



FCC RF Test Report

APPLICANT : Sling Net LLC
EQUIPMENT : Digital Media Receiver
MODEL NAME : VN94DQ
FCC ID : 2ALBE-0301
STANDARD : FCC Part 15 Subpart E §15.407
CLASSIFICATION : (NII) Unlicensed National Information Infrastructure

The product was completed on Aug. 10, 2017. We, SPORTON INTERNATIONAL INC., would like to declare that the tested sample has been evaluated in accordance with the test procedures and has been in compliance with the applicable technical standards.

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

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Approved by: Jones Tsai / Manager



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FCC ID : 2ALBE-0301

Page Number : 1 of 30

Report Issued Date : Aug. 18, 2017

Report Version : Rev. 01

Report Template No.: BU5-FR15EWLAC MA Version 1.4



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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FR742716-01D	Rev. 01	Initial issue of report	Aug. 18, 2017



SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result
3.1	2.1049 15.403(i)	26dB & 99% Bandwidth	-	Pass
3.2	15.407(a)	Maximum Conducted Output Power	≤ 24 dBm (depend on band)	Pass
3.3	15.407(a)	Power Spectral Density	≤ 11 dBm (depend on band)	Pass
3.4	15.407(b)	Unwanted Emissions	≤ -17, -27 dBm (depend on band)&15.209(a)	Pass
3.5	15.207	AC Conducted Emission	15.207(a)	Pass
3.6	15.407(g)	Frequency Stability	Within Operation Band	Pass
3.7	15.407(c)	Automatically Discontinue Transmission	Discontinue Transmission	Pass
3.8	15.203 & 15.407(a)	Antenna Requirement	N/A	Pass



1 General Description

1.1 Applicant

Sling Net LLC

125 Half Mile Road Suite 200 Red Bank, New Jersey 07701-6749

1.2 Product Feature of Equipment Under Test

Product Feature	
Equipment	Digital Media Receiver
Model Name	VN94DQ
FCC ID	2ALBE-0301
EUT supports Radios application	WLAN 11b/g/n HT20 WLAN 11a/n HT20/HT40 WLAN 11ac VHT20/VHT40/VHT80 Bluetooth BR/EDR/LE



1.3 Product Specification of Equipment Under Test

Standards-related Product Specification	
Tx/Rx Frequency Range	5180 MHz ~ 5240 MHz
Maximum Output Power to Antenna	<p><5180 MHz ~ 5240 MHz></p> <p><Ant. 1></p> <p>802.11a : 20.13 dBm / 0.1030 W 802.11n HT20 : 19.94 dBm / 0.0986 W 802.11n HT40 : 18.83 dBm / 0.0764 W 802.11ac VHT20: 19.91 dBm / 0.0979 W 802.11ac VHT40: 18.78 dBm / 0.0755 W 802.11ac VHT80: 10.31 dBm / 0.0107 W</p> <p><Ant. 2></p> <p>802.11a : 19.94 dBm / 0.0986 W 802.11n HT20 : 19.91 dBm / 0.0979 W 802.11n HT40 : 17.61 dBm / 0.0577 W 802.11ac VHT20: 19.80 dBm / 0.0955 W 802.11ac VHT40: 17.57 dBm / 0.0571 W 802.11ac VHT80: 10.51 dBm / 0.0112 W</p> <p>MIMO <Ant. 1 + 2></p> <p>802.11a : 19.53 dBm / 0.0897 W 802.11n HT20 : 19.73 dBm / 0.0940 W 802.11n HT40 : 20.02 dBm / 0.1005 W 802.11ac VHT20: 19.72 dBm / 0.0938 W 802.11ac VHT40: 19.95 dBm / 0.0989 W 802.11ac VHT80: 12.06 dBm / 0.0161 W</p>
99% Occupied Bandwidth	<p><Ant. 1></p> <p>802.11a : 19.15 MHz 802.11n HT20 : 19.60 MHz 802.11n HT40 : 37.00 MHz 802.11ac VHT80 : 75.96 MHz</p> <p><Ant. 2></p> <p>802.11a : 20.20 MHz 802.11n HT20 : 20.45 MHz 802.11n HT40 : 36.70 MHz 802.11ac VHT80 : 75.84 MHz</p> <p>MIMO <Ant. 1></p> <p>802.11a : 18.35 MHz 802.11n HT20 : 19.00 MHz 802.11n HT40 : 36.90 MHz 802.11ac VHT80 : 75.84 MHz</p> <p>MIMO <Ant. 2></p> <p>802.11a : 18.10 MHz 802.11n HT20 : 19.10 MHz 802.11n HT40 : 36.90 MHz 802.11ac VHT80 : 75.84 MHz</p>



Antenna Type / Gain	<5180 MHz ~ 5240 MHz> Ant. 1 : Fixed internal Antenna with gain 6.10 dBi Ant. 2 : Fixed internal Antenna with gain 5.30 dBi	
Type of Modulation	802.11a/n : OFDM (BPSK / QPSK / 16QAM / 64QAM) 802.11ac : OFDM (BPSK / QPSK / 16QAM / 64QAM / 256QAM)	
Antenna Function Description	802.11 a/n/ac	Ant. 1
	802.11 a/n/ac MIMO	Ant. 2

Note: MIMO Ant. 1+2 is a calculated result from sum of the power MIMO Ant. 1 and MIMO Ant. 2.

1.4 Modification of EUT

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



1.5 Testing Location

Sportun Lab is accredited to ISO 17025 by Taiwan Accreditation Foundation (TAF code : 1190) and the FCC designation No. TW0007 under the FCC 2.948(e) by Mutual Recognition Agreement (MRA) in FCC Test.

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

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

Test Site	SPORTON INTERNATIONAL INC.	
Test Site Location	No.58, Aly. 75, Ln. 564, Wenhua 3rd Rd. Guishan Dist, Taoyuan City, Taiwan (R.O.C.) TEL: +886-3-327-0868 FAX: +886-3-327-0855	
Test Site No.	Sportun Site No.	
	03CH15-HY	

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

1.6 Applicable Standards

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

- ♦ FCC Part 15 Subpart E
- ♦ FCC KDB 789033 D02 General UNII Test Procedures New Rules v01r04
- ♦ FCC KDB 662911 D01 Multiple Transmitter Output v02r01.
- ♦ 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).
- 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
	42 [#]	5210		

Note:

1. The above Frequency and Channel in "*" were 802.11n HT40 and 802.11ac VHT40.
2. The above Frequency and Channel in "#" were 802.11ac VHT80.



2.2 Test Mode

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

Single Antenna

Modulation	Data Rate
802.11a	6 Mbps
802.11n HT20	MCS0
802.11n HT40	MCS0
802.11ac VHT80	MCS0

MIMO Antenna

Modulation	Data Rate
802.11a	6 Mbps
802.11n HT20	MCS0
802.11n HT40	MCS0
802.11ac VHT80	MCS0

Test Cases

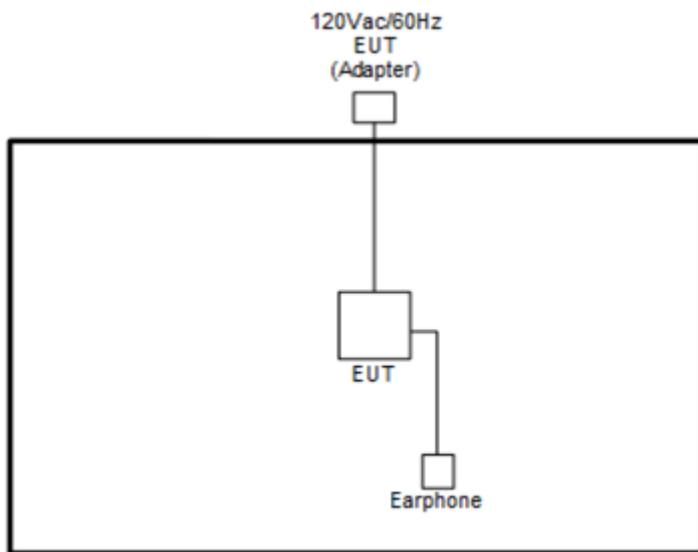
AC Conducted Emission	Mode 1 : WLAN (5GHz) Link + Bluetooth Link + MPEG4 + Adapter 1
-----------------------------	--

Ch. #	Band I : 5150-5250 MHz	Band I : 5150-5250 MHz	Band I : 5150-5250 MHz
	802.11a	802.11n HT20	802.11n HT40
L Low	36	36	38
M Middle	44	44	-
H High	48	48	46

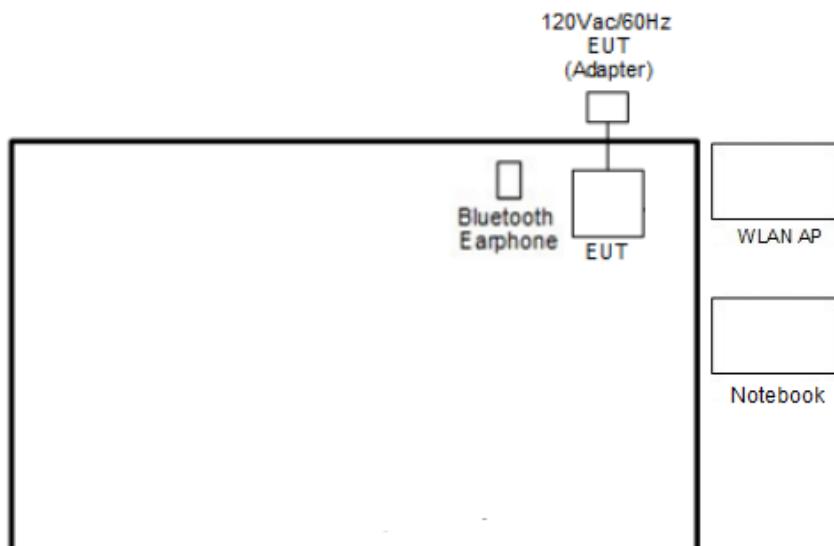
Ch. #	Band I : 5150-5250 MHz	Band I : 5150-5250 MHz	Band I : 5150-5250 MHz
	802.11ac VHT20	802.11ac VHT40	802.11ac VHT80
L Low	36	38	-
M Middle	44	-	42
H High	48	46	-

2.3 Connection Diagram of Test System

<WLAN Tx Mode>



<EUT with Adapter in Link Mode>





2.4 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	Bluetooth Earphone	Sony Ericsson	MW600	PY7DDA-2029	N/A	N/A
2.	iPod Earphone	Apple	N/A	Verification	Unshielded, 1.2m	N/A
3.	WLAN AP	ASUS	RT-AC66U	MSQ-RTAC66U	N/A	Unshielded, 1.8 m
4.	Notebook	DELL	Latitude E6320	FCC DoC/ Contains FCC ID: QDS-BRCM1054	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m

2.5 EUT Operation Test Setup

The RF test items, programmed RF utility, “Compliance Tool” installed in the notebook make the EUT provide functions like channel selection and power level for continuous transmitting and receiving signals.

2.6 Measurement Results Explanation Example

For all conducted test items:

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

Example :

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

Offset = RF cable loss + attenuator factor.

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

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



3 Test Result

3.1 26dB & 99% Occupied Bandwidth Measurement

3.1.1 Description of 26dB & 99% Occupied Bandwidth

This section is for reporting purpose only.

There is no restriction limits for bandwidth.

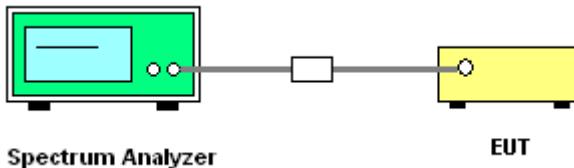
3.1.2 Measuring Instruments

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

3.1.3 Test Procedures

1. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v01r04.
Section C) Emission bandwidth
2. Set RBW = approximately 1% of the emission bandwidth.
3. Set the VBW > RBW.
4. Detector = Peak.
5. Trace mode = max hold
6. 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%.
7. For 99% Bandwidth Measurement, the spectrum analyzer's resolution bandwidth (RBW) is set
1MHz and set the Video bandwidth (VBW) $\geq 3 * \text{RBW}$.
8. Measure and record the results in the test report.

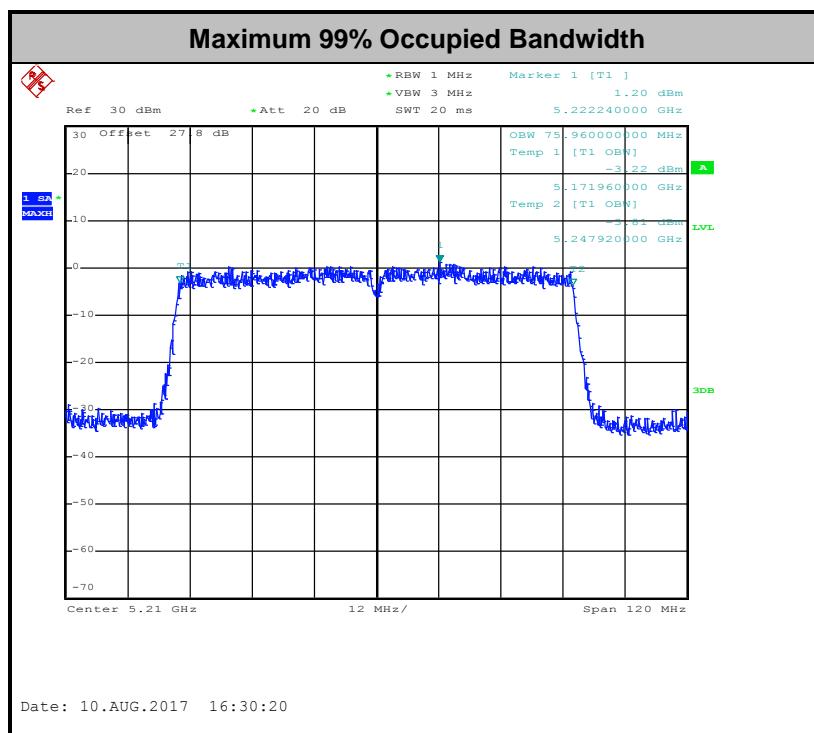
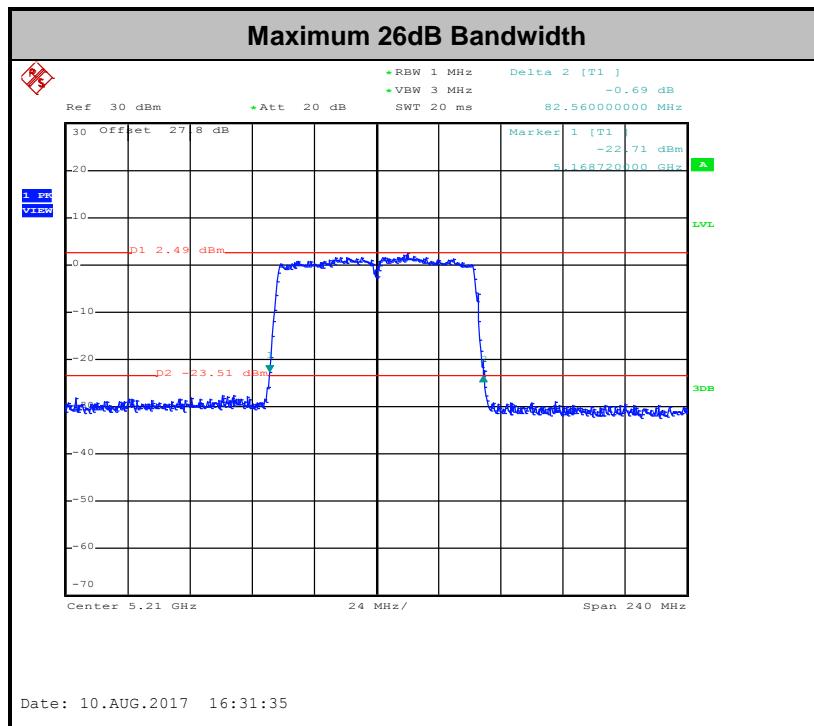
3.1.4 Test Setup





3.1.5 Test Result of 26dB & 99% Occupied Bandwidth

Please refer to Appendix A.



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



3.2 Maximum Conducted Output Power Measurement

3.2.1 Limit of Maximum Conducted Output Power

<FCC 14-30 CFR 15.407>

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.

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.

3.2.2 Measuring Instruments

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

3.2.3 Test Procedures

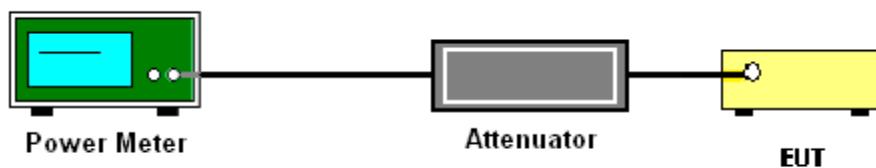
CDD modes

The testing follows Method PM of FCC KDB 789033 D02 General UNII Test Procedures New Rules v01r04 for CDD modes.

Method PM (Measurement using an RF average power meter):

1. Measurement is performed using a wideband RF power meter.
2. The EUT is configured to transmit continuously with a consistent duty cycle at its maximum power control level.
3. Measure the average power of the transmitter, and the average power is corrected with duty factor, $10 \log(1/x)$, where x is the duty cycle.

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 mobile and portable client devices in the 5.15–5.25 GHz band, the maximum power spectral density shall not exceed 11dBm in any 1 megahertz band.

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

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

3.3.3 Test Procedures

The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v01r04.

Section F) Maximum power spectral density.

CDD modes

Method SA-2

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

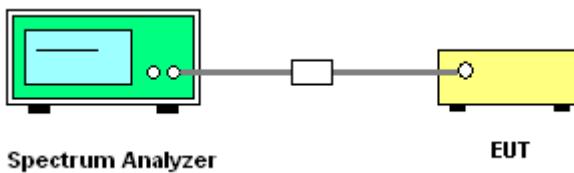
- Measure the duty cycle.
 - Set span to encompass the entire emission bandwidth (EBW) of the signal.
 - Set RBW = 1 MHz.
 - Set VBW \geq 3 MHz.
 - Number of points in sweep \geq 2 Span / RBW.
 - Sweep time = auto.
 - Detector = RMS
 - Trace average at least 100 traces in power averaging mode.
 - Add $10 \log(1/x)$, 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. For MIMO mode, calculation method follows FCC KDB 662911 D01 Multiple Transmitter Output v02r01.

Method (a): Measure and sum the spectra across the outputs.

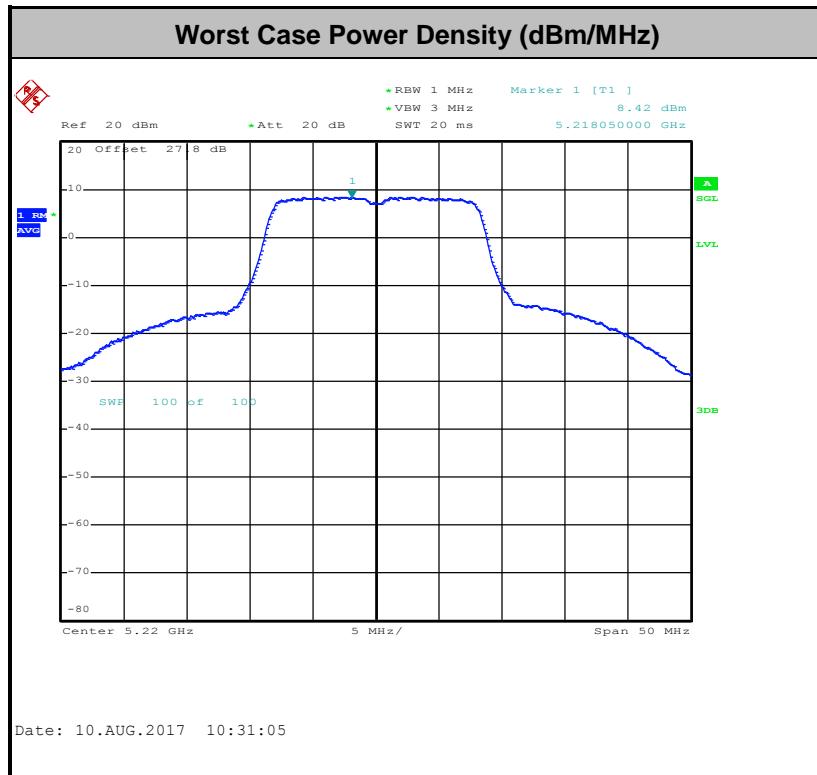
The total final Power Spectral Density is from a device with 2 transmitter outputs. The spectrum measurements of the individual outputs are all performed with the same span and number of points, the spectrum value in the first spectral bin of output 1 is summed with that in the first spectral bin of output 2 to obtain the value for the first frequency bin of the summed spectrum.

3.3.4 Test Setup



3.3.5 Test Result of Power Spectral Density

Please refer to Appendix A.



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.
- (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.

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

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



(3) KDB789033 D01 v01r04 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

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

3.4.3 Test Procedures

1. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v01r04.
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 \geq 3 MHz
 - Detector = Peak
 - Sweep time = auto
 - Trace mode = max hold

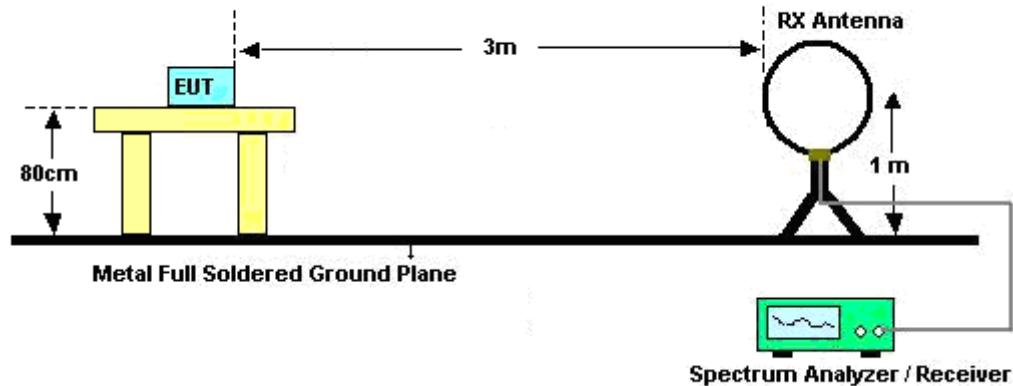


(3) Procedures for Average Unwanted Emissions Measurements Above 1000MHz

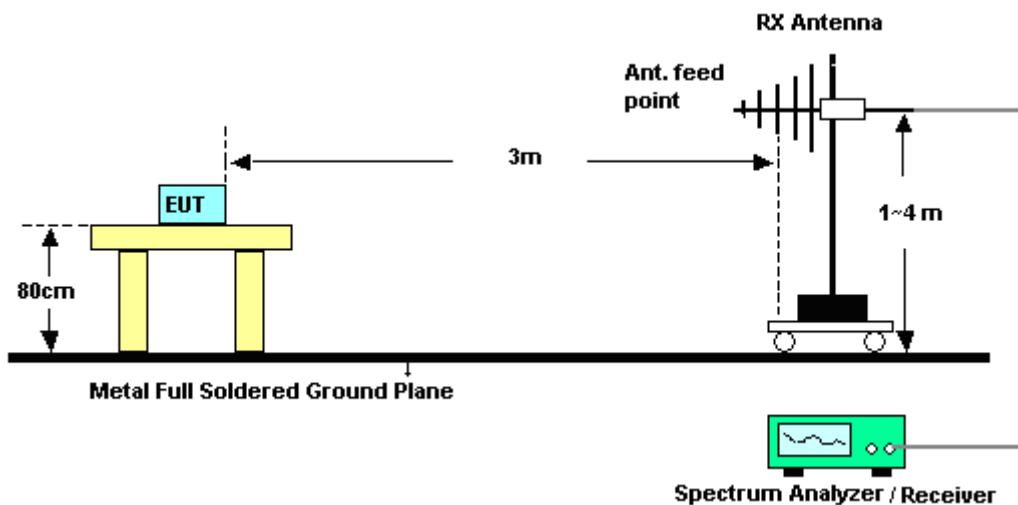
- RBW = 1 MHz
 - VBW = 10 Hz, when duty cycle is no less than 98 percent.
 - VBW \geq 1/T, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.
2. 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.

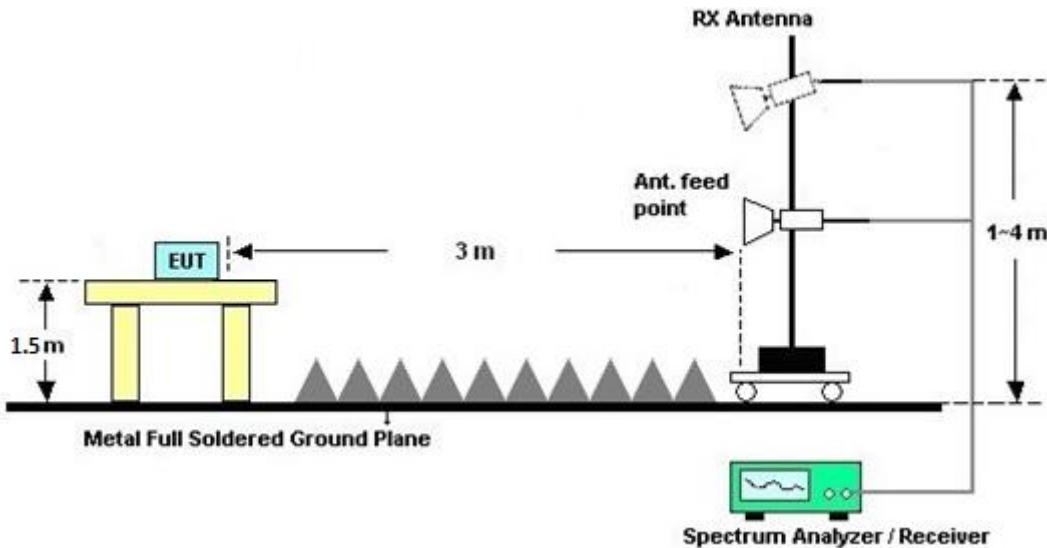
3.4.4 Test Setup

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 semi-Anechoic chamber, 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 (dB μ V)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

*Decreases with the logarithm of the frequency.

3.5.2 Measuring Instruments

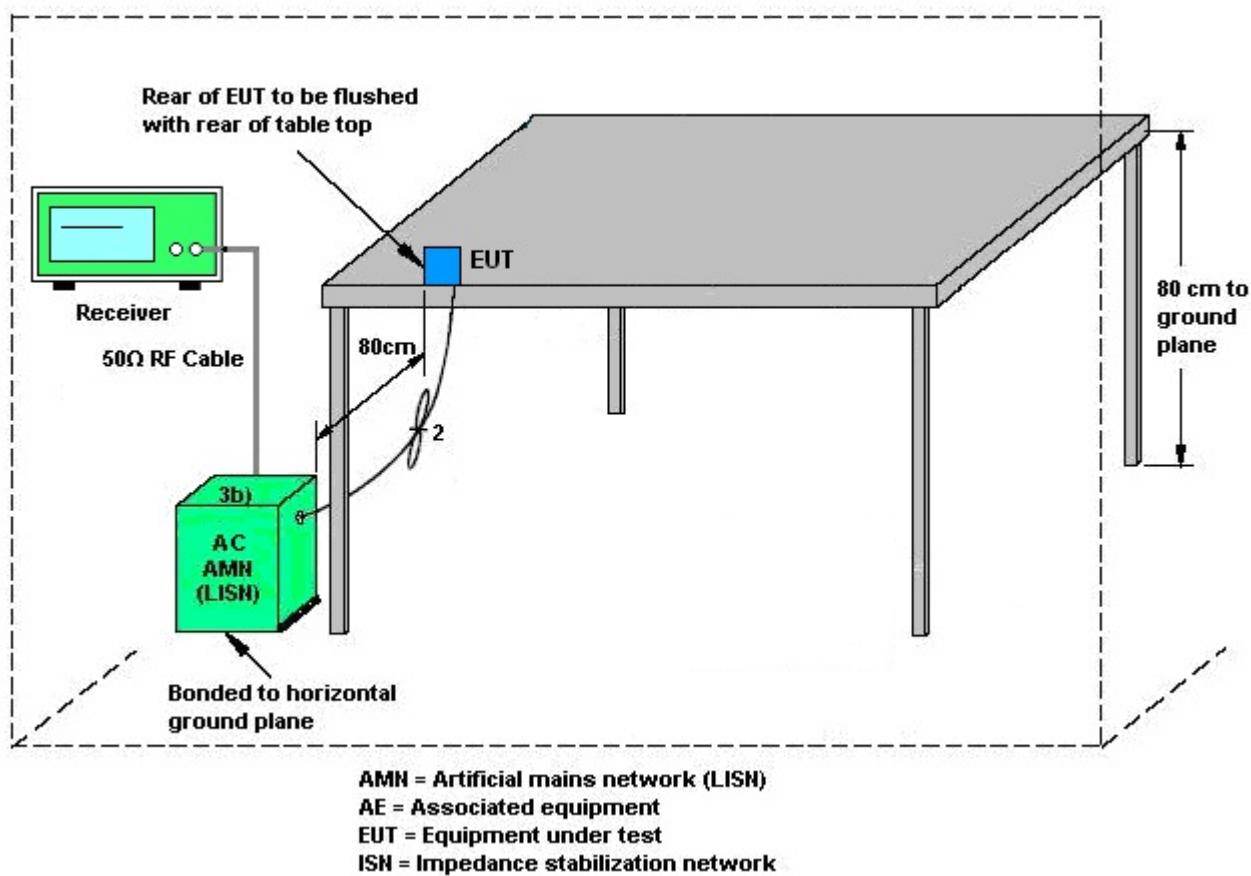
The measuring equipment is listed in the section 4 of this test report.

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



3.5.5 Test Result of AC Conducted Emission

Please refer to Appendix B.



3.6 Frequency Stability Measurement

3.6.1 Limit of Frequency Stability

Manufacturers of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual.

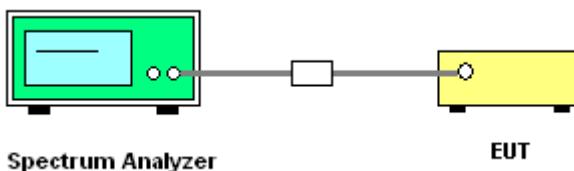
3.6.2 Measuring Instruments

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

3.6.3 Test Procedures

1. To ensure emission at the band edge is maintained within the authorized band, those values shall be measured by radiation emissions at upper and lower frequency points, and finally compensated by frequency deviation as procedures below.
2. The EUT was operated at the maximum output power, and connected to the spectrum analyzer, which is set to maximum hold function and peak detector. The peak value of the power envelope was measured and noted. The upper and lower frequency points were respectively measured relatively 10dB lower than the measured peak value.
3. The frequency deviation was calculated by adding the upper frequency point and the lower frequency point divided by two. Those detailed values of frequency deviation are provided in table below.

3.6.4 Test Setup



3.6.5 Test Result of Frequency Stability

Please refer to Appendix A.

The frequency band 5180-5240MHz which was verified by testing against other standard is less than 20 ppm which is sufficient to maintain the signal within the 5150-5250MHz band.



3.7 Automatically Discontinue Transmission

3.7.1 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.

3.7.2 Measuring Instruments

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

3.7.3 Test Result of Automatically Discontinue Transmission

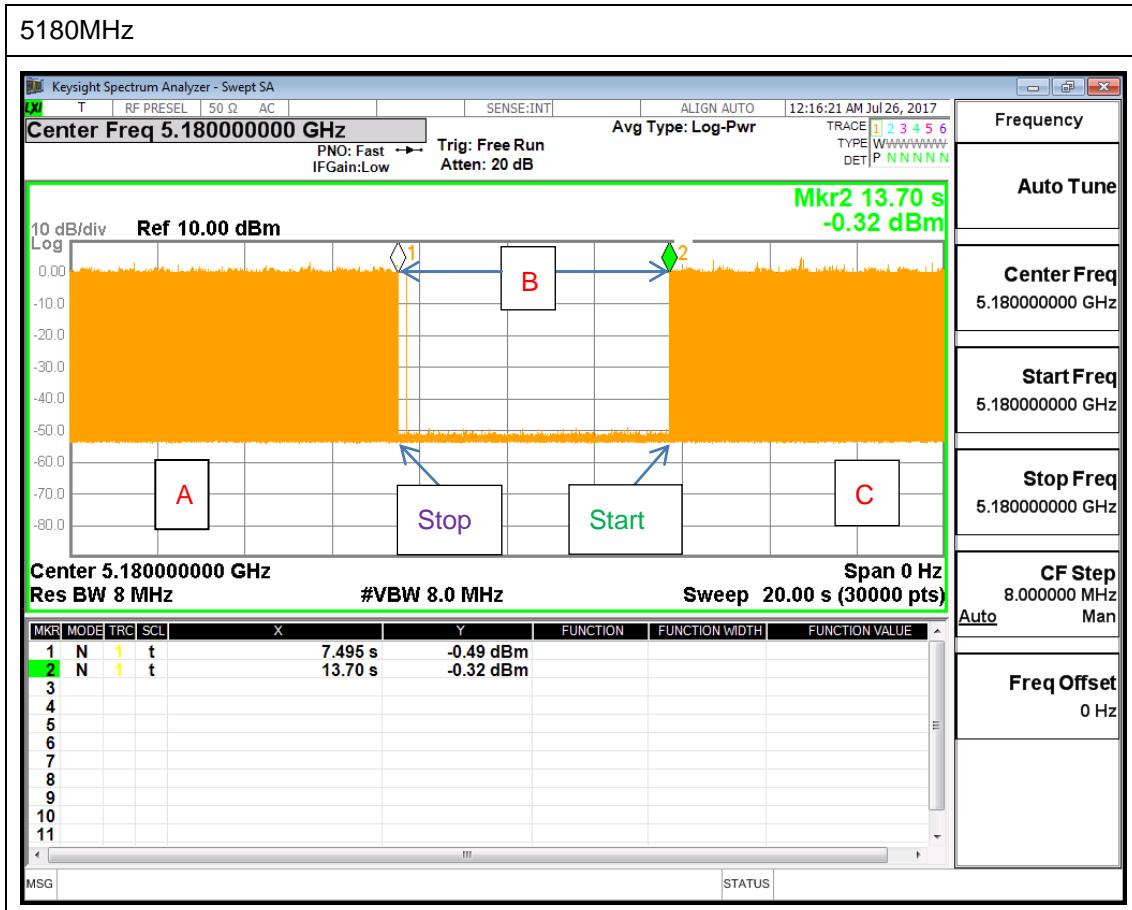
EUT is verified this characteristic during the function check of normal sample associated with an access point:

- 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.



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



3.8 Antenna Requirements

3.8.1 Standard Applicable

According to FCC 47 CFR Section 15.407(a)(1)(2) ,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.

3.8.2 Antenna Anti-Replacement Construction

An embedded-in antenna design is used.

3.8.3 Antenna Gain

CDD modes

FCC KDB 662911 D01 Multiple Transmitter Output v02r01

For CDD transmissions, directional gain is calculated as

Directional gain = $G_{ANT} + \text{Array Gain}$, where Array Gain is as follows.

For power spectral density (PSD) measurements on all devices,

Array Gain = $10 \log(N_{ANT}/N_{SS}=1)$ dB.

For power measurements on IEEE 802.11 devices,

Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$.

Directional gain may be calculated by using the formulas applicable to equal gain antennas with G_{ANT} set equal to the gain of the antenna having the highest gain;

The EUT supports CDD mode.

For power, the directional gain G_{ANT} is set equal to the antenna having the highest gain, i.e., F2)f)i).

For PSD, the directional gain calculation is following F2)f)ii) of KDB 662911 D01 v02r01.

The power and PSD limit should be modified if the directional gain of EUT is over 6 dBi,

The directional gain "DG" is calculated as following table.

			DG for Power	DG for PSD	Power Limit	PSD Limit
	Ant 1	Ant 2	Power	PSD	Reduction	Reduction
	(dBi)	(dBi)	(dBi)	(dBi)	(dB)	(dB)
Band I	6.10	5.30	6.10	8.72	0.10	2.72

Power limit reduction = Composite gain – 6dBi, (min = 0)

PSD limit reduction = Composite gain + PSD Array gain – 6dBi, (min = 0)



4 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Power Meter	Anritsu	ML2495A	1218006	N/A	Oct. 06, 2016	Jul. 25, 2017~Aug. 10, 2017	Oct. 05, 2017	Conducted (TH05-HY)
Power Sensor	Anritsu	MA2411B	1207363	300MHz~40GHz	Oct. 06, 2016	Jul. 25, 2017~Aug. 10, 2017	Oct. 05, 2017	Conducted (TH05-HY)
Spectrum Analyzer	Rohde & Schwarz	FSP40	100057	9kHz-40GHz	Nov. 25, 2016	Jul. 25, 2017~Aug. 10, 2017	Nov. 24, 2017	Conducted (TH05-HY)
Temperature Chamber	ESPEC	SH-641	92013720	-40°C ~90°C	Sep. 01, 2016	Jul. 25, 2017~Aug. 10, 2017	Aug. 31, 2017	Conducted (TH05-HY)
Programmable Power Supply	GW Instek	PSS-2005	EL890094	1V~20V 0.5A~5A	Oct. 11, 2016	Jul. 25, 2017~Aug. 10, 2017	Oct. 10, 2017	Conducted (TH05-HY)
AC Power Source	ChainTek	APC-1000W	N/A	N/A	N/A	Jul. 27, 2017	N/A	Conduction (CO05-HY)
EMI Test Receiver	Rohde & Schwarz	ESCI 7	100724	9kHz~7GHz	Aug. 30, 2016	Jul. 27, 2017	Aug. 29, 2017	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100080	9kHz~30MHz	Nov. 29, 2016	Jul. 27, 2017	Nov. 28, 2017	Conduction (CO05-HY)
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100315	9 kHz~30 MHz	May 15, 2017	Aug. 02, 2017~Aug. 08, 2017	May 14, 2019	Radiation (03CH15-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170576	18GHz ~ 40GHz	Apr. 27, 2017	Aug. 02, 2017~Aug. 08, 2017	Apr. 26, 2018	Radiation (03CH15-HY)
Amplifier	SONOMA	310N	363440	9kHz~1GHz	Nov. 09, 2016	Aug. 02, 2017~Aug. 08, 2017	Nov. 08, 2017	Radiation (03CH15-HY)
Bilog Antenna	TESEQ	CBL6111D&00800N1D01N-06	41912&05	30MHz to 1GHz	Jan. 07, 2017	Aug. 02, 2017~Aug. 08, 2017	Jan. 06, 2018	Radiation (03CH15-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120D	9120D-1620	1G~18GHz	Sep. 30, 2016	Aug. 02, 2017~Aug. 08, 2017	Sep. 29, 2017	Radiation (03CH15-HY)
Preamplifier	Keysight	83017A	MY53270195	1GHz~26.5GHz	Aug. 24, 2016	Aug. 02, 2017~Aug. 08, 2017	Aug. 23, 2017	Radiation (03CH15-HY)
Preamplifier	MITEQ	AMF-7D-0010 1800	2025787	1GHZ~18GHZ	Feb. 13, 2017	Aug. 02, 2017~Aug. 08, 2017	Feb. 12, 2018	Radiation (03CH15-HY)
Spectrum Analyzer	Agilent	N9030A	MY52350276	3Hz~44GHz	Mar. 23, 2017	Aug. 02, 2017~Aug. 08, 2017	Mar. 22, 2018	Radiation (03CH15-HY)
Preamplifier	MITEQ	TTA 1840-35-HG	1887435	18GHz ~ 40GHz	Oct. 13, 2016	Aug. 02, 2017~Aug. 08, 2017	Oct. 12, 2017	Radiation (03CH15-HY)
Antenna Mast	ChainTek	MBS-520-1	N/A	1m~4m	N/A	Aug. 02, 2017~Aug. 08, 2017	N/A	Radiation (03CH15-HY)
Turn Table	ChainTek	T-200-S-1	N/A	0~360 Degree	N/A	Aug. 02, 2017~Aug. 08, 2017	N/A	Radiation (03CH15-HY)



5 Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2U_{C(y)}$)	2.70
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Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2U_{C(y)}$)	5.14
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Uncertainty of Radiated Emission Measurement (1000 MHz ~ 18000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2U_{C(y)}$)	5.48
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Uncertainty of Radiated Emission Measurement (18000 MHz ~ 40000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2U_{C(y)}$)	5.12
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Appendix A. Test Result of Conducted Test Items

Test Engineer:	Reece Lin / Tommy Lee	Temperature:	21~25	°C
Test Date:	2017/7/25~2017/8/10	Relative Humidity:	51~54	%

TEST RESULTS DATA
26dB and 99% OBW

Band I														
Mod.	Data Rate	N _{TX}	CH.	Freq. (MHz)	99% Bandwidth (MHz)		26 dB Bandwidth (MHz)		IC 99% Bandwidth Power Limit (dBm)		IC 99% Bandwidth EIRP Limit (dBm)		Note	
					Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2		
11a	6Mbps	1	36	5180	18.00	18.20	23.16	23.04	-	-	22.55	22.60		
11a	6Mbps	1	44	5220	19.15	20.20	37.92	40.08	-	-	22.82	23.01		
11a	6Mbps	1	48	5240	18.95	19.80	37.80	41.88	-	-	22.78	22.97		
HT20	MCS0	1	36	5180	19.00	19.15	23.40	23.28	-	-	22.79	22.82		
HT20	MCS0	1	44	5220	19.35	20.00	44.40	46.80	-	-	22.87	23.01		
HT20	MCS0	1	48	5240	19.60	20.45	40.56	46.20	-	-	22.92	23.01		
HT40	MCS0	1	38	5190	36.80	36.70	41.28	41.52	-	-	23.01	23.01		
HT40	MCS0	1	46	5230	37.00	36.70	76.08	41.76	-	-	23.01	23.01		
VHT80	MCS0	1	42	5210	75.96	75.84	82.56	82.56	-	-	23.01	23.01		
11a	6Mbps	2	36	5180	18.15	18.10	23.04	22.92	-	-	22.58	22.58		
11a	6Mbps	2	44	5220	18.35	18.10	23.04	22.68	-	-	22.58	22.58		
11a	6Mbps	2	48	5240	18.20	18.05	26.28	23.04	-	-	22.56	22.56		
HT20	MCS0	2	36	5180	18.90	18.85	23.64	23.16	-	-	22.75	22.75		
HT20	MCS0	2	44	5220	19.00	19.10	23.16	23.40	-	-	22.79	22.79		
HT20	MCS0	2	48	5240	18.90	18.85	23.40	23.16	-	-	22.75	22.75		
HT40	MCS0	2	38	5190	36.90	36.70	41.28	41.28	-	-	23.01	23.01		
HT40	MCS0	2	46	5230	36.70	36.90	41.52	41.28	-	-	23.01	23.01		
VHT80	MCS0	2	42	5210	75.84	75.84	82.08	81.60	-	-	23.01	23.01		

TEST RESULTS DATA
Average Power Table

FCC Band I														
Mod.	Data Rate	N _{TX}	CH.	Freq. (MHz)	Duty Factor (dB)		Average Conducted Power (dBm)			FCC Conducted Power Limit (dBm)		DG (dBi)		Pass/Fail
					Ant 1	Ant 2	Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2	
11a	6Mbps	1	36	5180	0.29	0.34	18.09	16.82		23.90	24.00	6.10	5.30	Pass
11a	6Mbps	1	44	5220	0.29	0.34	20.09	19.84		23.90	24.00	6.10	5.30	Pass
11a	6Mbps	1	48	5240	0.29	0.34	20.13	19.94		23.90	24.00	6.10	5.30	Pass
HT20	MCS0	1	36	5180	0.34	0.31	17.18	16.63		23.90	24.00	6.10	5.30	Pass
HT20	MCS0	1	44	5220	0.34	0.31	19.84	19.71		23.90	24.00	6.10	5.30	Pass
HT20	MCS0	1	48	5240	0.34	0.31	19.94	19.91		23.90	24.00	6.10	5.30	Pass
HT40	MCS0	1	38	5190	0.63	0.61	11.87	11.76		23.90	24.00	6.10	5.30	Pass
HT40	MCS0	1	46	5230	0.63	0.61	18.83	17.61		23.90	24.00	6.10	5.30	Pass
VHT20	MCS0	1	36	5180	0.34	0.34	17.14	16.59		23.90	24.00	6.10	5.30	Pass
VHT20	MCS0	1	44	5220	0.34	0.34	19.81	19.69		23.90	24.00	6.10	5.30	Pass
VHT20	MCS0	1	48	5240	0.34	0.34	19.91	19.80		23.90	24.00	6.10	5.30	Pass
VHT40	MCS0	1	38	5190	0.63	0.63	11.83	11.73		23.90	24.00	6.10	5.30	Pass
VHT40	MCS0	1	46	5230	0.63	0.63	18.78	17.57		23.90	24.00	6.10	5.30	Pass
VHT80	MCS0	1	42	5210	1.16	1.19	10.31	10.51		23.90	24.00	6.10	5.30	Pass
11a	6Mbps	2	36	5180	0.29	0.32	16.24	16.77	19.53	23.90		6.10		Pass
11a	6Mbps	2	44	5220	0.29	0.32	16.05	16.53	19.31	23.90		6.10		Pass
11a	6Mbps	2	48	5240	0.29	0.32	16.16	16.72	19.46	23.90		6.10		Pass
HT20	MCS0	2	36	5180	0.25	0.25	16.20	16.55	19.39	23.90		6.10		Pass
HT20	MCS0	2	44	5220	0.25	0.25	16.49	16.94	19.73	23.90		6.10		Pass
HT20	MCS0	2	48	5240	0.25	0.25	16.35	16.90	19.64	23.90		6.10		Pass
HT40	MCS0	2	38	5190	0.61	0.64	11.01	11.43	14.23	23.90		6.10		Pass
HT40	MCS0	2	46	5230	0.61	0.64	16.71	17.29	20.02	23.90		6.10		Pass
VHT20	MCS0	2	36	5180	0.34	0.33	16.19	16.53	19.37	23.90		6.10		Pass
VHT20	MCS0	2	44	5220	0.34	0.33	16.49	16.93	19.72	23.90		6.10		Pass
VHT20	MCS0	2	48	5240	0.34	0.33	16.29	16.94	19.63	23.90		6.10		Pass
VHT40	MCS0	2	38	5190	0.63	0.61	10.98	11.36	14.18	23.90		6.10		Pass
VHT40	MCS0	2	46	5230	0.63	0.61	16.66	17.21	19.95	23.90		6.10		Pass
VHT80	MCS0	2	42	5210	1.17	1.16	8.72	9.35	12.06	23.90		6.10		Pass

TEST RESULTS DATA
Power Spectral Density

FCC Band I														
Mod.	Data Rate	N _{TX}	CH.	Freq. (MHz)	Duty Factor (dB)		Average Power Density (dBm/MHz)			Average PSD Limit (dBm/MHz)		DG (dBi)		Pass /Fail
					Ant 1	Ant 2	Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2	
11a	6Mbps	1	36	5180	0.29	0.34	6.61	5.57		10.90	11.00	6.10	5.30	
11a	6Mbps	1	44	5220	0.29	0.34	8.75	8.76		10.90	11.00	6.10	5.30	
11a	6Mbps	1	48	5240	0.29	0.34	8.64	8.66		10.90	11.00	6.10	5.30	
HT20	MCS0	1	36	5180	0.34	0.31	5.62	5.11		10.90	11.00	6.10	5.30	
HT20	MCS0	1	44	5220	0.34	0.31	8.47	8.42		10.90	11.00	6.10	5.30	
HT20	MCS0	1	48	5240	0.34	0.31	8.28	8.19		10.90	11.00	6.10	5.30	
HT40	MCS0	1	38	5190	0.63	0.61	-2.54	-2.41		10.90	11.00	6.10	5.30	
HT40	MCS0	1	46	5230	0.63	0.61	4.26	3.17		10.90	11.00	6.10	5.30	
VHT80	MCS0	1	42	5210	1.16	1.19	-6.61	-6.38		10.90	11.00	6.10	5.30	
11a	6Mbps	2	36	5180	0.29	0.32			8.08	8.28		8.72		
11a	6Mbps	2	44	5220	0.29	0.32			7.99	8.28		8.72		
11a	6Mbps	2	48	5240	0.29	0.32			8.04	8.28		8.72		
HT20	MCS0	2	36	5180	0.25	0.25			7.91	8.28		8.72		
HT20	MCS0	2	44	5220	0.25	0.25			8.09	8.28		8.72		
HT20	MCS0	2	48	5240	0.25	0.25			7.90	8.28		8.72		
HT40	MCS0	2	38	5190	0.61	0.64			-0.23	8.28		8.72		
HT40	MCS0	2	46	5230	0.61	0.64			5.44	8.28		8.72		
VHT80	MCS0	2	42	5210	1.17	1.16			-4.88	8.28		8.72		

TEST RESULTS DATA
Frequency Stability

Band I										
Mod.	Data Rate	N _{TX}	CH.	Freq. (MHz)	Center Frequency (MHz)	Frequency Deviation (MHz)	Frequency Stability (ppm)	Temperature (°C)	Voltage (V)	Note
11a	6Mbps	1	36	5180	5180.000	0.000	0.00	35	12	
11a	6Mbps	1	36	5180	5180.000	0.000	0.00	0	12	
11a	6Mbps	1	36	5180	5180.000	0.000	0.00	20	12.6	
11a	6Mbps	1	36	5180	5180.025	0.025	4.83	20	11.4	
11a	6Mbps	1	36	5180	5180.000	0.000	0.00	20	12	



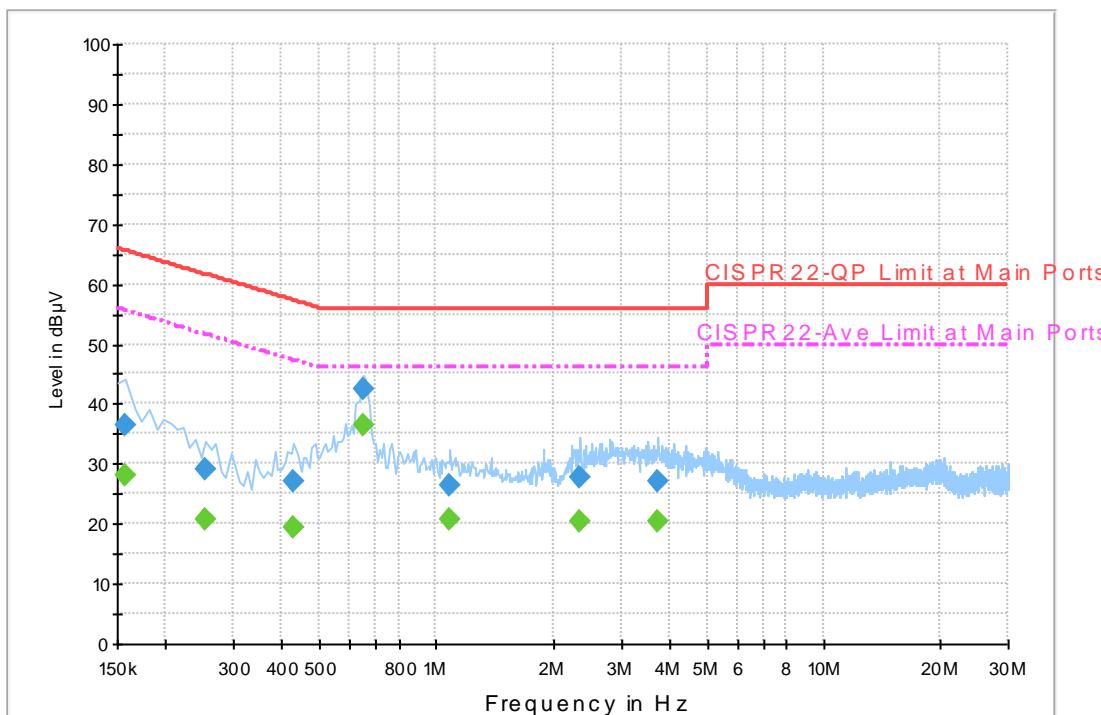
Appendix B. AC Conducted Emission Test Result

Test Engineer :	Kai-Chun Chu	Temperature :	26~27°C
		Relative Humidity :	52~53%

EUT Information

Report NO : 742716-01
 Test Mode : Mode 1
 Test Voltage : 120Vac/60Hz
 Phase : Line

EN V216 Auto Test FCC Power Bar - L



Final Result 1

Frequency (MHz)	QuasiPeak (dB μ V)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)
0.158000	36.6	Off	L1	19.6	29.0	65.6
0.254000	29.3	Off	L1	19.6	32.3	61.6
0.430000	27.0	Off	L1	19.6	30.3	57.3
0.646000	42.4	Off	L1	19.6	13.6	56.0
1.086000	26.4	Off	L1	19.6	29.6	56.0
2.358000	27.6	Off	L1	19.0	28.4	56.0
3.734000	27.0	Off	L1	19.7	29.0	56.0

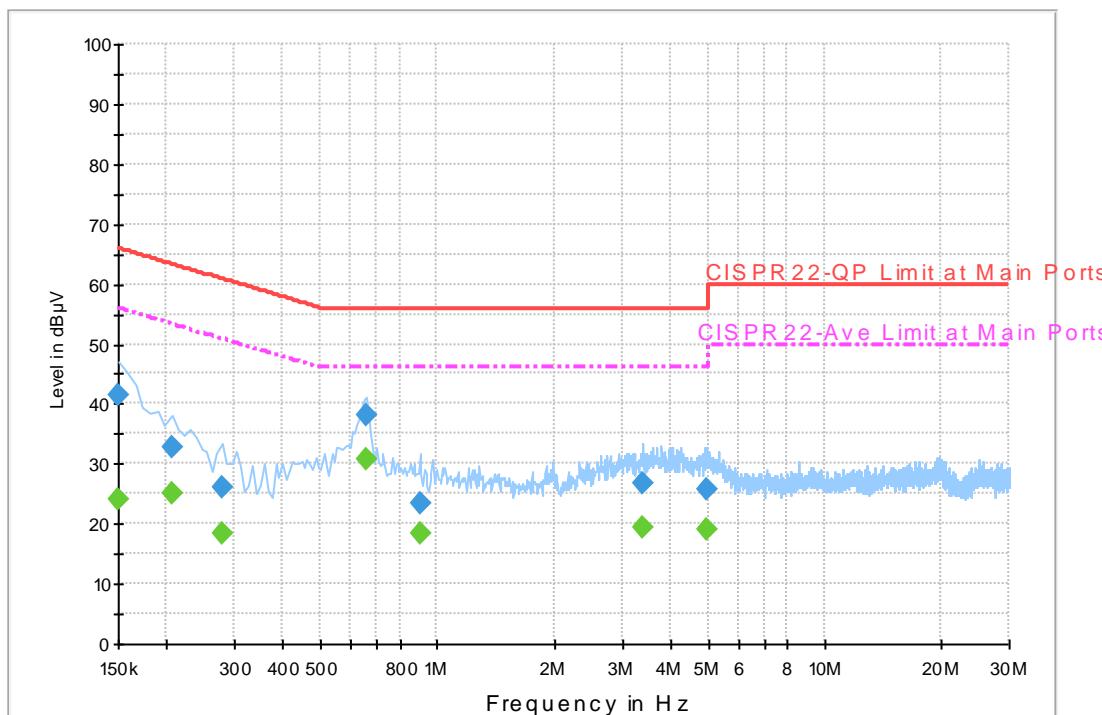
Final Result 2

Frequency (MHz)	Average (dB μ V)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)
0.158000	28.0	Off	L1	19.6	27.6	55.6
0.254000	20.7	Off	L1	19.6	30.9	51.6
0.430000	19.4	Off	L1	19.6	27.9	47.3
0.646000	36.6	Off	L1	19.6	9.4	46.0
1.086000	20.6	Off	L1	19.6	25.4	46.0
2.358000	20.5	Off	L1	19.0	25.5	46.0
3.734000	20.5	Off	L1	19.7	25.5	46.0

EUT Information

Report NO : 742716-01
 Test Mode : Mode 1
 Test Voltage : 120Vac/60Hz
 Phase : Neutral

EN V216 Auto Test FCC Power Bar - N



Final Result 1

Frequency (MHz)	QuasiPeak (dBμV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.150000	41.5	Off	N	19.5	24.5	66.0
0.206000	32.9	Off	N	19.5	30.5	63.4
0.278000	25.9	Off	N	19.5	35.0	60.9
0.654000	38.1	Off	N	19.6	17.9	56.0
0.902000	23.5	Off	N	19.6	32.5	56.0
3.390000	26.6	Off	N	19.6	29.4	56.0
4.950000	25.6	Off	N	19.8	30.4	56.0

Final Result 2

Frequency (MHz)	Average (dBμV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.150000	24.0	Off	N	19.5	32.0	56.0
0.206000	25.0	Off	N	19.5	28.4	53.4
0.278000	18.6	Off	N	19.5	32.3	50.9
0.654000	30.8	Off	N	19.6	15.2	46.0
0.902000	18.3	Off	N	19.6	27.7	46.0
3.390000	19.4	Off	N	19.6	26.6	46.0
4.950000	19.0	Off	N	19.8	27.0	46.0



Appendix C. Radiated Spurious Emission

Test Engineer :	Watt Tseng, Karl Hou and Lance Chiang	Temperature :	24.0~24.3°C
		Relative Humidity :	50~52%

Band 1 - 5150~5250MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dB μ V/m)	Over Limit (dB)	Limit Line (dB μ V/m)	Read Level (dB μ V)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol.
802.11a CH 36 5180MHz		5148.98	61.7	-12.3	74	53.95	31.97	5.9	30.12	277	109	P	H
		5150	53.43	-0.57	54	45.68	31.97	5.9	30.12	277	109	A	H
	*	5180	111.97	-	-	104.22	31.96	5.92	30.13	277	109	P	H
	*	5180	104.63	-	-	96.88	31.96	5.92	30.13	277	109	A	H
		5148.2	62.16	-11.84	74	54.41	31.97	5.9	30.12	260	88	P	V
		5150	52.61	-1.39	54	44.86	31.97	5.9	30.12	260	88	A	V
	*	5180	111.29	-	-	103.54	31.96	5.92	30.13	260	88	P	V
	*	5180	103.76	-	-	96.01	31.96	5.92	30.13	260	88	A	V
802.11a CH 44 5220MHz		5138.58	57.84	-16.16	74	50.11	31.97	5.88	30.12	270	100	P	H
		5146.38	49.47	-4.53	54	41.72	31.97	5.9	30.12	270	100	A	H
	*	5220	114.88	-	-	107.11	31.96	5.95	30.14	270	100	P	H
	*	5220	106.86	-	-	99.09	31.96	5.95	30.14	270	100	A	H
		5445.16	53.46	-20.54	74	45.69	31.91	6.05	30.19	270	100	P	H
		5444.04	46.28	-7.72	54	38.51	31.91	6.05	30.19	270	100	A	H
		5149.5	56.39	-17.61	74	48.64	31.97	5.9	30.12	298	95	P	V
		5146.12	48.3	-5.7	54	40.55	31.97	5.9	30.12	298	95	A	V
	*	5220	114.44	-	-	106.67	31.96	5.95	30.14	298	95	P	V
	*	5220	106.44	-	-	98.67	31.96	5.95	30.14	298	95	A	V
		5441.52	53.73	-20.27	74	45.96	31.91	6.05	30.19	298	95	P	V
		5444.04	46.38	-7.62	54	38.61	31.91	6.05	30.19	298	95	A	V



		5147.94	51.62	-22.38	74	43.87	31.97	5.9	30.12	273	108	P	H
802.11a CH 48 5240MHz		5149.5	42.38	-11.62	54	34.63	31.97	5.9	30.12	273	108	A	H
	*	5240	114.45	-	-	106.69	31.95	5.95	30.14	273	108	P	H
	*	5240	106.86	-	-	99.1	31.95	5.95	30.14	273	108	A	H
		5351.64	53.01	-20.99	74	45.26	31.93	5.99	30.17	273	108	P	H
		5460	45.73	-8.27	54	37.94	31.91	6.07	30.19	273	108	A	H
		5149.76	49.56	-24.44	74	41.81	31.97	5.9	30.12	318	81	P	V
		5150	41.87	-12.13	54	34.12	31.97	5.9	30.12	318	81	A	V
	*	5240	113.99	-	-	106.23	31.95	5.95	30.14	318	81	P	V
	*	5240	106.58	-	-	98.82	31.95	5.95	30.14	318	81	A	V
		5350.52	51.98	-22.02	74	44.23	31.93	5.99	30.17	318	81	P	V
		5460	46.06	-7.94	54	38.27	31.91	6.07	30.19	318	81	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. 1	Note	Frequency (MHz)	Level (dB μ V/m)	Over Limit (dB)	Limit Line (dB μ V/m)	Read Level (dB μ V)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 36 5180MHz		4744	53.48	-20.52	74	46.49	31.53	5.64	30.18	100	103	P	H
		4744	44.08	-9.92	54	37.09	31.53	5.64	30.18	100	103	A	H
		5398	57.36	-16.64	74	49.6	31.92	6.02	30.18	296	118	P	H
		5398	48.79	-5.21	54	41.03	31.92	6.02	30.18	296	118	A	H
		10360	51.56	-16.64	68.2	67.34	39.27	9.69	65.2	100	0	P	H
		15540	44.42	-29.58	74	58.07	37.47	12.25	63.98	100	0	P	H
		4750	54.01	-19.99	74	46.97	31.57	5.65	30.18	268	87	P	V
		4750	44.87	-9.13	54	37.83	31.57	5.65	30.18	268	87	A	V
		5404	58.12	-15.88	74	50.36	31.92	6.02	30.18	318	77	P	V
		5404	50.02	-3.98	54	42.26	31.92	6.02	30.18	100	0	A	V
		10360	47.69	-20.51	68.2	63.47	39.27	9.69	65.2	100	0	P	V
		15540	43.95	-30.05	74	57.6	37.47	12.25	63.98	100	0	P	V
802.11a CH 44 5220MHz		4786	54.6	-19.4	74	47.47	31.63	5.67	30.17	100	101	P	H
		4786	45.37	-8.63	54	38.24	31.63	5.67	30.17	100	101	A	H
		10440	54.35	-13.85	68.2	69.84	39.49	9.72	65.2	100	0	P	H
		15660	44.88	-29.12	74	58.74	37.38	12.33	64.24	100	0	P	H
		4792	54.33	-19.67	74	47.19	31.63	5.67	30.16	267	80	P	V
		4792	45.99	-8.01	54	38.85	31.63	5.67	30.16	267	80	A	V
		10440	51.06	-17.14	68.2	66.55	39.49	9.72	65.2	100	0	P	V
		15660	43.8	-30.2	74	57.66	37.38	12.33	64.24	100	0	P	V



		4804	54.45	-19.55	74	47.27	31.66	5.68	30.16	100	102	P	H
		4804	45.39	-8.61	54	38.21	31.66	5.68	30.16	100	102	A	H
		10480	54.45	-13.75	68.2	69.74	39.65	9.75	65.2	100	0	P	H
		15720	45.74	-28.26	74	59.76	37.32	12.37	64.39	100	0	P	H
		4810	55.39	-18.61	74	48.21	31.66	5.68	30.16	266	82	P	V
		4810	46.32	-7.68	54	39.14	31.66	5.68	30.16	266	82	A	V
		10480	51.2	-17	68.2	66.49	39.65	9.75	65.2	100	0	P	V
		15720	45.39	-28.61	74	59.41	37.32	12.37	64.39	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 Ant. 1	Note	Frequency (MHz)	Level (dB μ V/m)	Over Limit (dB)	Limit Line (dB μ V/m)	Read Level (dB μ V)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 36 5180MHz		5147.68	60.44	-13.56	74	52.69	31.97	5.9	30.12	278	110	P	H
		5149.76	52.63	-1.37	54	44.88	31.97	5.9	30.12	278	110	A	H
	*	5180	111.43	-	-	103.68	31.96	5.92	30.13	278	110	P	H
	*	5180	103.7	-	-	95.95	31.96	5.92	30.13	278	110	A	H
		5144.56	59.25	-14.75	74	51.5	31.97	5.9	30.12	272	83	P	V
		5150	52.09	-1.91	54	44.34	31.97	5.9	30.12	272	83	A	V
	*	5180	110.93	-	-	103.18	31.96	5.92	30.13	272	83	P	V
	*	5180	103.38	-	-	95.63	31.96	5.92	30.13	272	83	A	V
802.11n HT20 CH 44 5220MHz		5137.54	55.54	-18.46	74	47.81	31.97	5.88	30.12	271	108	P	H
		5148.2	49.26	-4.74	54	41.51	31.97	5.9	30.12	271	108	A	H
	*	5220	114.23	-	-	106.46	31.96	5.95	30.14	271	108	P	H
	*	5220	106.67	-	-	98.9	31.96	5.95	30.14	271	108	A	H
		5441.52	53.07	-20.93	74	45.3	31.91	6.05	30.19	271	108	P	H
		5444.88	46.43	-7.57	54	38.66	31.91	6.05	30.19	271	108	A	H
		5146.12	57.63	-16.37	74	49.88	31.97	5.9	30.12	300	95	P	V
		5148.46	48.56	-5.44	54	40.81	31.97	5.9	30.12	300	95	A	V
	*	5220	113.71	-	-	105.94	31.96	5.95	30.14	300	95	P	V
	*	5220	106.25	-	-	98.48	31.96	5.95	30.14	300	95	A	V
		5443.48	51.92	-22.08	74	44.15	31.91	6.05	30.19	300	95	P	V
		5445.44	46.05	-7.95	54	38.28	31.91	6.05	30.19	300	95	A	V



802.11n HT20 CH 48 5240MHz		5148.2	52.19	-21.81	74	44.44	31.97	5.9	30.12	272	108	P	H	
		5149.5	42.79	-11.21	54	35.04	31.97	5.9	30.12	272	108	A	H	
	*	5240	114.28	-	-	106.52	31.95	5.95	30.14	272	108	P	H	
	*	5240	106.75	-	-	98.99	31.95	5.95	30.14	272	108	A	H	
		5459.44	52.37	-21.63	74	44.58	31.91	6.07	30.19	272	108	P	H	
		5459.72	45.74	-8.26	54	37.95	31.91	6.07	30.19	272	108	A	H	
		5143.26	50.5	-23.5	74	42.75	31.97	5.9	30.12	318	81	P	V	
		5149.76	42.53	-11.47	54	34.78	31.97	5.9	30.12	318	81	A	V	
	*	5240	114.09	-	-	106.33	31.95	5.95	30.14	318	81	P	V	
	*	5240	106.58	-	-	98.82	31.95	5.95	30.14	318	81	A	V	
			5459.72	53.8	-20.2	74	46.01	31.91	6.07	30.19	318	81	P	V
			5460	46.07	-7.93	54	38.28	31.91	6.07	30.19	318	81	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. 1	Note	Frequency (MHz)	Level (dB μ V/m)	Over Limit (dB)	Limit Line (dB μ V/m)	Read Level (dB μ V)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 36 5180MHz		4750	52.07	-21.93	74	45.03	31.57	5.65	30.18	100	104	P	H
		4750	43.26	-10.74	54	36.22	31.57	5.65	30.18	100	104	A	H
		5398	56.47	-17.53	74	48.71	31.92	6.02	30.18	299	115	P	H
		5398	48.44	-5.56	54	40.68	31.92	6.02	30.18	299	115	A	H
		10360	50.76	-17.44	68.2	66.54	39.27	9.69	65.2	100	0	P	H
		15540	44.27	-29.73	74	57.92	37.47	12.25	63.98	100	0	P	H
		4750	52.58	-21.42	74	45.54	31.57	5.65	30.18	270	81	P	V
		4750	43.35	-10.65	54	36.31	31.57	5.65	30.18	270	81	A	V
		5398	57.59	-16.41	74	49.83	31.92	6.02	30.18	313	78	P	V
		5398	49.49	-4.51	54	41.73	31.92	6.02	30.18	313	78	A	V
		10360	46.87	-21.33	68.2	62.65	39.27	9.69	65.2	100	0	P	V
		15540	43.83	-30.17	74	57.48	37.47	12.25	63.98	100	0	P	V
802.11n HT20 CH 44 5220MHz		4786	53.63	-20.37	74	46.5	31.63	5.67	30.17	100	108	P	H
		4786	44.83	-9.17	54	37.7	31.63	5.67	30.17	100	108	A	H
		10440	54.9	-13.3	68.2	70.39	39.49	9.72	65.2	100	0	P	H
		15660	43.6	-30.4	74	57.46	37.38	12.33	64.24	100	0	P	H
		4786	54.5	-19.5	74	47.37	31.63	5.67	30.17	282	83	P	V
		4786	46.02	-7.98	54	38.89	31.63	5.67	30.17	282	83	A	V
		10440	49.45	-18.75	68.2	64.94	39.49	9.72	65.2	100	0	P	V
		15660	44.22	-29.78	74	58.08	37.38	12.33	64.24	100	0	P	V



		4798	54.77	-19.23	74	47.63	31.63	5.67	30.16	100	103	P	H
		4798	45.08	-8.92	54	37.94	31.63	5.67	30.16	100	103	A	H
	802.11n	10480	53.57	-14.63	68.2	68.86	39.65	9.75	65.2	100	0	P	H
	HT20	15720	45	-29	74	59.02	37.32	12.37	64.39	100	0	P	H
	CH 48	4810	54.63	-19.37	74	47.45	31.66	5.68	30.16	269	85	P	V
	5240MHz	4810	46.07	-7.93	54	38.89	31.66	5.68	30.16	269	85	A	V
		10480	53.97	-14.23	68.2	69.26	39.65	9.75	65.2	100	0	P	V
		15720	45.09	-28.91	74	59.11	37.32	12.37	64.39	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 Ant. 1	Note	Frequency (MHz)	Level (dB μ V/m)	Over Limit (dB)	Limit Line (dB μ V/m)	Read Level (dB μ V)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 38 5190MHz		5147.94	61.88	-12.12	74	54.13	31.97	5.9	30.12	279	109	P	H
		5149.5	52.69	-1.31	54	44.94	31.97	5.9	30.12	279	109	A	H
	*	5190	102.89	-	-	95.14	31.96	5.92	30.13	279	109	P	H
	*	5190	95.79	-	-	88.04	31.96	5.92	30.13	279	109	A	H
		5363.96	48.35	-25.65	74	40.59	31.93	6	30.17	279	109	P	H
		5359.2	40.43	-13.57	54	32.67	31.93	6	30.17	279	109	A	H
		5145.34	58.24	-15.76	74	50.49	31.97	5.9	30.12	273	82	P	V
		5149.24	52.22	-1.78	54	44.47	31.97	5.9	30.12	273	82	A	V
	*	5190	102.71	34.51	68.2	94.96	31.96	5.92	30.13	273	82	P	V
	*	5190	95.49	41.49	54	87.74	31.96	5.92	30.13	273	82	A	V
802.11n HT40 CH 46 5230MHz		5364.52	47.95	-26.05	74	40.19	31.93	6	30.17	273	82	P	V
		5355.28	40.8	-13.2	54	33.05	31.93	5.99	30.17	273	82	A	V
		5149.24	61.3	-12.7	74	53.55	31.97	5.9	30.12	273	108	P	H
		5150	53.49	-0.51	54	45.74	31.97	5.9	30.12	273	108	A	H
	*	5230	110.23	-	-	102.47	31.95	5.95	30.14	273	108	P	H
	*	5230	103.1	-	-	95.34	31.95	5.95	30.14	273	108	A	H
		5350.52	55.85	-18.15	74	48.1	31.93	5.99	30.17	273	108	P	H
		5351.64	46.49	-7.51	54	38.74	31.93	5.99	30.17	273	108	A	H
		5149.5	59.4	-14.6	74	51.65	31.97	5.9	30.12	270	86	P	V
		5150	52.58	-1.42	54	44.83	31.97	5.9	30.12	270	86	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. 1	Note	Frequency (MHz)	Level (dB μ V/m)	Over Limit (dB)	Limit Line (dB μ V/m)	Read Level (dB μ V)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 38 5190MHz		10380	46.25	-21.95	68.2	61.96	39.33	9.69	65.2	100	0	P	H
		15570	43.25	-30.75	74	56.95	37.44	12.28	64.05	100	0	P	H
													H
													H
		10380	45.84	-22.36	68.2	61.55	39.33	9.69	65.2	100	0	P	V
		15570	43.32	-30.68	74	57.02	37.44	12.28	64.05	100	0	P	V
													V
													V
802.11n HT40 CH 46 5230MHz		10460	49.87	-18.33	68.2	65.3	39.54	9.73	65.2	100	0	P	H
		15690	43.84	-30.16	74	57.78	37.35	12.35	64.32	100	0	P	H
													H
													H
		10460	46.78	-21.42	68.2	62.21	39.54	9.73	65.2	100	0	P	V
		15690	44.38	-29.62	74	58.32	37.35	12.35	64.32	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 1 5150~5250MHz

WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dB μ V/m)	Over Limit (dB)	Limit Line (dB μ V/m)	Read Level (dB μ V)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 42 5210MHz		5150	57.74	-16.26	74	49.99	31.97	5.9	30.12	270	108	P	H
		5150	52.65	-1.35	54	44.9	31.97	5.9	30.12	270	108	A	H
	*	5210	99.01	-	-	91.25	31.96	5.94	30.14	270	108	P	H
	*	5210	91.95	-	-	84.19	31.96	5.94	30.14	270	108	A	H
		5371.24	47.69	-26.31	74	39.93	31.93	6	30.17	270	108	P	H
		5428.36	41.53	-12.47	54	33.77	31.92	6.03	30.19	270	108	A	H
		5147.16	57.18	-16.82	74	49.43	31.97	5.9	30.12	320	80	P	V
		5149.76	51.17	-2.83	54	43.42	31.97	5.9	30.12	320	80	A	V
	*	5210	98.56	-	-	90.8	31.96	5.94	30.14	320	80	P	V
	*	5210	92.07	-	-	84.31	31.96	5.94	30.14	320	80	A	V
		5375.72	47.41	-26.59	74	39.66	31.93	6	30.18	320	80	P	V
		5354.72	41.94	-12.06	54	34.19	31.93	5.99	30.17	320	80	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 1 5150~5250MHz

WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dB μ V/m)	Over Limit (dB)	Limit Line (dB μ V/m)	Read Level (dB μ V)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac		10420	46.55	-21.65	68.2	62.13	39.43	9.71	65.2	100	0	P	H
VHT80		15630	44.54	-29.46	74	58.39	37.39	12.31	64.2	100	0	P	H
CH 42		10420	46.11	-22.09	68.2	61.69	39.43	9.71	65.2	100	0	P	V
5210MHz		15630	44.06	-29.94	74	57.91	37.39	12.31	64.2	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 802.11n HT40 (LF @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dB μ V/m)	(dB)	(dB μ V/m)	(dB μ V)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT40 LF		85.62	22.55	-17.45	40	40.12	14.18	0.74	32.59	-	-	P	H
		136.92	30.77	-12.73	43.5	44.72	17.6	0.93	32.56	-	-	P	H
		257.34	26.03	-19.97	46	37.51	19.59	1.29	32.53	-	-	P	H
		565.3	34.97	-11.03	46	39.43	26.13	1.88	32.64	100	0	P	H
		614.3	33.41	-12.59	46	37.94	26	1.97	32.64	-	-	P	H
		663.3	31	-15	46	34.92	26.51	2.02	32.59	-	-	P	H
		83.46	29.84	-10.16	40	47.7	13.9	0.74	32.59	-	-	P	V
		101.55	25.19	-18.31	43.5	40.67	16.25	0.79	32.6	-	-	P	V
		259.77	19.58	-26.42	46	30.66	19.99	1.29	32.54	-	-	P	V
		565.3	40.14	-5.86	46	44.6	26.13	1.88	32.64	100	0	P	V
		614.3	36.73	-9.27	46	41.26	26	1.97	32.64	-	-	P	V
		663.3	31.29	-14.71	46	35.21	26.51	2.02	32.59	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against limit line.												



Band 1 - 5150~5250MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
2		(MHz)	(dB μ V/m)	(dB)	(dB μ V/m)	(dB μ V)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 36 5180MHz		5149.5	61.89	-12.11	74	54.14	31.97	5.9	30.12	305	291	P	H
		5150	52.16	-1.84	54	44.41	31.97	5.9	30.12	305	291	A	H
	*	5180	111.38	-	-	103.63	31.96	5.92	30.13	305	291	P	H
	*	5180	103.73	-	-	95.98	31.96	5.92	30.13	305	291	A	H
		5149.5	58.58	-15.42	74	50.83	31.97	5.9	30.12	391	282	P	V
		5150	48.94	-5.06	54	41.19	31.97	5.9	30.12	391	282	A	V
	*	5180	108.4	-	-	100.65	31.96	5.92	30.13	391	282	P	V
	*	5180	100.96	-	-	93.21	31.96	5.92	30.13	391	282	A	V
802.11a CH 44 5220MHz		5144.56	60.79	-13.21	74	53.04	31.97	5.9	30.12	309	286	P	H
		5146.9	51.24	-2.76	54	43.49	31.97	5.9	30.12	309	286	A	H
	*	5220	114.82	-	-	107.05	31.96	5.95	30.14	309	286	P	H
	*	5220	107.39	-	-	99.62	31.96	5.95	30.14	309	286	A	H
		5377.12	54.19	-19.81	74	46.43	31.93	6.01	30.18	309	286	P	H
		5377.68	46.4	-7.6	54	38.65	31.92	6.01	30.18	309	286	A	H
		5146.9	55.32	-18.68	74	47.57	31.97	5.9	30.12	399	281	P	V
		5147.68	47.31	-6.69	54	39.56	31.97	5.9	30.12	399	281	A	V
	*	5220	113.69	-	-	105.92	31.96	5.95	30.14	399	281	P	V
	*	5220	105.56	-	-	97.79	31.96	5.95	30.14	399	281	A	V
		5385.24	52.45	-21.55	74	44.7	31.92	6.01	30.18	399	281	P	V
		5382.44	46.54	-7.46	54	38.79	31.92	6.01	30.18	399	281	A	V



		5082.68	53.84	-20.16	74	46.13	31.98	5.84	30.11	304	287	P	H
		5078.26	45.85	-8.15	54	38.14	31.98	5.84	30.11	304	287	A	H
* 802.11a		5240	115.12	-	-	107.36	31.95	5.95	30.14	304	287	P	H
CH 48		* 5240	106.94	-	-	99.18	31.95	5.95	30.14	304	287	A	H
5240MHz		5403.44	54.62	-19.38	74	46.86	31.92	6.02	30.18	304	287	P	H
		5450.76	46.7	-7.3	54	38.91	31.91	6.07	30.19	304	287	A	H
		5072.02	50.8	-23.2	74	43.09	31.98	5.84	30.11	400	280	P	V
		5077.22	42.98	-11.02	54	35.27	31.98	5.84	30.11	400	280	A	V
		* 5240	112.81	-	-	105.05	31.95	5.95	30.14	400	280	P	V
		* 5240	105.89	-	-	98.13	31.95	5.95	30.14	400	280	A	V
		5400.36	54.35	-19.65	74	46.59	31.92	6.02	30.18	400	280	P	V
		5450.76	46.89	-7.11	54	39.1	31.91	6.07	30.19	400	280	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. 2	Note	Frequency (MHz)	Level (dB μ V/m)	Over Limit (dB)	Limit Line (dB μ V/m)	Read Level (dB μ V)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 36 5180MHz		4744	52.42	-21.58	74	45.43	31.53	5.64	30.18	255	263	P	H
		4744	43.66	-10.34	54	36.67	31.53	5.64	30.18	255	263	A	H
		5398	54.37	-19.63	74	46.61	31.92	6.02	30.18	299	296	P	H
		5398	46.3	-7.7	54	38.54	31.92	6.02	30.18	299	296	A	H
		10360	49.99	-18.21	68.2	65.77	39.27	9.69	65.2	100	0	P	H
		15540	44.43	-29.57	74	58.08	37.47	12.25	63.98	100	0	P	H
		4744	51.64	-22.36	74	44.65	31.53	5.64	30.18	249	294	P	V
		4744	43	-11	54	36.01	31.53	5.64	30.18	249	294	A	V
		5386	55	-19	74	47.25	31.92	6.01	30.18	336	278	P	V
		5386	47.11	-6.89	54	39.36	31.92	6.01	30.18	336	278	A	V
		10360	47.62	-20.58	68.2	63.4	39.27	9.69	65.2	100	0	P	V
		15540	44.11	-29.89	74	57.76	37.47	12.25	63.98	100	0	P	V
802.11a CH 44 5220MHz		4792	53.48	-20.52	74	46.34	31.63	5.67	30.16	263	263	P	H
		4792	45.33	-8.67	54	38.19	31.63	5.67	30.16	263	263	A	H
		10440	55.02	-13.18	68.2	70.51	39.49	9.72	65.2	100	0	P	H
		15660	44.05	-29.95	74	57.91	37.38	12.33	64.24	100	0	P	H
		4792	53.02	-20.98	74	45.88	31.63	5.67	30.16	358	285	P	V
		4792	44.58	-9.42	54	37.44	31.63	5.67	30.16	358	285	A	V
		10440	52.83	-15.37	68.2	68.32	39.49	9.72	65.2	100	0	P	V
		15660	43.47	-30.53	74	57.33	37.38	12.33	64.24	100	0	P	V



		4804	54.07	-19.93	74	46.89	31.66	5.68	30.16	271	266	P	H
		4804	45.26	-8.74	54	38.08	31.66	5.68	30.16	271	266	A	H
		10480	56.18	-12.02	68.2	71.47	39.65	9.75	65.2	100	0	P	H
		15720	44.89	-29.11	74	58.91	37.32	12.37	64.39	100	0	P	H
		4804	52.55	-21.45	74	45.37	31.66	5.68	30.16	300	314	P	V
		4804	44.65	-9.35	54	37.47	31.66	5.68	30.16	300	314	A	V
		10480	54.81	-13.39	68.2	70.1	39.65	9.75	65.2	100	0	P	V
		15720	44.52	-29.48	74	58.54	37.32	12.37	64.39	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 Ant. 2	Note	Frequency (MHz)	Level (dB μ V/m)	Over Limit (dB)	Limit Line (dB μ V/m)	Read Level (dB μ V)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 36 5180MHz		5149.76	61.7	-12.3	74	53.95	31.97	5.9	30.12	305	288	P	H
		5150	53.43	-0.57	54	45.68	31.97	5.9	30.12	305	288	A	H
	*	5180	111.42	-	-	103.67	31.96	5.92	30.13	305	288	P	H
	*	5180	103.79	-	-	96.04	31.96	5.92	30.13	305	288	A	H
		5148.2	62.85	-11.15	74	55.1	31.97	5.9	30.12	389	279	P	V
		5149.5	50.53	-3.47	54	42.78	31.97	5.9	30.12	389	279	A	V
	*	5180	108.38	-	-	100.63	31.96	5.92	30.13	389	279	P	V
	*	5180	101.03	-	-	93.28	31.96	5.92	30.13	389	279	A	V
802.11n HT20 CH 44 5220MHz		5144.56	60.63	-13.37	74	52.88	31.97	5.9	30.12	310	285	P	H
		5147.94	52.06	-1.94	54	44.31	31.97	5.9	30.12	310	285	A	H
	*	5220	114.48	-	-	106.71	31.96	5.95	30.14	310	285	P	H
	*	5220	107.56	-	-	99.79	31.96	5.95	30.14	310	285	A	H
		5385.24	54.2	-19.8	74	46.45	31.92	6.01	30.18	310	285	P	H
		5376.28	45.85	-8.15	54	38.09	31.93	6.01	30.18	310	285	A	H
		5145.08	56.58	-17.42	74	48.83	31.97	5.9	30.12	399	278	P	V
		5148.2	48.42	-5.58	54	40.67	31.97	5.9	30.12	399	278	A	V
	*	5220	112.56	-	-	104.79	31.96	5.95	30.14	399	278	P	V
	*	5220	105.76	-	-	97.99	31.96	5.95	30.14	399	278	A	V
		5375.72	53.67	-20.33	74	45.92	31.93	6	30.18	399	278	P	V
		5429.76	46.41	-7.59	54	38.66	31.91	6.03	30.19	399	278	A	V



802.11n HT20 CH 48 5240MHz		5079.04	53.09	-20.91	74	45.38	31.98	5.84	30.11	308	289	P	H
		5074.88	44.9	-9.1	54	37.19	31.98	5.84	30.11	308	289	A	H
	*	5240	115.2	-	-	107.44	31.95	5.95	30.14	308	289	P	H
	*	5240	107.05	-	-	99.29	31.95	5.95	30.14	308	289	A	H
		5396.72	52.56	-21.44	74	44.8	31.92	6.02	30.18	308	289	P	H
		5396.44	45.89	-8.11	54	38.13	31.92	6.02	30.18	308	289	A	H
		5147.68	52.16	-21.84	74	44.41	31.97	5.9	30.12	348	275	P	V
		5149.76	42.56	-11.44	54	34.81	31.97	5.9	30.12	348	275	A	V
	*	5240	112.58	-	-	104.82	31.95	5.95	30.14	348	275	P	V
	*	5240	105.36	-	-	97.6	31.95	5.95	30.14	348	275	A	V
		5456.08	52.71	-21.29	74	44.92	31.91	6.07	30.19	348	275	P	V
		5450.2	46.12	-7.88	54	38.33	31.91	6.07	30.19	348	275	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. 2	Note	Frequency (MHz)	Level (dB μ V/m)	Over Limit (dB)	Limit Line (dB μ V/m)	Read Level (dB μ V)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 36 5180MHz		4750	52.76	-21.24	74	45.72	31.57	5.65	30.18	261	253	P	H
		4750	42.99	-11.01	54	35.95	31.57	5.65	30.18	261	253	A	H
		5386	54.52	-19.48	74	46.77	31.92	6.01	30.18	299	295	P	H
		5386	46.19	-7.81	54	38.44	31.92	6.01	30.18	299	295	A	H
		10360	48.64	-19.56	68.2	64.42	39.27	9.69	65.2	100	0	P	H
		15540	44.9	-29.1	74	58.55	37.47	12.25	63.98	100	0	P	H
		4744	51.75	-22.25	74	44.76	31.53	5.64	30.18	255	280	P	V
		4744	42.49	-11.51	54	35.5	31.53	5.64	30.18	255	280	A	V
		5386	54.61	-19.39	74	46.86	31.92	6.01	30.18	257	277	P	V
		5386	46.7	-7.3	54	38.95	31.92	6.01	30.18	257	277	A	V
		10360	45.87	-22.33	68.2	61.65	39.27	9.69	65.2	100	0	P	V
		15540	44.21	-29.79	74	57.86	37.47	12.25	63.98	100	0	P	V
802.11n HT20 CH 44 5220MHz		4780	53.24	-20.76	74	46.15	31.6	5.66	30.17	272	263	P	H
		4780	45.37	-8.63	54	38.28	31.6	5.66	30.17	272	263	A	H
		10440	53.13	-15.07	68.2	68.62	39.49	9.72	65.2	100	0	P	H
		15660	44.44	-29.56	74	58.3	37.38	12.33	64.24	100	0	P	H
		4792	52.75	-21.25	74	45.61	31.63	5.67	30.16	259	298	P	V
		4792	44.37	-9.63	54	37.23	31.63	5.67	30.16	259	298	A	V
		10440	50.74	-17.46	68.2	66.23	39.49	9.72	65.2	100	0	P	V
		15660	44.14	-29.86	74	58	37.38	12.33	64.24	100	0	P	V



		4798	53.56	-20.44	74	46.42	31.63	5.67	30.16	259	265	P	H
		4798	44.91	-9.09	54	37.77	31.63	5.67	30.16	259	265	A	H
	802.11n	10480	53.77	-14.43	68.2	69.06	39.65	9.75	65.2	100	0	P	H
	HT20	15720	44.93	-29.07	74	58.95	37.32	12.37	64.39	100	0	P	H
	CH 48	4810	52.54	-21.46	74	45.36	31.66	5.68	30.16	297	315	P	V
	5240MHz	4810	44.05	-9.95	54	36.87	31.66	5.68	30.16	297	315	A	V
		10480	51.4	-16.8	68.2	66.69	39.65	9.75	65.2	100	0	P	V
		15720	44.66	-29.34	74	58.68	37.32	12.37	64.39	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 Ant. 2	Note	Frequency (MHz)	Level (dB μ V/m)	Over Limit (dB)	Limit Line (dB μ V/m)	Read Level (dB μ V)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 38 5190MHz		5150	61.77	-12.23	74	54.02	31.97	5.9	30.12	301	286	P	H
		5149.76	52.82	-1.18	54	45.07	31.97	5.9	30.12	301	286	A	H
	*	5190	103.02	-	-	95.27	31.96	5.92	30.13	301	286	P	H
	*	5190	96.76	-	-	89.01	31.96	5.92	30.13	301	286	A	H
		5364.8	49.97	-24.03	74	42.21	31.93	6	30.17	301	286	P	H
		5367.6	41.93	-12.07	54	34.17	31.93	6	30.17	301	286	A	H
		5147.42	59.26	-14.74	74	51.51	31.97	5.9	30.12	326	279	P	V
		5150	50.41	-3.59	54	42.66	31.97	5.9	30.12	326	279	A	V
	*	5190	101.49	-	-	93.74	31.96	5.92	30.13	326	279	P	V
	*	5190	94.33	-	-	86.58	31.96	5.92	30.13	326	279	A	V
802.11n HT40 CH 46 5230MHz		5356.4	48.31	-25.69	74	40.56	31.93	5.99	30.17	326	279	P	V
		5358.36	41.35	-12.65	54	33.59	31.93	6	30.17	326	279	A	V
		5146.38	60.15	-13.85	74	52.4	31.97	5.9	30.12	310	290	P	H
		5146.9	52.73	-1.27	54	44.98	31.97	5.9	30.12	310	290	A	H
	*	5230	109.54	-	-	101.78	31.95	5.95	30.14	310	290	P	H
	*	5230	102.43	-	-	94.67	31.95	5.95	30.14	310	290	A	H
		5374.04	51.79	-22.21	74	44.04	31.93	6	30.18	310	290	P	H
		5374.88	45.43	-8.57	54	37.68	31.93	6	30.18	310	290	A	H
		5142.48	56.02	-17.98	74	48.27	31.97	5.9	30.12	400	285	P	V
		5149.24	49.49	-4.51	54	41.74	31.97	5.9	30.12	400	285	A	V
Remark	*	5230	107.51	-	-	99.75	31.95	5.95	30.14	400	285	P	V
	*	5230	100.7	-	-	92.94	31.95	5.95	30.14	400	285	A	V
		5365.64	52.03	-21.97	74	44.27	31.93	6	30.17	400	285	P	V
		5377.68	45.67	-8.33	54	37.92	31.92	6.01	30.18	400	285	A	V
		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. 2	Note	Frequency (MHz)	Level (dB μ V/m)	Over Limit (dB)	Limit Line (dB μ V/m)	Read Level (dB μ V)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 38 5190MHz		10380	45.68	-22.52	68.2	61.39	39.33	9.69	65.2	100	0	P	H
		15570	42.9	-31.1	74	56.6	37.44	12.28	64.05	100	0	P	H
		10380	45.8	-22.4	68.2	61.51	39.33	9.69	65.2	100	0	P	V
		15570	43.25	-30.75	74	56.95	37.44	12.28	64.05	100	0	P	V
802.11n HT40 CH 46 5230MHz		10460	49	-19.2	68.2	64.43	39.54	9.73	65.2	100	0	P	H
		15690	44.04	-29.96	74	57.98	37.35	12.35	64.32	100	0	P	H
		10460	48.21	-19.99	68.2	63.64	39.54	9.73	65.2	100	0	P	V
		15690	43.52	-30.48	74	57.46	37.35	12.35	64.32	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 802.11ac VHT80 (Band Edge @ 3m)

WIFI Ant. 2	Note	Frequency (MHz)	Level (dB μ V/m)	Over Limit (dB)	Limit Line (dB μ V/m)	Read Level (dB μ V)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 42 5210MHz		5141.44	58.77	-15.23	74	51.04	31.97	5.88	30.12	304	291	P	H
		5149.24	53.37	-0.63	54	45.62	31.97	5.9	30.12	304	291	A	H
	*	5210	98.45	-	-	90.69	31.96	5.94	30.14	304	291	P	H
	*	5210	92.6	-	-	84.84	31.96	5.94	30.14	304	291	A	H
		5358.08	48.82	-25.18	74	41.07	31.93	5.99	30.17	304	291	P	H
		5363.68	42.55	-11.45	54	34.79	31.93	6	30.17	304	291	A	H
		5145.34	55.71	-18.29	74	47.96	31.97	5.9	30.12	400	284	P	V
		5146.12	50.47	-3.53	54	42.72	31.97	5.9	30.12	400	284	A	V
	*	5210	96.84	-	-	89.08	31.96	5.94	30.14	400	284	P	V
	*	5210	91.11	-	-	83.35	31.96	5.94	30.14	400	284	A	V
		5354.16	47.63	-26.37	74	39.88	31.93	5.99	30.17	400	284	P	V
		5356.68	42.84	-11.16	54	35.09	31.93	5.99	30.17	400	284	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 1 5150~5250MHz

WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI Ant. 2	Note	Frequency (MHz)	Level (dB μ V/m)	Over Limit (dB)	Limit Line (dB μ V/m)	Read Level (dB μ V)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac		10420	46.18	-22.02	68.2	61.76	39.43	9.71	65.2	100	0	P	H
VHT80		15630	44.11	-29.89	74	57.96	37.39	12.31	64.2	100	0	P	H
CH 42		10420	45.84	-22.36	68.2	61.42	39.43	9.71	65.2	100	0	P	V
5210MHz		15630	44.06	-29.94	74	57.91	37.39	12.31	64.2	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 802.11n HT20 (LF @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
2		(MHz)	(dB μ V/m)	(dB)	(dB μ V/m)	(dB μ V)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT20 LF		83.73	23.32	-16.68	40	41.18	13.9	0.74	32.59	-	-	P	H
		132.33	30.75	-12.75	43.5	44.71	17.61	0.93	32.57	-	-	P	H
		250.32	25.97	-20.03	46	38.46	18.64	1.25	32.53	-	-	P	H
		565.3	36.18	-9.82	46	40.64	26.13	1.88	32.64	100	0	P	H
		614.3	34.04	-11.96	46	38.57	26	1.97	32.64	-	-	P	H
		663.3	31.02	-14.98	46	34.94	26.51	2.02	32.59	-	-	P	H
		83.19	28.68	-11.32	40	46.54	13.9	0.74	32.59	-	-	P	V
		92.64	24.91	-18.59	43.5	41.63	15.04	0.74	32.6	-	-	P	V
		259.77	19.13	-26.87	46	30.21	19.99	1.29	32.54	-	-	P	V
		565.3	39.93	-6.07	46	44.39	26.13	1.88	32.64	100	0	P	V
		614.3	36.4	-9.6	46	40.93	26	1.97	32.64	-	-	P	V
		663.3	30.37	-15.63	46	34.29	26.51	2.02	32.59	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against limit line.												



Band 1 - 5150~5250MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1+2		(MHz)	(dB μ V/m)	(dB)	(dB μ V/m)	(dB μ V)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 36 5180MHz		5149.5	60.29	-13.71	74	52.54	31.97	5.9	30.12	300	281	P	H
		5150	52.13	-1.87	54	44.38	31.97	5.9	30.12	300	281	A	H
	*	5180	112.02	-	-	104.27	31.96	5.92	30.13	300	281	P	H
	*	5180	105.37	-	-	97.62	31.96	5.92	30.13	300	281	A	H
		5148.46	58.64	-15.36	74	50.89	31.97	5.9	30.12	400	277	P	V
		5147.42	49.06	-4.94	54	41.31	31.97	5.9	30.12	400	277	A	V
	*	5180	110.3	-	-	102.55	31.96	5.92	30.13	400	277	P	V
	*	5180	103.21	-	-	95.46	31.96	5.92	30.13	400	277	A	V
802.11a CH 44 5220MHz		5143.52	57.7	-16.3	74	49.95	31.97	5.9	30.12	281	282	P	H
		5145.08	51.84	-2.16	54	44.09	31.97	5.9	30.12	281	282	A	H
	*	5220	116.22	-	-	108.45	31.96	5.95	30.14	281	282	P	H
	*	5220	108.85	-	-	101.08	31.96	5.95	30.14	281	282	A	H
		5378.8	53.4	-20.6	74	45.65	31.92	6.01	30.18	281	282	P	H
		5444.88	47.71	-6.29	54	39.94	31.91	6.05	30.19	281	282	A	H
		5148.2	55.08	-18.92	74	47.33	31.97	5.9	30.12	399	279	P	V
		5146.9	48.99	-5.01	54	41.24	31.97	5.9	30.12	399	279	A	V
	*	5220	115.24	-	-	107.47	31.96	5.95	30.14	399	279	P	V
	*	5220	107.57	-	-	99.8	31.96	5.95	30.14	399	279	A	V
		5443.76	53.15	-20.85	74	45.38	31.91	6.05	30.19	399	279	P	V
		5444.6	48.71	-5.29	54	40.94	31.91	6.05	30.19	399	279	A	V



		5076.7	53.33	-20.67	74	45.62	31.98	5.84	30.11	315	284	P	H
		5075.92	46.03	-7.97	54	38.32	31.98	5.84	30.11	315	284	A	H
* 802.11a		5240	114.93	-	-	107.17	31.95	5.95	30.14	315	284	P	H
CH 48		5240	109.21	-	-	101.45	31.95	5.95	30.14	315	284	A	H
5240MHz		5407.92	52.88	-21.12	74	45.12	31.92	6.02	30.18	315	284	P	H
		5395.04	45.93	-8.07	54	38.17	31.92	6.02	30.18	315	284	A	H
		5072.28	50.28	-23.72	74	42.57	31.98	5.84	30.11	375	268	P	V
		5082.16	42.74	-11.26	54	35.03	31.98	5.84	30.11	375	268	A	V
		5240	113.82	-	-	106.06	31.95	5.95	30.14	375	268	P	V
		5240	107.21	-	-	99.45	31.95	5.95	30.14	375	268	A	V
		5459.72	53.86	-20.14	74	46.07	31.91	6.07	30.19	375	268	P	V
		5459.72	48.02	-5.98	54	40.23	31.91	6.07	30.19	375	268	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. 1+2	Note	Frequency (MHz)	Level (dB μ V/m)	Over Limit (dB)	Limit Line (dB μ V/m)	Read Level (dB μ V)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 36 5180MHz		4744	53.63	-20.37	74	46.64	31.53	5.64	30.18	251	265	P	H
		4744	45.21	-8.79	54	38.22	31.53	5.64	30.18	251	265	A	H
		5398	56.55	-17.45	74	48.79	31.92	6.02	30.18	300	289	P	H
		5398	49.02	-4.98	54	41.26	31.92	6.02	30.18	300	289	A	H
		10360	51.84	-16.36	68.2	67.62	39.27	9.69	65.2	100	0	P	H
		15540	44.19	-29.81	74	57.84	37.47	12.12	63.98	100	0	P	H
		4744	53.01	-20.99	74	46.02	31.53	5.64	30.18	326	267	P	V
		4744	44.77	-9.23	54	37.78	31.53	5.64	30.18	326	267	A	V
		5392	57.83	-16.17	74	50.08	31.92	6.01	30.18	272	75	P	V
		5392	50.07	-3.93	54	42.32	31.92	6.01	30.18	272	75	A	V
		10360	48.12	-20.08	68.2	63.9	39.27	9.69	65.2	100	0	P	V
		15540	46.17	-27.83	74	59.82	37.47	12.25	63.98	100	0	P	V
802.11a CH 44 5220MHz		4786	54.57	-19.43	74	47.44	31.63	5.67	30.17	262	266	P	H
		4786	46.99	-7.01	54	39.86	31.63	5.67	30.17	262	266	A	H
		10440	55.3	-12.9	68.2	70.79	39.49	9.72	65.2	100	0	P	H
		15660	45.45	-28.55	74	59.31	37.38	12.33	64.24	100	0	P	H
		4780	54.32	-19.68	74	47.23	31.6	5.66	30.17	240	303	P	V
		4780	46.7	-7.3	54	39.61	31.6	5.66	30.17	240	303	A	V
		10440	54.25	-13.95	68.2	69.74	39.49	9.72	65.2	100	0	P	V
		15660	44.68	-29.32	74	58.54	37.38	12.33	64.24	100	0	P	V



		4810	54.6	-19.4	74	47.42	31.66	5.68	30.16	260	267	P	H
		4810	46.87	-7.13	54	39.69	31.66	5.68	30.16	260	267	A	H
802.11a CH 48 5240MHz		10480	57.22	-10.98	68.2	72.51	39.65	9.75	65.2	100	0	P	H
		15720	45.4	-28.6	74	59.42	37.32	12.37	64.39	100	0	P	H
		4804	55.65	-18.35	74	48.47	31.66	5.68	30.16	265	87	P	V
		4804	47.49	-6.51	54	40.31	31.66	5.68	30.16	265	87	A	V
		10480	55.65	-12.55	68.2	70.94	39.65	9.75	65.2	100	0	P	V
		15720	47.14	-26.86	74	61.16	37.32	12.37	64.39	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 Ant. 1+2	Note	Frequency (MHz)	Level (dB μ V/m)	Over Limit (dB)	Limit Line (dB μ V/m)	Read Level (dB μ V)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 36 5180MHz		5147.16	64.05	-9.95	74	56.3	31.97	5.9	30.12	300	285	P	H
		5150	52.93	-1.07	54	45.18	31.97	5.9	30.12	300	285	A	H
	*	5180	111.95	-	-	104.2	31.96	5.92	30.13	300	285	P	H
	*	5180	104.72	-	-	96.97	31.96	5.92	30.13	300	285	A	H
		5149.76	60.22	-13.78	74	52.47	31.97	5.9	30.12	400	283	P	V
		5149.76	49.74	-4.26	54	41.99	31.97	5.9	30.12	400	283	A	V
	*	5180	109.29	-	-	101.54	31.96	5.92	30.13	400	283	P	V
	*	5180	102.13	-	-	94.38	31.96	5.92	30.13	400	283	A	V
802.11n HT20 CH 44 5220MHz		5133.9	59.39	-14.61	74	51.66	31.97	5.88	30.12	272	282	P	H
		5147.42	52.18	-1.82	54	44.43	31.97	5.9	30.12	272	282	A	H
	*	5220	114.44	-	-	106.67	31.96	5.95	30.14	272	282	P	H
	*	5220	108.28	-	-	100.51	31.96	5.95	30.14	272	282	A	H
		5444.32	53.36	-20.64	74	45.59	31.91	6.05	30.19	272	282	P	H
		5444.04	48.02	-5.98	54	40.25	31.91	6.05	30.19	272	282	A	H
		5134.94	55.52	-18.48	74	47.79	31.97	5.88	30.12	398	280	P	V
		5143.78	48.78	-5.22	54	41.03	31.97	5.9	30.12	398	280	A	V
	*	5220	113.6	-	-	105.83	31.96	5.95	30.14	398	280	P	V
	*	5220	106.89	-	-	99.12	31.96	5.95	30.14	398	280	A	V
		5445.72	54.23	-19.77	74	46.46	31.91	6.05	30.19	398	280	P	V
		5446	48.23	-5.77	54	40.46	31.91	6.05	30.19	398	280	A	V



802.11n HT20 CH 48 5240MHz		5084.24	54.3	-19.7	74	46.59	31.98	5.84	30.11	279	281	P	H
		5082.42	45.73	-8.27	54	38.02	31.98	5.84	30.11	279	281	A	H
	*	5240	114.09	-	-	106.33	31.95	5.95	30.14	279	281	P	H
	*	5240	108.08	-	-	100.32	31.95	5.95	30.14	279	281	A	H
		5404	54.61	-19.39	74	46.85	31.92	6.02	30.18	279	281	P	H
		5460	46.14	-7.86	54	38.35	31.91	6.07	30.19	279	281	A	H
		5146.38	52.34	-21.66	74	44.59	31.97	5.9	30.12	400	280	P	V
		5075.92	42.93	-11.07	54	35.22	31.98	5.84	30.11	400	280	A	V
	*	5240	112.91	-	-	105.15	31.95	5.95	30.14	400	280	P	V
	*	5240	106.82	-	-	99.06	31.95	5.95	30.14	400	280	A	V
		5391.4	52.59	-21.41	74	44.84	31.92	6.01	30.18	400	280	P	V
		5459.44	46.7	-7.3	54	38.91	31.91	6.07	30.19	400	280	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. 1+2	Note	Frequency (MHz)	Level (dB μ V/m)	Over Limit (dB)	Limit Line (dB μ V/m)	Read Level (dB μ V)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 36 5180MHz		4750	53.56	-20.44	74	46.52	31.57	5.65	30.18	268	240	P	H
		4750	44.71	-9.29	54	37.67	31.57	5.65	30.18	268	240	A	H
		5386	56.44	-17.56	74	48.69	31.92	6.01	30.18	342	289	P	H
		5386	48.79	-5.21	54	41.04	31.92	6.01	30.18	342	289	A	H
		10360	48.43	-19.77	68.2	64.21	39.27	9.69	65.2	100	0	P	H
		15540	44.35	-29.65	74	58	37.47	12.25	63.98	100	0	P	H
		4744	53.27	-20.73	74	46.28	31.53	5.64	30.18	365	284	P	V
		4744	43.91	-10.09	54	36.92	31.53	5.64	30.18	365	284	A	V
		5398	56.73	-17.27	74	48.97	31.92	6.02	30.18	281	79	P	V
		5398	49.45	-4.55	54	41.69	31.92	6.02	30.18	281	79	A	V
		10360	47.36	-20.84	68.2	63.14	39.27	9.69	652.2	100	0	P	V
		15540	44.29	-29.71	74	57.94	37.47	12.25	63.98	100	0	P	V
802.11n HT20 CH 44 5220MHz		4780	53.93	-20.07	74	46.84	31.6	5.66	30.17	265	268	P	H
		4780	46.04	-7.96	54	38.95	31.6	5.66	30.17	265	268	A	H
		10440	55.92	-12.28	68.2	71.41	39.49	9.72	65.2	100	0	P	H
		15660	45.15	-28.85	74	59.01	37.38	12.33	64.24	100	0	P	H
		4786	53.6	-20.4	74	46.47	31.63	5.67	30.17	256	303	P	V
		4786	45.92	-8.08	54	38.79	31.63	5.67	30.17	256	303	A	V
		10440	53.41	-14.79	68.2	68.9	39.49	9.72	65.2	100	0	P	V
		15660	44.47	-29.53	74	58.33	37.38	12.33	64.24	100	0	P	V



		4804	54.54	-19.46	74	47.36	31.66	5.68	30.16	263	266	P	H
		4804	46.21	-7.79	54	39.03	31.66	5.68	30.16	263	266	A	H
	802.11n	10480	57.21	-10.99	68.2	72.5	39.65	9.75	65.2	100	0	P	H
	HT20	15720	45.54	-28.46	74	59.56	37.32	12.37	64.39	100	0	P	H
	CH 48	4798	53.52	-20.48	74	46.38	31.63	5.67	30.16	318	259	P	V
	5240MHz	4798	45.17	-8.83	54	38.03	31.63	5.67	30.16	318	259	A	V
		10480	53.91	-14.29	68.2	69.2	39.65	9.75	65.2	100	0	P	V
		15720	45.36	-28.64	74	59.38	37.32	12.37	64.39	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 Ant. 1+2	Note	Frequency (MHz)	Level (dB μ V/m)	Over Limit (dB)	Limit Line (dB μ V/m)	Read Level (dB μ V)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 38 5190MHz		5147.94	60.98	-13.02	74	53.23	31.97	5.9	30.12	300	285	P	H
		5149.76	52.88	-1.12	54	45.13	31.97	5.9	30.12	300	285	A	H
	*	5190	104.47	-	-	96.72	31.96	5.92	30.13	300	285	P	H
	*	5190	96.71	-	-	88.96	31.96	5.92	30.13	300	285	A	H
		5366.76	48.1	-25.9	74	40.34	31.93	6	30.17	300	285	P	H
		5351.92	41.82	-12.18	54	34.07	31.93	5.99	30.17	300	285	A	H
		5148.46	58.78	-15.22	74	51.03	31.97	5.9	30.12	380	279	P	V
		5148.46	50.55	-3.45	54	42.8	31.97	5.9	30.12	380	279	A	V
	*	5190	102.04	-	-	94.29	31.96	5.92	30.13	380	279	P	V
	*	5190	94.77	-	-	87.02	31.96	5.92	30.13	380	279	A	V
802.11n HT40 CH 46 5230MHz		5357.52	47.07	-26.93	74	39.32	31.93	5.99	30.17	380	279	P	V
		5356.68	41.11	-12.89	54	33.36	31.93	5.99	30.17	380	279	A	V
		5145.34	60.53	-13.47	74	52.78	31.97	5.9	30.12	311	282	P	H
		5149.5	52.45	-1.55	54	44.7	31.97	5.9	30.12	311	282	A	H
	*	5230	110.5	-	-	102.74	31.95	5.95	30.14	311	282	P	H
	*	5230	102.85	-	-	95.09	31.95	5.95	30.14	311	282	A	H
		5372.36	50.92	-23.08	74	43.16	31.93	6	30.17	311	282	P	H
		5384.4	45.07	-8.93	54	37.32	31.92	6.01	30.18	311	282	A	H
		5149.24	57.35	-16.65	74	49.6	31.97	5.9	30.12	400	283	P	V
		5148.98	49.41	-4.59	54	41.66	31.97	5.9	30.12	400	283	A	V
Remark	*	5230	108.57	-	-	100.81	31.95	5.95	30.14	400	283	P	V
	*	5230	101.59	-	-	93.83	31.95	5.95	30.14	400	283	A	V
		5383	51.56	-22.44	74	43.81	31.92	6.01	30.18	400	283	P	V
		5377.96	45.45	-8.55	54	37.7	31.92	6.01	30.18	400	283	A	V



Band 1 5150~5250MHz

WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dB μ V/m)	Over Limit (dB)	Limit Line (dB μ V/m)	Read Level (dB μ V)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 38 5190MHz		10380	46.85	-21.35	68.2	62.56	39.33	9.69	65.2	100	0	P	H
		15570	44.67	-29.33	74	58.37	37.44	12.28	64.05	100	0	P	H
		10380	46.17	-22.03	68.2	61.88	39.33	9.69	65.2	100	0	P	V
		15570	44.38	-29.62	74	58.08	37.44	12.28	64.05	100	0	P	V
802.11n HT40 CH 46 5230MHz		10460	50.74	-17.46	68.2	66.17	39.54	9.73	65.2	100	0	P	H
		15690	45.87	-28.13	74	59.81	37.35	12.35	64.32	100	0	P	H
		10460	48.81	-19.39	68.2	64.24	39.54	9.73	65.2	100	0	P	V
		15690	45.22	-28.78	74	59.16	37.35	12.35	64.32	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 802.11ac VHT80 (Band Edge @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dB μ V/m)	Over Limit (dB)	Limit Line (dB μ V/m)	Read Level (dB μ V)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 42 5210MHz		5142.74	57.93	-16.07	74	50.18	31.97	5.9	30.12	308	287	P	H
		5148.2	52.1	-1.9	54	44.35	31.97	5.9	30.12	308	287	A	H
	*	5210	98.79	-	-	91.03	31.96	5.94	30.14	308	287	P	H
	*	5210	92.9	-	-	85.14	31.96	5.94	30.14	308	287	A	H
		5373.76	47.07	-26.93	74	39.32	31.93	6	30.18	308	287	P	H
		5351.92	41.51	-12.49	54	33.76	31.93	5.99	30.17	308	287	A	H
		5148.2	54.83	-19.17	74	47.08	31.97	5.9	30.12	398	270	P	V
		5146.12	49.05	-4.95	54	41.3	31.97	5.9	30.12	398	270	A	V
	*	5210	96.11	-	-	88.35	31.96	5.94	30.14	398	270	P	V
	*	5210	91.28	-	-	83.52	31.96	5.94	30.14	398	270	A	V
		5374.04	47.3	-26.7	74	39.55	31.93	6	30.18	398	270	P	V
		5353.88	41.35	-12.65	54	33.6	31.93	5.99	30.17	398	270	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 1 5150~5250MHz

WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dB μ V/m)	Over Limit (dB)	Limit Line (dB μ V/m)	Read Level (dB μ V)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac		10420	47.22	-20.98	68.2	62.8	39.43	9.71	65.2	100	0	P	H
VHT80		15630	45.3	-28.7	74	59.15	37.39	12.31	64.2	100	0	P	H
CH 42		10420	47.1	-21.1	68.2	62.68	39.43	9.71	65.2	100	0	P	V
5210MHz		15630	46.27	-27.73	74	60.12	37.39	12.31	64.2	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 802.11n HT20 (LF @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1+2		(MHz)	(dB μ V/m)	(dB)	(dB μ V/m)	(dB μ V)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT20 LF		82.11	25.32	-14.68	40	43.31	13.77	0.74	32.59	-	-	P	H
		132.33	32.12	-11.38	43.5	46.08	17.61	0.93	32.57	-	-	P	H
		259.23	25.07	-20.93	46	36.29	19.86	1.29	32.54	-	-	P	H
		565.3	35.49	-10.51	46	39.95	26.13	1.88	32.64	100	0	P	H
		614.3	33.82	-12.18	46	38.35	26	1.97	32.64	-	-	P	H
		663.3	31.05	-14.95	46	34.97	26.51	2.02	32.59	-	-	P	H
		77.25	30.34	-9.66	40	49.08	13.02	0.74	32.59	-	-	P	V
		155.55	24.58	-18.92	43.5	38.9	17.07	1	32.54	-	-	P	V
		258.69	20.06	-25.94	46	31.28	19.86	1.29	32.54	-	-	P	V
		565.3	39.99	-6.01	46	44.45	26.13	1.88	32.64	100	0	P	V
		614.3	36.21	-9.79	46	40.74	26	1.97	32.64	-	-	P	V
		663.3	30.42	-15.58	46	34.34	26.51	2.02	32.59	-	-	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	Peak or Average
H/V	Horizontal or Vertical



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

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1+2		(MHz)	(dB μ V/m)	(dB)	(dB μ V/m)	(dB μ V)	(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

$$1. \text{ Level(dB}\mu\text{V/m)} =$$

$$= \text{Antenna Factor(dB/m)} + \text{Cable Loss(dB)} + \text{Read Level(dB}\mu\text{V)} - \text{Preamp Factor(dB)}$$

$$2. \text{ Over Limit(dB)} = \text{Level(dB}\mu\text{V/m)} - \text{Limit Line(dB}\mu\text{V/m)}$$

For Peak Limit @ 2390MHz:

$$1. \text{ Level(dB}\mu\text{V/m)}$$

$$= \text{Antenna Factor(dB/m)} + \text{Cable Loss(dB)} + \text{Read Level(dB}\mu\text{V)} - \text{Preamp Factor(dB)}$$

$$= 32.22(\text{dB/m}) + 4.58(\text{dB}) + 54.51(\text{dB}\mu\text{V}) - 35.86 (\text{dB})$$

$$= 55.45 (\text{dB}\mu\text{V/m})$$

$$2. \text{ Over Limit(dB)}$$

$$= \text{Level(dB}\mu\text{V/m)} - \text{Limit Line(dB}\mu\text{V/m)}$$

$$= 55.45(\text{dB}\mu\text{V/m}) - 74(\text{dB}\mu\text{V/m})$$

$$= -18.55(\text{dB})$$

For Average Limit @ 2390MHz:

$$1. \text{ Level(dB}\mu\text{V/m)}$$

$$= \text{Antenna Factor(dB/m)} + \text{Cable Loss(dB)} + \text{Read Level(dB}\mu\text{V)} - \text{Preamp Factor(dB)}$$

$$= 32.22(\text{dB/m}) + 4.58(\text{dB}) + 42.6(\text{dB}\mu\text{V}) - 35.86 (\text{dB})$$

$$= 43.54 (\text{dB}\mu\text{V/m})$$

$$2. \text{ Over Limit(dB)}$$

$$= \text{Level(dB}\mu\text{V/m)} - \text{Limit Line(dB}\mu\text{V/m)}$$

$$= 43.54(\text{dB}\mu\text{V/m}) - 54(\text{dB}\mu\text{V/m})$$

$$= -10.46(\text{dB})$$

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



Appendix D. Radiated Spurious Emission

Test Engineer :	Watt Tseng, Karl Hou and Lance Chiang	Temperature :	24.0~24.3°C
		Relative Humidity :	50~52%

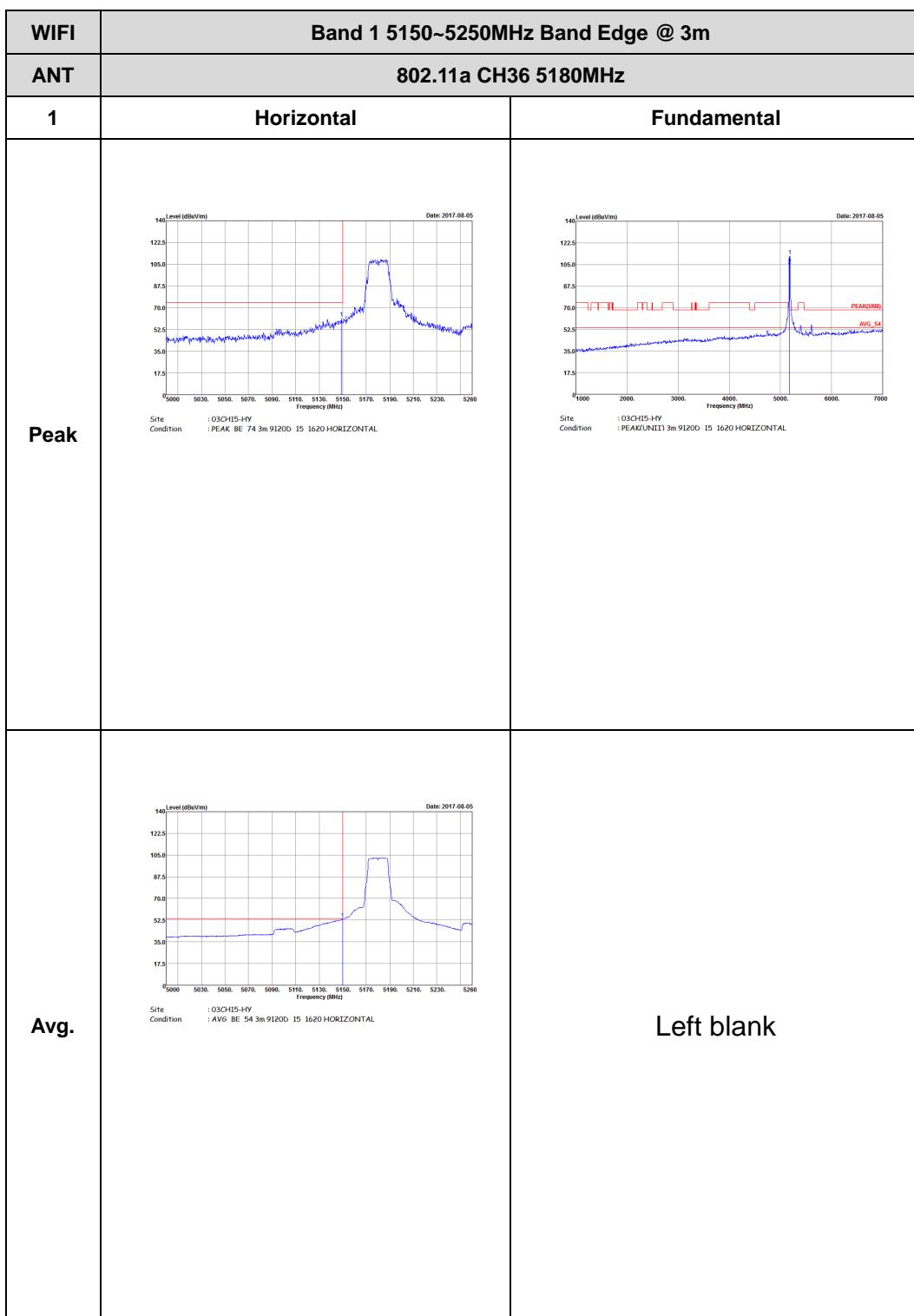
Note symbol

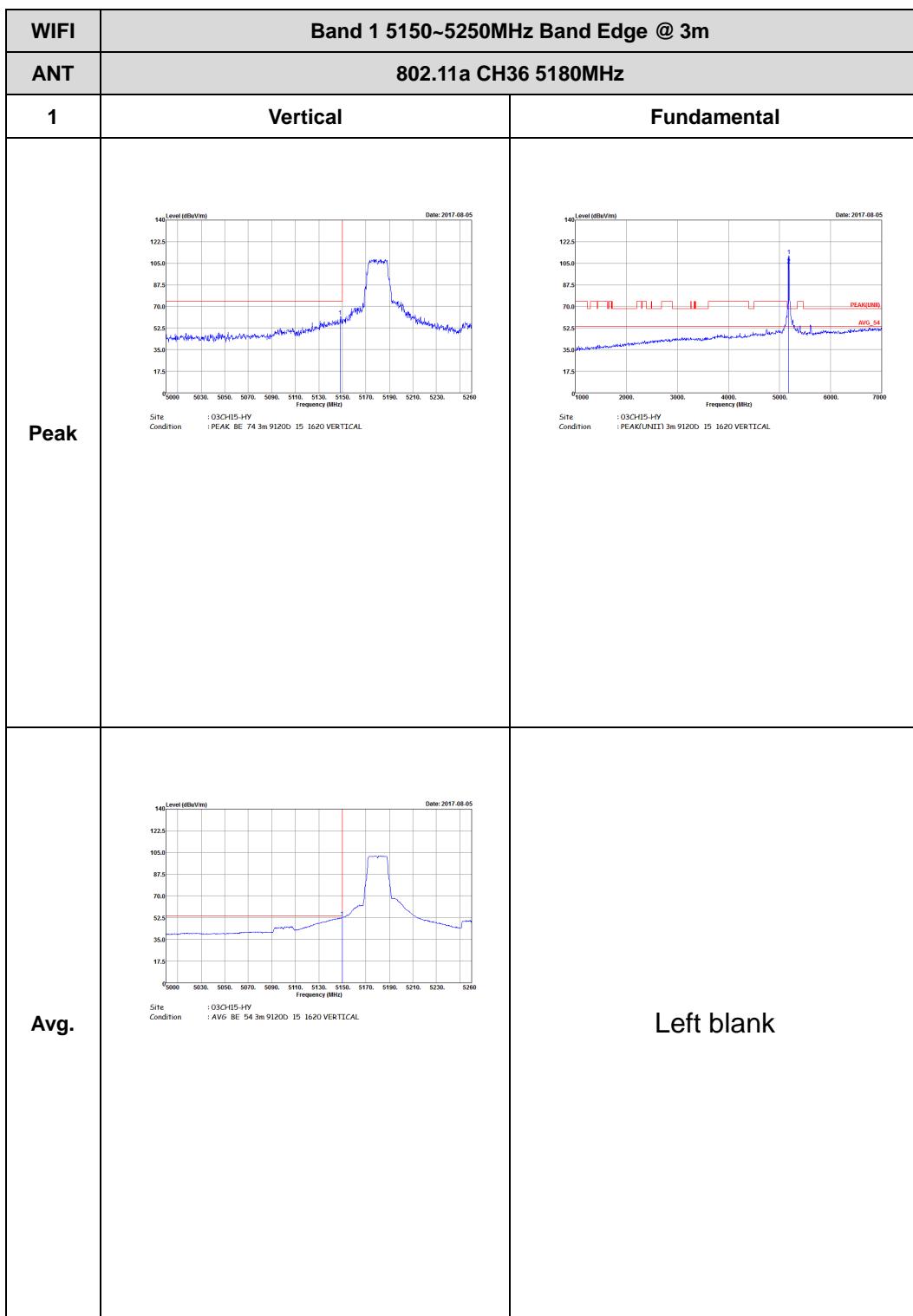
-L	Low channel location
-R	High channel location

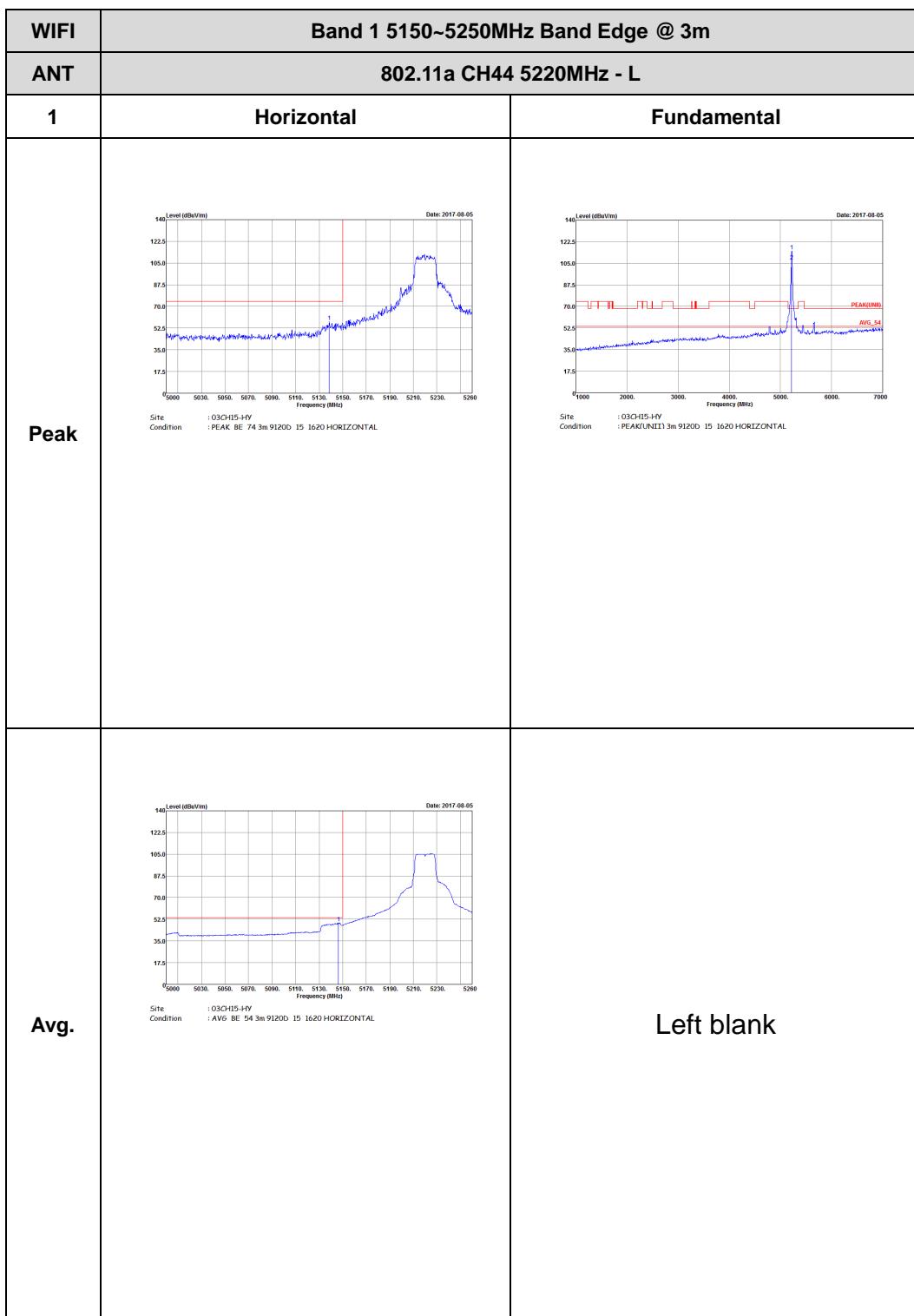


Band 1 - 5150~5250MHz

WIFI 802.11a (Band Edge @ 3m)

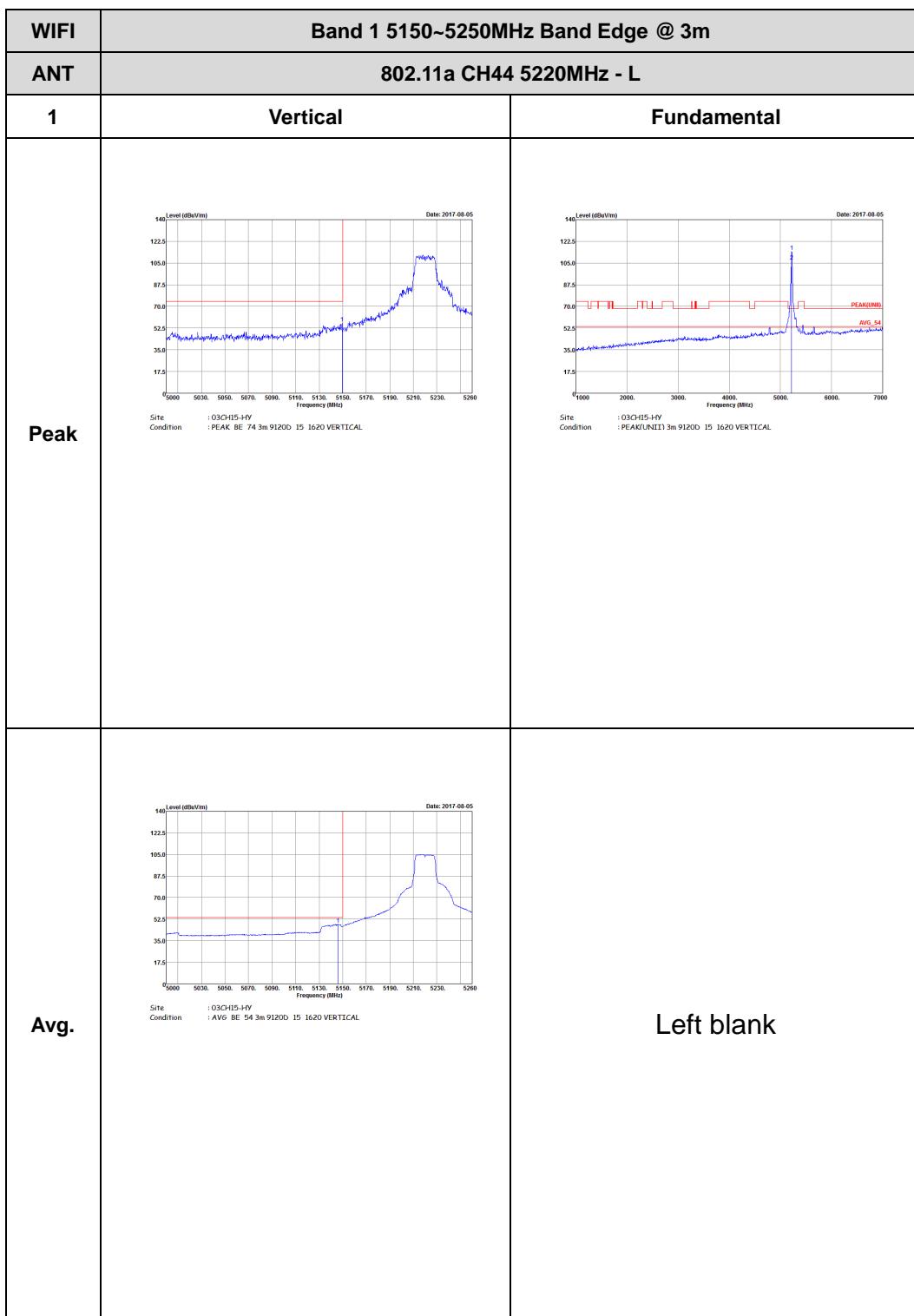




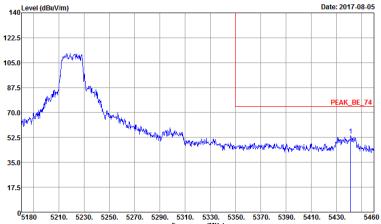
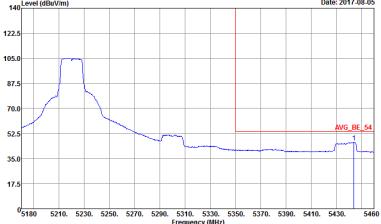


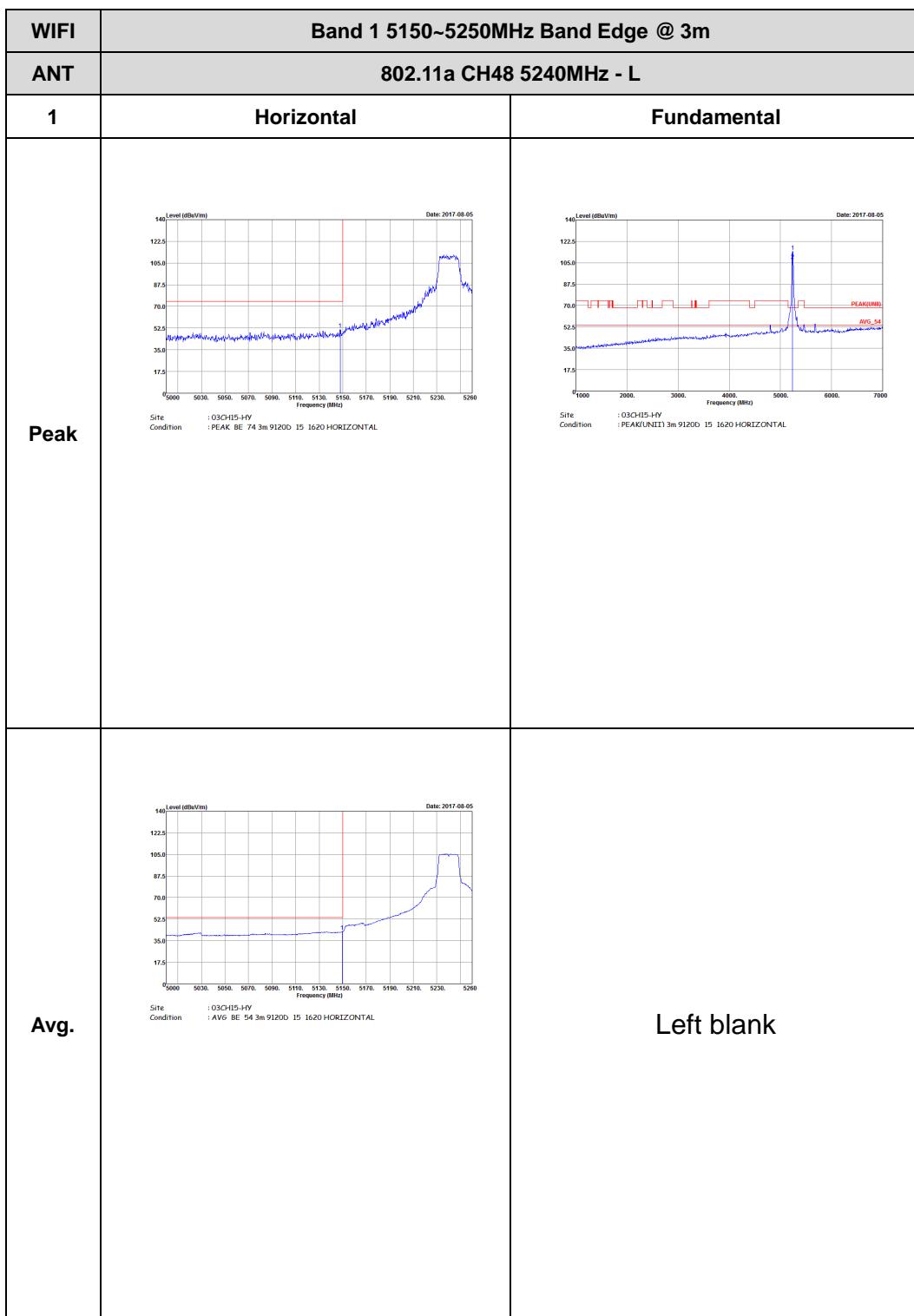


WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - R	
1	Horizontal	Fundamental
Peak	<p>Level (dBm/V/m) vs Frequency (MHz) Date: 2017-08-05 Site: 03CH15-HY Condition: PEAK BE 74 3m 9120D 15 1620 HORIZONTAL</p>	Left blank
Avg.	<p>Level (dBm/V/m) vs Frequency (MHz) Date: 2017-08-05 Site: 03CH15-HY Condition: AVG BE 54 3m 9120D 15 1620 HORIZONTAL</p>	Left blank

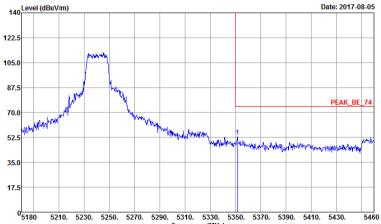
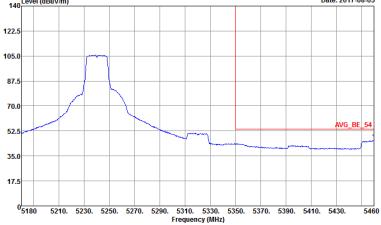


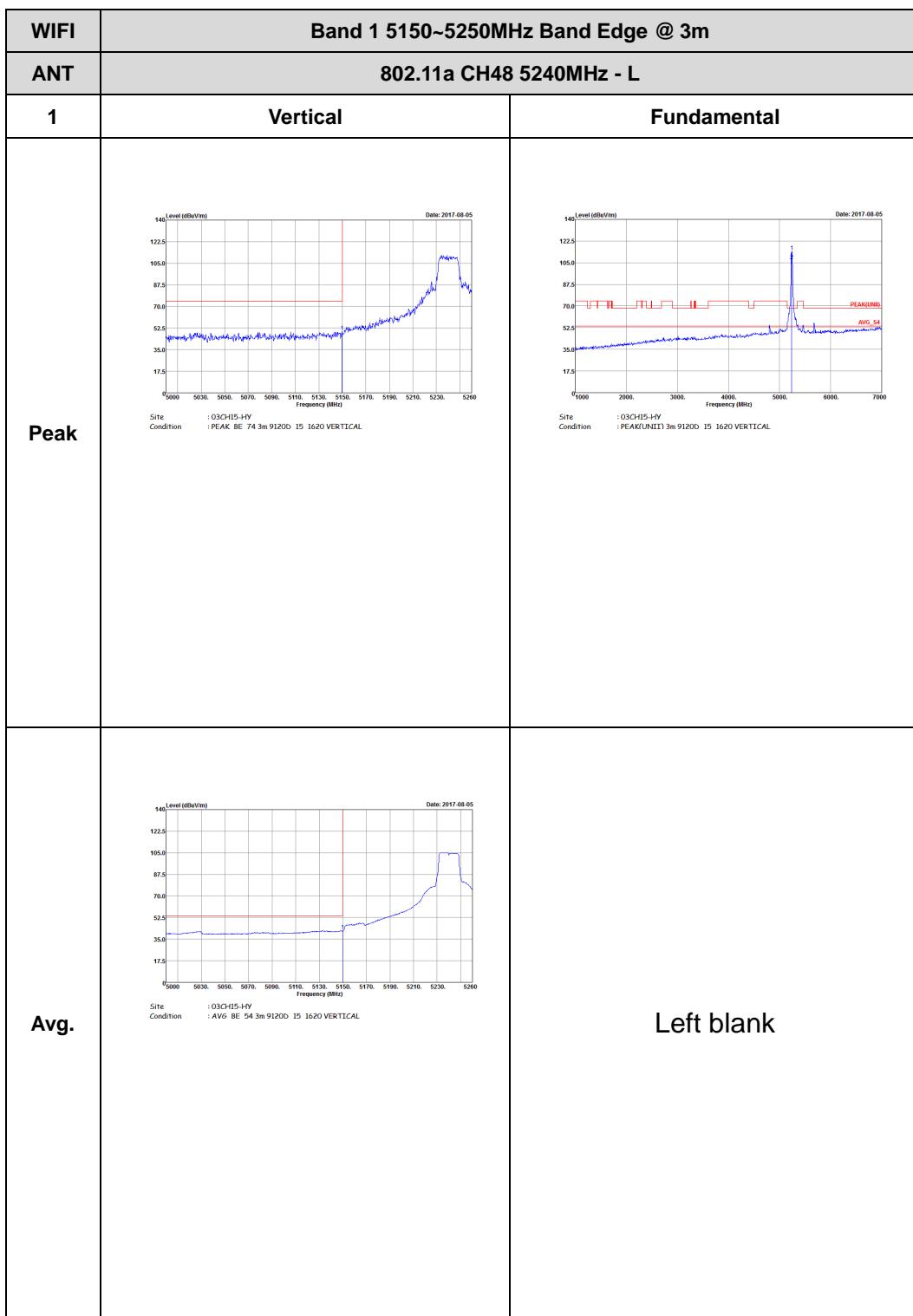


WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - R	
1	Vertical	Fundamental
Peak	 <p>Level (dBuV/m) vs Frequency (MHz) Date: 2017-08-05 Site: 03CH15-HY Condition: PEAK BE 74 3m 9120D 15 1620 VERTICAL</p>	Left blank
Avg.	 <p>Level (dBuV/m) vs Frequency (MHz) Date: 2017-08-05 Site: 03CH15-HY Condition: AVG BE 54 3m 9120D 15 1620 VERTICAL</p>	Left blank





WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - R	
1	Horizontal	Fundamental
Peak	 <p>Level (dBuV/m) vs Frequency (MHz) Date: 2017-08-05 Site: 03CH15-HY Condition: PEAK BE 74 3m 9120D 15 1620 HORIZONTAL</p>	Left blank
Avg.	 <p>Level (dBuV/m) vs Frequency (MHz) Date: 2017-08-05 Site: 03CH15-HY Condition: AVG BE 54 3m 9120D 15 1620 HORIZONTAL</p>	Left blank

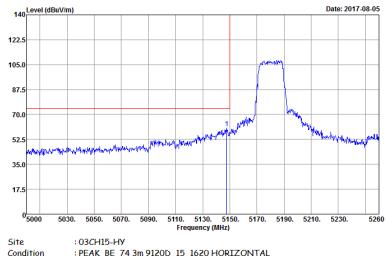
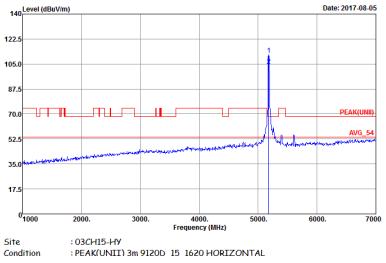


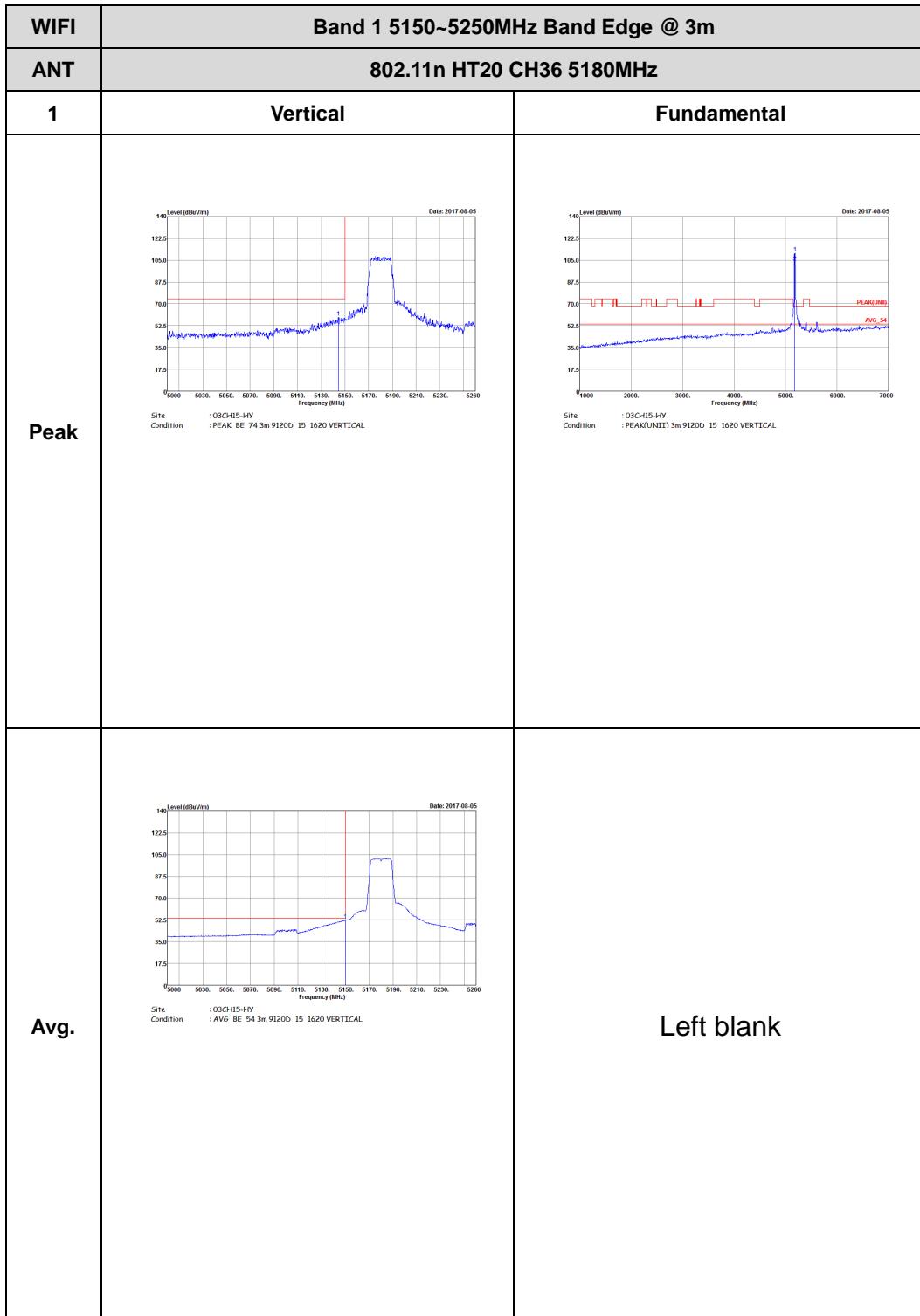


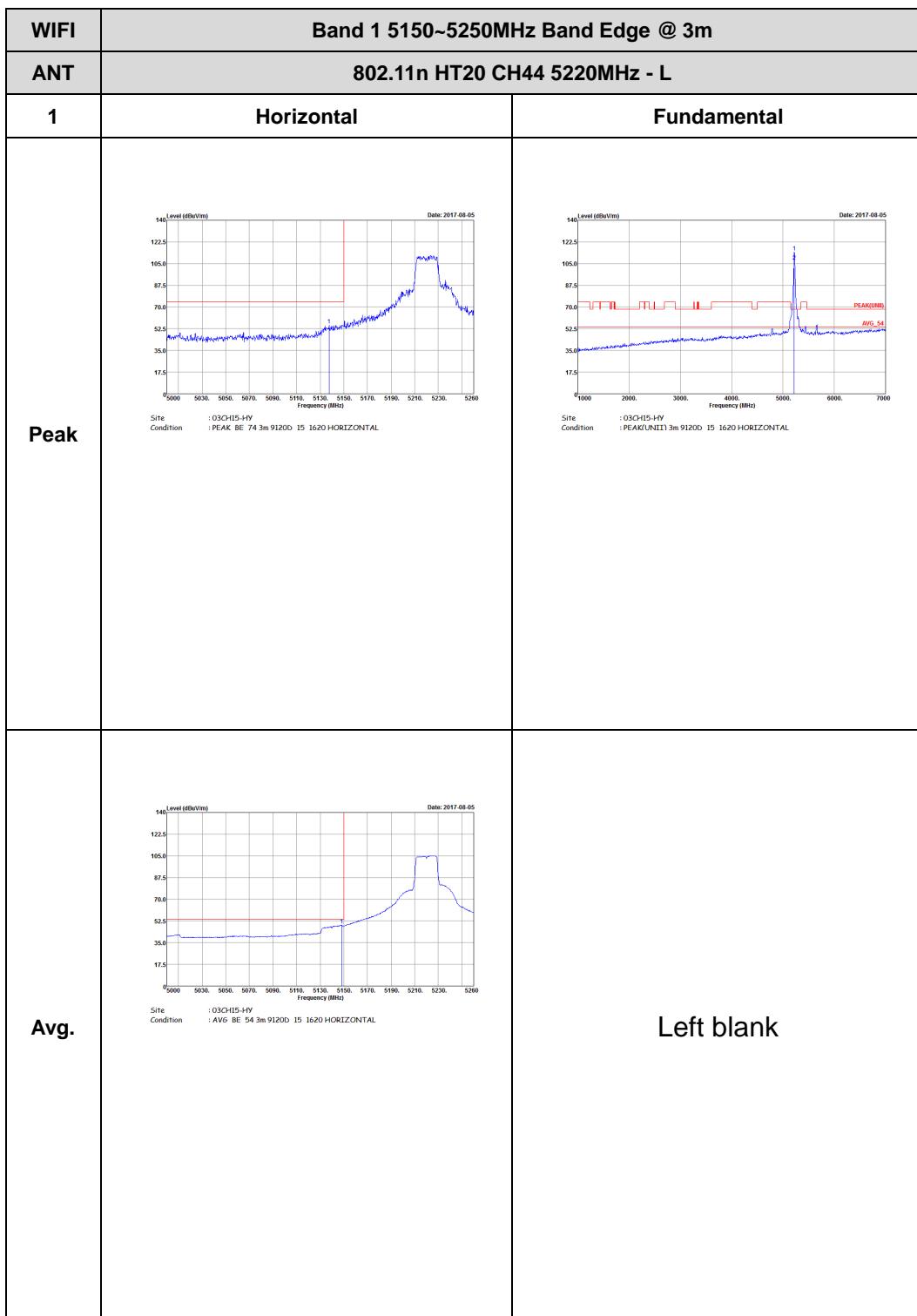
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - R	
1	Vertical	Fundamental
Peak	<p>Level (dBuV/m) vs Frequency (MHz) Date: 2017-08-05 Site: 03CH15-HY Condition: PEAK BE 74 3m 9120D 15 1620 VERTICAL</p>	Left blank
Avg.	<p>Level (dBuV/m) vs Frequency (MHz) Date: 2017-08-05 Site: 03CH15-HY Condition: AVG BE 54 3m 9120D 15 1620 VERTICAL</p>	Left blank



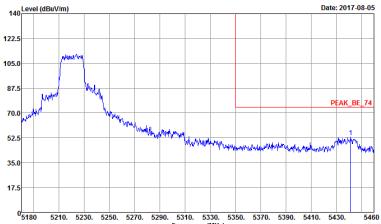
Band 1 5150~5250MHz
WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH36 5180MHz	
1	Horizontal	Fundamental
Peak	 Site : 03CH15-HY Condition : PEAK BE 74 3m 9120D 15 1620 HORIZONTAL	 Site : 03CH15-HY Condition : PEAK(UNII) 3m 9120D 15 1620 HORIZONTAL
Avg.	 Site : 03CH15-HY Condition : AVG BE 54 3m 9120D 15 1620 HORIZONTAL	Left blank

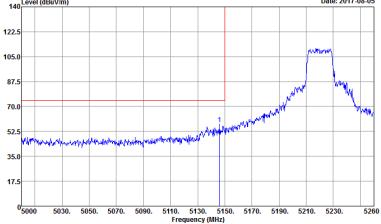
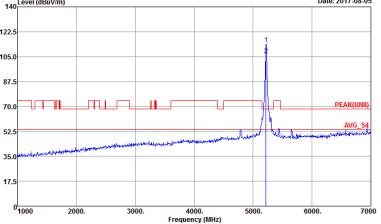
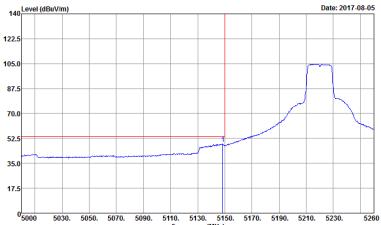




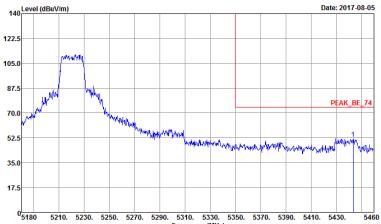


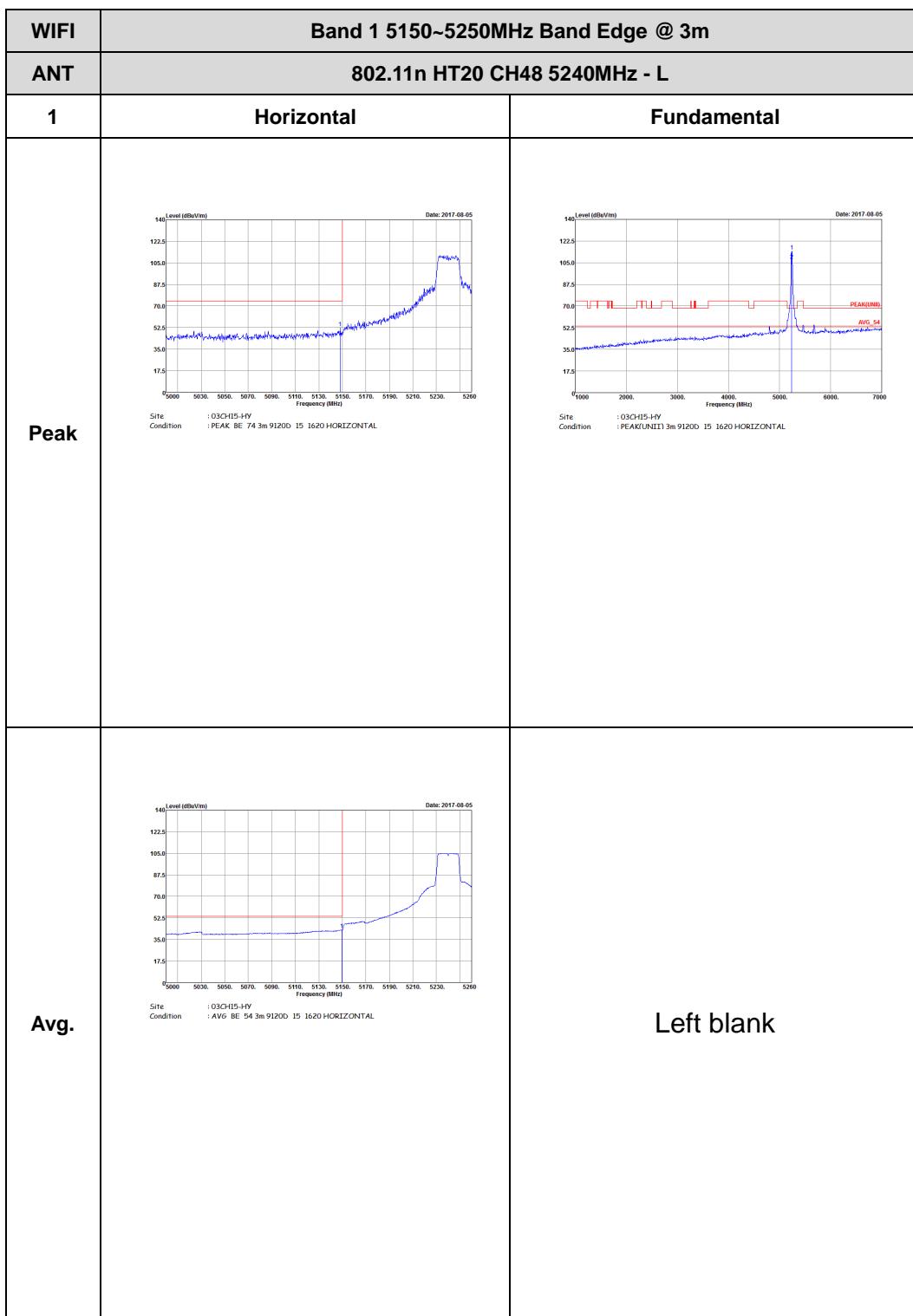
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH44 5220MHz - R	
1	Horizontal	Fundamental
Peak	 <p>Level (dBm/Vm) vs Frequency (MHz) Date: 2017-08-05 Site : 03CH15-HY Condition : PEAK BE 74 3m 91200 I5 1620 HORIZONTAL</p>	Left blank
Avg.	 <p>Level (dBm/Vm) vs Frequency (MHz) Date: 2017-08-05 Site : 03CH15-HY Condition : AVG BE 54 3m 91200 I5 1620 HORIZONTAL</p>	Left blank



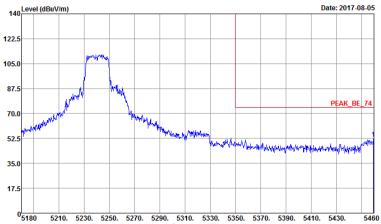
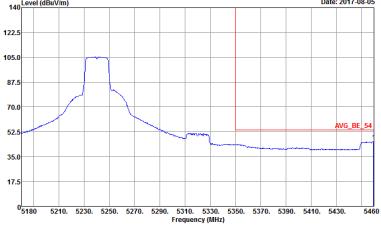
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH44 5220MHz - L	
1	Vertical	Fundamental
Peak	 Site : 03CH15-HY Condition : PEAK BE T4 3m 9120D 15 1620 VERTICAL	 Site : 03CH15-HY Condition : PEAK(UNII) 3m 9120D 15 1620 VERTICAL
Avg.	 Site : 03CH15-HY Condition : AVG BE S4 3m 9120D 15 1620 VERTICAL	Left blank



WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH44 5220MHz - R	
1	Vertical	Fundamental
Peak	 <p>Level (dBc/100KHz) vs Frequency (MHz) plot. The x-axis ranges from 5180 to 5460 MHz, and the y-axis ranges from 17.5 to 140 dBc. A blue line shows a sharp peak labeled "PEAK_BE_74" at approximately 5215 MHz. A red vertical line marks the center of the band edge. The plot is dated 2017-08-05. Site information: O3CH15-HY, Condition: PEAK BE 74 3m 9120D 1S 1620 VERTICAL.</p>	Left blank
Avg.	 <p>Level (dBc/100KHz) vs Frequency (MHz) plot. The x-axis ranges from 5180 to 5460 MHz, and the y-axis ranges from 17.5 to 140 dBc. A blue line shows a broad peak labeled "AVG_BE_54" at approximately 5215 MHz. A red vertical line marks the center of the band edge. The plot is dated 2017-08-05. Site information: O3CH15-HY, Condition: AVG BE 54 3m 9120D 1S 1620 VERTICAL.</p>	Left blank



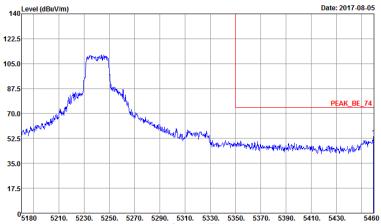


WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH48 5240MHz - R	
1	Horizontal	Fundamental
Peak	 <p>Level (dBuV/m) vs Frequency (MHz) Date: 2017-08-05 Site: 03CH15-HY Condition: PEAK BE 74 3m 9120D 15 1620 HORIZONTAL</p>	Left blank
Avg.	 <p>Level (dBuV/m) vs Frequency (MHz) Date: 2017-08-05 Site: 03CH15-HY Condition: AVG BE 54 3m 9120D 15 1620 HORIZONTAL</p>	Left blank



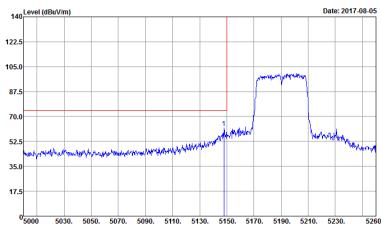
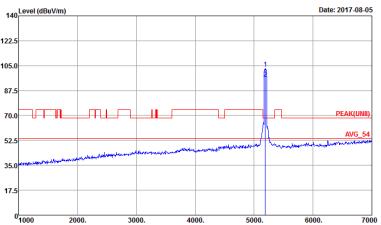
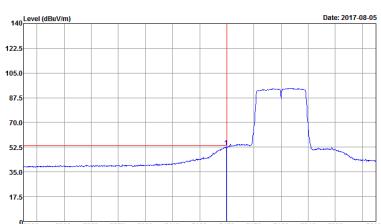
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH48 5240MHz - L	
1	Vertical	Fundamental
Peak	 Site : 03CH15-HY Condition : PEAK BE 74 3m 9120D 15 1620 VERTICAL	
Avg.	 Site : 03CH15-HY Condition : AVG BE 54 3m 9120D 15 1620 VERTICAL	Left blank



WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH48 5240MHz - R	
1	Vertical	Fundamental
Peak	 <p>Level (dBuV/m)</p> <p>Date: 2017-08-05</p> <p>Frequency (MHz)</p> <p>Site: 03CH15-HY Condition: PEAK BE 74 3m 9120D 15 1620 VERTICAL</p>	Left blank
Avg.	 <p>Level (dBuV/m)</p> <p>Date: 2017-08-05</p> <p>Frequency (MHz)</p> <p>Site: 03CH15-HY Condition: AVG BE 54 3m 9120D 15 1620 VERTICAL</p>	Left blank



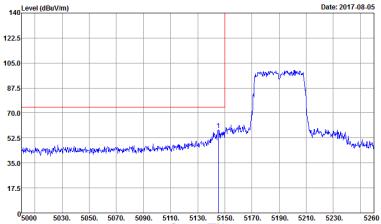
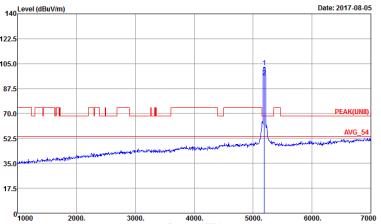
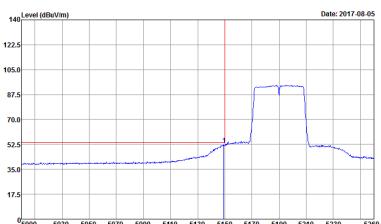
Band 1 5150~5250MHz
WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH38 5190MHz - L	
1	Horizontal	Fundamental
Peak	 Site : 03CH15-HY Condition : PEAK BE 74 3m 9120D I5 1620 HORIZONTAL	 Site : 03CH15-HY Condition : PEAK(UNII) 3m 9120D I5 1620 HORIZONTAL
Avg.	 Site : 03CH15-HY Condition : AVG BE 54 3m 9120D I5 1620 HORIZONTAL	Left blank

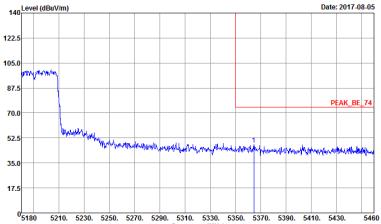
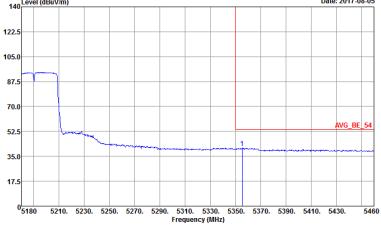


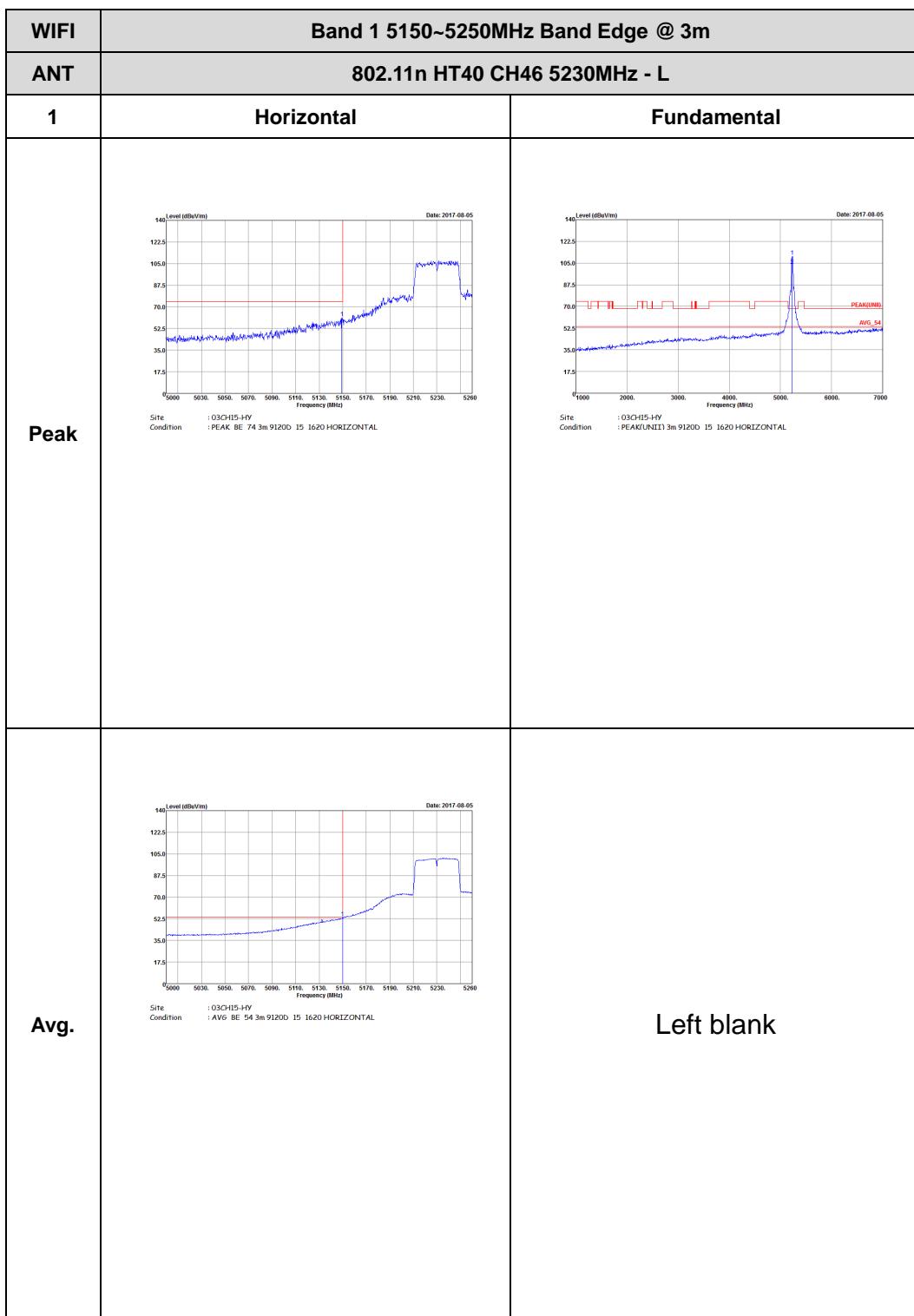
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH38 5190MHz - R	
1	Horizontal	Fundamental
Peak	<p>Level (dBc/100KHz) vs Frequency (MHz) Date: 2017-08-05 140 122.5 105.0 87.5 70.0 52.5 35.0 17.5 5180 5210. 5230. 5250. 5270. 5290. 5310. 5330. 5350. 5370. 5390. 5410. 5430. 5460 PEAK_BE_74 Site: 03CH15-HY Condition: PEAK BE 74 3m 9120D 15 1620 HORIZONTAL</p>	Left blank
Avg.	<p>Level (dBc/100KHz) vs Frequency (MHz) Date: 2017-08-05 140 122.5 105.0 87.5 70.0 52.5 35.0 17.5 5180 5210. 5230. 5250. 5270. 5290. 5310. 5330. 5350. 5370. 5390. 5410. 5430. 5460 AVG_BE_54 Site: 03CH15-HY Condition: AVG BE 54 3m 9120D 15 1620 HORIZONTAL</p>	Left blank



WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH38 5190MHz - L	
1	Vertical	Fundamental
Peak	 Site : 03CH15-HY Condition : PEAK BE 74 3m 9120D 15 1620 VERTICAL	 Site : 03CH15-HY Condition : PEAK(UNII) 3m 9120D 15 1620 VERTICAL
Avg.	 Site : 03CH15-HY Condition : AVG BE 54 3m 9120D 15 1620 VERTICAL	Left blank

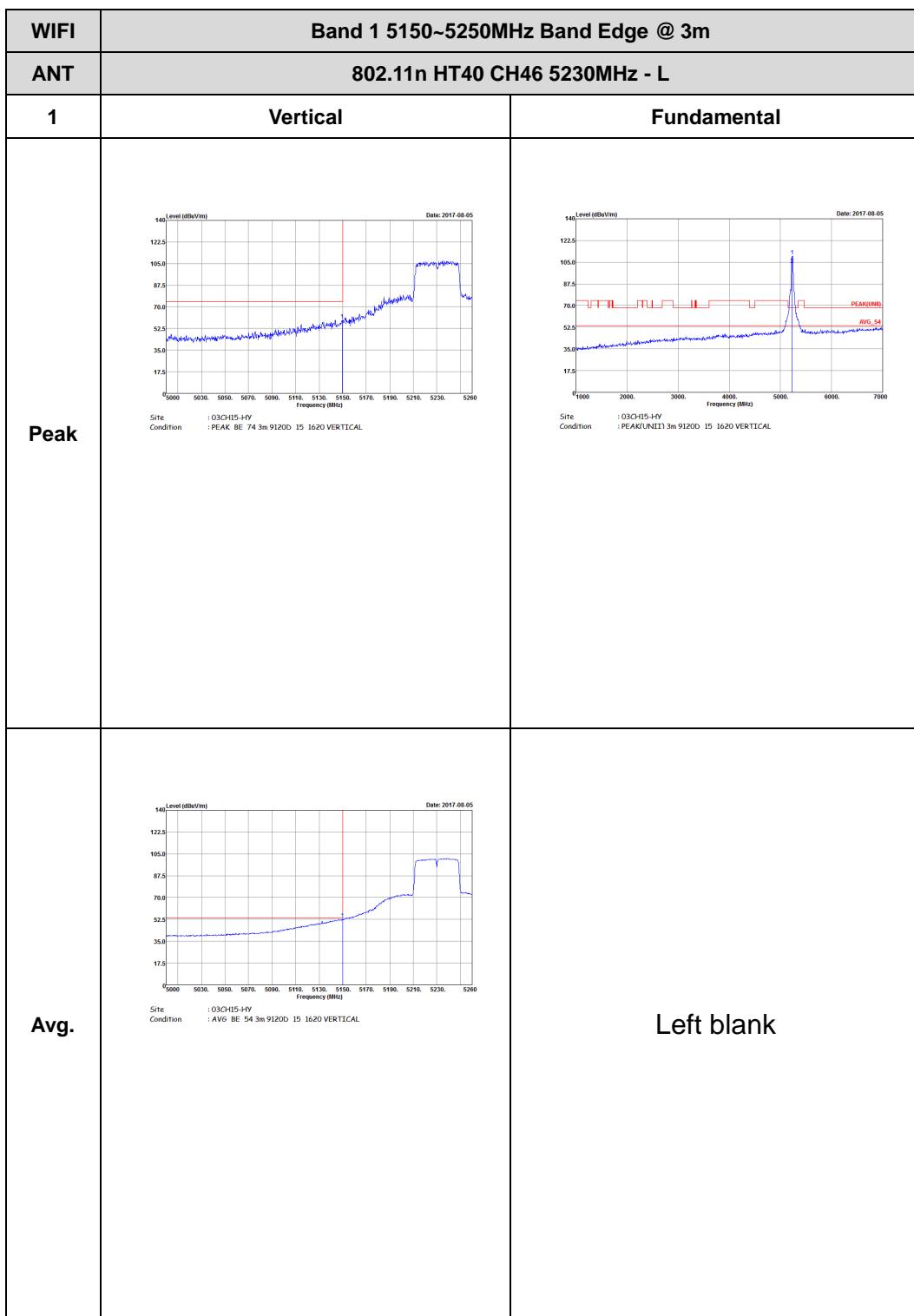


WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH38 5190MHz - R	
1	Vertical	Fundamental
Peak	 <p>Level (dBuV/m) vs Frequency (MHz) Date: 2017-08-05 Site: 03CH15-HY Condition: PEAK BE 74 3m 9120D 15 1620 VERTICAL</p>	Left blank
Avg.	 <p>Level (dBuV/m) vs Frequency (MHz) Date: 2017-08-05 Site: 03CH15-HY Condition: AVG BE 54 3m 9120D 15 1620 VERTICAL</p>	Left blank

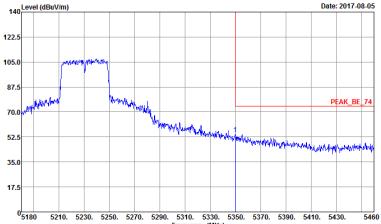




WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH46 5230MHz - R	
1	Horizontal	Fundamental
Peak	<p>Level (dBc/100ms) vs Frequency (MHz) from 5180 to 5460. The plot shows a sharp peak labeled 'PEAK_BE_74' at approximately 5230 MHz. The y-axis ranges from 17.5 to 140 dBc/100ms. The x-axis ranges from 5180 to 5460 MHz. The plot is dated 2017-08-05.</p> <p>Site: 03CH15-HY Condition: PEAK BE 74 3m 9120D 15 1620 HORIZONTAL</p>	Left blank
Avg.	<p>Level (dBc/100ms) vs Frequency (MHz) from 5180 to 5460. The plot shows a broad average level labeled 'AVG_BE_54'. The y-axis ranges from 17.5 to 140 dBc/100ms. The x-axis ranges from 5180 to 5460 MHz. The plot is dated 2017-08-05.</p> <p>Site: 03CH15-HY Condition: AVG BE 54 3m 9120D 15 1620 HORIZONTAL</p>	Left blank

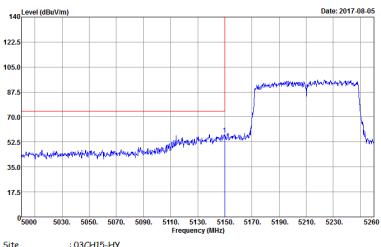
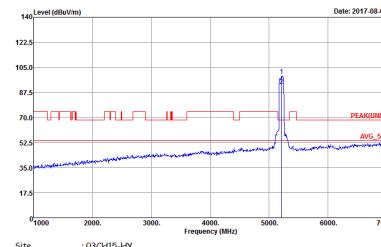
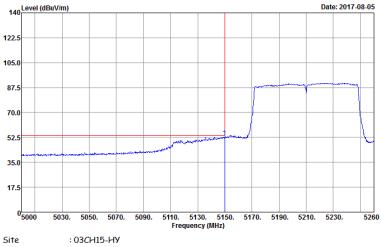




WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH46 5230MHz - R	
1	Vertical	Fundamental
Peak	 <p>Level (dBc/100KHz) vs Frequency (MHz) from 5180 to 5460. The plot shows a sharp peak labeled 'PEAK_BE_74' at approximately 5230 MHz. The y-axis ranges from 0 to 140 dBc/100KHz. The x-axis ranges from 5180 to 5460 MHz. The plot is dated 2017.08.05.</p> <p>Site : 03CH15-HY Condition : PEAK BE 74 3m 9120D 1S 1620 VERTICAL</p>	Left blank
Avg.	 <p>Level (dBc/100KHz) vs Frequency (MHz) from 5180 to 5460. The plot shows a broad peak labeled 'AVG_BE_54' at approximately 5230 MHz. The y-axis ranges from 0 to 140 dBc/100KHz. The x-axis ranges from 5180 to 5460 MHz. The plot is dated 2017.08.05.</p> <p>Site : 03CH15-HY Condition : AVG BE 54 3m 9120D 1S 1620 VERTICAL</p>	Left blank

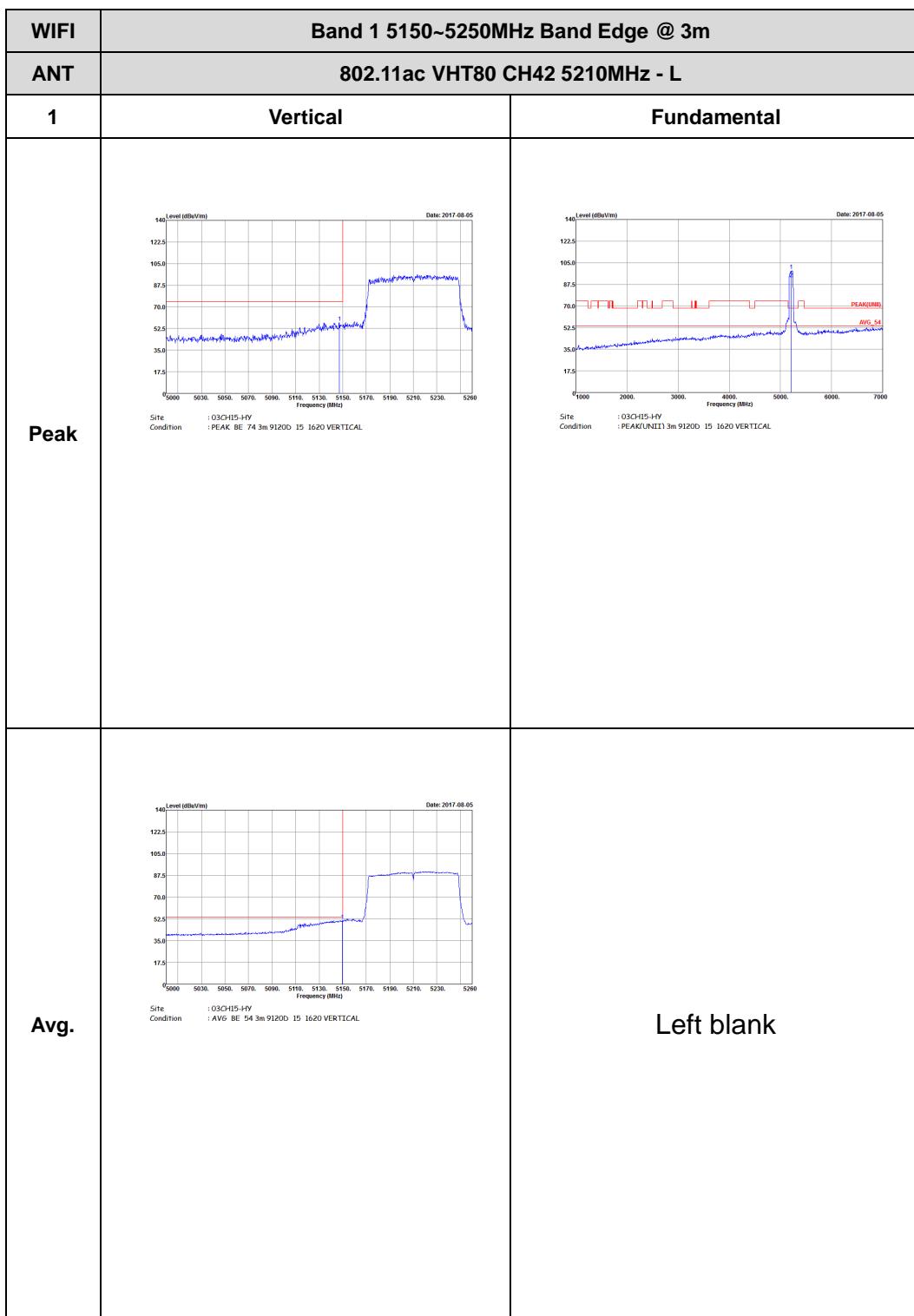


Band 1 5150~5250MHz
WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH42 5210MHz - L	
1	Horizontal	Fundamental
Peak	 Site : 03CH15-HY Condition : PEAK BE 74 3m 9120D 15 1620 HORIZONTAL	 Site : 03CH15-HY Condition : PEAK(UNII) 3m 9120D 15 1620 HORIZONTAL
Avg.	 Site : 03CH15-HY Condition : AVG BE 54 3m 9120D 15 1620 HORIZONTAL	Left blank



WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH42 5210MHz - R	
1	Horizontal	Fundamental
Peak	 Date: 2017-08-05 Site: 03CH15-HY Condition: PEAK BE 74 3m 9120D 15 1620 HORIZONTAL	Left blank
Avg.	 Date: 2017-08-05 Site: 03CH15-HY Condition: AVG BE 54 3m 9120D 15 1620 HORIZONTAL	Left blank



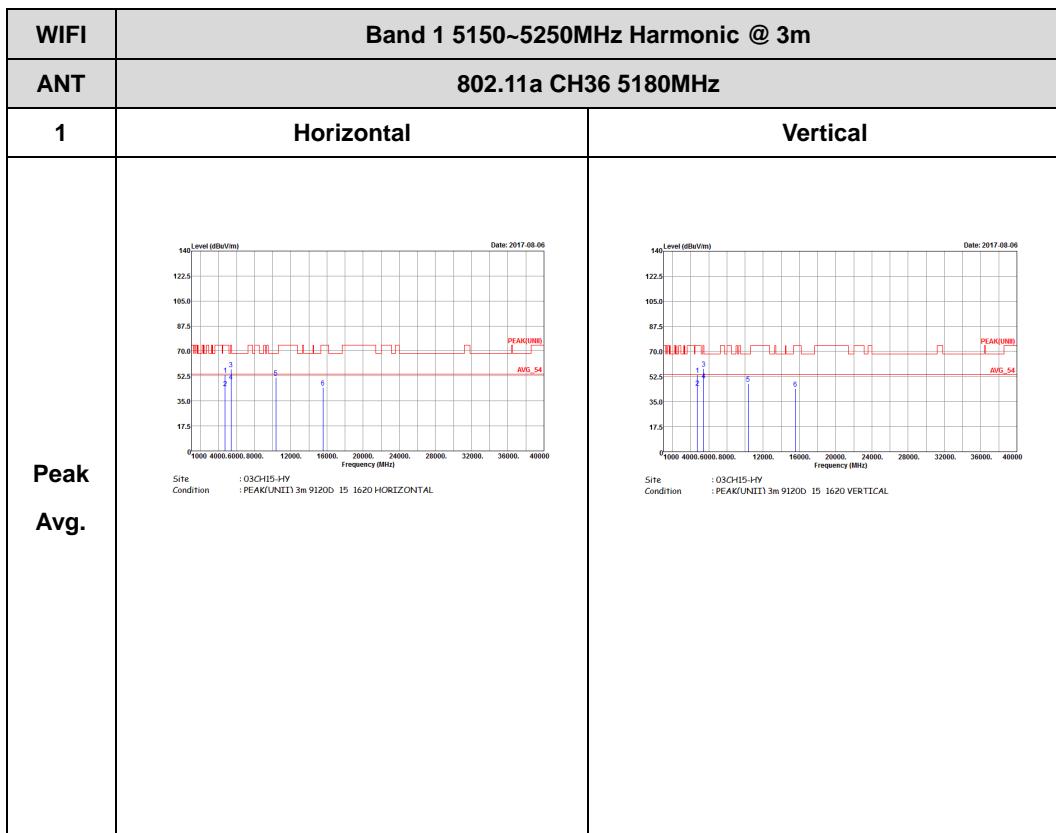


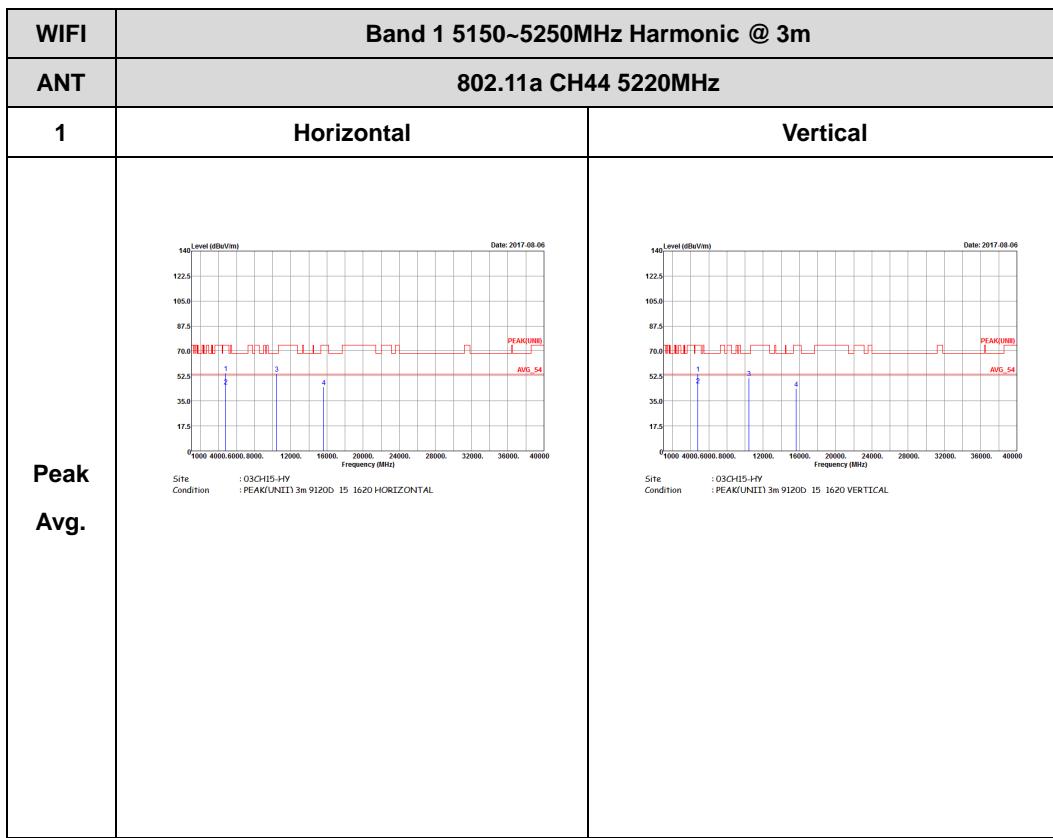
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH42 5210MHz - R	
1	Vertical	Fundamental
Peak	 Date: 2017-08-05 Site: 03CH15-HY Condition: PEAK BE 74 3m 9120D 15 1620 VERTICAL	Left blank
Avg.	 Date: 2017-08-05 Site: 03CH15-HY Condition: AVG BE 54 3m 9120D 15 1620 VERTICAL	Left blank

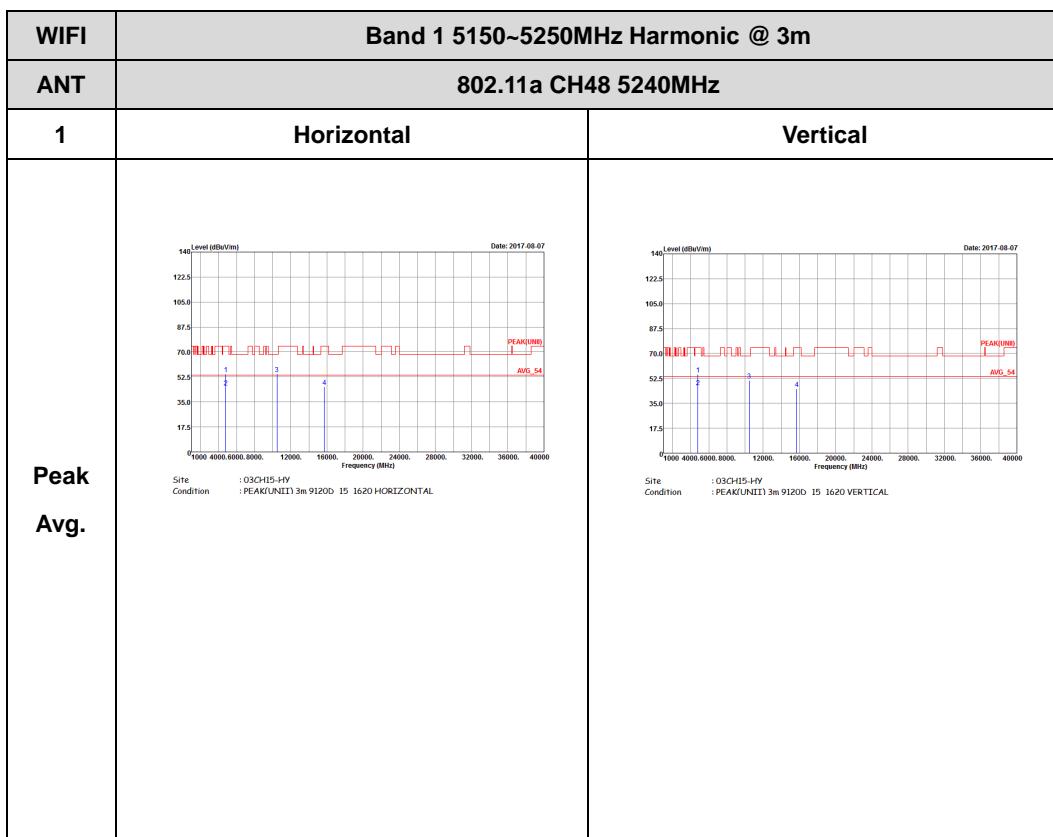


Band 1 - 5150~5250MHz

WIFI 802.11a (Harmonic @ 3m)

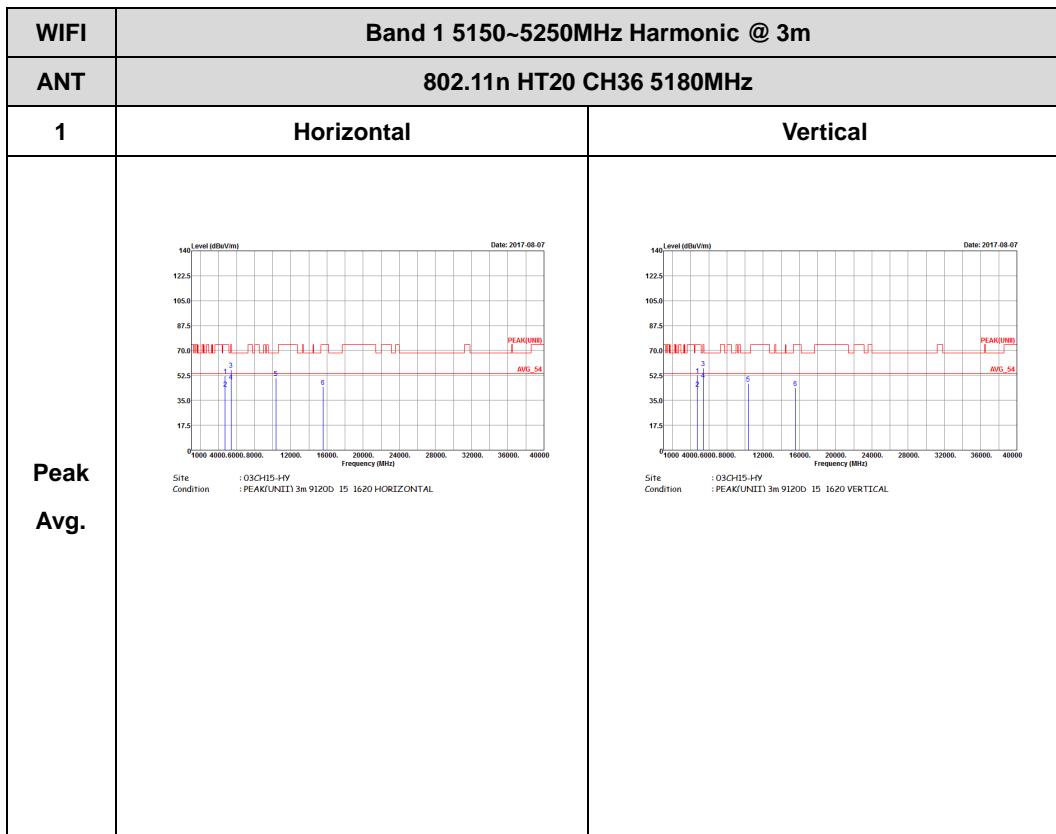


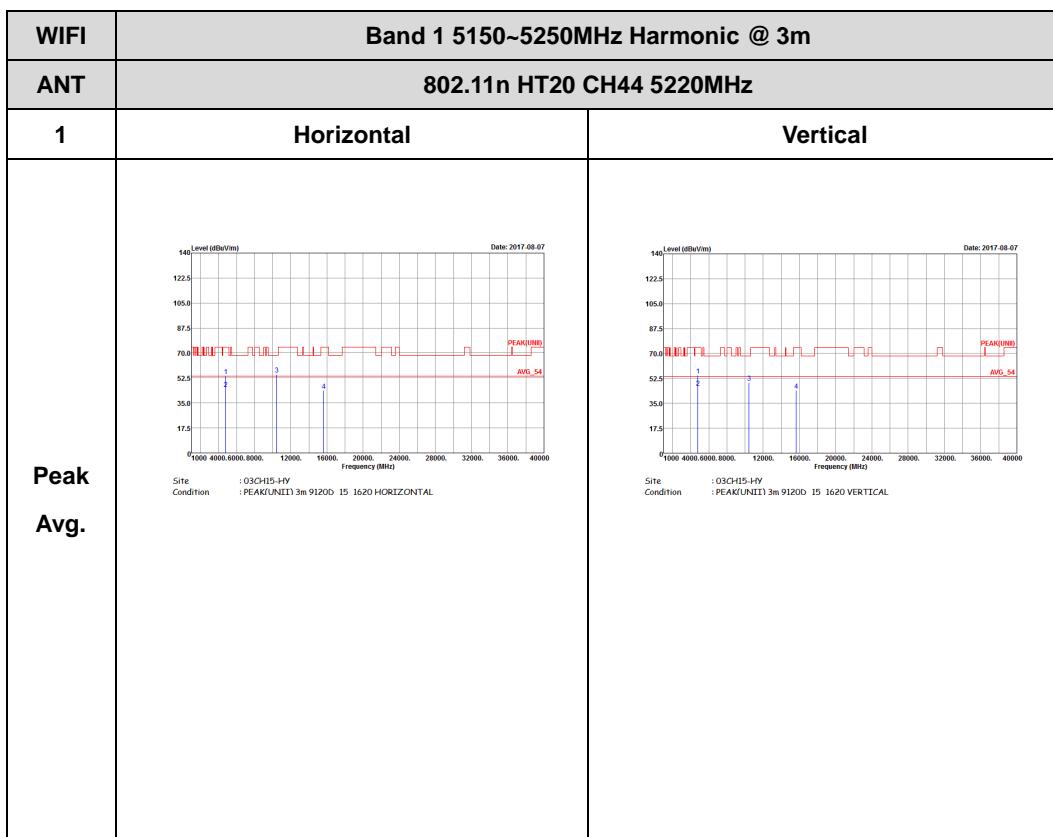


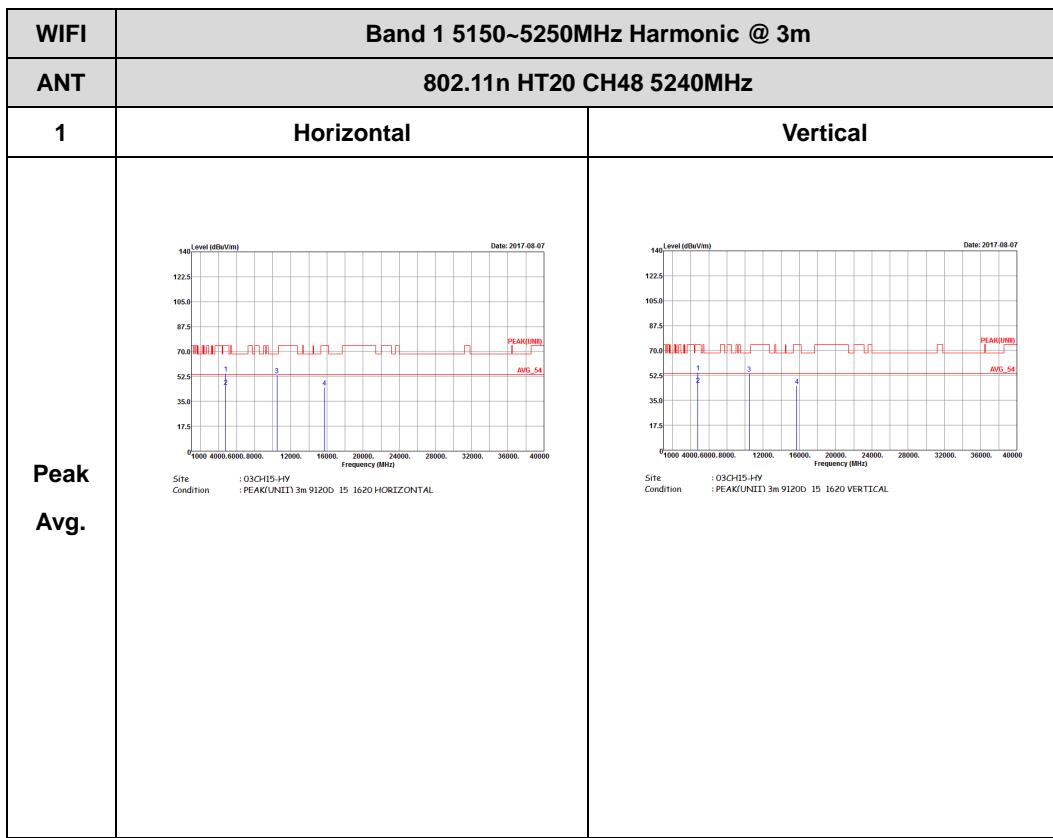




Band 1 5150~5250MHz
WIFI 802.11n HT20 (Harmonic @ 3m)

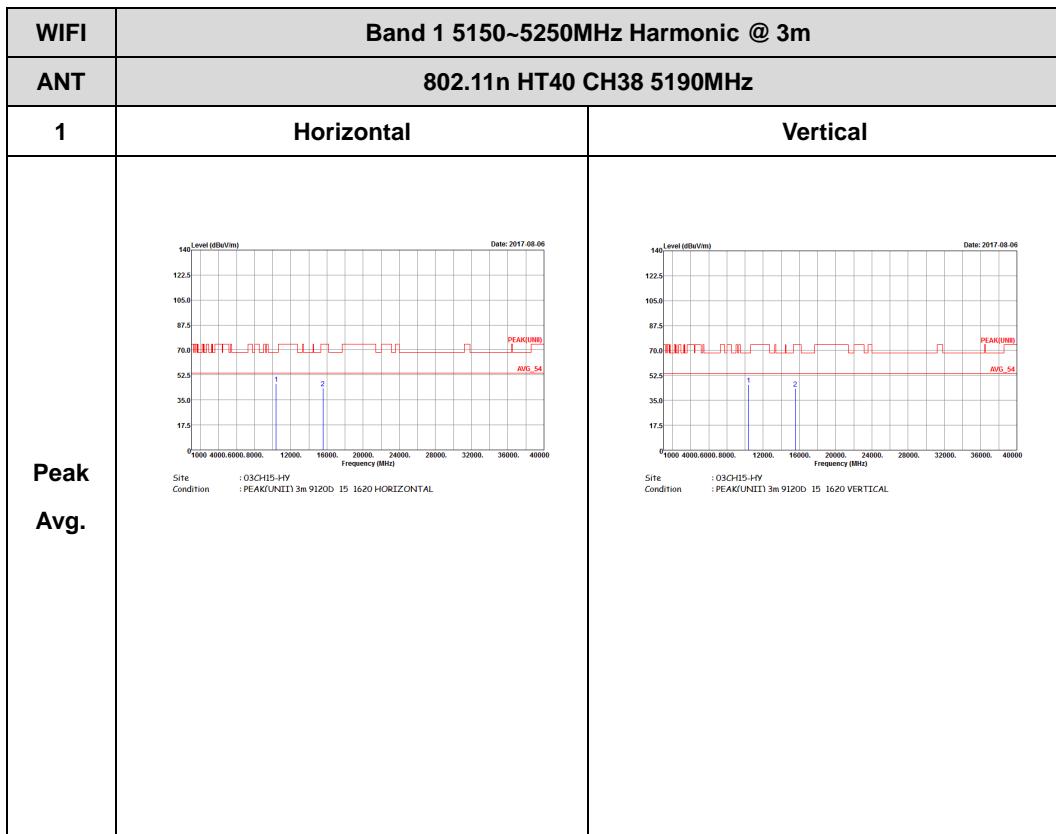


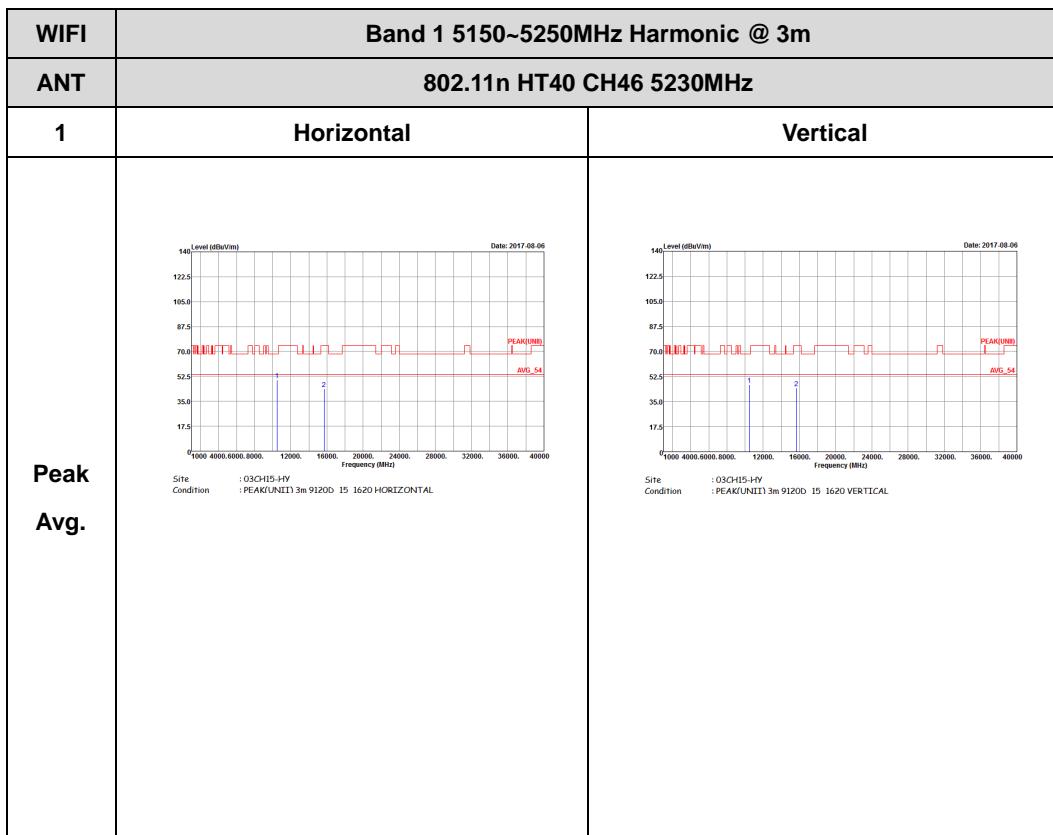






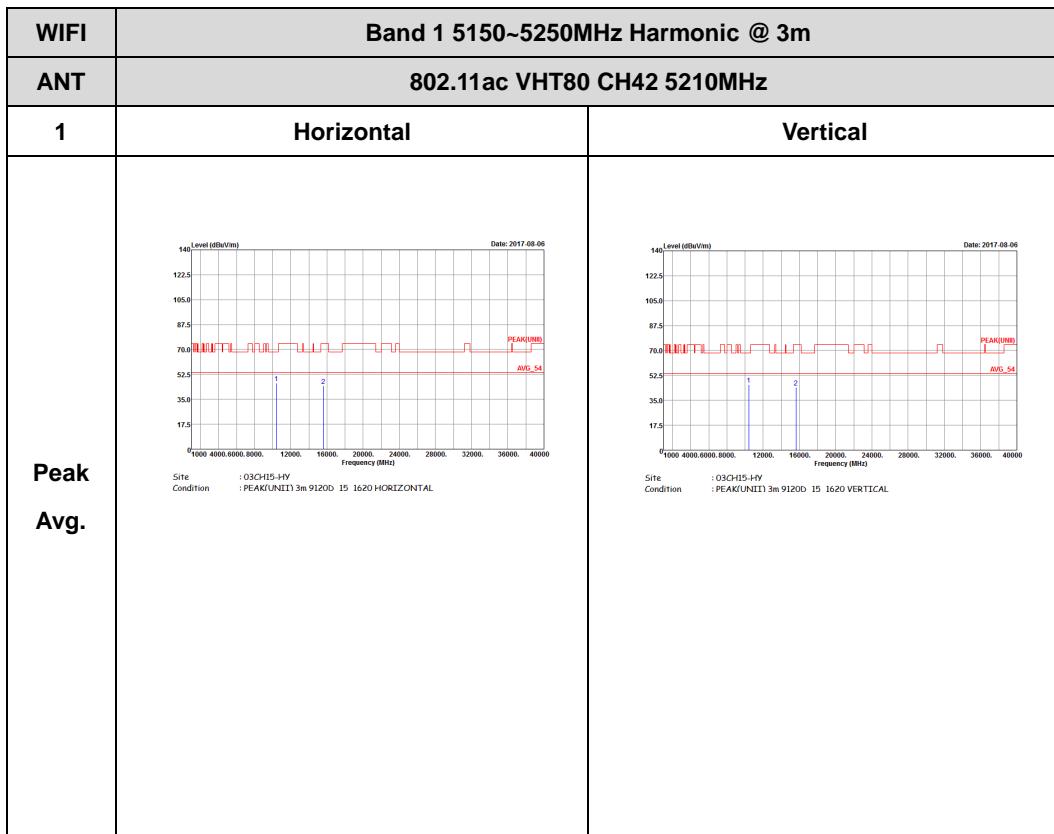
Band 1 5150~5250MHz
WIFI 802.11n HT40 (Harmonic @ 3m)





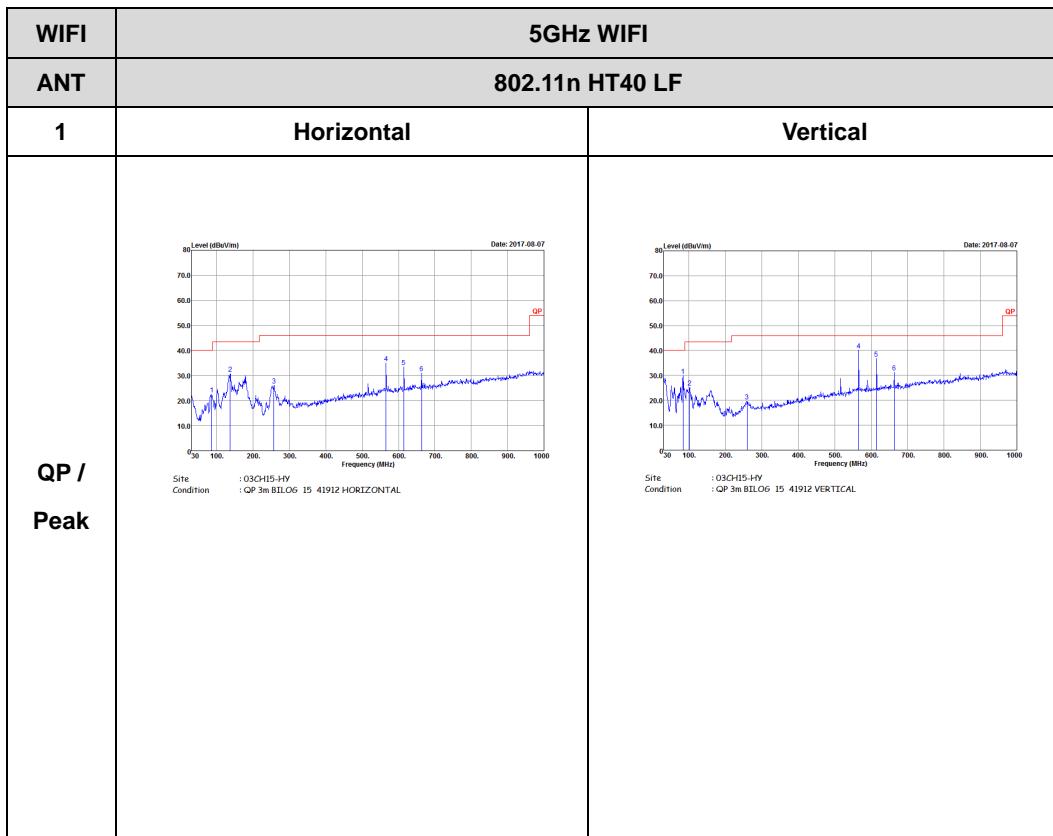


Band 1 5150~5250MHz
WIFI 802.11ac VHT80 (Harmonic @ 3m)





Emission below 1GHz
5GHz WIFI 802.11n HT40 (LF)

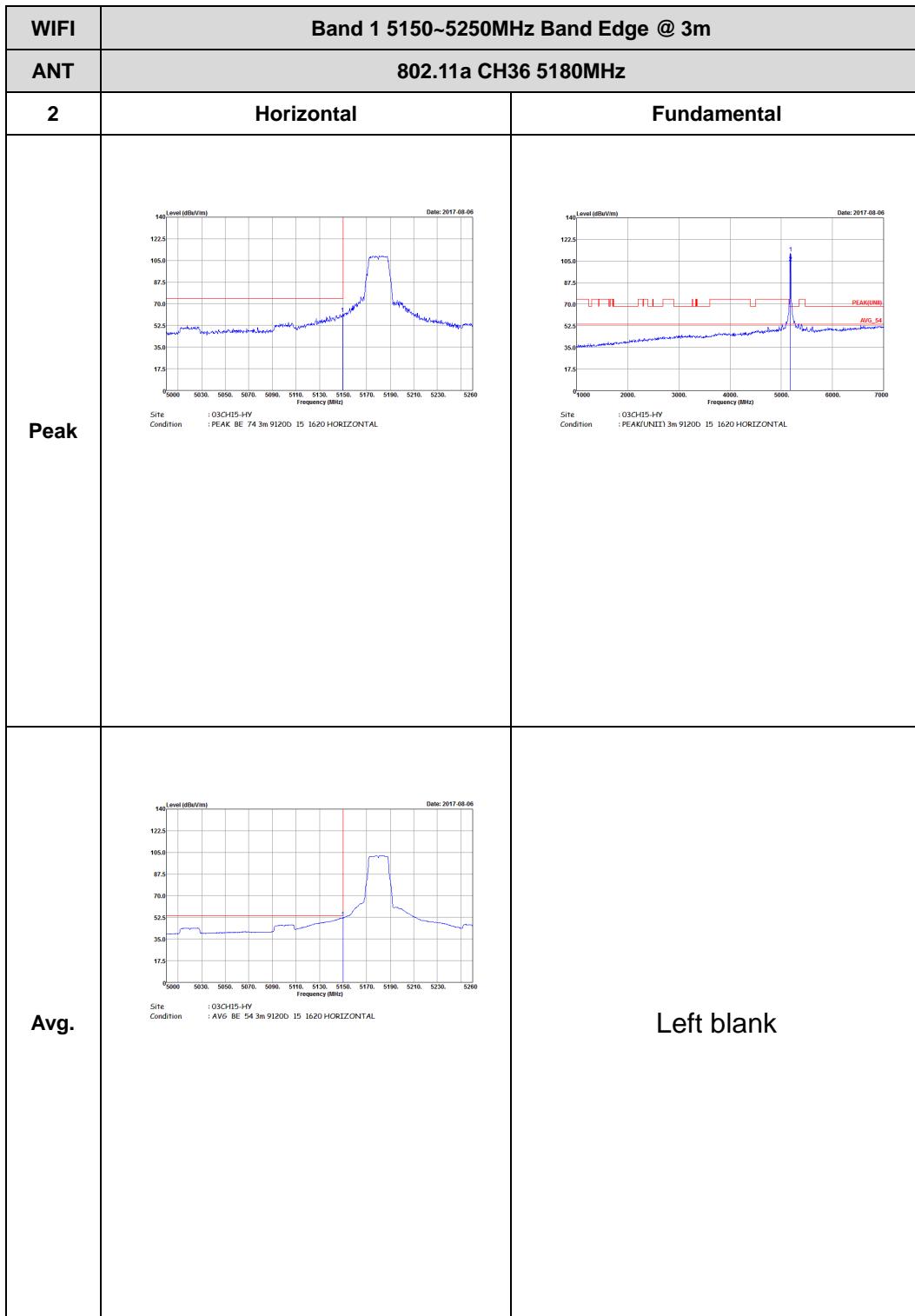


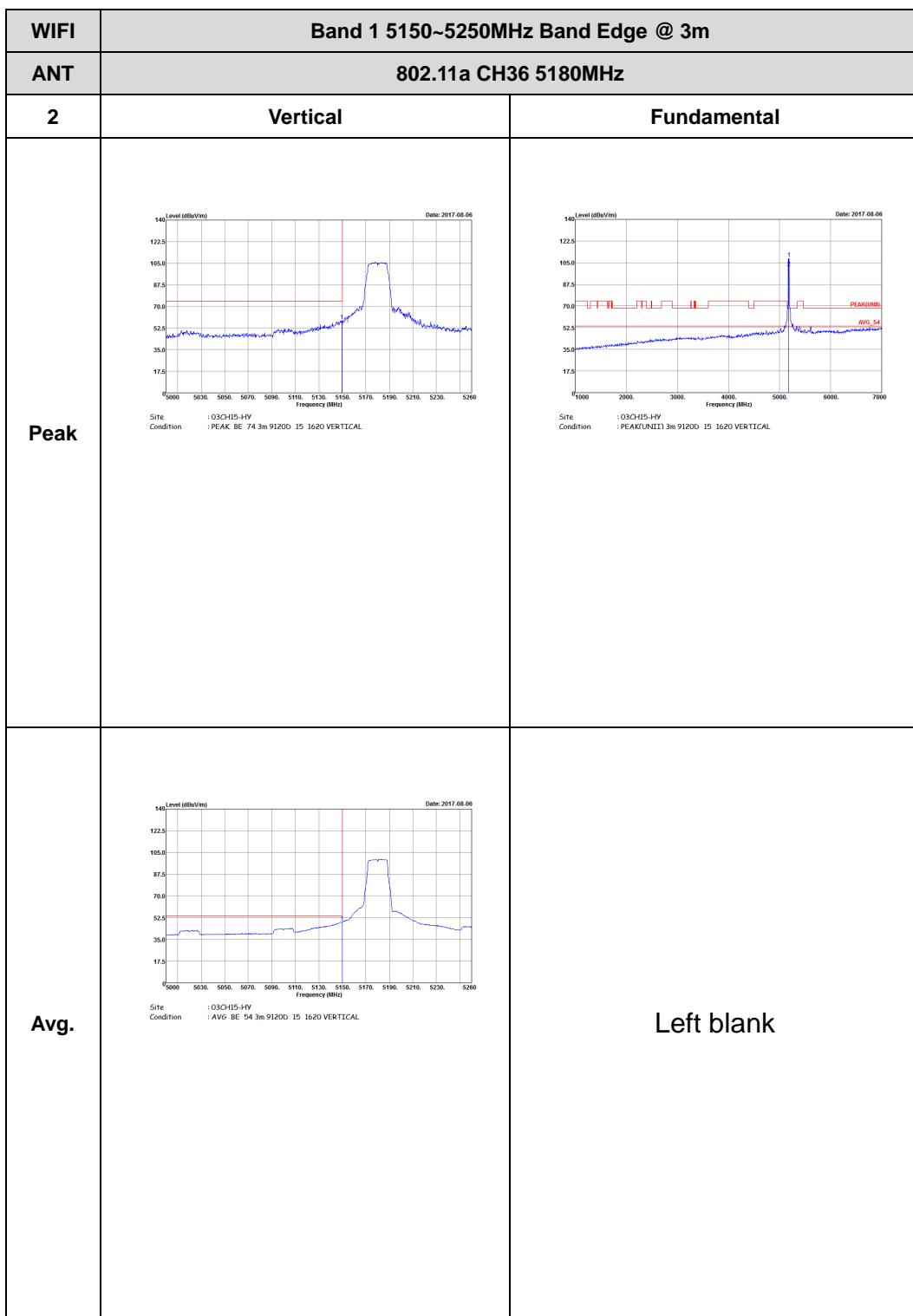


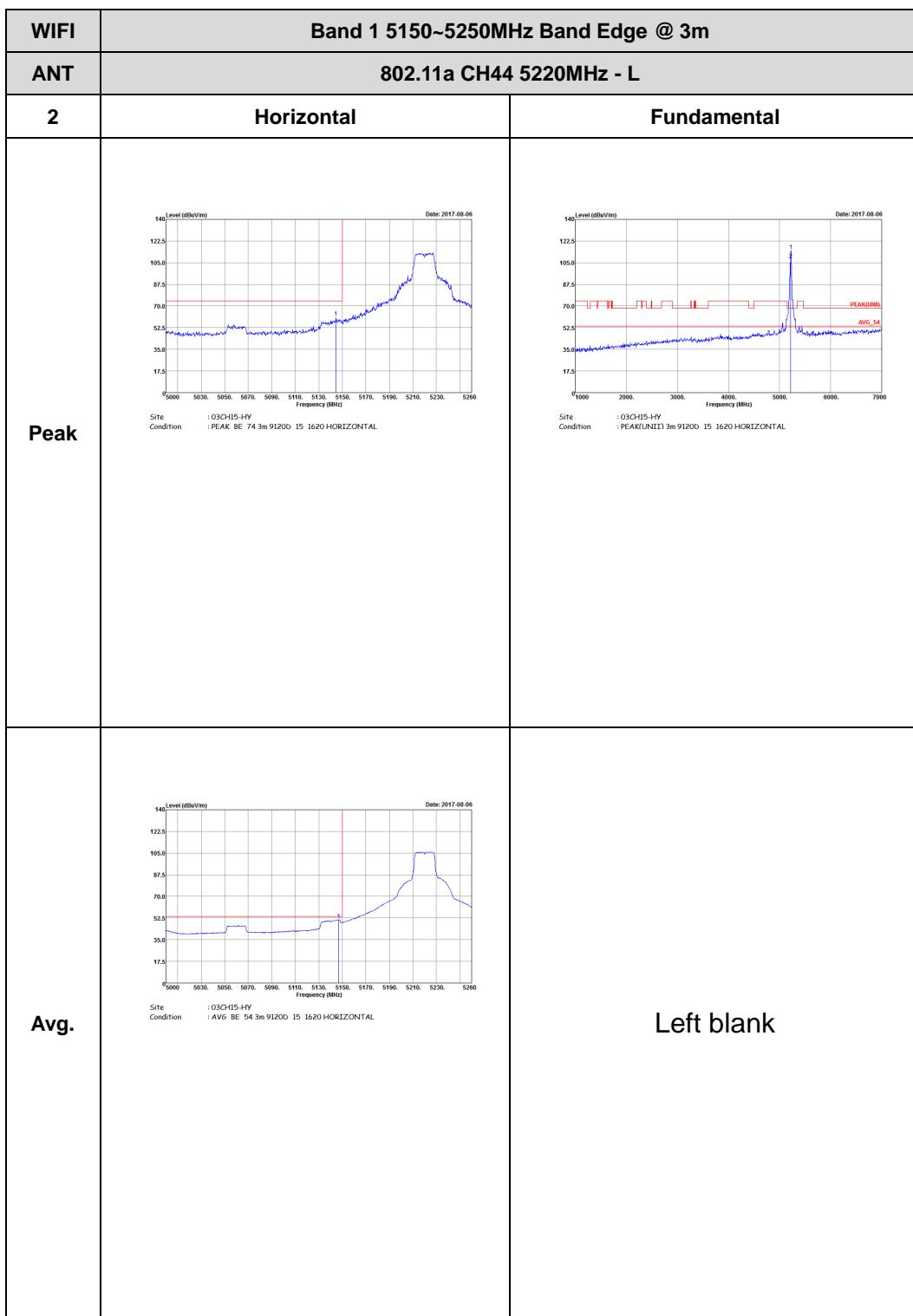
<Antenna 2>

Band 1 - 5150~5250MHz

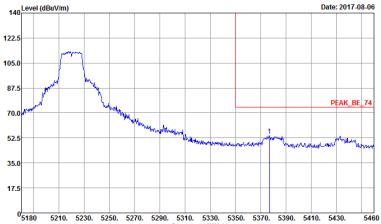
WIFI 802.11a (Band Edge @ 3m)

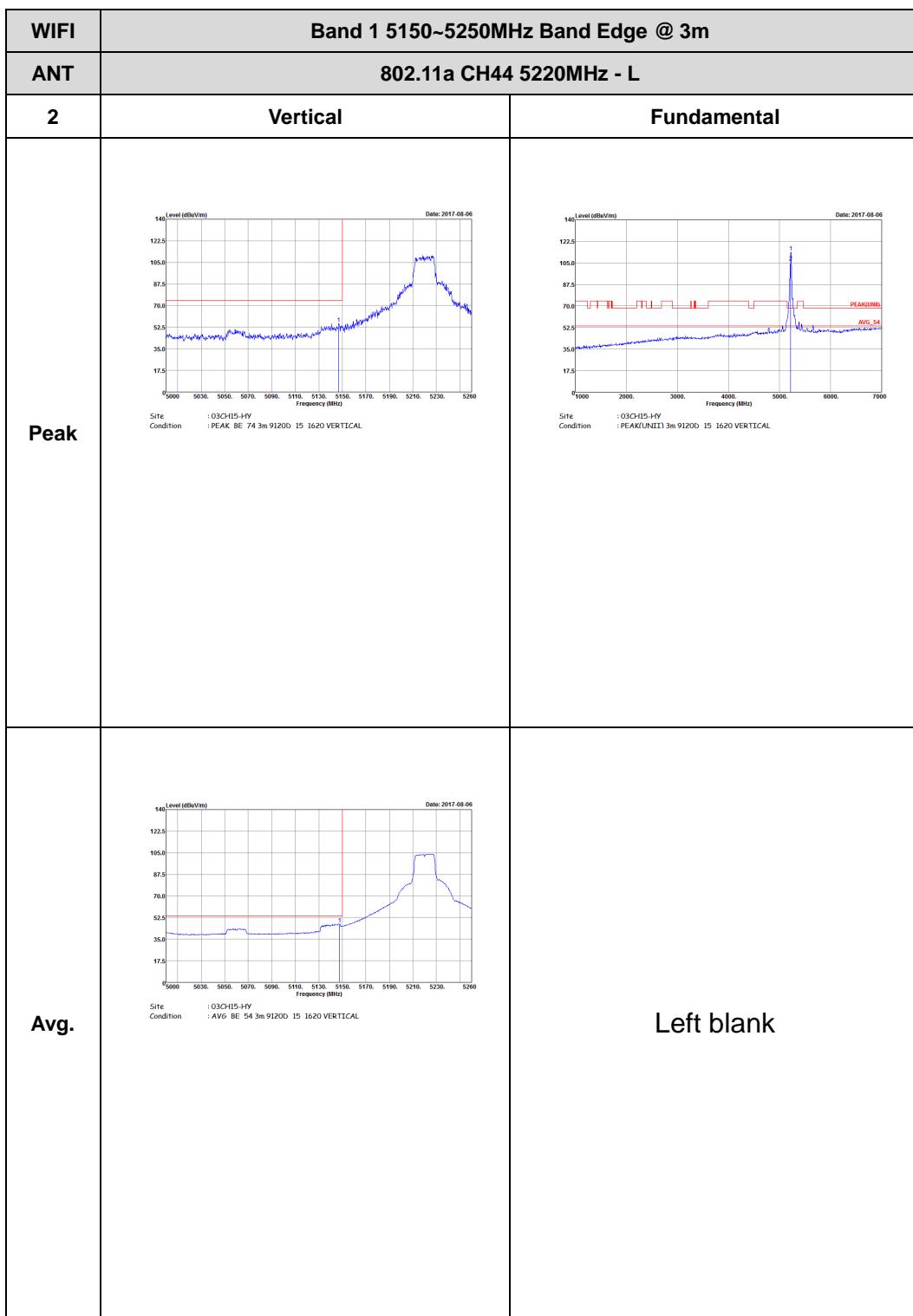




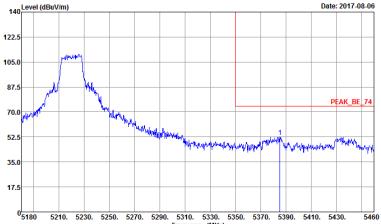




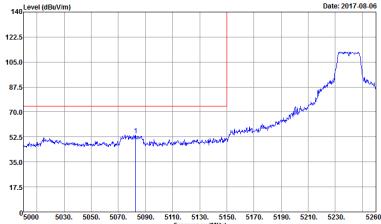
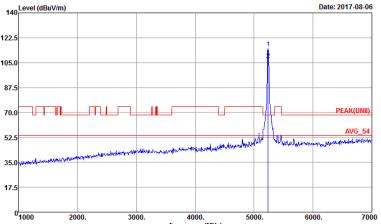
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - R	
2	Horizontal	Fundamental
Peak	 <p>Level (dBuV/m) vs Frequency (MHz) Date: 2017-08-06 Site: 03CH15-HY Condition: PEAK BE 74 3m 9120D 15 1620 HORIZONTAL</p>	Left blank
Avg.	 <p>Level (dBuV/m) vs Frequency (MHz) Date: 2017-08-06 Site: 03CH15-HY Condition: AVG BE 54 3m 9120D 15 1620 HORIZONTAL</p>	Left blank



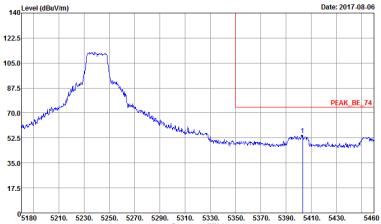


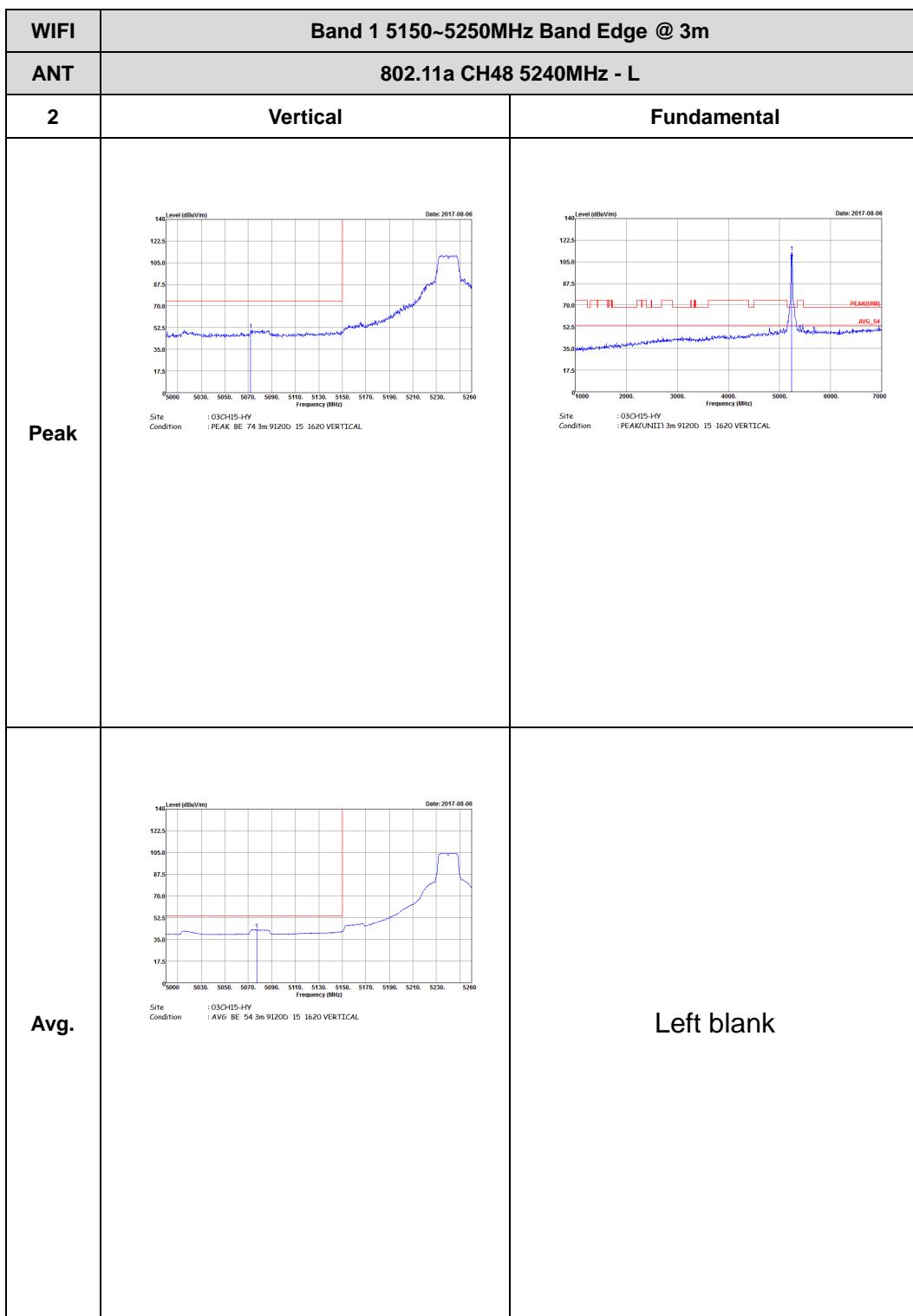
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - R	
2	Vertical	Fundamental
Peak	 <p>Level (dBc/100KHz) vs Frequency (MHz) plot. The x-axis ranges from 5180 to 5460 MHz, and the y-axis ranges from 0 to 140 dBc/100KHz. A red vertical line marks the peak at 5220 MHz. The plot shows a single sharp peak labeled "PEAK_BE_74".</p> <p>Date: 2017.08.06 Site: 03CH15-HY Condition: PEAK BE 74 3m 9120D I5 1620 VERTICAL</p>	Left blank
Avg.	 <p>Level (dBc/100KHz) vs Frequency (MHz) plot. The x-axis ranges from 5180 to 5460 MHz, and the y-axis ranges from 0 to 140 dBc/100KHz. A red vertical line marks the average at 5220 MHz. The plot shows a broad peak labeled "AVG_BE_54".</p> <p>Date: 2017.08.06 Site: 03CH15-HY Condition: AVG BE 54 3m 9120D I5 1620 VERTICAL</p>	Left blank



WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - L	
2	Horizontal	Fundamental
Peak	 Site : 03CH15-HY Condition : PEAK BE 74 3m 9120D 15 1620 HORIZONTAL	 Site : 03CH15-HY Condition : PEAK/UNII 3m 9120D 15 1620 HORIZONTAL
Avg.	 Site : 03CH15-HY Condition : AVG BE 54 3m 9120D 15 1620 HORIZONTAL	Left blank



WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - R	
2	Horizontal	Fundamental
Peak	 <p>Level (dBuV/m) vs Frequency (MHz) Date: 2017-08-06 Site: 03CH15-HY Condition: PEAK BE 74 3m 9120D 15 1620 HORIZONTAL</p>	Left blank
Avg.	 <p>Level (dBuV/m) vs Frequency (MHz) Date: 2017-08-06 Site: 03CH15-HY Condition: AVG BE 54 3m 9120D 15 1620 HORIZONTAL</p>	Left blank

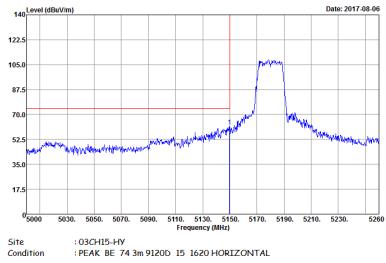
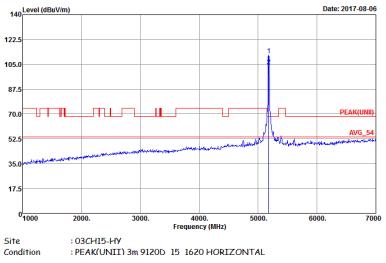
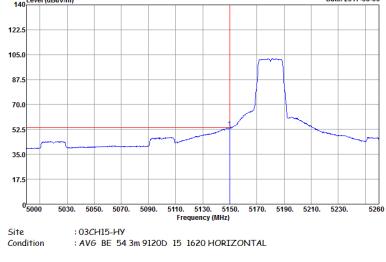


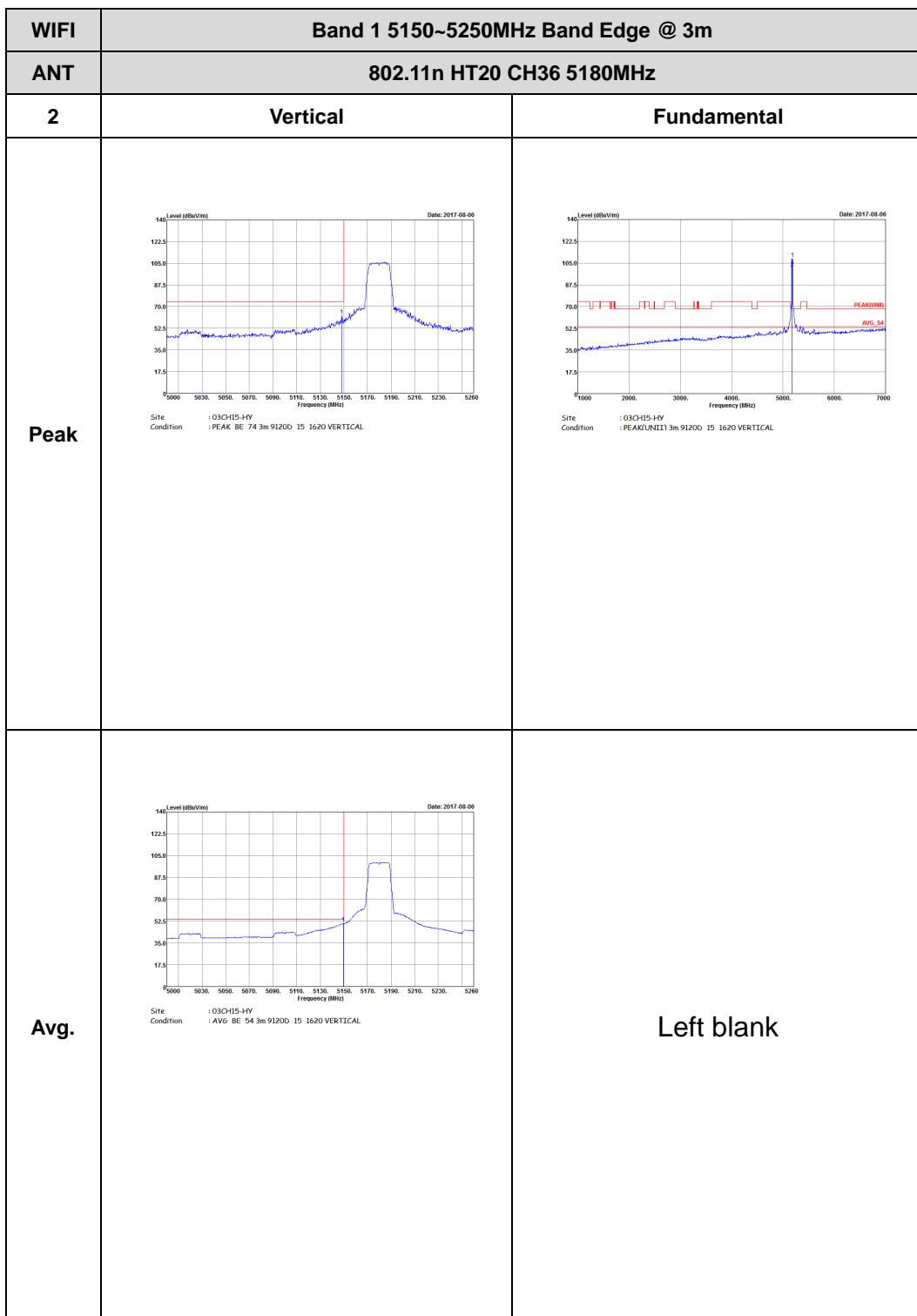


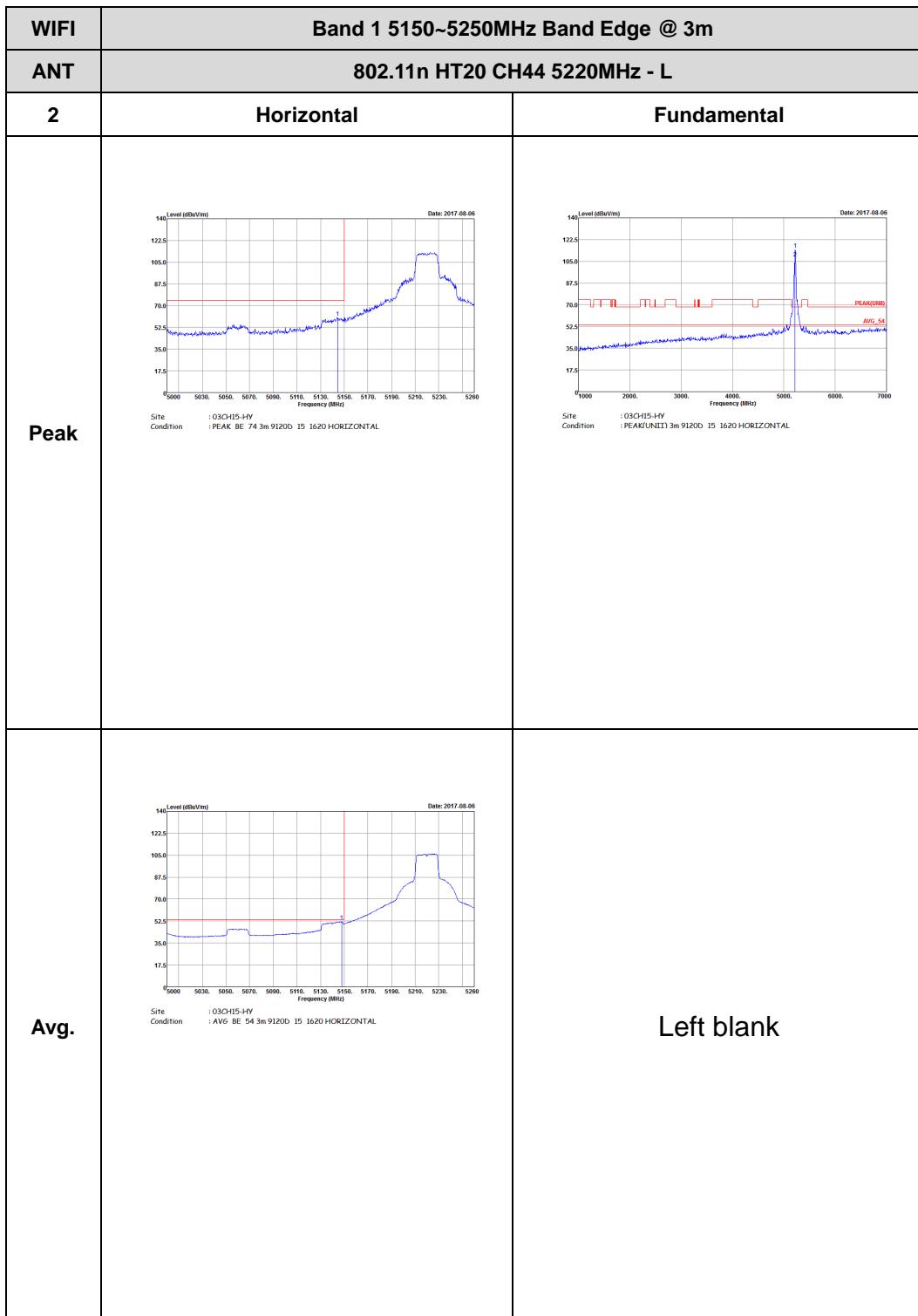
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - R	
2	Vertical	Fundamental
Peak	<p>Level (dBuV/m) vs Frequency (MHz) plot. The x-axis ranges from 5180 to 5460 MHz, and the y-axis ranges from 0 to 140 dBuV/m. A blue curve shows a sharp peak labeled 'PEAK_BE_74' at approximately 5240 MHz. A red vertical line marks the center of the band edge. The plot is dated 2017-08-06. Site information: 03CH15-HY, Condition: PEAK BE 74 3m 91200 I5 1620 VERTICAL.</p>	Left blank
Avg.	<p>Level (dBuV/m) vs Frequency (MHz) plot. The x-axis ranges from 5180 to 5460 MHz, and the y-axis ranges from 0 to 140 dBuV/m. A blue curve shows a broad peak labeled 'AVG_BE_54' at approximately 5240 MHz. A red vertical line marks the center of the band edge. The plot is dated 2017-08-06. Site information: 03CH15-HY, Condition: AVG BE 54 3m 91200 I5 1620 VERTICAL.</p>	Left blank



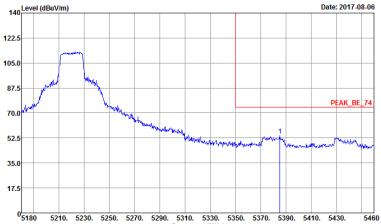
Band 1 5150~5250MHz
WIFI 802.11n HT20 (Band Edge @ 3m)

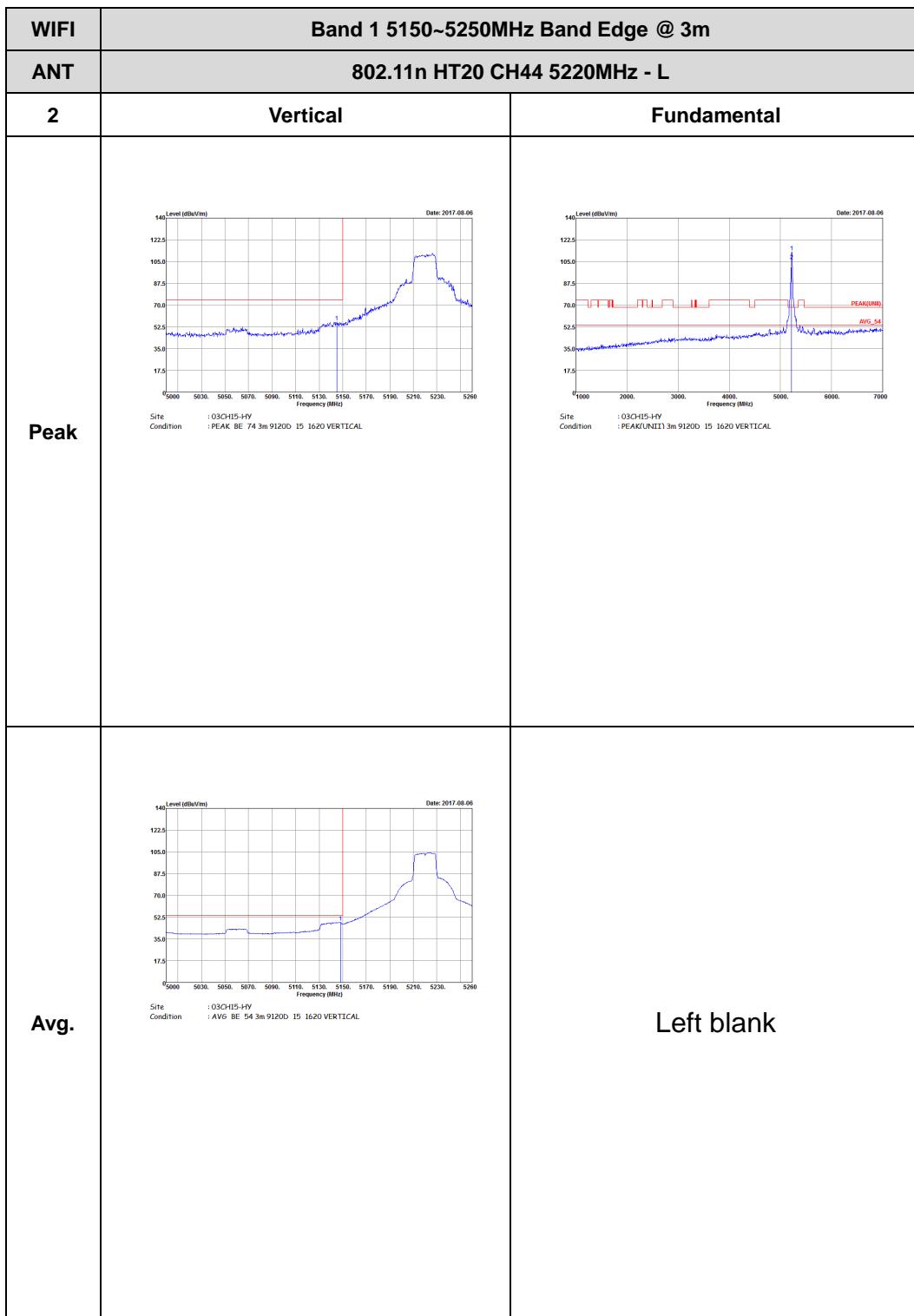
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH36 5180MHz	
2	Horizontal	Fundamental
Peak	 Site : 03CH15-HY Condition : PEAK BE 74 3m 9120D 15 1620 HORIZONTAL	 Site : 03CH15-HY Condition : PEAK(UNII) 3m 9120D 15 1620 HORIZONTAL PEAK(URB) AUG_54
Avg.	 Site : 03CH15-HY Condition : AVG BE 54 3m 9120D 15 1620 HORIZONTAL	Left blank





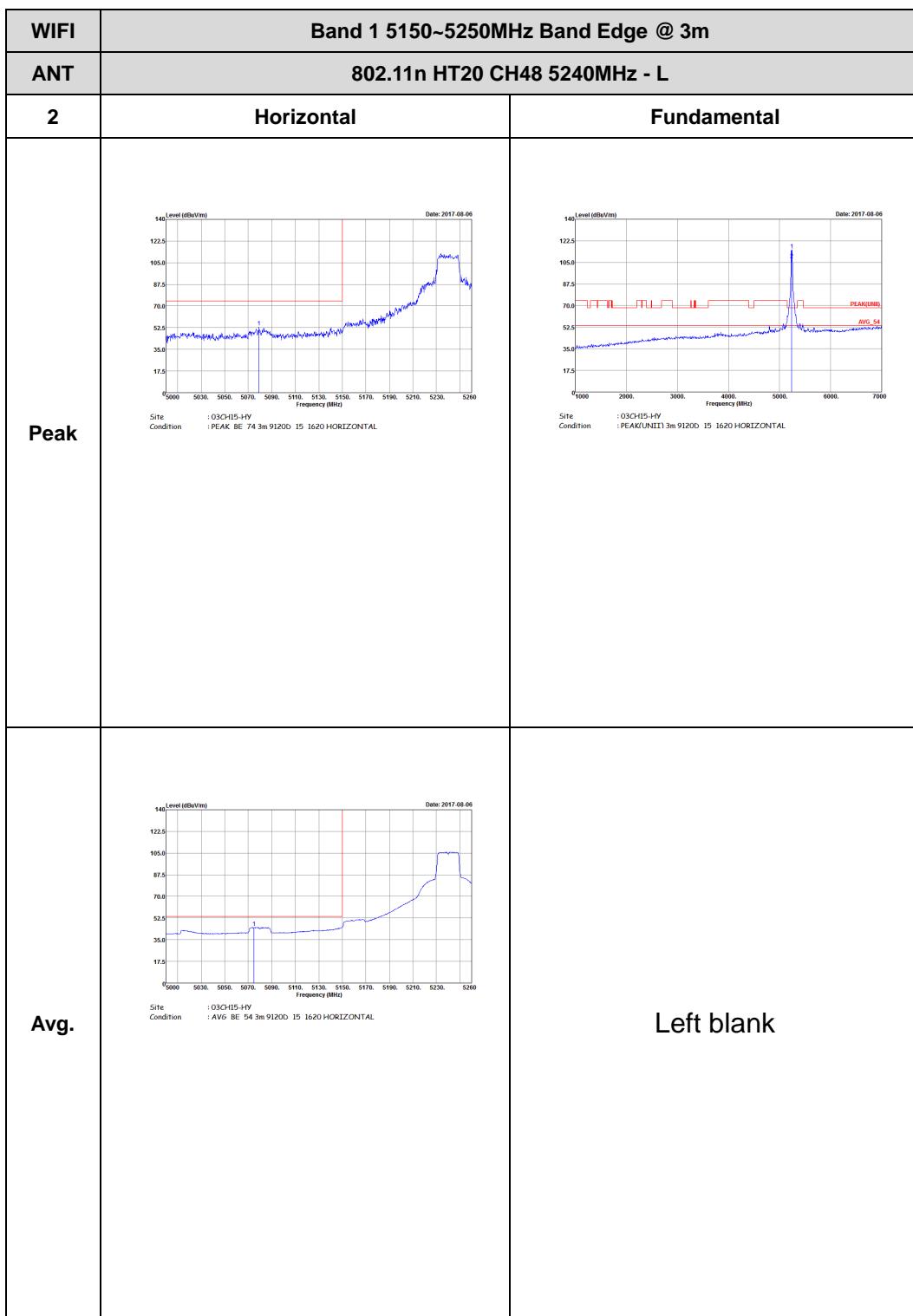


WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH44 5220MHz - R	
2	Horizontal	Fundamental
Peak	 <p>Level (dBuV/m) vs Frequency (MHz) Date: 2017-08-06 Site: 03CH15-HY Condition: PEAK BE 74 3m 9120D 15 1620 HORIZONTAL</p>	Left blank
Avg.	 <p>Level (dBuV/m) vs Frequency (MHz) Date: 2017-08-06 Site: 03CH15-HY Condition: AVG BE 54 3m 9120D 15 1620 HORIZONTAL</p>	Left blank

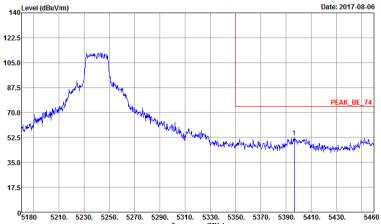


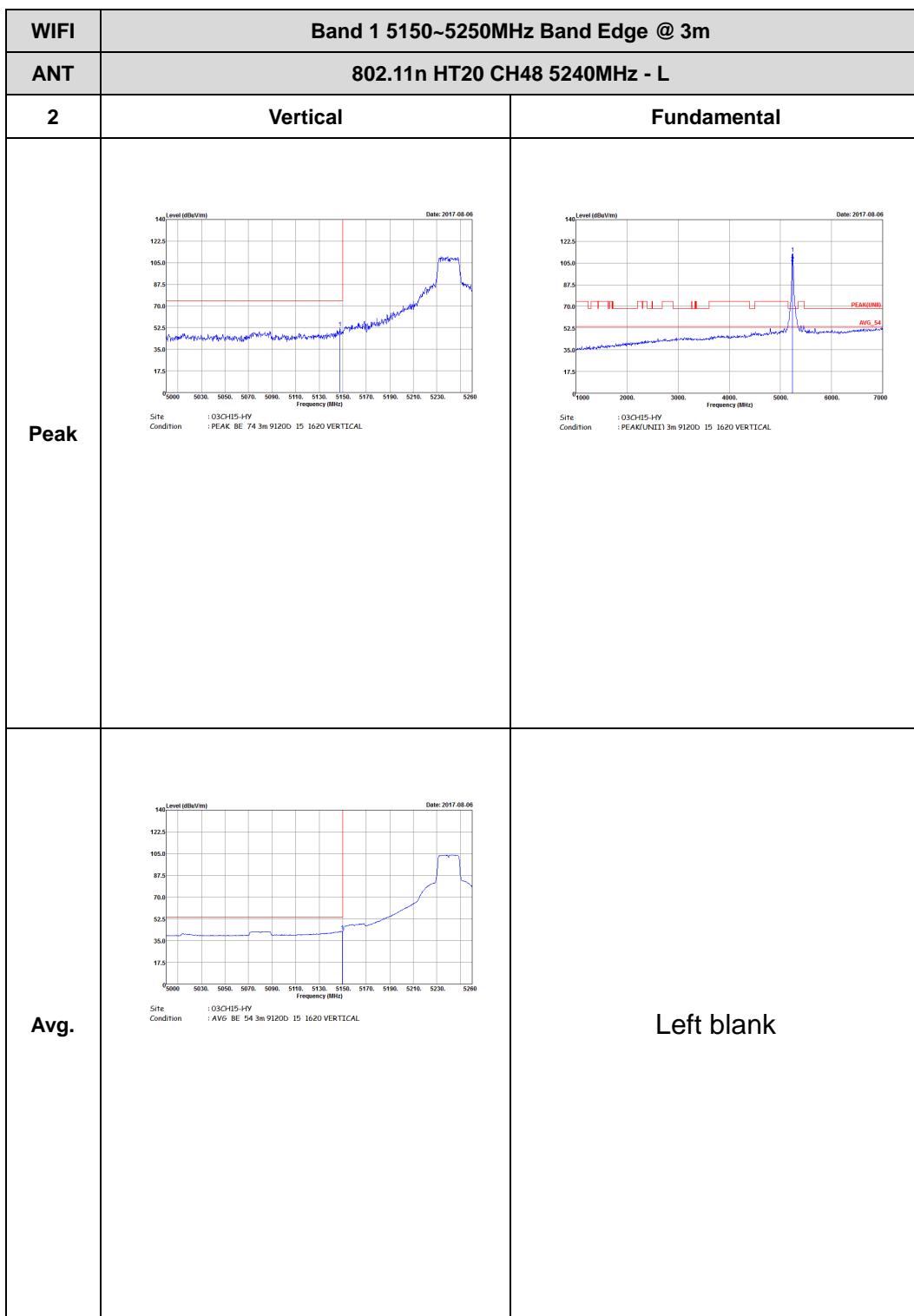


WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH44 5220MHz - R	
2	Vertical	Fundamental
Peak	 Date: 2017-08-06 Site: 03CH15-HY Condition: PEAK BE 74 3m 9120D 15 1620 VERTICAL	Left blank
Avg.	 Date: 2017-08-06 Site: 03CH15-HY Condition: AVG BE 54 3m 9120D 15 1620 VERTICAL	Left blank

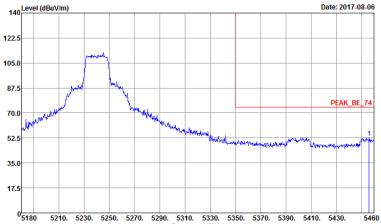




WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH48 5240MHz - R	
2	Horizontal	Fundamental
Peak	 <p>Level (dBuV/m) vs Frequency (MHz) plot for Peak measurement. The plot shows a sharp peak at approximately 5240 MHz. The x-axis ranges from 5180 to 5460 MHz, and the y-axis ranges from 0 to 140 dBuV/m. A red vertical line marks the peak at 5240 MHz. The plot is dated 2017-08-06.</p> <p>Site : 03CH15-HY Condition : PEAK BE 74 3m 91200 I5 1620 HORIZONTAL</p>	Left blank
Avg.	 <p>Level (dBuV/m) vs Frequency (MHz) plot for Avg. measurement. The plot shows a broad emission band centered around 5240 MHz. The x-axis ranges from 5180 to 5460 MHz, and the y-axis ranges from 0 to 140 dBuV/m. A red vertical line marks the emission at 5240 MHz. The plot is dated 2017-08-06.</p> <p>Site : 03CH15-HY Condition : AVG BE 54 3m 91200 I5 1620 HORIZONTAL</p>	Left blank

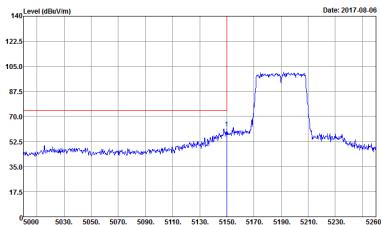
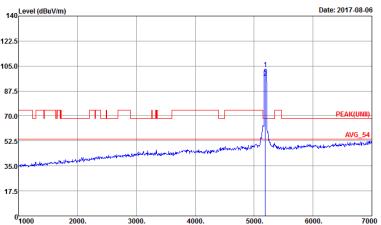




WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH48 5240MHz - R	
2	Vertical	Fundamental
Peak	 <p>Level (dBuV/m) vs Frequency (MHz) from 5180 to 5460. The plot shows a sharp peak labeled 'PEAK_BE_74' at approximately 5240 MHz. The y-axis ranges from 17.5 to 140 dBuV/m. The x-axis ranges from 5180 to 5460 MHz. The plot is dated 2017-08-06.</p> <p>Site : 03CH15-HY Condition : PEAK BE 74 3m 9120D 15 1620 VERTICAL</p>	Left blank
Avg.	 <p>Level (dBuV/m) vs Frequency (MHz) from 5180 to 5460. The plot shows a broad peak labeled 'AVG_BE_54' at approximately 5240 MHz. The y-axis ranges from 17.5 to 140 dBuV/m. The x-axis ranges from 5180 to 5460 MHz. The plot is dated 2017-08-06.</p> <p>Site : 03CH15-HY Condition : AVG BE 54 3m 9120D 15 1620 VERTICAL</p>	Left blank

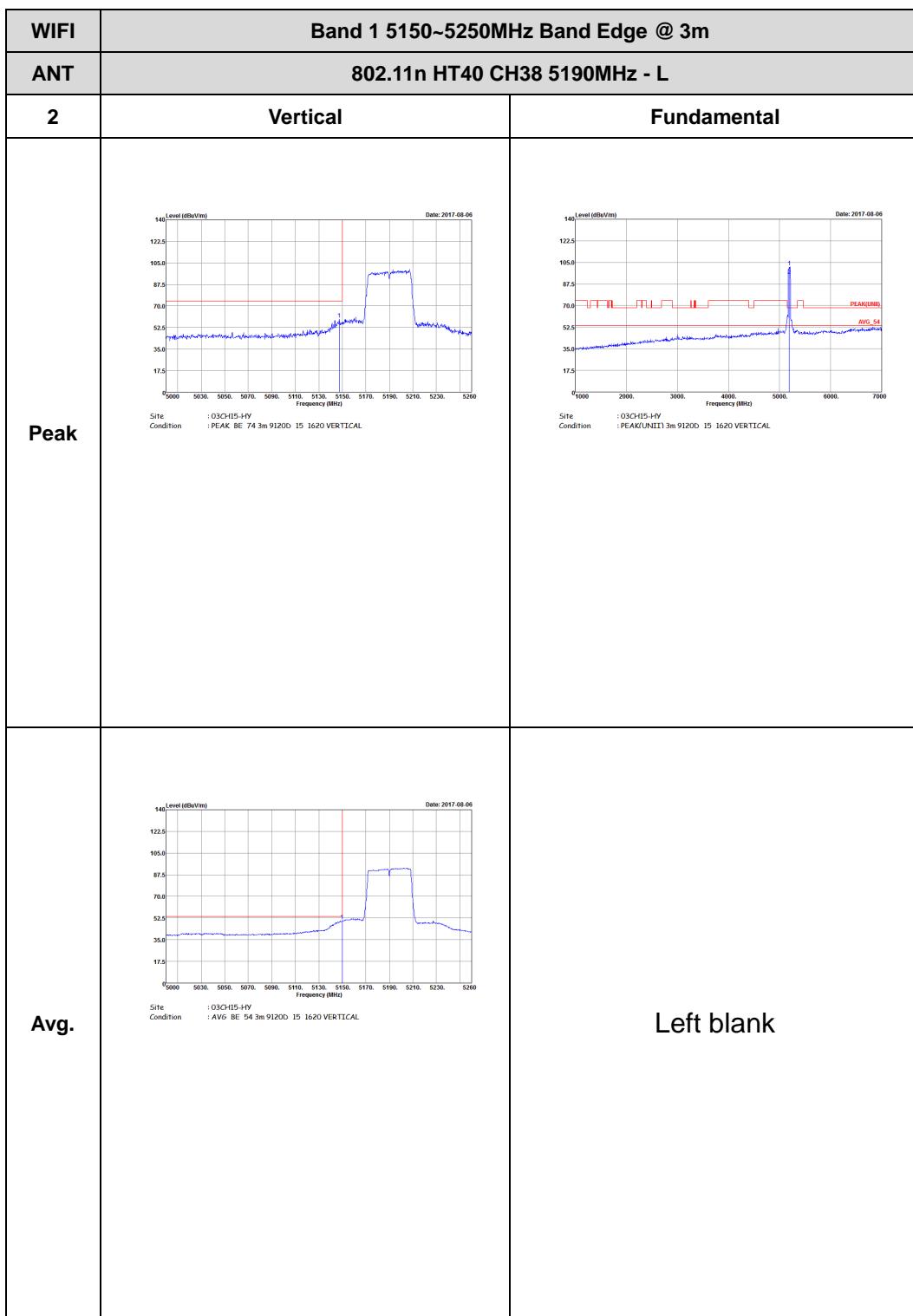


Band 1 5150~5250MHz
WIFI 802.11n HT40 (Band Edge @ 3m)

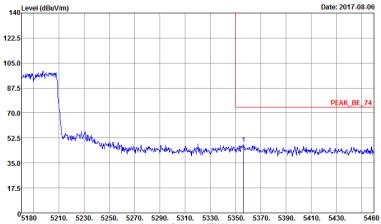
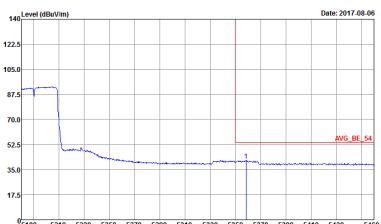
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH38 5190MHz - L	
2	Horizontal	Fundamental
Peak	 Site : 03CH15-HY Condition : PEAK BE 74 3m 9120D 15 1620 HORIZONTAL	 Site : 03CH15-HY Condition : PEAK(UNII) 3m 9120D 15 1620 HORIZONTAL
Avg.	 Site : 03CH15-HY Condition : AVG BE 54 3m 9120D 15 1620 HORIZONTAL	Left blank

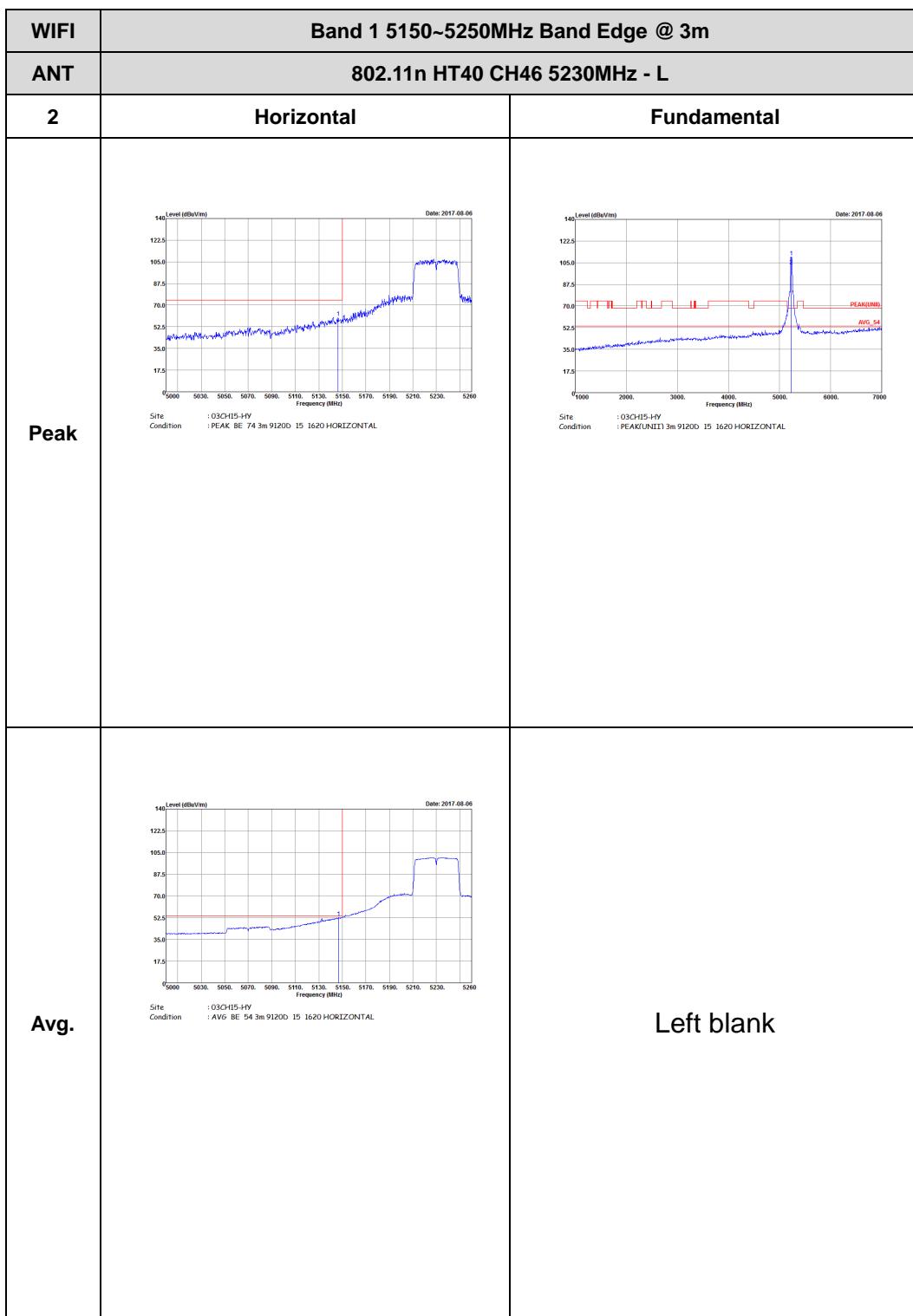


WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH38 5190MHz - R	
2	Horizontal	Fundamental
Peak	 Site : 03CH15-HY Condition : PEAK BE 74 3m 9120D 15 1620 HORIZONTAL	Left blank
Avg.	 Site : 03CH15-HY Condition : AVG BE 54 3m 9120D 15 1620 HORIZONTAL	Left blank

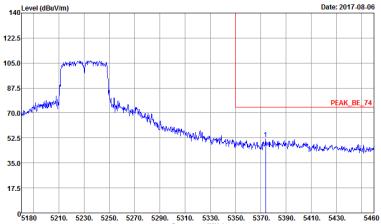


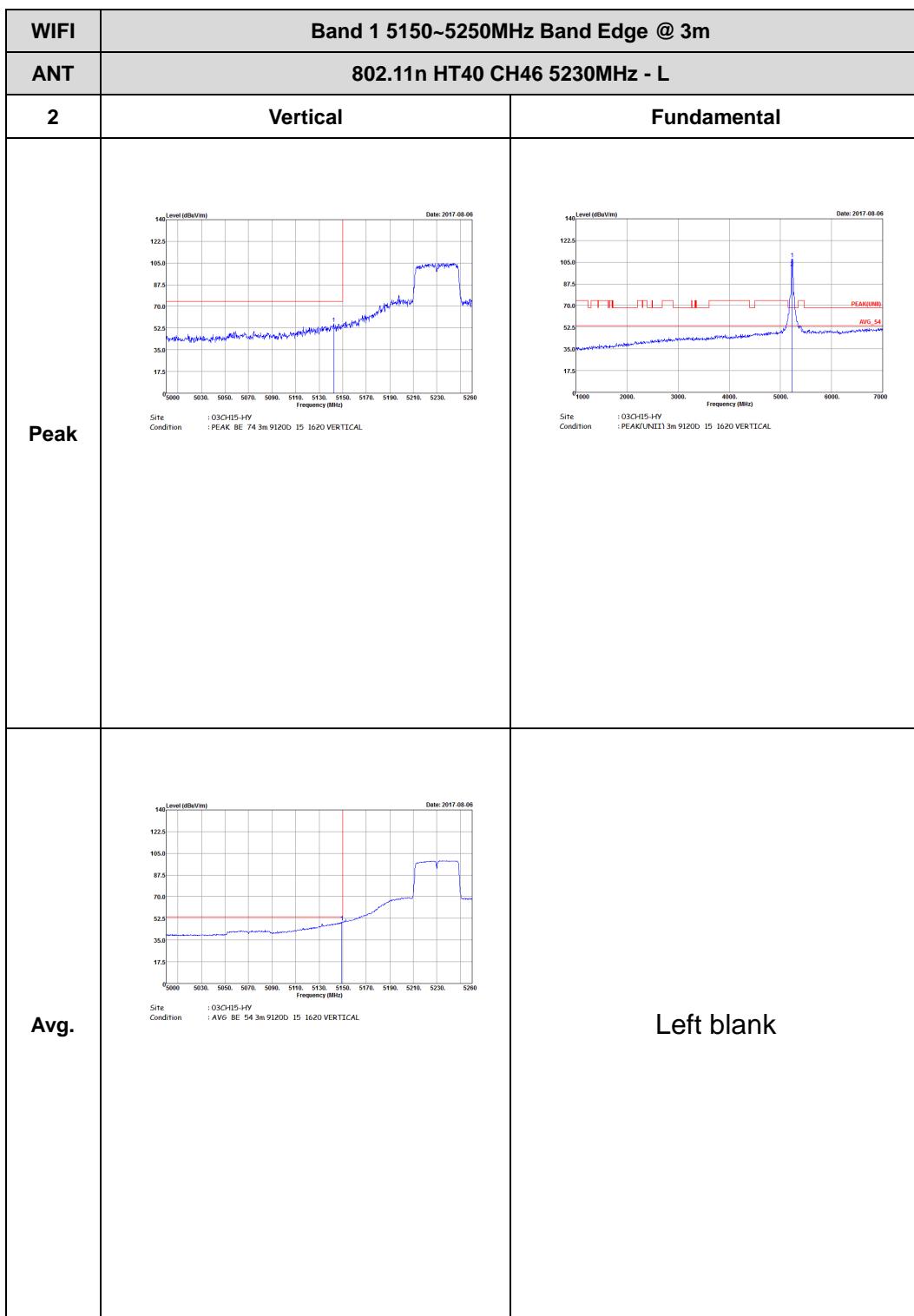


WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH38 5190MHz - R	
2	Vertical	Fundamental
Peak	 <p>Level (dBm/Vm) vs Frequency (MHz) Date: 2017-08-06 Site: 03CH15-HY Condition: PEAK BE 74 3m 9120D 15 1620 VERTICAL</p>	Left blank
Avg.	 <p>Level (dBm/Vm) vs Frequency (MHz) Date: 2017-08-06 Site: 03CH15-HY Condition: AVG BE 54 3m 9120D 15 1620 VERTICAL</p>	Left blank

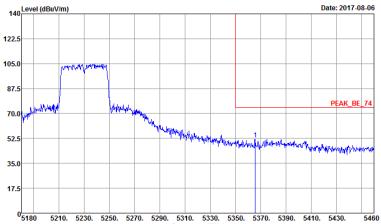
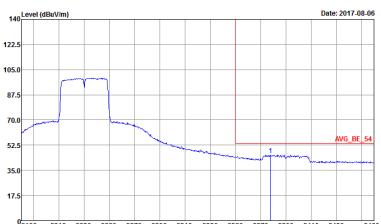




WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH46 5230MHz - R	
2	Horizontal	Fundamental
Peak	 <p>Level (dBuV/m) vs Frequency (MHz) Date: 2017-08-06 Site: 03CH15-HY Condition: PEAK BE 74 3m 9120D 15 1620 HORIZONTAL</p>	Left blank
Avg.	 <p>Level (dBuV/m) vs Frequency (MHz) Date: 2017-08-06 Site: 03CH15-HY Condition: AVG BE 54 3m 9120D 15 1620 HORIZONTAL</p>	Left blank

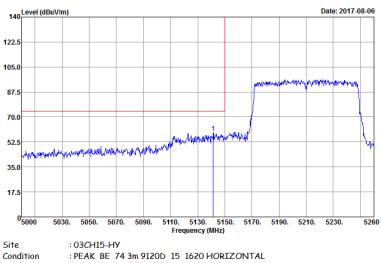
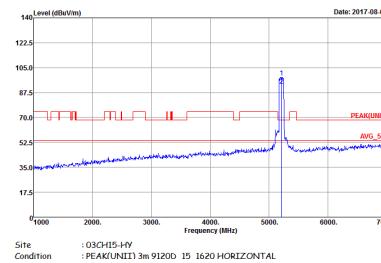
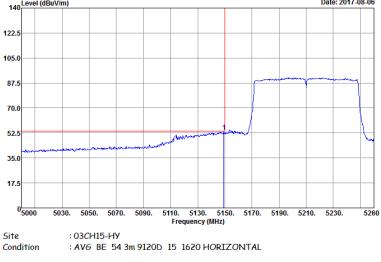




WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH46 5230MHz - R	
2	Vertical	Fundamental
Peak	 <p>Level (dBc/100ms) vs Frequency (MHz) from 5180 to 5460. Two sharp peaks are visible around 5210MHz and 5230MHz. A red vertical line marks the peak at 5230MHz. The plot is dated 2017-08-06.</p> <p>Site: 03CH15-HY Condition: PEAK BE 74 3m 9120D 15 1620 VERTICAL</p>	Left blank
Avg.	 <p>Level (dBc/100ms) vs Frequency (MHz) from 5180 to 5460. A single broad peak is visible at approximately 5230MHz. A red vertical line marks this peak. The plot is dated 2017-08-06.</p> <p>Site: 03CH15-HY Condition: AVG BE 54 3m 9120D 15 1620 VERTICAL</p>	Left blank

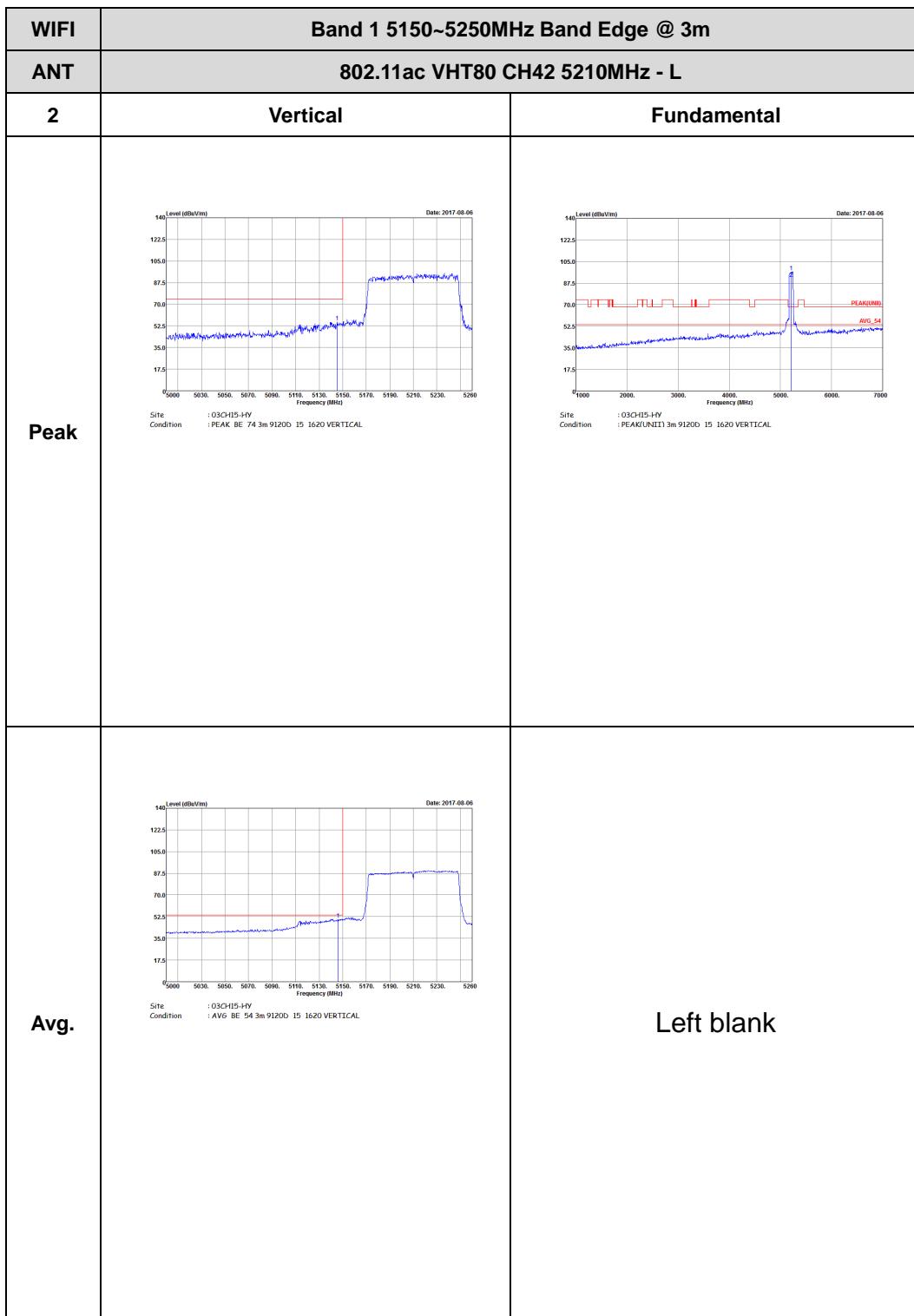


Band 1 5150~5250MHz
WIFI 802.11ac VHT80 (Band Edge @ 3m)

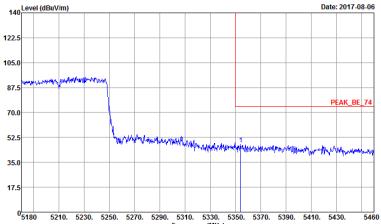
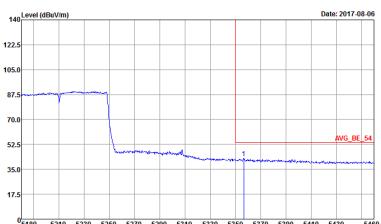
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH42 5210MHz - L	
2	Horizontal	Fundamental
Peak	 <p>Site : 03CH15-HY Condition : PEAK BE 74 3m 9120D 15 1620 HORIZONTAL</p>	 <p>Site : 03CH15-HY Condition : PEAK(UNII) 3m 9120D 15 1620 HORIZONTAL</p>
Avg.	 <p>Site : 03CH15-HY Condition : AVG BE 54 3m 9120D 15 1620 HORIZONTAL</p>	Left blank



WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH42 5210MHz - R	
2	Horizontal	Fundamental
Peak	 Date: 2017-08-06 Site: 03CH15-HY Condition: PEAK BE 74 3m 9120D 15 1620 HORIZONTAL	Left blank
Avg.	 Date: 2017-08-06 Site: 03CH15-HY Condition: AVG BE 54 3m 9120D 15 1620 HORIZONTAL	Left blank



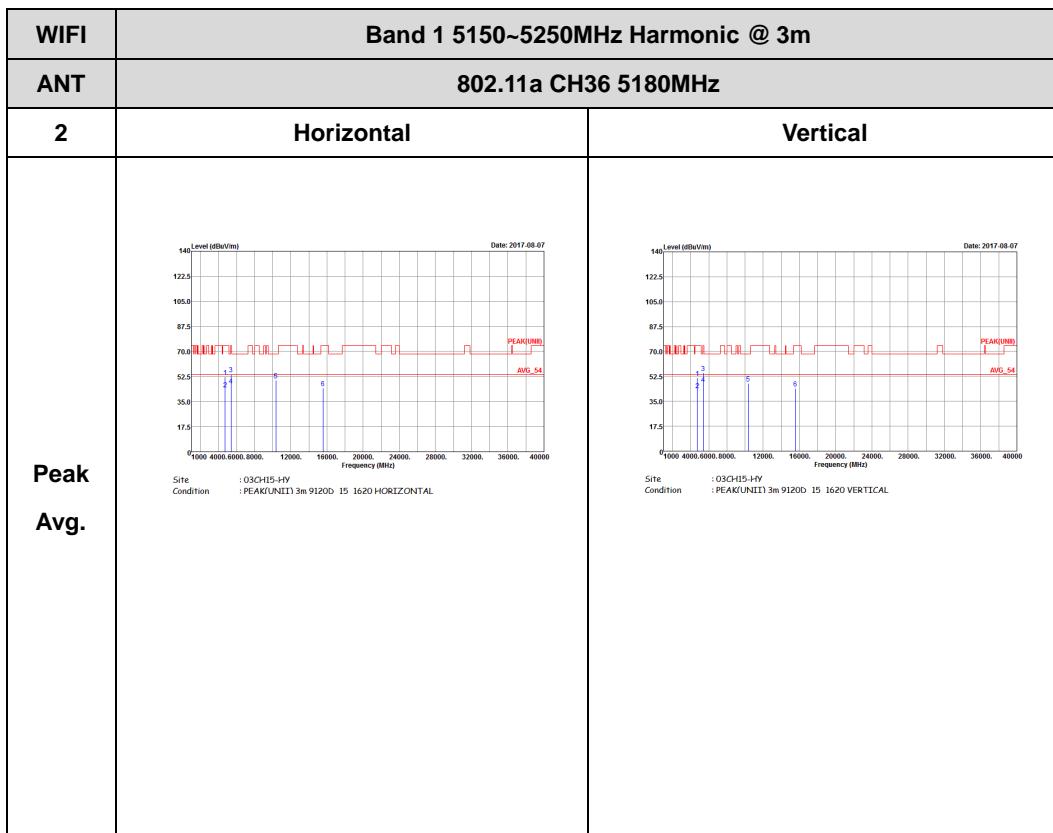


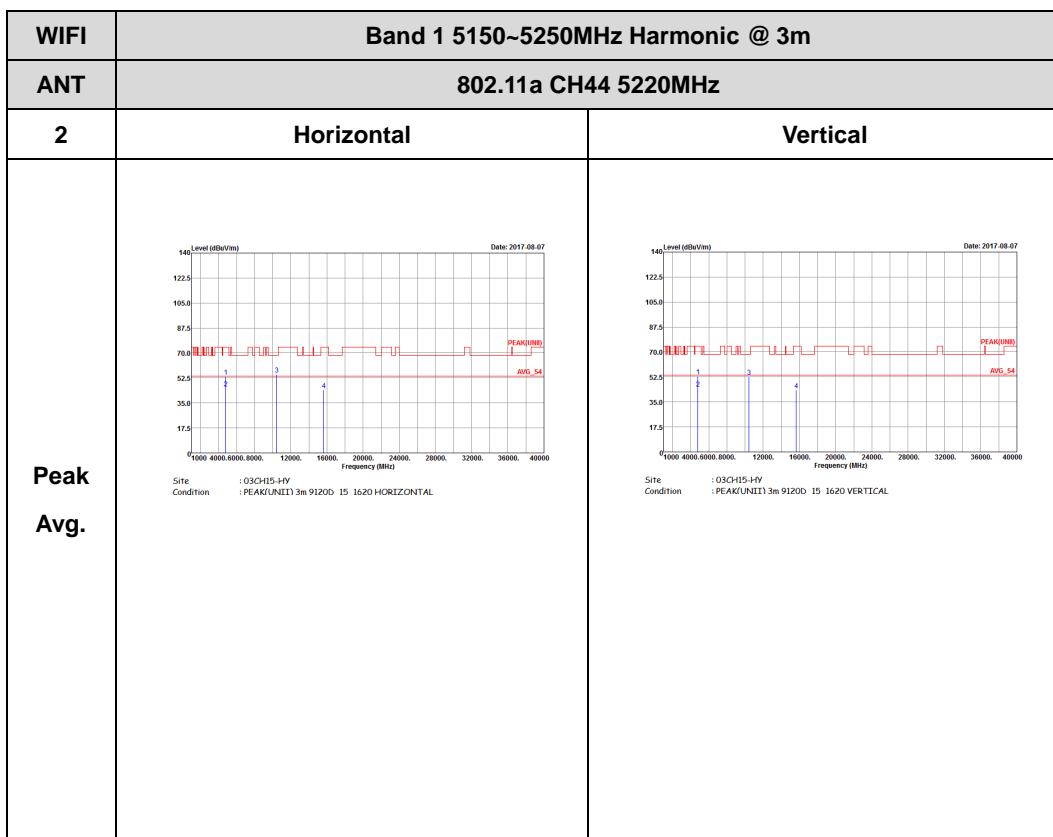
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH42 5210MHz - R	
2	Vertical	Fundamental
Peak	 <p>Level (dBmV/m) Date: 2017-08-06 Frequency (MHz) Site : 03CH15-HY Condition : PEAK BE 74 3m 91200 I5 1620 VERTICAL</p>	Left blank
Avg.	 <p>Level (dBmV/m) Date: 2017-08-06 Frequency (MHz) Site : 03CH15-HY Condition : AVG BE 54 3m 91200 I5 1620 VERTICAL</p>	Left blank

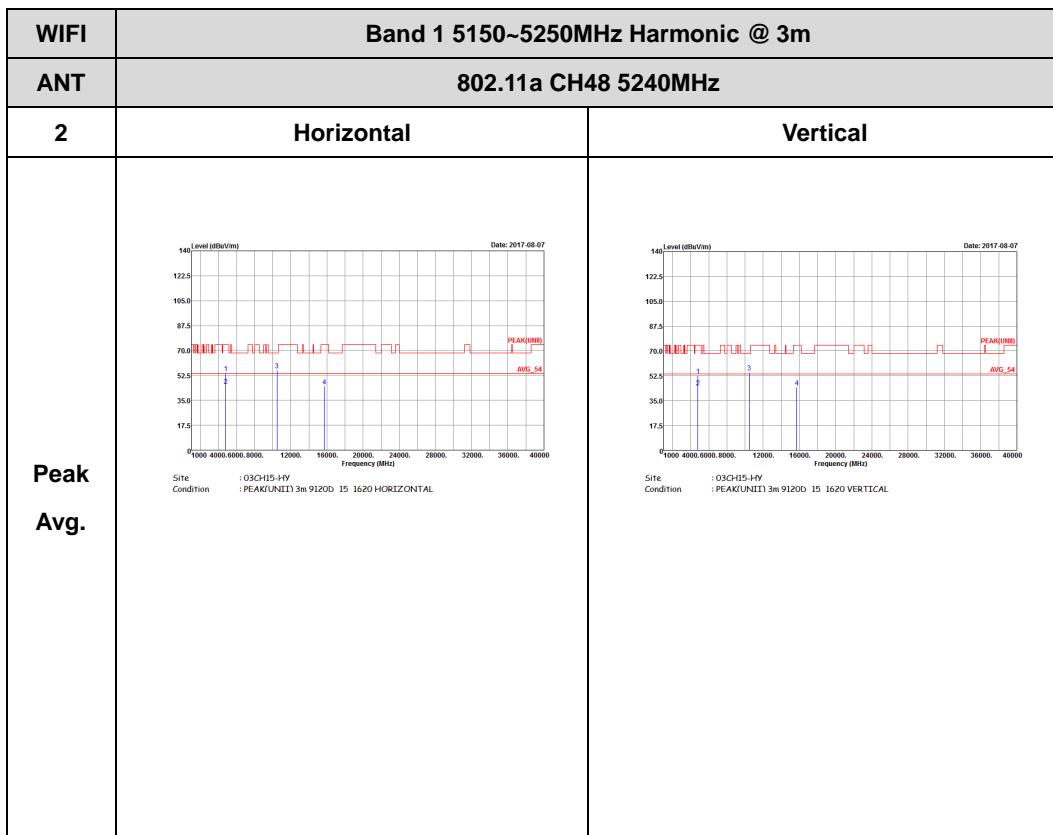


Band 1 - 5150~5250MHz

WIFI 802.11a (Harmonic @ 3m)

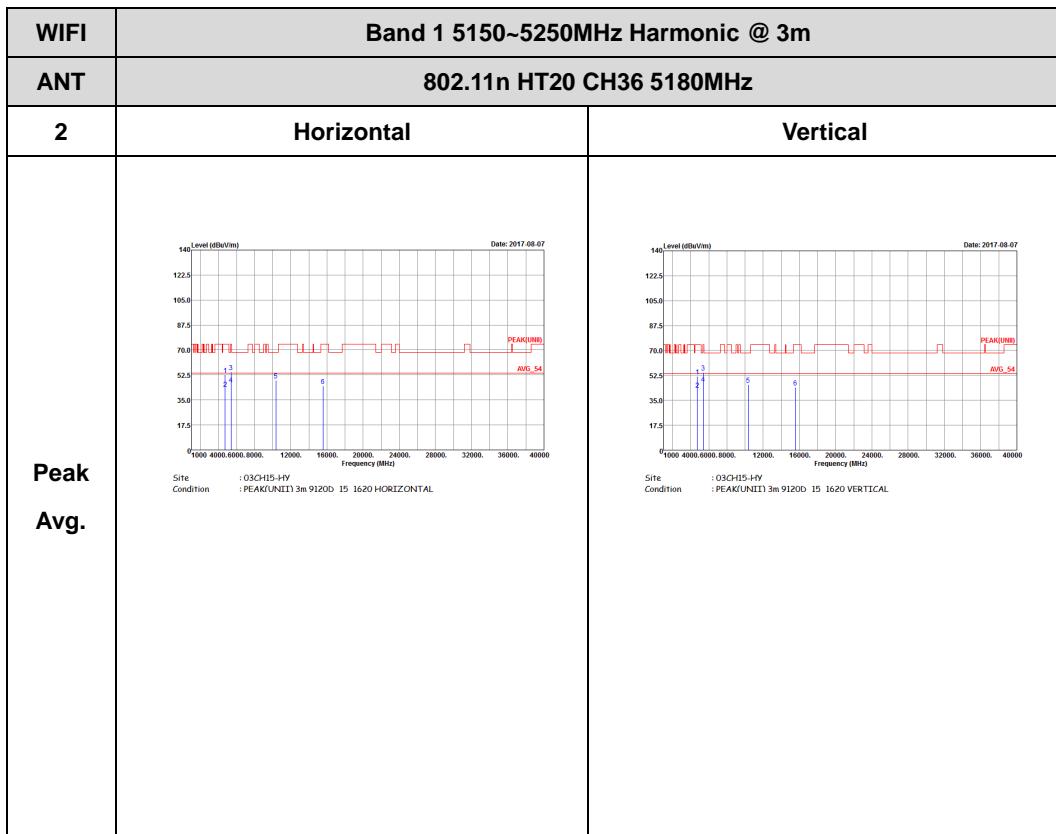


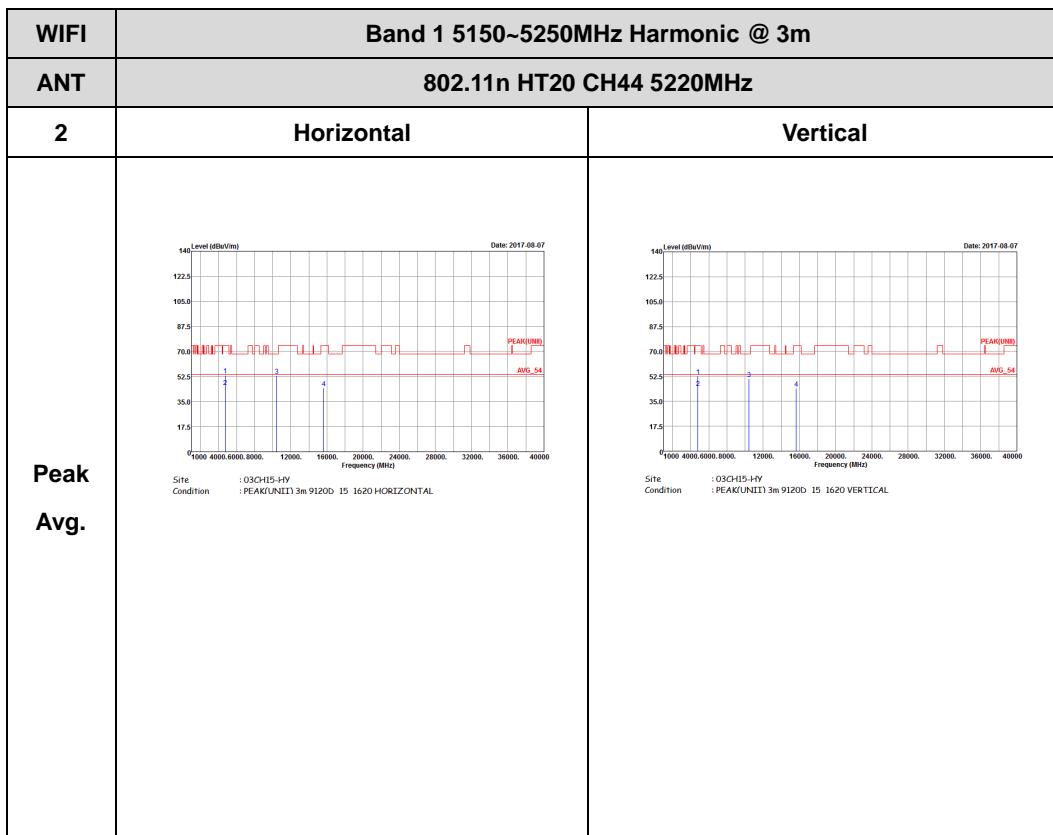


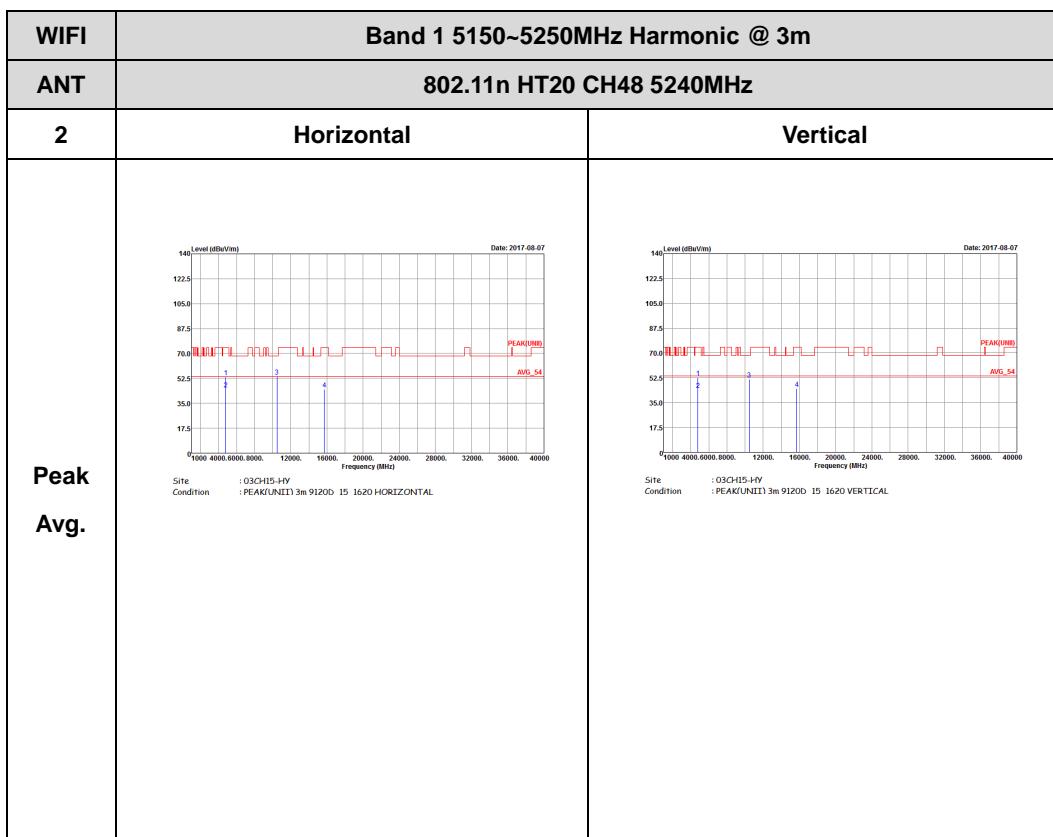




Band 1 5150~5250MHz
WIFI 802.11n HT20 (Harmonic @ 3m)

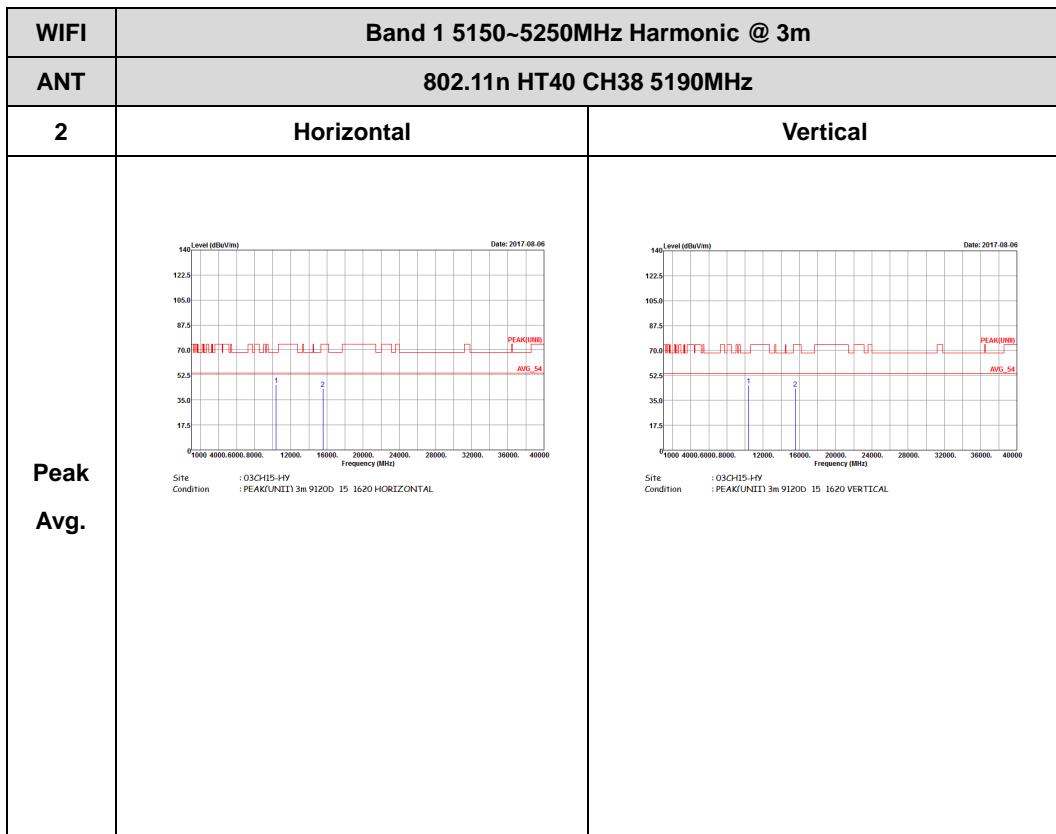


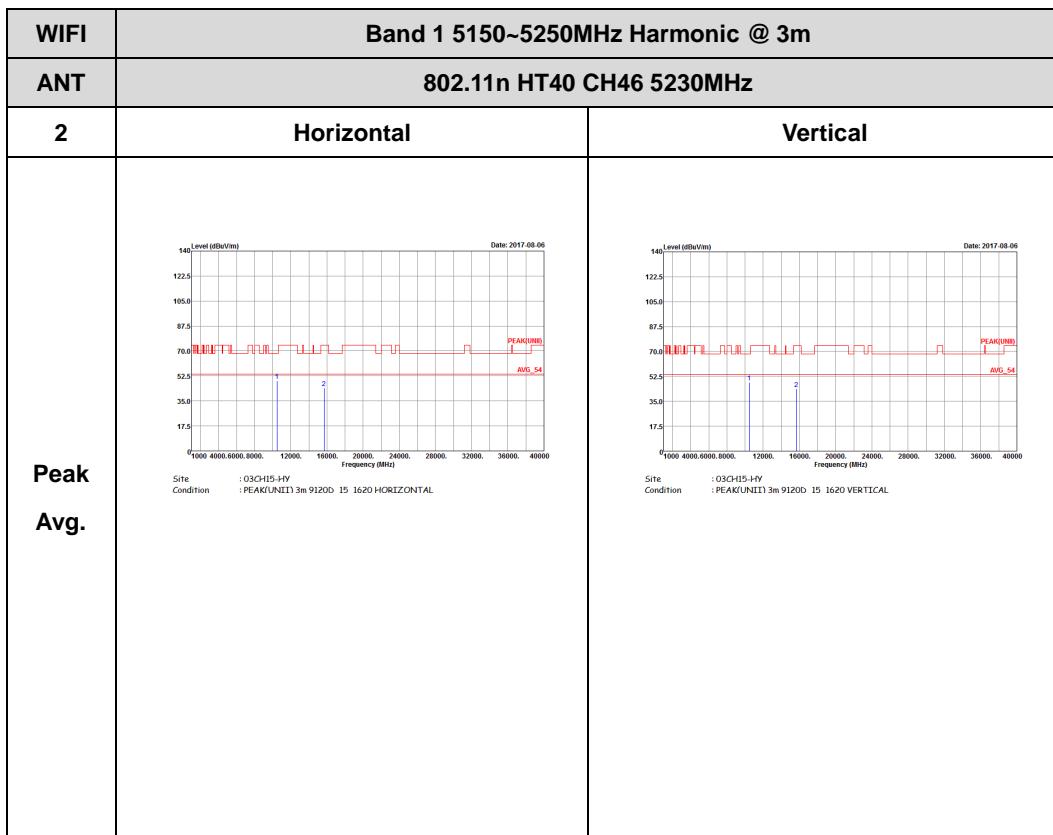






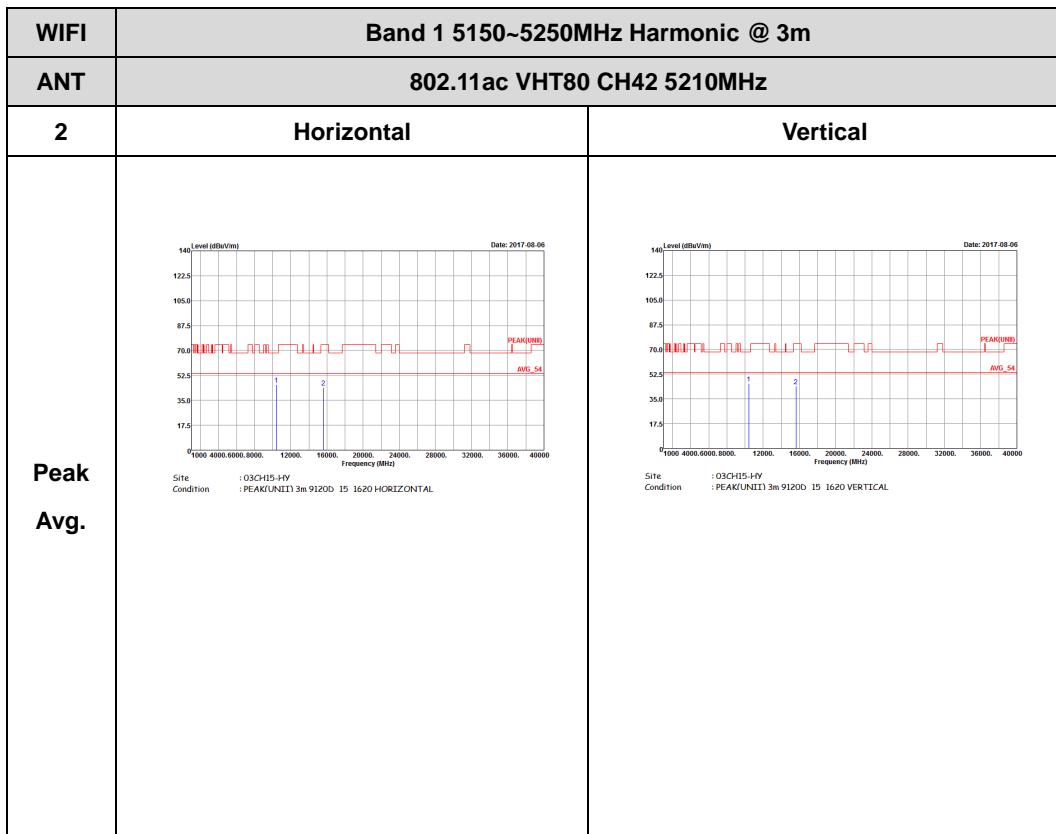
Band 1 5150~5250MHz
WIFI 802.11n HT40 (Harmonic @ 3m)





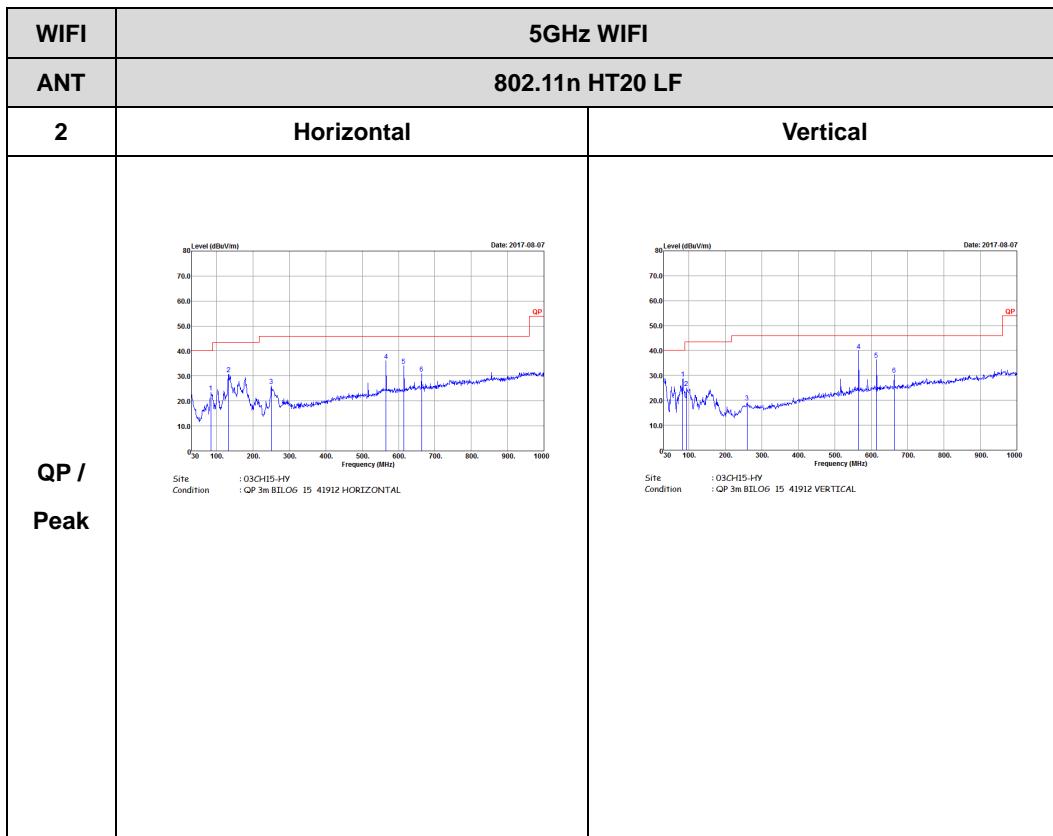


Band 1 5150~5250MHz
WIFI 802.11ac VHT80 (Harmonic @ 3m)





Emission below 1GHz
5GHz WIFI 802.11n HT20 (LF)

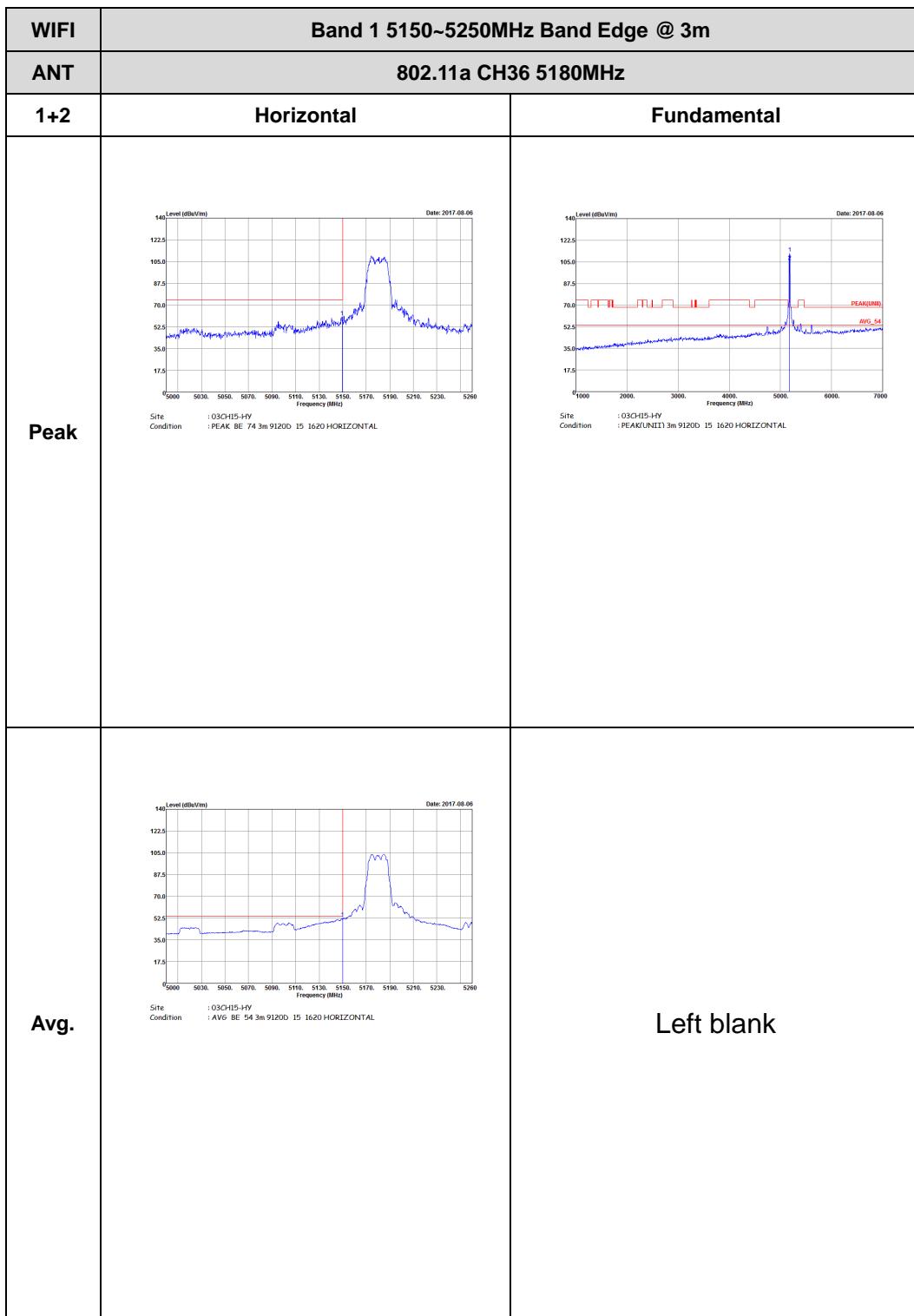


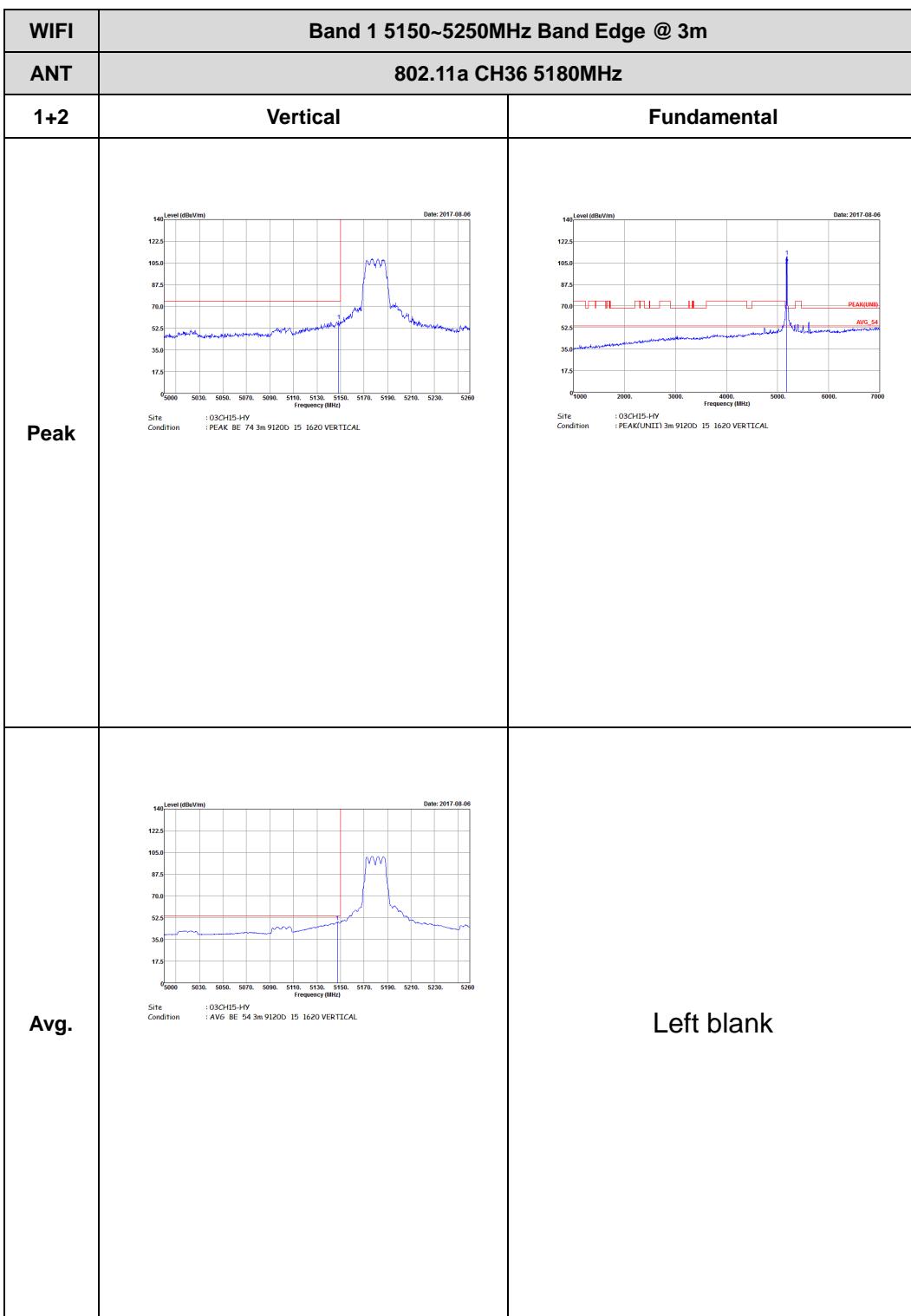


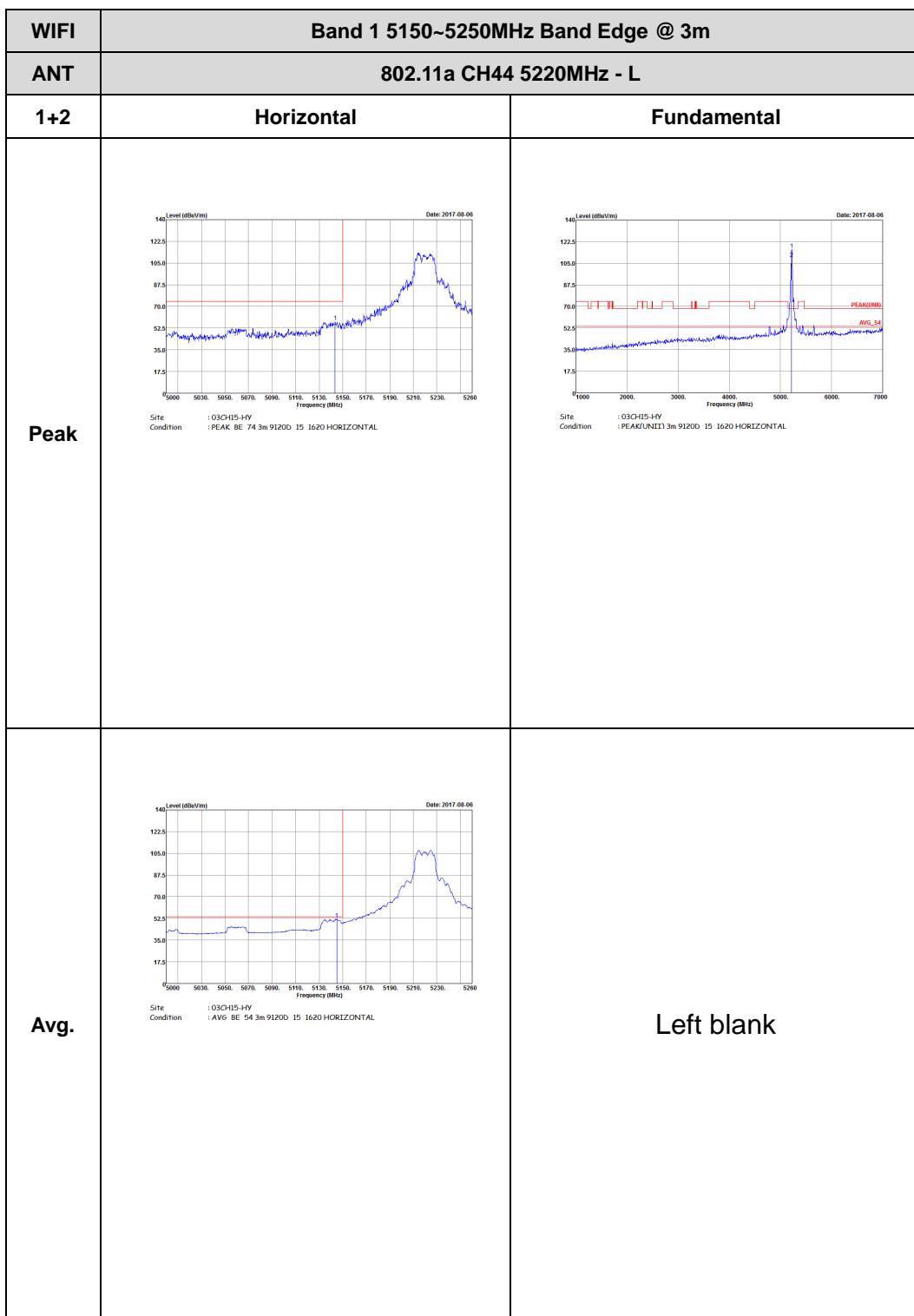
<Antenna 1+2>

Band 1 - 5150~5250MHz

WIFI 802.11a (Band Edge @ 3m)

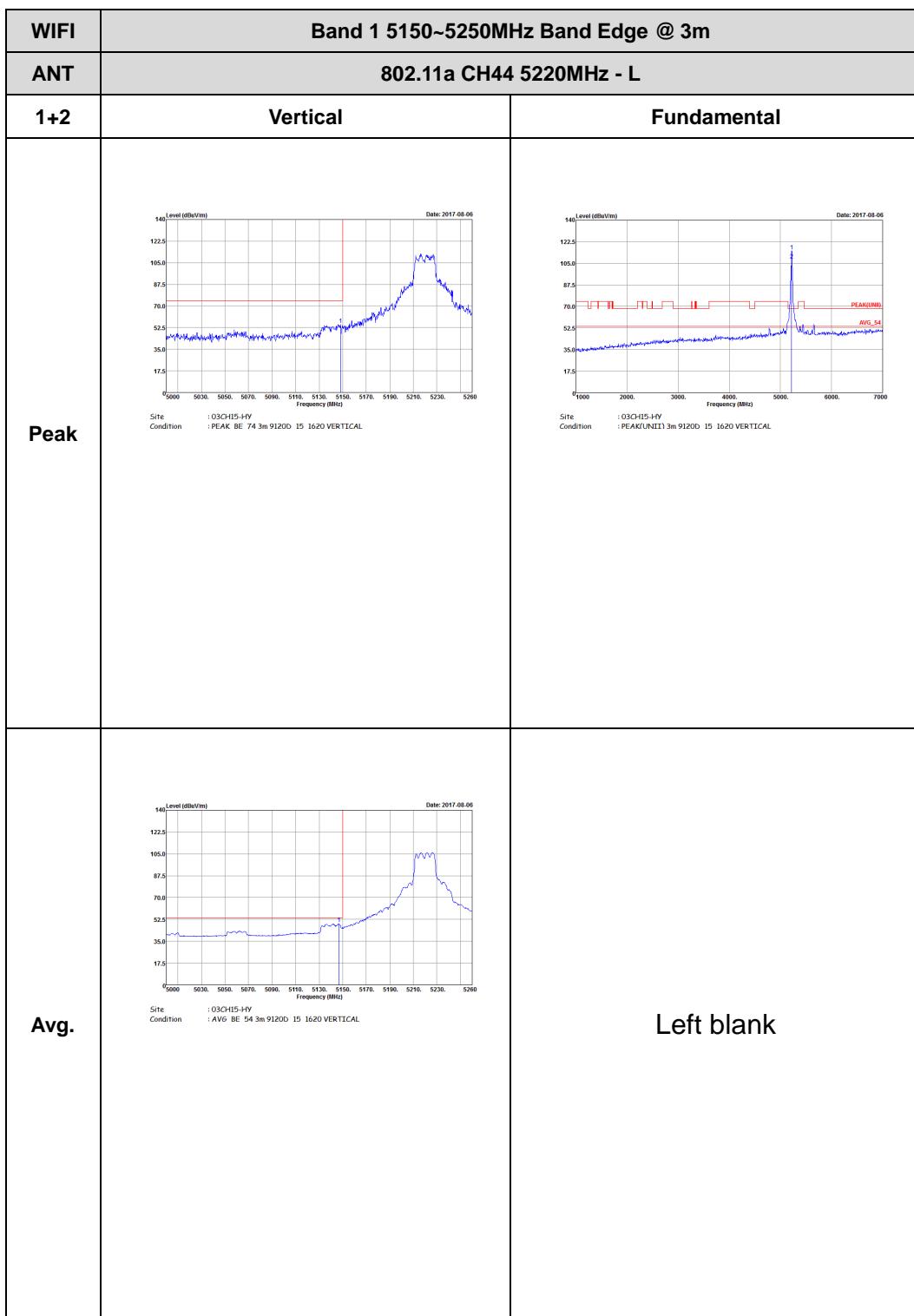




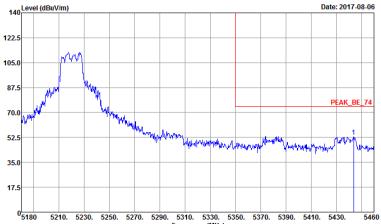


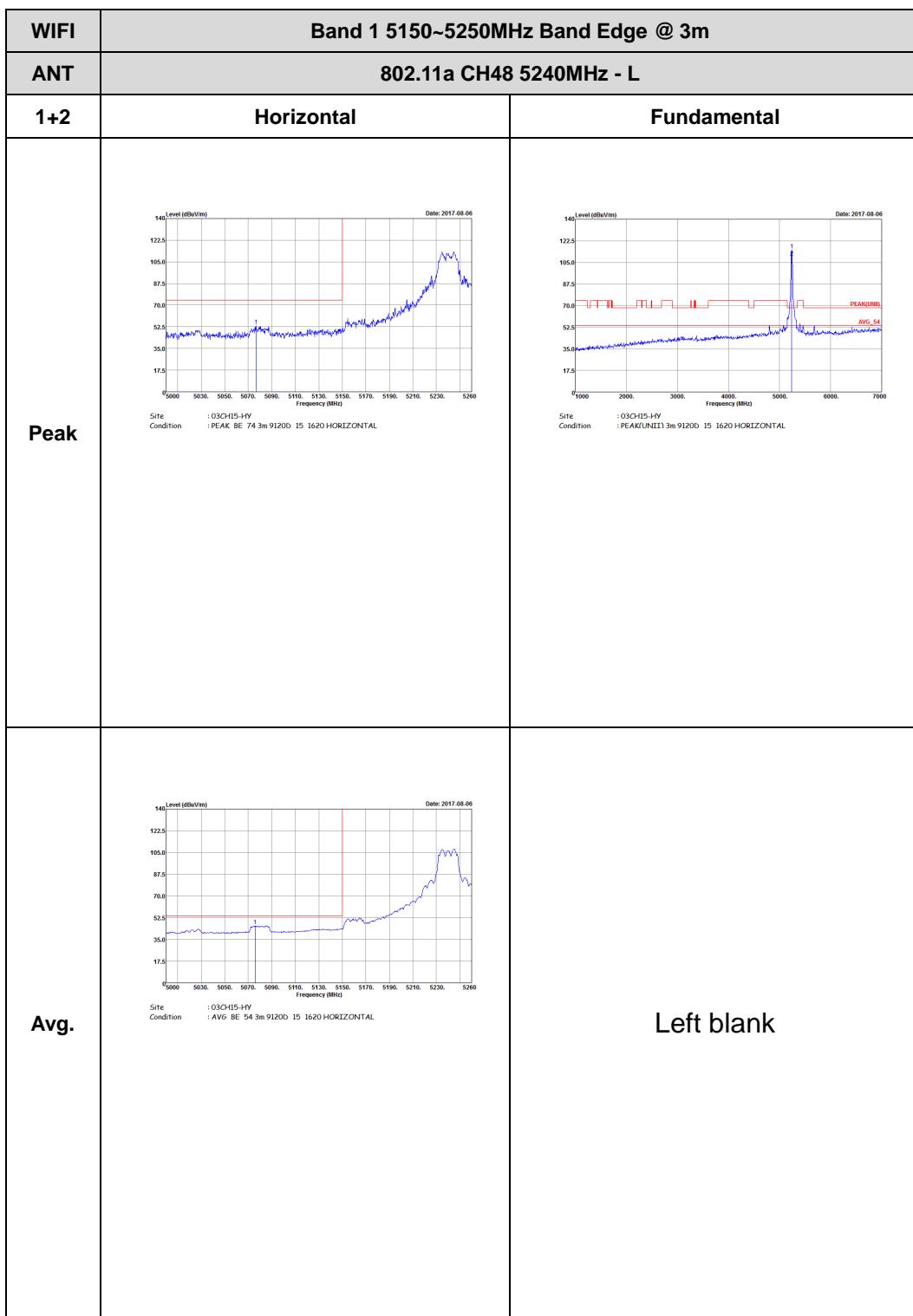


WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - R	
1+2	Horizontal	Fundamental
Peak	<p>Date: 2017-08-06 Site: 03CH15-HY Condition: PEAK BE 74 3m 9120D 15 1620 HORIZONTAL</p>	Left blank
Avg.	<p>Date: 2017-08-06 Site: 03CH15-HY Condition: AVG BE 54 3m 9120D 15 1620 HORIZONTAL</p>	Left blank

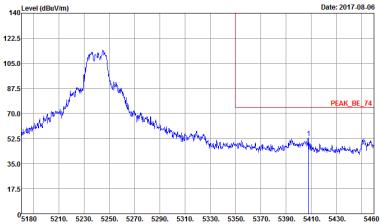


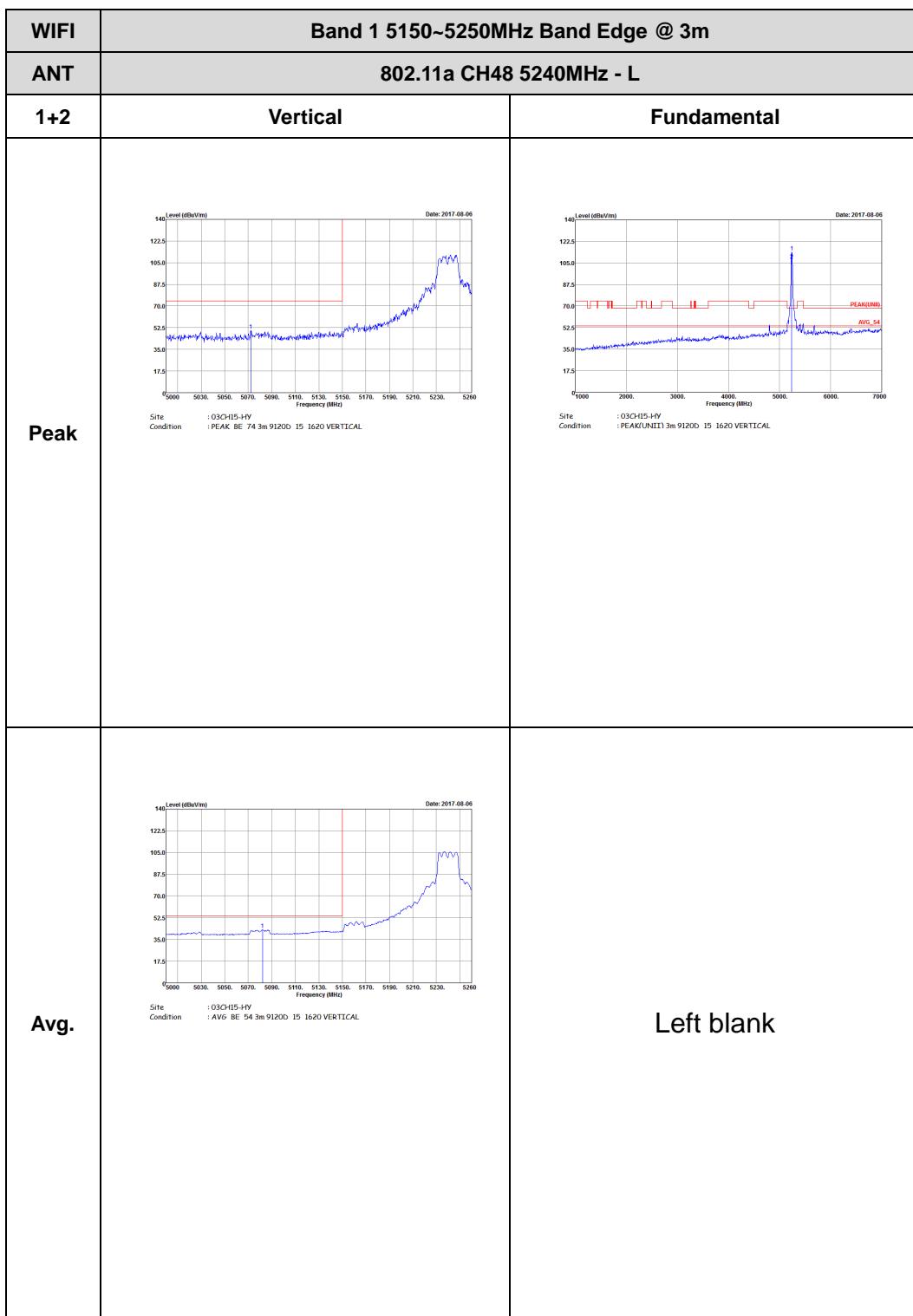


WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - R	
1+2	Vertical	Fundamental
Peak	 <p>Level (dBuV/m) vs Frequency (MHz) Date: 2017-08-06 Site: 03CH15-HY Condition: PEAK BE 74 3m 9120D I5 1620 VERTICAL</p>	Left blank
Avg.	 <p>Level (dBuV/m) vs Frequency (MHz) Date: 2017-08-06 Site: 03CH15-HY Condition: AVG BE 54 3m 9120D I5 1620 VERTICAL</p>	Left blank

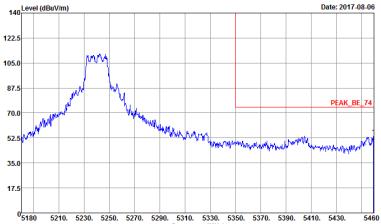




WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - R	
1+2	Horizontal	Fundamental
Peak	 <p>Level (dBc/100KHz) vs Frequency (MHz) plot. The x-axis ranges from 5180 to 5460 MHz, and the y-axis ranges from 17.5 to 140 dBc/100KHz. A red vertical line marks the peak at 5240 MHz. The plot shows a single dominant peak labeled 'PEAK_BE_74'. Text below the plot: Site : 03CH15-HY Condition : PEAK BE 74 3m 9120D 15 1620 HORIZONTAL Date: 2017-08-06</p>	Left blank
Avg.	 <p>Level (dBc/100KHz) vs Frequency (MHz) plot. The x-axis ranges from 5180 to 5460 MHz, and the y-axis ranges from 17.5 to 140 dBc/100KHz. A red vertical line marks the average level at 5240 MHz. The plot shows a broad peak labeled 'AVG_BE_54'. Text below the plot: Site : 03CH15-HY Condition : AVG BE 54 3m 9120D 15 1620 HORIZONTAL Date: 2017-08-06</p>	Left blank

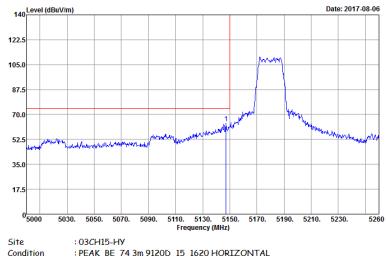
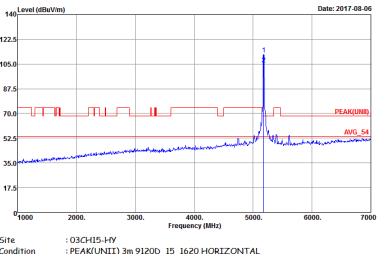
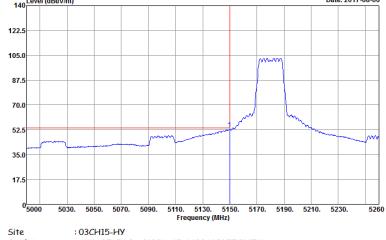


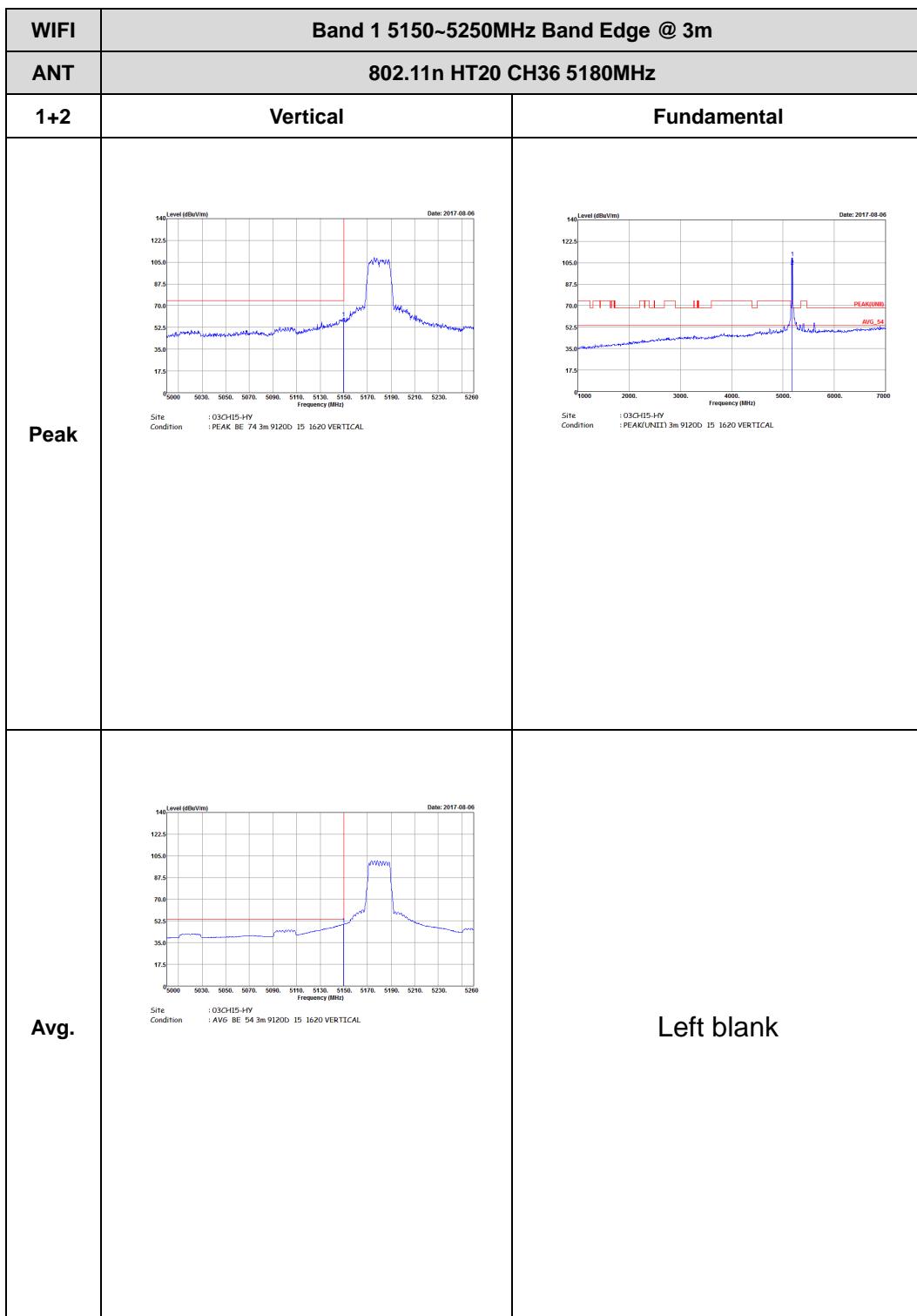


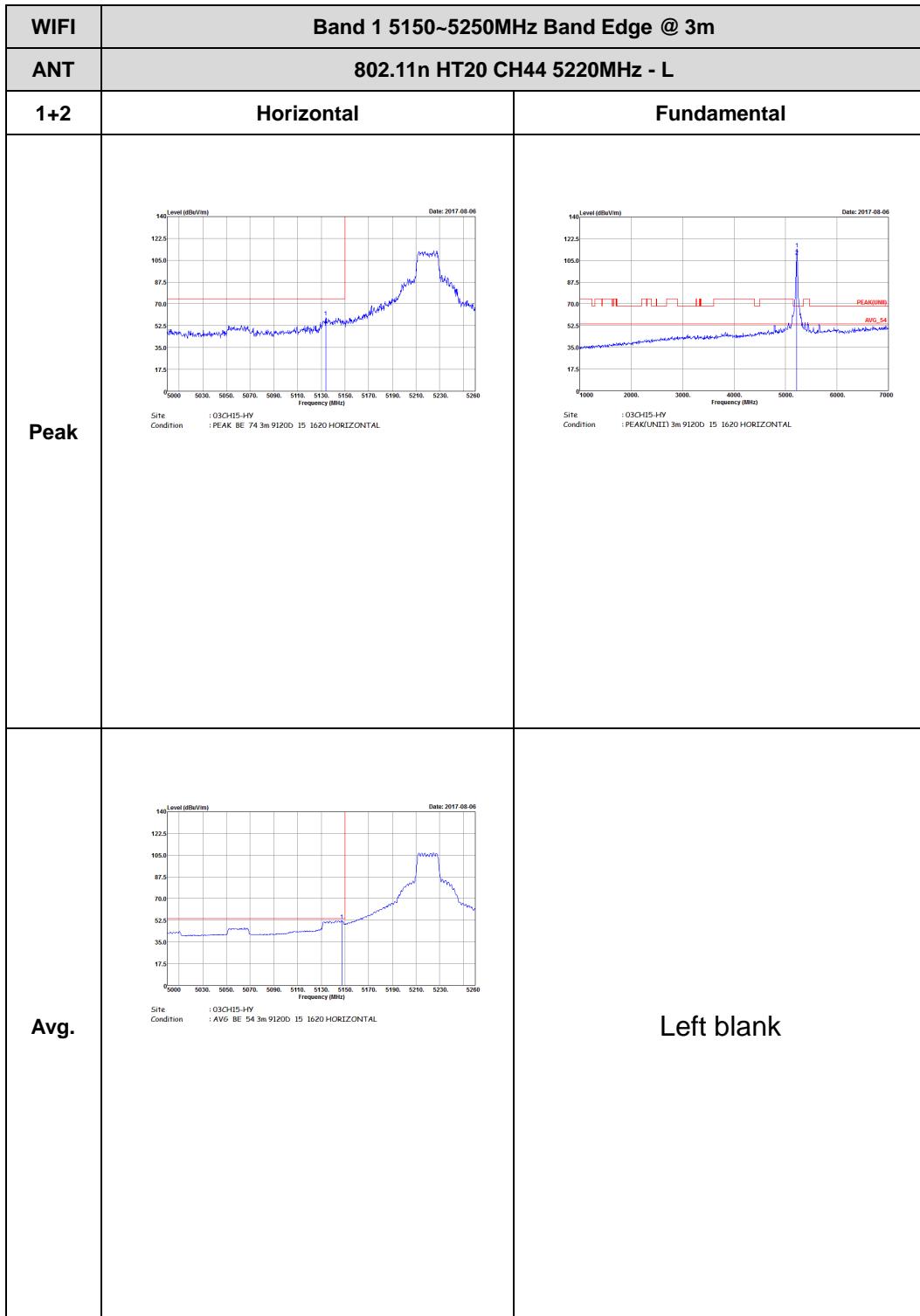
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - R	
1+2	Vertical	Fundamental
Peak	 <p>Level (dBuV/m) vs Frequency (MHz) from 5180 to 5460. The plot shows a sharp peak labeled 'PEAK_BE_74' at approximately 5240 MHz. The y-axis ranges from 17.5 to 140 dBuV/m. The x-axis ranges from 5180 to 5460 MHz.</p> <p>Date: 2017-08-06 Site: 03CH15-HY Condition: PEAK BE 74 3m 9120D 15 1620 VERTICAL</p>	Left blank
Avg.	 <p>Level (dBuV/m) vs Frequency (MHz) from 5180 to 5460. The plot shows a broad peak labeled 'AVG_BE_54' at approximately 5240 MHz. The y-axis ranges from 17.5 to 140 dBuV/m. The x-axis ranges from 5180 to 5460 MHz.</p> <p>Date: 2017-08-06 Site: 03CH15-HY Condition: AVG BE 54 3m 9120D 15 1620 VERTICAL</p>	Left blank



Band 1 5150~5250MHz
WIFI 802.11n HT20 (Band Edge @ 3m)

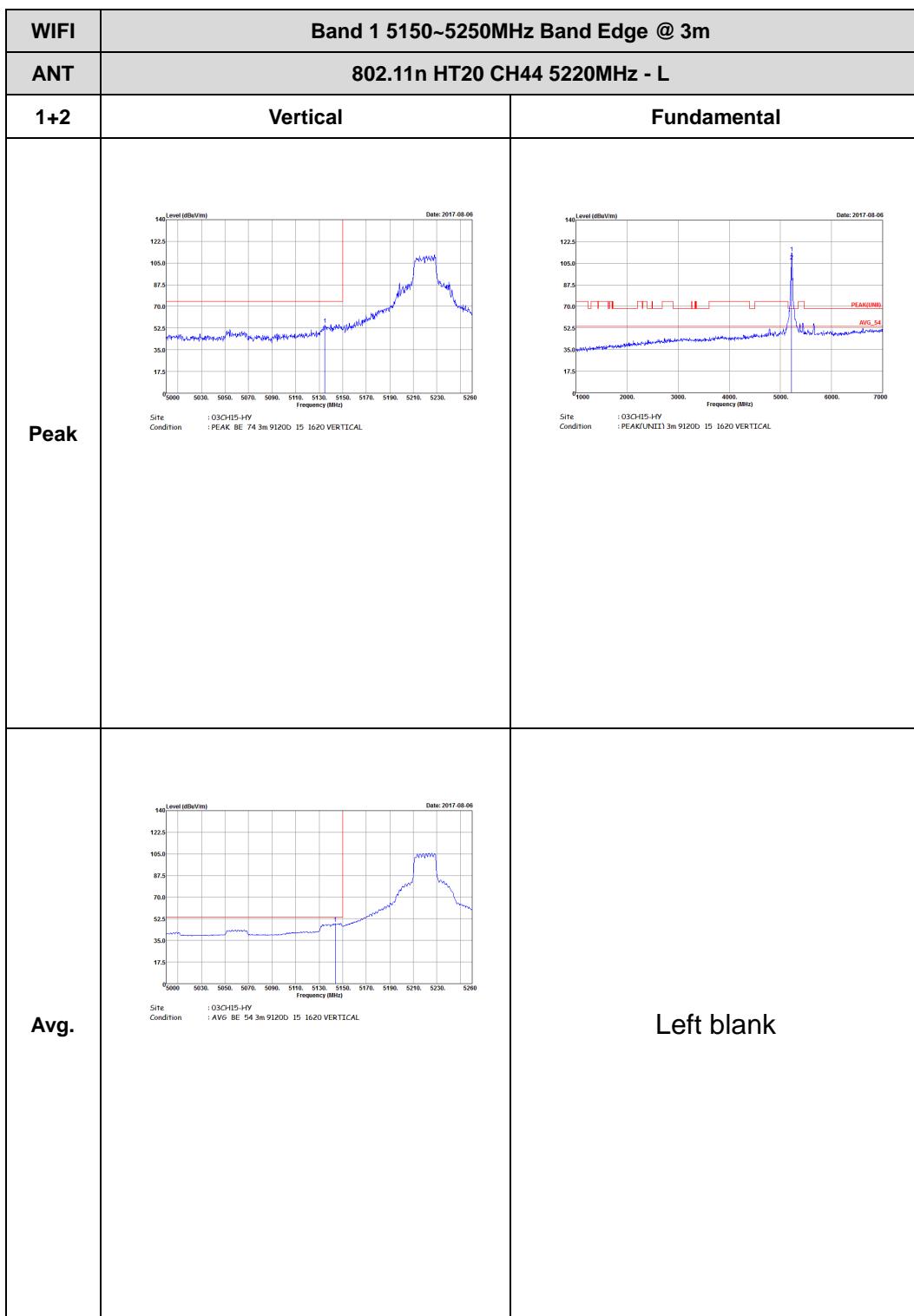
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH36 5180MHz	
1+2	Horizontal	Fundamental
Peak	 Site : 03CH15-HY Condition : PEAK BE 74 3m 91200 I5 1620 HORIZONTAL	 Site : 03CH15-HY Condition : PEAK(UNII) 3m 91200 I5 1620 HORIZONTAL
Avg.	 Site : 03CH15-HY Condition : AVG BE 54 3m 91200 I5 1620 HORIZONTAL	Left blank



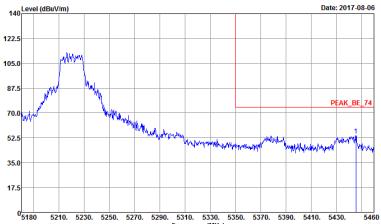


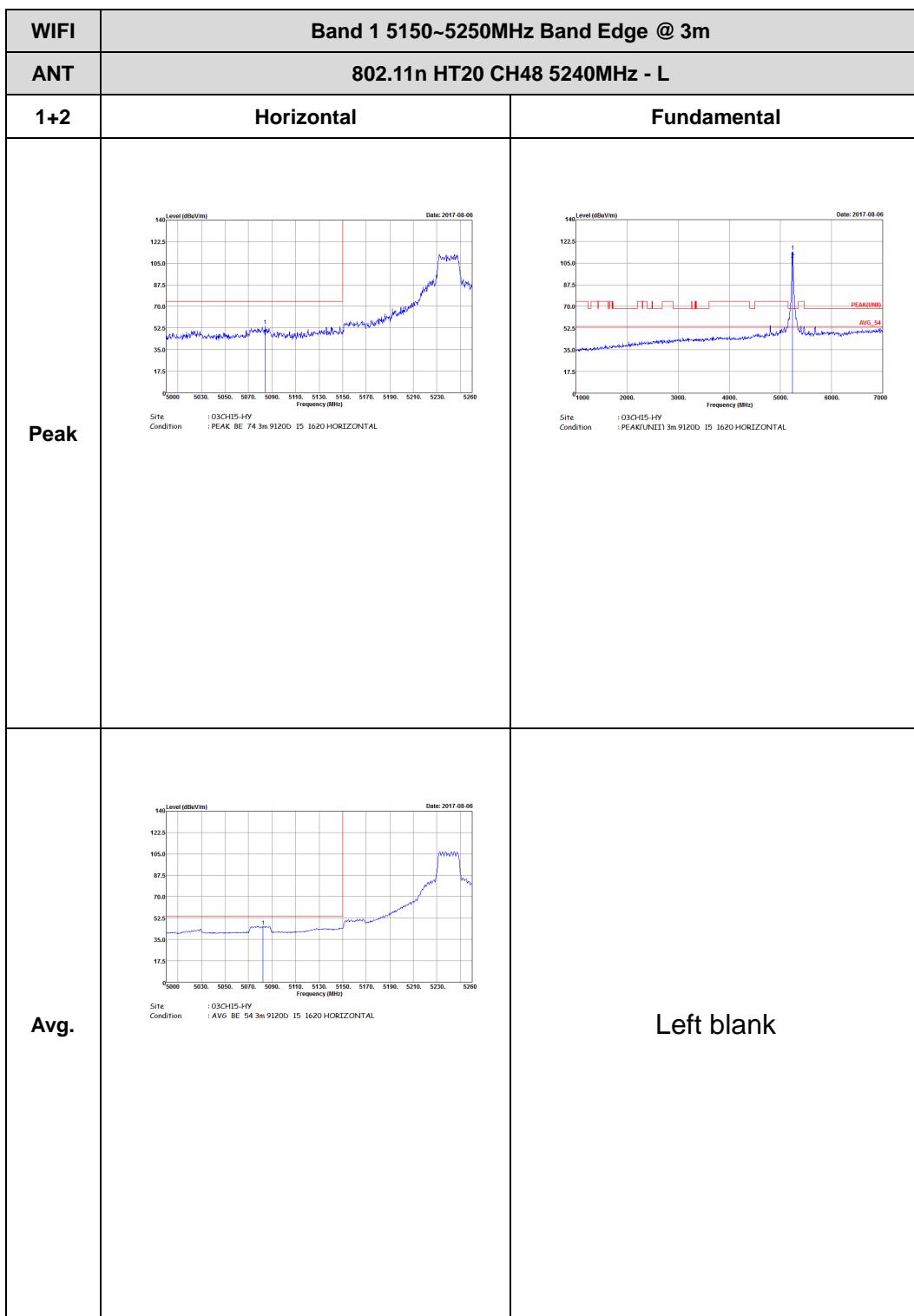


WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH44 5220MHz - R	
1+2	Horizontal	Fundamental
Peak	 <p>Level (dBuV/m) vs Frequency (MHz) Date: 2017-08-06 Site: 03CH15-HY Condition: PEAK BE 74 3m 9120D 15 1620 HORIZONTAL</p>	Left blank
Avg.	 <p>Level (dBuV/m) vs Frequency (MHz) Date: 2017-08-06 Site: 03CH15-HY Condition: AVG BE 54 3m 9120D 15 1620 HORIZONTAL</p>	Left blank

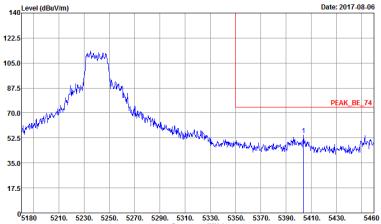




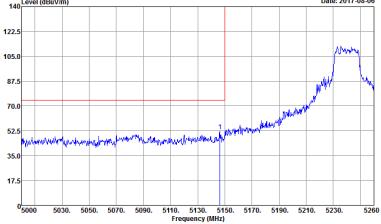
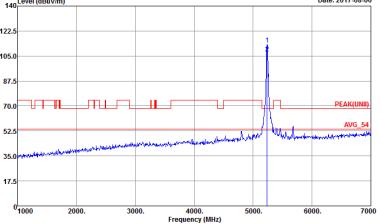
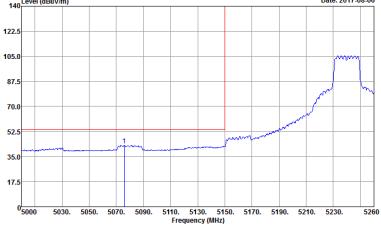
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH44 5220MHz - R	
1+2	Vertical	Fundamental
Peak	 <p>Level (dBmV/m) vs Frequency (MHz) Date: 2017-08-06 Site: 03CH15-HY Condition: PEAK BE 74 3m 91200 I5 1620 VERTICAL</p>	Left blank
Avg.	 <p>Level (dBmV/m) vs Frequency (MHz) Date: 2017-08-06 Site: 03CH15-HY Condition: AVG BE 54 3m 91200 I5 1620 VERTICAL</p>	Left blank



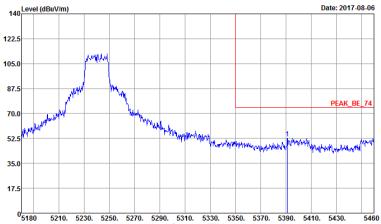


WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH48 5240MHz - R	
1+2	Horizontal	Fundamental
Peak	 <p>Level (dBuV/m) vs Frequency (MHz) Date: 2017-08-06 Site: 03CH15-HY Condition: PEAK BE 74 3m 9120D 15 1620 HORIZONTAL</p>	Left blank
Avg.	 <p>Level (dBuV/m) vs Frequency (MHz) Date: 2017-08-06 Site: 03CH15-HY Condition: AVG BE 54 3m 9120D 15 1620 HORIZONTAL</p>	Left blank



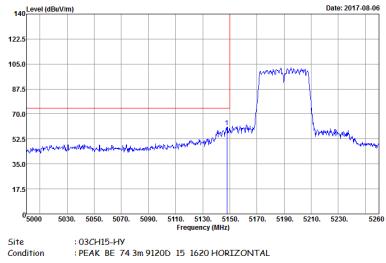
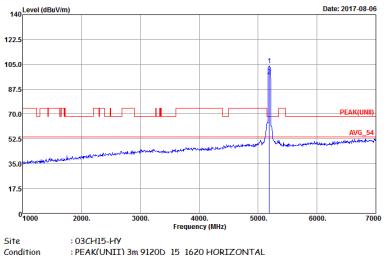
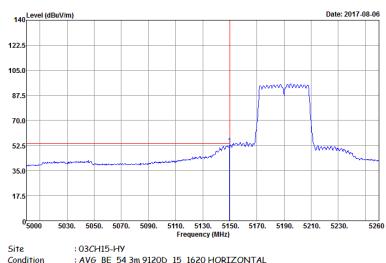
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH48 5240MHz - L	
1+2	Vertical	Fundamental
Peak	 Site : 03CH15-HY Condition : PEAK BE 74 3m 9120D 15 1620 VERTICAL	 Site : 03CH15-HY Condition : PEAK(UNII) 3m 9120D 15 1620 VERTICAL
Avg.	 Site : 03CH15-HY Condition : AVG BE 54 3m 9120D 15 1620 VERTICAL	Left blank



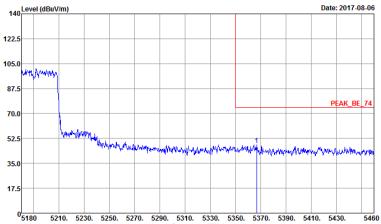
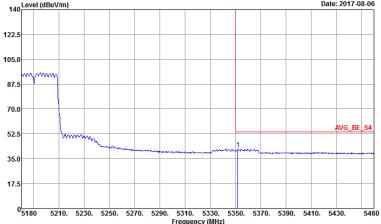
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH48 5240MHz - R	
1+2	Vertical	Fundamental
Peak	 <p>Level (dBuV/m)</p> <p>Date: 2017-08-06</p> <p>Frequency (MHz)</p> <p>Sites : 03CH15-HY</p> <p>Condition : PEAK BE 74 3m 9120D 15 1620 VERTICAL</p>	Left blank
Avg.	 <p>Level (dBuV/m)</p> <p>Date: 2017-08-06</p> <p>Frequency (MHz)</p> <p>Sites : 03CH15-HY</p> <p>Condition : AVG BE 54 3m 9120D 15 1620 VERTICAL</p>	Left blank



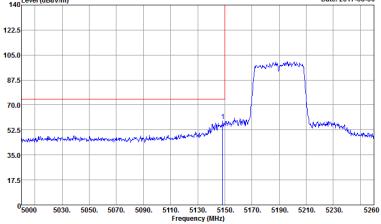
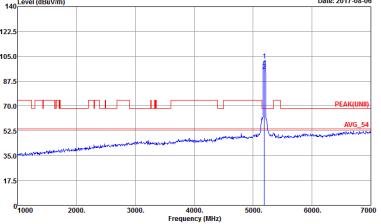
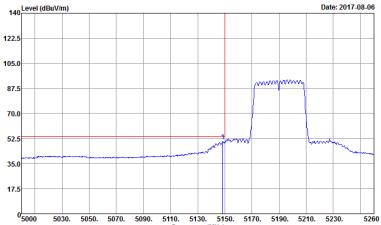
Band 1 5150~5250MHz
WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH38 5190MHz - L	
1+2	Horizontal	Fundamental
Peak	 <p>Site : 03CH15-HY Condition : PEAK BE 74 3m 9120D 15 1620 HORIZONTAL</p>	 <p>Site : 03CH15-HY Condition : PEAK(UNII) 3m 9120D 15 1620 HORIZONTAL</p>
Avg.	 <p>Site : 03CH15-HY Condition : AVG BE 54 3m 9120D 15 1620 HORIZONTAL</p>	Left blank

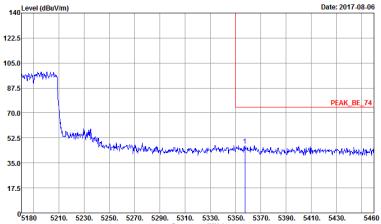
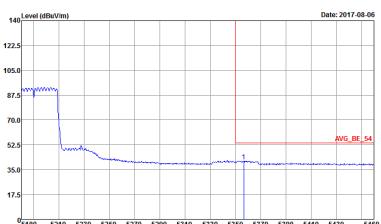


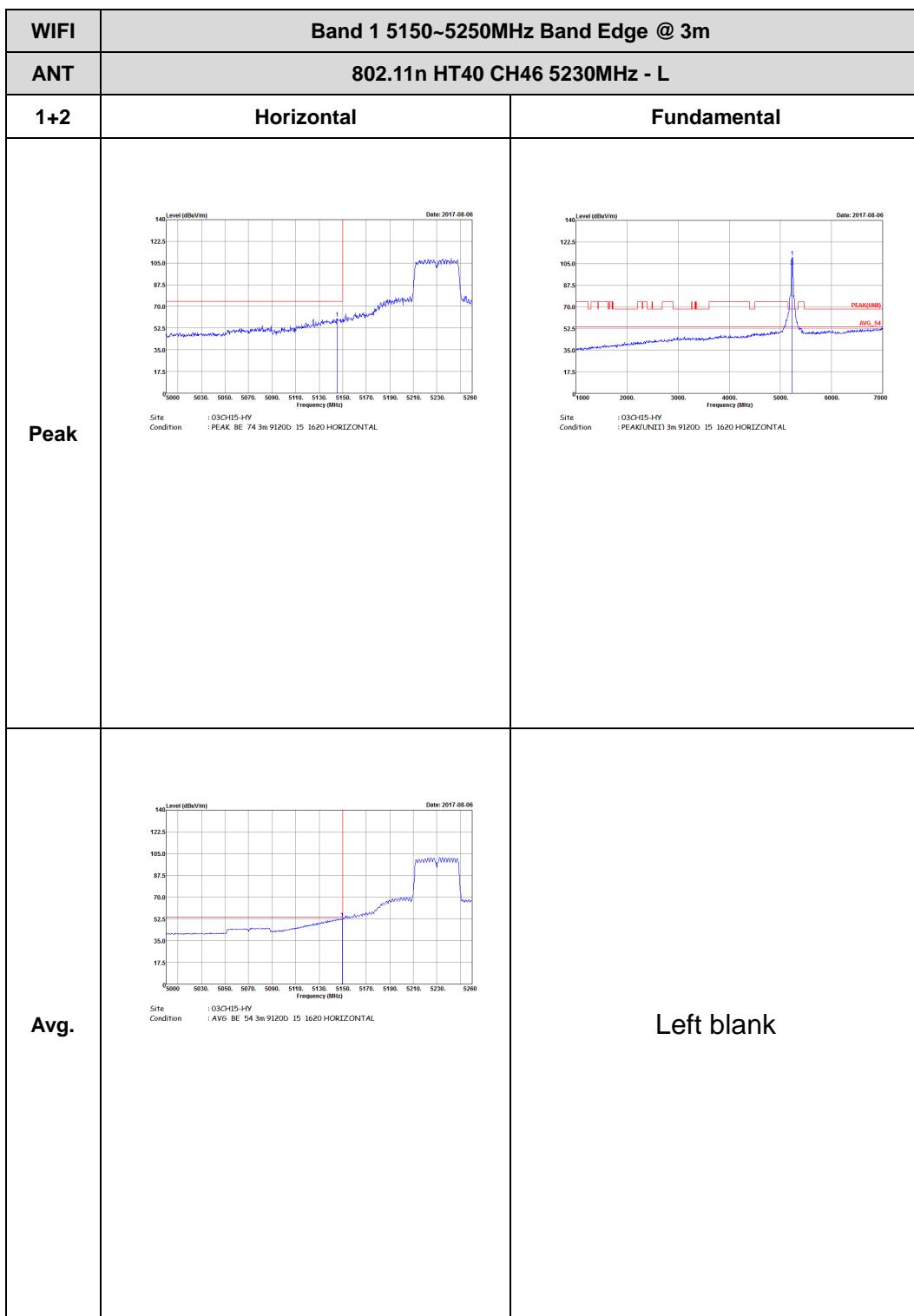
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH38 5190MHz - R	
1+2	Horizontal	Fundamental
Peak	 <p>Level (dBm/V/m) Date: 2017-08-06 140 122.5 105.0 87.5 70.0 52.5 35.0 17.5 5180 5210. 5230. 5250. 5270. 5290. 5310. 5330. 5350. 5370. 5390. 5410. 5430. 5460 Frequency (MHz) Site: 03CH15-HY Condition: PEAK BE_74 3m 9120D 15 1620 HORIZONTAL</p>	Left blank
Avg.	 <p>Level (dBm/V/m) Date: 2017-08-06 140 122.5 105.0 87.5 70.0 52.5 35.0 17.5 5180 5210. 5230. 5250. 5270. 5290. 5310. 5330. 5350. 5370. 5390. 5410. 5430. 5460 Frequency (MHz) Site: 03CH15-HY Condition: AVG BE_54 3m 9120D 15 1620 HORIZONTAL</p>	Left blank



WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH38 5190MHz - L	
1+2	Vertical	Fundamental
Peak	 Site : 03CH15-HY Condition : PEAK BE 74 3m 9120D 15 1620 VERTICAL	 Site : 03CH15-HY Condition : PEAK(UNII) 3m 9120D 15 1620 VERTICAL
Avg.	 Site : 03CH15-HY Condition : AVG BE 54 3m 9120D 15 1620 VERTICAL	Left blank

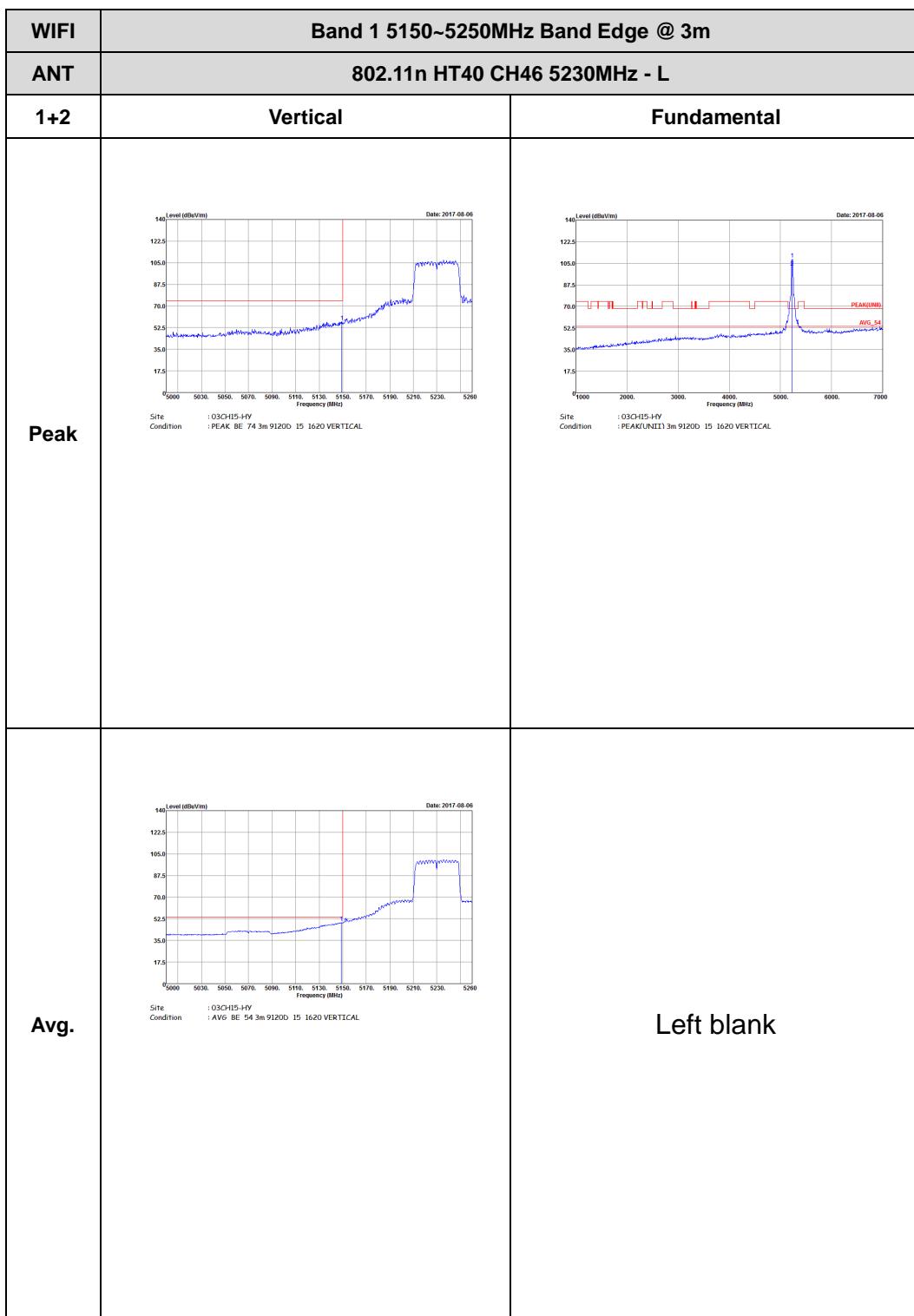


WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH38 5190MHz - R	
1+2	Vertical	Fundamental
Peak	 <p>Level (dBmV/m) Date: 2017-08-06 Frequency (MHz) Site: 03CH15-HY Condition: PEAK BE 74 3m 9120D 15 1620 VERTICAL</p>	Left blank
Avg.	 <p>Level (dBmV/m) Date: 2017-08-06 Frequency (MHz) Site: 03CH15-HY Condition: AVG BE 54 3m 9120D 15 1620 VERTICAL</p>	Left blank

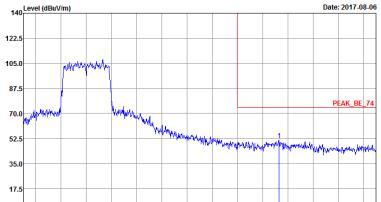
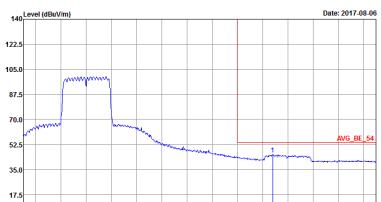




WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH46 5230MHz - R	
1+2	Horizontal	Fundamental
Peak	<p>Level (dBuV/m)</p> <p>Frequency (MHz)</p> <p>Date: 2017-08-06</p> <p>PEAK_BE_74</p> <p>Sites : 03CH15-HY Condition : PEAK BE 74 3m 9120D 15 1620 HORIZONTAL</p>	Left blank
Avg.	<p>Level (dBuV/m)</p> <p>Frequency (MHz)</p> <p>Date: 2017-08-06</p> <p>Avg_BE_54</p> <p>Sites : 03CH15-HY Condition : AVG BE 54 3m 9120D 15 1620 HORIZONTAL</p>	Left blank





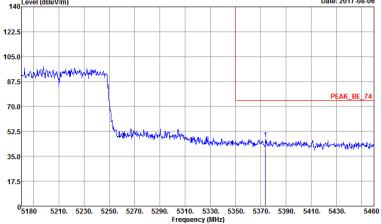
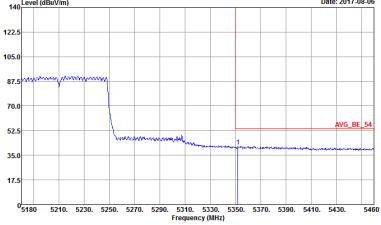
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH46 5230MHz - R	
1+2	Vertical	Fundamental
Peak	 <p>Level (dBc/10m) vs Frequency (MHz) Date: 2017-08-06 Site : 03CH15-HY Condition : PEAK BE 74 3m 9120D 15 1620 VERTICAL</p>	Left blank
Avg.	 <p>Level (dBc/10m) vs Frequency (MHz) Date: 2017-08-06 Site : 03CH15-HY Condition : AVG BE 54 3m 9120D 15 1620 VERTICAL</p>	Left blank



Band 1 5150~5250MHz
WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH42 5210MHz - L	
1+2	Horizontal	Fundamental
Peak	 Site : 03CH15-HY Condition : PEAK BE 74 3m 91200 15 1620 HORIZONTAL	 Site : 02CH15-HY Condition : PEAK(UNII) 3m 91200 15 1620 HORIZONTAL
Avg.	 Site : 03CH15-HY Condition : AVG BE 54 3m 91200 15 1620 HORIZONTAL	Left blank

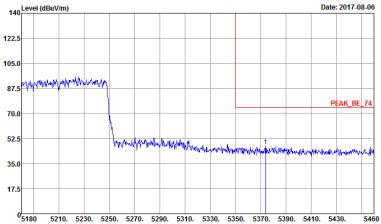
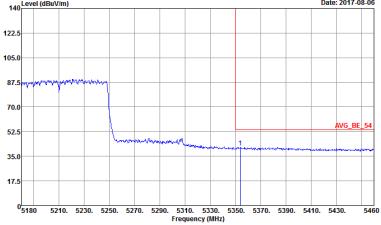


WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH42 5210MHz - R	
1+2	Horizontal	Fundamental
Peak	 <p>Level (dBm/V/m) vs Frequency (MHz) Date: 2017-08-06 Site: 03CH15-HY Condition: PEAK BE 74 3m 9120D 15 1620 HORIZONTAL</p>	Left blank
Avg.	 <p>Level (dBm/V/m) vs Frequency (MHz) Date: 2017-08-06 Site: 03CH15-HY Condition: AVG BE 54 3m 9120D 15 1620 HORIZONTAL</p>	Left blank



WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH42 5210MHz - L	
1+2	Vertical	Fundamental
Peak	 Site : 03CH15-HY Condition : PEAK BE 74 3m 9120D 15 1620 VERTICAL	 Site : 03CH15-HY Condition : PEAK(UNII) 3m 9120D 15 1620 VERTICAL
Avg.	 Site : 03CH15-HY Condition : AVG BE 54 3m 9120D 15 1620 VERTICAL	Left blank

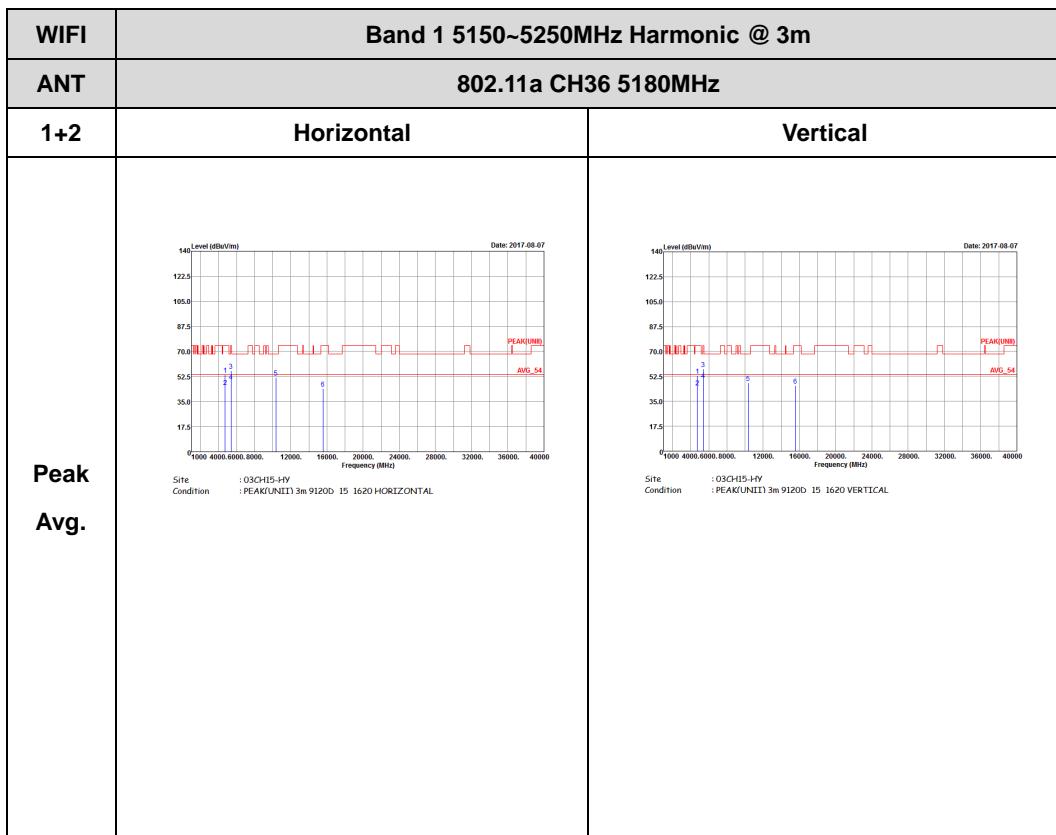


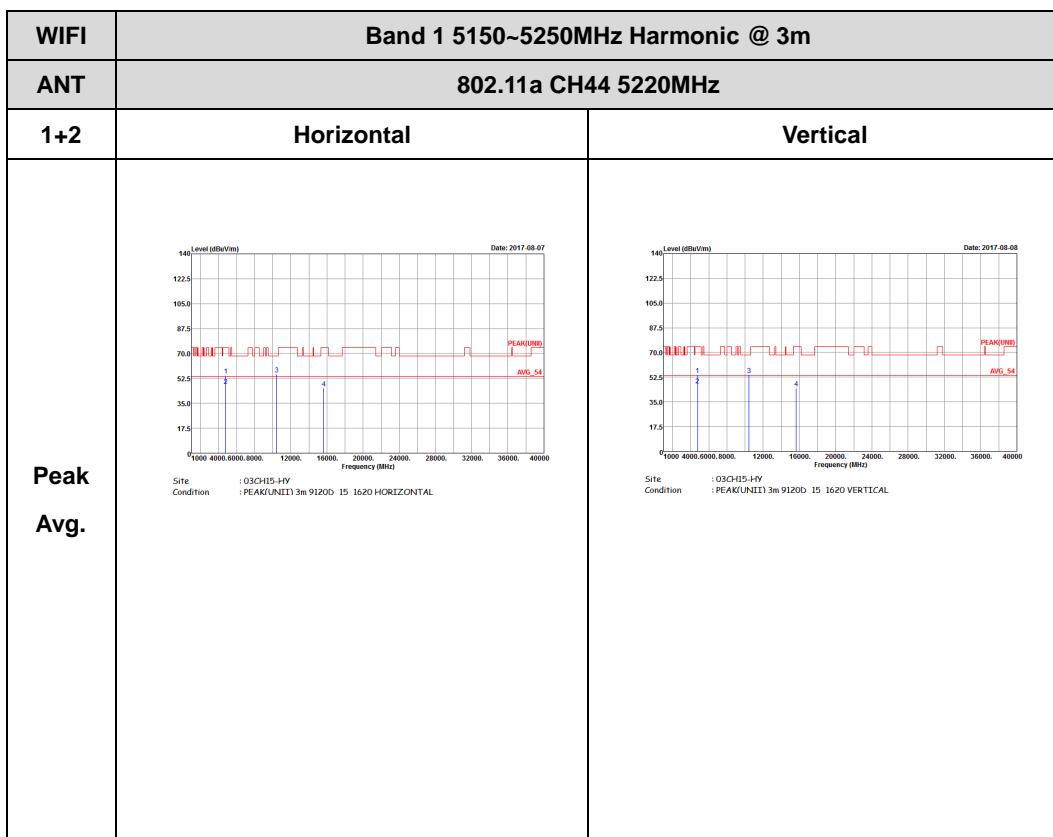
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH42 5210MHz - R	
1+2	Vertical	Fundamental
Peak	 <p>Level (dBm/Vm) vs Frequency (MHz) Date: 2017-08-06 Site: 03CH15-HY Condition: PEAK BE 74 3m 9120D 15 1620 VERTICAL</p>	Left blank
Avg.	 <p>Level (dBm/Vm) vs Frequency (MHz) Date: 2017-08-06 Site: 03CH15-HY Condition: AVG BE 54 3m 9120D 15 1620 VERTICAL</p>	Left blank

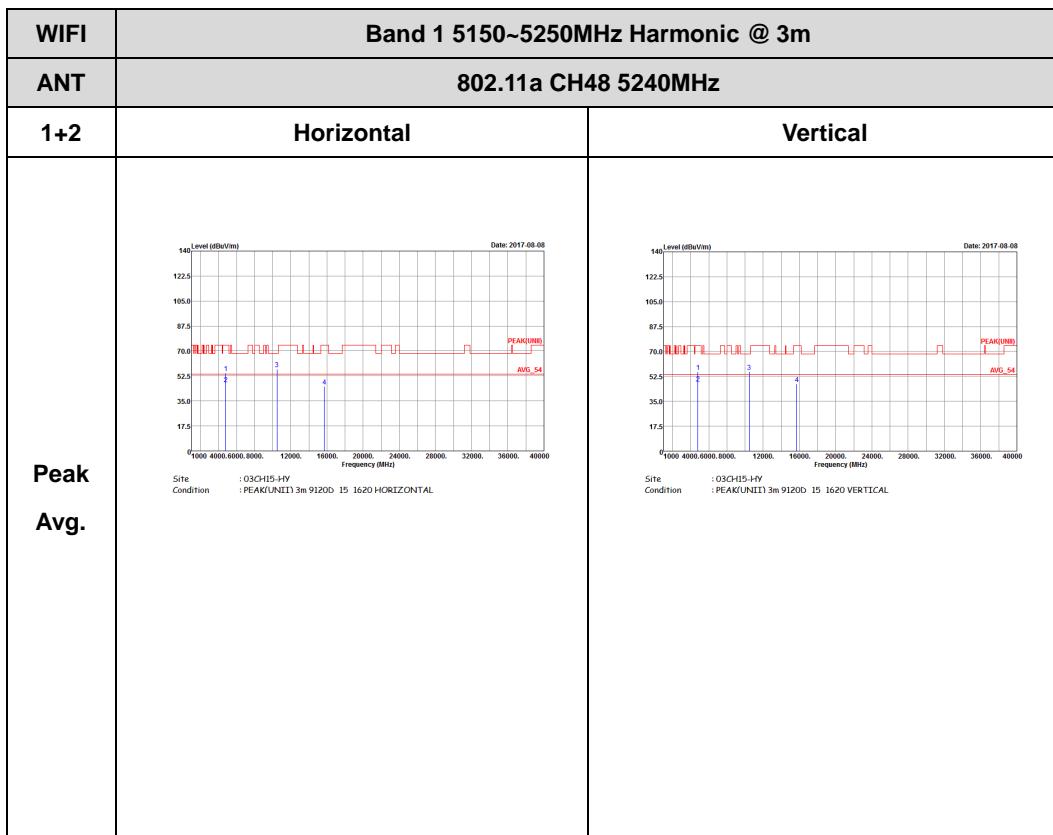


Band 1 - 5150~5250MHz

WIFI 802.11a (Harmonic @ 3m)

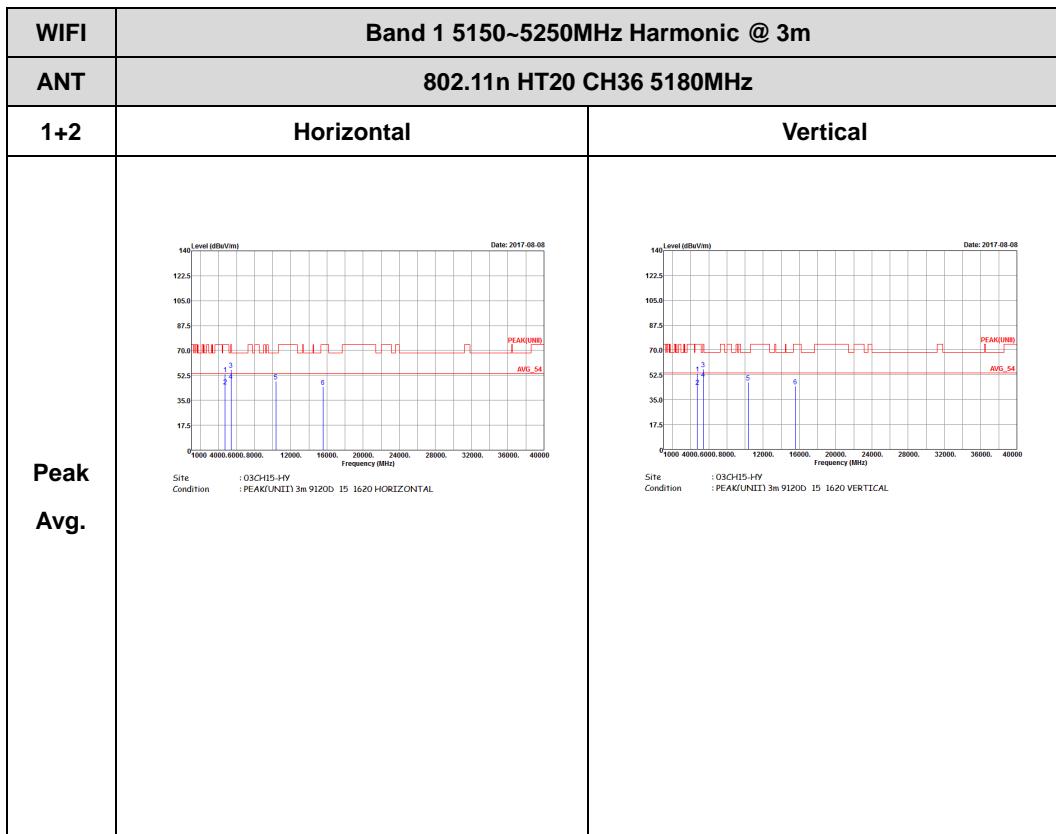


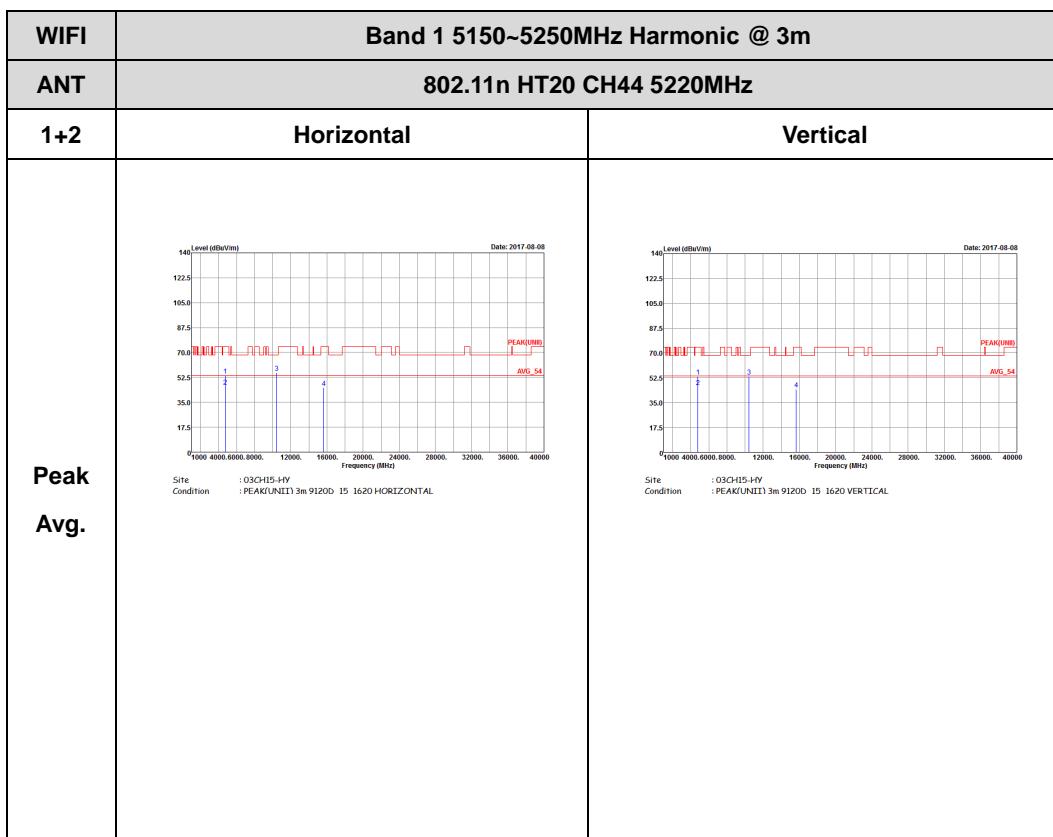


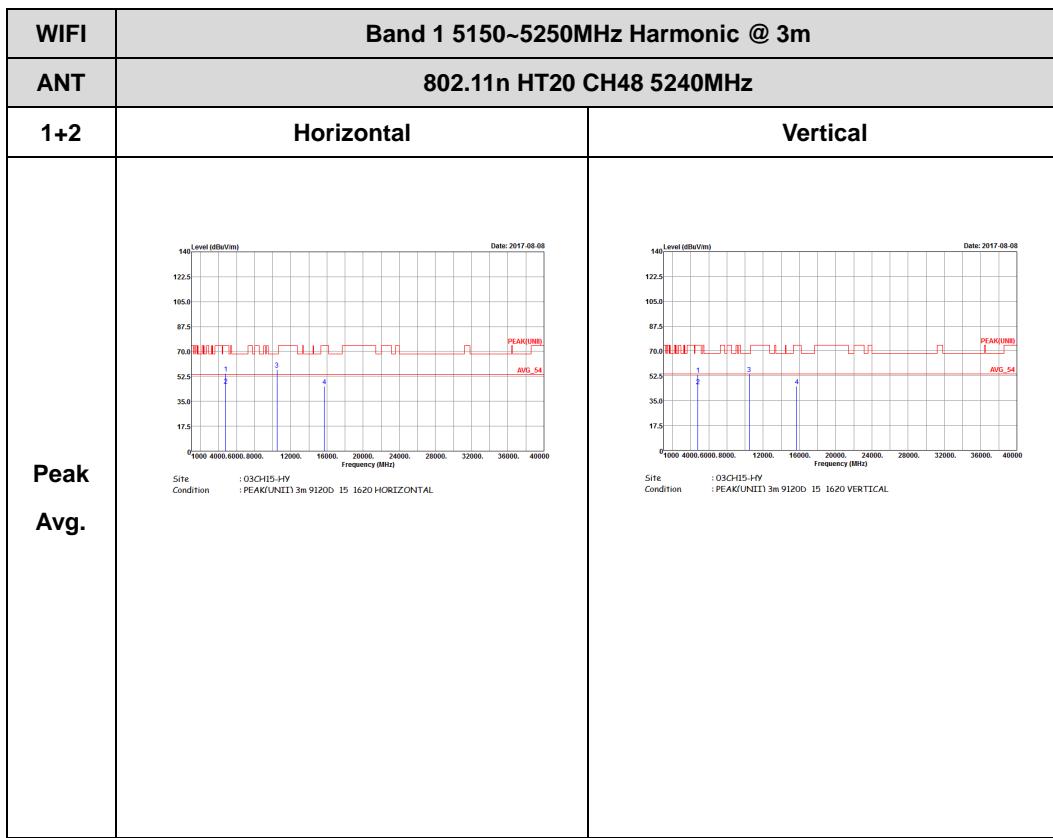




Band 1 5150~5250MHz
WIFI 802.11n HT20 (Harmonic @ 3m)

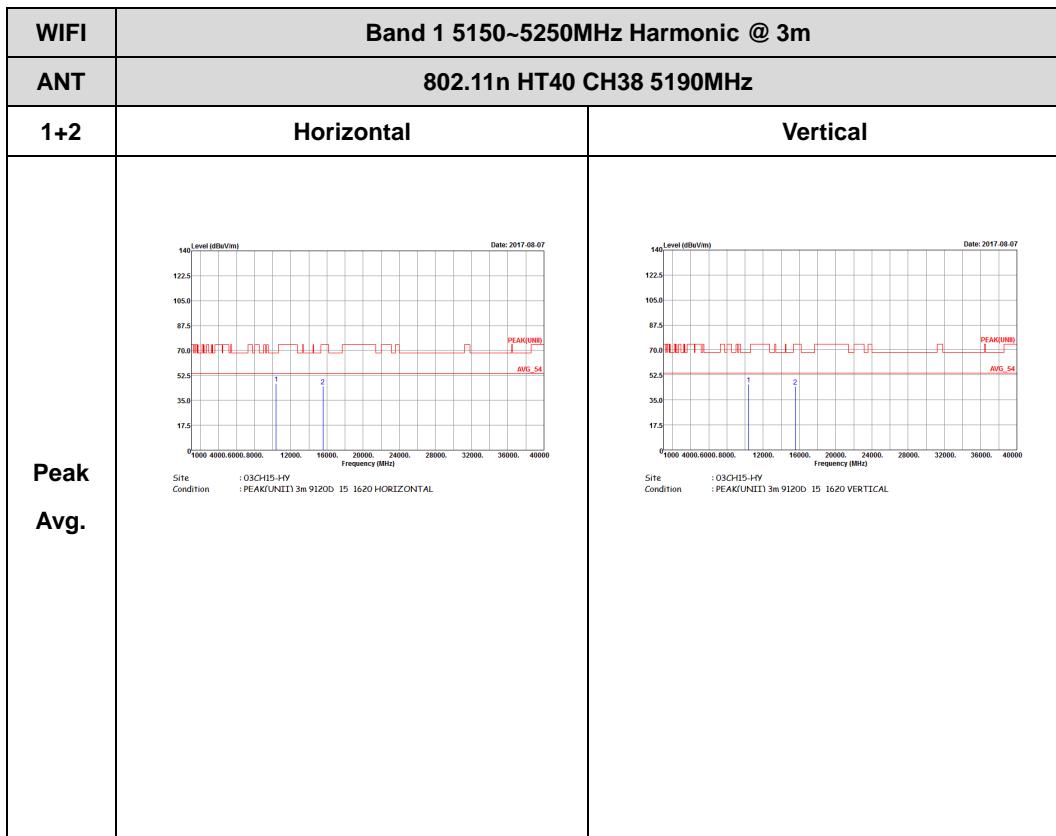


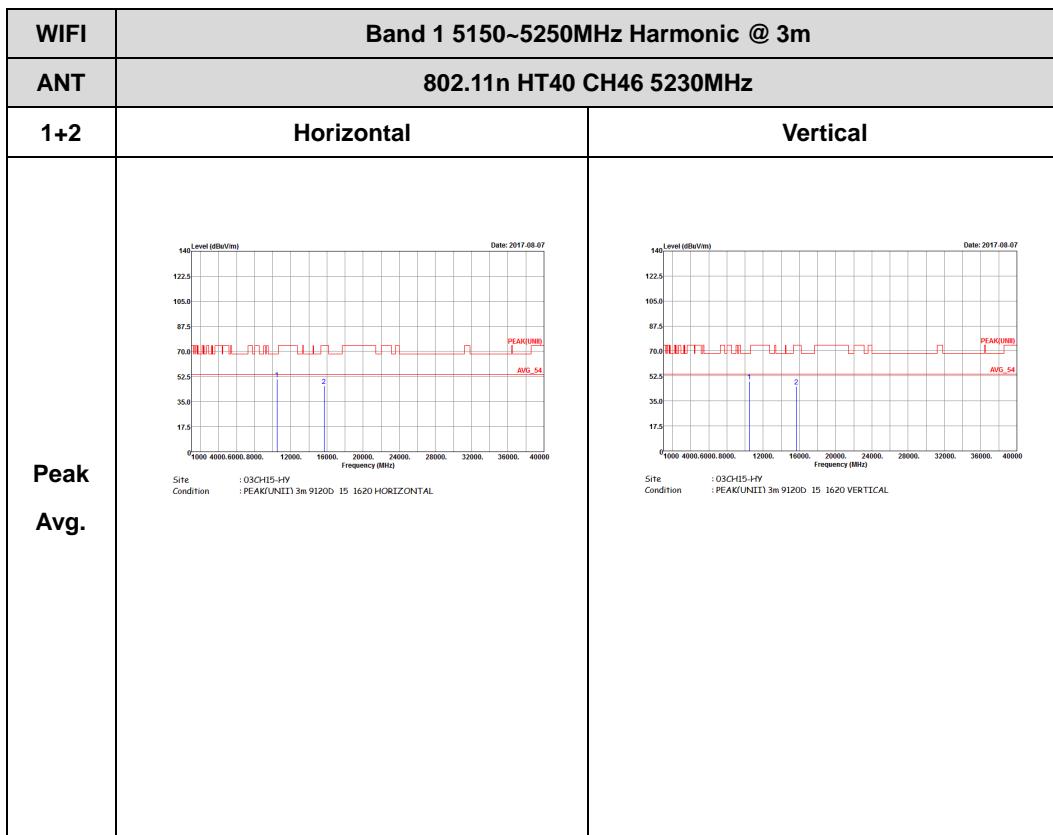






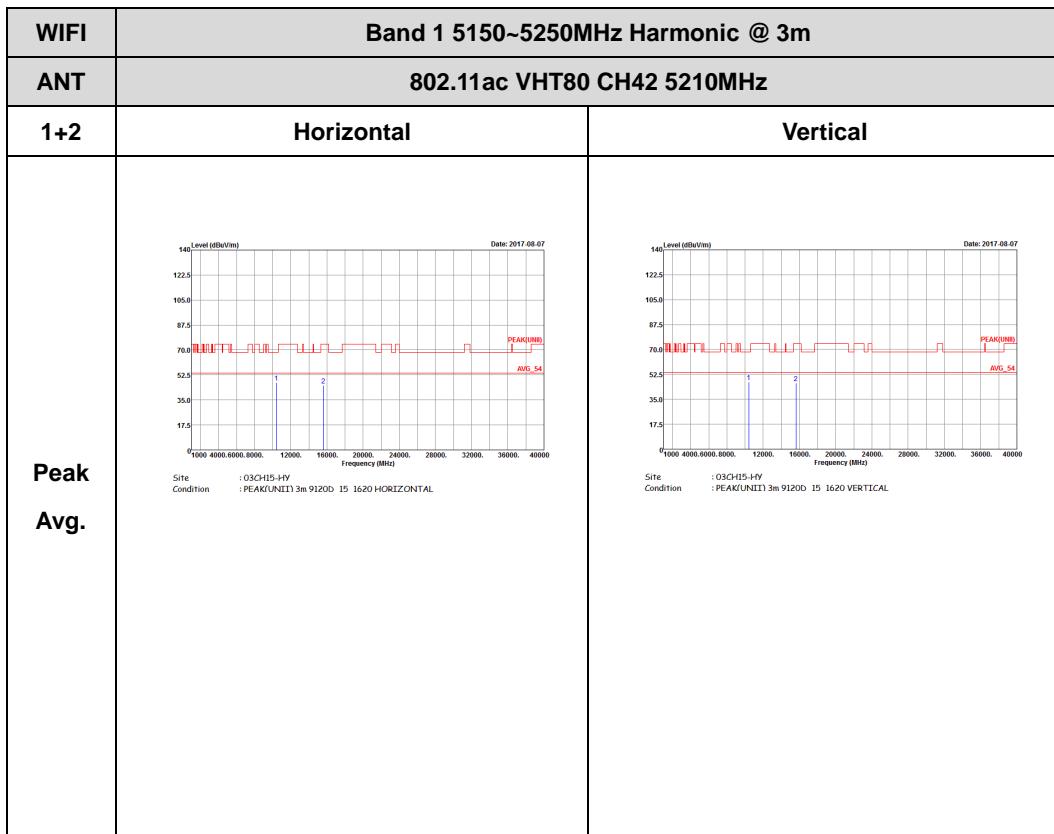
Band 1 5150~5250MHz
WIFI 802.11n HT40 (Harmonic @ 3m)





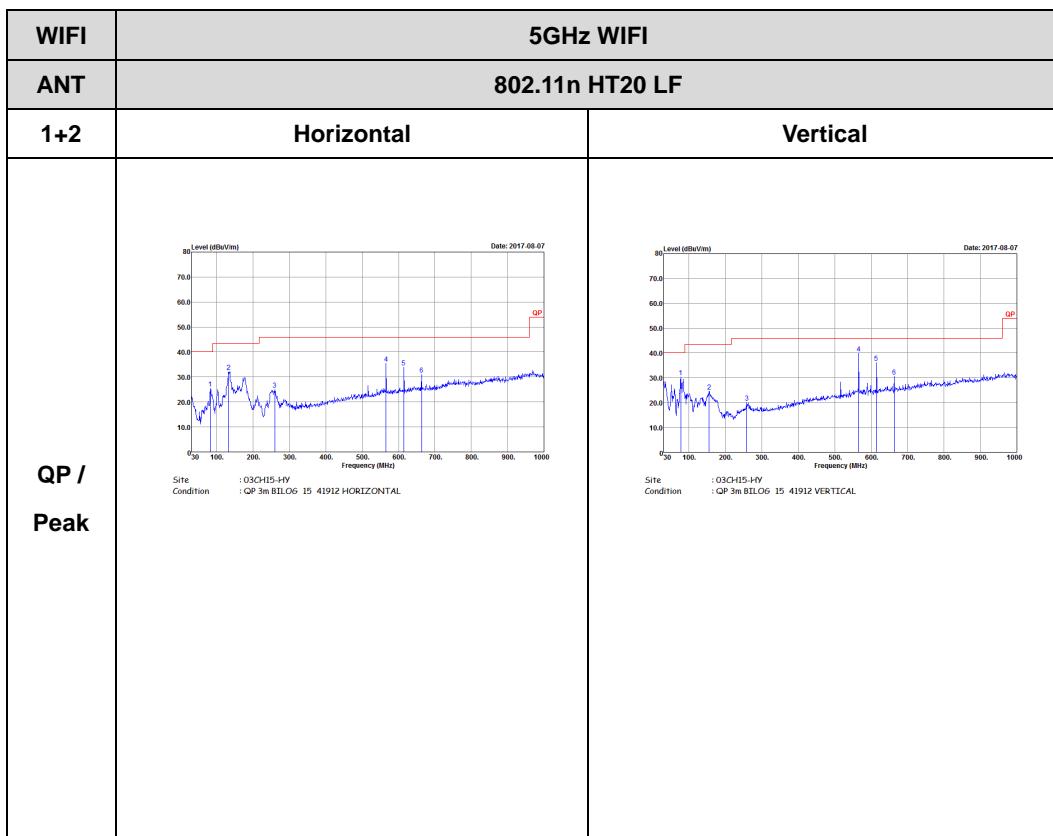


Band 1 5150~5250MHz
WIFI 802.11ac VHT80 (Harmonic @ 3m)





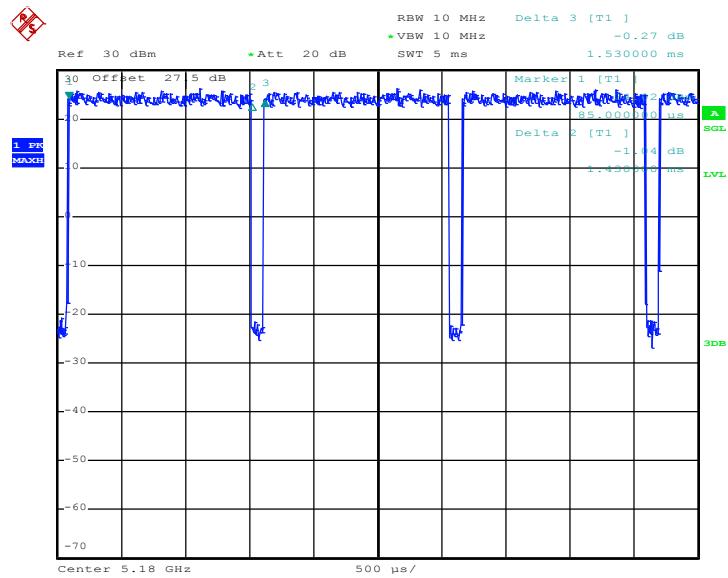
Emission below 1GHz
5GHz WIFI 802.11n HT20 (LF)



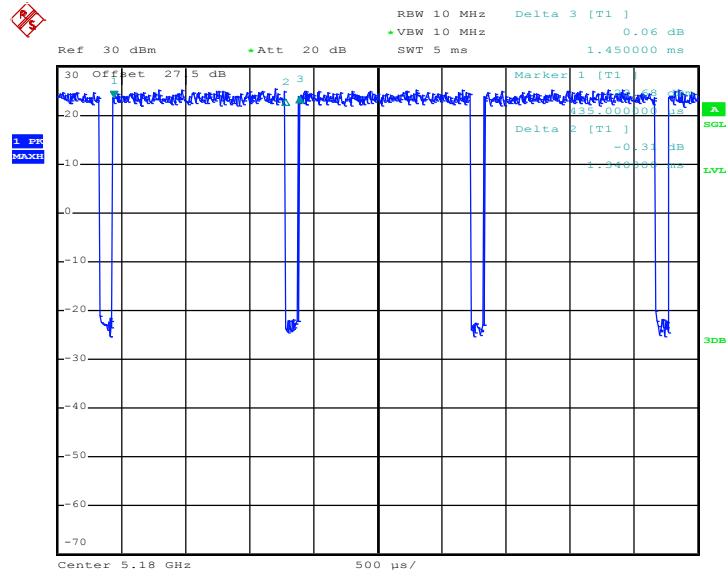


Appendix E. Duty Cycle Plots

Antenna	Band	Duty Cycle(%)	T(us)	1/T(kHz)	VBW Setting
1	802.11a	93.46	1430	0.70	1kHz
2	802.11a	92.53	1425	0.70	1kHz
1	5GHz 802.11n HT20	92.41	1340	0.75	1kHz
2	5GHz 802.11n HT20	93.06	1340	0.75	1kHz
1	5GHz 802.11n HT40	86.46	664	1.51	3kHz
2	5GHz 802.11n HT40	86.91	664	1.51	3kHz
1	5GHz 802.11ac VHT80	76.50	332	3.01	10kHz
2	5GHz 802.11ac VHT80	76.04	330	3.03	10kHz
1 + 2	802.11a for Ant. 1	93.46	1430	0.70	1kHz
1 + 2	802.11a for Ant. 2	92.86	1430	0.70	1kHz
1 + 2	5GHz 802.11n HT20 for Ant. 1	94.41	1340	0.75	1kHz
1 + 2	5GHz 802.11n HT20 for Ant. 2	94.41	1340	0.75	1kHz
1 + 2	5GHz 802.11n HT40 for Ant. 1	86.88	662	1.51	3kHz
1 + 2	5GHz 802.11n HT40 for Ant. 2	86.39	660	1.52	3kHz
1 + 2	5GHz 802.11ac VHT80 for Ant. 1	76.39	330	3.03	10kHz
1 + 2	5GHz 802.11ac VHT80 for Ant. 2	76.50	332	3.01	10kHz

<Ant. 1>
802.11a


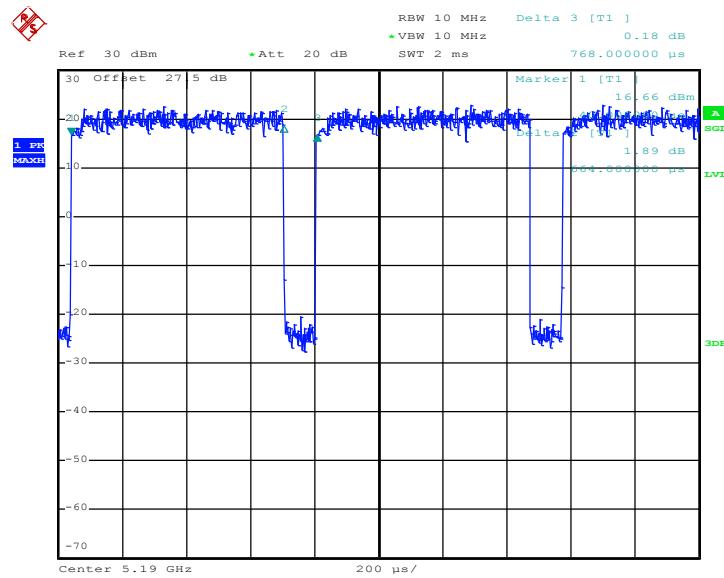
Date: 25.JUL.2017 15:53:46

802.11n HT20


Date: 25.JUL.2017 16:04:55

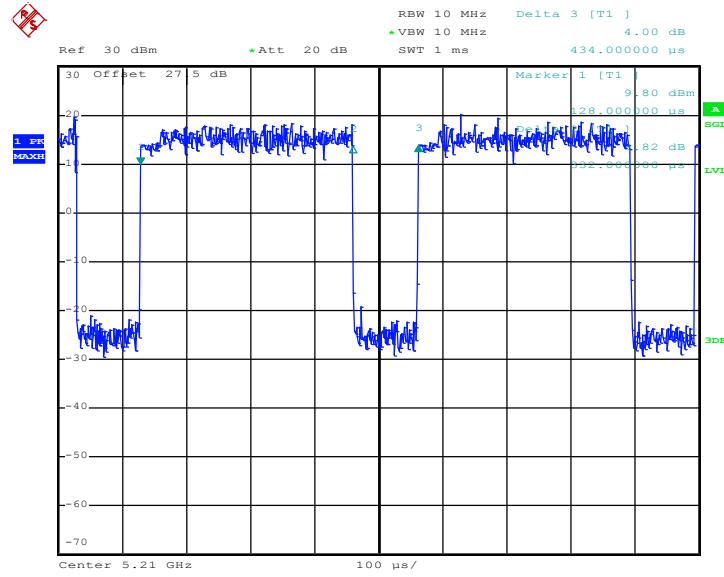


802.11n HT40



Date: 25.JUL.2017 16:17:57

802.11ac VHT80

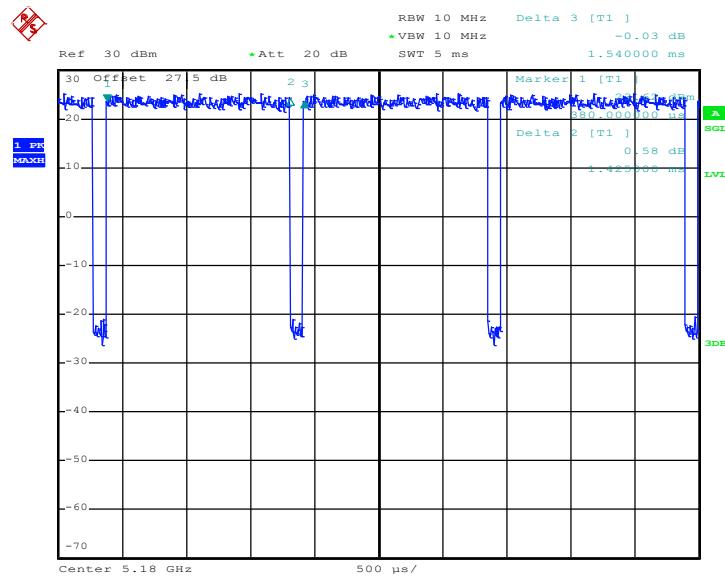


Date: 25.JUL.2017 17:14:10



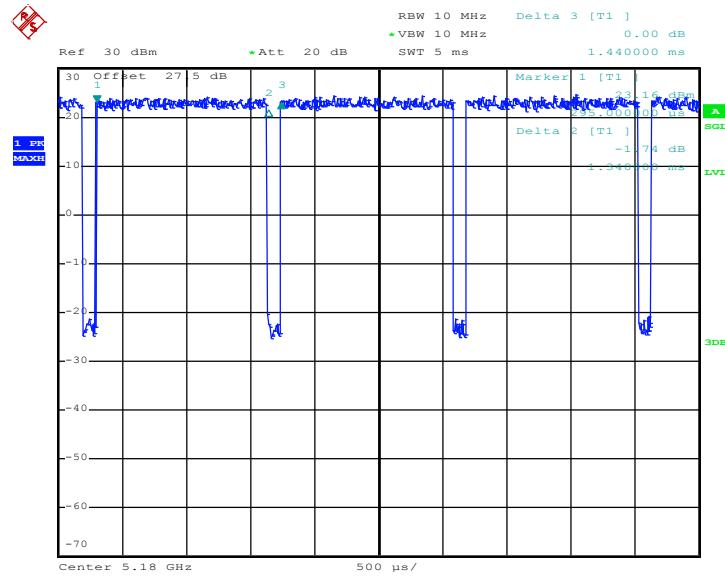
<Ant. 2>

802.11a



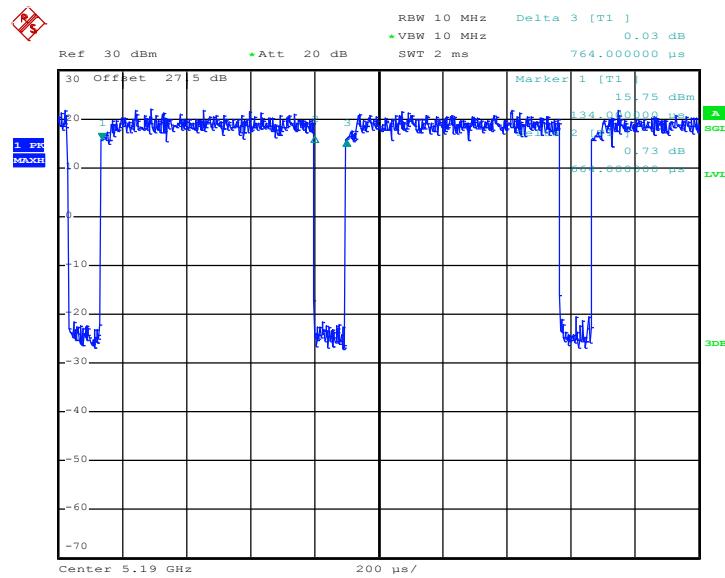
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802.11n HT20



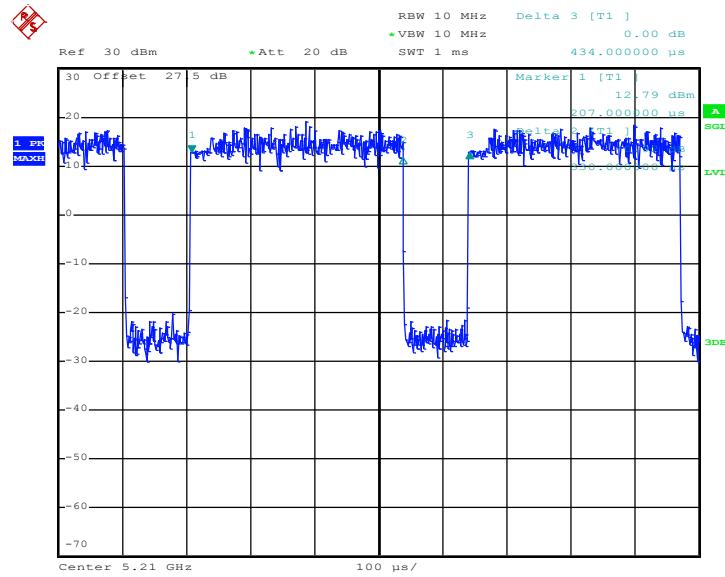
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802.11n HT40



Date: 25.JUL.2017 16:20:30

802.11ac VHT80

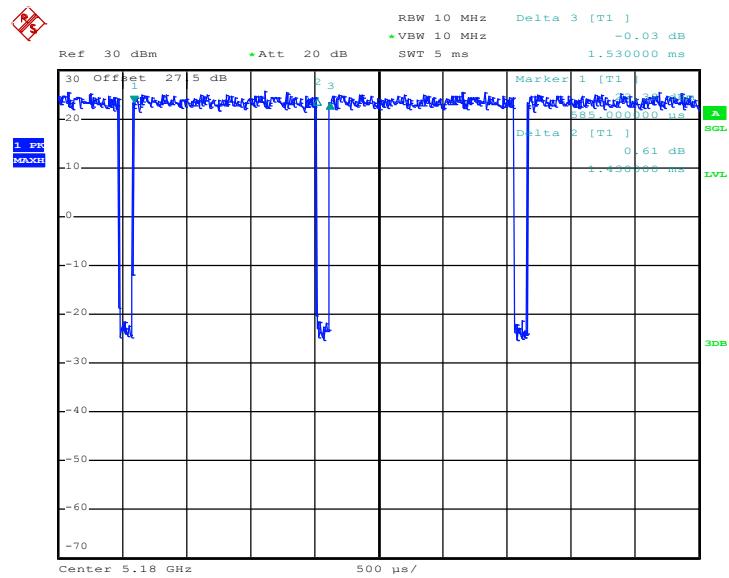


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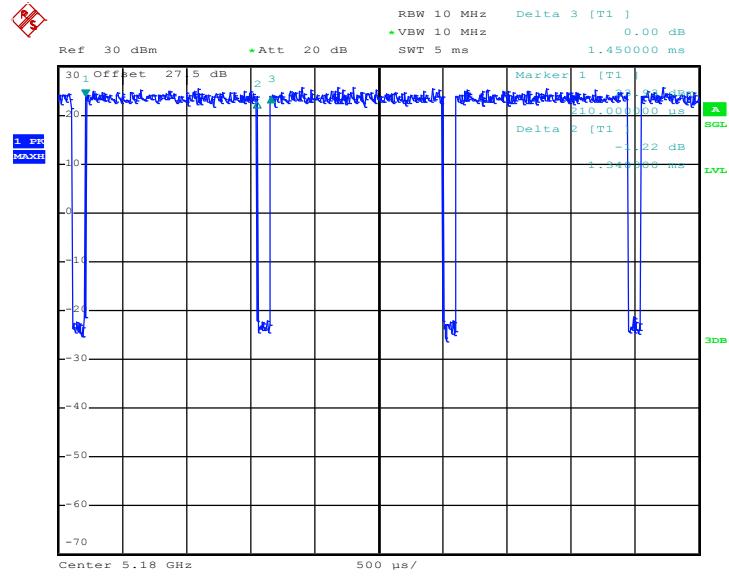
MIMO <Ant. 1>

802.11a



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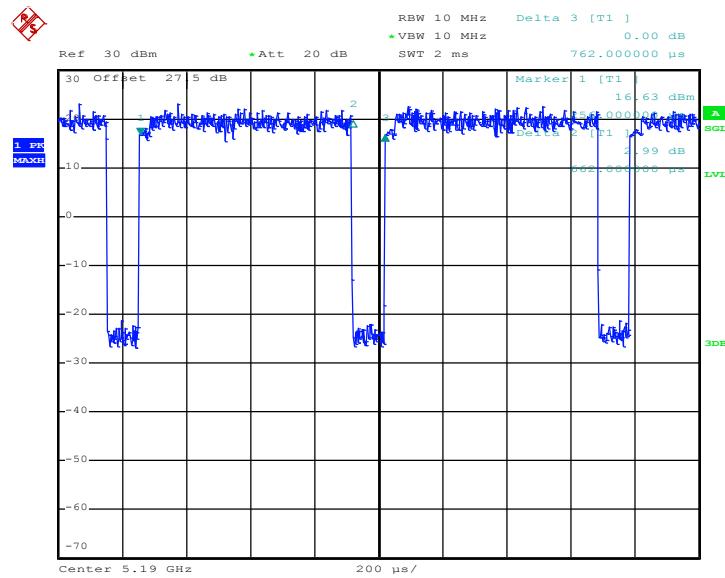
802.11n HT20



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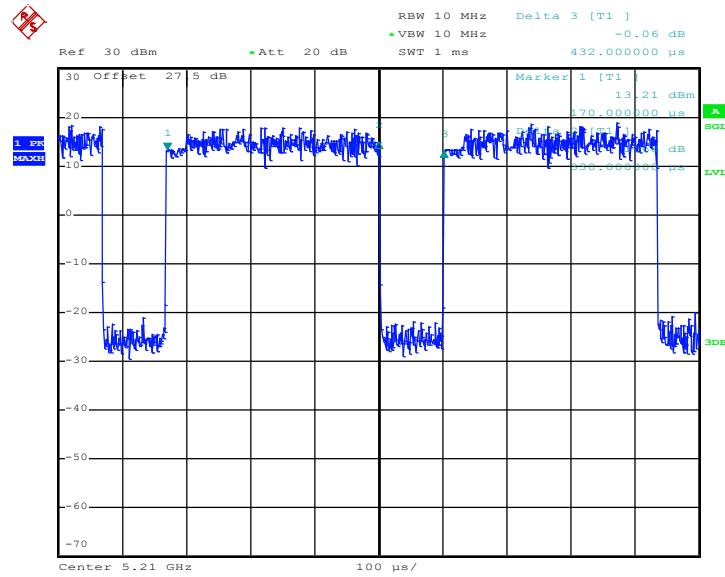


802.11n HT40

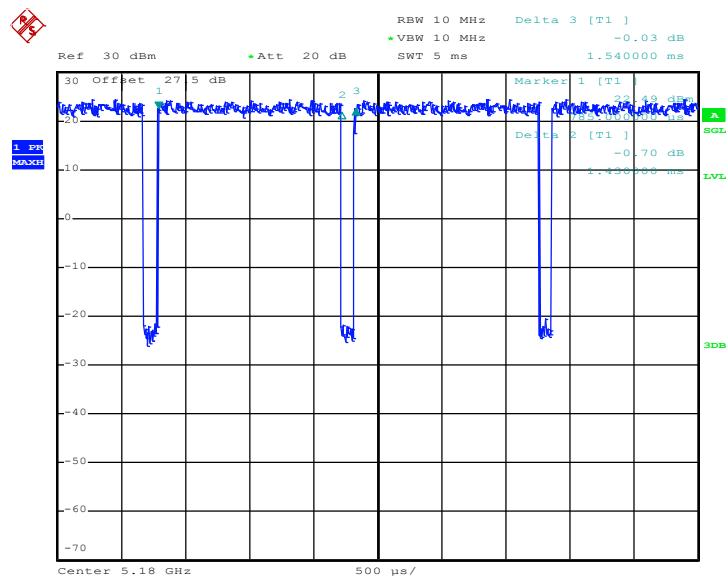


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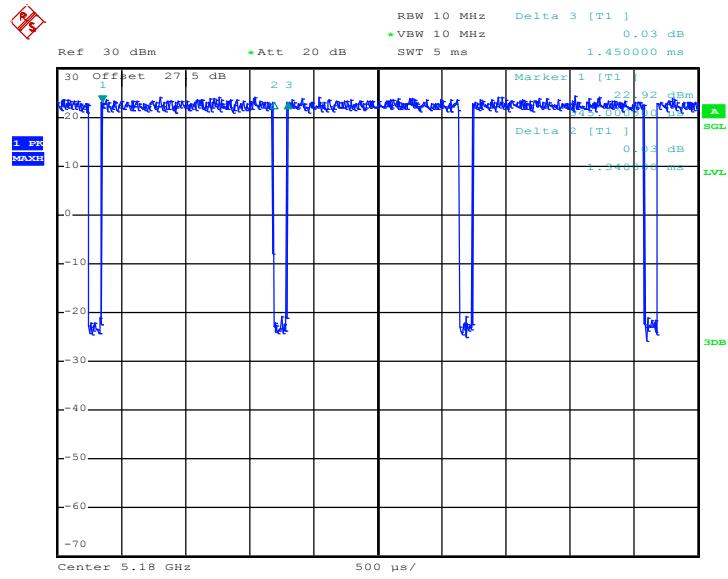
802.11ac VHT80



Date: 25.JUL.2017 17:27:09

MIMO <Ant. 2>
802.11a


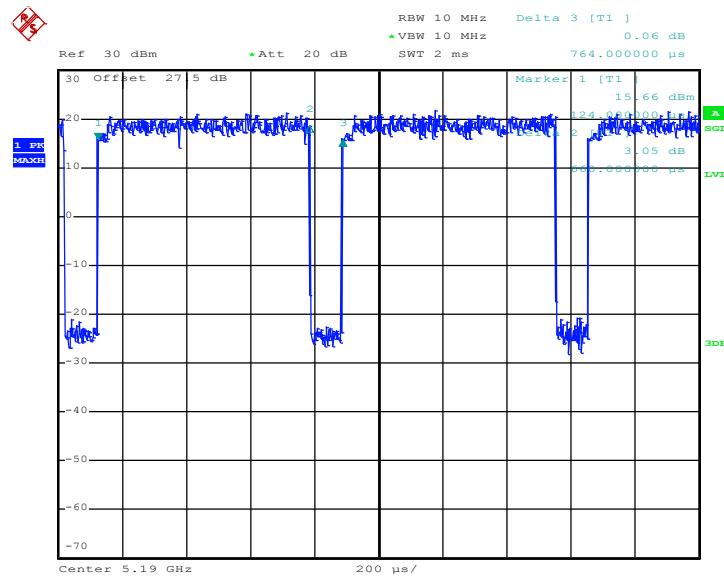
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802.11n HT20


Date: 25.JUL.2017 16:09:57

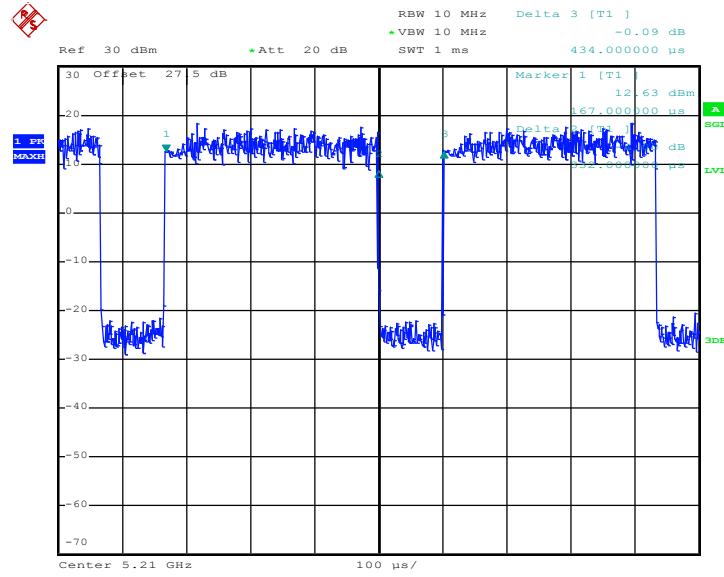


802.11n HT40



Date: 25.JUL.2017 16:22:59

802.11ac VHT80



Date: 25.JUL.2017 17:28:17