



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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REVISION HISTORY



SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result
3.1	15.403(i)	6dB, 26dB and 99% Occupied Bandwidth	> 500kHz	Pass
3.2	15.407(a)	Maximum Conducted Output Power	≤ 30 dBm	Pass
3.3	15.407(a)	Power Spectral Density	≤ 30 dBm/500kHz	Pass
3.4	15.407(b)	Unwanted Emissions	15.407(b)(4)(i) &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 Channel Frequency Range	5745 MHz ~ 5825 MHz <5745 MHz ~ 5825 MHz> <Ant. 1> 802.11a : 19.96 dBm / 0.0991 W 802.11n HT20 : 20.25 dBm / 0.1059 W 802.11n HT40 : 20.70 dBm / 0.1175 W 802.11ac VHT20: 20.21 dBm / 0.1050 W 802.11ac VHT40: 20.64 dBm / 0.1159 W 802.11ac VHT80: 18.46 dBm / 0.0701 W <Ant. 2> 802.11a : 19.42 dBm / 0.0875 W 802.11n HT20 : 20.07 dBm / 0.1016 W 802.11n HT40 : 19.81 dBm / 0.0957 W 802.11ac VHT20: 20.04 dBm / 0.1009 W 802.11ac VHT40: 19.78 dBm / 0.0951 W 802.11ac VHT80: 19.39 dBm / 0.0869 W MIMO <Ant. 1 + 2> 802.11a : 22.78 dBm / 0.01897 W 802.11n HT20 : 23.03 dBm / 0.2009 W 802.11n HT40 : 23.08 dBm / 0.2032 W 802.11ac VHT20: 22.78 dBm / 0.1897 W 802.11ac VHT40: 23.04 dBm / 0.2014 W 802.11ac VHT80: 21.07 dBm / 0.1279 W
Maximum Output Power	<Ant. 1> 802.11a : 20.45 MHz 802.11n HT20 : 21.45 MHz 802.11n HT40 : 55.10 MHz 802.11ac VHT80 : 76.08 MHz <Ant. 2> 802.11a : 20.85 MHz 802.11n HT20 : 22.40 MHz 802.11n HT40 : 48.20 MHz 802.11ac VHT80 : 76.68 MHz MIMO <Ant. 1> 802.11a : 23.20 MHz 802.11n HT20 : 51.85 MHz 802.11n HT40 : 50.30 MHz 802.11ac VHT80 : 75.96 MHz MIMO <Ant. 2> 802.11a : 20.15 MHz 802.11n HT20 : 21.70 MHz 802.11n HT40 : 40.30 MHz 802.11ac VHT80 : 76.20 MHz
99% Occupied Bandwidth	



Type of Modulation	802.11a/n : OFDM (BPSK / QPSK / 16QAM / 64QAM) 802.11ac : OFDM (BPSK / QPSK / 16QAM / 64QAM / 256QAM)		
Antenna Type / Gain	Ant. 1 : Fixed internal Antenna with gain 5.30 dBi Ant. 2 : Fixed internal Antenna with gain 4.50 dBi		
Antenna Function Description		Ant. 1	Ant. 2
	802.11 a/n/ac	V	V
802.11 a/n/ac MIMO		V	V

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)
5725-5850 MHz Band 4 (U-NII-3)	149	5745	157	5785
	151*	5755	159*	5795
	153	5765	161	5805
	155#	5775	165	5825

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

AC Conducted Emission	Mode 1 : WLAN (5GHz) Link + Bluetooth Link + MPEG4 + Adapter 1		
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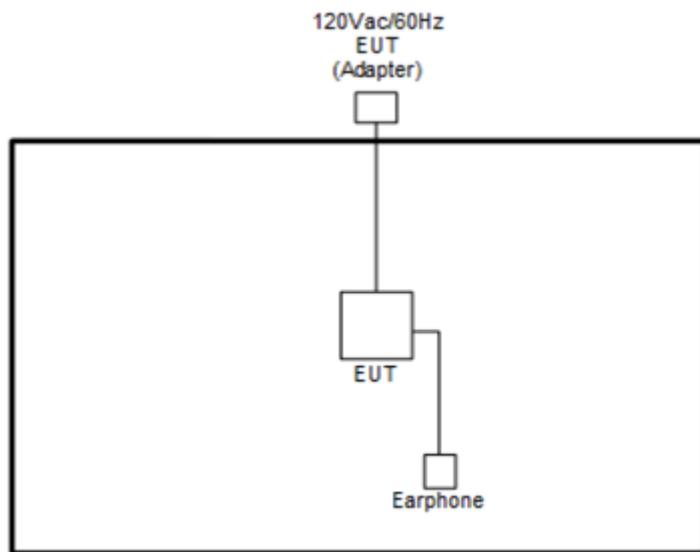
Ch. #		Band IV : 5725-5850 MHz		
		802.11a	802.11n HT20	802.11n HT40
L	Low	149	149	151
M	Middle	157	157	-
H	High	165	165	159

Ch. #		Band IV : 5725-5850 MHz		
		802.11ac VHT20	802.11ac VHT40	802.11ac VHT80
L	Low	149	151	-
M	Middle	157	-	155
H	High	165	159	-

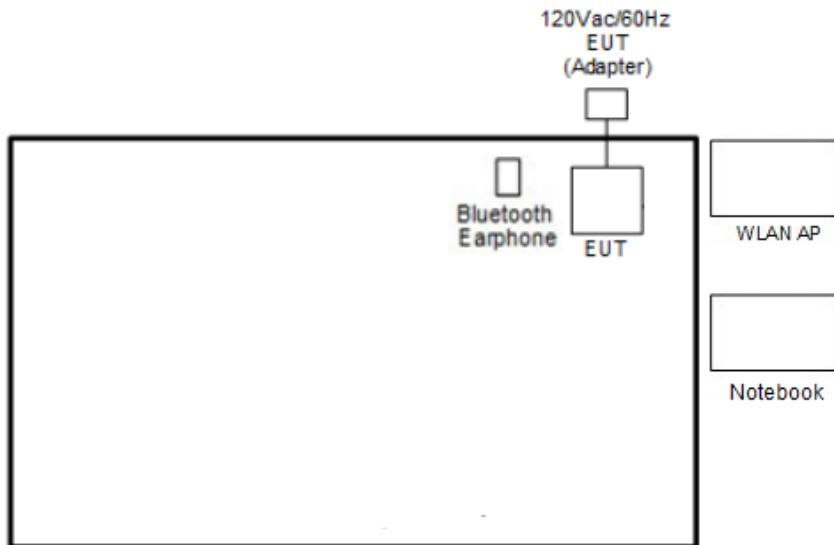


2.3 Connection Diagram of Test System

<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.

$$\text{Offset(dB)} = \text{RF cable loss(dB)} + \text{attenuator factor(dB)}.$$

$$= 4.2 + 10 = 14.2 \text{ (dB)}$$



3 Test Result

3.1 6dB and 26dB and 99% Occupied Bandwidth Measurement

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

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

26dB and 99% Occupied bandwidth are reporting only.

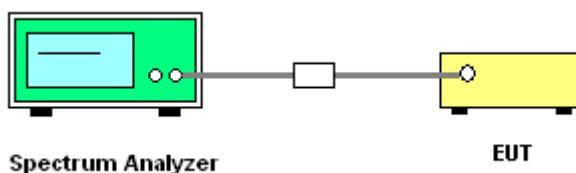
3.1.2 Measuring Instruments

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 for the band 5.725-5.85GHz
2. Set RBW = 100kHz.
3. Set the VBW $\geq 3 \times$ RBW.
4. Detector = Peak.
5. Trace mode = max hold
6. Measure the maximum width of the emission that is 6 dB down from the peak of the emission.
7. Measure and record the results in the test report.

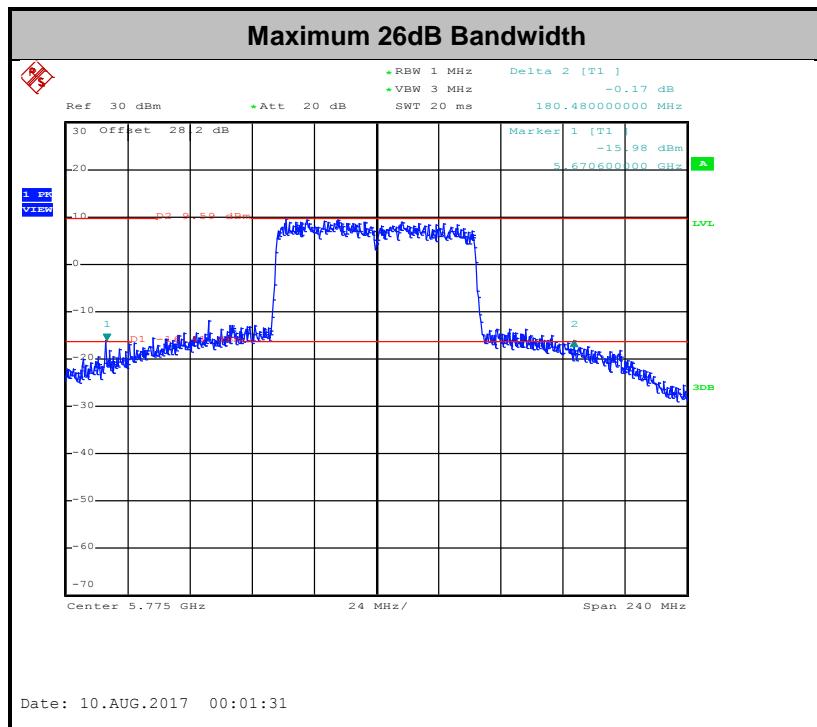
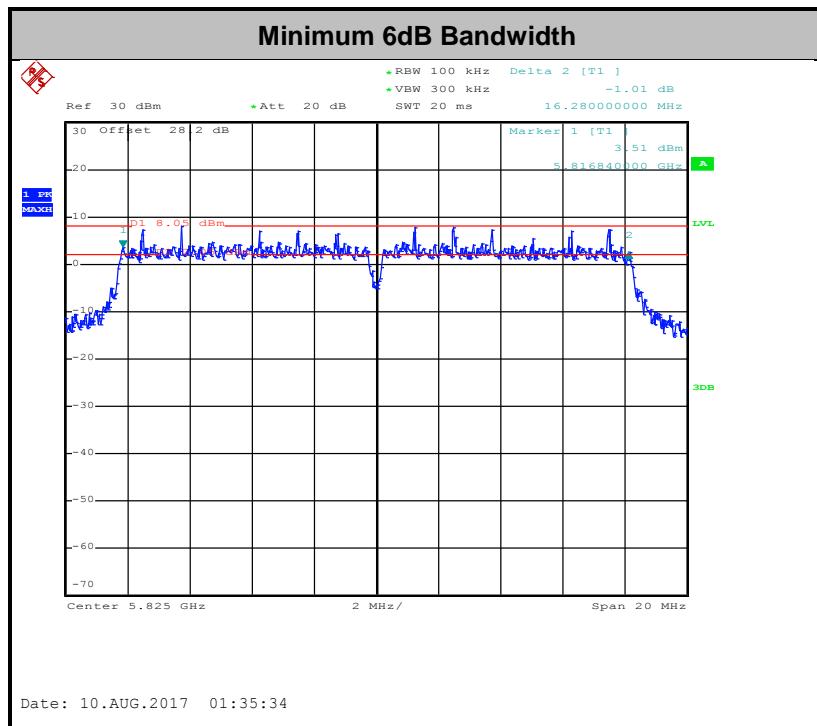
3.1.4 Test Setup

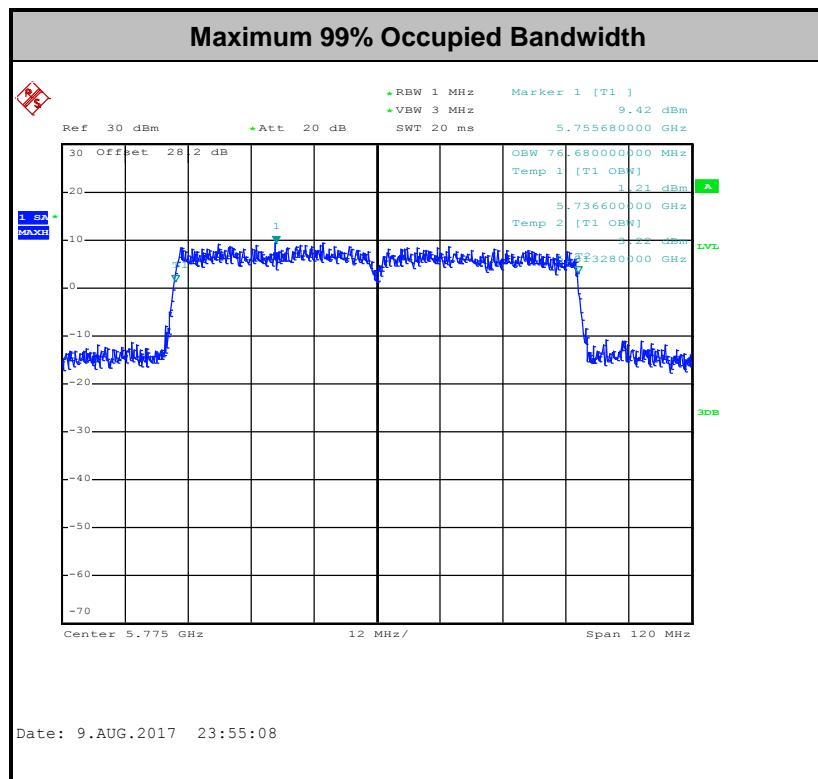




3.1.5 Test Result of 6dB Bandwidth

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

For the band 5.725–5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W.

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.

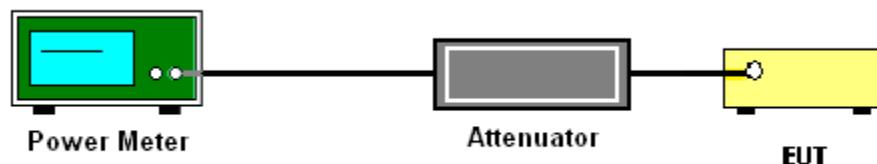
3.2.3 Test Procedures

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

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

For the band 5.725–5.85 GHz, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz 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.

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 = 300 kHz.
- Set VBW \geq 1 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 $10 \log(500\text{kHz}/\text{RBW})$ to the test result.
- 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.

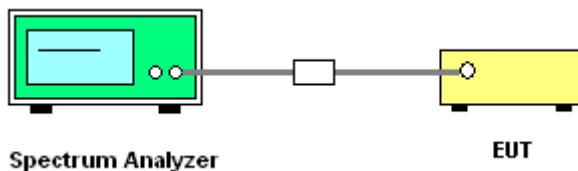


1. The RF output of EUT was connected to the spectrum analyzer by a low loss cable.
2. Each plot has already offset with cable loss, and attenuator loss. Measure the PPSD and record it.
3. For MIMO mode, calculation method follows FCC KDB 662911 D01 Multiple Transmitter Output v02r01.

Method (c): Measure and add $10 \log(N_{ANT})$ dB.

With this technique, spectrum measurements are performed at each output of the device, but rather than summing the spectra or the spectral peaks across the outputs, the quantity $10 \log(N_{ANT})$ dB is added to each spectrum value before comparing to the emission limit. The addition of $10 \log(N_{ANT})$ dB serves to apportion the emission limit among the N_{ANT} outputs so that each output is permitted to contribute no more than $1/N_{ANT}^{\text{th}}$ of the PSD limit.

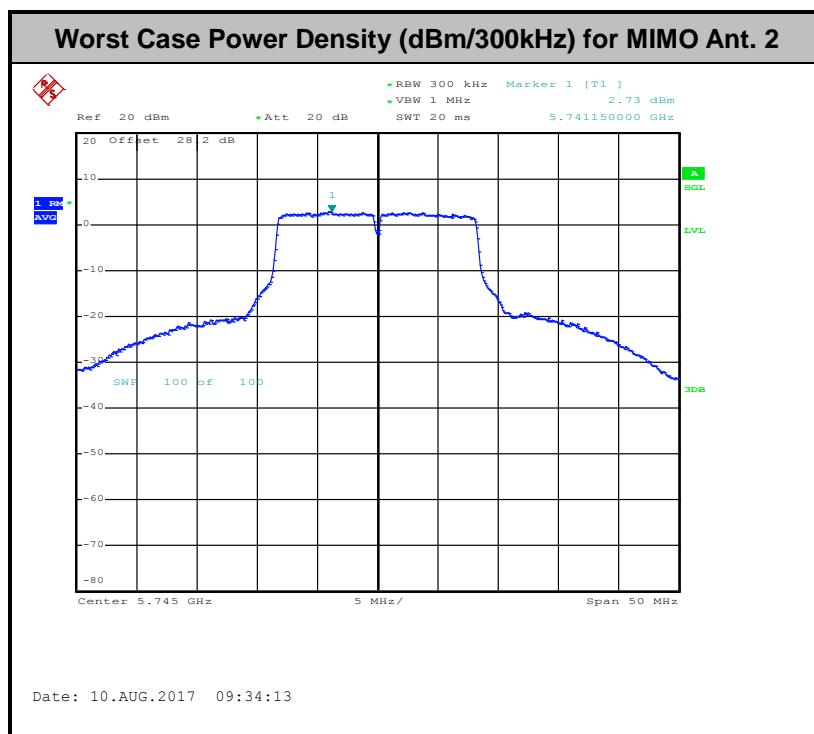
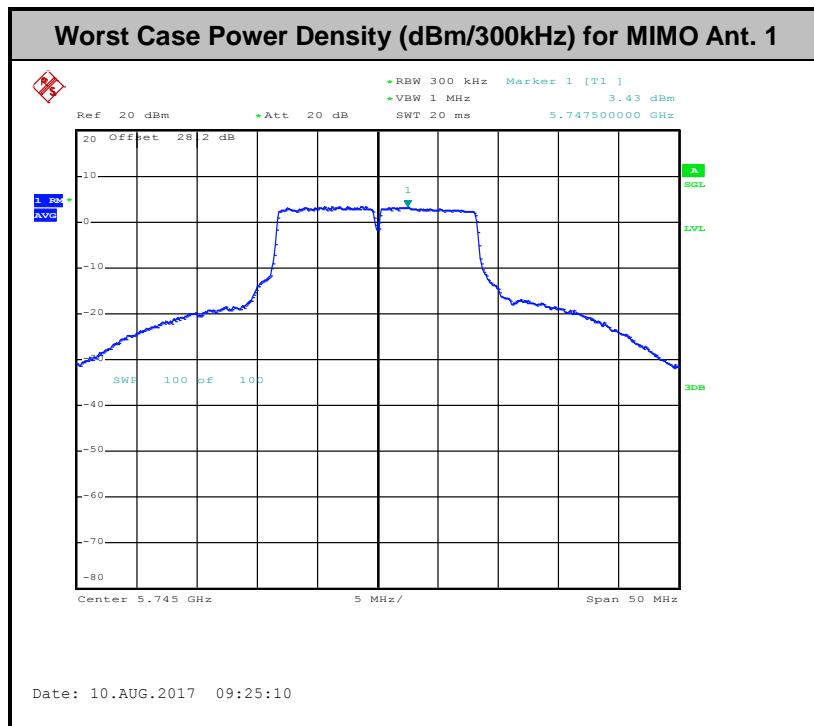
3.3.4 Test Setup





3.3.5 Test Result of Power Spectral Density

Please refer to Appendix A.





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 5.725-5.85 GHz band:

15.407(b)(4)(i) All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

- (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.

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



EIRP (dBm)	Field Strength at 3m (dB μ V/m)
-17	78.3
-27	68.3

(3) KDB789033 D02 v01r04 G)2)c)

- (i) Sections 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

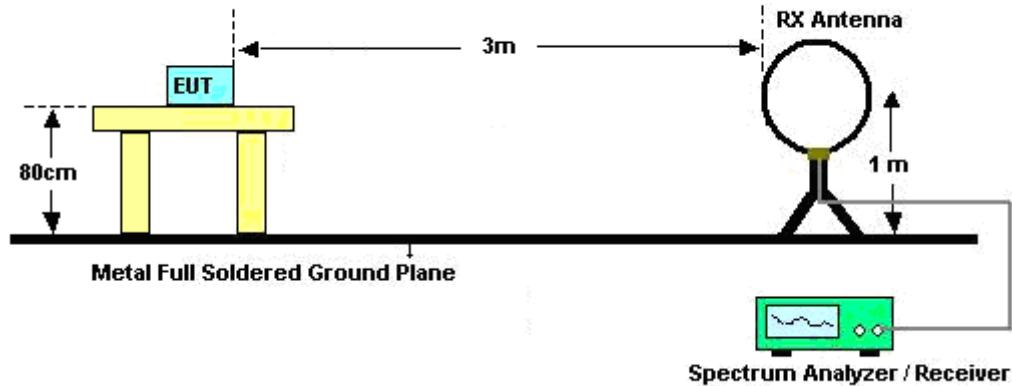
(3) Procedures for Average Unwanted Emissions Measurements Above 1000MHz

- 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.

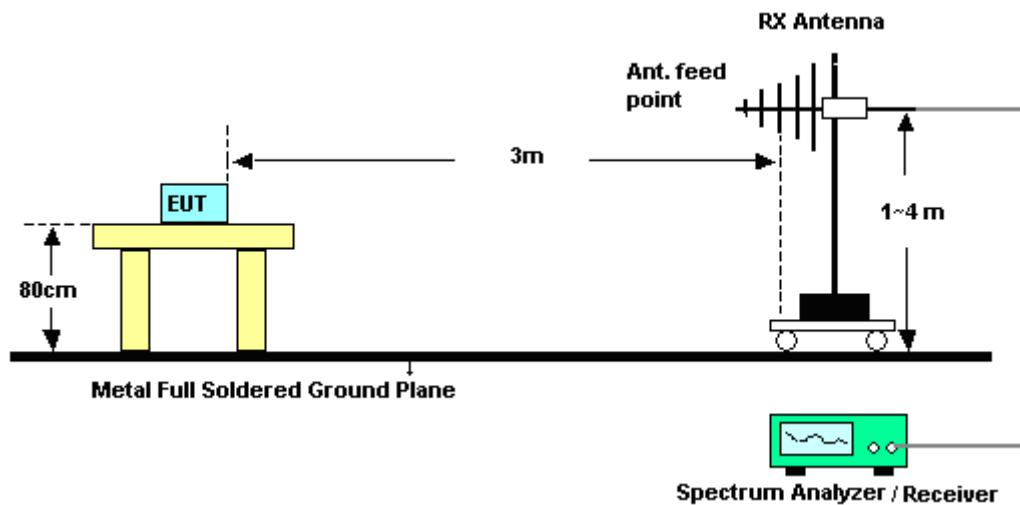
2. The EUT was placed on a turntable with 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz respectively above ground.
3. The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
4. The antenna is a broadband 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

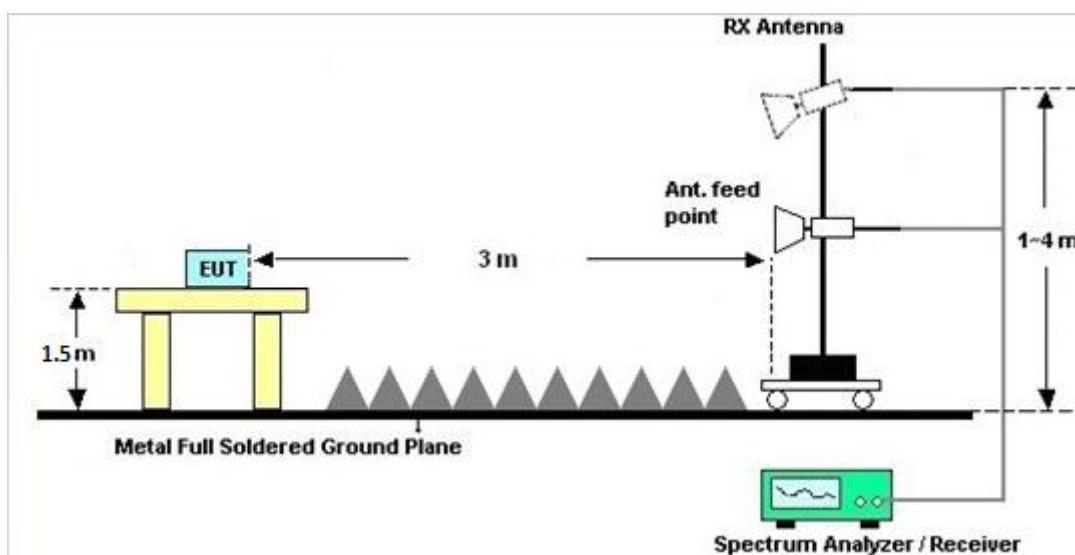
For radiated emissions below 30MHz



For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz





3.4.5 Test Results of Radiated 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 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 Unwanted Radiated Emission (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.

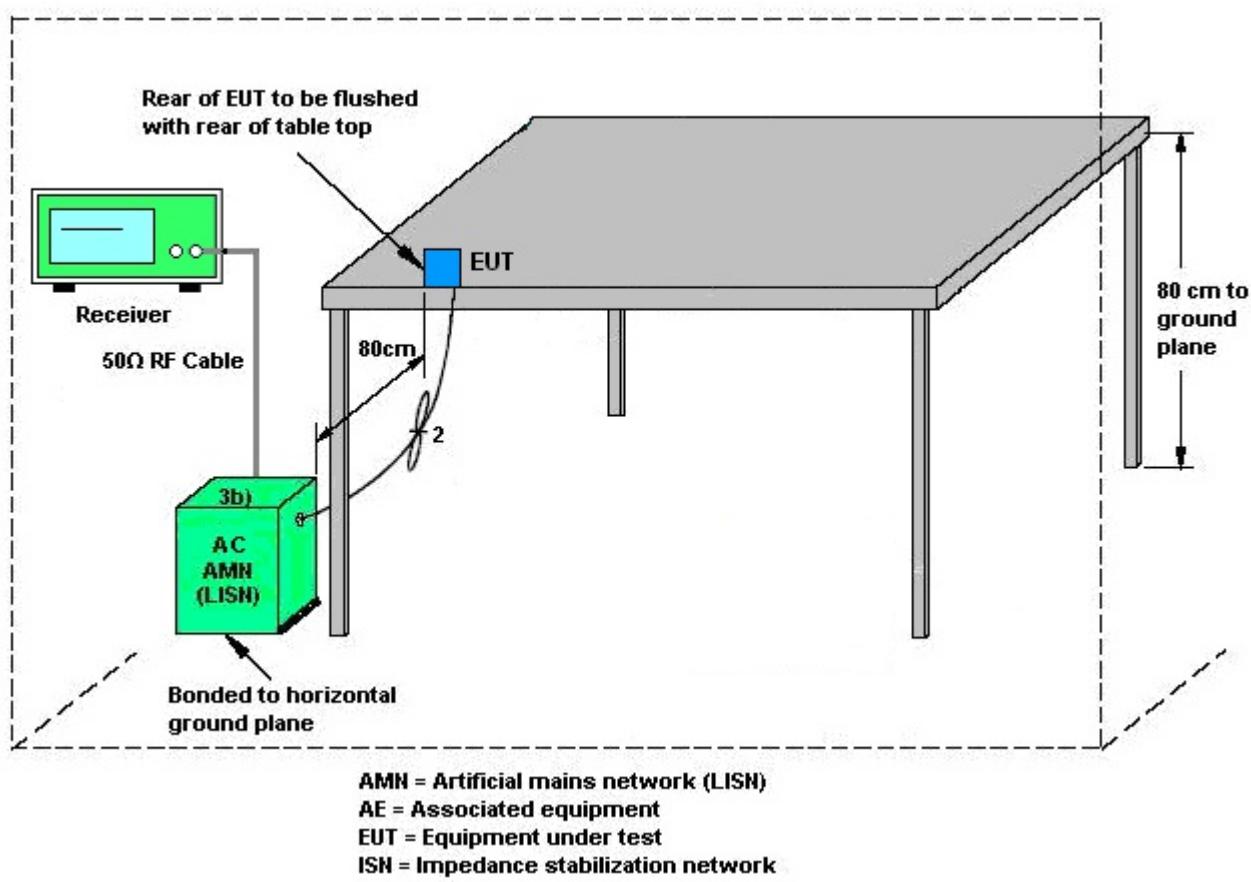
3.5.2 Measuring Instruments

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.

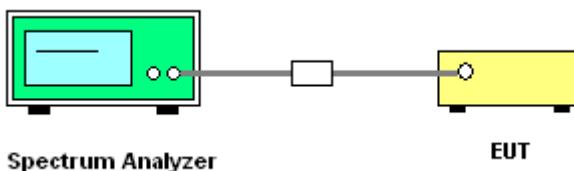
3.6.2 Measuring Instruments

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.



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.

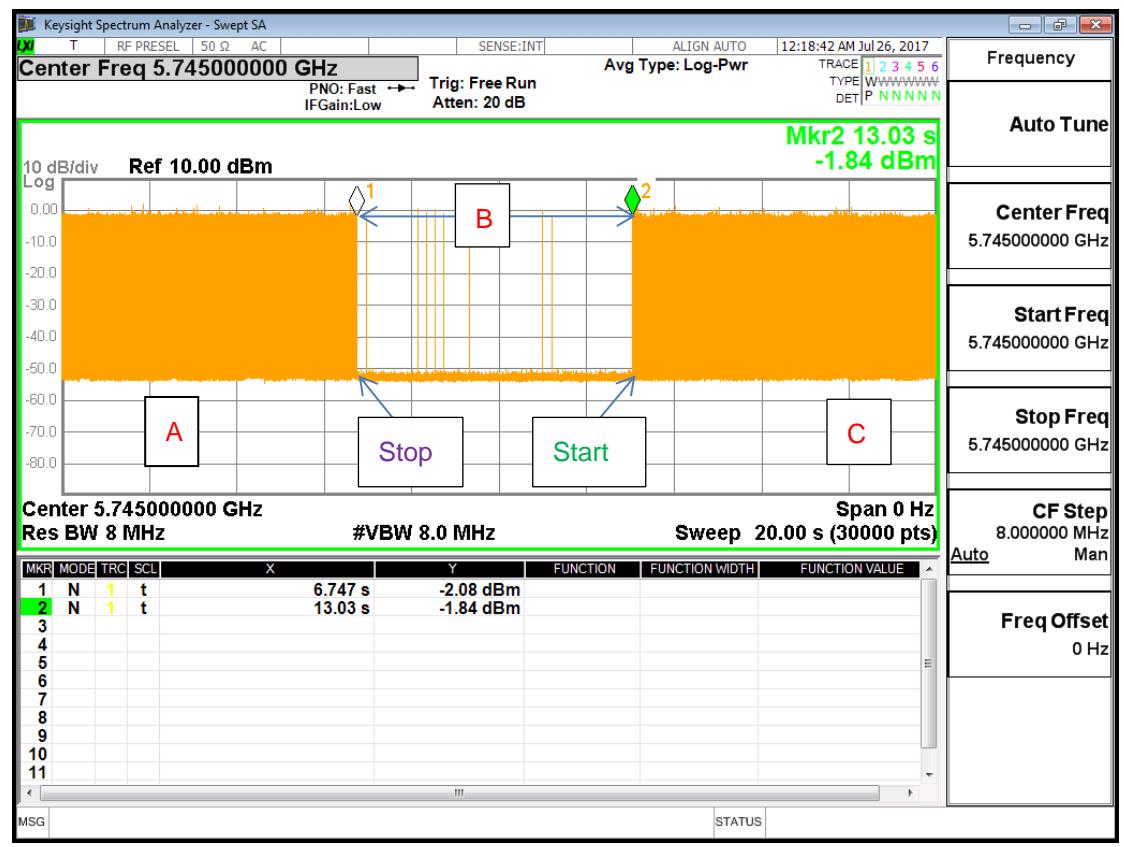
While the EUT is not transmitting any information, the EUT can automatically discontinue transmission and become standby mode for power saving.

- 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



5745MHz



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



3.8 Antenna Requirements

3.8.1 Standard Applicable

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

3.8.2 Antenna Anti-Replacement Construction

An embedded-in antenna design is used.

3.8.3 Antenna Gain

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.

	Ant 1 (dBi)	Ant 2 (dBi)	DG for Power (dBi)	DG for PSD (dBi)	Power Limit Reduction (dB)	PSD Limit Reduction (dB)
Band IV	5.30	4.50	5.30	7.92	0.00	1.92

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-00101800	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:	Aking Chang / Tommy Lee	Temperature:	21~25	°C
Test Date:	2017/7/25~2017/8/10	Relative Humidity:	51~54	%

TEST RESULTS DATA
6dB and 26dB EBW and 99% OBW

Band IV													
Mod.	Data Rate	N _{TX}	CH.	Freq. (MHz)	99% Bandwidth (MHz)		26dB Bandwidth (MHz)		6 dB Bandwidth (MHz)		6 dB Bandwidth Min. Limit (MHz)		Pass/Fail
					Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	
11a	6Mbps	1	149	5745	19.90	20.85	42.24	40.62	16.30	16.30	0.5	0.5	Pass
11a	6Mbps	1	157	5785	20.35	19.50	42.36	37.68	16.30	16.34	0.5	0.5	Pass
11a	6Mbps	1	165	5825	20.45	19.35	42.72	37.92	16.32	16.28	0.5	0.5	Pass
HT20	MCS0	1	149	5745	21.45	22.40	47.78	47.52	17.54	17.30	0.5	0.5	Pass
HT20	MCS0	1	157	5785	20.35	21.40	46.68	47.58	17.52	17.52	0.5	0.5	Pass
HT20	MCS0	1	165	5825	20.80	21.50	48.06	46.98	17.56	17.52	0.5	0.5	Pass
HT40	MCS0	1	151	5755	55.10	42.80	95.28	95.16	36.28	36.04	0.5	0.5	Pass
HT40	MCS0	1	159	5795	53.80	48.20	96.84	96.84	36.32	36.32	0.5	0.5	Pass
VHT80	MCS0	1	155	5775	76.08	76.68	153.60	177.12	75.20	75.44	0.5	0.5	Pass
11a	6Mbps	2	149	5745	21.85	20.00	45.00	42.00	16.32	16.32	0.5		Pass
11a	6Mbps	2	157	5785	23.20	20.15	44.88	43.56	16.32	16.32	0.5		Pass
11a	6Mbps	2	165	5825	21.95	19.50	43.80	41.52	16.32	16.32	0.5		Pass
HT20	MCS0	2	149	5745	21.55	21.70	46.38	46.14	17.56	17.56	0.5		Pass
HT20	MCS0	2	157	5785	21.55	20.15	48.18	46.02	17.24	17.54	0.5		Pass
HT20	MCS0	2	165	5825	51.85	19.95	46.08	45.72	17.52	17.56	0.5		Pass
HT40	MCS0	2	151	5755	50.30	39.00	97.20	92.64	35.88	36.32	0.5		Pass
HT40	MCS0	2	159	5795	49.40	40.30	94.92	89.04	36.00	36.32	0.5		Pass
VHT80	MCS0	2	155	5775	75.96	76.20	120.24	180.48	75.76	75.76	0.5		Pass

TEST RESULTS DATA
Average Power Table

Band IV														
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	149	5745	0.29	0.34	19.90	19.40		30.00	30.00	5.30	4.50	
11a	6Mbps	1	157	5785	0.29	0.34	19.96	19.42		30.00	30.00	5.30	4.50	
11a	6Mbps	1	165	5825	0.29	0.34	19.89	19.16		30.00	30.00	5.30	4.50	
HT20	MCS0	1	149	5745	0.34	0.31	20.23	19.99		30.00	30.00	5.30	4.50	
HT20	MCS0	1	157	5785	0.34	0.31	20.25	20.07		30.00	30.00	5.30	4.50	
HT20	MCS0	1	165	5825	0.34	0.31	20.17	19.55		30.00	30.00	5.30	4.50	
HT40	MCS0	1	151	5755	0.63	0.61	20.70	19.80		30.00	30.00	5.30	4.50	
HT40	MCS0	1	159	5795	0.63	0.61	20.64	19.81		30.00	30.00	5.30	4.50	
VHT20	MCS0	1	149	5745	0.34	0.34	20.14	19.70		30.00	30.00	5.30	4.50	
VHT20	MCS0	1	157	5785	0.34	0.34	20.21	20.04		30.00	30.00	5.30	4.50	
VHT20	MCS0	1	165	5825	0.34	0.34	20.08	19.50		30.00	30.00	5.30	4.50	
VHT40	MCS0	1	151	5755	0.63	0.63	20.64	19.76		30.00	30.00	5.30	4.50	
VHT40	MCS0	1	159	5795	0.63	0.63	20.61	19.78		30.00	30.00	5.30	4.50	
VHT80	MCS0	1	155	5775	1.16	1.19	18.46	19.39		30.00	30.00	5.30	4.50	
11a	6Mbps	2	149	5745	0.29	0.32	19.94	19.44	22.71	30.00		5.30		
11a	6Mbps	2	157	5785	0.29	0.32	20.09	19.42	22.78	30.00		5.30		
11a	6Mbps	2	165	5825	0.29	0.32	19.79	18.97	22.41	30.00		5.30		
HT20	MCS0	2	149	5745	0.25	0.25	20.13	19.91	23.03	30.00		5.30		
HT20	MCS0	2	157	5785	0.25	0.25	20.08	19.47	22.80	30.00		5.30		
HT20	MCS0	2	165	5825	0.25	0.25	19.72	19.13	22.44	30.00		5.30		
HT40	MCS0	2	151	5755	0.61	0.64	20.43	19.68	23.08	30.00		5.30		
HT40	MCS0	2	159	5795	0.61	0.64	20.33	19.62	23.00	30.00		5.30		
VHT20	MCS0	2	149	5745	0.34	0.33	20.03	19.50	22.78	30.00		5.30		
VHT20	MCS0	2	157	5785	0.34	0.33	20.00	19.53	22.78	30.00		5.30		
VHT20	MCS0	2	165	5825	0.34	0.33	19.72	18.98	22.37	30.00		5.30		
VHT40	MCS0	2	151	5755	0.63	0.61	20.33	19.71	23.04	30.00		5.30		
VHT40	MCS0	2	159	5795	0.63	0.61	20.24	19.21	22.77	30.00		5.30		
VHT80	MCS0	2	155	5775	1.17	1.16	17.82	18.28	21.07	30.00		5.30		

TEST RESULTS DATA
Power Spectral Density

Band IV																
Mod.	Data Rate	N _{TX}	CH.	Freq. (MHz)	Duty Factor (dB)		10log (500kHz /RBW) Factor (dB)		Average Power Density (dBm/500kHz)			Average PSD Limit (dBm/500kHz)		DG (dBi)		Pass /Fail
					Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2	
11a	6Mbps	1	149	5745	0.29	0.34	2.22	2.22	6.30	5.62		30.00	30.00	5.30	4.50	Pass
11a	6Mbps	1	157	5785	0.29	0.34	2.22	2.22	6.01	4.65		30.00	30.00	5.30	4.50	Pass
11a	6Mbps	1	165	5825	0.29	0.34	2.22	2.22	5.42	4.60		30.00	30.00	5.30	4.50	Pass
HT20	MCS0	1	149	5745	0.34	0.31	2.22	2.22	6.03	5.71		30.00	30.00	5.30	4.50	Pass
HT20	MCS0	1	157	5785	0.34	0.31	2.22	2.22	5.56	5.21		30.00	30.00	5.30	4.50	Pass
HT20	MCS0	1	165	5825	0.34	0.31	2.22	2.22	4.96	5.05		30.00	30.00	5.30	4.50	Pass
HT40	MCS0	1	151	5755	0.63	0.61	2.22	2.22	3.57	2.05		30.00	30.00	5.30	4.50	Pass
HT40	MCS0	1	159	5795	0.63	0.61	2.22	2.22	2.85	1.86		30.00	30.00	5.30	4.50	Pass
VHT80	MCS0	1	155	5775	1.16	1.19	2.22	2.22	-1.25	-0.73		30.00	30.00	5.30	4.50	Pass
11a	6Mbps	2	149	5745	0.29	0.32	2.22	2.22	5.94	5.27	8.95	28.08		7.92		Pass
11a	6Mbps	2	157	5785	0.29	0.32	2.22	2.22	5.81	5.02	8.82	28.08		7.92		Pass
11a	6Mbps	2	165	5825	0.29	0.32	2.22	2.22	5.41	4.71	8.42	28.08		7.92		Pass
HT20	MCS0	2	149	5745	0.25	0.25	2.22	2.22	5.53	5.30	8.54	28.08		7.92		Pass
HT20	MCS0	2	157	5785	0.25	0.25	2.22	2.22	5.35	4.40	8.36	28.08		7.92		Pass
HT20	MCS0	2	165	5825	0.25	0.25	2.22	2.22	4.65	4.62	7.66	28.08		7.92		Pass
HT40	MCS0	2	151	5755	0.61	0.64	2.22	2.22	2.61	1.70	5.62	28.08		7.92		Pass
HT40	MCS0	2	159	5795	0.61	0.64	2.22	2.22	2.39	1.21	5.40	28.08		7.92		Pass
VHT80	MCS0	2	155	5775	1.17	1.16	2.22	2.22	-1.80	-1.65	1.36	28.08		7.92		Pass

Note: PSD Sum = Max PSD(Ant. 1, Ant. 2) + 10 log (n)

TEST RESULTS DATA
Frequency Stability

Band IV										
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	149	5745	5745.000	0.000	0.00	35	12	
11a	6Mbps	1	149	5745	5745.000	0.000	0.00	0	12	
11a	6Mbps	1	149	5745	5745.050	0.050	8.70	20	12.6	
11a	6Mbps	1	149	5745	5745.000	0.000	0.00	20	11.4	
11a	6Mbps	1	149	5745	5745.000	0.000	0.00	20	12	



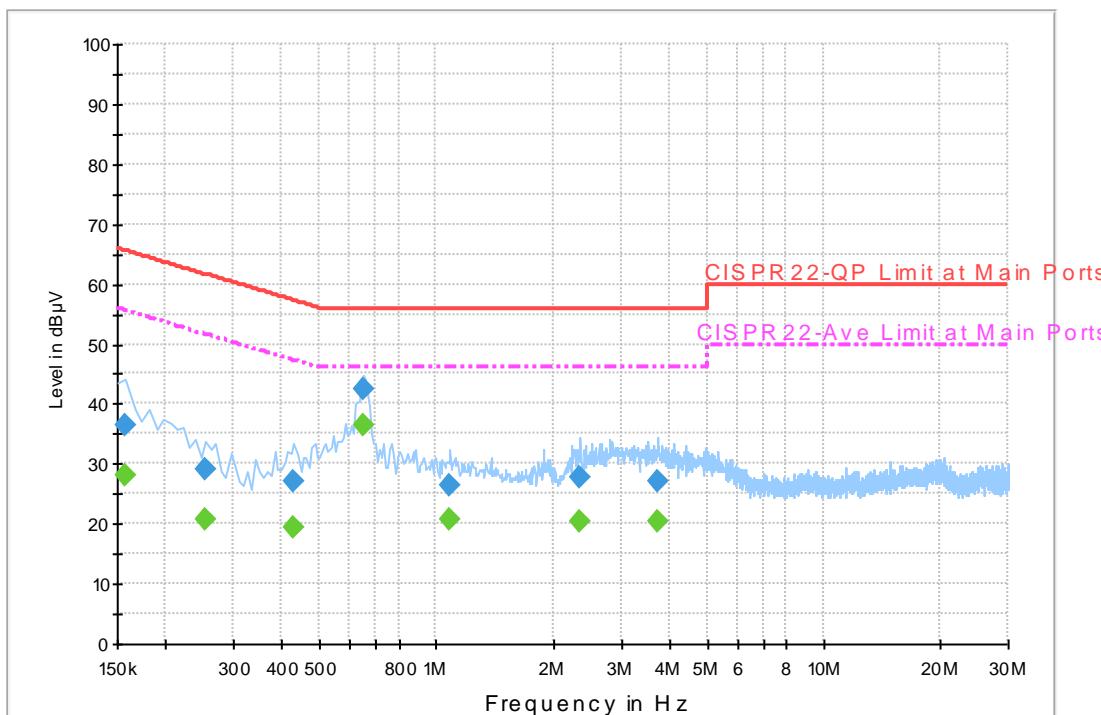
Appendix B. AC Conducted Emission Test Result

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

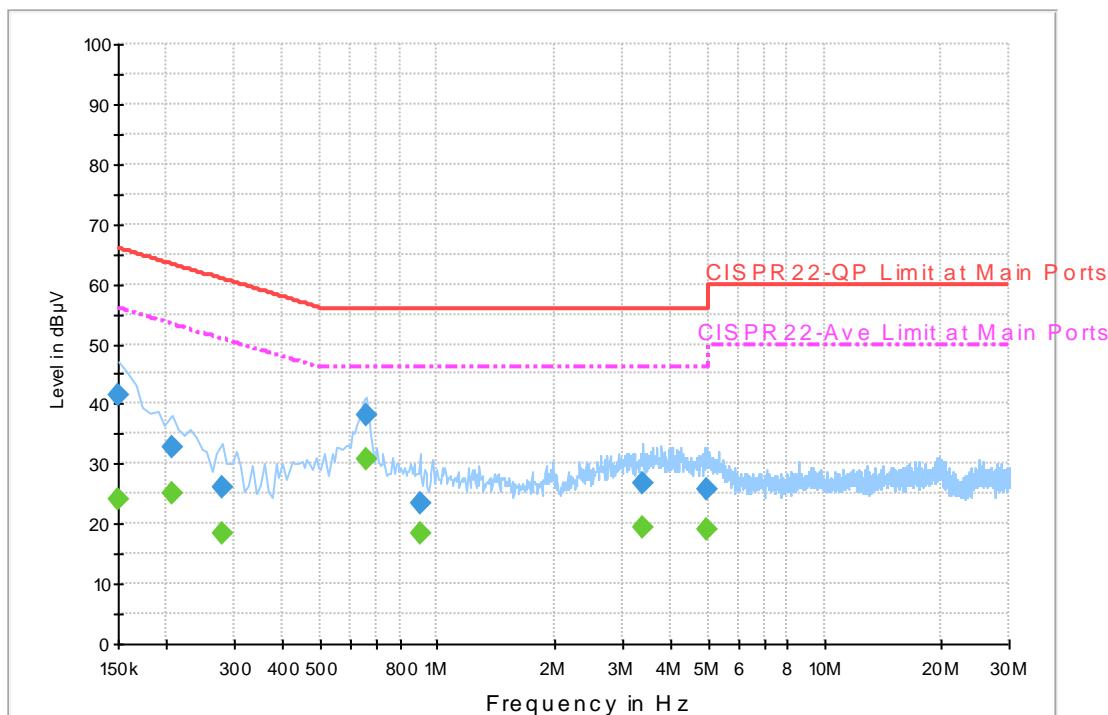
Final Result 2

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 4 - 5725~5850MHz

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 149 5745MHz		5637.8	51.2	-17	68.2	43.08	32.18	6.22	30.28	244	92	P	H
		5699.8	67.47	-37.58	105.05	59.26	32.28	6.23	30.3	244	92	P	H
		5718.4	74.43	-35.92	110.35	66.16	32.35	6.24	30.32	244	92	P	H
		5723.6	85.16	-33.85	119.01	76.89	32.35	6.24	30.32	244	92	P	H
	*	5745	114.73	-	-	106.44	32.38	6.24	30.33	244	92	P	H
	*	5745	107.24	-	-	98.95	32.38	6.24	30.33	244	92	A	H
		5631.4	52.02	-16.18	68.2	43.94	32.14	6.22	30.28	293	63	P	V
		5698.8	64.68	-39.64	104.32	56.47	32.28	6.23	30.3	293	63	P	V
		5719.4	75.2	-35.43	110.63	66.93	32.35	6.24	30.32	293	63	P	V
		5724.4	82.64	-38.19	120.83	74.37	32.35	6.24	30.32	293	63	P	V
	*	5745	114.94	-	-	106.65	32.38	6.24	30.33	293	63	P	V
	*	5745	106.94	-	-	98.65	32.38	6.24	30.33	293	63	A	V



802.11a CH 157 5785MHz		5647.2	49.24	-18.96	68.2	41.12	32.18	6.22	30.28	242	99	P	H
		5699.2	55.74	-48.87	104.61	47.53	32.28	6.23	30.3	242	99	P	H
		5706.8	58.84	-48.27	107.11	50.62	32.31	6.23	30.32	242	99	P	H
		5722.6	59.22	-57.51	116.73	50.95	32.35	6.24	30.32	242	99	P	H
	*	5785	114.79	-	-	106.45	32.45	6.25	30.36	242	99	P	H
	*	5785	107.31	-	-	98.97	32.45	6.25	30.36	242	99	A	H
		5852.8	59.86	-55.96	115.82	51.36	32.59	6.29	30.38	242	99	P	H
		5865.8	61.25	-46.52	107.77	52.73	32.62	6.3	30.4	242	99	P	H
		5901.2	53.93	-31.84	85.77	45.34	32.69	6.31	30.41	242	99	P	H
		5948.2	50.87	-17.33	68.2	42.17	32.8	6.33	30.43	242	99	P	H
		5624.2	49.35	-18.85	68.2	41.26	32.14	6.21	30.26	276	67	P	V
		5698.8	54.06	-50.26	104.32	45.85	32.28	6.23	30.3	276	67	P	V
		5714.8	57.52	-51.83	109.35	49.3	32.31	6.23	30.32	276	67	P	V
		5722.8	59.05	-58.13	117.18	50.78	32.35	6.24	30.32	276	67	P	V
	*	5785	114.65	-	-	106.31	32.45	6.25	30.36	276	67	P	V
	*	5785	106.85	-	-	98.51	32.45	6.25	30.36	276	67	A	V
		5850.6	56.13	-64.7	120.83	47.63	32.59	6.29	30.38	276	67	P	V
		5860.4	59.25	-50.04	109.29	50.74	32.62	6.29	30.4	276	67	P	V
		5886	51.79	-45.24	97.03	43.23	32.66	6.31	30.41	276	67	P	V
		5933	49.35	-18.85	68.2	40.69	32.76	6.32	30.42	276	67	P	V



	*	5825	114.36	-	-	105.9	32.56	6.27	30.37	246	100	P	H
802.11a CH 165 5825MHz	*	5825	106.88	-	-	98.42	32.56	6.27	30.37	246	100	A	H
		5852.4	74.92	-41.81	116.73	66.42	32.59	6.29	30.38	246	100	P	H
		5856.2	72.83	-37.63	110.46	64.3	32.62	6.29	30.38	246	100	P	H
		5887.6	64.14	-31.71	95.85	55.55	32.69	6.31	30.41	246	100	P	H
		5934.2	51.75	-16.45	68.2	43.08	32.76	6.33	30.42	246	100	P	H
	*	5825	113.41	-	-	104.95	32.56	6.27	30.37	298	66	P	V
	*	5825	106.09	-	-	97.63	32.56	6.27	30.37	298	66	A	V
		5850.2	73.87	-47.87	121.74	65.37	32.59	6.29	30.38	298	66	P	V
		5859	70.74	-38.94	109.68	62.23	32.62	6.29	30.4	298	66	P	V
		5876.2	62.79	-41.52	104.31	54.23	32.66	6.3	30.4	298	66	P	V
		5931.4	51.08	-17.12	68.2	42.42	32.76	6.32	30.42	298	66	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 4 5725~5850MHz

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 149 5745MHz		11490	54.81	-19.19	74	69.76	39.55	10.32	65.39	100	54	P	H
		11490	46.11	-7.89	54	61.06	39.55	10.32	65.39	100	54	A	H
		17235	52.83	-15.37	68.2	62.01	41.87	12.77	64.27	100	0	P	H
		11490	55.34	-18.66	74	70.29	39.55	10.32	65.39	206	32	P	V
		11490	46.2	-7.8	54	61.15	39.55	10.32	65.39	206	32	A	V
		17235	51.09	-17.11	68.2	60.27	41.87	12.77	64.27	100	0	P	V
802.11a CH 157 5785MHz		11570	54.59	-19.41	74	69.55	39.5	10.37	65.37	100	55	P	H
		11570	45.49	-8.51	54	60.45	39.5	10.37	65.37	100	55	A	H
		17355	53.41	-14.79	68.2	61.85	42.41	12.82	64.11	100	0	P	H
		11570	55.54	-18.46	74	70.5	39.5	10.37	65.37	217	32	P	V
		11570	46.34	-7.66	54	61.3	39.5	10.37	65.37	217	32	A	V
		17355	52.02	-16.18	68.2	60.46	42.41	12.82	64.11	100	0	P	V
802.11a CH 165 5825MHz		11650	54.7	-19.3	74	69.6	39.5	10.43	65.34	100	52	P	H
		11650	44.1	-9.9	54	59	39.5	10.43	65.34	100	52	A	H
		17475	51.82	-16.38	68.2	59.56	42.95	12.87	63.95	100	0	P	H
		11650	55.9	-18.1	74	70.8	39.5	10.43	65.34	220	32	P	V
		11650	45.23	-8.77	54	60.13	39.5	10.43	65.34	220	32	A	V
		17475	51.67	-16.53	68.2	59.41	42.95	12.87	63.95	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 4 5725~5850MHz

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 149 5745MHz		5624.6	50.84	-17.36	68.2	42.75	32.14	6.21	30.26	246	99	P	H
		5698.4	67.65	-36.37	104.02	59.44	32.28	6.23	30.3	246	99	P	H
		5719.8	75.38	-35.36	110.74	67.11	32.35	6.24	30.32	246	99	P	H
		5724.8	86.75	-34.99	121.74	78.48	32.35	6.24	30.32	246	99	P	H
	*	5745	114.65	-	-	106.36	32.38	6.24	30.33	246	99	P	H
	*	5745	106.86	-	-	98.57	32.38	6.24	30.33	246	99	A	H
		5645	51.73	-16.47	68.2	43.61	32.18	6.22	30.28	297	69	P	V
		5699.6	66.74	-38.17	104.91	58.53	32.28	6.23	30.3	297	69	P	V
		5720	77.54	-33.26	110.8	69.27	32.35	6.24	30.32	297	69	P	V
		5724.6	85.09	-36.2	121.29	76.82	32.35	6.24	30.32	297	69	P	V
	*	5745	114.14	-	-	105.85	32.38	6.24	30.33	297	69	P	V
	*	5745	107.03	-	-	98.74	32.38	6.24	30.33	297	69	A	V



		5607.2	48.1	-20.1	68.2	40.04	32.11	6.21	30.26	245	100	P	H
		5699.6	57.62	-47.29	104.91	49.41	32.28	6.23	30.3	245	100	P	H
		5703.6	58.15	-48.06	106.21	49.91	32.31	6.23	30.3	245	100	P	H
		5721.4	59.21	-54.78	113.99	50.94	32.35	6.24	30.32	245	100	P	H
	*	5785	114.11	-	-	105.77	32.45	6.25	30.36	245	100	P	H
	*	5785	106.77	-	-	98.43	32.45	6.25	30.36	245	100	A	H
		5851.8	57.58	-60.52	118.1	49.08	32.59	6.29	30.38	245	100	P	H
		5858	62.18	-47.78	109.96	53.67	32.62	6.29	30.4	245	100	P	H
802.11n		5885	55.15	-42.62	97.77	46.59	32.66	6.31	30.41	245	100	P	H
HT20		5927	49.6	-18.6	68.2	40.94	32.76	6.32	30.42	245	100	P	H
CH 157		5648.2	50.28	-17.92	68.2	42.16	32.18	6.22	30.28	321	67	P	V
5785MHz		5698.8	54.99	-49.33	104.32	46.78	32.28	6.23	30.3	321	67	P	V
		5706	57.33	-49.55	106.88	49.11	32.31	6.23	30.32	321	67	P	V
		5722	59.53	-55.83	115.36	51.26	32.35	6.24	30.32	321	67	P	V
	*	5785	114.25	-	-	105.91	32.45	6.25	30.36	321	67	P	V
	*	5785	106.59	-	-	98.25	32.45	6.25	30.36	321	67	A	V
		5850	57.36	-64.84	122.2	48.86	32.59	6.29	30.38	321	67	P	V
		5860	57.63	-51.77	109.4	49.12	32.62	6.29	30.4	321	67	P	V
		5875	52.9	-52.3	105.2	44.34	32.66	6.3	30.4	321	67	P	V
		5943.8	48.27	-19.93	68.2	39.57	32.8	6.33	30.43	321	67	P	V



	*	5825	113.88	-	-	105.42	32.56	6.27	30.37	247	100	P	H	
	*	5825	106.47	-	-	98.01	32.56	6.27	30.37	247	100	A	H	
		5850.4	76.22	-45.07	121.29	67.72	32.59	6.29	30.38	247	100	P	H	
		5855.6	71.92	-38.71	110.63	63.39	32.62	6.29	30.38	247	100	P	H	
		5876.4	63.57	-40.59	104.16	55.01	32.66	6.3	30.4	247	100	P	H	
		5935.6	51.92	-16.28	68.2	43.26	32.76	6.33	30.43	247	100	P	H	
	802.11n	*	5825	114.16	-	-	105.7	32.56	6.27	30.37	299	68	P	V
	HT20	*	5825	106.02	-	-	97.56	32.56	6.27	30.37	299	68	A	V
	CH 165		5852.2	73.89	-43.29	117.18	65.39	32.59	6.29	30.38	299	68	P	V
	5825MHz		5856.2	71.9	-38.56	110.46	63.37	32.62	6.29	30.38	299	68	P	V
			5877.8	63.67	-39.45	103.12	55.11	32.66	6.3	30.4	299	68	P	V
			5942.2	50.58	-17.62	68.2	41.88	32.8	6.33	30.43	299	68	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.													



Band 4 5725~5850MHz

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 149 5745MHz		11490	53.33	-20.67	74	68.28	39.55	10.32	65.39	100	55	P	H
		11490	44.15	-9.85	54	59.1	39.55	10.32	65.39	100	55	A	H
		17235	53.09	-15.11	68.2	62.27	41.87	12.77	64.27	100	0	P	H
		11490	55.82	-18.18	74	70.77	39.55	10.32	65.39	218	31	P	V
		11490	45.53	-8.47	54	60.48	39.55	10.32	65.39	218	31	A	V
		17235	51.09	-17.11	68.2	60.27	41.87	12.77	64.27	100	0	P	V
802.11n HT20 CH 157 5785MHz		11570	54.14	-19.86	74	69.1	39.5	10.37	65.37	100	53	P	H
		11570	44.05	-9.95	54	59.01	39.5	10.37	65.37	100	53	A	H
		17355	52.71	-15.49	68.2	61.15	42.41	12.82	64.11	100	0	P	H
		11570	54.84	-19.16	74	69.8	39.5	10.37	65.37	217	33	P	V
		11570	45.43	-8.57	54	60.39	39.5	10.37	65.37	217	33	A	V
		17355	52.58	-15.62	68.2	61.02	42.41	12.82	64.11	100	0	P	V
802.11n HT20 CH 165 5825MHz		11650	52.79	-21.21	74	67.69	39.5	10.43	65.34	100	55	P	H
		11650	43.32	-10.68	54	58.22	39.5	10.43	65.34	100	55	A	H
		17475	50.86	-17.34	68.2	58.6	42.95	12.87	63.95	100	0	P	H
		11650	53.89	-20.11	74	68.79	39.5	10.43	65.34	212	31	P	V
		11650	44.59	-9.41	54	59.49	39.5	10.43	65.34	212	31	A	V
		17475	50.65	-17.55	68.2	58.39	42.95	12.87	63.95	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 4 5725~5850MHz

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 151 5755MHz		5647.4	60.75	-7.45	68.2	52.63	32.18	6.22	30.28	244	101	P	H
		5697	77.61	-25.38	102.99	69.4	32.28	6.23	30.3	244	101	P	H
		5719.2	91.01	-19.57	110.58	82.74	32.35	6.24	30.32	244	101	P	H
		5723	90.05	-27.59	117.64	81.78	32.35	6.24	30.32	244	101	P	H
	*	5755	112.28	-	-	103.94	32.42	6.25	30.33	244	101	P	H
	*	5755	104.8	-	-	96.46	32.42	6.25	30.33	244	101	A	H
		5853	67.55	-47.81	115.36	59.05	32.59	6.29	30.38	244	101	P	H
		5856.8	65.83	-44.47	110.3	57.3	32.62	6.29	30.38	244	101	P	H
		5879.4	63.18	-38.75	101.93	54.61	32.66	6.31	30.4	244	101	P	H
		5927.4	56.79	-11.41	68.2	48.13	32.76	6.32	30.42	244	101	P	H
		5649.2	61.74	-6.46	68.2	53.62	32.18	6.22	30.28	296	69	P	V
		5684.6	77.27	-16.57	93.84	69.06	32.28	6.23	30.3	296	69	P	V
		5716.4	87.28	-22.51	109.79	79.06	32.31	6.23	30.32	296	69	P	V
		5724.6	89.33	-31.96	121.29	81.06	32.35	6.24	30.32	296	69	P	V
	*	5755	112.62	-	-	104.28	32.42	6.25	30.33	296	69	P	V
	*	5755	105.06	-	-	96.72	32.42	6.25	30.33	296	69	A	V
		5850.8	63.68	-56.7	120.38	55.18	32.59	6.29	30.38	296	69	P	V
		5860	63.76	-45.64	109.4	55.25	32.62	6.29	30.4	296	69	P	V
		5882.2	59.24	-40.61	99.85	50.67	32.66	6.31	30.4	296	69	P	V
		5932.4	52.48	-15.72	68.2	43.82	32.76	6.32	30.42	296	69	P	V



		5647.8	57.95	-10.25	68.2	49.83	32.18	6.22	30.28	245	98	P	H
		5698.6	63.83	-40.34	104.17	55.62	32.28	6.23	30.3	245	98	P	H
		5714.4	70.1	-39.13	109.23	61.88	32.31	6.23	30.32	245	98	P	H
		5723	73.18	-44.46	117.64	64.91	32.35	6.24	30.32	245	98	P	H
	*	5795	113.06	-	-	104.67	32.49	6.26	30.36	245	98	P	H
	*	5795	104.78	-	-	96.39	32.49	6.26	30.36	245	98	A	H
		5851	80.18	-39.74	119.92	71.68	32.59	6.29	30.38	245	98	P	H
		5855.6	75.55	-35.08	110.63	67.02	32.62	6.29	30.38	245	98	P	H
802.11n		5877	69.74	-33.97	103.71	61.18	32.66	6.3	30.4	245	98	P	H
HT40		5934.6	59.77	-8.43	68.2	51.11	32.76	6.33	30.43	245	98	P	H
CH 159		5647.4	57.49	-10.71	68.2	49.37	32.18	6.22	30.28	306	67	P	V
5795MHz		5697.6	65.76	-37.67	103.43	57.55	32.28	6.23	30.3	306	67	P	V
		5718.2	70.44	-39.86	110.3	62.17	32.35	6.24	30.32	306	67	P	V
		5724.6	71.43	-49.86	121.29	63.16	32.35	6.24	30.32	306	67	P	V
	*	5795	112	-	-	103.61	32.49	6.26	30.36	306	67	P	V
	*	5795	104.76	-	-	96.37	32.49	6.26	30.36	306	67	A	V
		5850.4	77.26	-44.03	121.29	68.76	32.59	6.29	30.38	306	67	P	V
		5855.4	75.72	-34.97	110.69	67.19	32.62	6.29	30.38	306	67	P	V
		5875.2	68.37	-36.68	105.05	59.81	32.66	6.3	30.4	306	67	P	V
		5925.4	59.95	-8.25	68.2	51.29	32.76	6.32	30.42	306	67	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 4 5725~5850MHz

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 151 5755MHz		11510	51	-23	74	66.01	39.5	10.33	65.4	100	52	P	H
		11510	42.98	-11.02	54	57.99	39.5	10.33	65.4	100	52	A	H
		17265	52.12	-16.08	68.2	61.08	42.03	12.79	64.23	100	0	P	H
		11510	49.48	-24.52	74	64.49	39.5	10.33	65.4	100	0	P	V
		17265	50.72	-17.48	68.2	59.68	42.03	12.79	64.23	100	0	P	V
802.11n HT40 CH 159 5795MHz		11590	51.69	-22.31	74	66.65	39.5	10.38	65.37	100	55	P	H
		11590	43.13	-10.87	54	58.09	39.5	10.38	65.37	100	55	A	H
		17385	51.13	-17.07	68.2	59.37	42.56	12.84	64.06	100	0	P	H
		11590	54.13	-19.87	74	69.09	39.5	10.38	65.37	220	33	P	V
		11590	44.57	-9.43	54	59.53	39.5	10.38	65.37	220	33	A	V
		17385	50.55	-17.65	68.2	58.79	42.56	12.84	64.06	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 4 5725~5850MHz

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 155 5775MHz		5649.6	65.64	-2.56	68.2	57.49	32.21	6.22	30.28	318	95	P	H
		5698.6	77.79	-26.38	104.17	69.58	32.28	6.23	30.3	318	95	P	H
		5718.6	81.26	-29.15	110.41	72.99	32.35	6.24	30.32	318	95	P	H
		5722.4	81.48	-34.79	116.27	73.21	32.35	6.24	30.32	318	95	P	H
	*	5775	106.89	-	-	98.53	32.45	6.25	30.34	318	95	P	H
	*	5775	100.7	-	-	92.34	32.45	6.25	30.34	318	95	A	H
		5854.6	81.65	-30.06	111.71	73.12	32.62	6.29	30.38	318	95	P	H
		5857	79.72	-30.52	110.24	71.19	32.62	6.29	30.38	318	95	P	H
		5875	74.23	-30.97	105.2	65.67	32.66	6.3	30.4	318	95	P	H
		5933.6	63.39	-4.81	68.2	54.72	32.76	6.33	30.42	318	95	P	H
		5650	67.52	-0.68	68.2	59.37	32.21	6.22	30.28	294	67	P	V
		5698.8	78.84	-25.48	104.32	70.63	32.28	6.23	30.3	294	67	P	V
		5718.8	82.43	-28.03	110.46	74.16	32.35	6.24	30.32	294	67	P	V
		5722.6	82.06	-34.67	116.73	73.79	32.35	6.24	30.32	294	67	P	V
	*	5775	106.97	-	-	98.61	32.45	6.25	30.34	294	67	P	V
	*	5775	101.01	-	-	92.65	32.45	6.25	30.34	294	67	A	V
		5851.2	78.88	-40.58	119.46	70.38	32.59	6.29	30.38	294	67	P	V
		5861	78.88	-30.24	109.12	70.37	32.62	6.29	30.4	294	67	P	V
		5879	73.51	-28.72	102.23	64.95	32.66	6.3	30.4	294	67	P	V
		5925.6	61.2	-7	68.2	52.54	32.76	6.32	30.42	294	67	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 4 5725~5850MHz

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.
802.11ac		11550	48.86	-25.14	74	63.83	39.5	10.36	65.38	100	0	P	H
VHT80		17325	51.03	-17.17	68.2	59.67	42.26	12.81	64.16	100	0	P	H
CH 155		11550	47.56	-26.44	74	62.53	39.5	10.36	65.38	100	0	P	V
5775MHz		17325	50.62	-17.58	68.2	59.26	42.26	12.81	64.16	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Emission below 1GHz

5GHz WIFI 802.11ac VHT80 (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)
5GHz 802.11ac VHT80 LF		82.92	23.75	-16.25	40	41.61	13.9	0.74	32.59	-	-	P	H
		95.07	26.22	-17.28	43.5	42.5	15.44	0.79	32.6	-	-	P	H
		146.64	30.06	-13.44	43.5	44.21	17.35	0.93	32.55	-	-	P	H
		565.3	37.21	-8.79	46	41.67	26.13	1.88	32.64	100	0	P	H
		614.3	32.91	-13.09	46	37.44	26	1.97	32.64	-	-	P	H
		663.3	32.57	-13.43	46	36.49	26.51	2.02	32.59	-	-	P	H
		35.4	28.38	-11.62	40	39.17	21.32	0.46	32.58	-	-	P	V
		83.73	30.71	-9.29	40	48.57	13.9	0.74	32.59	-	-	P	V
		94.53	28.95	-14.55	43.5	45.23	15.44	0.79	32.6	-	-	P	V
		565.3	40.91	-5.09	46	45.37	26.13	1.88	32.64	-	-	P	V
		614.3	33.95	-12.05	46	38.48	26	1.97	32.64	-	-	P	V
		721.4	42.73	-3.27	46	45.56	27.43	2.13	32.51	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against limit line.												



Band 4 - 5725~5850MHz

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 149 5745MHz		5650	51.22	-16.98	68.2	43.07	32.21	6.22	30.28	234	265	P	H
		5699	65.22	-39.24	104.46	57.01	32.28	6.23	30.3	234	265	P	H
		5717.4	75.28	-34.79	110.07	67.06	32.31	6.23	30.32	234	265	P	H
		5725	87.83	-34.37	122.2	79.56	32.35	6.24	30.32	234	265	P	H
	*	5745	114.91	-	-	106.62	32.38	6.24	30.33	234	265	P	H
	*	5745	107.01	-	-	98.72	32.38	6.24	30.33	234	265	A	H
		5645.8	49.68	-18.52	68.2	41.56	32.18	6.22	30.28	295	273	P	V
		5700	63.67	-41.53	105.2	55.46	32.28	6.23	30.3	295	273	P	V
		5718	72.86	-37.38	110.24	64.59	32.35	6.24	30.32	295	273	P	V
		5725	82.33	-39.87	122.2	74.06	32.35	6.24	30.32	295	273	P	V
	*	5745	113.23	-	-	104.94	32.38	6.24	30.33	295	273	P	V
	*	5745	106.04	-	-	97.75	32.38	6.24	30.33	295	273	A	V



802.11a CH 157 5785MHz		5621.2	52.8	-15.4	68.2	44.71	32.14	6.21	30.26	221	272	P	H
		5697.4	55.24	-48.04	103.28	47.03	32.28	6.23	30.3	221	272	P	H
		5712	57.61	-50.95	108.56	49.39	32.31	6.23	30.32	221	272	P	H
		5724.6	58.84	-62.45	121.29	50.57	32.35	6.24	30.32	221	272	P	H
	*	5785	114.45	-	-	106.11	32.45	6.25	30.36	221	272	P	H
	*	5785	106.5	-	-	98.16	32.45	6.25	30.36	221	272	A	H
		5852.6	58.43	-57.84	116.27	49.93	32.59	6.29	30.38	221	272	P	H
		5857.4	56.64	-53.49	110.13	48.11	32.62	6.29	30.38	221	272	P	H
		5875.4	53.13	-51.77	104.9	44.57	32.66	6.3	30.4	221	272	P	H
		5943.2	53.4	-14.8	68.2	44.7	32.8	6.33	30.43	221	272	P	H
		5625.4	52.39	-15.81	68.2	44.3	32.14	6.21	30.26	304	289	P	V
		5698.6	54.41	-49.76	104.17	46.2	32.28	6.23	30.3	304	289	P	V
		5712.6	56.37	-52.36	108.73	48.15	32.31	6.23	30.32	304	289	P	V
		5724.4	60.33	-60.5	120.83	52.06	32.35	6.24	30.32	304	289	P	V
	*	5785	113.25	-	-	104.91	32.45	6.25	30.36	304	289	P	V
	*	5785	105.17	-	-	96.83	32.45	6.25	30.36	304	289	A	V
		5850	55.79	-66.41	122.2	47.29	32.59	6.29	30.38	304	289	P	V
		5857.8	59.47	-50.54	110.01	50.96	32.62	6.29	30.4	304	289	P	V
		5875	51.46	-53.74	105.2	42.9	32.66	6.3	30.4	304	289	P	V
		5949.4	51.59	-16.61	68.2	42.89	32.8	6.33	30.43	304	289	P	V



	*	5825	114.2	-	-	105.74	32.56	6.27	30.37	235	277	P	H
802.11a CH 165 5825MHz	*	5825	106.04	-	-	97.58	32.56	6.27	30.37	235	277	A	H
		5850	74.5	-47.7	122.2	66	32.59	6.29	30.38	235	277	P	H
		5857	71.29	-38.95	110.24	62.76	32.62	6.29	30.38	235	277	P	H
		5876	62.02	-42.44	104.46	53.46	32.66	6.3	30.4	235	277	P	H
		5941	49.63	-18.57	68.2	40.93	32.8	6.33	30.43	235	277	P	H
	*	5825	112.4	-	-	103.94	32.56	6.27	30.37	283	293	P	V
	*	5825	104.87	-	-	96.41	32.56	6.27	30.37	283	293	A	V
		5850.8	71.13	-49.25	120.38	62.63	32.59	6.29	30.38	283	293	P	V
		5856.6	69.83	-40.52	110.35	61.3	32.62	6.29	30.38	283	293	P	V
		5879	62.42	-39.81	102.23	53.86	32.66	6.3	30.4	283	293	P	V
		5939.2	49.36	-18.84	68.2	40.66	32.8	6.33	30.43	283	293	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 4 5725~5850MHz

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 149 5745MHz		11490	54.92	-19.08	74	69.87	39.55	10.32	65.39	289	212	P	H
		11490	46.06	-7.94	54	61.01	39.55	10.32	65.39	289	212	A	H
		17235	49.9	-18.3	68.2	59.08	41.87	12.77	64.27	100	0	P	H
		11490	49.12	-24.88	74	64.07	39.55	10.32	65.39	100	0	P	V
		17235	50.97	-17.23	68.2	60.15	41.87	12.77	64.27	100	0	P	V
802.11a CH 157 5785MHz		11570	53.56	-20.44	74	68.52	39.5	10.37	65.37	307	208	P	H
		11570	43.93	-10.07	54	58.89	39.5	10.37	65.37	307	208	A	H
		17355	50.6	-17.6	68.2	59.04	42.41	12.82	64.11	100	0	P	H
		11570	48.34	-25.66	74	63.3	39.5	10.37	65.37	100	0	P	V
		17355	51.53	-16.67	68.2	59.97	42.41	12.82	64.11	100	0	P	V
802.11a CH 165 5825MHz		11650	49.74	-24.26	74	64.64	39.5	10.43	65.34	100	0	P	H
		17475	50.77	-17.43	68.2	58.51	42.95	12.87	63.95	100	0	P	H
		11650	47.66	-26.34	74	62.56	39.5	10.43	65.34	100	0	P	V
		17475	50.35	-17.85	68.2	58.09	42.95	12.87	63.95	100	0	P	V
Remark		1. No other spurious found. 2. All results are PASS against Peak and Average limit line.											



Band 4 5725~5850MHz

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 149 5745MHz		5649	49.84	-18.36	68.2	41.72	32.18	6.22	30.28	240	265	P	H
		5699.8	66.41	-38.64	105.05	58.2	32.28	6.23	30.3	240	265	P	H
		5719.8	75.58	-35.16	110.74	67.31	32.35	6.24	30.32	240	265	P	H
		5724	84.84	-35.08	119.92	76.57	32.35	6.24	30.32	240	265	P	H
	*	5745	114.14	-	-	105.85	32.38	6.24	30.33	240	265	P	H
	*	5745	106.27	-	-	97.98	32.38	6.24	30.33	240	265	A	H
		5621.2	49.49	-18.71	68.2	41.4	32.14	6.21	30.26	348	274	P	V
		5699.8	65.99	-39.06	105.05	57.78	32.28	6.23	30.3	348	274	P	V
		5719.4	75.64	-34.99	110.63	67.37	32.35	6.24	30.32	348	274	P	V
		5724.6	83.83	-37.46	121.29	75.56	32.35	6.24	30.32	348	274	P	V
	*	5745	112.1	-	-	103.81	32.38	6.24	30.33	348	274	P	V
	*	5745	105.76	-	-	97.47	32.38	6.24	30.33	348	274	A	V



		5631.8	52.76	-15.44	68.2	44.68	32.14	6.22	30.28	243	277	P	H
		5700	55.93	-49.27	105.2	47.72	32.28	6.23	30.3	243	277	P	H
		5709.4	58.5	-49.33	107.83	50.28	32.31	6.23	30.32	243	277	P	H
		5724	59.4	-60.52	119.92	51.13	32.35	6.24	30.32	243	277	P	H
	*	5785	113.87	-	-	105.53	32.45	6.25	30.36	243	277	P	H
	*	5785	106.03	-	-	97.69	32.45	6.25	30.36	243	277	A	H
		5850	60.35	-61.85	122.2	51.85	32.59	6.29	30.38	243	277	P	H
		5857.6	57.98	-52.09	110.07	49.45	32.62	6.29	30.38	243	277	P	H
802.11n		5880.2	53.25	-48.09	101.34	44.68	32.66	6.31	30.4	243	277	P	H
HT20		5940.8	51.7	-16.5	68.2	43	32.8	6.33	30.43	243	277	P	H
CH 157		5625.4	52.57	-15.63	68.2	44.48	32.14	6.21	30.26	376	285	P	V
5785MHz		5696.6	55.52	-47.17	102.69	47.31	32.28	6.23	30.3	376	285	P	V
		5714.2	56.67	-52.51	109.18	48.45	32.31	6.23	30.32	376	285	P	V
		5724.6	58.92	-62.37	121.29	50.65	32.35	6.24	30.32	376	285	P	V
	*	5785	112.89	-	-	104.55	32.45	6.25	30.36	376	285	P	V
	*	5785	105.14	-	-	96.8	32.45	6.25	30.36	376	285	A	V
		5850.4	60.28	-61.01	121.29	51.78	32.59	6.29	30.38	376	285	P	V
		5860.4	57.28	-52.01	109.29	48.77	32.62	6.29	30.4	376	285	P	V
		5878.6	53.91	-48.62	102.53	45.35	32.66	6.3	30.4	376	285	P	V
		5948	52.7	-15.5	68.2	44	32.8	6.33	30.43	376	285	P	V



	*	5825	113.99	-	-	105.53	32.56	6.27	30.37	233	277	P	H
	*	5825	105.81	-	-	97.35	32.56	6.27	30.37	233	277	A	H
		5850	79.36	-42.84	122.2	70.86	32.59	6.29	30.38	233	277	P	H
		5857	72.24	-38	110.24	63.71	32.62	6.29	30.38	233	277	P	H
		5876.8	65.47	-38.39	103.86	56.91	32.66	6.3	30.4	233	277	P	H
		5939.8	51.92	-16.28	68.2	43.22	32.8	6.33	30.43	233	277	P	H
802.11n	*	5825	112.61	-	-	104.15	32.56	6.27	30.37	299	283	P	V
HT20	*	5825	104.9	-	-	96.44	32.56	6.27	30.37	299	283	A	V
CH 165		5850	73.16	-49.04	122.2	64.66	32.59	6.29	30.38	299	283	P	V
5825MHz		5857.6	70.55	-39.52	110.07	62.02	32.62	6.29	30.38	299	283	P	V
		5877	60.22	-43.49	103.71	51.66	32.66	6.3	30.4	299	283	P	V
		5943.2	50.12	-18.08	68.2	41.42	32.8	6.33	30.43	299	283	P	V
Remark	<ol style="list-style-type: none">1. No other spurious found.2. All results are PASS against Peak and Average limit line.												



Band 4 5725~5850MHz

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 149 5745MHz		11490	52.83	-21.17	74	67.78	39.55	10.32	65.39	306	208	P	H
		11490	44.24	-9.76	54	59.19	39.55	10.32	65.39	306	208	A	H
		17235	49.39	-18.81	68.2	58.57	41.87	12.77	64.27	100	0	P	H
		11490	49.91	-24.09	74	64.86	39.55	10.32	65.39	100	0	P	V
		17235	51.43	-16.77	68.2	60.61	41.87	12.77	64.27	100	0	P	V
802.11n HT20 CH 157 5785MHz		11570	52.78	-21.22	74	67.74	39.5	10.37	65.37	310	207	P	H
		11570	43.67	-10.33	54	58.63	39.5	10.37	65.37	310	207	A	H
		17355	50.64	-17.56	68.2	59.08	42.41	12.82	64.11	100	0	P	H
		11570	49.09	-24.91	74	64.05	39.5	10.37	65.37	100	0	P	V
		17355	50.41	-17.79	68.2	58.85	42.41	12.82	64.11	100	0	P	V
802.11n HT20 CH 165 5825MHz		11650	49.17	-24.83	74	64.07	39.5	10.43	65.34	100	0	P	H
		17475	50.21	-17.99	68.2	57.95	42.95	12.87	63.95	100	0	P	H
		11650	48.22	-25.78	74	63.12	39.5	10.43	65.34	100	0	P	V
		17475	50.62	-17.58	68.2	58.36	42.95	12.87	63.95	100	0	P	V
Remark		1. No other spurious found. 2. All results are PASS against Peak and Average limit line.											



Band 4 5725~5850MHz

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 151 5755MHz		5642.4	62.37	-5.83	68.2	54.25	32.18	6.22	30.28	239	276	P	H
		5699	78.52	-25.94	104.46	70.31	32.28	6.23	30.3	239	276	P	H
		5718.4	90.72	-19.63	110.35	82.45	32.35	6.24	30.32	239	276	P	H
		5724.8	91.68	-30.06	121.74	83.41	32.35	6.24	30.32	239	276	P	H
	*	5755	112.28	-	-	103.94	32.42	6.25	30.33	239	276	P	H
	*	5755	104.9	-	-	96.56	32.42	6.25	30.33	239	276	A	H
		5853.2	67.66	-47.24	114.9	59.16	32.59	6.29	30.38	239	276	P	H
		5856.2	68.75	-41.71	110.46	60.22	32.62	6.29	30.38	239	276	P	H
		5876.2	60.75	-43.56	104.31	52.19	32.66	6.3	30.4	239	276	P	H
		5927.4	54.39	-13.81	68.2	45.73	32.76	6.32	30.42	239	276	P	H
		5647.4	60.73	-7.47	68.2	52.61	32.18	6.22	30.28	297	283	P	V
		5700	77.7	-27.5	105.2	69.49	32.28	6.23	30.3	297	283	P	V
		5716.4	89.11	-20.68	109.79	80.89	32.31	6.23	30.32	297	283	P	V
		5724	93.51	-26.41	119.92	85.24	32.35	6.24	30.32	297	283	P	V
	*	5755	111.66	-	-	103.32	32.42	6.25	30.33	297	283	P	V
	*	5755	104.27	-	-	95.93	32.42	6.25	30.33	297	283	A	V
		5850.2	64.91	-56.83	121.74	56.41	32.59	6.29	30.38	297	283	P	V
		5859.8	65.19	-44.26	109.45	56.68	32.62	6.29	30.4	297	283	P	V
		5877.8	58.3	-44.82	103.12	49.74	32.66	6.3	30.4	297	283	P	V
		5929.4	54.33	-13.87	68.2	45.67	32.76	6.32	30.42	297	283	P	V



		5646.4	56.86	-11.34	68.2	48.74	32.18	6.22	30.28	246	266	P	H
		5699.4	63.67	-41.09	104.76	55.46	32.28	6.23	30.3	246	266	P	H
		5719.2	69.29	-41.29	110.58	61.02	32.35	6.24	30.32	246	266	P	H
		5723.6	73.41	-45.6	119.01	65.14	32.35	6.24	30.32	246	266	P	H
	*	5795	112.56	-	-	104.17	32.49	6.26	30.36	246	266	P	H
	*	5795	104.9	-	-	96.51	32.49	6.26	30.36	246	266	A	H
		5851.2	83.31	-36.15	119.46	74.81	32.59	6.29	30.38	246	266	P	H
		5855.4	80.27	-30.42	110.69	71.74	32.62	6.29	30.38	246	266	P	H
802.11n		5876.6	70.84	-33.17	104.01	62.28	32.66	6.3	30.4	246	266	P	H
HT40		5928.6	58.37	-9.83	68.2	49.71	32.76	6.32	30.42	246	266	P	H
CH 159		5649	57.07	-11.13	68.2	48.95	32.18	6.22	30.28	304	290	P	V
5795MHz		5690.8	63.53	-34.89	98.42	55.32	32.28	6.23	30.3	304	290	P	V
		5719	71.29	-39.23	110.52	63.02	32.35	6.24	30.32	304	290	P	V
		5722.6	72.99	-43.74	116.73	64.72	32.35	6.24	30.32	304	290	P	V
	*	5795	111.99	-	-	103.6	32.49	6.26	30.36	304	290	P	V
	*	5795	104.39	-	-	96	32.49	6.26	30.36	304	290	A	V
		5852.6	78.55	-37.72	116.27	70.05	32.59	6.29	30.38	304	290	P	V
		5865.4	75.97	-31.92	107.89	67.45	32.62	6.3	30.4	304	290	P	V
		5878	69.64	-33.33	102.97	61.08	32.66	6.3	30.4	304	290	P	V
		5925.2	57.07	-11.13	68.2	48.41	32.76	6.32	30.42	304	290	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 4 5725~5850MHz

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 151 5755MHz		11510	53.05	-20.95	74	68.06	39.5	10.33	65.4	300	212	P	H
		11510	43.93	-10.07	54	58.94	39.5	10.33	65.4	300	212	A	H
		17265	51.08	-17.12	68.2	60.04	42.03	12.79	64.23	100	0	P	H
		11510	49.74	-24.26	74	64.75	39.5	10.33	65.4	100	0	P	V
		17265	50.97	-17.23	68.2	59.93	42.03	12.79	64.23	100	0	P	V
802.11n HT40 CH 159 5795MHz		11590	49.64	-24.36	74	64.6	39.5	10.38	65.37	100	0	P	H
		17385	51.35	-16.85	68.2	59.59	42.56	12.84	64.06	100	0	P	H
		11590	48.1	-25.9	74	63.06	39.5	10.38	65.37	100	0	P	V
		17385	51.02	-17.18	68.2	59.26	42.56	12.84	64.06	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 4 5725~5850MHz

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 155 5775MHz		5647.8	66.54	-1.66	68.2	58.42	32.18	6.22	30.28	241	258	P	H
		5699.2	80.05	-24.56	104.61	71.84	32.28	6.23	30.3	241	258	P	H
		5718	81.49	-28.75	110.24	73.22	32.35	6.24	30.32	241	258	P	H
		5722.8	81.49	-35.69	117.18	73.22	32.35	6.24	30.32	241	258	P	H
	*	5775	107.76	-	-	99.4	32.45	6.25	30.34	241	258	P	H
	*	5775	100.17	-	-	91.81	32.45	6.25	30.34	241	258	A	H
		5850.4	78.71	-42.58	121.29	70.21	32.59	6.29	30.38	241	258	P	H
		5857.6	78.29	-31.78	110.07	69.76	32.62	6.29	30.38	241	258	P	H
		5875.6	74.5	-30.25	104.75	65.94	32.66	6.3	30.4	241	258	P	H
		5928.8	60.46	-7.74	68.2	51.8	32.76	6.32	30.42	241	258	P	H
		5649	67.25	-0.95	68.2	59.13	32.18	6.22	30.28	329	272	P	V
		5700	79.83	-25.37	105.2	71.62	32.28	6.23	30.3	329	272	P	V
		5719.6	83.04	-27.65	110.69	74.77	32.35	6.24	30.32	329	272	P	V
		5722.2	82.93	-32.89	115.82	74.66	32.35	6.24	30.32	329	272	P	V
	*	5775	106.93	-	-	98.57	32.45	6.25	30.34	329	272	P	V
	*	5775	100.18	-	-	91.82	32.45	6.25	30.34	329	272	A	V
		5853.4	80.43	-34.02	114.45	71.93	32.59	6.29	30.38	329	272	P	V
		5856	80.07	-30.45	110.52	71.54	32.62	6.29	30.38	329	272	P	V
		5875.2	75.04	-30.01	105.05	66.48	32.66	6.3	30.4	329	272	P	V
		5927.6	61.93	-6.27	68.2	53.27	32.76	6.32	30.42	329	272	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 4 5725~5850MHz

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.
802.11ac		11550	47.17	-26.83	74	62.14	39.5	10.36	65.38	100	0	P	H
VHT80		17325	50.4	-17.8	68.2	59.04	42.26	12.81	64.16	100	0	P	H
CH 155		11550	47.53	-26.47	74	62.5	39.5	10.36	65.38	100	0	P	V
5775MHz		17325	51.15	-17.05	68.2	59.79	42.26	12.81	64.16	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Emission below 1GHz

5GHz WIFI 802.11ac VHT80 (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)
5GHz 802.11ac VHT80 LF		84	22.71	-17.29	40	40.43	14.04	0.74	32.59	-	-	P	H
		94.8	25.38	-18.12	43.5	41.66	15.44	0.79	32.6	-	-	P	H
		145.29	30.66	-12.84	43.5	44.82	17.36	0.93	32.56	-	-	P	H
		565.3	38.62	-7.38	46	43.08	26.13	1.88	32.64	100	0	P	H
		614.3	31.62	-14.38	46	36.15	26	1.97	32.64	-	-	P	H
		663.3	33.14	-12.86	46	37.06	26.51	2.02	32.59	-	-	P	H
		40.8	36.24	-3.76	40	49.14	19.07	0.59	32.58	-	-	P	V
		83.73	31.77	-8.23	40	49.63	13.9	0.74	32.59	-	-	P	V
		94.26	28.62	-14.88	43.5	45.1	15.24	0.79	32.6	-	-	P	V
		565.3	42.72	-3.28	46	47.18	26.13	1.88	32.64	100	0	P	V
	Remark	1.	No other spurious found.										
		2.	All results are PASS against limit line.										



Band 4 - 5725~5850MHz

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 149 5745MHz		5617.4	50.7	-17.5	68.2	42.61	32.14	6.21	30.26	108	257	P	H
		5700	65.93	-39.27	105.2	57.72	32.28	6.23	30.3	108	257	P	H
		5719.8	77.37	-33.37	110.74	69.1	32.35	6.24	30.32	108	257	P	H
		5724	87.24	-32.68	119.92	78.97	32.35	6.24	30.32	108	257	P	H
	*	5745	114.36	-	-	106.07	32.38	6.24	30.33	108	257	P	H
	*	5745	106.78	-	-	98.49	32.38	6.24	30.33	108	257	A	H
		5636.8	51.43	-16.77	68.2	43.31	32.18	6.22	30.28	253	63	P	V
		5699.2	69.91	-34.7	104.61	61.7	32.28	6.23	30.3	253	63	P	V
		5714.6	78.21	-31.08	109.29	69.99	32.31	6.23	30.32	253	63	P	V
		5724.2	89.85	-30.53	120.38	81.58	32.35	6.24	30.32	253	63	P	V
	*	5745	115.75	-	-	107.46	32.38	6.24	30.33	253	63	P	V
	*	5745	109.05	-	-	100.76	32.38	6.24	30.33	253	63	A	V



802.11a CH 157 5785MHz		5629	49.54	-18.66	68.2	41.46	32.14	6.22	30.28	101	260	P	H
		5698.8	56.12	-48.2	104.32	47.91	32.28	6.23	30.3	101	260	P	H
		5708.8	55.73	-51.94	107.67	47.51	32.31	6.23	30.32	101	260	P	H
		5724	60.84	-59.08	119.92	52.57	32.35	6.24	30.32	101	260	P	H
	*	5785	114.08	-	-	105.74	32.45	6.25	30.36	101	260	P	H
	*	5785	106.8	-	-	98.46	32.45	6.25	30.36	101	260	A	H
		5853	60.55	-54.81	115.36	52.05	32.59	6.29	30.38	101	260	P	H
		5858.8	58.04	-51.69	109.73	49.53	32.62	6.29	30.4	101	260	P	H
		5878.6	53.09	-49.44	102.53	44.53	32.66	6.3	30.4	101	260	P	H
		5948	50.47	-17.73	68.2	41.77	32.8	6.33	30.43	101	260	P	H
		5627.2	50.69	-17.51	68.2	42.6	32.14	6.21	30.26	245	52	P	V
		5699.4	58.37	-46.39	104.76	50.16	32.28	6.23	30.3	245	52	P	V
		5712.6	59.26	-49.47	108.73	51.04	32.31	6.23	30.32	245	52	P	V
		5724.2	61.63	-58.75	120.38	53.36	32.35	6.24	30.32	245	52	P	V
	*	5785	116.26	-	-	107.92	32.45	6.25	30.36	245	52	P	V
	*	5785	108.43	-	-	100.09	32.45	6.25	30.36	245	52	A	V
		5851.4	60.55	-58.46	119.01	52.05	32.59	6.29	30.38	245	52	P	V
		5859.8	60.46	-48.99	109.45	51.95	32.62	6.29	30.4	245	52	P	V
		5883.6	54.9	-43.91	98.81	46.34	32.66	6.31	30.41	245	52	P	V
		5949.8	52.62	-15.58	68.2	43.92	32.8	6.33	30.43	245	52	P	V



	*	5825	115.14	-	-	106.68	32.56	6.27	30.37	102	259	P	H
802.11a CH 165 5825MHz	*	5825	106.91	-	-	98.45	32.56	6.27	30.37	102	259	A	H
		5850.8	75.13	-45.25	120.38	66.63	32.59	6.29	30.38	102	259	P	H
		5857.2	71.4	-38.78	110.18	62.87	32.62	6.29	30.38	102	259	P	H
		5879.2	62.63	-39.45	102.08	54.07	32.66	6.3	30.4	102	259	P	H
		5949.4	51.56	-16.64	68.2	42.86	32.8	6.33	30.43	102	259	P	H
	*	5825	115.31	-	-	106.85	32.56	6.27	30.37	303	56	P	V
	*	5825	108.37	-	-	99.91	32.56	6.27	30.37	303	56	A	V
		5850	78.17	-44.03	122.2	69.67	32.59	6.29	30.38	303	56	P	V
		5855	74.8	-36	110.8	66.27	32.62	6.29	30.38	303	56	P	V
		5879.4	67.84	-34.09	101.93	59.27	32.66	6.31	30.4	303	56	P	V
		5940.6	54.02	-14.18	68.2	45.32	32.8	6.33	30.43	303	56	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 4 5725~5850MHz

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 149 5745MHz		11490	56.63	-17.37	74	71.58	39.55	10.32	65.39	209	25	P	H
		11490	48.18	-5.82	54	63.13	39.55	10.32	65.39	209	25	A	H
		17235	54.08	-14.12	68.2	63.26	41.87	12.77	64.27	100	0	P	H
		11490	56.56	-17.44	74	71.51	39.55	10.32	65.39	199	33	P	V
		11490	47.28	-6.72	54	62.23	39.55	10.32	65.39	199	33	A	V
		17235	51.6	-16.6	68.2	60.78	41.87	12.77	64.27	100	0	P	V
802.11a CH 157 5785MHz		11570	55.86	-18.14	74	70.82	39.5	10.37	65.37	214	28	P	H
		11570	47.68	-6.32	54	62.64	39.5	10.37	65.37	214	28	A	H
		17355	54.73	-13.47	68.2	63.17	42.41	12.82	64.11	100	0	P	H
		11570	55.45	-18.55	74	70.41	39.5	10.37	65.37	213	32	P	V
		11570	46.94	-7.06	54	61.9	39.5	10.37	65.37	213	32	A	V
		17355	53.18	-15.02	68.2	61.62	42.41	12.82	64.11	100	0	P	V
802.11a CH 165 5825MHz		11650	55.62	-18.38	74	70.52	39.5	10.43	65.34	212	28	P	H
		11650	47.96	-6.04	54	62.86	39.5	10.43	65.34	212	28	A	H
		17475	50.71	-17.49	68.2	58.45	42.95	12.87	63.95	100	0	P	H
		11650	54.92	-19.08	74	69.82	39.5	10.43	65.34	208	34	P	V
		11650	46.37	-7.63	54	61.27	39.5	10.43	65.34	208	34	A	V
		17475	51.24	-16.96	68.2	58.98	42.95	12.87	63.95	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 4 5725~5850MHz

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 149 5745MHz		5646.6	51.47	-16.73	68.2	43.35	32.18	6.22	30.28	100	259	P	H
		5699.4	68.84	-35.92	104.76	60.63	32.28	6.23	30.3	100	259	P	H
		5720	80.96	-29.84	110.8	72.69	32.35	6.24	30.32	100	259	P	H
		5724.4	89.86	-30.97	120.83	81.59	32.35	6.24	30.32	100	259	P	H
	*	5745	114.02	-	-	105.73	32.38	6.24	30.33	100	259	P	H
	*	5745	106.59	-	-	98.3	32.38	6.24	30.33	100	259	A	H
		5641.2	52.92	-15.28	68.2	44.8	32.18	6.22	30.28	249	67	P	V
		5700	70.78	-34.42	105.2	62.57	32.28	6.23	30.3	249	67	P	V
		5719.8	81.26	-29.48	110.74	72.99	32.35	6.24	30.32	249	67	P	V
		5724.8	89.39	-32.35	121.74	81.12	32.35	6.24	30.32	249	67	P	V
	*	5745	115.17	-	-	106.88	32.38	6.24	30.33	249	67	P	V
	*	5745	108.21	-	-	99.92	32.38	6.24	30.33	249	67	A	V



		5626.6	50.8	-17.4	68.2	42.71	32.14	6.21	30.26	228	248	P	H
		5697	56.04	-46.95	102.99	47.83	32.28	6.23	30.3	228	248	P	H
		5719.2	59.37	-51.21	110.58	51.1	32.35	6.24	30.32	228	248	P	H
		5725	63.99	-58.21	122.2	55.72	32.35	6.24	30.32	228	248	P	H
	*	5785	114.07	-	-	105.73	32.45	6.25	30.36	228	248	P	H
	*	5785	106.68	-	-	98.34	32.45	6.25	30.36	228	248	A	H
		5852.6	58.38	-57.89	116.27	49.88	32.59	6.29	30.38	228	248	P	H
		5856.8	58.82	-51.48	110.3	50.29	32.62	6.29	30.38	228	248	P	H
802.11n		5879.2	51.86	-50.22	102.08	43.3	32.66	6.3	30.4	228	248	P	H
HT20		5941	50.1	-18.1	68.2	41.4	32.8	6.33	30.43	228	248	P	H
CH 157		5627	49.61	-18.59	68.2	41.52	32.14	6.21	30.26	277	67	P	V
5785MHz		5697.4	57.28	-46	103.28	49.07	32.28	6.23	30.3	277	67	P	V
		5712.4	60.32	-48.35	108.67	52.1	32.31	6.23	30.32	277	67	P	V
		5722.4	62.3	-53.97	116.27	54.03	32.35	6.24	30.32	277	67	P	V
	*	5785	115.57	-	-	107.23	32.45	6.25	30.36	277	67	P	V
	*	5785	107.72	-	-	99.38	32.45	6.25	30.36	277	67	A	V
		5852	60.79	-56.85	117.64	52.29	32.59	6.29	30.38	277	67	P	V
		5857.6	61.2	-48.87	110.07	52.67	32.62	6.29	30.38	277	67	P	V
		5883.2	54.69	-44.42	99.11	46.12	32.66	6.31	30.4	277	67	P	V
		5936.8	49.53	-18.67	68.2	40.87	32.76	6.33	30.43	277	67	P	V



	*	5825	113.95	-	-	105.49	32.56	6.27	30.37	235	266	P	H	
	*	5825	106.19	-	-	97.73	32.56	6.27	30.37	235	266	A	H	
		5850	80.48	-41.72	122.2	71.98	32.59	6.29	30.38	235	266	P	H	
		5857	73.52	-36.72	110.24	64.99	32.62	6.29	30.38	235	266	P	H	
		5875.6	64.34	-40.41	104.75	55.78	32.66	6.3	30.4	235	266	P	H	
		5946.4	51.61	-16.59	68.2	42.91	32.8	6.33	30.43	235	266	P	H	
	802.11n	*	5825	115.16	-	-	106.7	32.56	6.27	30.37	246	67	P	V
	HT20	*	5825	107.39	-	-	98.93	32.56	6.27	30.37	246	67	A	V
	CH 165		5850	83.51	-38.69	122.2	75.01	32.59	6.29	30.38	246	67	P	V
	5825MHz		5855	75.14	-35.66	110.8	66.61	32.62	6.29	30.38	246	67	P	V
			5880.8	66.84	-34.05	100.89	58.27	32.66	6.31	30.4	246	67	P	V
			5940.4	54.07	-14.13	68.2	45.37	32.8	6.33	30.43	246	67	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.													



Band 4 5725~5850MHz

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 149 5745MHz		11490	55.29	-18.71	74	70.24	39.55	10.32	65.39	207	24	P	H
		11490	47.44	-6.56	54	62.39	39.55	10.32	65.39	207	24	A	H
		17235	53.86	-14.34	68.2	63.04	41.87	12.77	64.27	100	0	P	H
		11490	55.91	-18.09	74	70.86	39.55	10.32	65.39	215	34	P	V
		11490	47.35	-6.65	54	62.3	39.55	10.32	65.39	215	34	A	V
		17235	51.64	-16.56	68.2	60.82	41.87	12.77	64.27	100	0	P	V
802.11n HT20 CH 157 5785MHz		11570	55.83	-18.17	74	70.79	39.5	10.37	65.37	210	27	P	H
		11570	47.22	-6.78	54	62.18	39.5	10.37	65.37	210	27	A	H
		17355	53.51	-14.69	68.2	61.95	42.41	12.82	64.11	100	0	P	H
		11570	55.97	-18.03	74	70.93	39.5	10.37	65.37	214	33	P	V
		11570	46.91	-7.09	54	61.87	39.5	10.37	65.37	214	33	A	V
		17355	52.23	-15.97	68.2	60.67	42.41	12.82	64.11	100	0	P	V
802.11n HT20 CH 165 5825MHz		11650	55.56	-18.44	74	70.46	39.5	10.43	65.34	197	48	P	H
		11650	46.17	-7.83	54	61.07	39.5	10.43	65.34	197	48	A	H
		17475	51.96	-16.24	68.2	59.7	42.95	12.87	63.95	100	0	P	H
		11650	54.47	-19.53	74	69.37	39.5	10.43	65.34	208	34	P	V
		11650	45.44	-8.56	54	60.34	39.5	10.43	65.34	208	34	A	V
		17475	51.64	-16.56	68.2	59.38	42.95	12.87	63.95	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 4 5725~5850MHz

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 151 5755MHz		5649.6	61.56	-6.64	68.2	53.41	32.21	6.22	30.28	256	259	P	H
		5698.8	78.98	-25.34	104.32	70.77	32.28	6.23	30.3	256	259	P	H
		5715.4	90.88	-18.63	109.51	82.66	32.31	6.23	30.32	256	259	P	H
		5724.4	91.88	-28.95	120.83	83.61	32.35	6.24	30.32	256	259	P	H
	*	5755	112.66	-	-	104.32	32.42	6.25	30.33	256	259	P	H
	*	5755	104.88	-	-	96.54	32.42	6.25	30.33	256	259	A	H
		5851.4	64.96	-54.05	119.01	56.46	32.59	6.29	30.38	256	259	P	H
		5857.4	65.01	-45.12	110.13	56.48	32.62	6.29	30.38	256	259	P	H
		5880	57.06	-44.43	101.49	48.49	32.66	6.31	30.4	256	259	P	H
		5927	51.44	-16.76	68.2	42.78	32.76	6.32	30.42	256	259	P	H
		5642.4	63.18	-5.02	68.2	55.06	32.18	6.22	30.28	246	66	P	V
		5699.2	77.25	-27.36	104.61	69.04	32.28	6.23	30.3	246	66	P	V
		5719.2	90.88	-19.7	110.58	82.61	32.35	6.24	30.32	246	66	P	V
		5725	90.72	-31.48	122.2	82.45	32.35	6.24	30.32	246	66	P	V
	*	5755	112.95	-	-	104.61	32.42	6.25	30.33	246	66	P	V
	*	5755	106.01	-	-	97.67	32.42	6.25	30.33	246	66	A	V
		5850	65.22	-56.98	122.2	56.72	32.59	6.29	30.38	246	66	P	V
		5858.2	65.08	-44.82	109.9	56.57	32.62	6.29	30.4	246	66	P	V
		5887.6	62.47	-33.38	95.85	53.88	32.69	6.31	30.41	246	66	P	V
		5930.8	52.87	-15.33	68.2	44.21	32.76	6.32	30.42	246	66	P	V



		5649.2	56.67	-11.53	68.2	48.55	32.18	6.22	30.28	239	259	P	H
		5700	64.96	-40.24	105.2	56.75	32.28	6.23	30.3	239	259	P	H
		5719.2	71.27	-39.31	110.58	63	32.35	6.24	30.32	239	259	P	H
		5725	73.27	-48.93	122.2	65	32.35	6.24	30.32	239	259	P	H
	*	5795	112.83	-	-	104.44	32.49	6.26	30.36	239	259	P	H
	*	5795	104.64	-	-	96.25	32.49	6.26	30.36	239	259	A	H
		5850.6	78.75	-42.08	120.83	70.25	32.59	6.29	30.38	239	259	P	H
		5856.4	77.64	-32.77	110.41	69.11	32.62	6.29	30.38	239	259	P	H
802.11n		5875.4	67.34	-37.56	104.9	58.78	32.66	6.3	30.4	239	259	P	H
HT40		5925.2	54.93	-13.27	68.2	46.27	32.76	6.32	30.42	239	259	P	H
CH 159		5648.4	57.74	-10.46	68.2	49.62	32.18	6.22	30.28	239	68	P	V
5795MHz		5696.2	65.56	-36.84	102.4	57.35	32.28	6.23	30.3	239	68	P	V
		5718.6	69.43	-40.98	110.41	61.16	32.35	6.24	30.32	239	68	P	V
		5723	70.83	-46.81	117.64	62.56	32.35	6.24	30.32	239	68	P	V
	*	5795	112.43	-	-	104.04	32.49	6.26	30.36	239	68	P	V
	*	5795	105.32	-	-	96.93	32.49	6.26	30.36	239	68	A	V
		5851	82.34	-37.58	119.92	73.84	32.59	6.29	30.38	239	68	P	V
		5855.4	77.74	-32.95	110.69	69.21	32.62	6.29	30.38	239	68	P	V
		5875.6	68.1	-36.65	104.75	59.54	32.66	6.3	30.4	239	68	P	V
		5927.2	57.71	-10.49	68.2	49.05	32.76	6.32	30.42	239	68	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 4 5725~5850MHz

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 151 5755MHz		11510	52.73	-21.27	74	67.74	39.5	10.33	65.4	209	26	P	H
		11510	45.38	-8.62	54	60.39	39.5	10.33	65.4	209	26	A	H
		17265	52.67	-15.53	68.2	61.63	42.03	12.79	64.23	100	0	P	H
		11510	49.35	-24.65	74	64.36	39.5	10.33	65.4	100	0	P	V
		17265	51.35	-16.85	68.2	60.31	42.03	12.79	64.23	100	0	P	V
802.11n HT40 CH 159 5795MHz		11590	52.99	-21.01	74	67.95	39.5	10.38	65.37	196	11	P	H
		11590	45.17	-8.83	54	60.13	39.5	10.38	65.37	196	11	A	H
		17385	51.59	-16.61	68.2	59.83	42.56	12.84	64.06	100	0	P	H
		11590	49.62	-24.38	74	64.58	39.5	10.38	65.37	100	0	P	V
		17385	51.73	-16.47	68.2	59.97	42.56	12.84	64.06	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 4 5725~5850MHz

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 155 5775MHz		5650	65.87	-2.33	68.2	57.72	32.21	6.22	30.28	258	249	P	H
		5698.8	78.51	-25.81	104.32	70.3	32.28	6.23	30.3	258	249	P	H
		5718.6	80.73	-29.68	110.41	72.46	32.35	6.24	30.32	258	249	P	H
		5720	79	-31.8	110.8	70.73	32.35	6.24	30.32	258	249	P	H
	*	5775	106.52	-	-	98.16	32.45	6.25	30.34	258	249	P	H
	*	5775	99.77	-	-	91.41	32.45	6.25	30.34	258	249	A	H
		5852	76.41	-41.23	117.64	67.91	32.59	6.29	30.38	258	249	P	H
		5858.6	77.54	-32.25	109.79	69.03	32.62	6.29	30.4	258	249	P	H
		5877.2	69.69	-33.88	103.57	61.13	32.66	6.3	30.4	258	249	P	H
		5926.2	58.76	-9.44	68.2	50.1	32.76	6.32	30.42	258	249	P	H
		5650	67.24	-0.96	68.2	59.09	32.21	6.22	30.28	280	67	P	V
		5695.4	77.9	-23.91	101.81	69.69	32.28	6.23	30.3	280	67	P	V
		5719.2	80.71	-29.87	110.58	72.44	32.35	6.24	30.32	280	67	P	V
		5720	79.74	-31.06	110.8	71.47	32.35	6.24	30.32	280	67	P	V
	*	5775	107.36	-	-	99	32.45	6.25	30.34	280	67	P	V
	*	5775	101.29	-	-	92.93	32.45	6.25	30.34	280	67	A	V
		5850.4	77.67	-43.62	121.29	69.17	32.59	6.29	30.38	280	67	P	V
		5857.4	77.49	-32.64	110.13	68.96	32.62	6.29	30.38	280	67	P	V
		5875	75.31	-29.89	105.2	66.75	32.66	6.3	30.4	280	67	P	V
		5937.8	60.39	-7.81	68.2	51.73	32.76	6.33	30.43	280	67	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 4 5725~5850MHz

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.
802.11ac		11550	48.21	-25.79	74	63.18	39.5	10.36	65.38	100	0	P	H
VHT80		17325	51.08	-17.12	68.2	59.72	42.26	12.81	64.16	100	0	P	H
CH 155		11550	47.35	-26.65	74	62.32	39.5	10.36	65.38	100	0	P	V
5775MHz		17325	51.5	-16.7	68.2	60.14	42.26	12.81	64.16	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Emission below 1GHz

5GHz WIFI 802.11ac VHT80 (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)
5GHz	802.11ac	77.79	20.17	-19.83	40	38.91	13.02	0.74	32.59	-	-	P	H
		84	25.08	-14.92	40	42.8	14.04	0.74	32.59	-	-	P	H
		144.48	30.33	-13.17	43.5	44.47	17.38	0.93	32.56	-	-	P	H
		565.3	39.49	-6.51	46	43.95	26.13	1.88	32.64	-	-	P	H
		614.3	32.23	-13.77	46	36.76	26	1.97	32.64	-	-	P	H
		722.1	42.21	-3.79	46	44.98	27.47	2.15	32.51	100	0	P	H
		59.43	27.47	-12.53	40	47.26	12.07	0.67	32.58	-	-	P	V
		83.19	32.01	-7.99	40	49.87	13.9	0.74	32.59	-	-	P	V
		93.99	27.35	-16.15	43.5	43.83	15.24	0.79	32.6	-	-	P	V
		565.3	42.29	-3.71	46	46.75	26.13	1.88	32.64	-	-	P	V
		614.3	34.93	-11.07	46	39.46	26	1.97	32.64	-	-	P	V
		722.1	42.56	-3.44	46	45.33	27.47	2.15	32.51	100	0	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 Plots

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

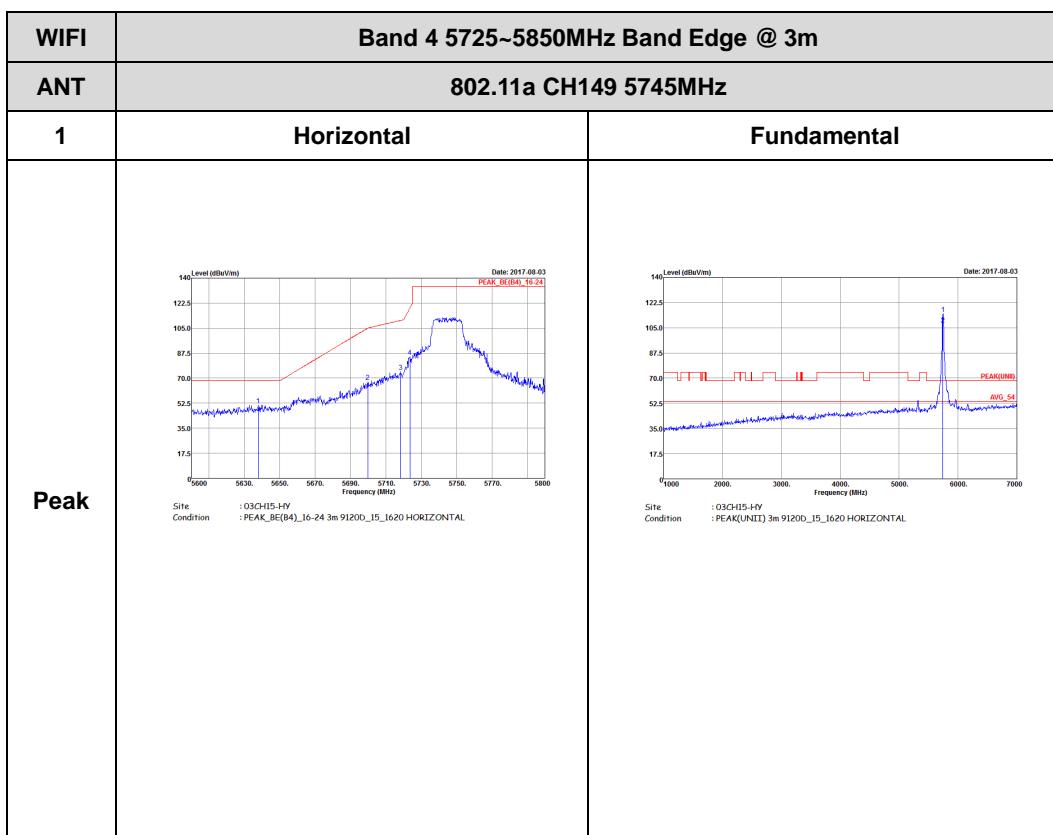
Note symbol

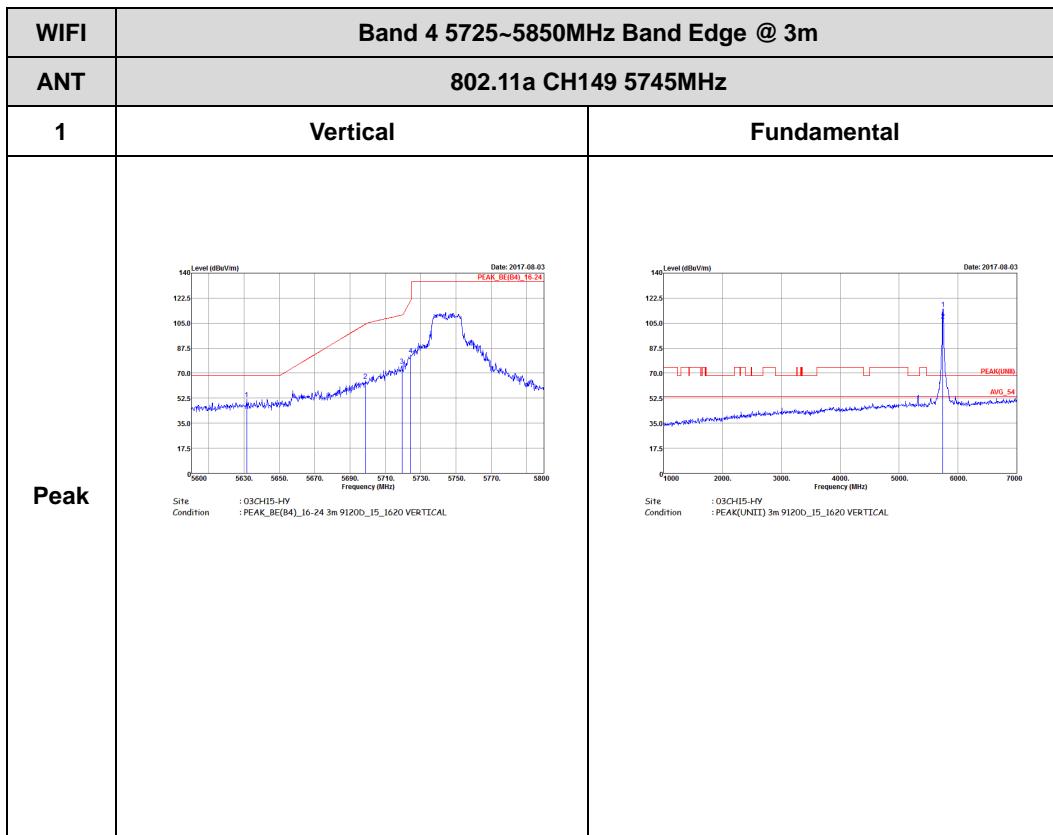
-L	Low channel location
-R	High channel location

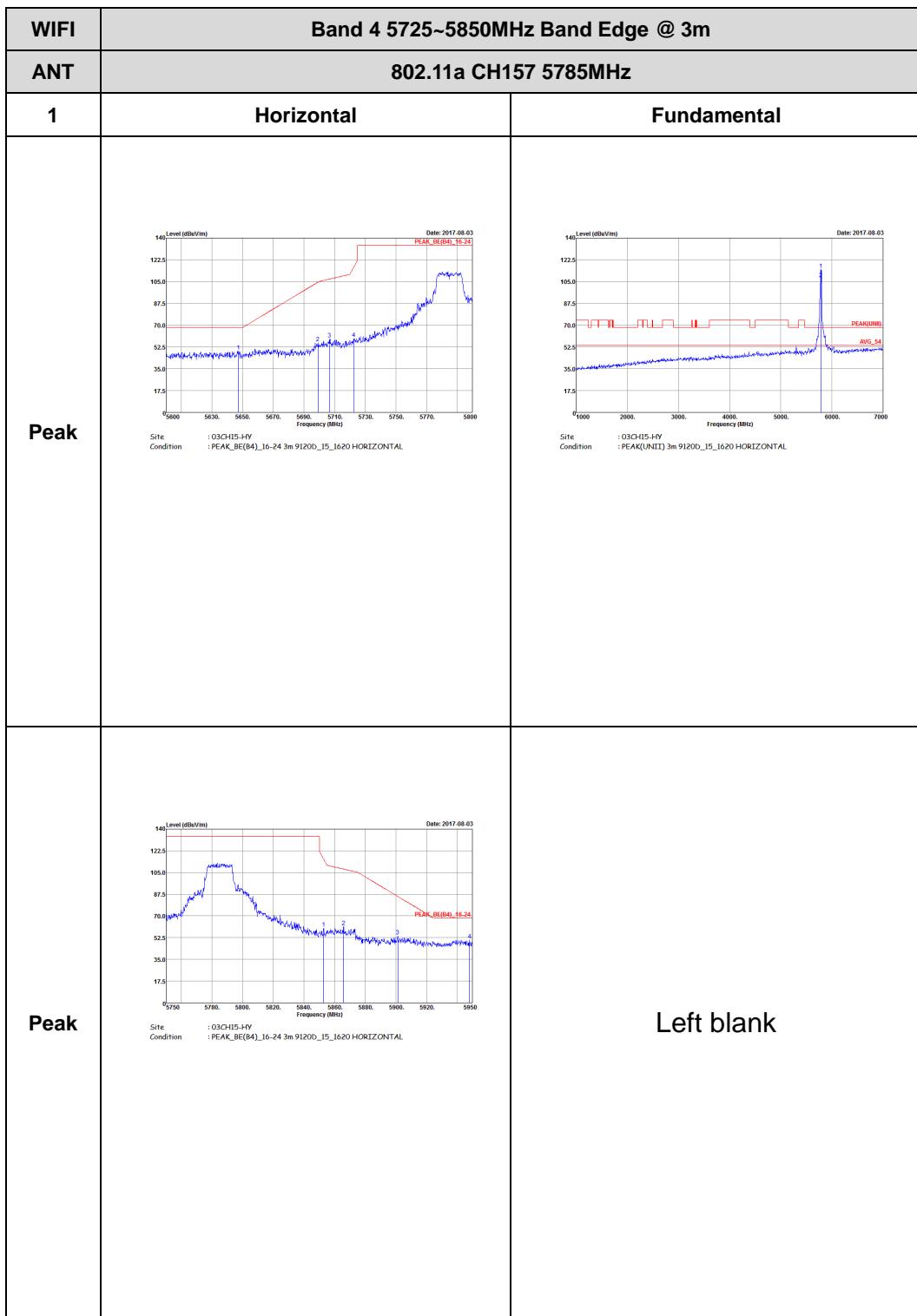


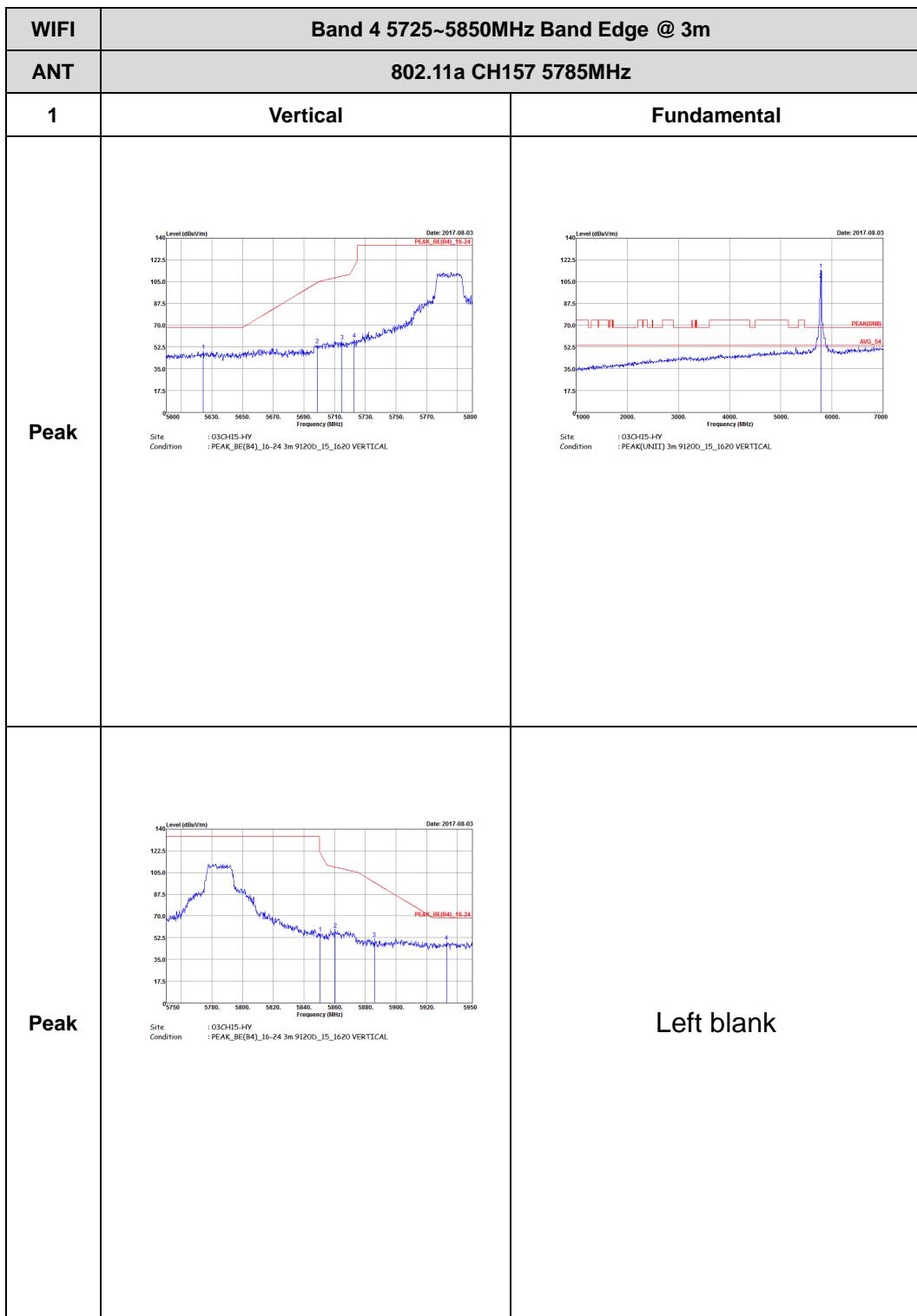
Band 4 - 5725~5850MHz

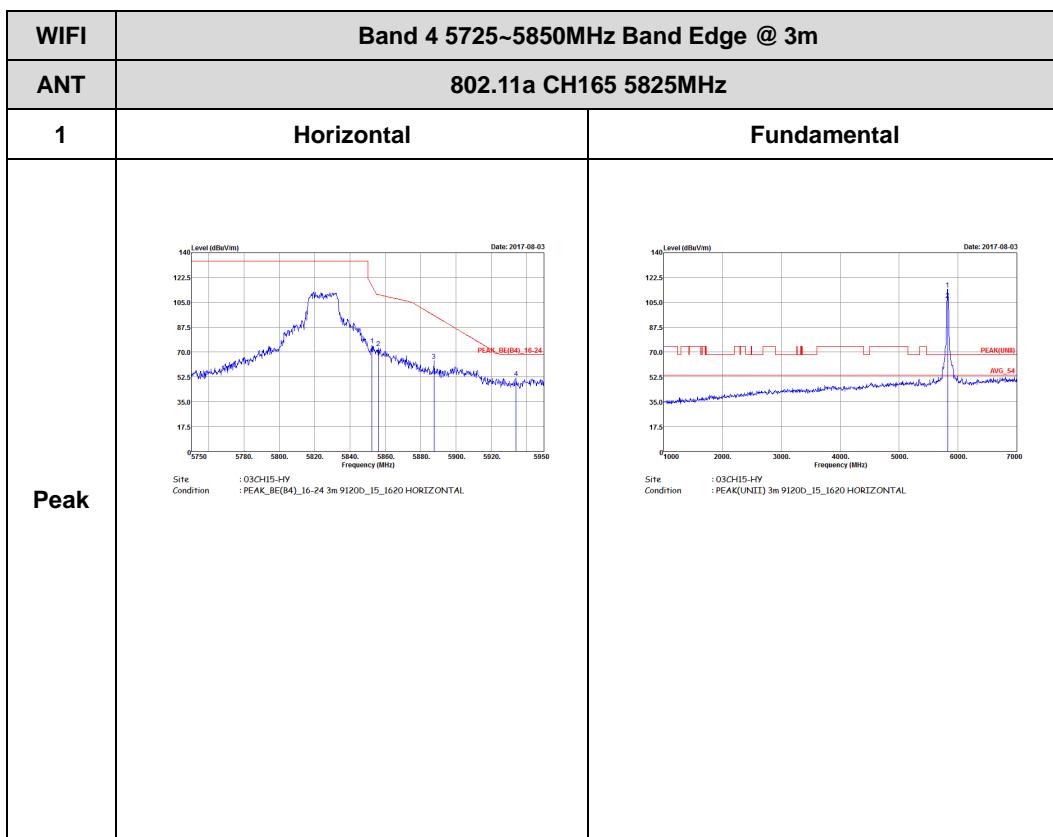
WIFI 802.11a (Band Edge @ 3m)

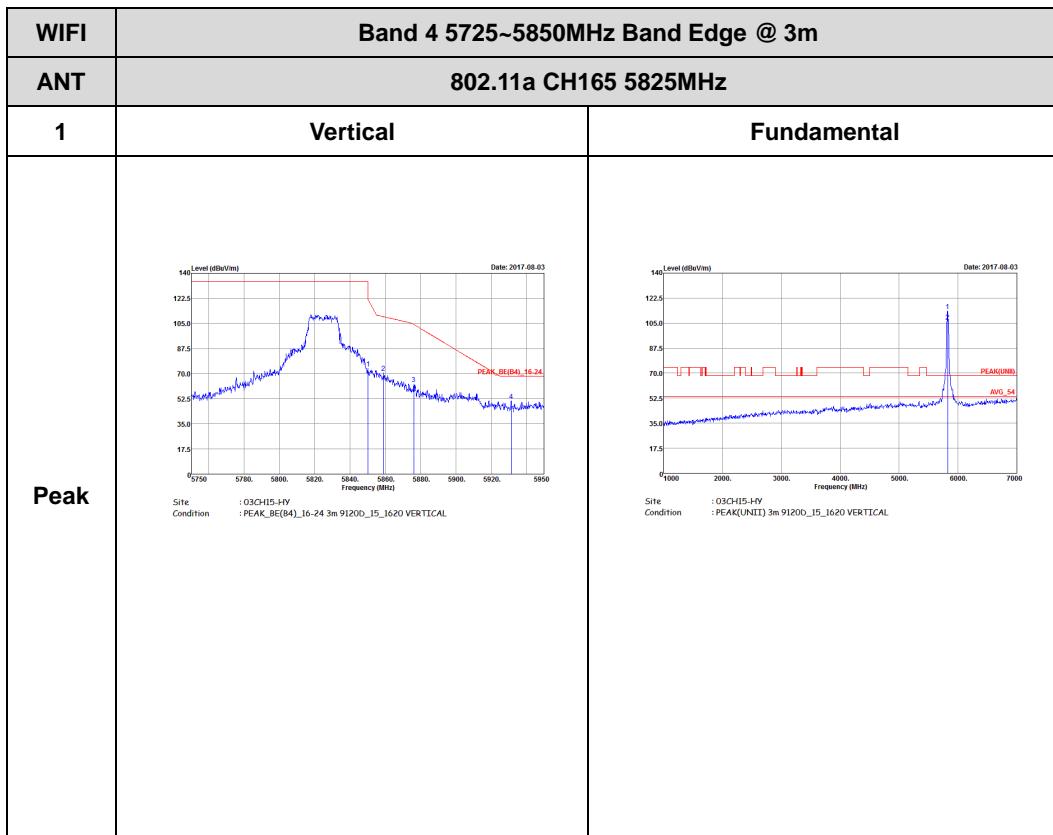






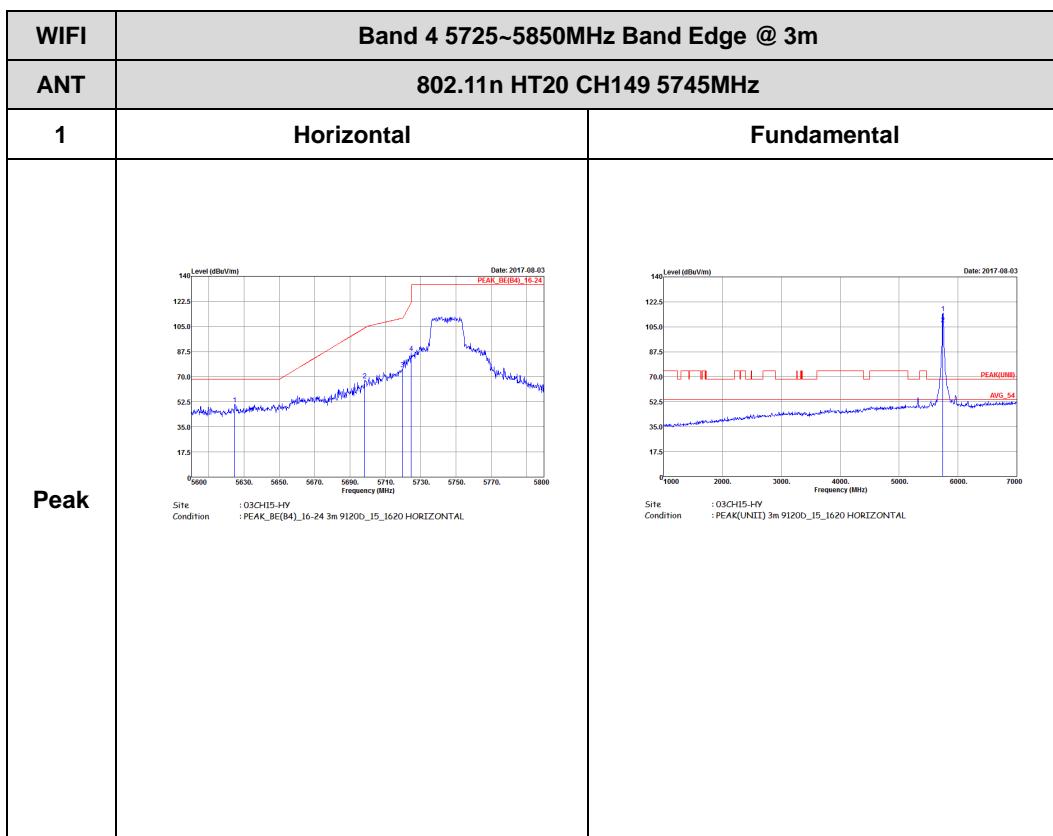


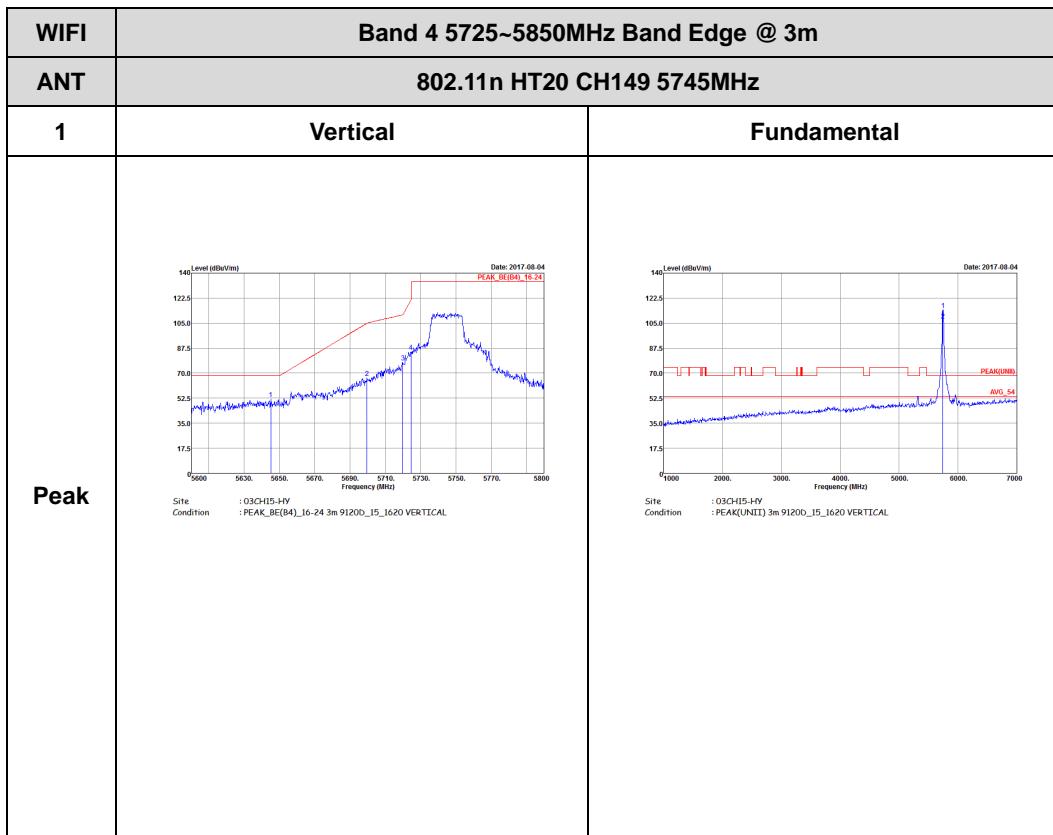


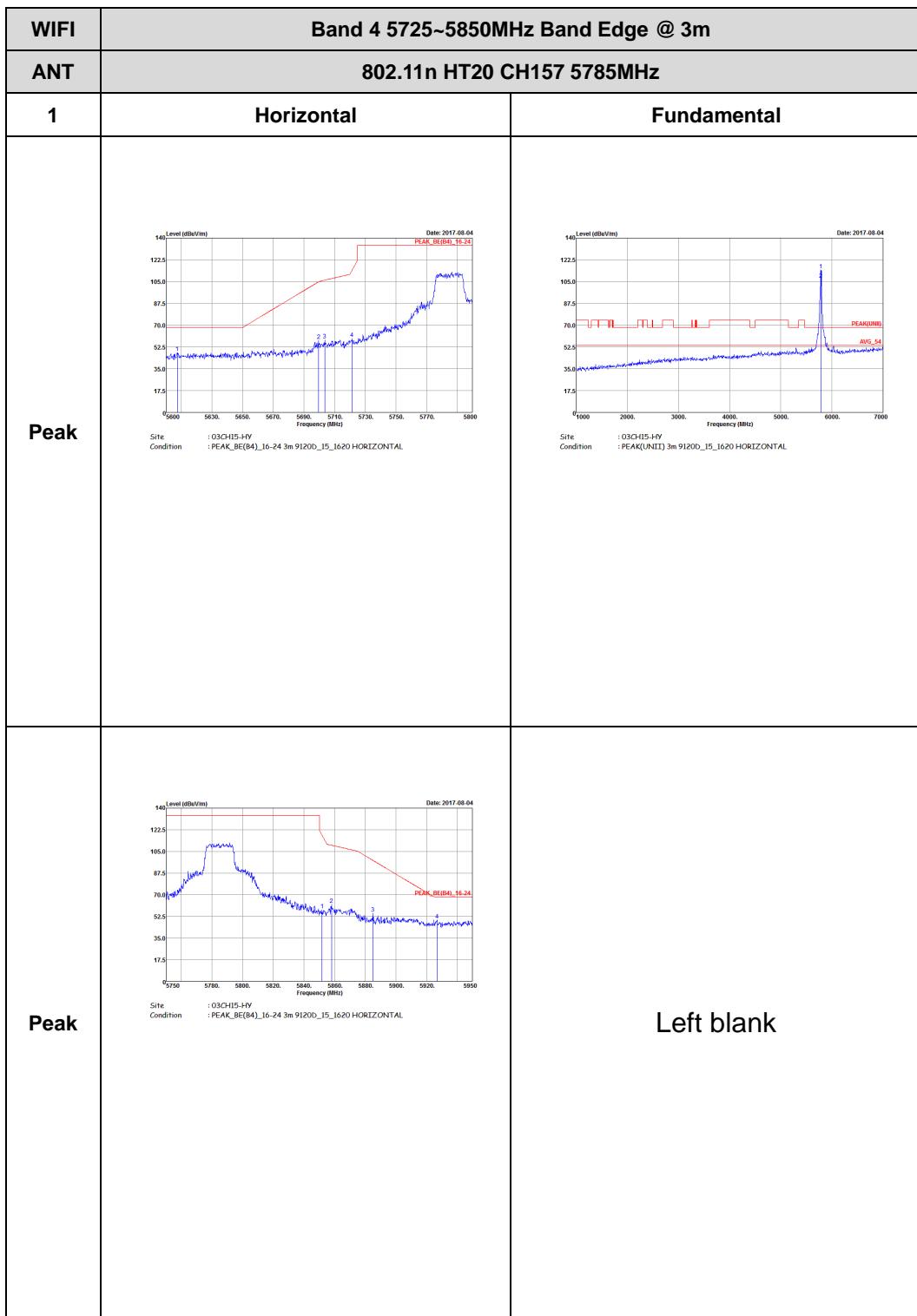


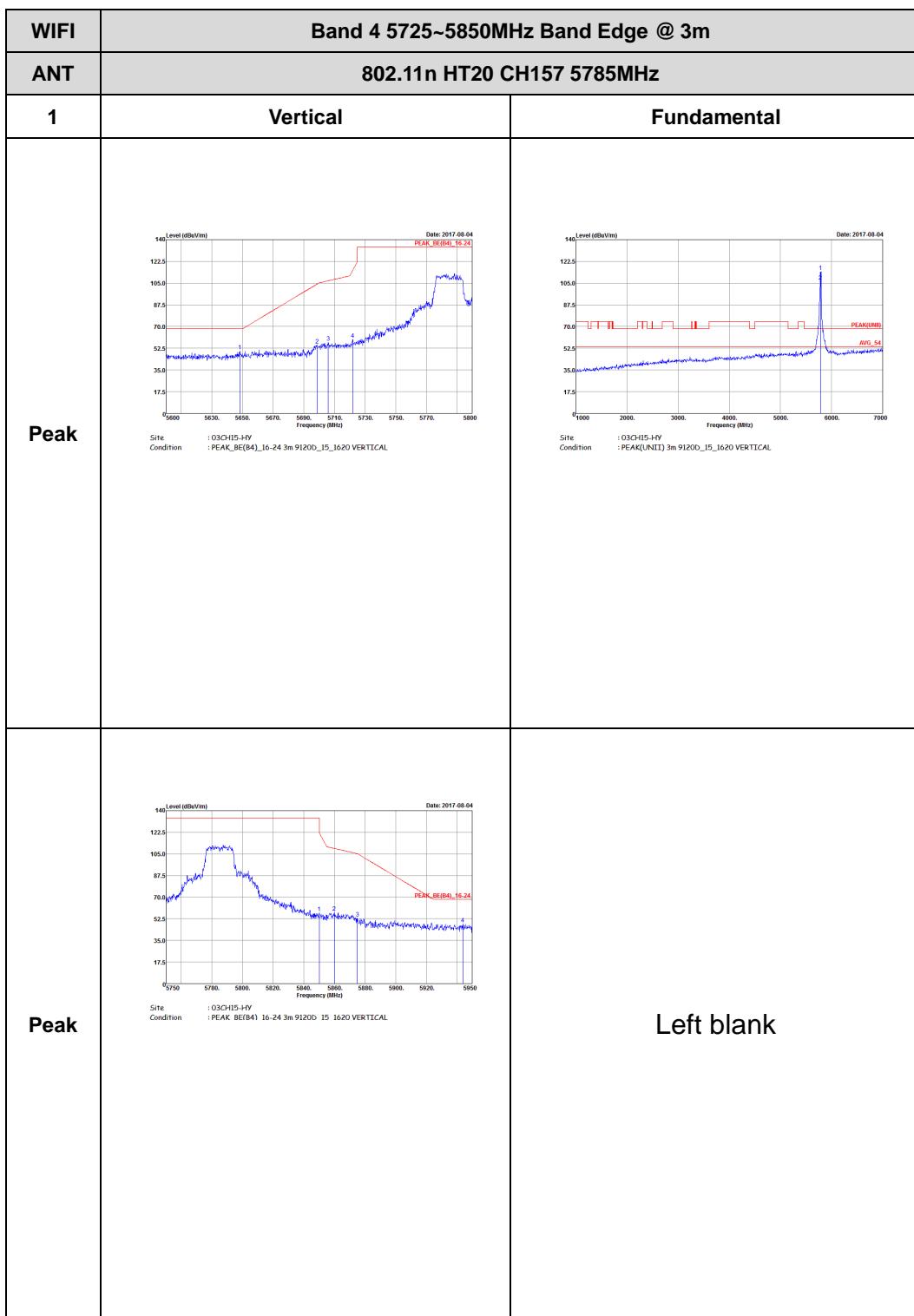


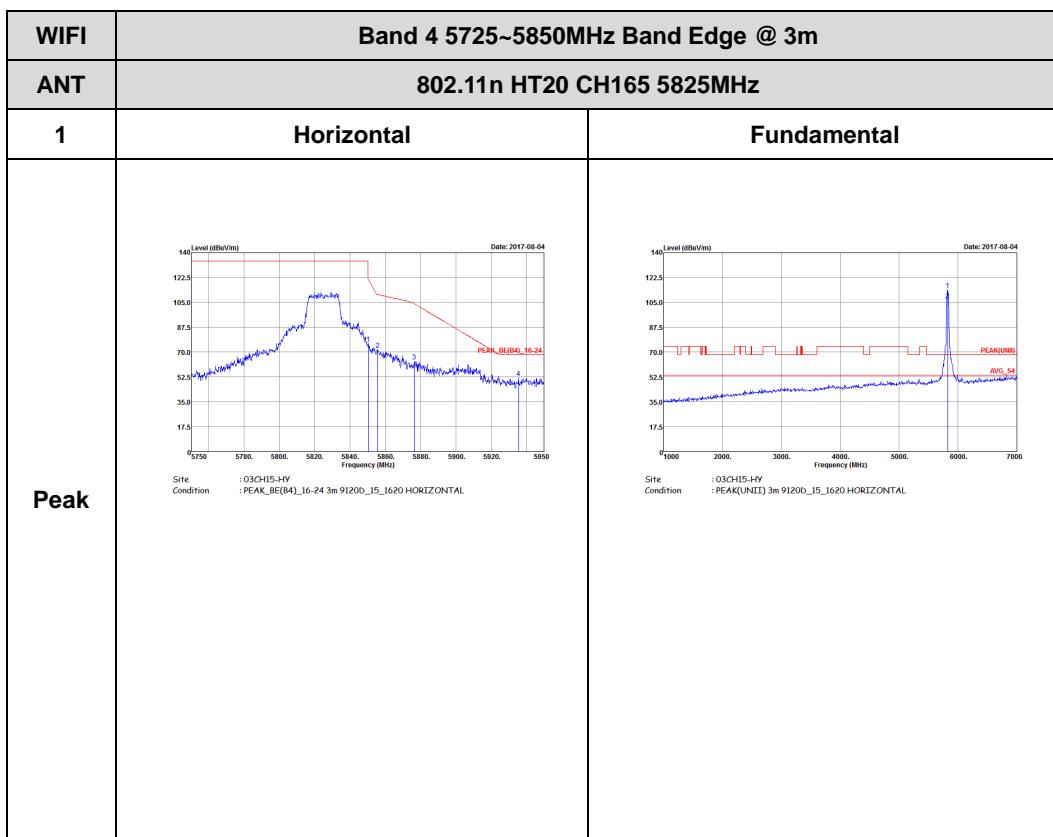
Band 4 5725~5850MHz
WIFI 802.11n HT20 (Band Edge @ 3m)

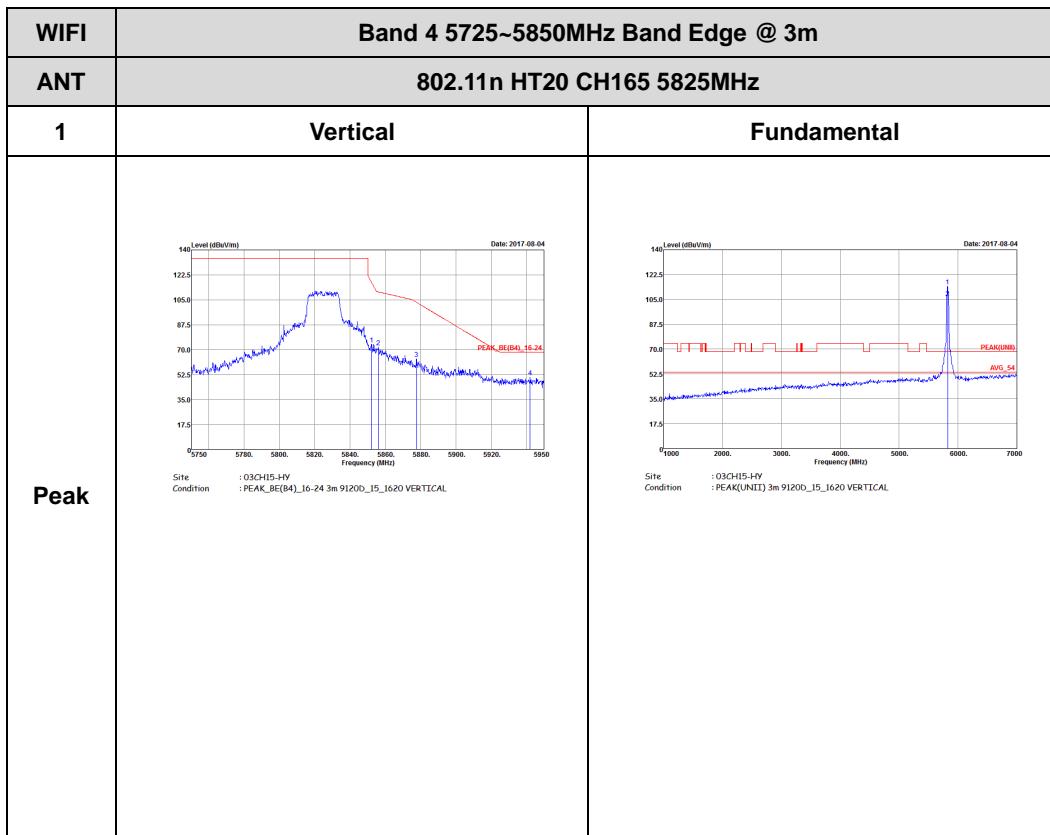








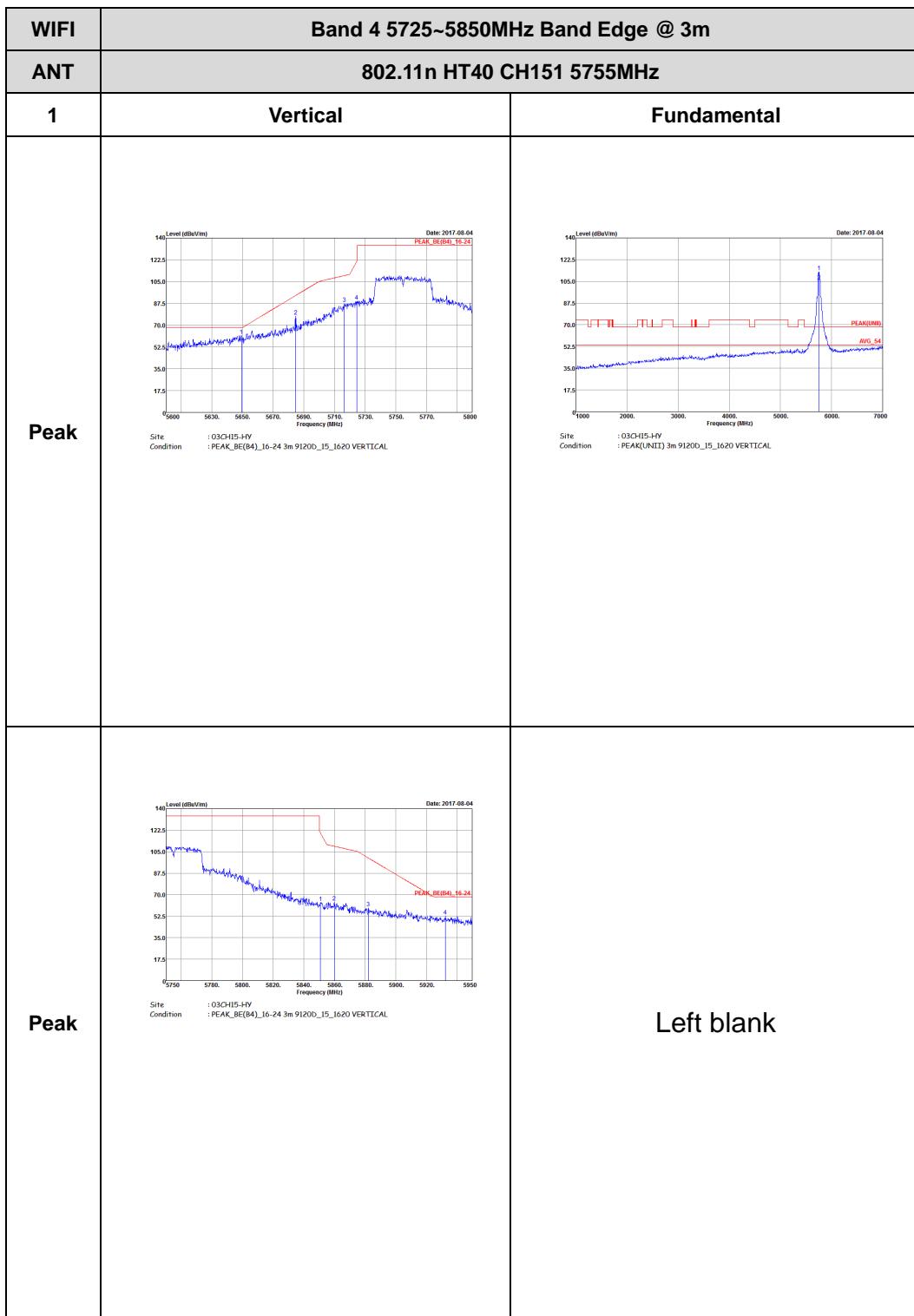


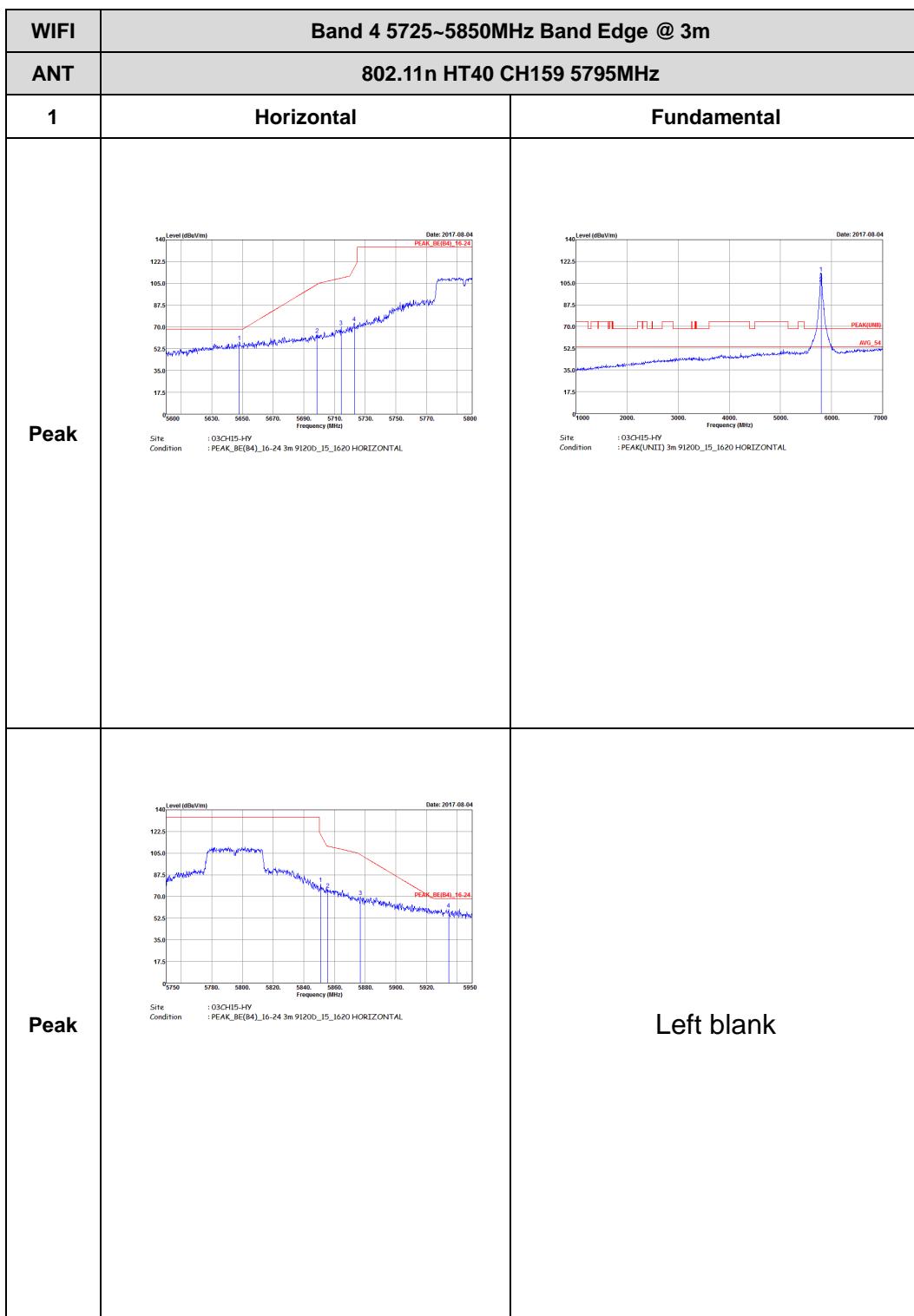


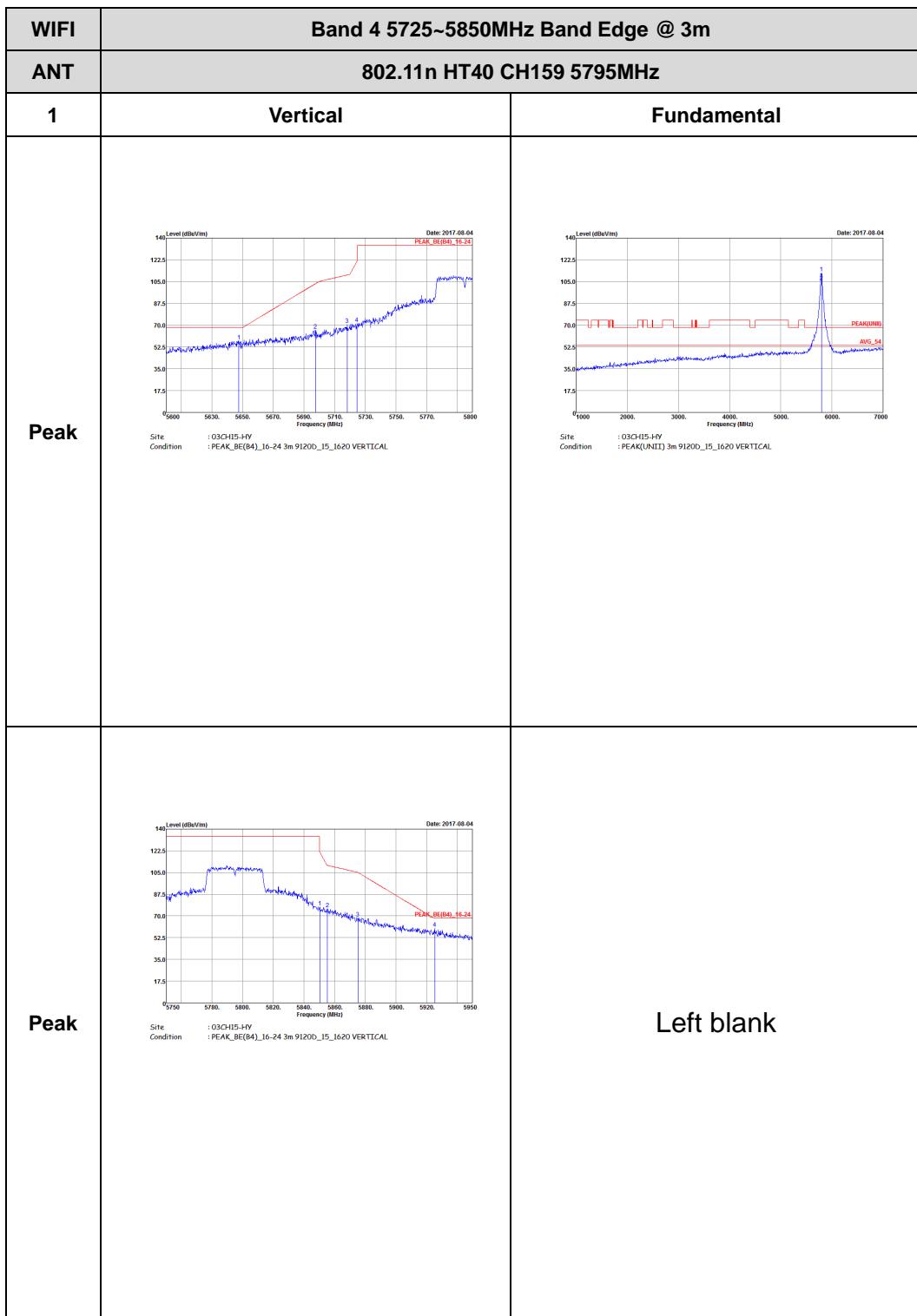


Band 4 5725~5850MHz
WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT40 CH151 5755MHz	
1	Horizontal	Fundamental
Peak	 Site Condition : 03CH15-HY Site Condition : PEAK_BE(B4)_16-24 3m 91200_15_1620 HORIZONTAL	 Site Condition : 03CH15-HY Site Condition : PEAK(B4)_3m 91200_15_1620 HORIZONTAL
Peak	 Site Condition : 03CH15-HY Site Condition : PEAK_BE(B4)_16-24 3m 91200_15_1620 HORIZONTAL	Left blank





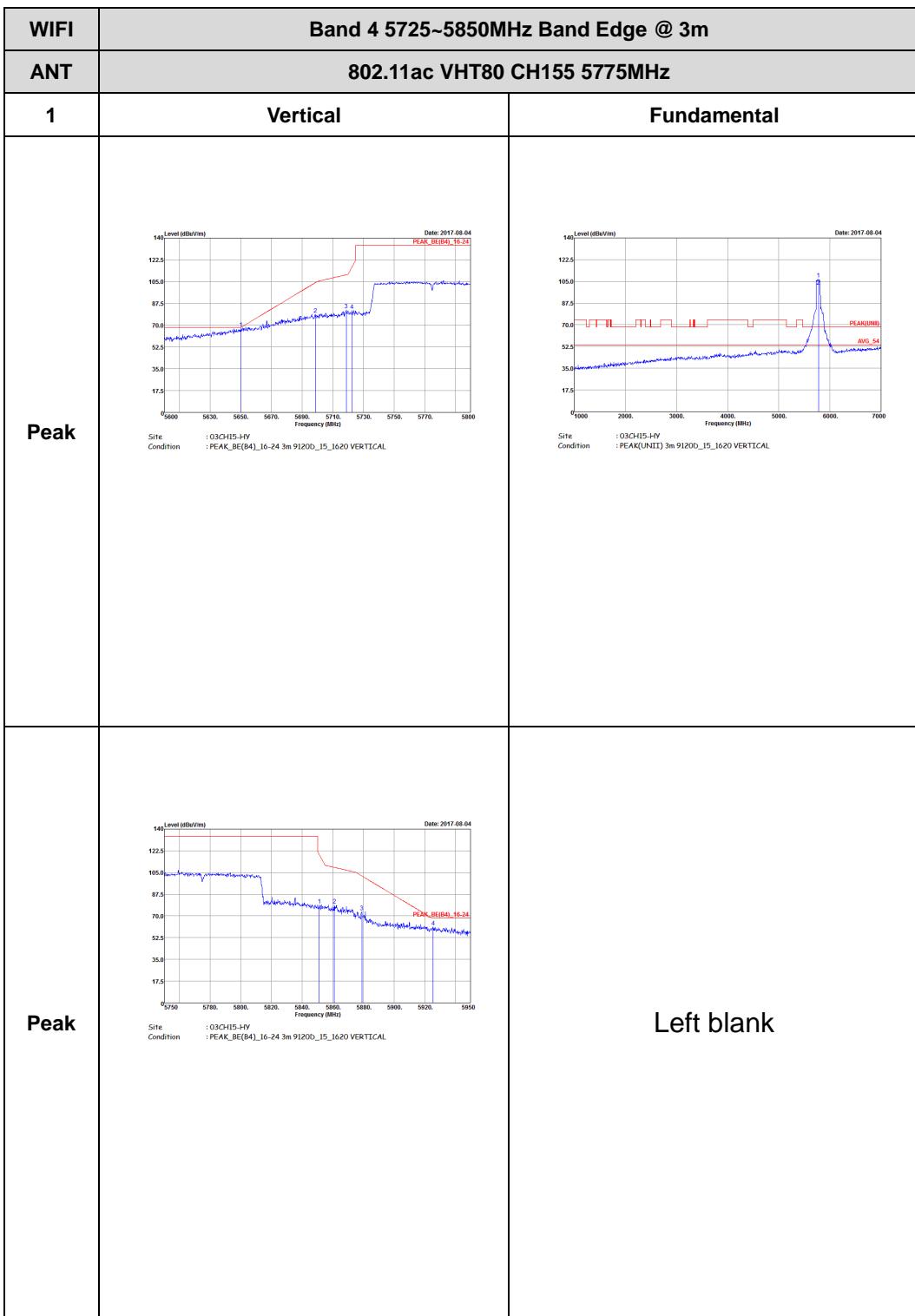




Band 4 5725~5850MHz

WIFI 802.11ac VHT80 (Band Edge @ 3m)

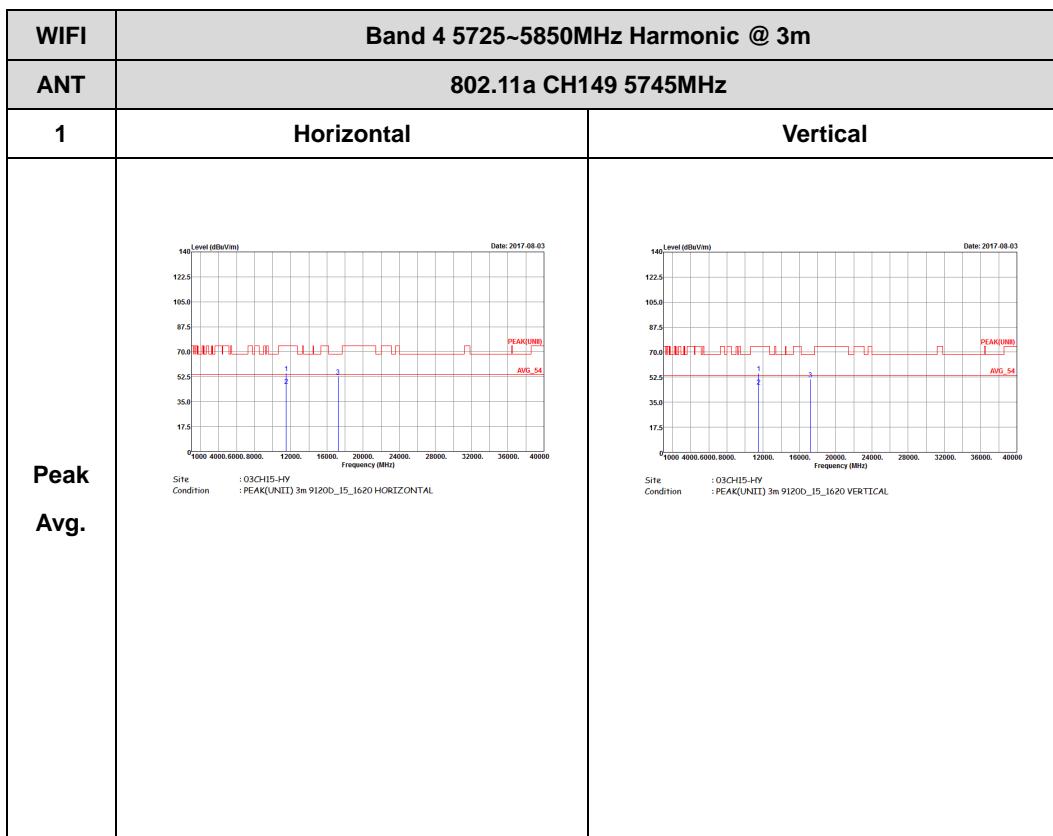
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH155 5775MHz	
1	Horizontal	Fundamental
Peak	 Site Condition : 03CH15-HY : PEAK_BE(B4)_16-24 3m 91200_15_1620 HORIZONTAL	 Site Condition : 03CH15-HY : PEAK(UNIT) 3m 91200_15_1620 HORIZONTAL
Peak	 Site Condition : 03CH15-HY : PEAK_BE(B4)_16-24 3m 91200_15_1620 HORIZONTAL	Left blank

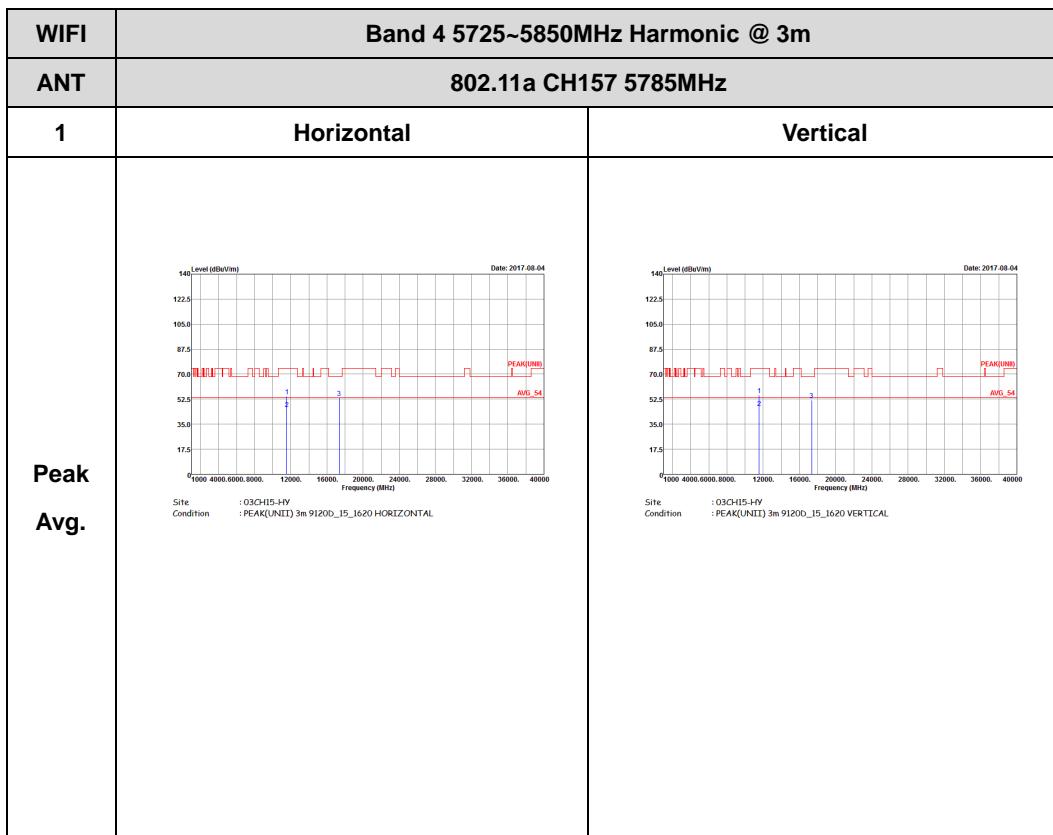


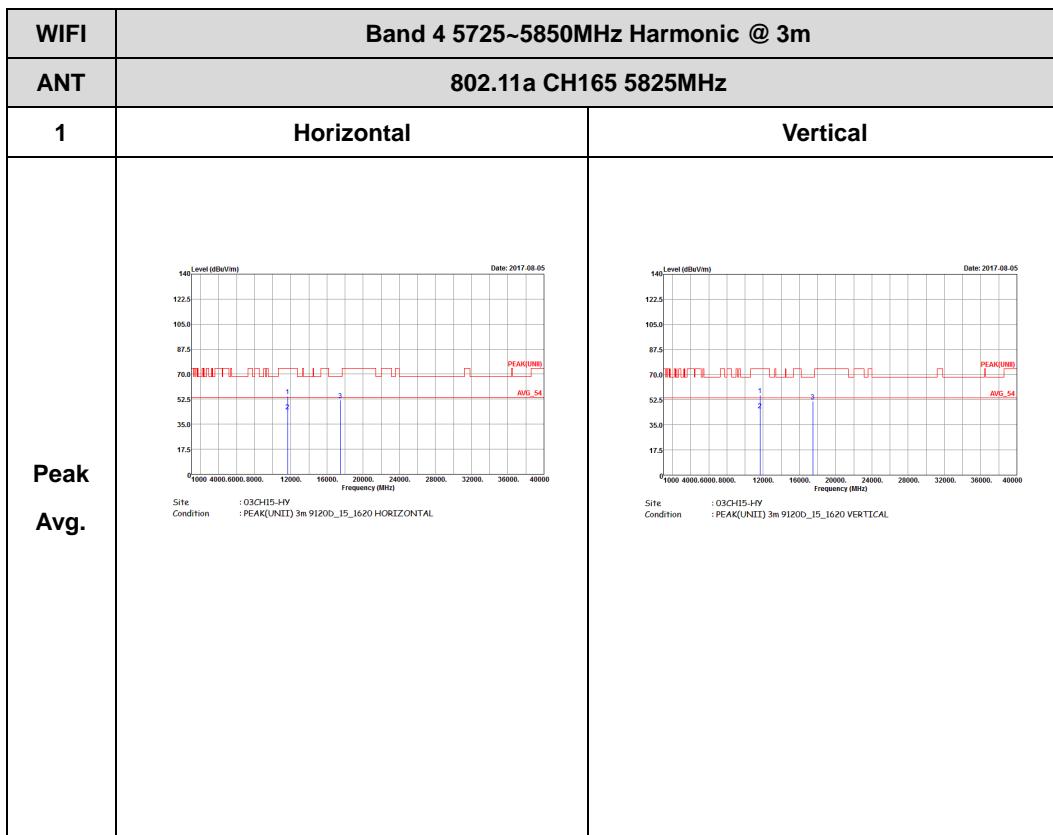


Band 4 - 5725~5850MHz

WIFI 802.11a (Harmonic @ 3m)

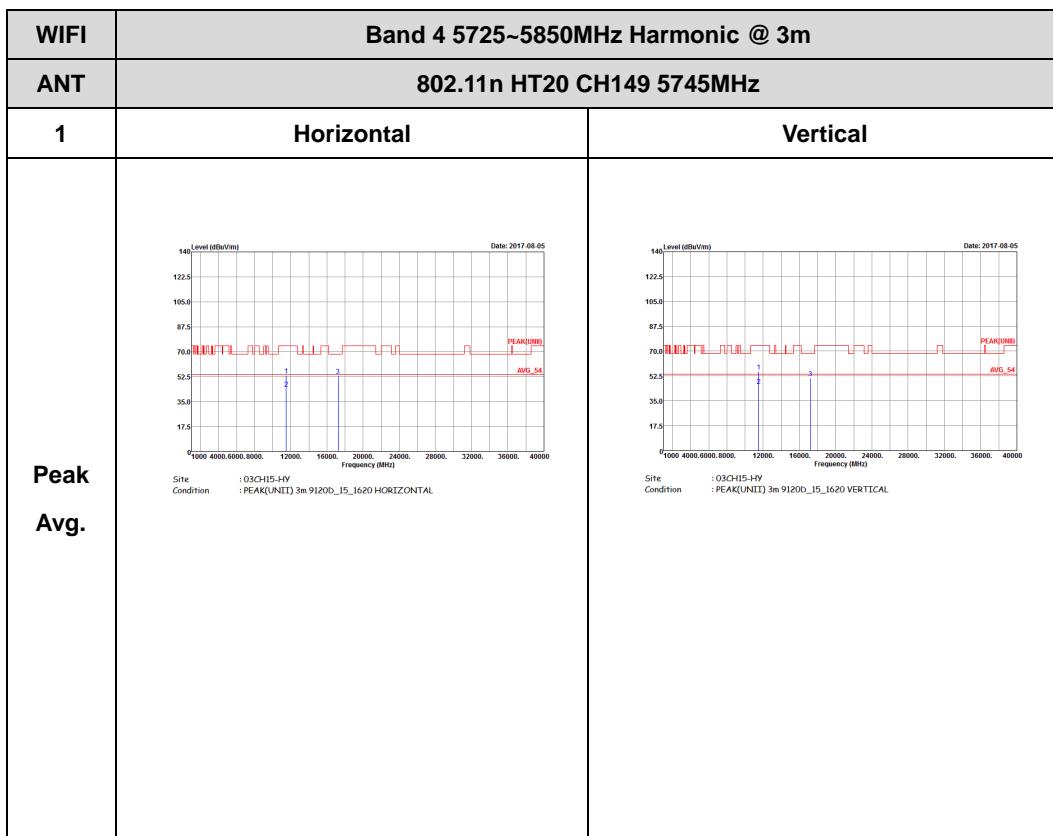


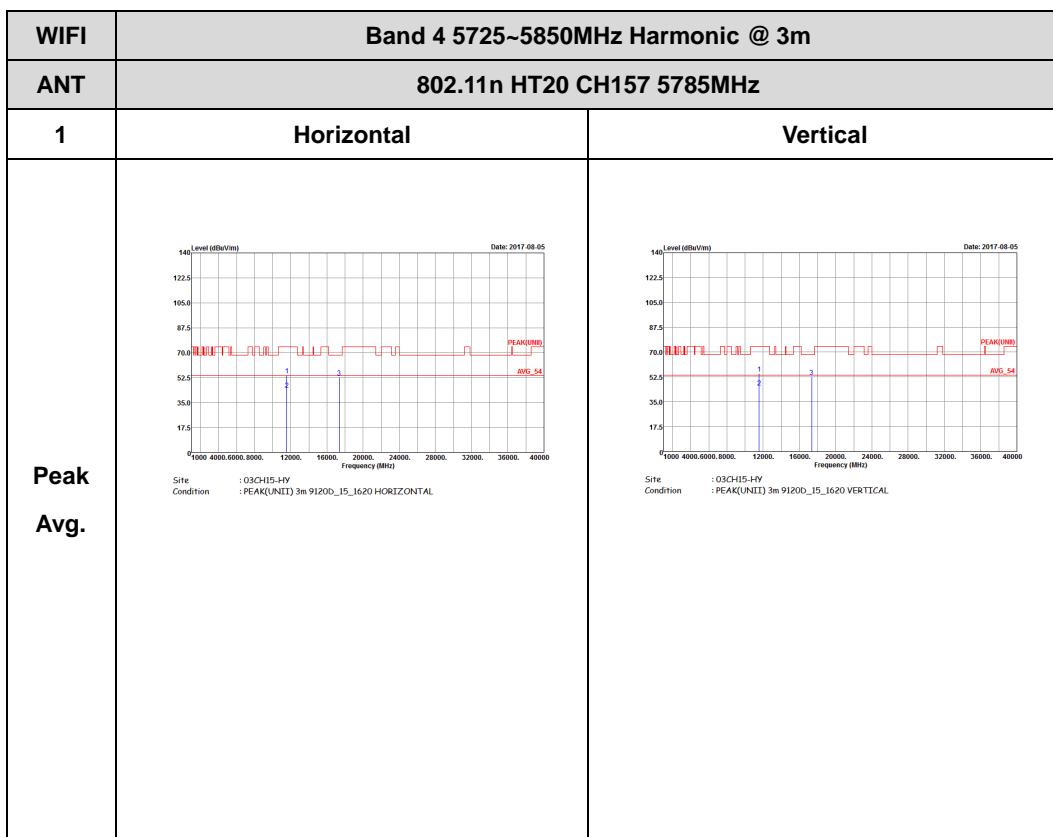


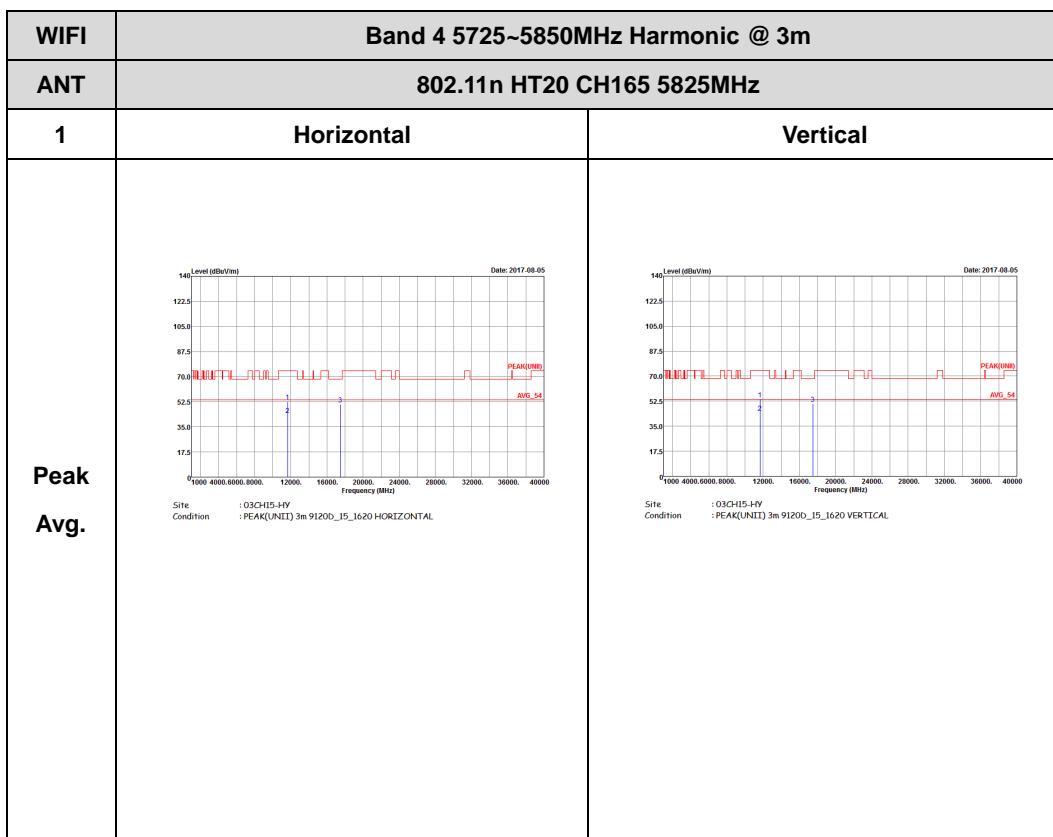




Band 4 5725~5850MHz
WIFI 802.11n HT20 (Harmonic @ 3m)

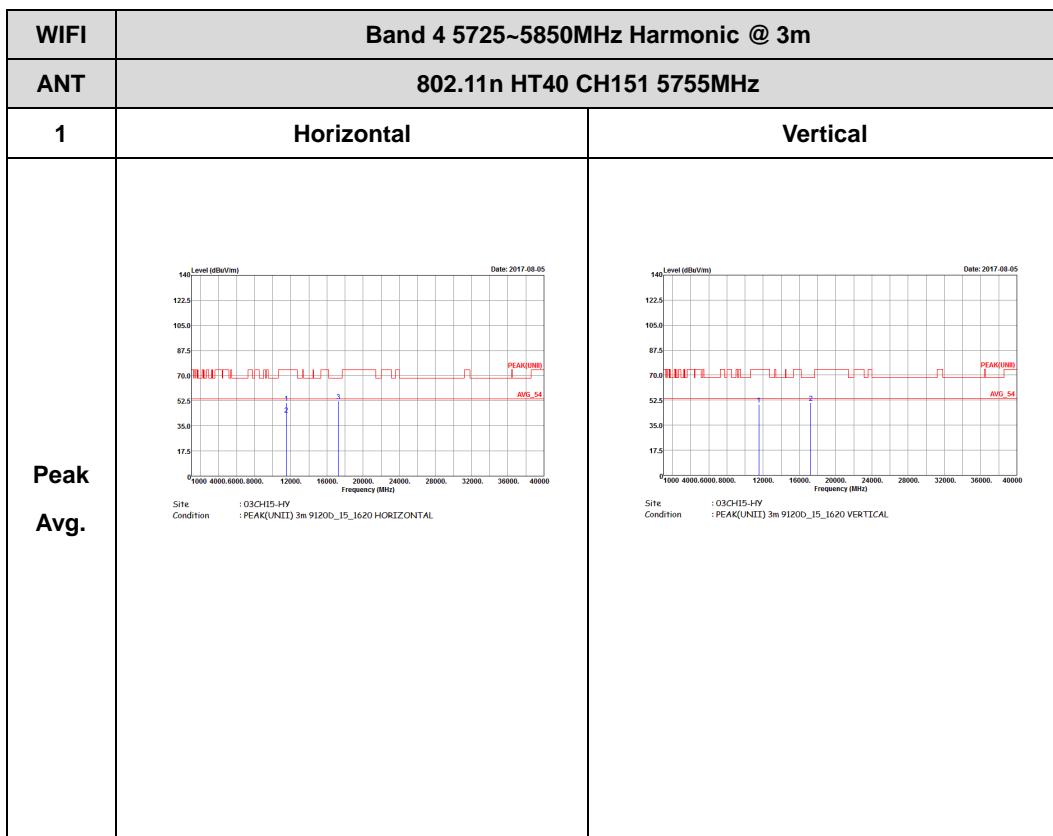


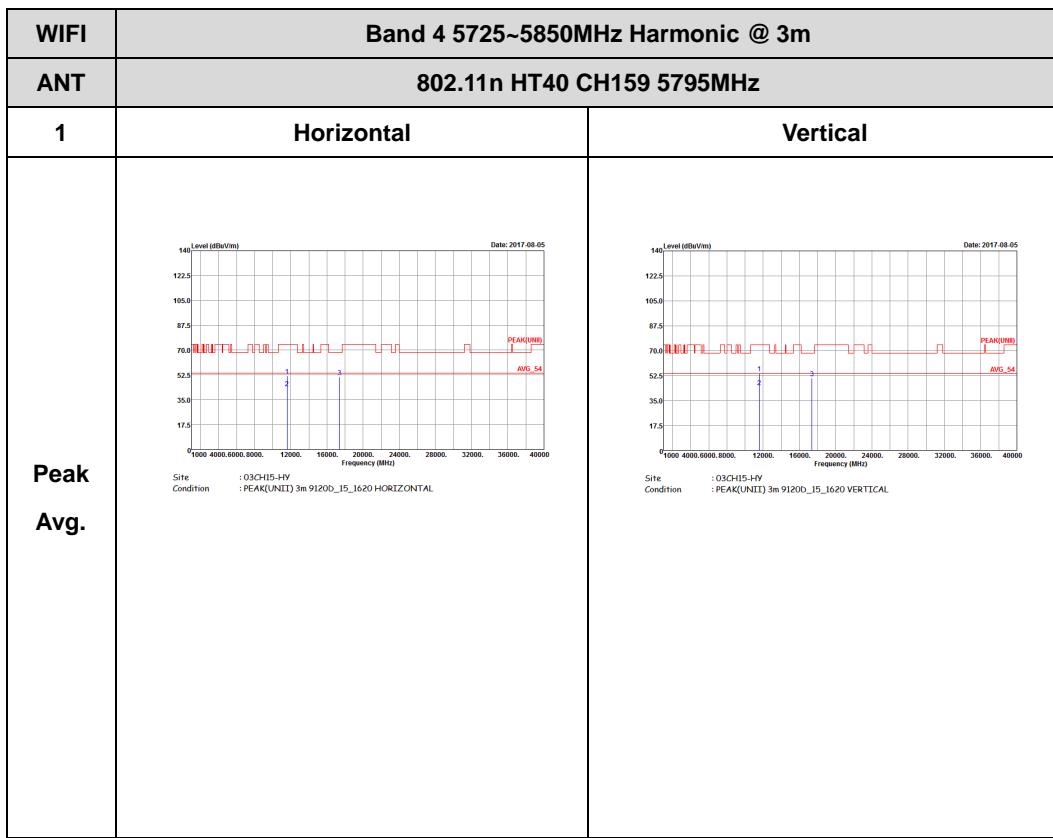






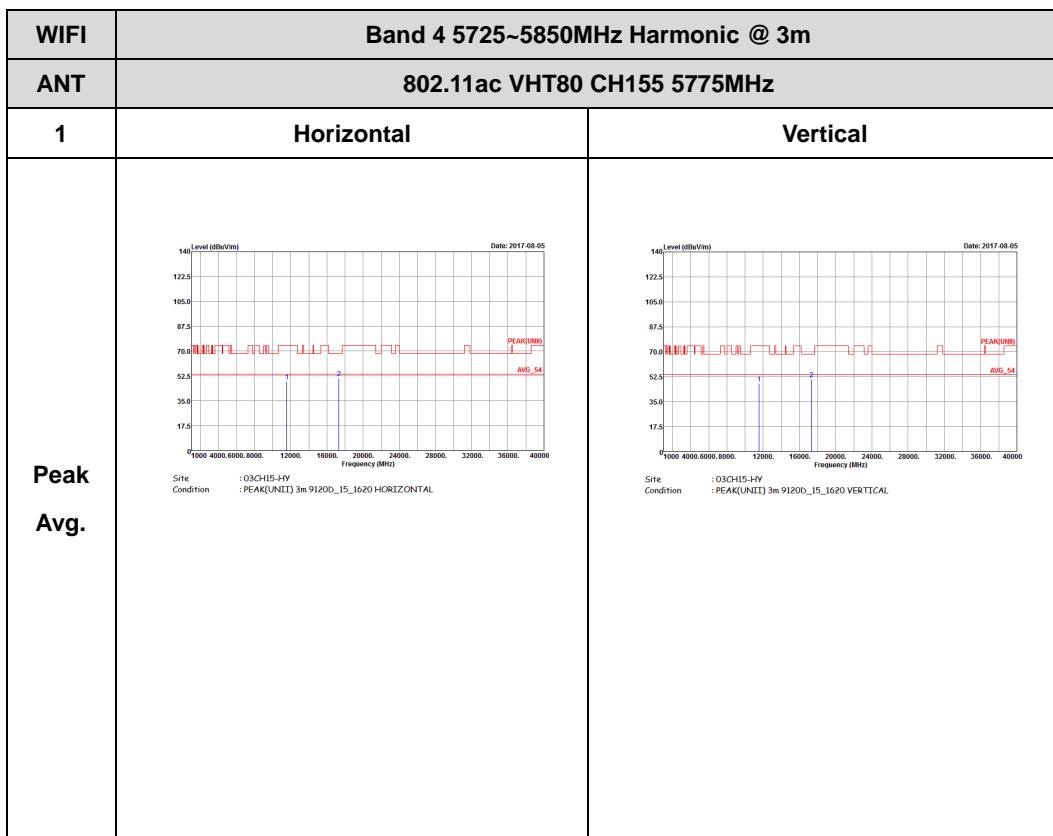
Band 4 5725~5850MHz
WIFI 802.11n HT40 (Harmonic @ 3m)







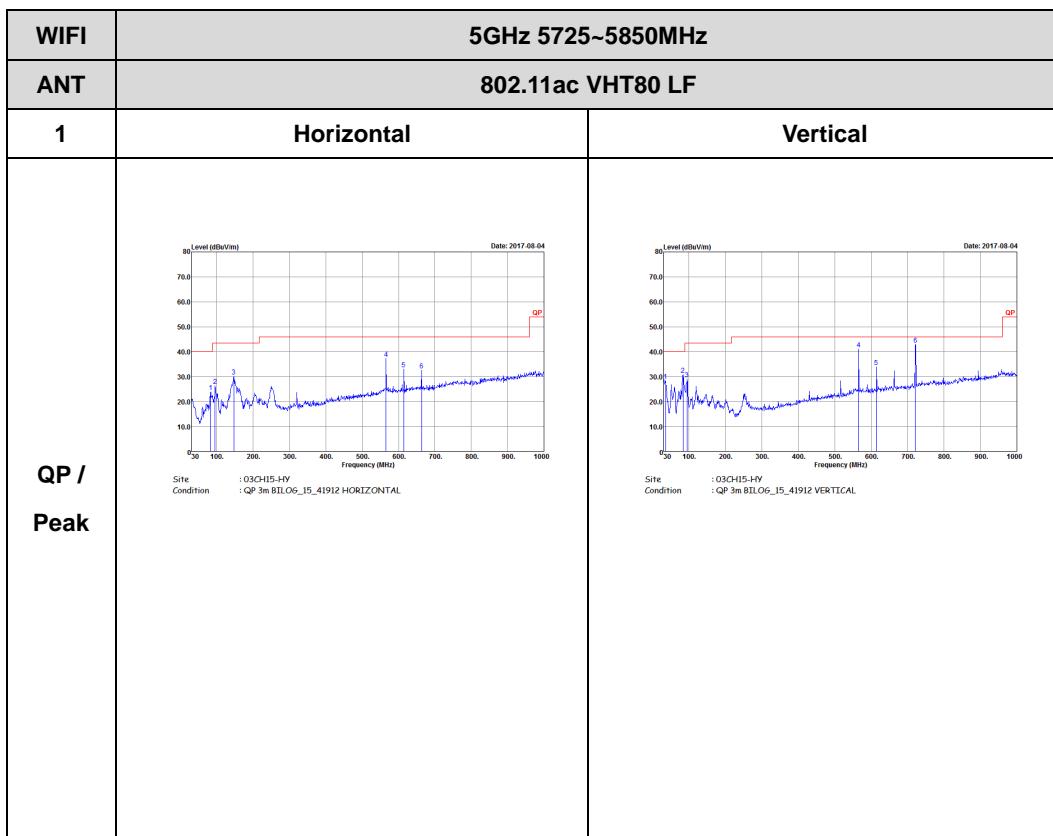
Band 4 5725~5850MHz
WIFI 802.11ac VHT80 (Harmonic @ 3m)





Emission below 1GHz

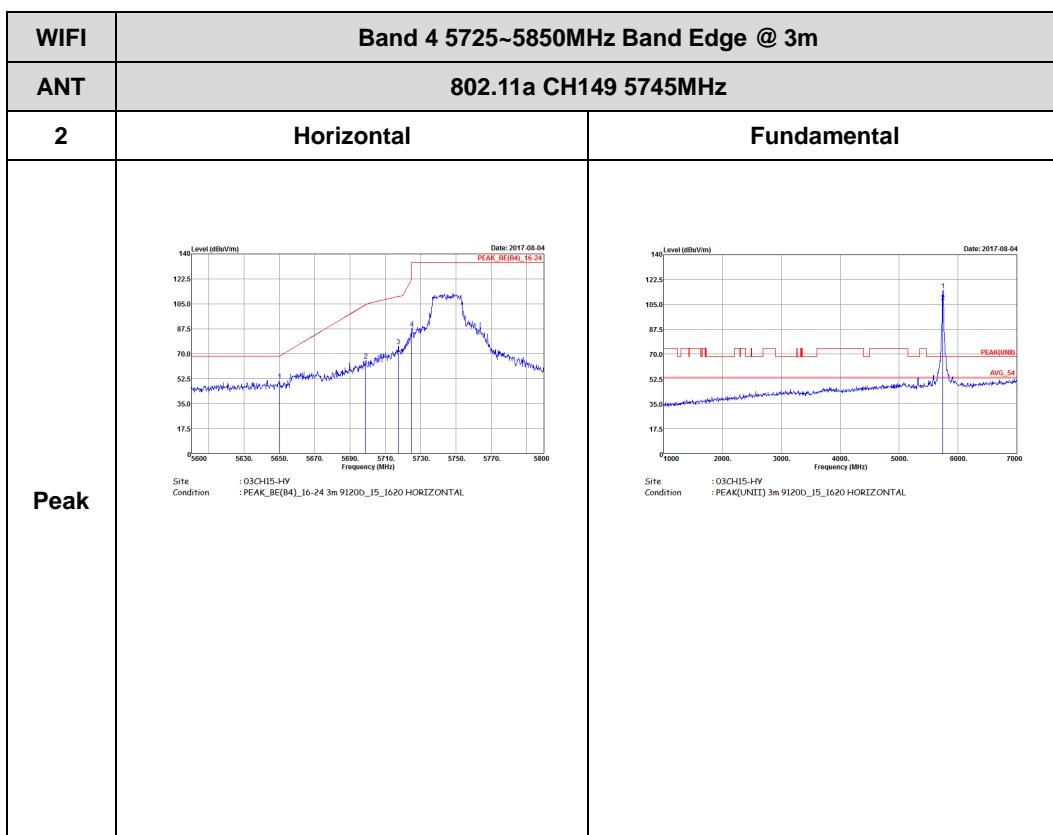
5GHz WIFI 802.11ac VHT80 (LF)

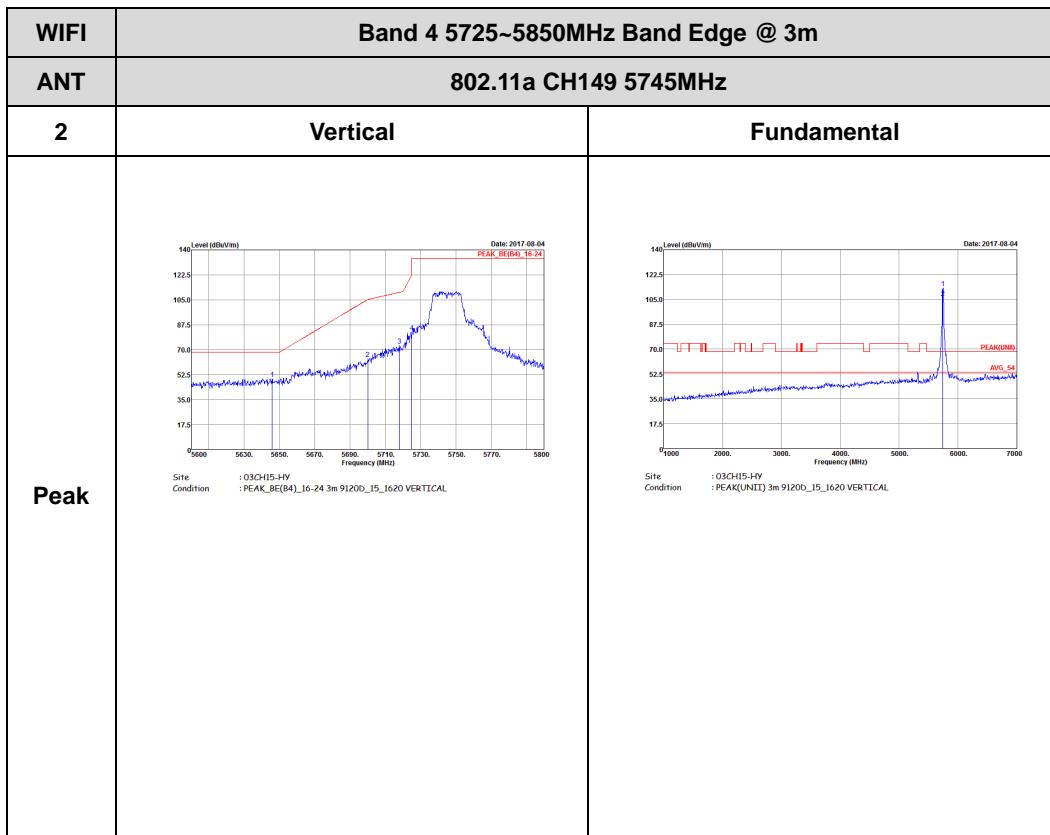


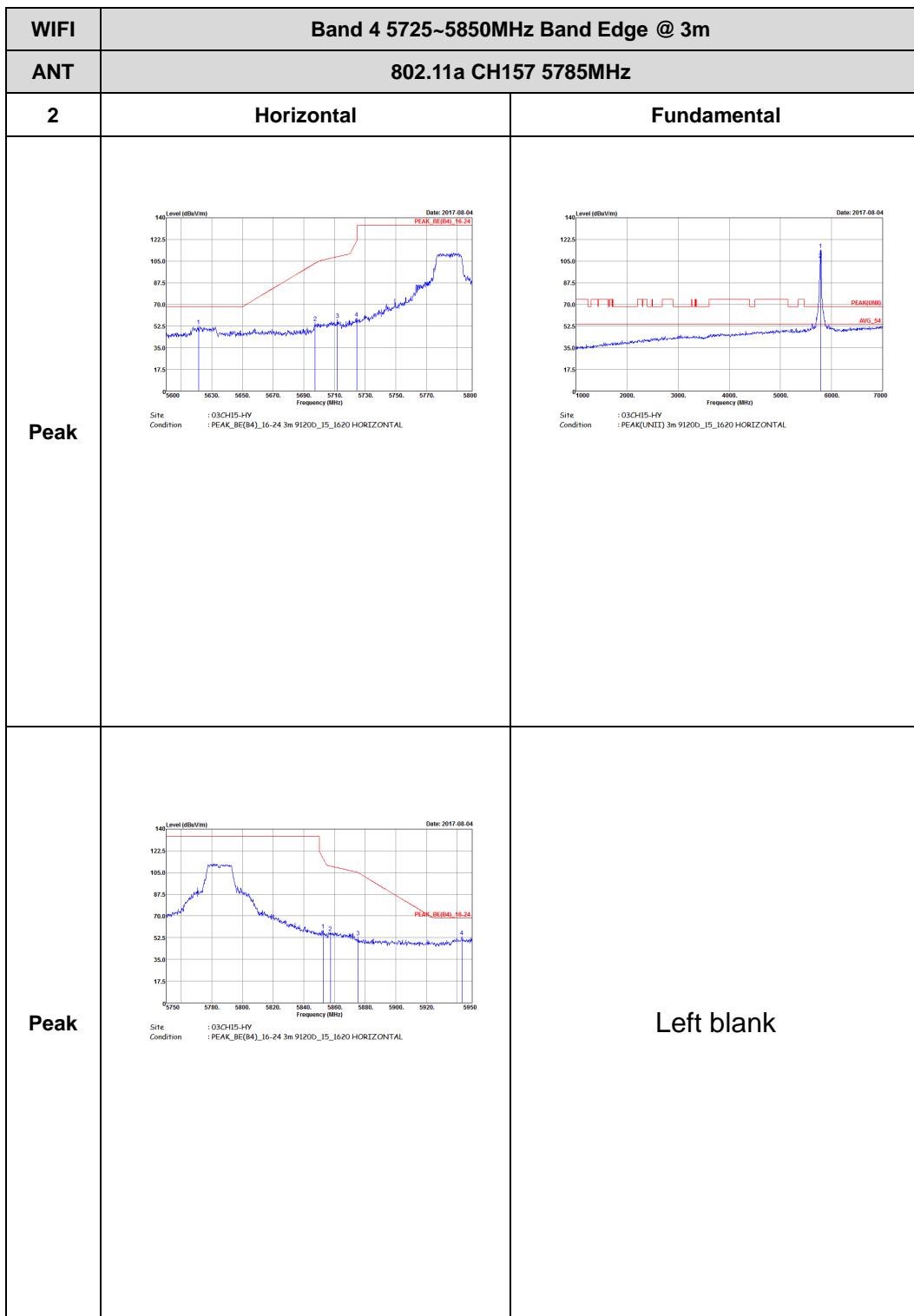


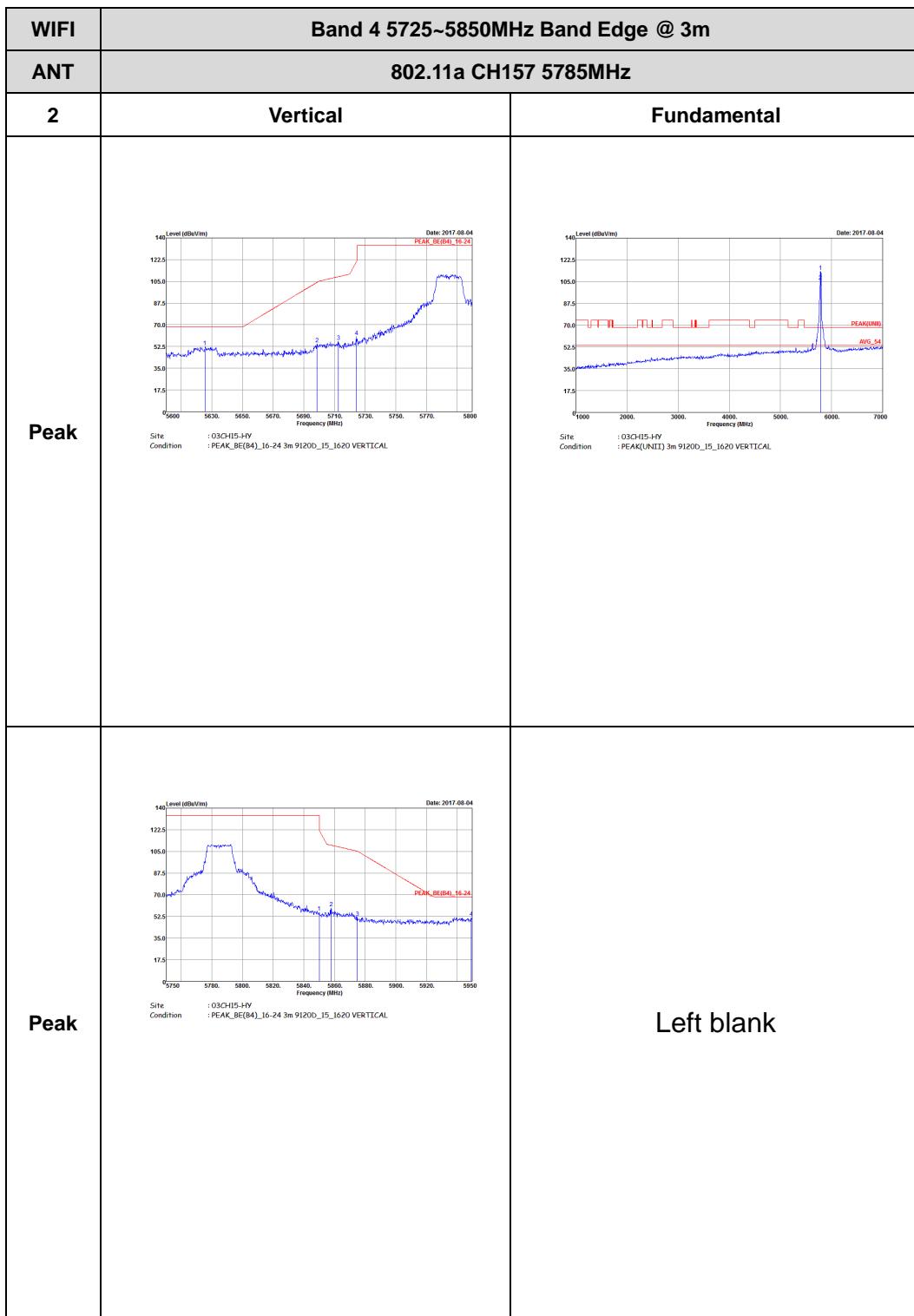
Band 4 - 5725~5850MHz

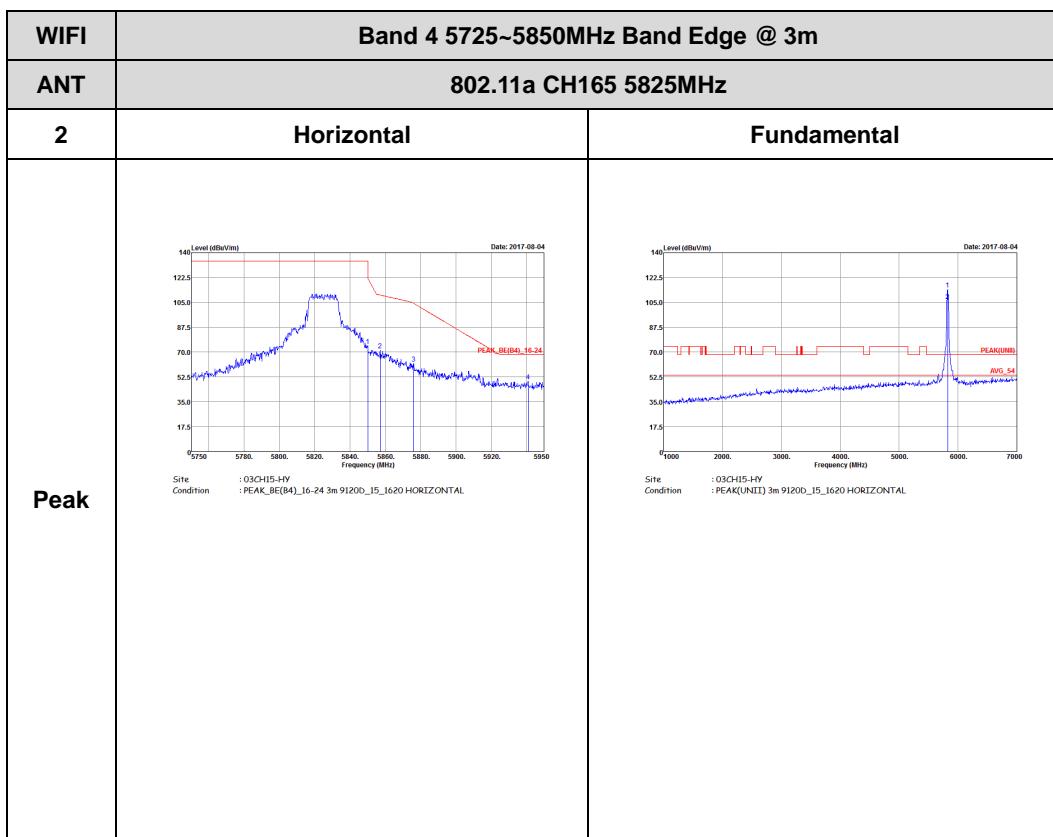
WIFI 802.11a (Band Edge @ 3m)

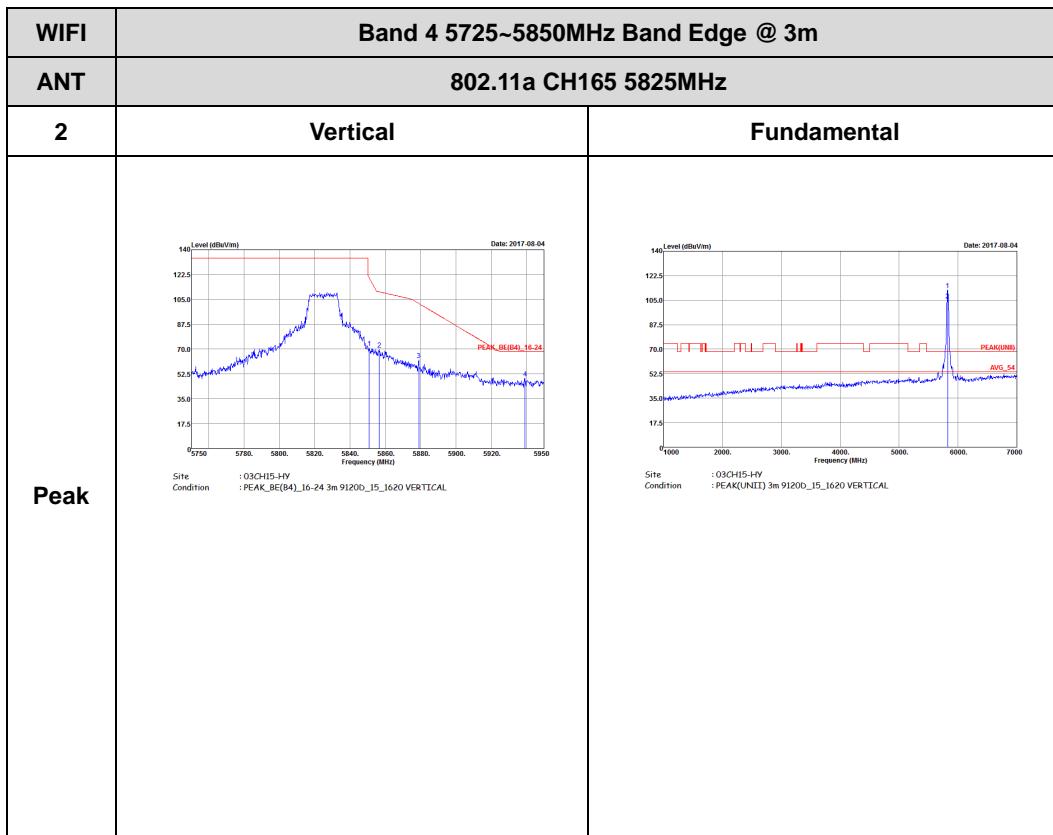






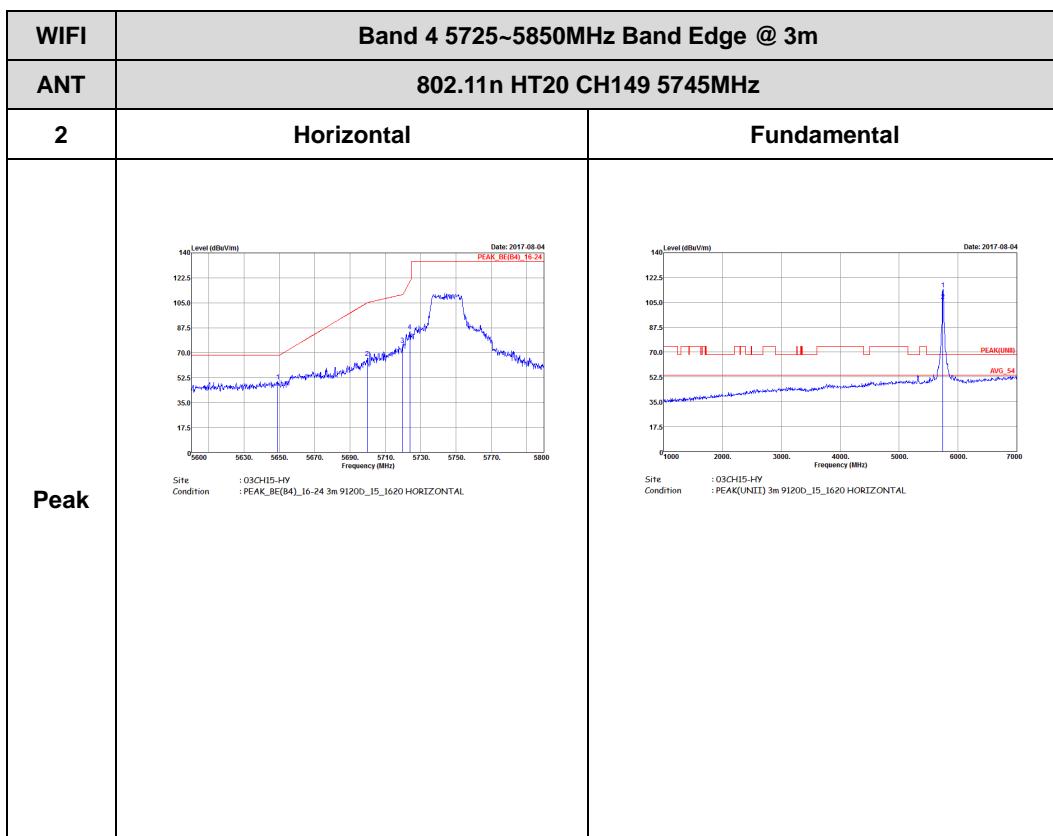


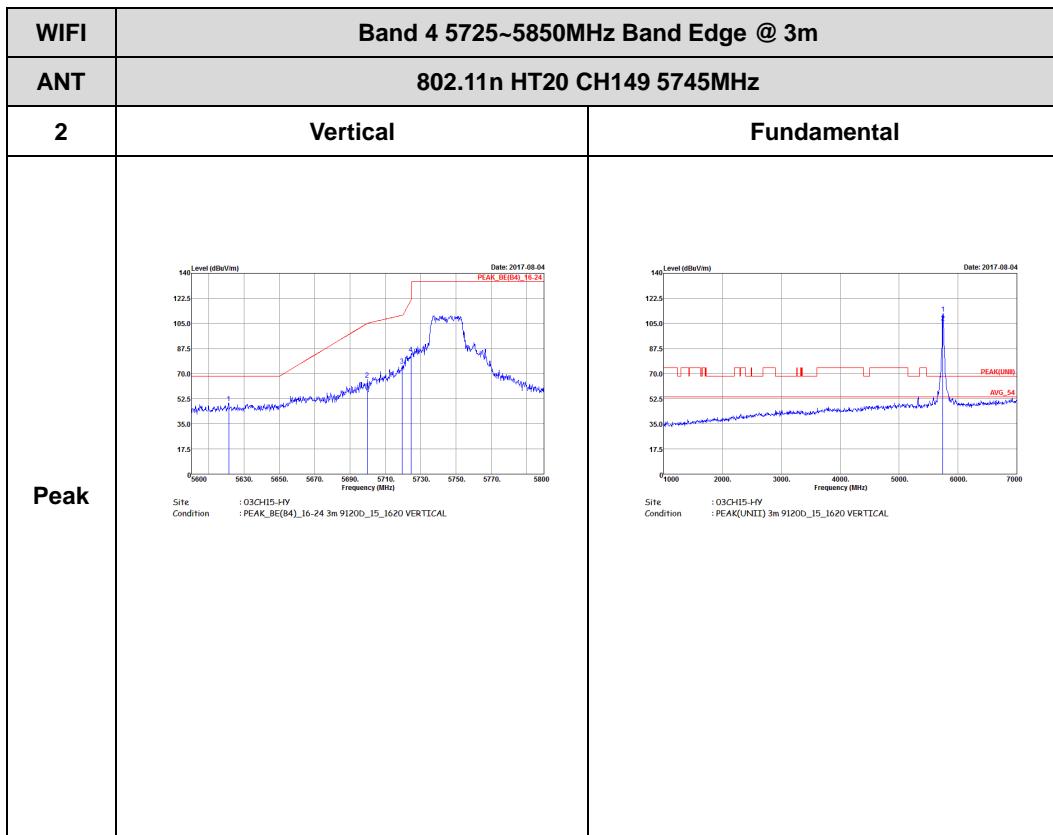


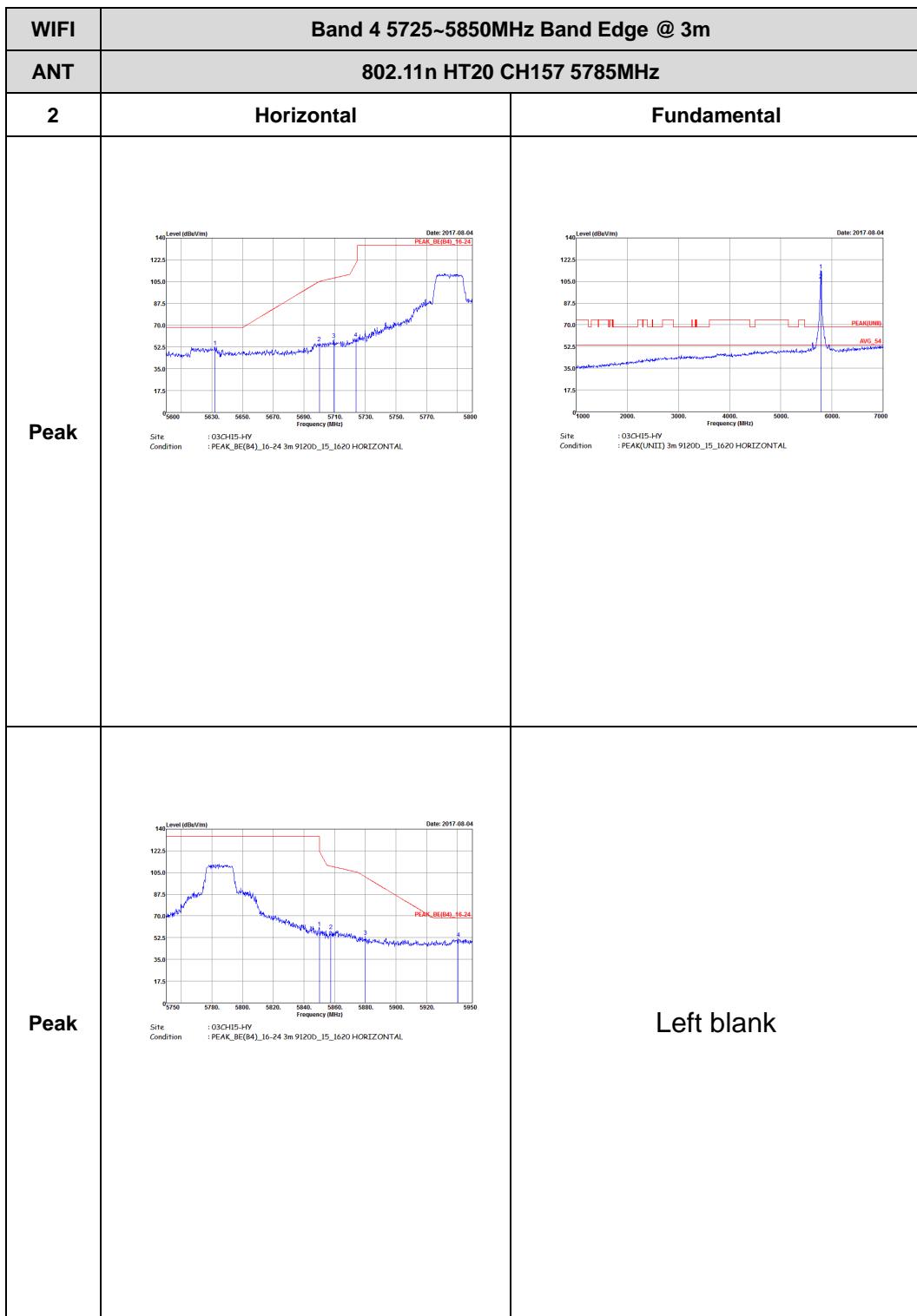


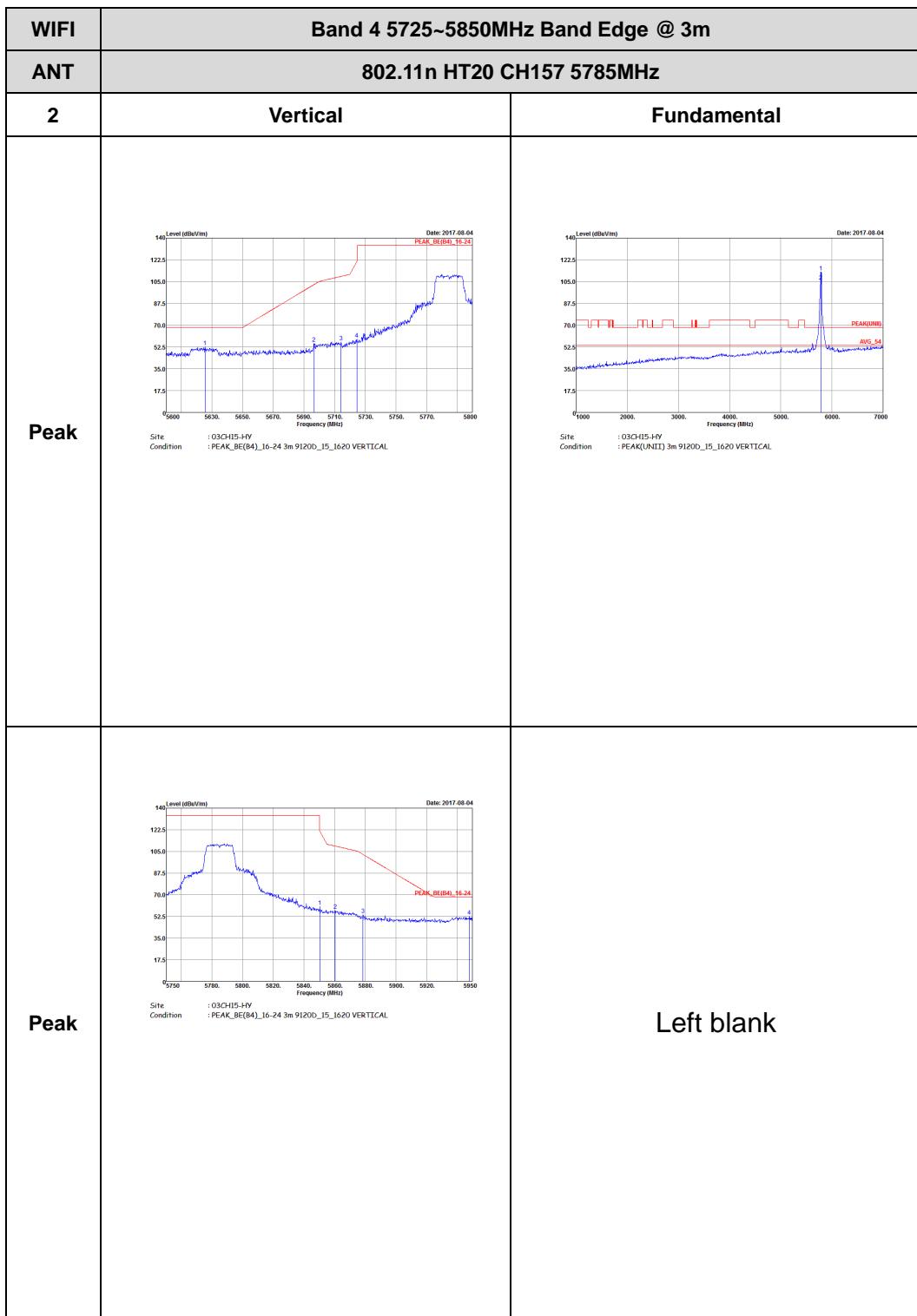


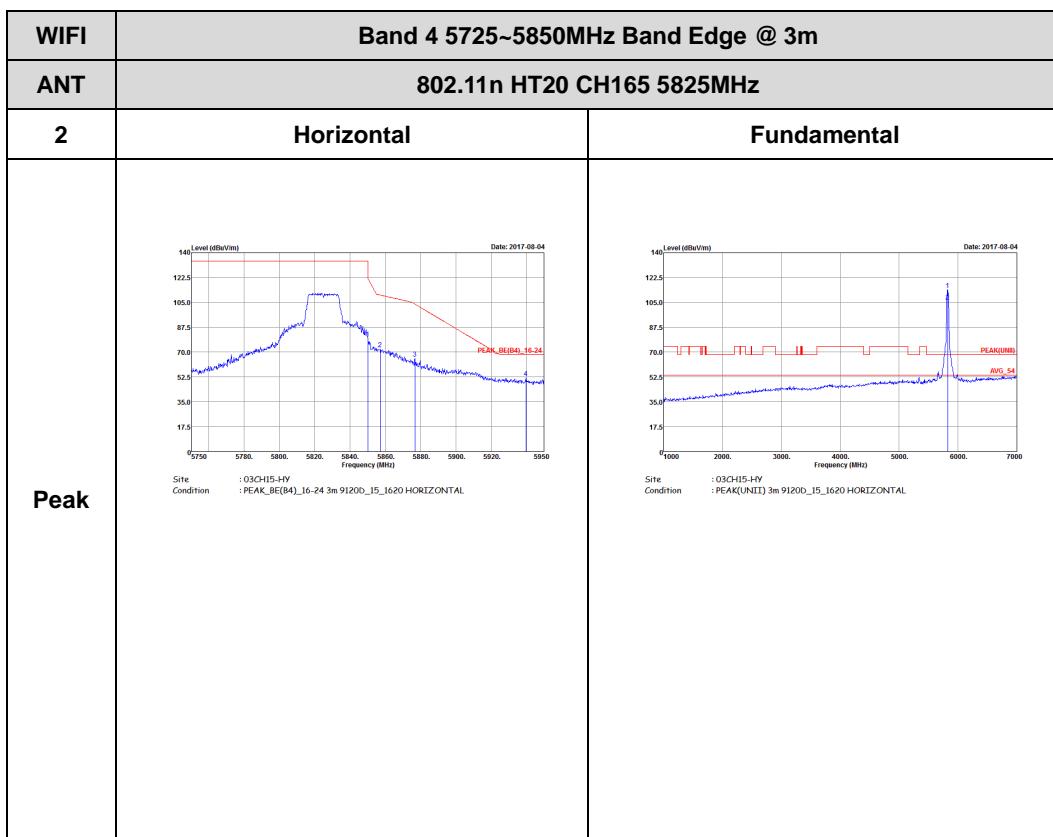
Band 4 5725~5850MHz
WIFI 802.11n HT20 (Band Edge @ 3m)

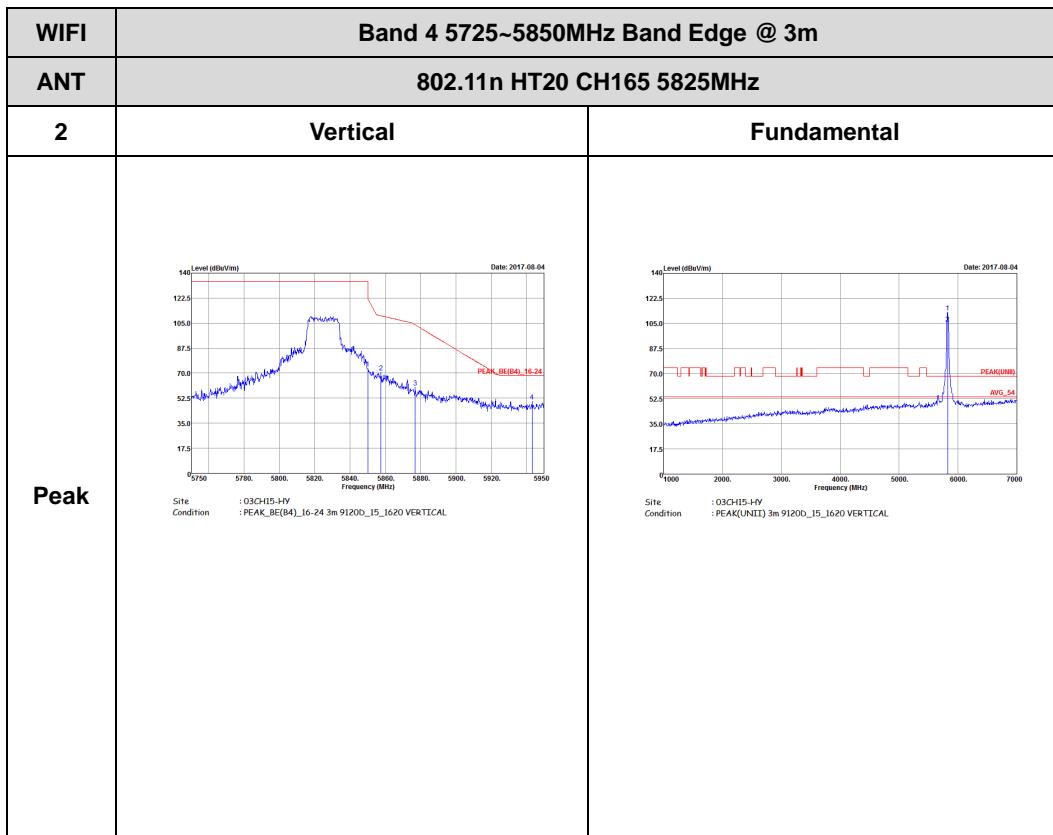






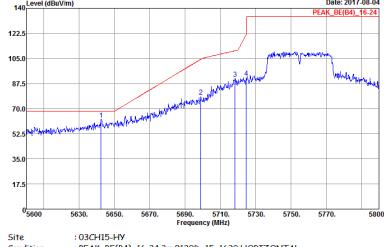
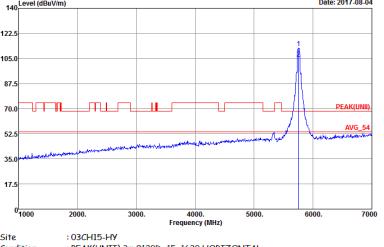
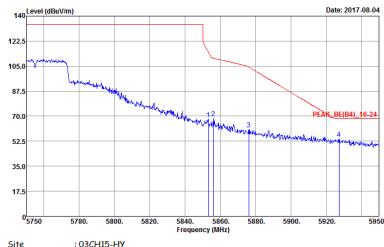


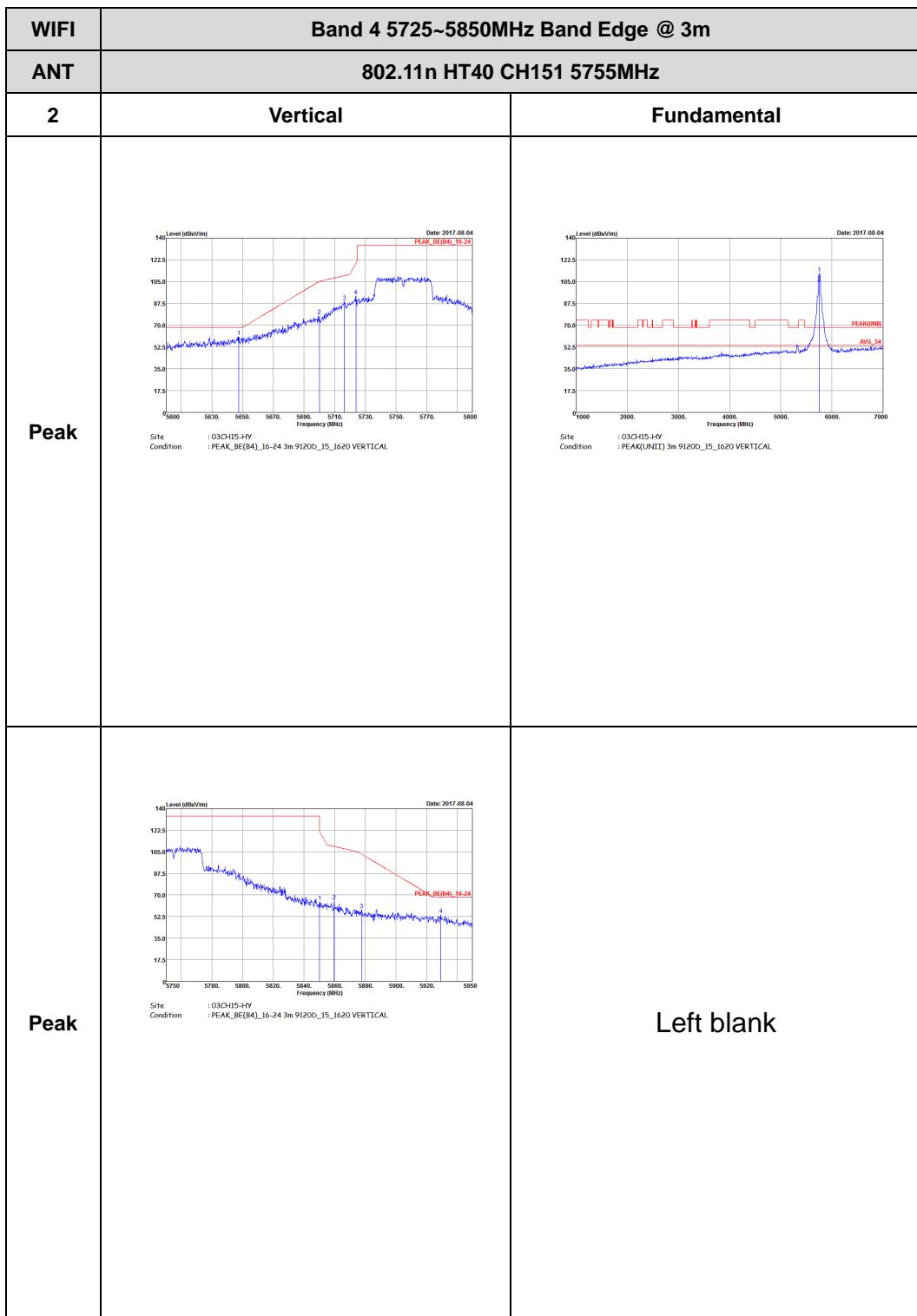


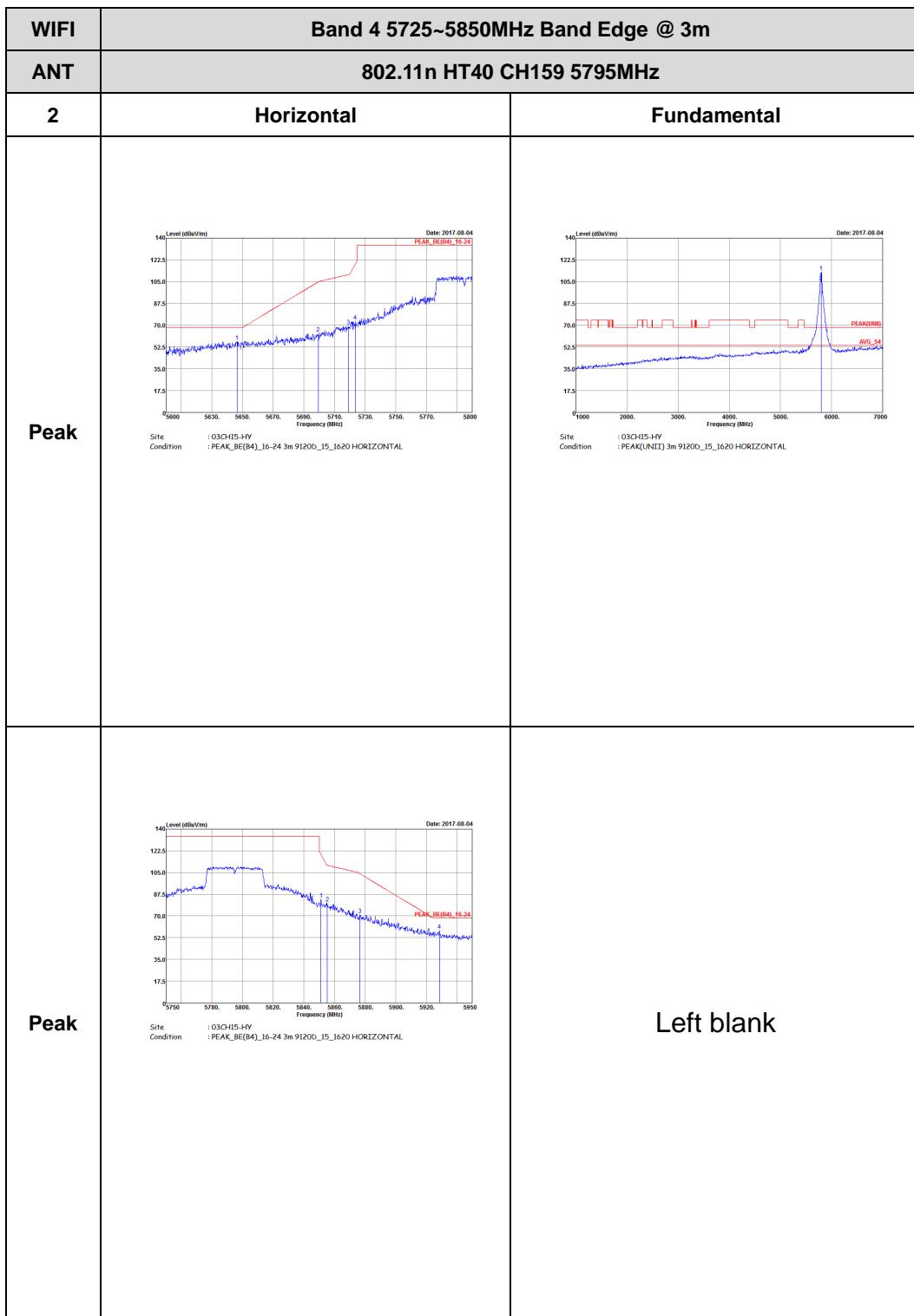


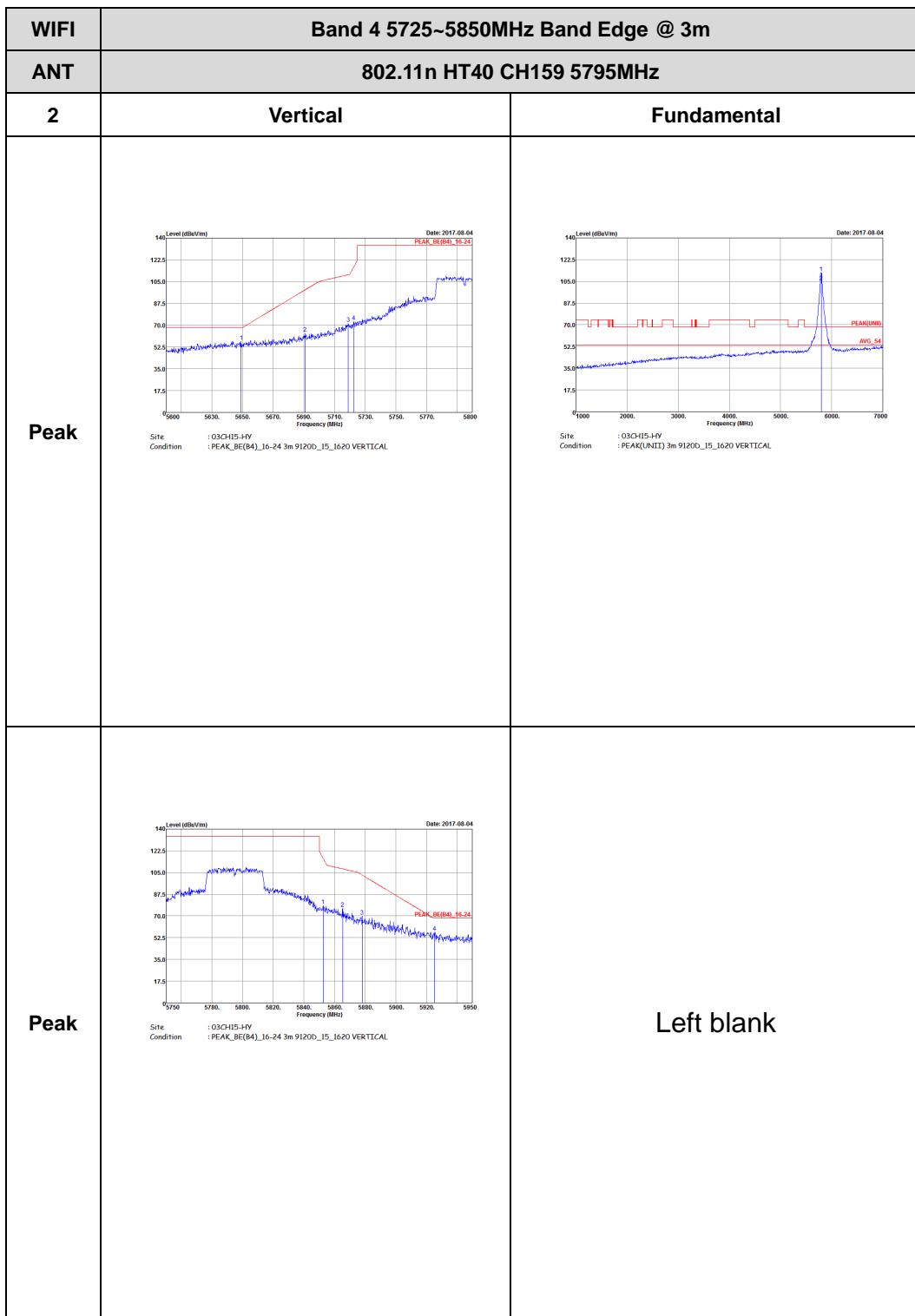


Band 4 5725~5850MHz
WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT40 CH151 5755MHz	
2	Horizontal	Fundamental
Peak	 <p>Site Condition : 03CH15-HY : PEAK_BE(B4)_16-24 3m 91200_15_1620 HORIZONTAL</p>	 <p>Site Condition : 03CH15-HY : PEAK_BE(B4)_16-24 3m 91200_15_1620 HORIZONTAL</p>
Peak	 <p>Site Condition : 03CH15-HY : PEAK_BE(B4)_16-24 3m 91200_15_1620 HORIZONTAL</p>	Left blank





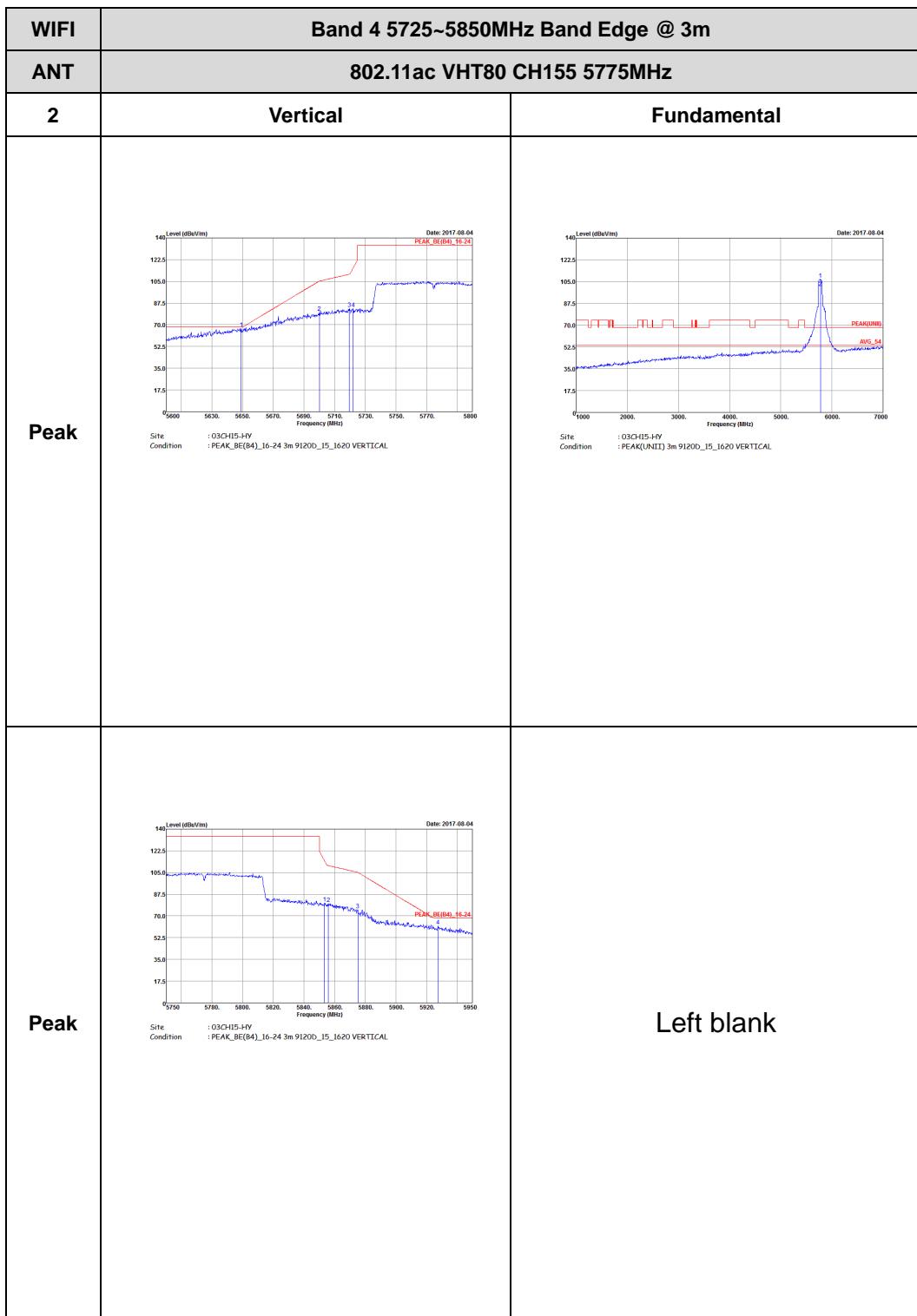




Band 4 5725~5850MHz

WIFI 802.11ac VHT80 (Band Edge @ 3m)

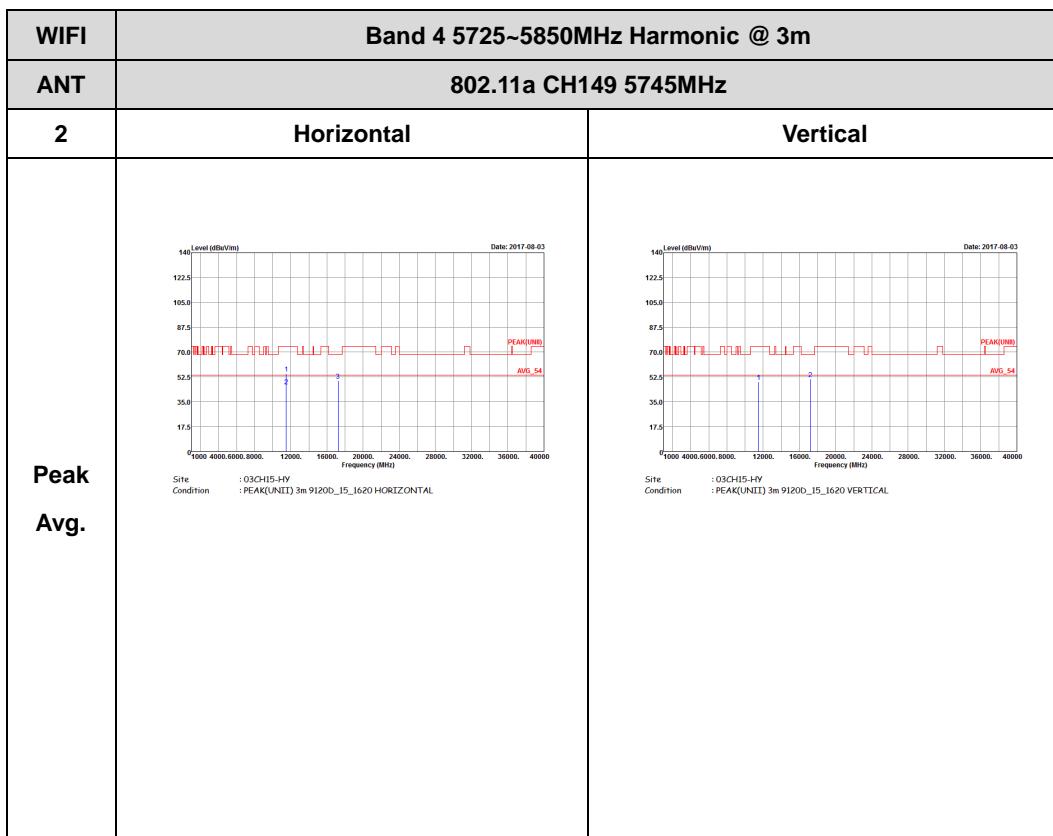
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH155 5775MHz	
2	Horizontal	Fundamental
Peak	 Site : 03CH15-HY Condition : PEAK_BE(B4)_16-24 3m 91200_15_1620 HORIZONTAL.	 Site : 03CH15-HY Condition : PEAK(UNIT) 3m 91200_15_1620 HORIZONTAL.
Peak	 Site : 03CH15-HY Condition : PEAK_BE(B4)_16-24 3m 91200_15_1620 HORIZONTAL.	Left blank

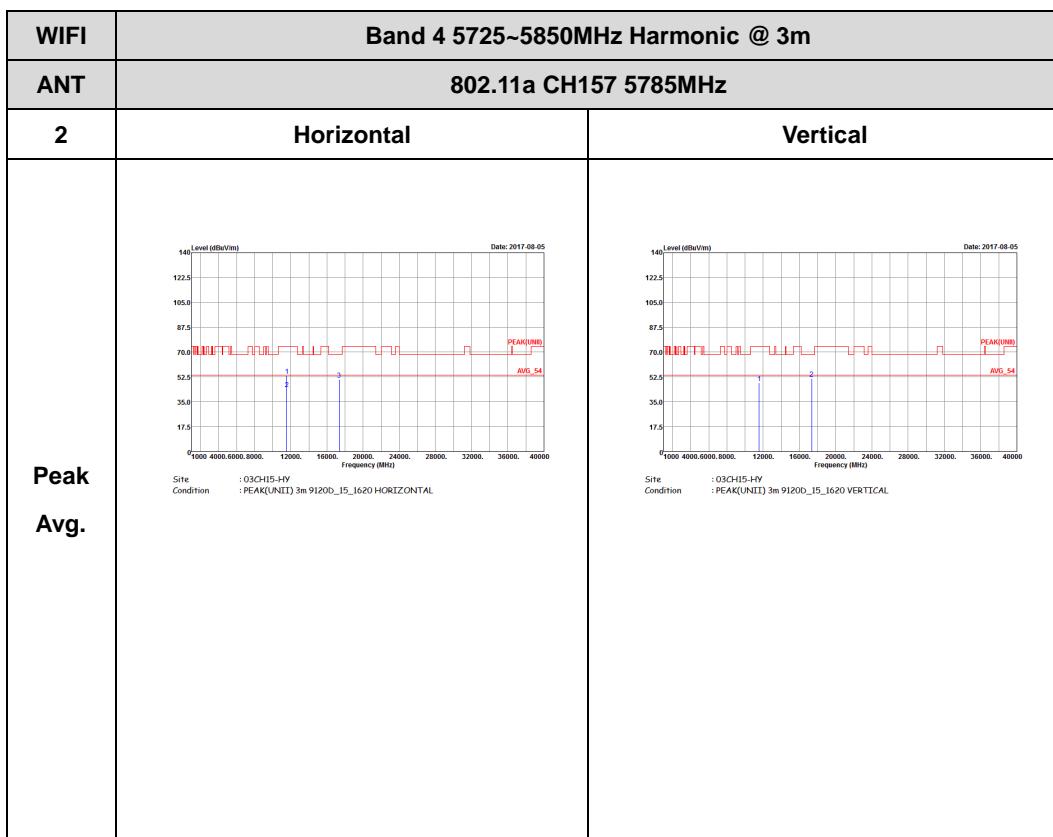


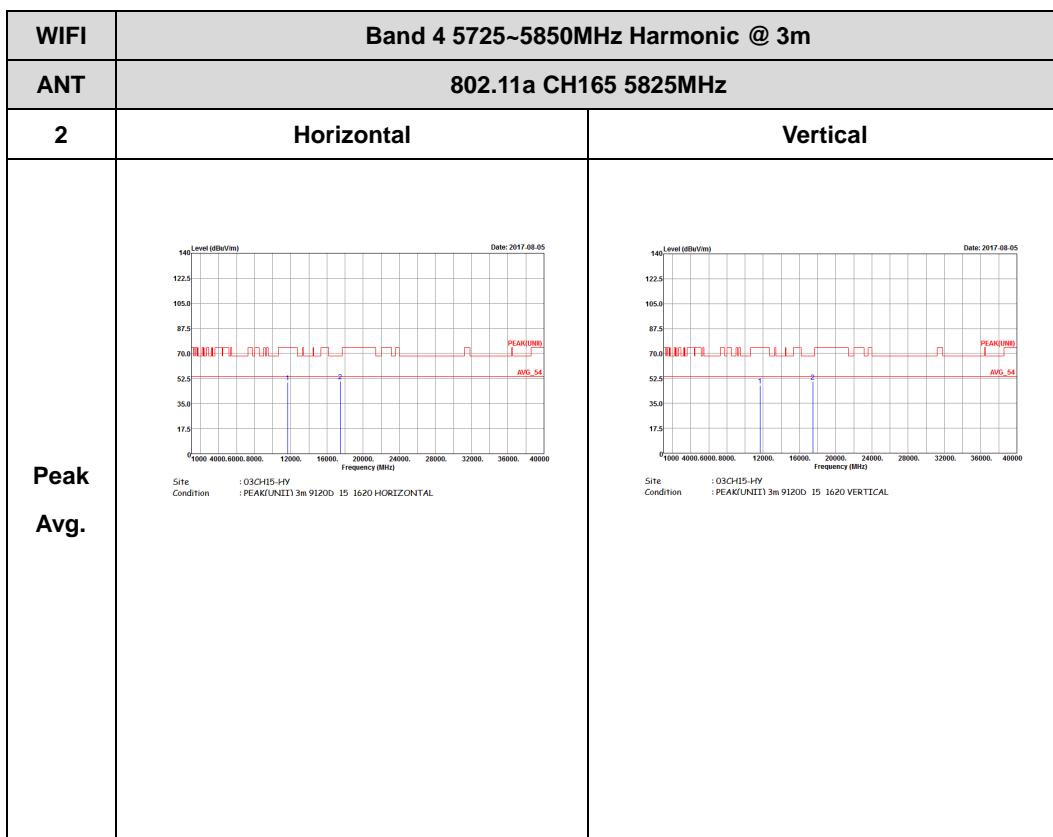


Band 4 - 5725~5850MHz

WIFI 802.11a (Harmonic @ 3m)

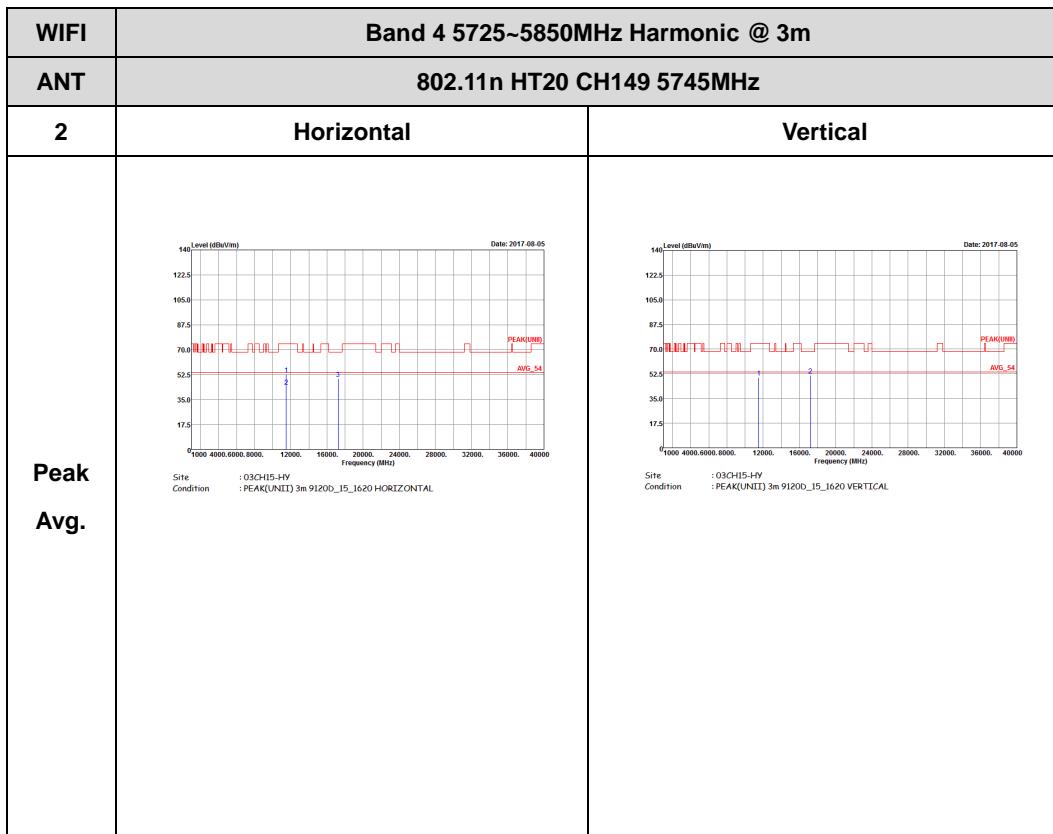


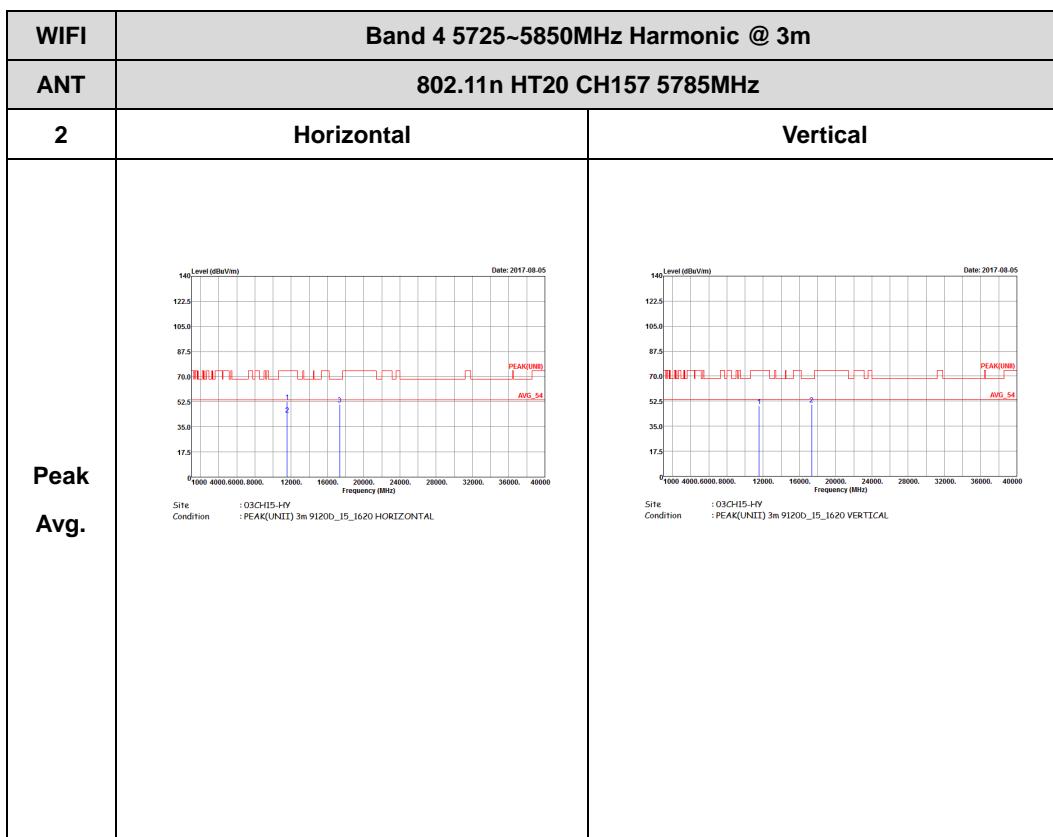


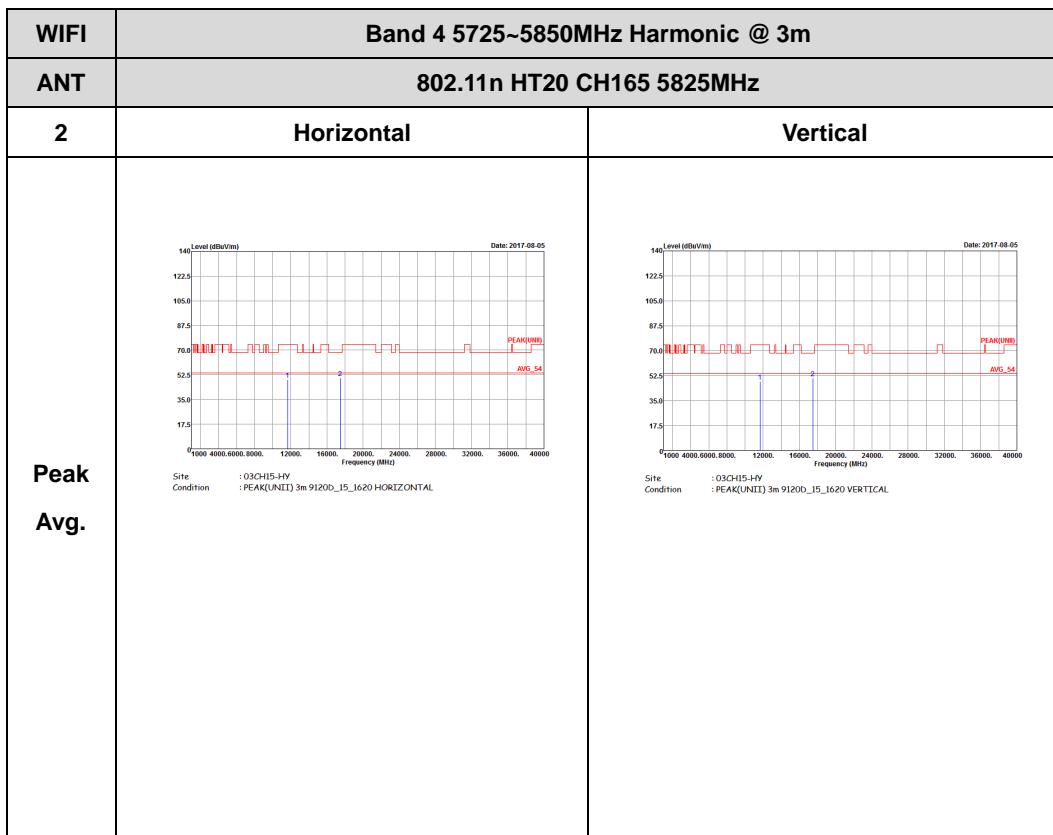




Band 4 5725~5850MHz
WIFI 802.11n HT20 (Harmonic @ 3m)

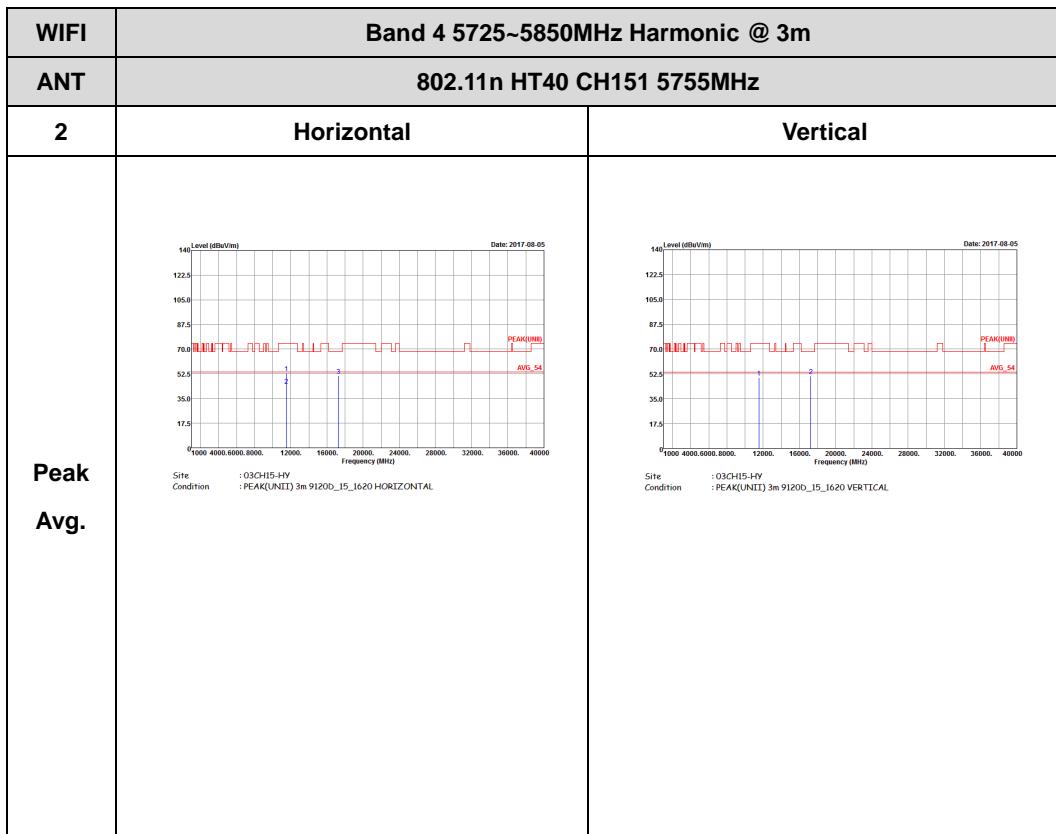


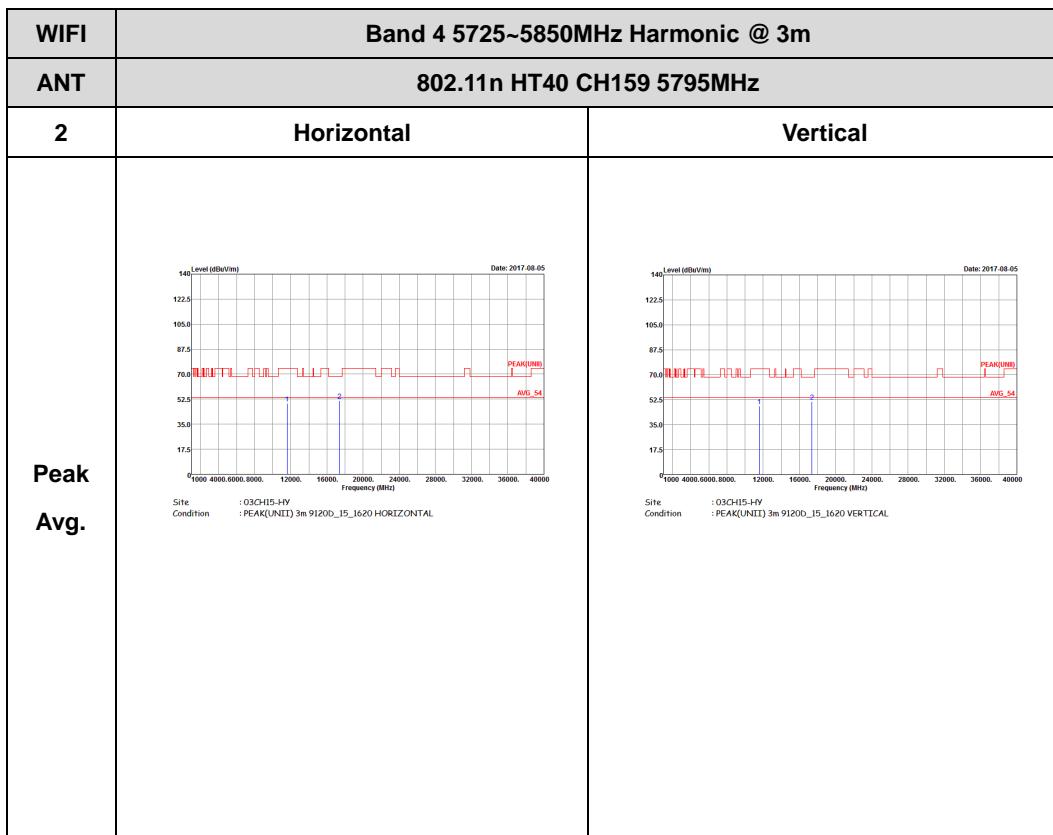






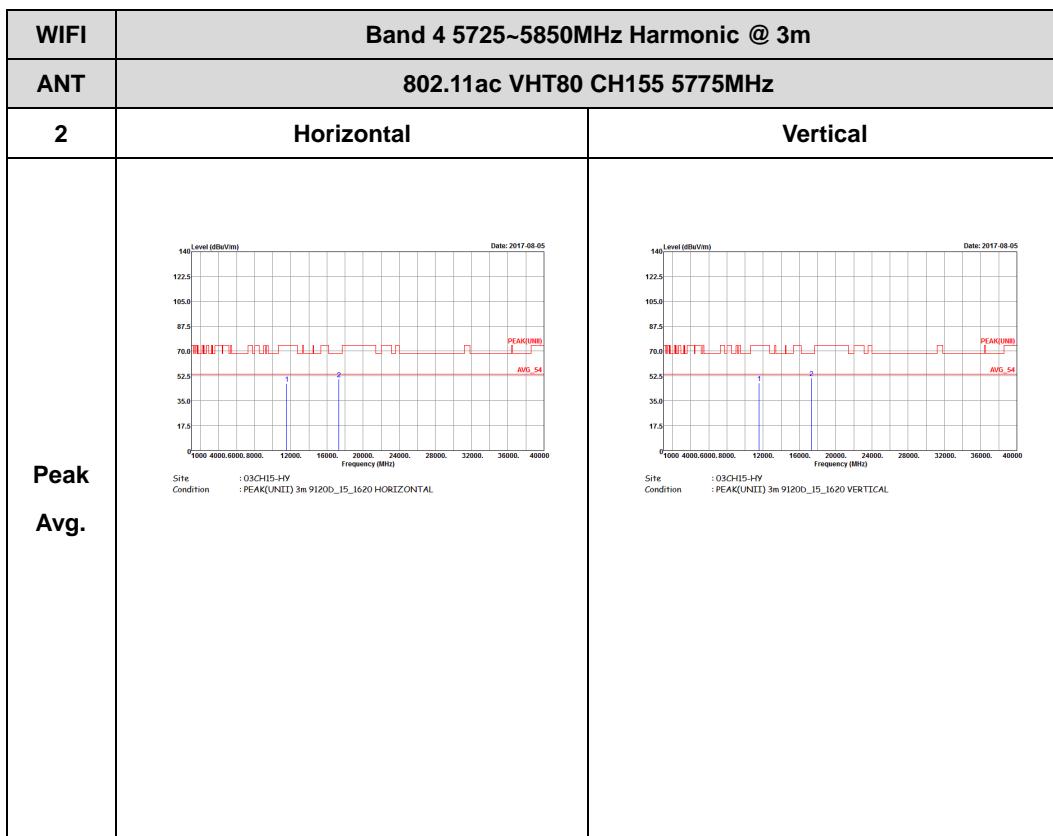
Band 4 5725~5850MHz
WIFI 802.11n HT40 (Harmonic @ 3m)





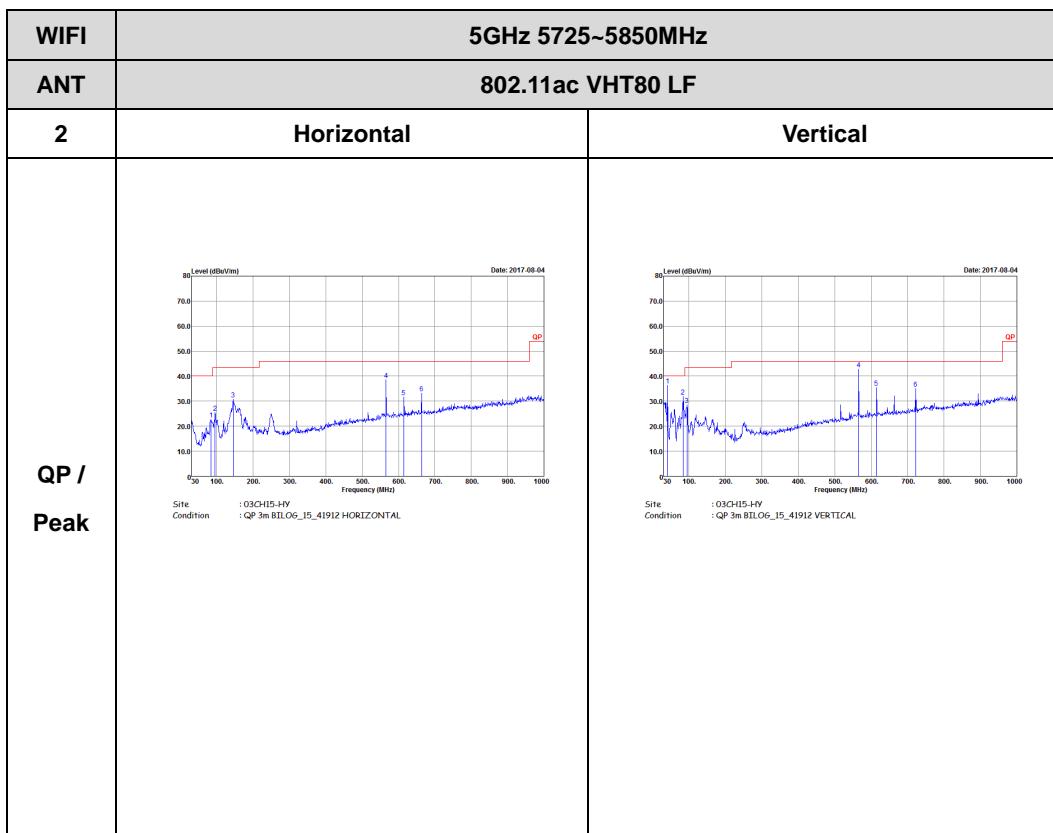


Band 4 5725~5850MHz
WIFI 802.11ac VHT80 (Harmonic @ 3m)





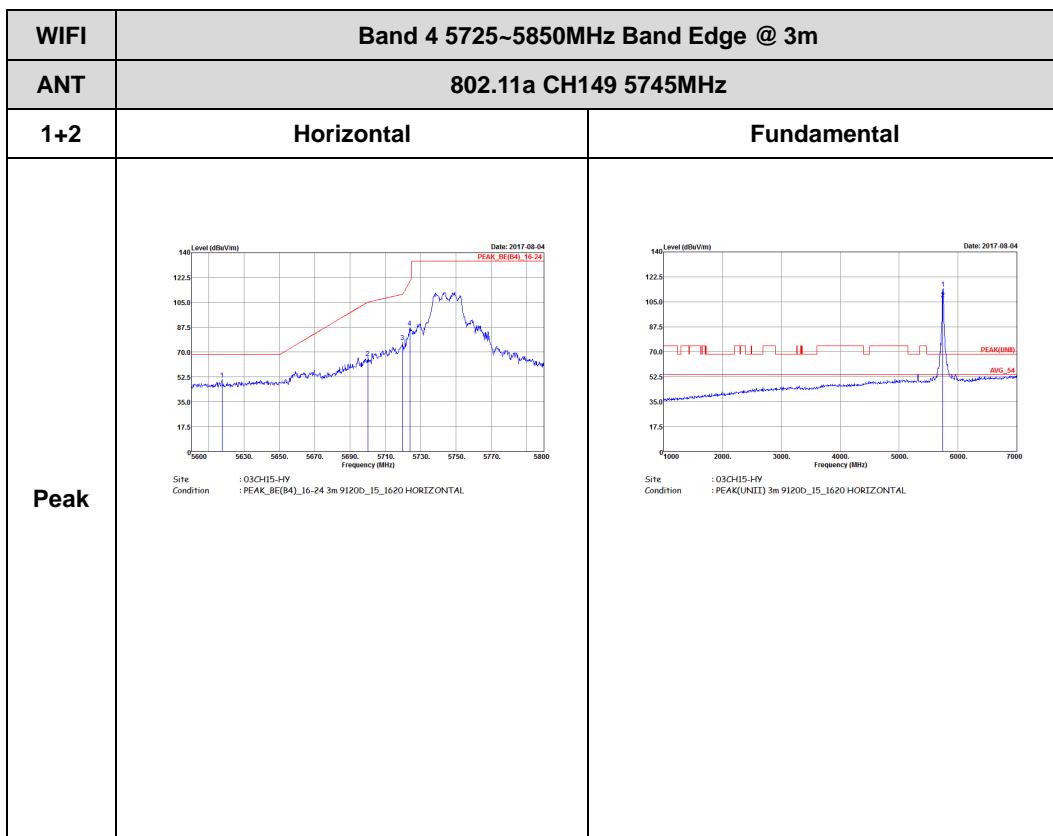
Emission below 1GHz
5GHz WIFI 802.11ac VHT80 (LF)

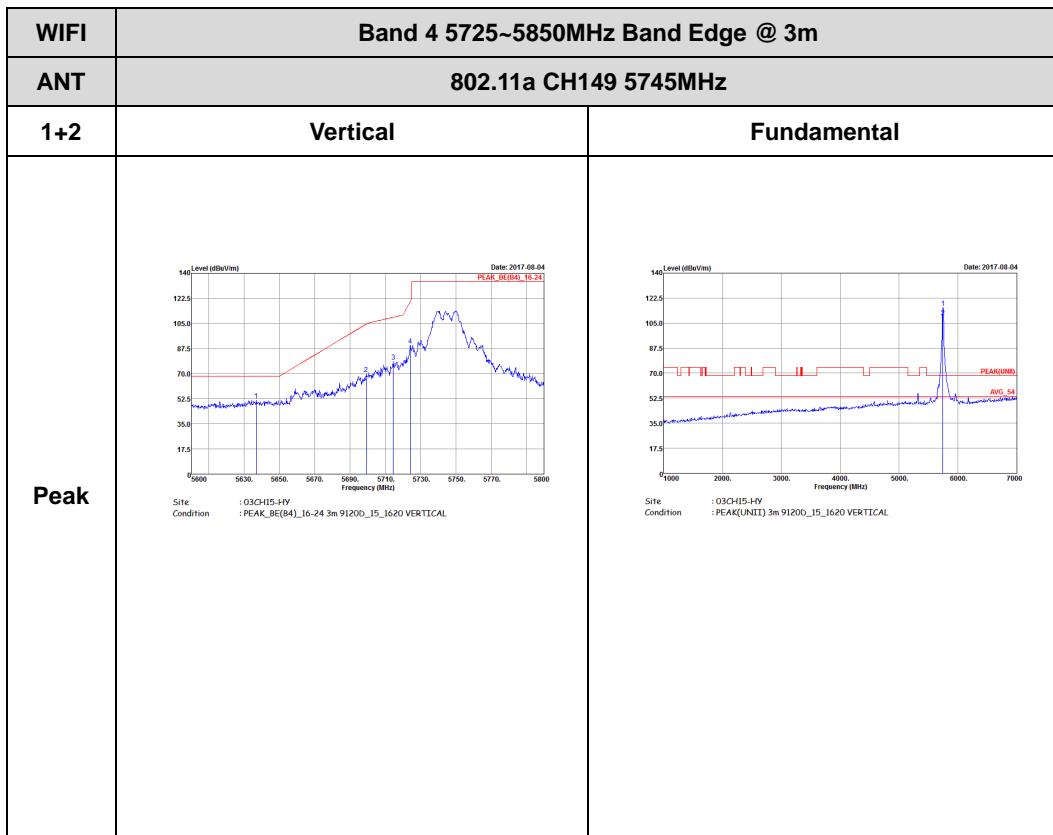


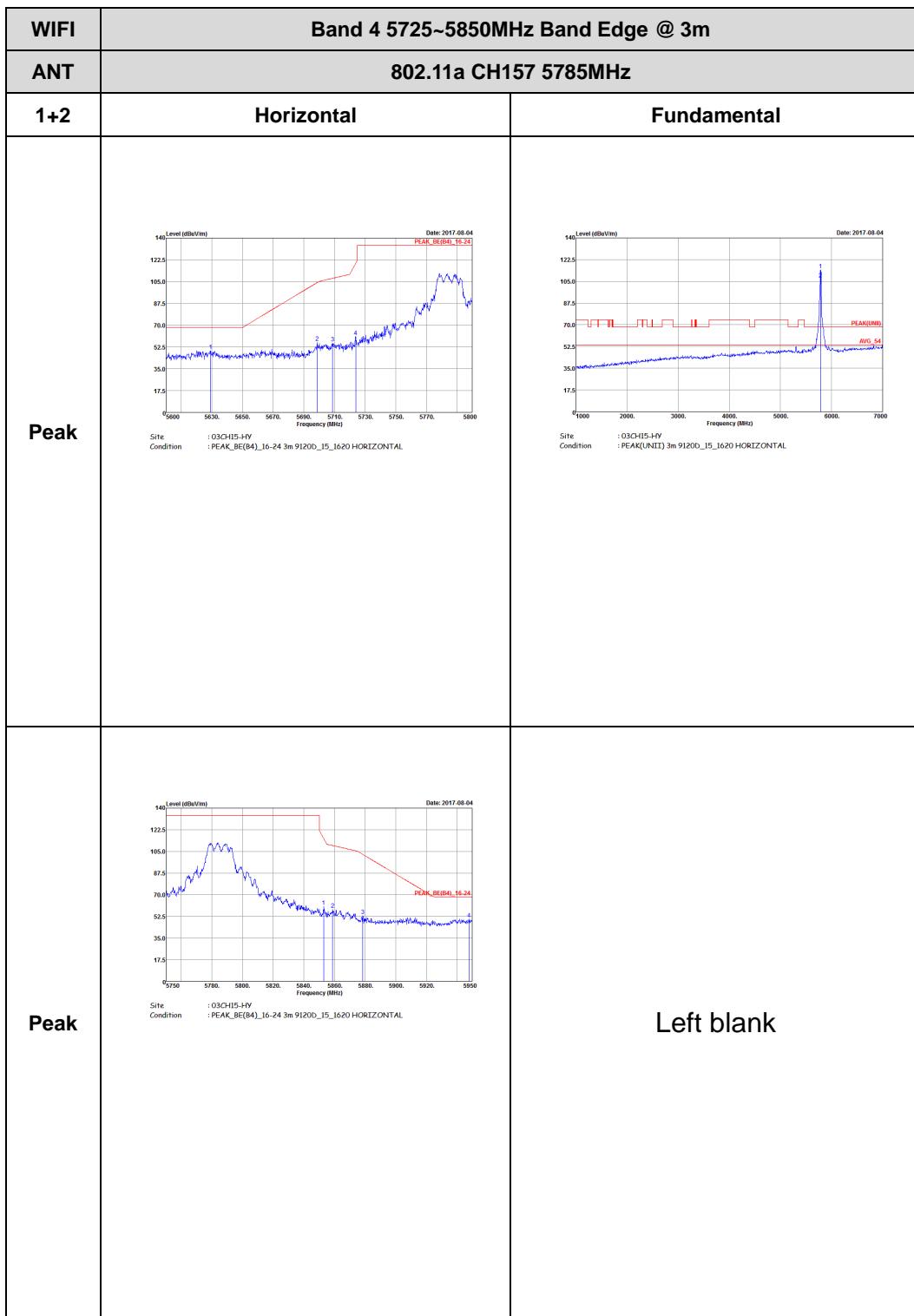


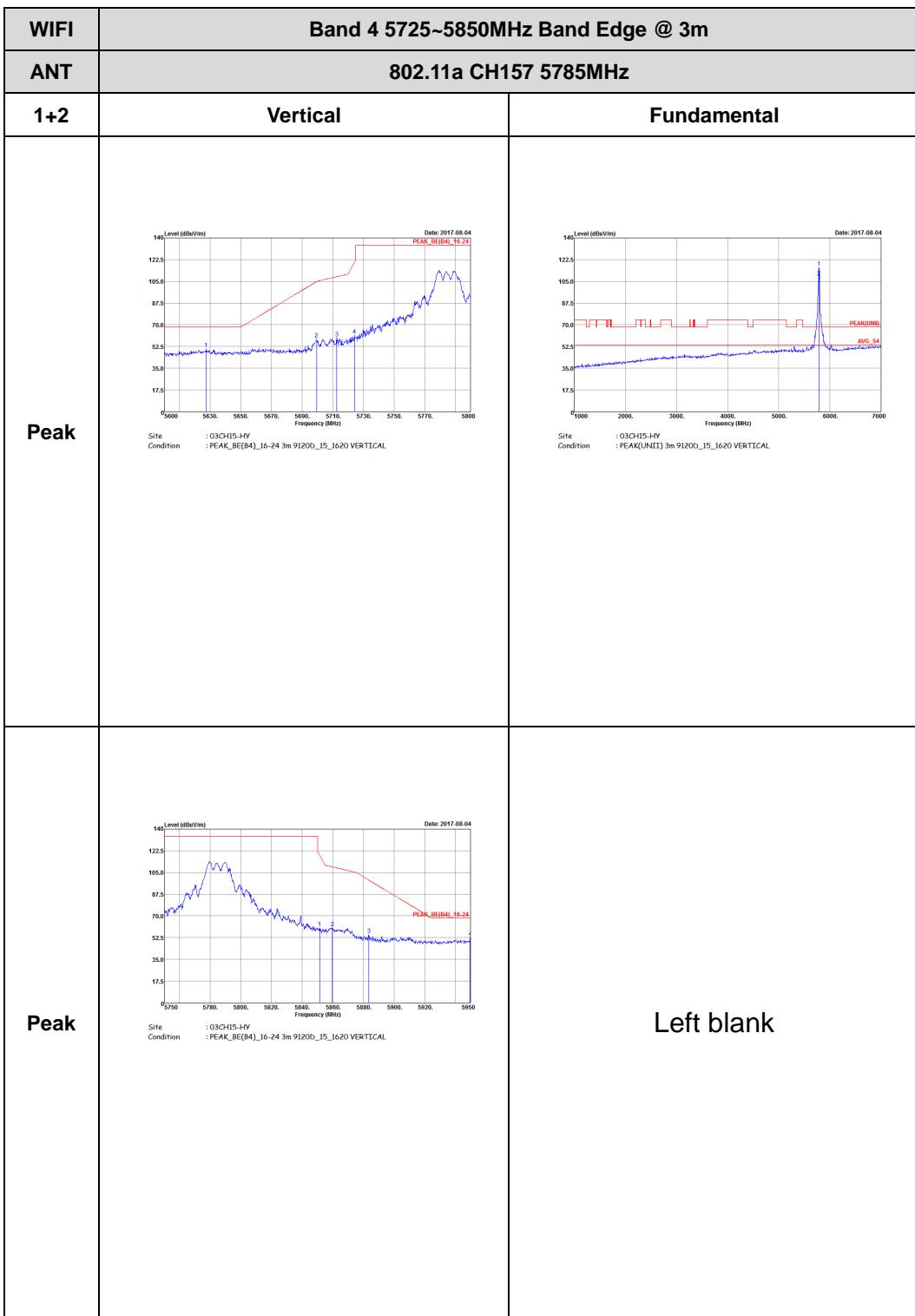
Band 4 - 5725~5850MHz

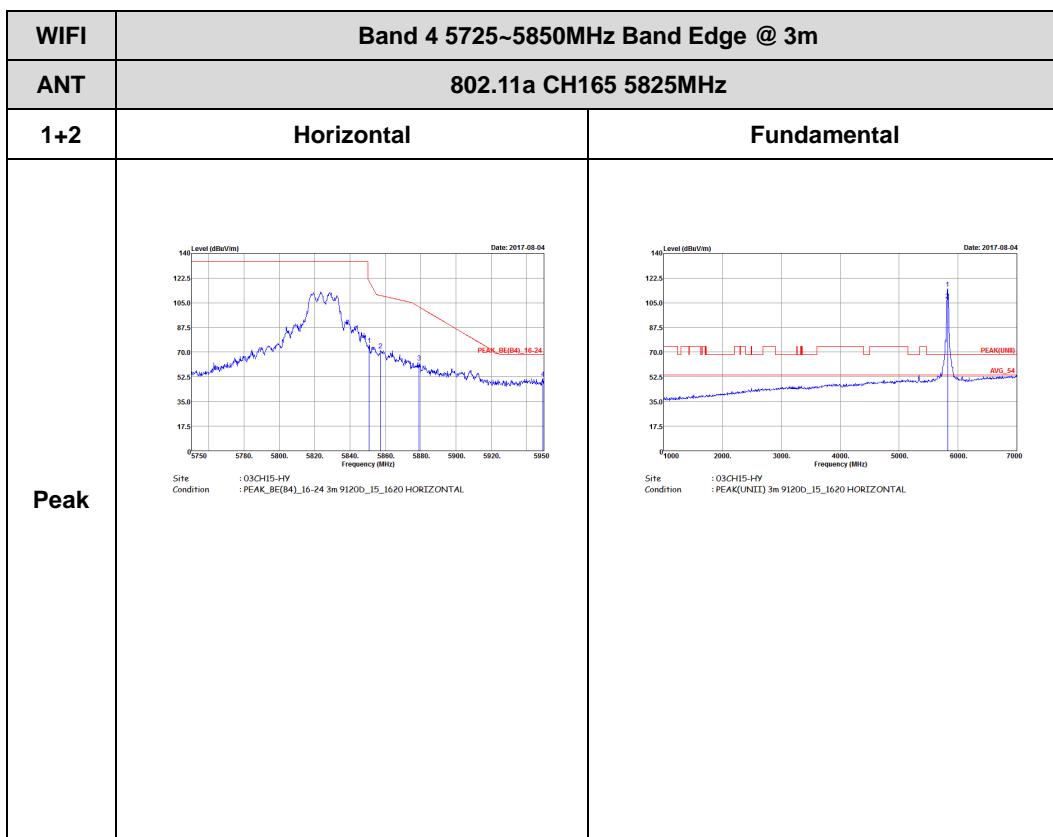
WIFI 802.11a (Band Edge @ 3m)

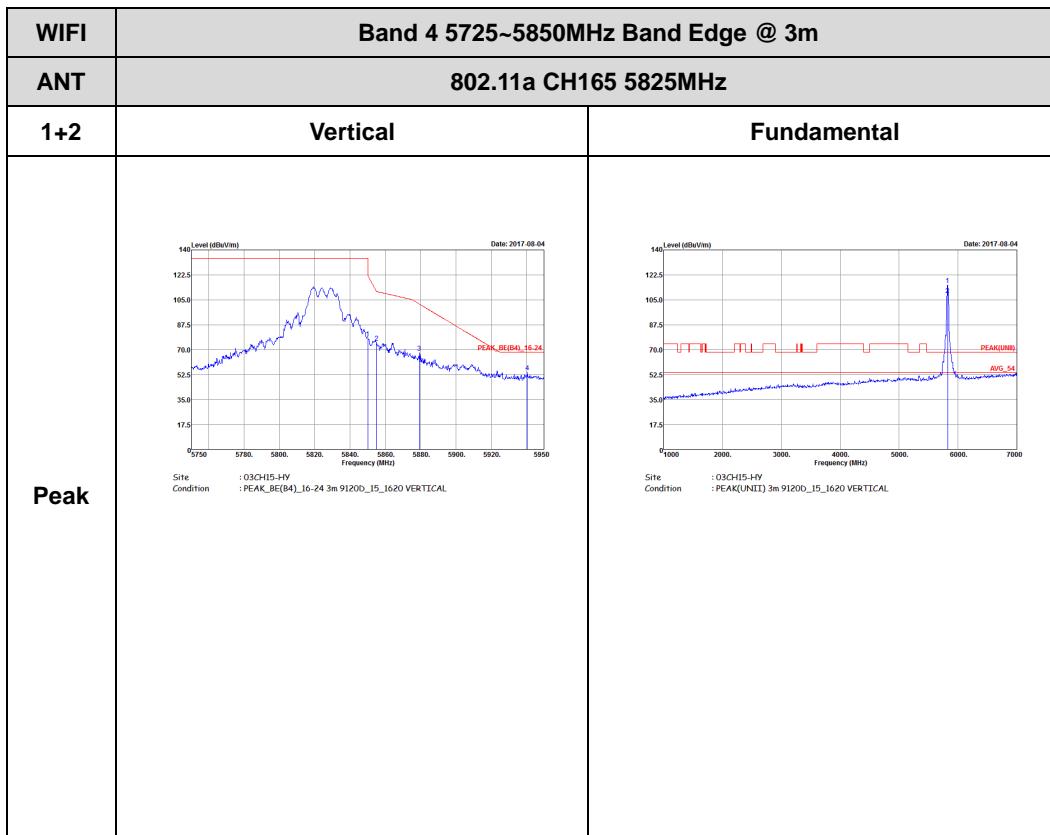






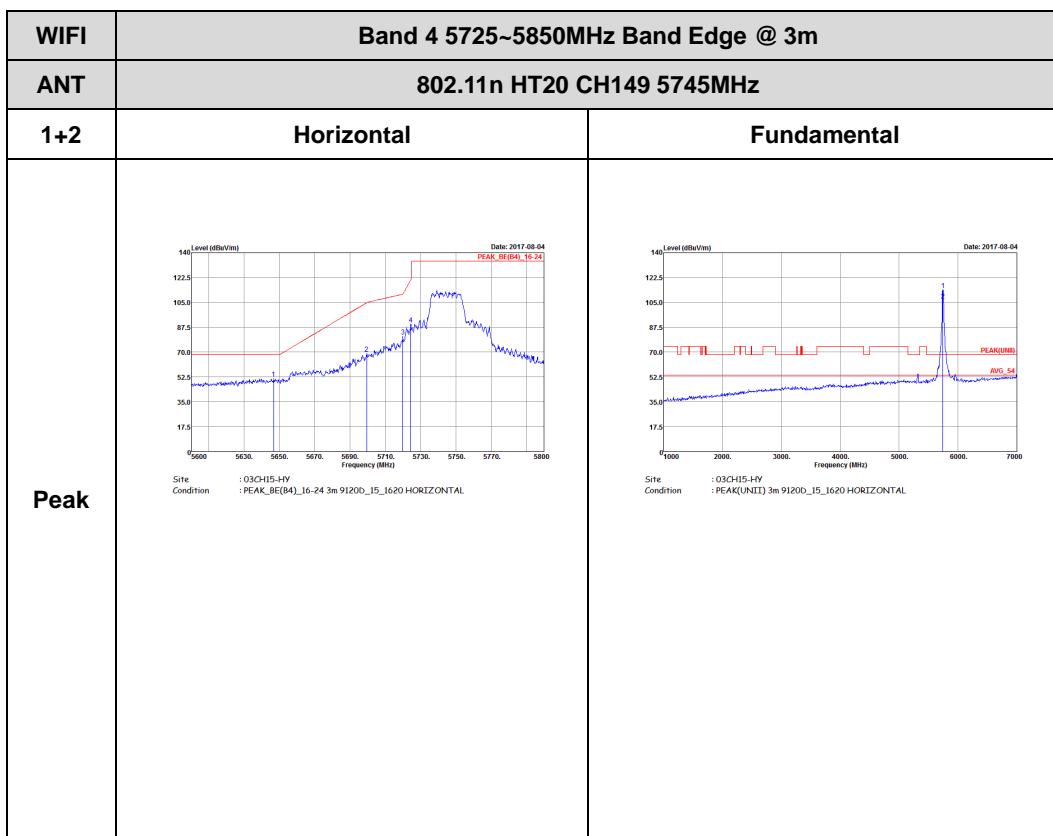


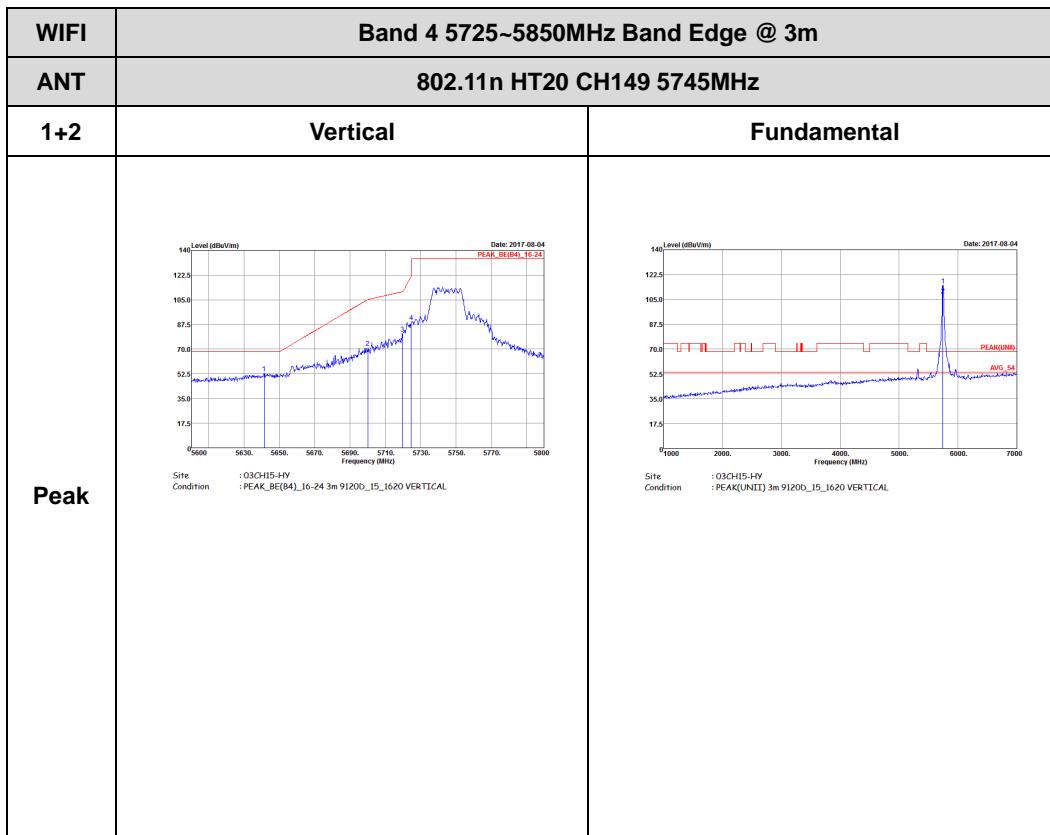


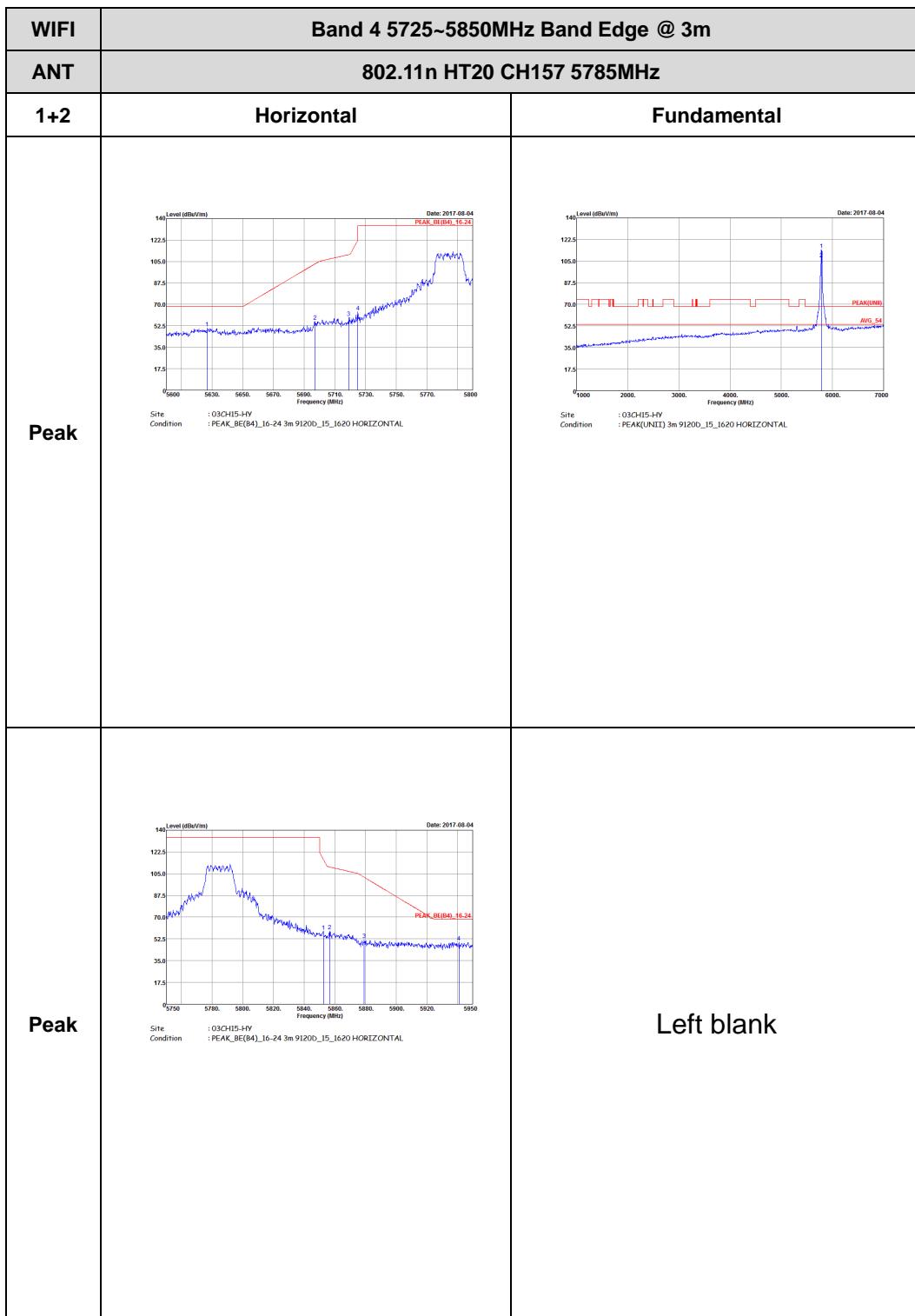


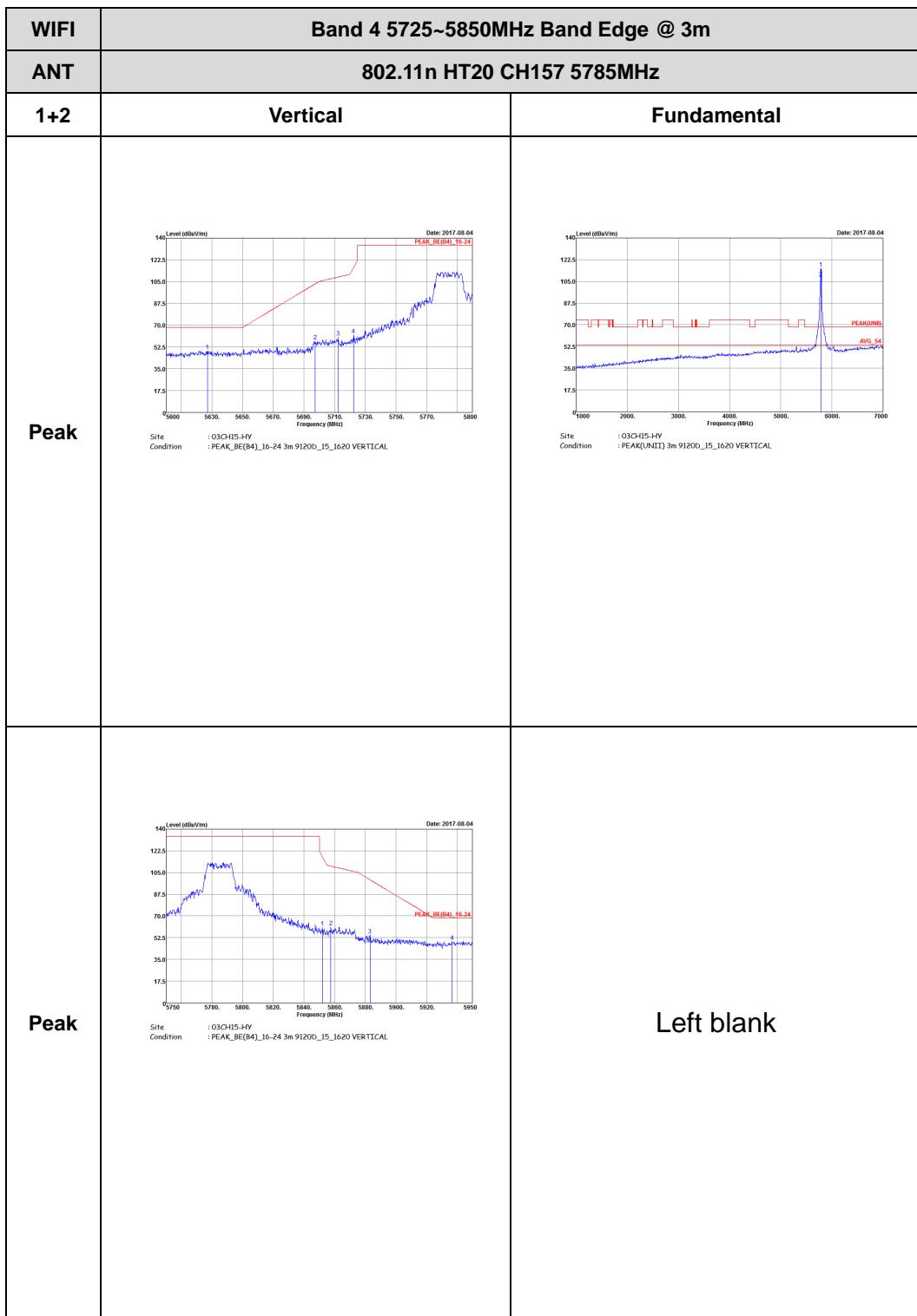


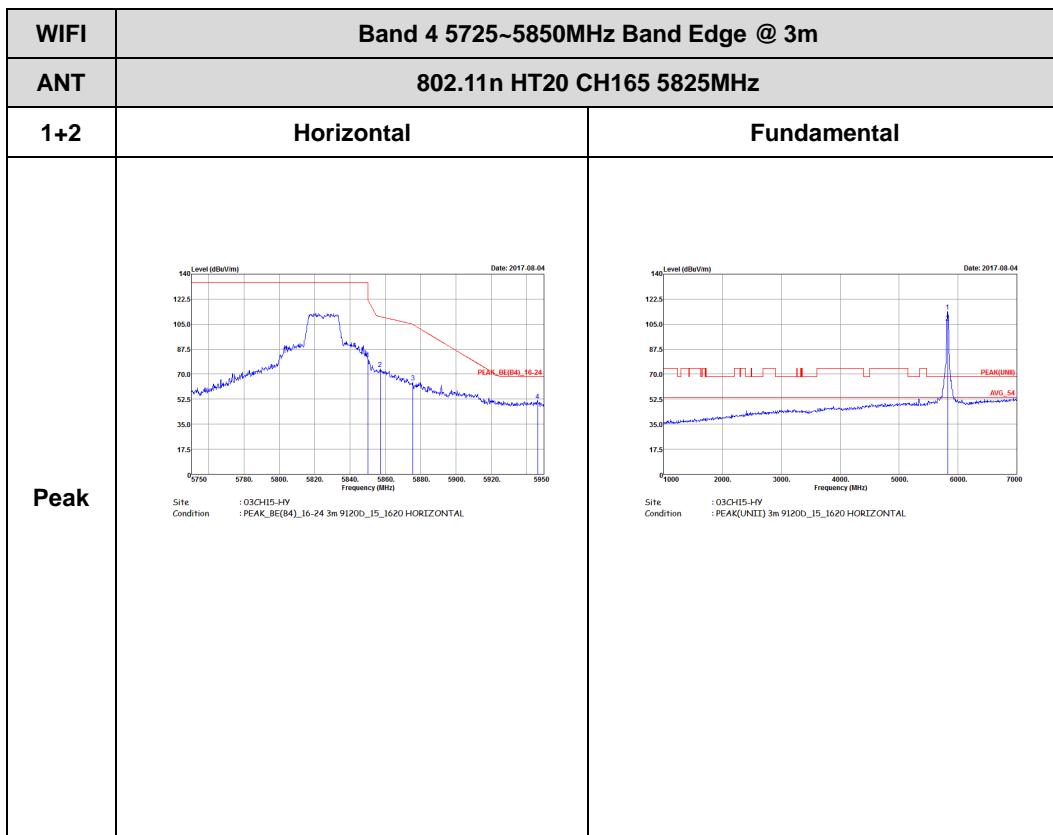
Band 4 5725~5850MHz
WIFI 802.11n HT20 (Band Edge @ 3m)

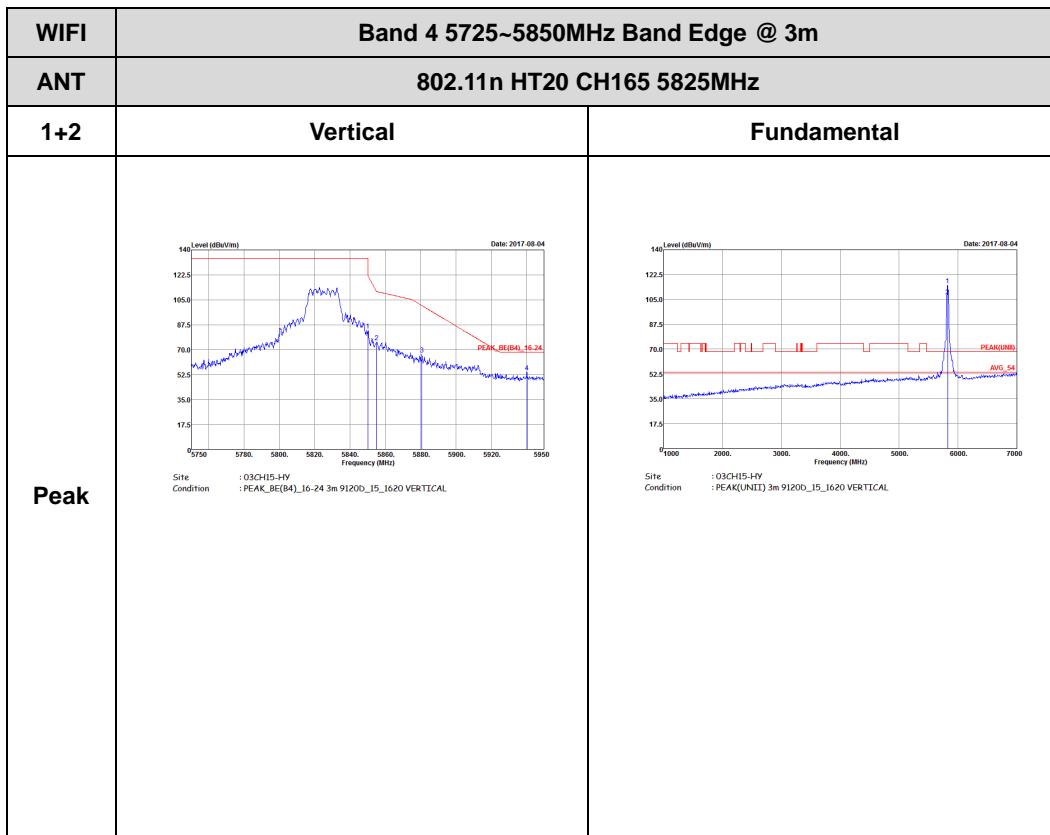






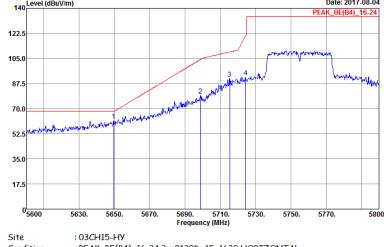
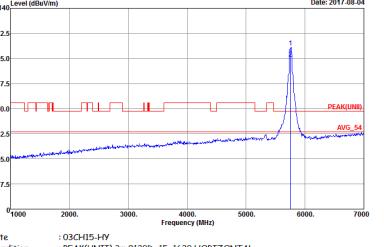
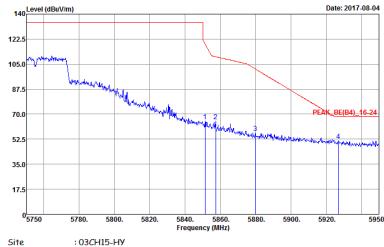


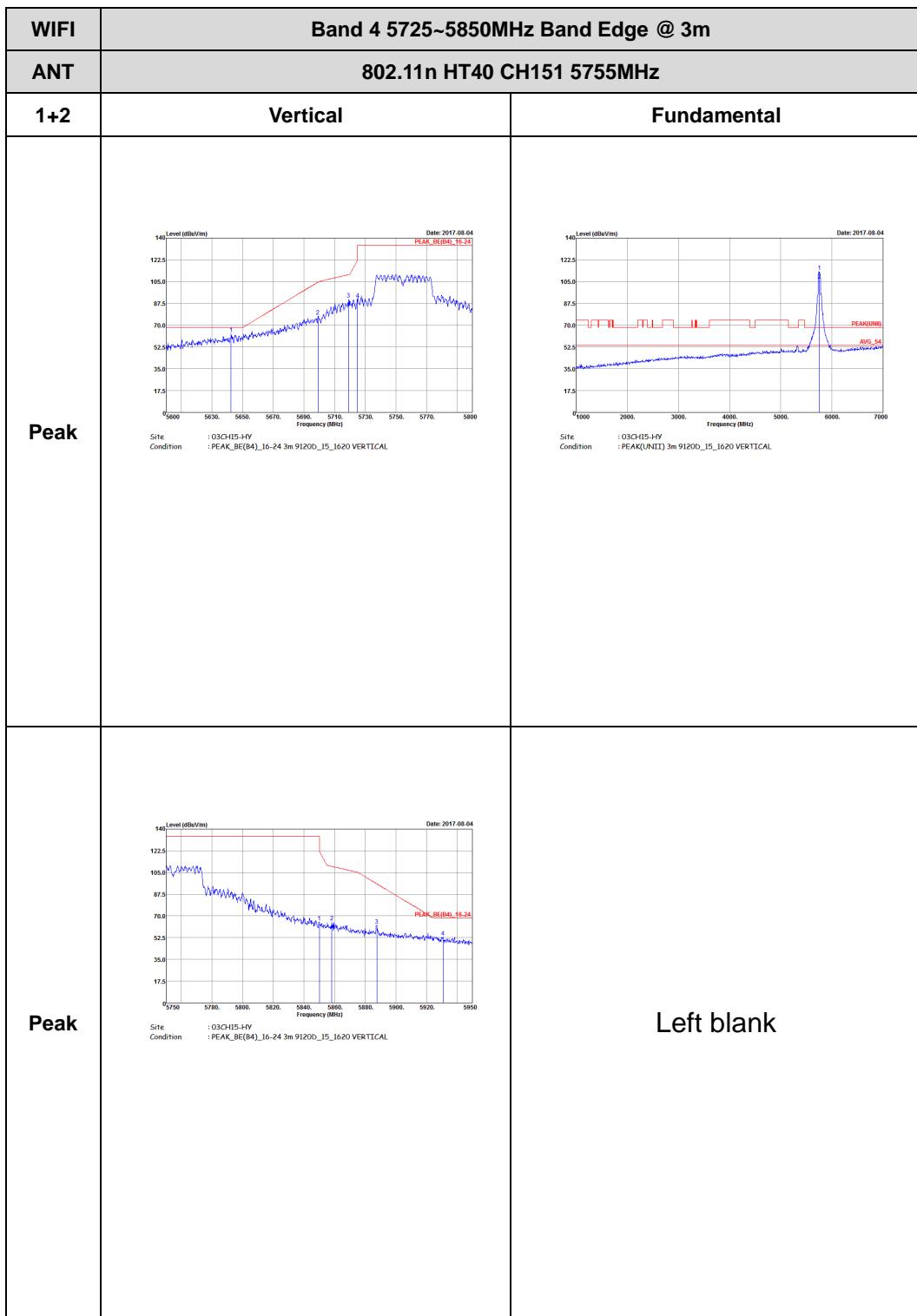


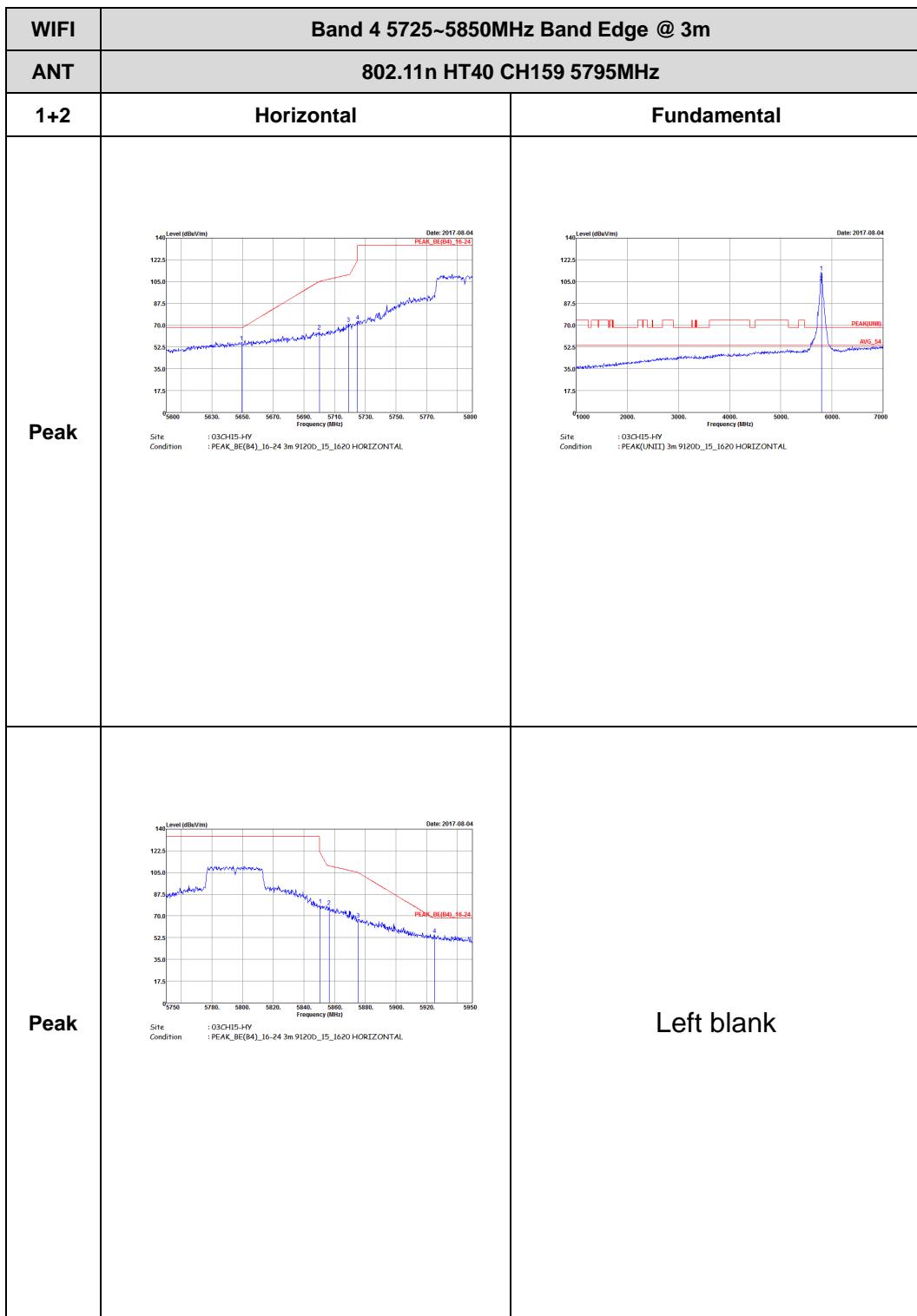


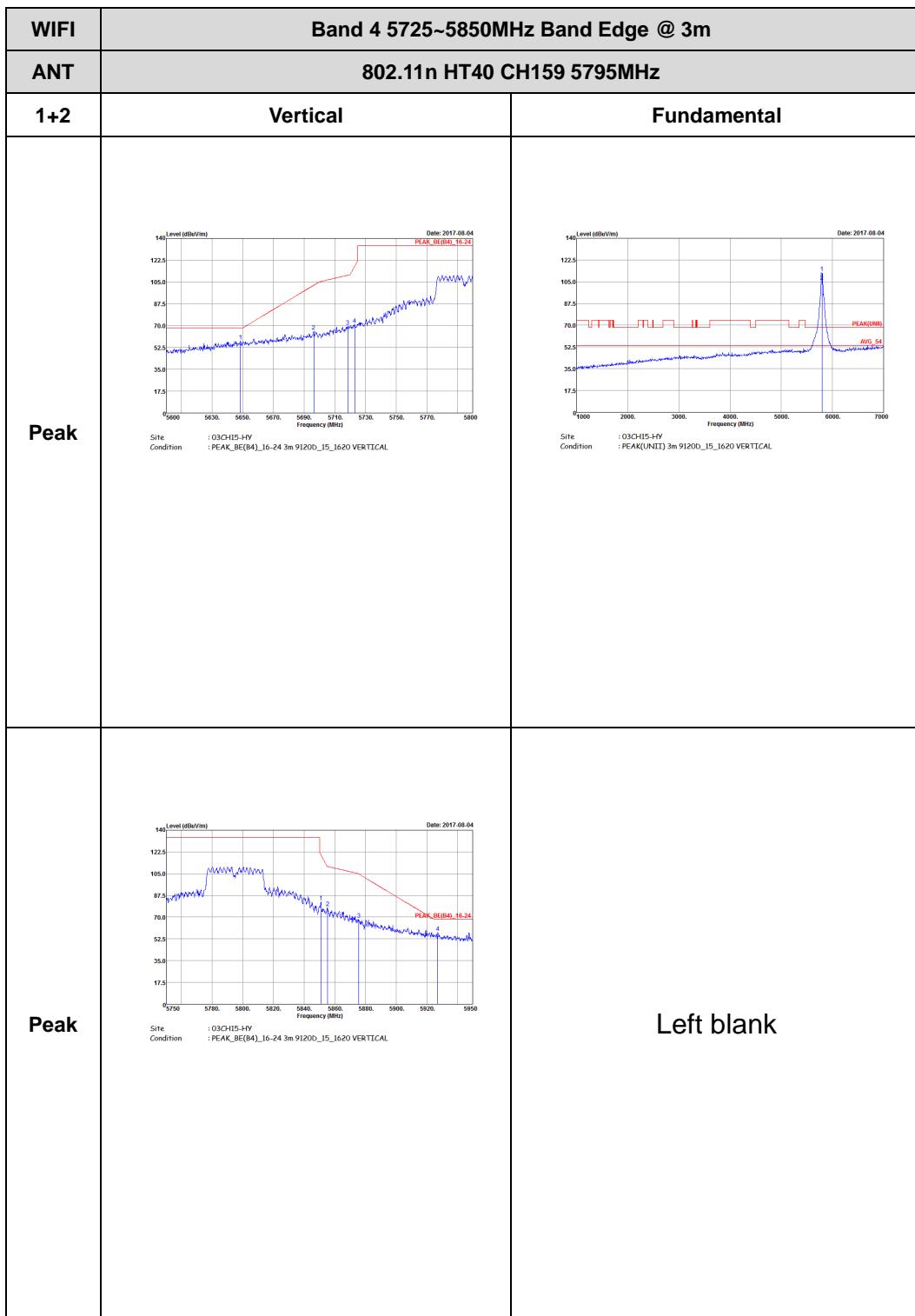


Band 4 5725~5850MHz
WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT40 CH151 5755MHz	
1+2	Horizontal	Fundamental
Peak	 Site Condition : 03CH15-HY : PEAK_BE(B4)_16-24 3m 91200_15_1620 HORIZONTAL	 Site Condition : 03CH15-HY : PEAK(B4) 3m 91200_15_1620 HORIZONTAL
Peak	 Site Condition : 03CH15-HY : PEAK_BE(B4)_16-24 3m 91200_15_1620 HORIZONTAL	Left blank

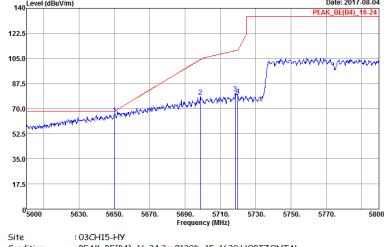
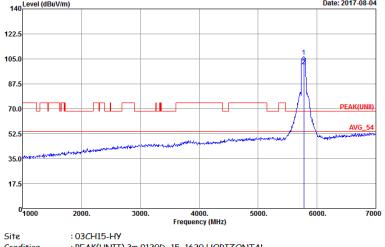
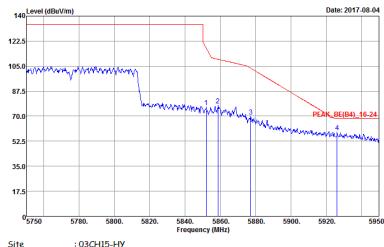


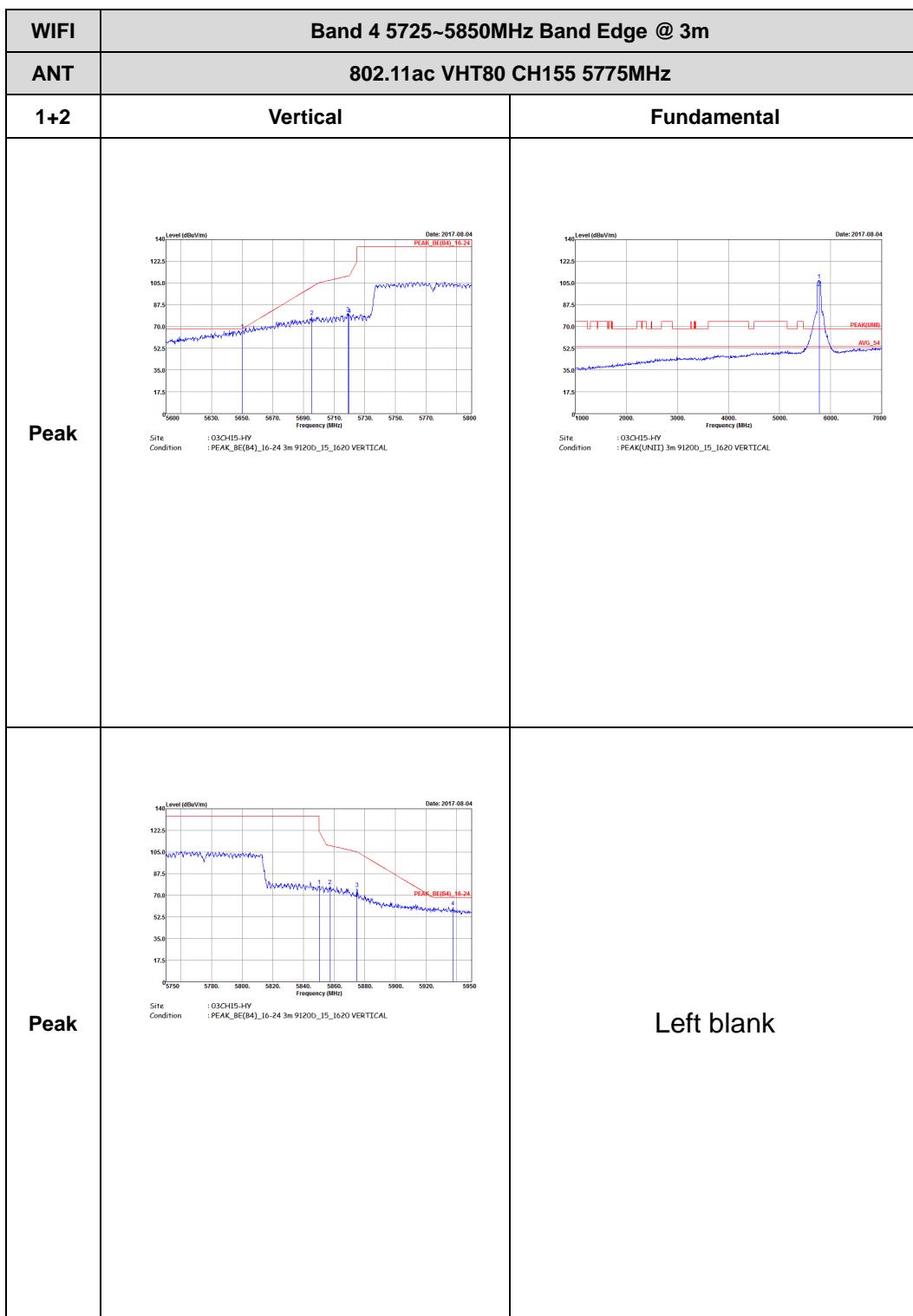






Band 4 5725~5850MHz
WIFI 802.11ac VHT80 (Band Edge @ 3m)

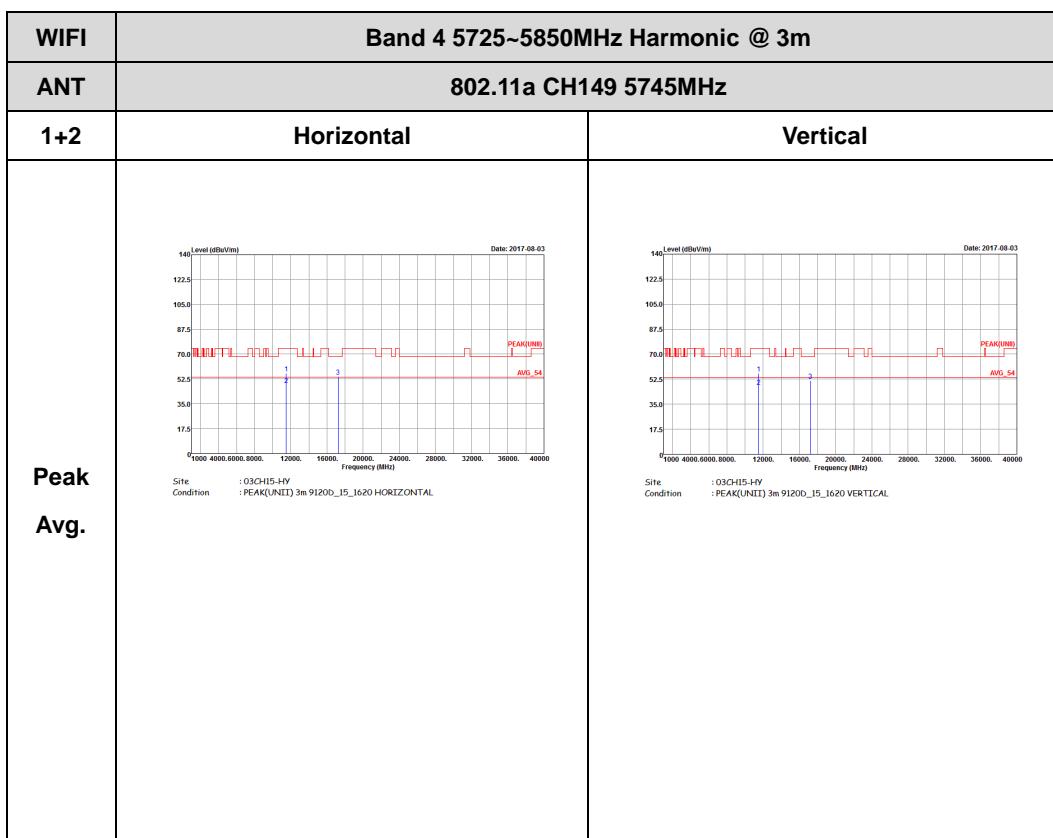
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH155 5775MHz	
1+2	Horizontal	Fundamental
Peak	 Site Condition : 03CH15-HY : PEAK_BE(B4)_16-24 3m 91200_15_1620 HORIZONTAL	 Site Condition : 03CH15-HY : PEAK(UMB) 3m 91200_15_1620 HORIZONTAL
Peak	 Site Condition : 03CH15-HY : PEAK_BE(B4)_16-24 3m 91200_15_1620 HORIZONTAL	Left blank

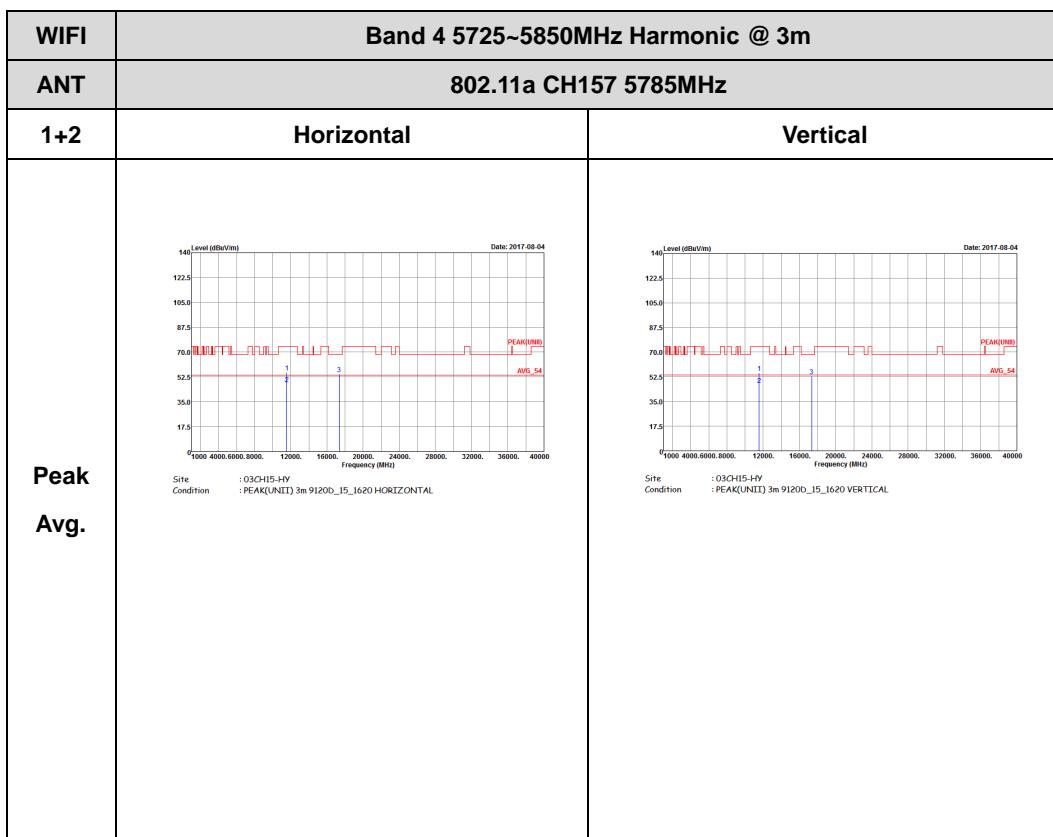


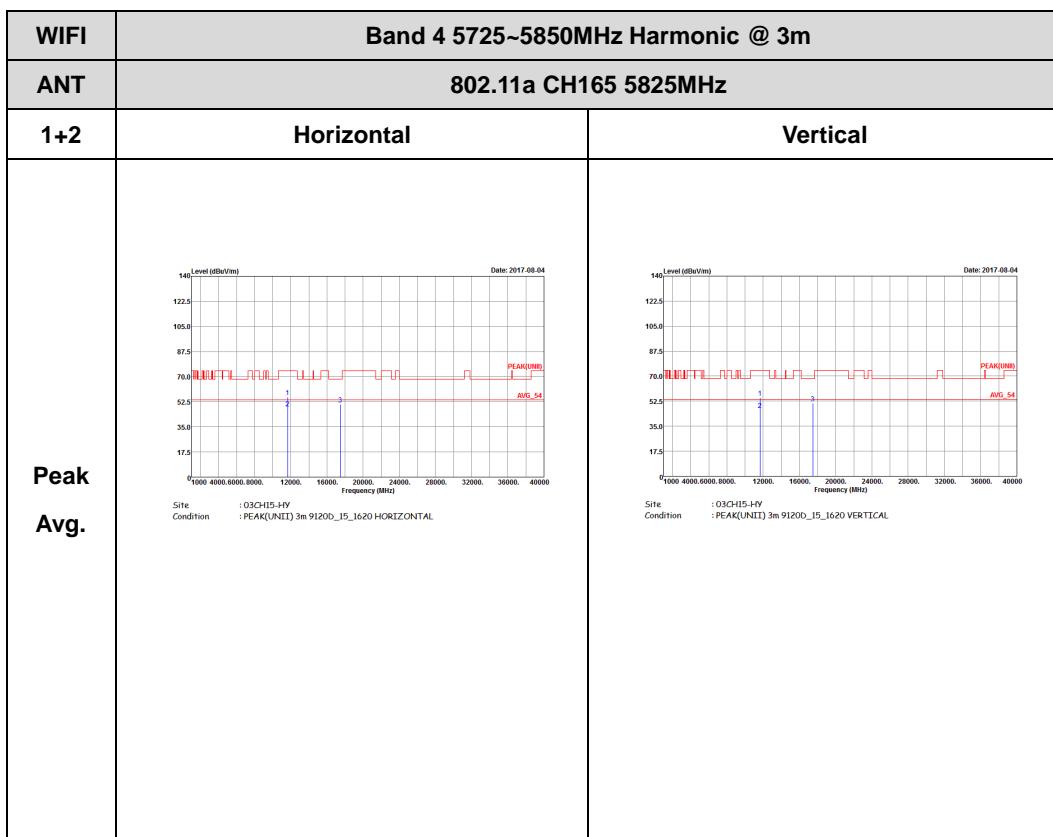


Band 4 - 5725~5850MHz

WIFI 802.11a (Harmonic @ 3m)

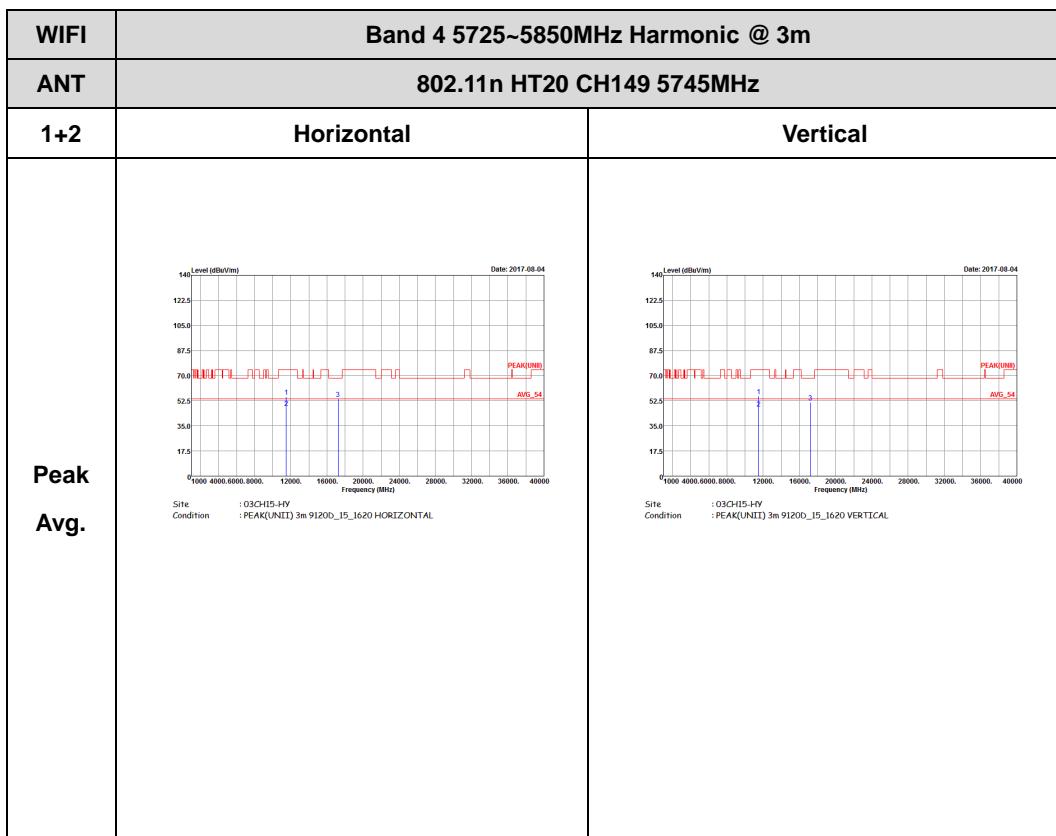


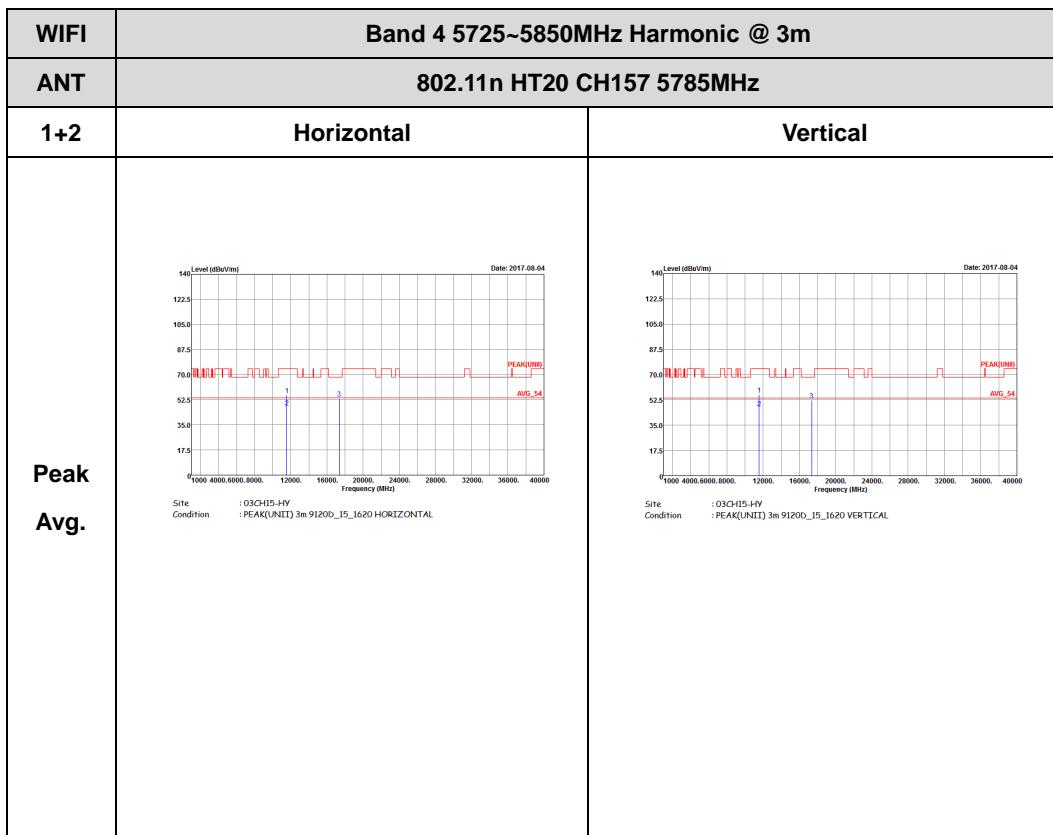


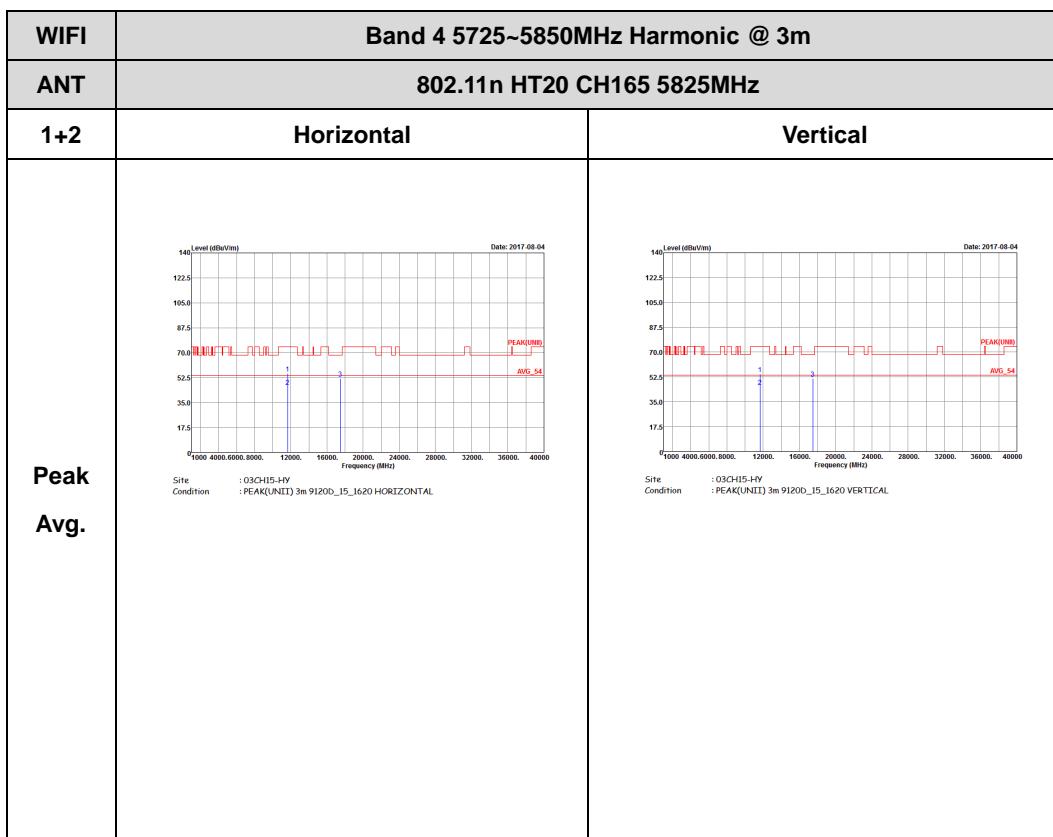




Band 4 5725~5850MHz
WIFI 802.11n HT20 (Harmonic @ 3m)

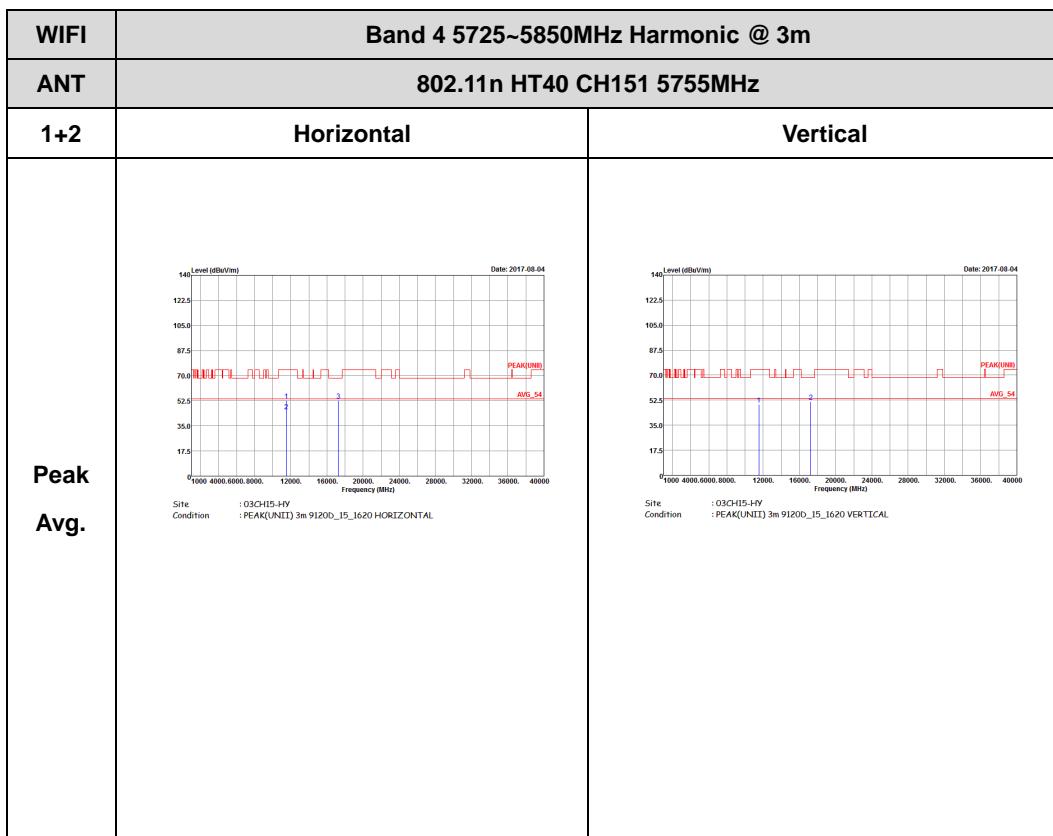


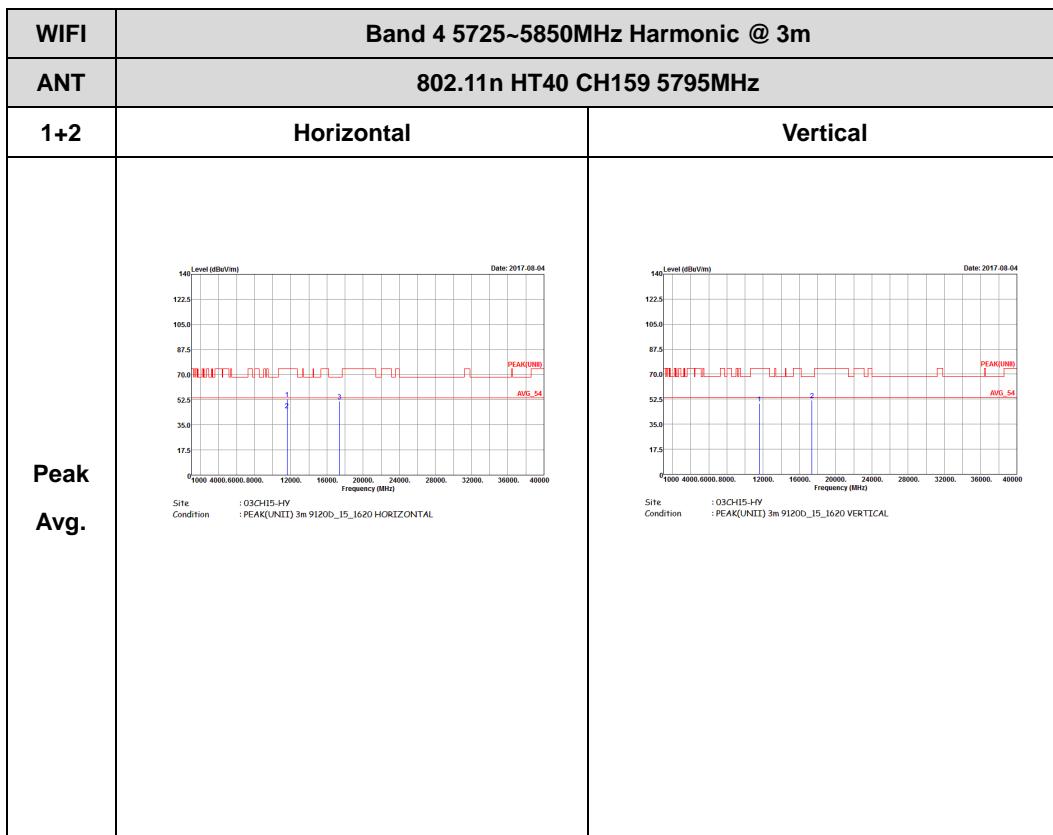






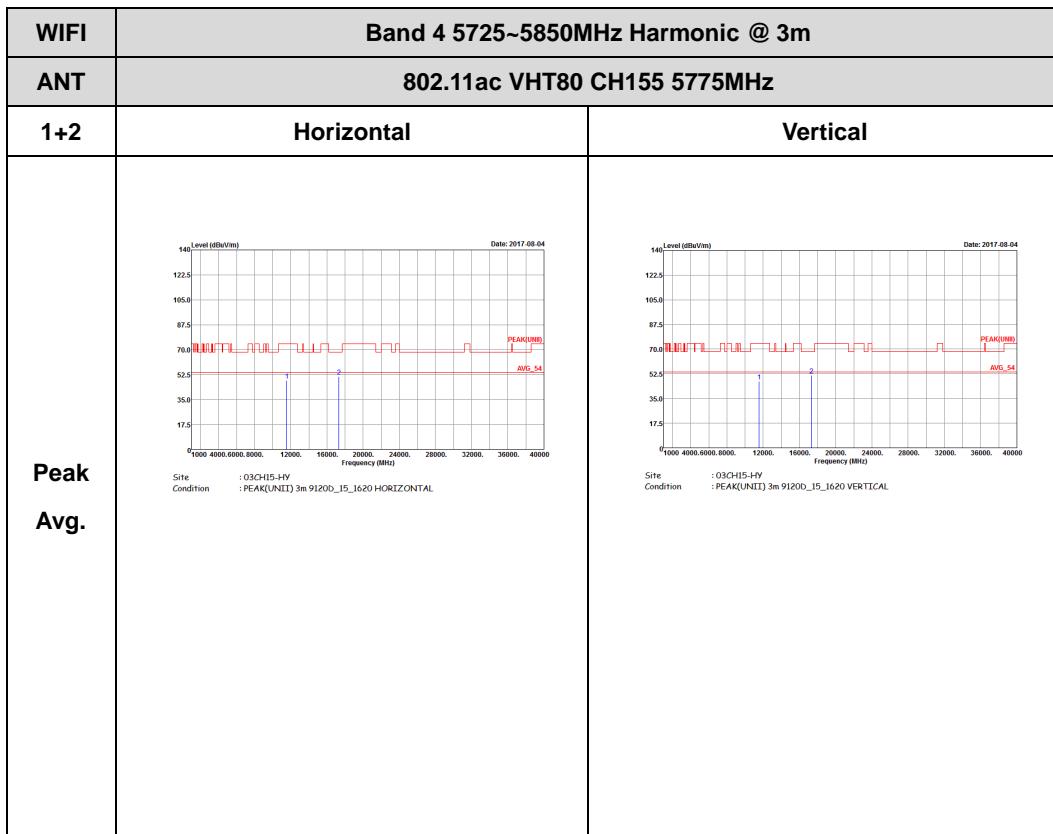
Band 4 5725~5850MHz
WIFI 802.11n HT40 (Harmonic @ 3m)





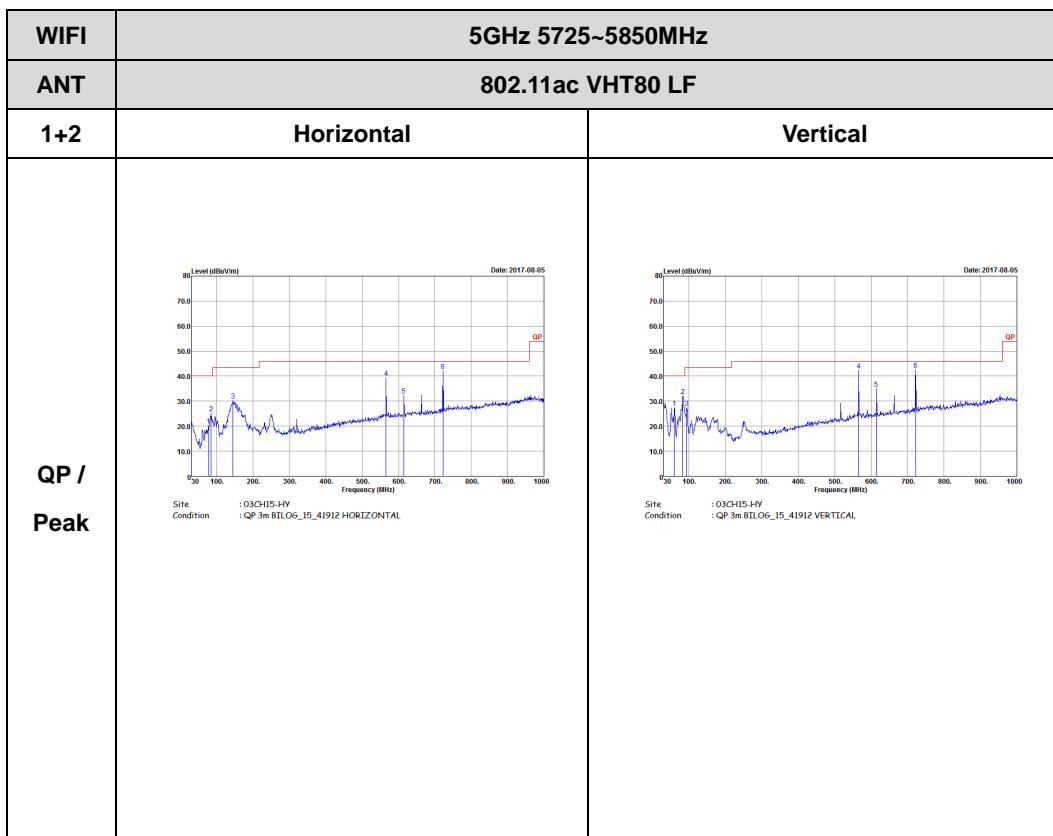


Band 4 5725~5850MHz
WIFI 802.11ac VHT80 (Harmonic @ 3m)





Emission below 1GHz
5GHz WIFI 802.11ac VHT80 (LF)





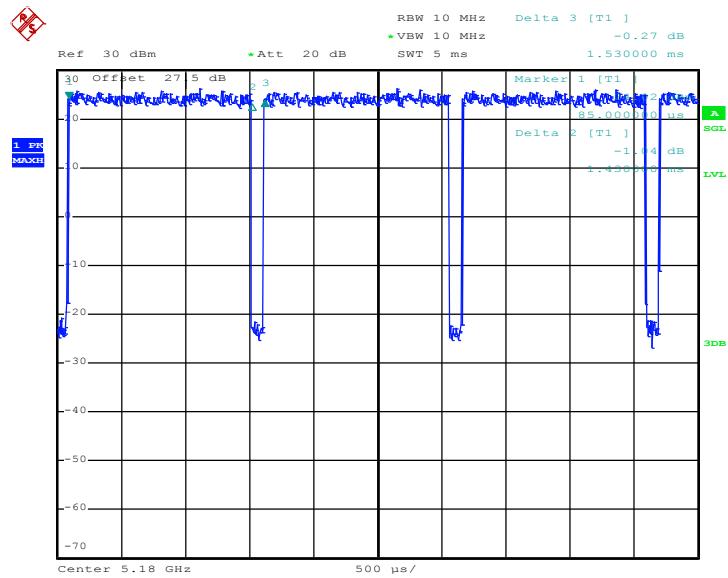
Appendix E. Duty Cycle Plots

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



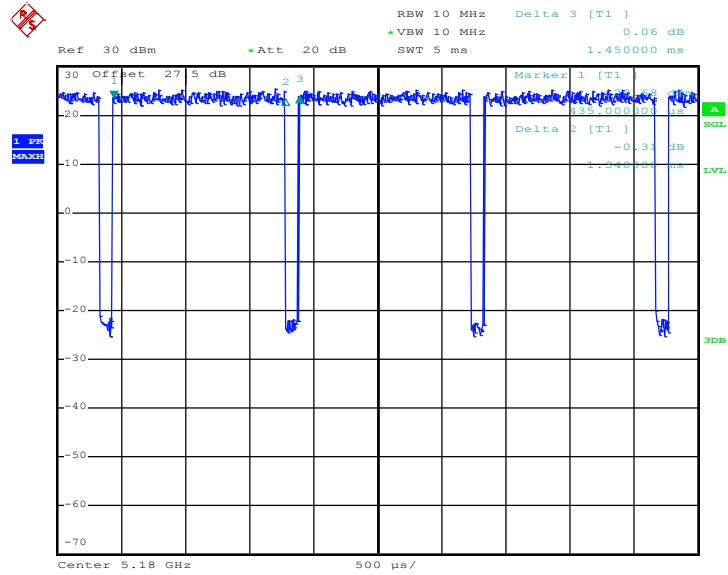
<Ant. 1>

802.11a



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

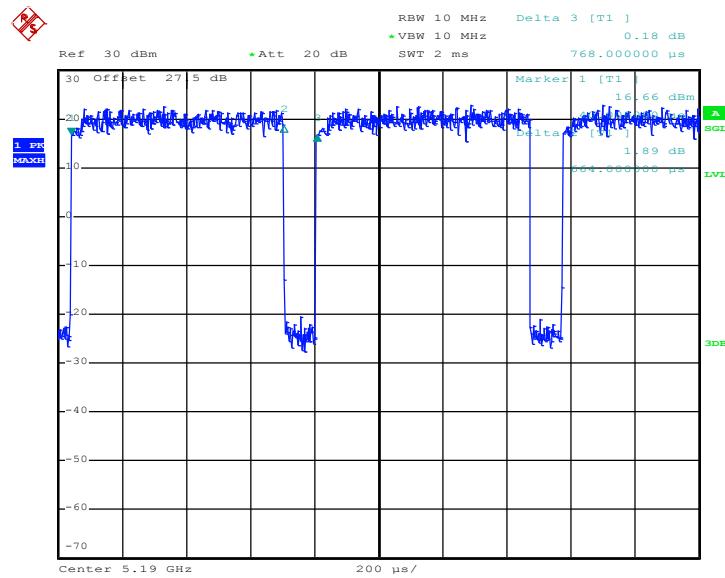
802.11n HT20



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

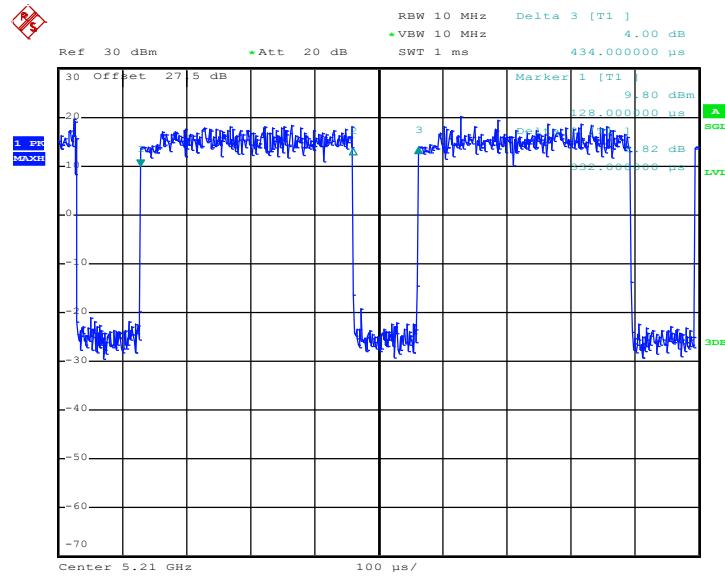


802.11n HT40

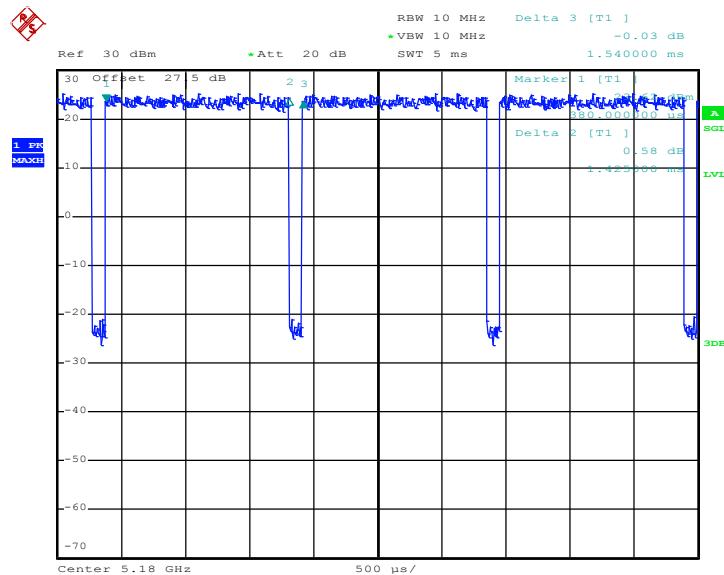


Date: 25.JUL.2017 16:17:57

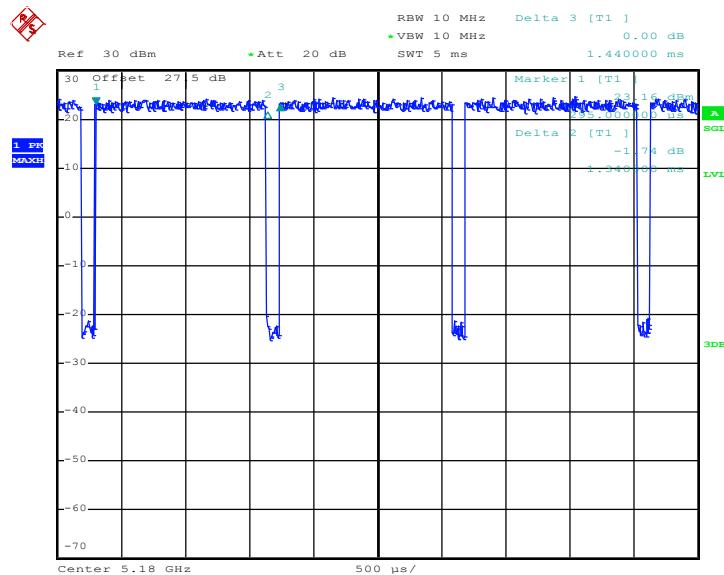
802.11ac VHT80



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

<Ant. 2>
802.11a


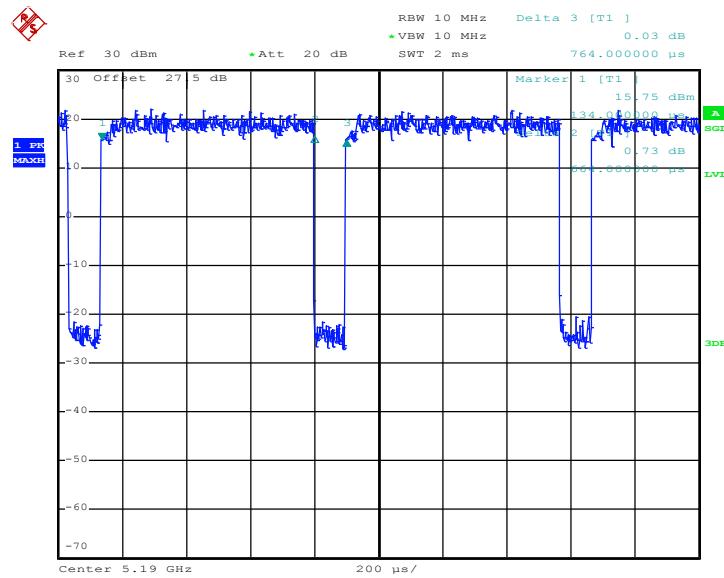
Date: 25.JUL.2017 15:58:05

802.11n HT20


Date: 25.JUL.2017 16:06:33

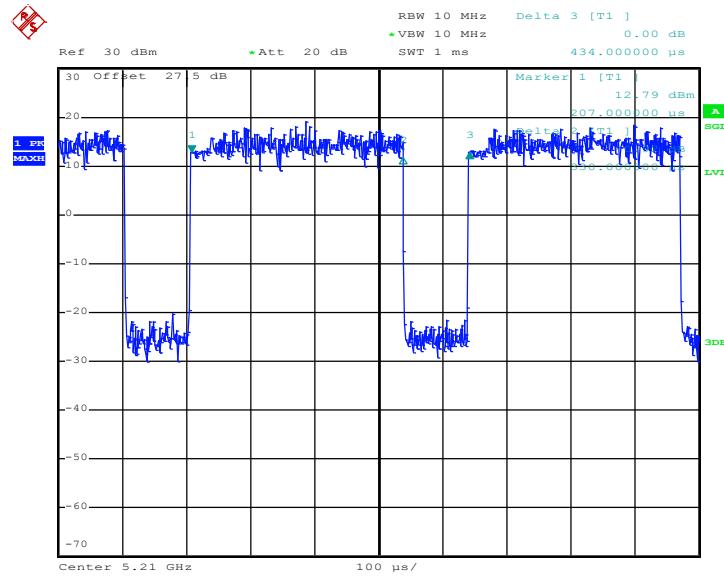


802.11n HT40



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

802.11ac VHT80

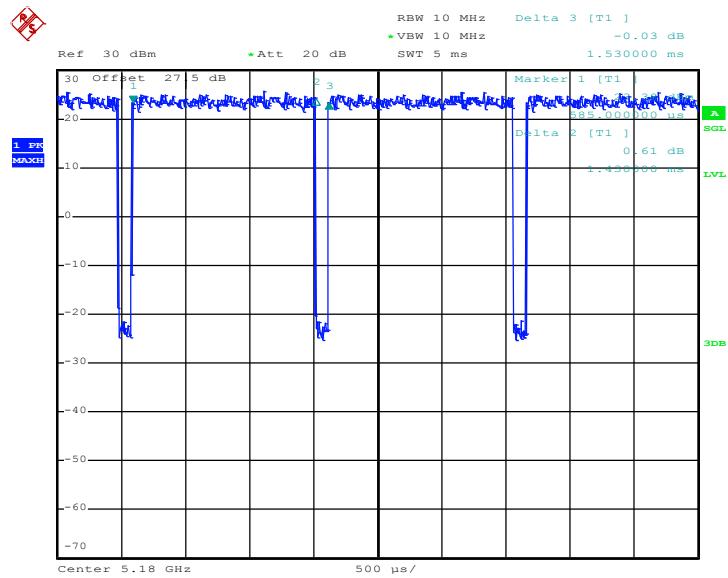


Date: 25.JUL.2017 17:25:34



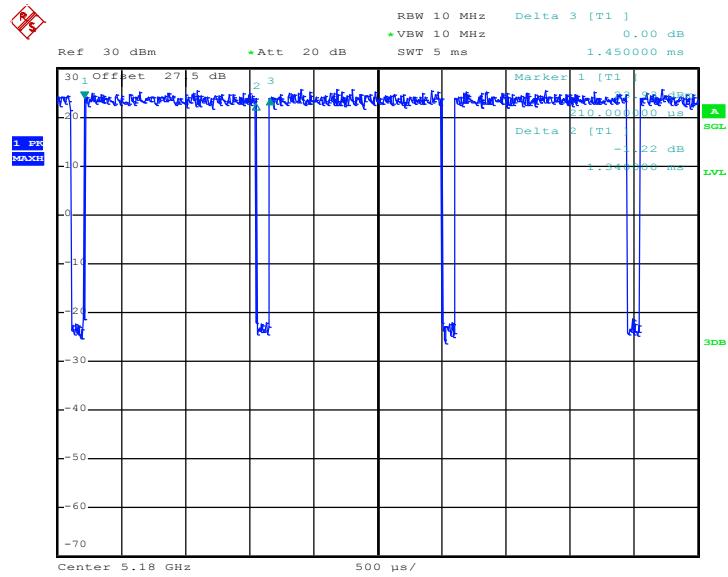
MIMO <Ant. 1>

802.11a



Date: 25.JUL.2017 16:12:37

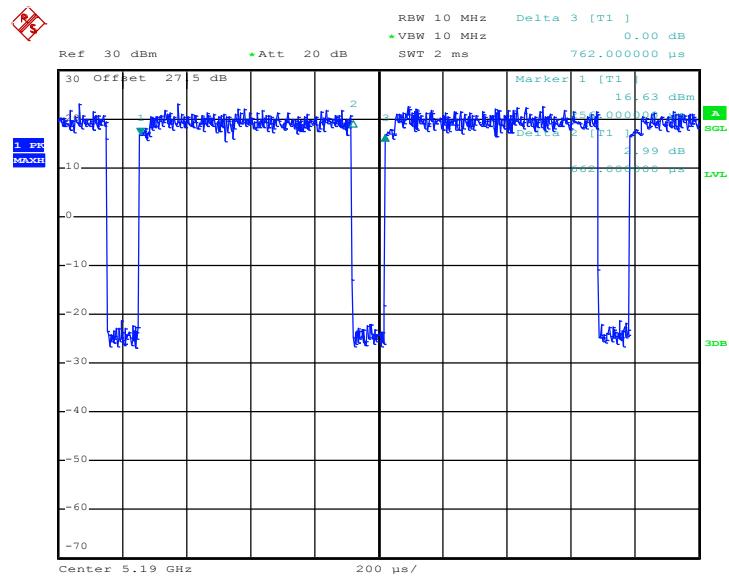
802.11n HT20



Date: 25.JUL.2017 16:09:03

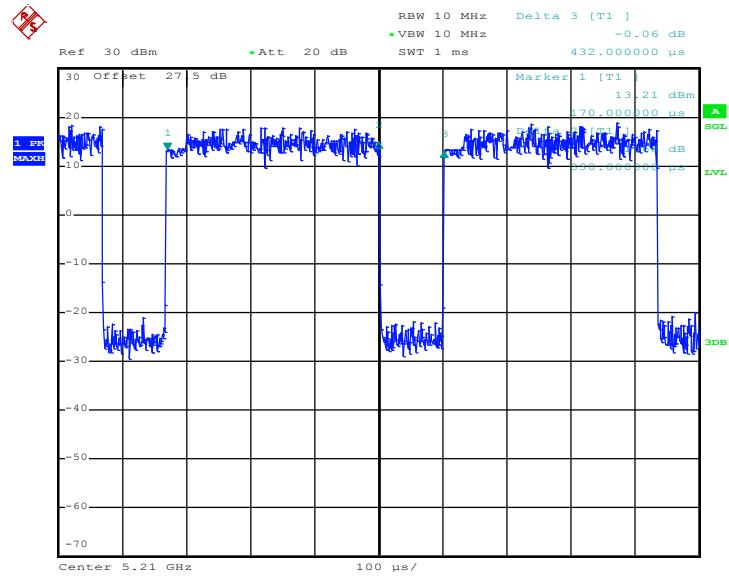


802.11n HT40



Date: 25.JUL.2017 16:22:12

802.11ac VHT80

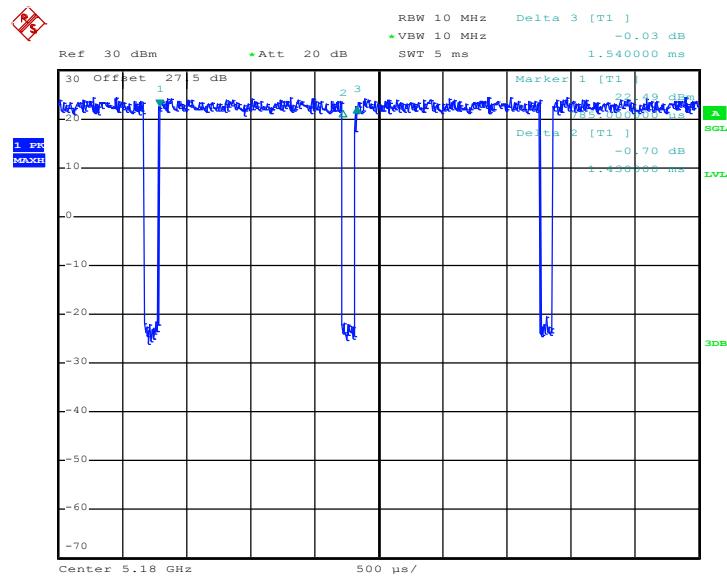


Date: 25.JUL.2017 17:27:09



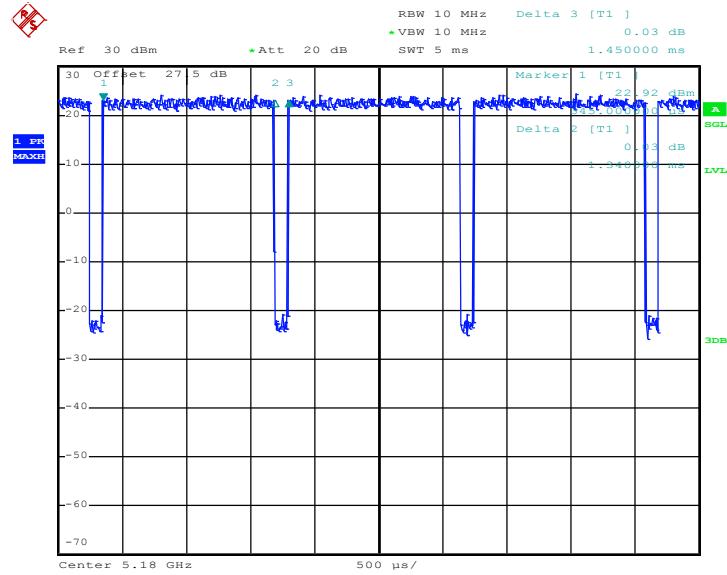
MIMO <Ant. 2>

802.11a



Date: 25.JUL.2017 16:13:26

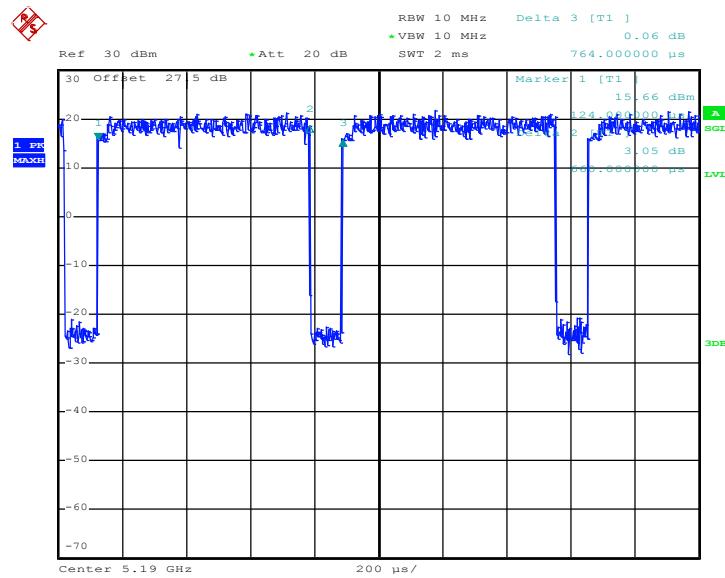
802.11n HT20



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

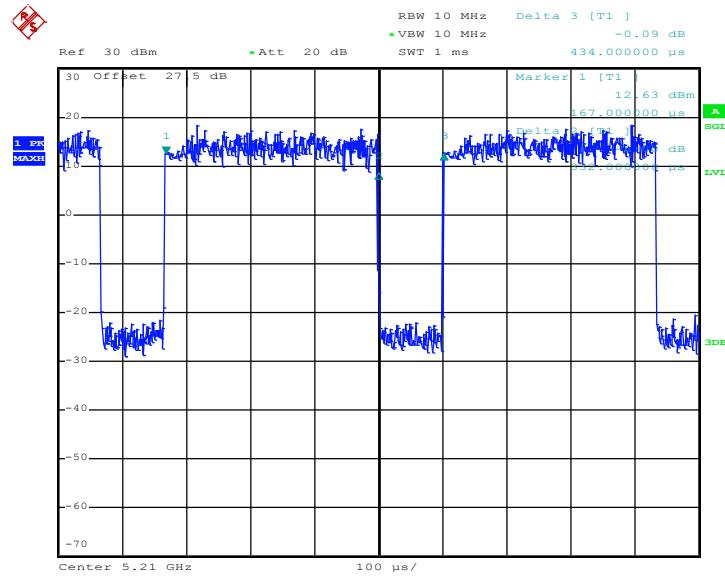


802.11n HT40



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

802.11ac VHT80



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