



# FCC RF Test Report

**APPLICANT** : Xiaomi Communications Co., Ltd.  
**EQUIPMENT** : Mobile Phone  
**BRAND NAME** : MI  
**MODEL NAME** : MEG7  
**FCC ID** : 2AFZZ-RMMEG7  
**STANDARD** : FCC Part 15 Subpart C §15.247  
**CLASSIFICATION** : (DTS) Digital Transmission System

The product was received on Sep. 18, 2017 and testing was completed on Sep. 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.

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Reviewed by: Joseph Lin / Supervisor

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Approved by: Jones Tsai / Manager



## **SPORTON INTERNATIONAL INC.**

**No. 52, Hwa Ya 1<sup>st</sup> Rd., Hwa Ya Technology Park, Kwei-Shan District, Tao Yuan City, Taiwan, R.O.C.**



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## REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FR791813C	Rev. 01	Initial issue of report	Oct. 16, 2017

## 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)	Radiated Band Edges and Radiated Spurious Emission	15.209(a) & 15.247(d)	Pass	Under limit 2.10 dB at 2483.550 MHz
3.6	15.207	AC Conducted Emission	15.207(a)	Pass	Under limit 12.70 dB at 0.526 MHz
3.7	15.203 & 15.247(b)	Antenna Requirement	N/A	Pass	-



# 1 General Description

## 1.1 Applicant

**Xiaomi Communications Co., Ltd.**

The Rainbow City of China Resources, NO. 68, Qinghe Middle Street, Haidian District, Beijing, China

## 1.2 Manufacturer

**Xiaomi Communications Co., Ltd.**

The Rainbow City of China Resources, NO. 68, Qinghe Middle Street, Haidian District, Beijing, China

## 1.3 Product Feature of Equipment Under Test

GSM/WCDMA/LTE, Bluetooth, Wi-Fi 2.4GHz 802.11b/g/n, Wi-Fi 5GHz 802.11a/n, FM Receiver and GPS

Product Specification subjective to this standard	
Antenna Type	WWAN: PIFA Antenna WLAN: PIFA Antenna Bluetooth: PIFA Antenna GPS / Glonass / BDS / SBAS: PIFA Antenna FM: Integral Antenna (Earphone acting as FM antenna deemed as an integral antenna)

## 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>	
	03CH11-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:** All test items were verified and recorded according to the standards and without any deviation during the test.

## 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 (Z plane) 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	-	-

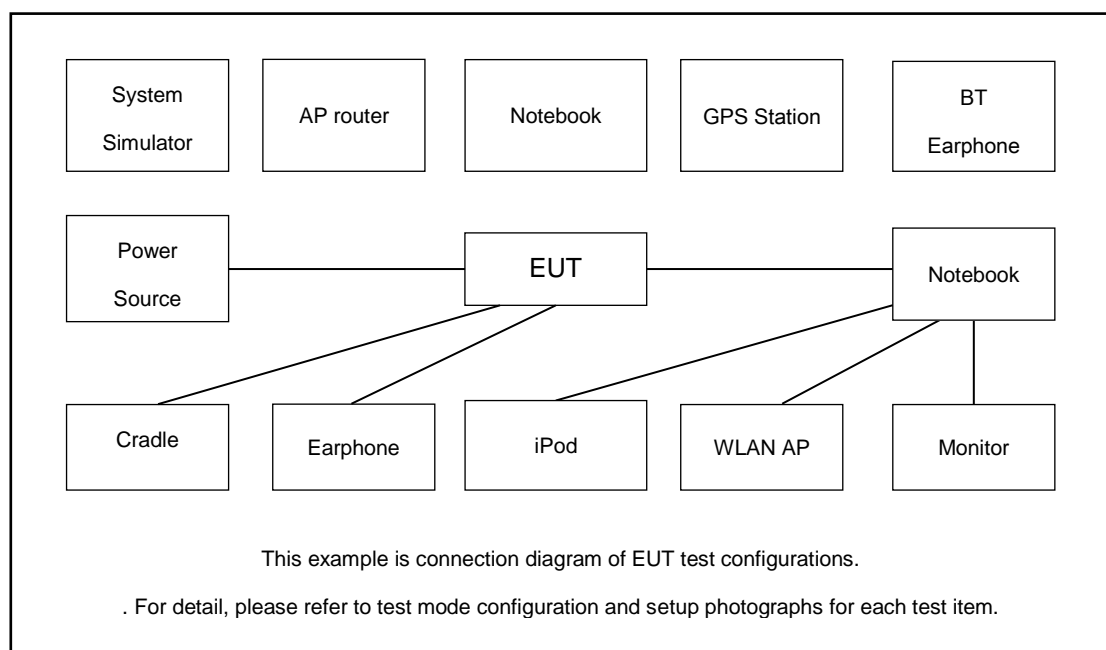
## 2.2 Test Mode

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
802.11n HT40	MCS0

Test Cases	
<b>AC Conducted Emission</b>	Mode 1: GSM850 Idle + Bluetooth Link + WLAN (2.4GHz) Link + Earphone + USB Cable 1 (Charging from Adapter)
	Mode 2: GSM850 Idle + Bluetooth Link + WLAN (2.4GHz) Link + Earphone + USB Cable 2 (Charging from Adapter)
<b>Remark:</b> <ol style="list-style-type: none"> <li>The worst case of conducted emission is mode 2; only the test data of it was reported.</li> <li>For Radiated Test Cases, The tests were performed with Adapter, Earphone, and USB Cable 1.</li> </ol>	

## 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.	System Simulator	Anritsu	MT8820C	N/A	N/A	Unshielded, 1.8m
2.	Bluetooth Earphone	Sony Ericsson	MW600	PY7DDA-2029	N/A	N/A
3.	WLAN AP	ASUS	RT-AC66U	MSQ-RTAC66U	N/A	Unshielded, 1.8m
4.	Notebook	DELL	Latitude E6320	FCC DoC/ Contains FCC ID: QDS-BRCM1054	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
5.	SD Card	SanDisk	MicroSD HC	FCC DoC	N/A	N/A

## 2.5 EUT Operation Test Setup

The RF test items, programmed RF utility, "QRCT" installed in the Notebook make the EUT provide functions like channel selection and power level for continuous transmitting and receiving signals.

## 2.6 Measurement Results Explanation Example

**For all conducted test items:**

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

Example :

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

*Offset = RF cable loss + attenuator factor.*

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

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

### 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.

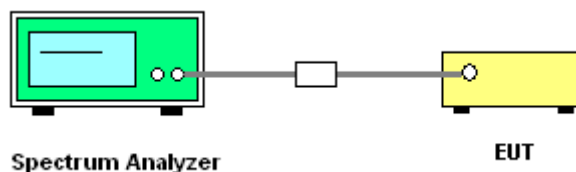
##### 3.1.2 Measuring Instruments

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.

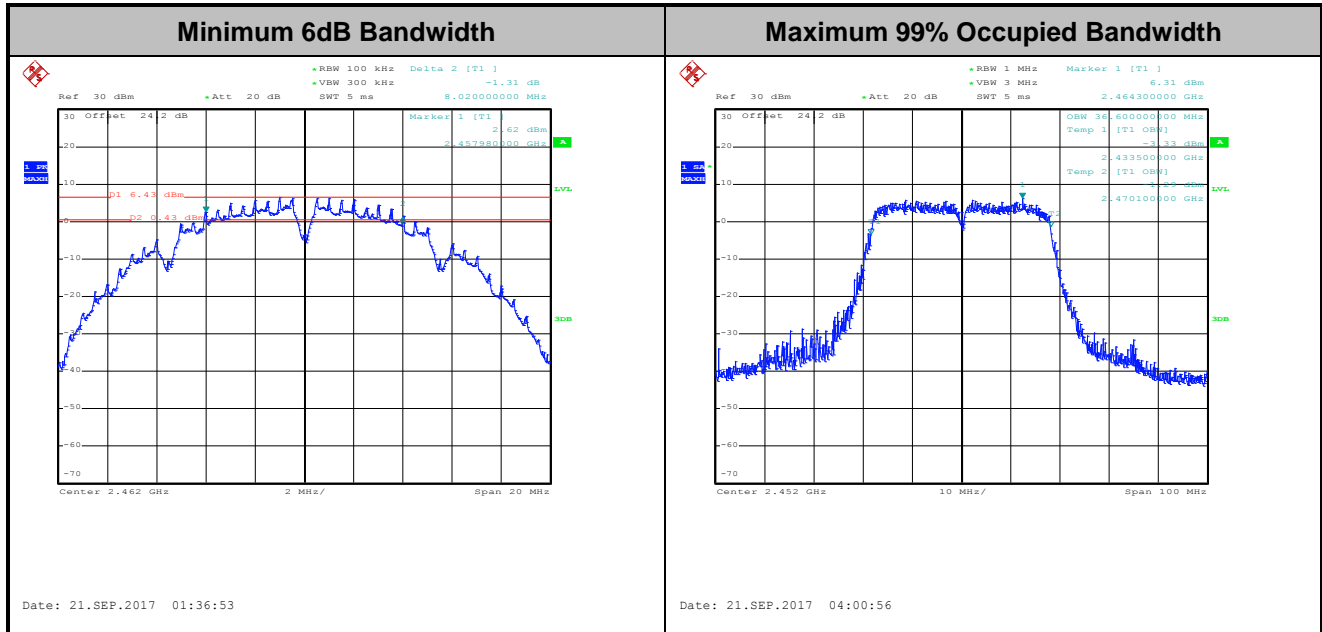
##### 3.1.4 Test Setup





### 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.

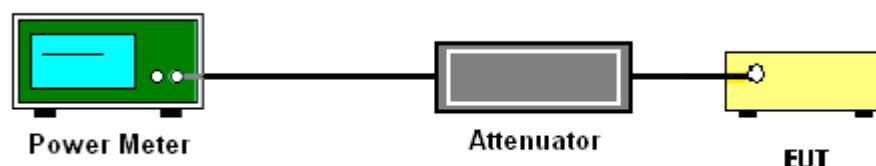
### 3.2.2 Measuring Instruments

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.

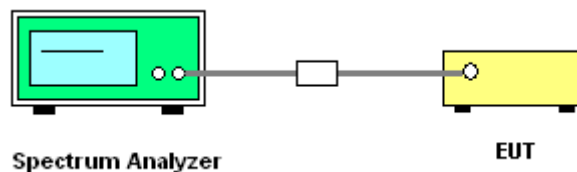
#### 3.3.2 Measuring Instruments

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.

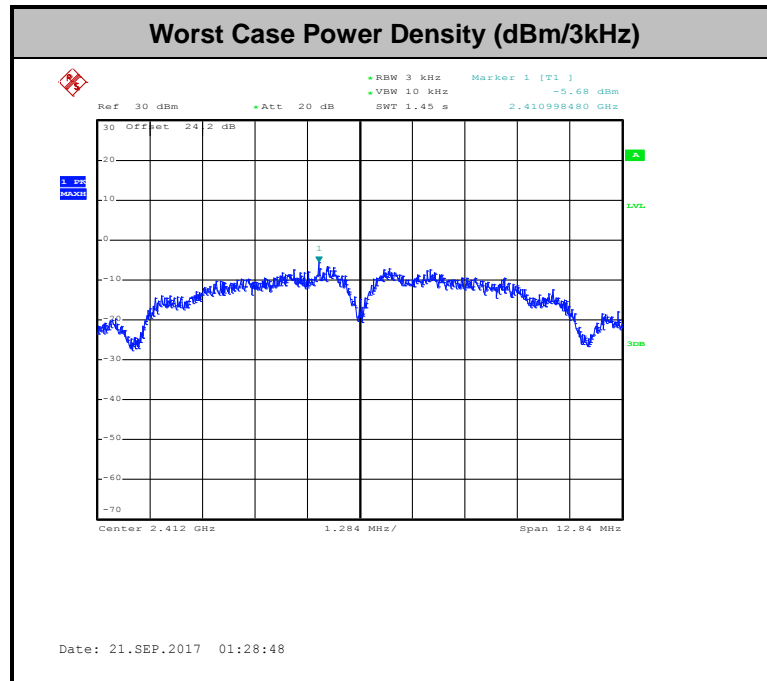
#### 3.3.4 Test Setup





### 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.

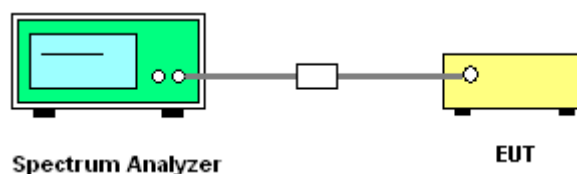
#### 3.4.2 Measuring Instruments

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.

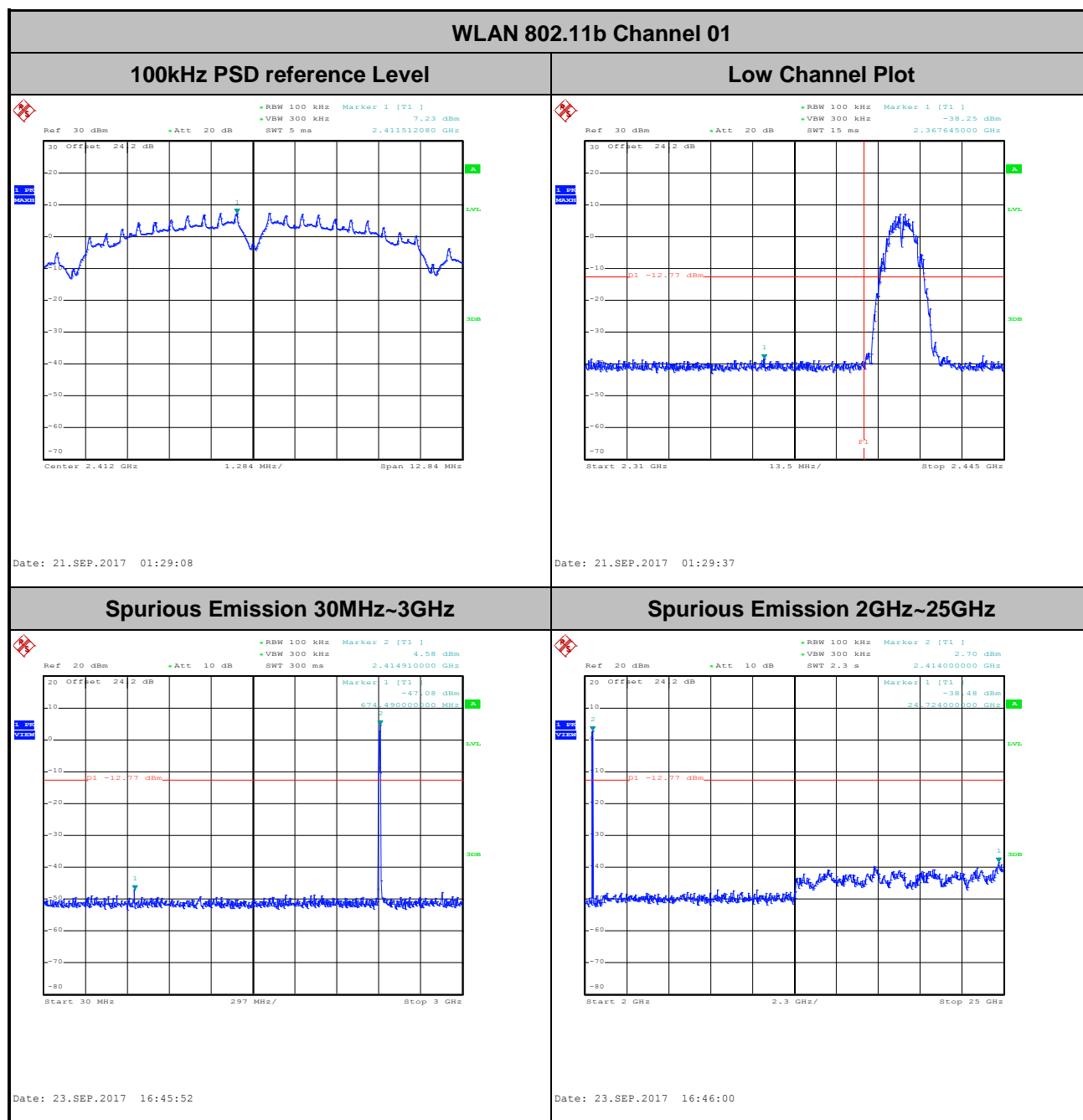
#### 3.4.4 Test Setup





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

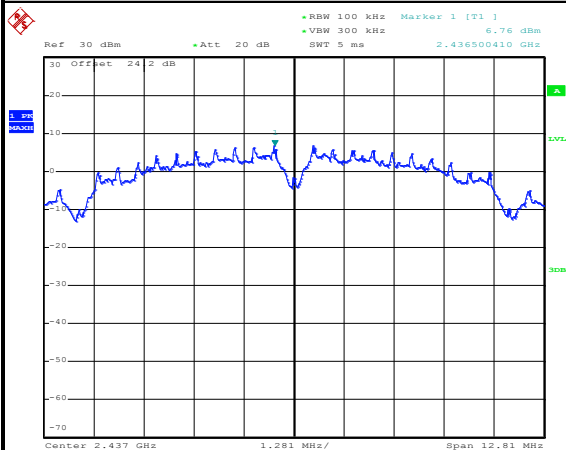
Test Mode :	802.11b	Temperature :	21~25°C
Test Band :	2.4GHz Low	Relative Humidity :	51~54%
Test Channel :	01	Test Engineer :	AC Chang



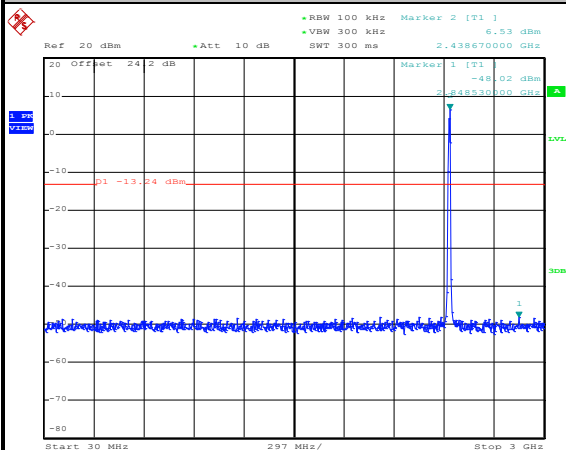




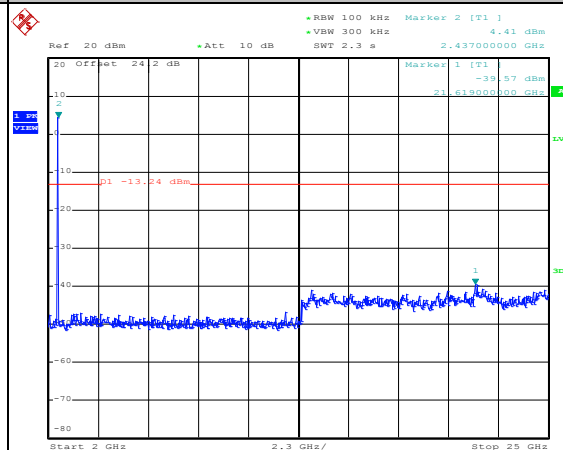
Test Mode :	802.11b	Temperature :	21~25°C
Test Band :	2.4GHz Mid	Relative Humidity :	51~54%
Test Channel :	06	Test Engineer :	AC Chang

**WLAN 802.11b Channel 06****100kHz PSD reference Level**

Date: 21.SEP.2017 01:33:43

**Spurious Emission 30MHz~3GHz**

Date: 21.SEP.2017 01:33:54

**Spurious Emission 2GHz~25GHz**

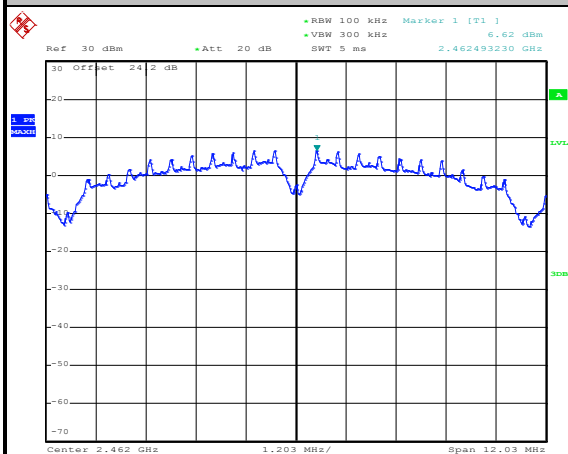
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Test Mode :	802.11b	Temperature :	21~25°C
Test Band :	2.4GHz High	Relative Humidity :	51~54%
Test Channel :	11	Test Engineer :	AC Chang

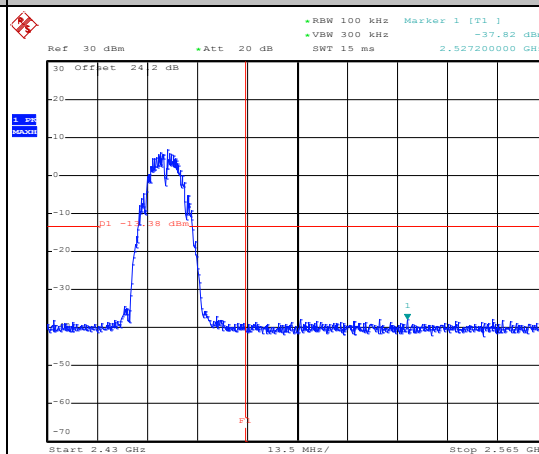
## WLAN 802.11b Channel 11

## 100kHz PSD reference Level



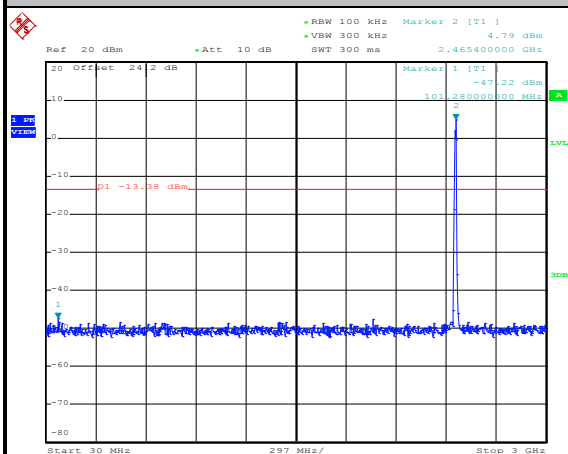
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## High Channel Plot



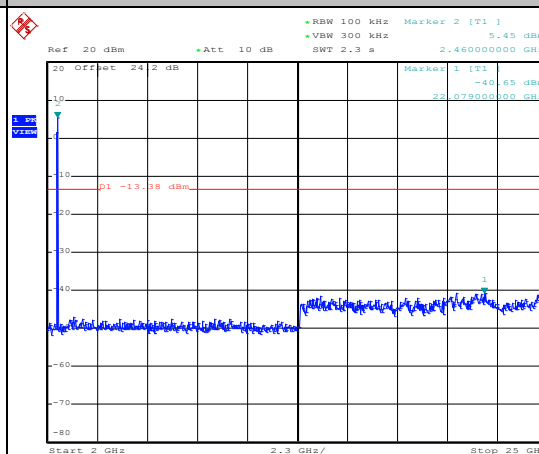
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## Spurious Emission 30MHz~3GHz



Date: 21.SEP.2017 01:38:40

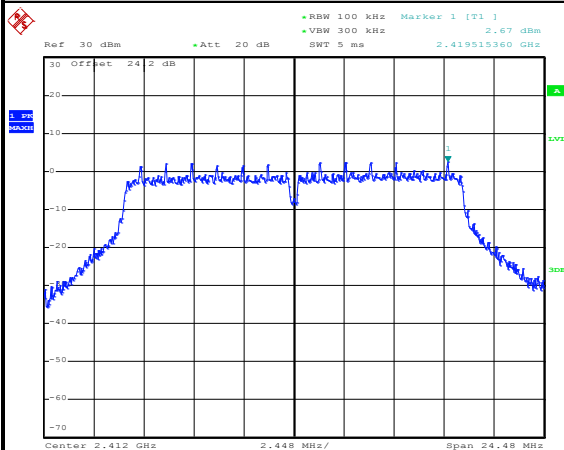
## Spurious Emission 2GHz~25GHz



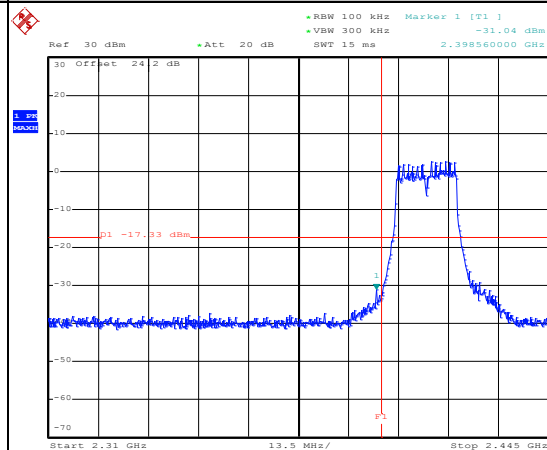
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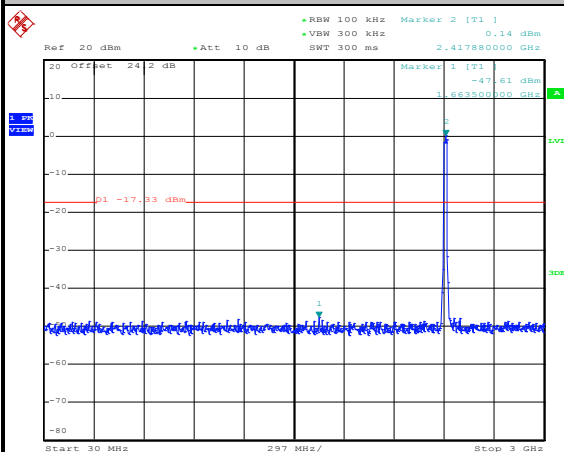
Test Mode :	802.11g	Temperature :	21~25°C
Test Band :	2.4GHz Low	Relative Humidity :	51~54%
Test Channel :	01	Test Engineer :	AC Chang

**WLAN 802.11g Channel 01****100kHz PSD reference Level**

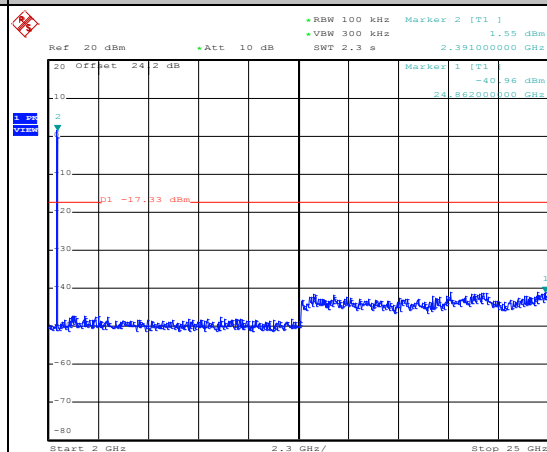
Date: 21.SEP.2017 01:10:59

**Low Channel Plot**

Date: 21.SEP.2017 01:11:27

**Spurious Emission 30MHz~3GHz**

Date: 21.SEP.2017 01:11:41

**Spurious Emission 2GHz~25GHz**

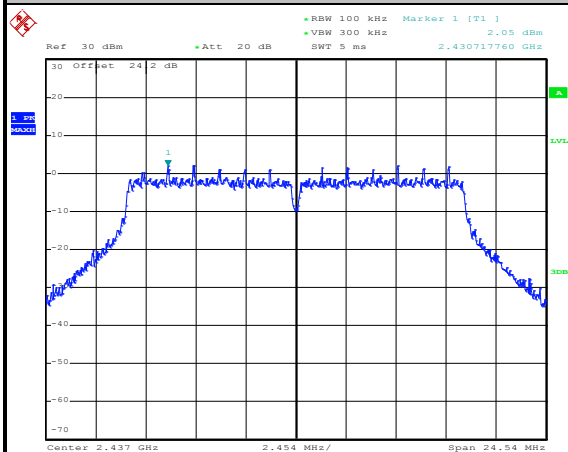
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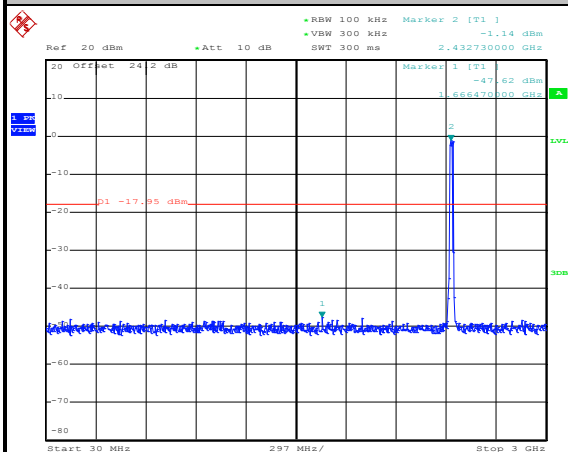
Test Mode :	802.11g	Temperature :	21~25°C
Test Band :	2.4GHz Mid	Relative Humidity :	51~54%
Test Channel :	06	Test Engineer :	AC Chang

## WLAN 802.11g Channel 06

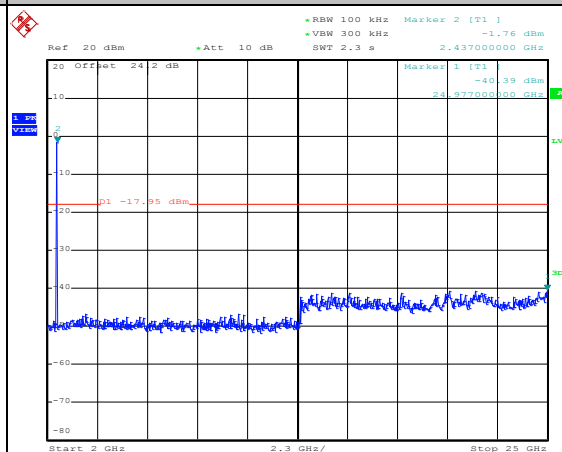
## 100kHz PSD reference Level



## Spurious Emission 30MHz~3GHz



## Spurious Emission 2GHz~25GHz

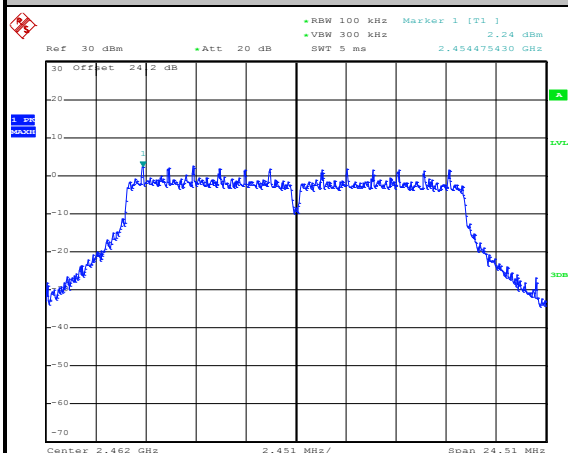




Test Mode :	802.11g	Temperature :	21~25°C
Test Band :	2.4GHz High	Relative Humidity :	51~54%
Test Channel :	11	Test Engineer :	AC Chang

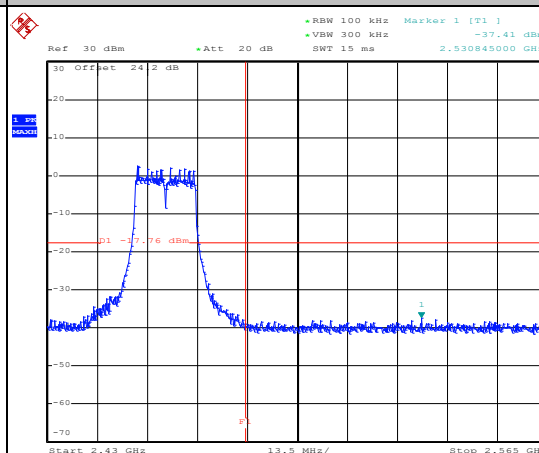
## WLAN 802.11g Channel 11

## 100kHz PSD reference Level



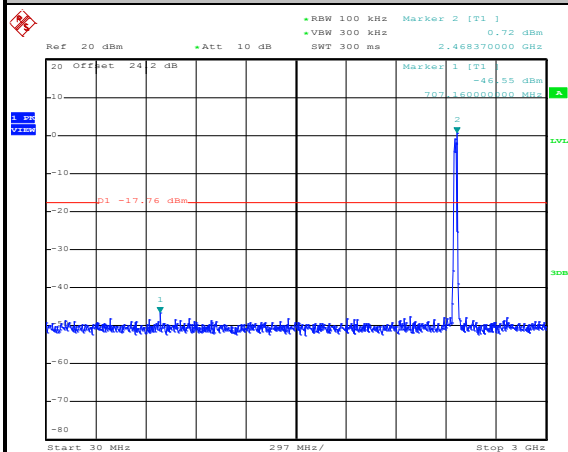
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## High Channel Plot



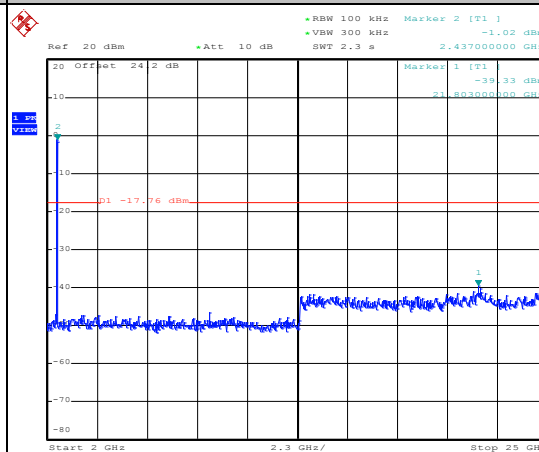
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## Spurious Emission 30MHz~3GHz



Date: 21.SEP.2017 01:23:22

## Spurious Emission 2GHz~25GHz



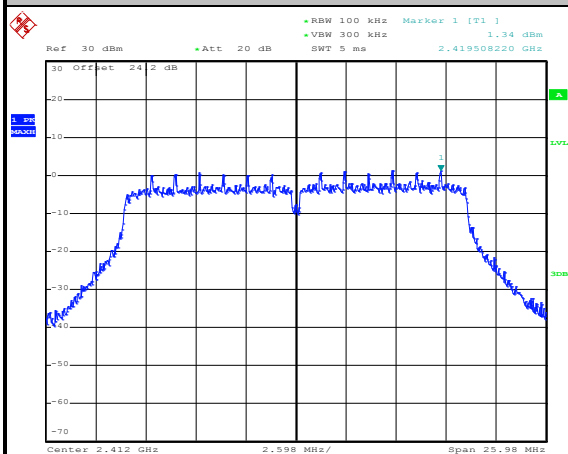
Date: 21.SEP.2017 01:23:30



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

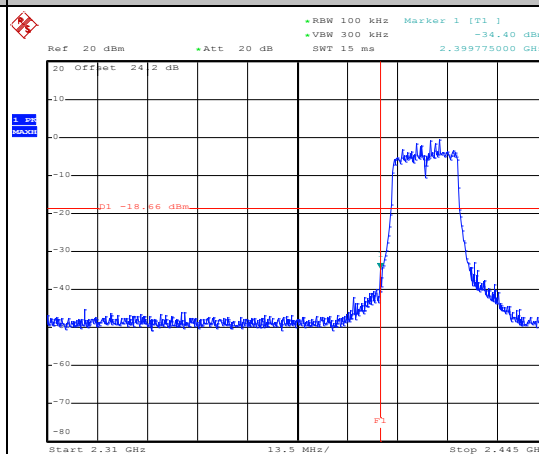
## WLAN 802.11n HT20 Channel 01

## 100kHz PSD reference Level



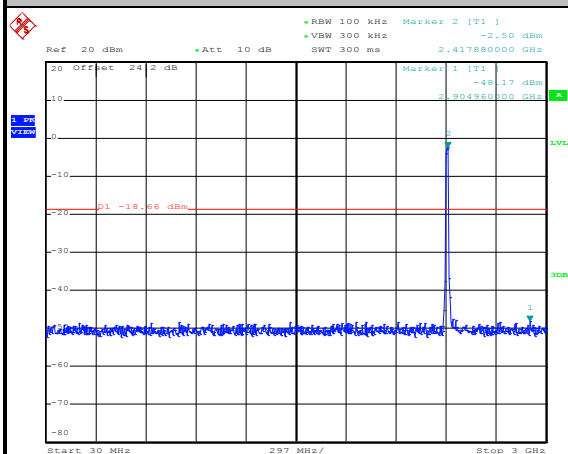
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## Low Channel Plot



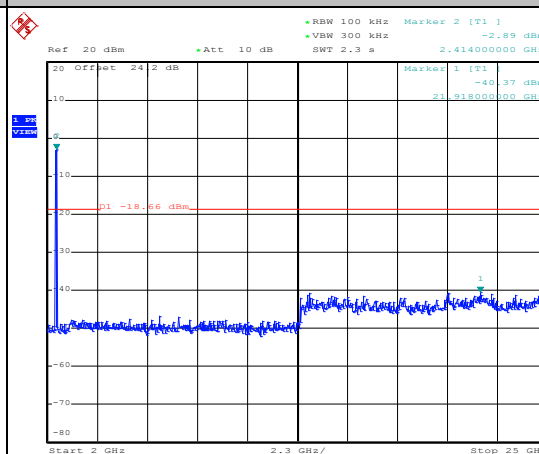
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## Spurious Emission 30MHz~3GHz



Date: 21.SEP.2017 01:52:56

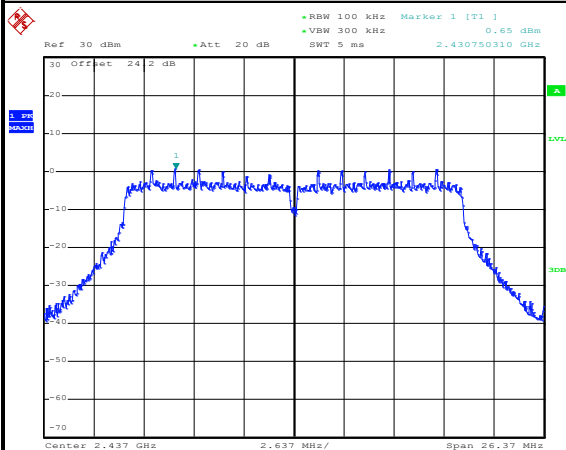
## Spurious Emission 2GHz~25GHz



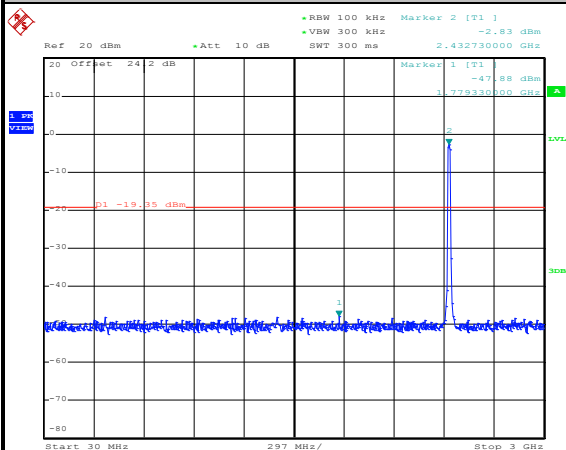
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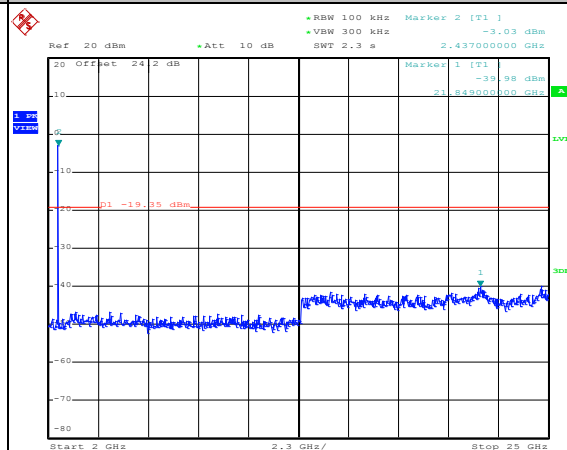
Test Mode :	802.11n HT20	Temperature :	21~25°C
Test Band :	2.4GHz Mid	Relative Humidity :	51~54%
Test Channel :	06	Test Engineer :	AC Chang

**WLAN 802.11n HT20 Channel 06****100kHz PSD reference Level**

Date: 21.SEP.2017 01:56:35

**Spurious Emission 30MHz~3GHz**

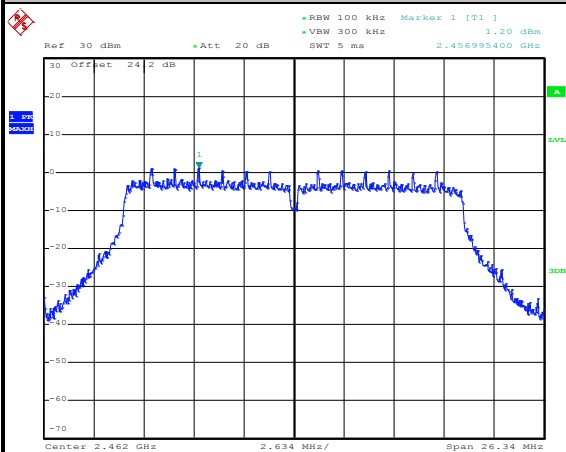
Date: 21.SEP.2017 01:56:46

**Spurious Emission 2GHz~25GHz**

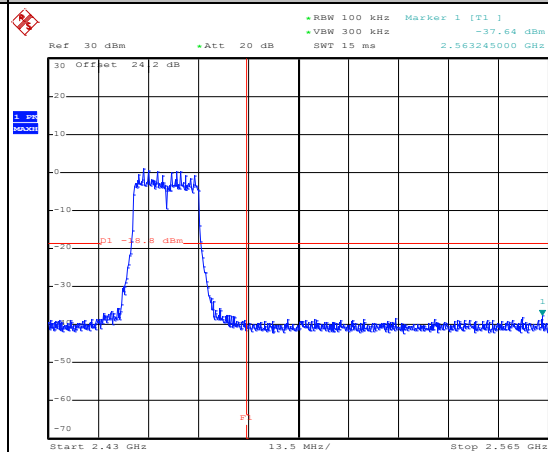
Date: 21.SEP.2017 01:56:54



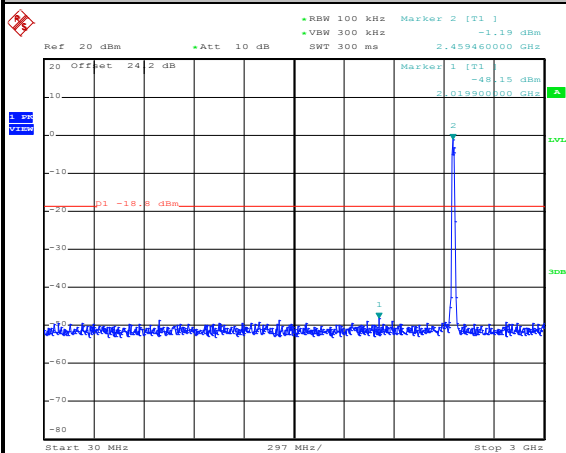
Test Mode :	802.11n HT20	Temperature :	21~25°C
Test Band :	2.4GHz High	Relative Humidity :	51~54%
Test Channel :	11	Test Engineer :	AC Chang

**WLAN 802.11n HT20 Channel 11****100kHz PSD reference Level**

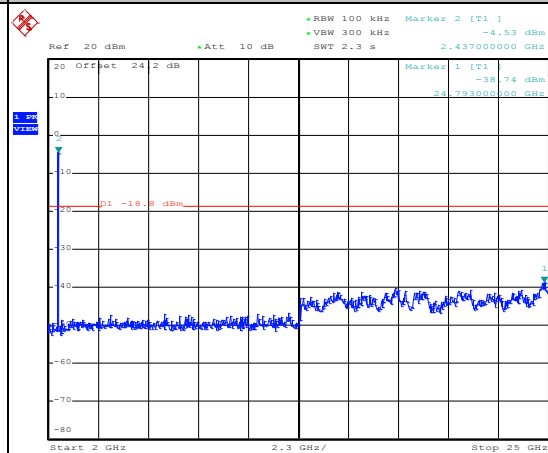
Date: 21.SEP.2017 03:36:00

**High Channel Plot**

Date: 21.SEP.2017 03:36:16

**Spurious Emission 30MHz~3GHz**

Date: 23.SEP.2017 16:52:46

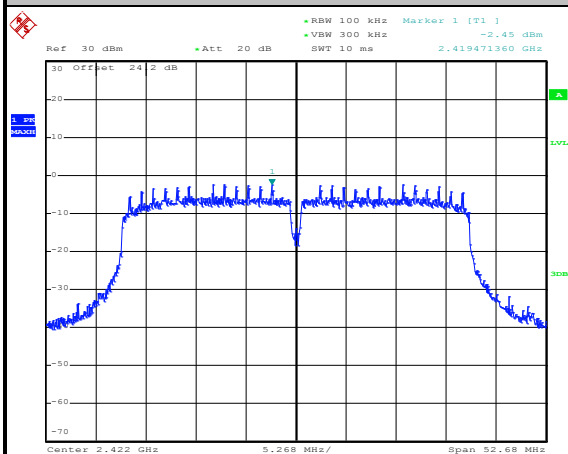
**Spurious Emission 2GHz~25GHz**

Date: 23.SEP.2017 16:52:54

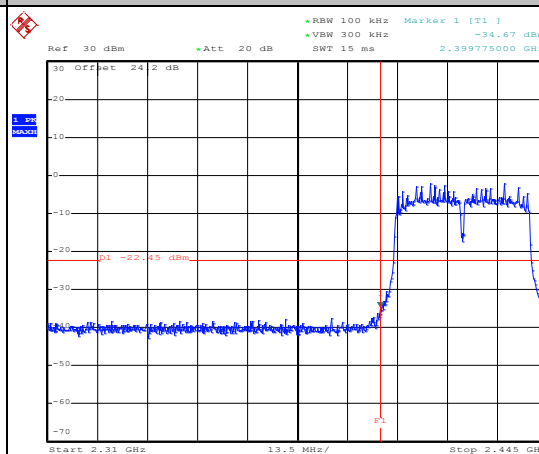




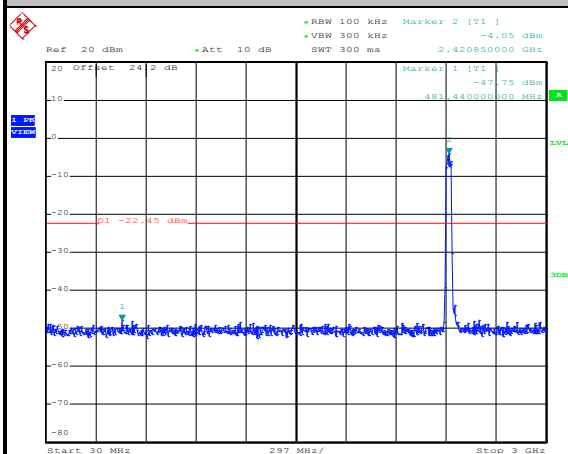
Test Mode :	802.11n HT40	Temperature :	21~25°C
Test Band :	2.4GHz Low	Relative Humidity :	51~54%
Test Channel :	03	Test Engineer :	AC Chang

**WLAN 802.11n HT40 Channel 03****100kHz PSD reference Level**

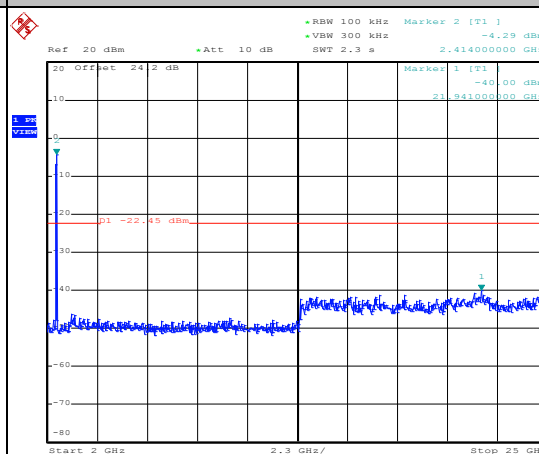
Date: 21.SEP.2017 03:45:36

**Low Channel Plot**

Date: 21.SEP.2017 03:45:51

**Spurious Emission 30MHz~3GHz**

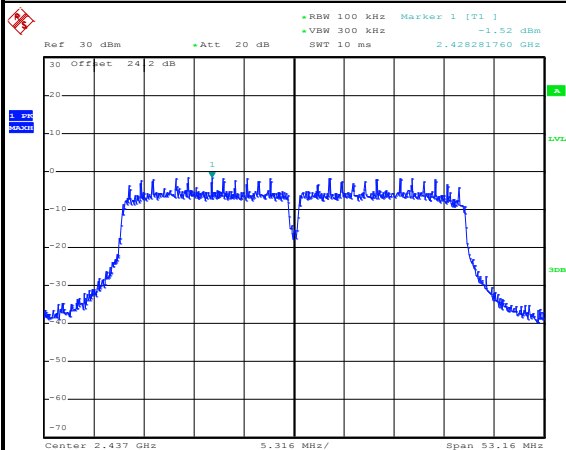
Date: 21.SEP.2017 03:46:13

**Spurious Emission 2GHz~25GHz**

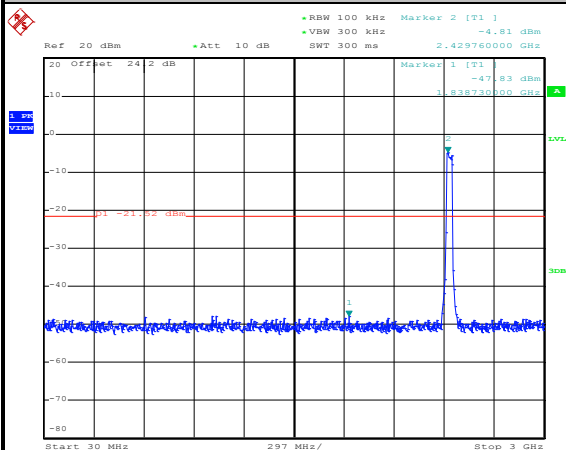
Date: 21.SEP.2017 03:46:22



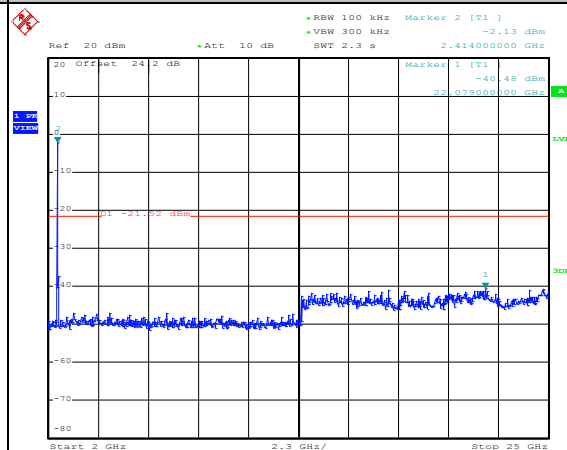
Test Mode :	802.11n HT40	Temperature :	21~25°C
Test Band :	2.4GHz Mid	Relative Humidity :	51~54%
Test Channel :	06	Test Engineer :	AC Chang

**WLAN 802.11n HT40 Channel 06****100kHz PSD reference Level**

Date: 21.SEP.2017 03:51:21

**Spurious Emission 30MHz~3GHz**

Date: 21.SEP.2017 03:51:32

**Spurious Emission 2GHz~25GHz**

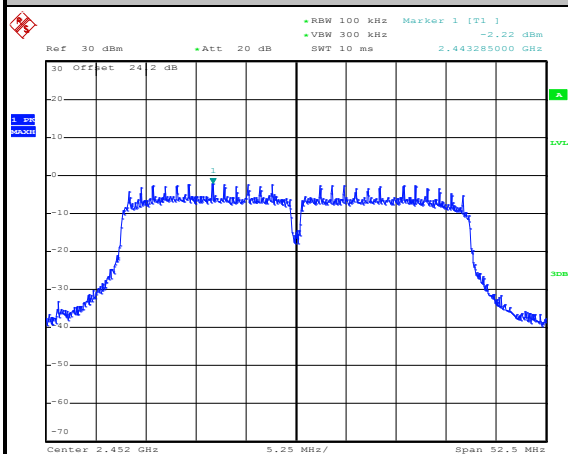
Date: 21.SEP.2017 03:51:41



Test Mode :	802.11n HT40	Temperature :	21~25°C
Test Band :	2.4GHz High	Relative Humidity :	51~54%
Test Channel :	09	Test Engineer :	AC Chang

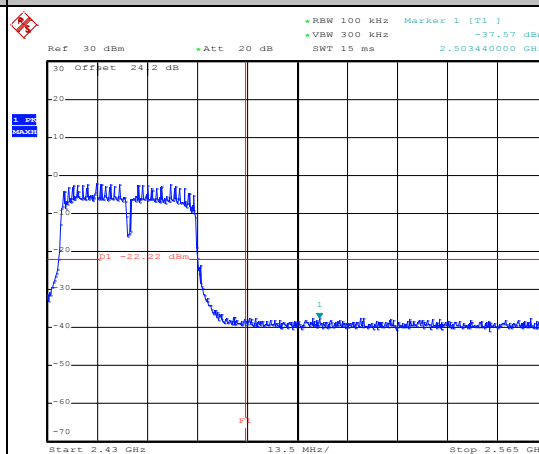
## WLAN 802.11n HT40 Channel 09

## 100kHz PSD reference Level



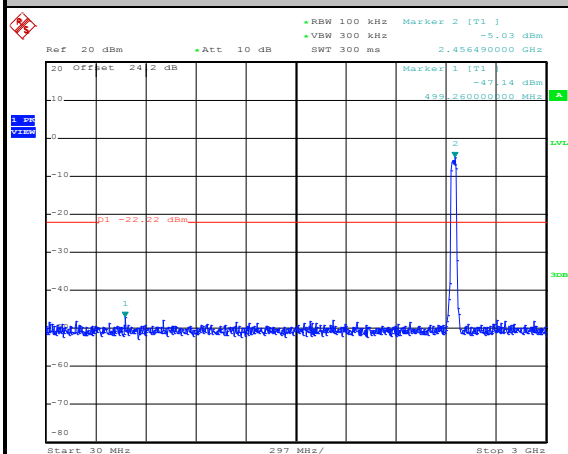
Date: 21.SEP.2017 03:58:58

## High Channel Plot



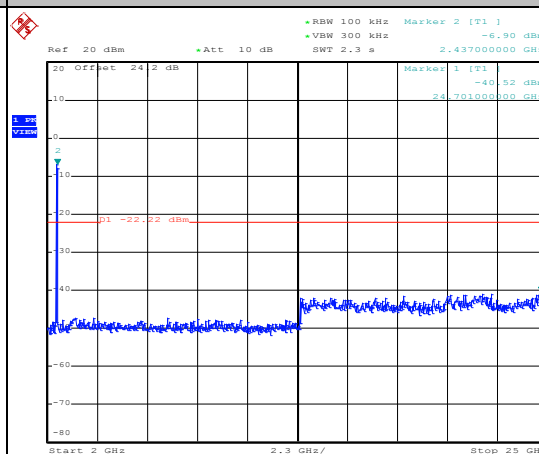
Date: 21.SEP.2017 04:00:22

## Spurious Emission 30MHz~3GHz



Date: 21.SEP.2017 04:00:34

## Spurious Emission 2GHz~25GHz



Date: 21.SEP.2017 04:00:43

### 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

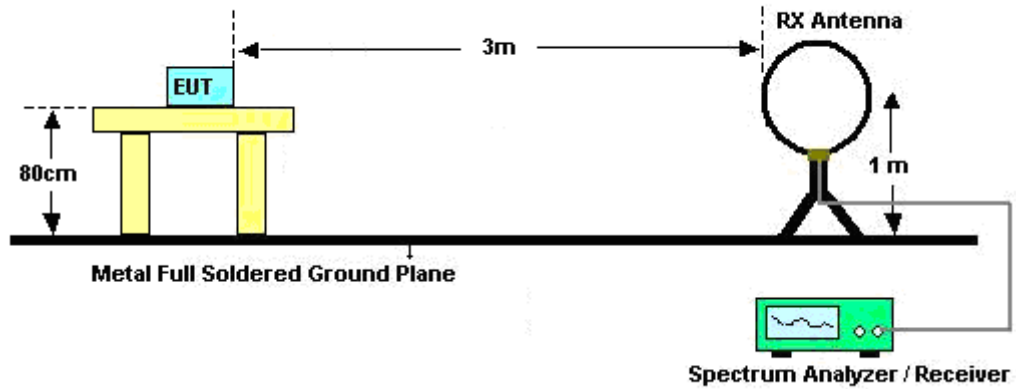
1. The testing follows FCC KDB Publication No. 558074 D01 DTS Meas. Guidance v04.
2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test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

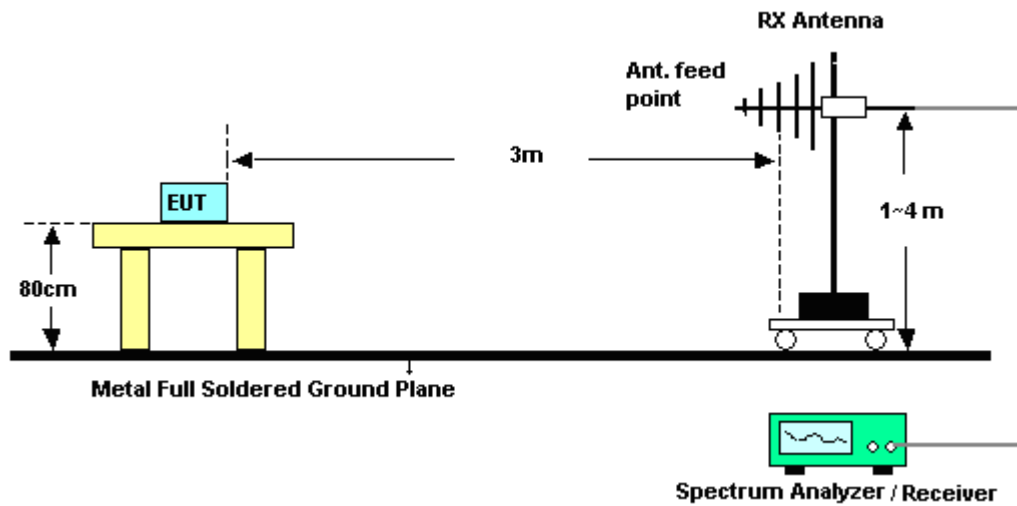
    - VBW = 10 Hz, when duty cycle is no less than 98 percent.
    - VBW  $\geq 1/T$ , when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.

### 3.5.4 Test Setup

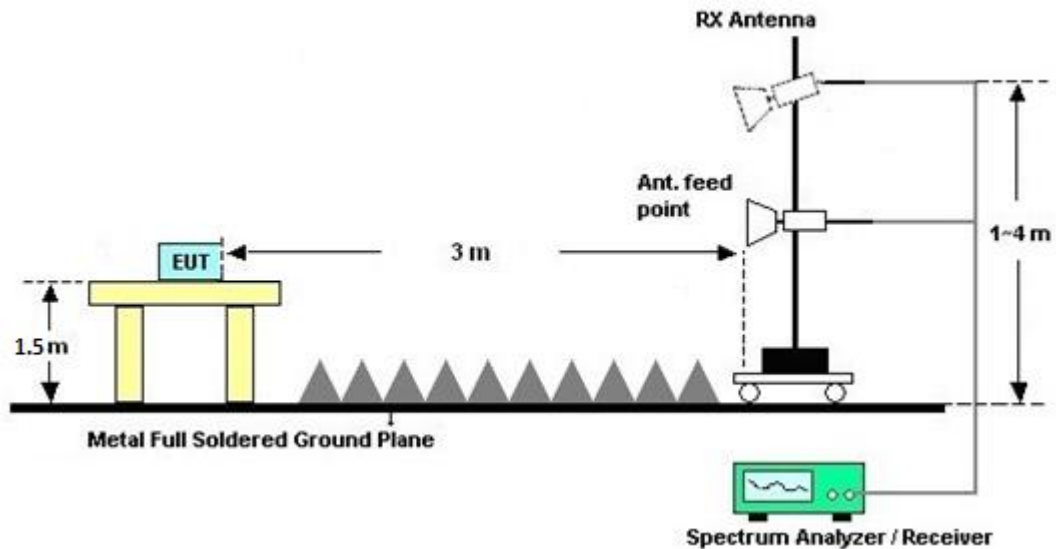
For radiated emissions below 30MHz



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 Radiated Spurious at Band Edges

Please refer to Appendix C and D.

### 3.5.7 Duty Cycle

Please refer to Appendix E.

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

Please refer to Appendix C and D.

## 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

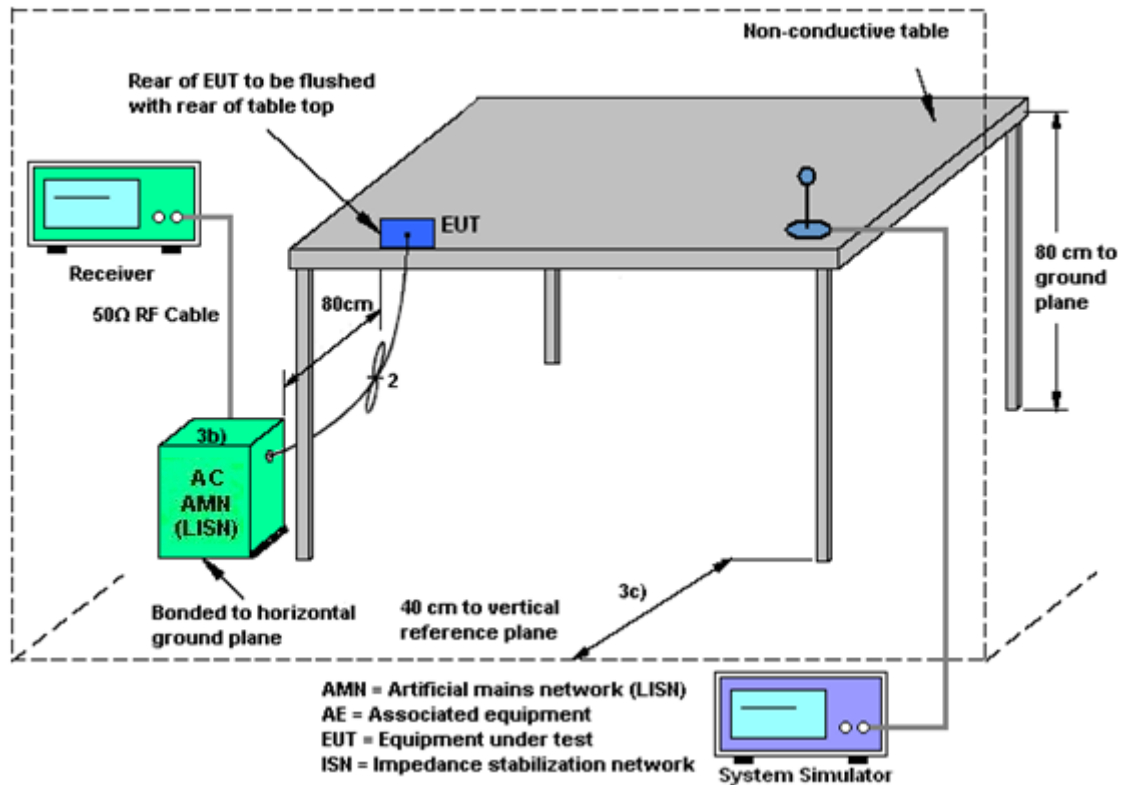
The measuring equipment is listed in the section 4 of this test report.

### 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



### 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. 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	N/A	Sep. 29, 2016	Sep. 19, 2017 ~ Sep. 23, 2017	Sep. 28, 2017	Conducted (TH05-HY)
Power Sensor	Anritsu	MA2411B	0846202	300MHz~40GHz	Sep. 29, 2016	Sep. 19, 2017 ~ Sep. 23, 2017	Sep. 28, 2017	Conducted (TH05-HY)
Spectrum Analyzer	Rohde & Schwarz	FSP30	101067	9kHz ~ 30GHz	Nov. 17, 2016	Sep. 19, 2017 ~ Sep. 23, 2017	Nov. 16, 2017	Conducted (TH05-HY)
AC Power Source	ChainTek	APC-1000W	N/A	N/A	N/A	Sep. 26, 2017	N/A	Conduction (CO05-HY)
EMI Test Receiver	Rohde & Schwarz	ESCI 7	100724	9kHz~7GHz	Sep. 20, 2017	Sep. 26, 2017	Sep. 19, 2018	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100080	9kHz~30MHz	Nov. 29, 2016	Sep. 26, 2017	Nov. 28, 2017	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100081	9kHz~30MHz	Dec. 06, 2016	Sep. 26, 2017	Dec. 05, 2017	Conduction (CO05-HY)
Amplifier	MITEQ	TTA1840-35-HG	1871923	18GHz~40GHz, VSWR : 2.5:1 max	Jul. 18, 2017	Sep. 21, 2017 ~ Sep. 25, 2017	Jul. 17, 2018	Radiation (03CH11-HY)
Amplifier	SONOMA	310N	187312	9kHz~1GHz	Nov. 10, 2016	Sep. 21, 2017 ~ Sep. 25, 2017	Nov. 09, 2017	Radiation (03CH11-HY)
Bilog Antenna	TESEQ	CBL 6111D&N-6-06	35414&AT-N0602	30MHz~1GHz	Oct. 15, 2016	Sep. 21, 2017 ~ Sep. 25, 2017	Oct. 14, 2017	Radiation (03CH11-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-1326	1GHz ~ 18GHz	Oct. 07, 2016	Sep. 21, 2017 ~ Sep. 25, 2017	Oct. 06, 2017	Radiation (03CH11-HY)
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100488	9 kHz~30 MHz	Oct. 20, 2016	Sep. 21, 2017 ~ Sep. 25, 2017	Oct. 19, 2018	Radiation (03CH11-HY)
Preamplifier	Keysight	83017A	MY53270080	1GHz~26.5GHz	Nov. 10, 2016	Sep. 21, 2017 ~ Sep. 25, 2017	Nov. 09, 2017	Radiation (03CH11-HY)
Preamplifier	MITEQ	AMF-7D-0010 1800-30-10P	1902247	1GHz~18GHz	Jun. 23, 2017	Sep. 21, 2017 ~ Sep. 25, 2017	Jun. 22, 2018	Radiation (03CH11-HY)
Spectrum Analyzer	Keysight	N9010A	MY54200486	10Hz ~ 44GHz	Oct. 12, 2016	Sep. 21, 2017 ~ Sep. 25, 2017	Oct. 11, 2017	Radiation (03CH11-HY)
Antenna Mast	EMEC	AM-BS-4500-B	N/A	1~4m	N/A	Sep. 21, 2017 ~ Sep. 25, 2017	N/A	Radiation (03CH11-HY)
Turn Table	EMEC	TT 2000	N/A	0~360 Degree	N/A	Sep. 21, 2017 ~ Sep. 25, 2017	N/A	Radiation (03CH11-HY)
EMI Test Receiver	Agilent	N9038A(MXE)	MY53290053	20Hz to 26.5GHz	Jan. 12, 2017	Sep. 21, 2017 ~ Sep. 25, 2017	Jan. 11, 2018	Radiation (03CH11-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170584	18GHz- 40GHz	Nov. 08, 2016	Sep. 21, 2017 ~ Sep. 25, 2017	Nov. 07, 2017	Radiation (03CH11-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
---	------

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

Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ )	5.20
---	------

### Uncertainty of Radiated Emission Measurement (1000 MHz ~ 18000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ )	5.50
---	------

### Uncertainty of Radiated Emission Measurement (18000 MHz ~ 40000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ )	5.20
---	------

**Appendix A. Test Result of Conducted Test Items**

Test Engineer:	AC Chang	Temperature:	21~25	°C
Test Date:	2017/9/19~2017/9/23	Relative Humidity:	51~54	%

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

2.4GHz Band								
Mod.	Data Rate	NTx	CH.	Freq. (MHz)	99% Occupied BW (MHz)	6dB BW (MHz)	6dB BW Limit (MHz)	Pass/Fail
11b	1Mbps	1	1	2412	13.35	8.08	0.50	Pass
11b	1Mbps	1	6	2437	13.45	8.54	0.50	Pass
11b	1Mbps	1	11	2462	13.50	8.02	0.50	Pass
11g	6Mbps	1	1	2412	18.10	16.32	0.50	Pass
11g	6Mbps	1	6	2437	18.50	16.36	0.50	Pass
11g	6Mbps	1	11	2462	18.30	16.34	0.50	Pass
HT20	MCS0	1	1	2412	18.95	17.32	0.50	Pass
HT20	MCS0	1	6	2437	18.95	17.58	0.50	Pass
HT20	MCS0	1	11	2462	18.95	17.56	0.50	Pass
HT40	MCS0	1	3	2422	36.40	35.12	0.50	Pass
HT40	MCS0	1	6	2437	36.50	35.44	0.50	Pass
HT40	MCS0	1	9	2452	36.60	35.00	0.50	Pass

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

2.4GHz Band										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Peak Conducted Power (dBm)	Conducted Power Limit (dBm)	DG (dBi)	EIRP Power (dBm)	EIRP Power Limit (dBm)	Pass /Fail
11b	1Mbps	1	1	2412	18.10	30.00	-0.117	17.98	36.00	Pass
11b	1Mbps	1	6	2437	18.53	30.00	-0.117	18.41	36.00	Pass
11b	1Mbps	1	11	2462	17.79	30.00	-0.117	17.67	36.00	Pass
11g	6Mbps	1	1	2412	22.14	30.00	-0.117	22.02	36.00	Pass
11g	6Mbps	1	6	2437	22.12	30.00	-0.117	22.00	36.00	Pass
11g	6Mbps	1	11	2462	22.13	30.00	-0.117	22.01	36.00	Pass
HT20	MCS0	1	1	2412	21.11	30.00	-0.117	20.99	36.00	Pass
HT20	MCS0	1	6	2437	21.10	30.00	-0.117	20.98	36.00	Pass
HT20	MCS0	1	11	2462	21.20	30.00	-0.117	21.08	36.00	Pass
HT40	MCS0	1	3	2422	20.88	30.00	-0.117	20.76	36.00	Pass
HT40	MCS0	1	6	2437	21.17	30.00	-0.117	21.05	36.00	Pass
HT40	MCS0	1	9	2452	21.01	30.00	-0.117	20.89	36.00	Pass

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

2.4GHz Band						
Mod.	Data Rate	NTx	CH.	Freq. (MHz)	Duty Factor (dB)	Average Conducted Power (dBm)
11b	1Mbps	1	1	2412	0.10	15.45
11b	1Mbps	1	6	2437	0.10	15.80
11b	1Mbps	1	11	2462	0.10	15.31
11g	6Mbps	1	1	2412	0.60	14.02
11g	6Mbps	1	6	2437	0.60	13.82
11g	6Mbps	1	11	2462	0.60	13.85
HT20	MCS0	1	1	2412	0.63	12.43
HT20	MCS0	1	6	2437	0.63	12.18
HT20	MCS0	1	11	2462	0.63	12.48
HT40	MCS0	1	3	2422	0.68	11.90
HT40	MCS0	1	6	2437	0.68	12.11
HT40	MCS0	1	9	2452	0.68	11.96



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

2.4GHz Band								
Mod.	Data Rate	NTx	CH.	Freq. (MHz)	Peak PSD (dBm /3kHz)	DG (dBi)	Peak PSD Limit (dBm /3kHz)	Pass/Fail
11b	1Mbps	1	1	2412	-5.68	-0.117	8.00	Pass
11b	1Mbps	1	6	2437	-6.85	-0.117	8.00	Pass
11b	1Mbps	1	11	2462	-7.69	-0.117	8.00	Pass
11g	6Mbps	1	1	2412	-11.79	-0.117	8.00	Pass
11g	6Mbps	1	6	2437	-12.38	-0.117	8.00	Pass
11g	6Mbps	1	11	2462	-11.85	-0.117	8.00	Pass
HT20	MCS0	1	1	2412	-12.86	-0.117	8.00	Pass
HT20	MCS0	1	6	2437	-12.44	-0.117	8.00	Pass
HT20	MCS0	1	11	2462	-13.03	-0.117	8.00	Pass
HT40	MCS0	1	3	2422	-16.61	-0.117	8.00	Pass
HT40	MCS0	1	6	2437	-14.55	-0.117	8.00	Pass
HT40	MCS0	1	9	2452	-17.31	-0.117	8.00	Pass



## **Appendix B. AC Conducted Emission Test Results**

<b>Test Engineer :</b>	Shareef Yu	<b>Temperature :</b>	26~27°C
		<b>Relative Humidity :</b>	38~39%

EUT Information

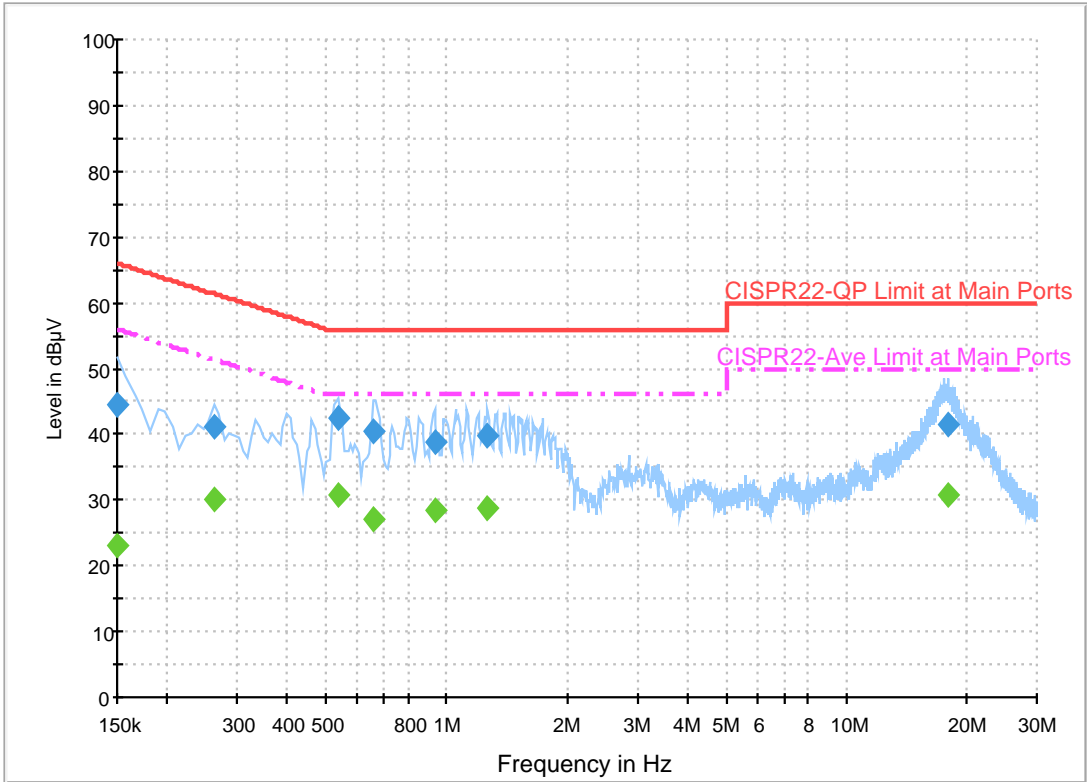
Report NO :791813

Test Mode :Mode 2

Test Voltage :120Vac/60Hz

Phase :Line

ENV216 Auto Test FCC Power Bar - L



Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.150000	44.4	Off	L1	19.6	21.6	66.0
0.262000	41.3	Off	L1	19.6	20.1	61.4
0.534000	42.5	Off	L1	19.6	13.5	56.0
0.654000	40.4	Off	L1	19.6	15.6	56.0
0.934000	39.0	Off	L1	19.6	17.0	56.0
1.270000	39.8	Off	L1	19.6	16.2	56.0
17.902000	41.4	Off	L1	20.5	18.6	60.0

Final Result 2

Frequency (MHz)	Average (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.150000	23.1	Off	L1	19.6	32.9	56.0
0.262000	30.1	Off	L1	19.6	21.3	51.4
0.534000	30.8	Off	L1	19.6	15.2	46.0
0.654000	27.2	Off	L1	19.6	18.8	46.0
0.934000	28.4	Off	L1	19.6	17.6	46.0
1.270000	28.9	Off	L1	19.6	17.1	46.0
17.902000	30.7	Off	L1	20.5	19.3	50.0

EUT Information

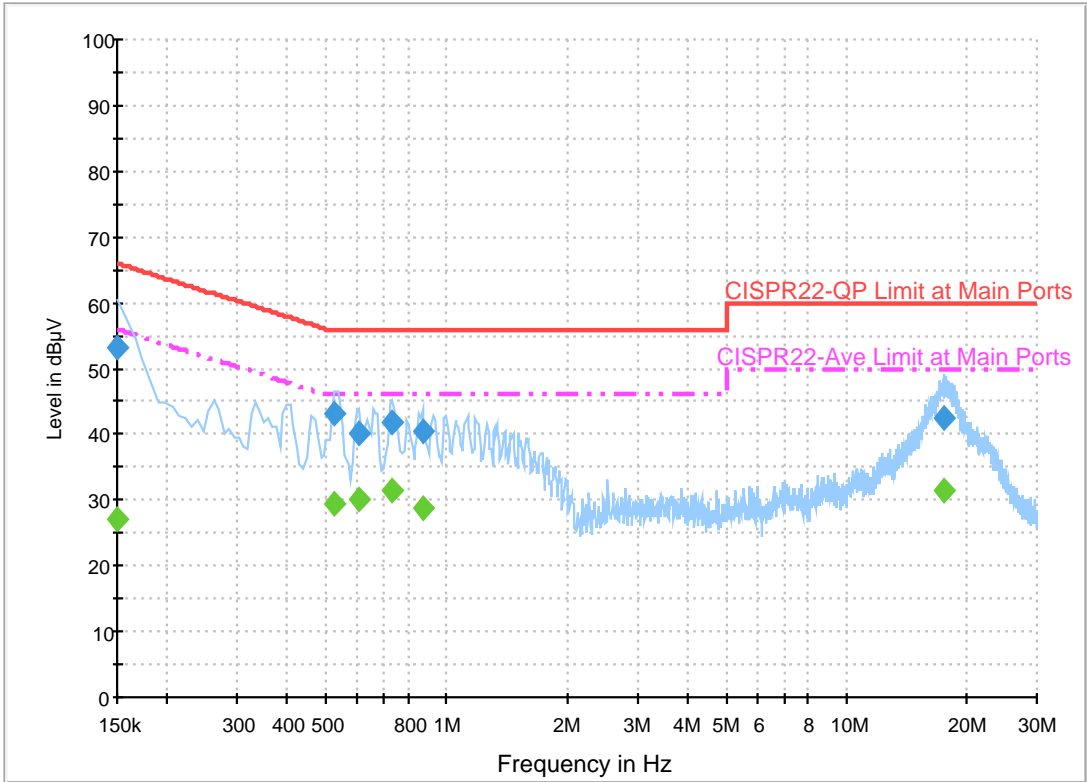
Report NO :791813

Test Mode :Mode 2

Test Voltage :120Vac/60Hz

Phase :Neutral

ENV216 Auto Test FCC Power Bar - N



Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.150000	53.2	Off	N	19.5	12.8	66.0
0.526000	43.3	Off	N	19.5	12.7	56.0
0.606000	40.2	Off	N	19.5	15.8	56.0
0.734000	41.9	Off	N	19.5	14.1	56.0
0.870000	40.4	Off	N	19.6	15.6	56.0
17.462000	42.6	Off	N	20.5	17.4	60.0

Final Result 2

Frequency (MHz)	Average (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.150000	27.0	Off	N	19.5	29.0	56.0
0.526000	29.6	Off	N	19.5	16.4	46.0
0.606000	30.0	Off	N	19.5	16.0	46.0
0.734000	31.5	Off	N	19.5	14.5	46.0
0.870000	28.6	Off	N	19.6	17.4	46.0
17.462000	31.3	Off	N	20.5	18.7	50.0



## Appendix C. Radiated Spurious Emission

Test Engineer :	J.C. Liang, Jacky Hung, and Ken Wu	Temperature :	26~28°C
		Relative Humidity :	52~57%

### 2.4GHz 2400~2483.5MHz

#### WIFI 802.11b (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 )
802.11b CH 01 2412MHz		2353.365	52.71	-21.29	74	43.4	26.76	6.22	33.6	397	52	P	H
		2389.905	41.93	-12.07	54	32.36	26.87	6.36	33.59	397	52	A	H
	*	2412	104.39	-	-	94.76	26.92	6.37	33.59	397	52	P	H
	*	2412	101.21	-	-	91.58	26.92	6.37	33.59	397	52	A	H
													H
													H
		2388.645	51.57	-22.43	74	42.01	26.87	6.36	33.6	127	143	P	V
		2390	41.7	-12.3	54	32.13	26.87	6.36	33.59	127	143	A	V
	*	2412	105.25	-	-	95.62	26.92	6.37	33.59	127	143	P	V
	*	2412	102.06	-	-	92.43	26.92	6.37	33.59	127	143	A	V
													V
													V
802.11b CH 06 2437MHz		2364.74	51.79	-22.21	74	42.41	26.76	6.29	33.6	340	129	P	H
		2389.94	41.49	-12.51	54	31.92	26.87	6.36	33.59	340	129	A	H
	*	2437	104.76	-	-	95.01	27.03	6.38	33.59	340	129	P	H
	*	2437	101.64	-	-	91.89	27.03	6.38	33.59	340	129	A	H
		2495.38	52.56	-21.44	74	42.61	27.2	6.39	33.57	340	129	P	H
		2483.97	42.24	-11.76	54	32.37	27.14	6.38	33.58	340	129	A	H
		2365.86	52.02	-21.98	74	42.64	26.76	6.29	33.6	201	143	P	V
		2389.94	41.62	-12.38	54	32.05	26.87	6.36	33.59	201	143	A	V
	*	2437	105.12	-	-	95.37	27.03	6.38	33.59	201	143	P	V
	*	2437	102.05	-	-	92.3	27.03	6.38	33.59	201	143	A	V
		2498.11	51.87	-22.13	74	41.92	27.2	6.39	33.57	201	143	P	V
		2483.76	42.29	-11.71	54	32.42	27.14	6.38	33.58	201	143	A	V



<b>802.11b</b> <b>CH 11</b> <b>2462MHz</b>	*	2462	103.04	-	-	93.22	27.09	6.38	33.58	334	128	P	H
	*	2462	99.9	-	-	90.08	27.09	6.38	33.58	334	128	A	H
		2485.24	53.26	-20.74	74	43.38	27.14	6.39	33.58	334	128	P	H
		2483.72	42.8	-11.2	54	32.93	27.14	6.38	33.58	334	128	A	H
													H
													H
	*	2462	103.85	-	-	94.03	27.09	6.38	33.58	157	142	P	V
	*	2462	100.72	-	-	90.9	27.09	6.38	33.58	157	142	A	V
		2484.04	52.72	-21.28	74	42.85	27.14	6.38	33.58	157	142	P	V
		2483.52	42.66	-11.34	54	32.79	27.14	6.38	33.58	157	142	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		4824	39.58	-34.42	74	60.92	31.62	9.59	62.98	100	0	P	H
													H
													H
													H
		4824	39.81	-34.19	74	61.15	31.62	9.59	62.98	100	0	P	V
													V
													V
													V
802.11b CH 06 2437MHz		4874	40.03	-33.97	74	61.2	31.71	9.56	62.87	100	0	P	H
		7311	43.47	-30.53	74	56.96	37.43	11.31	62.69	100	0	P	H
													H
													H
		4874	42.78	-31.22	74	63.95	31.71	9.56	62.87	100	0	P	V
		7311	45.35	-28.65	74	58.84	37.43	11.31	62.69	100	0	P	V
													V
													V
802.11b CH 11 2462MHz		4924	39.96	-34.04	74	60.93	31.79	9.55	62.75	100	0	P	H
		7386	44.8	-29.2	74	58.04	37.82	11.3	62.74	100	0	P	H
													H
													H
		4924	42.53	-31.47	74	63.5	31.79	9.55	62.75	100	0	P	V
		7386	44.67	-29.33	74	57.91	37.82	11.3	62.74	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



**2.4GHz 2400~2483.5MHz**  
**WIFI 802.11g (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 )
<b>802.11g CH 01 2412MHz</b>		2389.59	56.73	-17.27	74	47.17	26.87	6.36	33.6	400	52	P	H
		2389.8	44.25	-9.75	54	34.68	26.87	6.36	33.59	400	52	A	H
	*	2412	104.68	-	-	95.05	26.92	6.37	33.59	400	52	P	H
	*	2412	96.82	-	-	87.19	26.92	6.37	33.59	400	52	A	H
													H
													H
		2389.8	54.85	-19.15	74	45.28	26.87	6.36	33.59	140	131	P	V
		2389.8	44.47	-9.53	54	34.9	26.87	6.36	33.59	140	131	A	V
	*	2412	105.12	-	-	95.49	26.92	6.37	33.59	140	131	P	V
	*	2412	97.5	-	-	87.87	26.92	6.37	33.59	140	131	A	V
													V
													V
<b>802.11g CH 06 2437MHz</b>		2316.58	51.29	-22.71	74	42.23	26.59	6.15	33.61	273	56	P	H
		2370.06	41.65	-12.35	54	32.22	26.81	6.29	33.6	273	56	A	H
	*	2437	102.88	-	-	93.13	27.03	6.38	33.59	273	56	P	H
	*	2437	95.16	-	-	85.41	27.03	6.38	33.59	273	56	A	H
		2489.01	51.9	-22.1	74	41.96	27.2	6.39	33.58	273	56	P	H
		2489.08	42.71	-11.29	54	32.77	27.2	6.39	33.58	273	56	A	H
		2365.44	52.17	-21.83	74	42.79	26.76	6.29	33.6	106	101	P	V
		2389.94	42.06	-11.94	54	32.49	26.87	6.36	33.59	106	101	A	V
	*	2437	104.49	-	-	94.74	27.03	6.38	33.59	106	101	P	V
	*	2437	96.81	-	-	87.06	27.03	6.38	33.59	106	101	A	V
		2484.46	52.74	-21.26	74	42.86	27.14	6.39	33.58	106	101	P	V
		2489.29	43.39	-10.61	54	33.45	27.2	6.39	33.58	106	101	A	V





<b>802.11g</b> <b>CH 11</b> <b>2462MHz</b>	*	2462	102.6	-	-	92.78	27.09	6.38	33.58	342	137	P	H
	*	2462	94.97	-	-	85.15	27.09	6.38	33.58	342	137	A	H
		2484	53.96	-20.04	74	44.09	27.14	6.38	33.58	342	137	P	H
		2483.52	43.96	-10.04	54	34.09	27.14	6.38	33.58	342	137	A	H
													H
													H
	*	2462	102.78	-	-	92.96	27.09	6.38	33.58	140	79	P	V
	*	2462	95.06	-	-	85.24	27.09	6.38	33.58	140	79	A	V
		2483.52	54.82	-19.18	74	44.95	27.14	6.38	33.58	140	79	P	V
		2483.6	43.77	-10.23	54	33.9	27.14	6.38	33.58	140	79	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		4824	38.86	-35.14	74	60.2	31.62	9.59	62.98	100	0	P	H
													H
													H
													H
		4824	39.36	-34.64	74	60.7	31.62	9.59	62.98	100	0	P	V
													V
													V
													V
802.11g CH 06 2437MHz		4874	39.67	-34.33	74	60.84	31.71	9.56	62.87	100	0	P	H
		7311	43.4	-30.6	74	56.89	37.43	11.31	62.69	100	0	P	H
													H
													H
		4874	40.36	-33.64	74	61.53	31.71	9.56	62.87	100	0	P	V
		7311	43.31	-30.69	74	56.8	37.43	11.31	62.69	100	0	P	V
													V
													V
802.11g CH 11 2462MHz		4924	40.73	-33.27	74	61.7	31.79	9.55	62.75	100	0	P	H
		7386	44.26	-29.74	74	57.5	37.82	11.3	62.74	100	0	P	H
													H
													H
		4924	40.27	-33.73	74	61.24	31.79	9.55	62.75	100	0	P	V
		7386	44.22	-29.78	74	57.46	37.82	11.3	62.74	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## 2.4GHz 2400~2483.5MHz

## WIFI 802.11n HT20 (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		2389.905	54.2	-19.8	74	44.63	26.87	6.36	33.59	349	50	P	H
		2390	42.8	-11.2	54	33.23	26.87	6.36	33.59	349	50	A	H
	*	2412	103.25	-	-	93.36	27.18	6.37	33.59	349	50	P	H
	*	2412	95.41	-	-	85.78	26.92	6.37	33.59	349	50	A	H
													H
													H
		2389.485	56.64	-17.36	74	47.08	26.87	6.36	33.6	129	143	P	V
		2390	42.68	-11.32	54	33.11	26.87	6.36	33.59	129	143	A	V
	*	2412	103.42	-	-	93.79	26.92	6.37	33.59	129	143	P	V
	*	2412	95.52	-	-	85.89	26.92	6.37	33.59	129	143	A	V
													V
													V
802.11n HT20 CH 06 2437MHz		2376.5	51.83	-22.17	74	42.4	26.81	6.29	33.6	341	129	P	H
		2388.96	41.91	-12.09	54	32.35	26.87	6.36	33.6	341	129	A	H
	*	2437	102.58	-	-	92.83	27.03	6.38	33.59	341	129	P	H
	*	2437	94.62	-	-	84.87	27.03	6.38	33.59	341	129	A	H
		2496.85	52.04	-21.96	74	42.09	27.2	6.39	33.57	341	129	P	H
		2488.17	43.05	-10.95	54	33.11	27.2	6.39	33.58	341	129	A	H
		2348.64	51.13	-22.87	74	41.88	26.7	6.22	33.6	192	144	P	V
		2389.94	41.87	-12.13	54	32.3	26.87	6.36	33.59	192	144	A	V
	*	2437	102.92	-	-	93.17	27.03	6.38	33.59	192	144	P	V
	*	2437	95.38	-	-	85.63	27.03	6.38	33.59	192	144	A	V
		2489.92	52.13	-21.87	74	42.19	27.2	6.39	33.58	192	144	P	V
		2488.45	43.5	-10.5	54	33.56	27.2	6.39	33.58	192	144	A	V



<b>802.11n</b> <b>HT20</b> <b>CH 11</b> <b>2462MHz</b>	*	2462	101.9	-	-	92.08	27.09	6.38	33.58	339	128	P	H
	*	2462	94.2	-	-	84.38	27.09	6.38	33.58	339	128	A	H
		2484.52	54.38	-19.62	74	44.5	27.14	6.39	33.58	339	128	P	H
		2483.64	43.99	-10.01	54	34.12	27.14	6.38	33.58	339	128	A	H
													H
													H
	*	2462	102.64	-	-	92.82	27.09	6.38	33.58	161	143	P	V
	*	2462	94.93	-	-	85.11	27.09	6.38	33.58	161	143	A	V
		2483.8	53.9	-20.1	74	44.03	27.14	6.38	33.58	161	143	P	V
		2483.56	43.97	-10.03	54	34.1	27.14	6.38	33.58	161	143	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		4824	40.34	-33.66	74	61.68	31.62	9.59	62.98	100	0	P	H
													H
													H
													H
		4824	39.68	-34.32	74	61.02	31.62	9.59	62.98	100	0	P	V
													V
													V
													V
802.11n HT20 CH 06 2437MHz		4874	39.76	-34.24	74	60.93	31.71	9.56	62.87	100	0	P	H
		7311	43.84	-30.16	74	57.33	37.43	11.31	62.69	100	0	P	H
													H
													H
		4874	40.83	-33.17	74	62	31.71	9.56	62.87	100	0	P	V
		7311	44.05	-29.95	74	57.54	37.43	11.31	62.69	100	0	P	V
													V
													V
802.11n HT20 CH 11 2462MHz		4924	39.95	-34.05	74	60.92	31.79	9.55	62.75	100	0	P	H
		7386	44.05	-29.95	74	57.29	37.82	11.3	62.74	100	0	P	H
													H
													H
		4924	40.9	-33.1	74	61.87	31.79	9.55	62.75	100	0	P	V
		7386	44.4	-29.6	74	57.64	37.82	11.3	62.74	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## 2.4GHz 2400~2483.5MHz

## WIFI 802.11n HT40 (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 HT40 CH 03 2422MHz		2389.52	60.85	-13.15	74	51.29	26.87	6.36	33.6	348	132	P	H
		2389.94	48.7	-5.3	54	39.13	26.87	6.36	33.59	348	132	A	H
	*	2422	100.72	-	-	91.03	26.98	6.37	33.59	348	132	P	H
	*	2422	93.1	-	-	83.41	26.98	6.37	33.59	348	132	A	H
		2489.28	52.73	-21.27	74	42.79	27.2	6.39	33.58	348	132	P	H
		2484.32	43.22	-10.78	54	33.34	27.14	6.39	33.58	348	132	A	H
		2389.8	61.92	-12.08	74	52.35	26.87	6.36	33.59	104	114	P	V
		2389.52	50.93	-3.07	54	41.37	26.87	6.36	33.6	104	114	P	V
	*	2422	102.7	-	-	93.01	26.98	6.37	33.59	104	114	P	V
	*	2422	95.18	-	-	85.49	26.98	6.37	33.59	104	114	A	V
		2486	52.47	-21.53	74	42.59	27.14	6.39	33.58	104	114	P	V
		2484.4	43.75	-10.25	54	33.87	27.14	6.39	33.58	104	114	A	V
802.11n HT40 CH 06 2437MHz		2389.38	51.97	-22.03	74	42.41	26.87	6.36	33.6	383	128	P	H
		2389.94	43.45	-10.55	54	33.88	26.87	6.36	33.59	383	128	A	H
	*	2437	101.37	-	-	91.62	27.03	6.38	33.59	383	128	P	H
	*	2437	93.89	-	-	84.14	27.03	6.38	33.59	383	128	A	H
		2484.04	56.22	-17.78	74	46.35	27.14	6.38	33.58	383	128	P	H
		2483.55	47.01	-6.99	54	37.14	27.14	6.38	33.58	383	128	A	H
		2379.44	52.34	-21.66	74	42.91	26.81	6.29	33.6	182	143	P	V
		2389.94	43.9	-10.1	54	34.33	26.87	6.36	33.59	182	143	A	V
	*	2437	103.05	-	-	93.3	27.03	6.38	33.59	182	143	P	V
	*	2437	95.27	-	-	85.52	27.03	6.38	33.59	182	143	A	V
		2483.97	57.33	-16.67	74	47.46	27.14	6.38	33.58	182	143	P	V
		2483.5	47.76	-6.24	54	37.89	27.14	6.38	33.58	182	143	A	V



<b>802.11n</b>  <b>HT40</b>  <b>CH 09</b>  <b>2452MHz</b>		2317.2	51.83	-22.17	74	42.77	26.59	6.15	33.61	341	128	P	H
		2389.2	42.57	-11.43	54	33.01	26.87	6.36	33.6	341	128	A	H
	*	2452	101.24	-	-	91.48	27.03	6.38	33.58	341	128	P	H
	*	2452	94.42	-	-	84.66	27.03	6.38	33.58	341	128	A	H
		2484.04	62.42	-11.58	74	52.55	27.14	6.38	33.58	341	128	P	H
		2483.69	49.71	-4.29	54	39.84	27.14	6.38	33.58	341	128	A	H
		2388.4	52.08	-21.92	74	42.52	26.87	6.36	33.6	190	143	P	V
		2390	42.73	-11.27	54	33.16	26.87	6.36	33.59	190	143	A	V
	*	2452	102.84	-	-	93.08	27.03	6.38	33.58	190	143	P	V
	*	2452	95.29	-	-	85.53	27.03	6.38	33.58	190	143	A	V
		2485.37	66.04	-7.96	74	56.16	27.14	6.39	33.58	190	143	P	V
		2483.55	51.9	-2.1	54	42.03	27.14	6.38	33.58	190	143	A	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 HT40 (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 HT40 CH 03 2422MHz		4844	40.44	-33.56	74	61.72	31.65	9.58	62.94	100	0	P	H
		7266	43.61	-30.39	74	57.19	37.27	11.32	62.67	100	0	P	H
													H
													H
		4844	39.96	-34.04	74	61.24	31.65	9.58	62.94	100	0	P	V
		7266	43.32	-30.68	74	56.9	37.27	11.32	62.67	100	0	P	V
													V
													V
802.11n HT40 CH 06 2437MHz		4874	40.08	-33.92	74	61.25	31.71	9.56	62.87	100	0	P	H
		7311	43.12	-30.88	74	56.61	37.43	11.31	62.69	100	0	P	H
													H
													H
		4874	40.43	-33.57	74	61.6	31.71	9.56	62.87	100	0	P	V
		7311	43.83	-30.17	74	57.32	37.43	11.31	62.69	100	0	P	V
													V
													V
802.11n HT40 CH 09 2452MHz		4904	39.8	-34.2	74	60.84	31.76	9.56	62.79	100	0	P	H
		7356	44.12	-29.88	74	57.46	37.67	11.3	62.72	100	0	P	H
													H
													H
		4904	40.43	-33.57	74	61.47	31.76	9.56	62.79	100	0	P	V
		7356	44.63	-29.37	74	57.97	37.67	11.3	62.72	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## Emission below 1GHz

**2.4GHz WIFI 802.11n HT40 (LF)**

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		( MHz )	( dBμV/m )	( dB )	( dBμV/m )	(dBμV)	( dB/m )	( dB )	( dB )	( cm )	( deg )	(P/A)	(H/V)
2.4GHz 802.11n HT40 LF		181.47	25.81	-17.69	43.5	41.56	14.88	1.69	32.41	-	-	P	H
		254.1	27.7	-18.3	46	38.87	19.05	2.09	32.38	-	-	P	H
		273.27	30.55	-15.45	46	41.68	19.08	2.09	32.38	-	-	P	H
		769	30.67	-15.33	46	31.08	28.28	3.44	32.27	-	-	P	H
		886.6	32.19	-13.81	46	30.83	29.2	3.73	31.73	-	-	P	H
		958	34.03	-11.97	46	29.94	31.14	3.9	31.13	100	0	P	H
													H
													H
													H
													H
													H
													H
		45.12	35.72	-4.28	40	50.96	16.23	1.02	32.49	100	0	P	V
		66.45	24.49	-15.51	40	43.92	12.03	1.02	32.49	-	-	P	V
		216.03	21.34	-24.66	46	36.79	15.16	1.72	32.39	-	-	P	V
		811.7	30.29	-15.71	46	30.42	28.3	3.53	32.12	-	-	P	V
		862.1	32.37	-13.63	46	31.01	29.4	3.67	31.86	-	-	P	V
		949.6	34.29	-11.71	46	30.73	30.77	3.82	31.2	-	-	P	V
													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>P</b> eak or <b>A</b> verage
H/V	<b>H</b> orizontal or <b>V</b> ertical

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

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

1. Level(dBμV/m) =

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

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

**For Peak Limit @ 2390MHz:**

1. Level(dBμV/m)

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

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

= 55.45 (dBμV/m)

2. Over Limit(dB)

= Level(dBμV/m) – Limit Line(dBμV/m)

= 55.45(dBμV/m) – 74(dBμV/m)

= -18.55(dB)

**For Average Limit @ 2390MHz:**

1. Level(dBμV/m)

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

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

= 43.54 (dBμV/m)

2. Over Limit(dB)

= Level(dBμV/m) – Limit Line(dBμV/m)

= 43.54(dBμV/m) – 54(dBμV/m)

= -10.46(dB)

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



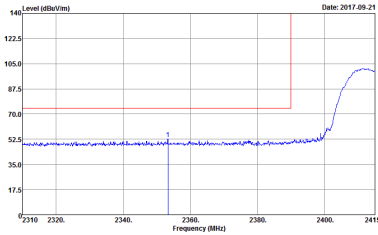
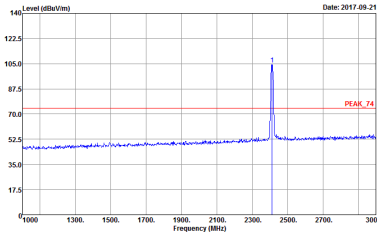
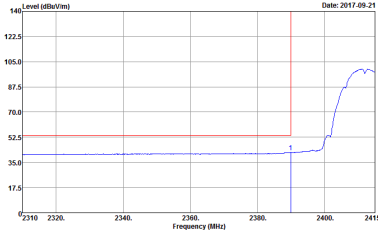
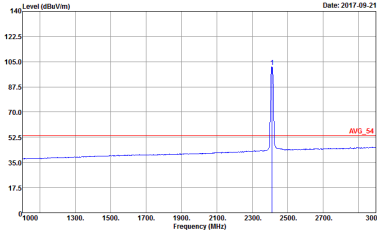
## Appendix D. Radiated Spurious Emission Plots

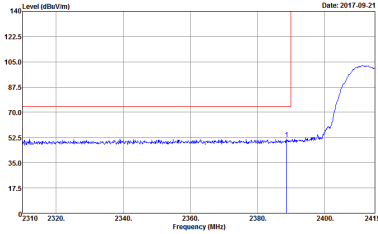
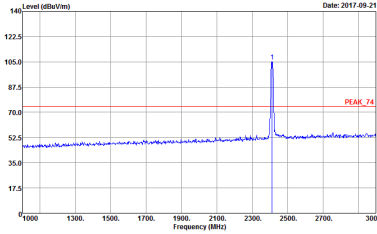
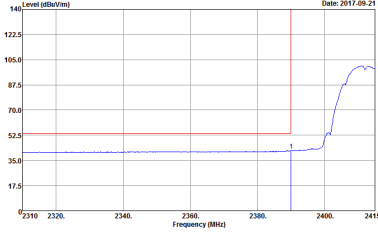
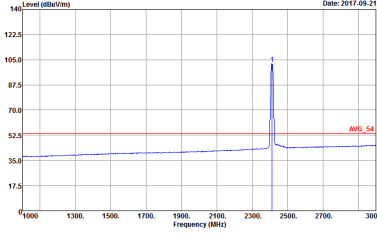
<b>Test Engineer :</b>	J.C. Liang, Jacky Hung, and Ken Wu	<b>Temperature :</b>	26~28°C
		<b>Relative Humidity :</b>	52~57%

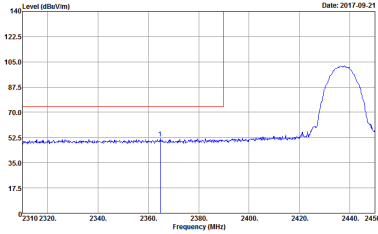
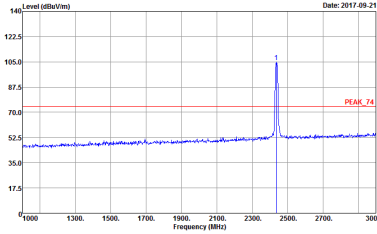
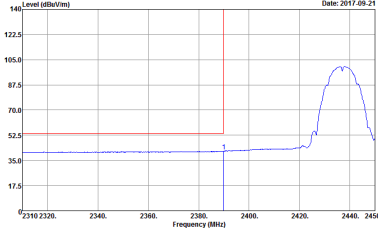
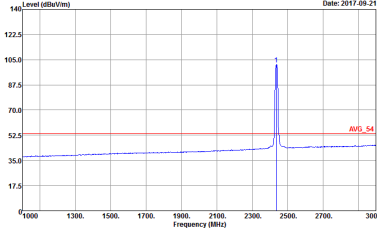
### Note symbol

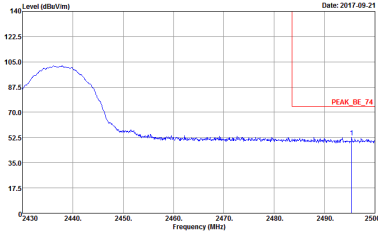
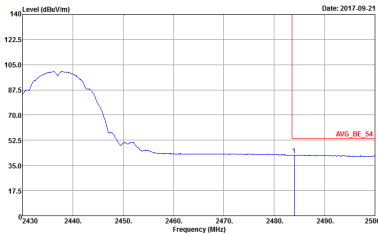
-L	Low channel location
-R	High channel location

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

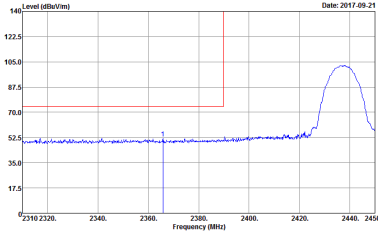
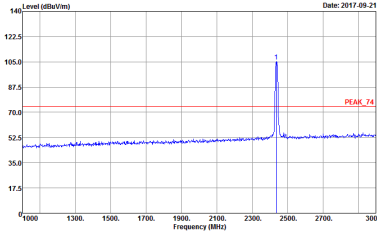
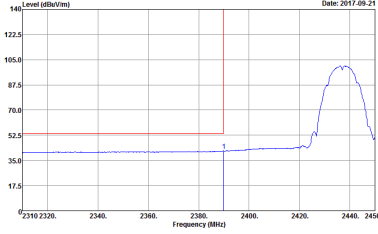
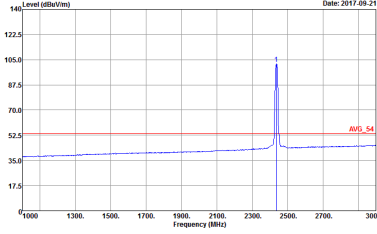
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ANT	802.11b CH01 2412MHz	
1	Horizontal	Fundamental
<b>Peak</b>	 <p>Site : 03CH11-HY Condition : PEAK_BE_74 3m HORN 91200-HF HORIZONTAL Detector : Peak Project : 791813</p>	 <p>Site : 03CH11-HY Condition : PEAK_74 3m HORN 91200-HF HORIZONTAL Detector : Peak Project : 791813</p>
	 <p>Site : 03CH11-HY Condition : AVG_BE_54 3m HORN 91200-HF HORIZONTAL Detector : Peak Project : 791813</p>	 <p>Site : 03CH11-HY Condition : AVG_54 3m HORN 91200-HF HORIZONTAL Detector : Peak Project : 791813</p>

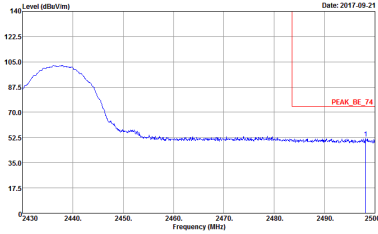
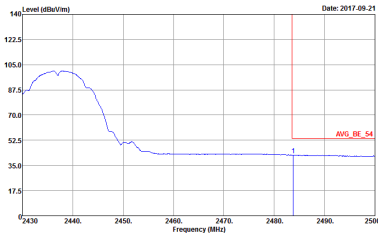
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH01 2412MHz	
1	Vertical	Fundamental
Peak	 <p>Site : 03CH11-HY Condition : PEAK_BE_74 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 791813</p>	 <p>Site : 03CH11-HY Condition : PEAK_74 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 791813</p>
Avg.	 <p>Site : 03CH11-HY Condition : AVG_BE_54 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 791813</p>	 <p>Site : 03CH11-HY Condition : AVG_54 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 791813</p>

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - L	
1	Horizontal	Fundamental
Peak	 <p>Site : 03CH11-HY Condition : PEAK_BE_74 3m HORN 91200-HF HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 791813</p>	 <p>Site : 03CH11-HY Condition : PEAK_74 3m HORN 91200-HF HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 791813</p>
Avg.	 <p>Site : 03CH11-HY Condition : AVG_BE_54 3m HORN 91200-HF HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 791813</p>	 <p>Site : 03CH11-HY Condition : AVG_54 3m HORN 91200-HF HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 791813</p>

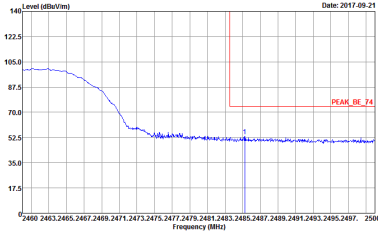
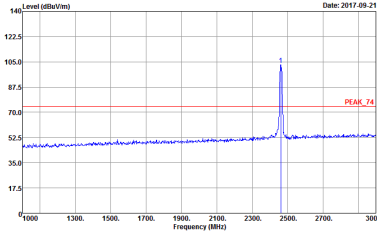
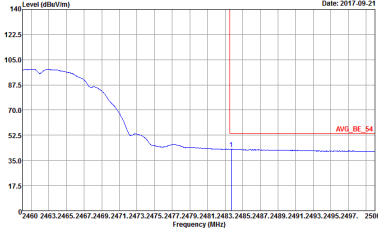
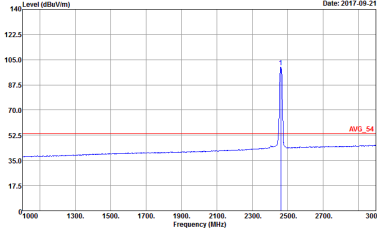
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - R	
1	Horizontal	Fundamental
Peak	 <p>Site : 03CH11-HY Condition : PEAK_BE_74 3m HORN 91200-HF HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 791813</p>	Left blank
Avg.	 <p>Site : 03CH11-HY Condition : AVG_BE_54 3m HORN 91200-HF HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 791813</p>	Left blank



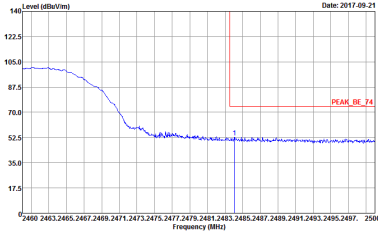
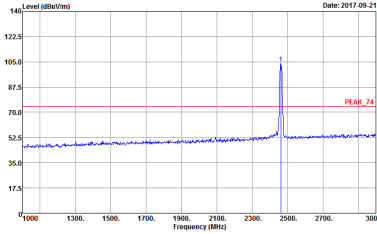
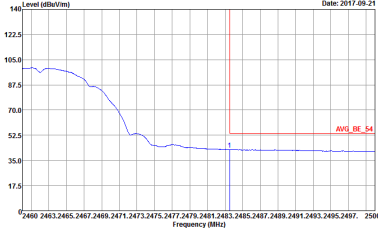
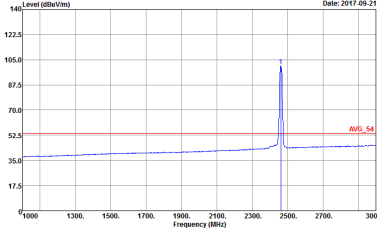
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - L	
1	Vertical	Fundamental
Peak	 <p>           Site : 03CH11-HY            Condition : PEAK_BE_74 3m HORN 91200-HF VERTICAL            RBW:1000.000KHz VBW:3000.000KHz SWT:Auto            Detector : Peak            Project : 791813         </p>	 <p>           Site : 03CH11-HY            Condition : PEAK_74 3m HORN 91200-HF VERTICAL            RBW:1000.000KHz VBW:3000.000KHz SWT:Auto            Detector : Peak            Project : 791813         </p>
Avg.	 <p>           Site : 03CH11-HY            Condition : AVG_BE_54 3m HORN 91200-HF VERTICAL            RBW:1000.000KHz VBW:3000.000KHz SWT:Auto            Detector : Peak            Project : 791813         </p>	 <p>           Site : 03CH11-HY            Condition : AVG_54 3m HORN 91200-HF VERTICAL            RBW:1000.000KHz VBW:3000.000KHz SWT:Auto            Detector : Peak            Project : 791813         </p>

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - R	
1	Vertical	Fundamental
Peak	 <p>Site : 03CH11-HY Condition : PEAK_BE_74 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 791813</p>	Left blank
Avg.	 <p>Site : 03CH11-HY Condition : AVG_BE_54 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:3.000KHz SWT:Auto Detector : Peak Project : 791813</p>	Left blank



WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH11 2462MHz	
1	Horizontal	Fundamental
Peak	<div><p>Site : 03CH11-HV Condition : PEAK_BE_74 3m HORN 91200-HF HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 791813</p></div>	<div><p>Site : 03CH11-HV Condition : PEAK_74 3m HORN 91200-HF HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 791813</p></div>
Avg.	<div><p>Site : 03CH11-HV Condition : AVG_BE_54 3m HORN 91200-HF HORIZONTAL RBW:1000.000KHz VBW:0.300KHz SWT:Auto Detector : Peak Project : 791813</p></div>	<div><p>Site : 03CH11-HV Condition : AVG_54 3m HORN 91200-HF HORIZONTAL RBW:1000.000KHz VBW:0.300KHz SWT:Auto Detector : Peak Project : 791813</p></div>

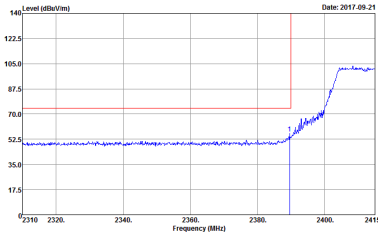
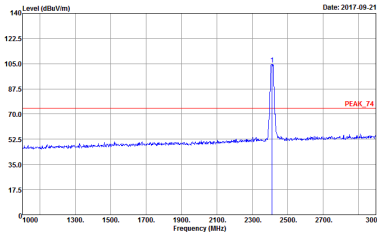
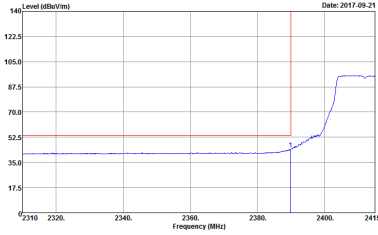
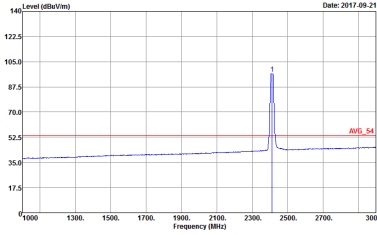


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH11 2462MHz	
1	Vertical	Fundamental
Peak	 <p>Site : 03CH11-HY Condition : PEAK_BE_74 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 791813</p>	 <p>Site : 03CH11-HY Condition : PEAK_74 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 791813</p>
Avg.	 <p>Site : 03CH11-HY Condition : AVG_BE_54 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 791813</p>	 <p>Site : 03CH11-HY Condition : AVG_54 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 791813</p>

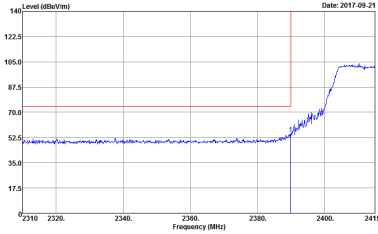
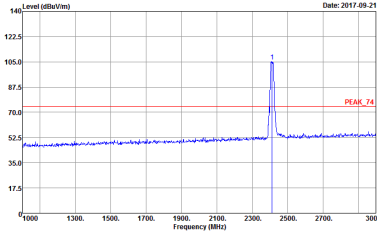
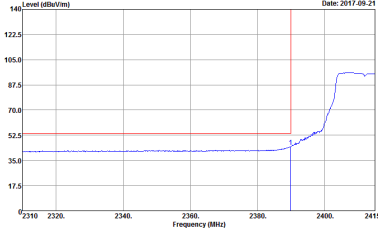
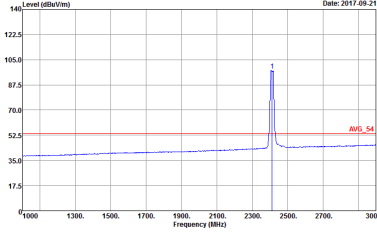


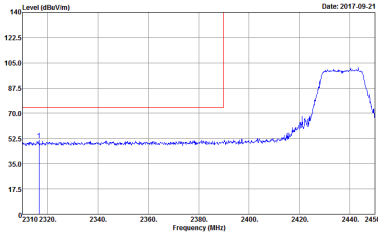
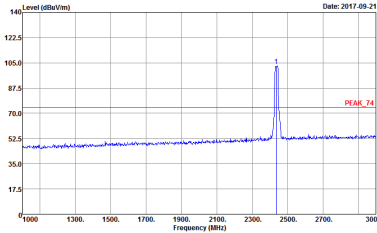
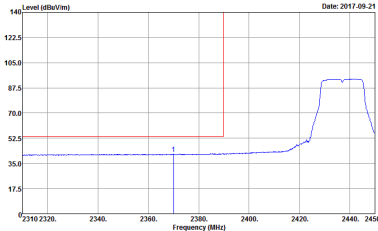
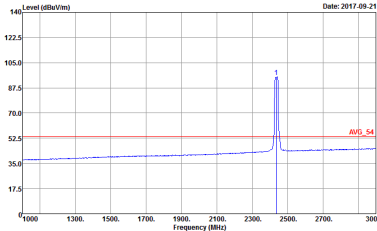
2.4GHz 2400~2483.5MHz

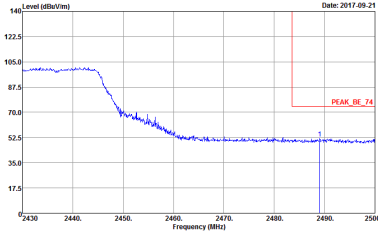
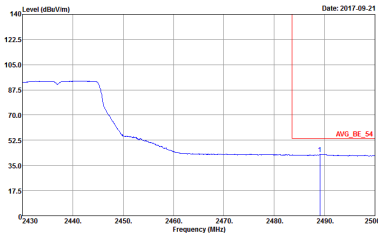
WIFI 802.11g (Band Edge @ 3m)

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH01 2412MHz	
1	Horizontal	Fundamental
Peak	 <p>Site : 03CH11-HY Condition : PEAK_BE_74 3m HORN 91200-HF HORIZONTAL Detector : Peak Project : 791813</p>	 <p>Site : 03CH11-HY Condition : PEAK_74 3m HORN 91200-HF HORIZONTAL Detector : Peak Project : 791813</p>
Avg.	 <p>Site : 03CH11-HY Condition : AVG_BE_54 3m HORN 91200-HF HORIZONTAL Detector : Peak Project : 791813</p>	 <p>Site : 03CH11-HY Condition : AVG_54 3m HORN 91200-HF HORIZONTAL Detector : Peak Project : 791813</p>



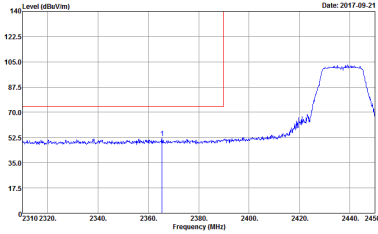
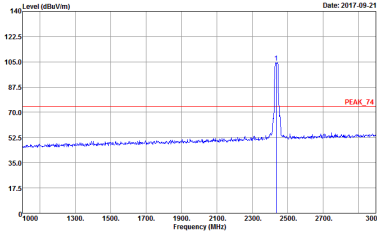
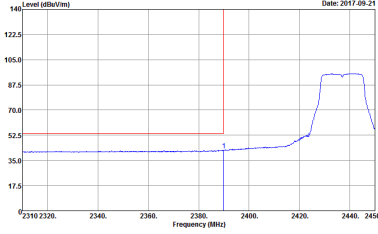
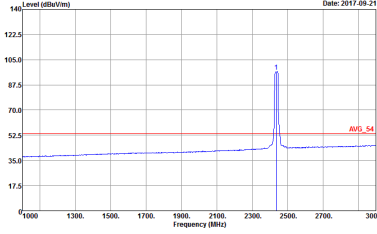
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH01 2412MHz	
1	Vertical	Fundamental
Peak	<div><p>Site : 03CH11-HY Condition : PEAK_BE_74 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 791813</p></div>	<div><p>Site : 03CH11-HY Condition : PEAK_74 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 791813</p></div>
Avg.	<div><p>Site : 03CH11-HY Condition : AVG_BE_54 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:1000KHz SWT:Auto Detector : Peak Project : 791813</p></div>	<div><p>Site : 03CH11-HY Condition : AVG_54 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:1000KHz SWT:Auto Detector : Peak Project : 791813</p></div>

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - L	
1	Horizontal	Fundamental
Peak	 <p>           Site : 03CH11-HY            Condition : PEAK_BE_74 3m HORN 91200-HF HORIZONTAL            RBW:1000.000KHz VBW:3000.000KHz SWT:Auto            Detector : Peak            Project : 791813         </p>	 <p>           Site : 03CH11-HY            Condition : PEAK_74 3m HORN 91200-HF HORIZONTAL            RBW:1000.000KHz VBW:3000.000KHz SWT:Auto            Detector : Peak            Project : 791813         </p>
Avg.	 <p>           Site : 03CH11-HY            Condition : AVG_BE_54 3m HORN 91200-HF HORIZONTAL            RBW:1000.000KHz VBW:1000KHz SWT:Auto            Detector : Peak            Project : 791813         </p>	 <p>           Site : 03CH11-HY            Condition : AVG_54 3m HORN 91200-HF HORIZONTAL            RBW:1000.000KHz VBW:1000KHz SWT:Auto            Detector : Peak            Project : 791813         </p>

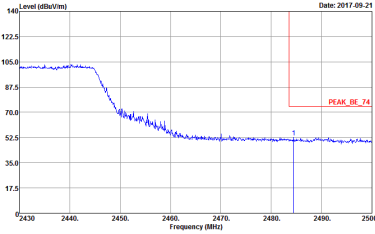
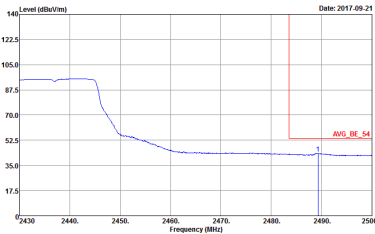
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - R	
1	Horizontal	Fundamental
Peak	 <p>Site : 03CH11-HY Condition : PEAK_BE_74 3m HORN 91200-HF HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 791813</p>	Left blank
Avg.	 <p>Site : 03CH11-HY Condition : AVG_BE_54 3m HORN 91200-HF HORIZONTAL RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 791813</p>	Left blank



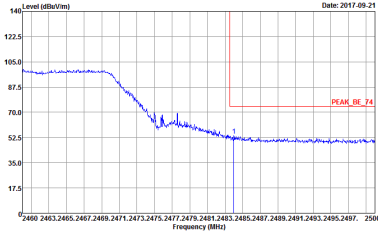
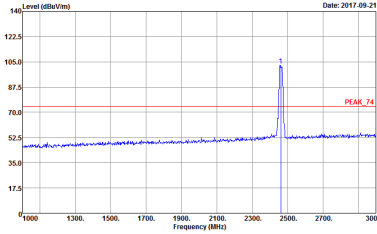
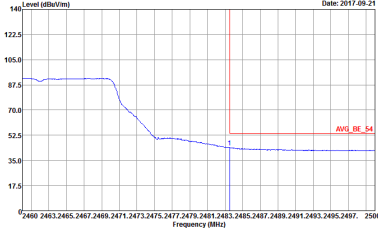
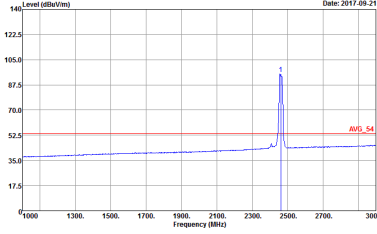


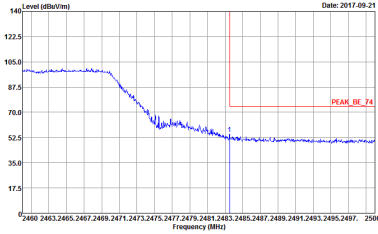
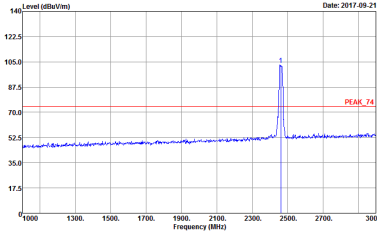
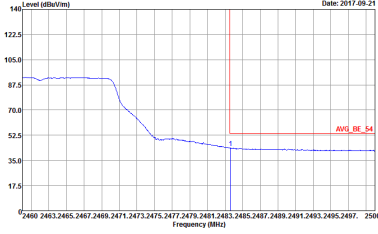
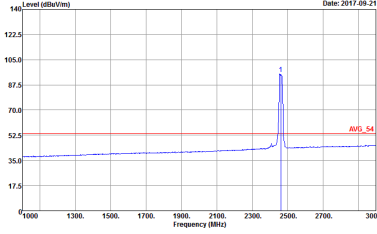
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - L	
1	Vertical	Fundamental
Peak	<div><p>Site : 03CH11-HY Condition : PEAK_BE_74 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 791813</p></div>	<div><p>Site : 03CH11-HY Condition : PEAK_74 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 791813</p></div>
Avg.	<div><p>Site : 03CH11-HY Condition : AVG_BE_54 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:1000KHz SWT:Auto Detector : Peak Project : 791813</p></div>	<div><p>Site : 03CH11-HY Condition : AVG_54 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:1000KHz SWT:Auto Detector : Peak Project : 791813</p></div>



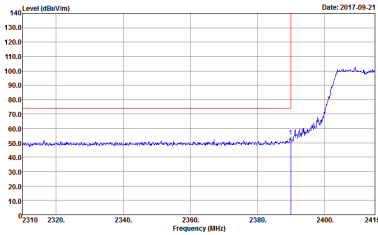
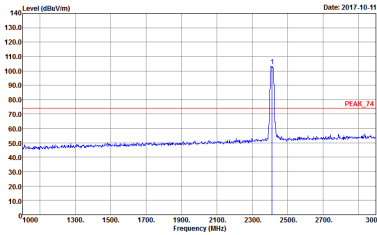
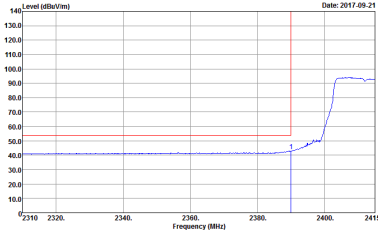
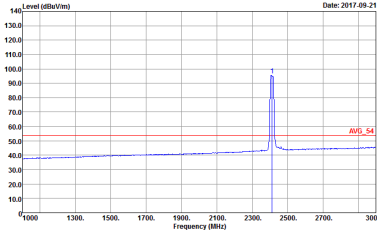
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - R	
1	Vertical	Fundamental
Peak	<div><p>Site : 03CH11-HY Condition : PEAK_BE_74 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 791813</p></div>	Left Blank
Avg.	<div><p>Site : 03CH11-HY Condition : AVG_BE_54 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:1000KHz SWT:Auto Detector : Peak Project : 791813</p></div>	Left Blank

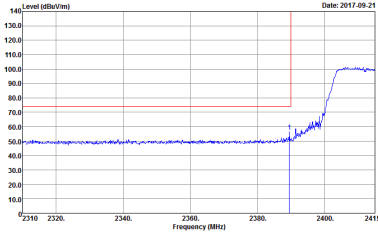
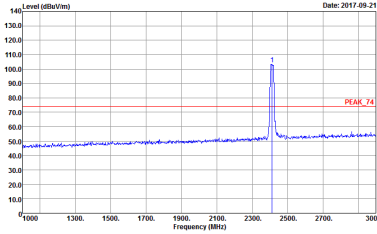
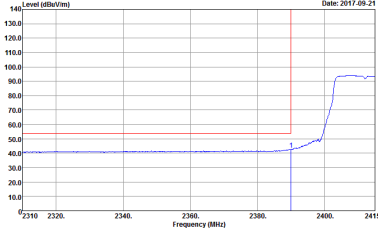
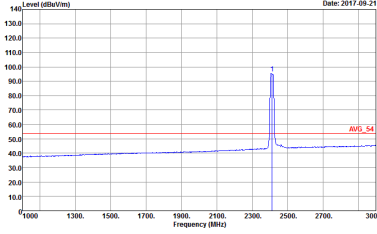


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH11 2462MHz	
1	Horizontal	Fundamental
Peak	<div><p>Site : 03CH11-HY Condition : PEAK_BE_74 3m HORN 91200-HF HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 791813</p></div>	<div><p>Site : 03CH11-HY Condition : PEAK_74 3m HORN 91200-HF HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 791813</p></div>
Avg.	<div><p>Site : 03CH11-HY Condition : AVG_BE_54 3m HORN 91200-HF HORIZONTAL RBW:1000.000KHz VBW:1000KHz SWT:Auto Detector : Peak Project : 791813</p></div>	<div><p>Site : 03CH11-HY Condition : AVG_54 3m HORN 91200-HF HORIZONTAL RBW:1000.000KHz VBW:1000KHz SWT:Auto Detector : Peak Project : 791813</p></div>

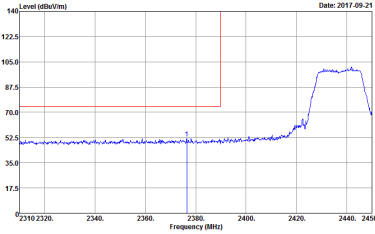
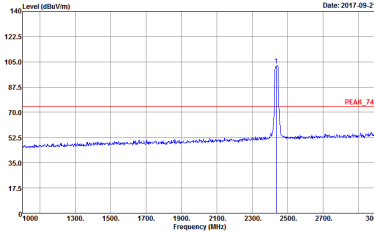
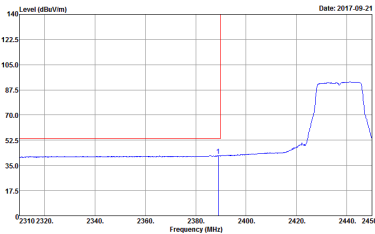
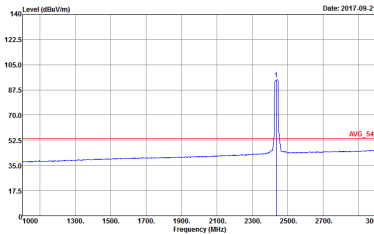
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH11 2462MHz	
1	Vertical	Fundamental
Peak	 <p>Site : 03CH11-HV Condition : PEAK_BE_74 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 791813</p>	 <p>Site : 03CH11-HV Condition : PEAK_74 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 791813</p>
Avg.	 <p>Site : 03CH11-HV Condition : AVG_BE_54 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:1000KHz SWT:Auto Detector : Peak Project : 791813</p>	 <p>Site : 03CH11-HV Condition : AVG_54 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:1000KHz SWT:Auto Detector : Peak Project : 791813</p>

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

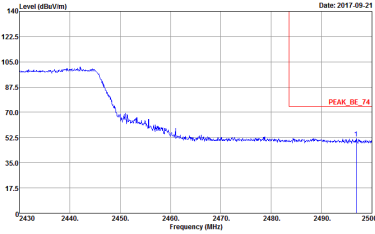
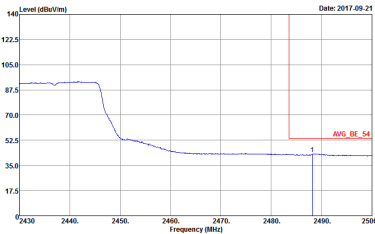
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH01 2412MHz	
1	Horizontal	Fundamental
<b>Peak</b>	 <p>Site : 03CH11-HY Condition : PEAK_BE_74 3m HORN 91200-HF HORIZONTAL Detector : Peak Project : 791813</p>	 <p>Site : 03CH11-HY Condition : PEAK_74 3m HORN 91200-HF HORIZONTAL Detector : Peak Project : 791813</p>
	 <p>Site : 03CH11-HY Condition : AVG_BE_54 3m HORN 91200-HF HORIZONTAL Detector : Peak Project : 791813</p>	 <p>Site : 03CH11-HY Condition : AVG_54 3m HORN 91200-HF HORIZONTAL Detector : Peak Project : 791813</p>

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH01 2412MHz	
1	Vertical	Fundamental
Peak	 <p>Site : 03CH11-HY Condition : PEAK_BE_74 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 791813</p>	 <p>Site : 03CH11-HY Condition : PEAK_74 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 791813</p>
Avg.	 <p>Site : 03CH11-HY Condition : AVG_BE_54 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:1000KHz SWT:Auto Detector : Peak Project : 791813</p>	 <p>Site : 03CH11-HY Condition : AVG_54 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:1000KHz SWT:Auto Detector : Peak Project : 791813</p>



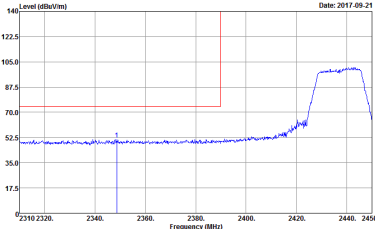
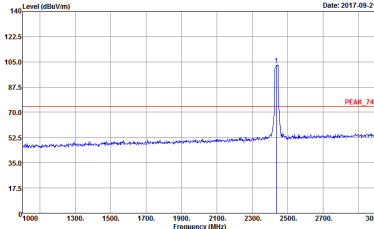
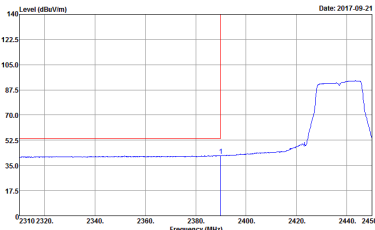
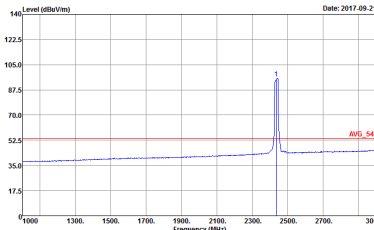
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH06 2437MHz - L	
1	Horizontal	Fundamental
Peak	<div><p>Site : 03CH11-HY Condition : PEAK_BE_74 3m HORN 91200-HF HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 791813</p></div>	<div><p>Site : 03CH11-HY Condition : PEAK_74 3m HORN 91200-HF HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 791813</p></div>
Avg.	<div><p>Site : 03CH11-HY Condition : AVG_BE_54 3m HORN 91200-HF HORIZONTAL RBW:1000.000KHz VBW:1000KHz SWT:Auto Detector : Peak Project : 791813</p></div>	<div><p>Site : 03CH11-HY Condition : AVG_54 3m HORN 91200-HF HORIZONTAL RBW:1000.000KHz VBW:1000KHz SWT:Auto Detector : Peak Project : 791813</p></div>



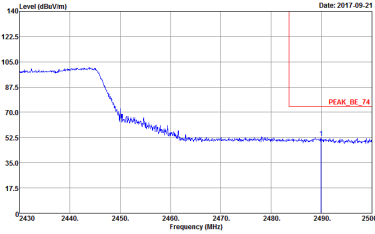
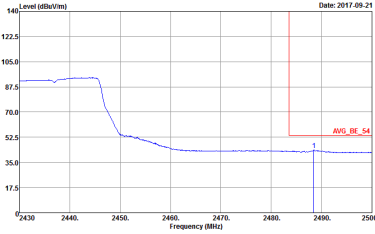
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH06 2437MHz - R	
1	Horizontal	Fundamental
Peak	<div><p>Site : 03CH11-HY Condition : PEAK_BE_74 3m HORN 91200-HF HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 791813</p></div>	Left blank
Avg.	<div><p>Site : 03CH11-HY Condition : AVG_BE_54 3m HORN 91200-HF HORIZONTAL RBW:1000.000KHz VBW:1000KHz SWT:Auto Detector : Peak Project : 791813</p></div>	Left blank

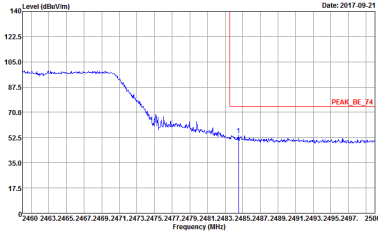
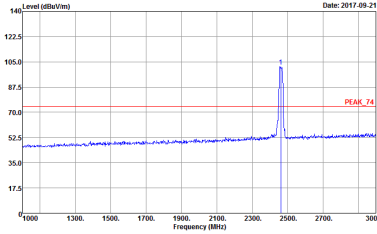
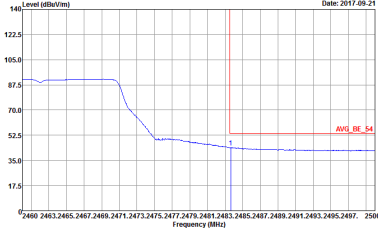
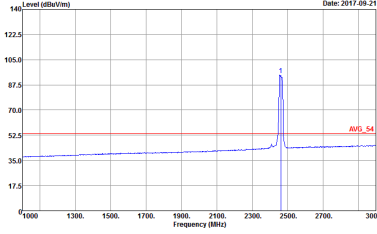


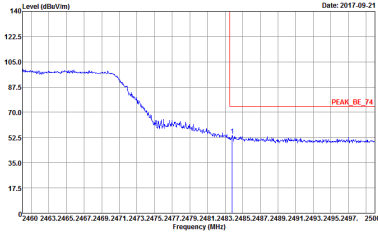
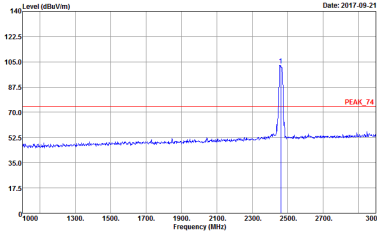
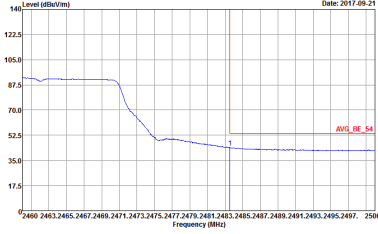
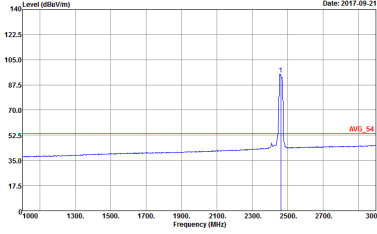


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH06 2437MHz - L	
1	Vertical	Fundamental
Peak	<div><p>Site : 03CH11-HY Condition : PEAK_BE_74 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 791813</p></div>	<div><p>Site : 03CH11-HY Condition : PEAK_74 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 791813</p></div>
Avg.	<div><p>Site : 03CH11-HY Condition : AVG_BE_54 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:1000KHz SWT:Auto Detector : Peak Project : 791813</p></div>	<div><p>Site : 03CH11-HY Condition : AVG_54 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:1000KHz SWT:Auto Detector : Peak Project : 791813</p></div>



WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH06 2437MHz - R	
1	Vertical	Fundamental
Peak	<div><p>Site : 03CH11-HY Condition : PEAK_BE_74 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 791813</p></div>	Left Blank
Avg.	<div><p>Site : 03CH11-HY Condition : AVG_BE_54 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:1000KHz SWT:Auto Detector : Peak Project : 791813</p></div>	Left Blank

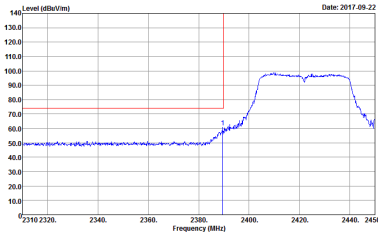
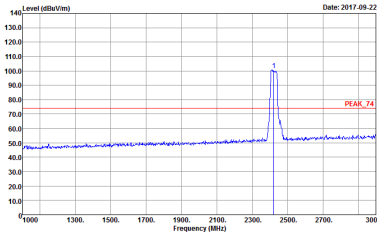
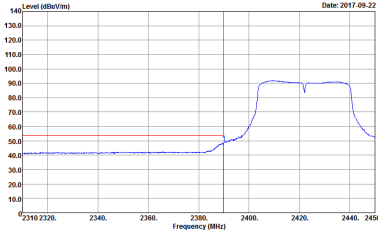
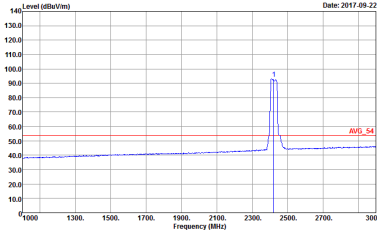
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH11 2462MHz	
1	Horizontal	Fundamental
Peak	 <p>Site : 03CH11-HV Condition : PEAK_BE_74 3m HORN 91200-HF HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 791813</p>	 <p>Site : 03CH11-HV Condition : PEAK_74 3m HORN 91200-HF HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 791813</p>
Avg.	 <p>Site : 03CH11-HV Condition : AVG_BE_54 3m HORN 91200-HF HORIZONTAL RBW:1000.000KHz VBW:1000KHz SWT:Auto Detector : Peak Project : 791813</p>	 <p>Site : 03CH11-HV Condition : AVG_54 3m HORN 91200-HF HORIZONTAL RBW:1000.000KHz VBW:1000KHz SWT:Auto Detector : Peak Project : 791813</p>

WIFI	2.4GHz 2400~2483.5MHz Fundamental @ 3m	
ANT	802.11n HT20 CH11 2462MHz	
1	Vertical	Fundamental
Peak	 <p>Site : 03CH11-HV Condition : PEAK_BE_74 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 791813</p>	 <p>Site : 03CH11-HV Condition : PEAK_74 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 791813</p>
Avg.	 <p>Site : 03CH11-HV Condition : AVG_BE_54 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:1000KHz SWT:Auto Detector : Peak Project : 791813</p>	 <p>Site : 03CH11-HV Condition : AVG_54 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:1000KHz SWT:Auto Detector : Peak Project : 791813</p>

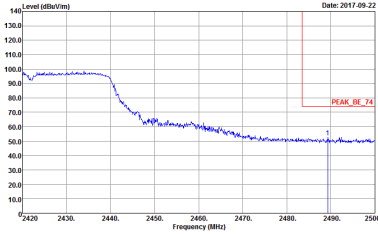
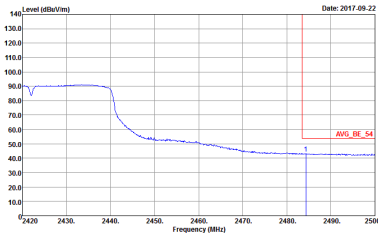


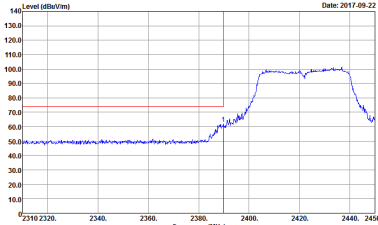
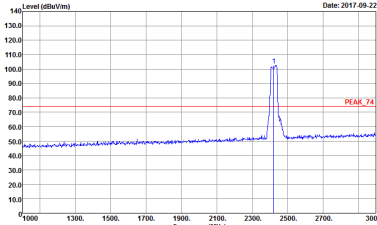
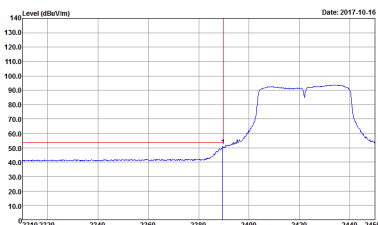
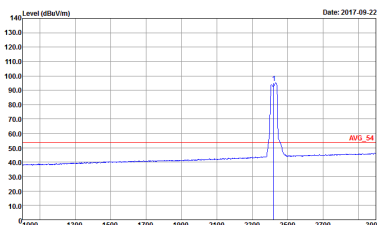
## 2.4GHz 2400~2483.5MHz

## WIFI 802.11n HT40 (Band Edge @ 3m)

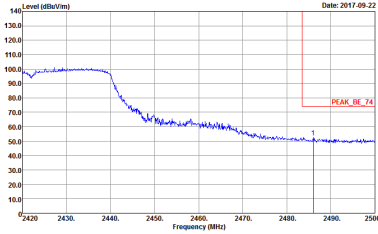
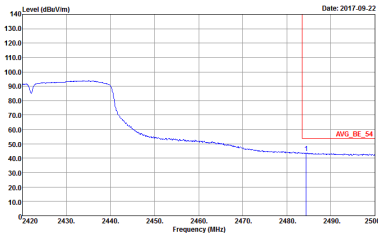
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH03 2422MHz - L	
1	Horizontal	Fundamental
Peak	 <p>Site : 03CH11-HY Condition : PEAK_BE_74 3m HORN 91200-HF HORIZONTAL Detector : Peak Project : 791813</p>	 <p>Site : 03CH11-HY Condition : PEAK_74 3m HORN 91200-HF HORIZONTAL Detector : Peak Project : 791813</p>
Avg.	 <p>Site : 03CH11-HY Condition : AVG_BE_54 3m HORN 91200-HF HORIZONTAL Detector : Peak Project : 791813</p>	 <p>Site : 03CH11-HY Condition : AVG_54 3m HORN 91200-HF HORIZONTAL Detector : Peak Project : 791813</p>



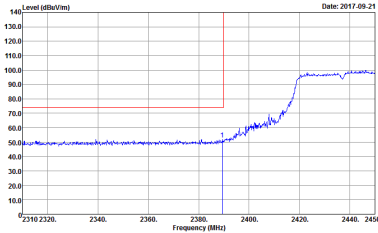
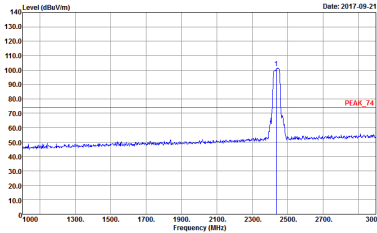
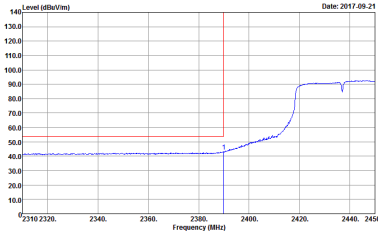
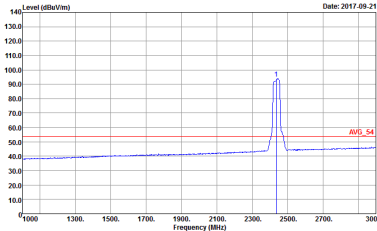
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH03 2422MHz - R	
1	Horizontal	Fundamental
Peak	<div><p>Site : 03CH11-HY Condition : PEAK_BE_74 3m HORN 91200-HF HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 791813</p></div>	Left Blank
Avg.	<div><p>Site : 03CH11-HY Condition : AVG_BE_54 3m HORN 91200-HF HORIZONTAL RBW:1000.000KHz VBW:1000KHz SWT:Auto Detector : Peak Project : 791813</p></div>	Left Blank

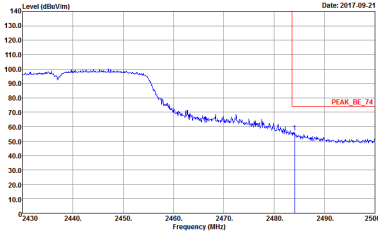
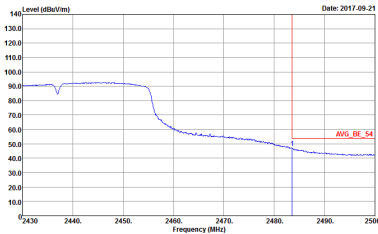
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH03 2422MHz - L	
1	Vertical	Fundamental
Peak	 <p>           Site : 03CH11-HY            Condition : PEAK_BE_74 3m HORN 91200-HF VERTICAL            Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto            Project : Peak            : 791813         </p>	 <p>           Site : 03CH11-HY            Condition : PEAK_74 3m HORN 91200-HF VERTICAL            Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto            Project : Peak            : 791813         </p>
Avg.	 <p>           Site : 03CH11-HY            Condition : AVG_BE_54 3m HORN 91200-HF VERTICAL            Detector : RBW:1000.000KHz VBW:1000KHz SWT:Auto            Project : Peak            : 791813         </p>	 <p>           Site : 03CH11-HY            Condition : AVG_54 3m HORN 91200-HF VERTICAL            Detector : RBW:1000.000KHz VBW:1000KHz SWT:Auto            Project : Peak            : 791813         </p>

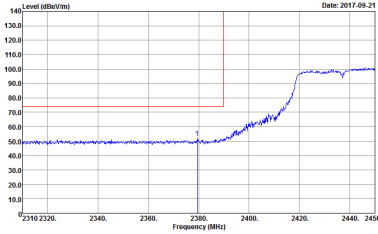
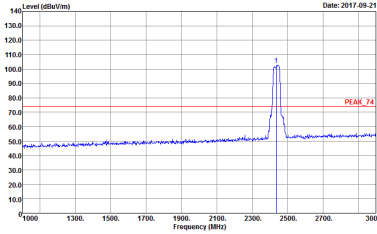
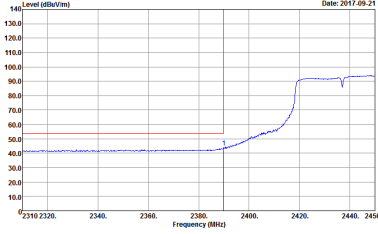
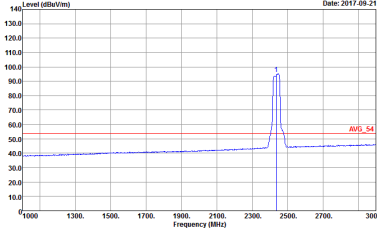


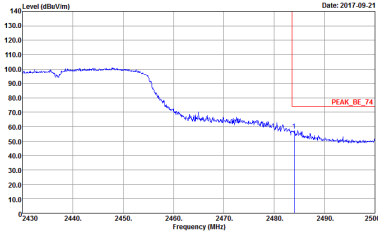
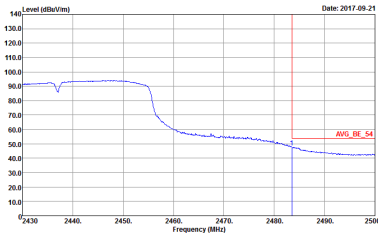
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH03 2422MHz - R	
1	Vertical	Fundamental
Peak	<div><p>Site : 03CH11-HY Condition : PEAK_BE_74 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 791813</p></div>	Left blank
Avg.	<div><p>Site : 03CH11-HY Condition : AVG_BE_54 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:1000KHz SWT:Auto Detector : Peak Project : 791813</p></div>	Left blank

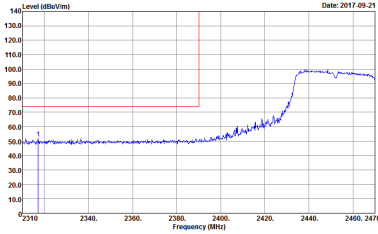
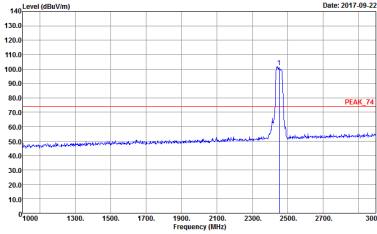
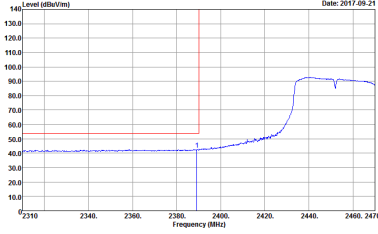
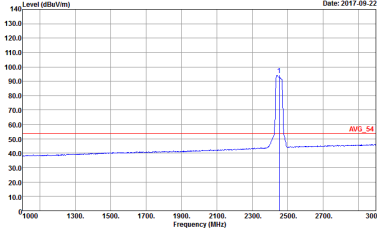


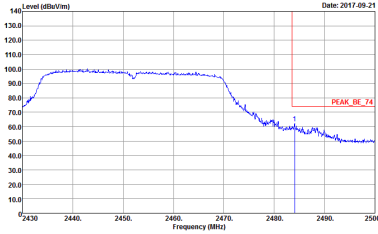
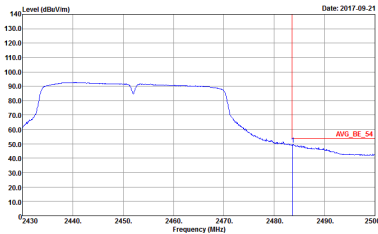
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH06 2437MHz - L	
1	Horizontal	Fundamental
Peak	 <p>Site : 03CH11-HV Condition : PEAK_BE_74 3m HORN 91200-HF HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 791813</p>	 <p>Site : 03CH11-HV Condition : PEAK_74 3m HORN 91200-HF HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 791813</p>
Avg.	 <p>Site : 03CH11-HV Condition : AVG_BE_54 3m HORN 91200-HF HORIZONTAL RBW:1000.000KHz VBW:1000KHz SWT:Auto Detector : Peak Project : 791813</p>	 <p>Site : 03CH11-HV Condition : AVG_54 3m HORN 91200-HF HORIZONTAL RBW:1000.000KHz VBW:1000KHz SWT:Auto Detector : Peak Project : 791813</p>

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH06 2437MHz - R	
1	Horizontal	Fundamental
Peak	 <p>Site : 03CH11-HY Condition : PEAK_BE_74 3m HORN 91200-HF HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 791813</p>	Left blank
Avg.	 <p>Site : 03CH11-HY Condition : AVG_BE_54 3m HORN 91200-HF HORIZONTAL RBW:1000.000KHz VBW:1000KHz SWT:Auto Detector : Peak Project : 791813</p>	Left blank

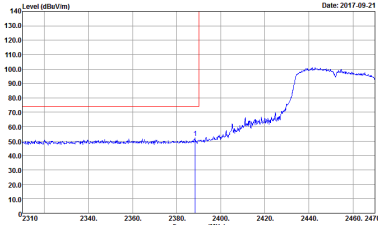
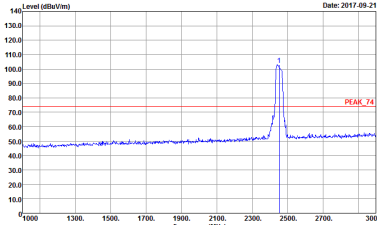
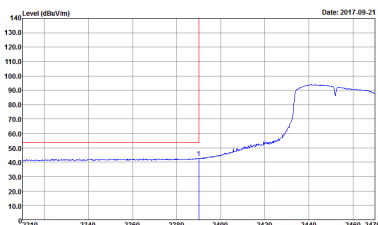
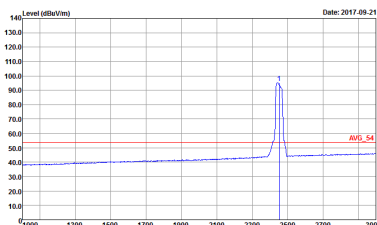
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH06 2437MHz - L	
1	Vertical	Fundamental
Peak	 <p>Site : 03CH11-HY Condition : PEAK_BE_74 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 791813</p>	 <p>Site : 03CH11-HY Condition : PEAK_74 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 791813</p>
Avg.	 <p>Site : 03CH11-HY Condition : AVG_BE_54 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:1000KHz SWT:Auto Detector : Peak Project : 791813</p>	 <p>Site : 03CH11-HY Condition : AVG_54 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:1000KHz SWT:Auto Detector : Peak Project : 791813</p>

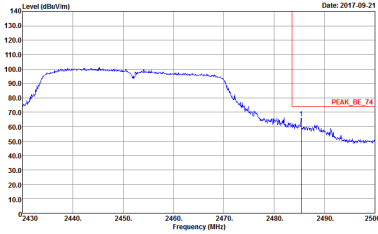
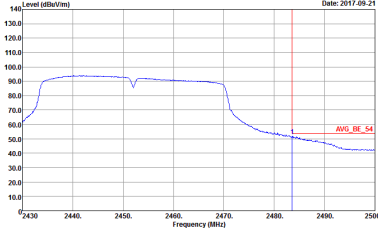
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH06 2437MHz - R	
1	Horizontal	Fundamental
Peak	 <p>Site : 03CH11-HY Condition : PEAK_BE_74 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 791813</p>	Left blank
Avg.	 <p>Site : 03CH11-HY Condition : AVG_BE_54 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 791813</p>	Left blank

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH09 2452MHz - L	
1	Horizontal	Fundamental
Peak	 <p>Site : 03CH11-HY Condition : PEAK_BE_74 3m HORN 91200-HF HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 791813</p>	 <p>Site : 03CH11-HY Condition : PEAK_74 3m HORN 91200-HF HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 791813</p>
Avg.	 <p>Site : 03CH11-HY Condition : AVG_BE_54 3m HORN 91200-HF HORIZONTAL RBW:1000.000KHz VBW:1000KHz SWT:Auto Detector : Peak Project : 791813</p>	 <p>Site : 03CH11-HY Condition : AVG_54 3m HORN 91200-HF HORIZONTAL RBW:1000.000KHz VBW:1000KHz SWT:Auto Detector : Peak Project : 791813</p>

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH09 2452MHz - R	
1	Horizontal	Fundamental
Peak	 <p>Site : 03CH11-HY Condition : PEAK_BE_74 3m HORN 91200-HF HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 791813</p>	Left blank
Avg.	 <p>Site : 03CH11-HY Condition : AVG_BE_54 3m HORN 91200-HF HORIZONTAL RBW:1000.000KHz VBW:1000KHz SWT:Auto Detector : Peak Project : 791813</p>	Left blank

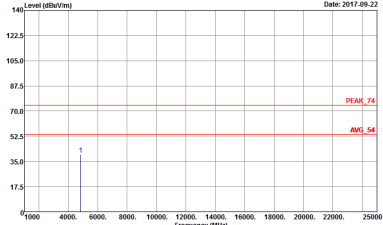
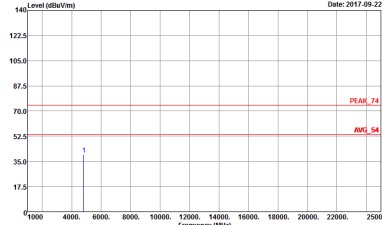


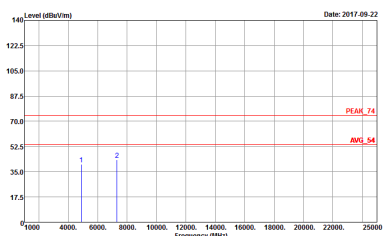
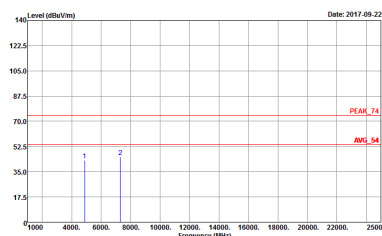
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH09 2452MHz - L	
1	Vertical	Fundamental
Peak	<div><p>Site : 03CH11-HY Condition : PEAK_BE_74 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 791813</p></div>	<div><p>Site : 03CH11-HY Condition : PEAK_74 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 791813</p></div>
Avg.	<div><p>Site : 03CH11-HY Condition : AVG_BE_54 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:1000KHz SWT:Auto Detector : Peak Project : 791813</p></div>	<div><p>Site : 03CH11-HY Condition : AVG_54 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:1000KHz SWT:Auto Detector : Peak Project : 791813</p></div>

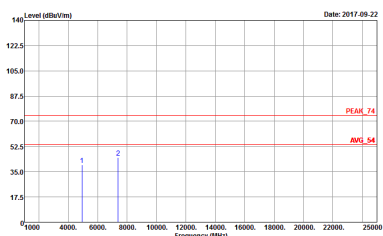
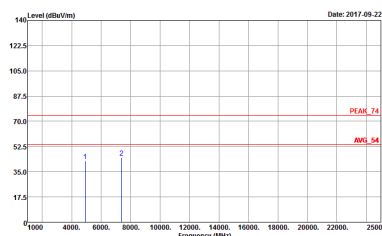
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH09 2452MHz - R	
1	Vertical	Fundamental
Peak	 <p>Site : 03CH11-HY Condition : PEAK_BE_74 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 791813</p>	Left blank
Avg.	 <p>Site : 03CH11-HY Condition : AVG_BE_54 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:1000KHz SWT:Auto Detector : Peak Project : 791813</p>	Left blank



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

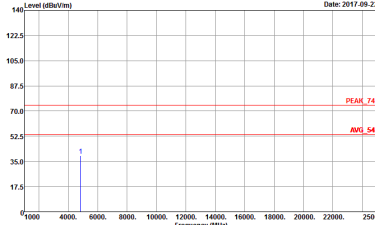
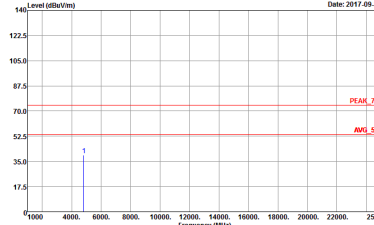
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH01 2412MHz	
1	Horizontal	Vertical
<b>Peak</b>  <b>Avg.</b>	 <p>Site : 03CH11-4 FY Condition : PEAK_74 3m HORN 91200-HF HORIZONTAL Detector : Peak Project : 791813</p>	 <p>Site : 03CH11-4 FY Condition : PEAK_74 3m HORN 91200-HF VERTICAL Detector : Peak Project : 791813</p>

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH06 2437MHz	
1	Horizontal	Vertical
Peak Avg.	 <p>           Site : 03CH11-HY            Condition : PEAK_74 3m HORN 91200-HF HORIZONTAL            Detector : Peak            Project : 791813         </p>	 <p>           Site : 03CH11-HY            Condition : PEAK_74 3m HORN 91200-HF VERTICAL            Detector : Peak            Project : 791813         </p>

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH11 2462MHz	
1	Horizontal	Vertical
Peak Avg.	 <p>           Site : 03CH11-HY            Condition : PEAK_74 3m HORN 91200-HF HORIZONTAL            Detector : Peak            Project : 791813         </p>	 <p>           Site : 03CH11-HY            Condition : PEAK_74 3m HORN 91200-HF VERTICAL            Detector : Peak            Project : 791813         </p>

**2.4GHz 2400~2483.5MHz**

**WIFI 802.11g (Harmonic @ 3m)**

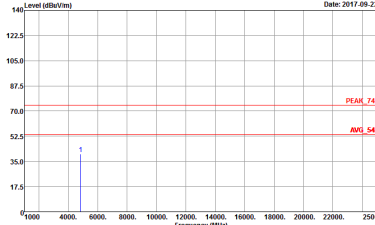
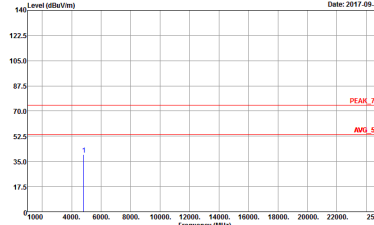
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11g CH01 2412MHz	
1	Horizontal	Vertical
Peak Avg.	 <p>Site : 03CH11-4FY Condition : PEAK_74 3m HORN 91200-HF HORIZONTAL Detector : Peak Project : 791813</p>	 <p>Site : 03CH11-4FY Condition : PEAK_74 3m HORN 91200-HF VERTICAL Detector : Peak Project : 791813</p>

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11g CH06 2437MHz	
1	Horizontal	Vertical
Peak Avg.	<p>           Site : 03CH11-HY            Condition : PEAK_74 3m HORN 91200-HF HORIZONTAL            Detector : Peak            Project : 791813         </p>	<p>           Site : 03CH11-HY            Condition : PEAK_74 3m HORN 91200-HF VERTICAL            Detector : Peak            Project : 791813         </p>

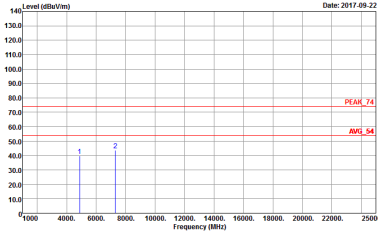
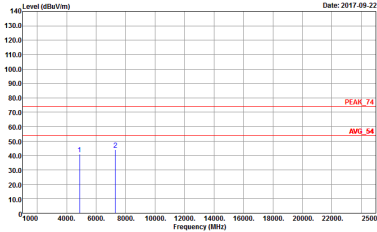


WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11g CH11 2462MHz	
1	Horizontal	Vertical
Peak Avg.	<div><p>Site : 03CH11-HY Condition : PEAK_74 3m HORN 91200-HF HORIZONTAL Detector : Peak Project : 791813</p></div>	<div><p>Site : 03CH11-HY Condition : PEAK_74 3m HORN 91200-HF VERTICAL Detector : Peak Project : 791813</p></div>

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

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11n HT20 CH01 2412MHz	
1	Horizontal	Vertical
<b>Peak</b>  <b>Avg.</b>	 <p>           Site : 03CH11-4 FY            Condition : PEAK_74 3m HORN 91200-HF HORIZONTAL            Detector : Peak            Project : 791813         </p>	 <p>           Site : 03CH11-4 FY            Condition : PEAK_74 3m HORN 91200-HF VERTICAL            Detector : Peak            Project : 791813         </p>

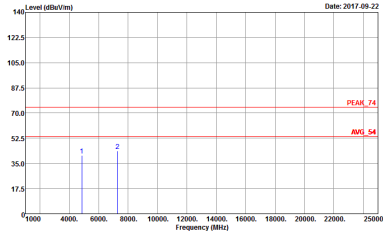
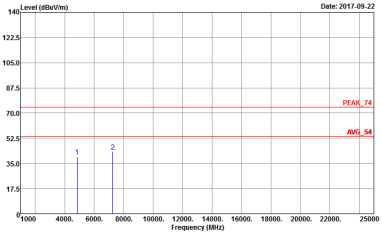


WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11n HT20 CH06 2437MHz	
1	Horizontal	Vertical
Peak Avg.	<div><p>Site : 03CH11-HY Condition : PEAK_74 3m HORN 9120D-HF HORIZONTAL Detector : Peak Project : 791813</p></div>	<div><p>Site : 03CH11-HY Condition : PEAK_74 3m HORN 9120D-HF VERTICAL Detector : Peak Project : 791813</p></div>

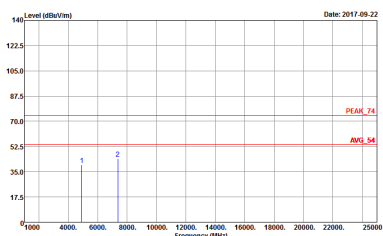
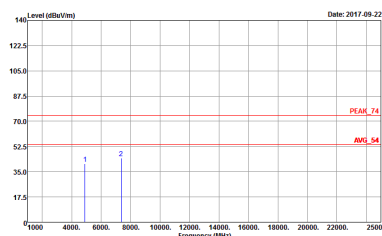


WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11n HT20 CH11 2462MHz	
1	Horizontal	Vertical
Peak Avg.	<p>Site : 03CH11-HY Condition : PEAK_74 3m HORN 91200-HF HORIZONTAL Detector : Peak Project : 791813</p>	<p>Site : 03CH11-HY Condition : PEAK_74 3m HORN 91200-HF VERTICAL Detector : Peak Project : 791813</p>

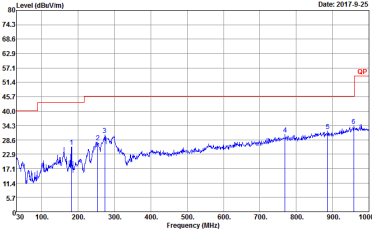
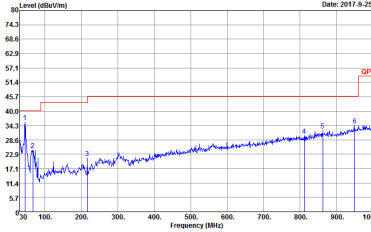
2.4GHz 2400~2483.5MHz  
WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11n HT40 CH03 2422MHz	
1	Horizontal	Vertical
Peak Avg.	 <p>Site : 03CH11-4FY Condition : PEAK_74 3m HORN 91200-HF HORIZONTAL Detector : Peak Project : 791813</p>	 <p>Site : 03CH11-4FY Condition : PEAK_74 3m HORN 91200-HF VERTICAL Detector : Peak Project : 791813</p>

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11n HT40 CH06 2437MHz	
1	Horizontal	Vertical
Peak Avg.	<p>           Site : 03CH11-HY            Condition : PEAK_74 3m HORN 91200-HF HORIZONTAL            Detector : Peak            Project : 791813         </p>	<p>           Site : 03CH11-HY            Condition : PEAK_74 3m HORN 91200-HF VERTICAL            Detector : Peak            Project : 791813         </p>

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11n HT40 CH09 2452MHz	
1	Horizontal	Vertical
Peak Avg.	 <p>           Site : 03CH11-HY            Condition : PEAK_74 3m HORN 91200-HF HORIZONTAL            Detector : Peak            Project : 791813         </p>	 <p>           Site : 03CH11-HY            Condition : PEAK_74 3m HORN 91200-HF VERTICAL            Detector : Peak            Project : 791813         </p>

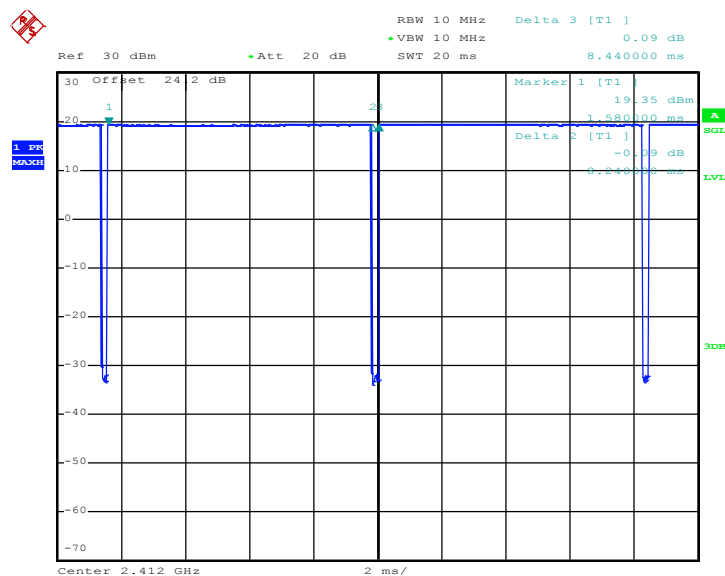
**Emission below 1GHz**  
**2.4GHz WIFI 802.11n HT40 (LF)**

WIFI	2.4GHz 2400~2483.5MHz	
ANT	802.11n HT40 LF	
1	Horizontal	Vertical
<b>QP / Peak</b>	 <p>           Site : 03CH11-4HY            Condition : QP 3m BT-LOG 6111D-LF_ETC HORIZONTAL            Detector : Peak            Project : 791813         </p>	 <p>           Site : 03CH11-4HY            Condition : QP 3m BT-LOG 6111D-LF_ETC VERTICAL            Detector : Peak            Project : 791813         </p>

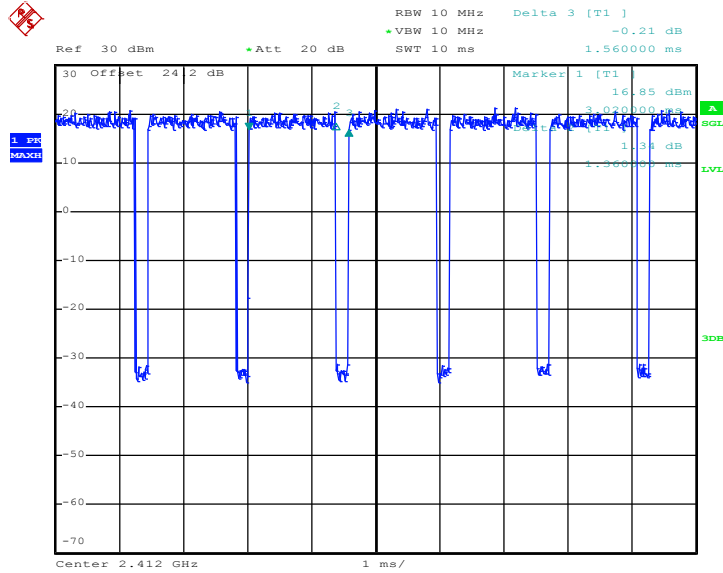
## Appendix E. Duty Cycle Plots

Band	Duty Cycle (%)	T(us)	1/T(kHz)	VBW Setting
802.11b	97.63	8240.00	0.12	300Hz
802.11g	87.18	1360.00	0.74	1kHz
2.4GHz 802.11n HT20	86.49	1280.00	0.78	1kHz
2.4GHz 802.11n HT40	85.42	1230.00	0.81	1kHz

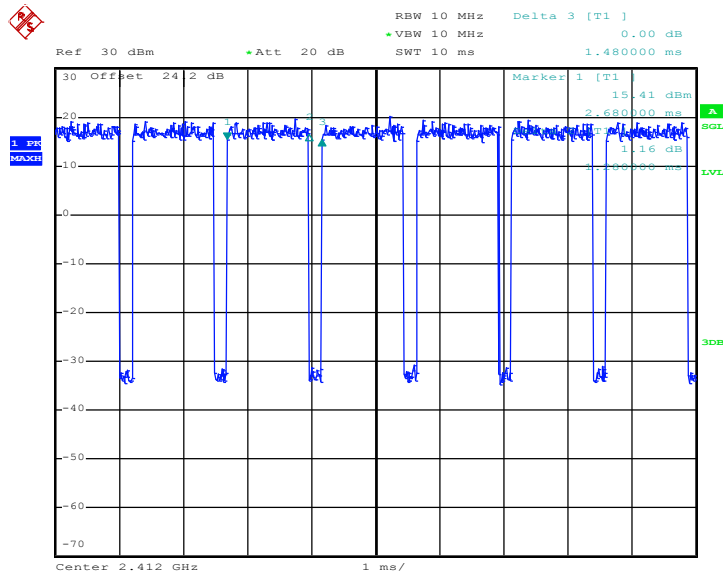
### 802.11b



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**802.11g**


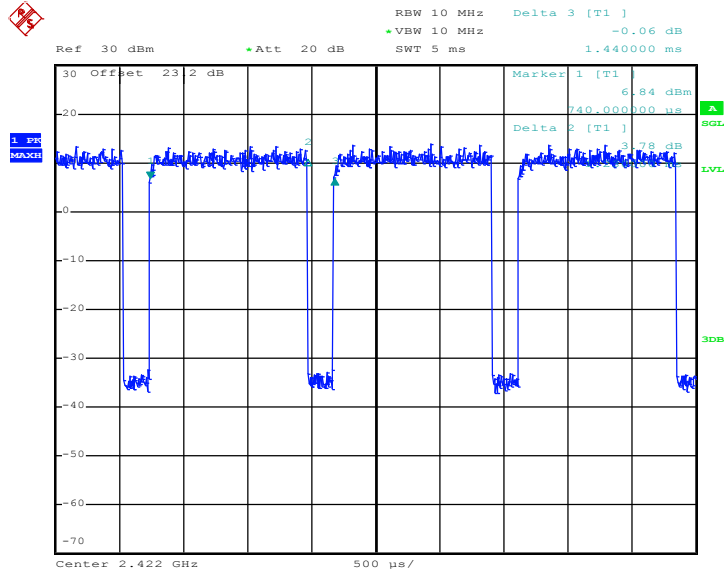
Date: 19.SEP.2017 10:59:11

**802.11n HT20**


Date: 19.SEP.2017 11:01:58



802.11n HT40



Date: 20.SEP.2017 05:30:03