



FCC RF Test Report

APPLICANT : TP-Link Technologies Co., Ltd.
EQUIPMENT : AC1200 Wi-Fi Range Extender
BRAND NAME : TP-Link
MODEL NAME : RE305
FCC ID : TE7RE305
STANDARD : FCC Part 15 Subpart C §15.247
CLASSIFICATION : (DTS) Digital Transmission System

The product was received on Sep. 02, 2016 and testing was completed on Nov. 11, 2016. We, SPORTON INTERNATIONAL 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 INC., the test report shall not be reproduced except in full.

Reviewed by: Joseph Lin / Supervisor

Approved by: Jones Tsai / Manager



SPORTON INTERNATIONAL INC.

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FCC ID : TE7RE305

Page Number : 1 of 56

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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FR690205A	Rev. 01	Initial issue of report	Jan. 18, 2017



SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.1	15.247(a)(2)	6dB Bandwidth	≥ 0.5MHz	Pass	-
3.1	-	99% Bandwidth	-	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 0.67 dB at 2389.170 MHz and 2389.940 MHz
3.6	15.207	AC Conducted Emission	15.207(a)	Pass	Under limit 10.50 dB at 0.502 MHz
3.7	15.203 & 15.247(b)	Antenna Requirement	N/A	Pass	-



1 General Description

1.1 Applicant

TP-Link Technologies Co., Ltd.

Building 24 (floors 1,3,4,5) and 28 (floors1-4) Central Science and Technology Park,Shennan Rd, Nanshan, Shenzhen,China

1.2 Manufacturer

TP-Link Technologies Co., Ltd.

Building 24 (floors 1,3,4,5) and 28 (floors1-4) Central Science and Technology Park,Shennan Rd, Nanshan, Shenzhen,China

1.3 Product Feature of Equipment Under Test

Product Feature	
Equipment	AC1200 Wi-Fi Range Extender
Brand Name	TP-Link
Model Name	RE305
FCC ID	TE7RE305
Sample 1	EUT without copperfoil
Sample 2	EUT with copperfoil
EUT supports Radios application	WLAN 11a/b/g/n HT20/HT40 WLAN 11ac VHT20/VHT40/VHT80
EUT Stage	Identical Prototype

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



1.4 Product Specification of Equipment Under Test

Standards-related Product Specification							
Tx/Rx Channel Frequency Range	2412 MHz ~ 2462 MHz						
Maximum (Peak) Output Power to antenna	MIMO <Ant. 1 + 2> 802.11b : 23.54 dBm (0.2259 W) 802.11g : 27.14 dBm (0.5176 W) 802.11n HT20 : 27.11 dBm (0.5140 W) 802.11n HT40 : 25.80 dBm (0.3802 W)						
99% Occupied Bandwidth	802.11b : 14.60MHz 802.11g : 18.50MHz 802.11n HT20 : 18.90MHz 802.11n HT40 : 36.20MHz						
Antenna Type / Gain	<Ant 1> omni-directional Antenna type with gain 2.00 dBi <Ant 2> omni-directional Antenna type with gain 2.00 dBi						
Type of Modulation	802.11b : DSSS (DBPSK / DQPSK / CCK) 802.11g/n : OFDM (BPSK / QPSK / 16QAM / 64QAM)						
Antenna Function for Transmitter	<table border="1"> <thead> <tr> <th></th> <th>Ant. 1</th> <th>Ant. 2</th> </tr> </thead> <tbody> <tr> <td>802.11 b/g/n MIMO</td> <td>V</td> <td>V</td> </tr> </tbody> </table>		Ant. 1	Ant. 2	802.11 b/g/n MIMO	V	V
	Ant. 1	Ant. 2					
802.11 b/g/n MIMO	V	V					

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

1.5 Modification of EUT

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



1.6 Testing Location

Sporton Lab is accredited to ISO 17025 by Taiwan Accreditation Foundation (TAF code : 1190) and the FCC designation No. TW1022 under the FCC 2.948(e) by Mutual Recognition Agreement (MRA) in FCC Test.

Test Site	SPORTON INTERNATIONAL INC.	
Test Site Location	No. 52, Hwa Ya 1 st Rd., Hwa Ya Technology Park, Kwei-Shan District, Tao Yuan City, Taiwan, R.O.C. TEL: +886-3-327-3456 FAX: +886-3-328-4978	
Test Site No.	Sporton Site No.	
	TH05-HY	CO05-HY

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

Test Site	SPORTON INTERNATIONAL INC.	
Test Site Location	No.58, Aly. 75, Ln. 564, Wenhua 3rd Rd. Guishan Dist, Taoyuan City, Taiwan (R.O.C.) TEL: +886-3-327-0868 FAX: +886-3-327-0855	
Test Site No.	Sporton Site No.	
	03CH10-HY	

Note: The test site complies with ANSI C63.4 2014 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 v03r05
- ♦ 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. This EUT has also been tested and complied with the requirements of FCC Part 15, Subpart B, recorded in a separate test report.



2 Test Configuration of Equipment Under Test

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

2.1 Carrier Frequency and Channel

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



2.2 Test Mode

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

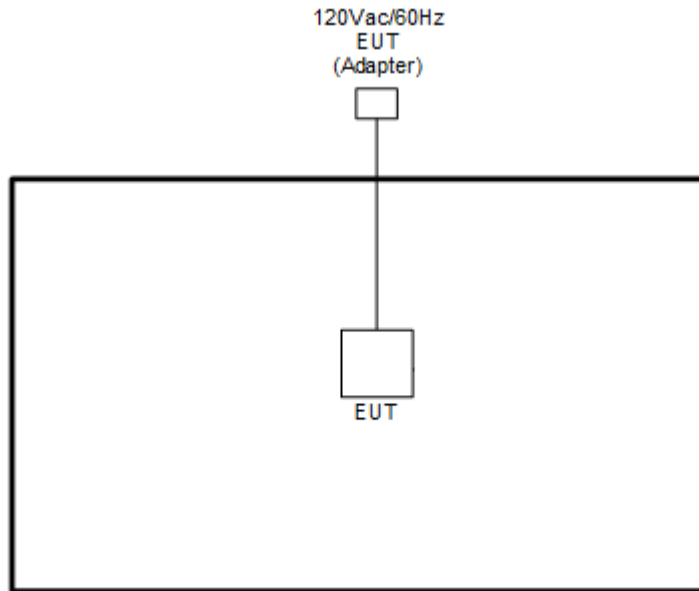
MIMO Antenna

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

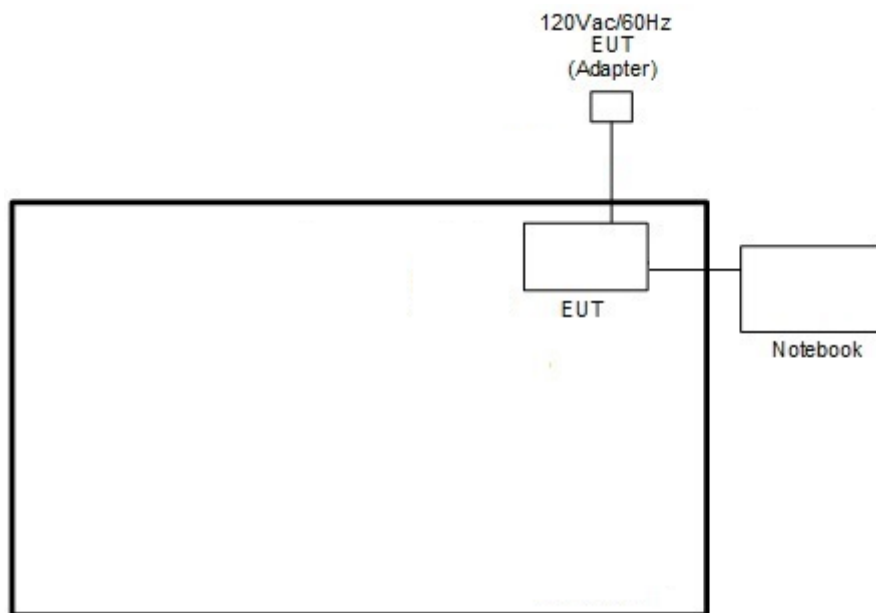
Test Cases	
AC Conducted Emission	Mode 1 : WLAN (2.4GHz) Link + RJ-45 Link

2.3 Connection Diagram of Test System

<WLAN Tx Mode>



<AC Conducted Emission Mode>





2.4 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	Notebook	DELL	Latitude E6320	FCC DoC/ Contains FCC ID: QDS-BRCM1054	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m

2.5 EUT Operation Test Setup

For WLAN function, programmed RF utility, "QATool" installed in the EUT make the EUT provide functions like channel selection and power level for continuous transmitting and receiving signals.

2.6 Measurement Results Explanation Example

For all conducted test items:

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

Example:

The spectrum analyzer offset is derived from RF cable loss and attenuator factor.

Offset = RF cable loss + attenuator factor.

Following shows an offset computation example with cable loss 4.2 dB and 10dB attenuator.

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

= 4.2 + 10 = 14.2 (dB)

3 Test Result

3.1 6dB and 99% Bandwidth Measurement

3.1.1 Limit of 6dB and 99% Bandwidth

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

3.1.2 Measuring Instruments

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

3.1.3 Test Procedures

1. The testing follows FCC KDB Publication No. 558074 DTS D01 Meas. Guidance v03r05.
2. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
3. Set to the maximum power setting and enable the EUT transmit continuously.
4. Make the measurement with the spectrum analyzer's resolution bandwidth (RBW) = 100 kHz. Set the Video bandwidth (VBW) = 300 kHz. In order to make an accurate measurement. The 6 dB bandwidth must be greater than 500 kHz.
5. For 99% Bandwidth Measurement, the spectrum analyzer's resolution bandwidth (RBW) = 1MHz and set the Video bandwidth (VBW) = 3MHz.
6. Measure and record the results in the test report.

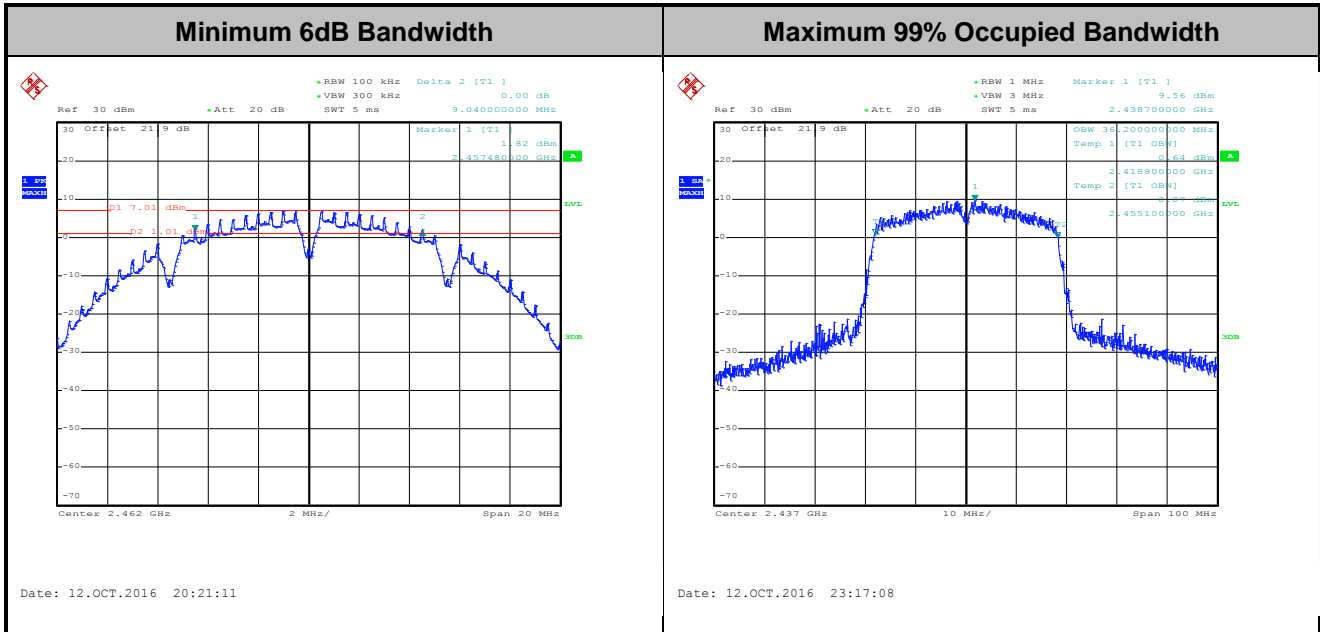
3.1.4 Test Setup





3.1.5 Test Result of 6dB and 99% Occupied Bandwidth

Please refer to Appendix A.



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

3.2 Peak Output Power Measurement

3.2.1 Limit of Peak Output Power

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

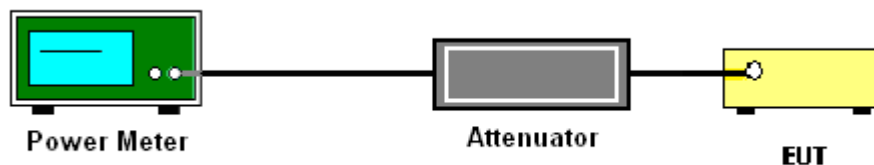
3.2.2 Measuring Instruments

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

3.2.3 Test Procedures

1. The testing follows the Measurement Procedure of FCC KDB No. 558074 DTS D01 Meas. Guidance v03r05 section 9.1.2 PKPM1 Peak power meter method.
2. The RF output of EUT was connected to the power meter by RF cable and attenuator. The path loss was compensated to the results for each measurement.
3. Set to the maximum power setting and enable the EUT transmit continuously.
4. Measure the conducted output power and record the results in the test report.
5. For MIMO mode, calculation method follows FCC KDB 662911 D01 Multiple Transmitter Output v02r01.

3.2.4 Test Setup





3.2.5 Test Result of Peak Output Power

Please refer to Appendix A.

3.2.6 Test Result of Average output Power (Reporting Only)

Please refer to Appendix A



3.3 Power Spectral Density Measurement

3.3.1 Limit of Power Spectral Density

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

3.3.2 Measuring Instruments

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

3.3.3 Test Procedures

1. The testing follows Measurement Procedure 10.2 Method PKPSD of FCC KDB Publication No. 558074 D01 DTS Meas. Guidance v03r05.
2. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
3. Set to the maximum power setting and enable the EUT transmit continuously.
4. Make the measurement with the spectrum analyzer's resolution bandwidth (RBW) = 3 kHz. Video bandwidth VBW = 10 kHz In order to make an accurate measurement, set the span to 1.5 times DTS Channel Bandwidth. (6dB BW)
5. Detector = peak, Sweep time = auto couple, Trace mode = max hold, Allow trace to fully stabilize. Use the peak marker function to determine the maximum power level.
6. Measure and record the results in the test report.
7. For MIMO mode, calculation method follows FCC KDB 662911 D01 Multiple Transmitter Output v02r01.

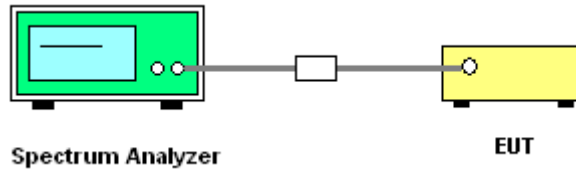
If measurements performed using method (2) plus $10 \log(N)$ exceeds the emission limit, the test should choose method (1) before declaring that the device fails the emission limit.

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

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

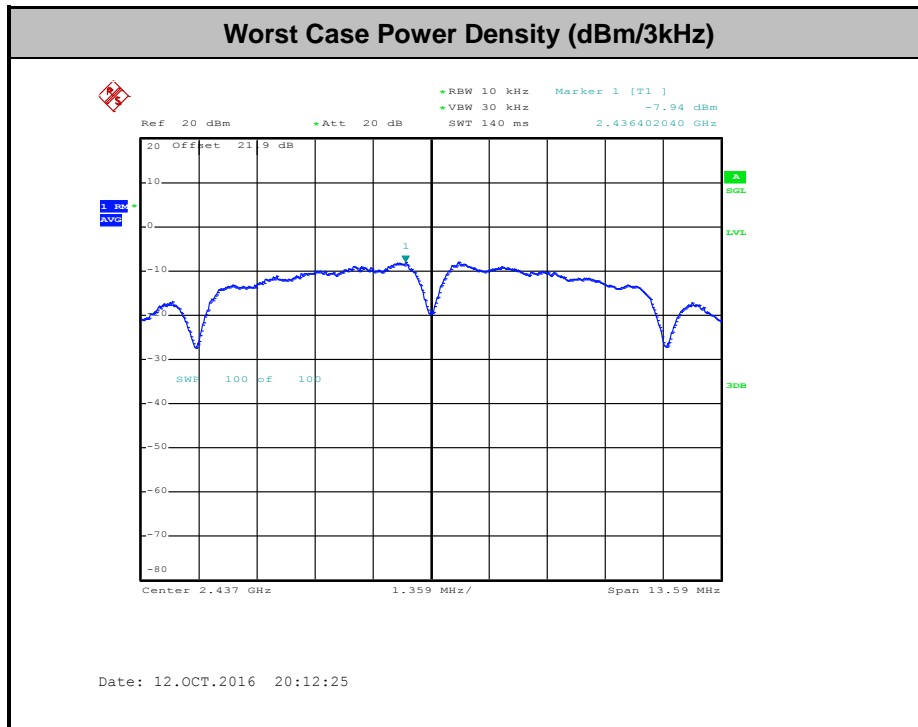
Method (2): Measure and add $10 \log(N)$ dB, where N is the number of outputs. (N=2)

3.3.4 Test Setup



3.3.5 Test Result of Power Spectral Density

Please refer to Appendix A.



3.4 Conducted Band Edges and Spurious Emission Measurement

3.4.1 Limit of Conducted Band Edges and Spurious Emission Measurement

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

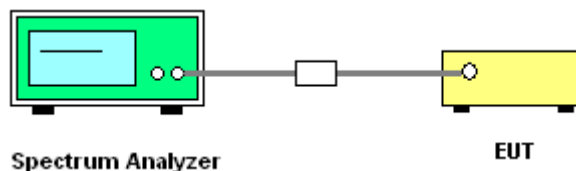
3.4.2 Measuring Instruments

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

3.4.3 Test Procedures

1. The testing follows FCC KDB Publication No. 558074 D01 DTS Meas. Guidance v03r05.
2. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
3. Set to the maximum power setting and enable the EUT transmit continuously.
4. Set RBW = 100 kHz, VBW=300 kHz, Peak Detector. Unwanted Emissions measured in any 100 kHz bandwidth outside of the authorized frequency band shall be attenuated by at least 20 dB relative to the maximum in-band peak PSD level in 100 kHz when maximum peak conducted output power procedure is used. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, the attenuation required under this paragraph shall be 30 dB instead of 20 dB per 15.247(d).
5. Measure and record the results in the test report.
6. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.

3.4.4 Test Setup





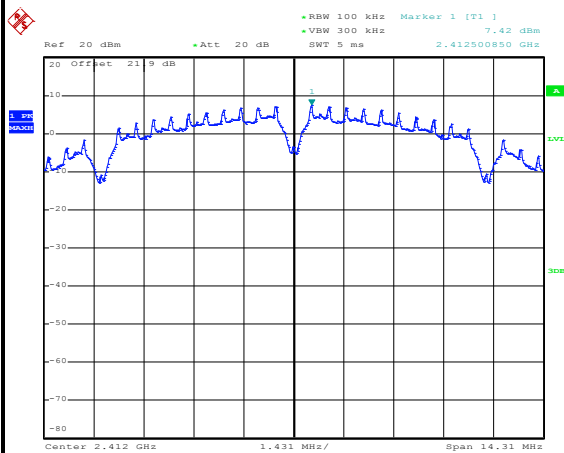
3.4.5 Test Result of Conducted Band Edges and Spurious Emission

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

Number of TX :	2	Ant. :	1
Test Mode :	802.11b	Temperature :	21~25°C
Test Band :	2.4GHz Low	Relative Humidity :	51~54%
Test Channel :	01	Test Engineer :	Kai Liao

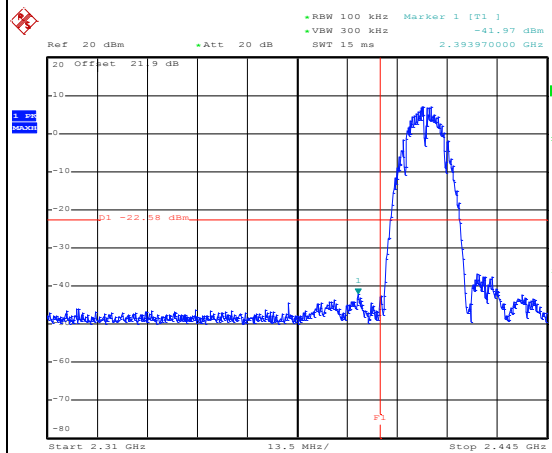
WLAN 802.11b Channel 01

100kHz PSD reference Level



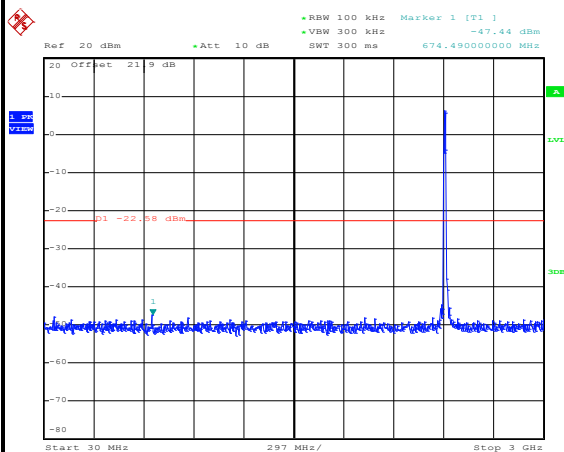
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Low Channel Plot



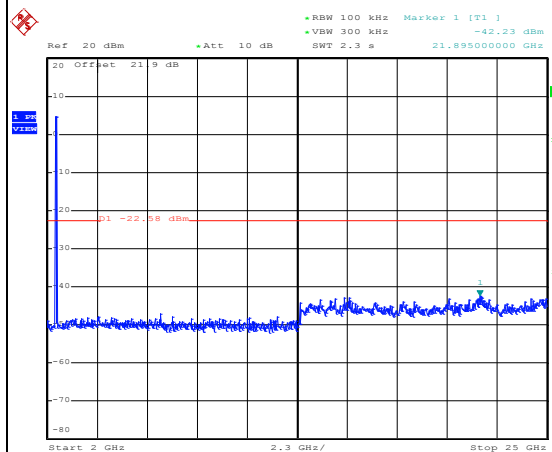
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Spurious Emission 30MHz~3GHz



Date: 12.OCT.2016 20:09:04

Spurious Emission 2GHz~25GHz



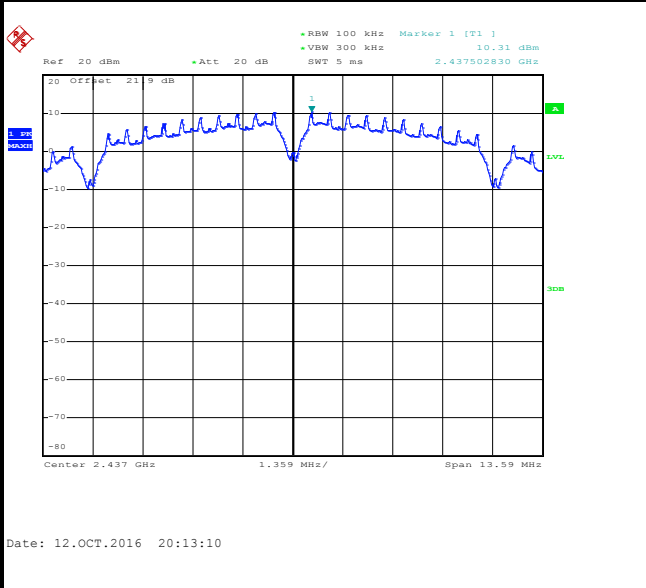
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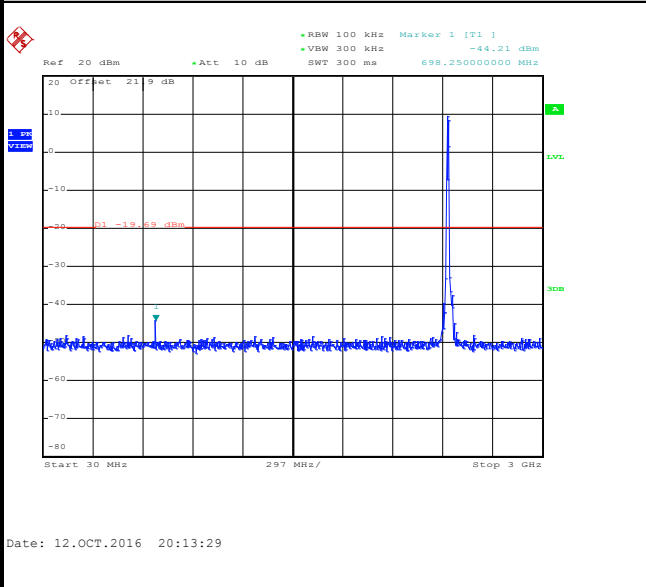
Number of TX :	2	Ant. :	1
Test Mode :	802.11b	Temperature :	21~25°C
Test Band :	2.4GHz Mid	Relative Humidity :	51~54%
Test Channel :	06	Test Engineer :	Kai Liao

WLAN 802.11b Channel 06

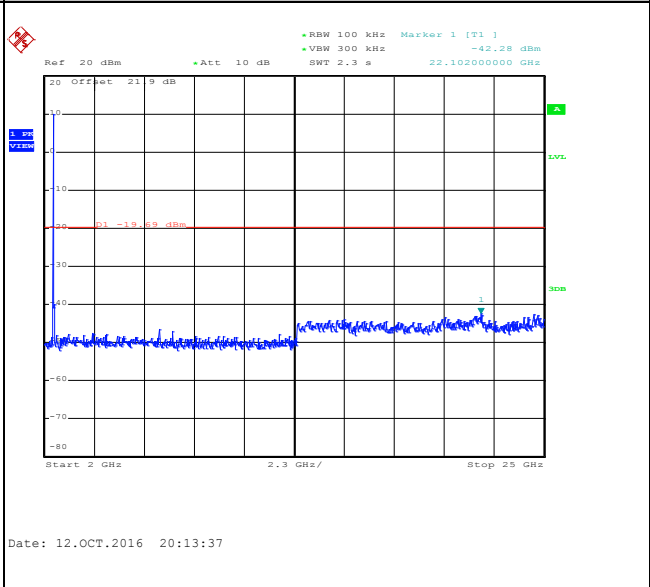
100kHz PSD reference Level



Spurious Emission 30MHz~3GHz



Spurious Emission 2GHz~25GHz

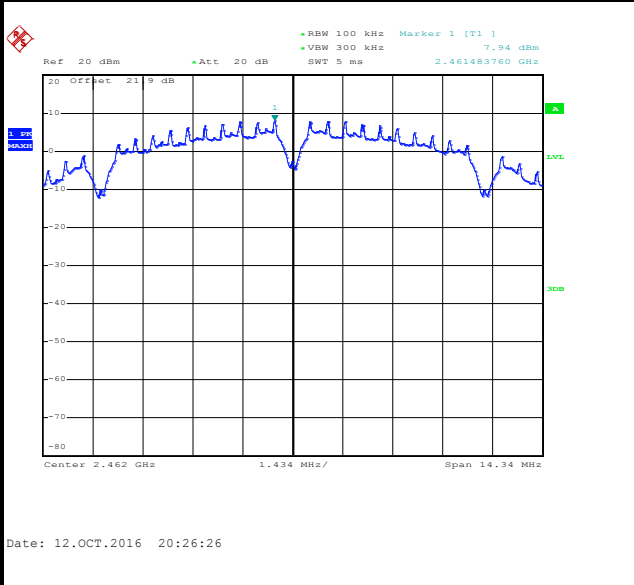




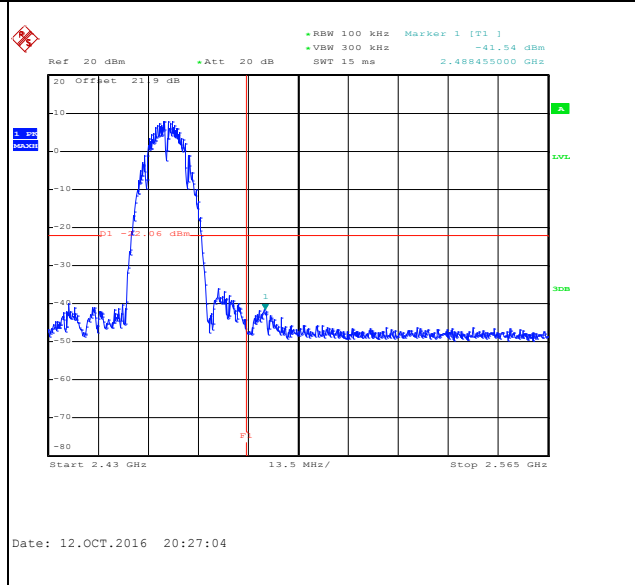
Number of TX :	2	Ant. :	1
Test Mode :	802.11b	Temperature :	21~25°C
Test Band :	2.4GHz High	Relative Humidity :	51~54%
Test Channel :	11	Test Engineer :	Kai Liao

WLAN 802.11b Channel 11

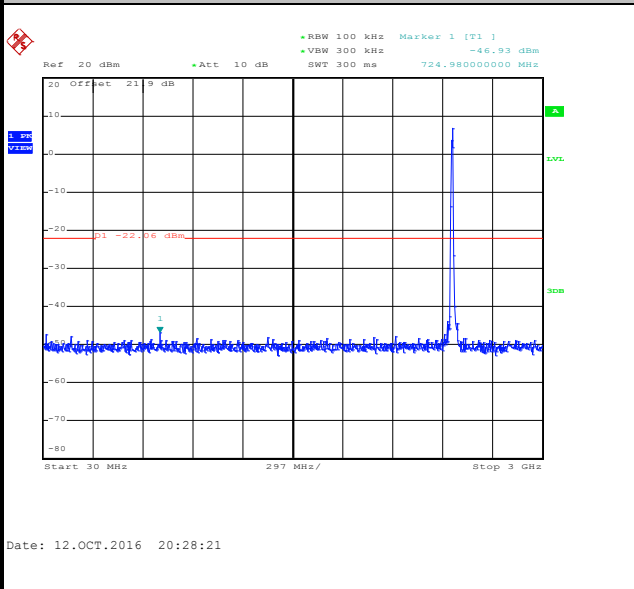
100kHz PSD reference Level



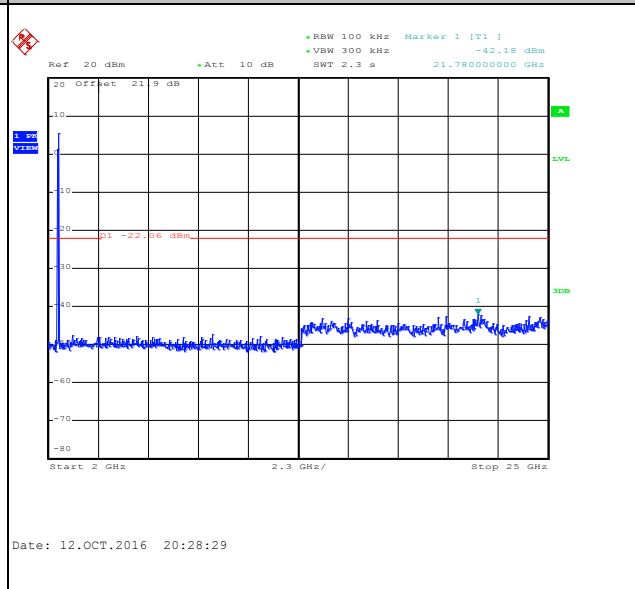
High Channel Plot



Spurious Emission 30MHz~3GHz



Spurious Emission 2GHz~25GHz

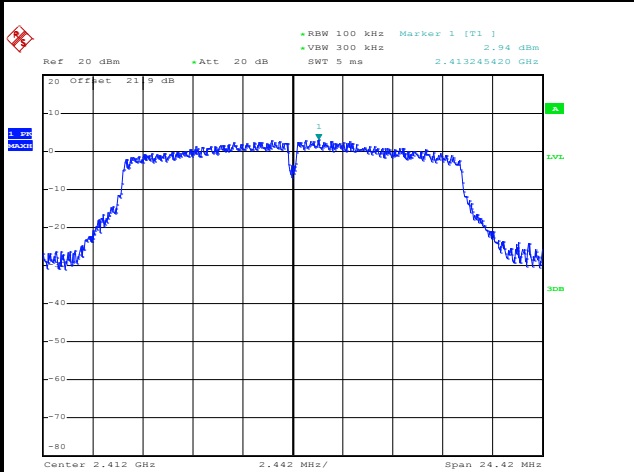




Number of TX :	2	Ant. :	1
Test Mode :	802.11g	Temperature :	21~25°C
Test Band :	2.4GHz Low	Relative Humidity :	51~54%
Test Channel :	01	Test Engineer :	Kai Liao

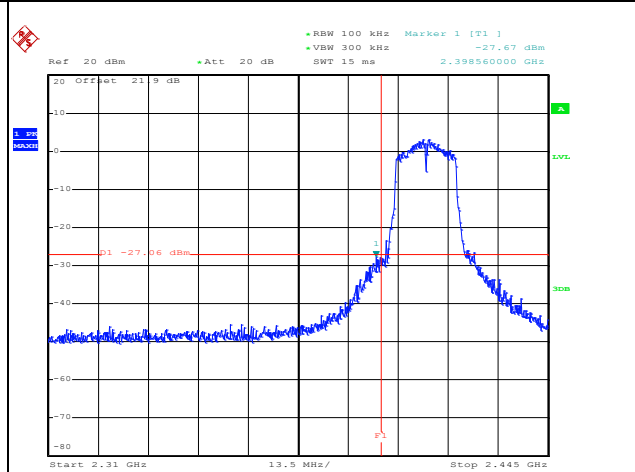
WLAN 802.11g Channel 01

100kHz PSD reference Level



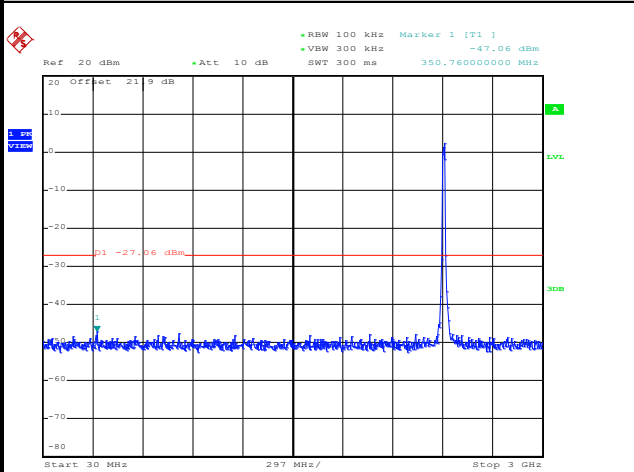
Date: 12.OCT.2016 20:54:55

Low Channel Plot



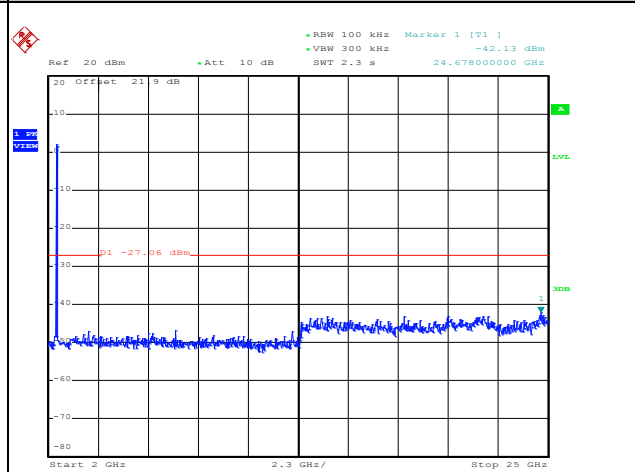
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Spurious Emission 30MHz~3GHz



Date: 12.OCT.2016 20:55:32

Spurious Emission 2GHz~25GHz



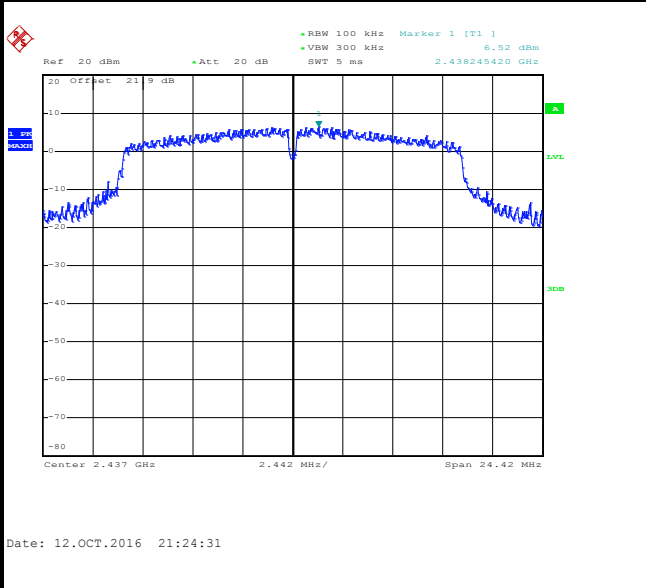
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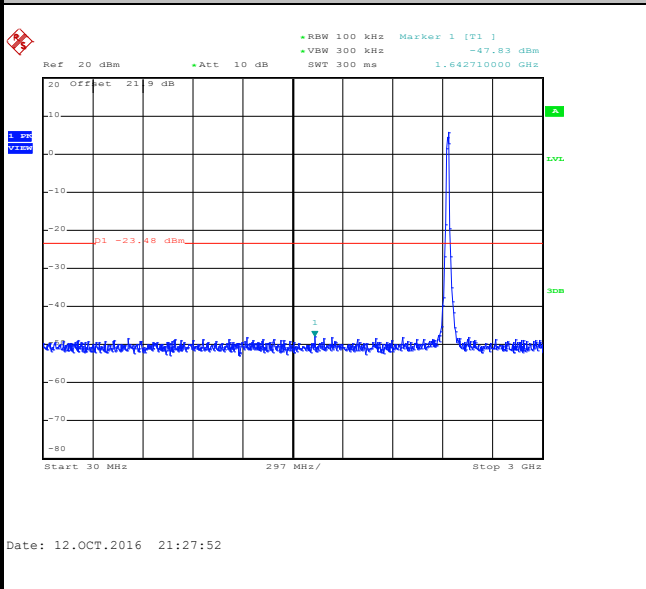
Number of TX :	2	Ant. :	1
Test Mode :	802.11g	Temperature :	21~25°C
Test Band :	2.4GHz Mid	Relative Humidity :	51~54%
Test Channel :	06	Test Engineer :	Kai Liao

WLAN 802.11g Channel 06

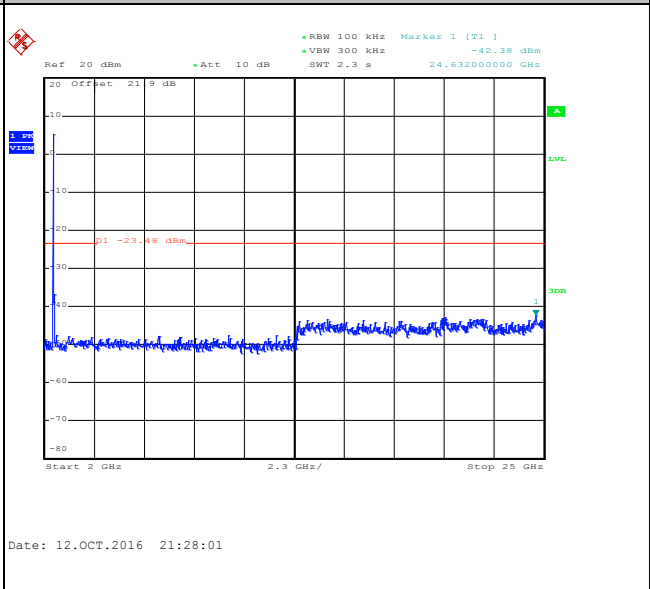
100kHz PSD reference Level



Spurious Emission 30MHz~3GHz



Spurious Emission 2GHz~25GHz

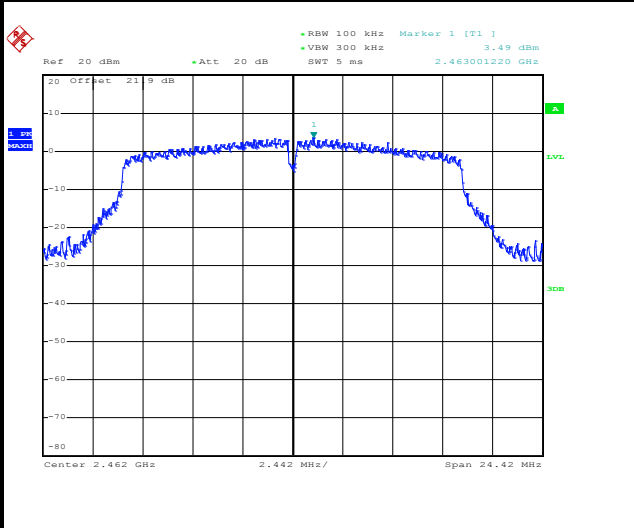




Number of TX :	2	Ant. :	1
Test Mode :	802.11g	Temperature :	21~25°C
Test Band :	2.4GHz High	Relative Humidity :	51~54%
Test Channel :	11	Test Engineer :	Kai Liao

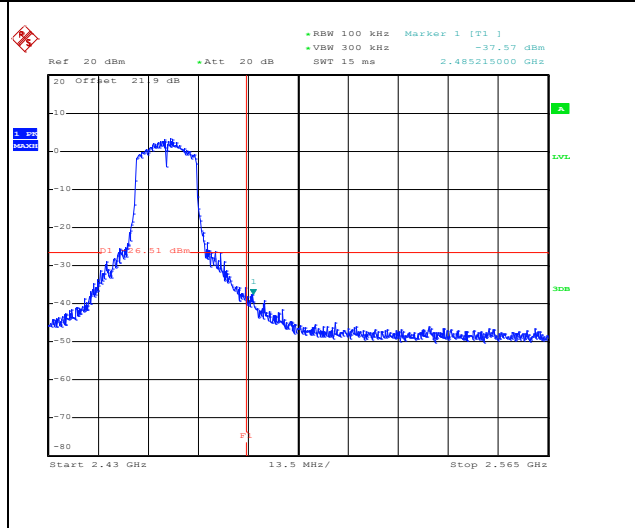
WLAN 802.11g Channel 11

100kHz PSD reference Level



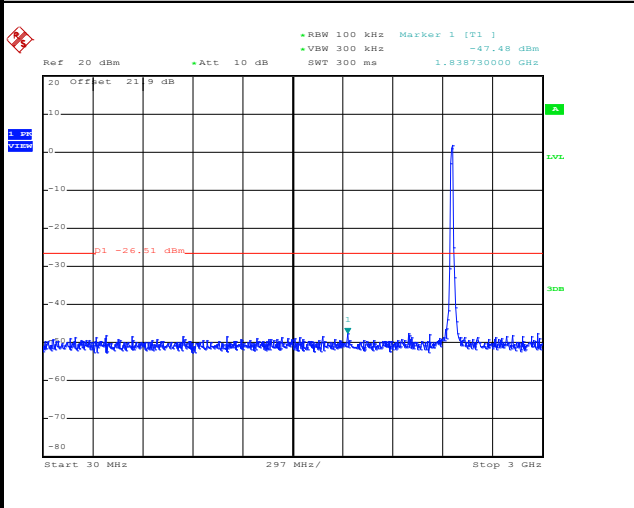
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High Channel Plot



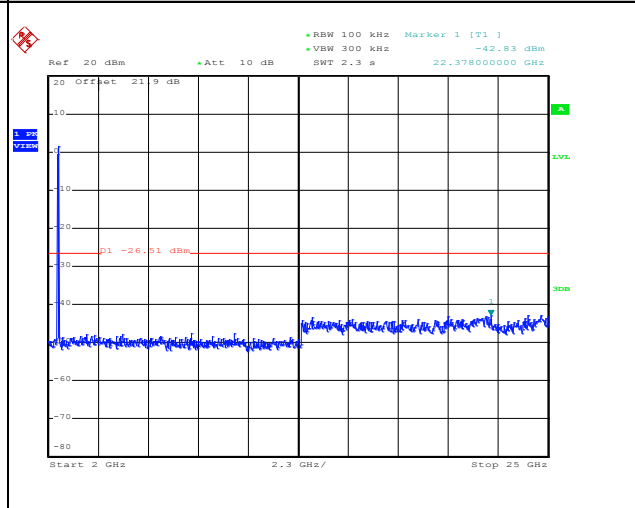
Date: 12.OCT.2016 21:33:30

Spurious Emission 30MHz~3GHz



Date: 12.OCT.2016 21:33:51

Spurious Emission 2GHz~25GHz



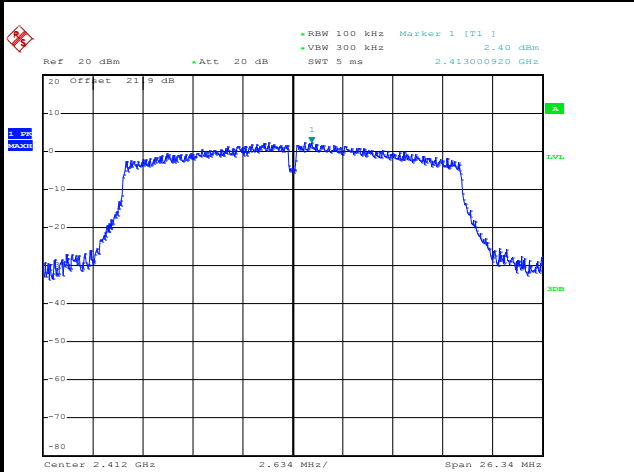
Date: 12.OCT.2016 21:33:59



Number of TX :	2	Ant. :	1
Test Mode :	802.11n HT20	Temperature :	21~25°C
Test Band :	2.4GHz Low	Relative Humidity :	51~54%
Test Channel :	01	Test Engineer :	Kai Liao

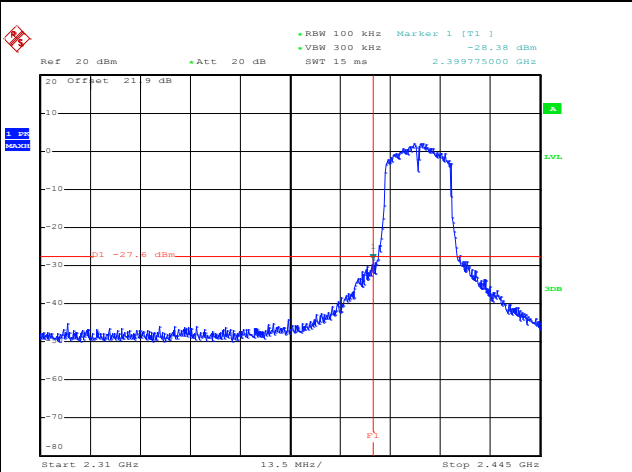
WLAN 802.11n HT20 Channel 01

100kHz PSD reference Level



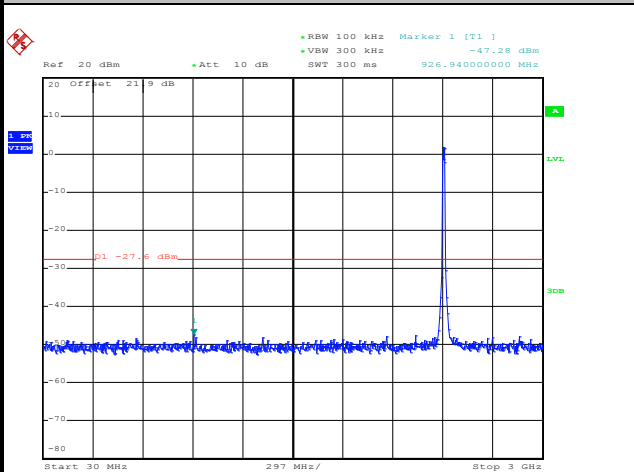
Date: 12.OCT.2016 22:18:05

Low Channel Plot



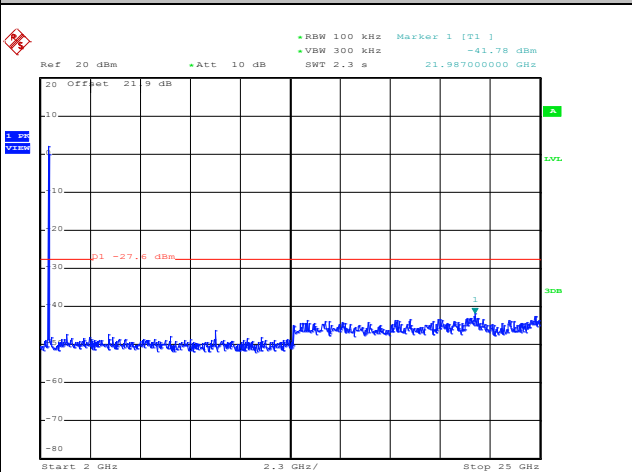
Date: 12.OCT.2016 22:18:22

Spurious Emission 30MHz~3GHz



Date: 12.OCT.2016 22:18:38

Spurious Emission 2GHz~25GHz



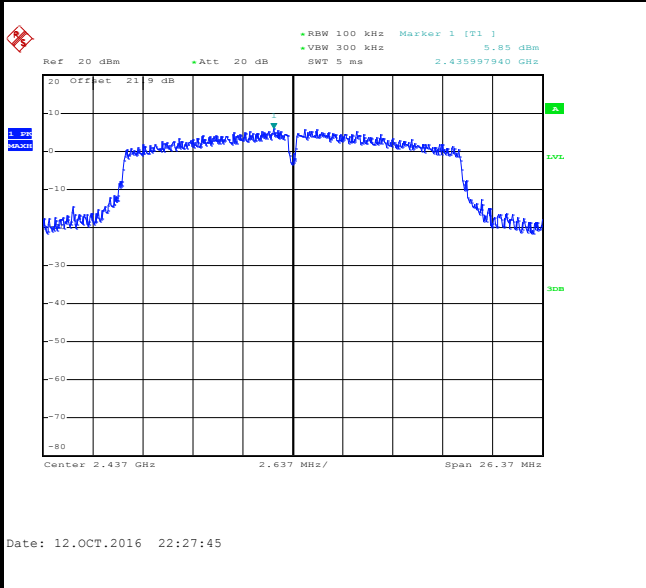
Date: 12.OCT.2016 22:18:47



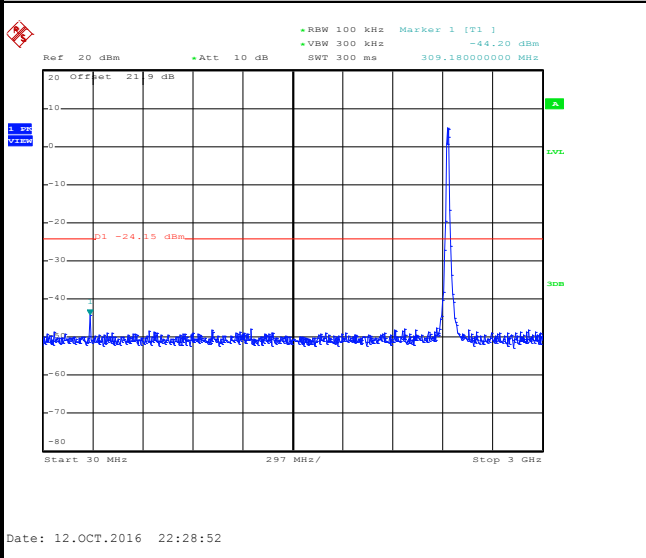
Number of TX :	2	Ant. :	1
Test Mode :	802.11n HT20	Temperature :	21~25°C
Test Band :	2.4GHz Mid	Relative Humidity :	51~54%
Test Channel :	06	Test Engineer :	Kai Liao

WLAN 802.11n HT20 Channel 06

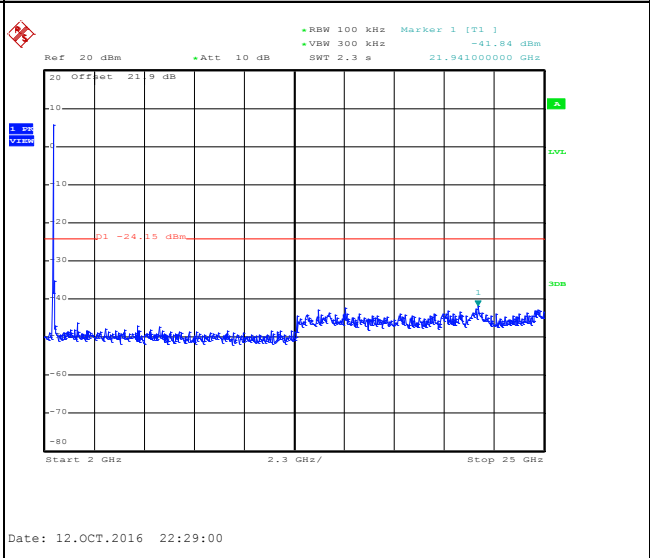
100kHz PSD reference Level



Spurious Emission 30MHz~3GHz



Spurious Emission 2GHz~25GHz

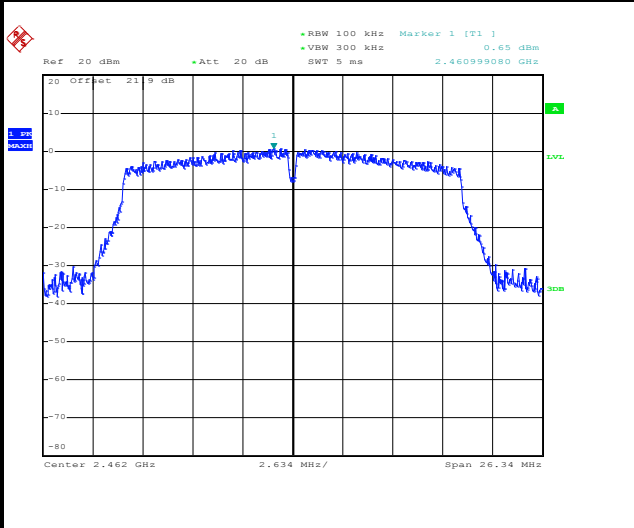




Number of TX :	2	Ant. :	1
Test Mode :	802.11n HT20	Temperature :	21~25°C
Test Band :	2.4GHz High	Relative Humidity :	51~54%
Test Channel :	11	Test Engineer :	Kai Liao

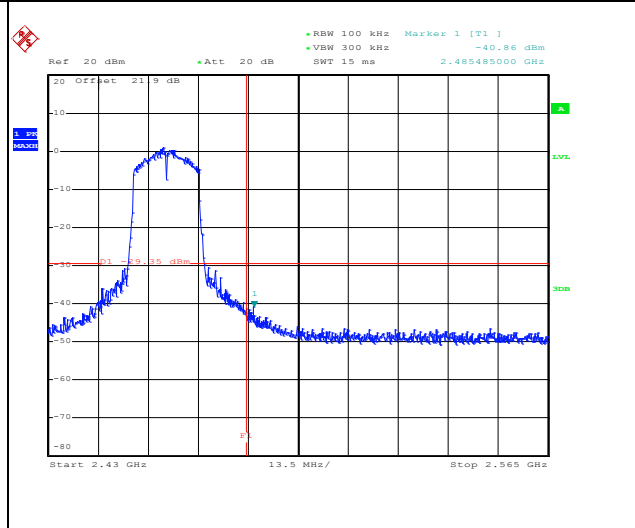
WLAN 802.11n HT20 Channel 11

100kHz PSD reference Level



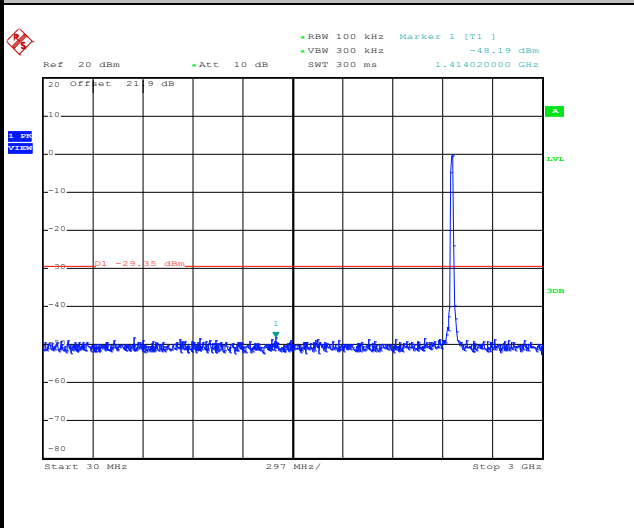
Date: 12.OCT.2016 22:39:55

High Channel Plot



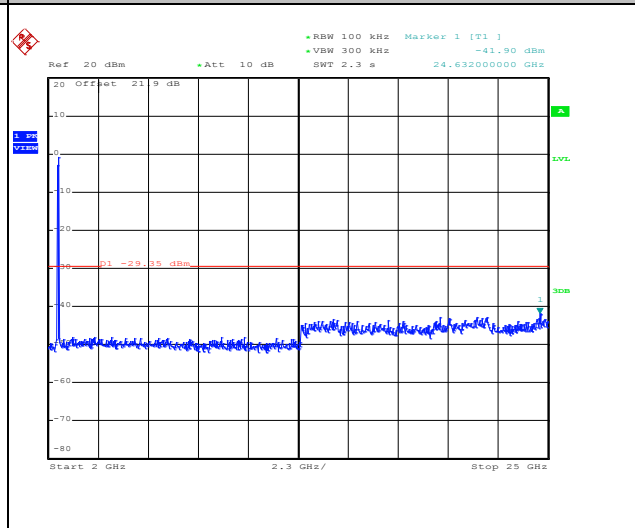
Date: 12.OCT.2016 22:40:08

Spurious Emission 30MHz~3GHz



Date: 12.OCT.2016 22:40:20

Spurious Emission 2GHz~25GHz



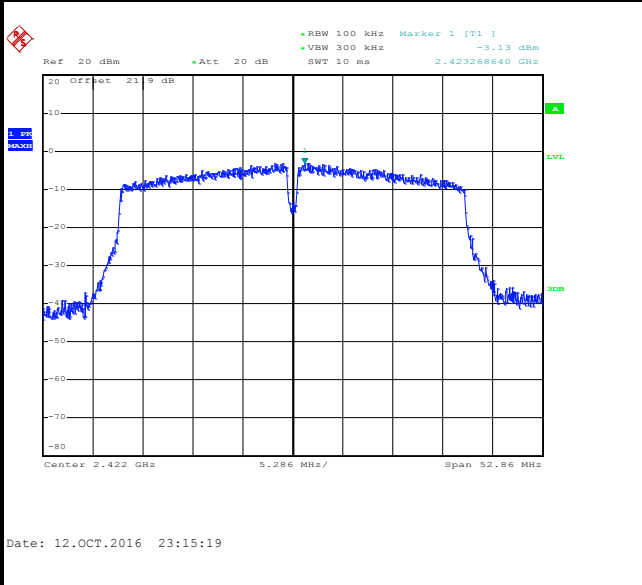
Date: 12.OCT.2016 22:40:29



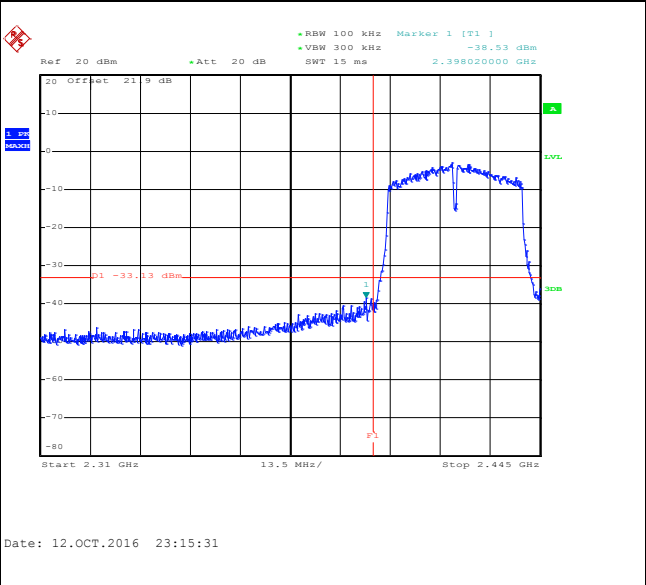
Number of TX :	2	Ant. :	1
Test Mode :	802.11n HT40	Temperature :	21~25°C
Test Band :	2.4GHz Low	Relative Humidity :	51~54%
Test Channel :	03	Test Engineer :	Kai Liao

WLAN 802.11n HT40 Channel 03

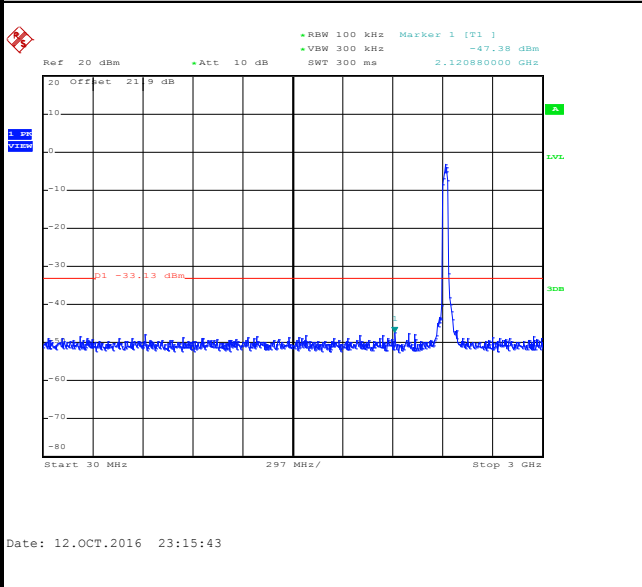
100kHz PSD reference Level



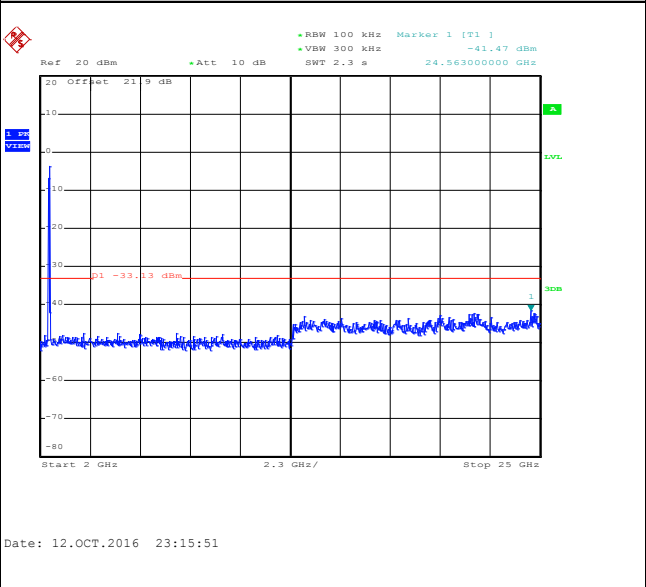
Low Channel Plot



Spurious Emission 30MHz~3GHz



Spurious Emission 2GHz~25GHz

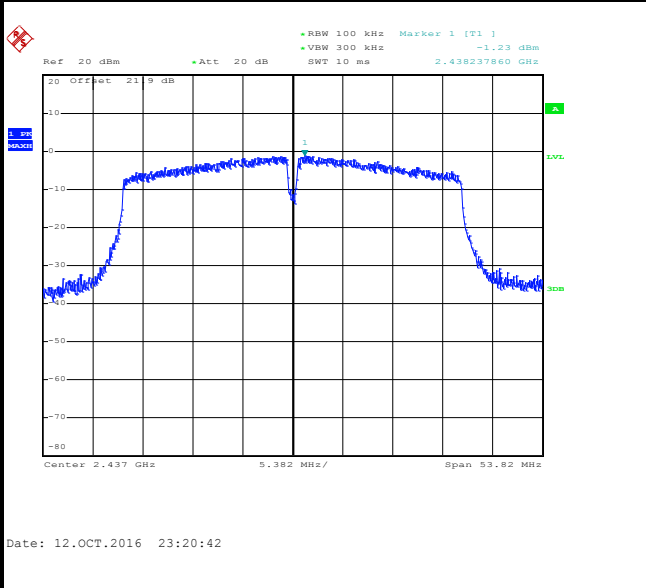




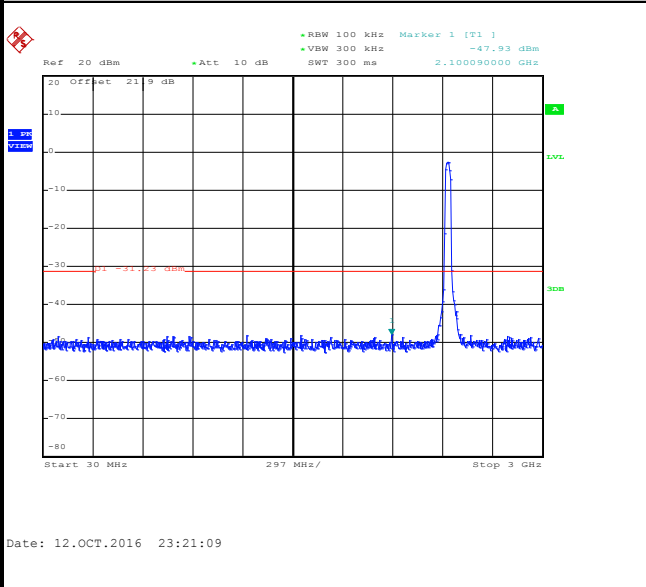
Number of TX :	2	Ant. :	1
Test Mode :	802.11n HT40	Temperature :	21~25°C
Test Band :	2.4GHz Mid	Relative Humidity :	51~54%
Test Channel :	06	Test Engineer :	Kai Liao

WLAN 802.11n HT40 Channel 06

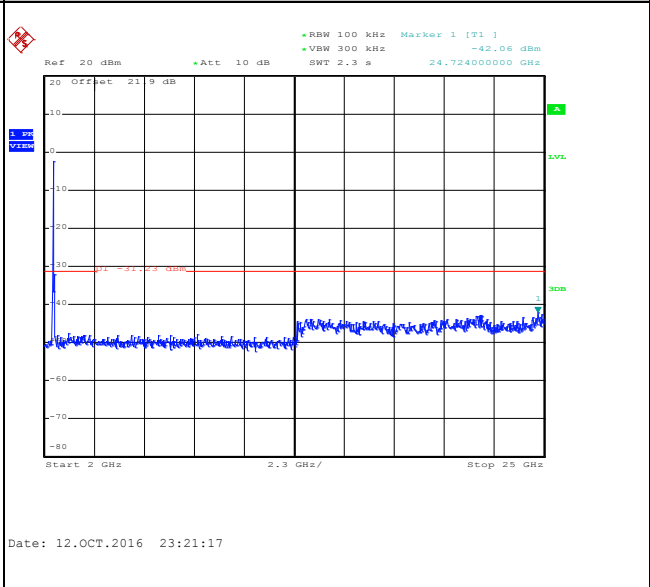
100kHz PSD reference Level



Spurious Emission 30MHz~3GHz



Spurious Emission 2GHz~25GHz

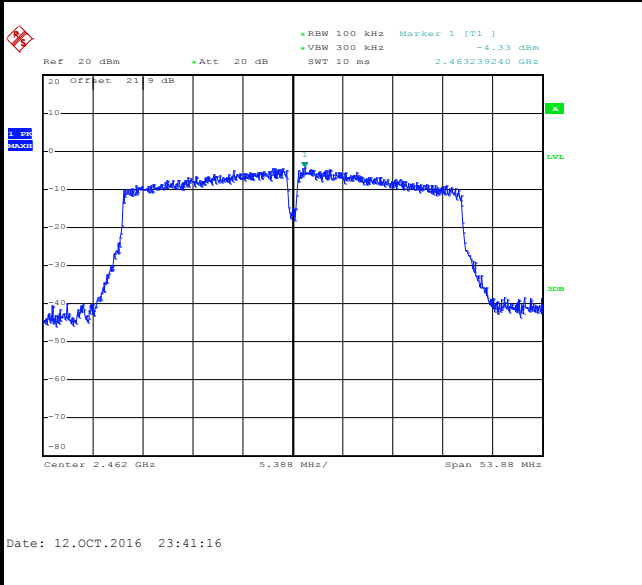




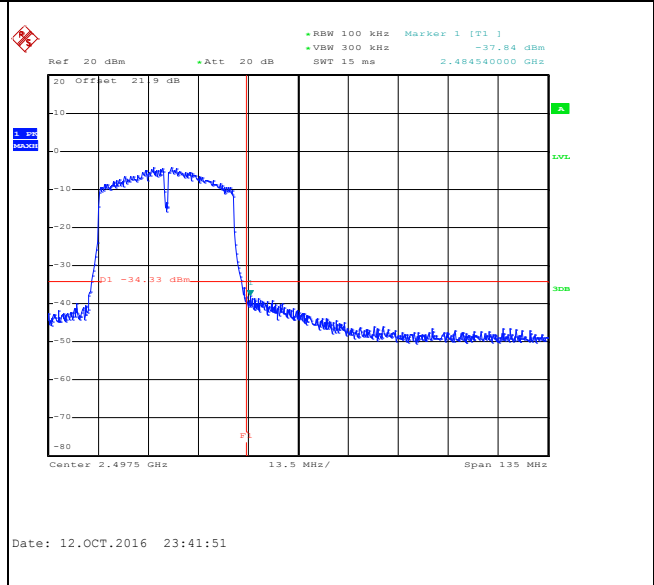
Number of TX :	2	Ant. :	1
Test Mode :	802.11n HT40	Temperature :	21~25°C
Test Band :	2.4GHz High	Relative Humidity :	51~54%
Test Channel :	09	Test Engineer :	Kai Liao

WLAN 802.11n HT40 Channel 09

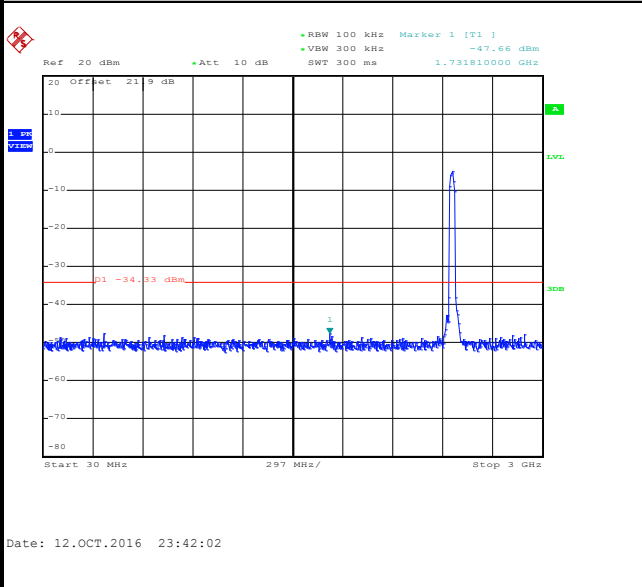
100kHz PSD reference Level



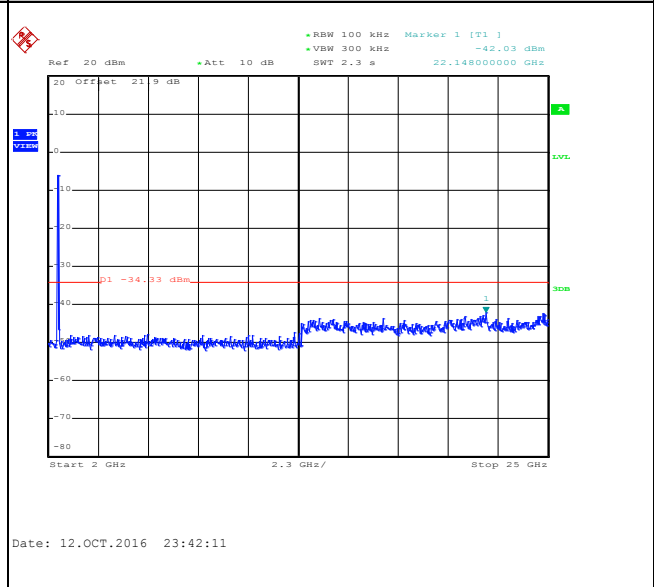
High Channel Plot



Spurious Emission 30MHz~3GHz



Spurious Emission 2GHz~25GHz



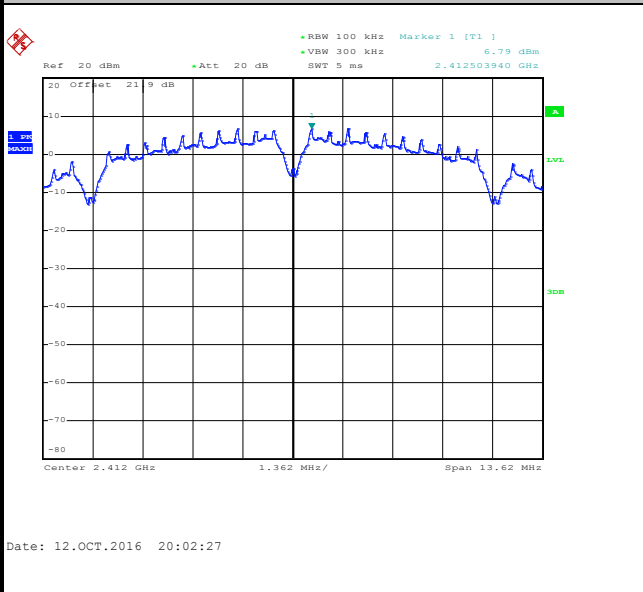


Number of TX = 2, Ant. 2 (Measured)

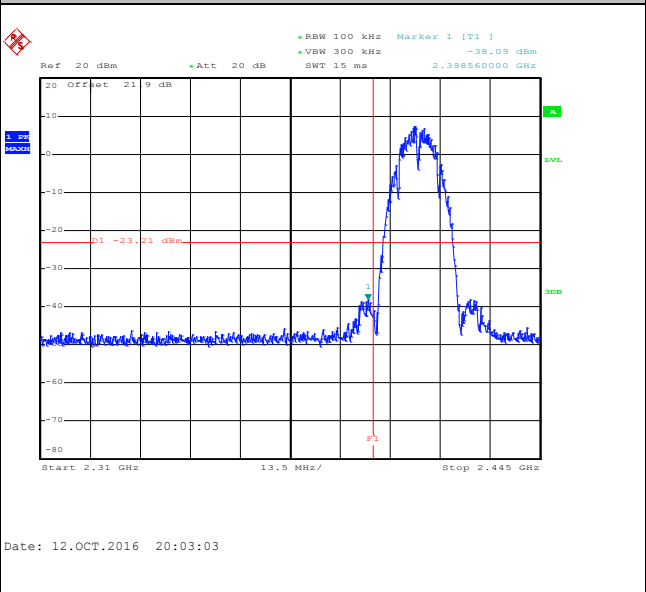
Number of TX :	2	Ant. :	2
Test Mode :	802.11b	Temperature :	21~25°C
Test Band :	2.4GHz Low	Relative Humidity :	51~54%
Test Channel :	01	Test Engineer :	Kai Liao

WLAN 802.11b Channel 01

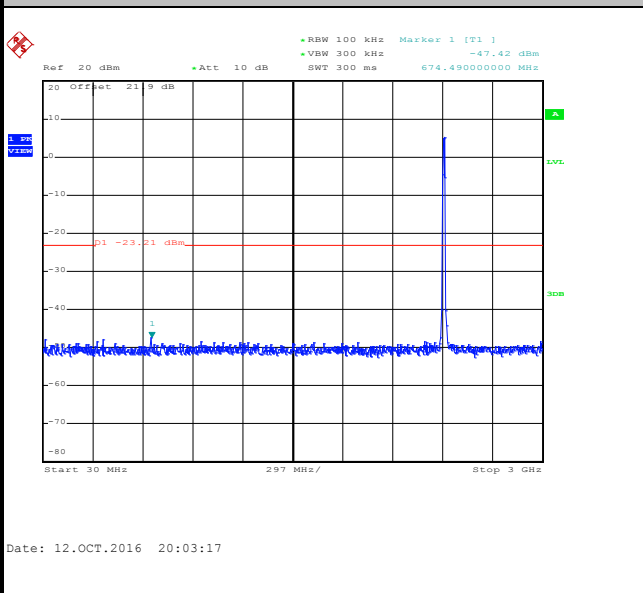
100kHz PSD reference Level



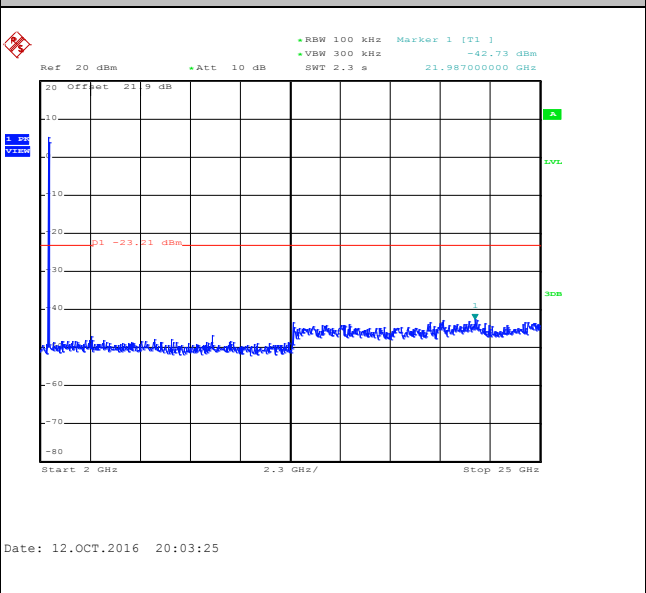
Low Channel Plot



Spurious Emission 30MHz~3GHz



Spurious Emission 2GHz~25GHz

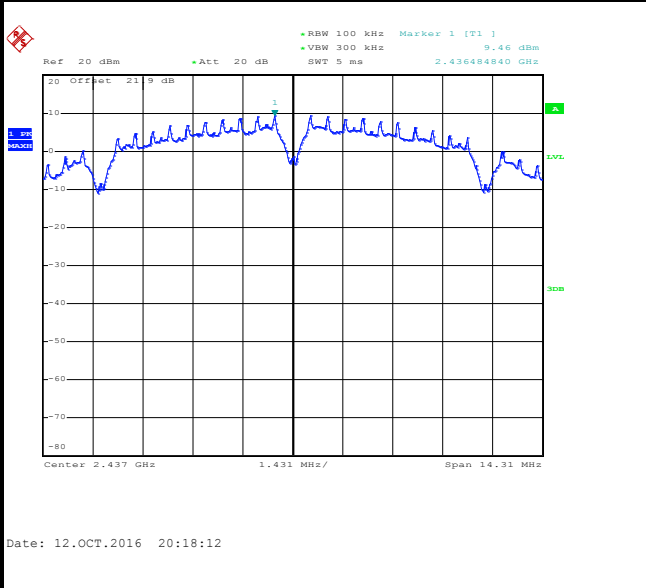




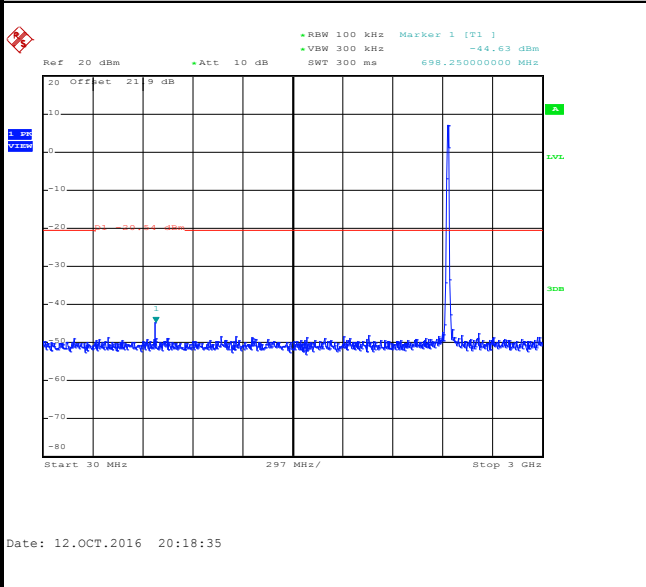
Number of TX :	2	Ant. :	2
Test Mode :	802.11b	Temperature :	21~25°C
Test Band :	2.4GHz Mid	Relative Humidity :	51~54%
Test Channel :	06	Test Engineer :	Kai Liao

WLAN 802.11b Channel 06

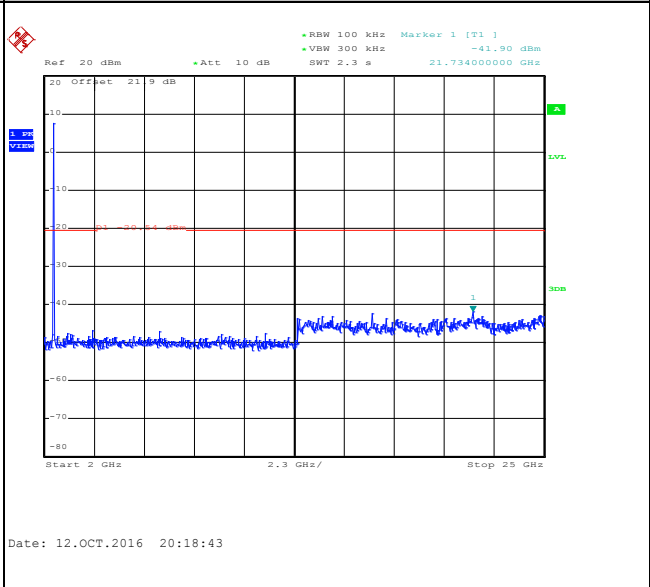
100kHz PSD reference Level



Spurious Emission 30MHz~3GHz



Spurious Emission 2GHz~25GHz

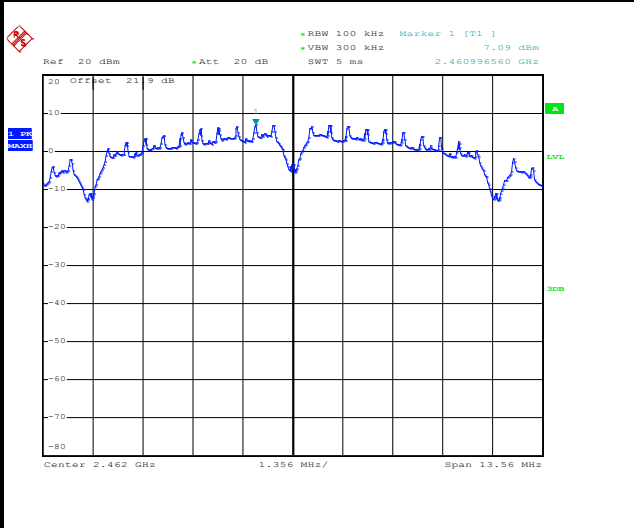




Number of TX :	2	Ant. :	2
Test Mode :	802.11b	Temperature :	21~25°C
Test Band :	2.4GHz High	Relative Humidity :	51~54%
Test Channel :	11	Test Engineer :	Kai Liao

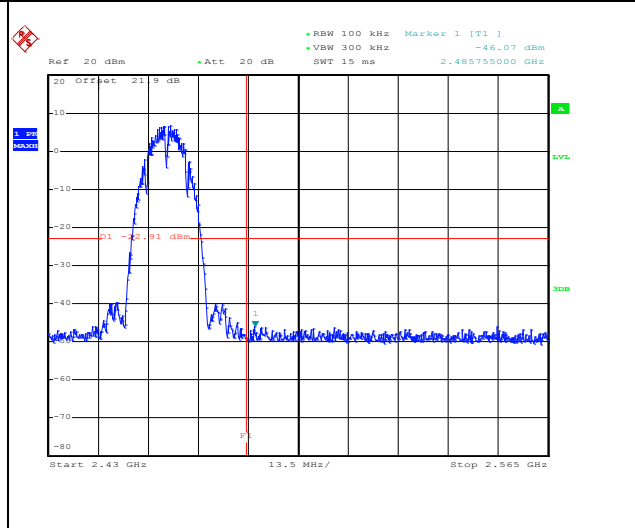
WLAN 802.11b Channel 11

100kHz PSD reference Level



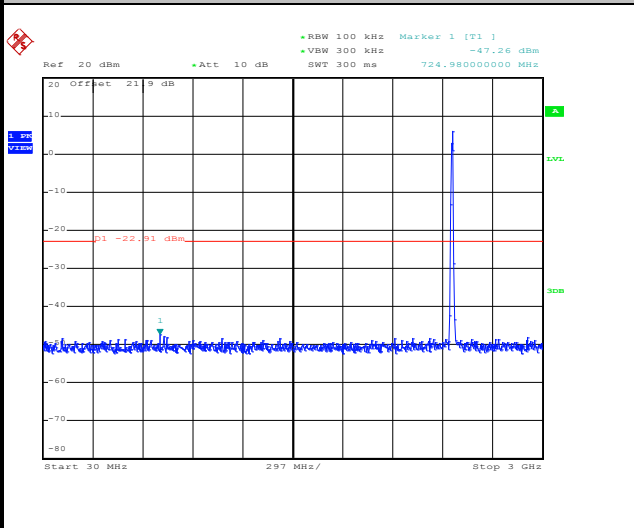
Date: 12.OCT.2016 20:22:19

High Channel Plot



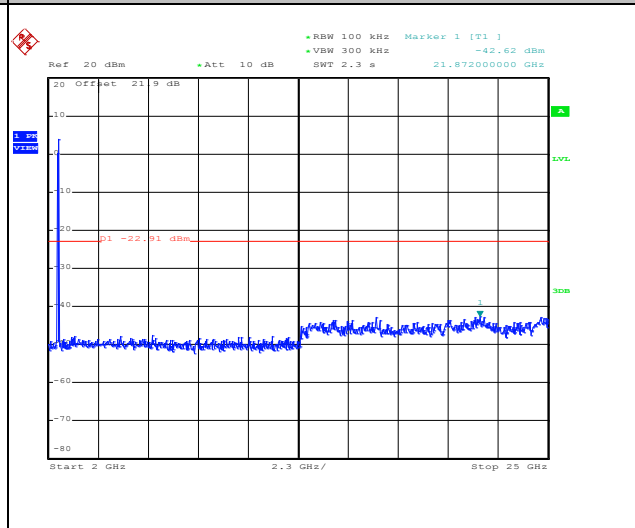
Date: 12.OCT.2016 20:22:49

Spurious Emission 30MHz~3GHz



Date: 12.OCT.2016 20:23:00

Spurious Emission 2GHz~25GHz



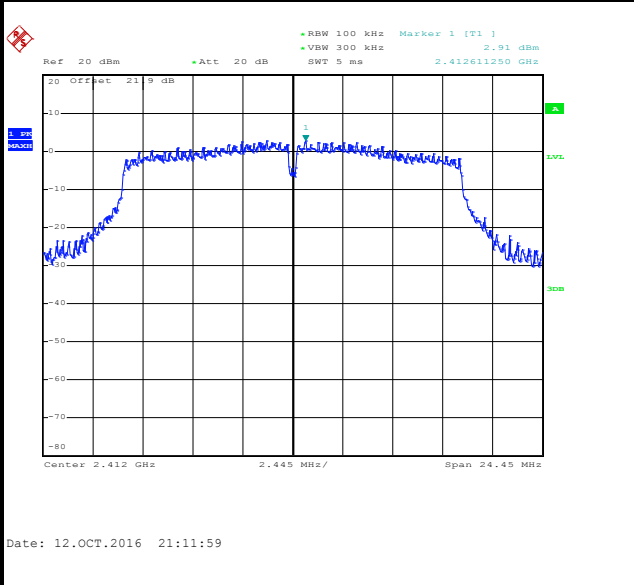
Date: 12.OCT.2016 20:23:08



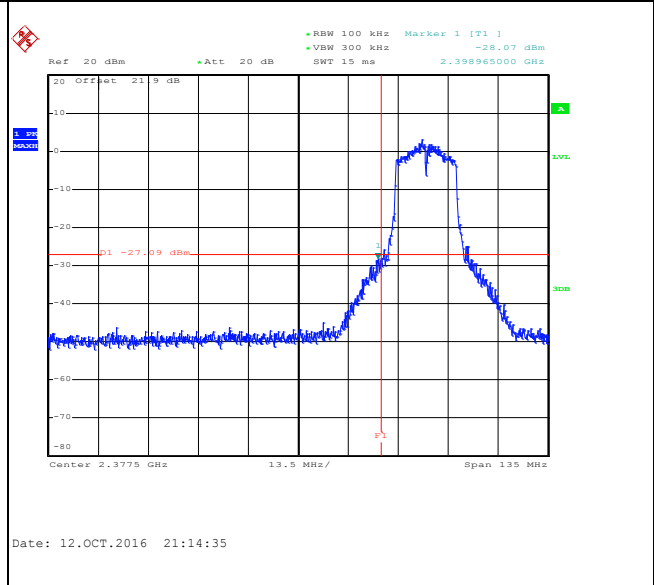
Number of TX :	2	Ant. :	2
Test Mode :	802.11g	Temperature :	21~25°C
Test Band :	2.4GHz Low	Relative Humidity :	51~54%
Test Channel :	01	Test Engineer :	Kai Liao

WLAN 802.11g Channel 01

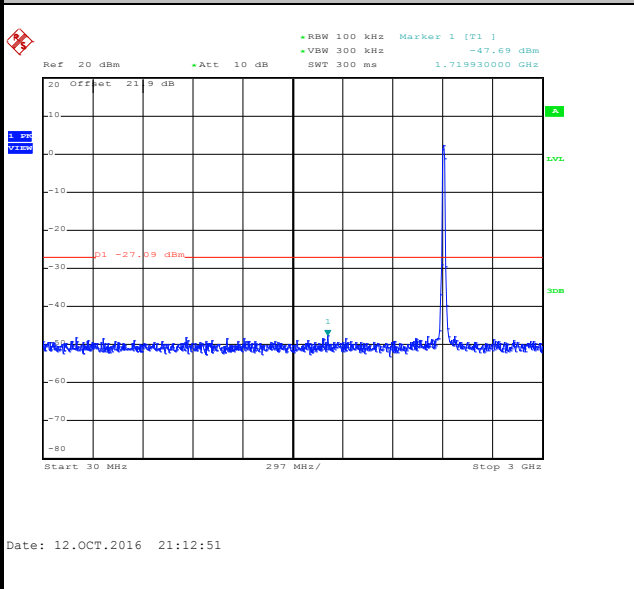
100kHz PSD reference Level



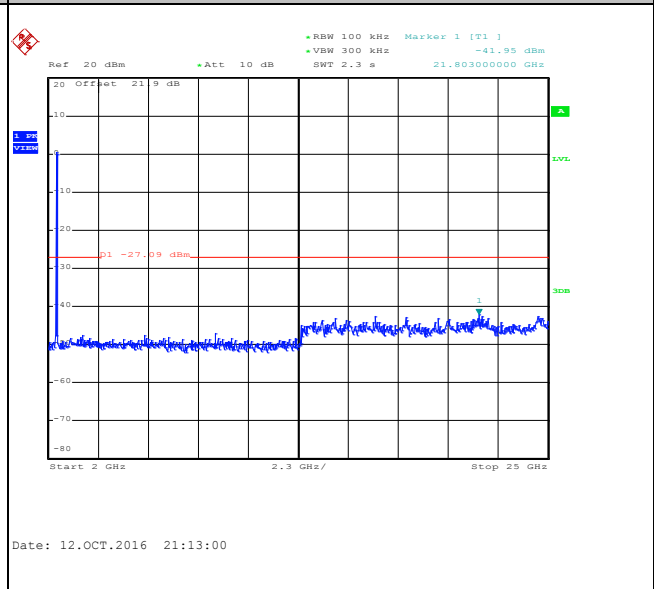
Low Channel Plot



Spurious Emission 30MHz~3GHz



Spurious Emission 2GHz~25GHz

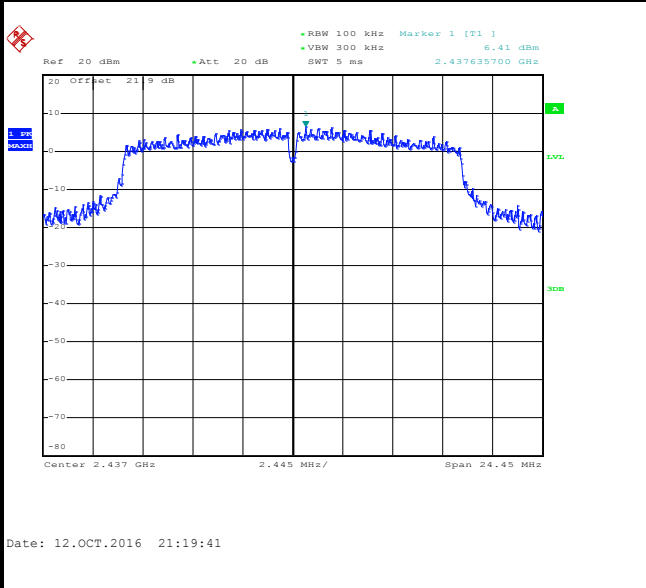




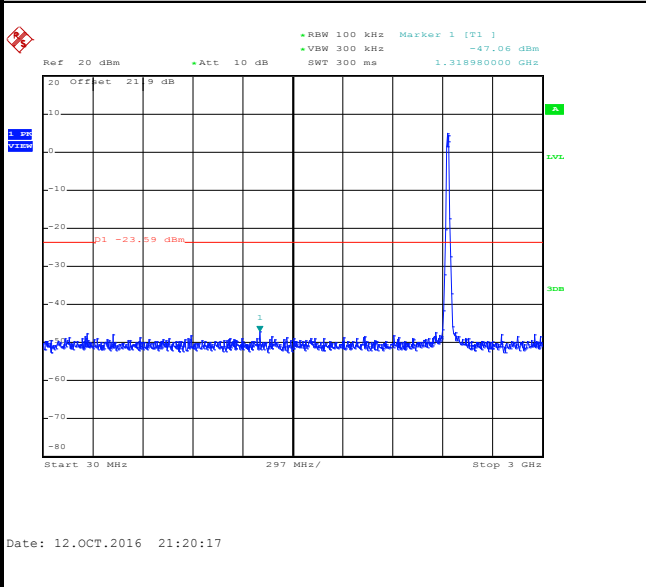
Number of TX :	2	Ant. :	2
Test Mode :	802.11g	Temperature :	21~25°C
Test Band :	2.4GHz Mid	Relative Humidity :	51~54%
Test Channel :	06	Test Engineer :	Kai Liao

WLAN 802.11g Channel 06

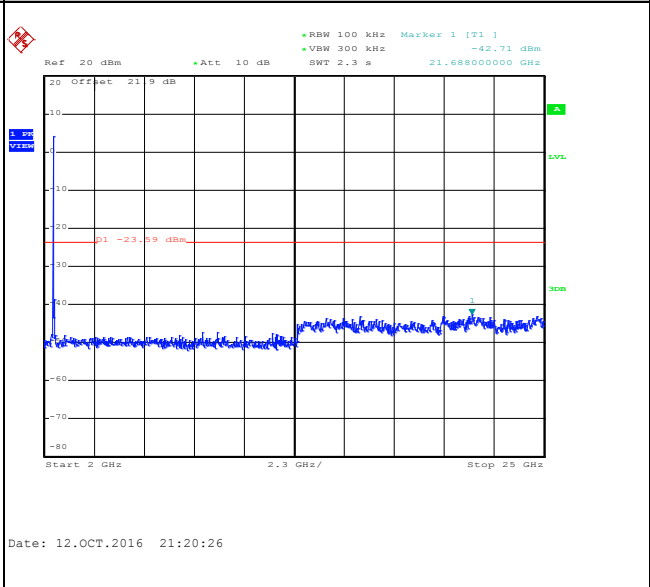
100kHz PSD reference Level



Spurious Emission 30MHz~3GHz



Spurious Emission 2GHz~25GHz

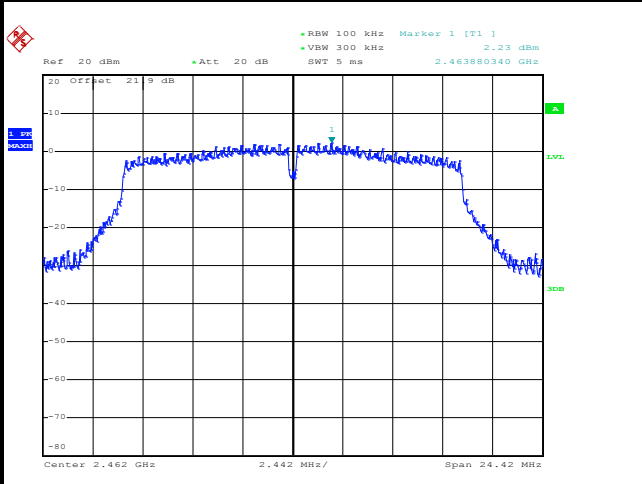




Number of TX :	2	Ant. :	2
Test Mode :	802.11g	Temperature :	21~25°C
Test Band :	2.4GHz High	Relative Humidity :	51~54%
Test Channel :	11	Test Engineer :	Kai Liao

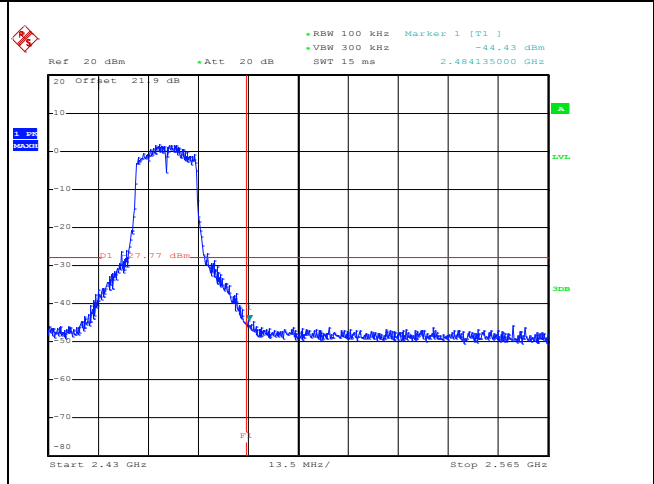
WLAN 802.11g Channel 11

100kHz PSD reference Level



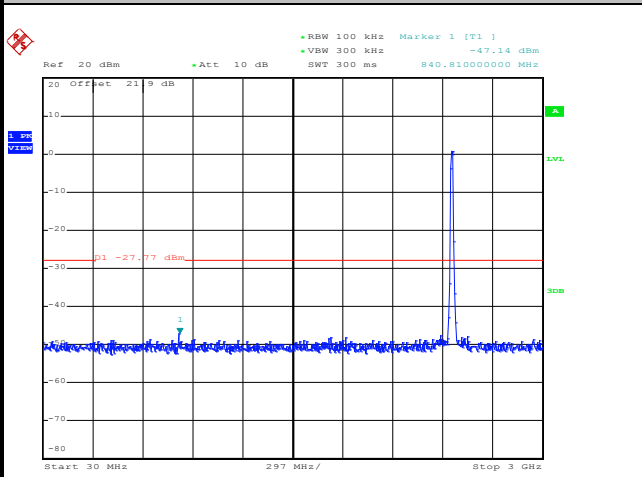
Date: 12.OCT.2016 21:37:31

High Channel Plot



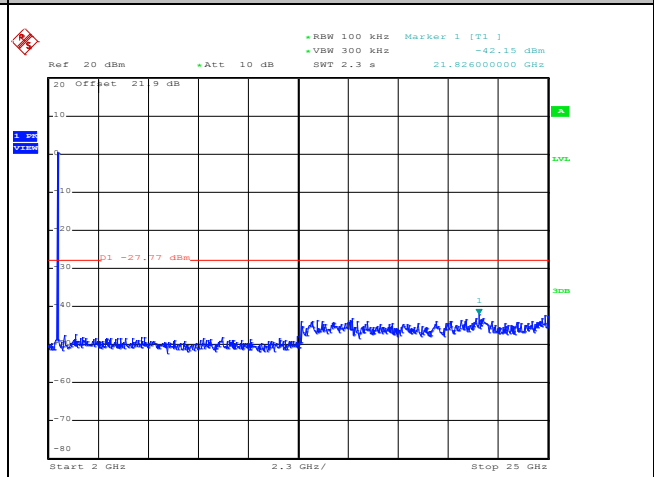
Date: 12.OCT.2016 21:37:47

Spurious Emission 30MHz~3GHz



Date: 12.OCT.2016 21:38:06

Spurious Emission 2GHz~25GHz



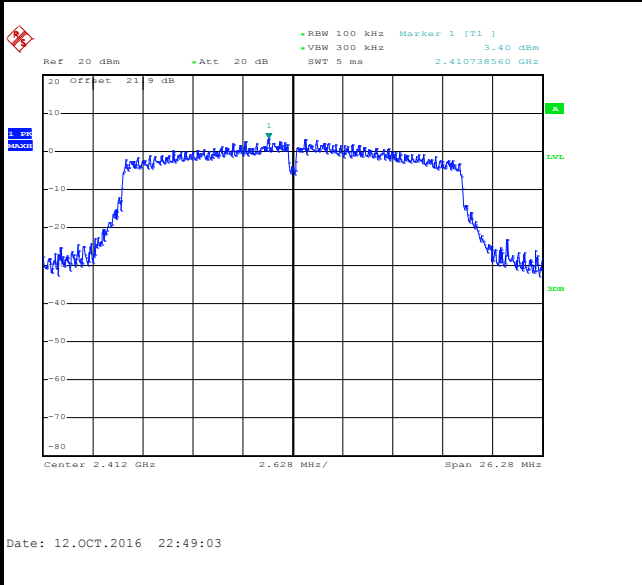
Date: 12.OCT.2016 21:38:14



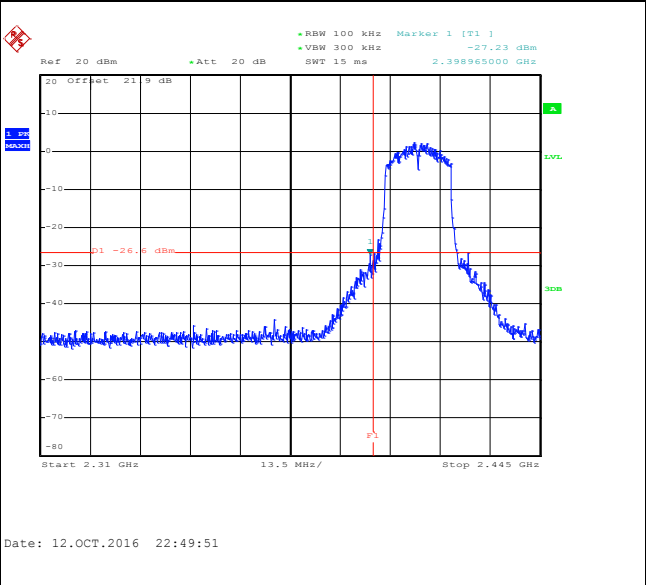
Number of TX :	2	Ant. :	2
Test Mode :	802.11n HT20	Temperature :	21~25°C
Test Band :	2.4GHz Low	Relative Humidity :	51~54%
Test Channel :	01	Test Engineer :	Kai Liao

WLAN 802.11n HT20 Channel 01

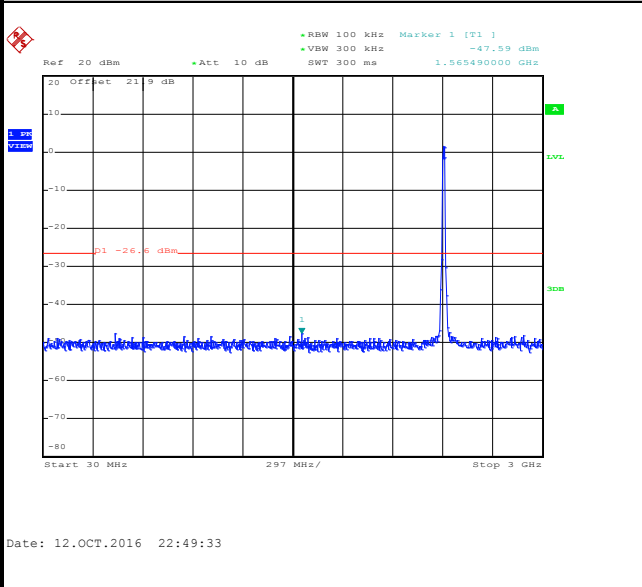
100kHz PSD reference Level



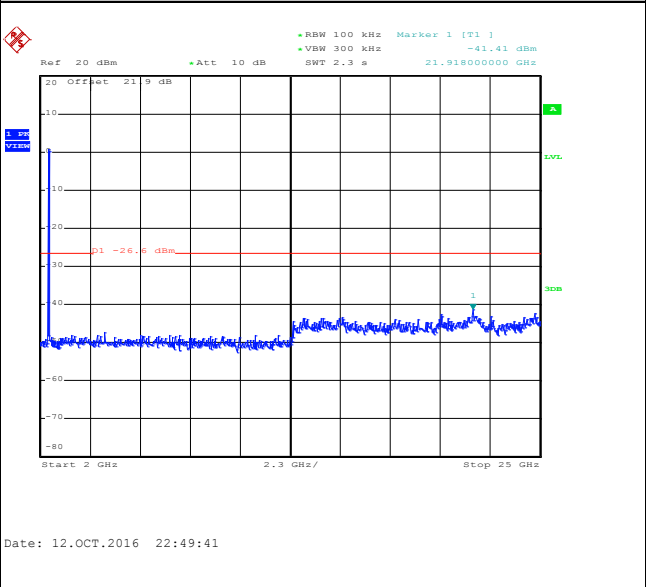
Low Channel Plot



Spurious Emission 30MHz~3GHz



Spurious Emission 2GHz~25GHz

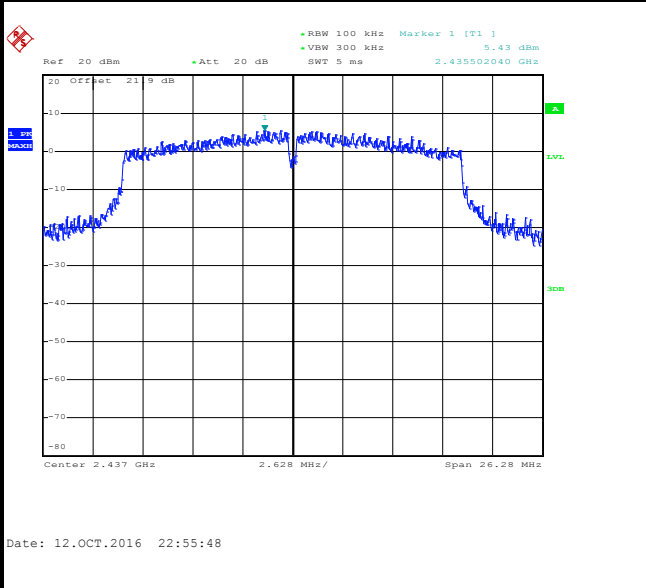




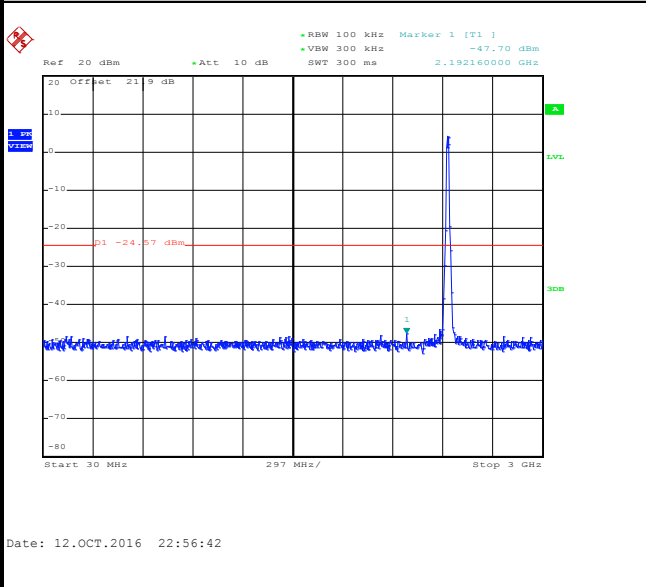
Number of TX :	2	Ant. :	2
Test Mode :	802.11n HT20	Temperature :	21~25°C
Test Band :	2.4GHz Mid	Relative Humidity :	51~54%
Test Channel :	06	Test Engineer :	Kai Liao

WLAN 802.11n HT20 Channel 06

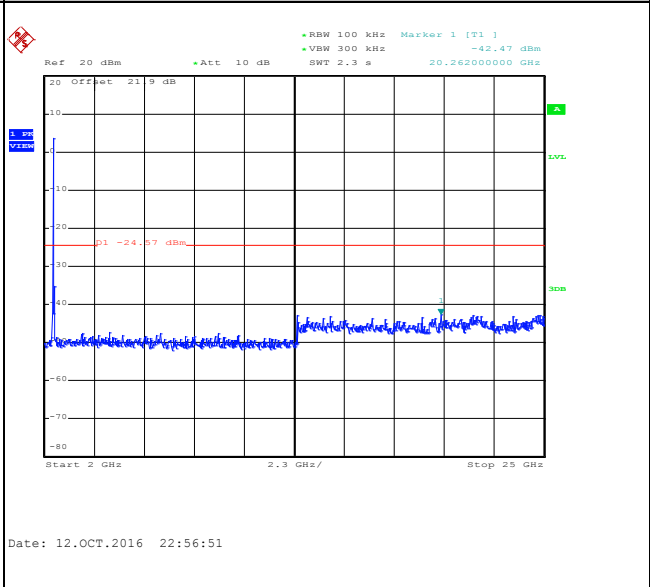
100kHz PSD reference Level



Spurious Emission 30MHz~3GHz



Spurious Emission 2GHz~25GHz

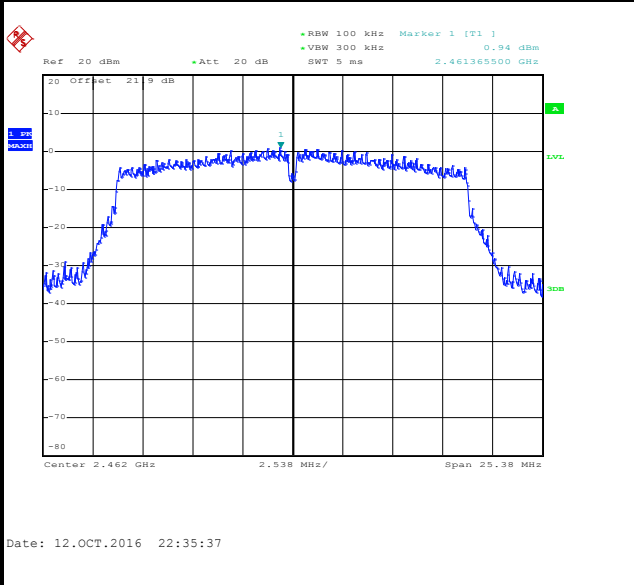




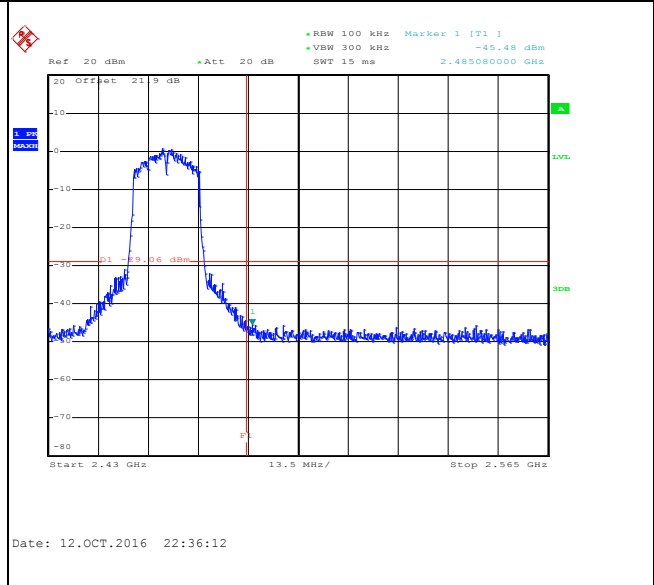
Number of TX :	2	Ant. :	2
Test Mode :	802.11n HT20	Temperature :	21~25°C
Test Band :	2.4GHz High	Relative Humidity :	51~54%
Test Channel :	11	Test Engineer :	Kai Liao

WLAN 802.11n HT20 Channel 11

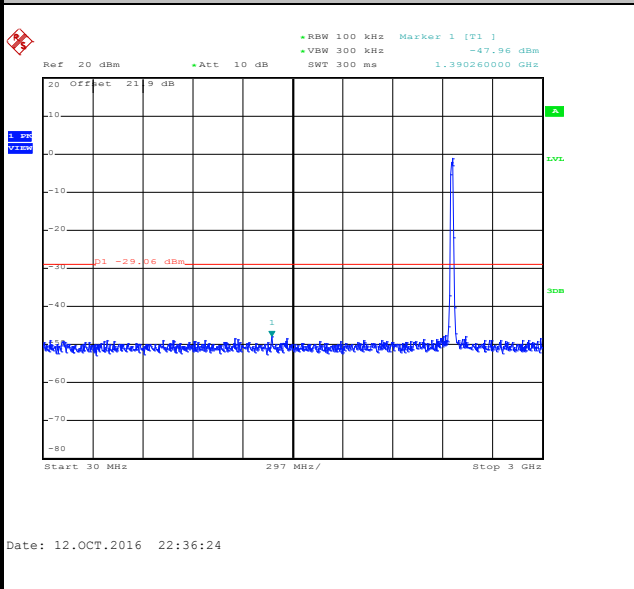
100kHz PSD reference Level



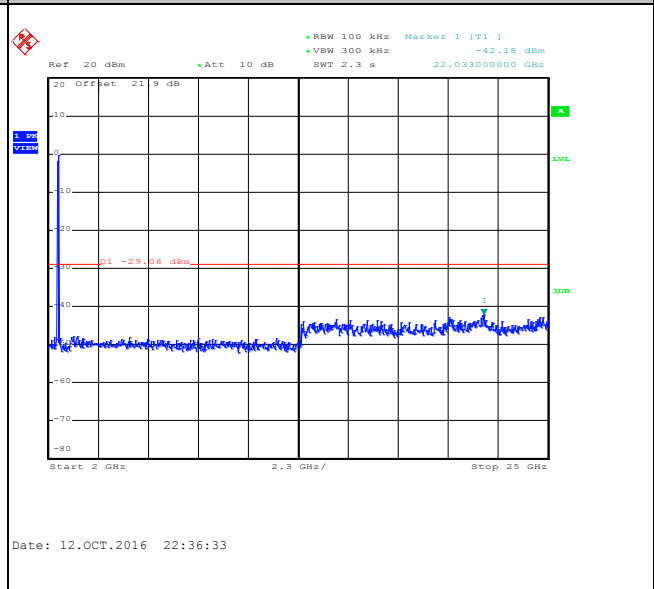
High Channel Plot



Spurious Emission 30MHz~3GHz



Spurious Emission 2GHz~25GHz

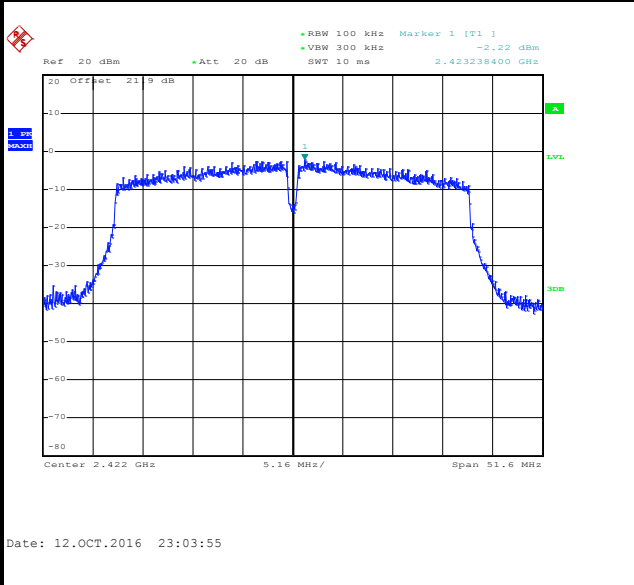




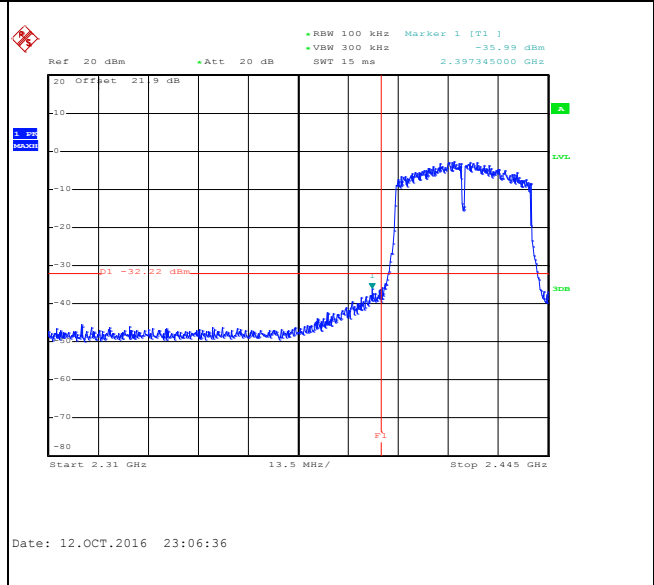
Number of TX :	2	Ant. :	2
Test Mode :	802.11n HT40	Temperature :	21~25°C
Test Band :	2.4GHz Low	Relative Humidity :	51~54%
Test Channel :	03	Test Engineer :	Kai Liao

WLAN 802.11n HT40 Channel 03

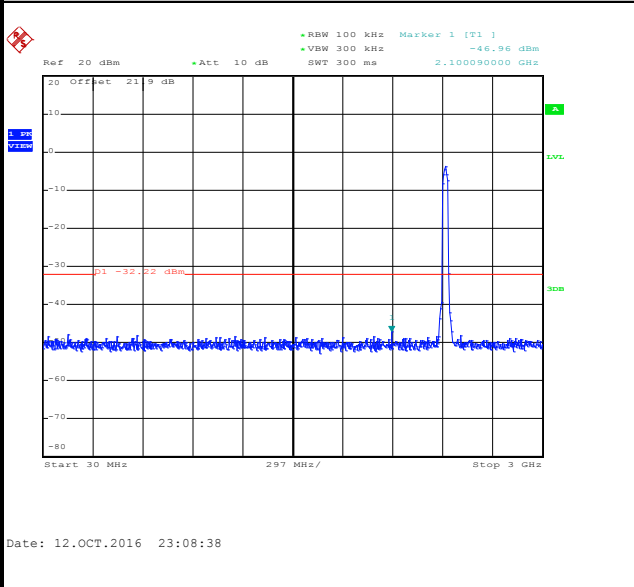
100kHz PSD reference Level



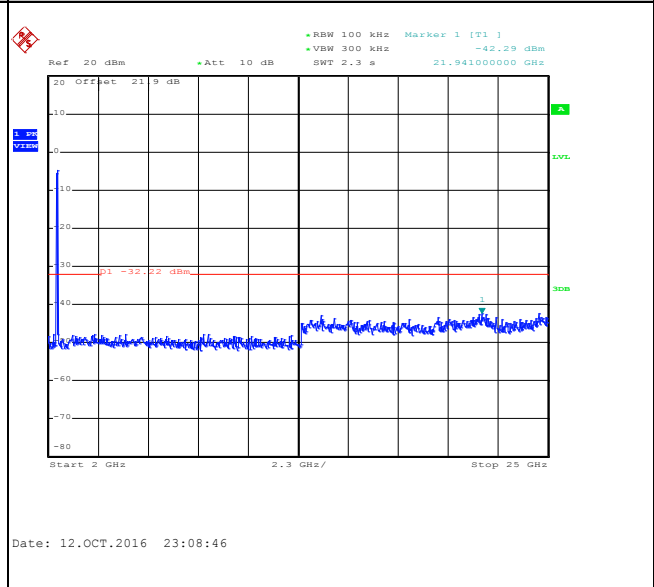
Low Channel Plot



Spurious Emission 30MHz~3GHz



Spurious Emission 2GHz~25GHz

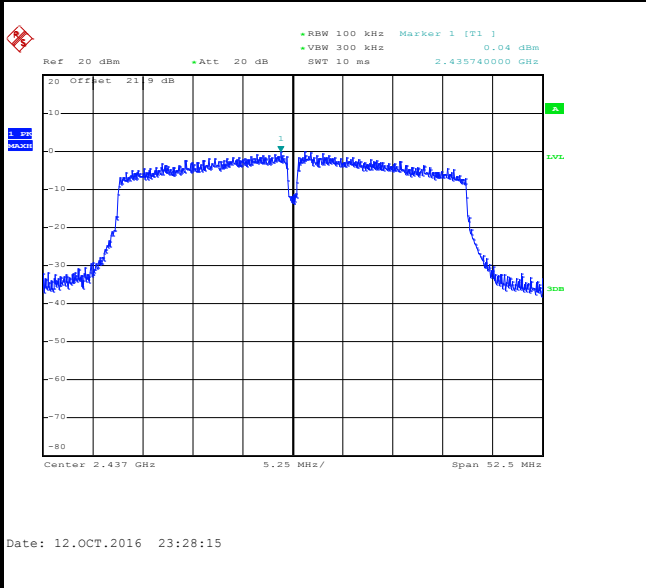




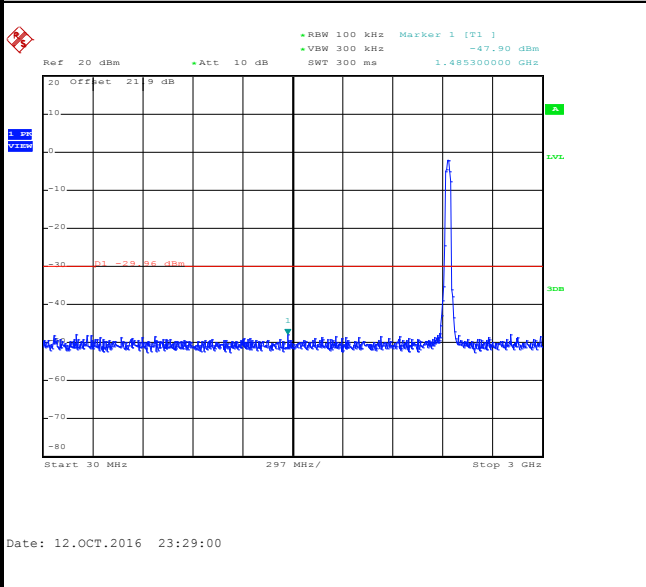
Number of TX :	2	Ant. :	2
Test Mode :	802.11n HT40	Temperature :	21~25°C
Test Band :	2.4GHz Mid	Relative Humidity :	51~54%
Test Channel :	06	Test Engineer :	Kai Liao

WLAN 802.11n HT40 Channel 06

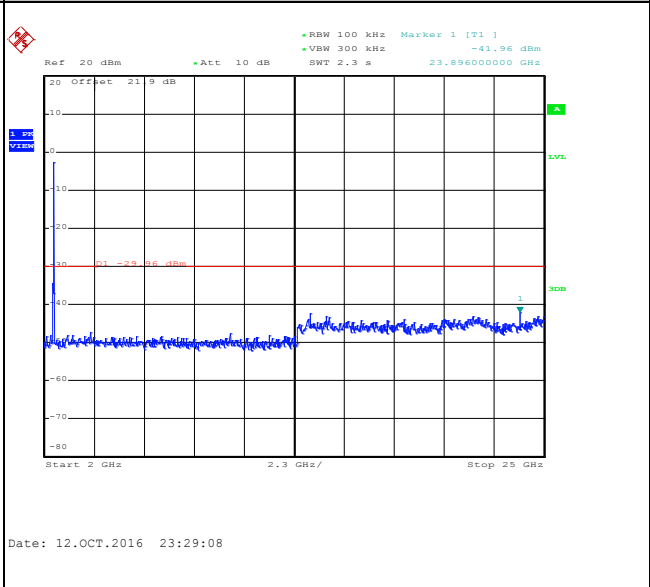
100kHz PSD reference Level



Spurious Emission 30MHz~3GHz



Spurious Emission 2GHz~25GHz

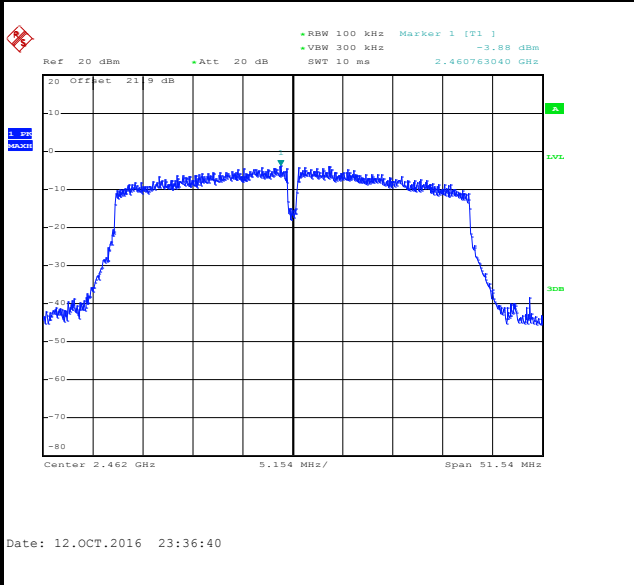




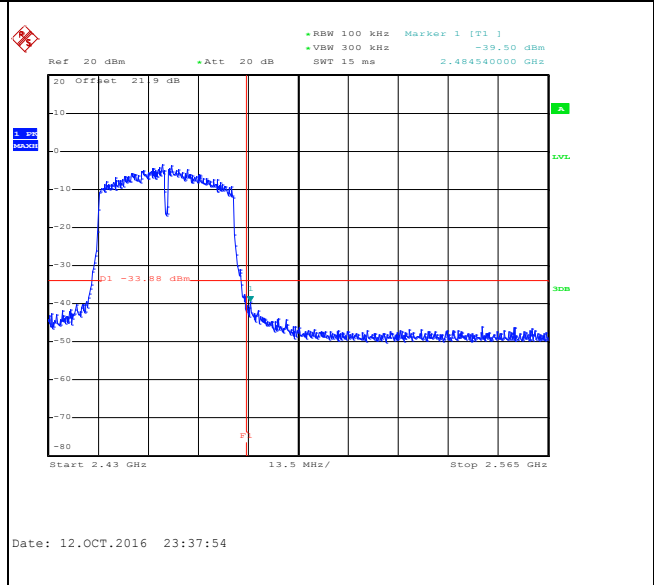
Number of TX :	2	Ant. :	2
Test Mode :	802.11n HT40	Temperature :	21~25°C
Test Band :	2.4GHz High	Relative Humidity :	51~54%
Test Channel :	09	Test Engineer :	Kai Liao

WLAN 802.11n HT40 Channel 09

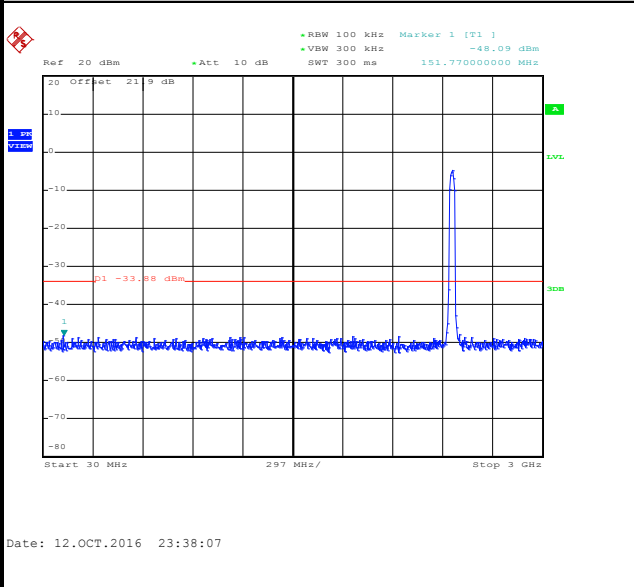
100kHz PSD reference Level



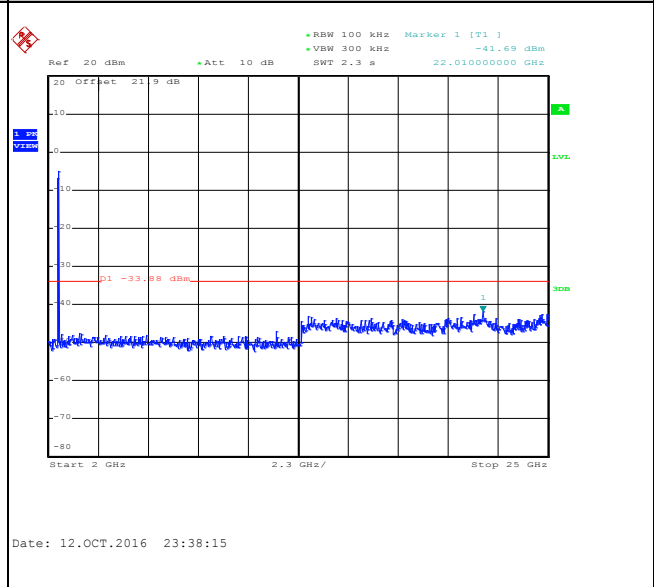
High Channel Plot



Spurious Emission 30MHz~3GHz



Spurious Emission 2GHz~25GHz





3.5 Radiated Band Edges and Spurious Emission Measurement

3.5.1 Limit of Radiated band edge and Spurious Emission Measurement

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

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

3.5.2 Measuring Instruments

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



3.5.3 Test Procedures

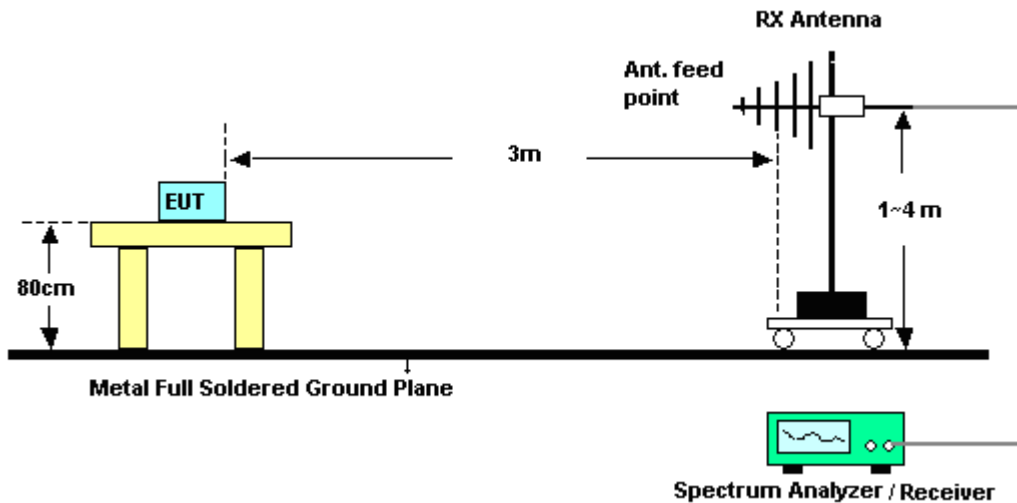
1. The testing follows FCC KDB Publication No. 558074 D01 DTS Meas. Guidance v03r05.
2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level.
3. The EUT was placed on a turntable with 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz respectively above ground.
4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
5. Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level
6. For measurement below 1GHz, If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak detector and reported.
7. Use the following spectrum analyzer settings:
 - (1) Span shall wide enough to fully capture the emission being measured;
 - (2) Set RBW=100 kHz for $f < 1$ GHz; VBW \geq RBW; Sweep = auto; Detector function = peak; Trace = max hold;
 - (3) Set RBW = 1 MHz, VBW= 3MHz for $f \geq 1$ GHz for peak measurement.
For average measurement:
 - VBW = 10 Hz, when duty cycle is no less than 98 percent.
 - VBW $\geq 1/T$, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.

3.5.4 Test Setup

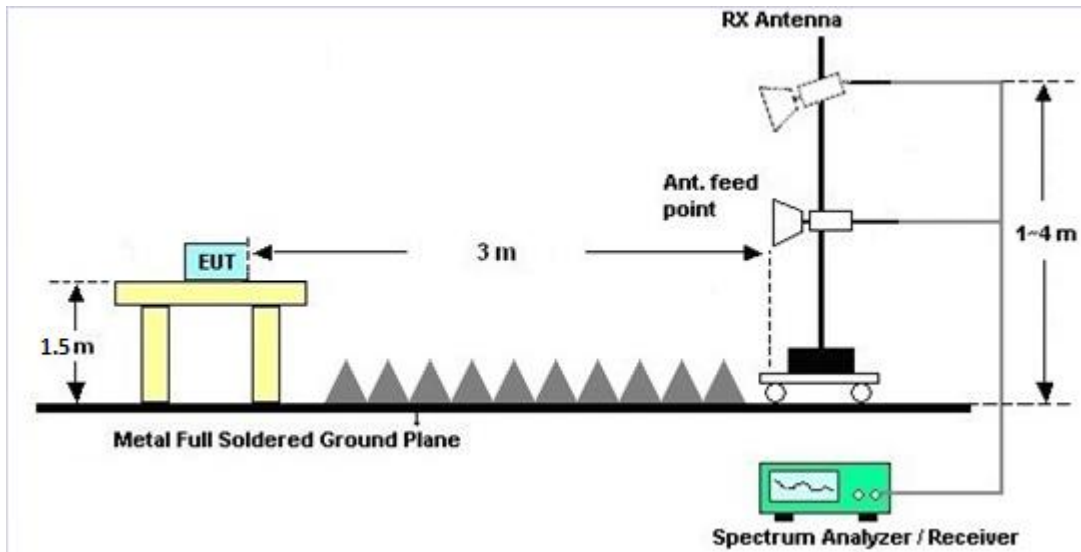
For radiated emissions below 30MHz



For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz



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

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

3.5.6 Test Result of Radiated Spurious at Band Edges

Please refer to Appendix B and C.

3.5.7 Duty Cycle

Please refer to Appendix D.

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

Please refer to Appendix B and C.



3.6 AC Conducted Emission Measurement

3.6.1 Limit of AC Conducted Emission

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

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

*Decreases with the logarithm of the frequency.

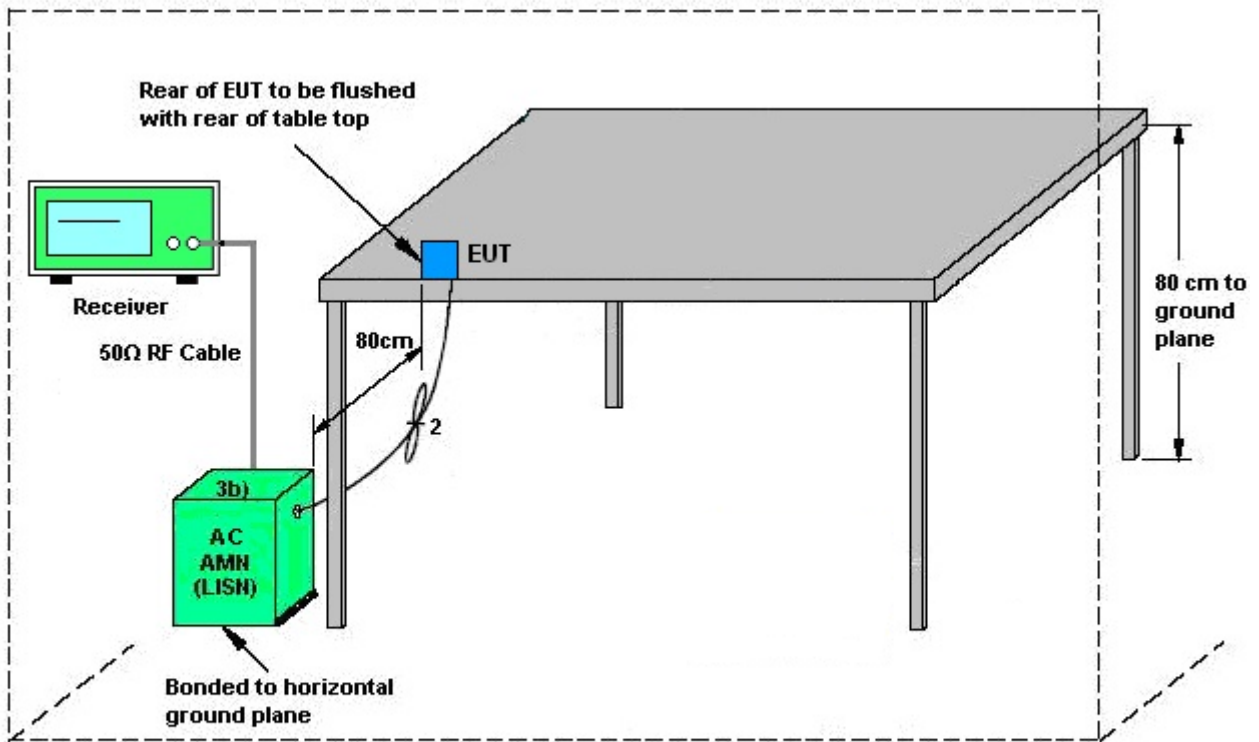
3.6.2 Measuring Instruments

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

3.6.3 Test Procedures

1. The EUT was placed 0.4 meter from the conducting wall of the shielding room, and it was kept at least 80 centimeters from any other grounded conducting surface.
2. Connect EUT to the power mains through a line impedance stabilization network (LISN).
3. All the support units are connecting to the other LISN.
4. The LISN provides 50 ohm coupling impedance for the measuring instrument.
5. The FCC states that a 50 ohm, 50 microhenry LISN should be used.
6. Both sides of AC line were checked for maximum conducted interference.
7. The frequency range from 150 kHz to 30 MHz was searched.
8. Set the test-receiver system to Peak Detect Function and specified bandwidth (IF bandwidth = 9kHz) with Maximum Hold Mode.

3.6.4 Test Setup

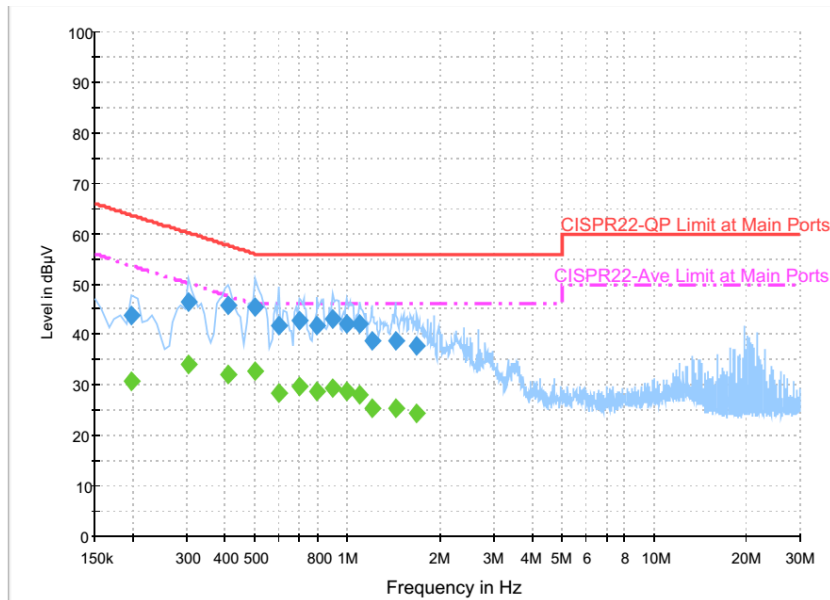


AMN = Artificial mains network (LISH)
AE = Associated equipment
EUT = Equipment under test
ISN = Impedance stabilization network



3.6.5 Test Result of AC Conducted Emission

Test Mode :	Mode 1	Temperature :	23~24°C
Test Engineer :	Arthur Hsieh	Relative Humidity :	50~51%
Test Voltage :	120Vac / 60Hz	Phase :	Line
Function Type :	WLAN (2.4GHz) Link + RJ-45 Link		

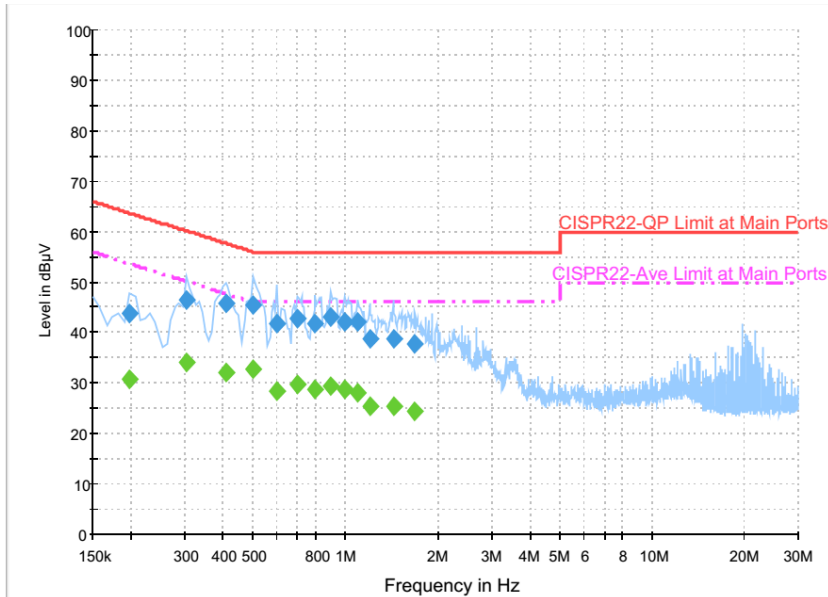


Final Result : QuasiPeak

Frequency (MHz)	QuasiPeak (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.198000	43.6	Off	L1	19.6	20.1	63.7
0.302000	46.5	Off	L1	19.6	13.7	60.2
0.406000	45.9	Off	L1	19.6	11.8	57.7
0.502000	45.5	Off	L1	19.6	10.5	56.0
0.598000	41.8	Off	L1	19.6	14.2	56.0
0.694000	42.6	Off	L1	19.6	13.4	56.0
0.798000	42.0	Off	L1	19.6	14.0	56.0
0.894000	43.1	Off	L1	19.7	12.9	56.0
0.998000	42.1	Off	L1	19.7	13.9	56.0
1.094000	42.1	Off	L1	19.7	13.9	56.0
1.198000	38.8	Off	L1	19.7	17.2	56.0
1.438000	38.8	Off	L1	19.7	17.2	56.0
1.686000	37.9	Off	L1	19.7	18.1	56.0



Test Mode :	Mode 1	Temperature :	23~24°C
Test Engineer :	Arthur Hsieh	Relative Humidity :	50~51%
Test Voltage :	120Vac / 60Hz	Phase :	Line
Function Type :	WLAN (2.4GHz) Link + RJ-45 Link		

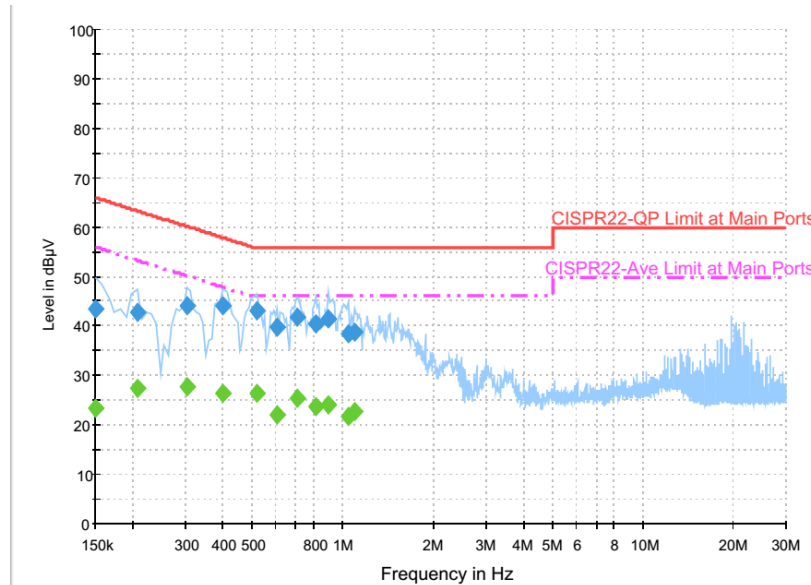


Final Result : Average

Frequency (MHz)	Average (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.198000	30.8	Off	L1	19.6	22.9	53.7
0.302000	34.0	Off	L1	19.6	16.2	50.2
0.406000	32.0	Off	L1	19.6	15.7	47.7
0.502000	32.8	Off	L1	19.6	13.2	46.0
0.598000	28.5	Off	L1	19.6	17.5	46.0
0.694000	29.6	Off	L1	19.6	16.4	46.0
0.798000	28.8	Off	L1	19.6	17.2	46.0
0.894000	29.4	Off	L1	19.7	16.6	46.0
0.998000	28.8	Off	L1	19.7	17.2	46.0
1.094000	28.0	Off	L1	19.7	18.0	46.0
1.198000	25.5	Off	L1	19.7	20.5	46.0
1.438000	25.4	Off	L1	19.7	20.6	46.0
1.686000	24.3	Off	L1	19.7	21.7	46.0



Test Mode :	Mode 1	Temperature :	23~24°C
Test Engineer :	Arthur Hsieh	Relative Humidity :	50~51%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral
Function Type :	WLAN (2.4GHz) Link + RJ-45 Link		

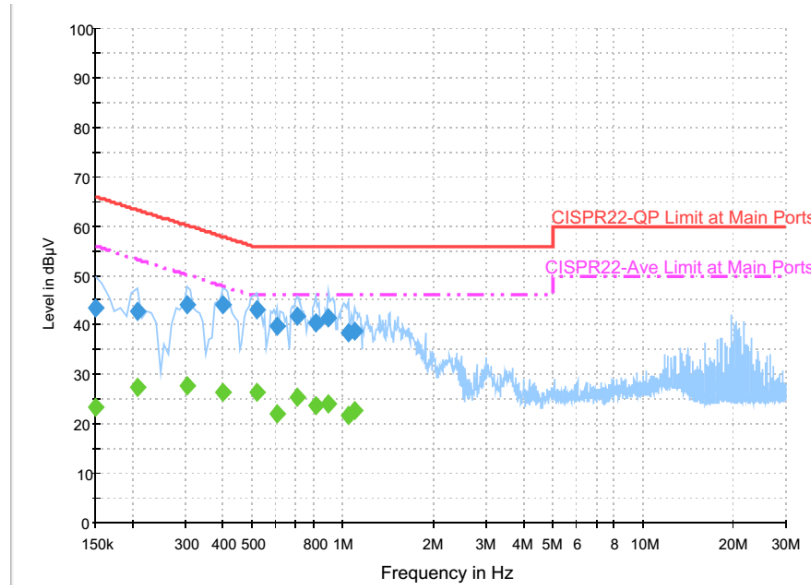


Final Result : QuasiPeak

Frequency (MHz)	QuasiPeak (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.150000	43.4	Off	N	19.6	22.6	66.0
0.206000	42.9	Off	N	19.6	20.5	63.4
0.302000	44.0	Off	N	19.6	16.2	60.2
0.398000	44.2	Off	N	19.6	13.7	57.9
0.518000	43.3	Off	N	19.6	12.7	56.0
0.606000	39.9	Off	N	19.6	16.1	56.0
0.702000	41.7	Off	N	19.6	14.3	56.0
0.814000	40.3	Off	N	19.6	15.7	56.0
0.894000	41.5	Off	N	19.6	14.5	56.0
1.046000	38.6	Off	N	19.6	17.4	56.0
1.102000	38.8	Off	N	19.6	17.2	56.0



Test Mode :	Mode 1	Temperature :	23~24°C
Test Engineer :	Arthur Hsieh	Relative Humidity :	50~51%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral
Function Type :	WLAN (2.4GHz) Link + RJ-45 Link		



Final Result : Average

Frequency (MHz)	Average (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.150000	23.5	Off	N	19.6	32.5	56.0
0.206000	27.5	Off	N	19.6	25.9	53.4
0.302000	27.8	Off	N	19.6	22.4	50.2
0.398000	26.5	Off	N	19.6	21.4	47.9
0.518000	26.5	Off	N	19.6	19.5	46.0
0.606000	22.0	Off	N	19.6	24.0	46.0
0.702000	25.5	Off	N	19.6	20.5	46.0
0.814000	23.8	Off	N	19.6	22.2	46.0
0.894000	24.0	Off	N	19.6	22.0	46.0
1.046000	21.6	Off	N	19.6	24.4	46.0
1.102000	22.6	Off	N	19.6	23.4	46.0



3.7 Antenna Requirements

3.7.1 Standard Applicable

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

3.7.2 Antenna Anti-Replacement Construction

An embedded-in antenna design is used.

3.7.3 Antenna Gain

FCC KDB 662911 D01 Multiple Transmitter Output v02r01

For CDD transmissions, directional gain is calculated as

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

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

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

For power measurements on IEEE 802.11 devices,

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

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

The EUT supports CDD mode.

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

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

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

The directional gain "DG" is calculated as following table.

	Ant. 1 (dBi)	Ant. 2 (dBi)	DG for Power (dBi)	DG for PSD (dBi)	Power Limit Reduction (dB)	PSD Limit Reduction (dB)
2.4 GHz	2.00	2.00	2.00	5.01	0.00	0.00

Power Limit Reduction = $DG(\text{Power}) - 6\text{dBi}$, (min = 0)

PSD Limit Reduction = $DG(\text{PSD}) - 6\text{dBi}$, (min = 0)



4 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Power Meter	Anritsu	ML2495A	1132003	300MHz~40GHz	Aug. 04, 2016	Sep. 18, 2016 ~ Oct. 12, 2016	Aug. 03, 2017	Conducted (TH05-HY)
Power Sensor	Anritsu	MA2411B	1126017	300MHz~40GHz	Aug. 04, 2016	Sep. 18, 2016 ~ Oct. 12, 2016	Aug. 03, 2017	Conducted (TH05-HY)
Spectrum Analyzer	Rohde & Schwarz	FSP40	100057	9kHz-40GHz	Nov. 23, 2015	Sep. 18, 2016 ~ Oct. 12, 2016	Nov. 22, 2016	Conducted (TH05-HY)
AC Power Source	ChainTek	APC-1000W	N/A	N/A	N/A	Sep. 21, 2016	N/A	Conduction (CO05-HY)
EMI Test Receiver	Rohde & Schwarz	ESCI 7	100724	9kHz~7GHz	Aug. 30, 2016	Sep. 21, 2016	Aug. 29, 2017	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100080	9kHz~30MHz	Dec. 02, 2015	Sep. 21, 2016	Dec. 01, 2016	Conduction (CO05-HY)
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100851	N/A	Jan. 08, 2016	Sep. 21, 2016	Jan. 07, 2017	Conduction (CO05-HY)
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100315	9 kHz~30 MHz	Sep. 02, 2015	Sep. 26, 2016 ~ Nov. 11, 2016	Sep. 01, 2017	Radiation (03CH10-HY)
Bilog Antenna	TESEQ	CBL 6111D	35413	30MHz~1GHz	Jan. 13, 2016	Sep. 26, 2016 ~ Nov. 11, 2016	Jan. 12, 2017	Radiation (03CH10-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-1522	1G~18GHz	Mar. 31, 2016	Sep. 26, 2016 ~ Nov. 11, 2016	Mar. 30, 2017	Radiation (03CH10-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170584	18GHz- 40GHz	Nov. 02, 2015	Sep. 26, 2016 ~ Oct. 31, 2016	Nov. 01, 2016	Radiation (03CH10-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170584	18GHz- 40GHz	Nov. 08, 2016	Nov. 08, 2016 ~ Nov. 11, 2016	Nov. 07, 2017	Radiation (03CH10-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170584	18GHz- 40GHz	Nov. 08, 2016	Nov. 08, 2016 ~ Nov. 11, 2016	Nov. 07, 2017	Radiation (03CH10-HY)
Amplifier	SONOMA	310N	187311	9kHz~1GHz	Nov. 16, 2015	Sep. 26, 2016 ~ Nov. 11, 2016	Nov. 15, 2016	Radiation (03CH10-HY)
Preamplifier	MITEQ	AMF-7D-0010 1800-30-10P	1902246	1GHz~18GHz	Nov. 16, 2015	Sep. 26, 2016 ~ Nov. 11, 2016	Nov. 15, 2016	Radiation (03CH10-HY)
Preamplifier	Keysight	83017A	MY53270078	1GHz~26.5GHz	Nov. 13, 2015	Sep. 26, 2016 ~ Nov. 11, 2016	Nov. 12, 2016	Radiation (03CH10-HY)
Preamplifier	MITEQ	JS44-180040 00-33-8P	1840917	18GHz ~ 40GHz	Jun. 14, 2016	Sep. 26, 2016 ~ Nov. 11, 2016	Jun. 13, 2017	Radiation (03CH10-HY)
EMI Test Receiver	Agilent	N9038A(MXE)	MY53290053	20Hz to 26.5GHz	Jan. 20, 2016	Sep. 26, 2016 ~ Nov. 11, 2016	Jan. 19, 2017	Radiation (03CH10-HY)
Spectrum Analyzer	Agilent	N9030A	MY52350276	3Hz~44GHz	Mar. 21, 2016	Sep. 26, 2016 ~ Nov. 11, 2016	Mar. 20, 2017	Radiation (03CH10-HY)
Antenna Mast	EMEC	AM-BS-4500-B	N/A	1~4m	N/A	Sep. 26, 2016 ~ Nov. 11, 2016	N/A	Radiation (03CH10-HY)
Turn Table	EMEC	TT 2200	N/A	0~360 Degree	N/A	Sep. 26, 2016 ~ Nov. 11, 2016	N/A	Radiation (03CH10-HY)



5 Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	2.7
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Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	5.6
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Uncertainty of Radiated Emission Measurement (1000 MHz ~ 18000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	5.9
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Uncertainty of Radiated Emission Measurement (18000 MHz ~ 40000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	5.2
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Appendix A. Conducted Test Results

Test Engineer:	Kai Liao	Temperature:	21~25	°C
Test Date:	2016/09/18 ~ 2016/10/12	Relative Humidity:	51~54	%

TEST RESULTS DATA
6dB and 99% Occupied Bandwidth

2.4GHz Band										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Occupied BW (MHz)		6dB BW (MHz)		6dB BW Limit (MHz)	Pass/Fail
					Ant 1	Ant 2	Ant 1	Ant 2		
11b	1Mbps	2	1	2412	14.35	14.40	9.54	9.08	0.50	Pass
11b	1Mbps	2	6	2437	14.60	14.55	9.06	9.54	0.50	Pass
11b	1Mbps	2	11	2462	14.40	14.40	9.56	9.04	0.50	Pass
11g	6Mbps	2	1	2412	17.45	17.30	16.28	16.30	0.50	Pass
11g	6Mbps	2	6	2437	18.50	17.95	16.28	16.30	0.50	Pass
11g	6Mbps	2	11	2462	17.55	17.35	16.28	16.28	0.50	Pass
HT20	MCS0	2	1	2412	18.25	18.20	17.56	17.52	0.50	Pass
HT20	MCS0	2	6	2437	18.90	18.60	17.58	17.50	0.50	Pass
HT20	MCS0	2	11	2462	18.15	18.15	17.56	16.92	0.50	Pass
HT40	MCS0	2	3	2422	36.20	36.20	35.24	34.40	0.50	Pass
HT40	MCS0	2	6	2437	36.20	36.10	35.88	35.00	0.50	Pass
HT40	MCS0	2	9	2452	36.00	36.00	35.92	34.36	0.50	Pass

TEST RESULTS DATA
Peak Output Power

2.4GHz Band											
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Peak Conducted Power (dBm)			DG (dBi)		EIRP Power (dBm)	
					Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2
11b	1Mbps	2	1	2412	18.80	19.32	22.08	2.00		24.08	
11b	1Mbps	2	6	2437	20.95	20.07	23.54	2.00		25.54	
11b	1Mbps	2	11	2462	18.42	17.78	21.12	2.00		23.12	
11g	6Mbps	2	1	2412	23.55	23.41	26.49	2.00		28.49	
11g	6Mbps	2	6	2437	24.41	23.82	27.14	2.00		29.14	
11g	6Mbps	2	11	2462	23.53	23.17	26.36	2.00		28.36	
HT20	MCS0	2	1	2412	23.45	23.41	26.44	2.00		28.44	
HT20	MCS0	2	6	2437	24.36	23.82	27.11	2.00		29.11	
HT20	MCS0	2	11	2462	22.81	22.43	25.63	2.00		27.63	
HT40	MCS0	2	3	2422	21.97	21.56	24.78	2.00		26.78	
HT40	MCS0	2	6	2437	23.02	22.54	25.80	2.00		27.80	
HT40	MCS0	2	9	2452	21.45	20.56	24.04	2.00		26.04	

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)			Conducted Power Limit (dBm)		DG (dBi)		EIRP Power (dBm)		EIRP Power Limit (dBm)		Pass /Fail
					Ant 1	Ant 2	Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	
11b	1Mbps	2	1	2412	0.00	0.00	16.84	17.46	20.17	30.00	2.00	22.17	36.00	Pass				
11b	1Mbps	2	6	2437	0.00	0.00	19.19	18.31	21.78	30.00	2.00	23.78	36.00	Pass				
11b	1Mbps	2	11	2462	0.00	0.00	16.56	15.89	19.25	30.00	2.00	21.25	36.00	Pass				
11g	6Mbps	2	1	2412	0.00	0.00	15.97	15.64	18.82	30.00	2.00	20.82	36.00	Pass				
11g	6Mbps	2	6	2437	0.00	0.00	19.05	18.85	21.96	30.00	2.00	23.96	36.00	Pass				
11g	6Mbps	2	11	2462	0.00	0.00	15.50	14.73	18.14	30.00	2.00	20.14	36.00	Pass				
HT20	MCS0	2	1	2412	0.00	0.00	15.42	15.13	18.29	30.00	2.00	20.29	36.00	Pass				
HT20	MCS0	2	6	2437	0.00	0.00	19.02	18.41	21.74	30.00	2.00	23.74	36.00	Pass				
HT20	MCS0	2	11	2462	0.00	0.00	13.84	13.11	16.50	30.00	2.00	18.50	36.00	Pass				
HT40	MCS0	2	3	2422	0.00	0.00	12.84	12.57	15.72	30.00	2.00	17.72	36.00	Pass				
HT40	MCS0	2	6	2437	0.00	0.00	15.15	14.46	17.83	30.00	2.00	19.83	36.00	Pass				
HT40	MCS0	2	9	2452	0.00	0.00	11.69	11.13	14.43	30.00	2.00	16.43	36.00	Pass				

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

TEST RESULTS DATA
Average Power Spectral Density

2.4GHz Band												
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average PSD (dBm/3kHz)			DG (dBi)		Average PSD Limit (dBm/3kHz)		Pass/Fail
					Ant 1	Ant 2	Worse + 3.01	Ant 1	Ant 2	Ant 1	Ant 2	
11b	1Mbps	2	1	2412	-11.00	-10.94	-7.93	5.01		8.00		Pass
11b	1Mbps	2	6	2437	-7.94	-8.96	-4.93	5.01		8.00		Pass
11b	1Mbps	2	11	2462	-10.18	-11.11	-7.17	5.01		8.00		Pass
11g	6Mbps	2	1	2412	-12.68	-13.07	-9.67	5.01		8.00		Pass
11g	6Mbps	2	6	2437	-9.32	-10.32	-6.31	5.01		8.00		Pass
11g	6Mbps	2	11	2462	-12.40	-13.91	-9.39	5.01		8.00		Pass
HT20	MCS0	2	1	2412	-13.26	-13.24	-10.23	5.01		8.00		Pass
HT20	MCS0	2	6	2437	-9.86	-10.96	-6.85	5.01		8.00		Pass
HT20	MCS0	2	11	2462	-14.46	-15.46	-11.45	5.01		8.00		Pass
HT40	MCS0	2	3	2422	-18.64	-19.05	-15.63	5.01		8.00		Pass
HT40	MCS0	2	6	2437	-17.06	-17.33	-14.05	5.01		8.00		Pass
HT40	MCS0	2	9	2452	-20.21	-20.63	-17.20	5.01		8.00		Pass

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



Appendix B. Radiated Spurious Emission

Test Engineer :	Tsung Lee, Stan Hsieh, Wilson Wu, and Kyle	Temperature :	24.8~25.3°C
	Jhuang	Relative Humidity :	51~55%

2.4GHz 2400~2483.5MHz

WIFI 802.11b (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.	
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.		
1+2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)	
802.11b CH 01 2412MHz		2385.075	51.97	-22.03	74	52.61	27.19	5.39	33.22	100	72	P	H	
		2386.335	42.22	-11.78	54	42.82	27.23	5.39	33.22	100	72	A	H	
	*	2412	105.62	-	-	106.13	27.28	5.42	33.21	100	72	P	H	
	*	2412	101.13	-	-	101.64	27.28	5.42	33.21	100	72	A	H	
													H	
														H
			2385.075	58.07	-15.93	74	58.71	27.19	5.39	33.22	132	339	P	V
			2386.23	52.56	-1.44	54	53.16	27.23	5.39	33.22	132	339	A	V
	*		2412	113.95	-	-	114.46	27.28	5.42	33.21	132	339	P	V
	*		2412	110.44	-	-	110.95	27.28	5.42	33.21	132	339	A	V
														V
														V
802.11b CH 06 2437MHz		2381.12	51.16	-22.84	74	51.8	27.21	5.39	33.24	356	40	P	H	
		2389.94	39.6	-14.4	54	40.18	27.25	5.39	33.22	356	40	A	H	
	*	2436	107.47	-	-	107.93	27.33	5.42	33.21	356	40	P	H	
	*	2438	104.04	-	-	104.45	27.38	5.42	33.21	356	40	A	H	
			2499.86	51.85	-22.15	74	52.06	27.5	5.46	33.17	356	40	P	H
			2484.95	40.4	-13.6	54	40.66	27.46	5.46	33.18	356	40	A	H
			2381.12	53.68	-20.32	74	54.32	27.21	5.39	33.24	289	346	P	V
			2384.06	42.57	-11.43	54	43.21	27.21	5.39	33.24	289	346	A	V
	*		2436	115.52	-	-	115.98	27.33	5.42	33.21	289	346	P	V
	*		2436	113.06	-	-	113.52	27.33	5.42	33.21	289	346	A	V
			2485.02	55.14	-18.86	74	55.4	27.46	5.46	33.18	289	346	P	V
			2485.16	45.17	-8.83	54	45.43	27.46	5.46	33.18	289	346	A	V



802.11b CH 11 2462MHz	*	2462	106.06	-	-	106.4	27.42	5.44	33.2	386	40	P	H
	*	2464	102.66	-	-	103	27.42	5.44	33.2	386	40	A	H
		2487.28	55.48	-18.52	74	55.74	27.46	5.46	33.18	386	40	P	H
		2487.08	46.39	-7.61	54	46.65	27.46	5.46	33.18	386	40	A	H
													H
													H
	*	2462	113.7	-	-	114.04	27.42	5.44	33.2	260	342	P	V
	*	2464	110.24	-	-	110.58	27.42	5.44	33.2	260	342	A	V
		2486.84	58.83	-15.17	74	59.09	27.46	5.46	33.18	260	342	P	V
		2487.24	52.96	-1.04	54	53.22	27.46	5.46	33.18	260	342	A	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



2.4GHz 2400~2483.5MHz

WIFI 802.11b (Harmonic @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)	
802.11b CH 01 2412MHz		4824	35.93	-38.07	74	48.07	31.46	7.58	51.18	100	0	P	H	
													H	
													H	
													H	
			4824	36.37	-37.63	74	48.51	31.46	7.58	51.18	100	0	P	V
														V
														V
802.11b CH 06 2437MHz		4872	38.69	-35.31	74	50.73	31.41	7.7	51.15	100	0	P	H	
		7311	44.8	-29.2	74	49.84	36.27	9.49	50.8	100	0	P	H	
													H	
													H	
			4872	37.63	-36.37	74	49.67	31.41	7.7	51.15	100	0	P	V
			7311	43.89	-30.11	74	48.93	36.27	9.49	50.8	100	0	P	V
														V
802.11b CH 11 2462MHz		4926	40.01	-33.99	74	51.72	31.49	7.93	51.13	100	0	P	H	
		7386	45.14	-28.86	74	49.9	36.51	9.53	50.8	100	0	P	H	
													H	
													H	
			4926	38.67	-35.33	74	50.38	31.49	7.93	51.13	100	0	P	V
			7386	44.54	-29.46	74	49.3	36.51	9.53	50.8	100	0	P	V
														V
Remark	1. No other spurious found.													
	2. All results are PASS against Peak and Average limit line.													



2.4GHz 2400~2483.5MHz

WIFI 802.11g (Band Edge @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)	
802.11g CH 01 2412MHz		2389.59	60.62	-13.38	74	61.22	27.25	5.39	33.24	236	2	P	H	
		2389.8	46.36	-7.64	54	46.94	27.25	5.39	33.22	236	2	A	H	
	*	2414	107.71	-	-	108.22	27.29	5.42	33.22	236	2	P	H	
	*	2414	99.34	-	-	99.85	27.29	5.42	33.22	236	2	A	H	
													H	
													H	
			2389.8	64.43	-9.57	74	65.01	27.25	5.39	33.22	286	6	P	V
			2390	53.01	-0.99	54	53.59	27.25	5.39	33.22	286	6	A	V
	*		2412	115.11	-	-	115.62	27.29	5.42	33.22	286	6	P	V
	*		2412	107.29	-	-	107.8	27.29	5.42	33.22	286	6	A	V
													V	
													V	
802.11g CH 06 2437MHz		2387.84	53.25	-20.75	74	53.85	27.25	5.39	33.24	199	360	P	H	
		2389.94	41.36	-12.64	54	41.94	27.25	5.39	33.22	199	360	A	H	
	*	2438	109.94	-	-	110.35	27.38	5.42	33.21	199	360	P	H	
	*	2438	101.99	-	-	102.4	27.38	5.42	33.21	199	360	A	H	
			2484.74	49.73	-24.27	74	49.99	27.46	5.46	33.18	199	360	P	H
			2483.5	42.54	-11.46	54	42.8	27.46	5.46	33.18	199	360	A	H
			2388.68	57.78	-16.22	74	58.38	27.25	5.39	33.24	290	12	P	V
			2389.94	46.55	-7.45	54	47.13	27.25	5.39	33.22	290	12	A	V
	*		2436	118.05	-	-	118.51	27.33	5.42	33.21	290	12	P	V
	*		2436	109.89	-	-	110.35	27.33	5.42	33.21	290	12	A	V
			2485.3	53.7	-20.3	74	53.96	27.46	5.46	33.18	290	12	P	V
			2483.5	47.22	-6.78	54	47.48	27.46	5.46	33.18	290	12	A	V



802.11g CH 11 2462MHz	*	2460	107.34	-	-	107.68	27.42	5.44	33.2	225	5	P	H
	*	2464	99.07	-	-	99.41	27.42	5.44	33.2	225	5	A	H
		2484	61.17	-12.83	74	61.43	27.46	5.46	33.18	225	5	P	H
		2483.52	47.83	-6.17	54	48.09	27.46	5.46	33.18	225	5	A	H
													H
													H
	*	2462	114.63	-	-	114.97	27.42	5.44	33.2	316	9	P	V
	*	2460	106.88	-	-	107.22	27.42	5.44	33.2	316	9	A	V
		2483.96	66.92	-7.08	74	67.18	27.46	5.46	33.18	316	9	P	V
		2484.24	52.36	-1.64	54	52.62	27.46	5.46	33.18	316	9	A	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



2.4GHz 2400~2483.5MHz

WIFI 802.11g (Harmonic @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)	
802.11g CH 01 2412MHz		4824	37.82	-36.18	74	50.1	31.32	7.58	51.18	100	0	P	H	
													H	
													H	
													H	
			4824	38.35	-35.65	74	50.63	31.32	7.58	51.18	100	0	P	V
														V
														V
802.11g CH 06 2437MHz		4874	37.63	-36.37	74	49.67	31.41	7.7	51.15	100	0	P	H	
		7311	44.47	-29.53	74	49.51	36.27	9.49	50.8	100	0	P	H	
													H	
													H	
			4874	37.09	-36.91	74	49.13	31.41	7.7	51.15	100	0	P	V
			7311	45	-29	74	50.04	36.27	9.49	50.8	100	0	P	V
														V
802.11g CH 11 2462MHz		4924	37.76	-36.24	74	49.47	31.49	7.93	51.13	100	0	P	H	
		7386	43.9	-30.1	74	48.66	36.51	9.53	50.8	100	0	P	H	
													H	
													H	
			4924	39	-35	74	50.71	31.49	7.93	51.13	100	0	P	V
			7386	44	-30	74	48.76	36.51	9.53	50.8	100	0	P	V
														V
Remark	1. No other spurious found.													
	2. All results are PASS against Peak and Average limit line.													



2.4GHz 2400~2483.5MHz

WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)	
802.11n HT20 CH 01 2412MHz		2390	61.76	-12.24	74	62.34	27.25	5.39	33.22	206	360	P	H	
		2390	50.17	-3.83	54	50.75	27.25	5.39	33.22	206	360	A	H	
	*	2414	106.15	-	-	106.66	27.29	5.42	33.22	206	360	P	H	
	*	2412	98.52	-	-	99.03	27.29	5.42	33.22	206	360	A	H	
													H	
														H
			2389.275	69.5	-4.5	74	70.1	27.25	5.39	33.24	262	11	P	V
			2389.17	53.33	-0.67	54	53.93	27.25	5.39	33.24	262	11	A	V
		*	2414	113.51	-	-	114.02	27.29	5.42	33.22	262	11	P	V
		*	2412	105.02	-	-	105.53	27.29	5.42	33.22	262	11	A	V
													V	
													V	
802.11n HT20 CH 06 2437MHz		2388.26	52.18	-21.82	74	52.78	27.25	5.39	33.24	202	0	P	H	
		2389.94	41.6	-12.4	54	42.18	27.25	5.39	33.22	202	0	A	H	
	*	2438	109.4	-	-	109.81	27.38	5.42	33.21	202	0	P	H	
	*	2438	102.05	-	-	102.46	27.38	5.42	33.21	202	0	A	H	
			2483.69	48.74	-25.26	74	49	27.46	5.46	33.18	202	0	P	H
			2483.76	41.34	-12.66	54	41.6	27.46	5.46	33.18	202	0	A	H
			2388.96	61.55	-12.45	74	62.15	27.25	5.39	33.24	288	8	P	V
			2389.8	47.06	-6.94	54	47.64	27.25	5.39	33.22	288	8	A	V
		*	2439	117.22	-	-	117.63	27.38	5.42	33.21	288	8	P	V
		*	2439	108.15	-	-	108.56	27.38	5.42	33.21	288	8	A	V
		2484.18	56.66	-17.34	74	56.92	27.46	5.46	33.18	288	8	P	V	
		2483.55	48.42	-5.58	54	48.68	27.46	5.46	33.18	288	8	A	V	



802.11n HT20 CH 11 2462MHz	*	2460	104.56	-	-	104.9	27.42	5.44	33.2	189	27	P	H
	*	2462	96.9	-	-	97.24	27.42	5.44	33.2	189	27	A	H
		2485	58.02	-15.98	74	58.28	27.46	5.46	33.18	189	27	P	H
		2484.6	44.49	-9.51	54	44.75	27.46	5.46	33.18	189	27	A	H
													H
													H
	*	2462	110.92	-	-	111.26	27.42	5.44	33.2	282	0	P	V
	*	2462	103.51	-	-	103.85	27.42	5.44	33.2	282	0	A	V
		2483.76	68.32	-5.68	74	68.58	27.46	5.46	33.18	282	0	P	V
		2483.52	53.09	-0.91	54	53.35	27.46	5.46	33.18	282	0	A	V
												V	
												V	
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



2.4GHz 2400~2483.5MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)	
802.11n HT20 CH 01 2412MHz		4824	37.59	-36.41	74	49.87	31.32	7.58	51.18	100	0	P	H	
													H	
													H	
													H	
			4824	38.32	-35.68	74	50.6	31.32	7.58	51.18	100	0	P	V
														V
														V
802.11n HT20 CH 06 2437MHz		4874	37.33	-36.67	74	49.37	31.41	7.7	51.15	100	0	P	H	
		7311	44.31	-29.69	74	49.35	36.27	9.49	50.8	100	0	P	H	
													H	
													H	
			4874	37.58	-36.42	74	49.62	31.41	7.7	51.15	100	0	P	V
			7311	45.05	-28.95	74	50.09	36.27	9.49	50.8	100	0	P	V
														V
802.11n HT20 CH 11 2462MHz		4924	37.45	-36.55	74	49.16	31.49	7.93	51.13	100	0	P	H	
		7386	44.97	-29.03	74	49.73	36.51	9.53	50.8	100	0	P	H	
													H	
													H	
			4924	38.27	-35.73	74	49.98	31.49	7.93	51.13	100	0	P	V
			7386	44.75	-29.25	74	49.51	36.51	9.53	50.8	100	0	P	V
														V
Remark	1. No other spurious found.													
	2. All results are PASS against Peak and Average limit line.													



2.4GHz 2400~2483.5MHz

WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 03 2422MHz		2389.94	59.92	-14.08	74	60.5	27.25	5.39	33.22	101	360	P	H
		2389.38	46.34	-7.66	54	46.94	27.25	5.39	33.24	101	360	A	H
	*	2420	100.49	-	-	100.95	27.33	5.42	33.21	101	360	P	H
	*	2424	92.47	-	-	92.93	27.33	5.42	33.21	101	360	A	H
		2486.42	52.22	-21.78	74	52.48	27.46	5.46	33.18	101	360	P	H
		2483.5	40.65	-13.35	54	40.91	27.46	5.46	33.18	101	360	A	H
		2387.7	65.5	-8.5	74	66.1	27.25	5.39	33.24	289	357	P	V
		2389.94	53.33	-0.67	54	53.91	27.25	5.39	33.22	289	357	A	V
	*	2424	107.54	-	-	108	27.33	5.42	33.21	289	357	P	V
	*	2424	99.87	-	-	100.33	27.33	5.42	33.21	289	357	A	V
		2483.69	49.81	-24.19	74	50.07	27.46	5.46	33.18	289	357	P	V
		2484.18	44.67	-9.33	54	44.93	27.46	5.46	33.18	289	357	A	V
802.11n HT40 CH 06 2437MHz		2389.8	55.54	-18.46	74	56.12	27.25	5.39	33.22	158	26	P	H
		2389.52	44.46	-9.54	54	45.06	27.25	5.39	33.24	158	26	A	H
	*	2436	103.63	-	-	104.09	27.33	5.42	33.21	158	26	P	H
	*	2436	95.66	-	-	96.12	27.33	5.42	33.21	158	26	A	H
		2485.37	59.7	-14.3	74	59.96	27.46	5.46	33.18	158	26	P	H
		2484.95	46.31	-7.69	54	46.57	27.46	5.46	33.18	158	26	A	H
		2389.24	62.06	-11.94	74	62.66	27.25	5.39	33.24	290	0	P	V
		2389.24	49.68	-4.32	54	50.28	27.25	5.39	33.24	290	0	A	V
	*	2435	110.04	-	-	110.5	27.33	5.42	33.21	290	0	P	V
	*	2439	102.21	-	-	102.62	27.38	5.42	33.21	290	0	A	V
		2483.97	65.23	-8.77	74	65.49	27.46	5.46	33.18	290	0	P	V
		2483.62	53.26	-0.74	54	53.52	27.46	5.46	33.18	290	0	A	V



802.11n HT40 CH 09 2452MHz		2329.32	51.13	-22.87	74	51.97	27.09	5.33	33.26	150	4	P	H
		2388.54	39.72	-14.28	54	40.32	27.25	5.39	33.24	150	4	A	H
	*	2454	99.29	-	-	99.63	27.42	5.44	33.2	150	4	P	H
	*	2454	91.89	-	-	92.23	27.42	5.44	33.2	150	4	A	H
		2485.09	58.26	-15.74	74	58.52	27.46	5.46	33.18	150	4	P	H
		2484.88	46.12	-7.88	54	46.38	27.46	5.46	33.18	150	4	A	H
		2386.86	53.15	-20.85	74	53.75	27.25	5.39	33.24	258	358	P	V
		2389.38	41.97	-12.03	54	42.57	27.25	5.39	33.24	258	358	A	V
	*	2450	106.31	-	-	106.69	27.38	5.44	33.2	258	358	P	V
	*	2454	98.86	-	-	99.2	27.42	5.44	33.2	258	358	A	V
		2483.9	64.4	-9.6	74	64.66	27.46	5.46	33.18	258	358	P	V
		2483.5	53.03	-0.97	54	53.29	27.46	5.46	33.18	258	358	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



2.4GHz 2400~2483.5MHz

WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 03 2422MHz		4844	37.56	-36.44	74	49.67	31.35	7.7	51.16	100	0	P	H
		7266	44.38	-29.62	74	49.55	36.17	9.46	50.8	100	0	P	H
													H
													H
		4844	38.34	-35.66	74	50.45	31.35	7.7	51.16	100	0	P	V
		7266	44.01	-29.99	74	49.18	36.17	9.46	50.8	100	0	P	V
													V
802.11n HT40 CH 06 2437MHz		4874	37.65	-36.35	74	49.69	31.41	7.7	51.15	100	0	P	H
		7311	44.66	-29.34	74	49.7	36.27	9.49	50.8	100	0	P	H
													H
													H
		4874	38.08	-35.92	74	50.12	31.41	7.7	51.15	100	0	P	V
		7311	45.09	-28.91	74	50.13	36.27	9.49	50.8	100	0	P	V
													V
802.11n HT40 CH 09 2452MHz		4904	38.47	-35.53	74	50.34	31.46	7.82	51.15	100	0	P	H
		7356	43.51	-30.49	74	48.39	36.41	9.51	50.8	100	0	P	H
													H
													H
		4904	38.27	-35.73	74	50.14	31.46	7.82	51.15	100	0	P	V
		7356	44.51	-29.49	74	49.39	36.41	9.51	50.8	100	0	P	V
													V
Remark	1. No other spurious found.												
	2. All results are PASS against Peak and Average limit line.												



Emission below 1GHz

2.4GHz WIFI 802.11n HT40 (LF)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.	
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.		
1+2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)	
2.4GHz 802.11n HT40 LF		50.25	24.24	-15.76	40	40.89	15.2	0.93	32.78	-	-	P	H	
		167.43	29.52	-13.98	43.5	44.38	16.36	1.48	32.7	-	-	P	H	
		242.76	20.79	-25.21	46	33.75	18.15	1.62	32.73	-	-	P	H	
		384.7	24.15	-21.85	46	32.79	22.05	2.13	32.82	-	-	P	H	
		668.2	26.61	-19.39	46	30.83	26.11	2.67	33	-	-	P	H	
		946.1	32.53	-13.47	46	31.14	29.9	3.29	31.8	100	25	P	H	
														H
														H
														H
														H
														H
														H
														H
			41.34	33.21	-6.79	40	45.98	19.38	0.65	32.8	100	88	P	V
			166.62	24.96	-18.54	43.5	39.74	16.44	1.48	32.7	-	-	P	V
			259.77	19.86	-26.14	46	31.03	19.8	1.76	32.73	-	-	P	V
			383.3	25.1	-20.9	46	33.79	22	2.13	32.82	-	-	P	V
			657.7	26.75	-19.25	46	31.04	26.05	2.67	33.01	-	-	P	V
			951	31.41	-14.59	46	29.87	30	3.29	31.75	-	-	P	V
														V
														V
														V
													V	
													V	
													V	
Remark	1. No other spurious found. 2. All results are PASS against limit line.													



Note symbol

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



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		2390	55.45	-18.55	74	54.51	32.22	4.58	35.86	103	308	P	H
CH 01													
2412MHz		2390	43.54	-10.46	54	42.6	32.22	4.58	35.86	103	308	A	H

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

For Peak Limit @ 2390MHz:

- 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)
- Over Limit(dB)
= Level(dBμV/m) – Limit Line(dBμV/m)
= 55.45(dBμV/m) – 74(dBμV/m)
= -18.55(dB)

For Average Limit @ 2390MHz:

- 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)
- 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”.



Appendix C. Radiated Spurious Emission Plots

Test Engineer :	Tsung Lee, Stan Hsieh, Wilson Wu, and Kyle	Temperature :	24.8~25.3°C
	Jhuang	Relative Humidity :	51~55%

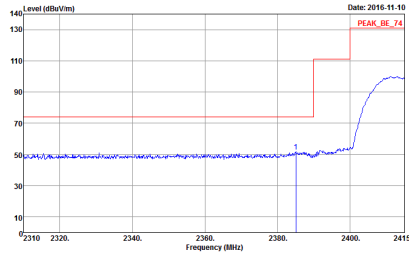
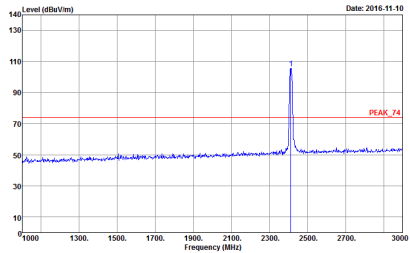
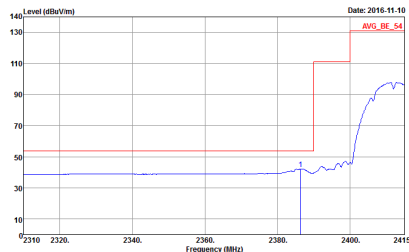
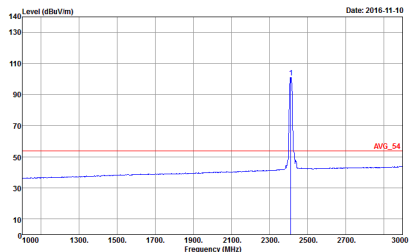
Note symbol

-L	Low channel location
-R	High channel location

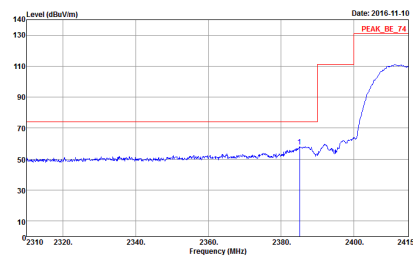
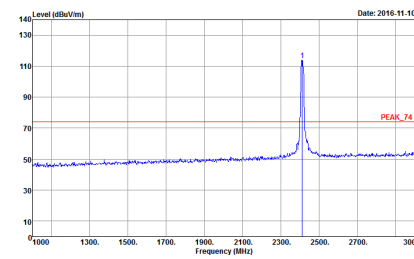
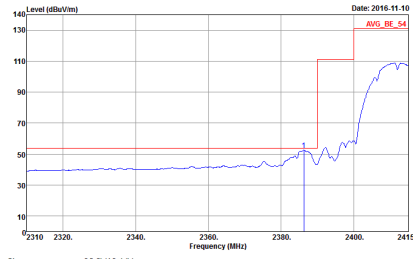
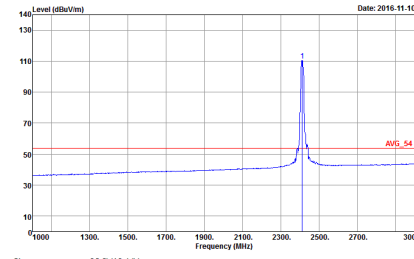


2.4GHz 2400~2483.5MHz

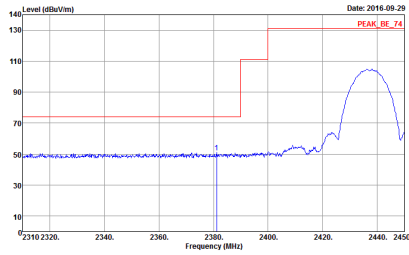
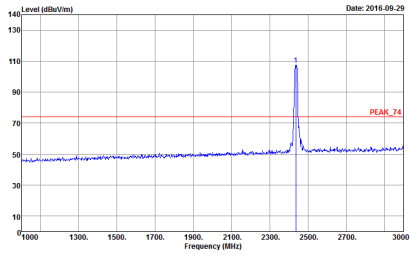
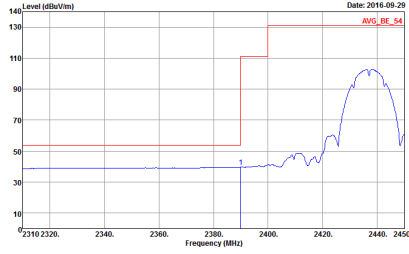
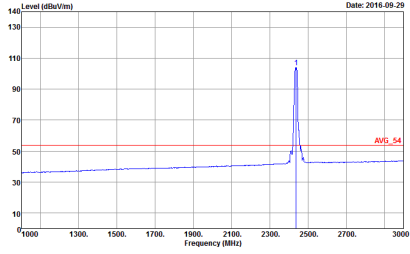
WIFI 802.11b (Band Edge @ 3m)

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH01 2412MHz	
1+2	Horizontal	Fundamental
Peak	 <p>Site : 03CH10-HY Condition : PEAK_BE_74 3m HORN 9120D-HF HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 690205 Mode : 1</p>	 <p>Site : 03CH10-HY Condition : PEAK_74 3m HORN 9120D-HF HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 690205 Mode : 1</p>
Avg.	 <p>Site : 03CH10-HY Condition : AVG_BE_54 3m HORN 9120D-HF HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 690205 Mode : 1</p>	 <p>Site : 03CH10-HY Condition : AVG_54 3m HORN 9120D-HF HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 690205 Mode : 1</p>

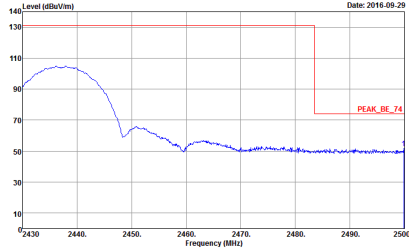
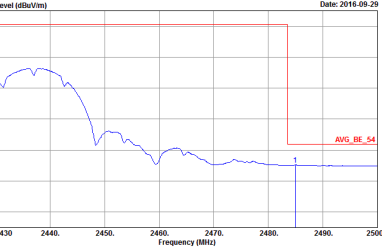


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH01 2412MHz	
1+2	Vertical	Fundamental
Peak	 <p>Level (dBuV/m) vs Frequency (MHz) plot showing a peak at 2412 MHz. The y-axis ranges from 10 to 140 dBuV/m, and the x-axis ranges from 2310 to 2415 MHz. A red line indicates the peak level at approximately 115 dBuV/m.</p> <p>Site : 03CH10-HY Condition : PEAK_BE_74 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 690205 Mode : 1</p>	 <p>Level (dBuV/m) vs Frequency (MHz) plot showing a sharp peak at 2412 MHz. The y-axis ranges from 10 to 140 dBuV/m, and the x-axis ranges from 1900 to 3000 MHz. A red line indicates the peak level at approximately 115 dBuV/m.</p> <p>Site : 03CH10-HY Condition : PEAK_74 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 690205 Mode : 1</p>
Avg.	 <p>Level (dBuV/m) vs Frequency (MHz) plot showing the average spectrum. The y-axis ranges from 10 to 140 dBuV/m, and the x-axis ranges from 2310 to 2415 MHz. A red line indicates the average level at approximately 115 dBuV/m.</p> <p>Site : 03CH10-HY Condition : AVG_BE_54 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 690205 Mode : 1</p>	 <p>Level (dBuV/m) vs Frequency (MHz) plot showing the average spectrum. The y-axis ranges from 10 to 140 dBuV/m, and the x-axis ranges from 1900 to 3000 MHz. A red line indicates the average level at approximately 115 dBuV/m.</p> <p>Site : 03CH10-HY Condition : AVG_54 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 690205 Mode : 1</p>

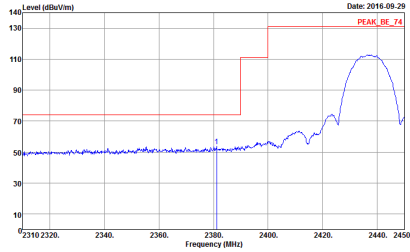
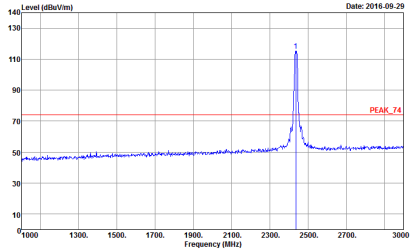
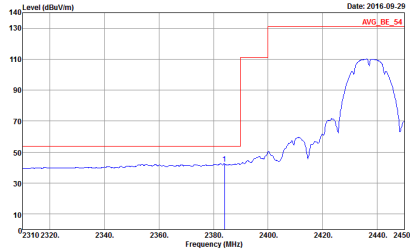
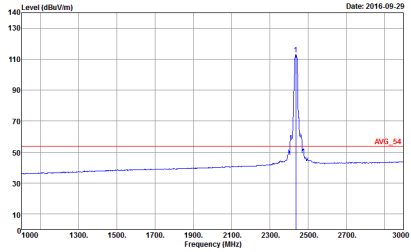


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - L	
1+2	Horizontal	Fundamental
Peak	 <p>Level (dBuV/m) vs Frequency (MHz) plot showing a peak at approximately 2437 MHz. The y-axis ranges from 10 to 140 dBuV/m, and the x-axis ranges from 2310 to 2450 MHz. A red line indicates the peak level at approximately 130 dBuV/m.</p> <p>Site : 03CH10-HY Condition : PEAK_BE_74 3m HORN 9120D_1522 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 690205 Mode : 2</p>	 <p>Level (dBuV/m) vs Frequency (MHz) plot showing a sharp peak at approximately 2437 MHz. The y-axis ranges from 10 to 140 dBuV/m, and the x-axis ranges from 1900 to 3000 MHz. A red line indicates the peak level at approximately 75 dBuV/m.</p> <p>Site : 03CH10-HY Condition : PEAK_74 3m HORN 9120D_1522 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 690205 Mode : 2</p>
Avg.	 <p>Level (dBuV/m) vs Frequency (MHz) plot showing an average spectrum with a peak at approximately 2437 MHz. The y-axis ranges from 10 to 140 dBuV/m, and the x-axis ranges from 2310 to 2450 MHz. A red line indicates the average level at approximately 130 dBuV/m.</p> <p>Site : 03CH10-HY Condition : AVG_BE_54 3m HORN 9120D_1522 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 690205 Mode : 2</p>	 <p>Level (dBuV/m) vs Frequency (MHz) plot showing an average spectrum with a sharp peak at approximately 2437 MHz. The y-axis ranges from 10 to 140 dBuV/m, and the x-axis ranges from 1900 to 3000 MHz. A red line indicates the average level at approximately 55 dBuV/m.</p> <p>Site : 03CH10-HY Condition : AVG_54 3m HORN 9120D_1522 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 690205 Mode : 2</p>

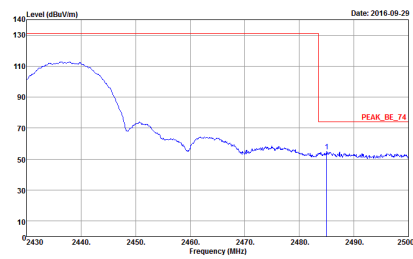
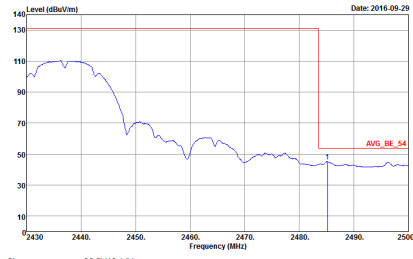


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - R	
1+2	Horizontal	Fundamental
Peak	 <p> Site : 03CH10-HY Condition : PEAK_BE_74 3m HORN 9120D_1522 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 690205 Mode : 2 </p>	Left blank
Avg.	 <p> Site : 03CH10-HY Condition : AVG_BE_54 3m HORN 9120D_1522 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 690205 Mode : 2 </p>	Left blank

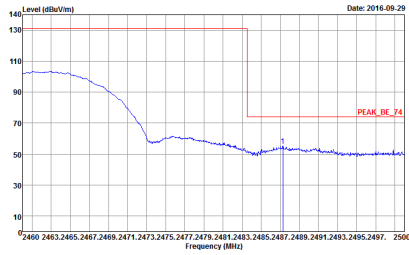
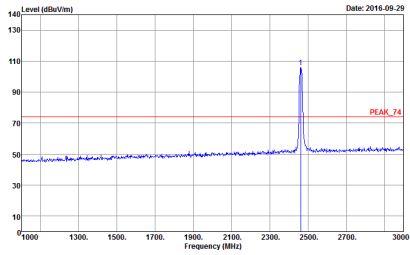
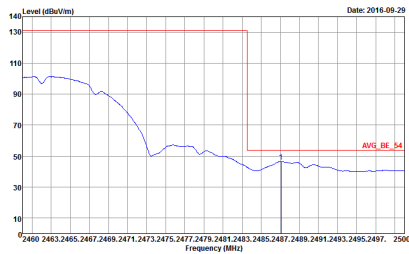
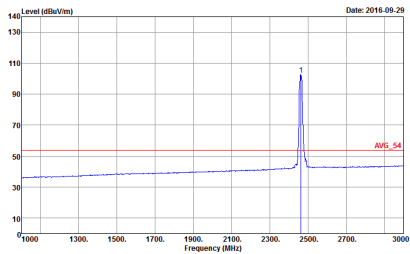


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - L	
1+2	Vertical	Fundamental
Peak	 <p>Date: 2016-09-29 PEAK_BE_74</p> <p>Site : 03CH10-HY Condition : PEAK_BE_74 3m HORN 9120D_1522 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> <p>Detector : Peak Project : 690205 Mode : 2</p>	 <p>Date: 2016-09-29 PEAK_74</p> <p>Site : 03CH10-HY Condition : PEAK_74 3m HORN 9120D_1522 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> <p>Detector : Peak Project : 690205 Mode : 2</p>
Avg.	 <p>Date: 2016-09-29 AVG_BE_54</p> <p>Site : 03CH10-HY Condition : AVG_BE_54 3m HORN 9120D_1522 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto</p> <p>Detector : Peak Project : 690205 Mode : 2</p>	 <p>Date: 2016-09-29 AVG_54</p> <p>Site : 03CH10-HY Condition : AVG_54 3m HORN 9120D_1522 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto</p> <p>Detector : Peak Project : 690205 Mode : 2</p>

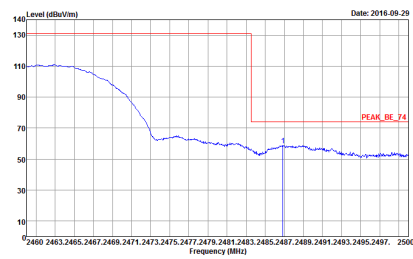
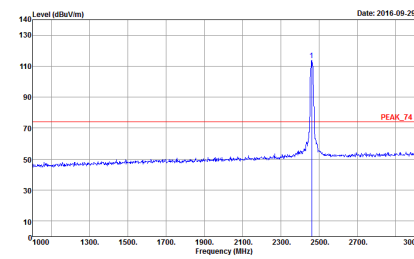
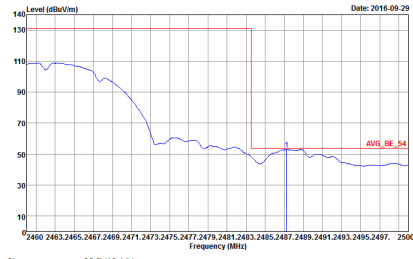
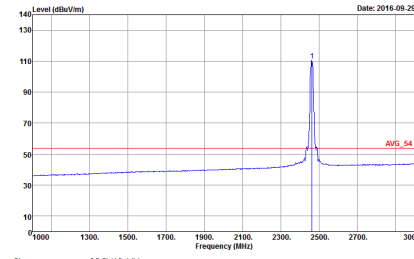


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - R	
1+2	Vertical	Fundamental
Peak	 <p> Site : 03CH10-HY Condition : PEAK_BE_74 3m HORN 9120D_1522 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 690205 Mode : 2 </p>	Left blank
Avg.	 <p> Site : 03CH10-HY Condition : AVG_BE_54 3m HORN 9120D_1522 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 690205 Mode : 2 </p>	Left blank



WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH11 2462MHz	
1+2	Horizontal	Fundamental
Peak	 <p>Level (dBuV/m) vs Frequency (MHz) plot for Peak. The plot shows a signal level starting at approximately 100 dBuV/m at 2400 MHz and decreasing to about 50 dBuV/m at 2500 MHz. A red box highlights the peak at 2462 MHz, labeled 'PEAK_BE_74'.</p> <p>Site : 03CH10-HY Condition : PEAK_BE_74 3m HORN 9120D_1522 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 690205 Mode : 3</p>	 <p>Level (dBuV/m) vs Frequency (MHz) plot for Fundamental Peak. The plot shows a sharp peak at 2462 MHz reaching approximately 110 dBuV/m. A red box highlights the peak, labeled 'PEAK_74'.</p> <p>Site : 03CH10-HY Condition : PEAK_74 3m HORN 9120D_1522 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 690205 Mode : 3</p>
Avg.	 <p>Level (dBuV/m) vs Frequency (MHz) plot for Avg. The plot shows a signal level starting at approximately 100 dBuV/m at 2400 MHz and decreasing to about 45 dBuV/m at 2500 MHz. A red box highlights the peak at 2462 MHz, labeled 'AVG_BE_54'.</p> <p>Site : 03CH10-HY Condition : AVG_BE_54 3m HORN 9120D_1522 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 690205 Mode : 3</p>	 <p>Level (dBuV/m) vs Frequency (MHz) plot for Fundamental Avg. The plot shows a sharp peak at 2462 MHz reaching approximately 110 dBuV/m. A red box highlights the peak, labeled 'AVG_54'.</p> <p>Site : 03CH10-HY Condition : AVG_54 3m HORN 9120D_1522 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 690205 Mode : 3</p>

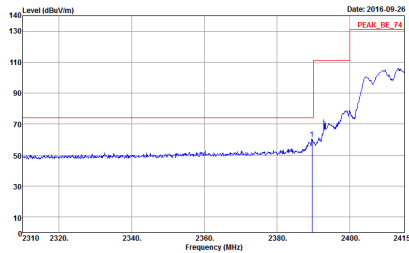
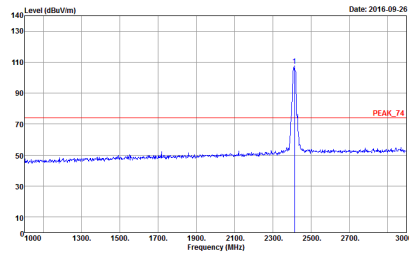
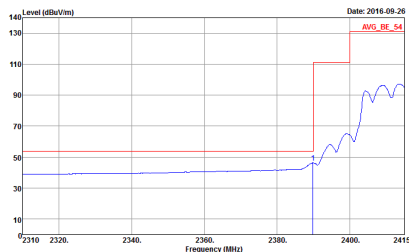
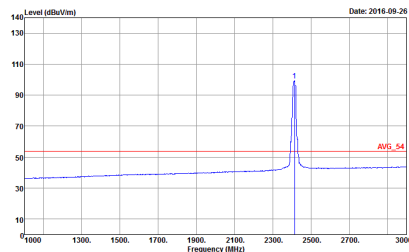


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH11 2462MHz	
1+2	Vertical	Fundamental
Peak	 <p>Date: 2016-09-29</p> <p>Site : 03CH10-HY Condition : PEAK_BE_74 3m HORN 9120D_1522 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 690205 Mode : 3</p>	 <p>Date: 2016-09-29</p> <p>Site : 03CH10-HY Condition : PEAK_74 3m HORN 9120D_1522 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 690205 Mode : 3</p>
Avg.	 <p>Date: 2016-09-29</p> <p>Site : 03CH10-HY Condition : AVG_BE_54 3m HORN 9120D_1522 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 690205 Mode : 3</p>	 <p>Date: 2016-09-29</p> <p>Site : 03CH10-HY Condition : AVG_54 3m HORN 9120D_1522 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 690205 Mode : 3</p>

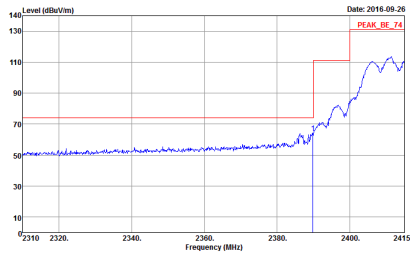
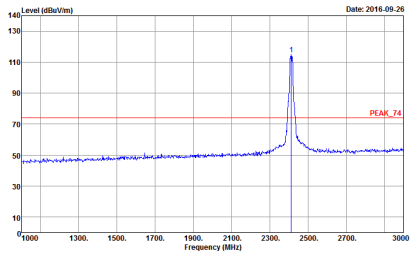
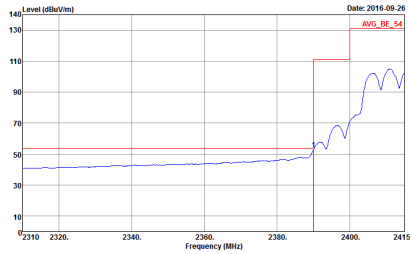
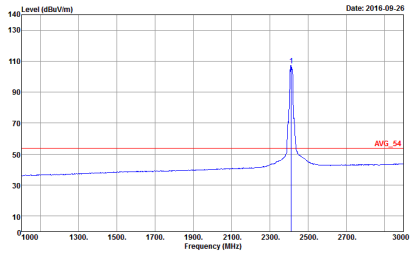


2.4GHz 2400~2483.5MHz

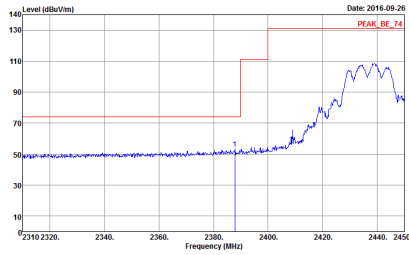
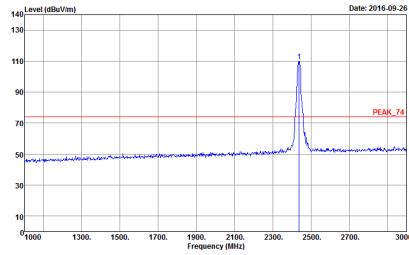
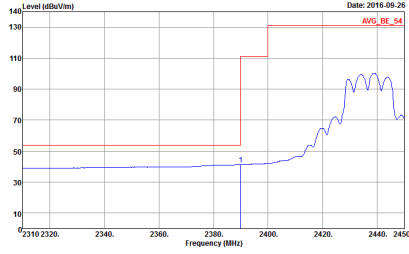
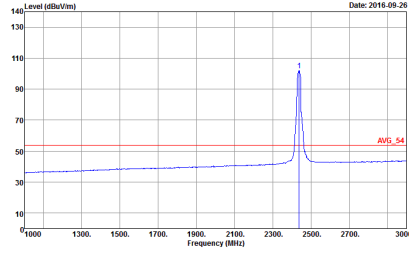
WIFI 802.11g (Band Edge @ 3m)

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH01 2412MHz	
1+2	Horizontal	Fundamental
Peak	 <p>Site : 03CH10-HY Condition : PEAK_BE_74 3m HORN 9120D_1522 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 690205 Mode : 4</p>	 <p>Site : 03CH10-HY Condition : PEAK_74 3m HORN 9120D_1522 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 690205 Mode : 4</p>
Avg.	 <p>Site : 03CH10-HY Condition : AVG_BE_54 3m HORN 9120D_1522 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 690205 Mode : 4</p>	 <p>Site : 03CH10-HY Condition : AVG_54 3m HORN 9120D_1522 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 690205 Mode : 4</p>

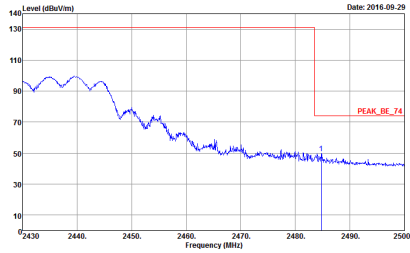
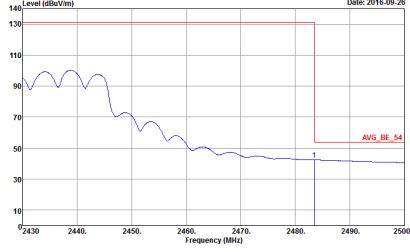


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH01 2412MHz	
1+2	Vertical	Fundamental
Peak	 <p>Date: 2016-09-26 PEAK_BE_74</p> <p>Site : 03CH10-HY Condition : PEAK_BE_74 3m HORN 9120D_1522 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 690205 Mode : 4</p>	 <p>Date: 2016-09-26 PEAK_74</p> <p>Site : 03CH10-HY Condition : PEAK_74 3m HORN 9120D_1522 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 690205 Mode : 4</p>
Avg.	 <p>Date: 2016-09-26 AVG_BE_54</p> <p>Site : 03CH10-HY Condition : AVG_BE_54 3m HORN 9120D_1522 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 690205 Mode : 4</p>	 <p>Date: 2016-09-26 AVG_54</p> <p>Site : 03CH10-HY Condition : AVG_54 3m HORN 9120D_1522 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 690205 Mode : 4</p>

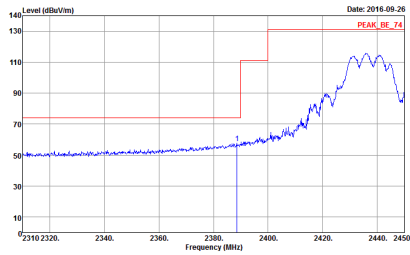
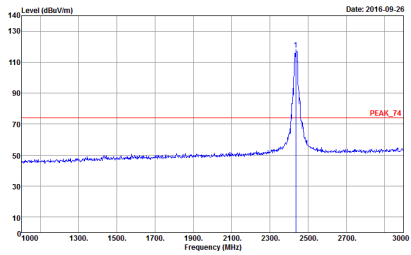
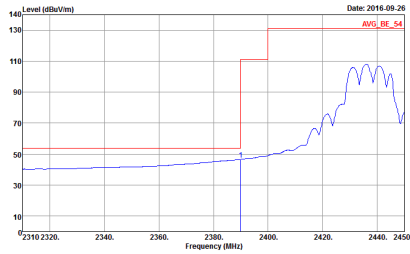
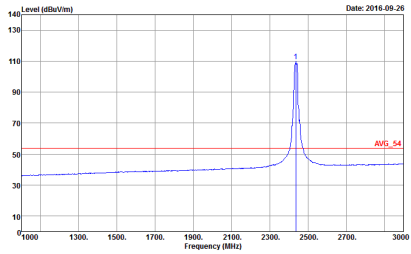


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - L	
1+2	Horizontal	Fundamental
Peak	 <p>Level (dBuV/m) vs Frequency (MHz) plot showing a rising signal level from 2380 MHz to 2440 MHz. A red line indicates the level at 2440 MHz, labeled 'PEAK_BE_74'.</p> <p>Site : 03CH10-HY Condition : PEAK_BE_74 3m HORN 9120D_1522 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 690205 Mode : 5</p>	 <p>Level (dBuV/m) vs Frequency (MHz) plot showing a sharp peak at approximately 2437 MHz. A red line indicates the peak level, labeled 'PEAK_74'.</p> <p>Site : 03CH10-HY Condition : PEAK_74 3m HORN 9120D_1522 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 690205 Mode : 5</p>
Avg.	 <p>Level (dBuV/m) vs Frequency (MHz) plot showing the average signal level. A red line indicates the average level at 2440 MHz, labeled 'AVG_BE_54'.</p> <p>Site : 03CH10-HY Condition : AVG_BE_54 3m HORN 9120D_1522 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 690205 Mode : 5</p>	 <p>Level (dBuV/m) vs Frequency (MHz) plot showing the average signal level. A red line indicates the average level at the peak frequency, labeled 'AVG_54'.</p> <p>Site : 03CH10-HY Condition : AVG_54 3m HORN 9120D_1522 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 690205 Mode : 5</p>

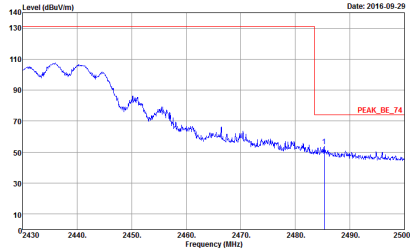
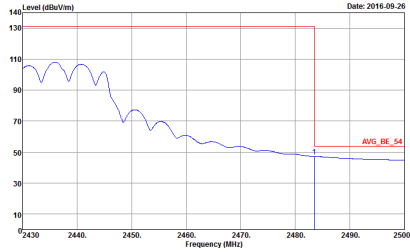


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - R	
1+2	Horizontal	Fundamental
<p>Peak</p>	 <p>Date: 2016-09-29</p> <p>Site : 03CH10-HY Condition : PEAK_BE_74 3m HORN 9120D_1522 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 690205 Mode : 5</p>	<p>Left blank</p>
<p>Avg.</p>	 <p>Date: 2016-09-26</p> <p>Site : 03CH10-HY Condition : AVG_BE_54 3m HORN 9120D_1522 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 690205 Mode : 5</p>	<p>Left blank</p>

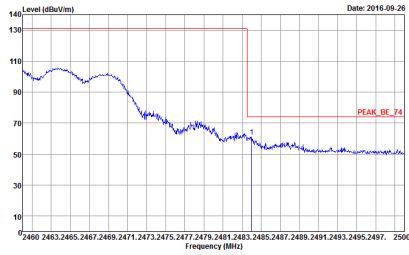
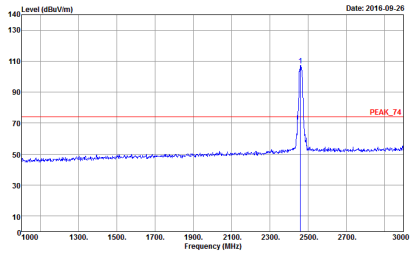
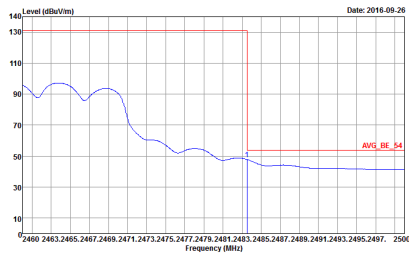
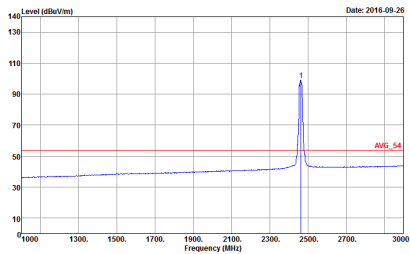


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - L	
1+2	Vertical	Fundamental
Peak	 <p>Date: 2016-09-26 PEAK_BE_74</p> <p>Site : 03CH10-HY Condition : PEAK_BE_74 3m HORN 9120D_1522 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> <p>Detector : Peak Project : 690205 Mode : 5</p>	 <p>Date: 2016-09-26 PEAK_74</p> <p>Site : 03CH10-HY Condition : PEAK_74 3m HORN 9120D_1522 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> <p>Detector : Peak Project : 690205 Mode : 5</p>
Avg.	 <p>Date: 2016-09-26 AVG_BE_54</p> <p>Site : 03CH10-HY Condition : AVG_BE_54 3m HORN 9120D_1522 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto</p> <p>Detector : Peak Project : 690205 Mode : 5</p>	 <p>Date: 2016-09-26 AVG_54</p> <p>Site : 03CH10-HY Condition : AVG_54 3m HORN 9120D_1522 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto</p> <p>Detector : Peak Project : 690205 Mode : 5</p>

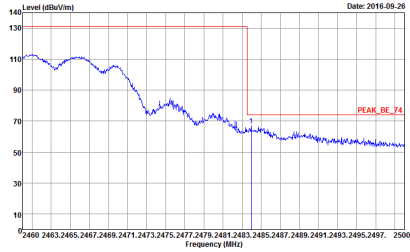
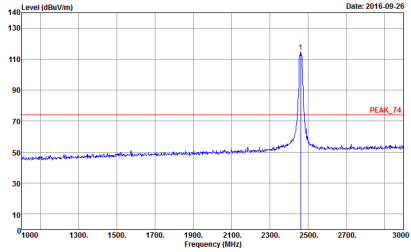
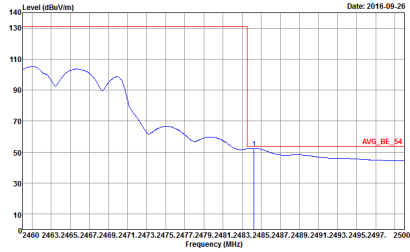
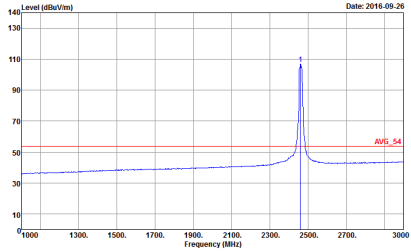


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - R	
1+2	Vertical	Fundamental
Peak	 <p>Date: 2016-09-29</p> <p>Site : 03CH10-HY Condition : PEAK_BE_74 3m HORN 9120D_1522 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 690205 Mode : 5</p>	Left Blank
Avg.	 <p>Date: 2016-09-26</p> <p>Site : 03CH10-HY Condition : AVG_BE_54 3m HORN 9120D_1522 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 690205 Mode : 5</p>	Left Blank



WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH11 2462MHz	
1+2	Horizontal	Fundamental
Peak	 <p>Level (dBuV/m) vs Frequency (MHz) plot showing a peak at 2462 MHz. The y-axis ranges from 10 to 140 dBuV/m, and the x-axis ranges from 2460 to 2500 MHz. A red box highlights the peak area, and a red line indicates the peak level at approximately 74 dBuV/m.</p> <p>Site : 03CH10-HY Condition : PEAK_BE_74 3m HORN 9120D_1522 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 690205 Mode : 0</p>	 <p>Level (dBuV/m) vs Frequency (MHz) plot showing a sharp peak at 2462 MHz. The y-axis ranges from 10 to 140 dBuV/m, and the x-axis ranges from 1000 to 3000 MHz. A red box highlights the peak area, and a red line indicates the peak level at approximately 74 dBuV/m.</p> <p>Site : 03CH10-HY Condition : PEAK_74 3m HORN 9120D_1522 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 690205 Mode : 0</p>
Avg.	 <p>Level (dBuV/m) vs Frequency (MHz) plot showing the average spectrum. The y-axis ranges from 10 to 140 dBuV/m, and the x-axis ranges from 2460 to 2500 MHz. A red box highlights the peak area, and a red line indicates the average level at approximately 54 dBuV/m.</p> <p>Site : 03CH10-HY Condition : AVG_BE_54 3m HORN 9120D_1522 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 690205 Mode : 0</p>	 <p>Level (dBuV/m) vs Frequency (MHz) plot showing the average spectrum. The y-axis ranges from 10 to 140 dBuV/m, and the x-axis ranges from 1000 to 3000 MHz. A red box highlights the peak area, and a red line indicates the average level at approximately 54 dBuV/m.</p> <p>Site : 03CH10-HY Condition : AVG_54 3m HORN 9120D_1522 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 690205 Mode : 0</p>



WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH11 2462MHz	
1+2	Vertical	Fundamental
Peak	 <p>Date: 2016-09-26</p> <p>Site : 03CH10-HY Condition : PEAK_BE_74 3m HORN 9120D_1522 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 690205 Mode : 0</p>	 <p>Date: 2016-09-26</p> <p>Site : 03CH10-HY Condition : PEAK_74 3m HORN 9120D_1522 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 690205 Mode : 0</p>
Avg.	 <p>Date: 2016-09-26</p> <p>Site : 03CH10-HY Condition : AVG_BE_54 3m HORN 9120D_1522 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 690205 Mode : 0</p>	 <p>Date: 2016-09-26</p> <p>Site : 03CH10-HY Condition : AVG_54 3m HORN 9120D_1522 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 690205 Mode : 0</p>

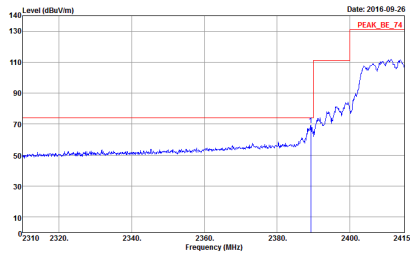
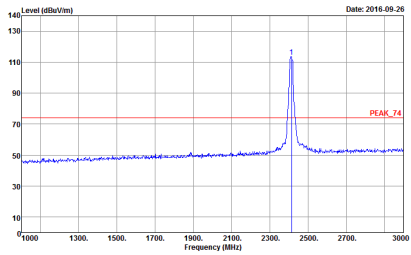
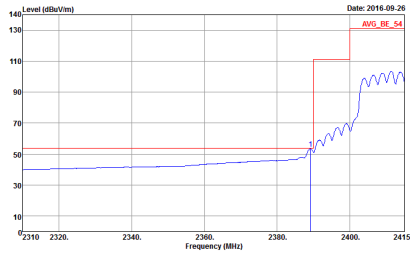
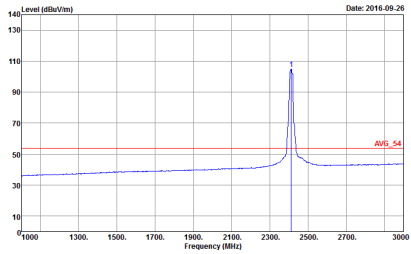


2.4GHz 2400~2483.5MHz

WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH01 2412MHz	
1+2	Horizontal	Fundamental
Peak	<p>Site : 03CH10-HY Condition : PEAK_BE_74 3m HORN 9120D_1522 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 690205 Mode : 7</p>	<p>Site : 03CH10-HY Condition : PEAK_74 3m HORN 9120D_1522 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 690205 Mode : 7</p>
Avg.	<p>Site : 03CH10-HY Condition : AVG_BE_54 3m HORN 9120D_1522 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 690205 Mode : 7</p>	<p>Site : 03CH10-HY Condition : AVG_54 3m HORN 9120D_1522 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 690205 Mode : 7</p>

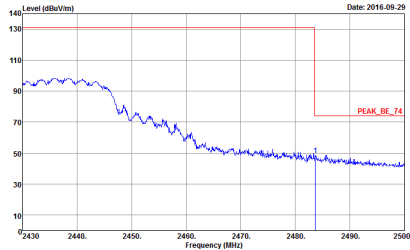
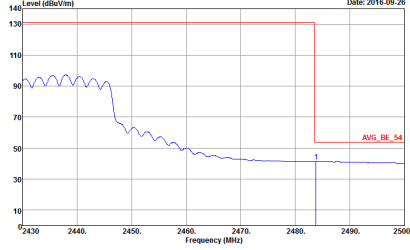


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH01 2412MHz	
1+2	Vertical	Fundamental
Peak	 <p>Level (dBuV/m) vs Frequency (MHz) plot showing a peak at approximately 2412 MHz. The y-axis ranges from 10 to 140 dBuV/m, and the x-axis ranges from 2310 to 2415 MHz. A red horizontal line is drawn at approximately 75 dBuV/m, and a red vertical line marks the peak at 2412 MHz, labeled 'PEAK_BE_74'.</p> <p>Site : 03CH10-HY Condition : PEAK_BE_74 3m HORN 9120D_1522 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 690205 Mode : 7</p>	 <p>Level (dBuV/m) vs Frequency (MHz) plot showing a sharp peak at approximately 2412 MHz. The y-axis ranges from 10 to 140 dBuV/m, and the x-axis ranges from 1600 to 3000 MHz. A red horizontal line is drawn at approximately 75 dBuV/m, and a red vertical line marks the peak at 2412 MHz, labeled 'PEAK_74'.</p> <p>Site : 03CH10-HY Condition : PEAK_74 3m HORN 9120D_1522 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 690205 Mode : 7</p>
Avg.	 <p>Level (dBuV/m) vs Frequency (MHz) plot showing the average spectrum. The y-axis ranges from 10 to 140 dBuV/m, and the x-axis ranges from 2310 to 2415 MHz. A red horizontal line is drawn at approximately 55 dBuV/m, and a red vertical line marks the peak at 2412 MHz, labeled 'AVG_BE_54'.</p> <p>Site : 03CH10-HY Condition : AVG_BE_54 3m HORN 9120D_1522 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 690205 Mode : 7</p>	 <p>Level (dBuV/m) vs Frequency (MHz) plot showing the average spectrum. The y-axis ranges from 10 to 140 dBuV/m, and the x-axis ranges from 1600 to 3000 MHz. A red horizontal line is drawn at approximately 55 dBuV/m, and a red vertical line marks the peak at 2412 MHz, labeled 'AVG_54'.</p> <p>Site : 03CH10-HY Condition : AVG_54 3m HORN 9120D_1522 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 690205 Mode : 7</p>

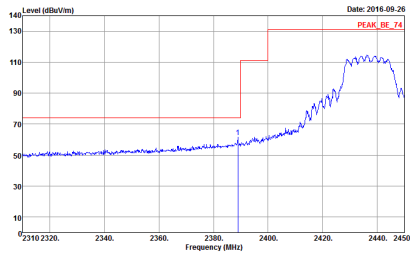
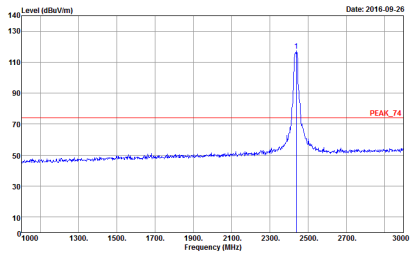
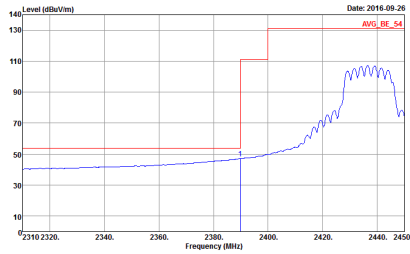
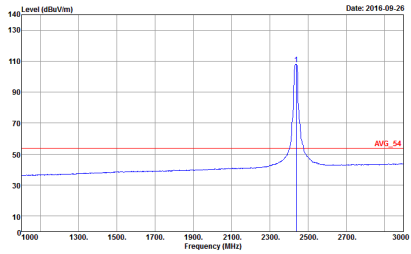


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH06 2437MHz - L	
1+2	Horizontal	Fundamental
Peak	<p>Date: 2016-09-26 PEAK_BE_74</p> <p>Site : 03CH10-HY Condition : PEAK_BE_74 3m HORN 9120D_1522 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 690205 Mode : 8</p>	<p>Date: 2016-09-26 PEAK_74</p> <p>Site : 03CH10-HY Condition : PEAK_74 3m HORN 9120D_1522 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 690205 Mode : 8</p>
Avg.	<p>Date: 2016-09-26 AVG_BE_54</p> <p>Site : 03CH10-HY Condition : AVG_BE_54 3m HORN 9120D_1522 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 690205 Mode : 8</p>	<p>Date: 2016-09-26 AVG_54</p> <p>Site : 03CH10-HY Condition : AVG_54 3m HORN 9120D_1522 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 690205 Mode : 8</p>

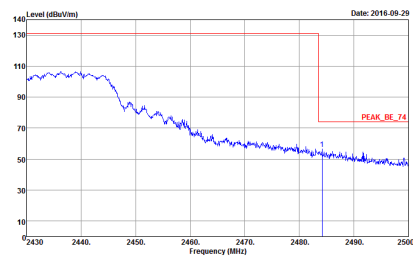
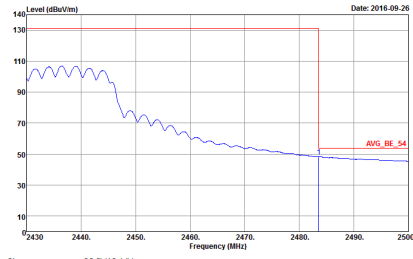


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH06 2437MHz - R	
1+2	Horizontal	Fundamental
<p>Peak</p>	 <p>Date: 2016-09-29</p> <p>Site : 03CH10-HY Condition : PEAK_BE_74 3m HORN 9120D_1522 HORIZONTAL Detector : Peak Project : 690205 Mode : 8</p>	<p>Left blank</p>
<p>Avg.</p>	 <p>Date: 2016-09-26</p> <p>Site : 03CH10-HY Condition : AVG_BE_54 3m HORN 9120D_1522 HORIZONTAL Detector : Peak Project : 690205 Mode : 8</p>	<p>Left blank</p>

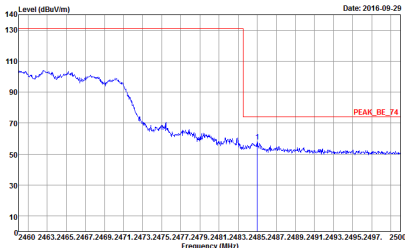
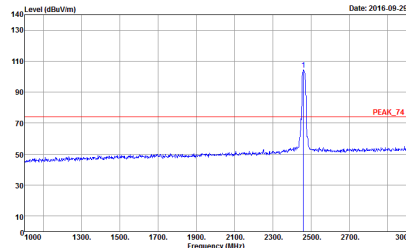
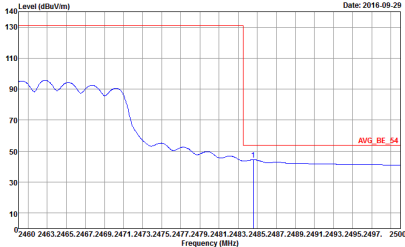
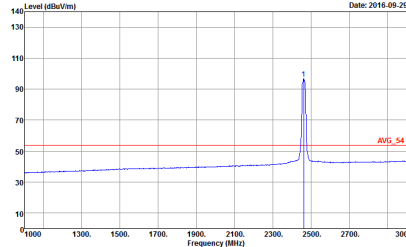


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH06 2437MHz - L	
1+2	Vertical	Fundamental
Peak	 <p>Date: 2016-09-26 PEAK_BE_74</p> <p>Site : 03CH10-HY Condition : PEAK_BE_74 3m HORN 9120D_1522 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 690205 Mode : 8</p>	 <p>Date: 2016-09-26 PEAK_74</p> <p>Site : 03CH10-HY Condition : PEAK_74 3m HORN 9120D_1522 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 690205 Mode : 8</p>
Avg.	 <p>Date: 2016-09-26 AVG_BE_54</p> <p>Site : 03CH10-HY Condition : AVG_BE_54 3m HORN 9120D_1522 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 690205 Mode : 8</p>	 <p>Date: 2016-09-26 AVG_54</p> <p>Site : 03CH10-HY Condition : AVG_54 3m HORN 9120D_1522 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 690205 Mode : 8</p>

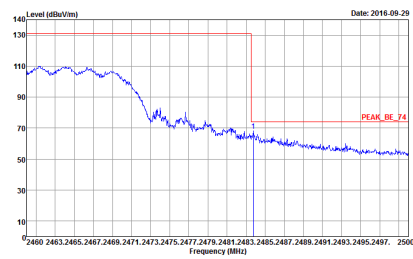
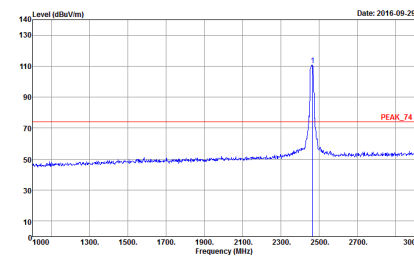
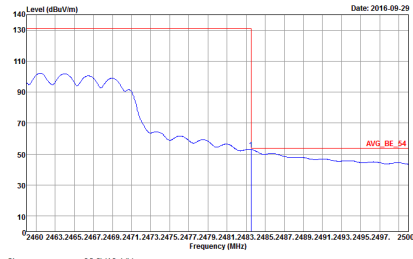
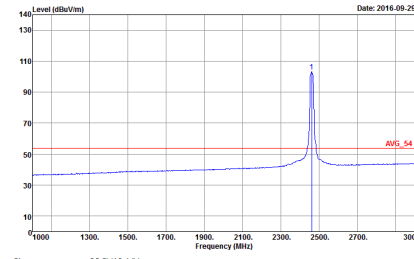


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH06 2437MHz - R	
1+2	Vertical	Fundamental
Peak	 <p>Date: 2016-09-29</p> <p>Site : 03CH10-HY Condition : PEAK_BE_74 3m HORN 9120D_1522 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 690205 Mode : 8</p>	Left Blank
Avg.	 <p>Date: 2016-09-26</p> <p>Site : 03CH10-HY Condition : AVG_BE_54 3m HORN 9120D_1522 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 690205 Mode : 8</p>	Left Blank



WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH11 2462MHz	
1+2	Horizontal	Fundamental
Peak	 <p>Level (dBuV/m) vs Frequency (MHz) plot showing a peak at 2462 MHz. The y-axis ranges from 10 to 140 dBuV/m, and the x-axis ranges from 2460 to 2500 MHz. A red box highlights the peak area, and a red line indicates the peak level at approximately 130 dBuV/m.</p> <p>Site : 03CH10-HY Condition : PEAK_BE_74 3m HORN 9120D_1522 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 690205 Mode : 9</p>	 <p>Level (dBuV/m) vs Frequency (MHz) plot showing a sharp peak at 2462 MHz. The y-axis ranges from 10 to 140 dBuV/m, and the x-axis ranges from 1000 to 3000 MHz. A red box highlights the peak area, and a red line indicates the peak level at approximately 130 dBuV/m.</p> <p>Site : 03CH10-HY Condition : PEAK_74 3m HORN 9120D_1522 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 690205 Mode : 9</p>
Avg.	 <p>Level (dBuV/m) vs Frequency (MHz) plot showing the average spectrum. The y-axis ranges from 10 to 140 dBuV/m, and the x-axis ranges from 2460 to 2500 MHz. A red box highlights the peak area, and a red line indicates the average level at approximately 55 dBuV/m.</p> <p>Site : 03CH10-HY Condition : AVG_BE_54 3m HORN 9120D_1522 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 690205 Mode : 9</p>	 <p>Level (dBuV/m) vs Frequency (MHz) plot showing the average spectrum. The y-axis ranges from 10 to 140 dBuV/m, and the x-axis ranges from 1000 to 3000 MHz. A red box highlights the peak area, and a red line indicates the average level at approximately 55 dBuV/m.</p> <p>Site : 03CH10-HY Condition : AVG_54 3m HORN 9120D_1522 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 690205 Mode : 9</p>

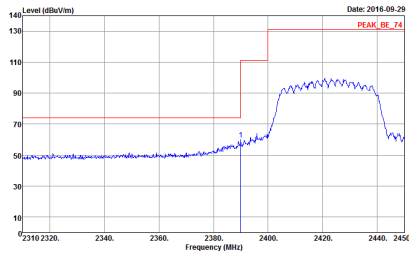
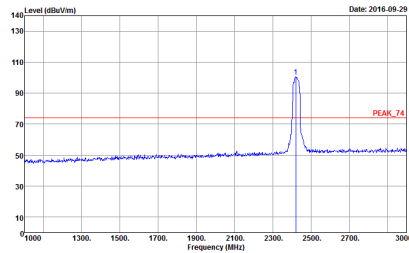
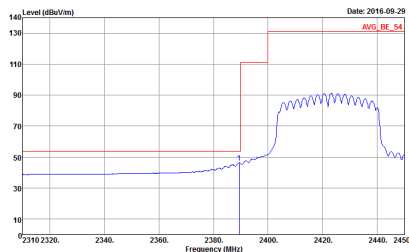
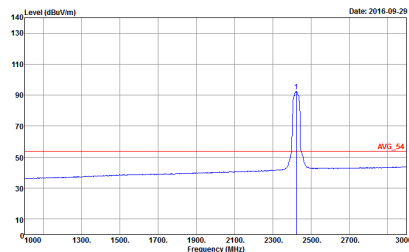


WIFI	2.4GHz 2400~2483.5MHz Fundamental @ 3m	
ANT	802.11n HT20 CH11 2462MHz	
1+2	Vertical	Fundamental
Peak	 <p>Date: 2016-09-29</p> <p>Site : 03CH10-HY Condition : PEAK_BE_74 3m HORN 9120D_1522 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 690205 Mode : 9</p>	 <p>Date: 2016-09-29</p> <p>Site : 03CH10-HY Condition : PEAK_74 3m HORN 9120D_1522 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 690205 Mode : 9</p>
Avg.	 <p>Date: 2016-09-29</p> <p>Site : 03CH10-HY Condition : AVG_BE_54 3m HORN 9120D_1522 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 690205 Mode : 9</p>	 <p>Date: 2016-09-29</p> <p>Site : 03CH10-HY Condition : AVG_54 3m HORN 9120D_1522 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 690205 Mode : 9</p>

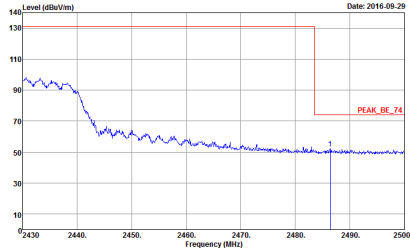
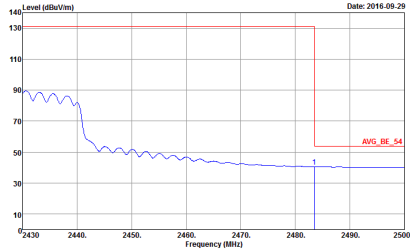


2.4GHz 2400~2483.5MHz

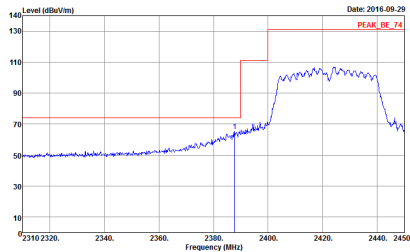
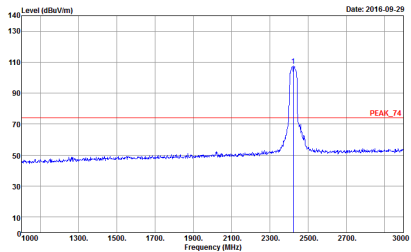
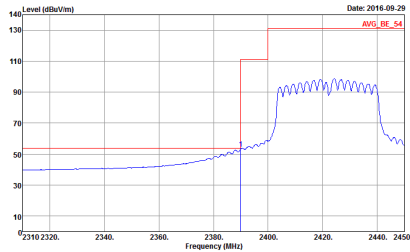
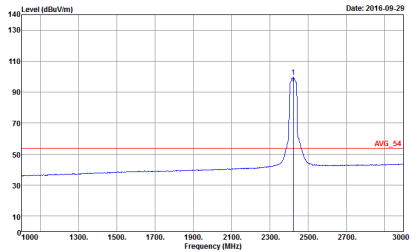
WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH03 2422MHz - L	
1+2	Horizontal	Fundamental
Peak	 <p>Date: 2016-09-29 PEAK_BE_74</p> <p>Site : 03CH10-HY Condition : PEAK_BE_74 3m HORN 9120D_1522 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 690205 Mode : IO</p>	 <p>Date: 2016-09-29 PEAK_74</p> <p>Site : 03CH10-HY Condition : PEAK_74 3m HORN 9120D_1522 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 690205 Mode : IO</p>
Avg.	 <p>Date: 2016-09-29 AVG_BE_54</p> <p>Site : 03CH10-HY Condition : AVG_BE_54 3m HORN 9120D_1522 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 690205 Mode : IO</p>	 <p>Date: 2016-09-29 AVG_54</p> <p>Site : 03CH10-HY Condition : AVG_54 3m HORN 9120D_1522 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 690205 Mode : IO</p>

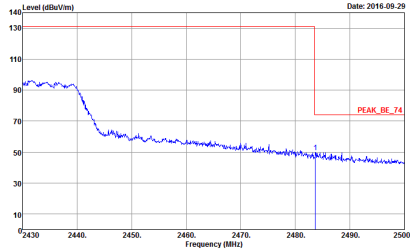
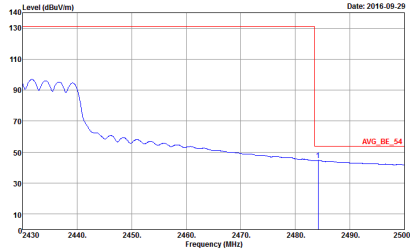


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH03 2422MHz - R	
1+2	Horizontal	Fundamental
Peak	 <p>Date: 2016-09-29</p> <p>Site : 03CH10-HY Condition : PEAK_BE_74 3m HORN 9120D_1522 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 690205 Mode : 10</p>	Left Blank
Avg.	 <p>Date: 2016-09-29</p> <p>Site : 03CH10-HY Condition : AVG_BE_54 3m HORN 9120D_1522 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 690205 Mode : 10</p>	Left Blank

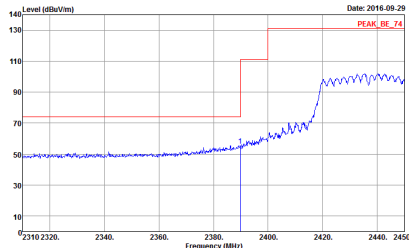
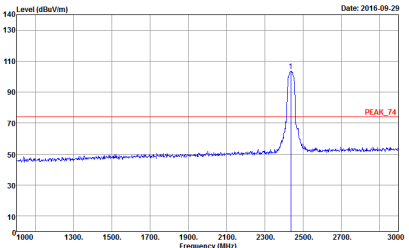
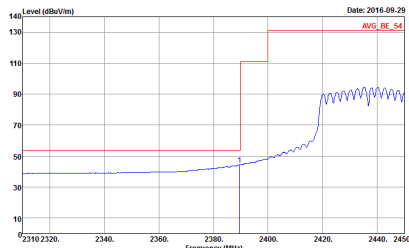
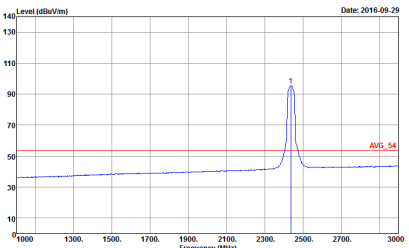


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH03 2422MHz - L	
1+2	Vertical	Fundamental
Peak	 <p>Date: 2016-09-29 PEAK_BE_74</p> <p>Site : 03CH10-HY Condition : PEAK_BE_74 3m HORN 9120D_1522 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 690205 Mode : 10</p>	 <p>Date: 2016-09-29 PEAK_74</p> <p>Site : 03CH10-HY Condition : PEAK_74 3m HORN 9120D_1522 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 690205 Mode : 10</p>
Avg.	 <p>Date: 2016-09-29 AVG_BE_54</p> <p>Site : 03CH10-HY Condition : AVG_BE_54 3m HORN 9120D_1522 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 690205 Mode : 10</p>	 <p>Date: 2016-09-29 AVG_54</p> <p>Site : 03CH10-HY Condition : AVG_54 3m HORN 9120D_1522 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 690205 Mode : 10</p>

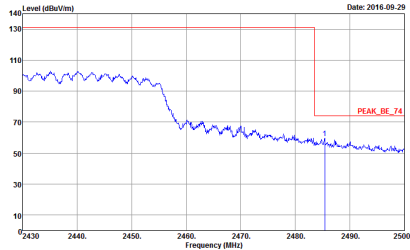
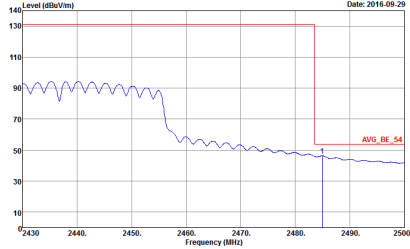


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH03 2422MHz - R	
1+2	Vertical	Fundamental
Peak	 <p>Date: 2016-09-29</p> <p>Site : 03CH10-HY Condition : PEAK_BE_74 3m HORN 9120D_1522 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 690205 Mode : 10</p>	Left blank
Avg.	 <p>Date: 2016-09-29</p> <p>Site : 03CH10-HY Condition : AVG_BE_54 3m HORN 9120D_1522 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 690205 Mode : 10</p>	Left blank

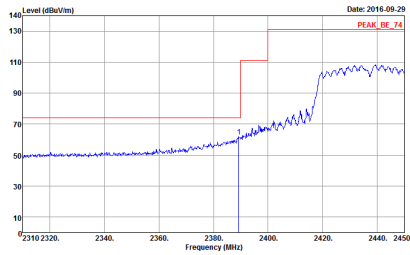
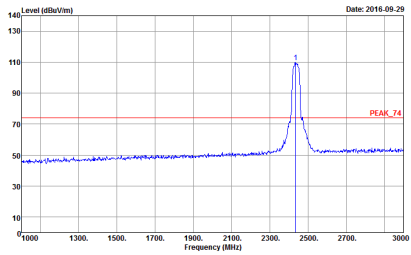
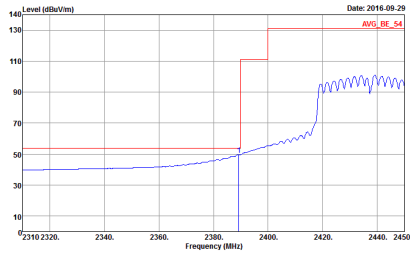
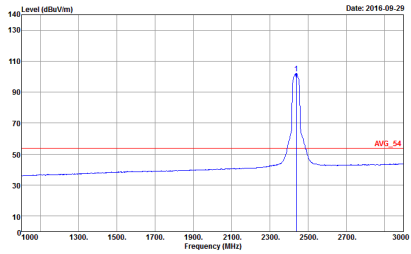


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH06 2437MHz - L	
1+2	Horizontal	Fundamental
Peak	 <p>Site : 03CH10-HY Condition : PEAK_BE_74 3m HORN 9120D_1522 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 690205 Mode : 11</p>	 <p>Site : 03CH10-HY Condition : PEAK_74 3m HORN 9120D_1522 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 690205 Mode : 11</p>
Avg.	 <p>Site : 03CH10-HY Condition : AVG_BE_54 3m HORN 9120D_1522 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 690205 Mode : 11</p>	 <p>Site : 03CH10-HY Condition : AVG_54 3m HORN 9120D_1522 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 690205 Mode : 11</p>

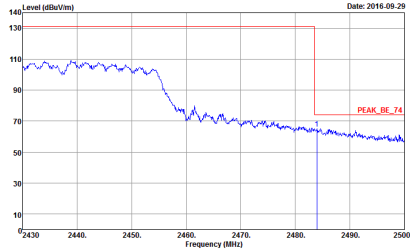
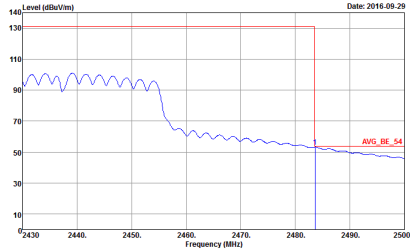


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH06 2437MHz - R	
1+2	Horizontal	Fundamental
<p>Peak</p>	 <p>Site : 03CH10-HY Condition : PEAK_BE_74 3m HORN 9120D_1522 HORIZONTAL Detector : Peak Project : 690205 Mode : 11</p>	<p>Left blank</p>
<p>Avg.</p>	 <p>Site : 03CH10-HY Condition : AVG_BE_54 3m HORN 9120D_1522 HORIZONTAL Detector : Peak Project : 690205 Mode : 11</p>	<p>Left blank</p>

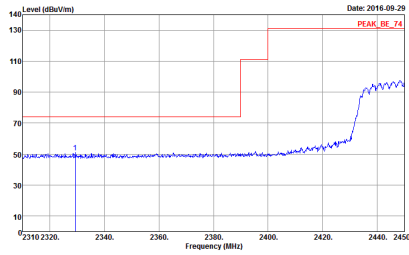
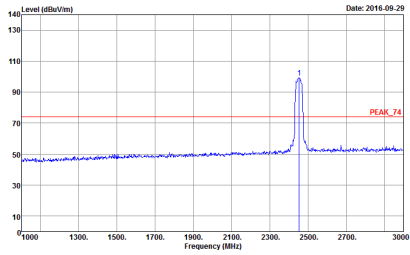
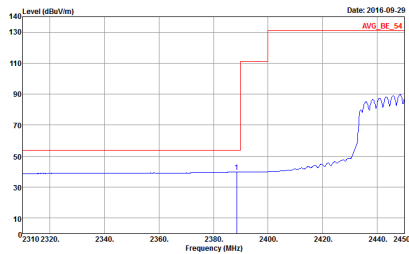
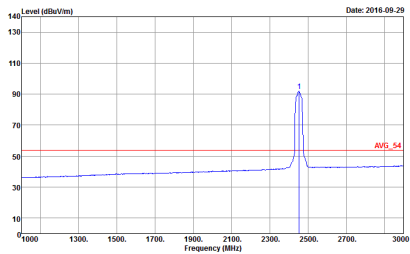


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH06 2437MHz - L	
1+2	Vertical	Fundamental
Peak	 <p>Level (dBuV/m) vs Frequency (MHz) plot showing a peak at 2437 MHz. The y-axis ranges from 10 to 140 dBuV/m, and the x-axis ranges from 2310 to 2450 MHz. A red horizontal line indicates the peak level at approximately 135 dBuV/m.</p> <p>Site : 03CH10-HY Condition : PEAK_BE_74 3m HORN 9120D_1522 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 690205 Mode : 11</p>	 <p>Level (dBuV/m) vs Frequency (MHz) plot showing a sharp peak at 2437 MHz. The y-axis ranges from 10 to 140 dBuV/m, and the x-axis ranges from 1600 to 3000 MHz. A red horizontal line indicates the peak level at approximately 80 dBuV/m.</p> <p>Site : 03CH10-HY Condition : PEAK_74 3m HORN 9120D_1522 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 690205 Mode : 11</p>
Avg.	 <p>Level (dBuV/m) vs Frequency (MHz) plot showing the average spectrum. The y-axis ranges from 10 to 140 dBuV/m, and the x-axis ranges from 2310 to 2450 MHz. A red horizontal line indicates the average level at approximately 135 dBuV/m.</p> <p>Site : 03CH10-HY Condition : AVG_BE_54 3m HORN 9120D_1522 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 690205 Mode : 11</p>	 <p>Level (dBuV/m) vs Frequency (MHz) plot showing the average spectrum. The y-axis ranges from 10 to 140 dBuV/m, and the x-axis ranges from 1600 to 3000 MHz. A red horizontal line indicates the average level at approximately 80 dBuV/m.</p> <p>Site : 03CH10-HY Condition : AVG_54 3m HORN 9120D_1522 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 690205 Mode : 11</p>

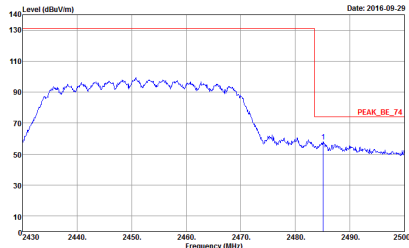
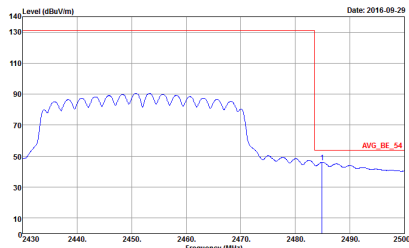


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH06 2437MHz - R	
1+2	Horizontal	Fundamental
Peak	 <p>Date: 2016-09-29</p> <p>Site : 03CH10-HY Condition : PEAK_BE_74 3m HORN 9120D_1522 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 690205 Mode : 11</p>	Left blank
Avg.	 <p>Date: 2016-09-29</p> <p>Site : 03CH10-HY Condition : AVG_BE_54 3m HORN 9120D_1522 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 690205 Mode : 11</p>	Left blank

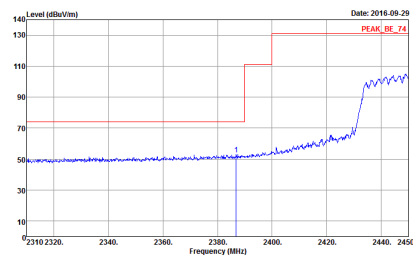
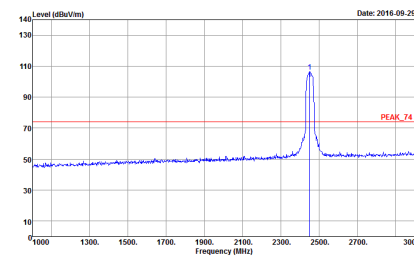
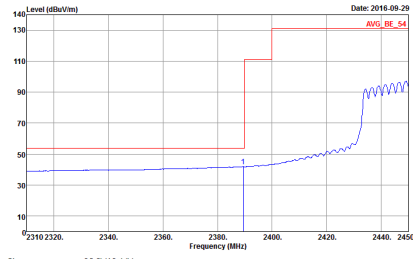
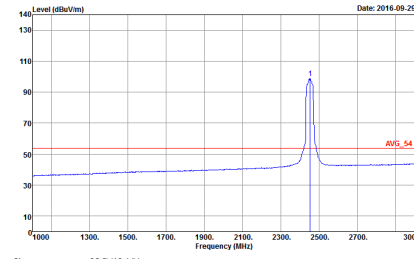


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH09 2452MHz - L	
1+2	Horizontal	Fundamental
Peak	 <p> Site : 03CH10-HY Condition : PEAK_BE_74 3m HORN 9120D_1522 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 690205 Mode : 12 </p>	 <p> Site : 03CH10-HY Condition : PEAK_74 3m HORN 9120D_1522 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 690205 Mode : 12 </p>
Avg.	 <p> Site : 03CH10-HY Condition : AVG_BE_54 3m HORN 9120D_1522 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 690205 Mode : 12 </p>	 <p> Site : 03CH10-HY Condition : AVG_54 3m HORN 9120D_1522 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 690205 Mode : 12 </p>

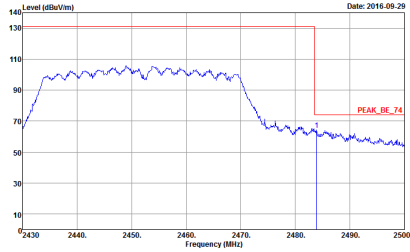
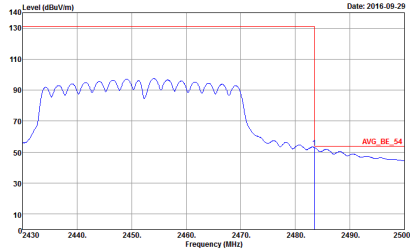


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH09 2452MHz - R	
1+2	Horizontal	Fundamental
Peak	 <p>Date: 2016-09-29</p> <p>Site : 03CH10-HY Condition : PEAK_BE_74 3m HORN 9120D_1522 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 690205 Mode : 12</p>	Left blank
Avg.	 <p>Date: 2016-09-29</p> <p>Site : 03CH10-HY Condition : AVG_BE_54 3m HORN 9120D_1522 HORIZONTAL : RBW:1000.000KHz VBW:1010KHz SWT:Auto Detector : Peak Project : 690205 Mode : 12</p>	Left blank



WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH09 2452MHz - L	
1+2	Vertical	Fundamental
Peak	 <p>Level (dBuV/m) vs Frequency (MHz) plot showing a peak at 2452 MHz. The y-axis ranges from 10 to 140 dBuV/m, and the x-axis ranges from 2310 to 2450 MHz. A red horizontal line indicates the peak level at approximately 130 dBuV/m, labeled 'PEAK_BE_74'.</p> <p>Site : 03CH10-HY Condition : PEAK_BE_74 3m HORN 9120D_1522 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 690205 Mode : 1Z</p>	 <p>Level (dBuV/m) vs Frequency (MHz) plot showing a peak at 2452 MHz. The y-axis ranges from 10 to 140 dBuV/m, and the x-axis ranges from 1600 to 3000 MHz. A red horizontal line indicates the peak level at approximately 75 dBuV/m, labeled 'PEAK_74'.</p> <p>Site : 03CH10-HY Condition : PEAK_74 3m HORN 9120D_1522 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 690205 Mode : 1Z</p>
Avg.	 <p>Level (dBuV/m) vs Frequency (MHz) plot showing an average level at 2452 MHz. The y-axis ranges from 10 to 140 dBuV/m, and the x-axis ranges from 2310 to 2450 MHz. A red horizontal line indicates the average level at approximately 130 dBuV/m, labeled 'AVG_BE_54'.</p> <p>Site : 03CH10-HY Condition : AVG_BE_54 3m HORN 9120D_1522 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 690205 Mode : 1Z</p>	 <p>Level (dBuV/m) vs Frequency (MHz) plot showing an average level at 2452 MHz. The y-axis ranges from 10 to 140 dBuV/m, and the x-axis ranges from 1600 to 3000 MHz. A red horizontal line indicates the average level at approximately 55 dBuV/m, labeled 'AVG_54'.</p> <p>Site : 03CH10-HY Condition : AVG_54 3m HORN 9120D_1522 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 690205 Mode : 1Z</p>



WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH09 2452MHz - R	
1+2	Vertical	Fundamental
Peak	 <p>Date: 2016-09-29</p> <p>Site : 03CH10-HY Condition : PEAK_BE_74 3m HORN 9120D_1522 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 690205 Mode : 12</p>	Left blank
Avg.	 <p>Date: 2016-09-29</p> <p>Site : 03CH10-HY Condition : AVG_BE_54 3m HORN 9120D_1522 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 690205 Mode : 12</p>	Left blank

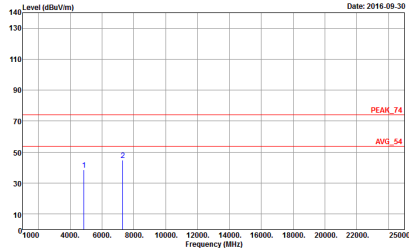
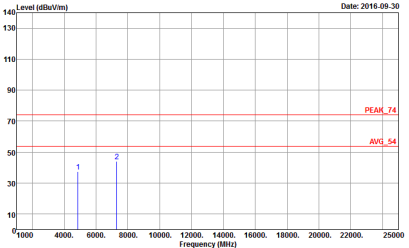


2.4GHz 2400~2483.5MHz

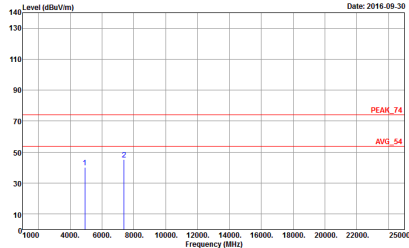
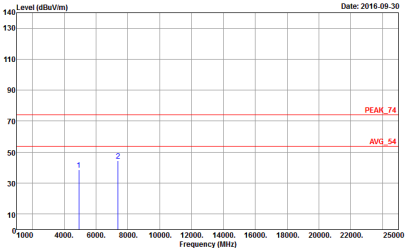
WIFI 802.11b (Harmonic @ 3m)

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH01 2412MHz	
1+2	Horizontal	Vertical
Peak Avg.	<p>Site : 03CH10-HY Condition : PEAK_74 3m HORN_9170_406_0584 HORIZONTAL Detector : Peak Project : 690205 Mode : 1</p>	<p>Site : 03CH10-HY Condition : PEAK_74 3m HORN_9170_406_0584 VERTICAL Detector : Peak Project : 690205 Mode : 1</p>



WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH06 2437MHz	
1+2	Horizontal	Vertical
<p>Peak</p> <p>Avg.</p>	 <p>Site : 02CH10-HY Condition : PEAK_74 3m HORN_9170_406_0584 HORIZONTAL Detector : Peak Project : 690205 Mode : 2</p>	 <p>Site : 02CH10-HY Condition : PEAK_74 3m HORN_9170_406_0584 VERTICAL Detector : Peak Project : 690205 Mode : 2</p>

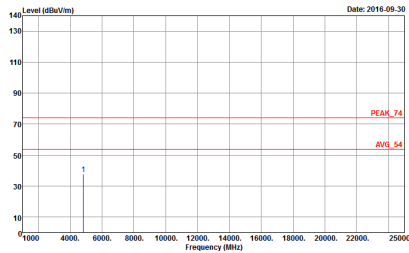
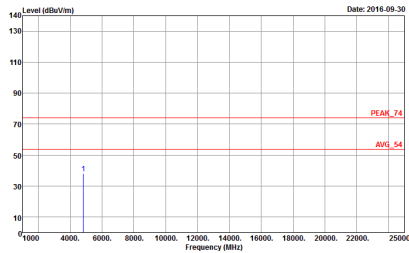


WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH11 2462MHz	
1+2	Horizontal	Vertical
<p>Peak Avg.</p>	 <p>Site : 02CH10-HY Condition : PEAK_74 3m HORN_9170_406_0584 HORIZONTAL Detector : Peak Project : 690205 Mode : 3</p>	 <p>Site : 02CH10-HY Condition : PEAK_74 3m HORN_9170_406_0584 VERTICAL Detector : Peak Project : 690205 Mode : 3</p>

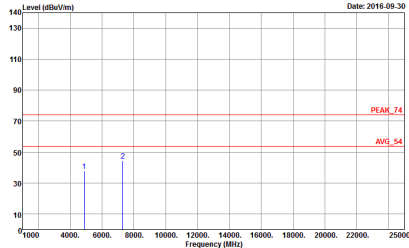
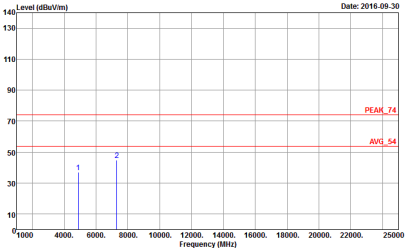


2.4GHz 2400~2483.5MHz

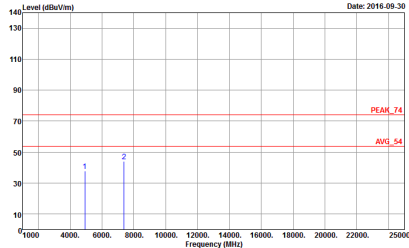
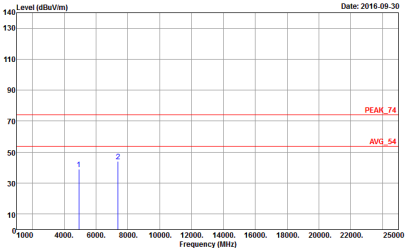
WIFI 802.11g (Harmonic @ 3m)

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11g CH01 2412MHz	
1+2	Horizontal	Vertical
<p>Peak</p> <p>Avg.</p>	 <p>Site : 03CH10-HY Condition : PEAK_74 3m HORN_9170_406_0584 HORIZONTAL Detector : Peak Project : 690205 Mode : 4</p>	 <p>Site : 03CH10-HY Condition : PEAK_74 3m HORN_9170_406_0584 VERTICAL Detector : Peak Project : 690205 Mode : 4</p>



WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11g CH06 2437MHz	
1+2	Horizontal	Vertical
Peak Avg.	 <p>Site : 03CH10-HY Condition : PEAK_74 3m HORN_9170_406_0584 HORIZONTAL Detector : Peak Project : 690205 Mode : 5</p>	 <p>Site : 03CH10-HY Condition : PEAK_74 3m HORN_9170_406_0584 VERTICAL Detector : Peak Project : 690205 Mode : 5</p>

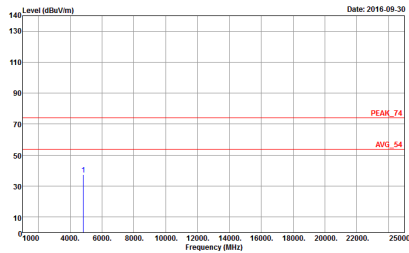
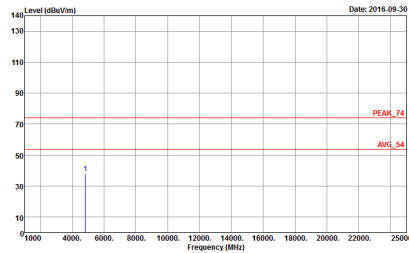


WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11g CH11 2462MHz	
1+2	Horizontal	Vertical
<p>Peak Avg.</p>	 <p>Site : 03CH10-HY Condition : PEAK_74 3m HORN_9170_406_0584 HORIZONTAL Detector : Peak Project : 690205 Mode : 0</p>	 <p>Site : 03CH10-HY Condition : PEAK_74 3m HORN_9170_406_0584 VERTICAL Detector : Peak Project : 690205 Mode : 0</p>

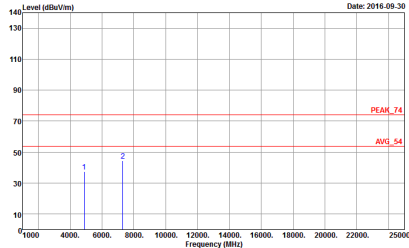
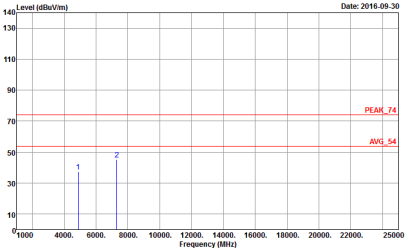


2.4GHz 2400~2483.5MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11n HT20 CH01 2412MHz	
1+2	Horizontal	Vertical
<p>Peak</p> <p>Avg.</p>	 <p>Site : 03CH10-HY Condition : PEAK_74 3m HORN_9170_406_0584 HORIZONTAL Detector : Peak Project : 690205 Mode : 7</p>	 <p>Site : 03CH10-HY Condition : PEAK_74 3m HORN_9170_406_0584 VERTICAL Detector : Peak Project : 690205 Mode : 7</p>



WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11n HT20 CH06 2437MHz	
1+2	Horizontal	Vertical
Peak Avg.	 <p>Site : 03CH10-HY Condition : PEAK_74 3m HORN_9170_406_0584 HORIZONTAL Detector : Peak Project : 690205 Mode : 8</p>	 <p>Site : 03CH10-HY Condition : PEAK_74 3m HORN_9170_406_0584 VERTICAL Detector : Peak Project : 690205 Mode : 8</p>

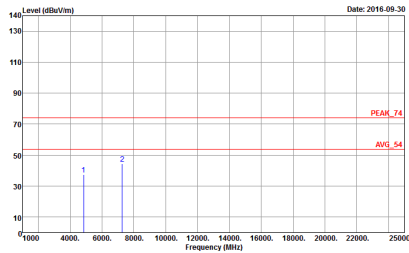
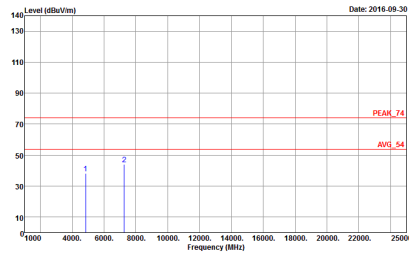


WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11n HT20 CH11 2462MHz	
1+2	Horizontal	Vertical
Peak Avg.	<p>Site : 03CH10-HY Condition : PEAK_74 3m HORN_9170_406_0584 HORIZONTAL Detector : Peak Project : 690205 Mode : 9</p>	<p>Site : 03CH10-HY Condition : PEAK_74 3m HORN_9170_406_0584 VERTICAL Detector : Peak Project : 690205 Mode : 9</p>

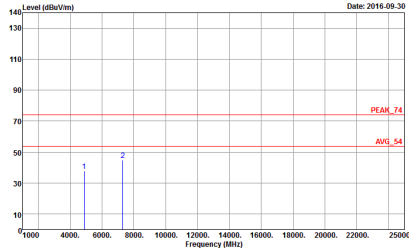
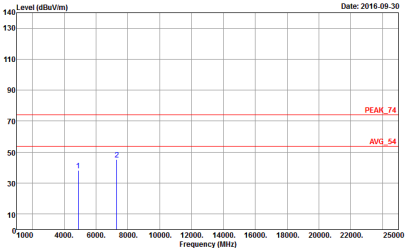


2.4GHz 2400~2483.5MHz

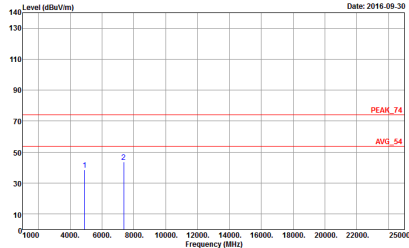
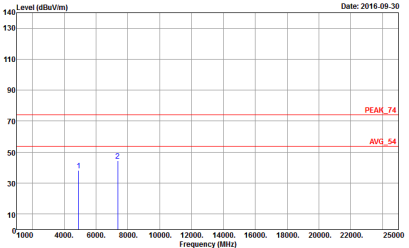
WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11n HT40 CH03 2422MHz	
1+2	Horizontal	Vertical
<p>Peak</p> <p>Avg.</p>	 <p>Site : 03CH10-HY Condition : PEAK_74 3m HORN_9170_406_0584 HORIZONTAL Detector : Peak Project : 690205 Mode : 10</p>	 <p>Site : 03CH10-HY Condition : PEAK_74 3m HORN_9170_406_0584 VERTICAL Detector : Peak Project : 690205 Mode : 10</p>



WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11n HT40 CH06 2437MHz	
1+2	Horizontal	Vertical
Peak Avg.	 <p>Site : 03CH10-HY Condition : PEAK_74 3m HORN_9170_406_0584 HORIZONTAL Detector : Peak Project : 690205 Mode : II</p>	 <p>Site : 03CH10-HY Condition : PEAK_74 3m HORN_9170_406_0584 VERTICAL Detector : Peak Project : 690205 Mode : II</p>

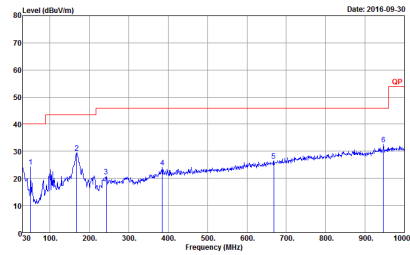
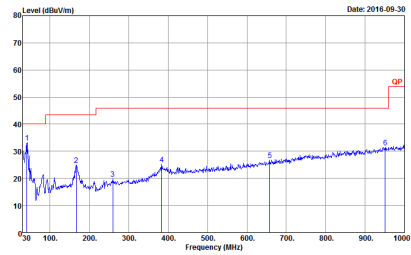


WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11n HT40 CH09 2452MHz	
1+2	Horizontal	Vertical
<p>Peak</p> <p>Avg.</p>	 <p>Site : 03CH10-HY Condition : PEAK_74 3m HORN_9170_406_0584 HORIZONTAL Detector : Peak Project : 690205 Mode : 12</p>	 <p>Site : 03CH10-HY Condition : PEAK_74 3m HORN_9170_406_0584 VERTICAL Detector : Peak Project : 690205 Mode : 12</p>



Emission below 1GHz

2.4GHz WIFI 802.11n HT40 (LF)

WIFI	2.4GHz 2400~2483.5MHz	
ANT	802.11n HT40 LF	
1+2	Horizontal	Vertical
QP / Peak	 <p>Site : 03CH10-HY Condition : QP 3m BE-LOG 6111D-LF HORIZONTAL Detector : Peak Project : 690205 Mode : 13</p>	 <p>Site : 03CH10-HY Condition : QP 3m BE-LOG 6111D-LF VERTICAL Detector : Peak Project : 690205 Mode : 13</p>



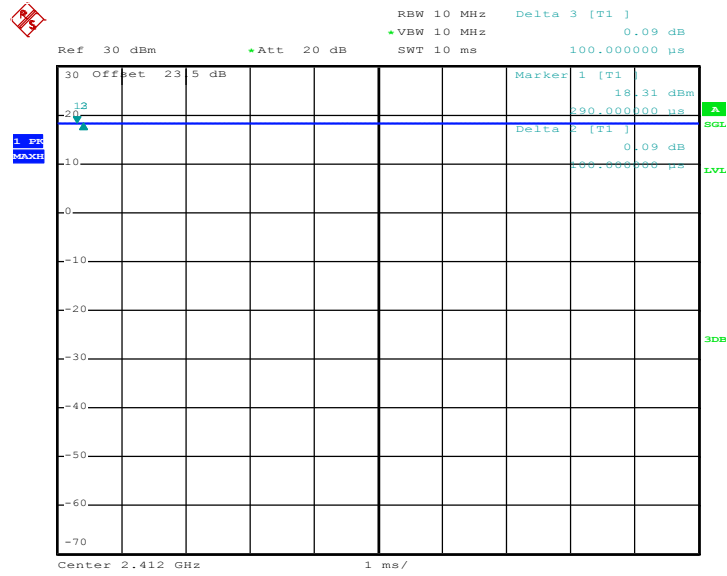
Appendix D. Duty Cycle Plots

Antenna	Band	Duty Cycle(%)	T(us)	1/T(kHz)	VBW Setting
1+2	802.11b for Ant.1	100	-	-	10Hz
1+2	802.11g for Ant.1	100	-	-	10Hz
1+2	2.4GHz 802.11n HT20 for Ant.1	100	-	-	10Hz
1+2	2.4GHz 802.11n HT40 for Ant.1	100	-	-	10Hz
1+2	802.11b for Ant.2	100	-	-	10Hz
1+2	802.11g for Ant.2	100	-	-	10Hz
1+2	2.4GHz 802.11n HT20 for Ant.2	100	-	-	10Hz
1+2	2.4GHz 802.11n HT40 for Ant.2	100	-	-	10Hz



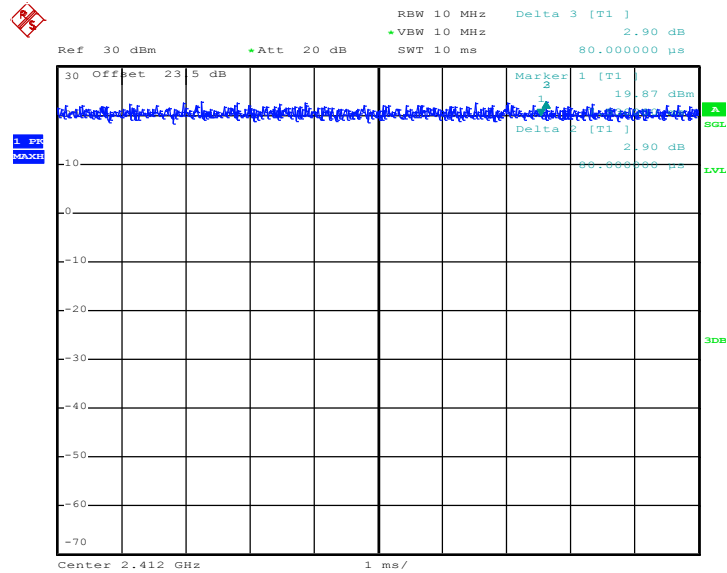
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802.11b



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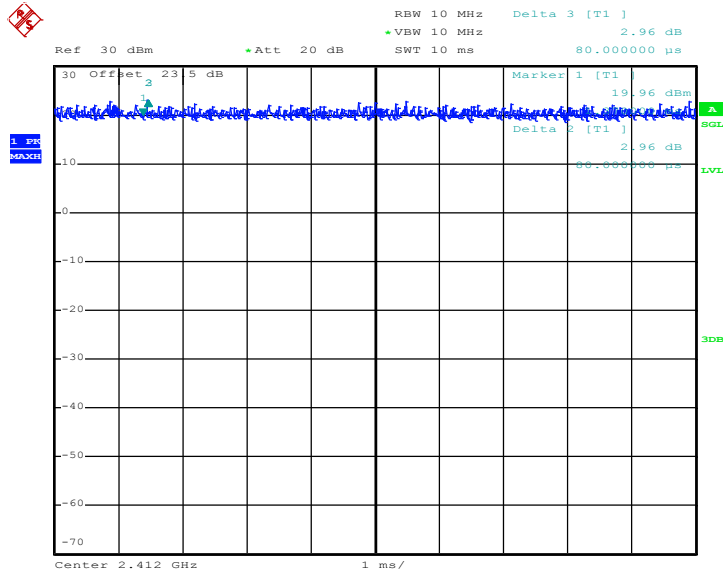
802.11g



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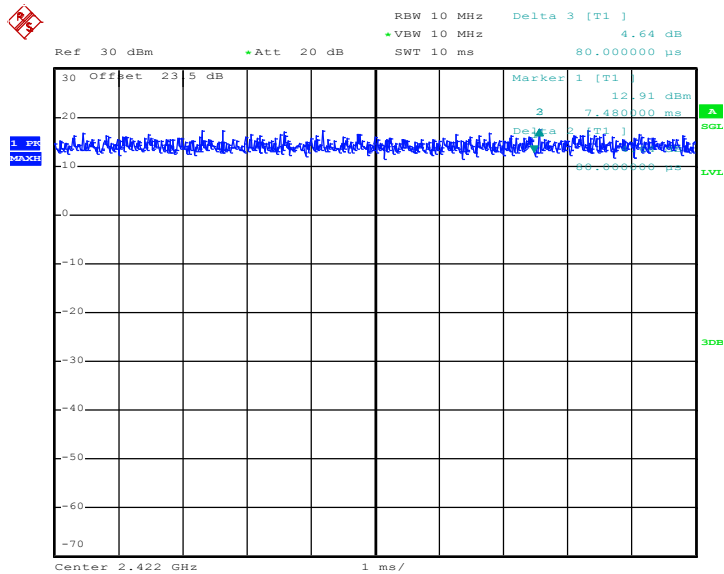


802.11n HT20



Date: 18.SEP.2016 13:17:08

802.11n HT40

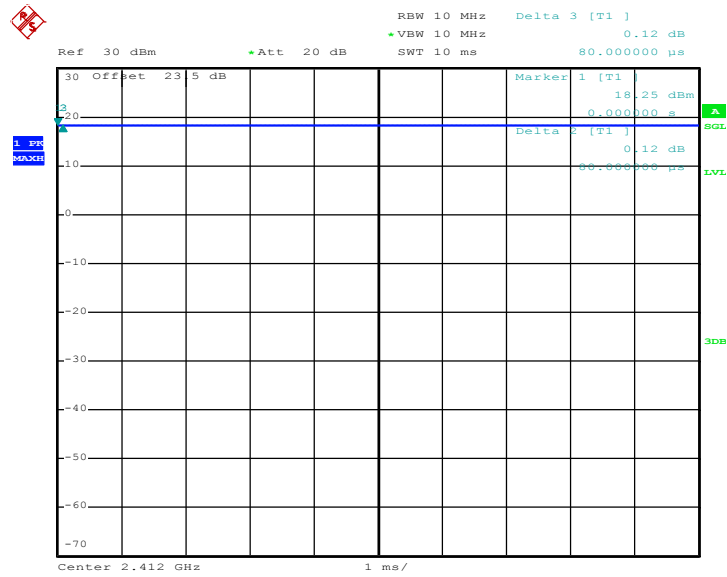


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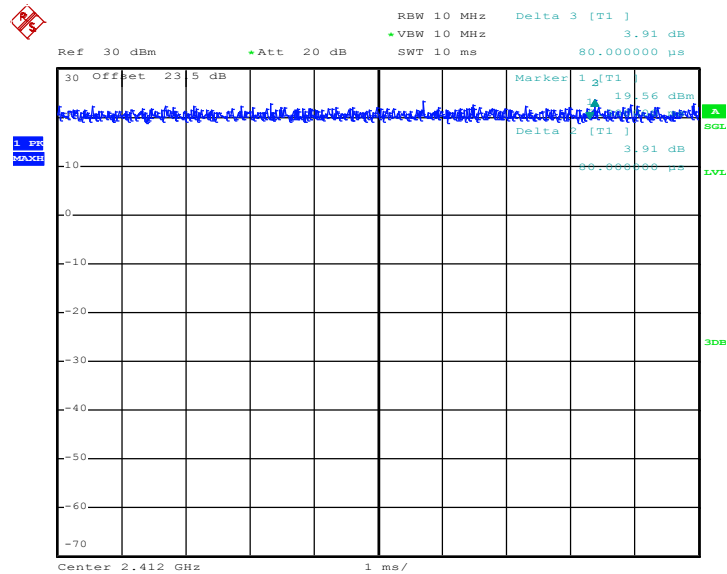
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802.11b



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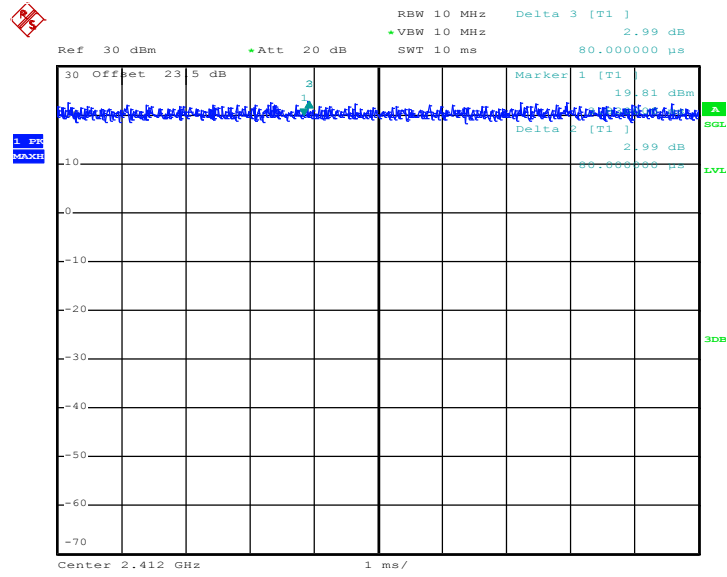
802.11g



Date: 18.SEP.2016 13:16:44

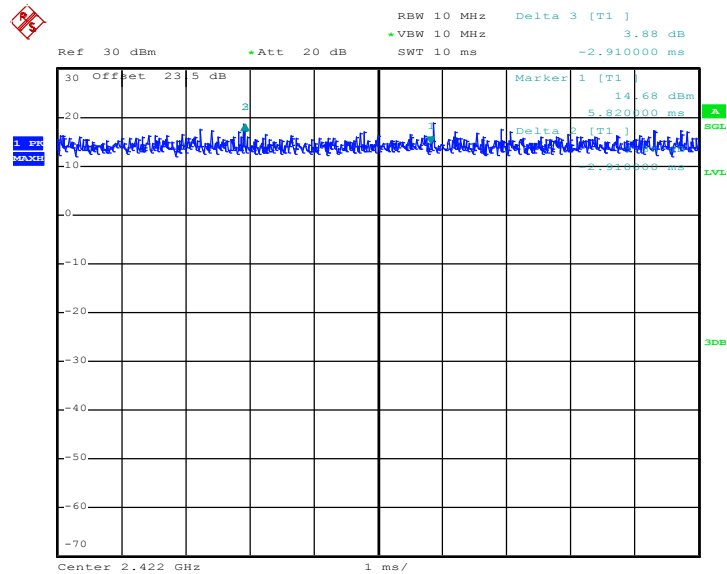


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Date: 18.SEP.2016 13:17:19

802.11n HT40



Date: 18.SEP.2016 13:17:39