antenna Connected Construction

Non-standard connector used.

3.7.3 Antenna Gain

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



4 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Spectrum Analyzer	R&S	FSP30	101400	9kHz~30GHz	Mar. 28, 2013	Jul. 12, 2013~ Sep. 05, 2013	Mar. 27, 2014	Conducted (TH01-SZ)
Power Meter	Anritsu	ML2495A	1218010	N/A	Mar. 28, 2013	Jul. 12, 2013~ Sep. 05, 2013	Mar. 27, 2014	Conducted (TH01-SZ)
Power Sensor	Anritsu	MA2411B	1207253	N/A	Mar. 28, 2013	Jul. 12, 2013~ Sep. 05, 2013	Mar. 27, 2014	Conducted (TH01-SZ)
Spectrum Analyzer	Agilent Technologies	N9038A	MY52260185	20Hz~26.5GHz	Apr. 04, 2013	Jul. 09, 2013~ Aug. 22, 2013	Apr. 03, 2014	Radiation (03CH01-SZ)
Double Ridge Horn Antenna	ETS Lindgren	3117	00119436	1GHz~18GHz	Oct. 12, 2012	Jul. 09, 2013~ Aug. 22, 2013	Oct. 11, 2013	Radiation (03CH01-SZ)
Bilog Antenna	SCHAFFNER	CBL6112B	2614	30MHz~2GHz	Nov. 03, 2012	Jul. 09, 2013~ Aug. 22, 2013	Nov. 02, 2013	Radiation (03CH01-SZ)
Amplifier	ADVANTEST	BB525C	E9007003	9 kHz~3000MHz GAIN 30db	Mar. 28, 2013	Jul. 09, 2013~ Aug. 22, 2013	Mar. 27, 2014	Radiation (03CH01-SZ)
Amplifier	Yiai	AV3860B	04030	2GHz~26.5GHz	Mar. 28, 2013	Jul. 09, 2013~ Aug. 22, 2013	Mar. 27, 2014	Radiation (03CH01-SZ)
SHF-EHF-Horn	Schwarzbeck	BBHA9170	BBHA9170249	14GHz~40GHz	Nov. 23, 2012	Jul. 09, 2013~ Aug. 22, 2013	Nov. 22, 2013	Radiation (03CH01-SZ)
Loop Antenna	R&S	HFH2-Z2	100321	9kHz~30MHz	Oct. 22, 2012	Jul. 09, 2013~ Aug. 22, 2013	Oct. 21, 2013	Radiation (03CH01-SZ)
Turn Table	EM Electronic	EM 1000	N/A	0~360 degree	N/A	Jul. 09, 2013~ Aug. 22, 2013	N/A	Radiation (03CH01-SZ)
Antenna Mast	EM Electronic	EM 1000	N/A	1 m~4 m	N/A	Jul. 09, 2013~ Aug. 22, 2013	N/A	Radiation (03CH01-SZ)
AC LISN	ETS-LINDGREN	3816/2SH	00103912	0.1MHz~108MHz	Feb. 28, 2013	Sep. 04, 2013	Feb. 27, 2014	Conduction (CO01-SZ)
AC LISN (for auxiliary equipment)	ETS-LINDGREN	3816/2SH	00103892	0.1MHz~108MHz	Feb. 28, 2013	Sep. 04, 2013	Feb. 27, 2014	Conduction (CO01-SZ)
ESCIO TEST Receiver	R&S	1142.8007.03	100724	9kHz~3GHz	Mar. 08, 2013	Sep. 04, 2013	Mar. 07, 2014	Conduction (CO01-SZ)
AC Power Source	Chroma	61602	616020000891 N/A	N/A	Oct. 12, 2012	Sep. 04, 2013	Oct. 11, 2013	Conduction (CO01-SZ)

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

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	2.54
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Uncertainty of Radiated Emission Measurement (1GHz ~ 40GHz)

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