FCC RADIO TEST REPORT

FCC ID	:	**2AR55-0FM100**
Equipment	:	**MediCam**
Brand Name	:	**Fasmedo**
Model Name	:	**FM-100**
Applicant	:	**Faspro Systems Co., Ltd.** **6F, No.160 Sec. 2, Nanjing E. Rd.,Zhongshan Dist., Taipei City 10489 Taiwan (R.O.C.)**
Manufacturer	:	**ECHO TECHNOLOGY CORP.** **No.3, Lane 194, Sec. 1, Yanghu Rd., Yangmei Dist, Taoyuan city 32662, Taiwan (R.O.C)**
Standard	:	**FCC Part 15 Subpart C §15.247**

The product was received on Nov. 21, 2018 and testing was started from Dec. 13, 2018 and completed on Feb. 01, 2019. We, SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, would like to declare that the tested sample has been evaluated in accordance with the test procedures and has been in compliance with the applicable technical standards.

The report must not be used by the client to claim product certification, approval, or endorsement by TAF or any agency of government.

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

Jones Tsai

Approved by: Jones Tsai

SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory

No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)

Table of Contents

History of this test report **3**

Summary of Test Result **4**

1 General Description **5**

1.1 Product Feature of Equipment Under Test 5
1.2 Modification of EUT 5
1.3 Testing Location 5
1.4 Applicable Standards 6

2 Test Configuration of Equipment Under Test **7**

2.1 Carrier Frequency and Channel 7
2.2 Test Mode 7
2.3 Connection Diagram of Test System 8
2.4 Support Unit used in test configuration and system 8
2.5 EUT Operation Test Setup 9
2.6 Measurement Results Explanation Example 9

3 Test Result **10**

3.1 6dB and 99% Bandwidth Measurement 10
3.2 Output Power Measurement 12
3.3 Power Spectral Density Measurement 13
3.4 Conducted Band Edges and Spurious Emission Measurement 15
3.5 Radiated Band Edges and Spurious Emission Measurement 28
3.6 AC Conducted Emission Measurement 32
3.7 Antenna Requirements 34

4 List of Measuring Equipment **35**

5 Uncertainty of Evaluation **36**

Appendix A. Conducted Test Results

Appendix B. AC Conducted Emission Test Result

Appendix C. Radiated Spurious Emission

Appendix D. Radiated Spurious Emission Plots

Appendix E. Duty Cycle Plots

Appendix F. Setup Photographs

History of this test report

Report No.	Version	Description	Issued Date
FR8N2121B	01	Initial issue of report	Feb. 20, 2019
FR8N2121B	02	Add sample information in section 1.1	Feb. 26, 2019

Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
3.1	15.247(a)(2)	6dB Bandwidth	Pass	-
3.1	2.1049	99% Occupied Bandwidth	Reporting only	-
3.2	15.247(b)	Power Output Measurement	Pass	-
3.3	15.247(e)	Power Spectral Density	Pass	-
3.4	15.247(d)	Conducted Band Edges	Pass	-
		Conducted Spurious Emission	Pass	-
3.5	15.247(d)	Radiated Band Edges and Radiated Spurious Emission	Pass	Under limit 1.52 dB at 2483.620 MHz
3.6	15.207	AC Conducted Emission	Pass	Under limit 11.95 dB at 27.002 MHz
3.7	15.203 & 15.247(b)	Antenna Requirement	Pass	-

Declaration of Conformity:
The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.
Comments and Explanations:
The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

Reviewed by: Wii Chang

Report Producer: Maggie Chiang

1 General Description

1.1 Product Feature of Equipment Under Test

Bluetooth and Wi-Fi 2.4GHz 802.11b/g/n

Product Specification subjective to this standard	
Sample 1	Medicam with Single Hinge
Sample 2	Medicam with Double Hinges
Integrated WLAN/BT Module	Brand Name: Dind Lien Technology Company Model Name: WNZ-7966
Antenna Type	WLAN: FPC Antenna Bluetooth: FPC Antenna

Remark: All test items were tested with sample 1.

1.2 Modification of EUT

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

1.3 Testing Location

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

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

Test Site	SPORTON INTERNATIONAL INC.
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.**
	03CH12-HY

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

FCC Designation No. TW1190 and TW0007

1.4 Applicable Standards

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

- FCC Part 15 Subpart C §15.247
- FCC KDB Publication No. 558074 D01 DTS Meas. Guidance v05
- FCC KDB 414788 D01 Radiated Test Site v01r01.
- ANSI C63.10-2013

Remark:

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

2 Test Configuration of Equipment Under Test

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

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

2.1 Carrier Frequency and Channel

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

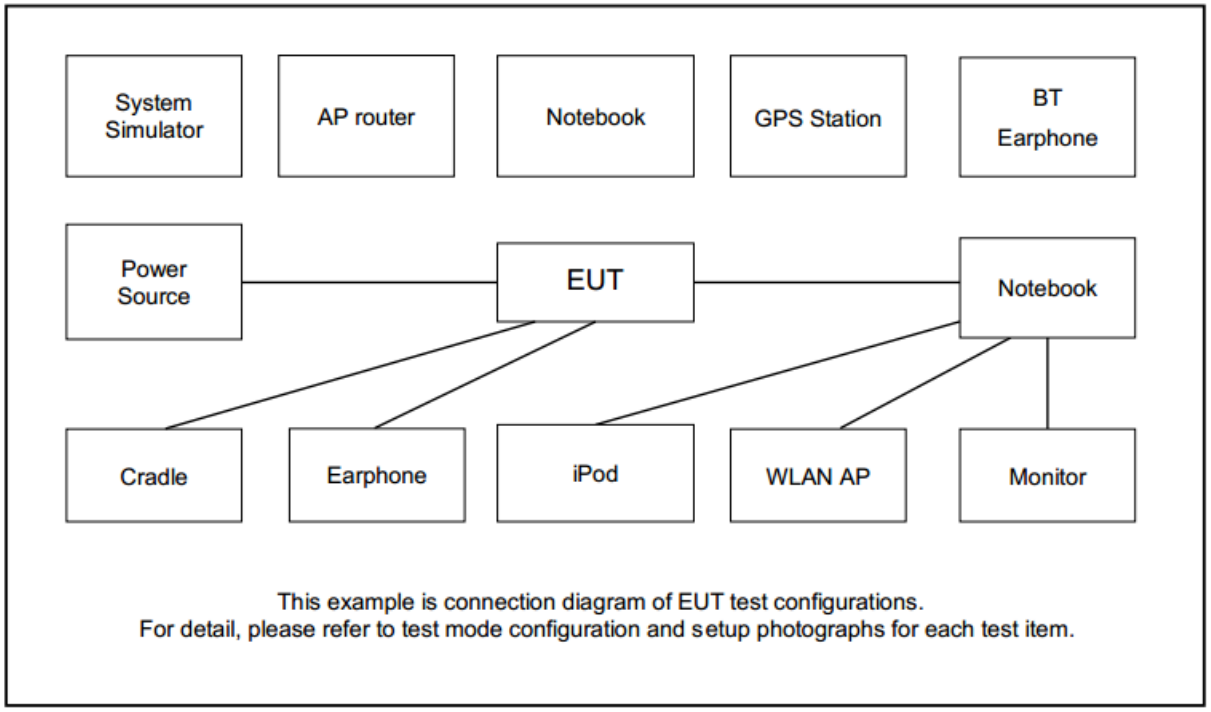
2.2 Test Mode

Final test modes are considering the modulation and worse data rates as below table.

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

Test Cases	
AC Conducted Emission	Mode 1: WLAN (2.4GHz) Link + Bluetooth Link + Video Recording + Earphone + USB Cable (Charging from Adapter)

2.3 Connection Diagram of Test System



2.4 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	iPod Earphone	Apple	N/A	Verification	Unshielded, 1.0 m	N/A
2.	Notebook	DELL	Latitude E3340	FCC DoC/ Contains FCC ID: PD97260NGU	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
3.	Mobile Phone	APPLE	A1687	NM8PB31200	N/A	N/A

2.5 EUT Operation Test Setup

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

2.6 Measurement Results Explanation Example

For all conducted test items:

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

Example:

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

Offset = RF cable loss + attenuator factor.

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

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.

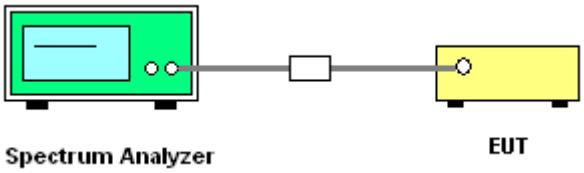
3.1.2 Measuring Instruments

See list of measuring equipment of this test report.

3.1.3 Test Procedures

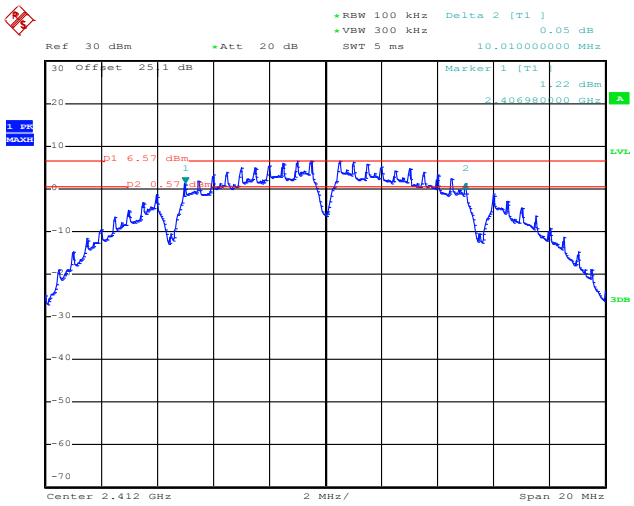
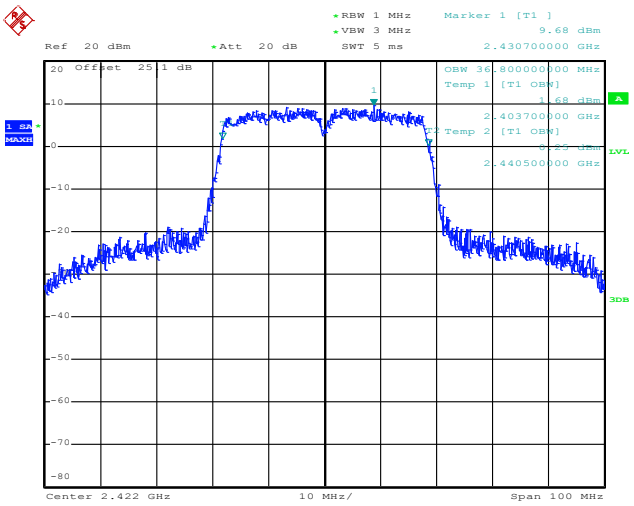
1. The testing follows the ANSI C63.10 Section 6.9.3 (OBW) and 11.8.1 (6dB BW).
2. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
3. Set to the maximum power setting and enable the EUT transmit continuously.
4. Make the measurement with the spectrum analyzer's resolution bandwidth (RBW) = 100 kHz. Set the Video bandwidth (VBW) = 300 kHz. In order to make an accurate measurement. The 6 dB bandwidth must be greater than 500 kHz.
5. For 99% Bandwidth Measurement, the spectrum analyzer's resolution bandwidth (RBW) is set 1-5% of the emission bandwidth and set the Video bandwidth (VBW) ≥ 3 * RBW.
6. Measure and record the results in the test report.

3.1.4 Test Setup



3.1.5 Test Result of 6dB and 99% Occupied Bandwidth

Please refer to Appendix A.

Minimum 6dB Bandwidth	Maximum 99% Occupied Bandwidth
	

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

3.2 Output Power Measurement

3.2.1 Limit of Output Power

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

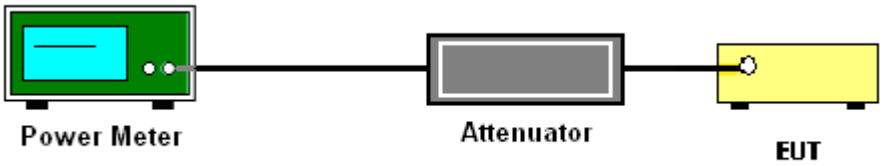
3.2.2 Measuring Instruments

See list of measuring equipment of this test report.

3.2.3 Test Procedures

1. For Peak Power, the testing follows ANSI C63.10 Section 11.9.1.3 PKPM1
2. For Average Power, the testing follows the Measurement Procedure of FCC KDB No. 558074 DTS D01 Meas. Guidance v05 section 9.2.3.1 Method AVGPM.
3. 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.
4. Set to the maximum power setting and enable the EUT transmit continuously.
5. 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.

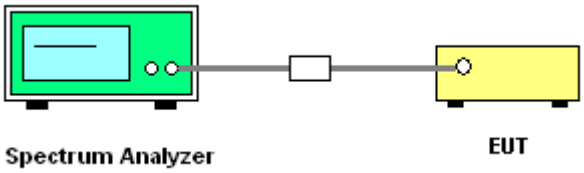
3.3.2 Measuring Instruments

See list of measuring equipment of this test report.

3.3.3 Test Procedures

1. The testing follows the ANSI C63.10 Section 11.10.2 Method PKPSD.
2. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
3. Set to the maximum power setting and enable the EUT transmit continuously.
4. Make the measurement with the spectrum analyzer's resolution bandwidth (RBW) = 3 kHz. Video bandwidth VBW = 10 kHz In order to make an accurate measurement, set the span to 1.5 times DTS Channel Bandwidth. (6dB BW)
5. Detector = peak, Sweep time = auto couple, Trace mode = max hold, Allow trace to fully stabilize. Use the peak marker function to determine the maximum power level.
6. Measure and record the results in the test report.

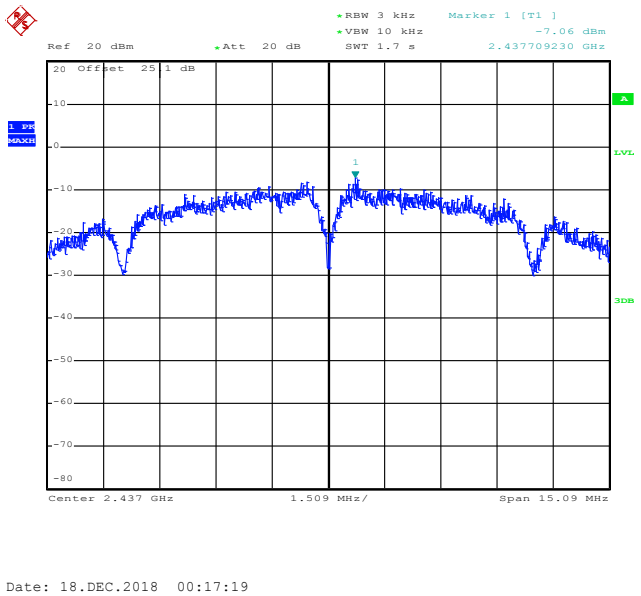
3.3.4 Test Setup



3.3.5 Test Result of Power Spectral Density

Please refer to Appendix A.

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.

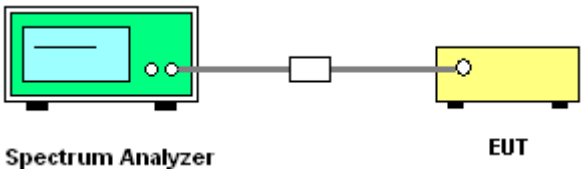
3.4.2 Measuring Instruments

See list of measuring equipment of this test report.

3.4.3 Test Procedures

1. The testing follows the ANSI C63.10 Section 11.11.3 Emission level measurement.
2. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
3. Set to the maximum power setting and enable the EUT transmit continuously.
4. Set RBW = 100 kHz, VBW=300 kHz, Peak Detector. Unwanted Emissions measured in any 100 kHz bandwidth outside of the authorized frequency band shall be attenuated by at least 20 dB relative to the maximum in-band peak PSD level in 100 kHz when maximum peak conducted output power procedure is used. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, the attenuation required under this paragraph shall be 30 dB instead of 20 dB per 15.247(d).
5. Measure and record the results in the test report.
6. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.

3.4.4 Test Setup



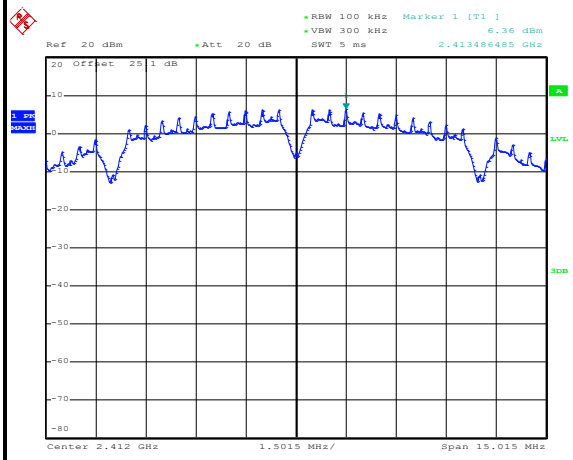
3.4.5 Test Result of Conducted Band Edges and Spurious Emission

Test Engineer :	Allen Lin and AnAn Wu	**Temperature :**	21~25℃
		Relative Humidity :	51~54%

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

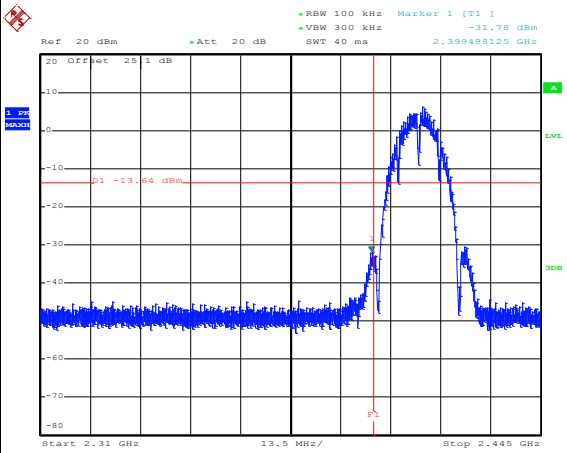
WLAN 802.11b Channel 01

100kHz PSD reference Level



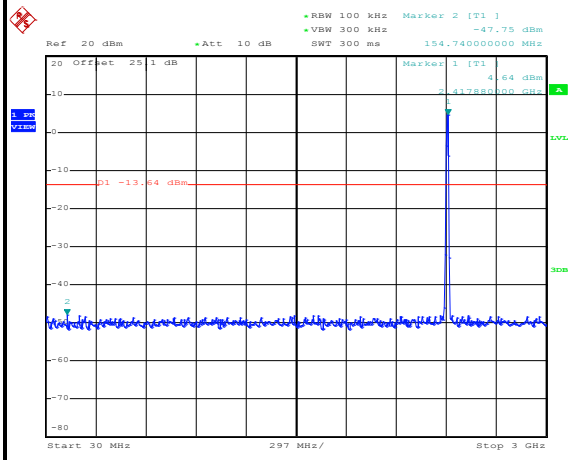
Date: 18.DEC.2018 00:12:25

Channel Plot



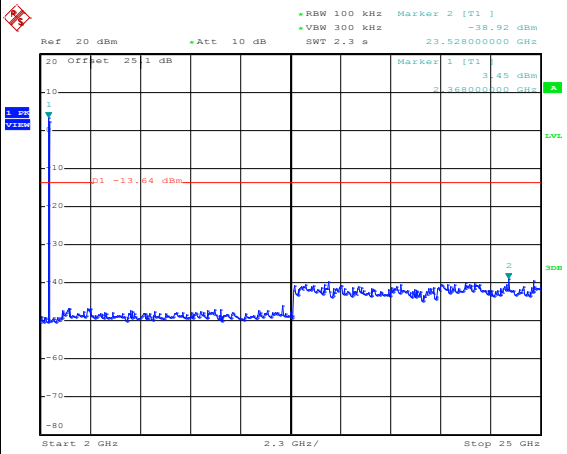
Date: 18.DEC.2018 00:12:37

Spurious Emission 30MHz~3GHz

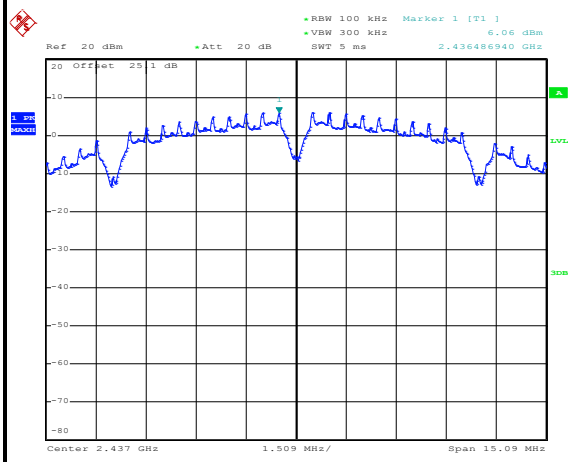
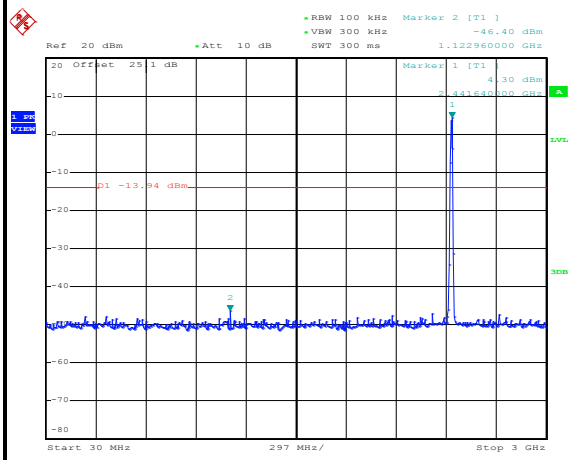
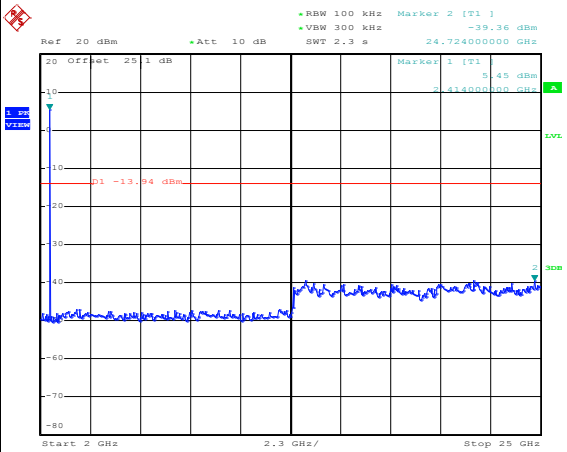


Date: 18.DEC.2018 00:13:24

Spurious Emission 2GHz~25GHz

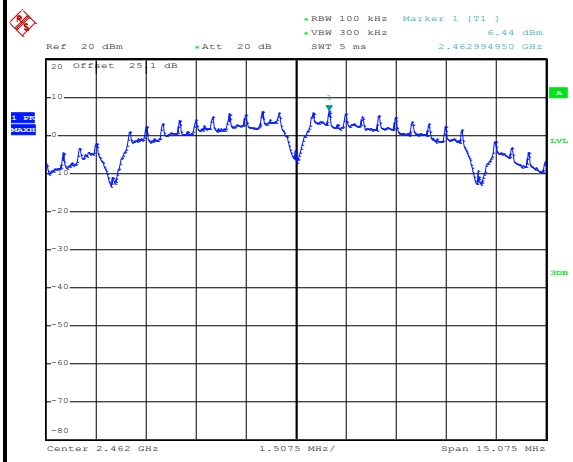


Date: 18.DEC.2018 00:13:40

WLAN 802.11b Channel 06	
100kHz PSD reference Level	**Channel Plot**
 Date: 18.DEC.2018 00:17:38	
Spurious Emission 30MHz~3GHz	**Spurious Emission 2GHz~25GHz**
 Date: 18.DEC.2018 00:17:55	 Date: 18.DEC.2018 00:18:11

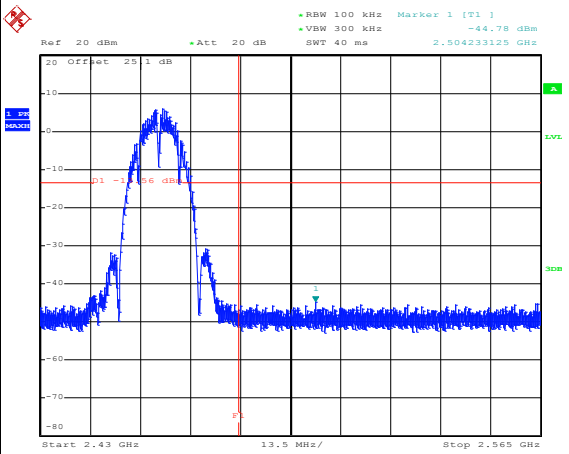
WLAN 802.11b Channel 11

100kHz PSD reference Level



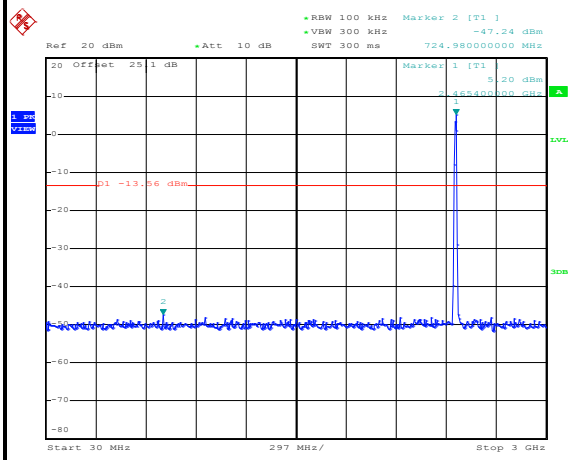
Date: 18.DEC.2018 00:22:10

Channel Plot



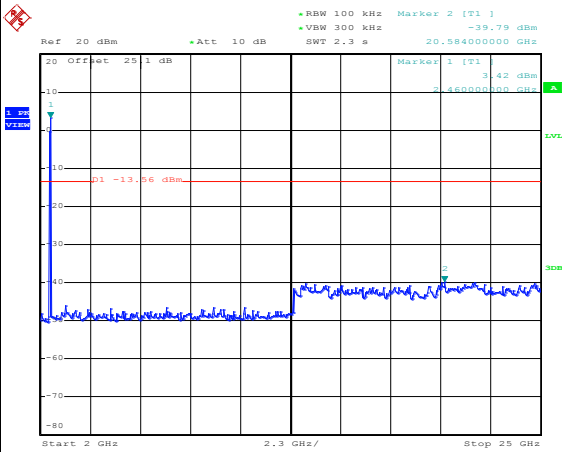
Date: 18.DEC.2018 00:22:23

Spurious Emission 30MHz~3GHz



Date: 18.DEC.2018 00:22:38

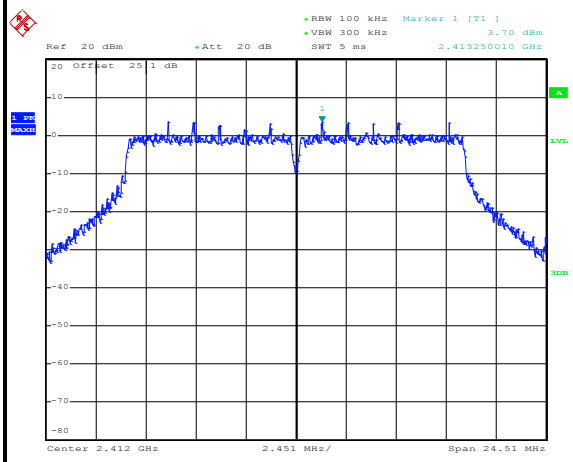
Spurious Emission 2GHz~25GHz



Date: 18.DEC.2018 00:22:56

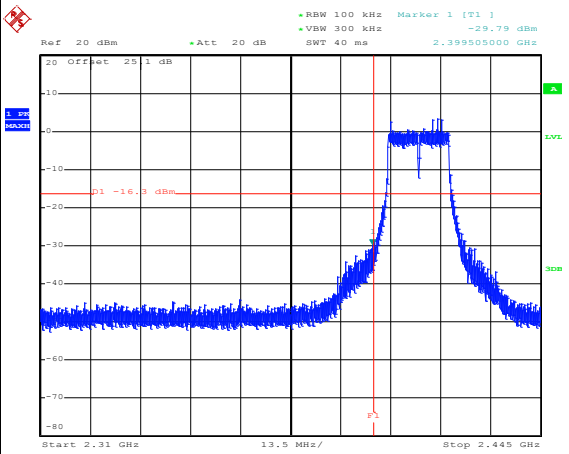
WLAN 802.11g Channel 01

100kHz PSD reference Level



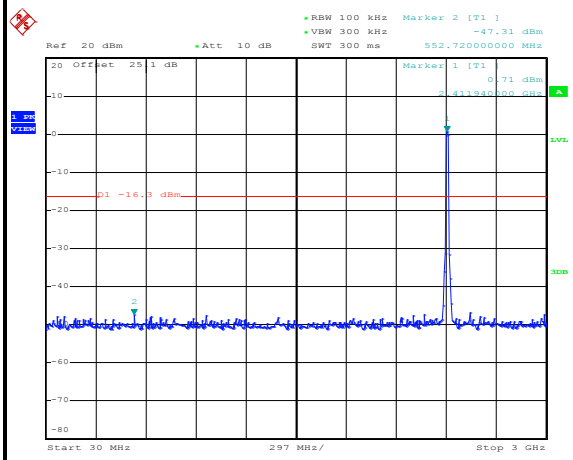
Date: 18.DEC.2018 00:27:03

Channel Plot



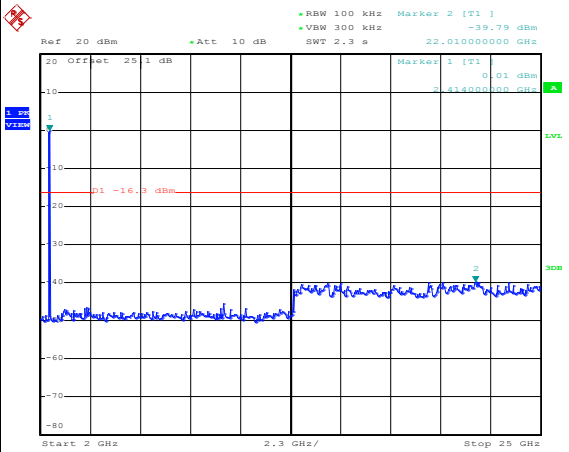
Date: 18.DEC.2018 00:27:16

Spurious Emission 30MHz~3GHz

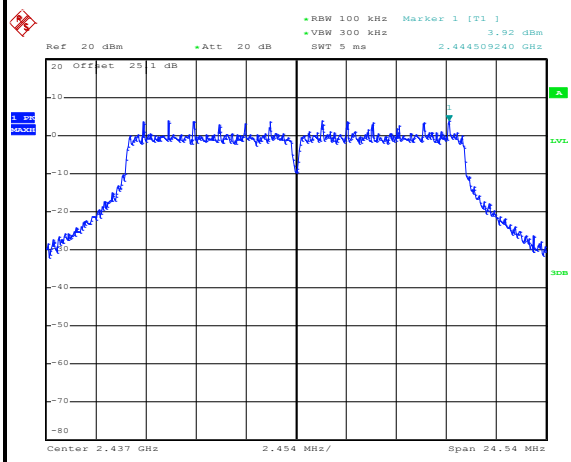
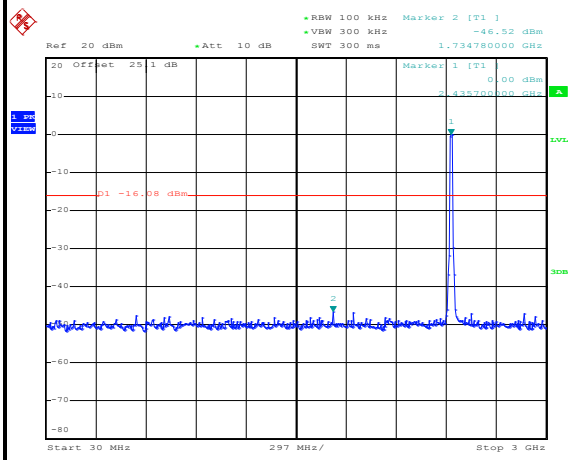
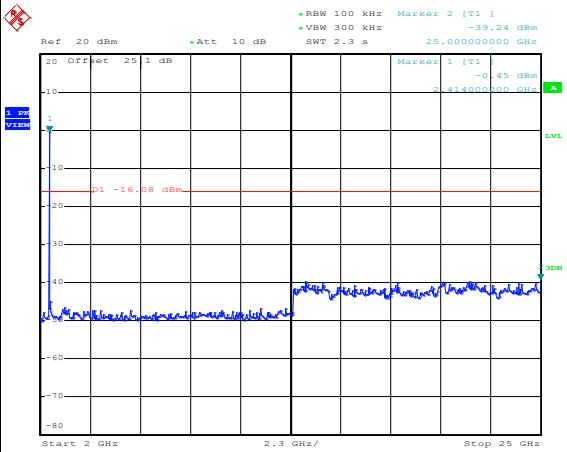


Date: 18.DEC.2018 00:27:52

Spurious Emission 2GHz~25GHz

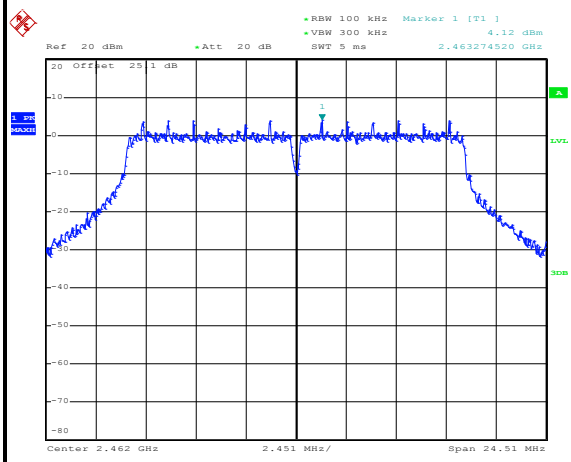


Date: 18.DEC.2018 00:28:09

WLAN 802.11g Channel 06	
100kHz PSD reference Level	**Channel Plot**
 Date: 18.DEC.2018 00:32:03	
Spurious Emission 30MHz~3GHz	**Spurious Emission 2GHz~25GHz**
 Date: 18.DEC.2018 00:32:19	 Date: 18.DEC.2018 00:32:34

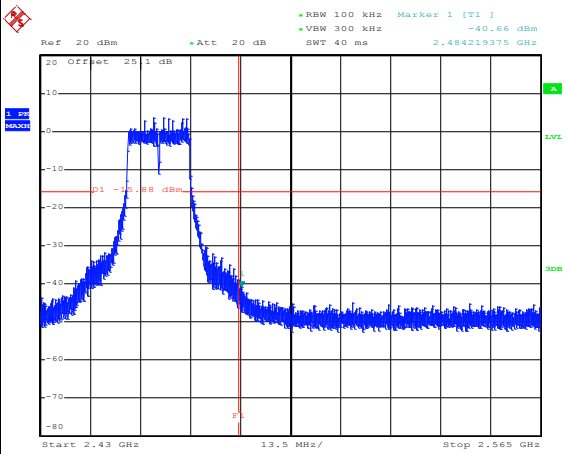
WLAN 802.11g Channel 11

100kHz PSD reference Level



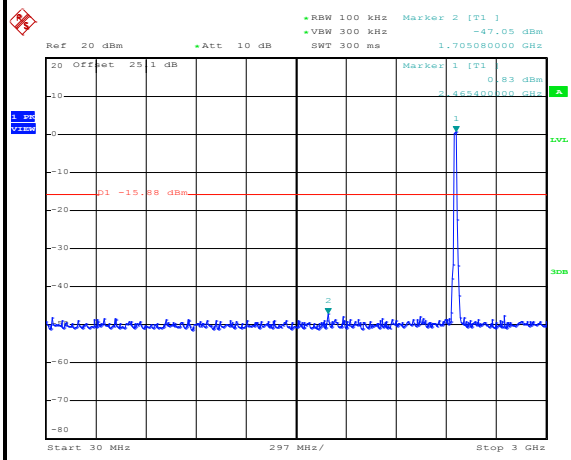
Date: 18.DEC.2018 00:36:17

Channel Plot



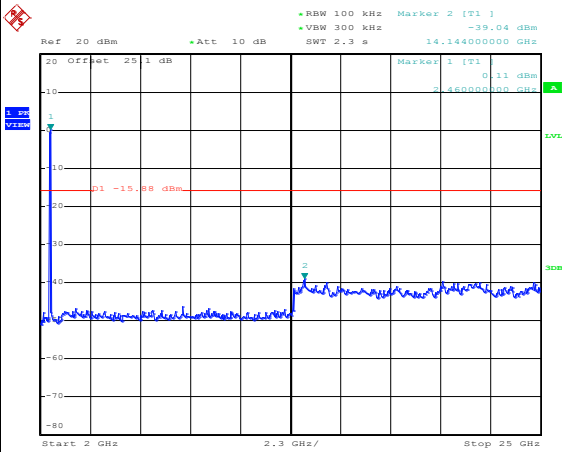
Date: 18.DEC.2018 00:36:30

Spurious Emission 30MHz~3GHz



Date: 18.DEC.2018 00:36:57

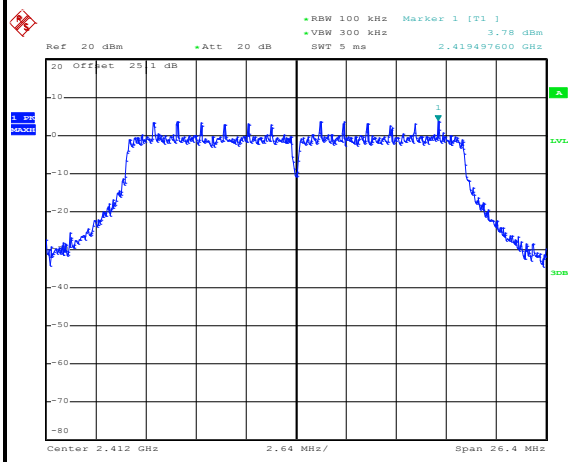
Spurious Emission 2GHz~25GHz



Date: 18.DEC.2018 00:37:13

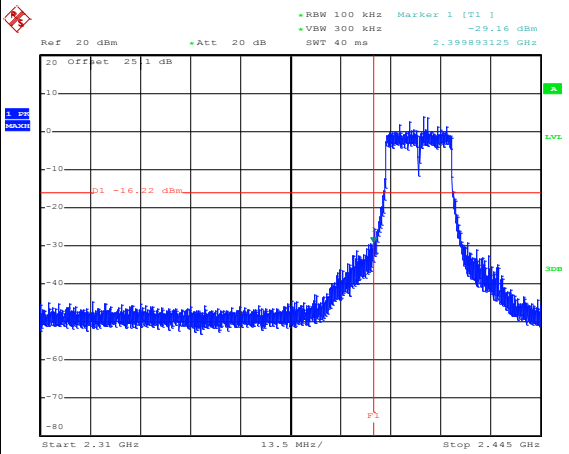
WLAN 802.11n HT20 Channel 01

100kHz PSD reference Level



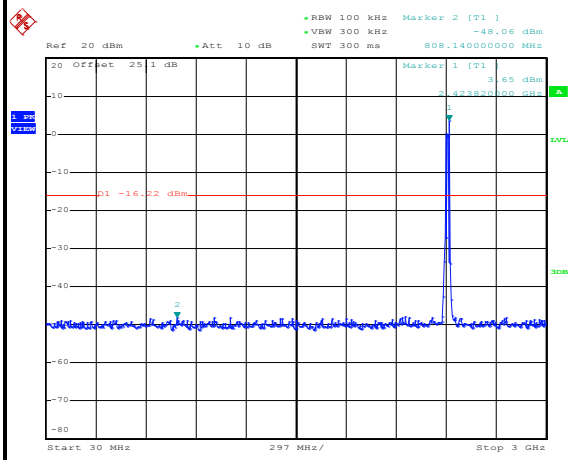
Date: 18.DEC.2018 00:41:59

Channel Plot



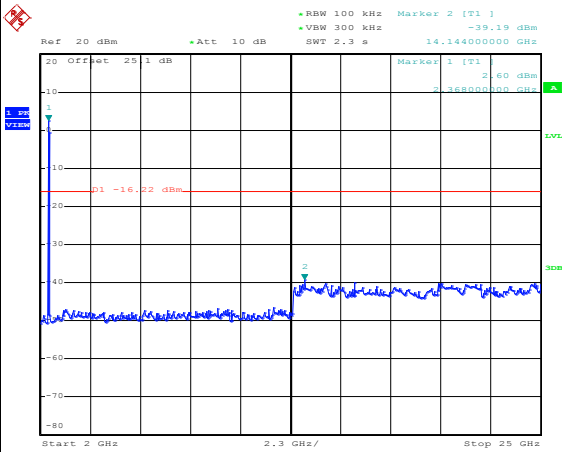
Date: 18.DEC.2018 00:42:54

Spurious Emission 30MHz~3GHz

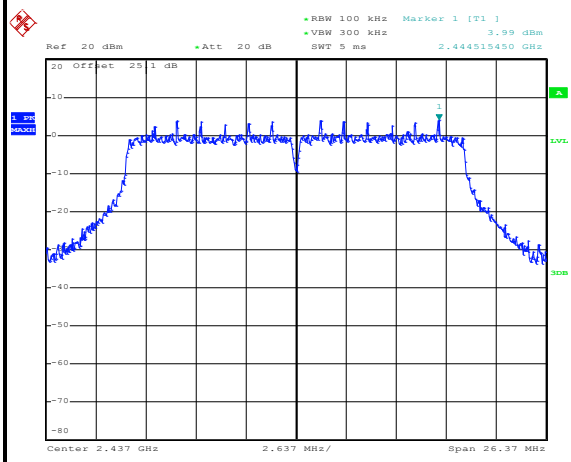
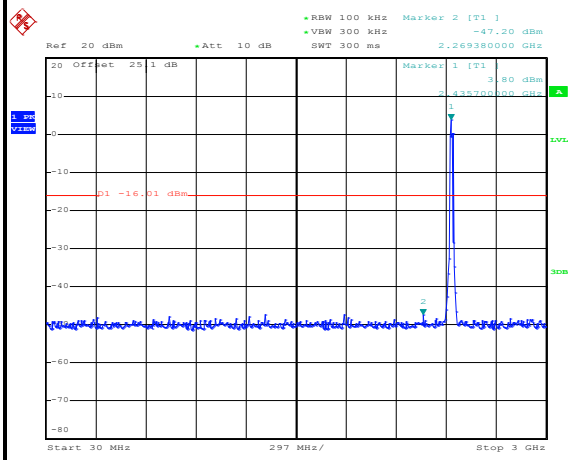
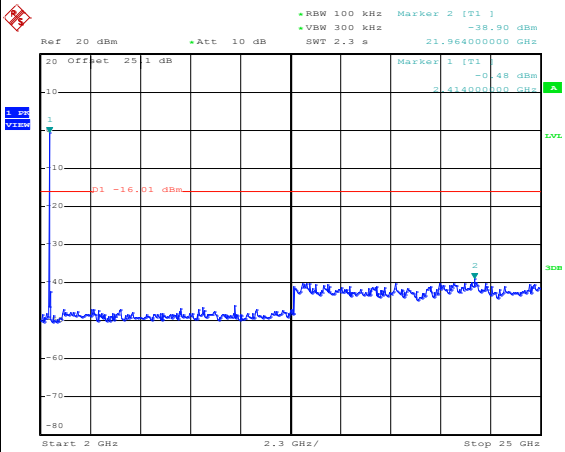


Date: 18.DEC.2018 00:43:29

Spurious Emission 2GHz~25GHz

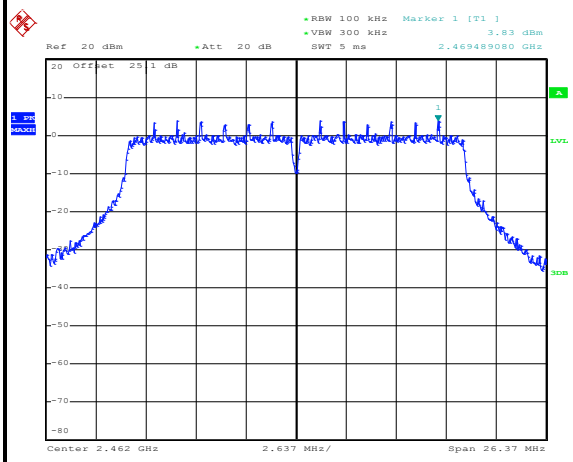


Date: 18.DEC.2018 00:43:43

WLAN 802.11n HT20 Channel 06	
100kHz PSD reference Level	**Channel Plot**
 Date: 18.DEC.2018 00:51:22	
Spurious Emission 30MHz~3GHz	**Spurious Emission 2GHz~25GHz**
 Date: 18.DEC.2018 00:51:38	 Date: 18.DEC.2018 00:51:54

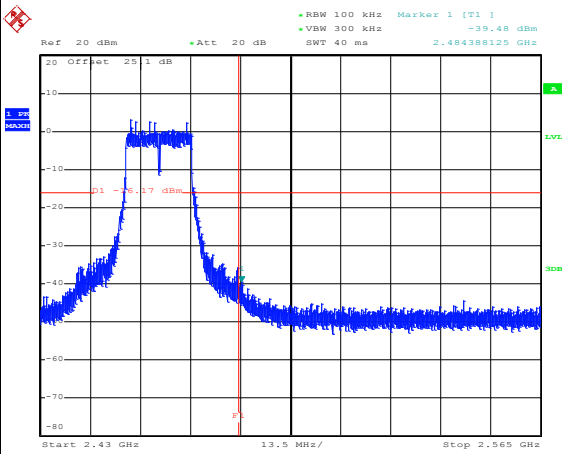
WLAN 802.11n HT20 Channel 11

100kHz PSD reference Level



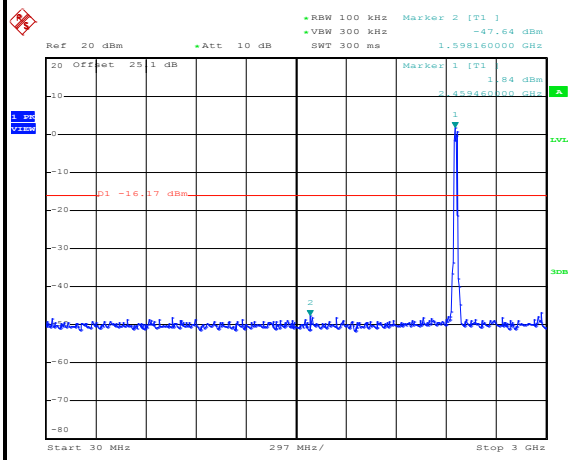
Date: 18.DEC.2018 00:58:35

Channel Plot



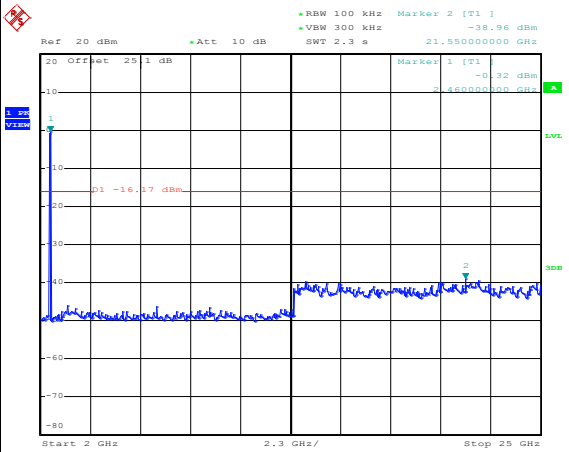
Date: 18.DEC.2018 00:59:39

Spurious Emission 30MHz~3GHz



Date: 18.DEC.2018 01:00:09

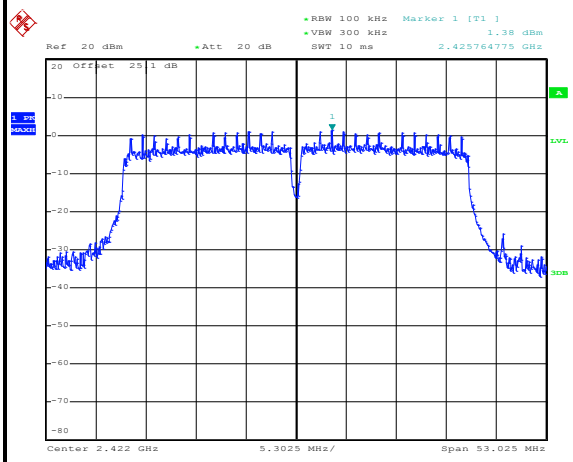
Spurious Emission 2GHz~25GHz



Date: 18.DEC.2018 01:00:24

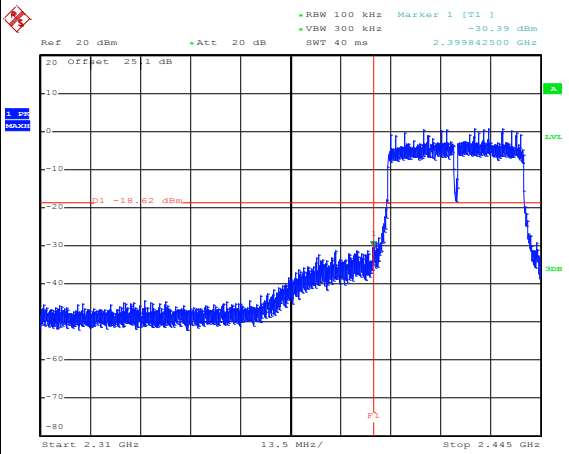
WLAN 802.11n HT40 Channel 03

100kHz PSD reference Level



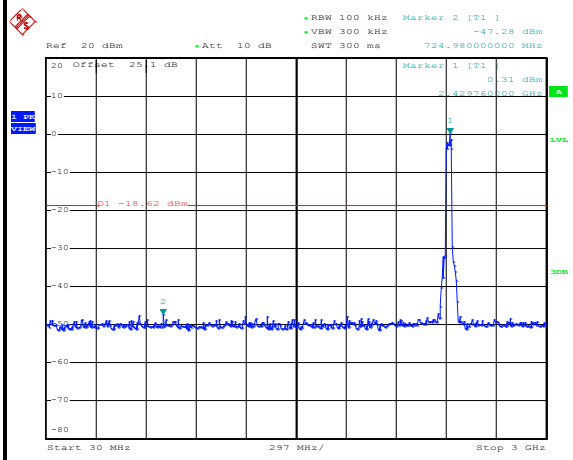
Date: 18.DEC.2018 01:05:57

Channel Plot



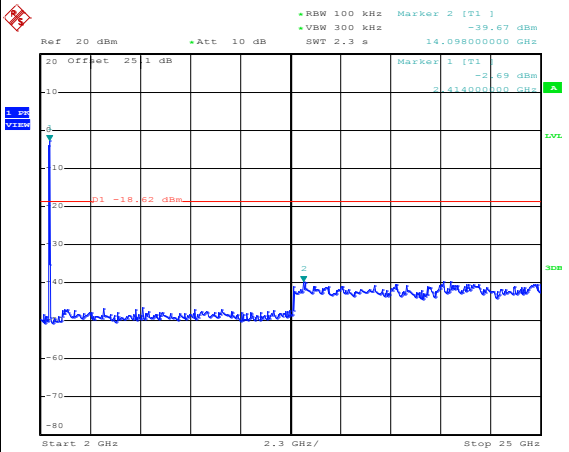
Date: 18.DEC.2018 01:06:10

Spurious Emission 30MHz~3GHz



Date: 18.DEC.2018 01:06:53

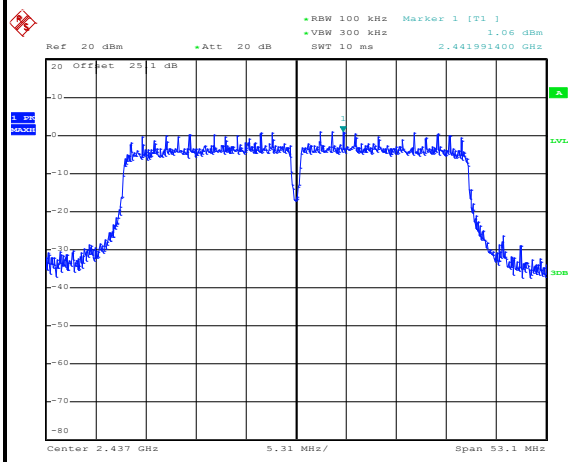
Spurious Emission 2GHz~25GHz



Date: 18.DEC.2018 01:07:08

WLAN 802.11n HT40 Channel 06

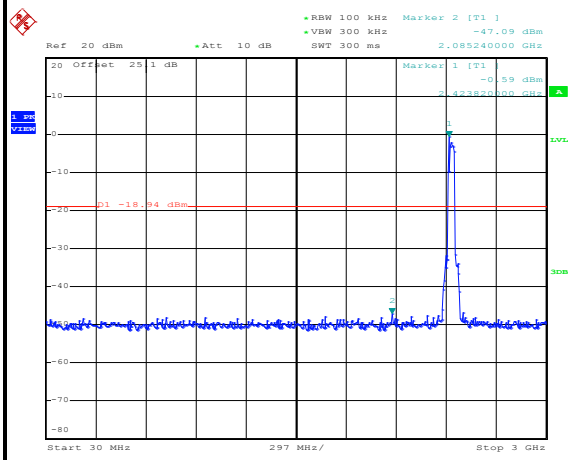
100kHz PSD reference Level



Date: 18.DEC.2018 01:29:57

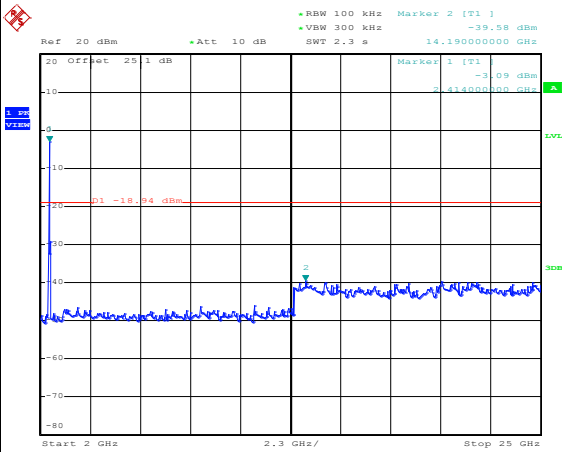
Channel Plot

Spurious Emission 30MHz~3GHz



Date: 18.DEC.2018 01:30:50

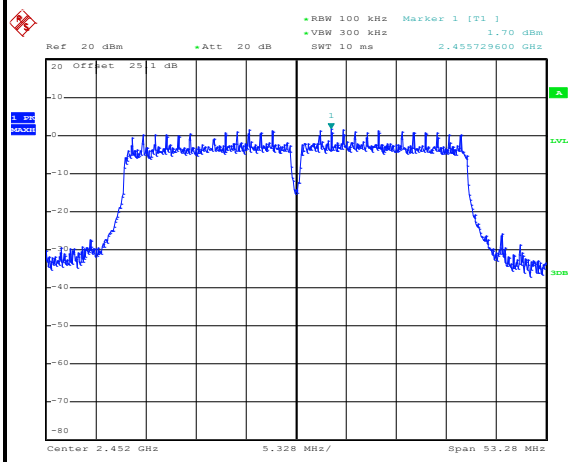
Spurious Emission 2GHz~25GHz



Date: 18.DEC.2018 01:31:08

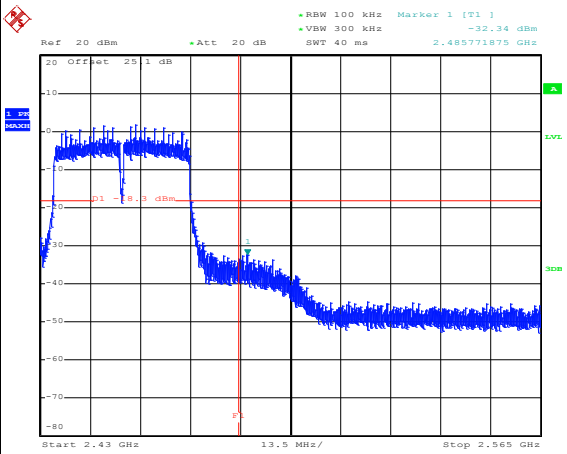
WLAN 802.11n HT40 Channel 09

100kHz PSD reference Level



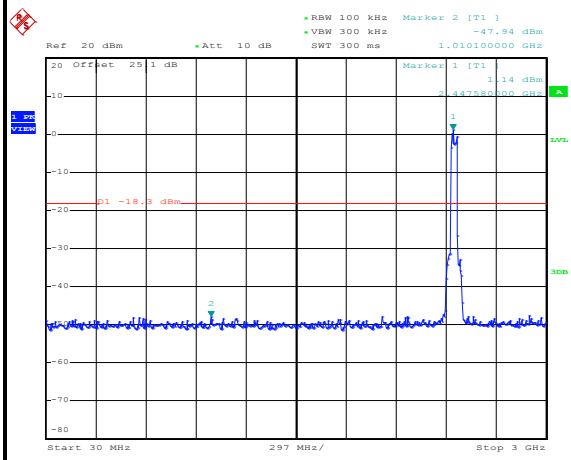
Date: 18.DEC.2018 01:37:08

Channel Plot



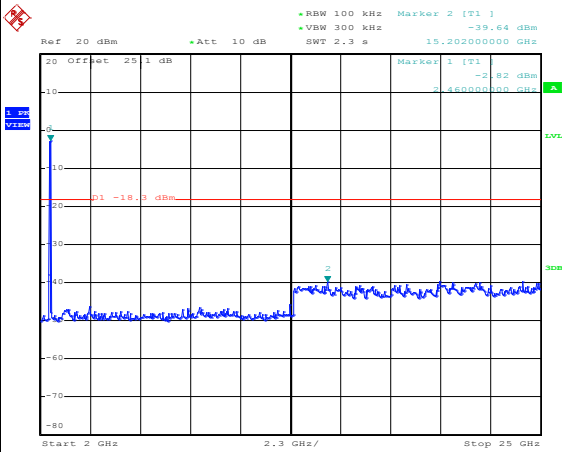
Date: 18.DEC.2018 01:37:37

Spurious Emission 30MHz~3GHz



Date: 18.DEC.2018 01:38:19

Spurious Emission 2GHz~25GHz



Date: 18.DEC.2018 01:38:36

3.5 Radiated Band Edges and Spurious Emission Measurement

3.5.1 Limit of Radiated band edge and Spurious Emission Measurement

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

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

3.5.2 Measuring Instruments

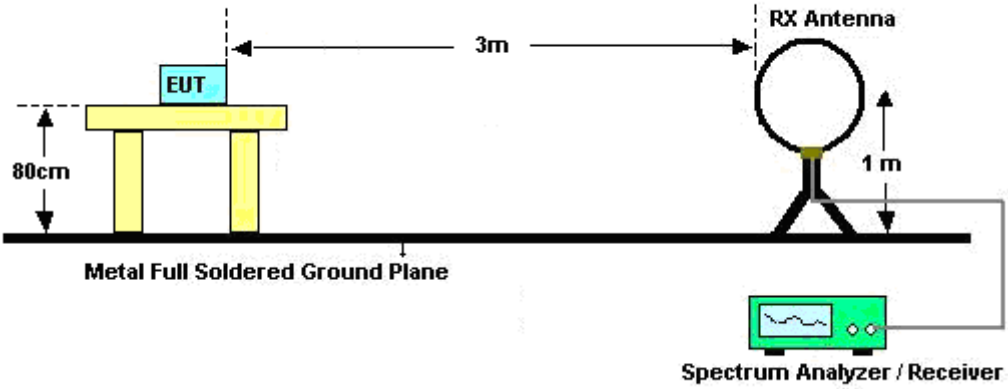
See list of measuring equipment of this test report.

3.5.3 Test Procedures

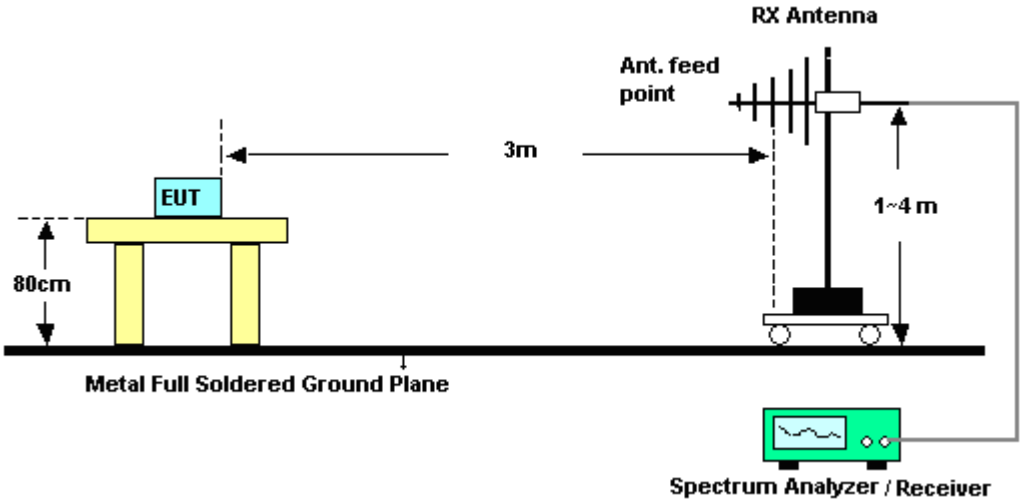
1. The testing follows the ANSI C63.10 Section 11.12.1 Radiated emission measurements.
2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level.
3. The EUT was placed on a turntable with 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz respectively above ground.
4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
5. Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level
6. For testing below 1GHz, if the emission level of the EUT in peak mode was 3 dB lower than the limit specified, then peak values of EUT will be reported, otherwise, the emissions will be repeated one by one using the CISPR quasi-peak method and reported.
7. For testing above 1GHz, the emission level of the EUT in peak mode was 20dB lower than average limit (that means the emission level in average mode also complies with the limit in average mode), then peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.
8. Use the following spectrum analyzer settings:
   (1) Span shall wide enough to fully capture the emission being measured;
   (2) Set RBW=100 kHz for f < 1 GHz; VBW ≥ 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

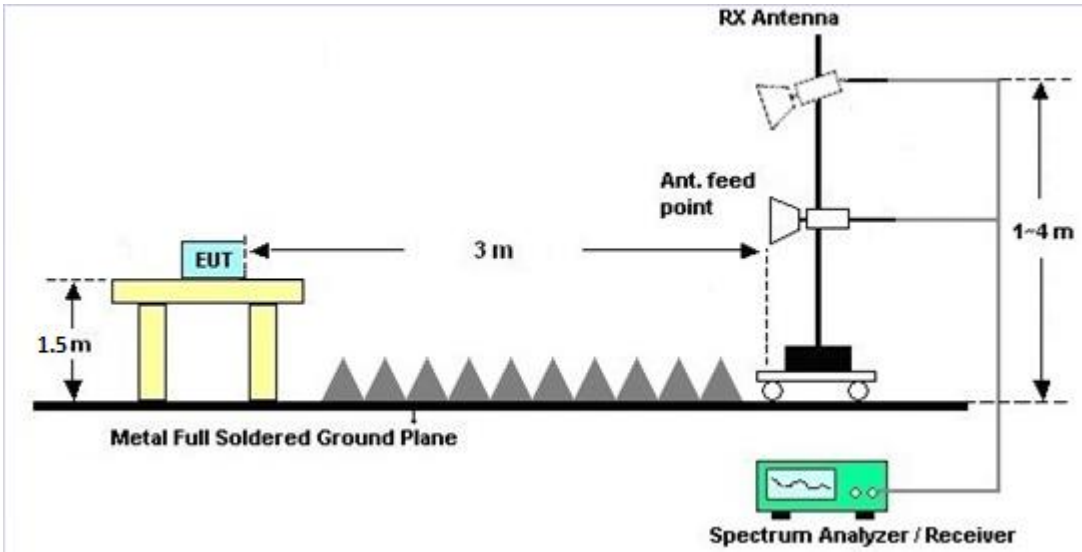
For radiated emissions below 30MHz



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 was not reported.

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

3.5.6 Test Result of Radiated Spurious at Band Edges

Please refer to Appendix C and D.

3.5.7 Duty Cycle

Please refer to Appendix E.

3.5.8 Test Result of Radiated Spurious Emission (30MHz ~ 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.

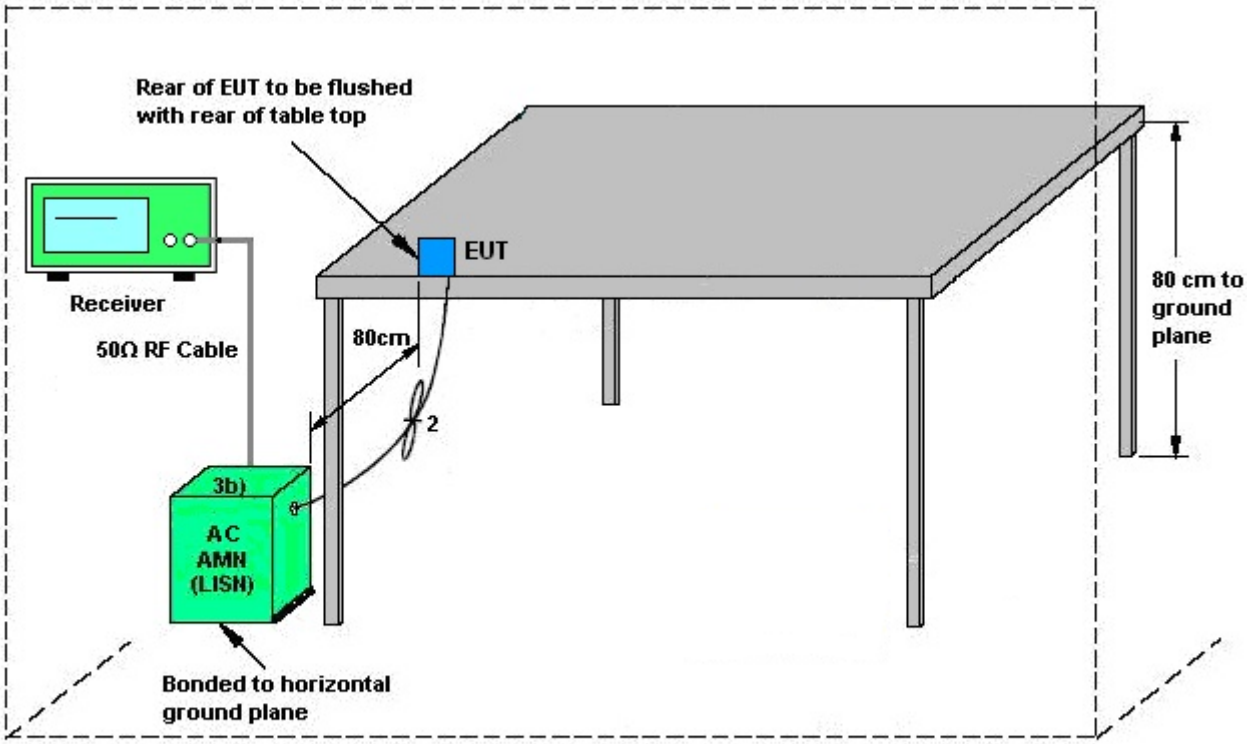
3.6.2 Measuring Instruments

See list of measuring equipment of this test report.

3.6.3 Test Procedures

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

3.6.4 Test Setup



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

3.6.5 Test Result of AC Conducted Emission

Please refer to Appendix B.

3.7 Antenna Requirements

3.7.1 Standard Applicable

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

3.7.2 Antenna Anti-Replacement Construction

An embedded-in antenna design is used.

3.7.3 Antenna Gain

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

4 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Power Meter	Anritsu	ML2495A	1218006	N/A	Oct. 08, 2018	Dec. 13, 2018~ Dec. 18, 2018	Oct. 07, 2019	Conducted (TH05-HY)
Power Sensor	Anritsu	MA2411B	1207363	300MHz~40GHz	Oct. 08, 2018	Dec. 13, 2018~ Dec. 18, 2018	Oct. 07, 2019	Conducted (TH05-HY)
Spectrum Analyzer	Rohde & Schwarz	FSP40	100057	9kHz-40GHz	Nov. 21, 2018	Dec. 13, 2018~ Dec. 18, 2018	Nov. 20, 2019	Conducted (TH05-HY)
Spectrum Analyzer	Rohde & Schwarz	FSV40	101397	10Hz~40GHz	Nov. 13, 2018	Dec. 13, 2018~ Dec. 18, 2018	Nov. 12, 2019	Conducted (TH05-HY)
Switch Box & RF Cable	Burgeon	ETF-058	EC1300484	N/A	Mar. 01, 2018	Dec. 13, 2018~ Dec. 18, 2018	Feb. 28, 2019	Conducted (TH05-HY)
AC Power Source	ChainTek	APC-1000W	N/A	N/A	N/A	Dec. 27, 2018	N/A	Conduction (CO05-HY)
EMI Test Receiver	Rohde & Schwarz	ESR3	102388	9KHz~3.6GHz	Nov. 12, 2018	Dec. 27, 2018	Nov. 11, 2019	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100080	9kHz~30MHz	Nov. 14, 2018	Dec. 27, 2018	Nov. 13, 2019	Conduction (CO05-HY)
Software	Rohde & Schwarz	EMC32 V10.30	N/A	N/A	N/A	Dec. 27, 2018	N/A	Conduction (CO05-HY)
LF Cable	HUBER + SUHNER	RG-214/U	LF01	N/A	Jan. 03, 2018	Dec. 27, 2018	Jan. 02, 2019	Conduction (CO05-HY)
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100851	N/A	Jan. 03, 2018	Dec. 27, 2018	Jan. 02, 2019	Conduction (CO05-HY)
Loop Antenna	TESEQ	HLA 6120	31244	9 kHz~30 MHz	Mar. 29, 2018	Dec. 26, 2018~ Jan. 03, 2019	Mar. 28, 2019	Radiation (03CH12-HY)
Bilog Antenna	TESEQ	CBL 6111D&00800 N1D01N-06	37059&01	30MHz~1GHz	Oct. 13, 2018	Feb. 01, 2019	Oct. 12, 2019	Radiation (03CH12-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120D	9120D-1328	1GHz ~ 18GHz	Oct. 19, 2018	Dec. 26, 2018~ Jan. 03, 2019	Oct. 18, 2019	Radiation (03CH12-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170576	18GHz ~ 40GHz	May 08, 2018	Dec. 26, 2018~ Jan. 03, 2019	May 07, 2019	Radiation (03CH12-HY)
Preamplifier	COM-POWER	PA-103	161075	10MHz~1GHz	Mar. 26, 2018	Feb. 01, 2019	Mar. 25, 2019	Radiation (03CH12-HY)
Preamplifier	Keysight	83017A	MY53270148	1GHz~26.5GHz	Jan. 15, 2018	Dec. 26, 2018~ Jan. 03, 2019	Jan. 14, 2019	Radiation (03CH12-HY)
Preamplifier	Jet-Power	JPA0118-55-303K	1710001800054002	1GHz~18GHz	Apr. 17, 2018	Dec. 26, 2018~ Jan. 03, 2019	Apr. 16, 2019	Radiation (03CH12-HY)
Preamplifier	MITEQ	TTA1840-35-HG	1864481	18GHz ~ 40GHz	Aug. 24, 2018	Dec. 26, 2018~ Jan. 03, 2019	Aug. 23, 2019	Radiation (03CH12-HY)
EMI Test Receiver	Rohde & Schwarz	FSV30	103738	9kHz~30GHz	May 22, 2018	Dec. 26, 2018~ Feb. 01, 2019	May 21, 2019	Radiation (03CH12-HY)
Filter	Wainwright	WLKS1200-12SS	SN2	1.2GHz Low Pass	Mar. 21, 2018	Feb. 01, 2019	Mar. 20, 2019	Radiation (03CH12-HY)
Filter	Wainwright	WHKX12-2700-3000-18000-60ST	SN2	3GHz High Pass	Mar. 21, 2018	Dec. 26, 2018~ Jan. 03, 2019	Mar. 20, 2019	Radiation (03CH12-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 126E	0058/126E	30M-18G	Mar. 14, 2018	Dec. 26, 2018~ Feb. 01, 2019	Mar. 13, 2019	Radiation (03CH12-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	505134/2	30M~40GHz	Oct. 16, 2018	Dec. 26, 2018~ Feb. 01, 2019	Oct. 15, 2019	Radiation (03CH12-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	800740/2	30M~40GHz	Oct. 16, 2018	Dec. 26, 2018~ Feb. 01, 2019	Oct. 15, 2019	Radiation (03CH12-HY)
Antenna Mast	EMEC	AM-BS-4500-B	N/A	1m~4m	N/A	Dec. 26, 2018~ Feb. 01, 2019	N/A	Radiation (03CH12-HY)
Turn Table	EMEC	TT2000	N/A	0~360 Degree	N/A	Dec. 26, 2018~ Feb. 01, 2019	N/A	Radiation (03CH12-HY)
Software	Audix	E3 6.2009-8-24	RK-000989	N/A	N/A	Dec. 26, 2018~ Feb. 01, 2019	N/A	Radiation (03CH12-HY)

5 Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	2.2

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	5.1

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	5.2

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	4.7

Appendix A. Test Result of Conducted Test Items

Test Engineer:	Allen Lin / AnAn Wu	Temperature:	21~25	°C
Test Date:	2018/12/13~2018/12/18	Relative Humidity:	51~54	%

TEST RESULTS DATA
6dB and 99% Occupied Bandwidth

2.4GHz Band										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Occupied BW (MHz)		6dB BW (MHz)		6dB BW Limit (MHz)	Pass/Fail
					Ant 1	Ant 2	Ant 1	Ant 2		
11b	1Mbps	1	1	2412	15.15	-	10.01	-	0.50	Pass
11b	1Mbps	1	6	2437	15.15	-	10.06	-	0.50	Pass
11b	1Mbps	1	11	2462	15.15	-	10.05	-	0.50	Pass
11g	6Mbps	1	1	2412	17.00	-	16.34	-	0.50	Pass
11g	6Mbps	1	6	2437	17.05	-	16.36	-	0.50	Pass
11g	6Mbps	1	11	2462	17.05	-	16.34	-	0.50	Pass
HT20	MCS0	1	1	2412	18.10	-	17.60	-	0.50	Pass
HT20	MCS0	1	6	2437	18.10	-	17.58	-	0.50	Pass
HT20	MCS0	1	11	2462	18.10	-	17.58	-	0.50	Pass
HT40	MCS0	1	3	2422	36.80	-	35.35	-	0.50	Pass
HT40	MCS0	1	6	2437	36.60	-	35.40	-	0.50	Pass
HT40	MCS0	1	9	2452	36.60	-	35.52	-	0.50	Pass

Report Number : FR8N2121B

TEST RESULTS DATA
Peak Output Power

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
					Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	
11b	1Mbps	1	1	2412	17.58	-	-	30.00	-	4.72	-	22.30	-	36.00	-	Pass
11b	1Mbps	1	6	2437	17.50	-	-	30.00	-	4.72	-	22.22	-	36.00	-	Pass
11b	1Mbps	1	11	2462	17.43	-	-	30.00	-	4.72	-	22.15	-	36.00	-	Pass
11g	6Mbps	1	1	2412	23.26	-	-	30.00	-	4.72	-	27.98	-	36.00	-	Pass
11g	6Mbps	1	6	2437	23.02	-	-	30.00	-	4.72	-	27.74	-	36.00	-	Pass
11g	6Mbps	1	11	2462	23.12	-	-	30.00	-	4.72	-	27.84	-	36.00	-	Pass
HT20	MCS0	1	1	2412	23.10	-	-	30.00	-	4.72	-	27.82	-	36.00	-	Pass
HT20	MCS0	1	6	2437	23.45	-	-	30.00	-	4.72	-	28.17	-	36.00	-	Pass
HT20	MCS0	1	11	2462	22.95	-	-	30.00	-	4.72	-	27.67	-	36.00	-	Pass
HT40	MCS0	1	3	2422	22.38	-	-	30.00	-	4.72	-	27.10	-	36.00	-	Pass
HT40	MCS0	1	6	2437	23.41	-	-	30.00	-	4.72	-	28.13	-	36.00	-	Pass
HT40	MCS0	1	9	2452	22.51	-	-	30.00	-	4.72	-	27.23	-	36.00	-	Pass

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

TEST RESULTS DATA
Average Output Power

2.4GHz Band									
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)		Average Conducted Power (dBm)		
					Ant 1	Ant 2	Ant 1	Ant 2	SUM
11b	1Mbps	1	1	2412	0.06	-	15.34	-	-
11b	1Mbps	1	6	2437	0.06	-	15.28	-	
11b	1Mbps	1	11	2462	0.06	-	15.26	-	
11g	6Mbps	1	1	2412	0.26	-	15.41	-	
11g	6Mbps	1	6	2437	0.26	-	15.36	-	
11g	6Mbps	1	11	2462	0.26	-	15.40	-	
HT20	MCS0	1	1	2412	0.13	-	15.06	-	
HT20	MCS0	1	6	2437	0.13	-	15.11	-	
HT20	MCS0	1	11	2462	0.13	-	14.88	-	
HT40	MCS0	1	3	2422	0.66	-	13.92	-	
HT40	MCS0	1	6	2437	0.66	-	15.34	-	
HT40	MCS0	1	9	2452	0.66	-	14.37	-	

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

Report Number : FR8N2121B

TEST RESULTS DATA
Peak Power Spectral Density

2.4GHz Band												
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Peak PSD (dBm/3kHz)			DG (dBi)		Peak PSD Limit (dBm/3kHz)		Pass/Fail
					Ant 1	Ant 2	Worse + 3.01	Ant 1	Ant 2	Ant 1	Ant 2	
11b	1Mbps	1	1	2412	-7.36	-	-	4.72	-	8.00	-	Pass
11b	1Mbps	1	6	2437	-7.06	-	-	4.72	-	8.00	-	Pass
11b	1Mbps	1	11	2462	-7.35	-	-	4.72	-	8.00	-	Pass
11g	6Mbps	1	1	2412	-9.86	-	-	4.72	-	8.00	-	Pass
11g	6Mbps	1	6	2437	-10.25	-	-	4.72	-	8.00	-	Pass
11g	6Mbps	1	11	2462	-9.36	-	-	4.72	-	8.00	-	Pass
HT20	MCS0	1	1	2412	-9.26	-	-	4.72	-	8.00	-	Pass
HT20	MCS0	1	6	2437	-10.05	-	-	4.72	-	8.00	-	Pass
HT20	MCS0	1	11	2462	-10.61	-	-	4.72	-	8.00	-	Pass
HT40	MCS0	1	3	2422	-13.95	-	-	4.72	-	8.00	-	Pass
HT40	MCS0	1	6	2437	-13.75	-	-	4.72	-	8.00	-	Pass
HT40	MCS0	1	9	2452	-13.82	-	-	4.72	-	8.00	-	Pass

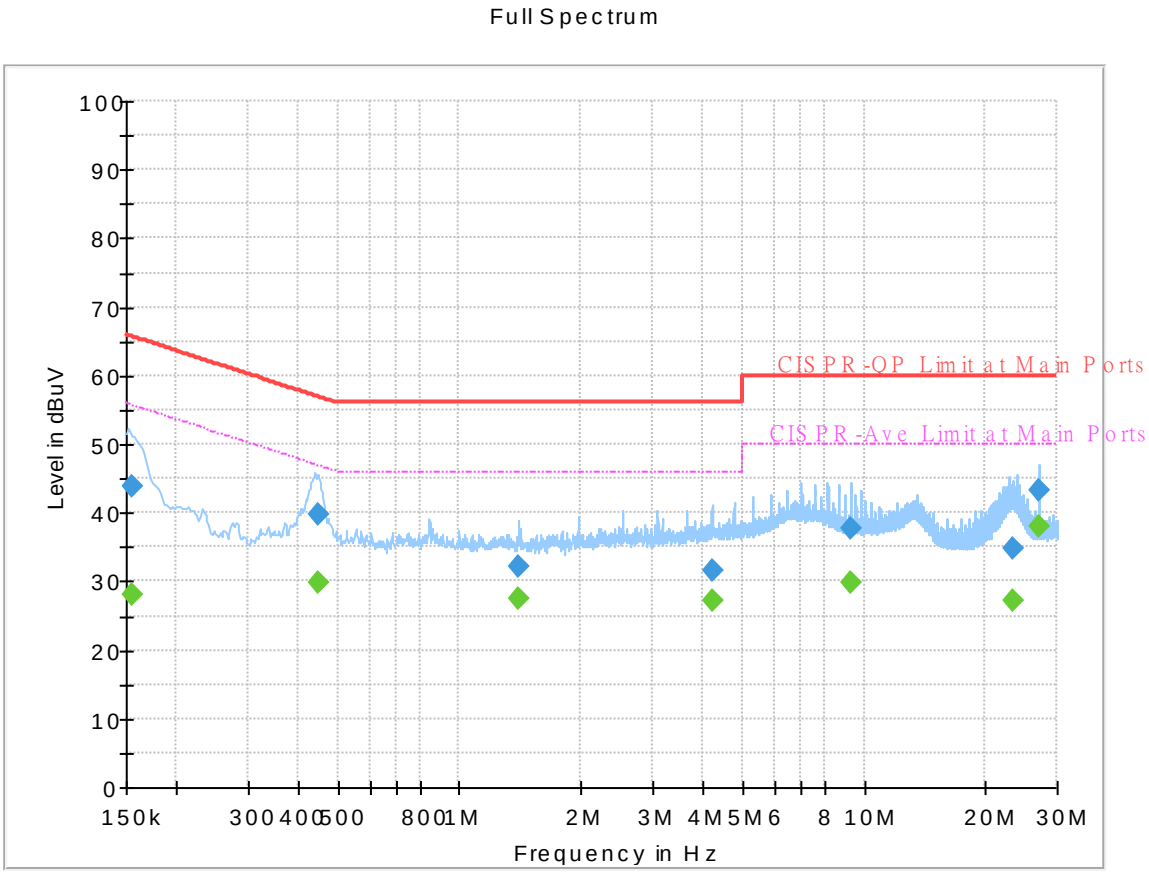
Measured power density (dBm) has offset with cable loss.

Appendix B. AC Conducted Emission Test Results

Test Engineer :	Jimmy Chang	**Temperature :**	24~26℃
		Relative Humidity :	51~53%

EUT Information

Report NO :	8N2121
Test Mode :	Mode 1
Test Voltage :	120Vac/60Hz
Phase :	Line

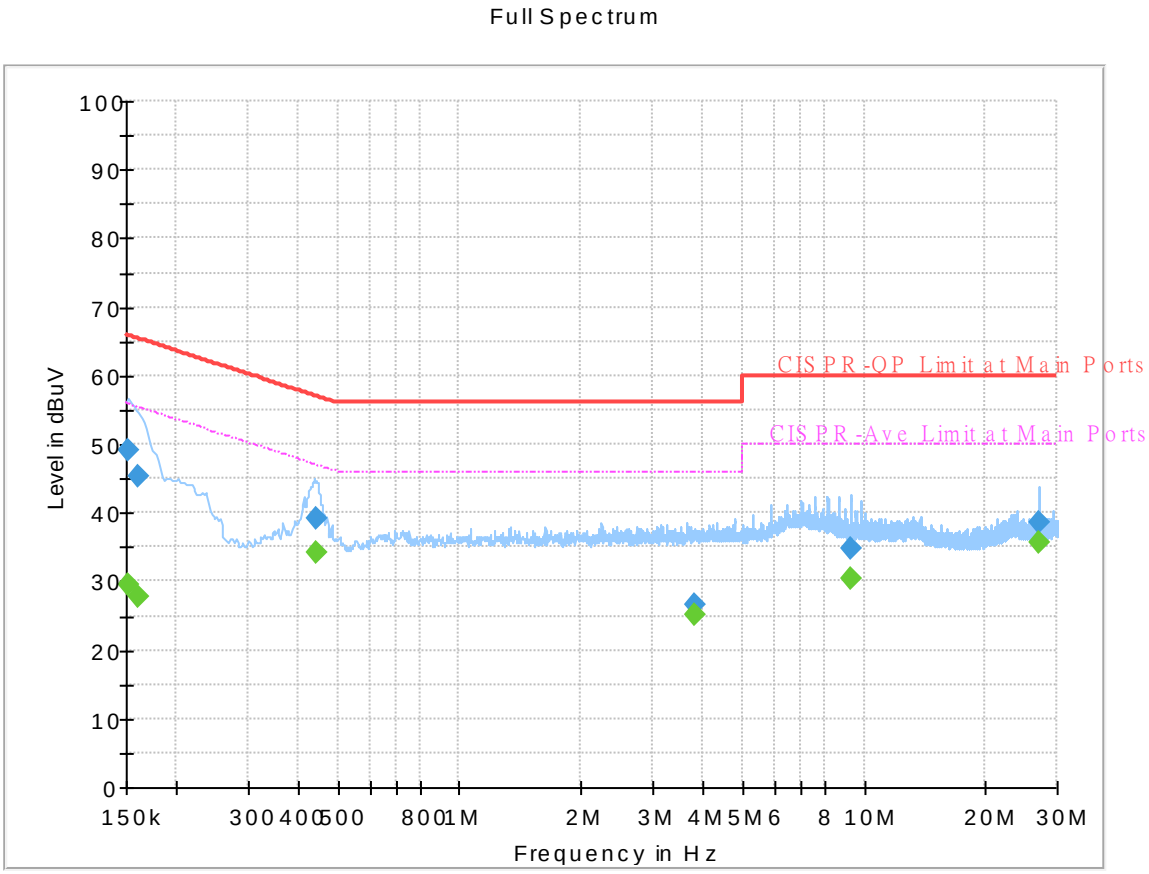


Final_Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.154500	---	28.08	55.75	27.67	L1	OFF	19.5
0.154500	43.99	---	65.75	21.76	L1	OFF	19.5
0.447000	---	29.69	46.93	17.24	L1	OFF	19.5
0.447000	39.68	---	56.93	17.25	L1	OFF	19.5
1.403250	---	27.52	46.00	18.48	L1	OFF	19.6
1.403250	32.07	---	56.00	23.93	L1	OFF	19.6
4.204500	---	27.20	46.00	18.80	L1	OFF	19.7
4.204500	31.58	---	56.00	24.42	L1	OFF	19.7
9.253500	---	29.85	50.00	20.15	L1	OFF	19.9
9.253500	37.58	---	60.00	22.42	L1	OFF	19.9
23.291250	---	27.24	50.00	22.76	L1	OFF	20.3
23.291250	34.87	---	60.00	25.13	L1	OFF	20.3
27.001500	---	38.05	50.00	11.95	L1	OFF	20.4
27.001500	43.38	---	60.00	16.62	L1	OFF	20.4

EUT Information

Report NO :	8N2121
Test Mode :	Mode 1
Test Voltage :	120Vac/60Hz
Phase :	Neutral



Final_Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.152250	---	29.55	55.88	26.33	N	OFF	19.5
0.152250	49.16	---	65.88	16.72	N	OFF	19.5
0.161250	---	27.74	55.40	27.66	N	OFF	19.5
0.161250	45.19	---	65.40	20.21	N	OFF	19.5
0.442500	---	34.32	47.02	12.70	N	OFF	19.5
0.442500	39.16	---	57.02	17.86	N	OFF	19.5
3.831000	---	25.17	46.00	20.83	N	OFF	19.7
3.831000	26.74	---	56.00	29.26	N	OFF	19.7
9.264750	---	30.47	50.00	19.53	N	OFF	19.9
9.264750	34.72	---	60.00	25.28	N	OFF	19.9
27.001500	---	35.63	50.00	14.37	N	OFF	20.6
27.001500	38.71	---	60.00	21.29	N	OFF	20.6

Appendix C. Radiated Spurious Emission

Test Engineer :	Jack Cheng, Lance Chiang, and Peter Liao	Temperature :	22~24°C
		Relative Humidity :	56~60%

2.4GHz 2400~2483.5MHz

WIFI 802.11b (Band Edge @ 3m)

WIFI Ant.	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
1													
802.11b CH 01 2412MHz		2328.585	54.96	-19.04	74	42.23	27.73	16.59	31.59	100	190	P	H
		2385.285	40.26	-13.74	54	27.63	27.53	16.68	31.58	100	190	A	H
	*	2412	99.95	-	-	87.32	27.48	16.72	31.57	100	190	P	H
	*	2412	95.81	-	-	83.18	27.48	16.72	31.57	100	190	A	H
													H
													H
		2353.575	54.66	-19.34	74	42.02	27.59	16.63	31.58	104	110	P	V
		2386.23	40.45	-13.55	54	27.82	27.53	16.68	31.58	104	110	A	V
	*	2412	103.45	-	-	90.82	27.48	16.72	31.57	104	110	P	V
	*	2412	99.14	-	-	86.51	27.48	16.72	31.57	104	110	A	V
													V
													V
802.11b CH 06 2437MHz		2350.74	55.46	-18.54	74	42.81	27.6	16.63	31.58	100	189	P	H
		2310.84	40.13	-13.87	54	27.32	27.83	16.57	31.59	100	189	A	H
	*	2437	99.53	-	-	86.92	27.43	16.75	31.57	100	189	P	H
	*	2437	95.36	-	-	82.75	27.43	16.75	31.57	100	189	A	H
		2484.25	54.95	-19.05	74	42.36	27.33	16.82	31.56	100	189	P	H
		2484.67	40.04	-13.96	54	27.45	27.33	16.82	31.56	100	189	A	H
		2361.52	54.92	-19.08	74	42.28	27.58	16.64	31.58	301	110	P	V
		2318.12	40.11	-13.89	54	27.33	27.79	16.58	31.59	301	110	A	V
	*	2437	103.81	-	-	91.2	27.43	16.75	31.57	301	110	P	V
	*	2437	99.62	-	-	87.01	27.43	16.75	31.57	301	110	A	V
		2496.36	55.86	-18.14	74	43.26	27.31	16.84	31.55	301	110	P	V
		2487.75	40.24	-13.76	54	27.65	27.32	16.83	31.56	301	110	A	V

802.11b CH 11 2462MHz	*	2462	100.17	-	-	87.56	27.38	16.79	31.56	179	183	P	H
	*	2462	95.94	-	-	83.33	27.38	16.79	31.56	179	183	A	H
		2488.8	55.01	-18.99	74	42.42	27.32	16.83	31.56	179	183	P	H
		2488.8	40.48	-13.52	54	27.89	27.32	16.83	31.56	179	183	A	H
													H
													H
	*	2462	105.04	-	-	92.43	27.38	16.79	31.56	329	115	P	V
	*	2462	100.82	-	-	88.21	27.38	16.79	31.56	329	115	A	V
		2487.84	55.78	-18.22	74	43.19	27.32	16.83	31.56	329	115	P	V
		2488.64	41.97	-12.03	54	29.38	27.32	16.83	31.56	329	115	A	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

2.4GHz 2400~2483.5MHz

WIFI 802.11b (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11b CH 01 2412MHz		4824	44.66	-29.34	74	59.7	31.1	10.43	56.57	100	0	P	H
													H
													H
													H
		4824	43.69	-30.31	74	58.73	31.1	10.43	56.57	100	0	P	V
													V
													V
													V
802.11b CH 06 2437MHz		4874	42.2	-31.8	74	57.18	31.1	10.47	56.55	100	0	P	H
		7311	44.76	-29.24	74	51.61	36.58	12.8	56.23	100	0	P	H
													H
													H
		4874	40.59	-33.41	74	55.57	31.1	10.47	56.55	100	0	P	V
		7311	43.11	-30.89	74	49.96	36.58	12.8	56.23	100	0	P	V
													V
													V
802.11b CH 11 2462MHz		4924	40.77	-33.23	74	55.61	31.2	10.49	56.53	100	0	P	H
		7386	43.76	-30.24	74	50.83	36.36	12.71	56.14	100	0	P	H
													H
													H
		4924	41.47	-32.53	74	56.31	31.2	10.49	56.53	100	0	P	V
		7386	43.66	-30.34	74	50.73	36.36	12.71	56.14	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

2.4GHz 2400~2483.5MHz

WIFI 802.11g (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11g CH 01 2412MHz		2389.59	59.02	-14.98	74	46.4	27.52	16.68	31.58	285	63	P	H
		2389.905	43	-11	54	30.37	27.52	16.68	31.57	285	63	A	H
	*	2412	100.02	-	-	87.39	27.48	16.72	31.57	285	63	P	H
	*	2412	91.09	-	-	78.46	27.48	16.72	31.57	285	63	A	H
													H
													H
		2389.695	63.23	-10.77	74	50.61	27.52	16.68	31.58	177	116	P	V
		2390	45.47	-8.53	54	32.83	27.52	16.69	31.57	177	116	A	V
	*	2412	103.68	-	-	91.05	27.48	16.72	31.57	177	116	P	V
	*	2412	94.38	-	-	81.75	27.48	16.72	31.57	177	116	A	V
													V
													V
802.11g CH 06 2437MHz		2314.48	55.01	-18.99	74	42.22	27.81	16.57	31.59	154	177	P	H
		2329.04	41.66	-12.34	54	28.93	27.73	16.59	31.59	154	177	A	H
	*	2437	100.07	-	-	87.46	27.43	16.75	31.57	154	177	P	H
	*	2437	90.95	-	-	78.34	27.43	16.75	31.57	154	177	A	H
		2495.66	55	-19	74	42.4	27.31	16.84	31.55	154	177	P	H
		2484.95	41.55	-12.45	54	28.96	27.33	16.82	31.56	154	177	A	H
		2332.26	55.39	-18.61	74	42.67	27.71	16.6	31.59	143	116	P	V
		2361.1	41.8	-12.2	54	29.16	27.58	16.64	31.58	143	116	A	V
	*	2437	105.25	-	-	92.64	27.43	16.75	31.57	143	116	P	V
	*	2437	96.17	-	-	83.56	27.43	16.75	31.57	143	116	A	V
		2483.83	55.3	-18.7	74	42.71	27.33	16.82	31.56	143	116	P	V
		2483.76	42.11	-11.89	54	29.52	27.33	16.82	31.56	143	116	A	V

802.11g CH 11 2462MHz	*	2462	102.25	-	-	89.64	27.38	16.79	31.56	315	128	P	H
	*	2462	92.21	-	-	79.6	27.38	16.79	31.56	315	128	A	H
		2484.12	63.16	-10.84	74	50.57	27.33	16.82	31.56	315	128	P	H
		2483.64	44.44	-9.56	54	31.85	27.33	16.82	31.56	315	128	A	H
													H
													H
	*	2462	106.43	-	-	93.82	27.38	16.79	31.56	144	56	P	V
	*	2462	97.13	-	-	84.52	27.38	16.79	31.56	144	56	A	V
		2483.92	68.73	-5.27	74	56.14	27.33	16.82	31.56	144	56	P	V
		2483.6	48.82	-5.18	54	36.23	27.33	16.82	31.56	144	56	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)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11g CH 01 2412MHz		4824	37.69	-36.31	74	52.73	31.1	10.43	56.57	100	0	P	H
													H
													H
													H
		4824	37.24	-36.76	74	52.28	31.1	10.43	56.57	100	0	P	V
													V
													V
													V
802.11g CH 06 2437MHz		4874	37.15	-36.85	74	52.13	31.1	10.47	56.55	100	0	P	H
		7311	43.37	-30.63	74	50.22	36.58	12.8	56.23	100	0	P	H
													H
													H
		4874	37.61	-36.39	74	52.59	31.1	10.47	56.55	100	0	P	V
		7311	43.63	-30.37	74	50.48	36.58	12.8	56.23	100	0	P	V
													V
													V
802.11g CH 11 2462MHz		4924	37.53	-36.47	74	52.37	31.2	10.49	56.53	100	0	P	H
		7386	43.87	-30.13	74	50.94	36.36	12.71	56.14	100	0	P	H
													H
													H
		4924	38.38	-35.62	74	53.22	31.2	10.49	56.53	100	0	P	V
		7386	42.22	-31.78	74	49.29	36.36	12.71	56.14	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

2.4GHz 2400~2483.5MHz

WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 01 2412MHz		2390	56.45	-17.55	74	43.81	27.52	16.69	31.57	158	198	P	H
		2390	44.43	-9.57	54	31.79	27.52	16.69	31.57	158	198	A	H
	*	2412	99.38	-	-	86.75	27.48	16.72	31.57	158	198	P	H
	*	2412	90.04	-	-	77.41	27.48	16.72	31.57	158	198	A	H
													H
													H
		2390	60.33	-13.67	74	47.69	27.52	16.69	31.57	162	77	P	V
		2390	46.5	-7.5	54	33.86	27.52	16.69	31.57	162	77	A	V
	*	2412	102.14	-	-	89.51	27.48	16.72	31.57	162	77	P	V
	*	2412	93.11	-	-	80.48	27.48	16.72	31.57	162	77	A	V
													V
													V
802.11n HT20 CH 06 2437MHz		2344.3	53	-21	74	40.33	27.63	16.62	31.58	149	180	P	H
		2342.34	42.08	-11.92	54	29.4	27.65	16.61	31.58	149	180	A	H
	*	2437	100.56	-	-	87.95	27.43	16.75	31.57	149	180	P	H
	*	2437	90.51	-	-	77.9	27.43	16.75	31.57	149	180	A	H
		2499.09	52.63	-21.37	74	40.04	27.3	16.84	31.55	149	180	P	H
		2497.34	41.1	-12.9	54	28.5	27.31	16.84	31.55	149	180	A	H
		2341.22	54.88	-19.12	74	42.2	27.65	16.61	31.58	101	119	P	V
		2339.82	41.8	-12.2	54	29.11	27.66	16.61	31.58	101	119	A	V
	*	2437	104.12	-	-	91.51	27.43	16.75	31.57	101	119	P	V
	*	2437	94.69	-	-	82.08	27.43	16.75	31.57	101	119	A	V
		2487.68	53.77	-20.23	74	41.18	27.32	16.83	31.56	101	119	P	V
		2484.04	41.64	-12.36	54	29.05	27.33	16.82	31.56	101	119	A	V

	*	2462	99.22	-	-	86.61	27.38	16.79	31.56	152	195	P	H
	*	2462	89.33	-	-	76.72	27.38	16.79	31.56	152	195	A	H
		2483.52	59.37	-14.63	74	46.78	27.33	16.82	31.56	152	195	P	H
		2483.52	45.04	-8.96	54	32.45	27.33	16.82	31.56	152	195	A	H
802.11n													H
HT20													H
CH 11	*	2462	104.3	-	-	91.69	27.38	16.79	31.56	331	119	P	V
2462MHz	*	2462	94.51	-	-	81.9	27.38	16.79	31.56	331	119	A	V
		2483.52	66.39	-7.61	74	53.8	27.33	16.82	31.56	331	119	P	V
		2483.64	48.6	-5.4	54	36.01	27.33	16.82	31.56	331	119	A	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

2.4GHz 2400~2483.5MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 01 2412MHz		4824	37.98	-36.02	74	53.02	31.1	10.43	56.57	100	0	P	H
													H
													H
													H
		4824	37	-37	74	52.04	31.1	10.43	56.57	100	0	P	V
													V
													V
													V
802.11n HT20 CH 06 2437MHz		4874	36.79	-37.21	74	51.77	31.1	10.47	56.55	100	0	P	H
		7311	43.94	-30.06	74	50.79	36.58	12.8	56.23	100	0	P	H
													H
													H
		4874	36.23	-37.77	74	51.21	31.1	10.47	56.55	100	0	P	V
		7311	42.59	-31.41	74	49.44	36.58	12.8	56.23	100	0	P	V
													V
													V
802.11n HT20 CH 11 2462MHz		4924	38.18	-35.82	74	53.02	31.2	10.49	56.53	100	0	P	H
		7386	43.7	-30.3	74	50.77	36.36	12.71	56.14	100	0	P	H
													H
													H
		4924	36.38	-37.62	74	51.22	31.2	10.49	56.53	100	0	P	V
		7386	42.54	-31.46	74	49.61	36.36	12.71	56.14	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

2.4GHz 2400~2483.5MHz

WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 03 2422MHz		2388.26	62.12	-11.88	74	49.5	27.52	16.68	31.58	133	199	P	H
		2387	47.65	-6.35	54	35.02	27.53	16.68	31.58	133	199	A	H
	*	2422	96.02	-	-	83.4	27.46	16.73	31.57	133	199	P	H
	*	2422	87.23	-	-	74.61	27.46	16.73	31.57	133	199	A	H
		2483.55	56.34	-17.66	74	43.75	27.33	16.82	31.56	133	199	P	H
		2494.96	42.91	-11.09	54	30.31	27.31	16.84	31.55	133	199	A	H
		2388.96	65.44	-8.56	74	52.82	27.52	16.68	31.58	178	120	P	V
		2387.28	52.43	-1.57	54	39.8	27.53	16.68	31.58	178	120	A	V
	*	2422	99.27	-	-	86.65	27.46	16.73	31.57	178	120	P	V
	*	2422	90.05	-	-	77.43	27.46	16.73	31.57	178	120	A	V
		2499.79	52.81	-21.19	74	40.22	27.3	16.84	31.55	178	120	P	V
		2492.16	42.91	-11.09	54	30.31	27.32	16.83	31.55	178	120	A	V
802.11n HT40 CH 06 2437MHz		2388.82	58.19	-15.81	74	45.57	27.52	16.68	31.58	100	192	P	H
		2389.8	44.64	-9.36	54	32.01	27.52	16.68	31.57	100	192	A	H
	*	2437	98.51	-	-	85.9	27.43	16.75	31.57	100	192	P	H
	*	2437	88.91	-	-	76.3	27.43	16.75	31.57	100	192	A	H
		2483.76	59.97	-14.03	74	47.38	27.33	16.82	31.56	100	192	P	H
		2483.69	46.19	-7.81	54	33.6	27.33	16.82	31.56	100	192	A	H
		2389.24	59.51	-14.49	74	46.89	27.52	16.68	31.58	230	113	P	V
		2389.8	46.29	-7.71	54	33.66	27.52	16.68	31.57	230	113	A	V
	*	2437	101.97	-	-	89.36	27.43	16.75	31.57	230	113	P	V
	*	2437	92.5	-	-	79.89	27.43	16.75	31.57	230	113	A	V
		2485.3	63.68	-10.32	74	51.09	27.33	16.82	31.56	230	113	P	V
		2483.69	49.91	-4.09	54	37.32	27.33	16.82	31.56	230	113	A	V

802.11n HT40 CH 09 2452MHz		2343.88	54.46	-19.54	74	41.78	27.64	16.62	31.58	178	191	P	H
		2317.56	42.23	-11.77	54	29.45	27.79	16.58	31.59	178	191	A	H
	*	2452	96.62	-	-	84	27.4	16.78	31.56	178	191	P	H
	*	2452	87.64	-	-	75.02	27.4	16.78	31.56	178	191	A	H
		2486.91	65.51	-8.49	74	52.91	27.33	16.83	31.56	178	191	P	H
		2483.83	48.18	-5.82	54	35.59	27.33	16.82	31.56	178	191	A	H
		2389.24	54.8	-19.2	74	42.18	27.52	16.68	31.58	257	113	P	V
		2387.28	42.33	-11.67	54	29.7	27.53	16.68	31.58	257	113	A	V
	*	2452	101.32	-	-	88.7	27.4	16.78	31.56	257	113	P	V
	*	2452	92.3	-	-	79.68	27.4	16.78	31.56	257	113	A	V
		2484.74	70.09	-3.91	74	57.5	27.33	16.82	31.56	257	113	P	V
		2483.62	52.48	-1.52	54	39.89	27.33	16.82	31.56	257	113	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)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 03 2422MHz		4844	36	-38	74	51.01	31.1	10.45	56.56	100	0	P	H
		7266	44.18	-29.82	74	51.02	36.6	12.84	56.28	100	0	P	H
													H
													H
		4844	36.05	-37.95	74	51.06	31.1	10.45	56.56	100	0	P	V
		7266	43.27	-30.73	74	50.11	36.6	12.84	56.28	100	0	P	V
													V
													V
802.11n HT40 CH 06 2437MHz		4874	37.52	-36.48	74	52.5	31.1	10.47	56.55	100	0	P	H
		7311	43.39	-30.61	74	50.24	36.58	12.8	56.23	100	0	P	H
													H
													H
		4874	35.62	-38.38	74	50.6	31.1	10.47	56.55	100	0	P	V
		7311	43.43	-30.57	74	50.28	36.58	12.8	56.23	100	0	P	V
													V
													V
802.11n HT40 CH 09 2452MHz		4904	35.74	-38.26	74	50.68	31.12	10.48	56.54	100	0	P	H
		7356	42.45	-31.55	74	49.4	36.48	12.74	56.17	100	0	P	H
													H
													H
		4904	35.5	-38.5	74	50.44	31.12	10.48	56.54	100	0	P	V
		7356	43.16	-30.84	74	50.11	36.48	12.74	56.17	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Emission below 1GHz

2.4GHz WIFI 802.11n HT40 (LF)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
2.4GHz 802.11n HT40 LF		119.91	33.51	-9.99	43.5	45.16	17.23	1.53	30.41	-	-	P	H
		149.88	32.92	-10.58	43.5	44.6	16.91	1.79	30.38	-	-	P	H
		216.03	36.02	-9.98	46	49.12	15.04	2.15	30.29	-	-	P	H
		300	39.25	-6.75	46	47.84	19.09	2.46	30.14	-	-	P	H
		891.5	39.87	-6.13	46	35.85	28.95	4.22	29.15	100	0	P	H
		946.8	37.46	-8.54	46	31.61	30.44	4.42	29.01	-	-	P	H
													H
													H
													H
													H
													H
													H
		30	30.25	-9.75	40	35.16	24.57	0.7	30.18	-	-	P	V
		149.88	27.25	-16.25	43.5	38.93	16.91	1.79	30.38	-	-	P	V
		216.03	25.7	-20.3	46	38.8	15.04	2.15	30.29	-	-	P	V
		729.8	32.35	-13.65	46	30.67	27.36	3.77	29.45	-	-	P	V
		849.5	34.37	-11.63	46	30.63	28.87	4.09	29.22	-	-	P	V
		954.5	36.61	-9.39	46	30.41	30.74	4.44	28.98	100	0	P	V
													V
													V
													V
													V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against limit line.												

Note symbol

*	**Fundamental Frequency** which can be ignored. However, the level of any unwanted emissions shall not exceed the level of the fundamental frequency.
!	Test result is **over limit** line.
P/A	**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	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11b 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. Path Loss(dB) = Cable loss(dB) + Filter loss(dB) + Attenuator loss(dB)
2. Level(dBμV/m) =

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

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

For Peak Limit @ 2390MHz:

1. Level(dBμV/m)

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

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

= 55.45 (dBμV/m)

2. Over Limit(dB)

= Level(dBμV/m) – Limit Line(dBμV/m)

= 55.45(dBμV/m) – 74(dBμV/m)

= -18.55(dB)

For Average Limit @ 2390MHz:

1. Level(dBμV/m)

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

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

= 43.54 (dBμV/m)

2. Over Limit(dB)

= Level(dBμV/m) – Limit Line(dBμV/m)

= 43.54(dBμV/m) – 54(dBμV/m)

= -10.46(dB)

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

Appendix D. Radiated Spurious Emission Plots

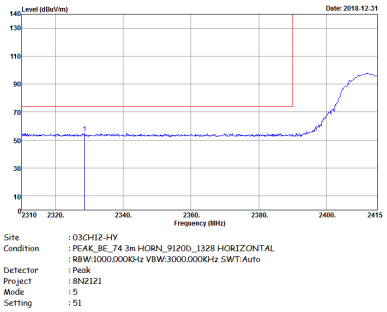
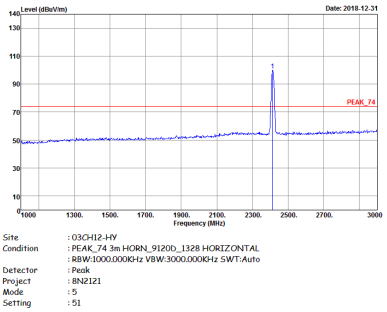
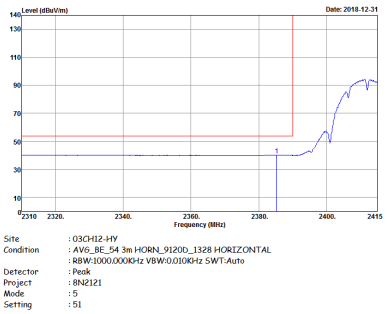
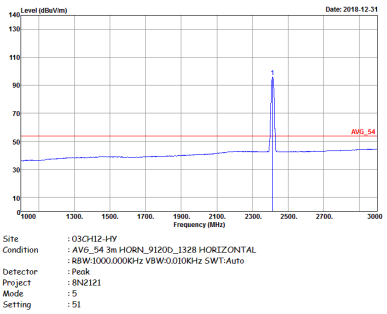
Test Engineer :	Jack Cheng, Lance Chiang, and Peter Liao	**Temperature :**	22~24°C
		Relative Humidity :	56~60%

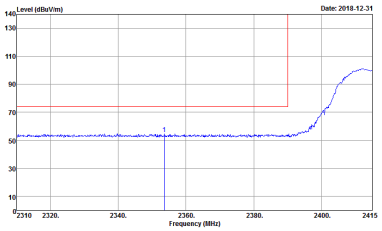
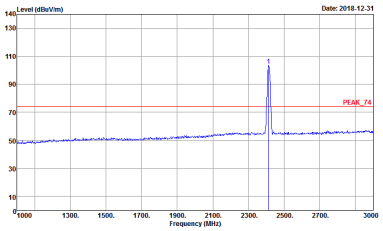
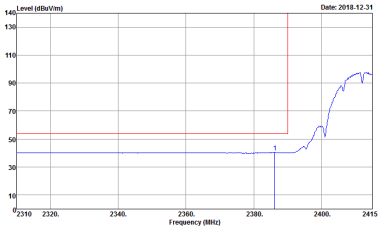
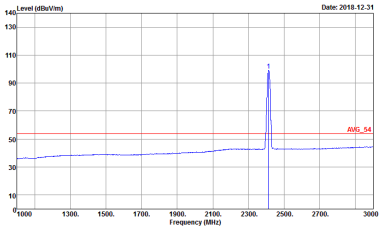
Note symbol

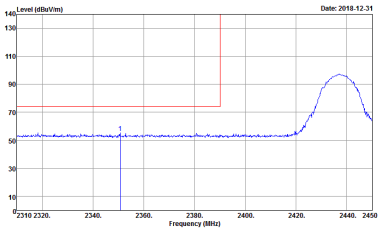
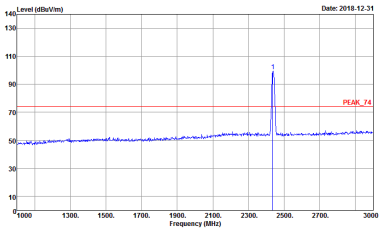
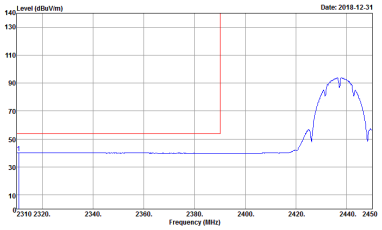
-L	**Low channel location**
-R	**High channel location**

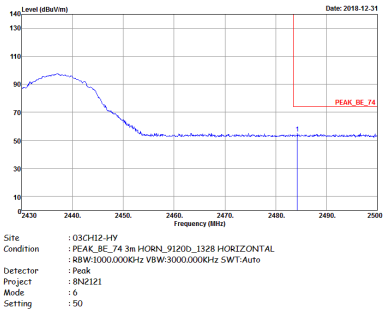
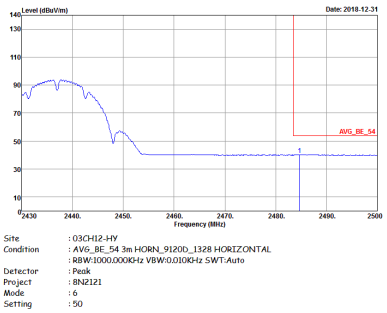
2.4GHz 2400~2483.5MHz

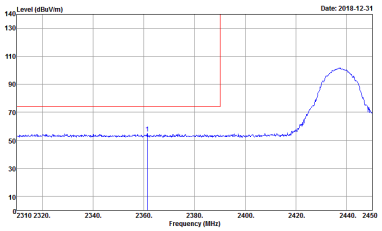
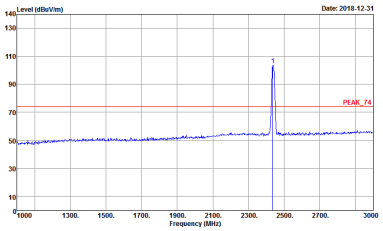
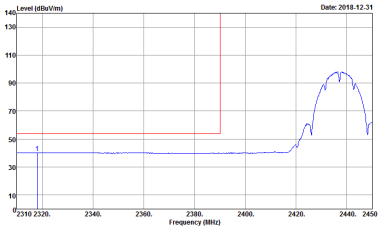
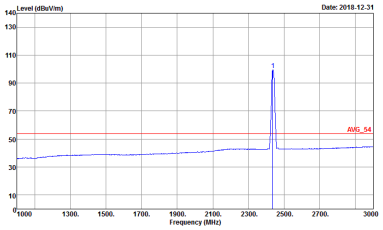
WIFI 802.11b (Band Edge @ 3m)

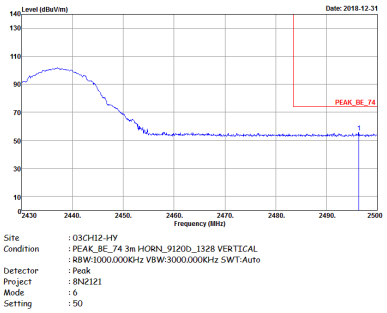
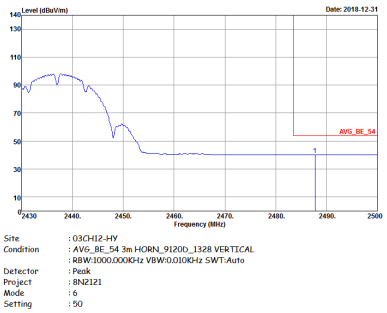
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH01 2412MHz	
1	Horizontal	Fundamental
Peak		
Avg.		

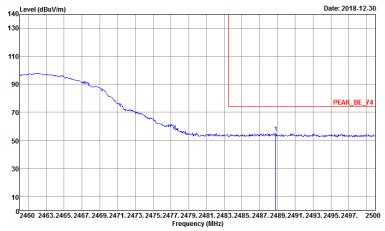
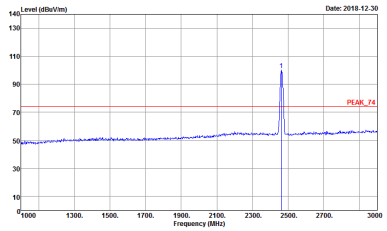
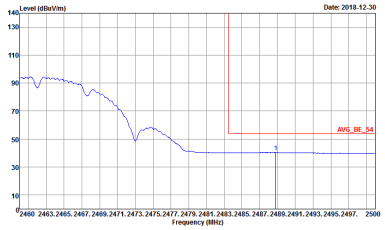
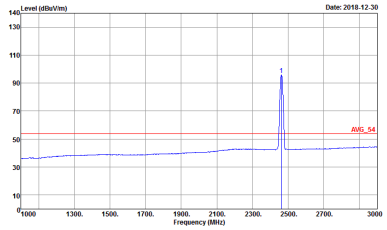
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH01 2412MHz	
1	Vertical	Fundamental
Peak	 Site : 03CH12-HY Condition : PEAK_BE_74 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 8N2121 Mode : 5 Setting : 51	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 8N2121 Mode : 5 Setting : 51
Avg.	 Site : 03CH12-HY Condition : AVG_BE_54 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 8N2121 Mode : 5 Setting : 51	 Site : 03CH12-HY Condition : AVG_54 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 8N2121 Mode : 5 Setting : 51

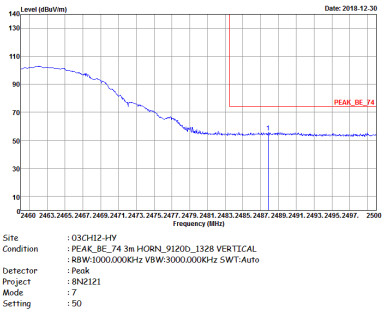
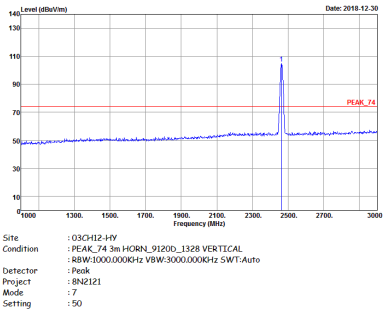
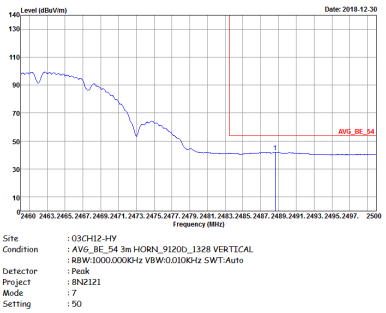
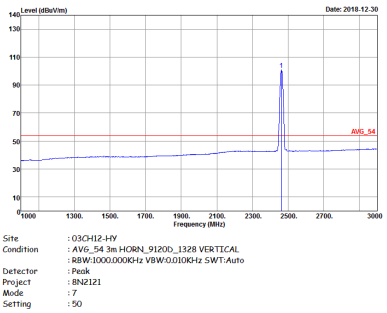
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - L	
1	Horizontal	Fundamental
Peak	 Site : 03CH12-HY Condition : PEAK_BE_74 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 8N2121 Mode : 6 Setting : 50	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 8N2121 Mode : 6 Setting : 50
Avg.	 Site : 03CH12-HY Condition : AVG_BE_54 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 8N2121 Mode : 6 Setting : 50	 Site : 03CH12-HY Condition : AVG_54 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 8N2121 Mode : 6 Setting : 50

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

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - L	
1	Vertical	Fundamental
Peak	 Site : 03CH12-HY Condition : PEAK_BE_74 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 8N2121 Mode : 6 Setting : 50	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 8N2121 Mode : 6 Setting : 50
Avg.	 Site : 03CH12-HY Condition : AVG_BE_54 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 8N2121 Mode : 6 Setting : 50	 Site : 03CH12-HY Condition : AVG_54 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 8N2121 Mode : 6 Setting : 50

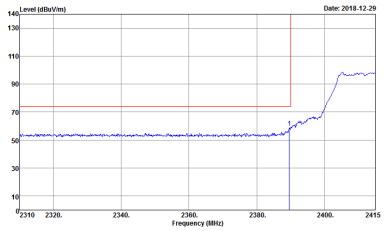
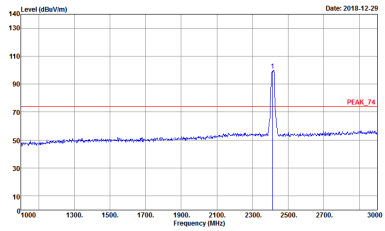
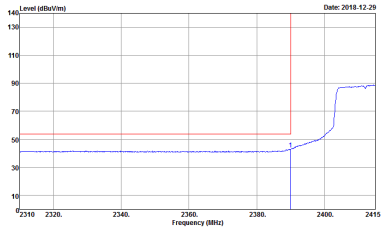
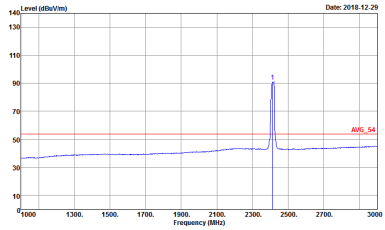
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - R	
1	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

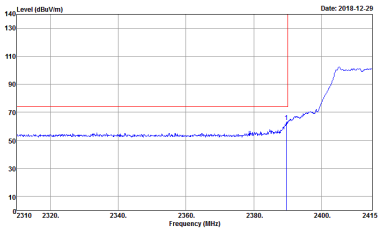
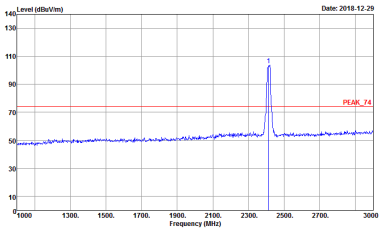
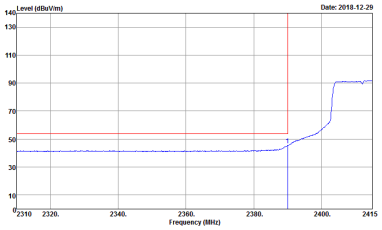
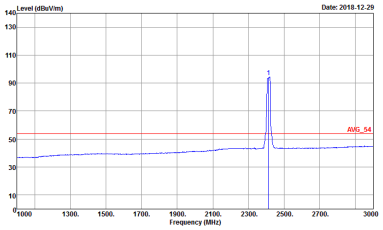
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH11 2462MHz	
1	Horizontal	Fundamental
Peak	 Site : 03CH12-HY Condition : PEAK_BE_74 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 8N2121 Mode : 7 Setting : 50	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 8N2121 Mode : 7 Setting : 50
Avg.	 Site : 03CH12-HY Condition : AVG_BE_54 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 8N2121 Mode : 7 Setting : 50	 Site : 03CH12-HY Condition : AVG_54 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 8N2121 Mode : 7 Setting : 50

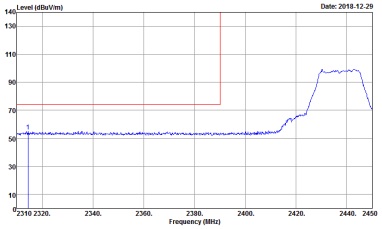
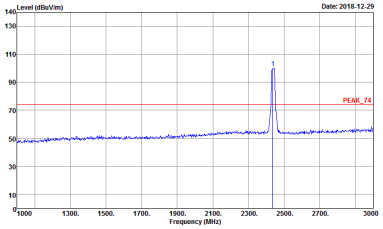
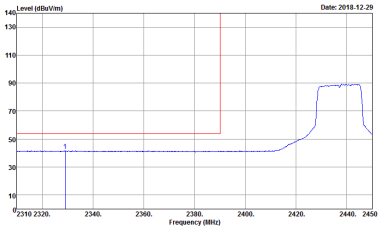
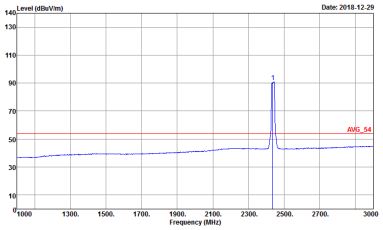
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH11 2462MHz	
1	Vertical	Fundamental
Peak		
Avg.		

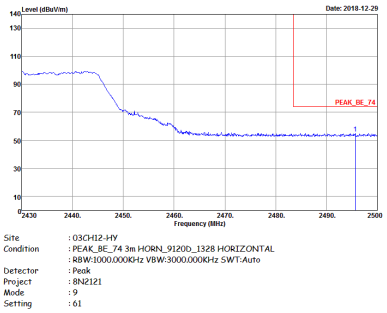
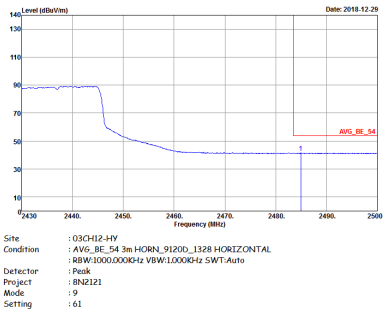
2.4GHz 2400~2483.5MHz

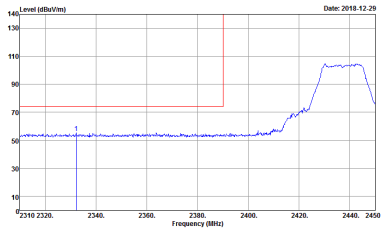
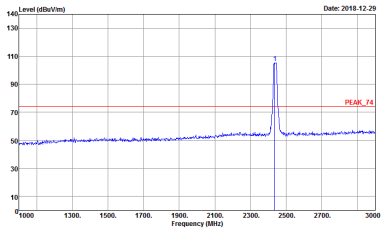
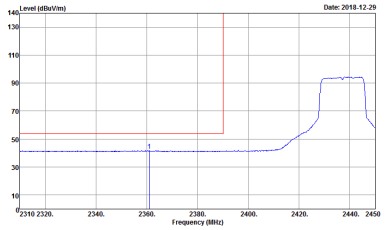
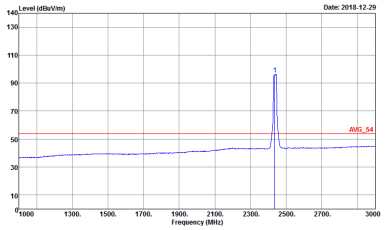
WIFI 802.11g (Band Edge @ 3m)

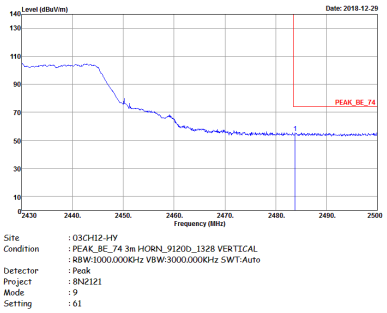
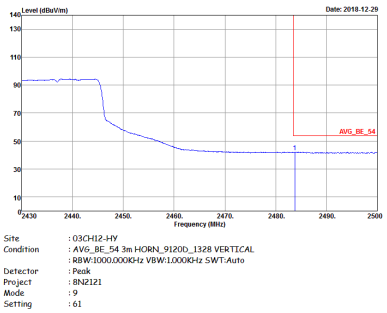
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH01 2412MHz	
1	Horizontal	Fundamental
Peak	 Site : 03CH12-HY Condition : PEAK_BE_74 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 8N2121 Mode : 8 Setting : 61	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 8N2121 Mode : 8 Setting : 61
Avg.	 Site : 03CH12-HY Condition : AV6_BE_54 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 8N2121 Mode : 8 Setting : 61	 Site : 03CH12-HY Condition : AV6_54 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 8N2121 Mode : 8 Setting : 61

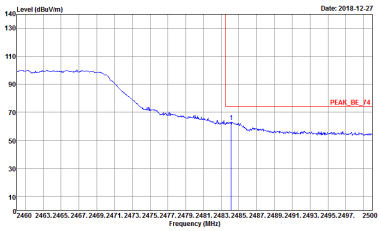
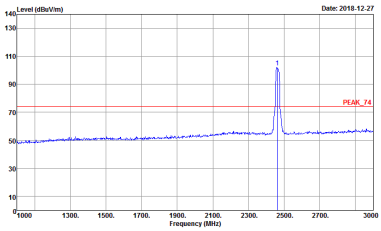
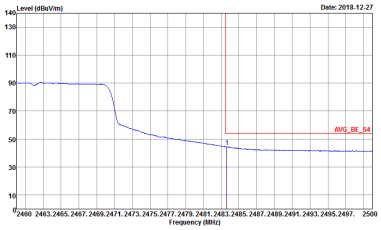
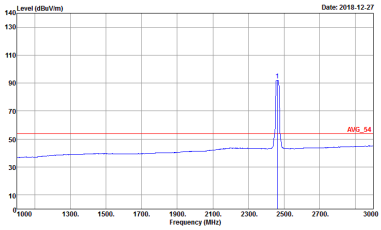
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH01 2412MHz	
1	Vertical	Fundamental
Peak	 Site : 03CH12-HY Condition : PEAK_BE_74 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 8N2121 Mode : 8 Setting : 61	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 8N2121 Mode : 8 Setting : 61
Avg.	 Site : 03CH12-HY Condition : AVG_BE_54 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 8N2121 Mode : 8 Setting : 61	 Site : 03CH12-HY Condition : AVG_54 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 8N2121 Mode : 8 Setting : 61

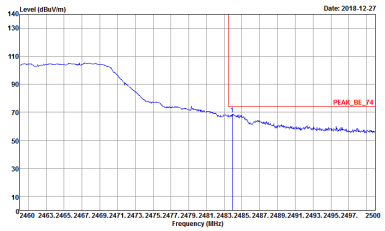
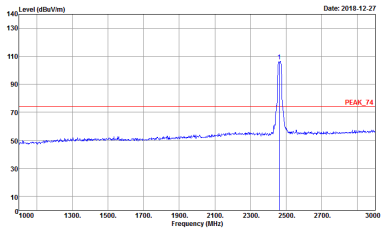
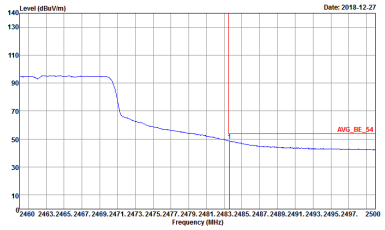
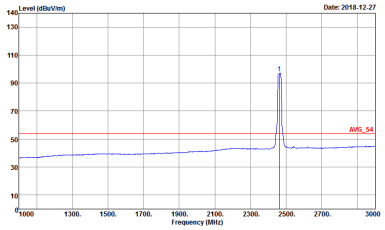
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - L	
1	Horizontal	Fundamental
Peak	 Site : 03CH12-HY Condition : PEAK_BE_74 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 8N2121 Mode : 9 Setting : 61	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 8N2121 Mode : 9 Setting : 61
Avg.	 Site : 03CH12-HY Condition : AVG_BE_54 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 8N2121 Mode : 9 Setting : 61	 Site : 03CH12-HY Condition : AVG_54 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 8N2121 Mode : 9 Setting : 61

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

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - L	
1	Vertical	Fundamental
Peak	 Site : 03CH12-HY Condition : PEAK_BE_74 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 8N2121 Mode : 9 Setting : 61	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 8N2121 Mode : 9 Setting : 61
Avg.	 Site : 03CH12-HY Condition : AVG_BE_54 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 8N2121 Mode : 9 Setting : 61	 Site : 03CH12-HY Condition : AVG_54 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 8N2121 Mode : 9 Setting : 61

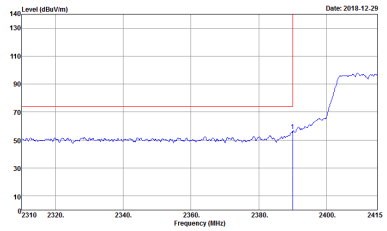
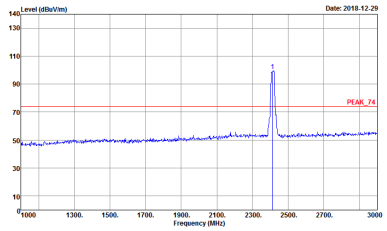
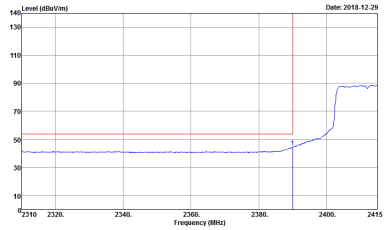
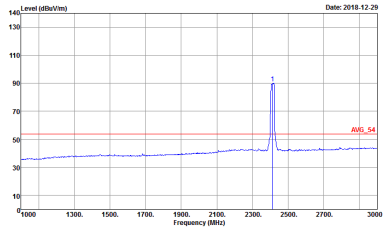
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - R	
1	Vertical	Fundamental
Peak		Left Blank
Avg.		Left Blank

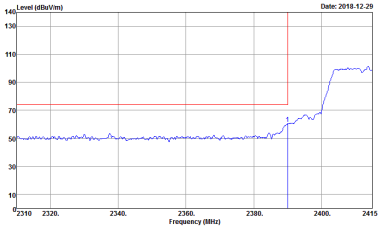
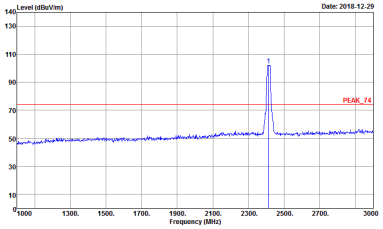
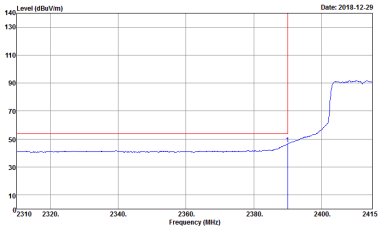
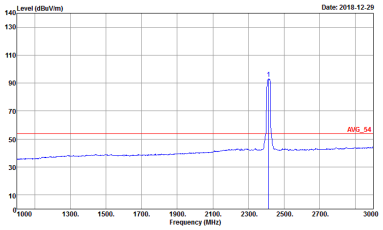
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH11 2462MHz	
1	Horizontal	Fundamental
Peak	 Site : 03CH12-HY Condition : PEAK_BE_74 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 8N2121 Mode : 10 Setting : 61	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 8N2121 Mode : 10 Setting : 61
Avg.	 Site : 03CH12-HY Condition : AVG_BE_54 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 8N2121 Mode : 10 Setting : 61	 Site : 03CH12-HY Condition : AVG_54 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 8N2121 Mode : 10 Setting : 61

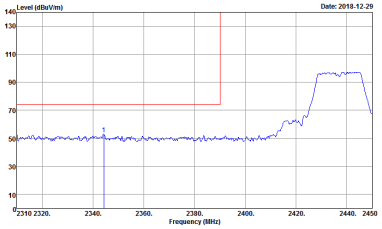
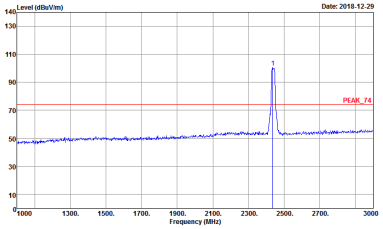
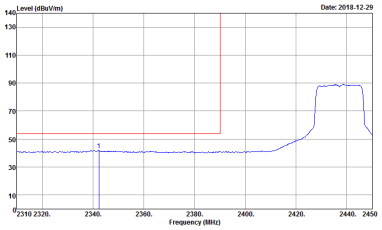
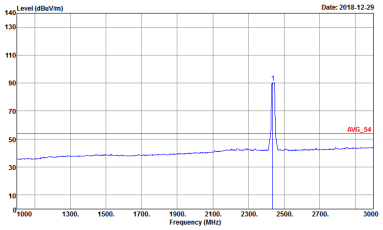
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH11 2462MHz	
1	Vertical	Fundamental
Peak	 Site : 03CH12-HY Condition : PEAK_BE_74 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 8N2121 Mode : 10 Setting : 61	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 8N2121 Mode : 10 Setting : 61
Avg.	 Site : 03CH12-HY Condition : AVG_BE_54 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 8N2121 Mode : 10 Setting : 61	 Site : 03CH12-HY Condition : AVG_54 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 8N2121 Mode : 10 Setting : 61

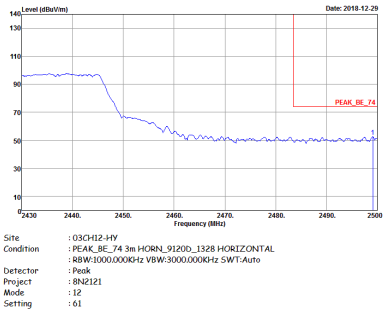
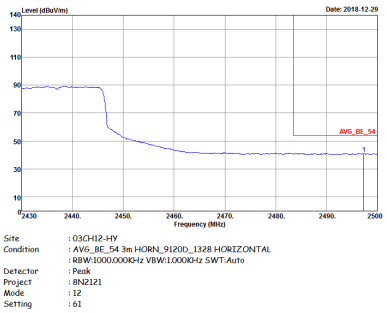
2.4GHz 2400~2483.5MHz

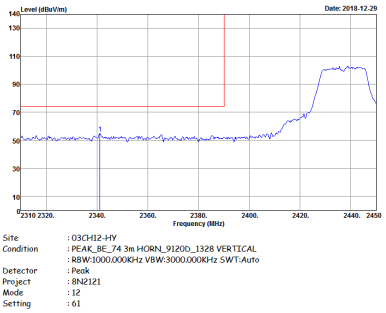
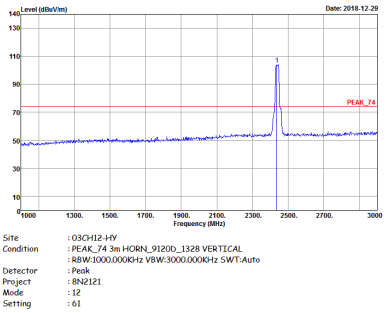
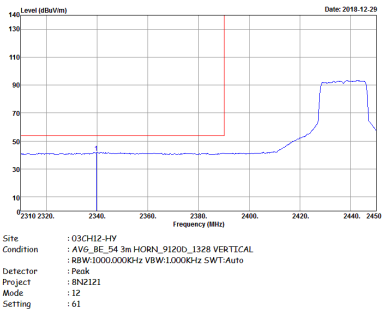
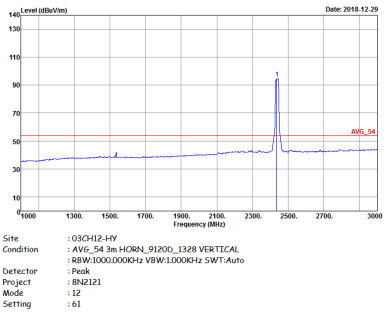
WIFI 802.11n HT20 (Band Edge @ 3m)

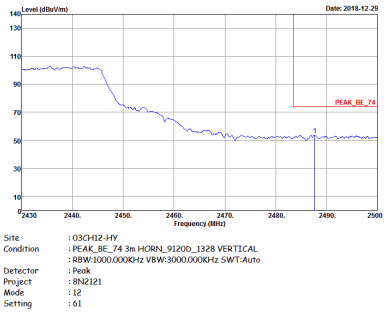
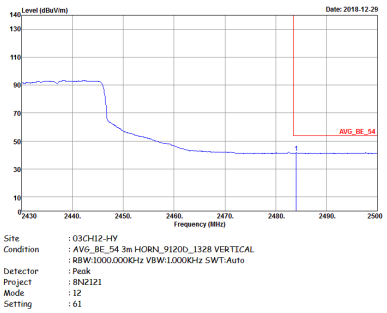
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH01 2412MHz	
1	Horizontal	Fundamental
Peak	 Site : 03CH12-HY Condition : PEAK_BE_74 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 8N2121 Mode : 11 Setting : 61	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 8N2121 Mode : 11 Setting : 61
Avg.	 Site : 03CH12-HY Condition : AV6_BE_54 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 8N2121 Mode : 11 Setting : 61	 Site : 03CH12-HY Condition : AV6_54 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 8N2121 Mode : 11 Setting : 61

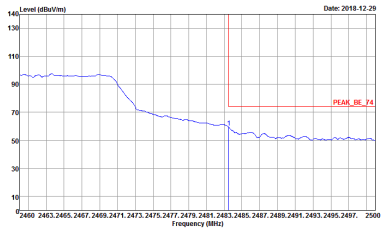
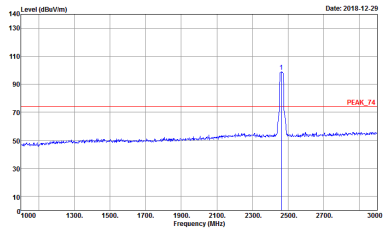
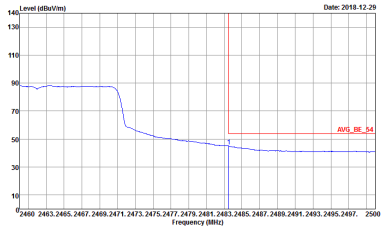
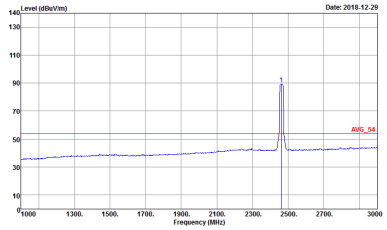
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH01 2412MHz	
1	Vertical	Fundamental
Peak	 Site : 03CH12-HY Condition : PEAK_BE_74 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 8N2121 Mode : 11 Setting : 61	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 8N2121 Mode : 11 Setting : 61
Avg.	 Site : 03CH12-HY Condition : AVG_BE_54 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 8N2121 Mode : 11 Setting : 61	 Site : 03CH12-HY Condition : AVG_54 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 8N2121 Mode : 11 Setting : 61

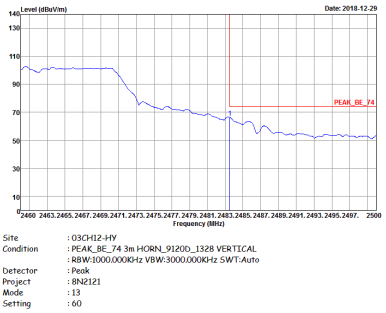
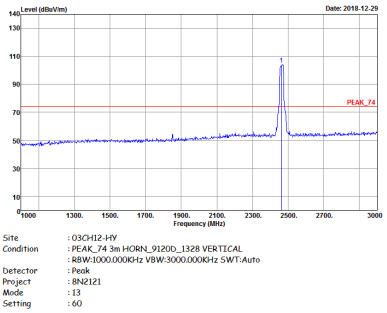
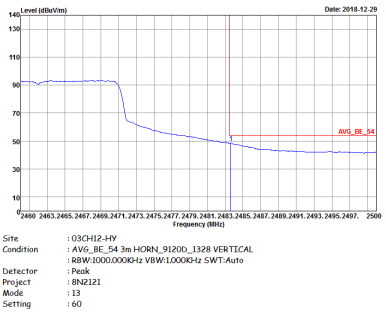
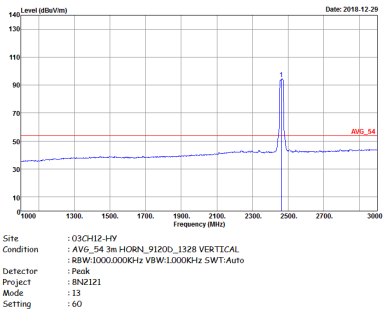
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH06 2437MHz - L	
1	Horizontal	Fundamental
Peak	 Site : 03CH12-HY Condition : PEAK_BE_74 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 8N2121 Mode : 12 Setting : 61	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 8N2121 Mode : 12 Setting : 61
Avg.	 Site : 03CH12-HY Condition : AVG_BE_54 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 8N2121 Mode : 12 Setting : 61	 Site : 03CH12-HY Condition : AVG_54 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 8N2121 Mode : 12 Setting : 61

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH06 2437MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH06 2437MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		

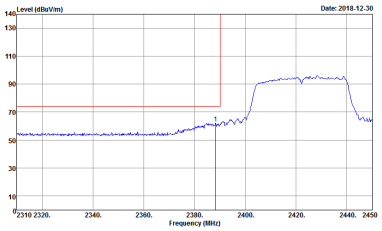
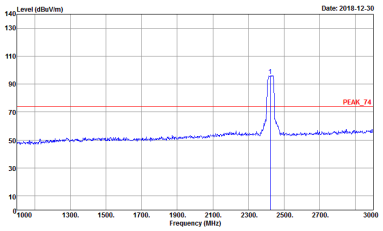
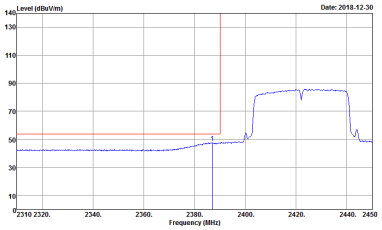
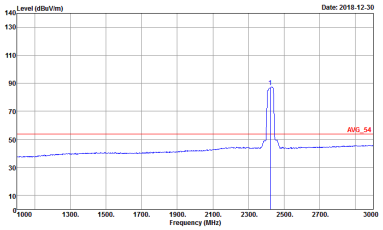
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH06 2437MHz - R	
1	Vertical	Fundamental
Peak		Left Blank
Avg.		Left Blank

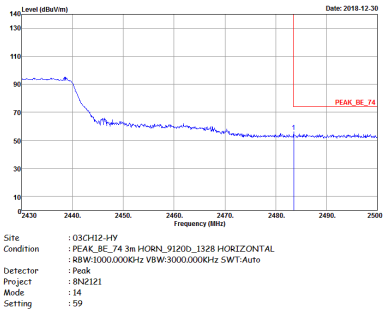
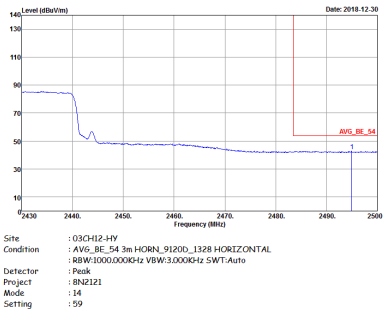
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH11 2462MHz	
1	Horizontal	Fundamental
Peak	 Site : 03CH12-HY Condition : PEAK_BE_74 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 8N2121 Mode : 13 Setting : 60	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 8N2121 Mode : 13 Setting : 60
Avg.	 Site : 03CH12-HY Condition : AVG_BE_54 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 8N2121 Mode : 13 Setting : 60	 Site : 03CH12-HY Condition : AVG_54 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 8N2121 Mode : 13 Setting : 60

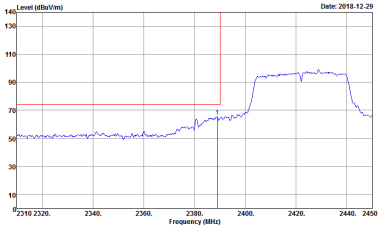
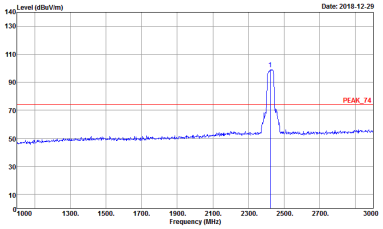
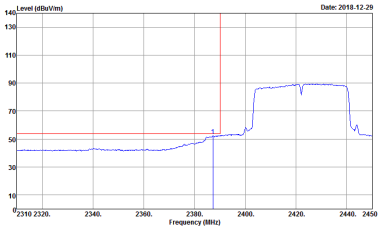
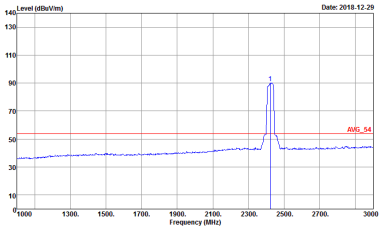
WIFI	2.4GHz 2400~2483.5MHz Fundamental @ 3m	
ANT	802.11n HT20 CH11 2462MHz	
1	Vertical	Fundamental
Peak		
Avg.		

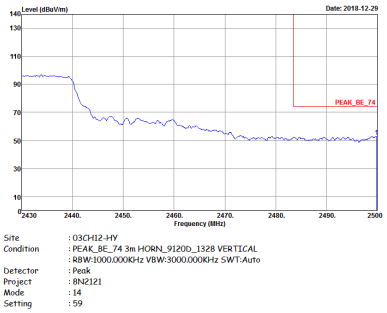
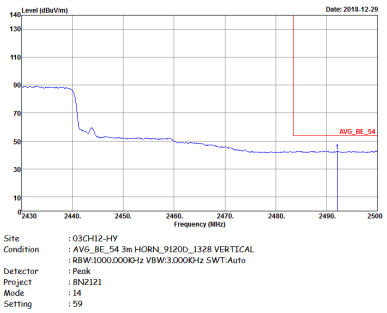
2.4GHz 2400~2483.5MHz

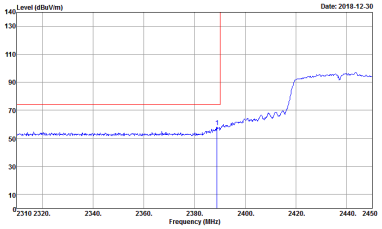
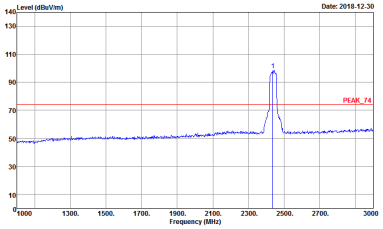
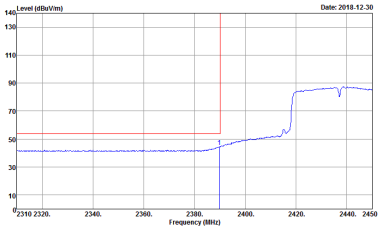
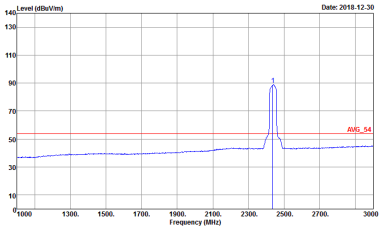
WIFI 802.11n HT40 (Band Edge @ 3m)

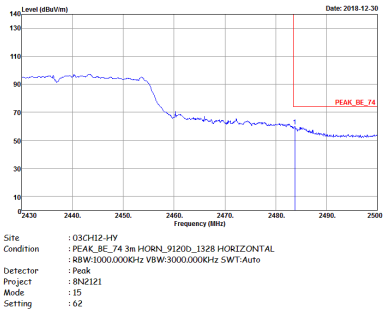
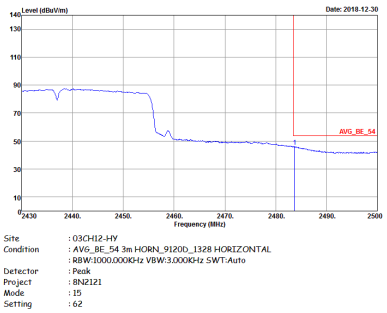
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH03 2422MHz - L	
1	Horizontal	Fundamental
Peak	 Site : 03CH12-HY Condition : PEAK_BE_74 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 8N2121 Mode : 14 Setting : 59	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 8N2121 Mode : 14 Setting : 59
Avg.	 Site : 03CH12-HY Condition : AV6_BE_54 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:3.000KHz SWT:Auto Detector : Peak Project : 8N2121 Mode : 14 Setting : 59	 Site : 03CH12-HY Condition : AV6_54 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:3.000KHz SWT:Auto Detector : Peak Project : 8N2121 Mode : 14 Setting : 59

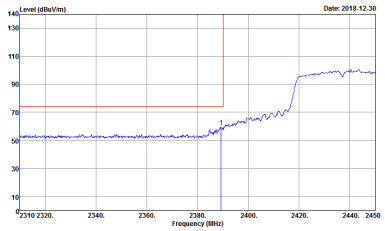
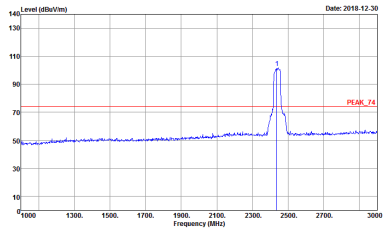
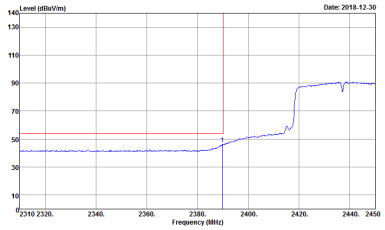
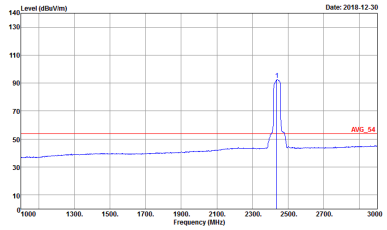
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH03 2422MHz - R	
1	Horizontal	Fundamental
Peak		Left Blank
Avg.		Left Blank

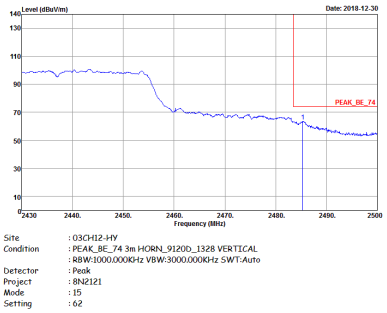
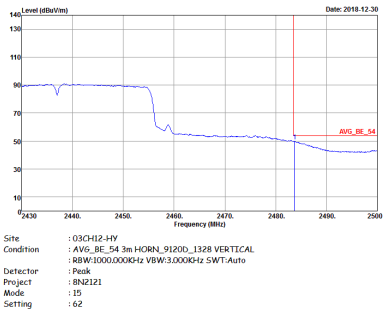
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH03 2422MHz - L	
1	Vertical	Fundamental
Peak	 Site : 03CH12-HY Condition : PEAK_BE_74 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 8N2121 Mode : 14 Setting : 59	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 8N2121 Mode : 14 Setting : 59
Avg.	 Site : 03CH12-HY Condition : AVG_BE_54 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3.000KHz SWT:Auto Detector : Peak Project : 8N2121 Mode : 14 Setting : 59	 Site : 03CH12-HY Condition : AVG_54 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3.000KHz SWT:Auto Detector : Peak Project : 8N2121 Mode : 14 Setting : 59

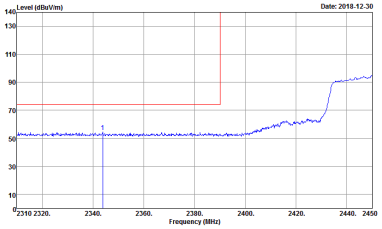
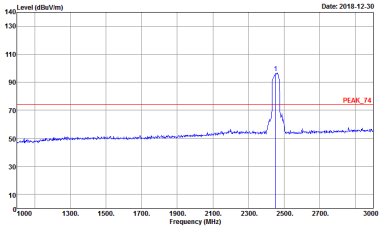
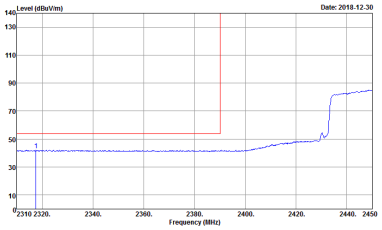
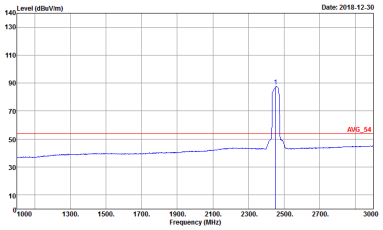
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH03 2422MHz - R	
1	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

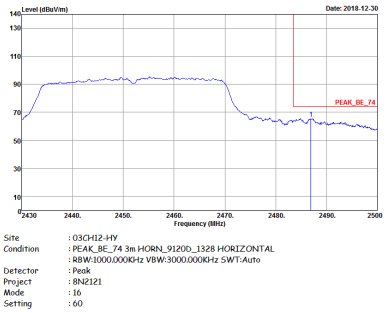
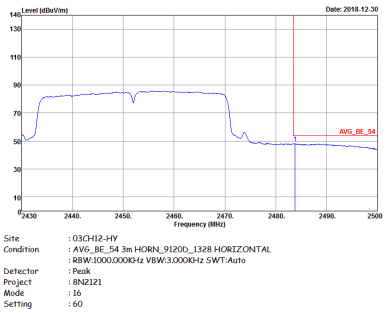
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH06 2437MHz - L	
1	Horizontal	Fundamental
Peak	 Site : 03CH12-HY Condition : PEAK_BE_74 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 8N2121 Mode : 15 Setting : 62	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 8N2121 Mode : 15 Setting : 62
Avg.	 Site : 03CH12-HY Condition : AVG_BE_54 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:3.000KHz SWT:Auto Detector : Peak Project : 8N2121 Mode : 15 Setting : 62	 Site : 03CH12-HY Condition : AVG_54 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:3.000KHz SWT:Auto Detector : Peak Project : 8N2121 Mode : 15 Setting : 62

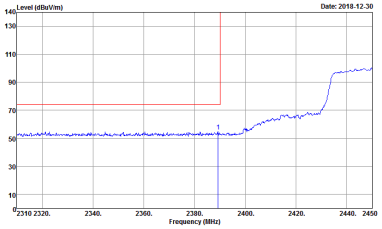
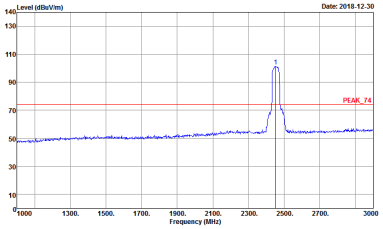
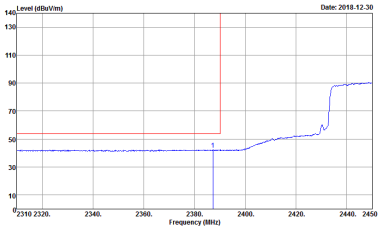
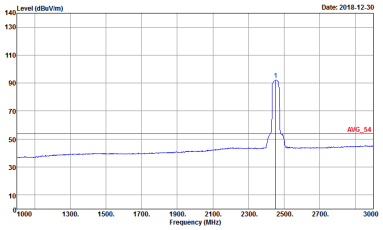
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH06 2437MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

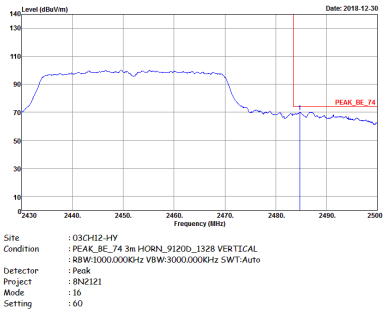
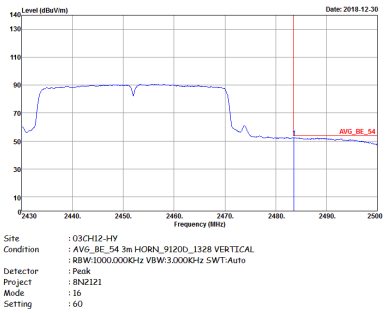
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH06 2437MHz - L	
1	Vertical	Fundamental
Peak	 Site : 03CH12-HY Condition : PEAK_BE_74 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 8N2121 Mode : 15 Setting : 62	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 8N2121 Mode : 15 Setting : 62
Avg.	 Site : 03CH12-HY Condition : AVG_BE_54 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3.000KHz SWT:Auto Detector : Peak Project : 8N2121 Mode : 15 Setting : 62	 Site : 03CH12-HY Condition : AVG_54 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3.000KHz SWT:Auto Detector : Peak Project : 8N2121 Mode : 15 Setting : 62

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 CH09 2452MHz - L	
1	Horizontal	Fundamental
Peak	 Site : 03CH12-HY Condition : PEAK_BE_74 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 8N2121 Mode : 16 Setting : 60	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 8N2121 Mode : 16 Setting : 60
Avg.	 Site : 03CH12-HY Condition : AVG_BE_54 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:3.000KHz SWT:Auto Detector : Peak Project : 8N2121 Mode : 16 Setting : 60	 Site : 03CH12-HY Condition : AVG_54 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:3.000KHz SWT:Auto Detector : Peak Project : 8N2121 Mode : 16 Setting : 60

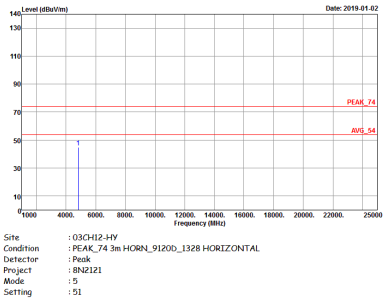
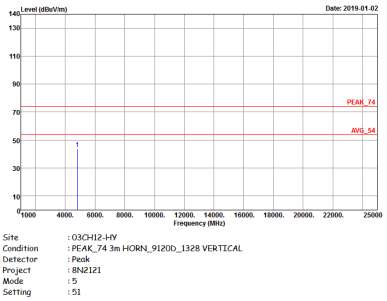
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH09 2452MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

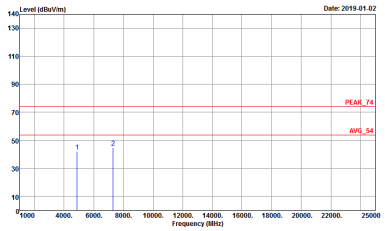
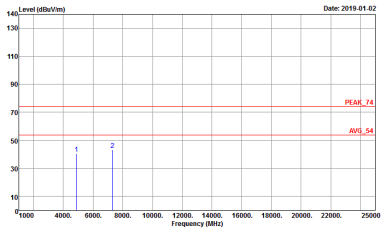
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH09 2452MHz - L	
1	Vertical	Fundamental
Peak	 Site : 03CH12-HY Condition : PEAK_BE_74 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 8N2121 Mode : 16 Setting : 60	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 8N2121 Mode : 16 Setting : 60
Avg.	 Site : 03CH12-HY Condition : AVG_BE_54 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3.000KHz SWT:Auto Detector : Peak Project : 8N2121 Mode : 16 Setting : 60	 Site : 03CH12-HY Condition : AVG_54 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3.000KHz SWT:Auto Detector : Peak Project : 8N2121 Mode : 16 Setting : 60

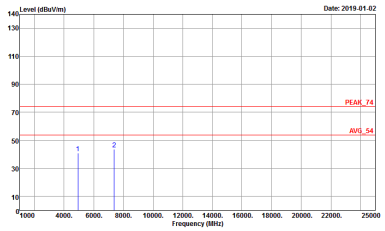
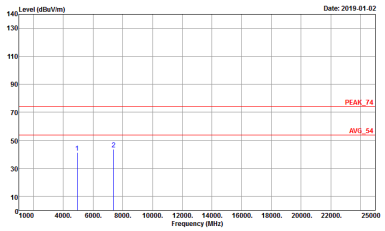
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH09 2452MHz - R	
1	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

2.4GHz 2400~2483.5MHz

WIFI 802.11b (Harmonic @ 3m)

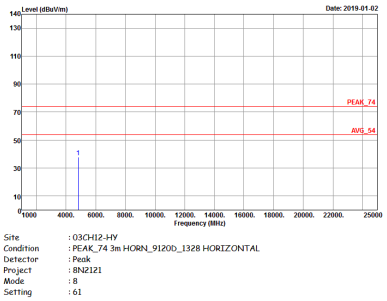
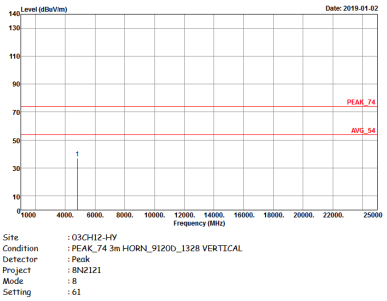
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH01 2412MHz	
1	Horizontal	Vertical
Peak Avg.		

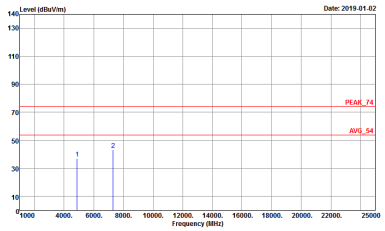
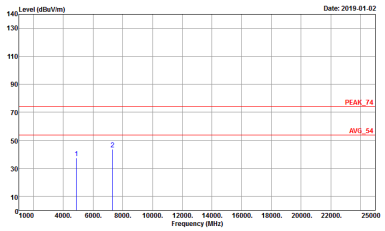
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH06 2437MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 HORIZONTAL Detector : Peak Project : 8N2121 Mode : 6 Setting : 50	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 VERTICAL Detector : Peak Project : 8N2121 Mode : 6 Setting : 50

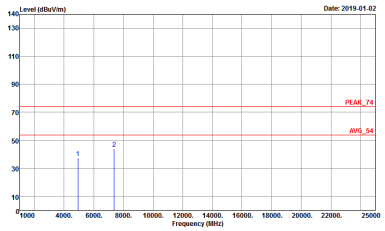
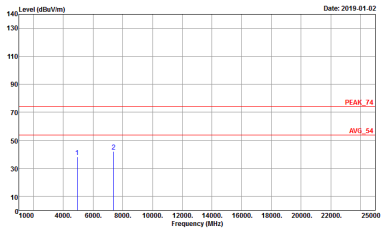
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH11 2462MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 HORIZONTAL Detector : Peak Project : 8N2121 Mode : 7 Setting : 50	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 VERTICAL Detector : Peak Project : 8N2121 Mode : 7 Setting : 50

2.4GHz 2400~2483.5MHz

WIFI 802.11g (Harmonic @ 3m)

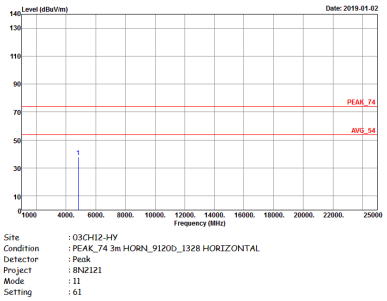
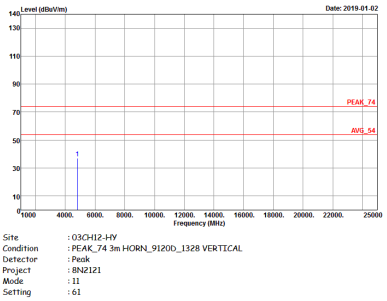
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11g CH01 2412MHz	
1	Horizontal	Vertical
Peak Avg.		

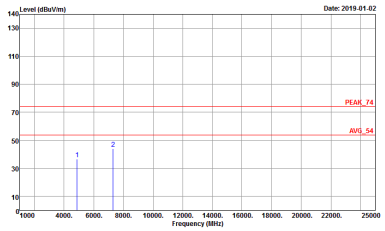
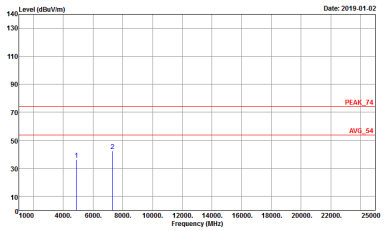
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11g CH06 2437MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 HORIZONTAL Detector : Peak Project : 8N2121 Mode : 9 Setting : 61	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 VERTICAL Detector : Peak Project : 8N2121 Mode : 9 Setting : 61

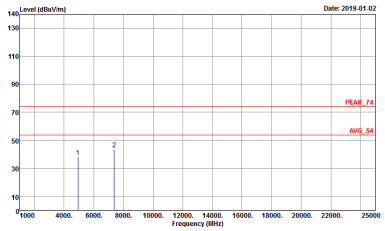
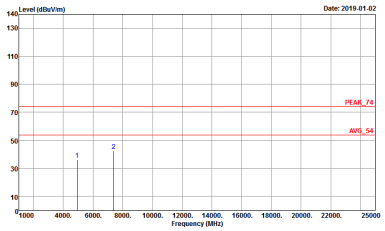
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11g CH11 2462MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 HORIZONTAL Detector : Peak Project : 8N2121 Mode : 10 Setting : 61	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 VERTICAL Detector : Peak Project : 8N2121 Mode : 10 Setting : 61

2.4GHz 2400~2483.5MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

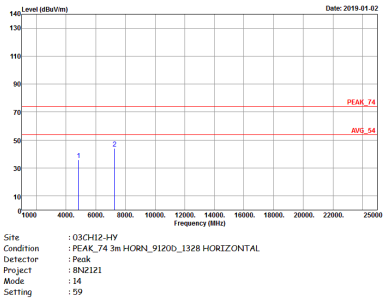
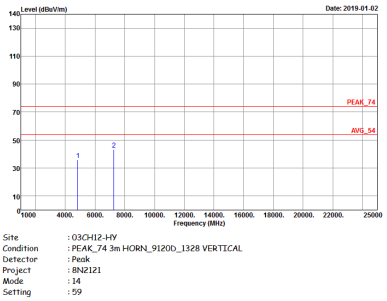
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11n HT20 CH01 2412MHz	
1	Horizontal	Vertical
Peak Avg.		

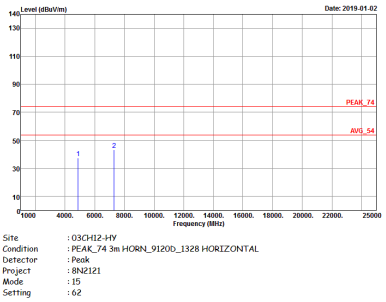
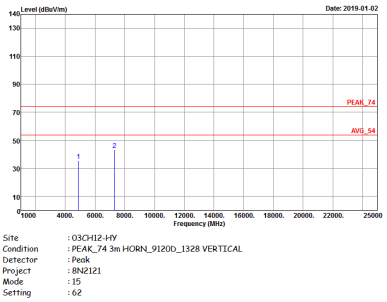
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11n HT20 CH06 2437MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 HORIZONTAL Detector : Peak Project : 8N2121 Mode : 12 Setting : 61	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 VERTICAL Detector : Peak Project : 8N2121 Mode : 12 Setting : 61

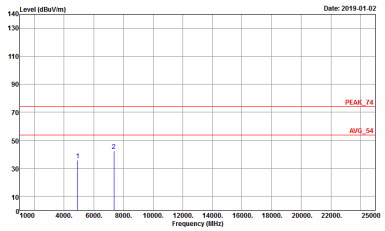
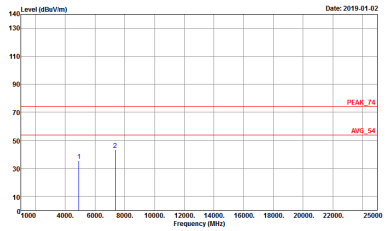
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11n HT20 CH11 2462MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 HORIZONTAL Detector : Peak Project : 8N2121 Mode : 13 Setting : 60	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 VERTICAL Detector : Peak Project : 8N2121 Mode : 13 Setting : 60

2.4GHz 2400~2483.5MHz

WIFI 802.11n HT40 (Harmonic @ 3m)

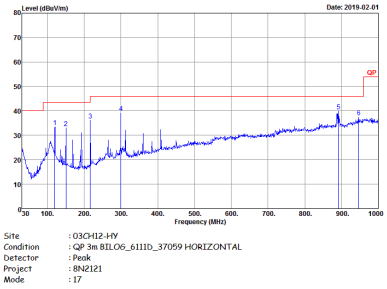
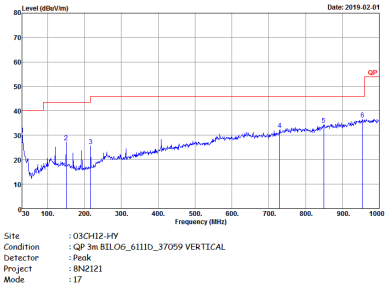
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11n HT40 CH03 2422MHz	
1	Horizontal	Vertical
Peak Avg.		

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11n HT40 CH06 2437MHz	
1	Horizontal	Vertical
Peak Avg.		

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11n HT40 CH09 2452MHz	
1	Horizontal	Vertical
Peak Avg.		

Emission below 1GHz

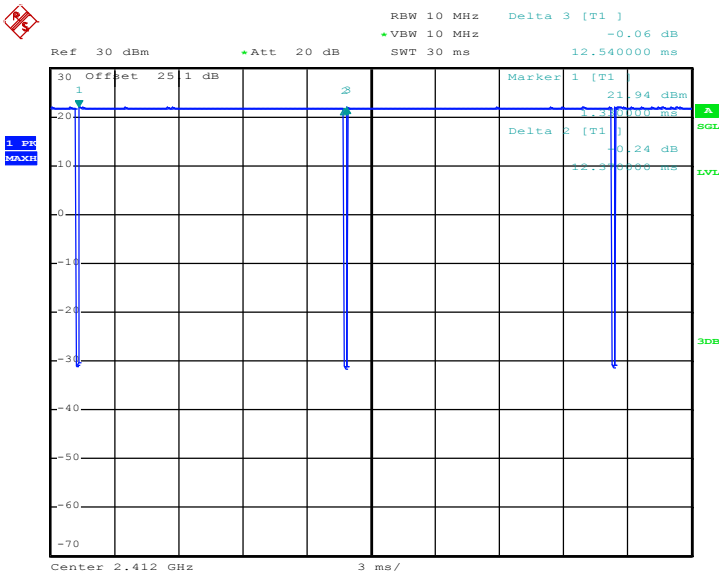
2.4GHz WIFI 802.11n HT40 (LF)

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

Appendix E. Duty Cycle Plots

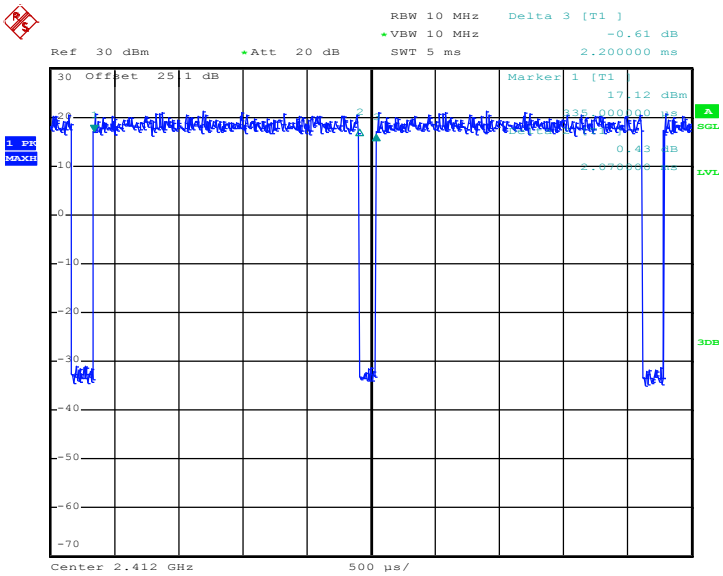
Band	Duty Cycle(%)	T(us)	1/T(kHz)	VBW Setting	Duty Factor(dB)
802.11b	98.64	12370.00	0.08	10Hz	0.06
802.11g	94.09	2070.00	0.48	1kHz	0.26
2.4GHz 802.11n HT20	96.99	1935.00	0.52	1kHz	0.13
2.4GHz 802.11n HT40	85.91	945.00	1.06	3kHz	0.66

802.11b



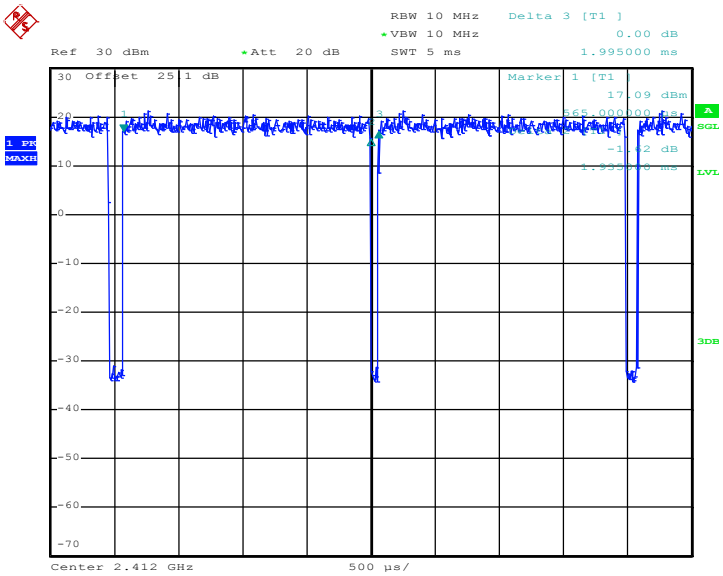
Date: 13.DEC.2018 11:11:22

802.11g



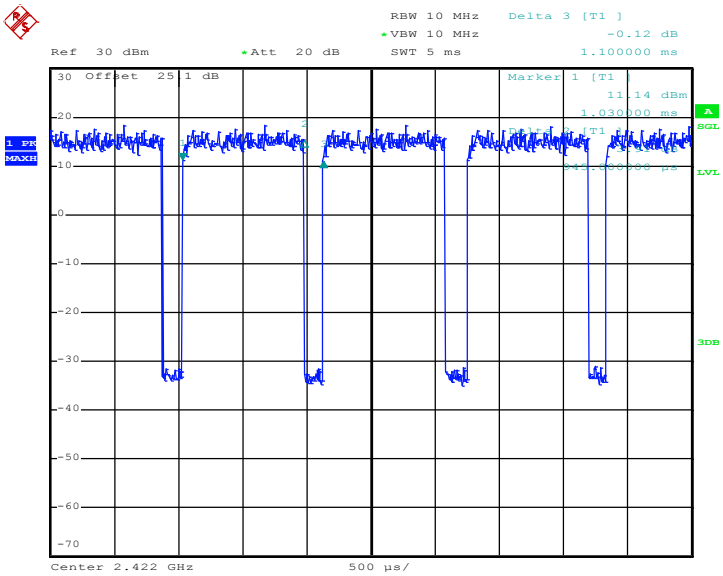
Date: 13.DEC.2018 11:13:22

802.11n HT20



Date: 13.DEC.2018 11:14:45

802.11n HT40



Date: 13.DEC.2018 11:16:31