



# FCC RF Test Report

**APPLICANT** : Texas Instruments Incorporated  
**EQUIPMENT** : 2.4GHz Wi-Fi Module  
**BRAND NAME** : Texas Instruments  
**MODEL NAME** : CC3120MODRNMMOB  
**MARKETING NAME** : SIMPLELINK™ WI-FI® CC3120MOD WIRELESS NETWORK PROCESSOR MODULE  
**FCC ID** : Z64-CC3120MOD  
**STANDARD** : FCC Part 15 Subpart C §15.247  
**CLASSIFICATION** : (DTS) Digital Transmission System

The product was received on Mar. 16, 2017 and testing was completed on May 26, 2017. 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 : Z64-CC3120MOD

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### SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.1	15.247(a)(2)	6dB Bandwidth	$\geq 0.5\text{MHz}$	Pass	-
3.1	-	99% Bandwidth	-	Pass	-
3.2	15.247(b)	Power Output Measurement	$\leq 30\text{dBm}$	Pass	-
3.3	15.247(e)	Power Spectral Density	$\leq 8\text{dBm}/3\text{kHz}$	Pass	-
3.4	15.247(d)	Conducted Band Edges	$\leq 20\text{dBc}$	Pass	-
		Conducted Spurious Emission		Pass	-
3.5	15.247(d)	Band Edges and Spurious Emission in the Restricted Band	15.209(a) & 15.247(d)	Pass	Under limit 4.74 dB at 4062.000 MHz
3.6	15.207	AC Conducted Emission	15.207(a)	Pass	Under limit 12.90 dB at 0.502 MHz
3.7	15.203 & 15.247(b)	Antenna Requirement	N/A	Pass	-



# **1 General Description**

## **1.1 Applicant**

**Texas Instruments Incorporated**  
12500 TI BLVD., Dallas Texas, 75243

## **1.2 Manufacturer**

**Texas Instruments Incorporated**  
12500 TI BLVD., Dallas Texas, 75243



### 1.3 Product Feature of Equipment Under Test

Wi-Fi 2.4GHz 802.11b/g/n.

Antenna Information				
	Brand	Antenna Type	Model	2.4GHz gain
1	FoxCon	PCB	T77H533	2.5dBi
2	Ethertronics	Dipole	1000423	-0.6dBi
3	LSR	Rubber Whip / Dipole	001-0012	2dBi
4			080-0013	2dBi
5			080-0014	2dBi
6		PIFA	001-0016	2.5dBi
7			001-0021	2.5dBi
8	Laird	PCB	CAF94504	2dBi
9			CAF9405	2dBi
10	ACX	Multilayer Chip	AT3216-BR2R7HAA	0.5dBi
11			AT312-T2R4PAA	1.5dBi
12	TDK	Multilayer Ceramic Chip Antenna	ANT016008LCD2442MA1	1.6dBi
13			ANT016008LCD2442MA2	2.5dBi
14	Mitsubishi Material	Chip Antenna	AM03DP-ST01	1.6dBi
15		Antenna Unit	UB18CP-100ST01	-1.0dBi
16	Taiyo Yuden	Chip Antenna / Herical Monopole	AF216M245001	1.5dBi
17		Chip Antenna / Monopole Type	AH212M245001	1.3dBi
18			AH316M245001	1.9dBi
19	Antenna Technology	Dipole	AA2402SPU	2.0dBi
20			AA2402RSPU	2.0dBi
21			AA2402A-UFLLP	2.0dBi
22			AA2402AU-UFLLP	2.0dBi
23	Staf	Mono-pole	1019-016	2.14dBi
24			1019-017	2.14dBi
25			1019-018	2.14dBi
26			1019-019	2.14dBi
27	Map Electronics	Rubber Whip	MEIWX-2411SAXX-2400	2.0dBi
28			MEIWX-2411RSXX-2400	2.0dBi
29			MEIWX-282XSAXX-2400	2.0dBi
30			MEIWX-282XRSXX-2400	2.0dBi
31			MEIWF-HP01RS2X-2400	2.0dBi
32	Yageo	Chip	ANT3216A063R2400A	1.69dBi
33	Mag Layers Scientific	Chip	LTA-3216-2G4S3-A1	1dBi
34			LTA-3216-2G4S3-A3	2dBi
35	Advantech	Rubber Whip / Dipole	AN2450-5706RS	2.38dBi

Note: the EUT used a 2.4GHz Chip antenna (Antenna 18 from Taiyo Yuden)



### 1.4 Modification of EUT

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

### 1.5 Testing Location

Sporton Lab is accredited to ISO 17025 by Taiwan Accreditation Foundation (TAF code : 1190) and the FCC designation No. TW0007 under the FCC 2.948(e) by Mutual Recognition Agreement (MRA) in FCC Test.

<b>Test Site</b>	SPORTON INTERNATIONAL INC.	
<b>Test Site Location</b>	No. 52, Hwa Ya 1 <sup>st</sup> 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	
<b>Test Site No.</b>	<b>Sporton Site No.</b>	
	TH05-HY	CO05-HY

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

<b>Test Site</b>	SPORTON INTERNATIONAL INC.	
<b>Test Site Location</b>	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	
<b>Test Site No.</b>	<b>Sporton Site No.</b>	
	03CH13-HY	03CH15-HY

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



## 1.6 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 v04
- ♦ 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

- a. 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: conduction emission (150 kHz to 30 MHz), radiation emission (9 kHz to the 10th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower). For radiated measurement, pre-scanned in three orthogonal panels, X, Y, Z. The worst cases were recorded in this report.
  
- b. AC power line Conducted Emission was tested under maximum output power.

### 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	-	-

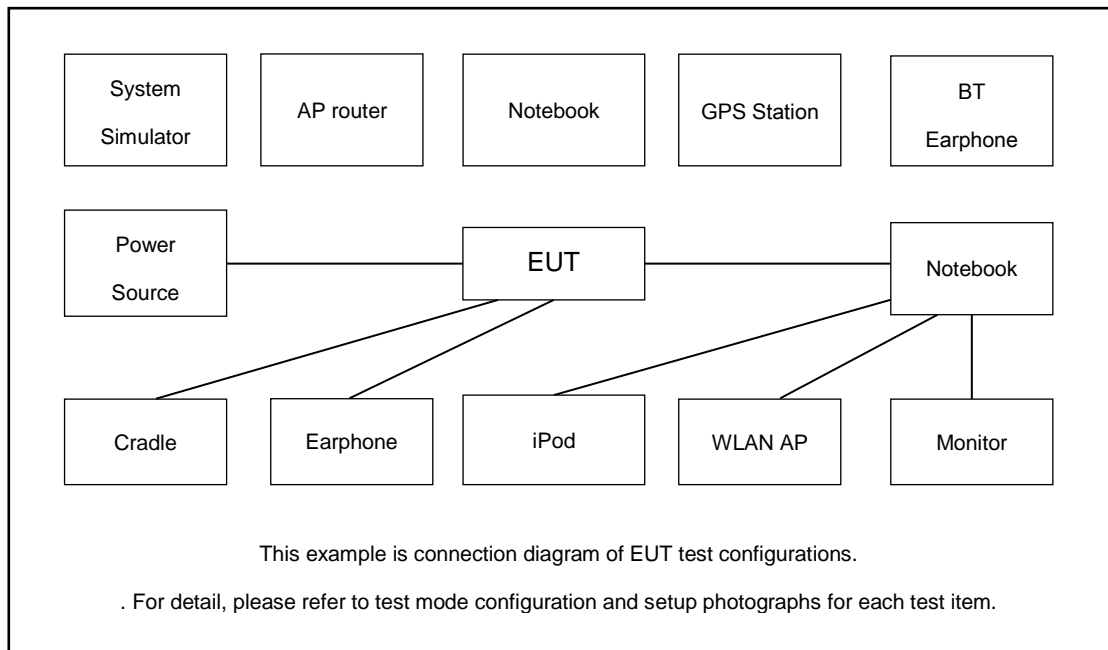
## 2.2 Test Mode

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

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

Test Cases	
AC Conducted Emission	Mode 1: WLAN Link + Fixture

## 2.3 Connection Diagram of Test System





### 2.4 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	WLAN AP	ASUS	RT-AC66U	MSQ-RTAC66U	N/A	Unshielded, 1.8 m
2.	iPod	Apple	A1199	FCC DoC	Shielded, 1.0 m	N/A
3.	Notebook	DELL	Latitude E3340	FCC DoC/ Contains FCC ID: PD97260NGU	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m

### 2.5 EUT Operation Test Setup

The RF test items, an engineering test program was provided and enabled to make EUT continuous transmit/receive.

### 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.

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

### 3 Test Result

#### 3.1 6dB 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 v04.
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.

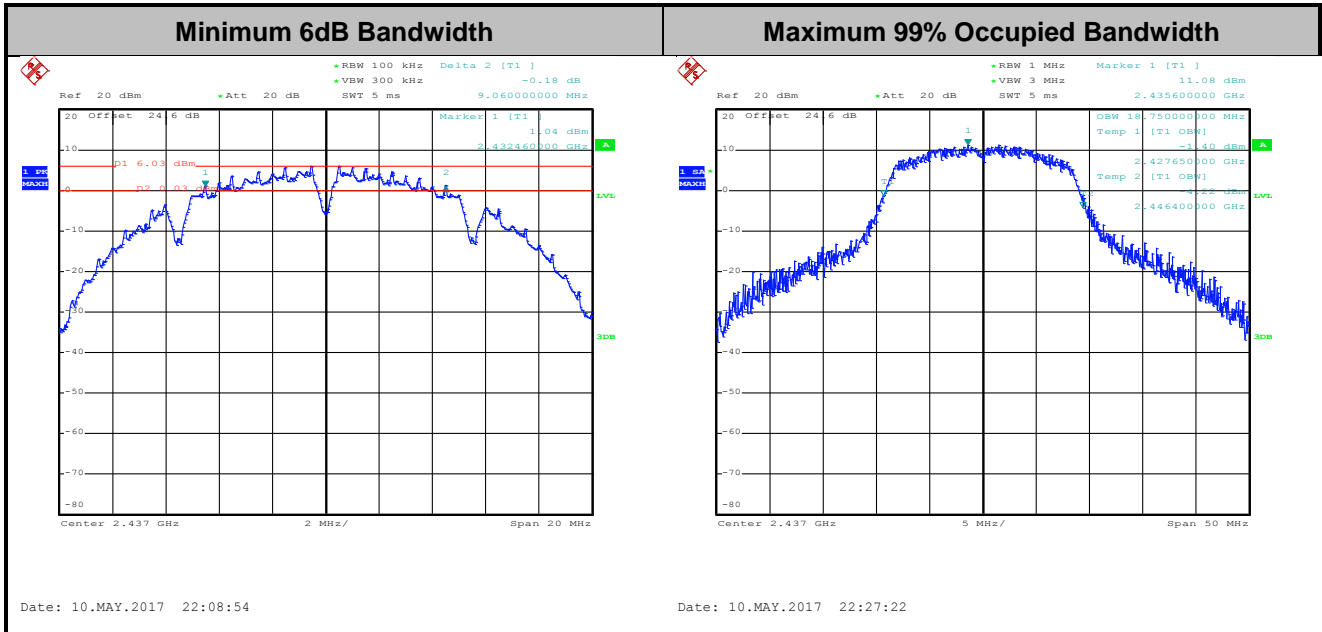
##### 3.1.4 Test Setup





### 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 Output Power Measurement

### 3.2.1 Limit of Output Power

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

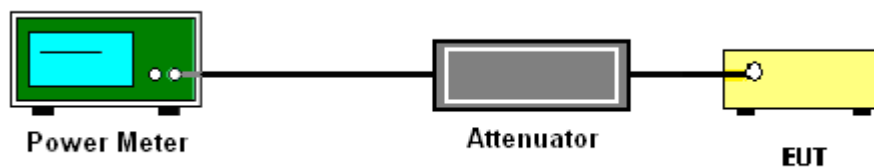
### 3.2.2 Measuring Instruments

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 v04 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.

### 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 v04
2. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
3. Set to the maximum power setting and enable the EUT transmit continuously.
4. Make the measurement with the spectrum analyzer's resolution bandwidth (RBW) = 3 kHz. Video bandwidth VBW = 10 kHz In order to make an accurate measurement, set the span to 1.5 times DTS Channel Bandwidth. (6dB BW)
5. Detector = peak, Sweep time = auto couple, Trace mode = max hold, Allow trace to fully stabilize. Use the peak marker function to determine the maximum power level.
6. Measure and record the results in the test report.

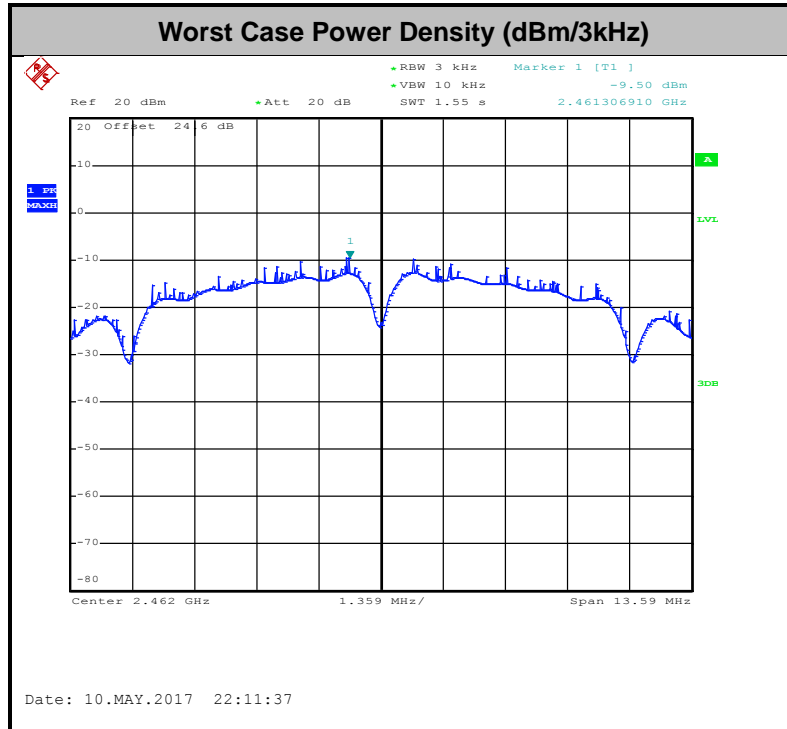
#### 3.3.4 Test Setup





### 3.3.5 Test Result of Power Spectral Density

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.

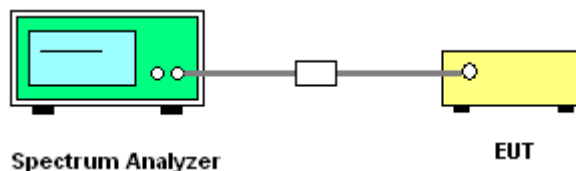
### 3.4.2 Measuring Instruments

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 v04.
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



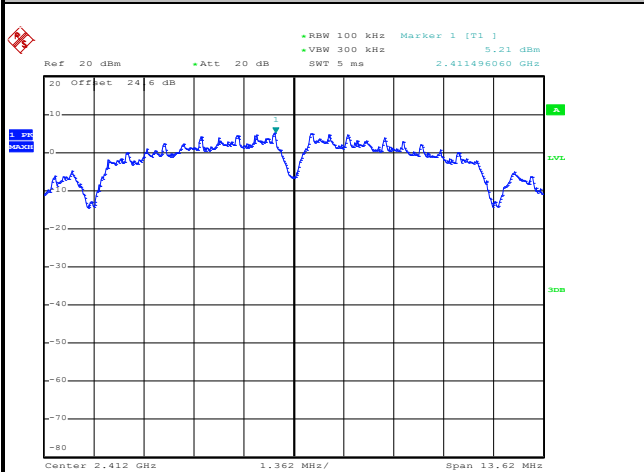


### 3.4.5 Test Result of Conducted Band Edges and Spurious Emission

Test Mode :	802.11b	Temperature :	21~25°C
Test Band :	2.4GHz Low	Relative Humidity :	51~54%
Test Channel :	01	Test Engineer :	Derek Hsu

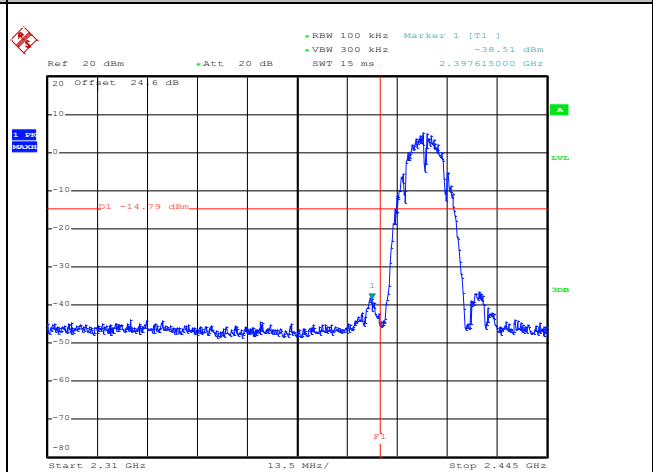
#### WLAN 802.11b Channel 01

##### 100kHz PSD reference Level



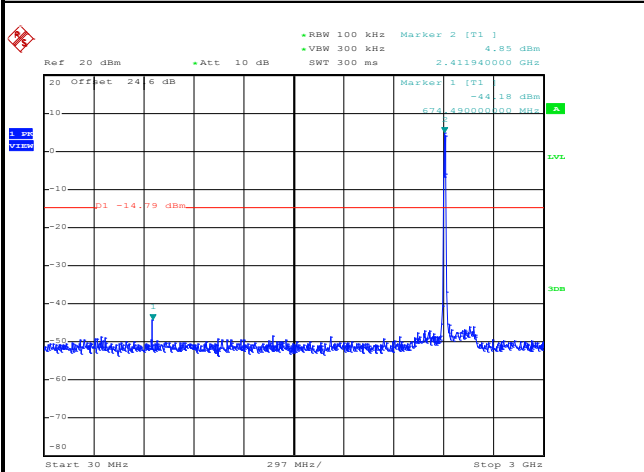
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##### Low Channel Plot



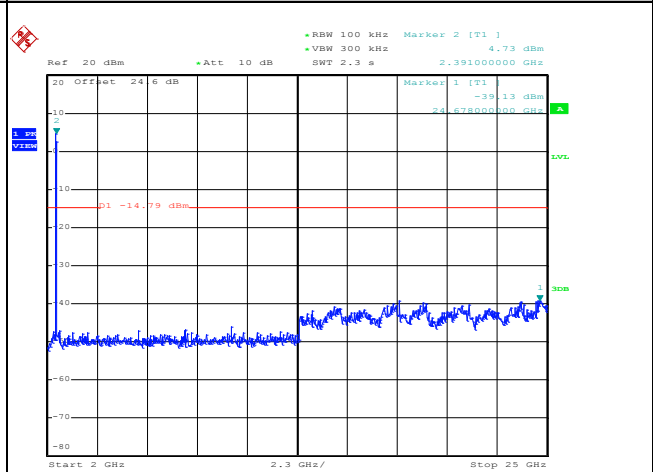
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##### Spurious Emission 30MHz~3GHz



Date: 10.MAY.2017 22:04:17

##### Spurious Emission 2GHz~25GHz



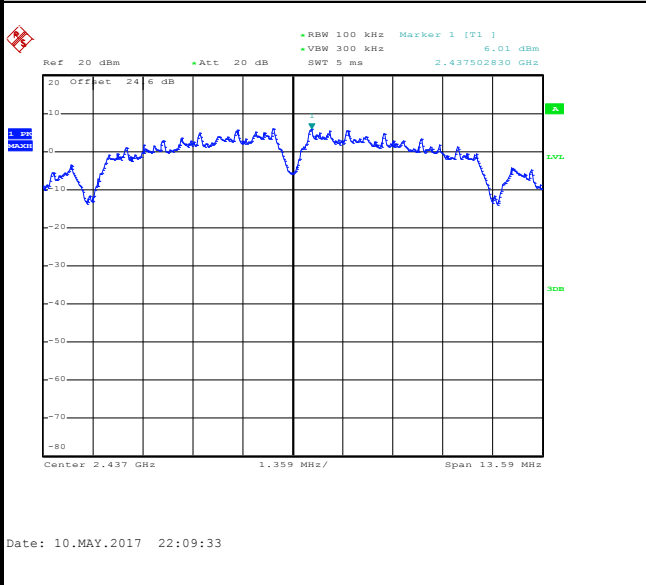
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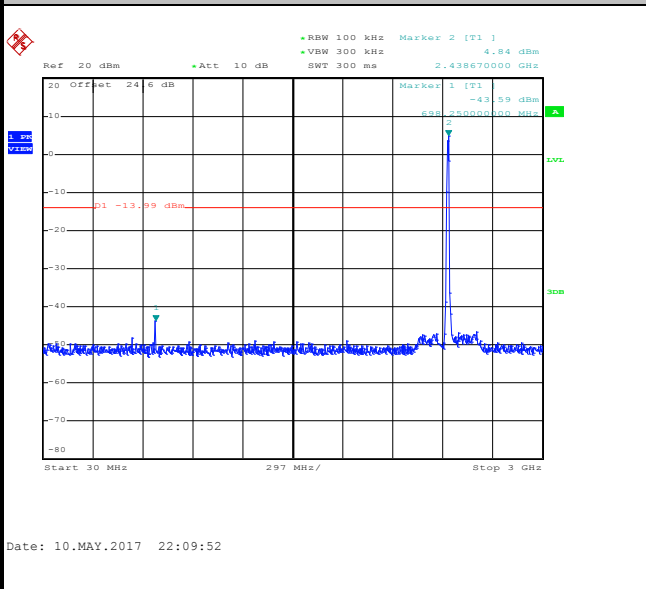
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Test Band :	2.4GHz Mid	Relative Humidity :	51~54%
Test Channel :	06	Test Engineer :	Derek Hsu

WLAN 802.11b Channel 06

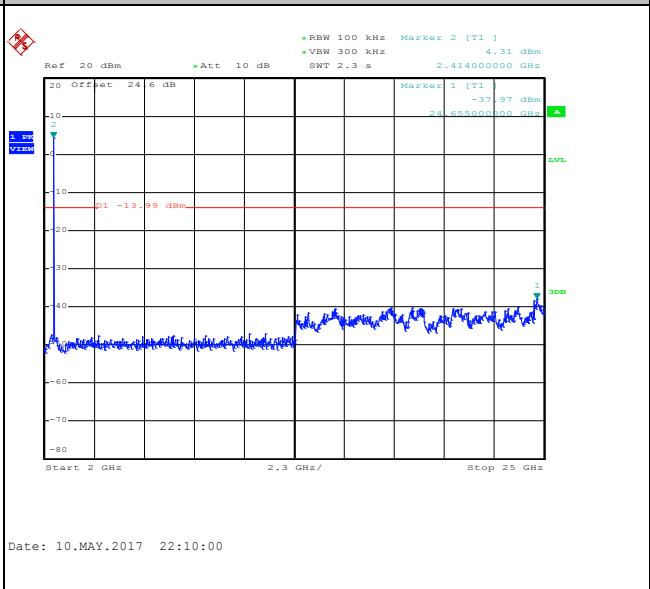
100kHz PSD reference Level



Spurious Emission 30MHz~3GHz



Spurious Emission 2GHz~25GHz

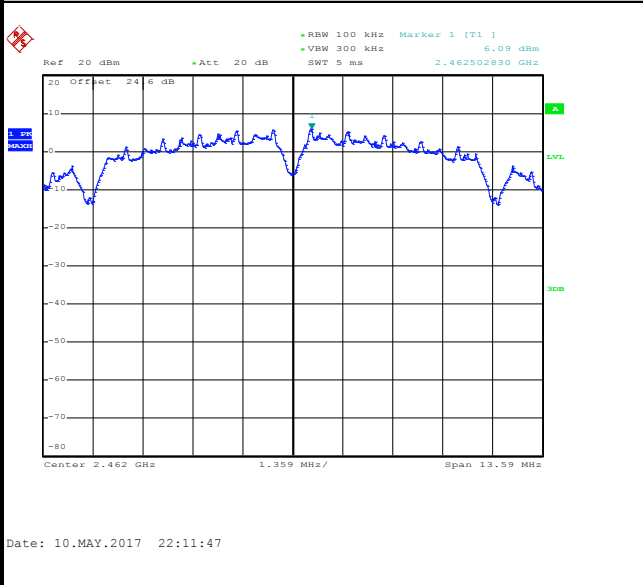




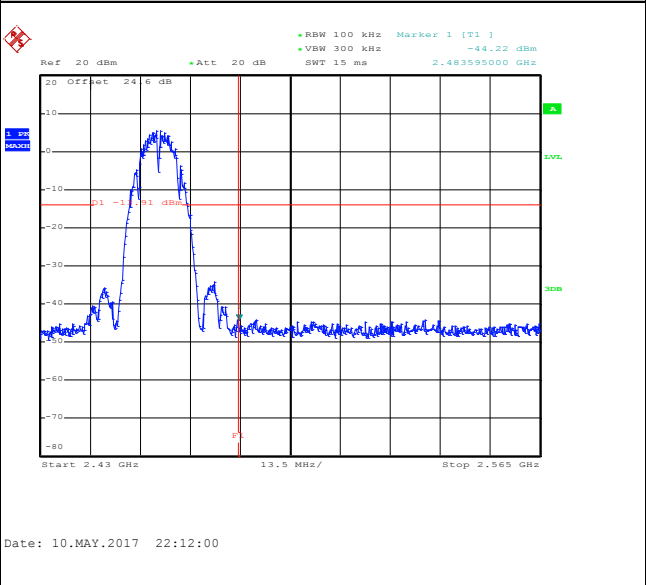
Test Mode :	802.11b	Temperature :	21~25°C
Test Band :	2.4GHz High	Relative Humidity :	51~54%
Test Channel :	11	Test Engineer :	Derek Hsu

WLAN 802.11b Channel 11

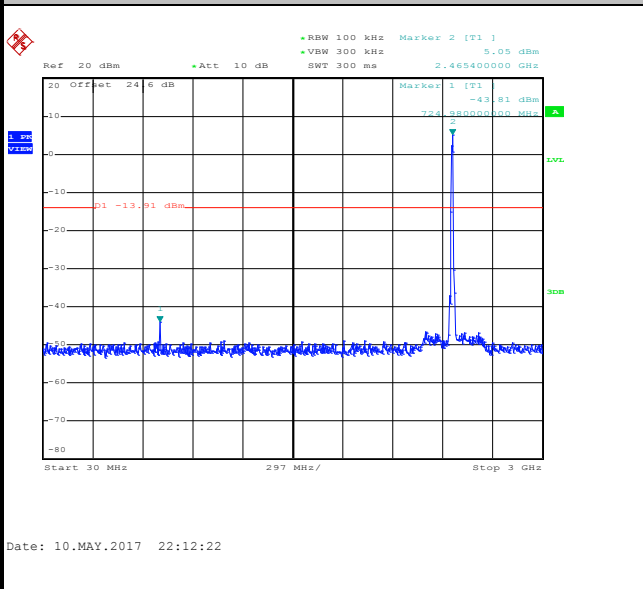
100kHz PSD reference Level



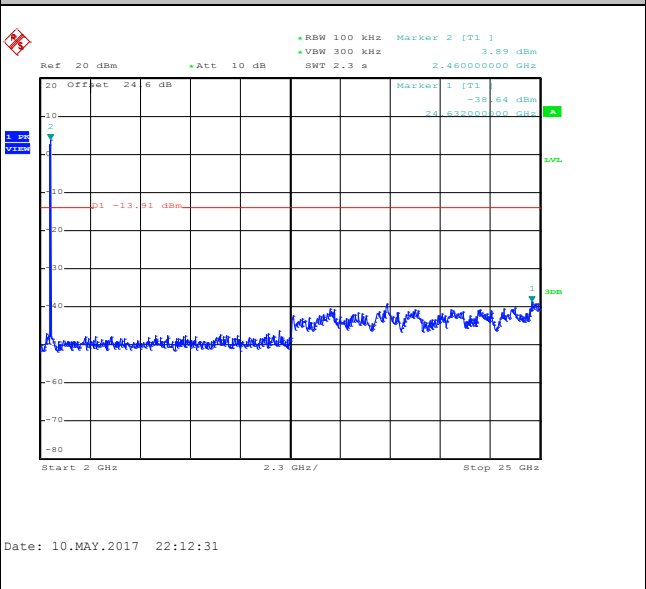
High Channel Plot



Spurious Emission 30MHz~3GHz



Spurious Emission 2GHz~25GHz

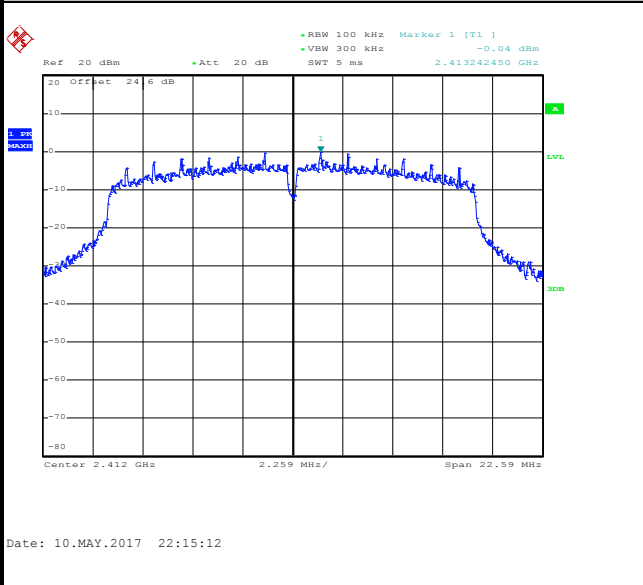




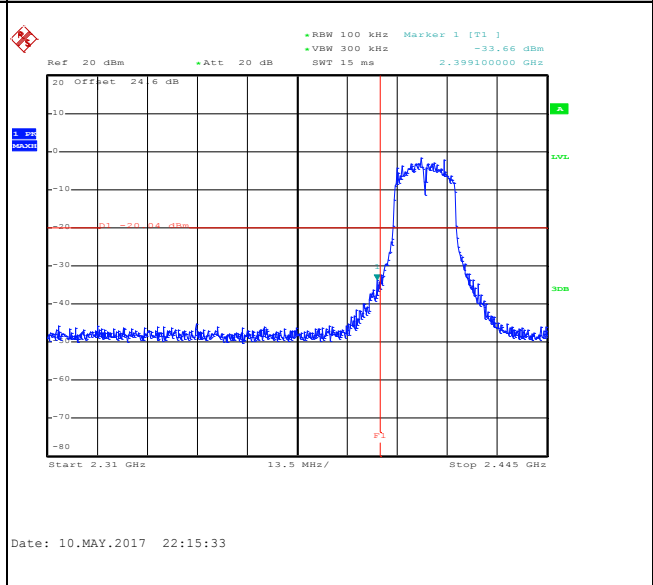
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Test Band :	2.4GHz Low	Relative Humidity :	51~54%
Test Channel :	01	Test Engineer :	Derek Hsu

WLAN 802.11g Channel 01

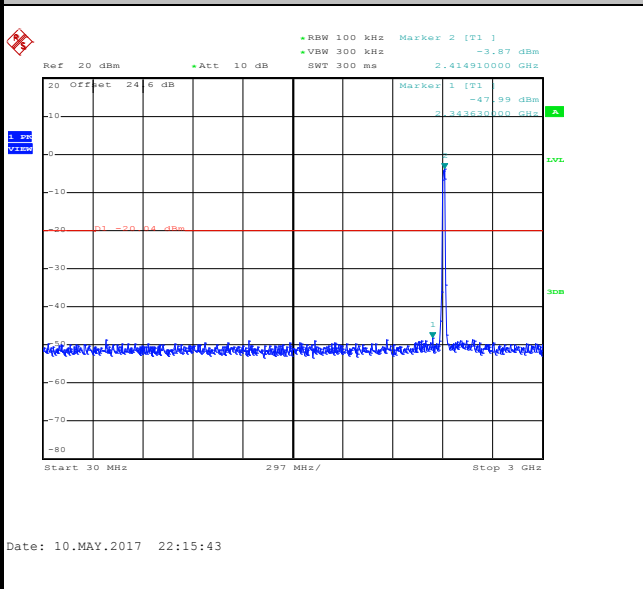
100kHz PSD reference Level



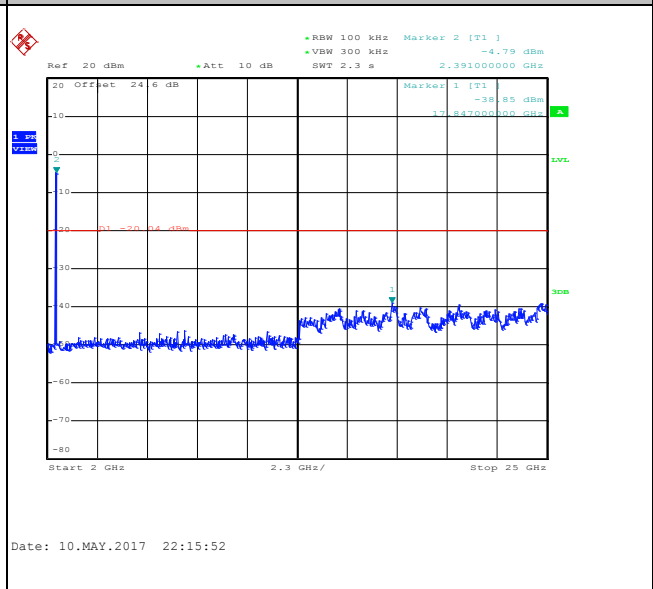
Low Channel Plot



Spurious Emission 30MHz~3GHz



Spurious Emission 2GHz~25GHz

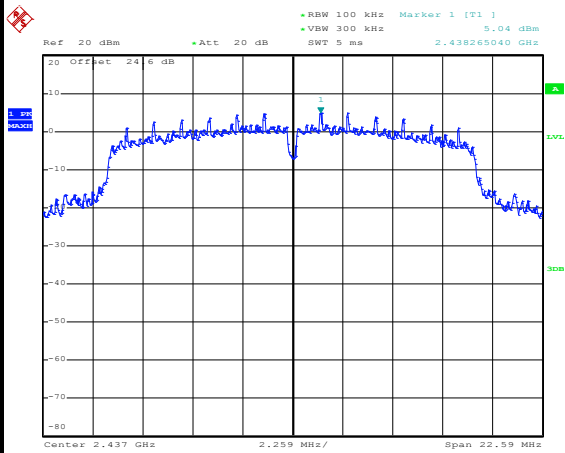




Test Mode :	802.11g	Temperature :	21~25°C
Test Band :	2.4GHz Mid	Relative Humidity :	51~54%
Test Channel :	06	Test Engineer :	Derek Hsu

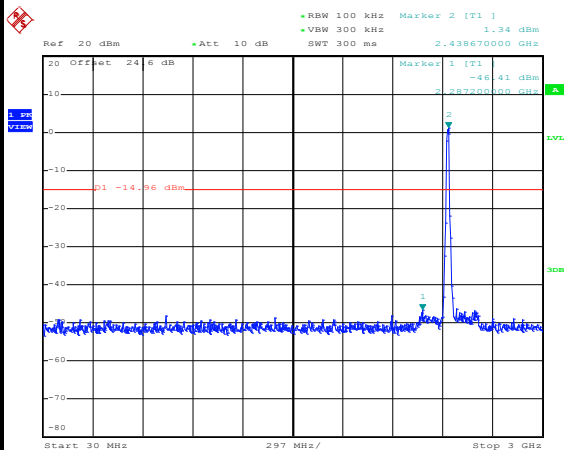
WLAN 802.11g Channel 06

100kHz PSD reference Level



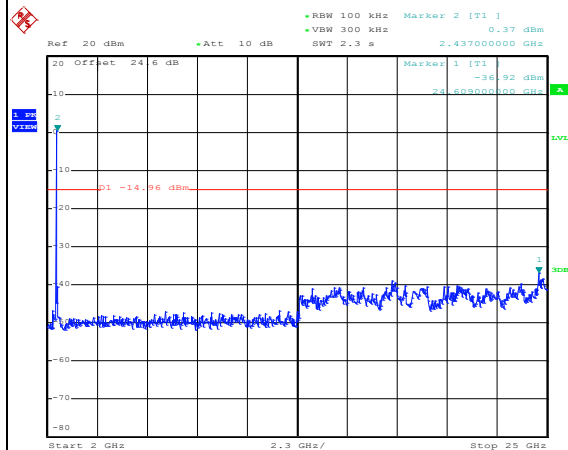
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Spurious Emission 30MHz~3GHz



Date: 10.MAY.2017 22:18:00

Spurious Emission 2GHz~25GHz



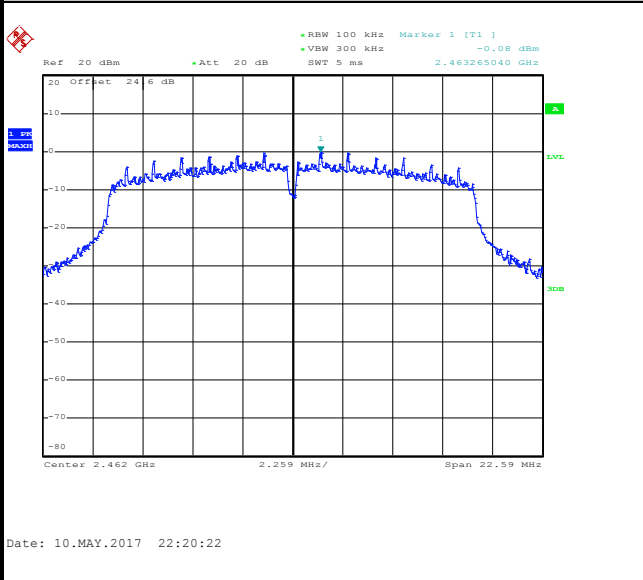
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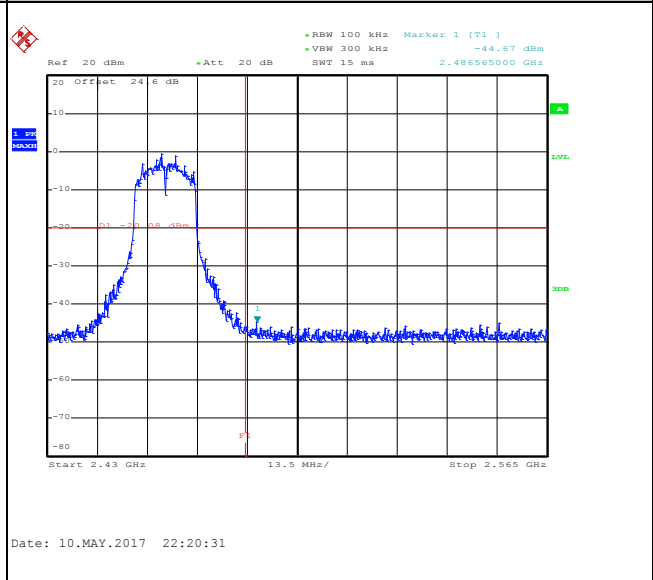
Test Mode :	802.11g	Temperature :	21~25°C
Test Band :	2.4GHz High	Relative Humidity :	51~54%
Test Channel :	11	Test Engineer :	Derek Hsu

WLAN 802.11g Channel 11

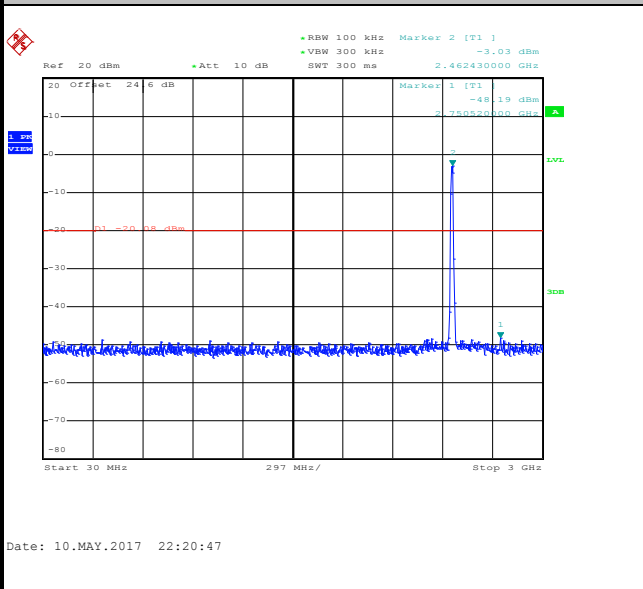
100kHz PSD reference Level



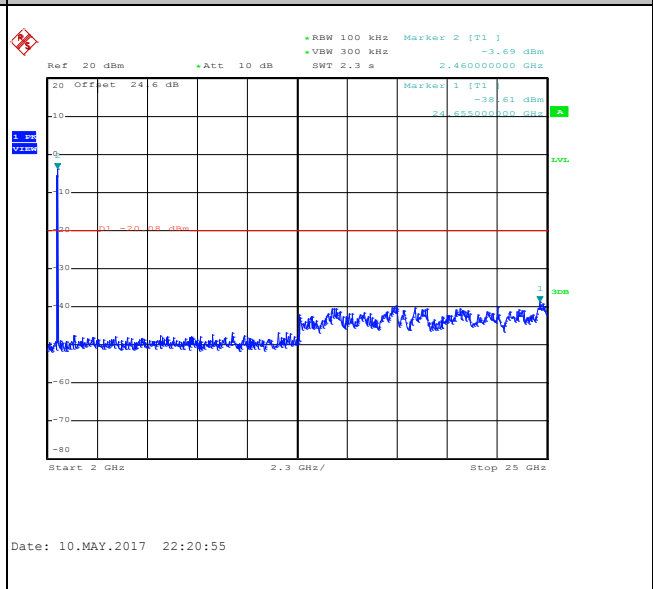
High Channel Plot



Spurious Emission 30MHz~3GHz



Spurious Emission 2GHz~25GHz

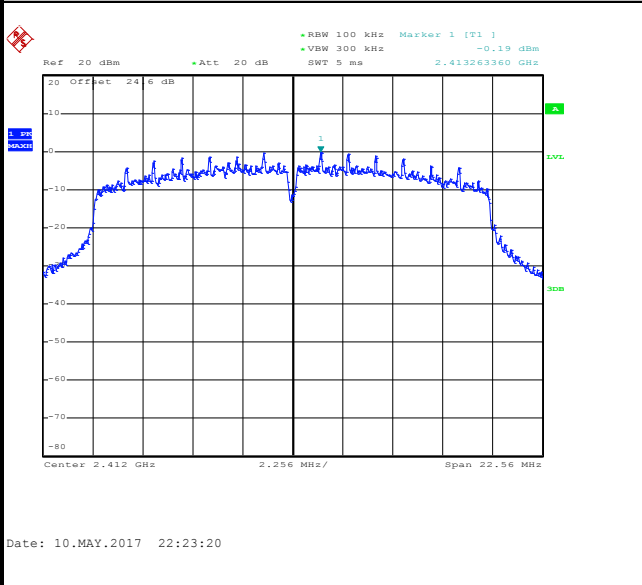




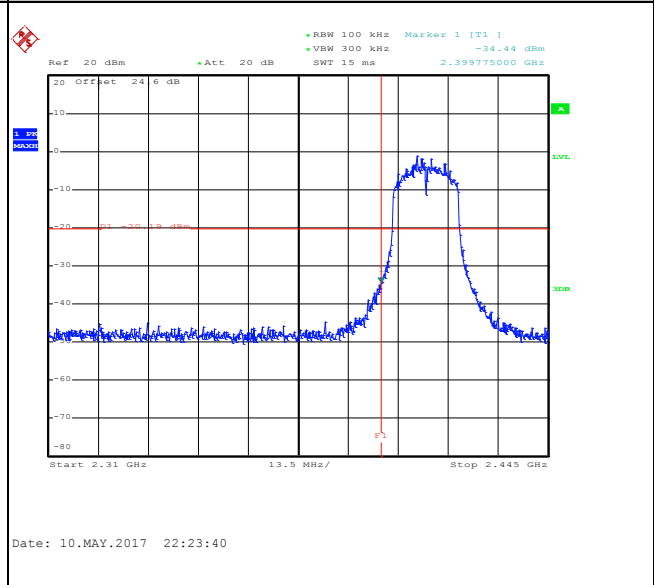
Test Mode :	802.11n HT20	Temperature :	21~25°C
Test Band :	2.4GHz Low	Relative Humidity :	51~54%
Test Channel :	01	Test Engineer :	Derek Hsu

WLAN 802.11n HT20 Channel 01

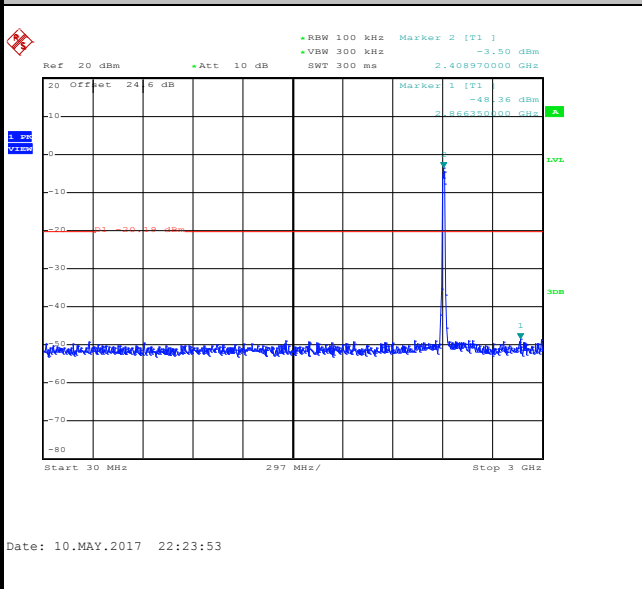
100kHz PSD reference Level



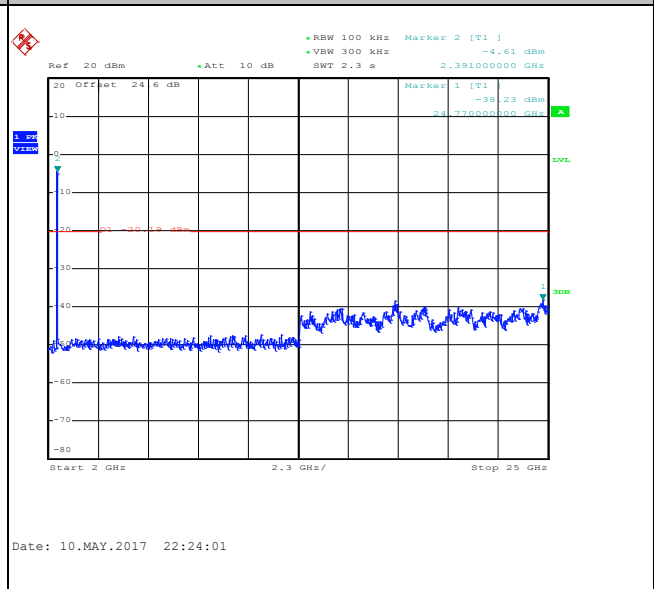
Low Channel Plot



Spurious Emission 30MHz~3GHz



Spurious Emission 2GHz~25GHz



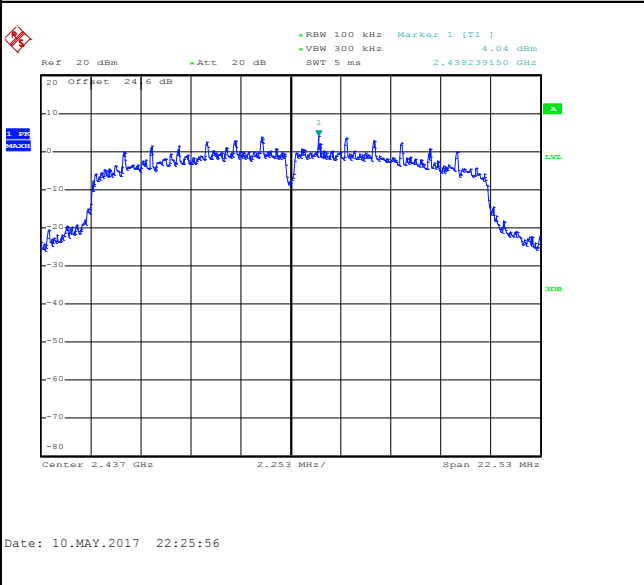




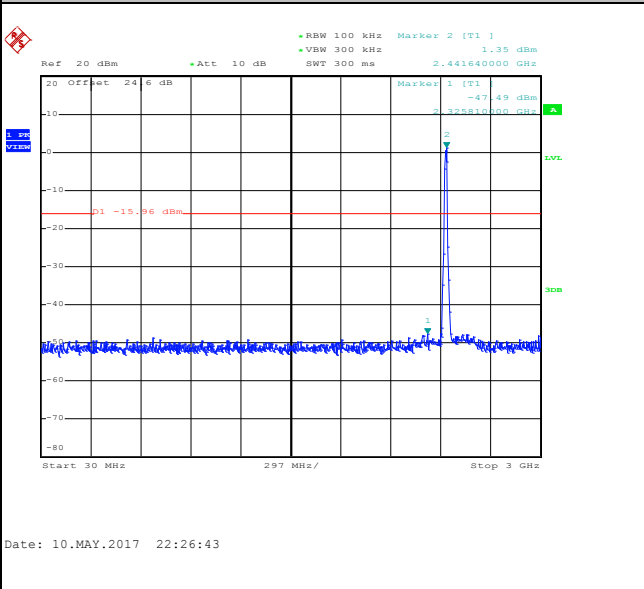
Test Mode :	802.11n HT20	Temperature :	21~25°C
Test Band :	2.4GHz Mid	Relative Humidity :	51~54%
Test Channel :	06	Test Engineer :	Derek Hsu

WLAN 802.11n HT20 Channel 06

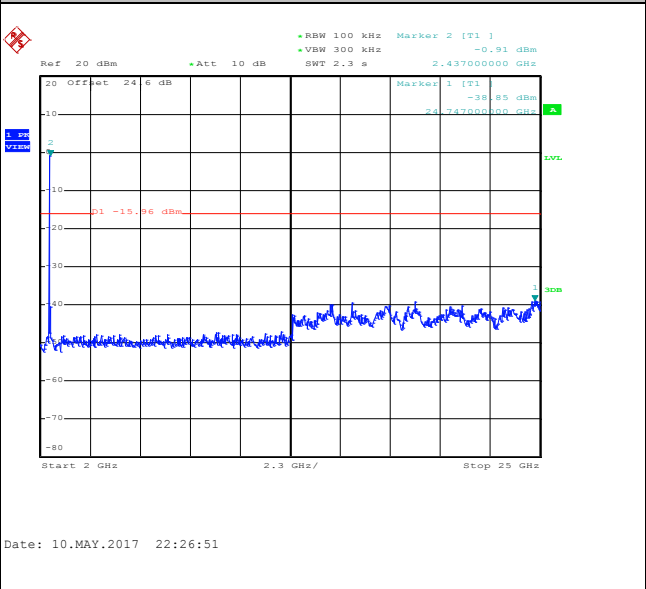
100kHz PSD reference Level



Spurious Emission 30MHz~3GHz



Spurious Emission 2GHz~25GHz

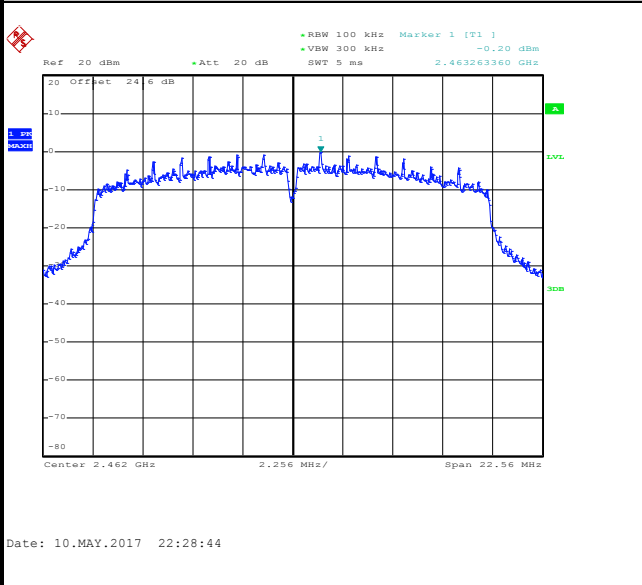




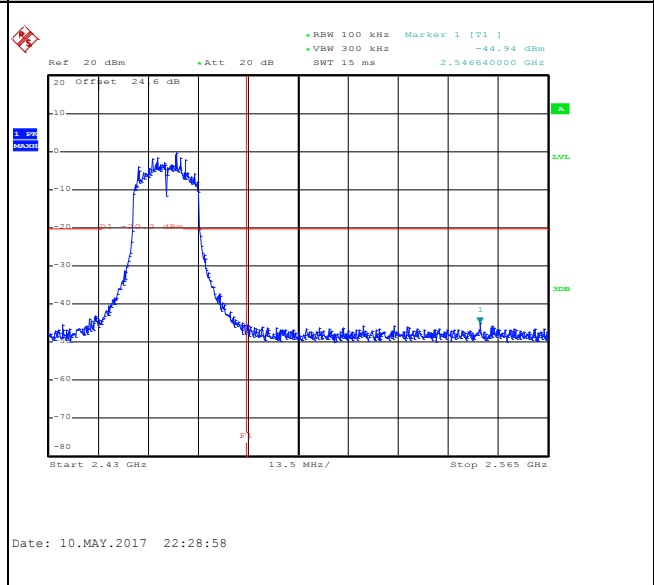
Test Mode :	802.11n HT20	Temperature :	21~25°C
Test Band :	2.4GHz High	Relative Humidity :	51~54%
Test Channel :	11	Test Engineer :	Derek Hsu

WLAN 802.11n HT20 Channel 11

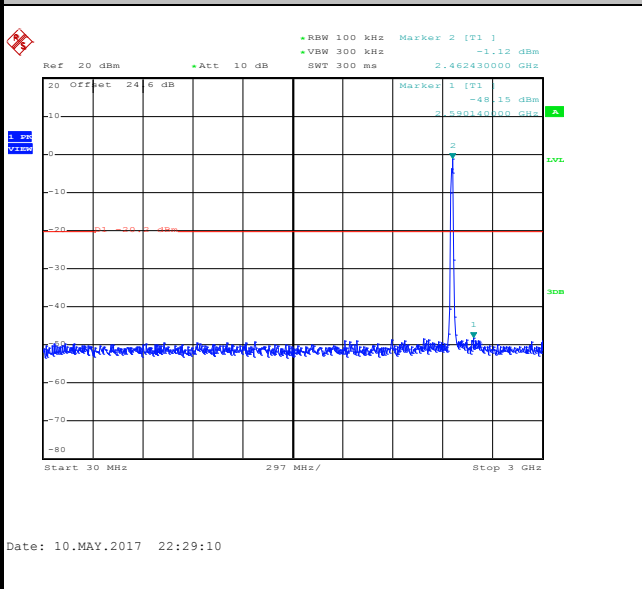
100kHz PSD reference Level



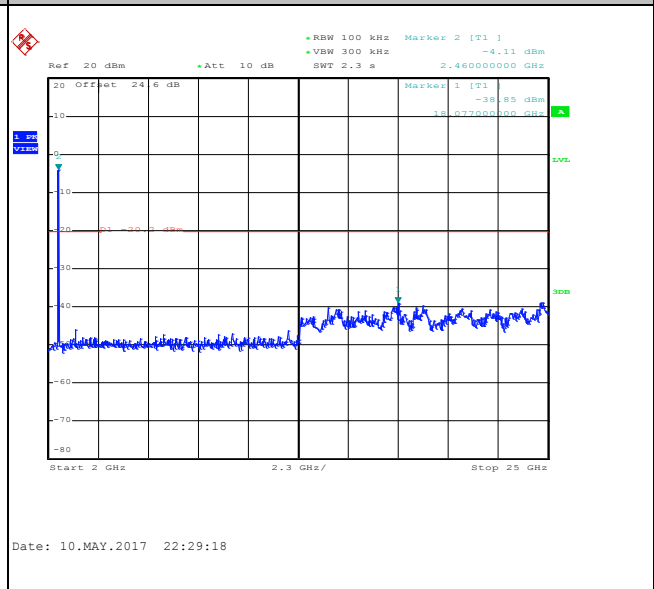
High Channel Plot



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 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.

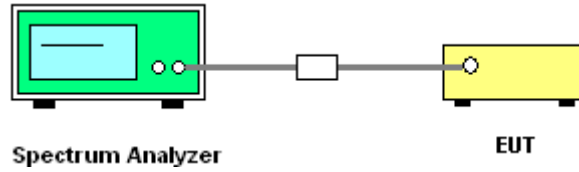


### 3.5.3 Test Procedures

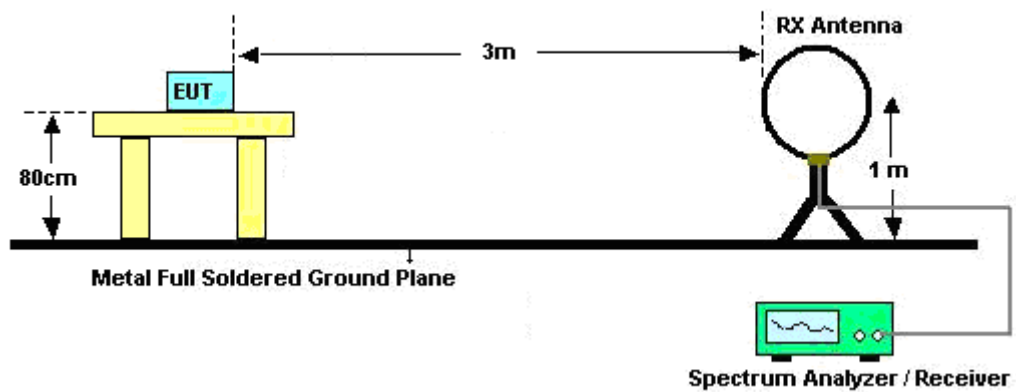
1. The testing follows FCC KDB Publication No. 558074 D01 DTS Meas. Guidance v04.
2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test 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

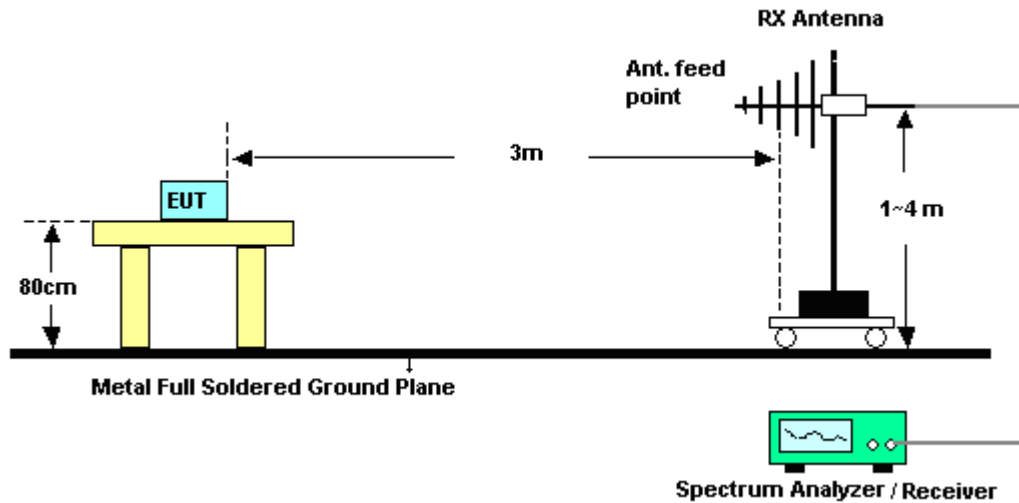
For Conducted Measurement Setup:



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 was not reported.

### 3.5.6 Test Result of Conducted Spurious at Band Edges in the Restricted Band

Please refer to Appendix C and D.

### 3.5.7 Test Result of Conducted Spurious Emission in the Restricted Band

Please refer to Appendix C and D.

### 3.5.8 Test Result of Cabinet Radiated Spurious at Band Edges

Please refer to Appendix E and F.

### 3.5.9 Duty Cycle

Please refer to Appendix G.

### 3.5.10 Test Result of Cabinet Radiated Spurious Emission (30MHz ~ 10<sup>th</sup> Harmonic)

Please refer to Appendix E and F.



### 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 $\mu$ 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.

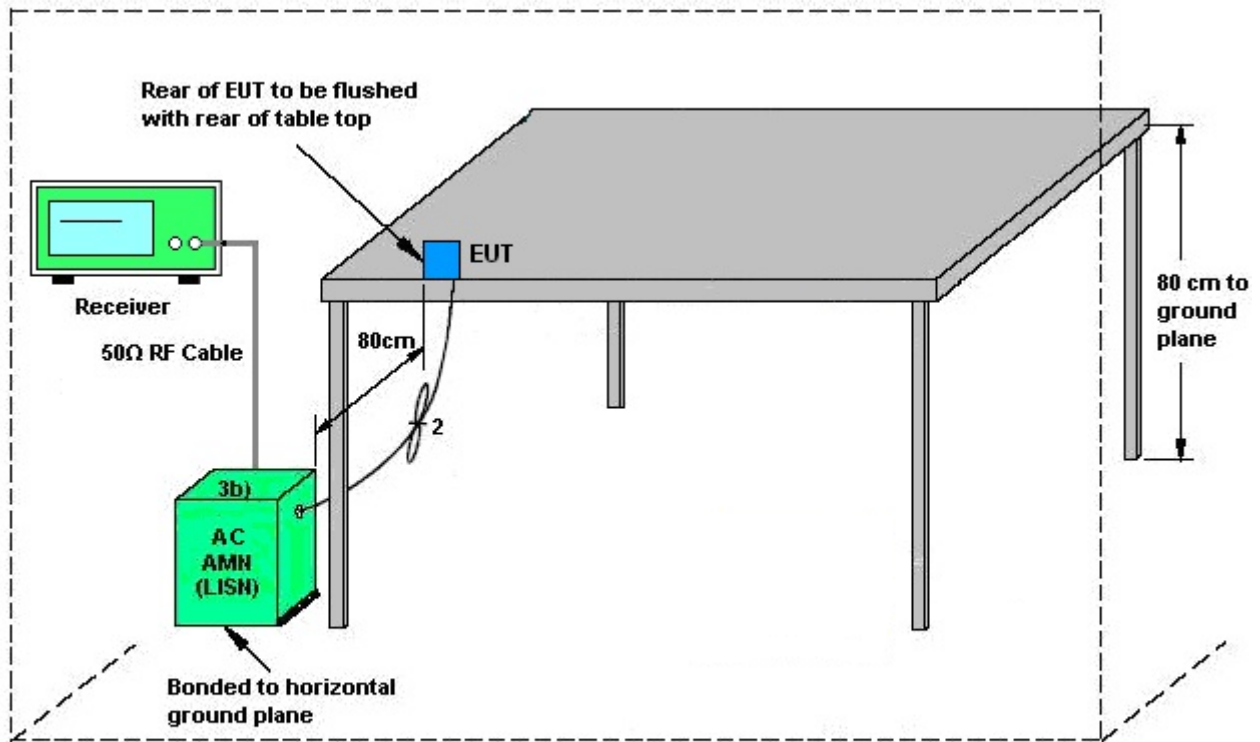
#### 3.6.2 Measuring Instruments

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

Please refer to Appendix B.





## **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 rule.

### **3.7.2 Antenna Anti-Replacement Construction**

An embedded-in antenna design is used.

### **3.7.3 Antenna Gain**

The antenna peak gain of EUT is less than 6 dBi. Therefore, it is not necessary to reduce maximum peak output power limit.



## 4 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Power Meter	Anritsu	ML2495A	0932001	300MHz~40GHz	Sep. 29, 2016	Apr. 19, 2017 ~ May 10, 2017	Sep. 28, 2017	Conducted (TH05-HY)
Power Sensor	Anritsu	MA2411B	0846202	300MHz~40GHz	Sep. 29, 2016	Apr. 19, 2017 ~ May 10, 2017	Sep. 28, 2017	Conducted (TH05-HY)
Spectrum Analyzer	Rohde & Schwarz	FSP40	100055	9kHz-40GHz	Jul. 17, 2016	Apr. 19, 2017 ~ May 10, 2017	Jul. 16, 2017	Conducted (TH05-HY)
AC Power Source	ChainTek	APC-1000W	N/A	N/A	N/A	Apr. 18, 2017	N/A	Conduction (CO05-HY)
EMI Test Receiver	Rohde & Schwarz	ESCI 7	100724	9kHz~7GHz	Aug. 30, 2016	Apr. 18, 2017	Aug. 29, 2017	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100080	9kHz~30MHz	Nov. 29, 2016	Apr. 18, 2017	Nov. 28, 2017	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100081	9kHz~30MHz	Dec. 06, 2016	Apr. 18, 2017	Dec. 05, 2017	Conduction (CO05-HY)
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100488	9 kHz~30 MHz	Oct. 20, 2016	May 25, 2017 ~ May 26, 2017	Oct. 19, 2018	Radiation (03CH15-HY)
EMI Test Receiver	Keysight	N9038A(MXE)	MY55420170	N/A	Mar. 03, 2017	May 25, 2017 ~ May 26, 2017	Mar. 02, 2018	Radiation (03CH15-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170576	18GHz ~ 40GHz	Apr. 27, 2017	May 25, 2017 ~ May 26, 2017	Apr. 26, 2018	Radiation (03CH15-HY)
Preamplifier	MITEQ	JS44-18004000-33-8P	1840917	18GHz ~ 40GHz	Jun. 14, 2016	May 25, 2017 ~ May 26, 2017	Jun. 13, 2017	Radiation (03CH15-HY)
Amplifier	SONOMA	310N	363440	9kHz~1GHz	Nov. 09, 2016	May 25, 2017 ~ May 26, 2017	Nov. 08, 2017	Radiation (03CH15-HY)
Bilog Antenna	TESEQ	CBL6111D&00800N1D01N-06	41912&05	30MHz to 1GHz	Jan. 07, 2017	May 25, 2017 ~ May 26, 2017	Jan. 06, 2018	Radiation (03CH15-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120D	9120D-1620	1G~18GHz	Sep. 30, 2016	May 25, 2017 ~ May 26, 2017	Sep. 29, 2017	Radiation (03CH15-HY)
Preamplifier	Keysight	83017A	MY53270195	1GHz~26.5GHz	Aug. 24, 2016	May 25, 2017 ~ May 26, 2017	Aug. 23, 2017	Radiation (03CH15-HY)
Preamplifier	Jet-Power	JAP00101800-30-10P	160118550004	1GHz~18GHz	Apr. 13, 2017	May 25, 2017 ~ May 26, 2017	Apr. 12, 2018	Radiation (03CH15-HY)
Spectrum Analyzer	Agilent	N9030A	MY52350276	3Hz~44GHz	Mar. 23, 2017	May 25, 2017 ~ May 26, 2017	Mar. 22, 2018	Radiation (03CH15-HY)
Antenna Mast	ChainTek	MBS-520-1	N/A	1m~4m	N/A	May 25, 2017 ~ May 26, 2017	N/A	Radiation (03CH15-HY)
Turn Table	ChainTek	T-200-S-1	N/A	0~360 Degree	N/A	May 25, 2017 ~ May 26, 2017	N/A	Radiation (03CH15-HY)
Spectrum Analyzer	Agilent	N9030A	MY52350276	3Hz~44GHz	Mar. 23, 2017	May 07, 2017	Mar. 22, 2018	Radiation (03CH13-HY)



## 5 Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ )	2.70
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### Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ )	5.14
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### Uncertainty of Radiated Emission Measurement (1000 MHz ~ 18000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ )	5.48
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### Uncertainty of Radiated Emission Measurement (18000 MHz ~ 40000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ )	5.12
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## Appendix A. Test Result of Conducted Test Items

Test Engineer:	Derek Hsu	Temperature:	21~25	°C
Test Date:	2017/04/19~2017/05/10	Relative Humidity:	51~54	%

### **TEST RESULTS DATA** **6dB and 99% Occupied Bandwidth**

2.4GHz Band								
Mod.	Data Rate	N <sub>TX</sub>	CH.	Freq. (MHz)	99% Occupied BW (MHz)	6dB BW (MHz)	6dB BW Limit (MHz)	Pass/Fail
11b	1Mbps	1	1	2412	14.15	9.08	0.50	Pass
11b	1Mbps	1	6	2437	14.20	9.06	0.50	Pass
11b	1Mbps	1	11	2462	14.20	9.06	0.50	Pass
11g	6Mbps	1	1	2412	17.25	15.06	0.50	Pass
11g	6Mbps	1	6	2437	18.30	15.06	0.50	Pass
11g	6Mbps	1	11	2462	17.50	15.06	0.50	Pass
HT20	MCS0	1	1	2412	18.20	15.04	0.50	Pass
HT20	MCS0	1	6	2437	18.75	15.02	0.50	Pass
HT20	MCS0	1	11	2462	18.20	15.04	0.50	Pass

**TEST RESULTS DATA**  
**Peak Power Table**

2.4GHz Band										
Mod.	Data Rate	N <sub>TX</sub>	CH.	Freq. (MHz)	Peak Conducted Power (dBm)	Conducted Power Limit (dBm)	Antenna Gain (dBi)	EIRP Power (dBm)	EIRP Power Limit (dBm)	Pass /Fail
11b	1Mbps	1	1	2412	18.06	30.00	2.50	20.56	36.00	Pass
11b	1Mbps	1	6	2437	18.40	30.00	2.50	20.90	36.00	Pass
11b	1Mbps	1	11	2462	18.26	30.00	2.50	20.76	36.00	Pass
11g	6Mbps	1	1	2412	19.45	30.00	2.50	21.95	36.00	Pass
11g	6Mbps	1	6	2437	20.01	30.00	2.50	22.51	36.00	Pass
11g	6Mbps	1	11	2462	19.15	30.00	2.50	21.65	36.00	Pass
HT20	MCS0	1	1	2412	19.36	30.00	2.50	21.86	36.00	Pass
HT20	MCS0	1	6	2437	19.76	30.00	2.50	22.26	36.00	Pass
HT20	MCS0	1	11	2462	19.07	30.00	2.50	21.57	36.00	Pass

**TEST RESULTS DATA**  
**Average Power Table**  
***(Reporting Only)***

2.4GHz Band						
Mod.	Data Rate	N <sub>TX</sub>	CH.	Freq. (MHz)	Duty Factor (dB)	Average Conducted Power (dBm)
11b	1Mbps	1	1	2412	0.17	16.60
11b	1Mbps	1	6	2437	0.17	16.80
11b	1Mbps	1	11	2462	0.17	16.70
11g	6Mbps	1	1	2412	0.35	11.90
11g	6Mbps	1	6	2437	0.35	16.20
11g	6Mbps	1	11	2462	0.35	11.70
HT20	MCS0	1	1	2412	0.42	11.60
HT20	MCS0	1	6	2437	0.42	16.00
HT20	MCS0	1	11	2462	0.42	11.50

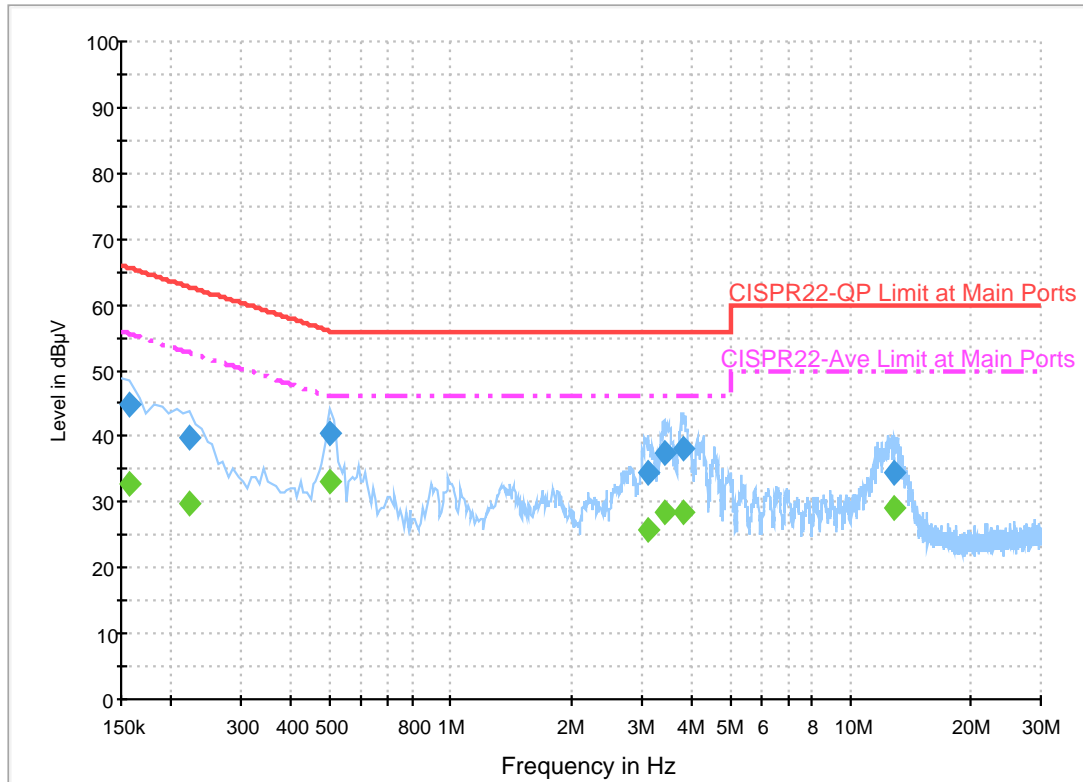
**TEST RESULTS DATA**  
**Peak Power Density**

2.4GHz Band								
Mod.	Data Rate	N <sub>TX</sub>	CH.	Freq. (MHz)	Peak PSD (dBm /3kHz)	Antenna Gain (dBi)	Peak PSD Limit (dBm /3kHz)	Pass/Fail
11b	1Mbps	1	1	2412	-10.56	2.50	8.00	Pass
11b	1Mbps	1	6	2437	-10.18	2.50	8.00	Pass
11b	1Mbps	1	11	2462	-9.50	2.50	8.00	Pass
11g	6Mbps	1	1	2412	-16.86	2.50	8.00	Pass
11g	6Mbps	1	6	2437	-11.26	2.50	8.00	Pass
11g	6Mbps	1	11	2462	-16.92	2.50	8.00	Pass
HT20	MCS0	1	1	2412	-16.17	2.50	8.00	Pass
HT20	MCS0	1	6	2437	-11.71	2.50	8.00	Pass
HT20	MCS0	1	11	2462	-16.50	2.50	8.00	Pass

# EUT Information

Report NO : 731627  
 Test Mode : Mode 1  
 Test Voltage : 120Vac/60Hz  
 Phase : Line

ENV216 Auto Test-L



## Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.158000	44.7	Off	L1	19.5	20.9	65.6
0.222000	39.9	Off	L1	19.5	22.8	62.7
0.502000	40.4	Off	L1	19.5	15.6	56.0
3.134000	34.4	Off	L1	19.5	21.6	56.0
3.422000	37.4	Off	L1	19.5	18.6	56.0
3.806000	38.1	Off	L1	19.6	17.9	56.0
12.886000	34.5	Off	L1	19.7	25.5	60.0

## Final Result 2

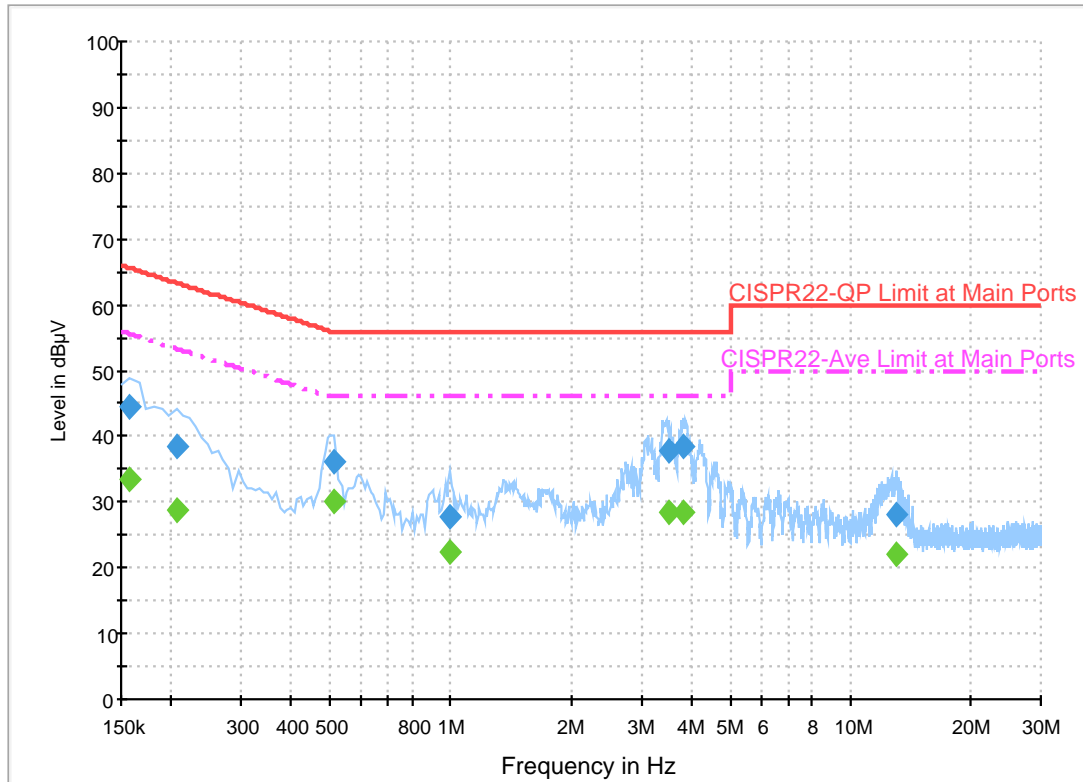
Frequency (MHz)	Average (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.158000	32.7	Off	L1	19.5	22.9	55.6
0.222000	29.9	Off	L1	19.5	22.8	52.7
0.502000	33.1	Off	L1	19.5	12.9	46.0
3.134000	25.7	Off	L1	19.5	20.3	46.0
3.422000	28.4	Off	L1	19.5	17.6	46.0
3.806000	28.3	Off	L1	19.6	17.7	46.0
12.886000	29.1	Off	L1	19.7	20.9	50.0



# EUT Information

Report NO : 731627  
 Test Mode : Mode 1  
 Test Voltage : 120Vac/60Hz  
 Phase : Neutral

ENV216 Auto Test-N



## Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.158000	44.6	Off	N	19.5	21.0	65.6
0.206000	38.4	Off	N	19.5	25.0	63.4
0.510000	36.2	Off	N	19.5	19.8	56.0
0.998000	27.8	Off	N	19.5	28.2	56.0
3.526000	37.7	Off	N	19.5	18.3	56.0
3.830000	38.5	Off	N	19.6	17.5	56.0
13.110000	28.0	Off	N	19.8	32.0	60.0

## Final Result 2

Frequency (MHz)	Average (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.158000	33.4	Off	N	19.5	22.2	55.6
0.206000	28.7	Off	N	19.5	24.7	53.4
0.510000	30.3	Off	N	19.5	15.7	46.0
0.998000	22.5	Off	N	19.5	23.5	46.0
3.526000	28.4	Off	N	19.5	17.6	46.0
3.830000	28.5	Off	N	19.6	17.5	46.0
13.110000	22.1	Off	N	19.8	27.9	50.0



### Appendix C. Conducted Spurious Emission

Test Engineer :	Karl Hou	Temperature :	22~24°C
		Relative Humidity :	45~47%

#### 2.4GHz 2400~2483.5MHz

#### WIFI 802.11b (Band Edge)

WIFI Ant.	Note	Frequency ( MHz )	Level ( dBm )	Over Limit ( dB )	Limit Line ( dBm )	Read Level (dBm)	Antenna Gain ( dBi )	Path Loss ( dB )	MIMO Factor ( dB )	Grounding Factor ( dB )	Peak Avg. (P/A)
802.11b CH 01 2412MHz		2386.545	-38.53	-17.33	-21.2	-44.06	2.5	3.03	0	0	P
		2386.125	-47.6	-6.4	-41.2	-53.13	2.5	3.03	0	0	A
	*	2412	13.96	-	-	8.4	2.5	3.06	0	0	P
	*	2412	10.76	-	-	5.2	2.5	3.06	0	0	A
802.11b CH 06 2437MHz		2338.7	-39.82	-18.62	-21.2	-45.3	2.5	2.98	0	0	P
		2318.12	-48.22	-7.02	-41.2	-53.69	2.5	2.97	0	0	A
	*	2437	14.37	-	-	8.81	2.5	3.06	0	0	P
	*	2437	11.15	-	-	5.59	2.5	3.06	0	0	A
		2483.69	-39.65	-18.45	-21.2	-45.24	2.5	3.09	0	0	P
		2483.5	-49.39	-8.19	-41.2	-54.98	2.5	3.09	0	0	A
802.11b CH 11 2462MHz	*	2462	14.53	-	-	8.96	2.5	3.07	0	0	P
	*	2462	11.36	-	-	5.79	2.5	3.07	0	0	A
		2486.42	-37.09	-15.89	-21.2	-42.68	2.5	3.09	0	0	P
		2486.76	-45.14	-3.94	-41.2	-50.73	2.5	3.09	0	0	A
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)**

WIFI Ant. 1	Note	Frequency ( MHz )	Level ( dBm )	Over Limit ( dB )	Limit Line ( dBm )	Read Level (dBm)	Antenna Gain ( dBi )	Path Loss ( dB )	MIMO Factor ( dB )	Grounding Factor ( dB )	Peak Avg. (P/A)
802.11b CH 01 2412MHz		4018.7	-48.27	-27.07	-21.2	-55.46	2.5	4.69	0	0	P
		4824	-60.23	-39.03	-21.2	-67.68	2.5	4.95	0	0	P
802.11b CH 06 2437MHz		4061.4	-50.58	-29.38	-21.2	-57.79	2.5	4.71	0	0	P
		4874	-54.69	-33.49	-21.2	-62.15	2.5	4.96	0	0	P
		7311	-58.98	-37.78	-21.2	-67.98	2.5	6.5	0	0	P
802.11b CH 11 2462MHz		4104.1	-52.61	-31.41	-21.2	-59.85	2.5	4.74	0	0	P
		4924	-51.81	-30.61	-21.2	-59.27	2.5	4.96	0	0	P
		7386	-58.89	-37.69	-21.2	-67.94	2.5	6.55	0	0	P
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)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	MIMO	Groun ding	Peak
Ant.				Limit	Line	Level	Gain	Loss	Factor	Factor	Avg.
1		( MHz )	( dBm )	( dB )	( dBm )	(dBm)	( dBi )	( dB )	( dB )	( dB )	(P/A)
802.11g CH 01 2412MHz		2389.17	-35.91	-14.71	-21.2	-41.44	2.5	3.03	0	0	P
		2390	-47.87	-6.67	-41.2	-53.4	2.5	3.03	0	0	A
	*	2412	11.14	-	-	5.58	2.5	3.06	0	0	P
	*	2412	3.18	-	-	-2.38	2.5	3.06	0	0	A
802.11g CH 06 2437MHz		2312.66	-39.54	-18.34	-21.2	-45.01	2.5	2.97	0	0	P
		2324.7	-48.95	-7.75	-41.2	-54.43	2.5	2.98	0	0	A
	*	2437	15.66	-	-	10.1	2.5	3.06	0	0	P
	*	2437	7.82	-	-	2.26	2.5	3.06	0	0	A
		2491.95	-39.59	-18.39	-21.2	-45.18	2.5	3.09	0	0	P
	2499.44	-49.32	-8.12	-41.2	-54.91	2.5	3.09	0	0	A	
802.11g CH 11 2462MHz	*	2462	11.79	-	-	6.22	2.5	3.07	0	0	P
	*	2462	3.07	-	-	-2.5	2.5	3.07	0	0	A
		2483.83	-33.27	-12.07	-21.2	-38.86	2.5	3.09	0	0	P
		2483.52	-46.4	-5.2	-41.2	-51.99	2.5	3.09	0	0	A
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)**

WIFI Ant. 1	Note	Frequency ( MHz )	Level ( dBm )	Over Limit ( dB )	Limit Line ( dBm )	Read Level (dBm)	Antenna Gain ( dBi )	Path Loss ( dB )	MIMO Factor ( dB )	Grounding Factor ( dB )	Peak Avg. (P/A)
802.11g CH 01 2412MHz		4018.7	-49.63	-28.43	-21.2	-56.82	2.5	4.69	0	0	P
		4824	-67.11	-45.91	-21.2	-74.56	2.5	4.95	0	0	P
802.11g CH 06 2437MHz		4061.4	-50.61	-29.41	-21.2	-57.82	2.5	4.71	0	0	P
		4874	-57.17	-35.97	-21.2	-64.63	2.5	4.96	0	0	P
		7311	-57.86	-36.66	-21.2	-66.86	2.5	6.5	0	0	P
802.11g CH 11 2462MHz		4098	-54.96	-33.76	-21.2	-62.19	2.5	4.73	0	0	P
		4924	-62.76	-41.56	-21.2	-70.22	2.5	4.96	0	0	P
		7386	-63.4	-42.2	-21.2	-72.45	2.5	6.55	0	0	P
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)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	MIMO	Groun	Peak
Ant.				Limit	Line	Level	Gain	Loss	Factor	ding	Avg.
1		( MHz )	( dBm )	( dB )	( dBm )	(dBm)	( dBi )	( dB )	( dB )	( dB )	(P/A)
802.11n HT20 CH 01 2412MHz		2389.59	-37.04	-15.84	-21.2	-42.57	2.5	3.03	0	0	P
		2389.59	-47.36	-6.16	-41.2	-52.89	2.5	3.03	0	0	A
	*	2412	11.44	-	-	5.88	2.5	3.06	0	0	P
	*	2412	2.59	-	-	-2.97	2.5	3.06	0	0	A
802.11n HT20 CH 06 2437MHz		2356.06	-39.38	-18.18	-21.2	-44.88	2.5	3	0	0	P
		2358.86	-49.62	-8.42	-41.2	-55.13	2.5	3.01	0	0	A
	*	2437	15.24	-	-	9.68	2.5	3.06	0	0	P
	*	2437	6.44	-	-	0.88	2.5	3.06	0	0	A
		2491.74	-39.04	-17.84	-21.2	-44.63	2.5	3.09	0	0	P
	2499.65	-50.18	-8.98	-41.2	-55.77	2.5	3.09	0	0	A	
802.11n HT20 CH 11 2462MHz	*	2462	10.94	-	-	5.37	2.5	3.07	0	0	P
	*	2462	2.69	-	-	-2.88	2.5	3.07	0	0	A
		2483.5	-32.04	-10.84	-21.2	-37.63	2.5	3.09	0	0	P
		2483.64	-45.25	-4.05	-41.2	-50.84	2.5	3.09	0	0	A
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)

WIFI Ant. 1	Note	Frequency ( MHz )	Level ( dBm )	Over Limit ( dB )	Limit Line ( dBm )	Read Level (dBm)	Antenna Gain ( dBi )	Path Loss ( dB )	MIMO Factor ( dB )	Grounding Factor ( dB )	Peak Avg. (P/A)
802.11n HT20 CH 01 2412MHz		4024.8	-50.93	-29.73	-21.2	-58.12	2.5	4.69	0	0	P
		4824	-63.22	-42.02	-21.2	-70.67	2.5	4.95	0	0	P
802.11n HT20 CH 06 2437MHz		4055.3	-51.07	-29.87	-21.2	-58.28	2.5	4.71	0	0	P
		4874	-59.47	-38.27	-21.2	-66.93	2.5	4.96	0	0	P
		7311	-56.03	-34.83	-21.2	-65.03	2.5	6.5	0	0	P
802.11n HT20 CH 11 2462MHz		4110.2	-56.2	-35	-21.2	-63.44	2.5	4.74	0	0	P
		4924	-58.43	-37.23	-21.2	-65.89	2.5	4.96	0	0	P
		7386	-63.09	-41.89	-21.2	-72.14	2.5	6.55	0	0	P
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.										



**Emission below 1GHz  
2.4GHz WIFI 802.11b (LF)**

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	MIMO	Grounding	Peak	
Ant.				Limit	Line	Level	Gain	Loss	Factor	Factor	Avg.	
1		( MHz )	( dBm )	( dB )	( dBm )	(dBm)	( dBi )	( dB )	( dB )	( dB )	(P/A)	
<b>2.4GHz 802.11b LF</b>		71.31	-87.61	-32.41	-55.2	-95.26	2.5	0.45	0	4.7	P	
		105.33	-88.15	-36.45	-51.7	-95.9	2.5	0.55	0	4.7	P	
		174.45	-87.23	-35.53	-51.7	-95.18	2.5	0.75	0	4.7	P	
		492.5	-85.74	-36.54	-49.2	-94.2	2.5	1.26	0	4.7	P	
		659.1	-85.07	-35.87	-49.2	-93.75	2.5	1.48	0	4.7	P	
		820.1	-72.85	-23.65	-49.2	-81.71	2.5	1.66	0	4.7	P	
<b>Remark</b>	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.											





**Note symbol**

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



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

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	MIMO	Grounding	Peak
Ant.				Limit	Line	Level	Gain	Loss	Factor	Factor	Avg.
1		( MHz )	( dBm )	( dB )	( dBm )	( dBm )	( dBi )	( dB )	( dB )	( dB )	( P/A )
802.11b		2386.545	-39.03	-17.83	-21.2	-44.06	2	3.03	0	0	P
CH 01											
2412MHz		2386.125	-48.1	-6.9	-41.2	-53.13	2	3.03	0	0	A

1. Level(dBm) =

$$\text{Antenna Gain(dBi)} + \text{Path Loss(dB)} + \text{Read Level(dBm)} + \text{MIMO Factor(dB)} + \text{Grounding Factor(dB)}$$

2. Over Limit(dB) = Level(dBm) – Limit Line(dBm)

**For Peak Limit @ 2386.545MHz:**

1. Level(dBm)

$$= \text{Antenna Gain(dBi)} + \text{Path Loss(dB)} + \text{Read Level(dBm)} + \text{MIMO Factor(dB)} + \text{Grounding Factor(dB)}$$

$$= 2(\text{dB}) + 3.03(\text{dB}) - 44.06(\text{dBm})$$

$$= -39.03(\text{dBm})$$

2. Over Limit(dB)

$$= \text{Level(dBm)} - \text{Limit Line(dBm)}$$

$$= -39.03(\text{dBm}) + 21.2(\text{dBm})$$

$$= -17.83(\text{dB})$$

**For Average Limit @ 2386.125MHz:**

1. Level(dBm)

$$= \text{Antenna Gain(dBi)} + \text{Path Loss(dB)} + \text{Read Level(dBm)} + \text{MIMO Factor(dB)} + \text{Grounding Factor(dB)}$$

$$= 2(\text{dBi}) + 3.03(\text{dB}) - 53.13(\text{dBm})$$

$$= -48.1(\text{dBm})$$

2. Over Limit(dB)

$$= \text{Level(dB}\mu\text{V/m)} - \text{Limit Line(dB}\mu\text{V/m)}$$

$$= 43.54(\text{dB}\mu\text{V/m}) - 54(\text{dB}\mu\text{V/m})$$

$$= -6.9(\text{dB})$$

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



## Appendix D. Conducted Spurious Emission Plots

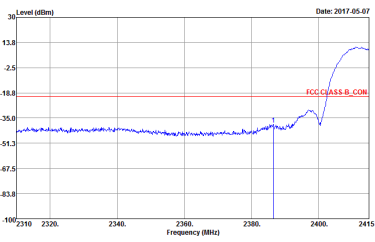
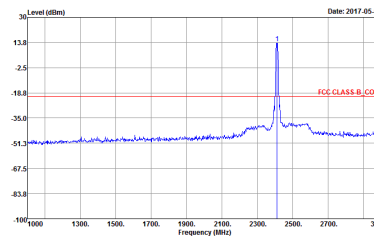
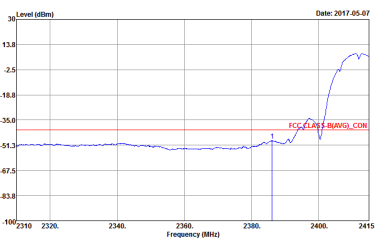
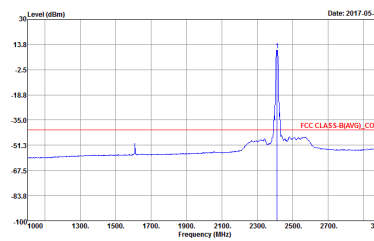
Test Engineer :	Karl Hou	Temperature :	22~24°C
		Relative Humidity :	45~47%

### Note symbol

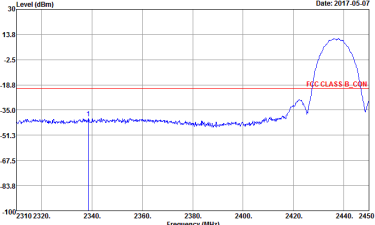
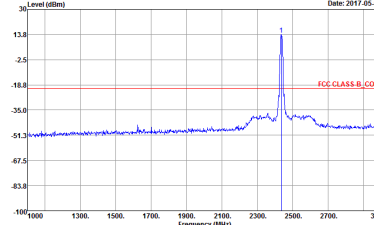

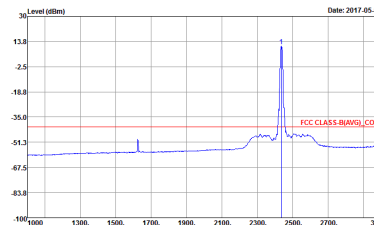
-L	Low channel location
-R	High channel location



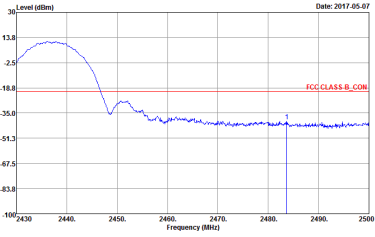
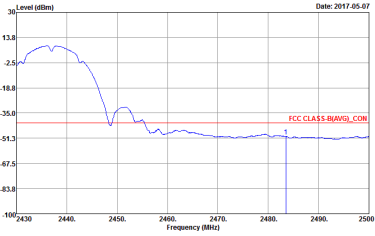
2.4GHz 2400~2483.5MHz  
WIFI 802.11b (Band Edge)

WIFI	2.4GHz 2400~2483.5MHz Band Edge	
ANT	802.11b CH01 2412MHz	
1	CSE	Fundamental
Peak	 <p>Site : 03CH134Y Condition : FCC CLASS-B_CON ANT_GAIN+2 HORIZONTAL RBW: 1000.000kHz VBW: 3000.000kHz SWT: Auto Detector : Peak Project : 731627 Mode : 1 Setting : 0</p>	 <p>Site : 03CH134Y Condition : FCC CLASS-B_CON ANT_GAIN+2 HORIZONTAL RBW: 1000.000kHz VBW: 3000.000kHz SWT: Auto Detector : Peak Project : 731627 Mode : 1 Setting : 0</p>
Avg.	 <p>Site : 03CH134Y Condition : FCC CLASS-B(AVG)_CON ANT_GAIN+2 HORIZONTAL RBW: 1000.000kHz VBW: 0.100kHz SWT: Auto Detector : Peak Project : 731627 Mode : 1 Setting : 0</p>	 <p>Site : 03CH134Y Condition : FCC CLASS-B(AVG)_CON ANT_GAIN+2 HORIZONTAL RBW: 1000.000kHz VBW: 0.100kHz SWT: Auto Detector : Peak Project : 731627 Mode : 1 Setting : 0</p>

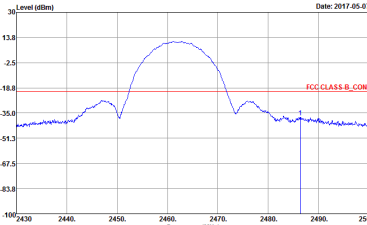
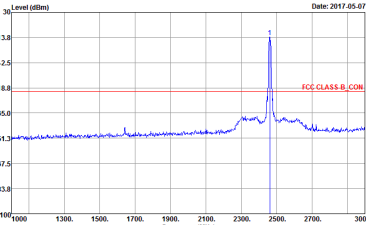
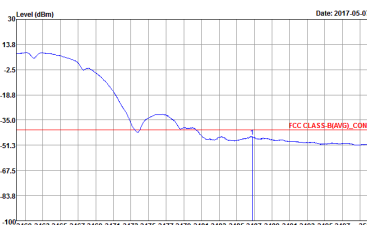
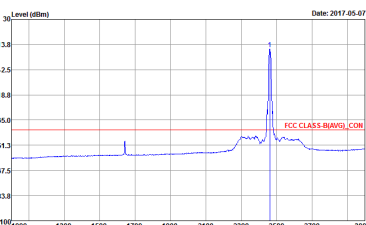


WIFI	2.4GHz 2400~2483.5MHz Band Edge	
ANT	802.11b CH06 2437MHz - L	
1	CSE	Fundamental
Peak	 <p>Site : 03CH134Y            Condition : FCC CLASS-B_CON ANT_GAIN+2 HORIZONTAL            RBW: 1000.000kHz VBW:3000.000kHz SWT:Auto            Detector : Peak            Project : 731627            Mode : 2            Setting : 0</p>	 <p>Site : 03CH134Y            Condition : FCC CLASS-B_CON ANT_GAIN+2 HORIZONTAL            RBW: 1000.000kHz VBW:3000.000kHz SWT:Auto            Detector : Peak            Project : 731627            Mode : 2            Setting : 0</p>
Avg.	 <p>Site : 03CH134Y            Condition : FCC CLASS-B(AVG)_CON ANT_GAIN+2 HORIZONTAL            RBW: 1000.000kHz VBW:3.100kHz SWT:Auto            Detector : Peak            Project : 731627            Mode : 2            Setting : 0</p>	 <p>Site : 03CH134Y            Condition : FCC CLASS-B(AVG)_CON ANT_GAIN+2 HORIZONTAL            RBW: 1000.000kHz VBW:0.100kHz SWT:Auto            Detector : Peak            Project : 731627            Mode : 2            Setting : 0</p>



WIFI	2.4GHz 2400~2483.5MHz Band Edge	
ANT	802.11b CH06 2437MHz - R	
1	CSE	Fundamental
<p><b>Peak</b></p>	 <p>Site : 63CH134FY            Condition : FCC CLASS-B_CON ANT_GAIN+2 HORIZONTAL            Detector : Peak            Project : 731627            Mode : 2            Setting : 0</p>	<p>Left blank</p>
<p><b>Avg.</b></p>	 <p>Site : 63CH134FY            Condition : FCC CLASS-B(AVG)_CON ANT_GAIN+2 HORIZONTAL            Detector : Peak            Project : 731627            Mode : 2            Setting : 0</p>	<p>Left blank</p>

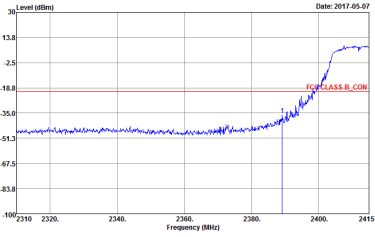
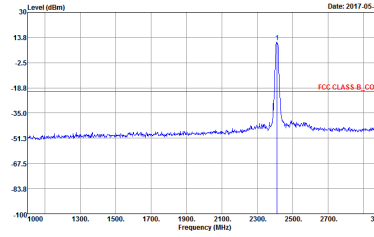
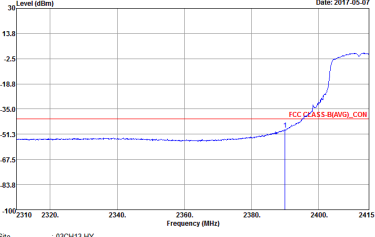
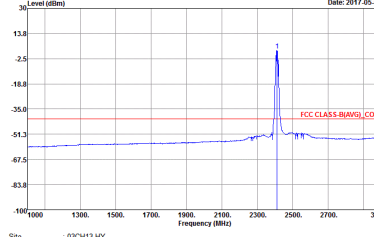


WIFI	2.4GHz 2400~2483.5MHz Band Edge	
ANT	802.11b CH11 2462MHz	
1	Horizontal	Fundamental
Peak	 <p>Site : 03CH134Y            Condition : FCC CLASS-B_CON ANT_GAIN+2 HORIZONTAL            Detector : Peak            Project : 731627            Mode : 3            Setting : 0</p>	 <p>Site : 03CH134Y            Condition : FCC CLASS-B_CON ANT_GAIN+2 HORIZONTAL            Detector : Peak            Project : 731627            Mode : 3            Setting : 0</p>
Avg.	 <p>Site : 03CH134Y            Condition : FCC CLASS-B(AVG)_CON ANT_GAIN+2 HORIZONTAL            Detector : Peak            Project : 731627            Mode : 3            Setting : 0</p>	 <p>Site : 03CH134Y            Condition : FCC CLASS-B(AVG)_CON ANT_GAIN+2 HORIZONTAL            Detector : Peak            Project : 731627            Mode : 3            Setting : 0</p>



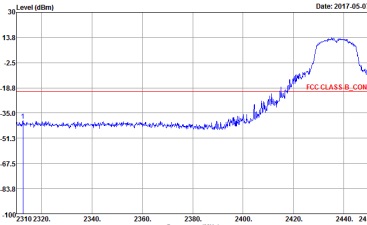
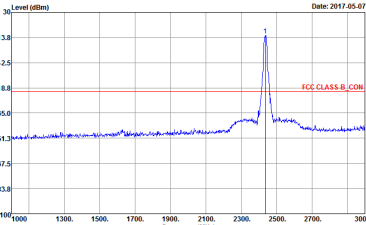
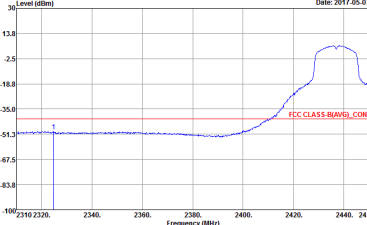
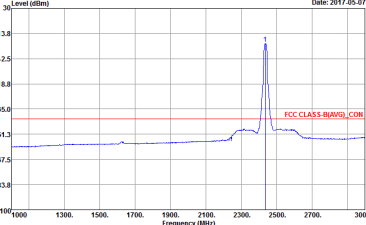
2.4GHz 2400~2483.5MHz

WIFI 802.11g (Band Edge)

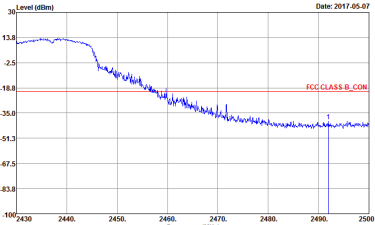
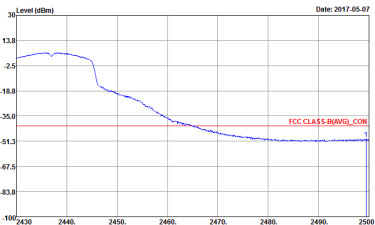
WIFI	2.4GHz 2400~2483.5MHz Band Edge	
ANT	802.11g CH01 2412MHz	
1	CSE	Fundamental
Peak	 <p>Site : 03CH134Y            Condition : FCC CLASS-B_CON ANT_GAIN+2 HORIZONTAL            RBW:1000.0000kHz VBW:3000.0000kHz SWT:Auto            Detector : Peak            Project : 731627            Mode : 4            Setting : 0</p>	 <p>Site : 03CH134Y            Condition : FCC CLASS-B_CON ANT_GAIN+2 HORIZONTAL            RBW:1000.0000kHz VBW:3000.0000kHz SWT:Auto            Detector : Peak            Project : 731627            Mode : 4            Setting : 0</p>
Avg.	 <p>Site : 03CH134Y            Condition : FCC CLASS-B(AVG)_CON ANT_GAIN+2 HORIZONTAL            RBW:1000.0000kHz VBW:1.0000kHz SWT:Auto            Detector : Peak            Project : 731627            Mode : 4            Setting : 0</p>	 <p>Site : 03CH134Y            Condition : FCC CLASS-B(AVG)_CON ANT_GAIN+2 HORIZONTAL            RBW:1000.0000kHz VBW:1.0000kHz SWT:Auto            Detector : Peak            Project : 731627            Mode : 4            Setting : 0</p>



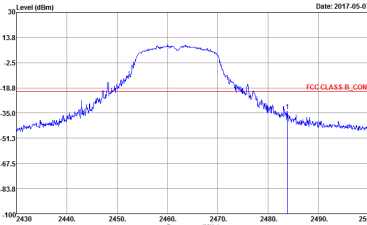
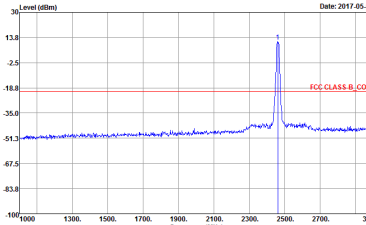
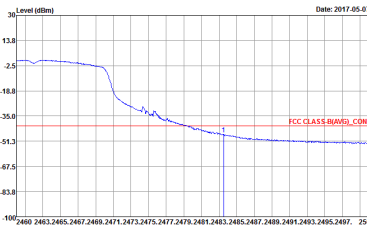
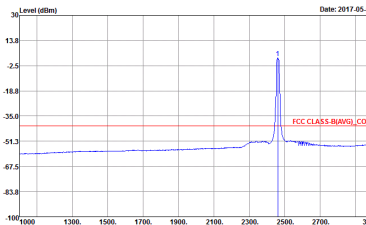


WIFI	2.4GHz 2400~2483.5MHz Band Edge	
ANT	802.11g CH06 2437MHz - L	
1	CSE	Fundamental
Peak	 <p>Site : 03CH134Y            Condition : FCC CLASS-B_CON ANT_GAIN+2 HORIZONTAL            Detector : Peak            Project : 731627            Mode : S            Setting : 0</p>	 <p>Site : 03CH134Y            Condition : FCC CLASS-B_CON ANT_GAIN+2 HORIZONTAL            Detector : Peak            Project : 731627            Mode : S            Setting : 0</p>
Avg.	 <p>Site : 03CH134Y            Condition : FCC CLASS-B(AVG)_CON ANT_GAIN+2 HORIZONTAL            Detector : Peak            Project : 731627            Mode : S            Setting : 0</p>	 <p>Site : 03CH134Y            Condition : FCC CLASS-B(AVG)_CON ANT_GAIN+2 HORIZONTAL            Detector : Peak            Project : 731627            Mode : S            Setting : 0</p>



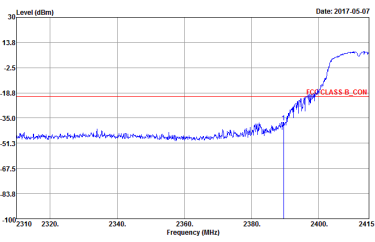
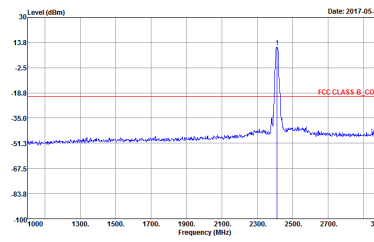
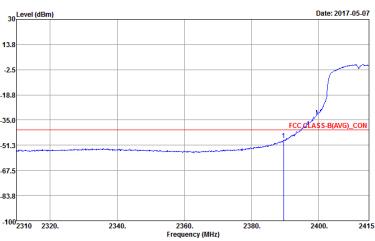
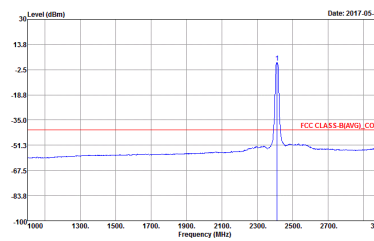
WIFI	2.4GHz 2400~2483.5MHz Band Edge	
ANT	802.11g CH06 2437MHz - R	
1	CSE	Fundamental
Peak	 <p>Site : 63CH134-Y            Condition : FCC CLASS-B_CON ANT_GAIN+2 HORIZONTAL            Detector : Peak            Project : F31627            Mode : S            Setting : 0</p>	Left blank
Avg.	 <p>Site : 63CH134-Y            Condition : FCC CLASS-B(AVG)_CON ANT_GAIN+2 HORIZONTAL            Detector : Peak            Project : F31627            Mode : S            Setting : 0</p>	Left blank



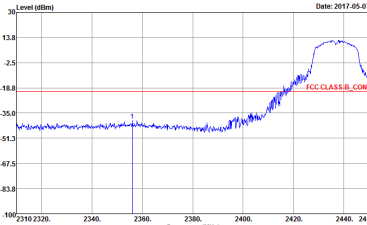
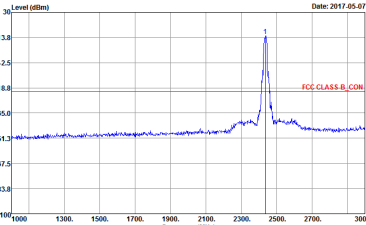
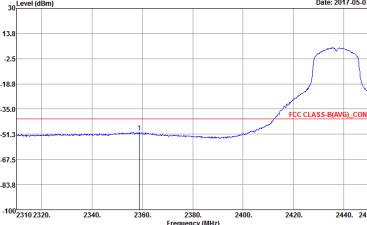
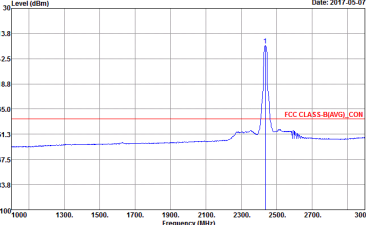
WIFI	2.4GHz 2400~2483.5MHz Band Edge	
ANT	802.11g CH11 2462MHz	
1	CSE	Fundamental
Peak	 <p>Site : 03CH134Y            Condition : FCC CLASS-B_CON ANT_GAIN+2 HORIZONTAL            Detector : Peak            Project : F31627            Mode : 6            Setting : 0</p>	 <p>Site : 03CH134Y            Condition : FCC CLASS-B_CON ANT_GAIN+2 HORIZONTAL            Detector : Peak            Project : F31627            Mode : 6            Setting : 0</p>
Avg.	 <p>Site : 03CH134Y            Condition : FCC CLASS-B(AVG)_CON ANT_GAIN+2 HORIZONTAL            Detector : Peak            Project : F31627            Mode : 6            Setting : 0</p>	 <p>Site : 03CH134Y            Condition : FCC CLASS-B(AVG)_CON ANT_GAIN+2 HORIZONTAL            Detector : Peak            Project : F31627            Mode : 6            Setting : 0</p>



2.4GHz 2400~2483.5MHz  
WIFI 802.11n HT20 (Band Edge)

WIFI	2.4GHz 2400~2483.5MHz Band Edge	
ANT	802.11n HT20 CH01 2412MHz	
1	CSE	Fundamental
Peak	 <p>Site : 03CH134Y Condition : FCC CLASS-B_CON ANT_GAIN+2 HORIZONTAL RBW:1000.000kHz VBW:3000.000kHz SWT:Auto Detector : Peak Project : 731627 Mode : 7 Setting : 0</p>	 <p>Site : 03CH134Y Condition : FCC CLASS-B_CON ANT_GAIN+2 HORIZONTAL RBW:1000.000kHz VBW:3000.000kHz SWT:Auto Detector : Peak Project : 731627 Mode : 7 Setting : 0</p>
Avg.	 <p>Site : 03CH134Y Condition : FCC CLASS-B(AVG)_CON ANT_GAIN+2 HORIZONTAL RBW:1000.000kHz VBW:1.000kHz SWT:Auto Detector : Peak Project : 731627 Mode : 7 Setting : 0</p>	 <p>Site : 03CH134Y Condition : FCC CLASS-B(AVG)_CON ANT_GAIN+2 HORIZONTAL RBW:1000.000kHz VBW:1.000kHz SWT:Auto Detector : Peak Project : 731627 Mode : 7 Setting : 0</p>

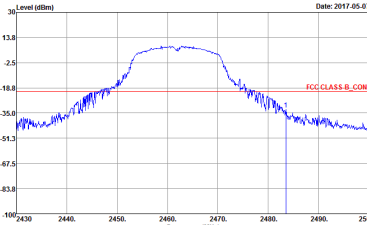
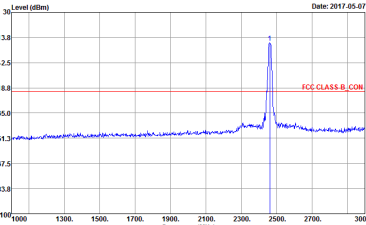
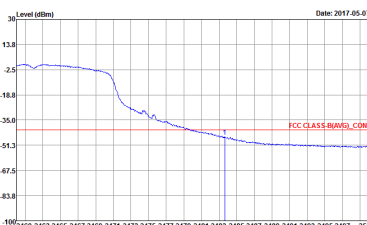
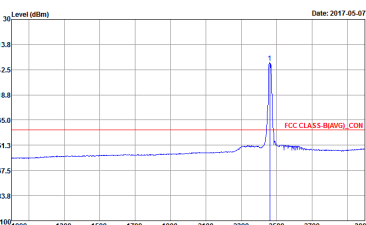


WIFI	2.4GHz 2400~2483.5MHz Band Edge	
ANT	802.11n HT20 CH06 2437MHz - L	
1	CSE	Fundamental
Peak	 <p>Site : 03CH134HY            Condition : FCC CLASS-B_CON ANT_GAIN+2 HORIZONTAL            RBW: 1000.000kHz VBW: 3000.000kHz SWT: Auto            Detector : Peak            Project : F31627            Mode : S            Setting : 0</p>	 <p>Site : 03CH134HY            Condition : FCC CLASS-B_CON ANT_GAIN+2 HORIZONTAL            RBW: 1000.000kHz VBW: 3000.000kHz SWT: Auto            Detector : Peak            Project : F31627            Mode : S            Setting : 0</p>
Avg.	 <p>Site : 03CH134HY            Condition : FCC CLASS-B(AVG)_CON ANT_GAIN+2 HORIZONTAL            RBW: 1000.000kHz VBW: 1.000kHz SWT: Auto            Detector : Peak            Project : F31627            Mode : S            Setting : 0</p>	 <p>Site : 03CH134HY            Condition : FCC CLASS-B(AVG)_CON ANT_GAIN+2 HORIZONTAL            RBW: 1000.000kHz VBW: 1.000kHz SWT: Auto            Detector : Peak            Project : F31627            Mode : S            Setting : 0</p>



WIFI	2.4GHz 2400~2483.5MHz Band Edge	
ANT	802.11n HT20 CH06 2437MHz - R	
1	CSE	Fundamental
Peak	<p>Date: 2017-05-07</p> <p>Site : 63CH134FY            Condition : FCC CLASS-B_CON ANT_GAIN+2 HORIZONTAL            RBW: 1000.000kHz VBW:3000.000kHz SVWT:Auto            Detector : Peak            Project : F31627            Mode : S            Setting : 0</p>	Left blank
Avg.	<p>Date: 2017-05-07</p> <p>Site : 63CH134FY            Condition : FCC CLASS-B(AVG) CON ANT_GAIN+2 HORIZONTAL            RBW: 1000.000kHz VBW:1.000kHz SVWT:Auto            Detector : Peak            Project : F31627            Mode : S            Setting : 0</p>	Left blank



WIFI	2.4GHz 2400~2483.5MHz Band Edge	
ANT	802.11n HT20 CH11 2462MHz	
1	CSE	Fundamental
Peak	 <p>Site : 03CH134Y            Condition : FCC CLASS-B_CON ANT_GAIN+2 HORIZONTAL            Detector : Peak            Project : 731627            Mode : S            Setting : 0</p>	 <p>Site : 03CH134Y            Condition : FCC CLASS-B_CON ANT_GAIN+2 HORIZONTAL            Detector : Peak            Project : 731627            Mode : S            Setting : 0</p>
Avg.	 <p>Site : 03CH134Y            Condition : FCC CLASS-B(AVG)_CON ANT_GAIN+2 HORIZONTAL            Detector : Peak            Project : 731627            Mode : S            Setting : 0</p>	 <p>Site : 03CH134Y            Condition : FCC CLASS-B(AVG)_CON ANT_GAIN+2 HORIZONTAL            Detector : Peak            Project : 731627            Mode : S            Setting : 0</p>



2.4GHz 2400~2483.5MHz

WIFI 802.11b (Harmonic)

WIFI	2.4GHz 2400~2483.5MHz Harmonic	
ANT	802.11b	
1	CH01 2412MHz	CH06 2437MHz
Peak Avg.	<p>Date: 2017-05-07</p> <p>Site : 03CH13-HY Condition : FCC CLASS-B_CON ANT_GAIN+2 HORIZONTAL Detector : Peak Project : 731627 Mode : 1 Setting : 0</p>	<p>Date: 2017-05-07</p> <p>Site : 03CH13-HY Condition : FCC CLASS-B_CON ANT_GAIN+2 HORIZONTAL Detector : Peak Project : 731627 Mode : 2 Setting : 0</p>





WIFI	2.4GHz 2400~2483.5MHz Harmonic	
ANT	802.11b	
1	CH11 2462MHz	-
Peak Avg.	<p>Site : 83CH1344Y Condition : FCC CLASS-B_CON_ANT_GAIN+2 HORIZONTAL Detector : Peak Project : 731627 Mode : S Setting : 0</p>	Left blank



2.4GHz 2400~2483.5MHz  
WIFI 802.11g (Harmonic)

WIFI	2.4GHz 2400~2483.5MHz Harmonic	
ANT	802.11g	
1	CH01 2412MHZ	CH06 2437MHZ
Peak Avg.	<p>Site : 03CH134Y Condition : FCC CLASS-B_CON ANT_GAIN+2 HORIZONTAL Detector : Peak Project : 731627 Mode : 4 Setting : 0</p>	<p>Site : 03CH134Y Condition : FCC CLASS-B_CON ANT_GAIN+2 HORIZONTAL Detector : Peak Project : 731627 Mode : 5 Setting : 0</p>



WIFI	2.4GHz 2400~2483.5MHz Harmonic	
ANT	802.11g	
1	CH11 2462MHz	-
Peak Avg.	<p>Site : 83CH134FY Condition : FCC CLASS-B_CON_ANT_GAIN+2 HORIZONTAL Detector : Peak Project : 731627 Mode : 6 Setting : 0</p>	Left blank



2.4GHz 2400~2483.5MHz  
WIFI 802.11n HT20 (Harmonic)

WIFI	2.4GHz 2400~2483.5MHz Harmonic	
ANT	802.11n HT20	
1	CH01 2412MHZ	CH06 2437MHZ
<p><b>Peak</b></p> <p><b>Avg.</b></p>	<p>Date: 2017-05-07</p> <p>Site : 03CH134Y Condition : FCC CLASS-B_CON ANT_GAIN+2 HORIZONTAL Detector : Peak Project : 731627 Mode : 7 Setting : 0</p>	<p>Date: 2017-05-07</p> <p>Site : 03CH134Y Condition : FCC CLASS-B_CON ANT_GAIN+2 HORIZONTAL Detector : Peak Project : 731627 Mode : 8 Setting : 0</p>



WIFI	2.4GHz 2400~2483.5MHz Harmonic	
ANT	802.11n HT20	
1	CH11 2462MHz	-
Peak Avg.	<p>Site : 83CH134YY Condition : FCC CLASS-B_CON ANT_GAIN+2 HORIZONTAL Detector : Peak Project : 731627 Mode : S Setting : 0</p>	Left blank



2.4GHz 2400~2483.5MHz

Emission below 1GHz

2.4GHz WIFI 802.11b (LF)

WIFI	2.4GHz 2400~2483.5MHz	
ANT	802.11b	
1	LF	-
QP / Peak	<p>Site : 03CH134Y Condition : FCC CLASS-B_CON ANT_GAIN+2 HORIZONTAL Detector : Peak Project : 731627 Mode : 10</p>	Left blank



## Appendix E. Cabinet Radiated Spurious Emission

Test Engineer :	Watt Tseng, Stan Hsieh	Temperature :	22~24°C
		Relative Humidity :	45~47%

### 2.4GHz 2400~2483.5MHz

#### WIFI 802.11b (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.	
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.		
1		( MHz )	( dBμV/m )	( dB )	( dBμV/m )	( dBμV )	( dB/m )	( dB )	( dB )	( cm )	( deg )	( P/A )	( H/V )	
802.11b CH 01 2412MHz		2371.425	51.22	-22.78	74	41.28	27.01	3.94	30.93	320	15	P	H	
		2384.76	40.47	-13.53	54	30.51	27.01	3.96	30.93	320	15	A	H	
	*	2412	76.87	-	-	66.76	27.12	3.99	30.92	320	15	P	H	
	*	2412	72.59	-	-	62.48	27.12	3.99	30.92	320	15	A	H	
													H	
														H
			2339.19	51.04	-22.96	74	41.25	26.9	3.92	30.95	100	135	P	V
			2385.6	40.43	-13.57	54	30.41	27.07	3.96	30.93	100	135	A	V
	*		2412	78.25	-	-	68.14	27.12	3.99	30.92	100	135	P	V
	*		2412	74.01	-	-	63.9	27.12	3.99	30.92	100	135	A	V
														V
														V
802.11b CH 06 2437MHz		2381.26	50.64	-23.36	74	40.68	27.01	3.96	30.93	357	18	P	H	
		2384.48	40.2	-13.8	54	30.24	27.01	3.96	30.93	357	18	A	H	
	*	2437	76.81	-	-	66.57	27.23	4	30.91	357	18	P	H	
	*	2437	72.4	-	-	62.16	27.23	4	30.91	357	18	A	H	
			2486.63	50.54	-23.46	74	40.13	27.34	4.04	30.89	357	18	P	H
			2498.46	40.86	-13.14	54	30.38	27.4	4.04	30.88	357	18	A	H
			2383.64	51.8	-22.2	74	41.84	27.01	3.96	30.93	103	134	P	V
			2387.14	40.28	-13.72	54	30.26	27.07	3.96	30.93	103	134	A	V
	*		2437	79.18	-	-	68.94	27.23	4	30.91	103	134	P	V
	*		2437	74.97	-	-	64.73	27.23	4	30.91	103	134	A	V
			2497.97	50.72	-23.28	74	40.24	27.4	4.04	30.88	103	134	P	V
			2489.22	40.88	-13.12	54	30.41	27.4	4.04	30.89	103	134	A	V



<b>802.11b</b> <b>CH 11</b> <b>2462MHz</b>	*	2462	76.65	-	-	66.33	27.29	4.01	30.9	344	19	P	H
	*	2462	72.33	-	-	62.01	27.29	4.01	30.9	344	19	A	H
		2490.56	50.99	-23.01	74	40.52	27.4	4.04	30.89	344	19	P	H
		2497.44	40.88	-13.12	54	30.4	27.4	4.04	30.88	344	19	A	H
													H
													H
	*	2462	78.68	-	-	68.36	27.29	4.01	30.9	100	133	P	V
	*	2462	74.52	-	-	64.2	27.29	4.01	30.9	100	133	A	V
		2493.84	51.12	-22.88	74	40.64	27.4	4.04	30.88	100	133	P	V
		2493.08	40.92	-13.08	54	30.44	27.4	4.04	30.88	100	133	A	V
													V
													V
<b>Remark</b>	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	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		3216	47.1	-26.9	74	76.46	28.62	4.61	63.82	100	0	P	H	
		4020	52.15	-21.85	74	80.25	29.89	5.16	63.82	298	142	P	H	
		4020	47.31	-6.69	54	75.41	29.89	5.16	63.82	298	142	A	H	
		4824	43.89	-30.11	74	70.41	31.69	5.69	64.36	100	0	P	H	
		6432	54.19	-19.81	74	77.95	33.94	6.64	64.77	100	0	P	H	
														H
			3198	47.08	-26.92	74	76.42	28.62	4.6	63.81	100	0	P	V
			4020	53.72	-20.28	74	81.82	29.89	5.16	63.82	351	116	P	V
			4020	49.06	-4.94	54	77.16	29.89	5.16	63.82	351	116	A	V
			4824	47.38	-26.62	74	73.9	31.69	5.69	64.36	100	0	P	V
			6432	57.35	-16.65	74	81.11	33.94	6.64	64.77	100	0	P	V
														V
802.11b CH 06 2437MHz		3246	45.23	-28.77	74	74.66	28.6	4.63	63.84	100	0	P	H	
		4062	51.72	-22.28	74	79.75	29.97	5.19	63.84	321	137	P	H	
		4062	47.13	-6.87	54	75.16	29.97	5.19	63.84	321	137	A	H	
		4874	44.58	-29.42	74	71.02	31.78	5.72	64.4	100	0	P	H	
		6498	54.13	-19.87	74	77.77	34.06	6.67	64.79	100	0	P	H	
		7311	49.5	-24.5	74	70.77	36.73	7.06	65.55	100	0	P	H	
			3246	46.19	-27.81	74	75.62	28.6	4.63	63.84	100	0	P	V
			4062	53.89	-20.11	74	81.92	29.97	5.19	63.84	341	104	P	V
			4062	49.26	-4.74	54	77.29	29.97	5.19	63.84	341	104	A	V
			4874	47.48	-26.52	74	73.92	31.78	5.72	64.4	100	0	P	V
			6498	59.06	-14.94	74	82.7	34.06	6.67	64.79	100	0	P	V
			7311	49.67	-24.33	74	70.94	36.73	7.06	65.55	100	0	P	V



<b>802.11b</b> <b>CH 11</b> <b>2462MHz</b>		3282	44.69	-29.31	74	74.19	28.59	4.66	63.87	100	0	P	H
		4104	51.19	-22.81	74	79.09	30.1	5.23	63.87	331	133	P	H
		4104	47.76	-6.24	54	75.66	30.1	5.23	63.87	331	133	A	H
		4924	44.87	-29.13	74	71.23	31.88	5.74	64.44	100	0	P	H
		6564	54.7	-19.3	74	78.16	34.28	6.7	64.85	100	0	P	H
		7386	49.23	-24.77	74	70.35	36.99	7.07	65.62	100	0	P	H
		3282	44.11	-29.89	74	73.61	28.59	4.66	63.87	100	0	P	V
		4104	53.84	-20.16	74	81.74	30.1	5.23	63.87	394	108	P	V
		4104	49.09	-4.91	54	76.99	30.1	5.23	63.87	394	108	A	V
		4924	47.33	-26.67	74	73.69	31.88	5.74	64.44	100	0	P	V
		6564	59.87	-14.13	74	83.33	34.28	6.7	64.85	100	0	P	V
		7386	49.41	-24.59	74	70.53	36.99	7.07	65.62	100	0	P	V
<b>Remark</b>	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	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		2381.82	51.12	-22.88	74	41.16	27.01	3.96	30.93	135	208	P	H	
		2369.745	40.92	-13.08	54	30.98	27.01	3.94	30.93	135	208	A	H	
	*	2412	71.8	-	-	61.69	27.12	3.99	30.92	135	208	P	H	
	*	2412	63.74	-	-	53.63	27.12	3.99	30.92	135	208	A	H	
													H	
														H
			2341.29	50.78	-23.22	74	40.99	26.9	3.92	30.95	100	119	P	V
			2378.145	41.07	-12.93	54	31.11	27.01	3.96	30.93	100	119	A	V
	*		2412	75.83	-	-	65.72	27.12	3.99	30.92	100	119	P	V
	*		2412	66.99	-	-	56.88	27.12	3.99	30.92	100	119	A	V
														V
														V
802.11g CH 06 2437MHz		2381.96	51.25	-22.75	74	41.29	27.01	3.96	30.93	109	203	P	H	
		2381.12	41.05	-12.95	54	31.09	27.01	3.96	30.93	109	203	A	H	
	*	2437	78.23	-	-	67.99	27.23	4	30.91	109	203	P	H	
	*	2437	69.6	-	-	59.36	27.23	4	30.91	109	203	A	H	
			2486.49	50.69	-23.31	74	40.28	27.34	4.04	30.89	109	203	P	H
			2496.85	41.58	-12.42	54	31.1	27.4	4.04	30.88	109	203	A	H
			2361.94	51.04	-22.96	74	41.17	26.96	3.94	30.95	228	167	P	V
			2365.3	41.02	-12.98	54	31.13	26.96	3.94	30.93	228	167	A	V
	*		2437	79.19	-	-	68.95	27.23	4	30.91	228	167	P	V
	*		2437	71	-	-	60.76	27.23	4	30.91	228	167	A	V
			2496.36	52.71	-21.29	74	42.23	27.4	4.04	30.88	228	167	P	V
			2485.93	41.72	-12.28	54	31.31	27.34	4.04	30.89	228	167	A	V



<b>802.11g CH 11 2462MHz</b>	*	2462	73.8	-	-	63.48	27.29	4.01	30.9	108	206	P	H
	*	2462	64.84	-	-	54.52	27.29	4.01	30.9	108	206	A	H
		2485.6	51.81	-22.19	74	41.4	27.34	4.04	30.89	108	206	P	H
		2493.76	41.61	-12.39	54	31.13	27.4	4.04	30.88	108	206	A	H
													H
													H
	*	2462	76	-	-	65.68	27.29	4.01	30.9	190	165	P	V
	*	2462	67.45	-	-	57.13	27.29	4.01	30.9	190	165	A	V
		2494.24	51.16	-22.84	74	40.68	27.4	4.04	30.88	190	165	P	V
		2495.44	41.53	-12.47	54	31.05	27.4	4.04	30.88	190	165	A	V
													V
													V
<b>Remark</b>	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	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		3216	50.14	-23.86	74	79.5	28.62	4.61	63.82	100	0	P	H	
		4020	50.93	-23.07	74	79.03	29.89	5.16	63.82	277	140	P	H	
		4020	42.13	-11.87	54	70.23	29.89	5.16	63.82	277	140	A	H	
		4824	43.49	-30.51	74	70.01	31.69	5.69	64.36	100	0	P	H	
		6432	52.42	-21.58	74	76.18	33.94	6.64	64.77	100	0	P	H	
														H
			3216	49.48	-24.52	74	78.84	28.62	4.61	63.82	100	0	P	V
			4020	51.65	-22.35	74	79.75	29.89	5.16	63.82	351	125	P	V
			4020	43.45	-10.55	54	71.55	29.89	5.16	63.82	351	125	A	V
			4824	43.41	-30.59	74	69.93	31.69	5.69	64.36	100	0	P	V
			6432	56.92	-17.08	74	80.68	33.94	6.64	64.77	100	0	P	V
														V
802.11g CH 06 2437MHz		3246	47.44	-26.56	74	76.87	28.6	4.63	63.84	100	0	P	H	
		4062	51.17	-22.83	74	79.2	29.97	5.19	63.84	324	139	P	H	
		4062	43.85	-10.15	54	71.88	29.97	5.19	63.84	324	139	A	H	
		4874	43.89	-30.11	74	70.33	31.78	5.72	64.4	100	0	P	H	
		6498	53.64	-20.36	74	77.28	34.06	6.67	64.79	100	0	P	H	
		7311	49.07	-24.93	74	70.34	36.73	7.06	65.55	100	0	P	H	
			3246	47.61	-26.39	74	77.04	28.6	4.63	63.84	100	0	P	V
			4062	53.32	-20.68	74	81.35	29.97	5.19	63.84	342	104	P	V
			4062	45.84	-8.16	54	73.87	29.97	5.19	63.84	342	104	A	V
			4874	46.73	-27.27	74	73.17	31.78	5.72	64.4	100	0	P	V
			6498	58.28	-15.72	74	81.92	34.06	6.67	64.79	100	0	P	V
			7311	49.1	-24.9	74	70.37	36.73	7.06	65.55	100	0	P	V



<b>802.11g</b> <b>CH 11</b> <b>2462MHz</b>		3282	48.02	-25.98	74	77.52	28.59	4.66	63.87	100	0	P	H	
		4104	48.44	-25.56	74	76.34	30.1	5.23	63.87	100	0	P	H	
		4924	43.22	-30.78	74	69.58	31.88	5.74	64.44	100	0	P	H	
		6564	54.28	-19.72	74	77.74	34.28	6.7	64.85	100	0	P	H	
		7386	49.78	-24.22	74	70.9	36.99	7.07	65.62	100	0	P	H	
														H
		3282	46.04	-27.96	74	75.54	28.59	4.66	63.87	100	0	P	V	
		4104	51.13	-22.87	74	79.03	30.1	5.23	63.87	347	118	P	V	
		4104	43.5	-10.5	54	71.4	30.1	5.23	63.87	347	118	A	V	
		4924	43.47	-30.53	74	69.83	31.88	5.74	64.44	100	0	P	V	
		6564	59.81	-14.19	74	83.27	34.28	6.7	64.85	100	0	P	V	
		7386	48.66	-25.34	74	69.78	36.99	7.07	65.62	100	0	P	V	
<b>Remark</b>	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	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		2354.94	51.94	-22.06	74	42.09	26.96	3.92	30.95	109	203	P	H	
		2373.945	41.52	-12.48	54	31.58	27.01	3.94	30.93	109	203	A	H	
	*	2412	72.71	-	-	62.6	27.12	3.99	30.92	109	203	P	H	
	*	2412	64.02	-	-	53.91	27.12	3.99	30.92	109	203	A	H	
													H	
														H
			2317.56	51.56	-22.44	74	41.86	26.85	3.89	30.96	100	119	P	V
			2386.65	40.61	-13.39	54	30.59	27.07	3.96	30.93	100	119	A	V
		*	2412	75.38	-	-	65.27	27.12	3.99	30.92	100	119	P	V
		*	2412	66.67	-	-	56.56	27.12	3.99	30.92	100	119	A	V
													V	
													V	
802.11n HT20 CH 06 2437MHz		2387.98	51.95	-22.05	74	41.93	27.07	3.96	30.93	111	204	P	H	
		2380.56	40.76	-13.24	54	30.8	27.01	3.96	30.93	111	204	A	H	
	*	2437	76.74	-	-	66.5	27.23	4	30.91	111	204	P	H	
	*	2437	68.43	-	-	58.19	27.23	4	30.91	111	204	A	H	
			2492.23	52.06	-21.94	74	41.58	27.4	4.04	30.88	111	204	P	H
			2490.97	41.09	-12.91	54	30.62	27.4	4.04	30.89	111	204	A	H
			2327.92	51.52	-22.48	74	41.8	26.85	3.91	30.96	161	154	P	V
			2380	40.62	-13.38	54	30.66	27.01	3.96	30.93	161	154	A	V
		*	2437	78.66	-	-	68.42	27.23	4	30.91	161	154	P	V
		*	2437	69.63	-	-	59.39	27.23	4	30.91	161	154	A	V
		2499.09	51.83	-22.17	74	41.35	27.4	4.04	30.88	161	154	P	V	
		2496.08	41.23	-12.77	54	30.75	27.4	4.04	30.88	161	154	A	V	



<b>802.11n</b> <b>HT20</b> <b>CH 11</b> <b>2462MHz</b>	*	2462	73.37	-	-	63.05	27.29	4.01	30.9	107	205	P	H
	*	2462	64.61	-	-	54.29	27.29	4.01	30.9	107	205	A	H
		2496.6	52.8	-21.2	74	42.32	27.4	4.04	30.88	107	205	P	H
		2483.6	41.28	-12.72	54	30.87	27.34	4.04	30.89	107	205	A	H
													H
													H
	*	2462	75.06	-	-	64.74	27.29	4.01	30.9	131	161	P	V
	*	2462	67.11	-	-	56.79	27.29	4.01	30.9	131	161	A	V
		2487.12	52.85	-21.15	74	42.44	27.34	4.04	30.89	131	161	P	V
		2492.28	41.24	-12.76	54	30.76	27.4	4.04	30.88	131	161	A	V
													V
												V	
<b>Remark</b>	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	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		3216	48.96	-25.04	74	78.32	28.62	4.61	63.82	100	0	P	H	
		4020	49.18	-24.82	74	77.28	29.89	5.16	63.82	100	0	P	H	
		4824	44.51	-29.49	74	71.03	31.69	5.69	64.36	100	0	P	H	
		6432	52.84	-21.16	74	76.6	33.94	6.64	64.77	100	0	P	H	
													H	
													H	
			3216	49.21	-24.79	74	78.57	28.62	4.61	63.82	100	0	P	V
			4020	51.32	-22.68	74	79.42	29.89	5.16	63.82	345	116	P	V
			4020	43.58	-10.42	54	71.68	29.89	5.16	63.82	345	116	A	V
			4824	45.29	-28.71	74	71.81	31.69	5.69	64.36	100	0	P	V
			6432	57.12	-16.88	74	80.88	33.94	6.64	64.77	100	0	P	V
														V
802.11n HT20 CH 06 2437MHz		3246	48.21	-25.79	74	77.64	28.6	4.63	63.84	100	0	P	H	
		4062	48.8	-25.2	74	76.83	29.97	5.19	63.84	100	0	P	H	
		4874	43.84	-30.16	74	70.28	31.78	5.72	64.4	100	0	P	H	
		6498	53.15	-20.85	74	76.79	34.06	6.67	64.79	100	0	P	H	
		7311	49	-25	74	70.27	36.73	7.06	65.55	100	0	P	H	
													H	
			3246	48.14	-25.86	74	77.57	28.6	4.63	63.84	100	0	P	V
			4062	52.71	-21.29	74	80.74	29.97	5.19	63.84	348	107	P	V
			4062	44.91	-9.09	54	72.94	29.97	5.19	63.84	348	107	A	V
			4874	47.42	-26.58	74	73.86	31.78	5.72	64.4	100	0	P	V
			6498	58.57	-15.43	74	82.21	34.06	6.67	64.79	100	0	P	V
			7311	49.81	-24.19	74	71.08	36.73	7.06	65.55	100	0	P	V



<b>802.11n</b>  <b>HT20</b>  <b>CH 11</b>  <b>2462MHz</b>		3282	45.67	-28.33	74	75.17	28.59	4.66	63.87	100	0	P	H	
		4110	46.81	-27.19	74	74.71	30.1	5.23	63.87	100	0	P	H	
		4924	43.5	-30.5	74	69.86	31.88	5.74	64.44	100	0	P	H	
		6564	54	-20	74	77.46	34.28	6.7	64.85	100	0	P	H	
		7386	48.89	-25.11	74	70.01	36.99	7.07	65.62	100	0	P	H	
														H
		3282	47.13	-26.87	74	76.63	28.59	4.66	63.87	100	0	P	V	
		4098	52.35	-21.65	74	80.29	30.06	5.22	63.86	357	93	P	V	
		4098	43.78	-10.22	54	71.72	30.06	5.22	63.86	357	93	A	V	
		4924	44.45	-29.55	74	70.81	31.88	5.74	64.44	100	0	P	V	
		6564	59.84	-14.16	74	83.3	34.28	6.7	64.85	100	0	P	V	
	7386	49.61	-24.39	74	70.73	36.99	7.07	65.62	100	0	P	V		
<b>Remark</b>	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.													



Emission below 1GHz  
2.4GHz WIFI 802.11b (LF)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.	
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.		
1		( MHz )	( dBμV/m )	( dB )	( dBμV/m )	( dBμV )	( dB/m )	( dB )	( dB )	( cm )	( deg )	( P/A )	( H/V )	
2.4GHz 802.11b LF		39.99	31.79	-8.21	40	44.12	19.65	0.59	32.58			P	H	
		106.68	38.33	-5.17	43.5	53.28	16.78	0.79	32.59	100	0	P	H	
		114.78	37.88	-5.62	43.5	52.3	17.23	0.86	32.58			P	H	
		360.2	38.84	-7.16	46	49	20.83	1.48	32.56			P	H	
		479.9	40.03	-5.97	46	47.06	23.75	1.74	32.62			P	H	
		719.3	36.85	-9.15	46	39.75	27.36	2.13	32.51			P	H	
														H
														H
														H
														H
														H
														H
			38.1	33.53	-6.47	40	45.15	20.49	0.46	32.58	100	0	P	V
			51.33	32.89	-7.11	40	50.92	13.92	0.59	32.57			P	V
			119.91	33.04	-10.46	43.5	47.33	17.36	0.86	32.58			P	V
			360.2	29.6	-16.4	46	39.76	20.83	1.48	32.56			P	V
			479.9	38.5	-7.5	46	45.53	23.75	1.74	32.62			P	V
			716.5	36.57	-9.43	46	39.58	27.26	2.13	32.52			P	V
														V
														V
													V	
													V	
													V	
													V	
Remark	1. No other spurious found. 2. All results are PASS against limit line.													



**Note symbol**

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



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

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		( MHz )	( dBμV/m )	( dB )	( dBμV/m )	( dBμV )	( dB/m )	( dB )	( dB )	( cm )	( deg )	( P/A )	( H/V )
802.11b		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 F. Cabinet Radiated Spurious Emission Plots

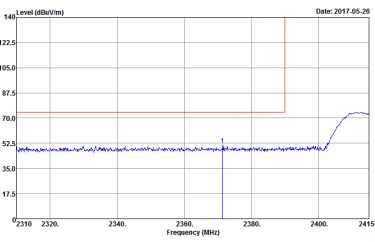
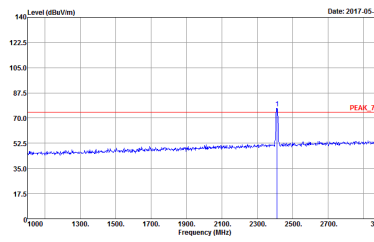
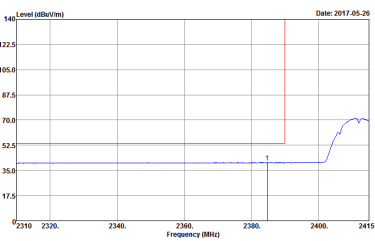
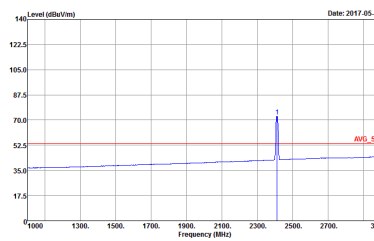
Test Engineer :	Watt Tseng, Stan Hsieh	Temperature :	22~24°C
		Relative Humidity :	45~47%

### Note symbol

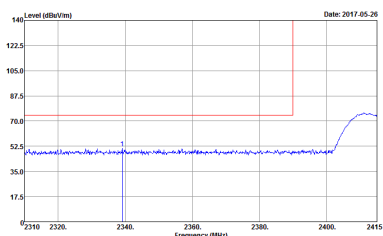
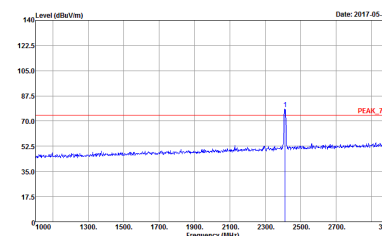
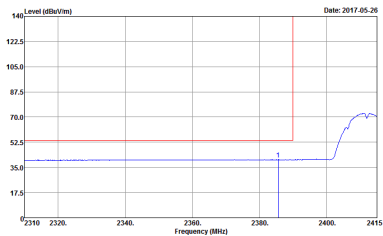
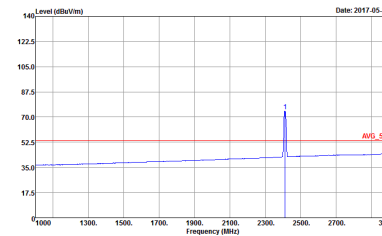
-L	Low channel location
-R	High channel location



2.4GHz 2400~2483.5MHz  
WIFI 802.11b (Band Edge @ 3m)

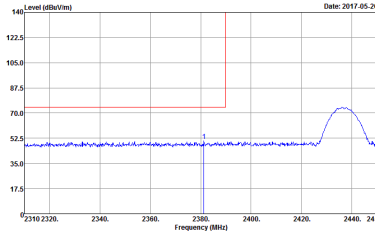
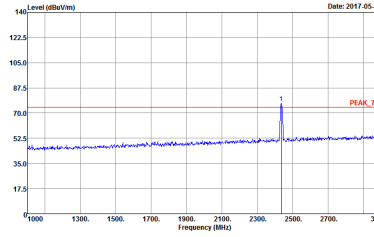
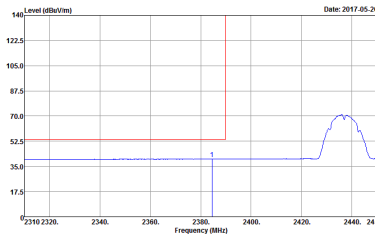
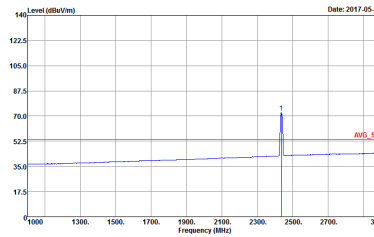
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH01 2412MHz	
1	Horizontal	Fundamental
Peak	 <p>Site : 03CH15-HY Condition : PEAK_BE_74 3m 91200_15_1620 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 731627 Mode : 1</p>	 <p>Site : 03CH15-HY Condition : PEAK_74 3m 91200_15_1620 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 731627 Mode : 1</p>
Avg.	 <p>Site : 03CH15-HY Condition : AVG_BE_54 3m 91200_15_1620 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 731627 Mode : 1</p>	 <p>Site : 03CH15-HY Condition : AVG_54 3m 91200_15_1620 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 731627 Mode : 1</p>



WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH01 2412MHz	
1	Vertical	Fundamental
Peak	 <p>Site : 03CH15-HY            Condition : PEAK_BE_74 3m 91200_15_1620 VERTICAL            Detector : Peak            Project : 731627            Mode : 1</p>	 <p>Site : 03CH15-HY            Condition : PEAK_74 3m 91200_15_1620 VERTICAL            Detector : Peak            Project : 731627            Mode : 1</p>
Avg.	 <p>Site : 03CH15-HY            Condition : AVG_BE_54 3m 91200_15_1620 VERTICAL            Detector : Peak            Project : 731627            Mode : 1</p>	 <p>Site : 03CH15-HY            Condition : AVG_54 3m 91200_15_1620 VERTICAL            Detector : Peak            Project : 731627            Mode : 1</p>



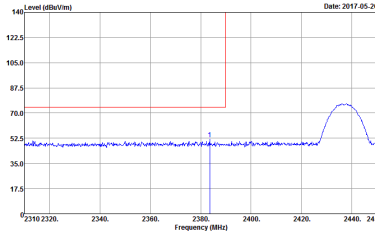
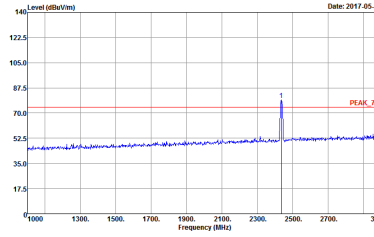
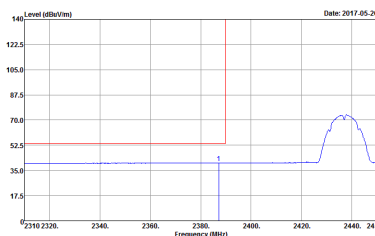
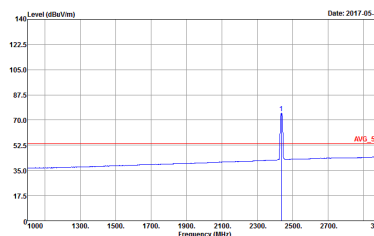


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - L	
1	Horizontal	Fundamental
Peak	 <p>Date: 2017-05-26</p> <p>Site : 03CH15-HY            Condition : PEAK_BE_74 3m 91200_15_1620 HORIZONTAL            RBW:1000.000KHz VBW:3000.000KHz SWT:Auto            Detector : Peak            Project : 731627            Mode : 2</p>	 <p>Date: 2017-05-26</p> <p>Site : 03CH15-HY            Condition : PEAK_74 3m 91200_15_1620 HORIZONTAL            RBW:1000.000KHz VBW:3000.000KHz SWT:Auto            Detector : Peak            Project : 731627            Mode : 2</p>
Avg.	 <p>Date: 2017-05-26</p> <p>Site : 03CH15-HY            Condition : AVG_BE_54 3m 91200_15_1620 HORIZONTAL            RBW:1000.000KHz VBW:0.100KHz SWT:Auto            Detector : Peak            Project : 731627            Mode : 2</p>	 <p>Date: 2017-05-26</p> <p>Site : 03CH15-HY            Condition : AVG_54 3m 91200_15_1620 HORIZONTAL            RBW:1000.000KHz VBW:0.100KHz SWT:Auto            Detector : Peak            Project : 731627            Mode : 2</p>

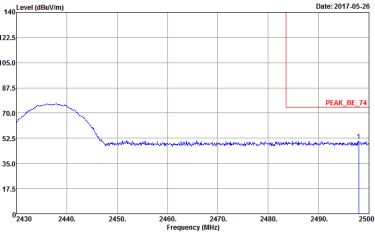
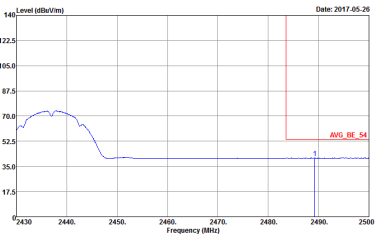


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - R	
1	Horizontal	Fundamental
Peak	<p>Site : 03CH15-HY Condition : PEAK_BE_74 3m 91200_15_1620 HORIZONTAL Detector : Peak Project : 731627 Mode : 2</p>	Left blank
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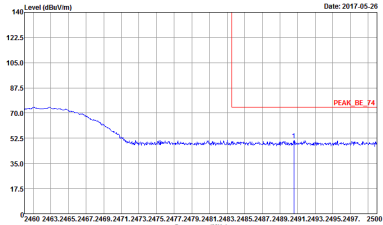
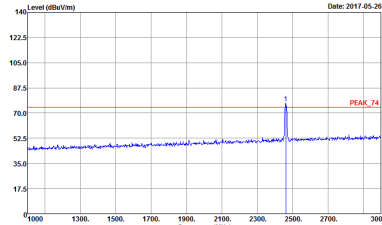
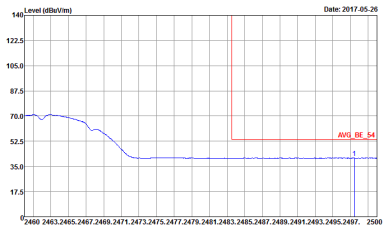
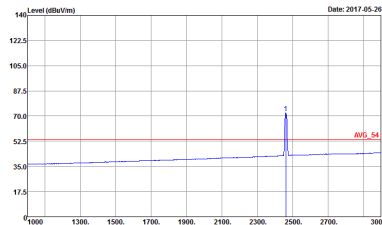


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - L	
1	Vertical	Fundamental
Peak	 <p>Date: 2017-05-26</p> <p>Site : 03CH15-HY            Condition : PEAK_BE_74 3m 91200_15_1620 VERTICAL            RBW:1000.000kHz VBW:3000.000kHz SWT:Auto            Detector : Peak            Project : 731627            Mode : 2</p>	 <p>Date: 2017-05-26</p> <p>Site : 03CH15-HY            Condition : PEAK_74 3m 91200_15_1620 VERTICAL            RBW:1000.000kHz VBW:3000.000kHz SWT:Auto            Detector : Peak            Project : 731627            Mode : 2</p>
Avg.	 <p>Date: 2017-05-26</p> <p>Site : 03CH15-HY            Condition : AVG_BE_54 3m 91200_15_1620 VERTICAL            RBW:1000.000kHz VBW:0.100kHz SWT:Auto            Detector : Peak            Project : 731627            Mode : 2</p>	 <p>Date: 2017-05-26</p> <p>Site : 03CH15-HY            Condition : AVG_54 3m 91200_15_1620 VERTICAL            RBW:1000.000kHz VBW:0.100kHz SWT:Auto            Detector : Peak            Project : 731627            Mode : 2</p>

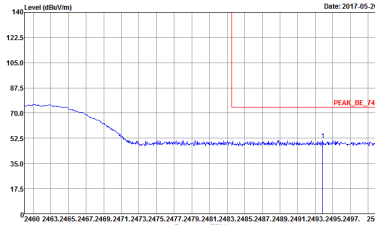
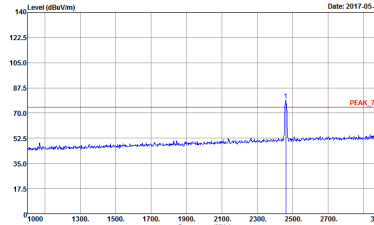
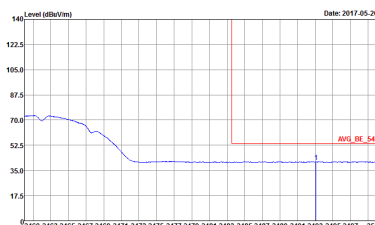
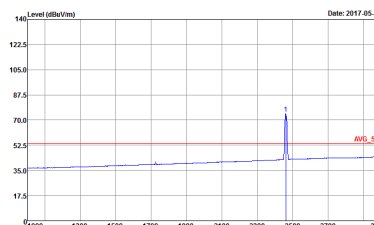


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - R	
1	Vertical	Fundamental
Peak	 <p>           Site : 03CH15-HY            Condition : PEAK_BE_74 3m 91200_15_1620 VERTICAL            RBW:1000.000kHz VBW:3000.000kHz SWT:Auto            Detector : Peak            Project : 731627            Mode : 2         </p>	Left blank
Avg.	 <p>           Site : 03CH15-HY            Condition : AVG_BE_54 3m 91200_15_1620 VERTICAL            RBW:1000.000kHz VBW:0.100kHz SWT:Auto            Detector : Peak            Project : 731627            Mode : 2         </p>	Left blank



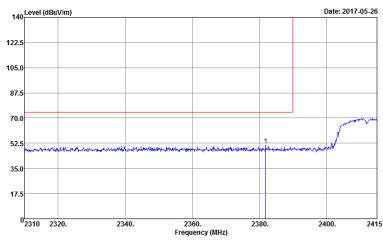
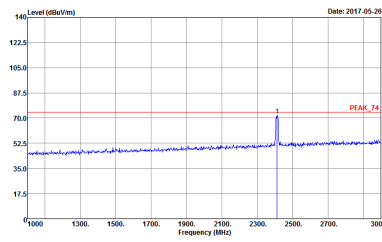
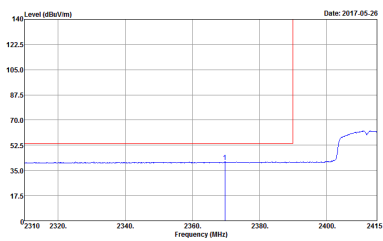
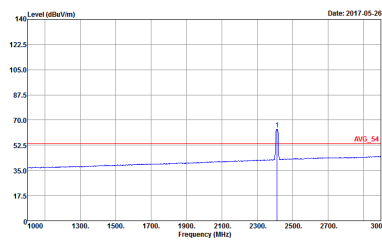
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH11 2462MHz	
1	Horizontal	Fundamental
Peak	 <p>Site : 03CH15-HY            Condition : PEAK_BE_74 3m 91200_15_1620 HORIZONTAL            Detector : Peak            Project : 731627            Mode : 3</p>	 <p>Site : 03CH15-HY            Condition : PEAK_74 3m 91200_15_1620 HORIZONTAL            Detector : Peak            Project : 731627            Mode : 3</p>
Avg.	 <p>Site : 03CH15-HY            Condition : AVG_BE_54 3m 91200_15_1620 HORIZONTAL            Detector : Peak            Project : 731627            Mode : 3</p>	 <p>Site : 03CH15-HY            Condition : AVG_54 3m 91200_15_1620 HORIZONTAL            Detector : Peak            Project : 731627            Mode : 3</p>



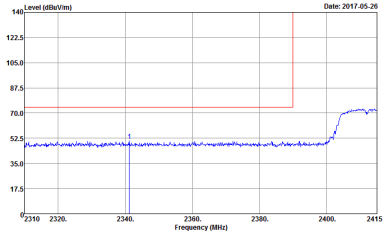
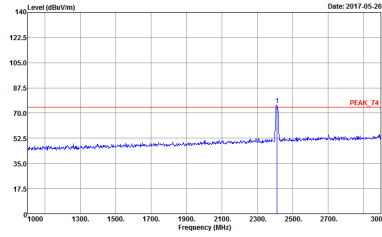
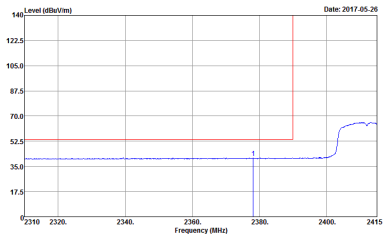
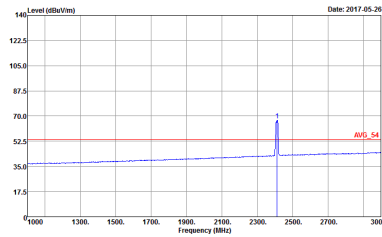
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH11 2462MHz	
1	Vertical	Fundamental
Peak	 <p>Site : 03CH15-HY            Condition : PEAK_BE_74 3m 91200_15_1620 VERTICAL            RBW:1000.000KHz VBW:3000.000KHz SWT:Auto            Detector : Peak            Project : 731627            Mode : 3</p>	 <p>Site : 03CH15-HY            Condition : PEAK_74 3m 91200_15_1620 VERTICAL            RBW:1000.000KHz VBW:3000.000KHz SWT:Auto            Detector : Peak            Project : 731627            Mode : 3</p>
Avg.	 <p>Site : 03CH15-HY            Condition : AVG_BE_54 3m 91200_15_1620 VERTICAL            RBW:1000.000KHz VBW:0.100KHz SWT:Auto            Detector : Peak            Project : 731627            Mode : 3</p>	 <p>Site : 03CH15-HY            Condition : AVG_54 3m 91200_15_1620 VERTICAL            RBW:1000.000KHz VBW:0.100KHz SWT:Auto            Detector : Peak            Project : 731627            Mode : 3</p>



2.4GHz 2400~2483.5MHz  
WIFI 802.11g (Band Edge @ 3m)

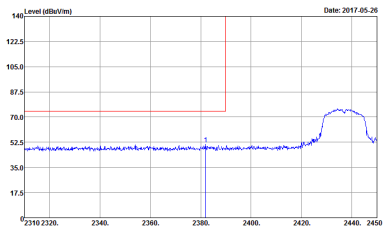
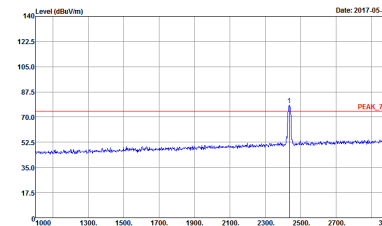
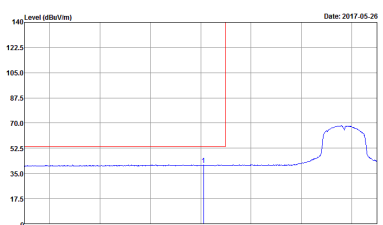
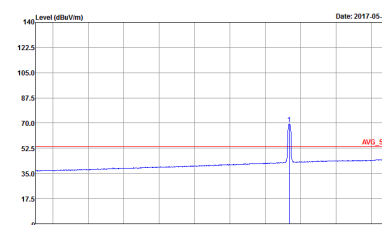
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH01 2412MHz	
1	Horizontal	Fundamental
Peak	 <p>Site : 03CH15-HY Condition : PEAK_BE_74 3m 91200_15_1620 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 731627 Mode : 4</p>	 <p>Site : 03CH15-HY Condition : PEAK_74 3m 91200_15_1620 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 731627 Mode : 4</p>
Avg.	 <p>Site : 03CH15-HY Condition : AVG_BE_54 3m 91200_15_1620 HORIZONTAL RBW:1000.000KHz VBW:1000KHz SWT:Auto Detector : Peak Project : 731627 Mode : 4</p>	 <p>Site : 03CH15-HY Condition : AVG_54 3m 91200_15_1620 HORIZONTAL RBW:1000.000KHz VBW:1000KHz SWT:Auto Detector : Peak Project : 731627 Mode : 4</p>



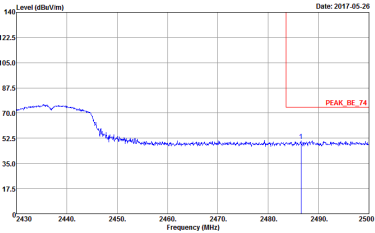
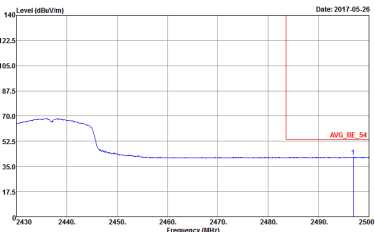
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH01 2412MHz	
1	Vertical	Fundamental
Peak	 <p>Site : 03CH15-HY            Condition : PEAK_BE_74 3m 91200_15_1620 VERTICAL            RBW:1000.000kHz VBW:3000.000kHz SWT:Auto            Detector : Peak            Project : 731627            Mode : 4</p>	 <p>Site : 03CH15-HY            Condition : PEAK_74 3m 91200_15_1620 VERTICAL            RBW:1000.000kHz VBW:3000.000kHz SWT:Auto            Detector : Peak            Project : 731627            Mode : 4</p>
Avg.	 <p>Site : 03CH15-HY            Condition : AVG_BE_54 3m 91200_15_1620 VERTICAL            RBW:1000.000kHz VBW:1000kHz SWT:Auto            Detector : Peak            Project : 731627            Mode : 4</p>	 <p>Site : 03CH15-HY            Condition : AVG_54 3m 91200_15_1620 VERTICAL            RBW:1000.000kHz VBW:1000kHz SWT:Auto            Detector : Peak            Project : 731627            Mode : 4</p>



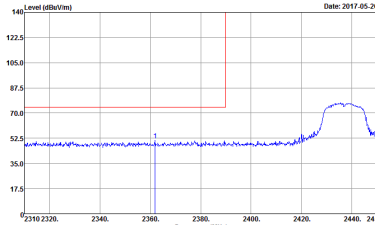
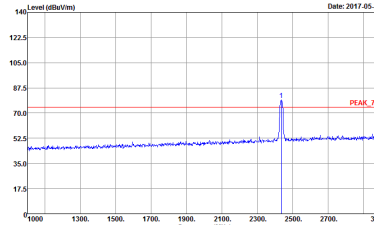
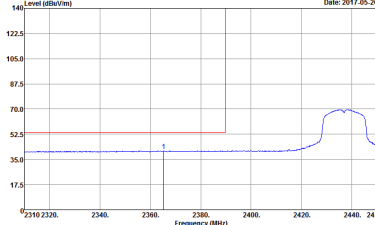
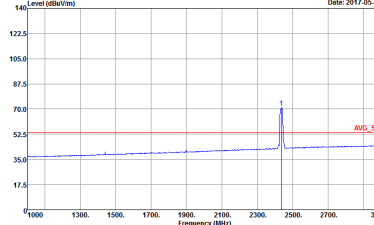


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - L	
1	Horizontal	Fundamental
Peak	 <p>Site : 03CH15-HY            Condition : PEAK_BE_74 3m 91200_15_1620 HORIZONTAL            RBW:1000.000kHz VBW:3000.000kHz SWT:Auto            Detector : Peak            Project : 731627            Mode : 5</p>	 <p>Site : 03CH15-HY            Condition : PEAK_74 3m 91200_15_1620 HORIZONTAL            RBW:1000.000kHz VBW:3000.000kHz SWT:Auto            Detector : Peak            Project : 731627            Mode : 5</p>
Avg.	 <p>Site : 03CH15-HY            Condition : AVG_BE_54 3m 91200_15_1620 HORIZONTAL            RBW:1000.000kHz VBW:1000kHz SWT:Auto            Detector : Peak            Project : 731627            Mode : 5</p>	 <p>Site : 03CH15-HY            Condition : AVG_54 3m 91200_15_1620 HORIZONTAL            RBW:1000.000kHz VBW:1000kHz SWT:Auto            Detector : Peak            Project : 731627            Mode : 5</p>

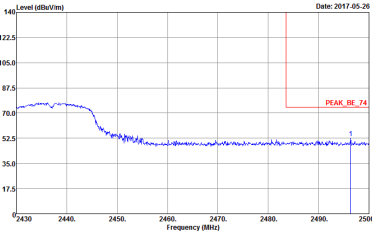
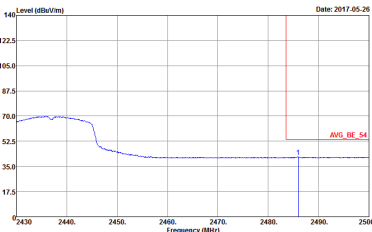


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - R	
1	Horizontal	Fundamental
<p><b>Peak</b></p>	 <p>Site : 03CH15-HY            Condition : PEAK_BE_74 3m 91200_15_1620 HORIZONTAL            RBW:1000.000KHz VBW:3000.000KHz SWF:Auto            Detector : Peak            Project : 731627            Mode : 5</p>	<p>Left blank</p>
<p><b>Avg.</b></p>	 <p>Site : 03CH15-HY            Condition : AVG_BE_54 3m 91200_15_1620 HORIZONTAL            RBW:1000.000KHz VBW:1000KHz SWF:Auto            Detector : Peak            Project : 731627            Mode : 5</p>	<p>Left blank</p>

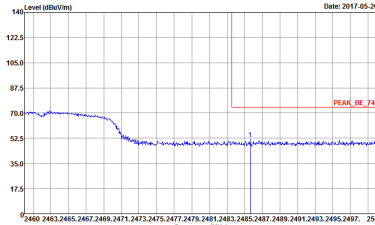
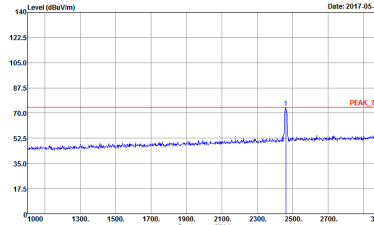
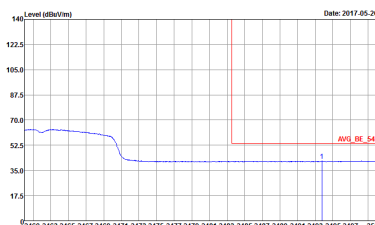
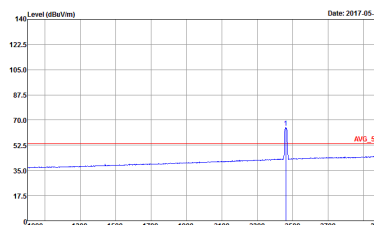


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - L	
1	Vertical	Fundamental
Peak	 <p>Date: 2017-05-26</p> <p>Site : 03CH15-HY            Condition : PEAK_BE_74 3m 91200_15_1620 VERTICAL            RBW:1000.000kHz VBW:3000.000kHz SWT:Auto            Detector : Peak            Project : 731627            Mode : 5</p>	 <p>Date: 2017-05-26</p> <p>Site : 03CH15-HY            Condition : PEAK_74 3m 91200_15_1620 VERTICAL            RBW:1000.000kHz VBW:3000.000kHz SWT:Auto            Detector : Peak            Project : 731627            Mode : 5</p>
Avg.	 <p>Date: 2017-05-26</p> <p>Site : 03CH15-HY            Condition : AVG_BE_54 3m 91200_15_1620 VERTICAL            RBW:1000.000kHz VBW:1000kHz SWT:Auto            Detector : Peak            Project : 731627            Mode : 5</p>	 <p>Date: 2017-05-26</p> <p>Site : 03CH15-HY            Condition : AVG_54 3m 91200_15_1620 VERTICAL            RBW:1000.000kHz VBW:1000kHz SWT:Auto            Detector : Peak            Project : 731627            Mode : 5</p>

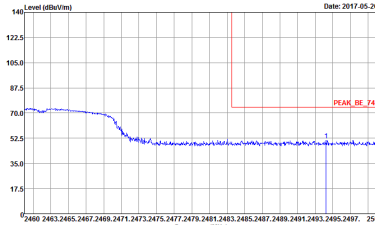
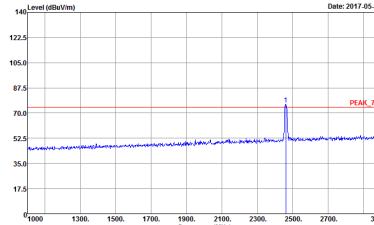
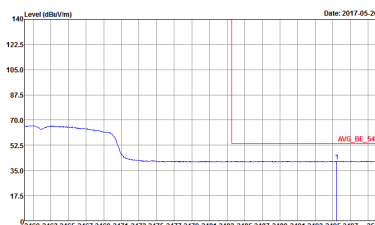
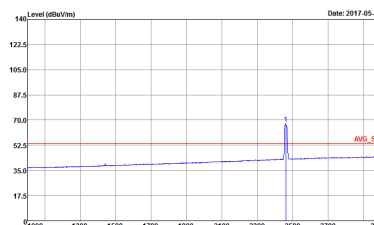


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - R	
1	Vertical	Fundamental
Peak	 <p>Site : 03CH15-HY            Condition : PEAK_BE_74 3m 91200_15_1620 VERTICAL            RBW:1000.000KHz VBW:3000.000KHz SWF:Auto            Detector : Peak            Project : 731627            Mode : 5</p>	Left Blank
Avg.	 <p>Site : 03CH15-HY            Condition : AVG_BE_54 3m 91200_15_1620 VERTICAL            RBW:1000.000KHz VBW:1.000KHz SWF:Auto            Detector : Peak            Project : 731627            Mode : 5</p>	Left Blank



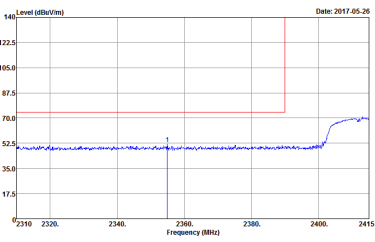
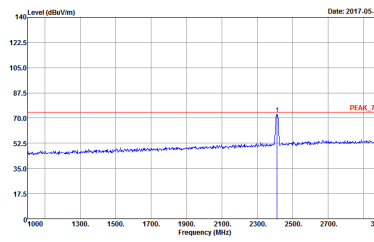
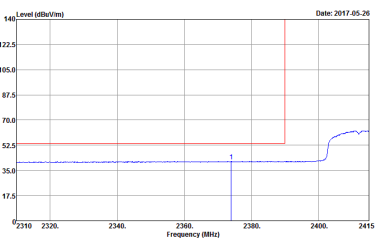
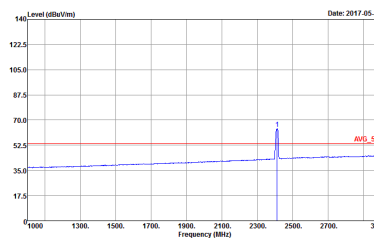
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH11 2462MHz	
1	Horizontal	Fundamental
Peak	 <p>Site : 03CH15-HY            Condition : PEAK_BE_74 3m 91200_15_1620 HORIZONTAL            RBW:1000.000KHz VBW:3000.000KHz SWT:Auto            Detector : Peak            Project : 731627            Mode : 6</p>	 <p>Site : 03CH15-HY            Condition : PEAK_74 3m 91200_15_1620 HORIZONTAL            RBW:1000.000KHz VBW:3000.000KHz SWT:Auto            Detector : Peak            Project : 731627            Mode : 6</p>
Avg.	 <p>Site : 03CH15-HY            Condition : AVG_BE_54 3m 91200_15_1620 HORIZONTAL            RBW:1000.000KHz VBW:1000KHz SWT:Auto            Detector : Peak            Project : 731627            Mode : 6</p>	 <p>Site : 03CH15-HY            Condition : AVG_54 3m 91200_15_1620 HORIZONTAL            RBW:1000.000KHz VBW:1000KHz SWT:Auto            Detector : Peak            Project : 731627            Mode : 6</p>



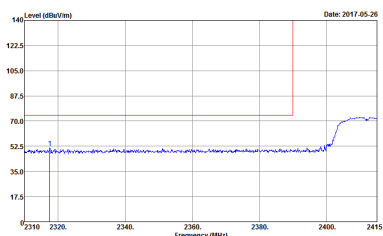
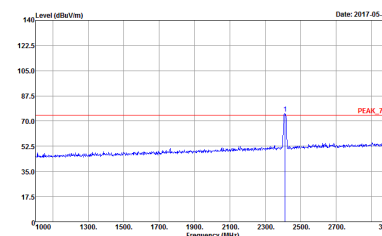
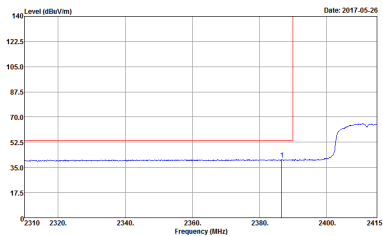
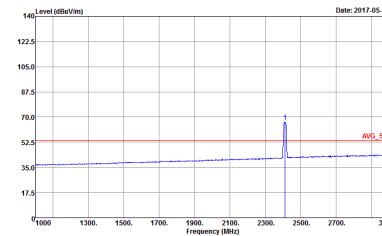
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH11 2462MHz	
1	Vertical	Fundamental
Peak	 <p>Site : 03CH15-HY            Condition : PEAK_BE_74 3m 91200_15_1620 VERTICAL            RBW:1000.000KHz VBW:3000.000KHz SWT:Auto            Detector : Peak            Project : 731627            Mode : 6</p>	 <p>Site : 03CH15-HY            Condition : PEAK_74 3m 91200_15_1620 VERTICAL            RBW:1000.000KHz VBW:3000.000KHz SWT:Auto            Detector : Peak            Project : 731627            Mode : 6</p>
	 <p>Site : 03CH15-HY            Condition : AVG_BE_54 3m 91200_15_1620 VERTICAL            RBW:1000.000KHz VBW:1000KHz SWT:Auto            Detector : Peak            Project : 731627            Mode : 6</p>	 <p>Site : 03CH15-HY            Condition : AVG_54 3m 91200_15_1620 VERTICAL            RBW:1000.000KHz VBW:1000KHz SWT:Auto            Detector : Peak            Project : 731627            Mode : 6</p>
Avg.		



**2.4GHz 2400~2483.5MHz**  
**WIFI 802.11n HT20 (Band Edge @ 3m)**

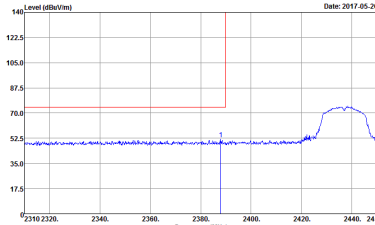
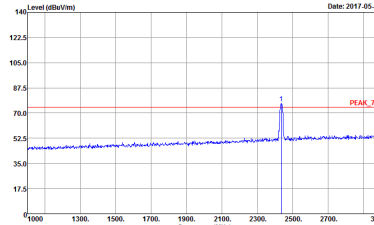
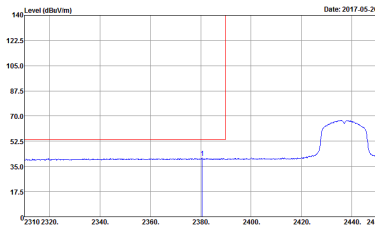
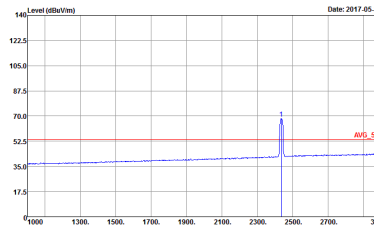
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH01 2412MHz	
1	Horizontal	Fundamental
<b>Peak</b>	 <p>Site : 03CH15-HY            Condition : PEAK_BE_74 3m 91200_15_1620 HORIZONTAL            RBW:1000.000KHz VBW:3000.000KHz SWT:Auto            Detector : Peak            Project : 731627            Mode : 7</p>	 <p>Site : 03CH15-HY            Condition : PEAK_74 3m 91200_15_1620 HORIZONTAL            RBW:1000.000KHz VBW:3000.000KHz SWT:Auto            Detector : Peak            Project : 731627            Mode : 7</p>
<b>Avg.</b>	 <p>Site : 03CH15-HY            Condition : AVG_BE_54 3m 91200_15_1620 HORIZONTAL            RBW:1000.000KHz VBW:1000KHz SWT:Auto            Detector : Peak            Project : 731627            Mode : 7</p>	 <p>Site : 03CH15-HY            Condition : AVG_54 3m 91200_15_1620 HORIZONTAL            RBW:1000.000KHz VBW:1000KHz SWT:Auto            Detector : Peak            Project : 731627            Mode : 7</p>



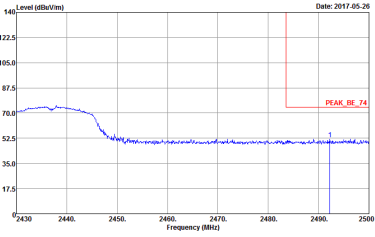
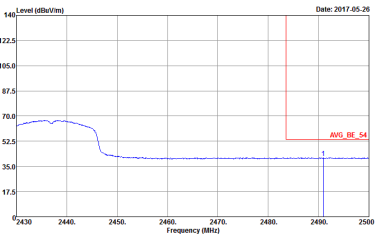
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH01 2412MHz	
1	Vertical	Fundamental
Peak	 <p>Site : 03CH15-HY            Condition : PEAK_BE_74 3m 91200_15_1620 VERTICAL            Detector : Peak            Project : 731627            Mode : 7</p>	 <p>Site : 03CH15-HY            Condition : PEAK_74 3m 91200_15_1620 VERTICAL            Detector : Peak            Project : 731627            Mode : 7</p>
Avg.	 <p>Site : 03CH15-HY            Condition : AVG_BE_54 3m 91200_15_1620 VERTICAL            Detector : Peak            Project : 731627            Mode : 7</p>	 <p>Site : 03CH15-HY            Condition : AVG_54 3m 91200_15_1620 VERTICAL            Detector : Peak            Project : 731627            Mode : 7</p>



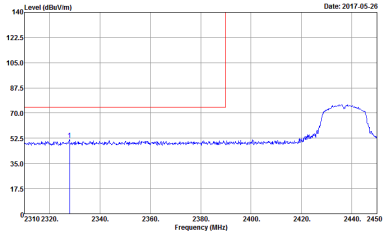
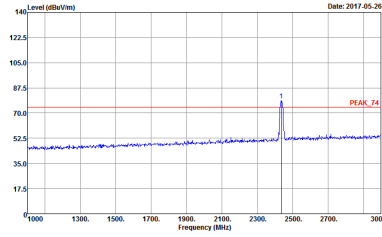
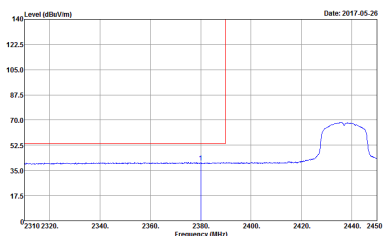
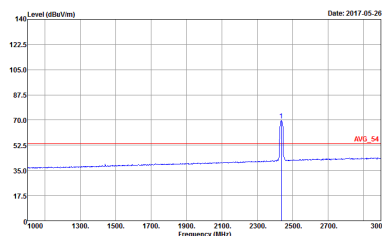


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH06 2437MHz - L	
1	Horizontal	Fundamental
Peak	 <p>Site : 03CH15-HY            Condition : PEAK_BE_74 3m 91200_15_1620 HORIZONTAL            Detector : Peak            Project : 731627            Mode : 8</p>	 <p>Site : 03CH15-HY            Condition : PEAK_74 3m 91200_15_1620 HORIZONTAL            Detector : Peak            Project : 731627            Mode : 8</p>
Avg.	 <p>Site : 03CH15-HY            Condition : AVG_BE_54 3m 91200_15_1620 HORIZONTAL            Detector : Peak            Project : 731627            Mode : 8</p>	 <p>Site : 03CH15-HY            Condition : AVG_54 3m 91200_15_1620 HORIZONTAL            Detector : Peak            Project : 731627            Mode : 8</p>

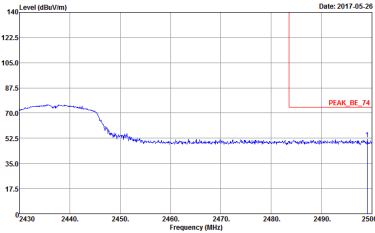
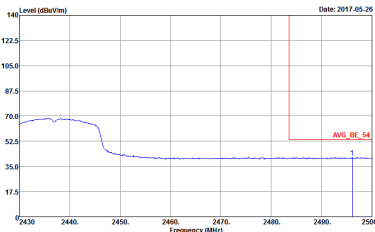


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH06 2437MHz - R	
1	Horizontal	Fundamental
Peak	 <p>Site : 03CH15-HY            Condition : PEAK_BE_74 3m 91200_15_1620 HORIZONTAL            RBW:1000.000KHz VBW:3000.000KHz SWF:Auto            Detector : Peak            Project : 731627            Mode : B</p>	Left blank
Avg.	 <p>Site : 03CH15-HY            Condition : AVG_BE_54 3m 91200_15_1620 HORIZONTAL            RBW:1000.000KHz VBW:1.000KHz SWF:Auto            Detector : Peak            Project : 731627            Mode : B</p>	Left blank

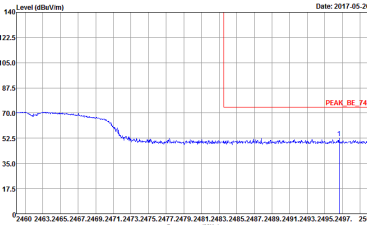
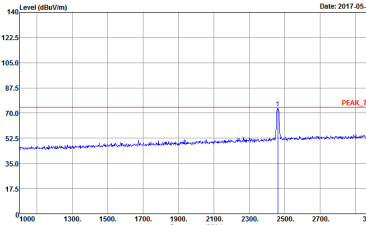
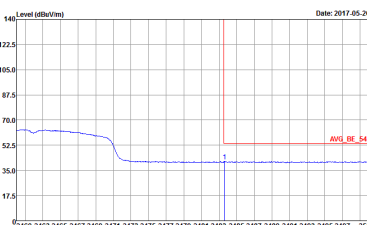
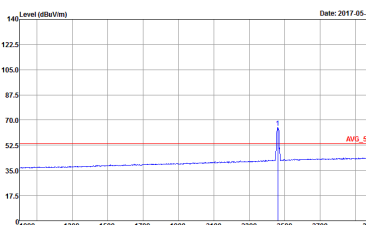


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH06 2437MHz - L	
1	Vertical	Fundamental
Peak	 <p>Date: 2017-05-26</p> <p>Site : 03CH15-HY            Condition : PEAK_BE_74 3m 91200_15_1620 VERTICAL            RBW:1000.000kHz VBW:3000.000kHz SWT:Auto            Detector : Peak            Project : 731627            Mode : 8</p>	 <p>Date: 2017-05-26</p> <p>Site : 03CH15-HY            Condition : PEAK_74 3m 91200_15_1620 VERTICAL            RBW:1000.000kHz VBW:3000.000kHz SWT:Auto            Detector : Peak            Project : 731627            Mode : 8</p>
Avg.	 <p>Date: 2017-05-26</p> <p>Site : 03CH15-HY            Condition : AVG_BE_54 3m 91200_15_1620 VERTICAL            RBW:1000.000kHz VBW:1000kHz SWT:Auto            Detector : Peak            Project : 731627            Mode : 8</p>	 <p>Date: 2017-05-26</p> <p>Site : 03CH15-HY            Condition : AVG_54 3m 91200_15_1620 VERTICAL            RBW:1000.000kHz VBW:1000kHz SWT:Auto            Detector : Peak            Project : 731627            Mode : 8</p>

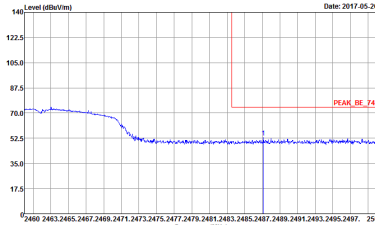
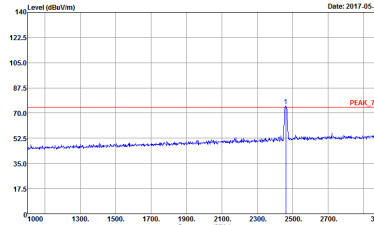
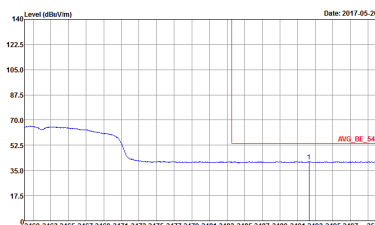
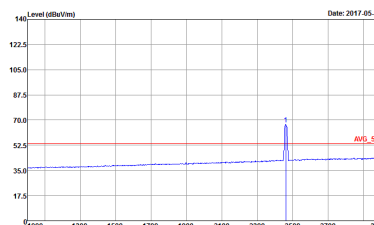


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH06 2437MHz - R	
1	Vertical	Fundamental
Peak	 <p>Site : 03CH15-HY            Condition : PEAK_BE_74 3m 91200_15_1620 VERTICAL            RBW:1000.000KHz VBW:3000.000KHz SWT:Auto            Detector : Peak            Project : 731627            Mode : B</p>	Left Blank
Avg.	 <p>Site : 03CH15-HY            Condition : AVG_BE_54 3m 91200_15_1620 VERTICAL            RBW:1000.000KHz VBW:1.000KHz SWT:Auto            Detector : Peak            Project : 731627            Mode : B</p>	Left Blank



WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH11 2462MHz	
1	Horizontal	Fundamental
Peak	 <p>Site : 03CH15-HY            Condition : PEAK_BE_74 3m 91200_15_1620 HORIZONTAL            RBW:1000.000KHz VBW:3000.000KHz SWT:Auto            Detector : Peak            Project : 731627            Mode : 9</p>	 <p>Site : 03CH15-HY            Condition : PEAK_74 3m 91200_15_1620 HORIZONTAL            RBW:1000.000KHz VBW:3000.000KHz SWT:Auto            Detector : Peak            Project : 731627            Mode : 9</p>
Avg.	 <p>Site : 03CH15-HY            Condition : AVG_BE_54 3m 91200_15_1620 HORIZONTAL            RBW:1000.000KHz VBW:1000KHz SWT:Auto            Detector : Peak            Project : 731627            Mode : 9</p>	 <p>Site : 03CH15-HY            Condition : AVG_54 3m 91200_15_1620 HORIZONTAL            RBW:1000.000KHz VBW:1000KHz SWT:Auto            Detector : Peak            Project : 731627            Mode : 9</p>



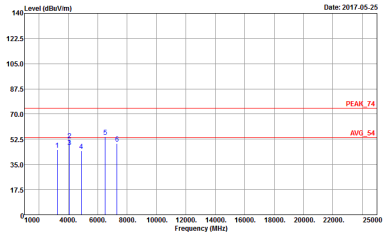
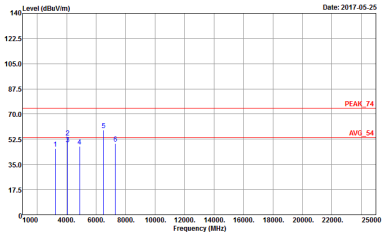
WIFI	2.4GHz 2400~2483.5MHz Fundamental @ 3m	
ANT	802.11n HT20 CH11 2462MHz	
1	Vertical	Fundamental
Peak	 <p>Site : 03CH15-HY            Condition : PEAK_BE_74 3m 91200_15_1620 VERTICAL            Detector : Peak            Project : 731627            Mode : 9</p>	 <p>Site : 03CH15-HY            Condition : PEAK_74 3m 91200_15_1620 VERTICAL            Detector : Peak            Project : 731627            Mode : 9</p>
	 <p>Site : 03CH15-HY            Condition : AVG_BE_54 3m 91200_15_1620 VERTICAL            Detector : Peak            Project : 731627            Mode : 9</p>	 <p>Site : 03CH15-HY            Condition : AVG_54 3m 91200_15_1620 VERTICAL            Detector : Peak            Project : 731627            Mode : 9</p>
Avg.		



**2.4GHz 2400~2483.5MHz  
WIFI 802.11b (Harmonic @ 3m)**

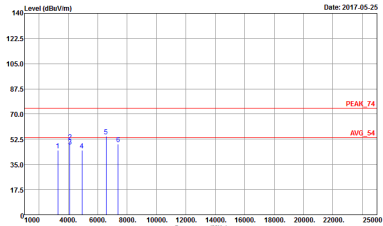
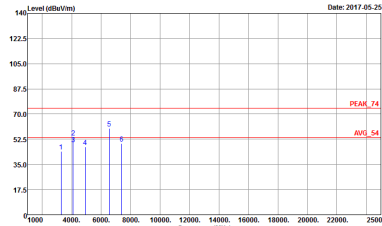
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH01 2412MHz	
1	Horizontal	Vertical
<p><b>Peak</b></p> <p><b>Avg.</b></p>	<p>Site : 03CH15-HY Condition : PEAK_74 3m 91200_15_1620 HORIZONTAL Detector : Peak Project : 731627 Mode : 1</p>	<p>Site : 03CH15-HY Condition : PEAK_74 3m 91200_15_1620 VERTICAL Detector : Peak Project : 731627 Mode : 1</p>



WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH06 2437MHz	
1	Horizontal	Vertical
<p><b>Peak</b></p> <p><b>Avg.</b></p>	 <p>Site : 03CH15-HY          Condition : PEAK_74 3m 91200_15_1620 HORIZONTAL          Detector : Peak          Project : 731627          Mode : 2</p>	 <p>Site : 03CH15-HY          Condition : PEAK_74 3m 91200_15_1620 VERTICAL          Detector : Peak          Project : 731627          Mode : 2</p>





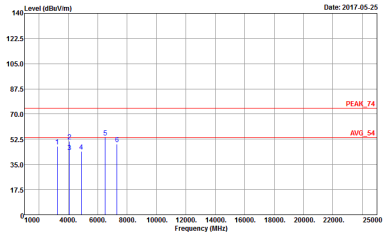
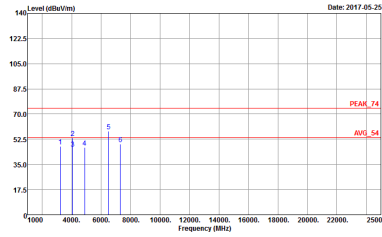
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH11 2462MHz	
1	Horizontal	Vertical
<p><b>Peak</b></p> <p><b>Avg.</b></p>	 <p>Site : 03CH15-1Y          Condition : PEAK_74 3m 91200_15_1620 HORIZONTAL          Detector : Peak          Project : 731627          Mode : 3</p>	 <p>Site : 03CH15-1Y          Condition : PEAK_74 3m 91200_15_1620 VERTICAL          Detector : Peak          Project : 731627          Mode : 3</p>



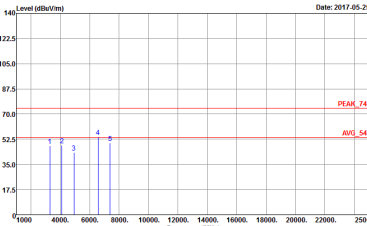
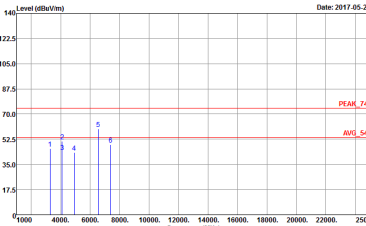
**2.4GHz 2400~2483.5MHz  
WIFI 802.11g (Harmonic @ 3m)**

<b>WIFI</b>	<b>2.4GHz 2400~2483.5MHz Harmonic @ 3m</b>	
<b>ANT</b>	<b>802.11g CH01 2412MHz</b>	
<b>1</b>	<b>Horizontal</b>	<b>Vertical</b>
<b>Peak Avg.</b>	<p>Site : 03CH15-1FY Condition : PEAK_74 3m 91200_15_1620 HORIZONTAL Detector : Peak Project : 731627 Mode : 4</p>	<p>Site : 03CH15-1FY Condition : PEAK_74 3m 91200_15_1620 VERTICAL Detector : Peak Project : 731627 Mode : 4</p>



WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11g CH06 2437MHz	
1	Horizontal	Vertical
Peak Avg.	 <p>Site : 03CH15-HY          Condition : PEAK_74 3m 91200_15_1620 HORIZONTAL          Detector : Peak          Project : 731627          Mode : 5</p>	 <p>Site : 03CH15-HY          Condition : PEAK_74 3m 91200_15_1620 VERTICAL          Detector : Peak          Project : 731627          Mode : 5</p>



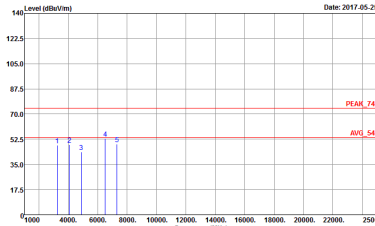
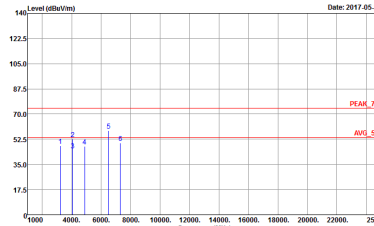
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11g CH11 2462MHz	
1	Horizontal	Vertical
<p><b>Peak</b></p> <p><b>Avg.</b></p>	 <p>Site : 03CH15-1Y          Condition : PEAK_74 3m 91200_15_1620 HORIZONTAL          Detector : Peak          Project : 731627          Mode : 6</p>	 <p>Site : 03CH15-1Y          Condition : PEAK_74 3m 91200_15_1620 VERTICAL          Detector : Peak          Project : 731627          Mode : 6</p>



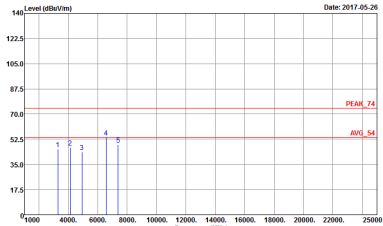
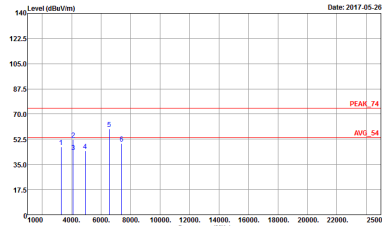
**2.4GHz 2400~2483.5MHz**  
**WIFI 802.11n HT20 (Harmonic @ 3m)**

<b>WIFI</b>	<b>2.4GHz 2400~2483.5MHz Harmonic @ 3m</b>	
<b>ANT</b>	<b>802.11n HT20 CH01 2412MHz</b>	
<b>1</b>	<b>Horizontal</b>	<b>Vertical</b>
<b>Peak</b> <b>Avg.</b>	<p>Site : 03CH15-HY          Condition : PEAK_74 3m 91200_15_1620 HORIZONTAL          Detector : Peak          Project : 731627          Mode : 7</p>	<p>Site : 03CH15-HY          Condition : PEAK_74 3m 91200_15_1620 VERTICAL          Detector : Peak          Project : 731627          Mode : 7</p>



WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11n HT20 CH06 2437MHz	
1	Horizontal	Vertical
<p><b>Peak</b></p> <p><b>Avg.</b></p>	 <p>Site : 03CH15-HY          Condition : PEAK_74 3m 9120D_15_1620 HORIZONTAL          Detector : Peak          Project : 731627          Mode : 8</p>	 <p>Site : 03CH15-HY          Condition : PEAK_74 3m 9120D_15_1620 VERTICAL          Detector : Peak          Project : 731627          Mode : 8</p>



WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11n HT20 CH11 2462MHz	
1	Horizontal	Vertical
Peak Avg.	 <p>Site : 03CH15-1Y Condition : PEAK_74 3m 91200_15_1620 HORIZONTAL Detector : Peak Project : 731627 Mode : 9</p>	 <p>Site : 03CH15-1Y Condition : PEAK_74 3m 91200_15_1620 VERTICAL Detector : Peak Project : 731627 Mode : 9</p>



2.4GHz 2400~2483.5MHz

Emission below 1GHz

2.4GHz WIFI 802.11b (LF)

<b>WIFI</b>	<b>2.4GHz 2400~2483.5MHz</b>	
<b>ANT</b>	<b>802.11b LF</b>	
<b>1</b>	<b>Horizontal</b>	<b>Vertical</b>
<b>QP / Peak</b>	<p>Site : 03CH15-HY  Condition : QP 3m BTL06_15_41912 HORIZONTAL  Detector : Peak  Project : 731627  Mode : 10</p>	<p>Site : 03CH15-HY  Condition : QP 3m BTL06_15_41912 VERTICAL  Detector : Peak  Project : 731627  Mode : 10</p>

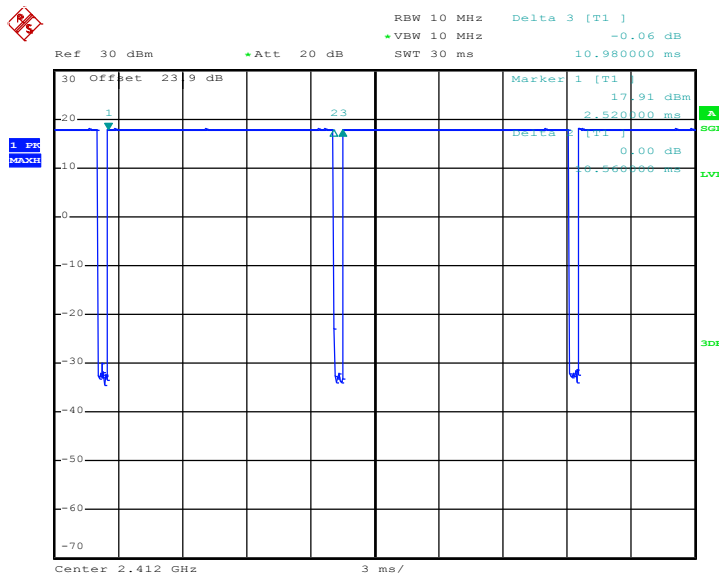




## Appendix G. Duty Cycle Plots

Band	Duty Cycle(%)	T(us)	1/T(kHz)	VBW Setting
802.11b	96.18	10560	0.09469697	100Hz
802.11g	92.23	1900	0.526315789	1kHz
2.4GHz 802.11n HT20	90.72	0.568181818	1kHz	

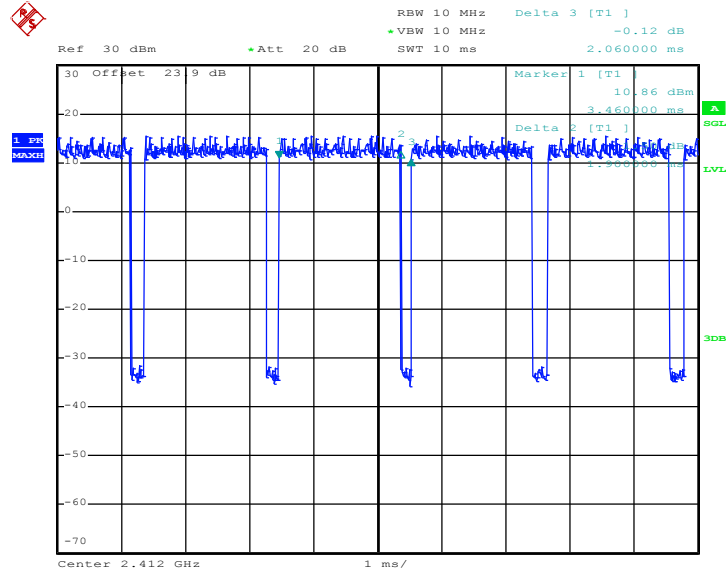
### 802.11b



Date: 19.APR.2017 23:53:39

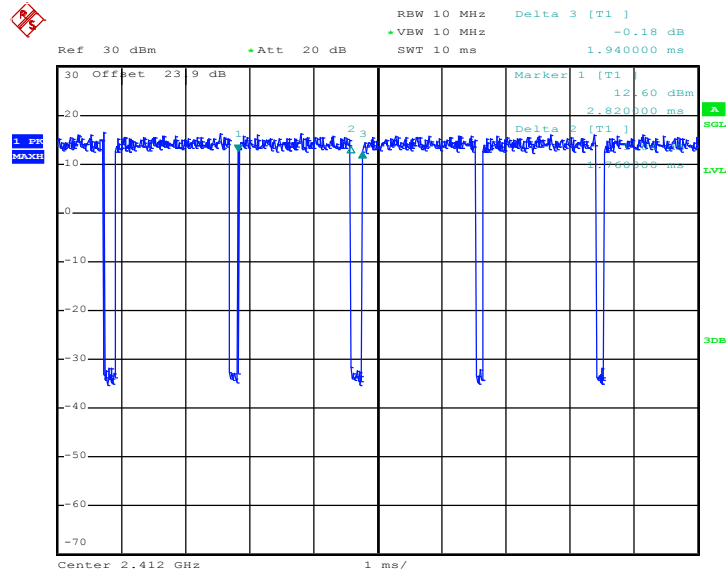


802.11g



Date: 19.APR.2017 23:59:54

802.11n HT20



Date: 20.APR.2017 00:11:04