



# FCC RADIO TEST REPORT

**FCC ID** : WR974100118120  
**Equipment** : SmartCamera with voice control  
**Brand Name** : ecobee  
**Model Name** : EBSCV01  
**Applicant** : ecobee Incorporated  
207 Queens Quay West, Suite 600, Toronto,  
Ontario, M5J 1A7 , Canada  
**Manufacturer** : Wistron Corporation  
21F, No. 88, Sec. 1, Hsin Tai Wu Rd., Hsichih Dist,  
New Taipei City 221, Taiwan R.O.C  
**Standard** : FCC Part 15 Subpart C §15.247

The product was received on Jul. 23, 2019 and testing was started from Jul. 30, 2019 and completed on Aug. 21, 2019. We, SPORTON INTERNATIONAL INC., EMC & Wireless Communications Laboratory, 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 report must not be used by the client to claim product certification, approval, or endorsement by TAF or any agency of government.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, the test report shall not be reproduced except in full.

*Louis Wu*

Approved by: Louis Wu

**SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory**  
No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)

## Table of Contents

<b>History of this test report.....</b>	<b>3</b>
<b>Summary of Test Result.....</b>	<b>4</b>
<b>1 General Description .....</b>	<b>5</b>
1.1 Product Feature of Equipment Under Test.....	5
1.2 Modification of EUT .....	5
1.3 Testing Location .....	5
1.4 Applicable Standards.....	6
<b>2 Test Configuration of Equipment Under Test .....</b>	<b>7</b>
2.1 Carrier Frequency and Channel .....	7
2.2 Test Mode.....	7
2.3 Connection Diagram of Test System.....	8
2.4 Support Unit used in test configuration and system .....	8
2.5 EUT Operation Test Setup .....	8
2.6 Measurement Results Explanation Example.....	9
<b>3 Test Result .....</b>	<b>10</b>
3.1 6dB and 99% Bandwidth Measurement .....	10
3.2 Output Power Measurement.....	12
3.3 Power Spectral Density Measurement .....	13
3.4 Conducted Band Edges and Spurious Emission Measurement .....	15
3.5 Radiated Band Edges and Spurious Emission Measurement .....	16
3.6 AC Conducted Emission Measurement.....	32
3.7 Antenna Requirements.....	34
<b>4 List of Measuring Equipment.....</b>	<b>35</b>
<b>5 Uncertainty of Evaluation .....</b>	<b>37</b>
<b>Appendix A. Conducted Test Results</b>	
<b>Appendix B. AC Conducted Emission Test Result</b>	
<b>Appendix C. Radiated Spurious Emission</b>	
<b>Appendix D. Radiated Spurious Emission Plots</b>	
<b>Appendix E. Duty Cycle Plots</b>	



## History of this test report

Report No.	Version	Description	Issued Date
FR972333C	01	Initial issue of report	Oct. 24, 2019

## Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
3.1	15.247(a)(2)	6dB Bandwidth	Pass	-
3.1	2.1049	99% Occupied Bandwidth	Reporting only	-
3.2	15.247(b)	Power Output Measurement	Pass	-
3.3	15.247(e)	Power Spectral Density	Pass	-
3.4	15.247(d)	Conducted Band Edges	Pass	-
		Conducted Spurious Emission	Pass	-
3.5	15.247(d)	Radiated Band Edges and Radiated Spurious Emission	Pass	Under limit 2.87 dB at 2483.520 MHz
3.6	15.207	AC Conducted Emission	Pass	Under limit 18.81 dB at 0.506 MHz
3.7	15.203 & 15.247(b)	Antenna Requirement	Pass	-

**Declaration of Conformity:**

The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.

**Comments and Explanations:**

The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

**Reviewed by: Wii Chang**

**Report Producer: Ann Lee**



# 1 General Description

## 1.1 Product Feature of Equipment Under Test

Bluetooth, Wi-Fi 2.4GHz 802.11b/g/n, Wi-Fi 5GHz 802.11a/n/ac, and Sub-gig

Product Specification subjective to this standard	
Antenna Type	WLAN: PIFA Antenna Bluetooth: PIFA Antenna Sub-gig: PIFA Antenna

## 1.2 Modification of EUT

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

## 1.3 Testing Location

Test Site	SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory	
Test Site Location	No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.) TEL: +886-3-327-3456 FAX: +886-3-328-4978	
Test Site No.	Sporton Site No.	
	TH05-HY	CO05-HY

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

Test Site	SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory	
Test Site Location	No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.) TEL: +886-3-327-0868 FAX: +886-3-327-0855	
Test Site No.	Sporton Site No.	
	03CH11HY	

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

FCC designation No.: TW1190 and TW0007



## 1.4 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 v05r02
- ♦ FCC KDB 414788 D01 Radiated Test Site v01r01.
- ♦ ANSI C63.10-2013

**Remark:**

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

## 2 Test Configuration of Equipment Under Test

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

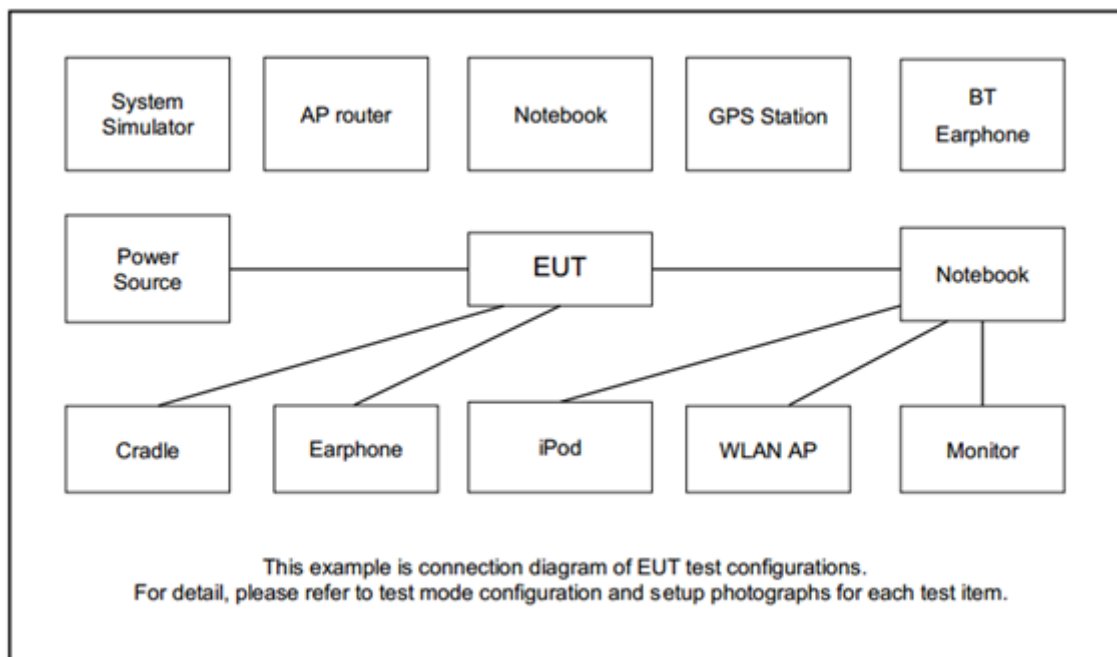
### 2.2 Test Mode

Final test modes 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	
AC Conducted Emission	Mode 1 :WLAN (2.4GHz) TX + Bluetooth TX + Adapter

## 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.	Spectrum Analyzer	Agilent	N9030A	N/A	N/A	Unshielded,1.8m
2.	Power Supply	Ecobee	SAW12D	SAW12D-120-1000U	N/A	N/A

## 2.5 EUT Operation Test Setup

The RF test items, utility “adb cmd” was installed in EUT which was programmed in order to make the EUT get into the engineering modes to provide channel selection, power level, data rate and the application type and for continuous transmitting 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.

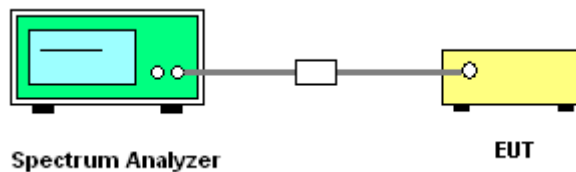
##### 3.1.2 Measuring Instruments

See list of measuring equipment of this test report.

##### 3.1.3 Test Procedures

1. The testing follows the ANSI C63.10 Section 6.9.3 (OBW) and 11.8.1 (6dB BW).
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) is set 1-5% of the emission bandwidth and set the Video bandwidth (VBW)  $\geq 3 * RBW$ .
6. Measure and record the results in the test report.

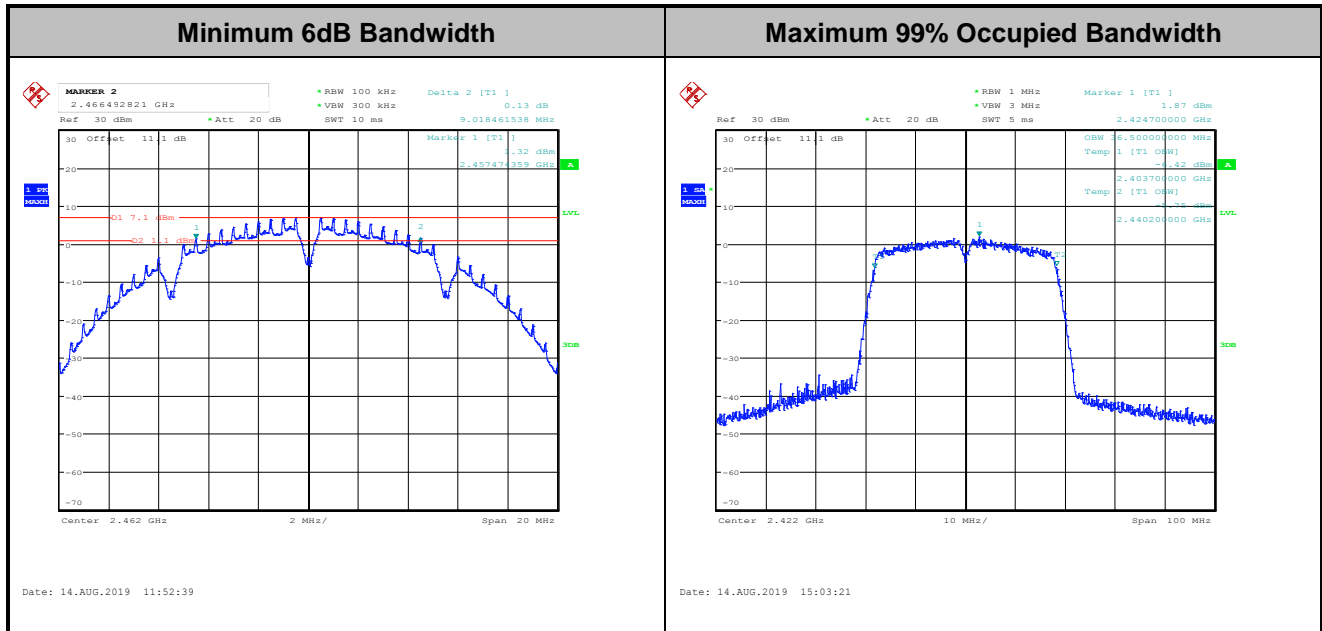
##### 3.1.4 Test Setup





### 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 with directional gain greater than 6dBi is used, the peak output power from the intentional radiator shall be reduced below the above stated value by the amount in dB that the directional gain of the antenna exceeds 6 dBi. In case of point-to-point operation, the limit has to be reduced by 1dB for every 3dB that the directional gain of the antenna exceeds 6dBi.

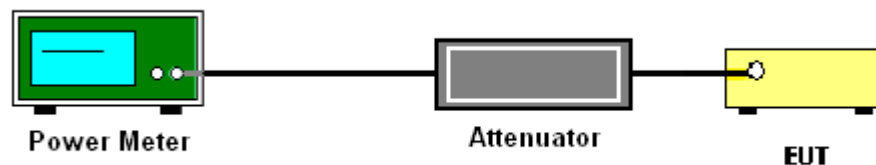
### 3.2.2 Measuring Instruments

See list of measuring equipment of this test report.

### 3.2.3 Test Procedures

1. For Average Power, the testing follows ANSI C63.10 Section 11.9.2.3.2 Method AVGPM-G
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 Average Output Power

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

See list of measuring equipment of this test report.

#### 3.3.3 Test Procedures

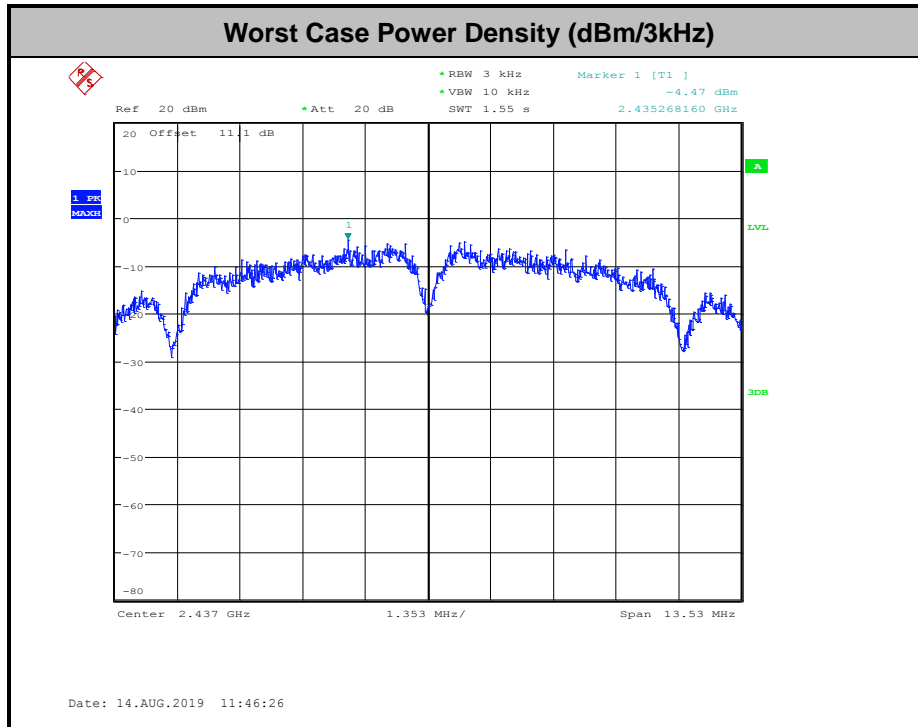
1. The testing follows the ANSI C63.10 Section 11.10.2 Method PKPSD.
2. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
3. Set to the maximum power setting and enable the EUT transmit continuously.
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.

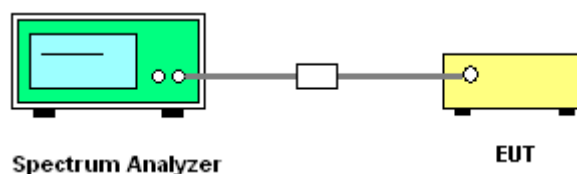
#### 3.4.2 Measuring Instruments

See list of measuring equipment of this test report.

#### 3.4.3 Test Procedures

1. The testing follows the ANSI C63.10 Section 11.11.3 Emission level measurement.
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

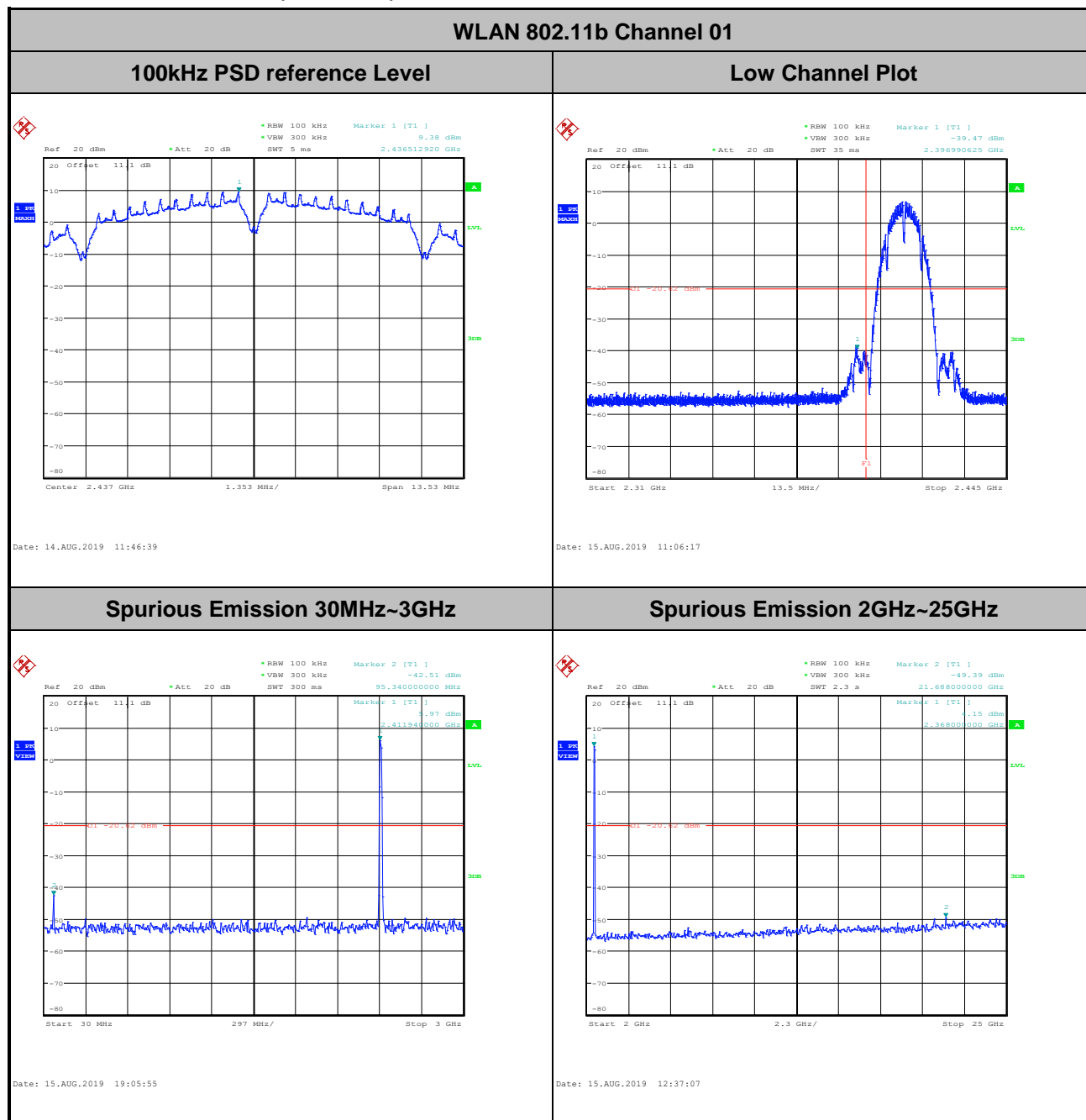




## 3.4.5 Test Result of Conducted Band Edges and Spurious Emission

Test Engineer :	Nick Yu	Temperature :	21~25°C
		Relative Humidity :	51~54%

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

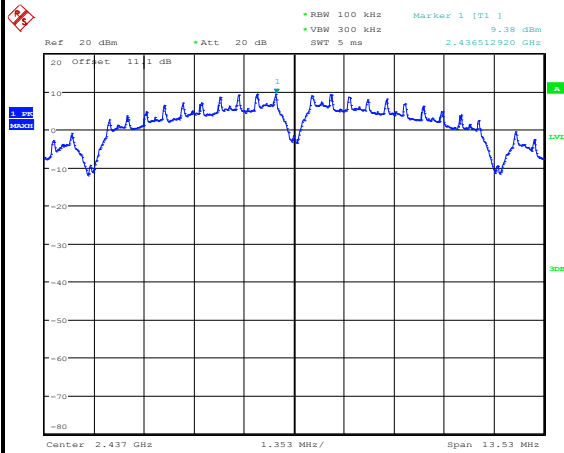






WLAN 802.11b Channel 06

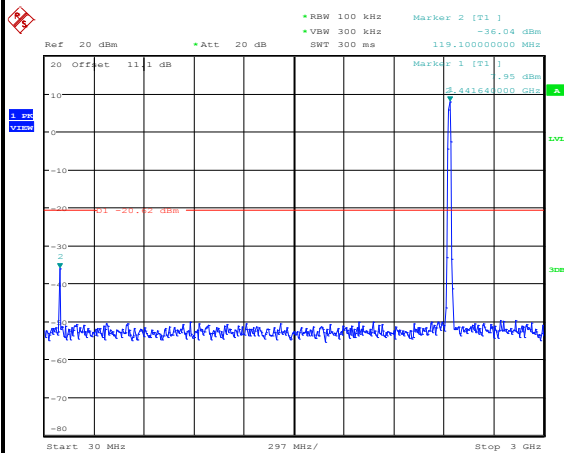
100kHz PSD reference Level



Date: 14.AUG.2019 11:46:39

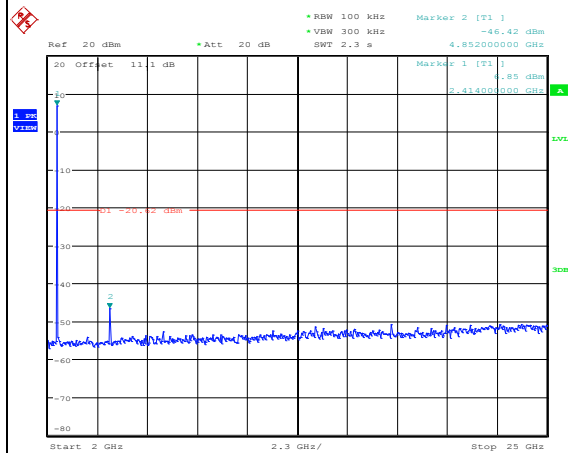
Mid Channel Plot

Spurious Emission 30MHz~3GHz



Date: 15.AUG.2019 19:07:42

Spurious Emission 2GHz~25GHz

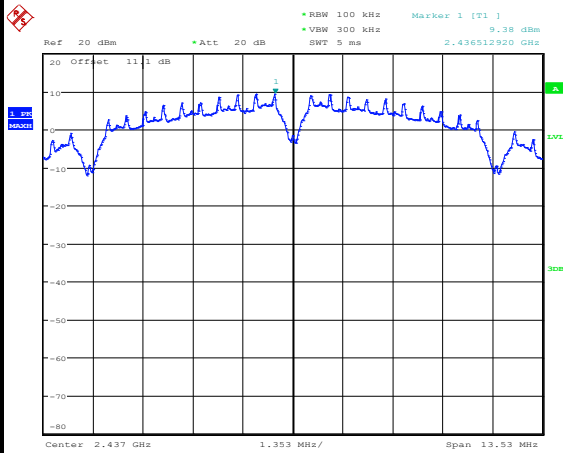


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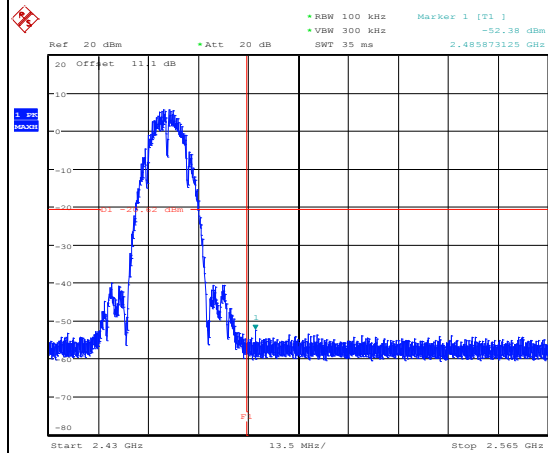
## WLAN 802.11b Channel 11

## 100kHz PSD reference Level



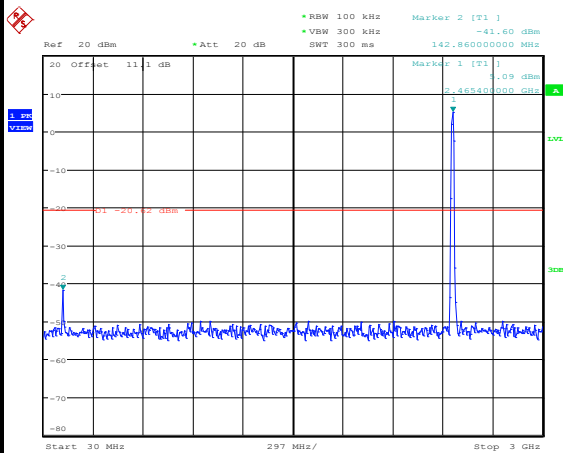
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## High Channel Plot



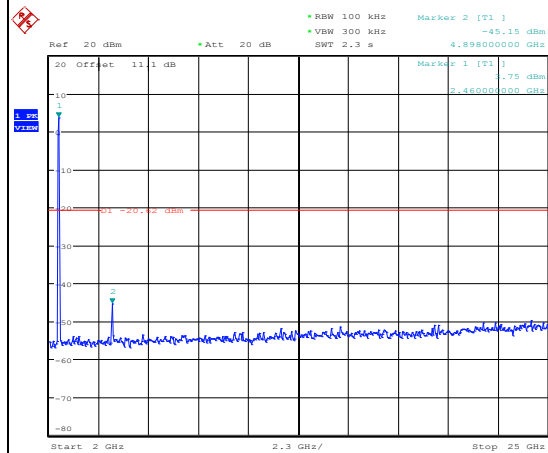
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## Spurious Emission 30MHz~3GHz



Date: 15.AUG.2019 14:20:45

## Spurious Emission 2GHz~25GHz

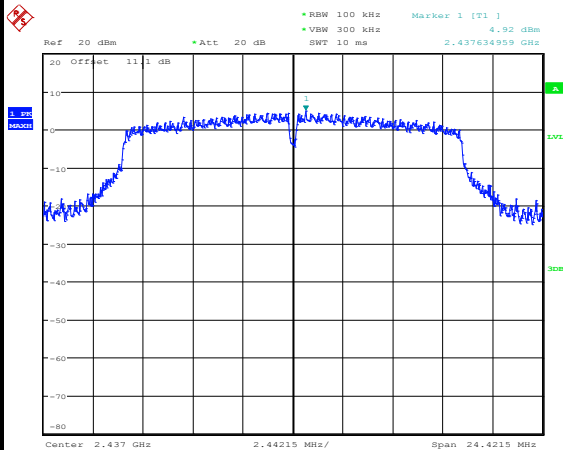


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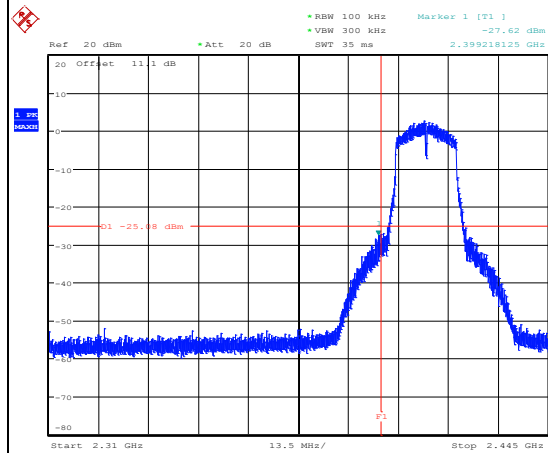
## WLAN 802.11g Channel 01

## 100kHz PSD reference Level



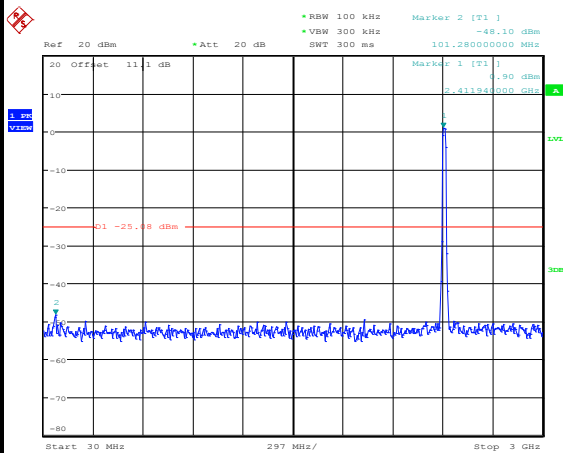
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## Low Channel Plot



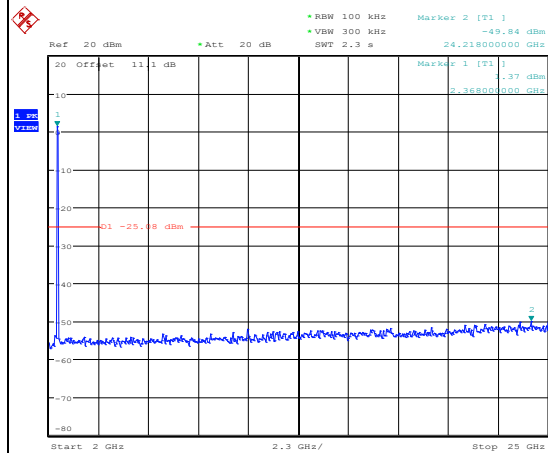
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## Spurious Emission 30MHz~3GHz



Date: 15.AUG.2019 14:23:35

## Spurious Emission 2GHz~25GHz

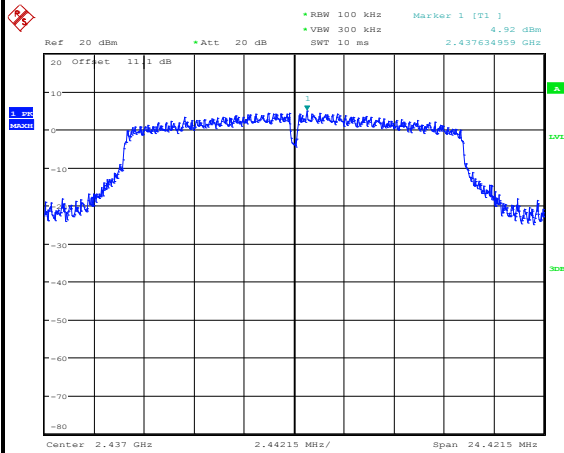


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## WLAN 802.11g Channel 06

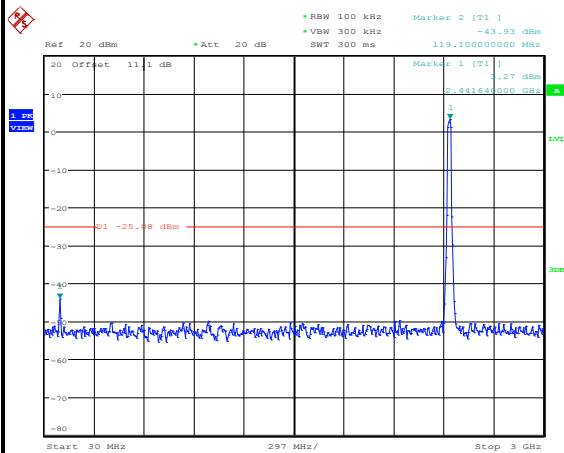
## 100kHz PSD reference Level



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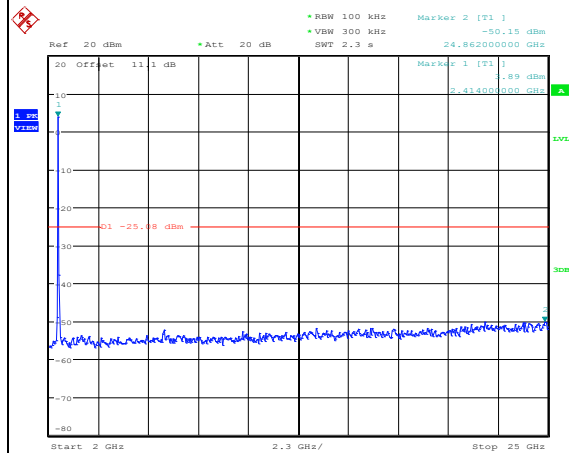
## Mid Channel Plot

## Spurious Emission 30MHz~3GHz

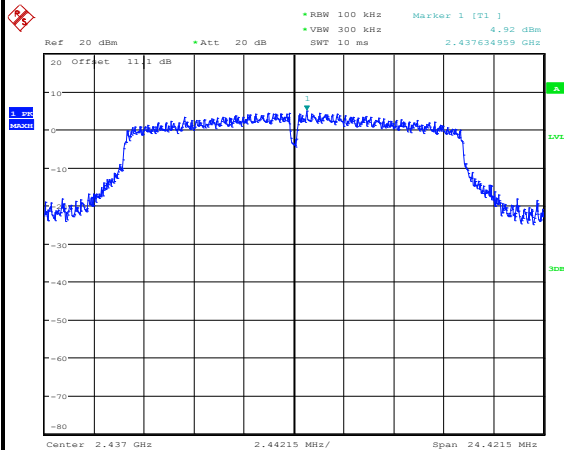


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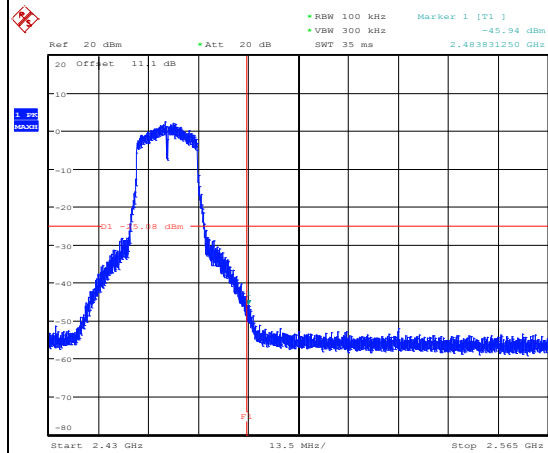
## Spurious Emission 2GHz~25GHz



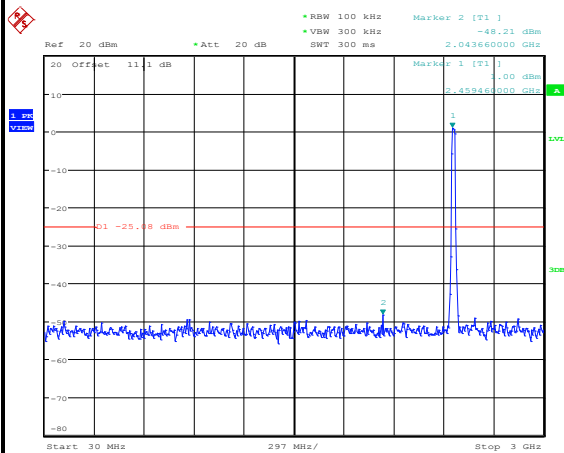
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**WLAN 802.11g Channel 11****100kHz PSD reference Level**

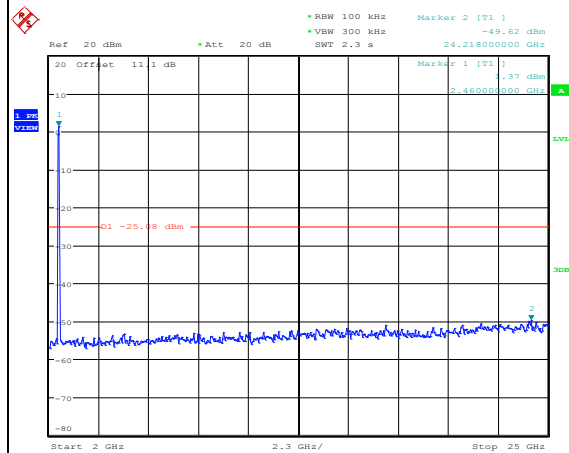
Date: 14.AUG.2019 14:17:22

**High Channel Plot**

Date: 15.AUG.2019 11:18:56

**Spurious Emission 30MHz~3GHz**

Date: 15.AUG.2019 14:25:42

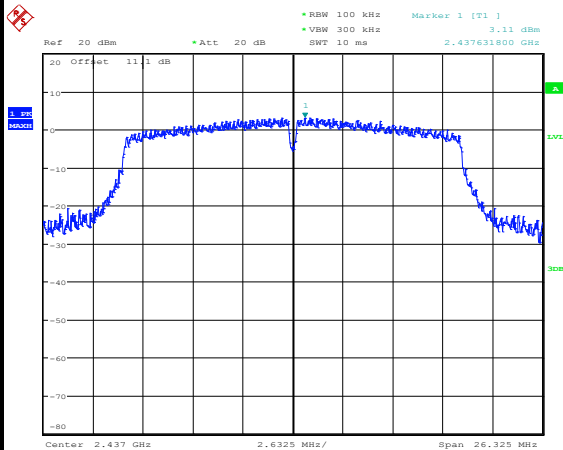
**Spurious Emission 2GHz~25GHz**

Date: 15.AUG.2019 14:25:57



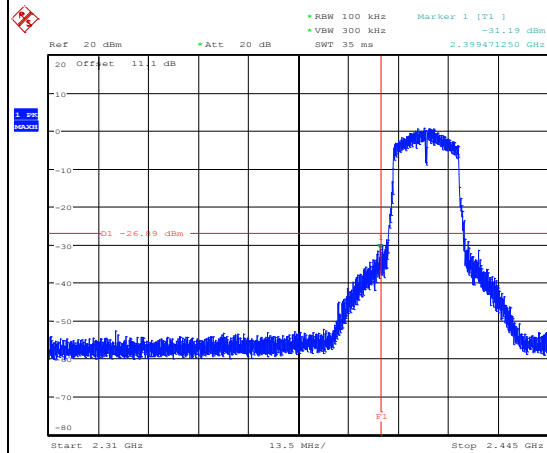
## WLAN 802.11n HT20 Channel 01

## 100kHz PSD reference Level



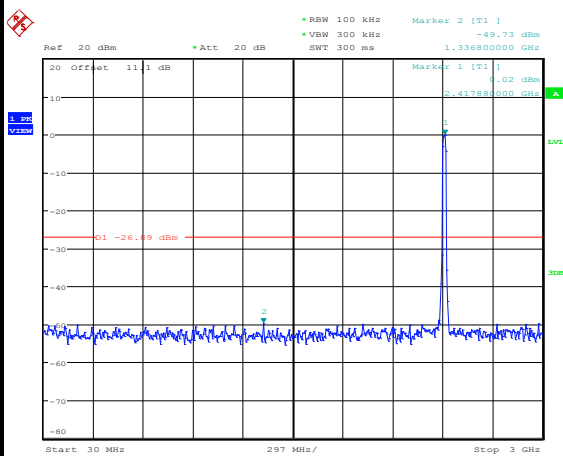
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## Low Channel Plot



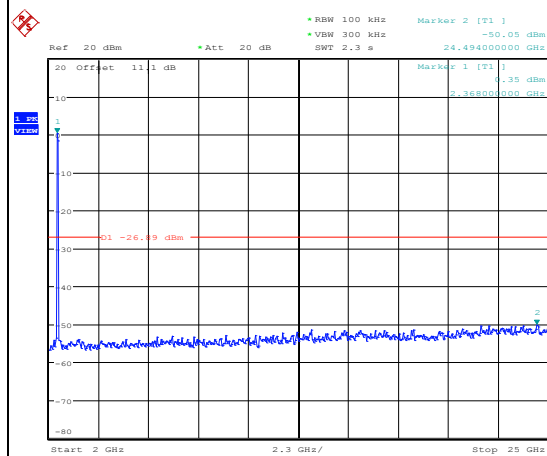
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## Spurious Emission 30MHz~3GHz



Date: 15.AUG.2019 14:33:38

## Spurious Emission 2GHz~25GHz

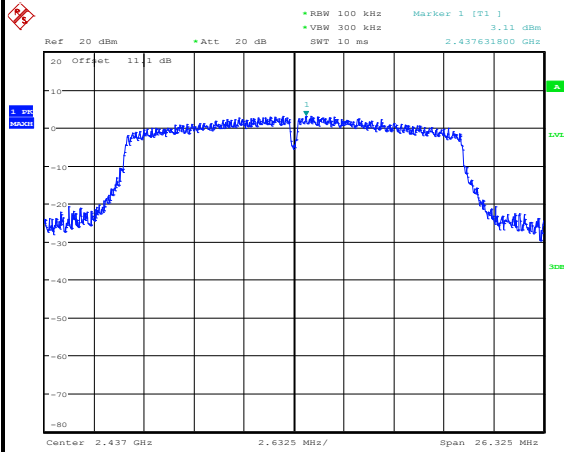


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## WLAN 802.11n HT20 Channel 06

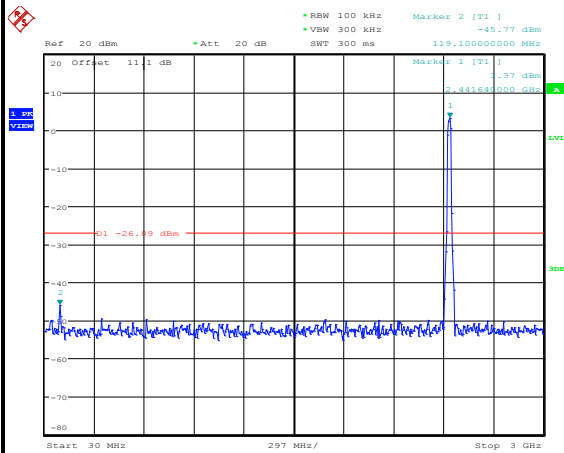
## 100kHz PSD reference Level



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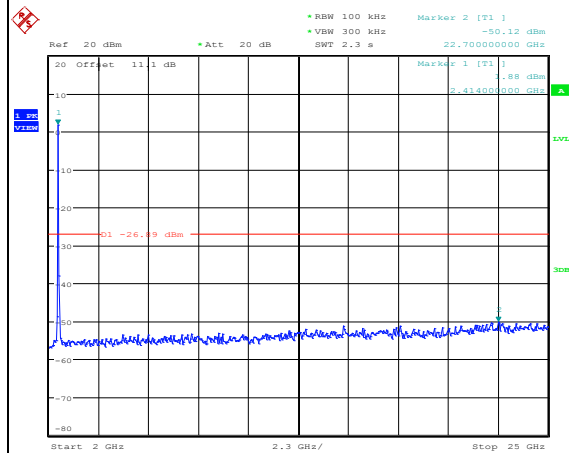
## Mid Channel Plot

## Spurious Emission 30MHz~3GHz

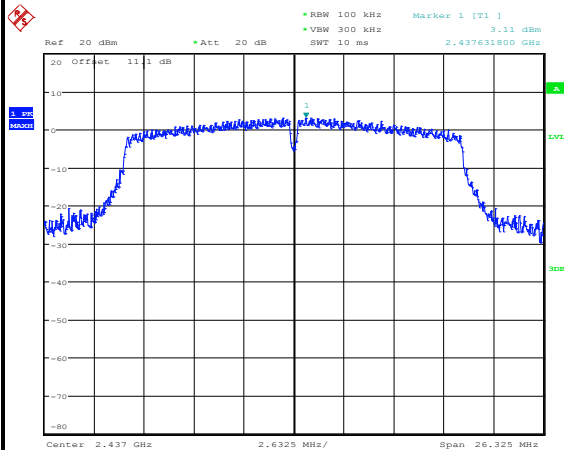


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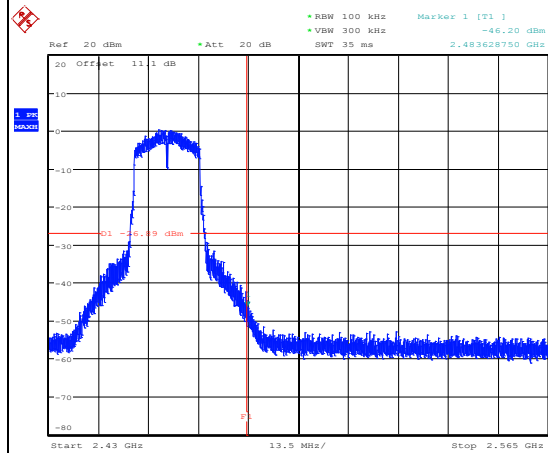
## Spurious Emission 2GHz~25GHz



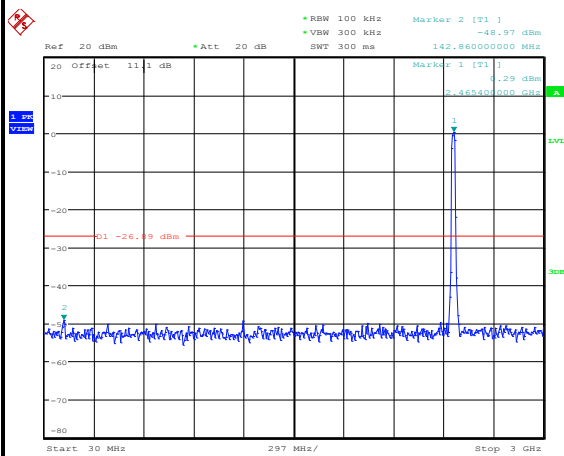
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**WLAN 802.11n HT20 Channel 11****100kHz PSD reference Level**

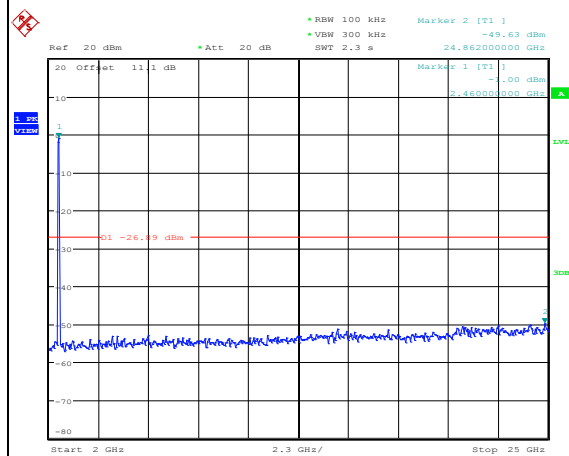
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**High Channel Plot**

Date: 15.AUG.2019 19:19:31

**Spurious Emission 30MHz~3GHz**

Date: 15.AUG.2019 14:35:15

**Spurious Emission 2GHz~25GHz**

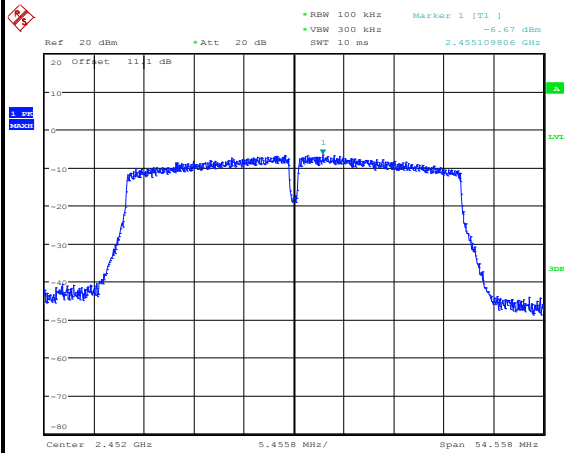
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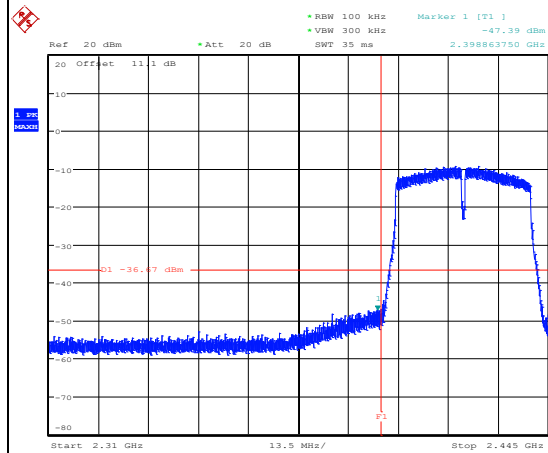
## WLAN 802.11n HT40 Channel 03

## 100kHz PSD reference Level



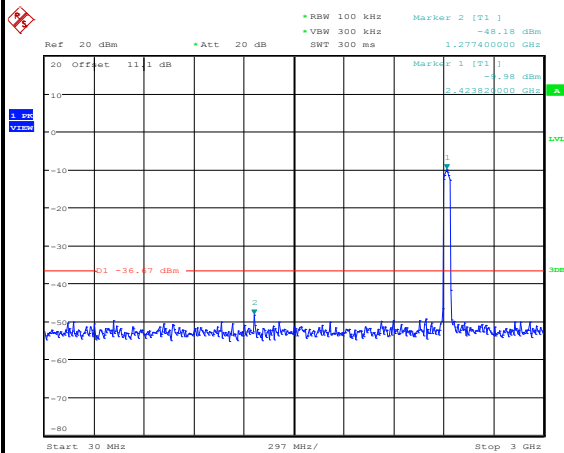
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## Low Channel Plot



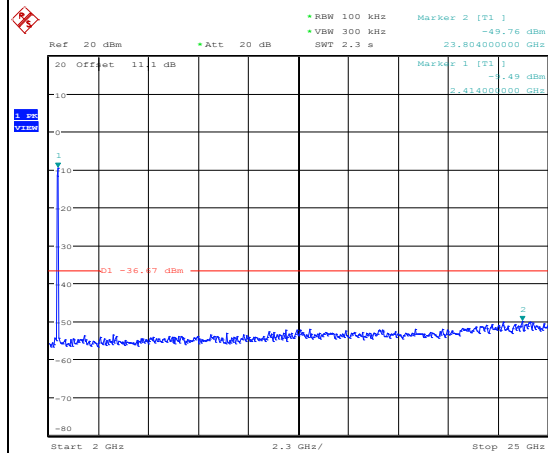
Date: 15.AUG.2019 19:23:17

## Spurious Emission 30MHz~3GHz

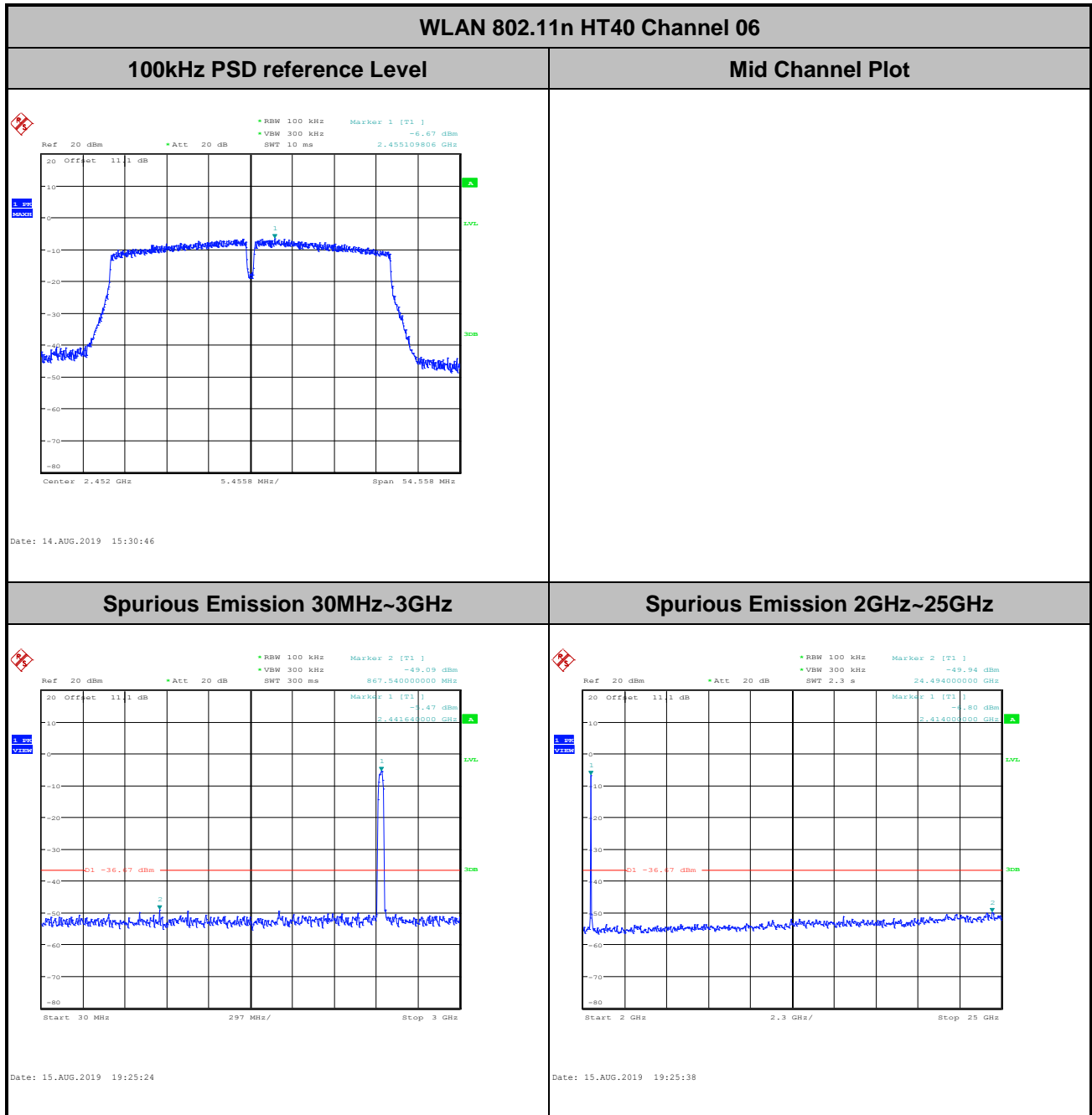


Date: 15.AUG.2019 19:23:54

## Spurious Emission 2GHz~25GHz



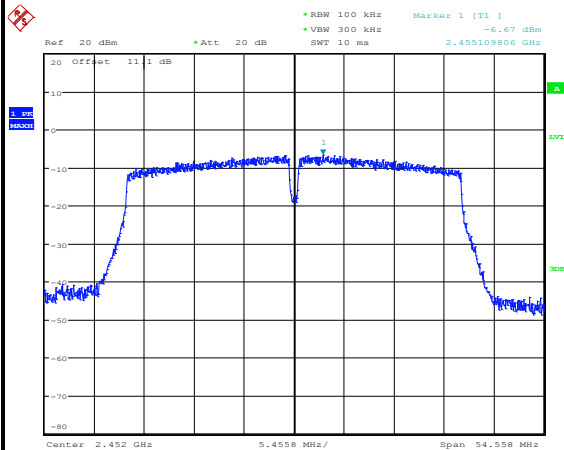
Date: 15.AUG.2019 19:24:07





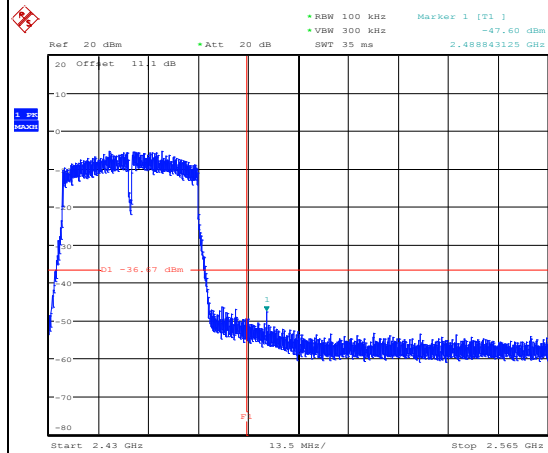
WLAN 802.11n HT40 Channel 09

100kHz PSD reference Level



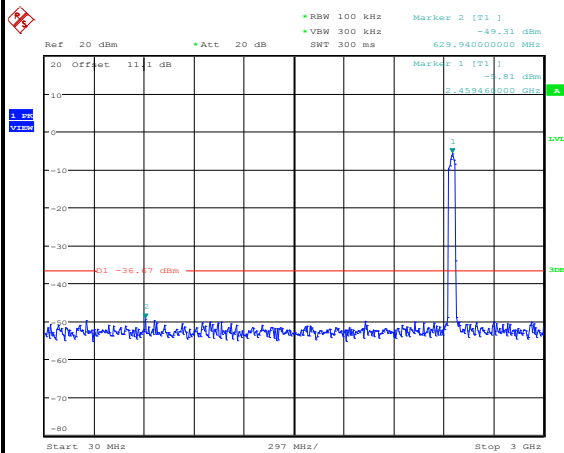
Date: 14.AUG.2019 15:30:46

High Channel Plot



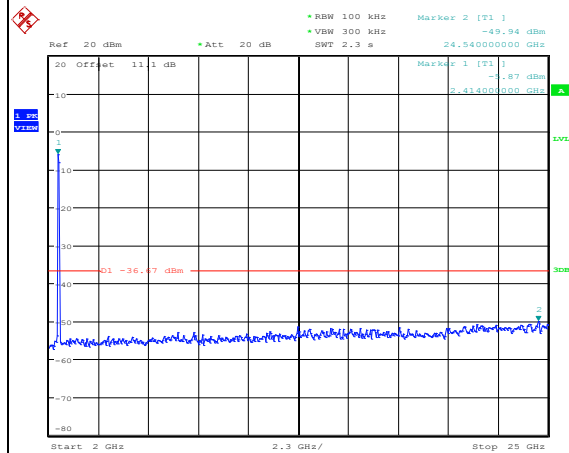
Date: 15.AUG.2019 19:26:01

Spurious Emission 30MHz~3GHz



Date: 15.AUG.2019 19:26:24

Spurious Emission 2GHz~25GHz



Date: 15.AUG.2019 19:26:38

### 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

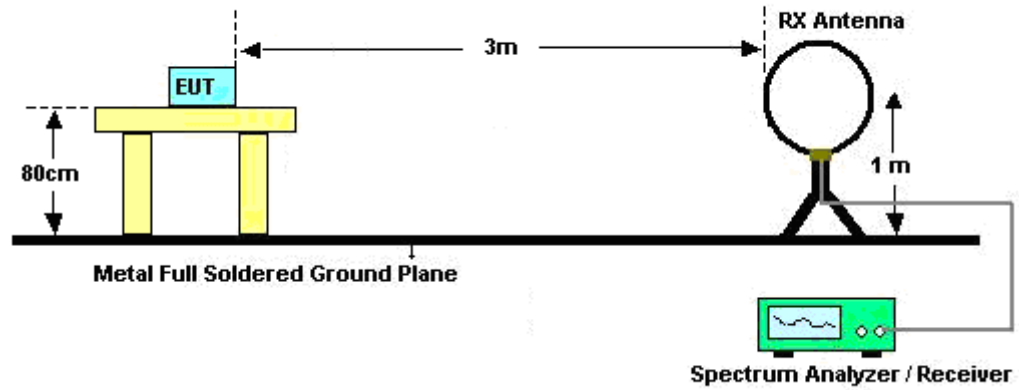
See list of measuring equipment of this test report.

### 3.5.3 Test Procedures

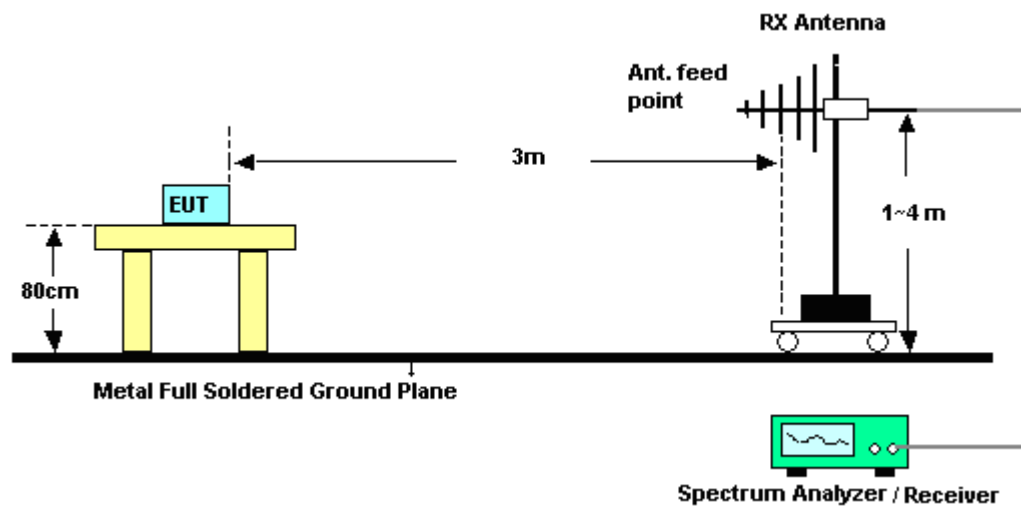
1. The testing follows the ANSI C63.10 Section 11.12.1 Radiated emission measurements.
2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the 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 testing below 1GHz, if the emission level of the EUT in peak mode was 3 dB lower than the limit specified, then peak values of EUT will be reported, otherwise, the emissions will be repeated one by one using the CISPR quasi-peak method and reported.
7. For testing above 1GHz, the emission level of the EUT in peak mode was 20dB lower than average limit (that means the emission level in average mode also complies with the limit in average mode), then peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.
8. 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

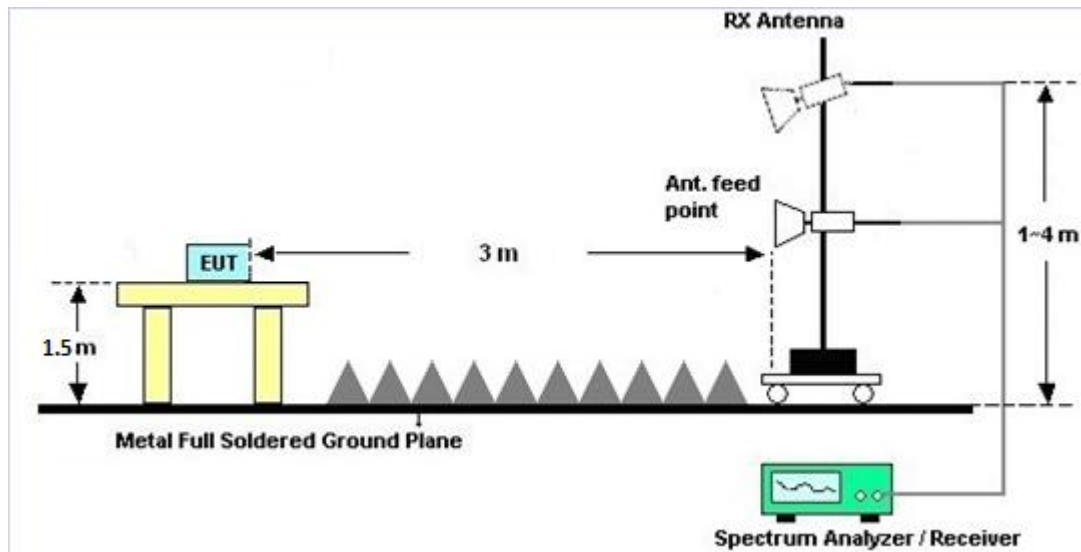
For radiated emissions below 30MHz



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.

There is a comparison data of both open-field test site and alternative test site - semi-Anechoic chamber according to 414788 D01 Radiated Test Site v01r01, and the result came out very similar.

### 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

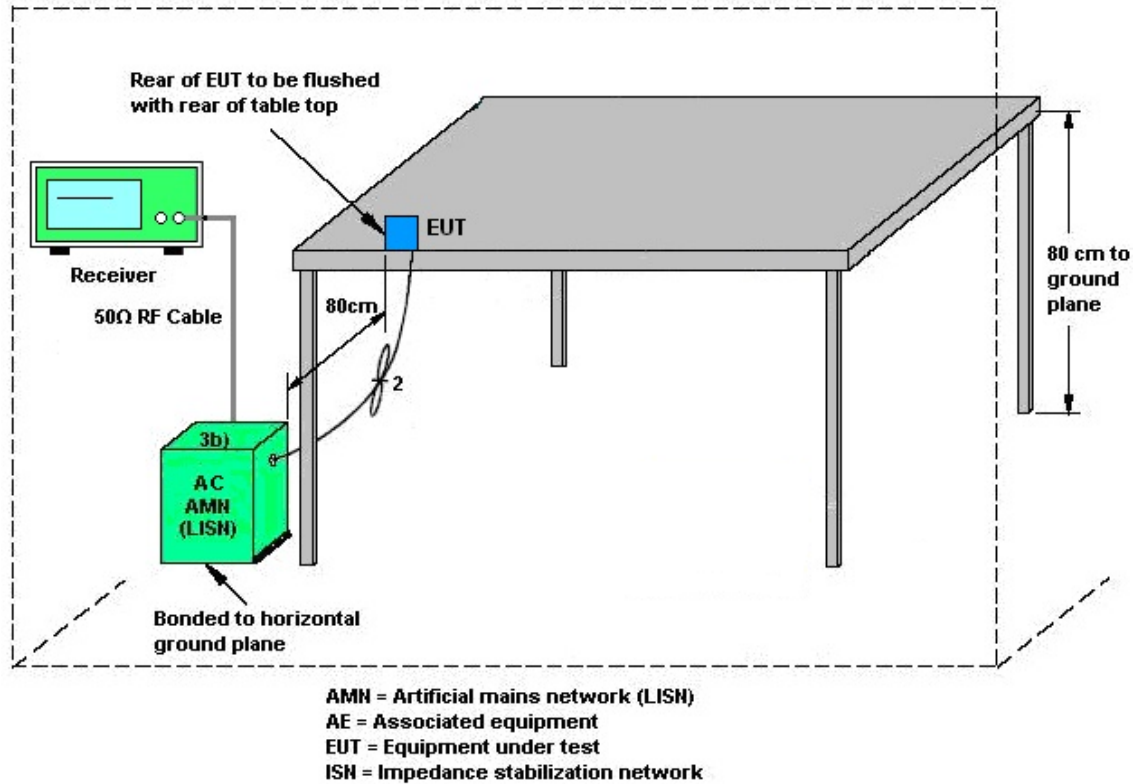
See list of measuring equipment of this test report.

### 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 Sensor	DARE	RPR3006W	13I00030S NO32	9kHz~6GHz	Dec. 03, 2018	Aug. 07, 2019~ Aug. 21, 2019	Dec. 02, 2019	Conducted (TH05-HY)
Spectrum Analyzer	Rohde & Schwarz	FSP40	100057	9kHz~40GHz	Nov. 21, 2018	Aug. 07, 2019~ Aug. 21, 2019	Nov. 20, 2019	Conducted (TH05-HY)
Switch Box & RF Cable	Burgeon	ETF-058	EC120838 2	N/A	Mar. 27, 2019	Aug. 07, 2019~ Aug. 21, 2019	Mar. 26, 2020	Conducted (TH05-HY)
AC Power Source	ChainTek	APC-1000W	N/A	N/A	N/A	Jul. 30, 2019	N/A	Conduction (CO05-HY)
EMI Test Receiver	Rohde & Schwarz	ESR3	102388	9kHz~3.6GHz	Nov. 12, 2018	Jul. 30, 2019	Nov. 11, 2019	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100080	9kHz~30MHz	Nov. 14, 2018	Jul. 30, 2019	Nov. 13, 2019	Conduction (CO05-HY)
Software	Rohde & Schwarz	EMC32 V10.30	N/A	N/A	N/A	Jul. 30, 2019	N/A	Conduction (CO05-HY)
LF Cable	HUBER + SUHNER	RG-214/U	LF01	N/A	Dec. 31, 2018	Jul. 30, 2019	Dec. 30, 2019	Conduction (CO05-HY)
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100851	N/A	Dec. 31, 2018	Jul. 30, 2019	Dec. 30, 2019	Conduction (CO05-HY)



Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Preamplifier	EMEC	EM18G40G	060715	18GHz ~ 40GHz	Dec. 06, 2018	Aug. 10, 2019~ Aug. 16, 2019	Dec. 05, 2019	Radiation (03CH11-HY)
Amplifier	SONOMA	310N	187312	9kHz~1GHz	Dec. 04, 2018	Aug. 10, 2019~ Aug. 16, 2019	Dec. 03, 2019	Radiation (03CH11-HY)
Bilog Antenna	TESEQ	CBL 6111D&N-6-0 6	35414&AT- N0602	30MHz~1GHz	Oct. 13, 2018	Aug. 10, 2019~ Aug. 16, 2019	Oct. 12, 2019	Radiation (03CH11-HY)
Horn Antenna	SCHWARZBE CK	BBHA 9120 D	9120D-132 6	1GHz ~ 18GHz	Oct. 30, 2018	Aug. 10, 2019~ Aug. 16, 2019	Oct. 29, 2019	Radiation (03CH11-HY)
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100488	9 kHz~30 MHz	Nov. 22, 2018	Aug. 10, 2019~ Aug. 16, 2019	Nov. 21, 2019	Radiation (03CH11-HY)
Preamplifier	Keysight	83017A	MY532700 80	1GHz~26.5GHz	Nov. 14, 2018	Aug. 10, 2019~ Aug. 16, 2019	Nov. 13, 2020	Radiation (03CH11-HY)
Spectrum Analyzer	Keysight	N9010A	MY542004 86	10Hz ~ 44GHz	Oct. 19, 2018	Aug. 10, 2019~ Aug. 16, 2019	Oct. 18, 2019	Radiation (03CH11-HY)
Antenna Mast	EMEC	AM-BS-4500- B	N/A	1~4m	N/A	Aug. 10, 2019~ Aug. 16, 2019	N/A	Radiation (03CH11-HY)
Turn Table	EMEC	TT 2000	N/A	0~360 Degree	N/A	Aug. 10, 2019~ Aug. 16, 2019	N/A	Radiation (03CH11-HY)
Preamplifier	MITEQ	AMF-7D-0010 1800-30-10P	1590074	1GHz~18GHz	May 20, 2019	Aug. 10, 2019~ Aug. 16, 2019	May 19, 2020	Radiation (03CH11-HY)
SHF-EHF Horn Antenna	SCHWARZBE CK	BBHA 9170	BBHA9170 584	18GHz- 40GHz	Dec. 05, 2018	Aug. 10, 2019~ Aug. 16, 2019	Dec. 04, 2019	Radiation (03CH11-HY)
EMI Test Receiver	Keysight	N9038A(MXE )	MY541300 85	N/A	Nov. 01, 2018	Aug. 10, 2019~ Aug. 16, 2019	Oct. 31, 2019	Radiation (03CH11-HY)
Software	Audix	E3 6.2009-8-24	RK-00104 2	N/A	N/A	Aug. 10, 2019~ Aug. 16, 2019	N/A	Radiation (03CH11-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY9837/4 PE	9kHz-30MHz	Mar. 13, 2019	Aug. 10, 2019~ Aug. 16, 2019	Mar. 12, 2020	Radiation (03CH11-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	MY2859/2	30MHz-40GHz	Mar. 13, 2019	Aug. 10, 2019~ Aug. 16, 2019	Mar. 12, 2020	Radiation (03CH11-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY9837/4 PE	30M-18G	Mar. 13, 2019	Aug. 10, 2019~ Aug. 16, 2019	Mar. 12, 2020	Radiation (03CH11-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	MY4274/2	30MHz-40GHz	Mar. 13, 2019	Aug. 10, 2019~ Aug. 16, 2019	Mar. 12, 2020	Radiation (03CH11-HY)
Filter	Wainwright	WLK4-1000-1 530-8000-40S S	SN11	1G Low Pass	Sep. 16, 2018	Aug. 10, 2019~ Aug. 16, 2019	Sep. 17, 2019	Radiation (03CH11-HY)
Filter	Wainwright	WHKX12-270 0-3000-18000 -60SS	SN3	2.7G High Pass	Sep. 17, 2018	Aug. 10, 2019~ Aug. 16, 2019	Sep. 16, 2019	Radiation (03CH11-HY)

## 5 Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ )	2.2
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### Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ )	5.2
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### Uncertainty of Radiated Emission Measurement (1000 MHz ~ 18000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ )	5.5
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### Uncertainty of Radiated Emission Measurement (18000 MHz ~ 40000 MHz)

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

Test Engineer:	Nick Yu	Temperature:	21~25	°C
Test Date:	2019/8/7~2019/08/21	Relative Humidity:	51~54	%

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

2.4GHz Band										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Occupied BW (MHz)		6dB BW (MHz)		6dB BW Limit (MHz)	Pass/Fail
					Ant 1	Ant 2	Ant 1	Ant 2		
11b	1Mbps	1	1	2412	13.60	-	9.03	-	0.50	Pass
11b	1Mbps	1	6	2437	13.95	-	9.02	-	0.50	Pass
11b	1Mbps	1	11	2462	13.55	-	9.02	-	0.50	Pass
11g	6Mbps	1	1	2412	16.65	-	16.29	-	0.50	Pass
11g	6Mbps	1	6	2437	17.05	-	16.28	-	0.50	Pass
11g	6Mbps	1	11	2462	16.75	-	16.33	-	0.50	Pass
HT20	MCS0	1	1	2412	17.70	-	17.54	-	0.50	Pass
HT20	MCS0	1	6	2437	17.90	-	17.55	-	0.50	Pass
HT20	MCS0	1	11	2462	17.70	-	17.53	-	0.50	Pass
HT40	MCS0	1	3	2422	36.50	-	36.29	-	0.50	Pass
HT40	MCS0	1	6	2437	36.50	-	36.37	-	0.50	Pass
HT40	MCS0	1	9	2452	36.40	-	36.37	-	0.50	Pass

**TEST RESULTS DATA**  
**Average Output Power**

2.4GHz Band																
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Conducted Power (dBm)			Conducted Power Limit (dBm)		DG (dBi)		EIRP Power (dBm)		EIRP Power Limit (dBm)		Pass /Fail
					Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	
11b	1Mbps	1	1	2412	16.00	-	-	30.00	-	3.00	-	19.00	-	36.00	-	Pass
11b	1Mbps	1	6	2437	18.90	-		30.00	-	3.00	-	21.90	-	36.00	-	Pass
11b	1Mbps	1	11	2462	15.80	-		30.00	-	3.00	-	18.80	-	36.00	-	Pass
11g	6Mbps	1	1	2412	16.10	-		30.00	-	3.00	-	19.10	-	36.00	-	Pass
11g	6Mbps	1	6	2437	18.70	-		30.00	-	3.00	-	21.70	-	36.00	-	Pass
11g	6Mbps	1	11	2462	16.00	-		30.00	-	3.00	-	19.00	-	36.00	-	Pass
HT20	MCS0	1	1	2412	15.20	-		30.00	-	3.00	-	18.20	-	36.00	-	Pass
HT20	MCS0	1	6	2437	17.60	-		30.00	-	3.00	-	20.60	-	36.00	-	Pass
HT20	MCS0	1	11	2462	14.90	-		30.00	-	3.00	-	17.90	-	36.00	-	Pass
HT40	MCS0	1	3	2422	8.20	-		30.00	-	3.00	-	11.20	-	36.00	-	Pass
HT40	MCS0	1	6	2437	10.70	-		30.00	-	3.00	-	13.70	-	36.00	-	Pass
HT40	MCS0	1	9	2452	11.00	-		30.00	-	3.00	-	14.00	-	36.00	-	Pass

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



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

2.4GHz Band												
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Peak PSD (dBm/3kHz)			DG (dBi)		Peak PSD Limit (dBm/3kHz)		Pass/Fail
					Ant 1	Ant 2	Worse + 3.01	Ant 1	Ant 2	Ant 1	Ant 2	
11b	1Mbps	1	1	2412	-7.09	-	-	3.00	-	8.00	-	Pass
11b	1Mbps	1	6	2437	-4.47	-	-	3.00	-	8.00	-	Pass
11b	1Mbps	1	11	2462	-7.77	-	-	3.00	-	8.00	-	Pass
11g	6Mbps	1	1	2412	-9.12	-	-	3.00	-	8.00	-	Pass
11g	6Mbps	1	6	2437	-7.60	-	-	3.00	-	8.00	-	Pass
11g	6Mbps	1	11	2462	-9.27	-	-	3.00	-	8.00	-	Pass
HT20	MCS0	1	1	2412	-9.25	-	-	3.00	-	8.00	-	Pass
HT20	MCS0	1	6	2437	-8.70	-	-	3.00	-	8.00	-	Pass
HT20	MCS0	1	11	2462	-10.75	-	-	3.00	-	8.00	-	Pass
HT40	MCS0	1	3	2422	-20.66	-	-	3.00	-	8.00	-	Pass
HT40	MCS0	1	6	2437	-18.19	-	-	3.00	-	8.00	-	Pass
HT40	MCS0	1	9	2452	-17.48	-	-	3.00	-	8.00	-	Pass

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



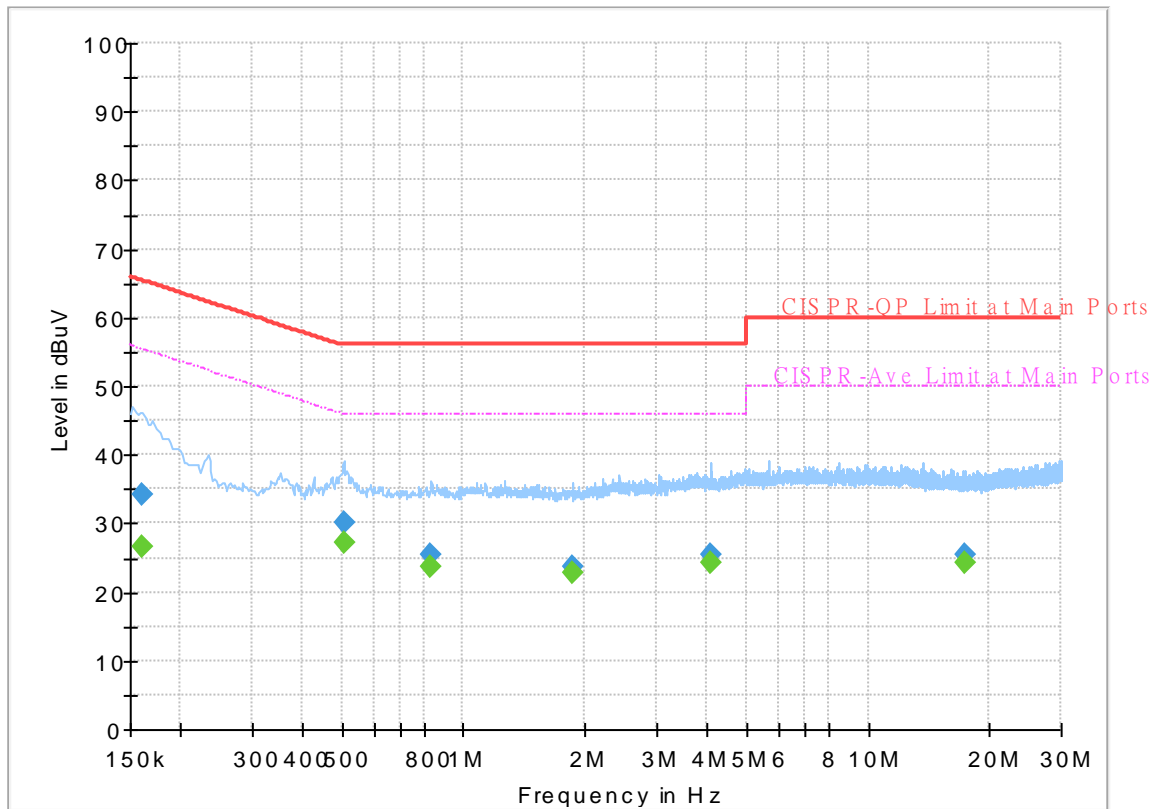
## Appendix B. AC Conducted Emission Test Results

Test Engineer :	Jimmy Chang	Temperature :	25.5~26.3℃
		Relative Humidity :	58~61%

## EUT Information

Report NO : 972333  
Test Mode : Mode 1  
Test Voltage : 120Vac/60Hz  
Phase : Line

Full Spectrum



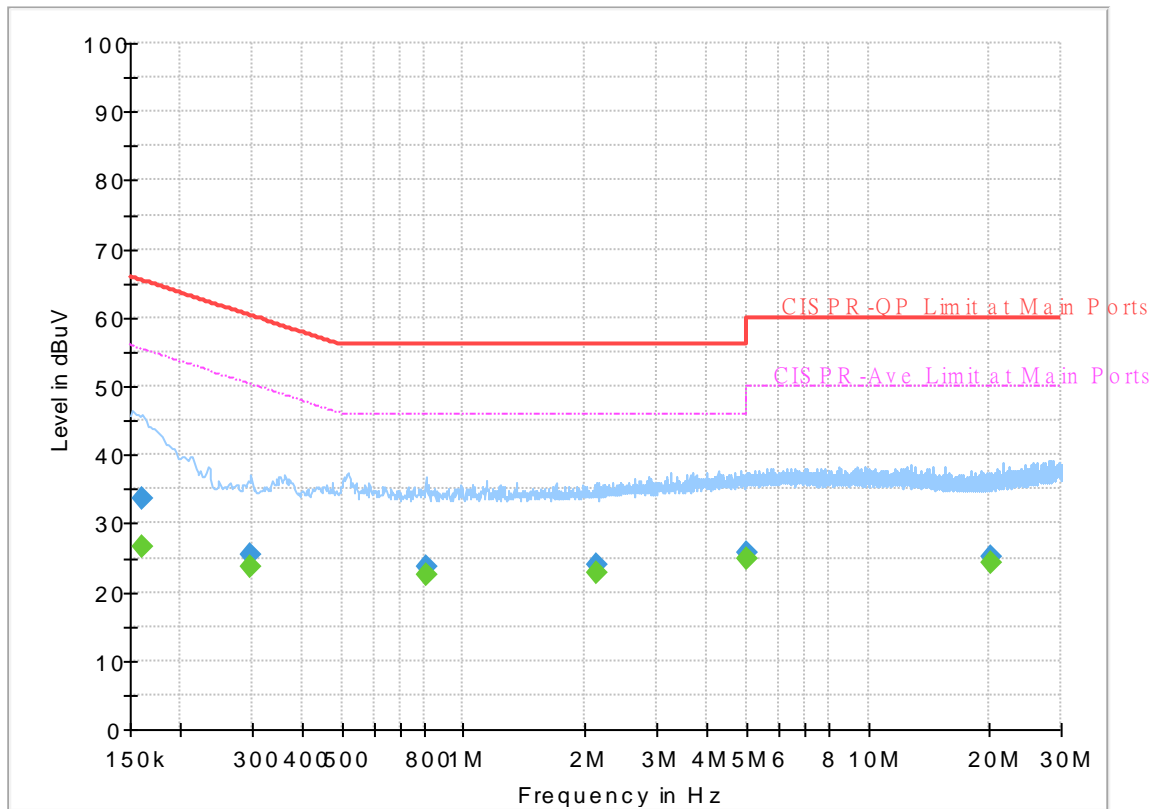
## Final\_Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.161250	---	26.73	55.40	28.67	L1	OFF	19.4
0.161250	34.18	---	65.40	31.22	L1	OFF	19.4
0.505500	---	27.19	46.00	18.81	L1	OFF	19.4
0.505500	30.04	---	56.00	25.96	L1	OFF	19.4
0.829500	---	23.79	46.00	22.21	L1	OFF	19.5
0.829500	25.38	---	56.00	30.62	L1	OFF	19.5
1.862250	---	22.87	46.00	23.13	L1	OFF	19.5
1.862250	23.78	---	56.00	32.22	L1	OFF	19.5
4.096500	---	24.41	46.00	21.59	L1	OFF	19.6
4.096500	25.44	---	56.00	30.56	L1	OFF	19.6
17.331000	---	24.40	50.00	25.60	L1	OFF	20.1
17.331000	25.55	---	60.00	34.45	L1	OFF	20.1

## EUT Information

Report NO : 972333  
Test Mode : Mode 1  
Test Voltage : 120Vac/60Hz  
Phase : Neutral

Full Spectrum



## Final\_Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.161250	---	26.63	55.40	28.77	N	OFF	19.5
0.161250	33.70	---	65.40	31.70	N	OFF	19.5
0.298500	---	23.57	50.28	26.71	N	OFF	19.5
0.298500	25.50	---	60.28	34.78	N	OFF	19.5
0.809250	---	22.57	46.00	23.43	N	OFF	19.5
0.809250	23.75	---	56.00	32.25	N	OFF	19.5
2.125500	---	22.95	46.00	23.05	N	OFF	19.6
2.125500	23.99	---	56.00	32.01	N	OFF	19.6
5.028000	---	24.71	50.00	25.29	N	OFF	19.7
5.028000	25.84	---	60.00	34.16	N	OFF	19.7
20.107500	---	24.30	50.00	25.70	N	OFF	20.3
20.107500	25.17	---	60.00	34.83	N	OFF	20.3



## Appendix C. Radiated Spurious Emission

Test Engineer :	Bill Kuo, Fu Chen and Troye Hsieh	Temperature :	21.3~27.3°C
		Relative Humidity :	48.7~65.9%

## 2.4GHz 2400~2483.5MHz

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

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Path Loss	Preampl Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
1		( MHz )	( dBμV/m )	( dB )	( dBμV/m )	( dBμV )	( dB/m )	( dB )	( dB )	( cm )	( deg )	( P/A )	( H/V )
802.11b CH 01 2412MHz		2371.42	54.04	-19.96	74	43.55	27.51	16.62	33.64	117	172	P	H
		2390	42.66	-11.34	54	32.21	27.44	16.64	33.63	117	172	A	H
	*	2412	108.28	-	-	97.86	27.38	16.66	33.62	117	172	P	H
	*	2412	105.16	-	-	94.74	27.38	16.66	33.62	117	172	A	H
													H
													H
		2320.71	52.88	-21.12	74	42.25	27.72	16.56	33.65	295	97	P	V
		2374.05	41.77	-12.23	54	31.29	27.5	16.62	33.64	295	97	A	V
	*	2412	103.18	-	-	92.76	27.38	16.66	33.62	295	97	P	V
	*	2412	100.07	-	-	89.65	27.38	16.66	33.62	295	97	A	V
													V
													V



WIFI Ant. 1	Note	Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. ( P/A )	Pol. ( H/V )
802.11b CH 06 2437MHz		2317.04	53.43	-20.57	74	42.81	27.73	16.55	33.66	100	111	P	H
		2384.4	42.02	-11.98	54	31.56	27.46	16.63	33.63	100	111	A	H
	*	2437	109.93	-	-	99.52	27.33	16.69	33.61	100	111	P	H
	*	2437	106.84	-	-	96.43	27.33	16.69	33.61	100	111	A	H
		2495.04	53.24	-20.76	74	42.78	27.3	16.75	33.59	100	111	P	H
		2488.24	42.09	-11.91	54	31.64	27.3	16.74	33.59	100	111	A	H
		2370.96	52.75	-21.25	74	42.25	27.52	16.62	33.64	100	203	P	V
		2349.84	41.69	-12.31	54	31.14	27.6	16.59	33.64	100	203	A	V
	*	2437	105.34	-	-	94.93	27.33	16.69	33.61	100	203	P	V
	*	2437	102.23	-	-	91.82	27.33	16.69	33.61	100	203	A	V
		2490.4	52.61	-21.39	74	42.16	27.3	16.74	33.59	100	203	P	V
		2488.64	41.72	-12.28	54	31.27	27.3	16.74	33.59	100	203	A	V
802.11b CH 11 2462MHz	*	2462	107.64	-	-	97.22	27.3	16.72	33.6	107	94	P	H
	*	2462	104.71	-	-	94.29	27.3	16.72	33.6	107	94	A	H
		2492.84	53.27	-20.73	74	42.81	27.3	16.75	33.59	107	94	P	H
		2483.52	42.71	-11.29	54	32.27	27.3	16.74	33.6	107	94	A	H
													H
													H
	*	2462	103.03	-	-	92.61	27.3	16.72	33.6	100	197	P	V
	*	2462	99.9	-	-	89.48	27.3	16.72	33.6	100	197	A	V
		2484.08	52.85	-21.15	74	42.41	27.3	16.74	33.6	100	197	P	V
		2485.4	41.89	-12.11	54	31.45	27.3	16.74	33.6	100	197	A	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## 2.4GHz 2400~2483.5MHz

## WIFI 802.11b (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. ( P/A )	Pol. ( H/V )
802.11b CH 01 2412MHz		4824	41.4	-32.6	74	56.82	31.1	11.02	57.54	100	0	P	H
													H
													H
													H
		4824	41.52	-32.48	74	56.94	31.1	11.02	57.54	100	0	P	V
													V
													V
													V
802.11b CH 06 2437MHz		4874	39.91	-34.09	74	55.24	31.05	11.06	57.44	100	0	P	H
		7311	43.11	-30.89	74	50.2	36.52	13.66	57.27	100	0	P	H
													H
													H
		4874	40.16	-33.84	74	55.49	31.05	11.06	57.44	100	0	P	V
		7311	43.38	-30.62	74	50.47	36.52	13.66	57.27	100	0	P	V
													V
													V
802.11b CH 11 2462MHz		4924	40.29	-33.71	74	55.4	31.14	11.09	57.34	100	0	P	H
		7386	43.63	-30.37	74	50.97	36.46	13.58	57.38	100	0	P	H
													H
													H
		4924	40.15	-33.85	74	55.26	31.14	11.09	57.34	100	0	P	V
		7386	43.43	-30.57	74	50.77	36.46	13.58	57.38	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 )	Path 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>		2389.9	65.47	-8.53	74	55.02	27.44	16.64	33.63	109	113	P	H
		2390	50.11	-3.89	54	39.66	27.44	16.64	33.63	109	113	A	H
	*	2412	110.9	-	-	100.48	27.38	16.66	33.62	109	113	P	H
	*	2412	103.36	-	-	92.94	27.38	16.66	33.62	109	113	A	H
													H
													H
		2389.8	58.53	-15.47	74	48.08	27.44	16.64	33.63	400	228	P	V
		2390	44.63	-9.37	54	34.18	27.44	16.64	33.63	400	228	A	V
	*	2412	104.42	-	-	94	27.38	16.66	33.62	400	228	P	V
	*	2412	96.95	-	-	86.53	27.38	16.66	33.62	400	228	A	V
													V
													V
<b>802.11g CH 06 2437MHz</b>		2385.52	53.15	-20.85	74	42.69	27.46	16.63	33.63	100	97	P	H
		2386.8	42.47	-11.53	54	32.02	27.45	16.63	33.63	100	97	A	H
	*	2437	112.64	-	-	102.23	27.33	16.69	33.61	100	97	P	H
	*	2437	104.76	-	-	94.35	27.33	16.69	33.61	100	97	A	H
		2494.48	53.76	-20.24	74	43.3	27.3	16.75	33.59	100	97	P	H
		2485.04	42.42	-11.58	54	31.98	27.3	16.74	33.6	100	97	A	H
		2369.36	53.87	-20.13	74	43.38	27.52	16.61	33.64	100	199	P	V
		2386.16	41.75	-12.25	54	31.29	27.46	16.63	33.63	100	199	A	V
	*	2437	107.01	-	-	96.6	27.33	16.69	33.61	100	199	P	V
	*	2437	99.31	-	-	88.9	27.33	16.69	33.61	100	199	A	V
		2494.16	53.44	-20.56	74	42.98	27.3	16.75	33.59	100	199	P	V
		2484.24	41.82	-12.18	54	31.38	27.3	16.74	33.6	100	199	A	V





WIFI Ant. 1	Note	Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11g CH 11 2462MHz	*	2462	109.82	-	-	99.4	27.3	16.72	33.6	106	113	P	H
	*	2462	102.42	-	-	92	27.3	16.72	33.6	106	113	A	H
		2483.68	64.98	-9.02	74	54.54	27.3	16.74	33.6	106	113	P	H
		2483.52	49.81	-4.19	54	39.37	27.3	16.74	33.6	106	113	A	H
													H
													H
	*	2462	105.05	-	-	94.63	27.3	16.72	33.6	400	83	P	V
	*	2462	97.31	-	-	86.89	27.3	16.72	33.6	400	83	A	V
		2483.6	60.65	-13.35	74	50.21	27.3	16.74	33.6	400	83	P	V
		2483.52	45.8	-8.2	54	35.36	27.3	16.74	33.6	400	83	A	V
													V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## 2.4GHz 2400~2483.5MHz

## WIFI 802.11g (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. ( P/A )	Pol. ( H/V )
802.11g CH 01 2412MHz		4824	40.36	-33.64	74	55.77	31.1	11.03	57.54	100	0	P	H
													H
													H
													H
		4824	41.98	-32.02	74	57.39	31.1	11.03	57.54	100	0	P	V
													V
													V
													V
802.11g CH 06 2437MHz		4874	40.68	-33.32	74	56.01	31.05	11.06	57.44	100	0	P	H
		7311	46.22	-27.78	74	53.31	36.52	13.66	57.27	100	0	P	H
													H
													H
		4874	40.26	-33.74	74	55.59	31.05	11.06	57.44	100	0	P	V
		7311	44.95	-29.05	74	52.04	36.52	13.66	57.27	100	0	P	V
													V
													V
802.11g CH 11 2462MHz		4924	40.8	-33.2	74	55.91	31.14	11.09	57.34	100	0	P	H
		7386	46.03	-27.97	74	53.37	36.46	13.58	57.38	100	0	P	H
													H
													H
		4924	40.64	-33.36	74	55.75	31.14	11.09	57.34	100	0	P	V
		7386	45.82	-28.18	74	53.16	36.46	13.58	57.38	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 )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. ( P/A )	Pol. ( H/V )
802.11n HT20 CH 01 2412MHz		2389.59	64.97	-9.03	74	54.52	27.44	16.64	33.63	113	175	P	H
		2390	49.42	-4.58	54	38.97	27.44	16.64	33.63	113	175	A	H
	*	2412	109.04	-	-	98.62	27.38	16.66	33.62	113	175	P	H
	*	2412	101.33	-	-	90.91	27.38	16.66	33.62	113	175	A	H
													H
													H
		2390	59.51	-14.49	74	49.06	27.44	16.64	33.63	294	96	P	V
		2390	45.38	-8.62	54	34.93	27.44	16.64	33.63	294	96	A	V
	*	2412	104.24	-	-	93.82	27.38	16.66	33.62	294	96	P	V
	*	2412	96.68	-	-	86.26	27.38	16.66	33.62	294	96	A	V
													V
													V
802.11n HT20 CH 06 2437MHz		2346.16	54.48	-19.52	74	43.92	27.62	16.59	33.65	100	95	P	H
		2385.36	42.62	-11.38	54	32.16	27.46	16.63	33.63	100	95	A	H
	*	2437	111.81	-	-	101.4	27.33	16.69	33.61	100	95	P	H
	*	2437	104.16	-	-	93.75	27.33	16.69	33.61	100	95	A	H
		2485.2	54.36	-19.64	74	43.92	27.3	16.74	33.6	100	95	P	H
		2483.68	42.55	-11.45	54	32.11	27.3	16.74	33.6	100	95	A	H
		2354	52.87	-21.13	74	42.33	27.58	16.6	33.64	122	200	P	V
		2390	41.79	-12.21	54	31.34	27.44	16.64	33.63	122	200	A	V
	*	2437	106.64	-	-	96.23	27.33	16.69	33.61	122	200	P	V
	*	2437	98.98	-	-	88.57	27.33	16.69	33.61	122	200	A	V
		2494.08	52.95	-21.05	74	42.49	27.3	16.75	33.59	122	200	P	V
		2492.88	41.84	-12.16	54	31.38	27.3	16.75	33.59	122	200	A	V



WIFI Ant. 1	Note	Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 11 2462MHz	*	2462	109.08	-	-	98.66	27.3	16.72	33.6	104	92	P	H
	*	2462	101.45	-	-	91.03	27.3	16.72	33.6	104	92	A	H
		2484.04	66.88	-7.12	74	56.44	27.3	16.74	33.6	104	92	P	H
		2483.52	51.13	-2.87	54	40.69	27.3	16.74	33.6	104	92	A	H
													H
													H
	*	2462	104.26	-	-	93.84	27.3	16.72	33.6	117	198	P	V
	*	2462	96.53	-	-	86.11	27.3	16.72	33.6	117	198	A	V
		2484.24	59.81	-14.19	74	49.37	27.3	16.74	33.6	117	198	P	V
		2483.52	46.31	-7.69	54	35.87	27.3	16.74	33.6	117	198	A	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



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

WIFI Ant. 1	Note	Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB/m )	Path 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	40.1	-33.9	74	55.52	31.1	11.02	57.54	100	0	P	H
													H
													H
													H
		4824	39.82	-34.18	74	55.24	31.1	11.02	57.54	100	0	P	V
													V
													V
													V
802.11n HT20 CH 06 2437MHz		4874	41.83	-32.17	74	57.16	31.05	11.06	57.44	100	0	P	H
		7311	44.96	-29.04	74	52.05	36.52	13.66	57.27	100	0	P	H
													H
													H
		4874	40.58	-33.42	74	55.91	31.05	11.06	57.44	100	0	P	V
		7311	46.78	-27.22	74	53.87	36.52	13.66	57.27	100	0	P	V
													V
													V
802.11n HT20 CH 11 2462MHz		4924	42.87	-31.13	74	57.98	31.14	11.09	57.34	100	0	P	H
		7386	47.11	-26.89	74	54.45	36.46	13.58	57.38	100	0	P	H
													H
													H
		4924	42.65	-31.35	74	57.76	31.14	11.09	57.34	100	0	P	V
		7386	46.41	-27.59	74	53.75	36.46	13.58	57.38	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 )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. ( P/A )	Pol. ( H/V )
802.11n HT40 CH 03 2422MHz		2385.36	57.79	-16.21	74	47.33	27.46	16.63	33.63	113	94	P	H
		2390	45.95	-8.05	54	35.5	27.44	16.64	33.63	113	94	A	H
	*	2422	99.76	-	-	89.35	27.36	16.67	33.62	113	94	P	H
	*	2422	92.17	-	-	81.76	27.36	16.67	33.62	113	94	A	H
		2494	53.28	-20.72	74	42.82	27.3	16.75	33.59	113	94	P	H
		2484	41.9	-12.1	54	31.46	27.3	16.74	33.6	113	94	A	H
		2388.08	55.44	-18.56	74	44.98	27.45	16.64	33.63	100	206	P	V
		2390	43.04	-10.96	54	32.59	27.44	16.64	33.63	100	206	A	V
	*	2422	94.06	-	-	83.65	27.36	16.67	33.62	100	206	P	V
	*	2422	86.35	-	-	75.94	27.36	16.67	33.62	100	206	A	V
		2495.92	52.73	-21.27	74	42.27	27.3	16.75	33.59	100	206	P	V
		2485.28	41.67	-12.33	54	31.23	27.3	16.74	33.6	100	206	A	V
802.11n HT40 CH 06 2437MHz		2388.24	56.59	-17.41	74	46.13	27.45	16.64	33.63	100	94	P	H
		2390	44.05	-9.95	54	33.6	27.44	16.64	33.63	100	94	A	H
	*	2437	102.43	-	-	92.02	27.33	16.69	33.61	100	94	P	H
	*	2437	94.02	-	-	83.61	27.33	16.69	33.61	100	94	A	H
		2484.16	53.62	-20.38	74	43.18	27.3	16.74	33.6	100	94	P	H
		2483.6	42.93	-11.07	54	32.49	27.3	16.74	33.6	100	94	A	H
		2387.12	53.64	-20.36	74	43.18	27.45	16.64	33.63	124	206	P	V
		2390	42.3	-11.7	54	31.85	27.44	16.64	33.63	124	206	A	V
	*	2437	97.14	-	-	86.73	27.33	16.69	33.61	124	206	P	V
	*	2437	89.14	-	-	78.73	27.33	16.69	33.61	124	206	A	V
		2486.16	52.91	-21.09	74	42.46	27.3	16.74	33.59	124	206	P	V
		2483.52	41.88	-12.12	54	31.44	27.3	16.74	33.6	124	206	A	V



WIFI Ant. 1	Note	Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
<b>802.11n HT40 CH 09 2452MHz</b>		2321.84	53.07	-20.93	74	42.45	27.71	16.56	33.65	113	93	P	H
		2385.2	42.14	-11.86	54	31.68	27.46	16.63	33.63	113	93	A	H
	*	2452	102.51	-	-	92.12	27.3	16.7	33.61	113	93	P	H
	*	2452	94.75	-	-	84.36	27.3	16.7	33.61	113	93	A	H
		2483.92	64.73	-9.27	74	54.29	27.3	16.74	33.6	113	93	P	H
		2483.52	49.12	-4.88	54	38.68	27.3	16.74	33.6	113	93	A	H
		2332.24	53.45	-20.55	74	42.86	27.67	16.57	33.65	114	196	P	V
		2350.64	41.68	-12.32	54	31.13	27.6	16.59	33.64	114	196	A	V
	*	2452	97.65	-	-	87.26	27.3	16.7	33.61	114	196	P	V
	*	2452	89.79	-	-	79.4	27.3	16.7	33.61	114	196	A	V
		2485.36	57.25	-16.75	74	46.81	27.3	16.74	33.6	114	196	P	V
		2483.6	45.09	-8.91	54	34.65	27.3	16.74	33.6	114	196	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 )	Path 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	42.19	-31.81	74	57.57	31.1	11.03	57.51	100	0	P	H
		7266	47.22	-26.78	74	54.29	36.43	13.73	57.23	100	0	P	H
													H
													H
		4844	42.69	-31.31	74	58.07	31.1	11.03	57.51	100	0	P	V
		7266	46.81	-27.19	74	53.88	36.43	13.73	57.23	100	0	P	V
													V
													V
802.11n HT40 CH 06 2437MHz		4874	42.54	-31.46	74	57.87	31.05	11.06	57.44	100	0	P	H
		7311	47.58	-26.42	74	54.67	36.52	13.66	57.27	100	0	P	H
													H
													H
		4874	42.42	-31.58	74	57.75	31.05	11.06	57.44	100	0	P	V
		7311	46.87	-27.13	74	53.96	36.52	13.66	57.27	100	0	P	V
													V
													V
802.11n HT40 CH 09 2452MHz		4904	42.54	-31.46	74	57.82	31.02	11.07	57.37	100	0	P	H
		7356	46.4	-27.6	74	53.54	36.58	13.61	57.33	100	0	P	H
													H
													H
		4904	41.89	-32.11	74	57.17	31.02	11.07	57.37	100	0	P	V
		7356	46.63	-27.37	74	53.77	36.58	13.61	57.33	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 HT20 (LF)**

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	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  HT20 LF		136.7	32.28	-11.22	43.5	45.82	17.2	1.55	32.29	-	-	P	H
		143.49	31.52	-11.98	43.5	45.1	17.11	1.6	32.29	-	-	P	H
		384.05	36.45	-9.55	46	44.9	21.05	2.66	32.16	100	0	P	H
		899.12	32.52	-13.48	46	30.69	28.99	4.19	31.35	-	-	P	H
		943.74	33.05	-12.95	46	29.51	30.19	4.3	30.95	-	-	P	H
		951.5	35.09	-10.91	46	31.02	30.64	4.31	30.88	-	-	P	H
													H
													H
													H
													H
													H
													H
		54.25	32.58	-7.42	40	51.66	12.31	0.98	32.37	100	0	P	V
		134.76	30.25	-13.25	43.5	43.76	17.24	1.54	32.29	-	-	P	V
		384.05	27.43	-18.57	46	35.88	21.05	2.66	32.16	-	-	P	V
		899.12	32.31	-13.69	46	30.48	28.99	4.19	31.35	-	-	P	V
		942.77	33.19	-12.81	46	29.73	30.12	4.3	30.96	-	-	P	V
		957.32	33.84	-12.16	46	29.43	30.89	4.34	30.82	-	-	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	Path	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. Path Loss(dB) = Cable loss(dB) + Filter loss(dB) + Attenuator loss(dB)

2. Level(dBμV/m) =

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

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

**For Peak Limit @ 2390MHz:**

1. Level(dBμV/m)

= Antenna Factor(dB/m) + Path 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) + Path 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”.**



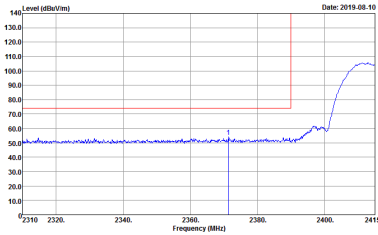
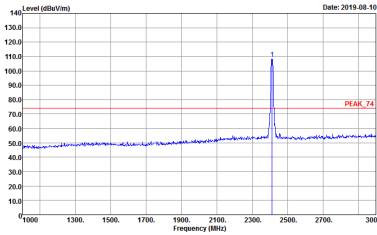
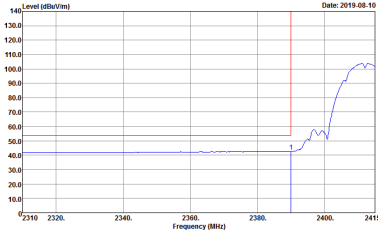
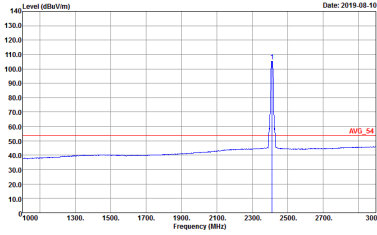
## Appendix D. Radiated Spurious Emission Plots

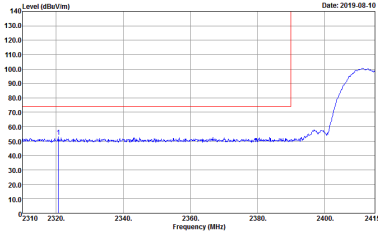
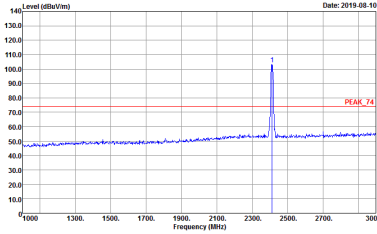
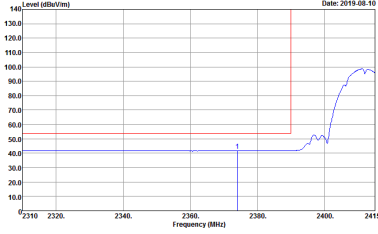
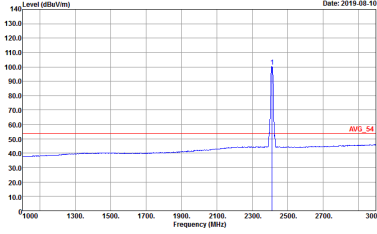
Test Engineer :	Bill Kuo, Fu Chen and Troye Hsieh	Temperature :	21.3~27.3°C
		Relative Humidity :	48.7~65.9%

### Note symbol

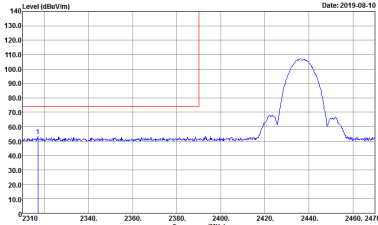
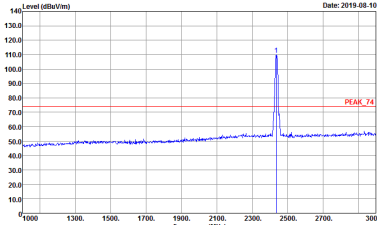
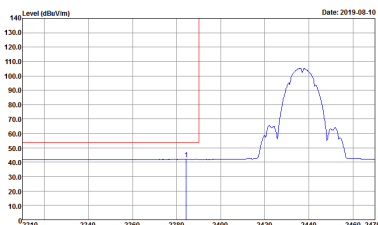
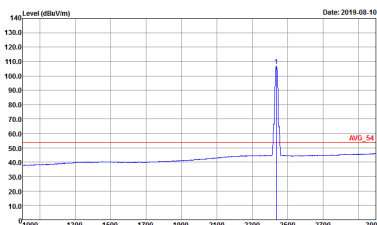
-L	Low channel location
-R	High channel location

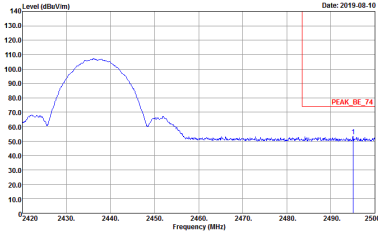
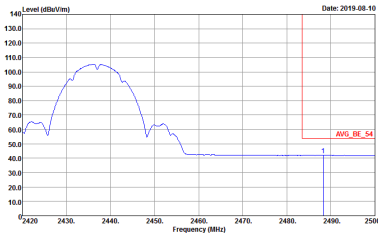
**2.4GHz 2400~2483.5MHz**
**WIFI 802.11b (Band Edge @ 3m)**

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH01 2412MHz	
1	Horizontal	Fundamental
<b>Peak</b>	 <p>Site : 03CH11-HY Condition : PEAK_BE_74 3m HORN 91200-HF HORIZONTAL Detector : Peak Project : 972333</p>	 <p>Site : 03CH11-HY Condition : PEAK_74 3m HORN 91200-HF HORIZONTAL Detector : Peak Project : 972333</p>
	 <p>Site : 03CH11-HY Condition : AVG_BE_54 3m HORN 91200-HF HORIZONTAL Detector : Peak Project : 972333</p>	 <p>Site : 03CH11-HY Condition : AVG_54 3m HORN 91200-HF HORIZONTAL Detector : Peak Project : 972333</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 : 972333         </p>	 <p>           Site : 03CH11-HY            Condition : PEAK_74 3m HORN 91200-HF VERTICAL            : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto            Detector : Peak            Project : 972333         </p>
Avg.	 <p>           Site : 03CH11-HY            Condition : AVG_BE_54 3m HORN 91200-HF VERTICAL            : RBW:1000.000KHz VBW:0.010KHz SWT:Auto            Detector : Peak            Project : 972333         </p>	 <p>           Site : 03CH11-HY            Condition : AVG_54 3m HORN 91200-HF VERTICAL            : RBW:1000.000KHz VBW:0.010KHz SWT:Auto            Detector : Peak            Project : 972333         </p>

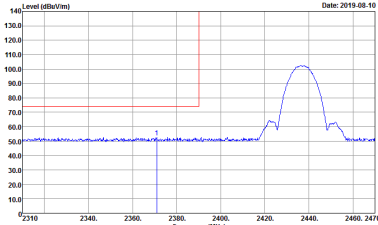
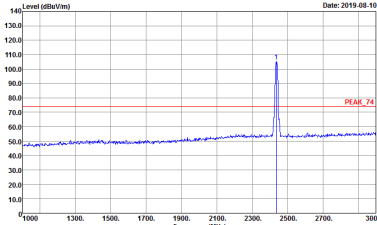
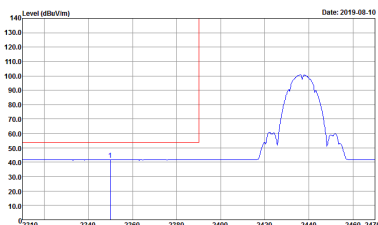
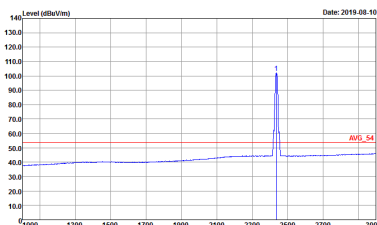


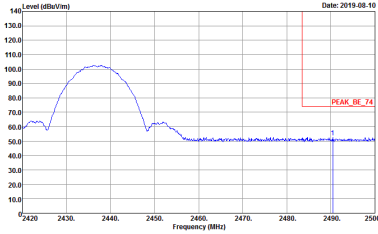
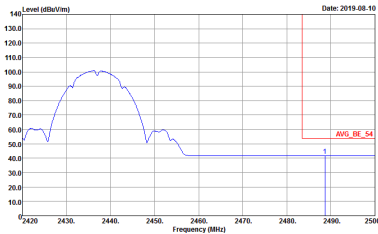
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - L	
1	Horizontal	Fundamental
Peak	<div><p>Site : 03CH11-HY Condition : PEAK_BE_74 3m HORN 91200-HF HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 972333</p></div>	<div><p>Site : 03CH11-HY Condition : PEAK_74 3m HORN 91200-HF HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 972333</p></div>
Avg.	<div><p>Site : 03CH11-HY Condition : AVG_BE_54 3m HORN 91200-HF HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 972333</p></div>	<div><p>Site : 03CH11-HY Condition : AVG_54 3m HORN 91200-HF HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 972333</p></div>

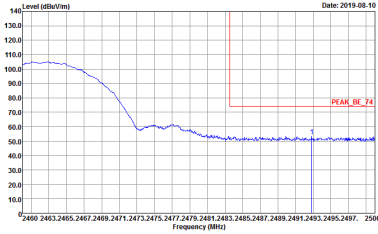
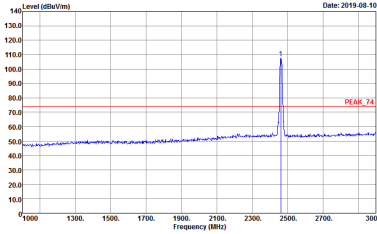
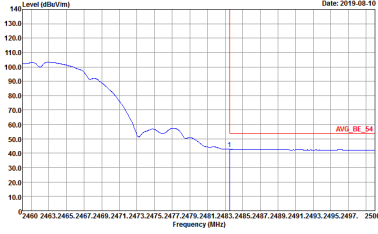
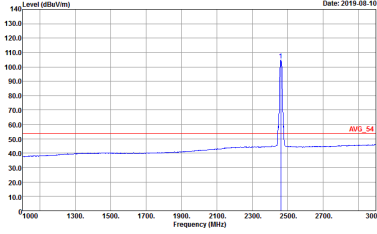
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - R	
1	Horizontal	Fundamental
<b>Peak</b>	 <p>           Site : 03CH11-HY            Condition : PEAK_BE_74 3m HORN 91200-HF HORIZONTAL            RBW:1000.000KHz VBW:3000.000KHz SWT:Auto            Detector : Peak            Project : 972333         </p>	Left blank
<b>Avg.</b>	 <p>           Site : 03CH11-HY            Condition : AVG_BE_54 3m HORN 91200-HF HORIZONTAL            RBW:1000.000KHz VBW:3000.000KHz SWT:Auto            Detector : Peak            Project : 972333         </p>	Left blank

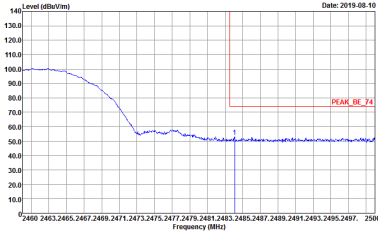
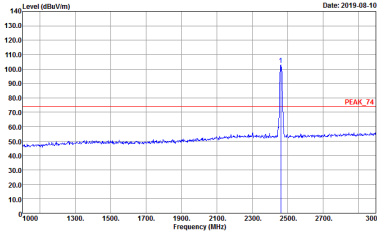
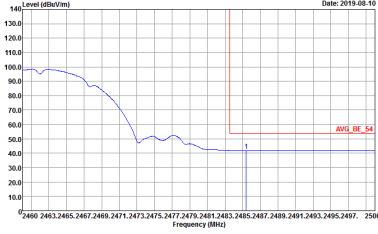
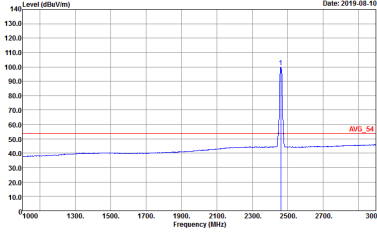




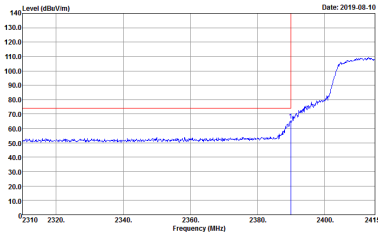
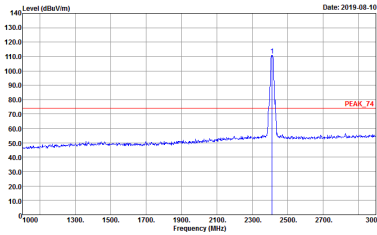
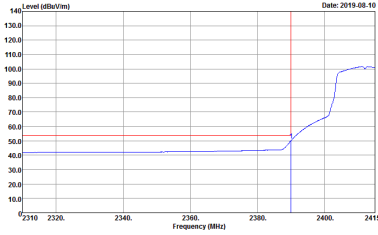
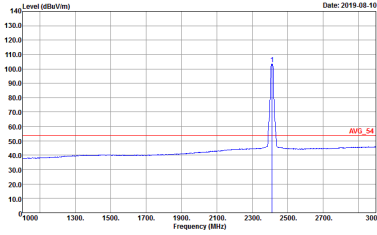
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - L	
1	Vertical	Fundamental
Peak	<div><p>Site : 03CH11-HY Condition : PEAK_BE_74 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 972333</p></div>	<div><p>Site : 03CH11-HY Condition : PEAK_74 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 972333</p></div>
Avg.	<div><p>Site : 03CH11-HY Condition : AVG_BE_54 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 972333</p></div>	<div><p>Site : 03CH11-HY Condition : AVG_54 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 972333</p></div>

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - R	
1	Vertical	Fundamental
<b>Peak</b>	 <p>           Site : 03CH11-HY            Condition : PEAK_BE_74 3m HORN 91200-HF VERTICAL            RBW:1000.000KHz VBW:3000.000KHz SWT:Auto            Detector : Peak            Project : 972333         </p>	Left blank
<b>Avg.</b>	 <p>           Site : 03CH11-HY            Condition : AVG_BE_54 3m HORN 91200-HF VERTICAL            RBW:1000.000KHz VBW:3000.000KHz SWT:Auto            Detector : Peak            Project : 972333         </p>	Left blank

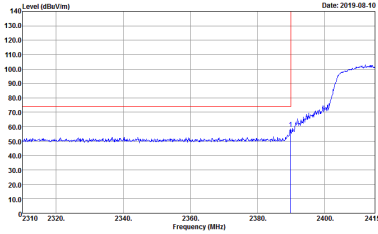
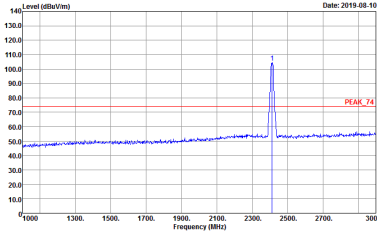
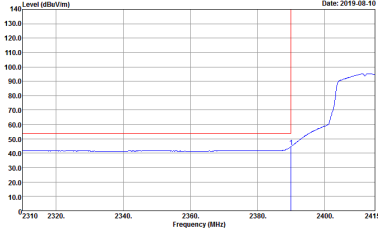
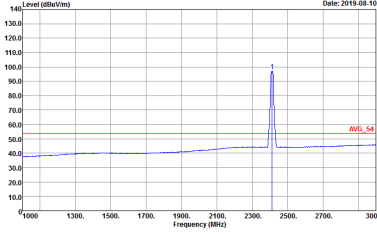
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH11 2462MHz	
1	Horizontal	Fundamental
Peak	 <p>Site : 03CH11-HV Condition : PEAK_BE_74 3m HORN 91200-HF HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 972333</p>	 <p>Site : 03CH11-HV Condition : PEAK_74 3m HORN 91200-HF HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 972333</p>
Avg.	 <p>Site : 03CH11-HV Condition : AVG_BE_54 3m HORN 91200-HF HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 972333</p>	 <p>Site : 03CH11-HV Condition : AVG_54 3m HORN 91200-HF HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 972333</p>

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b 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 : 972333</p>	 <p>Site : 03CH11-HV Condition : PEAK_74 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 972333</p>
Avg.	 <p>Site : 03CH11-HV Condition : AVG_BE_54 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 972333</p>	 <p>Site : 03CH11-HV Condition : AVG_54 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 972333</p>

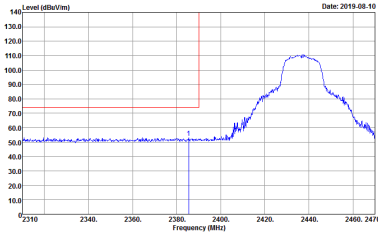
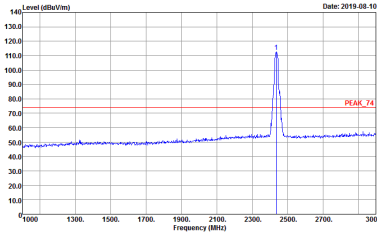
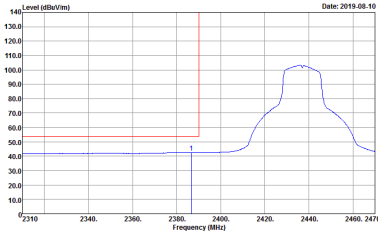
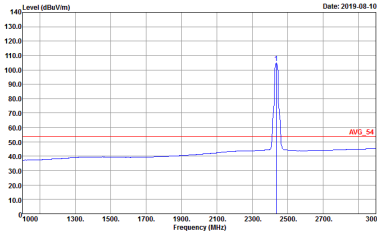
**2.4GHz 2400~2483.5MHz**  
**WIFI 802.11g (Band Edge @ 3m)**

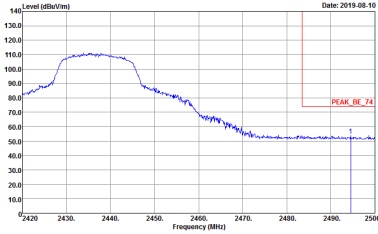
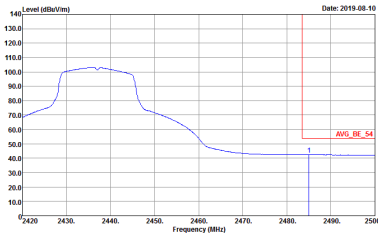
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH01 2412MHz	
1	Horizontal	Fundamental
<b>Peak</b>	 <p>Site : 03CH11-HY  Condition : PEAK_BE_74 3m HORN 91200-HF HORIZONTAL  Detector : Peak  Project : 972333</p>	 <p>Site : 03CH11-HY  Condition : PEAK_74 3m HORN 91200-HF HORIZONTAL  Detector : Peak  Project : 972333</p>
<b>Avg.</b>	 <p>Site : 03CH11-HY  Condition : AVG_BE_54 3m HORN 91200-HF HORIZONTAL  Detector : Peak  Project : 972333</p>	 <p>Site : 03CH11-HY  Condition : AVG_54 3m HORN 91200-HF HORIZONTAL  Detector : Peak  Project : 972333</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 : 972333</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 : 972333</p></div>
Avg.	<div><p>Site : 03CH11-HY Condition : AVG_BE_54 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 972333</p></div>	<div><p>Site : 03CH11-HY Condition : AVG_54 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 972333</p></div>

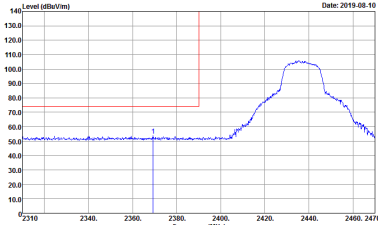
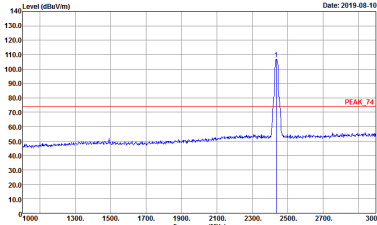
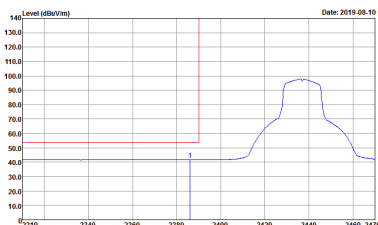
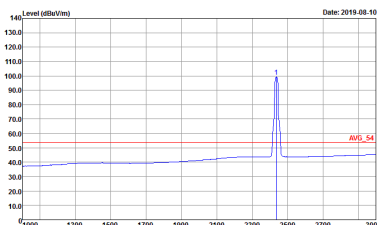


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - L	
1	Horizontal	Fundamental
Peak	<div><p>Site : 03CH11-HY Condition : PEAK_BE_74 3m HORN 91200-HF HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 972333</p></div>	<div><p>Site : 03CH11-HY Condition : PEAK_74 3m HORN 91200-HF HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 972333</p></div>
Avg.	<div><p>Site : 03CH11-HY Condition : AVG_BE_54 3m HORN 91200-HF HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 972333</p></div>	<div><p>Site : 03CH11-HY Condition : AVG_54 3m HORN 91200-HF HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 972333</p></div>

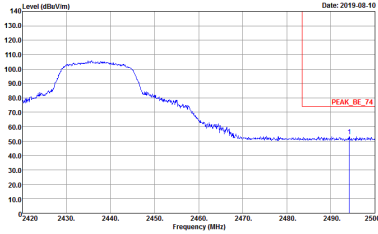
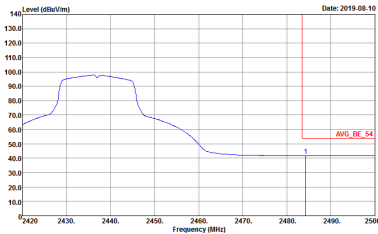
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - R	
1	Horizontal	Fundamental
<b>Peak</b>	 <p>           Site : 03CH11-HY            Condition : PEAK_BE_74 3m HORN 91200-HF HORIZONTAL            RBW:1000.000KHz VBW:3000.000KHz SWT:Auto            Detector : Peak            Project : 972333         </p>	Left blank
<b>Avg.</b>	 <p>           Site : 03CH11-HY            Condition : AVG_BE_54 3m HORN 91200-HF HORIZONTAL            RBW:1000.000KHz VBW:3000.000KHz SWT:Auto            Detector : Peak            Project : 972333         </p>	Left blank

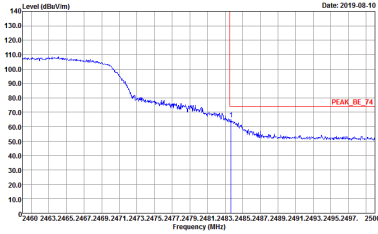
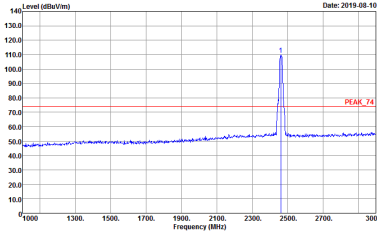
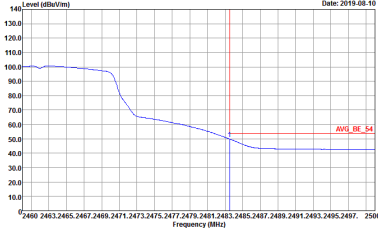
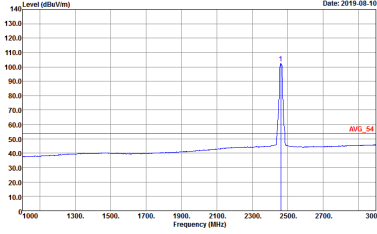


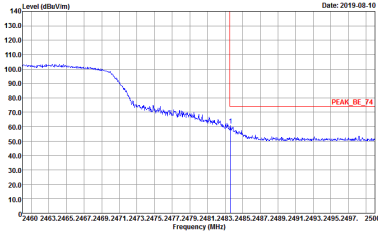
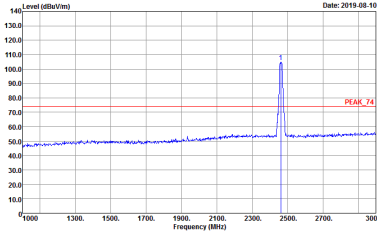
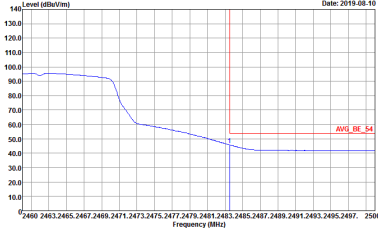
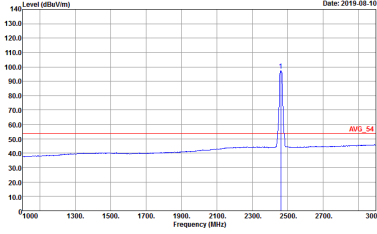


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - L	
1	Vertical	Fundamental
Peak	<div><p>Site : 03CH11-HY Condition : PEAK_BE_74 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 972333</p></div>	<div><p>Site : 03CH11-HY Condition : PEAK_74 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 972333</p></div>
Avg.	<div><p>Site : 03CH11-HY Condition : AVG_BE_54 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 972333</p></div>	<div><p>Site : 03CH11-HY Condition : AVG_54 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 972333</p></div>

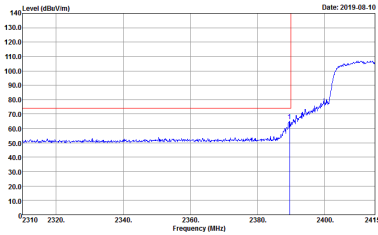
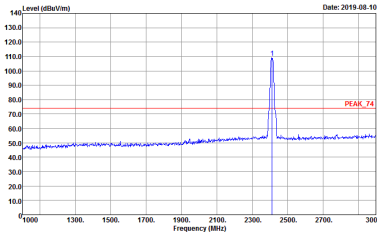
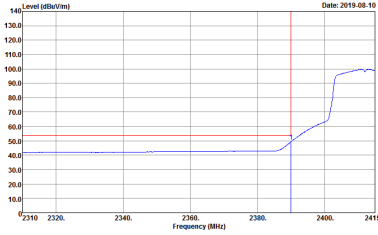
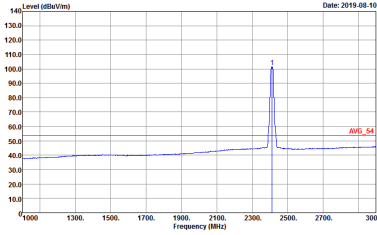


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - R	
1	Vertical	Fundamental
Peak	<div><p>Site : 03CH11-HY Condition : PEAK_BE_74 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 972333</p></div>	Left Blank
Avg.	<div><p>Site : 03CH11-HY Condition : AVG_BE_54 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 972333</p></div>	Left Blank

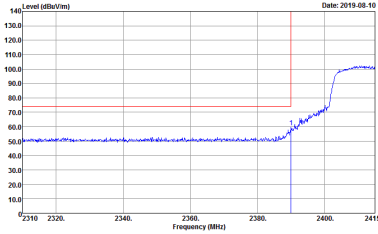
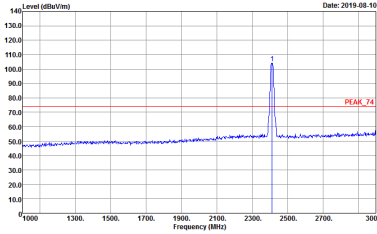
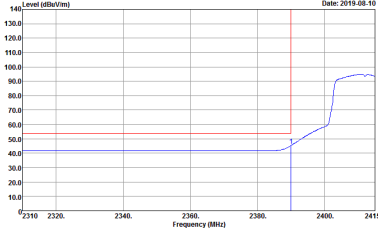
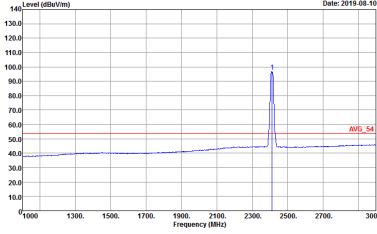
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH11 2462MHz	
1	Horizontal	Fundamental
Peak	 <p>Site : 03CH11-HV Condition : PEAK_BE_74 3m HORN 91200-HF HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 972333</p>	 <p>Site : 03CH11-HV Condition : PEAK_74 3m HORN 91200-HF HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 972333</p>
Avg.	 <p>Site : 03CH11-HV Condition : AVG_BE_54 3m HORN 91200-HF HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 972333</p>	 <p>Site : 03CH11-HV Condition : AVG_54 3m HORN 91200-HF HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 972333</p>

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 : 972333</p>	 <p>Site : 03CH11-HV Condition : PEAK_74 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 972333</p>
Avg.	 <p>Site : 03CH11-HV Condition : AVG_BE_54 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 972333</p>	 <p>Site : 03CH11-HV Condition : AVG_54 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 972333</p>

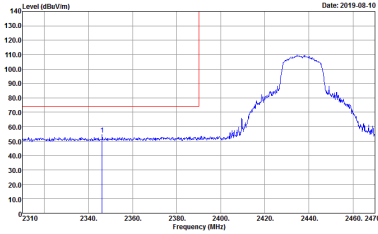
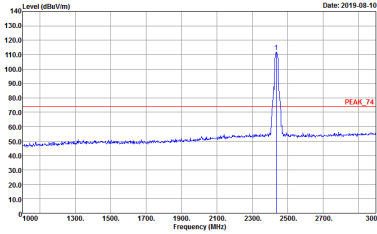
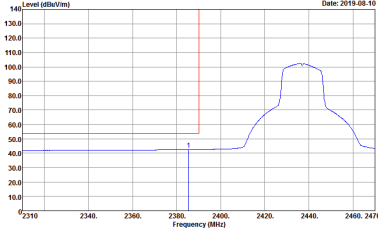
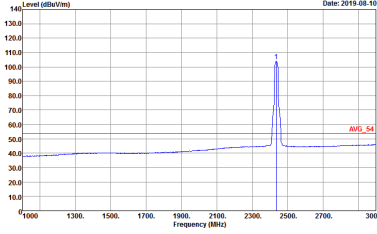
**2.4GHz 2400~2483.5MHz**
**WIFI 802.11n HT20 (Band Edge @ 3m)**

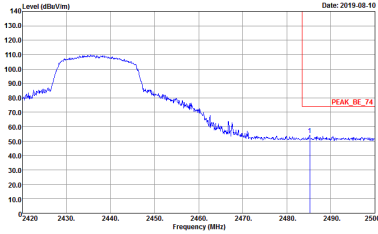
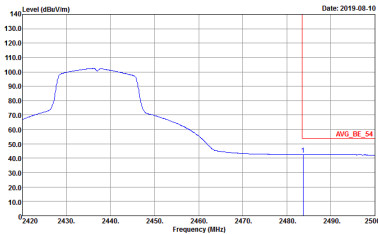
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH01 2412MHz	
1	Horizontal	Fundamental
<b>Peak</b>	 <p>Site : 03CH11-HY Condition : PEAK_BE_74 3m HORN 91200-HF HORIZONTAL Detector : Peak Project : 972333</p>	 <p>Site : 03CH11-HY Condition : PEAK_74 3m HORN 91200-HF HORIZONTAL Detector : Peak Project : 972333</p>
	 <p>Site : 03CH11-HY Condition : AVG_BE_54 3m HORN 91200-HF HORIZONTAL Detector : Peak Project : 972333</p>	 <p>Site : 03CH11-HY Condition : AVG_54 3m HORN 91200-HF HORIZONTAL Detector : Peak Project : 972333</p>



WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 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 : 972333</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 : 972333</p></div>
Avg.	<div><p>Site : 03CH11-HY Condition : AVG_BE_54 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 972333</p></div>	<div><p>Site : 03CH11-HY Condition : AVG_54 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 972333</p></div>

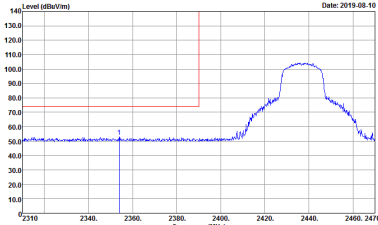
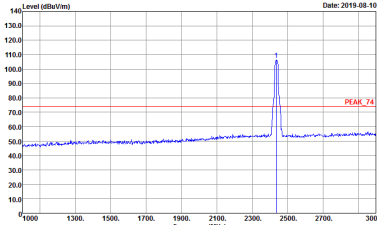
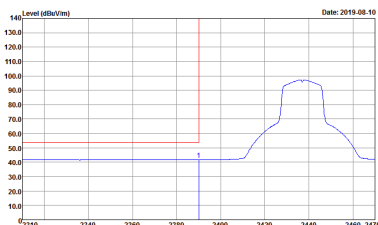
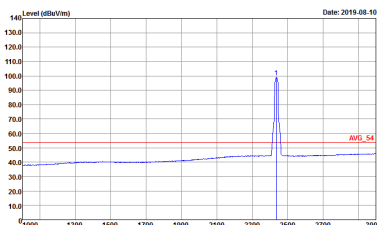


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH06 2437MHz - L	
1	Horizontal	Fundamental
Peak	<div><p>Site : 03CH11-HY Condition : PEAK_BE_74 3m HORN 91200-HF HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 972333</p></div>	<div><p>Site : 03CH11-HY Condition : PEAK_74 3m HORN 91200-HF HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 972333</p></div>
Avg.	<div><p>Site : 03CH11-HY Condition : AVG_BE_54 3m HORN 91200-HF HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 972333</p></div>	<div><p>Site : 03CH11-HY Condition : AVG_54 3m HORN 91200-HF HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 972333</p></div>

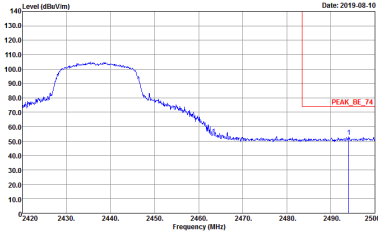
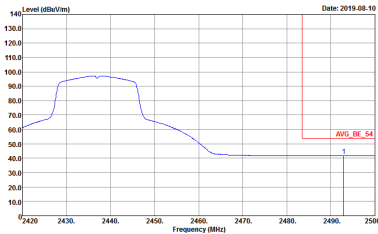
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH06 2437MHz - R	
1	Horizontal	Fundamental
<b>Peak</b>	 <p>           Site : 03CH11-HY            Condition : PEAK_BE_74 3m HORN 91200-HF HORIZONTAL            RBW:1000.000KHz VBW:3000.000KHz SWT:Auto            Detector : Peak            Project : 972333         </p>	Left blank
<b>Avg.</b>	 <p>           Site : 03CH11-HY            Condition : AVG_BE_54 3m HORN 91200-HF HORIZONTAL            RBW:1000.000KHz VBW:3000.000KHz SWT:Auto            Detector : Peak            Project : 972333         </p>	Left blank

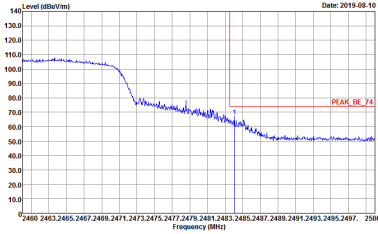
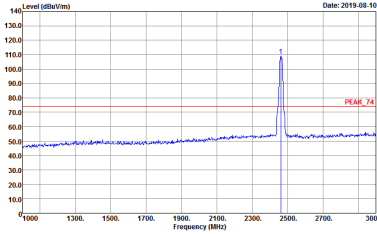
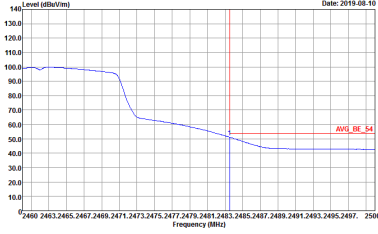
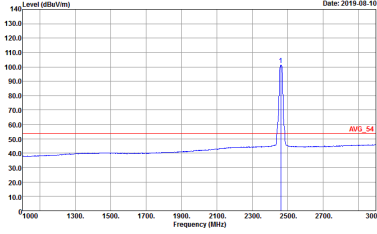


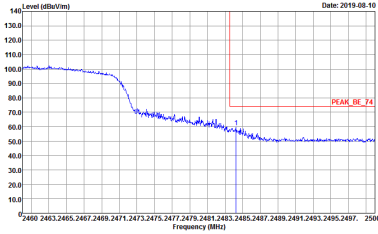
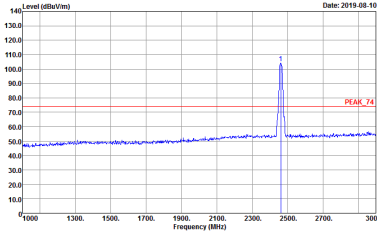
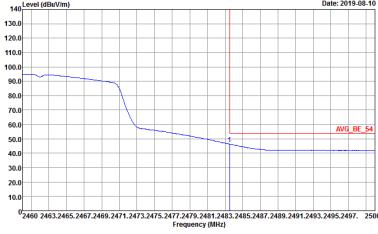
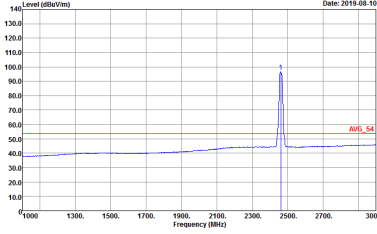


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH06 2437MHz - L	
1	Vertical	Fundamental
Peak	<div><p>Site : 03CH11-HY Condition : PEAK_BE_74 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 972333</p></div>	<div><p>Site : 03CH11-HY Condition : PEAK_74 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 972333</p></div>
Avg.	<div><p>Site : 03CH11-HY Condition : AVG_BE_54 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 972333</p></div>	<div><p>Site : 03CH11-HY Condition : AVG_54 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 972333</p></div>

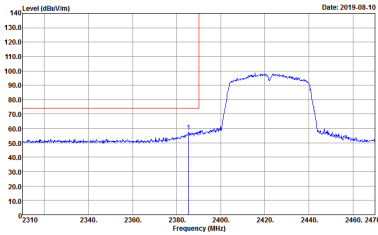
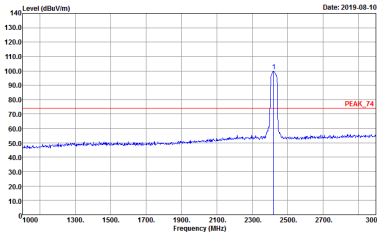
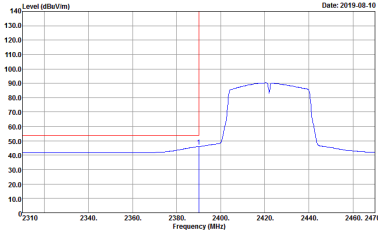
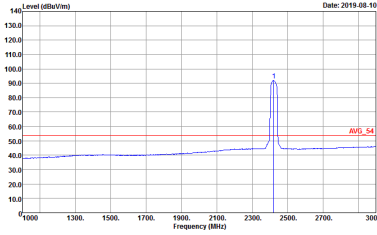


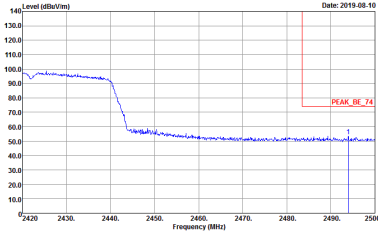
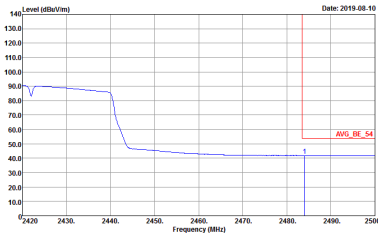
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH06 2437MHz - R	
1	Vertical	Fundamental
Peak	<div><p>Site : 03CH11-HY Condition : PEAK_BE_74 3m HORN 91200-HF VERTICAL RBW:1000.000kHz VBW:3000.000kHz SWT:Auto Detector : Peak Project : 972333</p></div>	Left Blank
Avg.	<div><p>Site : 03CH11-HY Condition : AVG_BE_54 3m HORN 91200-HF VERTICAL RBW:1000.000kHz VBW:3000.000kHz SWT:Auto Detector : Peak Project : 972333</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 : 972333</p>	 <p>Site : 03CH11-HV Condition : PEAK_74 3m HORN 91200-HF HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 972333</p>
Avg.	 <p>Site : 03CH11-HV Condition : AVG_BE_54 3m HORN 91200-HF HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 972333</p>	 <p>Site : 03CH11-HV Condition : AVG_54 3m HORN 91200-HF HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 972333</p>

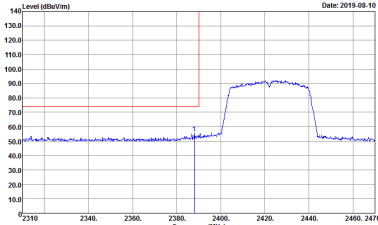
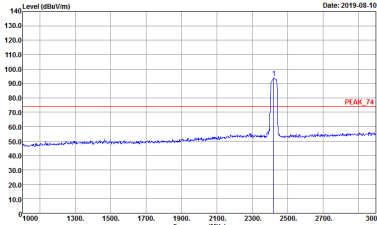
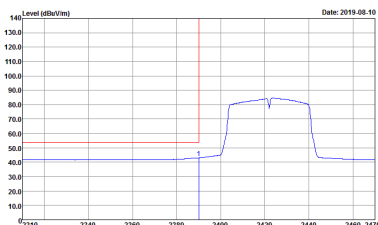
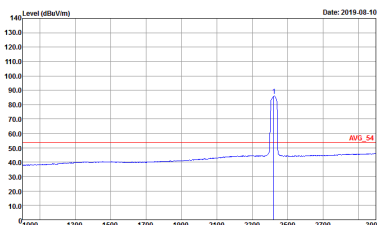
WIFI	2.4GHz 2400~2483.5MHz Fundamental @ 3m	
ANT	802.11n HT20 CH11 2462MHz	
1	Vertical	Fundamental
Peak	 <p>Site : 03CH11-HV Condition : PEAK_BE_74 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 972333</p>	 <p>Site : 03CH11-HV Condition : PEAK_74 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 972333</p>
Avg.	 <p>Site : 03CH11-HV Condition : AVG_BE_54 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 972333</p>	 <p>Site : 03CH11-HV Condition : AVG_54 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 972333</p>

**2.4GHz 2400~2483.5MHz**
**WIFI 802.11n HT40 (Band Edge @ 3m)**

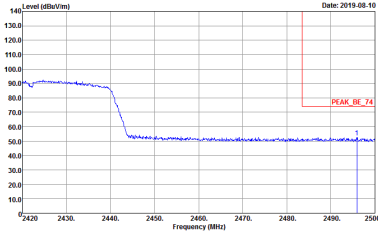
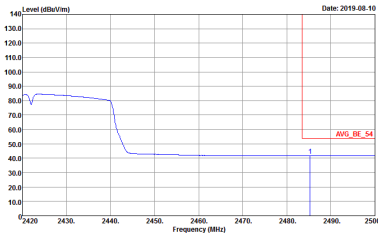
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH03 2422MHz - L	
1	Horizontal	Fundamental
<b>Peak</b>	 <p>Site : 03CH11-HY Condition : PEAK_BE_74 3m HORN 91200-HF HORIZONTAL Detector : Peak Project : 972333</p>	 <p>Site : 03CH11-HY Condition : PEAK_74 3m HORN 91200-HF HORIZONTAL Detector : Peak Project : 972333</p>
	 <p>Site : 03CH11-HY Condition : AVG_BE_54 3m HORN 91200-HF HORIZONTAL Detector : Peak Project : 972333</p>	 <p>Site : 03CH11-HY Condition : AVG_54 3m HORN 91200-HF HORIZONTAL Detector : Peak Project : 972333</p>

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH03 2422MHz - R	
1	Horizontal	Fundamental
<b>Peak</b>	 <p>           Site : 03CH11-HY            Condition : PEAK_BE_74 3m HORN 91200-HF HORIZONTAL            RBW:1000.000KHz VBW:3000.000KHz SWT:Auto            Detector : Peak            Project : 972333         </p>	Left Blank
<b>Avg.</b>	 <p>           Site : 03CH11-HY            Condition : AVG_BE_54 3m HORN 91200-HF HORIZONTAL            RBW:1000.000KHz VBW:3000.000KHz SWT:Auto            Detector : Peak            Project : 972333         </p>	Left Blank



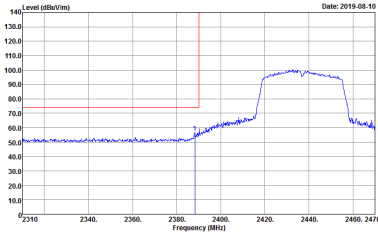
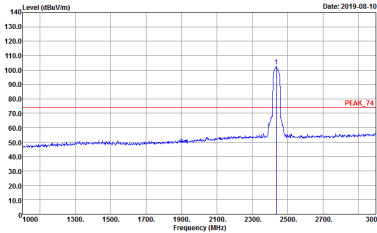
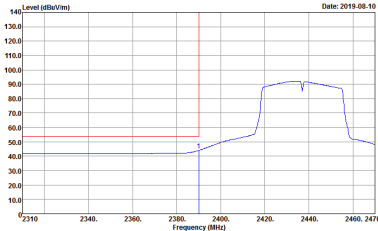
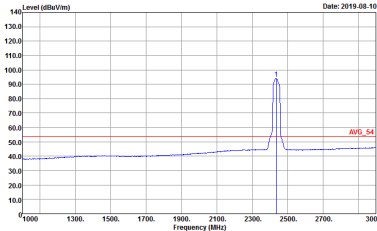
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH03 2422MHz - L	
1	Vertical	Fundamental
Peak	<div><p>Site : 03CH11-HY Condition : PEAK_BE_74 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 972333</p></div>	<div><p>Site : 03CH11-HY Condition : PEAK_74 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 972333</p></div>
Avg.	<div><p>Site : 03CH11-HY Condition : AVG_BE_54 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 972333</p></div>	<div><p>Site : 03CH11-HY Condition : AVG_54 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 972333</p></div>

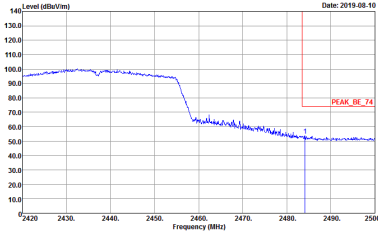
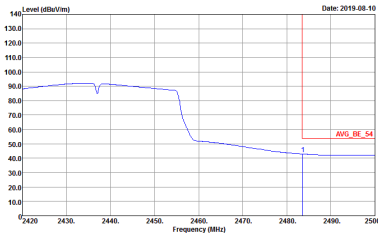


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH03 2422MHz - R	
1	Vertical	Fundamental
Peak	<div><p>Site : 03CH11-HY Condition : PEAK_BE_74 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 972333</p></div>	Left blank
Avg.	<div><p>Site : 03CH11-HY Condition : AVG_BE_54 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 972333</p></div>	Left blank

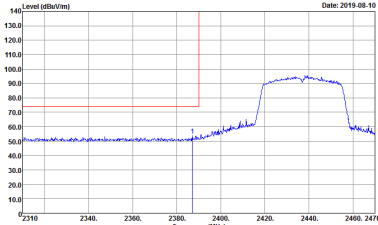
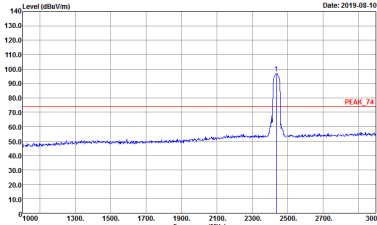
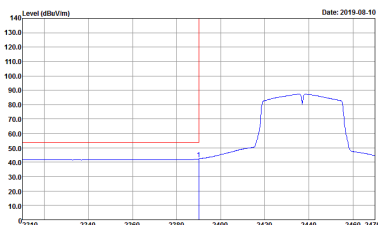
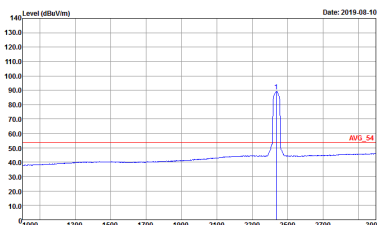




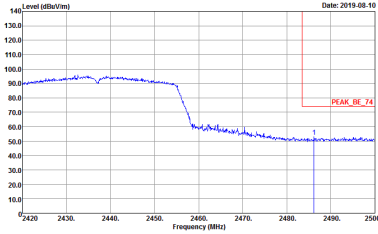
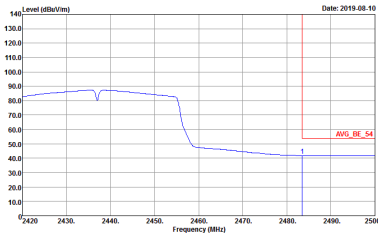
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH06 2437MHz - L	
1	Horizontal	Fundamental
Peak	<div><p>Site : 03CH11-HY Condition : PEAK_BE_74 3m HORN 91200-HF HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 972333</p></div>	<div><p>Site : 03CH11-HY Condition : PEAK_74 3m HORN 91200-HF HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 972333</p></div>
Avg.	<div><p>Site : 03CH11-HY Condition : AVG_BE_54 3m HORN 91200-HF HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 972333</p></div>	<div><p>Site : 03CH11-HY Condition : AVG_54 3m HORN 91200-HF HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 972333</p></div>

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH06 2437MHz - R	
1	Horizontal	Fundamental
<b>Peak</b>	 <p>Site : 03CH11-HY Condition : PEAK_BE_74 3m HORN 91200-HF HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 972333</p>	Left blank
<b>Avg.</b>	 <p>Site : 03CH11-HY Condition : AVG_BE_54 3m HORN 91200-HF HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 972333</p>	Left blank

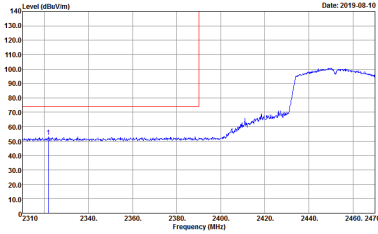
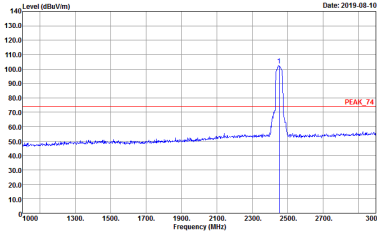
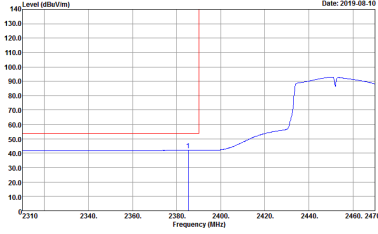
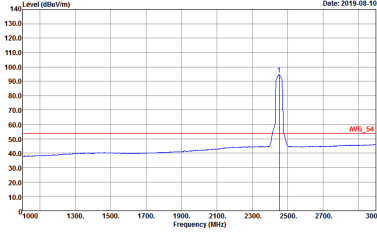


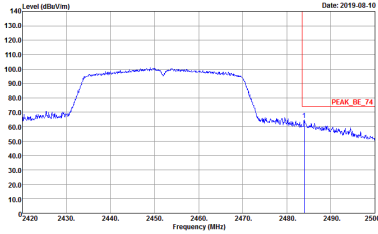
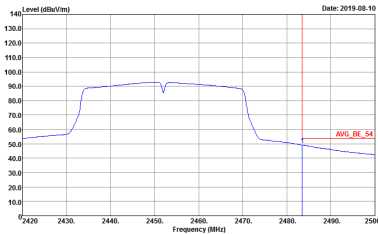
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH06 2437MHz - L	
1	Vertical	Fundamental
Peak	<div><p>Site : 03CH11-HY Condition : PEAK_BE_74 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 972333</p></div>	<div><p>Site : 03CH11-HY Condition : PEAK_74 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 972333</p></div>
Avg.	<div><p>Site : 03CH11-HY Condition : AVG_BE_54 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 972333</p></div>	<div><p>Site : 03CH11-HY Condition : AVG_54 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 972333</p></div>



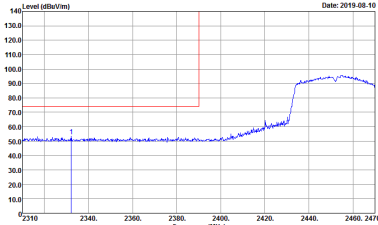
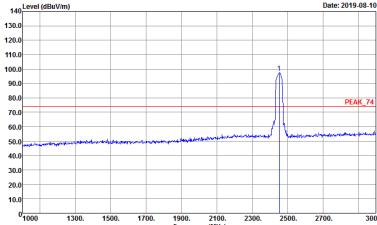
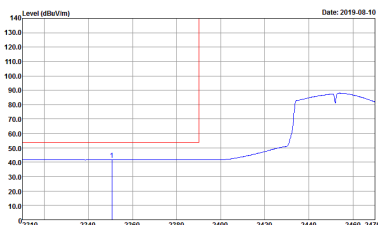
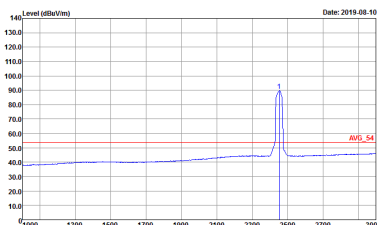
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH06 2437MHz - R	
1	Horizontal	Fundamental
Peak	<div><p>Site : 03CH11-HY Condition : PEAK_BE_74 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 972333</p></div>	Left blank
Avg.	<div><p>Site : 03CH11-HY Condition : AVG_BE_54 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 972333</p></div>	Left blank



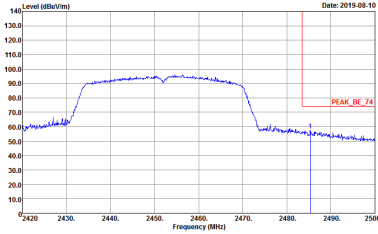
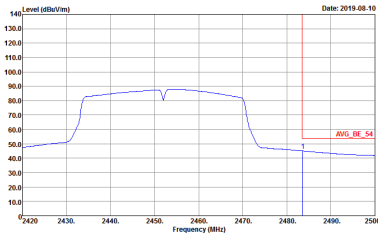
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH09 2452MHz - L	
1	Horizontal	Fundamental
Peak	<div><p>Site : 03CH11-HY Condition : PEAK_BE_74 3m HORN 91200-HF HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 972333</p></div>	<div><p>Site : 03CH11-HY Condition : PEAK_74 3m HORN 91200-HF HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 972333</p></div>
Avg.	<div><p>Site : 03CH11-HY Condition : AVG_BE_54 3m HORN 91200-HF HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 972333</p></div>	<div><p>Site : 03CH11-HY Condition : AVG_54 3m HORN 91200-HF HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 972333</p></div>

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH09 2452MHz - R	
1	Horizontal	Fundamental
<b>Peak</b>	 <p>           Site : 03CH11-HY            Condition : PEAK_BE_74 3m HORN 91200-HF HORIZONTAL            RBW:1000.000KHz VBW:3000.000KHz SWT:Auto            Detector : Peak            Project : 972333         </p>	Left blank
<b>Avg.</b>	 <p>           Site : 03CH11-HY            Condition : AVG_BE_54 3m HORN 91200-HF HORIZONTAL            RBW:1000.000KHz VBW:3000.000KHz SWT:Auto            Detector : Peak            Project : 972333         </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 : 972333</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 : 972333</p></div>
Avg.	<div><p>Site : 03CH11-HY Condition : AVG_BE_54 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 972333</p></div>	<div><p>Site : 03CH11-HY Condition : AVG_54 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 972333</p></div>



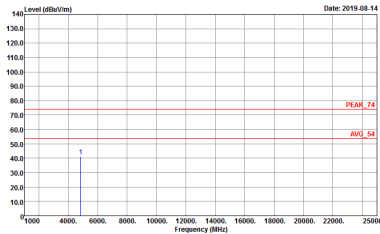
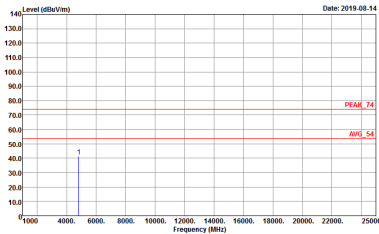
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH09 2452MHz - R	
1	Vertical	Fundamental
Peak	<div><p>Site : 03CH11-HY Condition : PEAK_BE_74 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 972333</p></div>	Left blank
Avg.	<div><p>Site : 03CH11-HY Condition : AVG_BE_54 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 972333</p></div>	Left blank



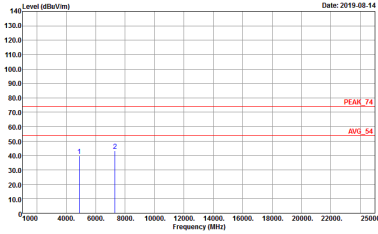
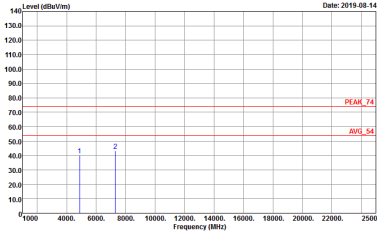


2.4GHz 2400~2483.5MHz

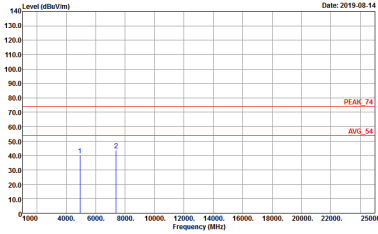
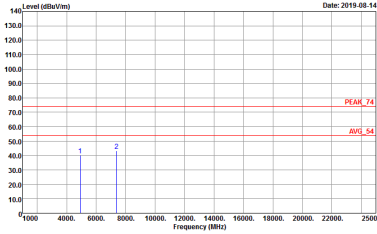
WIFI 802.11b (Harmonic @ 3m)

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH01 2412MHz	
1	Horizontal	Vertical
Peak Avg.	 <p>Site : 03CH11-4FY Condition : PEAK_74 3m HORN 91200-HF HORIZONTAL Detector : Peak Project : 972333</p>	 <p>Site : 03CH11-4FY Condition : PEAK_74 3m HORN 91200-HF VERTICAL Detector : Peak Project : 972333</p>



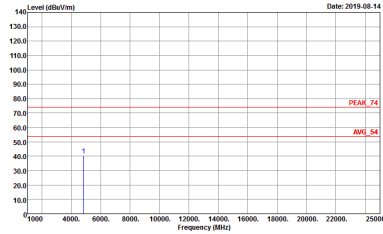
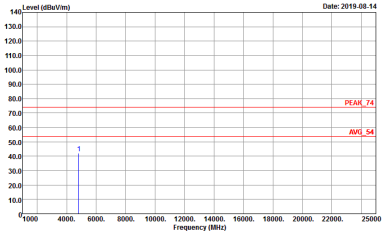
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH06 2437MHz	
1	Horizontal	Vertical
Peak Avg.	<div><p>Site : 03CH11-HY Condition : PEAK_74 3m HORN 91200-HF HORIZONTAL Detector : Peak Project : 972333</p></div>	<div><p>Site : 03CH11-HY Condition : PEAK_74 3m HORN 91200-HF VERTICAL Detector : Peak Project : 972333</p></div>



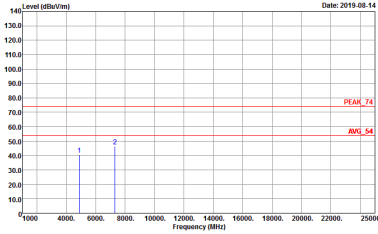
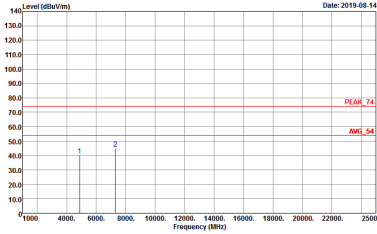
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH11 2462MHz	
1	Horizontal	Vertical
Peak Avg.	<div><p>Site : 03CH11-HY Condition : PEAK_74 3m HORN 91200-HF HORIZONTAL Detector : Peak Project : 972333</p></div>	<div><p>Site : 03CH11-HY Condition : PEAK_74 3m HORN 91200-HF VERTICAL Detector : Peak Project : 972333</p></div>



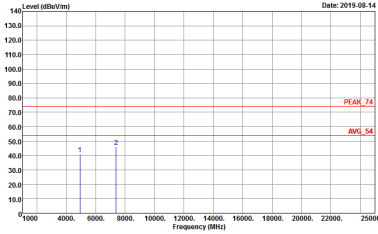
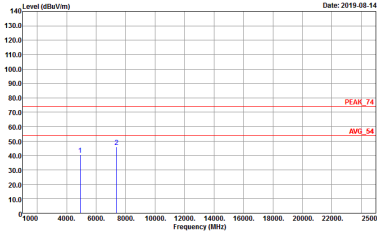
2.4GHz 2400~2483.5MHz  
WIFI 802.11g (Harmonic @ 3m)

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 : 972333</p>	 <p>Site : 03CH11-4FY Condition : PEAK_74 3m HORN 91200-HF VERTICAL Detector : Peak Project : 972333</p>



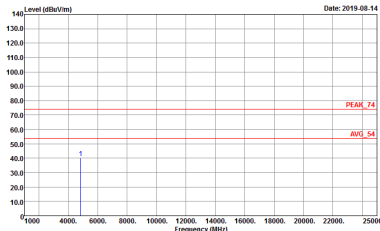
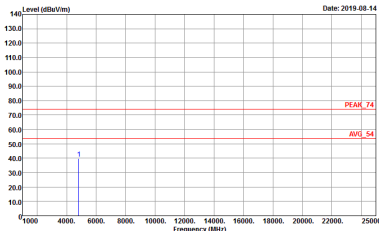
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11g CH06 2437MHz	
1	Horizontal	Vertical
Peak Avg.	<div><p>Site : 03CH11-HY Condition : PEAK_74 3m HORN 91200-HF HORIZONTAL Detector : Peak Project : 972333</p></div>	<div><p>Site : 03CH11-HY Condition : PEAK_74 3m HORN 91200-HF VERTICAL Detector : Peak Project : 972333</p></div>



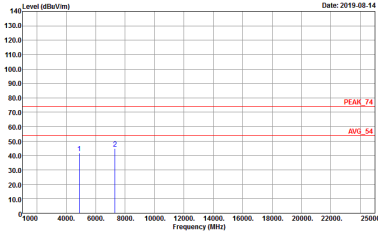
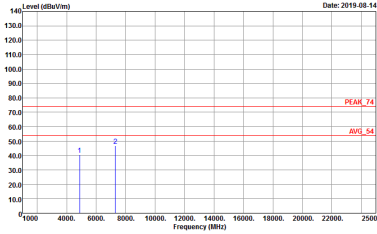
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11g CH11 2462MHz	
1	Horizontal	Vertical
Peak Avg.	<div><p>Site : 03CH11-HY Condition : PEAK_74 3m HORN 91200-HF HORIZONTAL Detector : Peak Project : 972333</p></div>	<div><p>Site : 03CH11-HY Condition : PEAK_74 3m HORN 91200-HF VERTICAL Detector : Peak Project : 972333</p></div>



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

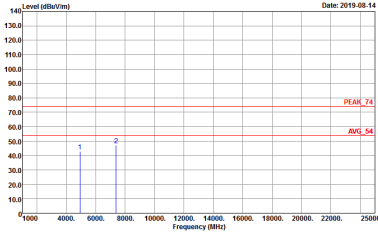
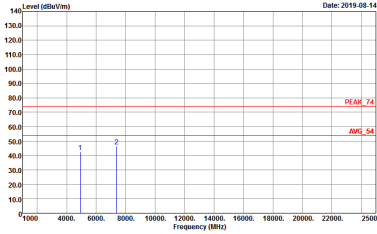
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11n HT20 CH01 2412MHz	
1	Horizontal	Vertical
Peak Avg.	 <p>Site : 03CH11-4FY Condition : PEAK_74 3m HORN 91200-HF HORIZONTAL Detector : Peak Project : 972333</p>	 <p>Site : 03CH11-4FY Condition : PEAK_74 3m HORN 91200-HF VERTICAL Detector : Peak Project : 972333</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 91200-HF HORIZONTAL Detector : Peak Project : 972333</p></div>	<div><p>Site : 03CH11-HY Condition : PEAK_74 3m HORN 91200-HF VERTICAL Detector : Peak Project : 972333</p></div>

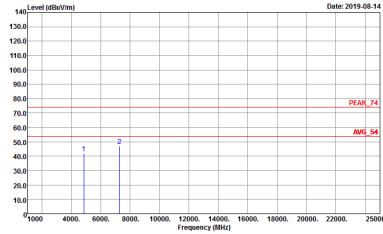
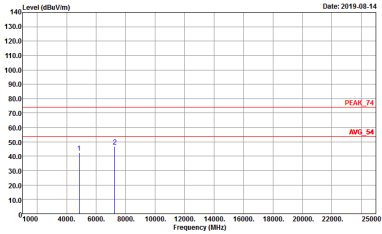




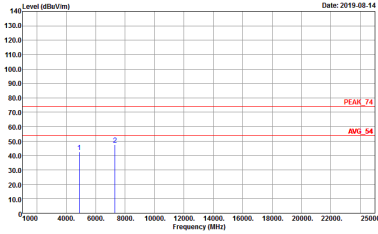
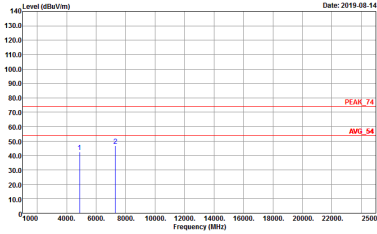
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11n HT20 CH11 2462MHz	
1	Horizontal	Vertical
Peak Avg.	<div><p>Site : 03CH11-HY Condition : PEAK_74 3m HORN 91200-HF HORIZONTAL Detector : Peak Project : 972333</p></div>	<div><p>Site : 03CH11-HY Condition : PEAK_74 3m HORN 91200-HF VERTICAL Detector : Peak Project : 972333</p></div>



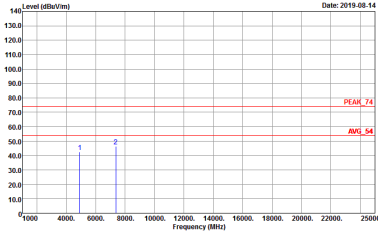
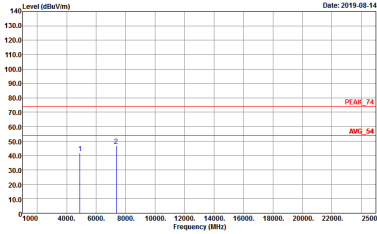
2.4GHz 2400~2483.5MHz  
WIFI 802.11n HT40 (Harmonic @ 3m)

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 : 972333</p>	 <p>Site : 03CH11-4FY Condition : PEAK_74 3m HORN 91200-HF VERTICAL Detector : Peak Project : 972333</p>

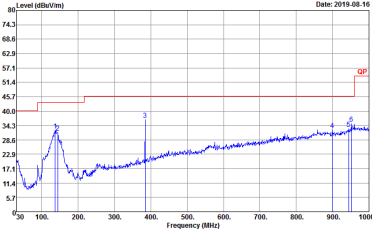
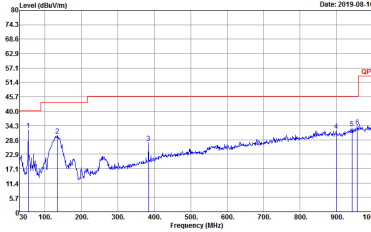


WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11n HT40 CH06 2437MHz	
1	Horizontal	Vertical
Peak Avg.	<div><p>Site : 03CH11-HY Condition : PEAK_74 3m HORN 91200-HF HORIZONTAL Detector : Peak Project : 972333</p></div>	<div><p>Site : 03CH11-HY Condition : PEAK_74 3m HORN 91200-HF VERTICAL Detector : Peak Project : 972333</p></div>



WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11n HT40 CH09 2452MHz	
1	Horizontal	Vertical
Peak Avg.	<div><p>Site : 03CH11-HY Condition : PEAK_74 3m HORN 91200-HF HORIZONTAL Detector : Peak Project : 972333</p></div>	<div><p>Site : 03CH11-HY Condition : PEAK_74 3m HORN 91200-HF VERTICAL Detector : Peak Project : 972333</p></div>

**Emission below 1GHz**  
**2.4GHz WIFI 802.11n HT20 (LF)**

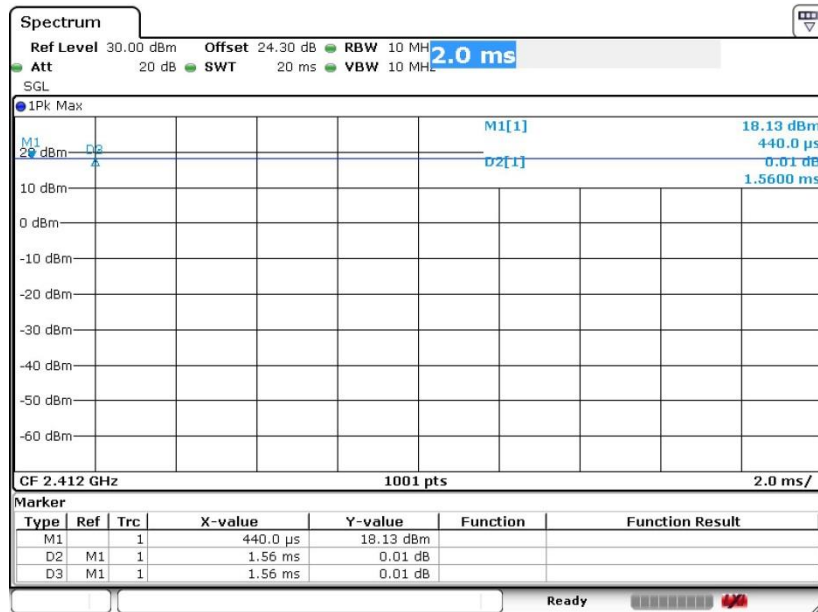
WIFI	2.4GHz 2400~2483.5MHz	
ANT	802.11n HT20 LF	
1	Horizontal	Vertical
<b>QP / Peak</b>	 <p> Site : 03CH11-HY  Condition : QP 3m BT-LOG 6111D-LF_ETC HORIZONTAL  Detector : Peak  Project : 972333 </p>	 <p> Site : 03CH11-HY  Condition : QP 3m BT-LOG 6111D-LF_ETC VERTICAL  Detector : Peak  Project : 972333 </p>

## Appendix E. Duty Cycle Plots

Band	Duty Cycle(%)	T(us)	1/T(kHz)	VBW Setting	Duty Factor(dB)
802.11b	100.00	-	-	10Hz	0.00
802.11g	100.00	-	-	10Hz	0.00
2.4GHz 802.11n HT20	100.00	-	-	10Hz	0.00
2.4GHz 802.11n HT40	100.00	-	-	10Hz	0.00

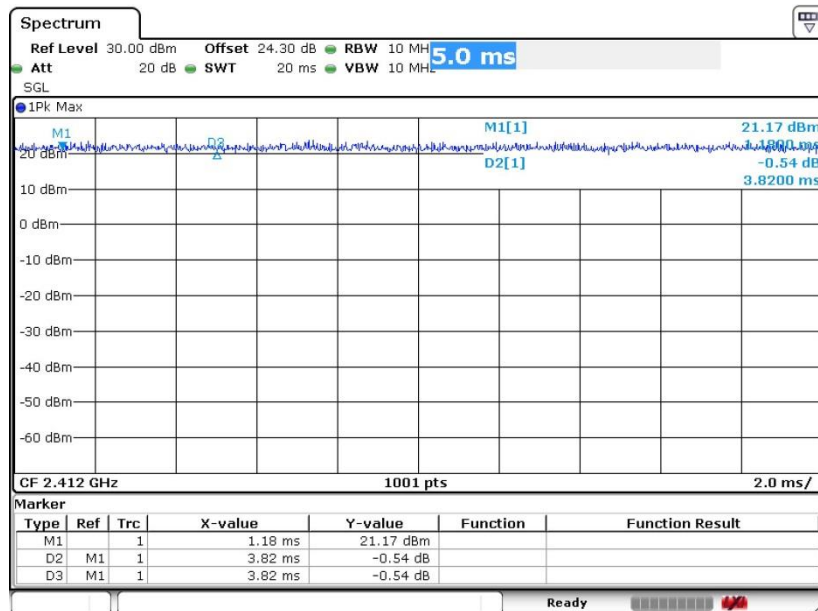


## 802.11b

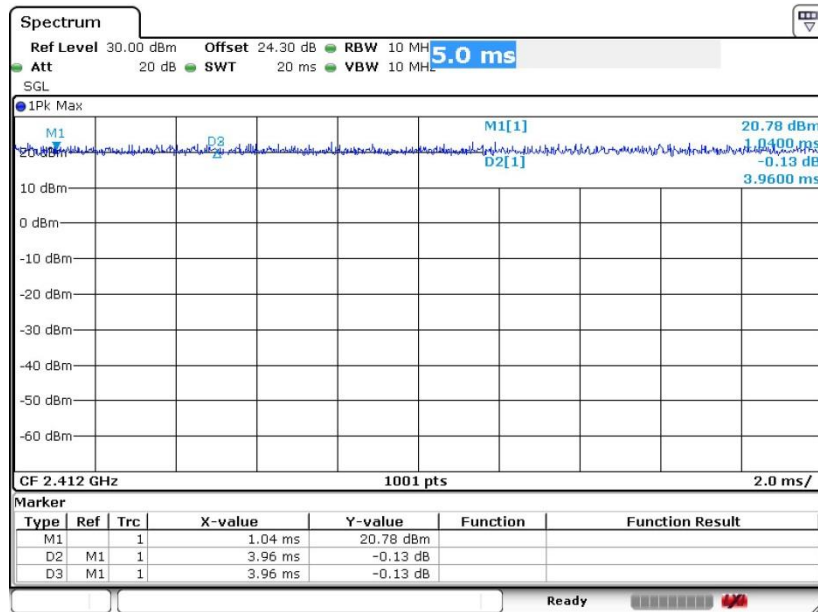


Date: 7.AUG.2019 02:44:17

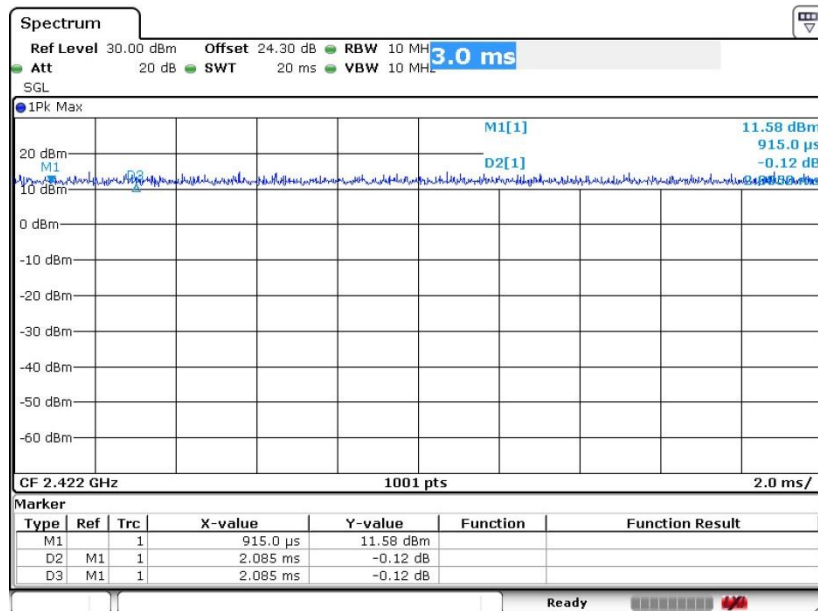
## 802.11g



Date: 7.AUG.2019 02:49:02

**802.11n HT20**

Date: 7.AUG.2019 02:50:37

**802.11n HT40**

Date: 7.AUG.2019 02:51:55

—————THE END—————