FCC RF Test Report

APPLICANT	:	ZTE CORPORATION
EQUIPMENT	:	CDMA/LTE Ufi
BRAND NAME	:	ZTE
MODEL NAME	:	MF975U
FCC ID	:	SRQ-MF975U
STANDARD	:	FCC Part 15 Subpart C §15.247
CLASSIFICATION	:	(DTS) Digital Transmission System

The product was received on Jun. 24, 2015 and testing was completed on Aug. 04, 2015. We, SPORTON INTERNATIONAL (KUNSHAN) INC., would like to declare that the tested sample has been evaluated in accordance with the test procedures and has been in 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 (KUNSHAN) INC., the test report shall not be reproduced except in full.

Reviewed by: Joseph Lin / Supervisor

Approved by: Jones Tsai / Manager

Testing Laboratory
2627

SPORTON INTERNATIONAL (KUNSHAN) INC.
No. 3-2, PingXiang Road, Kunshan, Jiangsu Province, P. R. China

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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FR562405A	Rev. 01	Initial issue of report	Aug. 13, 2015

SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.1	15.247(a)(2)	6dB Bandwidth	≥ 0.5MHz	Pass	-
3.2	15.247(b)	Power Output Measurement	≤ 30dBm	Pass	-
3.3	15.247(e)	Power Spectral Density	≤ 8dBm/3kHz	Pass	-
3.4	15.247(d)	Conducted Band Edges	≤ 20dBc	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 4.2 dB at 2489.200 MHz
3.6	15.207	AC Conducted Emission	15.207(a)	Pass	Under limit 6.47 dB at 0.510 MHz
3.7	15.203 & 15.247(b)	Antenna Requirement	N/A	Pass	-

1 General Description

1.1 Applicant

ZTE CORPORATION

ZTE Plaza, Keji Road South, Hi-Tech Industrial Park, Nanshan District, Shenzhen, Guangdong, 518057, P. R. China

1.2 Manufacturer

ZTE CORPORATION

ZTE Plaza, Keji Road South, Hi-Tech Industrial Park, Nanshan District, Shenzhen, Guangdong, 518057, P. R. China

1.3 Product Feature of Equipment Under Test

Product Feature	
Equipment	CDMA/LTE Ufi
Brand Name	ZTE
Model Name	MF975U
FCC ID	SRQ-MF975U
EUT supports Radios application	CDMA/EV-DO/LTE/ WLAN 2.4GHz 802.11b/g/n HT20/HT40 WLAN 5GHz 802.11a/n HT20/HT40 WLAN 5GHz 802.11ac VHT20/VHT40/VHT80/
MEID Code	Conduction: 004401783463397 Radiation: 004401783463397 Conducted: 004401783463595
HW Version	xz3A
SW Version	USCC_MF975U_V1.0.0B04
EUT Stage	Identical Prototype

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

1.4 Product Specification subjective to this standard

<table>
<tr><th colspan="2">Product Specification subjective to this standard</th></tr>
<tr><td>Tx/Rx Channel Frequency Range</td><td>802.11b/g/n : 2412 MHz ~ 2462 MHz</td></tr>
<tr><td>Maximum (Peak) Output Power to antenna</td><td>802.11b : 17.68 dBm (0.0586 W)
802.11g : 23.55 dBm (0.2265 W)
802.11n HT20 : 23.16 dBm (0.2070 W)
802.11n HT40 : 22.56 dBm (0.1803 W)</td></tr>
<tr><td>Antenna Type / Gain</td><td>WLAN for Chain Port 0: IFA Antenna with gain 1.60 dBi
WLAN for Chain Port 1: IFA Antenna with gain 1.60 dBi</td></tr>
<tr><td>Type of Modulation</td><td>802.11b : DSSS (DBPSK / DQPSK / CCK)
802.11g/n : OFDM (BPSK / QPSK / 16QAM / 64QAM)</td></tr>
<tr><td>Antenna Function for Transmitter</td><td>
<table>
<tr><th></th><th>Chain
Port 0</th><th>Chain
Port 1</th></tr>
<tr><td>802.11 b</td><td>V</td><td>V</td></tr>
<tr><td>802.11 g</td><td>V</td><td>V</td></tr>
<tr><td>802.11 n
SISO</td><td>V</td><td>V</td></tr>
<tr><td>802.11 n
MIMO</td><td>V</td><td>V</td></tr>
</table>
</td></tr>
</table>

1.5 Modification of EUT

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

1.6 Testing Location

Test Site	SPORTON INTERNATIONAL (KUNSHAN) INC.			
Test Site Location	No. 3-2, PingXiang Road, Kunshan, Jiangsu Province, P. R. China TEL: +86-0512-5790-0158 FAX: +86-0512-5790-0958			
Test Site No.	**Sporton Site No.**			**FCC Registration No.**
	TH01-KS	CO01-KS	03CH02-KS	418269

Note: The test site complies with ANSI C63.4 2009 requirement.

1.7 Applicable 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 v03r03
- FCC KDB 662911 D01 Multiple Transmitter Output v02r01.
- ANSI C63.10-2013

Remark:

1. All test items were verified and recorded according to the standards and without any deviation during the test.
2. FCC permits the use of the 1.5 meter table for frequency above 1GHz as an alternative in C63.10-2013 through inquiry tracking number 961829.
3. 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 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 data rate associated with the highest power were chosen for full test shown in the following tables.

WLAN 2.4GHz 802.11b Peak Power (dBm)							
Power vs. Channel				Power vs. Data Rate			
Channel	Frequency (MHz)	Chain Port	Data Rate 1Mbps	Channel	2Mbps	5.5Mbps	11Mbps
CH 01	2412	0	16.52	CH 06	17.62	17.55	17.65
CH 06	2437	0	**17.68**				
CH 11	2462	0	16.74				
CH 01	2412	1	**17.35**	CH 01	17.27	17.31	17.33
CH 06	2437	1	16.65				
CH 11	2462	1	17.05				

WLAN 2.4GHz 802.11g Peak Power (dBm)											
Power vs. Channel				Power vs. Data Rate							
Channel	Frequency (MHz)	Chain Port	Data Rate 6Mbps	Channel	9Mbps	12Mbps	18Mbps	24Mbps	36Mbps	48Mbps	54Mbps
CH 01	2412	0	18.85	CH 06	20.45	20.36	20.01	23.53	23.36	23.45	21.45
CH 06	2437	0	19.98								**23.55**
CH 11	2462	0	19.36								23.39
CH 01	2412	1	18.88	CH 01	19.66	19.57	19.32	22.30	22.15	22.02	**22.38**
CH 06	2437	1	18.55								22.15
CH 11	2462	1	19.06								22.31

WLAN 2.4GHz 802.11n HT20 Peak Power (dBm)											
Power vs. Channel				Power vs. Data Rate							
Channel	Frequency (MHz)	Chain Port	Data Rate MCS0	Channel	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
CH 01	2412	0	17.77	CH 11	18.78	18.42	22.07	22.13	22.06	21.45	22.20
CH 06	2437	0	18.87							22.98	
CH 11	2462	0	18.58							**23.02**	
CH 01	2412	1	17.85	CH 01	18.05	17.89	21.77	21.88	21.75	**22.43**	21.98
CH 06	2437	1	17.65							22.08	
CH 11	2462	1	18.59							21.32	
CH 01	2412	0+1(0)	14.57	CH 11	14.69	14.39	18.28	18.89	18.55	19.05	18.82
CH 06	2437	0+1(0)	15.43							19.99	
CH 11	2462	0+1(0)	15.44							20.42	
CH 01	2412	0+1(1)	14.29	CH 11	15.48	15.33	18.31	18.45	18.31	18.63	18.64
CH 06	2437	0+1(1)	14.14							18.52	
CH 11	2462	0+1(1)	15.68							19.86	
CH 01	2412	0+1	17.44	CH 11	18.11	17.90	21.31	21.69	21.44	21.86	21.74
CH 06	2437	0+1	17.84							22.33	
CH 11	2462	0+1	18.57							**23.16**	

WLAN 2.4GHz 802.11n HT40 Peak Power (dBm)											
Power vs. Channel				Power vs. Data Rate							
Channel	Frequency (MHz)	Chain Port	Data Rate MCS0	Channel	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
CH 03	2422	0	16.87	CH 06	18.65	18.55	20.92	21.84	21.71	21.24	21.09
CH 06	2437	0	18.98				**21.87**				
CH 09	2452	0	18.45				21.84				
CH 03	2422	1	19.75	CH 03	19.69	19.52	**22.55**	22.27	22.18	21.98	21.64
CH 06	2437	1	18.96				22.08				
CH 09	2452	1	19.40				22.43				
CH 03	2422	0+1(0)	14.96	CH 06	16.74	16.53	18.98	19.80	19.74	19.56	19.24
CH 06	2437	0+1(0)	16.88				20.13				
CH 09	2452	0+1(0)	16.35				19.91				
CH 03	2422	0+1(1)	16.02	CH 06	15.53	15.46	18.80	18.41	18.46	18.34	18.12
CH 06	2437	0+1(1)	16.06				18.89				
CH 09	2452	0+1(1)	15.94				18.83				
CH 03	2422	0+1	18.53	CH 06	19.19	19.04	21.90	22.17	22.16	22.00	21.73
CH 06	2437	0+1	19.50				**22.56**				
CH 09	2452	0+1	19.16				22.41				

Note: Chain Port 0+1 is a calculated result from sum of the power Chain Port 0+1(0) and Chain Port 0+1(1).

2.3 Test Mode

Final test mode of conducted test items and radiated spurious emissions are considering the modulation and worse data rates from the power table described in section 2.2.

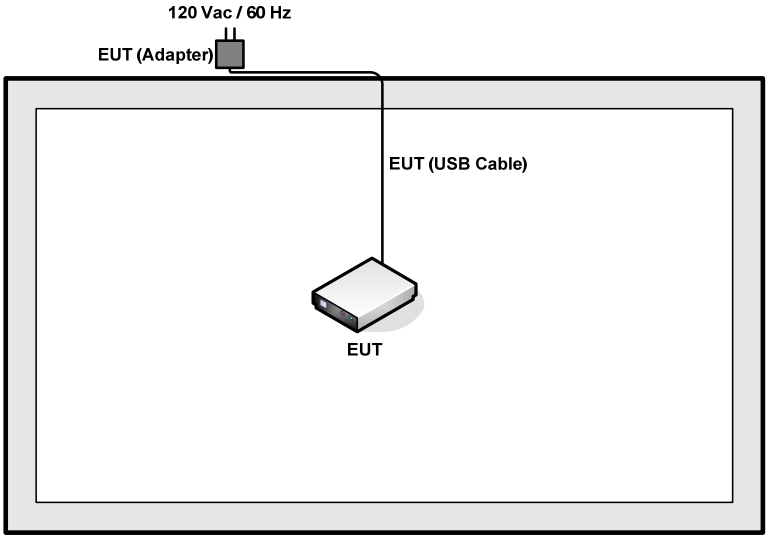
<2.4GHz>

Modulation	Data Rate
802.11b	1 Mbps
802.11g	54 Mbps
802.11n HT20	MCS6
802.11n HT40	MCS3

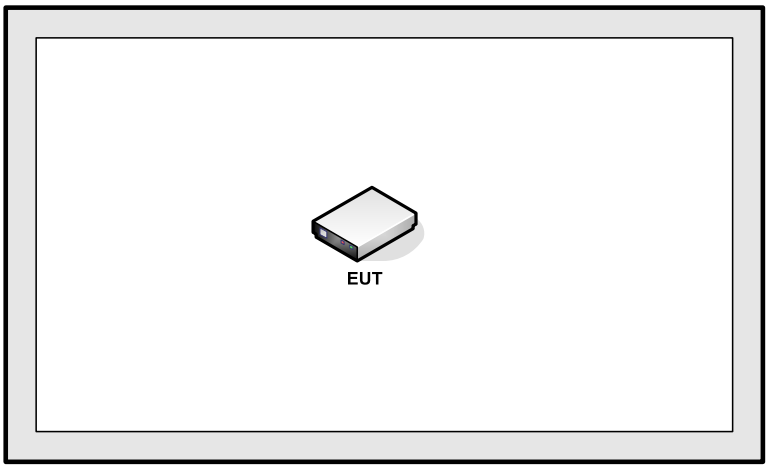
Test Cases	
AC Conducted Emission	Mode 1 :CDMA2000 BC0 Idle + WLAN (2.4GHz) Link + USB Cable (Charging from Adapter)
Remark: For Radiated TCs, the tests were performed with adapter and USB cable.	

2.4 Connection Diagram of Test System

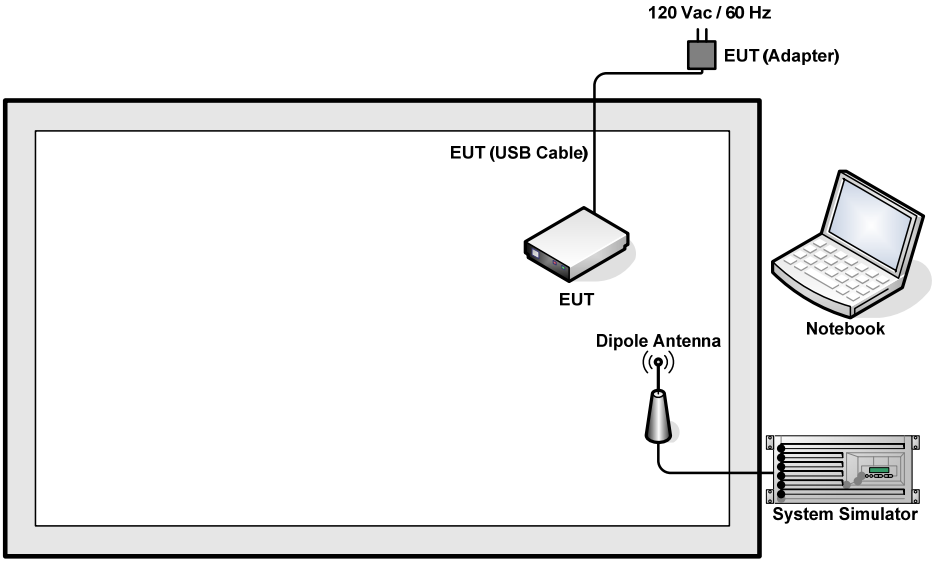
<WLAN 2.4GHz 802.11b/g(Ant 1)/n HT20/HT40 Tx Mode>



<WLAN 2.4GHz 802.11g(Ant 0) 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	R&S	CMU 200	N/A	N/A	Unshielded, 1.8 m
2.	Notebook	Lenovo	G480	PRC4	N/A	AC I/P: Unshielded, 1.8 m DC O/P: Shielded, 1.8 m

2.6 EUT Operation Test Setup

For WLAN function, the 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 Notebook 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 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.
Offset = RF cable loss.
Following shows an offset computation example with cable loss 6.0 dB.

Offset(dB) = RF cable loss(dB).
= 6.0 (dB)

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.

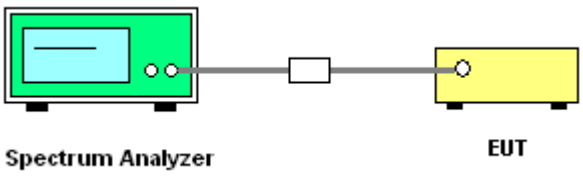
3.1.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

3.1.3 Test Procedures

1. The testing follows FCC KDB Publication No. 558074 DTS D01 Meas. Guidance v03r03.
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.

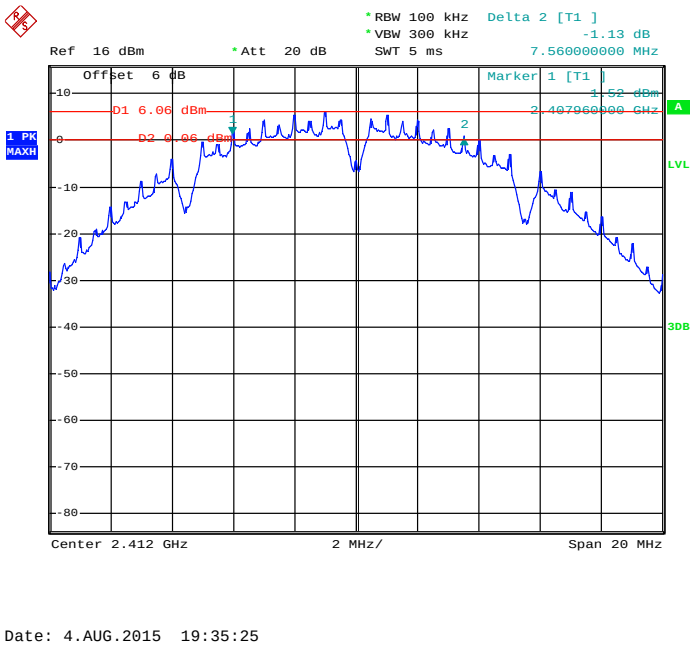
3.1.4 Test Setup



3.1.5 Test Result of 6dB Bandwidth

Please refer to Appendix A of this test report.

Minimum 6dB Bandwidth



Note : The occupied channel bandwidth is maintained within the band of operation for all of the modulations.

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.

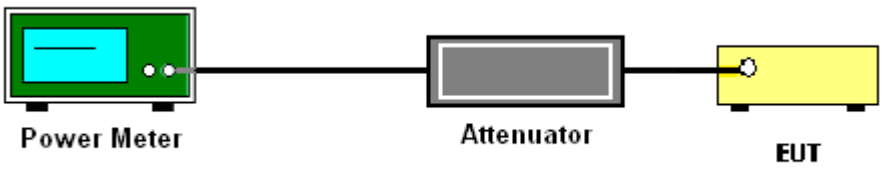
3.2.2 Measuring Instruments

The measuring equipment is listed in the section 4 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 v03r03 section 9.1.2 PKPM1 Peak power meter method.
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.
5. For MIMO mode, calculation method follows FCC KDB 662911 D01 Multiple Transmitter Output v02r01.

3.2.4 Test Setup



3.2.5 Test Result of Peak Output Power

Please refer to Appendix A of this test report.

3.2.6 Test Result of Average output Power (Reporting Only)

Please refer to Appendix A of this test report.

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

The measuring equipment is listed in the section 4 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 v03r03
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.
7. For MIMO mode, calculation method follows FCC KDB 662911 D01 Multiple Transmitter Output v02r01.

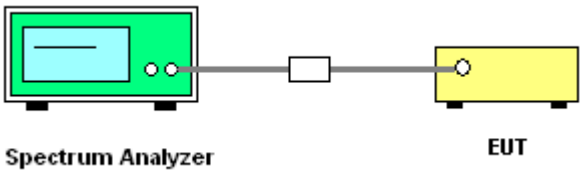
   If measurements performed using method (2) plus 10 log (N) exceeds the emission limit, the test should choose method (1) before declaring that the device fails the emission limit.

   Method (1): Measure and sum the spectra across the outputs.

   The total final Power Spectral Density is from a device with 2 transmitter outputs. The spectrum measurements of the individual outputs are all performed with the same span and number of points, the spectrum value in the first spectral bin of output 1 is summed with that in the first spectral bin of output 2 to obtain the value for the first frequency bin of the summed spectrum.

   Method (2): Measure and add 10 log (N) dB, where N is the number of outputs. (N=2)

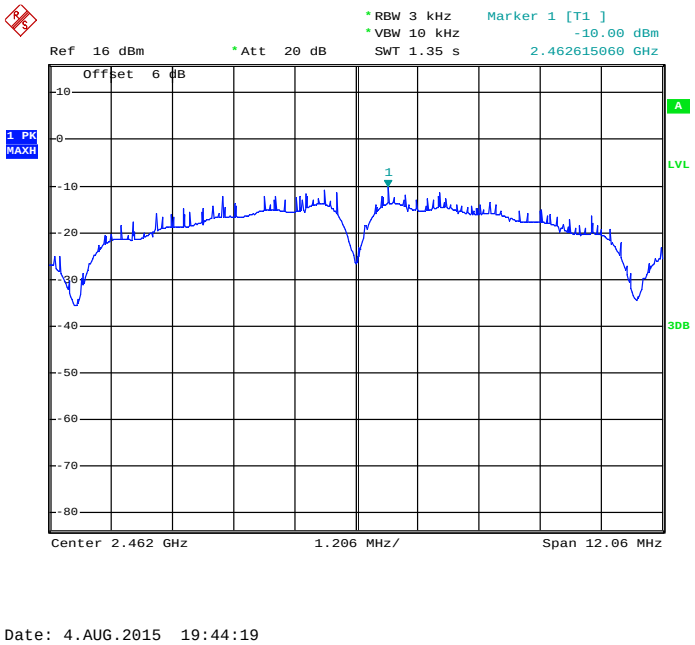
3.3.4 Test Setup



3.3.5 Test Result of Power Spectral Density

Please refer to Appendix A of this test report.

Worst Case Power Density (dBm/3kHz)



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).

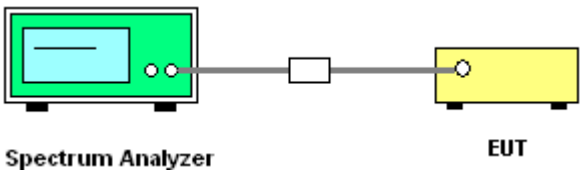
3.4.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

3.4.3 Test Procedures

1. The testing follows FCC KDB Publication No. 558074 D01 DTS Meas. Guidance v03r03.
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



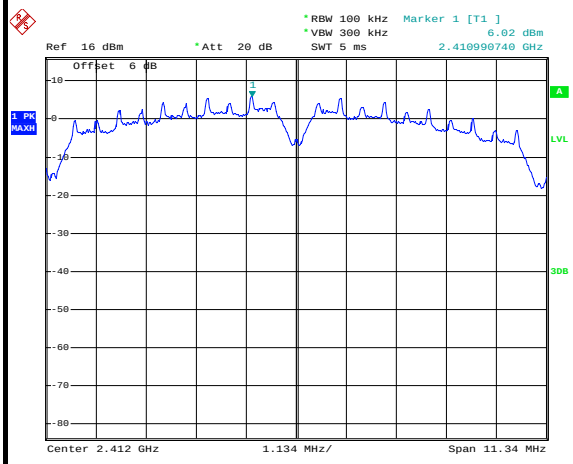
3.4.5 Test Result of Conducted Band Edges and Spurious Emission

Number of TX = 1, Chain Port 0 (Measured)

Number of TX	1	**Chain Port:**	0
Test Mode :	802.11b	**Temperature :**	24~25℃
Test Band :	2.4GHz Low	**Relative Humidity :**	49~51%
Test Channel :	01	**Test Engineer :**	Issac Song

WLAN 802.11b Channel 01

100kHz PSD reference Level



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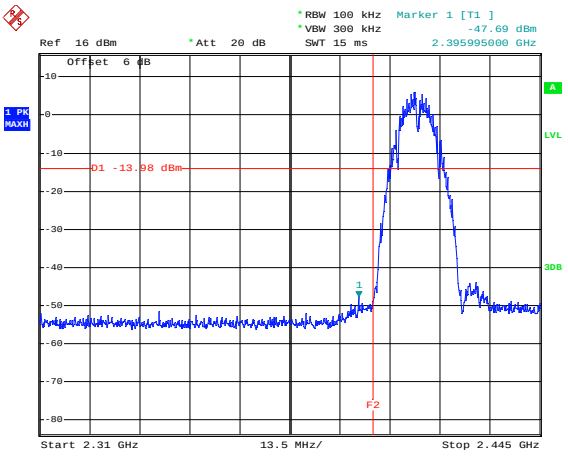
Low Channel Plot



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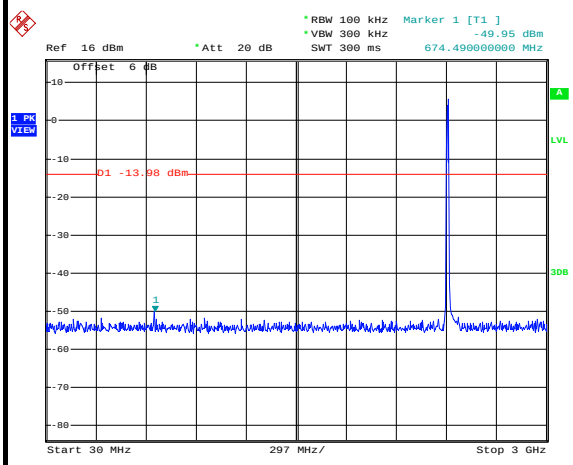
Spurious Emission 30MHz~3GHz



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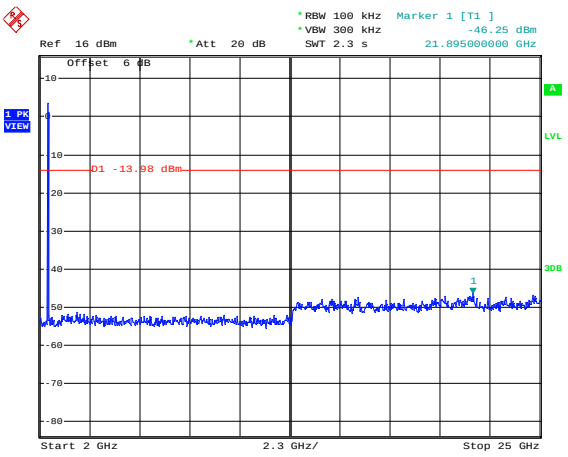
Spurious Emission 2GHz~25GHz



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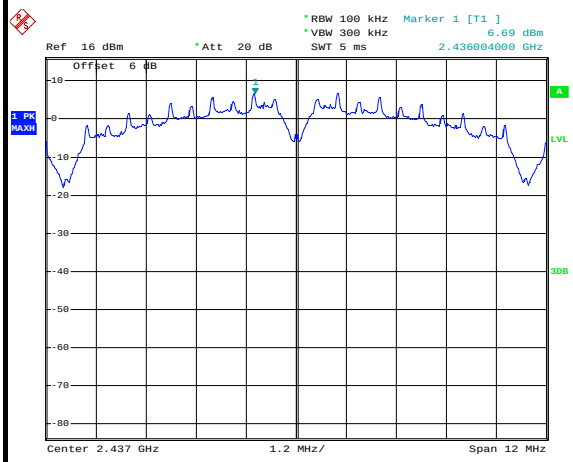
Number of TX :	1	**Chain Port:**	0
Test Mode :	802.11b	**Temperature :**	24~25℃
Test Band :	2.4GHz Mid	**Relative Humidity :**	49~51%
Test Channel :	06	**Test Engineer :**	Issac Song

WLAN 802.11b Channel 06

100kHz PSD reference Level



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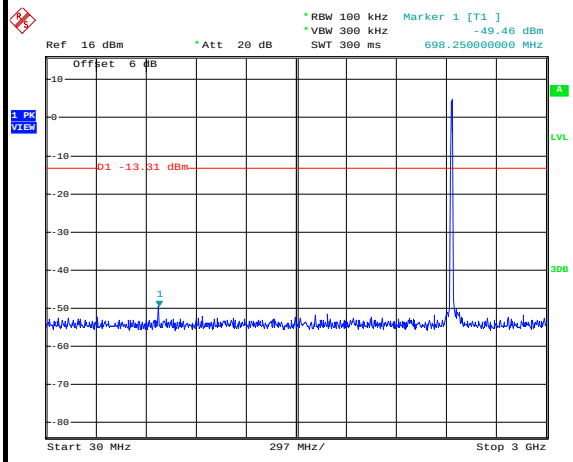
Spurious Emission 30MHz~3GHz



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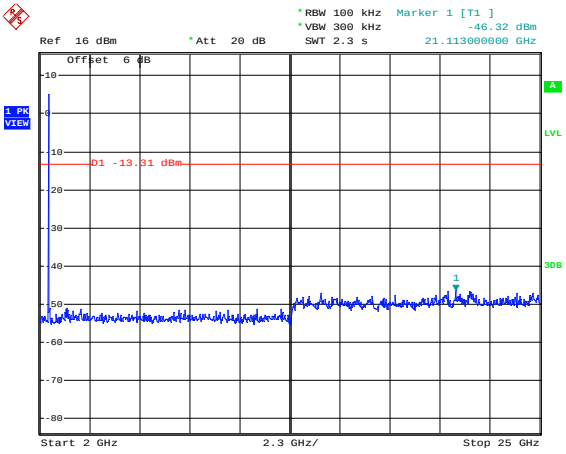
Spurious Emission 2GHz~25GHz

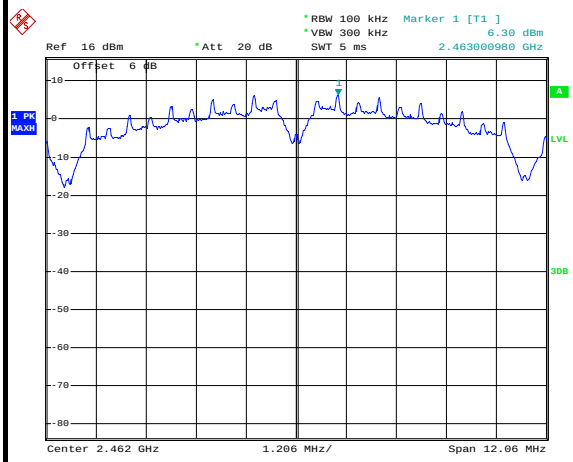


Date: 4.AUG.2015 19:32:46

Number of TX :	1	**Chain Port:**	0
Test Mode :	802.11b	**Temperature :**	24~25℃
Test Band :	2.4GHz High	**Relative Humidity :**	49~51%
Test Channel :	11	**Test Engineer :**	Issac Song

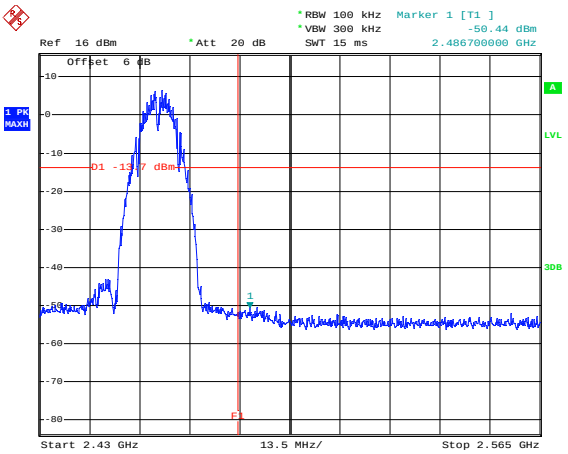
WLAN 802.11b Channel 11

100kHz PSD reference Level



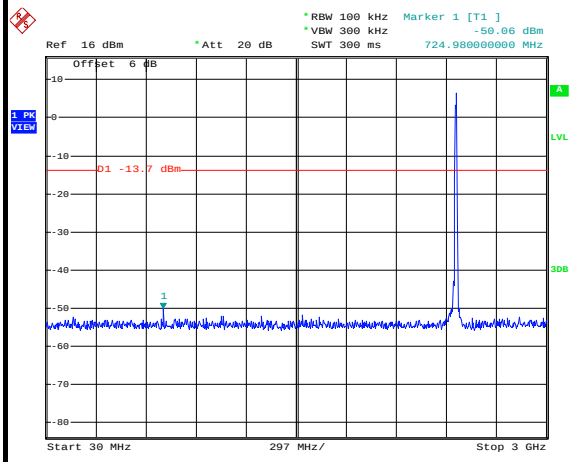
Date: 4.AUG.2015 19:44:41

High Channel Plot



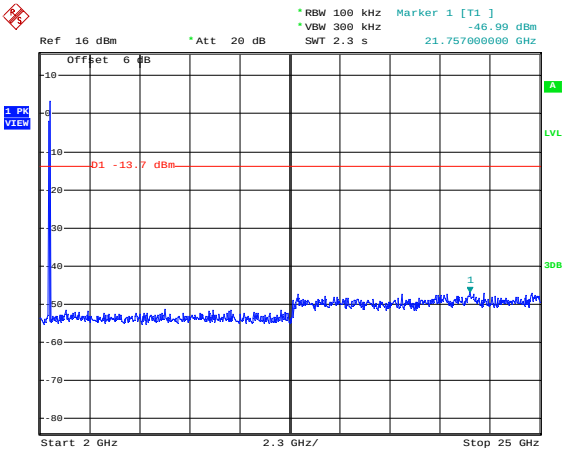
Date: 4.AUG.2015 19:46:32

Spurious Emission 30MHz~3GHz



Date: 4.AUG.2015 19:47:18

Spurious Emission 2GHz~25GHz

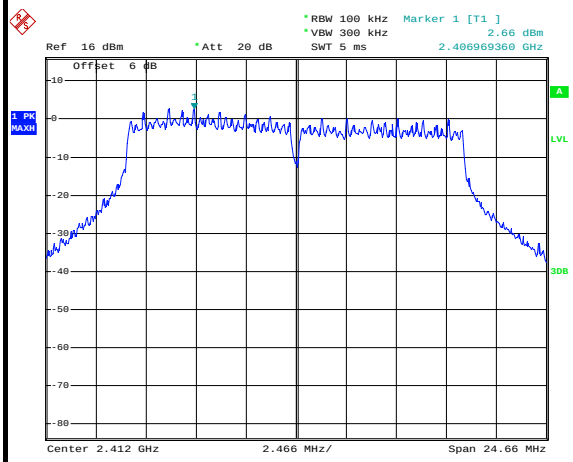


Date: 4.AUG.2015 19:47:36

Number of TX :	1	**Chain Port:**	0
Test Mode :	802.11g	**Temperature :**	24~25℃
Test Band :	2.4GHz Low	**Relative Humidity :**	49~51%
Test Channel :	01	**Test Engineer :**	Issac Song

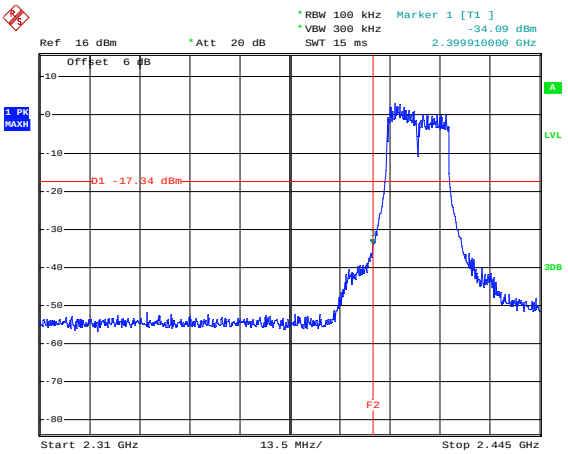
WLAN 802.11g Channel 01

100kHz PSD reference Level



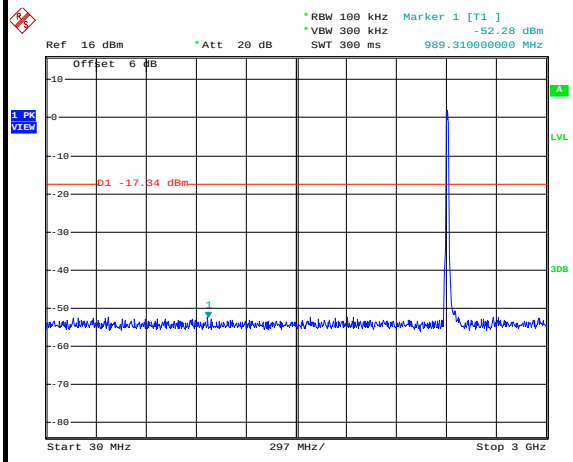
Date: 5.JUL.2014 00:14:11

Low Channel Plot



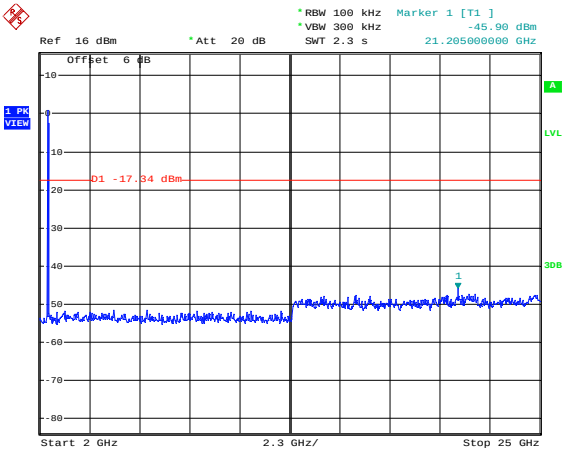
Date: 5.JUL.2014 05:36:49

Spurious Emission 30MHz~3GHz



Date: 5.JUL.2014 00:16:57

Spurious Emission 2GHz~25GHz

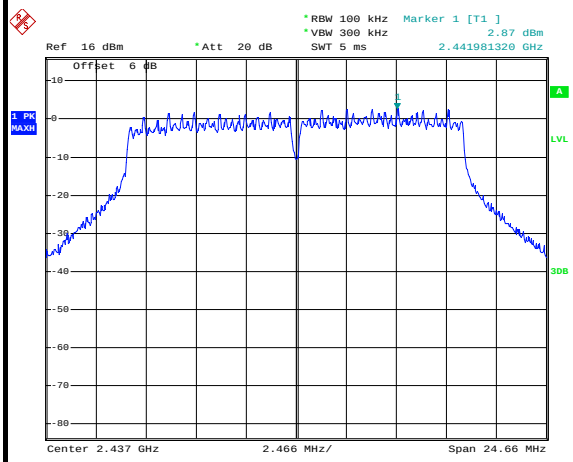


Date: 5.JUL.2014 00:17:15

Number of TX :	1	**Chain Port:**	0
Test Mode :	802.11g	**Temperature :**	24~25℃
Test Band :	2.4GHz Mid	**Relative Humidity :**	49~51%
Test Channel :	06	**Test Engineer :**	Issac Song

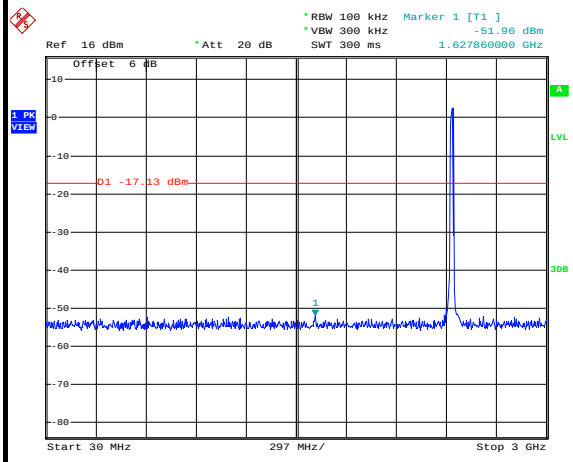
WLAN 802.11g Channel 06

100kHz PSD reference Level



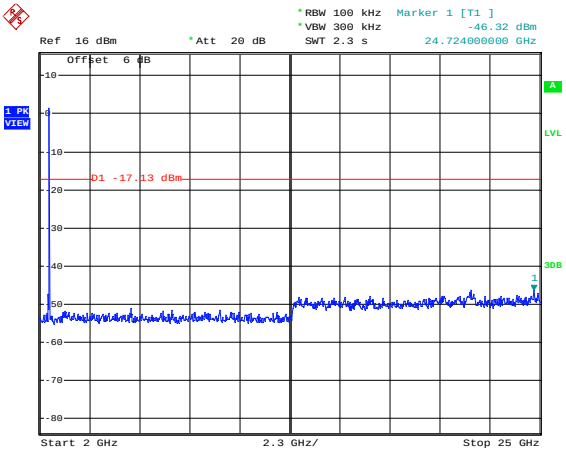
Date: 5.JUL.2014 00:19:56

Spurious Emission 30MHz~3GHz



Date: 5.JUL.2014 00:20:21

Spurious Emission 2GHz~25GHz

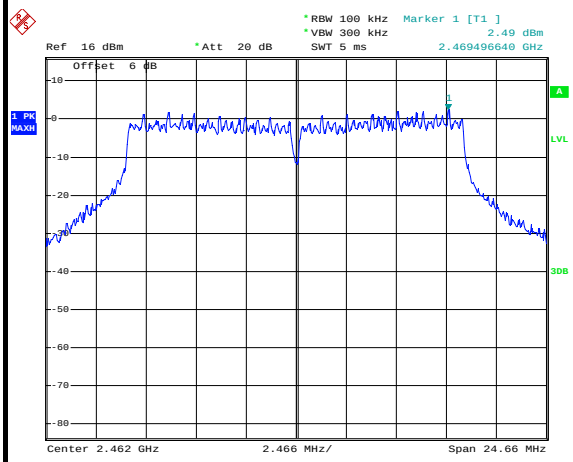


Date: 5.JUL.2014 00:20:39

Number of TX :	1	**Chain Port:**	0
Test Mode :	802.11g	**Temperature :**	24~25℃
Test Band :	2.4GHz High	**Relative Humidity :**	49~51%
Test Channel :	11	**Test Engineer :**	Issac Song

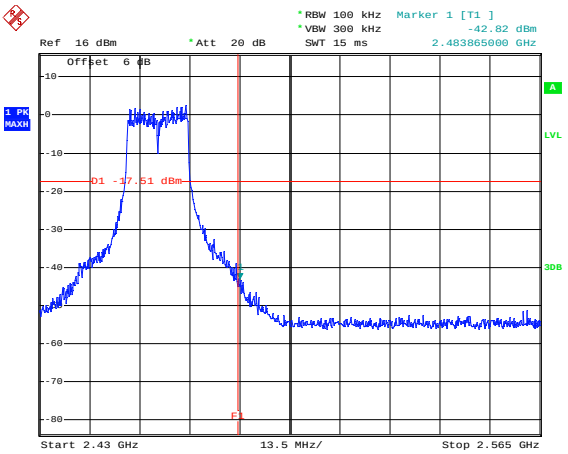
WLAN 802.11g Channel 11

100kHz PSD reference Level



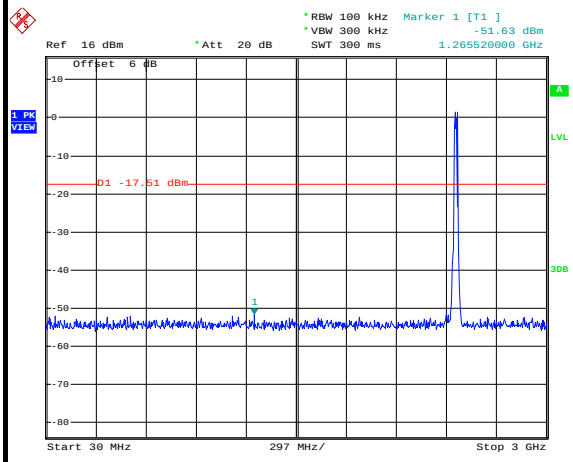
Date: 5.JUL.2014 01:27:04

High Channel Plot



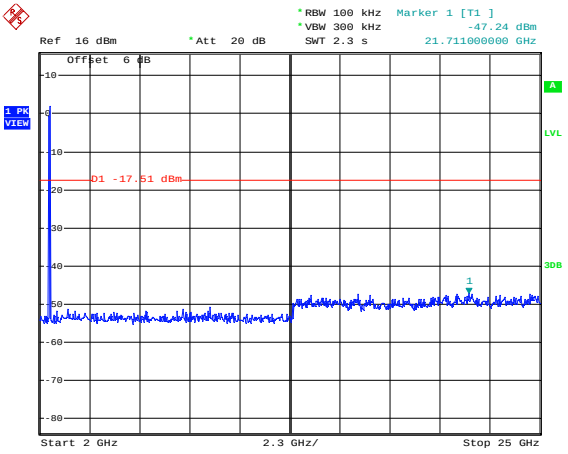
Date: 5.JUL.2014 01:27:25

Spurious Emission 30MHz~3GHz



Date: 5.JUL.2014 01:27:47

Spurious Emission 2GHz~25GHz

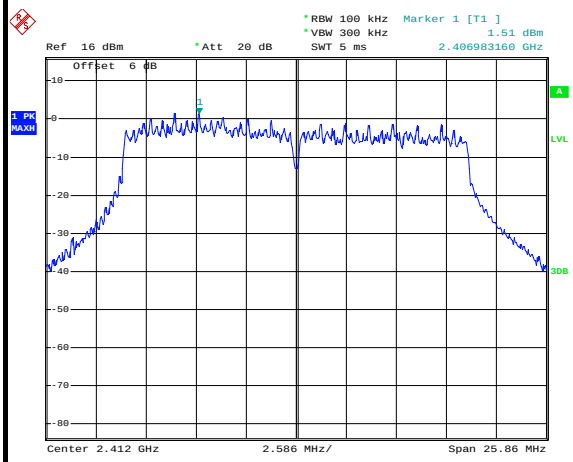


Date: 5.JUL.2014 01:28:05

Number of TX :	1	**Chain Port:**	0
Test Mode :	802.11n HT20	**Temperature :**	24~25℃
Test Band :	2.4GHz Low	**Relative Humidity :**	49~51%
Test Channel :	01	**Test Engineer :**	Issac Song

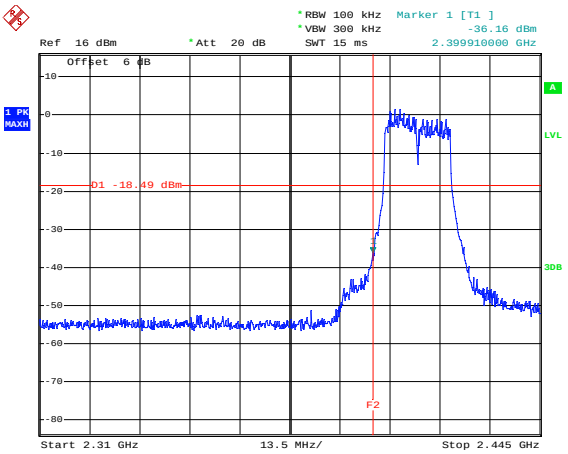
WLAN 802.11n HT20 Channel 01

100kHz PSD reference Level



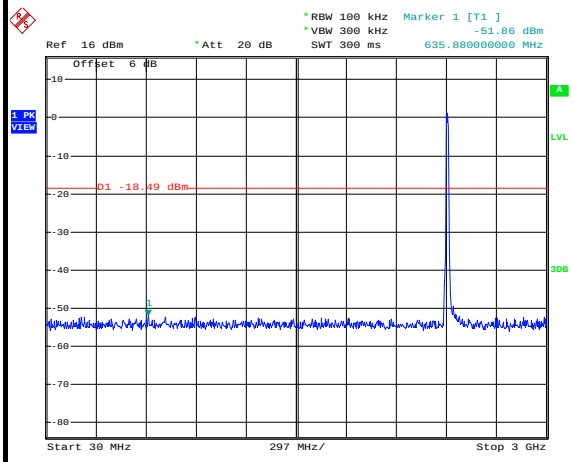
Date: 5.JUL.2014 02:59:16

Low Channel Plot



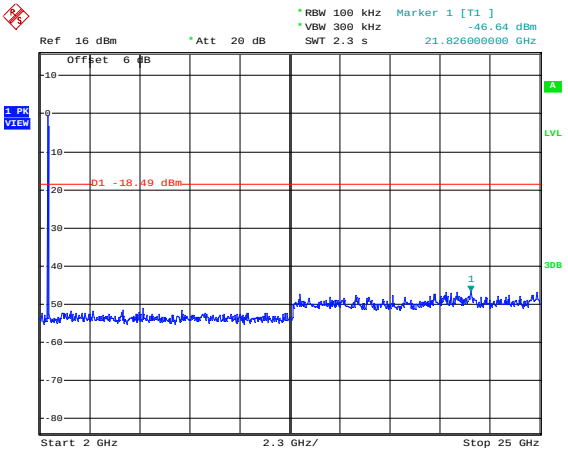
Date: 5.JUL.2014 05:31:49

Spurious Emission 30MHz~3GHz



Date: 5.JUL.2014 03:00:19

Spurious Emission 2GHz~25GHz

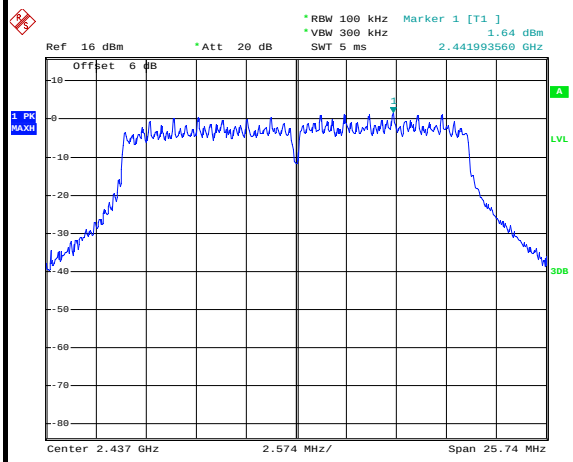


Date: 5.JUL.2014 03:00:37

Number of TX :	1	**Chain Port:**	0
Test Mode :	802.11n HT20	**Temperature :**	24~25℃
Test Band :	2.4GHz Mid	**Relative Humidity :**	49~51%
Test Channel :	06	**Test Engineer :**	Issac Song

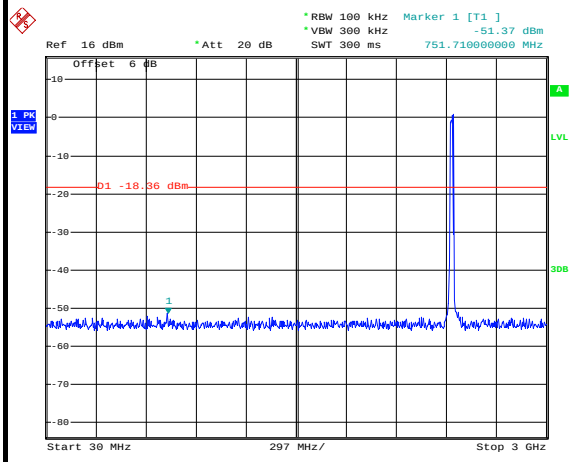
WLAN 802.11n HT20 Channel 06

100kHz PSD reference Level



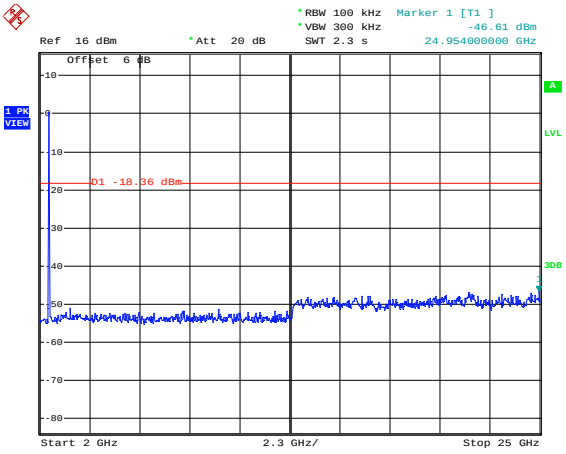
Date: 5.JUL.2014 03:03:53

Spurious Emission 30MHz~3GHz



Date: 5.JUL.2014 03:04:15

Spurious Emission 2GHz~25GHz

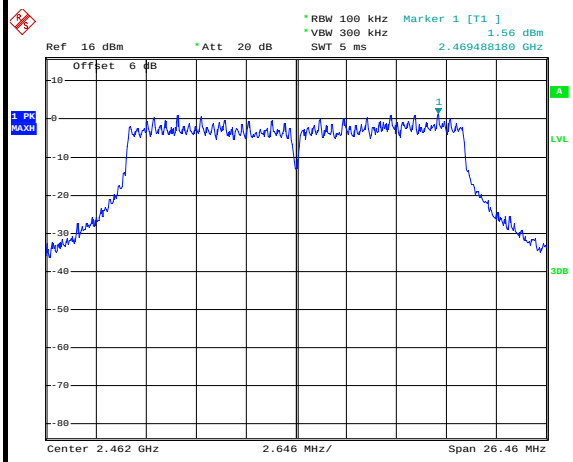


Date: 5.JUL.2014 03:04:33

Number of TX :	1	**Chain Port:**	0
Test Mode :	802.11n HT20	**Temperature :**	24~25℃
Test Band :	2.4GHz High	**Relative Humidity :**	49~51%
Test Channel :	11	**Test Engineer :**	Issac Song

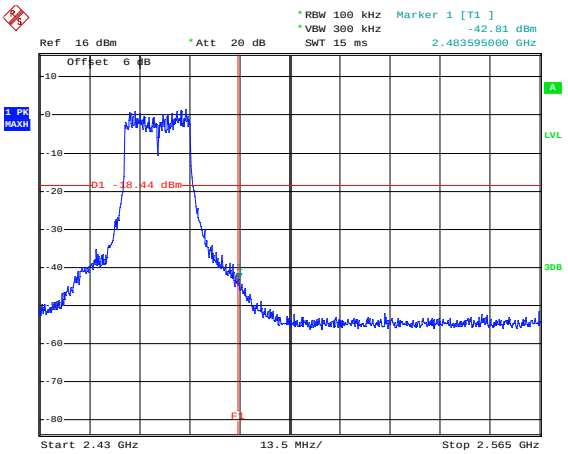
WLAN 802.11n HT20 Channel 11

100kHz PSD reference Level



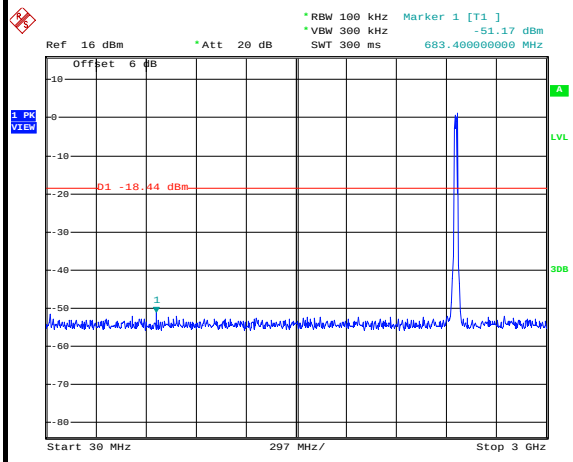
Date: 5.JUL.2014 03:08:00

High Channel Plot



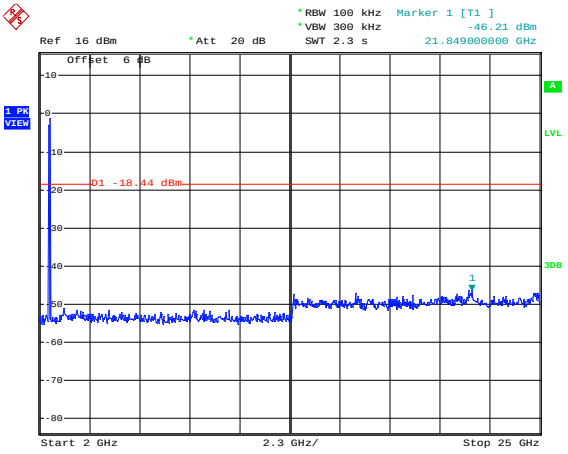
Date: 5.JUL.2014 03:08:23

Spurious Emission 30MHz~3GHz



Date: 5.JUL.2014 03:08:46

Spurious Emission 2GHz~25GHz



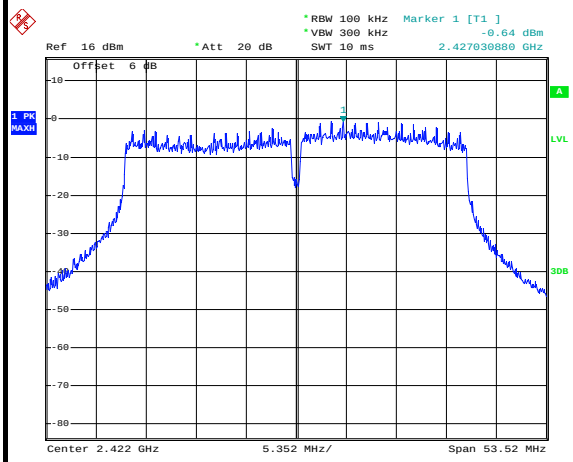
Date: 5.JUL.2014 03:09:04

Number of TX = 1, Chain Port 1 (Measured)

Number of TX :	1	**Chain Port:**	1
Test Mode :	802.11n HT40	**Temperature :**	24~25℃
Test Band :	2.4GHz Low	**Relative Humidity :**	49~51%
Test Channel :	03	**Test Engineer :**	Issac Song

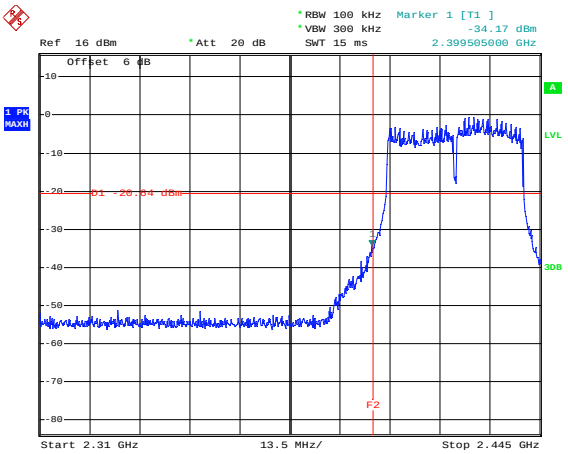
WLAN 802.11n HT40 Channel 03

100kHz PSD reference Level



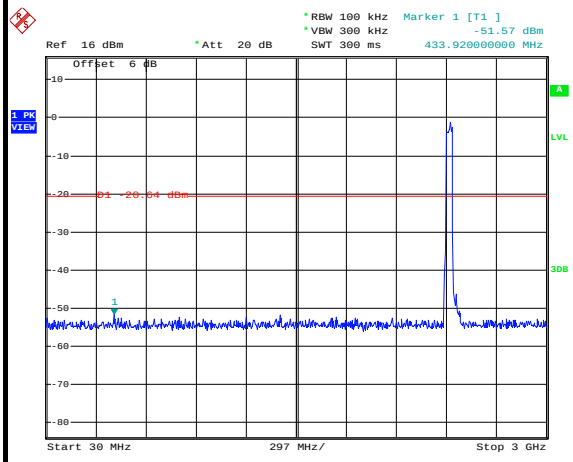
Date: 5.JUL.2014 04:15:16

Low Channel Plot



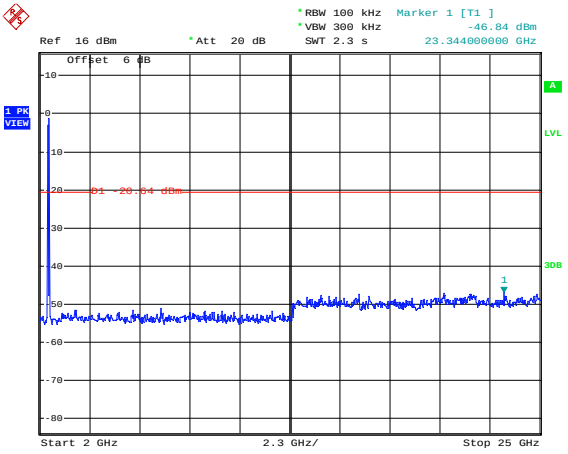
Date: 5.JUL.2014 04:15:52

Spurious Emission 30MHz~3GHz



Date: 5.JUL.2014 04:17:57

Spurious Emission 2GHz~25GHz

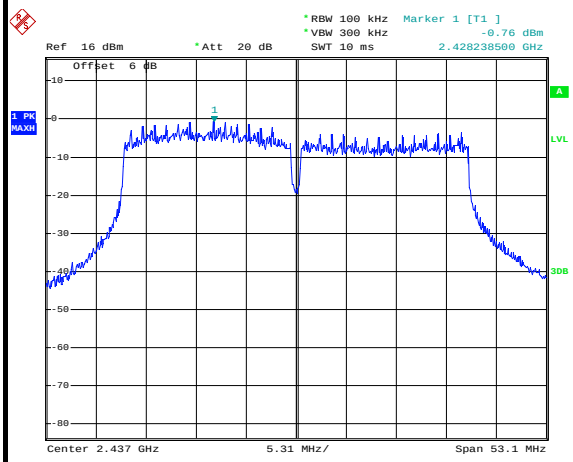


Date: 5.JUL.2014 04:18:15

Number of TX :	1	**Chain Port:**	1
Test Mode :	802.11n HT40	**Temperature :**	24~25℃
Test Band :	2.4GHz Mid	**Relative Humidity :**	49~51%
Test Channel :	06	**Test Engineer :**	Issac Song

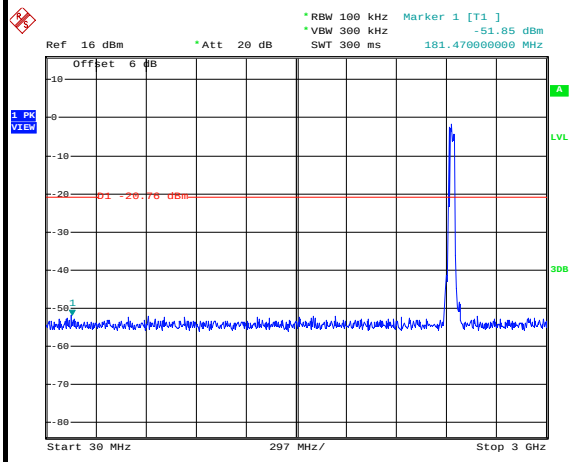
WLAN 802.11n HT40 Channel 06

100kHz PSD reference Level



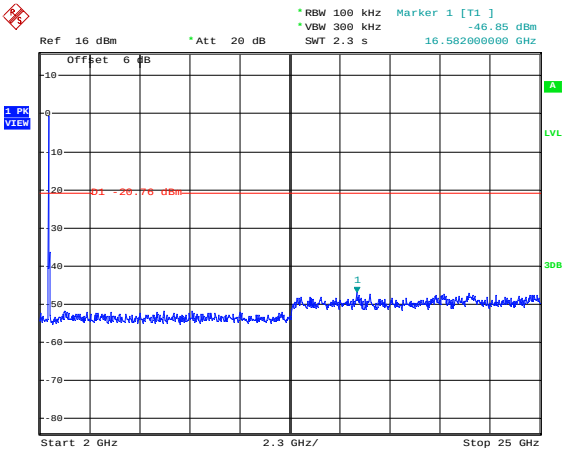
Date: 5.JUL.2014 04:20:54

Spurious Emission 30MHz~3GHz



Date: 5.JUL.2014 04:21:26

Spurious Emission 2GHz~25GHz

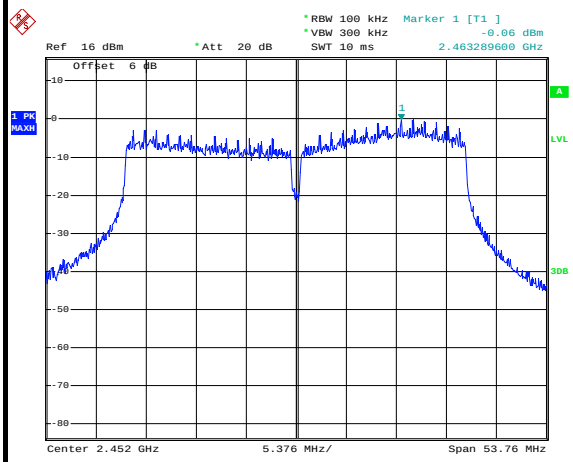


Date: 5.JUL.2014 04:21:44

Number of TX :	1	**Chain Port:**	1
Test Mode :	802.11n HT40	**Temperature :**	24~25℃
Test Band :	2.4GHz High	**Relative Humidity :**	49~51%
Test Channel :	09	**Test Engineer :**	Issac Song

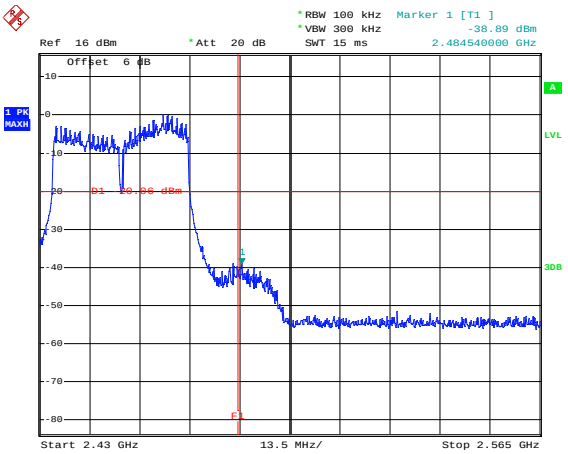
WLAN 802.11n HT40 Channel 09

100kHz PSD reference Level



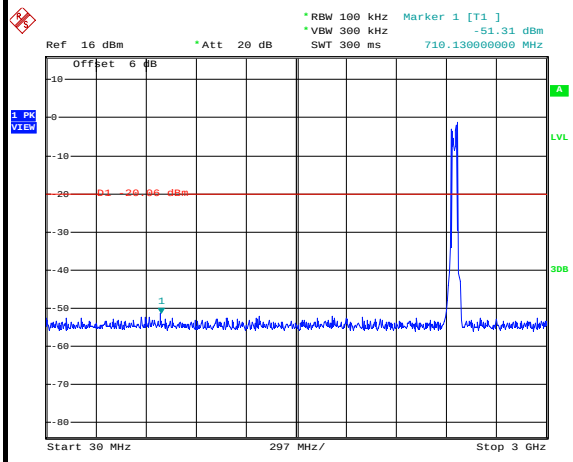
Date: 5.JUL.2014 04:25:15

High Channel Plot



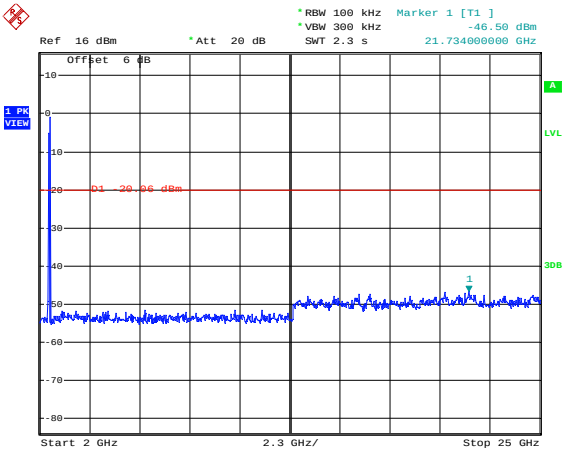
Date: 5.JUL.2014 04:25:43

Spurious Emission 30MHz~3GHz



Date: 5.JUL.2014 04:31:59

Spurious Emission 2GHz~25GHz



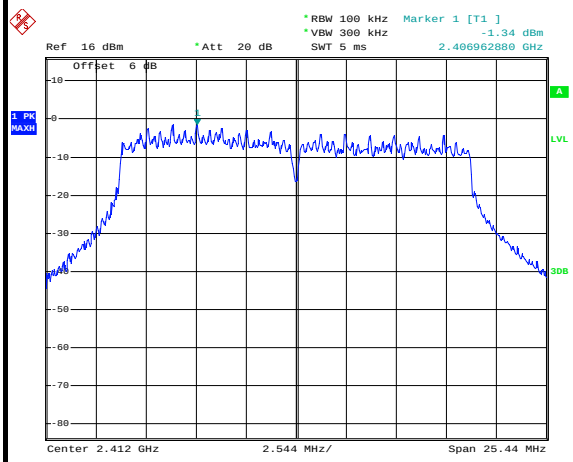
Date: 5.JUL.2014 04:30:04

Number of TX = 2, Chain Port 0+1(0) (Measured)

Number of TX :	2	**Chain Port:**	0+1(0)
Test Mode :	802.11n HT20	**Temperature :**	24~25℃
Test Band :	2.4GHz Low	**Relative Humidity :**	49~51%
Test Channel :	01	**Test Engineer :**	Issac Song

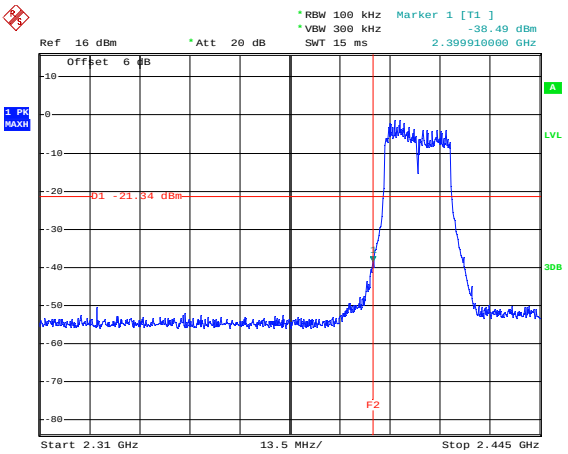
WLAN 802.11n HT20 Channel 01

100kHz PSD reference Level



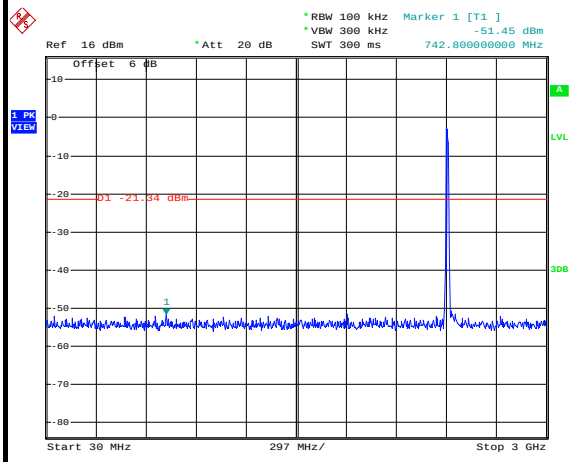
Date: 5.JUL.2014 03:14:50

Low Channel Plot



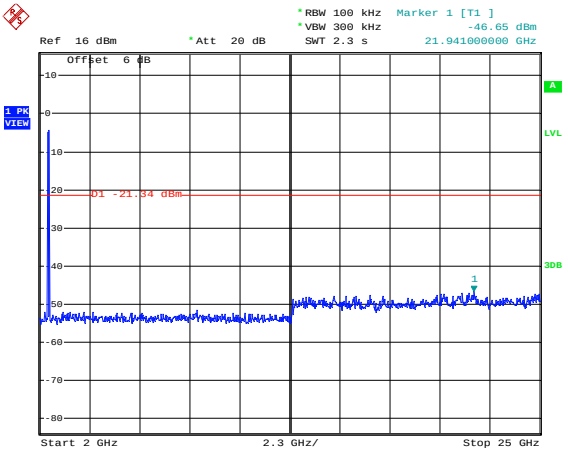
Date: 5.JUL.2014 05:34:07

Spurious Emission 30MHz~3GHz



Date: 5.JUL.2014 03:15:50

Spurious Emission 2GHz~25GHz

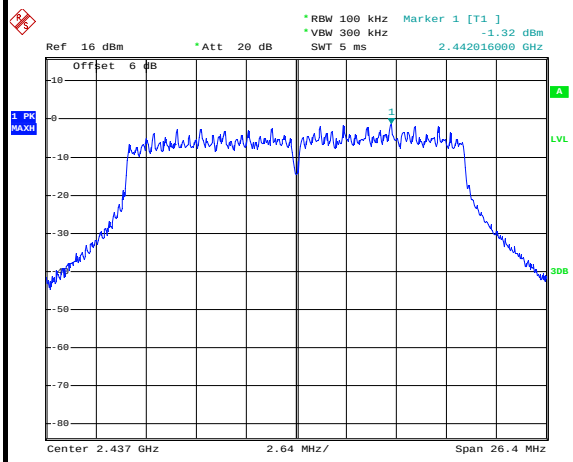


Date: 5.JUL.2014 03:16:08

Number of TX :	2	**Chain Port:**	0+1(0)
Test Mode :	802.11n HT20	**Temperature :**	24~25℃
Test Band :	2.4GHz Mid	**Relative Humidity :**	49~51%
Test Channel :	06	**Test Engineer :**	Issac Song

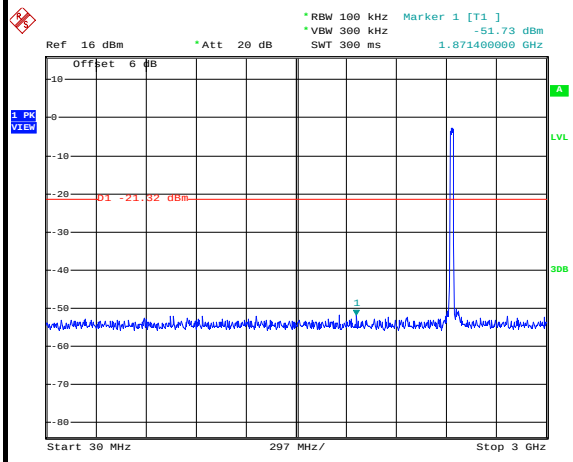
WLAN 802.11n HT20 Channel 06

100kHz PSD reference Level



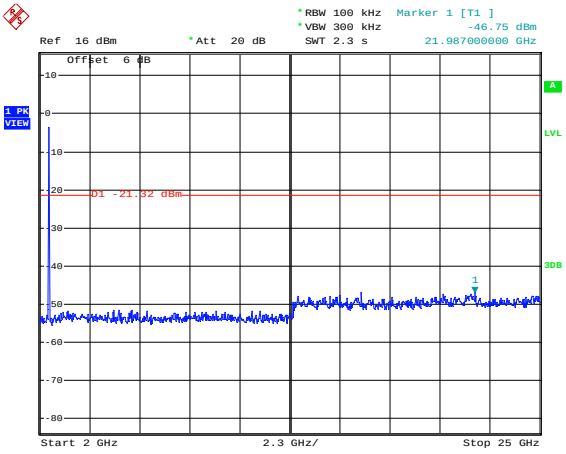
Date: 5.JUL.2014 03:18:53

Spurious Emission 30MHz~3GHz



Date: 5.JUL.2014 03:19:16

Spurious Emission 2GHz~25GHz

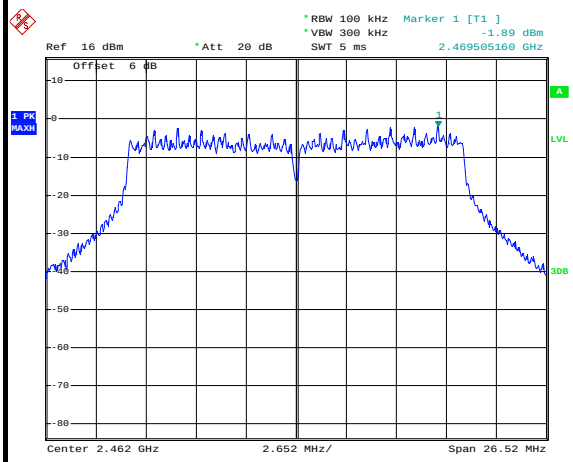


Date: 5.JUL.2014 03:19:34

Number of TX :	2	**Chain Port:**	0+1(0)
Test Mode :	802.11n HT20	**Temperature :**	24~25℃
Test Band :	2.4GHz High	**Relative Humidity :**	49~51%
Test Channel :	11	**Test Engineer :**	Issac Song

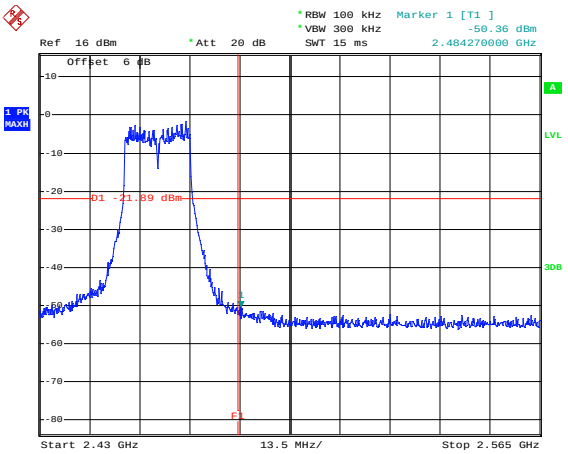
WLAN 802.11n HT20 Channel 11

100kHz PSD reference Level



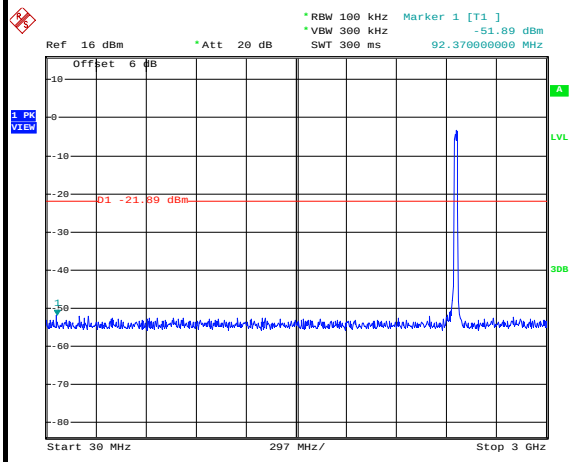
Date: 5.JUL.2014 03:23:06

High Channel Plot



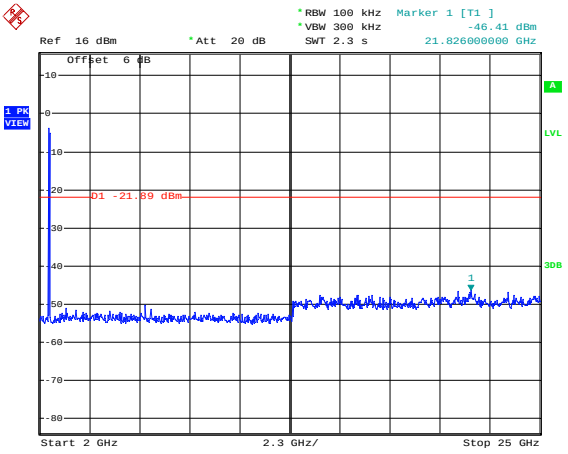
Date: 5.JUL.2014 03:23:23

Spurious Emission 30MHz~3GHz



Date: 5.JUL.2014 03:23:45

Spurious Emission 2GHz~25GHz

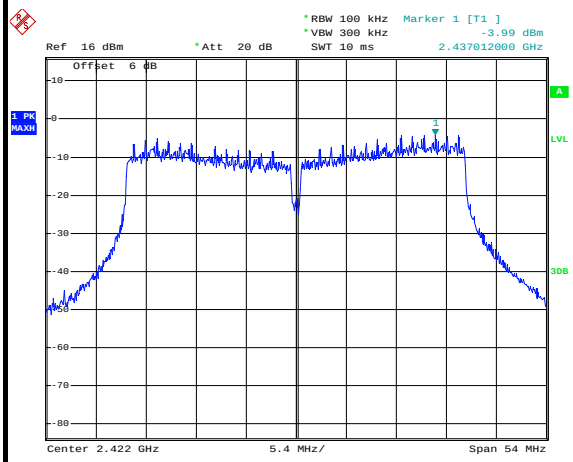


Date: 5.JUL.2014 03:24:03

Number of TX :	2	**Chain Port:**	0+1(0)
Test Mode :	802.11n HT40	**Temperature :**	24~25℃
Test Band :	2.4GHz Low	**Relative Humidity :**	49~51%
Test Channel :	03	**Test Engineer :**	Issac Song

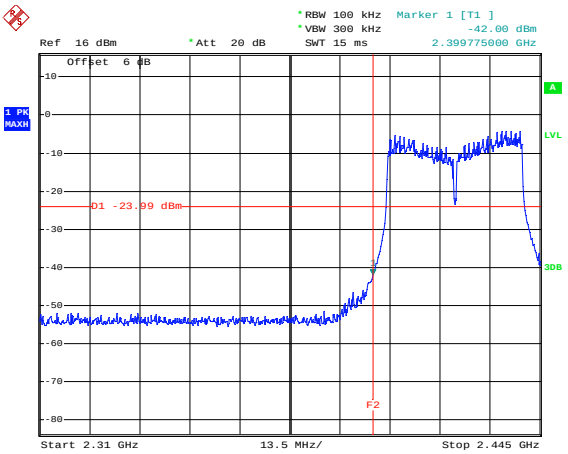
WLAN 802.11n HT40 Channel 03

100kHz PSD reference Level



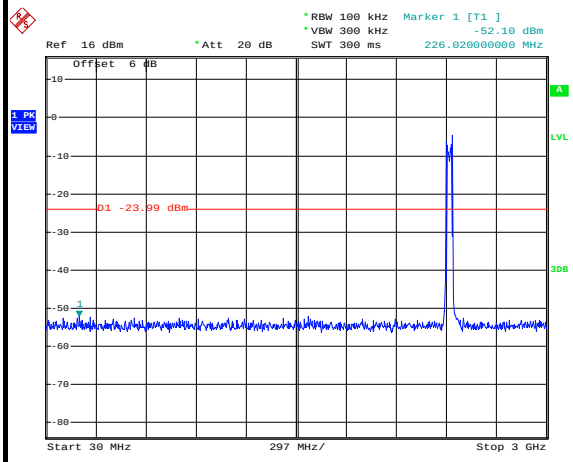
Date: 5.JUL.2014 05:07:21

Low Channel Plot



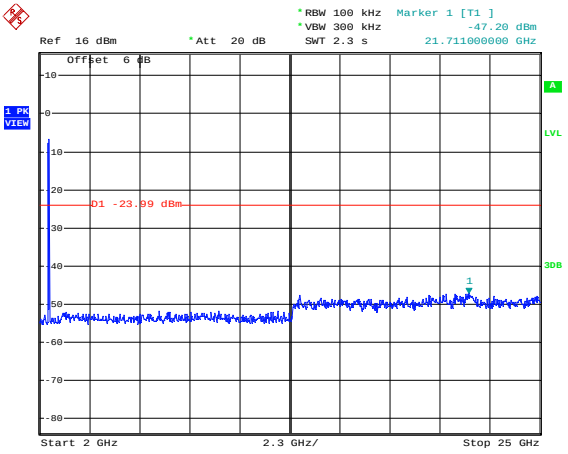
Date: 5.JUL.2014 05:09:25

Spurious Emission 30MHz~3GHz



Date: 5.JUL.2014 05:12:22

Spurious Emission 2GHz~25GHz

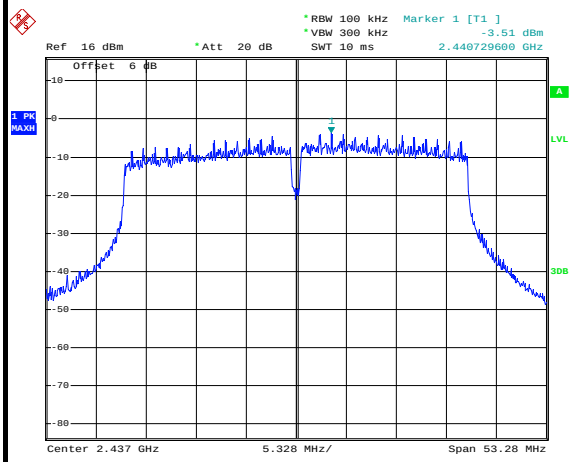


Date: 5.JUL.2014 05:11:22

Number of TX :	2	**Chain Port:**	0+1(0)
Test Mode :	802.11n HT40	**Temperature :**	24~25℃
Test Band :	2.4GHz Mid	**Relative Humidity :**	49~51%
Test Channel :	06	**Test Engineer :**	Issac Song

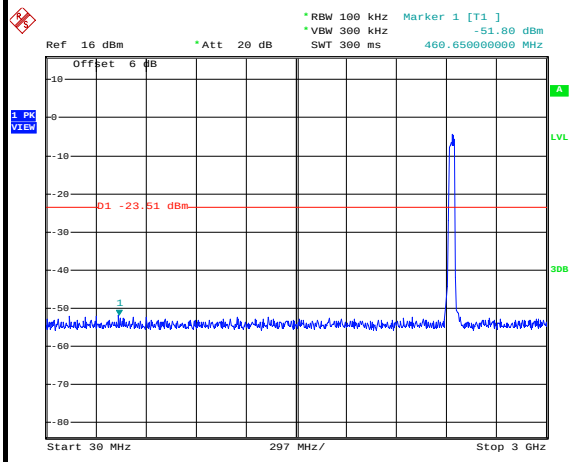
WLAN 802.11n HT40 Channel 06

100kHz PSD reference Level



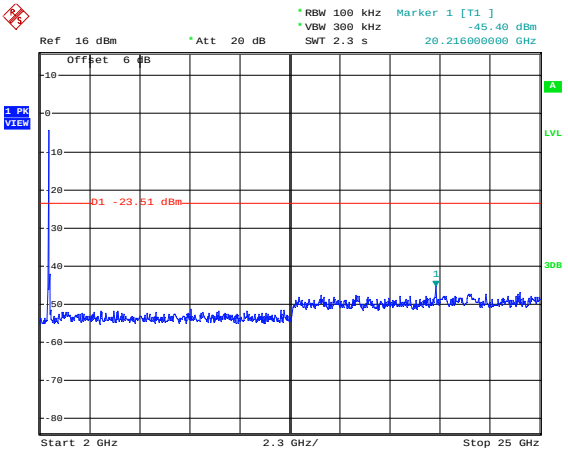
Date: 5.JUL.2014 05:15:53

Spurious Emission 30MHz~3GHz



Date: 5.JUL.2014 05:16:25

Spurious Emission 2GHz~25GHz

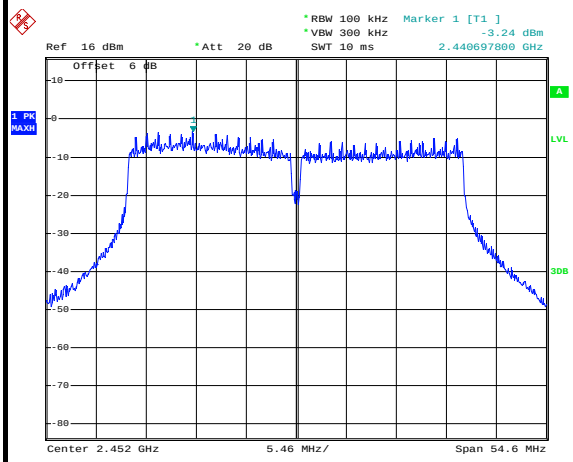


Date: 5.JUL.2014 05:16:43

Number of TX :	2	**Chain Port:**	0+1(0)
Test Mode :	802.11n HT40	**Temperature :**	24~25℃
Test Band :	2.4GHz High	**Relative Humidity :**	49~51%
Test Channel :	09	**Test Engineer :**	Issac Song

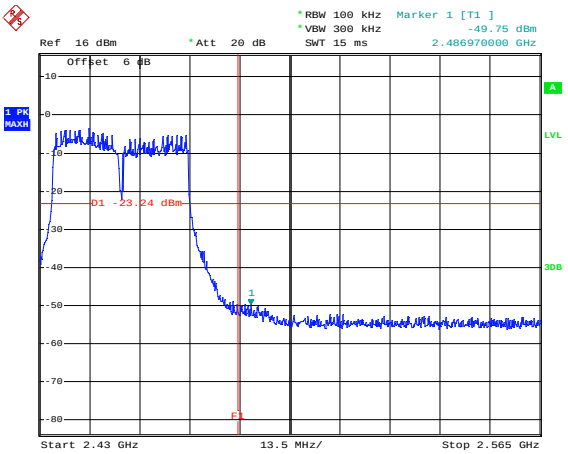
WLAN 802.11n HT40 Channel 09

100kHz PSD reference Level



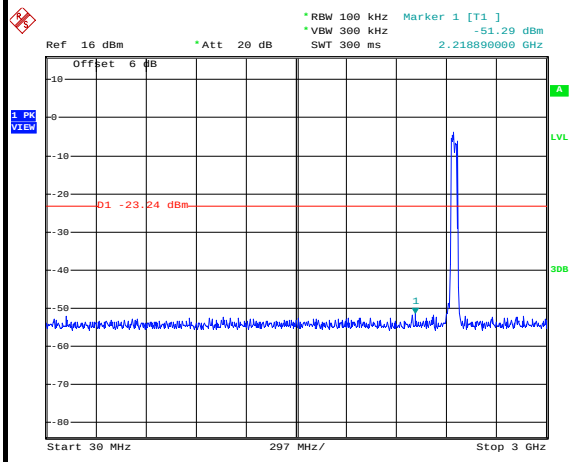
Date: 5.JUL.2014 05:19:56

High Channel Plot



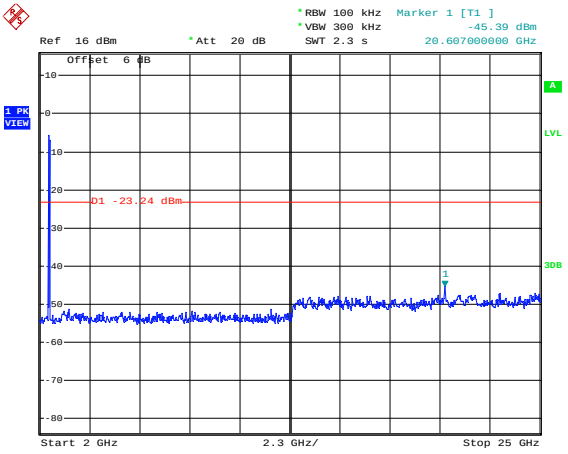
Date: 5.JUL.2014 05:20:34

Spurious Emission 30MHz~3GHz



Date: 5.JUL.2014 05:21:48

Spurious Emission 2GHz~25GHz



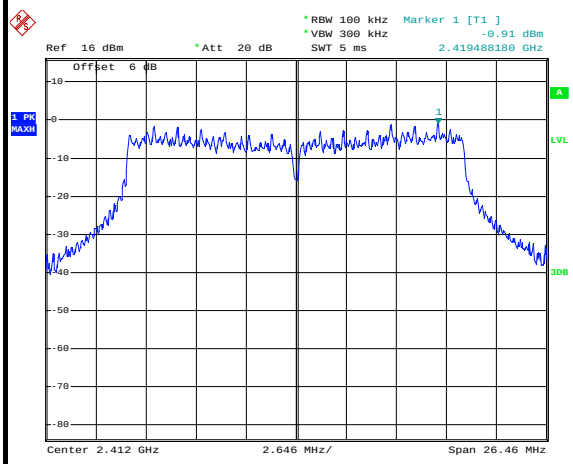
Date: 5.JUL.2014 05:22:05

Number of TX = 2, Chain Port 0+1(1) (Measured)

Number of TX :	2	**Chain Port:**	0+1(1)
Test Mode :	802.11n HT20	**Temperature :**	24~25℃
Test Band :	2.4GHz Low	**Relative Humidity :**	49~51%
Test Channel :	01	**Test Engineer :**	Issac Song

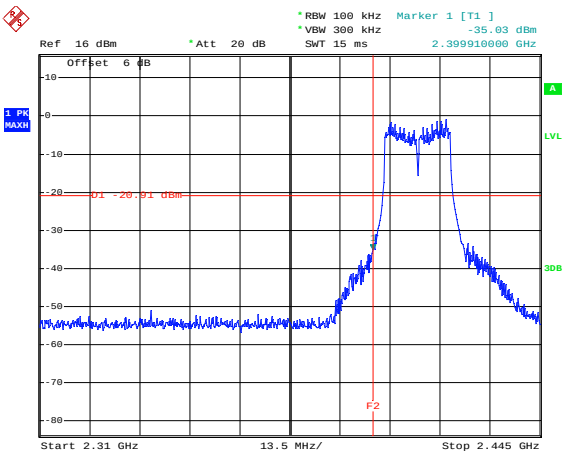
WLAN 802.11n HT20 Channel 01

100kHz PSD reference Level



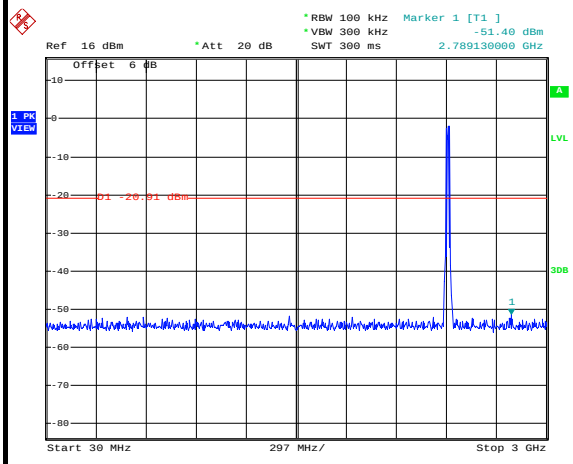
Date: 5.JUL.2014 03:32:48

Low Channel Plot



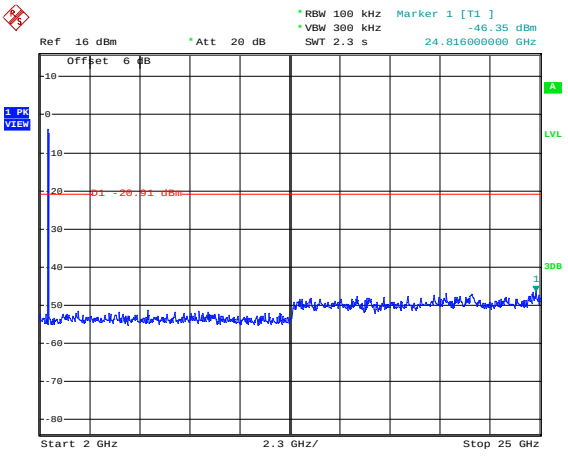
Date: 5.JUL.2014 03:33:07

Spurious Emission 30MHz~3GHz



Date: 5.JUL.2014 03:33:31

Spurious Emission 2GHz~25GHz

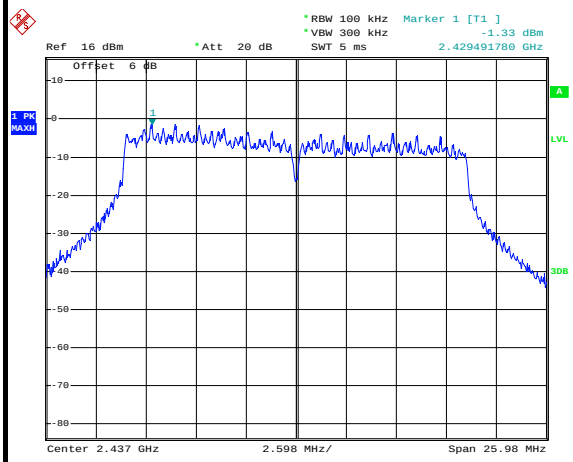


Date: 5.JUL.2014 03:33:48

Number of TX :	2	**Chain Port:**	0+1(1)
Test Mode :	802.11n HT20	**Temperature :**	24~25℃
Test Band :	2.4GHz Mid	**Relative Humidity :**	49~51%
Test Channel :	06	**Test Engineer :**	Issac Song

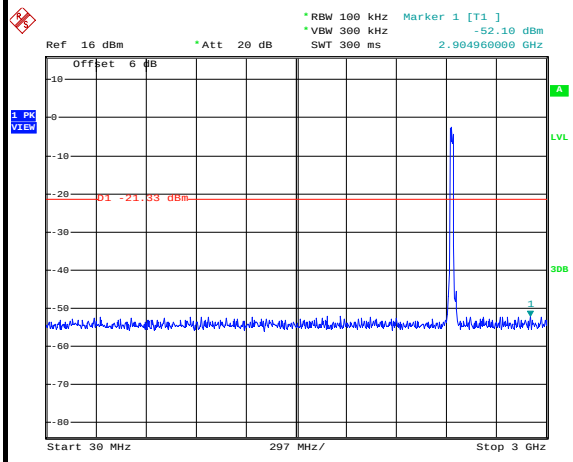
WLAN 802.11n HT20 Channel 06

100kHz PSD reference Level



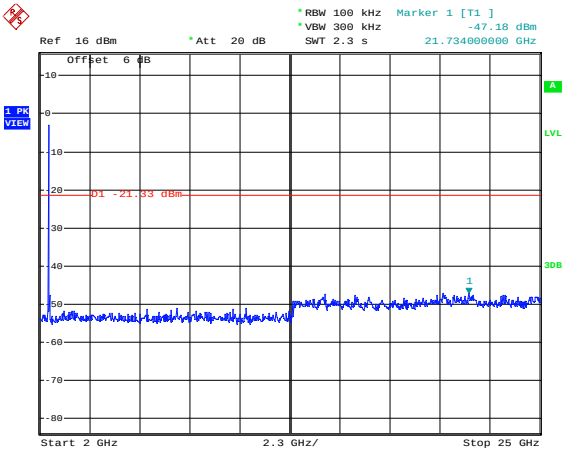
Date: 5.JUL.2014 03:40:00

Spurious Emission 30MHz~3GHz



Date: 5.JUL.2014 03:40:52

Spurious Emission 2GHz~25GHz

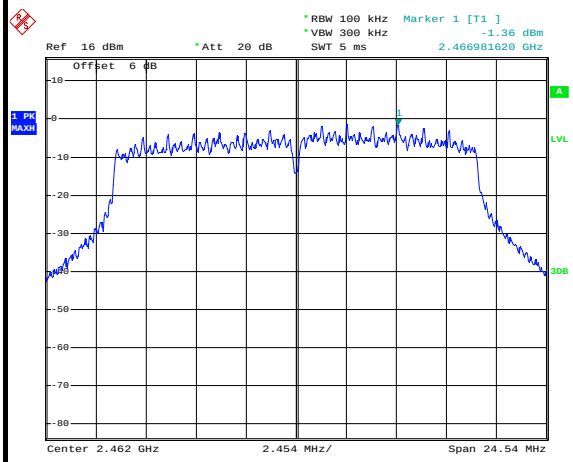


Date: 5.JUL.2014 03:41:10

Number of TX :	2	**Chain Port:**	0+1(1)
Test Mode :	802.11n HT20	**Temperature :**	24~25℃
Test Band :	2.4GHz High	**Relative Humidity :**	49~51%
Test Channel :	11	**Test Engineer :**	Issac Song

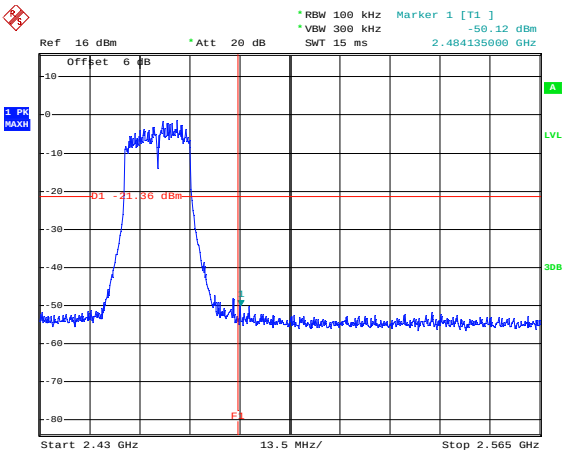
WLAN 802.11n HT20 Channel 11

100kHz PSD reference Level



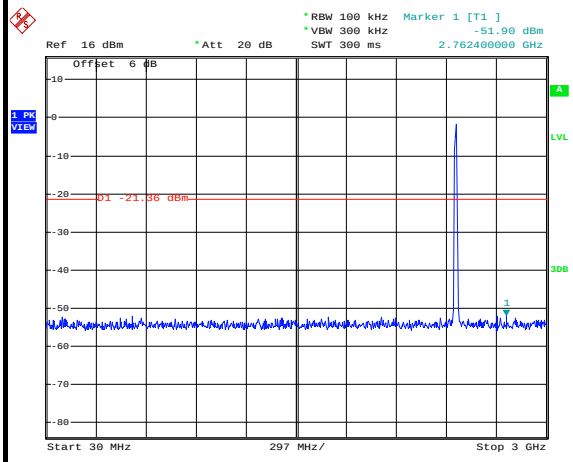
Date: 5.JUL.2014 04:09:21

High Channel Plot



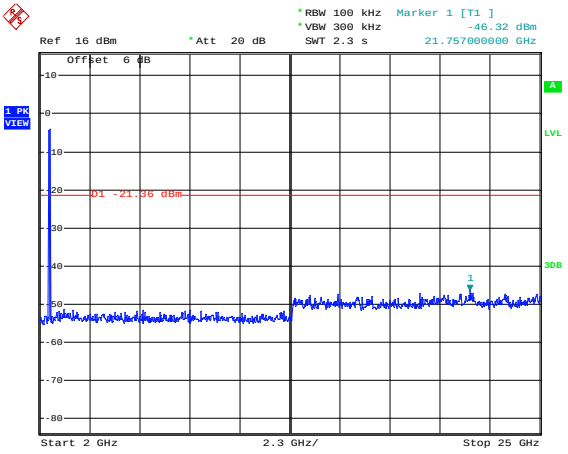
Date: 5.JUL.2014 04:09:43

Spurious Emission 30MHz~3GHz



Date: 5.JUL.2014 04:10:09

Spurious Emission 2GHz~25GHz

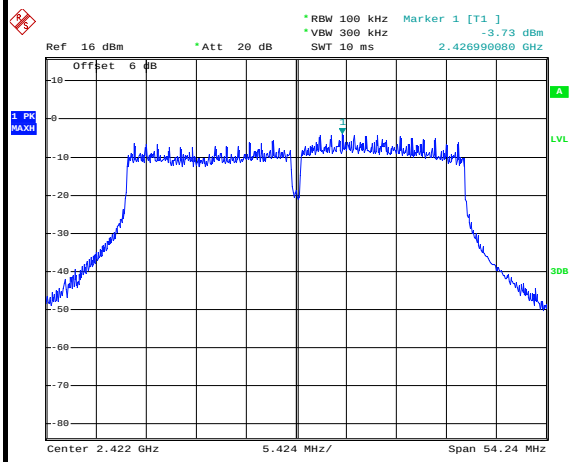


Date: 5.JUL.2014 04:10:27

Number of TX :	2	**Chain Port:**	0+1(1)
Test Mode :	802.11n HT40	**Temperature :**	24~25℃
Test Band :	2.4GHz Low	**Relative Humidity :**	49~51%
Test Channel :	03	**Test Engineer :**	Issac Song

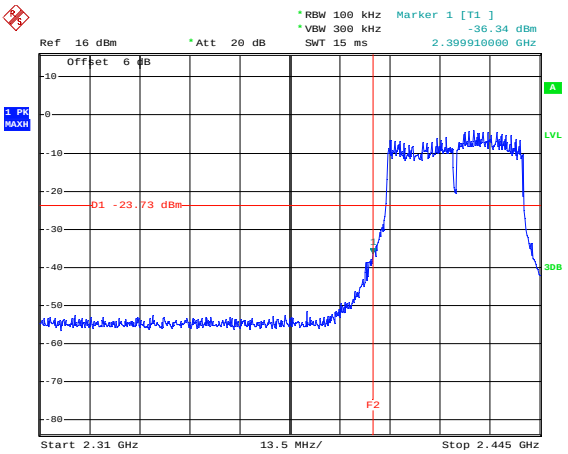
WLAN 802.11n HT40 Channel 03

100kHz PSD reference Level



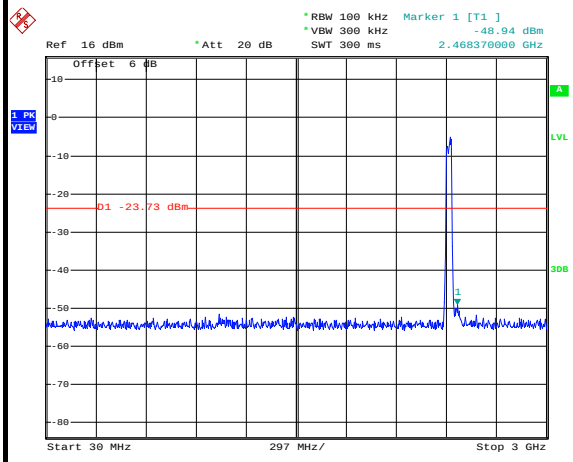
Date: 5.JUL.2014 04:38:30

Low Channel Plot



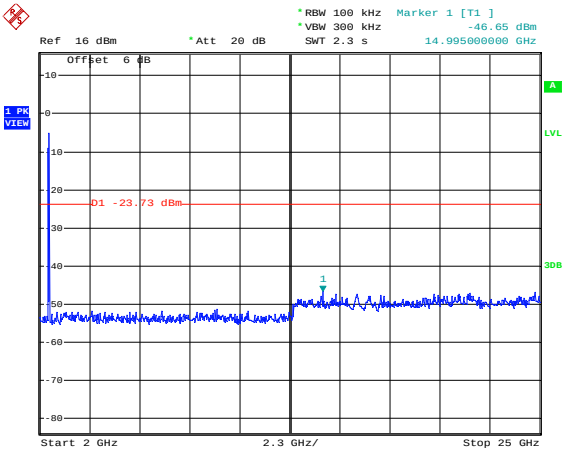
Date: 5.JUL.2014 04:38:53

Spurious Emission 30MHz~3GHz



Date: 5.JUL.2014 04:40:03

Spurious Emission 2GHz~25GHz

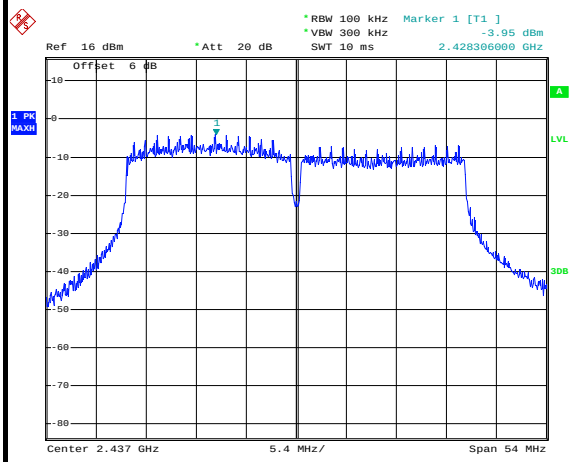


Date: 5.JUL.2014 04:40:21

Number of TX :	2	**Chain Port:**	0+1(1)
Test Mode :	802.11n HT40	**Temperature :**	24~25℃
Test Band :	2.4GHz Mid	**Relative Humidity :**	49~51%
Test Channel :	06	**Test Engineer :**	Issac Song

WLAN 802.11n HT40 Channel 06

100kHz PSD reference Level



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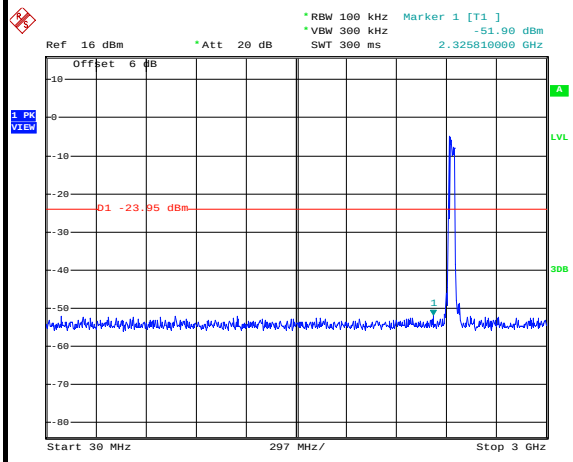
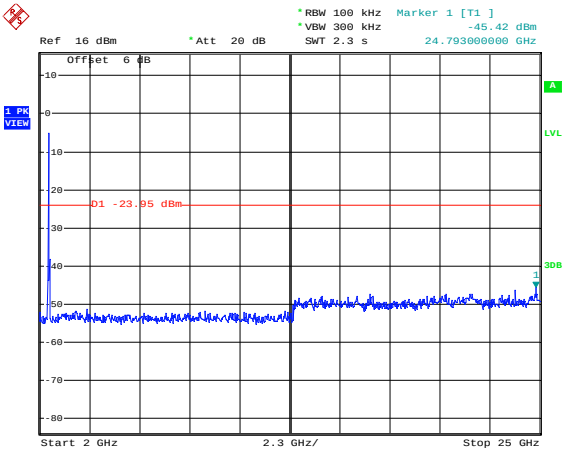
Spurious Emission 30MHz~3GHz



Date: 5.JUL.2014 04:45:07

Spurious Emission 2GHz~25GHz

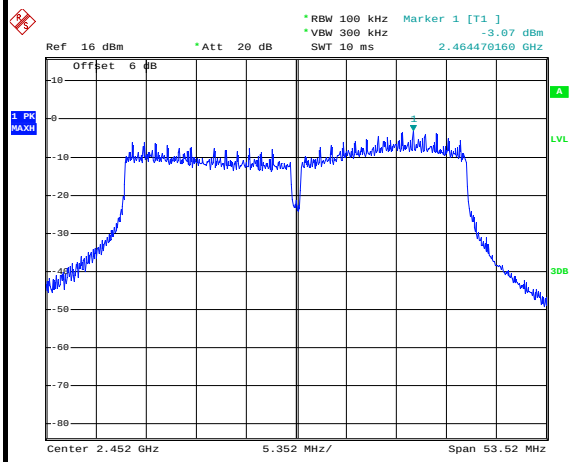


Date: 5.JUL.2014 04:45:25

Number of TX :	2	**Chain Port:**	0+1(1)
Test Mode :	802.11n HT40	**Temperature :**	24~25℃
Test Band :	2.4GHz High	**Relative Humidity :**	49~51%
Test Channel :	09	**Test Engineer :**	Issac Song

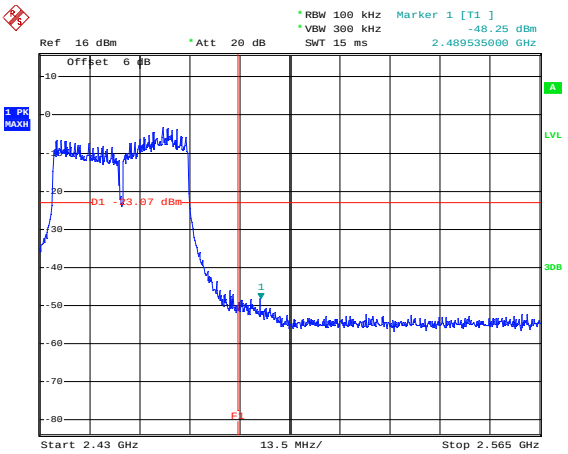
WLAN 802.11n HT40 Channel 09

100kHz PSD reference Level



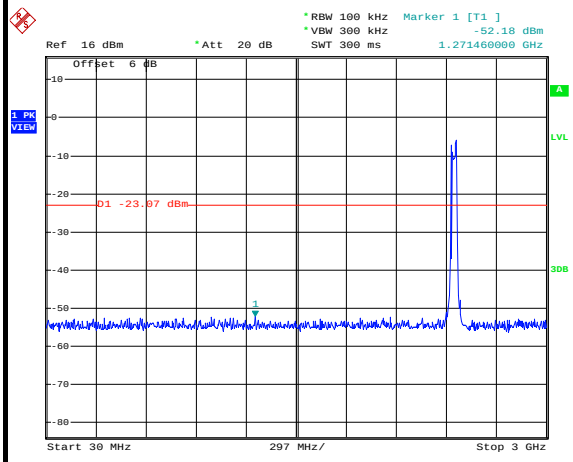
Date: 5.JUL.2014 04:48:46

High Channel Plot



Date: 5.JUL.2014 04:49:04

Spurious Emission 30MHz~3GHz



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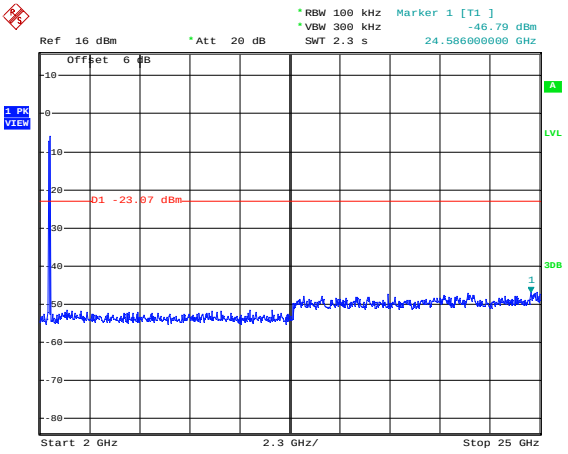
Spurious Emission 2GHz~25GHz



Date: 5.JUL.2014 04:51:53

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

The measuring equipment is listed in the section 4 of this test report.

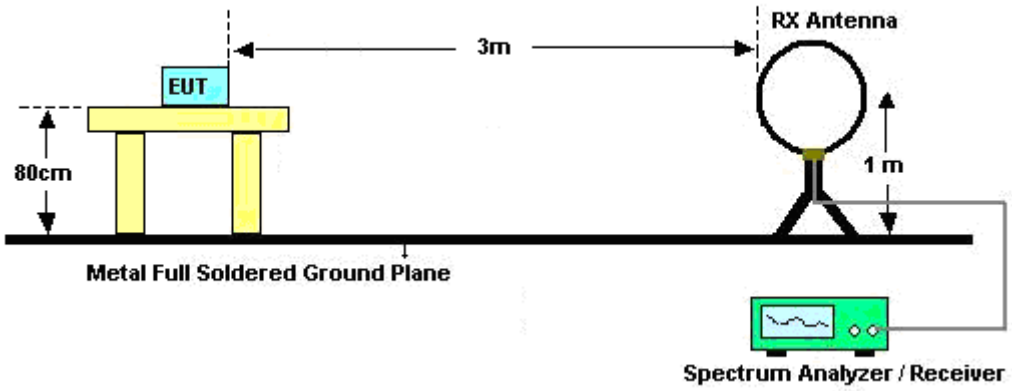
3.5.3 Test Procedure

1. The testing follows FCC KDB Publication No. 558074 D01 DTS Meas. Guidance v03r03.
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 for frequency below 1GHz and 1.5 meter for frequency above 1GHz respectively 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.

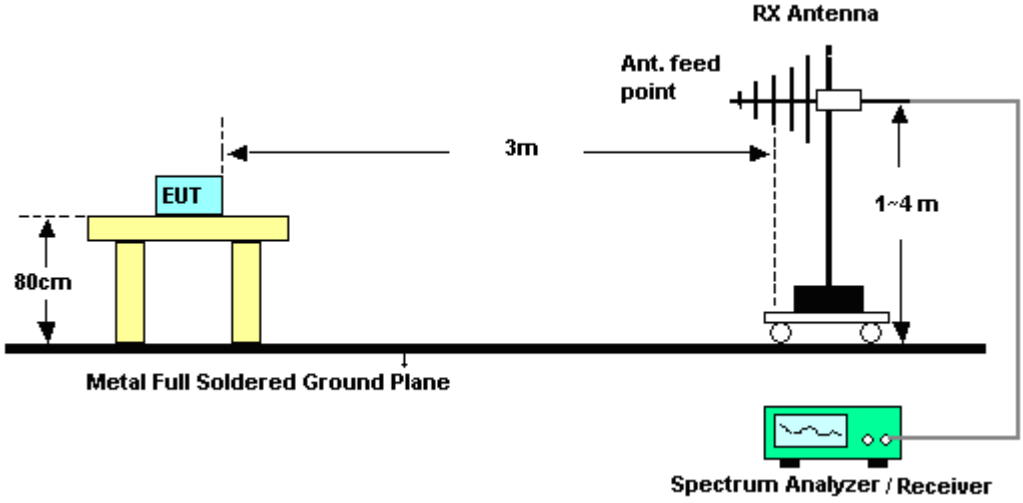
Chain Port	Band	Duty Cycle(%)	T(ms)	1/T(kHz)	VBW Setting
0	802.11b	99.24	-	-	10Hz
1	802.11b	99.36	-	-	10Hz
0	802.11g	72.09	0.25	4.00	10kHz
1	802.11g	70.86	0.25	4.00	10kHz
0+1	2.4GHz 802.11n HT20	72.25	0.25	4.00	10kHz
0+1	2.4GHz 802.11n HT40	73.33	0.26	3.79	10kHz

3.5.4 Test Setup

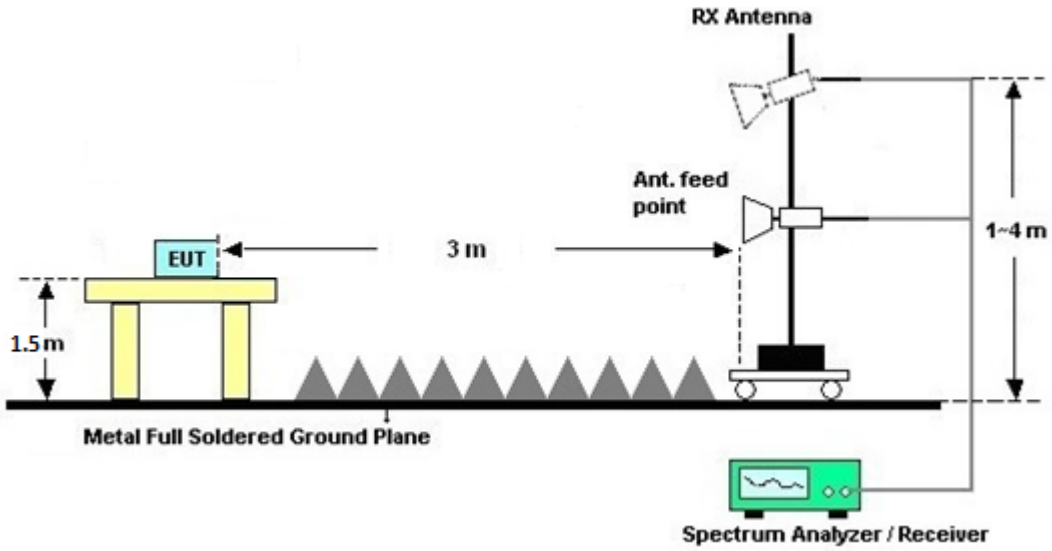
For radiated emissions below 30MHz



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

Please refer to Appendix B of this test report.

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

Please refer to Appendix B of this test report.

3.6 AC Conducted Emission Measurement

3.6.1 Limit of AC Conducted Emission

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

Frequency of Emission (MHz)	Conducted Limit (dBμV)	
	Quasi-Peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

*Decreases with the logarithm of the frequency.

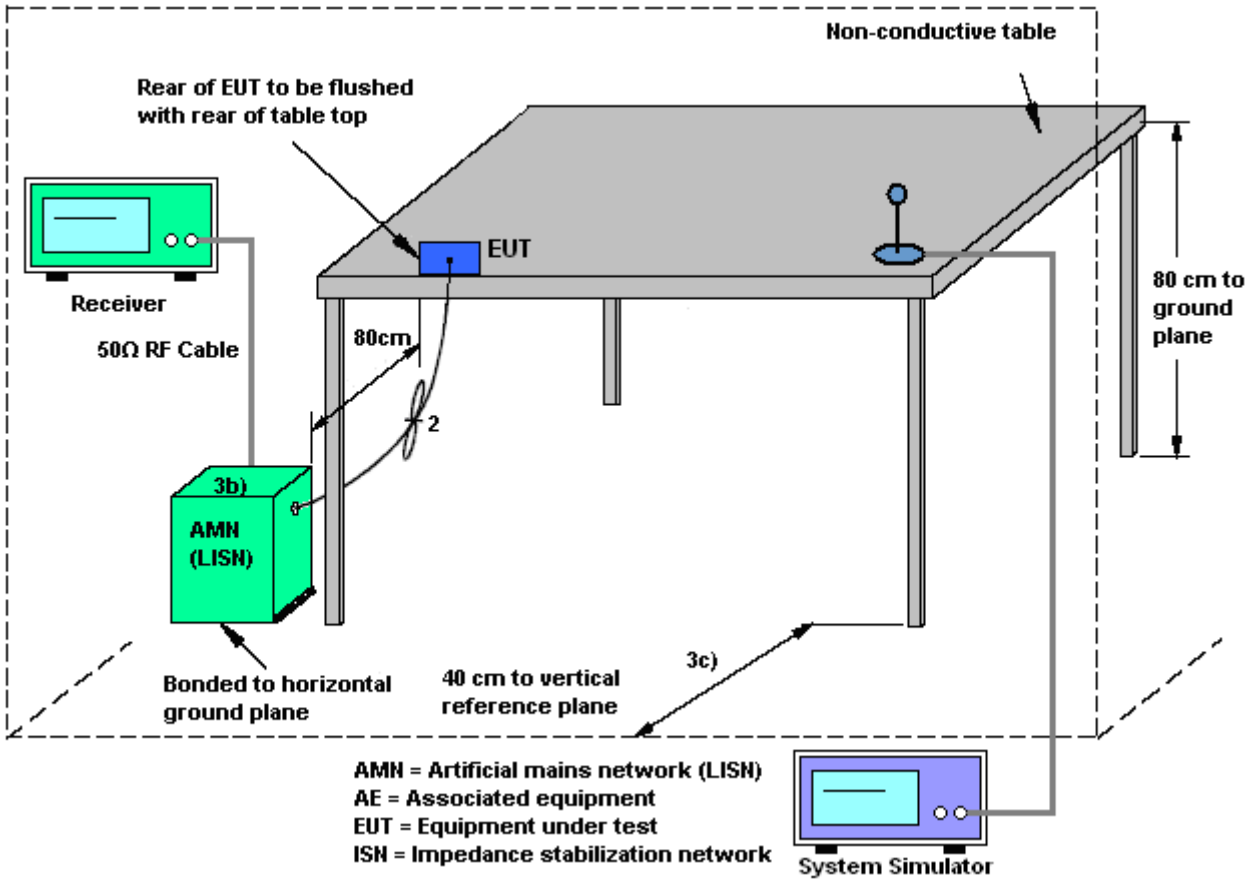
3.6.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

3.6.3 Test Procedures

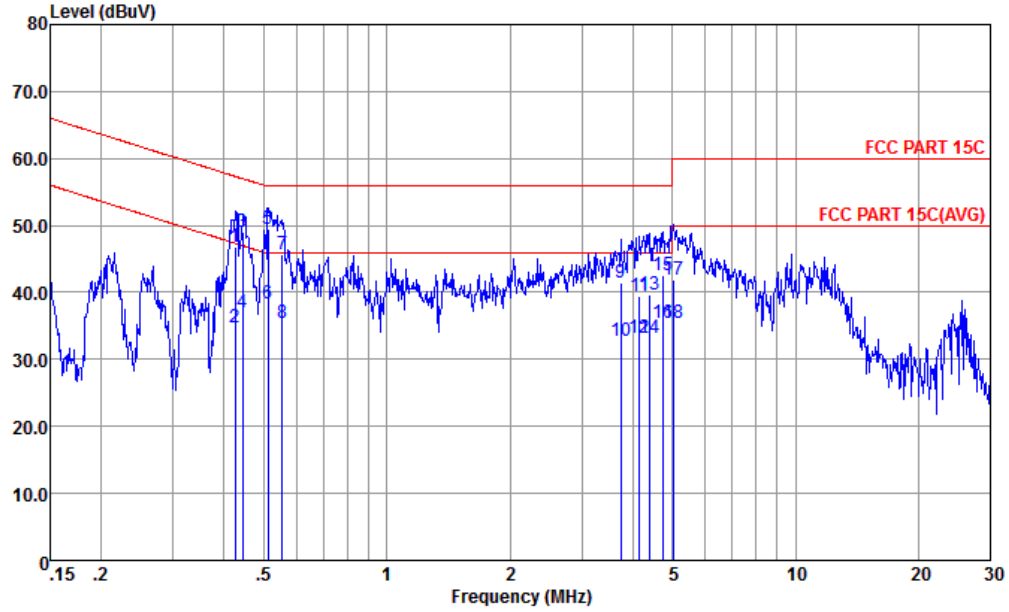
1. The EUT was placed 0.4 meter from the conducting wall of the shielding room, and it was kept at least 80 centimeters from any other grounded conducting surface.
2. Connect EUT to the power mains through a line impedance stabilization network (LISN).
3. All the support units are connecting to the other 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 (IF bandwidth = 9kHz) with Maximum Hold Mode.

3.6.4 Test Setup



3.6.5 Test Result of AC Conducted Emission

Test Mode :	Mode 1	**Temperature :**	22~24℃
Test Engineer :	Eligah Wang	**Relative Humidity :**	58~60%
Test Voltage :	120Vac / 60Hz	**Phase :**	Line
Function Type :	CDMA2000 BC0 Idle + WLAN (2.4GHz) Link + USB Cable (Charging from Adapter)		

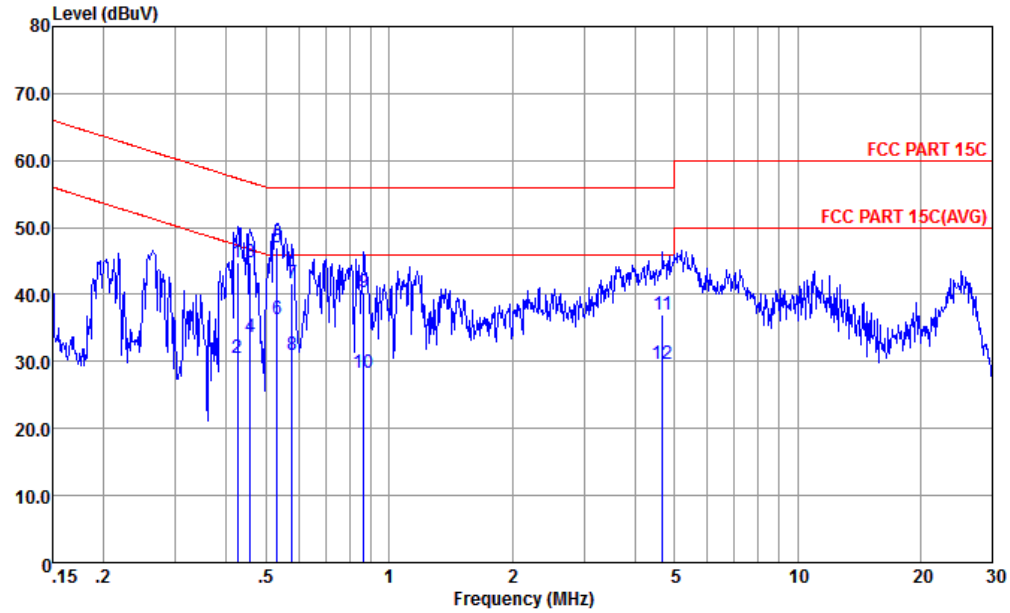


Site : CO01-KS
Condition : FCC PART 15C LISN-L20140306 LINE

mode : Mode 1

		Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
		MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1		0.43	46.80	-10.53	57.33	35.90	0.28	10.62	QP
2		0.43	34.70	-12.63	47.33	23.80	0.28	10.62	Average
3		0.44	49.08	-7.90	56.98	38.21	0.25	10.62	QP
4		0.44	36.98	-10.00	46.98	26.11	0.25	10.62	Average
5	*	0.51	49.53	-6.47	56.00	38.70	0.20	10.63	QP
6		0.51	38.33	-7.67	46.00	27.50	0.20	10.63	Average
7		0.56	45.63	-10.37	56.00	34.80	0.20	10.63	QP
8		0.56	35.33	-10.67	46.00	24.50	0.20	10.63	Average
9		3.74	41.50	-14.50	56.00	30.50	0.18	10.82	QP
10		3.74	32.80	-13.20	46.00	21.80	0.18	10.82	Average
11		4.16	39.52	-16.48	56.00	28.50	0.19	10.83	QP
12		4.16	33.12	-12.88	46.00	22.10	0.19	10.83	Average
13		4.41	39.63	-16.37	56.00	28.60	0.19	10.84	QP
14		4.41	33.23	-12.77	46.00	22.20	0.19	10.84	Average
15		4.75	42.54	-13.46	56.00	31.50	0.20	10.84	QP
16		4.75	35.34	-10.66	46.00	24.30	0.20	10.84	Average
17		5.03	41.95	-18.05	60.00	30.90	0.20	10.85	QP
18		5.03	35.35	-14.65	50.00	24.30	0.20	10.85	Average

Test Mode :	Mode 1	Temperature :	22~24℃
Test Engineer :	Eligah Wang	Relative Humidity :	58~60%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral
Function Type :	CDMA2000 BC0 Idle + WLAN (2.4GHz) Link + USB Cable (Charging from Adapter)		



Site : CO01-KS
Condition : FCC PART 15C LISN-N20140306 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		0.43	44.79	-12.54	57.33	33.80	0.37	10.62	QP
2		0.43	30.49	-16.84	47.33	19.50	0.37	10.62	Average
3		0.46	44.76	-12.00	56.76	33.80	0.34	10.62	QP
4		0.46	33.66	-13.10	46.76	22.70	0.34	10.62	Average
5	*	0.53	47.01	-8.99	56.00	36.09	0.29	10.63	QP
6		0.53	36.21	-9.79	46.00	25.29	0.29	10.63	Average
7		0.58	41.59	-14.41	56.00	30.70	0.26	10.63	QP
8		0.58	30.99	-15.01	46.00	20.10	0.26	10.63	Average
9		0.87	40.28	-15.72	56.00	29.50	0.13	10.65	QP
10		0.87	28.38	-17.62	46.00	17.60	0.13	10.65	Average
11		4.67	36.94	-19.06	56.00	25.90	0.20	10.84	QP
12		4.67	29.74	-16.26	46.00	18.70	0.20	10.84	Average

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 Anti-Replacement Construction

An embedded-in antenna design is used.

3.7.3 Antenna Gain

FCC KDB 662911 D01 Multiple Transmitter Output v02r01.

For CDD transmissions, directional gain is calculated as

Directional gain = G_{ANT} + Array Gain, where Array Gain is as follows.

For power spectral density (PSD) measurements on all devices,

Array Gain = 10 log(N_{ANT}/N_{SS}=1) dB.

For power measurements on IEEE 802.11 devices,

Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$.

The EUT supports CDD mode.

The power and PSD limit should be modified if the directional gain of EUT is over 6 dBi,

The directional gain “DG” is calculated as following table.

	Chain Port 0 (dBi)	Chain Port 1 (dBi)	DG for Power (dBi)	DG for PSD (dBi)	Power Limit Reduction (dB)	PSD Limit Reduction (dB)
2.4 GHz	1.60	1.60	1.60	4.61	0.00	0.00

Power Limit Reduction = DG(Power) – 6dBi, (min = 0)

PSD Limit Reduction = DG(PSD) – 6dBi, (min = 0)

4 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Spectrum Analyzer	R&S	FSP40	100319	9kHz~40GHz	Oct. 28, 2014	Jul. 04, 2015~ Aug. 04, 2015	Oct. 27, 2015	Conducted (TH01-KS)
Pulse Power Senor	Anritsu	MA2411B	0917070	30MHz~40GHz	Jan. 23, 2015	Jul. 04, 2015~ Aug. 04, 2015	Jan. 22, 2016	Conducted (TH01-KS)
Power Meter	Anritsu	ML2495A	1005002	50MHz Bandwidth	Jan. 23, 2015	Jul. 04, 2015~ Aug. 04, 2015	Jan. 22, 2016	Conducted (TH01-KS)
EMI Test Receiver	R&S	ESR7	101403	9kHz~7GHz; Max 30dBm	Sep. 29, 2014	Jul. 28, 2015	Sep. 28, 2015	Radiation (03CH02-KS)
Spectrum Analyzer	R&S	FSV40	101040	10kHz~40GHz; Max 30dBm	Sep. 25, 2014	Jul. 28, 2015	Sep. 24, 2015	Radiation (03CH02-KS)
Loop Antenna	R&S	HFH2-Z2	100321	9kHz~30MHz	Nov. 13, 2014	Jul. 28, 2015	Nov. 12, 2015	Radiation (03CH02-KS)
Bilog Antenna	TeseQ	CBL6112D	37879	30MHz~2GHz	Sep. 13, 2014	Jul. 28, 2015	Sep. 12, 2015	Radiation (03CH02-KS)
Double Ridge Horn Antenna	ETS-Lindgren	3117	75957	1GHz~18GHz	Nov. 08, 2014	Jul. 28, 2015	Nov. 07, 2015	Radiation (03CH02-KS)
Active Horn Antenna	com-power	AHA-118	701030	1GHz~18GHz	Nov. 08, 2014	Jul. 28, 2015	Nov. 07, 2015	Radiation (03CH02-KS)
SHF-EHF Horn	com-power	AH-840	101070	18GHz~40GHz	Sep. 04, 2014	Jul. 28, 2015	Sep. 03, 2015	Radiation (03CH02-KS)
Amplifier	com-power	PA-103A	161069	1kHz~1000MHz / 32 dB	May 04, 2015	Jul. 28, 2015	May 03, 2016	Radiation (03CH02-KS)
Amplifier	Agilent	8449B	3008A02384	1GHz~26.5GHz Gain 30dB	Oct. 28, 2014	Jul. 28, 2015	Oct. 27, 2015	Radiation (03CH02-KS)
AC Power Source	Chroma	61601	616010002473	N/A	NCR	Jul. 28, 2015	NCR	Radiation (03CH02-KS)
Turn Table	MF	MF7802	N/A	0~360 degree	NCR	Jul. 28, 2015	NCR	Radiation (03CH02-KS)
Antenna Mast	MF	MF7802	N/A	1 m~4 m	NCR	Jul. 28, 2015	NCR	Radiation (03CH02-KS)
EMI Receiver	R&S	ESCI7	100768	9kHz~7GHz	May 04, 2015	Jul. 28, 2015	May 03, 2016	Conduction (CO01-KS)
AC LISN	MessTec	AN3016	060103	9kHz~30MHz	Oct. 25, 2014	Jul. 28, 2015	Oct. 24, 2015	Conduction (CO01-KS)
AC LISN (for auxiliary equipment)	MessTec	AN3016	060105	9kHz~30MHz	Oct. 25, 2014	Jul. 28, 2015	Oct. 24, 2015	Conduction (CO01-KS)
AC Power Source	Chroma	61602	ABP000000811	AC 0V~300V, 45Hz~1000Hz	Oct. 25, 2014	Jul. 28, 2015	Oct. 24, 2015	Conduction (CO01-KS)

5 Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**2.3dB**

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**5.1dB**

Appendix A. Conducted Test Results

Test Engineer:	Issac Song	Temperature:	21~25	°C
Test Date:	2015/7/4~2015/8/4	Relative Humidity:	51~54	%

TEST RESULTS DATA
6dB and 99% Occupied Bandwidth

2.4GHz Band										
Mod.	Data Rate	NTx	CH.	Freq. (MHz)	99% Occupied BW (MHz)		6dB BW (MHz)		6dB BW Limit (MHz)	Pass/Fail
					Ant 0	Ant 1	Ant 0	Ant 1		
11b	1Mbps	1	1	2412	13.40		7.56		0.50	Pass
11b	1Mbps	1	6	2437	12.75		8.00		0.50	Pass
11b	1Mbps	1	11	2462	13.35		8.04		0.50	Pass
11g	54Mbps	1	1	2412	17.55		16.44		0.50	Pass
11g	54Mbps	1	6	2437	17.45		16.44		0.50	Pass
11g	54Mbps	1	11	2462	18.00		16.44		0.50	Pass
HT20	MCS6	1	1	2412	18.55		17.24		0.50	Pass
HT20	MCS6	1	6	2437	18.60		17.16		0.50	Pass
HT20	MCS6	1	11	2462	19.00		17.64		0.50	Pass
HT40	MCS3	1	3	2422		36.80		35.68	0.50	Pass
HT40	MCS3	1	6	2437		37.00		35.40	0.50	Pass
HT40	MCS3	1	9	2452		36.90		35.84	0.50	Pass
HT20	MCS6	2	1	2412	18.55	19.20	16.96	17.64	0.50	Pass
HT20	MCS6	2	6	2437	18.60	18.90	17.60	17.32	0.50	Pass
HT20	MCS6	2	11	2462	19.00	18.30	17.68	16.36	0.50	Pass
HT40	MCS3	2	3	2422	37.10	36.70	36.00	36.16	0.50	Pass
HT40	MCS3	2	6	2437	36.50	37.00	35.52	36.00	0.50	Pass
HT40	MCS3	2	9	2452	37.00	37.10	36.40	35.68	0.50	Pass

TEST RESULTS DATA
Peak Output Power

2.4GHz Band																
Mod.	Data Rate	NTx	CH.	Freq. (MHz)	Peak Conducted Power (dBm)			Conducted Power Limit (dBm)		DG (dBi)		EIRP Power (dBm)		EIRP Power Limit (dBm)		Pass /Fail
					Ant 0	Ant 1	SUM	Ant 0	Ant 1	Ant 0	Ant 1	Ant 0	Ant 1	Ant 0	Ant 1	
11b	1Mbps	1	1	2412	16.52	17.35		30.00	30.00	1.60	1.60	18.12	18.95	36.00	36.00	Pass
11b	1Mbps	1	6	2437	17.68	16.65		30.00	30.00	1.60	1.60	19.28	18.25	36.00	36.00	Pass
11b	1Mbps	1	11	2462	16.74	17.05		30.00	30.00	1.60	1.60	18.34	18.65	36.00	36.00	Pass
11g	54Mbps	1	1	2412	21.45	22.38		30.00	30.00	1.60	1.60	23.05	23.98	36.00	36.00	Pass
11g	54Mbps	1	6	2437	23.55	22.15		30.00	30.00	1.60	1.60	25.15	23.75	36.00	36.00	Pass
11g	54Mbps	1	11	2462	23.39	22.31		30.00	30.00	1.60	1.60	24.99	23.91	36.00	36.00	Pass
HT20	MCS6	1	1	2412	21.45	22.43		30.00	30.00	1.60	1.60	23.05	24.03	36.00	36.00	Pass
HT20	MCS6	1	6	2437	22.98	22.08		30.00	30.00	1.60	1.60	24.58	23.68	36.00	36.00	Pass
HT20	MCS6	1	11	2462	23.02	21.32		30.00	30.00	1.60	1.60	24.62	22.92	36.00	36.00	Pass
HT40	MCS3	1	3	2422	20.92	22.55		30.00	30.00	1.60	1.60	22.52	24.15	36.00	36.00	Pass
HT40	MCS3	1	6	2437	21.87	22.08		30.00	30.00	1.60	1.60	23.47	23.68	36.00	36.00	Pass
HT40	MCS3	1	9	2452	21.84	22.43		30.00	30.00	1.60	1.60	23.44	24.03	36.00	36.00	Pass
HT20	MCS6	2	1	2412	19.05	18.63	21.86	30.00		1.60		23.46		36.00		Pass
HT20	MCS6	2	6	2437	19.99	18.52	22.33	30.00		1.60		23.93		36.00		Pass
HT20	MCS6	2	11	2462	20.42	19.86	23.16	30.00		1.60		24.76		36.00		Pass
HT40	MCS3	2	3	2422	18.98	18.80	21.90	30.00		1.60		23.50		36.00		Pass
HT40	MCS3	2	6	2437	20.13	18.89	22.56	30.00		1.60		24.16		36.00		Pass
HT40	MCS3	2	9	2452	19.91	18.83	22.41	30.00		1.60		24.01		36.00		Pass

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

TEST RESULTS DATA
Average Output Power

2.4GHz Band									
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)		Average Conducted Power (dBm)		
					Ant 0	Ant 1	Ant 0	Ant 1	SUM
11b	1Mbps	1	1	2412	0.03	0.03	14.18	14.86	
11b	1Mbps	1	6	2437	0.03	0.03	14.96	14.16	
11b	1Mbps	1	11	2462	0.03	0.03	14.26	14.24	
11g	54Mbps	1	1	2412	0.21	0.20	12.20	12.74	
11g	54Mbps	1	6	2437	0.21	0.20	13.57	12.32	
11g	54Mbps	1	11	2462	0.21	0.20	13.17	12.90	
HT20	MCS6	1	1	2412	0.22	0.22	10.77	12.11	
HT20	MCS6	1	6	2437	0.22	0.22	12.04	11.57	
HT20	MCS6	1	11	2462	0.22	0.22	12.32	12.00	
HT40	MCS3	1	3	2422	0.42	0.46	9.83	11.97	
HT40	MCS3	1	6	2437	0.42	0.46	11.24	11.63	
HT40	MCS3	1	9	2452	0.42	0.46	11.18	11.93	
HT20	MCS6	2	1	2412	0.21	0.19	8.04	8.67	11.38
HT20	MCS6	2	6	2437	0.21	0.19	8.85	8.20	11.55
HT20	MCS6	2	11	2462	0.21	0.19	8.86	8.77	11.82
HT40	MCS3	2	3	2422	0.40	0.48	7.90	8.28	11.10
HT40	MCS3	2	6	2437	0.40	0.48	9.32	8.42	11.90
HT40	MCS3	2	9	2452	0.40	0.48	9.29	8.40	11.88

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

Report Number : FR562405A

TEST RESULTS DATA
Peak Power Spectral Density

2.4GHz Band												
Mod.	Data Rate	NTx	CH.	Freq. (MHz)	Peak PSD (dBm/3kHz)			DG (dBi)		Peak PSD Limit (dBm/3kHz)		Pass/Fail
					Ant 0	Ant 1	Worse + 3.01	Ant 0	Ant 1	Ant 0	Ant 1	
11b	1Mbps	1	1	2412	-11.27		-	1.60	1.60	8.00	8.00	Pass
11b	1Mbps	1	6	2437	-11.41			1.60	1.60	8.00	8.00	Pass
11b	1Mbps	1	11	2462	-10.00			1.60	1.60	8.00	8.00	Pass
11g	54Mbps	1	1	2412	-13.23			1.60	1.60	8.00	8.00	Pass
11g	54Mbps	1	6	2437	-12.74			1.60	1.60	8.00	8.00	Pass
11g	54Mbps	1	11	2462	-13.17			1.60	1.60	8.00	8.00	Pass
HT20	MCS6	1	1	2412	-14.05			1.60	1.60	8.00	8.00	Pass
HT20	MCS6	1	6	2437	-13.55			1.60	1.60	8.00	8.00	Pass
HT20	MCS6	1	11	2462	-13.39			1.60	1.60	8.00	8.00	Pass
HT40	MCS3	1	3	2422		-16.61		1.60	1.60	8.00	8.00	Pass
HT40	MCS3	1	6	2437		-17.40		1.60	1.60	8.00	8.00	Pass
HT40	MCS3	1	9	2452		-15.64		1.60	1.60	8.00	8.00	Pass
HT20	MCS6	2	1	2412	-16.60	-15.28	-12.27	4.61		8.00		Pass
HT20	MCS6	2	6	2437	-16.24	-16.33	-13.23	4.61		8.00		Pass
HT20	MCS6	2	11	2462	-17.25	-15.94	-12.93	4.61		8.00		Pass
HT40	MCS3	2	3	2422	-20.17	-19.72	-16.71	4.61		8.00		Pass
HT40	MCS3	2	6	2437	-19.08	-19.60	-16.07	4.61		8.00		Pass
HT40	MCS3	2	9	2452	-19.35	-19.28	-16.27	4.61		8.00		Pass

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

Appendix B. Radiated Spurious Emission

2.4GHz 2400~2483.5MHz

WIFI 802.11b (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Chain Port				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
0		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11b CH 01 2412MHz	*	2410.938	105.66	-	-	106.69	31.23	4.74	37	150	204	P	H
	*	2411.105	101.07	-	-	102.1	31.23	4.74	37	150	204	A	H
		2389.92	46.82	-27.18	74	47.92	31.2	4.72	37.02	150	204	P	H
		2389.92	34.15	-19.85	54	35.25	31.2	4.72	37.02	150	204	A	H
	*	2410.855	107.32	-	-	108.35	31.23	4.74	37	205	118	P	V
	*	2411.189	102.55	-	-	103.58	31.23	4.74	37	205	118	A	V
		2389.47	49.01	-24.99	74	50.11	31.2	4.72	37.02	205	118	P	V
		2389.83	35.8	-18.2	54	36.9	31.2	4.72	37.02	205	118	A	V
802.11b CH 06 2437MHz	*	2435.738	106.01	-	-	106.98	31.26	4.76	36.99	150	291	P	H
	*	2436.323	101.5	-	-	102.47	31.26	4.76	36.99	150	291	A	H
	*	2435.905	109.05	-	-	110.02	31.26	4.76	36.99	150	91	P	V
	*	2436.323	104.19	-	-	105.16	31.26	4.76	36.99	150	91	A	V
802.11b CH 11 2462MHz	*	2463.209	104.76	-	-	105.62	31.31	4.79	36.96	150	38	P	H
	*	2462.792	101.07	-	-	101.93	31.31	4.79	36.96	150	38	A	H
		2487.68	57.19	-16.81	74	57.93	31.37	4.82	36.93	150	38	P	H
		2486.76	40.44	-13.56	54	41.24	31.34	4.8	36.94	150	38	A	H
	*	2463.209	106.36	-	-	107.22	31.31	4.79	36.96	155	264	P	V
	*	2462.792	102.56	-	-	103.42	31.31	4.79	36.96	155	264	A	V
		2483.52	41.68	-12.32	54	42.48	31.34	4.8	36.94	155	264	A	V
		2485.96	58.38	-15.62	74	59.18	31.34	4.8	36.94	155	264	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

2.4GHz 2400~2483.5MHz

WIFI 802.11b (Harmonic @ 3m)

WIFI Chain Port 0	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11b CH 01 2412MHz		4824	46.34	-27.66	74	41.26	34.93	6.83	36.68	150	106	P	H
		4824	47.25	-26.75	74	42.17	34.93	6.83	36.68	150	229	P	V
802.11b CH 06 2437MHz		4874	47.41	-26.59	74	42.25	34.95	6.87	36.66	150	268	P	H
		7311	48.16	-25.84	74	40.52	35.76	8.57	36.69	162	221	P	H
		4875	47.38	-26.62	74	42.22	34.95	6.87	36.66	150	116	P	V
		7311	47.75	-26.25	74	40.11	35.76	8.57	36.69	150	99	P	V
802.11b CH 11 2462MHz		4923	49.63	-24.37	74	44.39	34.97	6.92	36.65	150	360	P	H
		7386	48.79	-25.21	74	41.11	35.78	8.68	36.78	150	360	P	H
		4923	48.57	-25.43	74	43.33	34.97	6.92	36.65	150	360	P	V
		7386	48.4	-25.6	74	40.72	35.78	8.68	36.78	150	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

2.4GHz 2400~2483.5MHz

WIFI 802.11g (Band Edge @ 3m)

WIFI Chain Port 0	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11g CH 01 2412MHz	*	2404.843	104.35	-	-	105.38	31.23	4.74	37	166	52	P	H
	*	2405.928	94.44	-	-	95.47	31.23	4.74	37	166	52	A	H
		2389.74	51.64	-22.36	74	52.74	31.2	4.72	37.02	166	52	P	H
		2390	35.67	-18.33	54	36.77	31.2	4.72	37.02	166	52	A	H
	*	2406.513	100.6	-	-	101.63	31.23	4.74	37	260	127	P	V
	*	2405.928	91.25	-	-	92.28	31.23	4.74	37	260	127	A	V
		2319.18	46.88	-27.12	74	48.12	31.13	4.64	37.01	260	127	P	V
		2343.39	32.86	-21.14	54	34.06	31.15	4.66	37.01	260	127	A	V
802.11g CH 06 2437MHz	*	2433.316	104.83	-	-	105.8	31.26	4.76	36.99	163	315	P	H
	*	2436.072	94.61	-	-	95.58	31.26	4.76	36.99	163	315	A	H
	*	2431.563	102.81	-	-	103.78	31.26	4.76	36.99	150	90	P	V
	*	2432.648	93.46	-	-	94.43	31.26	4.76	36.99	150	90	A	V
802.11g CH 11 2462MHz	*	2467.468	104.71	-	-	105.57	31.31	4.79	36.96	241	274	P	H
	*	2468.804	95.01	-	-	95.87	31.31	4.79	36.96	241	274	A	H
		2484.72	65.67	-8.33	74	66.47	31.34	4.8	36.94	241	274	P	H
		2483.56	47.47	-6.53	54	48.27	31.34	4.8	36.94	241	274	A	H
	*	2467.468	101.13	-	-	101.99	31.31	4.79	36.96	281	86	P	V
	*	2468.637	91.55	-	-	92.41	31.31	4.79	36.96	281	86	A	V
		2483.64	58.62	-15.38	74	59.42	31.34	4.8	36.94	281	86	P	V
		2483.56	42.19	-11.81	54	42.99	31.34	4.8	36.94	281	86	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

2.4GHz 2400~2483.5MHz

WIFI 802.11g (Harmonic @ 3m)

WIFI Chain Port 0	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11g CH 01 2412MHz		4824	47.56	-26.44	74	42.48	34.93	6.83	36.68	150	162	P	H
		4824	47.14	-26.86	74	42.06	34.93	6.83	36.68	150	119	P	V
802.11g CH 06 2437MHz		4875	48.71	-25.29	74	43.55	34.95	6.87	36.66	150	27	P	H
		7311	48.24	-25.76	74	40.6	35.76	8.57	36.69	150	173	P	H
		4875	47	-27	74	41.84	34.95	6.87	36.66	150	86	P	V
		7311	48.17	-25.83	74	40.53	35.76	8.57	36.69	150	114	P	V
802.11g CH 11 2462MHz		4924	47.11	-26.89	74	41.87	34.97	6.92	36.65	150	178	P	H
		7386	49.46	-24.54	74	41.78	35.78	8.68	36.78	150	100	P	H
		4924	48.51	-25.49	74	43.27	34.97	6.92	36.65	150	89	P	V
		7386	47.94	-26.06	74	40.26	35.78	8.68	36.78	150	208	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Emission below 1GHz

2.4GHz WIFI 802.11b (LF)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Chain Port				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
0		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
2.4GHz 802.11b LF		97.9	26.54	-16.96	43.5	48.68	11.82	1.28	35.24	100	154	P	H
		195.87	21.23	-22.27	43.5	44.94	9.54	1.82	35.07	-	-	P	H
		340.4	24.44	-21.56	46	42.65	14.39	2.42	35.02	-	-	P	H
		602.3	20.84	-25.16	46	34.02	18.52	3.26	34.96	-	-	P	H
		773.02	21.29	-24.71	46	31.99	20.03	3.74	34.47	-	-	P	H
		884.57	23.77	-22.23	46	32.97	21.31	3.99	34.5	-	-	P	H
		36.79	31.42	-8.58	40	49.66	16.08	0.8	35.12	112	187	P	V
		50.37	29.11	-10.89	40	54.44	8.84	0.93	35.1	-	-	P	V
		160.95	24.18	-19.32	43.5	46.65	10.81	1.63	34.91	-	-	P	V
		540.22	20.77	-25.23	46	34.16	18.02	3.1	34.51	-	-	P	V
		686.69	21.79	-24.21	46	33.88	19.22	3.53	34.84	-	-	P	V
		891.36	24.63	-21.37	46	33.8	21.35	4.01	34.53	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against limit line.												

Emission below 1GHz

2.4GHz WIFI 802.11g (LF)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Chain Port				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
0		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
2.4GHz 802.11g LF		97.9	26.54	-16.96	43.5	48.68	11.82	1.28	35.24	103	162	P	H
		195.87	20.23	-23.27	43.5	43.94	9.54	1.82	35.07	-	-	P	H
		340.4	23.44	-22.56	46	41.65	14.39	2.42	35.02	-	-	P	H
		542.16	19.78	-26.22	46	33.11	18.06	3.11	34.5	-	-	P	H
		723.55	22.45	-23.55	46	33.93	19.54	3.62	34.64	-	-	P	H
		884.57	24.77	-21.23	46	33.97	21.31	3.99	34.5	-	-	P	H
		35.82	30.22	-9.78	40	47.79	16.84	0.79	35.2	100	25	P	V
		54.25	27.02	-12.98	40	54.03	7.53	0.97	35.51	-	-	P	V
		160.95	21.18	-22.32	43.5	43.65	10.81	1.63	34.91	-	-	P	V
		316.15	15.55	-30.45	46	34.23	13.86	2.33	34.87	-	-	P	V
		482.99	18.59	-27.41	46	33.16	17.2	2.9	34.67	-	-	P	V
		747.8	20.64	-25.36	46	31.62	19.78	3.67	34.43	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against limit line.												

2.4GHz 2400~2483.5MHz

WIFI 802.11b (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Chain Port				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11b CH 01 2412MHz	*	2413.193	103.1	-	-	104.13	31.23	4.74	37	191	320	P	H
	*	2412.692	99.17	-	-	100.2	31.23	4.74	37	192	321	A	H
		2330.79	47.35	-26.65	74	48.59	31.13	4.64	37.01	192	321	P	H
		2389.92	32.65	-21.35	54	33.75	31.2	4.72	37.02	192	321	A	H
	*	2413.11	106.19	-	-	107.22	31.23	4.74	37	150	292	P	V
	*	2412.692	101.8	-	-	102.83	31.23	4.74	37	150	292	A	V
		2388.39	48.52	-25.48	74	49.62	31.2	4.72	37.02	150	292	P	V
		2389.83	36.18	-17.82	54	37.28	31.2	4.72	37.02	150	292	A	V
802.11b CH 06 2437MHz	*	2435.738	102.44	-	-	103.41	31.26	4.76	36.99	285	148	P	H
	*	2436.239	98.75	-	-	99.72	31.26	4.76	36.99	285	148	A	H
	*	2435.738	104.14	-	-	105.11	31.26	4.76	36.99	174	94	P	V
	*	2436.239	100.54	-	-	101.51	31.26	4.76	36.99	174	94	A	V
802.11b CH 11 2462MHz	*	2463.126	103.06	-	-	103.92	31.31	4.79	36.96	219	39	P	H
	*	2462.792	99.33	-	-	100.19	31.31	4.79	36.96	219	39	A	H
		2483.88	50.96	-23.04	74	51.76	31.34	4.8	36.94	219	39	P	H
		2484.88	36.61	-17.39	54	37.41	31.34	4.8	36.94	219	39	A	H
	*	2462.041	104.03	-	-	104.89	31.31	4.79	36.96	150	62	P	V
	*	2462.792	99.89	-	-	100.75	31.31	4.79	36.96	150	62	A	V
		2484.88	53.5	-20.5	74	54.3	31.34	4.8	36.94	150	62	P	V
		2484.8	38.86	-15.14	54	39.66	31.34	4.8	36.94	150	62	A	V
Remark	3. No other spurious found. 4. All results are PASS against Peak and Average limit line.												

2.4GHz 2400~2483.5MHz

WIFI 802.11b (Harmonic @ 3m)

WIFI Chain Port 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11b CH 01 2412MHz		4824	46.49	-27.51	74	41.41	34.93	6.83	36.68	150	260	P	H
		4824	48.01	-25.99	74	42.93	34.93	6.83	36.68	150	326	P	V
802.11b CH 06 2437MHz		4874	48.04	-25.96	74	42.88	34.95	6.87	36.66	150	198	P	H
		7311	49.46	-24.54	74	41.82	35.76	8.57	36.69	150	118	P	H
		4874	47.28	-26.72	74	42.12	34.95	6.87	36.66	150	165	P	V
		7311	48.4	-25.6	74	40.76	35.76	8.57	36.69	150	165	P	V
802.11b CH 11 2462MHz		4924	48.73	-25.27	74	43.49	34.97	6.92	36.65	150	118	P	H
		7386	48.94	-25.06	74	41.26	35.78	8.68	36.78	150	118	P	H
		4924	46.8	-27.2	74	41.56	34.97	6.92	36.65	150	118	P	V
		7386	48.8	-25.2	74	41.12	35.78	8.68	36.78	150	195	P	V
Remark	3. No other spurious found. 4. All results are PASS against Peak and Average limit line.												

2.4GHz 2400~2483.5MHz

WIFI 802.11g (Band Edge @ 3m)

WIFI Chain Port 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11g CH 01 2412MHz	*	2404.76	103.76	-	-	104.79	31.23	4.74	37	298	321	P	H
	*	2404.76	93.42	-	-	94.45	31.23	4.74	37	299	321	A	H
		2389.56	58.82	-15.18	74	59.92	31.2	4.72	37.02	299	321	P	H
		2389.92	39.43	-14.57	54	40.53	31.2	4.72	37.02	299	321	A	H
	*	2418.871	105.99	-	-	107.02	31.23	4.74	37	150	268	P	V
	*	2418.704	96	-	-	97.03	31.23	4.74	37	150	268	A	V
		2389.83	62.02	-11.98	74	63.12	31.2	4.72	37.02	150	268	P	V
		2389.92	42.32	-11.68	54	43.42	31.2	4.72	37.02	150	268	A	V
802.11g CH 06 2437MHz	*	2429.893	102.34	-	-	103.31	31.26	4.76	36.99	220	35	P	H
	*	2431.062	92.2	-	-	93.17	31.26	4.76	36.99	213	26	A	H
	*	2431.396	105.66	-	-	106.63	31.26	4.76	36.99	206	84	P	V
	*	2430.728	95.65	-	-	96.62	31.26	4.76	36.99	206	84	A	V
802.11g CH 11 2462MHz	*	2463.46	101.82	-	-	102.68	31.31	4.79	36.96	279	36	P	H
	*	2463.627	91.66	-	-	92.52	31.31	4.79	36.96	279	36	A	H
		2483.64	56.95	-17.05	74	57.75	31.34	4.8	36.94	279	36	P	H
		2483.72	40.63	-13.37	54	41.43	31.34	4.8	36.94	279	36	A	H
	*	2463.71	106.53	-	-	107.39	31.31	4.79	36.96	198	85	P	V
	*	2465.965	96.12	-	-	96.98	31.31	4.79	36.96	198	85	A	V
		2483.52	60.3	-13.7	74	61.1	31.34	4.8	36.94	198	85	P	V
		2484.08	43.96	-10.04	54	44.76	31.34	4.8	36.94	198	85	A	V
Remark	3. No other spurious found. 4. All results are PASS against Peak and Average limit line.												

2.4GHz 2400~2483.5MHz

WIFI 802.11g (Harmonic @ 3m)

WIFI Chain Port 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11g CH 01 2412MHz		4824	48.11	-25.89	74	43.03	34.93	6.83	36.68	150	136	P	H
		4824	48.12	-25.88	74	43.04	34.93	6.83	36.68	150	187	P	V
802.11g CH 06 2437MHz		4875	47.39	-26.61	74	42.23	34.95	6.87	36.66	150	258	P	H
		7311	47.7	-26.3	74	40.06	35.76	8.57	36.69	150	70	P	H
		4875	47.14	-26.86	74	41.98	34.95	6.87	36.66	150	232	P	V
		7311	48.06	-25.94	74	40.42	35.76	8.57	36.69	150	328	P	V
802.11g CH 11 2462MHz		4924	46.14	-27.86	74	40.9	34.97	6.92	36.65	150	306	P	H
		7386	47.13	-26.87	74	39.45	35.78	8.68	36.78	150	299	P	H
		4924	45.82	-28.18	74	40.58	34.97	6.92	36.65	150	119	P	V
		7386	47.26	-26.74	74	39.58	35.78	8.68	36.78	150	300	P	V
Remark	3. No other spurious found. 4. All results are PASS against Peak and Average limit line.												

Emission below 1GHz

2.4GHz WIFI 802.11b (LF)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Chain Port				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
2.4GHz 802.11b LF		97.9	24.54	-18.96	43.5	46.68	11.82	1.28	35.24	100	103	P	H
		195.87	18.23	-25.27	43.5	41.94	9.54	1.82	35.07	-	-	P	H
		340.4	24.44	-21.56	46	42.65	14.39	2.42	35.02	-	-	P	H
		548.95	21.14	-24.86	46	34.33	18.18	3.13	34.5	-	-	P	H
		691.54	21.83	-24.17	46	33.88	19.25	3.54	34.84	-	-	P	H
		840.92	24.66	-21.34	46	34.18	20.96	3.89	34.37	-	-	P	H
		35.82	30.16	-9.84	40	47.73	16.84	0.79	35.2	100	236	P	V
		160.95	22.18	-21.32	43.5	44.65	10.81	1.63	34.91	-	-	P	V
		329.73	16.93	-29.07	46	35.35	14.16	2.38	34.96	-	-	P	V
		482.99	19.59	-26.41	46	34.16	17.2	2.9	34.67	-	-	P	V
		620.73	21.4	-24.6	46	34.29	18.71	3.31	34.91	-	-	P	V
		686.69	21.79	-24.21	46	33.88	19.22	3.53	34.84	-	-	P	V
Remark	3. No other spurious found. 4. All results are PASS against limit line.												

Emission below 1GHz

2.4GHz WIFI 802.11g (LF)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Chain Port				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
2.4GHz 802.11g LF		34.85	21.77	-18.23	40	38.66	17.6	0.78	35.27	120	330	P	H
		97.9	24.54	-18.96	43.5	46.68	11.82	1.28	35.24	-	-	P	H
		195.87	17.23	-26.27	43.5	40.94	9.54	1.82	35.07	-	-	P	H
		340.4	22.44	-23.56	46	40.65	14.39	2.42	35.02	-	-	P	H
		408.3	19.51	-26.49	46	35.68	16.34	2.67	35.18	-	-	P	H
		723.55	21.45	-24.55	46	32.93	19.54	3.62	34.64	-	-	P	H
		35.82	32.2	-7.8	40	49.77	16.84	0.79	35.2	133	205	P	V
		160.95	22.18	-21.32	43.5	44.65	10.81	1.63	34.91	-	-	P	V
		443.22	18.45	-27.55	46	33.72	16.89	2.78	34.94	-	-	P	V
		571.26	19.58	-26.42	46	32.75	18.33	3.19	34.69	-	-	P	V
		686.69	20.79	-25.21	46	32.88	19.22	3.53	34.84	-	-	P	V
		891.36	24.63	-21.37	46	33.8	21.35	4.01	34.53	-	-	P	V
Remark	3. No other spurious found. 4. All results are PASS against limit line.												

2.4GHz 2400~2483.5MHz

WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI Chain Port 0+1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
	*	2419.957	105.06	-	-	106.03	31.26	4.76	36.99	300	100	P	H
	*	2418.119	95.42	-	-	96.45	31.23	4.74	37	300	100	A	H
802.11n		2389.83	60.68	-13.32	74	61.78	31.2	4.72	37.02	300	100	P	H
HT20		2389.92	38.09	-15.91	54	39.19	31.2	4.72	37.02	300	100	A	H
CH 01	*	2404.509	96.97	-	-	98	31.23	4.74	37	300	0	P	V
2412MHz	*	2404.509	87.35	-	-	88.38	31.23	4.74	37	300	0	A	V
		2390.01	51.33	-22.67	74	52.43	31.2	4.72	37.02	300	0	P	V
		2389.56	34.01	-19.99	54	35.11	31.2	4.72	37.02	300	0	A	V
802.11n	*	2429.643	95.43	-	-	96.4	31.26	4.76	36.99	150	273	A	H
HT20	*	2433.066	97.25	-	-	98.22	31.26	4.76	36.99	202	300	P	H
CH 06	*	2432.314	88.49	-	-	89.46	31.26	4.76	36.99	202	300	A	V
2437MHz	*	2429.225	104.88	-	-	105.85	31.26	4.76	36.99	150	273	P	V
	*	2465.381	104.24	-	-	105.1	31.31	4.79	36.96	283	103	P	H
	*	2466.55	94.35	-	-	95.21	31.31	4.79	36.96	283	103	A	H
802.11n		2483.92	57.62	-16.38	74	58.42	31.34	4.8	36.94	283	103	P	H
HT20		2484.12	41.19	-12.81	54	41.99	31.34	4.8	36.94	283	103	A	H
CH 11	*	2465.882	98.43	-	-	99.29	31.31	4.79	36.96	197	0	P	V
2462MHz	*	2466.55	89	-	-	89.86	31.31	4.79	36.96	197	0	A	V
		2484.16	51.63	-22.37	74	52.43	31.34	4.8	36.94	197	0	P	V
		2483.72	38.22	-15.78	54	39.02	31.34	4.8	36.94	197	0	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

2.4GHz 2400~2483.5MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI Chain Port 0+1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 01 2412MHz		4824	49.07	-24.93	74	43.99	34.93	6.83	36.68	181	349	P	H
		4824	47.7	-26.3	74	42.62	34.93	6.83	36.68	165	254	P	V
802.11n HT20 CH 06 2437MHz		4875	47.78	-26.22	74	42.62	34.95	6.87	36.66	155	98	P	H
		7311	47.86	-26.14	74	40.22	35.76	8.57	36.69	172	324	P	H
		4875	46.85	-27.15	74	41.69	34.95	6.87	36.66	264	325	P	V
		7311	47.68	-26.32	74	40.04	35.76	8.57	36.69	198	65	P	V
802.11n HT20 CH 11 2462MHz		4923	46.16	-27.84	74	40.92	34.97	6.92	36.65	150	158	P	H
		7386	47.63	-26.37	74	39.95	35.78	8.68	36.78	150	205	P	H
		4923	46.19	-27.81	74	40.95	34.97	6.92	36.65	150	110	P	V
		7386	49.42	-24.58	74	41.74	35.78	8.68	36.78	150	129	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

2.4GHz 2400~2483.5MHz

WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI Chain Port 0+1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
	*	2432.314	100.53	-	-	101.5	31.26	4.76	36.99	300	130	P	H
	*	2432.565	91.1	-	-	92.07	31.26	4.76	36.99	300	130	A	H
		2390	49.19	-24.81	74	50.29	31.2	4.72	37.02	300	130	P	H
		2390	38.32	-15.68	54	39.42	31.2	4.72	37.02	300	130	A	H
802.11n		2483.96	48.75	-25.25	74	49.55	31.34	4.8	36.94	300	130	P	H
HT40		2484.56	37.48	-16.52	54	38.28	31.34	4.8	36.94	300	130	A	H
CH 03	*	2431.73	102.01	-	-	102.98	31.26	4.76	36.99	180	95	P	V
2422MHz	*	2430.478	93.25	-	-	94.22	31.26	4.76	36.99	180	95	A	V
		2389.56	53.23	-20.77	74	54.33	31.2	4.72	37.02	180	95	P	V
		2389.56	40.9	-13.1	54	42	31.2	4.72	37.02	180	95	A	V
		2485.12	51.01	-22.99	74	51.81	31.34	4.8	36.94	180	95	P	V
		2484.44	39.54	-14.46	54	40.34	31.34	4.8	36.94	180	95	A	V
	*	2434.653	102.4	-	-	103.37	31.26	4.76	36.99	179	323	P	H
	*	2434.82	92.88	-	-	93.85	31.26	4.76	36.99	179	323	A	H
		2389.92	47.11	-26.89	74	48.21	31.2	4.72	37.02	180	324	P	H
		2390	35.19	-18.81	54	36.29	31.2	4.72	37.02	180	324	A	H
802.11n		2483.6	56.24	-17.76	74	57.04	31.34	4.8	36.94	180	324	P	H
HT40		2484.28	39.77	-14.23	54	40.57	31.34	4.8	36.94	180	324	A	H
CH 06	*	2428.056	101.57	-	-	102.54	31.26	4.76	36.99	150	88	P	V
2437MHz	*	2428.139	92.91	-	-	93.88	31.26	4.76	36.99	150	88	A	V
		2389.92	48.7	-25.3	74	49.8	31.2	4.72	37.02	150	88	P	V
		2390	35.66	-18.34	54	36.76	31.2	4.72	37.02	150	88	A	V
		2483.76	54.64	-19.36	74	55.44	31.34	4.8	36.94	150	88	P	V
		2483.6	39.21	-14.79	54	40.01	31.34	4.8	36.94	150	88	A	V

802.11n HT40 CH 09 2452MHz	*	2436.656	101.45	-	-	99.16	31.29	4.77	33.77	178	146	P	H
	*	2437.825	92.41	-	-	90.13	31.29	4.77	33.78	178	146	A	H
		2389.74	44.71	-29.29	74	42.55	31.2	4.72	33.76	178	146	P	H
		2390	33.06	-20.94	54	30.9	31.2	4.72	33.76	178	146	A	H
		2487.72	67.14	-6.86	74	64.75	31.37	4.82	33.8	178	146	P	H
	!	2487.68	49.59	-4.41	54	47.2	31.37	4.82	33.8	178	146	A	H
	*	2462.542	101.62	-	-	99.31	31.31	4.79	33.79	300	98	P	V
	*	2463.46	92.35	-	-	90.04	31.31	4.79	33.79	300	98	A	V
		2389.65	43.19	-30.81	74	41.03	31.2	4.72	33.76	300	98	P	V
		2389.83	32.37	-21.63	54	30.21	31.2	4.72	33.76	300	98	A	V
		2487.48	67.7	-6.3	74	65.36	31.34	4.8	33.8	300	98	P	V
	!	2489.2	49.8	-4.2	54	47.41	31.37	4.82	33.8	300	98	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

2.4GHz 2400~2483.5MHz

WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI Chain Port 0+1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n		4844	43.39	-30.61	74	38.29	34.93	6.85	36.68	150	106	P	H
HT40		7266	45.91	-28.09	74	38.28	35.76	8.53	36.66	150	177	P	H
CH 03		4844	44.6	-29.4	74	39.5	34.93	6.85	36.68	150	185	P	V
2422MHz		7266	46.67	-27.33	74	39.04	35.76	8.53	36.66	150	96	P	V
802.11n		4875	45.19	-28.81	74	40.03	34.95	6.87	36.66	150	207	P	H
HT40		7311	46.16	-27.84	74	38.52	35.76	8.57	36.69	150	31	P	H
CH 06		4875	45.25	-28.75	74	40.09	34.95	6.87	36.66	150	116	P	V
2437MHz		7311	46.78	-27.22	74	39.14	35.76	8.57	36.69	150	55	P	V
802.11n		4905	43.64	-30.36	74	38.43	34.96	6.9	36.65	185	332	P	H
HT40		7356	46.52	-27.48	74	38.86	35.77	8.64	36.75	150	194	P	H
CH 09		4904	44.53	-29.47	74	39.32	34.96	6.9	36.65	150	216	P	V
2452MHz		7356	46.54	-27.46	74	38.88	35.77	8.64	36.75	150	233	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Emission below 1GHz

2.4GHz WIFI 802.11n HT20 (LF)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Chain Port				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
0+1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
2.4GHz 802.11n HT20 LF		97.9	24.62	-18.88	43.5	46.76	11.82	1.28	35.24	100	100	P	H
		195.87	18.23	-25.27	43.5	41.94	9.54	1.82	35.07	-	-	P	H
		340.4	24.44	-21.56	46	42.65	14.39	2.42	35.02	-	-	P	H
		539.25	20.47	-25.53	46	33.87	18.01	3.1	34.51	-	-	P	H
		691.54	22.83	-23.17	46	34.88	19.25	3.54	34.84	-	-	P	H
		840.92	25.66	-20.34	46	35.18	20.96	3.89	34.37	-	-	P	H
		35.82	29.56	-10.44	40	47.13	16.84	0.79	35.2	103	215	P	V
		50.37	27.11	-12.89	40	52.44	8.84	0.93	35.1	-	-	P	V
		160.95	22.18	-21.32	43.5	44.65	10.81	1.63	34.91	-	-	P	V
		482.99	19.59	-26.41	46	34.16	17.2	2.9	34.67	-	-	P	V
		609.09	19.91	-26.09	46	32.98	18.59	3.28	34.94	-	-	P	V
		835.1	23.08	-22.92	46	32.74	20.86	3.88	34.4	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against limit line.												

Emission below 1GHz

2.4GHz WIFI 802.11n HT40 (LF)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Chain Port				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
0+1		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
2.4GHz 802.11n HT40 LF		97.9	25.65	-17.85	43.5	47.79	11.82	1.28	35.24	132	205	P	H
		195.87	17.23	-26.27	43.5	40.94	9.54	1.82	35.07	-	-	P	H
		340.4	24.44	-21.56	46	42.65	14.39	2.42	35.02	-	-	P	H
		542.16	19.78	-26.22	46	33.11	18.06	3.11	34.5	-	-	P	H
		723.55	22.45	-23.55	46	33.93	19.54	3.62	34.64	-	-	P	H
		809.88	22.37	-23.63	46	32.58	20.46	3.83	34.5	-	-	P	H
		35.82	31.21	-8.79	40	48.78	16.84	0.79	35.2	100	36	P	V
		62.98	28.6	-11.4	40	56.13	6.64	1.03	35.2	-	-	P	V
		160.95	23.18	-20.32	43.5	45.65	10.81	1.63	34.91	-	-	P	V
		316.15	16.55	-29.45	46	35.23	13.86	2.33	34.87	-	-	P	V
		540.22	19.77	-26.23	46	33.16	18.02	3.1	34.51	-	-	P	V
		686.69	21.79	-24.21	46	33.88	19.22	3.53	34.84	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against limit line.												

Note symbol

*	**Fundamental Frequency** which can be ignored. However, the level of any unwanted emissions shall not exceed the level of the fundamental frequency.
!	Test result is **over limit** line.
P/A	**P**eak or **A**verage
H/V	**H**orizontal or **V**ertical

A calculation example for radiated spurious emission is shown as below:

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1+2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11b CH 01 2412MHz		2390	55.45	-18.55	74	54.51	32.22	4.58	35.86	103	308	P	H
		2390	43.54	-10.46	54	42.6	32.22	4.58	35.86	103	308	A	H

1. Level(dBμV/m) =

Antenna Factor(dB/m) + Cable Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)

2. Over Limit(dB) = Level(dBμV/m) – Limit Line(dBμV/m)

For Peak Limit @ 2390MHz:

1. Level(dBμV/m)

= Antenna Factor(dB/m) + Cable Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)

= 32.22(dB/m) + 4.58(dB) + 54.51(dBμV) – 35.86 (dB)

= 55.45 (dBμV/m)

2. Over Limit(dB)

= Level(dBμV/m) – Limit Line(dBμV/m)

= 55.45(dBμV/m) – 74(dBμV/m)

= -18.55(dB)

For Average Limit @ 2390MHz:

1. Level(dBμV/m)

= Antenna Factor(dB/m) + Cable Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)

= 32.22(dB/m) + 4.58(dB) + 42.6(dBμV) – 35.86 (dB)

= 43.54 (dBμV/m)

2. Over Limit(dB)

= Level(dBμV/m) – Limit Line(dBμV/m)

= 43.54(dBμV/m) – 54(dBμV/m)

= -10.46(dB)

Both peak and average measured complies with the limit line, so test result is "PASS".