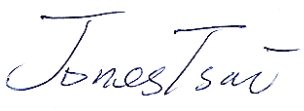
FCC RF Test Report

APPLICANT	:	Maestro Wireless Holdings Limited
EQUIPMENT	:	4G WIFI Router
BRAND NAME	:	Maestro
MODEL NAME	:	E228VZ
MARKETING NAME	:	E228 VZ
FCC ID	:	WN6-E228VZ
STANDARD	:	FCC Part 15 Subpart C §15.247
CLASSIFICATION	:	(DTS) Digital Transmission System

The product was received on Aug. 17, 2015 and testing was completed on Sep. 10, 2015. We, SPORTON INTERNATIONAL (SHENZHEN) 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 (SHENZHEN) INC., the test report shall not be reproduced except in full.

Reviewed by: Joseph Lin / Supervisor



Approved by: Jones Tsai / Manager

SPORTON INTERNATIONAL (SHENZHEN) INC.

1F & 2F, Building A, Morning Business Center, No. 4003 ShiGu Rd., Xili Town, Nanshan District, Shenzhen, Guangdong, P. R. China

TABLE OF CONTENTS

REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FR581706	Rev. 01	Initial issue of report	Sep. 22, 2015

SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.1	15.247(a)(2)	6dB Bandwidth	≥ 0.5MHz	Pass	-
3.2	15.247(b)	Power Output Measurement	≤ 30dBm	Pass	-
3.3	15.247(e)	Power Spectral Density	≤ 8dBm/3kHz	Pass	-
3.4	15.247(d)	Conducted Band Edges	≤ 20dBc	Pass	-
		Conducted Spurious Emission		Pass	-
3.5	15.247(d)	Radiated Band Edges and Radiated Spurious Emission	15.209(a) & 15.247(d)	Pass	Under limit 1.29 dB at 2483.520 MHz
3.6	15.203 & 15.247(b)	Antenna Requirement	N/A	Pass	-

1 General Description

1.1 Applicant

Maestro Wireless Holdings Limited
FLAT A & B, 9/F, WING CHEONG FACTORY BUILDING, 121 KING LAM STREET, CHEUNG SHA WAN, HONG KONG

1.2 Manufacturer

Maestro Wireless Holdings Limited
FLAT A & B, 9/F, WING CHEONG FACTORY BUILDING, 121 KING LAM STREET, CHEUNG SHA WAN, HONG KONG

1.3 Product Feature of Equipment Under Test

Product Feature	
Equipment	4G WIFI Router
Brand Name	Maestro
Model Name	E228VZ
Marketing Name	E228 VZ
FCC ID	WN6-E228VZ
EUT supports Radios application	LTE/WLAN 2.4GHz 802.11b/g/n HT20/HT40
HW Version	V05
SW Version	V1.0.0
EUT Stage	Pre-Production

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

1.4 Product Specification subjective to this standard

<table>
<tr><th colspan="2">Product Specification subjective to this standard</th></tr>
<tr><td>Tx/Rx Channel Frequency Range</td><td>802.11b/g/n : 2412 MHz ~ 2462 MHz</td></tr>
<tr><td>Maximum (Peak) Output Power to antenna</td><td>802.11b : 19.53 dBm (0.0897 W)
802.11g : 23.53 dBm (0.2254 W)
802.11n HT20 : 25.58 dBm (0.3614 W)
802.11n HT40 : 25.19 dBm (0.3304 W)</td></tr>
<tr><td>Antenna Type/Gain</td><td>WLAN for Ant 1: Dipole Antenna with gain 3.80 dBi
WLAN for Ant 2: Dipole Antenna with gain 3.80 dBi</td></tr>
<tr><td>Type of Modulation</td><td>802.11b : DSSS (DBPSK / DQPSK / CCK)
802.11g/n : OFDM (BPSK / QPSK / 16QAM / 64QAM)</td></tr>
<tr><td>Antenna Function for Transmitter</td><td>
<table>
<tr><th></th><th>Ant 1</th><th>Ant 2</th></tr>
<tr><td>802.11 b</td><td>V</td><td>V</td></tr>
<tr><td>802.11 g</td><td>V</td><td>V</td></tr>
<tr><td>802.11 n SISO</td><td>V</td><td>V</td></tr>
<tr><td>802.11 n MIMO</td><td>V</td><td>V</td></tr>
</table>
</td></tr>
</table>

1.5 Modification of EUT

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

1.6 Testing Location

Test Site	SPORTON INTERNATIONAL (SHENZHEN) INC.
Test Site Location	1F & 2F,Building A, Morning Business Center, No. 4003 ShiGu Rd., Xili Town, Nanshan District, Shenzhen, Guangdong, P. R. China TEL: +86-755-8637-9589 FAX: +86-755-8637-9595
Test Site No.	**Sporton Site No.**
	TH01-SZ

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

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

1.7 Applicable Standards

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

- FCC Part 15 Subpart C §15.247
- FCC KDB Publication No. 558074 D01 DTS Meas. Guidance v03r03
- FCC KDB 662911 D01 Multiple Transmitter Output v02r01.
- ANSI C63.10-2013

Remark:

1. All test items were verified and recorded according to the standards and without any deviation during the test.
2. FCC permits the use of the 1.5 meter table for frequency above 1GHz as an alternative in C63.10-2013 through inquiry tracking number 961829.
3. This EUT has also been tested and complied with the requirements of FCC Part 15, Subpart B, recorded in a separate test report.

2 Test Configuration of Equipment Under Test

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

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

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

2.1 Carrier Frequency and Channel

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

2.2 Pre-Scanned RF Power

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

2.4GHz 802.11b Peak Power (dBm)							
Power vs. Channel				Power vs. Data Rate			
Channel	Frequency (MHz)	Ant	Data Rate 1Mbps	Channel	2Mbps	5.5Mbps	11Mbps
CH 01	2412	1	18.23	CH 11	19.51	19.48	19.49
CH 06	2437	1	18.96				
CH 11	2462	1	**19.53**				
CH 01	2412	2	15.31	CH 11	16.43	16.44	16.42
CH 06	2437	2	15.91				
CH 11	2462	2	**16.45**				

2.4GHz 802.11g Peak Power (dBm)										
Power vs. Channel				Power vs. Data Rate						
Channel	Frequency (MHz)	Ant	Data Rate 6Mbps	Channel	9Mbps	12Mbps	18Mbps	24Mbps	36Mbps	48Mbps	54Mbps
CH 01	2412	1	23.48	CH 11	23.34	23.28	23.33	22.84	22.34	21.52	21.29
CH 06	2437	1	23.50								
CH 11	2462	1	**23.53**								
CH 01	2412	2	21.78	CH 11	22.01	21.93	22.00	21.49	21.01	20.18	20.16
CH 06	2437	2	22.04								
CH 11	2462	2	**22.18**								

WLAN 2.4GHz 802.11n HT20 Average Power (dBm)											
Power vs. Channel				Power vs. Data Rate							
Channel	Frequency (MHz)	Ant	Data Rate MCS0	Channel	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
CH 01	2412	1	23.28	CH 11	23.31	23.35	23.28	22.98	22.75	21.95	21.73
CH 06	2437	1	23.34								
CH 11	2462	1	**23.36**								
CH 01	2412	2	21.66	CH 11	22.04	22.03	21.98	21.66	21.45	20.67	20.46
CH 06	2437	2	21.90								
CH 11	2462	2	**22.07**								
CH 01	2412	1+2(1)	22.87	CH 11	23.02	23.06	22.99	22.69	22.46	21.66	21.44
CH 06	2437	1+2(1)	22.98								
CH 11	2462	1+2(1)	23.07								
CH 01	2412	1+2(2)	21.38	CH 11	21.93	21.96	21.90	21.65	21.35	20.57	20.40
CH 06	2437	1+2(2)	21.78								
CH 11	2462	1+2(2)	22.00								
CH 01	2412	1+2	25.20	CH 11	25.52	25.56	25.49	25.21	24.95	24.16	23.96
CH 06	2437	1+2	25.43								
CH 11	2462	1+2	**25.58**								

WLAN 2.4GHz 802.11n HT40 Average Power (dBm)											
Power vs. Channel				Power vs. Data Rate							
Channel	Frequency (MHz)	Ant	Data Rate MCS0	Channel	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
CH 03	2422	1	23.02	CH 09	22.99	23.03	23.02	22.73	22.79	22.06	21.75
CH 06	2437	1	23.00								
CH 09	2452	1	**23.06**								
CH 03	2422	2	21.52	CH 09	21.63	21.64	21.66	21.37	21.43	20.70	20.39
CH 06	2437	2	21.63								
CH 09	2452	2	**21.71**								
CH 03	2422	1+2(1)	22.59	CH 09	22.65	22.66	22.68	22.35	22.45	21.73	21.36
CH 06	2437	1+2(1)	22.67								
CH 09	2452	1+2(1)	22.70								
CH 03	2422	1+2(2)	21.37	CH 09	21.53	21.56	21.56	21.20	21.31	20.59	20.25
CH 06	2437	1+2(2)	21.43								
CH 09	2452	1+2(2)	21.58								
CH 03	2422	1+2	25.03	CH 09	25.14	25.16	25.17	24.82	24.93	24.21	23.85
CH 06	2437	1+2	25.10								
CH 09	2452	1+2	**25.19**								

Note: Ant 1+2 is a calculated result from sum of the power Ant 1+2(1) and Ant 1+2(2)

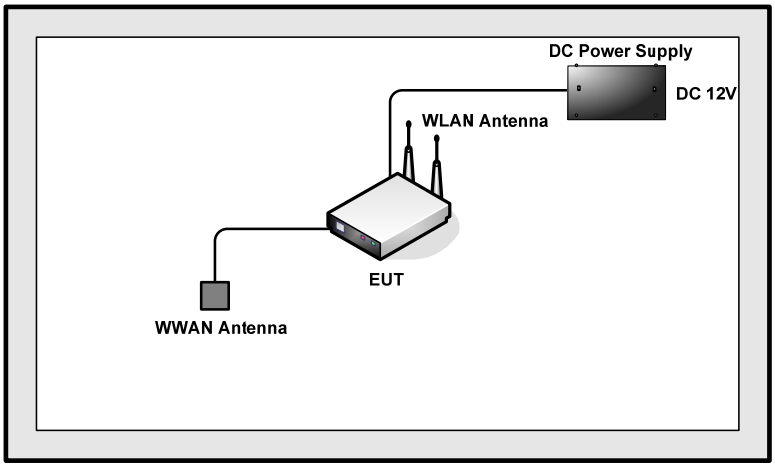
2.3 Test Mode

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

Modulation	Data Rate
802.11b	1 Mbps
802.11g	6 Mbps
802.11n HT20	MCS0
802.11n HT40	MCS0

2.4 Connection Diagram of Test System

<WLAN Tx Mode>



2.5 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	WWAN Antenna	N/A	N/A	N/A	N/A	N/A
2.	WLAN Antenna	N/A	N/A	N/A	N/A	N/A
3.	DC Power Supply	N/A	N/A	N/A	N/A	N/A

2.6 EUT Operation Test Setup

For WLAN function, the engineering test program was provided and enabled to make EUT continuous transmit/receive.

2.7 Measurement Results Explanation Example

For all conducted test items:

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

Example:
The spectrum analyzer offset is derived from RF cable loss and attenuator factor.
Offset = RF cable loss + attenuator factor.
Following shows an offset computation example with cable loss 5.0 dB and 10dB attenuator.

Offset(dB) = RF cable loss(dB) + attenuator factor(dB).
= 5.0 + 10 = 15.0 (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.

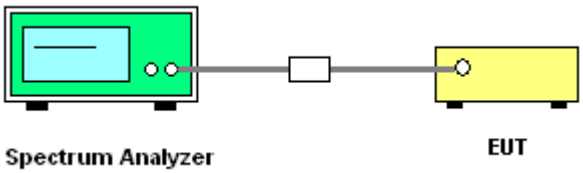
3.1.2 Measuring Instruments

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

3.1.3 Test Procedures

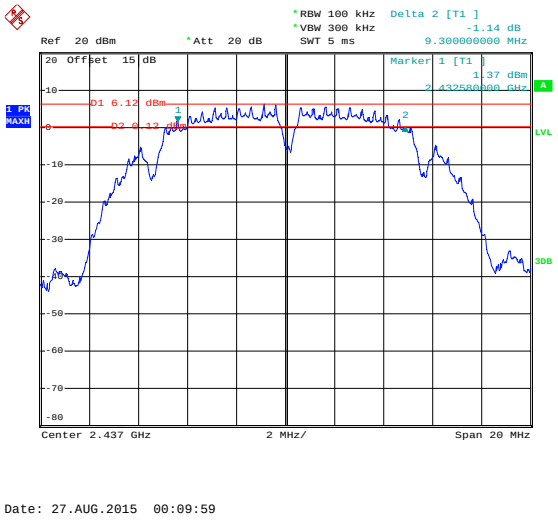
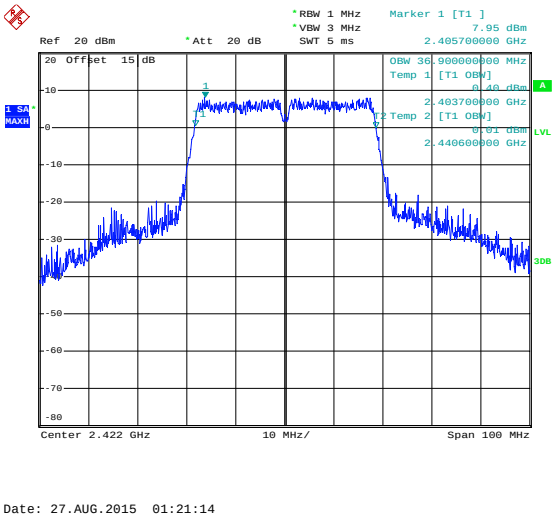
1. The testing follows FCC KDB Publication No. 558074 DTS D01 Meas. Guidance v03r03.
2. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
3. Set to the maximum power setting and enable the EUT transmit continuously.
4. Make the measurement with the spectrum analyzer's resolution bandwidth (RBW) = 100 kHz. Set the Video bandwidth (VBW) = 300 kHz. In order to make an accurate measurement. The 6 dB bandwidth must be greater than 500 kHz.
5. 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 of this test report.

Minimum 6dB Bandwidth	Maximum 99% Occupied Bandwidth
	

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

3.2 Peak Output Power Measurement

3.2.1 Limit of Peak Output Power

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

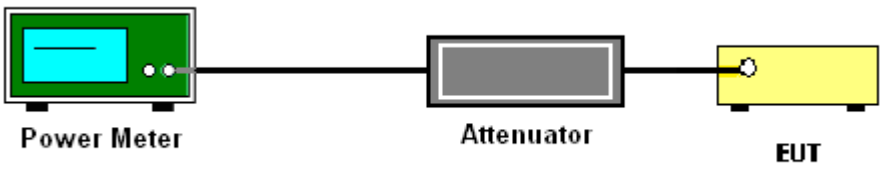
3.2.2 Measuring Instruments

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

3.2.3 Test Procedures

1. The testing follows the Measurement Procedure of FCC KDB No. 558074 DTS D01 Meas. Guidance v03r03 section 9.1.2 PKPM1 Peak power meter method.
2. The RF output of EUT was connected to the power meter by RF cable and attenuator. The path loss was compensated to the results for each measurement.
3. Set to the maximum power setting and enable the EUT transmit continuously.
4. Measure the conducted output power and record the results in the test report.
5. For MIMO mode, calculation method follows FCC KDB 662911 D01 Multiple Transmitter Output v02r01.

3.2.4 Test Setup



3.2.5 Test Result of Peak Output Power

Please refer to Appendix A of this test report.

3.2.6 Test Result of Average output Power (Reporting Only)

Please refer to Appendix A of this test report.

3.3 Power Spectral Density Measurement

3.3.1 Limit of Power Spectral Density

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

3.3.2 Measuring Instruments

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

3.3.3 Test Procedures

1. The testing follows Measurement Procedure 10.2 Method PKPSD of FCC KDB Publication No. 558074 D01 DTS Meas. Guidance v03r03
2. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
3. Set to the maximum power setting and enable the EUT transmit continuously.
4. Make the measurement with the spectrum analyzer's resolution bandwidth (RBW) = 3 kHz. Video bandwidth VBW = 10 kHz In order to make an accurate measurement, set the span to 1.5 times DTS Channel Bandwidth. (6dB BW)
5. Detector = peak, Sweep time = auto couple, Trace mode = max hold, Allow trace to fully stabilize. Use the peak marker function to determine the maximum power level.
6. Measure and record the results in the test report.
7. For MIMO mode, calculation method follows FCC KDB 662911 D01 Multiple Transmitter Output v02r01.

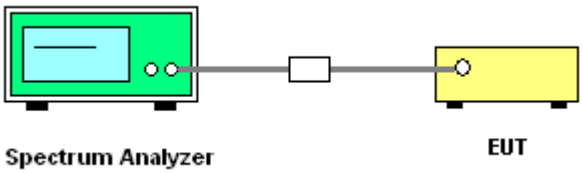
   If measurements performed using method (2) plus 10 log (N) exceeds the emission limit, the test should choose method (1) before declaring that the device fails the emission limit.

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

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

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

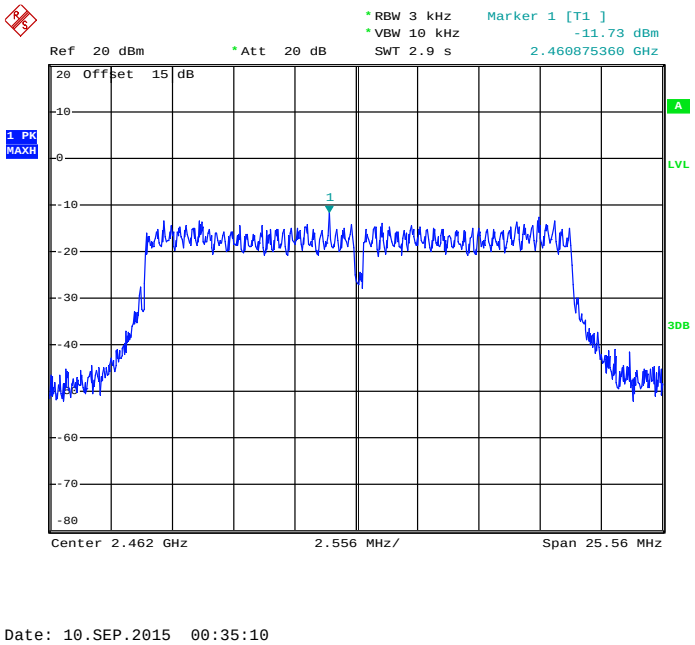
3.3.4 Test Setup



3.3.5 Test Result of Power Spectral Density

Please refer to Appendix A of this test report.

Worst Case Power Density (dBm/3kHz)



3.4 Conducted Band Edges and Spurious Emission Measurement

3.4.1 Limit of Conducted Band Edges and Spurious Emission Measurement

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

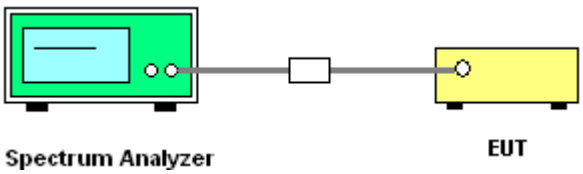
3.4.2 Measuring Instruments

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

3.4.3 Test Procedures

1. The testing follows FCC KDB Publication No. 558074 D01 DTS Meas. Guidance v03r03.
2. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
3. Set to the maximum power setting and enable the EUT transmit continuously.
4. Set RBW = 100 kHz, VBW=300 kHz, Peak Detector. Unwanted Emissions measured in any 100 kHz bandwidth outside of the authorized frequency band shall be attenuated by at least 20 dB relative to the maximum in-band peak PSD level in 100 kHz when maximum peak conducted output power procedure is used. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, the attenuation required under this paragraph shall be 30 dB instead of 20 dB per 15.247(d).
5. Measure and record the results in the test report.
6. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.

3.4.4 Test Setup



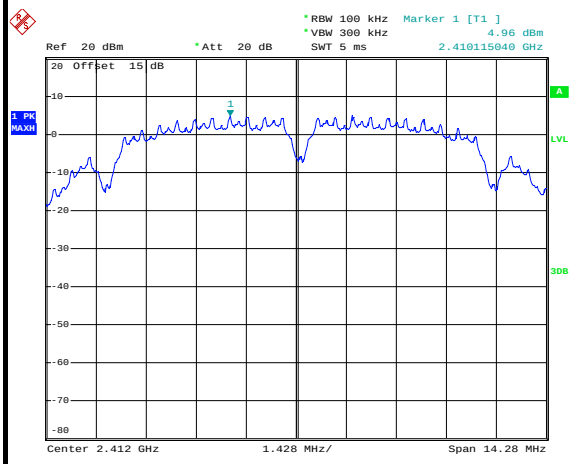
3.4.5 Test Result of Conducted Band Edges and Spurious Emission

Number of TX = 1, Ant 1 (Measured)

Number of TX	1	**Ant:**	1
Test Mode :	802.11b	**Temperature :**	24~26℃
Test Band :	2.4GHz Low	**Relative Humidity :**	50~53%
Test Channel :	01	**Test Engineer :**	Mygai Mo

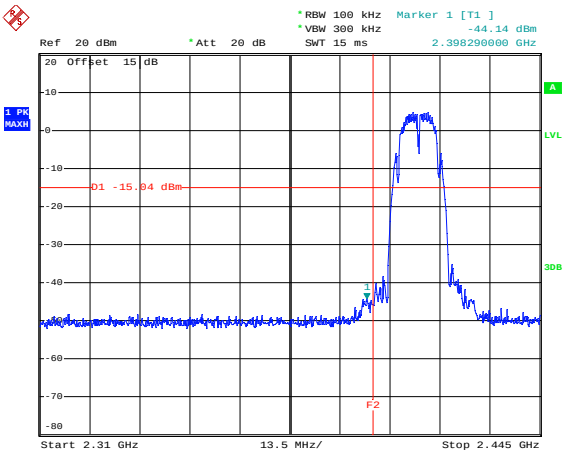
WLAN 802.11b Channel 01

100kHz PSD reference Level



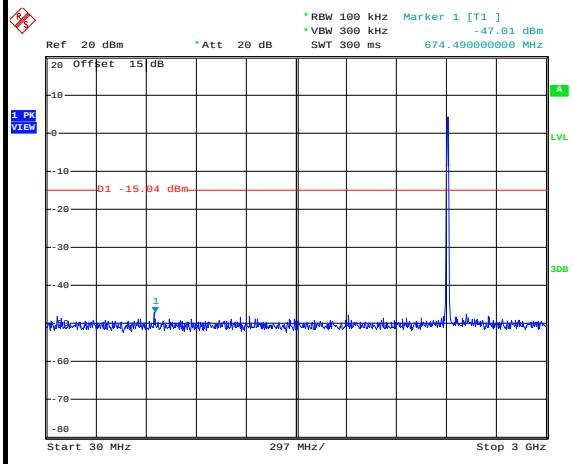
Date: 27.AUG.2015 00:04:55

Low Channel Plot



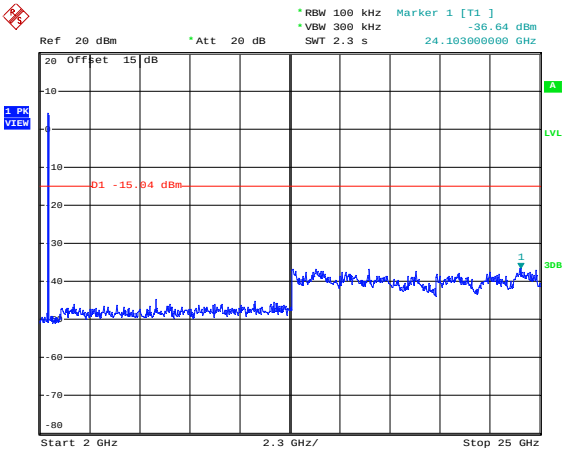
Date: 27.AUG.2015 00:05:37

Spurious Emission 30MHz~3GHz



Date: 27.AUG.2015 00:05:59

Spurious Emission 2GHz~25GHz

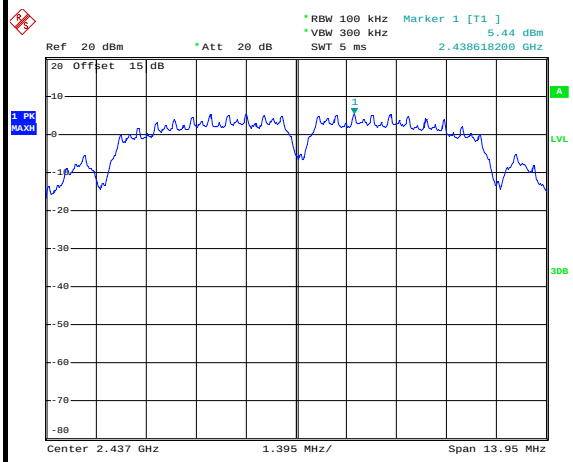


Date: 27.AUG.2015 00:06:17

Number of TX :	1	**Ant:**	1
Test Mode :	802.11b	**Temperature :**	24~26℃
Test Band :	2.4GHz Mid	**Relative Humidity :**	50~53%
Test Channel :	06	**Test Engineer :**	Mygai Mo

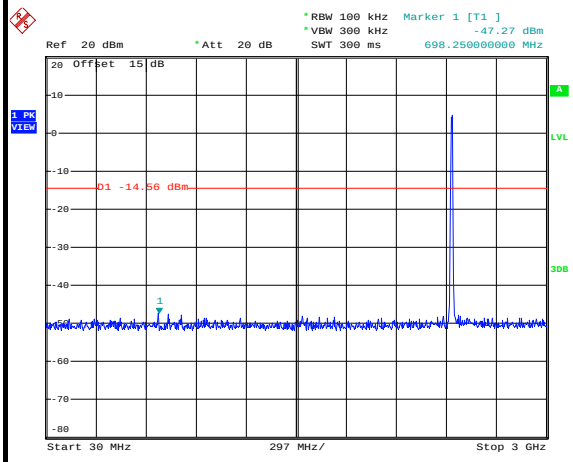
WLAN 802.11b Channel 06

100kHz PSD reference Level



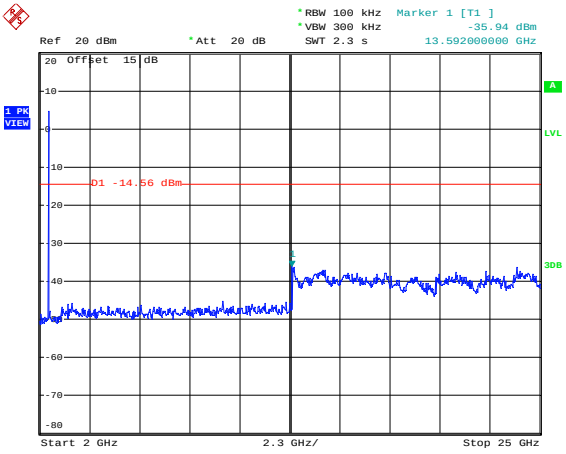
Date: 27.AUG.2015 00:11:15

Spurious Emission 30MHz~3GHz



Date: 27.AUG.2015 00:11:52

Spurious Emission 2GHz~25GHz

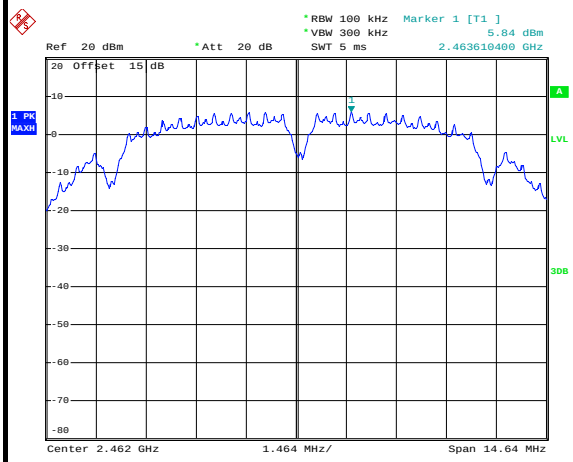


Date: 27.AUG.2015 00:12:10

Number of TX :	1	**Ant:**	1
Test Mode :	802.11b	**Temperature :**	24~26℃
Test Band :	2.4GHz High	**Relative Humidity :**	50~53%
Test Channel :	11	**Test Engineer :**	Mygai Mo

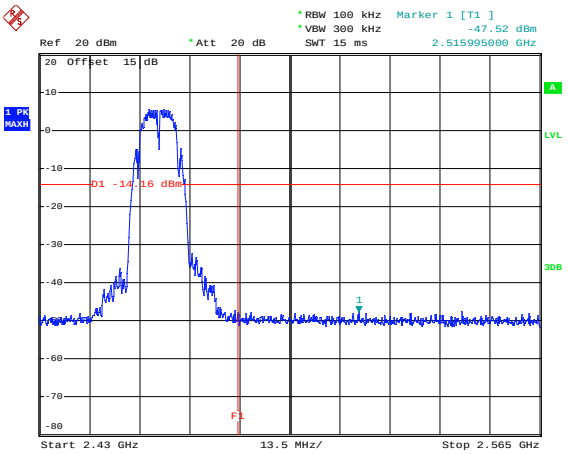
WLAN 802.11b Channel 11

100kHz PSD reference Level



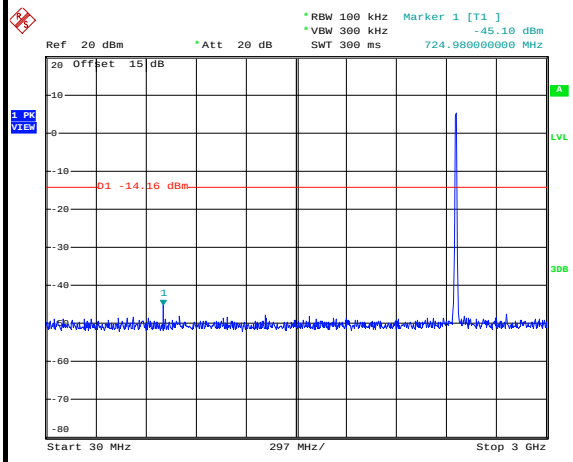
Date: 27.AUG.2015 00:16:19

High Channel Plot



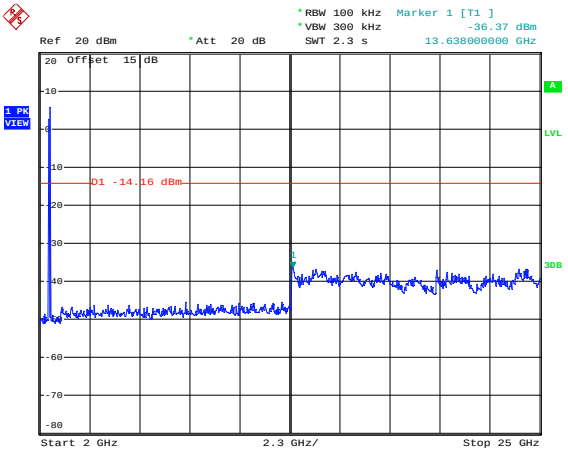
Date: 27.AUG.2015 00:17:06

Spurious Emission 30MHz~3GHz



Date: 27.AUG.2015 00:17:57

Spurious Emission 2GHz~25GHz

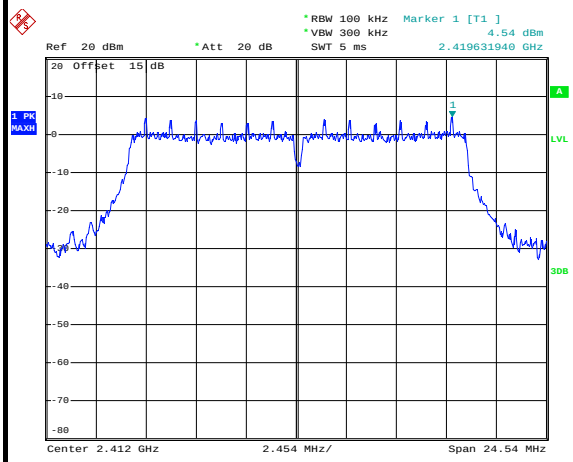


Date: 27.AUG.2015 00:18:15

Number of TX :	1	**Ant:**	1
Test Mode :	802.11g	**Temperature :**	24~26℃
Test Band :	2.4GHz Low	**Relative Humidity :**	50~53%
Test Channel :	01	**Test Engineer :**	Mygai Mo

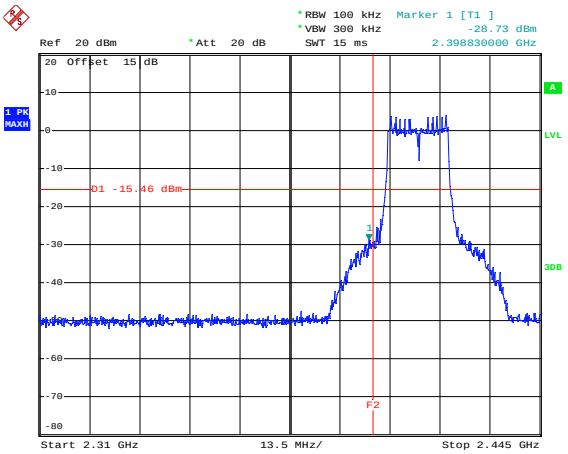
WLAN 802.11g Channel 01

100kHz PSD reference Level



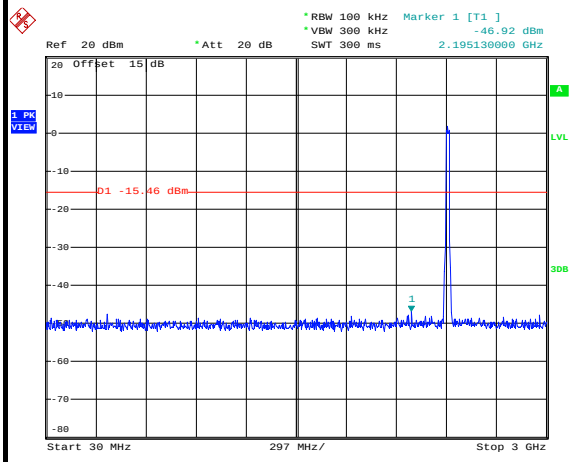
Date: 27.AUG.2015 00:23:23

Low Channel Plot



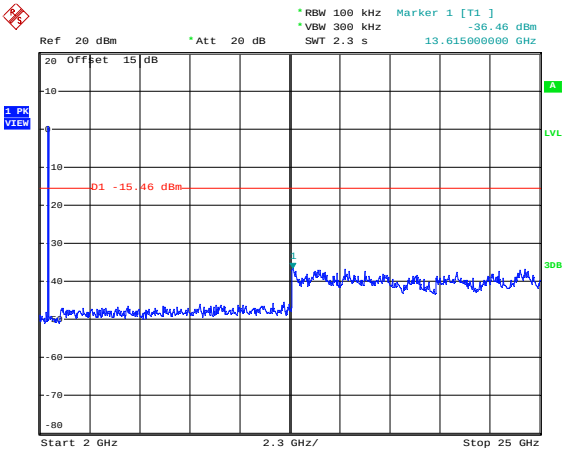
Date: 27.AUG.2015 00:23:40

Spurious Emission 30MHz~3GHz



Date: 27.AUG.2015 00:24:38

Spurious Emission 2GHz~25GHz

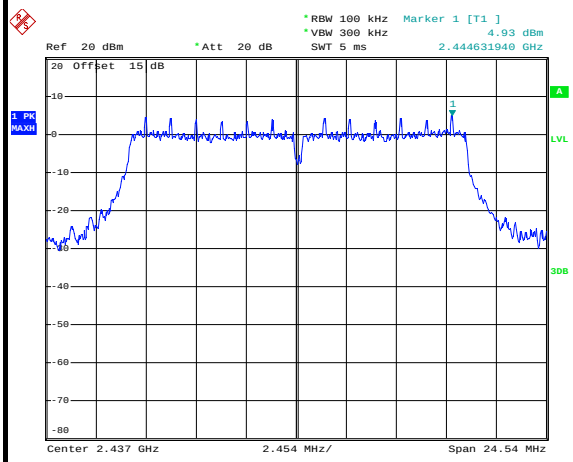


Date: 27.AUG.2015 00:24:55

Number of TX :	1	**Ant:**	1
Test Mode :	802.11g	**Temperature :**	24~26℃
Test Band :	2.4GHz Mid	**Relative Humidity :**	50~53%
Test Channel :	06	**Test Engineer :**	Mygai Mo

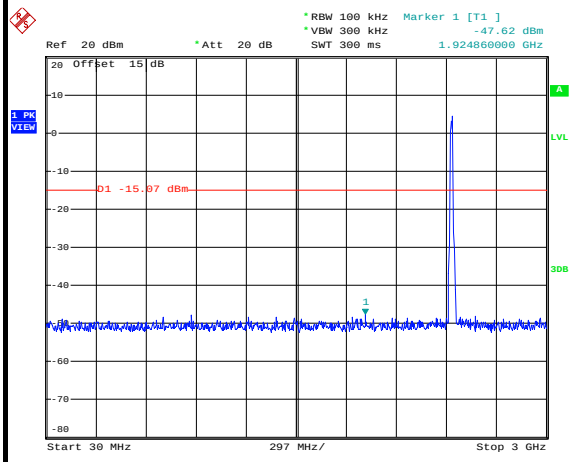
WLAN 802.11g Channel 06

100kHz PSD reference Level



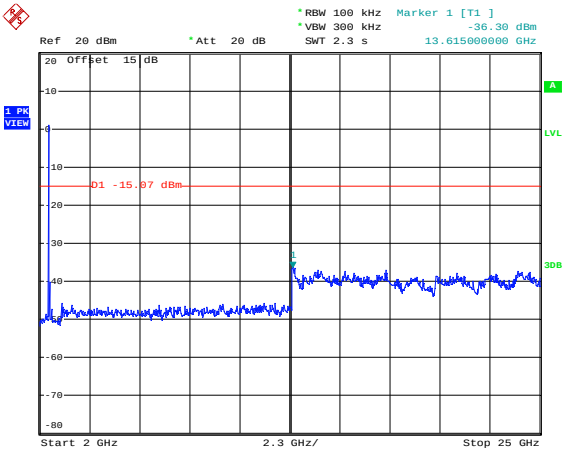
Date: 27.AUG.2015 00:28:52

Spurious Emission 30MHz~3GHz



Date: 27.AUG.2015 00:34:33

Spurious Emission 2GHz~25GHz

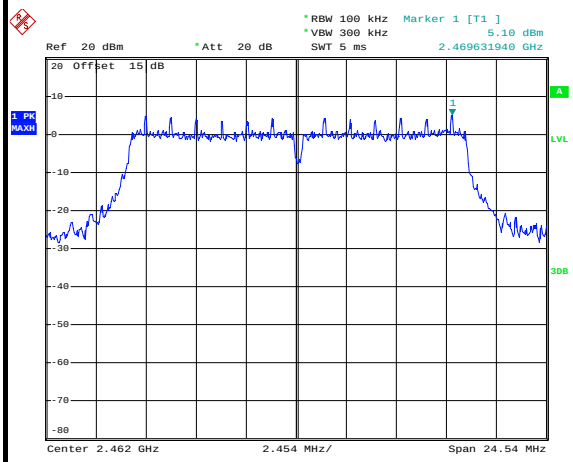


Date: 27.AUG.2015 00:33:30

Number of TX :	1	**Ant:**	1
Test Mode :	802.11g	**Temperature :**	24~26℃
Test Band :	2.4GHz High	**Relative Humidity :**	50~53%
Test Channel :	11	**Test Engineer :**	Mygai Mo

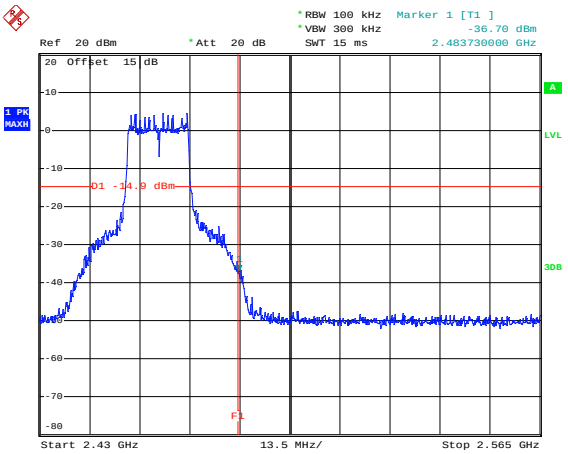
WLAN 802.11g Channel 11

100kHz PSD reference Level



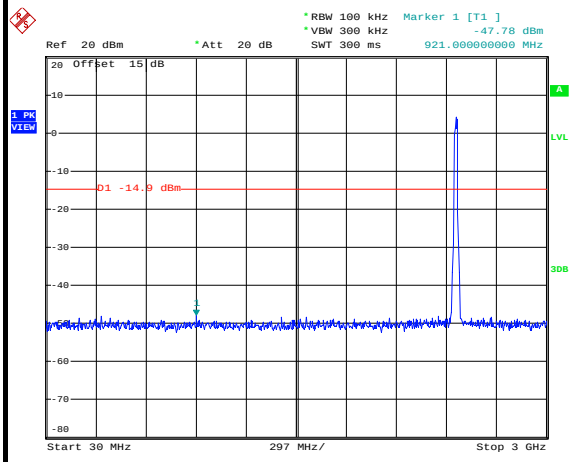
Date: 27.AUG.2015 00:37:45

High Channel Plot



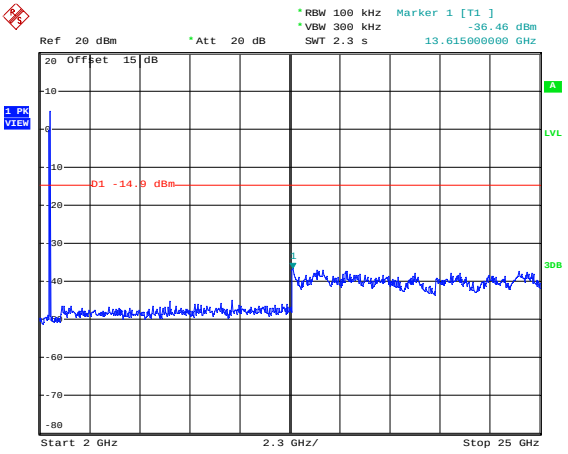
Date: 27.AUG.2015 00:38:57

Spurious Emission 30MHz~3GHz



Date: 27.AUG.2015 00:40:47

Spurious Emission 2GHz~25GHz

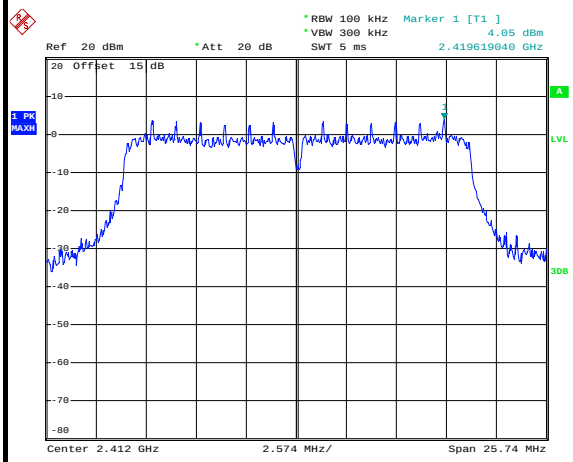


Date: 27.AUG.2015 00:41:05

Number of TX :	1	**Ant:**	1
Test Mode :	802.11n HT20	**Temperature :**	24~26℃
Test Band :	2.4GHz Low	**Relative Humidity :**	50~53%
Test Channel :	01	**Test Engineer :**	Mygai Mo

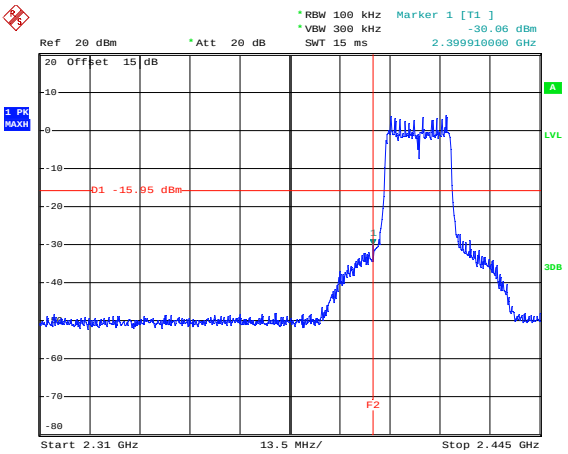
WLAN 802.11n HT20 Channel 01

100kHz PSD reference Level



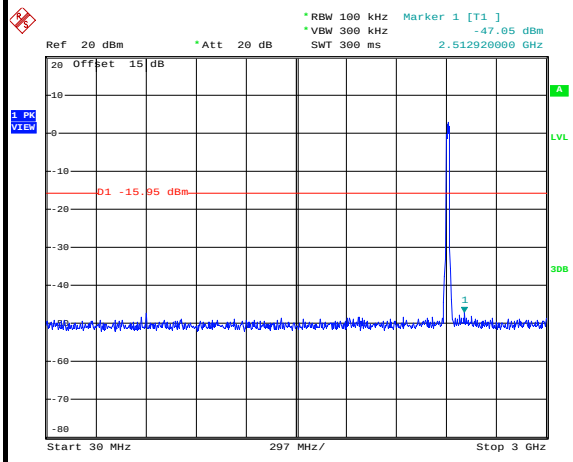
Date: 27.AUG.2015 00:46:14

Low Channel Plot



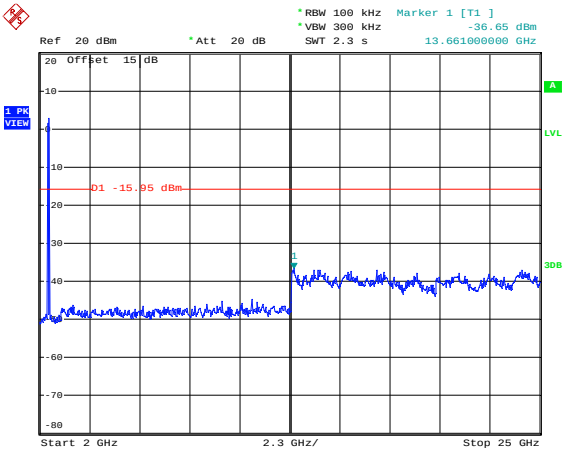
Date: 27.AUG.2015 00:49:17

Spurious Emission 30MHz~3GHz



Date: 27.AUG.2015 00:54:44

Spurious Emission 2GHz~25GHz

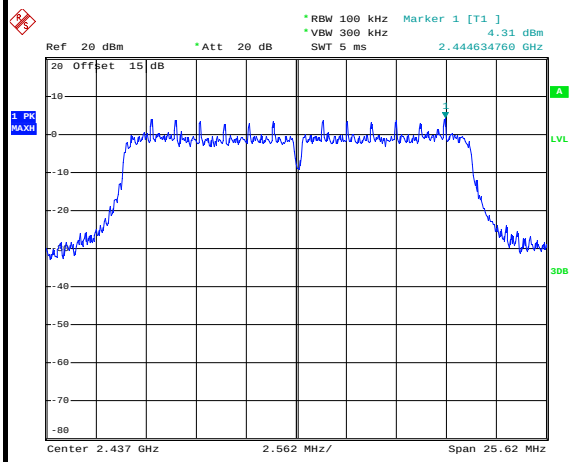


Date: 27.AUG.2015 00:55:02

Number of TX :	1	**Ant:**	1
Test Mode :	802.11n HT20	**Temperature :**	24~26℃
Test Band :	2.4GHz Mid	**Relative Humidity :**	50~53%
Test Channel :	06	**Test Engineer :**	Mygai Mo

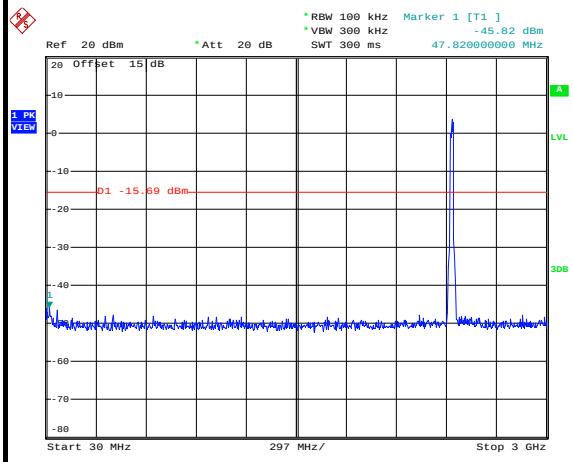
WLAN 802.11n HT20 Channel 06

100kHz PSD reference Level



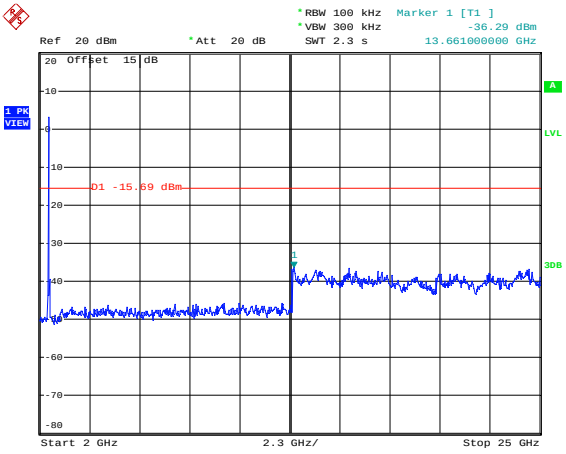
Date: 27.AUG.2015 00:58:53

Spurious Emission 30MHz~3GHz



Date: 27.AUG.2015 01:03:00

Spurious Emission 2GHz~25GHz

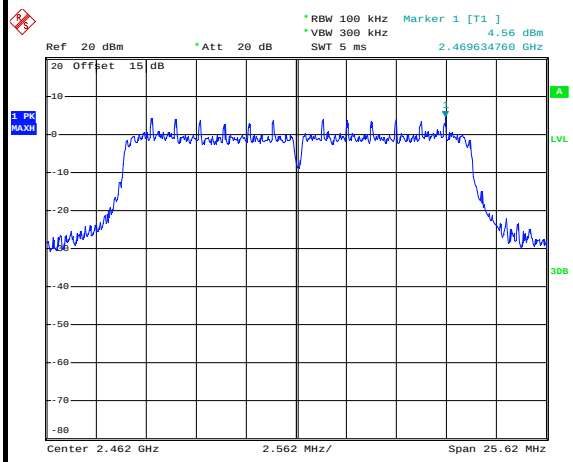


Date: 27.AUG.2015 01:03:18

Number of TX :	1	**Ant:**	1
Test Mode :	802.11n HT20	**Temperature :**	24~26℃
Test Band :	2.4GHz High	**Relative Humidity :**	50~53%
Test Channel :	11	**Test Engineer :**	Mygai Mo

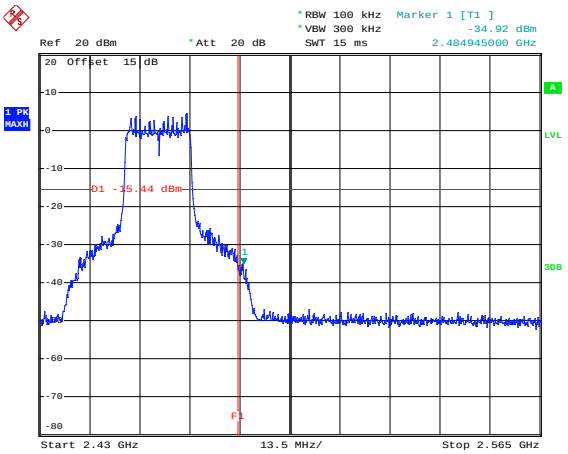
WLAN 802.11n HT20 Channel 11

100kHz PSD reference Level



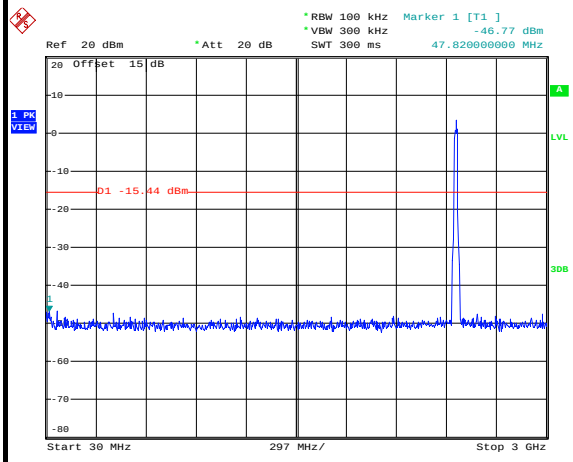
Date: 27.AUG.2015 01:08:07

High Channel Plot



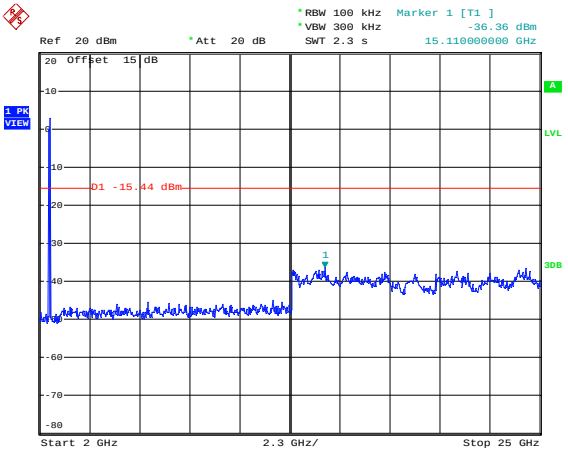
Date: 27.AUG.2015 01:14:41

Spurious Emission 30MHz~3GHz



Date: 27.AUG.2015 01:15:23

Spurious Emission 2GHz~25GHz

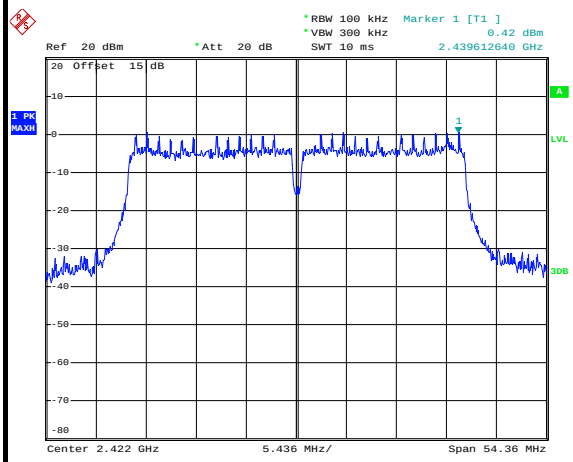


Date: 27.AUG.2015 01:15:41

Number of TX :	1	**Ant:**	1
Test Mode :	802.11n HT40	**Temperature :**	24~26℃
Test Band :	2.4GHz Low	**Relative Humidity :**	50~53%
Test Channel :	03	**Test Engineer :**	Mygai Mo

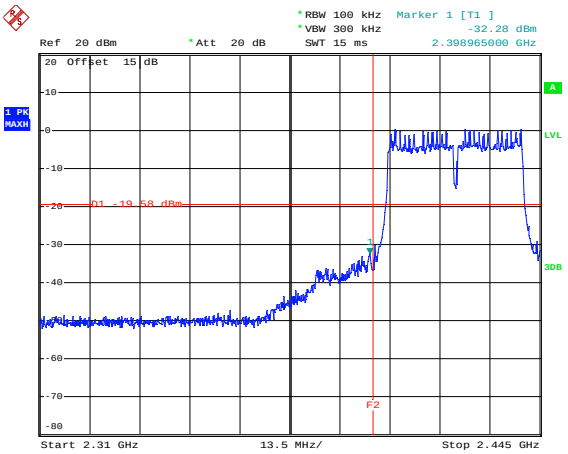
WLAN 802.11n HT40 Channel 03

100kHz PSD reference Level



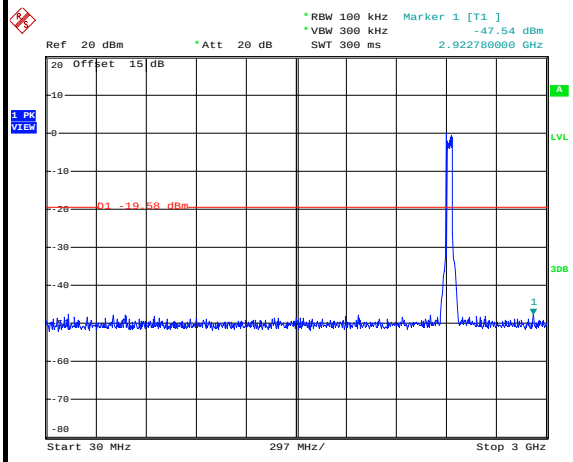
Date: 27.AUG.2015 01:20:04

Low Channel Plot



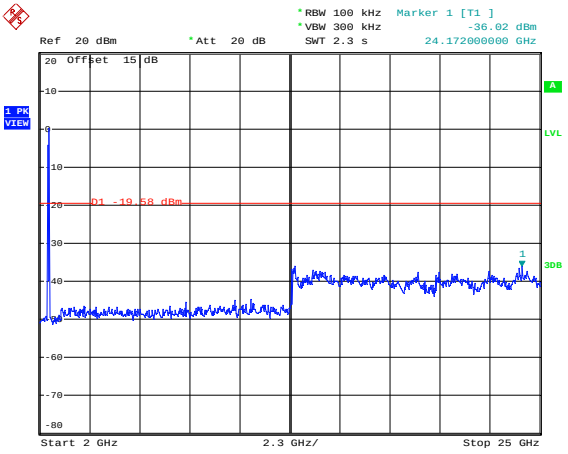
Date: 27.AUG.2015 01:20:38

Spurious Emission 30MHz~3GHz



Date: 27.AUG.2015 01:24:15

Spurious Emission 2GHz~25GHz

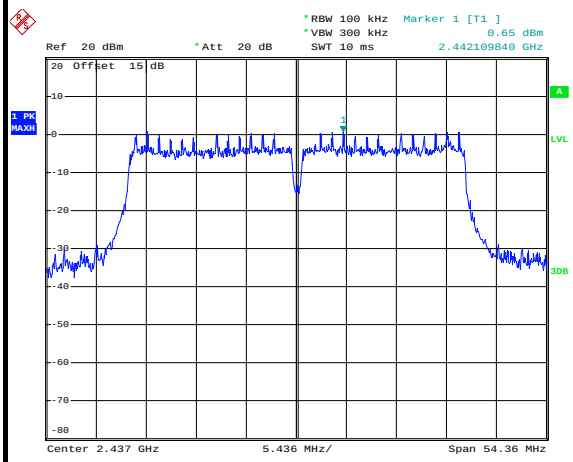


Date: 27.AUG.2015 01:23:12

Number of TX :	1	**Ant:**	1
Test Mode :	802.11n HT40	**Temperature :**	24~26℃
Test Band :	2.4GHz Mid	**Relative Humidity :**	50~53%
Test Channel :	06	**Test Engineer :**	Mygai Mo

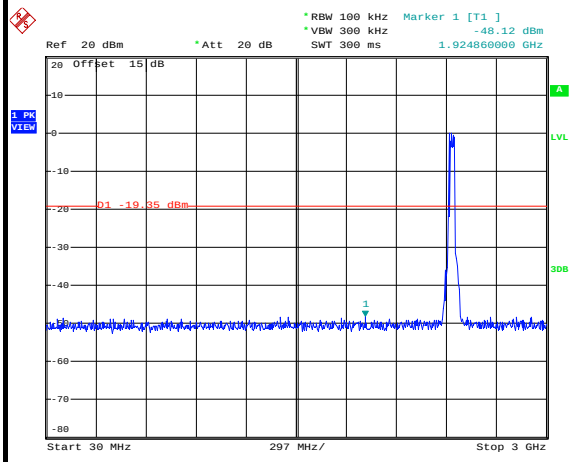
WLAN 802.11n HT40 Channel 06

100kHz PSD reference Level



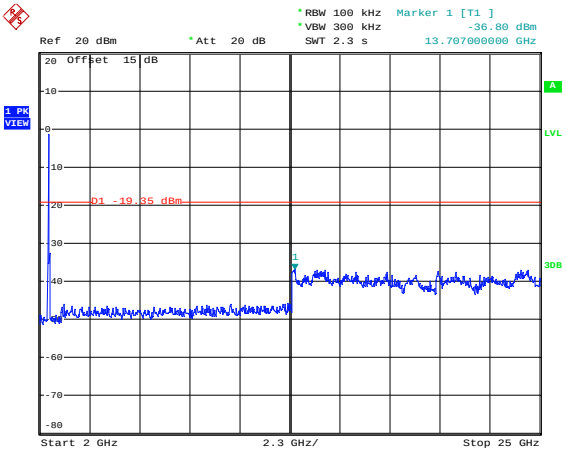
Date: 27.AUG.2015 01:27:06

Spurious Emission 30MHz~3GHz



Date: 27.AUG.2015 01:32:58

Spurious Emission 2GHz~25GHz

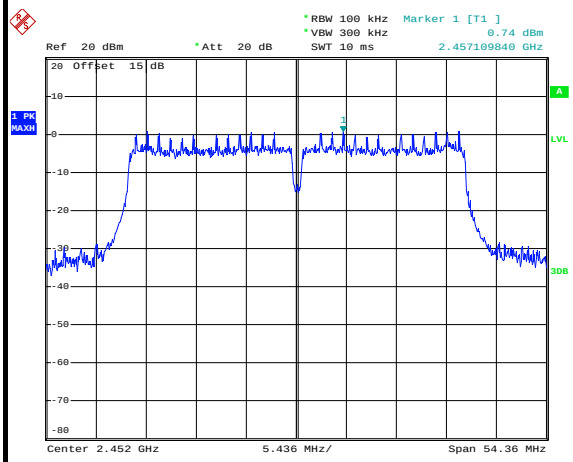


Date: 27.AUG.2015 01:29:12

Number of TX :	1	**Ant:**	1
Test Mode :	802.11n HT40	**Temperature :**	24~26℃
Test Band :	2.4GHz High	**Relative Humidity :**	50~53%
Test Channel :	09	**Test Engineer :**	Mygai Mo

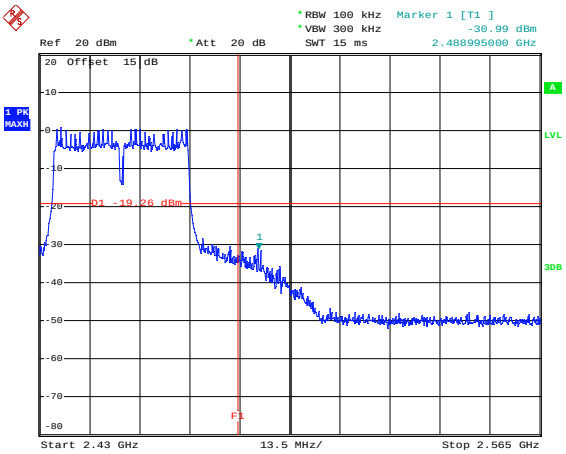
WLAN 802.11n HT40 Channel 09

100kHz PSD reference Level



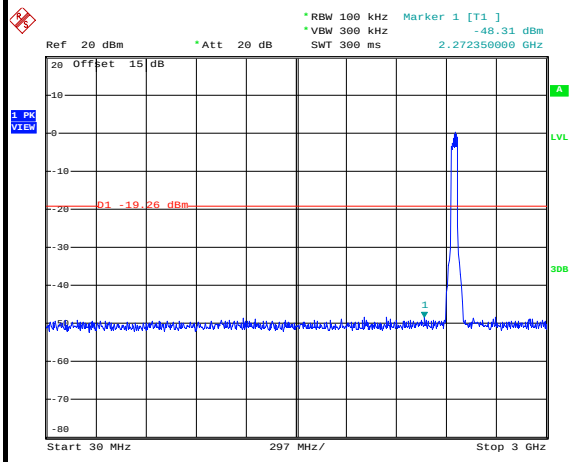
Date: 27.AUG.2015 01:35:49

High Channel Plot



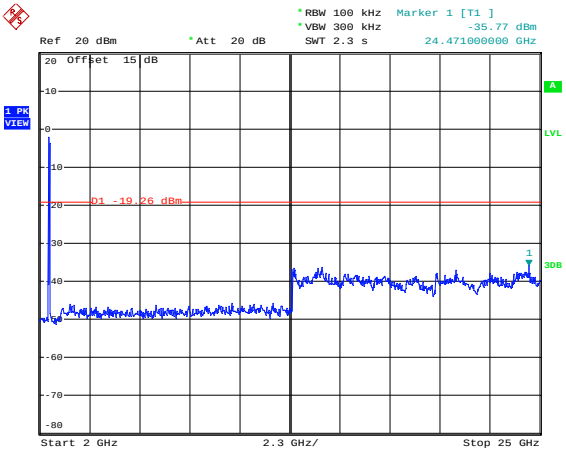
Date: 27.AUG.2015 01:36:07

Spurious Emission 30MHz~3GHz



Date: 27.AUG.2015 01:38:20

Spurious Emission 2GHz~25GHz



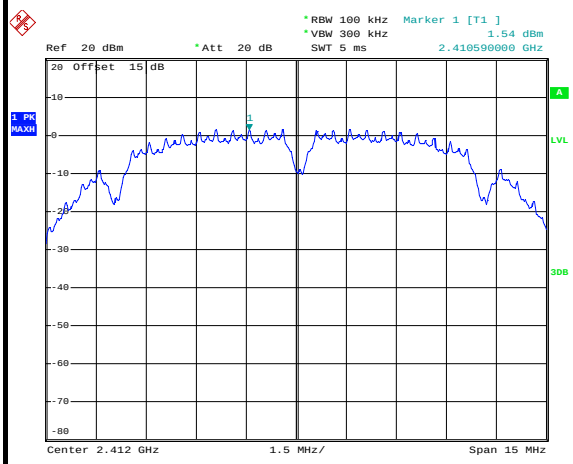
Date: 27.AUG.2015 01:37:30

Number of TX = 1, Ant 2 (Measured)

Number of TX :	1	**Ant:**	2
Test Mode :	802.11b	**Temperature :**	24~26℃
Test Band :	2.4GHz Low	**Relative Humidity :**	50~53%
Test Channel :	01	**Test Engineer :**	Mygai Mo

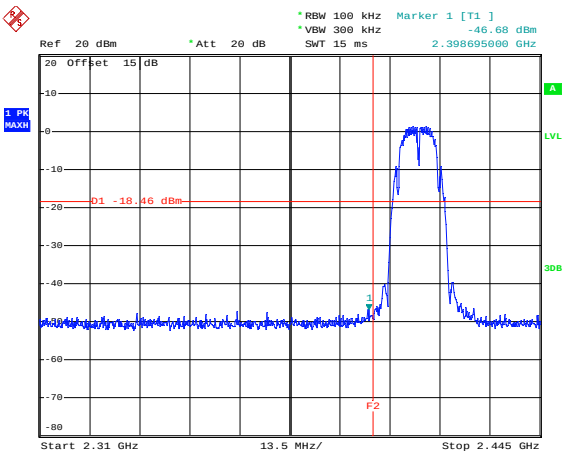
WLAN 802.11b Channel 01

100kHz PSD reference Level



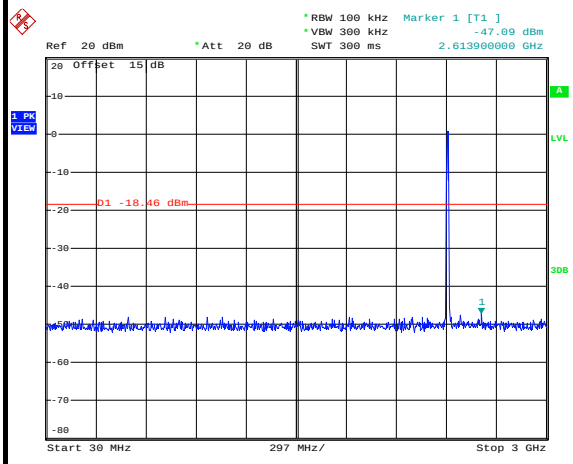
Date: 9.SEP.2015 21:59:34

Low Channel Plot



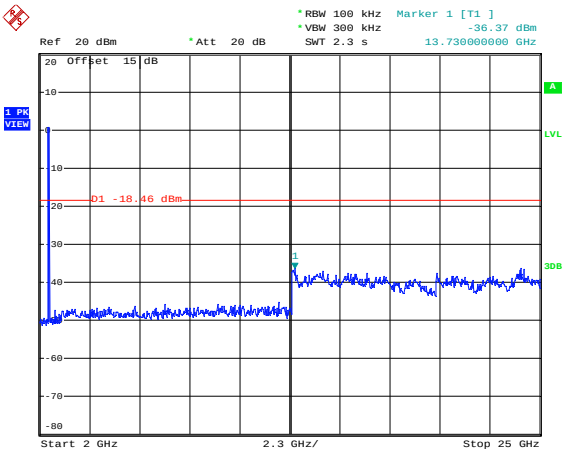
Date: 9.SEP.2015 21:59:51

Spurious Emission 30MHz~3GHz



Date: 9.SEP.2015 22:01:09

Spurious Emission 2GHz~25GHz

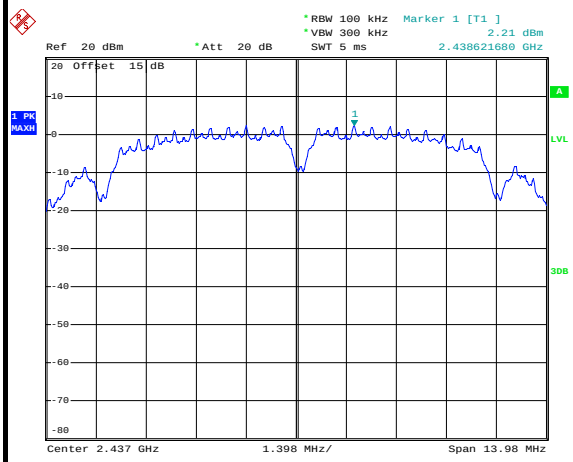


Date: 9.SEP.2015 22:01:27

Number of TX :	1	**Ant:**	2
Test Mode :	802.11b	**Temperature :**	24~26℃
Test Band :	2.4GHz Mid	**Relative Humidity :**	50~53%
Test Channel :	06	**Test Engineer :**	Mygai Mo

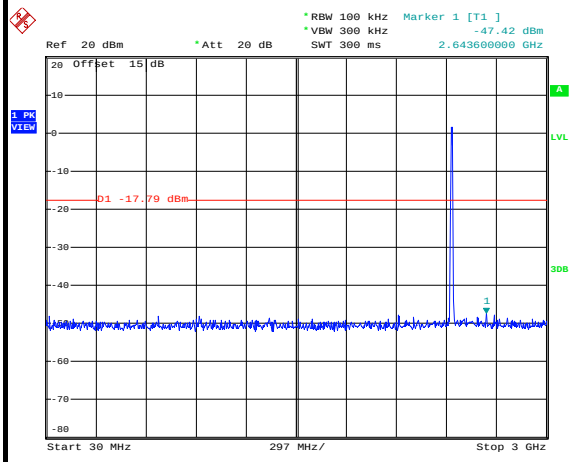
WLAN 802.11b Channel 06

100kHz PSD reference Level



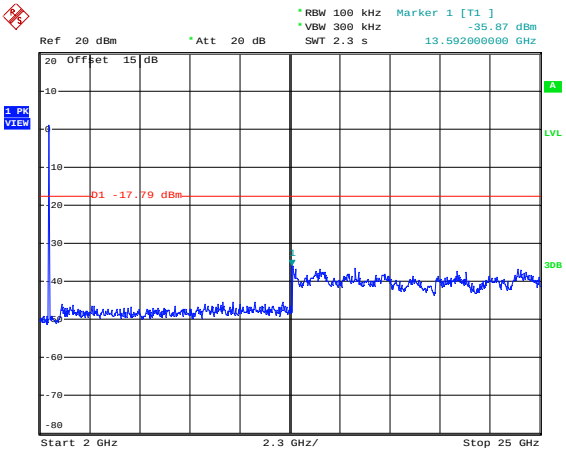
Date: 9.SEP.2015 22:08:34

Spurious Emission 30MHz~3GHz



Date: 9.SEP.2015 22:09:58

Spurious Emission 2GHz~25GHz

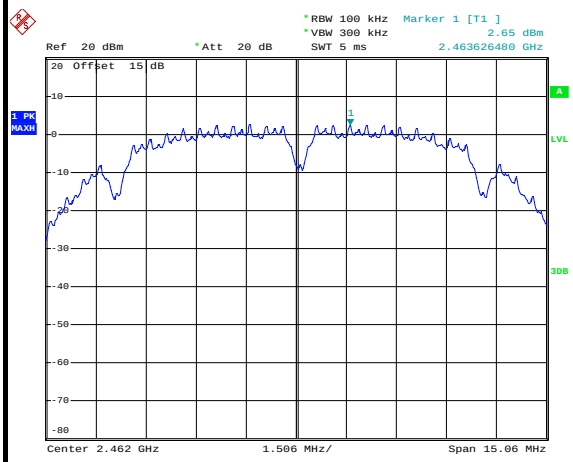


Date: 9.SEP.2015 22:10:16

Number of TX :	1	**Ant:**	2
Test Mode :	802.11b	**Temperature :**	24~26℃
Test Band :	2.4GHz High	**Relative Humidity :**	50~53%
Test Channel :	11	**Test Engineer :**	Mygai Mo

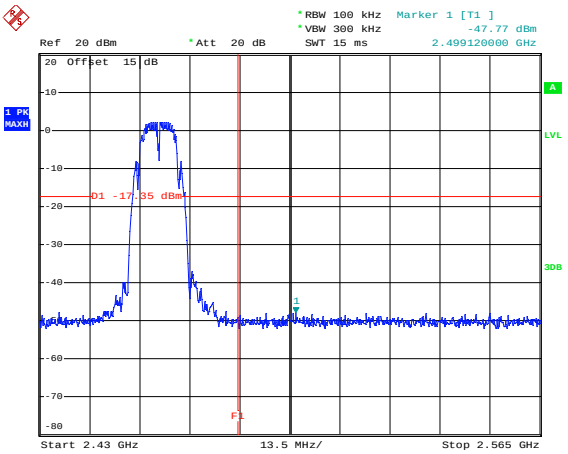
WLAN 802.11b Channel 11

100kHz PSD reference Level



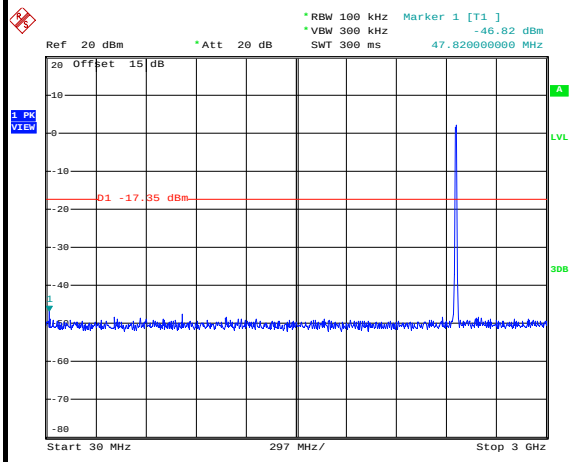
Date: 9.SEP.2015 22:13:43

High Channel Plot



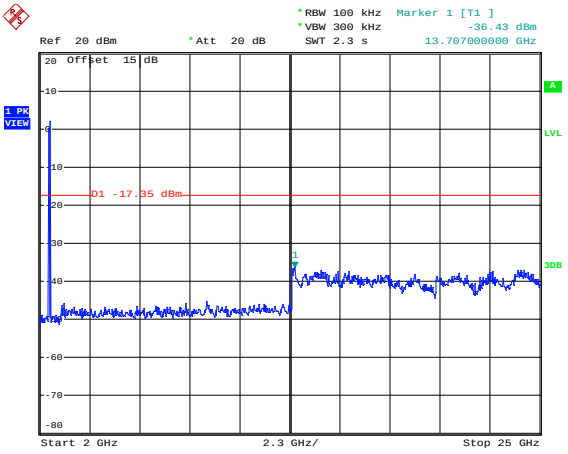
Date: 9.SEP.2015 22:14:14

Spurious Emission 30MHz~3GHz



Date: 9.SEP.2015 22:15:14

Spurious Emission 2GHz~25GHz

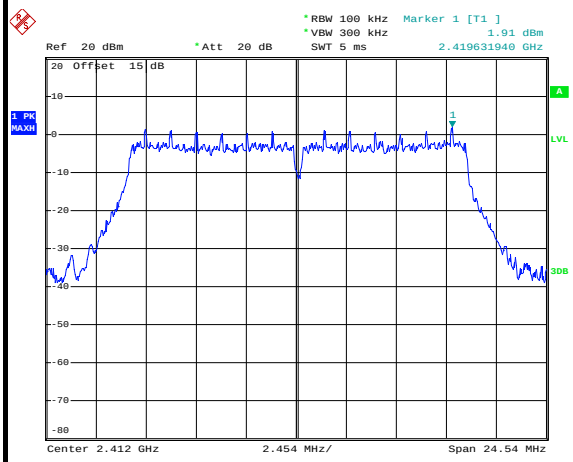


Date: 9.SEP.2015 22:15:32

Number of TX :	1	**Ant:**	2
Test Mode :	802.11g	**Temperature :**	24~26℃
Test Band :	2.4GHz Low	**Relative Humidity :**	50~53%
Test Channel :	01	**Test Engineer :**	Mygai Mo

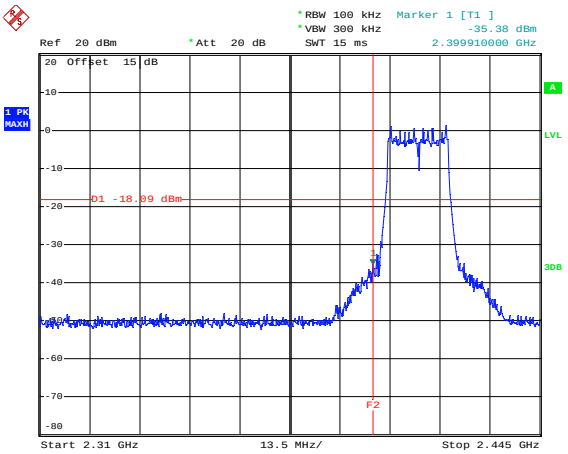
WLAN 802.11g Channel 01

100kHz PSD reference Level



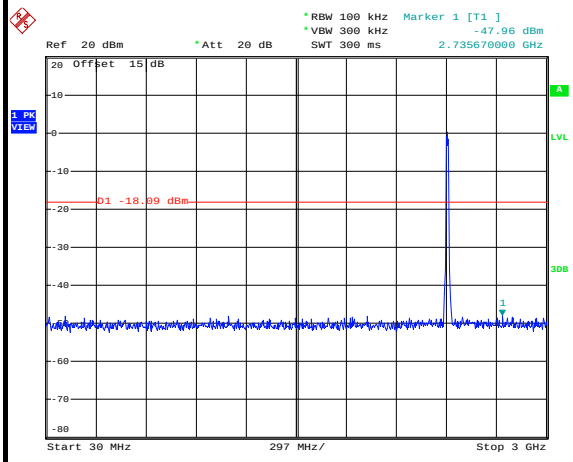
Date: 9.SEP.2015 22:30:36

Low Channel Plot



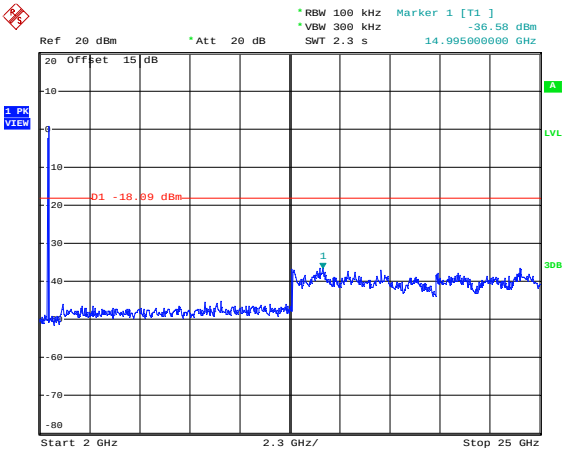
Date: 9.SEP.2015 22:30:56

Spurious Emission 30MHz~3GHz



Date: 9.SEP.2015 22:32:56

Spurious Emission 2GHz~25GHz

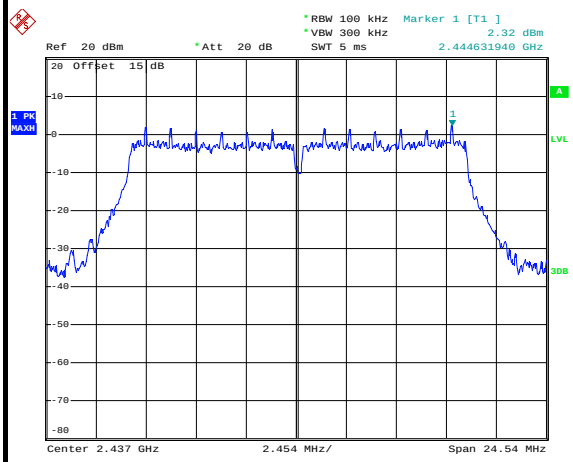


Date: 9.SEP.2015 22:33:14

Number of TX :	1	**Ant:**	2
Test Mode :	802.11g	**Temperature :**	24~26℃
Test Band :	2.4GHz Mid	**Relative Humidity :**	50~53%
Test Channel :	06	**Test Engineer :**	Mygai Mo

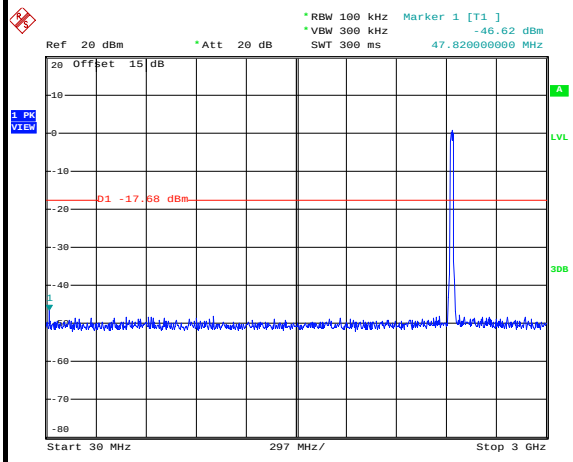
WLAN 802.11g Channel 06

100kHz PSD reference Level



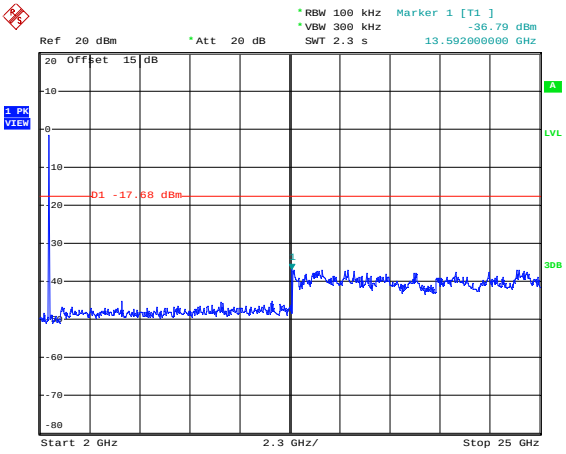
Date: 9.SEP.2015 22:25:54

Spurious Emission 30MHz~3GHz



Date: 9.SEP.2015 22:27:12

Spurious Emission 2GHz~25GHz

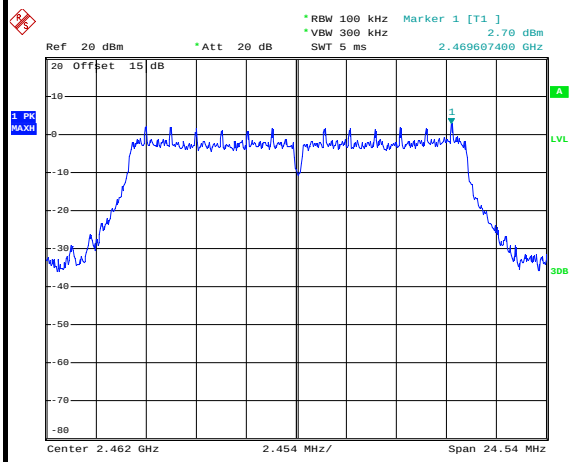


Date: 9.SEP.2015 22:27:30

Number of TX :	1	**Ant:**	2
Test Mode :	802.11g	**Temperature :**	24~26℃
Test Band :	2.4GHz High	**Relative Humidity :**	50~53%
Test Channel :	11	**Test Engineer :**	Mygai Mo

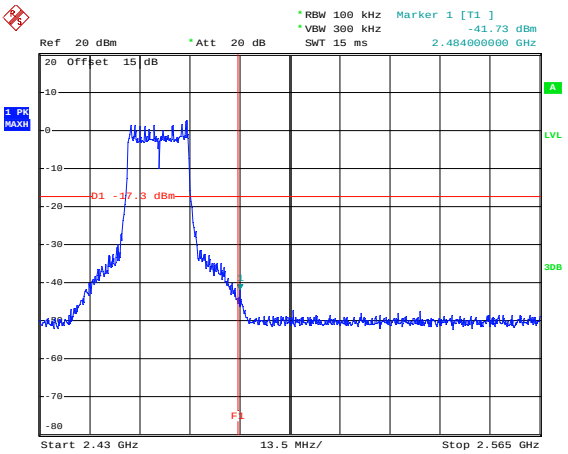
WLAN 802.11g Channel 11

100kHz PSD reference Level



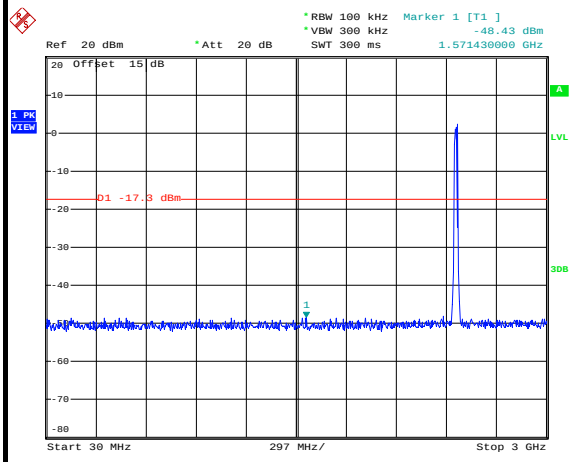
Date: 9.SEP.2015 22:20:22

High Channel Plot



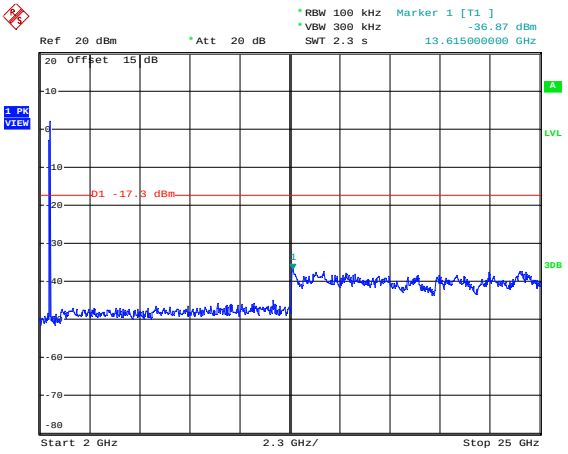
Date: 9.SEP.2015 22:20:40

Spurious Emission 30MHz~3GHz



Date: 9.SEP.2015 22:21:42

Spurious Emission 2GHz~25GHz

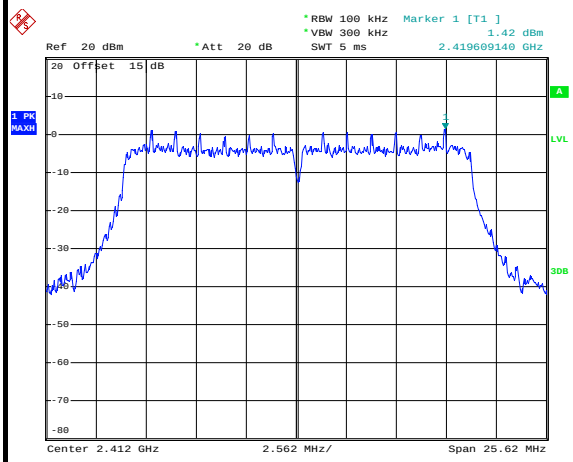


Date: 9.SEP.2015 22:21:59

Number of TX :	1	**Ant:**	2
Test Mode :	802.11n HT20	**Temperature :**	24~26℃
Test Band :	2.4GHz Low	**Relative Humidity :**	50~53%
Test Channel :	01	**Test Engineer :**	Mygai Mo

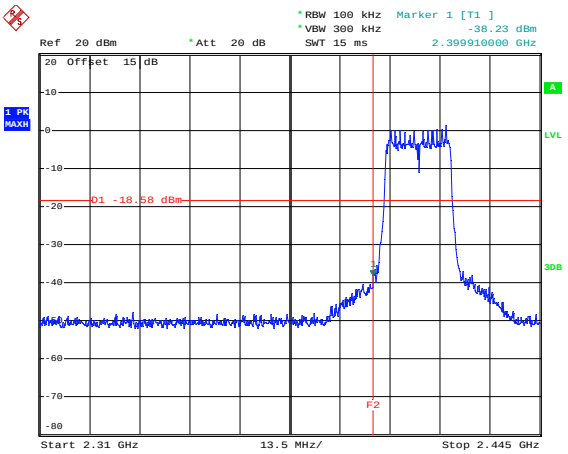
WLAN 802.11n HT20 Channel 01

100kHz PSD reference Level



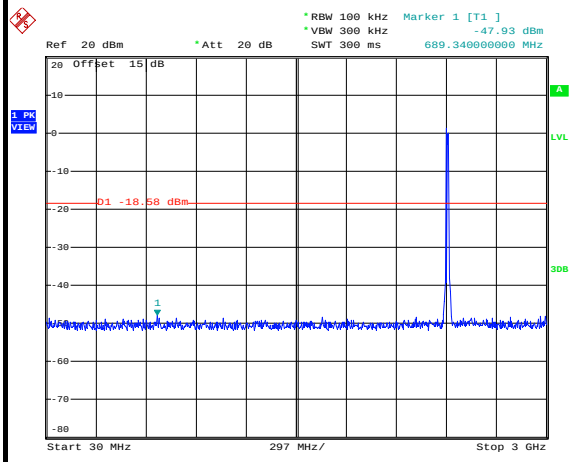
Date: 9.SEP.2015 22:37:06

Low Channel Plot



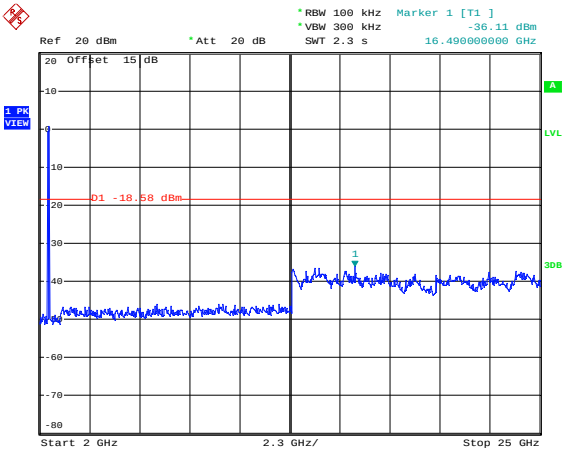
Date: 9.SEP.2015 22:38:07

Spurious Emission 30MHz~3GHz



Date: 9.SEP.2015 22:39:56

Spurious Emission 2GHz~25GHz

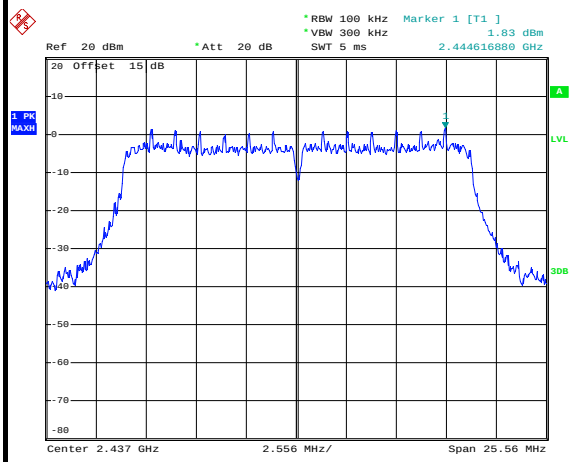


Date: 9.SEP.2015 22:40:14

Number of TX :	1	**Ant:**	2
Test Mode :	802.11n HT20	**Temperature :**	24~26℃
Test Band :	2.4GHz Mid	**Relative Humidity :**	50~53%
Test Channel :	06	**Test Engineer :**	Mygai Mo

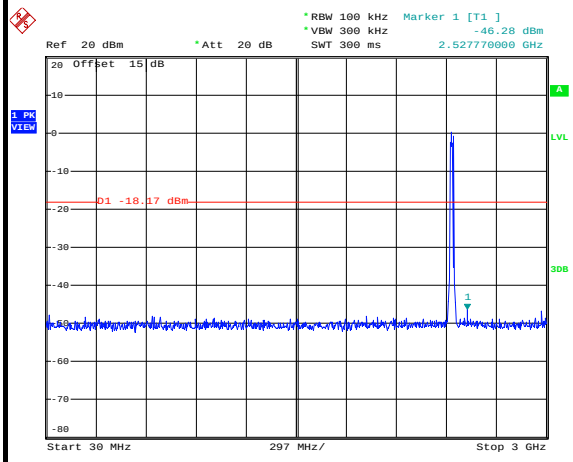
WLAN 802.11n HT20 Channel 06

100kHz PSD reference Level



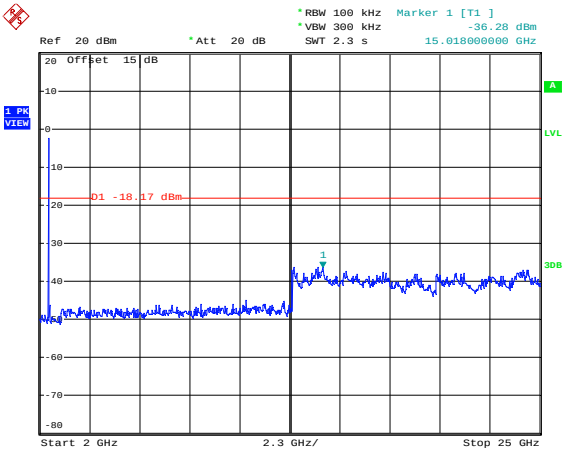
Date: 9.SEP.2015 22:45:01

Spurious Emission 30MHz~3GHz



Date: 9.SEP.2015 22:47:08

Spurious Emission 2GHz~25GHz

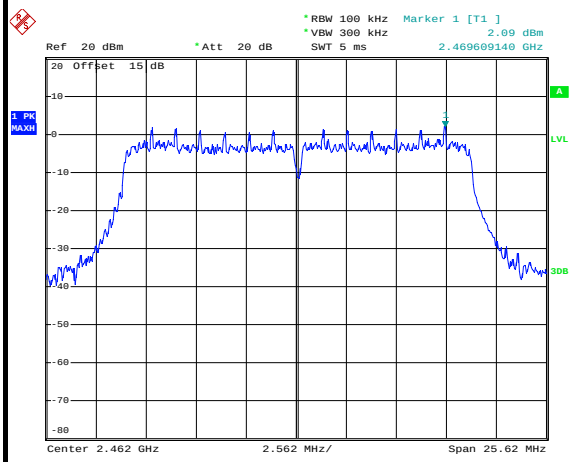


Date: 9.SEP.2015 22:47:26

Number of TX :	1	**Ant:**	2
Test Mode :	802.11n HT20	**Temperature :**	24~26℃
Test Band :	2.4GHz High	**Relative Humidity :**	50~53%
Test Channel :	11	**Test Engineer :**	Mygai Mo

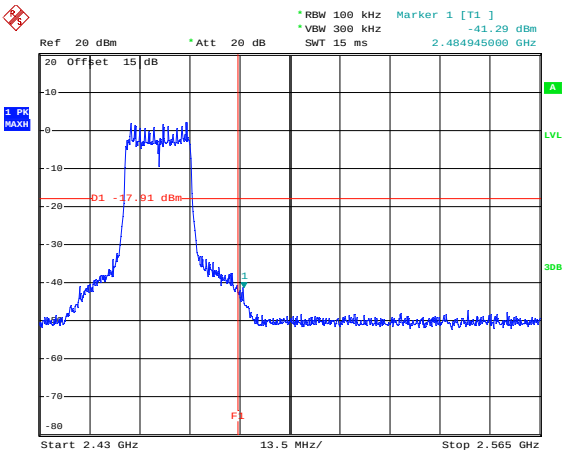
WLAN 802.11n HT20 Channel 11

100kHz PSD reference Level



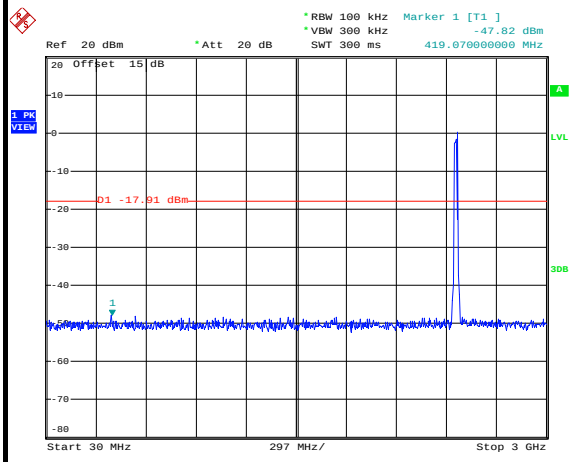
Date: 9.SEP.2015 22:50:32

High Channel Plot



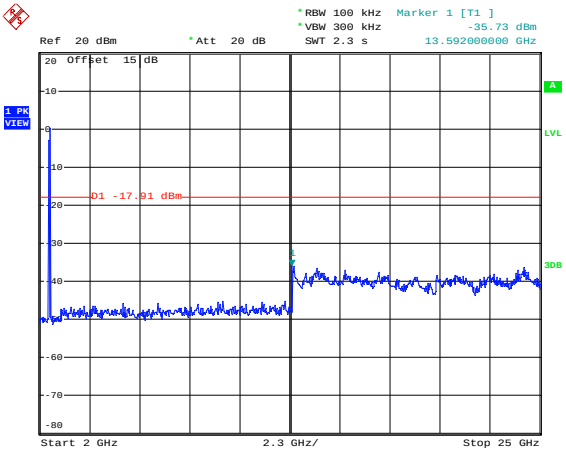
Date: 9.SEP.2015 22:53:38

Spurious Emission 30MHz~3GHz



Date: 9.SEP.2015 22:54:27

Spurious Emission 2GHz~25GHz

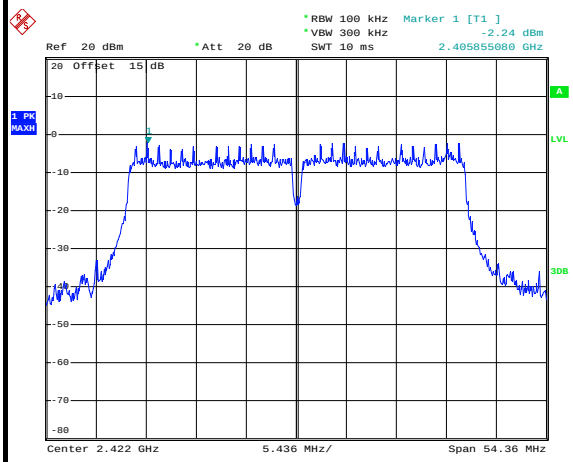


Date: 9.SEP.2015 22:54:45

Number of TX :	1	**Ant:**	2
Test Mode :	802.11n HT40	**Temperature :**	24~26℃
Test Band :	2.4GHz Low	**Relative Humidity :**	50~53%
Test Channel :	03	**Test Engineer :**	Mygai Mo

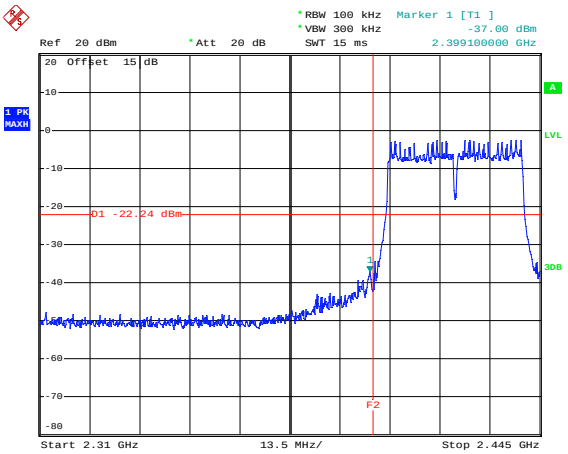
WLAN 802.11n HT40 Channel 03

100kHz PSD reference Level



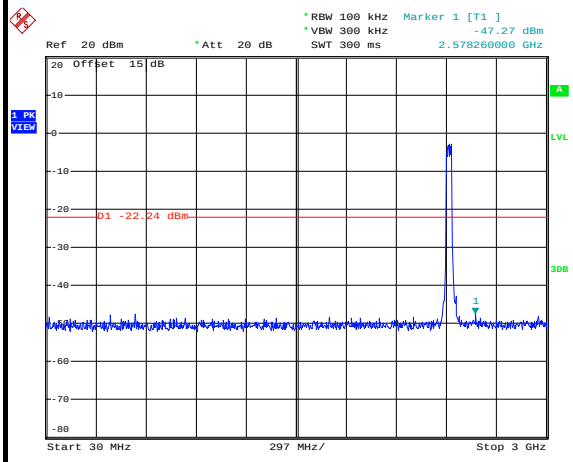
Date: 9.SEP.2015 22:59:47

Low Channel Plot



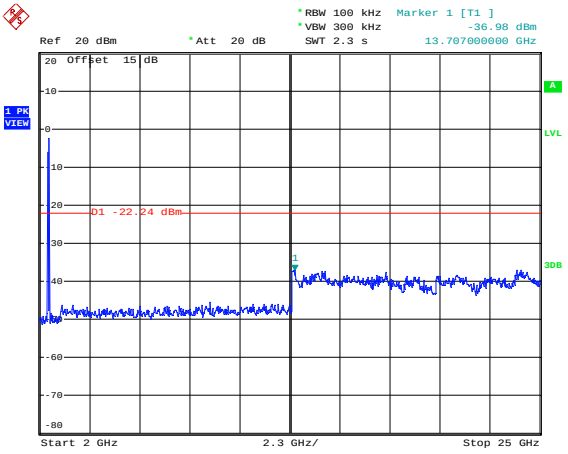
Date: 9.SEP.2015 23:01:02

Spurious Emission 30MHz~3GHz



Date: 9.SEP.2015 23:03:25

Spurious Emission 2GHz~25GHz

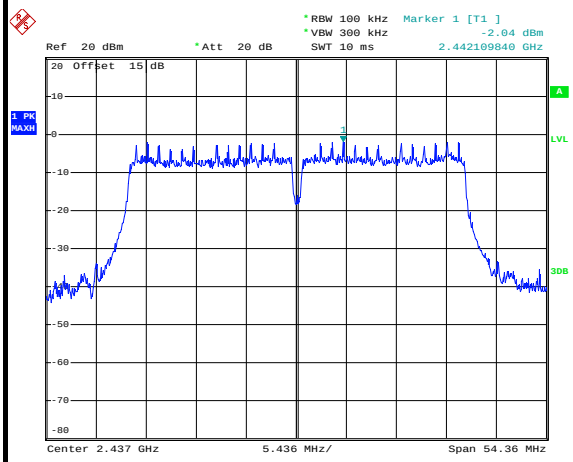


Date: 9.SEP.2015 23:03:42

Number of TX :	1	**Ant:**	2
Test Mode :	802.11n HT40	**Temperature :**	24~26℃
Test Band :	2.4GHz Mid	**Relative Humidity :**	50~53%
Test Channel :	06	**Test Engineer :**	Mygai Mo

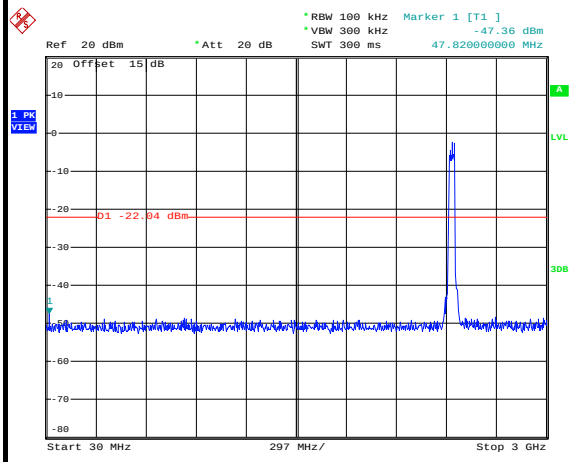
WLAN 802.11n HT40 Channel 06

100kHz PSD reference Level



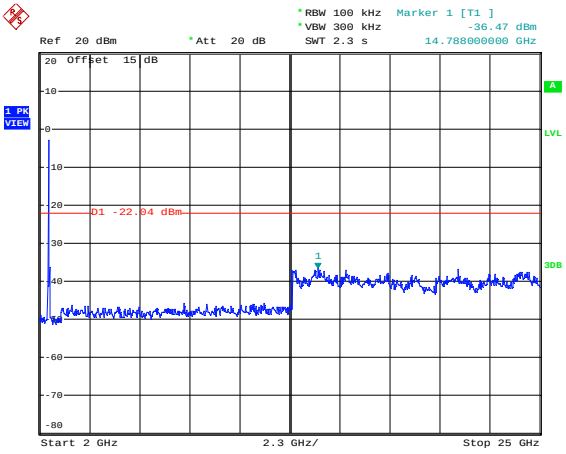
Date: 9.SEP.2015 23:07:40

Spurious Emission 30MHz~3GHz



Date: 9.SEP.2015 23:12:54

Spurious Emission 2GHz~25GHz

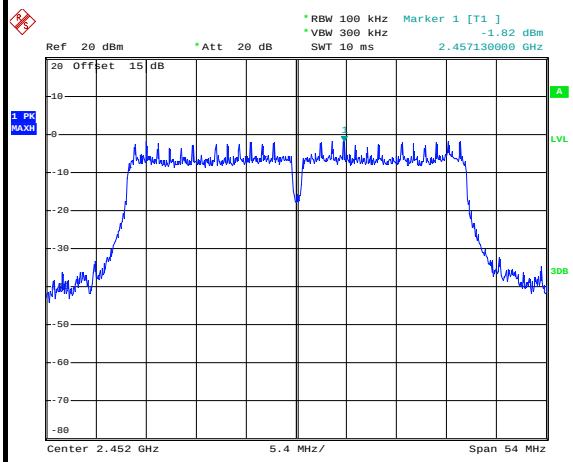


Date: 9.SEP.2015 23:11:16

Number of TX :	1	**Ant:**	2
Test Mode :	802.11n HT40	**Temperature :**	24~26℃
Test Band :	2.4GHz High	**Relative Humidity :**	50~53%
Test Channel :	09	**Test Engineer :**	Mygai Mo

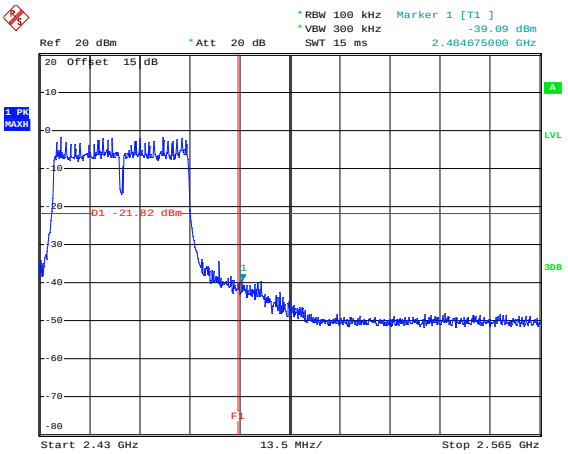
WLAN 802.11n HT40 Channel 09

100kHz PSD reference Level



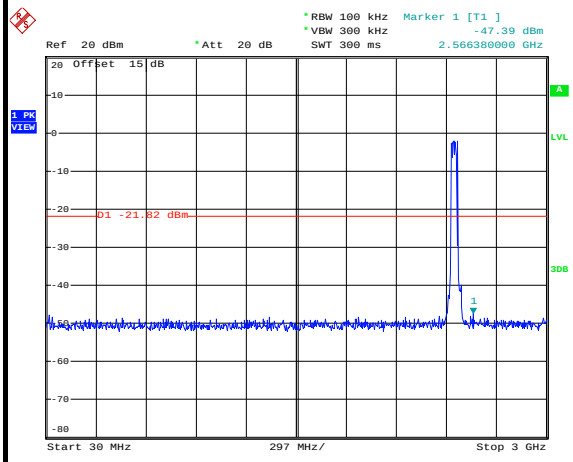
Date: 9.SEP.2015 23:19:05

High Channel Plot



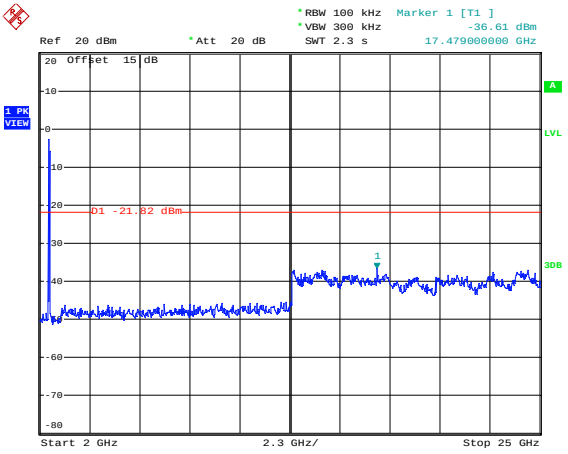
Date: 9.SEP.2015 23:19:47

Spurious Emission 30MHz~3GHz



Date: 9.SEP.2015 23:27:29

Spurious Emission 2GHz~25GHz



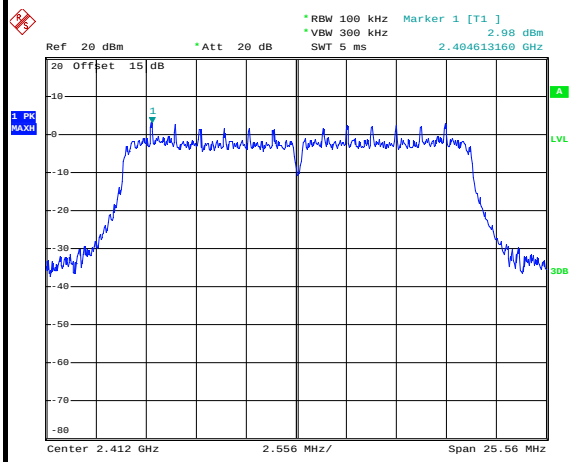
Date: 9.SEP.2015 23:26:05

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

Number of TX :	2	**Ant:**	1+2(1)
Test Mode :	802.11n HT20	**Temperature :**	24~26℃
Test Band :	2.4GHz Low	**Relative Humidity :**	50~53%
Test Channel :	01	**Test Engineer :**	Mygai Mo

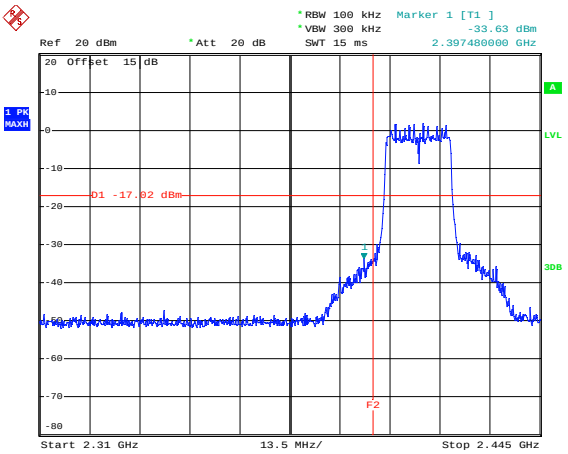
WLAN 802.11n HT20 Channel 01

100kHz PSD reference Level



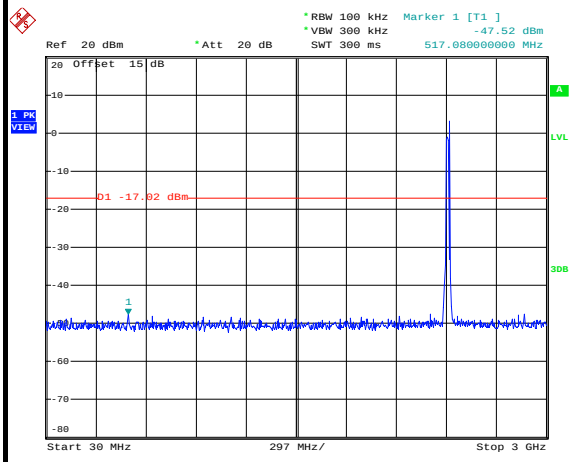
Date: 10.SEP.2015 00:50:53

Low Channel Plot



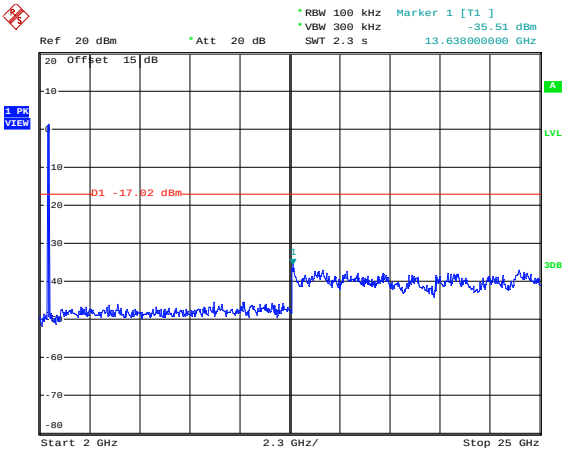
Date: 10.SEP.2015 00:52:34

Spurious Emission 30MHz~3GHz



Date: 10.SEP.2015 01:38:47

Spurious Emission 2GHz~25GHz

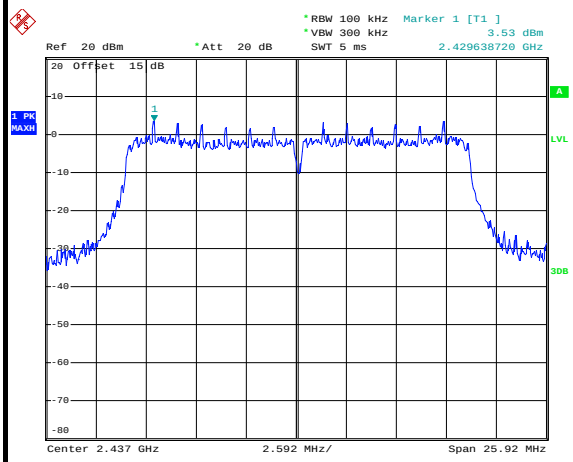


Date: 10.SEP.2015 00:54:13

Number of TX :	2	**Ant:**	1+2(1)
Test Mode :	802.11n HT20	**Temperature :**	24~26℃
Test Band :	2.4GHz Mid	**Relative Humidity :**	50~53%
Test Channel :	06	**Test Engineer :**	Mygai Mo

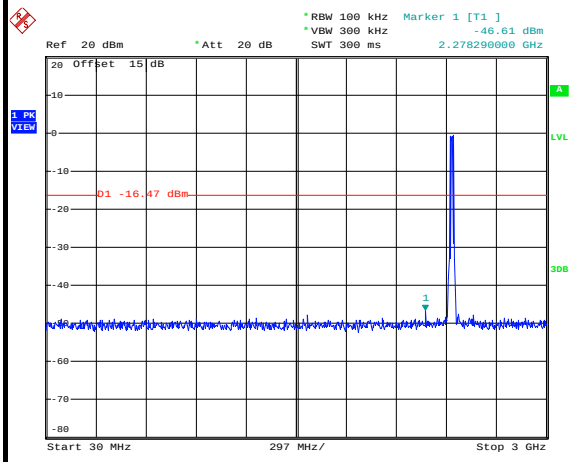
WLAN 802.11n HT20 Channel 06

100kHz PSD reference Level



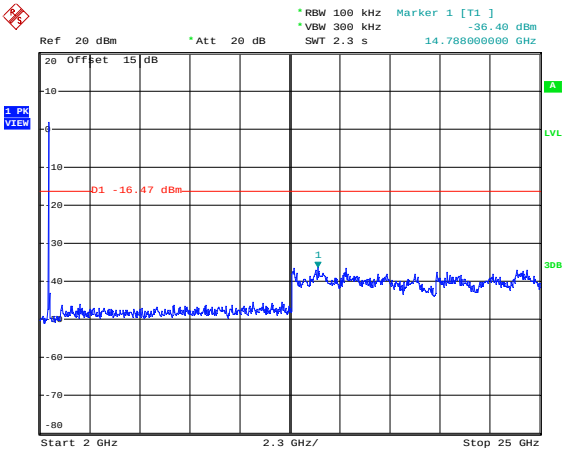
Date: 10.SEP.2015 00:45:09

Spurious Emission 30MHz~3GHz



Date: 10.SEP.2015 00:46:45

Spurious Emission 2GHz~25GHz

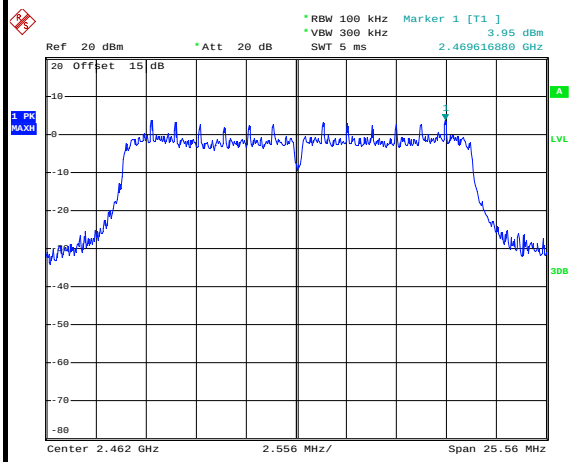


Date: 10.SEP.2015 00:47:02

Number of TX :	2	**Ant:**	1+2(1)
Test Mode :	802.11n HT20	**Temperature :**	24~26℃
Test Band :	2.4GHz High	**Relative Humidity :**	50~53%
Test Channel :	11	**Test Engineer :**	Mygai Mo

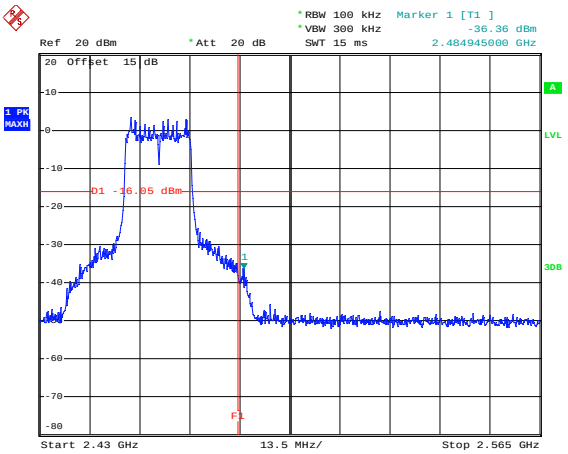
WLAN 802.11n HT20 Channel 11

100kHz PSD reference Level



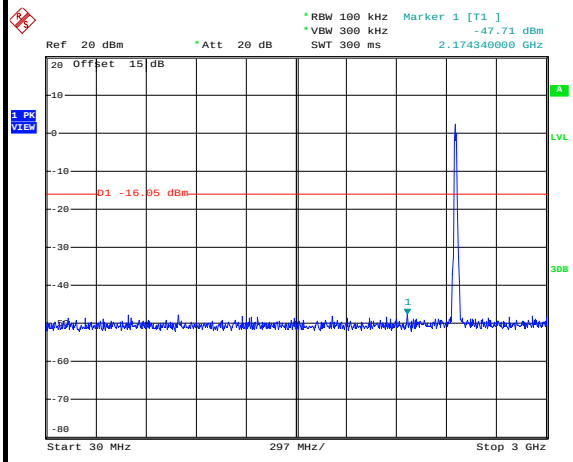
Date: 10.SEP.2015 00:35:32

High Channel Plot



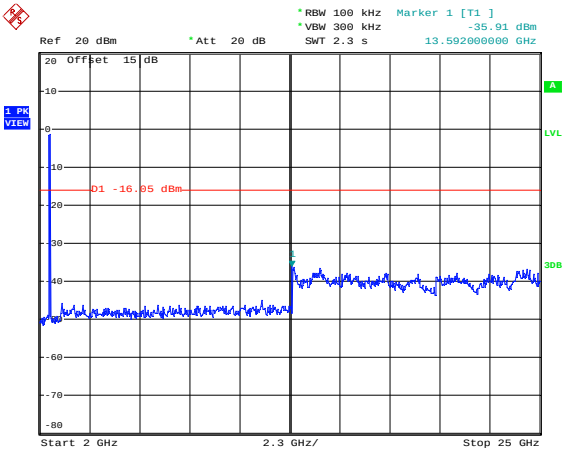
Date: 10.SEP.2015 00:37:03

Spurious Emission 30MHz~3GHz



Date: 10.SEP.2015 01:40:03

Spurious Emission 2GHz~25GHz

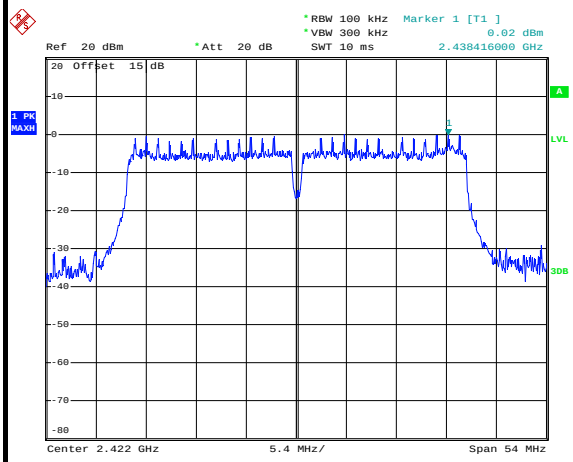


Date: 10.SEP.2015 00:41:44

Number of TX :	2	**Ant:**	1+2(1)
Test Mode :	802.11n HT40	**Temperature :**	24~26℃
Test Band :	2.4GHz Low	**Relative Humidity :**	50~53%
Test Channel :	03	**Test Engineer :**	Mygai Mo

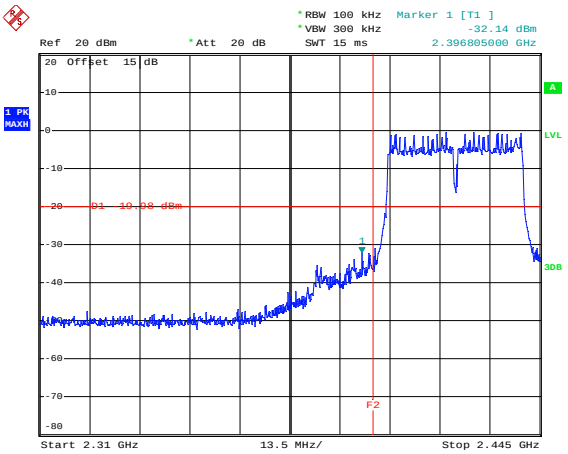
WLAN 802.11n HT40 Channel 03

100kHz PSD reference Level



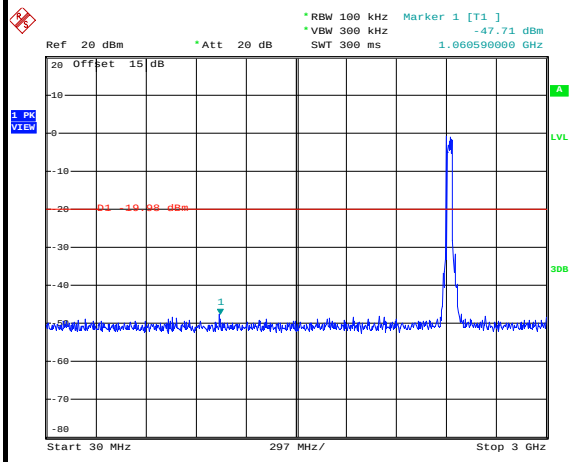
Date: 10.SEP.2015 00:57:57

Low Channel Plot



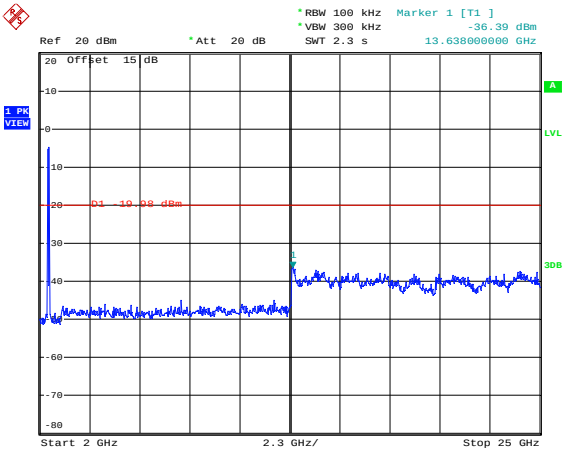
Date: 10.SEP.2015 00:58:45

Spurious Emission 30MHz~3GHz



Date: 10.SEP.2015 01:02:27

Spurious Emission 2GHz~25GHz

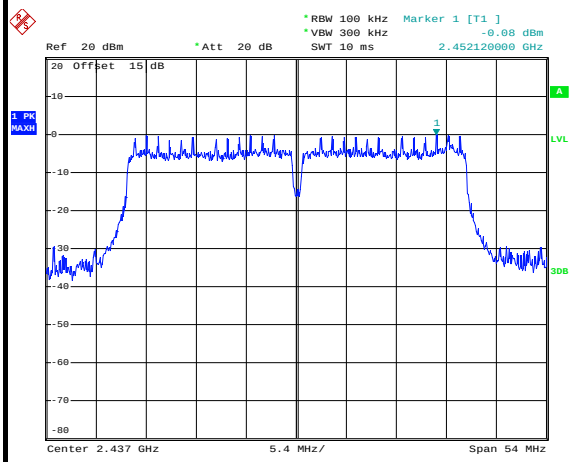


Date: 10.SEP.2015 01:01:27

Number of TX :	2	**Ant:**	1+2(1)
Test Mode :	802.11n HT40	**Temperature :**	24~26℃
Test Band :	2.4GHz Mid	**Relative Humidity :**	50~53%
Test Channel :	06	**Test Engineer :**	Mygai Mo

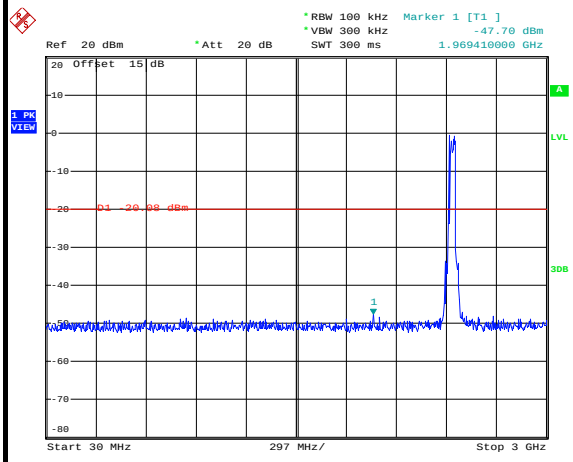
WLAN 802.11n HT40 Channel 06

100kHz PSD reference Level



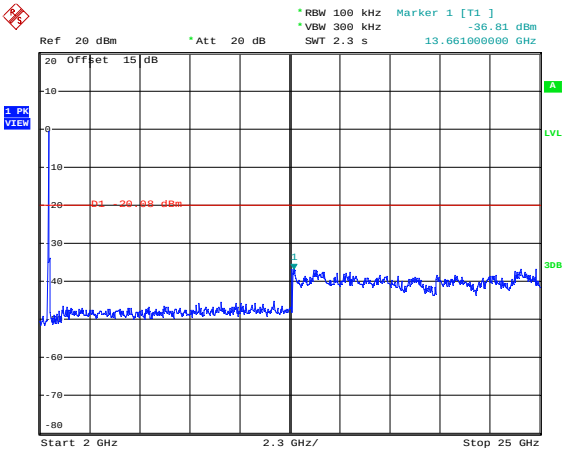
Date: 10.SEP.2015 01:15:04

Spurious Emission 30MHz~3GHz



Date: 10.SEP.2015 01:19:11

Spurious Emission 2GHz~25GHz

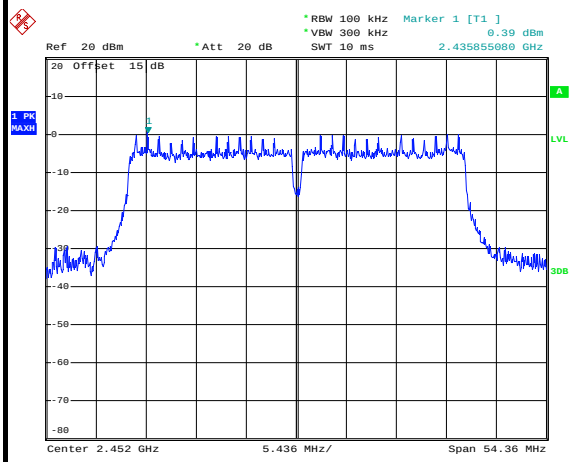


Date: 10.SEP.2015 01:17:28

Number of TX :	2	**Ant:**	1+2(1)
Test Mode :	802.11n HT40	**Temperature :**	24~26℃
Test Band :	2.4GHz High	**Relative Humidity :**	50~53%
Test Channel :	09	**Test Engineer :**	Mygai Mo

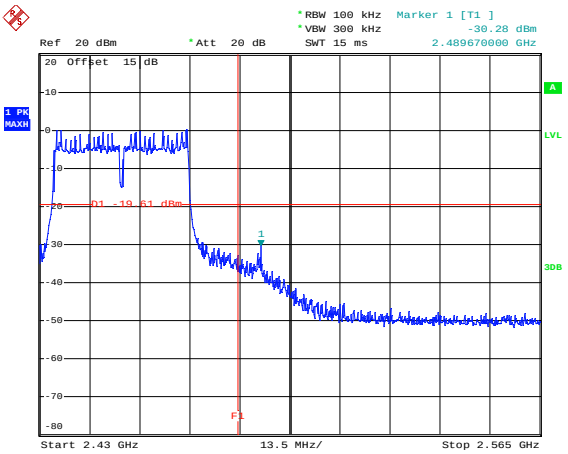
WLAN 802.11n HT40 Channel 09

100kHz PSD reference Level



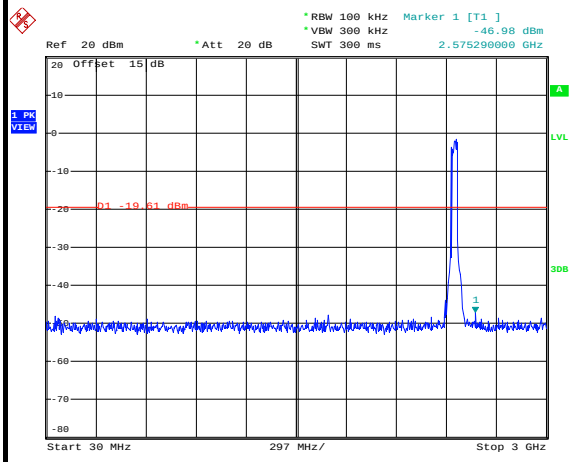
Date: 10.SEP.2015 01:23:00

High Channel Plot



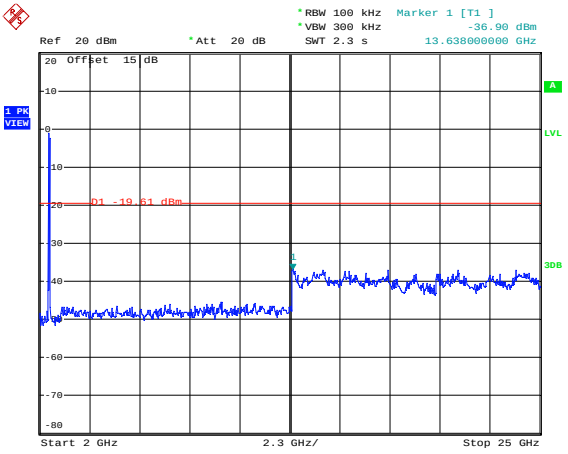
Date: 10.SEP.2015 01:23:48

Spurious Emission 30MHz~3GHz



Date: 10.SEP.2015 01:25:32

Spurious Emission 2GHz~25GHz



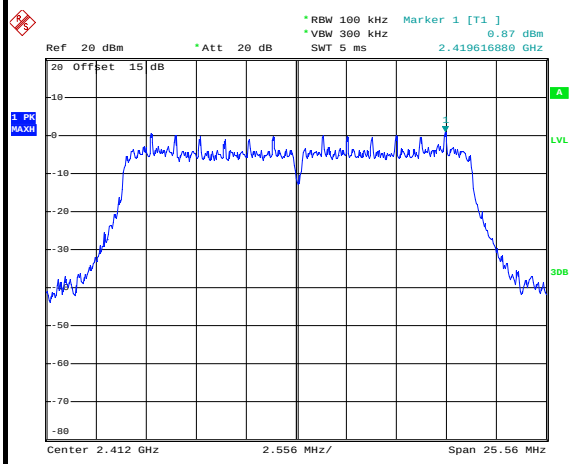
Date: 10.SEP.2015 01:24:50

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

Number of TX :	2	**Ant:**	1+2(2)
Test Mode :	802.11n HT20	**Temperature :**	24~26℃
Test Band :	2.4GHz Low	**Relative Humidity :**	50~53%
Test Channel :	01	**Test Engineer :**	Mygai Mo

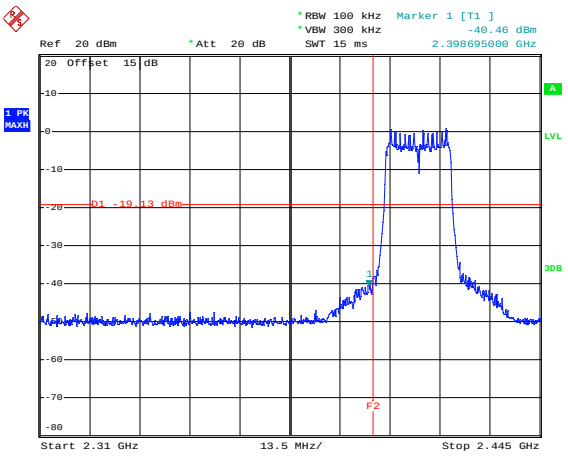
WLAN 802.11n HT20 Channel 01

100kHz PSD reference Level



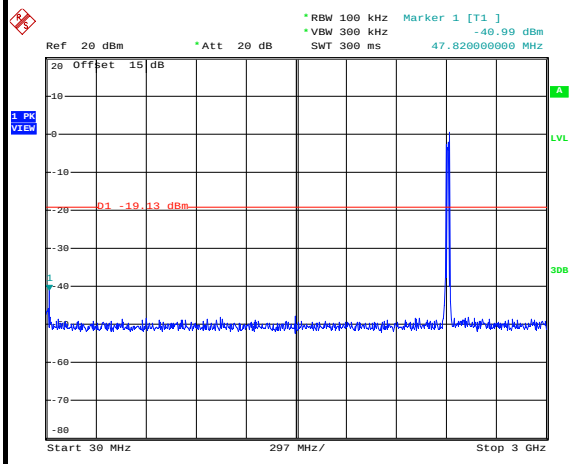
Date: 9.SEP.2015 23:59:24

Low Channel Plot



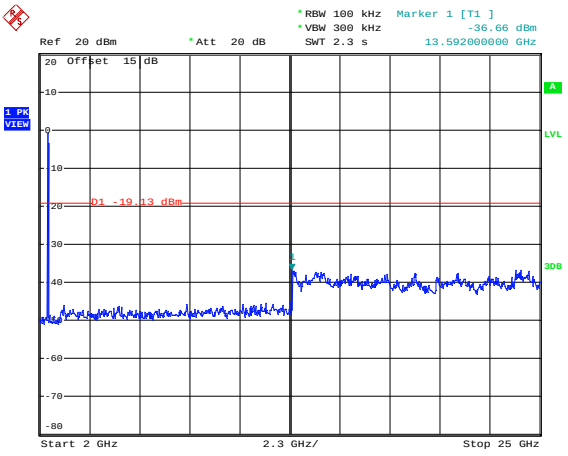
Date: 10.SEP.2015 00:07:28

Spurious Emission 30MHz~3GHz



Date: 10.SEP.2015 00:09:05

Spurious Emission 2GHz~25GHz

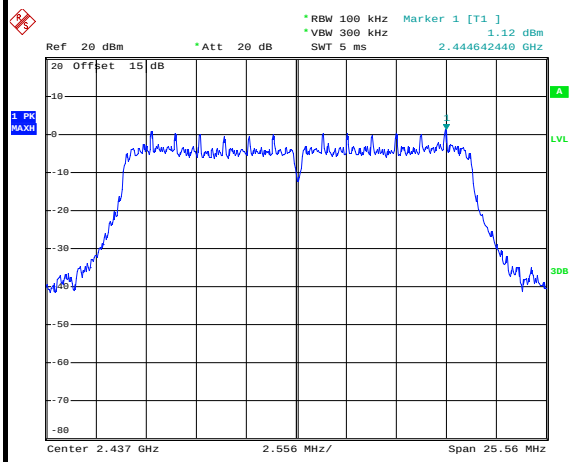


Date: 10.SEP.2015 00:09:22

Number of TX :	2	**Ant:**	1+2(2)
Test Mode :	802.11n HT20	**Temperature :**	24~26℃
Test Band :	2.4GHz Mid	**Relative Humidity :**	50~53%
Test Channel :	06	**Test Engineer :**	Mygai Mo

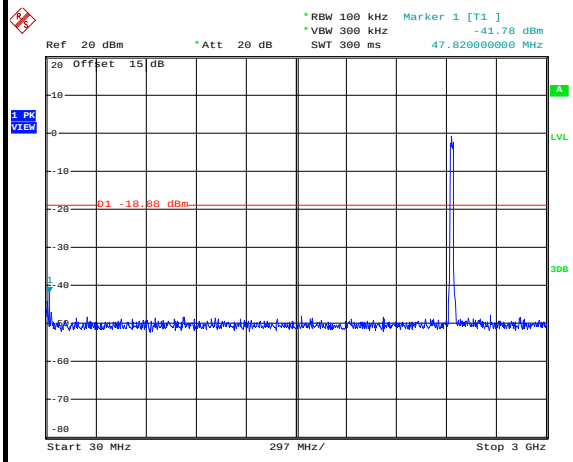
WLAN 802.11n HT20 Channel 06

100kHz PSD reference Level



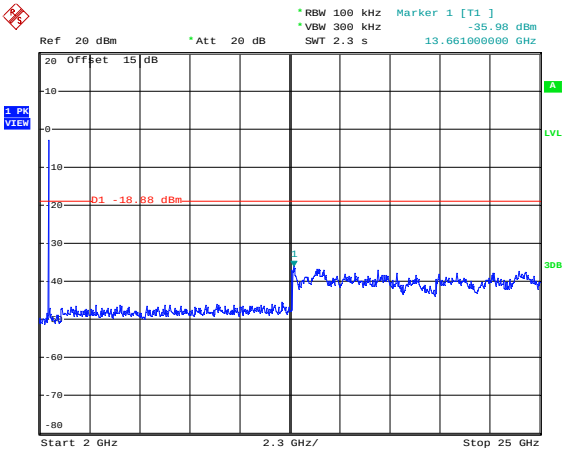
Date: 10.SEP.2015 00:25:04

Spurious Emission 30MHz~3GHz



Date: 10.SEP.2015 00:25:49

Spurious Emission 2GHz~25GHz

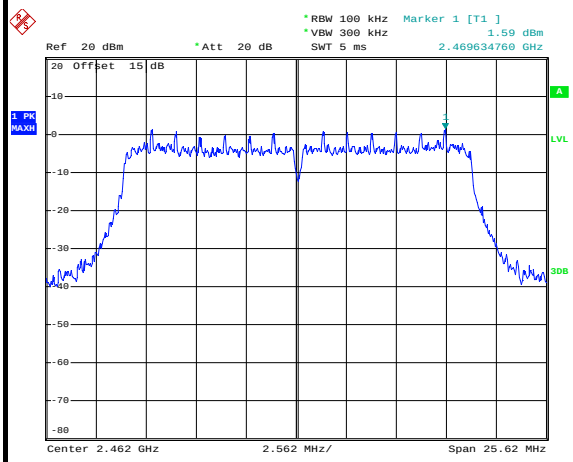


Date: 10.SEP.2015 00:26:06

Number of TX :	2	**Ant:**	1+2(2)
Test Mode :	802.11n HT20	**Temperature :**	24~26℃
Test Band :	2.4GHz High	**Relative Humidity :**	50~53%
Test Channel :	11	**Test Engineer :**	Mygai Mo

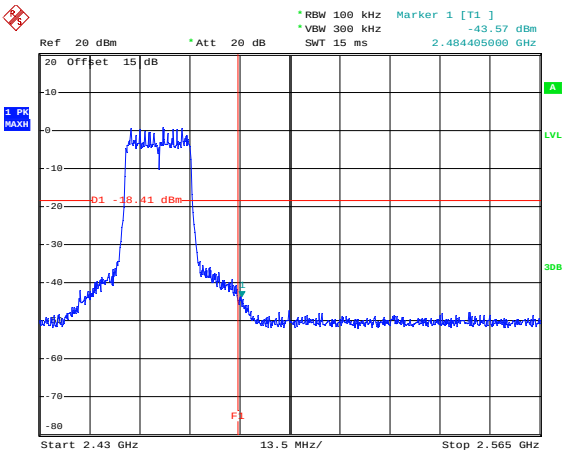
WLAN 802.11n HT20 Channel 11

100kHz PSD reference Level



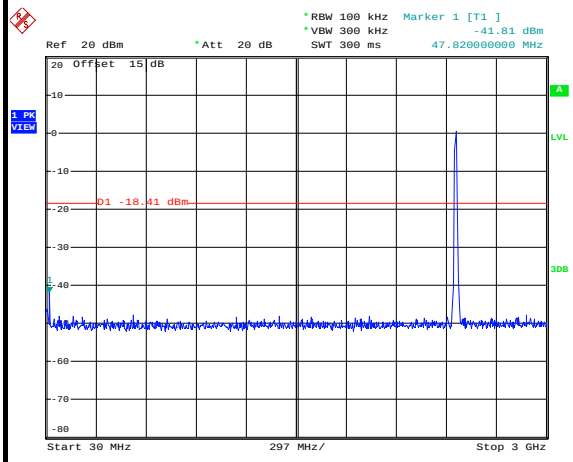
Date: 10.SEP.2015 00:29:27

High Channel Plot



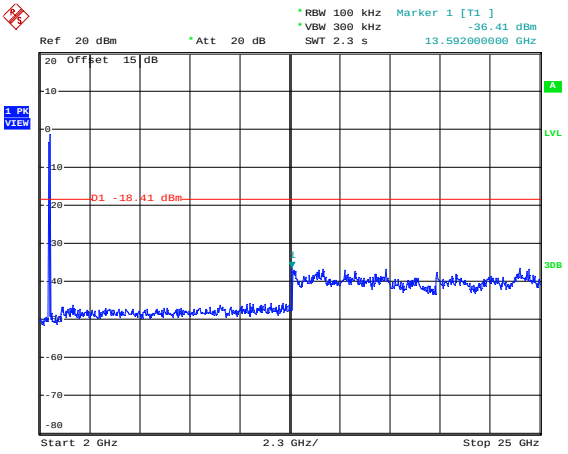
Date: 10.SEP.2015 00:30:22

Spurious Emission 30MHz~3GHz



Date: 10.SEP.2015 00:31:01

Spurious Emission 2GHz~25GHz

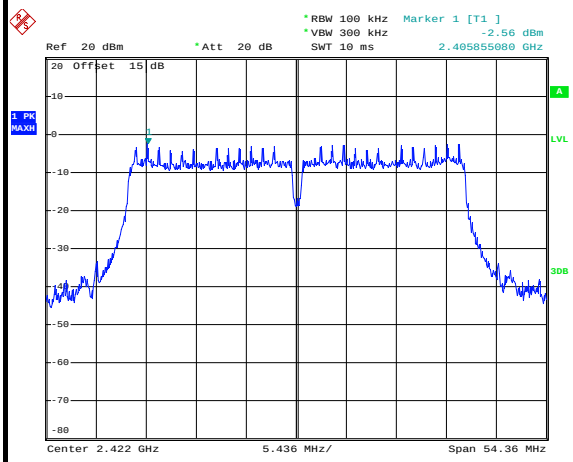


Date: 10.SEP.2015 00:31:18

Number of TX :	2	**Ant:**	1+2(2)
Test Mode :	802.11n HT40	**Temperature :**	24~26℃
Test Band :	2.4GHz Low	**Relative Humidity :**	50~53%
Test Channel :	03	**Test Engineer :**	Mygai Mo

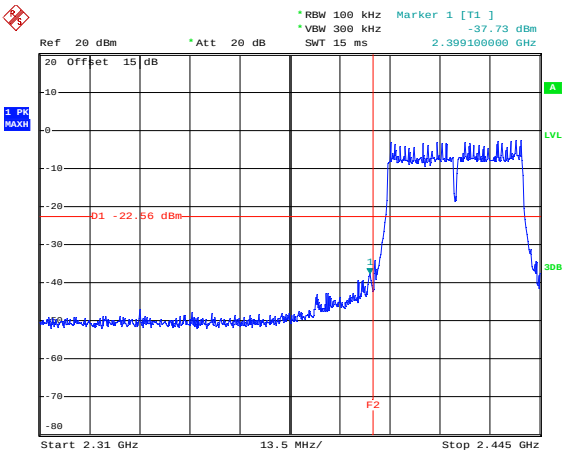
WLAN 802.11n HT40 Channel 03

100kHz PSD reference Level



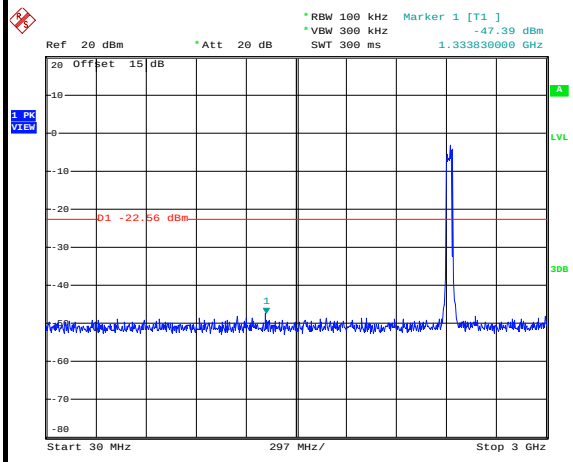
Date: 9.SEP.2015 23:49:48

Low Channel Plot



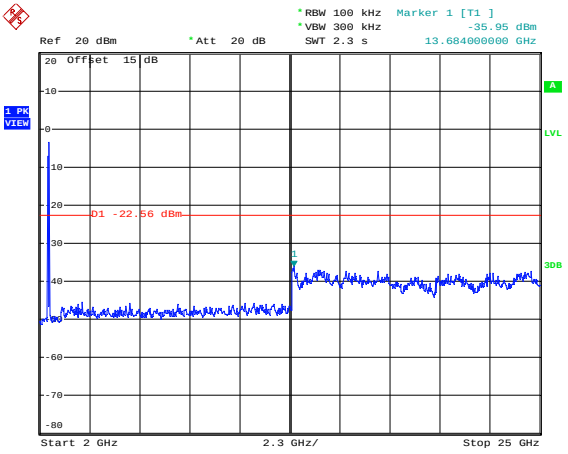
Date: 9.SEP.2015 23:52:05

Spurious Emission 30MHz~3GHz



Date: 9.SEP.2015 23:56:24

Spurious Emission 2GHz~25GHz

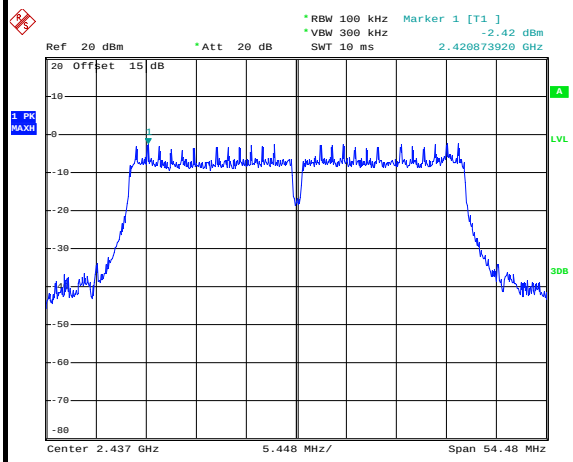


Date: 9.SEP.2015 23:55:22

Number of TX :	2	**Ant:**	1+2(2)
Test Mode :	802.11n HT40	**Temperature :**	24~26℃
Test Band :	2.4GHz Mid	**Relative Humidity :**	50~53%
Test Channel :	06	**Test Engineer :**	Mygai Mo

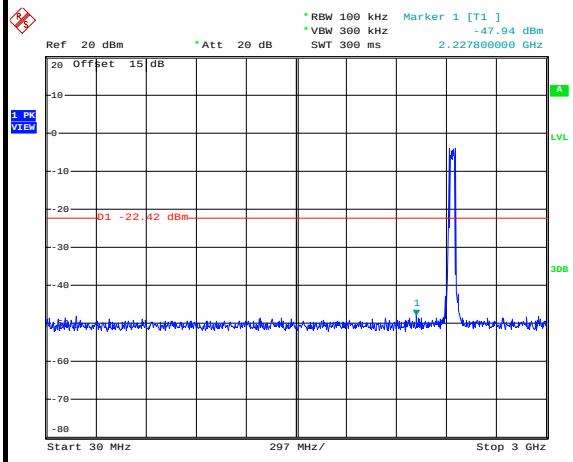
WLAN 802.11n HT40 Channel 06

100kHz PSD reference Level



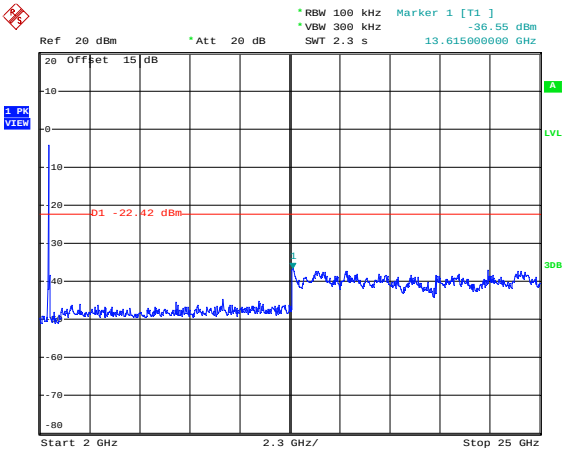
Date: 9.SEP.2015 23:42:35

Spurious Emission 30MHz~3GHz



Date: 9.SEP.2015 23:44:23

Spurious Emission 2GHz~25GHz

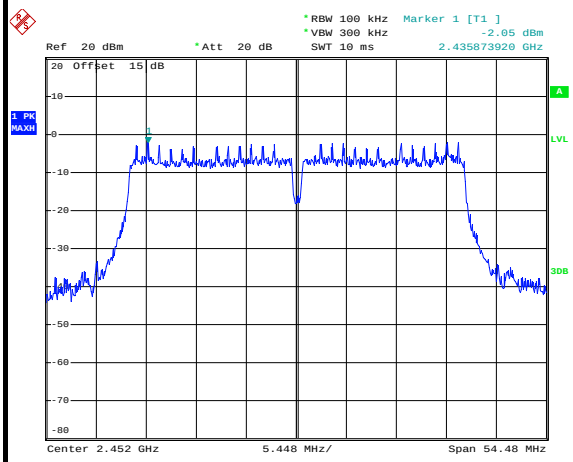


Date: 9.SEP.2015 23:44:41

Number of TX :	2	**Ant:**	1+2(2)
Test Mode :	802.11n HT40	**Temperature :**	24~26℃
Test Band :	2.4GHz High	**Relative Humidity :**	50~53%
Test Channel :	09	**Test Engineer :**	Mygai Mo

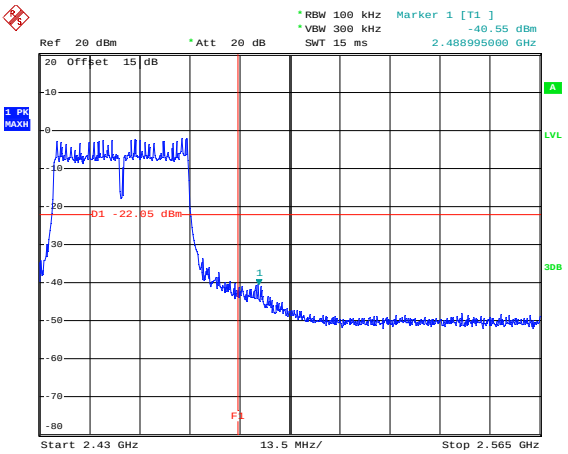
WLAN 802.11n HT40 Channel 09

100kHz PSD reference Level



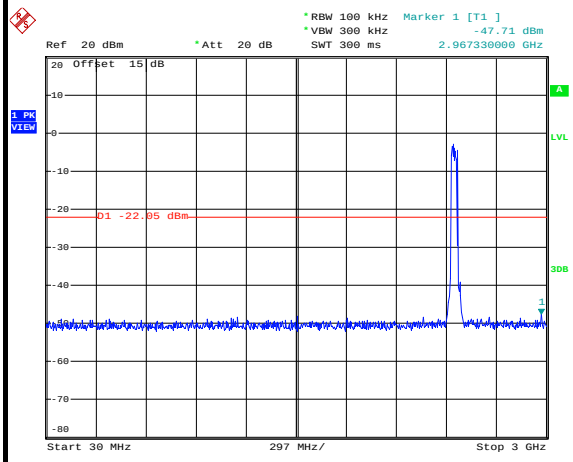
Date: 9.SEP.2015 23:33:13

High Channel Plot



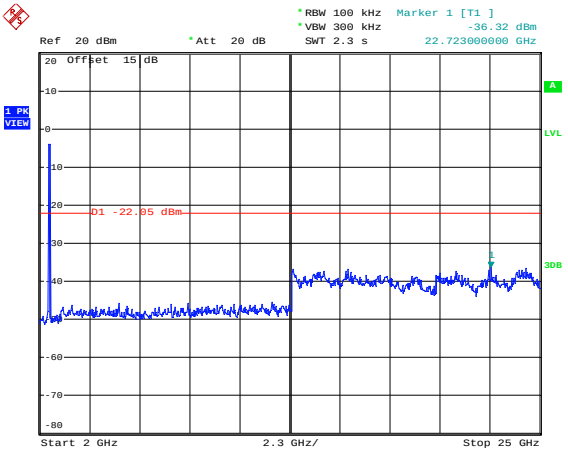
Date: 9.SEP.2015 23:34:55

Spurious Emission 30MHz~3GHz



Date: 9.SEP.2015 23:37:38

Spurious Emission 2GHz~25GHz



Date: 9.SEP.2015 23:37:55

3.5 Radiated Band Edges and Spurious Emission Measurement

3.5.1 Limit of Radiated band edge and Spurious Emission Measurement

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

Frequency (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009 – 0.490	2400/F(kHz)	300
0.490 – 1.705	24000/F(kHz)	30
1.705 – 30.0	30	30
30 – 88	100	3
88 – 216	150	3
216 - 960	200	3
Above 960	500	3

3.5.2 Measuring Instruments

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

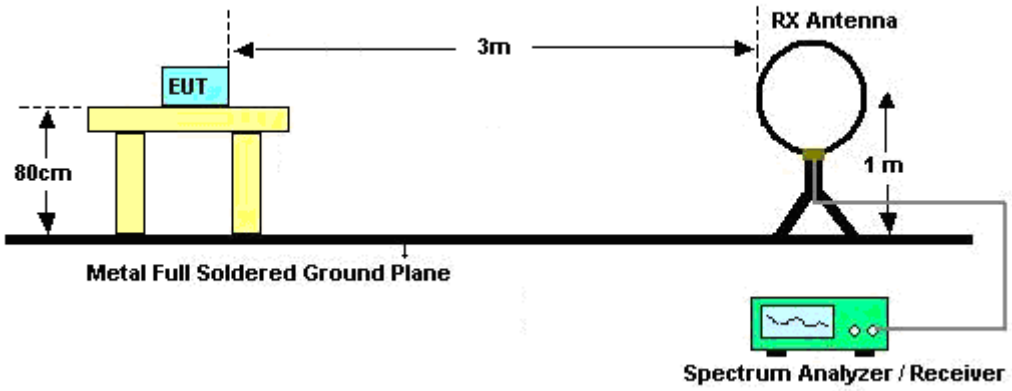
3.5.3 Test Procedure

1. The testing follows FCC KDB Publication No. 558074 D01 DTS Meas. Guidance v03r03.
2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level.
3. The EUT was placed on a turntable with 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz respectively above ground.
4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
5. Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level
6. For measurement below 1GHz, If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak detector and reported.
7. Use the following spectrum analyzer settings:
   (1) Span shall wide enough to fully capture the emission being measured;
   (2) Set RBW=100 kHz for f < 1 GHz; VBW ≥ RBW; Sweep = auto; Detector function = peak; Trace = max hold;
   (3) Set RBW = 1 MHz, VBW= 3MHz for f ≥ 1 GHz for peak measurement.
   For average measurement:
   - VBW = 10 Hz, when duty cycle is no less than 98 percent.
   - VBW ≥ 1/T, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.

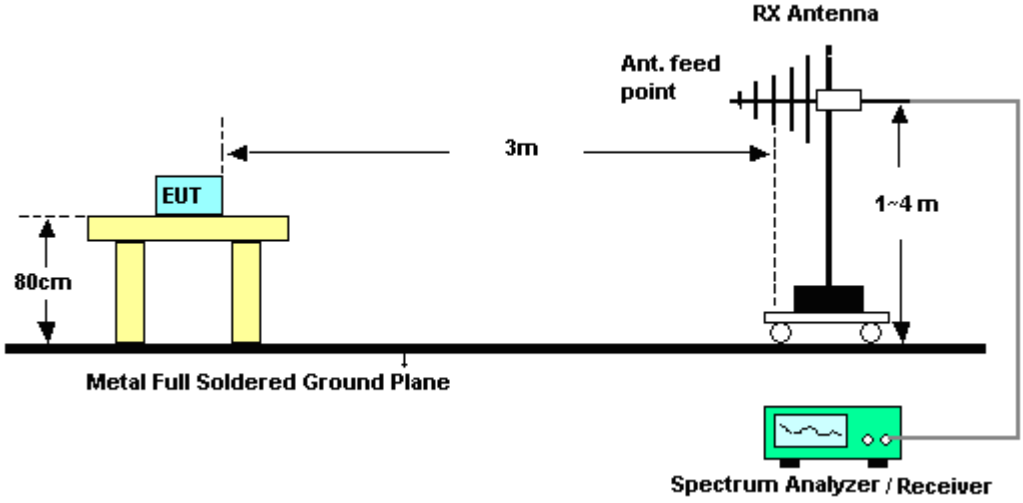
Antenna	Band	Duty Cycle(%)	T(ms)	1/T(kHz)	VBW Setting
1	802.11b	97.77	8.75	0.11	300Hz
1	802.11g	88.96	1.46	0.69	1kHz
1	2.4GHz 802.11n HT20	86.86	1.35	0.74	1kHz
1	2.4GHz 802.11n HT40	77.24	0.67	1.49	3kHz
1+2	2.4GHz 802.11n HT20	86.86	1.36	0.74	1kHz
1+2	2.4GHz 802.11n HT40	77.24	0.67	1.49	3kHz

3.5.4 Test Setup

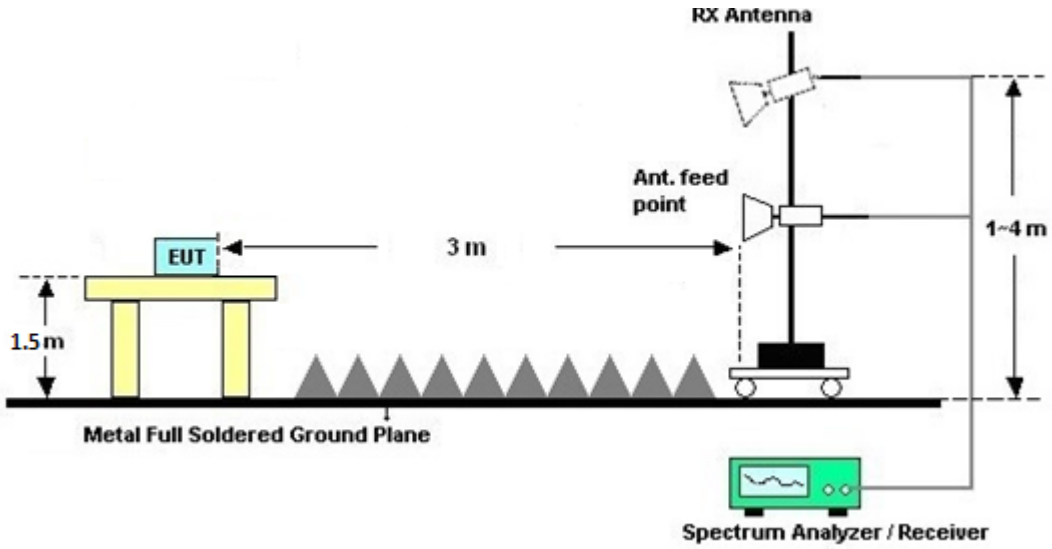
For radiated emissions below 30MHz



For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz



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

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

3.5.6 Test Result of Radiated Spurious at Band Edges

Please refer to Appendix B of this test report.

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

Please refer to Appendix B of this test report.

3.6 Antenna Requirements

3.6.1 Standard Applicable

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

3.6.2 Antenna Anti-Replacement Construction

An embedded-in antenna design is used.

3.6.3 Antenna Gain

FCC KDB 662911 D01 Multiple Transmitter Output v02r01.

For CDD transmissions, directional gain is calculated as

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

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

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

For power measurements on IEEE 802.11 devices,

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

The EUT supports CDD mode.

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

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

	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	3.80	3.80	3.80	6.81	0.00	0.81

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	FSP30	101400	9kHz~30GHz	Jan. 28, 2015	Aug. 26, 2015~ Sep. 10, 2015	Jan. 27, 2016	Conducted (TH01-SZ)
Pulse Power Senor	Anritsu	MA2411B	1207253	30MHz~40GHz	Jan. 28, 2015	Aug. 26, 2015~ Sep. 10, 2015	Jan. 27, 2016	Conducted (TH01-SZ)
Power Meter	Anritsu	ML2495A	1218010	50MHz Bandwidth	Jan. 28, 2015	Aug. 26, 2015~ Sep. 10, 2015	Jan. 27, 2016	Conducted (TH01-SZ)
EMI Test Receiver&SA	Agilent Technologies	N9038A	MY52260185	20Hz~26.5GHz	May 26, 2015	Sep. 08, 2015	May 25, 2016	Radiation (03CH01-SZ)
Spectrum Analyzer	R&S	FSV40	101041	10kHz~40GHz; Max 30dBm	Sep. 25, 2014	Sep. 08, 2015	Sep. 24, 2015	Radiation (03CH01-SZ)
Loop Antenna	R&S	HFH2-Z2	100354	9kHz~30MHz	May 06, 2015	Sep. 08, 2015	May 05, 2016	Radiation (03CH01-SZ)
Bilog Antenna	TeseQ	CBL6112D	23188	30MHz~2GHz	Nov. 07, 2014	Sep. 08, 2015	Nov. 06, 2015	Radiation (03CH01-SZ)
Double Ridge Horn Antenna	ETS-Lindgren	3117	00119436	1GHz~18GHz	Oct. 15, 2014	Sep. 08, 2015	Oct. 14, 2015	Radiation (03CH01-SZ)
SHF-EHF Horn	com-power	AH-840	101071	18GHz~40GHz	Aug. 17, 2015	Sep. 08, 2015	Aug. 16, 2016	Radiation (03CH01-SZ)
Amplifier	ADVANTEST	BB525C	E9007003	9kHz~3000MHz / 30 dB	Jan. 28, 2015	Sep. 08, 2015	Jan. 27, 2016	Radiation (03CH01-SZ)
Amplifier	Yiai	AV3860B	04030	2GHz~26.5GHz	May 05, 2015	Sep. 08, 2015	May 04, 2016	Radiation (03CH01-SZ)
Amplifier	Agilent Technologies	83017A	MY39501302	500MHz~26.5GHz	Jan. 28, 2015	Sep. 08, 2015	Jan. 27, 2016	Radiation (03CH01-SZ)
AC Power Source	Chroma	61601	616010001985	N/A	NCR	Sep. 08, 2015	NCR	Radiation (03CH01-SZ)
Turn Table	EM	EM1000	N/A	0~360 degree	NCR	Sep. 08, 2015	NCR	Radiation (03CH01-SZ)
Antenna Mast	EM	EM1000	N/A	1 m~4 m	NCR	Sep. 08, 2015	NCR	Radiation (03CH01-SZ)

5 Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**3.9dB**

APPENDIX A. CONDUCTED TEST RESULTS

Report Number : FR581706

Test Engineer:	Mygai Mo	Temperature:	21~25	°C
Test Date:	2015/8/26 ~ 2015/9/10	Relative Humidity:	51~54	%

Report Number : FR581706

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	1	1	2412	12.30	12.30	9.52	10.00	0.50	Pass
11b	1Mbps	1	6	2437	12.30	12.30	9.30	9.32	0.50	Pass
11b	1Mbps	1	11	2462	12.35	12.30	9.76	10.04	0.50	Pass
11g	6Mbps	1	1	2412	17.65	17.55	16.36	16.36	0.50	Pass
11g	6Mbps	1	6	2437	17.75	17.60	16.36	16.36	0.50	Pass
11g	6Mbps	1	11	2462	17.80	17.70	16.36	16.36	0.50	Pass
HT20	MCS0	1	1	2412	18.40	18.35	17.16	17.08	0.50	Pass
HT20	MCS0	1	6	2437	18.50	18.30	17.08	17.04	0.50	Pass
HT20	MCS0	1	11	2462	18.55	18.35	17.08	17.08	0.50	Pass
HT40	MCS0	1	3	2422	36.90	36.70	36.24	36.24	0.50	Pass
HT40	MCS0	1	6	2437	36.90	36.70	36.24	36.24	0.50	Pass
HT40	MCS0	1	9	2452	36.80	36.70	36.24	36.00	0.50	Pass
HT20	MCS0	2	1	2412	18.40	18.30	17.04	17.04	0.50	Pass
HT20	MCS0	2	6	2437	18.40	18.25	17.28	17.04	0.50	Pass
HT20	MCS0	2	11	2462	18.50	18.30	17.04	17.08	0.50	Pass
HT40	MCS0	2	3	2422	36.90	36.70	36.00	36.24	0.50	Pass
HT40	MCS0	2	6	2437	36.80	36.70	36.00	36.32	0.50	Pass
HT40	MCS0	2	9	2452	36.90	36.70	36.24	36.32	0.50	Pass

Report Number : FR581706

TEST RESULTS DATA
Peak Output Power

2.4GHz Band																
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Peak Conducted Power (dBm)			Conducted Power Limit (dBm)		DG (dBi)		EIRP Power (dBm)		EIRP Power Limit (dBm)		Pass /Fail
					Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	
11b	1Mbps	1	1	2412	18.23	15.31		30.00	30.00	3.80	3.80	22.03	19.11	36.00	36.00	Pass
11b	1Mbps	1	6	2437	18.96	15.91		30.00	30.00	3.80	3.80	22.76	19.71	36.00	36.00	Pass
11b	1Mbps	1	11	2462	19.53	16.45		30.00	30.00	3.80	3.80	23.33	20.25	36.00	36.00	Pass
11g	6Mbps	1	1	2412	23.48	21.78		30.00	30.00	3.80	3.80	27.28	25.58	36.00	36.00	Pass
11g	6Mbps	1	6	2437	23.50	22.04		30.00	30.00	3.80	3.80	27.30	25.84	36.00	36.00	Pass
11g	6Mbps	1	11	2462	23.53	22.18		30.00	30.00	3.80	3.80	27.33	25.98	36.00	36.00	Pass
HT20	MCS0	1	1	2412	23.28	21.66		30.00	30.00	3.80	3.80	27.08	25.46	36.00	36.00	Pass
HT20	MCS0	1	6	2437	23.34	21.90		30.00	30.00	3.80	3.80	27.14	25.70	36.00	36.00	Pass
HT20	MCS0	1	11	2462	23.36	22.07		30.00	30.00	3.80	3.80	27.16	25.87	36.00	36.00	Pass
HT40	MCS0	1	3	2422	23.02	21.52		30.00	30.00	3.80	3.80	26.82	25.32	36.00	36.00	Pass
HT40	MCS0	1	6	2437	23.00	21.63		30.00	30.00	3.80	3.80	26.80	25.43	36.00	36.00	Pass
HT40	MCS0	1	9	2452	23.06	21.71		30.00	30.00	3.80	3.80	26.86	25.51	36.00	36.00	Pass
HT20	MCS0	2	1	2412	22.87	21.38	25.20	30.00		3.80		29.00		36.00		Pass
HT20	MCS0	2	6	2437	22.98	21.78	25.43	30.00		3.80		29.23		36.00		Pass
HT20	MCS0	2	11	2462	23.07	22.00	25.58	30.00		3.80		29.38		36.00		Pass
HT40	MCS0	2	3	2422	22.59	21.37	25.03	30.00		3.80		28.83		36.00		Pass
HT40	MCS0	2	6	2437	22.67	21.43	25.10	30.00		3.80		28.90		36.00		Pass
HT40	MCS0	2	9	2452	22.70	21.58	25.19	30.00		3.80		28.99		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	1	1	2412	0.10	0.10	14.76	11.74	
11b	1Mbps	1	6	2437	0.10	0.10	15.51	12.36	
11b	1Mbps	1	11	2462	0.10	0.10	16.12	12.92	
11g	6Mbps	1	1	2412	0.51	0.51	15.29	12.58	
11g	6Mbps	1	6	2437	0.51	0.51	15.72	13.03	
11g	6Mbps	1	11	2462	0.51	0.51	16.00	13.47	
HT20	MCS0	1	1	2412	0.61	0.61	14.90	12.12	
HT20	MCS0	1	6	2437	0.61	0.61	15.31	12.59	
HT20	MCS0	1	11	2462	0.61	0.61	15.40	12.99	
HT40	MCS0	1	3	2422	1.12	1.12	14.69	12.01	
HT40	MCS0	1	6	2437	1.12	1.12	14.85	12.28	
HT40	MCS0	1	9	2452	1.12	1.12	15.02	12.51	
HT20	MCS0	2	1	2412	0.61	0.61	14.18	12.01	16.24
HT20	MCS0	2	6	2437	0.61	0.61	14.66	12.48	16.72
HT20	MCS0	2	11	2462	0.61	0.61	15.00	12.78	17.04
HT40	MCS0	2	3	2422	1.12	1.12	14.10	11.82	16.12
HT40	MCS0	2	6	2437	1.12	1.12	14.32	12.10	16.36
HT40	MCS0	2	9	2452	1.12	1.12	14.49	12.30	16.54

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

Report Number : FR581706

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	1	1	2412	-10.84	-13.62	-	3.80	3.80	8.00	8.00	Pass
11b	1Mbps	1	6	2437	-10.32	-13.67		3.80	3.80	8.00	8.00	Pass
11b	1Mbps	1	11	2462	-9.88	-13.57		3.80	3.80	8.00	8.00	Pass
11g	6Mbps	1	1	2412	-12.10	-13.69		3.80	3.80	8.00	8.00	Pass
11g	6Mbps	1	6	2437	-11.65	-13.90		3.80	3.80	8.00	8.00	Pass
11g	6Mbps	1	11	2462	-11.42	-14.63		3.80	3.80	8.00	8.00	Pass
HT20	MCS0	1	1	2412	-13.12	-14.40		3.80	3.80	8.00	8.00	Pass
HT20	MCS0	1	6	2437	-12.40	-13.02		3.80	3.80	8.00	8.00	Pass
HT20	MCS0	1	11	2462	-11.47	-13.81		3.80	3.80	8.00	8.00	Pass
HT40	MCS0	1	3	2422	-15.08	-18.27		3.80	3.80	8.00	8.00	Pass
HT40	MCS0	1	6	2437	-15.77	-17.71		3.80	3.80	8.00	8.00	Pass
HT40	MCS0	1	9	2452	-14.95	-16.71		3.80	3.80	8.00	8.00	Pass
HT20	MCS0	2	1	2412	-13.77	-14.81	-10.76	6.81		7.19		Pass
HT20	MCS0	2	6	2437	-12.86	-15.70	-9.85	6.81		7.19		Pass
HT20	MCS0	2	11	2462	-11.73	-15.00	-8.72	6.81		7.19		Pass
HT40	MCS0	2	3	2422	-15.92	-18.86	-12.91	6.81		7.19		Pass
HT40	MCS0	2	6	2437	-15.90	-18.04	-12.89	6.81		7.19		Pass
HT40	MCS0	2	9	2452	-16.43	-18.52	-13.42	6.81		7.19		Pass

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

Appendix B. Radiated Spurious Emission

15C 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		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11b CH 01 2412MHz		2388.75	42.13	-31.87	74	45.11	27.25	4.79	35.02	180	152	P	H
		2346.63	28.1	-25.9	54	31.34	27.07	4.74	35.05	180	152	A	H
	*	2412	87.29	-	-	90.16	27.31	4.82	35	180	152	P	H
	*	2412	85.34	-	-	88.21	27.31	4.82	35	180	152	A	H
		2386.86	49.7	-24.3	74	52.68	27.25	4.79	35.02	250	300	P	V
		2389.83	34.51	-19.49	54	37.47	27.25	4.79	35	250	300	A	V
	*	2412	97.55	-	-	100.42	27.31	4.82	35	250	300	P	V
	*	2412	95.5	-	-	98.37	27.31	4.82	35	250	300	A	V
802.11b CH 06 2437MHz		2382.72	40.44	-33.56	74	43.48	27.19	4.79	35.02	150	300	P	H
		2374.08	28.83	-25.17	54	31.87	27.19	4.79	35.02	150	300	A	H
	*	2437	88.3	-	-	91.03	27.42	4.82	34.97	150	300	P	H
	*	2437	86.25	-	-	88.98	27.42	4.82	34.97	150	300	A	H
		2487.44	39.9	-34.1	74	42.43	27.54	4.85	34.92	150	300	P	H
		2499.24	28.36	-25.64	54	30.77	27.6	4.89	34.9	150	300	A	H
		2376.06	44.44	-29.56	74	47.48	27.19	4.79	35.02	150	200	P	V
		2381.28	33.1	-20.9	54	36.14	27.19	4.79	35.02	150	200	A	V
	*	2437	98.4	-	-	101.13	27.42	4.82	34.97	150	200	P	V
	*	2437	96.17	-	-	98.9	27.42	4.82	34.97	150	200	A	V
		2492.32	45.9	-28.1	74	48.31	27.6	4.89	34.9	150	200	P	V
		2499.4	33.57	-20.43	54	35.98	27.6	4.89	34.9	150	200	A	V

802.11b CH 11 2462MHz	*	2462	86.92	-	-	89.54	27.48	4.85	34.95	150	100	P	H
	*	2462	84.92	-	-	87.54	27.48	4.85	34.95	150	100	A	H
		2489.56	41.17	-32.83	74	43.6	27.6	4.89	34.92	150	100	P	H
		2483.56	28.34	-25.66	54	30.87	27.54	4.85	34.92	150	100	A	H
	*	2462	97.86	-	-	100.48	27.48	4.85	34.95	160	150	P	V
	*	2462	95.8	-	-	98.42	27.48	4.85	34.95	160	150	A	V
		2484	49.15	-24.85	74	51.68	27.54	4.85	34.92	160	150	P	V
		2499.32	33.7	-20.3	54	36.11	27.6	4.89	34.9	160	150	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

15C 2.4GHz 2400~2483.5MHz

WIFI 802.11b (Harmonic @ 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		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11b CH 01 2412MHz		4824	40.07	-33.93	74	60.44	31.05	6.97	58.39	200	220	P	H
		4824	41.13	-32.87	74	61.5	31.05	6.97	58.39	180	150	P	V
802.11b CH 06 2437MHz		4874	41.12	-32.88	74	61.67	31.12	6.99	58.66	150	360	P	H
		7311	45.16	-28.84	74	59.6	35.96	8.22	58.62	174	100	P	H
		4874	43.72	-30.28	74	64.27	31.12	6.99	58.66	150	360	P	V
		7311	44.88	-29.12	74	59.32	35.96	8.22	58.62	174	100	P	V
802.11b CH 11 2462MHz		4924	41.61	-32.39	74	61.94	31.19	7	58.52	150	360	P	H
		7386	44.12	-29.88	74	58.31	36.08	8.27	58.54	145	274	P	H
		4924	42.6	-31.4	74	62.93	31.19	7	58.52	150	360	P	V
		7386	43.81	-30.19	74	58	36.08	8.27	58.54	145	274	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

15C 2.4GHz 2400~2483.5MHz

WIFI 802.11g (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		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11g CH 01 2412MHz		2389.29	54.18	-19.82	74	57.16	27.25	4.79	35.02	150	313	P	H
		2389.74	39.38	-14.62	54	42.36	27.25	4.79	35.02	150	313	A	H
	*	2412	99.13	-	-	102	27.31	4.82	35	150	313	P	H
	*	2412	90.79	-	-	93.66	27.31	4.82	35	150	313	A	H
		2389.56	53.86	-20.14	74	56.84	27.25	4.79	35.02	150	357	P	V
		2389.92	39.72	-14.28	54	42.68	27.25	4.79	35	150	357	A	V
	*	2412	99.33	-	-	102.2	27.31	4.82	35	150	357	P	V
	*	2412	91	-	-	93.87	27.31	4.82	35	150	357	A	V
802.11g CH 06 2437MHz		2364.18	43.8	-30.2	74	46.98	27.13	4.74	35.05	172	315	P	H
		2384.25	33.07	-20.93	54	36.11	27.19	4.79	35.02	172	315	A	H
	*	2437	98.56	-	-	101.29	27.42	4.82	34.97	172	315	P	H
	*	2437	90.29	-	-	93.02	27.42	4.82	34.97	172	315	A	H
		2490.16	42.76	-31.24	74	45.19	27.6	4.89	34.92	172	315	P	H
		2489.28	32.23	-21.77	54	34.66	27.6	4.89	34.92	172	315	A	H
		2383.53	43.16	-30.84	74	46.2	27.19	4.79	35.02	150	343	P	V
		2384.97	32.6	-21.4	54	35.64	27.19	4.79	35.02	150	343	A	V
	*	2432.064	98.92	-	-	101.7	27.37	4.82	34.97	150	343	P	V
	*	2429.81	90.78	-	-	93.56	27.37	4.82	34.97	150	343	A	V
		2484.6	44.07	-29.93	74	46.6	27.54	4.85	34.92	150	343	P	V
		2489.24	33.61	-20.39	54	36.04	27.6	4.89	34.92	150	343	A	V

802.11g CH 11 2462MHz	*	2462	98.28	-	-	100.9	27.48	4.85	34.95	166	316	P	H
	*	2462	90.38	-	-	93	27.48	4.85	34.95	166	316	A	H
		2484.52	55.33	-18.67	74	57.86	27.54	4.85	34.92	166	316	P	H
		2483.6	39.74	-14.26	54	42.27	27.54	4.85	34.92	166	316	A	H
	*	2462	99.13	-	-	101.75	27.48	4.85	34.95	150	312	P	V
	*	2462	90.8	-	-	93.42	27.48	4.85	34.95	150	312	A	V
		2483.52	56.38	-17.62	74	58.91	27.54	4.85	34.92	150	312	P	V
		2483.52	39.1	-14.9	54	41.63	27.54	4.85	34.92	150	312	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

15C 2.4GHz 2400~2483.5MHz

WIFI 802.11g (Harmonic @ 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		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11g CH 01 2412MHz		4824	41.44	-32.56	74	61.81	31.05	6.97	58.39	150	360	P	H
		4824	40.98	-33.02	74	61.35	31.05	6.97	58.39	150	360	P	V
802.11g CH 06 2437MHz		4874	40.82	-33.18	74	61.37	31.12	6.99	58.66	150	360	P	H
		7311	43.73	-30.27	74	58.17	35.96	8.22	58.62	174	100	P	H
		4874	41.68	-32.32	74	62.23	31.12	6.99	58.66	150	360	P	V
		7311	44.24	-29.76	74	58.68	35.96	8.22	58.62	174	100	P	V
802.11g CH 11 2462MHz		4924	41.84	-32.16	74	62.17	31.19	7	58.52	150	360	P	H
		7386	44.53	-29.47	74	58.72	36.08	8.27	58.54	145	274	P	H
		4924	42.01	-31.99	74	62.34	31.19	7	58.52	150	360	P	V
		7386	43.91	-30.09	74	58.1	36.08	8.27	58.54	145	274	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

15C 2.4GHz 2400~2483.5MHz

WIFI 802.11n HT20 (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		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		2388.93	55.26	-18.74	74	58.24	27.25	4.79	35.02	229	311	P	H
		2389.74	39.8	-14.2	54	42.78	27.25	4.79	35.02	229	311	A	H
802.11n	*	2412	97.09	-	-	99.96	27.31	4.82	35	229	311	P	H
HT20	*	2412	89.48	-	-	92.35	27.31	4.82	35	229	311	A	H
CH 01		2388.48	59.41	-14.59	74	62.39	27.25	4.79	35.02	150	319	P	V
2412MHz		2389.92	44.69	-9.31	54	47.65	27.25	4.79	35	150	319	A	V
	*	2412	100.91	-	-	103.78	27.31	4.82	35	150	319	P	V
	*	2412	93.24	-	-	96.11	27.31	4.82	35	150	319	A	V
		2385.51	43.43	-30.57	74	46.41	27.25	4.79	35.02	169	316	P	H
		2385.15	32.91	-21.09	54	35.95	27.19	4.79	35.02	169	316	A	H
	*	2437	96.86	-	-	99.59	27.42	4.82	34.97	169	316	P	H
	*	2437	89.36	-	-	92.09	27.42	4.82	34.97	169	316	A	H
802.11n		2492.2	42.8	-31.2	74	45.21	27.6	4.89	34.9	169	316	P	H
HT20		2489.32	32.45	-21.55	54	34.88	27.6	4.89	34.92	169	316	A	H
CH 06		2368.23	43.52	-30.48	74	46.67	27.13	4.74	35.02	150	344	P	V
2437MHz		2384.7	32.66	-21.34	54	35.7	27.19	4.79	35.02	150	344	A	V
	*	2437	97.53	-	-	100.26	27.42	4.82	34.97	150	344	P	V
	*	2437	89.92	-	-	92.65	27.42	4.82	34.97	150	344	A	V
		2494.36	43.62	-30.38	74	46.03	27.6	4.89	34.9	150	344	P	V
		2489.6	33.48	-20.52	54	35.91	27.6	4.89	34.92	150	344	A	V

802.11n HT20 CH 11 2462MHz	*	2462	96.53	-	-	99.15	27.48	4.85	34.95	162	316	P	H
	*	2462	89.19	-	-	91.81	27.48	4.85	34.95	162	316	A	H
		2484.04	55.31	-18.69	74	57.84	27.54	4.85	34.92	162	316	P	H
		2483.52	40.84	-13.16	54	43.37	27.54	4.85	34.92	162	316	A	H
	*	2462	97.77	-	-	100.39	27.48	4.85	34.95	150	314	P	V
	*	2462	89.98	-	-	92.6	27.48	4.85	34.95	150	314	A	V
		2483.88	55.43	-18.57	74	57.96	27.54	4.85	34.92	150	314	P	V
		2483.52	40.28	-13.72	54	42.81	27.54	4.85	34.92	150	314	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

15C 2.4GHz 2400~2483.5MHz

WIFI 802.11n HT20 (Harmonic @ 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		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT20 CH 01 2412MHz		4824	41.47	-32.53	74	61.84	31.05	6.97	58.39	150	360	P	H
		4824	41.29	-32.71	74	61.66	31.05	6.97	58.39	150	360	P	V
802.11n HT20 CH 06 2437MHz		4874	40.26	-33.74	74	60.81	31.12	6.99	58.66	150	360	P	H
		7311	44.48	-29.52	74	58.92	35.96	8.22	58.62	174	100	P	H
		4874	41.58	-32.42	74	62.13	31.12	6.99	58.66	150	360	P	V
		7311	44.8	-29.2	74	59.24	35.96	8.22	58.62	174	100	P	V
802.11n HT20 CH 11 2462MHz		4924	41.5	-32.5	74	61.83	31.19	7	58.52	150	360	P	H
		7386	44.16	-29.84	74	58.35	36.08	8.27	58.54	145	274	P	H
		4924	40.9	-33.1	74	61.23	31.19	7	58.52	150	360	P	V
		7386	45.94	-28.06	74	60.13	36.08	8.27	58.54	145	274	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

15C 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		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		2386.32	56.9	-17.1	74	59.88	27.25	4.79	35.02	164	318	P	H
		2389.83	44.57	-9.43	54	47.53	27.25	4.79	35	164	318	A	H
	*	2422	93.25	-	-	96.03	27.37	4.82	34.97	164	318	P	H
	*	2422	86.02	-	-	88.8	27.37	4.82	34.97	164	318	A	H
802.11n		2491.72	43.81	-30.19	74	46.24	27.6	4.89	34.92	164	318	P	H
HT40		2486.8	33.9	-20.1	54	36.43	27.54	4.85	34.92	164	318	A	H
CH 03		2389.83	57.39	-16.61	74	60.35	27.25	4.79	35	150	345	P	V
2422MHz		2389.92	45.08	-8.92	54	48.04	27.25	4.79	35	150	345	A	V
	*	2422	94.35	-	-	97.13	27.37	4.82	34.97	150	345	P	V
	*	2422	87.3	-	-	90.08	27.37	4.82	34.97	150	345	A	V
		2486.92	43.96	-30.04	74	46.49	27.54	4.85	34.92	150	345	P	V
		2484.44	34.25	-19.75	54	36.78	27.54	4.85	34.92	150	345	A	V
		2388.48	49.68	-24.32	74	52.66	27.25	4.79	35.02	150	319	P	H
		2389.92	38.02	-15.98	54	40.98	27.25	4.79	35	150	319	A	H
	*	2437	92.95	-	-	95.68	27.42	4.82	34.97	150	319	P	H
	*	2437	86.03	-	-	88.76	27.42	4.82	34.97	150	319	A	H
802.11n		2484.64	47.65	-26.35	74	50.18	27.54	4.85	34.92	150	319	P	H
HT40		2483.64	35.51	-18.49	54	38.04	27.54	4.85	34.92	150	319	A	H
CH 06		2389.47	48.67	-25.33	74	51.65	27.25	4.79	35.02	150	345	P	V
2437MHz		2389.92	37.86	-16.14	54	40.82	27.25	4.79	35	150	345	A	V
	*	2437	94.57	-	-	97.3	27.42	4.82	34.97	150	345	P	V
	*	2437	87.5	-	-	90.23	27.42	4.82	34.97	150	345	A	V
		2484.2	48.38	-25.62	74	50.91	27.54	4.85	34.92	150	345	P	V
		2483.72	37.6	-16.4	54	40.13	27.54	4.85	34.92	150	345	A	V

802.11n HT40 CH 09 2452MHz		2321.88	43.94	-30.06	74	47.3	27.01	4.7	35.07	191	316	P	H
		2325.12	33.14	-20.86	54	36.5	27.01	4.7	35.07	191	316	A	H
	*	2452	93.11	-	-	95.79	27.42	4.85	34.95	191	316	P	H
	*	2452	85.55	-	-	88.23	27.42	4.85	34.95	191	316	A	H
		2487.12	54.95	-19.05	74	57.48	27.54	4.85	34.92	191	316	P	H
		2483.76	43.31	-10.69	54	45.84	27.54	4.85	34.92	191	316	A	H
		2382.36	43.54	-30.46	74	46.58	27.19	4.79	35.02	150	310	P	V
		2385.33	33.75	-20.25	54	36.79	27.19	4.79	35.02	150	310	A	V
	*	2452	94.47	-	-	97.15	27.42	4.85	34.95	150	310	P	V
	*	2452	86.93	-	-	89.61	27.42	4.85	34.95	150	310	A	V
		2487.28	54.93	-19.07	74	57.46	27.54	4.85	34.92	150	310	P	V
		2483.6	43.74	-10.26	54	46.27	27.54	4.85	34.92	150	310	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

15C 2.4GHz 2400~2483.5MHz

WIFI 802.11n HT40 (Harmonic @ 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		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n		4844	41.16	-32.84	74	61.6	31.07	6.97	58.48	150	360	P	H
HT40		7266	44.51	-29.49	74	58.94	35.91	8.19	58.53	200	360	P	H
CH 03		4844	42.16	-31.84	74	62.6	31.07	6.97	58.48	150	360	P	V
2422MHz		7266	44.59	-29.41	74	59.02	35.91	8.19	58.53	200	360	P	V
802.11n		4874	40.71	-33.29	74	61.26	31.12	6.99	58.66	184	240	P	H
HT40		7311	44.32	-29.68	74	58.76	35.96	8.22	58.62	168	186	P	H
CH 06		4874	41.41	-32.59	74	61.96	31.12	6.99	58.66	184	240	P	V
2437MHz		7311	44.18	-29.82	74	58.62	35.96	8.22	58.62	168	186	P	V
802.11n		4904	41.55	-32.45	74	62.02	31.17	7	58.64	150	360	P	H
HT40		7356	44.82	-29.18	74	59.11	36.03	8.25	58.57	150	360	P	H
CH 09		4904	41.63	-32.37	74	62.1	31.17	7	58.64	150	360	P	V
2452MHz		7356	45.05	-28.95	74	59.34	36.03	8.25	58.57	150	360	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

15C 2.4GHz 2400~2483.5MHz

WIFI 802.11n HT20 (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)
		2388.57	60.35	-13.65	74	63.33	27.25	4.79	35.02	250	259	P	H
		2389.92	45.11	-8.89	54	48.07	27.25	4.79	35	250	259	A	H
802.11n	*	2412	102.9	-	-	105.77	27.31	4.82	35	250	259	P	H
HT20	*	2412	95.23	-	-	98.1	27.31	4.82	35	250	259	A	H
CH 01		2388.66	58.83	-15.17	74	61.81	27.25	4.79	35.02	171	307	P	V
2412MHz		2389.92	42.3	-11.7	54	45.26	27.25	4.79	35	171	307	A	V
	*	2412	102.62	-	-	105.49	27.31	4.82	35	171	307	P	V
	*	2412	95.33	-	-	98.2	27.31	4.82	35	171	307	A	V
		2385.06	46.18	-27.82	74	49.22	27.19	4.79	35.02	250	252	P	H
		2384.97	35.53	-18.47	54	38.57	27.19	4.79	35.02	250	252	A	H
	*	2437	103	-	-	105.73	27.42	4.82	34.97	250	252	P	H
	*	2437	95.71	-	-	98.44	27.42	4.82	34.97	250	252	A	H
802.11n		2488.68	46.8	-27.2	74	49.23	27.6	4.89	34.92	250	252	P	H
HT20		2488.76	35.93	-18.07	54	38.36	27.6	4.89	34.92	250	252	A	H
CH 06		2385.06	45.09	-28.91	74	48.13	27.19	4.79	35.02	203	309	P	V
2437MHz		2384.97	35.74	-18.26	54	38.78	27.19	4.79	35.02	203	309	A	V
	*	2437	103.29	-	-	106.02	27.42	4.82	34.97	203	309	P	V
	*	2437	95.59	-	-	98.32	27.42	4.82	34.97	203	309	A	V
		2488.2	46.71	-27.29	74	49.14	27.6	4.89	34.92	203	309	P	V
		2488.84	36.48	-17.52	54	38.91	27.6	4.89	34.92	203	309	A	V

802.11n HT20 CH 11 2462MHz		2462	102.57	-	-	105.19	27.48	4.85	34.95	164	272	P	H
		2462	95.4	-	-	98.02	27.48	4.85	34.95	164	272	A	H
		2484.44	60.5	-13.5	74	63.03	27.54	4.85	34.92	164	272	P	H
		2483.52	46.54	-7.46	54	49.07	27.54	4.85	34.92	164	272	A	H
		2462	103.91	-	-	106.53	27.48	4.85	34.95	150	315	P	V
		2462	96.21	-	-	98.83	27.48	4.85	34.95	150	315	A	V
		2484.28	63.81	-10.19	74	66.34	27.54	4.85	34.92	150	315	P	V
		2483.52	48.26	-5.74	54	50.79	27.54	4.85	34.92	150	315	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

15C 2.4GHz 2400~2483.5MHz

WIFI 802.11n HT20 (Harmonic @ 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 HT20 CH 01 2412MHz		4824	42.84	-31.16	74	63.21	31.05	6.97	58.39	150	250	P	H
		4824	46.16	-27.84	74	66.53	31.05	6.97	58.39	150	250	P	V
802.11n HT20 CH 06 2437MHz		4874	43.77	-30.23	74	64.32	31.12	6.99	58.66	160	120	P	H
		7311	44.32	-29.68	74	58.76	35.96	8.22	58.62	174	100	P	H
		4874	42.26	-31.74	74	62.81	31.12	6.99	58.66	160	120	P	V
		7311	44.74	-29.26	74	59.18	35.96	8.22	58.62	174	100	P	V
802.11n HT20 CH 11 2462MHz		4924	42.13	-31.87	74	62.46	31.19	7	58.52	165	150	P	H
		7386	44.67	-29.33	74	58.86	36.08	8.27	58.54	145	274	P	H
		4924	44.58	-29.42	74	64.91	31.19	7	58.52	165	150	P	V
		7386	44.55	-29.45	74	58.74	36.08	8.27	58.54	145	274	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

15C 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		2386.77	62.94	-11.06	74	65.92	27.25	4.79	35.02	250	253	P	H
		2389.83	48.99	-5.01	54	51.95	27.25	4.79	35	250	253	A	H
		2422	100.03	-	-	102.81	27.37	4.82	34.97	250	253	P	H
		2422	93.16	-	-	95.94	27.37	4.82	34.97	250	253	A	H
		2486.84	45.78	-28.22	74	48.31	27.54	4.85	34.92	250	253	P	H
		2484.32	35.69	-18.31	54	38.22	27.54	4.85	34.92	250	253	A	H
		2386.32	64.35	-9.65	74	67.33	27.25	4.79	35.02	175	312	P	V
		2389.65	50.65	-3.35	54	53.63	27.25	4.79	35.02	175	312	A	V
		2422	100.64	-	-	103.42	27.37	4.82	34.97	175	312	P	V
		2422	93.62	-	-	96.4	27.37	4.82	34.97	175	312	A	V
		2491.88	48.06	-25.94	74	50.47	27.6	4.89	34.9	175	312	P	V
		2489.56	37.66	-16.34	54	40.09	27.6	4.89	34.92	175	312	A	V
802.11n HT40 CH 06 2437MHz		2387.67	52.26	-21.74	74	55.24	27.25	4.79	35.02	250	255	P	H
		2388.03	40.79	-13.21	54	43.77	27.25	4.79	35.02	250	255	A	H
		2437	100.57	-	-	103.3	27.42	4.82	34.97	250	255	P	H
		2437	93.93	-	-	96.66	27.42	4.82	34.97	250	255	A	H
		2483.96	52.32	-21.68	74	54.85	27.54	4.85	34.92	250	255	P	H
		2483.6	40.8	-13.2	54	43.33	27.54	4.85	34.92	250	255	A	H
		2386.32	53.9	-20.1	74	56.88	27.25	4.79	35.02	180	144	P	V
		2389.29	41.4	-12.6	54	44.38	27.25	4.79	35.02	180	144	A	V
		2437	101.66	-	-	104.39	27.42	4.82	34.97	180	144	P	V
		2453.69	94.43	-	-	97.05	27.48	4.85	34.95	180	144	A	V
		2483.6	55.28	-18.72	74	57.81	27.54	4.85	34.92	180	144	P	V
		2483.68	43.96	-10.04	54	46.49	27.54	4.85	34.92	180	144	A	V

802.11n HT40 CH 09 2452MHz		2388.3	44.94	-29.06	74	47.92	27.25	4.79	35.02	190	250	P	H
		2384.52	34.71	-19.29	54	37.75	27.19	4.79	35.02	190	250	A	H
		2452	100.06	-	-	102.74	27.42	4.85	34.95	190	250	P	H
		2452	93.16	-	-	95.84	27.42	4.85	34.95	190	250	A	H
		2484.56	63.35	-10.65	74	65.88	27.54	4.85	34.92	190	250	P	H
		2483.76	50.83	-3.17	54	53.36	27.54	4.85	34.92	190	250	A	H
		2366.79	47.12	-26.88	74	50.27	27.13	4.74	35.02	175	311	P	V
		2379.75	36.39	-17.61	54	39.43	27.19	4.79	35.02	175	311	A	V
		2452	100.69	-	-	103.37	27.42	4.85	34.95	175	311	P	V
		2452	93.82	-	-	96.5	27.42	4.85	34.95	175	311	A	V
		2490	64.09	-9.91	74	66.52	27.6	4.89	34.92	175	311	P	V
		2483.52	52.71	-1.29	54	55.24	27.54	4.85	34.92	175	311	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

15C 2.4GHz 2400~2483.5MHz

WIFI 802.11n HT40 (Harmonic @ 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		4844	44.99	-29.01	74	65.43	31.07	6.97	58.48	250	350	P	H
HT40		7266	45.28	-28.72	74	59.71	35.91	8.19	58.53	200	360	P	H
CH 03		4844	44.92	-29.08	74	65.36	31.07	6.97	58.48	250	350	P	V
2422MHz		7266	44.82	-29.18	74	59.25	35.91	8.19	58.53	200	360	P	V
802.11n		4874	43.14	-30.86	74	63.69	31.12	6.99	58.66	196	164	P	H
HT40		7311	44.06	-29.94	74	58.5	35.96	8.22	58.62	183	178	P	H
CH 06		4874	43.51	-30.49	74	64.06	31.12	6.99	58.66	196	164	P	V
2437MHz		7311	44.43	-29.57	74	58.87	35.96	8.22	58.62	183	178	P	V
802.11n		4904	43.16	-30.84	74	63.63	31.17	7	58.64	150	360	P	H
HT40		7356	44.92	-29.08	74	59.21	36.03	8.25	58.57	150	360	P	H
CH 09		4904	44.33	-29.67	74	64.8	31.17	7	58.64	150	360	P	V
2452MHz		7356	44.74	-29.26	74	59.03	36.03	8.25	58.57	150	360	P	V
Remark	3. No other spurious found. 4. All results are PASS against Peak and Average limit line.												

15C 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		99.84	32.09	-11.41	43.5	51.77	12.3	1.38	33.36	-	-	P	H
		137.67	35.96	-7.54	43.5	56.23	11.47	1.53	33.27	100	200	P	H
		183.26	31.13	-12.37	43.5	52.28	10.46	1.57	33.18	-	-	P	H
		377.26	32.68	-13.32	46	47.49	15.9	2.12	32.83	-	-	P	H
		459.71	30.57	-15.43	46	43.53	17.33	2.31	32.6	-	-	P	H
		823.46	27.04	-18.96	46	35.15	20.41	2.99	31.51	-	-	P	H
		32.91	32.7	-7.3	40	48.47	16.61	1	33.38	100	200	P	V
		99.84	27.81	-15.69	43.5	47.49	12.3	1.38	33.36	-	-	P	V
		183.26	27.93	-15.57	43.5	49.08	10.46	1.57	33.18	-	-	P	V
		273.47	24.35	-21.65	46	42.76	12.83	1.83	33.07	-	-	P	V
		399.57	26.34	-19.66	46	40.5	16.5	2.12	32.78	-	-	P	V
		499.48	29.51	-16.49	46	41.7	17.89	2.41	32.49	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against limit line.												

Note symbol

*	**Fundamental Frequency** which can be ignored. However, the level of any unwanted emissions shall not exceed the level of the fundamental frequency per 15.209(c).
!	Test result is **over limit** line.
P/A	**P**eak or **A**verage
H/V	**H**orizontal or **V**ertical

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

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

1. Level(dBμV/m) =

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

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

For Peak Limit @ 2390MHz:

1. Level(dBμV/m)

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

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

= 55.45 (dBμV/m)

2. Over Limit(dB)

= Level(dBμV/m) – Limit Line(dBμV/m)

= 55.45(dBμV/m) – 74(dBμV/m)

= -18.55(dB)

For Average Limit @ 2390MHz:

1. Level(dBμV/m)

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

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

= 43.54 (dBμV/m)

2. Over Limit(dB)

= Level(dBμV/m) – Limit Line(dBμV/m)

= 43.54(dBμV/m) – 54(dBμV/m)

= -10.46(dB)

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