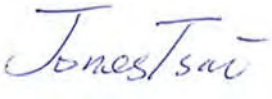
FCC RF Test Report

APPLICANT	:	Hewlett Packard Enterprise Company
EQUIPMENT	:	Wireless Access Point
BRAND NAME	:	aruba
MODEL NAME	:	APIN0304, APIN0305
MARKETING NAME	:	APIN0304, APIN0305
FCC ID	:	Q9DAPIN0304305
STANDARD	:	FCC Part 15 Subpart C §15.247
CLASSIFICATION	:	(DTS) Digital Transmission System

The product was received on Jul. 07, 2016 and testing was completed on Sep. 15, 2016. 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.

Prepared by: James Huang / Manager



Approved by: Jones Tsai / Manager

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
FR670709B	Rev. 01	Initial issue of report	Sep. 20, 2016

SUMMARY OF TEST RESULT

Report Section	FCC Rule	IC Rule	Description	Limit	Result	Remark
3.1	15.247(a)(2)	RSS-247 5.2(1)	6dB Bandwidth	≥ 0.5MHz	Pass	-
3.1	-	RSS-Gen 6.6	99% Bandwidth	-	Pass	-
3.2	15.247(b)	RSS-247 A5.4(4)	Power Output Measurement	≤ 30dBm	Pass	-
3.3	15.247(e)	RSS-247 5.2(2)	Power Spectral Density	≤ 8dBm/3kHz	Pass	-
3.4	15.247(d)	RSS-247 5.5	Conducted Band Edges	≤ 20dBc	Pass	-
			Conducted Spurious Emission		Pass	-
3.5	15.247(d)	RSS-247 5.5	Radiated Band Edges and Radiated Spurious Emission	15.209(a) & 15.247(d)	Pass	Under limit 0.25 dB at 2388.780 MHz
3.6	15.207	RSS-GEN 8.8	AC Conducted Emission	15.207(a)	Pass	Under limit 7.50 dB at 0.176 MHz
3.7	15.203 & 15.247(b)	N/A	Antenna Requirement	N/A	Pass	-

1 General Description

1.1 Applicant

Hewlett Packard Enterprise Company
3000 Hanover Street, Palo Alto, CA 94304

1.2 Manufacturer

Hewlett Packard Enterprise Company
3000 Hanover Street, Palo Alto, CA 94304

1.3 Product Feature of Equipment Under Test

Product Feature	
Equipment	Wireless Access Point
Brand Name	aruba
Model Name	APIN0304, APIN0305
Marketing Name	APIN0304, APIN0305
FCC ID	Q9DAPIN0304305
S/N	APIN0304: CNBYJSR02G (For RF Conducted) CNBRAAA00Z (For Radiation) CNBYJSR00M (For Conduction) APIN0305: CNBYJSR02G (For RF Conducted) CNBRAAA031 (For Radiation) CNBYJSR00M (For Conduction)
EUT supports Radios application	WLAN2.4GHz 802.11b/g/n HT20/HT40 WLAN5GHz 802.11a/n HT20/HT40 WLAN5GHz 802.11ac VHT20/VHT40/VHT80 Bluetooth v4.0 LE
SW Version	6.5.1.0 build56105
EUT Stage	Identical Prototype

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

1.4 Product Specification of Equipment Under Test

Standards-related Product Specification	
Tx/Rx Channel Frequency Range	2412 MHz ~ 2462 MHz
Maximum (Peak) Output Power to antenna (Non-TXBF Modes)	**MIMO <Ant. 1 + 2> for APIN0304** 802.11b : 23.65 dBm (0.2317 W) 802.11g : 28.23 dBm (0.6653 W) **MIMO <Ant. 1 + 2> for APIN0305** 802.11b : 23.65 dBm (0.2317 W) 802.11g : 28.69 dBm (0.7396 W)
Maximum (Peak) Output Power to antenna (TXBF Modes)	**MIMO <Ant. 1 + 2> for APIN0304** 802.11n HT20 : 25.33 dBm (0.3412 W) 802.11n HT40 : 25.19 dBm (0.3304 W) **MIMO <Ant. 1 + 2> for APIN0305** 802.11n HT20 : 27.82 dBm (0.6053 W) 802.11n HT40 : 25.95 dBm (0.3936 W)
99% Occupied Bandwidth (Non-TXBF Modes)	**For APIN0304** 802.11b : 13.04MHz 802.11g : 17.23MHz **For APIN0305** 802.11b : 13.04MHz 802.11g : 17.23MHz
99% Occupied Bandwidth (TXBF Modes)	**For APIN0304** 802.11n HT20 : 18.23MHz 802.11n HT40 : 36.16MHz **For APIN0305** 802.11n HT20 : 18.23MHz 802.11n HT40 : 36.16MHz
Antenna Gain	**For APIN0304** **<Ant 1>** Gain 7.50 dBi **<Ant 2>** Gain 7.50 dBi **For APIN0305** **<Ant 1>** Gain 2.40 dBi **<Ant 2>** Gain 2.40 dBi
Type of Modulation	802.11b : DSSS (DBPSK / DQPSK / CCK) 802.11g/n : OFDM (BPSK / QPSK / 16QAM / 64QAM)
Antenna Function for Transmitter	<table><tr><td></td><td>Ant. 1</td><td>Ant. 2</td></tr><tr><td>802.11 b/g/n MIMO</td><td>V</td><td>V</td></tr></table>

Note:

1. MIMO Ant. 1+2 is a calculated result from sum of the power MIMO Ant. 1 and MIMO Ant. 2.
2. Only 802.11n support TX Beamforming.

1.5 Sample List

There are two model names of EUT. Model APIN0305 is designed with built in antennas, and model APIN0304 with three RP-SMA connectors for external antennas. For model APIN0304, it has nine types of antenna as below table:

	type	Description	Gain	Polorization
1	AP-ANT-1W	2.4-2.5GHz/5GHz, 5.0dBi Tri-Band, Omni-Directional Antenna	3.8dBi @2.4GHz; 5.8dB @5.8GHz	Linear vertical
2	AP-ANT-13B	downtilt omni, dual-band	4.4dBi @2.4GHz; 3.3dB @5.8GHz	Linear vertical
3	AP-ANT-19,	Dual Band Omnidirectional	3dBi @2.4GHz; 6dB @5.8GHz	vertical
4	AP-ANT-20W,	2.4- and 5-GHz dual-band omni directional	2dBi @2.4GHz; 2dB @5.8GHz	Linear vertical
5	AP-ANT-16,	Triple Element Downtilt Omni, Dual-Band	3.9dBi @2.4GHz; 4.7dB @5.8GHz	vertical
6	AP-ANT-25A	2.4- and 5-GHz dual polarized sector antenna	5dBi @2.4GHz; 5dB @5.8GHz	slant +/-45°
7	AP-ANT-35A	2.4- and 5-GHz dual polarized sector antenna	5dBi @2.4GHz; 5dB @5.8GHz	slant +/-45°
8	AP-ANT-28	2.4- and 5-GHz dual-polarized sector antenna	7.5dBi @2.4GHz; 7.5dB @5.8GHz	slant +/-45°
9	AP-ANT-38	2.4- and 5-GHz dual-polarized sector antenna	7.5dBi @2.4GHz; 7.5dB @5.8GHz	slant +/-45°

For model APIN0304, we only evaluate testing for the antenna (AP-ANT-13B and AP-ANT-28) with the maximum antenna gain.

The detail test sample list as below table:

Sample	Mode name	Antenna Type
Sample 1	APIN0304	AP-ANT-13B Omnidirectional Antenna
Sample 2	APIN0304	AP-ANT-28 Directional Antenna
Sample 3	APIN0305	Internal Antenna

1.6 Modification of EUT

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

1.7 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/IC Registration No.**
	TH01-KS	03CH03-KS	CO01-KS	306251/4086E

Note: The test site complies with ANSI C63.4 2014 requirement.

1.8 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 v03r05
- FCC KDB 662911 D01 Multiple Transmitter Output v02r01.
- ANSI C63.10-2013
- IC RSS-247 Issue 1
- IC RSS-Gen Issue 4

Remark:

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

1.9 Test Condition

Normal Voltage	DC 12V for Adapter DC 57V for POE
Normal Temperature	20℃
Extreme Temperature	0℃ and 50℃

Note: The test temperature was between voltage 0℃~50℃ by manufacturer requested.

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.

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 Test Mode

Final test mode of conducted test items and radiated spurious emissions are considering the modulation and worse data rates as below table.

<CDD Antenna>

Modulation	Data Rate
802.11b	1 Mbps
802.11g	6 Mbps

<TXBF Antenna>

Modulation	Data Rate
802.11n HT20	MCS0
802.11n HT40	MCS0

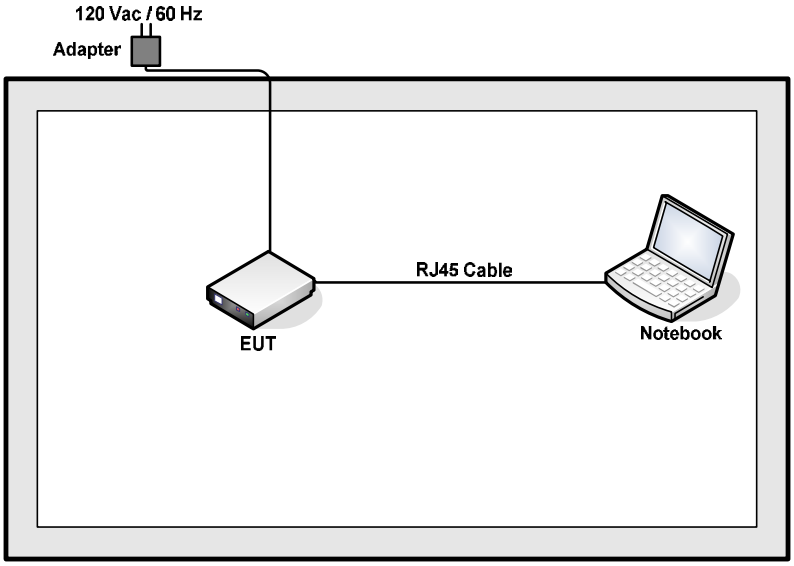
Test Cases	
AC Conducted Emission	Mode 1 : Bluetooth Link + WLAN Link (2.4G) + Adapter for Sample 1 Mode 2 : Bluetooth Link + WLAN Link (2.4G) + POE for Sample 2 Mode 3 : Bluetooth Link + WLAN Link (2.4G) + Adapter for Sample 3

Remark:

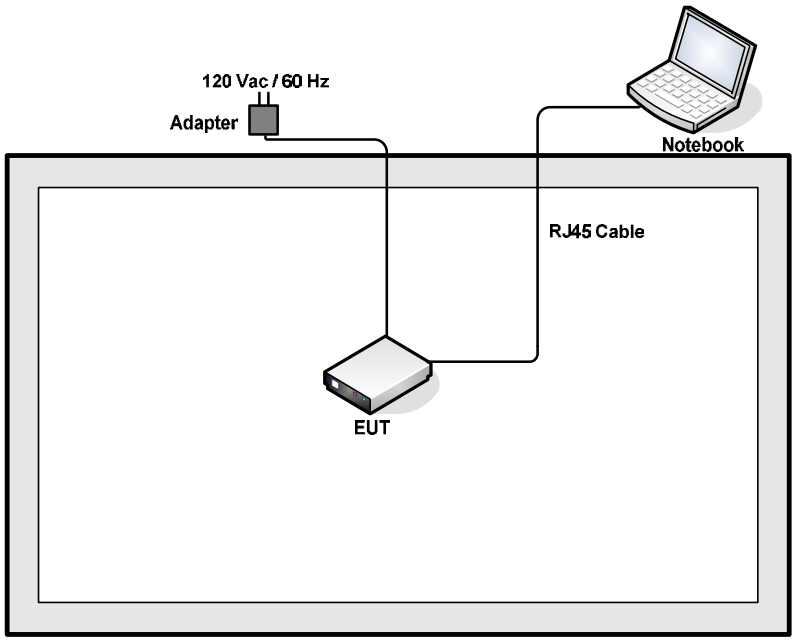
1. The worst case of conducted emission is mode 3; only the test data of it was reported.
2. For Radiated TCs, the tests were performed with adapter for Sample 1, Sample 2 and Sample 3. Only the worst case verified the POE adapter mode.

2.3 Connection Diagram of Test System

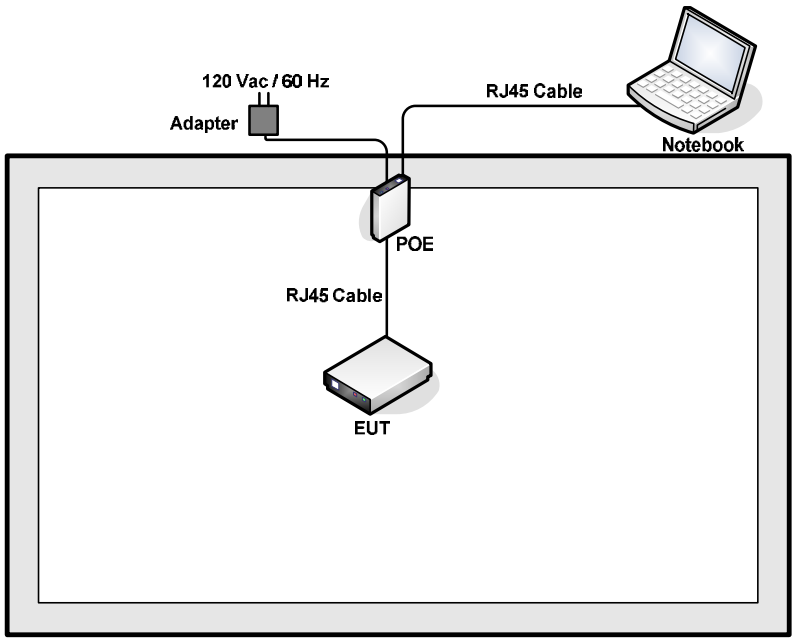
<Conducted Mode>



<WLAN Tx Mode with Adapter>



<WLAN Tx Mode with POE Adapter>



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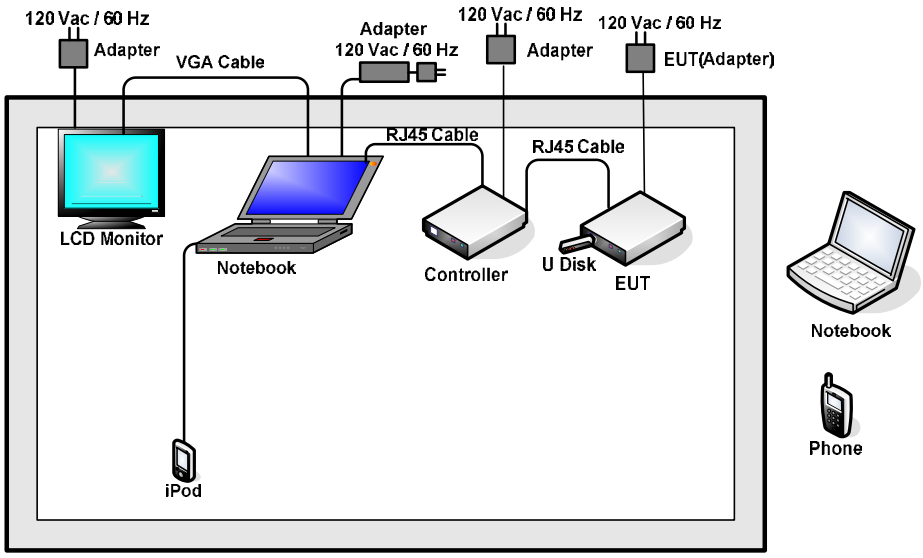
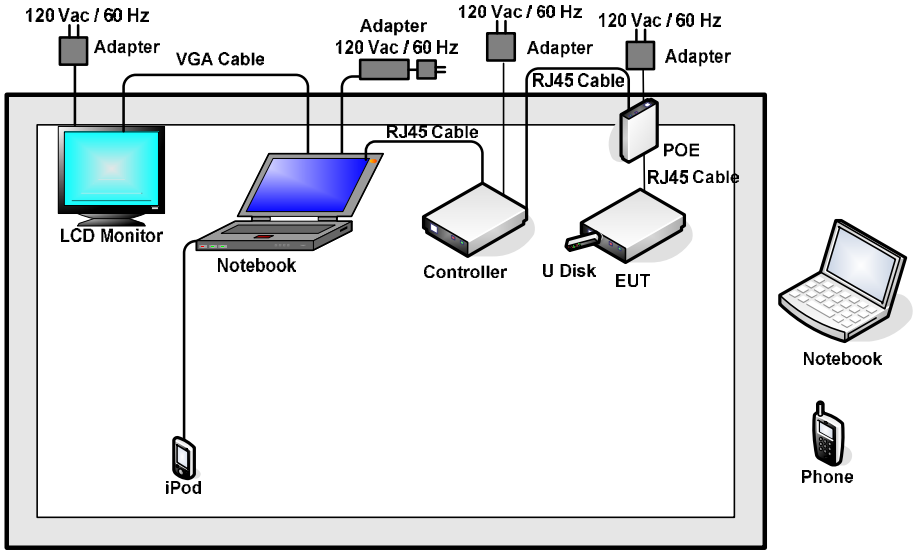


<AC Conducted Emission Mode with POE Adapter>



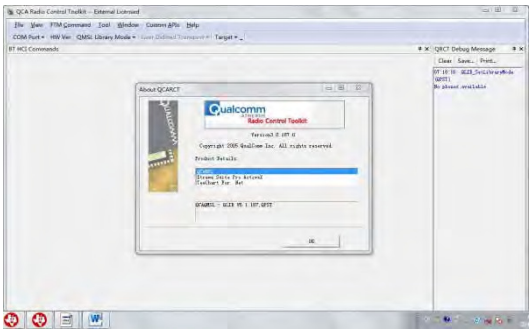
2.4 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	WLAN AP	D-Link	DIR-855	KA2DIR855A2	N/A	Unshielded, 1.8 m
2.	Notebook	Lenovo	E40	FCC DoC	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
3.	Notebook	Lenovo	E49	FCC DoC	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
4.	LCD Monitor	Dell	In1930mwC	FCC DoC	Shielded, 1.6 m	Unshielded, 1.8 m
5.	iPod	Apple	A1199	FCC DoC	Shielded, 1.0 m	N/A
6.	Android Phone	ZTE	A1	N/A	N/A	N/A
7.	U Disk	SanDisk	SDCZ51-004G	N/A	N/A	N/A
8.	Controller	Aruba	ARCN0103	N/A	N/A	AC I/P: Unshielded cable, 1.8m
9.	AC Adapter	CUI INC	SDI30-12-U-P209-C1	N/A	N/A	Unshielded cable, 2m
10.	POE	PowerDsine	PD-3501G/AC	N/A	N/A	N/A
11.	RJ45 Cable	N/A	N/A	N/A	N/A	N/A

2.5 EUT Operation Test Setup

For WLAN function, the engineering test program was provided and enabled to make EUT continuous transmit/receive. EUT was connected to spectrum analyzer and notebook which is installed in QRCT software.

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



Monitor the SW Version of QRCT

2.6 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 5.5 dB.

Offset(dB) = RF cable loss(dB).
= 5.5 (dB)

3 Test Result

3.1 6dB and 99% Bandwidth Measurement

3.1.1 Limit of 6dB and 99% Bandwidth

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

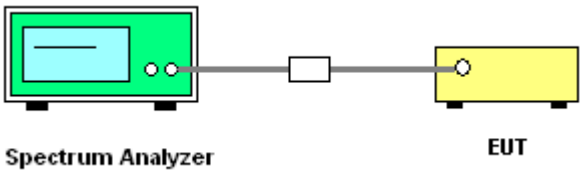
3.1.2 Measuring Instruments

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 v03r05.
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. For 99% Bandwidth Measurement, the spectrum analyzer's resolution bandwidth (RBW) = 1MHz and set the Video bandwidth (VBW) = 3MHz.
6. Measure and record the results in the test report.

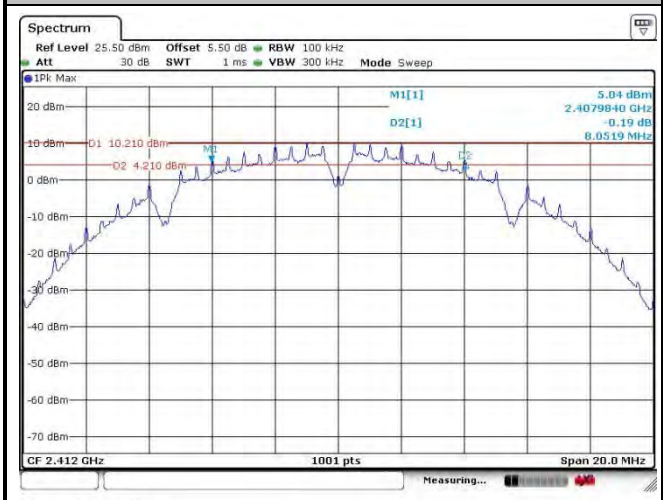
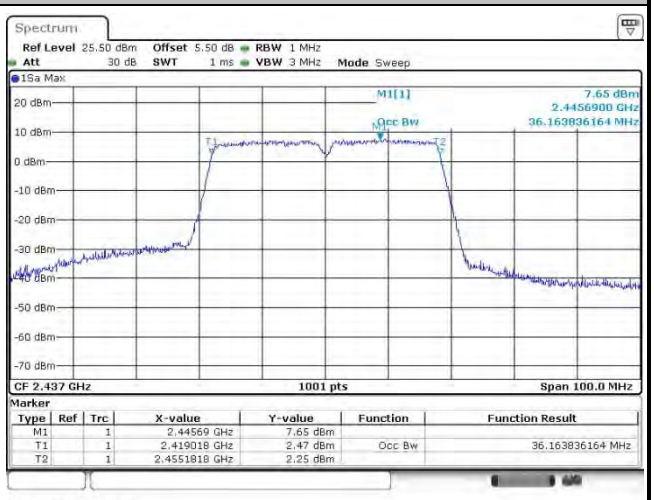
3.1.4 Test Setup



3.1.5 Test Result of 6dB and 99% Occupied Bandwidth

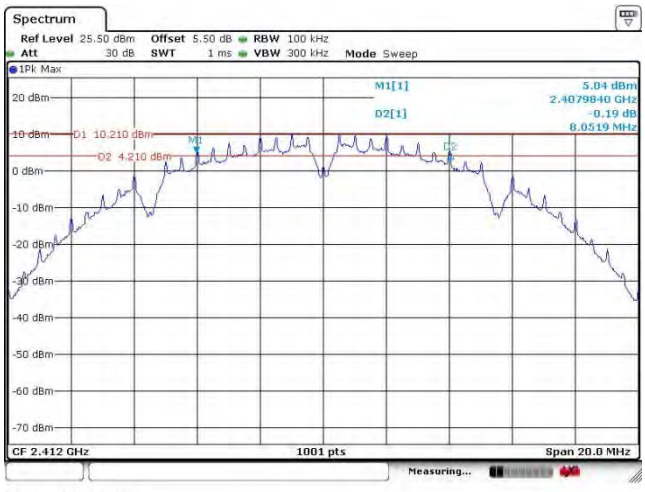
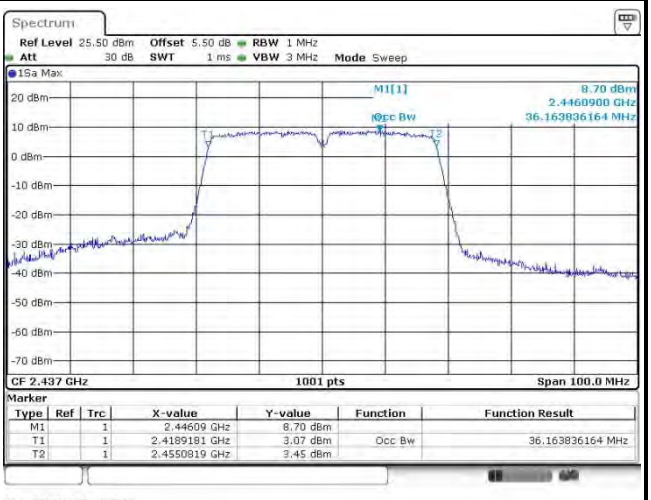
Please refer to Appendix A.

For APIN0304

Minimum 6dB Bandwidth	Maximum 99% Occupied Bandwidth
MIMO Ant.1+2(1) 802.11b 1Mbps CH01	MIMO Ant.1+2(1) 802.11n HT40 MCS0 CH06
	

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

For APIN0305

Minimum 6dB Bandwidth	Maximum 99% Occupied Bandwidth
MIMO Ant.1+2(1) 802.11b 1Mbps CH01	MIMO Ant.1+2(1) 802.11n HT40 MCS0 CH06
	

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.

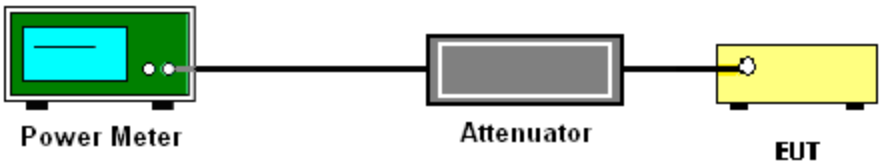
3.2.2 Measuring Instruments

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 v03r05 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.

3.2.6 Test Result of Average output Power (Reporting Only)

Please refer to Appendix A

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 v03r05.
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.

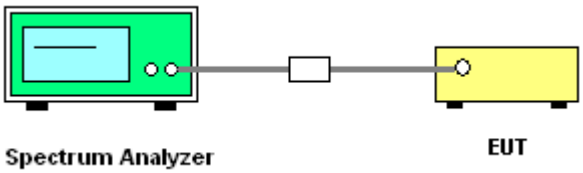
   If measurements performed using method (2) plus 10 log (N) exceeds the emission limit, the test should choose method (1) before declaring that the device fails the emission limit.

   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

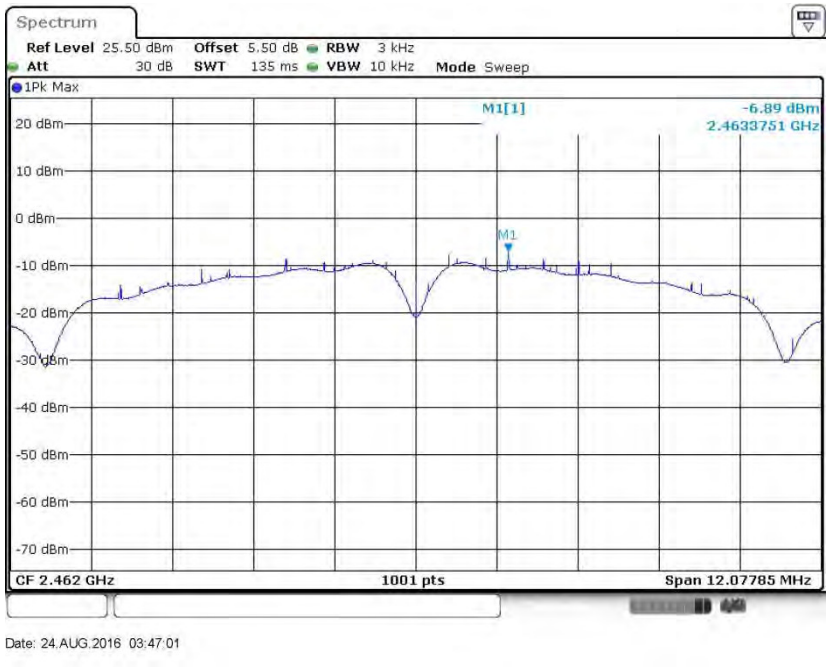


3.3.5 Test Result of Power Spectral Density

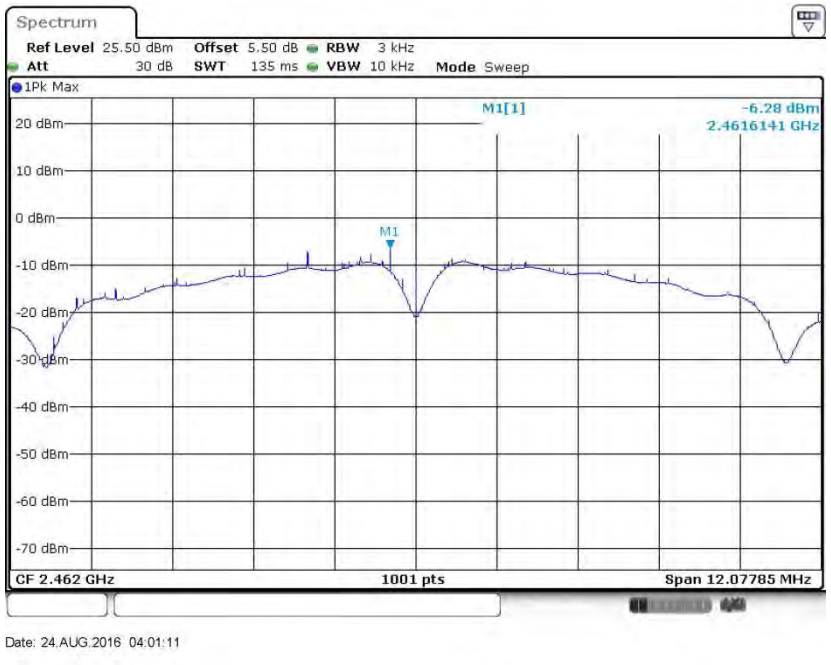
Please refer to Appendix A.

For APIN0304

Worst Case Power Density (dBm/3kHz)
MIMO Ant.1+2(1) 11b 1Mbps Channel 11

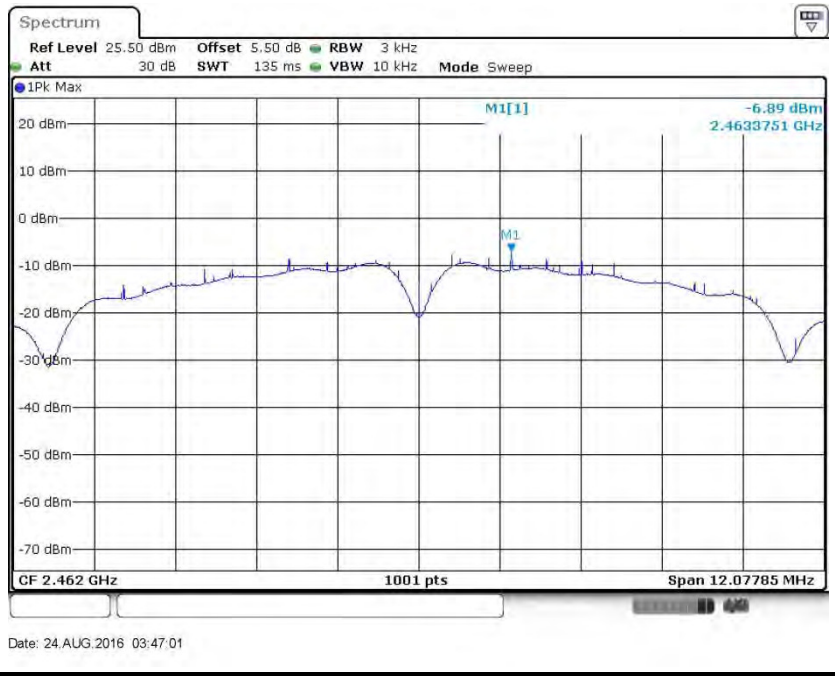


Worst Case Power Density (dBm/3kHz)
MIMO Ant.1+2(2) 11b 1Mbps Channel 11

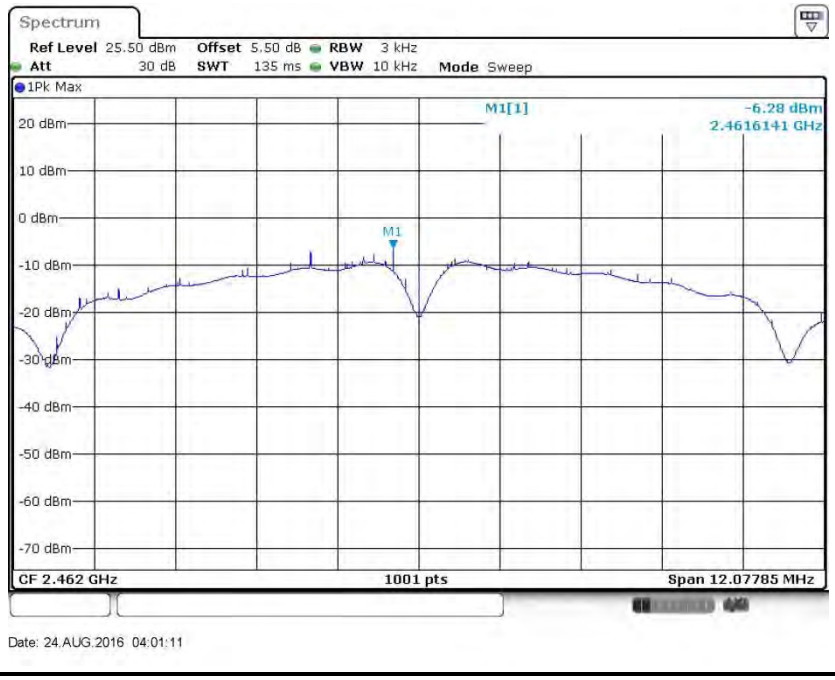


For APIN0305

Worst Case Power Density (dBm/3kHz)
MIMO Ant.1+2(1) 11b 1Mbps Channel 11



Worst Case Power Density (dBm/3kHz)
MIMO Ant.1+2(2) 11b 1Mbps Channel 11



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).

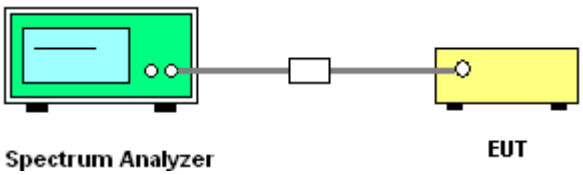
3.4.2 Measuring Instruments

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 v03r05.
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

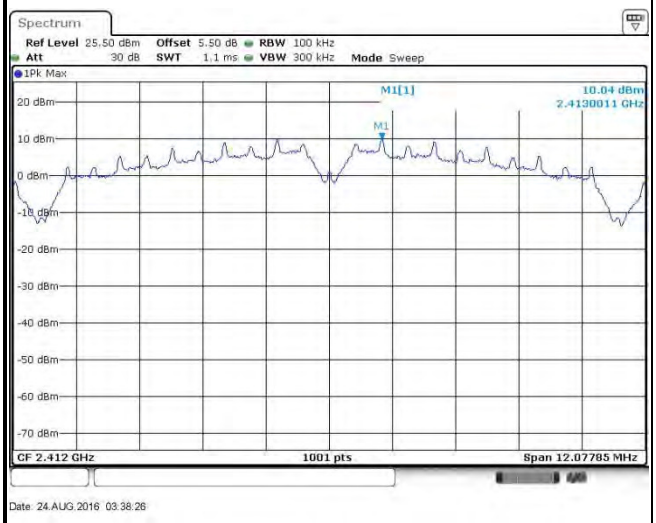
For APIN0304

Number of TX = 2, Ant. 1 (Measured)

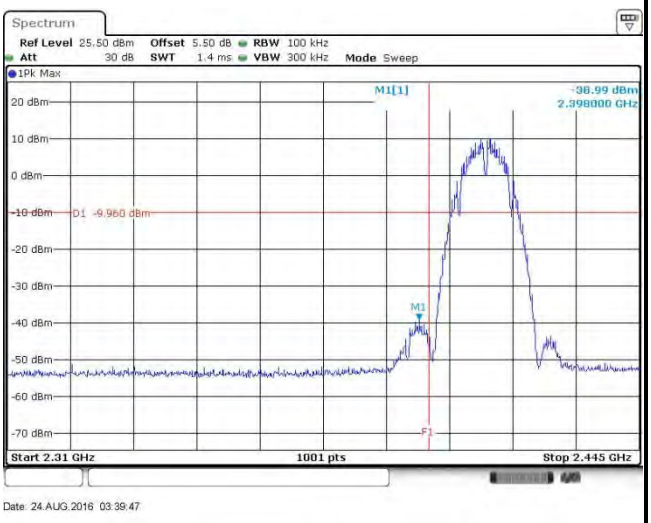
Number of TX	2	**Ant. :**	1
Test Mode :	802.11b	**Temperature :**	24~25℃
Test Band :	2.4GHz Low	**Relative Humidity :**	54~55%
Test Channel :	01	**Test Engineer :**	Ivan Zhang

WLAN 802.11b Channel 01

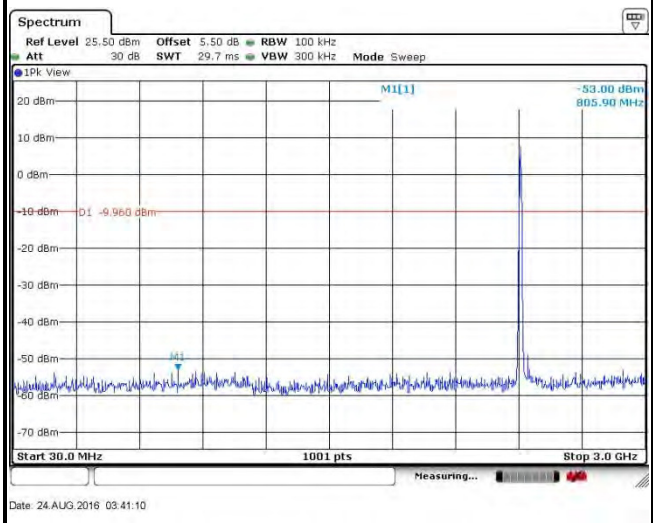
100kHz PSD reference Level



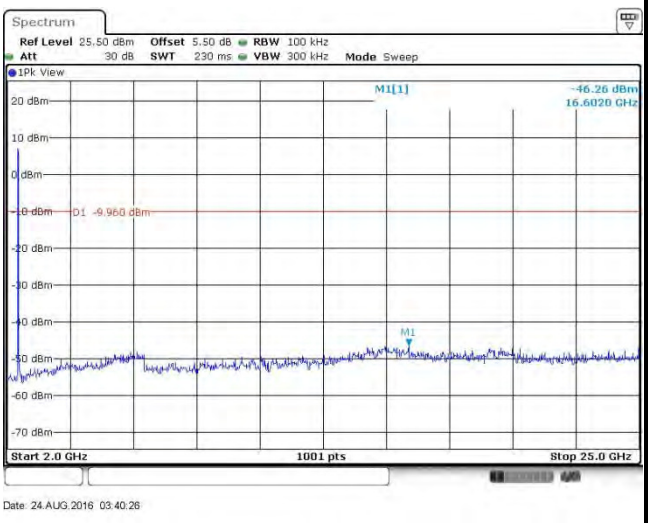
Low Channel Plot



Spurious Emission 30MHz~3GHz



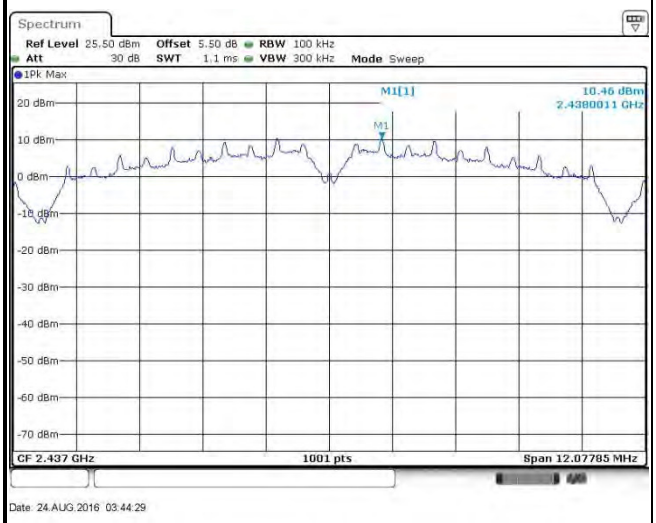
Spurious Emission 2GHz~25GHz



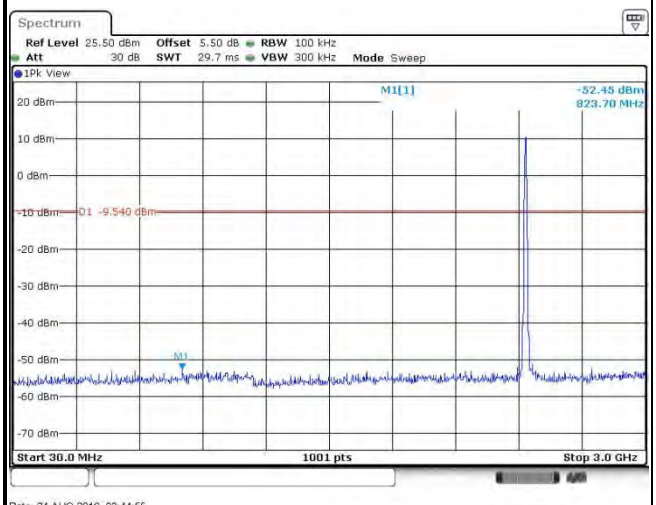
Number of TX :	2	**Ant. :**	1
Test Mode :	802.11b	**Temperature :**	24~25℃
Test Band :	2.4GHz Mid	**Relative Humidity :**	54~55%
Test Channel :	06	**Test Engineer :**	Ivan Zhang

WLAN 802.11b Channel 06

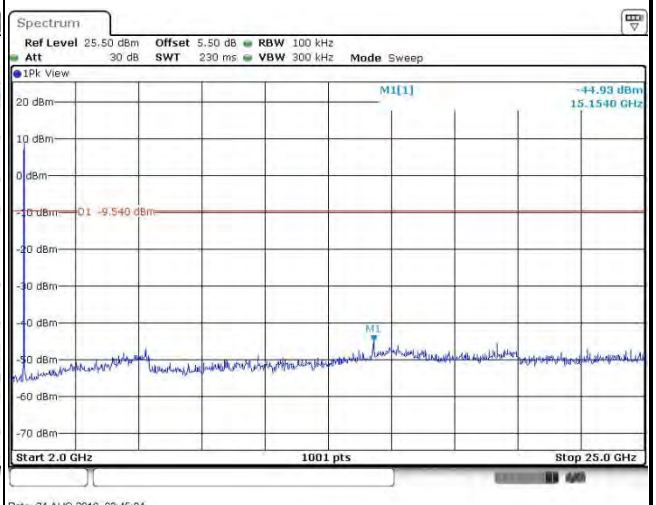
100kHz PSD reference Level



Spurious Emission 30MHz~3GHz



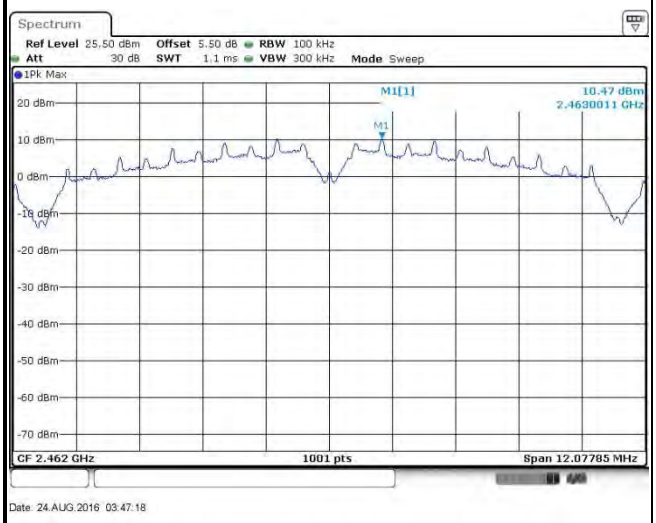
Spurious Emission 2GHz~25GHz



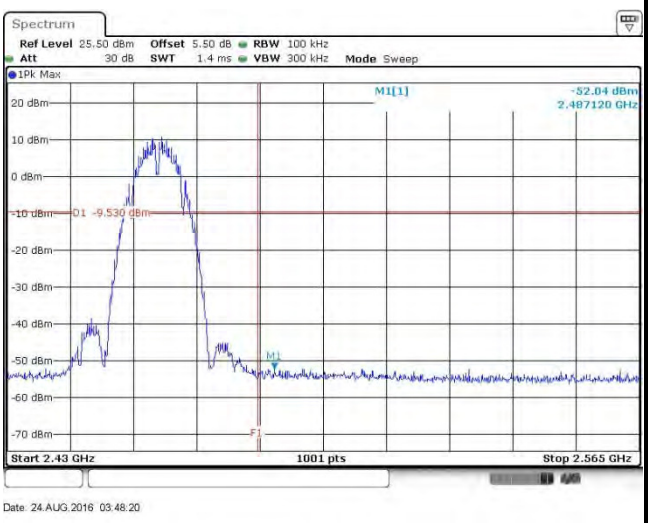
Number of TX :	2	**Ant. :**	1
Test Mode :	802.11b	**Temperature :**	24~25℃
Test Band :	2.4GHz High	**Relative Humidity :**	54~55%
Test Channel :	11	**Test Engineer :**	Ivan Zhang

WLAN 802.11b Channel 11

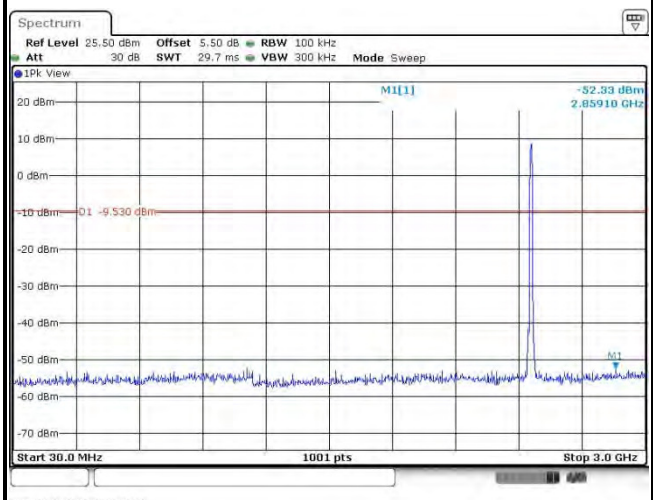
100kHz PSD reference Level



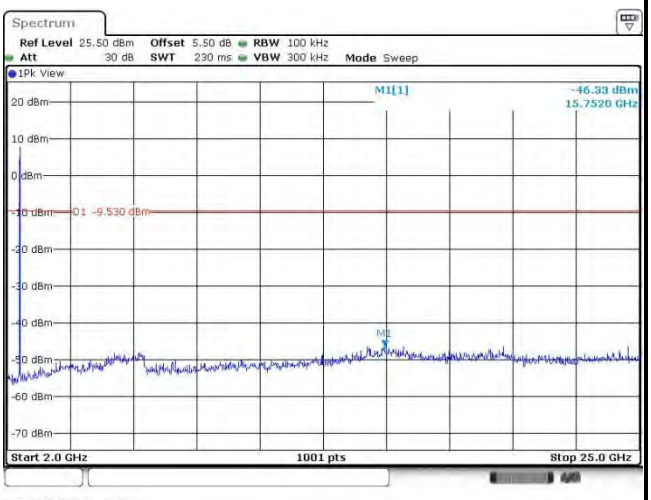
High Channel Plot



Spurious Emission 30MHz~3GHz



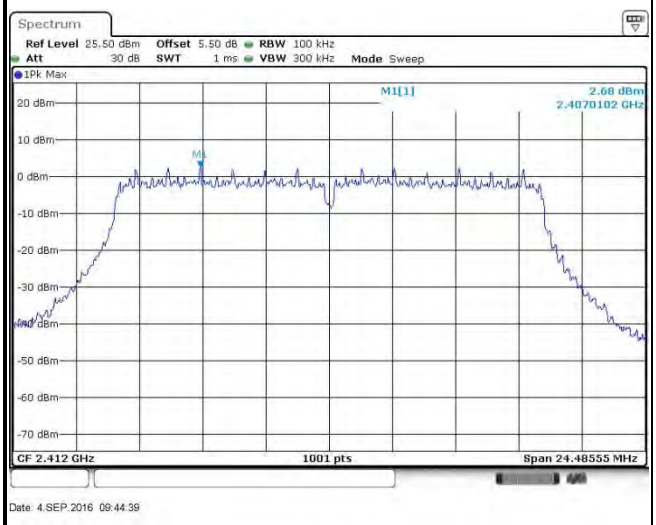
Spurious Emission 2GHz~25GHz



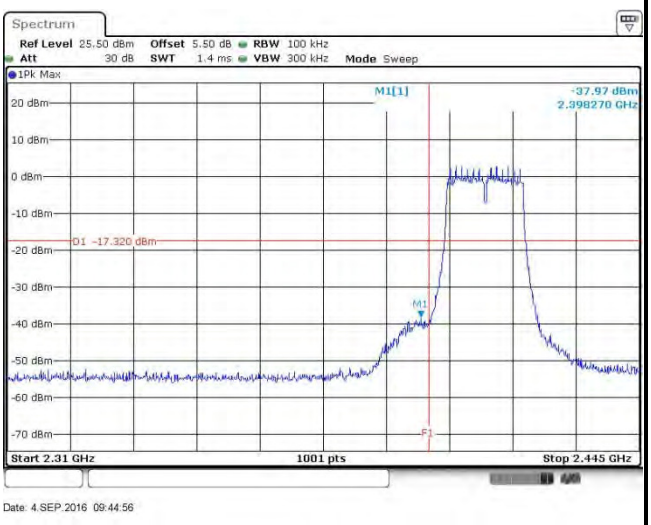
Number of TX :	2	Ant. :	1
Test Mode :	802.11g	Temperature :	24~25℃
Test Band :	2.4GHz Low	Relative Humidity :	54~55%
Test Channel :	01	Test Engineer :	Ivan Zhang

WLAN 802.11g Channel 01

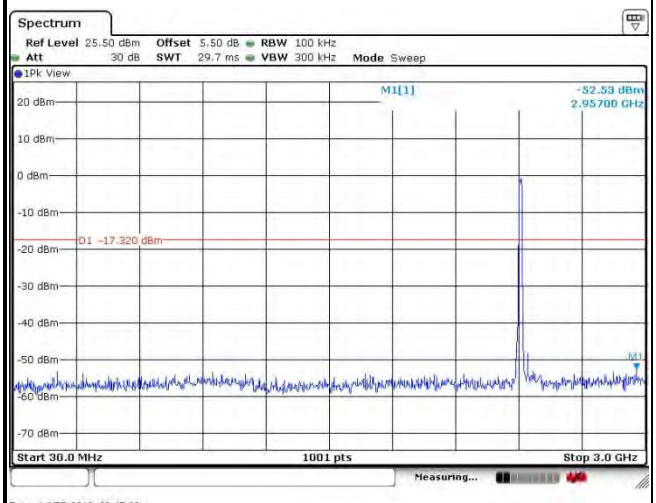
100kHz PSD reference Level



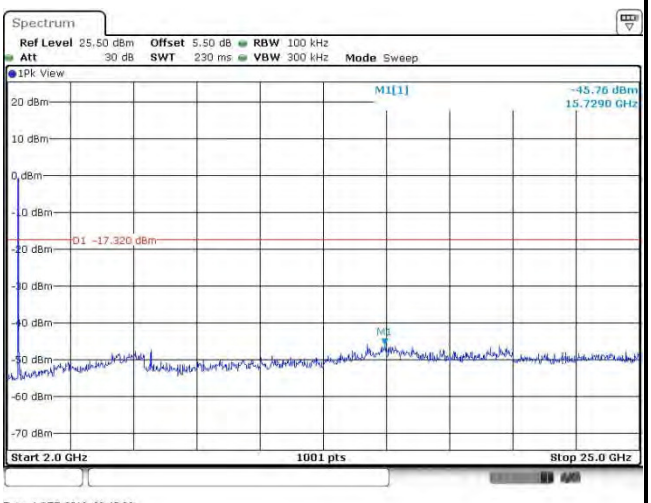
Low Channel Plot



Spurious Emission 30MHz~3GHz



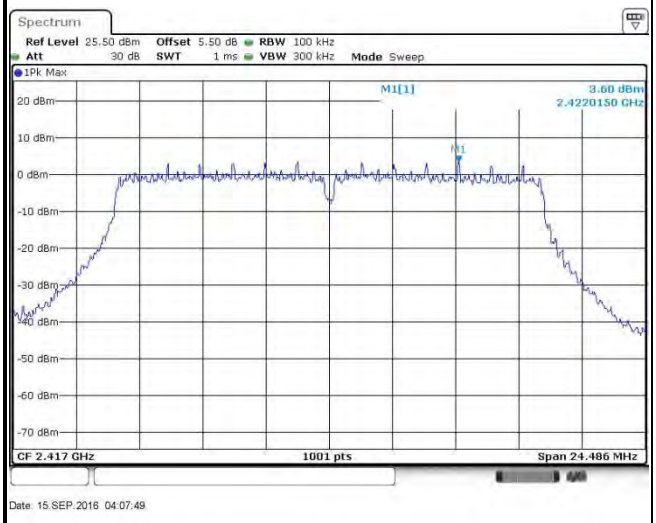
Spurious Emission 2GHz~25GHz



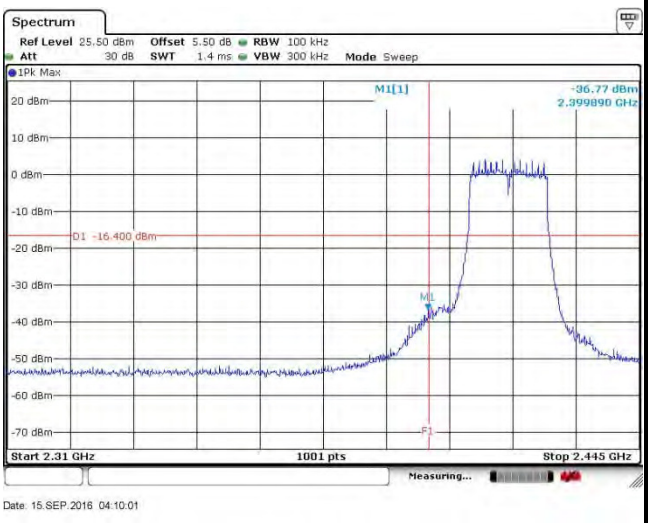
Number of TX :	2	Ant. :	1
Test Mode :	802.11g	Temperature :	24~25℃
Test Band :	2.4GHz Low	Relative Humidity :	54~55%
Test Channel :	02	Test Engineer :	Ivan Zhang

WLAN 802.11g Channel 02

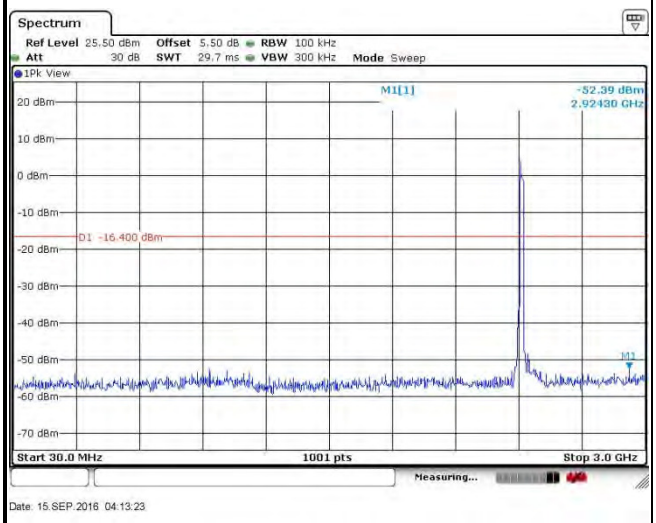
100kHz PSD reference Level



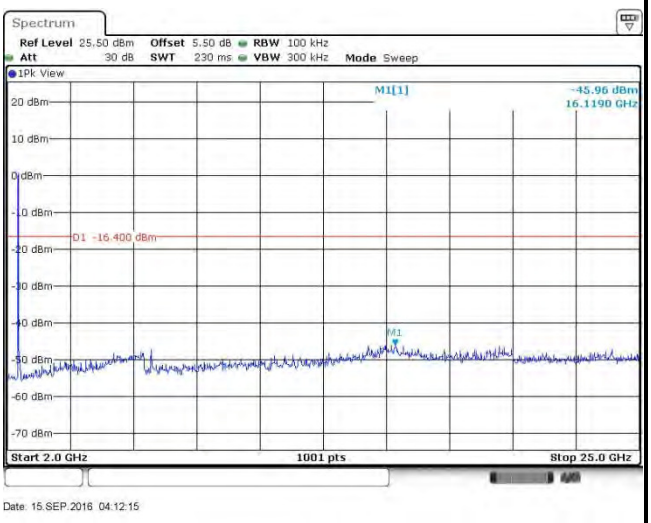
Low Channel Plot



Spurious Emission 30MHz~3GHz



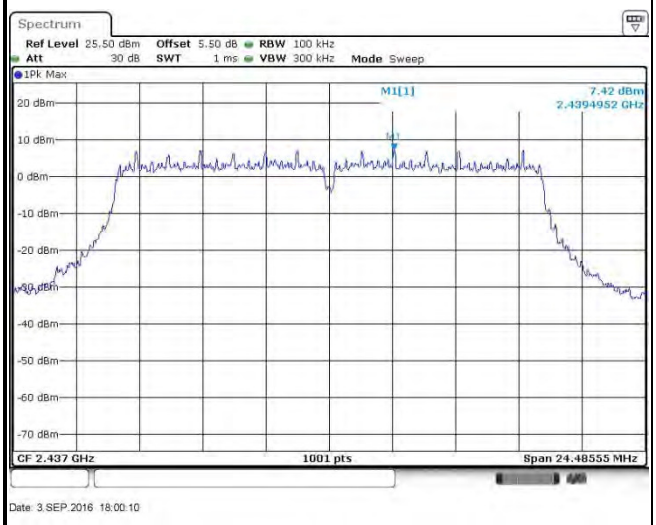
Spurious Emission 2GHz~25GHz



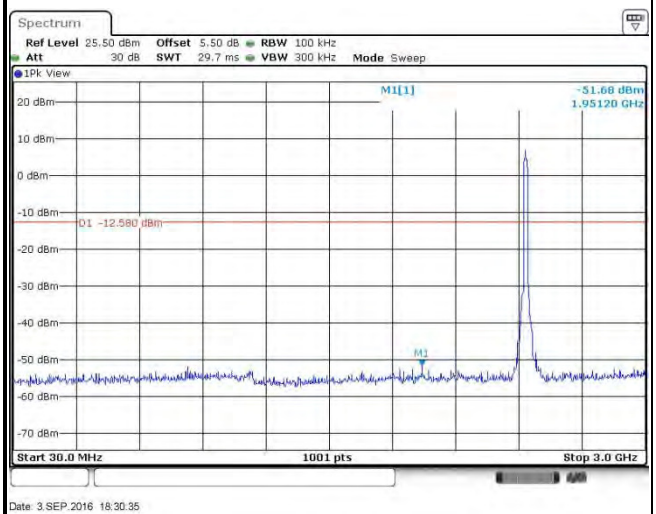
Number of TX :	2	Ant. :	1
Test Mode :	802.11g	Temperature :	24~25℃
Test Band :	2.4GHz Mid	Relative Humidity :	54~55%
Test Channel :	06	Test Engineer :	Ivan Zhang

WLAN 802.11g Channel 06

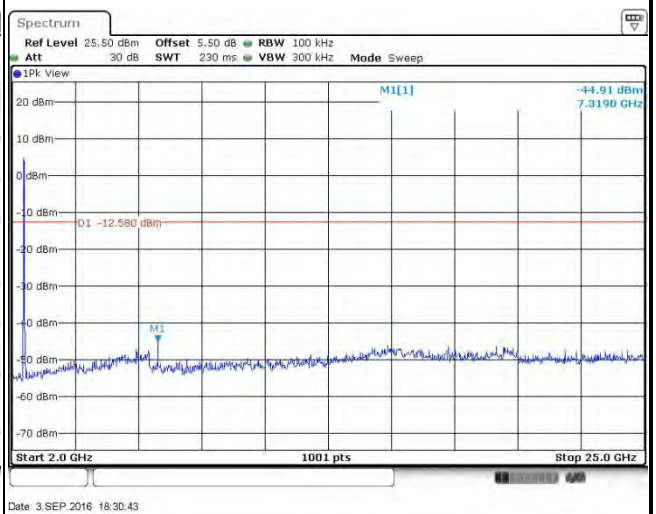
100kHz PSD reference Level



Spurious Emission 30MHz~3GHz



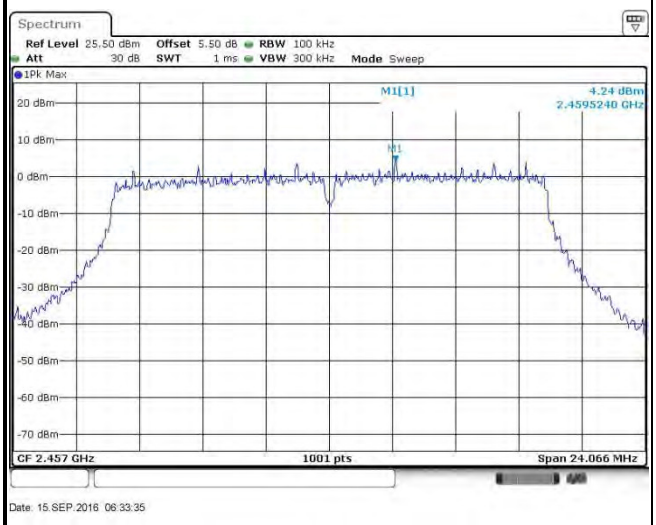
Spurious Emission 2GHz~25GHz



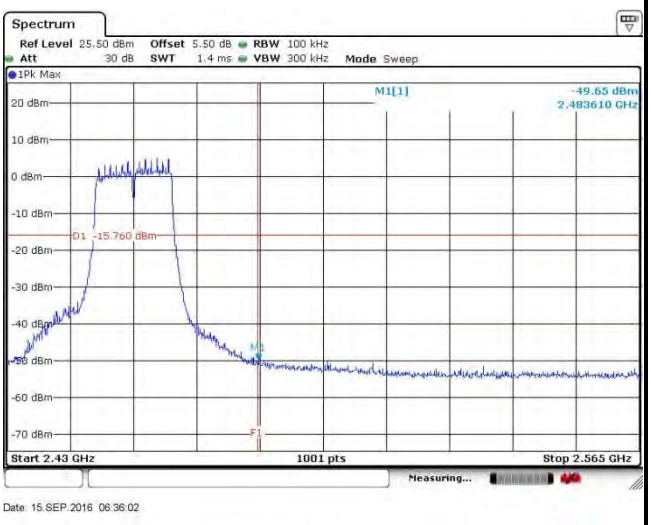
Number of TX :	2	Ant. :	1
Test Mode :	802.11g	Temperature :	24~25℃
Test Band :	2.4GHz High	Relative Humidity :	54~55%
Test Channel :	10	Test Engineer :	Ivan Zhang

WLAN 802.11g Channel 10

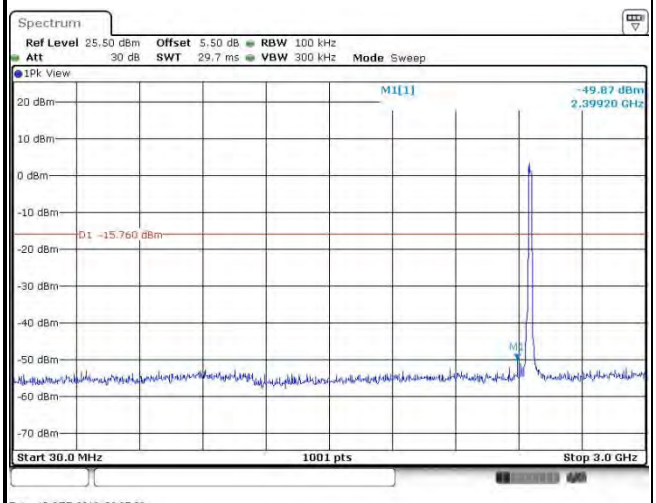
100kHz PSD reference Level



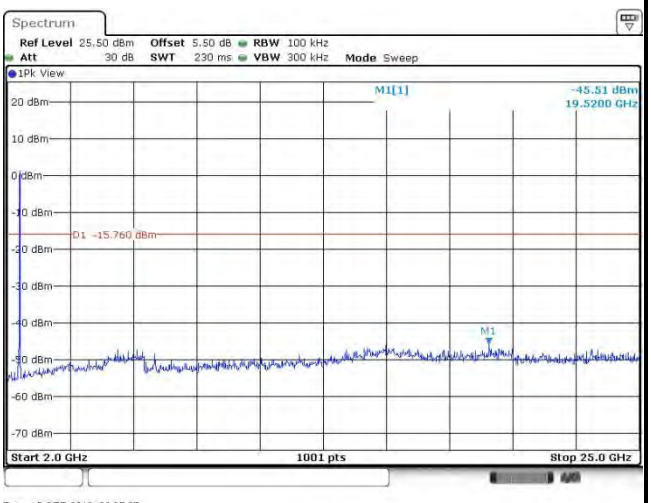
High Channel Plot



Spurious Emission 30MHz~3GHz



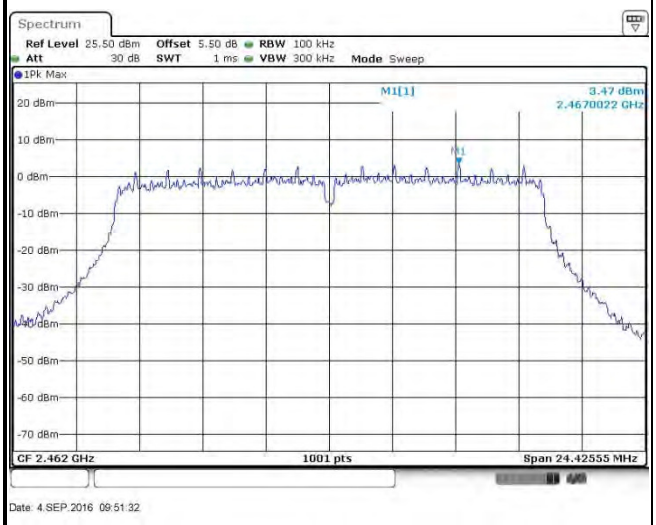
Spurious Emission 2GHz~25GHz



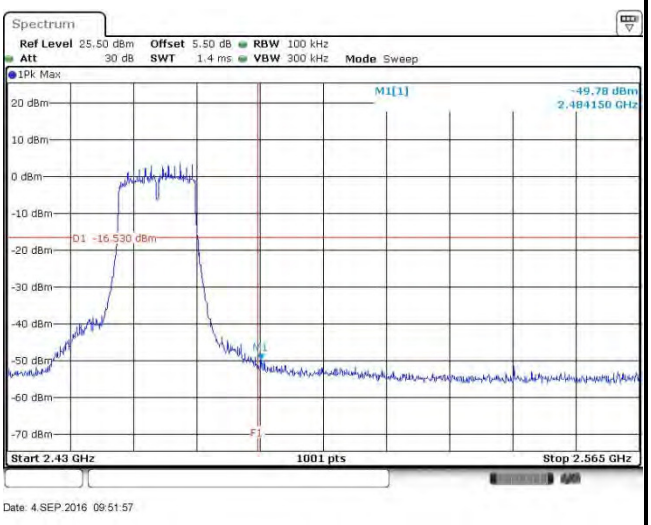
Number of TX :	2	Ant. :	1
Test Mode :	802.11g	Temperature :	24~25℃
Test Band :	2.4GHz High	Relative Humidity :	54~55%
Test Channel :	11	Test Engineer :	Ivan Zhang

WLAN 802.11g Channel 11

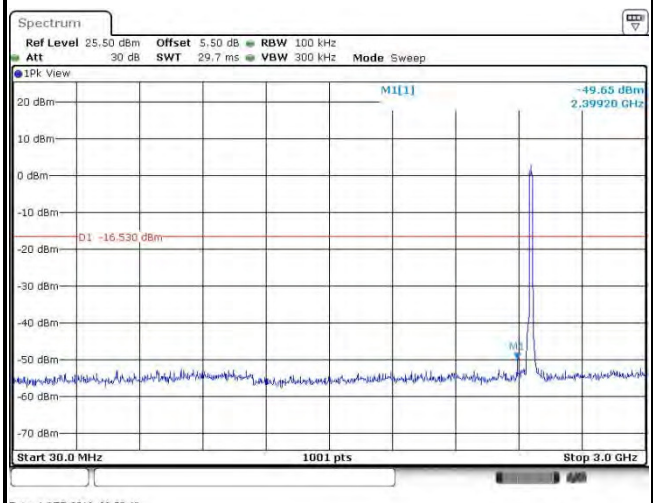
100kHz PSD reference Level



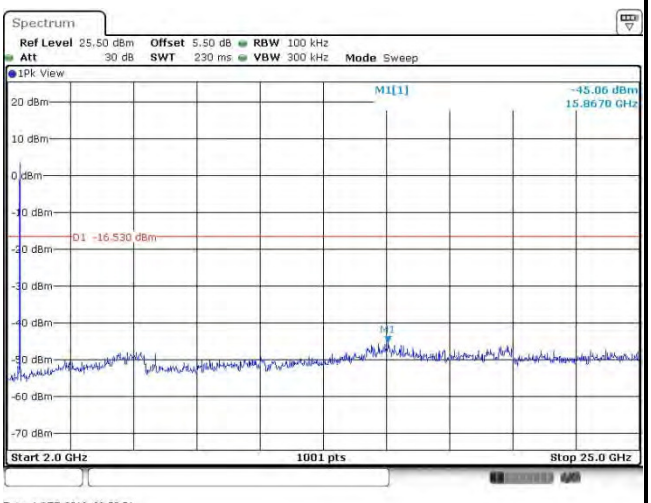
High Channel Plot



Spurious Emission 30MHz~3GHz



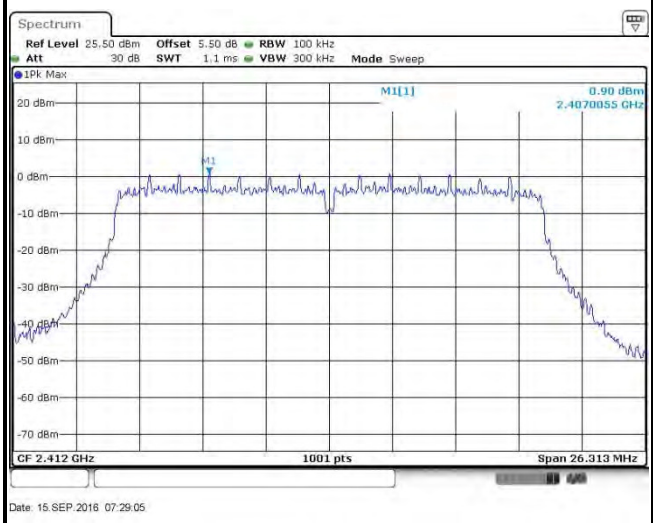
Spurious Emission 2GHz~25GHz



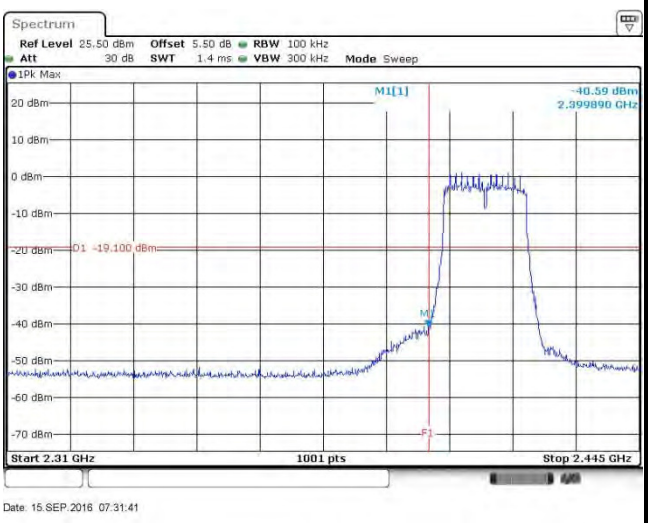
Number of TX :	2	**Ant. :**	1
Test Mode :	802.11n HT20	**Temperature :**	24~25℃
Test Band :	2.4GHz Low	**Relative Humidity :**	54~55%
Test Channel :	01	**Test Engineer :**	Ivan Zhang

WLAN 802.11n HT20 Channel 01

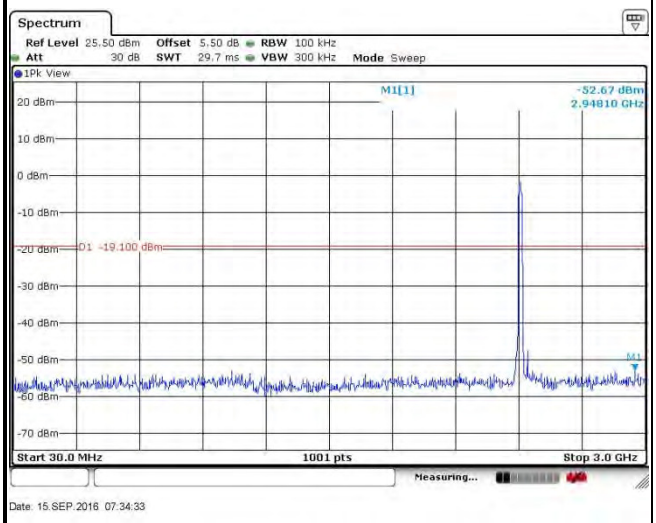
100kHz PSD reference Level



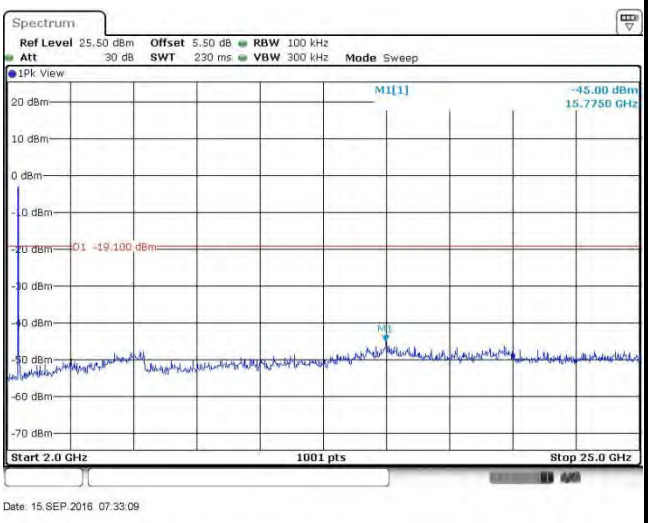
Low Channel Plot



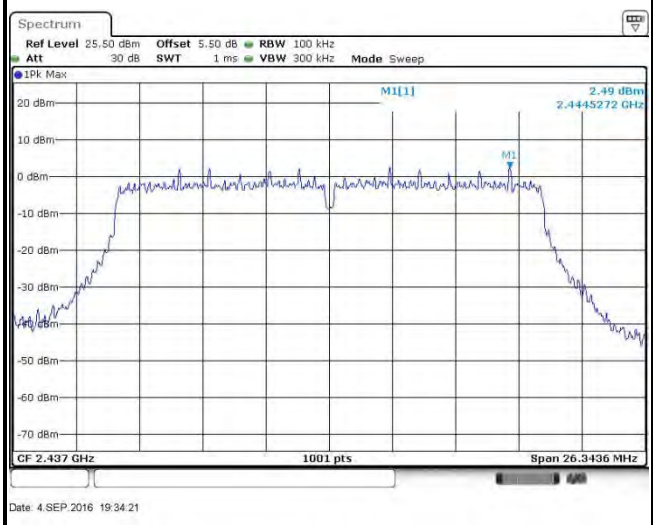
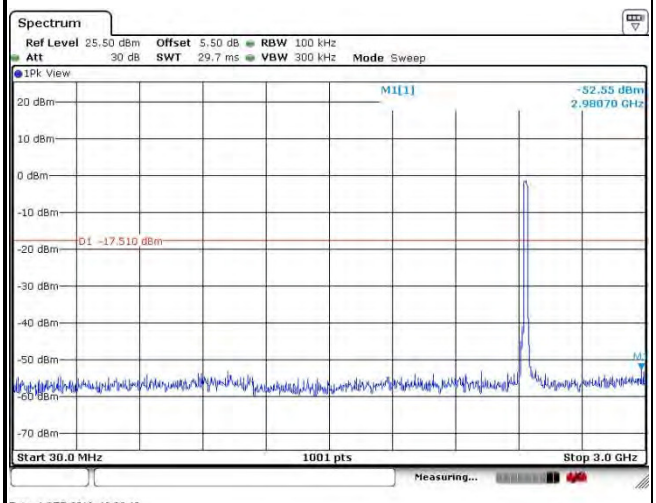
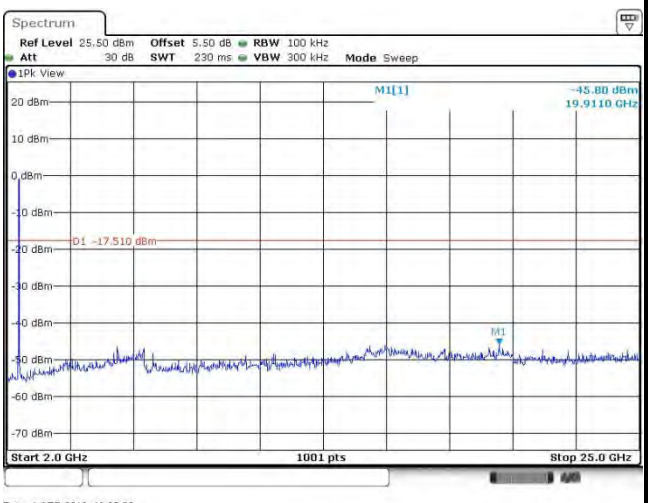
Spurious Emission 30MHz~3GHz



Spurious Emission 2GHz~25GHz



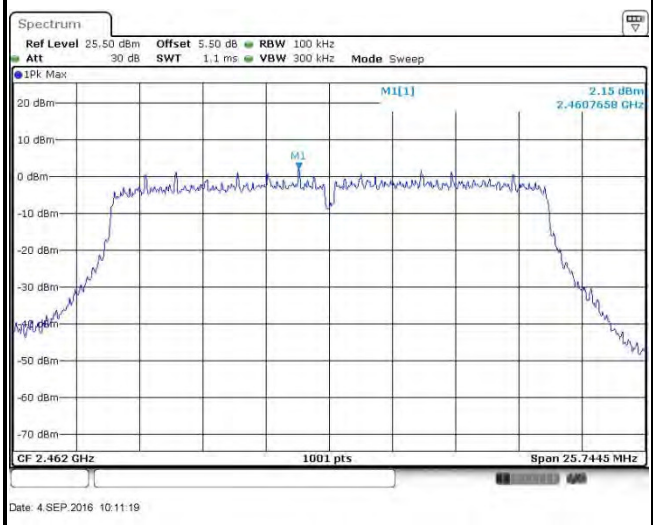
Number of TX :	2	Ant. :	1
Test Mode :	802.11n HT20	Temperature :	24~25℃
Test Band :	2.4GHz Mid	Relative Humidity :	54~55%
Test Channel :	06	Test Engineer :	Ivan Zhang

WLAN 802.11n HT20 Channel 06	
100kHz PSD reference Level	
	
Spurious Emission 30MHz~3GHz	Spurious Emission 2GHz~25GHz
	

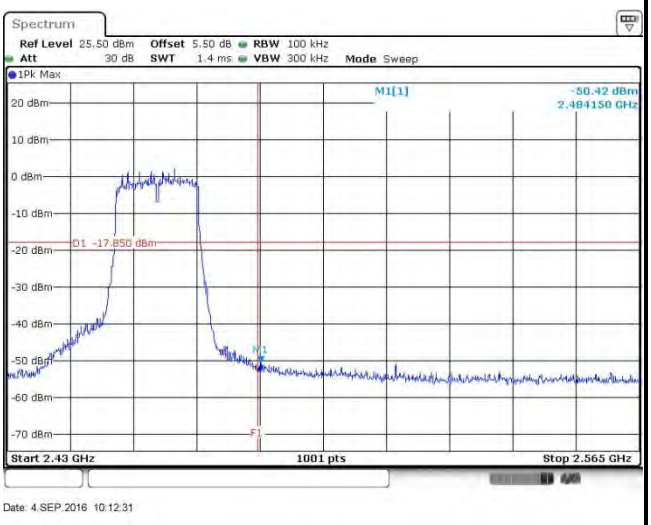
Number of TX :	2	Ant. :	1
Test Mode :	802.11n HT20	Temperature :	24~25℃
Test Band :	2.4GHz High	Relative Humidity :	54~55%
Test Channel :	11	Test Engineer :	Ivan Zhang

WLAN 802.11n HT20 Channel 11

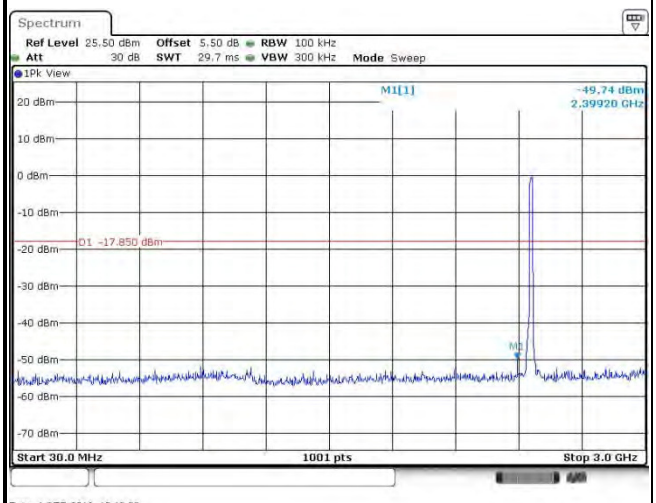
100kHz PSD reference Level



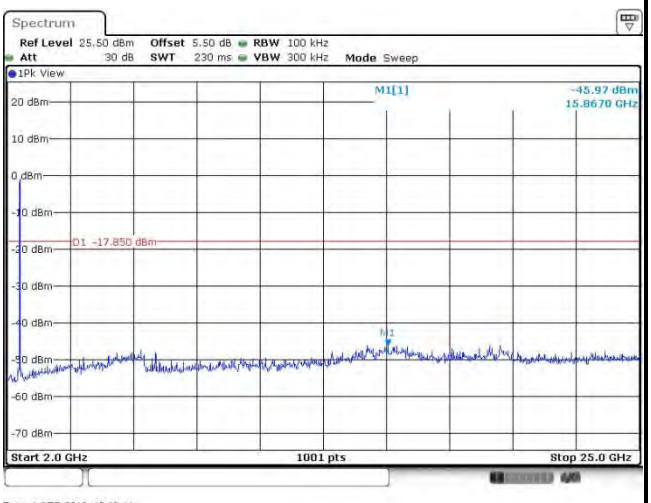
High Channel Plot



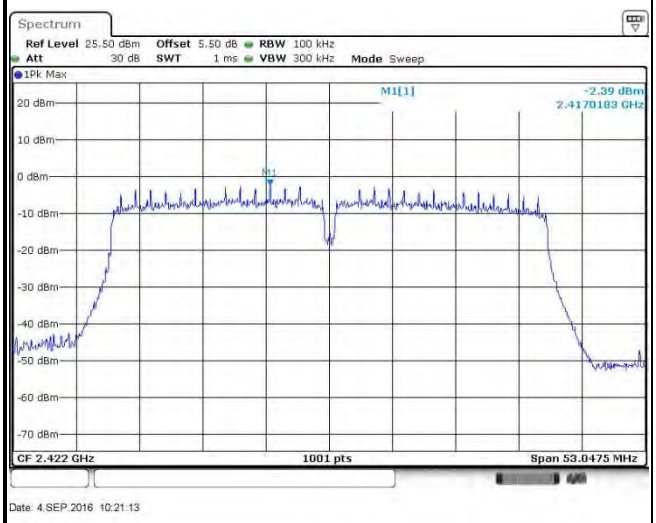
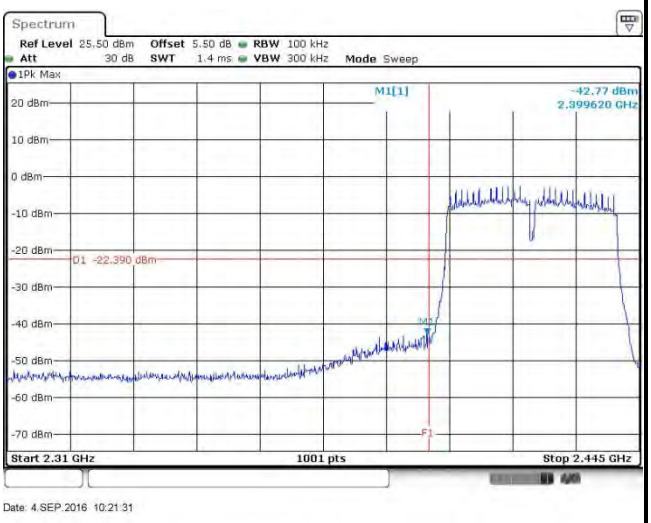
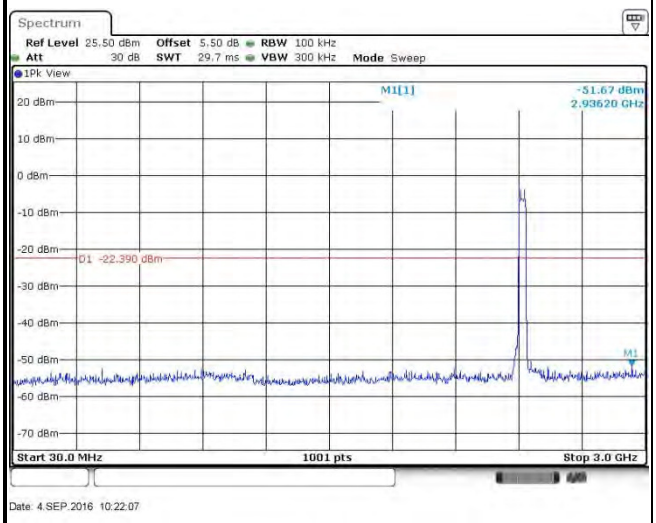
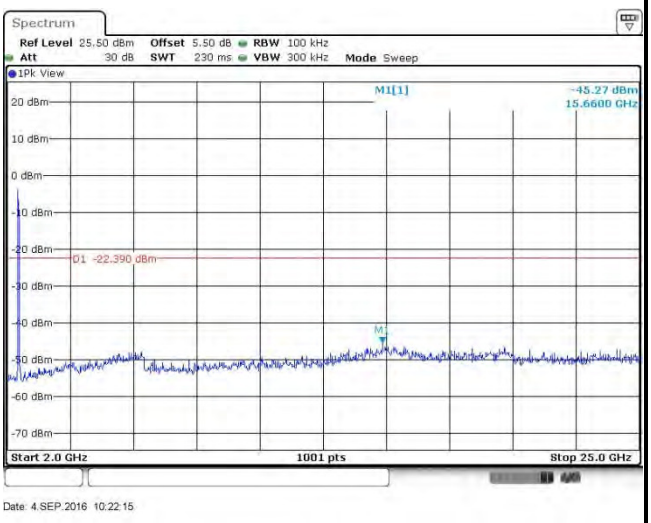
Spurious Emission 30MHz~3GHz



Spurious Emission 2GHz~25GHz



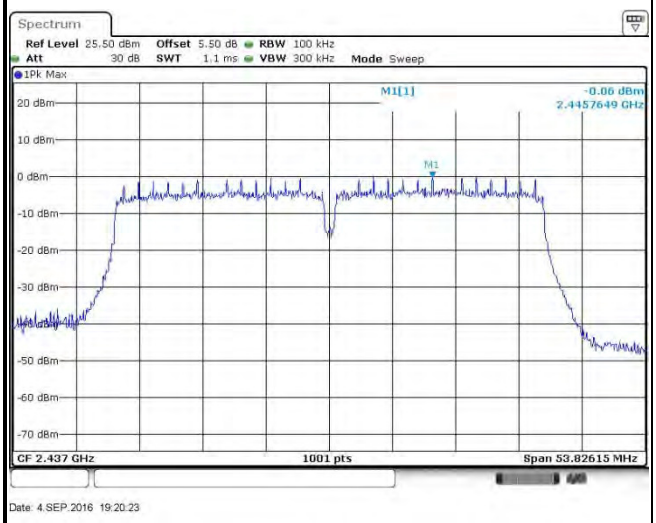
Number of TX :	2	Ant. :	1
Test Mode :	802.11n HT40	Temperature :	24~25℃
Test Band :	2.4GHz Low	Relative Humidity :	54~55%
Test Channel :	03	Test Engineer :	Ivan Zhang

WLAN 802.11n HT40 Channel 03	
100kHz PSD reference Level	Low Channel Plot
	
Spurious Emission 30MHz~3GHz	Spurious Emission 2GHz~25GHz
	

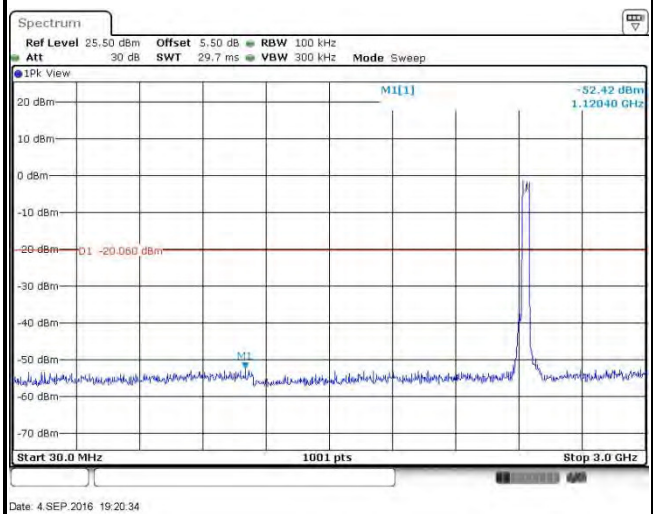
Number of TX :	2	**Ant. :**	1
Test Mode :	802.11n HT40	**Temperature :**	24~25℃
Test Band :	2.4GHz Mid	**Relative Humidity :**	54~55%
Test Channel :	06	**Test Engineer :**	Ivan Zhang

WLAN 802.11n HT40 Channel 06

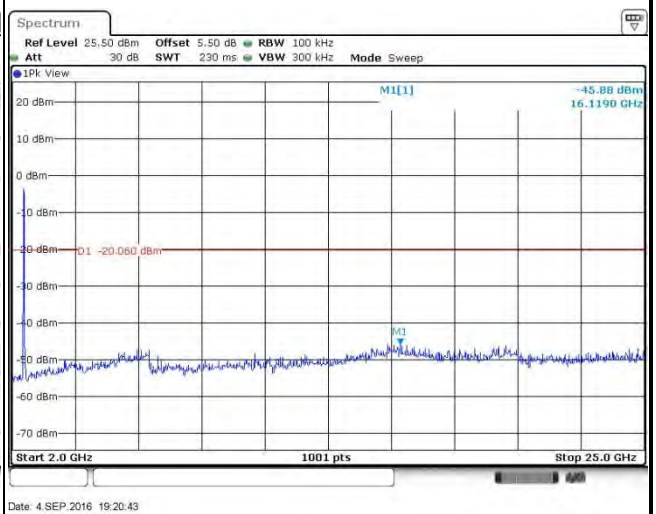
100kHz PSD reference Level



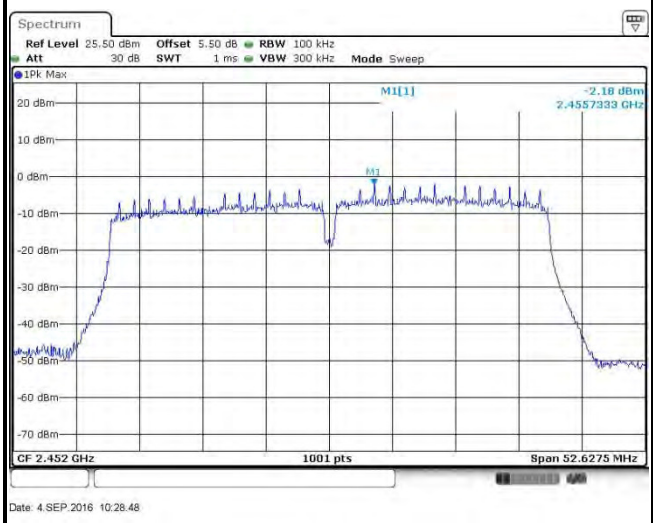
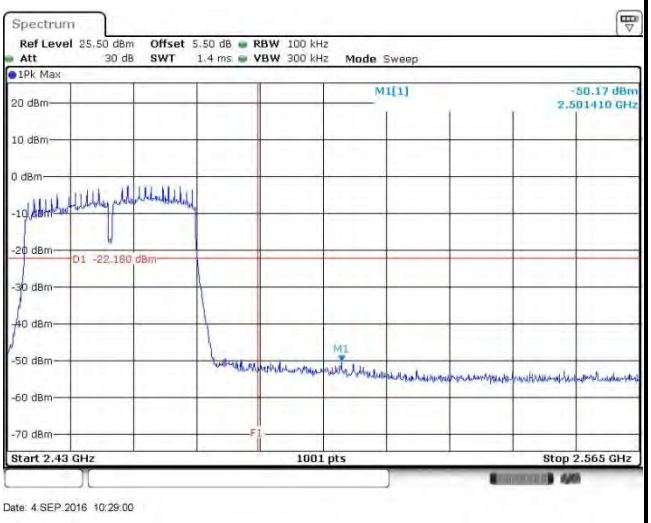
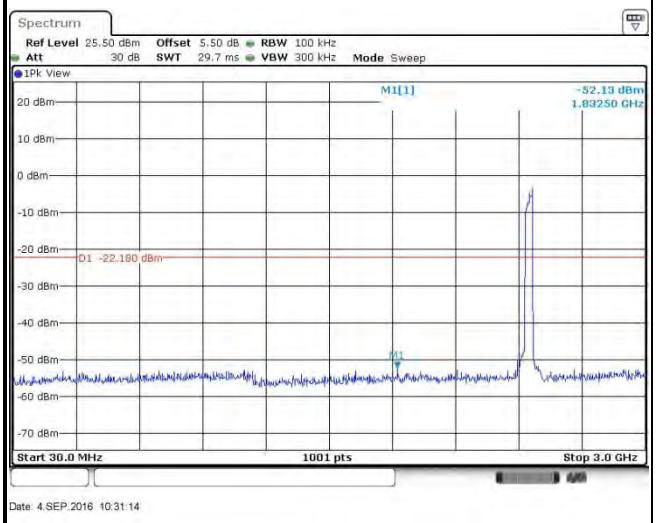
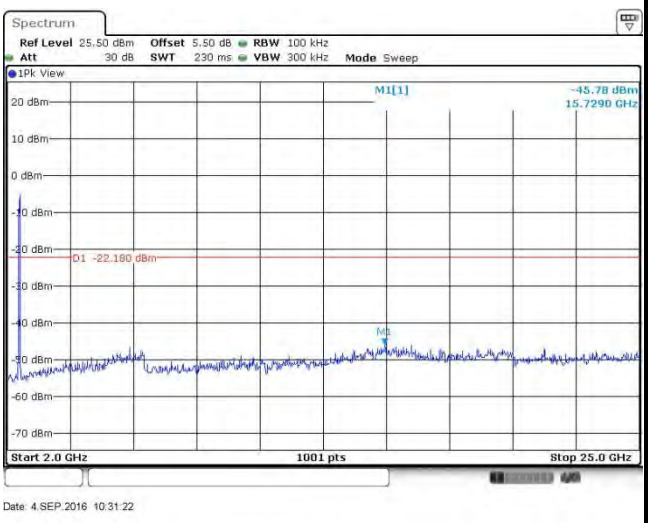
Spurious Emission 30MHz~3GHz



Spurious Emission 2GHz~25GHz



Number of TX :	2	Ant. :	1
Test Mode :	802.11n HT40	Temperature :	24~25℃
Test Band :	2.4GHz High	Relative Humidity :	54~55%
Test Channel :	09	Test Engineer :	Ivan Zhang

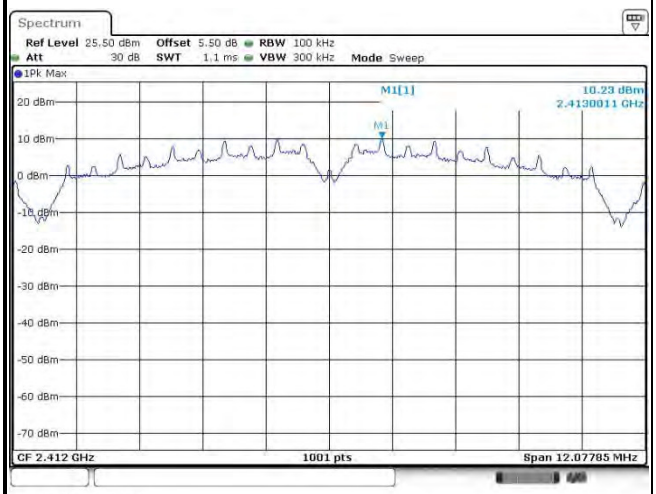
WLAN 802.11n HT40 Channel 09	
100kHz PSD reference Level	High Channel Plot
	
Spurious Emission 30MHz~3GHz	Spurious Emission 2GHz~25GHz
	

Number of TX = 2, Ant. 2 (Measured)

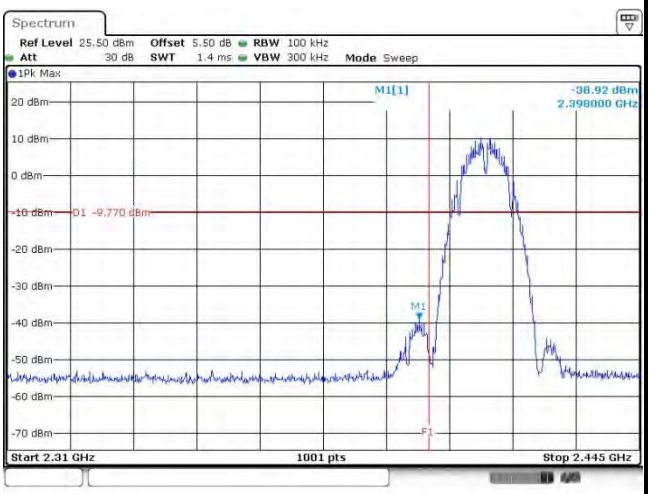
Number of TX	2	**Ant. :**	2
Test Mode :	802.11b	**Temperature :**	24~25℃
Test Band :	2.4GHz Low	**Relative Humidity :**	54~55%
Test Channel :	01	**Test Engineer :**	Ivan Zhang

WLAN 802.11b Channel 01

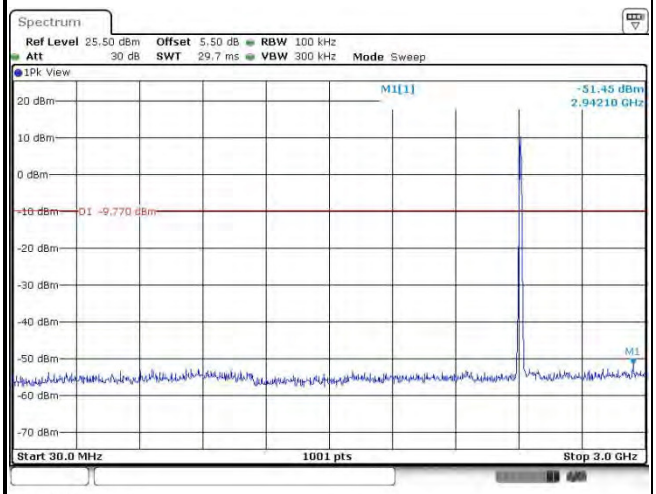
100kHz PSD reference Level



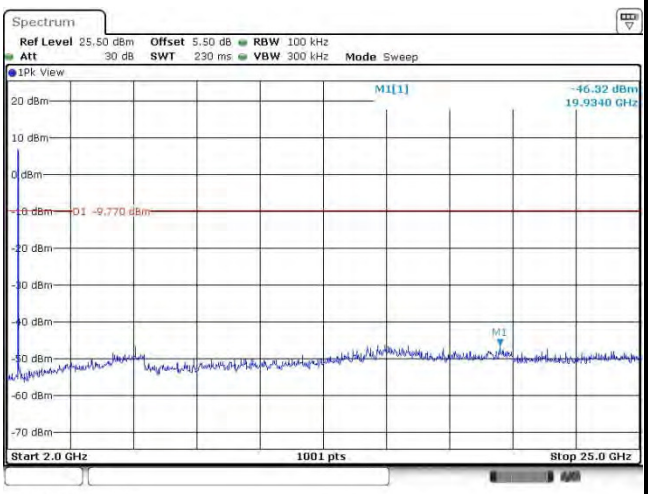
Low Channel Plot



Spurious Emission 30MHz~3GHz



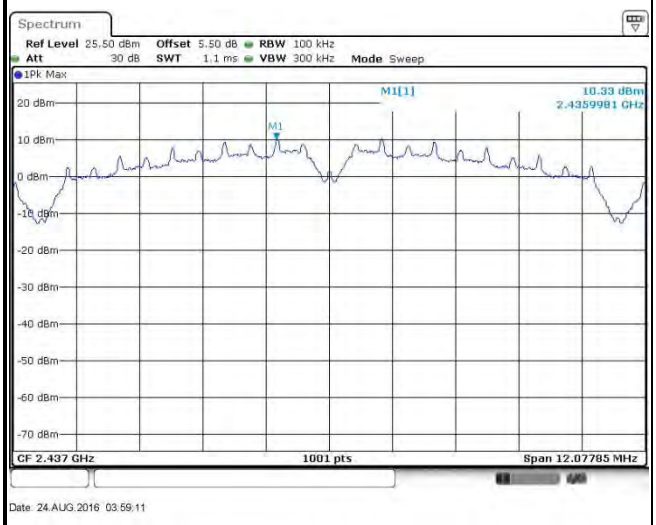
Spurious Emission 2GHz~25GHz



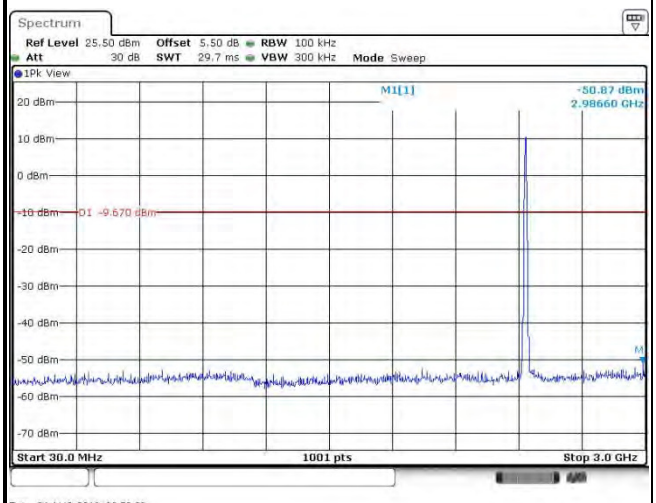
Number of TX :	2	Ant. :	2
Test Mode :	802.11b	Temperature :	24~25℃
Test Band :	2.4GHz Mid	Relative Humidity :	54~55%
Test Channel :	06	Test Engineer :	Ivan Zhang

WLAN 802.11b Channel 06

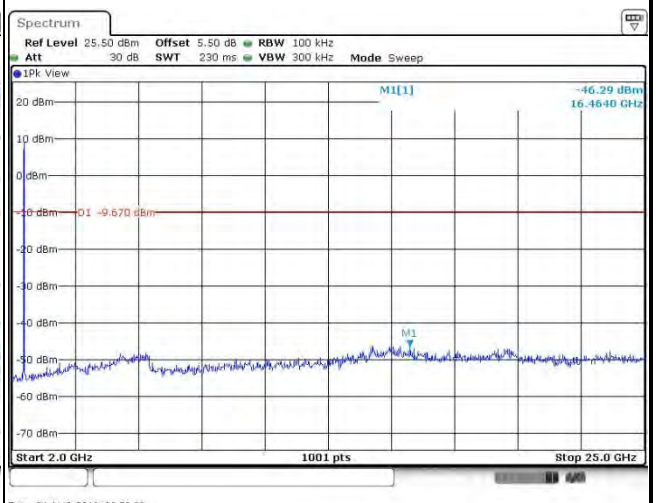
100kHz PSD reference Level



Spurious Emission 30MHz~3GHz



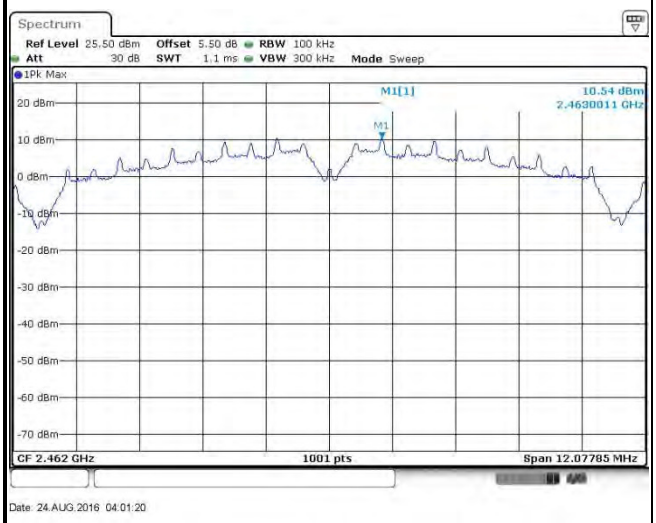
Spurious Emission 2GHz~25GHz



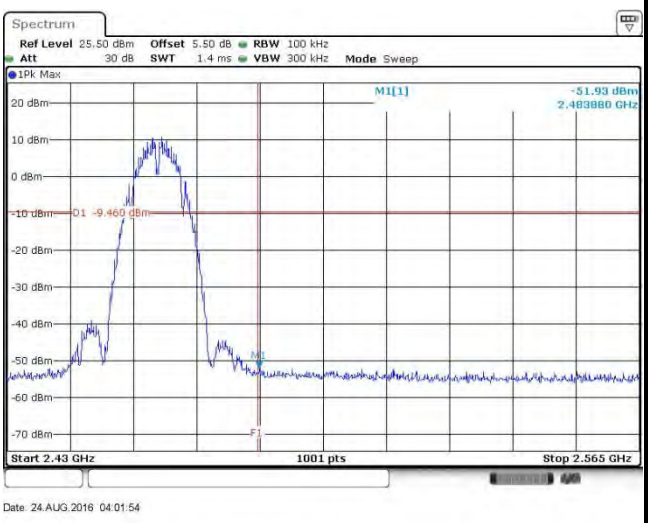
Number of TX :	2	**Ant. :**	2
Test Mode :	802.11b	**Temperature :**	24~25℃
Test Band :	2.4GHz High	**Relative Humidity :**	54~55%
Test Channel :	11	**Test Engineer :**	Ivan Zhang

WLAN 802.11b Channel 11

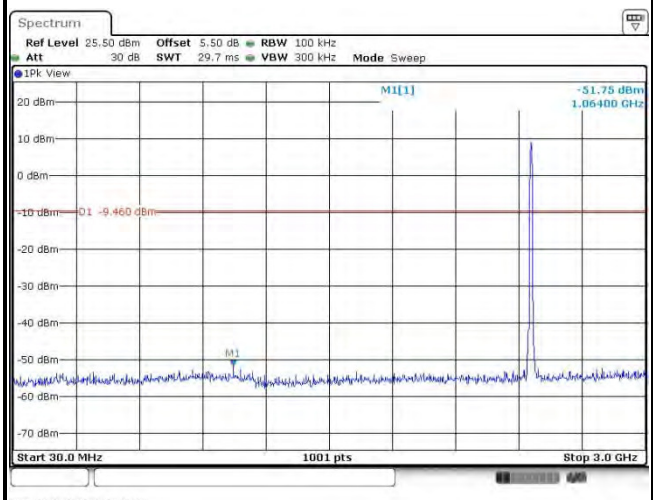
100kHz PSD reference Level



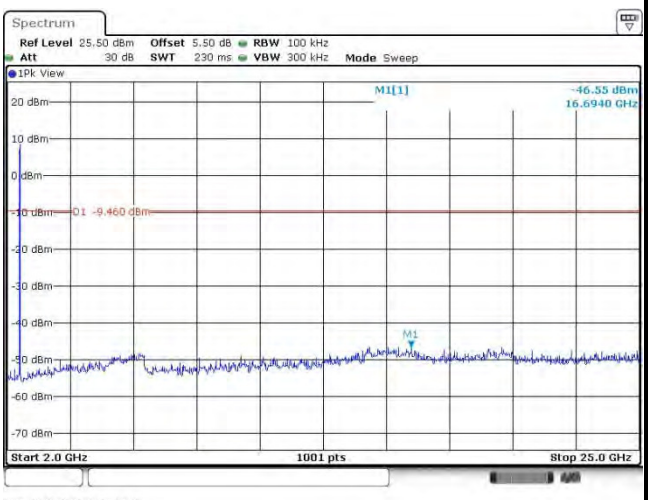
High Channel Plot



Spurious Emission 30MHz~3GHz



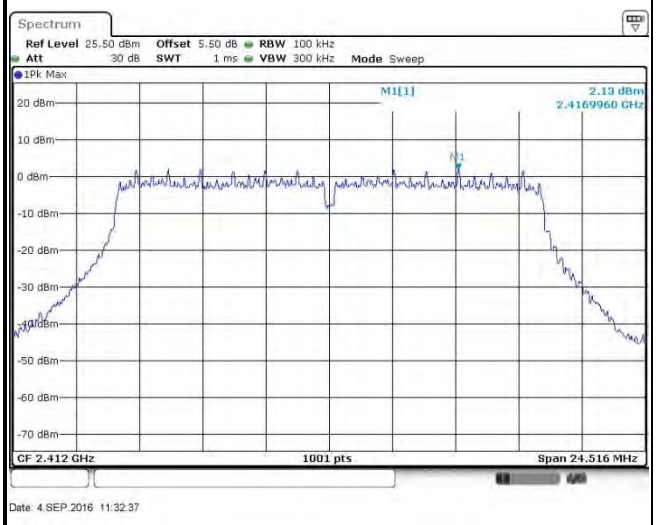
Spurious Emission 2GHz~25GHz



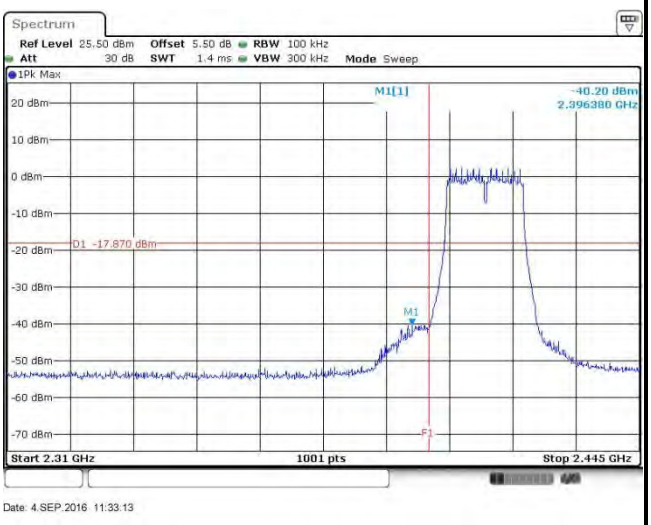
Number of TX :	2	**Ant. :**	2
Test Mode :	802.11g	**Temperature :**	24~25℃
Test Band :	2.4GHz Low	**Relative Humidity :**	54~55%
Test Channel :	01	**Test Engineer :**	Ivan Zhang

WLAN 802.11g Channel 01

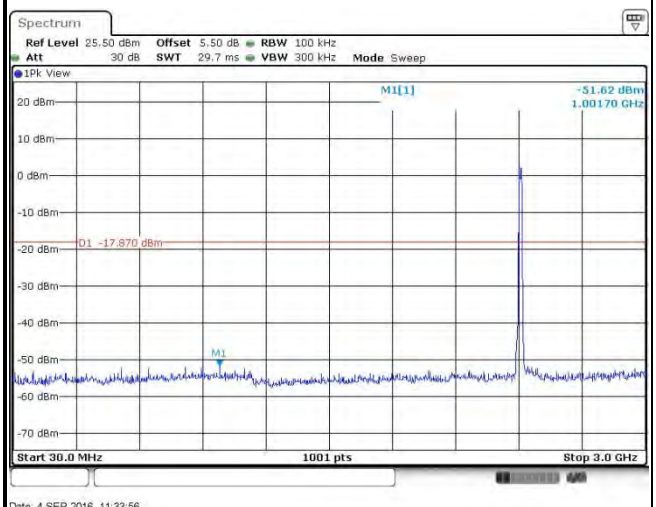
100kHz PSD reference Level



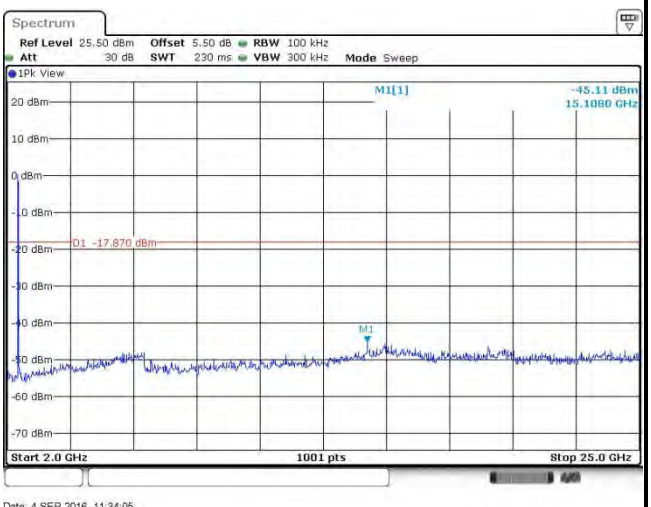
Low Channel Plot



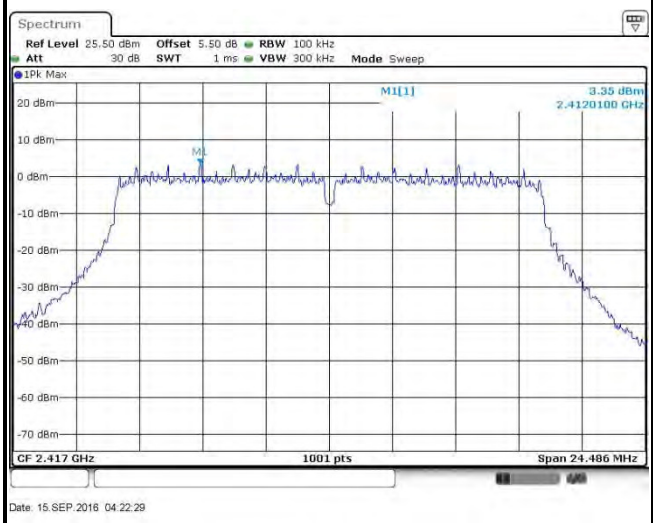
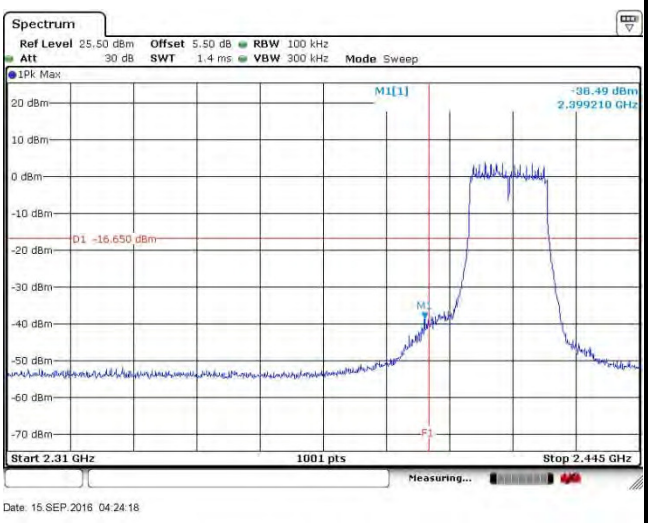
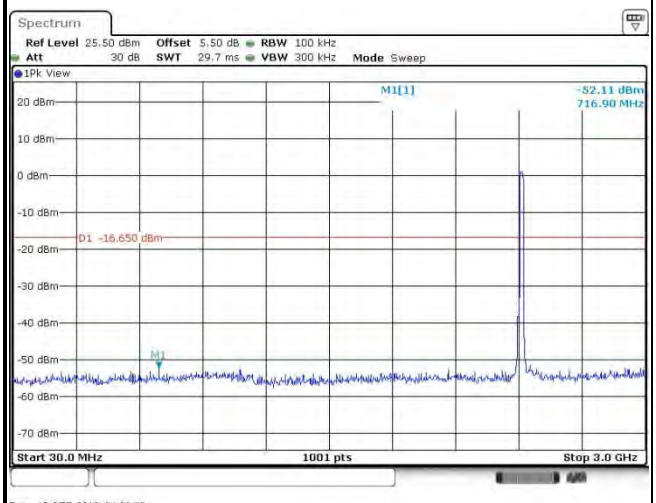
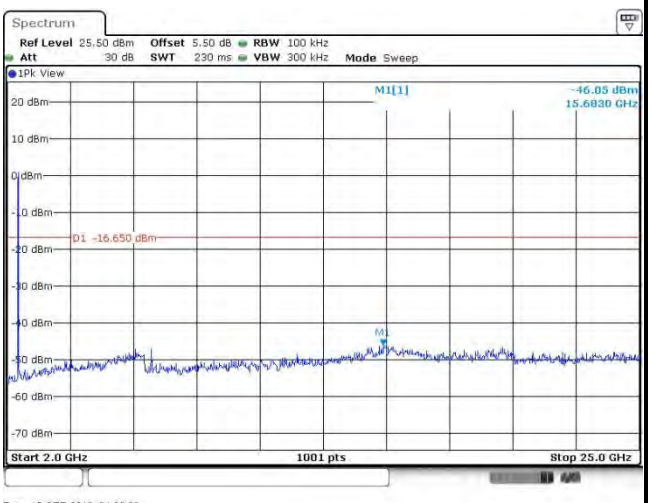
Spurious Emission 30MHz~3GHz



Spurious Emission 2GHz~25GHz



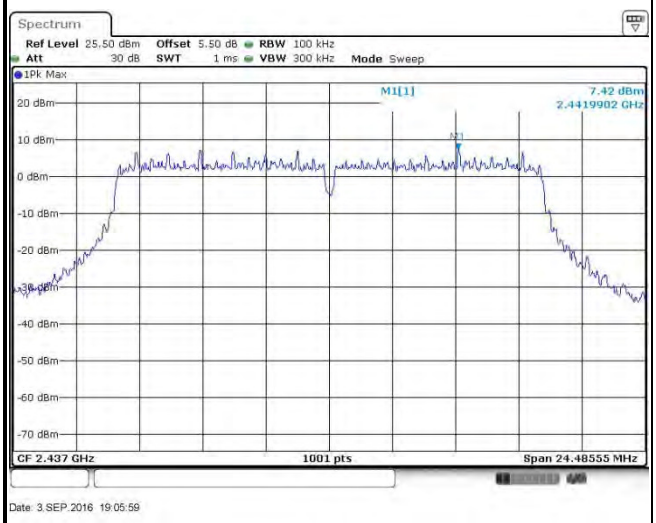
Number of TX :	2	Ant. :	2
Test Mode :	802.11g	Temperature :	24~25℃
Test Band :	2.4GHz Low	Relative Humidity :	54~55%
Test Channel :	02	Test Engineer :	Ivan Zhang

WLAN 802.11g Channel 02	
100kHz PSD reference Level	Low Channel Plot
	
Spurious Emission 30MHz~3GHz	Spurious Emission 2GHz~25GHz
	

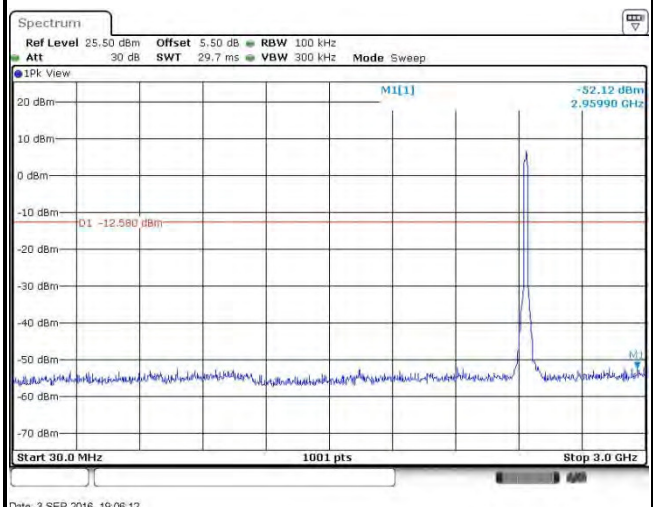
Number of TX :	2	**Ant. :**	2
Test Mode :	802.11g	**Temperature :**	24~25℃
Test Band :	2.4GHz Mid	**Relative Humidity :**	54~55%
Test Channel :	06	**Test Engineer :**	Ivan Zhang

WLAN 802.11g Channel 06

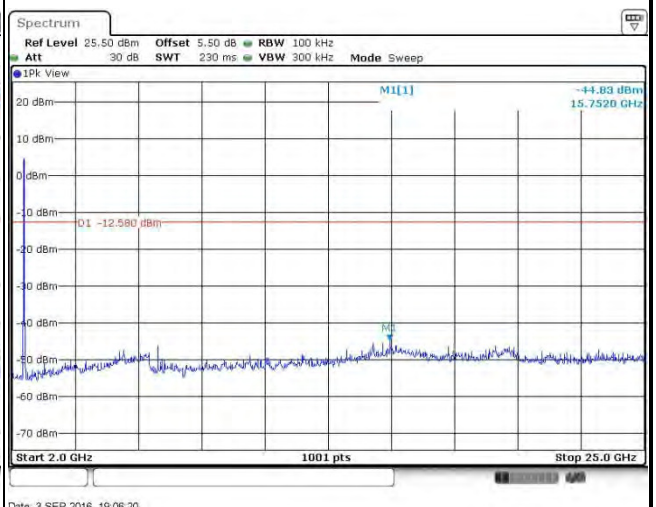
100kHz PSD reference Level



Spurious Emission 30MHz~3GHz



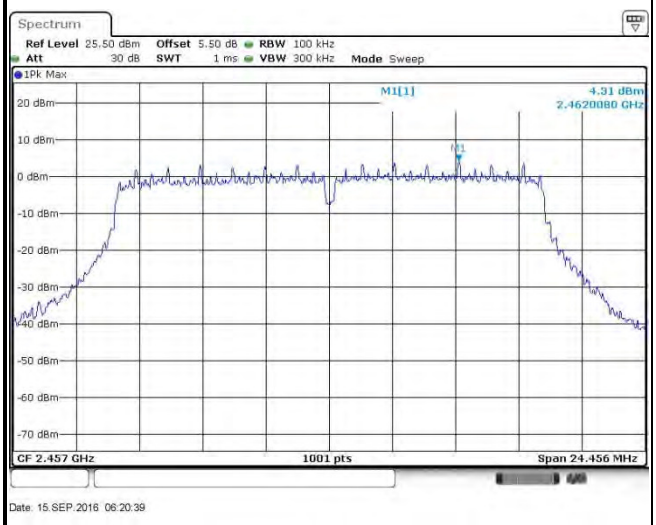
Spurious Emission 2GHz~25GHz



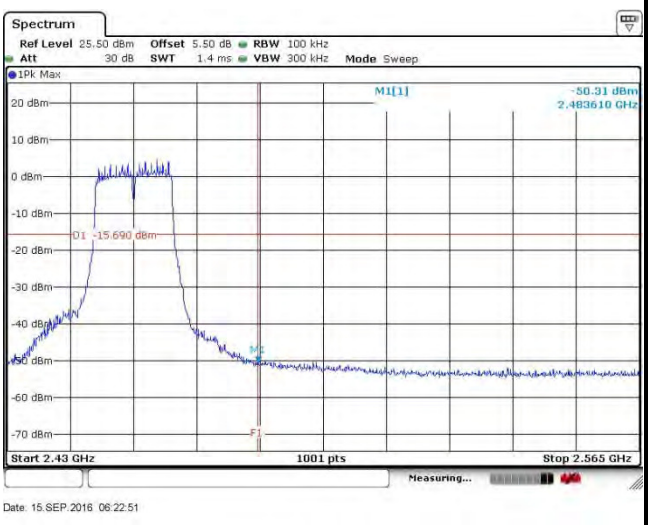
Number of TX :	2	Ant. :	2
Test Mode :	802.11g	Temperature :	24~25℃
Test Band :	2.4GHz High	Relative Humidity :	54~55%
Test Channel :	10	Test Engineer :	Ivan Zhang

WLAN 802.11g Channel 10

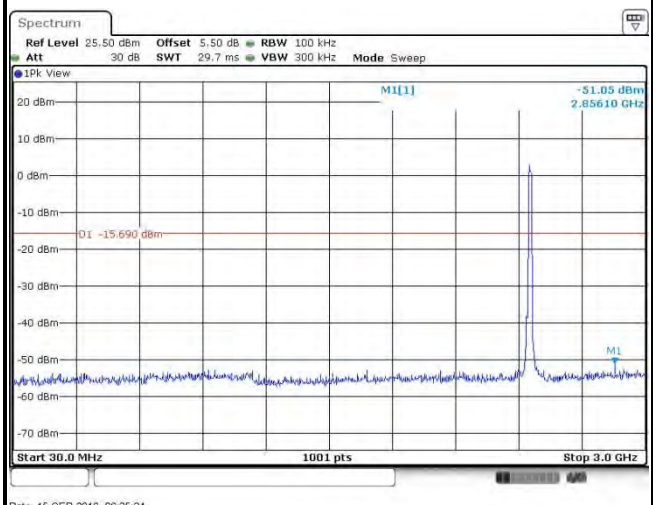
100kHz PSD reference Level



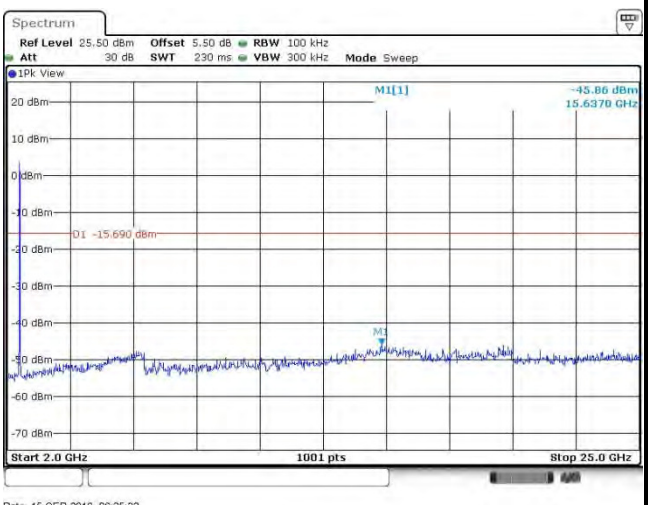
High Channel Plot



Spurious Emission 30MHz~3GHz



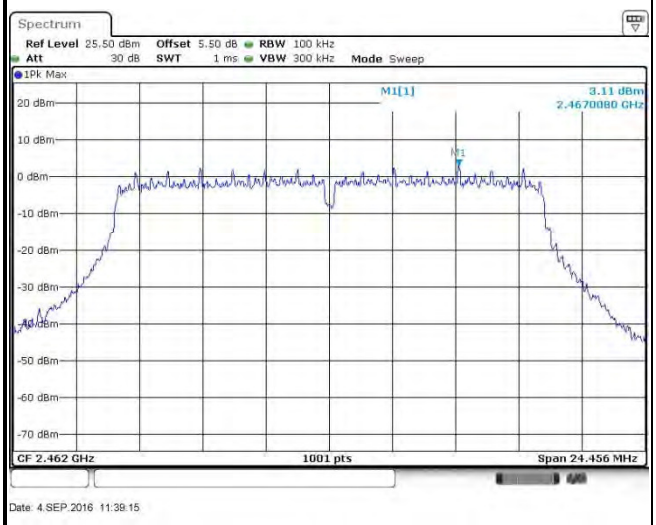
Spurious Emission 2GHz~25GHz



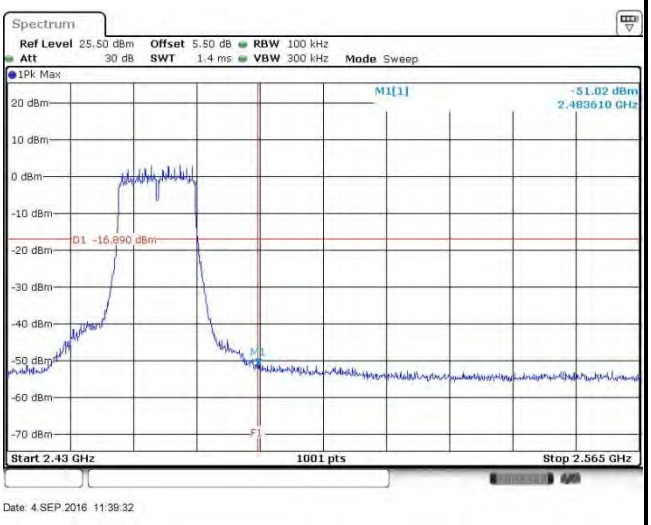
Number of TX :	2	Ant. :	2
Test Mode :	802.11g	Temperature :	24~25℃
Test Band :	2.4GHz High	Relative Humidity :	54~55%
Test Channel :	11	Test Engineer :	Ivan Zhang

WLAN 802.11g Channel 11

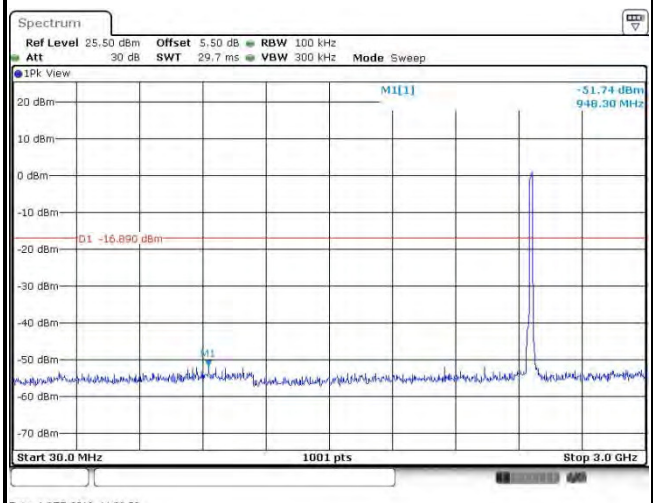
100kHz PSD reference Level



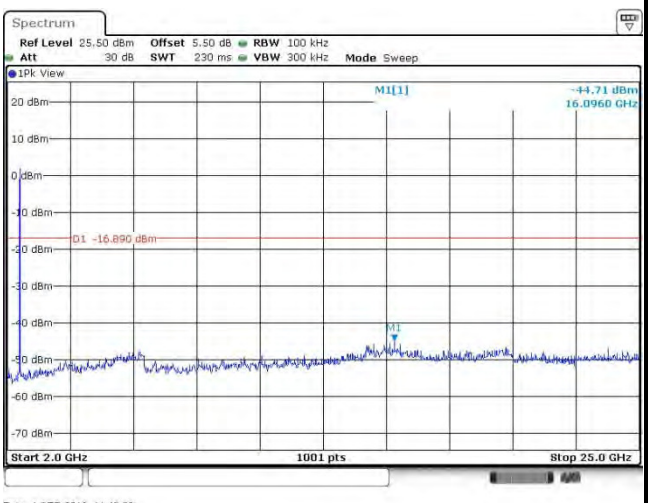
High Channel Plot



Spurious Emission 30MHz~3GHz



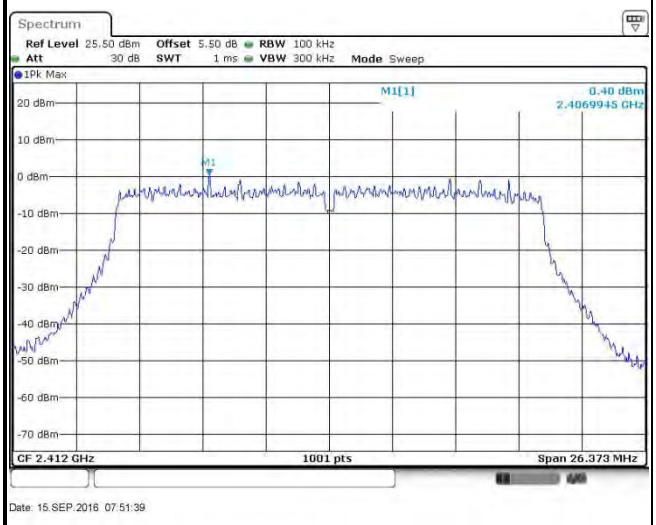
Spurious Emission 2GHz~25GHz



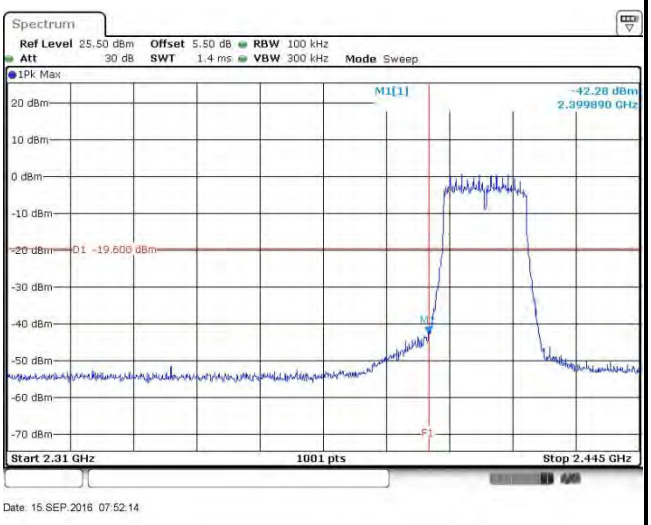
Number of TX :	2	Ant. :	2
Test Mode :	802.11n HT20	Temperature :	24~25℃
Test Band :	2.4GHz Low	Relative Humidity :	54~55%
Test Channel :	01	Test Engineer :	Ivan Zhang

WLAN 802.11n HT20 Channel 01

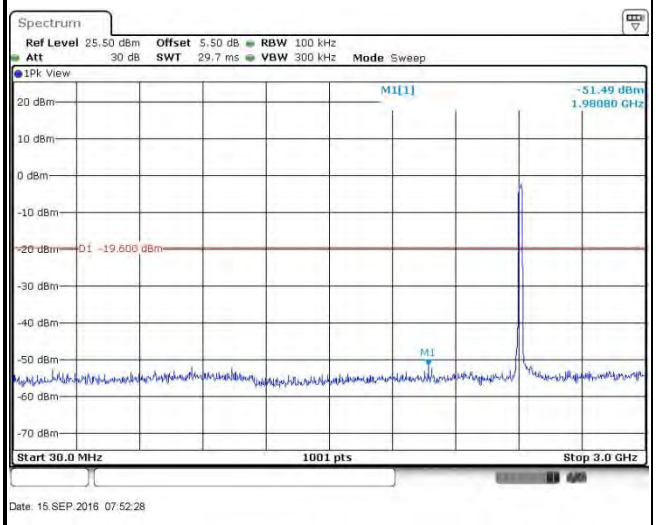
100kHz PSD reference Level



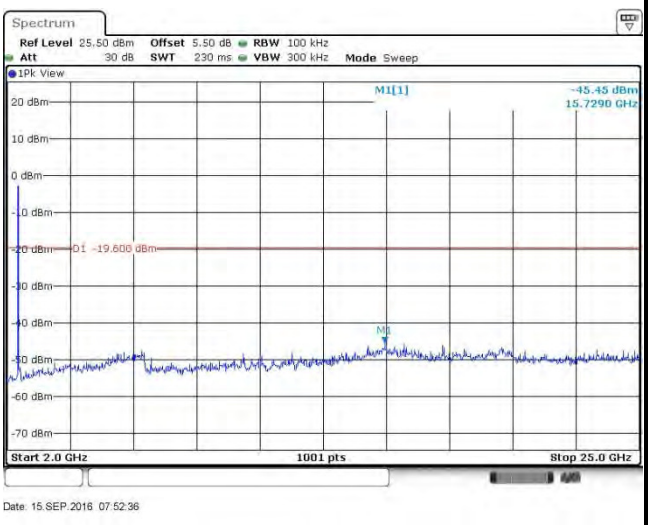
Low Channel Plot



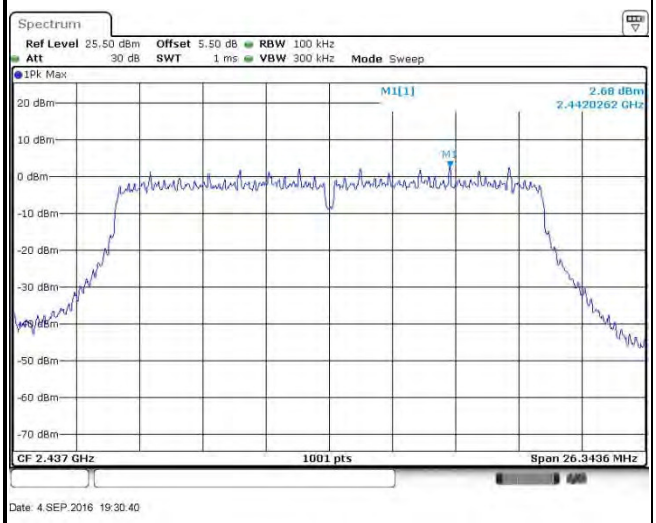
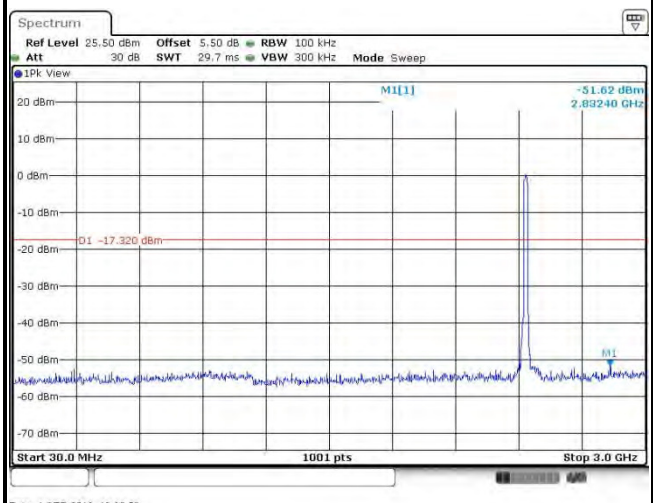
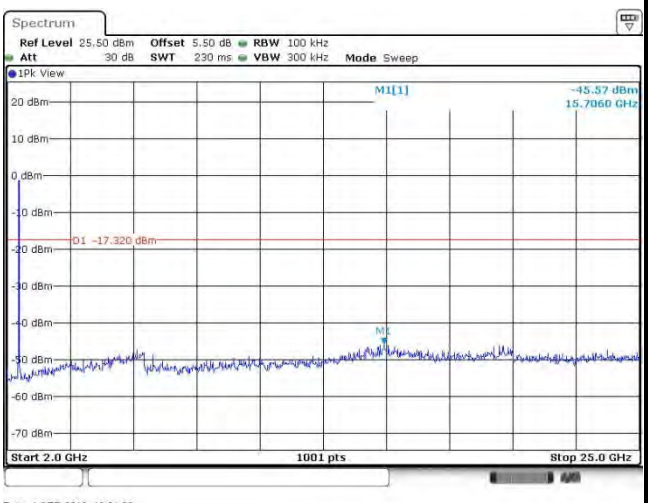
Spurious Emission 30MHz~3GHz



Spurious Emission 2GHz~25GHz



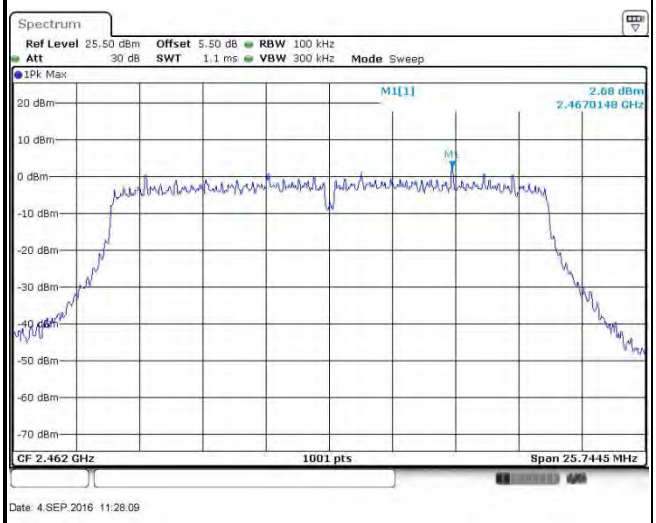
Number of TX :	2	Ant. :	2
Test Mode :	802.11n HT20	Temperature :	24~25℃
Test Band :	2.4GHz Mid	Relative Humidity :	54~55%
Test Channel :	06	Test Engineer :	Ivan Zhang

WLAN 802.11n HT20 Channel 06	
100kHz PSD reference Level	
	
Spurious Emission 30MHz~3GHz	Spurious Emission 2GHz~25GHz
	

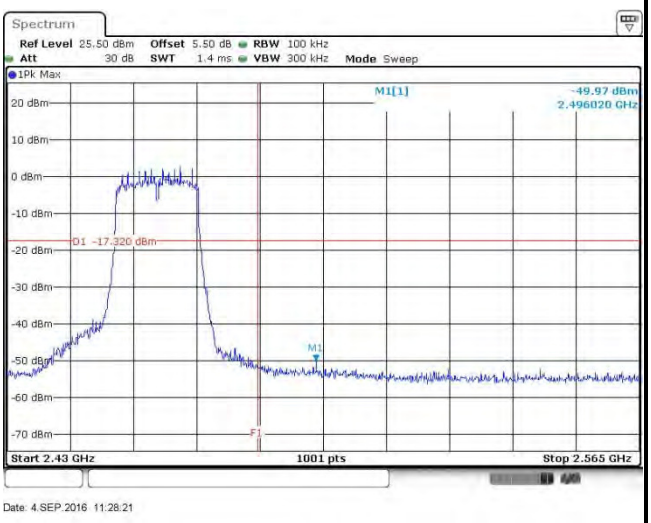
Number of TX :	2	**Ant. :**	2
Test Mode :	802.11n HT20	**Temperature :**	24~25℃
Test Band :	2.4GHz High	**Relative Humidity :**	54~55%
Test Channel :	11	**Test Engineer :**	Ivan Zhang

WLAN 802.11n HT20 Channel 11

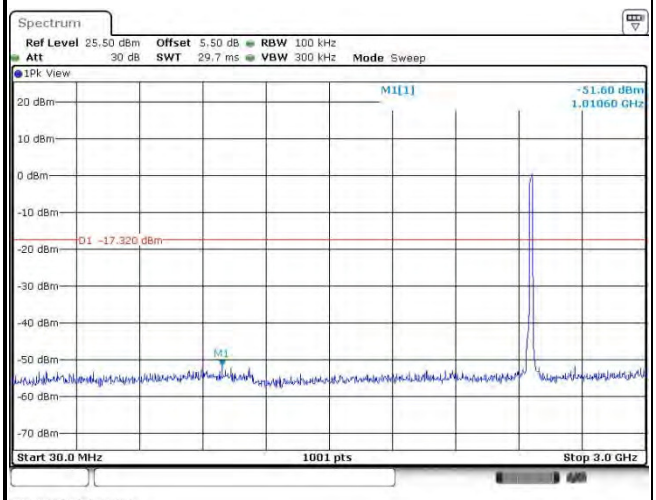
100kHz PSD reference Level



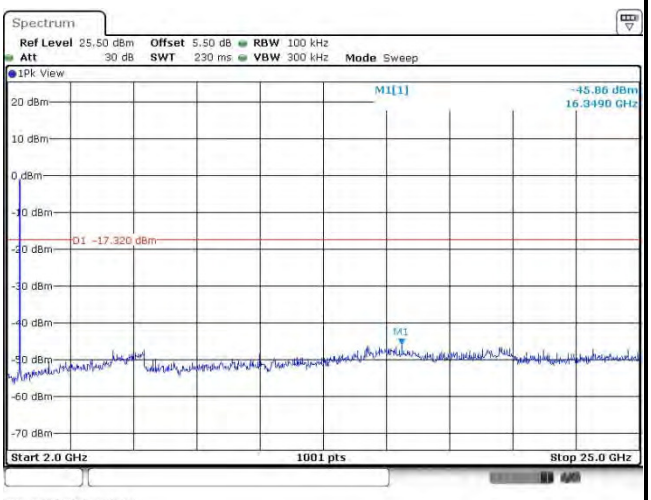
High Channel Plot



Spurious Emission 30MHz~3GHz



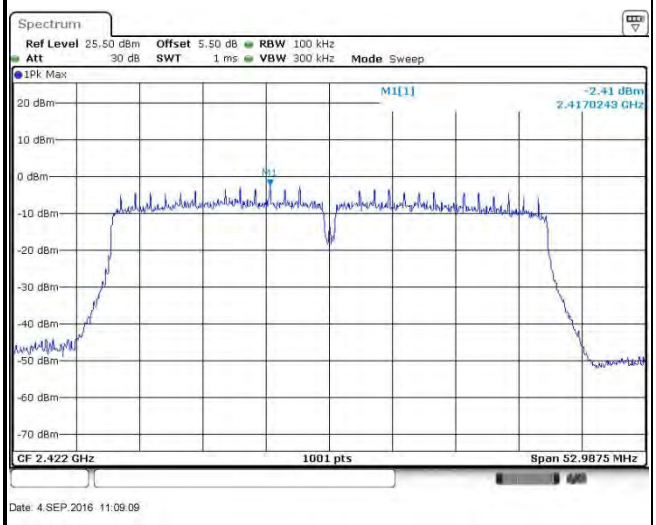
Spurious Emission 2GHz~25GHz



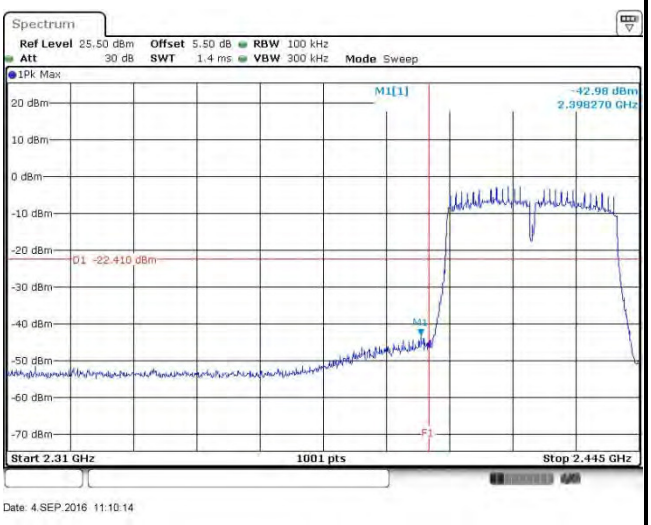
Number of TX :	2	Ant. :	2
Test Mode :	802.11n HT40	Temperature :	24~25℃
Test Band :	2.4GHz Low	Relative Humidity :	54~55%
Test Channel :	03	Test Engineer :	Ivan Zhang

WLAN 802.11n HT40 Channel 03

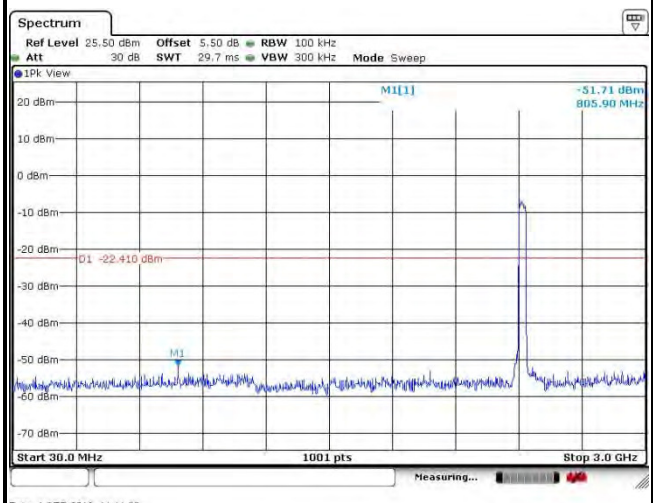
100kHz PSD reference Level



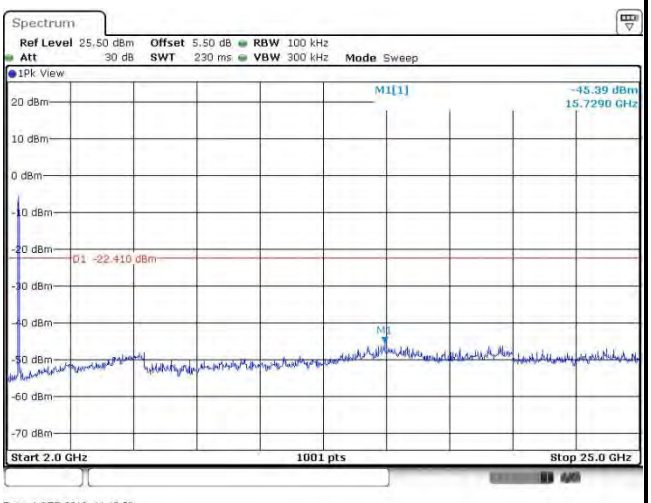
Low Channel Plot



Spurious Emission 30MHz~3GHz



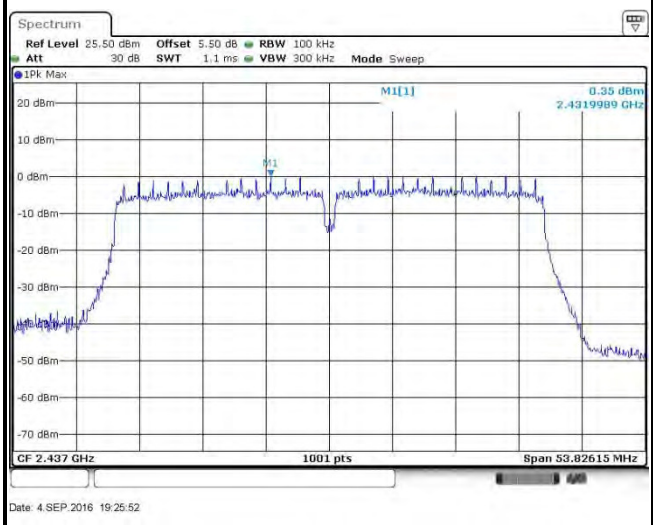
Spurious Emission 2GHz~25GHz



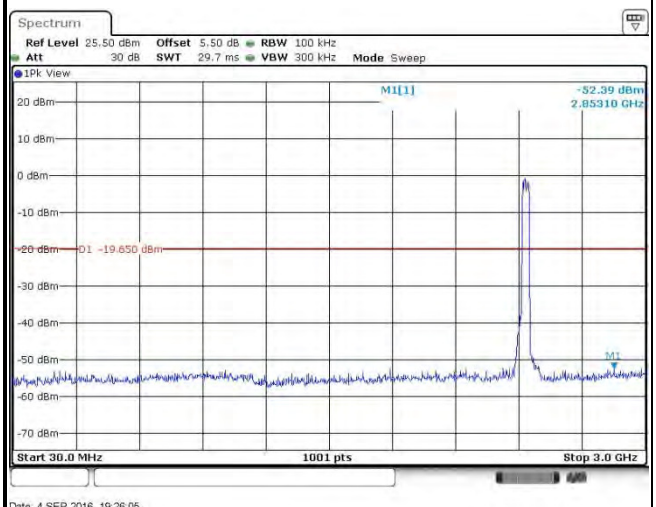
Number of TX :	2	**Ant. :**	2
Test Mode :	802.11n HT40	**Temperature :**	24~25℃
Test Band :	2.4GHz Mid	**Relative Humidity :**	54~55%
Test Channel :	06	**Test Engineer :**	Ivan Zhang

WLAN 802.11n HT40 Channel 06

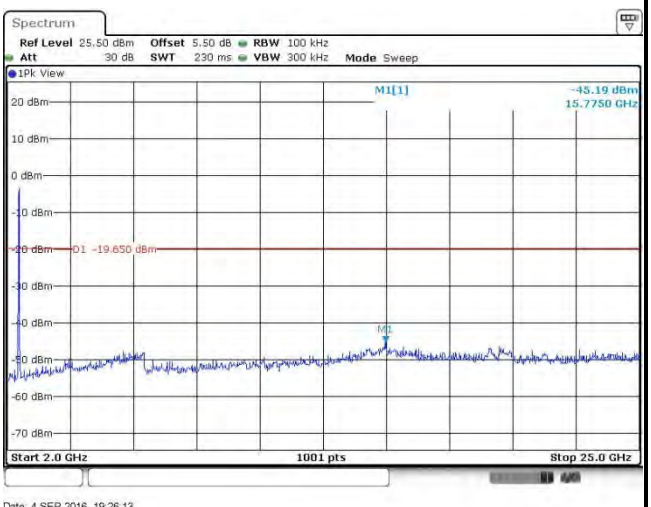
100kHz PSD reference Level



Spurious Emission 30MHz~3GHz



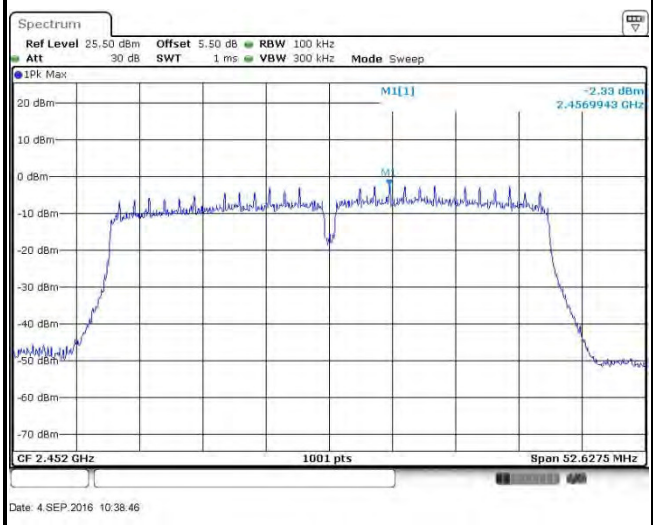
Spurious Emission 2GHz~25GHz



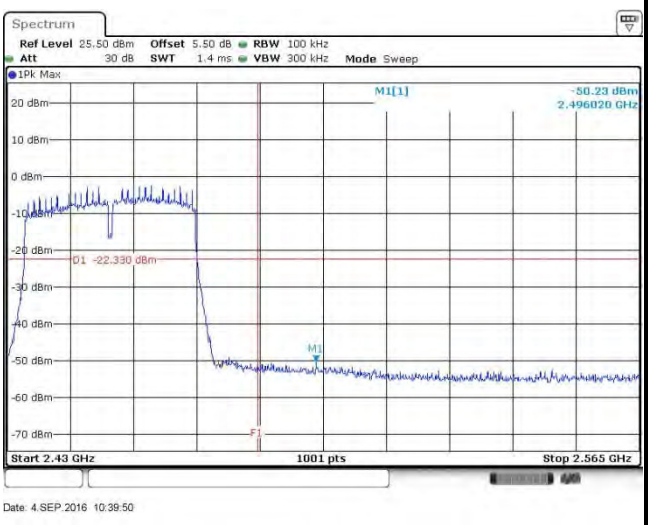
Number of TX :	2	**Ant. :**	2
Test Mode :	802.11n HT40	**Temperature :**	24~25℃
Test Band :	2.4GHz High	**Relative Humidity :**	54~55%
Test Channel :	09	**Test Engineer :**	Ivan Zhang

WLAN 802.11n HT40 Channel 09

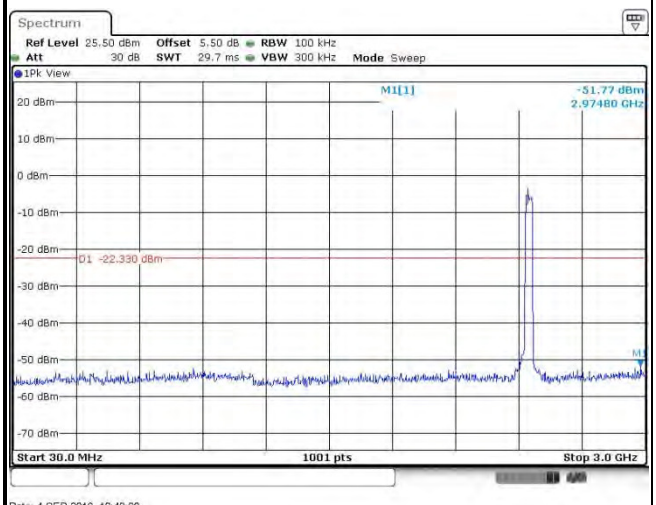
100kHz PSD reference Level



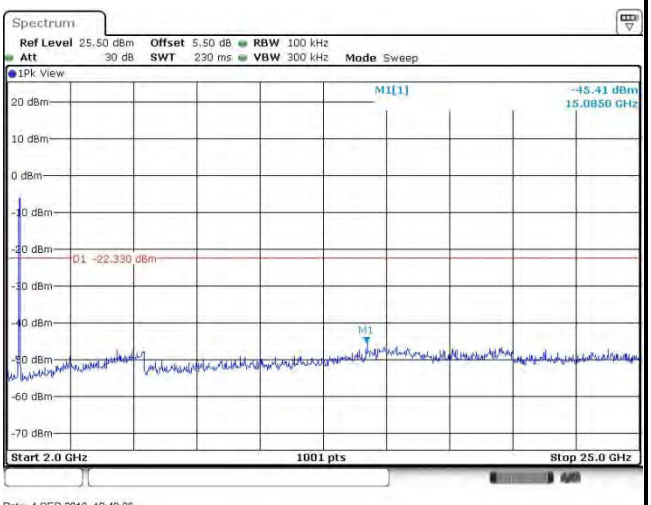
High Channel Plot



Spurious Emission 30MHz~3GHz



Spurious Emission 2GHz~25GHz



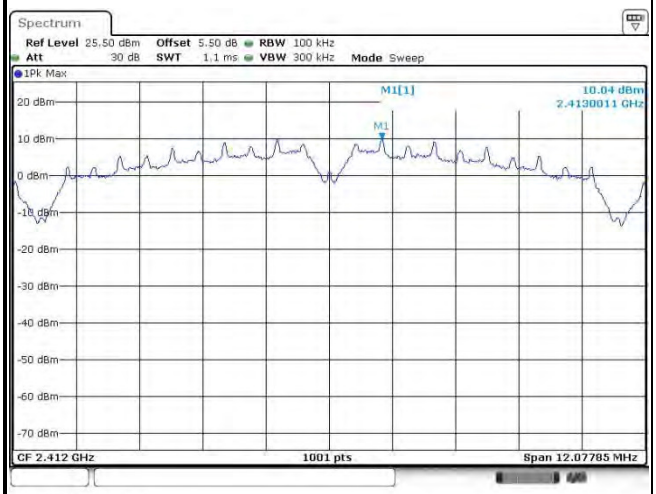
For APIN0305

Number of TX = 2, Ant. 1 (Measured)

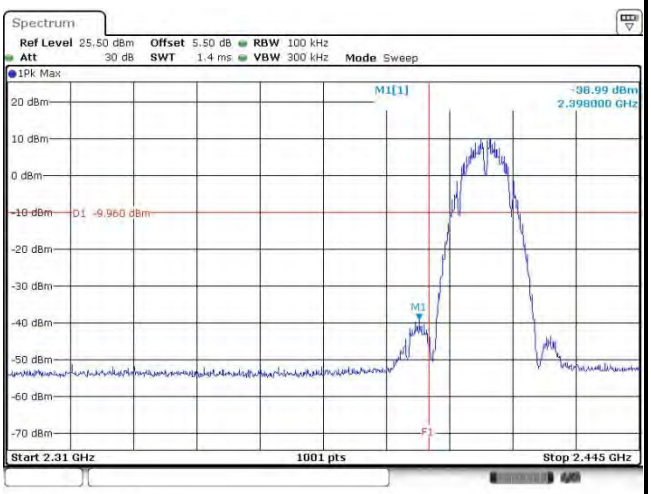
Number of TX	2	**Ant. :**	1
Test Mode :	802.11b	**Temperature :**	24~25℃
Test Band :	2.4GHz Low	**Relative Humidity :**	54~55%
Test Channel :	01	**Test Engineer :**	Ivan Zhang

WLAN 802.11b Channel 01

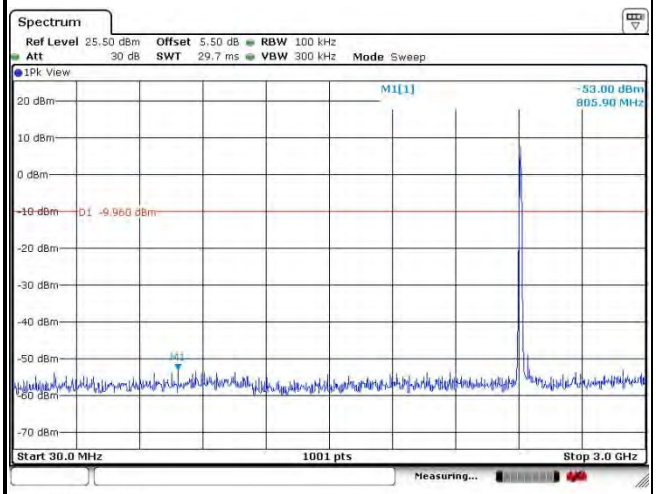
100kHz PSD reference Level



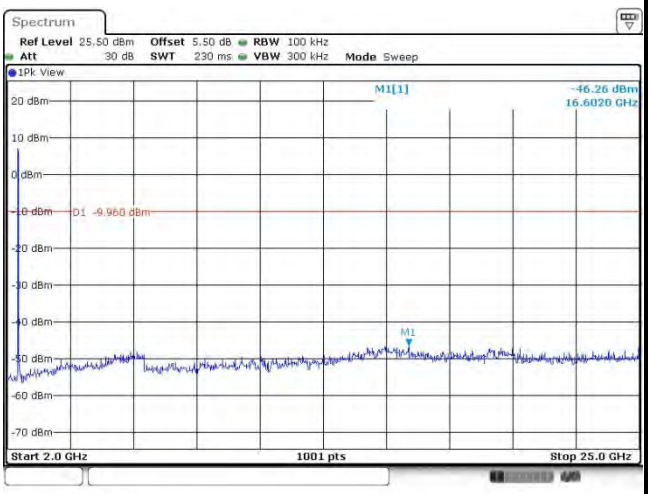
Low Channel Plot



Spurious Emission 30MHz~3GHz



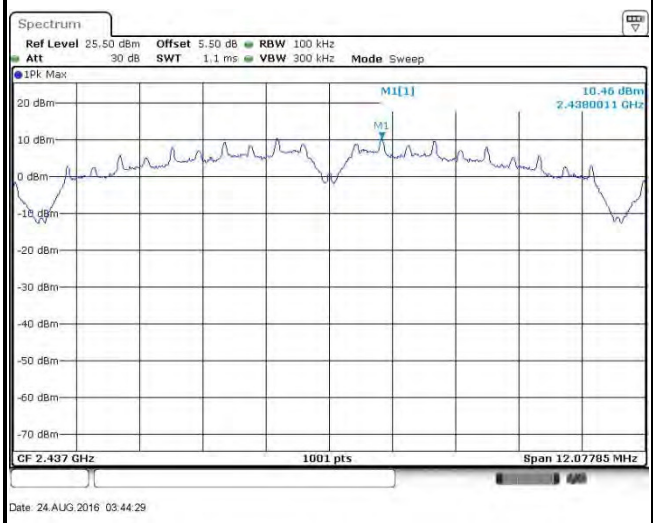
Spurious Emission 2GHz~25GHz



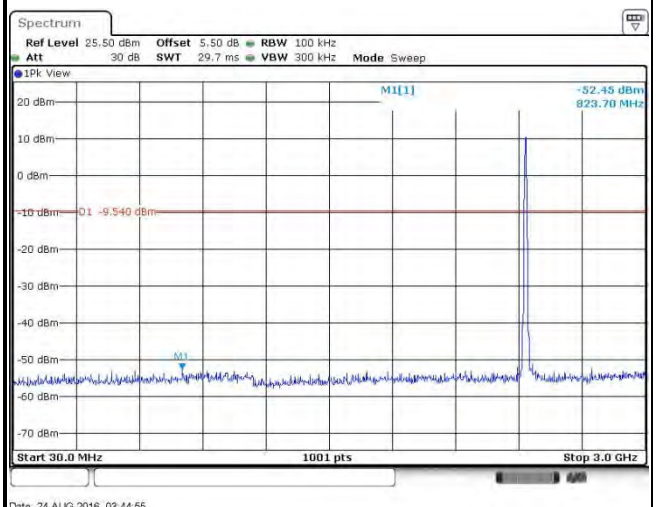
Number of TX :	2	**Ant. :**	1
Test Mode :	802.11b	**Temperature :**	24~25℃
Test Band :	2.4GHz Mid	**Relative Humidity :**	54~55%
Test Channel :	06	**Test Engineer :**	Ivan Zhang

WLAN 802.11b Channel 06

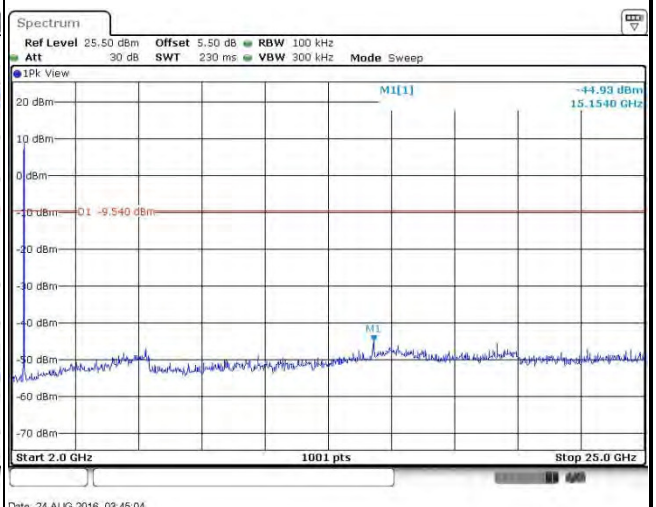
100kHz PSD reference Level



Spurious Emission 30MHz~3GHz



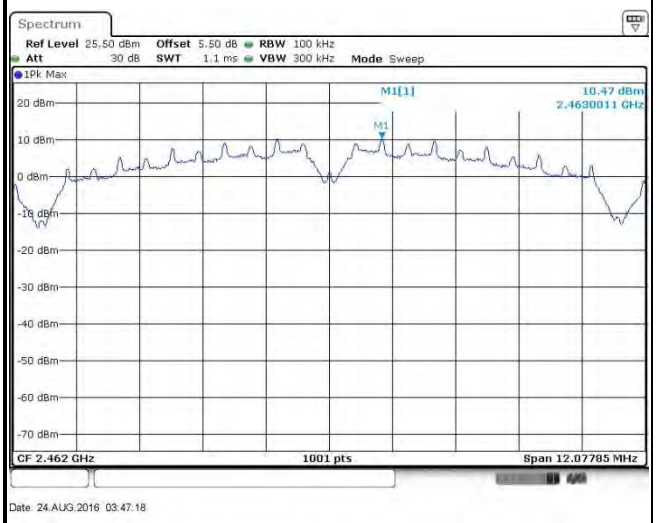
Spurious Emission 2GHz~25GHz



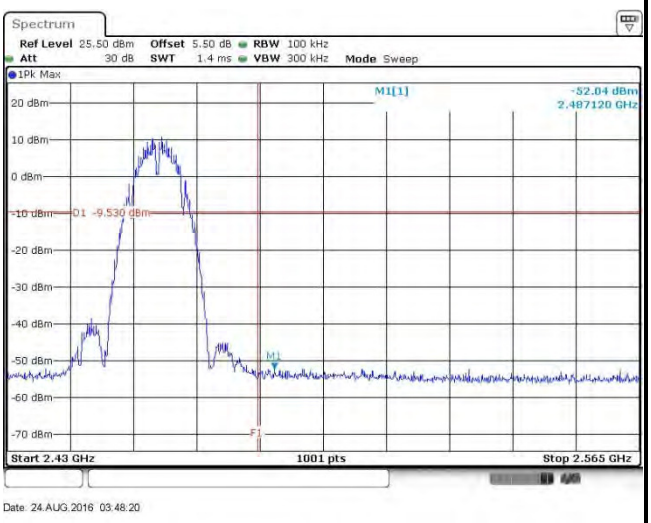
Number of TX :	2	Ant. :	1
Test Mode :	802.11b	Temperature :	24~25℃
Test Band :	2.4GHz High	Relative Humidity :	54~55%
Test Channel :	11	Test Engineer :	Ivan Zhang

WLAN 802.11b Channel 11

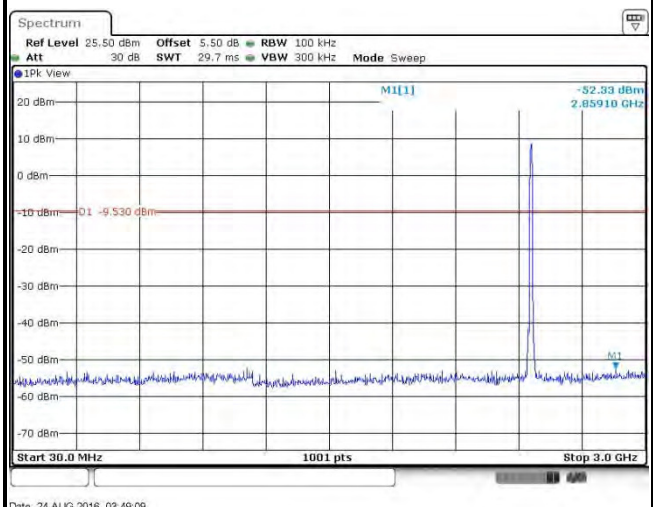
100kHz PSD reference Level



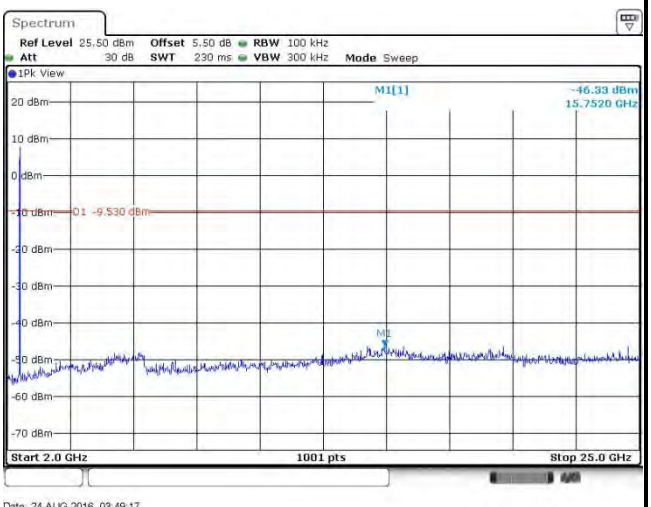
High Channel Plot



Spurious Emission 30MHz~3GHz



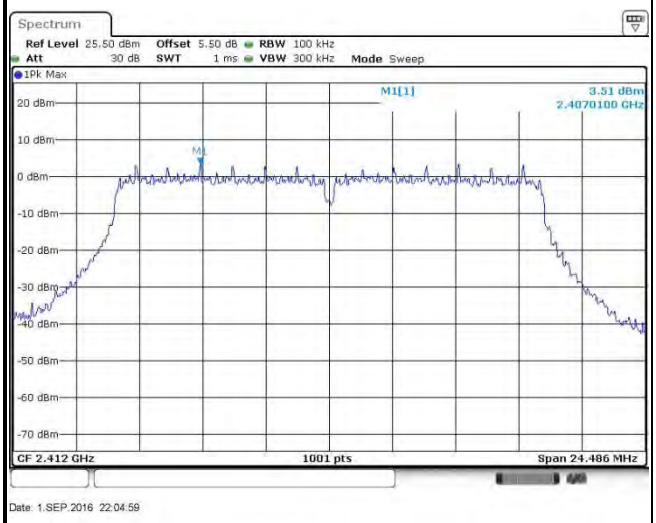
Spurious Emission 2GHz~25GHz



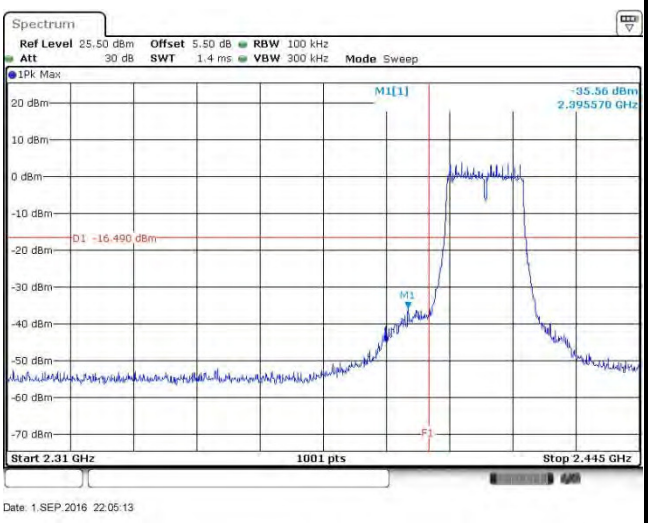
Number of TX :	2	Ant. :	1
Test Mode :	802.11g	Temperature :	24~25℃
Test Band :	2.4GHz Low	Relative Humidity :	54~55%
Test Channel :	01	Test Engineer :	Ivan Zhang

WLAN 802.11g Channel 01

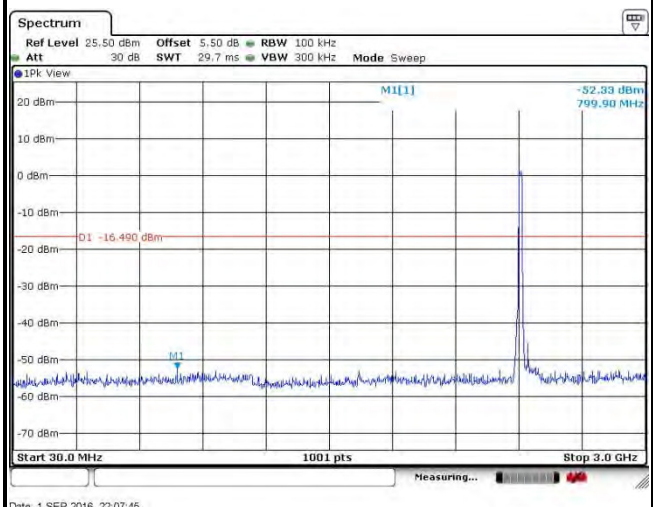
100kHz PSD reference Level



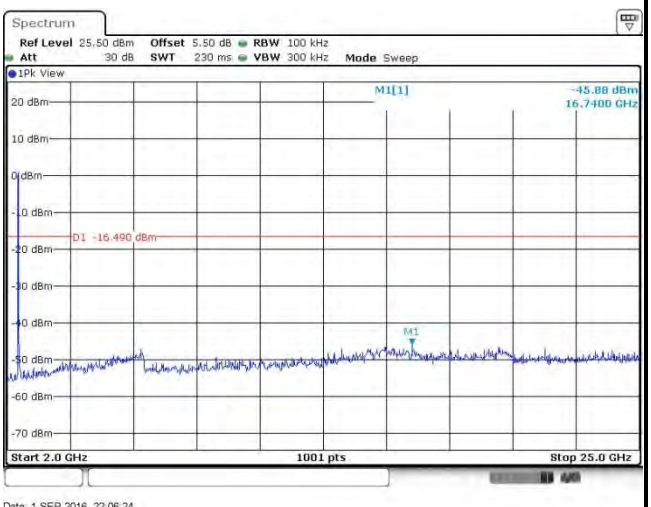
Low Channel Plot



Spurious Emission 30MHz~3GHz



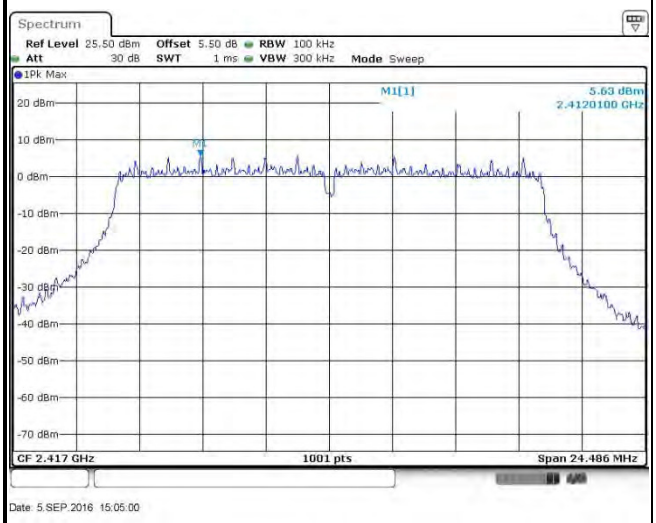
Spurious Emission 2GHz~25GHz



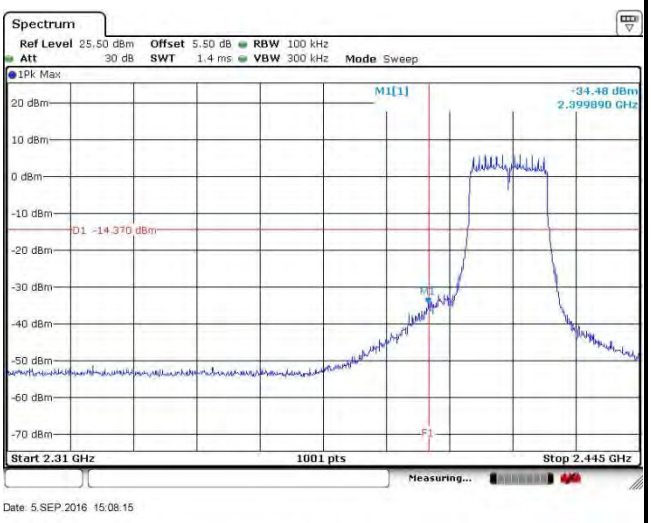
Number of TX :	2	Ant. :	1
Test Mode :	802.11g	Temperature :	24~25℃
Test Band :	2.4GHz Low	Relative Humidity :	54~55%
Test Channel :	02	Test Engineer :	Ivan Zhang

WLAN 802.11g Channel 02

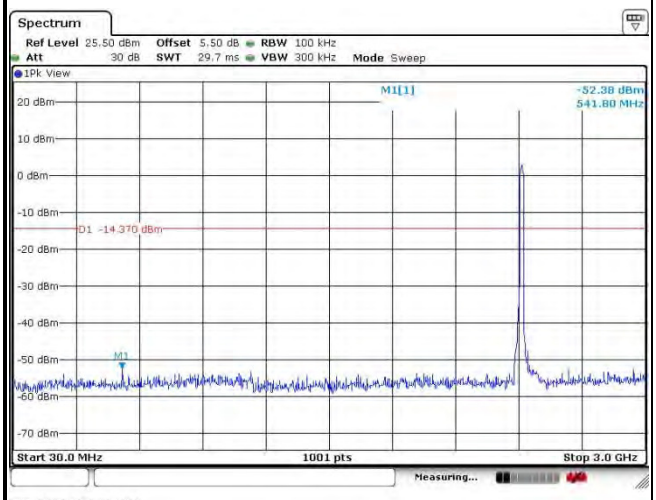
100kHz PSD reference Level



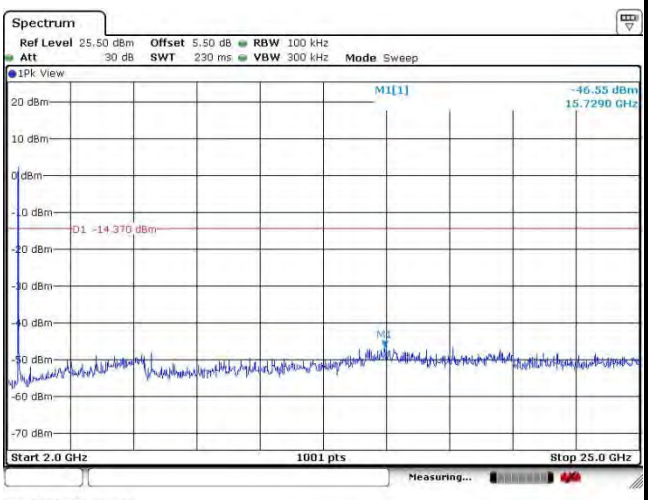
Low Channel Plot



Spurious Emission 30MHz~3GHz



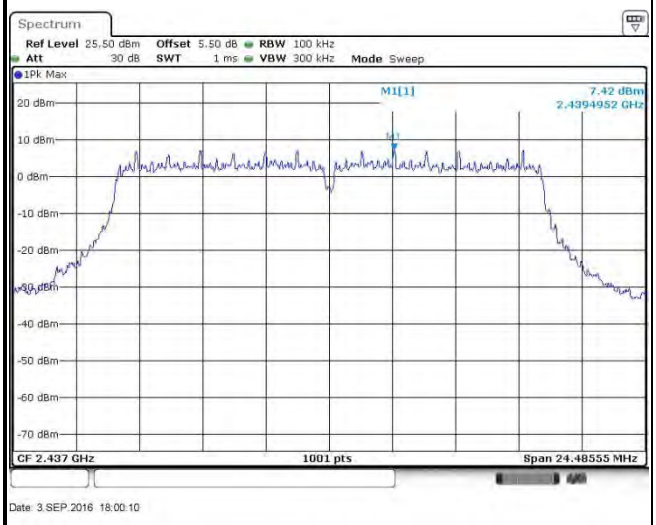
Spurious Emission 2GHz~25GHz



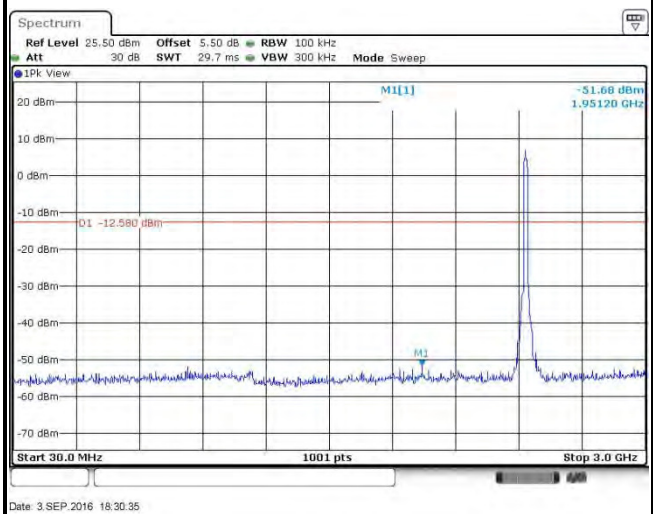
Number of TX :	2	Ant. :	1
Test Mode :	802.11g	Temperature :	24~25℃
Test Band :	2.4GHz Mid	Relative Humidity :	54~55%
Test Channel :	06	Test Engineer :	Ivan Zhang

WLAN 802.11g Channel 06

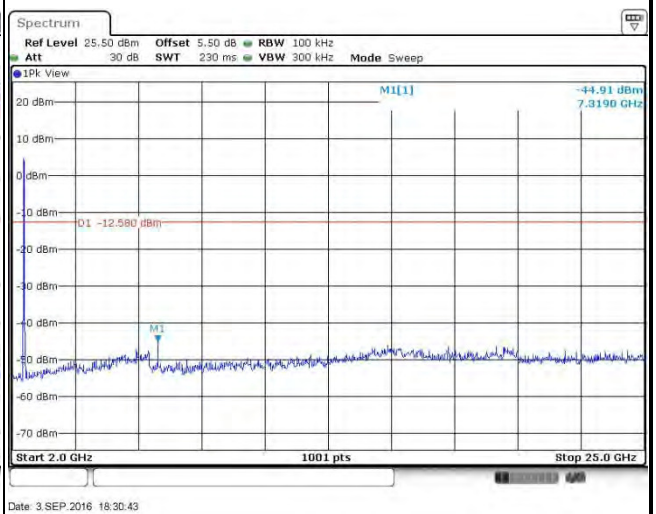
100kHz PSD reference Level



Spurious Emission 30MHz~3GHz



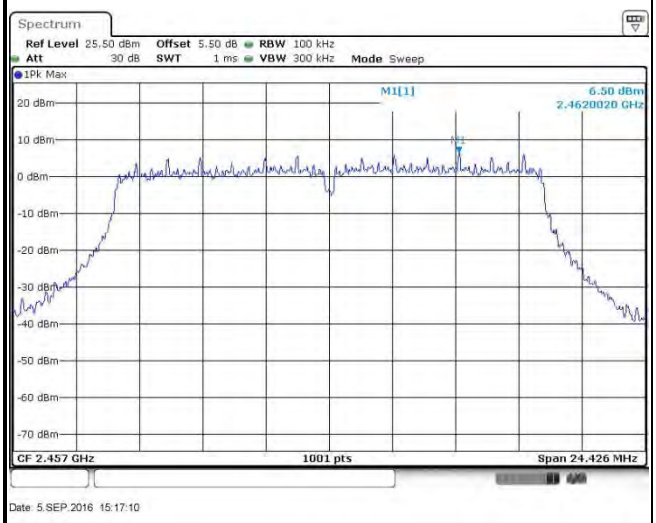
Spurious Emission 2GHz~25GHz



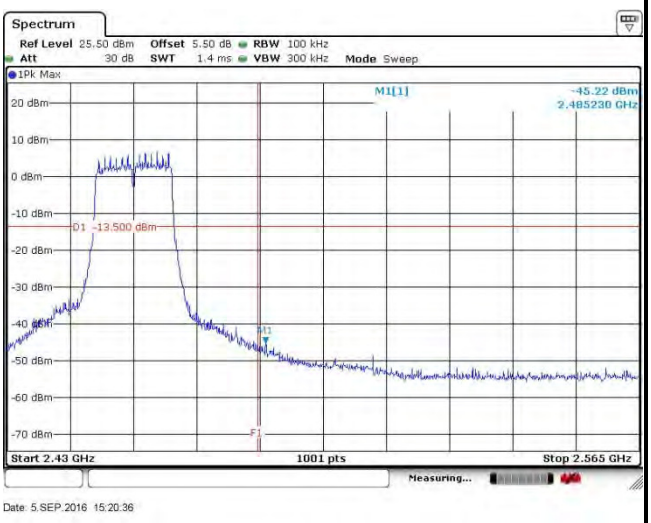
Number of TX :	2	**Ant. :**	1
Test Mode :	802.11g	**Temperature :**	24~25℃
Test Band :	2.4GHz High	**Relative Humidity :**	54~55%
Test Channel :	10	**Test Engineer :**	Ivan Zhang

WLAN 802.11g Channel 10

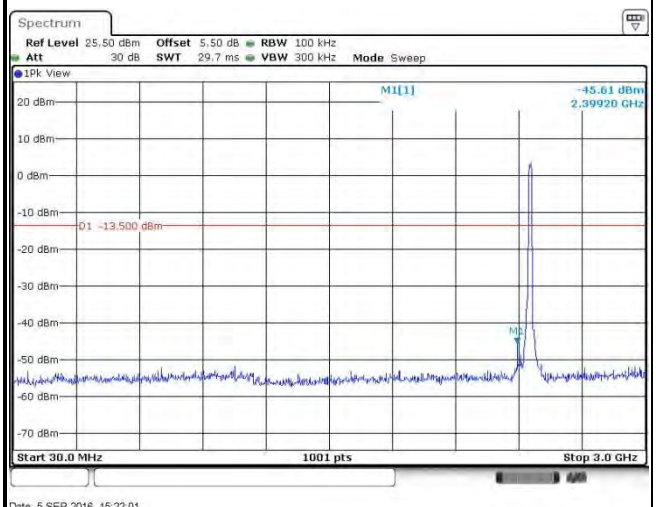
100kHz PSD reference Level



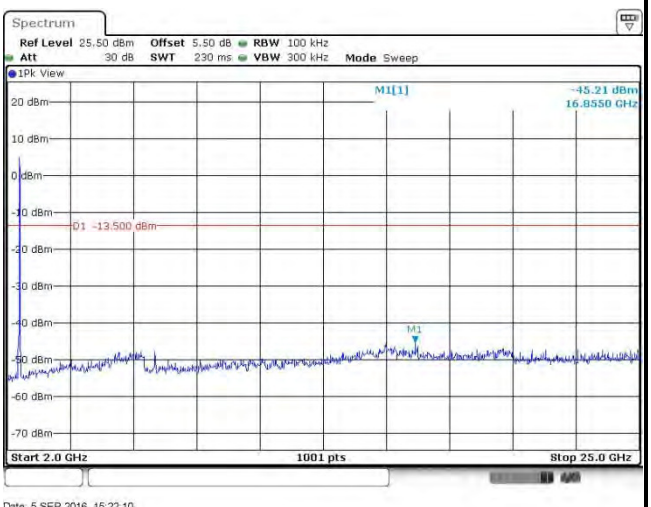
High Channel Plot



Spurious Emission 30MHz~3GHz



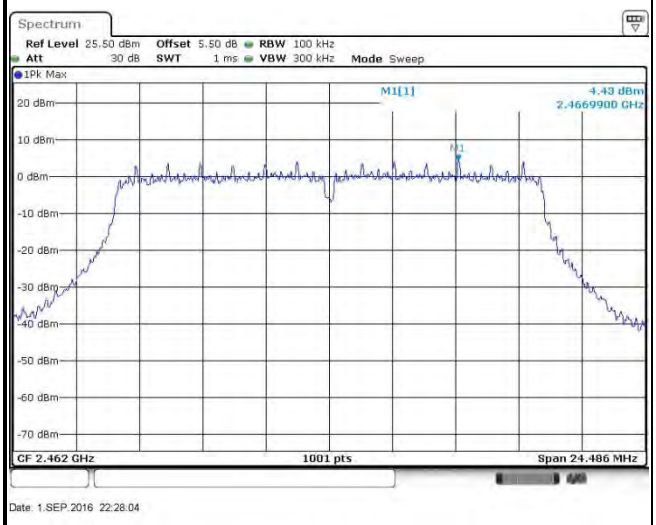
Spurious Emission 2GHz~25GHz



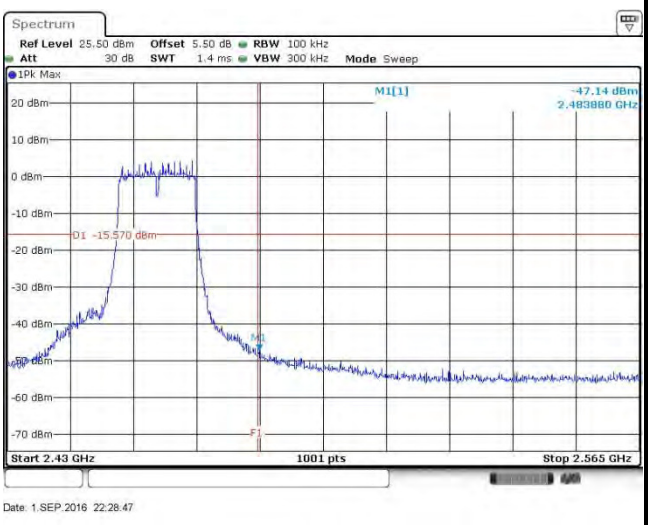
Number of TX :	2	**Ant. :**	1
Test Mode :	802.11g	**Temperature :**	24~25℃
Test Band :	2.4GHz High	**Relative Humidity :**	54~55%
Test Channel :	11	**Test Engineer :**	Ivan Zhang

WLAN 802.11g Channel 11

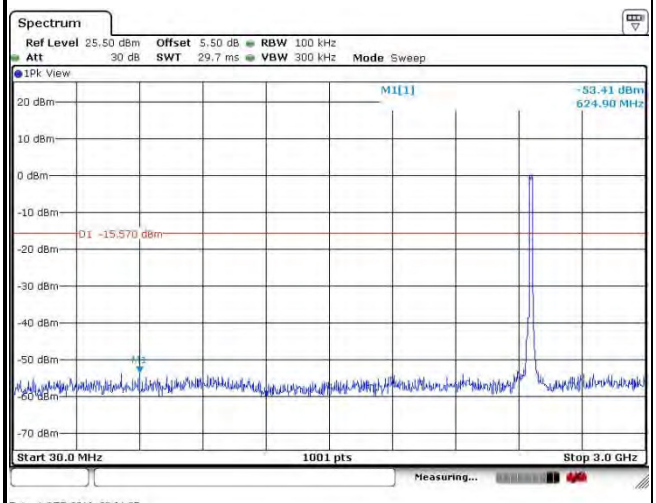
100kHz PSD reference Level



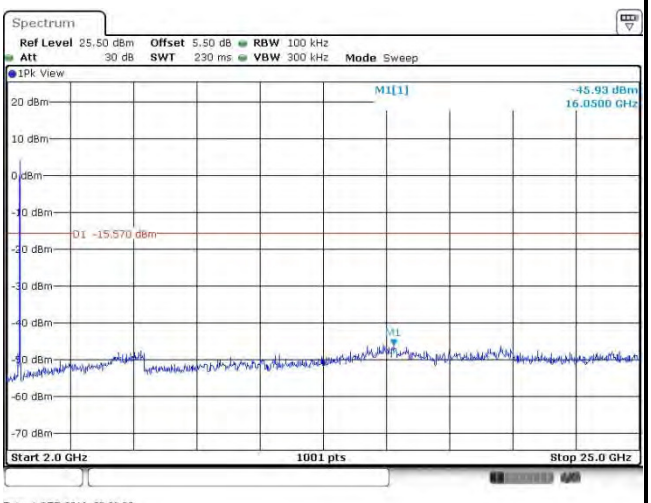
High Channel Plot



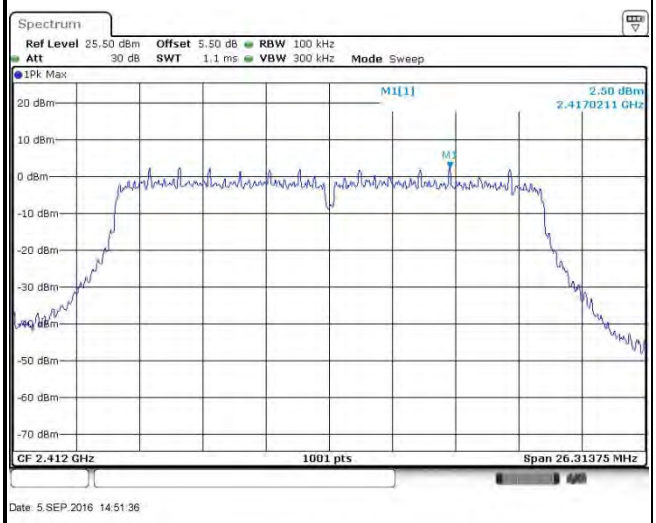
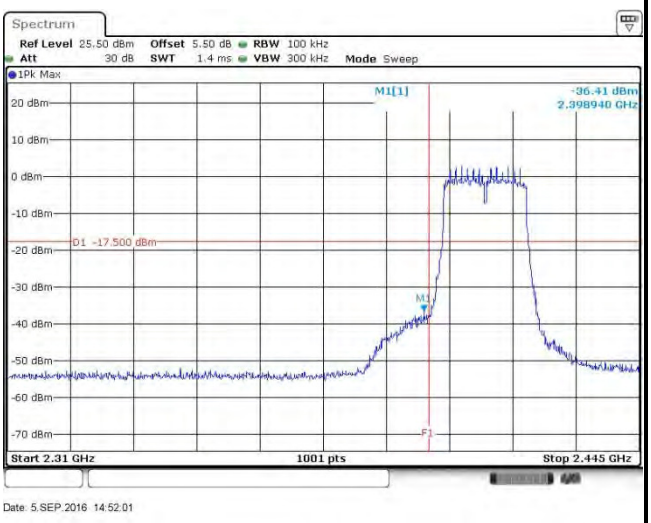
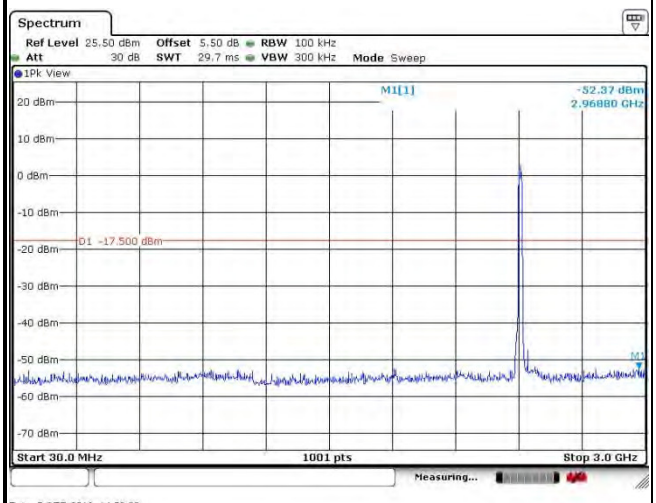
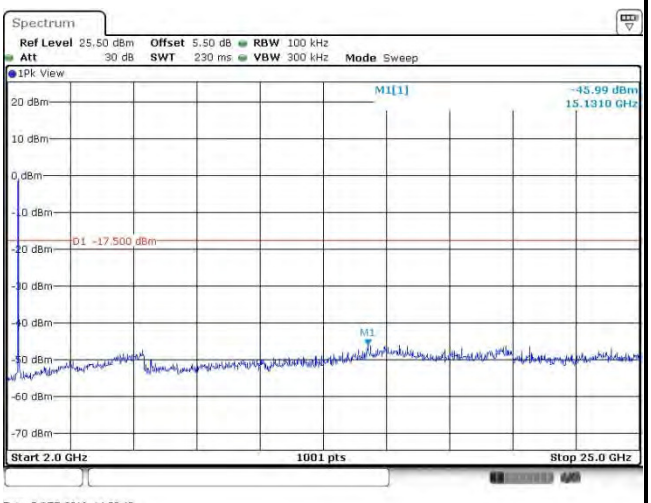
Spurious Emission 30MHz~3GHz



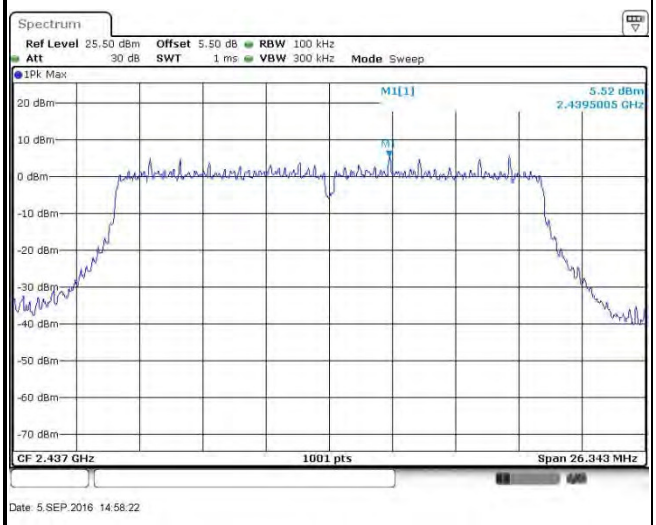
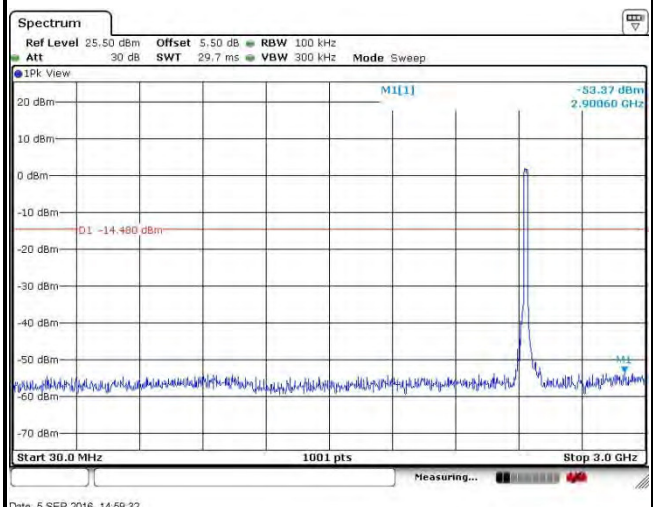
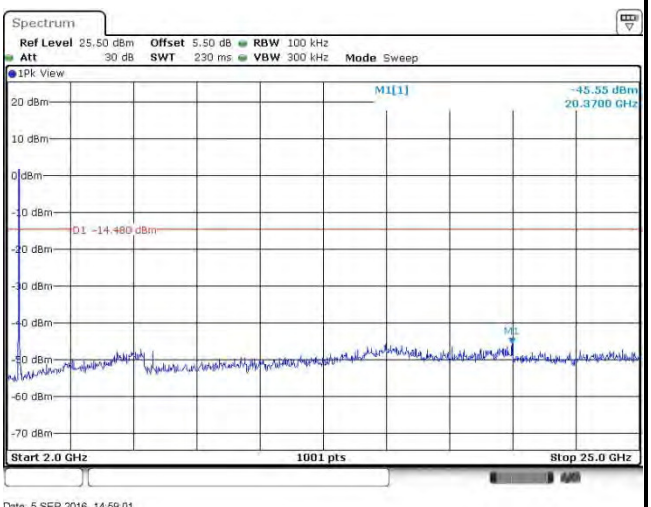
Spurious Emission 2GHz~25GHz



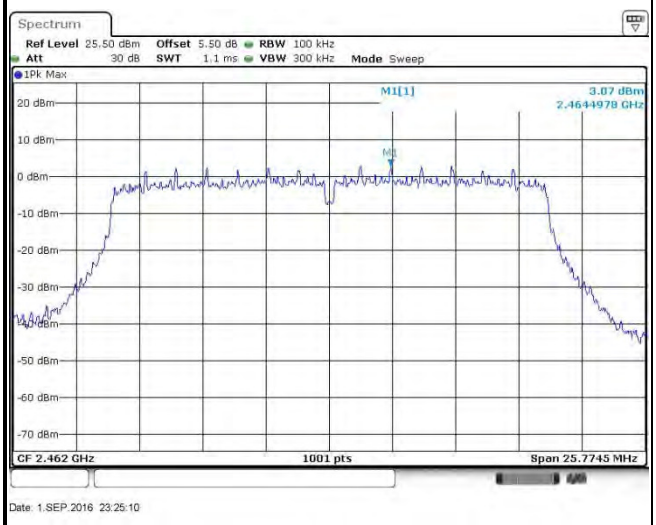
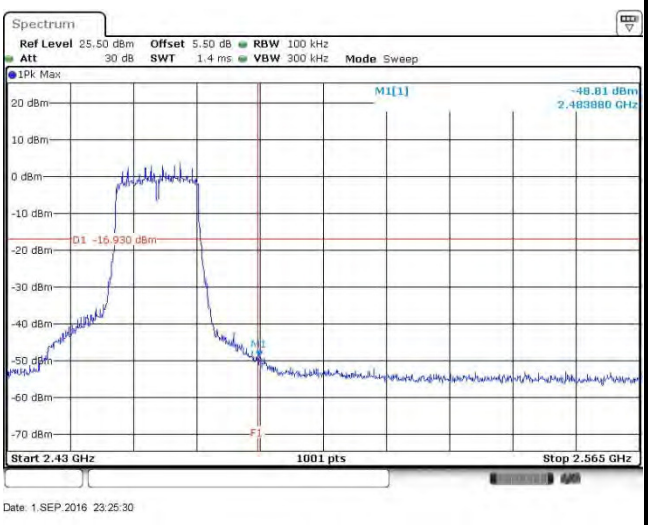
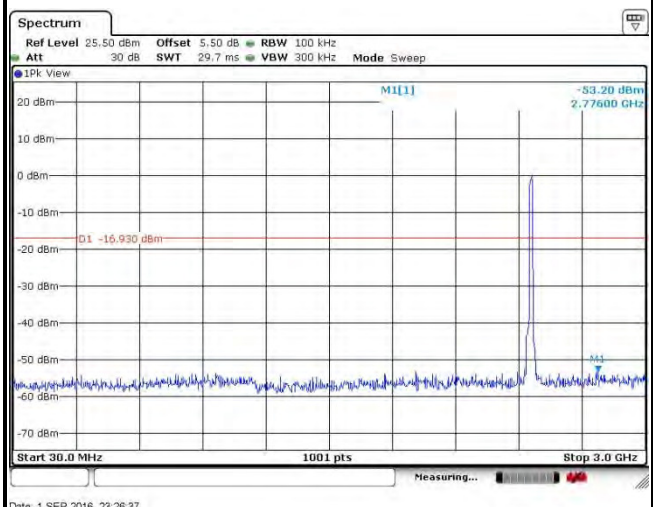
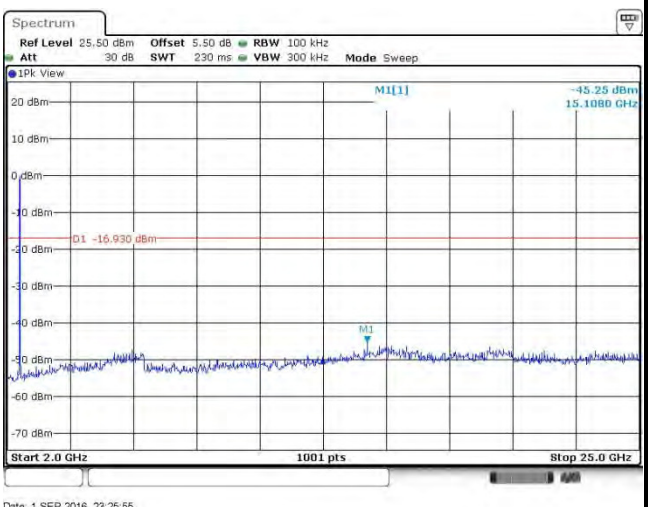
Number of TX :	2	Ant. :	1
Test Mode :	802.11n HT20	Temperature :	24~25℃
Test Band :	2.4GHz Low	Relative Humidity :	54~55%
Test Channel :	01	Test Engineer :	Ivan Zhang

WLAN 802.11n HT20 Channel 01	
100kHz PSD reference Level	Low Channel Plot
	
Spurious Emission 30MHz~3GHz	Spurious Emission 2GHz~25GHz
	

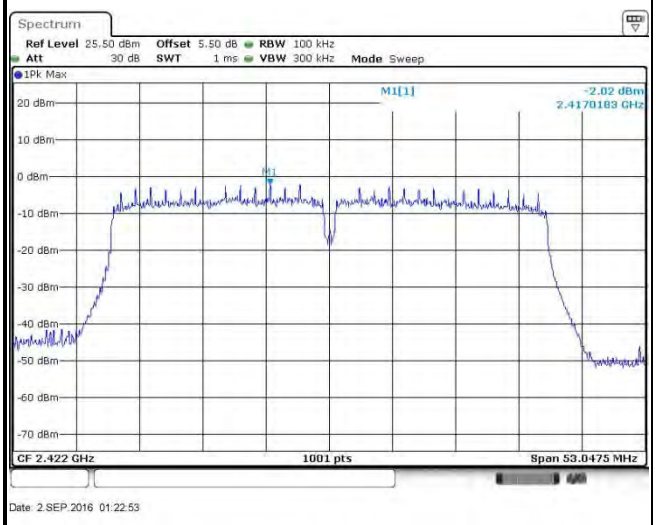
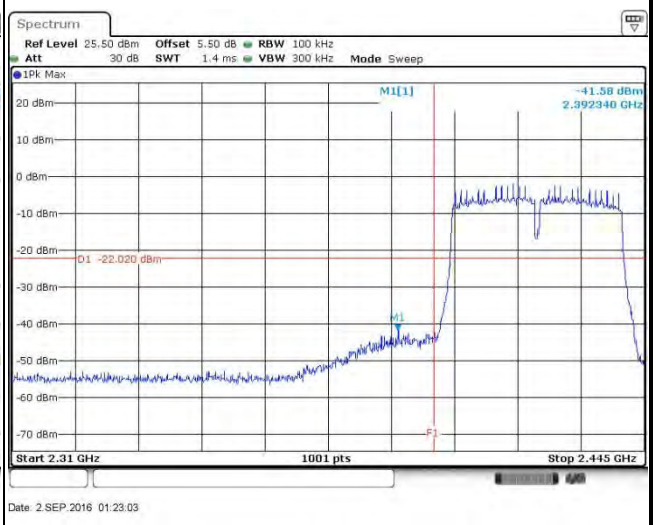
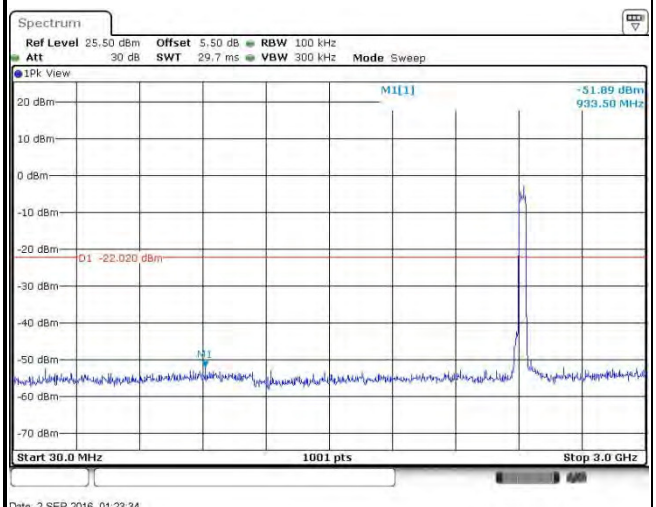
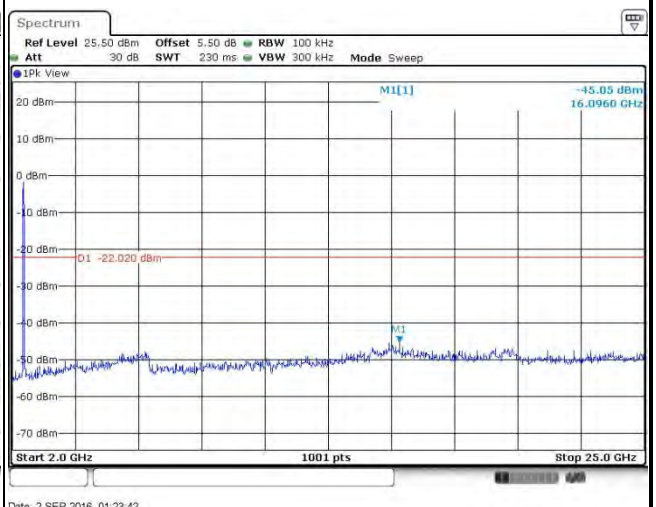
Number of TX :	2	Ant. :	1
Test Mode :	802.11n HT20	Temperature :	24~25℃
Test Band :	2.4GHz Mid	Relative Humidity :	54~55%
Test Channel :	06	Test Engineer :	Ivan Zhang

WLAN 802.11n HT20 Channel 06	
100kHz PSD reference Level	
	
Spurious Emission 30MHz~3GHz	Spurious Emission 2GHz~25GHz
	

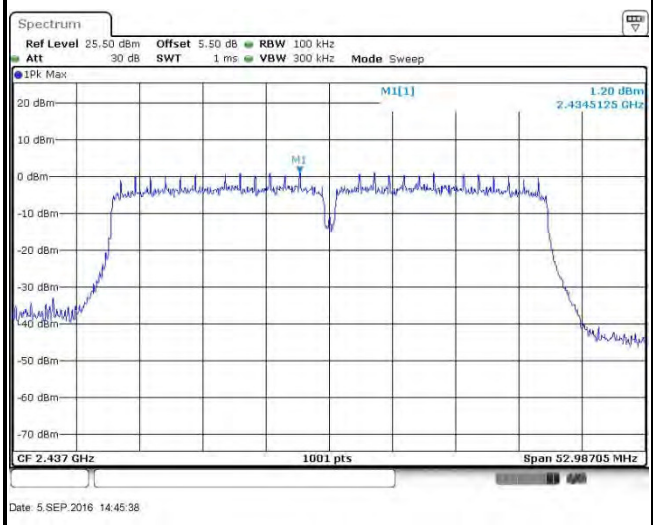
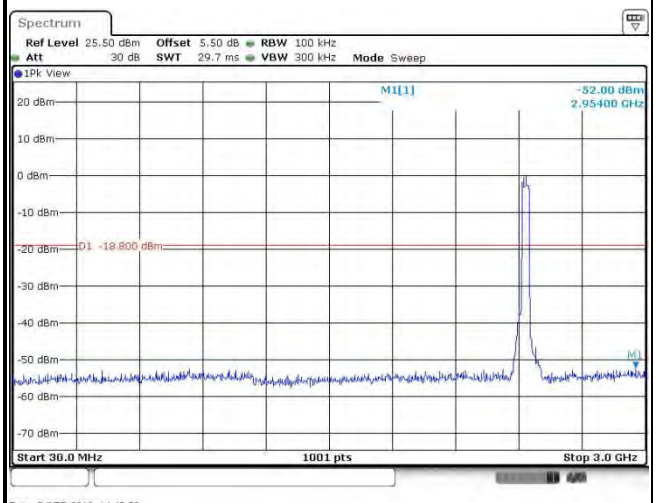
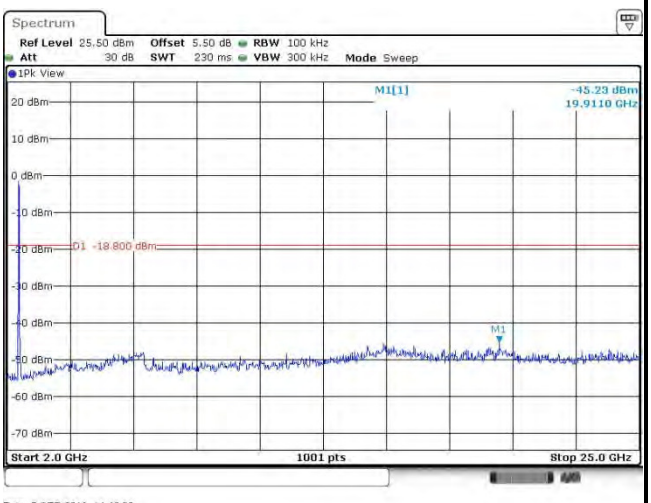
Number of TX :	2	Ant. :	1
Test Mode :	802.11n HT20	Temperature :	24~25℃
Test Band :	2.4GHz High	Relative Humidity :	54~55%
Test Channel :	11	Test Engineer :	Ivan Zhang

WLAN 802.11n HT20 Channel 11	
100kHz PSD reference Level	High Channel Plot
	
Spurious Emission 30MHz~3GHz	Spurious Emission 2GHz~25GHz
	

Number of TX :	2	Ant. :	1
Test Mode :	802.11n HT40	Temperature :	24~25℃
Test Band :	2.4GHz Low	Relative Humidity :	54~55%
Test Channel :	03	Test Engineer :	Ivan Zhang

WLAN 802.11n HT40 Channel 03	
100kHz PSD reference Level	Low Channel Plot
	
Spurious Emission 30MHz~3GHz	Spurious Emission 2GHz~25GHz
	

Number of TX :	2	Ant. :	1
Test Mode :	802.11n HT40	Temperature :	24~25℃
Test Band :	2.4GHz Mid	Relative Humidity :	54~55%
Test Channel :	06	Test Engineer :	Ivan Zhang

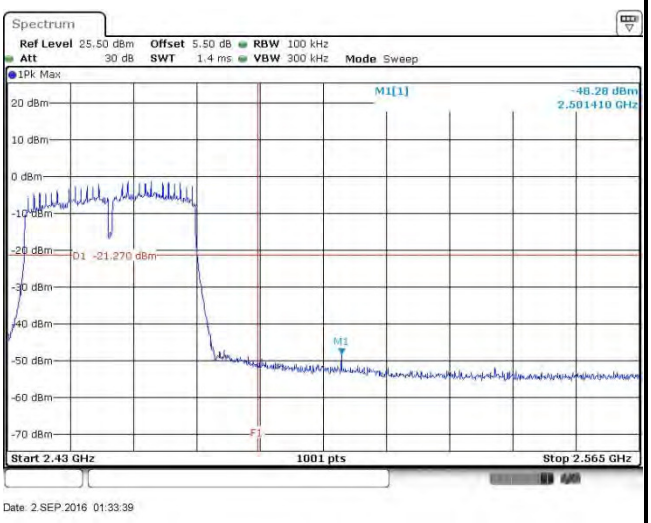
WLAN 802.11n HT40 Channel 06	
100kHz PSD reference Level	
	
Spurious Emission 30MHz~3GHz	Spurious Emission 2GHz~25GHz
	

Number of TX :	2	**Ant. :**	1
Test Mode :	802.11n HT40	**Temperature :**	24~25℃
Test Band :	2.4GHz High	**Relative Humidity :**	54~55%
Test Channel :	09	**Test Engineer :**	Ivan Zhang

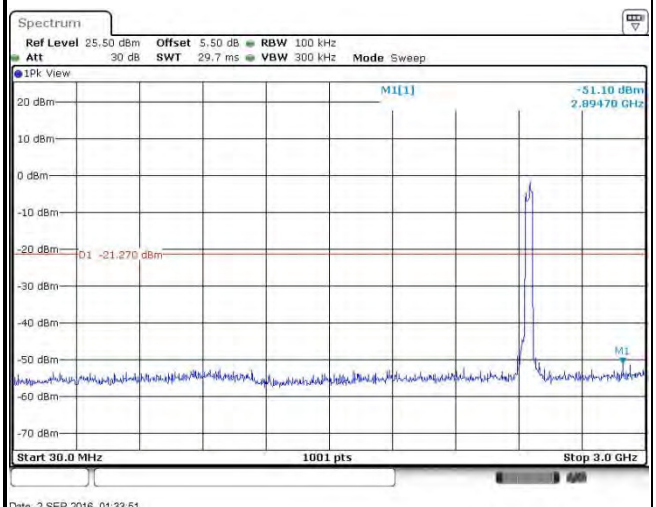
WLAN 802.11n HT40 Channel 09

100kHz PSD reference Level

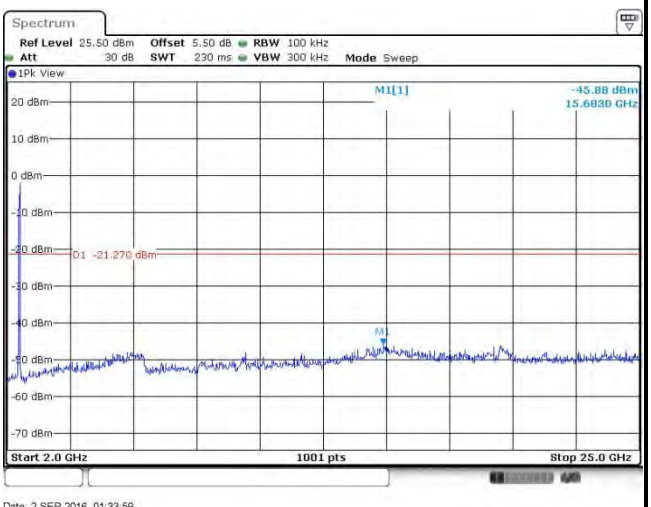
High Channel Plot



Spurious Emission 30MHz~3GHz



Spurious Emission 2GHz~25GHz

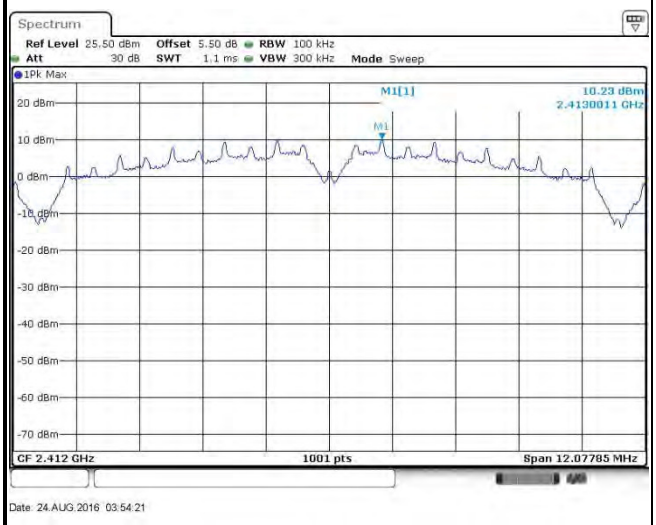


Number of TX = 2, Ant. 2 (Measured)

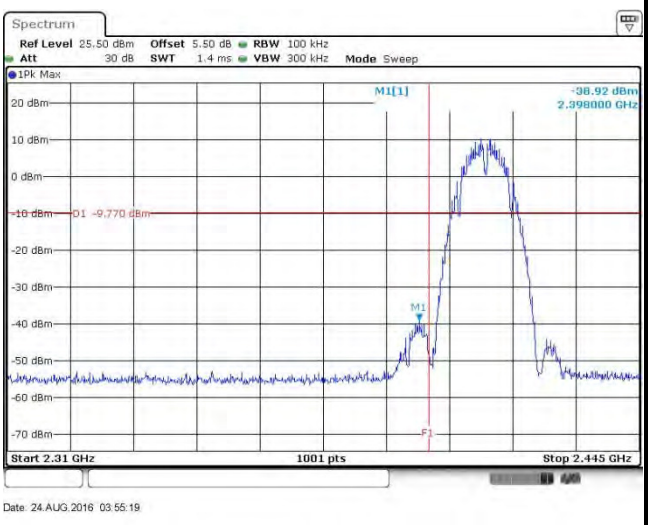
Number of TX	2	**Ant. :**	2
Test Mode :	802.11b	**Temperature :**	24~25℃
Test Band :	2.4GHz Low	**Relative Humidity :**	54~55%
Test Channel :	01	**Test Engineer :**	Ivan Zhang

WLAN 802.11b Channel 01

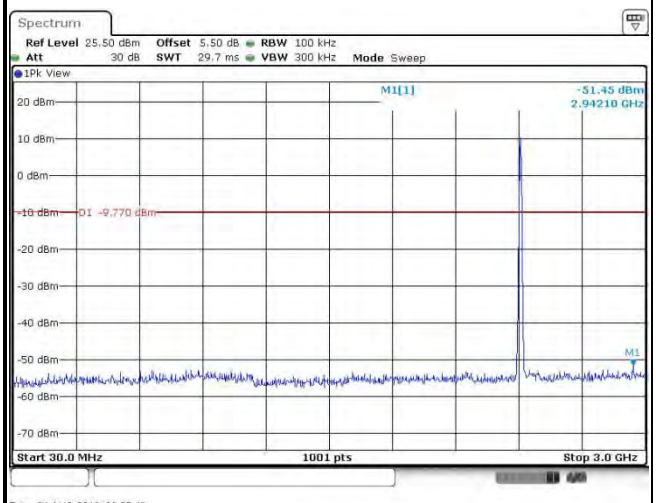
100kHz PSD reference Level



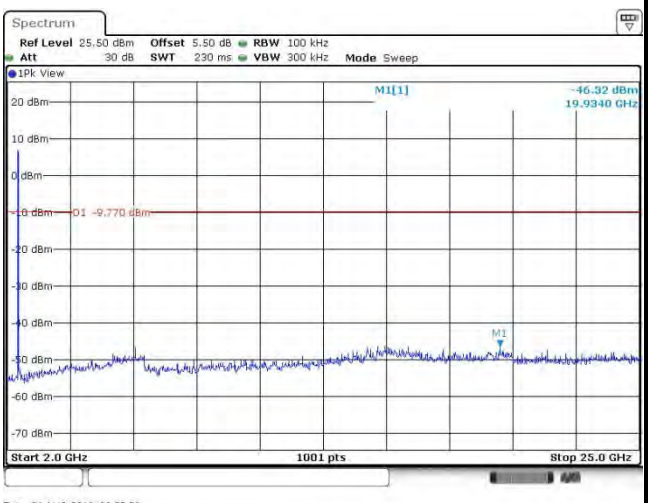
Low Channel Plot



Spurious Emission 30MHz~3GHz



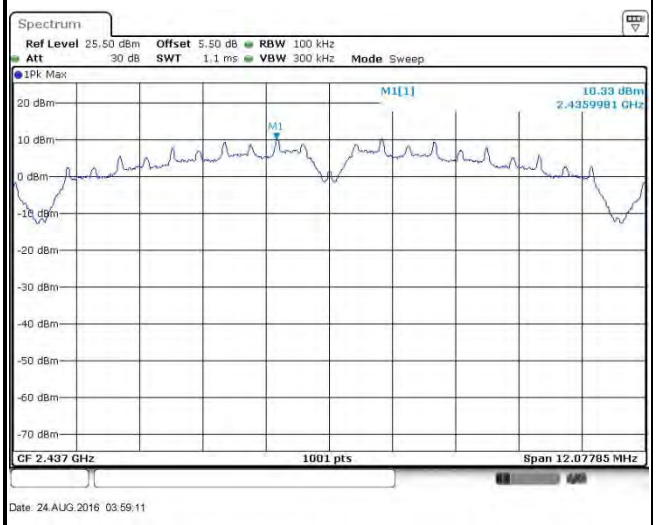
Spurious Emission 2GHz~25GHz



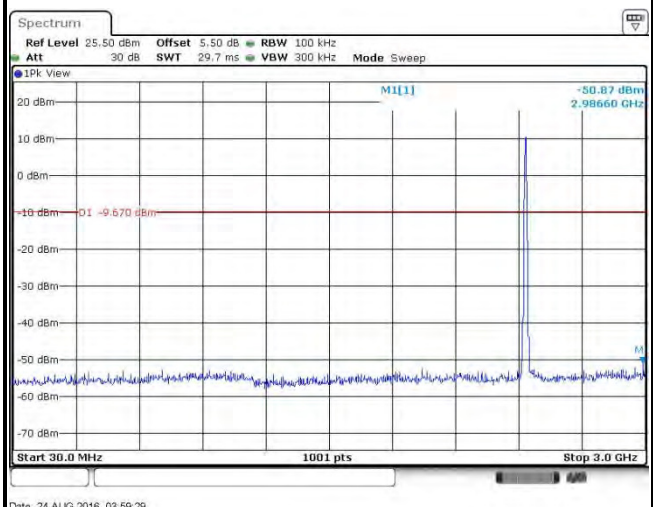
Number of TX :	2	Ant. :	2
Test Mode :	802.11b	Temperature :	24~25℃
Test Band :	2.4GHz Mid	Relative Humidity :	54~55%
Test Channel :	06	Test Engineer :	Ivan Zhang

WLAN 802.11b Channel 06

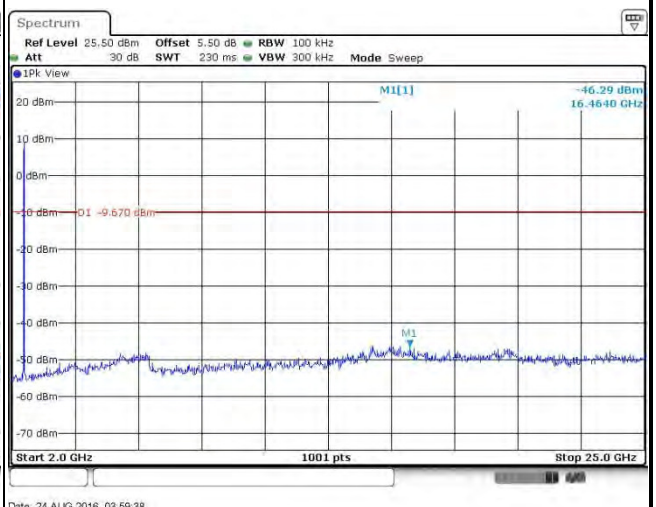
100kHz PSD reference Level



Spurious Emission 30MHz~3GHz



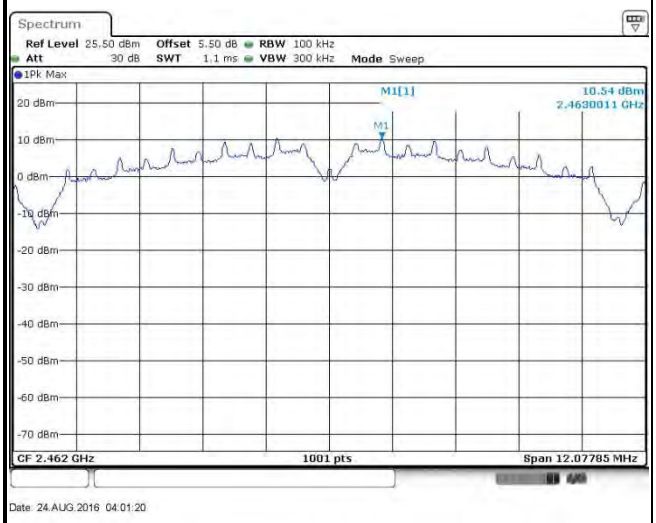
Spurious Emission 2GHz~25GHz



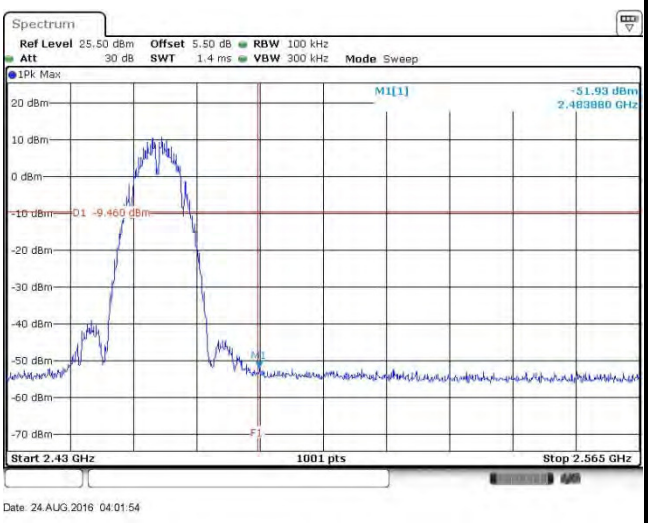
Number of TX :	2	**Ant. :**	2
Test Mode :	802.11b	**Temperature :**	24~25℃
Test Band :	2.4GHz High	**Relative Humidity :**	54~55%
Test Channel :	11	**Test Engineer :**	Ivan Zhang

WLAN 802.11b Channel 11

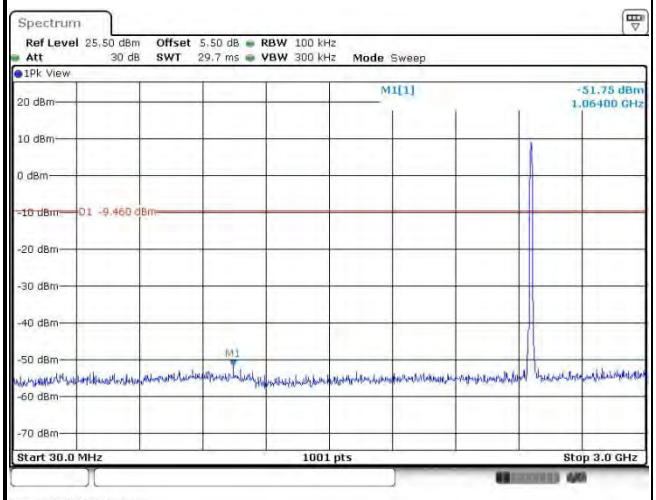
100kHz PSD reference Level



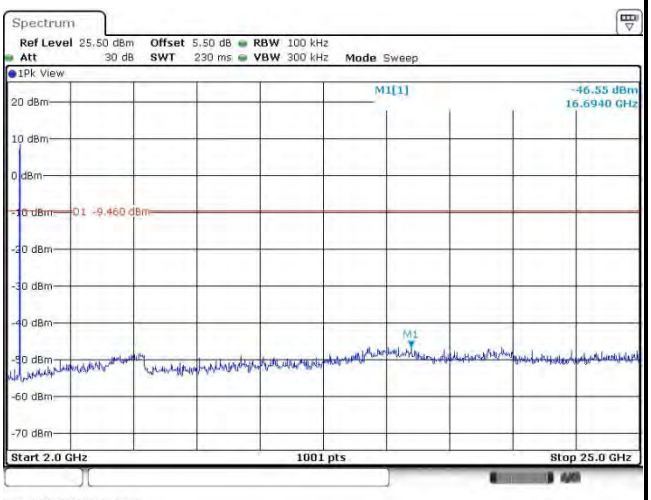
High Channel Plot



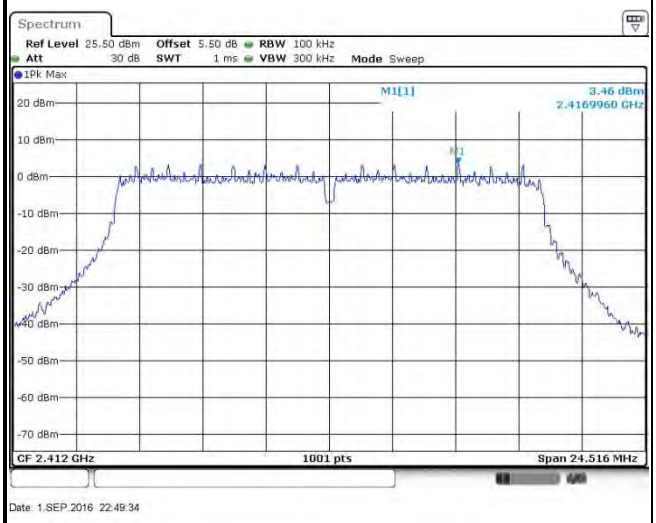
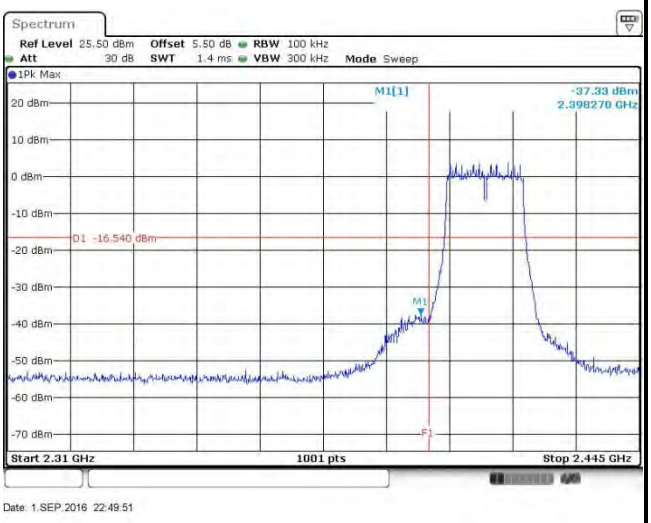
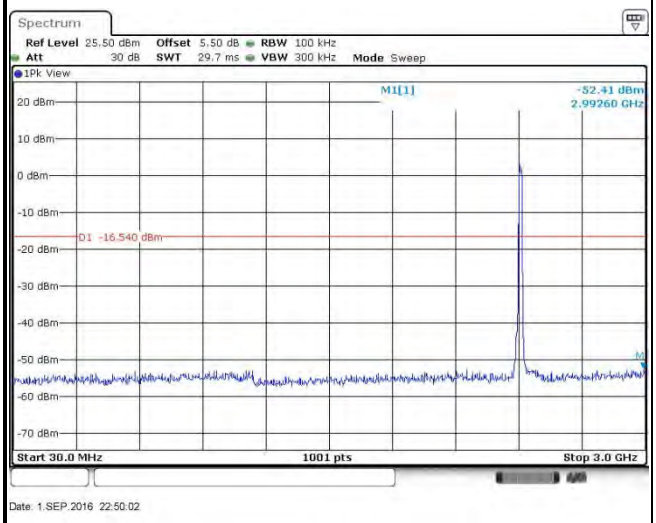
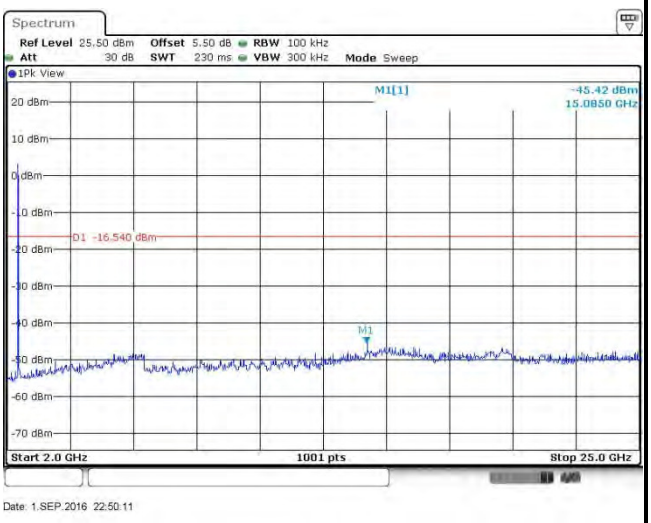
Spurious Emission 30MHz~3GHz



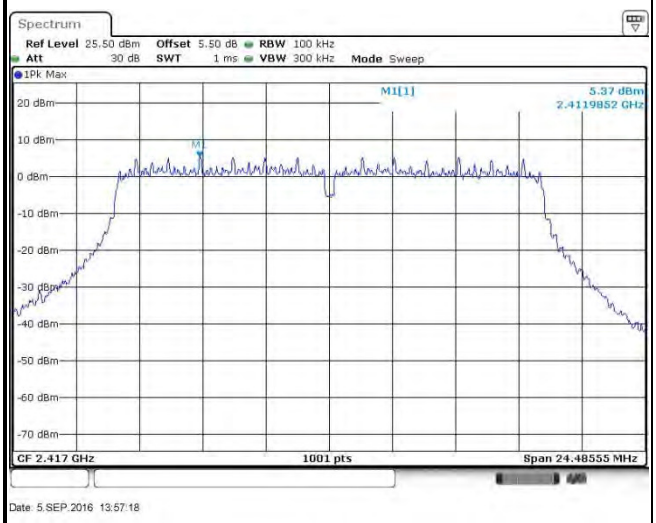
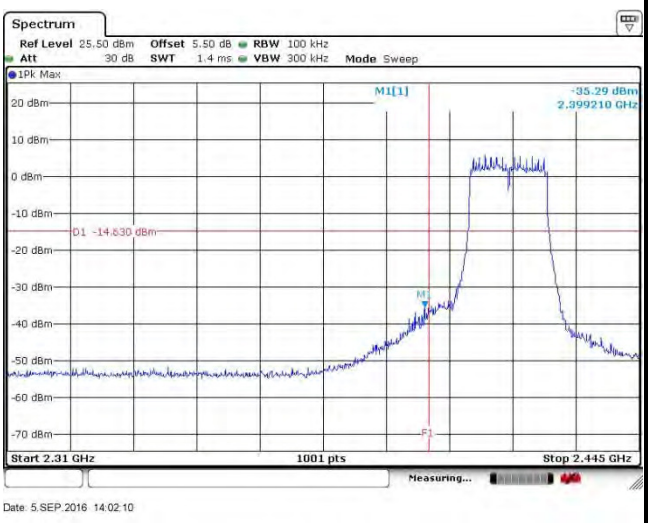
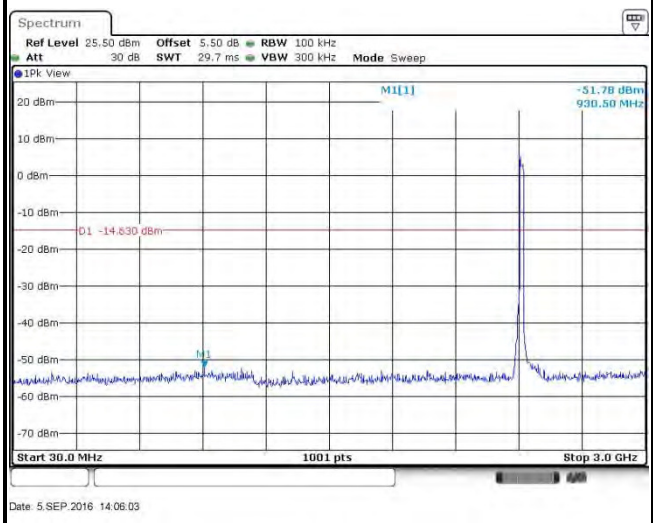
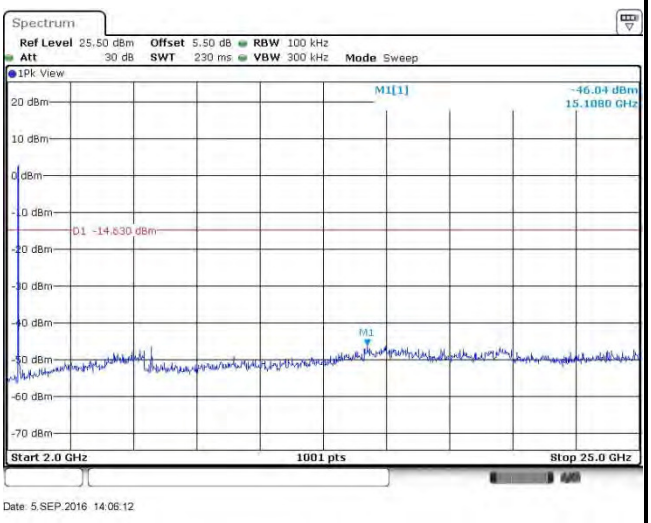
Spurious Emission 2GHz~25GHz



Number of TX :	2	Ant. :	2
Test Mode :	802.11g	Temperature :	24~25℃
Test Band :	2.4GHz Low	Relative Humidity :	54~55%
Test Channel :	01	Test Engineer :	Ivan Zhang

WLAN 802.11g Channel 01	
100kHz PSD reference Level	Low Channel Plot
	
Spurious Emission 30MHz~3GHz	Spurious Emission 2GHz~25GHz
	

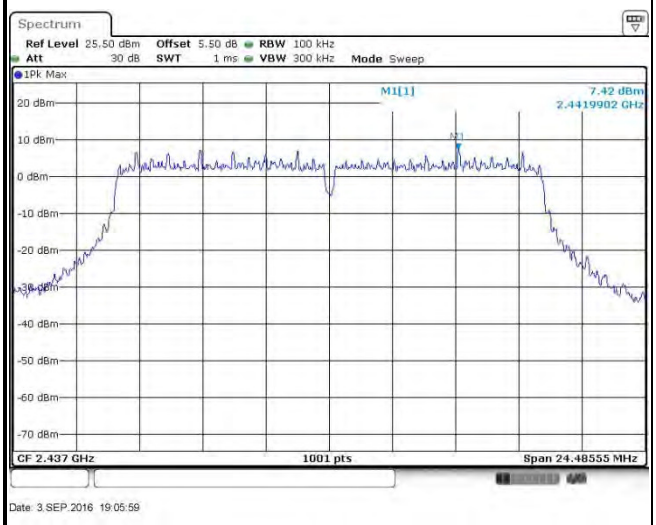
Number of TX :	2	Ant. :	2
Test Mode :	802.11g	Temperature :	24~25℃
Test Band :	2.4GHz Low	Relative Humidity :	54~55%
Test Channel :	02	Test Engineer :	Ivan Zhang

WLAN 802.11g Channel 02	
100kHz PSD reference Level	Low Channel Plot
	
Spurious Emission 30MHz~3GHz	Spurious Emission 2GHz~25GHz
	

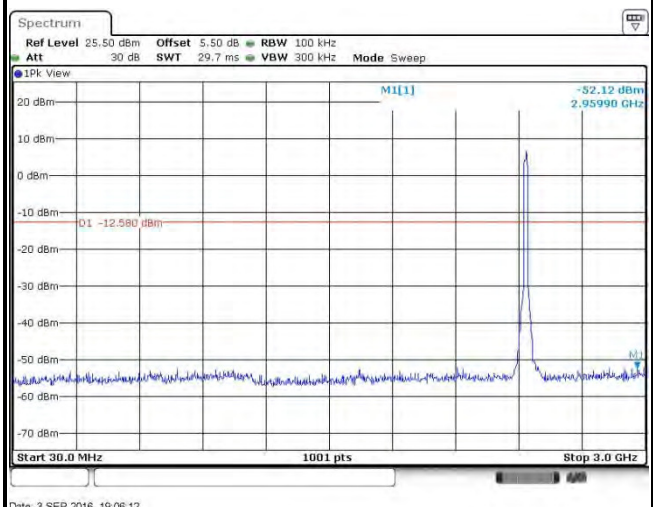
Number of TX :	2	**Ant. :**	2
Test Mode :	802.11g	**Temperature :**	24~25℃
Test Band :	2.4GHz Mid	**Relative Humidity :**	54~55%
Test Channel :	06	**Test Engineer :**	Ivan Zhang

WLAN 802.11g Channel 06

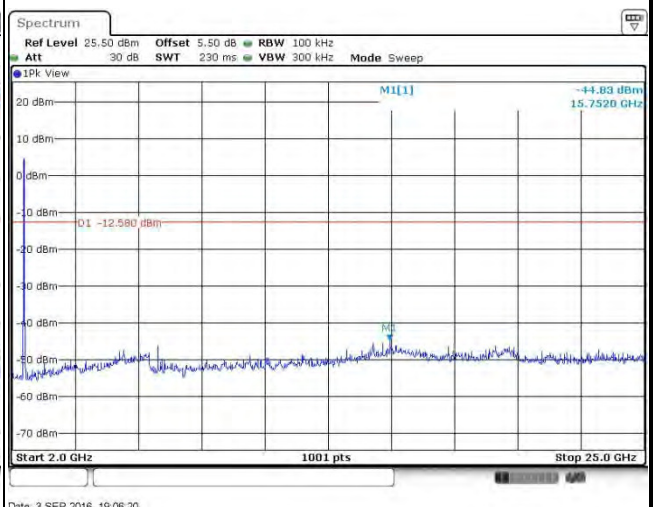
100kHz PSD reference Level



Spurious Emission 30MHz~3GHz



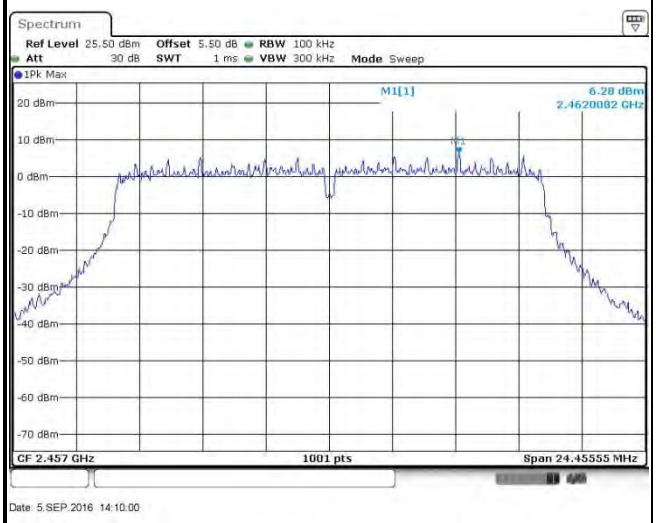
Spurious Emission 2GHz~25GHz



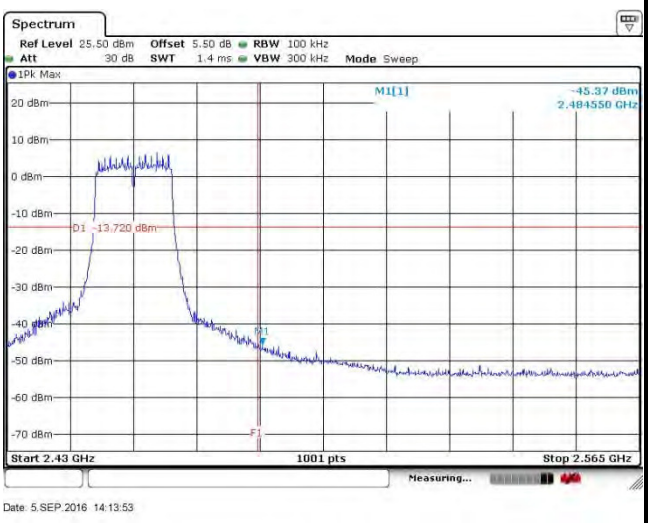
Number of TX :	2	Ant. :	2
Test Mode :	802.11g	Temperature :	24~25℃
Test Band :	2.4GHz High	Relative Humidity :	54~55%
Test Channel :	10	Test Engineer :	Ivan Zhang

WLAN 802.11g Channel 10

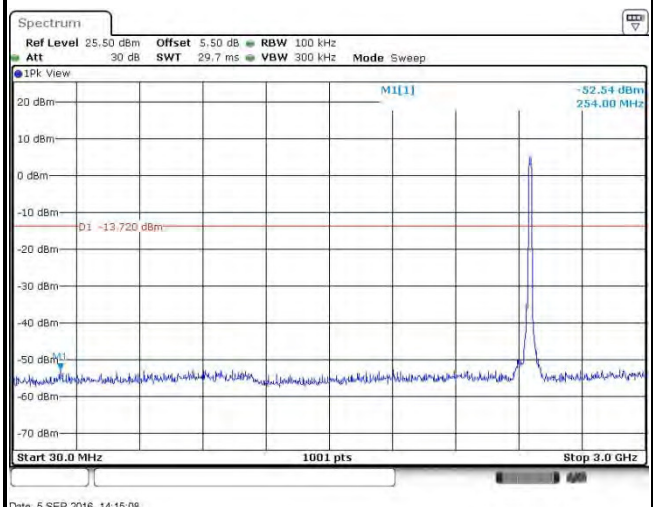
100kHz PSD reference Level



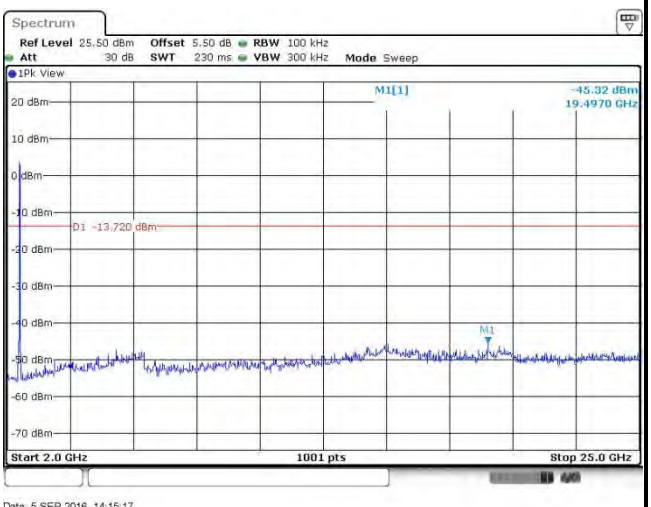
High Channel Plot



Spurious Emission 30MHz~3GHz



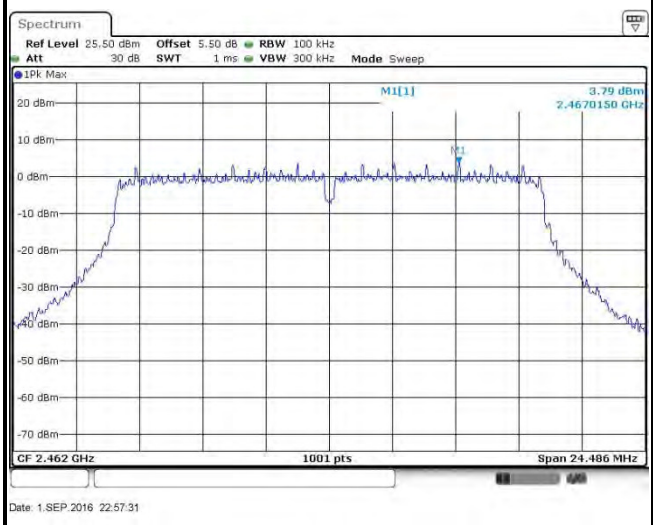
Spurious Emission 2GHz~25GHz



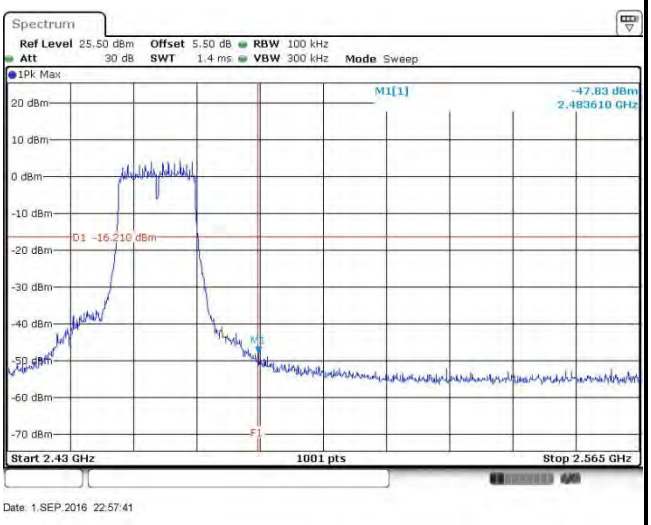
Number of TX :	2	**Ant. :**	2
Test Mode :	802.11g	**Temperature :**	24~25℃
Test Band :	2.4GHz High	**Relative Humidity :**	54~55%
Test Channel :	11	**Test Engineer :**	Ivan Zhang

WLAN 802.11g Channel 11

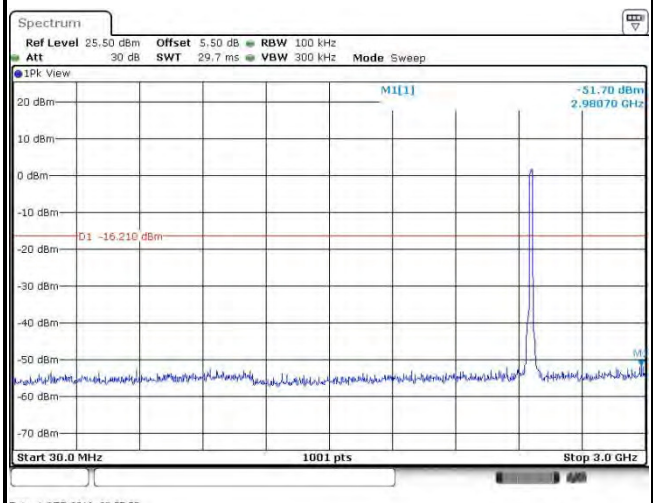
100kHz PSD reference Level



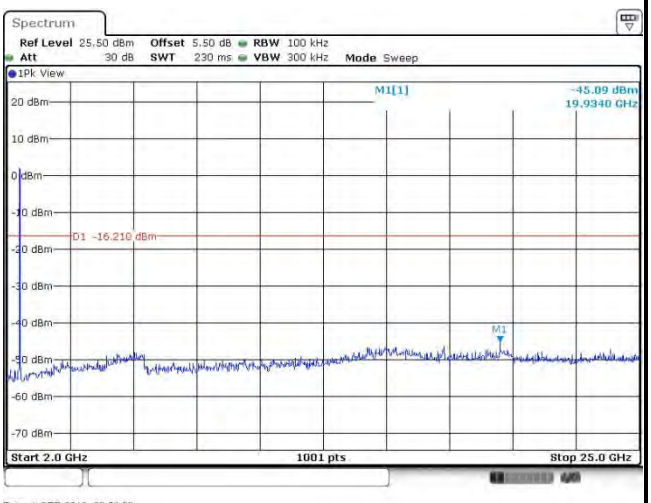
High Channel Plot



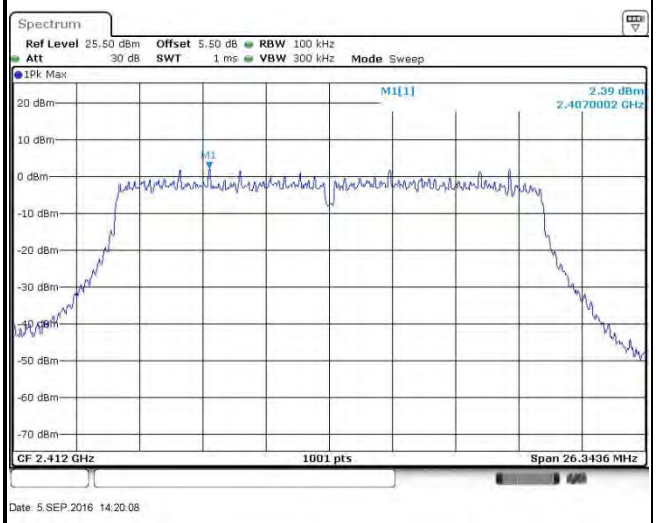
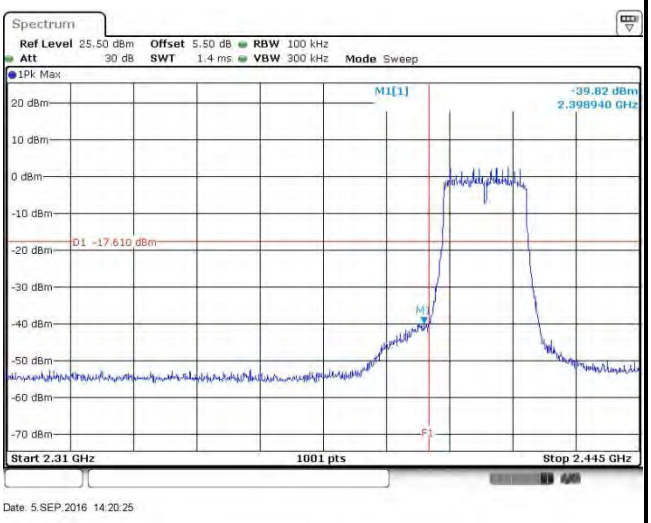
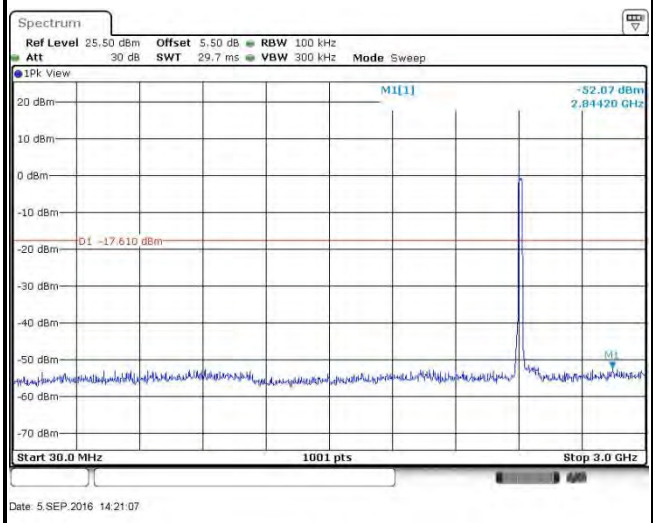
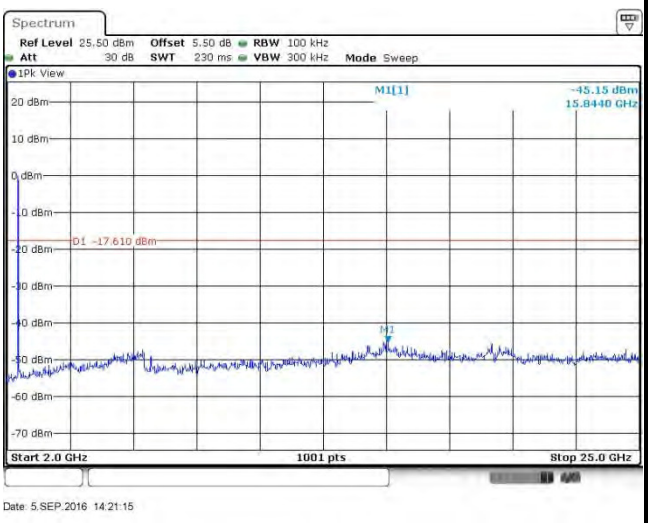
Spurious Emission 30MHz~3GHz



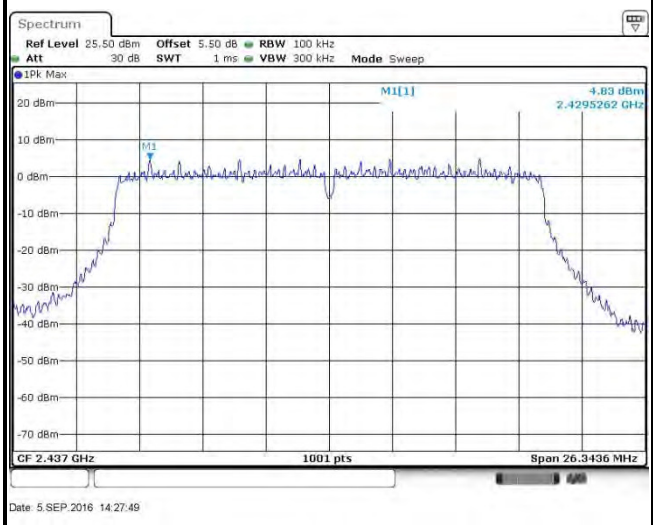
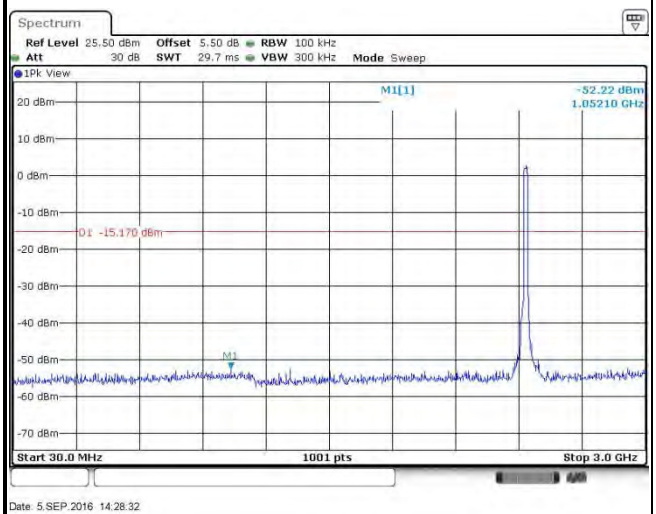
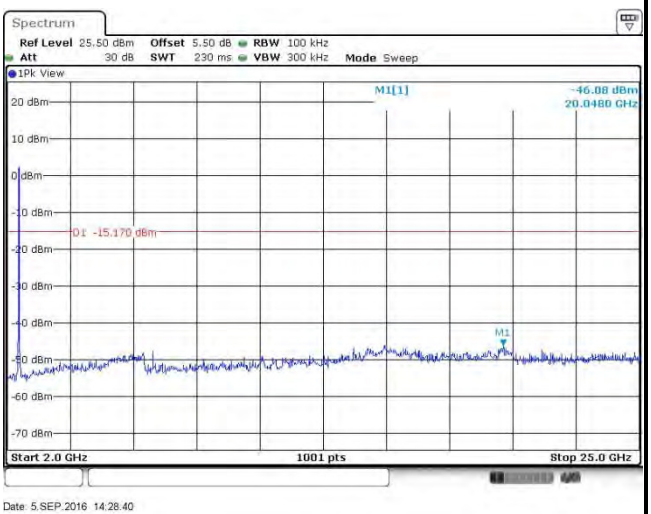
Spurious Emission 2GHz~25GHz



Number of TX :	2	Ant. :	2
Test Mode :	802.11n HT20	Temperature :	24~25℃
Test Band :	2.4GHz Low	Relative Humidity :	54~55%
Test Channel :	01	Test Engineer :	Ivan Zhang

WLAN 802.11n HT20 Channel 01	
100kHz PSD reference Level	Low Channel Plot
	
Spurious Emission 30MHz~3GHz	Spurious Emission 2GHz~25GHz
	

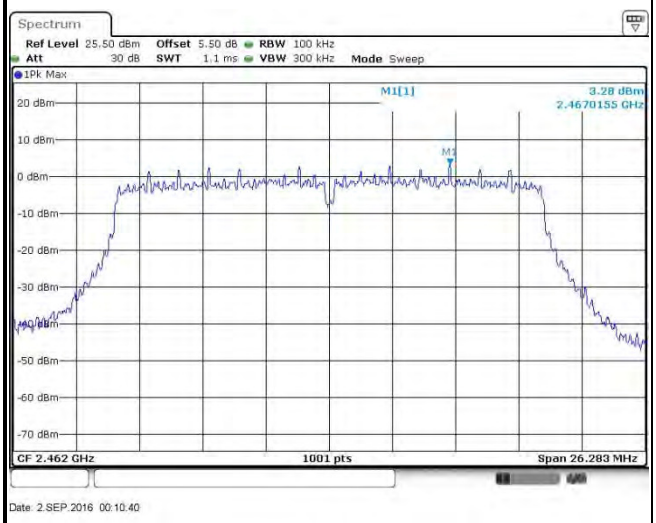
Number of TX :	2	Ant. :	2
Test Mode :	802.11n HT20	Temperature :	24~25℃
Test Band :	2.4GHz Mid	Relative Humidity :	54~55%
Test Channel :	06	Test Engineer :	Ivan Zhang

WLAN 802.11n HT20 Channel 06	
100kHz PSD reference Level	
	
Spurious Emission 30MHz~3GHz	Spurious Emission 2GHz~25GHz
	

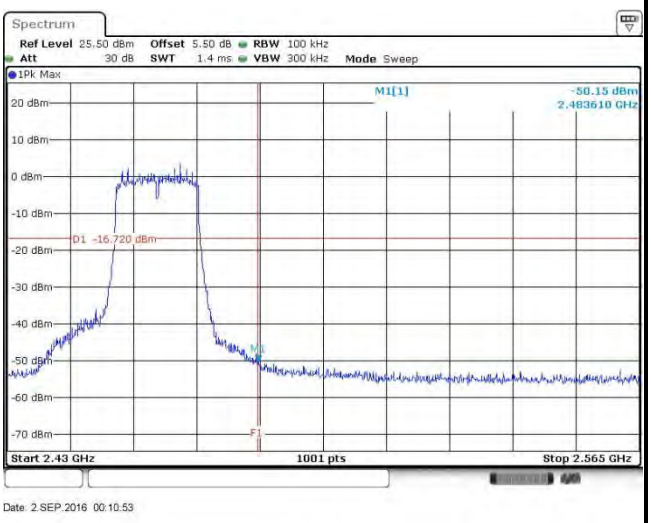
Number of TX :	2	Ant. :	2
Test Mode :	802.11n HT20	Temperature :	24~25℃
Test Band :	2.4GHz High	Relative Humidity :	54~55%
Test Channel :	11	Test Engineer :	Ivan Zhang

WLAN 802.11n HT20 Channel 11

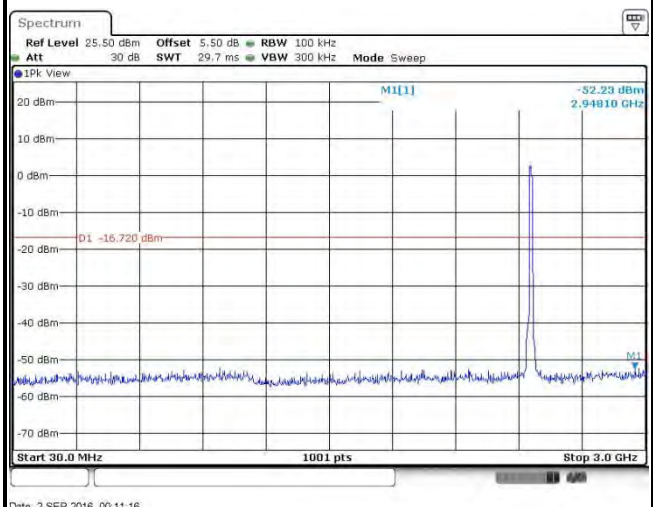
100kHz PSD reference Level



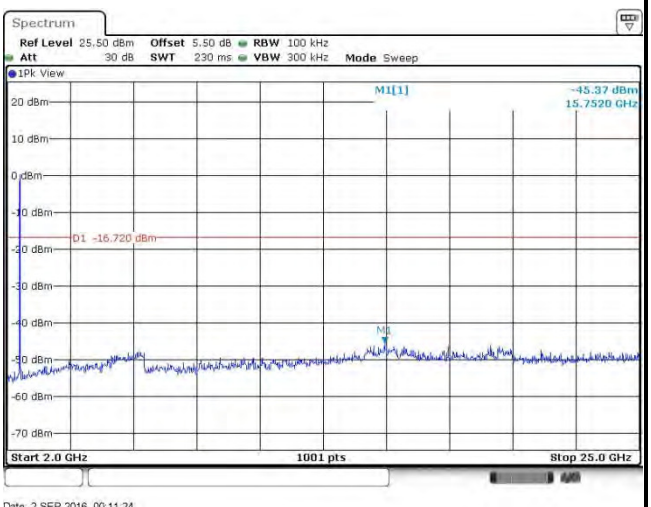
High Channel Plot



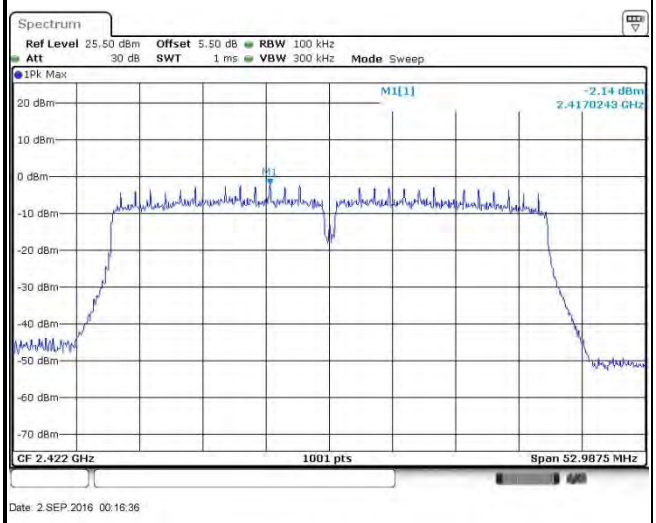
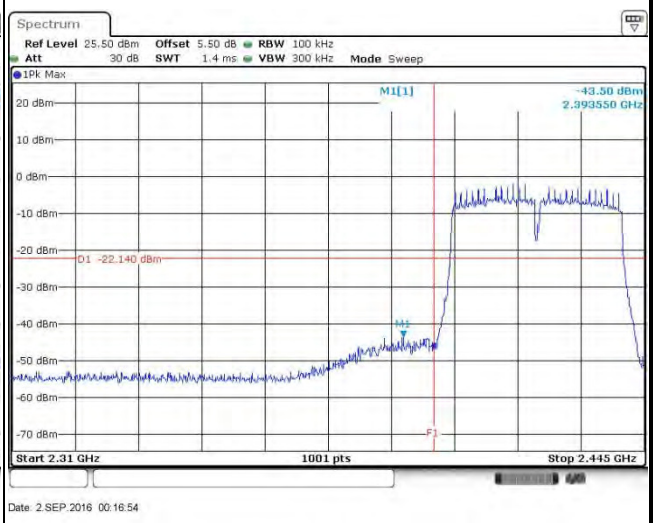
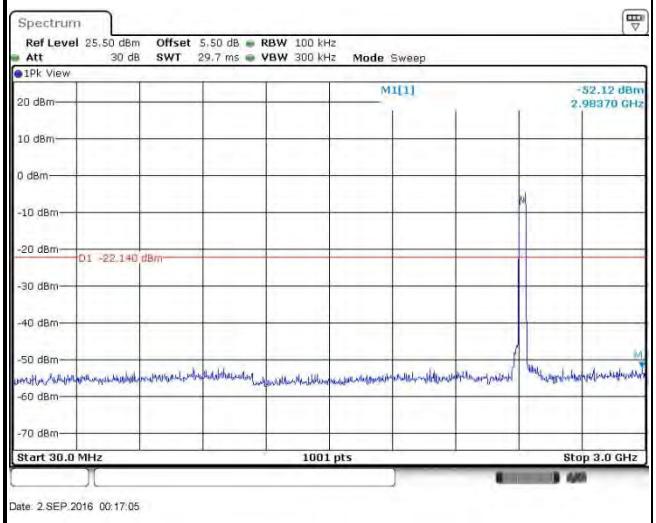
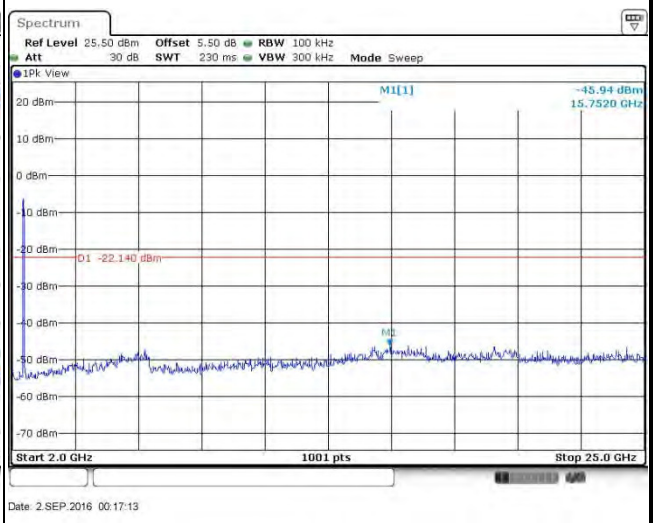
Spurious Emission 30MHz~3GHz



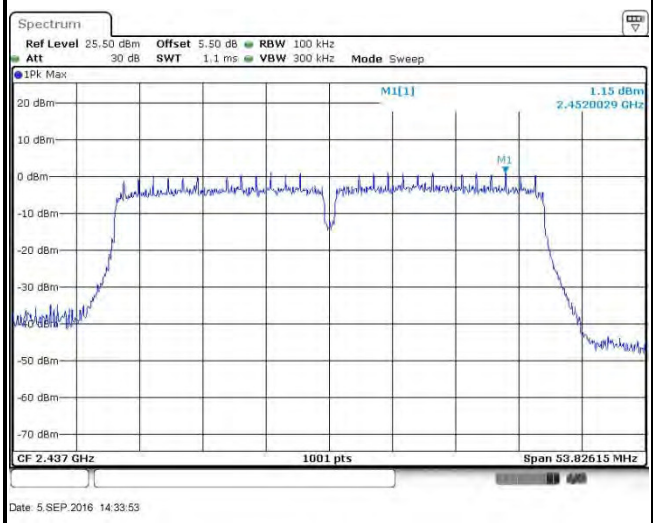
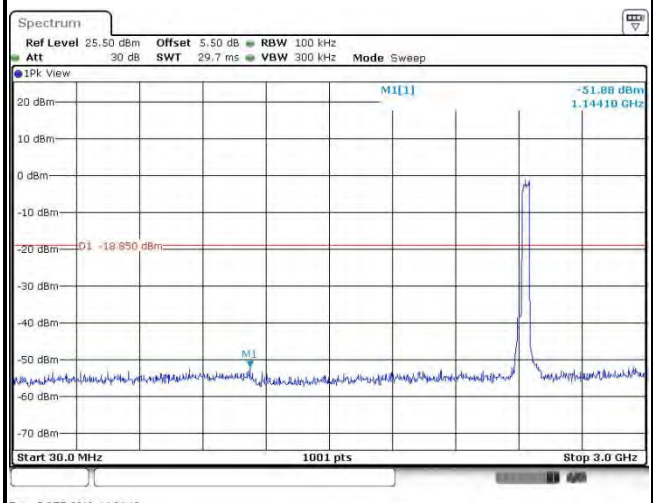
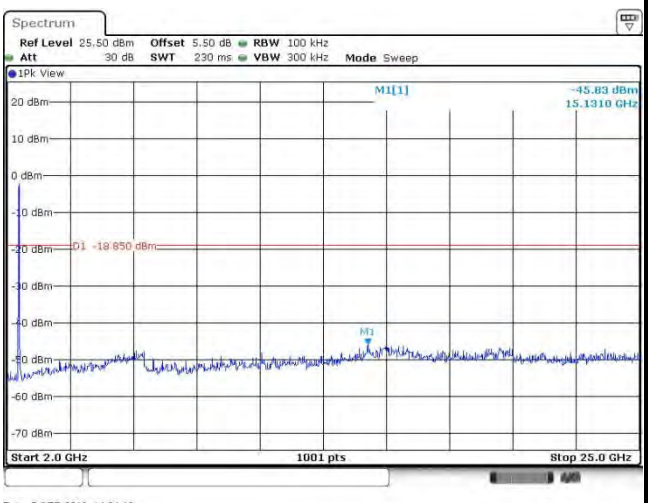
Spurious Emission 2GHz~25GHz



Number of TX :	2	Ant. :	2
Test Mode :	802.11n HT40	Temperature :	24~25℃
Test Band :	2.4GHz Low	Relative Humidity :	54~55%
Test Channel :	03	Test Engineer :	Ivan Zhang

WLAN 802.11n HT40 Channel 03	
100kHz PSD reference Level	Low Channel Plot
	
Spurious Emission 30MHz~3GHz	Spurious Emission 2GHz~25GHz
	

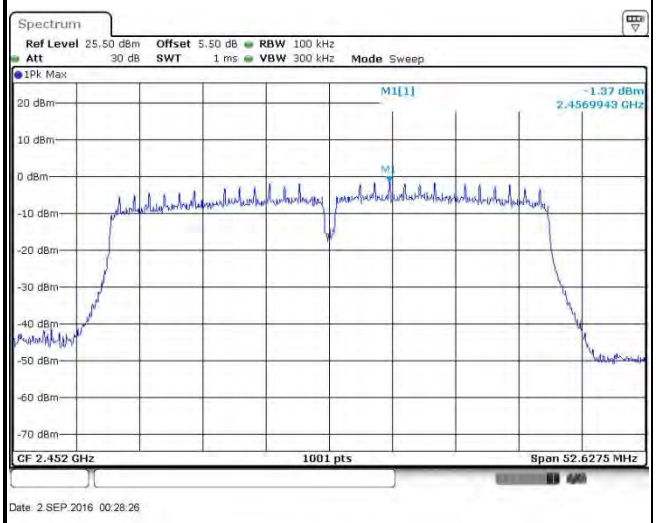
Number of TX :	2	Ant. :	2
Test Mode :	802.11n HT40	Temperature :	24~25℃
Test Band :	2.4GHz Mid	Relative Humidity :	54~55%
Test Channel :	06	Test Engineer :	Ivan Zhang

WLAN 802.11n HT40 Channel 06	
100kHz PSD reference Level	
	
Spurious Emission 30MHz~3GHz	Spurious Emission 2GHz~25GHz
	

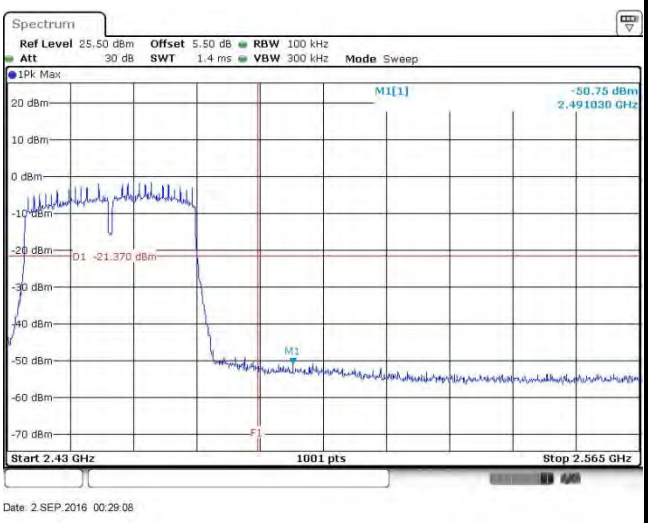
Number of TX :	2	Ant. :	2
Test Mode :	802.11n HT40	Temperature :	24~25℃
Test Band :	2.4GHz High	Relative Humidity :	54~55%
Test Channel :	09	Test Engineer :	Ivan Zhang

WLAN 802.11n HT40 Channel 09

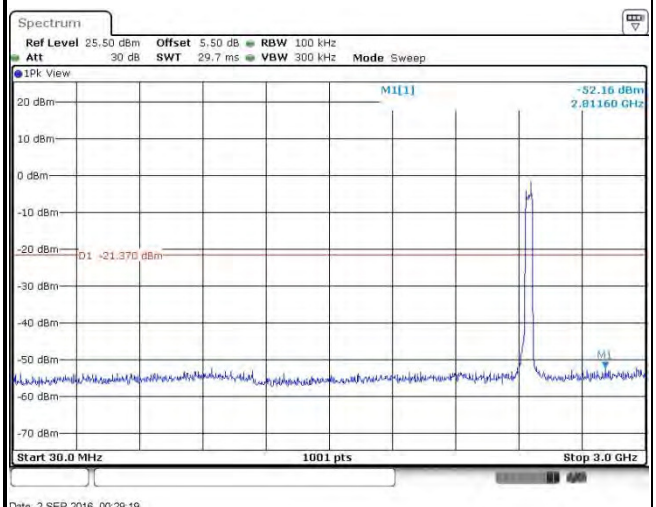
100kHz PSD reference Level



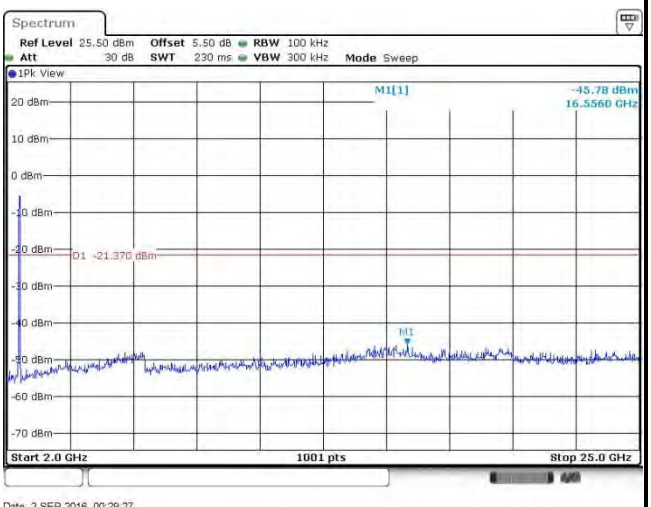
High Channel Plot



Spurious Emission 30MHz~3GHz



Spurious Emission 2GHz~25GHz



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

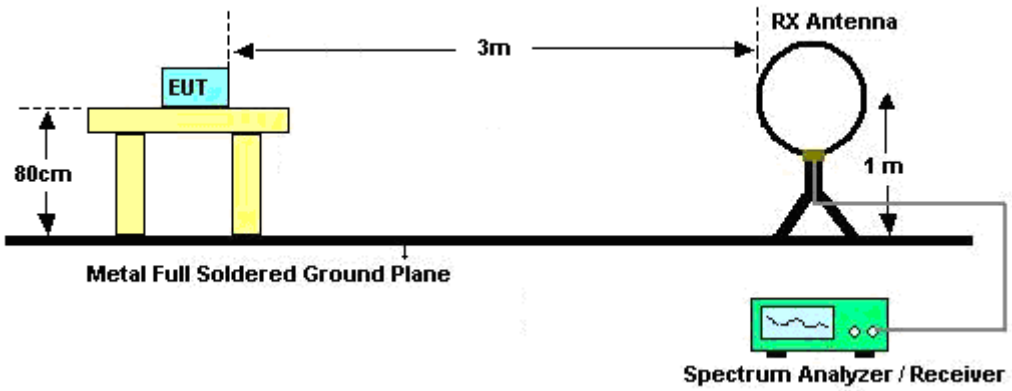
The measuring equipment is listed in the section 4 of this test report.

3.5.3 Test Procedures

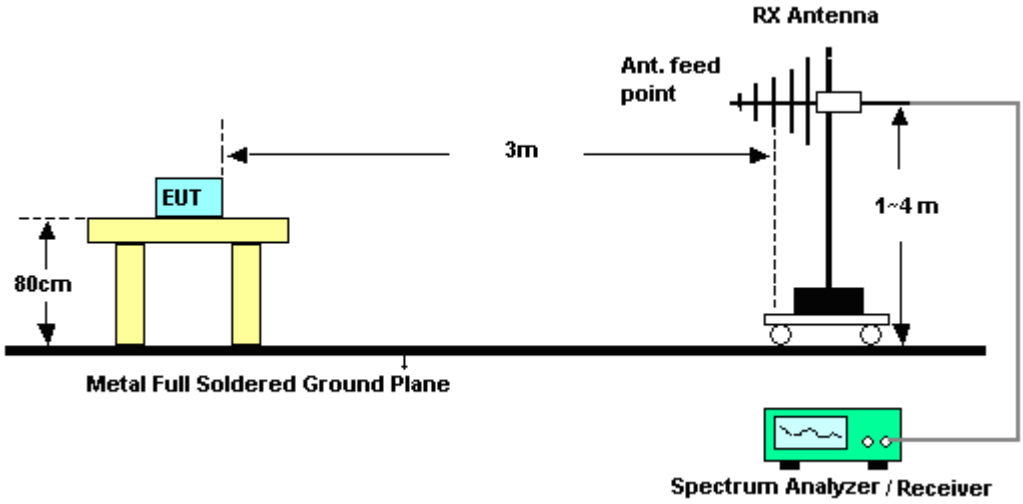
1. The testing follows FCC KDB Publication No. 558074 D01 DTS Meas. Guidance v03r05.
2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the 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.

3.5.4 Test Setup

For radiated emissions below 30MHz

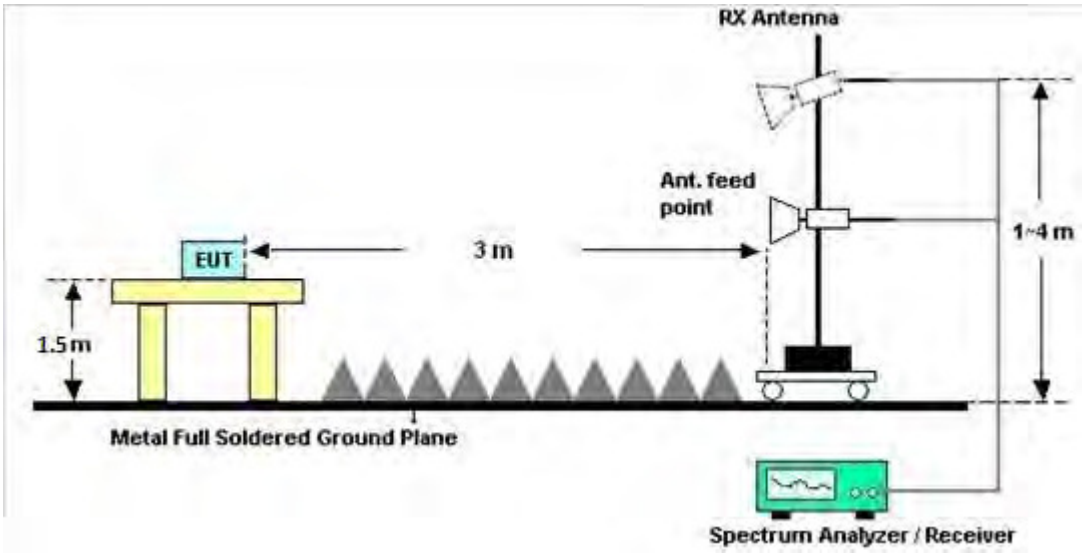


For radiated emissions from 30MHz to 1GHz

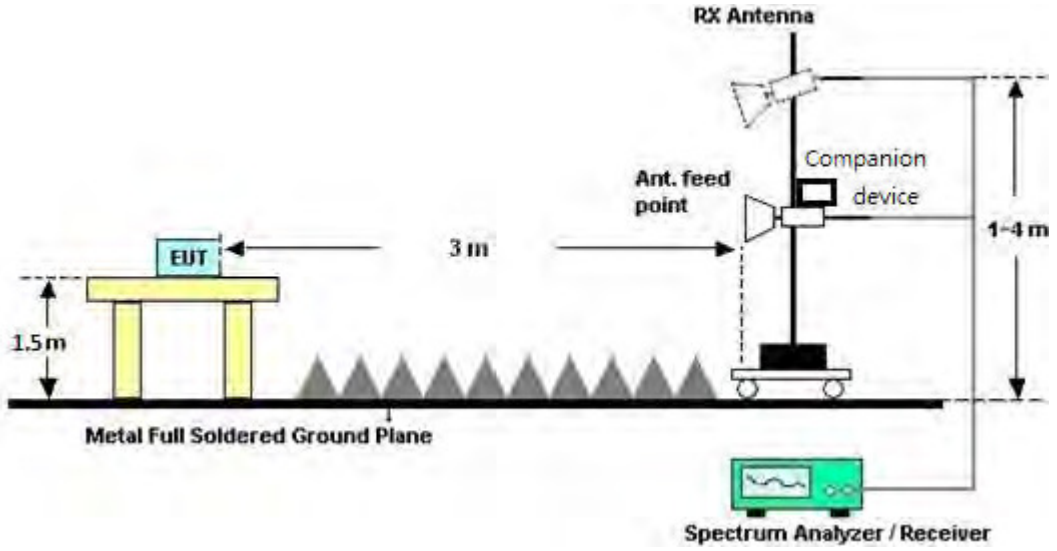


For radiated emissions above 1GHz

<CDD Modes>



<TXBF Modes>



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

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

3.5.6 Test Result of Radiated Spurious at Band Edges

Please refer to Appendix B and C.

3.5.7 Duty Cycle

Please refer to Appendix D.

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

Please refer to Appendix B and C.

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

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.

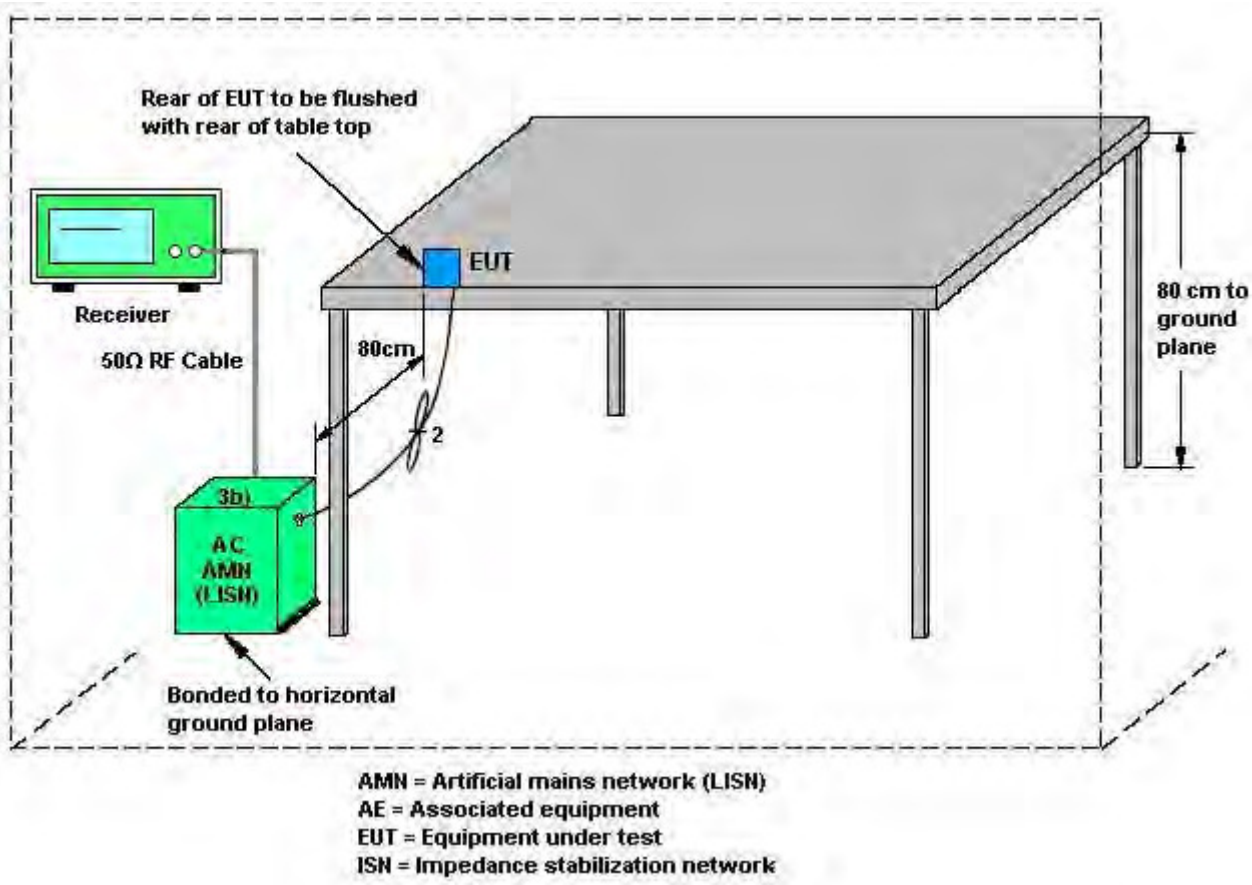
3.6.2 Measuring Instruments

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.

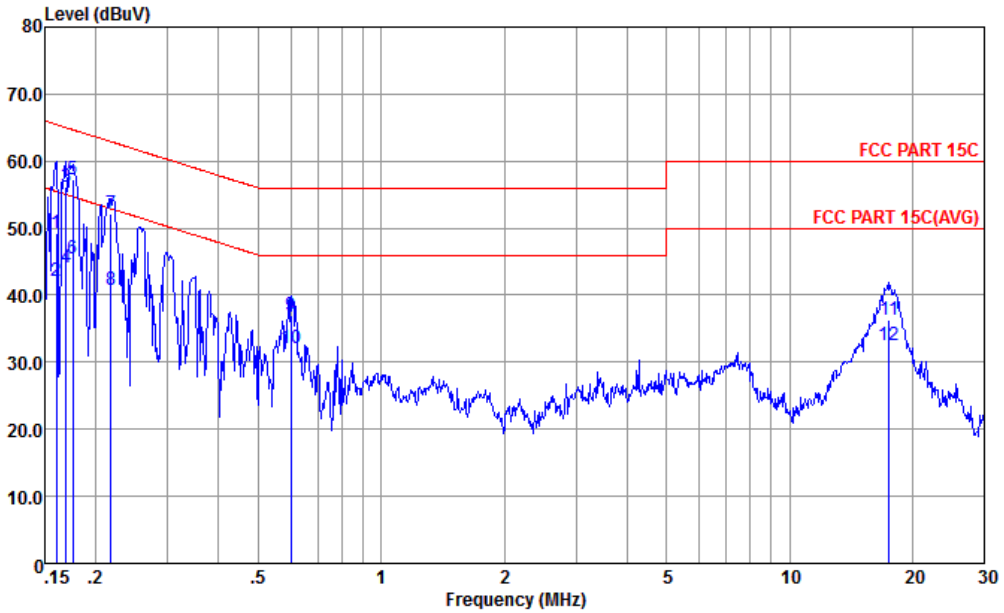
3.6.4 Test Setup



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

3.6.5 Test Result of AC Conducted Emission

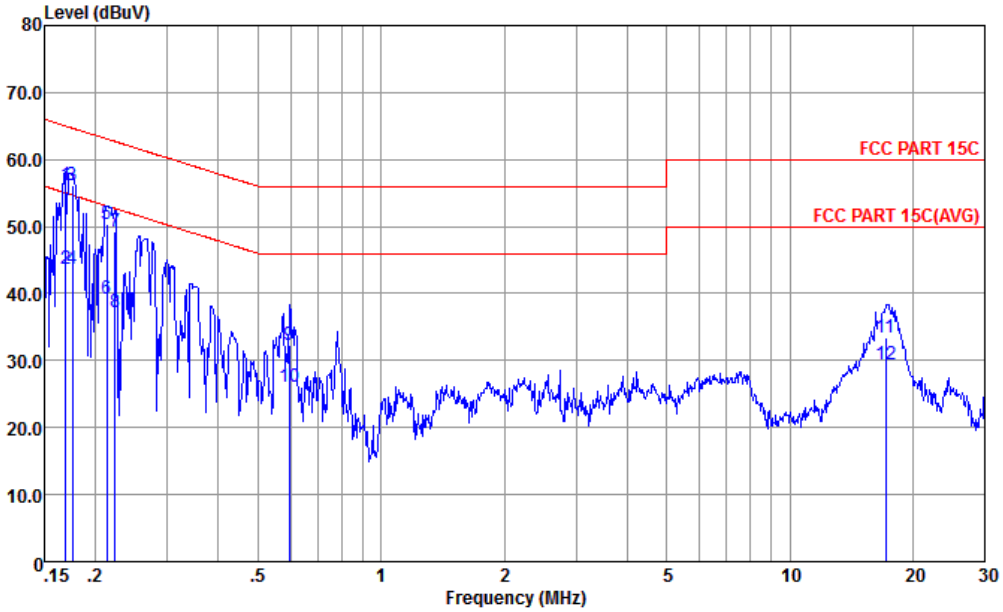
Test Mode :	Mode 3	Temperature :	22~24℃
Test Engineer :	Morris Li	Relative Humidity :	44~46%
Test Voltage :	120Vac / 60Hz	Phase :	Line
Function Type :	Bluetooth Link + WLAN Link (2.4G) + Adapter for Sample 3		



Site : CO01-KS
Condition : FCC PART 15C LISN-L-20151024 LINE
Project : (FR) 670709
mode : Mode 3

		Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
		MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1		0.160	49.27	-16.20	65.47	38.70	0.46	10.11	QP
2		0.160	42.07	-13.40	55.47	31.50	0.46	10.11	Average
3		0.169	56.22	-8.77	64.99	45.70	0.40	10.12	QP
4		0.169	44.22	-10.77	54.99	33.70	0.40	10.12	Average
5	*	0.176	57.18	-7.50	64.68	46.70	0.36	10.12	QP
6		0.176	45.38	-9.30	54.68	34.90	0.36	10.12	Average
7		0.217	52.25	-10.67	62.92	41.90	0.22	10.13	QP
8		0.217	40.75	-12.17	52.92	30.40	0.22	10.13	Average
9		0.601	37.09	-18.91	56.00	26.69	0.24	10.16	QP
10		0.601	32.09	-13.91	46.00	21.69	0.24	10.16	Average
11		17.568	36.43	-23.57	60.00	25.70	0.27	10.46	QP
12		17.568	32.43	-17.57	50.00	21.70	0.27	10.46	Average

Test Mode :	Mode 3	Temperature :	22~24℃
Test Engineer :	Morris Li	Relative Humidity :	44~46%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral
Function Type :	Bluetooth Link + WLAN Link (2.4G) + Adapter for Sample 3		



Site : CO01-KS
Condition : FCC PART 15C LISN-N-20151024 NEUTRAL
Project : (FR) 670709
mode : Mode 3

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.169	56.12	-8.87	64.99	45.70	0.30	10.12	QP
2	0.169	43.62	-11.37	54.99	33.20	0.30	10.12	Average
3 *	0.176	56.13	-8.55	64.68	45.70	0.31	10.12	QP
4	0.176	43.73	-10.95	54.68	33.30	0.31	10.12	Average
5	0.213	50.34	-12.76	63.10	39.90	0.31	10.13	QP
6	0.213	39.14	-13.96	53.10	28.70	0.31	10.13	Average
7	0.223	49.34	-13.36	62.70	38.90	0.31	10.13	QP
8	0.223	37.14	-15.56	52.70	26.70	0.31	10.13	Average
9	0.595	32.29	-23.71	56.00	21.80	0.33	10.16	QP
10	0.595	26.09	-19.91	46.00	15.60	0.33	10.16	Average
11	17.199	33.41	-26.59	60.00	22.70	0.26	10.45	QP
12	17.199	29.41	-20.59	50.00	18.70	0.26	10.45	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. 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 for APIN0305(Mode Name)

Non-standard antenna connector is used for APIN0304(Mode Name)

3.7.3 Antenna Gain

For APIN0304 (mode name)

The EUT does not supple CDD & TX BF 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.

	Ant. 1 (dBi)	Ant. 2 (dBi)	for Power (dBi)	for PSD (dBi)	Limit Reduction (dB)	Limit Reduction (dB)
2.4 GHz	7.50	7.50	7.50	7.50	1.50	1.50

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

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

CDD modes

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 $N_{ANT} \leq 4$.

Directional gain may be calculated by using the formulas applicable to equal gain antennas with GANT set equal to the gain of the antenna having the highest gain;

The EUT supports CDD mode.

For power, the directional gain G_{ANT} is set equal to the antenna having the highest gain, i.e., F)2)f)i).

For PSD, the directional gain calculation is following F)2)f)ii) of KDB 662911 D01 v02r01.

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.

For APIN0305 (mode name)

	Ant. 1 (dBi)	Ant. 2 (dBi)	DG for Power (dBi)	DG for PSD (dBi)	Power Limit Reduction (dB)	PSD Limit Reduction (dB)
2.4 GHz	2.40	2.40	2.40	5.41	0.00	0.00

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

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

TXBF modes

FCC KDB 662911 D01 Multiple Transmitter Output v02r01

For CDD transmissions, directional gain is calculated as

$$DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right]$$

where

Each antenna is driven by no more than one spatial stream;

N_{SS} = the number of independent spatial streams of data;

N_{ANT} = the total number of antennas

$g_{j,k} = 10^{G_k / 20}$ if the kth antenna is being fed by spatial stream j, or zero if it is not;

G_k is the gain in dBi of the kth antenna.

The EUT supports beamforming for 802.11ac modes.

The directional gain calculation is following F)2)e)ii) of KDB 662911 D01 v02r01.

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.

For APIN0305 (mode name)

	Ant. 1 (dBi)	Ant. 2 (dBi)	DG for Power (dBi)	DG for PSD (dBi)	Power Limit Reduction (dB)	PSD Limit Reduction (dB)
2.4 GHz	2.40	2.40	5.41	5.41	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	FSV40	101040	10Hz~40GHz	Aug. 09, 2016	Aug. 24, 2016~ Sep. 15, 2016	Aug. 08, 2017	Conducted (TH01-KS)
Pulse Power Senor	Anritsu	MA2411B	0917070	300MHz~40GHz	Jan. 20, 2016	Aug. 24, 2016~ Sep. 15, 2016	Jan. 19, 2017	Conducted (TH01-KS)
Power Meter	Anritsu	ML2495A	1005002	50MHz Bandwidth	Jan. 20, 2016	Aug. 24, 2016~ Sep. 15, 2016	Jan. 19, 2017	Conducted (TH01-KS)
EMI Test Receiver	R&S	ESCI	100534	9kHz~3GHz	Oct. 24, 2015	Aug. 19, 2016~ Sep. 05, 2016	Oct. 23, 2016	Radiation (03CH03-KS)
EXA Spectrum Analyzer	Keysight	N9010A	MY55150244	10Hz~44GHz	Apr. 22, 2016	Aug. 19, 2016~ Sep. 05, 2016	Apr. 21, 2017	Radiation (03CH03-KS)
Loop Antenna	R&S	HFH2-Z2	100321	9kHz~30MHz	Nov. 07, 2015	Aug. 19, 2016~ Sep. 05, 2016	Nov. 06, 2016	Radiation (03CH03-KS)
Bilog Antenna	TeseQ	CBL6112D	35406	25MHz~2GHz	Apr. 16, 2016	Aug. 19, 2016~ Sep. 05, 2016	Apr. 15, 2017	Radiation (03CH03-KS)
Horn Antenna	Schwarzbeck	BBHA9120D	9120D-1356	1GHz~18GHz	Apr. 16, 2016	Aug. 19, 2016~ Sep. 05, 2016	Apr. 15, 2017	Radiation (03CH03-KS)
SHF-EHF Horn	com-power	AH-840	101070	18GHz~40GHz	Oct. 10, 2015	Aug. 19, 2016~ Sep. 05, 2016	Oct. 09, 2016	Radiation (03CH03-KS)
Amplifier	SONOMA	310N	187289	9kHz~1GHz	Aug. 09, 2016	Aug. 19, 2016~ Sep. 05, 2016	Aug. 08, 2017	Radiation (03CH03-KS)
high gain Amplifier	MITEQ	AMF-7D-00101800-30-10P	1943529	1GHz~18GHz	Jan. 20. 2016	Aug. 19, 2016~ Sep. 05, 2016	Jan.19, 2017	Radiation (03CH03-KS)
Amplifier	Agilent	8449B	3008A02370	1GHz~26.5GHz	Oct. 24, 2015	Aug. 19, 2016~ Sep. 05, 2016	Oct. 23, 2016	Radiation (03CH03-KS)
Amplifier	MITEQ	TTA1840-35-HG	1887435	18GHz~40GHz	Jan. 20, 2016	Aug. 19, 2016~ Sep. 05, 2016	Jan. 19, 2017	Radiation (03CH03-KS)
AC Power Source	Chroma	61601	F104090004	N/A	NCR	Aug. 19, 2016~ Sep. 05, 2016	NCR	Radiation (03CH03-KS)
Turn Table	ChamPro	EM 1000-T	060762-T	0~360 degree	NCR	Aug. 19, 2016~ Sep. 05, 2016	NCR	Radiation (03CH03-KS)
Antenna Mast	ChamPro	EM 1000-A	060762-A	1 m~4 m	NCR	Aug. 19, 2016~ Sep. 05, 2016	NCR	Radiation (03CH03-KS)
EMI Receiver	R&S	ESCI7	100768	9kHz~7GHz;	Apr. 29, 2016	Sep. 07, 2016	Apr. 28, 2017	Conduction (CO01-KS)
AC LISN	MessTec	AN3016	060103	9kHz~30MHz	Oct. 24, 2015	Sep. 07, 2016	Oct. 23, 2016	Conduction (CO01-KS)
AC LISN (for auxiliary equipment)	MessTec	AN3016	060105	9kHz~30MHz	Oct. 24, 2015	Sep. 07, 2016	Oct. 23, 2016	Conduction (CO01-KS)
AC Power Source	Chroma	61602	ABP000000811	AC 0V~300V, 45Hz~1000Hz	Oct. 24, 2015	Sep. 07, 2016	Oct. 23, 2016	Conduction (CO01-KS)

NCR: No Calibration Required

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))	4.5dB

Uncertainty of Radiated Emission Measurement (1GHz ~ 18GHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	4.5dB

Uncertainty of Radiated Emission Measurement (18GHz ~ 40GHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	4.6dB

Appendix A. Conducted Test Results

For APIN0304 (model name)

Test Engineer:	Ivan Zhang	Temperature:	24~25	°C
Test Date:	2016/08/24~2016/9/15	Relative Humidity:	54~55	%

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 1	Ant 2	Ant 1	Ant 2		
11b	1Mbps	2	1	2412	12.99	12.89	8.05	8.05	0.50	Pass
11b	1Mbps	2	6	2437	13.04	12.94	8.05	8.05	0.50	Pass
11b	1Mbps	2	11	2462	12.84	12.69	8.05	8.05	0.50	Pass
11g	6Mbps	2	1	2412	17.18	17.13	16.32	16.34	0.50	Pass
11g	6Mbps	2	2	2417	17.18	17.03	16.32	16.32	0.50	Pass
11g	6Mbps	2	6	2437	17.23	17.13	16.32	16.32	0.50	Pass
11g	6Mbps	2	10	2457	17.08	17.03	16.04	16.30	0.50	Pass
11g	6Mbps	2	11	2462	17.03	16.98	16.28	16.30	0.50	Pass
HT20	MCS0	2	1	2412	18.18	18.08	17.54	17.58	0.50	Pass
HT20	MCS0	2	6	2437	18.23	18.23	17.56	17.56	0.50	Pass
HT20	MCS0	2	11	2462	18.13	18.08	17.16	17.16	0.50	Pass
HT40	MCS0	2	3	2422	36.06	35.96	35.37	35.33	0.50	Pass
HT40	MCS0	2	6	2437	36.16	36.16	35.88	35.88	0.50	Pass
HT40	MCS0	2	9	2452	35.96	35.96	35.09	35.09	0.50	Pass

TEST RESULTS DATA
Peak Output Power

2.4GHz Band																
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Peak Conducted Power (dBm)			Power Setting	Conducted Power Limit (dBm)		DG (dBi)		EIRP Power (dBm)		EIRP Power Limit (dBm)		Pass /Fail
					Ant 1	Ant 2	SUM	-	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	
11b	1Mbps	2	1	2412	20.09	20.06	23.09	17.50	28.50		7.50		30.59		36.00		Pass
11b	1Mbps	2	6	2437	20.39	20.43	23.42	17.50	28.50		7.50		30.92		36.00		Pass
11b	1Mbps	2	11	2462	20.66	20.62	23.65	17.50	28.50		7.50		31.15		36.00		Pass
11g	6Mbps	2	1	2412	22.32	22.29	25.32	13.00	28.50		7.50		32.82		36.00		Pass
11g	6Mbps	2	2	2417	23.42	23.34	26.39	14.50	28.50		7.50		33.89		36.00		Pass
11g	6Mbps	2	6	2437	25.23	25.21	28.23	17.50	28.50		7.50		35.73		36.00		Pass
11g	6Mbps	2	10	2457	23.80	23.52	26.67	14.50	28.50		7.50		34.17		36.00		Pass
11g	6Mbps	2	11	2462	22.83	22.81	25.83	13.00	28.50		7.50		33.33		36.00		Pass
HT20	MCS0	2	1	2412	20.97	20.74	23.87	11.50	28.50		7.50		31.37		36.00		Pass
HT20	MCS0	2	6	2437	22.29	22.35	25.33	13.00	28.50		7.50		32.83		36.00		Pass
HT20	MCS0	2	11	2462	22.34	22.28	25.32	11.50	28.50		7.50		32.82		36.00		Pass
HT40	MCS0	2	3	2422	19.46	19.32	22.40	10.00	28.50		7.50		29.90		36.00		Pass
HT40	MCS0	2	6	2437	22.13	22.22	25.19	13.00	28.50		7.50		32.69		36.00		Pass
HT40	MCS0	2	9	2452	19.65	19.57	22.62	10.00	28.50		7.50		30.12		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 1	Ant 2	Ant 1	Ant 2	SUM
11b	1Mbps	2	1	2412	0.00	0.00	17.74	17.67	20.72
11b	1Mbps	2	6	2437	0.00	0.00	18.03	18.06	21.06
11b	1Mbps	2	11	2462	0.00	0.00	18.21	18.16	21.20
11g	6Mbps	2	1	2412	0.16	0.16	13.72	13.64	16.70
11g	6Mbps	2	2	2417	0.16	0.16	14.84	14.78	17.83
11g	6Mbps	2	6	2437	0.16	0.16	17.53	17.57	20.56
11g	6Mbps	2	10	2457	0.16	0.16	15.28	15.00	18.16
11g	6Mbps	2	11	2462	0.16	0.16	14.18	14.13	17.17
HT20	MCS0	2	1	2412	0.00	0.07	11.98	11.85	14.93
HT20	MCS0	2	6	2437	0.00	0.07	13.54	13.72	16.64
HT20	MCS0	2	11	2462	0.00	0.07	13.50	13.51	16.52
HT40	MCS0	2	3	2422	0.00	0.15	10.71	10.71	13.72
HT40	MCS0	2	6	2437	0.00	0.15	13.51	13.81	16.67
HT40	MCS0	2	9	2452	0.00	0.15	10.96	11.02	14.00

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

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 1	Ant 2	Worse + 3.01	Ant 1	Ant 2	Ant 1	Ant 2	
11b	1Mbps	2	1	2412	-7.74	-8.18	-4.73	7.50		6.50		Pass
11b	1Mbps	2	6	2437	-6.84	-7.28	-3.83	7.50		6.50		Pass
11b	1Mbps	2	11	2462	-6.89	-6.28	-3.27	7.50		6.50		Pass
11g	6Mbps	2	1	2412	-13.61	-12.90	-9.89	7.50		6.50		Pass
11g	6Mbps	2	2	2417	-12.52	-11.24	-8.23	7.50		6.50		Pass
11g	6Mbps	2	6	2437	-8.36	-8.13	-5.12	7.50		6.50		Pass
11g	6Mbps	2	10	2457	-12.20	-11.40	-8.39	7.50		6.50		Pass
11g	6Mbps	2	11	2462	-13.07	-13.39	-10.06	7.50		6.50		Pass
HT20	MCS0	2	1	2412	-15.08	-14.07	-11.06	7.50		6.50		Pass
HT20	MCS0	2	6	2437	-13.84	-13.75	-10.74	7.50		6.50		Pass
HT20	MCS0	2	11	2462	-13.71	-13.58	-10.57	7.50		6.50		Pass
HT40	MCS0	2	3	2422	-18.97	-18.51	-15.50	7.50		6.50		Pass
HT40	MCS0	2	6	2437	-15.89	-15.66	-12.65	7.50		6.50		Pass
HT40	MCS0	2	9	2452	-17.76	-18.00	-14.75	7.50		6.50		Pass

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

For APIN0305(model name)

Test Engineer:	Ivan Zhang	Temperature:	24~25	°C
Test Date:	2016/08/24~2016/09/05	Relative Humidity:	54~55	%

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 1	Ant 2	Ant 1	Ant 2		
11b	1Mbps	2	1	2412	12.99	12.89	8.05	8.05	0.50	Pass
11b	1Mbps	2	6	2437	13.04	12.94	8.05	8.05	0.50	Pass
11b	1Mbps	2	11	2462	12.84	12.69	8.05	8.05	0.50	Pass
11g	6Mbps	2	1	2412	17.18	17.13	16.32	16.34	0.50	Pass
11g	6Mbps	2	2	2417	17.18	17.08	16.32	16.32	0.50	Pass
11g	6Mbps	2	6	2437	17.23	17.13	16.32	16.32	0.50	Pass
11g	6Mbps	2	10	2457	17.08	17.08	16.28	16.30	0.50	Pass
11g	6Mbps	2	11	2462	17.08	17.03	16.32	16.32	0.50	Pass
HT20	MCS0	2	1	2412	18.13	18.18	17.54	17.56	0.50	Pass
HT20	MCS0	2	6	2437	18.23	18.13	17.56	17.56	0.50	Pass
HT20	MCS0	2	11	2462	18.08	18.08	17.18	17.52	0.50	Pass
HT40	MCS0	2	3	2422	36.06	35.96	35.37	35.33	0.50	Pass
HT40	MCS0	2	6	2437	36.16	36.16	35.32	35.88	0.50	Pass
HT40	MCS0	2	9	2452	35.96	35.86	35.25	35.09	0.50	Pass

TEST RESULTS DATA
Peak Output Power

2.4GHz Band																	
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Peak Conducted Power (dBm)			Power Setting	Conducted Power Limit (dBm)		DG (dBi)		EIRP Power (dBm)		EIRP Power Limit (dBm)		Pass /Fail
					Ant 1	Ant 2	SUM	-	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	
11b	1Mbps	2	1	2412	20.09	20.06	23.09	17.50	30.00		2.40		25.49		36.00		Pass
11b	1Mbps	2	6	2437	20.39	20.43	23.42	17.50	30.00		2.40		25.82		36.00		Pass
11b	1Mbps	2	11	2462	20.66	20.62	23.65	17.50	30.00		2.40		26.05		36.00		Pass
11g	6Mbps	2	1	2412	23.82	23.84	26.84	14.50	30.00		2.40		29.24		36.00		Pass
11g	6Mbps	2	2	2417	24.86	24.74	27.81	16.00	30.00		2.40		30.21		36.00		Pass
11g	6Mbps	2	6	2437	25.71	25.65	28.69	18.00	30.00		2.40		31.09		36.00		Pass
11g	6Mbps	2	10	2457	25.14	25.01	28.09	16.00	30.00		2.40		30.49		36.00		Pass
11g	6Mbps	2	11	2462	24.28	24.33	27.32	15.00	30.00		2.40		29.72		36.00		Pass
HT20	MCS0	2	1	2412	22.45	22.29	25.38	13.00	30.00		5.41		30.79		36.00		Pass
HT20	MCS0	2	6	2437	24.75	24.86	27.82	16.00	30.00		5.41		33.23		36.00		Pass
HT20	MCS0	2	11	2462	23.39	23.17	26.29	13.50	30.00		5.41		31.70		36.00		Pass
HT40	MCS0	2	3	2422	20.37	20.19	23.29	11.00	30.00		5.41		28.70		36.00		Pass
HT40	MCS0	2	6	2437	22.97	22.91	25.95	14.00	30.00		5.41		31.36		36.00		Pass
HT40	MCS0	2	9	2452	20.51	20.46	23.50	11.00	30.00		5.41		28.91		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 1	Ant 2	Ant 1	Ant 2	SUM
11b	1Mbps	2	1	2412	0.00	0.00	17.74	17.67	20.72
11b	1Mbps	2	6	2437	0.00	0.00	18.03	18.06	21.06
11b	1Mbps	2	11	2462	0.00	0.00	18.21	18.16	21.20
11g	6Mbps	2	1	2412	0.16	0.16	15.40	15.29	18.36
11g	6Mbps	2	2	2417	0.16	0.16	16.53	16.48	19.52
11g	6Mbps	2	6	2437	0.16	0.16	18.01	17.97	21.00
11g	6Mbps	2	10	2457	0.16	0.16	16.83	16.77	19.82
11g	6Mbps	2	11	2462	0.16	0.16	15.91	15.75	18.85
HT20	MCS0	2	1	2412	0.07	0.07	13.54	13.43	16.50
HT20	MCS0	2	6	2437	0.07	0.07	16.56	16.60	19.59
HT20	MCS0	2	11	2462	0.07	0.07	14.62	14.41	17.53
HT40	MCS0	2	3	2422	0.13	0.15	11.57	11.52	14.56
HT40	MCS0	2	6	2437	0.13	0.15	14.65	14.62	17.65
HT40	MCS0	2	9	2452	0.13	0.15	11.98	11.90	14.95

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

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 1	Ant 2	Worse + 3.01	Ant 1	Ant 2	Ant 1	Ant 2	
11b	1Mbps	2	1	2412	-7.74	-8.18	-4.73	5.41		8.00		Pass
11b	1Mbps	2	6	2437	-6.84	-7.28	-3.83	5.41		8.00		Pass
11b	1Mbps	2	11	2462	-6.89	-6.28	-3.27	5.41		8.00		Pass
11g	6Mbps	2	1	2412	-12.44	-10.87	-7.86	5.41		8.00		Pass
11g	6Mbps	2	2	2417	-10.37	-10.80	-7.36	5.41		8.00		Pass
11g	6Mbps	2	6	2437	-8.36	-8.13	-5.12	5.41		8.00		Pass
11g	6Mbps	2	10	2457	-10.13	-10.32	-7.12	5.41		8.00		Pass
11g	6Mbps	2	11	2462	-10.16	-11.48	-7.15	5.41		8.00		Pass
HT20	MCS0	2	1	2412	-13.15	-13.32	-10.14	5.41		8.00		Pass
HT20	MCS0	2	6	2437	-9.80	-10.48	-6.79	5.41		8.00		Pass
HT20	MCS0	2	11	2462	-12.63	-11.82	-8.81	5.41		8.00		Pass
HT40	MCS0	2	3	2422	-17.69	-18.60	-14.68	5.41		8.00		Pass
HT40	MCS0	2	6	2437	-15.27	-15.11	-12.10	5.41		8.00		Pass
HT40	MCS0	2	9	2452	-16.69	-17.20	-13.68	5.41		8.00		Pass

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

Appendix B. Radiated Spurious Emission

For Sample 1 with Adapter

2.4GHz 2400~2483.5MHz

WIFI 802.11b (Band Edge @ 3m)

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
1+2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11b CH 01 2412MHz		2372.27	55.85	-18.15	74	60.47	26.95	5.45	37.02	159	153	P	H
		2389.04	44.81	-9.19	54	49.36	27	5.47	37.02	159	153	A	H
	*	2413.193	109.52	-	-	113.92	27.13	5.47	37	159	153	P	H
	*	2413.11	107.04	-	-	111.44	27.13	5.47	37	159	153	A	H
		2387.22	55.78	-18.22	74	60.33	27	5.47	37.02	307	193	P	V
		2389.17	45.45	-8.55	54	50	27	5.47	37.02	307	193	A	V
	*	2412.024	109.26	-	-	113.66	27.13	5.47	37	307	193	P	V
	*	2413.026	106.62	-	-	111.02	27.13	5.47	37	307	193	A	V
802.11b CH 06 2437MHz	*	2438.159	111.19	-	-	115.28	27.39	5.49	36.97	164	160	P	H
	*	2437.992	108.73	-	-	112.82	27.39	5.49	36.97	164	160	A	H
	*	2435.905	110.81	-	-	115.06	27.26	5.48	36.99	301	193	P	V
	*	2435.905	108.37	-	-	112.62	27.26	5.48	36.99	301	193	A	V
802.11b CH 11 2462MHz	*	2461.957	109.98	-	-	113.93	27.51	5.5	36.96	201	150	P	H
	*	2460.955	107.43	-	-	111.38	27.51	5.5	36.96	201	150	A	H
		2485.3	56.82	-17.18	74	60.61	27.64	5.51	36.94	201	150	P	H
		2484.82	46.15	-7.85	54	49.94	27.64	5.51	36.94	201	150	A	H
	*	2463.209	110.73	-	-	114.68	27.51	5.5	36.96	303	206	P	V
	*	2463.209	108.18	-	-	112.13	27.51	5.5	36.96	303	206	A	V
		2485.24	56.53	-17.47	74	60.32	27.64	5.51	36.94	303	206	P	V
		2484.76	46.46	-7.54	54	50.25	27.64	5.51	36.94	303	206	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 802.11b (Harmonic @ 3m)

WIFI Ant. 1+2	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	43.04	-30.96	74	40.49	31.51	7.72	36.68	100	360	P	H
		4824	42.97	-31.03	74	40.42	31.51	7.72	36.68	100	360	P	V
802.11b CH 06 2437MHz		4872	42.46	-31.54	74	39.77	31.59	7.76	36.66	100	360	P	H
		7308	45.02	-28.98	74	37.92	34.03	9.76	36.69	100	360	P	H
		4872	43.11	-30.89	74	40.42	31.59	7.76	36.66	100	360	P	V
		7308	45	-29	74	37.9	34.03	9.76	36.69	100	360	P	V
802.11b CH 11 2462MHz		4926	42.97	-31.03	74	40.15	31.67	7.8	36.65	100	360	P	H
		7386	45.04	-28.96	74	37.67	34.29	9.86	36.78	100	360	P	H
		4926	42.78	-31.22	74	39.96	31.67	7.8	36.65	100	360	P	V
		7386	45.25	-28.75	74	37.88	34.29	9.86	36.78	100	360	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 Ant. 1+2	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		2389.95	62.81	-11.19	74	67.36	27	5.47	37.02	100	142	P	H
		2389.95	51.31	-2.69	54	55.86	27	5.47	37.02	100	142	P	H
	*	2417.535	108.03	-	-	112.43	27.13	5.47	37	100	142	P	H
	*	2417.451	100.45	-	-	104.85	27.13	5.47	37	100	142	P	H
		2389.43	60.67	-13.33	74	65.22	27	5.47	37.02	117	163	P	V
		2389.69	48.13	-5.87	54	52.68	27	5.47	37.02	117	163	P	V
	*	2418.454	107.77	-	-	112.17	27.13	5.47	37	117	163	P	V
	*	2418.955	99.55	-	-	103.95	27.13	5.47	37	117	163	P	V
802.11g CH 02 2417MHz		2388.65	59.66	-14.34	74	64.21	27	5.47	37.02	168	166	P	H
		2388.13	47.36	-6.64	54	51.91	27	5.47	37.02	168	166	A	H
		2418.036	111.34			115.74	27.13	5.47	37	168	166	P	H
		2418.37	106.38			110.78	27.13	5.47	37	168	166	A	H
		2386.7	57.23	-16.77	74	61.78	27	5.47	37.02	212	185	P	V
		2389.56	45.93	-8.07	54	50.48	27	5.47	37.02	212	185	A	V
		2411.857	108.43			112.83	27.13	5.47	37	212	185	P	V
		2415.948	103.37			107.77	27.13	5.47	37	212	185	A	V
802.11g CH 06 2437MHz	*	2439.162	112.06	-	-	116.15	27.39	5.49	36.97	186	171	P	H
	*	2433.316	103.09	-	-	107.34	27.26	5.48	36.99	186	171	A	H
	*	2443.253	111.24	-	-	115.33	27.39	5.49	36.97	178	198	P	V
	*	2438.243	103.34	-	-	107.43	27.39	5.49	36.97	178	198	A	V
802.11g CH 10 2457MHz		2455.528	110.73			114.68	27.51	5.5	36.96	222	195	P	H
		2460.621	102.25			106.2	27.51	5.5	36.96	222	195	A	H
		2485.84	58.31	-15.69	74	62.1	27.64	5.51	36.94	222	195	P	H
		2485.3	45.74	-8.26	54	49.53	27.64	5.51	36.94	222	195	A	H
		2452.271	107.78			111.87	27.39	5.49	36.97	212	185	P	V
		2455.945	102.87			106.82	27.51	5.5	36.96	212	185	A	V
		2484.16	55.21	-18.79	74	59	27.64	5.51	36.94	212	185	P	V
		2486.08	43.35	-10.65	54	47.14	27.64	5.51	36.94	212	185	A	V

802.11g CH 11 2462MHz	*	2465.631	108.16	-	-	112.11	27.51	5.5	36.96	107	155	P	H
	*	2460.955	100.53	-	-	104.48	27.51	5.5	36.96	107	155	A	H
		2484.4	58.55	-15.45	74	62.34	27.64	5.51	36.94	107	155	P	H
		2484.46	47.13	-6.87	54	50.92	27.64	5.51	36.94	107	155	A	H
	*	2463.877	109.6	-	-	113.55	27.51	5.5	36.96	296	201	P	V
	*	2463.877	101.29	-	-	105.24	27.51	5.5	36.96	296	201	A	V
		2483.62	62.7	-11.3	74	66.49	27.64	5.51	36.94	296	201	P	V
		2483.5	50.22	-3.78	54	54.01	27.64	5.51	36.94	296	201	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 Ant. 1+2	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	42.95	-31.05	74	40.4	31.51	7.72	36.68	100	360	P	H
		4824	42.43	-31.57	74	39.88	31.51	7.72	36.68	100	360	P	V
802.11g CH 02 2417MHz		4834	43.75	-30.25	74	41.16	31.53	7.74	36.68	100	360	P	H
		7248	44.86	-29.14	74	37.92	33.88	9.7	36.64	100	360	P	H
		4834	42.95	-31.05	74	40.36	31.53	7.74	36.68	100	360	P	V
		7248	45.04	-28.96	74	38.1	33.88	9.7	36.64	100	360	P	V
802.11g CH 06 2437MHz		4872	43.54	-30.46	74	40.85	31.59	7.76	36.66	100	360	P	H
		7308	46.39	-27.61	74	39.29	34.03	9.76	36.69	100	360	P	H
		4872	43.31	-30.69	74	40.62	31.59	7.76	36.66	100	360	P	V
		7308	46.86	-27.14	74	39.76	34.03	9.76	36.69	100	360	P	V
802.11g CH 10 2457MHz		4914	41.85	-32.15	74	39.08	31.64	7.78	36.65	100	360	P	H
		7371	46.92	-27.08	74	39.6	34.24	9.84	36.76	100	360	P	H
		4914	42.53	-31.47	74	39.76	31.64	7.78	36.65	100	0	P	V
		7371	46.19	-27.81	74	38.87	34.24	9.84	36.76	100	0	P	V
802.11g CH 11 2462MHz		4926	43.56	-30.44	74	40.74	31.67	7.8	36.65	100	360	P	H
		7386	45.41	-28.59	74	38.04	34.29	9.86	36.78	100	360	P	H
		4926	43.38	-30.62	74	40.56	31.67	7.8	36.65	100	360	P	V
		7386	45.65	-28.35	74	38.28	34.29	9.86	36.78	100	360	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 HT20 (Band Edge @ 3m)

WIFI Ant. 1+2	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)
		2389.95	58.69	-15.31	74	63.24	27	5.47	37.02	187	171	P	H
		2389.95	45.9	-8.1	54	50.45	27	5.47	37.02	187	171	A	H
802.11n	*	2414.613	106.14	-	-	110.54	27.13	5.47	37	187	171	P	H
HT20	*	2413.11	100.99	-	-	105.39	27.13	5.47	37	187	171	A	H
CH 01		2388.91	59.8	-14.2	74	64.35	27	5.47	37.02	276	205	P	V
2412MHz		2389.95	46.31	-7.69	54	50.86	27	5.47	37.02	276	205	A	V
	*	2418.37	106.44	-	-	110.84	27.13	5.47	37	276	205	P	V
	*	2413.277	97.58	-	-	101.98	27.13	5.47	37	276	205	A	V
802.11n	*	2435.404	109.67	-	-	113.92	27.26	5.48	36.99	210	143	P	H
HT20	*	2438.076	104.36	-	-	108.45	27.39	5.49	36.97	210	143	A	H
CH 06	*	2441.917	111.01	-	-	115.1	27.39	5.49	36.97	276	205	P	V
2437MHz	*	2436.072	103.89	-	-	108.14	27.26	5.48	36.99	276	205	A	V
	*	2455.778	108.67	-	-	112.62	27.51	5.5	36.96	210	143	P	H
	*	2460.788	99.47	-	-	103.42	27.51	5.5	36.96	210	143	A	H
802.11n		2483.5	56.5	-17.5	74	60.29	27.64	5.51	36.94	210	143	P	H
HT20		2483.8	44.86	-9.14	54	48.65	27.64	5.51	36.94	210	143	A	H
CH 11	*	2460.454	108.35	-	-	112.3	27.51	5.5	36.96	162	211	P	V
2462MHz	*	2463.46	99.66	-	-	103.61	27.51	5.5	36.96	162	211	A	V
		2484.52	58.15	-15.85	74	61.94	27.64	5.51	36.94	162	211	P	V
		2483.56	45.26	-8.74	54	49.05	27.64	5.51	36.94	162	211	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 Ant. 1+2	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	42.25	-31.75	74	39.7	31.51	7.72	36.68	100	360	P	H
		4824	42.65	-31.35	74	40.1	31.51	7.72	36.68	100	360	P	V
802.11n HT20 CH 06 2437MHz		4872	43.34	-30.66	74	40.65	31.59	7.76	36.66	100	360	P	H
		7308	45.6	-28.4	74	38.5	34.03	9.76	36.69	100	360	P	H
		4872	43.62	-30.38	74	40.93	31.59	7.76	36.66	100	360	P	V
		7308	46.02	-27.98	74	38.92	34.03	9.76	36.69	100	360	P	V
802.11n HT20 CH 11 2462MHz		4926	42.45	-31.55	74	39.63	31.67	7.8	36.65	100	360	P	H
		7386	44.7	-29.3	74	37.33	34.29	9.86	36.78	100	360	P	H
		4926	43.46	-30.54	74	40.64	31.67	7.8	36.65	100	360	P	V
		7386	45.19	-28.81	74	37.82	34.29	9.86	36.78	100	360	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 Ant. 1+2	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)
		2388.26	61.45	-12.55	74	66	27	5.47	37.02	222	217	P	H
		2388.39	49.93	-4.07	54	54.48	27	5.47	37.02	222	217	A	H
	*	2433.233	104.71	-	-	108.96	27.26	5.48	36.99	222	217	P	H
	*	2413.11	96.77	-	-	101.17	27.13	5.47	37	222	217	A	H
802.11n		2485.9	56.29	-17.71	74	60.08	27.64	5.51	36.94	222	217	P	H
HT40		2486.14	45.85	-8.15	54	49.64	27.64	5.51	36.94	222	217	A	H
CH 03		2389.69	66.66	-7.34	74	71.21	27	5.47	37.02	173	180	P	V
2422MHz		2389.3	52.94	-1.06	54	57.49	27	5.47	37.02	173	180	A	V
	*	2412.107	106.43	-	-	110.83	27.13	5.47	37	173	180	P	V
	*	2413.277	100.95	-	-	105.35	27.13	5.47	37	173	180	A	V
		2497.54	56.34	-17.66	74	59.98	27.77	5.52	36.93	173	180	P	V
		2489.86	46.23	-7.77	54	49.87	27.77	5.52	36.93	173	180	A	V
		2389.82	58.31	-15.69	74	62.86	27	5.47	37.02	166	143	P	H
		2389.56	47.36	-6.64	54	51.91	27	5.47	37.02	166	143	A	H
	*	2433.483	106.2	-	-	110.45	27.26	5.48	36.99	166	143	P	H
	*	2425.802	102.1	-	-	106.35	27.26	5.48	36.99	166	143	A	H
802.11n		2484.16	59.81	-14.19	74	63.6	27.64	5.51	36.94	166	143	P	H
HT40		2483.8	48.24	-5.76	54	52.03	27.64	5.51	36.94	166	143	A	H
CH 06		2388.91	66.71	-7.29	74	71.26	27	5.47	37.02	173	170	P	V
2437MHz		2389.56	52.6	-1.4	54	57.15	27	5.47	37.02	173	170	A	V
	*	2445.925	104.47	-	-	108.56	27.39	5.49	36.97	173	170	P	V
	*	2425.885	100.32	-	-	104.57	27.26	5.48	36.99	173	170	A	V
		2485.6	67.87	-6.13	74	71.66	27.64	5.51	36.94	173	170	P	V
		2483.5	51.49	-2.51	54	55.28	27.64	5.51	36.94	173	170	A	V

		2377.99	55.24	-18.76	74	59.86	26.95	5.45	37.02	193	216	P	H
		2388.52	44.66	-9.34	54	49.21	27	5.47	37.02	193	216	A	H
	*	2443.086	103.94	-	-	108.03	27.39	5.49	36.97	193	216	P	H
	*	2444.255	94.88	-	-	98.97	27.39	5.49	36.97	193	216	A	H
802.11n		2483.98	62.22	-11.78	74	66.01	27.64	5.51	36.94	193	216	P	H
HT40		2484.34	49.09	-4.91	54	52.88	27.64	5.51	36.94	193	216	A	H
CH 09		2363.3	55.19	-18.81	74	59.87	26.91	5.43	37.02	174	176	P	V
2452MHz		2388.78	45.35	-8.65	54	49.9	27	5.47	37.02	174	176	A	V
	*	2440.832	106.2	-	-	110.29	27.39	5.49	36.97	174	176	P	V
	*	2440.999	103.75	-	-	107.84	27.39	5.49	36.97	174	176	A	V
		2486.56	61.23	-12.77	74	65.02	27.64	5.51	36.94	174	176	P	V
		2486.92	49.04	-4.96	54	52.83	27.64	5.51	36.94	174	176	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 Ant. 1+2	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		4842	42.08	-31.92	74	39.49	31.53	7.74	36.68	100	360	P	H
HT40		7266	46.34	-27.66	74	39.35	33.93	9.72	36.66	100	360	P	H
CH 03		4842	42.97	-31.03	74	40.38	31.53	7.74	36.68	100	0	P	V
2422MHz		7266	45.02	-28.98	74	38.03	33.93	9.72	36.66	100	0	P	V
802.11n		4872	43.36	-30.64	74	40.67	31.59	7.76	36.66	100	0	P	H
HT40		7311	46.15	-27.85	74	39.05	34.03	9.76	36.69	100	0	P	H
CH 06		4872	42.68	-31.32	74	39.99	31.59	7.76	36.66	100	360	P	V
2437MHz		7308	45.42	-28.58	74	38.32	34.03	9.76	36.69	100	360	P	V
802.11n		4902	42.31	-31.69	74	39.54	31.64	7.78	36.65	100	360	P	H
HT40		7356	44.91	-29.09	74	37.65	34.19	9.82	36.75	100	360	P	H
CH 09		4904	43.28	-30.72	74	40.51	31.64	7.78	36.65	100	0	P	V
2452MHz		7356	46.81	-27.19	74	39.55	34.19	9.82	36.75	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

For Sample 2 with Adapter

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.
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		2389.43	54.74	-19.26	74	59.29	27	5.47	37.02	239	207	P	H
		2389.95	44.36	-9.64	54	48.91	27	5.47	37.02	239	207	A	H
	*	2413.193	114.48	-	-	118.88	27.13	5.47	37	239	207	P	H
	*	2413.193	111.97	-	-	116.37	27.13	5.47	37	239	207	A	H
		2389.43	55.84	-18.16	74	60.39	27	5.47	37.02	124	182	P	V
		2389.95	45.05	-8.95	54	49.6	27	5.47	37.02	124	182	A	V
	*	2410.855	116.22	-	-	120.62	27.13	5.47	37	124	182	P	V
	*	2411.022	113.7	-	-	118.1	27.13	5.47	37	124	182	A	V
802.11b CH 06 2437MHz	*	2438.243	115.06	-	-	119.15	27.39	5.49	36.97	234	207	P	H
	*	2438.243	112.65	-	-	116.74	27.39	5.49	36.97	234	207	A	H
	*	2435.905	117.12	-	-	121.37	27.26	5.48	36.99	100	187	P	V
	*	2435.905	114.76	-	-	119.01	27.26	5.48	36.99	100	187	A	V
802.11b CH 11 2462MHz	*	2463.376	115.82	-	-	119.77	27.51	5.5	36.96	231	206	P	H
	*	2463.293	113.35	-	-	117.3	27.51	5.5	36.96	231	206	A	H
		2484.64	56.8	-17.2	74	60.59	27.64	5.51	36.94	231	206	P	H
		2486.14	46.84	-7.16	54	50.63	27.64	5.51	36.94	231	206	A	H
	*	2460.955	116.81	-	-	120.76	27.51	5.5	36.96	159	186	P	V
	*	2460.955	114.51	-	-	118.46	27.51	5.5	36.96	159	186	A	V
		2486.38	57.75	-16.25	74	61.54	27.64	5.51	36.94	159	186	P	V
		2484.76	46.28	-7.72	54	50.07	27.64	5.51	36.94	159	186	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 802.11b (Harmonic @ 3m)

WIFI Ant. 1+2	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	43.39	-30.61	74	40.84	31.51	7.72	36.68	100	360	P	H
		4824	42.69	-31.31	74	40.14	31.51	7.72	36.68	100	360	P	V
802.11b CH 06 2437MHz		4874	42.06	-31.94	74	39.37	31.59	7.76	36.66	100	192	P	H
		7308	45.16	-28.84	74	38.06	34.03	9.76	36.69	100	192	P	H
		4872	41.8	-32.2	74	39.11	31.59	7.76	36.66	100	103	P	V
		7311	45.67	-28.33	74	38.57	34.03	9.76	36.69	100	103	P	V
802.11b CH 11 2462MHz		4926	42.89	-31.11	74	40.07	31.67	7.8	36.65	100	360	P	H
		7386	45.67	-28.33	74	38.3	34.29	9.86	36.78	100	360	P	H
		4926	42.59	-31.41	74	39.77	31.67	7.8	36.65	100	360	P	V
		7386	45.29	-28.71	74	37.92	34.29	9.86	36.78	100	360	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 Ant. 1+2	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		2389.95	64.69	-9.31	74	69.24	27	5.47	37.02	215	190	P	H
		2389.56	51.82	-2.18	54	56.37	27	5.47	37.02	215	190	A	H
	*	2408.851	114.04	-	-	118.44	27.13	5.47	37	215	190	P	H
	*	2408.684	105.58	-	-	109.98	27.13	5.47	37	215	190	A	H
		2388.78	60.18	-13.82	74	64.73	27	5.47	37.02	104	174	P	V
		2388.78	48.76	-5.24	54	53.31	27	5.47	37.02	104	174	A	V
	*	2417.451	112.68	-	-	117.08	27.13	5.47	37	104	174	P	V
	*	2407.431	104.8	-	-	109.2	27.13	5.47	37	104	174	A	V
802.11g CH 02 2417MHz		2419.706	115.37			119.62	27.26	5.48	36.99	252	176	P	H
		2414.613	107.67			112.07	27.13	5.47	37	252	176	A	H
		2389.82	65.84	-8.16	74	70.39	27	5.47	37.02	252	176	P	H
		2389.43	52.38	-1.62	54	56.93	27	5.47	37.02	252	176	A	H
		2422.378	114.03			118.28	27.26	5.48	36.99	142	177	P	V
		2412.191	106.39			110.79	27.13	5.47	37	142	177	A	V
		2387.35	63.61	-10.39	74	68.16	27	5.47	37.02	142	177	P	V
		2387.87	49.98	-4.02	54	54.53	27	5.47	37.02	142	177	A	V
802.11g CH 06 2437MHz	*	2433.734	118.56	-	-	122.81	27.26	5.48	36.99	234	189	P	H
	*	2439.078	110.4	-	-	114.49	27.39	5.49	36.97	234	189	A	H
	*	2441.5	118.29	-	-	122.38	27.39	5.49	36.97	129	187	P	V
	*	2441.583	110.44	-	-	114.53	27.39	5.49	36.97	129	187	A	V
802.11g CH 10 2457MHz		2453.774	114.19			118.14	27.51	5.5	36.96	100	189	P	H
		2464.128	106.47			110.42	27.51	5.5	36.96	100	189	A	H
		2483.68	65.24	-8.76	74	69.03	27.64	5.51	36.94	100	189	P	H
		2483.62	51.96	-2.04	54	55.75	27.64	5.51	36.94	100	189	A	H
		2461.79	114.95			118.9	27.51	5.5	36.96	122	187	P	V
		2461.707	107.97			111.92	27.51	5.5	36.96	122	187	A	V
		2487.16	62.14	-11.86	74	65.93	27.64	5.51	36.94	122	187	P	V
		2486.98	50.72	-3.28	54	54.51	27.64	5.51	36.94	122	187	A	V

802.11g CH 11 2462MHz	*	2464.712	114.86	-	-	118.81	27.51	5.5	36.96	214	177	P	H
	*	2464.796	96.77	-	-	100.72	27.51	5.5	36.96	214	177	A	H
		2484.64	61.06	-12.94	74	64.85	27.64	5.51	36.94	214	177	P	H
		2483.5	49.58	-4.42	54	53.37	27.64	5.51	36.94	214	177	A	H
	*	2467.635	114.09	-	-	118.04	27.51	5.5	36.96	124	179	P	V
	*	2467.385	106.17	-	-	110.12	27.51	5.5	36.96	124	179	A	V
		2483.92	59.65	-14.35	74	63.44	27.64	5.51	36.94	124	179	P	V
		2483.62	48.94	-5.06	54	52.73	27.64	5.51	36.94	124	179	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 Ant. 1+2	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	42.67	-31.33	74	40.12	31.51	7.72	36.68	100	360	P	H
		4824	42.97	-31.03	74	40.42	31.51	7.72	36.68	100	360	P	V
802.11g CH 02 2417MHz		4914	43.16	-30.84	74	40.39	31.64	7.78	36.65	100	360	P	H
		7371	45.64	-28.36	74	38.32	34.24	9.84	36.76	100	360	P	H
		4914	42.73	-31.27	74	39.96	31.64	7.78	36.65	100	0	P	V
		7371	45.48	-28.52	74	38.16	34.24	9.84	36.76	100	0	P	V
802.11g CH 06 2437MHz		4872	43.13	-30.87	74	40.44	31.59	7.76	36.66	100	360	P	H
		7308	46.64	-27.36	74	39.54	34.03	9.76	36.69	100	360	P	H
		4872	43.37	-30.63	74	40.68	31.59	7.76	36.66	100	360	P	V
		7308	45.25	-28.75	74	38.15	34.03	9.76	36.69	100	360	P	V
802.11g CH 10 2457MHz		4914	43.16	-30.84	74	40.39	31.64	7.78	36.65	100	360	P	H
		7371	45.64	-28.36	74	38.32	34.24	9.84	36.76	100	360	P	H
		4914	42.73	-31.27	74	39.96	31.64	7.78	36.65	100	0	P	V
		7371	45.48	-28.52	74	38.16	34.24	9.84	36.76	100	0	P	V
802.11g CH 11 2462MHz		4926	43	-31	74	40.18	31.67	7.8	36.65	100	360	P	H
		7386	45.53	-28.47	74	38.16	34.29	9.86	36.78	100	360	P	H
		4926	43.35	-30.65	74	40.53	31.67	7.8	36.65	100	360	P	V
		7386	45.36	-28.64	74	37.99	34.29	9.86	36.78	100	360	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 HT20 (Band Edge @ 3m)

WIFI Ant. 1+2	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)
		2389.69	61.87	-12.13	74	66.42	27	5.47	37.02	236	207	P	H
		2389.95	49.84	-4.16	54	54.39	27	5.47	37.02	236	207	A	H
802.11n	*	2413.527	111.39	-	-	115.79	27.13	5.47	37	236	207	P	H
HT20	*	2414.863	102.67	-	-	107.07	27.13	5.47	37	236	207	A	H
CH 01		2389.95	67.23	-6.77	74	71.78	27	5.47	37.02	144	178	P	V
2412MHz		2389.95	53.43	-0.57	54	57.98	27	5.47	37.02	144	178	A	V
	*	2413.527	112.79	-	-	117.19	27.13	5.47	37	144	178	P	V
	*	2413.11	103.92	-	-	108.32	27.13	5.47	37	144	178	A	V
802.11n	*	2442.167	114.36	-	-	118.45	27.39	5.49	36.97	236	195	P	H
HT20	*	2443.169	106.39	-	-	110.48	27.39	5.49	36.97	236	195	A	H
CH 06	*	2438.493	115.21	-	-	119.3	27.39	5.49	36.97	100	180	P	V
2437MHz	*	2438.41	106.28	-	-	110.37	27.39	5.49	36.97	100	180	A	V
	*	2469.305	114.76	-	-	118.71	27.51	5.5	36.96	207	193	P	H
	*	2469.472	106.7	-	-	110.65	27.51	5.5	36.96	207	193	A	H
802.11n		2484.4	61.75	-12.25	74	65.54	27.64	5.51	36.94	207	193	P	H
HT20		2483.74	50.46	-3.54	54	54.25	27.64	5.51	36.94	207	193	A	H
CH 11	*	2463.543	115.28	-	-	119.23	27.51	5.5	36.96	124	179	P	V
2462MHz	*	2463.877	106.34	-	-	110.29	27.51	5.5	36.96	124	179	A	V
		2483.92	62.13	-11.87	74	65.92	27.64	5.51	36.94	124	179	P	V
		2483.5	50.05	-3.95	54	53.84	27.64	5.51	36.94	124	179	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 Ant. 1+2	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	42.06	-31.94	74	39.51	31.51	7.72	36.68	100	360	P	H
		4824	42.18	-31.82	74	39.63	31.51	7.72	36.68	100	360	P	V
802.11n HT20 CH 06 2437MHz		4872	42.11	-31.89	74	39.42	31.59	7.76	36.66	100	360	P	H
		7308	46.06	-27.94	74	38.96	34.03	9.76	36.69	100	360	P	H
		4872	42.82	-31.18	74	40.13	31.59	7.76	36.66	100	360	P	V
		7308	45.48	-28.52	74	38.38	34.03	9.76	36.69	100	360	P	V
802.11n HT20 CH 11 2462MHz		4926	43.51	-30.49	74	40.69	31.67	7.8	36.65	100	360	P	H
		7386	46.31	-27.69	74	38.94	34.29	9.86	36.78	100	360	P	H
		4926	44.12	-29.88	74	41.3	31.67	7.8	36.65	100	360	P	V
		7386	44.83	-29.17	74	37.46	34.29	9.86	36.78	100	360	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 Ant. 1+2	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)
		2388.78	67.04	-6.96	74	71.59	27	5.47	37.02	215	198	P	H
		2388	53.36	-0.64	54	57.91	27	5.47	37.02	215	198	A	H
	*	2437.074	110.26	-	-	114.35	27.39	5.49	36.97	215	198	P	H
	*	2428.306	100.35	-	-	104.6	27.26	5.48	36.99	215	198	A	H
802.11n		2483.68	57.14	-16.86	74	60.93	27.64	5.51	36.94	198	179	P	H
HT40		2484.88	47.29	-6.71	54	51.08	27.64	5.51	36.94	198	179	A	H
CH 03		2382.93	66.13	-7.87	74	70.75	26.95	5.45	37.02	100	193	P	V
2422MHz		2388.78	53.75	-0.25	54	58.3	27	5.47	37.02	100	193	A	V
	*	2434.319	110.67	-	-	114.92	27.26	5.48	36.99	100	193	P	V
	*	2431.646	101.21	-	-	105.46	27.26	5.48	36.99	100	193	A	V
		2486.8	56.63	-17.37	74	60.42	27.64	5.51	36.94	100	179	P	V
		2484.28	47	-7	54	50.79	27.64	5.51	36.94	100	179	A	V
		2384.62	63.15	-10.85	74	67.77	26.95	5.45	37.02	271	194	P	H
		2387.09	51.01	-2.99	54	55.56	27	5.47	37.02	271	194	A	H
	*	2440.915	111.56	-	-	115.65	27.39	5.49	36.97	271	194	P	H
	*	2442.668	103.99	-	-	108.08	27.39	5.49	36.97	271	194	A	H
802.11n		2483.5	61.21	-12.79	74	65	27.64	5.51	36.94	271	194	P	H
HT40		2483.62	50.55	-3.45	54	54.34	27.64	5.51	36.94	271	194	A	H
CH 06		2389.69	65.84	-8.16	74	70.39	27	5.47	37.02	113	189	P	V
2437MHz		2389.95	52.92	-1.08	54	57.47	27	5.47	37.02	113	189	A	V
	*	2433.734	111.74	-	-	115.99	27.26	5.48	36.99	113	189	P	V
	*	2434.235	104.46	-	-	108.71	27.26	5.48	36.99	113	189	A	V
		2485.06	59.99	-14.01	74	63.78	27.64	5.51	36.94	113	189	P	V
		2483.86	49.86	-4.14	54	53.65	27.64	5.51	36.94	113	189	A	V

		2382.02	56.29	-17.71	74	60.91	26.95	5.45	37.02	249	180	P	H
		2389.3	45.79	-8.21	54	50.34	27	5.47	37.02	249	180	A	H
	*	2461.039	108.1	-	-	112.05	27.51	5.5	36.96	249	180	P	H
	*	2462.458	100.8	-	-	104.75	27.51	5.5	36.96	249	180	A	H
802.11n		2485.78	60.52	-13.48	74	64.31	27.64	5.51	36.94	249	180	P	H
HT40		2483.5	51.37	-2.63	54	55.16	27.64	5.51	36.94	249	180	A	H
CH 09		2389.43	56.26	-17.74	74	60.81	27	5.47	37.02	101	173	P	V
2452MHz		2389.95	45.59	-8.41	54	50.14	27	5.47	37.02	101	173	A	V
	*	2454.776	107.59	-	-	111.54	27.51	5.5	36.96	101	173	P	V
	*	2454.358	101.27	-	-	105.22	27.51	5.5	36.96	101	173	A	V
		2489.44	59.56	-14.44	74	63.2	27.77	5.52	36.93	101	173	P	V
		2483.74	49.63	-4.37	54	53.42	27.64	5.51	36.94	101	173	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 Ant. 1+2	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		4842	42.36	-31.64	74	39.77	31.53	7.74	36.68	100	0	P	H
HT40		7266	45.26	-28.74	74	38.27	33.93	9.72	36.66	100	0	P	H
CH 03		4844	42.58	-31.42	74	39.99	31.53	7.74	36.68	100	360	P	V
2422MHz		7266	45.16	-28.84	74	38.17	33.93	9.72	36.66	100	360	P	V
802.11n		4872	43.1	-30.9	74	40.41	31.59	7.76	36.66	100	360	P	H
HT40		7332	45.25	-28.75	74	38.1	34.08	9.78	36.71	100	360	P	H
CH 06		4874	43.61	-30.39	74	40.92	31.59	7.76	36.66	100	0	P	V
2437MHz		7332	46.18	-27.82	74	39.03	34.08	9.78	36.71	100	0	P	V
802.11n		4902	43.45	-30.55	74	40.68	31.64	7.78	36.65	100	360	P	H
HT40		7356	45.74	-28.26	74	38.48	34.19	9.82	36.75	100	360	P	H
CH 09		4904	42.36	-31.64	74	39.59	31.64	7.78	36.65	100	0	P	V
2452MHz		7356	45.2	-28.8	74	37.94	34.19	9.82	36.75	100	0	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 HT40 (LF)

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)
2.4GHz 802.11n HT40 LF		168.71	36.87	-6.63	43.5	54.18	12.65	1.57	31.53	150	250	P	H
		214.3	35.4	-8.1	43.5	53.73	11.42	1.73	31.48	-	-	P	H
		244.37	29.82	-16.18	46	46.63	12.91	1.73	31.45	-	-	P	H
		279.29	32.25	-13.75	46	47.49	14.2	1.97	31.41	-	-	P	H
		559.62	31.88	-14.12	46	41.87	18.33	2.96	31.28	-	-	P	H
		629.46	31.2	-14.8	46	40.87	18.55	3.15	31.37	-	-	P	H
		170.65	35.83	-7.67	43.5	53.26	12.52	1.58	31.53	250	150	P	V
		209.45	34.49	-9.01	43.5	53.06	11.18	1.73	31.48	-	-	P	V
		218.18	33.89	-12.11	46	52.03	11.61	1.73	31.48	-	-	P	V
		222.06	33.1	-12.9	46	51.03	11.81	1.73	31.47	-	-	P	V
		418	29.68	-16.32	46	41.25	17.15	2.53	31.25	-	-	P	V
		559.62	33.5	-12.5	46	43.49	18.33	2.96	31.28	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against limit line.												

For Sample 3 with Adapter

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.
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		2384.36	55.1	-18.9	74	59.72	26.95	5.45	37.02	113	233	P	H
		2389.95	43.87	-10.13	54	48.42	27	5.47	37.02	113	233	A	H
	*	2413.193	112.7	-	-	117.1	27.13	5.47	37	113	233	P	H
	*	2413.11	110.21	-	-	114.61	27.13	5.47	37	113	233	A	H
		2365.12	54.51	-19.49	74	59.19	26.91	5.43	37.02	266	234	P	V
		2389.95	43.85	-10.15	54	48.4	27	5.47	37.02	266	234	A	V
	*	2413.193	110.41	-	-	114.81	27.13	5.47	37	266	234	P	V
	*	2413.11	107.96	-	-	112.36	27.13	5.47	37	266	234	A	V
802.11b CH 06 2437MHz	*	2438.159	113.1	-	-	117.19	27.39	5.49	36.97	113	240	P	H
	*	2438.076	110.59	-	-	114.68	27.39	5.49	36.97	113	240	A	H
	*	2435.655	110.01	-	-	114.26	27.26	5.48	36.99	100	138	P	V
	*	2435.571	107.53	-	-	111.78	27.26	5.48	36.99	100	138	A	V
802.11b CH 11 2462MHz	*	2460.788	113.5	-	-	117.45	27.51	5.5	36.96	100	212	P	H
	*	2460.872	111.06	-	-	115.01	27.51	5.5	36.96	100	212	A	H
		2483.98	57.4	-16.6	74	61.19	27.64	5.51	36.94	100	212	P	H
		2499.94	45.88	-8.12	54	49.52	27.77	5.52	36.93	100	212	A	H
	*	2460.872	111.99	-	-	115.94	27.51	5.5	36.96	247	195	P	V
	*	2460.955	109.57	-	-	113.52	27.51	5.5	36.96	247	195	A	V
		2484.46	56.45	-17.55	74	60.24	27.64	5.51	36.94	247	195	P	V
		2499.88	45.32	-8.68	54	48.96	27.77	5.52	36.93	247	195	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 802.11b (Harmonic @ 3m)

WIFI Ant. 1+2	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	43.08	-30.92	74	40.53	31.51	7.72	36.68	100	360	P	H
		4824	43.36	-30.64	74	40.81	31.51	7.72	36.68	100	360	P	V
802.11b CH 06 2437MHz		4872	43.43	-30.57	74	40.74	31.59	7.76	36.66	100	360	P	H
		7308	45.43	-28.57	74	38.33	34.03	9.76	36.69	100	360	P	H
		4872	42.5	-31.5	74	39.81	31.59	7.76	36.66	100	360	P	V
		7308	44.72	-29.28	74	37.62	34.03	9.76	36.69	100	360	P	V
802.11b CH 11 2462MHz		4926	43.56	-30.44	74	40.74	31.67	7.8	36.65	100	360	P	H
		7386	45.6	-28.4	74	38.23	34.29	9.86	36.78	100	360	P	H
		4926	41.86	-32.14	74	39.04	31.67	7.8	36.65	100	360	P	V
		7386	45.63	-28.37	74	38.26	34.29	9.86	36.78	100	360	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 Ant. 1+2	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		2388.52	65.11	-8.89	74	69.66	27	5.47	37.02	100	134	P	H
		2389.3	52.23	-1.77	54	56.78	27	5.47	37.02	100	134	A	H
	*	2408.768	112.19			116.59	27.13	5.47	37	100	134	P	H
	*	2413.778	104.14			108.54	27.13	5.47	37	100	134	A	H
		2389.82	64.54	-9.46	74	69.09	27	5.47	37.02	100	153	P	V
		2389.95	52.43	-1.57	54	56.98	27	5.47	37.02	100	153	A	V
	*	2405.928	109.84			114.24	27.13	5.47	37	100	153	P	V
	*	2415.865	102.19			106.59	27.13	5.47	37	100	153	A	V
802.11g CH 02 2417MHz		2389.17	65.24	-8.76	74	69.79	27	5.47	37.02	106	126	P	H
		2388.91	52.24	-1.76	54	56.79	27	5.47	37.02	106	126	A	H
		2413.778	113.69			118.09	27.13	5.47	37	106	126	P	H
		2413.611	105.88			110.28	27.13	5.47	37	106	126	A	H
		2386.7	63.17	-10.83	74	67.72	27	5.47	37.02	100	155	P	V
		2389.95	50.29	-3.71	54	54.84	27	5.47	37.02	100	155	A	V
		2415.698	110.96			115.36	27.13	5.47	37	100	155	P	V
		2415.865	103.77			108.17	27.13	5.47	37	100	155	A	V
802.11g CH 06 2437MHz	*	2433.65	115.66	-	-	119.91	27.26	5.48	36.99	100	125	P	H
	*	2438.66	107.77	-	-	111.86	27.39	5.49	36.97	100	125	A	H
	*	2433.734	113.07	-	-	117.32	27.26	5.48	36.99	100	210	P	V
	*	2434.569	105.3	-	-	109.55	27.26	5.48	36.99	100	210	A	V
802.11g CH 10 2457MHz		2462.625	114.51			118.46	27.51	5.5	36.96	151	137	P	H
		2462.458	106.73			110.68	27.51	5.5	36.96	151	137	A	H
		2483.5	66.37	-7.63	74	70.16	27.64	5.51	36.94	151	137	P	H
		2483.5	52.24	-1.76	54	56.03	27.64	5.51	36.94	151	137	A	H
		2460.872	111.71			115.66	27.51	5.5	36.96	103	136	P	V
		2460.705	104.25			108.2	27.51	5.5	36.96	103	136	A	V
		2485.72	62.39	-11.61	74	66.18	27.64	5.51	36.94	103	136	P	V
		2485.36	49.77	-4.23	54	53.56	27.64	5.51	36.94	103	136	A	V

802.11g CH 11 2462MHz	*	2466.466	114.21	-	-	118.16	27.51	5.5	36.96	250	137	P	H
	*	2466.8	105.74	-	-	109.69	27.51	5.5	36.96	250	137	A	H
		2486.56	66.74	-7.26	74	70.53	27.64	5.51	36.94	250	137	P	H
		2486.76	52.03	-1.97	54	55.82	27.64	5.51	36.94	250	137	A	H
	*	2461.206	110.24	-	-	114.19	27.51	5.5	36.96	100	144	P	V
	*	2460.955	103.01	-	-	106.96	27.51	5.5	36.96	100	144	A	V
		2486.28	64.1	-9.9	74	67.89	27.64	5.51	36.94	100	144	P	V
		2486.28	49.72	-4.28	54	53.51	27.64	5.51	36.94	100	144	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 Ant. 1+2	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	43.02	-30.98	74	40.47	31.51	7.72	36.68	100	360	P	H
		4824	42	-32	74	39.45	31.51	7.72	36.68	100	360	P	V
802.11g CH 02 2417MHz		4834	42.93	-31.07	74	40.34	31.53	7.74	36.68	100	360	P	H
		7248	44.31	-29.69	74	37.37	33.88	9.7	36.64	100	360	P	H
		4834	42.46	-31.54	74	39.87	31.53	7.74	36.68	100	360	P	V
		7248	45.27	-28.73	74	38.33	33.88	9.7	36.64	100	360	P	V
802.11g CH 06 2437MHz		4872	43.64	-30.36	74	40.95	31.59	7.76	36.66	100	360	P	H
		7308	44.86	-29.14	74	37.76	34.03	9.76	36.69	100	360	P	H
		4872	43.02	-30.98	74	40.33	31.59	7.76	36.66	100	360	P	V
		7308	44.99	-29.01	74	37.89	34.03	9.76	36.69	100	360	P	V
802.11g CH 10 2457MHz		4914	42.32	-31.68	74	39.55	31.64	7.78	36.65	100	360	P	H
		7371	45.03	-28.97	74	37.71	34.24	9.84	36.76	100	360	P	H
		4914	41.99	-32.01	74	39.22	31.64	7.78	36.65	100	360	P	V
		7371	46.08	-27.92	74	38.76	34.24	9.84	36.76	100	360	P	V
802.11g CH 11 2462MHz		4926	42.72	-31.28	74	39.9	31.67	7.8	36.65	100	360	P	H
		7386	44.82	-29.18	74	37.45	34.29	9.86	36.78	100	360	P	H
		4926	43.25	-30.75	74	40.43	31.67	7.8	36.65	100	360	P	V
		7386	45.26	-28.74	74	37.89	34.29	9.86	36.78	100	360	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 HT20 (Band Edge @ 3m)

WIFI Ant. 1+2	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)
		2389.95	57.76	-16.24	74	62.31	27	5.47	37.02	355	142	P	H
		2389.95	46.17	-7.83	54	50.72	27	5.47	37.02	355	142	A	H
802.11n	*	2415.615	107.43	-	-	111.83	27.13	5.47	37	355	142	P	H
HT20	*	2413.444	100.83	-	-	105.23	27.13	5.47	37	355	142	A	H
CH 01		2389.69	64.43	-9.57	74	68.98	27	5.47	37.02	338	216	P	V
2412MHz		2389.95	52.13	-1.87	54	56.68	27	5.47	37.02	338	216	A	V
	*	2416.867	113.23	-	-	117.63	27.13	5.47	37	338	216	P	V
	*	2410.688	104.86	-	-	109.26	27.13	5.47	37	338	216	A	V
802.11n	*	2433.316	111.75	-	-	116	27.26	5.48	36.99	100	30	P	H
HT20	*	2438.243	103.89	-	-	107.98	27.39	5.49	36.97	100	30	A	H
CH 06	*	2433.316	114.69	-	-	118.94	27.26	5.48	36.99	287	134	P	V
2437MHz	*	2435.321	107	-	-	111.25	27.26	5.48	36.99	287	134	A	V
	*	2459.368	107.61	-	-	111.56	27.51	5.5	36.96	223	322	P	H
	*	2464.211	97.14	-	-	101.09	27.51	5.5	36.96	223	322	A	H
802.11n		2483.8	59.44	-14.56	74	63.23	27.64	5.51	36.94	223	322	P	H
HT20		2483.98	46.88	-7.12	54	50.67	27.64	5.51	36.94	223	322	A	H
CH 11	*	2466.049	113.59	-	-	117.54	27.51	5.5	36.96	305	46	P	V
2462MHz	*	2463.961	105.3	-	-	109.25	27.51	5.5	36.96	305	46	A	V
		2483.68	64.52	-9.48	74	68.31	27.64	5.51	36.94	305	46	P	V
		2483.5	52.55	-1.45	54	56.34	27.64	5.51	36.94	305	46	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 Ant. 1+2	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	41.83	-32.17	74	39.28	31.51	7.72	36.68	100	180	P	H
		4824	42.97	-31.03	74	40.42	31.51	7.72	36.68	100	209	P	V
802.11n HT20 CH 06 2437MHz		4872	43.09	-30.91	74	40.4	31.59	7.76	36.66	100	146	P	H
		7311	45.04	-28.96	74	37.94	34.03	9.76	36.69	100	146	P	H
		4874	43.39	-30.61	74	40.7	31.59	7.76	36.66	100	0	P	V
		7308	46.88	-27.12	74	39.78	34.03	9.76	36.69	100	0	P	V
802.11n HT20 CH 11 2462MHz		4926	43.04	-30.96	74	40.22	31.67	7.8	36.65	100	360	P	H
		7386	47.17	-26.83	74	39.8	34.29	9.86	36.78	100	360	P	H
		4926	42.51	-31.49	74	39.69	31.67	7.8	36.65	100	360	P	V
		7386	45.56	-28.44	74	38.19	34.29	9.86	36.78	100	360	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 Ant. 1+2	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)
		2389.95	65.22	-8.78	74	69.77	27	5.47	37.02	400	220	P	H
		2389.95	53.3	-0.7	54	57.85	27	5.47	37.02	400	220	A	H
	*	2434.319	105.93	-	-	110.18	27.26	5.48	36.99	400	220	P	H
	*	2413.611	101.37	-	-	105.77	27.13	5.47	37	400	220	A	H
802.11n		2487.76	60.16	-13.84	74	63.8	27.77	5.52	36.93	400	220	P	H
HT40		2483.86	47.13	-6.87	54	50.92	27.64	5.51	36.94	400	220	A	H
CH 03		2389.95	61.14	-12.86	74	65.69	27	5.47	37.02	374	134	P	V
2422MHz		2389.69	51.57	-2.43	54	56.12	27	5.47	37.02	374	134	A	V
	*	2418.119	106.17	-	-	110.57	27.13	5.47	37	374	134	P	V
	*	2413.277	103.1	-	-	107.5	27.13	5.47	37	374	134	A	V
		2483.86	57.65	-16.35	74	61.44	27.64	5.51	36.94	374	134	P	V
		2496.04	46.41	-7.59	54	50.05	27.77	5.52	36.93	374	134	A	V
		2389.43	61.37	-12.63	74	65.92	27	5.47	37.02	362	111	P	H
		2389.95	48.48	-5.52	54	53.03	27	5.47	37.02	362	111	A	H
	*	2434.653	108.58	-	-	112.83	27.26	5.48	36.99	362	111	P	H
	*	2425.969	105.33	-	-	109.58	27.26	5.48	36.99	362	111	A	H
802.11n		2483.98	57.32	-16.68	74	61.11	27.64	5.51	36.94	362	111	P	H
HT40		2483.5	46.1	-7.9	54	49.89	27.64	5.51	36.94	362	111	A	H
CH 06		2388.91	64.66	-9.34	74	69.21	27	5.47	37.02	315	242	P	V
2437MHz		2388.26	51.1	-2.9	54	55.65	27	5.47	37.02	315	242	A	V
	*	2425.969	111.07	-	-	115.32	27.26	5.48	36.99	315	242	P	V
	*	2429.392	103.3	-	-	107.55	27.26	5.48	36.99	315	242	A	V
		2485.3	66.41	-7.59	74	70.2	27.64	5.51	36.94	315	242	P	V
		2484.34	53.38	-0.62	54	57.17	27.64	5.51	36.94	315	242	A	V

802.11n HT40 CH 09 2452MHz		2384.23	55.12	-18.88	74	59.74	26.95	5.45	37.02	359	217	P	H
		2388.13	45.12	-8.88	54	49.67	27	5.47	37.02	359	217	A	H
	*	2462.959	109.29	-	-	113.24	27.51	5.5	36.96	359	217	P	H
	*	2440.414	102.36	-	-	106.45	27.39	5.49	36.97	359	217	A	H
		2486.5	63.03	-10.97	74	66.82	27.64	5.51	36.94	359	217	P	H
		2485.72	52.14	-1.86	54	55.93	27.64	5.51	36.94	359	217	A	H
		2362.39	55.44	-18.56	74	60.12	26.91	5.43	37.02	100	167	P	V
		2389.3	44.97	-9.03	54	49.52	27	5.47	37.02	100	167	A	V
	*	2463.209	106.69	-	-	110.64	27.51	5.5	36.96	100	167	P	V
	*	2439.496	97.9	-	-	101.99	27.39	5.49	36.97	100	167	A	V
		2485.72	61.92	-12.08	74	65.71	27.64	5.51	36.94	100	167	P	V
		2484.76	49.71	-4.29	54	53.5	27.64	5.51	36.94	100	167	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 Ant. 1+2	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		4842	42.3	-31.7	74	39.71	31.53	7.74	36.68	100	20	P	H
HT40		7266	45.34	-28.66	74	38.35	33.93	9.72	36.66	100	20	P	H
CH 03		4848	42.23	-31.77	74	39.64	31.53	7.74	36.68	100	324	P	V
2422MHz		7266	44.89	-29.11	74	37.9	33.93	9.72	36.66	100	324	P	V
802.11n		4872	41.92	-32.08	74	39.23	31.59	7.76	36.66	100	102	P	H
HT40		7311	46.05	-27.95	74	38.95	34.03	9.76	36.69	100	102	P	H
CH 06		4872	41.99	-32.01	74	39.3	31.59	7.76	36.66	100	360	P	V
2437MHz		7311	46.03	-27.97	74	38.93	34.03	9.76	36.69	100	360	P	V
802.11n		4902	42.69	-31.31	74	39.92	31.64	7.78	36.65	100	41	P	H
HT40		7356	44.81	-29.19	74	37.55	34.19	9.82	36.75	100	41	P	H
CH 09		4902	42.53	-31.47	74	39.76	31.64	7.78	36.65	100	300	P	V
2452MHz		7356	45.18	-28.82	74	37.92	34.19	9.82	36.75	100	300	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

For Sample 2 with POE Adapter

2.4GHz 2400~2483.5MHz

WIFI 802.11n HT40 (Band Edge @ 3m)

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)
802.11n HT40 CH 03 2422MHz		2388.75	64.47	-9.53	74	69.02	27	5.47	37.02	138	176	P	H
		2389.02	53.67	-0.33	54	58.22	27	5.47	37.02	138	176	A	H
	*	2435.488	105.18	31.18	74	109.43	27.26	5.48	36.99	138	176	P	H
	*	2413.026	99.34	45.34	54	103.74	27.13	5.47	37	138	176	A	H
		2493.52	53.93	-20.07	74	57.57	27.77	5.52	36.93	138	176	P	H
		2483.64	43.43	-10.57	54	47.22	27.64	5.51	36.94	138	176	A	H
		2386.59	65.2	-8.8	74	69.75	27	5.47	37.02	174	182	P	V
		2387.76	53.24	-0.76	54	57.79	27	5.47	37.02	174	182	A	V
	*	2434.569	106.48	32.48	74	110.73	27.26	5.48	36.99	174	182	P	V
	*	2413.026	100.6	46.6	54	105	27.13	5.47	37	174	182	A	V
		2485.24	54.48	-19.52	74	58.27	27.64	5.51	36.94	174	182	P	V
		2484.32	43.7	-10.3	54	47.49	27.64	5.51	36.94	174	182	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 Ant. 1+2	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		4842	43.01	-30.99	74	40.42	31.53	7.74	36.68	100	0	P	H
HT40		7266	45.46	-28.54	74	38.47	33.93	9.72	36.66	100	0	P	H
CH 03		4842	43	-31	74	40.41	31.53	7.74	36.68	100	360	P	V
2422MHz		7266	46.75	-27.25	74	39.76	33.93	9.72	36.66	100	360	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average 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		(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".