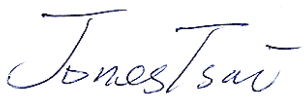
FCC RADIO TEST REPORT

FCC ID	:	**2AN7V-7678**
Equipment	:	**Digital Media Receiver**
Model Name	:	**N12T8L**
Applicant	:	**Cera-Thornton LLC** **200 W. Martin Luther King Blvd. Suite 1000** **Chattanooga, TN 37402** **United States**
Standard	:	**FCC Part 15 Subpart E §15.407**

The product was received on Mar. 01, 2019 and testing was started from Mar. 21, 2019 and completed on Apr. 19, 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.



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

Report No.	Version	Description	Issued Date
FR920111-01D	01	Initial issue of report	May 07, 2019
FR920111-01D	02	Add test plots of 6dB, 26dB, 99% Occupied Bandwidth for Straddle Band	Oct. 23, 2019

Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)
3.1	15.403(i)	6dB & 26dB Bandwidth	Pass
3.1	2.1049	99% Occupied Bandwidth	Reporting only
3.2	15.407(a)	Maximum Conducted Output Power	Pass
3.3	15.407(a)	Power Spectral Density	Pass
3.4	15.407(b)	Unwanted Emissions	Pass
3.5	15.207	AC Conducted Emission	Pass
3.6	15.407(c)	Automatically Discontinue Transmission	Pass
3.7	15.203 15.407(a)	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: Yimin Ho

1 General Description

1.1 Product Feature of Equipment Under Test

Product Feature	
Equipment	Digital Media Receiver
Model Name	N12T8L
FCC ID	2AN7V-7678
EUT supports Radios application	WLAN 11b/g/n HT20 WLAN 11a/n HT20/HT40 Bluetooth LE

1.2 Product Specification of Equipment Under Test

Standards-related Product Specification	
Tx/Rx Channel Frequency Range	5180 MHz ~ 5240 MHz 5260 MHz ~ 5320 MHz 5500 MHz ~ 5720 MHz
Maximum Output Power to Antenna	**<5180 MHz ~ 5240 MHz>** 802.11a : 16.40 dBm / 0.0437 W 802.11n HT20 : 16.60 dBm / 0.0457 W 802.11n HT40 : 15.70 dBm / 0.0372 W **<5260 MHz ~ 5320 MHz>** 802.11a : 16.20 dBm / 0.0417 W 802.11n HT20 : 16.20 dBm / 0.0417 W 802.11n HT40 : 15.10 dBm / 0.0324 W **<5500 MHz ~ 5720 MHz >** 802.11a : 16.30 dBm / 0.0427 W 802.11n HT20 : 16.20 dBm / 0.0417 W 802.11n HT40 : 15.50 dBm / 0.0355 W
99% Occupied Bandwidth	802.11a : 16.75 MHz 802.11n HT20 : 17.80 MHz 802.11n HT40 : 36.40 MHz
Antenna Gain / Gain	**<5180 MHz ~ 5240 MHz>** Printed Inverted-F Antenna with gain 4.8 dBi **<5260 MHz ~ 5320 MHz>** Printed Inverted-F Antenna with gain 4.8 dBi **<5500 MHz ~ 5720 MHz >** Printed Inverted-F Antenna with gain 4.8 dBi
Type of Modulation	802.11a/n : OFDM (BPSK / QPSK / 16QAM / 64QAM)

1.3 Modification of EUT

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

1.4 Testing Location

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

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

Test Site	SPORTON INTERNATIONAL INC., EMC & Wireless Communications Laboratory
Test Site Location	No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.) TEL: +886-3-327-0868 FAX: +886-3-327-0855
Test Site No.	**Sporton Site No.**
	03CH16-HY

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

FCC designation No.: TW1190 and TW0007

1.5 Applicable Standards

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

- FCC Part 15 Subpart E
- FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.
- FCC KDB 414788 D01 Radiated Test Site v01r01.
- ANSI C63.10-2013

Remark: All test items were verified and recorded according to the standards and without any deviation during the test.

2 Test Configuration of Equipment Under Test

a. The EUT has been associated with peripherals and configuration operated in a manner tended to maximize its emission characteristics in a typical application. Frequency range investigated: conduction emission (150 kHz to 30 MHz), radiation emission (9 kHz to the 10th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower). For radiated measurement, pre-scanned in three orthogonal panels, X, Y, Z. The worst cases (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)
5150-5250 MHz Band 1 (U-NII-1)	36	5180	44	5220
	38*	5190	46*	5230
	40	5200	48	5240
	-	-		

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
5250-5350 MHz Band 2 (U-NII-2A)	52	5260	60	5300
	54*	5270	62*	5310
	56	5280	64	5320
	-	-		

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
5470-5725 MHz Band 3 (U-NII-2C)	100	5500	112	5560
	102*	5510	116	5580
	104	5520	132	5660
	-	-	134*	5670
	108	5540	136	5680
	110*	5550	140	5700

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
Straddle Channel	-	-	144	5720
	142*	5710		

Note: The above Frequency and Channel in "*" were 802.11n HT40.

2.2 Test Mode

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

Modulation	Data Rate
802.11a	6 Mbps
802.11n HT20	MCS0
802.11n HT40	MCS0

Test Cases	
AC Conducted Emission	Mode 1 : WLAN (5GHz) Link + Bluetooth Link + LED Stress + IR Stress + USB Cable (Charging from Adapter)

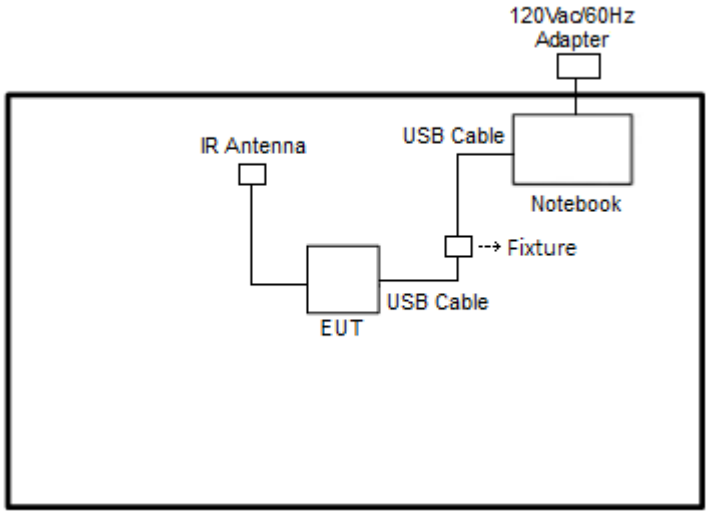
Ch. #		Band I：5150-5250 MHz	Band II：5250-5350 MHz	Band III：5470-5725MHz
		802.11a	802.11a	802.11a
L	Low	36	52	100
M	Middle	44	60	116
H	High	48	64	140
Straddle		-	-	144

Ch. #		Band I：5150-5250 MHz	Band II：5250-5350 MHz	Band III：5470-5725MHz
		802.11n HT20	802.11n HT20	802.11n HT20
L	Low	36	52	100
M	Middle	44	60	116
H	High	48	64	140
Straddle		-	-	144

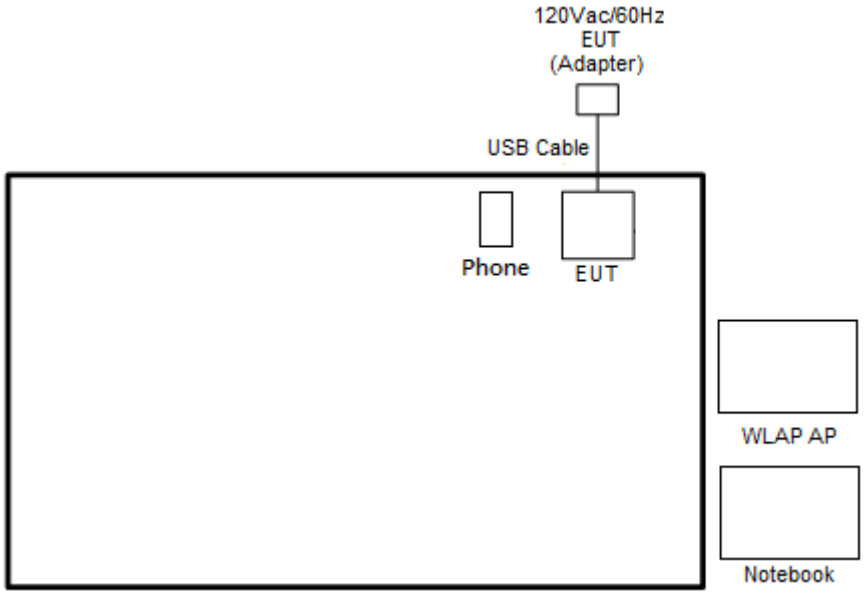
Ch. #		Band I：5150-5250 MHz	Band II：5250-5350 MHz	Band III：5470-5725MHz
		802.11n HT40	802.11n HT40	802.11n HT40
L	Low	38	54	102
M	Middle	-	-	110
H	High	46	62	134
Straddle		-	-	142

2.3 Connection Diagram of Test System

<WLAN Tx Mode>



<AC Conducted Emission Mode>



2.4 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	Notebook	DELL	Latitude E3340	FCC DoC/ Contains FCC ID: PD97260NGU	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
2.	Phone	ASUS	A9	N/A	N/A	N/A
3.	WLAN AP	ASUS	RT-AC66U	MSQ-RTAC66U	N/A	Unshielded, 1.8 m
4.	Notebook	Lenovo	TP00071B	FCC DoC	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
5.	Fixture	N/A	N/A	N/A	N/A	N/A

2.5 EUT Operation Test Setup

The RF test items, utility “UART_Driver” 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 26dB and 99% Occupied Bandwidth Measurement

3.1.1 Description of 6dB and 26dB and 99% Occupied Bandwidth

This section is for reporting purpose only.

There is no restriction limits for bandwidth.

For Straddle Channel, according to KDB 789033 D02 General UNII Test Procedures New Rules v02r01, if the power and PSD of the devices are uniform and comply with the lower limits specified for the U-NII-2 bands, a single measurement over the entire emission bandwidth can be performed to show compliance.

3.1.2 Measuring Instruments

See list of measuring equipment of this test report.

3.1.3 Test Procedures

The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.

For 26dB & 99OB

Section C) Emission bandwidth

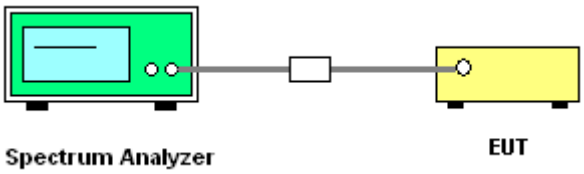
1. Set RBW = approximately 1% of the emission bandwidth.
2. Set the VBW > RBW.
3. Detector = Peak.
4. Trace mode = max hold
5. Measure the maximum width of the emission that is 26 dB down from the peak of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.
6. 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.
7. Measure and record the results in the test report.

For 6dB

Section C) Emission bandwidth

1. Set RBW = 100kHz.
2. Set the VBW ≥ 3 x RBW.
3. Detector = Peak.
4. Trace mode = max hold
5. Measure the maximum width of the emission that is 6 dB down from the peak of the emission.
6. Measure and record the results in the test report.

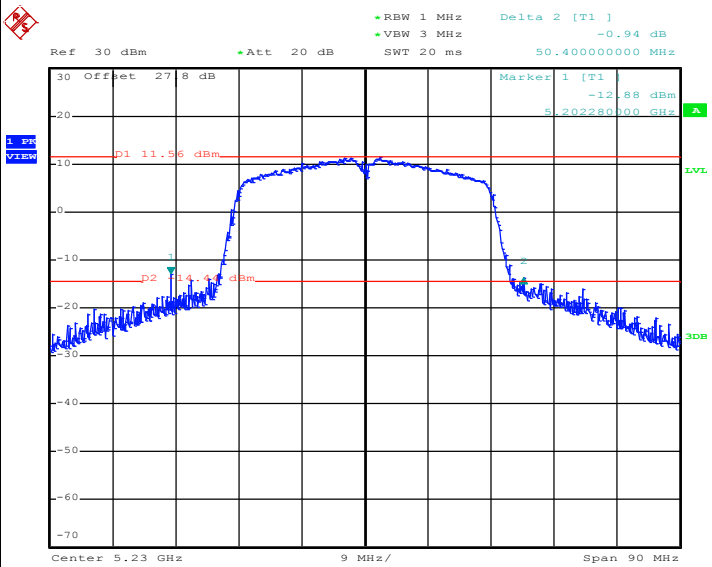
3.1.4 Test Setup



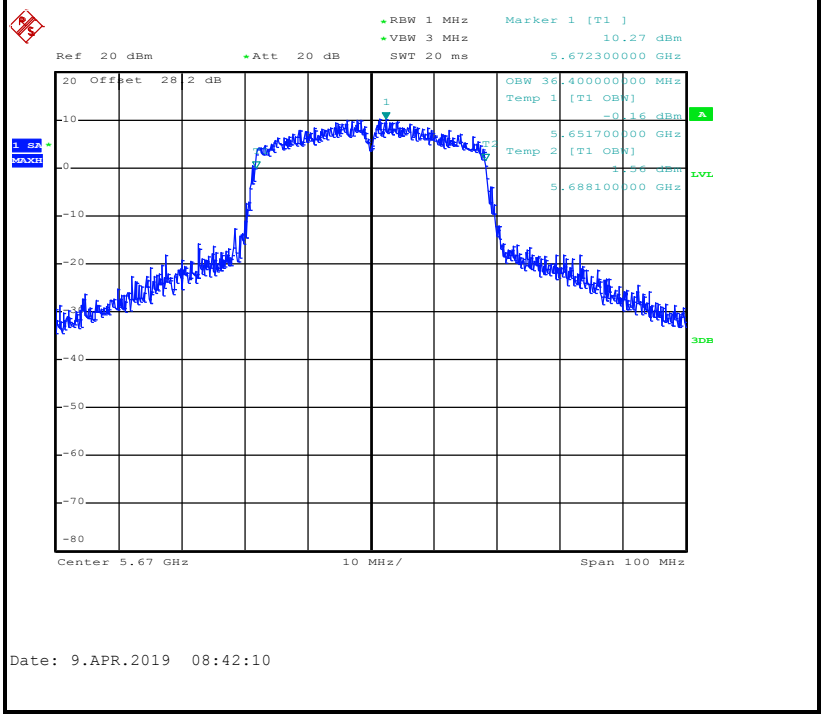
3.1.5 Test Result of 6dB & 26dB & 99% Occupied Bandwidth

Please refer to Appendix A.

Maximum 26dB Bandwidth



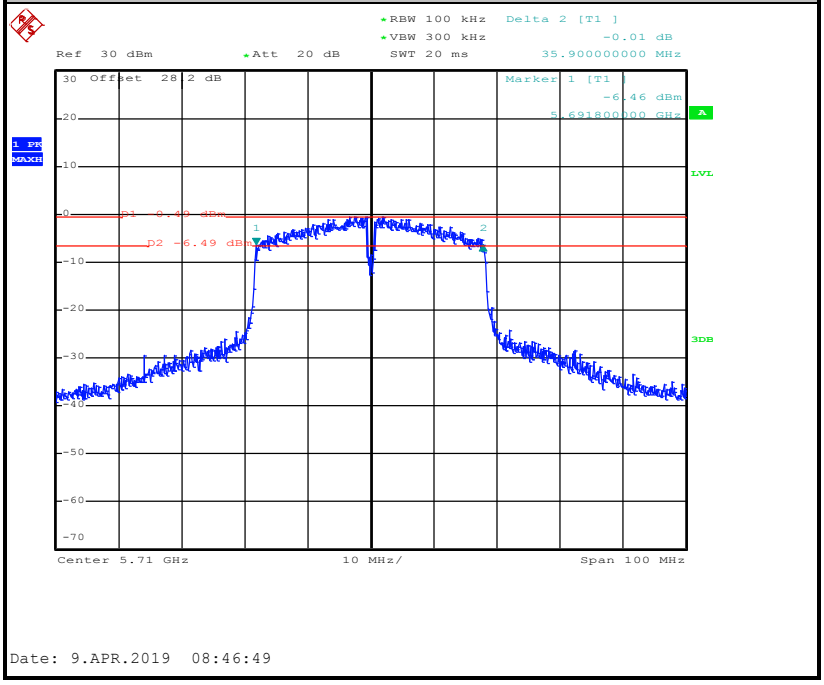
Maximum 99% Occupied Bandwidth



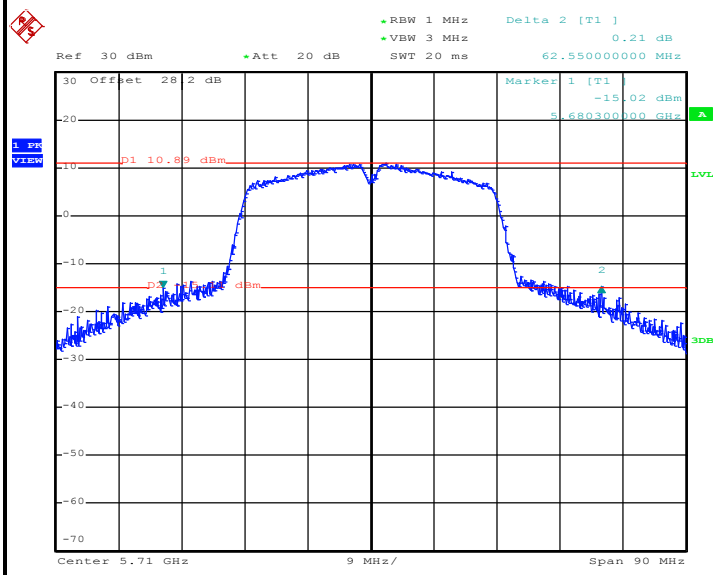
Note: The occupied channel bandwidth is maintained within the band of operation for all of the modulations.

<Straddle Channel>

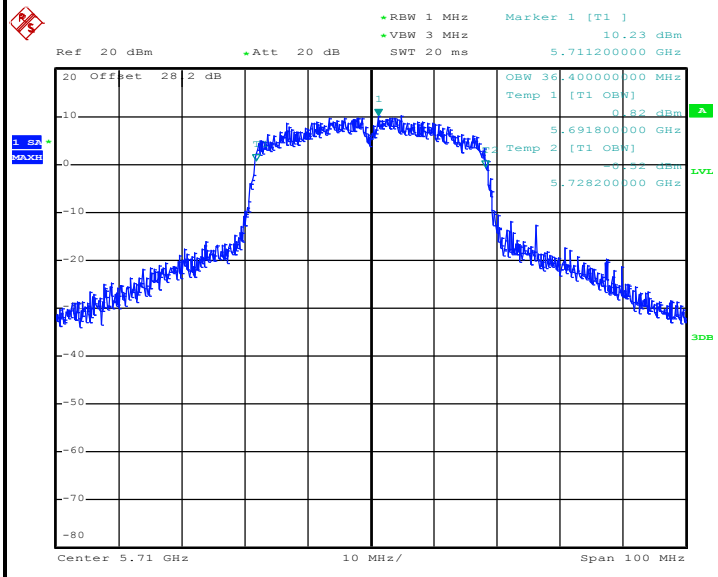
Maximum 6dB Bandwidth



Maximum 26dB Bandwidth



Maximum 99% Occupied Bandwidth



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

3.2 Maximum Conducted Output Power Measurement

3.2.1 Limit of Maximum Conducted Output Power

<FCC 14-30 CFR 15.407>

For the 5.15–5.25 GHz bands:

■ For mobile and portable client devices in the 5.15–5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW. For an indoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W.

For the 5.25–5.725 GHz bands:

■ The maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm 10 log B, where B is the 26 dB emission bandwidth in megahertz.

For Straddle Channel, according to KDB 789033 D02 General UNII Test Procedures New Rules v02r01, if the power and PSD of the devices are uniform and comply with the lower limits specified for the U-NII-2 bands, a single measurement over the entire emission bandwidth can be performed to show compliance.

If transmitting antennas of directional gain greater than 6 dBi are used, the peak output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Note that U-NII-2 band, devices with a maximum e.i.r.p. greater than 500 mW shall implement TPC in order to have the capability to operate at least 6 dB below the maximum permitted e.i.r.p. of 1 W.

3.2.2 Measuring Instruments

See list of measuring equipment of this test report.

3.2.3 Test Procedures

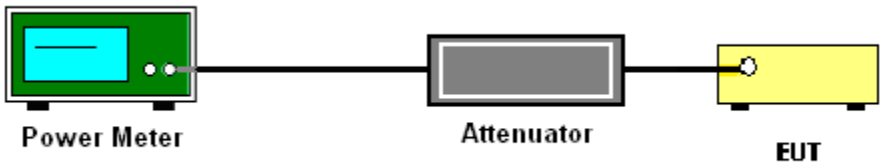
The testing follows Method PM of FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.

Method PM-G (Measurement using a gated RF average power meter):

1. Measurement is performed using a wideband RF power meter.
2. The EUT is configured to transmit at its maximum power control level.
3. Measure the average power of the transmitter
4. Since the measurement is made only during the ON time of the transmitter, no duty cycle correction factor is required.

For Straddle Channel, according to KDB 789033 D02 General UNII Test Procedures New Rules v02r01, if the power and PSD of the devices are uniform and comply with the lower limits specified for the U-NII-2 bands, a single measurement over the entire emission bandwidth can be performed to show compliance.

3.2.4 Test Setup



3.2.5 Test Result of Maximum Conducted Output Power

Please refer to Appendix A.

3.3 Power Spectral Density Measurement

3.3.1 Limit of Power Spectral Density

<FCC 14-30 CFR 15.407>

For the 5.15–5.25 GHz bands:

For mobile and portable client devices in the 5.15–5.25 GHz band, the maximum power spectral density shall not exceed 11 dBm in any 1.0 MHz band. For an indoor access point operating in the band 5.15-5.25 GHz, the maximum power spectral density shall not exceed 17 dBm in any 1.0 MHz band.

For the 5.25–5.725 GHz bands:

The maximum power spectral density shall not exceed 11 dBm in any 1.0 MHz band.

For Straddle Channel, according to KDB 789033 D02 General UNII Test Procedures New Rules v02r01, if the power and PSD of the devices are uniform and comply with the lower limits specified for the U-NII-2 bands, a single measurement over the entire emission bandwidth can be performed to show compliance.

If transmitting antennas of directional gain greater than 6 dBi are used, the peak output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

3.3.2 Measuring Instruments

See list of measuring equipment of this test report.

3.3.3 Test Procedures

The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.
Section F) Maximum power spectral density.

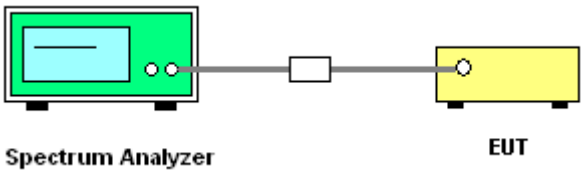
 # Method SA-2 #

(trace averaging across on and off times of the EUT transmissions, followed by duty cycle correction).

- Measure the duty cycle.
- Set span to encompass the entire emission bandwidth (EBW) of the signal.
- Set RBW = 1 MHz.
- Set VBW ≥ 3 MHz.
- Number of points in sweep ≥ 2 Span / RBW.
- Sweep time = auto.
- Detector = RMS
- Trace average at least 100 traces in power averaging mode.
- Add 10 log(1/x), where x is the duty cycle, to the measured power in order to compute the average power during the actual transmission times. For example, add 10 log(1/0.25) = 6 dB if the duty cycle is 25 percent.

1. The RF output of EUT was connected to the spectrum analyzer by a low loss cable.
2. Each plot has already offset with cable loss, and attenuator loss. Measure the PPSD and record it.

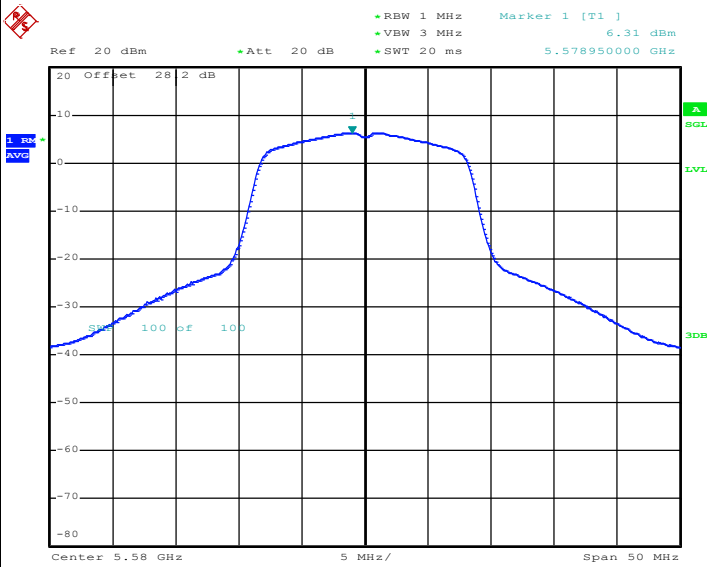
3.3.4 Test Setup



3.3.5 Test Result of Power Spectral Density

Please refer to Appendix A.

Worst Case Power Density (dBm/MHz)



Note: Average Power Density (dB) = Measured value+ Duty Factor

3.4 Unwanted Emissions Measurement

This section is to measure unwanted emissions through radiated measurement for band edge spurious emissions and out of band emissions measurement.

3.4.1 Limit of Unwanted Emissions

(1) For transmitters operating in the 5150-5250 MHz band: all emissions outside of the 5150-5350 MHz band shall not exceed an EIRP of –27dBm/MHz.

For transmitters operating in the 5250-5350 MHz band: all emissions outside of the 5150-5350 MHz band shall not exceed an EIRP of -27 dBm/MHz. Devices operating in the 5250-5350 MHz band that generate emissions in the 5150-5250 MHz band must meet all applicable technical requirements for operation in the 5150-5250 MHz band (including indoor use) or alternatively meet an out-of-band emission EIRP limit of -27 dBm/MHz in the 5150-5250 MHz band.

For transmitters operating in the 5470-5600 MHz and 5650-5725MHz band: all emissions outside of the 5470-5600 MHz and 5650-5725MHz band shall not exceed an EIRP of -27 dBm/MHz.

(2) Unwanted spurious emissions fallen in restricted bands shall comply with the general field strength limits as below table:

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

Note: The following formula is used to convert the EIRP to field strength.

$$E=\frac{1000000\sqrt{30P}}{3}$$ μV/m, where P is the eirp (Watts)

EIRP (dBm)	Field Strength at 3m (dBμV/m)
- 27	68.3

(3) KDB789033 D02 v02r01 G)2)c)

(i) Section 15.407(b)(1) to (b)(3) specify the unwanted emission limits for the U-NII-1 and U-NII-2 bands. As specified, emissions above 1000 MHz that are outside of the restricted bands are subject to a peak emission limit of -27 dBm/MHz.3

(ii) Section 15.407(b)(4) specifies the unwanted emission limit for the U-NII-3 band. A band emissions mask is specified in Section 15.407(b)(4)(i). The emission limits are in terms of a Peak detector. An alternative to the band emissions mask is specified in Section 15.407(b)(4)(ii). The alternative limits are based on the highest antenna gain specified in the filing. There are also marketing and importation restrictions for the devices using the alternative limit.[4]

Note 3: An out-of-band emission that complies with both the average and peak limits of Section 15.209 is not required to satisfy the -27 dBm/MHz peak emission limit.

Note 4: Only devices with antenna gains of 10 dBi or less may be approved using the emission limits specified in Section 15.247(d) till March 2, 2018; all other devices operating in this band must use the mask specified in Section 15.407(b)(4)(i).

3.4.2 Measuring Instruments

See list of measuring equipment of this test report.

3.4.3 Test Procedures

1. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.

   Section G) Unwanted emissions measurement.

   (1) Procedure for Unwanted Emissions Measurements Below 1000MHz

   - RBW = 120 kHz
   - VBW = 300 kHz
   - Detector = Peak
   - Trace mode = max hold

   (2) Procedure for Peak Unwanted Emissions Measurements Above 1000 MHz

   - RBW = 1 MHz
   - VBW ≥ 3 MHz
   - Detector = Peak
   - Sweep time = auto
   - Trace mode = max hold

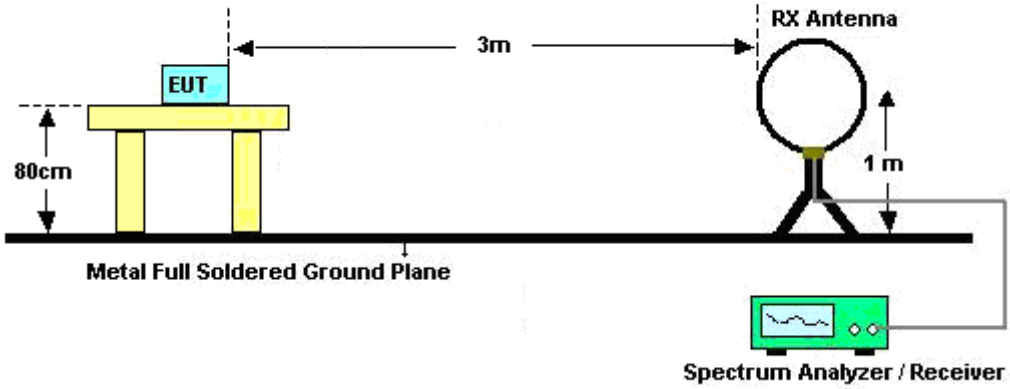
(3) Procedures for Average Unwanted Emissions Measurements Above 1000MHz

- RBW = 1 MHz
- 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.

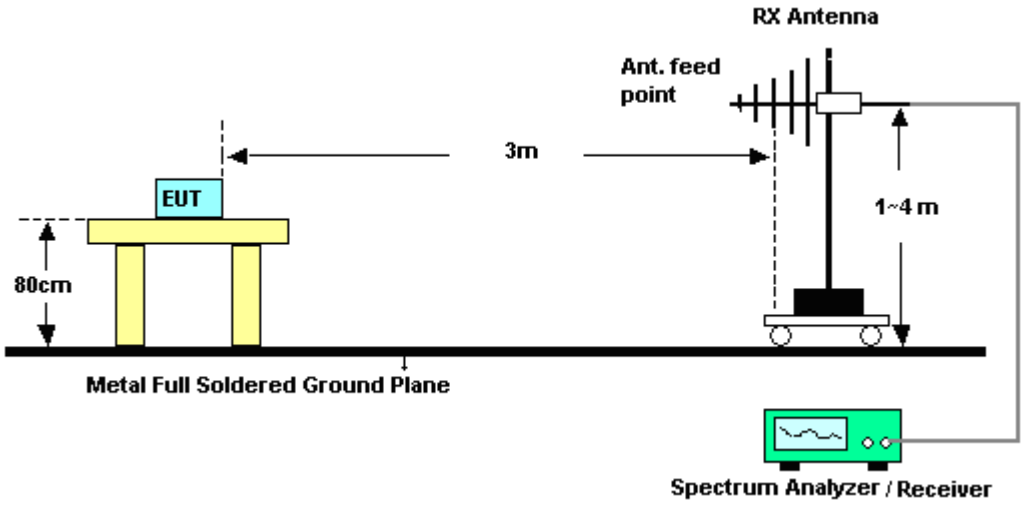
2. The EUT was placed on a turntable with 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz respectively above ground.
3. The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
4. The antenna is a broadband antenna and its height is adjusted between one meter and four meters above ground to find the maximum value of the field strength for both horizontal polarization and vertical polarization of the antenna.
5. For each suspected emission, the EUT was arranged to its worst case and then adjust the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading.
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.

3.4.4 Test Setup

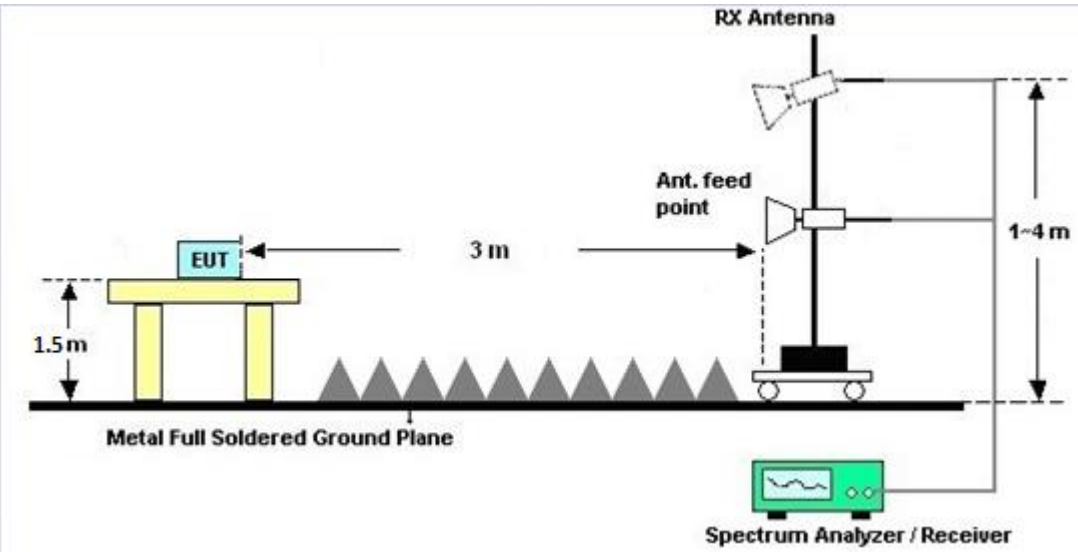
For radiated emissions below 30MHz



For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz



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

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.

3.4.6 Test Result of Radiated Spurious at Band Edges

Please refer to Appendix C and D.

3.4.7 Duty Cycle

Please refer to Appendix E.

3.4.8 Test Result of Radiated Spurious Emissions (30MHz ~ 10th Harmonic)

Please refer to Appendix C and D.

3.5 AC Conducted Emission Measurement

3.5.1 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.

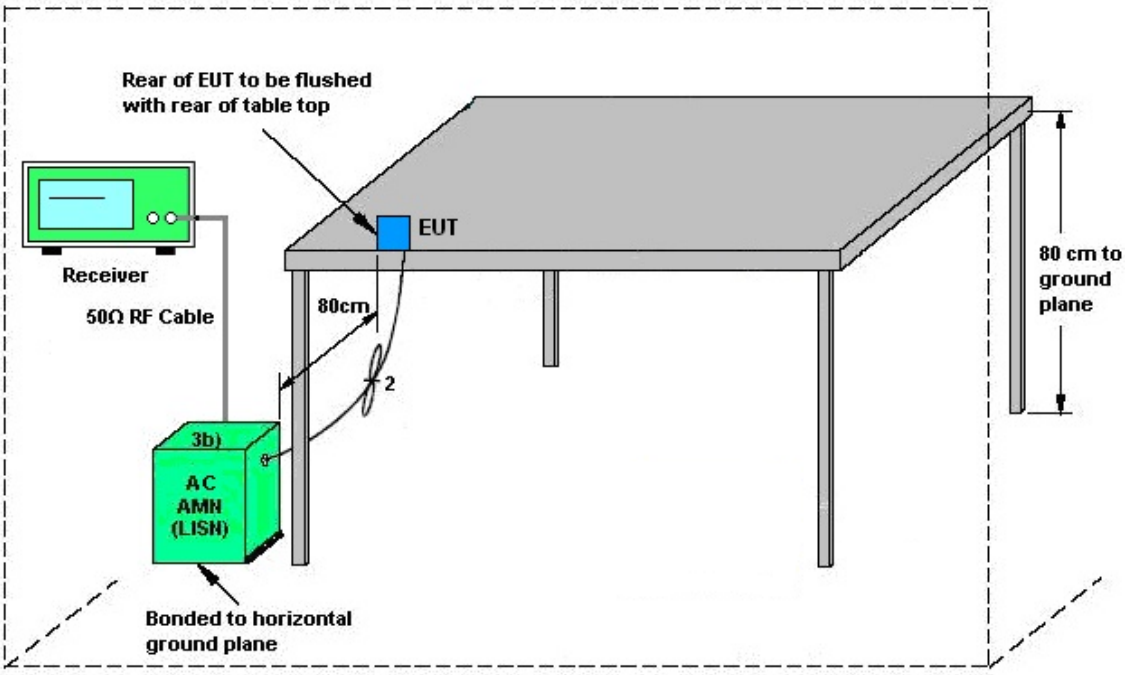
3.5.2 Measuring Instruments

See list of measuring equipment of this test report.

3.5.3 Test Procedures

1. The EUT was placed 0.4 meter from the conducting wall of the shielding room 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 with Maximum Hold Mode.

3.5.4 Test Setup



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

3.5.5 Test Result of AC Conducted Emission

Please refer to Appendix B.

3.6 Automatically Discontinue Transmission

3.6.1 Limit of Automatically Discontinue Transmission

The device shall automatically discontinue transmission in case of either absence of information to transmit or operational failure. These provisions are not intended to preclude the transmission of control or signaling information or the use of repetitive codes used by certain digital technologies to complete frame or burst intervals. Applicants shall include in their application for equipment authorization to describe how this requirement is met.

3.6.2 Measuring Instruments

See list of measuring equipment of this test report.

3.6.3 Test Result of Automatically Discontinue Transmission

EUT is verified this characteristic during the function check of normal sample associated with an access point:

A. Information start: make EUT supply information to the access point.

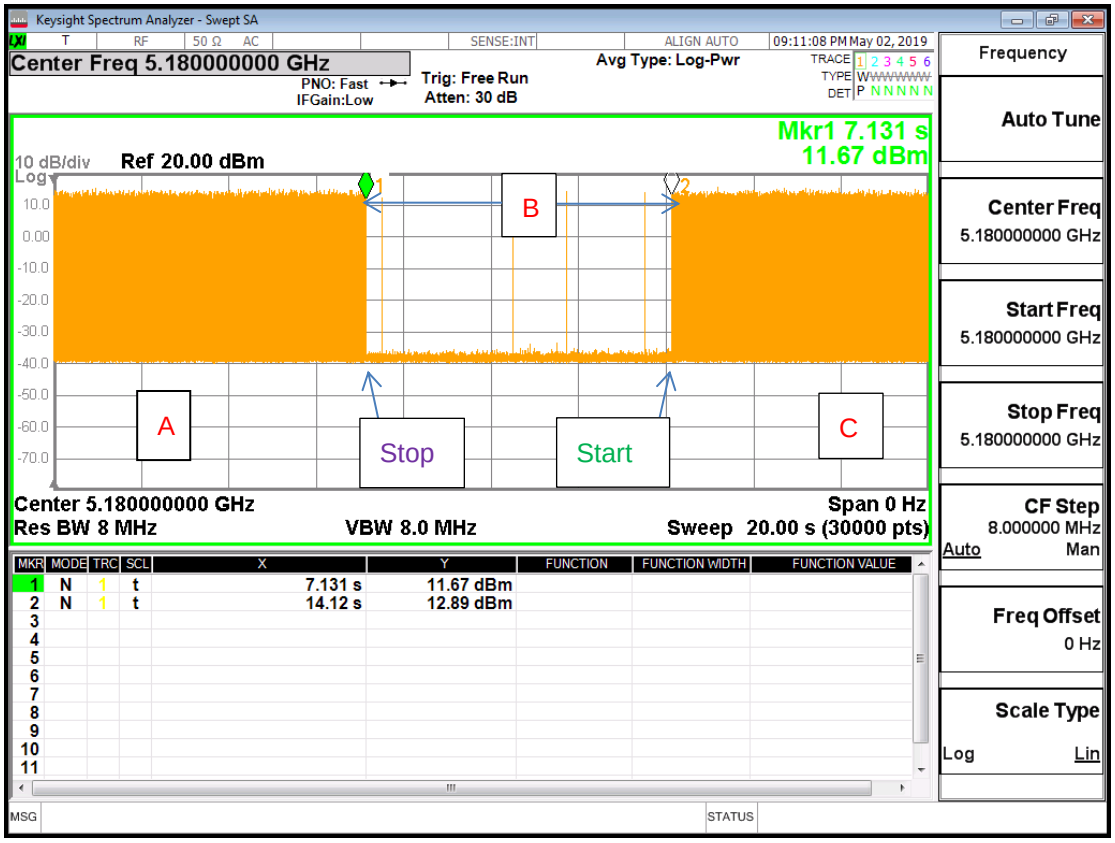
B. Information stop: stop supplying information to the access point.

While the EUT is not transmitting any information, the EUT can automatically discontinue transmission and become standby mode for power saving.

C. Information start: make EUT supply information to the access point again.

The EUT can detect the controlling signal of ACK message transmitting from remote device and verify whether it shall resend or discontinue transmission.

5180MHz



Note: The control / signalling information during the period B is precluded.

3.7 Antenna Requirements

3.7.1 Standard Applicable

If transmitting antenna directional gain is greater than 6 dBi, both the peak transmit power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

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
AC Power Source	ChainTek	APC-1000W	N/A	N/A	N/A	Mar. 21, 2019	N/A	Conduction (CO05-HY)
EMI Test Receiver	Rohde & Schwarz	ESR3	102388	9KHz~3.6GHz	Nov. 12, 2018	Mar. 21, 2019	Nov. 11, 2019	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100080	9kHz~30MHz	Nov. 14, 2018	Mar. 21, 2019	Nov. 13, 2019	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100081	9kHz~30MHz	Nov. 09, 2018	Mar. 21, 2019	Nov. 08, 2019	Conduction (CO05-HY)
Software	Rohde & Schwarz	EMC32 V10.30	N/A	N/A	N/A	Mar. 21, 2019	N/A	Conduction (CO05-HY)
RF Cable	HUBER + SUHNER	RG 214/U	1358175	9kHz~30MHz	Sep. 14, 2018	Mar. 21, 2019	Sep. 13, 2019	Conduction (CO05-HY)
Pulse Limiter	SCHWARZBECK	VTSD 9561-F N	9561-F N00373	9kHz-200MHz	Nov. 08, 2018	Mar. 21, 2019	Nov. 07, 2019	Conduction (CO05-HY)
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100315	9 kHz~30 MHz	Nov. 23, 2017	Mar. 23, 2019~ Apr. 02, 2019	Nov. 22, 2019	Radiation (03CH16-HY)
Bilog Antenna	TESEQ	CBL6111D&00802N1D01N-06	47020&06	30MHz to 1GHz	Oct. 13, 2018	Mar. 23, 2019~ Apr. 02, 2019	Oct. 12, 2019	Radiation (03CH16-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-1522	1G~18GHz	Sep. 07, 2018	Mar. 23, 2019~ Apr. 02, 2019	Sep. 06, 2019	Radiation (03CH16-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170576	18GHz ~ 40GHz	May 08, 2018	Mar. 23, 2019~ Apr. 02, 2019	May 07, 2019	Radiation (03CH16-HY)
EMI Test Receiver	Keysight	N9038A (MXE)	MY57290111	3Hz~26.5GHz	Nov. 29, 2018	Mar. 23, 2019~ Apr. 02, 2019	Nov. 28, 2019	Radiation (03CH16-HY)
Spectrum Analyzer	Agilent	N9010A	MY53470118	10Hz~44GHz	Apr. 17, 2018	Mar. 23, 2019~ Apr. 02, 2019	Apr. 16, 2019	Radiation (03CH16-HY)
Amplifier	SONOMA	310N	371607	9kHz~1000MHz	Oct. 02, 2018	Mar. 23, 2019~ Apr. 02, 2019	Oct. 01, 2019	Radiation (03CH16-HY)
Preamplifier	Jet-Power	JPA0118-55-303	1710001800054001	1GHz~18GHz	Apr. 16, 2018	Mar. 23, 2019~ Apr. 02, 2019	Apr. 15, 2019	Radiation (03CH16-HY)
Preamplifier	Keysight	83017A	MY53270264	1GHz~26.5GHz	Dec.12.2018	Mar. 23, 2019~ Apr. 02, 2019	Dec.11.2019	Radiation (03CH16-HY)
Amplifier	MITEQ	TTA1840-35-HG	1871923	18GHz~40GHz, VSWR : 2.5:1 max	Jul. 16, 2018	Mar. 23, 2019~ Apr. 02, 2019	Jul. 15, 2019	Radiation (03CH16-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 126E	0058/126E	30M-18G	N/A	Mar. 23, 2019~ Apr. 02, 2019	N/A	Radiation (03CH16-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY15539/4	30M-18G	N/A	Mar. 23, 2019~ Apr. 02, 2019	N/A	Radiation (03CH16-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY36979/4	30M~18GHz	N/A	Mar. 23, 2019~ Apr. 02, 2019	N/A	Radiation (03CH16-HY)
Software	Audix	E3 6.2009-8-24	RK-001136	N/A	N/A	Mar. 23, 2019~ Apr. 02, 2019	N/A	Radiation (03CH16-HY)

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Power Sensor	DARE	RadiPower	15I00041SNO09	10MHz~6GHz	May 07, 2018	Apr. 09, 2019~ Apr. 19, 2019	May 06, 2019	Conducted (TH05-HY)
Spectrum Analyzer	Rohde & Schwarz	FSP40	100057	9kHz-40GHz	Nov. 21, 2018	Apr. 09, 2019~ Apr. 19, 2019	Nov. 20, 2019	Conducted (TH05-HY)
Switch Box & RF Cable	Burgeon	ETF-058	EC1208382	N/A	Mar. 27, 2019	Apr. 09, 2019~ Apr. 19, 2019	Mar. 26, 2020	Conducted (TH05-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))	**4.9**

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**5.8**

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**3.9**

Appendix A. Test Result of Conducted Test Items

Test Engineer:	Aking Chang / Luffy Lin	Temperature:	21~25	°C
Test Date:	2019/4/9 ~ 2019/04/19	Relative Humidity:	51~54	%

TEST RESULTS DATA
26dB and 99% OBW

Band I														
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Bandwidth (MHz)		26 dB Bandwidth (MHz)		IC 99% Bandwidth Power Limit (dBm)		IC 99% Bandwidth EIRP Limit (dBm)			Note
					Ant 0	Ant 1	Ant 0	Ant 1	Ant 0	Ant 1	Ant 0	Ant 1		
11a	6Mbps	1	36	5180	16.50	-	30.95	-	-		22.17	-		
11a	6Mbps	1	44	5220	16.60	-	31.80	-	-		22.20	-		
11a	6Mbps	1	48	5240	16.65	-	31.50	-	-		22.21	-		
HT20	MCS0	1	36	5180	17.75	-	25.85	-	-		22.49	-		
HT20	MCS0	1	44	5220	17.70	-	31.40	-	-		22.48	-		
HT20	MCS0	1	48	5240	17.75	-	31.85	-	-		22.49	-		
HT40	MCS0	1	38	5190	36.20	-	41.04	-	-		23.01	-		
HT40	MCS0	1	46	5230	36.20	-	50.40	-	-		23.01	-		

TEST RESULTS DATA
Average Power Table

FCC Band I													
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Conducted Power (dBm)			FCC Conducted Power Limit (dBm)		DG (dBi)			Pass/Fail
					Ant 0	Ant 1	SUM	Ant 0	Ant 1	Ant 0	Ant 1		
11a	6Mbps	1	36	5180	16.00	-		24.00	-	4.80	-		Pass
11a	6Mbps	1	44	5220	16.30	-		24.00	-	4.80	-		Pass
11a	6Mbps	1	48	5240	16.40	-		24.00	-	4.80	-		Pass
HT20	MCS0	1	36	5180	15.60	-		24.00	-	4.80	-		Pass
HT20	MCS0	1	44	5220	16.60	-		24.00	-	4.80	-		Pass
HT20	MCS0	1	48	5240	16.40	-		24.00	-	4.80	-		Pass
HT40	MCS0	1	38	5190	12.40	-		24.00	-	4.80	-		Pass
HT40	MCS0	1	46	5230	15.70	-		24.00	-	4.80	-		Pass

TEST RESULTS DATA
Power Spectral Density

FCC Band I															
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)		Average Power Density (dBm/MHz)			Average PSD Limit (dBm/MHz)		DG (dBi)			Pass /Fail
					Ant 0	Ant 1	Ant 0	Ant 1	SUM	Ant 0	Ant 1	Ant 0	Ant 1		
11a	6Mbps	1	36	5180	0.00	-	5.92	-		11.00	-	4.80	-		Pass
11a	6Mbps	1	44	5220	0.00	-	5.98	-		11.00	-	4.80	-		Pass
11a	6Mbps	1	48	5240	0.00	-	6.18	-		11.00	-	4.80	-		Pass
HT20	MCS0	1	36	5180	0.00	-	4.94	-		11.00	-	4.80	-		Pass
HT20	MCS0	1	44	5220	0.00	-	6.01	-		11.00	-	4.80	-		Pass
HT20	MCS0	1	48	5240	0.00	-	5.87	-		11.00	-	4.80	-		Pass
HT40	MCS0	1	38	5190	0.00	-	-1.04	-		11.00	-	4.80	-		Pass
HT40	MCS0	1	46	5230	0.00	-	2.73	-		11.00	-	4.80	-		Pass

TEST RESULTS DATA
26dB and 99% OBW

Band II															
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Bandwidth (MHz)		26 dB Bandwidth (MHz)		IC 99% Bandwidth Power Limit (dBm)		IC 99% Bandwidth EIRP Limit (dBm)		FCC 26dB Bandwidth Power Limit (dBm)		Note
					Ant 0	Ant 1	Ant 0	Ant 1	Ant 0	Ant 1	Ant 0	Ant 1	Ant 0	Ant 1	
11a	6Mbps	1	52	5260	16.65	-	31.30	-	23.21	-	29.21	-	23.98	-	
11a	6Mbps	1	60	5300	16.70	-	26.65	-	23.23	-	29.23	-	23.98	-	
11a	6Mbps	1	64	5320	16.60	-	32.80	-	23.20	-	29.20	-	23.98	-	
HT20	MCS0	1	52	5260	17.70	-	33.90	-	23.48	-	29.48	-	23.98	-	
HT20	MCS0	1	60	5300	17.70	-	35.40	-	23.48	-	29.48	-	23.98	-	
HT20	MCS0	1	64	5320	17.65	-	27.55	-	23.47	-	29.47	-	23.98	-	
HT40	MCS0	1	54	5270	36.20	-	44.28	-	23.98	-	30.00	-	23.98	-	
HT40	MCS0	1	62	5310	36.10	-	41.49	-	23.98	-	30.00	-	23.98	-	

TEST RESULTS DATA
Average Power Table

FCC Band II													
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Conducted Power (dBm)			FCC Conducted Power Limit (dBm)		DG (dBi)		EIRP Power Limit (dBm)	Pass/Fail
					Ant 0	Ant 1	SUM	Ant 0	Ant 1	Ant 0	Ant 1		
11a	6Mbps	1	52	5260	16.00	-		23.98	-	4.80	-	26.99	Pass
11a	6Mbps	1	60	5300	16.20	-		23.98	-	4.80	-	26.99	Pass
11a	6Mbps	1	64	5320	15.90	-		23.98	-	4.80	-	26.99	Pass
HT20	MCS0	1	52	5260	16.20	-		23.98	-	4.80	-	26.99	Pass
HT20	MCS0	1	60	5300	16.10	-		23.98	-	4.80	-	26.99	Pass
HT20	MCS0	1	64	5320	14.30	-		23.98	-	4.80	-	26.99	Pass
HT40	MCS0	1	54	5270	15.10	-		23.98	-	4.80	-	26.99	Pass
HT40	MCS0	1	62	5310	12.10	-		23.98	-	4.80	-	26.99	Pass

TEST RESULTS DATA
Power Spectral Density

Band II															
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)		Average Power Density (dBm/MHz)			Average PSD Limit (dBm/MHz)		DG (dBi)			Pass /Fail
					Ant 0	Ant 1	Ant 0	Ant 1	SUM	Ant 0	Ant 1	Ant 0	Ant 1		
11a	6Mbps	1	52	5260	0.00	-	5.63	-		11.00	-	4.80	-		Pass
11a	6Mbps	1	60	5300	0.00	-	5.69	-		11.00	-	4.80	-		Pass
11a	6Mbps	1	64	5320	0.00	-	5.18	-		11.00	-	4.80	-		Pass
HT20	MCS0	1	52	5260	0.00	-	5.93	-		11.00	-	4.80	-		Pass
HT20	MCS0	1	60	5300	0.00	-	5.58	-		11.00	-	4.80	-		Pass
HT20	MCS0	1	64	5320	0.00	-	3.78	-		11.00	-	4.80	-		Pass
HT40	MCS0	1	54	5270	0.00	-	1.85	-		11.00	-	4.80	-		Pass
HT40	MCS0	1	62	5310	0.00	-	-1.17	-		11.00	-	4.80	-		Pass

TEST RESULTS DATA
26dB and 99% OBW

Band III																
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Bandwidth In U-NII 2C (MHz)		26 dB Bandwidth In U-NII 2C (MHz)		IC 99% Bandwidth Power Limit (dBm)		IC 99% Bandwidth EIRP Limit (dBm)		FCC 26dB Bandwidth Power Limit (dBm)		6 dB Bandwidth for Straddle Channel (MHz)	
					Ant 0	Ant 1	Ant 0	Ant 1	Ant 0	Ant 1	Ant 0	Ant 1	Ant 0	Ant 1	Ant 0	Ant 1
11a	6Mbps	1	100	5500	16.65	-	26.75	-	23.21	-	29.21	-	23.98	-	----	----
11a	6Mbps	1	116	5580	16.75	-	34.10	-	23.24	-	29.24	-	23.98	-	----	----
11a	6Mbps	1	140	5700	16.65	-	30.65	-	23.21	-	29.21	-	23.98	-	----	----
11a	6Mbps	1	144	5720	13.45	-	22.35	-	22.29	-	28.29	-	23.98	-	3.15	-
HT20	MCS0	1	100	5500	17.75	-	30.25	-	23.49	-	29.49	-	23.98	-	----	----
HT20	MCS0	1	116	5580	17.80	-	33.80	-	23.50	-	29.50	-	23.98	-	----	----
HT20	MCS0	1	140	5700	17.75	-	27.00	-	23.49	-	29.49	-	23.98	-	----	----
HT20	MCS0	1	144	5720	14.00	-	22.65	-	22.46	-	28.46	-	23.98	-	3.75	-
HT40	MCS0	1	102	5510	36.20	-	41.67	-	23.98	-	30.00	-	23.98	-	----	----
HT40	MCS0	1	110	5550	36.30	-	49.41	-	23.98	-	30.00	-	23.98	-	----	----
HT40	MCS0	1	134	5670	36.40	-	49.68	-	23.98	-	30.00	-	23.98	-	----	----
HT40	MCS0	1	142	5710	33.20	-	44.70	-	23.98	-	30.00	-	23.98	-	2.7	-

TEST RESULTS DATA
Average Power Table

FCC Band III													
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Conducted Power (dBm)			FCC Conducted Power Limit (dBm)		DG (dBi)		EIRP Power Limit (dBm)	Pass/Fail
					Ant 0	Ant 1	SUM	Ant 0	Ant 1	Ant 0	Ant 1		
11a	6Mbps	1	100	5500	15.40	-		23.98	-	4.80	-	26.99	Pass
11a	6Mbps	1	116	5580	16.20	-		23.98	-	4.80	-	26.99	Pass
11a	6Mbps	1	140	5700	14.70	-		23.98	-	4.80	-	26.99	Pass
11a	6Mbps	1	144	5720	16.30	-		23.98	-	4.80	-	26.99	Pass
HT20	MCS0	1	100	5500	15.80	-		23.98	-	4.80	-	26.99	Pass
HT20	MCS0	1	116	5580	16.20	-		23.98	-	4.80	-	26.99	Pass
HT20	MCS0	1	140	5700	14.20	-		23.98	-	4.80	-	26.99	Pass
HT20	MCS0	1	144	5720	15.80	-		23.98	-	4.80	-	26.99	Pass
HT40	MCS0	1	102	5510	13.50	-		23.98	-	4.80	-	26.99	Pass
HT40	MCS0	1	110	5550	15.30	-		23.98	-	4.80	-	26.99	Pass
HT40	MCS0	1	134	5670	15.40	-		23.98	-	4.80	-	26.99	Pass
HT40	MCS0	1	142	5710	15.50	-		23.98	-	4.80	-	26.99	Pass

TEST RESULTS DATA
Power Spectral Density

Band III															
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)		Average Power Density (dBm/MHz)			Average PSD Limit (dBm/MHz)		DG (dBi)			Pass /Fail
					Ant 0	Ant 1	Ant 0	Ant 1	SUM	Ant 0	Ant 1	Ant 0	Ant 1		
11a	6Mbps	1	100	5500	0.00	-	5.34	-		11.00	-	4.80	-		Pass
11a	6Mbps	1	116	5580	0.00	-	6.31	-		11.00	-	4.80	-		Pass
11a	6Mbps	1	140	5700	0.00	-	4.48	-		11.00	-	4.80	-		Pass
11a	6Mbps	1	144	5720	0.00	-	6.13	-		11.00	-	4.80	-		Pass
HT20	MCS0	1	100	5500	0.00	-	5.68	-		11.00	-	4.80	-		Pass
HT20	MCS0	1	116	5580	0.00	-	6.14	-		11.00	-	4.80	-		Pass
HT20	MCS0	1	140	5700	0.00	-	3.81	-		11.00	-	4.80	-		Pass
HT20	MCS0	1	144	5720	0.00	-	5.72	-		11.00	-	4.80	-		Pass
HT40	MCS0	1	102	5510	0.00	-	0.62	-		11.00	-	4.80	-		Pass
HT40	MCS0	1	110	5550	0.00	-	2.28	-		11.00	-	4.80	-		Pass
HT40	MCS0	1	134	5670	0.00	-	2.29	-		11.00	-	4.80	-		Pass
HT40	MCS0	1	142	5710	0.00	-	2.55	-		11.00	-	4.80	-		Pass

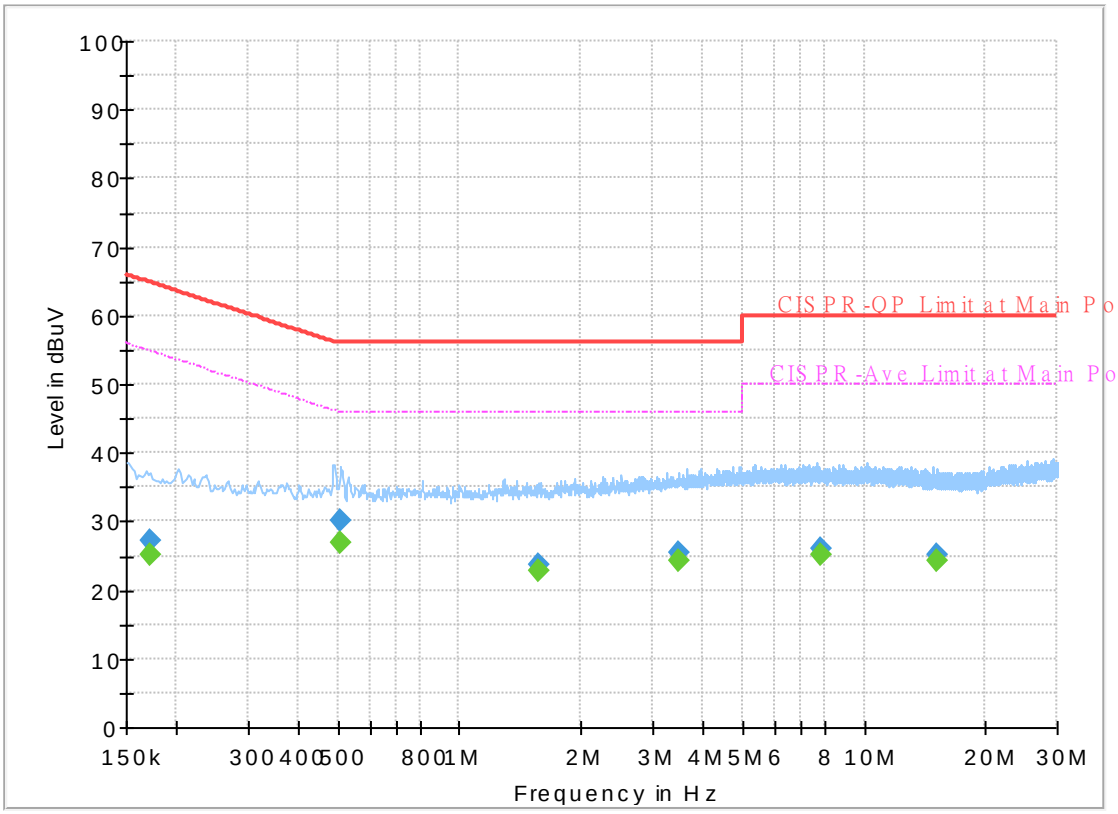
Appendix B. AC Conducted Emission Test Results

Test Engineer :	Jimmy Chang	**Temperature :**	22~24℃
		Relative Humidity :	51~55%

EUT Information

Report NO :	920111-01
Test Mode :	Mode 1
Test Voltage :	120Vac/60Hz
Phase :	Line

Full Spectrum



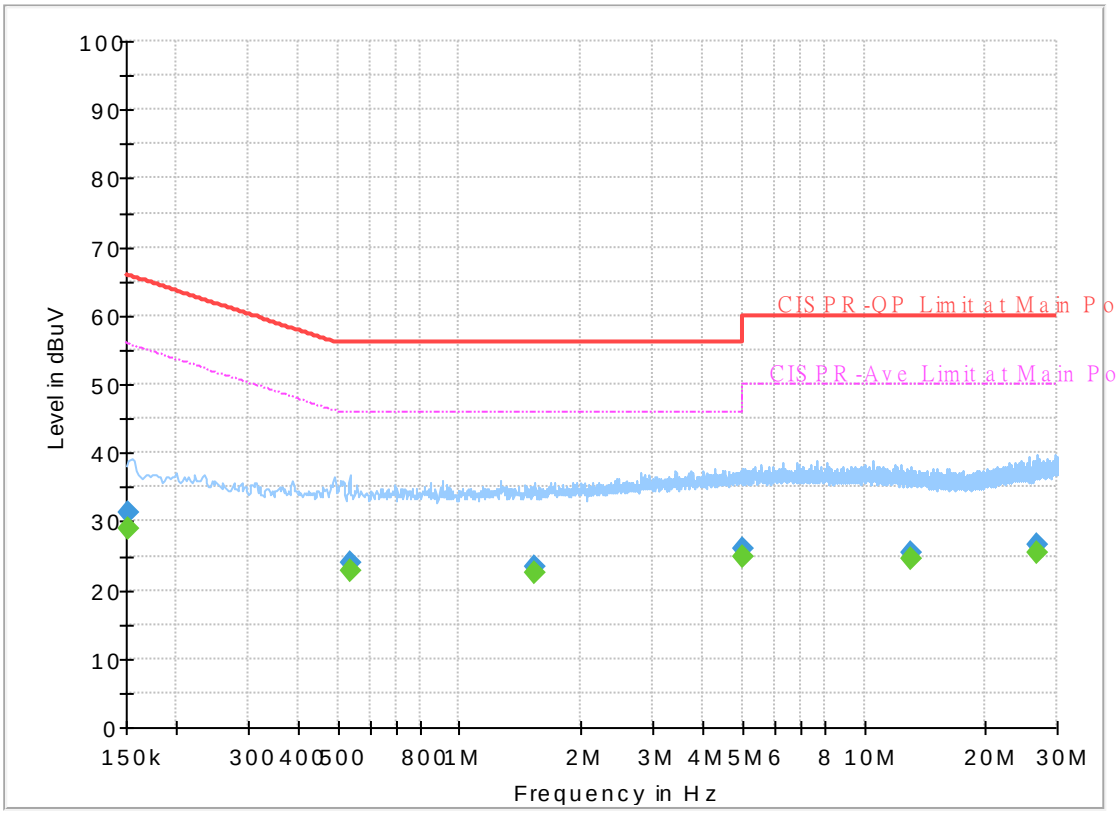
Final_Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.172500	---	25.01	54.84	29.83	L1	OFF	19.5
0.172500	27.16	---	64.84	37.68	L1	OFF	19.5
0.507750	---	26.92	46.00	19.08	L1	OFF	19.5
0.507750	30.09	---	56.00	25.91	L1	OFF	19.5
1.576500	---	22.74	46.00	23.26	L1	OFF	19.6
1.576500	23.68	---	56.00	32.32	L1	OFF	19.6
3.482250	---	24.29	46.00	21.71	L1	OFF	19.7
3.482250	25.34	---	56.00	30.66	L1	OFF	19.7
7.824750	---	25.03	50.00	24.97	L1	OFF	19.8
7.824750	25.89	---	60.00	34.11	L1	OFF	19.8
15.128250	---	24.18	50.00	25.82	L1	OFF	20.1
15.128250	25.17	---	60.00	34.83	L1	OFF	20.1

EUT Information

Report NO :	920111-01
Test Mode :	Mode 1
Test Voltage :	120Vac/60Hz
Phase :	Neutral

Full Spectrum



Final_Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.152250	---	28.90	55.88	26.98	N	OFF	19.5
0.152250	31.20	---	65.88	34.68	N	OFF	19.5
0.537000	---	22.72	46.00	23.28	N	OFF	19.5
0.537000	24.07	---	56.00	31.93	N	OFF	19.5
1.531500	---	22.64	46.00	23.36	N	OFF	19.6
1.531500	23.53	---	56.00	32.47	N	OFF	19.6
4.989750	---	24.77	46.00	21.23	N	OFF	19.7
4.989750	25.99	---	56.00	30.01	N	OFF	19.7
13.078500	---	24.66	50.00	25.34	N	OFF	20.0
13.078500	25.52	---	60.00	34.48	N	OFF	20.0
26.731500	---	25.55	50.00	24.45	N	OFF	20.6
26.731500	26.71	---	60.00	33.29	N	OFF	20.6

Appendix C. Radiated Spurious Emission

Test Engineer :	Jacky Hung, CR Liao and Austin Li	Temperature :	21~25°C
		Relative Humidity :	55~60%

Band 1 - 5150~5250MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
0		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 36 5180MHz		5148.72	63.62	-10.38	74	48.17	31.63	13.2	29.38	217	55	P	H
		5150	53.13	-0.87	54	37.68	31.63	13.2	29.38	217	55	A	H
	*	5180	115.89	-	-	100.51	31.64	13.13	29.39	217	55	P	H
	*	5180	108.09	-	-	92.71	31.64	13.13	29.39	217	55	A	H
		5147.94	58.12	-15.88	74	42.67	31.63	13.2	29.38	162	306	P	V
		5150	48.07	-5.93	54	32.62	31.63	13.2	29.38	162	306	A	V
	*	5180	111.48	-	-	96.1	31.64	13.13	29.39	162	306	P	V
	*	5180	103.37	-	-	87.99	31.64	13.13	29.39	162	306	A	V
802.11a CH 44 5220MHz		5142.48	58.96	-15.04	74	43.49	31.63	13.22	29.38	208	55	P	H
		5146.64	48.11	-5.89	54	32.65	31.63	13.21	29.38	208	55	A	H
	*	5220	116.97	-	-	101.65	31.64	13.07	29.39	208	55	P	H
	*	5220	108.66	-	-	93.34	31.64	13.07	29.39	208	55	A	H
		5357.52	56.9	-17.1	74	41.66	31.67	12.98	29.41	208	55	P	H
		5350.52	46.77	-7.23	54	31.53	31.67	12.98	29.41	208	55	A	H
		5147.16	55.88	-18.12	74	40.42	31.63	13.21	29.38	175	305	P	V
		5148.46	45.08	-8.92	54	29.63	31.63	13.2	29.38	175	305	A	V
	*	5220	112.92	-	-	97.6	31.64	13.07	29.39	175	305	P	V
	*	5220	104.6	-	-	89.28	31.64	13.07	29.39	175	305	A	V
		5366.2	54.34	-19.66	74	39.11	31.67	12.97	29.41	175	305	P	V
		5350.8	44.33	-9.67	54	29.09	31.67	12.98	29.41	175	305	A	V

802.11a CH 48 5240MHz		5113.88	57.64	-16.36	74	42.1	31.62	13.29	29.37	211	55	P	H
		5149.76	47.49	-6.51	54	32.04	31.63	13.2	29.38	211	55	A	H
	*	5240	116.88	-	-	101.57	31.65	13.05	29.39	211	55	P	H
	*	5240	108.96	-	-	93.65	31.65	13.05	29.39	211	55	A	H
		5361.16	57.13	-16.87	74	41.89	31.67	12.98	29.41	211	55	P	H
		5352.2	47.93	-6.07	54	32.69	31.67	12.98	29.41	211	55	A	H
		5140.14	55.97	-18.03	74	40.5	31.63	13.22	29.38	162	306	P	V
		5127.66	44.47	-9.53	54	28.97	31.63	13.25	29.38	162	306	A	V
	*	5240	113.38	-	-	98.07	31.65	13.05	29.39	162	306	P	V
	*	5240	105.22	-	-	89.91	31.65	13.05	29.39	162	306	A	V
		5362.28	54.85	-19.15	74	39.62	31.67	12.97	29.41	162	306	P	V
		5353.04	45.36	-8.64	54	30.12	31.67	12.98	29.41	162	306	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11a (Harmonic @ 3m)

WIFI Ant. 0	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)
802.11a CH 36 5180MHz		10360	47.3	-20.9	68.2	51.14	39.48	17.48	60.8	100	0	P	H
		15540	44.85	-29.15	74	46.22	37.89	21.51	60.77	100	0	P	H
		10360	46.25	-21.95	68.2	50.09	39.48	17.48	60.8	100	0	P	V
		15540	44.88	-29.12	74	46.25	37.89	21.51	60.77	100	0	P	V
802.11a CH 44 5220MHz		10440	45.95	-22.25	68.2	49.72	39.6	17.55	60.92	100	0	P	H
		15660	43.7	-30.3	74	45.29	37.55	21.53	60.67	100	0	P	H
		10440	46.64	-21.56	68.2	50.41	39.6	17.55	60.92	100	0	P	V
		15660	44.52	-29.48	74	46.11	37.55	21.53	60.67	100	0	P	V
802.11a CH 48 5240MHz		10480	46.79	-21.41	68.2	50.51	39.67	17.58	60.97	100	0	P	H
		15720	44.67	-29.33	74	46.37	37.38	21.54	60.62	100	0	P	H
		10480	46.83	-21.37	68.2	50.55	39.67	17.58	60.97	100	0	P	V
		15720	44.72	-29.28	74	46.42	37.38	21.54	60.62	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant. 0		(MHz)	(dBµV/m)	Limit (dB)	Line (dBµV/m)	Level (dBµV)	Factor (dB/m)	Loss (dB)	Factor (dB)	Pos (cm)	Pos (deg)	Avg. (P/A)	(H/V)
		5150	64.8	-9.2	74	49.35	31.63	13.2	29.38	209	56	P	H
		5150	53.26	-0.74	54	37.81	31.63	13.2	29.38	209	56	A	H
802.11n	*	5180	114.93	-	-	99.55	31.64	13.13	29.39	209	56	P	H
HT20	*	5180	107.43	-	-	92.05	31.64	13.13	29.39	209	56	A	H
CH 36		5147.68	58.97	-15.03	74	43.51	31.63	13.21	29.38	160	304	P	V
5180MHz		5150	48.11	-5.89	54	32.66	31.63	13.2	29.38	160	304	A	V
	*	5180	110.69	-	-	95.31	31.64	13.13	29.39	160	304	P	V
	*	5180	102.76	-	-	87.38	31.64	13.13	29.39	160	304	A	V
		5095.68	57.99	-16.01	74	42.41	31.62	13.33	29.37	213	56	P	H
		5150	47.64	-6.36	54	32.19	31.63	13.2	29.38	213	56	A	H
	*	5220	116.54	-	-	101.22	31.64	13.07	29.39	213	56	P	H
	*	5220	108.26	-	-	92.94	31.64	13.07	29.39	213	56	A	H
802.11n		5365.08	56.39	-17.61	74	41.16	31.67	12.97	29.41	213	56	P	H
HT20		5350.8	46.67	-7.33	54	31.43	31.67	12.98	29.41	213	56	A	H
CH 44		5109.72	55.16	-18.84	74	39.61	31.62	13.3	29.37	175	305	P	V
5220MHz		5149.24	44.77	-9.23	54	29.32	31.63	13.2	29.38	175	305	A	V
	*	5220	112.38	-	-	97.06	31.64	13.07	29.39	175	305	P	V
	*	5220	104.43	-	-	89.11	31.64	13.07	29.39	175	305	A	V
		5353.04	54.39	-19.61	74	39.15	31.67	12.98	29.41	175	305	P	V
		5350.24	44.27	-9.73	54	29.03	31.67	12.98	29.41	175	305	A	V

		5143.78	57.08	-16.92	74	41.62	31.63	13.21	29.38	218	54	P	H
		5150	47.16	-6.84	54	31.71	31.63	13.2	29.38	218	54	A	H
	*	5240	116.91	-	-	101.6	31.65	13.05	29.39	218	54	P	H
	*	5240	108.48	-	-	93.17	31.65	13.05	29.39	218	54	A	H
802.11n		5359.48	58.01	-15.99	74	42.77	31.67	12.98	29.41	218	54	P	H
HT20		5351.36	48.01	-5.99	54	32.77	31.67	12.98	29.41	218	54	A	H
CH 48		5076.44	55.7	-18.3	74	40.07	31.62	13.38	29.37	164	306	P	V
5240MHz		5147.94	44.3	-9.7	54	28.85	31.63	13.2	29.38	164	306	A	V
	*	5240	112.64	-	-	97.33	31.65	13.05	29.39	164	306	P	V
	*	5240	104.74	-	-	89.43	31.65	13.05	29.39	164	306	A	V
		5359.2	55.24	-18.76	74	40	31.67	12.98	29.41	164	306	P	V
		5351.36	45.49	-8.51	54	30.25	31.67	12.98	29.41	164	306	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI Ant. 0	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		10360	46.75	-21.45	68.2	50.59	39.48	17.48	60.8	100	0	P	H
HT20		15540	44.27	-29.73	74	45.64	37.89	21.51	60.77	100	0	P	H
CH 36		10360	46.56	-21.64	68.2	50.4	39.48	17.48	60.8	100	0	P	V
5180MHz		15540	44.91	-29.09	74	46.28	37.89	21.51	60.77	100	0	P	V
802.11n		10440	47.32	-20.88	68.2	51.09	39.6	17.55	60.92	100	0	P	H
HT20		15660	43.69	-30.31	74	45.28	37.55	21.53	60.67	100	0	P	H
CH 44		10440	46.23	-21.97	68.2	50	39.6	17.55	60.92	100	0	P	V
5220MHz		15660	43.89	-30.11	74	45.48	37.55	21.53	60.67	100	0	P	V
802.11n		10480	46.76	-21.44	68.2	50.48	39.67	17.58	60.97	100	0	P	H
HT20		15720	44.72	-29.28	74	46.42	37.38	21.54	60.62	100	0	P	H
CH 48		10480	46.43	-21.77	68.2	50.15	39.67	17.58	60.97	100	0	P	V
5240MHz		15720	43.96	-30.04	74	45.66	37.38	21.54	60.62	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant. 0		(MHz)	(dBµV/m)	Limit (dB)	Line (dBµV/m)	Level (dBµV)	Factor (dB/m)	Loss (dB)	Factor (dB)	Pos (cm)	Pos (deg)	Avg. (P/A)	(H/V)
		5148.98	64.53	-9.47	74	49.08	31.63	13.2	29.38	218	54	P	H
		5150	53.12	-0.88	54	37.67	31.63	13.2	29.38	218	54	A	H
	*	5190	109.69	-	-	94.34	31.64	13.1	29.39	218	54	P	H
	*	5190	101.94	-	-	86.59	31.64	13.1	29.39	218	54	A	H
802.11n		5353.32	55.06	-18.94	74	39.82	31.67	12.98	29.41	218	54	P	H
HT40		5350.24	44.62	-9.38	54	29.38	31.67	12.98	29.41	218	54	A	H
CH 38		5145.86	57.29	-16.71	74	41.83	31.63	13.21	29.38	177	303	P	V
5190MHz		5150	47.33	-6.67	54	31.88	31.63	13.2	29.38	177	303	A	V
	*	5190	105.34	-	-	89.99	31.64	13.1	29.39	177	303	P	V
	*	5190	97.35	-	-	82	31.64	13.1	29.39	177	303	A	V
		5388.32	53.67	-20.33	74	38.45	31.68	12.96	29.42	177	303	P	V
		5350.52	42.92	-11.08	54	27.68	31.67	12.98	29.41	177	303	A	V
		5139.62	58.47	-15.53	74	43	31.63	13.22	29.38	215	56	P	H
		5150	47.76	-6.24	54	32.31	31.63	13.2	29.38	215	56	A	H
	*	5230	112.86	-	-	97.54	31.65	13.06	29.39	215	56	P	H
	*	5230	104.52	-	-	89.2	31.65	13.06	29.39	215	56	A	H
802.11n		5383.84	56.73	-17.27	74	41.51	31.68	12.96	29.42	215	56	P	H
HT40		5351.64	47.3	-6.7	54	32.06	31.67	12.98	29.41	215	56	A	H
CH 46		5110.5	55.31	-18.69	74	39.77	31.62	13.29	29.37	174	304	P	V
5230MHz		5150	44.77	-9.23	54	29.32	31.63	13.2	29.38	174	304	A	V
	*	5230	108.49	-	-	93.17	31.65	13.06	29.39	174	304	P	V
	*	5230	100.47	-	-	85.15	31.65	13.06	29.39	174	304	A	V
		5358.08	54.56	-19.44	74	39.32	31.67	12.98	29.41	174	304	P	V
		5350	44.6	-9.4	54	29.36	31.67	12.98	29.41	174	304	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI Ant. 0	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		10380	46.47	-21.73	68.2	50.29	39.51	17.5	60.83	100	0	P	H
HT40		15570	44.46	-29.54	74	45.88	37.8	21.52	60.74	100	0	P	H
CH 38		10380	46.08	-22.12	68.2	49.9	39.51	17.5	60.83	100	0	P	V
5190MHz		15570	44	-30	74	45.42	37.8	21.52	60.74	100	0	P	V
802.11n		10460	46.65	-21.55	68.2	50.39	39.64	17.56	60.94	100	0	P	H
HT40		15690	44.32	-29.68	74	45.96	37.47	21.54	60.65	100	0	P	H
CH 46		10460	46.55	-21.65	68.2	50.29	39.64	17.56	60.94	100	0	P	V
5230MHz		15690	45.33	-28.67	74	46.97	37.47	21.54	60.65	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 - 5250~5350MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant. 0		(MHz)	(dBµV/m)	Limit (dB)	Line (dBµV/m)	Level (dBµV)	Factor (dB/m)	Loss (dB)	Factor (dB)	Pos (cm)	Pos (deg)	Avg. (P/A)	(H/V)
802.11a CH 52 5260MHz		5114.24	56.63	-17.37	74	41.09	31.62	13.29	29.37	214	56	P	H
		5148.24	47.04	-6.96	54	31.59	31.63	13.2	29.38	214	56	A	H
	*	5260	117.04	-	-	101.75	31.65	13.04	29.4	214	56	P	H
	*	5260	108.81	-	-	93.52	31.65	13.04	29.4	214	56	A	H
		5356.56	58.3	-15.7	74	43.06	31.67	12.98	29.41	214	56	P	H
		5350.08	48.43	-5.57	54	33.19	31.67	12.98	29.41	214	56	A	H
		5132.26	55.54	-18.46	74	40.05	31.63	13.24	29.38	182	313	P	V
		5149.6	44.33	-9.67	54	28.88	31.63	13.2	29.38	182	313	A	V
	*	5260	113.25	-	-	97.96	31.65	13.04	29.4	182	313	P	V
	*	5260	104.9	-	-	89.61	31.65	13.04	29.4	182	313	A	V
		5355.12	57.03	-16.97	74	41.79	31.67	12.98	29.41	182	313	P	V
		5356.08	45.77	-8.23	54	30.53	31.67	12.98	29.41	182	313	A	V
802.11a CH 60 5300MHz		5144.16	56.27	-17.73	74	40.81	31.63	13.21	29.38	212	56	P	H
		5149.94	46.3	-7.7	54	30.85	31.63	13.2	29.38	212	56	A	H
	*	5300	117.12	-	-	101.85	31.66	13.01	29.4	212	56	P	H
	*	5300	108.69	-	-	93.42	31.66	13.01	29.4	212	56	A	H
		5356.08	60	-14	74	44.76	31.67	12.98	29.41	212	56	P	H
		5350.08	49.4	-4.6	54	34.16	31.67	12.98	29.41	212	56	A	H
		5095.2	54.23	-19.77	74	38.65	31.62	13.33	29.37	162	313	P	V
		5149.94	43.58	-10.42	54	28.13	31.63	13.2	29.38	162	313	A	V
	*	5300	112.97	-	-	97.7	31.66	13.01	29.4	162	313	P	V
	*	5300	105.15	-	-	89.88	31.66	13.01	29.4	162	313	A	V
		5385.6	57.14	-16.86	74	41.92	31.68	12.96	29.42	162	313	P	V
		5350.32	46.74	-7.26	54	31.5	31.67	12.98	29.41	162	313	A	V

802.11a CH 64 5320MHz	*	5320	115.55	-	-	100.29	31.66	13	29.4	219	54	P	H
	*	5320	107.49	-	-	92.23	31.66	13	29.4	219	54	A	H
		5351.04	68.47	-5.53	74	53.23	31.67	12.98	29.41	219	54	P	H
		5350.08	53.4	-0.6	54	38.16	31.67	12.98	29.41	219	54	A	H
	*	5320	111.57	-	-	96.31	31.66	13	29.4	170	304	P	V
	*	5320	103.62	-	-	88.36	31.66	13	29.4	170	304	A	V
		5350.56	60.47	-13.53	74	45.23	31.67	12.98	29.41	170	304	P	V
		5350.08	49.02	-4.98	54	33.78	31.67	12.98	29.41	170	304	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 5250~5350MHz

WIFI 802.11a (Harmonic @ 3m)

WIFI Ant. 0	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)
802.11a CH 52 5260MHz		10520	46.13	-22.07	68.2	49.82	39.72	17.61	61.02	100	0	P	H
		15780	44.33	-29.67	74	46.13	37.22	21.56	60.58	100	0	P	H
		10520	45.81	-22.39	68.2	49.5	39.72	17.61	61.02	100	0	P	V
		15780	44.15	-29.85	74	45.95	37.22	21.56	60.58	100	0	P	V
802.11a CH 60 5300MHz		10600	46.03	-27.97	74	49.65	39.8	17.68	61.1	100	0	P	H
		15900	43.28	-30.72	74	45.3	36.88	21.58	60.48	100	0	P	H
		10600	46.87	-27.13	74	50.49	39.8	17.68	61.1	100	0	P	V
		15900	43.84	-30.16	74	45.86	36.88	21.58	60.48	100	0	P	V
802.11a CH 64 5320MHz		10640	46.62	-27.38	74	50.22	39.84	17.7	61.14	100	0	P	H
		15960	42.94	-31.06	74	45.07	36.71	21.59	60.43	100	0	P	H
		10640	47.48	-26.52	74	51.08	39.84	17.7	61.14	100	0	P	V
		15960	43.03	-30.97	74	45.16	36.71	21.59	60.43	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 5250~5350MHz

WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant. 0		(MHz)	(dBµV/m)	Limit (dB)	Line (dBµV/m)	Level (dBµV)	Factor (dB/m)	Loss (dB)	Factor (dB)	Pos (cm)	Pos (deg)	Avg. (P/A)	(H/V)
		5135.66	58.52	-15.48	74	43.04	31.63	13.23	29.38	213	55	P	H
		5148.24	47.47	-6.53	54	32.02	31.63	13.2	29.38	213	55	A	H
	*	5260	116.96	-	-	101.67	31.65	13.04	29.4	213	55	P	H
	*	5260	108.27	-	-	92.98	31.65	13.04	29.4	213	55	A	H
802.11n		5365.2	60.06	-13.94	74	44.83	31.67	12.97	29.41	213	55	P	H
HT20		5350.56	49.22	-4.78	54	33.98	31.67	12.98	29.41	213	55	A	H
CH 52		5145.86	56.84	-17.16	74	41.38	31.63	13.21	29.38	164	305	P	V
5260MHz		5148.58	44.5	-9.5	54	29.05	31.63	13.2	29.38	164	305	A	V
	*	5260	112.3	-	-	97.01	31.65	13.04	29.4	164	305	P	V
	*	5260	103.86	-	-	88.57	31.65	13.04	29.4	164	305	A	V
		5357.04	56.41	-17.59	74	41.17	31.67	12.98	29.41	164	305	P	V
		5353.68	45.81	-8.19	54	30.57	31.67	12.98	29.41	164	305	A	V
		5097.58	58.38	-15.62	74	42.8	31.62	13.33	29.37	218	54	P	H
		5149.6	46.87	-7.13	54	31.42	31.63	13.2	29.38	218	54	A	H
	*	5300	116.74	-	-	101.47	31.66	13.01	29.4	218	54	P	H
	*	5300	109.07	-	-	93.8	31.66	13.01	29.4	218	54	A	H
802.11n		5364.48	61.82	-12.18	74	46.59	31.67	12.97	29.41	218	54	P	H
HT20		5350.08	50.68	-3.32	54	35.44	31.67	12.98	29.41	218	54	A	H
CH 60		5117.98	55.26	-18.74	74	39.73	31.62	13.28	29.37	177	303	P	V
5300MHz		5149.94	44.34	-9.66	54	28.89	31.63	13.2	29.38	177	303	A	V
	*	5300	112.75	-	-	97.48	31.66	13.01	29.4	177	303	P	V
	*	5300	104.96	-	-	89.69	31.66	13.01	29.4	177	303	A	V
		5354.4	57.72	-16.28	74	42.48	31.67	12.98	29.41	177	303	P	V
		5350.08	47.07	-6.93	54	31.83	31.67	12.98	29.41	177	303	A	V

802.11n HT20 CH 64 5320MHz	*	5320	114.86	-	-	99.6	31.66	13	29.4	208	52	P	H
	*	5320	106.38	-	-	91.12	31.66	13	29.4	208	52	A	H
		5350.56	67.48	-6.52	74	52.24	31.67	12.98	29.41	208	52	P	H
		5350.08	51.6	-2.4	54	36.36	31.67	12.98	29.41	208	52	A	H
	*	5320	111.32	-	-	96.06	31.66	13	29.4	171	312	P	V
	*	5320	103.16	-	-	87.9	31.66	13	29.4	171	312	A	V
		5355.84	61.17	-12.83	74	45.93	31.67	12.98	29.41	171	312	P	V
		5350.08	48.55	-5.45	54	33.31	31.67	12.98	29.41	171	312	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 5250~5350MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI Ant. 0	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		10520	46.54	-21.66	68.2	50.23	39.72	17.61	61.02	100	0	P	H
HT20		15780	43.77	-30.23	74	45.57	37.22	21.56	60.58	100	0	P	H
CH 52		10520	45.86	-22.34	68.2	49.55	39.72	17.61	61.02	100	0	P	V
5260MHz		15780	44.23	-29.77	74	46.03	37.22	21.56	60.58	100	0	P	V
802.11n		10600	46.92	-27.08	74	50.54	39.8	17.68	61.1	100	0	P	H
HT20		15900	43.96	-30.04	74	45.98	36.88	21.58	60.48	100	0	P	H
CH 60		10600	47.89	-26.11	74	51.51	39.8	17.68	61.1	100	0	P	V
5300MHz		15900	44.81	-29.19	74	46.83	36.88	21.58	60.48	100	0	P	V
802.11n		10640	46.8	-27.2	74	50.4	39.84	17.7	61.14	100	0	P	H
HT20		15960	43.94	-30.06	74	46.07	36.71	21.59	60.43	100	0	P	H
CH 64		10640	46.82	-27.18	74	50.42	39.84	17.7	61.14	100	0	P	V
5320MHz		15960	44.52	-29.48	74	46.65	36.71	21.59	60.43	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 5250~5350MHz

WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant. 0		(MHz)	(dBµV/m)	Limit (dB)	Line (dBµV/m)	Level (dBµV)	Factor (dB/m)	Loss (dB)	Factor (dB)	Pos (cm)	Pos (deg)	Avg. (P/A)	(H/V)
802.11n HT40 CH 54 5270MHz		5140.42	57.94	-16.06	74	42.47	31.63	13.22	29.38	221	55	P	H
		5149.94	47.91	-6.09	54	32.46	31.63	13.2	29.38	221	55	A	H
	*	5270	113.14	-	-	97.86	31.65	13.03	29.4	221	55	P	H
	*	5270	105.11	-	-	89.83	31.65	13.03	29.4	221	55	A	H
		5353.44	60.33	-13.67	74	45.09	31.67	12.98	29.41	221	55	P	H
		5350.08	50.02	-3.98	54	34.78	31.67	12.98	29.41	221	55	A	H
		5142.46	57.26	-16.74	74	41.79	31.63	13.22	29.38	185	303	P	V
		5149.6	44.88	-9.12	54	29.43	31.63	13.2	29.38	185	303	A	V
	*	5270	109	-	-	93.72	31.65	13.03	29.4	185	303	P	V
	*	5270	100.69	-	-	85.41	31.65	13.03	29.4	185	303	A	V
		5355.6	59.16	-14.84	74	43.92	31.67	12.98	29.41	185	303	P	V
		5350.32	46.29	-7.71	54	31.05	31.67	12.98	29.41	185	303	A	V
802.11n HT40 CH 62 5310MHz		5116.28	55.53	-18.47	74	40	31.62	13.28	29.37	218	54	P	H
		5149.6	44.99	-9.01	54	29.54	31.63	13.2	29.38	218	54	A	H
	*	5310	109.78	-	-	94.51	31.66	13.01	29.4	218	54	P	H
	*	5310	101.51	-	-	86.24	31.66	13.01	29.4	218	54	A	H
		5350.08	70.05	-3.95	74	54.81	31.67	12.98	29.41	218	54	P	H
		5350.08	53.12	-0.88	54	37.88	31.67	12.98	29.41	218	54	A	H
		5059.84	54.87	-19.13	74	39.21	31.61	13.42	29.37	175	305	P	V
		5149.26	43.37	-10.63	54	27.92	31.63	13.2	29.38	175	305	A	V
	*	5310	105.55	-	-	90.28	31.66	13.01	29.4	175	305	P	V
	*	5310	97.76	-	-	82.49	31.66	13.01	29.4	175	305	A	V
		5350.8	64.5	-9.5	74	49.26	31.67	12.98	29.41	175	305	P	V
		5350.08	49.06	-4.94	54	33.82	31.67	12.98	29.41	175	305	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 5250~5350MHz

WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI Ant. 0	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		10540	46.05	-22.15	68.2	49.72	39.74	17.63	61.04	100	0	P	H
HT40		15810	43.02	-30.98	74	44.87	37.13	21.57	60.55	100	0	P	H
CH 54		10540	45.21	-22.99	68.2	48.88	39.74	17.63	61.04	100	0	P	V
5270MHz		15810	43.39	-30.61	74	45.24	37.13	21.57	60.55	100	0	P	V
802.11n		10620	46.93	-27.07	74	50.54	39.82	17.69	61.12	100	0	P	H
HT40		15930	44.41	-29.59	74	46.48	36.8	21.59	60.46	100	0	P	H
CH 62		10620	47.26	-26.74	74	50.87	39.82	17.69	61.12	100	0	P	V
5310MHz		15930	45.52	-28.48	74	47.59	36.8	21.59	60.46	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - 5470~5725MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant. 0		(MHz)	(dBµV/m)	Limit (dB)	Line (dBµV/m)	Level (dBµV)	Factor (dB/m)	Loss (dB)	Factor (dB)	Pos (cm)	Pos (deg)	Avg. (P/A)	(H/V)
802.11a CH 100 5500MHz		5459.44	61.23	-12.77	74	45.81	31.69	13.16	29.43	212	52	P	H
		5468.88	66.24	-1.96	68.2	50.79	31.69	13.19	29.43	212	52	P	H
		5460	49.3	-4.7	54	33.88	31.69	13.16	29.43	212	52	A	H
	*	5500	114.98	-	-	99.4	31.7	13.31	29.43	212	52	P	H
	*	5500	106.6	-	-	91.02	31.7	13.31	29.43	212	52	A	H
		5434.32	57.75	-16.25	74	42.41	31.69	13.07	29.42	169	308	P	V
		5468.24	62.58	-5.62	68.2	47.13	31.69	13.19	29.43	169	308	P	V
		5459.44	45.96	-8.04	54	30.54	31.69	13.16	29.43	169	308	A	V
	*	5500	109.64	-	-	94.06	31.7	13.31	29.43	169	308	P	V
	*	5500	102.14	-	-	86.56	31.7	13.31	29.43	169	308	A	V
802.11a CH 116 5580MHz		5440.96	60.14	-13.86	74	44.77	31.69	13.1	29.42	214	55	P	H
		5463.28	58.93	-9.27	68.2	43.5	31.69	13.17	29.43	214	55	P	H
		5459.92	48.17	-5.83	54	32.75	31.69	13.16	29.43	214	55	A	H
	*	5580	116.91	-	-	100.97	31.83	13.59	29.48	214	55	P	H
	*	5580	109.16	-	-	93.22	31.83	13.59	29.48	214	55	A	H
		5763.425	58.35	-9.85	68.2	41.7	32.12	14.1	29.57	214	55	P	H
		5454.4	57.01	-16.99	74	41.61	31.69	13.14	29.43	150	305	P	V
		5460.4	56.9	-11.3	68.2	41.48	31.69	13.16	29.43	150	305	P	V
		5442.16	44.86	-9.14	54	29.49	31.69	13.1	29.42	150	305	A	V
	*	5580	112.23	-	-	96.29	31.83	13.59	29.48	150	305	P	V
	*	5580	103.94	-	-	88	31.83	13.59	29.48	150	305	A	V
		5754.92	56.21	-11.99	68.2	39.58	32.11	14.08	29.56	150	305	P	V

802.11a CH 140 5700MHz	*	5700	114.81	-	-	98.39	32.02	13.93	29.53	216	59	P	H
	*	5700	107.3	-	-	90.88	32.02	13.93	29.53	216	59	A	H
		5725	67.12	-1.08	68.2	50.6	32.06	14	29.54	216	59	P	H
	*	5700	110.63	-	-	94.21	32.02	13.93	29.53	181	329	P	V
	*	5700	102.67	-	-	86.25	32.02	13.93	29.53	181	329	A	V
		5725.8	61.73	-6.47	68.2	45.21	32.06	14	29.54	181	329	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - 5470~5725MHz

WIFI 802.11a (Harmonic @ 3m)

WIFI Ant. 0	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)
802.11a CH 100 5500MHz		11000	47.77	-26.23	74	51.08	40.2	17.99	61.5	100	0	P	H
		16500	49.07	-19.13	68.2	47.59	38.9	22.28	59.7	100	0	P	H
		11000	49.78	-24.22	74	53.09	40.2	17.99	61.5	100	0	P	V
		16500	47.98	-20.22	68.2	46.5	38.9	22.28	59.7	100	0	P	V
802.11a CH 116 5580MHz		11160	48.08	-25.92	74	51.33	40.1	18.12	61.47	100	0	P	H
		16740	47.75	-20.45	68.2	44.47	39.76	22.6	59.08	100	0	P	H
		11160	53.85	-20.15	74	57.1	40.1	18.12	61.47	144	334	P	V
		11160	44	-10	54	47.25	40.1	18.12	61.47	144	334	A	V
		16740	47.01	-21.19	68.2	43.73	39.76	22.6	59.08	100	0	P	V
802.11a CH 140 5700MHz		11400	55.13	-18.87	74	58.29	39.96	18.3	61.42	157	301	P	H
		11400	43.06	-10.94	54	46.22	39.96	18.3	61.42	157	301	A	H
		17100	49.01	-19.19	68.2	42.98	41.08	23.09	58.14	100	0	P	H
		11400	57.1	-16.9	74	60.26	39.96	18.3	61.42	143	356	P	V
		11400	46.29	-7.71	54	49.45	39.96	18.3	61.42	143	356	A	V
		17100	48.2	-20	68.2	42.17	41.08	23.09	58.14	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - 5470~5725MHz

WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant. 0		(MHz)	(dBµV/m)	Limit (dB)	Line (dBµV/m)	Level (dBµV)	Factor (dB/m)	Loss (dB)	Factor (dB)	Pos (cm)	Pos (deg)	Avg. (P/A)	(H/V)
		5459.92	59.69	-14.31	74	44.27	31.69	13.16	29.43	217	54	P	H
		5467.6	64.73	-3.47	68.2	49.28	31.69	13.19	29.43	217	54	P	H
		5460	49.02	-4.98	54	33.6	31.69	13.16	29.43	217	54	A	H
802.11n	*	5500	113.86	-	-	98.28	31.7	13.31	29.43	217	54	P	H
HT20	*	5500	105.95	-	-	90.37	31.7	13.31	29.43	217	54	A	H
CH 100		5438.8	58.5	-15.5	74	43.14	31.69	13.09	29.42	174	324	P	V
5500MHz		5470	63.69	-4.51	68.2	48.23	31.69	13.2	29.43	174	324	P	V
		5460	47.91	-6.09	54	32.49	31.69	13.16	29.43	174	324	A	V
	*	5500	106.2	-	-	90.62	31.7	13.31	29.43	174	324	P	V
	*	5500	104.11	-	-	88.53	31.7	13.31	29.43	174	324	A	V
		5459.2	57.03	-16.97	74	41.61	31.69	13.16	29.43	213	53	P	H
		5469.04	56.87	-11.33	68.2	41.41	31.69	13.2	29.43	213	53	P	H
		5459.92	46.47	-7.53	54	31.05	31.69	13.16	29.43	213	53	A	H
	*	5580	114.67	-	-	98.73	31.83	13.59	29.48	213	53	P	H
802.11n	*	5580	106.73	-	-	90.79	31.83	13.59	29.48	213	53	A	H
HT20		5748.62	56.59	-11.61	68.2	39.99	32.1	14.06	29.56	213	53	P	H
CH 116		5443.84	56.55	-17.45	74	41.17	31.69	13.11	29.42	190	316	P	V
5580MHz		5462.8	55.5	-12.7	68.2	40.07	31.69	13.17	29.43	190	316	P	V
		5459.92	44.43	-9.57	54	29.01	31.69	13.16	29.43	190	316	A	V
	*	5580	111.33	-	-	95.39	31.83	13.59	29.48	190	316	P	V
	*	5580	102.98	-	-	87.04	31.83	13.59	29.48	190	316	A	V
		5725.31	56.06	-12.14	68.2	39.54	32.06	14	29.54	190	316	P	V

802.11n HT20 CH 140 5700MHz	*	5700	114.6	-	-	98.18	32.02	13.93	29.53	214	55	P	H
	*	5700	106.25	-	-	89.83	32.02	13.93	29.53	214	55	A	H
		5729.64	65.13	-3.07	68.2	48.59	32.07	14.01	29.54	214	55	P	H
	*	5700	109.78	-	-	93.36	32.02	13.93	29.53	140	201	P	V
	*	5700	102.01	-	-	85.59	32.02	13.93	29.53	140	201	A	V
		5725.56	59.81	-8.39	68.2	43.29	32.06	14	29.54	140	201	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - 5470~5725MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI Ant. 0	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 100 5500MHz		11000	48.44	-25.56	74	51.75	40.2	17.99	61.5	100	0	P	H
		16500	50.02	-18.18	68.2	48.54	38.9	22.28	59.7	100	0	P	H
		11000	49.84	-24.16	74	53.15	40.2	17.99	61.5	100	0	P	V
		16500	50.04	-18.16	68.2	48.56	38.9	22.28	59.7	100	0	P	V
802.11n HT20 CH 116 5580MHz		11160	48.07	-25.93	74	51.32	40.1	18.12	61.47	100	0	P	H
		16740	49.23	-18.97	68.2	45.95	39.76	22.6	59.08	100	0	P	H
		11160	54.28	-19.72	74	57.53	40.1	18.12	61.47	155	334	P	V
		11160	44.1	-9.9	54	47.35	40.1	18.12	61.47	155	334	A	V
		16740	48.89	-19.31	68.2	45.61	39.76	22.6	59.08	100	0	P	V
802.11n HT20 CH 140 5700MHz		11400	55.47	-18.53	74	58.63	39.96	18.3	61.42	160	301	P	H
		11400	44.41	-9.59	54	47.57	39.96	18.3	61.42	160	301	A	H
		17100	47.98	-20.22	68.2	41.95	41.08	23.09	58.14	100	0	P	H
		11400	58.26	-15.74	74	61.42	39.96	18.3	61.42	143	357	P	V
		11400	47.19	-6.81	54	50.35	39.96	18.3	61.42	143	357	A	V
		17100	48.1	-20.1	68.2	42.07	41.08	23.09	58.14	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - 5470~5725MHz

WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant. 0		(MHz)	(dBµV/m)	Limit (dB)	Line (dBµV/m)	Level (dBµV)	Factor (dB/m)	Loss (dB)	Factor (dB)	Pos (cm)	Pos (deg)	Avg. (P/A)	(H/V)
		5457.28	57.98	-16.02	74	42.57	31.69	13.15	29.43	216	57	P	H
		5469.52	66.01	-2.19	68.2	50.55	31.69	13.2	29.43	216	57	P	H
		5459.92	49.22	-4.78	54	33.8	31.69	13.16	29.43	216	57	A	H
	*	5510	109.37	-	-	93.75	31.72	13.34	29.44	216	57	P	H
802.11n	*	5510	101.43	-	-	85.81	31.72	13.34	29.44	216	57	A	H
HT40		5739.17	54.57	-13.63	68.2	38.01	32.08	14.04	29.56	216	57	P	H
CH 102		5459.2	56.41	-17.59	74	40.99	31.69	13.16	29.43	169	323	P	V
5510MHz		5468.08	63.69	-4.51	68.2	48.24	31.69	13.19	29.43	169	323	P	V
		5459.92	46.27	-7.73	54	30.85	31.69	13.16	29.43	169	323	A	V
	*	5510	106.68	-	-	91.06	31.72	13.34	29.44	169	323	P	V
	*	5510	98.34	-	-	82.72	31.72	13.34	29.44	169	323	A	V
		5762.795	55.04	-13.16	68.2	38.39	32.12	14.1	29.57	169	323	P	V
		5431.12	59.16	-14.84	74	43.83	31.69	13.06	29.42	212	56	P	H
		5460.4	56.54	-11.66	68.2	41.12	31.69	13.16	29.43	212	56	P	H
		5459.44	47.02	-6.98	54	31.6	31.69	13.16	29.43	212	56	A	H
	*	5550	111.38	-	-	95.57	31.78	13.48	29.45	212	56	P	H
802.11n	*	5550	103.29	-	-	87.48	31.78	13.48	29.45	212	56	A	H
HT40		5742.005	55.1	-13.1	68.2	38.53	32.09	14.04	29.56	212	56	P	H
CH 110		5421.52	56.64	-17.36	74	41.35	31.68	13.03	29.42	178	323	P	V
5550MHz		5460.16	56.82	-11.38	68.2	41.4	31.69	13.16	29.43	178	323	P	V
		5458.72	44.99	-9.01	54	29.57	31.69	13.16	29.43	178	323	A	V
	*	5550	108.21	-	-	92.4	31.78	13.48	29.45	178	323	P	V
	*	5550	99.96	-	-	84.15	31.78	13.48	29.45	178	323	A	V
		5728.775	54.97	-13.23	68.2	38.43	32.07	14.01	29.54	178	323	P	V

		5432.25	55.85	-18.15	74	40.52	31.69	13.06	29.42	218	59	P	H
		5468.65	56.31	-11.89	68.2	40.86	31.69	13.19	29.43	218	59	P	H
		5459.9	45.71	-8.29	54	30.29	31.69	13.16	29.43	218	59	A	H
	*	5670	113.32	-	-	97.02	31.97	13.85	29.52	218	59	P	H
802.11n	*	5670	105.05	-	-	88.75	31.97	13.85	29.52	218	59	A	H
HT40		5731.75	65.29	-2.91	68.2	48.76	32.07	14.02	29.56	218	59	P	H
CH 134		5444.5	53.73	-20.27	74	38.35	31.69	13.11	29.42	157	333	P	V
5670MHz		5461.65	54.47	-13.73	68.2	39.04	31.69	13.17	29.43	157	333	P	V
		5459.9	43.69	-10.31	54	28.27	31.69	13.16	29.43	157	333	A	V
	*	5670	109.58	-	-	93.28	31.97	13.85	29.52	157	333	P	V
	*	5670	101.7	-	-	85.4	31.97	13.85	29.52	157	333	A	V
		5726.85	61.8	-6.4	68.2	45.28	32.06	14	29.54	157	333	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - 5470~5725MHz

WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI Ant. 0	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 102 5510MHz		11020	47.59	-26.41	74	50.9	40.19	18	61.5	100	0	P	H
		16530	47.11	-21.09	68.2	45.4	39.01	22.32	59.62	100	0	P	H
		11020	48.76	-25.24	74	52.07	40.19	18	61.5	100	0	P	V
		16530	46.43	-21.77	68.2	44.72	39.01	22.32	59.62	100	0	P	V
802.11n HT40 CH 110 5550MHz		11100	48.61	-25.39	74	51.88	40.14	18.07	61.48	100	0	P	H
		16650	45.75	-22.45	68.2	43.14	39.44	22.48	59.31	100	0	P	H
		11100	48.14	-25.86	74	51.41	40.14	18.07	61.48	100	0	P	V
		16650	45.78	-22.42	68.2	43.17	39.44	22.48	59.31	100	0	P	V
802.11n HT40 CH 134 5670MHz		11340	48.08	-25.92	74	51.25	40	18.26	61.43	100	0	P	H
		17010	48.4	-19.8	68.2	43.07	40.74	22.96	58.37	100	0	P	H
		11340	51.78	-22.22	74	54.95	40	18.26	61.43	142	356	P	V
		11340	46.95	-7.05	54	50.12	40	18.26	61.43	142	356	A	V
		17010	48.09	-20.11	68.2	42.76	40.74	22.96	58.37	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - Straddle Channel

WIFI 802.11a (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant. 0		(MHz)	(dBµV/m)	Limit (dB)	Line (dBµV/m)	Level (dBµV)	Factor (dB/m)	Loss (dB)	Factor (dB)	Pos (cm)	Pos (deg)	Avg. (P/A)	(H/V)
802.11a CH 144 5720MHz		5355.07	55.56	-18.44	74	40.32	31.67	12.98	29.41	212	53	P	H
		5467.39	55.21	-12.99	68.2	39.76	31.69	13.19	29.43	212	53	P	H
		5459.2	43.9	-10.1	54	28.48	31.69	13.16	29.43	212	53	A	H
	*	5720	118.12	-	-	101.63	32.05	13.98	29.54	212	53	P	H
	*	5720	109.92	-	-	93.43	32.05	13.98	29.54	212	53	A	H
		5851.75	59.06	-9.14	68.2	42.37	32.26	14.03	29.6	212	53	P	H
		5453.74	54.47	-19.53	74	39.07	31.69	13.14	29.43	168	310	P	V
		5461.54	53.89	-14.31	68.2	38.46	31.69	13.17	29.43	168	310	P	V
		5459.98	42.54	-11.46	54	27.12	31.69	13.16	29.43	168	310	A	V
	*	5720	111.78	-	-	95.29	32.05	13.98	29.54	168	310	P	V
	*	5720	103.95	-	-	87.46	32.05	13.98	29.54	168	310	A	V
		5885.5	56.15	-12.05	68.2	39.55	32.32	13.91	29.63	168	310	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - Straddle Channel

WIFI 802.11a (Harmonic @ 3m)

WIFI Ant. 0	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)
802.11a CH 144 5720MHz		11440	57.17	-16.83	74	60.31	39.94	18.33	61.41	156	299	P	H
		11440	45.69	-8.31	54	48.83	39.94	18.33	61.41	156	299	A	H
		17160	49.09	-19.11	68.2	42.6	41.31	23.16	57.98	100	0	P	H
		11440	58.83	-15.17	74	61.97	39.94	18.33	61.41	146	358	P	V
		11440	47.43	-6.57	54	50.57	39.94	18.33	61.41	146	358	A	V
		17160	48.54	-19.66	68.2	42.05	41.31	23.16	57.98	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - Straddle Channel

WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant. 0		(MHz)	(dBµV/m)	Limit (dB)	Line (dBµV/m)	Level (dBµV)	Factor (dB/m)	Loss (dB)	Factor (dB)	Pos (cm)	Pos (deg)	Avg. (P/A)	(H/V)
		5423.32	54.84	-19.16	74	39.55	31.68	13.03	29.42	215	57	P	H
		5470	55.68	-12.52	68.2	40.22	31.69	13.2	29.43	215	57	P	H
		5459.98	43.78	-10.22	54	28.36	31.69	13.16	29.43	215	57	A	H
	*	5720	115.9	-	-	99.41	32.05	13.98	29.54	215	57	P	H
802.11n	*	5720	107.78	-	-	91.29	32.05	13.98	29.54	215	57	A	H
HT20		5871.25	57.38	-10.82	68.2	40.75	32.29	13.96	29.62	215	57	P	H
CH 144		5421.37	54.19	-19.81	74	38.9	31.68	13.03	29.42	178	330	P	V
5720MHz		5461.54	53.66	-14.54	68.2	38.23	31.69	13.17	29.43	178	330	P	V
		5459.2	42.63	-11.37	54	27.21	31.69	13.16	29.43	178	330	A	V
	*	5720	111.86	-	-	95.37	32.05	13.98	29.54	178	330	P	V
	*	5720	103.75	-	-	87.26	32.05	13.98	29.54	178	330	A	V
		5926.5	56.23	-11.97	68.2	39.71	32.38	13.78	29.64	178	330	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - Straddle Channel

WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI Ant. 0	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 144 5720MHz		11440	56.85	-17.15	74	59.99	39.94	18.05	61.41	160	300	P	H
		11440	45.35	-8.65	54	48.49	39.94	18.05	61.41	160	300	A	H
		17160	48.25	-19.95	68.2	41.76	41.31	22.81	57.98	100	0	P	H
		11440	58.58	-15.42	74	61.72	39.94	18.05	61.41	142	356	P	V
		11440	47.91	-6.09	54	51.05	39.94	18.05	61.41	142	356	A	V
		17160	47.33	-20.87	68.2	40.84	41.31	22.81	57.98	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - Straddle Channel

WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant. 0		(MHz)	(dBµV/m)	Limit (dB)	Line (dBµV/m)	Level (dBµV)	Factor (dB/m)	Loss (dB)	Factor (dB)	Pos (cm)	Pos (deg)	Avg. (P/A)	(H/V)
		5434.63	54.71	-19.29	74	39.37	31.69	13.07	29.42	211	58	P	H
		5467	55.15	-13.05	68.2	39.7	31.69	13.19	29.43	211	58	P	H
		5458.42	44.61	-9.39	54	29.19	31.69	13.16	29.43	211	58	A	H
	*	5710	112.91	-	-	96.45	32.04	13.96	29.54	211	58	P	H
802.11n	*	5710	105.21	-	-	88.75	32.04	13.96	29.54	211	58	A	H
HT40		5852	59.03	-9.17	68.2	42.34	32.26	14.03	29.6	211	58	P	H
CH 142		5414.74	54.03	-19.97	74	38.77	31.68	13	29.42	157	334	P	V
5710MHz		5463.49	52.69	-15.51	68.2	37.25	31.69	13.18	29.43	157	334	P	V
		5459.98	42.89	-11.11	54	27.47	31.69	13.16	29.43	157	334	A	V
	*	5710	109.22	-	-	92.76	32.04	13.96	29.54	157	334	P	V
	*	5710	101.33	-	-	84.87	32.04	13.96	29.54	157	334	A	V
		5932.75	56.13	-12.07	68.2	39.62	32.39	13.76	29.64	157	334	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - Straddle Channel

WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI Ant. 0	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 142 5710MHz		11420	48.51	-25.49	74	51.66	39.95	18.32	61.42	100	0	P	H
		17130	48.8	-19.4	68.2	42.55	41.19	23.12	58.06	100	0	P	H
		11420	52.43	-21.57	74	55.58	39.95	18.32	61.42	142	360	P	V
		11420	48.92	-5.08	54	52.07	39.95	18.32	61.42	142	360	A	V
		17130	48.61	-19.59	68.2	42.36	41.19	23.12	58.06	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Emission below 1GHz

WIFI 802.11a (LF @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant. 0		(MHz)	(dBµV/m)	Limit (dB)	Line (dBµV/m)	Level (dBµV)	Factor (dB/m)	Loss (dB)	Factor (dB)	Pos (cm)	Pos (deg)	Avg. (P/A)	(H/V)
802.11a LF		120.21	37.06	-6.44	43.5	50.54	17.7	1.19	32.37	-	-	P	H
		239.52	42.27	-3.73	46	54.58	17.9	2.17	32.38	121	34	Q	H
		329.73	38.08	-7.92	46	47.25	20.59	2.69	32.45	-	-	P	H
		480.08	36.9	-9.1	46	42.25	23.96	3.25	32.56	-	-	P	H
		600.36	37.27	-8.73	46	40.53	25.6	3.82	32.68	-	-	P	H
		960.23	35.26	-18.74	54	31.64	30.06	4.82	31.26	-	-	P	H
		60.07	36.11	-3.89	40	55.48	12	1.05	32.42	102	71	Q	V
		120.21	31.6	-11.9	43.5	45.08	17.7	1.19	32.37	-	-	P	V
		359.8	30.47	-15.53	46	38.6	21.45	2.89	32.47	-	-	P	V
		480.08	34.26	-11.74	46	39.61	23.96	3.25	32.56	-	-	P	V
		600.36	34.05	-11.95	46	37.31	25.6	3.82	32.68	-	-	P	V
		950.53	32.59	-13.41	46	29.21	30.1	4.62	31.34	-	-	P	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 Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Path Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
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

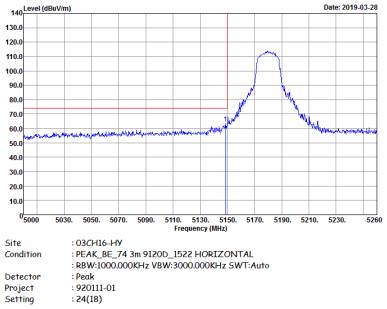
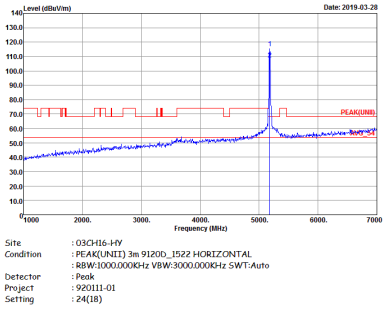
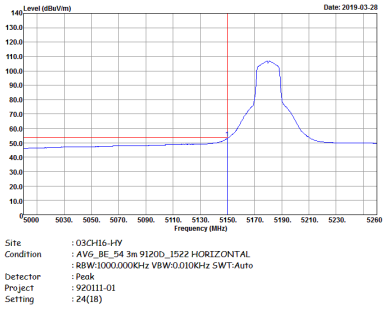
Test Engineer :	Jacky Hung, CR Liao and Austin Li	**Temperature :**	21~25°C
		Relative Humidity :	55~60%

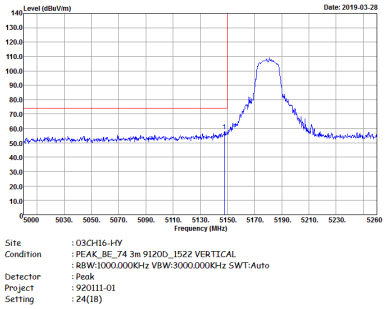
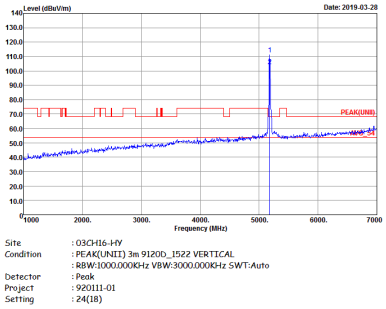
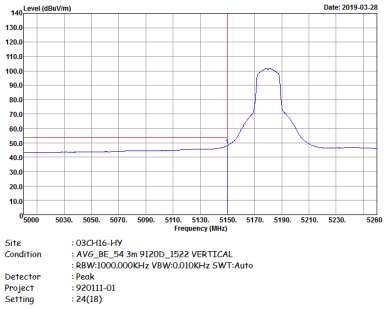
Note symbol

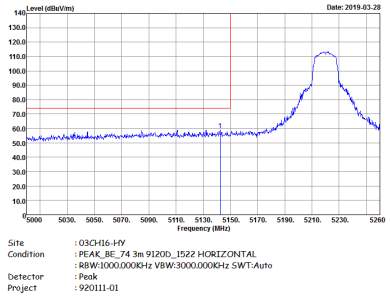
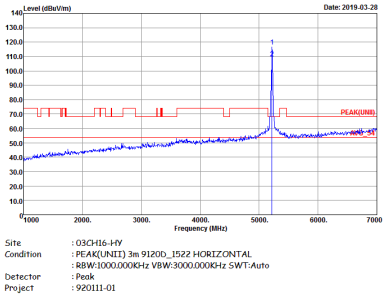
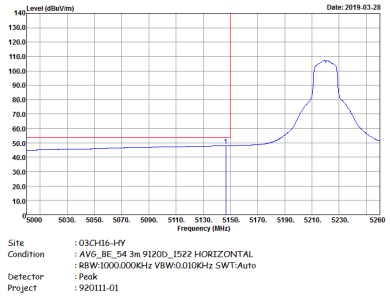
-L	**Low channel location**
-R	**High channel location**

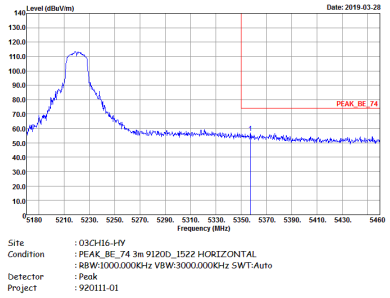
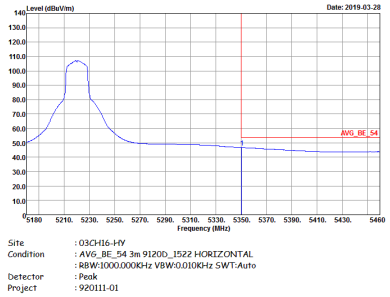
Band 1 - 5150~5250MHz

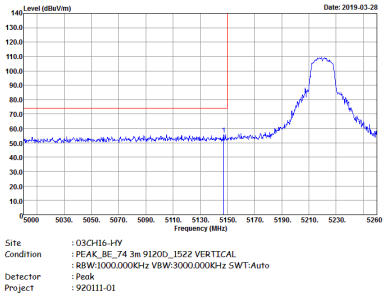
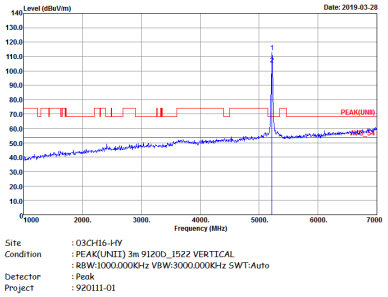
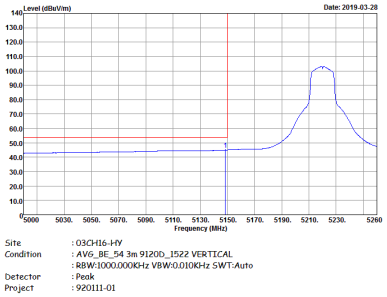
WIFI 802.11a (Band Edge @ 3m)

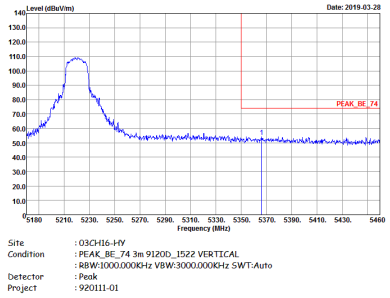
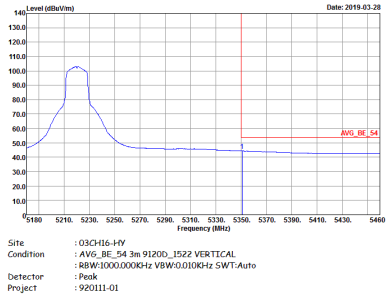
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH36 5180MHz	
0	Horizontal	Fundamental
Peak		
Avg.		Left blank

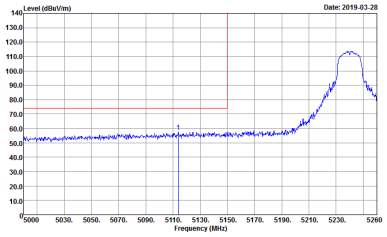
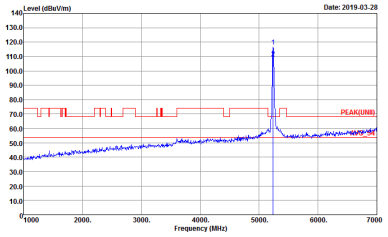
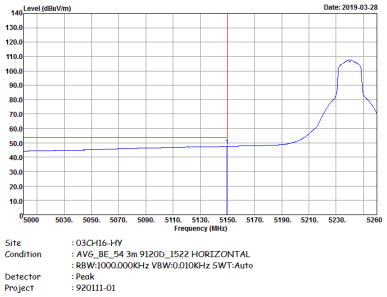
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH36 5180MHz	
0	Vertical	Fundamental
Peak		
Avg.		Left blank

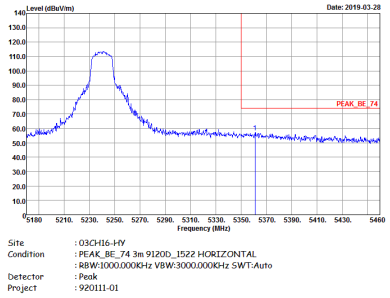
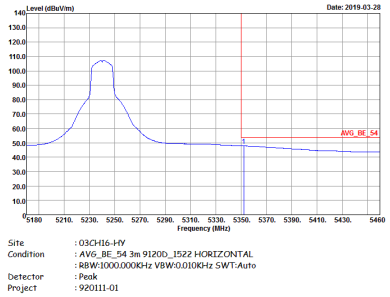
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - L	
0	Horizontal	Fundamental
Peak		
Avg.		Left blank

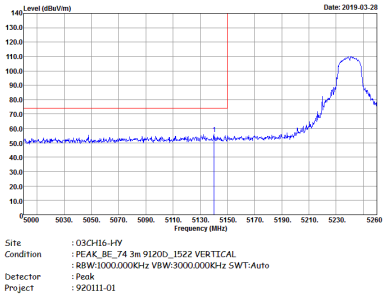
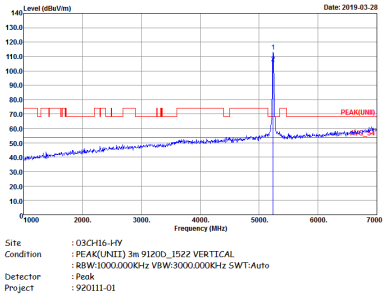
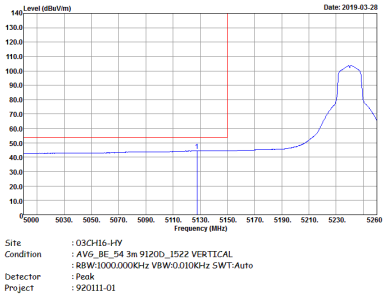
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - R	
0	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

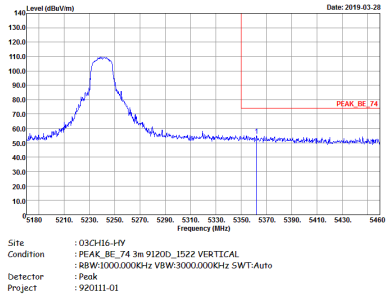
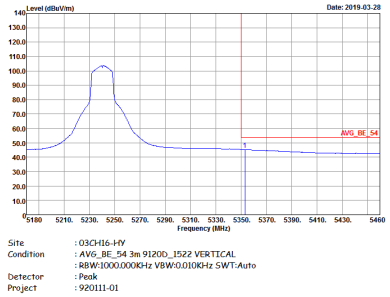
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - L	
0	Vertical	Fundamental
Peak		
Avg.		Left blank

WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - R	
0	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - L	
0	Horizontal	Fundamental
Peak		
Avg.		Left blank

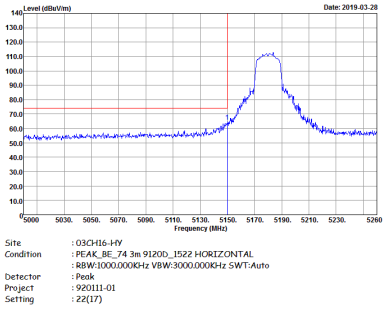
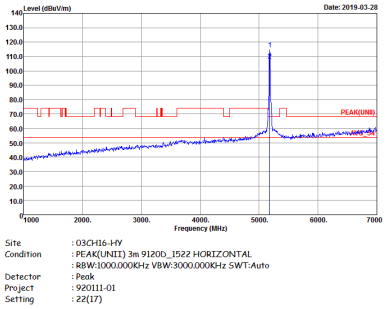
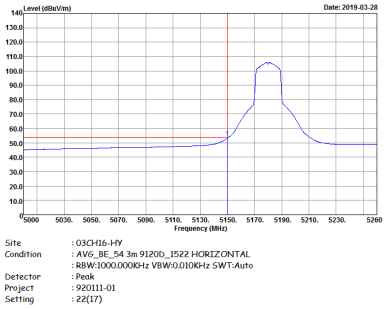
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - R	
0	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

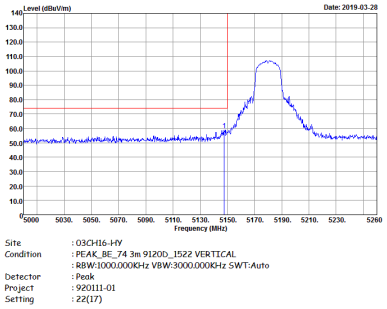
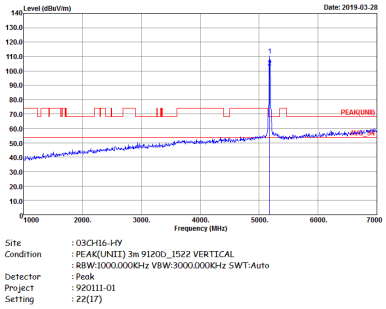
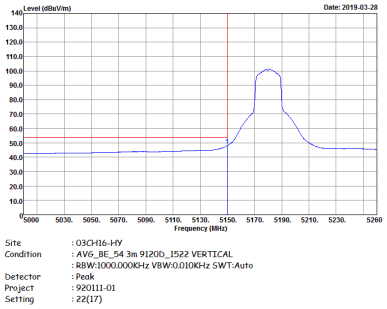
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - L	
0	Vertical	Fundamental
Peak		
Avg.		Left blank

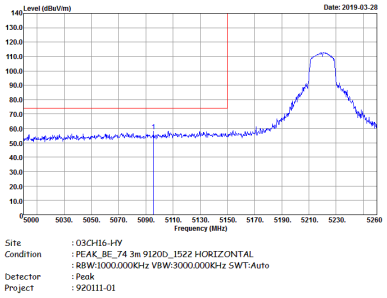
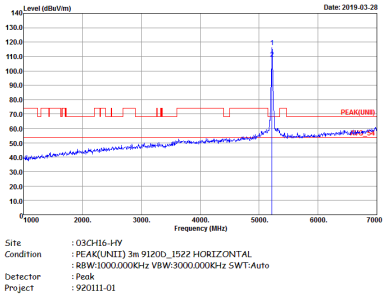
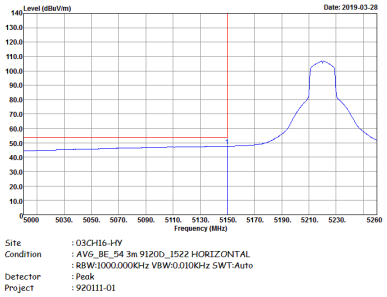
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - R	
0	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

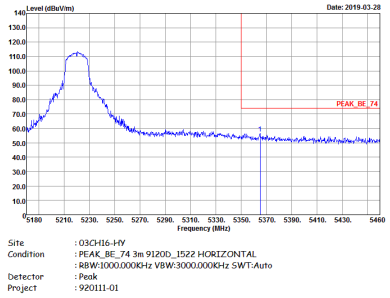
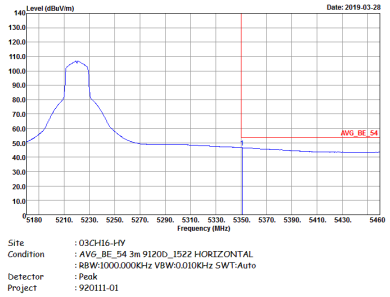
Band 1 5150~5250MHz

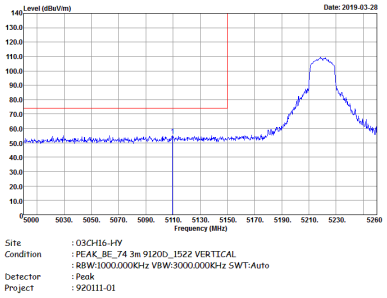
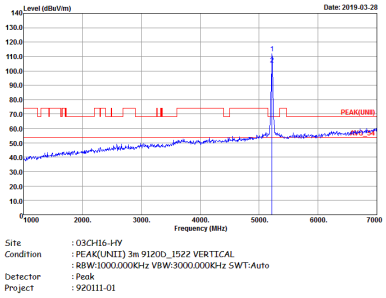
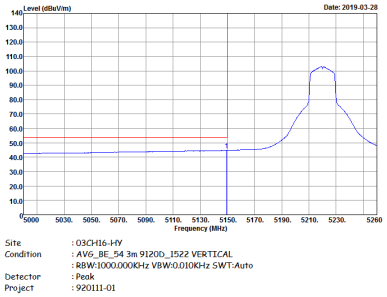
WIFI 802.11n HT20 (Band Edge @ 3m)

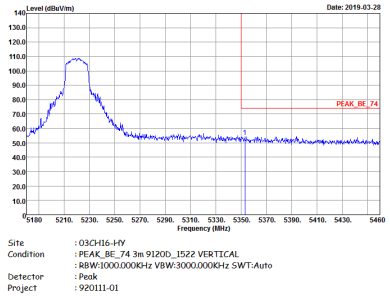
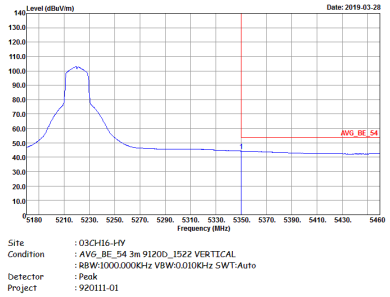
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH36 5180MHz	
0	Horizontal	Fundamental
Peak		
Avg.		Left blank

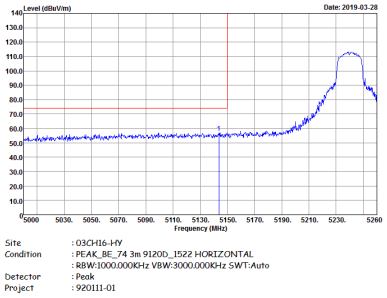
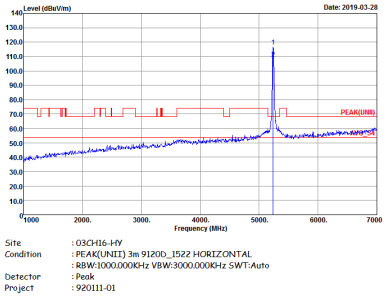
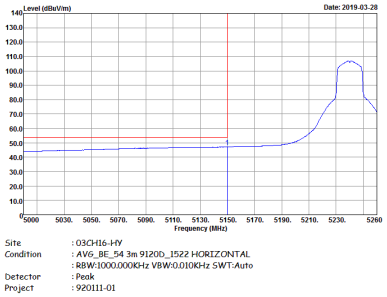
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH36 5180MHz	
0	Vertical	Fundamental
Peak		
Avg.		Left blank

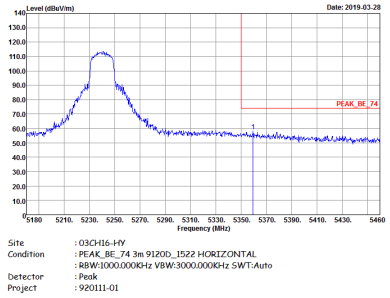
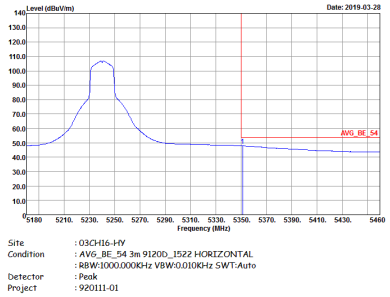
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH44 5220MHz - L	
0	Horizontal	Fundamental
Peak		
Avg.		Left blank

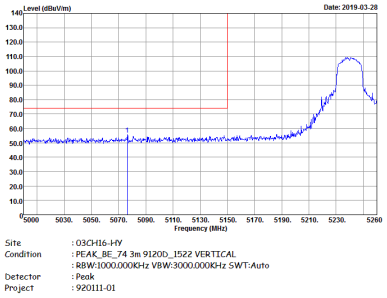
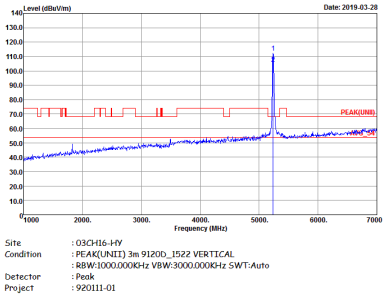
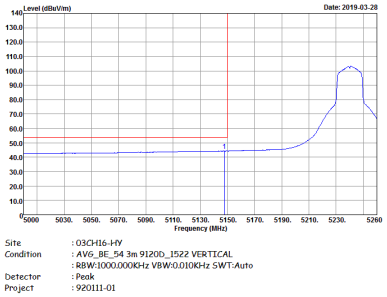
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH44 5220MHz - R	
0	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

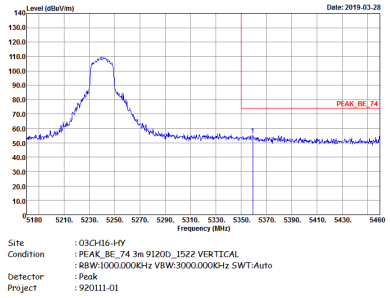
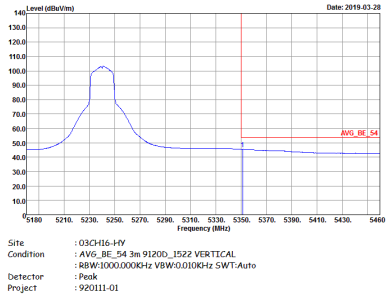
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH44 5220MHz - L	
0	Vertical	Fundamental
Peak		
Avg.		Left blank

WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH44 5220MHz - R	
0	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH48 5240MHz - L	
0	Horizontal	Fundamental
Peak		
Avg.		Left blank

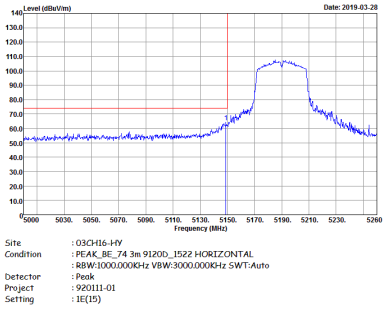
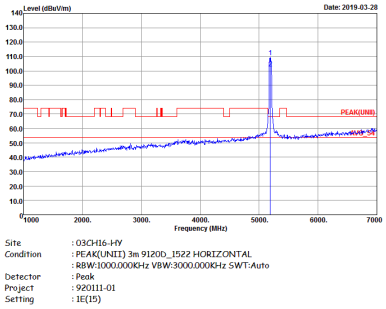
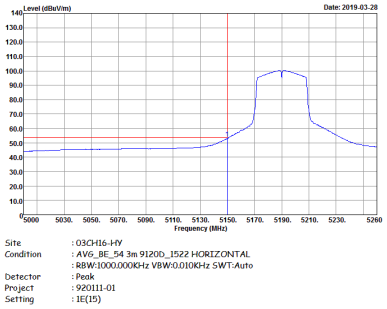
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH48 5240MHz - R	
0	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

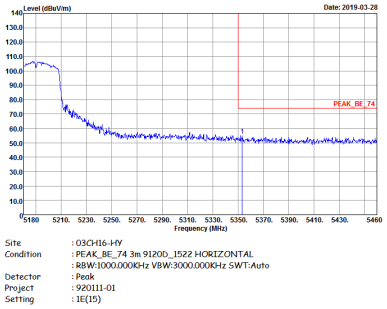
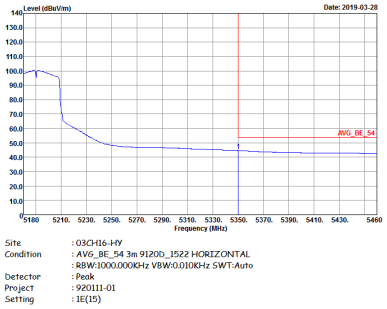
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH48 5240MHz - L	
0	Vertical	Fundamental
Peak		
Avg.		Left blank

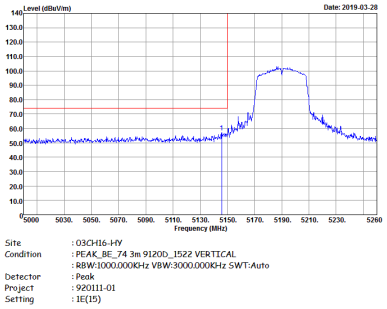
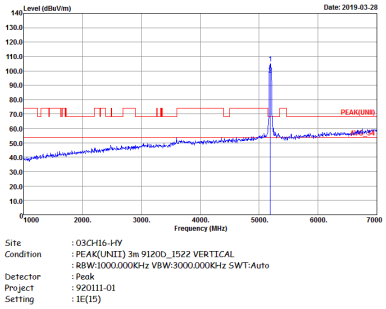
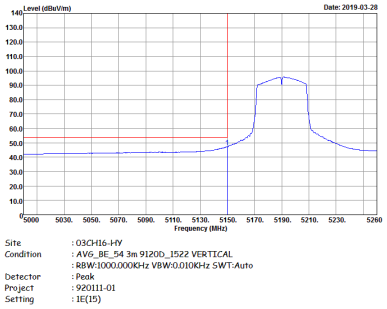
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH48 5240MHz - R	
0	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

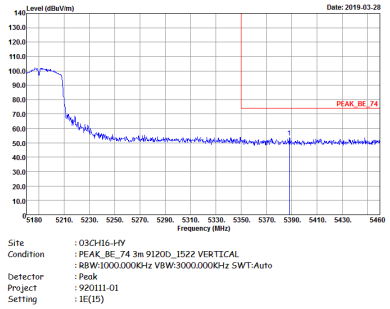
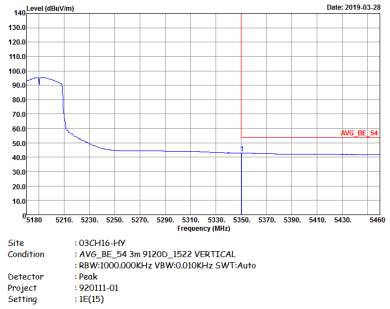
Band 1 5150~5250MHz

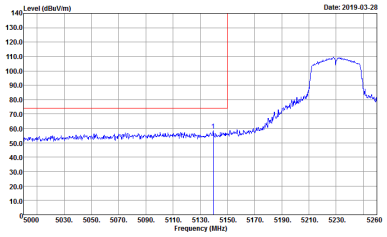
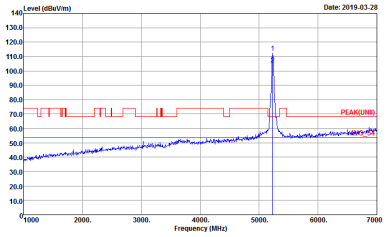
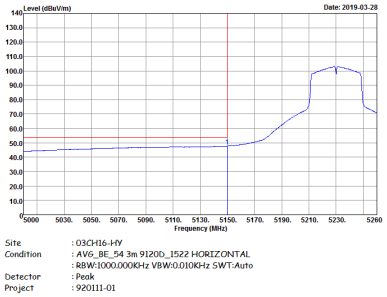
WIFI 802.11n HT40 (Band Edge @ 3m)

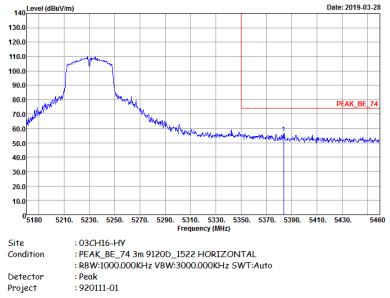
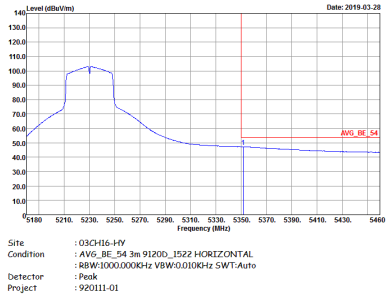
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH38 5190MHz - L	
0	Horizontal	Fundamental
Peak		
Avg.		Left blank

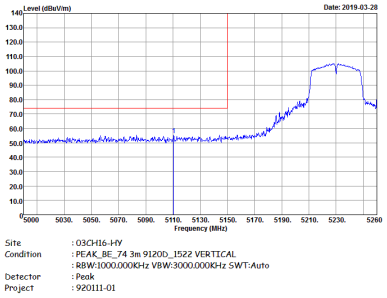
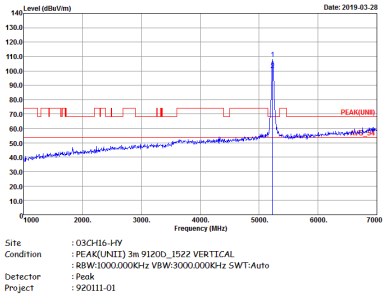
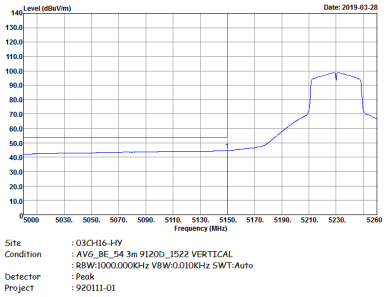
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH38 5190MHz - R	
0	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

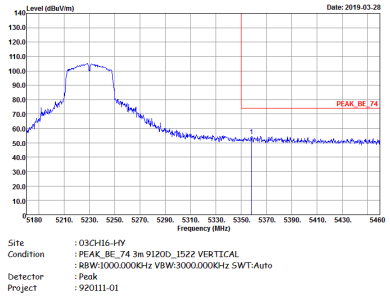
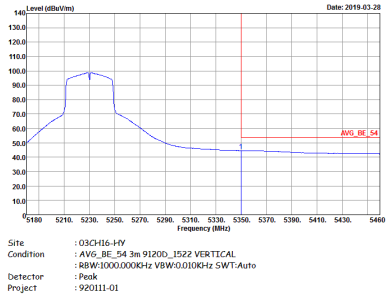
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH38 5190MHz - L	
0	Vertical	Fundamental
Peak		
Avg.		Left blank

WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH38 5190MHz - R	
0	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH46 5230MHz - L	
0	Horizontal	Fundamental
Peak		
Avg.		Left blank

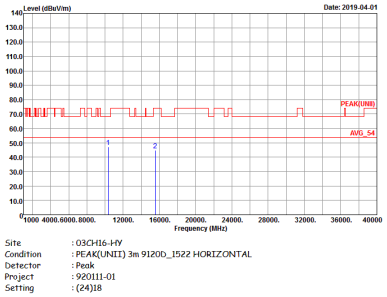
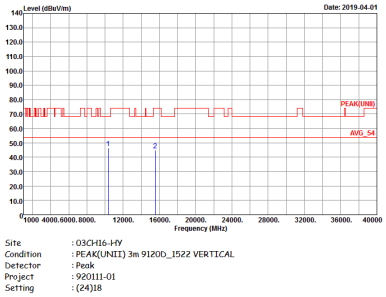
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH46 5230MHz - R	
0	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

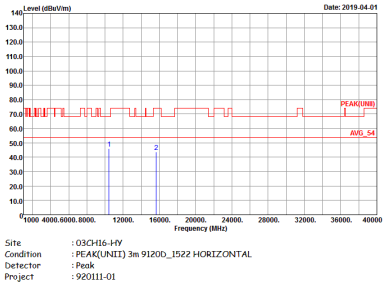
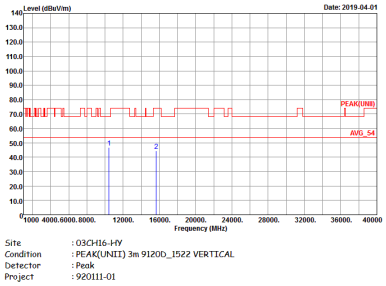
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH46 5230MHz - L	
0	Vertical	Fundamental
Peak		
Avg.		Left blank

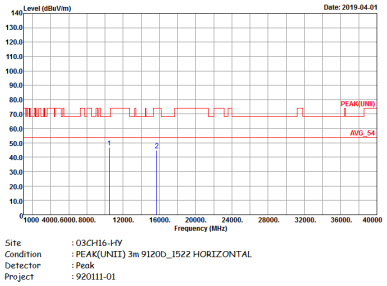
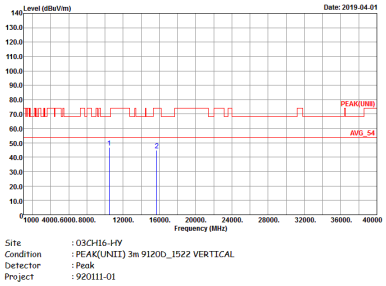
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH46 5230MHz - R	
0	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

Band 1 - 5150~5250MHz

WIFI 802.11a (Harmonic @ 3m)

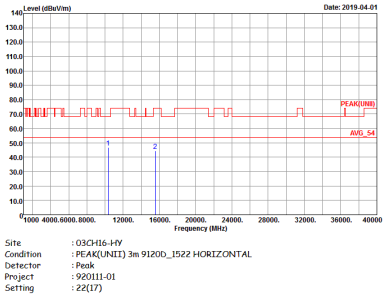
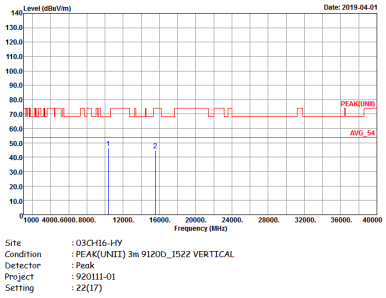
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11a CH36 5180MHz	
0	Horizontal	Vertical
Peak Avg.		

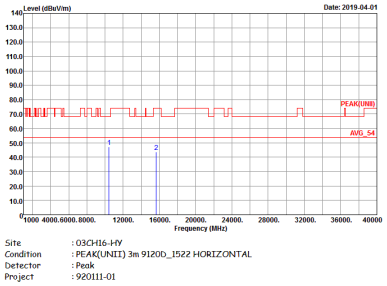
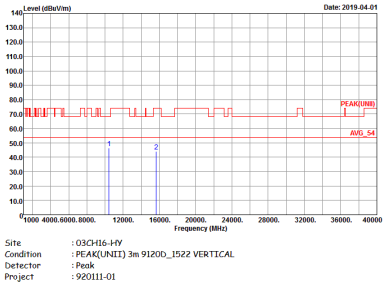
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11a CH44 5220MHz	
0	Horizontal	Vertical
Peak Avg.		

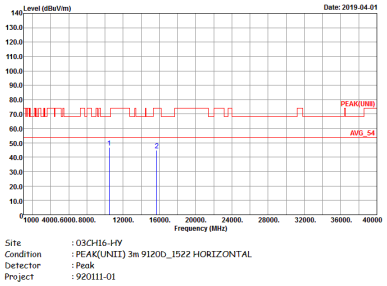
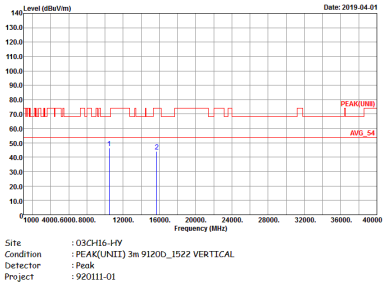
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11a CH48 5240MHz	
0	Horizontal	Vertical
Peak Avg.		

Band 1 5150~5250MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

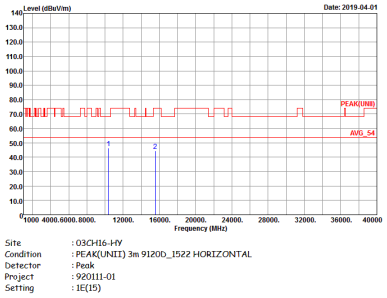
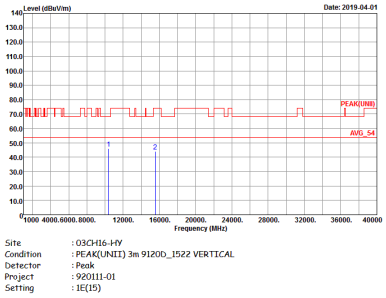
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11n HT20 CH36 5180MHz	
0	Horizontal	Vertical
Peak Avg.		

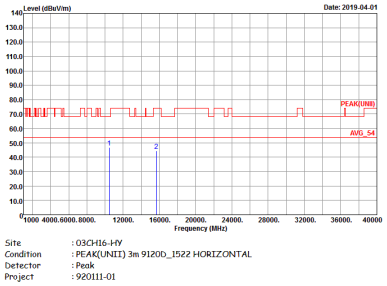
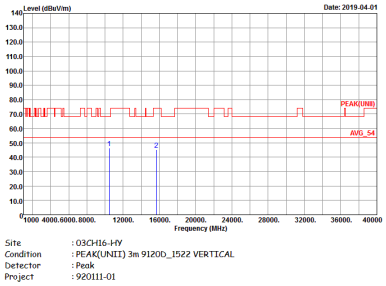
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11n HT20 CH44 5220MHz	
0	Horizontal	Vertical
Peak Avg.		

WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11n HT20 CH48 5240MHz	
0	Horizontal	Vertical
Peak Avg.		

Band 1 5150~5250MHz

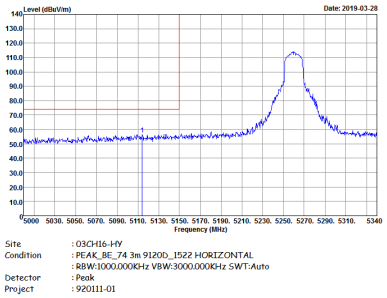
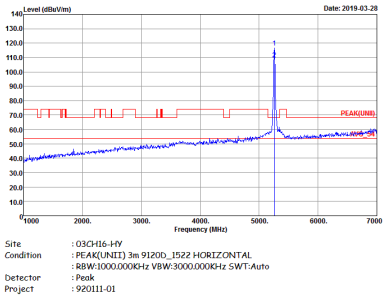
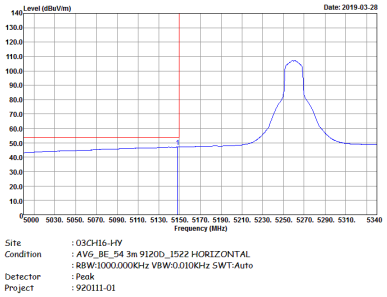
WIFI 802.11n HT40 (Harmonic @ 3m)

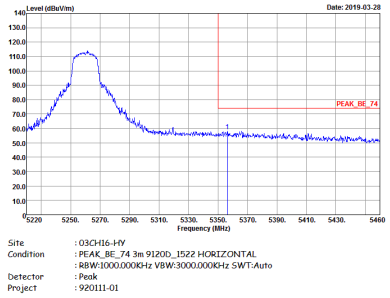
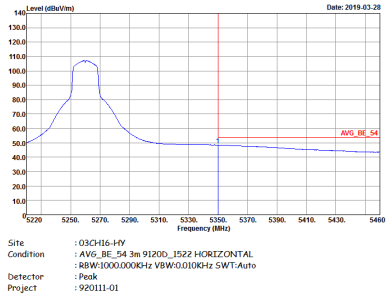
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11n HT40 CH38 5190MHz	
0	Horizontal	Vertical
Peak Avg.		

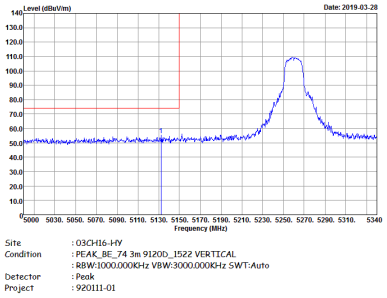
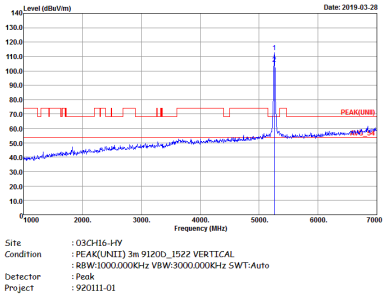
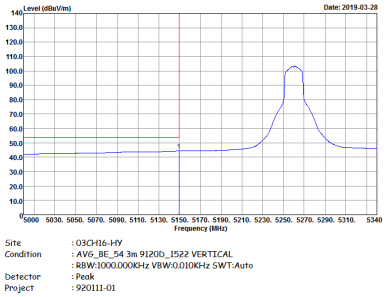
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11n HT40 CH46 5230MHz	
0	Horizontal	Vertical
Peak Avg.		

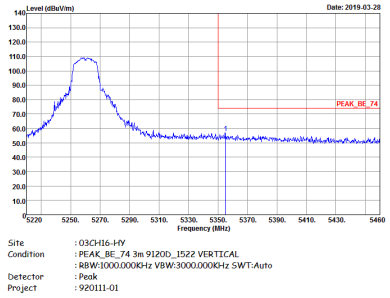
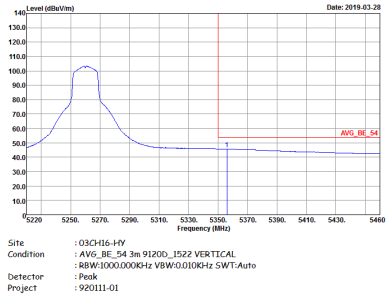
Band 2 - 5250~5350MHz

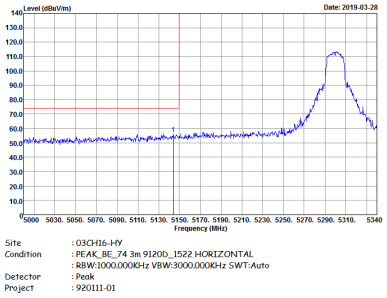
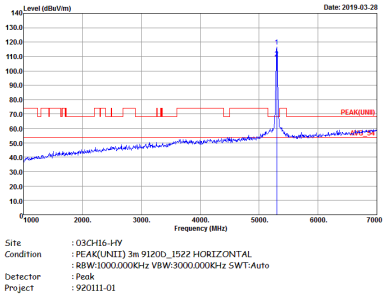
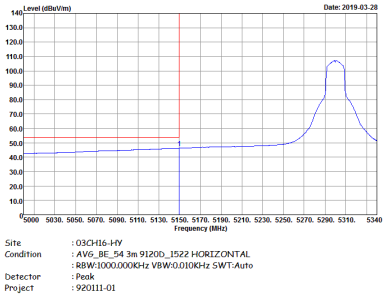
WIFI 802.11a (Band Edge @ 3m)

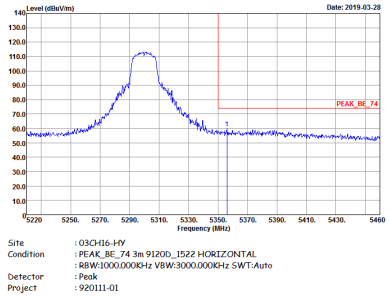
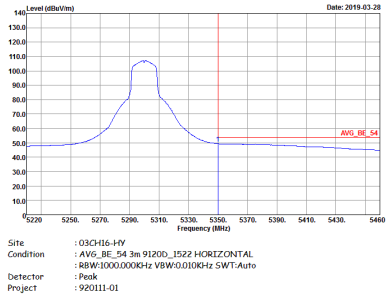
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH52 5260MHz - L	
0	Horizontal	Fundamental
Peak		
Avg.		Left blank

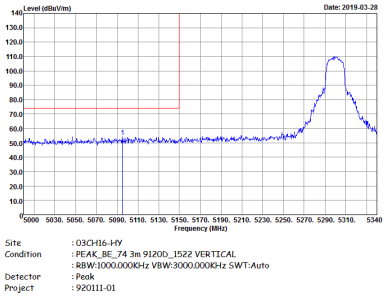
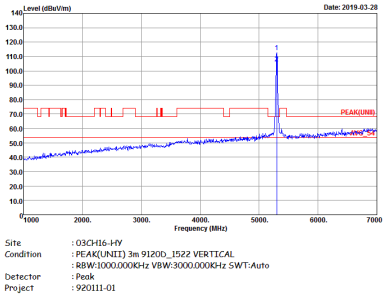
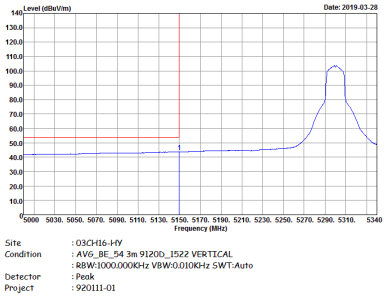
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH52 5260MHz - R	
0	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

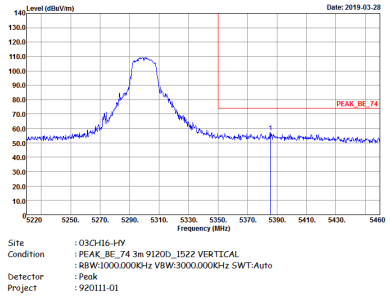
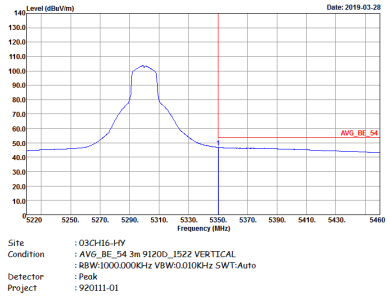
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH52 5260MHz - L	
0	Vertical	Fundamental
Peak		
Avg.		Left blank

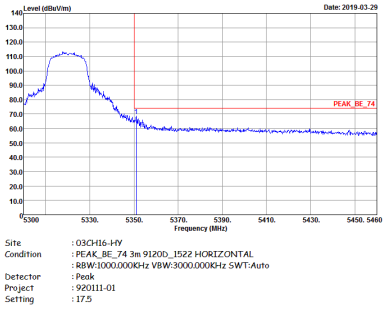
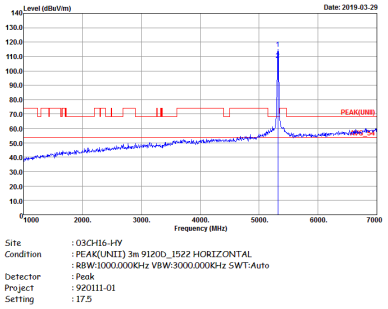
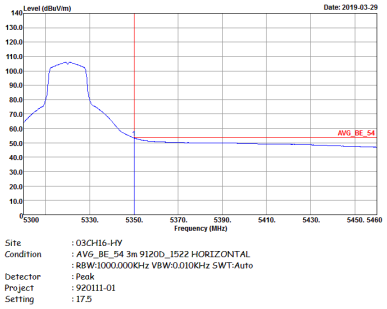
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH52 5260MHz - R	
0	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

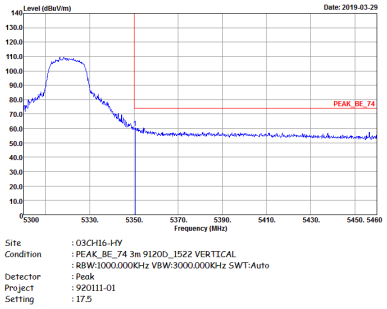
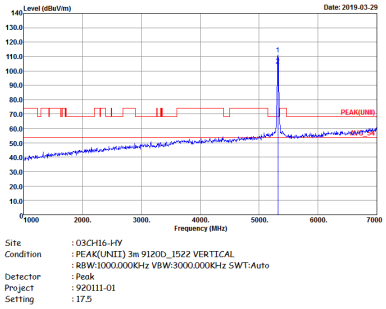
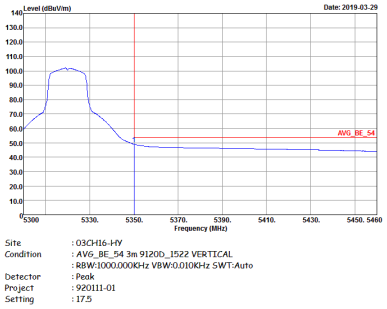
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH60 5300MHz - L	
0	Horizontal	Fundamental
Peak		
Avg.		Left blank

WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH60 5300MHz - R	
0	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH60 5300MHz - L	
0	Vertical	Fundamental
Peak		
Avg.		Left blank

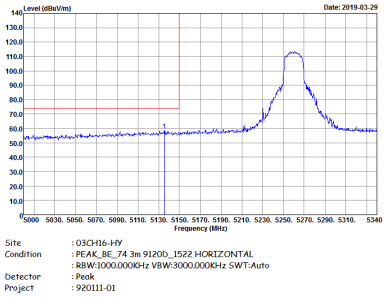
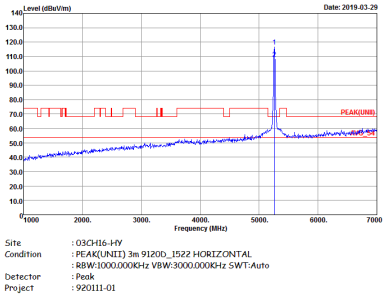
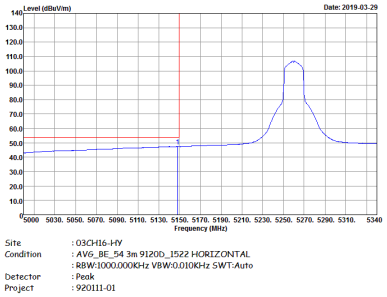
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH60 5300MHz - R	
0	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

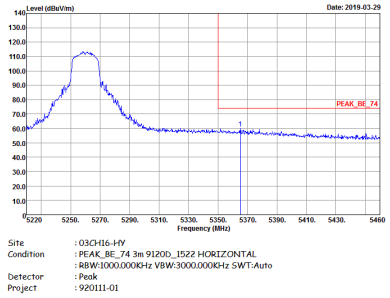
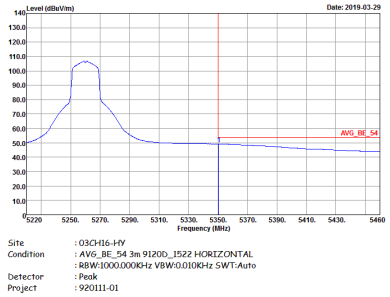
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH64 5320MHz	
0	Horizontal	Fundamental
Peak		
Avg.		Left blank

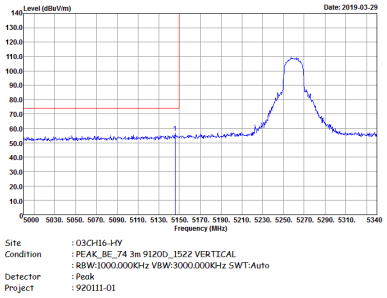
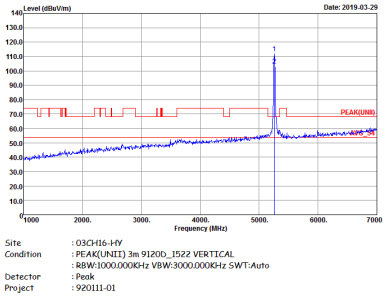
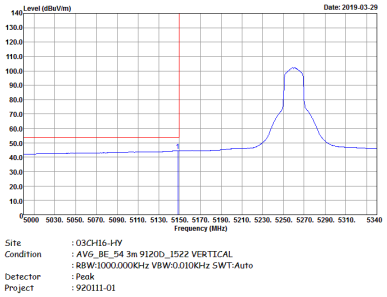
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH64 5320MHz	
0	Vertical	Fundamental
Peak		
Avg.		Left blank

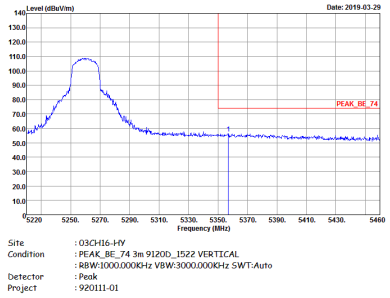
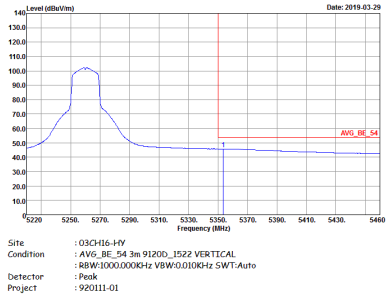
Band 2 5250~5350MHz

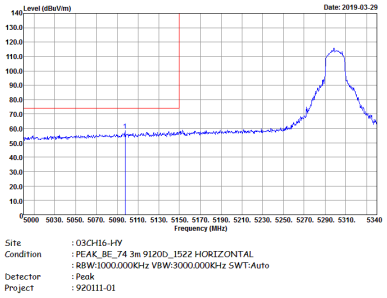
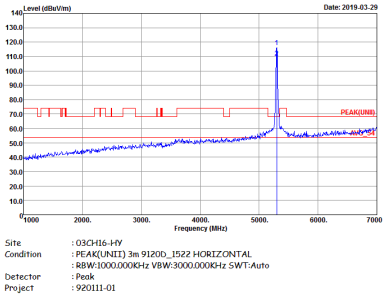
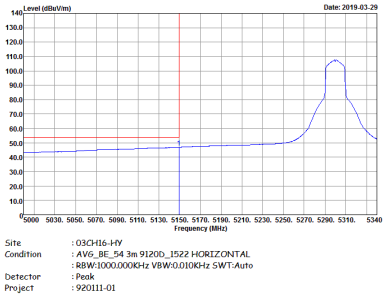
WIFI 802.11n HT20 (Band Edge @ 3m)

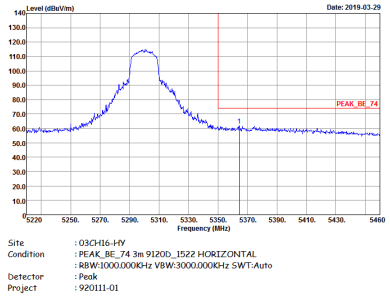
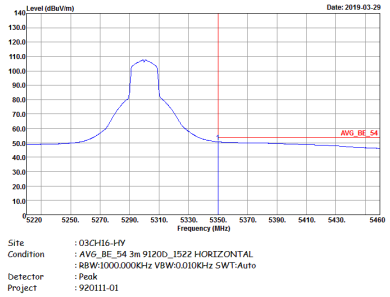
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT20 CH52 5260MHz - L	
0	Horizontal	Fundamental
Peak		
Avg.		Left blank

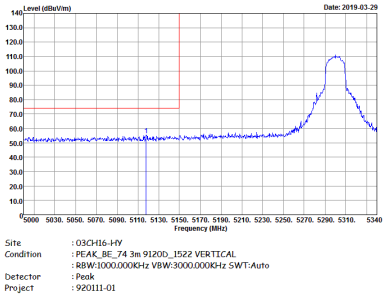
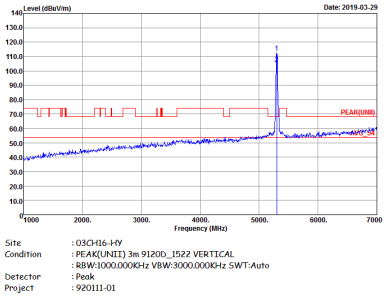
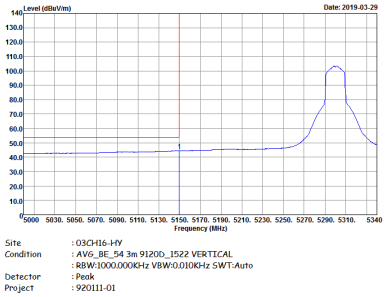
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT20 CH52 5260MHz - R	
0	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

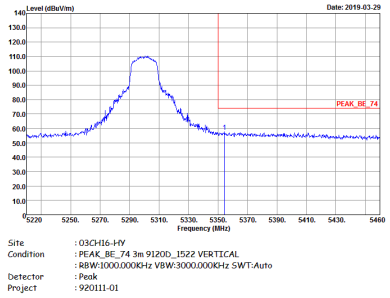
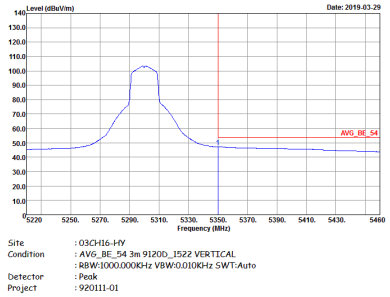
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT20 CH52 5260MHz - L	
0	Vertical	Fundamental
Peak		
Avg.		Left blank

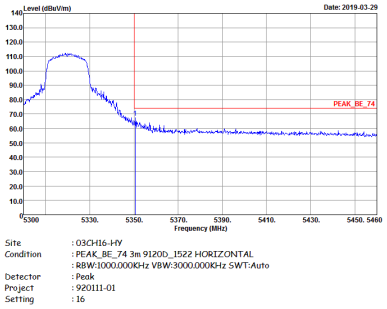
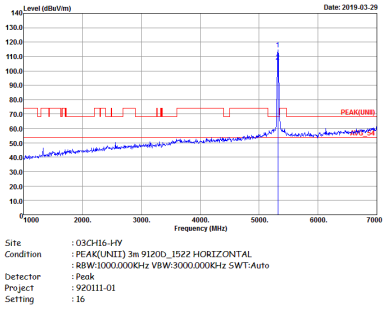
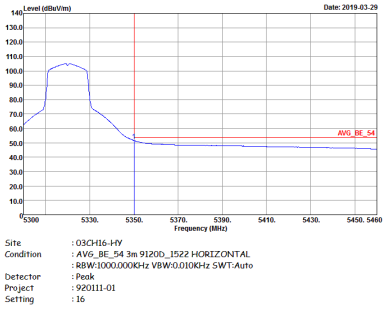
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT20 CH52 5260MHz - R	
0	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

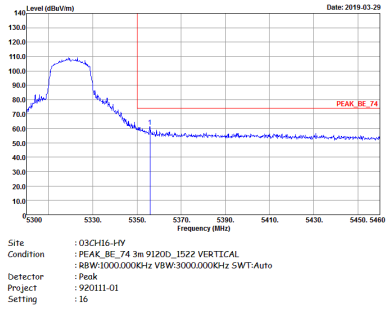
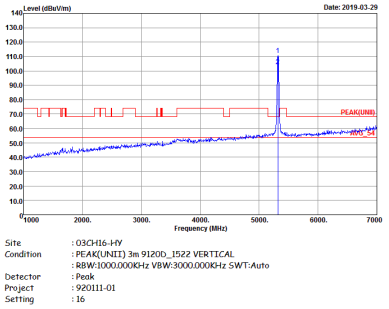
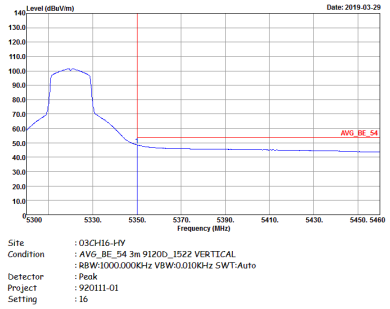
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT20 CH60 5300MHz - L	
0	Horizontal	Fundamental
Peak		
Avg.		Left blank

WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT20 CH60 5300MHz - R	
0	Horizontal	Vertical
Peak		Left blank
Avg.		Left blank

WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT20 CH60 5300MHz - L	
0	Vertical	Fundamental
Peak		
Avg.		Left blank

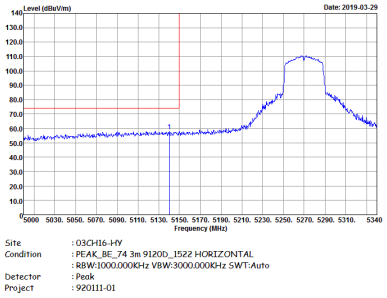
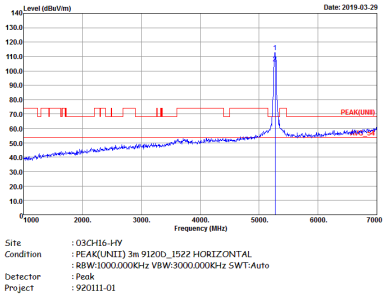
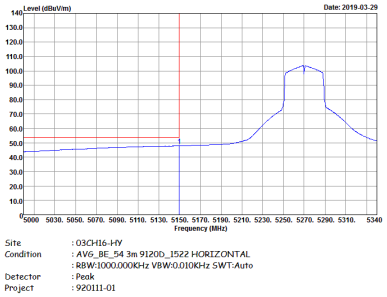
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT20 CH60 5300MHz - R	
0	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

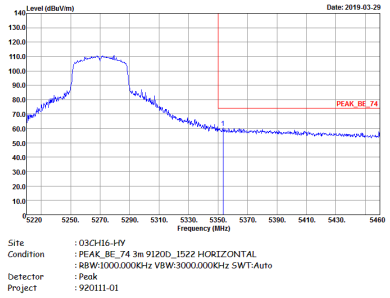
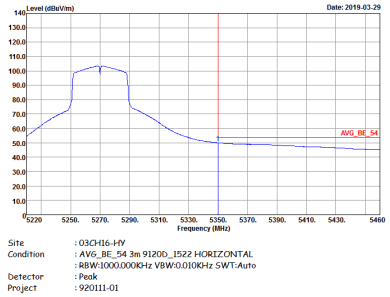
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT20 CH64 5320MHz	
0	Horizontal	Fundamental
Peak		
Avg.		Left blank

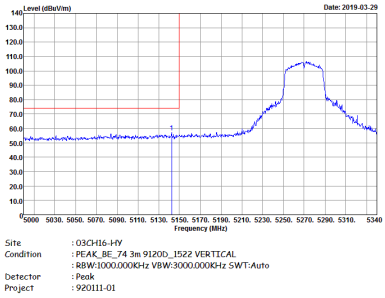
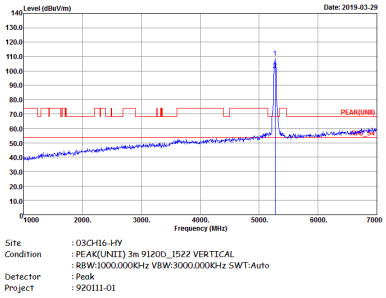
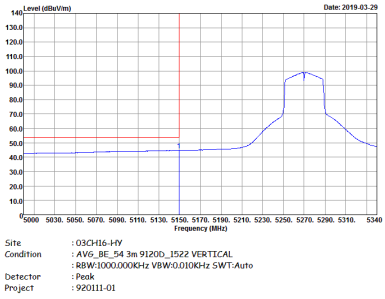
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT20 CH64 5320MHz	
0	Vertical	Fundamental
Peak		
Avg.		Left blank

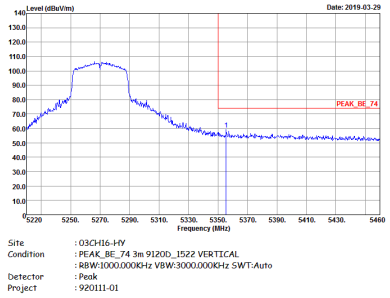
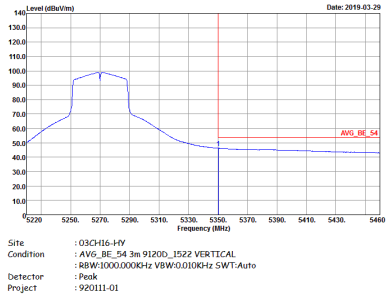
Band 2 5250~5350MHz

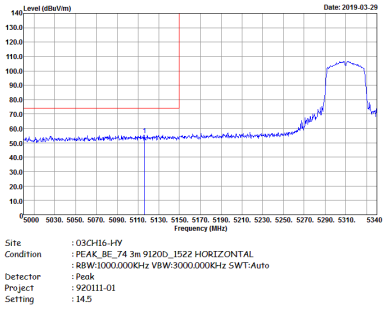
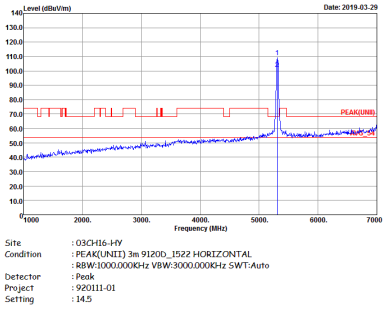
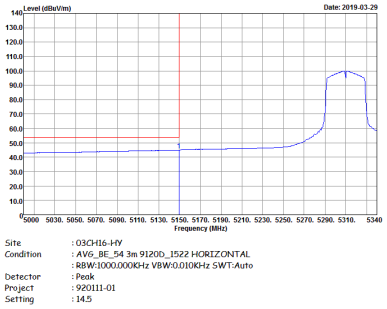
WIFI 802.11n HT40 (Band Edge @ 3m)

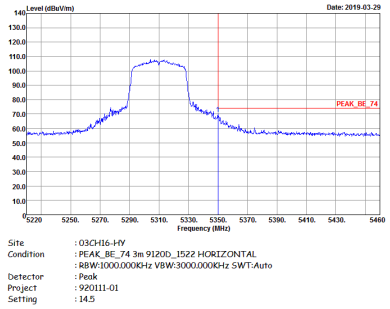
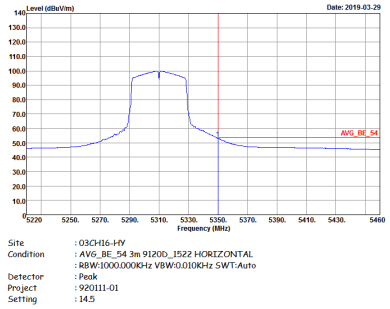
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT40 CH54 5270 - L	
0	Horizontal	Fundamental
Peak		
Avg.		Left blank

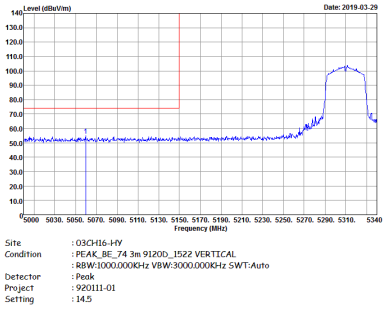
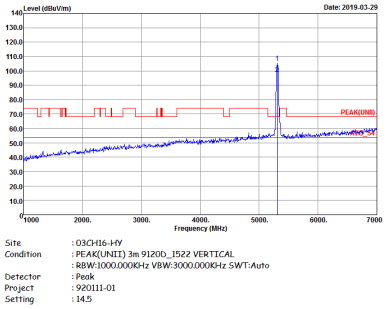
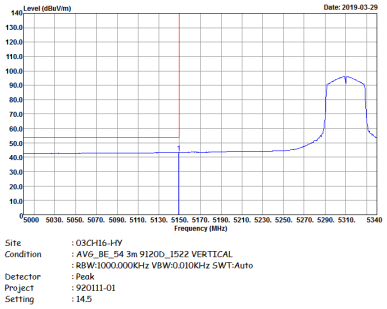
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT40 CH54 5270 - R	
0	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

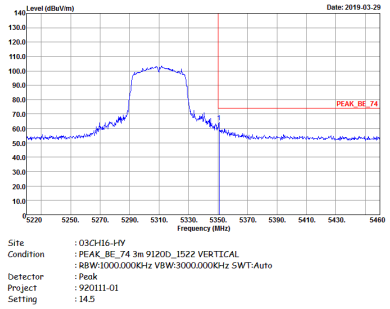
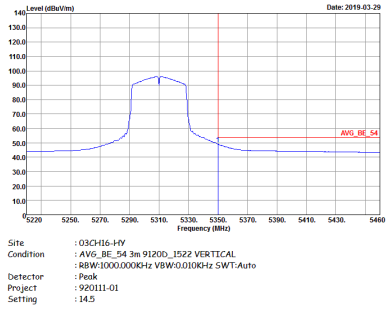
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT40 CH54 5270 - L	
0	Vertical	Vertical
Peak		
Avg.		Left blank

WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT40 CH54 5270 - R	
0	Vertical	Vertical
Peak		Left blank
Avg.		Left blank

WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT40 CH62 5310 - L	
0	Horizontal	Fundamental
Peak		
Avg.		Left blank

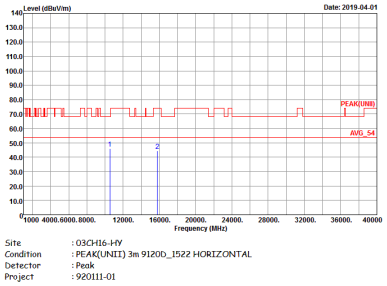
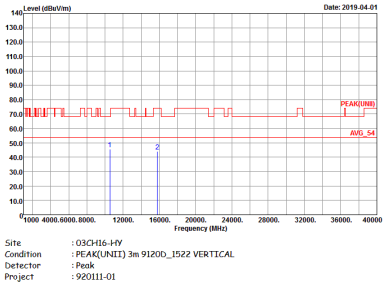
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT40 CH62 5310 - R	
0	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

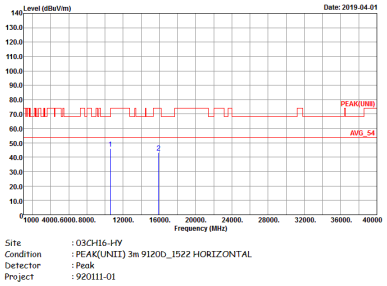
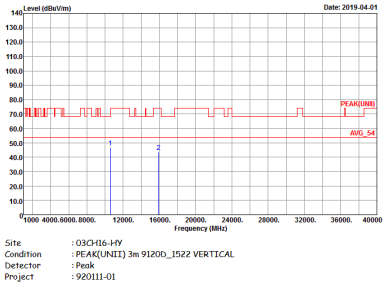
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT40 CH62 5310 - L	
0	Vertical	Fundamental
Peak		
Avg.		Left blank

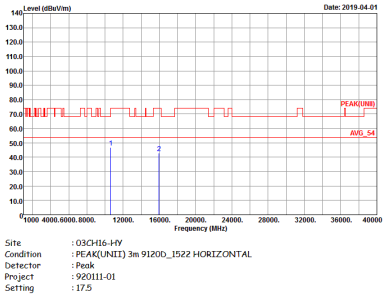
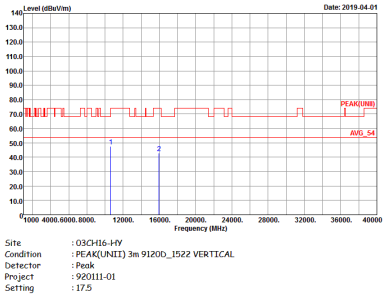
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT40 CH62 5310 - R	
0	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

Band 2 - 5250~5350MHz

WIFI 802.11a (Harmonic @ 3m)

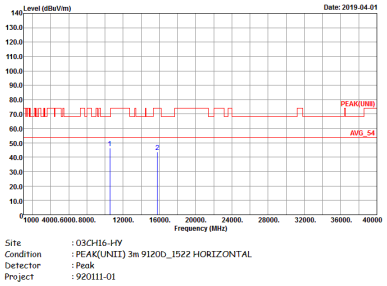
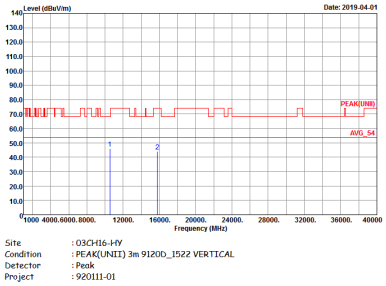
WIFI	Band 2 5250~5350MHz Harmonic @ 3m	
ANT	802.11a CH52 5260MHz	
0	Horizontal	Vertical
Peak Avg.		

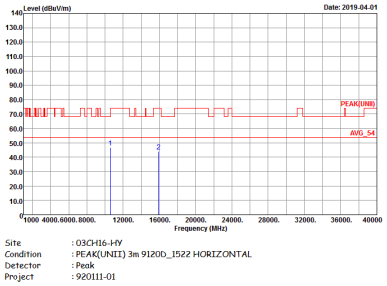
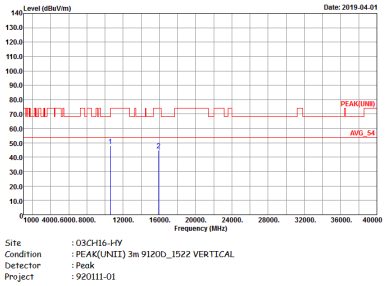
WIFI	Band 2 5250~5350MHz Harmonic @ 3m	
ANT	802.11a CH60 5300MHz	
0	Horizontal	Vertical
Peak Avg.		

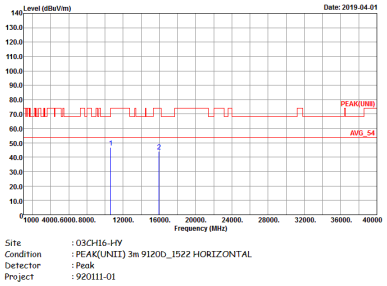
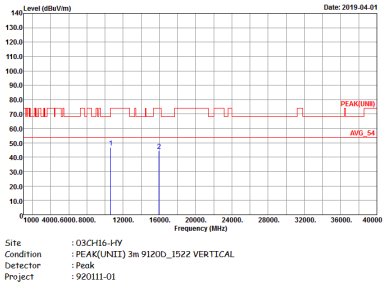
WIFI	Band 2 5250~5350MHz Harmonic @ 3m	
ANT	802.11a CH64 5320MHz	
0	Horizontal	Vertical
Peak Avg.		

Band 2 5250~5350MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

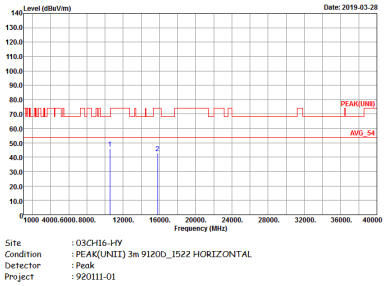
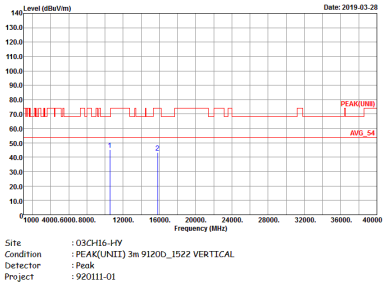
WIFI	Band 2 5250~5350MHz Harmonic @ 3m	
ANT	802.11n HT20 CH52 5260MHz	
0	Horizontal	Vertical
Peak Avg.		

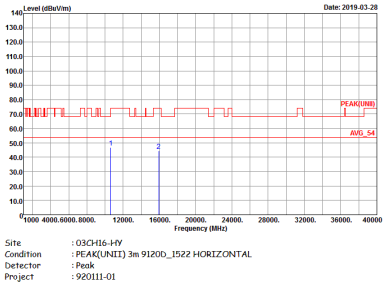
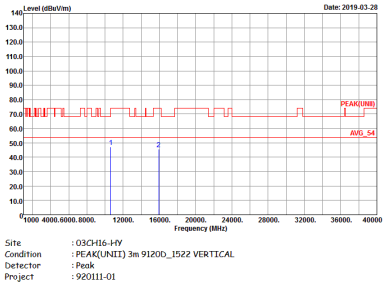
WIFI	Band 2 5250~5350MHz Harmonic @ 3m	
ANT	802.11n HT20 CH60 5300MHz	
0	Horizontal	Vertical
Peak Avg.		

WIFI	Band 2 5250~5350MHz Harmonic @ 3m	
ANT	802.11n HT20 CH64 5320MHz	
0	Horizontal	Vertical
Peak Avg.		

Band 2 5250~5350MHz

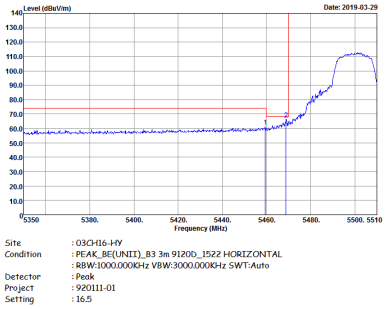
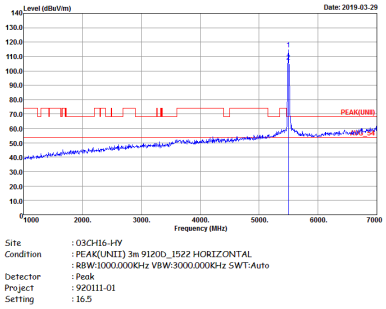
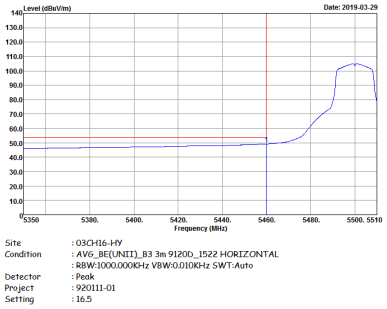
WIFI 802.11n HT40 (Harmonic @ 3m)

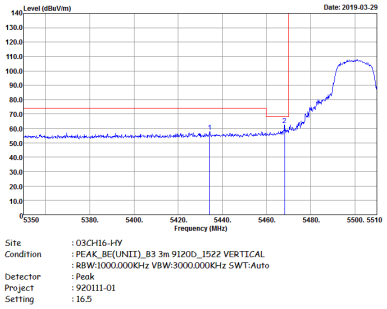
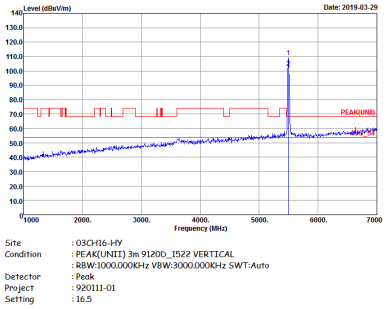
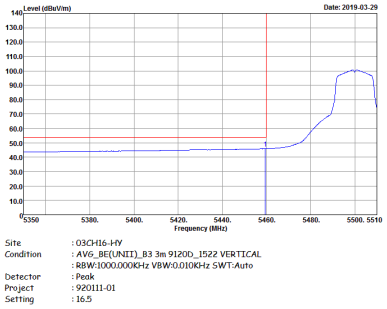
WIFI	Band 2 5250~5350MHz Harmonic @ 3m	
ANT	802.11n HT40 CH54 5270	
0	Horizontal	Vertical
Peak Avg.		

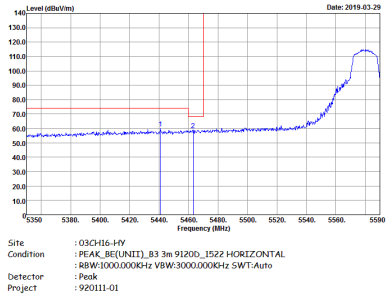
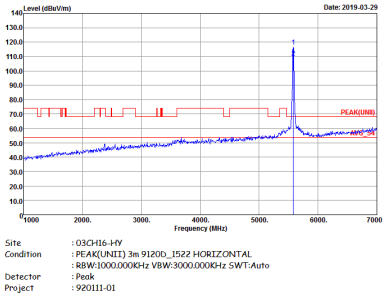
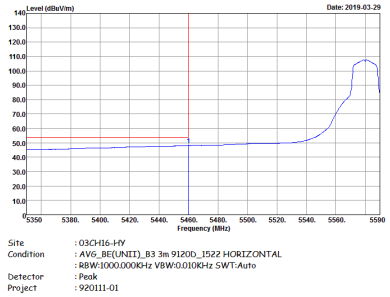
WIFI	Band 2 5250~5350MHz Harmonic @ 3m	
ANT	802.11n HT40 CH62 5310	
0	Horizontal	Vertical
Peak Avg.		

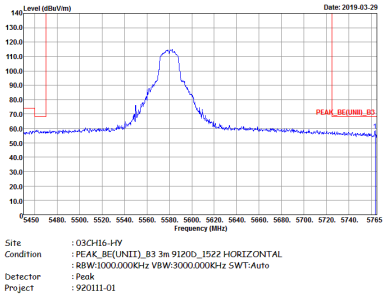
Band 3 - 5470~5725MHz

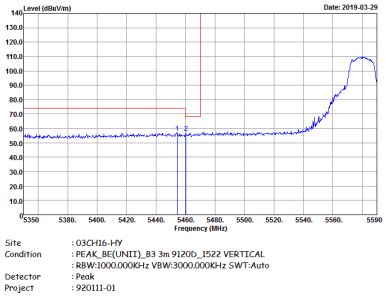
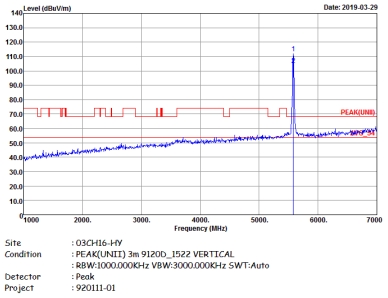
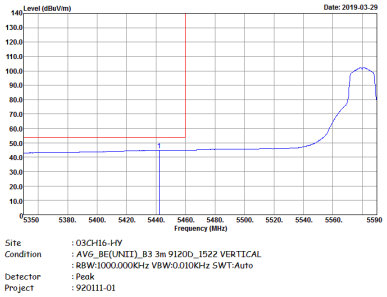
WIFI 802.11a (Band Edge @ 3m)

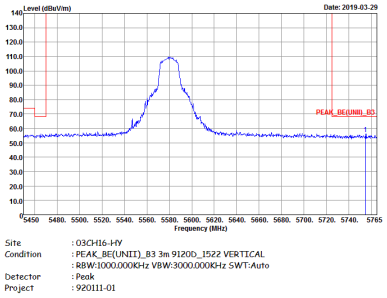
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11a CH100 5500MHz	
0	Horizontal	Fundamental
Peak		
Avg.		Left blank

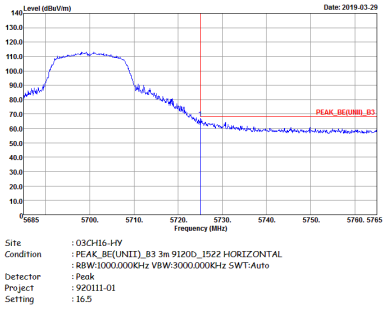
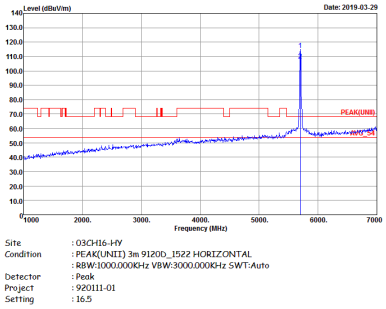
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11a CH100 5500MHz	
0	Vertical	Fundamental
Peak		
Avg.		Left blank

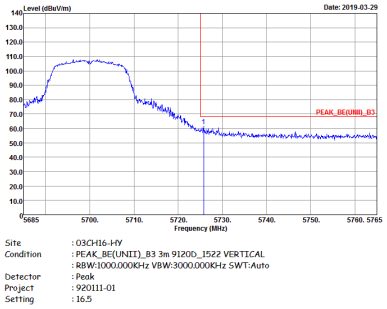
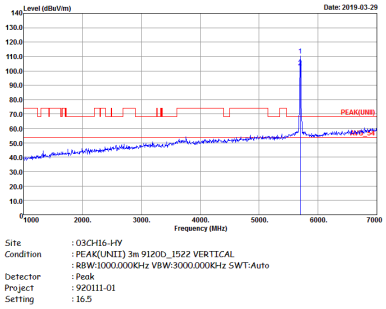
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11a CH116 5580MHz - L	
0	Horizontal	Fundamental
Peak		
Avg.		Left blank

WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11a CH116 5580MHz - R	
0	Horizontal	Fundamental
Peak		Left blank

WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11a CH116 5580MHz - L	
0	Vertical	Fundamental
Peak		
Avg.		Left blank

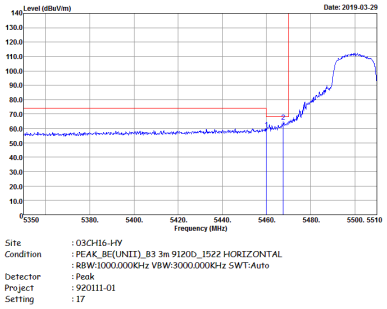
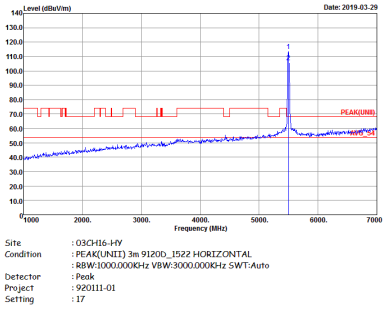
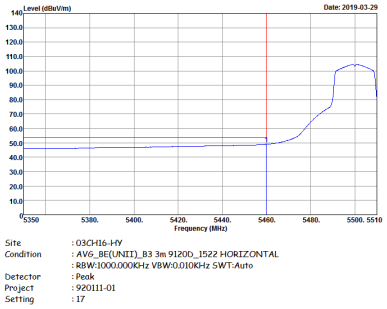
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11a CH116 5580MHz - R	
0	Vertical	Fundamental
Peak		Left blank

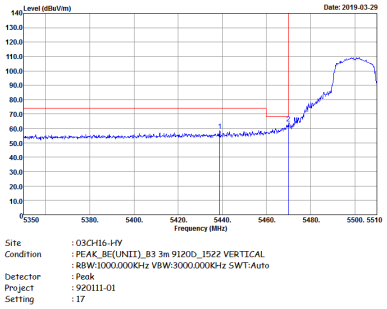
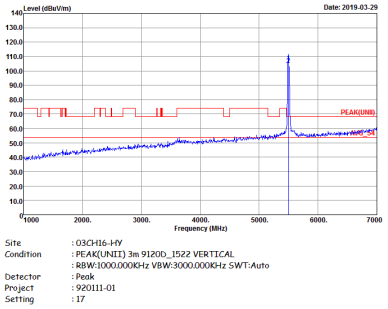
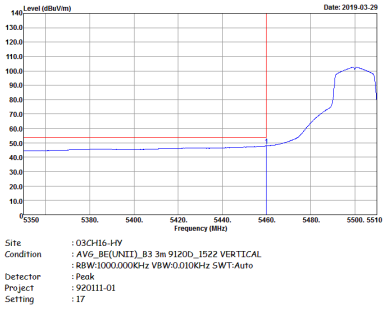
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11a CH140 5700MHz	
0	Horizontal	Fundamental
Peak		

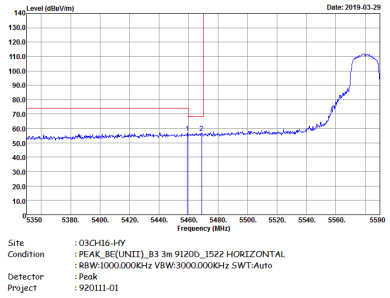
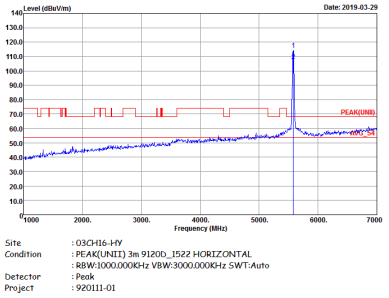
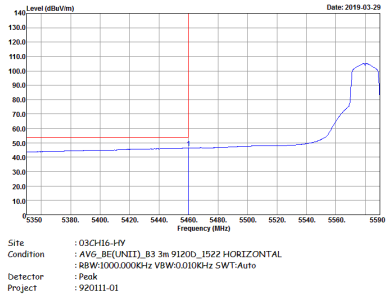
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11a CH140 5700MHz	
0	Vertical	Fundamental
Peak		

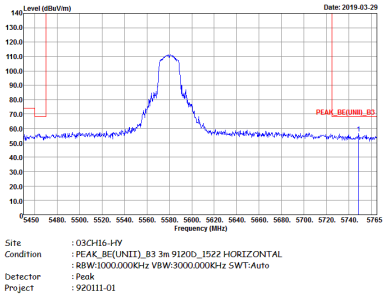
Band 3 5470~5725MHz

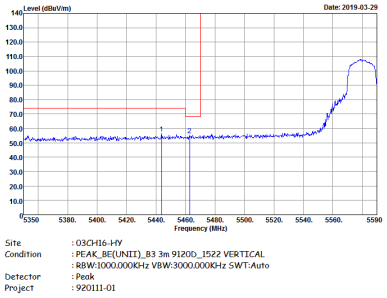
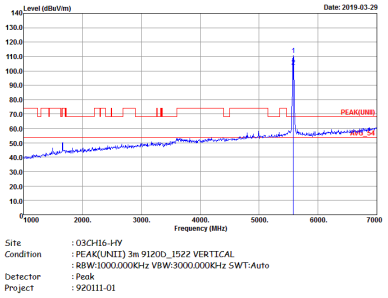
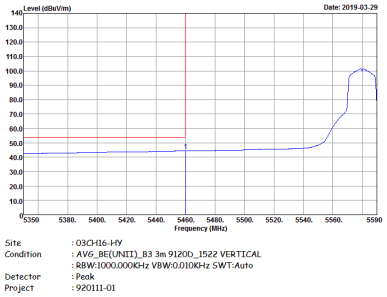
WIFI 802.11n HT20 (Band Edge @ 3m)

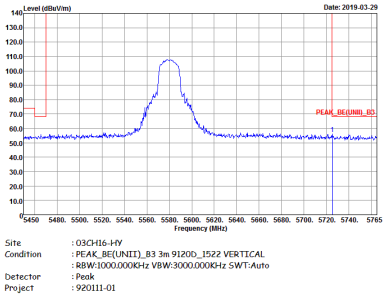
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT20 CH100 5500MHz	
0	Horizontal	Fundamental
Peak		
Avg.		Left blank

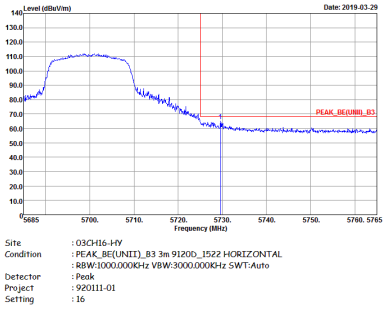
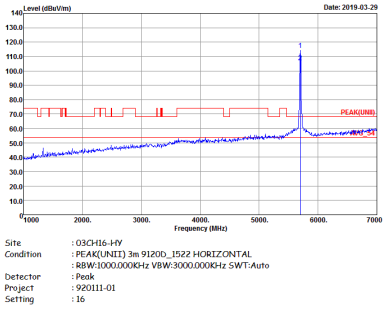
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT20 CH100 5500MHz	
0	Vertical	Fundamental
Peak		
Avg.		Left blank

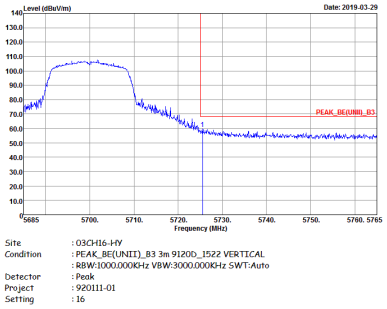
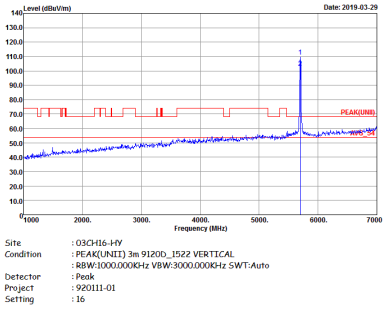
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT20 CH116 5580MHz - L	
0	Horizontal	Fundamental
Peak		
Avg.		Left blank

WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT20 CH116 5580MHz - R	
0	Horizontal	Fundamental
Peak		Left blank

WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT20 CH116 5580MHz - L	
0	Vertical	Fundamental
Peak		
Avg.		Left blank

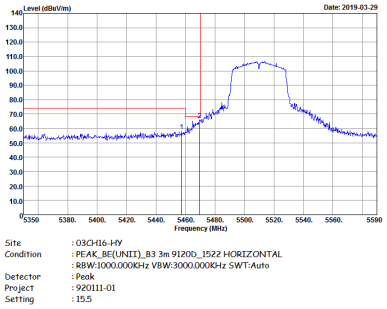
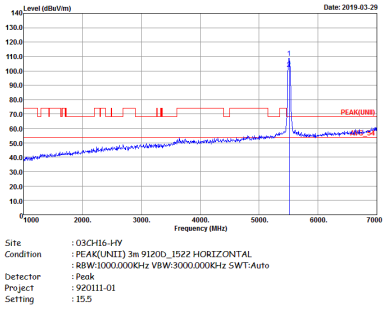
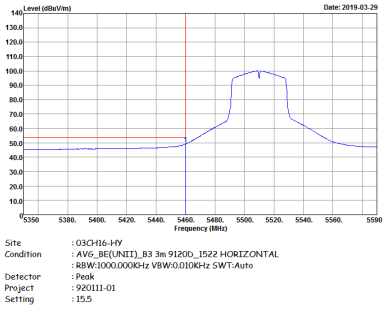
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT20 CH116 5580MHz - R	
0	Vertical	Fundamental
Peak		Left blank

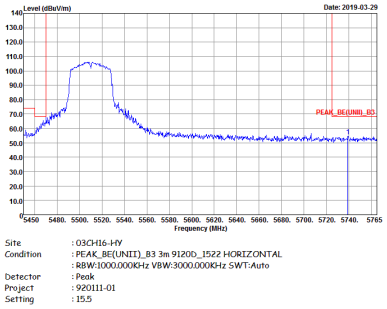
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT20 CH140 5700MHz	
0	Horizontal	Fundamental
Peak		

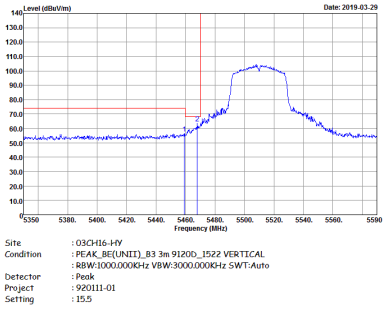
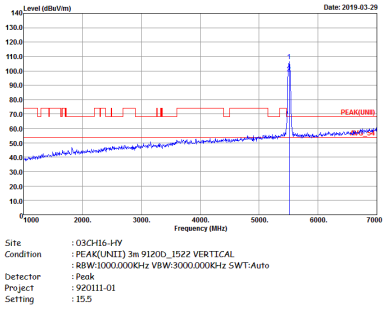
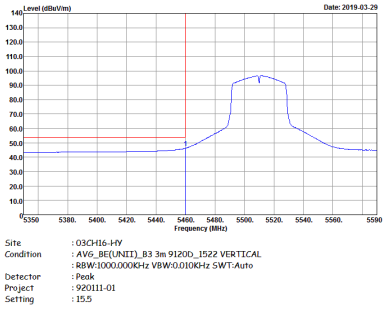
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT20 CH140 5700MHz	
0	Vertical	Fundamental
Peak.		

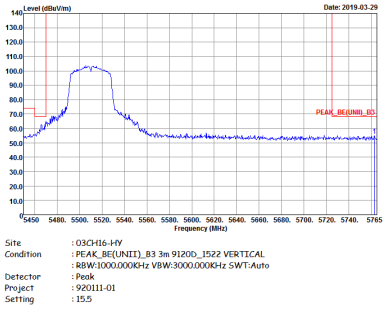
Band 3 5470~5725MHz

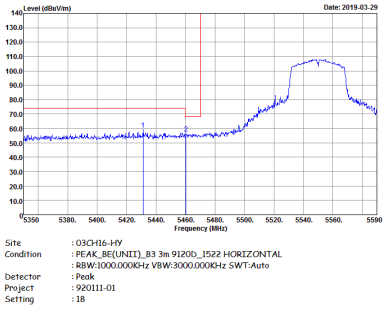
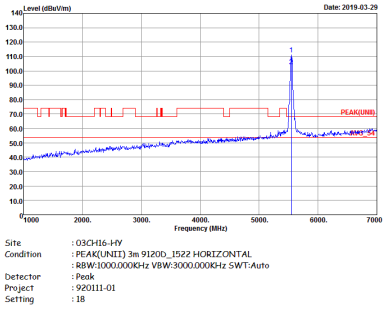
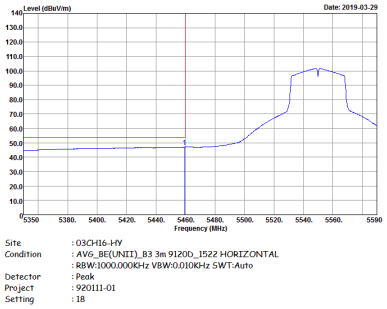
WIFI 802.11n HT40 (Band Edge @ 3m)

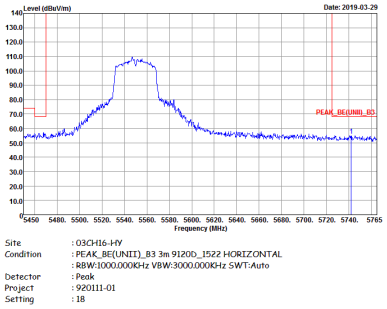
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH102 5510MHz - L	
0	Horizontal	Fundamental
Peak		
Avg.		Left blank

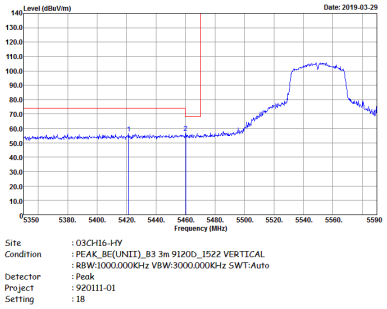
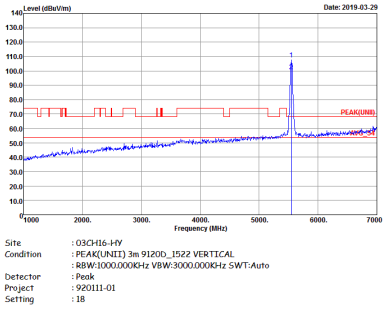
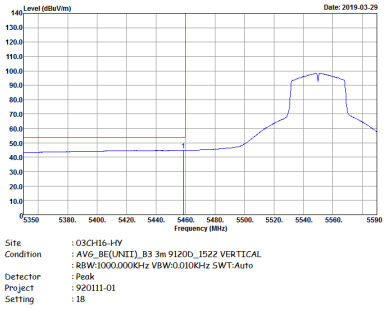
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH102 5510MHz - R	
0	Horizontal	Fundamental
Peak		Left blank

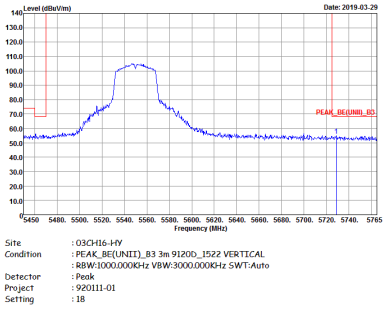
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH102 5510MHz - L	
0	Vertical	Fundamental
Peak		
Avg.		Left blank

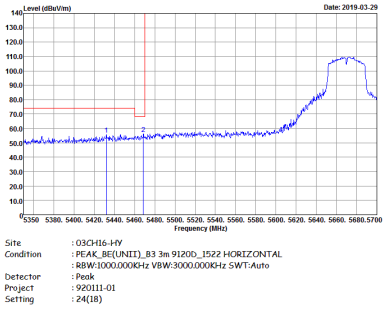
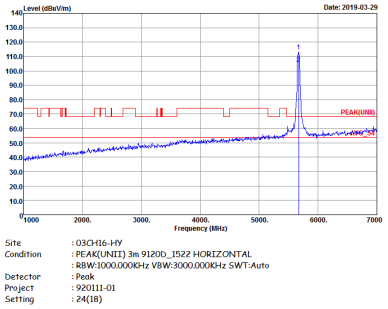
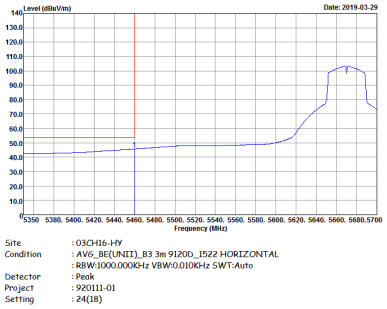
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH102 5510MHz - R	
0	Vertical	Fundamental
Peak		Left blank

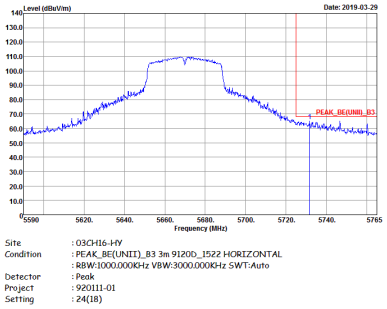
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH110 5550MHz - L	
0	Horizontal	Fundamental
Peak		
Avg.		Left blank

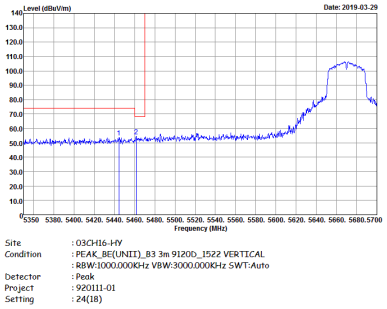
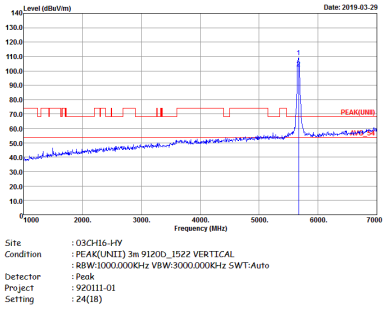
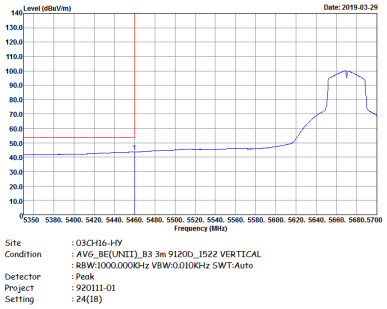
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH110 5550MHz - R	
0	Horizontal	Fundamental
Peak		Left blank

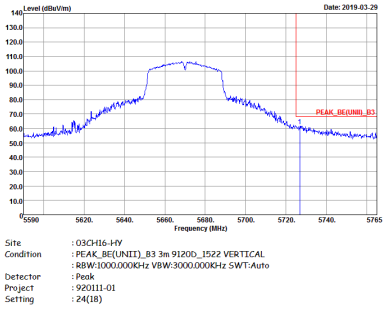
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH110 5550MHz - L	
0	Vertical	Fundamental
Peak		
Avg.		Left blank

WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH110 5550MHz - R	
0	Vertical	Fundamental
Peak		Left blank

WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH134 5670MHz - L	
0	Horizontal	Fundamental
Peak		
Avg.		Left blank

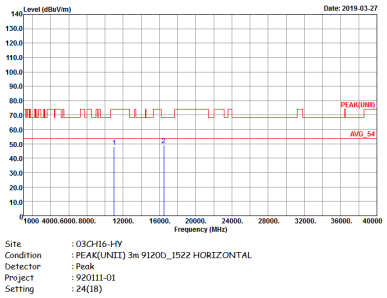
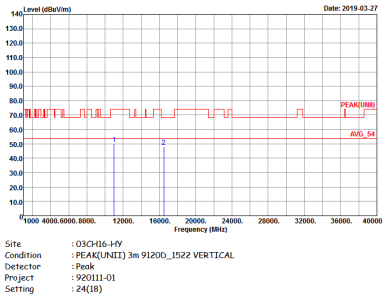
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH134 5670MHz - R	
0	Horizontal	Fundamental
Peak		Left blank

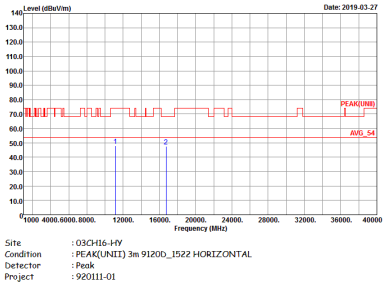
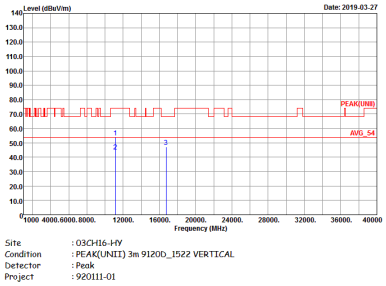
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH134 5670MHz - L	
0	Vertical	Fundamental
Peak		
Avg.		Left blank

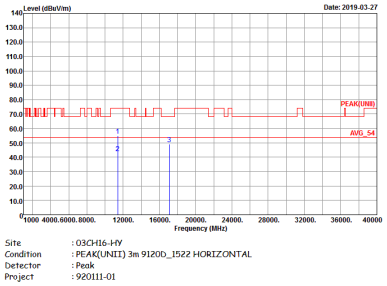
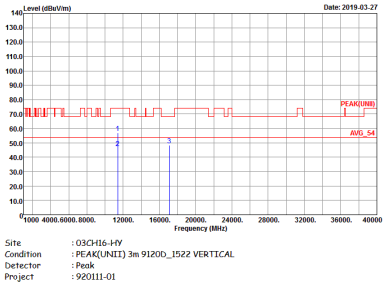
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH134 5670MHz - R	
0	Vertical	Fundamental
Peak		Left blank

Band 3 - 5470~5725MHz

WIFI 802.11a (Harmonic @ 3m)

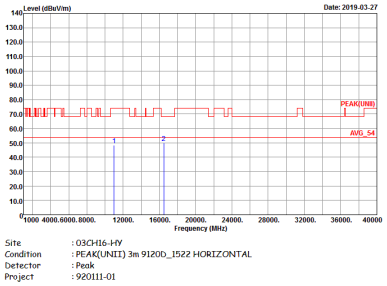
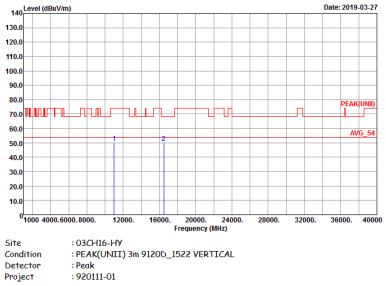
WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11a CH100 5500MHz	
0	Horizontal	Vertical
Peak Avg.		

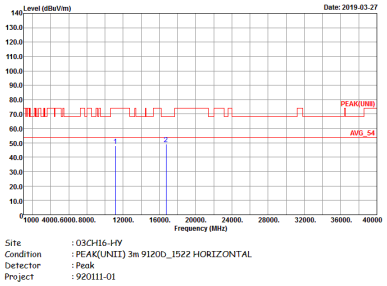
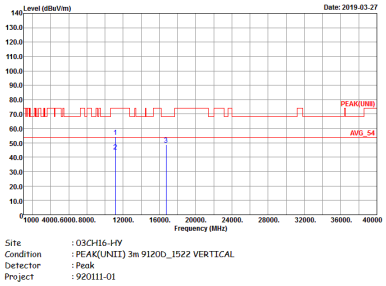
WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11a CH116 5580MHz	
0	Horizontal	Vertical
Peak Avg.		

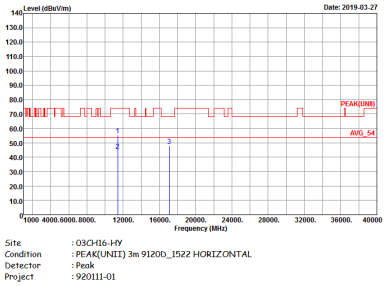
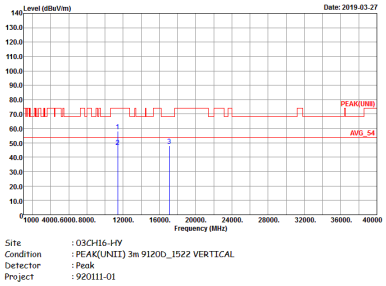
WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11a CH140 5700MHz	
0	Horizontal	Vertical
Peak Avg.		

Band 3 5470~5725MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

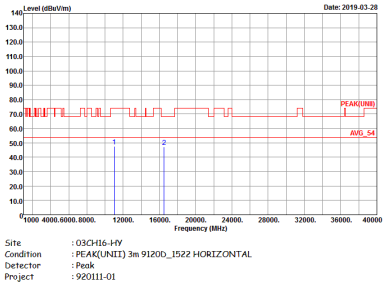
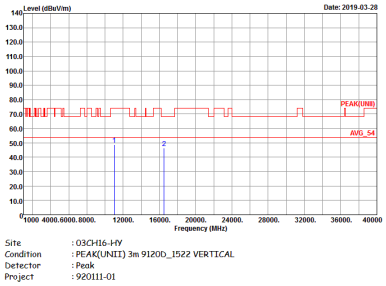
WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11n HT20 CH100 5500MHz	
0	Horizontal	Vertical
Peak Avg.		

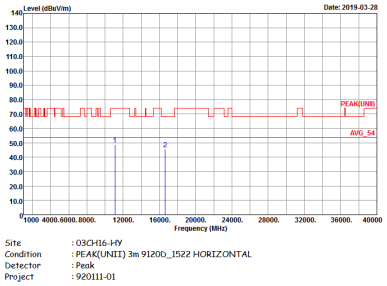
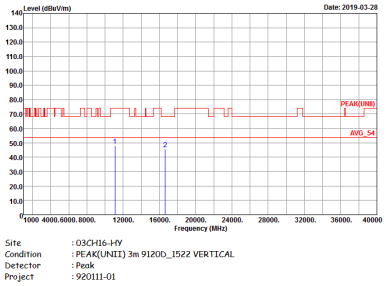
WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11n HT20 CH116 5580MHz	
0	Horizontal	Vertical
Peak Avg.		

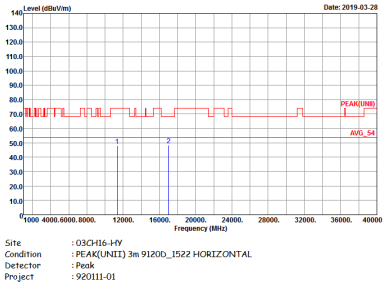
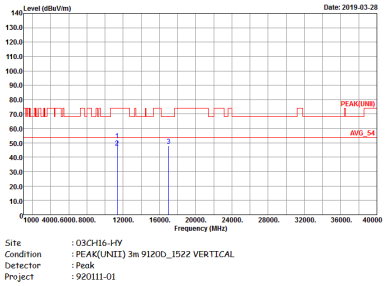
WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11n HT20 CH140 5700MHz	
0	Horizontal	Vertical
Peak Avg.		

Band 3 5470~5725MHz

WIFI 802.11n HT40 (Harmonic @ 3m)

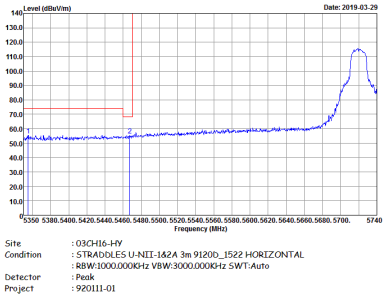
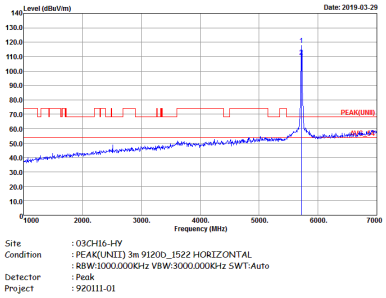
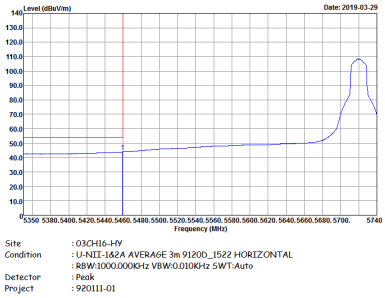
WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11n HT40 CH102 5510MHz	
0	Horizontal	Vertical
Peak Avg.		

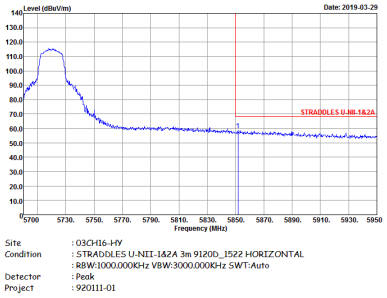
WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11n HT40 CH110 5550MHz	
0	Horizontal	Vertical
Peak Avg.		

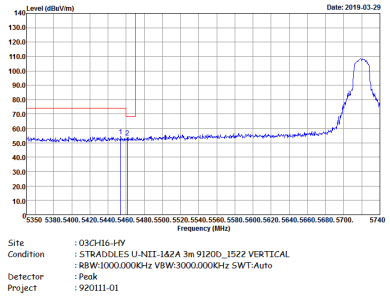
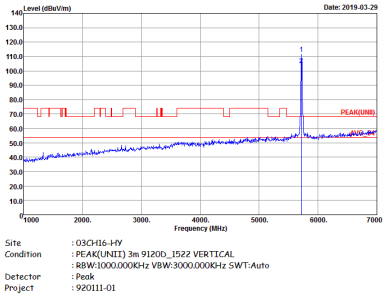
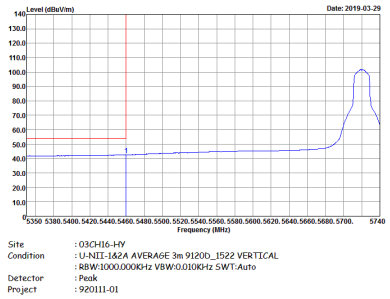
WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11n HT40 CH134 5670MHz	
0	Horizontal	Vertical
Peak Avg.		

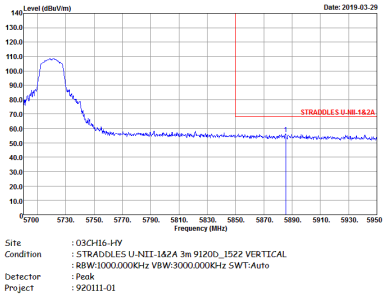
Band 3 - Straddle Channel

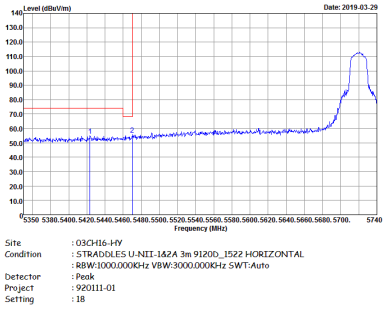
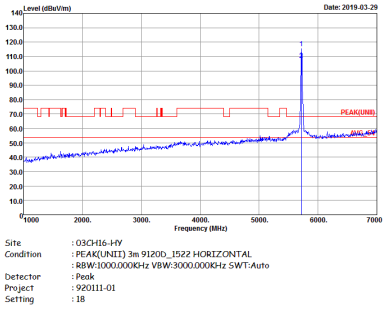
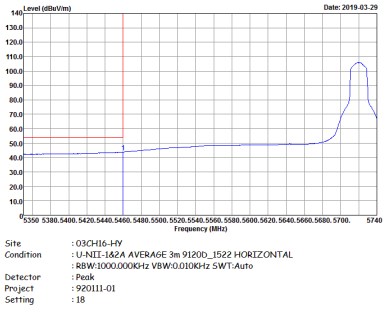
WIFI 802.11a (Band Edge @ 3m)

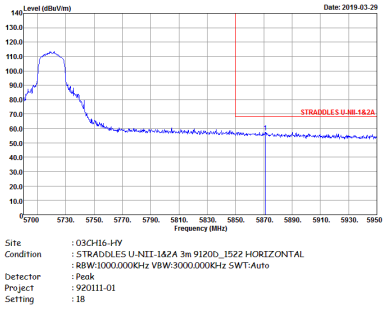
WIFI	Band 3 Straddle Channel Band Edge @ 3m	
ANT	802.11a CH144 5720MHz - L	
0	Horizontal	Fundamental
Peak		
Avg.		Left blank

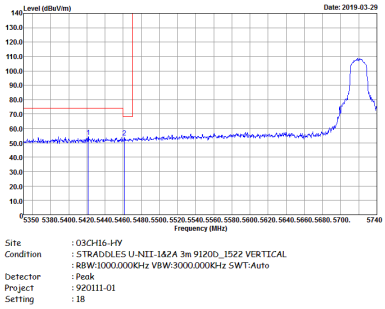
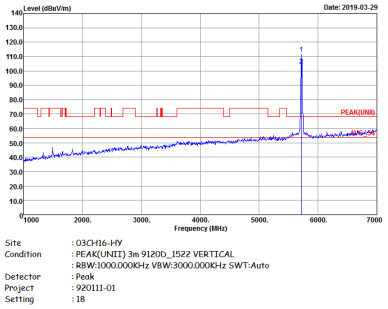
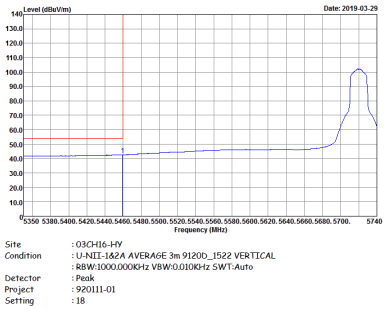
WIFI	Band 3 Straddle Channel Band Edge @ 3m	
ANT	802.11a CH144 5720MHz - L	
0	Horizontal	Fundamental
Peak		Left blank

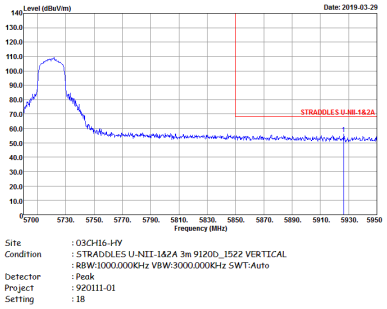
WIFI	Band 3 Straddle Channel Band Edge @ 3m	
ANT	802.11a CH144 5720MHz - L	
0	Vertical	Fundamental
Peak		
Avg.		Left blank

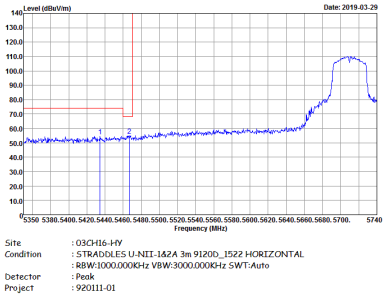
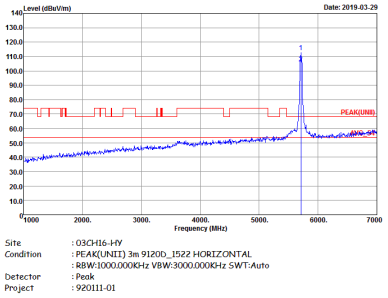
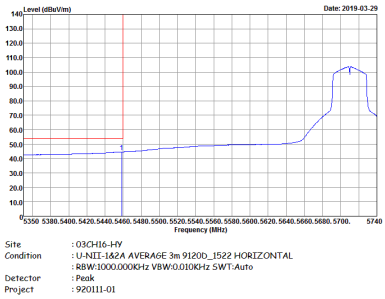
WIFI	Band 3 Straddle Channel Band Edge @ 3m	
ANT	802.11a CH144 5720MHz - L	
0	Vertical	Fundamental
Peak		Left blank

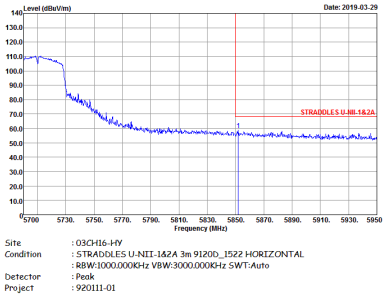
WIFI	Band 3 Straddle Channel Band Edge @ 3m	
ANT	802.11n HT20 CH144 5720MHz - L	
0	Horizontal	Fundamental
Peak		
Avg.		Left blank

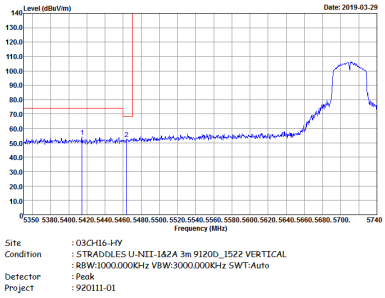
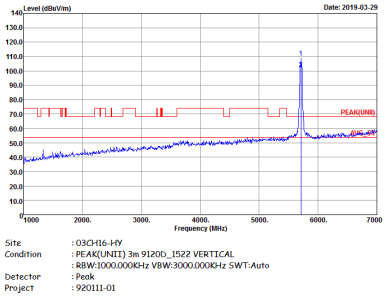
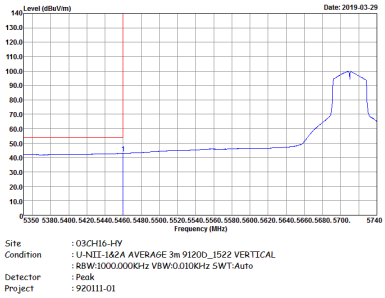
WIFI	Band 3 Straddle Channel Band Edge @ 3m	
ANT	802.11n HT20 CH144 5720MHz - L	
0	Horizontal	Fundamental
Peak		Left blank

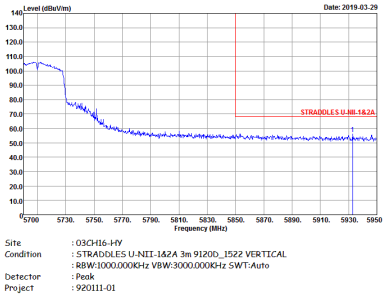
WIFI	Band 3 Straddle Channel Band Edge @ 3m	
ANT	802.11n HT20 CH144 5720MHz - L	
0	Vertical	Fundamental
Peak		
Avg.		Left blank

WIFI	Band 3 Straddle Channel Band Edge @ 3m	
ANT	802.11n HT20 CH144 5720MHz - L	
0	Vertical	Fundamental
Peak		Left blank

WIFI	Band 3 Straddle Channel Band Edge @ 3m	
ANT	802.11n HT40 CH142 5710MHz - L	
0	Horizontal	Fundamental
Peak		
Avg.		Left blank

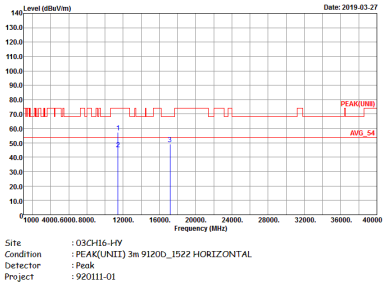
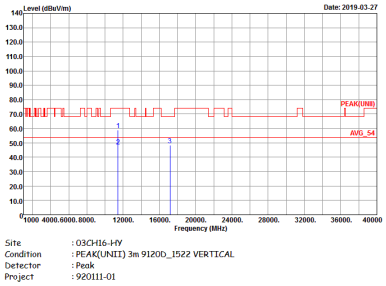
WIFI	Band 3 Straddle Channel Band Edge @ 3m	
ANT	802.11n HT40 CH142 5710MHz - L	
0	Horizontal	Fundamental
Peak		Left blank

WIFI	Band 3 Straddle Channel Band Edge @ 3m	
ANT	802.11n HT40 CH142 5710MHz - L	
0	Vertical	Fundamental
Peak		
Avg.		Left blank

WIFI	Band 3 Straddle Channel Band Edge @ 3m	
ANT	802.11n HT40 CH142 5710MHz - L	
0	Vertical	Fundamental
Peak		Left blank

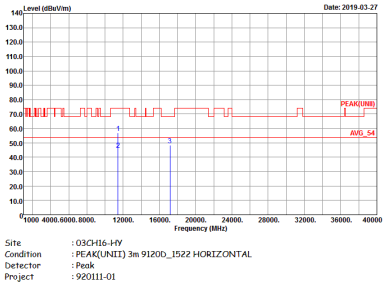
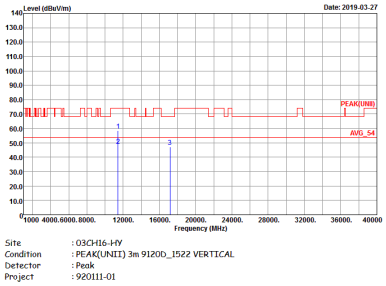
Band 3 - Straddle Channel

WIFI 802.11a (Harmonic @ 3m)

WIFI	Band 3 Straddle Channel Harmonic @ 3m	
ANT	802.11a CH144 5720MHz	
0	Horizontal	Vertical
Peak Avg.		

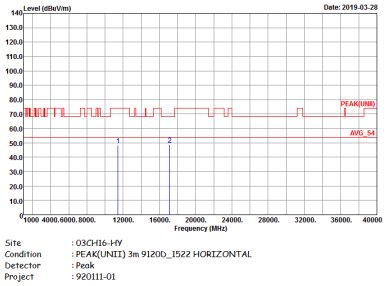
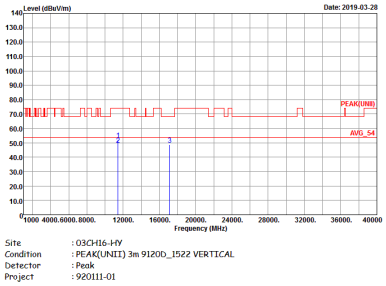
Band 3 – Straddle Channel

WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI	Band 3 Straddle Channel Harmonic @ 3m	
ANT	802.11n HT20 CH144 5720MHz	
0	Horizontal	Vertical
Peak Avg.		

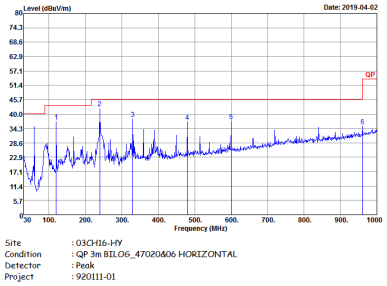
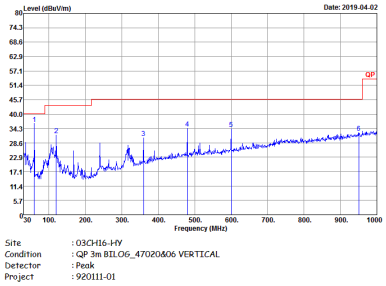
Band 3 – Straddle Channel

WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI	Band 3 Straddle Channel Harmonic @ 3m	
ANT	802.11n HT40 CH142 5710MHz	
0	Horizontal	Vertical
Peak Avg.		

Emission below 1GHz

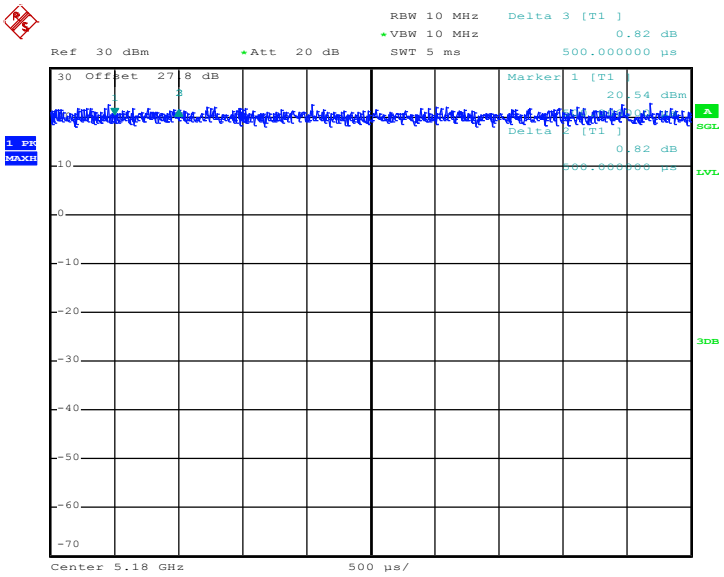
5GHz WIFI 802.11a (LF)

WIFI	5GHz WIFI	
ANT	802.11a LF	
0	Horizontal	Vertical
QP / Peak		

Appendix E. Duty Cycle Plots

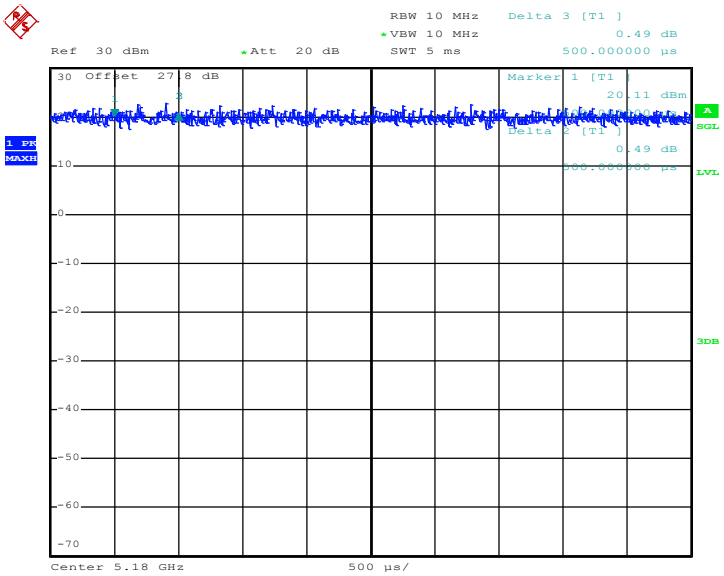
Band	Duty Cycle(%)	T(us)	1/T(kHz)	VBW Setting	Duty Factor(dB)
802.11a	100.00	-	-	10Hz	0.00
5GHz 802.11n HT20	100.00	-	-	10Hz	0.00
5GHz 802.11n HT40	100.00	-	-	10Hz	0.00

802.11a



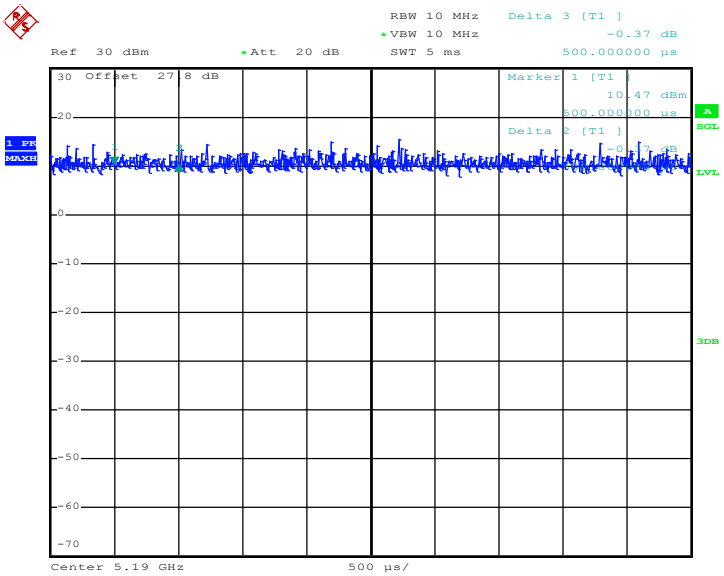
Date: 9.APR.2019 04:27:54

802.11n HT20



Date: 9.APR.2019 04:29:07

802.11n HT40



Date: 9.APR.2019 04:30:00

THE END