FCC RF Test Report

APPLICANT	:	Ubiquiti Networks, Inc.
EQUIPMENT	:	IsoStation AC
BRAND NAME	:	UBIQUITI
MODEL NAME	:	IS-5AC
FCC ID	:	SWX-IS5AC
STANDARD	:	FCC Part 15 Subpart C §15.247
CLASSIFICATION	:	(DTS) Digital Transmission System

The product was received on Dec. 24, 2016 and testing was completed on Feb. 07, 2017. We, SPORTON INTERNATIONAL INC., would like to declare that the tested sample has been evaluated in accordance with the test procedures and has been in compliance with the applicable technical standards.

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

Reviewed by: Joseph Lin / Supervisor

Approved by: Jones Tsai / Manager

SPORTON INTERNATIONAL INC.

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

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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FR6N2220-01A	Rev. 01	Initial issue of report	Feb. 10, 2017

SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.1	15.247(a)(2)	6dB Bandwidth	≥ 0.5MHz	Pass	-
3.1	-	99% Bandwidth	-	Pass	-
3.2	15.247(b)	Power Output Measurement	≤ 30dBm	Pass	-
3.3	15.247(e)	Power Spectral Density	≤ 8dBm/3kHz	Pass	-
3.4	15.247(d)	Conducted Band Edges	≤ 20dBc	Pass	-
		Conducted Spurious Emission		Pass	-
3.5	15.247(d)	Radiated Band Edges and Radiated Spurious Emission	15.209(a) & 15.247(d)	Pass	Under limit 6.64dB 2386.23MHz
3.6	15.207	AC Conducted Emission	15.207(a)	Pass	Under limit 10.00 dB at 0.150 MHz
3.7	15.203 & 15.247(b)	Antenna Requirement	N/A	Pass	-

1 General Description

1.1 Applicant

Ubiquiti Networks, Inc.
2580 Orchard Parkway San Jose, CA 95131

1.2 Manufacturer

Ubiquiti Networks, Inc.
2580 Orchard Parkway San Jose, CA 95131

1.3 Product Feature of Equipment Under Test

Wi-Fi 2.4GHz 802.11b/g/n, Wi-Fi 5GHz 802.11a/n/ac

Product Specification subjective to this standard	
Antenna Type	WLAN: Horn Antenna

1.4 Modification of EUT

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

1.5 Testing Location

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

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

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

Test Site	SPORTON INTERNATIONAL INC.
Test Site Location	No.58, Aly. 75, Ln. 564, Wenhua 3rd Rd. Guishan Dist, Taoyuan City, Taiwan (R.O.C.) TEL: +886-3-327-0868 FAX: +886-3-327-0855
Test Site No.	**Sporton Site No.**
	03CH13-HY

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

1.6 Applicable Standards

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

- FCC Part 15 Subpart C §15.247
- FCC KDB Publication No. 558074 D01 DTS Meas. Guidance v03r05
- 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 (Y plane) were recorded in this report.

b. AC power line Conducted Emission was tested under maximum output power.

2.1 Carrier Frequency and Channel

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

2.2 Test Mode

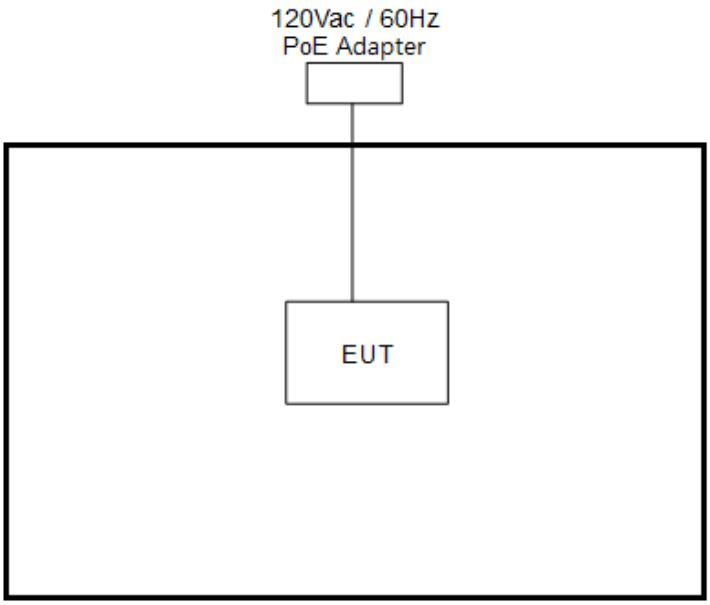
Final test mode of conducted test items and radiated spurious emissions are considering the modulation and worse data rates as below table.

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

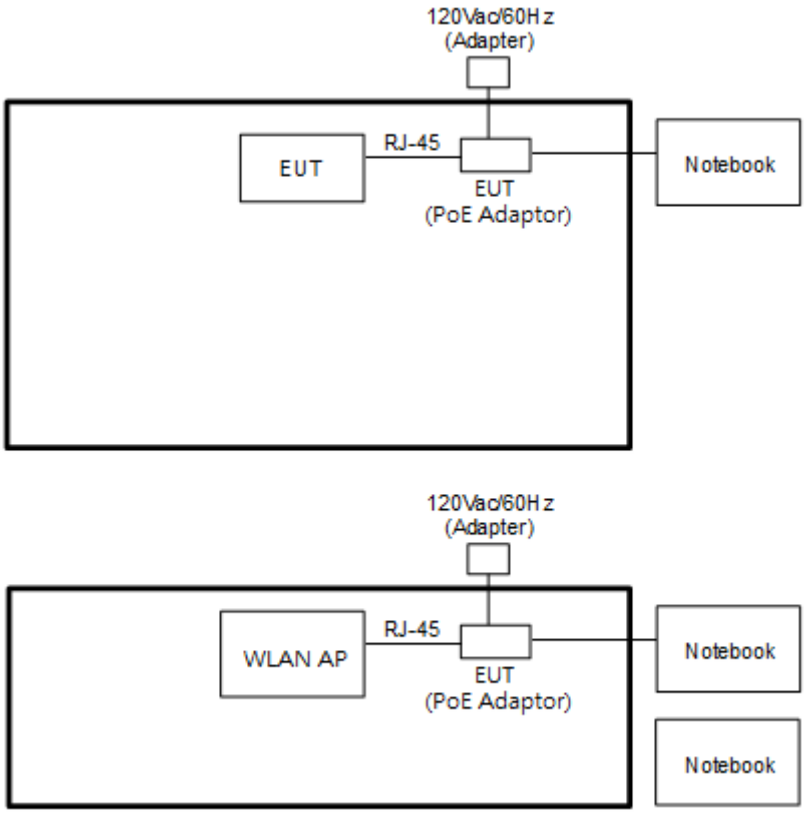
Test Cases	
AC Conducted Emission	Mode 1 : WLAN (2.4GHz) Link + WLAN (5GHz) Link + PoE Adapter + RJ-45 Link

2.3 Connection Diagram of Test System

<WLAN Tx Mode>



<AC Conducted Emission Mode>



2.4 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	AP	Ubiquiti	IS-5AC	SWX-IS5AC	N/A	N/A
2.	Notebook	DELL	Latitude E6320	FCC DoC/ Contains FCC ID: QDS-BRCM1054	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
3.	Notebook	DELL	P20G	FCC DoC/ Contains FCC ID: QDS-BRCM1051	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m

2.5 EUT Operation Test Setup

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

2.6 Measurement Results Explanation Example

For all conducted test items:

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

Example :

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

Offset = RF cable loss + attenuator factor.

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

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

= 4.2 + 10 = 14.2 (dB)

3 Test Result

3.1 6dB and 99% Bandwidth Measurement

3.1.1 Limit of 6dB and 99% Bandwidth

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

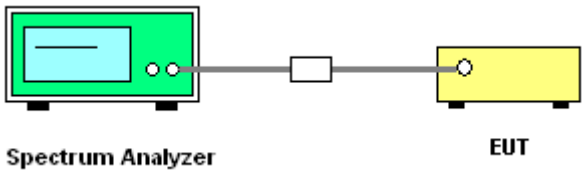
3.1.2 Measuring Instruments

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

3.1.3 Test Procedures

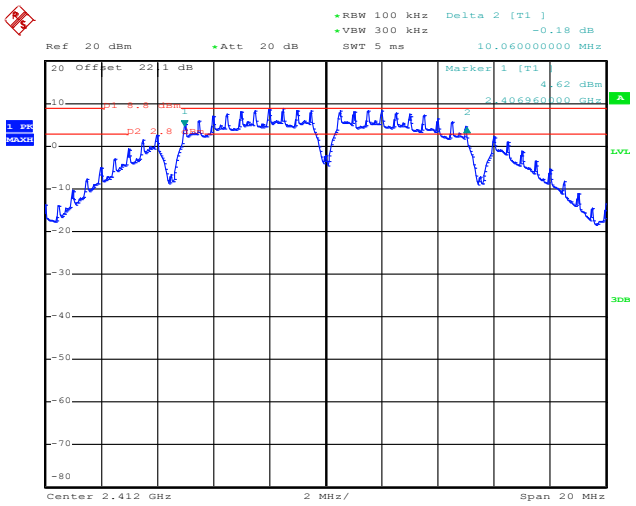
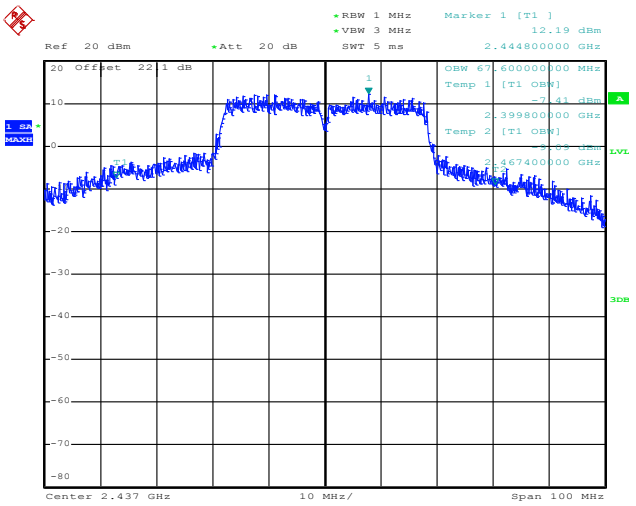
1. The testing follows FCC KDB Publication No. 558074 DTS D01 Meas. Guidance v03r05.
2. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
3. Set to the maximum power setting and enable the EUT transmit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

3.1.4 Test Setup



3.1.5 Test Result of 6dB and 99% Occupied Bandwidth

Please refer to Appendix A.

Minimum 6dB Bandwidth	Maximum 99% Occupied Bandwidth
	
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Note : The occupied channel bandwidth is maintained within the band of operation for all of the modulations.

3.2 Output Power Measurement

3.2.1 Limit of Output Power

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

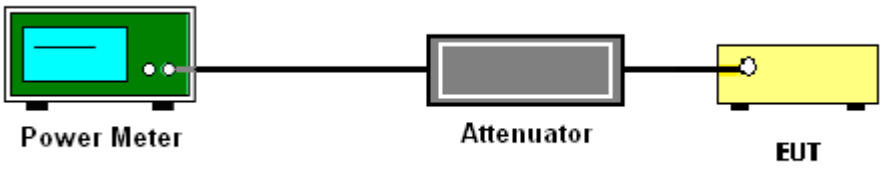
3.2.2 Measuring Instruments

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

3.2.3 Test Procedures

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

3.2.4 Test Setup



3.2.5 Test Result of Peak Output Power

Please refer to Appendix A.

3.2.6 Test Result of Average output Power (Reporting Only)

Please refer to Appendix A.

3.3 Power Spectral Density Measurement

3.3.1 Limit of Power Spectral Density

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

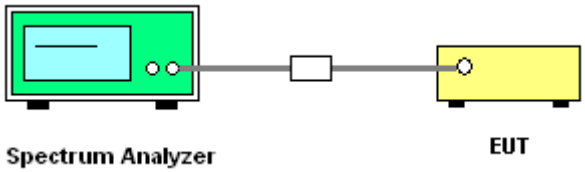
3.3.2 Measuring Instruments

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

3.3.3 Test Procedures

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

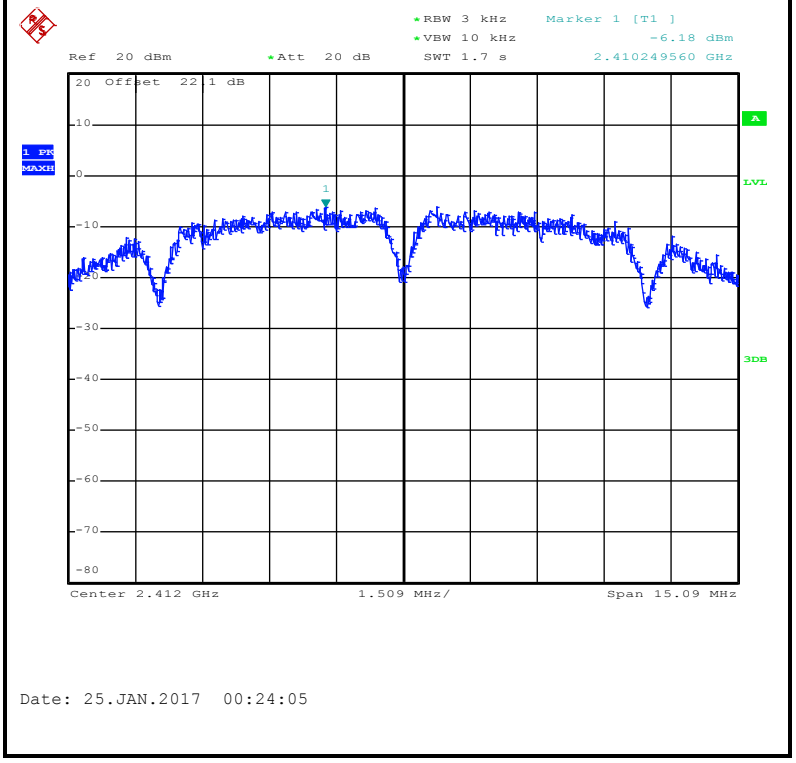
3.3.4 Test Setup



3.3.5 Test Result of Power Spectral Density

Please refer to Appendix A.

Worst Case Power Density (dBm/3kHz)



3.4 Conducted Band Edges and Spurious Emission Measurement

3.4.1 Limit of Conducted Band Edges and Spurious Emission Measurement

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

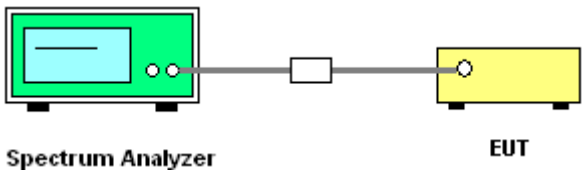
3.4.2 Measuring Instruments

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

3.4.3 Test Procedures

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

3.4.4 Test Setup

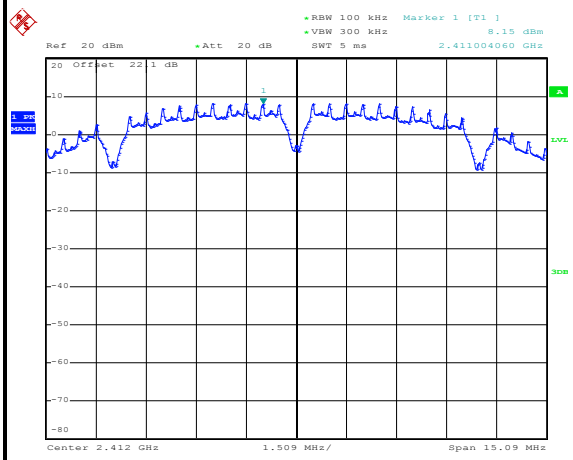


3.4.5 Test Result of Conducted Band Edges and Spurious Emission

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

WLAN 802.11b Channel 01

100kHz PSD reference Level



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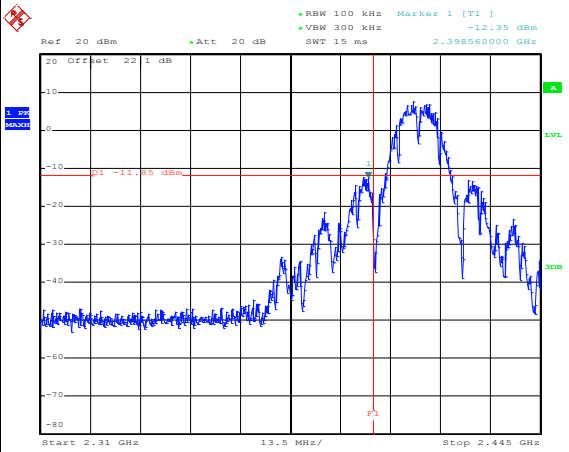
Low Channel Plot



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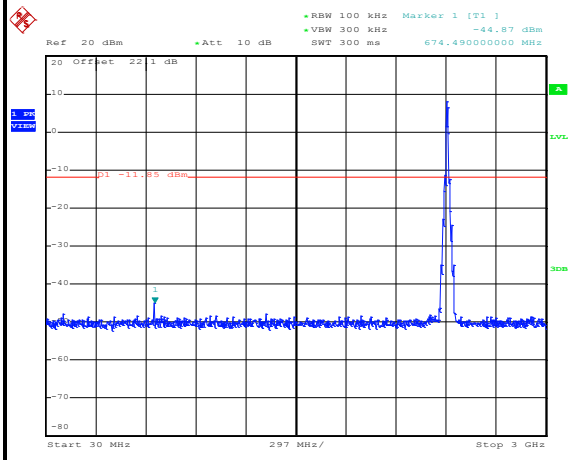
Spurious Emission 30MHz~3GHz



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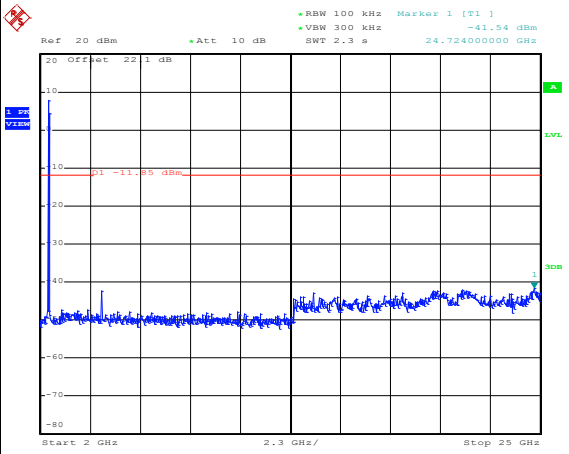
Spurious Emission 2GHz~25GHz



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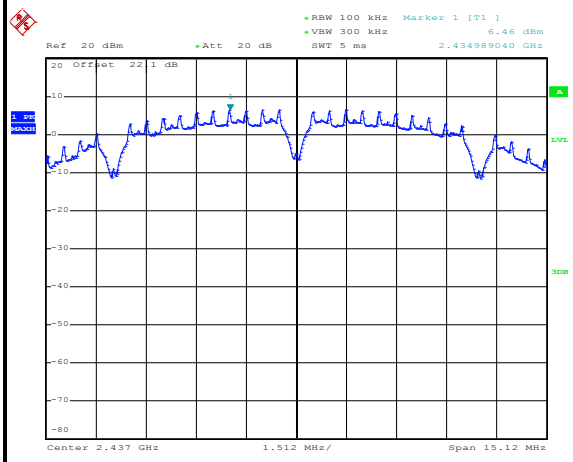
Test Mode :	802.11b	**Temperature :**	21~25℃
Test Band :	2.4GHz Mid	**Relative Humidity :**	51~54%
Test Channel :	06	**Test Engineer :**	AC Chang

WLAN 802.11b Channel 06

100kHz PSD reference Level



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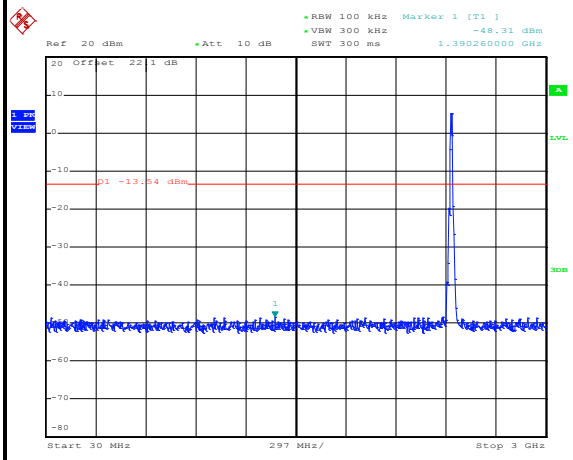
Spurious Emission 30MHz~3GHz



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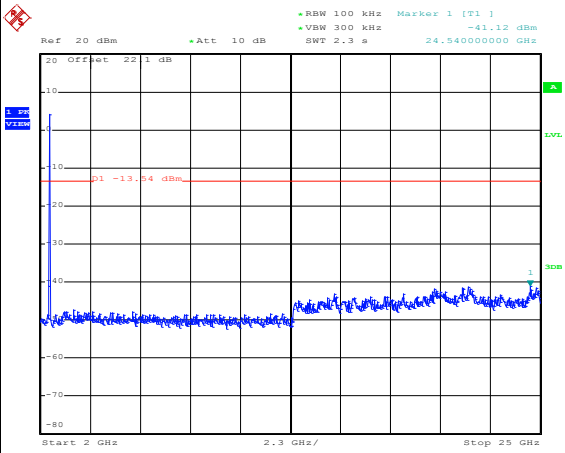
Spurious Emission 2GHz~25GHz



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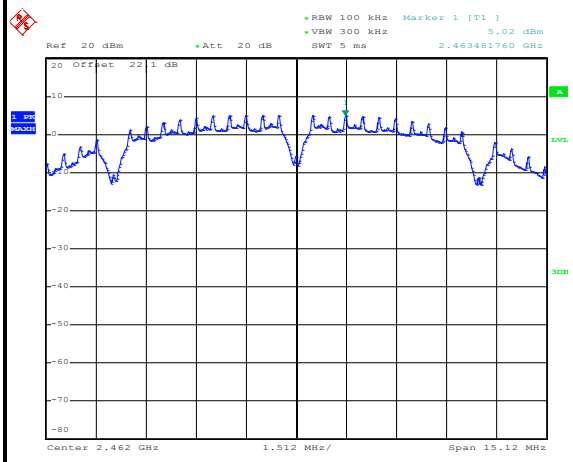
Test Mode :	802.11b	**Temperature :**	21~25℃
Test Band :	2.4GHz High	**Relative Humidity :**	51~54%
Test Channel :	11	**Test Engineer :**	AC Chang

WLAN 802.11b Channel 11

100kHz PSD reference Level



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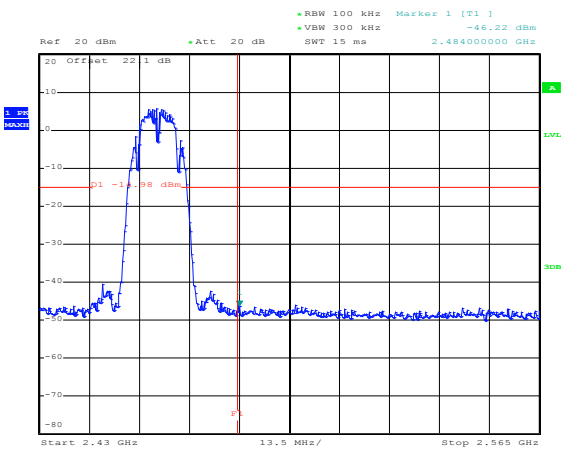
High Channel Plot



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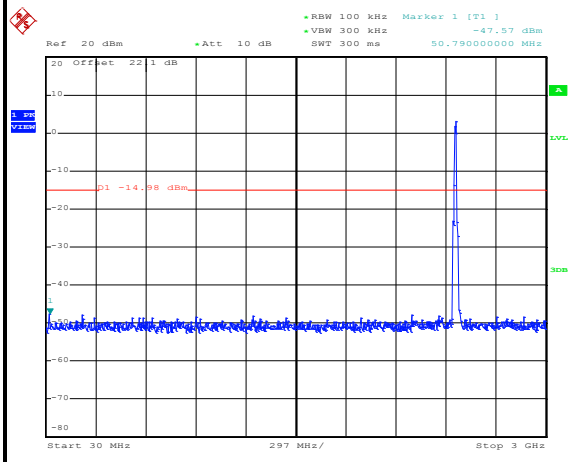
Spurious Emission 30MHz~3GHz



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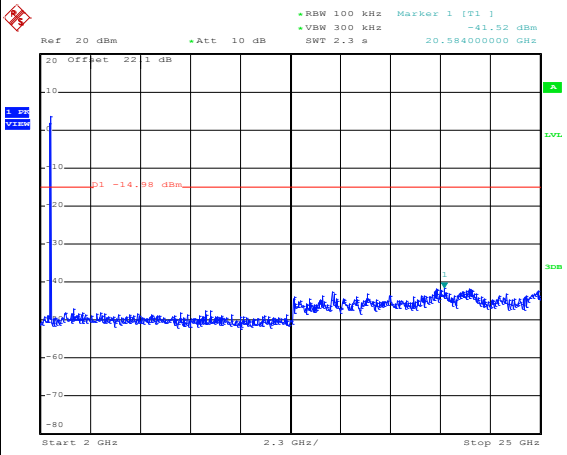
Spurious Emission 2GHz~25GHz



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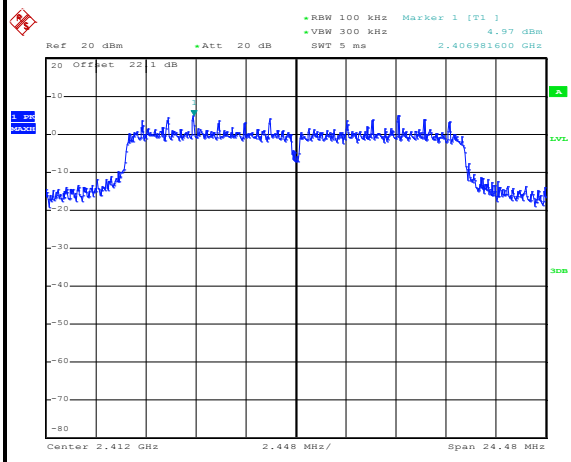
Test Mode :	802.11g	**Temperature :**	21~25℃
Test Band :	2.4GHz Low	**Relative Humidity :**	51~54%
Test Channel :	01	**Test Engineer :**	AC Chang

WLAN 802.11g Channel 01

100kHz PSD reference Level



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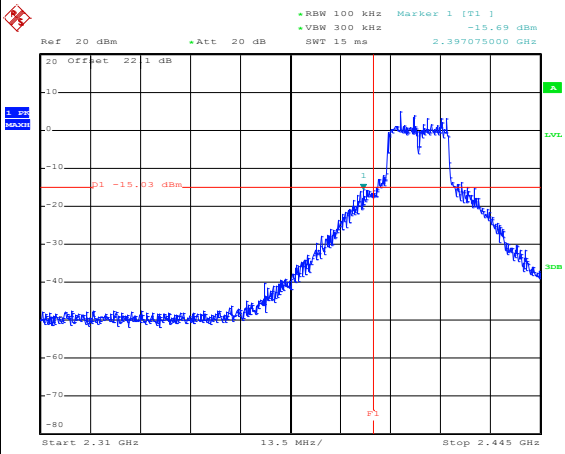
Low Channel Plot



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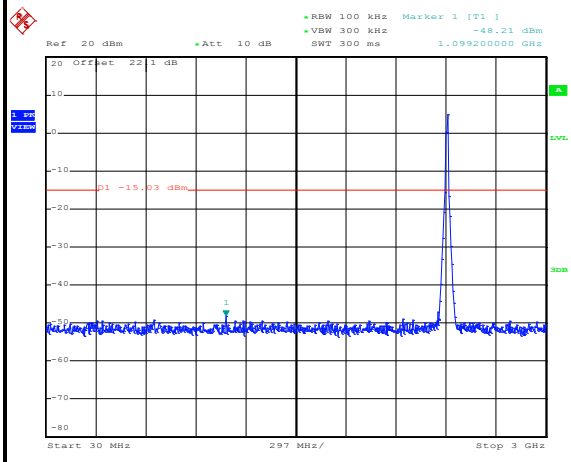
Spurious Emission 30MHz~3GHz



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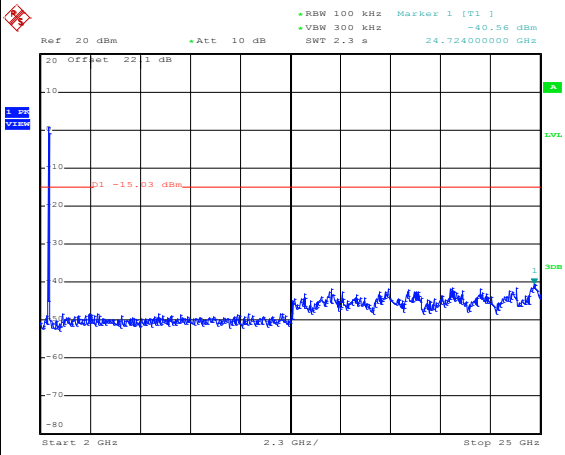
Spurious Emission 2GHz~25GHz



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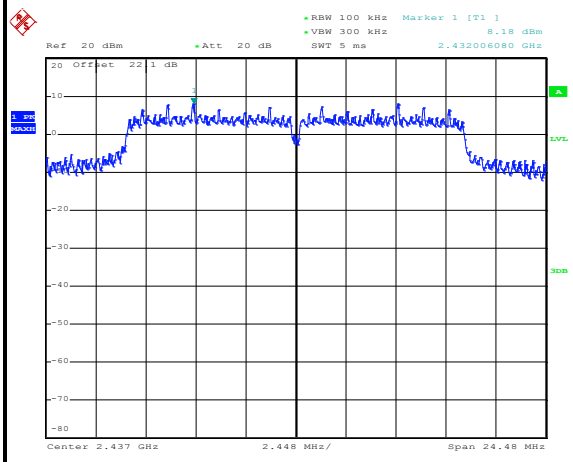
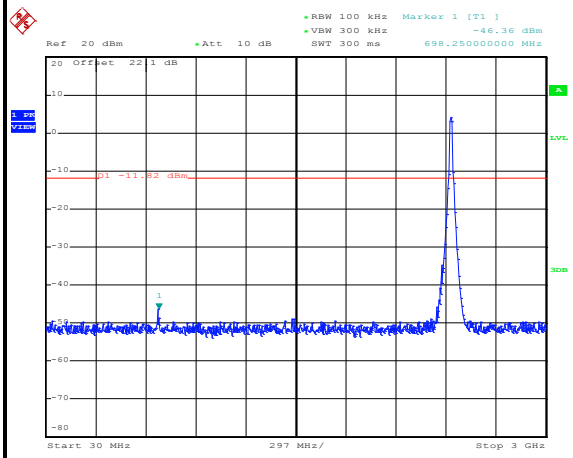
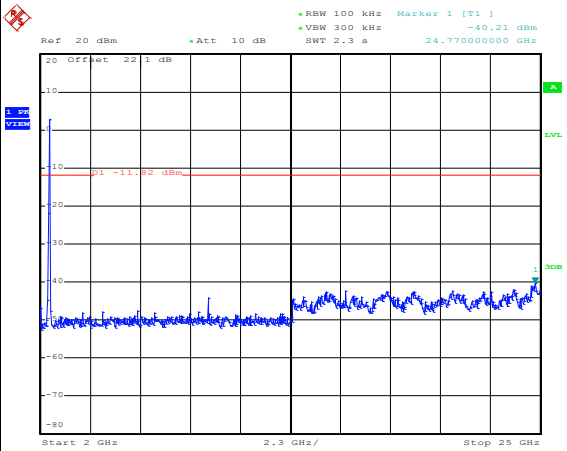
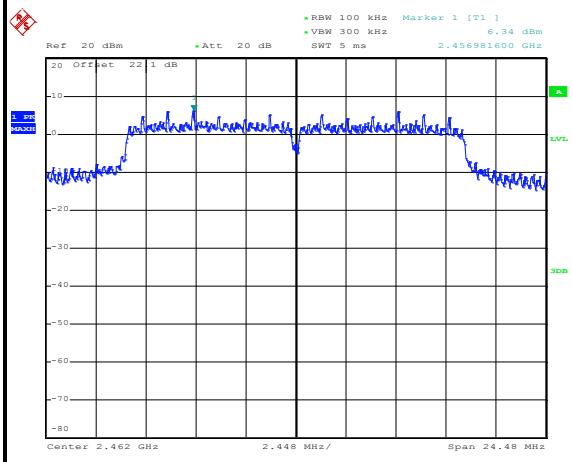
Test Mode :	802.11g	Temperature :	21~25℃
Test Band :	2.4GHz Mid	Relative Humidity :	51~54%
Test Channel :	06	Test Engineer :	AC Chang

WLAN 802.11g Channel 06	
100kHz PSD reference Level	
 Date: 24.JAN.2017 10:31:25	
Spurious Emission 30MHz~3GHz	Spurious Emission 2GHz~25GHz
 Date: 24.JAN.2017 10:31:49	 Date: 24.JAN.2017 10:31:58

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

WLAN 802.11g Channel 11

100kHz PSD reference Level



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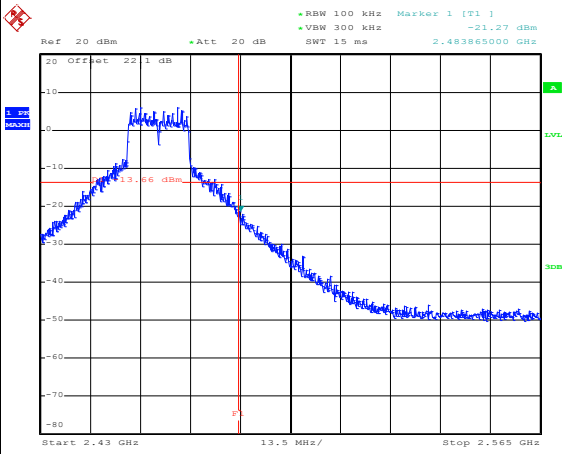
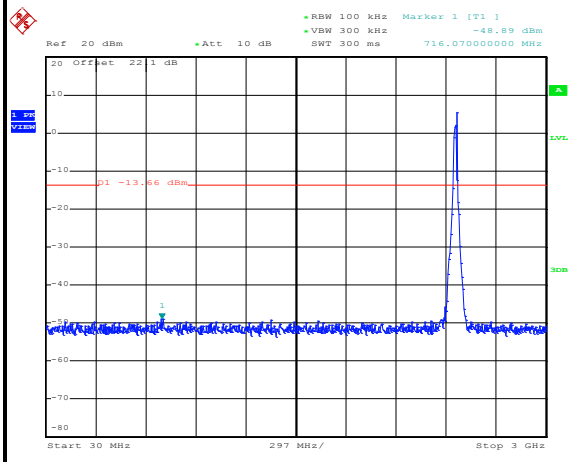
High Channel Plot



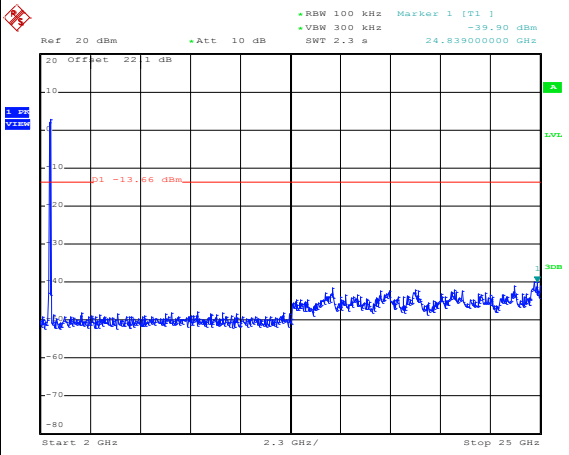
Date: 25.JAN.2017 10:44:53

Spurious Emission 30MHz~3GHz



Date: 25.JAN.2017 10:45:10

Spurious Emission 2GHz~25GHz

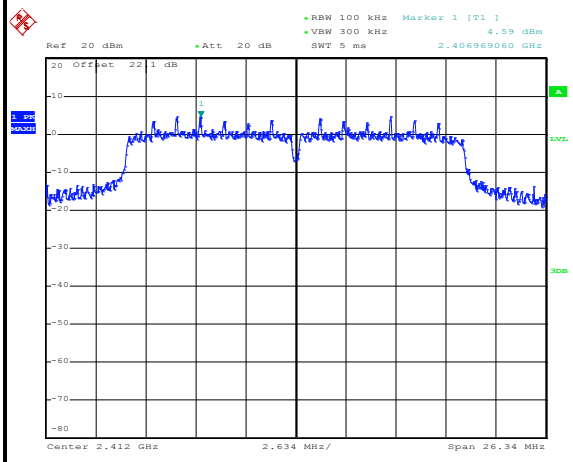


Date: 25.JAN.2017 10:45:19

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

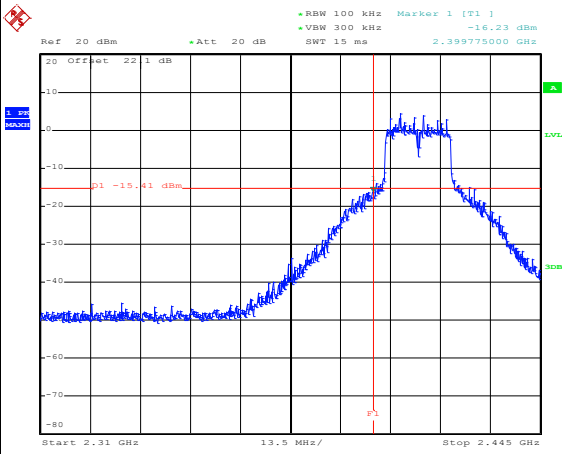
WLAN 802.11n HT20 Channel 01

100kHz PSD reference Level



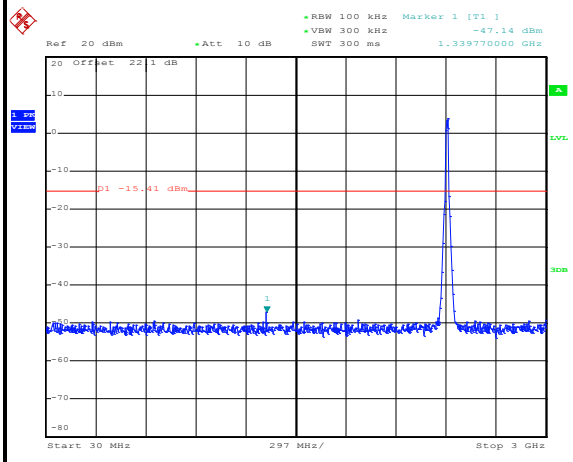
Date: 24.JAN.2017 11:00:37

Low Channel Plot



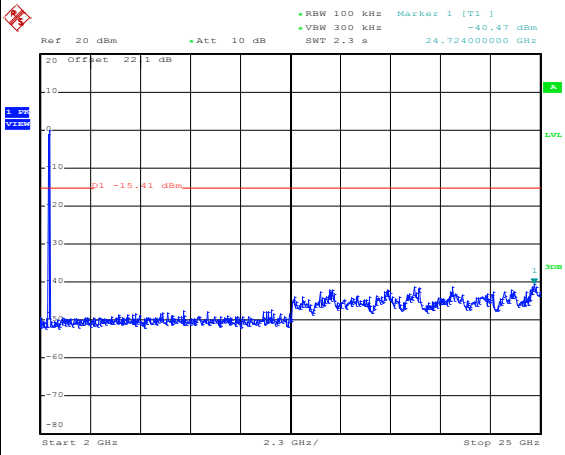
Date: 24.JAN.2017 11:01:15

Spurious Emission 30MHz~3GHz



Date: 24.JAN.2017 11:02:03

Spurious Emission 2GHz~25GHz

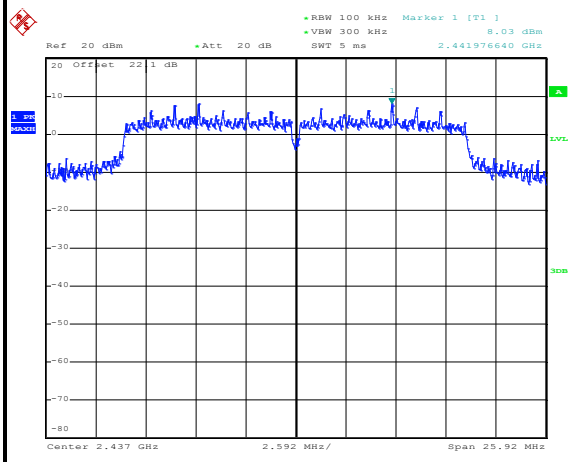


Date: 24.JAN.2017 11:02:12

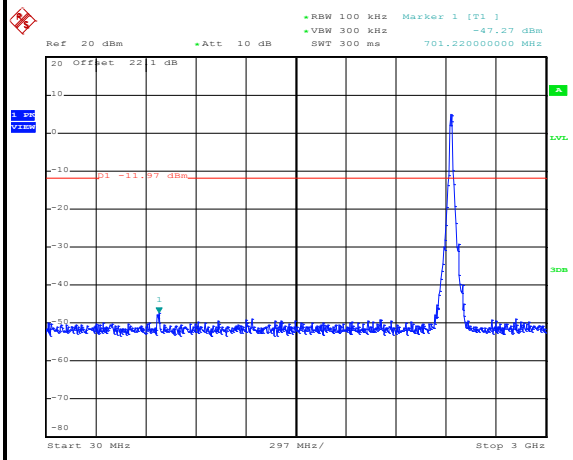
Test Mode :	802.11n HT20	Temperature :	21~25℃
Test Band :	2.4GHz Mid	Relative Humidity :	51~54%
Test Channel :	06	Test Engineer :	AC Chang

WLAN 802.11n HT20 Channel 06

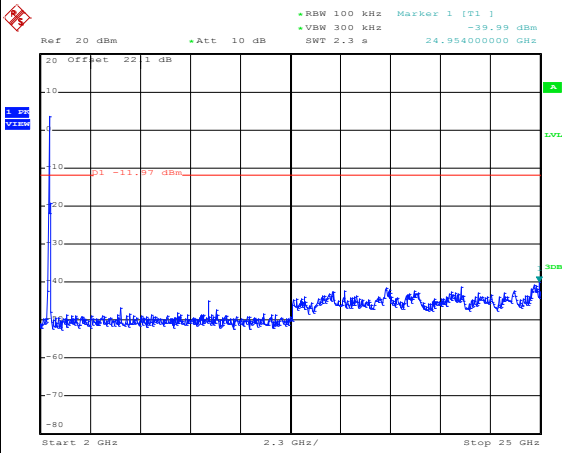
100kHz PSD reference Level



Spurious Emission 30MHz~3GHz



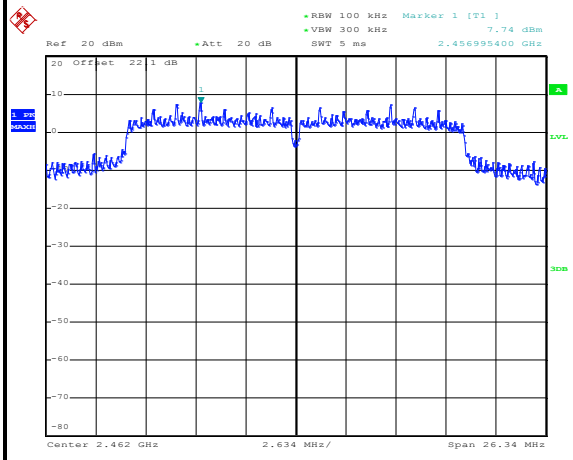
Spurious Emission 2GHz~25GHz



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

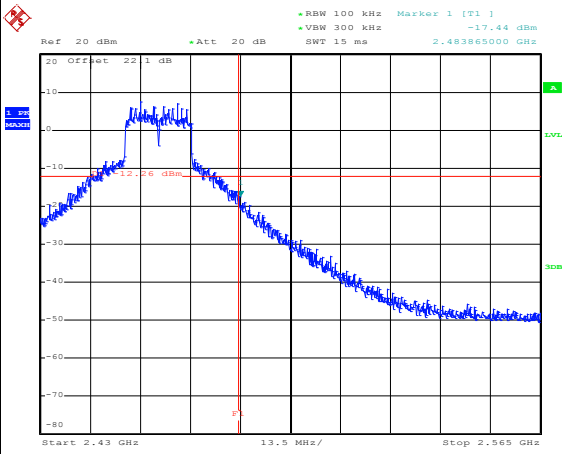
WLAN 802.11n HT20 Channel 11

100kHz PSD reference Level



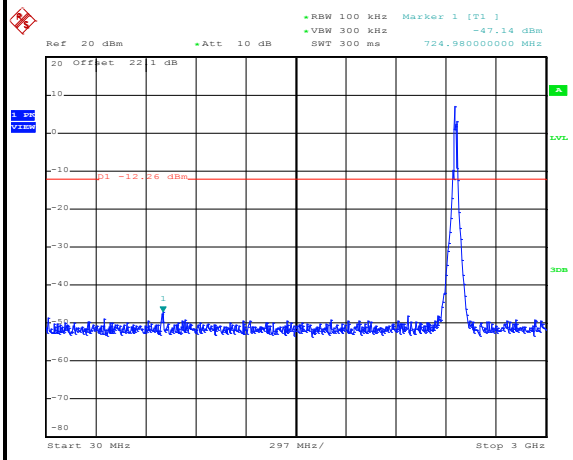
Date: 24.JAN.2017 11:08:19

High Channel Plot



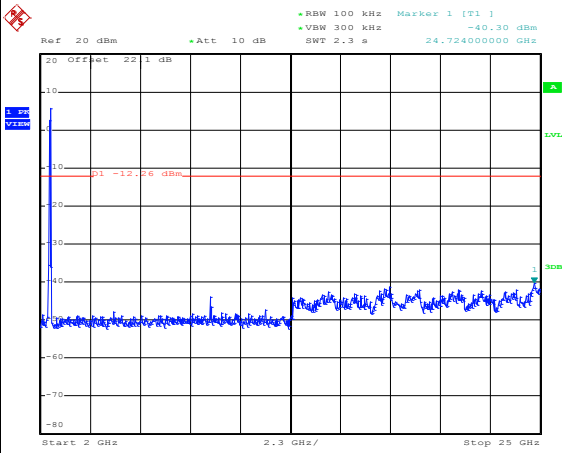
Date: 24.JAN.2017 11:08:36

Spurious Emission 30MHz~3GHz



Date: 24.JAN.2017 11:09:30

Spurious Emission 2GHz~25GHz

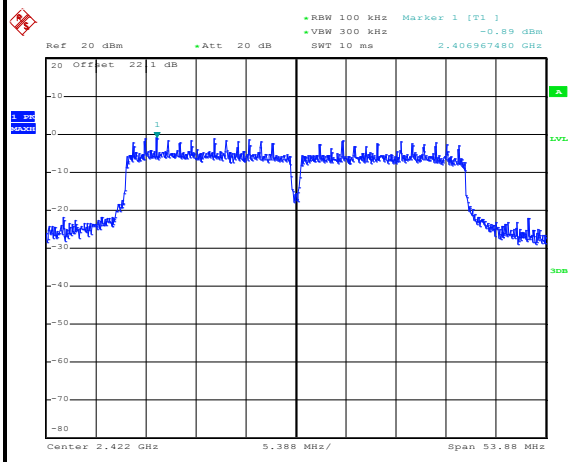


Date: 24.JAN.2017 11:09:38

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

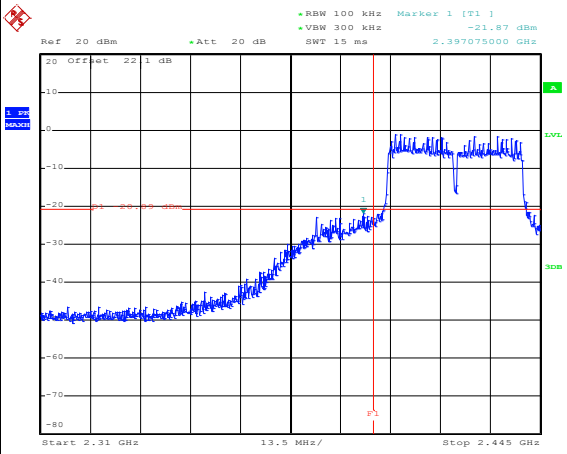
WLAN 802.11n HT40 Channel 03

100kHz PSD reference Level



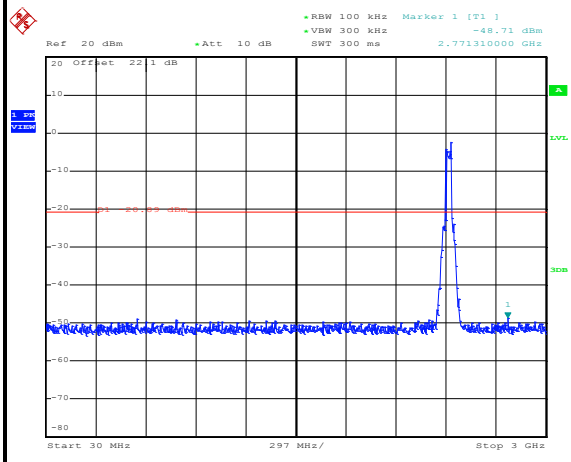
Date: 24.JAN.2017 11:23:14

Low Channel Plot



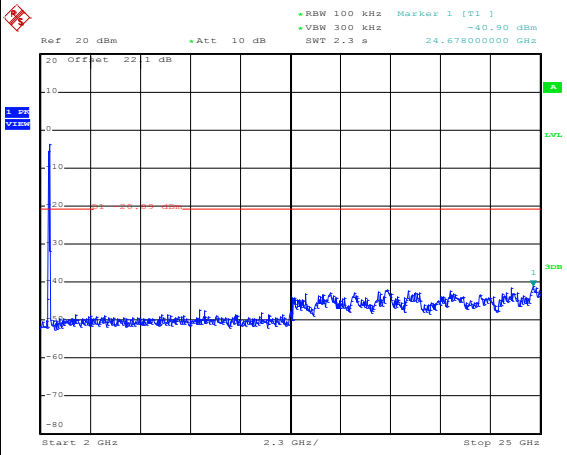
Date: 24.JAN.2017 11:23:27

Spurious Emission 30MHz~3GHz



Date: 24.JAN.2017 11:25:16

Spurious Emission 2GHz~25GHz

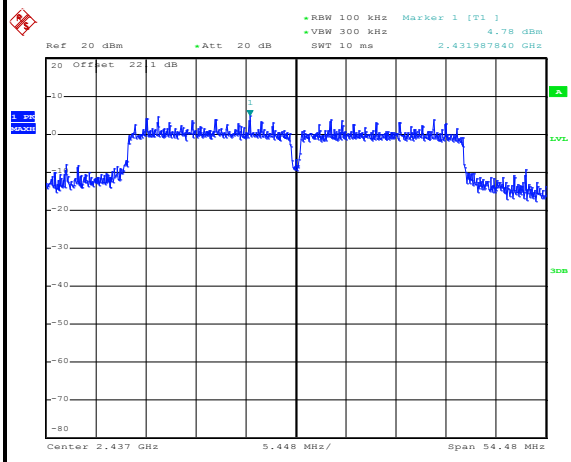


Date: 24.JAN.2017 11:24:54

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

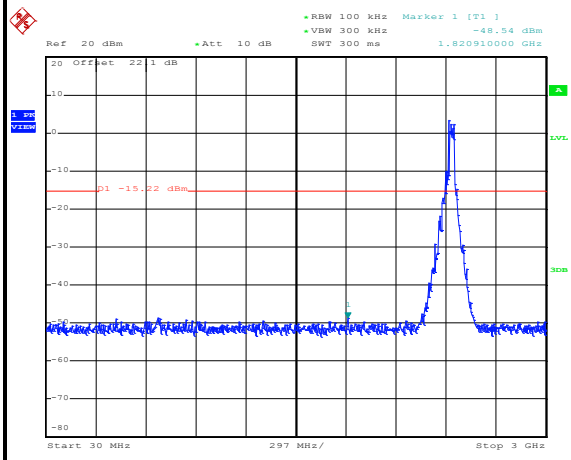
WLAN 802.11n HT40 Channel 06

100kHz PSD reference Level



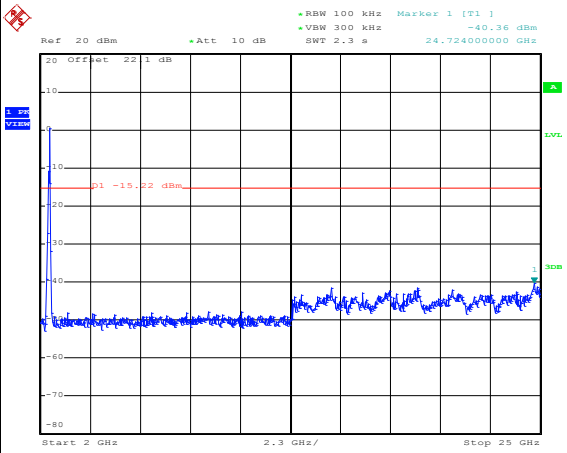
Date: 24.JAN.2017 11:17:10

Spurious Emission 30MHz~3GHz



Date: 24.JAN.2017 11:18:33

Spurious Emission 2GHz~25GHz

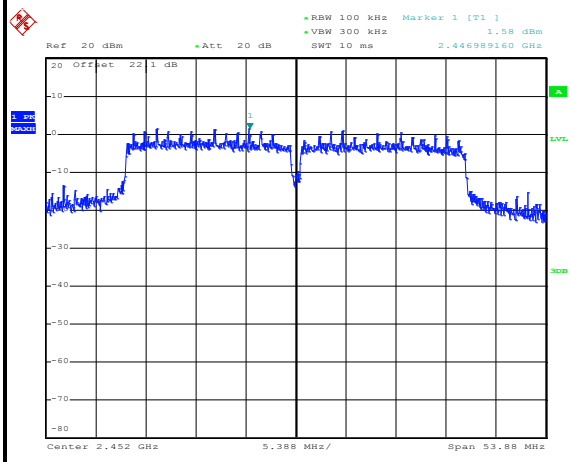


Date: 24.JAN.2017 11:17:38

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

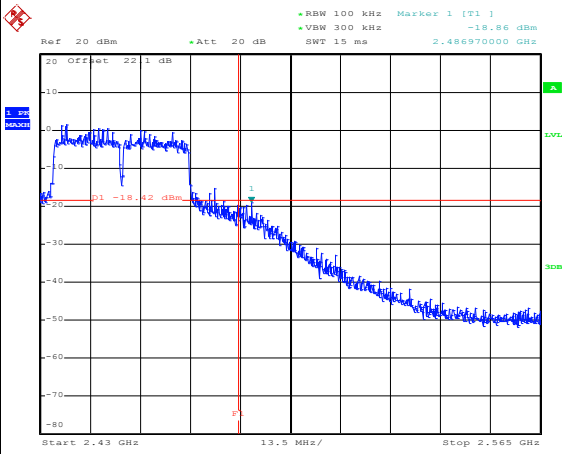
WLAN 802.11n HT40 Channel 09

100kHz PSD reference Level



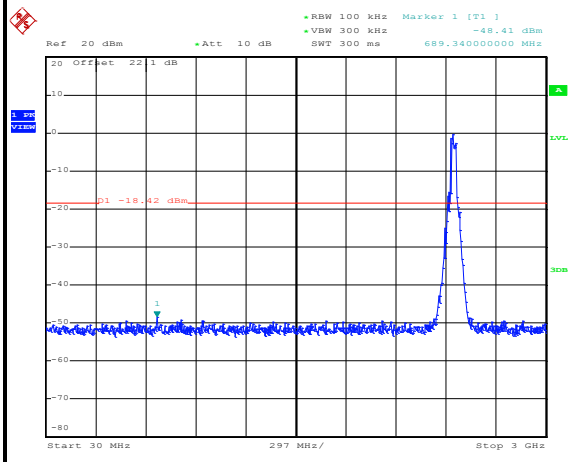
Date: 24.JAN.2017 11:32:52

High Channel Plot



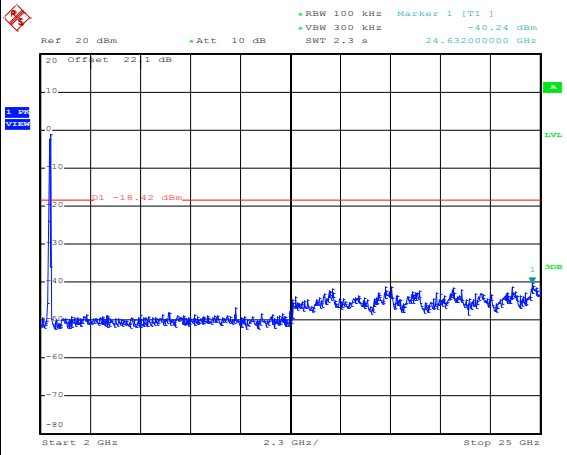
Date: 24.JAN.2017 11:33:02

Spurious Emission 30MHz~3GHz



Date: 24.JAN.2017 11:35:01

Spurious Emission 2GHz~25GHz



Date: 24.JAN.2017 11:34:42

3.5 Radiated Band Edges and Spurious Emission Measurement

3.5.1 Limit of Radiated band edge and Spurious Emission Measurement

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

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

3.5.2 Measuring Instruments

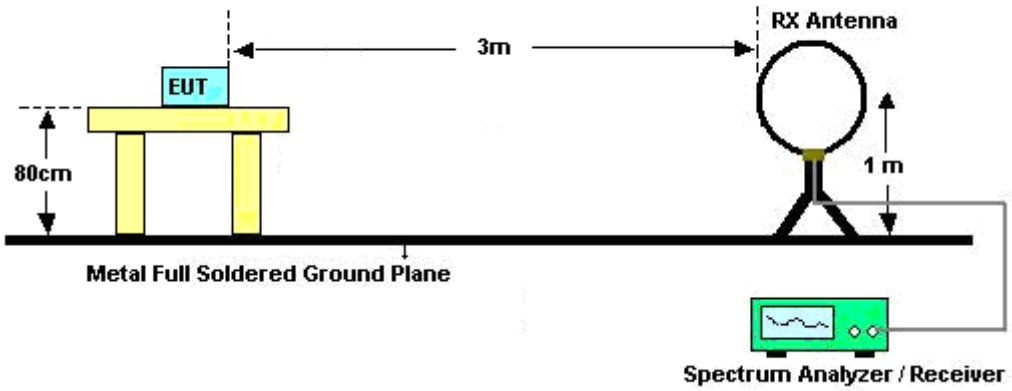
The measuring equipment is listed in the section 4 of this test report.

3.5.3 Test Procedures

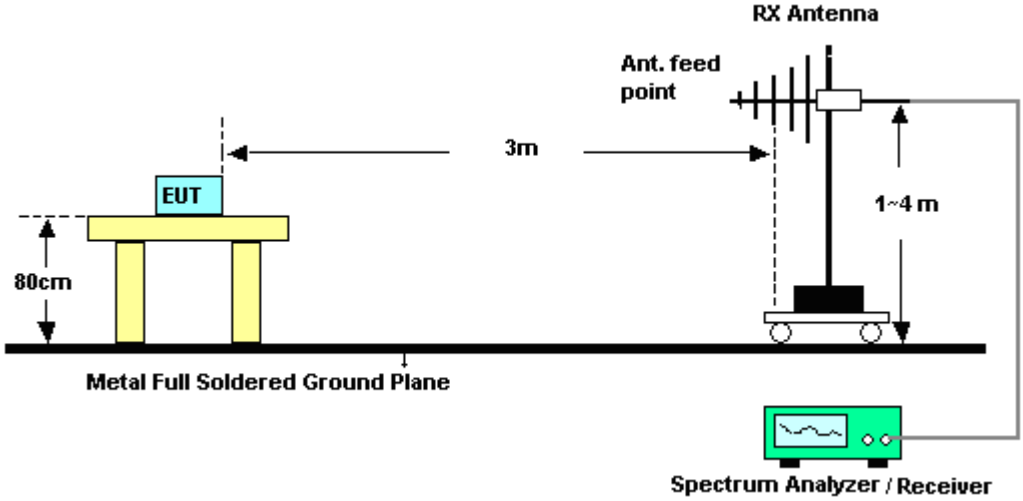
1. The testing follows FCC KDB Publication No. 558074 D01 DTS Meas. Guidance v03r05.
2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the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

3.5.4 Test Setup

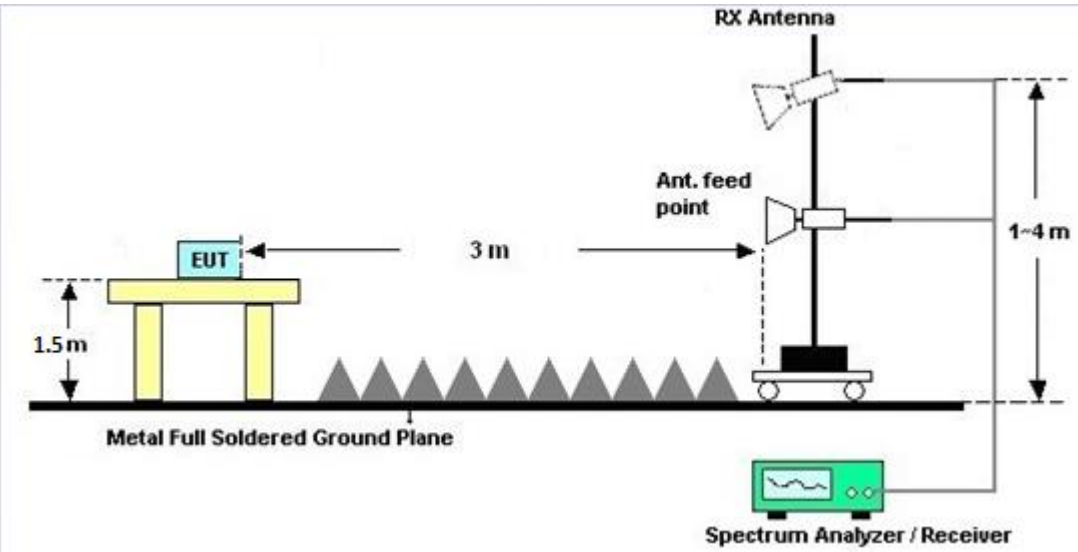
For radiated emissions below 30MHz



For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz



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

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

3.5.6 Test Result of Radiated Spurious at Band Edges

Please refer to Appendix C and D.

3.5.7 Duty Cycle

Please refer to Appendix E.

3.5.8 Test Result of Radiated Spurious Emission (30MHz ~ 10th 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 (dBμV)	
	Quasi-Peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

*Decreases with the logarithm of the frequency.

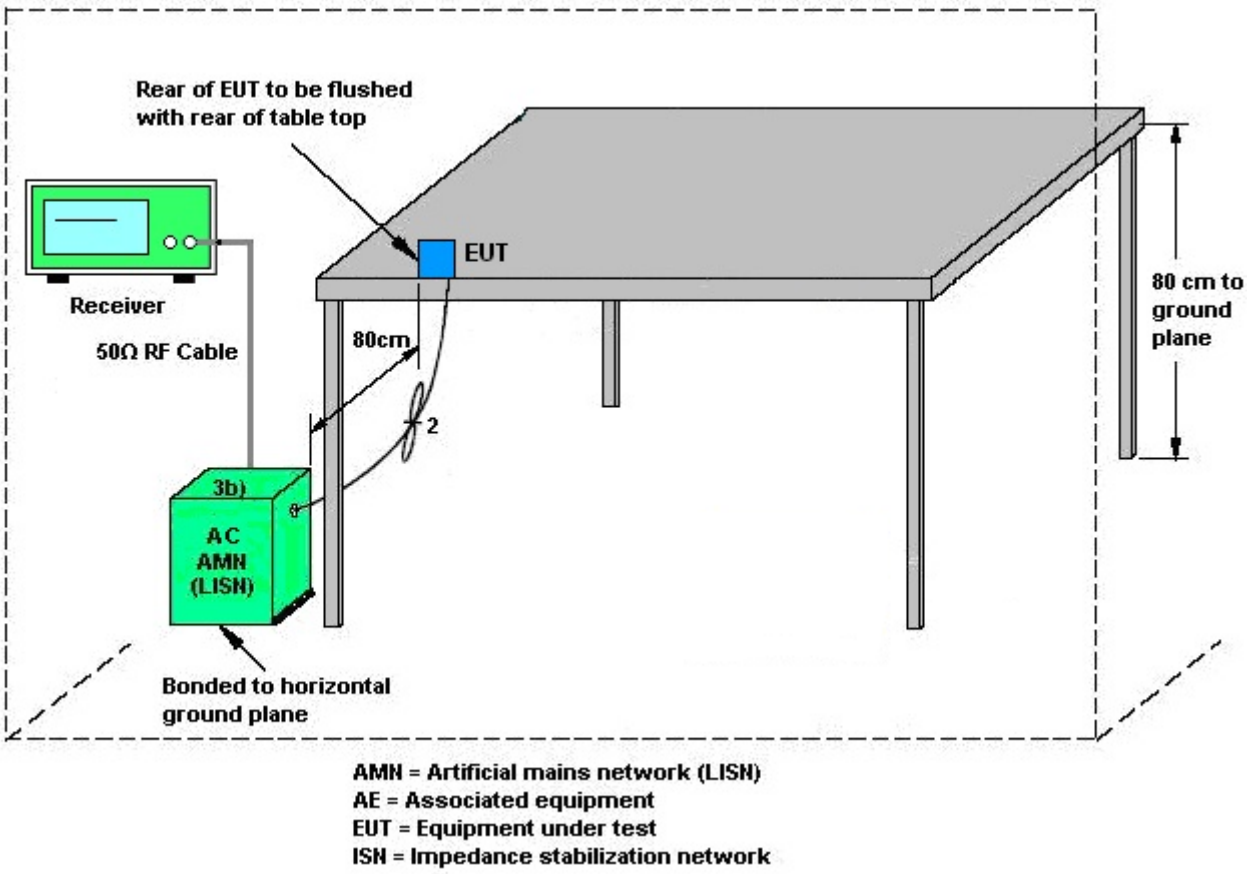
3.6.2 Measuring Instruments

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

3.6.3 Test Procedures

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

3.6.4 Test Setup



3.6.5 Test Result of AC Conducted Emission

Please refer to Appendix B.

3.7 Antenna Requirements

3.7.1 Standard Applicable

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

3.7.2 Antenna Anti-Replacement Construction

An embedded-in antenna design is used.

3.7.3 Antenna Gain

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

4 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Power Meter	Anritsu	ML2495A	0932001	300MHz~40GHz	Sep. 29, 2016	Jan. 24, 2017 ~ Feb. 07, 2017	Sep. 28, 2017	Conducted (TH05-HY)
Power Sensor	Anritsu	MA2411B	0846202	300MHz~40GHz	Sep. 29, 2016	Jan. 24, 2017 ~ Feb. 07, 2017	Sep. 28, 2017	Conducted (TH05-HY)
Spectrum Analyzer	Rohde & Schwarz	FSP40	100055	9kHz-40GHz	Jul. 17, 2016	Jan. 24, 2017 ~ Feb. 07, 2017	Jul. 16, 2017	Conducted (TH05-HY)
AC Power Source	ChainTek	APC-1000W	N/A	N/A	N/A	Jan. 05, 2017	N/A	Conduction (CO05-HY)
EMI Test Receiver	Rohde & Schwarz	ESCI 7	100724	9kHz~7GHz	Aug. 30, 2016	Jan. 05, 2017	Aug. 29, 2017	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100080	9kHz~30MHz	Nov. 29, 2016	Jan. 05, 2017	Nov. 28, 2017	Conduction (CO05-HY)
Preamplifier	MITEQ	TTA0204	1872107	2GHz~40GHz	Feb. 15, 2016	Jan. 21, 2017 ~ Feb. 03, 2017	Feb. 14, 2017	Radiation (03CH13-HY)
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100488	9 kHz~30 MHz	Oct. 20, 2016	Jan. 21, 2017 ~ Feb. 03, 2017	Oct. 19, 2018	Radiation (03CH13-HY)
Amplifier	Sonoma-Instrument	310 N	187282	9KHz~1GHz	Dec. 21, 2016	Jan. 21, 2017 ~ Feb. 03, 2017	Dec. 20, 2017	Radiation (03CH13-HY)
Bilog Antenna	TESEQ	CBL 6111D&00800N1D01N-06	40103&04	30MHz to 1GHz	Jan. 07, 2017	Jan. 21, 2017 ~ Feb. 03, 2017	Jan. 06, 2018	Radiation (03CH13-HY)
EMI Test Receiver	Keysight	N9038A (MXE)	MY55420170	N/A	Mar. 10, 2016	Jan. 21, 2017 ~ Feb. 03, 2017	Mar. 09, 2017	Radiation (03CH13-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-1241	1GHz ~ 18GHz	Apr. 25, 2016	Jan. 21, 2017 ~ Feb. 03, 2017	Apr. 24, 2017	Radiation (03CH13-HY)
Preamplifier	Keysight	83017A	MY53270147	1GHz~26.5GHz	Jan. 09, 2017	Jan. 21, 2017 ~ Feb. 03, 2017	Jan. 08, 2018	Radiation (03CH13-HY)
Spectrum Analyzer	Keysight	N9010A	MY55370526	N/A	Mar. 14, 2016	Jan. 21, 2017 ~ Feb. 03, 2017	Mar. 13, 2017	Radiation (03CH13-HY)
Antenna Mast	EMEC	AM-BS-4500-B	N/A	1m~4m	N/A	Jan. 21, 2017 ~ Feb. 03, 2017	N/A	Radiation (03CH13-HY)
Turn Table	EMEC	TT2000	N/A	0~360 Degree	N/A	Jan. 21, 2017 ~ Feb. 03, 2017	N/A	Radiation (03CH13-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170251	18GHz- 40GHz	Nov. 08, 2016	Jan. 21, 2017 ~ Feb. 03, 2017	Nov. 07, 2017	Radiation (03CH13-HY)

5 Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**2.70**

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**4.90**

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**5.40**

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**4.30**

Appendix A. Test Result of Conducted Test Items

Test Engineer:	AC Chang	Temperature:	21~25	°C
Test Date:	2017/01/24~2017/02/07	Relative Humidity:	51~54	%

TEST RESULTS DATA
6dB and 99% Occupied Bandwidth

2.4GHz Band								
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Occupied BW (MHz)	6dB BW (MHz)	6dB BW Limit (MHz)	Pass/Fail
11b	1Mbps	1	1	2412	21.80	10.06	0.50	Pass
11b	1Mbps	1	6	2437	15.80	10.08	0.50	Pass
11b	1Mbps	1	11	2462	15.15	10.08	0.50	Pass
11g	6Mbps	1	1	2412	25.75	16.32	0.50	Pass
11g	6Mbps	1	6	2437	33.10	16.32	0.50	Pass
11g	6Mbps	1	11	2462	30.85	16.32	0.50	Pass
HT20	MCS0	1	1	2412	26.55	17.56	0.50	Pass
HT20	MCS0	1	6	2437	33.10	17.28	0.50	Pass
HT20	MCS0	1	11	2462	34.15	17.56	0.50	Pass
HT40	MCS0	1	3	2422	40.80	35.92	0.50	Pass
HT40	MCS0	1	6	2437	67.60	36.32	0.50	Pass
HT40	MCS0	1	9	2452	57.00	35.92	0.50	Pass

TEST RESULTS DATA
Peak Power Table

2.4GHz Band										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Peak Conducted Power (dBm)	Conducted Power Limit (dBm)	DG (dBi)	EIRP Power (dBm)	EIRP Power Limit (dBm)	Pass /Fail
11b	1Mbps	1	1	2412	19.22	30.00	2.00	21.22	36.00	Pass
11b	1Mbps	1	6	2437	17.05	30.00	2.00	19.05	36.00	Pass
11b	1Mbps	1	11	2462	15.81	30.00	2.00	17.81	36.00	Pass
11g	6Mbps	1	1	2412	20.33	30.00	2.00	22.33	36.00	Pass
11g	6Mbps	1	6	2437	21.75	30.00	2.00	23.75	36.00	Pass
11g	6Mbps	1	11	2462	20.82	30.00	2.00	22.82	36.00	Pass
HT20	MCS0	1	1	2412	19.94	30.00	2.00	21.94	36.00	Pass
HT20	MCS0	1	6	2437	21.80	30.00	2.00	23.80	36.00	Pass
HT20	MCS0	1	11	2462	21.38	30.00	2.00	23.38	36.00	Pass
HT40	MCS0	1	3	2422	19.51	30.00	2.00	21.51	36.00	Pass
HT40	MCS0	1	6	2437	21.75	30.00	2.00	23.75	36.00	Pass
HT40	MCS0	1	9	2452	21.39	30.00	2.00	23.39	36.00	Pass

TEST RESULTS DATA
Average Power Table
(Reporting Only)

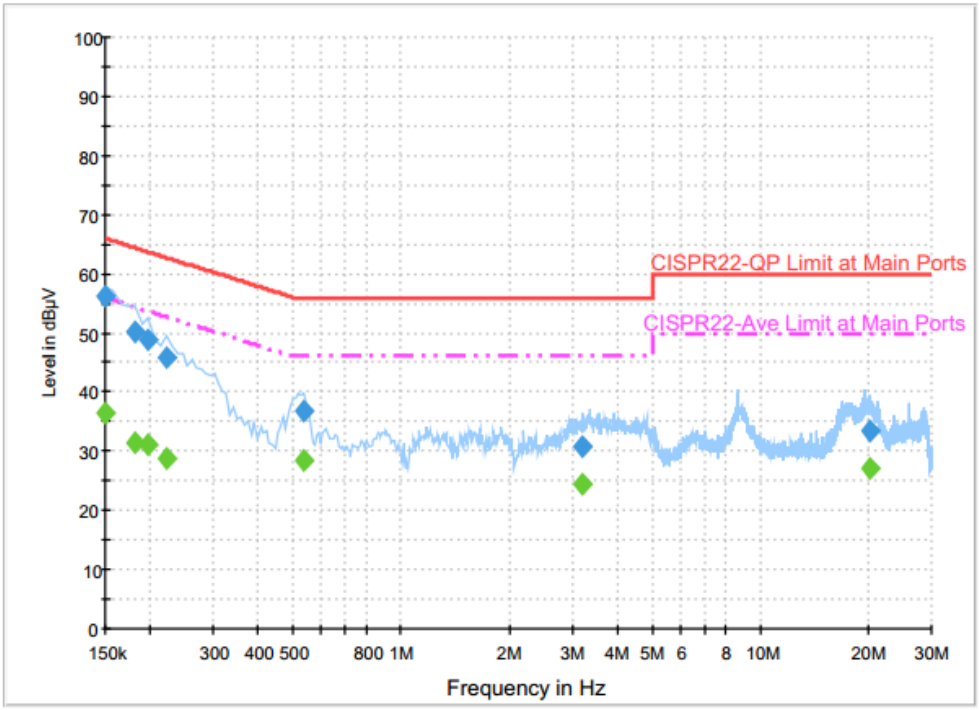
2.4GHz Band						
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)	Average Conducted Power (dBm)
11b	1Mbps	1	1	2412	0.05	17.91
11b	1Mbps	1	6	2437	0.05	15.48
11b	1Mbps	1	11	2462	0.05	14.03
11g	6Mbps	1	1	2412	0.23	15.46
11g	6Mbps	1	6	2437	0.23	18.51
11g	6Mbps	1	11	2462	0.23	16.46
HT20	MCS0	1	1	2412	0.33	15.03
HT20	MCS0	1	6	2437	0.33	18.63
HT20	MCS0	1	11	2462	0.33	18.10
HT40	MCS0	1	3	2422	0.47	12.71
HT40	MCS0	1	6	2437	0.47	18.29
HT40	MCS0	1	9	2452	0.47	17.77

TEST RESULTS DATA
Peak Power Density

2.4GHz Band								
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Peak PSD (dBm /3kHz)	DG (dBi)	Peak PSD Limit (dBm /3kHz)	Pass/Fail
11b	1Mbps	1	1	2412	-6.18	2.00	8.00	Pass
11b	1Mbps	1	6	2437	-8.13	2.00	8.00	Pass
11b	1Mbps	1	11	2462	-9.41	2.00	8.00	Pass
11g	6Mbps	1	1	2412	-9.51	2.00	8.00	Pass
11g	6Mbps	1	6	2437	-7.31	2.00	8.00	Pass
11g	6Mbps	1	11	2462	-8.90	2.00	8.00	Pass
HT20	MCS0	1	1	2412	-10.94	2.00	8.00	Pass
HT20	MCS0	1	6	2437	-7.93	2.00	8.00	Pass
HT20	MCS0	1	11	2462	-7.57	2.00	8.00	Pass
HT40	MCS0	1	3	2422	-16.19	2.00	8.00	Pass
HT40	MCS0	1	6	2437	-10.64	2.00	8.00	Pass
HT40	MCS0	1	9	2452	-12.67	2.00	8.00	Pass

Appendix B. AC Conducted Emission Test Results

Test Engineer :	Arthur Hsieh	Temperature :	24~26℃
		Relative Humidity :	50~51%
Test Voltage :	120Vac / 60Hz	Phase :	Line



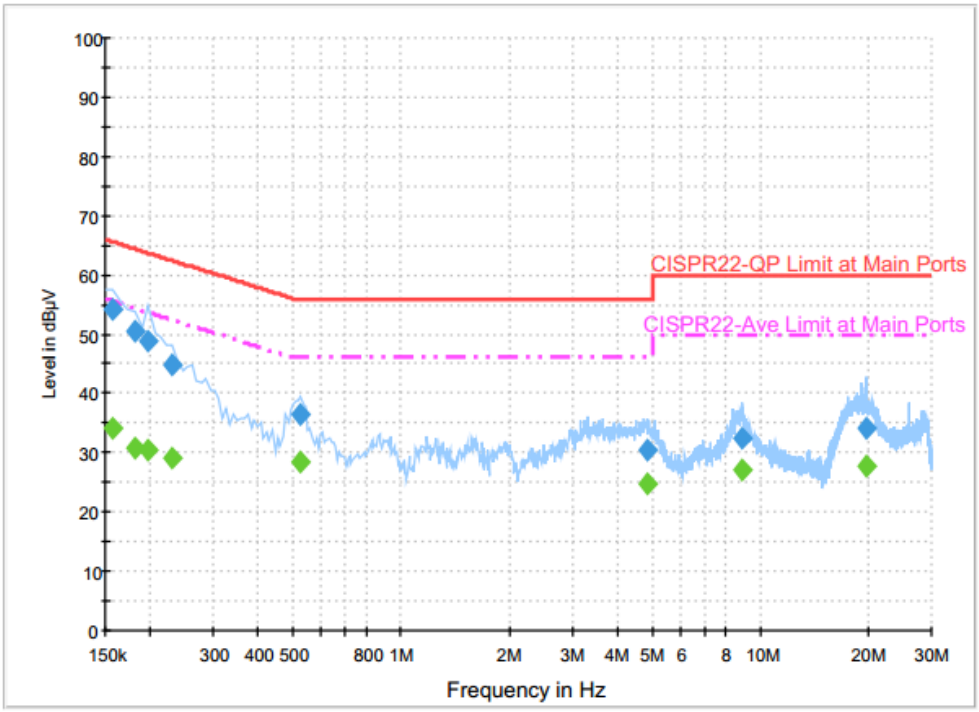
Final Result : Quasi-Peak

Frequency (MHz)	Quasi-Peak (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.150000	56.0	Off	L1	19.6	10.0	66.0
0.182000	50.2	Off	L1	19.6	14.2	64.4
0.198000	48.7	Off	L1	19.6	15.0	63.7
0.222000	45.8	Off	L1	19.6	16.9	62.7
0.534000	36.8	Off	L1	19.6	19.2	56.0
3.214000	30.8	Off	L1	19.6	25.2	56.0
20.270000	33.5	Off	L1	20.6	26.5	60.0

Final Result : Average

Frequency (MHz)	Average (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.150000	36.3	Off	L1	19.6	19.7	56.0
0.182000	31.4	Off	L1	19.6	23.0	54.4
0.198000	31.3	Off	L1	19.6	22.4	53.7
0.222000	28.9	Off	L1	19.6	23.8	52.7
0.534000	28.4	Off	L1	19.6	17.6	46.0
3.214000	24.4	Off	L1	19.6	21.6	46.0
20.270000	27.0	Off	L1	20.6	23.0	50.0

Test Engineer :	Arthur Hsieh	Temperature :	24~26℃
		Relative Humidity :	50~51%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral



Final Result : Quasi-Peak

Frequency (MHz)	Quasi-Peak (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.158000	54.3	Off	N	19.6	11.3	65.6
0.182000	50.7	Off	N	19.6	13.7	64.4
0.198000	48.7	Off	N	19.6	15.0	63.7
0.230000	44.8	Off	N	19.6	17.6	62.4
0.526000	36.3	Off	N	19.6	19.7	56.0
4.862000	30.4	Off	N	19.8	25.6	56.0
8.918000	32.4	Off	N	20.0	27.6	60.0
19.886000	34.0	Off	N	20.7	26.0	60.0

Final Result : Average

Frequency (MHz)	Average (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.158000	34.1	Off	N	19.6	21.5	55.6
0.182000	30.9	Off	N	19.6	23.5	54.4
0.198000	30.4	Off	N	19.6	23.3	53.7
0.230000	29.0	Off	N	19.6	23.4	52.4
0.526000	28.4	Off	N	19.6	17.6	46.0
4.862000	24.7	Off	N	19.8	21.3	46.0
8.918000	27.2	Off	N	20.0	22.8	50.0
19.886000	27.8	Off	N	20.7	22.2	50.0

Appendix C. Radiated Spurious Emission

Test Engineer :	Alex Jeng, Bill Chang and Wilson Wu	Temperature :	24~26°C
		Relative Humidity :	44~46%

2.4GHz 2400~2483.5MHz

WIFI 802.11b (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11b CH 01 2412MHz		2386.335	55.33	-18.67	74	52.19	27.15	6.98	30.99	137	166	P	H
		2386.23	47.36	-6.64	54	44.22	27.15	6.98	30.99	137	166	A	H
	*	2412	82.22	-	-	79.02	27.19	7	30.99	137	166	P	H
	*	2412	78.85	-	-	75.65	27.19	7	30.99	137	166	A	H
													H
													H
		2383.605	53.64	-20.36	74	50.56	27.11	6.96	30.99	107	264	P	V
		2386.125	44.82	-9.18	54	41.68	27.15	6.98	30.99	107	264	A	V
	*	2412	78.44	-	-	75.24	27.19	7	30.99	107	264	P	V
	*	2412	74.96	-	-	71.76	27.19	7	30.99	107	264	A	V
													V
													V
802.11b CH 06 2437MHz		2320.08	51.98	-22.02	74	49.11	26.99	6.89	31.01	133	151	P	H
		2389.94	41.49	-12.51	54	38.35	27.15	6.98	30.99	133	151	A	H
	*	2437	80.17	-	-	76.84	27.28	7.03	30.98	133	151	P	H
	*	2437	76.72	-	-	73.39	27.28	7.03	30.98	133	151	A	H
		2485.02	53.64	-20.36	74	50.18	27.36	7.07	30.97	133	151	P	H
		2497.55	41.89	-12.11	54	38.36	27.4	7.09	30.96	133	151	A	H
		2375.8	52.49	-21.51	74	49.41	27.11	6.96	30.99	103	254	P	V
		2382.52	41.39	-12.61	54	38.31	27.11	6.96	30.99	103	254	A	V
	*	2437	76.04	-	-	72.71	27.28	7.03	30.98	103	254	P	V
	*	2437	72.45	-	-	69.12	27.28	7.03	30.98	103	254	A	V
		2486.28	53.97	-20.03	74	50.51	27.36	7.07	30.97	103	254	P	V
		2495.31	41.84	-12.16	54	38.31	27.4	7.09	30.96	103	254	A	V

802.11b CH 11 2462MHz	*	2462	80.3	-	-	76.9	27.32	7.05	30.97	309	71	P	H
	*	2462	76.96	-	-	73.56	27.32	7.05	30.97	309	71	A	H
		2499.76	52.58	-21.42	74	49.05	27.4	7.09	30.96	309	71	P	H
		2500	42.28	-11.72	54	38.75	27.4	7.09	30.96	309	71	A	H
													H
													H
	*	2462	72.33	-	-	68.93	27.32	7.05	30.97	100	257	P	V
	*	2462	68.65	-	-	65.25	27.32	7.05	30.97	100	257	A	V
		2490.28	52.64	-21.36	74	49.11	27.4	7.09	30.96	100	257	P	V
		2500	41.82	-12.18	54	38.29	27.4	7.09	30.96	100	257	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)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11b CH 01 2412MHz		4824	53.83	-20.17	74	63.72	31.22	10.07	51.18	150	70	P	H
		4824	53.41	-0.59	54	63.3	31.22	10.07	51.18	150	70	A	H
													H
													H
		4824	51.25	-22.75	74	61.14	31.22	10.07	51.18	100	15	P	V
		4824	50.91	-3.09	54	60.8	31.22	10.07	51.18	100	15	A	V
													V
													V
802.11b CH 06 2437MHz		4874	54.48	-19.52	74	64.21	31.31	10.11	51.15	105	35	P	H
		4874	53.84	-0.16	54	63.57	31.31	10.11	51.15	105	35	A	H
		7311	42.55	-31.45	74	44.55	36.27	12.53	50.8	100	0	P	H
													H
		4874	53.8	-20.2	74	63.53	31.31	10.11	51.15	223	191	P	V
		4874	53.16	-0.84	54	62.89	31.31	10.11	51.15	223	191	A	V
		7311	39.08	-34.92	74	41.08	36.27	12.53	50.8	100	0	P	V
													V
802.11b CH 11 2462MHz		4924	51.25	-22.75	74	60.85	31.39	10.14	51.13	133	56	P	H
		4924	50.6	-3.4	54	60.2	31.39	10.14	51.13	133	56	A	H
		7386	35.56	-38.44	74	37.12	36.51	12.73	50.8	100	0	P	H
													H
		4924	53.64	-20.36	74	63.24	31.39	10.14	51.13	230	185	P	V
		4924	53.3	-0.7	54	62.9	31.39	10.14	51.13	230	185	A	V
		7386	37.15	-36.85	74	38.71	36.51	12.73	50.8	100	0	P	V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

2.4GHz 2400~2483.5MHz

WIFI 802.11g (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11g CH 01 2412MHz		2390	65.53	-8.47	74	62.39	27.15	6.98	30.99	269	140	P	H
		2389.8	53.13	-0.87	54	49.99	27.15	6.98	30.99	269	140	A	H
	*	2412	87.24	-	-	84.04	27.19	7	30.99	269	140	P	H
	*	2412	79.45	-	-	76.25	27.19	7	30.99	269	140	A	H
													H
													H
		2388.855	58.61	-15.39	74	55.47	27.15	6.98	30.99	375	44	P	V
		2390	47.41	-6.59	54	44.27	27.15	6.98	30.99	375	44	A	V
	*	2412	79.56	-	-	76.36	27.19	7	30.99	375	44	P	V
	*	2412	70.54	-	-	67.34	27.19	7	30.99	375	44	A	V
													V
													V
802.11g CH 06 2437MHz		2389.1	52.14	-21.86	74	49	27.15	6.98	30.99	267	102	P	H
		2388.4	43.1	-10.9	54	39.96	27.15	6.98	30.99	267	102	A	H
	*	2437	82.85	-	-	79.52	27.28	7.03	30.98	267	102	P	H
	*	2437	74.77	-	-	71.44	27.28	7.03	30.98	267	102	A	H
		2490.55	52.41	-21.59	74	48.88	27.4	7.09	30.96	267	102	P	H
		2496.43	42.74	-11.26	54	39.21	27.4	7.09	30.96	267	102	A	H
		2378.46	52.38	-21.62	74	49.3	27.11	6.96	30.99	400	46	P	V
		2388.26	42.45	-11.55	54	39.31	27.15	6.98	30.99	400	46	A	V
	*	2437	80.37	-	-	77.04	27.28	7.03	30.98	400	46	P	V
	*	2437	72.37	-	-	69.04	27.28	7.03	30.98	400	46	A	V
		2496.64	52.79	-21.21	74	49.26	27.4	7.09	30.96	400	46	P	V
		2499.65	42.72	-11.28	54	39.19	27.4	7.09	30.96	400	46	A	V

802.11g CH 11 2462MHz	*	2462	77.43	-	-	74.03	27.32	7.05	30.97	199	338	P	H
	*	2462	68.93	-	-	65.53	27.32	7.05	30.97	199	338	A	H
		2483.92	54.26	-19.74	74	50.8	27.36	7.07	30.97	199	338	P	H
		2483.64	44.94	-9.06	54	41.48	27.36	7.07	30.97	199	338	A	H
													H
													H
	*	2462	81.24	-	-	77.84	27.32	7.05	30.97	100	204	P	V
	*	2462	73.78	-	-	70.38	27.32	7.05	30.97	100	204	A	V
		2484.08	58.71	-15.29	74	55.25	27.36	7.07	30.97	100	204	P	V
		2483.52	47.8	-6.2	54	44.34	27.36	7.07	30.97	100	204	A	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

2.4GHz 2400~2483.5MHz

WIFI 802.11g (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11g CH 01 2412MHz		4824	51.39	-22.61	74	61.28	31.22	10.07	51.18	100	14	P	H
		4824	41.59	-12.41	54	51.48	31.22	10.07	51.18	100	14	A	H
													H
													H
		4824	45.14	-28.86	74	55.03	31.22	10.07	51.18	100	0	P	V
													V
													V
													V
802.11g CH 06 2437MHz		4874	59	-15	74	68.73	31.31	10.11	51.15	100	185	P	H
		4874	50.56	-3.44	54	60.29	31.31	10.11	51.15	100	185	A	H
		7311	40.56	-33.44	74	42.56	36.27	12.53	50.8	100	0	P	H
													H
		4874	57	-17	74	66.73	31.31	10.11	51.15	106	349	P	V
		4874	48.42	-5.58	54	58.15	31.31	10.11	51.15	106	349	A	V
		7311	41.07	-32.93	74	43.07	36.27	12.53	50.8	100	0	P	V
													V
802.11g CH 11 2462MHz		4924	62.09	-11.91	74	71.69	31.39	10.14	51.13	100	181	P	H
		4924	53.48	-0.52	54	63.08	31.39	10.14	51.13	100	181	A	H
		7386	35.78	-38.22	74	37.34	36.51	12.73	50.8	100	0	P	H
													H
		4924	60.83	-13.17	74	70.43	31.39	10.14	51.13	100	355	P	V
		4924	51.46	-2.54	54	61.06	31.39	10.14	51.13	100	355	A	V
		7386	36.73	-37.27	74	38.29	36.51	12.73	50.8	100	0	P	V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

2.4GHz 2400~2483.5MHz

WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		2389.275	64.21	-9.79	74	61.07	27.15	6.98	30.99	185	96	P	H
		2390	53.58	-0.42	54	50.44	27.15	6.98	30.99	185	96	A	H
	*	2412	85.76	-	-	82.56	27.19	7	30.99	185	96	P	H
	*	2412	77.54	-	-	74.34	27.19	7	30.99	185	96	A	H
802.11n													H
HT20													H
CH 01		2389.17	59.62	-14.38	74	56.48	27.15	6.98	30.99	224	95	P	V
2412MHz		2390	49.9	-4.1	54	46.76	27.15	6.98	30.99	224	95	A	V
	*	2412	80.44	-	-	77.24	27.19	7	30.99	224	95	P	V
	*	2412	72.3	-	-	69.1	27.19	7	30.99	224	95	A	V
													V
													V
		2389.8	52.92	-21.08	74	49.78	27.15	6.98	30.99	211	141	P	H
		2389.66	43.1	-10.9	54	39.96	27.15	6.98	30.99	211	141	A	H
	*	2437	85.6	-	-	82.27	27.28	7.03	30.98	211	141	P	H
	*	2437	76.98	-	-	73.65	27.28	7.03	30.98	211	141	A	H
802.11n		2497.13	52.3	-21.7	74	48.77	27.4	7.09	30.96	211	141	P	H
HT20		2484.04	42.91	-11.09	54	39.45	27.36	7.07	30.97	211	141	A	H
CH 06		2387.14	52.73	-21.27	74	49.59	27.15	6.98	30.99	162	100	P	V
2437MHz		2387.56	42.67	-11.33	54	39.53	27.15	6.98	30.99	162	100	A	V
	*	2437	82.36	-	-	79.03	27.28	7.03	30.98	162	100	P	V
	*	2437	73.44	-	-	70.11	27.28	7.03	30.98	162	100	A	V
		2494.19	52.56	-21.44	74	49.03	27.4	7.09	30.96	162	100	P	V
		2499.65	42.68	-11.32	54	39.15	27.4	7.09	30.96	162	100	A	V

	*	2462	86.76	-	-	83.36	27.32	7.05	30.97	181	97	P	H
	*	2462	78.71	-	-	75.31	27.32	7.05	30.97	181	97	A	H
		2485.28	63.47	-10.53	74	60.01	27.36	7.07	30.97	181	97	P	H
		2483.52	51.77	-2.23	54	48.31	27.36	7.07	30.97	181	97	A	H
802.11n													H
HT20													H
CH 11	*	2462	85.48	-	-	82.08	27.32	7.05	30.97	109	111	P	V
2462MHz	*	2462	77.56	-	-	74.16	27.32	7.05	30.97	109	111	A	V
		2484.52	62.79	-11.21	74	59.33	27.36	7.07	30.97	109	111	P	V
		2483.64	51.83	-2.17	54	48.37	27.36	7.07	30.97	109	111	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)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		4824	51.53	-22.47	74	61.42	31.22	10.07	51.18	100	15	P	H
		4824	42.6	-11.4	54	52.49	31.22	10.07	51.18	100	15	A	H
802.11n													H
HT20													H
CH 01		4824	46.22	-27.78	74	56.11	31.22	10.07	51.18	100	0	P	V
2412MHz													V
													V
													V
		4874	58.77	-15.23	74	68.5	31.31	10.11	51.15	107	342	P	H
		4874	50.72	-3.28	54	60.45	31.31	10.11	51.15	107	342	A	H
802.11n		7311	39.97	-34.03	74	41.97	36.27	12.53	50.8	100	0	P	H
HT20													H
CH 06		4874	53.99	-20.01	74	63.72	31.31	10.11	51.15	103	351	P	V
2437MHz		4874	45.13	-8.87	54	54.86	31.31	10.11	51.15	103	351	A	V
		7311	40.77	-33.23	74	42.77	36.27	12.53	50.8	100	0	P	V
													V
		4924	62.55	-11.45	74	72.15	31.39	10.14	51.13	110	342	P	H
		4924	53.93	-0.07	54	63.53	31.39	10.14	51.13	110	342	A	H
802.11n		7386	35.47	-38.53	74	37.03	36.51	12.73	50.8	100	0	P	H
HT20													H
CH 11		4924	58.69	-15.31	74	68.29	31.39	10.14	51.13	100	351	P	V
2462MHz		4924	50.52	-3.48	54	60.12	31.39	10.14	51.13	100	351	A	V
		7386	35.63	-38.37	74	37.19	36.51	12.73	50.8	100	0	P	V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

2.4GHz 2400~2483.5MHz

WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		2386.86	61.44	-12.56	74	58.3	27.15	6.98	30.99	186	95	P	H
		2389.94	53.35	-0.65	54	50.21	27.15	6.98	30.99	186	95	A	H
	*	2422	82.93	-	-	79.66	27.23	7.02	30.98	186	95	P	H
	*	2422	75.38	-	-	72.11	27.23	7.02	30.98	186	95	A	H
802.11n		2489.64	52.79	-21.21	74	49.26	27.4	7.09	30.96	186	95	P	H
HT40		2488.52	43.72	-10.28	54	40.19	27.4	7.09	30.96	186	95	A	H
CH 03		2389.8	56.68	-17.32	74	53.54	27.15	6.98	30.99	393	117	P	V
2422MHz		2389.1	47.1	-6.9	54	43.96	27.15	6.98	30.99	393	117	A	V
	*	2422	77.12	-	-	73.85	27.23	7.02	30.98	393	117	P	V
	*	2422	69.01	-	-	65.74	27.23	7.02	30.98	393	117	A	V
		2491.88	51.99	-22.01	74	48.46	27.4	7.09	30.96	393	117	P	V
		2485.23	43.4	-10.6	54	39.94	27.36	7.07	30.97	393	117	A	V
		2388.54	62.57	-11.43	74	59.43	27.15	6.98	30.99	209	97	P	H
		2390	53.77	-0.23	54	50.63	27.15	6.98	30.99	209	97	A	H
	*	2437	84.9	-	-	81.57	27.28	7.03	30.98	209	97	P	H
	*	2437	76.93	-	-	73.6	27.28	7.03	30.98	209	97	A	H
802.11n		2483.84	58.07	-15.93	74	54.61	27.36	7.07	30.97	209	97	P	H
HT40		2483.52	48.03	-5.97	54	44.57	27.36	7.07	30.97	209	97	A	H
CH 06		2388.4	56.42	-17.58	74	53.28	27.15	6.98	30.99	400	50	P	V
2437MHz		2389.94	48.19	-5.81	54	45.05	27.15	6.98	30.99	400	50	A	V
	*	2437	81.65	-	-	78.32	27.28	7.03	30.98	400	50	P	V
	*	2437	72.85	-	-	69.52	27.28	7.03	30.98	400	50	A	V
		2489.99	52.97	-21.03	74	49.44	27.4	7.09	30.96	400	50	P	V
		2483.83	44.78	-9.22	54	41.32	27.36	7.07	30.97	400	50	A	V

		2387.7	57.03	-16.97	74	53.89	27.15	6.98	30.99	232	140	P	H
		2389.52	47.81	-6.19	54	44.67	27.15	6.98	30.99	232	140	A	H
	*	2452	83.39	-	-	80.05	27.28	7.03	30.97	232	140	P	H
	*	2452	75.14	-	-	71.8	27.28	7.03	30.97	232	140	A	H
802.11n		2484.18	61.85	-12.15	74	58.39	27.36	7.07	30.97	232	140	P	H
HT40		2483.5	53.89	-0.11	54	50.53	27.36	7.07	30.97	232	140	A	H
CH 09		2386.44	53.29	-20.71	74	50.15	27.15	6.98	30.99	400	48	P	V
2452MHz		2389.94	44.89	-9.11	54	41.75	27.15	6.98	30.99	400	48	A	V
	*	2452	80.4	-	-	77.06	27.28	7.03	30.97	400	48	P	V
	*	2452	72.2	-	-	68.86	27.28	7.03	30.97	400	48	A	V
		2483.62	57.35	-16.65	74	53.89	27.36	7.07	30.97	400	48	P	V
		2483.55	48.58	-5.42	54	45.12	27.36	7.07	30.97	400	48	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

2.4GHz 2400~2483.5MHz

WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		4844	43.7	-30.3	74	53.53	31.25	10.08	51.16	100	0	P	H
		7266	38.14	-35.86	74	40.31	36.17	12.46	50.8	100	0	P	H
802.11n													H
HT40													H
CH 03		4844	38.65	-35.35	74	48.48	31.25	10.08	51.16	100	0	P	V
2422MHz		7266	38.57	-35.43	74	40.74	36.17	12.46	50.8	100	0	P	V
													V
													V
		4874	55.45	-18.55	74	65.18	31.31	10.11	51.15	107	342	P	H
		4874	47.45	-6.55	54	57.18	31.31	10.11	51.15	107	342	A	H
802.11n		7311	37.64	-36.36	74	39.64	36.27	12.53	50.8	100	0	P	H
HT40													H
CH 06		4874	48.53	-25.47	74	58.26	31.31	10.11	51.15	100	0	P	V
2437MHz		7311	36.21	-37.79	74	38.21	36.27	12.53	50.8	100	0	P	V
													V
													V
		4904	58.89	-15.11	74	68.55	31.36	10.13	51.15	113	343	P	H
		4904	51.24	-2.76	54	60.9	31.36	10.13	51.15	113	343	A	H
802.11n		7356	35.23	-38.77	74	36.97	36.41	12.65	50.8	100	0	P	H
HT40													H
CH 09		4904	54.87	-19.13	74	64.53	31.36	10.13	51.15	102	349	P	V
2452MHz		4904	46.94	-7.06	54	56.6	31.36	10.13	51.15	102	349	A	V
		7356	35.98	-38.02	74	37.72	36.41	12.65	50.8	100	0	P	V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

2.4GHz 2400~2483.5MHz

Emission below 1GHz

2.4GHz WIFI 802.11n HT40 (LF)

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp 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)
		59.97	28.89	-11.11	40	48.56	11.8	0.84	32.31	-	-	P	H
		165	34.79	-8.71	43.5	49.37	16.35	1.35	32.28	-	-	P	H
		250.05	40.8	-5.2	46	52.59	18.7	1.71	32.2	-	-	P	H
		374.9	46.36	0.36	46	54.78	21.61	2.12	32.15	100	22	QP`	H
		374.9	47.56	1.56	46	55.98	21.61	2.12	32.15	100	22	P	H
		625	52.43	6.43	46	56.29	25.5	2.84	32.2	125	0	QP	H
		625	52.71	6.71	46	56.57	25.5	2.84	32.2	125	0	P	H
		874.99	48.79	2.79	46	48.37	28.6	3.45	31.63	100	318	QP	H
		874.99	49.43	3.43	46	49.01	28.6	3.45	31.63	100	318	P	H
		59.97	28.89	-11.11	40	48.56	11.8	0.84	32.31			P	H
2.4GHz													H
802.11n													H
HT40		33.61	36.16	-3.84	40	44.19	23.66	0.65	32.34	100	232	QP	V
LF		33.61	39.72	-0.28	40	47.75	23.66	0.65	32.34	100	232	P	V
		125.31	33.7	-9.8	43.5	47.2	17.6	1.18	32.28	-	-	P	V
		250.05	40.05	-5.95	46	51.84	18.7	1.71	32.2	-	-	P	V
		374.9	38.83	-7.17	46	47.25	21.61	2.12	32.15	-	-	P	V
		625	52.7	6.7	46	56.56	25.5	2.84	32.2	100	290	QP	V
		625	53.07	7.07	46	56.93	25.5	2.84	32.2	100	290	P	V
		874.98	43.98	-2.02	46	43.56	28.6	3.45	31.63	100	0	QP	V
		874.98	44.97	-1.03	46	44.55	28.6	3.45	31.63	100	0	P	V
													V
													V
													V

Remark

1. No other spurious found.
2. All results are PASS against limit line.
3. 374.9MHz, 625 MHz, 874.99MHz are digital port signal, which is restricted in Part 15.107 class. In Part 15.207 which can be ignored.

Note symbol

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

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

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

1. Level(dBµV/m) =

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

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

For Peak Limit @ 2390MHz:

1. Level(dBµV/m)

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

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

= 55.45 (dBµV/m)

2. Over Limit(dB)

= Level(dBµV/m) – Limit Line(dBµV/m)

= 55.45(dBµV/m) – 74(dBµV/m)

= -18.55(dB)

For Average Limit @ 2390MHz:

1. Level(dBµV/m)

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

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

= 43.54 (dBµV/m)

2. Over Limit(dB)

= Level(dBµV/m) – Limit Line(dBµV/m)

= 43.54(dBµV/m) – 54(dBµV/m)

= -10.46(dB)

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

Appendix D. Radiated Spurious Emission Plots

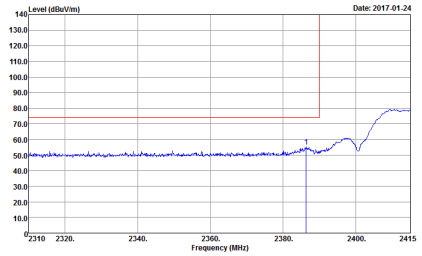
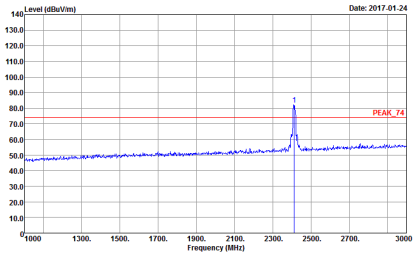
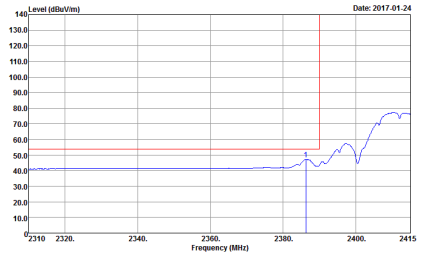
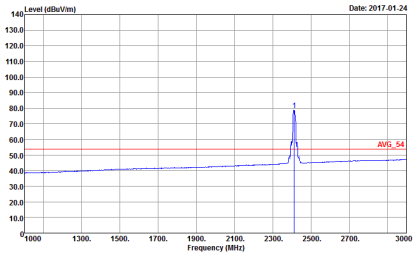
Test Engineer :	Alex Jeng, Bill Chang and Wilson Wu	**Temperature :**	24~26°C
		Relative Humidity :	44~46%

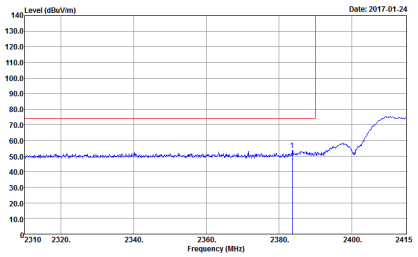
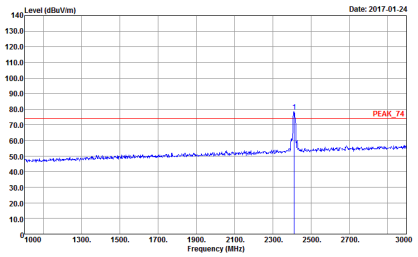
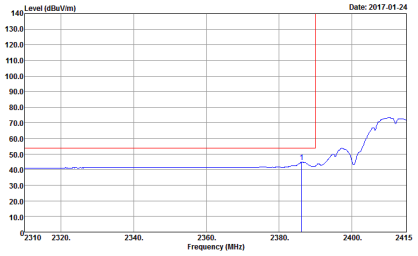
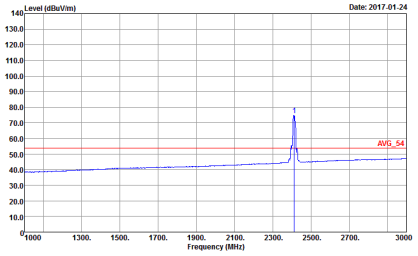
Note symbol

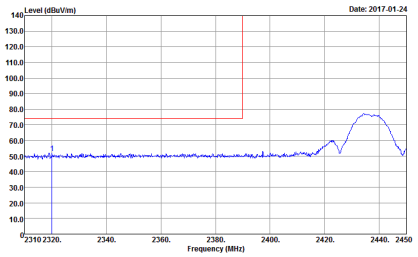
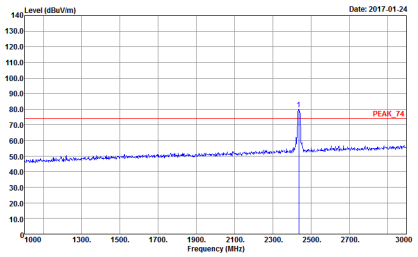
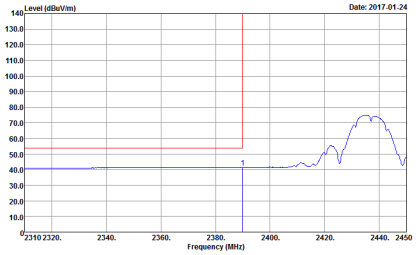
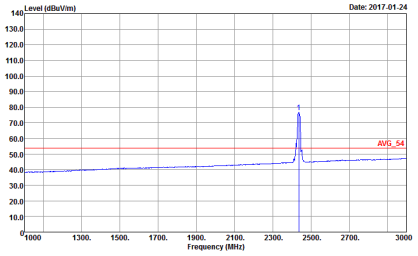
-L	**Low channel location**
-R	**High channel location**

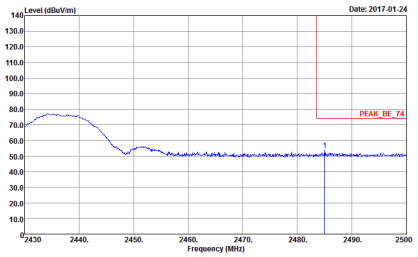
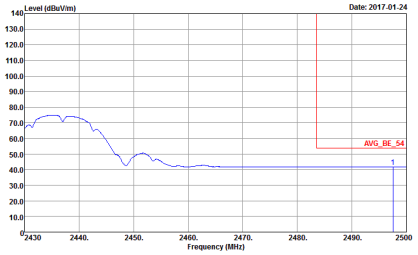
2.4GHz 2400~2483.5MHz

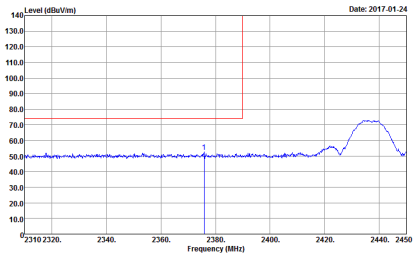
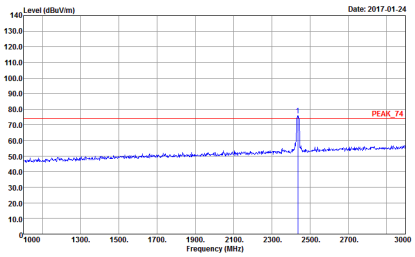
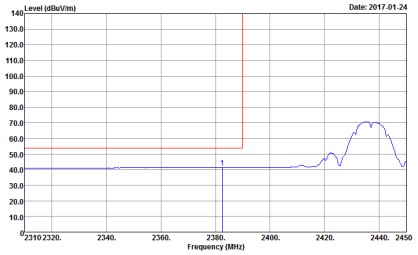
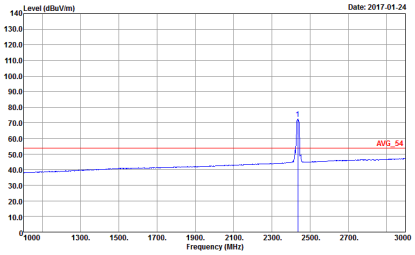
WIFI 802.11b (Band Edge @ 3m)

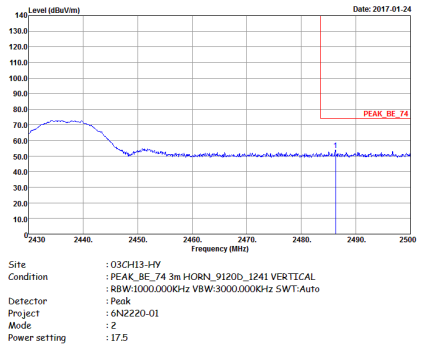
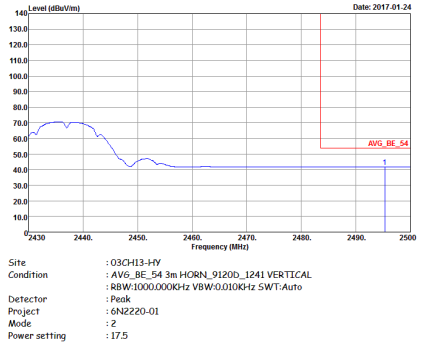
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH01 2412MHz	
1	Horizontal	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 1 Power setting : 23	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 1 Power setting : 23
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 1 Power setting : 23	 Site : 03CH13-HY Condition : AVG_54 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 1 Power setting : 23

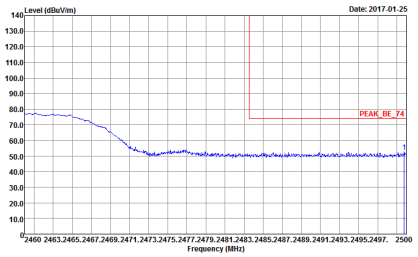
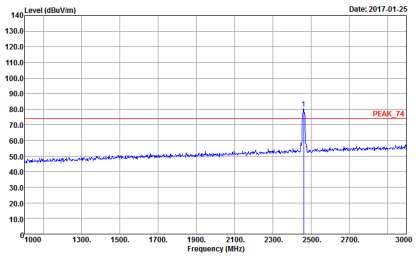
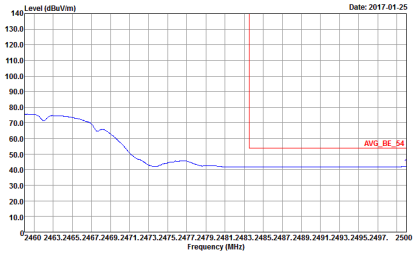
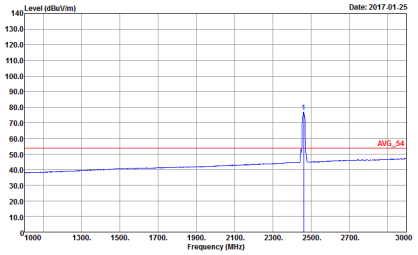
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH01 2412MHz	
1	Vertical	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 1 Power setting : 23	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 1 Power setting : 23
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 1 Power setting : 23	 Site : 03CH13-HY Condition : AVG_54 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 1 Power setting : 23

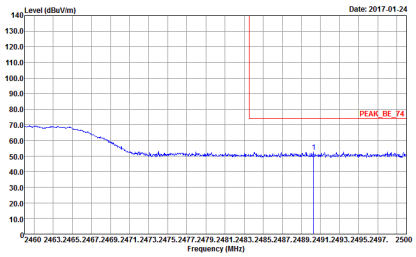
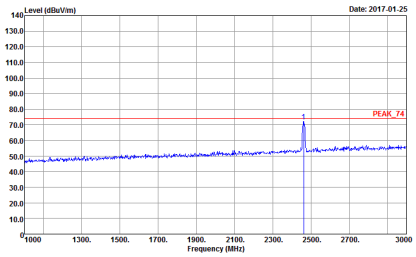
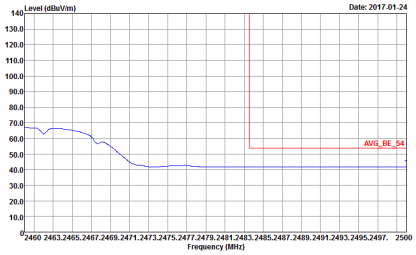
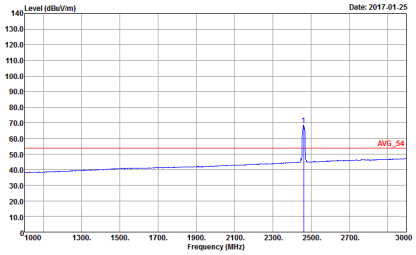
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - L	
1	Horizontal	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 2 Power setting : 17.5	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 2 Power setting : 17.5
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 2 Power setting : 17.5	 Site : 03CH13-HY Condition : AVG_54 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 2 Power setting : 17.5

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - R	
1	Horizontal	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 2 Power setting : 17.5	Left blank
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 2 Power setting : 17.5	Left blank

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - L	
1	Vertical	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 2 Power setting : 17.5	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 2 Power setting : 17.5
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 2 Power setting : 17.5	 Site : 03CH13-HY Condition : AVG_54 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 2 Power setting : 17.5

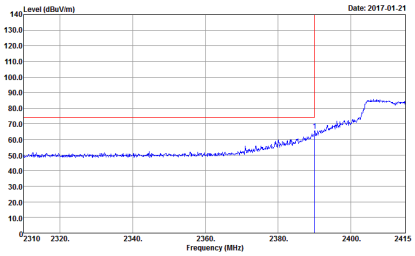
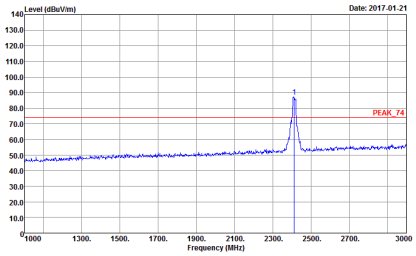
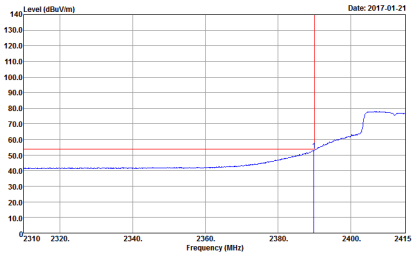
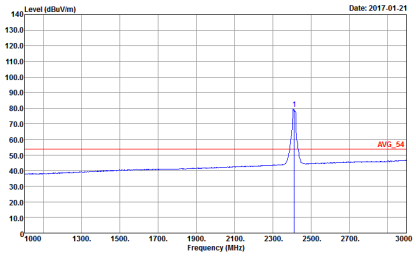
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - R	
1	Vertical	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 2 Power setting : 17.5	Left blank
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 2 Power setting : 17.5	Left blank

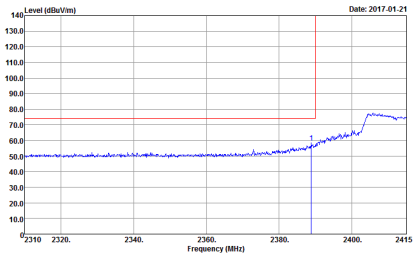
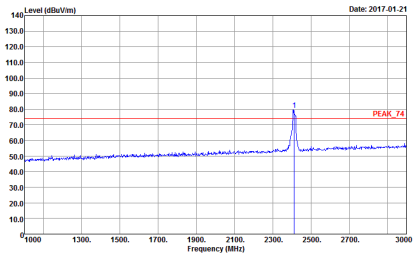
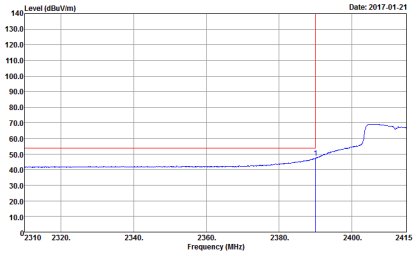
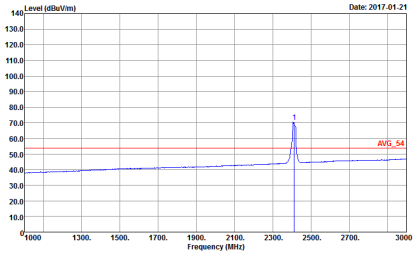
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH11 2462MHz	
1	Horizontal	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 3 Power setting : 14	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 3 Power setting : 14
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 3 Power setting : 14	 Site : 03CH13-HY Condition : AVG_54 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 3 Power setting : 14

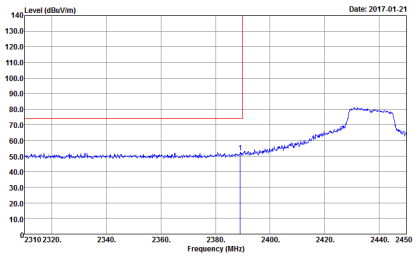
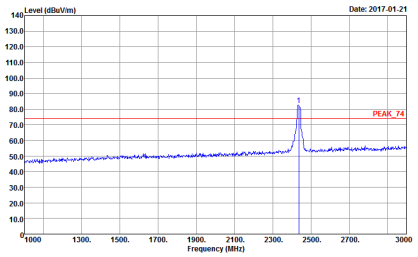
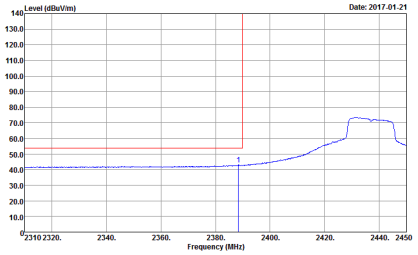
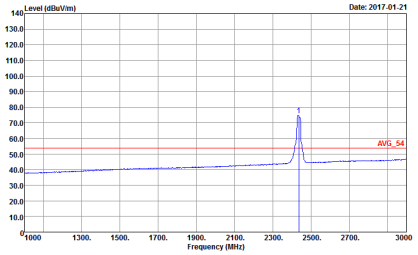
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH11 2462MHz	
1	Vertical	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 3 Power setting : 14	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 3 Power setting : 14
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 3 Power setting : 14	 Site : 03CH13-HY Condition : AVG_54 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 3 Power setting : 14

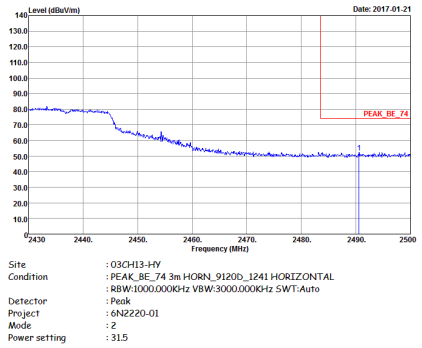
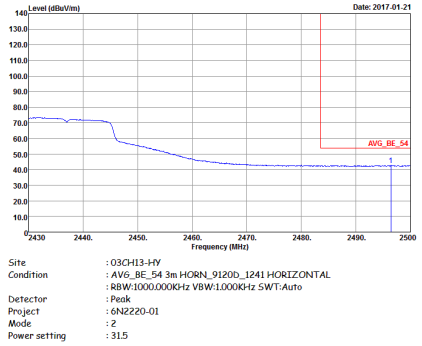
2.4GHz 2400~2483.5MHz

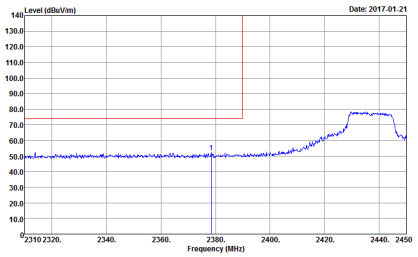
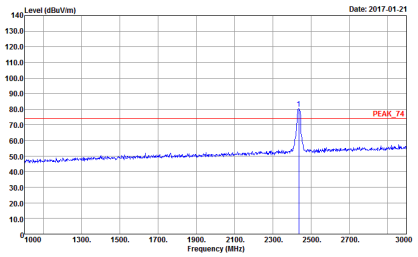
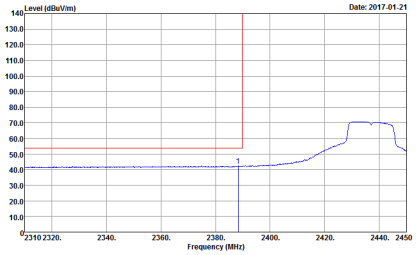
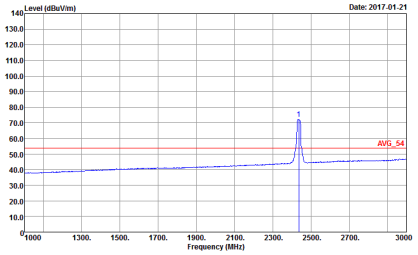
WIFI 802.11g (Band Edge @ 3m)

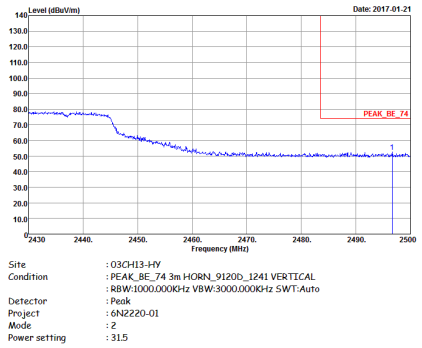
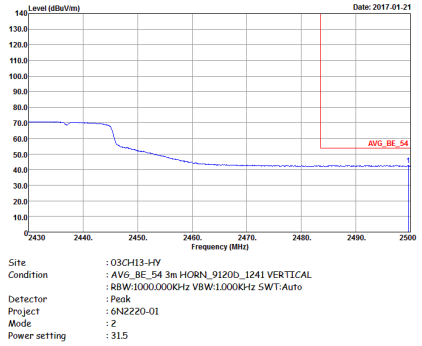
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH01 2412MHz	
1	Horizontal	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 4 Power setting : 25.5	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 4 Power setting : 25.5
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 4 Power setting : 25.5	 Site : 03CH13-HY Condition : AVG_54 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 4 Power setting : 25.5

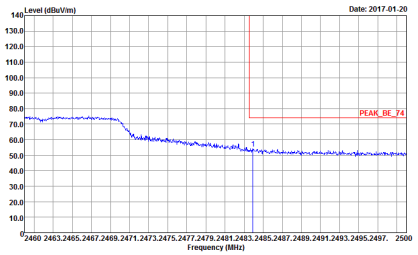
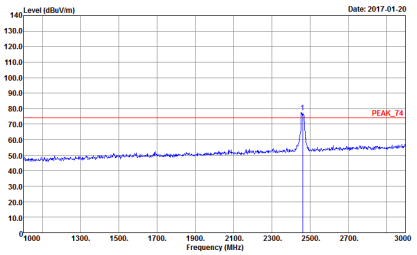
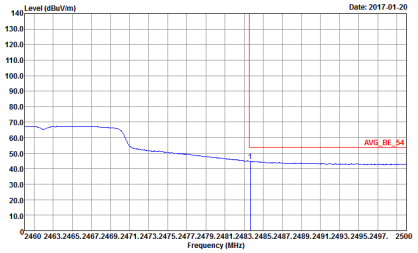
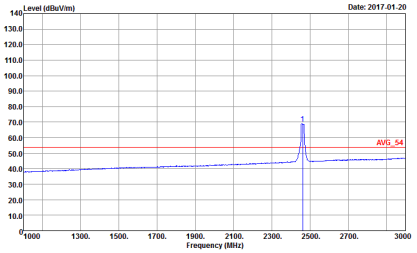
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH01 2412MHz	
1	Vertical	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 4 Power setting : 25.5	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 4 Power setting : 25.5
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 4 Power setting : 25.5	 Site : 03CH13-HY Condition : AVG_54 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 4 Power setting : 25.5

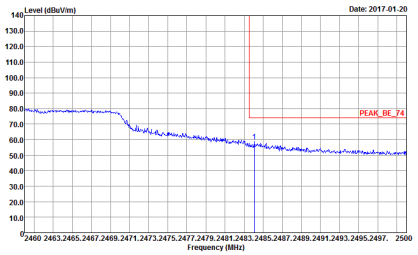
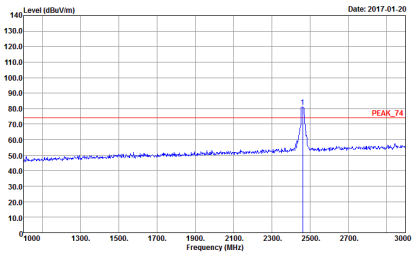
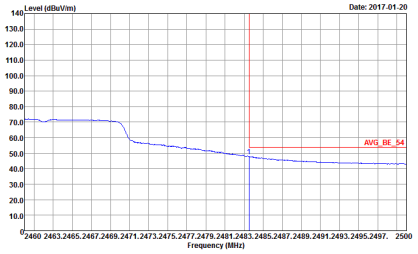
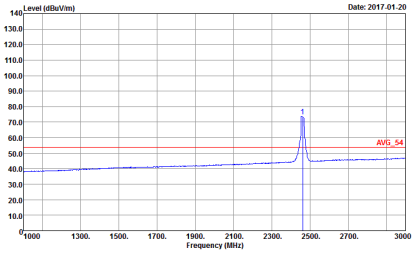
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - L	
1	Horizontal	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 2 Power setting : 31.5	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 2 Power setting : 31.5
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 2 Power setting : 31.5	 Site : 03CH13-HY Condition : AVG_54 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 2 Power setting : 31.5

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - R	
1	Horizontal	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 2 Power setting : 31.5	Left blank
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 2 Power setting : 31.5	Left blank

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - L	
1	Vertical	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 2 Power setting : 31.5	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 2 Power setting : 31.5
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 2 Power setting : 31.5	 Site : 03CH13-HY Condition : AVG_54 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 2 Power setting : 31.5

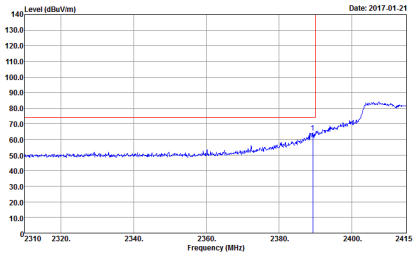
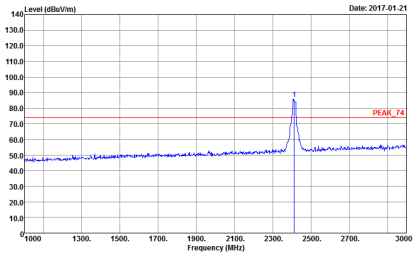
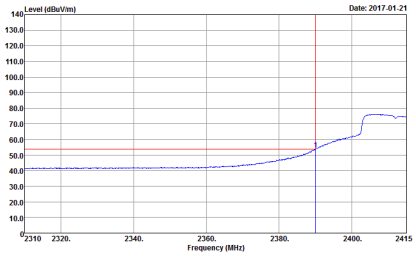
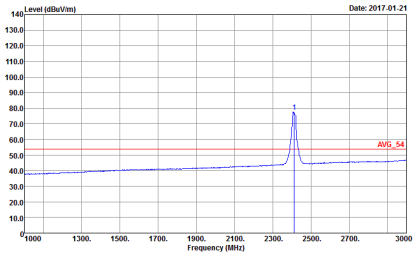
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - R	
1	Vertical	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 2 Power setting : 31.5	Left Blank
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 2 Power setting : 31.5	Left Blank

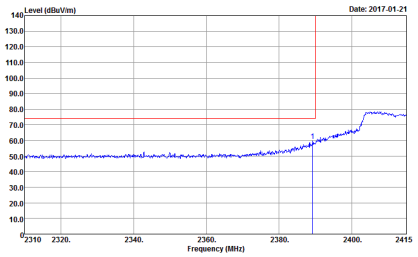
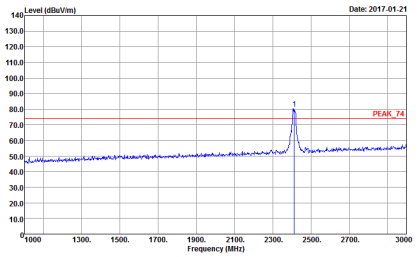
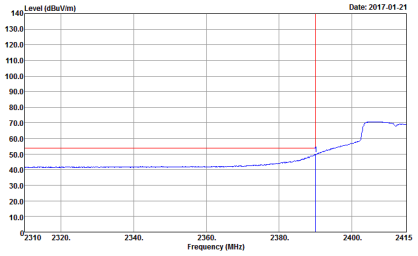
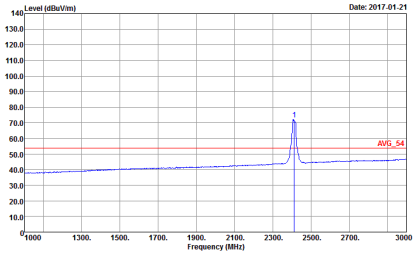
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH11 2462MHz	
1	Horizontal	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_9120D_1241 HORIZONTAL Detector : Peak Project : 6N2220-01 Mode : 6 Power setting : 19.5	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_9120D_1241 HORIZONTAL Detector : Peak Project : 6N2220-01 Mode : 6 Power setting : 19.5
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_9120D_1241 HORIZONTAL Detector : Peak Project : 6N2220-01 Mode : 6 Power setting : 19.5	 Site : 03CH13-HY Condition : AVG_54 3m HORN_9120D_1241 HORIZONTAL Detector : Peak Project : 6N2220-01 Mode : 6 Power setting : 19.5

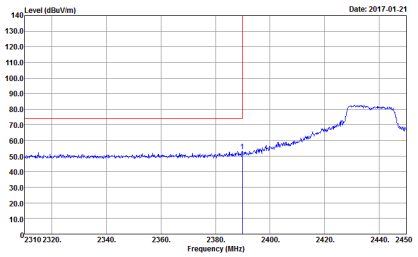
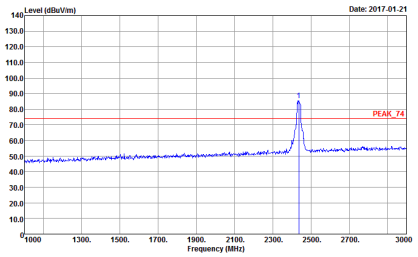
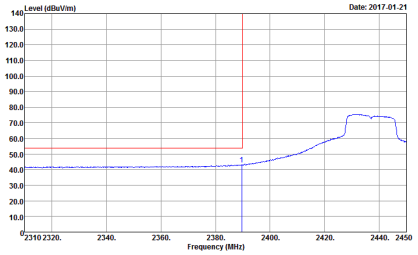
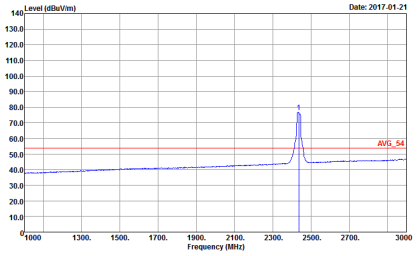
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH11 2462MHz	
1	Vertical	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_9120D_1241 VERTICAL Detector : Peak Project : 6N2220-01 Mode : 6 Power setting : 19.5	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_9120D_1241 VERTICAL Detector : Peak Project : 6N2220-01 Mode : 6 Power setting : 19.5
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_9120D_1241 VERTICAL Detector : Peak Project : 6N2220-01 Mode : 6 Power setting : 19.5	 Site : 03CH13-HY Condition : AVG_54 3m HORN_9120D_1241 VERTICAL Detector : Peak Project : 6N2220-01 Mode : 6 Power setting : 19.5

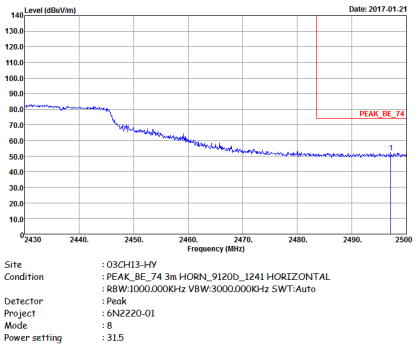
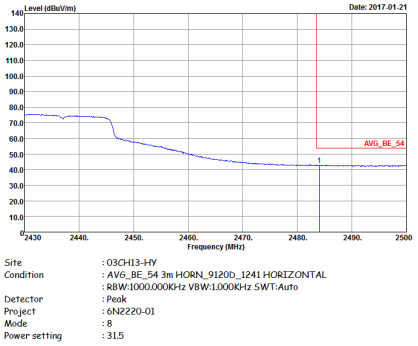
2.4GHz 2400~2483.5MHz

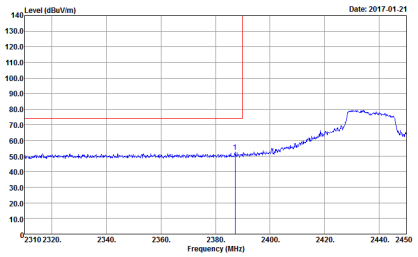
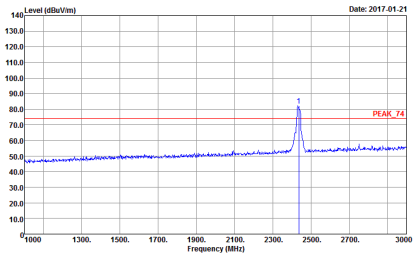
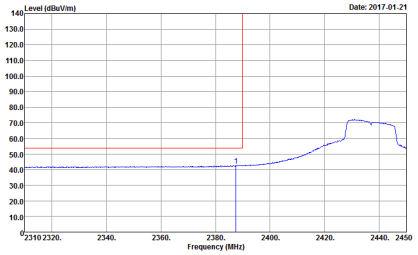
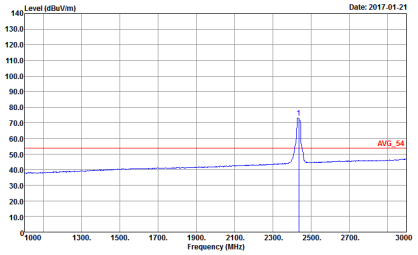
WIFI 802.11n HT20 (Band Edge @ 3m)

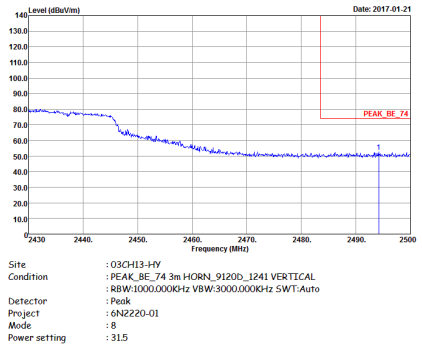
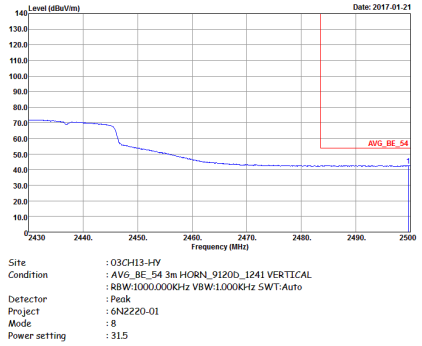
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH01 2412MHz	
1	Horizontal	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 7 Power setting : 31.5	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 7 Power setting : 31.5
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 7 Power setting : 31.5	 Site : 03CH13-HY Condition : AVG_54 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 7 Power setting : 31.5

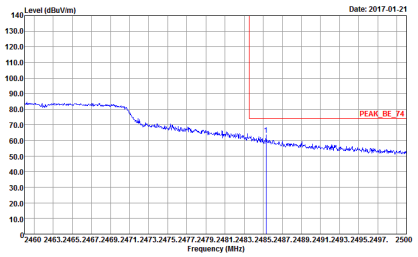
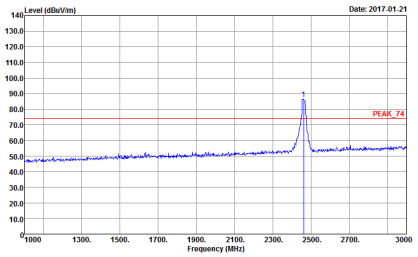
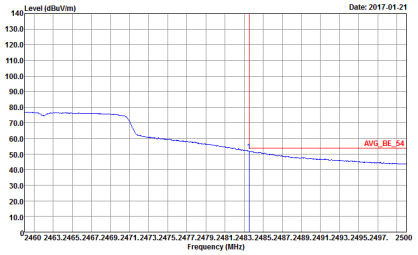
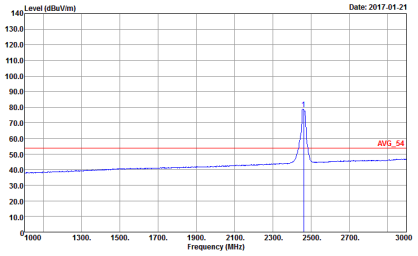
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH01 2412MHz	
1	Vertical	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 7 Power setting : 31.5	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 7 Power setting : 31.5
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 7 Power setting : 31.5	 Site : 03CH13-HY Condition : AVG_54 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 7 Power setting : 31.5

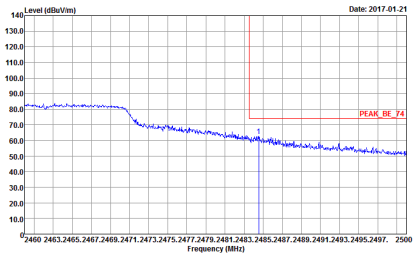
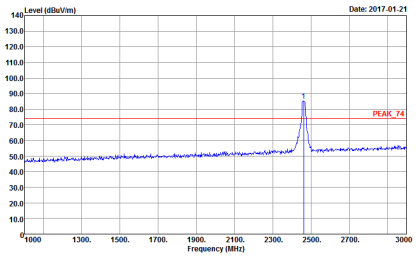
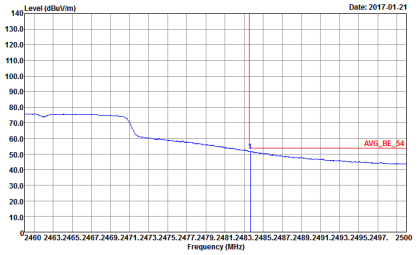
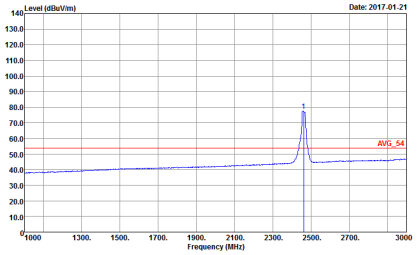
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH06 2437MHz - L	
1	Horizontal	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 8 Power setting : 31.5	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 8 Power setting : 31.5
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 8 Power setting : 31.5	 Site : 03CH13-HY Condition : AVG_54 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 8 Power setting : 31.5

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH06 2437MHz - R	
1	Horizontal	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 8 Power setting : 31.5	Left blank
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 8 Power setting : 31.5	Left blank

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH06 2437MHz - L	
1	Vertical	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 8 Power setting : 31.5	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 8 Power setting : 31.5
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 8 Power setting : 31.5	 Site : 03CH13-HY Condition : AVG_54 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 8 Power setting : 31.5

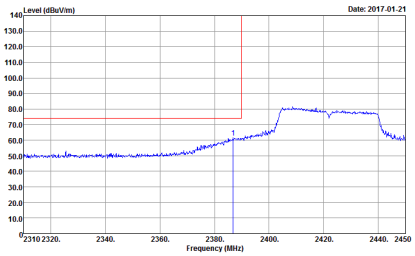
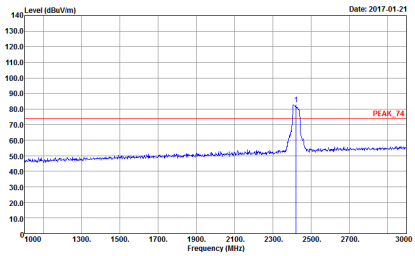
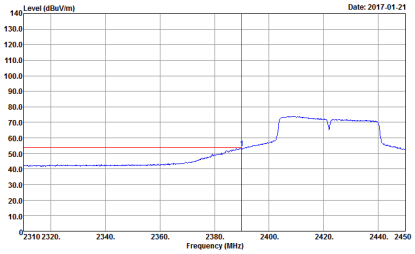
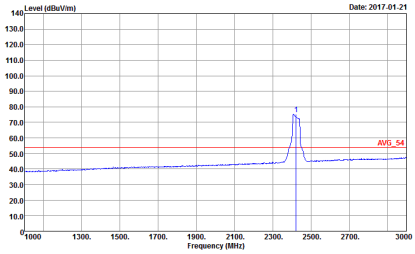
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH06 2437MHz - R	
1	Vertical	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 8 Power setting : 31.5	Left Blank
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 8 Power setting : 31.5	Left Blank

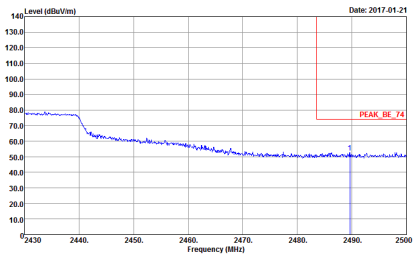
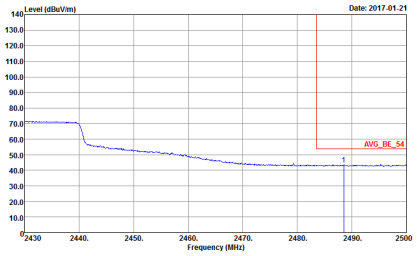
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH11 2462MHz	
1	Horizontal	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 9 Power setting : 31.5	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 9 Power setting : 31.5
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 9 Power setting : 31.5	 Site : 03CH13-HY Condition : AVG_54 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 9 Power setting : 31.5

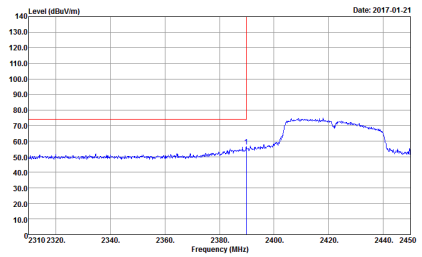
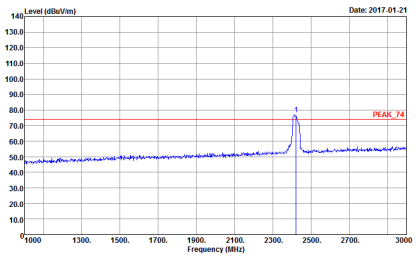
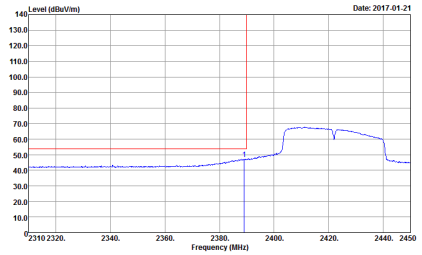
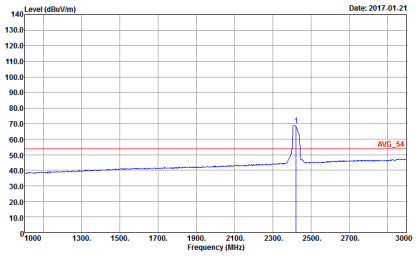
WIFI	2.4GHz 2400~2483.5MHz Fundamental @ 3m	
ANT	802.11n HT20 CH11 2462MHz	
1	Vertical	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 9 Power setting : 31.5	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 9 Power setting : 31.5
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 9 Power setting : 31.5	 Site : 03CH13-HY Condition : AVG_54 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 9 Power setting : 31.5

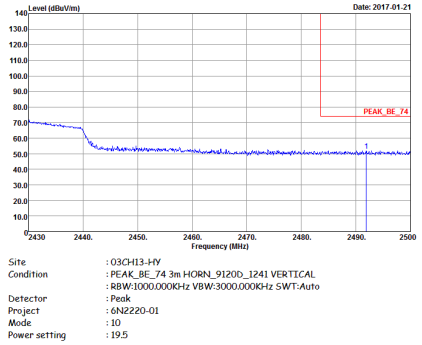
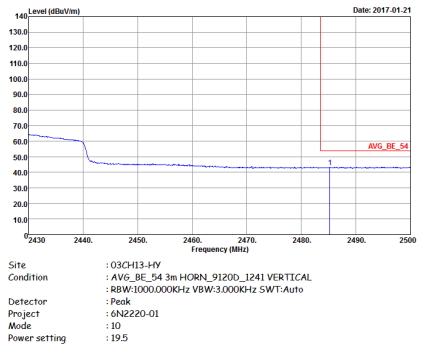
2.4GHz 2400~2483.5MHz

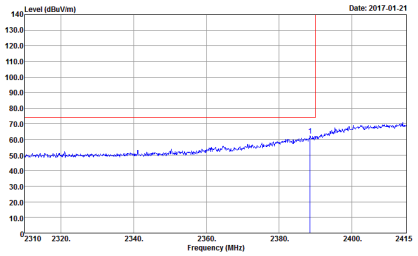
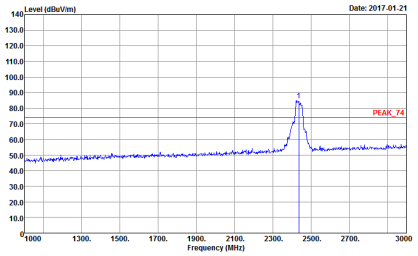
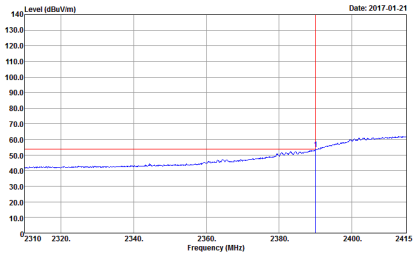
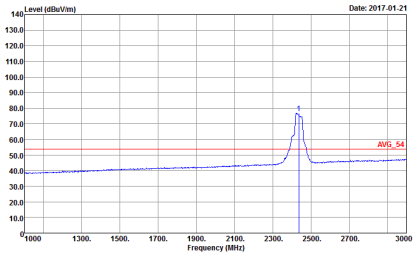
WIFI 802.11n HT40 (Band Edge @ 3m)

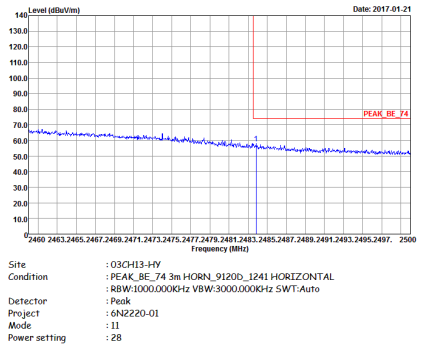
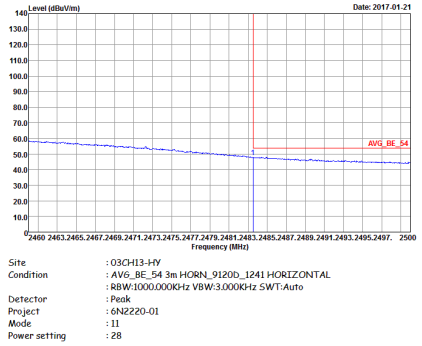
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH03 2422MHz - L	
1	Horizontal	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 10 Power setting : 19.5	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 10 Power setting : 19.5
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:3.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 10 Power setting : 19.5	 Site : 03CH13-HY Condition : AVG_54 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:3.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 10 Power setting : 19.5

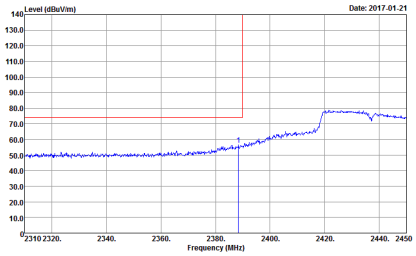
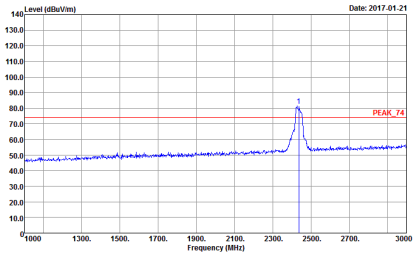
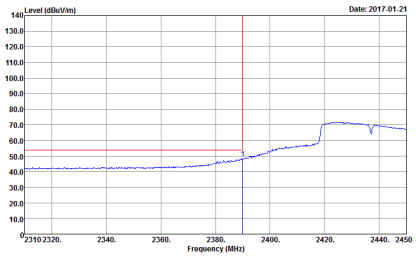
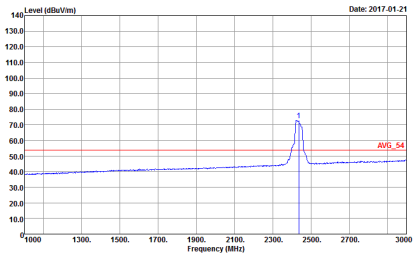
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH03 2422MHz - R	
1	Horizontal	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 10 Power setting : 19.5	Left Blank
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:3.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 10 Power setting : 19.5	Left Blank

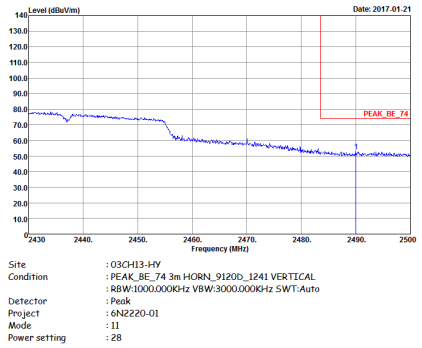
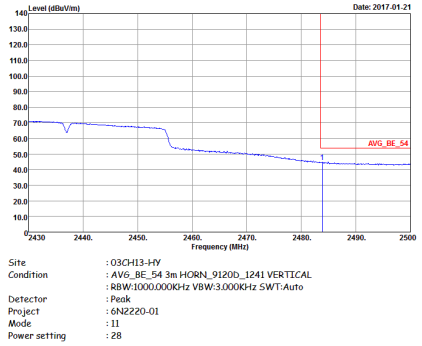
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH03 2422MHz - L	
1	Vertical	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 10 Power setting : 19.5	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 10 Power setting : 19.5
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 10 Power setting : 19.5	 Site : 03CH13-HY Condition : AVG_54 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 10 Power setting : 19.5

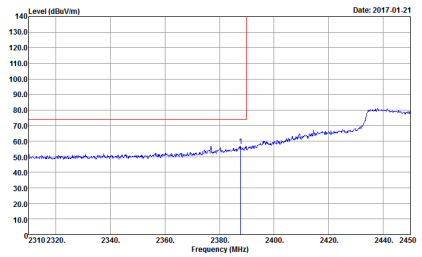
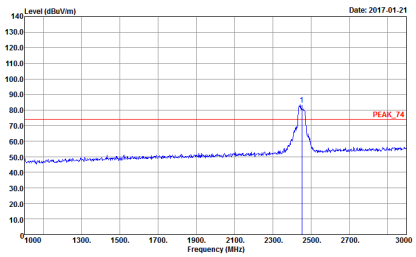
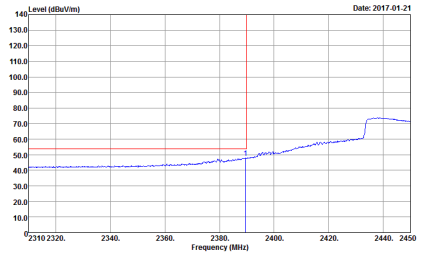
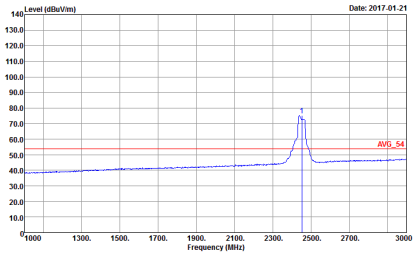
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH03 2422MHz - R	
1	Vertical	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 10 Power setting : 19.5	Left blank
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 10 Power setting : 19.5	Left blank

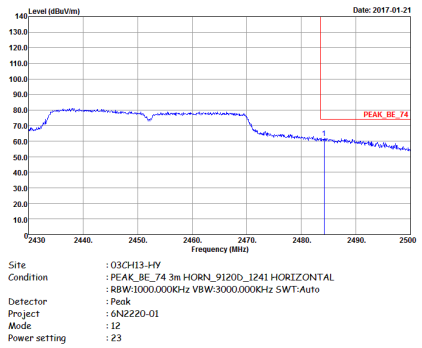
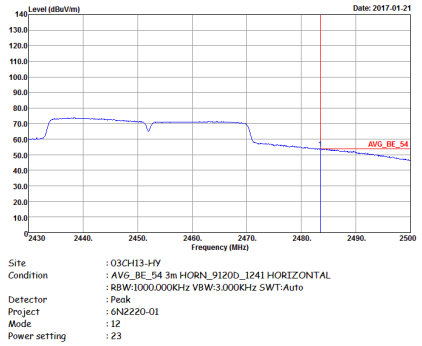
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH06 2437MHz - L	
1	Horizontal	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 11 Power setting : 28	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 11 Power setting : 28
Avg.	 Site : 03CH13-HY Condition : AV6_BE_54 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:3.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 11 Power setting : 28	 Site : 03CH13-HY Condition : AV6_54 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:3.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 11 Power setting : 28

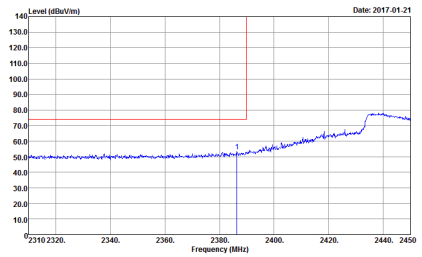
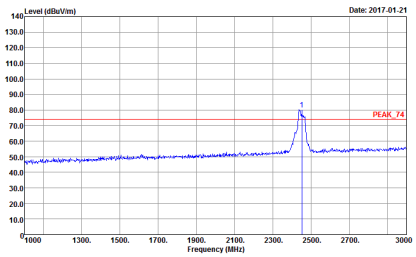
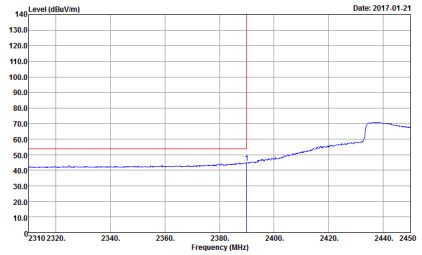
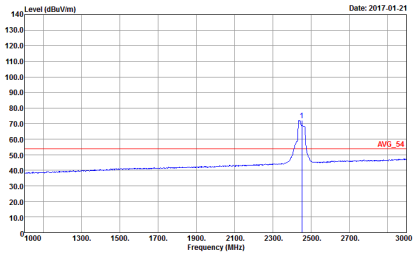
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH06 2437MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

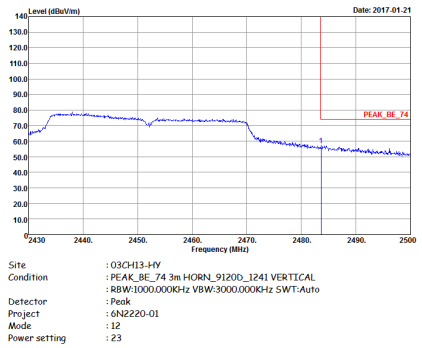
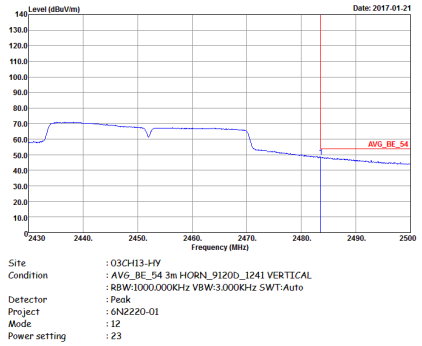
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH06 2437MHz - L	
1	Vertical	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 11 Power setting : 28	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 11 Power setting : 28
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 11 Power setting : 28	 Site : 03CH13-HY Condition : AVG_54 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 11 Power setting : 28

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH06 2437MHz - R	
1	Vertical	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 11 Power setting : 28	Left blank
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 11 Power setting : 28	Left blank

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH09 2452MHz - L	
1	Horizontal	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 12 Power setting : 23	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 12 Power setting : 23
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:3.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 12 Power setting : 23	 Site : 03CH13-HY Condition : AVG_54 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:3.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 12 Power setting : 23

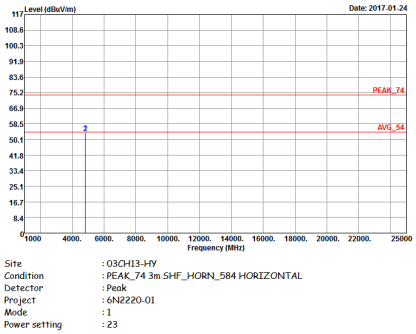
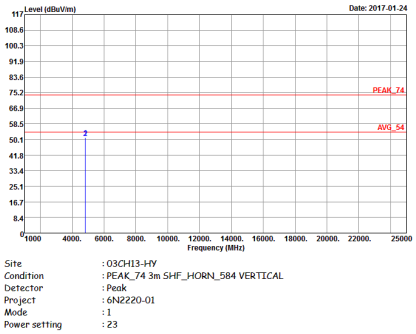
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH09 2452MHz - R	
1	Horizontal	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 12 Power setting : 23	Left blank
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:3.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 12 Power setting : 23	Left blank

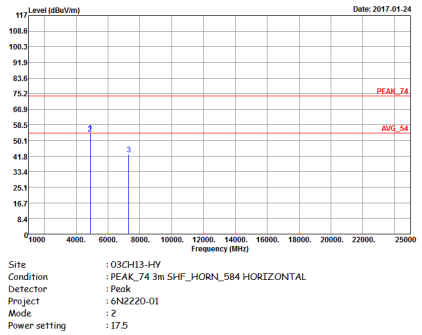
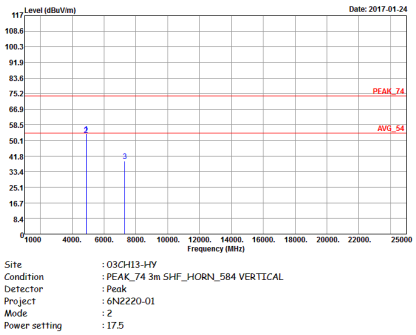
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH09 2452MHz - L	
1	Vertical	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 12 Power setting : 23	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 12 Power setting : 23
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 12 Power setting : 23	 Site : 03CH13-HY Condition : AVG_54 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3.000KHz SWT:Auto Detector : Peak Project : 6N2220-01 Mode : 12 Power setting : 23

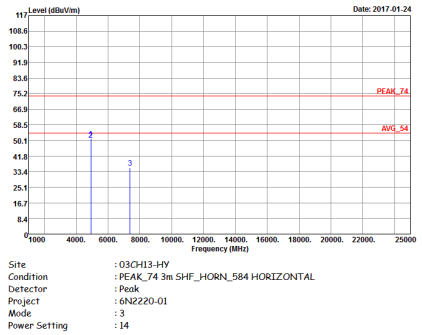
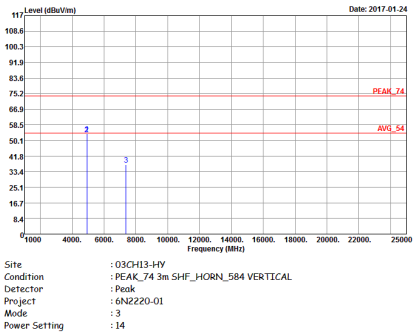
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH09 2452MHz - R	
1	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

2.4GHz 2400~2483.5MHz

WIFI 802.11b (Harmonic @ 3m)

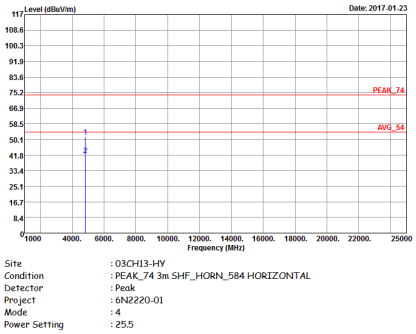
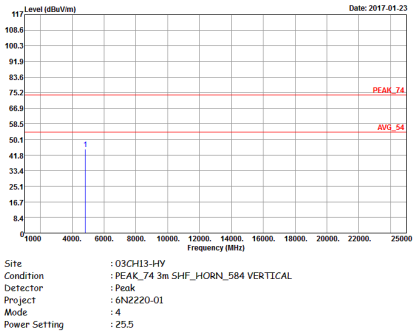
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH01 2412MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH13-HY Condition : PEAK_74 3m SHF_HORN_584 HORIZONTAL Detector : Peak Project : 6N2220-01 Mode : 1 Power setting : 23	 Site : 03CH13-HY Condition : PEAK_74 3m SHF_HORN_584 VERTICAL Detector : Peak Project : 6N2220-01 Mode : 1 Power setting : 23

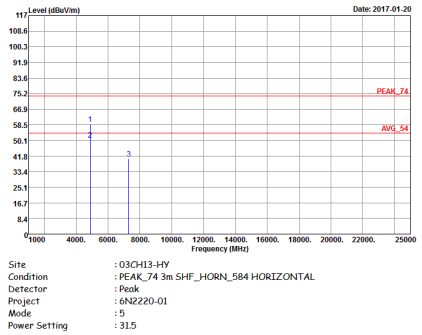
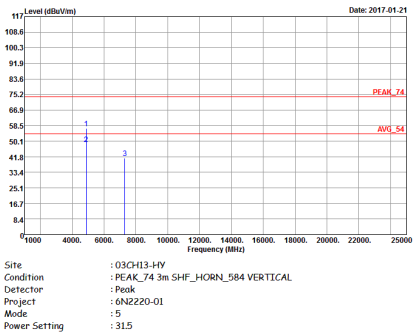
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH06 2437MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH13-HY Condition : PEAK_74 3m SHF_HORN_584 HORIZONTAL Detector : Peak Project : 6N2220-01 Mode : 2 Power setting : 17.5	 Site : 03CH13-HY Condition : PEAK_74 3m SHF_HORN_584 VERTICAL Detector : Peak Project : 6N2220-01 Mode : 2 Power setting : 17.5

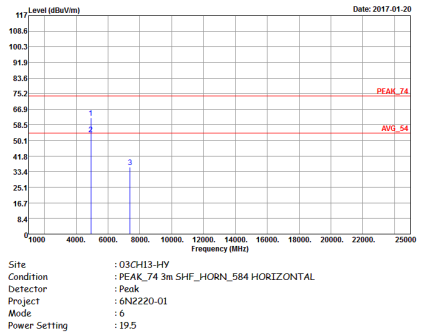
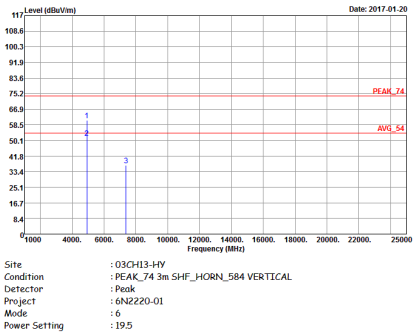
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH11 2462MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH13-HY Condition : PEAK_74 3m SHF_HORN_584 HORIZONTAL Detector : Peak Project : 6N2220-01 Mode : 3 Power Setting : 14	 Site : 03CH13-HY Condition : PEAK_74 3m SHF_HORN_584 VERTICAL Detector : Peak Project : 6N2220-01 Mode : 3 Power Setting : 14

2.4GHz 2400~2483.5MHz

WIFI 802.11g (Harmonic @ 3m)

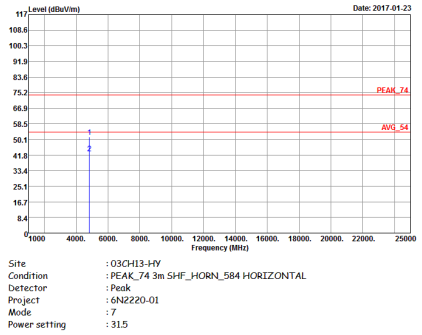
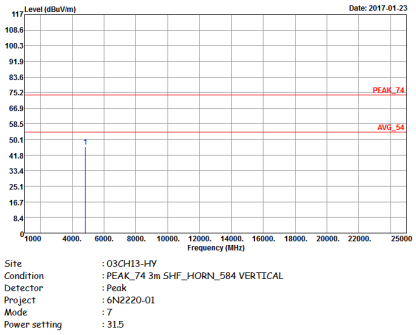
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11g CH01 2412MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH13-HY Condition : PEAK_74 3m SHF_HORN_584 HORIZONTAL Detector : Peak Project : 6N2220-01 Mode : 4 Power Setting : 25.5	 Site : 03CH13-HY Condition : PEAK_74 3m SHF_HORN_584 VERTICAL Detector : Peak Project : 6N2220-01 Mode : 4 Power Setting : 25.5

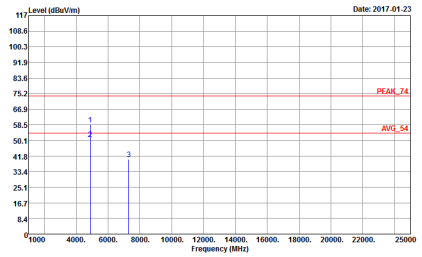
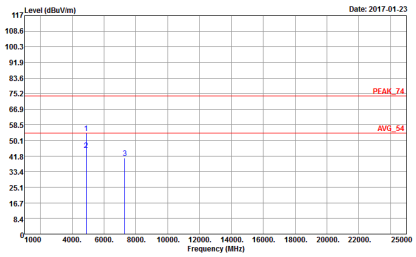
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11g CH06 2437MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH13-HY Condition : PEAK_74 3m SHF_HORN_584 HORIZONTAL Detector : Peak Project : 6N2220-01 Mode : 5 Power Setting : 31.5	 Site : 03CH13-HY Condition : PEAK_74 3m SHF_HORN_584 VERTICAL Detector : Peak Project : 6N2220-01 Mode : 5 Power Setting : 31.5

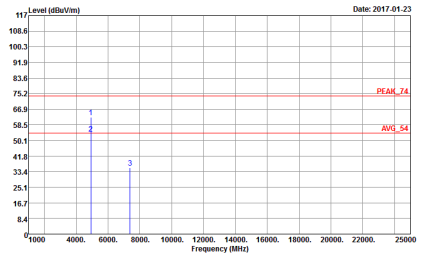
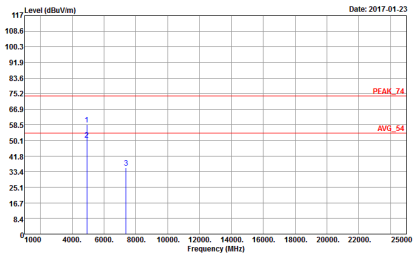
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11g CH11 2462MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH13-HY Condition : PEAK_74 3m SHF_HORN_584 HORIZONTAL Detector : Peak Project : 6N2220-01 Mode : 6 Power Setting : 19.5	 Site : 03CH13-HY Condition : PEAK_74 3m SHF_HORN_584 VERTICAL Detector : Peak Project : 6N2220-01 Mode : 6 Power Setting : 19.5

2.4GHz 2400~2483.5MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

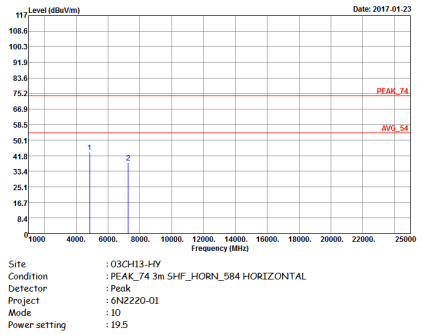
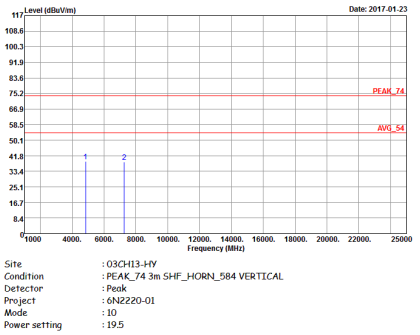
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11n HT20 CH01 2412MHz	
1	Horizontal	Vertical
Peak Avg.		

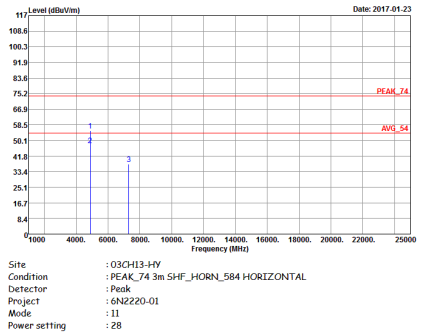
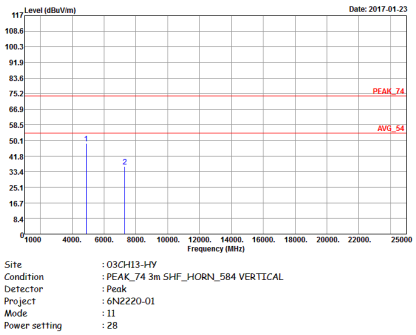
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11n HT20 CH06 2437MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH13-HY Condition : PEAK_74 3m SHF_HORN_584 HORIZONTAL Detector : Peak Project : 6N2220-01 Mode : 8 Power setting : 31.5	 Site : 03CH13-HY Condition : PEAK_74 3m SHF_HORN_584 VERTICAL Detector : Peak Project : 6N2220-01 Mode : 8 Power setting : 31.5

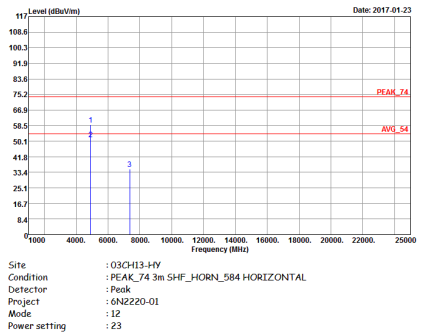
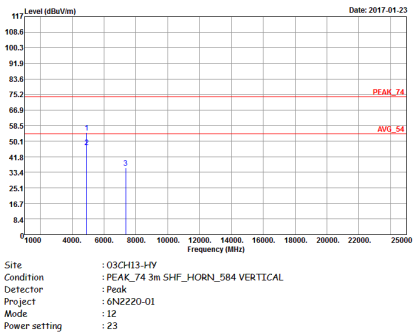
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11n HT20 CH11 2462MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH13-HY Condition : PEAK_74 3m SHF_HORN_584 HORIZONTAL Detector : Peak Project : 6N2220-01 Mode : 9 Power setting : 31.5	 Site : 03CH13-HY Condition : PEAK_74 3m SHF_HORN_584 VERTICAL Detector : Peak Project : 6N2220-01 Mode : 9 Power setting : 31.5

2.4GHz 2400~2483.5MHz

WIFI 802.11n HT40 (Harmonic @ 3m)

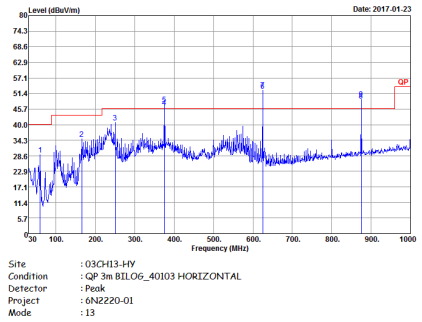
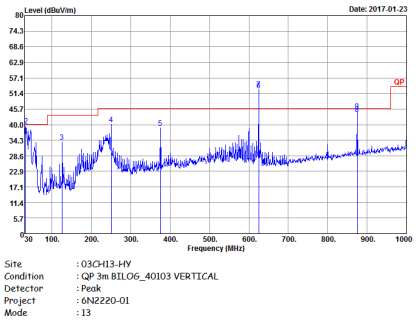
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11n HT40 CH03 2422MHz	
1	Horizontal	Vertical
Peak Avg.		

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11n HT40 CH06 2437MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH13-HY Condition : PEAK_74 3m SHF_HORN_584 HORIZONTAL Detector : Peak Project : 6N2220-01 Mode : 11 Power setting : 28	 Site : 03CH13-HY Condition : PEAK_74 3m SHF_HORN_584 VERTICAL Detector : Peak Project : 6N2220-01 Mode : 11 Power setting : 28

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11n HT40 CH09 2452MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH13-HY Condition : PEAK_74 3m SHF_HORN_584 HORIZONTAL Detector : Peak Project : 6N2220-01 Mode : 12 Power setting : 23	 Site : 03CH13-HY Condition : PEAK_74 3m SHF_HORN_584 VERTICAL Detector : Peak Project : 6N2220-01 Mode : 12 Power setting : 23

Emission below 1GHz

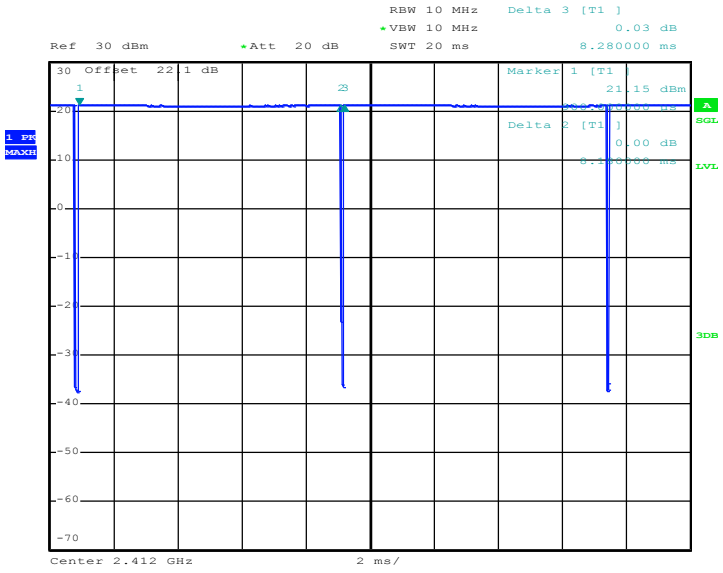
2.4GHz WIFI 802.11n HT40 (LF)

WIFI	2.4GHz 2400~2483.5MHz	
ANT	802.11n HT40 LF	
1	Horizontal	Vertical
QP / Peak		

Appendix E. Duty Cycle Plots

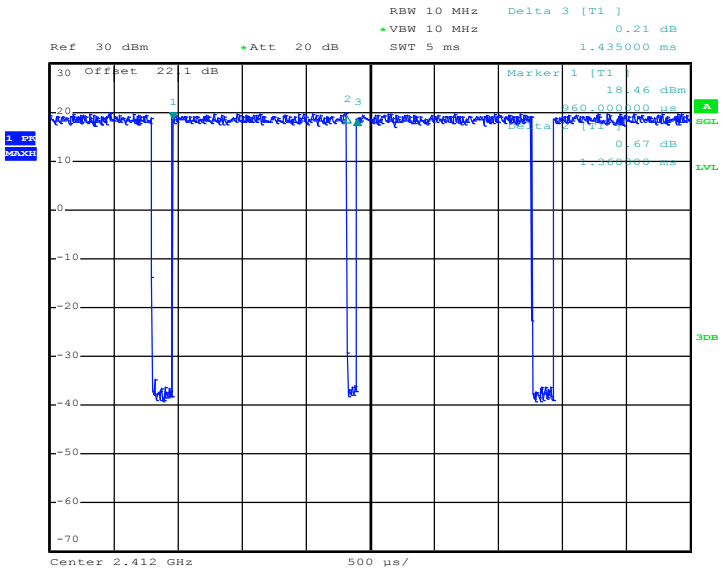
Band	Duty Cycle(%)	T(us)	1/T(kHz)	VBW Setting
802.11b	98.79	-	-	10Hz
802.11g	94.77	1360	0.74	1kHz
2.4GHz 802.11n HT20	92.75	1280	0.78	1kHz
2.4GHz 802.11n HT40	89.77	632	1.58	3kHz

802.11b



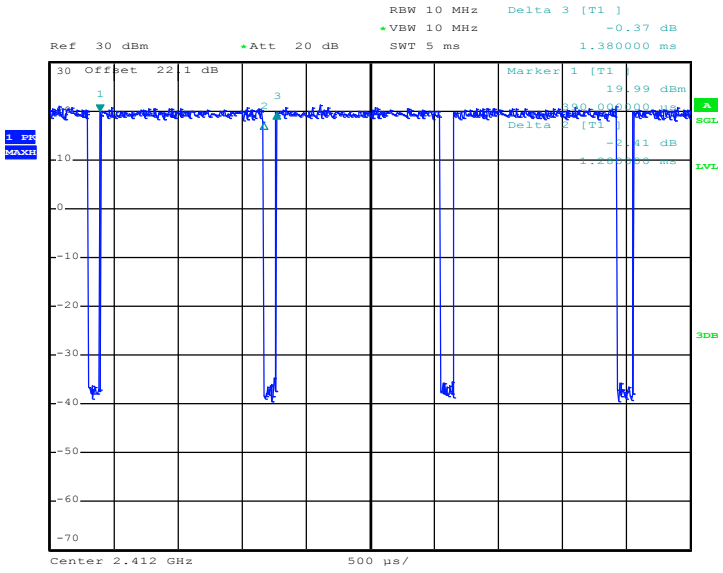
Date: 24.JAN.2017 14:11:31

802.11g



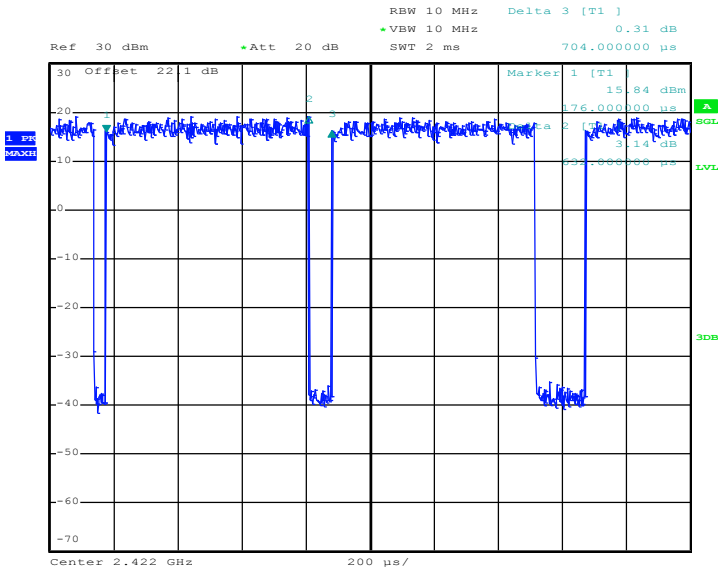
Date: 24.JAN.2017 14:22:23

802.11n HT20



Date: 24.JAN.2017 14:30:47

802.11n HT40



Date: 24.JAN.2017 14:43:30