

FCC RF Test Report

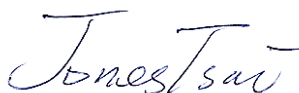
APPLICANT : Leprechan LLC
EQUIPMENT : Electronic Display Device
MODEL NAME : DP75SDI
FCC ID : S5Q-0725
STANDARD : FCC Part 15 Subpart C §15.247
CLASSIFICATION : (DTS) Digital Transmission System

The product was completely tested on Jul. 10, 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.



Reviewed by: Joseph Lin / Supervisor



Approved by: Jones Tsai / Manager



SPORTON INTERNATIONAL INC.

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

Report No. : FR322510-04
Report Version : Rev. 02
Page Number : 1 of 78

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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FR322510-04	Rev. 01	Initial issue of report	Jul. 20, 2013
FR322510-04	Rev. 02	Update report for revising description of peak output power measurement	Aug. 01, 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 0.50 dB at 2483.860 MHz
3.6	15.207	AC Conducted Emission	15.207(a)	Pass	Under limit 5.70 dB at 0.518 MHz
3.7	15.203 & 15.247(b)	Antenna Requirement	N/A	Pass	-

1 General Description

1.1 Applicant

Leprechan LLC
4410 East Claiborne Street
Suite 334
Hampton, Virginia 23666

1.2 Feature of Equipment Under Test

Product Feature	
Equipment	Electronic Display Device
Model Name	DP75SDI
FCC ID	S5Q-0725
EUT supports Radios application	WLAN 11bgn

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

1.3 Product Specification of Equipment Under Test

Product Specification subjective to this standard													
Tx/Rx Channel Frequency Range	2412 MHz ~ 2462 MHz												
Maximum Output Power to Antenna	<p><Antenna 1> 802.11b : 19.13 dBm (0.0818 W) 802.11g : 21.94 dBm (0.1563 W) 802.11n HT20 : 21.88 dBm (0.1542 W)</p> <p><Antenna 2> 802.11b : 19.03 dBm (0.0800 W) 802.11g : 21.27 dBm (0.1340 W) 802.11n HT20 : 21.53 dBm (0.1422 W)</p>												
Antenna Type	<p><Antenna 1> 802.11b/g/n : Fixed Internal Antenna type with gain 2.06 dBi</p> <p><Antenna 2> 802.11b/g/n : Fixed Internal Antenna type with gain 1.54 dBi</p>												
Type of Modulation	802.11b : DSSS (DBPSK / DQPSK / CCK) 802.11g/n : OFDM (BPSK / QPSK / 16QAM / 64QAM)												
Duty Cycle	<p><Antenna 1> 802.11b : 100 % 802.11g : 98.07 % 802.11n HT20 : 98.45 %</p> <p><Antenna 2> 802.11b : 100 % 802.11g : 98.54 % 802.11n HT20 : 98.45 %</p>												
Antenna Function for Transmitter	<table border="1"> <thead> <tr> <th></th> <th>Ant 1.</th> <th>Ant 2.</th> </tr> </thead> <tbody> <tr> <td>802.11 b SISO</td> <td>V</td> <td>V</td> </tr> <tr> <td>802.11 g SISO</td> <td>V</td> <td>V</td> </tr> <tr> <td>802.11 n SISO</td> <td>V</td> <td>V</td> </tr> </tbody> </table>		Ant 1.	Ant 2.	802.11 b SISO	V	V	802.11 g SISO	V	V	802.11 n SISO	V	V
	Ant 1.	Ant 2.											
802.11 b SISO	V	V											
802.11 g SISO	V	V											
802.11 n SISO	V	V											

1.4 Modification of EUT

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

1.5 Testing Site

Test Site	SPORTON INTERNATIONAL INC.			
Test Site Location	No. 52, Hwa Ya 1 st 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	03CH08-HY	636805

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

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 C §15.247
- FCC KDB Publication No. 558074 D01 DTS Meas. Guidance v03r01

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 for Antenna 1 and X plane for Antenna 2) 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 and 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		

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.

<Antenna 1>

802.11b				
Data Rate (MHz)	1M bps	2M bps	5.5M bps	11M bps
Peak Power (dBm)	19.13	19.10	19.06	19.09

802.11g								
Data Rate (MHz)	6M bps	9M bps	12M bps	18M bps	24M bps	36M bps	48M bps	54M bps
Peak Power (dBm)	21.94	21.92	21.84	21.85	21.86	21.87	21.81	21.83

2.4GHz 802.11n HT20 mode								
Data Rate (MHz)	MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
Peak Power (dBm)	21.88	21.76	21.66	21.48	21.64	21.81	21.68	21.73

<Antenna 2>

802.11b				
Data Rate (MHz)	1M bps	2M bps	5.5M bps	11M bps
Peak Power (dBm)	19.03	19.02	19.00	18.98

802.11g								
Data Rate (MHz)	6M bps	9M bps	12M bps	18M bps	24M bps	36M bps	48M bps	54M bps
Peak Power (dBm)	21.27	21.17	21.18	21.24	21.12	21.11	21.21	21.24

2.4GHz 802.11n HT20 mode								
Data Rate (MHz)	MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
Peak Power (dBm)	21.53	21.43	21.30	21.44	21.48	21.50	21.49	21.52

2.3 Test Mode

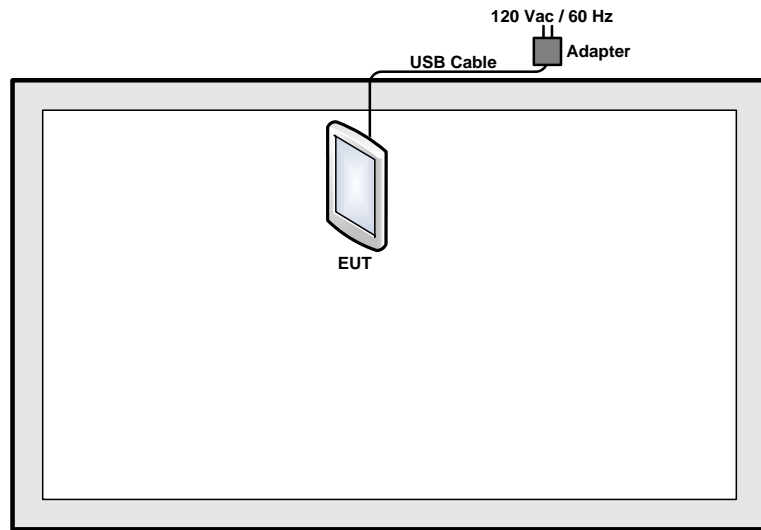
Final results of test modes, data rates and test channels are shown as following table.

Test Cases				
Conducted TCs	Test Items	Mode	Data Rate	Test Channel
	6dB Power Spectral Density	802.11b	1 Mbps	1/6/11
		802.11g	6 Mbps	1/6/11
		802.11n HT20	MCS0	1/6/11
	Output Power	802.11b	1 Mbps	1/6/11
		802.11g	6 Mbps	1/6/11
		802.11n HT20	MCS0	1/6/11
	Conducted Band Edge	802.11b	1 Mbps	1/11
		802.11g	6 Mbps	1/11
		802.11n HT20	MCS0	1/11
	Conducted Spurious Emission	802.11b	1 Mbps	1/6/11
		802.11g	6 Mbps	1/6/11
802.11n HT20		MCS0	1/6/11	
Radiated TCs	Radiated Band Edge	802.11b	1 Mbps	1/11
		802.11g	6 Mbps	1/11
		802.11n HT20	MCS0	1/11
	Radiated Spurious Emission	802.11b	1 Mbps	1/6/11
		802.11g	6 Mbps	1/6/11
		802.11n HT20	MCS0	1/6/11
Remark: All the Radiated TCs were performed with USB Cable and Adapter.				

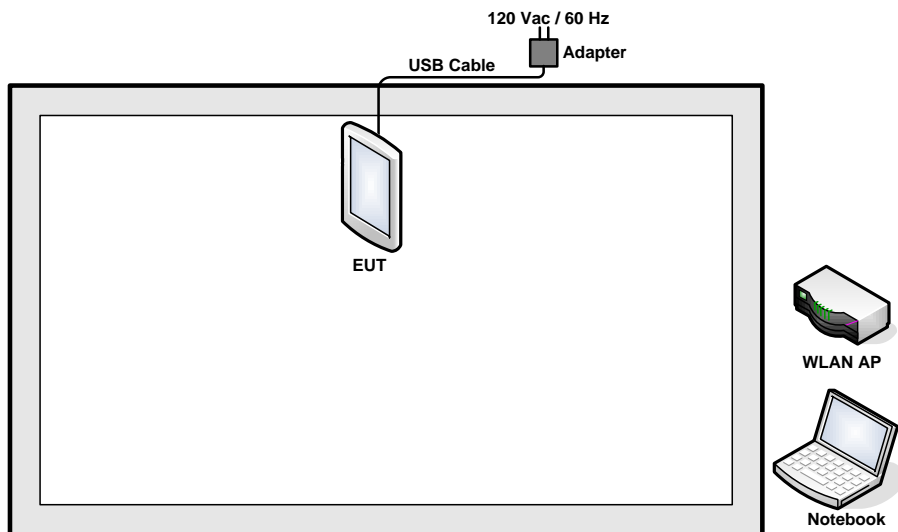
Test Cases	
AC Conducted Emission	Mode 1 : WLAN Link + USB Cable (Charging from Adapter)

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.	WLAN AP	D-Link	DIR-628	KA2DIR628A2	N/A	Unshielded, 1.8 m
2.	Notebook	DELL	Latitude E6320	FCC DoC	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
3.	Adapter	N/A	PE98ED	Verification	N/A	N/A
4.	USB Cable	N/A	VR47XW	N/A	Unshielded, 1.6 m	N/A

2.6 Description of RF Function Operation Test Setup

The programmed RF utility is installed in EUT to provide channel selection, power level, data rate and the application type. RF Utility can send transmitting signal for all testing.

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.

$$\begin{aligned} \text{Offset(dB)} &= \text{RF cable loss(dB)} + \text{attenuator factor(dB)}. \\ &= 4.2 + 10 = 14.2 \text{ (dB)} \end{aligned}$$

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.

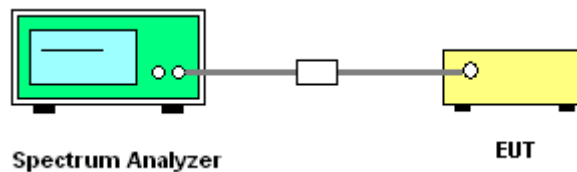
3.1.2 Measuring Instruments

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



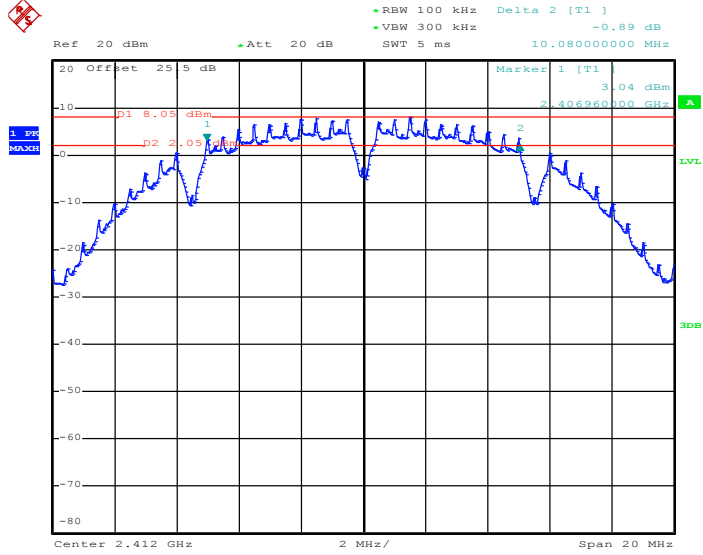
3.1.5 Test Result of 6dB Occupied Bandwidth

Test Band :	2.4GHz	Temperature :	24~26°C
Test Engineer :	Reece Lee	Relative Humidity :	55~58%

Mod.	Data Rate	N _{TX}	Channel	Freq. (MHz)	6dB Bandwidth (MHz)		6dB Bandwidth Min. Limit (MHz)	Pass/Fail
					Ant. 1	Ant. 2		
11b	1Mbps	1	1	2412	10.08	10.08	0.5	Pass
11b	1Mbps	1	6	2437	10.08	10.08	0.5	Pass
11b	1Mbps	1	11	2462	10.08	10.08	0.5	Pass
11g	6Mbps	1	1	2412	16.28	16.28	0.5	Pass
11g	6Mbps	1	6	2437	16.32	16.32	0.5	Pass
11g	6Mbps	1	11	2462	16.32	16.32	0.5	Pass
HT20	MCS0	1	1	2412	17.52	17.52	0.5	Pass
HT20	MCS0	1	6	2437	17.52	17.56	0.5	Pass
HT20	MCS0	1	11	2462	17.52	17.52	0.5	Pass

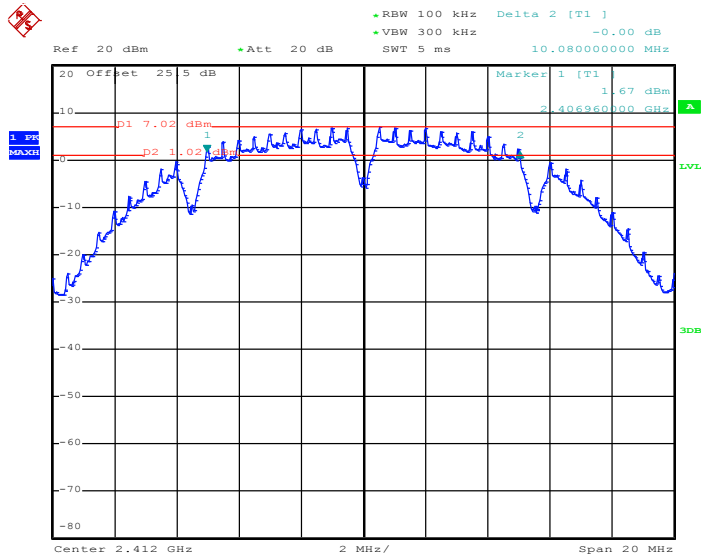
Worst Case 6dB Bandwidth

Ant. 1



Date: 6.JUL.2013 11:38:31

Ant. 2



Date: 6.JUL.2013 10:26:23

3.2 Peak Output Power Measurement

3.2.1 Limit of Peak Output Power

For systems using digital modulation in the 2400-2483.5MHz, the limit for peak output power is 30dBm. If transmitting antenna with directional gain greater than 6dBi is 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.

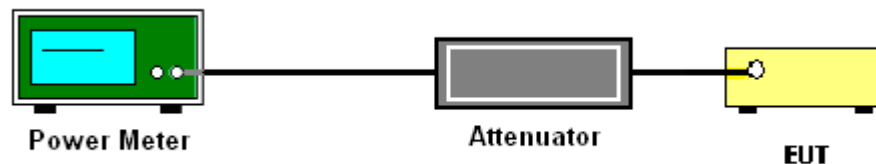
3.2.2 Measuring Instruments

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 Band :	2.4GHz	Temperature :	24~26°C
Test Engineer :	Reece Lee	Relative Humidity :	55~58%

Mod.	Data Rate	N _{TX}	Ch.	Freq. (MHz)	RF Output Power (dBm)		Power Limit (dBm)	DG (dBi)		Pass/Fail
					Ant. 1	Ant. 2		Ant. 1	Ant. 2	
11b	1Mbps	1	1	2412	18.93	18.64	30	2.06	1.54	Pass
11b	1Mbps	1	6	2437	19.09	18.67	30	2.06	1.54	Pass
11b	1Mbps	1	11	2462	19.13	19.03	30	2.06	1.54	Pass
11g	6Mbps	1	1	2412	19.21	19.82	30	2.06	1.54	Pass
11g	6Mbps	1	6	2437	21.94	21.27	30	2.06	1.54	Pass
11g	6Mbps	1	11	2462	19.03	20.35	30	2.06	1.54	Pass
HT20	MCS0	1	1	2412	18.45	19.13	30	2.06	1.54	Pass
HT20	MCS0	1	6	2437	21.88	21.53	30	2.06	1.54	Pass
HT20	MCS0	1	11	2462	18.70	19.46	30	2.06	1.54	Pass

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

3.2.6 Test Result of Average output Power (Reporting Only)

Test Band :	2.4GHz	Temperature :	24~26°C
Test Engineer :	Reece Lee	Relative Humidity :	55~58%

Mod.	Data Rate	N _{TX}	Ch.	Freq. (MHz)	Duty Factor (dB)		RF Output Power (dBm)		Power Limit (dBm)	DG (dBi)		Pass/Fail
					Ant. 1	Ant. 2	Ant. 1	Ant. 2		Ant. 1	Ant. 2	
11b	1Mbps	1	1	2412	0.00	0.00	16.96	16.81	30	2.06	1.54	Pass
11b	1Mbps	1	6	2437	0.00	0.00	16.99	16.96	30	2.06	1.54	Pass
11b	1Mbps	1	11	2462	0.00	0.00	17.10	17.09	30	2.06	1.54	Pass
11g	6Mbps	1	1	2412	0.08	0.06	10.57	11.93	30	2.06	1.54	Pass
11g	6Mbps	1	6	2437	0.08	0.06	15.00	15.02	30	2.06	1.54	Pass
11g	6Mbps	1	11	2462	0.08	0.06	10.40	12.69	30	2.06	1.54	Pass
HT20	MCS0	1	1	2412	0.07	0.07	9.46	10.74	30	2.06	1.54	Pass
HT20	MCS0	1	6	2437	0.07	0.07	14.96	14.98	30	2.06	1.54	Pass
HT20	MCS0	1	11	2462	0.07	0.07	9.92	11.53	30	2.06	1.54	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.

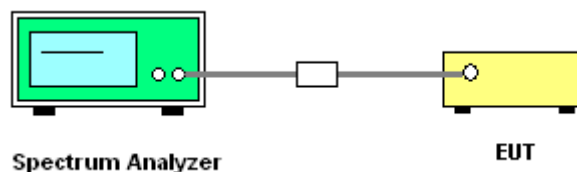
3.3.2 Measuring Instruments

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

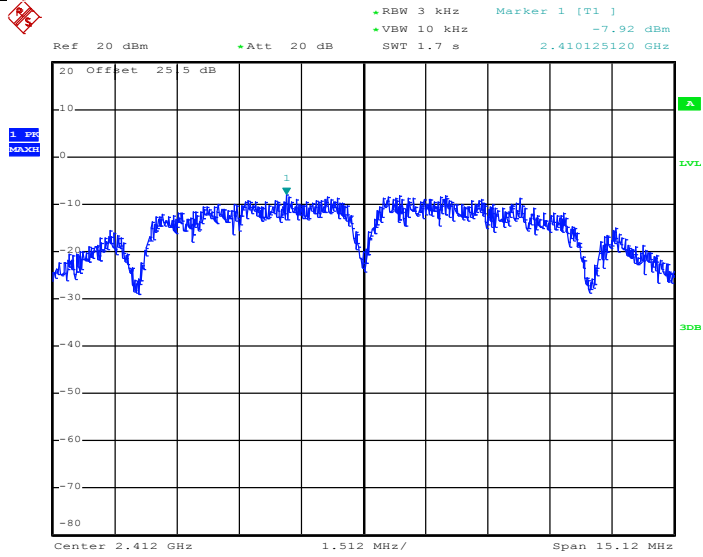
Test Band :	2.4GHz	Temperature :	24~26°C
Test Engineer :	Reece Lee	Relative Humidity :	55~58%

Mod.	Data Rate	N _{TX}	Ch.	Freq. (MHz)	Peak Power Density (dBm/3kHz)		Max. Limits (dBm/3kHz)	DG (dBi)		Pass/Fail
					Ant. 1	Ant. 2		Ant. 1	Ant. 2	
11b	1Mbps	1	1	2412	-7.92	-8.79	8	2.06	1.54	Pass
11b	1Mbps	1	6	2437	-8.22	-8.33	8	2.06	1.54	Pass
11b	1Mbps	1	11	2462	-8.25	-7.57	8	2.06	1.54	Pass
11g	6Mbps	1	1	2412	-14.68	-13.90	8	2.06	1.54	Pass
11g	6Mbps	1	6	2437	-8.42	-10.23	8	2.06	1.54	Pass
11g	6Mbps	1	11	2462	-15.17	-13.32	8	2.06	1.54	Pass
HT20	MCS0	1	1	2412	-17.00	-14.35	8	2.06	1.54	Pass
HT20	MCS0	1	6	2437	-10.09	-10.28	8	2.06	1.54	Pass
HT20	MCS0	1	11	2462	-16.67	-14.37	8	2.06	1.54	Pass

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

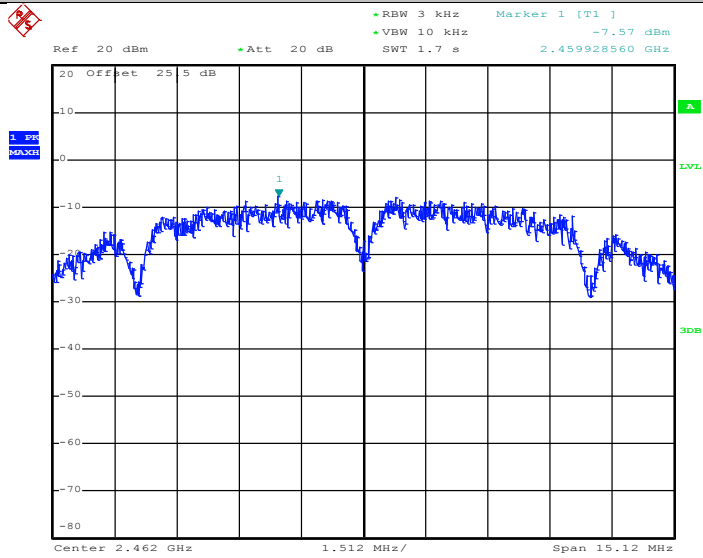
Worst Case Power Density (dBm/3kHz)

Ant. 1



Date: 6.JUL.2013 11:38:55

Ant. 2



Date: 6.JUL.2013 10:33:32

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).

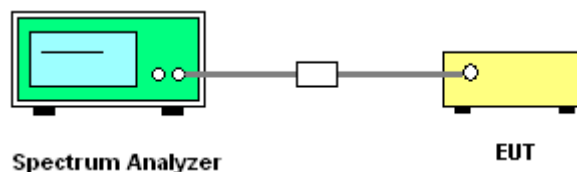
3.4.2 Measuring Instruments

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.

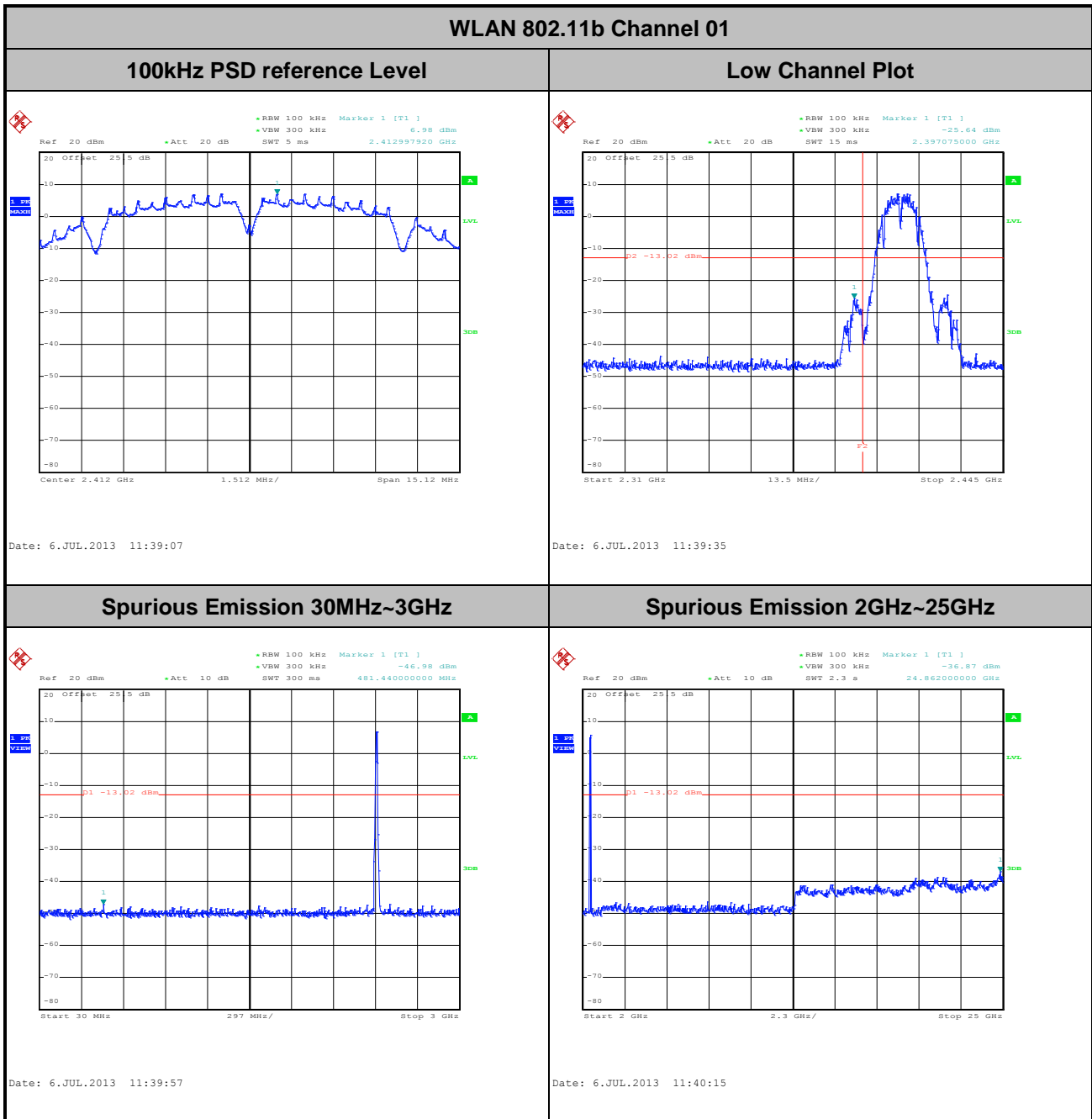
3.4.4 Test Setup



3.4.5 Test Result of Conducted Band Edges and Spurious Emission

<Ant. 1>

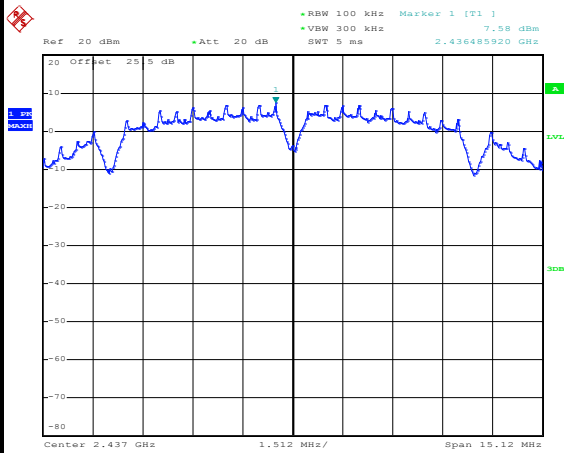
Test Mode :	802.11b	Temperature :	24~26°C
Test Band :	2.4GHz Low	Relative Humidity :	55~58%
Test Channel :	01	Test Engineer :	Reece Lee



Test Mode :	802.11b	Temperature :	24~26°C
Test Band :	2.4GHz Mid	Relative Humidity :	55~58%
Test Channel :	06	Test Engineer :	Reece Lee

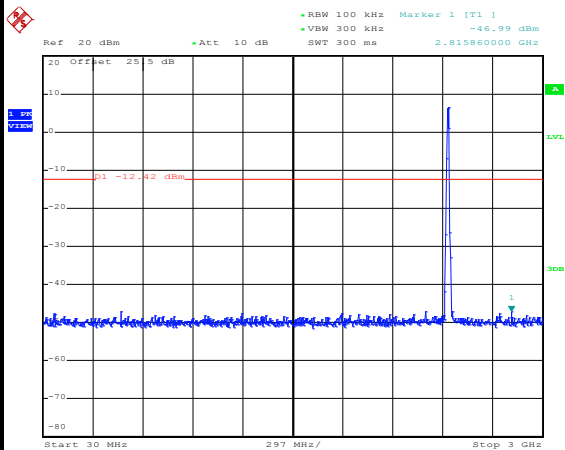
WLAN 802.11b Channel 06

100kHz PSD reference Level



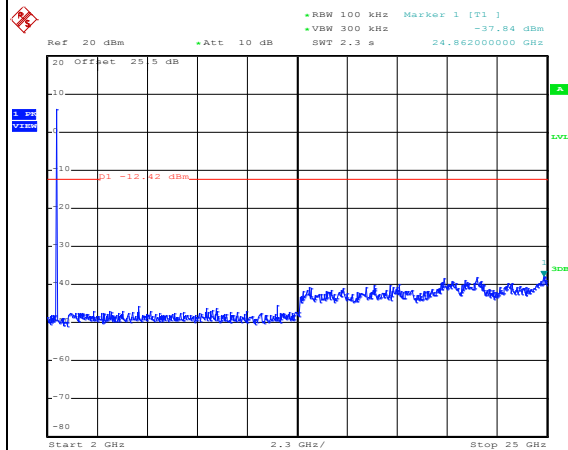
Date: 6.JUL.2013 11:08:00

Spurious Emission 30MHz~3GHz



Date: 6.JUL.2013 11:08:59

Spurious Emission 2GHz~25GHz

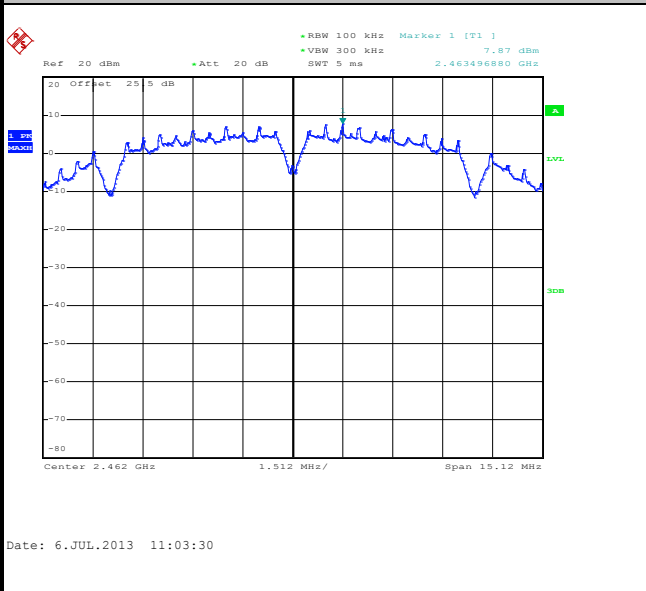


Date: 6.JUL.2013 11:09:17

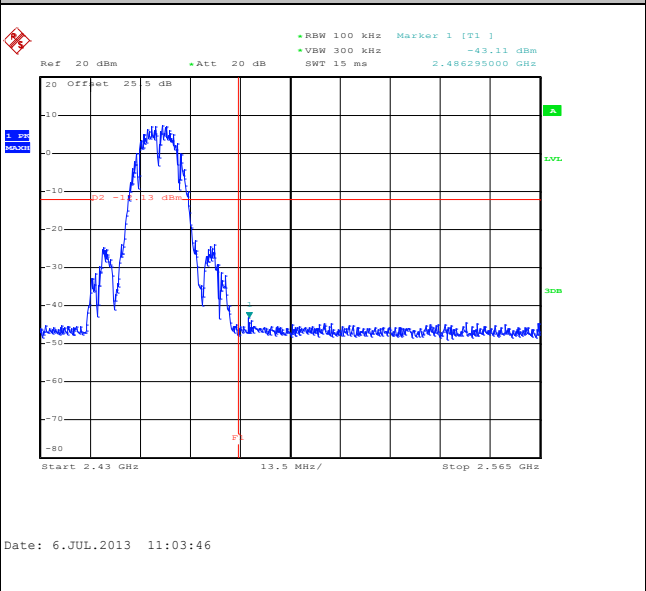
Test Mode :	802.11b	Temperature :	24~26°C
Test Band :	2.4GHz High	Relative Humidity :	55~58%
Test Channel :	11	Test Engineer :	Reece Lee

WLAN 802.11b Channel 11

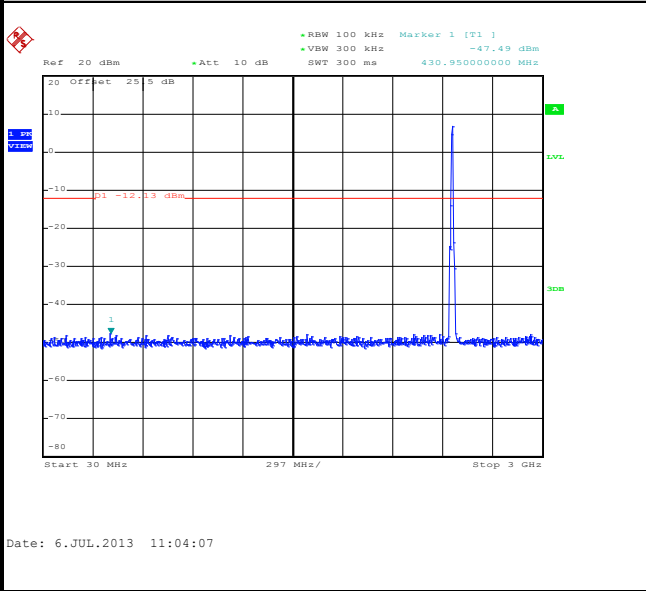
100kHz PSD reference Level



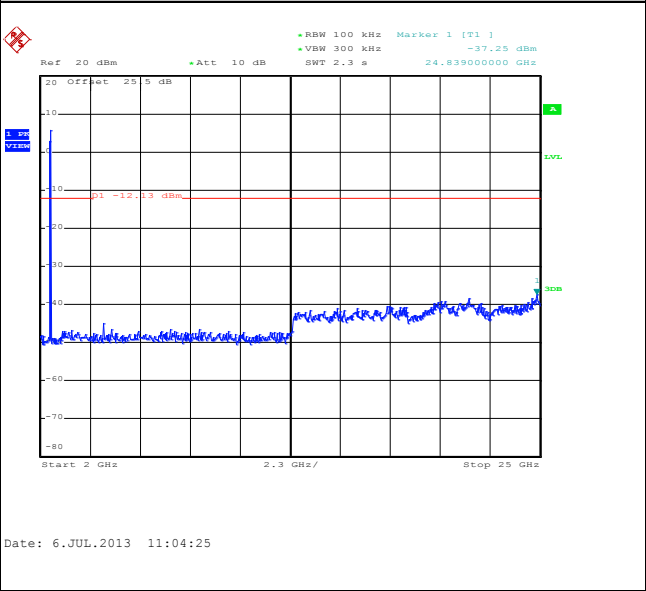
High Channel Plot



Spurious Emission 30MHz~3GHz



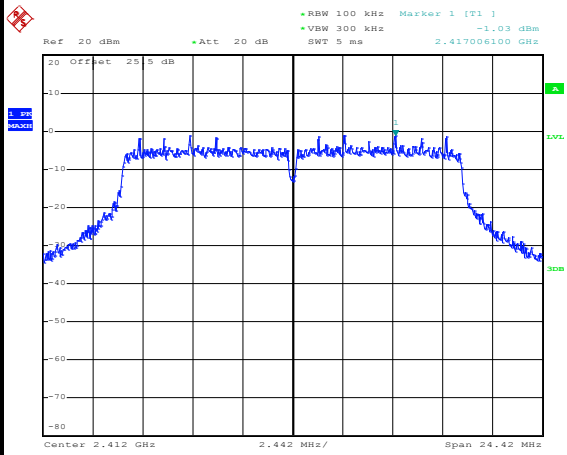
Spurious Emission 2GHz~25GHz



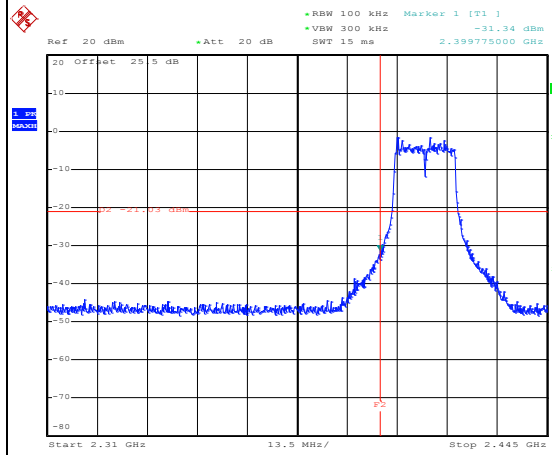
Test Mode :	802.11g	Temperature :	24~26°C
Test Band :	2.4GHz Low	Relative Humidity :	55~58%
Test Channel :	01	Test Engineer :	Reece Lee

WLAN 802.11g Channel 01

100kHz PSD reference Level

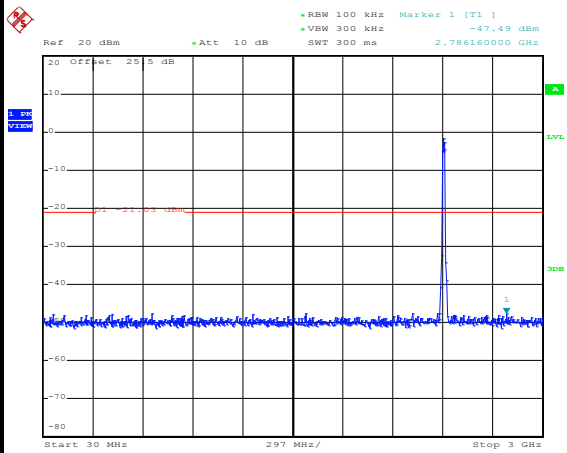


Date: 6.JUL.2013 13:04:25



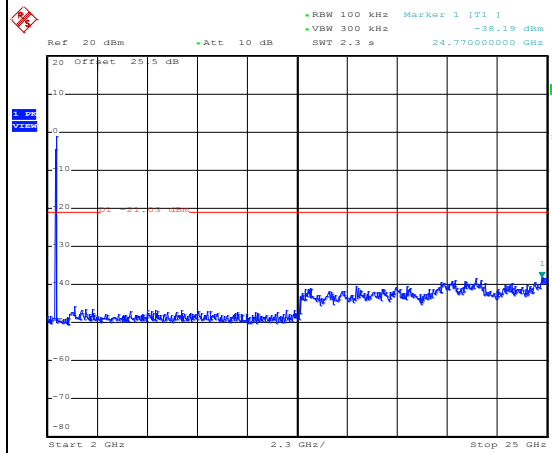
Date: 6.JUL.2013 13:04:41

Spurious Emission 30MHz~3GHz



Date: 6.JUL.2013 13:05:03

Spurious Emission 2GHz~25GHz

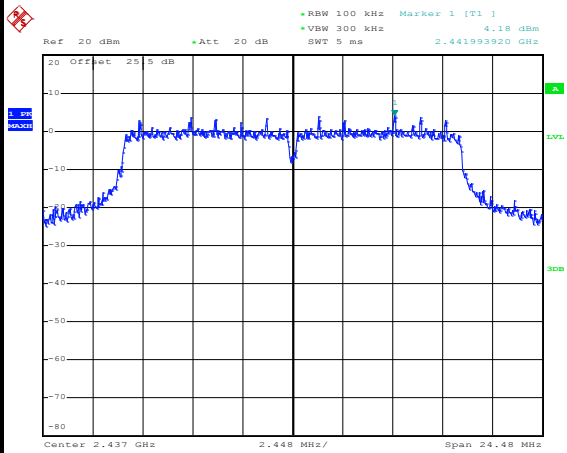


Date: 6.JUL.2013 13:05:22

Test Mode :	802.11g	Temperature :	24~26°C
Test Band :	2.4GHz Mid	Relative Humidity :	55~58%
Test Channel :	06	Test Engineer :	Reece Lee

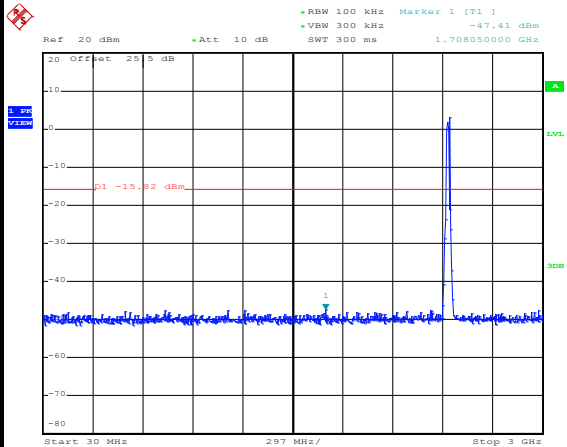
WLAN 802.11g Channel 06

100kHz PSD reference Level



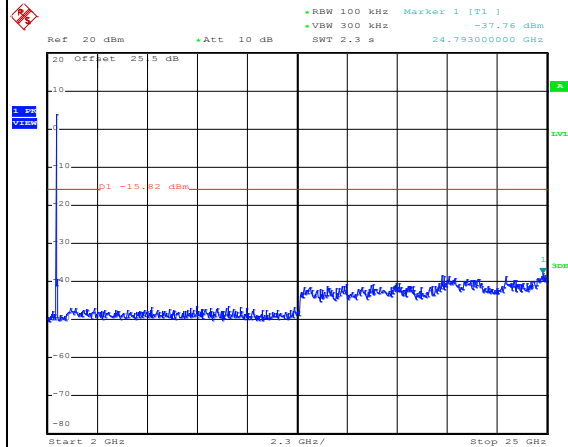
Date: 6.JUL.2013 13:00:28

Spurious Emission 30MHz~3GHz



Date: 6.JUL.2013 13:00:51

Spurious Emission 2GHz~25GHz

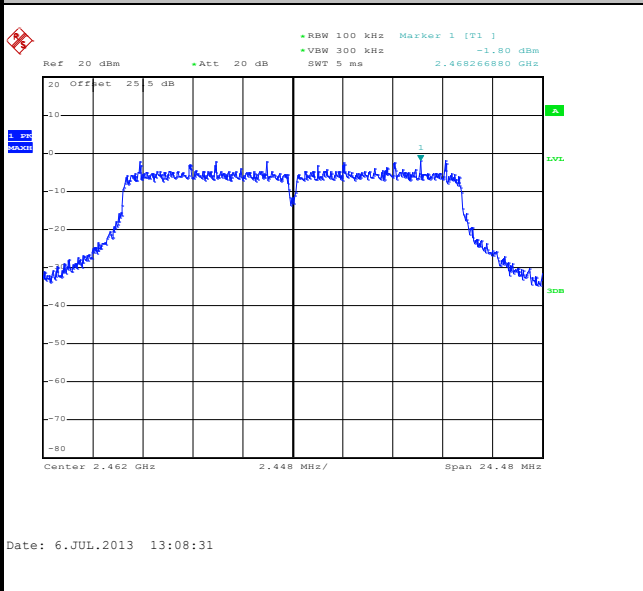


Date: 6.JUL.2013 13:01:09

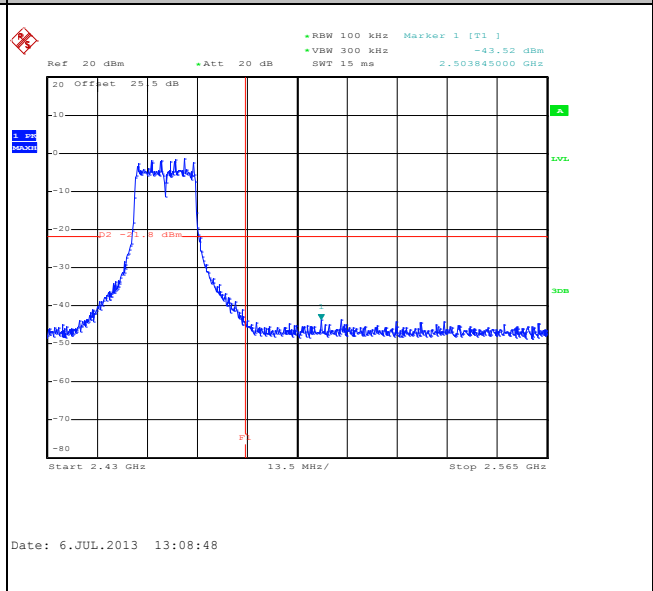
Test Mode :	802.11g	Temperature :	24~26°C
Test Band :	2.4GHz High	Relative Humidity :	55~58%
Test Channel :	11	Test Engineer :	Reece Lee

WLAN 802.11g Channel 11

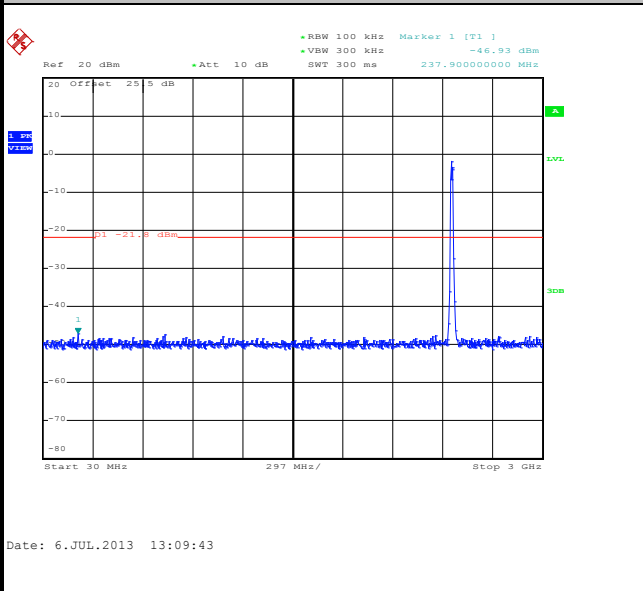
100kHz PSD reference Level



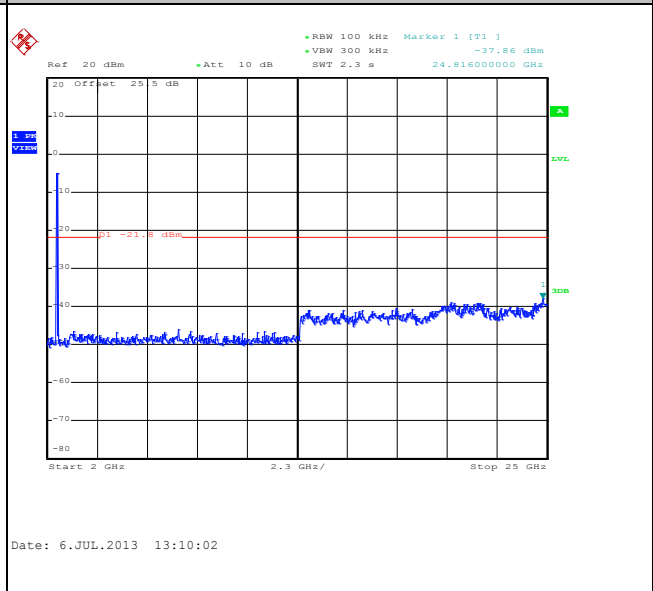
High Channel Plot



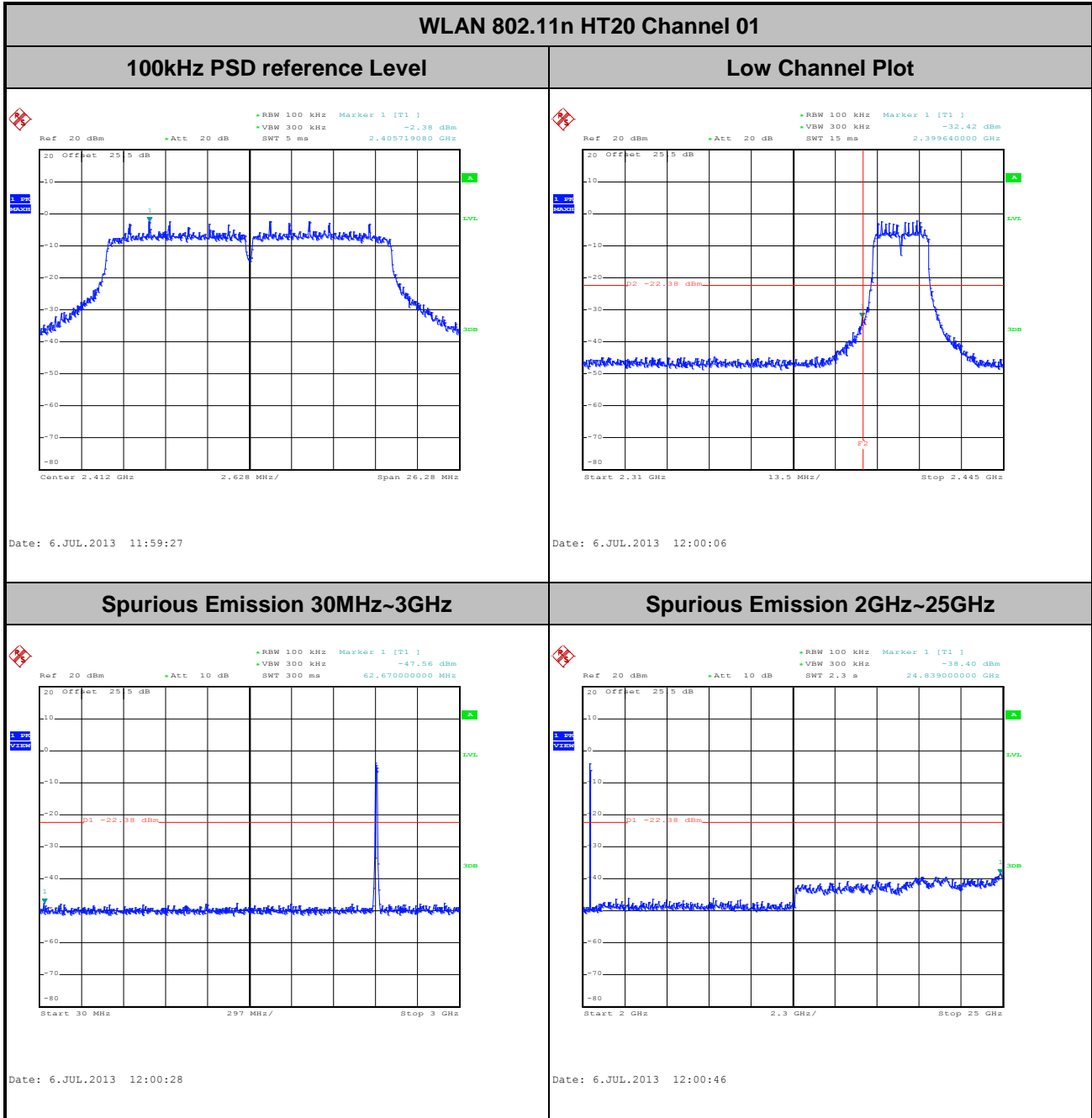
Spurious Emission 30MHz~3GHz



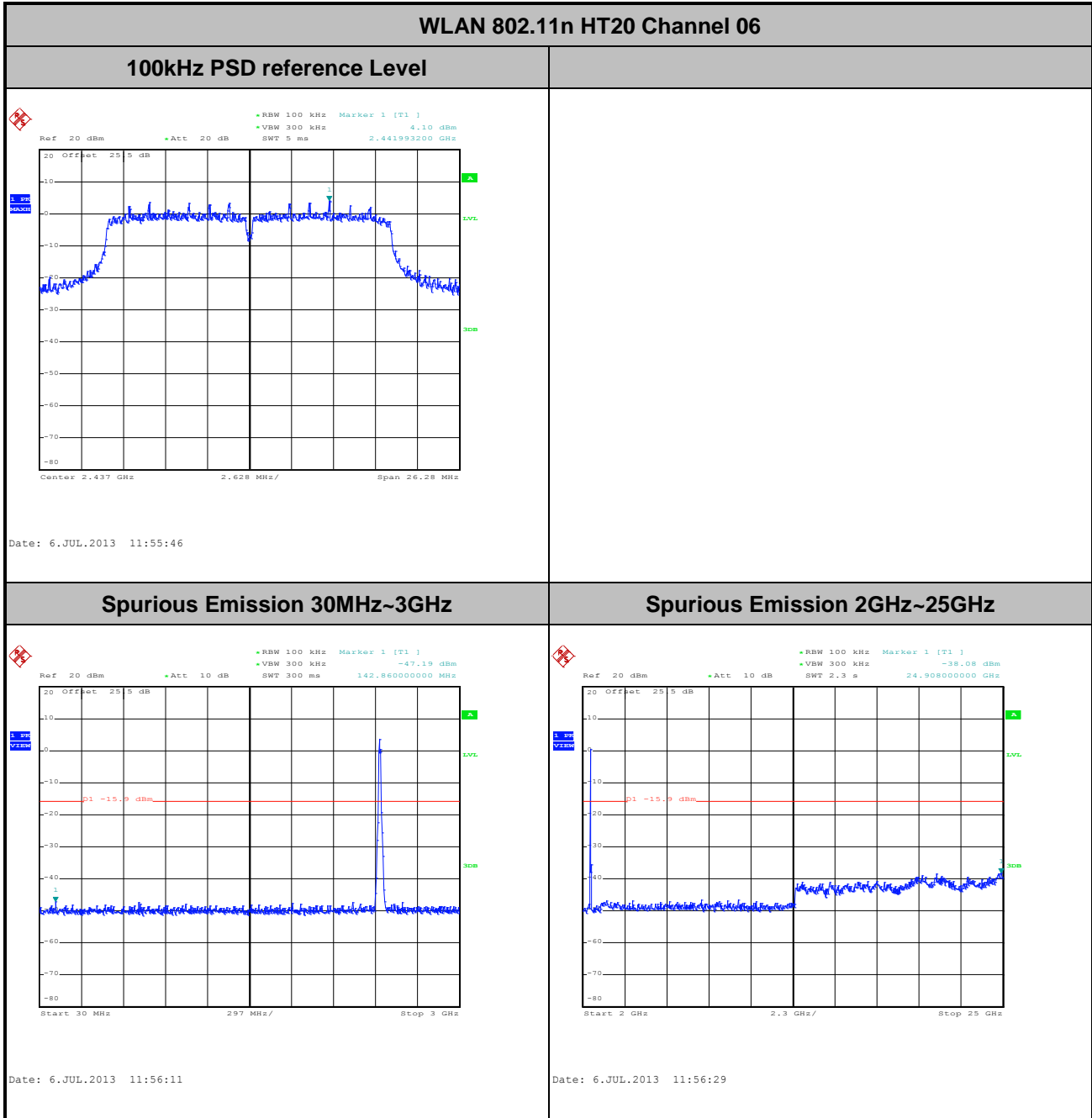
Spurious Emission 2GHz~25GHz



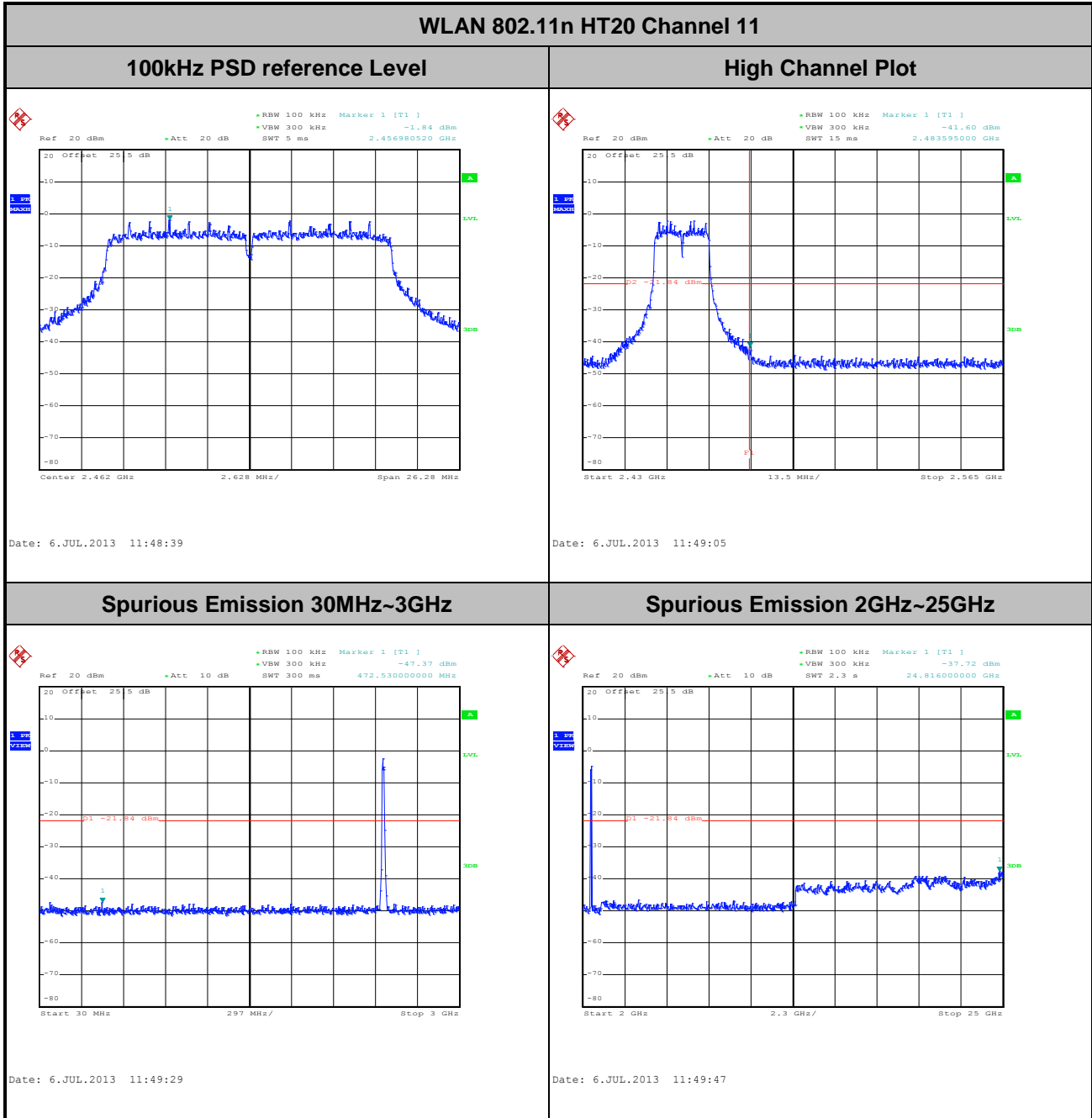
Test Mode :	802.11n HT20	Temperature :	24~26°C
Test Band :	2.4GHz Low	Relative Humidity :	55~58%
Test Channel :	01	Test Engineer :	Reece Lee



Test Mode :	802.11n HT20	Temperature :	24~26°C
Test Band :	2.4GHz Mid	Relative Humidity :	55~58%
Test Channel :	06	Test Engineer :	Reece Lee



Test Mode :	802.11n HT20	Temperature :	24~26°C
Test Band :	2.4GHz High	Relative Humidity :	55~58%
Test Channel :	11	Test Engineer :	Reece Lee

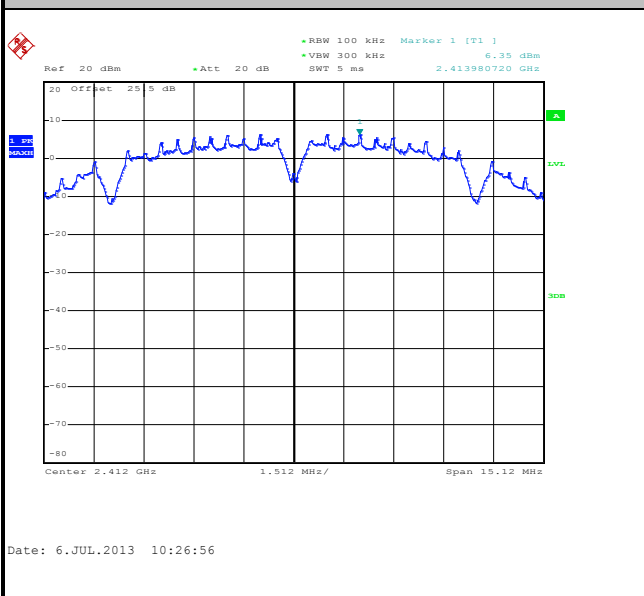


<Ant. 2>

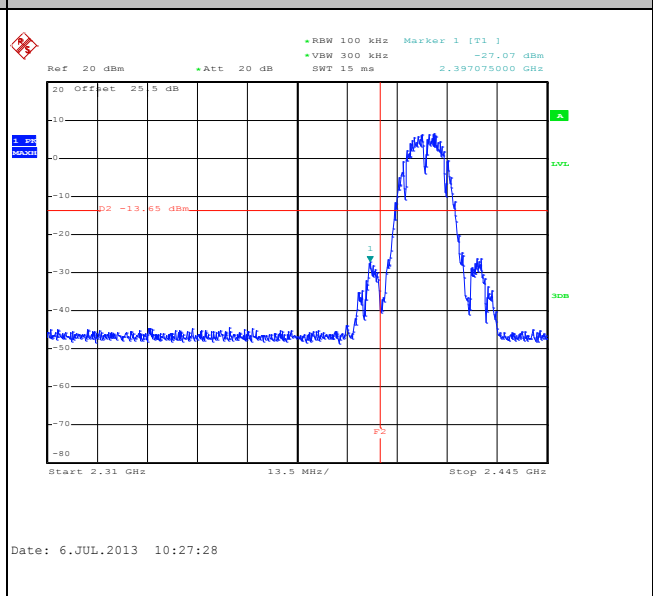
Test Mode :	802.11b	Temperature :	24~26°C
Test Band :	2.4GHz Low	Relative Humidity :	55~58%
Test Channel :	01	Test Engineer :	Reece Lee

WLAN 802.11b Channel 01

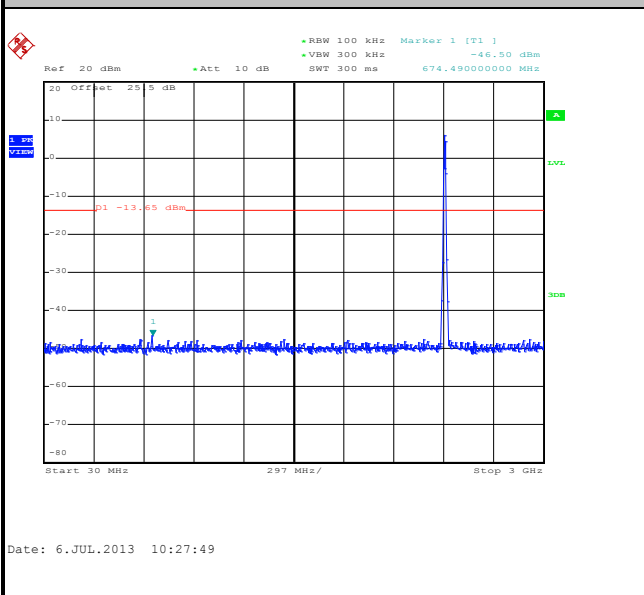
100kHz PSD reference Level



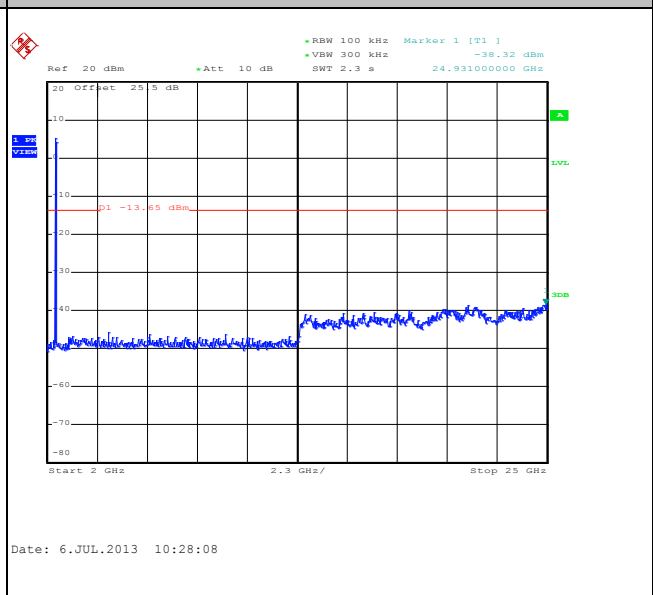
Low Channel Plot



Spurious Emission 30MHz~3GHz



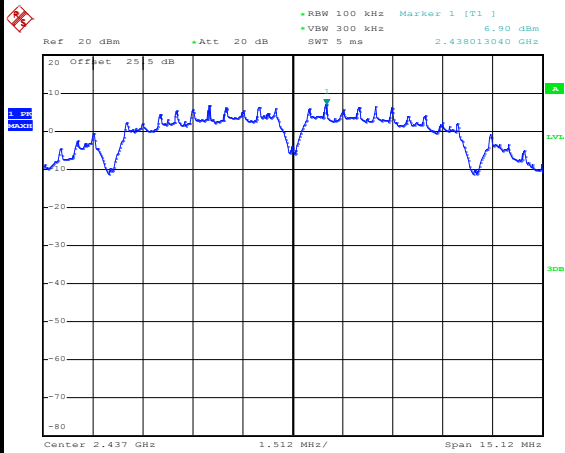
Spurious Emission 2GHz~25GHz



Test Mode :	802.11b	Temperature :	24~26°C
Test Band :	2.4GHz Mid	Relative Humidity :	55~58%
Test Channel :	06	Test Engineer :	Reece Lee

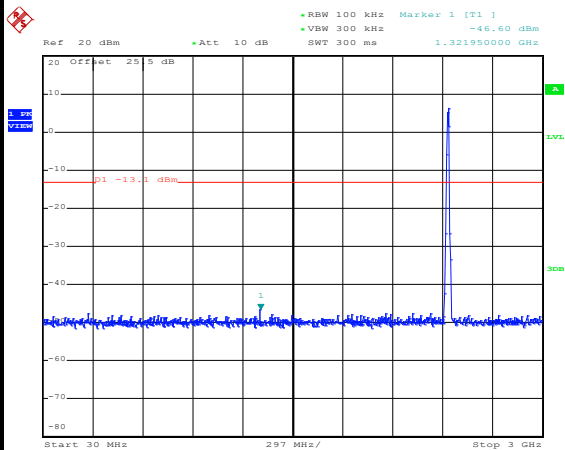
WLAN 802.11b Channel 06

100kHz PSD reference Level



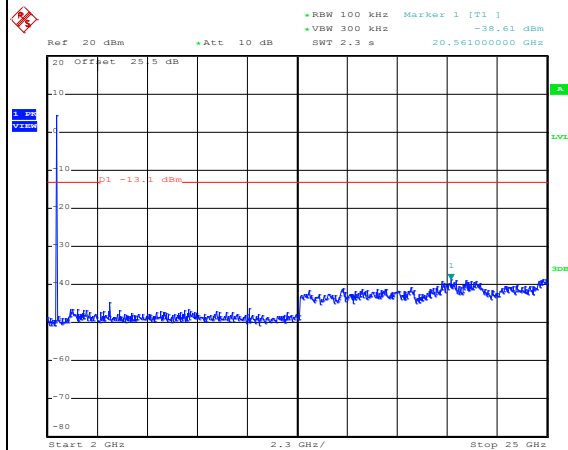
Date: 6.JUL.2013 10:30:51

Spurious Emission 30MHz~3GHz



Date: 6.JUL.2013 10:31:13

Spurious Emission 2GHz~25GHz

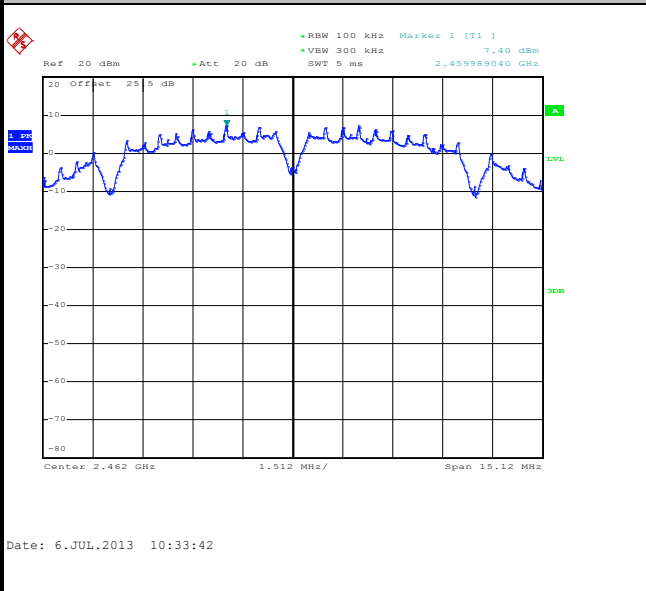


Date: 6.JUL.2013 10:31:31

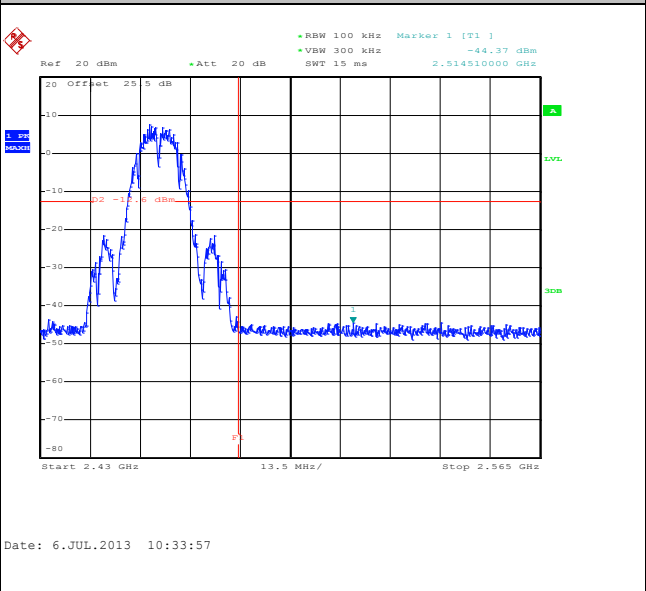
Test Mode :	802.11b	Temperature :	24~26°C
Test Band :	2.4GHz High	Relative Humidity :	55~58%
Test Channel :	11	Test Engineer :	Reece Lee

WLAN 802.11b Channel 11

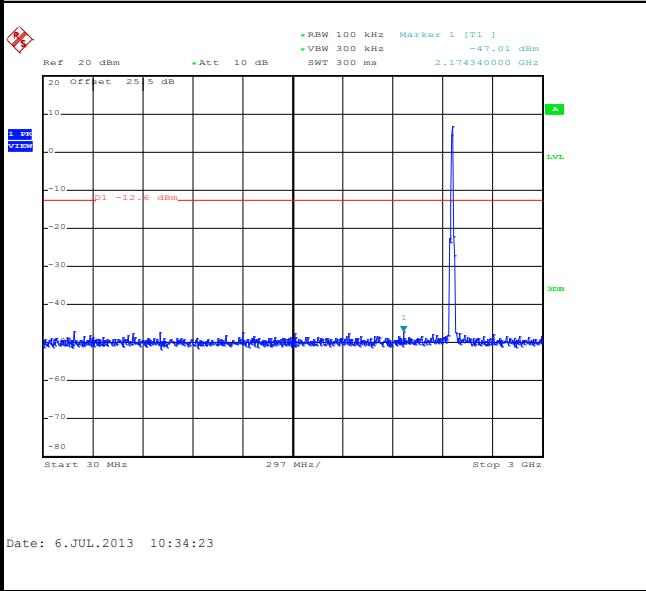
100kHz PSD reference Level



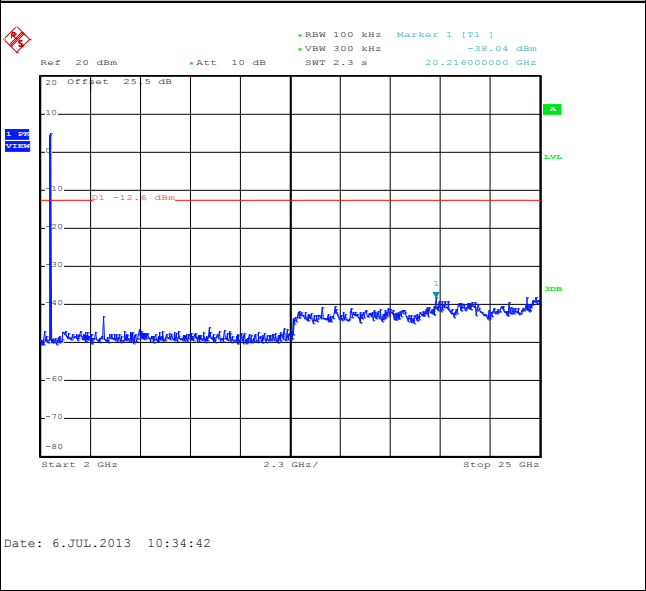
High Channel Plot



Spurious Emission 30MHz~3GHz



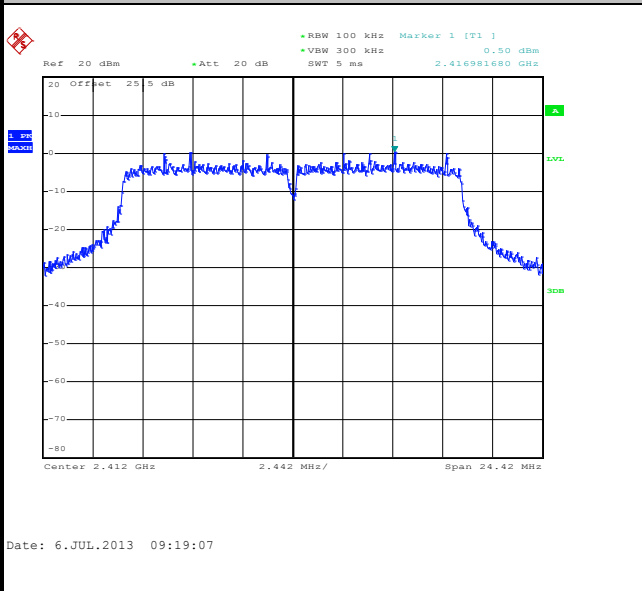
Spurious Emission 2GHz~25GHz



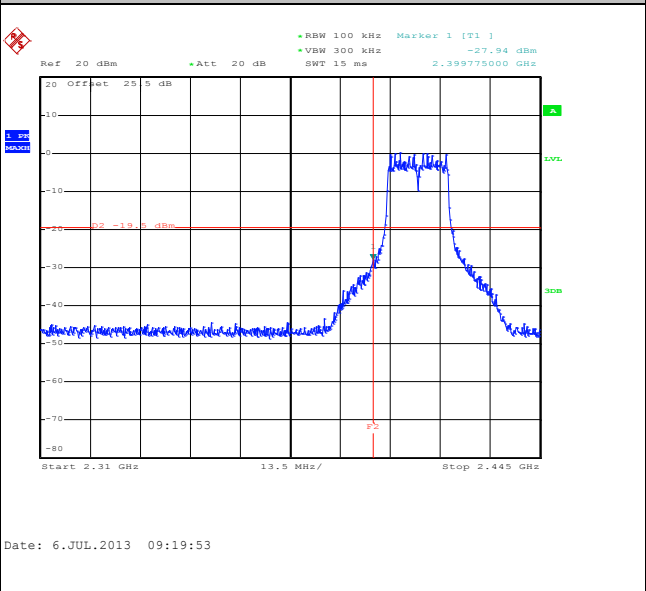
Test Mode :	802.11g	Temperature :	24~26°C
Test Band :	2.4GHz Low	Relative Humidity :	55~58%
Test Channel :	01	Test Engineer :	Reece Lee

WLAN 802.11g Channel 01

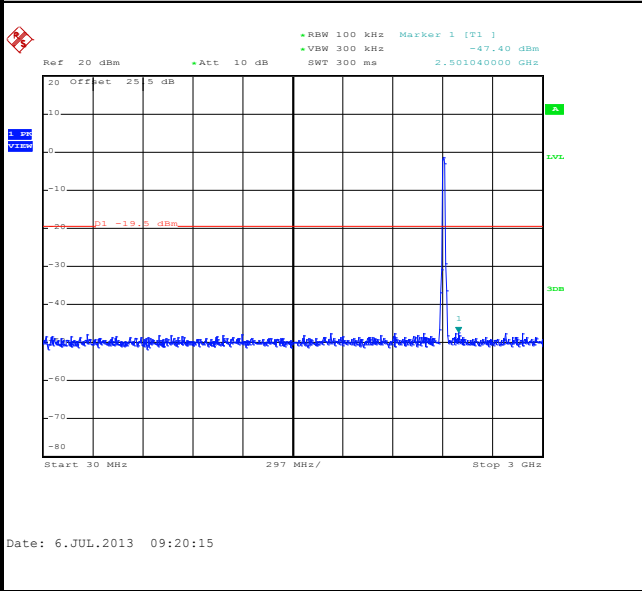
100kHz PSD reference Level



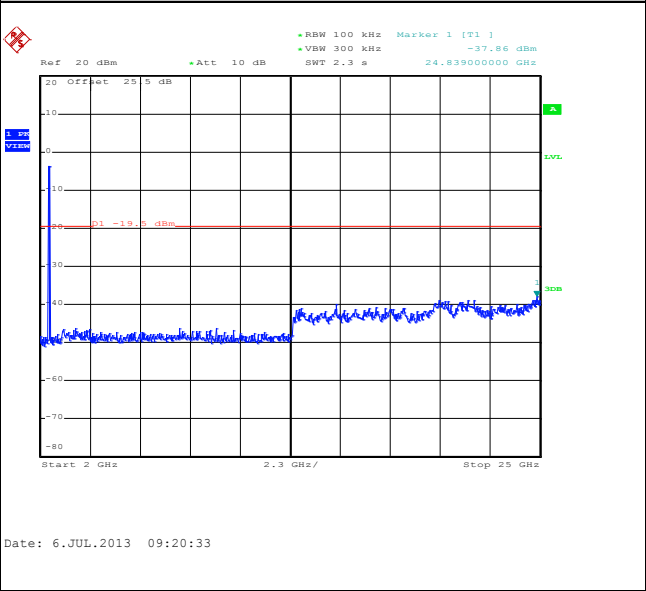
Low Channel Plot



Spurious Emission 30MHz~3GHz



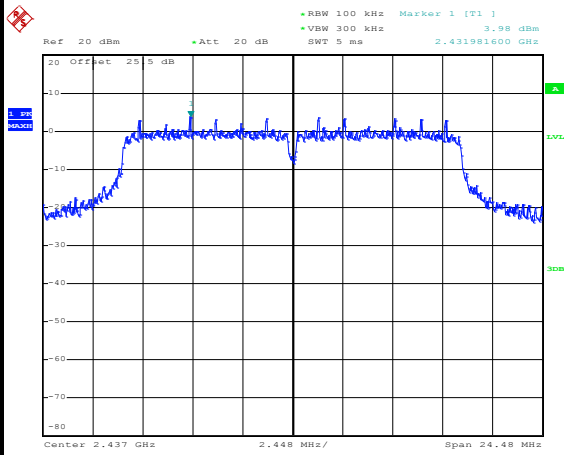
Spurious Emission 2GHz~25GHz



Test Mode :	802.11g	Temperature :	24~26°C
Test Band :	2.4GHz Mid	Relative Humidity :	55~58%
Test Channel :	06	Test Engineer :	Reece Lee

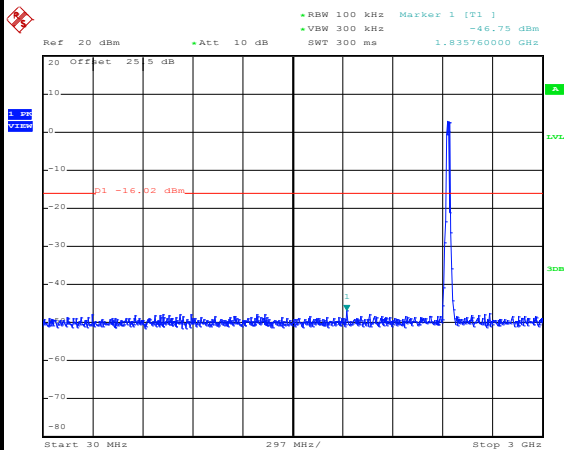
WLAN 802.11g Channel 06

100kHz PSD reference Level



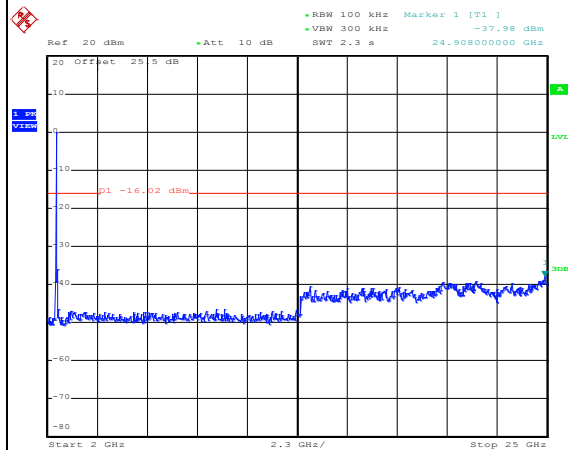
Date: 6.JUL.2013 09:24:34

Spurious Emission 30MHz~3GHz



Date: 6.JUL.2013 09:24:57

Spurious Emission 2GHz~25GHz

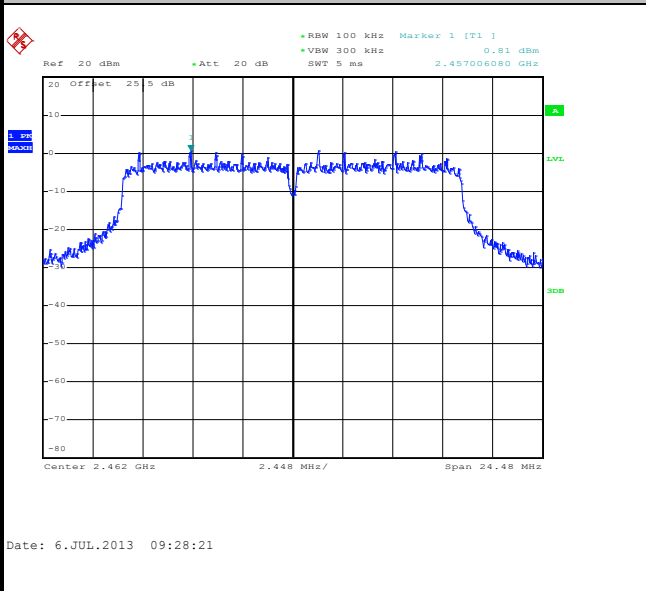


Date: 6.JUL.2013 09:25:16

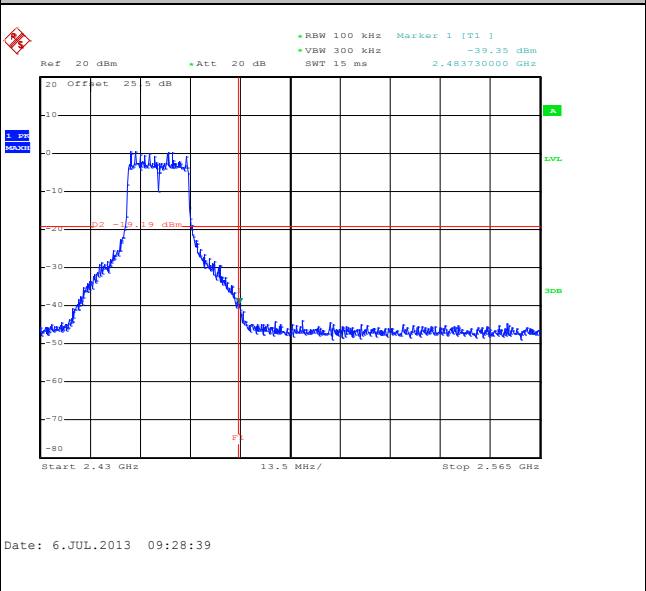
Test Mode :	802.11g	Temperature :	24~26°C
Test Band :	2.4GHz High	Relative Humidity :	55~58%
Test Channel :	11	Test Engineer :	Reece Lee

WLAN 802.11g Channel 11

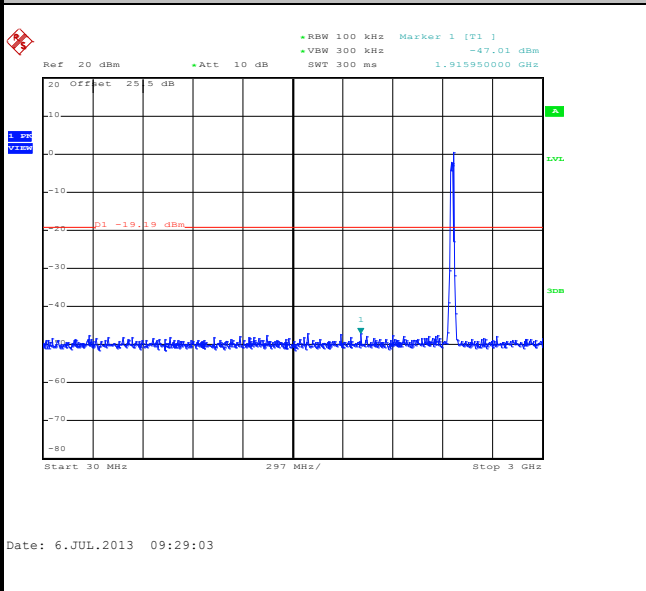
100kHz PSD reference Level



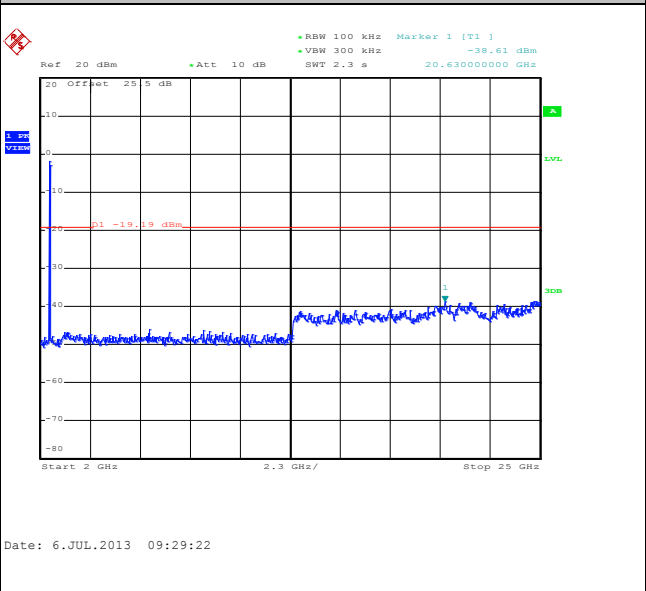
High Channel Plot



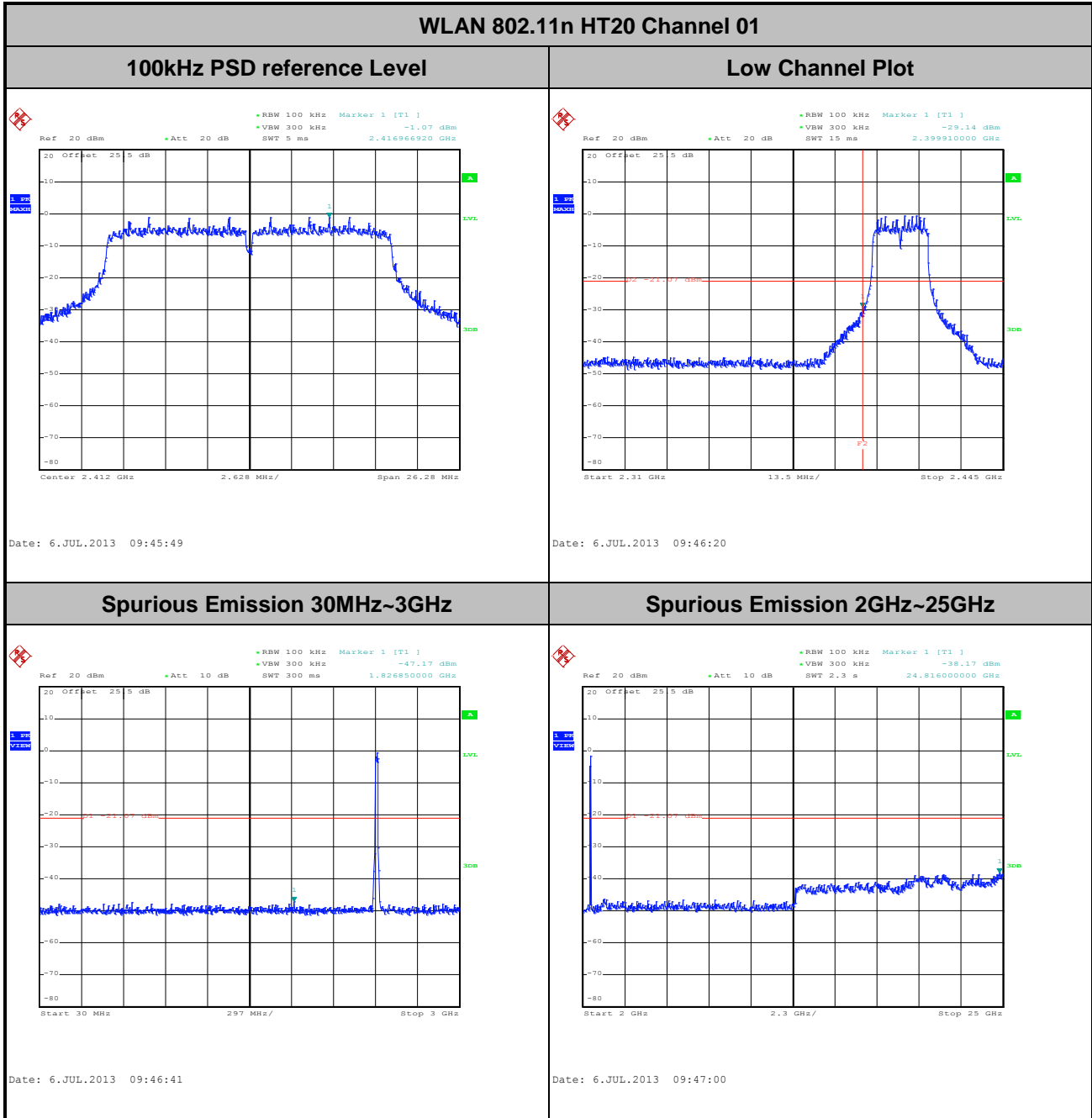
Spurious Emission 30MHz~3GHz



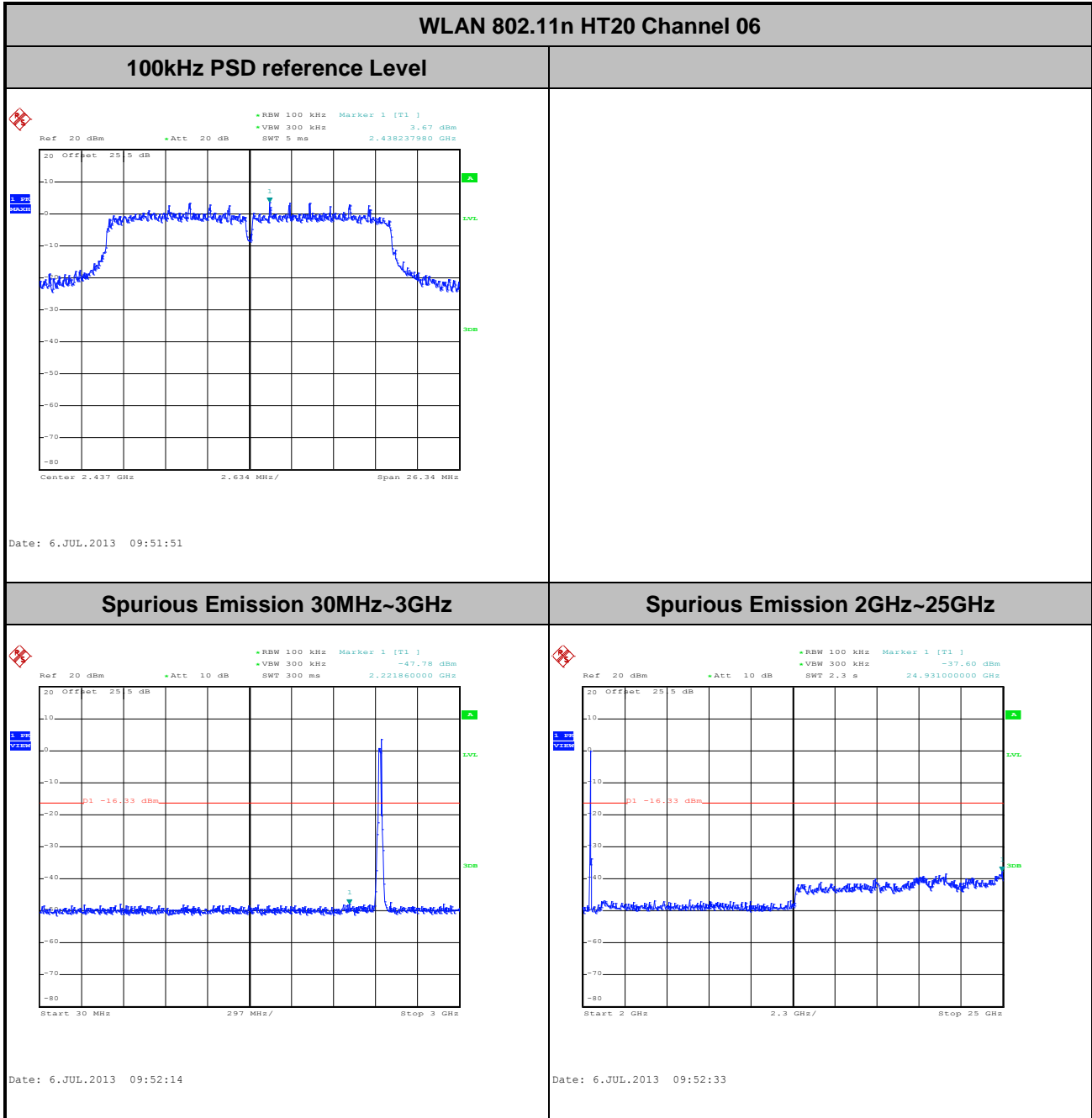
Spurious Emission 2GHz~25GHz



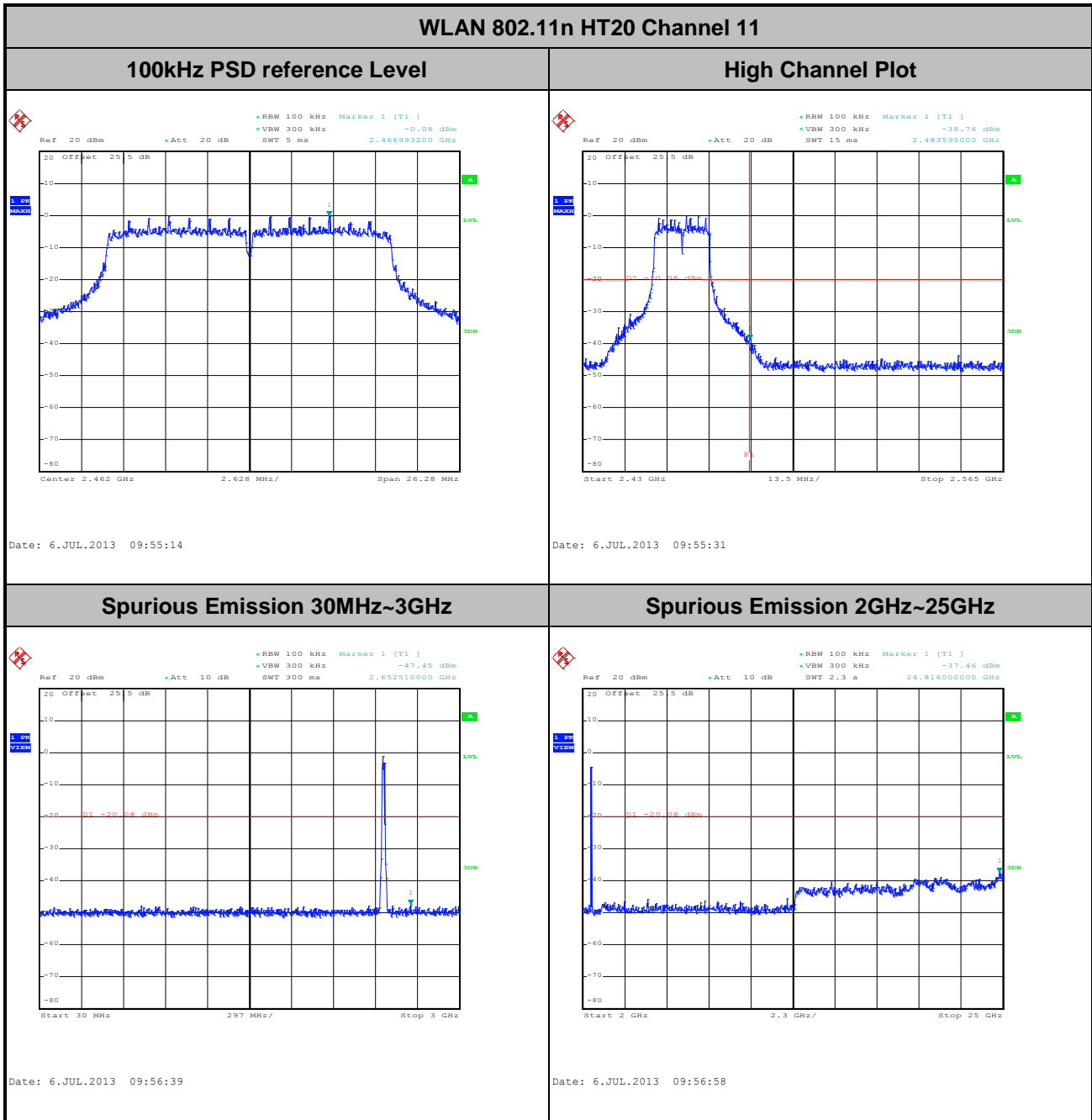
Test Mode :	802.11n HT20	Temperature :	24~26°C
Test Band :	2.4GHz Low	Relative Humidity :	55~58%
Test Channel :	01	Test Engineer :	Reece Lee



Test Mode :	802.11n HT20	Temperature :	24~26°C
Test Band :	2.4GHz Mid	Relative Humidity :	55~58%
Test Channel :	06	Test Engineer :	Reece Lee



Test Mode :	802.11n HT20	Temperature :	24~26°C
Test Band :	2.4GHz High	Relative Humidity :	55~58%
Test Channel :	11	Test Engineer :	Reece Lee



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 Procedure

1. The testing follows the guidelines in FCC KDB 558074 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; $VBW \geq RBW$; Sweep = auto; Detector function = peak; Trace = max hold;
 - (3) Set RBW = 1 MHz, VBW= 3MHz for $f \geq 1$ GHz for peak measurement.

For average measurement:

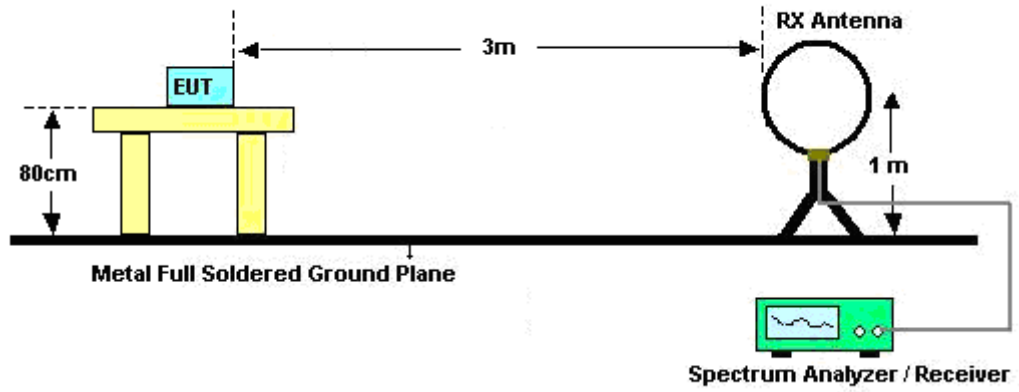
 - $VBW = 10$ Hz, when duty cycle is no less than 98 percent.
 - $VBW \geq 1/T$, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.

Antenna	Band	Duty Cycle (%)	T(us)	1/T(kHz)	VBW Setting
1	802.11b	100.00	-	-	10Hz
1	802.11g	98.07	-	-	
1	2.4G 802.11n HT20	98.45	-	-	
2	802.11b	100.00	-	-	10Hz
2	802.11g	98.54	-	-	
2	2.4G 802.11n HT20	98.45	-	-	

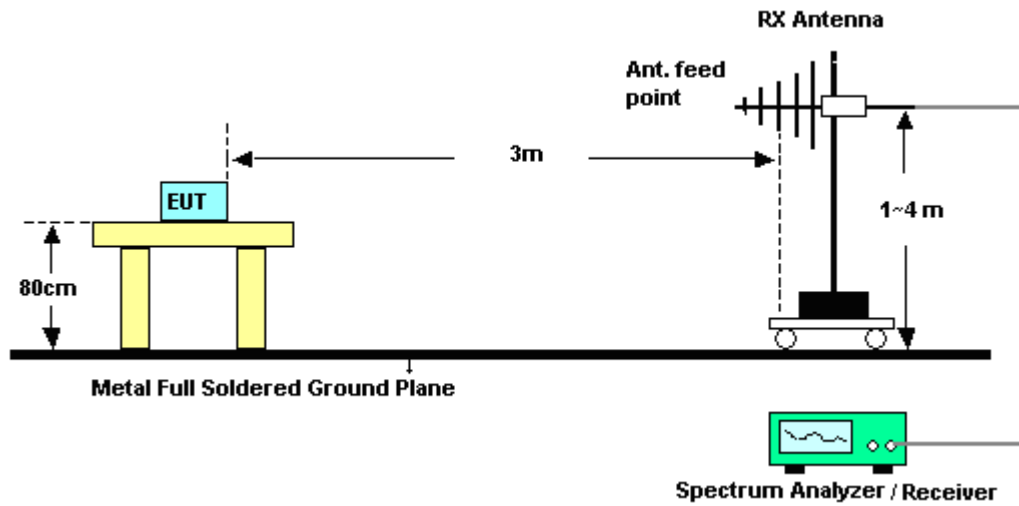
Note: For average measurement with duty cycle < 98%, use reduced VBW measurement method 4.2.3.2.3 in ANSI C63.10.

3.5.4 Test Setup

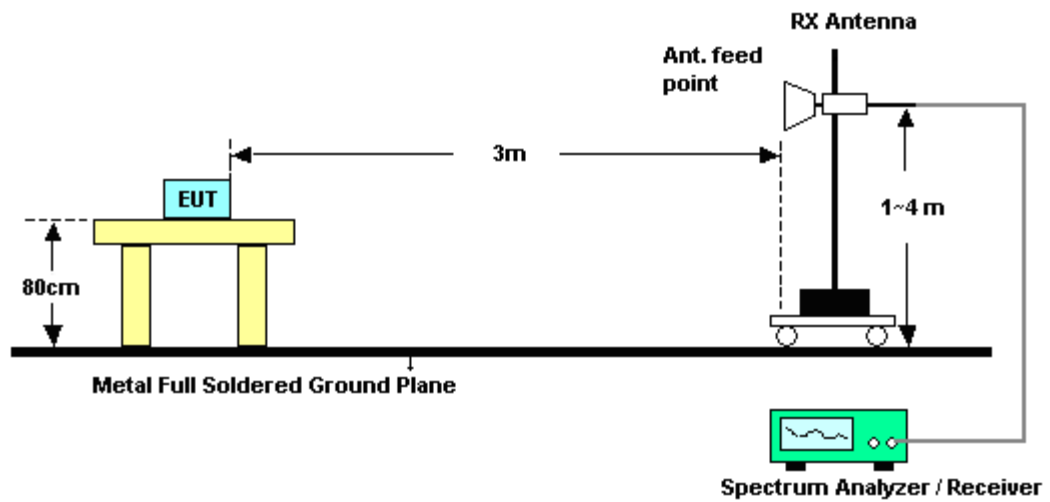
For radiated emissions below 30MHz



For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz



3.5.5 Test Results of Radiated Emissions (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

<Ant. 1>

Test Mode :	802.11b	Temperature :	25~26°C
Test Band :	Low	Relative Humidity :	47~48%
Test Channel :	01	Test Engineer :	Jet Lui

ANTENNA POLARITY : HORIZONTAL										
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
2389.29	62.19	-11.81	74	59.62	32.27	6.22	35.92	111	340	Peak
2386.86	50.92	-3.08	54	48.35	32.27	6.22	35.92	111	340	Average

ANTENNA POLARITY : VERTICAL										
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
2386.05	59.83	-14.17	74	57.47	32.06	6.22	35.92	102	278	Peak
2387.22	46.91	-7.09	54	44.55	32.06	6.22	35.92	102	278	Average

Test Mode :	802.11b	Temperature :	25~26°C
Test Band :	High	Relative Humidity :	47~48%
Test Channel :	11	Test Engineer :	Jet Lui

ANTENNA POLARITY : HORIZONTAL										
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
2483.56	62	-12	74	58.75	32.63	6.45	35.83	105	339	Peak
2483.68	49.81	-4.19	54	46.56	32.63	6.45	35.83	105	339	Average

ANTENNA POLARITY : VERTICAL										
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
2487.82	60.01	-13.99	74	56.69	32.7	6.45	35.83	100	267	Peak
2483.53	48.19	-5.81	54	44.98	32.59	6.45	35.83	100	267	Average

Test Mode :	802.11g	Temperature :	25~26°C
Test Band :	Low	Relative Humidity :	47~48%
Test Channel :	01	Test Engineer :	Jet Lui

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	73.24	-0.76	74	70.65	32.27	6.22	35.9	115	330	Peak
2390	52.9	-1.1	54	50.31	32.27	6.22	35.9	115	330	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
2389.92	70.56	-3.44	74	68.18	32.06	6.22	35.9	102	265	Peak
2390	50.22	-3.78	54	47.84	32.06	6.22	35.9	102	265	Average

Test Mode :	802.11g	Temperature :	25~26°C
Test Band :	High	Relative Humidity :	47~48%
Test Channel :	11	Test Engineer :	Jet Lui

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
2483.98	73.08	-0.92	74	69.83	32.63	6.45	35.83	110	335	Peak
2483.5	51.55	-2.45	54	48.3	32.63	6.45	35.83	110	335	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	72.18	-1.82	74	68.97	32.59	6.45	35.83	100	267	Peak
2483.5	50.11	-3.89	54	46.9	32.59	6.45	35.83	100	267	Average

Test Mode :	802.11n HT20	Temperature :	25~26°C
Test Band :	Low	Relative Humidity :	47~48%
Test Channel :	01	Test Engineer :	Jet Lui

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
2389.83	73.14	-0.86	74	70.55	32.27	6.22	35.9	116	330	Peak
2390	52.23	-1.77	54	49.64	32.27	6.22	35.9	116	330	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
2389.56	70.07	-3.93	74	67.71	32.06	6.22	35.92	102	266	Peak
2390	49.5	-4.5	54	47.12	32.06	6.22	35.9	102	266	Average

Test Mode :	802.11n HT20	Temperature :	25~26°C
Test Band :	High	Relative Humidity :	47~48%
Test Channel :	11	Test Engineer :	Jet Lui

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
2484.04	73.28	-0.72	74	70.03	32.63	6.45	35.83	106	339	Peak
2483.5	52.52	-1.48	54	49.27	32.63	6.45	35.83	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
2484.25	70.29	-3.71	74	67.08	32.59	6.45	35.83	100	268	Peak
2483.5	49.8	-4.2	54	46.59	32.59	6.45	35.83	100	268	Average

<Ant. 2>

Test Mode :	802.11b	Temperature :	25~26°C
Test Band :	Low	Relative Humidity :	47~48%
Test Channel :	01	Test Engineer :	Jet Lui

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
2367.69	59.48	-14.52	74	57.06	32.13	6.21	35.92	124	316	Peak
2387.04	46.58	-7.42	54	44.01	32.27	6.22	35.92	124	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
2385.69	59.01	-14.99	74	56.65	32.06	6.22	35.92	116	324	Peak
2384.88	45.21	-8.79	54	42.96	31.95	6.22	35.92	116	324	Average

Test Mode :	802.11b	Temperature :	25~26°C
Test Band :	High	Relative Humidity :	47~48%
Test Channel :	11	Test Engineer :	Jet Lui

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
2487.64	59.67	-14.33	74	56.35	32.7	6.45	35.83	100	345	Peak
2486.77	46.13	-7.87	54	42.88	32.63	6.45	35.83	100	345	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
2490.79	59.79	-14.21	74	56.47	32.7	6.45	35.83	174	358	Peak
2486.65	46.8	-7.2	54	43.59	32.59	6.45	35.83	174	358	Average

Test Mode :	802.11g	Temperature :	25~26°C
Test Band :	Low	Relative Humidity :	47~48%
Test Channel :	01	Test Engineer :	Jet Lui

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	70.89	-3.11	74	68.3	32.27	6.22	35.9	129	32	Peak
2390	49.61	-4.39	54	47.02	32.27	6.22	35.9	129	32	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
2389.65	72.32	-1.68	74	69.96	32.06	6.22	35.92	183	0	Peak
2390	51.42	-2.58	54	49.04	32.06	6.22	35.9	183	0	Average

Test Mode :	802.11g	Temperature :	25~26°C
Test Band :	High	Relative Humidity :	47~48%
Test Channel :	11	Test Engineer :	Jet Lui

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
2483.98	69.67	-4.33	74	66.42	32.63	6.45	35.83	100	342	Peak
2483.5	48.88	-5.12	54	45.63	32.63	6.45	35.83	100	342	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
2483.86	73.5	-0.5	74	70.29	32.59	6.45	35.83	107	0	Peak
2483.5	51.79	-2.21	54	48.58	32.59	6.45	35.83	107	0	Average

Test Mode :	802.11n HT20	Temperature :	25~26°C
Test Band :	Low	Relative Humidity :	47~48%
Test Channel :	01	Test Engineer :	Jet Lui

ANTENNA POLARITY : HORIZONTAL										
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
2389.38	71.29	-2.71	74	68.72	32.27	6.22	35.92	104	348	Peak
2390	51.48	-2.52	54	48.89	32.27	6.22	35.9	104	348	Average

ANTENNA POLARITY : VERTICAL										
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
2389.92	73.23	-0.77	74	70.85	32.06	6.22	35.9	109	29	Peak
2390	52.23	-1.77	54	49.85	32.06	6.22	35.9	109	29	Average

Test Mode :	802.11n HT20	Temperature :	25~26°C
Test Band :	High	Relative Humidity :	47~48%
Test Channel :	11	Test Engineer :	Jet Lui

ANTENNA POLARITY : HORIZONTAL										
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
2483.59	73.48	-0.52	74	70.23	32.63	6.45	35.83	100	344	Peak
2483.5	51.81	-2.19	54	48.56	32.63	6.45	35.83	100	344	Average

ANTENNA POLARITY : VERTICAL										
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
2483.53	72.57	-1.43	74	69.36	32.59	6.45	35.83	107	27	Peak
2483.5	51.08	-2.92	54	47.87	32.59	6.45	35.83	107	27	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.

<Antenna 1>

Test Mode :	802.11b	Temperature :	25~26°C
Test Channel :	01	Relative Humidity :	47~48%
Test Engineer :	Jet Lui	Polarization :	Horizontal
Remark :	<ol style="list-style-type: none"> 2414 MHz is fundamental signal which can be ignored. 3216 MHz and 7236 MHz are not within a restricted band, and its limit line is 20dB below the highest emission level. For example, 113.75 dBμV/m - 20dB = 93.75 dBμV/m. 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
234.12	32.05	-13.95	46	51.7	10.3	1.78	31.73	-	-	Peak
294.87	38.92	-7.08	46	55.8	12.79	1.99	31.66	-	-	Peak
298.92	41.45	-4.55	46	58.08	13.02	2	31.65	175	154	Peak
302.8	41.18	-4.82	46	57.74	13.09	2.01	31.66	-	-	Peak
322.4	40.75	-5.25	46	56.74	13.63	2.08	31.7	-	-	Peak
326.6	41.19	-4.81	46	57.07	13.74	2.09	31.71	-	-	Peak
2414	108.59	-	-	105.87	32.34	6.28	35.9	111	340	Average
2414	113.75	-	-	111.03	32.34	6.28	35.9	111	340	Peak
3216	49.93	-43.82	93.75	63.77	33	7.2	54.04	100	0	Peak
4824	49.25	-24.75	74	62.36	34.44	8.04	55.59	100	0	Peak
7236	46.93	-46.82	93.75	57.26	35.61	10.48	56.42	100	0	Peak

Test Mode :	802.11b	Temperature :	25~26°C
Test Channel :	01	Relative Humidity :	47~48%
Test Engineer :	Jet Lui	Polarization :	Vertical
Remark :	<ol style="list-style-type: none"> 2412 MHz is fundamental signal which can be ignored. 3216 MHz and 7236 MHz are 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
234.12	33.17	-12.83	46	52.59	10.53	1.78	31.73	-	-	Peak
238.17	32.57	-13.43	46	51.72	10.8	1.79	31.74	-	-	Peak
298.92	35.72	-10.28	46	52.14	13.23	2	31.65	124	221	Peak
302.8	34.9	-11.1	46	51.24	13.31	2.01	31.66	-	-	Peak
306.3	35.42	-10.58	46	51.59	13.48	2.02	31.67	-	-	Peak
310.5	35.39	-10.61	46	51.39	13.64	2.04	31.68	-	-	Peak
2412	105.18	-	-	102.64	32.16	6.28	35.9	102	278	Average
2412	110.25	-	-	107.71	32.16	6.28	35.9	102	278	Peak
3216	47.41	-42.84	90.25	61.08	33.17	7.2	54.04	100	0	Peak
4824	46.92	-27.08	74	60.03	34.44	8.04	55.59	100	0	Peak
7236	47.23	-43.02	90.25	57.57	35.6	10.48	56.42	100	0	Peak

Test Mode :	802.11b	Temperature :	25~26°C
Test Channel :	06	Relative Humidity :	47~48%
Test Engineer :	Jet Lui	Polarization :	Horizontal
Remark :	<ol style="list-style-type: none"> 2439 MHz is fundamental signal which can be ignored. 3249 MHz 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
2439	108.49	-	-	105.54	32.49	6.34	35.88	110	338	Average
2439	113.6	-	-	110.65	32.49	6.34	35.88	110	338	Peak
3249	51.02	-42.58	93.6	64.61	33	7.46	54.05	100	0	Peak
4875	48.87	-5.13	54	62.04	34.4	8.11	55.68	104	355	Average
4875	51.16	-22.84	74	64.33	34.4	8.11	55.68	104	355	Peak
7311	47.64	-26.36	74	57.83	35.62	10.47	56.28	100	0	Peak

Test Mode :	802.11b	Temperature :	25~26°C
Test Channel :	06	Relative Humidity :	47~48%
Test Engineer :	Jet Lui	Polarization :	Vertical
Remark :	<ol style="list-style-type: none"> 2439 MHz is fundamental signal which can be ignored. 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
2439	104.04	-	-	101.2	32.38	6.34	35.88	100	265	Average
2439	109.46	-	-	106.62	32.38	6.34	35.88	100	265	Peak
4875	47.08	-26.92	74	60.25	34.4	8.11	55.68	100	0	Peak
7311	46.84	-27.16	74	57.09	35.56	10.47	56.28	100	0	Peak

Test Mode :	802.11b	Temperature :	25~26°C
Test Channel :	11	Relative Humidity :	47~48%
Test Engineer :	Jet Lui	Polarization :	Horizontal
Remark :	1. 2464 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 (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
2464	108.88	-	-	105.78	32.56	6.39	35.85	105	339	Average
2464	113.78	-	-	110.68	32.56	6.39	35.85	105	339	Peak
4926	48.75	-5.25	54	61.95	34.36	8.22	55.78	103	356	Average
4926	51.31	-22.69	74	64.51	34.36	8.22	55.78	103	356	Peak
7386	47.85	-26.15	74	57.85	35.66	10.45	56.11	100	0	Peak

Test Mode :	802.11b	Temperature :	25~26°C
Test Channel :	11	Relative Humidity :	47~48%
Test Engineer :	Jet Lui	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 (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
2462	105.37	-	-	102.34	32.49	6.39	35.85	100	267	Average
2462	110.7	-	-	107.67	32.49	6.39	35.85	100	267	Peak
4926	47.85	-26.15	74	61.05	34.36	8.22	55.78	100	0	Peak
7386	47.68	-26.32	74	57.85	35.49	10.45	56.11	100	0	Peak

Test Mode :	802.11g	Temperature :	25~26°C
Test Channel :	01	Relative Humidity :	47~48%
Test Engineer :	Jet Lui	Polarization :	Horizontal
Remark :	<ol style="list-style-type: none"> 2410 MHz is fundamental signal which can be ignored. 3216 MHz and 7236 MHz are 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
2410	97.51	-	-	94.79	32.34	6.28	35.9	115	330	Average
2410	109.53	-	-	106.81	32.34	6.28	35.9	115	330	Peak
3216	49.04	-40.49	89.53	62.88	33	7.2	54.04	100	0	Peak
4824	44.09	-29.91	74	57.2	34.44	8.04	55.59	100	0	Peak
7236	48.17	-41.36	89.53	58.5	35.61	10.48	56.42	100	0	Peak

Test Mode :	802.11g	Temperature :	25~26°C
Test Channel :	01	Relative Humidity :	47~48%
Test Engineer :	Jet Lui	Polarization :	Vertical
Remark :	<ol style="list-style-type: none"> 2410 MHz is fundamental signal which can be ignored. 3216 MHz and 7236 MHz are 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
2410	95.08	-	-	92.54	32.16	6.28	35.9	102	265	Average
2410	106.91	-	-	104.37	32.16	6.28	35.9	102	265	Peak
3216	47.93	-38.98	86.91	61.6	33.17	7.2	54.04	100	0	Peak
4824	44.59	-29.41	74	57.7	34.44	8.04	55.59	100	0	Peak
7236	47.3	-39.61	86.91	57.64	35.6	10.48	56.42	100	0	Peak

Test Mode :	802.11g	Temperature :	25~26°C
Test Channel :	06	Relative Humidity :	47~48%
Test Engineer :	Jet Lui	Polarization :	Horizontal
Remark :	<ol style="list-style-type: none"> 2435 MHz is fundamental signal which can be ignored. 3249 MHz 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
2435	101.3	-	-	98.43	32.41	6.34	35.88	181	331	Average
2435	113.42	-	-	110.55	32.41	6.34	35.88	181	331	Peak
3249	51.34	-42.08	93.42	64.93	33	7.46	54.05	100	0	Peak
4875	46.9	-27.1	74	60.07	34.4	8.11	55.68	100	0	Peak
7311	47.07	-26.93	74	57.26	35.62	10.47	56.28	100	0	Peak

Test Mode :	802.11g	Temperature :	25~26°C
Test Channel :	06	Relative Humidity :	47~48%
Test Engineer :	Jet Lui	Polarization :	Vertical
Remark :	<ol style="list-style-type: none"> 2435 MHz is fundamental signal which can be ignored. 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
2435	98.66	-	-	95.93	32.27	6.34	35.88	101	266	Average
2435	110.61	-	-	107.88	32.27	6.34	35.88	101	266	Peak
4874	46.2	-27.8	74	59.37	34.4	8.11	55.68	100	0	Peak
7311	47.98	-26.02	74	58.23	35.56	10.47	56.28	100	0	Peak

Test Mode :	802.11g	Temperature :	25~26°C
Test Channel :	11	Relative Humidity :	47~48%
Test Engineer :	Jet Lui	Polarization :	Horizontal
Remark :	<ol style="list-style-type: none"> 2460 MHz is fundamental signal which can be ignored. 3282 MHz 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
2460	96.64	-	-	93.54	32.56	6.39	35.85	110	335	Average
2460	108.41	-	-	105.31	32.56	6.39	35.85	110	335	Peak
3282	50.34	-38.07	88.41	63.84	32.97	7.59	54.06	100	0	Peak
4923	45.61	-28.39	74	58.85	34.36	8.18	55.78	100	0	Peak
7386	47	-27	74	57	35.66	10.45	56.11	100	0	Peak

Test Mode :	802.11g	Temperature :	25~26°C
Test Channel :	11	Relative Humidity :	47~48%
Test Engineer :	Jet Lui	Polarization :	Vertical
Remark :	<ol style="list-style-type: none"> 2466 MHz is fundamental signal which can be ignored. 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
2466	94.81	-	-	91.78	32.49	6.39	35.85	100	267	Average
2466	106.7	-	-	103.67	32.49	6.39	35.85	100	267	Peak
4923	45.61	-28.39	74	58.85	34.36	8.18	55.78	100	0	Peak
7386	46.34	-27.66	74	56.51	35.49	10.45	56.11	100	0	Peak

Test Mode :	802.11n HT20	Temperature :	25~26°C
Test Channel :	01	Relative Humidity :	47~48%
Test Engineer :	Jet Lui	Polarization :	Horizontal
Remark :	<ol style="list-style-type: none"> 2410 MHz is fundamental signal which can be ignored. 3216 MHz and 7236 MHz are 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
2410	95.93	-	-	93.21	32.34	6.28	35.9	116	330	Average
2410	108.44	-	-	105.72	32.34	6.28	35.9	116	330	Peak
3216	48.23	-40.21	88.44	62.07	33	7.2	54.04	100	0	Peak
4824	44.29	-29.71	74	57.4	34.44	8.04	55.59	100	0	Peak
7236	47.44	-41	88.44	57.77	35.61	10.48	56.42	100	0	Peak

Test Mode :	802.11n HT20	Temperature :	25~26°C
Test Channel :	01	Relative Humidity :	47~48%
Test Engineer :	Jet Lui	Polarization :	Vertical
Remark :	<ol style="list-style-type: none"> 2410 MHz is fundamental signal which can be ignored. 7236 MHz 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
2410	93.31	-	-	90.77	32.16	6.28	35.9	102	266	Average
2410	105.25	-	-	102.71	32.16	6.28	35.9	102	266	Peak
4824	43.52	-30.48	74	56.63	34.44	8.04	55.59	100	0	Peak
7236	46.25	-39	85.25	56.59	35.6	10.48	56.42	100	0	Peak

Test Mode :	802.11n HT20	Temperature :	25~26°C
Test Channel :	06	Relative Humidity :	47~48%
Test Engineer :	Jet Lui	Polarization :	Horizontal
Remark :	<ol style="list-style-type: none"> 2435 MHz is fundamental signal which can be ignored. 3249 MHz 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
2435	100.94	-	-	98.07	32.41	6.34	35.88	178	330	Average
2435	113.02	-	-	110.15	32.41	6.34	35.88	178	330	Peak
3249	51.38	-41.64	93.02	64.97	33	7.46	54.05	100	0	Peak
4875	47.72	-26.28	74	60.89	34.4	8.11	55.68	100	0	Peak
7311	47.45	-26.55	74	57.64	35.62	10.47	56.28	100	0	Peak

Test Mode :	802.11n HT20	Temperature :	25~26°C
Test Channel :	06	Relative Humidity :	47~48%
Test Engineer :	Jet Lui	Polarization :	Vertical
Remark :	<ol style="list-style-type: none"> 2435 MHz is fundamental signal which can be ignored. 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
2435	98.57	-	-	95.84	32.27	6.34	35.88	100	266	Average
2435	110.57	-	-	107.84	32.27	6.34	35.88	100	266	Peak
4875	45.55	-28.45	74	58.72	34.4	8.11	55.68	100	0	Peak
7311	47.16	-26.84	74	57.41	35.56	10.47	56.28	100	0	Peak

Test Mode :	802.11n HT20	Temperature :	25~26°C
Test Channel :	11	Relative Humidity :	47~48%
Test Engineer :	Jet Lui	Polarization :	Horizontal
Remark :	<ol style="list-style-type: none"> 1. 2464 MHz is fundamental signal which can be ignored. 2. 3282 MHz 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 (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
234.12	32.03	-13.97	46	51.68	10.3	1.78	31.73	-	-	Peak
294.87	38.82	-7.18	46	55.7	12.79	1.99	31.66	-	-	Peak
298.92	41.39	-4.61	46	58.02	13.02	2	31.65	183	254	Peak
302.8	41.18	-4.82	46	57.74	13.09	2.01	31.66	-	-	Peak
322.4	40.75	-5.25	46	56.74	13.63	2.08	31.7	-	-	Peak
326.6	41.19	-4.81	46	57.07	13.74	2.09	31.71	-	-	Peak
2464	96.18	-	-	93.08	32.56	6.39	35.85	106	339	Average
2464	108.29	-	-	105.19	32.56	6.39	35.85	106	339	Peak
3282	49.61	-38.68	88.29	63.11	32.97	7.59	54.06	100	0	Peak
4923	44.89	-29.11	74	58.13	34.36	8.18	55.78	100	0	Peak
7386	46.14	-27.86	74	56.14	35.66	10.45	56.11	100	0	Peak

Test Mode :	802.11n HT20	Temperature :	25~26°C
Test Channel :	11	Relative Humidity :	47~48%
Test Engineer :	Jet Lui	Polarization :	Vertical
Remark :	1. 2464 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
234.12	33.17	-12.83	46	52.59	10.53	1.78	31.73	-	-	Peak
238.17	32.57	-13.43	46	51.72	10.8	1.79	31.74	-	-	Peak
298.92	35.68	-10.32	46	52.1	13.23	2	31.65	128	225	Peak
302.8	34.9	-11.1	46	51.24	13.31	2.01	31.66	-	-	Peak
306.3	35.42	-10.58	46	51.59	13.48	2.02	31.67	-	-	Peak
310.5	35.39	-10.61	46	51.39	13.64	2.04	31.68	-	-	Peak
2464	92.67	-	-	89.64	32.49	6.39	35.85	100	267	Average
2464	105.02	-	-	101.99	32.49	6.39	35.85	100	267	Peak
4923	44.49	-29.51	74	57.73	34.36	8.18	55.78	100	0	Peak
7386	46.93	-27.07	74	57.1	35.49	10.45	56.11	100	0	Peak

<Antenna 2>

Test Mode :	802.11b	Temperature :	25~26°C
Test Channel :	01	Relative Humidity :	47~48%
Test Engineer :	Jet Lui	Polarization :	Horizontal
Remark :	<ol style="list-style-type: none"> 2414 MHz is fundamental signal which can be ignored. 3216 MHz and 7236 MHz are 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
2414	105.56	-	-	102.84	32.34	6.28	35.9	124	316	Average
2414	110.67	-	-	107.95	32.34	6.28	35.9	124	316	Peak
3216	48.55	-42.12	90.67	62.39	33	7.2	54.04	100	0	Peak
4824	47.27	-26.73	74	60.38	34.44	8.04	55.59	100	0	Peak
7236	46.71	-43.96	90.67	57.04	35.61	10.48	56.42	100	0	Peak

Test Mode :	802.11b	Temperature :	25~26°C
Test Channel :	01	Relative Humidity :	47~48%
Test Engineer :	Jet Lui	Polarization :	Vertical
Remark :	<ol style="list-style-type: none"> 2414 MHz is fundamental signal which can be ignored. 3216 MHz and 7236 MHz are 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
2414	103.27	-	-	100.73	32.16	6.28	35.9	116	324	Average
2414	108.47	-	-	105.93	32.16	6.28	35.9	116	324	Peak
3216	48.67	-39.8	88.47	62.34	33.17	7.2	54.04	100	0	Peak
4824	45.56	-28.44	74	58.67	34.44	8.04	55.59	100	0	Peak
7236	46.96	-41.51	88.47	57.3	35.6	10.48	56.42	100	0	Peak

Test Mode :	802.11b	Temperature :	25~26°C
Test Channel :	06	Relative Humidity :	47~48%
Test Engineer :	Jet Lui	Polarization :	Horizontal
Remark :	<ol style="list-style-type: none"> 2436 MHz is fundamental signal which can be ignored. 3249 MHz 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
2436	103.11	-	-	100.24	32.41	6.34	35.88	108	22	Average
2436	108.09	-	-	105.22	32.41	6.34	35.88	108	22	Peak
3249	50.67	-37.42	88.09	64.26	33	7.46	54.05	100	0	Peak
4875	46.46	-27.54	74	59.63	34.4	8.11	55.68	100	0	Peak
7311	46.48	-27.52	74	56.67	35.62	10.47	56.28	100	0	Peak

Test Mode :	802.11b	Temperature :	25~26°C
Test Channel :	06	Relative Humidity :	47~48%
Test Engineer :	Jet Lui	Polarization :	Vertical
Remark :	<ol style="list-style-type: none"> 2439 MHz is fundamental signal which can be ignored. 3249 MHz 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
2439	105.79	-	-	102.95	32.38	6.34	35.88	111	360	Average
2439	110.83	-	-	107.99	32.38	6.34	35.88	111	360	Peak
3249	49.06	-41.77	90.83	62.35	33.3	7.46	54.05	100	0	Peak
4875	45.07	-28.93	74	58.24	34.4	8.11	55.68	100	0	Peak
7311	46.81	-27.19	74	57.06	35.56	10.47	56.28	100	0	Peak

Test Mode :	802.11b	Temperature :	25~26°C
Test Channel :	11	Relative Humidity :	47~48%
Test Engineer :	Jet Lui	Polarization :	Horizontal
Remark :	<ol style="list-style-type: none"> 1. 2462 MHz is fundamental signal which can be ignored. 2. 3282 MHz 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
238.17	31.77	-14.23	46	51.03	10.69	1.79	31.74	-	-	Peak
294.6	35.1	-10.9	46	51.98	12.79	1.99	31.66	-	-	Peak
298.92	35.85	-10.15	46	52.48	13.02	2	31.65	-	-	Peak
310.5	39.25	-6.75	46	55.51	13.38	2.04	31.68	105	221	Peak
314.7	38.76	-7.24	46	54.89	13.51	2.05	31.69	-	-	Peak
326.6	36.55	-9.45	46	52.43	13.74	2.09	31.71	-	-	Peak
2462	103.9	-	-	100.8	32.56	6.39	35.85	100	345	Average
2462	108.93	-	-	105.83	32.56	6.39	35.85	100	345	Peak
3282	51.64	-37.29	88.93	65.14	32.97	7.59	54.06	100	0	Peak
4926	48.27	-25.73	74	61.47	34.36	8.22	55.78	100	0	Peak
7311	47.52	-26.48	74	57.71	35.62	10.47	56.28	100	0	Peak

Test Mode :	802.11b	Temperature :	25~26°C
Test Channel :	11	Relative Humidity :	47~48%
Test Engineer :	Jet Lui	Polarization :	Vertical
Remark :	<ol style="list-style-type: none"> 2462 MHz is fundamental signal which can be ignored. 3282 MHz 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
30.81	27.97	-12.03	40	37.7	21.66	0.65	32.04	-	-	Peak
42.42	27.09	-12.91	40	47.22	11.1	0.76	31.99	-	-	Peak
66.45	29.27	-10.73	40	54.97	5.27	0.97	31.94	100	159	Peak
314.7	30.49	-15.51	46	46.28	13.85	2.05	31.69	-	-	Peak
358.8	28.72	-17.28	46	43.59	14.67	2.18	31.72	-	-	Peak
379.1	28.02	-17.98	46	42.35	15.02	2.25	31.6	-	-	Peak
2462	104.43	-	-	101.4	32.49	6.39	35.85	174	358	Average
2462	109.45	-	-	106.42	32.49	6.39	35.85	174	358	Peak
3282	51.83	-37.62	89.45	65.07	33.23	7.59	54.06	100	0	Peak
4923	46.09	-27.91	74	59.33	34.36	8.18	55.78	100	0	Peak
7311	47.68	-26.32	74	57.93	35.56	10.47	56.28	100	0	Peak

Test Mode :	802.11g	Temperature :	25~26°C
Test Channel :	01	Relative Humidity :	47~48%
Test Engineer :	Jet Lui	Polarization :	Horizontal
Remark :	<ol style="list-style-type: none"> 2414 MHz is fundamental signal which can be ignored. 3216 MHz and 7236 MHz are 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
2414	93.94	-	-	91.22	32.34	6.28	35.9	129	32	Average
2414	105.94	-	-	103.22	32.34	6.28	35.9	129	32	Peak
3216	48.65	-37.29	85.94	62.49	33	7.2	54.04	100	0	Peak
4824	44.86	-29.14	74	57.97	34.44	8.04	55.59	100	0	Peak
7236	47.16	-38.78	85.94	57.49	35.61	10.48	56.42	100	0	Peak

Test Mode :	802.11g	Temperature :	25~26°C
Test Channel :	01	Relative Humidity :	47~48%
Test Engineer :	Jet Lui	Polarization :	Vertical
Remark :	<ol style="list-style-type: none"> 2410 MHz is fundamental signal which can be ignored. 3216 MHz and 7236 MHz are 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
2410	96.66	-	-	94.12	32.16	6.28	35.9	183	0	Average
2410	108.52	-	-	105.98	32.16	6.28	35.9	183	0	Peak
3216	49.46	-39.06	88.52	63.13	33.17	7.2	54.04	100	0	Peak
4824	43.67	-30.33	74	56.78	34.44	8.04	55.59	100	0	Peak
7236	46.72	-41.8	88.52	57.06	35.6	10.48	56.42	100	0	Peak

Test Mode :	802.11g	Temperature :	25~26°C
Test Channel :	06	Relative Humidity :	47~48%
Test Engineer :	Jet Lui	Polarization :	Horizontal
Remark :	<ol style="list-style-type: none"> 2439 MHz is fundamental signal which can be ignored. 3249 MHz 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
2439	96.45	-	-	93.5	32.49	6.34	35.88	100	30	Average
2439	108.31	-	-	105.36	32.49	6.34	35.88	100	30	Peak
3249	51.18	-37.13	88.31	64.77	33	7.46	54.05	100	0	Peak
4875	45.87	-28.13	74	59.04	34.4	8.11	55.68	100	0	Peak
7311	46.71	-27.29	74	56.9	35.62	10.47	56.28	100	0	Peak

Test Mode :	802.11g	Temperature :	25~26°C
Test Channel :	06	Relative Humidity :	47~48%
Test Engineer :	Jet Lui	Polarization :	Vertical
Remark :	<ol style="list-style-type: none"> 2435 MHz is fundamental signal which can be ignored. 3249 MHz 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
2435	99.25	-	-	96.52	32.27	6.34	35.88	143	3	Average
2435	111.19	-	-	108.46	32.27	6.34	35.88	143	3	Peak
3249	50.63	-40.56	91.19	63.92	33.3	7.46	54.05	100	0	Peak
4875	45.6	-28.4	74	58.77	34.4	8.11	55.68	100	0	Peak
7311	46.91	-27.09	74	57.16	35.56	10.47	56.28	100	0	Peak

Test Mode :	802.11g	Temperature :	25~26°C
Test Channel :	11	Relative Humidity :	47~48%
Test Engineer :	Jet Lui	Polarization :	Horizontal
Remark :	<ol style="list-style-type: none"> 1. 2460 MHz is fundamental signal which can be ignored. 2. 3282 MHz 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 (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
234.12	30.99	-15.01	46	50.64	10.3	1.78	31.73	-	-	Peak
294.6	38.13	-7.87	46	55.01	12.79	1.99	31.66	-	-	Peak
298.65	38.81	-7.19	46	55.54	12.92	2	31.65	-	-	Peak
302.1	37.2	-8.8	46	53.75	13.09	2.01	31.65	-	-	Peak
314.7	39.21	-6.79	46	55.34	13.51	2.05	31.69	102	247	Peak
318.2	39.11	-6.89	46	55.19	13.55	2.06	31.69	-	-	Peak
2460	94.63	-	-	91.53	32.56	6.39	35.85	100	342	Average
2460	106.42	-	-	103.32	32.56	6.39	35.85	100	342	Peak
3282	51.19	-35.23	86.42	64.69	32.97	7.59	54.06	100	0	Peak
4923	46	-28	74	59.24	34.36	8.18	55.78	100	0	Peak
7386	48.36	-25.64	74	58.36	35.66	10.45	56.11	100	0	Peak

Test Mode :	802.11g	Temperature :	25~26°C
Test Channel :	11	Relative Humidity :	47~48%
Test Engineer :	Jet Lui	Polarization :	Vertical
Remark :	<ol style="list-style-type: none"> 1. 2460 MHz is fundamental signal which can be ignored. 2. 3282 MHz 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 (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
66.45	29.83	-10.17	40	55.53	5.27	0.97	31.94	100	147	Peak
122.34	29.57	-13.93	43.5	49.26	10.91	1.29	31.89	-	-	Peak
298.65	32.91	-13.09	46	49.45	13.11	2	31.65	-	-	Peak
302.8	30.18	-15.82	46	46.52	13.31	2.01	31.66	-	-	Peak
322.4	30.02	-15.98	46	45.62	14.02	2.08	31.7	-	-	Peak
363	28.67	-17.33	46	43.41	14.75	2.2	31.69	-	-	Peak
2460	96.18	-	-	93.15	32.49	6.39	35.85	107	0	Average
2460	108.01	-	-	104.98	32.49	6.39	35.85	107	0	Peak
3282	50.39	-37.62	88.01	63.63	33.23	7.59	54.06	100	0	Peak
4923	45.77	-28.23	74	59.01	34.36	8.18	55.78	100	0	Peak
7386	47.11	-26.89	74	57.28	35.49	10.45	56.11	100	0	Peak

Test Mode :	802.11n HT20	Temperature :	25~26°C
Test Channel :	01	Relative Humidity :	47~48%
Test Engineer :	Jet Lui	Polarization :	Horizontal
Remark :	<ol style="list-style-type: none"> 2410 MHz is fundamental signal which can be ignored. 3216 MHz and 7236 MHz are 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
2410	94.77	-	-	92.05	32.34	6.28	35.9	104	348	Average
2410	107.37	-	-	104.65	32.34	6.28	35.9	104	348	Peak
3216	49.53	-37.84	87.37	63.37	33	7.2	54.04	100	0	Peak
4824	44.49	-29.51	74	57.6	34.44	8.04	55.59	100	0	Peak
7236	47.58	-39.79	87.37	57.91	35.61	10.48	56.42	100	0	Peak

Test Mode :	802.11n HT20	Temperature :	25~26°C
Test Channel :	01	Relative Humidity :	47~48%
Test Engineer :	Jet Lui	Polarization :	Vertical
Remark :	<ol style="list-style-type: none"> 2410 MHz is fundamental signal which can be ignored. 3216 MHz and 7236 MHz are 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
2410	94.67	-	-	92.13	32.16	6.28	35.9	109	29	Average
2410	106.71	-	-	104.17	32.16	6.28	35.9	109	29	Peak
3216	50.41	-36.3	86.71	64.08	33.17	7.2	54.04	100	0	Peak
4824	45.23	-28.77	74	58.34	34.44	8.04	55.59	100	0	Peak
7236	47.43	-39.28	86.71	57.77	35.6	10.48	56.42	100	0	Peak

Test Mode :	802.11n HT20	Temperature :	25~26°C
Test Channel :	06	Relative Humidity :	47~48%
Test Engineer :	Jet Lui	Polarization :	Horizontal
Remark :	<ol style="list-style-type: none"> 2439 MHz is fundamental signal which can be ignored. 3249 MHz 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
2439	98.84	-	-	95.89	32.49	6.34	35.88	100	346	Average
2439	110.67	-	-	107.72	32.49	6.34	35.88	100	346	Peak
3249	52.34	-38.33	90.67	90.67	33	7.46	54.05	100	0	Peak
4875	44.82	-29.18	74	57.99	34.4	8.11	55.68	100	0	Peak
7311	46.45	-27.55	74	56.64	35.62	10.47	56.28	100	0	Peak

Test Mode :	802.11n HT20	Temperature :	25~26°C
Test Channel :	06	Relative Humidity :	47~48%
Test Engineer :	Jet Lui	Polarization :	Vertical
Remark :	<ol style="list-style-type: none"> 2439 MHz is fundamental signal which can be ignored. 3249 MHz 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
2439	96.38	-	-	93.54	32.38	6.34	35.88	178	333	Average
2439	108.28	-	-	105.44	32.38	6.34	35.88	178	333	Peak
3249	50.16	-38.12	88.28	88.28	33.3	7.46	54.05	100	0	Peak
4874	44.9	-29.1	74	58.07	34.4	8.11	55.68	100	0	Peak
7311	47.26	-26.74	74	57.51	35.56	10.47	56.28	100	0	Peak

Test Mode :	802.11n HT20	Temperature :	25~26°C
Test Channel :	11	Relative Humidity :	47~48%
Test Engineer :	Jet Lui	Polarization :	Horizontal
Remark :	<ol style="list-style-type: none"> 2460 MHz is fundamental signal which can be ignored. 3282 MHz 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
2460	95.19	-	-	92.09	32.56	6.39	35.85	100	344	Average
2460	107	-	-	103.9	32.56	6.39	35.85	100	344	Peak
3282	49.14	-37.86	87	62.64	32.97	7.59	54.06	100	0	Peak
4924	45.49	-28.51	74	58.69	34.36	8.22	55.78	100	0	Peak
7386	46.13	-27.87	74	56.13	35.66	10.45	56.11	100	0	Peak

Test Mode :	802.11n HT20	Temperature :	25~26°C
Test Channel :	11	Relative Humidity :	47~48%
Test Engineer :	Jet Lui	Polarization :	Vertical
Remark :	<ol style="list-style-type: none"> 2460 MHz is fundamental signal which can be ignored. 3282 MHz 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
2460	93.41	-	-	90.38	32.49	6.39	35.85	107	27	Average
2460	105.21	-	-	102.18	32.49	6.39	35.85	107	27	Peak
3282	48.33	-36.88	85.21	61.57	33.23	7.59	54.06	100	0	Peak
4923	46.04	-27.96	74	59.28	34.36	8.18	55.78	100	0	Peak
7386	46.97	-27.03	74	57.14	35.49	10.45	56.11	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 (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.

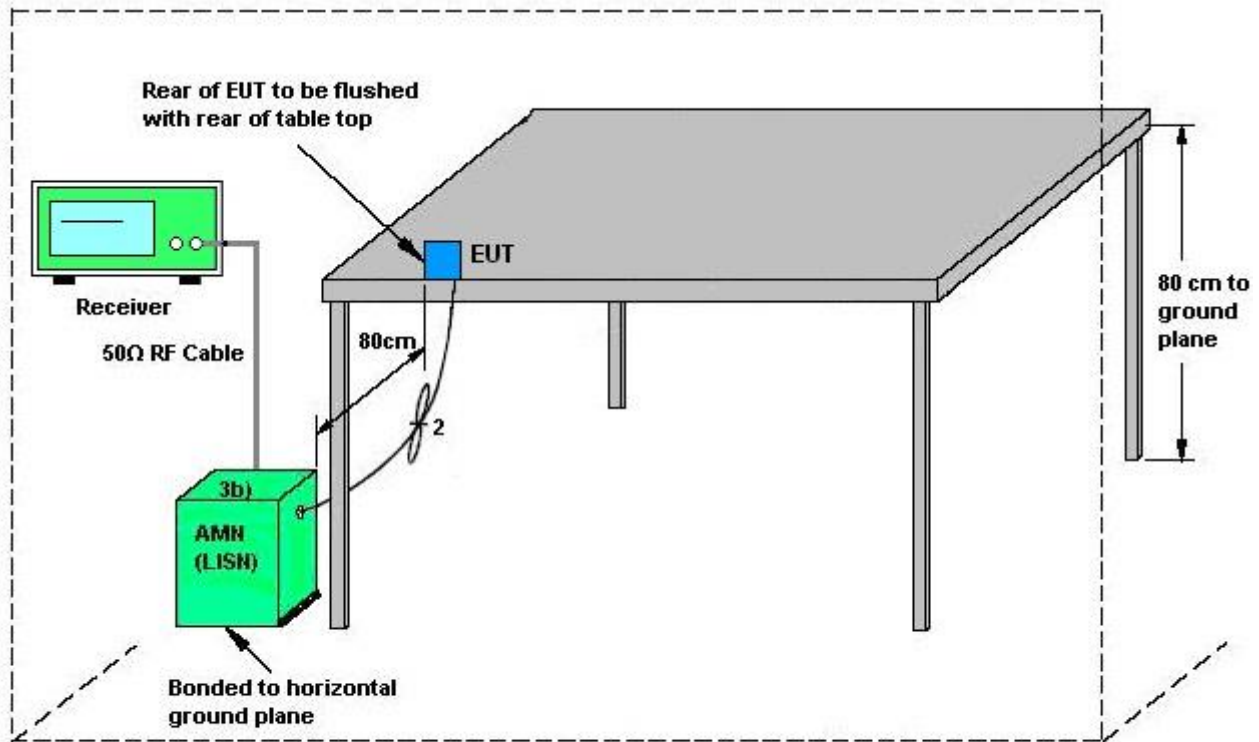
3.6.2 Measuring Instruments

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.

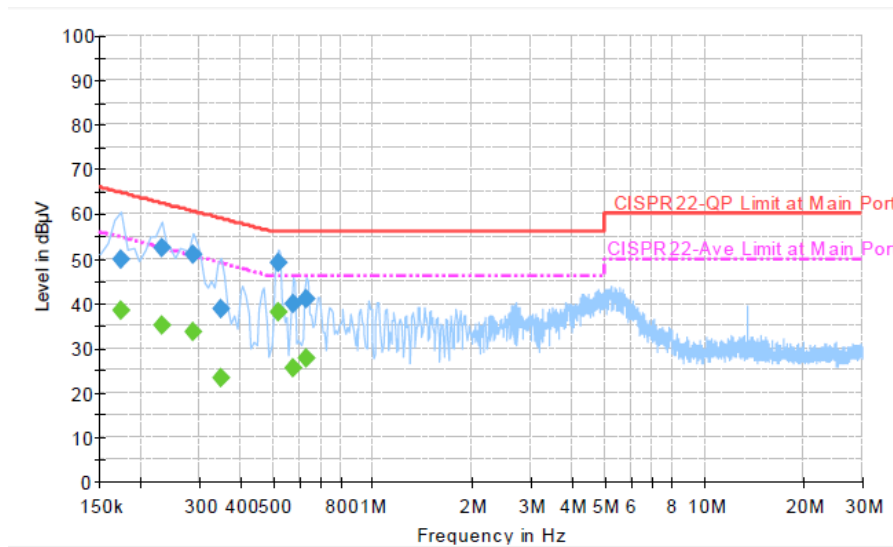
3.6.4 Test Setup



AMN = Artificial mains network (LISN)
AE = Associated equipment
EUT = Equipment under test
ISN = Impedance stabilization network

3.6.5 Test Result of AC Conducted Emission

Test Mode :	Mode 1	Temperature :	20~22°C
Test Engineer :	Slash Huang	Relative Humidity :	45~47%
Test Voltage :	120Vac / 60Hz	Phase :	Line
Function Type :	WLAN Link + USB Cable (Charging from Adapter)		



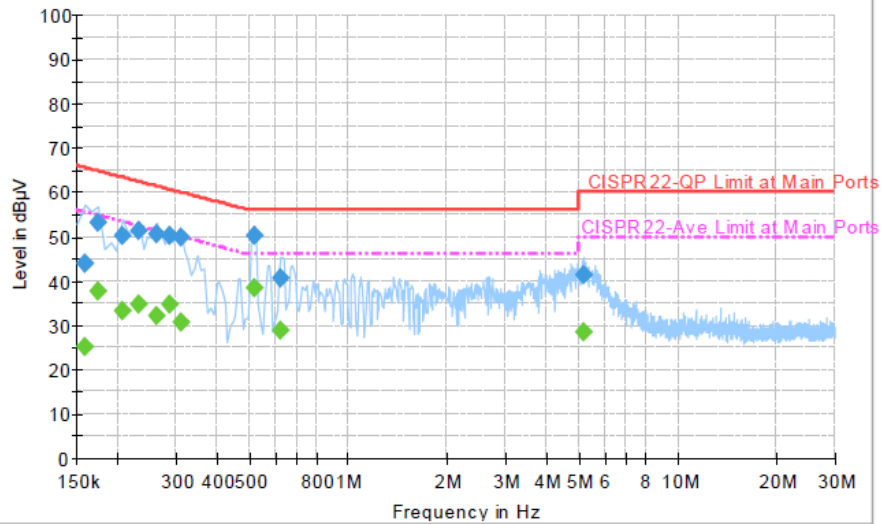
Final Result : QuasiPeak

Frequency (MHz)	QuasiPeak (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.174000	49.7	Off	L1	19.4	15.1	64.8
0.230000	52.4	Off	L1	19.4	10.0	62.4
0.286000	50.8	Off	L1	19.4	9.8	60.6
0.350000	38.6	Off	L1	19.4	20.4	59.0
0.518000	49.2	Off	L1	19.4	6.8	56.0
0.574000	39.8	Off	L1	19.4	16.2	56.0
0.630000	41.1	Off	L1	19.4	14.9	56.0

Final Result : Average

Frequency (MHz)	Average (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.174000	38.3	Off	L1	19.4	16.5	54.8
0.230000	35.0	Off	L1	19.4	17.4	52.4
0.286000	33.7	Off	L1	19.4	16.9	50.6
0.350000	23.4	Off	L1	19.4	25.6	49.0
0.518000	37.9	Off	L1	19.4	8.1	46.0
0.574000	25.4	Off	L1	19.4	20.6	46.0
0.630000	27.7	Off	L1	19.4	18.3	46.0

Test Mode :	Mode 1	Temperature :	20~22°C
Test Engineer :	Slash Huang	Relative Humidity :	45~47%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral
Function Type :	WLAN Link + USB Cable (Charging from Adapter)		



Final Result : QuasiPeak

Frequency (MHz)	QuasiPeak (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.158000	43.8	Off	N	19.3	21.8	65.6
0.174000	53.2	Off	N	19.4	11.6	64.8
0.206000	50.1	Off	N	19.4	13.3	63.4
0.230000	51.2	Off	N	19.4	11.2	62.4
0.262000	50.5	Off	N	19.4	10.9	61.4
0.286000	50.2	Off	N	19.4	10.4	60.6
0.310000	49.9	Off	N	19.4	10.1	60.0
0.518000	50.3	Off	N	19.4	5.7	56.0
0.622000	40.7	Off	N	19.4	15.3	56.0
5.198000	41.3	Off	N	19.5	18.7	60.0

Final Result : Average

Frequency (MHz)	Average (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.158000	25.0	Off	N	19.3	30.6	55.6
0.174000	37.5	Off	N	19.4	17.3	54.8
0.206000	33.3	Off	N	19.4	20.1	53.4
0.230000	34.5	Off	N	19.4	17.9	52.4
0.262000	32.2	Off	N	19.4	19.2	51.4
0.286000	34.6	Off	N	19.4	16.0	50.6
0.310000	30.5	Off	N	19.4	19.5	50.0
0.518000	38.2	Off	N	19.4	7.8	46.0
0.622000	28.7	Off	N	19.4	17.3	46.0
5.198000	28.5	Off	N	19.5	21.5	50.0

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 is 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	Rohde & Schwarz	FSP40	100057	9kHz~40GHz	Oct. 29, 2012	Jul. 06, 2013	Oct. 28, 2013	Conducted (TH02-HY)
Power Meter	Anritsu	ML2495A	1036004	300MHz~40GHz	Sep. 08, 2012	Jul. 06, 2013	Sep. 07, 2013	Conducted (TH02-HY)
Power Sensor	Anritsu	MA2411B	1027253	300MHz~40GHz	Sep. 08, 2012	Jul. 06, 2013	Sep. 07, 2013	Conducted (TH02-HY)
Spectrum Analyzer	R&S	ESU26	100390	20Hz~26.5GHz	Dec. 14, 2012	Jul. 05, 2013~ Jul. 10, 2013	Dec. 13, 2013	Radiation (03CH08-HY)
Bilog Antenna	Schaffner	CBL6111C	2725	30MHz~2GHz	Oct. 06, 2012	Jul. 05, 2013~ Jul. 10, 2013	Oct. 05, 2013	Radiation (03CH08-HY)
Turn Table	HD	HD100	420/611	0 ~ 360 degree	N/A	Jul. 05, 2013~ Jul. 10, 2013	N/A	Radiation (03CH08-HY))
Antenna Mast	HD	HD100	240/666	1 m ~ 4 m	N/A	Jul. 05, 2013~ Jul. 10, 2013	N/A	Radiation (03CH08-HY))
Horn Antenna	ESCO	3117	66584	1GHz~18GHz	Aug. 10, 2012	Jul. 05, 2013~ Jul. 10, 2013	Aug. 09, 2013	Radiation (03CH08-HY)
Pre Amplifier	Agilent	8449B	3008A026 65	1GHz~26.5GHz	Aug. 28, 2012	Jul. 05, 2013~ Jul. 10, 2013	Aug. 27, 2013	Radiation (03CH08-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170 251	15GHz ~ 40GHz	Sep. 28, 2012	Jul. 05, 2013~ Jul. 10, 2013	Sep. 27, 2013	Radiation (03CH08-HY)
Preamplifier	COM-POWER	PA-103	161075	10Hz~1000MHz Gain:32dB	Feb. 26, 2013	Jul. 05, 2013~ Jul. 10, 2013	Feb. 25, 2014	Radiation (03CH08-HY)
EMI Test Receiver	Rohde & Schwarz	ESCS 30	100356	9kHz – 2.75GHz	Nov. 13, 2012	Jul. 09, 2013	Nov. 12, 2013	Conduction (CO05-HY)
Two-LISN (for auxiliary equipment)	Rohde & Schwarz	ENV216	100081	9kHz ~ 30MHz	Dec. 12, 2012	Jul. 09, 2013	Dec. 11, 2013	Conduction (CO05-HY)
Two-LISN	Rohde & Schwarz	ENV216	100080	9kHz ~ 30MHz	Dec. 06, 2012	Jul. 09, 2013	Dec. 05, 2013	Conduction (CO05-HY)
AC Power Source	APC	APC-1000W	N/A	N/A	N/A	Jul. 09, 2013	N/A	Conduction (CO05-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
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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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