



# FCC RADIO TEST REPORT

**FCC ID** : UZ7VC8300  
**Equipment** : Vehicle Computer  
**Brand Name** : Zebra  
**Model Name** : VC8300  
**Applicant** : Zebra Technologies Corporation  
1 Zebra Plaza, Holtsville, NY 11742  
**Manufacturer** : Zebra Technologies Corporation  
1 Zebra Plaza, Holtsville, NY 11742  
**Standard** : FCC Part 15 Subpart E §15.407

The product was received on Feb. 15, 2019 and testing was started from Apr. 08, 2019 and completed on Apr. 15, 2019. We, SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, would like to declare that the tested sample has been evaluated in accordance with the test procedures and has been in compliance with the applicable technical standards.

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

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

Approved by: Jones Tsai

**SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory**

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



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## History of this test report



## Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
3.1	15.403(i)	26dB Bandwidth	Pass	-
3.1	2.1049	99% Occupied Bandwidth	Reporting only	-
3.2	15.407(a)	Maximum Conducted Output Power	Pass	-
3.3	15.407(a)	Power Spectral Density	Pass	-
3.4	15.407(b)	Unwanted Emissions	Pass	Under limit 1.15 dB at 52.850 MHz
-	15.207	AC Conducted Emission	Not Required	-
3.5	15.407(c)	Automatically Discontinue Transmission	Pass	-
3.6	15.203 15.407(a)	Antenna Requirement	Pass	-
<b>Remark:</b>				
1. Not required means after assessing, test items are not necessary to carry out. 2. This is a variant report by adding TXBF Mode. All the test cases were performed on original report which can be referred to Sporton Report Number FR8N0846D. Based on the original report, only worst case was verified.				

### Declaration of Conformity:

The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.

### Comments and Explanations:

The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

Reviewed by: Wii Chang

Report Producer: Maggie Chiang



## 1 General Description

### 1.1 Product Feature of Equipment Under Test

Product Feature	
<b>Equipment</b>	Vehicle Computer
<b>Brand Name</b>	Zebra
<b>Model Name</b>	VC8300
<b>FCC ID</b>	UZ7VC8300
<b>Sample 1</b>	EUT with SKU 1
<b>Sample 2</b>	EUT with SKU 2
<b>Sample 3</b>	EUT with SKU 3
<b>Sample 4</b>	EUT with SKU 4
<b>Sample 5</b>	EUT with SKU 5
<b>Sample 6</b>	EUT with SKU 6
<b>Sample 7</b>	EUT with SKU 7
<b>EUT supports Radios application</b>	WLAN 11a/b/g/n HT20/HT40 WLAN 11ac VHT20/VHT40/VHT80 Bluetooth BR/EDR/LE
<b>HW Version</b>	EVT1
<b>SW Version</b>	Zebra/VC8300/VC8310:8.1.0/01-14-12-00-ON-U00-PRD/26 6:eng/release-keys
<b>FW Version</b>	01-14-12.00-ON-U00-PRD
<b>MFD</b>	03Nov18
<b>EUT Stage</b>	Identical Prototype

**Remark:** The above EUT's information was declared by manufacturer.

Specification of Accessories				
<b>AC Adapter</b>	<b>Brand Name</b>	Zebra	<b>Model Name</b>	FSP150-AAAN2-Z
<b>Battery</b>	<b>Brand Name</b>	Zebra	<b>Model Name</b>	BT000254A01
<b>Car Charger</b>	<b>Brand Name</b>	Zebra	<b>Model Name</b>	CA1210
<b>RJ50/USB cable</b>	<b>Brand Name</b>	Zebra	<b>Model Name</b>	CBA-U01-S07ZAR
<b>Scanner</b>	<b>Brand Name</b>	Zebra	<b>Model Name</b>	DS3508
<b>Scanner</b>	<b>Brand Name</b>	Zebra	<b>Model Name</b>	LS3408
<b>Audio Speaker</b>	<b>Brand Name</b>	Zebra	<b>Model Name</b>	M1000
<b>Ferrite Core</b>	<b>Brand Name</b>	Zebra	<b>Model Name</b>	M1000
<b>Keyboard (ikey)</b>	<b>Brand Name</b>	Zebra	<b>Model Name</b>	SLK-101-M-USB-3F
<b>Keyboard (remote keyboard)</b>	<b>Brand Name</b>	Zebra	<b>Model Name</b>	KYBD-QWH-VC80
<b>External Antenna (Monopole)</b>	<b>Brand Name</b>	Zebra	<b>Model Name</b>	AN2010
<b>External Antenna (Monopole)</b>	<b>Brand Name</b>	Zebra	<b>Model Name</b>	AN2020
<b>External Antenna (Dipole)</b>	<b>Brand Name</b>	Zebra	<b>Model Name</b>	AN2030
<b>Power Pre-regulator</b>	<b>Brand Name</b>	PSION	<b>Model Name</b>	PS1370



## &lt;Sample Information&gt;

Model Name	VC80x 8"			VC80x 10"			
	SKU1	SKU2	SKU3	SKU4	SKU5	SKU6	SKU7
SKU Name	Warehouse 1	Warehouse 2	Freezer SK HYNIX eMMC & MICRON DRAM	Warehouse	Outdoor	Warehouse	Freezer
OS	Android O	Android O	Android O	Android O	Android O	Android O	Android O
Display	Tianma	Tianma	Tianma	AUO	Mitsubishi	AUO	AUO
DTB board / Fixture	DTB 8" CTP (TCA8414)	DTB 8" CTP (TCA8414)	DTB 8" CTP (TCA8414)	DTB AUO CTP (TCA8414)	DTB MIT CTP (TCA8414)	DTB AUO RTP (TCA8414)	DTB AUO RTP (TCA8414)
TP Type (Gunze)	CTP 8"	CTP 8"	CTP 8" w/ Heater	CTP 10"	CTP 10"	RTP	RTP w/ Heater
KB printing	QWERTY	AZETY	QWERTY				
KB Board	NO	NO	NO	Yes	Yes	Yes	Yes
KB	Yes	Yes	Yes	NO	NO	NO	NO
MLB	SDA660	SDA660	SDA660	SDA660	SDA660	SDA660	SDA660
PWR Board	Yes	Yes	Yes	Yes	Yes	Yes	Yes
USB Board	Yes	Yes	Yes	Yes	Yes	Yes	Yes
DB9 Board	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Battery Heater Board	Yes	Yes	Yes	Yes	Yes	Yes	Yes



## 1.2 Product Specification of Equipment Under Test

Standards-related Product Specification								
<b>Tx/Rx Frequency Range</b>	5180 MHz ~ 5240 MHz 5260 MHz ~ 5320 MHz 5500 MHz ~ 5720 MHz							
<b>Maximum Output Power to Antenna</b>	<b>MIMO &lt;Chain. 1+2&gt;</b> <b>&lt;5180 MHz ~ 5240 MHz&gt;</b> 802.11ac VHT20: 19.48 dBm / 0.0887 W 802.11ac VHT40: 22.21 dBm / 0.1663 W 802.11ac VHT80: 16.91 dBm / 0.0491 W <b>&lt;5260 MHz ~ 5320 MHz&gt;</b> 802.11ac VHT20: 20.54 dBm / 0.1132 W 802.11ac VHT40: 21.65 dBm / 0.1462 W 802.11ac VHT80: 12.95 dBm / 0.0197 W <b>&lt;5500 MHz ~ 5720 MHz&gt;</b> 802.11ac VHT20: 20.60 dBm / 0.1148 W 802.11ac VHT40: 21.75 dBm / 0.1496 W 802.11ac VHT80: 22.01 dBm / 0.1589 W							
<b>99% Occupied Bandwidth</b>	<b>MIMO &lt;Chain. 1&gt;</b> 802.11n VHT20 : 18.00 MHz 802.11n VHT40 : 36.70 MHz 802.11ac VHT80 : 77.52 MHz <b>MIMO &lt;Chain. 2&gt;</b> 802.11n VHT20 : 17.95 MHz 802.11n VHT40 : 36.70 MHz 802.11ac VHT80 : 77.16 MHz							
<b>Type of Modulation</b>	802.11a/n : OFDM (BPSK/QPSK/16QAM/64QAM) 802.11ac : OFDM (BPSK/QPSK/16QAM/64QAM/256QAM)							
<b>Antenna Function Description</b>	<table border="1"><thead><tr><th></th><th>Chain 1</th><th>Chain 2</th></tr></thead><tbody><tr><td>802.11 a/n/ac TXBF</td><td>V</td><td>V</td></tr></tbody></table>			Chain 1	Chain 2	802.11 a/n/ac TXBF	V	V
	Chain 1	Chain 2						
802.11 a/n/ac TXBF	V	V						

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



Antenna No.	Chain No.	Model	Antenna Type	Antenna Gain (dBi) Exclude Cable loss	Internal Cable loss (dB)	External Cable loss (dB)	Antenna Gain (dBi) Include Cable loss	Frequency (GHz)		
1	Int. Chain 0	AN-000242-01	Patch	3.30	N/A	N/A	3.30	2.4~2.4835		
				4.53	N/A	N/A	4.53	5.15~5.85		
	Int. Chain 1			4.00	N/A	N/A	4.00	2.4~2.4835		
				4.79	N/A	N/A	4.79	5.15~5.85		
2	Ext. Chain 0	AN2010	Monopole	2	0.6	1.8	-0.4	2.4~2.4835		
				2	0.9	2.6	-1.5	5.15~5.85		
	Ext. Chain 1			2	0.6	1.8	-0.4	2.4~2.4835		
				2	0.9	2.6	-1.5	5.15~5.85		
3	Ext. Chain 0	AN2020	Monopole	5	0.6	1.8	2.6	2.4~2.4835		
	Ext. Chain 1			5	0.6	1.8	2.6	2.4~2.4835		
4	Ext. Chain 0	AN2030	Dipole	2	0.6	N/A	1.4	2.4~2.4835		
				3.7	0.9	N/A	2.8	5.15~5.85		
	Ext. Chain 1			2	0.6	N/A	1.4	2.4~2.4835		
				3.7	0.9	N/A	2.8	5.15~5.85		

### 1.3 Modification of EUT

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



## 1.4 Testing Location

Test Site	SPORTON INTERNATIONAL INC.
Test Site Location	No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.) TEL: +886-3-327-3456 FAX: +886-3-328-4978
Test Site No.	<b>Sportun Site No.</b> TH05-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.	<b>Sportun Site No.</b> 03CH12-HY

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

FCC Designation No. TW1190 and TW0007

## 1.5 Applicable Standards

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

- ♦ FCC Part 15 Subpart E
- ♦ FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.
- ♦ FCC KDB 414788 D01 Radiated Test Site v01r01.
- ♦ 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). For radiated measurement, pre-scanned in three orthogonal panels, X, Y, Z. The worst cases (X plane for Ant. 1, Y plane for Ant. 2, and Horizontal for Ant. 4) were recorded in this report.
- b. AC power line Conducted Emission was tested under maximum output power.

### 2.1 Carrier Frequency and Channel

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
5150-5250 MHz Band 1 (U-NII-1)	36	5180	44	5220
	38*	5190	46*	5230
	40	5200	48	5240
	42 <sup>#</sup>	5210		
Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
5250-5350 MHz Band 2 (U-NII-2A)	52	5260	60	5300
	54*	5270	62*	5310
	56	5280	64	5320
	58 <sup>#</sup>	5290		
Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
5470-5725 MHz Band 3 (U-NII-2C)	100	5500	112	5560
	102*	5510	116	5580
	104	5520	132	5660
	106 <sup>#</sup>	5530	134*	5670
	108	5540	136	5680
	110*	5550	140	5700
Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
TDWR Channel	118*	5590	124	5620
	120	5600	126*	5630
	122 <sup>#</sup>	5610	128	5640



Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
Straddle Channel	138 <sup>#</sup>	5690	144	5720
	142*	5710		

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

**TXBF Mode**

Modulation		Data Rate
802.11ac VHT20		MCS0
802.11ac VHT40		MCS0
802.11ac VHT80		MCS0

**Remark:** For Radiated Test Cases, the tests were performed with Sample 3 and each antenna (Ant. 1, Ant. 2, and Ant. 4).

Ch. #		Band I : 5150-5250 MHz	Band II : 5250-5350 MHz	Band III : 5470-5725MHz
		802.11ac VHT20	802.11ac VHT20	802.11ac VHT20
L	Low	36	52	100
M	Middle	44	60	116
H	High	48	64	140
Straddle		-	-	144

Ch. #		Band I : 5150-5250 MHz	Band II : 5250-5350 MHz	Band III : 5470-5725MHz
		802.11ac VHT40	802.11ac VHT40	802.11ac VHT40
L	Low	38	54	102
M	Middle	-	-	110
H	High	46	62	134
Straddle		-	-	142

Ch. #		Band I : 5150-5250 MHz	Band II : 5250-5350 MHz	Band III : 5470-5725MHz
		802.11ac VHT80	802.11ac VHT80	802.11ac VHT80
L	Low	-	-	106
M	Middle	42	58	122
H	High	-	-	-
Straddle		-	-	138



## &lt;Chain 1+2&gt;

802.11ac VHT20 RF Output Power (dBm)											
Power vs. Channel			Power vs Data Rate								
Channel	Frequency (MHz)	MCS Index	Channel	MCS Index							
				MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8
CH 036	5180	19.48	CH 036	19.42	19.47	19.47	19.42	19.38	19.42	19.44	19.37
CH 044	5220	19.20									
CH 048	5240	19.18									
CH 052	5260	19.50									
CH 060	5300	19.44	CH 064	20.50	20.50	20.50	20.34	20.38	20.34	20.38	20.43
CH 064	5320	20.54									
CH 100	5500	15.06									
CH 116	5580	20.60									
CH 140	5700	15.70	CH 116	20.44	20.54	20.54	20.40	20.34	20.34	20.40	20.34
CH 144	5720	18.84									

Note: The above Frequency and Channel in "\*" were straddle Channel.

802.11ac VHT40 RF Output Power (dBm)												
Power vs. Channel			Power vs Data Rate									
Channel	Frequency (MHz)	MCS Index	Channel	MCS Index								
				MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8	MCS9
CH 038	5190	16.71	CH 046	22.15	22.15	22.15	21.85	21.85	21.85	21.85	22.07	22.07
CH 046	5230	22.21										
CH 054	5270	21.65										
CH 062	5310	13.30										
CH 102	5510	20.02	CH 110									
CH 110	5550	21.75		21.71	21.70	21.71	21.55	21.58	21.68	21.74	21.60	21.65
CH 134	5670	20.34										
CH 142	5710	21.70										

Note: The above Frequency and Channel in "\*" were straddle Channel.

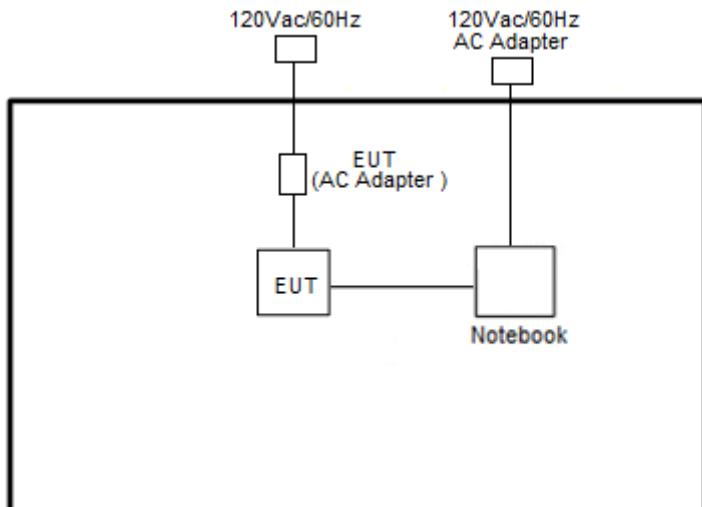


802.11ac VHT80 RF Output Power (dBm)												
Power vs. Channel			Power vs Data Rate									
Channel	Frequency (MHz)	MCS Index	Channel	MCS Index								
				MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS9	
CH 042	5210	16.91	CH 042	16.77	16.72	16.82	16.71	16.67	16.72	16.75	16.67	16.70
CH 058	5290	12.95	CH 058	12.90	12.90	12.91	12.61	12.60	12.50	12.51	12.48	12.45
CH 106	5530	19.44	CH 138	21.71	21.81	21.91	21.35	21.37	21.38	21.35	21.31	21.37
CH 122	5610	21.95										
CH 138	5690	22.01										

Note: The above Frequency and Channel in "\*" were straddle Channel.

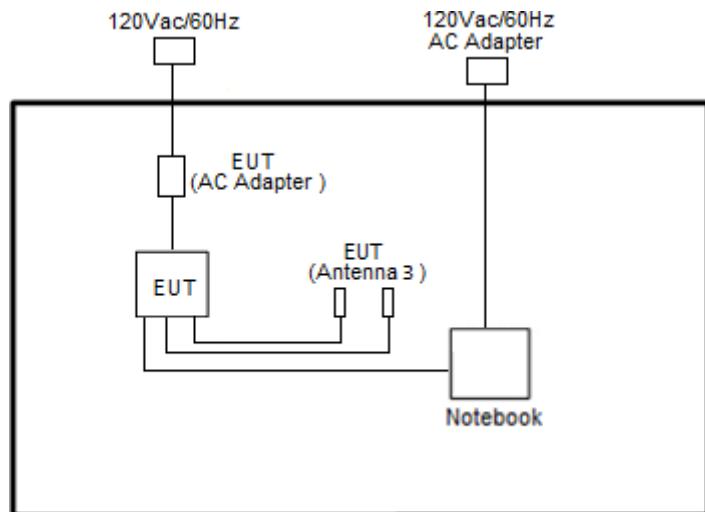
## 2.3 Connection Diagram of Test System

<EUT with Antenna 1>

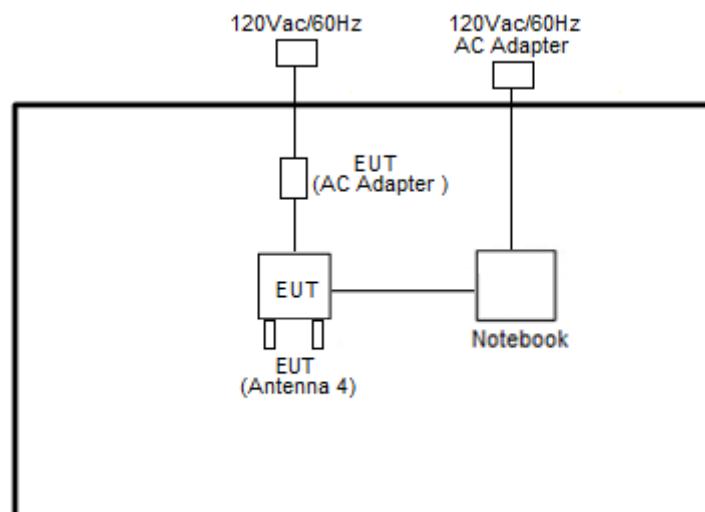




## &lt;EUT with Antenna 2&gt;



## &lt;EUT with Antenna 4&gt;





## 2.4 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	Notebook	Lenovo	E330	N/A	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
2.	Notebook	MSI	MS-16J5	N/A	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m

## 2.5 EUT Operation Test Setup

For TXBF mode, the modulation modes and data rates manipulated by the command lines in the engineering program made the EUT link to another EUT by power under the normal operation. The "ADB" software tool was used to enable the EUT to transmit signals continuously.

## 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.

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

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 26dB & 99% Occupied Bandwidth Measurement

##### 3.1.1 Description of 26dB & 99% Occupied Bandwidth

This section is for reporting purpose only.

There is no restriction limits for bandwidth.

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

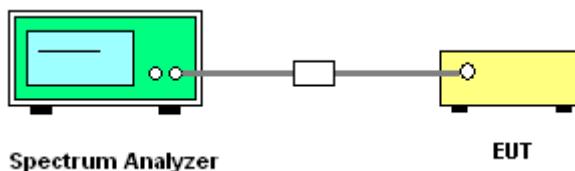
##### 3.1.2 Measuring Instruments

See list of measuring equipment of this test report.

##### 3.1.3 Test Procedures

1. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01. Section C) Emission bandwidth
2. Set RBW = approximately 1% of the emission bandwidth.
3. Set the VBW > RBW.
4. Detector = Peak.
5. Trace mode = max hold
6. Measure the maximum width of the emission that is 26 dB down from the peak of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.
7. For 99% Bandwidth Measurement, the spectrum analyzer's resolution bandwidth (RBW) is set 1-5% of the emission bandwidth and set the Video bandwidth (VBW)  $\geq 3 * \text{RBW}$ .
8. Measure and record the results in the test report.

##### 3.1.4 Test Setup





## 3.1.5 Test Result of 26dB &amp; 99% Occupied Bandwidth

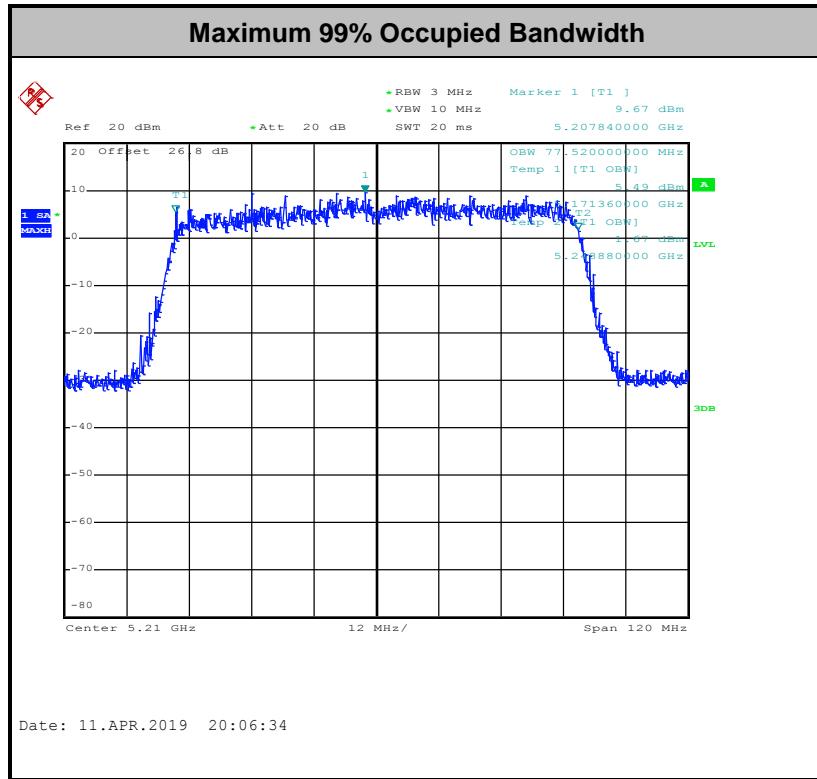
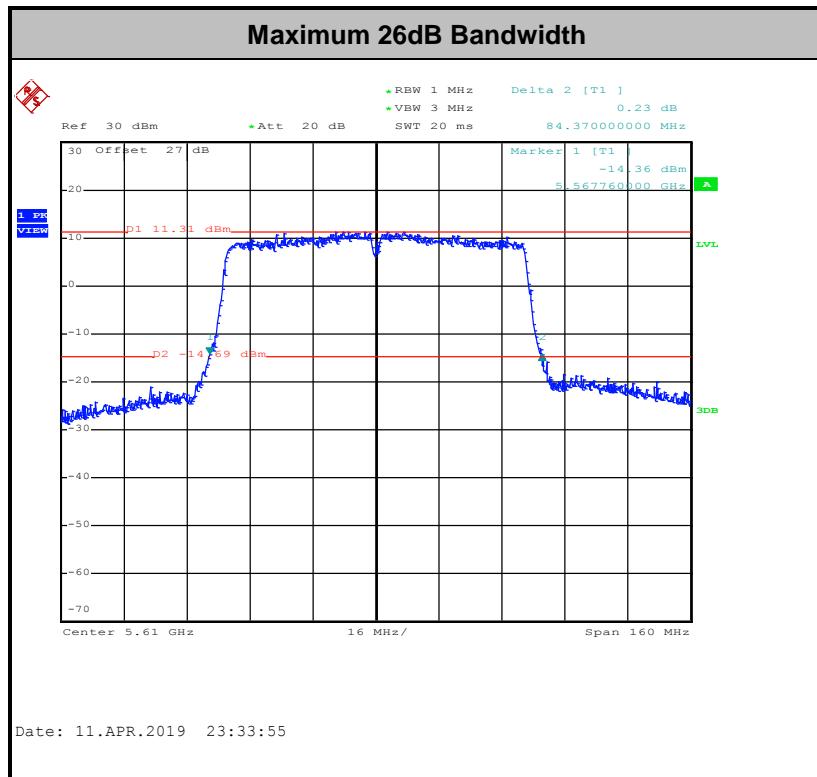
Test Engineer :	Richard Qiu	Temperature :		21~25°C	
		Relative Humidity :		51~54%	

Band I													
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Bandwidth (MHz)		26 dB Bandwidth (MHz)		IC 99% Bandwidth Power Limit (dBm)		IC 99% Bandwidth EIRP Limit (dBm)		Note
					Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	
VHT20	MCS0	2	36	5180	17.90	17.85	24.63	24.30	-	-	22.52	-	-
VHT20	MCS0	2	44	5220	17.95	17.85	25.45	25.15	-	-	22.52	-	
VHT20	MCS0	2	48	5240	18.00	17.95	25.40	25.15	-	-	22.54	-	
VHT40	MCS0	2	38	5190	36.60	36.50	41.89	41.76	-	-	23.01	-	
VHT40	MCS0	2	46	5230	36.70	36.60	42.12	41.76	-	-	23.01	-	
VHT80	MCS0	2	42	5210	77.52	77.04	83.31	82.56	-	-	23.01	-	

Band II														
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Bandwidth (MHz)		26 dB Bandwidth (MHz)		IC 99% Bandwidth Power Limit (dBm)		IC 99% Bandwidth EIRP Limit (dBm)		FCC 26dB Bandwidth Power Limit (dBm)	Note
					Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2
VHT20	MCS0	2	52	5260	17.95	17.95	24.80	25.15	23.54	23.54	29.54	29.54	23.98	-
VHT20	MCS0	2	60	5300	17.90	17.90	25.35	26.60	23.53	23.53	29.53	29.53	23.98	
VHT20	MCS0	2	64	5320	17.80	17.90	25.55	24.95	23.50	23.50	29.50	29.50	23.98	
VHT40	MCS0	2	54	5270	36.70	36.60	42.12	41.76	23.98	23.98	30.00	30.00	23.98	
VHT40	MCS0	2	62	5310	36.60	36.70	42.66	41.94	23.98	23.98	30.00	30.00	23.98	
VHT80	MCS0	2	58	5290	77.16	77.16	83.42	83.20	23.98	23.98	30.00	30.00	23.98	



Band III																
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Bandwidth In U-NII 2C (MHz)		26 dB Bandwidth In U-NII 2C (MHz)		IC 99% Bandwidth Power Limit (dBm)		IC 99% Bandwidth EIRP Limit (dBm)		FCC 26dB Bandwidth Power Limit (dBm)		6 dB Bandwidth for Straddle Channel (MHz)	
					Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2
VHT20	MCS0	2	100	5500	17.90	17.85	25.45	24.30	23.52	29.52	23.98	23.98	----	----		
VHT20	MCS0	2	116	5580	17.85	17.90	25.55	25.15	23.52	29.52	23.98	23.98	----	----		
VHT20	MCS0	2	140	5700	17.85	17.85	25.30	25.45	23.52	29.52	23.98	23.98	----	----		
VHT20	MCS0	2	144	5720	13.95	13.90	18.15	18.10	22.43	28.43	23.58	23.58	3.5	3.5		
VHT40	MCS0	2	102	5510	36.60	36.40	41.76	41.50	23.98	30.00	23.98	23.98	----	----		
VHT40	MCS0	2	110	5550	36.50	36.60	42.30	41.94	23.98	30.00	23.98	23.98	----	----		
VHT40	MCS0	2	134	5670	36.50	36.60	41.94	41.58	23.98	30.00	23.98	23.98	----	----		
VHT40	MCS0	2	142	5710	33.30	33.30	36.28	36.06	23.98	30.00	23.98	23.98	3.18	3.1		
VHT80	MCS0	2	106	5530	77.16	77.04	83.32	83.28	23.98	30.00	23.98	23.98	----	----		
VHT80	MCS0	2	122	5610	77.04	77.04	84.37	82.24	23.98	30.00	23.98	23.98	----	----		
VHT80	MCS0	2	138	5690	73.52	73.40	77.08	75.16	23.98	30.00	23.98	23.98	2.56	2.74		



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



## 3.2 Maximum Conducted Output Power Measurement

### 3.2.1 Limit of Maximum Conducted Output Power

#### <FCC 14-30 CFR 15.407>

##### For the 5.15–5.25 GHz bands:

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

##### For the 5.25–5.725 GHz bands:

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

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

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

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

### 3.2.2 Measuring Instruments

See list of measuring equipment of this test report.

### 3.2.3 Test Procedures

The testing follows Method PM-G of FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01 for TXBF modes.

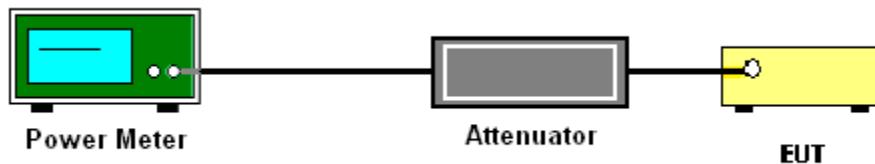
Method PM-G (Measurement using a gated RF average power meter):

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

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



### 3.2.4 Test Setup



### 3.2.5 Test Result of Maximum Conducted Output Power

Test Engineer :	Richard Qiu				Temperature :		21~25°C	
					Relative Humidity :			

FCC Band I											
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Conducted Power (dBm)			FCC Conducted Power Limit (dBm)		DG (dBi)	Pass/Fail
					Ant 1	Ant 2	SUM	Ant 1	Ant 2		
VHT20	MCS0	2	36	5180	17.20	15.60	19.48	22.57	22.57	7.43	Pass
VHT20	MCS0	2	44	5220	17.00	15.20	19.20	22.57	22.57	7.43	Pass
VHT20	MCS0	2	48	5240	16.90	15.30	19.18	22.57	22.57	7.43	Pass
VHT40	MCS0	2	38	5190	14.30	13.00	16.71	22.57	22.57	7.43	Pass
VHT40	MCS0	2	46	5230	19.80	18.50	22.21	22.57	22.57	7.43	Pass
VHT80	MCS0	2	42	5210	14.50	13.20	16.91	22.57	22.57	7.43	Pass



FCC Band II													
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Conducted Power (dBm)			FCC Conducted Power Limit (dBm)		DG (dBi)		EIRP Power Limit (dBm)	Pass/Fail
					Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2		
VHT20	MCS0	2	52	5260	17.30	15.50	19.50	22.48	22.48	7.50	30	Pass	
VHT20	MCS0	2	60	5300	17.20	15.50	19.44	22.48	22.48	7.50	30	Pass	
VHT20	MCS0	2	64	5320	18.00	17.00	20.54	22.48	22.48	7.50	30	Pass	
VHT40	MCS0	2	54	5270	19.20	18.00	21.65	22.48	22.48	7.50	30	Pass	
VHT40	MCS0	2	62	5310	10.80	9.70	13.30	22.48	22.48	7.50	30	Pass	
VHT80	MCS0	2	58	5290	10.50	9.30	12.95	22.48	22.48	7.50	30	Pass	

FCC Band III													
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Conducted Power (dBm)			FCC Conducted Power Limit (dBm)		DG (dBi)		EIRP Power Limit (dBm)	Pass/Fail
					Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2		
VHT20	MCS0	2	100	5500	12.20	11.90	15.06	22.31	22.31	7.67	30	Pass	
VHT20	MCS0	2	116	5580	18.10	17.00	20.60	22.31	22.31	7.67	30	Pass	
VHT20	MCS0	2	140	5700	13.50	11.70	15.70	22.31	22.31	7.67	30	Pass	
VHT20	MCS0	2	144	5720	16.60	14.90	18.84	21.91	21.91	7.67	30	Pass	
VHT40	MCS0	2	102	5510	17.30	16.70	20.02	22.31	22.31	7.67	30	Pass	
VHT40	MCS0	2	110	5550	19.30	18.10	21.75	22.31	22.31	7.67	30	Pass	
VHT40	MCS0	2	134	5670	18.10	16.40	20.34	22.31	22.31	7.67	30	Pass	
VHT40	MCS0	2	142	5710	19.20	18.10	21.70	22.31	22.31	7.67	30	Pass	
VHT80	MCS0	2	106	5530	16.90	15.90	19.44	22.31	22.31	7.67	30	Pass	
VHT80	MCS0	2	122	5610	19.50	18.30	21.95	22.31	22.31	7.67	30	Pass	
VHT80	MCS0	2	138	5690	19.60	18.30	22.01	22.31	22.31	7.67	30	Pass	



### 3.3 Power Spectral Density Measurement

#### 3.3.1 Limit of Power Spectral Density

##### <FCC 14-30 CFR 15.407>

###### **For the 5.15–5.25 GHz bands:**

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

###### **For the 5.25–5.725 GHz bands:**

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

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

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

#### 3.3.2 Measuring Instruments

See list of measuring equipment of this test report.

#### 3.3.3 Test Procedures

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

Section F) Maximum power spectral density.

##### **<TXBF Modes>**

##### **# Method SA-3 #**

(power averaging (rms) detection with max hold):

- Set span to encompass the entire emission bandwidth (EBW) of the signal.
- Set RBW = 1 MHz.
- Set VBW  $\geq$  3 MHz
- Number of points in sweep  $\geq$  2 Span / RBW.
- Sweep time  $\leq$  (number of points in sweep)  $\times$  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.
- Detector = power averaging (rms).
- Trace mode = max hold.
- Allow max hold to run for at least 60 seconds, or longer as needed to allow the trace to stabilize.

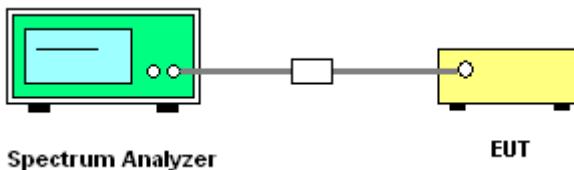


1. The RF output of EUT was connected to the spectrum analyzer by a low loss cable.
2. Each plot has already offset with cable loss, and attenuator loss. Measure the PPSD and record it.
3. For MIMO mode, calculation method follows FCC KDB 662911 D01 Multiple Transmitter Output v02r01.

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

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

### 3.3.4 Test Setup





## 3.3.5 Test Result of Power Spectral Density

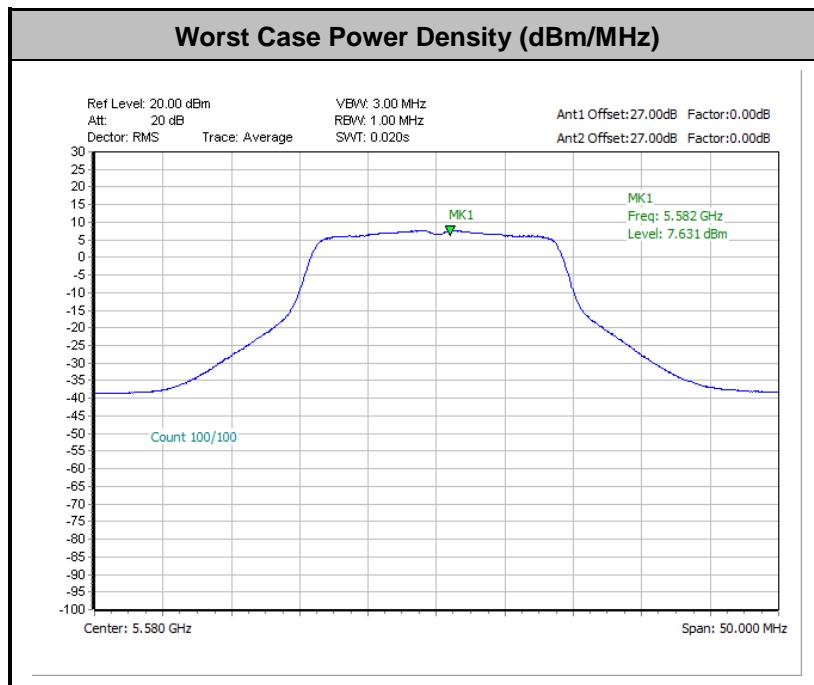
Test Engineer :	Richard Qiu				Temperature :		21~25°C	
					Relative Humidity :		51~54%	

FCC Band I														
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)		Average Power Density (dBm/MHz)			Average PSD Limit (dBm/MHz)		DG (dBi)		Pass /Fail
					Ant 1	Ant 2	Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2	
VHT20	MCS0	2	36	5180	0.00	0.00	-	-	5.73	9.57		7.43		Pass
VHT20	MCS0	2	44	5220	0.00	0.00			5.44	9.57		7.43		Pass
VHT20	MCS0	2	48	5240	0.00	0.00			4.59	9.57		7.43		Pass
VHT40	MCS0	2	38	5190	0.00	0.00			-1.03	9.57		7.43		Pass
VHT40	MCS0	2	46	5230	0.00	0.00			7.30	9.57		7.43		Pass
VHT80	MCS0	2	42	5210	0.00	0.00			-5.21	9.57		7.43		Pass

Band II														
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)		Average Power Density (dBm/MHz)			Average PSD Limit (dBm/MHz)		DG (dBi)		Pass /Fail
					Ant 1	Ant 2	Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2	
VHT20	MCS0	2	52	5260	0.00	0.00	-	-	5.68	9.50		7.50		Pass
VHT20	MCS0	2	60	5300	0.00	0.00			5.72	9.50		7.50		Pass
VHT20	MCS0	2	64	5320	0.00	0.00			6.43	9.50		7.50		Pass
VHT40	MCS0	2	54	5270	0.00	0.00			6.25	9.50		7.50		Pass
VHT40	MCS0	2	62	5310	0.00	0.00			-2.42	9.50		7.50		Pass
VHT80	MCS0	2	58	5290	0.00	0.00			-8.52	9.50		7.50		Pass



Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)		Average Power Density (dBm/MHz)			Average PSD Limit (dBm/MHz)		DG (dBi)		Pass /Fail
							Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2	
					Ant 1	Ant 2	Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2	
VHT20	MCS0	2	100	5500	0.00	0.00	-	-	1.44	9.33	7.67	7.67	Pass	
VHT20	MCS0	2	116	5580	0.00	0.00			7.63	9.33	7.67	7.67	Pass	
VHT20	MCS0	2	140	5700	0.00	0.00			2.24	9.33	7.67	7.67	Pass	
VHT20	MCS0	2	144	5720	0.00	0.00			5.36	9.33	7.67	7.67	Pass	
VHT40	MCS0	2	102	5510	0.00	0.00			3.67	9.33	7.67	7.67	Pass	
VHT40	MCS0	2	110	5550	0.00	0.00			7.48	9.33	7.67	7.67	Pass	
VHT40	MCS0	2	134	5670	0.00	0.00			5.24	9.33	7.67	7.67	Pass	
VHT40	MCS0	2	142	5710	0.00	0.00			6.29	9.33	7.67	7.67	Pass	
VHT80	MCS0	2	106	5530	0.00	0.00			-1.64	9.33	7.67	7.67	Pass	
VHT80	MCS0	2	122	5610	0.00	0.00			4.30	9.33	7.67	7.67	Pass	
VHT80	MCS0	2	138	5690	0.00	0.00			2.25	9.33	7.67	7.67	Pass	



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



### 3.4 Unwanted Emissions Measurement

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

#### 3.4.1 Limit of Unwanted Emissions

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

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

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

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

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

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

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

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



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

- (i) Section 15.407(b)(1) to (b)(3) specify the unwanted emission limits for the U-NII-1 and U-NII-2 bands. As specified, emissions above 1000 MHz that are outside of the restricted bands are subject to a peak emission limit of -27 dBm/MHz.<sup>3</sup>
- (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.<sup>4</sup>

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

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

### 3.4.2 Measuring Instruments

See list of measuring equipment of this test report.

### 3.4.3 Test Procedures

1. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01. Section G) Unwanted emissions measurement.

(1) Procedure for Unwanted Emissions Measurements Below 1000MHz

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

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

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

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

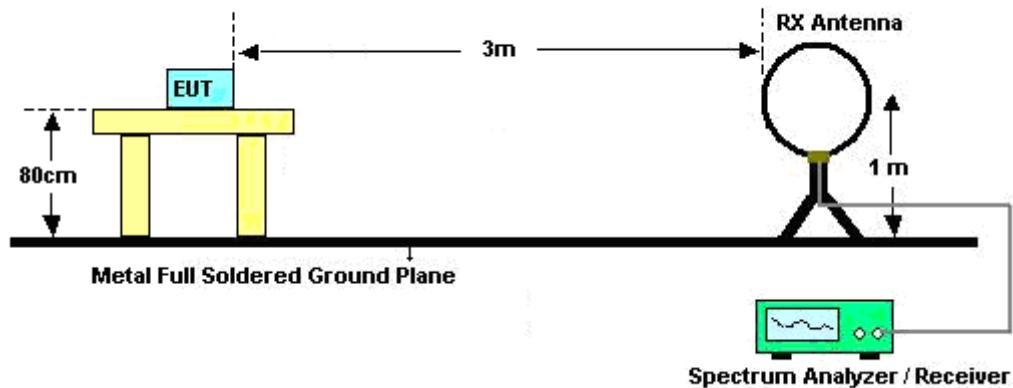
- RBW = 1 MHz
- VBW = 10 Hz, when duty cycle is no less than 98 percent.
- VBW  $\geq$  1/T, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.



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.

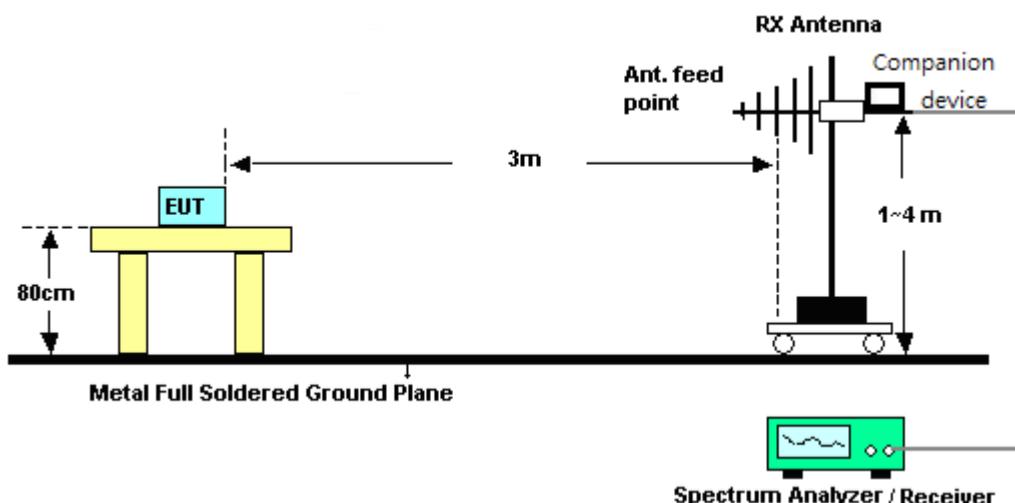
### 3.4.4 Test Setup

For radiated emissions below 30MHz



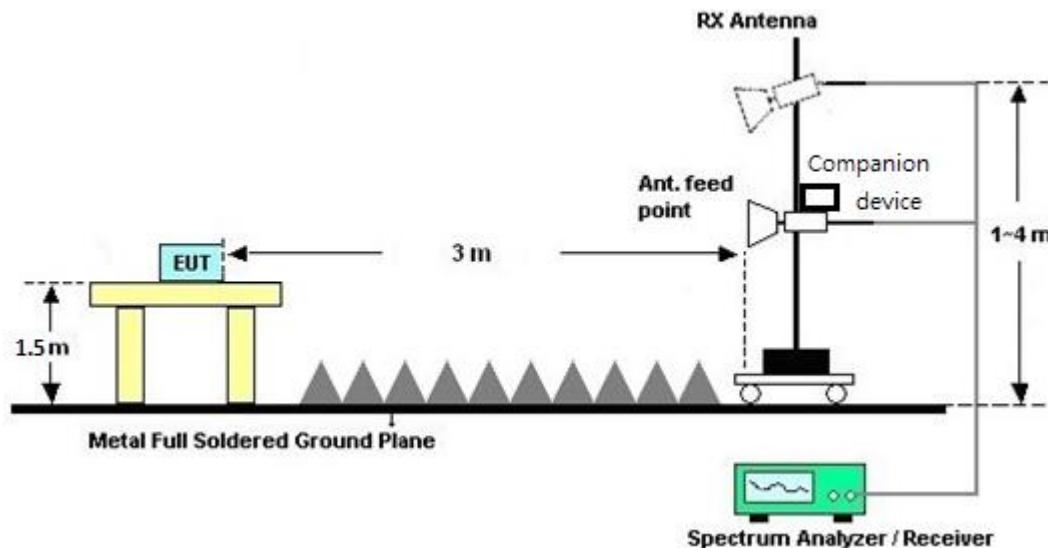
For radiated emissions from 30MHz to 1GHz

<TXBF Mode>



For radiated emissions above 1GHz

<TXBF Mode>



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

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

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

### 3.4.6 Test Result of Radiated Spurious at Band Edges

Please refer to Appendix A and B.

### 3.4.7 Duty Cycle

Please refer to Appendix C.

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

Please refer to Appendix A and B.



### 3.5 Automatically Discontinue Transmission

#### 3.5.1 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.

#### 3.5.2 Measuring Instruments

See list of measuring equipment of this test report.

#### 3.5.3 Test Result of Automatically Discontinue Transmission

While the EUT is not transmitting any information, the EUT can automatically discontinue transmission and become standby mode for power saving. The EUT can detect the controlling signal of ACK message transmitting from remote device and verify whether it shall resend or discontinue transmission.



## 3.6 Antenna Requirements

### 3.6.1 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.

### 3.6.2 Antenna Anti-Replacement Construction

An embedded-in antenna design is used.

### 3.6.3 Antenna Gain

#### <TXBF Modes>

FCC KDB 662911 D01 Multiple Transmitter Output v02r01

For CDD transmissions, directional gain is calculated as

$$\text{DirectionalGain} = 10 \cdot \log \left[ \frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right]$$

where

Each antenna is driven by no more than one spatial stream;

$N_{SS}$  = the number of independent spatial streams of data;

$N_{ANT}$  = the total number of antennas

$g_{j,k} = 10^{G_k / 20}$  if the  $k$ th antenna is being fed by spatial stream  $j$ , or zero if it is not;  
 $G_k$  is the gain in dBi of the  $k$ th antenna.

The EUT supports beamforming for 802.11ac modes.

The directional gain calculation is following F2) e) 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 I	4.23	4.61	7.43	7.43	1.43	1.43
Band II	4.37	4.61	7.50	7.50	1.50	1.50
Band III	4.53	4.79	7.67	7.67	1.67	1.67

$\text{Power Limit Reduction} = \text{DG(Power)} - 6\text{dBi}, (\text{min} = 0)$

$\text{PSD Limit Reduction} = \text{DG(PSD)} - 6\text{dBi}, (\text{min} = 0)$



## 4 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Power Sensor	DARE	RadiPower	15I00041SNO09	10MHz~6GHz	May 07, 2018	Apr. 11, 2019~Apr. 15, 2019	May 06, 2019	Conducted (TH05-HY)
Spectrum Analyzer	Rohde & Schwarz	FSP40	100057	9kHz-40GHz	Nov. 21, 2018	Apr. 11, 2019~Apr. 15, 2019	Nov. 20, 2019	Conducted (TH05-HY)
Switch Box & RF Cable	Burgeon	ETF-058	EC1300484	N/A	Apr. 17, 2018	Apr. 11, 2019~Apr. 15, 2019	Apr. 16, 2019	Conducted (TH05-HY)
Loop Antenna	TESEQ	HLA 6120	31244	9 kHz~30 MHz	Jan. 07, 2019	Apr. 08, 2019~Apr. 13, 2019	Jan. 06, 2020	Radiation (03CH12-HY)
Bilog Antenna	TESEQ	CBL 6111D&00800 N1D01N-06	37059&01	30MHz~1GHz	Oct. 13, 2018	Apr. 08, 2019~Apr. 13, 2019	Oct. 12, 2019	Radiation (03CH12-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120D	9120D-1328	1GHz ~ 18GHz	Oct. 19, 2018	Apr. 08, 2019~Apr. 13, 2019	Oct. 18, 2019	Radiation (03CH12-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170576	18GHz ~ 40GHz	May 08, 2018	Apr. 08, 2019~Apr. 13, 2019	May 07, 2019	Radiation (03CH12-HY)
Preamplifier	COM-POWER	PA-103	161075	10MHz~1GHz	Mar. 25, 2019	Apr. 08, 2019~Apr. 13, 2019	Mar. 24, 2020	Radiation (03CH12-HY)
Preamplifier	Agilent	8449B	3008A02375	1GHz~26.5GHz	May 28, 2018	Apr. 08, 2019~Apr. 13, 2019	May 27, 2019	Radiation (03CH12-HY)
Preamplifier	Jet-Power	JPA0118-55-3 03K	171000180005 4002	1GHz~18GHz	Apr. 17, 2018	Apr. 08, 2019~Apr. 13, 2019	Apr. 16, 2019	Radiation (03CH12-HY)
Preamplifier	MITEQ	TTA1840-35-HG	1864481	18GHz ~ 40GHz	Aug. 24, 2018	Apr. 08, 2019~Apr. 13, 2019	Aug. 23, 2019	Radiation (03CH12-HY)
Spectrum Analyzer	Keysight	N9010A	MY55370118	10Hz~44GHz	Apr. 17, 2018	Apr. 08, 2019~Apr. 13, 2019	Apr. 16, 2019	Radiation (03CH12-HY)
Filter	Wainwright	WLKS1200-12SS	SN2	1.2GHz Low Pass	Mar. 20, 2019	Apr. 08, 2019~Apr. 13, 2019	Mar. 19, 2020	Radiation (03CH12-HY)
Filter	Woken	WHKX8-5272, 5-6750-18000-40ST	SN2	6.75G Highpass	Mar. 20, 2019	Apr. 08, 2019~Apr. 13, 2019	Mar. 19, 2020	Radiation (03CH12-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 126E	0058/126E	30M-18G	Mar. 13, 2019	Apr. 08, 2019~Apr. 13, 2019	Mar. 12, 2020	Radiation (03CH12-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	505134/2	30M-40GHz	Oct. 16, 2018	Apr. 08, 2019~Apr. 13, 2019	Oct. 15, 2019	Radiation (03CH12-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	800740/2	30M-40GHz	Oct. 16, 2018	Apr. 08, 2019~Apr. 13, 2019	Oct. 15, 2019	Radiation (03CH12-HY)
Antenna Mast	EMEC	AM-BS-4500-B	N/A	1m~4m	N/A	Apr. 08, 2019~Apr. 13, 2019	N/A	Radiation (03CH12-HY)
Turn Table	EMEC	TT2000	N/A	0~360 Degree	N/A	Apr. 08, 2019~Apr. 13, 2019	N/A	Radiation (03CH12-HY)
Software	Audix	E3 6.2009-8-24	RK-000989	N/A	N/A	Apr. 08, 2019~Apr. 13, 2019	N/A	Radiation (03CH12-HY)



## 5 Uncertainty of Evaluation

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

<b>Measuring Uncertainty for a Level of Confidence of 95% (<math>U = 2U_{C(y)}</math>)</b>	<b>5.1</b>
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### Uncertainty of Radiated Emission Measurement (1000 MHz ~ 18000 MHz)

<b>Measuring Uncertainty for a Level of Confidence of 95% (<math>U = 2U_{C(y)}</math>)</b>	<b>5.2</b>
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### Uncertainty of Radiated Emission Measurement (18000 MHz ~ 40000 MHz)

<b>Measuring Uncertainty for a Level of Confidence of 95% (<math>U = 2U_{C(y)}</math>)</b>	<b>4.7</b>
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## Appendix A. Radiated Spurious Emission

Test Engineer :	Jack Cheng, Lance Chiang, and Chuan Chu	Temperature :		22~24°C	
		Relative Humidity :		52~60%	

&lt;For Antenna 1&gt;

&lt;Chain 1+2&gt;

### Band 1 - 5150~5250MHz

#### WIFI 802.11ac VHT20 (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Path Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
		( MHz )	( dB $\mu$ V/m )	( dB )	( dB $\mu$ V/m )	(dB $\mu$ V)	( dB/m )	( dB )	( dB )	( cm )	( deg )	(P/A)	(H/V)
802.11ac		5148.72	71.54	-2.46	74	63.28	31.9	9.83	33.47	100	232	P	H
		5148.72	52.71	-1.29	54	44.45	31.9	9.83	33.47	100	232	A	H
	*	5180	118.25	-	-	110.06	31.78	9.87	33.46	100	232	P	H
	*	5180	108.93	-	-	100.74	31.78	9.87	33.46	100	232	A	H
VHT20													H
CH 36		5148.46	63.17	-10.83	74	54.91	31.9	9.83	33.47	106	123	P	V
5180MHz		5150	48.44	-5.56	54	40.18	31.9	9.83	33.47	106	123	A	V
	*	5180	113.45	-	-	105.26	31.78	9.87	33.46	106	123	P	V
	*	5180	103.84	-	-	95.65	31.78	9.87	33.46	106	123	A	V
													V
802.11ac		5148.98	61.65	-12.35	74	53.39	31.9	9.83	33.47	100	232	P	H
		5147.94	44.91	-9.09	54	36.66	31.9	9.82	33.47	100	232	A	H
	*	5220	117.28	-	-	109.24	31.58	9.92	33.46	100	232	P	H
	*	5220	108.92	-	-	100.88	31.58	9.92	33.46	100	232	A	H
VHT20		5393.08	53.52	-20.48	74	45.35	31.47	10.14	33.44	100	232	P	H
CH 44		5376	44.94	-9.06	54	36.86	31.4	10.12	33.44	100	232	A	H
5220MHz		5143.52	52.17	-21.83	74	43.91	31.91	9.82	33.47	112	119	P	V
		5145.86	43.28	-10.72	54	35.02	31.91	9.82	33.47	112	119	A	V
	*	5220	111.35	-	-	103.31	31.58	9.92	33.46	112	119	P	V
VHT20	*	5220	103.26	-	-	95.22	31.58	9.92	33.46	112	119	A	V
CH 44		5361.16	50.5	-23.5	74	42.5	31.34	10.1	33.44	112	119	P	V
5220MHz		5453	42.53	-11.47	54	34.03	31.71	10.22	33.43	112	119	A	V



802.11ac VHT20 CH 48 5240MHz		5141.18	53.35	-20.65	74	45.09	31.92	9.81	33.47	100	223	P	H
		5145.6	42.92	-11.08	54	34.66	31.91	9.82	33.47	100	223	A	H
	*	5240	118.58	-	-	110.63	31.46	9.95	33.46	100	223	P	H
	*	5240	108.66	-	-	100.71	31.46	9.95	33.46	100	223	A	H
		5355.56	56.22	-17.78	74	48.25	31.32	10.09	33.44	100	223	P	H
		5355.84	44.51	-9.49	54	36.54	31.32	10.09	33.44	100	223	A	H
		5042.64	50.86	-23.14	74	42.93	31.74	9.67	33.48	102	120	P	V
		5142.22	42.51	-11.49	54	34.24	31.92	9.82	33.47	102	120	A	V
	*	5240	113.66	-	-	105.71	31.46	9.95	33.46	102	120	P	V
	*	5240	104.64	-	-	96.69	31.46	9.95	33.46	102	120	A	V
		5408.76	51.46	-22.54	74	43.2	31.54	10.16	33.44	102	120	P	V
		5453	42.85	-11.15	54	34.35	31.71	10.22	33.43	102	120	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## Band 1 5150~5250MHz

## WIFI 802.11ac VHT20 (Harmonic @ 3m)

WIFI	Note	Frequency ( MHz )	Level ( dB $\mu$ V/m )	Over Limit ( dB )	Limit Line ( dB $\mu$ V/m )	Read Level ( dB $\mu$ V )	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT20 CH 36 5180MHz		10360	47.34	-20.86	68.2	53.05	39.58	15.47	60.76	100	0	P	H
		15540	45.62	-28.38	74	48.63	38.22	19.34	60.57	100	0	P	H
													H
													H
		10360	46.22	-21.98	68.2	51.93	39.58	15.47	60.76	100	0	P	V
		15540	45.37	-28.63	74	48.38	38.22	19.34	60.57	100	0	P	V
													V
802.11ac VHT20 CH 44 5220MHz		10440	46.37	-21.83	68.2	52.05	39.7	15.5	60.88	100	0	P	H
		15660	47.25	-26.75	74	50.51	37.8	19.42	60.48	100	0	P	H
													H
													H
		10440	47.3	-20.9	68.2	52.98	39.7	15.5	60.88	100	0	P	V
		15660	46.16	-27.84	74	49.42	37.8	19.42	60.48	100	0	P	V
													V
802.11ac VHT20 CH 48 5240MHz		10480	45.92	-22.28	68.2	51.67	39.7	15.52	60.97	100	0	P	H
		15720	46.65	-27.35	74	49.86	37.76	19.45	60.42	100	0	P	H
													H
													H
		10480	46.73	-21.47	68.2	52.48	39.7	15.52	60.97	100	0	P	V
		15720	44.68	-29.32	74	47.89	37.76	19.45	60.42	100	0	P	V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## Band 1 5150~5250MHz

## WIFI 802.11ac VHT40 (Band Edge @ 3m)

WIFI	Note	Frequency ( MHz )	Level ( dB $\mu$ V/m )	Over Limit ( dB )	Limit Line ( dB $\mu$ V/m )	Read Level ( dB $\mu$ V )	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. ( P/A )	Pol. ( H/V )
802.11ac VHT40 CH 38 5190MHz		5149.24	65.28	-8.72	74	57.02	31.9	9.83	33.47	292	143	P	H
		5148.2	51.65	-2.35	54	43.4	31.9	9.82	33.47	292	143	A	H
	*	5190	108.63	-	-	100.46	31.74	9.89	33.46	292	143	P	H
	*	5190	104	-	-	95.83	31.74	9.89	33.46	292	143	A	H
		5453	53.32	-20.68	74	44.82	31.71	10.22	33.43	292	143	P	H
		5452.72	45.01	-8.99	54	36.51	31.71	10.22	33.43	292	143	A	H
		5147.94	57.19	-16.81	74	48.94	31.9	9.82	33.47	100	121	P	V
		5150	50.23	-3.77	54	41.97	31.9	9.83	33.47	100	121	A	V
	*	5190	104.1	-	-	95.93	31.74	9.89	33.46	100	121	P	V
	*	5190	95.42	-	-	87.25	31.74	9.89	33.46	100	121	A	V
802.11ac VHT40 CH 46 5230MHz		5385.52	51.22	-22.78	74	43.09	31.44	10.13	33.44	100	121	P	V
		5452.72	43.25	-10.75	54	34.75	31.71	10.22	33.43	100	121	A	V
		5146.9	59.11	-14.89	74	50.85	31.91	9.82	33.47	100	221	P	H
		5143.52	51.2	-2.8	54	42.94	31.91	9.82	33.47	100	221	A	H
	*	5230	116.89	-	-	108.89	31.52	9.94	33.46	100	221	P	H
	*	5230	109.95	-	-	101.95	31.52	9.94	33.46	100	221	A	H
		5353.32	58.01	-15.99	74	50.05	31.31	10.09	33.44	100	221	P	H
		5350	47.64	-6.36	54	39.69	31.3	10.09	33.44	100	221	A	H
		5071.76	51.37	-22.63	74	43.24	31.89	9.71	33.47	100	238	P	V
		5146.12	43.82	-10.18	54	35.56	31.91	9.82	33.47	100	238	A	V
Remark	*	5230	109.44	-	-	101.44	31.52	9.94	33.46	100	238	P	V
	*	5230	102.32	-	-	94.32	31.52	9.94	33.46	100	238	A	V
		5372.64	51.97	-22.03	74	43.9	31.39	10.12	33.44	100	238	P	V
		5453	43.61	-10.39	54	35.11	31.71	10.22	33.43	100	238	A	V
		1. No other spurious found. 2. All results are PASS against Peak and Average limit line.											



## Band 1 5150~5250MHz

## WIFI 802.11ac VHT40 (Harmonic @ 3m)

WIFI	Note	Frequency ( MHz )	Level ( dB $\mu$ V/m )	Over Limit ( dB )	Limit Line ( dB $\mu$ V/m )	Read Level ( dB $\mu$ V )	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT40 CH 38 5190MHz		10380	45.42	-22.78	68.2	51.09	39.64	15.48	60.79	100	0	P	H
		15570	43.94	-30.06	74	47.12	38.01	19.35	60.54	100	0	P	H
													H
													H
		10380	46.4	-21.8	68.2	52.07	39.64	15.48	60.79	100	0	P	V
		15570	44.39	-29.61	74	47.57	38.01	19.35	60.54	100	0	P	V
													V
802.11ac VHT40 CH 46 5230MHz		10460	46.87	-21.33	68.2	52.57	39.7	15.51	60.91	100	0	P	H
		15690	45.51	-28.49	74	48.73	37.8	19.43	60.45	100	0	P	H
													H
													H
		10460	46.59	-21.61	68.2	52.29	39.7	15.51	60.91	100	0	P	V
		15690	45.14	-28.86	74	48.36	37.8	19.43	60.45	100	0	P	V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## Band 1 5150~5250MHz

## WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI	Note	Frequency ( MHz )	Level ( dB $\mu$ V/m )	Over Limit ( dB )	Limit Line ( dB $\mu$ V/m )	Read Level (dB $\mu$ V)	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 42 5210MHz		5144.56	62.42	-11.58	74	54.16	31.91	9.82	33.47	100	223	P	H
		5149.76	52.39	-1.61	54	44.13	31.9	9.83	33.47	100	223	A	H
	*	5210	108.66	-	-	100.57	31.64	9.91	33.46	100	223	P	H
	*	5210	100.65	-	-	92.56	31.64	9.91	33.46	100	223	A	H
		5353.6	53.36	-20.64	74	45.4	31.31	10.09	33.44	100	223	P	H
		5452.72	45.99	-8.01	54	37.49	31.71	10.22	33.43	100	223	A	H
		5149.5	56.66	-17.34	74	48.4	31.9	9.83	33.47	108	119	P	V
		5148.98	49.33	-4.67	54	41.07	31.9	9.83	33.47	108	119	A	V
	*	5210	104.94	-	-	96.85	31.64	9.91	33.46	108	119	P	V
	*	5210	97.93	-	-	89.84	31.64	9.91	33.46	108	119	A	V
		5451.6	51.94	-22.06	74	43.44	31.71	10.22	33.43	108	119	P	V
		5453	43.47	-10.53	54	34.97	31.71	10.22	33.43	108	119	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## Band 1 5150~5250MHz

## WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI	Note	Frequency ( MHz )	Level ( dB $\mu$ V/m )	Over Limit ( dB )	Limit Line ( dB $\mu$ V/m )	Read Level ( dB $\mu$ V )	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 42 5210MHz		10420	45.53	-22.67	68.2	51.18	39.7	15.5	60.85	100	0	P	H
		15630	45.01	-28.99	74	48.31	37.8	19.39	60.49	100	0	P	H
													H
													H
		10420	45.43	-22.77	68.2	51.08	39.7	15.5	60.85	100	0	P	V
		15630	44.74	-29.26	74	48.04	37.8	19.39	60.49	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## Band 2 - 5250~5350MHz

## WIFI 802.11ac VHT20 (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
802.11ac		5148.58	52.03	-21.97	74	43.77	31.9	9.83	33.47	100	223	P	H
		5145.52	42.82	-11.18	54	34.56	31.91	9.82	33.47	100	223	A	H
	*	5260	118.38	-	-	110.48	31.38	9.97	33.45	100	223	P	H
	*	5260	109.19	-	-	101.29	31.38	9.97	33.45	100	223	A	H
		5354.64	58.39	-15.61	74	50.42	31.32	10.09	33.44	100	223	P	H
		5350.32	45.49	-8.51	54	37.54	31.3	10.09	33.44	100	223	A	H
		5063.24	52.17	-21.83	74	44.09	31.85	9.7	33.47	100	120	P	V
		5145.52	42.55	-11.45	54	34.29	31.91	9.82	33.47	100	120	A	V
	*	5260	113.4	-	-	105.5	31.38	9.97	33.45	100	120	P	V
	*	5260	104.29	-	-	96.39	31.38	9.97	33.45	100	120	A	V
VHT20		5371.44	52.96	-21.04	74	44.9	31.39	10.11	33.44	100	120	P	V
		5351.52	43.11	-10.89	54	35.15	31.31	10.09	33.44	100	120	A	V
		5092.14	51.95	-22.05	74	43.71	31.97	9.74	33.47	100	220	P	H
		5145.52	42.62	-11.38	54	34.36	31.91	9.82	33.47	100	220	A	H
	*	5300	118.33	-	-	110.46	31.3	10.02	33.45	100	220	P	H
	*	5300	109.8	-	-	101.93	31.3	10.02	33.45	100	220	A	H
		5352.48	56.21	-17.79	74	48.25	31.31	10.09	33.44	100	220	P	H
		5356.08	49.65	-4.35	54	41.67	31.32	10.1	33.44	100	220	A	H
		5082.28	51.65	-22.35	74	43.46	31.93	9.73	33.47	100	124	P	V
		5145.52	42.44	-11.56	54	34.18	31.91	9.82	33.47	100	124	A	V
CH 60	*	5300	113.91	-	-	106.04	31.3	10.02	33.45	100	124	P	V
	*	5300	104.19	-	-	96.32	31.3	10.02	33.45	100	124	A	V
		5354.16	59.47	-14.53	74	51.5	31.32	10.09	33.44	100	124	P	V
		5353.68	45.59	-8.41	54	37.63	31.31	10.09	33.44	100	124	A	V



	*	5320	119.41	-	-	111.51	31.3	10.05	33.45	100	222	P	H
	*	5320	110.75	-	-	102.85	31.3	10.05	33.45	100	222	A	H
		5353.28	69.81	-4.19	74	61.85	31.31	10.09	33.44	100	222	P	H
		5350.4	52.85	-1.15	54	44.9	31.3	10.09	33.44	100	222	A	H
<b>802.11ac</b>													H
<b>VHT20</b>													H
<b>CH 64</b>	*	5320	113.43	-	-	105.53	31.3	10.05	33.45	100	133	P	V
<b>5320MHz</b>	*	5320	104.61	-	-	96.71	31.3	10.05	33.45	100	133	A	V
		5353.92	55.6	-18.4	74	47.63	31.32	10.09	33.44	100	133	P	V
		5351.84	46.9	-7.1	54	38.94	31.31	10.09	33.44	100	133	A	V
													V
													V
<b>Remark</b>	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## Band 2 5250~5350MHz

## WIFI 802.11ac VHT20 (Harmonic @ 3m)

WIFI	Note	Frequency ( MHz )	Level ( dB $\mu$ V/m )	Over Limit ( dB )	Limit Line ( dB $\mu$ V/m )	Read Level ( dB $\mu$ V )	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT20 CH 52 5260MHz		10520	47.62	-20.58	68.2	53.35	39.74	15.54	61.01	100	0	P	H
		15780	46.59	-27.41	74	49.84	37.64	19.49	60.38	100	0	P	H
													H
													H
		10520	46.68	-21.52	68.2	52.41	39.74	15.54	61.01	100	0	P	V
		15780	45	-29	74	48.25	37.64	19.49	60.38	100	0	P	V
													V
802.11ac VHT20 CH 60 5300MHz		10600	46.9	-27.1	74	52.51	39.9	15.57	61.08	100	0	P	H
		15900	48.35	-25.65	74	51.76	37.3	19.57	60.28	100	0	P	H
													H
													H
		10600	46.18	-27.82	74	51.79	39.9	15.57	61.08	100	0	P	V
		15900	44.95	-29.05	74	48.36	37.3	19.57	60.28	100	0	P	V
													V
802.11ac VHT20 CH 64 5320MHz		10640	46.74	-27.26	74	52.41	39.86	15.58	61.11	100	0	P	H
		15960	47.85	-26.15	74	51.12	37.36	19.6	60.23	100	0	P	H
													H
													H
		10640	46.04	-27.96	74	51.71	39.86	15.58	61.11	100	0	P	V
		15960	45.8	-28.2	74	49.07	37.36	19.6	60.23	100	0	P	V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## Band 2 5250~5350MHz

## WIFI 802.11ac VHT40 (Band Edge @ 3m)

WIFI	Note	Frequency ( MHz )	Level ( dB $\mu$ V/m )	Over Limit ( dB )	Limit Line ( dB $\mu$ V/m )	Read Level ( dB $\mu$ V )	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT40 CH 54 5270MHz		5145.86	51.04	-22.96	74	42.78	31.91	9.82	33.47	100	225	P	H
		5145.52	43.67	-10.33	54	35.41	31.91	9.82	33.47	100	225	A	H
	*	5270	113.21	-	-	105.31	31.36	9.99	33.45	100	225	P	H
	*	5270	105.88	-	-	97.98	31.36	9.99	33.45	100	225	A	H
		5352.24	64.28	-9.72	74	56.32	31.31	10.09	33.44	100	225	P	H
		5355.12	51.45	-2.55	54	43.48	31.32	10.09	33.44	100	225	A	H
		5142.46	50.4	-23.6	74	42.13	31.92	9.82	33.47	102	125	P	V
		5145.52	42.82	-11.18	54	34.56	31.91	9.82	33.47	102	125	A	V
	*	5270	109.04	-	-	101.14	31.36	9.99	33.45	102	125	P	V
	*	5270	101.37	-	-	93.47	31.36	9.99	33.45	102	125	A	V
802.11ac VHT40 CH 62 5310MHz		5351.04	53.72	-20.28	74	45.77	31.3	10.09	33.44	102	125	P	V
		5353.92	46.38	-7.62	54	38.41	31.32	10.09	33.44	102	125	A	V
		5094.86	51.88	-22.12	74	43.62	31.98	9.75	33.47	100	237	P	H
		5145.52	42.99	-11.01	54	34.73	31.91	9.82	33.47	100	237	A	H
	*	5310	107.23	-	-	99.34	31.3	10.04	33.45	100	237	P	H
	*	5310	98.26	-	-	90.37	31.3	10.04	33.45	100	237	A	H
		5354.16	68.75	-5.25	74	60.78	31.32	10.09	33.44	100	237	P	H
		5353.68	52.67	-1.33	54	44.71	31.31	10.09	33.44	100	237	P	H
		5124.78	50.71	-23.29	74	42.44	31.95	9.79	33.47	100	121	P	V
		5131.58	42.87	-11.13	54	34.6	31.94	9.8	33.47	100	121	A	V
Remark	*	5310	100.99	-	-	93.1	31.3	10.04	33.45	100	121	P	V
	*	5310	92.71	-	-	84.82	31.3	10.04	33.45	100	121	A	V
		5350.08	53.12	-20.88	74	45.17	31.3	10.09	33.44	100	121	P	V
		5352.24	47.89	-6.11	54	39.93	31.31	10.09	33.44	100	121	A	V



## Band 2 5250~5350MHz

## WIFI 802.11ac VHT40 (Harmonic @ 3m)

WIFI	Note	Frequency ( MHz )	Level ( dB $\mu$ V/m )	Over Limit ( dB )	Limit Line ( dB $\mu$ V/m )	Read Level ( dB $\mu$ V )	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT40 CH 54 5270MHz		10540	47.06	-21.14	68.2	52.76	39.78	15.55	61.03	100	0	P	H
		15810	46.04	-27.96	74	49.31	37.57	19.51	60.35	100	0	P	H
													H
													H
		10540	46	-22.2	68.2	51.7	39.78	15.55	61.03	100	0	P	V
		15810	45.11	-28.89	74	48.38	37.57	19.51	60.35	100	0	P	V
													V
802.11ac VHT40 CH 62 5310MHz		10620	45.58	-28.42	74	51.23	39.88	15.57	61.1	100	0	P	H
		15930	43.56	-30.44	74	46.9	37.33	19.59	60.26	100	0	P	H
													H
													H
		10620	46.46	-27.54	74	52.11	39.88	15.57	61.1	100	0	P	V
		15930	43.93	-30.07	74	47.27	37.33	19.59	60.26	100	0	P	V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## Band 2 5250~5350MHz

## WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI	Note	Frequency ( MHz )	Level ( dB $\mu$ V/m )	Over Limit ( dB )	Limit Line ( dB $\mu$ V/m )	Read Level (dB $\mu$ V)	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 58 5290MHz		5127.84	52.75	-21.25	74	44.48	31.94	9.8	33.47	100	240	P	H
		5145.52	43.6	-10.4	54	35.34	31.91	9.82	33.47	100	240	A	H
	*	5290	106.04	-	-	98.16	31.32	10.01	33.45	100	240	P	H
	*	5290	99.47	-	-	91.59	31.32	10.01	33.45	100	240	A	H
		5355.36	62.79	-11.21	74	54.82	31.32	10.09	33.44	100	240	P	H
		5354.16	52.21	-1.79	54	44.24	31.32	10.09	33.44	100	240	A	H
		5112.54	53.27	-20.73	74	45	31.97	9.77	33.47	105	123	P	V
		5145.52	43.33	-10.67	54	35.07	31.91	9.82	33.47	105	123	A	V
	*	5290	102.3	-	-	94.42	31.32	10.01	33.45	105	123	P	V
	*	5290	95.46	-	-	87.58	31.32	10.01	33.45	105	123	A	V
		5359.68	55.42	-18.58	74	47.42	31.34	10.1	33.44	105	123	P	V
		5350.56	47.21	-6.79	54	39.26	31.3	10.09	33.44	105	123	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## Band 2 5250~5350MHz

## WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI	Note	Frequency ( MHz )	Level ( dB $\mu$ V/m )	Over Limit ( dB )	Limit Line ( dB $\mu$ V/m )	Read Level ( dB $\mu$ V )	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 58 5290MHz		10580	45.85	-22.35	68.2	51.5	39.86	15.56	61.07	100	0	P	H
		15870	44.12	-29.88	74	47.48	37.39	19.55	60.3	100	0	P	H
													H
													H
		10580	45.84	-22.36	68.2	51.49	39.86	15.56	61.07	100	0	P	V
		15870	45.17	-28.83	74	48.53	37.39	19.55	60.3			P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## Band 3 - 5470~5725MHz

## WIFI 802.11ac VHT20 (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.	
		( MHz )	( dB $\mu$ V/m )	( dB )	( dB $\mu$ V/m )	(dB $\mu$ V)	( dB/m )	( dB )	( dB )	( cm )	( deg )	(P/A)	(H/V)	
802.11ac		5459.6	64.96	-9.04	74	56.42	31.74	10.23	33.43	100	227	P	H	
		5467.6	67	-1.2	68.2	58.42	31.77	10.24	33.43	100	227	P	H	
		5452.88	47.19	-6.81	54	38.69	31.71	10.22	33.43	100	227	A	H	
	*	5500	112.5	-	-	103.74	31.9	10.29	33.43	100	227	P	H	
	*	5500	104.26	-	-	95.5	31.9	10.29	33.43	100	227	A	H	
														H
VHT20														
CH 100		5457.2	59.73	-14.27	74	51.2	31.73	10.23	33.43	133	237	P	V	
		5469.68	60.73	-7.47	68.2	52.13	31.78	10.25	33.43	133	237	P	V	
		5457.68	43.75	-10.25	54	35.22	31.73	10.23	33.43	133	237	A	V	
	*	5500	107.27	-	-	98.51	31.9	10.29	33.43	133	237	P	V	
	*	5500	96.94	-	-	88.18	31.9	10.29	33.43	133	237	A	V	
														V
5500MHz														
802.11ac		5445.76	53.68	-20.32	74	45.23	31.68	10.21	33.44	100	226	P	H	
		5466.16	57.09	-11.11	68.2	48.52	31.76	10.24	33.43	100	226	P	H	
		5452.72	44.94	-9.06	54	36.44	31.71	10.22	33.43	100	226	A	H	
	*	5580	119.36	-	-	110.6	31.8	10.4	33.44	100	226	P	H	
	*	5580	110.19	-	-	101.43	31.8	10.4	33.44	100	226	A	H	
VHT20														
CH 116		5736.02	55.39	-12.81	68.2	46.28	32.07	10.5	33.46	100	226	P	H	
		5436.16	51.89	-22.11	74	43.49	31.64	10.2	33.44	122	239	P	V	
		5467.12	51.63	-16.57	68.2	43.05	31.77	10.24	33.43	122	239	P	V	
		5458.48	42.6	-11.4	54	34.07	31.73	10.23	33.43	122	239	A	V	
	*	5580	113.93	-	-	105.17	31.8	10.4	33.44	122	239	P	V	
	*	5580	103.51	-	-	94.75	31.8	10.4	33.44	122	239	A	V	
5580MHz														



802.11ac VHT20 CH 140 5700MHz	*	5700	118.19	-	-	109.16	32	10.49	33.46	100	223	P	H
	*	5700	108.67	-	-	99.64	32	10.49	33.46	100	223	A	H
		5725.72	66.35	-1.85	68.2	57.26	32.05	10.5	33.46	100	223	P	H
													H
													H
													H
	*	5700	109.35	-	-	100.32	32	10.49	33.46	113	236	P	V
	*	5700	100.29	-	-	91.26	32	10.49	33.46	113	236	A	V
		5729.4	57.42	-10.78	68.2	48.32	32.06	10.5	33.46	113	236	P	V
													V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## Band 3 - 5470~5725MHz

## WIFI 802.11ac VHT20 (Harmonic @ 3m)

WIFI	Note	Frequency ( MHz )	Level ( dB $\mu$ V/m )	Over Limit ( dB )	Limit Line ( dB $\mu$ V/m )	Read Level ( dB $\mu$ V )	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT20 CH 100 5500MHz		11000	46.13	-27.87	74	51.61	40.2	15.72	61.4	100	0	P	H
		16500	45.55	-22.65	68.2	45.45	39.4	20.2	59.5	100	0	P	H
													H
													H
		11000	46.09	-27.91	74	51.57	40.2	15.72	61.4	100	0	P	V
		16500	45.64	-22.56	68.2	45.54	39.4	20.2	59.5	100	0	P	V
													V
802.11ac VHT20 CH 116 5580MHz		11160	46.53	-27.47	74	52.43	39.62	15.88	61.4	100	0	P	H
		16740	50.7	-17.5	68.2	48.76	40.4	20.46	58.92	100	0	P	H
													H
													H
		11160	46.69	-27.31	74	52.59	39.62	15.88	61.4	100	0	P	V
		16740	47.48	-20.72	68.2	45.54	40.4	20.46	58.92	100	0	P	V
													V
802.11ac VHT20 CH 140 5700MHz		11400	45.89	-28.11	74	51.56	39.6	16.13	61.4	100	0	P	H
		17100	48.35	-19.85	68.2	44.98	40.5	20.83	57.96	100	0	P	H
													H
													H
		11400	46.87	-27.13	74	52.54	39.6	16.13	61.4	100	0	P	V
		17100	48.23	-19.97	68.2	44.86	40.5	20.83	57.96	100	0	P	V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## Band 3 - 5470~5725MHz

## WIFI 802.11ac VHT40 (Band Edge @ 3m)

WIFI	Note	Frequency ( MHz )	Level ( dB $\mu$ V/m )	Over Limit ( dB )	Limit Line ( dB $\mu$ V/m )	Read Level ( dB $\mu$ V )	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT40 CH 102 5510MHz		5454.88	65.99	-8.01	74	57.47	31.72	10.23	33.43	100	221	P	H
		5470	65.34	-2.86	68.2	56.74	31.78	10.25	33.43	100	221	P	H
		5459.92	52.74	-1.26	54	44.2	31.74	10.23	33.43	100	221	A	H
	*	5510	115.32	-	-	106.57	31.88	10.3	33.43	100	221	P	H
	*	5510	107.15	-	-	98.4	31.88	10.3	33.43	100	221	A	H
		5737.91	53.47	-14.73	68.2	44.34	32.08	10.51	33.46	100	221	P	H
		5457.28	61.88	-12.12	74	53.35	31.73	10.23	33.43	127	240	P	V
		5463.76	63.41	-4.79	68.2	54.84	31.76	10.24	33.43	127	240	P	V
		5456.08	48.81	-5.19	54	40.29	31.72	10.23	33.43	127	240	A	V
	*	5510	109.05	-	-	100.3	31.88	10.3	33.43	127	240	P	V
	*	5510	100.25	-	-	91.5	31.88	10.3	33.43	127	240	A	V
		5763.74	52.63	-15.57	68.2	43.45	32.13	10.52	33.47	127	240	P	V
802.11ac VHT40 CH 110 5550MHz		5449.84	60.26	-13.74	74	51.78	31.7	10.22	33.44	100	223	P	H
		5467.12	64.16	-4.04	68.2	55.58	31.77	10.24	33.43	100	223	P	H
		5458	48.88	-5.12	54	40.35	31.73	10.23	33.43	100	223	A	H
	*	5550	116.62	-	-	107.9	31.8	10.36	33.44	100	223	P	H
	*	5550	108.83	-	-	100.11	31.8	10.36	33.44	100	223	A	H
		5743.265	54.23	-13.97	68.2	45.09	32.09	10.51	33.46	100	223	P	H
		5459.2	55.37	-18.63	74	46.83	31.74	10.23	33.43	124	239	P	V
		5463.52	57.43	-10.77	68.2	48.87	31.75	10.24	33.43	124	239	P	V
		5458.96	44.85	-9.15	54	36.31	31.74	10.23	33.43	124	239	A	V
	*	5550	109.07	-	-	100.35	31.8	10.36	33.44	124	239	P	V
	*	5550	100.57	-	-	91.85	31.8	10.36	33.44	124	239	A	V
		5761.22	52.67	-15.53	68.2	43.5	32.12	10.52	33.47	124	239	P	V



		5424.2	50.49	-23.51	74	42.15	31.6	10.18	33.44	100	226	P	H
		5463.75	52.18	-16.02	68.2	43.61	31.76	10.24	33.43	100	226	P	H
		5452.9	43.65	-10.35	54	35.15	31.71	10.22	33.43	100	226	A	H
802.11ac	*	5670	117.06	-	-	108.22	31.82	10.47	33.45	100	226	P	H
	*	5670	108.54	-	-	99.7	31.82	10.47	33.45	100	226	A	H
VHT40		5725.625	63.63	-4.57	68.2	54.54	32.05	10.5	33.46	100	226	P	H
CH 134		5432.95	50.26	-23.74	74	41.87	31.63	10.2	33.44	112	240	P	V
5670MHz		5466.9	53.26	-14.94	68.2	44.68	31.77	10.24	33.43	112	240	P	V
		5456.4	42.91	-11.09	54	34.38	31.73	10.23	33.43	112	240	A	V
	*	5670	108.52	-	-	99.68	31.82	10.47	33.45	112	240	P	V
	*	5670	99.48	-	-	90.64	31.82	10.47	33.45	112	240	A	V
		5725.8	59.6	-8.6	68.2	50.51	32.05	10.5	33.46	112	240	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## Band 3 - 5470~5725MHz

## WIFI 802.11ac VHT40 (Harmonic @ 3m)

WIFI	Note	Frequency ( MHz )	Level ( dB $\mu$ V/m )	Over Limit ( dB )	Limit Line ( dB $\mu$ V/m )	Read Level ( dB $\mu$ V )	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT40 CH 102 5510MHz		11020	46.11	-27.89	74	51.65	40.12	15.74	61.4	100	0	P	H
		16530	48.84	-19.36	68.2	48.63	39.4	20.23	59.42	100	0	P	H
													H
													H
		11020	46.38	-27.62	74	51.92	40.12	15.74	61.4	100	0	P	V
		16530	46.06	-22.14	68.2	45.85	39.4	20.23	59.42	100	0	P	V
													V
802.11ac VHT40 CH 110 5550MHz		11100	47.25	-26.75	74	53.03	39.8	15.82	61.4	100	0	P	H
		16650	54.44	-13.76	68.2	53.41	39.8	20.36	59.13	211	145	P	H
													H
													H
		11100	46.82	-27.18	74	52.6	39.8	15.82	61.4	100	0	P	V
		16650	46.93	-21.27	68.2	45.9	39.8	20.36	59.13	100	0	P	V
													V
802.11ac VHT40 CH 134 5670MHz		11340	45.94	-28.06	74	51.73	39.54	16.07	61.4	100	0	P	H
		17010	58.19	-10.01	68.2	55.17	40.5	20.76	58.24	199	129	P	H
													H
													H
		11340	45.21	-28.79	74	51	39.54	16.07	61.4	100	0	P	V
		17010	50.13	-18.07	68.2	47.11	40.5	20.76	58.24	100	0	P	V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## Band 3 5470~5725MHz

## WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI	Note	Frequency ( MHz )	Level ( dB $\mu$ V/m )	Over Limit ( dB )	Limit Line ( dB $\mu$ V/m )	Read Level ( dB $\mu$ V )	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 106 5530MHz		5448.88	62.66	-11.34	74	54.18	31.7	10.22	33.44	100	224	P	H
		5467.6	61.23	-6.97	68.2	52.65	31.77	10.24	33.43	100	224	P	H
		5459.44	52.17	-1.83	54	43.63	31.74	10.23	33.43	100	224	A	H
	*	5530	110.86	-	-	102.12	31.84	10.33	33.43	100	224	P	H
	*	5530	102.99	-	-	94.25	31.84	10.33	33.43	100	224	A	H
		5735.075	54	-14.2	68.2	44.89	32.07	10.5	33.46	100	224	P	H
		5459.44	53.52	-20.48	74	44.98	31.74	10.23	33.43	121	238	P	V
		5462.08	58.41	-9.79	68.2	49.85	31.75	10.24	33.43	121	238	P	V
		5456.08	46.93	-7.07	54	38.41	31.72	10.23	33.43	121	238	A	V
	*	5530	104.29	-	-	95.55	31.84	10.33	33.43	121	238	P	V
	*	5530	95.69	-	-	86.95	31.84	10.33	33.43	121	238	A	V
		5734.76	50.92	-17.28	68.2	41.81	32.07	10.5	33.46	121	238	P	V
802.11ac VHT80 CH 122 5610MHz		5450.08	54.27	-19.73	74	45.78	31.7	10.22	33.43	100	223	P	H
		5469.28	56.8	-11.4	68.2	48.2	31.78	10.25	33.43	100	223	P	H
		5459.68	47.66	-6.34	54	39.12	31.74	10.23	33.43	100	223	A	H
	*	5610	112.47	-	-	103.7	31.78	10.44	33.45	100	223	P	H
	*	5610	104.86	-	-	96.09	31.78	10.44	33.45	100	223	A	H
		5725.94	59.69	-8.51	68.2	50.6	32.05	10.5	33.46	100	223	P	H
		5442.4	51.94	-22.06	74	43.5	31.67	10.21	33.44	102	271	P	V
		5467.84	52.16	-16.04	68.2	43.58	31.77	10.24	33.43	102	271	P	V
		5453.2	43.8	-10.2	54	35.3	31.71	10.22	33.43	102	271	A	V
	*	5610	106.04	-	-	97.27	31.78	10.44	33.45	102	271	P	V
	*	5610	97.54	-	-	88.77	31.78	10.44	33.45	102	271	A	V
		5727.83	54.04	-14.16	68.2	44.94	32.06	10.5	33.46	102	271	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## Band 3 5470~5725MHz

## WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI	Note	Frequency ( MHz )	Level ( dB $\mu$ V/m )	Over Limit ( dB )	Limit Line ( dB $\mu$ V/m )	Read Level ( dB $\mu$ V )	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 106 5530MHz		11060	45.87	-28.13	74	51.53	39.96	15.78	61.4	100	0	P	H
		16590	46.12	-22.08	68.2	45.72	39.4	20.29	59.29	100	0	P	H
													H
													H
		11060	47.1	-26.9	74	52.76	39.96	15.78	61.4	100	0	P	V
		16590	47.41	-20.79	68.2	47.01	39.4	20.29	59.29	100	0	P	V
													V
802.11ac VHT80 CH 122 5610MHz		11220	45.99	-28.01	74	51.94	39.5	15.95	61.4	100	0	P	H
		16830	49.99	-18.21	68.2	47.61	40.52	20.57	58.71	100	0	P	H
													H
													H
		11220	44.74	-29.26	74	50.69	39.5	15.95	61.4	100	0	P	V
		16830	48.22	-19.98	68.2	45.84	40.52	20.57	58.71	100	0	P	V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## Band 3 - Straddle Channel

## WIFI 802.11ac VHT20 (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.	
		( MHz )	( dB $\mu$ V/m )	( dB )	( dB $\mu$ V/m )	(dB $\mu$ V)	( dB/m )	( dB )	( dB )	( cm )	( deg )	(P/A)	(H/V)	
802.11ac		5432.29	51.59	-22.41	74	43.2	31.63	10.2	33.44	100	221	P	H	
		5460.37	51.65	-16.55	68.2	43.11	31.74	10.23	33.43	100	221	P	H	
		5452.57	43.34	-10.66	54	34.84	31.71	10.22	33.43	100	221	A	H	
	*	5720	120.9	-	-	111.82	32.04	10.5	33.46	100	221	P	H	
	*	5720	110.8	-	-	101.72	32.04	10.5	33.46	100	221	A	H	
		5865.25	55.27	-12.93	68.2	45.82	32.33	10.6	33.48	100	221	P	H	
		5429.95	51.6	-22.4	74	43.23	31.62	10.19	33.44	105	66	P	V	
		5461.54	51.25	-16.95	68.2	42.69	31.75	10.24	33.43	105	66	P	V	
		5459.59	41.98	-12.02	54	33.44	31.74	10.23	33.43	105	66	A	V	
	*	5720	110.94	-	-	101.86	32.04	10.5	33.46	105	66	P	V	
VHT20	*	5720	102.02	-	-	92.94	32.04	10.5	33.46	105	66	A	V	
		5875.75	53.29	-14.91	68.2	43.81	32.35	10.61	33.48	105	66	P	V	
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.													



## Band 3 - Straddle Channel

## WIFI 802.11ac VHT20 (Harmonic @ 3m)

WIFI	Note	Frequency ( MHz )	Level ( dB $\mu$ V/m )	Over Limit ( dB )	Limit Line ( dB $\mu$ V/m )	Read Level ( dB $\mu$ V )	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT20 CH 144 5720MHz		11440	45.81	-28.19	74	51.37	39.68	16.16	61.4	100	0	P	H
		17160	57.9	-10.3	68.2	54.21	40.56	20.86	57.73	201	133	P	H
													H
													H
		11440	45.9	-28.1	74	51.46	39.68	16.16	61.4	100	0	P	V
		17160	49.18	-19.02	68.2	45.49	40.56	20.86	57.73	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## Band 3 - Straddle Channel

## WIFI 802.11ac VHT40 (Band Edge @ 3m)

WIFI	Note	Frequency ( MHz )	Level ( dB $\mu$ V/m )	Over Limit ( dB )	Limit Line ( dB $\mu$ V/m )	Read Level ( dB $\mu$ V )	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT40 CH 142 5710MHz		5456.08	53.46	-20.54	74	44.94	31.72	10.23	33.43	100	233	P	H
		5463.49	53.27	-14.93	68.2	44.71	31.75	10.24	33.43	100	233	P	H
		5452.96	44.48	-9.52	54	35.98	31.71	10.22	33.43	100	233	A	H
	*	5710	117.25	-	-	108.2	32.02	10.49	33.46	100	233	P	H
	*	5710	109.16	-	-	100.11	32.02	10.49	33.46	100	233	A	H
		5862.25	56.84	-11.36	68.2	47.4	32.32	10.6	33.48	100	233	P	H
		5427.61	52.22	-21.78	74	43.86	31.61	10.19	33.44	103	70	P	V
		5470	51.36	-16.84	68.2	42.76	31.78	10.25	33.43	103	70	P	V
		5435.8	42.88	-11.12	54	34.48	31.64	10.2	33.44	103	70	A	V
	*	5710	109.1	-	-	100.05	32.02	10.49	33.46	103	70	P	V
	*	5710	100.21	-	-	91.16	32.02	10.49	33.46	103	70	A	V
		5901.25	53.24	-14.96	68.2	43.69	32.41	10.63	33.49	103	70	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## Band 3 - Straddle Channel

## WIFI 802.11ac VHT40 (Harmonic @ 3m)

WIFI	Note	Frequency ( MHz )	Level ( dB $\mu$ V/m )	Over Limit ( dB )	Limit Line ( dB $\mu$ V/m )	Read Level ( dB $\mu$ V )	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT40 CH 142 5710MHz		11420	45.59	-28.41	74	51.21	39.64	16.14	61.4	100	0	P	H
		17130	56.85	-11.35	68.2	53.32	40.53	20.85	57.85	201	128	P	H
													H
													H
		11420	46.1	-27.9	74	51.72	39.64	16.14	61.4	100	0	P	V
		17130	49.04	-19.16	68.2	45.51	40.53	20.85	57.85	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## Band 3 - Straddle Channel

## WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI	Note	Frequency ( MHz )	Level ( dB $\mu$ V/m )	Over Limit ( dB )	Limit Line ( dB $\mu$ V/m )	Read Level (dB $\mu$ V)	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 138 5690MHz		5459.98	50.49	-23.51	74	41.95	31.74	10.23	33.43	100	227	P	H
		5460.37	51.49	-16.71	68.2	42.95	31.74	10.23	33.43	100	227	P	H
		5452.96	43.94	-10.06	54	35.44	31.71	10.22	33.43	100	227	A	H
	*	5690	113.34	-	-	104.38	31.94	10.48	33.46	100	227	P	H
	*	5690	104.91	-	-	95.95	31.94	10.48	33.46	100	227	A	H
		5868.25	55.71	-12.49	68.2	46.25	32.34	10.6	33.48	100	227	P	H
		5432.29	49.51	-24.49	74	41.12	31.63	10.2	33.44	100	272	P	V
		5463.1	50.22	-17.98	68.2	41.66	31.75	10.24	33.43	100	272	P	V
		5449.06	42.8	-11.2	54	34.32	31.7	10.22	33.44	100	272	A	V
	*	5690	105.39	-	-	96.43	31.94	10.48	33.46	100	272	P	V
	*	5690	96.52	-	-	87.56	31.94	10.48	33.46	100	272	A	V
		5868	52.87	-15.33	68.2	43.41	32.34	10.6	33.48	100	272	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## Band 3 - Straddle Channel

## WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI	Note	Frequency ( MHz )	Level ( dB $\mu$ V/m )	Over Limit ( dB )	Limit Line ( dB $\mu$ V/m )	Read Level ( dB $\mu$ V )	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 138 5690MHz		11380	45.13	-28.87	74	50.84	39.58	16.11	61.4	100	0	P	H
		17070	50.08	-18.12	68.2	46.85	40.5	20.8	58.07	100	0	P	H
													H
													H
		11380	45.31	-28.69	74	51.02	39.58	16.11	61.4	100	0	P	V
		17070	48.61	-19.59	68.2	45.38	40.5	20.8	58.07	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## Emission below 1GHz

## WIFI 802.11ac VHT20 (LF @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.	
802.11ac VHT20 LF		81.41	24.92	-15.08	40	40.64	13.42	1.3	30.44	-	-	P	H	
		194.9	33.75	-9.75	43.5	47.31	14.83	1.94	30.33	100	0	P	H	
		376.29	28.03	-17.97	46	34.46	20.88	2.71	30.02	-	-	P	H	
		732.28	32.65	-13.35	46	30.62	27.49	3.98	29.44	-	-	P	H	
		845.77	34.15	-11.85	46	30.34	28.71	4.32	29.22	-	-	P	H	
		954.41	35.55	-10.45	46	29.16	30.74	4.63	28.98	-	-	P	H	
													H	
													H	
													H	
													H	
													H	
													H	
													V	
		62.98	31.07	-8.93	40	48.63	11.76	1.14	30.46	100	0	P	V	
		194.9	32.81	-10.69	43.5	46.37	14.83	1.94	30.33	-	-	P	V	
		250.19	29.08	-16.92	46	38.87	18.39	2.05	30.23	-	-	P	V	
		730.34	33.64	-12.36	46	31.72	27.4	3.97	29.45	-	-	P	V	
		850.62	33.95	-12.05	46	29.95	28.88	4.33	29.21	-	-	P	V	
		953.44	35.55	-10.45	46	29.21	30.7	4.62	28.98	-	-	P	V	
													V	
													V	
													V	
													V	
													V	
													V	
	Remark	1. No other spurious found. 2. All results are PASS against limit line.												

**Note symbol**

*	<b>Fundamental Frequency</b> which can be ignored. However, the level of any unwanted emissions shall not exceed the level of the fundamental frequency.
!	Test result is <b>over limit</b> line.
P/A	<b>Peak or Average</b>
H/V	<b>Horizontal or Vertical</b>



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

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
			Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.		
		( MHz )	( dB $\mu$ V/m )	( dB )	( dB $\mu$ V/m )	( dB $\mu$ 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. Path Loss(dB) = Cable loss(dB) + Filter loss(dB) + Attenuator loss(dB)
2. Level(dB $\mu$ V/m) = Antenna Factor(dB/m) + Path Loss(dB) + Read Level(dB $\mu$ V) - Preamp Factor(dB)
3. Over Limit(dB) = Level(dB $\mu$ V/m) – Limit Line(dB $\mu$ V/m)

#### For Peak Limit @ 2390MHz:

1. Level(dB $\mu$ V/m)  
 $= \text{Antenna Factor(dB/m)} + \text{Path Loss(dB)} + \text{Read Level(dB $\mu$ V)} - \text{Preamp Factor(dB)}$   
 $= 32.22(\text{dB}/\text{m}) + 4.58(\text{dB}) + 54.51(\text{dB $\mu$ V}) - 35.86 (\text{dB})$   
 $= 55.45 (\text{dB $\mu$ V}/\text{m})$
2. Over Limit(dB)  
 $= \text{Level(dB $\mu$ V/m)} - \text{Limit Line(dB $\mu$ V/m)}$   
 $= 55.45(\text{dB $\mu$ V}/\text{m}) - 74(\text{dB $\mu$ V}/\text{m})$   
 $= -18.55(\text{dB})$

#### For Average Limit @ 2390MHz:

1. Level(dB $\mu$ V/m)  
 $= \text{Antenna Factor(dB/m)} + \text{Path Loss(dB)} + \text{Read Level(dB $\mu$ V)} - \text{Preamp Factor(dB)}$   
 $= 32.22(\text{dB}/\text{m}) + 4.58(\text{dB}) + 42.6(\text{dB $\mu$ V}) - 35.86 (\text{dB})$   
 $= 43.54 (\text{dB $\mu$ V}/\text{m})$
2. Over Limit(dB) = Level(dB $\mu$ V/m) – Limit Line(dB $\mu$ V/m)  
 $= 43.54(\text{dB $\mu$ V}/\text{m}) - 54(\text{dB $\mu$ V}/\text{m})$   
 $= -10.46(\text{dB})$

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



&lt;For Antenna 2&gt;

&lt;Chain 1+2&gt;

## Band 1 - 5150~5250MHz

## WIFI 802.11ac VHT20 (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Path Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
		( MHz )	( dB $\mu$ V/m )	( dB )	( dB $\mu$ V/m )	(dB $\mu$ V)	( dB/m )	( dB )	( dB )	( cm )	( deg )	(P/A)	(H/V)
802.11ac VHT20 CH 36 5180MHz		5149.5	52.95	-21.05	74	44.69	31.9	9.83	33.47	292	40	P	H
		5148.98	42.45	-11.55	54	34.19	31.9	9.83	33.47	292	40	A	H
	*	5180	101.14	-	-	92.95	31.78	9.87	33.46	292	40	P	H
	*	5180	91.08	-	-	82.89	31.78	9.87	33.46	292	40	A	H
													H
													H
802.11ac VHT20 CH 44 5220MHz		5149.24	66.55	-7.45	74	58.29	31.9	9.83	33.47	300	360	P	V
		5149.76	50.81	-3.19	54	42.55	31.9	9.83	33.47	300	360	A	V
	*	5180	111.84	-	-	103.65	31.78	9.87	33.46	300	360	P	V
	*	5180	102.54	-	-	94.35	31.78	9.87	33.46	300	360	A	V
													V
													V
		5041.08	51.92	-22.08	74	44	31.73	9.67	33.48	279	43	P	H
		5116.22	42.03	-11.97	54	33.75	31.97	9.78	33.47	279	43	A	H
	*	5220	100.86	-	-	92.82	31.58	9.92	33.46	279	43	P	H
	*	5220	91.04	-	-	83	31.58	9.92	33.46	279	43	A	H
		5456.36	51.58	-22.42	74	43.05	31.73	10.23	33.43	279	43	P	H
		5445.16	41.79	-12.21	54	33.34	31.68	10.21	33.44	279	43	A	H



		5141.7	51.86	-22.14	74	43.59	31.92	9.82	33.47	257	44	P	H
		5122.2	42.03	-11.97	54	33.75	31.96	9.79	33.47	257	44	A	H
	*	5240	101.11	-	-	93.16	31.46	9.95	33.46	257	44	P	H
	*	5240	91.61	-	-	83.66	31.46	9.95	33.46	257	44	A	H
		5427.52	51.03	-22.97	74	42.67	31.61	10.19	33.44	257	44	P	H
	VHT20	5456.92	41.96	-12.04	54	33.43	31.73	10.23	33.43	257	44	A	H
	CH 48	5053.82	52.08	-21.92	74	44.04	31.82	9.69	33.47	281	360	P	V
	5240MHz	5144.82	42.37	-11.63	54	34.11	31.91	9.82	33.47	281	360	A	V
	*	5240	110.78	-	-	102.83	31.46	9.95	33.46	281	360	P	V
	*	5240	101.35	-	-	93.4	31.46	9.95	33.46	281	360	A	V
		5350.8	54.35	-19.65	74	46.4	31.3	10.09	33.44	281	360	P	V
		5453	42.31	-11.69	54	33.81	31.71	10.22	33.43	281	360	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## Band 1 5150~5250MHz

## WIFI 802.11ac VHT20 (Harmonic @ 3m)

WIFI	Note	Frequency ( MHz )	Level ( dB $\mu$ V/m )	Over Limit ( dB )	Limit Line ( dB $\mu$ V/m )	Read Level ( dB $\mu$ V )	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT20 CH 36 5180MHz		10360	45.09	-23.11	68.2	50.8	39.58	15.47	60.76	100	0	P	H
		15540	43.74	-30.26	74	46.75	38.22	19.34	60.57	100	0	P	H
													H
													H
		10360	44.69	-23.51	68.2	50.4	39.58	15.47	60.76	100	0	P	V
		15540	42.96	-31.04	74	45.97	38.22	19.34	60.57	100	0	P	V
													V
802.11ac VHT20 CH 44 5220MHz		10440	43.35	-24.85	68.2	49.03	39.7	15.5	60.88	100	0	P	H
		15660	45.58	-28.42	74	48.84	37.8	19.42	60.48	100	0	P	H
													H
													H
		10440	43.93	-24.27	68.2	49.61	39.7	15.5	60.88	100	0	P	V
		15660	43.03	-30.97	74	46.29	37.8	19.42	60.48	100	0	P	V
													V
802.11ac VHT20 CH 48 5240MHz		10480	44.51	-23.69	68.2	50.26	39.7	15.52	60.97	100	0	P	H
		15720	42.54	-31.46	74	45.75	37.76	19.45	60.42	100	0	P	H
													H
													H
		10480	46.05	-22.15	68.2	51.8	39.7	15.52	60.97	100	0	P	V
		15720	42.28	-31.72	74	45.49	37.76	19.45	60.42	100	0	P	V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## Band 1 5150~5250MHz

## WIFI 802.11ac VHT40 (Band Edge @ 3m)

WIFI	Note	Frequency ( MHz )	Level ( dB $\mu$ V/m )	Over Limit ( dB )	Limit Line ( dB $\mu$ V/m )	Read Level ( dB $\mu$ V )	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT40 CH 38 5190MHz		5092.82	52.21	-21.79	74	43.97	31.97	9.74	33.47	394	222	P	H
		5150	43.01	-10.99	54	34.75	31.9	9.83	33.47	394	222	A	H
	*	5190	92.16	-	-	83.99	31.74	9.89	33.46	394	222	P	H
	*	5190	84	-	-	75.83	31.74	9.89	33.46	394	222	A	H
		5388.6	50.54	-23.46	74	42.39	31.45	10.14	33.44	394	222	P	H
		5460	43.09	-10.91	54	34.55	31.74	10.23	33.43	394	222	A	H
		5100.88	53.78	-20.22	74	45.49	32	9.76	33.47	285	202	P	V
		5145.6	43.94	-10.06	54	35.68	31.91	9.82	33.47	285	202	A	V
	*	5190	103.58	-	-	95.41	31.74	9.89	33.46	285	202	P	V
	*	5190	95.39	-	-	87.22	31.74	9.89	33.46	285	202	A	V
802.11ac VHT40 CH 46 5230MHz		5352.2	51.87	-22.13	74	43.91	31.31	10.09	33.44	285	202	P	V
		5447.12	42.96	-11.04	54	34.49	31.69	10.22	33.44	285	202	A	V
		5112.84	52.39	-21.61	74	44.12	31.97	9.77	33.47	400	225	P	H
		5149.76	43.49	-10.51	54	35.23	31.9	9.83	33.47	400	225	A	H
	*	5230	98.94	-	-	90.94	31.52	9.94	33.46	400	225	P	H
	*	5230	90.63	-	-	82.63	31.52	9.94	33.46	400	225	A	H
		5407.36	52.23	-21.77	74	43.98	31.53	10.16	33.44	400	225	P	H
		5451.04	43.09	-10.91	54	34.6	31.7	10.22	33.43	400	225	A	H
		5148.2	55.27	-18.73	74	47.02	31.9	9.82	33.47	282	145	P	V
		5145.6	46.11	-7.89	54	37.85	31.91	9.82	33.47	282	145	A	V
Remark	1.	No other spurious found.											
	2.	All results are PASS against Peak and Average limit line.											



## Band 1 5150~5250MHz

## WIFI 802.11ac VHT40 (Harmonic @ 3m)

WIFI	Note	Frequency ( MHz )	Level ( dB $\mu$ V/m )	Over Limit ( dB )	Limit Line ( dB $\mu$ V/m )	Read Level ( dB $\mu$ V )	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT40 CH 38 5190MHz		10380	43.68	-24.52	68.2	49.35	39.64	15.48	60.79	100	0	P	H
		15570	42.61	-31.39	74	45.79	38.01	19.35	60.54	100	0	P	H
													H
													H
		10380	43.63	-24.57	68.2	49.3	39.64	15.48	60.79	100	0	P	V
		15570	42.13	-31.87	74	45.31	38.01	19.35	60.54	100	0	P	V
													V
													V
802.11ac VHT40 CH 46 5230MHz		10460	43.51	-24.69	68.2	49.21	39.7	15.51	60.91	100	0	P	H
		15690	45.75	-28.25	74	48.97	37.8	19.43	60.45	100	0	P	H
													H
													H
		10460	44.71	-23.49	68.2	50.41	39.7	15.51	60.91	100	0	P	V
		15690	42.59	-31.41	74	45.81	37.8	19.43	60.45	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## Band 1 5150~5250MHz

## WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI	Note	Frequency ( MHz )	Level ( dB $\mu$ V/m )	Over Limit ( dB )	Limit Line ( dB $\mu$ V/m )	Read Level (dB $\mu$ V)	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 42 5210MHz		5023.4	52.01	-21.99	74	44.26	31.59	9.64	33.48	378	225	P	H
		5133.64	42.99	-11.01	54	34.73	31.93	9.8	33.47	378	225	A	H
	*	5210	90.23	-	-	82.14	31.64	9.91	33.46	378	225	P	H
	*	5210	81.95	-	-	73.86	31.64	9.91	33.46	378	225	A	H
		5432.84	50.79	-23.21	74	42.4	31.63	10.2	33.44	378	225	P	H
		5453.56	42.71	-11.29	54	34.21	31.71	10.22	33.43	378	225	A	H
		5148.2	55.11	-18.89	74	46.86	31.9	9.82	33.47	296	211	P	V
		5149.76	45.95	-8.05	54	37.69	31.9	9.83	33.47	296	211	A	V
	*	5210	102.51	-	-	94.42	31.64	9.91	33.46	296	211	P	V
	*	5210	93.86	-	-	85.77	31.64	9.91	33.46	296	211	A	V
		5406.8	51.5	-22.5	74	43.25	31.53	10.16	33.44	296	211	P	V
		5452.72	42.97	-11.03	54	34.47	31.71	10.22	33.43	296	211	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## Band 1 5150~5250MHz

## WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI	Note	Frequency ( MHz )	Level ( dB $\mu$ V/m )	Over Limit ( dB )	Limit Line ( dB $\mu$ V/m )	Read Level ( dB $\mu$ V )	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 42 5210MHz		10420	43.58	-24.62	68.2	49.23	39.7	15.5	60.85	100	0	P	H
		15630	43.57	-30.43	74	46.87	37.8	19.39	60.49	100	0	P	H
													H
													H
		10420	44.23	-23.97	68.2	49.88	39.7	15.5	60.85	100	0	P	V
		15630	43.98	-30.02	74	47.28	37.8	19.39	60.49	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## Band 2 - 5250~5350MHz

## WIFI 802.11ac VHT20 (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.	
802.11ac		5069.36	52.07	-21.93	74	43.95	31.88	9.71	33.47	306	29	P	H	
		5104.38	41.98	-12.02	54	33.7	31.99	9.76	33.47	306	29	A	H	
	*	5260	102.41	-	-	94.51	31.38	9.97	33.45	306	29	P	H	
	*	5260	92.66	-	-	84.76	31.38	9.97	33.45	306	29	A	H	
		5352.48	50.32	-23.68	74	42.36	31.31	10.09	33.44	306	29	P	H	
		5459.76	41.9	-12.1	54	33.36	31.74	10.23	33.43	306	29	A	H	
		5104.04	52.33	-21.67	74	44.05	31.99	9.76	33.47	275	360	P	V	
		5141.1	42.16	-11.84	54	33.9	31.92	9.81	33.47	275	360	A	V	
	*	5260	110.97	-	-	103.07	31.38	9.97	33.45	275	360	P	V	
	*	5260	101.97	-	-	94.07	31.38	9.97	33.45	275	360	A	V	
VHT20		5357.04	55.82	-18.18	74	47.83	31.33	10.1	33.44	275	360	P	V	
		5350.8	42.88	-11.12	54	34.93	31.3	10.09	33.44	275	360	A	V	
		5129.54	51.24	-22.76	74	42.97	31.94	9.8	33.47	299	52	P	H	
		5147.22	42.05	-11.95	54	33.79	31.91	9.82	33.47	299	52	A	H	
	*	5300	99.97	-	-	92.1	31.3	10.02	33.45	299	52	P	H	
	*	5300	90.67	-	-	82.8	31.3	10.02	33.45	299	52	A	H	
		5353.2	52.16	-21.84	74	44.2	31.31	10.09	33.44	299	52	P	H	
		5428.56	41.85	-12.15	54	33.49	31.61	10.19	33.44	299	52	A	H	
		5138.38	52.66	-21.34	74	44.4	31.92	9.81	33.47	256	359	P	V	
		5134.64	42.12	-11.88	54	33.85	31.93	9.81	33.47	256	359	A	V	
CH 52	*	5300	112.01	-	-	104.14	31.3	10.02	33.45	256	359	P	V	
	*	5300	102.63	-	-	94.76	31.3	10.02	33.45	256	359	A	V	
		5350.32	64.57	-9.43	74	56.62	31.3	10.09	33.44	256	359	P	V	
		5351.28	46.94	-7.06	54	38.98	31.31	10.09	33.44	256	359	A	V	
5260MHz														



	*	5320	101.45	-	-	93.55	31.3	10.05	33.45	268	43	P	H
	*	5320	92.73	-	-	84.83	31.3	10.05	33.45	268	43	A	H
		5386.88	53.71	-20.29	74	45.57	31.45	10.13	33.44	268	43	P	H
		5350.72	42.7	-11.3	54	34.75	31.3	10.09	33.44	268	43	A	H
<b>802.11ac</b>													H
<b>VHT20</b>													H
<b>CH 64</b>	*	5320	112.62	-	-	104.72	31.3	10.05	33.45	300	360	P	V
<b>5320MHz</b>	*	5320	103.04	-	-	95.14	31.3	10.05	33.45	300	360	A	V
		5352.32	66.17	-7.83	74	58.21	31.31	10.09	33.44	300	360	P	V
		5350.24	51.47	-2.53	54	43.52	31.3	10.09	33.44	300	360	A	V
													V
													V
<b>Remark</b>	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## Band 2 5250~5350MHz

## WIFI 802.11ac VHT20 (Harmonic @ 3m)

WIFI	Note	Frequency ( MHz )	Level ( dB $\mu$ V/m )	Over Limit ( dB )	Limit Line ( dB $\mu$ V/m )	Read Level ( dB $\mu$ V )	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT20 CH 52 5260MHz		10520	45.13	-23.07	68.2	50.86	39.74	15.54	61.01	100	0	P	H
		15780	43.72	-30.28	74	46.97	37.64	19.49	60.38	100	0	P	H
													H
													H
		10520	43.95	-24.25	68.2	49.68	39.74	15.54	61.01	100	0	P	V
		15780	45.05	-28.95	74	48.3	37.64	19.49	60.38	100	0	P	V
													V
802.11ac VHT20 CH 60 5300MHz		10600	45.12	-28.88	74	50.73	39.9	15.57	61.08	100	0	P	H
		15900	43.87	-30.13	74	47.28	37.3	19.57	60.28	100	0	P	H
													H
													H
		10600	43.94	-30.06	74	49.55	39.9	15.57	61.08	100	0	P	V
		15900	42.14	-31.86	74	45.55	37.3	19.57	60.28	100	0	P	V
													V
802.11ac VHT20 CH 64 5320MHz		10640	43.08	-30.92	74	48.75	39.86	15.58	61.11	100	0	P	H
		15960	43.38	-30.62	74	46.65	37.36	19.6	60.23	100	0	P	H
													H
													H
		10640	43.37	-30.63	74	49.04	39.86	15.58	61.11	100	0	P	V
		15960	42.02	-31.98	74	45.29	37.36	19.6	60.23	100	0	P	V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## Band 2 5250~5350MHz

## WIFI 802.11ac VHT40 (Band Edge @ 3m)

WIFI	Note	Frequency ( MHz )	Level ( dB $\mu$ V/m )	Over Limit ( dB )	Limit Line ( dB $\mu$ V/m )	Read Level ( dB $\mu$ V )	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT40 CH 54 5270MHz		5053.38	51.95	-22.05	74	43.92	31.81	9.69	33.47	389	223	P	H
		5133.28	42.96	-11.04	54	34.7	31.93	9.8	33.47	389	223	A	H
	*	5270	97.9	-	-	90	31.36	9.99	33.45	389	223	P	H
	*	5270	89.19	-	-	81.29	31.36	9.99	33.45	389	223	A	H
		5435.04	51.91	-22.09	74	43.51	31.64	10.2	33.44	389	223	P	H
		5415.6	42.83	-11.17	54	34.54	31.56	10.17	33.44	389	223	A	H
		5099.96	52.74	-21.26	74	44.46	32	9.75	33.47	280	180	P	V
		5145.18	43.35	-10.65	54	35.09	31.91	9.82	33.47	280	180	A	V
	*	5270	110.38	-	-	102.48	31.36	9.99	33.45	280	180	P	V
	*	5270	101.4	-	-	93.5	31.36	9.99	33.45	280	180	A	V
802.11ac VHT40 CH 62 5310MHz		5353.68	61.27	-12.73	74	53.31	31.31	10.09	33.44	280	180	P	V
		5350.56	47.43	-6.57	54	39.48	31.3	10.09	33.44	280	180	A	V
		5097.58	52.25	-21.75	74	43.98	31.99	9.75	33.47	394	227	P	H
		5145.52	43.18	-10.82	54	34.92	31.91	9.82	33.47	394	227	A	H
	*	5310	88.49	-	-	80.6	31.3	10.04	33.45	394	227	P	H
	*	5310	80.72	-	-	72.83	31.3	10.04	33.45	394	227	A	H
		5409.6	51.44	-22.56	74	43.18	31.54	10.16	33.44	394	227	P	H
		5445.6	43.21	-10.79	54	34.76	31.68	10.21	33.44	394	227	A	H
		5112.54	52.42	-21.58	74	44.15	31.97	9.77	33.47	299	181	P	V
		5139.4	43.09	-10.91	54	34.83	31.92	9.81	33.47	299	181	A	V
Remark	1.	No other spurious found.											
	2.	All results are PASS against Peak and Average limit line.											



## Band 2 5250~5350MHz

## WIFI 802.11ac VHT40 (Harmonic @ 3m)

WIFI	Note	Frequency ( MHz )	Level ( dB $\mu$ V/m )	Over Limit ( dB )	Limit Line ( dB $\mu$ V/m )	Read Level ( dB $\mu$ V )	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT40 CH 54 5270MHz		10540	44.26	-23.94	68.2	49.96	39.78	15.55	61.03	100	0	P	H
		15810	44.62	-29.38	74	47.89	37.57	19.51	60.35	100	0	P	H
													H
													H
		10540	44.73	-23.47	68.2	50.43	39.78	15.55	61.03	100	0	P	V
		15810	42.21	-31.79	74	45.48	37.57	19.51	60.35	100	0	P	V
													V
													V
802.11ac VHT40 CH 62 5310MHz		10620	44.52	-29.48	74	50.17	39.88	15.57	61.1	100	0	P	H
		15930	43	-31	74	46.34	37.33	19.59	60.26	100	0	P	H
													H
													H
		10620	43.63	-30.37	74	49.28	39.88	15.57	61.1	100	0	P	V
		15930	42.68	-31.32	74	46.02	37.33	19.59	60.26	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## Band 2 5250~5350MHz

## WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI	Note	Frequency ( MHz )	Level ( dB $\mu$ V/m )	Over Limit ( dB )	Limit Line ( dB $\mu$ V/m )	Read Level (dB $\mu$ V)	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 58 5290MHz		5052.02	51.98	-22.02	74	43.95	31.81	9.69	33.47	374	47	P	H
		5138.38	43.03	-10.97	54	34.77	31.92	9.81	33.47	374	47	A	H
	*	5290	105.46	-	-	97.58	31.32	10.01	33.45	374	47	P	H
	*	5290	98.24	-	-	90.36	31.32	10.01	33.45	374	47	A	H
		5351.28	54.69	-19.31	74	46.73	31.31	10.09	33.44	374	47	P	H
		5352.72	49.13	-4.87	54	41.17	31.31	10.09	33.44	374	47	A	H
		5009.18	52.34	-21.66	74	44.73	31.47	9.62	33.48	282	150	P	V
		5131.92	42.84	-11.16	54	34.57	31.94	9.8	33.47	282	150	A	V
	*	5290	97.41	-	-	89.53	31.32	10.01	33.45	282	150	P	V
	*	5290	89.77	-	-	81.89	31.32	10.01	33.45	282	150	A	V
		5350.32	54.79	-19.21	74	46.84	31.3	10.09	33.44	282	150	P	V
		5353.68	45.41	-8.59	54	37.45	31.31	10.09	33.44	282	150	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## Band 2 5250~5350MHz

## WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI	Note	Frequency ( MHz )	Level ( dB $\mu$ V/m )	Over Limit ( dB )	Limit Line ( dB $\mu$ V/m )	Read Level ( dB $\mu$ V )	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 58 5290MHz		10580	44.13	-24.07	68.2	49.78	39.86	15.56	61.07	100	0	P	H
		15870	42.68	-31.32	74	46.04	37.39	19.55	60.3	100	0	P	H
													H
													H
		10580	43.92	-24.28	68.2	49.57	39.86	15.56	61.07	100	0	P	V
		15870	42.47	-31.53	74	45.83	37.39	19.55	60.3	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## Band 3 - 5470~5725MHz

## WIFI 802.11ac VHT20 (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.	
802.11ac		5447.12	52.04	-21.96	74	43.57	31.69	10.22	33.44	292	50	P	H	
		5460.24	50.87	-17.33	68.2	42.33	31.74	10.23	33.43	292	50	P	H	
		5446.48	42.16	-11.84	54	33.69	31.69	10.22	33.44	292	50	A	H	
	*	5500	93.23	-	-	84.47	31.9	10.29	33.43	292	50	P	H	
	*	5500	83.25	-	-	74.49	31.9	10.29	33.43	292	50	A	H	
														H
VHT20		5453.68	57.43	-16.57	74	48.92	31.71	10.23	33.43	278	360	P	V	
		5466.48	59.35	-8.85	68.2	50.77	31.77	10.24	33.43	278	360	P	V	
		5458.96	43.24	-10.76	54	34.7	31.74	10.23	33.43	278	360	A	V	
	*	5500	104.6	-	-	95.84	31.9	10.29	33.43	278	360	P	V	
	*	5500	94.63	-	-	85.87	31.9	10.29	33.43	278	360	A	V	
														V
CH 100		5453.2	53.15	-20.85	74	44.65	31.71	10.22	33.43	280	227	P	H	
		5465.68	55.06	-13.14	68.2	46.49	31.76	10.24	33.43	280	227	P	H	
		5452.96	44.72	-9.28	54	36.22	31.71	10.22	33.43	280	227	A	H	
	*	5580	118.47	-	-	109.71	31.8	10.4	33.44	280	227	P	H	
	*	5580	109.24	-	-	100.48	31.8	10.4	33.44	280	227	A	H	
		5725	52.9	-15.3	68.2	43.81	32.05	10.5	33.46	280	227	P	H	
5500MHz		5440.48	51.53	-22.47	74	43.1	31.66	10.21	33.44	252	268	P	V	
		5468.08	51.34	-16.86	68.2	42.75	31.77	10.25	33.43	252	268	P	V	
		5452.72	42.36	-11.64	54	33.86	31.71	10.22	33.43	252	268	A	V	
	*	5580	113.59	-	-	104.83	31.8	10.4	33.44	252	268	P	V	
	*	5580	104.68	-	-	95.92	31.8	10.4	33.44	252	268	A	V	
		5742.95	53.18	-15.02	68.2	44.04	32.09	10.51	33.46	252	268	P	V	



	*	5700	100.62	-	-	91.59	32	10.49	33.46	397	222	P	H
	*	5700	90.93	-	-	81.9	32	10.49	33.46	397	222	A	H
		5751.72	53.38	-14.82	68.2	44.24	32.1	10.51	33.47	397	222	P	H
													H
													H
													H
													V
													V
	*	5700	110.1	-	-	101.07	32	10.49	33.46	280	180	P	V
	*	5700	101.28	-	-	92.25	32	10.49	33.46	280	180	A	V
		5732.52	54.07	-14.13	68.2	44.96	32.07	10.5	33.46	280	180	P	V
													V
													V
													V
<b>Remark</b>	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## Band 3 - 5470~5725MHz

## WIFI 802.11ac VHT20 (Harmonic @ 3m)

WIFI	Note	Frequency ( MHz )	Level ( dB $\mu$ V/m )	Over Limit ( dB )	Limit Line ( dB $\mu$ V/m )	Read Level ( dB $\mu$ V )	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT20 CH 100 5500MHz		11000	45.81	-28.19	74	51.29	40.2	15.72	61.4	100	0	P	H
		16500	44.7	-23.5	68.2	44.6	39.4	20.2	59.5	100	0	P	H
													H
													H
		11000	45.86	-28.14	74	51.34	40.2	15.72	61.4	100	0	P	V
		16500	44.89	-23.31	68.2	44.79	39.4	20.2	59.5	100	0	P	V
													V
802.11ac VHT20 CH 116 5580MHz		11160	44.21	-29.79	74	50.11	39.62	15.88	61.4	100	0	P	H
		16740	48.3	-19.9	68.2	46.36	40.4	20.46	58.92	100	0	P	H
													H
													H
		11160	44.15	-29.85	74	50.05	39.62	15.88	61.4	100	0	P	V
		16740	47.18	-21.02	68.2	45.24	40.4	20.46	58.92	100	0	P	V
													V
802.11ac VHT20 CH 140 5700MHz		11400	43.78	-30.22	74	49.45	39.6	16.13	61.4	100	0	P	H
		17100	45.99	-22.21	68.2	42.62	40.5	20.83	57.96	100	0	P	H
													H
													H
		11400	43.52	-30.48	74	49.19	39.6	16.13	61.4	100	0	P	V
		17100	48.26	-19.94	68.2	44.89	40.5	20.83	57.96	100	0	P	V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## Band 3 - 5470~5725MHz

## WIFI 802.11ac VHT40 (Band Edge @ 3m)

WIFI	Note	Frequency ( MHz )	Level ( dB $\mu$ V/m )	Over Limit ( dB )	Limit Line ( dB $\mu$ V/m )	Read Level ( dB $\mu$ V )	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT40 CH 102 5510MHz		5440	51.39	-22.61	74	42.96	31.66	10.21	33.44	384	221	P	H
		5462.32	52.65	-15.55	68.2	44.09	31.75	10.24	33.43	384	221	P	H
		5458.24	43.64	-10.36	54	35.11	31.73	10.23	33.43	384	221	A	H
	*	5510	96.89	-	-	88.14	31.88	10.3	33.43	384	221	P	H
	*	5510	88.87	-	-	80.12	31.88	10.3	33.43	384	221	A	H
		5757.44	52.72	-15.48	68.2	43.56	32.11	10.52	33.47	384	221	P	H
		5459.92	55.1	-18.9	74	46.56	31.74	10.23	33.43	279	202	P	V
		5470	58.26	-9.94	68.2	49.66	31.78	10.25	33.43	279	202	P	V
		5458.96	47.77	-6.23	54	39.23	31.74	10.23	33.43	279	202	P	V
	*	5510	107.77	-	-	99.02	31.88	10.3	33.43	279	202	P	V
	*	5510	100.03	-	-	91.28	31.88	10.3	33.43	279	202	A	V
		5749.88	52.73	-15.47	68.2	43.58	32.1	10.51	33.46	279	202	P	V
802.11ac VHT40 CH 110 5550MHz		5422.48	51.46	-22.54	74	43.13	31.59	10.18	33.44	380	225	P	H
		5466.4	51.45	-16.75	68.2	42.87	31.77	10.24	33.43	380	225	P	H
		5445.04	43.14	-10.86	54	34.69	31.68	10.21	33.44	380	225	A	H
	*	5550	99.09	-	-	90.37	31.8	10.36	33.44	380	225	P	H
	*	5550	90.9	-	-	82.18	31.8	10.36	33.44	380	225	A	H
		5752.085	52.89	-15.31	68.2	43.75	32.1	10.51	33.47	380	225	P	H
		5454.88	52.42	-21.58	74	43.9	31.72	10.23	33.43	281	178	P	V
		5467.36	53.14	-15.06	68.2	44.56	31.77	10.24	33.43	281	178	P	V
		5459.92	44.8	-9.2	54	36.26	31.74	10.23	33.43	281	178	A	V
	*	5550	110.6	-	-	101.88	31.8	10.36	33.44	281	178	P	V
	*	5550	102.25	-	-	93.53	31.8	10.36	33.44	281	178	A	V
		5748.305	53.99	-14.21	68.2	44.84	32.1	10.51	33.46	281	178	P	V



802.11ac		5385	50.7	-23.3	74	42.57	31.44	10.13	33.44	396	228	P	H
		5469	50.07	-18.13	68.2	41.47	31.78	10.25	33.43	396	228	P	H
		5458.15	42.92	-11.08	54	34.39	31.73	10.23	33.43	396	228	A	H
	*	5670	98.83	-	-	89.99	31.82	10.47	33.45	396	228	P	H
	*	5670	90.33	-	-	81.49	31.82	10.47	33.45	396	228	A	H
	VHT40	5741.9	52.91	-15.29	68.2	43.78	32.08	10.51	33.46	396	228	P	H
	CH 134	5459.9	51.6	-22.4	74	43.06	31.74	10.23	33.43	297	241	P	V
	5670MHz	5467.25	50.86	-17.34	68.2	42.28	31.77	10.24	33.43	297	241	P	V
		5458.5	42.98	-11.02	54	34.45	31.73	10.23	33.43	297	241	A	V
	*	5670	110.5	-	-	101.66	31.82	10.47	33.45	297	241	P	V
	*	5670	102.03	-	-	93.19	31.82	10.47	33.45	297	241	A	V
		5725.8	63.7	-4.5	68.2	54.61	32.05	10.5	33.46	297	241	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## Band 3 - 5470~5725MHz

## WIFI 802.11ac VHT40 (Harmonic @ 3m)

WIFI	Note	Frequency ( MHz )	Level ( dB $\mu$ V/m )	Over Limit ( dB )	Limit Line ( dB $\mu$ V/m )	Read Level ( dB $\mu$ V )	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT40 CH 102 5510MHz		11020	44.37	-29.63	74	49.91	40.12	15.74	61.4	100	0	P	H
		16530	44.66	-23.54	68.2	44.45	39.4	20.23	59.42	100	0	P	H
													H
													H
		11020	44.39	-29.61	74	49.93	40.12	15.74	61.4	100	0	P	V
		16530	44.31	-23.89	68.2	44.1	39.4	20.23	59.42	100	0	P	V
													V
802.11ac VHT40 CH 110 5550MHz		11100	43.88	-30.12	74	49.66	39.8	15.82	61.4	100	0	P	H
		16650	44.78	-23.42	68.2	43.75	39.8	20.36	59.13	100	0	P	H
													H
													H
		11100	44.45	-29.55	74	50.23	39.8	15.82	61.4	100	0	P	V
		16650	45.5	-22.7	68.2	44.47	39.8	20.36	59.13	100	0	P	V
													V
802.11ac VHT40 CH 134 5670MHz		11340	42.72	-31.28	74	48.51	39.54	16.07	61.4	100	0	P	H
		17010	45.71	-22.49	68.2	42.69	40.5	20.76	58.24	100	0	P	H
													H
													H
		11340	43.57	-30.43	74	49.36	39.54	16.07	61.4	100	0	P	V
		17010	47.61	-20.59	68.2	44.59	40.5	20.76	58.24	100	0	P	V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## Band 3 5470~5725MHz

## WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI	Note	Frequency ( MHz )	Level ( dB $\mu$ V/m )	Over Limit ( dB )	Limit Line ( dB $\mu$ V/m )	Read Level ( dB $\mu$ V )	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 106 5530MHz		5428.24	51.74	-22.26	74	43.38	31.61	10.19	33.44	388	226	P	H
		5468.8	50.84	-17.36	68.2	42.24	31.78	10.25	33.43	388	226	P	H
		5458.72	43.53	-10.47	54	35	31.73	10.23	33.43	388	226	A	H
	*	5530	91.33	-	-	82.59	31.84	10.33	33.43	388	226	P	H
	*	5530	83.3	-	-	74.56	31.84	10.33	33.43	388	226	A	H
		5746.1	52.26	-15.94	68.2	43.12	32.09	10.51	33.46	388	226	P	H
		5457.04	53.23	-20.77	74	44.7	31.73	10.23	33.43	285	248	P	V
		5468.56	55.12	-13.08	68.2	46.53	31.77	10.25	33.43	285	248	P	V
		5459.44	46.31	-7.69	54	37.77	31.74	10.23	33.43	285	248	A	V
	*	5530	103.78	-	-	95.04	31.84	10.33	33.43	285	248	P	V
	*	5530	96.06	-	-	87.32	31.84	10.33	33.43	285	248	A	V
		5756.18	53.11	-15.09	68.2	43.95	32.11	10.52	33.47	285	248	P	V
802.11ac VHT80 CH 122 5610MHz		5414.08	51.28	-22.72	74	42.99	31.56	10.17	33.44	400	130	P	H
		5461.12	50.61	-17.59	68.2	42.06	31.74	10.24	33.43	400	130	P	H
		5423.44	42.86	-11.14	54	34.53	31.59	10.18	33.44	400	130	A	H
	*	5610	94.72	-	-	85.95	31.78	10.44	33.45	400	130	P	H
	*	5610	87.81	-	-	79.04	31.78	10.44	33.45	400	130	A	H
		5744.21	53.34	-14.86	68.2	44.2	32.09	10.51	33.46	400	130	P	H
		5442.88	50.95	-23.05	74	42.51	31.67	10.21	33.44	302	191	P	V
		5469.52	51.46	-16.74	68.2	42.86	31.78	10.25	33.43	302	191	P	V
		5452.72	44.31	-9.69	54	35.81	31.71	10.22	33.43	302	191	A	V
	*	5610	105.73	-	-	96.96	31.78	10.44	33.45	302	191	P	V
	*	5610	98.72	-	-	89.95	31.78	10.44	33.45	302	191	A	V
		5734.13	55.25	-12.95	68.2	46.14	32.07	10.5	33.46	302	191	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## Band 3 5470~5725MHz

## WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI	Note	Frequency ( MHz )	Level ( dB $\mu$ V/m )	Over Limit ( dB )	Limit Line ( dB $\mu$ V/m )	Read Level ( dB $\mu$ V )	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 106 5530MHz		11060	47.45	-26.55	74	53.11	39.96	15.78	61.4	100	0	P	H
		16590	47.4	-20.8	68.2	47	39.4	20.29	59.29	100	0	P	H
													H
													H
		11060	47.77	-26.23	74	53.43	39.96	15.78	61.4	100	0	P	V
		16590	47.52	-20.68	68.2	47.12	39.4	20.29	59.29	100	0	P	V
													V
													V
802.11ac VHT80 CH 122 5610MHz		11220	43.64	-30.36	74	49.59	39.5	15.95	61.4	100	0	P	H
		16830	46.16	-22.04	68.2	43.78	40.52	20.57	58.71	100	0	P	H
													H
													H
		11220	43.09	-30.91	74	49.04	39.5	15.95	61.4	100	0	P	V
		16830	45.89	-22.31	68.2	43.51	40.52	20.57	58.71	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## Band 3 - Straddle Channel

## WIFI 802.11ac VHT20 (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.	
		( MHz )	( dB $\mu$ V/m )	( dB )	( dB $\mu$ V/m )	(dB $\mu$ V)	( dB/m )	( dB )	( dB )	( cm )	( deg )	(P/A)	(H/V)	
802.11ac		5391.73	51.74	-22.26	74	43.57	31.47	10.14	33.44	347	221	P	H	
		5460.37	51.01	-17.19	68.2	42.47	31.74	10.23	33.43	347	221	P	H	
		5458.03	42.33	-11.67	54	33.8	31.73	10.23	33.43	347	221	A	H	
	*	5720	101.88	-	-	92.8	32.04	10.5	33.46	347	221	P	H	
	*	5720	92.81	-	-	83.73	32.04	10.5	33.46	347	221	A	H	
		5858.25	54.18	-14.02	68.2	44.75	32.32	10.59	33.48	347	221	P	H	
		5353.9	51.64	-22.36	74	43.67	31.32	10.09	33.44	291	176	P	V	
		5466.22	50.59	-17.61	68.2	42.02	31.76	10.24	33.43	291	176	P	V	
		5452.57	42.33	-11.67	54	33.83	31.71	10.22	33.43	291	176	A	V	
	*	5720	112.65	-	-	103.57	32.04	10.5	33.46	291	176	P	V	
VHT20	*	5720	104.25	-	-	95.17	32.04	10.5	33.46	291	176	A	V	
		5893.75	53.83	-14.37	68.2	44.31	32.39	10.62	33.49	291	176	P	V	
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.													



## Band 3 - Straddle Channel

## WIFI 802.11ac VHT20 (Harmonic @ 3m)

WIFI	Note	Frequency ( MHz )	Level ( dB $\mu$ V/m )	Over Limit ( dB )	Limit Line ( dB $\mu$ V/m )	Read Level ( dB $\mu$ V )	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT20 CH 144 5720MHz		11440	43.31	-30.69	74	48.87	39.68	16.16	61.4	100	0	P	H
		17160	46.44	-21.76	68.2	42.75	40.56	20.86	57.73	100	0	P	H
													H
													H
		11440	46.2	-27.8	74	51.76	39.68	16.16	61.4	100	0	P	V
		17160	46.98	-21.22	68.2	43.29	40.56	20.86	57.73	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## Band 3 - Straddle Channel

## WIFI 802.11ac VHT40 (Band Edge @ 3m)

WIFI	Note	Frequency ( MHz )	Level ( dB $\mu$ V/m )	Over Limit ( dB )	Limit Line ( dB $\mu$ V/m )	Read Level ( dB $\mu$ V )	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT40 CH 142 5710MHz		5407.72	50.57	-23.43	74	42.32	31.53	10.16	33.44	400	226	P	H
		5467	50.65	-17.55	68.2	42.07	31.77	10.24	33.43	400	226	P	H
		5433.85	42.49	-11.51	54	34.09	31.64	10.2	33.44	400	226	A	H
	*	5710	99.36	-	-	90.31	32.02	10.49	33.46	400	226	P	H
	*	5710	90.93	-	-	81.88	32.02	10.49	33.46	400	226	A	H
		5930.5	52.69	-15.51	68.2	43	32.52	10.66	33.49	400	226	P	H
		5406.94	50.33	-23.67	74	42.08	31.53	10.16	33.44	285	182	P	V
		5460.37	49.47	-18.73	68.2	40.93	31.74	10.23	33.43	285	182	P	V
		5452.18	42.77	-11.23	54	34.27	31.71	10.22	33.43	285	182	A	V
	*	5710	110.24	-	-	101.19	32.02	10.49	33.46	285	182	P	V
	*	5710	102.1	-	-	93.05	32.02	10.49	33.46	285	182	A	V
		5943.75	53.09	-15.11	68.2	43.34	32.57	10.67	33.49	285	182	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## Band 3 - Straddle Channel

## WIFI 802.11ac VHT40 (Harmonic @ 3m)

WIFI	Note	Frequency ( MHz )	Level ( dB $\mu$ V/m )	Over Limit ( dB )	Limit Line ( dB $\mu$ V/m )	Read Level ( dB $\mu$ V )	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT40 CH 142 5710MHz		11420	43.84	-30.16	74	49.46	39.64	16.14	61.4	100	0	P	H
		17130	46.35	-21.85	68.2	42.82	40.53	20.85	57.85	100	0	P	H
													H
													H
		11420	44.25	-29.75	74	49.87	39.64	16.14	61.4	100	0	P	V
		17130	46.37	-21.83	68.2	42.84	40.53	20.85	57.85	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## Band 3 - Straddle Channel

## WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI	Note	Frequency ( MHz )	Level ( dB $\mu$ V/m )	Over Limit ( dB )	Limit Line ( dB $\mu$ V/m )	Read Level (dB $\mu$ V)	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 138 5690MHz		5438.92	50.54	-23.46	74	42.12	31.66	10.2	33.44	400	228	P	H
		5469.34	50.17	-18.03	68.2	41.57	31.78	10.25	33.43	400	228	P	H
		5414.74	42.92	-11.08	54	34.63	31.56	10.17	33.44	400	228	A	H
	*	5690	95.05	-	-	86.09	31.94	10.48	33.46	400	228	P	H
	*	5690	86.19	-	-	77.23	31.94	10.48	33.46	400	228	A	H
		5851.75	52.51	-15.69	68.2	43.1	32.3	10.59	33.48	400	228	P	H
		5417.47	52.6	-21.4	74	44.3	31.57	10.17	33.44	322	191	P	V
		5468.95	51.33	-16.87	68.2	42.73	31.78	10.25	33.43	322	191	P	V
		5454.13	43.04	-10.96	54	34.52	31.72	10.23	33.43	322	191	A	V
	*	5690	106.62	-	-	97.66	31.94	10.48	33.46	322	191	P	V
	*	5690	99.21	-	-	90.25	31.94	10.48	33.46	322	191	A	V
		5860.75	53.15	-15.05	68.2	43.72	32.32	10.59	33.48	322	191	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## Band 3 - Straddle Channel

## WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI	Note	Frequency ( MHz )	Level ( dB $\mu$ V/m )	Over Limit ( dB )	Limit Line ( dB $\mu$ V/m )	Read Level ( dB $\mu$ V )	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 138 5690MHz		11380	43.31	-30.69	74	49.02	39.58	16.11	61.4	100	0	P	H
		17070	46.63	-21.57	68.2	43.4	40.5	20.8	58.07	100	0	P	H
													H
													H
		11380	44.6	-29.4	74	50.31	39.58	16.11	61.4	100	0	P	V
		17070	46.74	-21.46	68.2	43.51	40.5	20.8	58.07	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## Emission below 1GHz

## WIFI 802.11ac VHT20 (LF @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.	
802.11ac VHT20 LF		159.01	32.9	-10.6	43.5	45.02	16.5	1.74	30.36	-	-	P	H	
		194.9	34.78	-8.72	43.5	48.34	14.83	1.94	30.33	100	0	P	H	
		232.73	34.48	-11.52	46	46.31	16.41	2.02	30.26	-	-	P	H	
		722.58	33.26	-12.74	46	31.71	27.07	3.95	29.47	-	-	P	H	
		882.63	33.85	-12.15	46	29.6	28.97	4.45	29.17	-	-	P	H	
		955.38	35.06	-10.94	46	28.63	30.77	4.64	28.98	-	-	P	H	
													H	
													H	
													H	
													H	
													H	
													H	
													V	
		51.34	33.52	-6.48	40	49.18	13.77	1.04	30.47	100	0	P	V	
		194.9	34.41	-9.09	43.5	47.97	14.83	1.94	30.33	-	-	P	V	
		253.1	30.55	-15.45	46	39.85	18.85	2.07	30.22	-	-	P	V	
		713.85	31.62	-14.38	46	30.51	26.67	3.93	29.49	-	-	P	V	
		843.83	33.98	-12.02	46	30.27	28.62	4.31	29.22	-	-	P	V	
		952.47	35	-11	46	28.7	30.67	4.62	28.99	-	-	P	V	
													V	
													V	
													V	
													V	
													V	
													V	
	Remark	1. No other spurious found. 2. All results are PASS against limit line.												

**Note symbol**

*	<b>Fundamental Frequency</b> which can be ignored. However, the level of any unwanted emissions shall not exceed the level of the fundamental frequency.
!	Test result is <b>over limit</b> line.
P/A	<b>Peak or Average</b>
H/V	<b>Horizontal or Vertical</b>



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

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
			Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.		
		( MHz )	( dB $\mu$ V/m )	( dB )	( dB $\mu$ V/m )	( dB $\mu$ 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. Path Loss(dB) = Cable loss(dB) + Filter loss(dB) + Attenuator loss(dB)
2. Level(dB $\mu$ V/m) = Antenna Factor(dB/m) + Path Loss(dB) + Read Level(dB $\mu$ V) - Preamp Factor(dB)
3. Over Limit(dB) = Level(dB $\mu$ V/m) – Limit Line(dB $\mu$ V/m)

#### For Peak Limit @ 2390MHz:

1. Level(dB $\mu$ V/m)  
 $= \text{Antenna Factor(dB/m)} + \text{Path Loss(dB)} + \text{Read Level(dB $\mu$ V)} - \text{Preamp Factor(dB)}$   
 $= 32.22(\text{dB}/\text{m}) + 4.58(\text{dB}) + 54.51(\text{dB}\mu\text{V}) - 35.86 (\text{dB})$   
 $= 55.45 (\text{dB}\mu\text{V}/\text{m})$
2. Over Limit(dB)  
 $= \text{Level(dB}\mu\text{V}/\text{m)} - \text{Limit Line(dB}\mu\text{V}/\text{m)}$   
 $= 55.45(\text{dB}\mu\text{V}/\text{m}) - 74(\text{dB}\mu\text{V}/\text{m})$   
 $= -18.55(\text{dB})$

#### For Average Limit @ 2390MHz:

1. Level(dB $\mu$ V/m)  
 $= \text{Antenna Factor(dB/m)} + \text{Path Loss(dB)} + \text{Read Level(dB}\mu\text{V)} - \text{Preamp Factor(dB)}$   
 $= 32.22(\text{dB}/\text{m}) + 4.58(\text{dB}) + 42.6(\text{dB}\mu\text{V}) - 35.86 (\text{dB})$   
 $= 43.54 (\text{dB}\mu\text{V}/\text{m})$
2. Over Limit(dB) = Level(dB $\mu$ V/m) – Limit Line(dB $\mu$ V/m)  
 $= 43.54(\text{dB}\mu\text{V}/\text{m}) - 54(\text{dB}\mu\text{V}/\text{m})$   
 $= -10.46(\text{dB})$

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



&lt;For Antenna 4&gt;

&lt;Chain 1+2&gt;

## Band 1 - 5150~5250MHz

## WIFI 802.11ac VHT20 (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Path Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
		( MHz )	( dB $\mu$ V/m )	( dB )	( dB $\mu$ V/m )	(dB $\mu$ V)	( dB/m )	( dB )	( dB )	( cm )	( deg )	(P/A)	(H/V)
802.11ac VHT20		5131.56	60.66	-13.34	74	52.39	31.94	9.8	33.47	102	74	P	H
		5148.46	49.65	-4.35	54	41.39	31.9	9.83	33.47	102	74	A	H
	*	5180	118.35	-	-	110.16	31.78	9.87	33.46	102	74	P	H
	*	5180	108.69	-	-	100.5	31.78	9.87	33.46	102	74	A	H
													H
													H
CH 36 5180MHz		5137.54	60.5	-13.5	74	52.24	31.92	9.81	33.47	327	0	P	V
		5147.68	45.45	-8.55	54	37.2	31.9	9.82	33.47	327	0	A	V
	*	5180	110.27	-	-	102.08	31.78	9.87	33.46	327	0	P	V
	*	5180	101.39	-	-	93.2	31.78	9.87	33.46	327	0	A	V
													V
													V
802.11ac VHT20 CH 44 5220MHz		5127.4	52.66	-21.34	74	44.39	31.95	9.79	33.47	100	73	P	H
		5150	43.53	-10.47	54	35.27	31.9	9.83	33.47	100	73	A	H
	*	5220	117.71	-	-	109.67	31.58	9.92	33.46	100	73	P	H
	*	5220	109.03	-	-	100.99	31.58	9.92	33.46	100	73	A	H
		5447.4	50.93	-23.07	74	42.46	31.69	10.22	33.44	100	73	P	H
		5452.72	43.44	-10.56	54	34.94	31.71	10.22	33.43	100	73	A	H
		5117.26	50.92	-23.08	74	42.64	31.97	9.78	33.47	337	2	P	V
		5148.46	42.4	-11.6	54	34.14	31.9	9.83	33.47	337	2	A	V
	*	5220	110.38	-	-	102.34	31.58	9.92	33.46	337	2	P	V
	*	5220	101.43	-	-	93.39	31.58	9.92	33.46	337	2	A	V
		5398.96	50.03	-23.97	74	41.82	31.5	10.15	33.44	337	2	P	V
		5431.16	42.26	-11.74	54	33.89	31.62	10.19	33.44	337	2	A	V



		5107.64	51.16	-22.84	74	42.88	31.98	9.77	33.47	102	71	P	H
		5143.78	42.77	-11.23	54	34.51	31.91	9.82	33.47	102	71	A	H
	*	5240	118.08	-	-	110.13	31.46	9.95	33.46	102	71	P	H
	*	5240	108.85	-	-	100.9	31.46	9.95	33.46	102	71	A	H
		5425.84	51.29	-22.71	74	42.94	31.6	10.19	33.44	102	71	P	H
	VHT20	5352.2	43.58	-10.42	54	35.62	31.31	10.09	33.44	102	71	A	H
	CH 48	5075.66	52.03	-21.97	74	43.88	31.9	9.72	33.47	343	0	P	V
	5240MHz	5077.48	42.39	-11.61	54	34.23	31.91	9.72	33.47	343	0	A	V
	*	5240	110.99	-	-	103.04	31.46	9.95	33.46	343	0	P	V
	*	5240	102.6	-	-	94.65	31.46	9.95	33.46	343	0	A	V
		5400.64	50.48	-23.52	74	42.27	31.5	10.15	33.44	343	0	P	V
		5453	42.22	-11.78	54	33.72	31.71	10.22	33.43	343	0	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## Band 1 5150~5250MHz

## WIFI 802.11ac VHT20 (Harmonic @ 3m)

WIFI	Note	Frequency ( MHz )	Level ( dB $\mu$ V/m )	Over Limit ( dB )	Limit Line ( dB $\mu$ V/m )	Read Level ( dB $\mu$ V )	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT20 CH 36 5180MHz		10360	47.07	-21.13	68.2	52.78	39.58	15.47	60.76	100	0	P	H
		15540	54.64	-19.36	74	57.65	38.22	19.34	60.57	197	164	P	H
		15540	43.84	-10.16	54	46.85	38.22	19.34	60.57	197	164	A	H
													H
		10360	46.72	-21.48	68.2	52.43	39.58	15.47	60.76	100	0	P	V
		15540	49.89	-24.11	74	52.9	38.22	19.34	60.57	100	0	P	V
													V
802.11ac VHT20 CH 44 5220MHz		10440	46.6	-21.6	68.2	52.28	39.7	15.5	60.88	100	0	P	H
		15660	57.97	-16.03	74	61.23	37.8	19.42	60.48	203	211	P	H
		15660	47.26	-6.74	54	50.52	37.8	19.42	60.48	203	211	A	H
													H
		10440	47.12	-21.08	68.2	52.8	39.7	15.5	60.88	100	0	P	V
		15660	56.84	-17.16	74	60.1	37.8	19.42	60.48	100	138	P	V
		15660	44.23	-9.77	54	47.49	37.8	19.42	60.48	100	138	A	V
802.11ac VHT20 CH 48 5240MHz		10480	46.65	-21.55	68.2	52.4	39.7	15.52	60.97	100	0	P	H
		15720	54.41	-19.59	74	57.62	37.76	19.45	60.42	196	163	P	H
		15720	44.63	-9.37	54	47.84	37.76	19.45	60.42	196	163	A	H
													H
		10480	47.06	-21.14	68.2	52.81	39.7	15.52	60.97	100	0	P	V
		15720	49.6	-24.4	74	52.81	37.76	19.45	60.42	100	0	P	V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## Band 1 5150~5250MHz

## WIFI 802.11ac VHT40 (Band Edge @ 3m)

WIFI	Note	Frequency ( MHz )	Level ( dB $\mu$ V/m )	Over Limit ( dB )	Limit Line ( dB $\mu$ V/m )	Read Level ( dB $\mu$ V )	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. ( P/A )	Pol. ( H/V )
802.11ac VHT40 CH 38 5190MHz		5122.72	52.81	-21.19	74	44.54	31.95	9.79	33.47	100	73	P	H
		5147.42	46.14	-7.86	54	37.88	31.91	9.82	33.47	100	73	A	H
	*	5190	107.4	-	-	99.23	31.74	9.89	33.46	100	73	P	H
	*	5190	100.21	-	-	92.04	31.74	9.89	33.46	100	73	A	H
		5438.16	50.25	-23.75	74	41.84	31.65	10.2	33.44	100	73	P	H
		5449.64	43.69	-10.31	54	35.21	31.7	10.22	33.44	100	73	A	H
		5138.32	50.78	-23.22	74	42.52	31.92	9.81	33.47	367	3	P	V
		5149.24	43.44	-10.56	54	35.18	31.9	9.83	33.47	367	3	A	V
	*	5190	101.89	-	-	93.72	31.74	9.89	33.46	367	3	P	V
	*	5190	94.45	-	-	86.28	31.74	9.89	33.46	367	3	A	V
802.11ac VHT40 CH 46 5230MHz		5438.16	50.69	-23.31	74	42.28	31.65	10.2	33.44	367	3	P	V
		5426.4	42.97	-11.03	54	34.61	31.61	10.19	33.44	367	3	A	V
		5148.98	55.63	-18.37	74	47.37	31.9	9.83	33.47	117	73	P	H
		5150	47.96	-6.04	54	39.7	31.9	9.83	33.47	117	73	A	H
	*	5230	115.25	-	-	107.25	31.52	9.94	33.46	117	73	P	H
	*	5230	107.25	-	-	99.25	31.52	9.94	33.46	117	73	A	H
		5355.56	56.72	-17.28	74	48.75	31.32	10.09	33.44	117	73	P	H
		5362.28	45.78	-8.22	54	37.77	31.35	10.1	33.44	117	73	A	H
		5146.9	53.07	-20.93	74	44.81	31.91	9.82	33.47	383	6	P	V
		5098.28	43.52	-10.48	54	35.25	31.99	9.75	33.47	383	6	A	V
Remark	*	5230	109.42	-	-	101.42	31.52	9.94	33.46	383	6	P	V
	*	5230	101.03	-	-	93.03	31.52	9.94	33.46	383	6	A	V
		5373.48	52.53	-21.47	74	44.46	31.39	10.12	33.44	383	6	P	V
		5350.24	44.28	-9.72	54	36.33	31.3	10.09	33.44	383	6	A	V
		1.	No other spurious found.										
		2.	All results are PASS against Peak and Average limit line.										



## Band 1 5150~5250MHz

## WIFI 802.11ac VHT40 (Harmonic @ 3m)

WIFI	Note	Frequency ( MHz )	Level ( dB $\mu$ V/m )	Over Limit ( dB )	Limit Line ( dB $\mu$ V/m )	Read Level ( dB $\mu$ V )	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT40 CH 38 5190MHz		10380	46.77	-21.43	68.2	52.44	39.64	15.48	60.79	100	0	P	H
		15570	44.55	-29.45	74	47.73	38.01	19.35	60.54	100	0	P	H
													H
													H
		10380	46.5	-21.7	68.2	52.17	39.64	15.48	60.79	100	0	P	V
		15570	44.65	-29.35	74	47.83	38.01	19.35	60.54	100	0	P	V
													V
802.11ac VHT40 CH 46 5230MHz		10460	47.29	-20.91	68.2	52.99	39.7	15.51	60.91	100	0	P	H
		15690	46.34	-27.66	74	49.56	37.8	19.43	60.45	100	0	P	H
													H
													H
		10460	46.6	-21.6	68.2	52.3	39.7	15.51	60.91	100	0	P	V
		15690	44.9	-29.1	74	48.12	37.8	19.43	60.45	100	0	P	V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## Band 1 5150~5250MHz

## WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI	Note	Frequency ( MHz )	Level ( dB $\mu$ V/m )	Over Limit ( dB )	Limit Line ( dB $\mu$ V/m )	Read Level (dB $\mu$ V)	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 42 5210MHz		5144.82	55.31	-18.69	74	47.05	31.91	9.82	33.47	113	71	P	H
		5150	47.33	-6.67	54	39.07	31.9	9.83	33.47	113	71	A	H
	*	5210	106.53	-	-	98.44	31.64	9.91	33.46	113	71	P	H
	*	5210	98.69	-	-	90.6	31.64	9.91	33.46	113	71	A	H
		5352.2	52.28	-21.72	74	44.32	31.31	10.09	33.44	113	71	P	H
		5360.88	44.7	-9.3	54	36.7	31.34	10.1	33.44	113	71	A	H
		5130	52.5	-21.5	74	44.23	31.94	9.8	33.47	366	2	P	V
		5143.26	43.78	-10.22	54	35.52	31.91	9.82	33.47	366	2	A	V
	*	5210	101.88	-	-	93.79	31.64	9.91	33.46	366	2	P	V
	*	5210	93.67	-	-	85.58	31.64	9.91	33.46	366	2	A	V
		5359.76	50.3	-23.7	74	42.3	31.34	10.1	33.44	366	2	P	V
		5458.88	43.23	-10.77	54	34.69	31.74	10.23	33.43	366	2	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## Band 1 5150~5250MHz

## WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI	Note	Frequency ( MHz )	Level ( dB $\mu$ V/m )	Over Limit ( dB )	Limit Line ( dB $\mu$ V/m )	Read Level ( dB $\mu$ V )	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 42 5210MHz		10420	46.49	-21.71	68.2	52.14	39.7	15.5	60.85	100	0	P	H
		15630	45.87	-28.13	74	49.17	37.8	19.39	60.49	100	0	P	H
													H
													H
		10420	46.15	-22.05	68.2	51.8	39.7	15.5	60.85	100	0	P	V
		15630	44.93	-29.07	74	48.23	37.8	19.39	60.49	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## Band 2 - 5250~5350MHz

## WIFI 802.11ac VHT20 (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.	
802.11ac		5144.16	51.16	-22.84	74	42.9	31.91	9.82	33.47	100	77	P	H	
		5136	42.79	-11.21	54	34.52	31.93	9.81	33.47	100	77	A	H	
	*	5260	117.01	-	-	109.11	31.38	9.97	33.45	100	77	P	H	
	*	5260	108.59	-	-	100.69	31.38	9.97	33.45	100	77	A	H	
		5387.52	51.33	-22.67	74	43.19	31.45	10.13	33.44	100	77	P	H	
		5351.76	43.97	-10.03	54	36.01	31.31	10.09	33.44	100	77	A	H	
		5126.82	51.79	-22.21	74	43.52	31.95	9.79	33.47	377	3	P	V	
		5145.18	42.72	-11.28	54	34.46	31.91	9.82	33.47	377	3	A	V	
	*	5260	111.07	-	-	103.17	31.38	9.97	33.45	377	3	P	V	
	*	5260	103.03	-	-	95.13	31.38	9.97	33.45	377	3	A	V	
VHT20		5449.92	49.86	-24.14	74	41.38	31.7	10.22	33.44	377	3	P	V	
		5459.04	42.49	-11.51	54	33.95	31.74	10.23	33.43	377	3	A	V	
		5093.16	51.46	-22.54	74	43.21	31.97	9.75	33.47	100	70	P	H	
		5148.58	42.59	-11.41	54	34.33	31.9	9.83	33.47	100	70	A	H	
	*	5300	117.21	-	-	109.34	31.3	10.02	33.45	100	70	P	H	
	*	5300	108.78	-	-	100.91	31.3	10.02	33.45	100	70	A	H	
		5363.76	59.65	-14.35	74	51.63	31.36	10.1	33.44	100	70	P	H	
		5354.4	48.22	-5.78	54	40.25	31.32	10.09	33.44	100	70	A	H	
		5085.68	51.2	-22.8	74	43	31.94	9.73	33.47	372	3	P	V	
		5137.36	42.49	-11.51	54	34.22	31.93	9.81	33.47	372	3	A	V	
CH 52	*	5300	111.96	-	-	104.09	31.3	10.02	33.45	372	3	P	V	
	*	5300	102.81	-	-	94.94	31.3	10.02	33.45	372	3	A	V	
		5380.32	51.71	-22.29	74	43.6	31.42	10.13	33.44	372	3	P	V	
		5352.24	43.24	-10.76	54	35.28	31.31	10.09	33.44	372	3	A	V	
5260MHz														



	*	5320	117.06	-	-	109.16	31.3	10.05	33.45	101	72	P	H
	*	5320	109.15	-	-	101.25	31.3	10.05	33.45	101	72	A	H
		5353.92	66.64	-7.36	74	58.67	31.32	10.09	33.44	101	72	P	H
		5351.2	51.46	-2.54	54	43.51	31.3	10.09	33.44	101	72	A	H
													H
													H
<b>802.11ac</b>													
<b>VHT20</b>													
<b>CH 64</b>	*	5320	111.53	-	-	103.63	31.3	10.05	33.45	370	5	P	V
<b>5320MHz</b>	*	5320	103.26	-	-	95.36	31.3	10.05	33.45	370	5	A	V
		5359.36	51.57	-22.43	74	43.57	31.34	10.1	33.44	370	5	P	V
		5350.08	45.35	-8.65	54	37.4	31.3	10.09	33.44	370	5	A	V
													V
													V
<b>Remark</b>	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## Band 2 5250~5350MHz

## WIFI 802.11ac VHT20 (Harmonic @ 3m)

WIFI	Note	Frequency ( MHz )	Level ( dB $\mu$ V/m )	Over Limit ( dB )	Limit Line ( dB $\mu$ V/m )	Read Level ( dB $\mu$ V )	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT20 CH 52 5260MHz		10520	47.33	-20.87	68.2	53.06	39.74	15.54	61.01	100	0	P	H
		15780	54.18	-19.82	74	57.43	37.64	19.49	60.38	207	222	P	H
		15780	44.21	-9.79	54	47.46	37.64	19.49	60.38	207	222	A	H
													H
		10520	47.88	-20.32	68.2	53.61	39.74	15.54	61.01	100	0	P	V
		15780	53.06	-20.94	74	56.31	37.64	19.49	60.38	100	187	P	V
		15780	42.23	-11.77	54	45.48	37.64	19.49	60.38	100	187	A	V
													V
802.11ac VHT20 CH 60 5300MHz		10600	47.07	-26.93	74	52.68	39.9	15.57	61.08	100	0	P	H
		15900	55.29	-18.71	74	58.7	37.3	19.57	60.28	204	152	P	H
		15900	46.51	-7.49	54	49.92	37.3	19.57	60.28	204	152	A	H
													H
		10600	46.8	-27.2	74	52.41	39.9	15.57	61.08	100	0	P	V
		15900	48.44	-25.56	74	51.85	37.3	19.57	60.28	100	0	P	V
													V
													V
802.11ac VHT20 CH 64 5320MHz		10640	46.4	-27.6	74	52.07	39.86	15.58	61.11	100	0	P	H
		15960	54.78	-19.22	74	58.05	37.36	19.6	60.23	200	155	P	H
		15960	46.18	-7.82	54	49.45	37.36	19.6	60.23	200	155	A	H
													H
		10640	47.63	-26.37	74	53.3	39.86	15.58	61.11	100	0	P	V
		15960	48.73	-25.27	74	52	37.36	19.6	60.23	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## Band 2 5250~5350MHz

## WIFI 802.11ac VHT40 (Band Edge @ 3m)

WIFI	Note	Frequency ( MHz )	Level ( dB $\mu$ V/m )	Over Limit ( dB )	Limit Line ( dB $\mu$ V/m )	Read Level ( dB $\mu$ V )	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT40 CH 54 5270MHz		5125.12	51.56	-22.44	74	43.29	31.95	9.79	33.47	100	73	P	H
		5149.94	43.28	-10.72	54	35.02	31.9	9.83	33.47	100	73	A	H
	*	5270	113.63	-	-	105.73	31.36	9.99	33.45	100	73	P	H
	*	5270	105.73	-	-	97.83	31.36	9.99	33.45	100	73	A	H
		5363.52	55.14	-18.86	74	47.13	31.35	10.1	33.44	100	73	P	H
		5350.8	48.17	-5.83	54	40.22	31.3	10.09	33.44	100	73	A	H
		5129.54	51.54	-22.46	74	43.27	31.94	9.8	33.47	398	0	P	V
		5116.96	43.31	-10.69	54	35.03	31.97	9.78	33.47	398	0	A	V
	*	5270	108.74	-	-	100.84	31.36	9.99	33.45	398	0	P	V
	*	5270	100.47	-	-	92.57	31.36	9.99	33.45	398	0	A	V
802.11ac VHT40 CH 62 5310MHz		5364.48	52.4	-21.6	74	44.37	31.36	10.11	33.44	398	0	P	V
		5356.8	44.18	-9.82	54	36.19	31.33	10.1	33.44	398	0	A	V
		5084.32	51.45	-22.55	74	43.25	31.94	9.73	33.47	108	74	P	H
		5094.52	43.15	-10.85	54	34.89	31.98	9.75	33.47	108	74	A	H
	*	5310	103.86	-	-	95.97	31.3	10.04	33.45	108	74	P	H
	*	5310	96.67	-	-	88.78	31.3	10.04	33.45	108	74	A	H
		5350.08	52.69	-21.31	74	44.74	31.3	10.09	33.44	108	74	P	H
		5350.32	45.32	-8.68	54	37.37	31.3	10.09	33.44	108	74	A	H
		5046.58	51.62	-22.38	74	43.65	31.77	9.68	33.48	391	5	P	V
		5116.96	43.22	-10.78	54	34.94	31.97	9.78	33.47	391	5	A	V
Remark	*	5310	98.96	-	-	91.07	31.3	10.04	33.45	391	5	P	V
	*	5310	91.31	-	-	83.42	31.3	10.04	33.45	391	5	A	V
		5351.76	50.87	-23.13	74	42.91	31.31	10.09	33.44	391	5	P	V
		5357.28	43.58	-10.42	54	35.59	31.33	10.1	33.44	391	5	A	V



## Band 2 5250~5350MHz

## WIFI 802.11ac VHT40 (Harmonic @ 3m)

WIFI	Note	Frequency ( MHz )	Level ( dB $\mu$ V/m )	Over Limit ( dB )	Limit Line ( dB $\mu$ V/m )	Read Level ( dB $\mu$ V )	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT40 CH 54 5270MHz		10540	47.21	-20.99	68.2	52.91	39.78	15.55	61.03	100	0	P	H
		15810	46.62	-27.38	74	49.89	37.57	19.51	60.35	100	0	P	H
													H
													H
		10540	46.78	-21.42	68.2	52.48	39.78	15.55	61.03	100	0	P	V
		15810	46.5	-27.5	74	49.77	37.57	19.51	60.35	100	0	P	V
													V
													V
802.11ac VHT40 CH 62 5310MHz		10620	46.06	-27.94	74	51.71	39.88	15.57	61.1	100	0	P	H
		15930	45.01	-28.99	74	48.35	37.33	19.59	60.26	100	0	P	H
													H
													H
		10620	45.95	-28.05	74	51.6	39.88	15.57	61.1	100	0	P	V
		15930	44.34	-29.66	74	47.68	37.33	19.59	60.26	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## Band 2 5250~5350MHz

## WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI	Note	Frequency ( MHz )	Level ( dB $\mu$ V/m )	Over Limit ( dB )	Limit Line ( dB $\mu$ V/m )	Read Level (dB $\mu$ V)	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 58 5290MHz		5046.58	51.07	-22.93	74	43.1	31.77	9.68	33.48	100	72	P	H
		5138.38	43.27	-10.73	54	35.01	31.92	9.81	33.47	100	72	A	H
	*	5290	102.74	-	-	94.86	31.32	10.01	33.45	100	72	P	H
	*	5290	95.55	-	-	87.67	31.32	10.01	33.45	100	72	A	H
		5352.72	56.59	-17.41	74	48.63	31.31	10.09	33.44	100	72	P	H
		5350.32	50.05	-3.95	54	42.1	31.3	10.09	33.44	100	72	A	H
		5113.9	51.52	-22.48	74	43.24	31.97	9.78	33.47	395	7	P	V
		5123.76	43.2	-10.8	54	34.93	31.95	9.79	33.47	395	7	A	V
	*	5290	98.47	-	-	90.59	31.32	10.01	33.45	395	7	P	V
	*	5290	91	-	-	83.12	31.32	10.01	33.45	395	7	A	V
		5360.16	51.94	-22.06	74	43.94	31.34	10.1	33.44	395	7	P	V
		5354.16	44.47	-9.53	54	36.5	31.32	10.09	33.44	395	7	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## Band 2 5250~5350MHz

## WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI	Note	Frequency ( MHz )	Level ( dB $\mu$ V/m )	Over Limit ( dB )	Limit Line ( dB $\mu$ V/m )	Read Level ( dB $\mu$ V )	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 58 5290MHz		10580	46.02	-22.18	68.2	51.67	39.86	15.56	61.07	100	0	P	H
		15870	44.65	-29.35	74	48.01	37.39	19.55	60.3	100	0	P	H
													H
													H
		10580	46.05	-22.15	68.2	51.7	39.86	15.56	61.07	100	0	P	V
		15870	43.68	-30.32	74	47.04	37.39	19.55	60.3	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## Band 3 - 5470~5725MHz

## WIFI 802.11ac VHT20 (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.	
802.11ac		5458	56.2	-17.8	74	47.67	31.73	10.23	33.43	100	68	P	H	
		5463.44	50.53	-17.67	68.2	41.97	31.75	10.24	33.43	100	68	P	H	
		5452.72	43.94	-10.06	54	35.44	31.71	10.22	33.43	100	68	A	H	
	*	5500	110.86	-	-	102.1	31.9	10.29	33.43	100	68	P	H	
	*	5500	101.9	-	-	93.14	31.9	10.29	33.43	100	68	A	H	
														H
VHT20		5459.12	50.44	-23.56	74	41.9	31.74	10.23	33.43	383	6	P	V	
		5466.8	50.68	-17.52	68.2	42.1	31.77	10.24	33.43	383	6	P	V	
		5458.16	42.68	-11.32	54	34.15	31.73	10.23	33.43	383	6	A	V	
	*	5500	105.18	-	-	96.42	31.9	10.29	33.43	383	6	P	V	
	*	5500	96.42	-	-	87.66	31.9	10.29	33.43	383	6	A	V	
														V
CH 100		5427.76	50.52	-23.48	74	42.16	31.61	10.19	33.44	100	69	P	H	
		5460.4	49.84	-18.36	68.2	41.3	31.74	10.23	33.43	100	69	P	H	
		5459.44	42.99	-11.01	54	34.45	31.74	10.23	33.43	100	69	A	H	
	*	5580	117.08	-	-	108.32	31.8	10.4	33.44	100	69	P	H	
	*	5580	107.71	-	-	98.95	31.8	10.4	33.44	100	69	A	H	
5500MHz		5761.535	51.36	-16.84	68.2	42.19	32.12	10.52	33.47	100	69	P	H	
		5426.56	50.29	-23.71	74	41.93	31.61	10.19	33.44	372	0	P	V	
		5462.08	48.79	-19.41	68.2	40.23	31.75	10.24	33.43	372	0	P	V	
		5456.32	42.51	-11.49	54	33.98	31.73	10.23	33.43	372	0	A	V	
	*	5580	111.96	-	-	103.2	31.8	10.4	33.44	372	0	P	V	
	*	5580	102.06	-	-	93.3	31.8	10.4	33.44	372	0	A	V	
		5751.455	51.73	-16.47	68.2	42.59	32.1	10.51	33.47	372	0	P	V	



802.11ac VHT20 CH 140 5700MHz	*	5700	113.44	-	-	104.41	32	10.49	33.46	101	75	P	H
	*	5700	104.74	-	-	95.71	32	10.49	33.46	101	75	A	H
		5728.2	62.43	-5.77	68.2	53.33	32.06	10.5	33.46	101	75	P	H
													H
													H
													H
	*	5700	107.53	-	-	98.5	32	10.49	33.46	394	0	P	V
	*	5700	97.98	-	-	88.95	32	10.49	33.46	394	0	A	V
		5738.68	54.12	-14.08	68.2	44.99	32.08	10.51	33.46	394	0	P	V
													V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## Band 3 - 5470~5725MHz

## WIFI 802.11ac VHT20 (Harmonic @ 3m)

WIFI	Note	Frequency ( MHz )	Level ( dB $\mu$ V/m )	Over Limit ( dB )	Limit Line ( dB $\mu$ V/m )	Read Level ( dB $\mu$ V )	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT20 CH 100 5500MHz		11000	47.29	-26.71	74	52.77	40.2	15.72	61.4	100	0	P	H
		16500	46.24	-21.96	68.2	46.14	39.4	20.2	59.5	100	0	P	H
													H
													H
		11000	48.18	-25.82	74	53.66	40.2	15.72	61.4	100	0	P	V
		16500	45.96	-22.24	68.2	45.86	39.4	20.2	59.5	100	0	P	V
													V
802.11ac VHT20 CH 116 5580MHz		11160	46.24	-27.76	74	52.14	39.62	15.88	61.4	100	0	P	H
		16740	48.78	-19.42	68.2	46.84	40.4	20.46	58.92	100	0	P	H
													H
													H
		11160	46.74	-27.26	74	52.64	39.62	15.88	61.4	100	0	P	V
		16740	48.28	-19.92	68.2	46.34	40.4	20.46	58.92	100	0	P	V
													V
802.11ac VHT20 CH 140 5700MHz		11400	46.16	-27.84	74	51.83	39.6	16.13	61.4	100	0	P	H
		17100	48.62	-19.58	68.2	45.25	40.5	20.83	57.96	100	0	P	H
													H
													H
		11400	45.99	-28.01	74	51.66	39.6	16.13	61.4	100	0	P	V
		17100	48	-20.2	68.2	44.63	40.5	20.83	57.96	100	0	P	V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## Band 3 - 5470~5725MHz

## WIFI 802.11ac VHT40 (Band Edge @ 3m)

WIFI	Note	Frequency ( MHz )	Level ( dB $\mu$ V/m )	Over Limit ( dB )	Limit Line ( dB $\mu$ V/m )	Read Level ( dB $\mu$ V )	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT40 CH 102 5510MHz		5459.2	59.26	-14.74	74	50.72	31.74	10.23	33.43	100	69	P	H
		5463.04	63.04	-5.16	68.2	54.48	31.75	10.24	33.43	100	69	P	H
		5459.92	52.03	-1.97	54	43.49	31.74	10.23	33.43	100	69	A	H
	*	5510	111.82	-	-	103.07	31.88	10.3	33.43	100	69	P	H
	*	5510	105.17	-	-	96.42	31.88	10.3	33.43	100	69	A	H
		5739.8	52.82	-15.38	68.2	43.69	32.08	10.51	33.46	100	69	P	H
		5454.88	55.73	-18.27	74	47.21	31.72	10.23	33.43	400	9	P	V
		5469.76	54.79	-13.41	68.2	46.19	31.78	10.25	33.43	400	9	P	V
		5459.92	46.15	-7.85	54	37.61	31.74	10.23	33.43	400	9	A	V
	*	5510	106.13	-	-	97.38	31.88	10.3	33.43	400	9	P	V
	*	5510	99.04	-	-	90.29	31.88	10.3	33.43	400	9	A	V
		5747.36	51.12	-17.08	68.2	41.98	32.09	10.51	33.46	400	9	P	V
802.11ac VHT40 CH 110 5550MHz		5456.56	58.07	-15.93	74	49.54	31.73	10.23	33.43	100	68	P	H
		5465.2	54.2	-14	68.2	45.63	31.76	10.24	33.43	100	68	P	H
		5459.68	46.65	-7.35	54	38.11	31.74	10.23	33.43	100	68	A	H
	*	5550	113.75	-	-	105.03	31.8	10.36	33.44	100	68	P	H
	*	5550	105.73	-	-	97.01	31.8	10.36	33.44	100	68	A	H
		5745.785	52.25	-15.95	68.2	43.11	32.09	10.51	33.46	100	68	P	H
		5430.4	52.17	-21.83	74	43.8	31.62	10.19	33.44	397	5	P	V
		5461.12	50.1	-18.1	68.2	41.55	31.74	10.24	33.43	397	5	P	V
		5454.64	44.08	-9.92	54	35.56	31.72	10.23	33.43	397	5	A	V
	*	5550	107.37	-	-	98.65	31.8	10.36	33.44	397	5	P	V
	*	5550	100.4	-	-	91.68	31.8	10.36	33.44	397	5	A	V
		5746.1	51.13	-17.07	68.2	41.99	32.09	10.51	33.46	397	5	P	V



		5430.85	50.06	-23.94	74	41.69	31.62	10.19	33.44	100	78	P	H
		5469.7	49.99	-18.21	68.2	41.39	31.78	10.25	33.43	100	78	P	H
		5453.25	43.21	-10.79	54	34.71	31.71	10.22	33.43	100	78	A	H
802.11ac	*	5670	111.41	-	-	102.57	31.82	10.47	33.45	100	78	P	H
VHT40	*	5670	103.86	-	-	95.02	31.82	10.47	33.45	100	78	A	H
CH 134		5726.85	60.06	-8.14	68.2	50.97	32.05	10.5	33.46	100	78	P	H
5670MHz		5450.8	50.27	-23.73	74	41.78	31.7	10.22	33.43	399	5	P	V
		5469.7	50.26	-17.94	68.2	41.66	31.78	10.25	33.43	399	5	P	V
		5458.5	42.87	-11.13	54	34.34	31.73	10.23	33.43	399	5	A	V
	*	5670	106.81	-	-	97.97	31.82	10.47	33.45	399	5	P	V
	*	5670	99.12	-	-	90.28	31.82	10.47	33.45	399	5	A	V
		5755.725	52.11	-16.09	68.2	42.95	32.11	10.52	33.47	399	5	P	V
Remark	<ol style="list-style-type: none"><li>1. No other spurious found.</li><li>2. All results are PASS against Peak and Average limit line.</li></ol>												



## Band 3 - 5470~5725MHz

## WIFI 802.11ac VHT40 (Harmonic @ 3m)

WIFI	Note	Frequency ( MHz )	Level ( dB $\mu$ V/m )	Over Limit ( dB )	Limit Line ( dB $\mu$ V/m )	Read Level ( dB $\mu$ V )	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT40 CH 102 5510MHz		11020	47.12	-26.88	74	52.66	40.12	15.74	61.4	100	0	P	H
		16530	45.98	-22.22	68.2	45.77	39.4	20.23	59.42	100	0	P	H
													H
													H
		11020	46.98	-27.02	74	52.52	40.12	15.74	61.4	100	0	P	V
		16530	46.49	-21.71	68.2	46.28	39.4	20.23	59.42	100	0	P	V
													V
802.11ac VHT40 CH 110 5550MHz		11100	47.12	-26.88	74	52.9	39.8	15.82	61.4	100	0	P	H
		16650	48.32	-19.88	68.2	47.29	39.8	20.36	59.13	100	0	P	H
													H
													H
		11100	46.99	-27.01	74	52.77	39.8	15.82	61.4	100	0	P	V
		16650	46.24	-21.96	68.2	45.21	39.8	20.36	59.13	100	0	P	V
													V
802.11ac VHT40 CH 134 5670MHz		11340	46.9	-27.1	74	52.69	39.54	16.07	61.4	100	0	P	H
		17010	53.11	-15.09	68.2	50.09	40.5	20.76	58.24	100	0	P	H
													H
													H
		11340	46.28	-27.72	74	52.07	39.54	16.07	61.4	100	0	P	V
		17010	50.01	-18.19	68.2	46.99	40.5	20.76	58.24	100	0	P	V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## Band 3 5470~5725MHz

## WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI	Note	Frequency ( MHz )	Level ( dB $\mu$ V/m )	Over Limit ( dB )	Limit Line ( dB $\mu$ V/m )	Read Level ( dB $\mu$ V )	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. ( P/A )	Pol. ( H/V )
802.11ac VHT80 CH 106 5530MHz		5456.32	56.23	-17.77	74	47.7	31.73	10.23	33.43	101	67	P	H
		5469.76	58.92	-9.28	68.2	50.32	31.78	10.25	33.43	101	67	P	H
		5458.72	51.79	-2.21	54	43.26	31.73	10.23	33.43	101	67	A	H
	*	5530	106.34	-	-	97.6	31.84	10.33	33.43	101	67	P	H
	*	5530	99.89	-	-	91.15	31.84	10.33	33.43	101	67	A	H
		5727.83	51.53	-16.67	68.2	42.43	32.06	10.5	33.46	101	67	P	H
		5455.36	52.1	-21.9	74	43.58	31.72	10.23	33.43	399	3	P	V
		5461.12	52.33	-15.87	68.2	43.78	31.74	10.24	33.43	399	3	P	V
		5457.52	45.02	-8.98	54	36.49	31.73	10.23	33.43	399	3	A	V
	*	5530	102.77	-	-	94.03	31.84	10.33	33.43	399	3	P	V
	*	5530	95	-	-	86.26	31.84	10.33	33.43	399	3	A	V
		5757.125	51.15	-17.05	68.2	41.99	32.11	10.52	33.47	399	3	P	V
802.11ac VHT80 CH 122 5610MHz		5457.76	51.89	-22.11	74	43.36	31.73	10.23	33.43	100	65	P	H
		5463.28	53.64	-14.56	68.2	45.08	31.75	10.24	33.43	100	65	P	H
		5459.68	45.38	-8.62	54	36.84	31.74	10.23	33.43	100	65	A	H
	*	5610	108.06	-	-	99.29	31.78	10.44	33.45	100	65	P	H
	*	5610	100.8	-	-	92.03	31.78	10.44	33.45	100	65	A	H
		5744.84	54.16	-14.04	68.2	45.02	32.09	10.51	33.46	100	65	P	H
		5450.8	51.01	-22.99	74	42.52	31.7	10.22	33.43	387	5	P	V
		5465.44	52.14	-16.06	68.2	43.57	31.76	10.24	33.43	387	5	P	V
		5459.2	43.88	-10.12	54	35.34	31.74	10.23	33.43	387	5	A	V
	*	5610	104.88	-	-	96.11	31.78	10.44	33.45	387	5	P	V
	*	5610	96.7	-	-	87.93	31.78	10.44	33.45	387	5	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## Band 3 5470~5725MHz

## WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI	Note	Frequency ( MHz )	Level ( dB $\mu$ V/m )	Over Limit ( dB )	Limit Line ( dB $\mu$ V/m )	Read Level ( dB $\mu$ V )	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 106 5530MHz		11060	47.51	-26.49	74	53.17	39.96	15.78	61.4	100	0	P	H
		16590	47.92	-20.28	68.2	47.52	39.4	20.29	59.29	100	0	P	H
													H
													H
		11060	47.33	-26.67	74	52.99	39.96	15.78	61.4	100	0	P	V
		16590	47.04	-21.16	68.2	46.64	39.4	20.29	59.29	100	0	P	V
													V
802.11ac VHT80 CH 122 5610MHz		11220	45.69	-28.31	74	51.64	39.5	15.95	61.4	100	0	P	H
		16830	47.85	-20.35	68.2	45.47	40.52	20.57	58.71	100	0	P	H
													H
													H
		11220	46.21	-27.79	74	52.16	39.5	15.95	61.4	100	0	P	V
		16830	47.94	-20.26	68.2	45.56	40.52	20.57	58.71	100	0	P	V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## Band 3 - Straddle Channel

## WIFI 802.11ac VHT20 (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.	
		( MHz )	( dB $\mu$ V/m )	( dB )	( dB $\mu$ V/m )	(dB $\mu$ V)	( dB/m )	( dB )	( dB )	( cm )	( deg )	(P/A)	(H/V)	
802.11ac		5389.39	50.31	-23.69	74	42.15	31.46	10.14	33.44	109	76	P	H	
		5460.37	49.84	-18.36	68.2	41.3	31.74	10.23	33.43	109	76	P	H	
		5452.96	42.56	-11.44	54	34.06	31.71	10.22	33.43	109	76	A	H	
	*	5720	115.7	-	-	106.62	32.04	10.5	33.46	109	76	P	H	
	*	5720	107.54	-	-	98.46	32.04	10.5	33.46	109	76	A	H	
		5910.5	53.05	-15.15	68.2	43.46	32.44	10.64	33.49	109	76	P	H	
		5448.67	50.26	-23.74	74	41.79	31.69	10.22	33.44	392	4	P	V	
		5461.54	49.91	-18.29	68.2	41.35	31.75	10.24	33.43	392	4	P	V	
		5456.08	42.47	-11.53	54	33.95	31.72	10.23	33.43	392	4	A	V	
	*	5720	112.11	-	-	103.03	32.04	10.5	33.46	392	4	P	V	
VHT20	*	5720	101.88	-	-	92.8	32.04	10.5	33.46	392	4	A	V	
		5890	53.31	-14.89	68.2	43.79	32.38	10.62	33.48	392	4	P	V	
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.													



## Band 3 - Straddle Channel

## WIFI 802.11ac VHT20 (Harmonic @ 3m)

WIFI	Note	Frequency ( MHz )	Level ( dB $\mu$ V/m )	Over Limit ( dB )	Limit Line ( dB $\mu$ V/m )	Read Level ( dB $\mu$ V )	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT20 CH 144 5720MHz		11440	47	-27	74	52.56	39.68	16.16	61.4	100	0	P	H
		17160	54.45	-13.75	68.2	50.76	40.56	20.86	57.73	187	152	P	H
													H
													H
		11440	46.43	-27.57	74	51.99	39.68	16.16	61.4	100	0	P	V
		17160	51.47	-16.73	68.2	47.78	40.56	20.86	57.73	100	203	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## Band 3 - Straddle Channel

## WIFI 802.11ac VHT40 (Band Edge @ 3m)

WIFI	Note	Frequency ( MHz )	Level ( dB $\mu$ V/m )	Over Limit ( dB )	Limit Line ( dB $\mu$ V/m )	Read Level ( dB $\mu$ V )	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT40 CH 142 5710MHz		5358.58	50.82	-23.18	74	42.83	31.33	10.1	33.44	100	68	P	H
		5470	51.58	-16.62	68.2	42.98	31.78	10.25	33.43	100	68	P	H
		5452.96	43.28	-10.72	54	34.78	31.71	10.22	33.43	100	68	A	H
	*	5710	112.13	-	-	103.08	32.02	10.49	33.46	100	68	P	H
	*	5710	104.6	-	-	95.55	32.02	10.49	33.46	100	68	A	H
		5875.5	53.98	-14.22	68.2	44.5	32.35	10.61	33.48	100	68	P	H
		5402.65	50.46	-23.54	74	42.24	31.51	10.15	33.44	391	5	P	V
		5469.73	49.32	-18.88	68.2	40.72	31.78	10.25	33.43	391	5	P	V
		5455.3	43.06	-10.94	54	34.54	31.72	10.23	33.43	391	5	A	V
	*	5710	107.91	-	-	98.86	32.02	10.49	33.46	391	5	P	V
	*	5710	99.75	-	-	90.7	32.02	10.49	33.46	391	5	A	V
		5874.25	53.09	-15.11	68.2	43.61	32.35	10.61	33.48	391	5	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## Band 3 - Straddle Channel

## WIFI 802.11ac VHT40 (Harmonic @ 3m)

WIFI	Note	Frequency ( MHz )	Level ( dB $\mu$ V/m )	Over Limit ( dB )	Limit Line ( dB $\mu$ V/m )	Read Level ( dB $\mu$ V )	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT40 CH 142 5710MHz		11420	46.77	-27.23	74	52.39	39.64	16.14	61.4	100	0	P	H
		17130	51.25	-16.95	68.2	47.72	40.53	20.85	57.85	100	0	P	H
													H
													H
		11420	46.22	-27.78	74	51.84	39.64	16.14	61.4	100	0	P	V
		17130	49.93	-18.27	68.2	46.4	40.53	20.85	57.85	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## Band 3 - Straddle Channel

## WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI	Note	Frequency ( MHz )	Level ( dB $\mu$ V/m )	Over Limit ( dB )	Limit Line ( dB $\mu$ V/m )	Read Level (dB $\mu$ V)	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 138 5690MHz		5375.35	50.22	-23.78	74	42.14	31.4	10.12	33.44	100	80	P	H
		5461.93	49.76	-18.44	68.2	41.2	31.75	10.24	33.43	100	80	P	H
		5453.74	43.12	-10.88	54	34.61	31.71	10.23	33.43	100	80	A	H
	*	5690	108.2	-	-	99.24	31.94	10.48	33.46	100	80	P	H
	*	5690	101.29	-	-	92.33	31.94	10.48	33.46	100	80	A	H
		5886.25	54.07	-14.13	68.2	44.56	32.37	10.62	33.48	100	80	P	H
		5396.8	50.72	-23.28	74	42.52	31.49	10.15	33.44	396	5	P	V
		5467.39	48.99	-19.21	68.2	40.41	31.77	10.24	33.43	396	5	P	V
		5440.48	42.93	-11.07	54	34.5	31.66	10.21	33.44	396	5	A	V
	*	5690	103.46	-	-	94.5	31.94	10.48	33.46	396	5	P	V
	*	5690	96.94	-	-	87.98	31.94	10.48	33.46	396	5	A	V
		5907	53	-15.2	68.2	43.42	32.43	10.64	33.49	396	5	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## Band 3 - Straddle Channel

## WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI	Note	Frequency ( MHz )	Level ( dB $\mu$ V/m )	Over Limit ( dB )	Limit Line ( dB $\mu$ V/m )	Read Level ( dB $\mu$ V )	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 138 5690MHz		11380	46.63	-27.37	74	52.34	39.58	16.11	61.4	100	0	P	H
		17070	50.57	-17.63	68.2	47.34	40.5	20.8	58.07	100	0	P	H
													H
													H
		11380	46	-28	74	51.71	39.58	16.11	61.4	100	0	P	V
		17070	48.64	-19.56	68.2	45.41	40.5	20.8	58.07	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## Emission below 1GHz

## WIFI 802.11ac VHT40 (LF @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
802.11ac VHT40 LF		79.47	27.61	-12.39	40	43.57	13.2	1.29	30.45	-	-	P	H
		194.9	32.03	-11.47	43.5	45.59	14.83	1.94	30.33	-	-	P	H
		226.91	34.31	-11.69	46	46.8	15.77	2.01	30.27	-	-	P	H
		822.49	32.44	-13.56	46	29.87	27.58	4.25	29.26	-	-	P	H
		891.36	34.78	-11.22	46	30.5	28.95	4.48	29.15	-	-	P	H
		955.38	35.58	-10.42	46	29.15	30.77	4.64	28.98	100	0	P	H
													H
													H
													H
													H
													H
													H
													H
													V
		35.82	33.85	-6.15	40	41.82	21.43	0.87	30.27	100	0	P	V
		159.01	31.34	-12.16	43.5	43.46	16.5	1.74	30.36	-	-	P	V
		194.9	33.91	-9.59	43.5	47.47	14.83	1.94	30.33	-	-	P	V
		716.76	33.59	-12.41	46	32.32	26.81	3.94	29.48	-	-	P	V
		864.2	33.61	-12.39	46	29.39	29.03	4.38	29.19	-	-	P	V
		958.29	35.44	-10.56	46	28.89	30.88	4.64	28.97	-	-	P	V
													V
													V
													V
													V
													V
	Remark	1. No other spurious found. 2. All results are PASS against limit line.											

**Note symbol**

*	<b>Fundamental Frequency</b> which can be ignored. However, the level of any unwanted emissions shall not exceed the level of the fundamental frequency.
!	Test result is <b>over limit</b> line.
P/A	<b>Peak or Average</b>
H/V	<b>Horizontal or Vertical</b>



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

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
			Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.		
		( MHz )	( dB $\mu$ V/m )	( dB )	( dB $\mu$ V/m )	( dB $\mu$ 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. Path Loss(dB) = Cable loss(dB) + Filter loss(dB) + Attenuator loss(dB)
2. Level(dB $\mu$ V/m) = Antenna Factor(dB/m) + Path Loss(dB) + Read Level(dB $\mu$ V) - Preamp Factor(dB)
3. Over Limit(dB) = Level(dB $\mu$ V/m) – Limit Line(dB $\mu$ V/m)

#### For Peak Limit @ 2390MHz:

1. Level(dB $\mu$ V/m)  
 $= \text{Antenna Factor(dB/m)} + \text{Path Loss(dB)} + \text{Read Level(dB $\mu$ V)} - \text{Preamp Factor(dB)}$   
 $= 32.22(\text{dB}/\text{m}) + 4.58(\text{dB}) + 54.51(\text{dB}\mu\text{V}) - 35.86 (\text{dB})$   
 $= 55.45 (\text{dB}\mu\text{V}/\text{m})$
2. Over Limit(dB)  
 $= \text{Level(dB}\mu\text{V}/\text{m)} - \text{Limit Line(dB}\mu\text{V}/\text{m)}$   
 $= 55.45(\text{dB}\mu\text{V}/\text{m}) - 74(\text{dB}\mu\text{V}/\text{m})$   
 $= -18.55(\text{dB})$

#### For Average Limit @ 2390MHz:

1. Level(dB $\mu$ V/m)  
 $= \text{Antenna Factor(dB/m)} + \text{Path Loss(dB)} + \text{Read Level(dB}\mu\text{V)} - \text{Preamp Factor(dB)}$   
 $= 32.22(\text{dB}/\text{m}) + 4.58(\text{dB}) + 42.6(\text{dB}\mu\text{V}) - 35.86 (\text{dB})$   
 $= 43.54 (\text{dB}\mu\text{V}/\text{m})$
2. Over Limit(dB) = Level(dB $\mu$ V/m) – Limit Line(dB $\mu$ V/m)  
 $= 43.54(\text{dB}\mu\text{V}/\text{m}) - 54(\text{dB}\mu\text{V}/\text{m})$   
 $= -10.46(\text{dB})$

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



## Appendix B. Radiated Spurious Emission

<b>Test Engineer :</b>	Jack Cheng, Lance Chiang, and Chuan Chu	<b>Temperature :</b>	22~24°C
		<b>Relative Humidity :</b>	52~60%

### Note symbol

-L	Low channel location
-R	High channel location

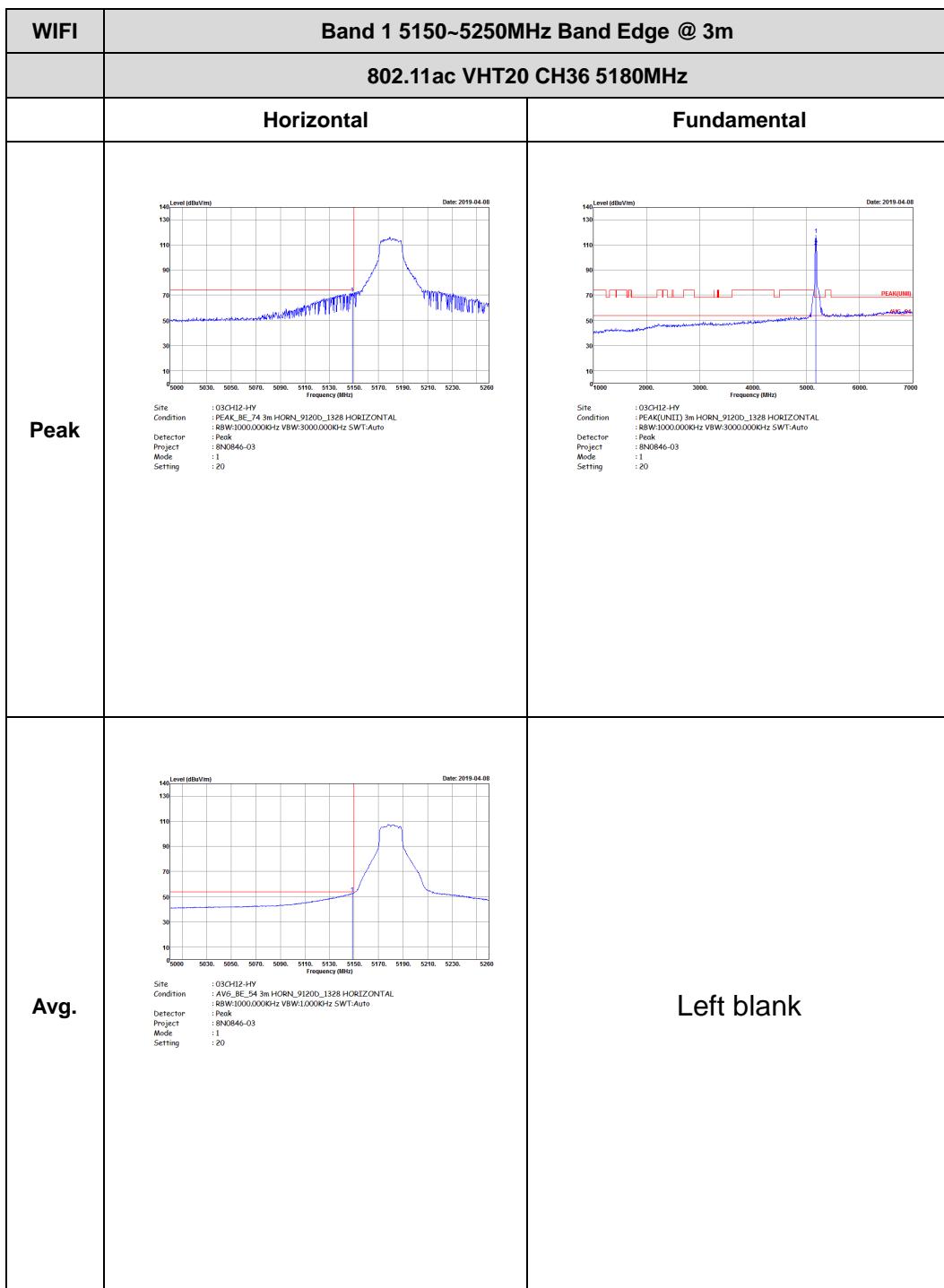


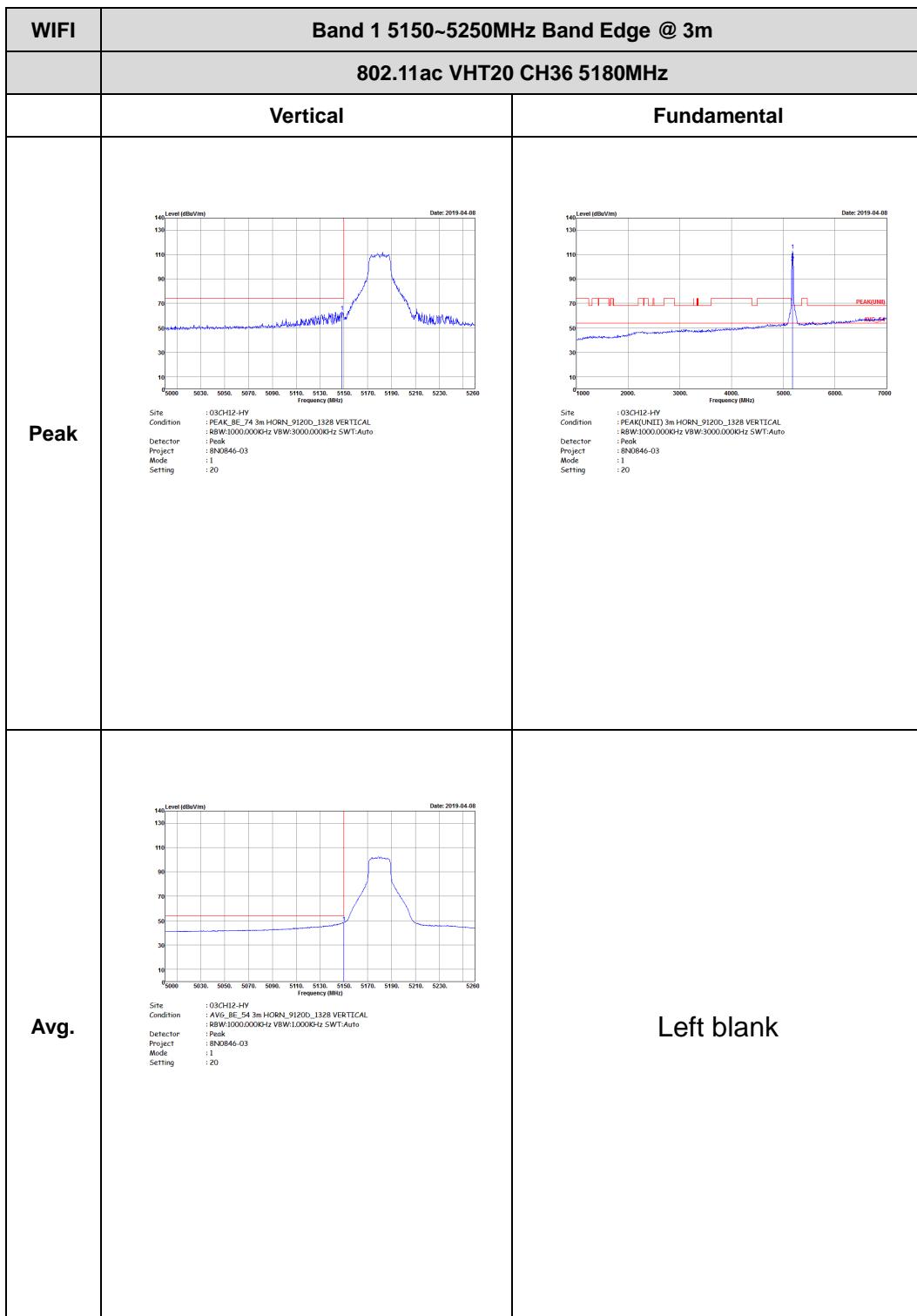
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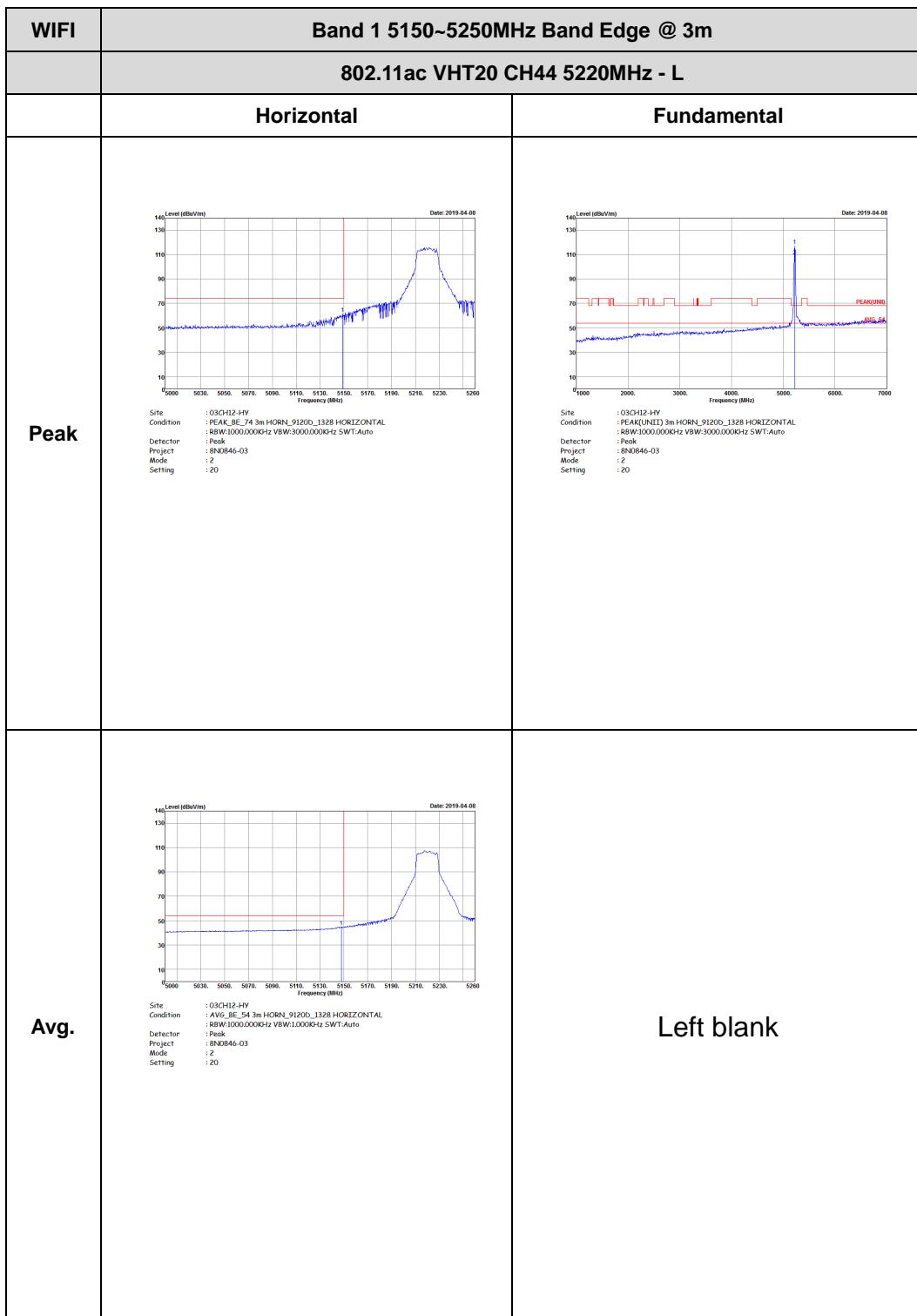
&lt;Chain 1+2&gt;

## Band 1 - 5150~5250MHz

## WIFI 802.11ac VHT20 (Band Edge @ 3m)

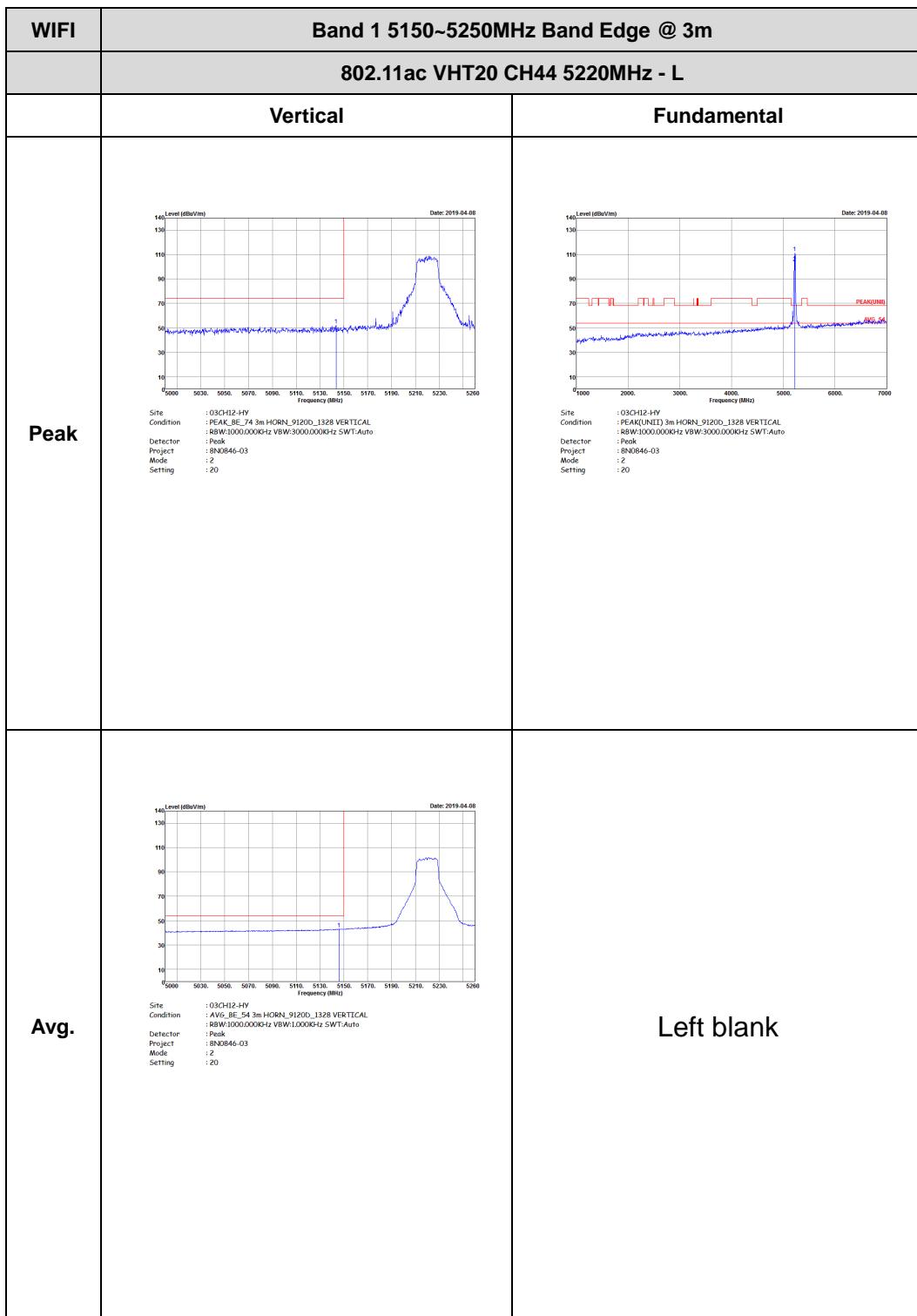






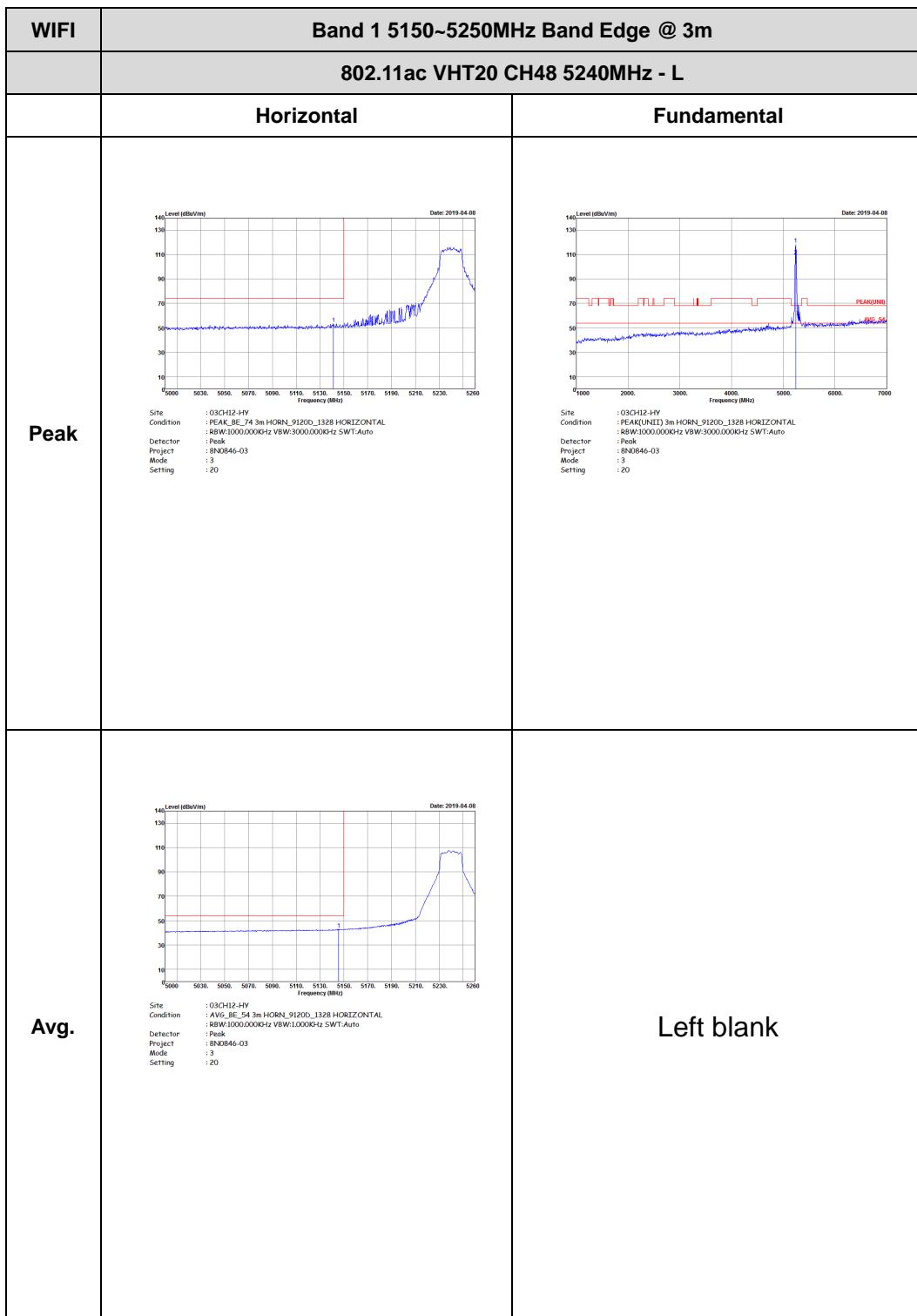


<b>WIFI</b>	<b>Band 1 5150~5250MHz Band Edge @ 3m</b>	
<b>802.11ac VHT20 CH44 5220MHz - R</b>		
	<b>Horizontal</b>	
	<b>Fundamental</b>	
<b>Peak</b>	 Site : 03CH12-HV Condition : PEAK_BE_74 3m HORN_9120D_132B HORIZONTAL Detector : Peak Project : 8N0846-03 Mode : 2 Setting : 20	Left blank
<b>Avg.</b>	 Site : 03CH12-HV Condition : AVG_BE_54 3m HORN_9120D_132B HORIZONTAL Detector : Peak Project : 8N0846-03 Mode : 2 Setting : 20	Left blank





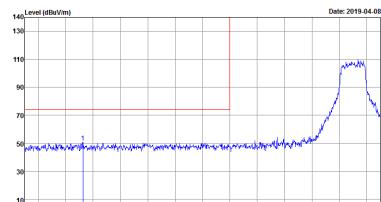
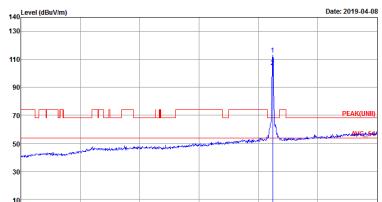
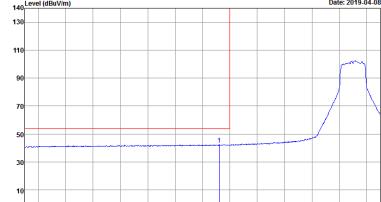
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
	802.11ac VHT20 CH44 5220MHz - R	
	Vertical	Fundamental
Peak	<p>Level (dBvV/m) vs Frequency (MHz) from 5180 to 5460. The plot shows a single sharp peak labeled 'PEAK_BE_74' at approximately 5220 MHz. The y-axis ranges from 10 to 140 dBvV/m. The x-axis ranges from 5180 to 5460 MHz. The plot is dated 2019-04-08.</p> <p>Site : 03CH12-HV Condition : PEAK_BE_74 3m HORN_9120D_132B VERTICAL Detector : R8W:1000.000KHz VBW:3000.000KHz SWT:Auto Project : 8N0846-03 Mode : 2 Setting : 20</p>	Left blank
Avg.	<p>Level (dBvV/m) vs Frequency (MHz) from 5180 to 5460. The plot shows a broad average power envelope labeled 'AVG_BE_54'. The y-axis ranges from 10 to 140 dBvV/m. The x-axis ranges from 5180 to 5460 MHz. The plot is dated 2019-04-08.</p> <p>Site : 03CH12-HV Condition : AVG_BE_54 3m HORN_9120D_132B VERTICAL Detector : R8W:1000.000KHz VBW:1.000KHz SWT:Auto Project : 8N0846-03 Mode : 2 Setting : 20</p>	Left blank





WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
	802.11ac VHT20 CH48 5240MHz - R	
	Horizontal	Fundamental
Peak	<p>Level (dBvV/m) vs Frequency (MHz) from 5180 to 5460. The plot shows a sharp peak labeled 'PEAK_BE_74' at approximately 5240 MHz. The y-axis ranges from 10 to 140 dBvV/m. The x-axis ranges from 5180 to 5460 MHz.</p> <p>Date: 2019-04-08</p> <p>Site : 03CH12-HV Condition : PEAK_BE_74 3m HORN_9120D_132B HORIZONTAL Detector : R8W:1000.000KHz VBW:3000.000KHz SWT:Auto Project : 8N0846-03 Mode : 3 Setting : 20</p>	Left blank
Avg.	<p>Level (dBvV/m) vs Frequency (MHz) from 5180 to 5460. The plot shows a broad average power envelope labeled 'AVG_BE_54'. The y-axis ranges from 10 to 140 dBvV/m. The x-axis ranges from 5180 to 5460 MHz.</p> <p>Date: 2019-04-08</p> <p>Site : 03CH12-HV Condition : AVG_BE_54 3m HORN_9120D_132B HORIZONTAL Detector : Peak Project : 8N0846-03 Mode : 3 Setting : 20</p>	Left blank



WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
	802.11ac VHT20 CH48 5240MHz - L	
	Vertical	Fundamental
Peak	 Site : 03CH12-HV Condition : PEAK_BE_74 3m HORN_9120D_132B VERTICAL Detector : Peak Project : 8N0846-03 Mode : 3 Setting : 20   Site : 03CH12-HV Condition : PEAK(UNIT) 3m HORN_9120D_132B VERTICAL Detector : Peak Project : 8N0846-03 Mode : 3 Setting : 20	
Avg.	 Site : 03CH12-HV Condition : AVG_BE_54 3m HORN_9120D_132B VERTICAL Detector : Peak Project : 8N0846-03 Mode : 3 Setting : 20	Left blank



WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
802.11ac VHT20 CH48 5240MHz - R		
	Vertical	Fundamental
Peak	<p>Site : 03CH12-HV Condition : PEAK_BE_74 3m HORN_9120D_132B VERTICAL Detector : R8W:1000.000KHz VBW:3000.000KHz SWT:Auto Project : 8N0846-03 Mode : 3 Setting : 20</p>	Left blank
Avg.	<p>Site : 03CH12-HV Condition : AVG_BE_54 3m HORN_9120D_132B VERTICAL Detector : R8W:1000.000KHz VBW:1.000KHz SWT:Auto Project : 8N0846-03 Mode : 3 Setting : 20</p>	Left blank



## Band 1 5150~5250MHz

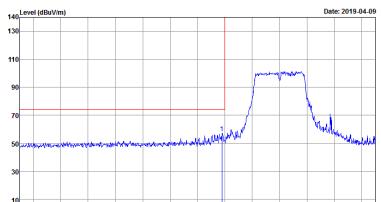
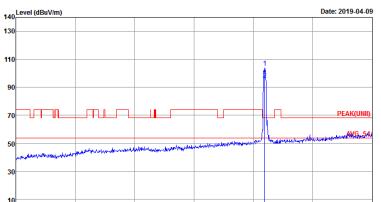
WIFI 802.11ac VHT40 (Band Edge @ 3m)

WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
	802.11ac VHT40 CH38 5190MHz - L	
	Horizontal	Fundamental
Peak	 Site : 03CH12-HV Condition : AVG_BE_74 3m HORN_91200_1328 HORIZONTAL Detector : 8BW:1000.0000Hz VBW:3000.0000Hz SWT:Auto Project : 8N0846-03 Mode : 4 Setting : 12.5	 Site : 03CH12-HV Condition : AVG_BE_74 3m HORN_91200_1328 HORIZONTAL Detector : 8BW:1000.0000Hz VBW:3000.0000Hz SWT:Auto Project : 8N0846-03 Mode : 4 Setting : 12.5
Avg.	 Site : 03CH12-HV Condition : AVG_BE_54 3m HORN_91200_1328 HORIZONTAL Detector : Peak Project : 8N0846-03 Mode : 4 Setting : 12.5	Left blank



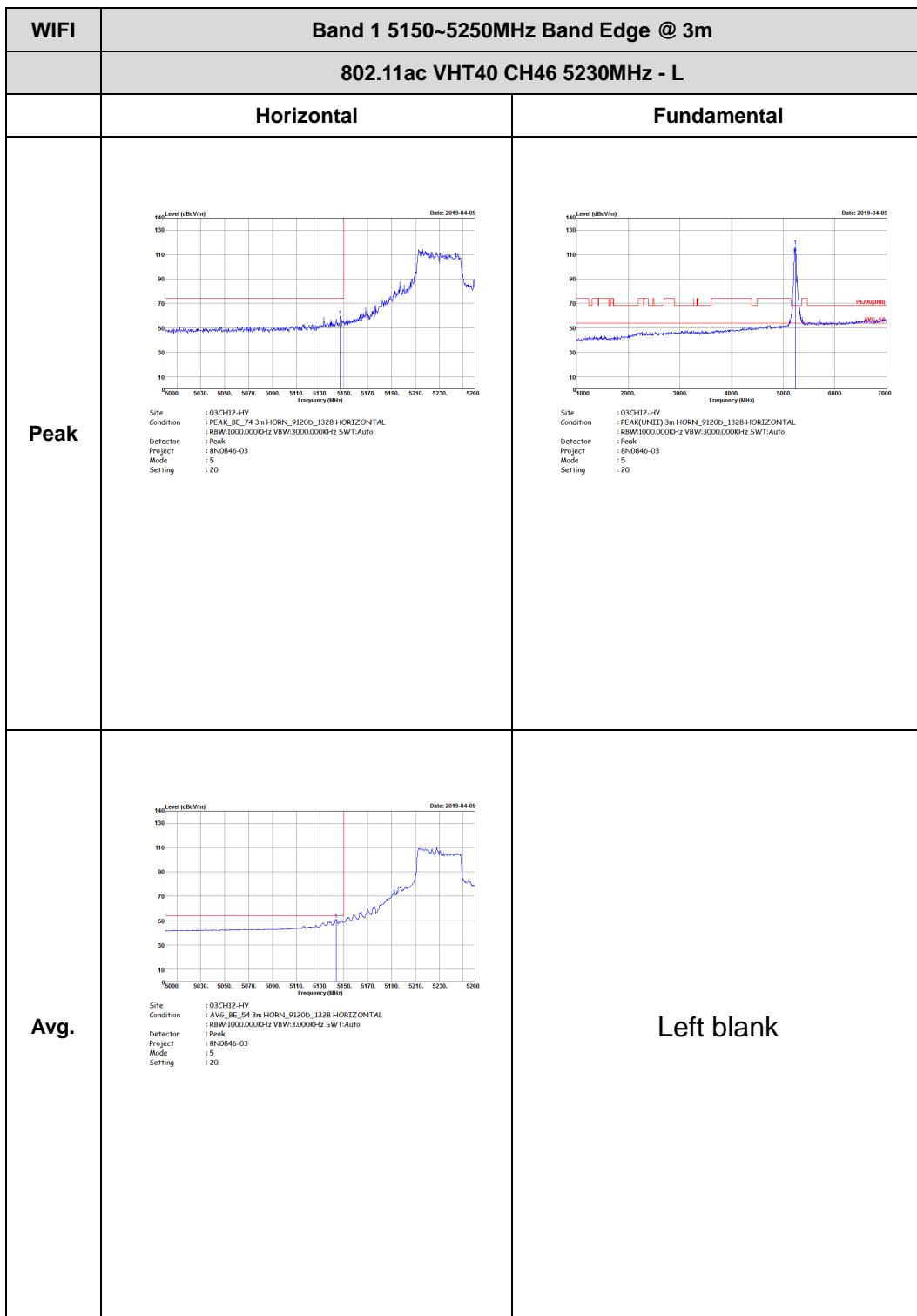
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
	802.11ac VHT40 CH38 5190MHz - R	
	Horizontal	Fundamental
Peak	 Site : 03AK12-HV Condition : PEAK_BE_74 3m HORN_9120D_1328 HORIZONTAL Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Project : 8N0846-03 Mode : 4 Setting : 12.5	Left blank
Avg.	 Site : 03CH12-HV Condition : AVG_BE_54 3m HORN_9120D_1328 HORIZONTAL Detector : Peak Project : 8N0846-03 Mode : 4 Setting : 12.5	Left blank



WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
	802.11ac VHT40 CH38 5190MHz - L	
	Vertical	Fundamental
Peak	 Site : 03CH12-HV Condition : PEAK_BE_74 3m HORN_91200_1328 VERTICAL Detector : Peak Project : 8N0846-03 Mode : 4 Setting : 12.5   Site : 03CH12-HV Condition : PEAK(UNIT) 3m HORN_91200_1328 VERTICAL Detector : Peak Project : 8N0846-03 Mode : 4 Setting : 12.5	
Avg.	 Site : 03CH12-HV Condition : AVG_BE_54 3m HORN_91200_1328 VERTICAL Detector : Peak Project : 8N0846-03 Mode : 4 Setting : 12.5	Left blank

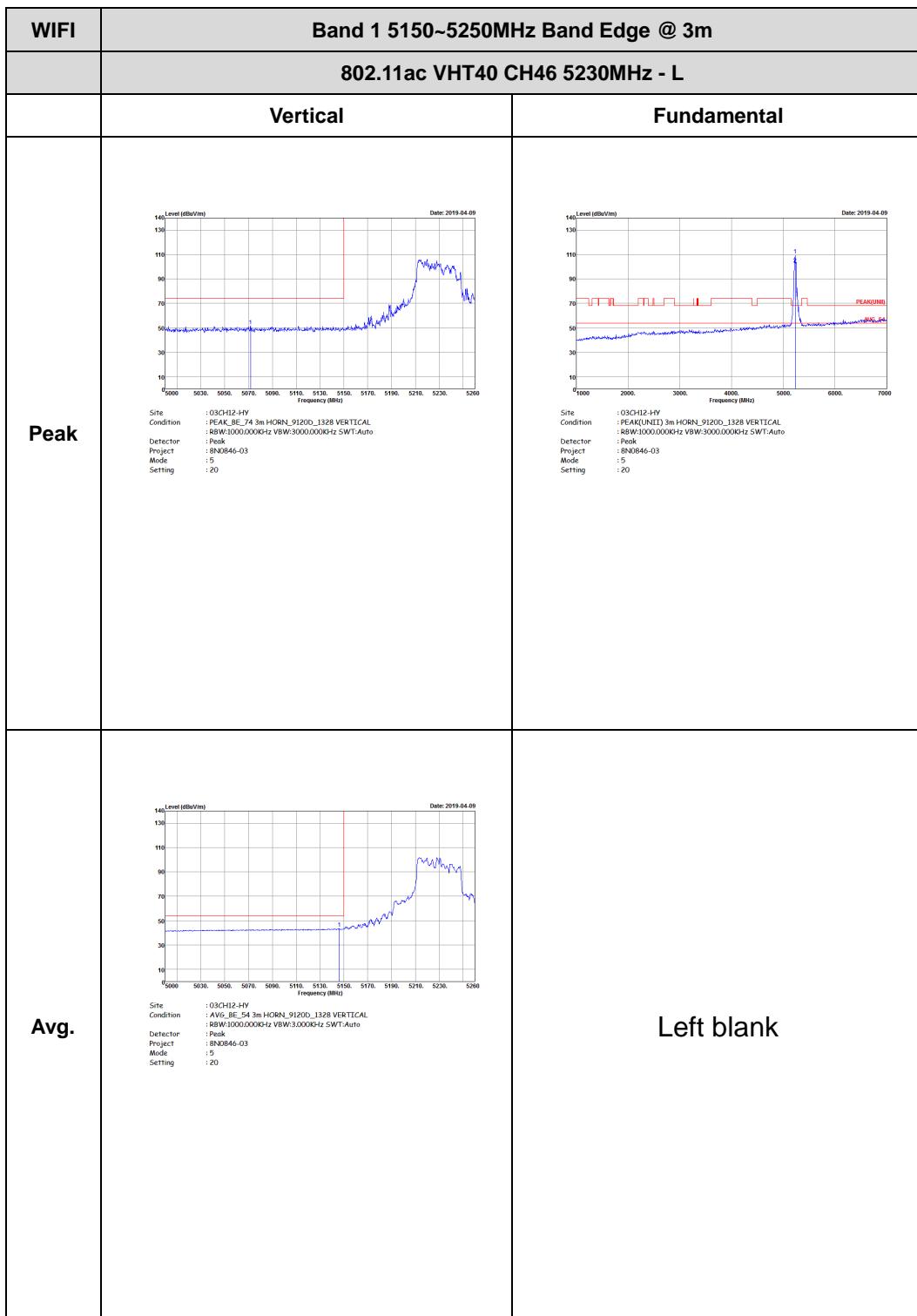


WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
802.11ac VHT40 CH38 5190MHz - R		
Vertical		Fundamental
Peak	 Site : 03AK12-HV Condition : PEAK_BE_74 3m HORN_9120D_1328 VERTICAL Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Project : 8N0846-03 Mode : 4 Setting : 12.5	Left blank
Avg.	 Site : 03CH12-HV Condition : AVG_BE_54 3m HORN_9120D_1328 VERTICAL Detector : Peak Project : 8N0846-03 Mode : 4 Setting : 12.5	Left blank





WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
	802.11ac VHT40 CH46 5230MHz - R	
	Horizontal	Fundamental
Peak	<p>Date: 2019-04-09</p> <p>Site : 03AK12-HV Condition : PEAK_BE_74 3m HORN_9120D_1328 HORIZONTAL Detector : R8W:1000.000KHz VBW:3000.000KHz SWT:Auto Project : 8N0846-03 Mode : 5 Setting : 20</p>	Left blank
Avg.	<p>Date: 2019-04-09</p> <p>Site : 03CH12-HV Condition : AVG_BE_54 3m HORN_9120D_1328 HORIZONTAL Detector : R8W:1000.000KHz VBW:3.000KHz SWT:Auto Project : 8N0846-03 Mode : 5 Setting : 20</p>	Left blank

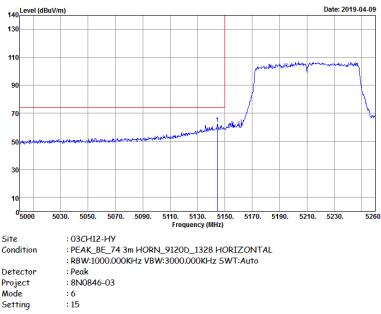
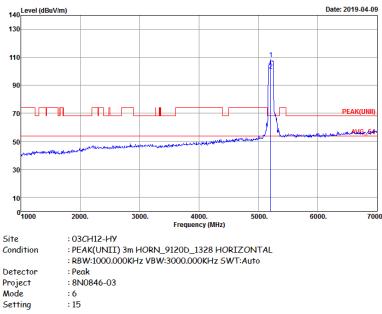
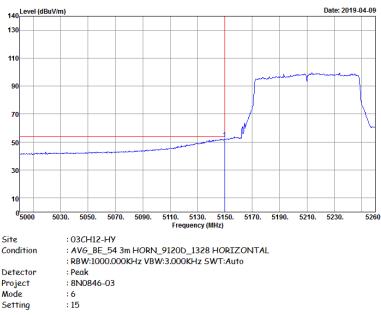




<b>WIFI</b>	<b>Band 1 5150~5250MHz Band Edge @ 3m</b>	
<b>802.11ac VHT40 CH46 5230MHz - R</b>		
	<b>Vertical</b>	<b>Fundamental</b>
<b>Peak</b>	 Date: 2019-04-09 Site : 03CH12-HV Condition : PEAK_BE_74 3m HORN_9120D_132B VERTICAL Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Project : SN0846-03 Mode : 5 Setting : 20	Left blank
<b>Avg.</b>	 Date: 2019-04-09 Site : 03CH12-HV Condition : AVG_BE_54 3m HORN_9120D_132B VERTICAL Detector : RBW:1000.000KHz VBW:3.000KHz SWT:Auto Project : SN0846-03 Mode : 5 Setting : 20	Left blank

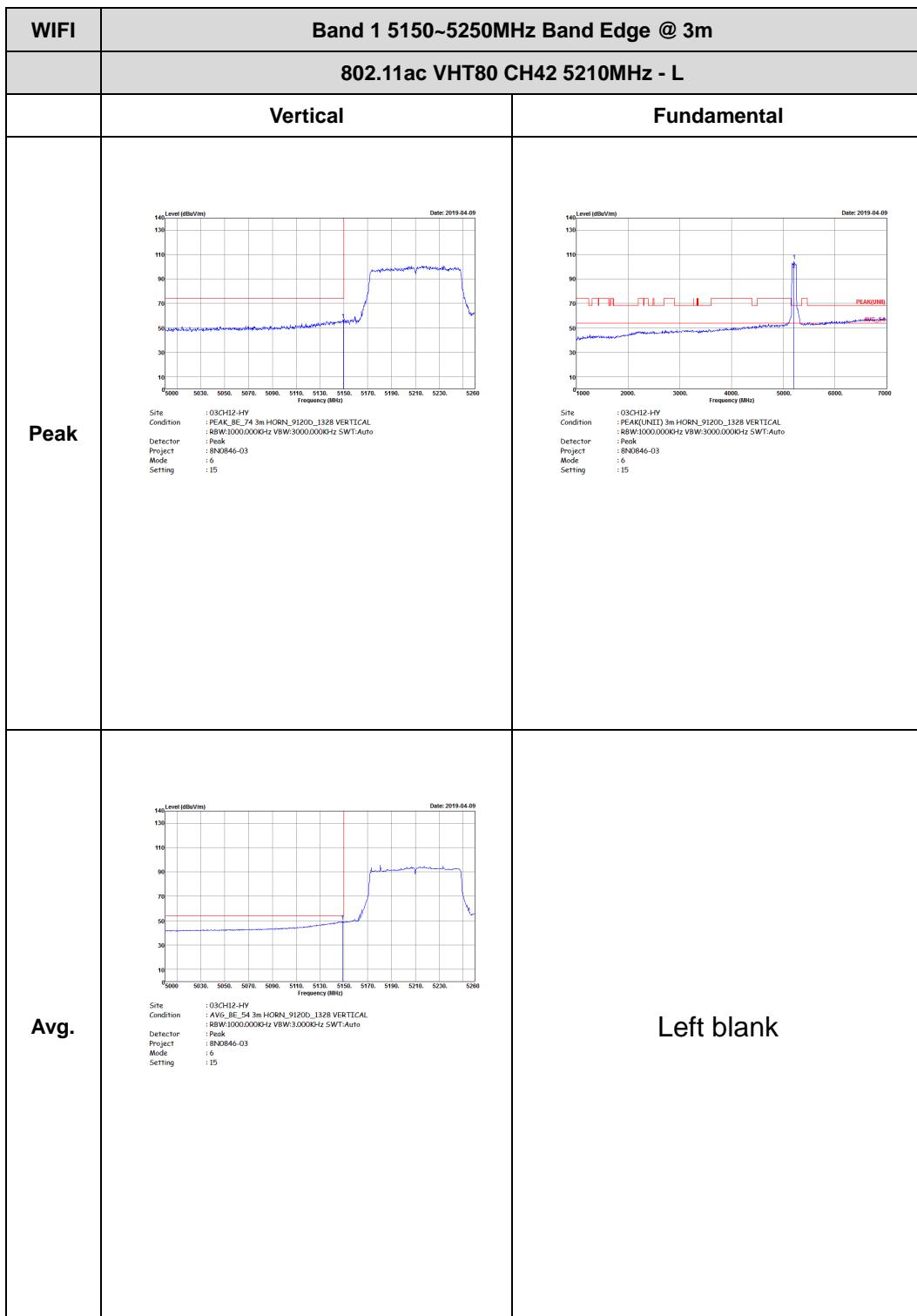


**Band 1 5150~5250MHz**  
**WIFI 802.11ac VHT80 (Band Edge @ 3m)**

WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
	802.11ac VHT80 CH42 5210MHz - L	
	Horizontal	Fundamental
Peak	 <p>Site : 03CH12-HY Condition : AVG_BE_74 3m HORN_91200_1328 HORIZONTAL Detector : 8BW:1000.000KHz VBW:3000.000KHz SWT:Auto Project : 8N0846-03 Mode : 6 Setting : 15</p>	 <p>Site : 03CH12-HY Condition : AVG(BE)UNIT 3m HORN_91200_1328 HORIZONTAL Detector : Peak Project : 8N0846-03 Mode : 6 Setting : 15</p>
Avg.	 <p>Site : 03CH12-HY Condition : AVG_BE_54 3m HORN_91200_1328 HORIZONTAL Detector : Peak Project : 8N0846-03 Mode : 6 Setting : 15</p>	Left blank



WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
	802.11ac VHT80 CH42 5210MHz - R	
	Horizontal	Fundamental
Peak	 Date: 2019-04-09 Site : 03AK12-HV Condition : PEAK_BE_74 3m HORN_9120D_132B HORIZONTAL Detector : R8W:1000.000KHz VBW:3000.000KHz SWT:Auto Project : 8N0846-03 Mode : 4 Setting : 15	Left blank
Avg.	 Date: 2019-04-09 Site : 03CH12-HV Condition : AVG_BE_54 3m HORN_9120D_132B HORIZONTAL Detector : R8W:1000.000KHz VBW:3.000KHz SWT:Auto Project : 8N0846-03 Mode : 6 Setting : 15	Left blank



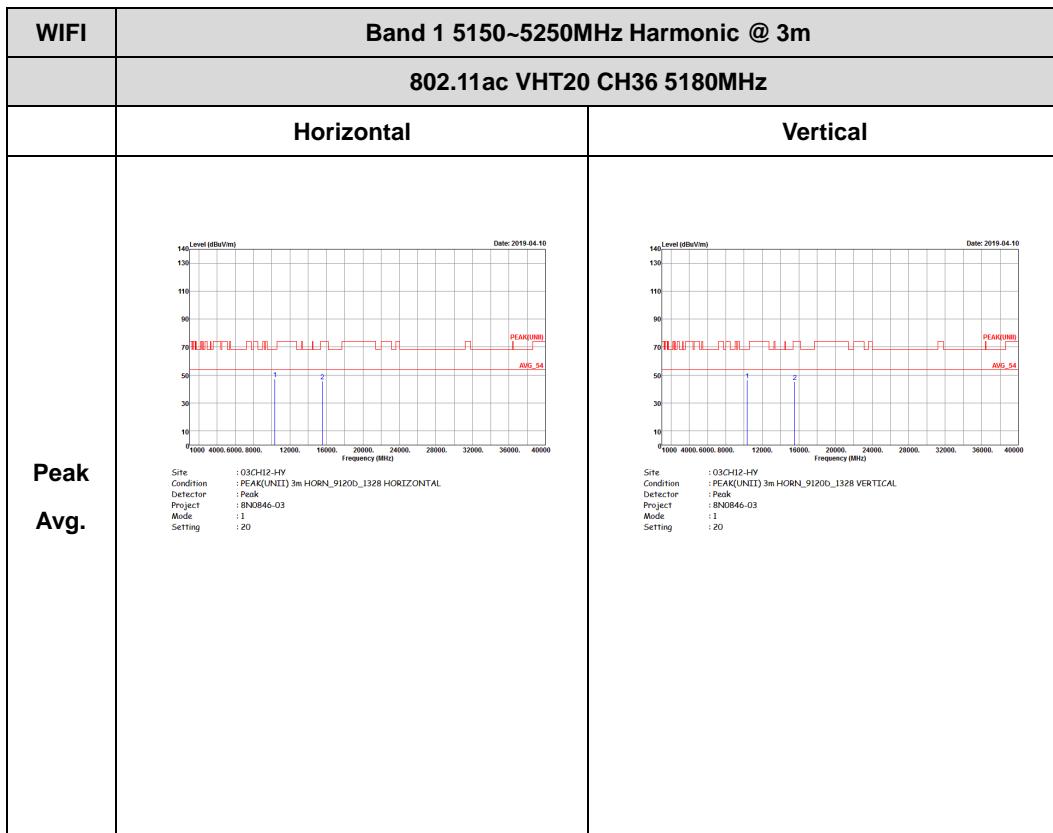


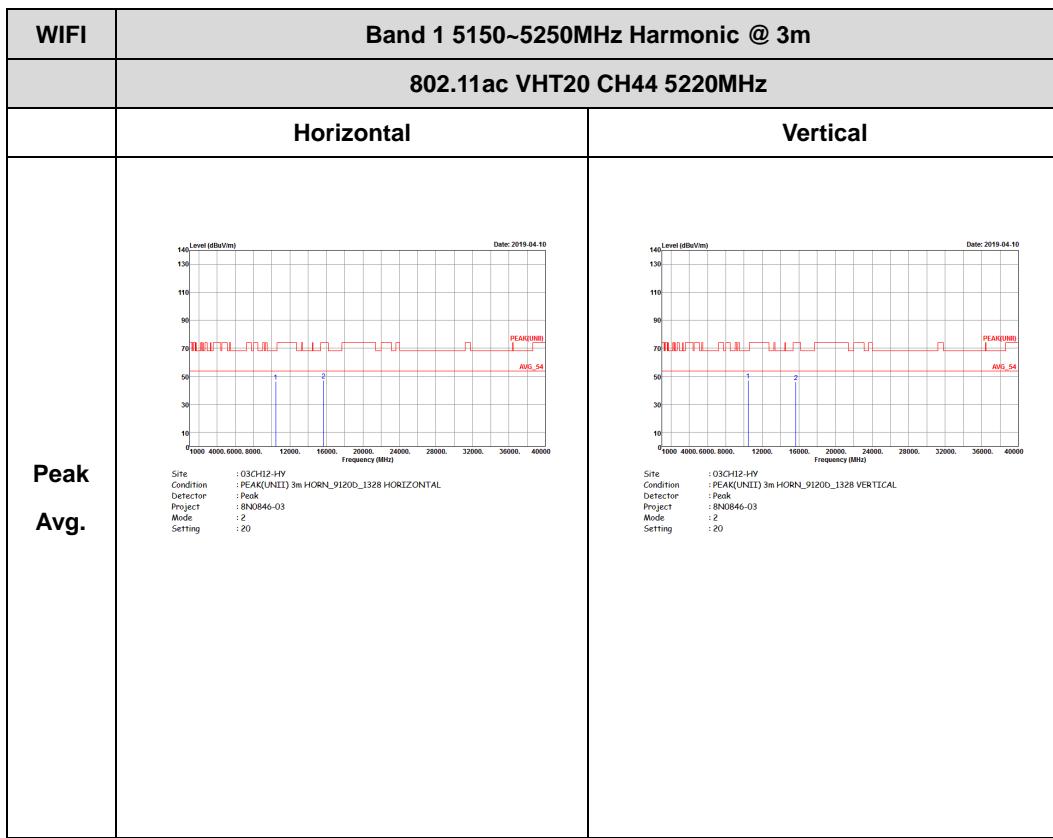
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
	802.11ac VHT80 CH42 5210MHz - R	
	Vertical	Fundamental
Peak	 Date: 2019-04-09 Site : 03CH12-HV Condition : PEAK_BE_74 3m HORN_9120D_132B VERTICAL Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Project : Peak Mode : 8N0846-03 Setting : 6 : 15	Left blank
Avg.	 Date: 2019-04-09 Site : 03CH12-HV Condition : AVG_BE_54 3m HORN_9120D_132B VERTICAL Detector : Peak Project : 8N0846-03 Mode : 6 Setting : 15	Left blank

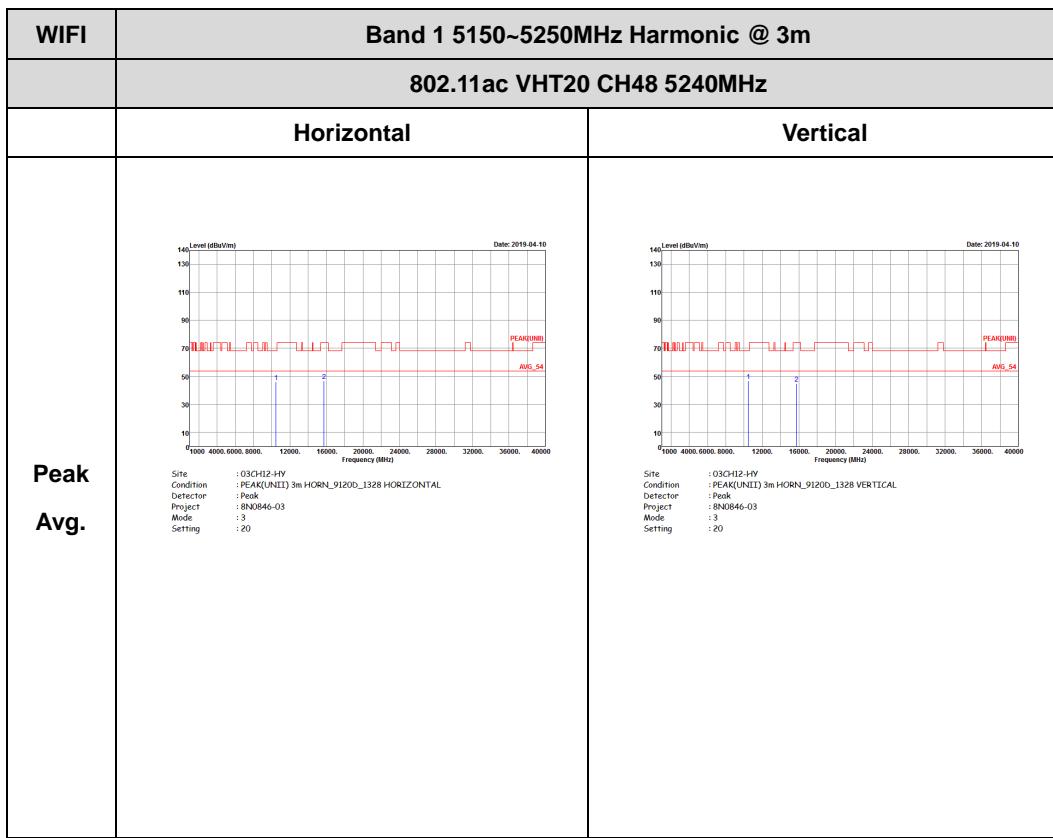


## Band 1 - 5150~5250MHz

## WIFI 802.11ac VHT20 (Harmonic @ 3m)



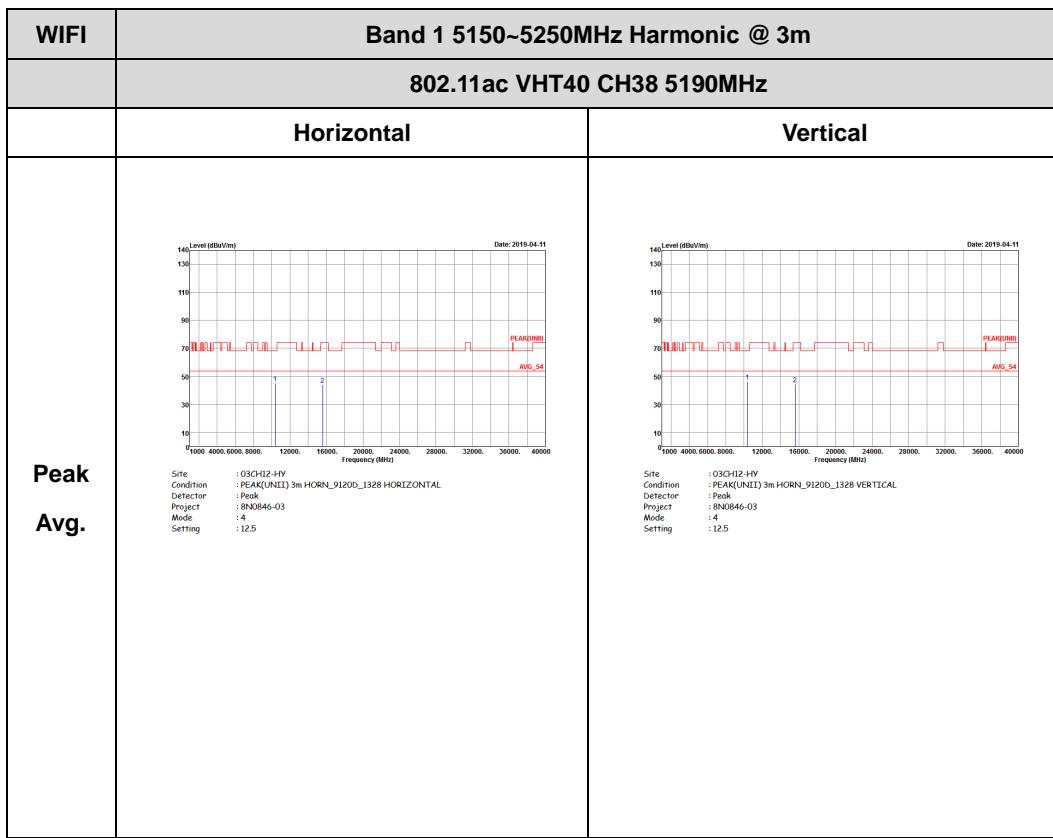


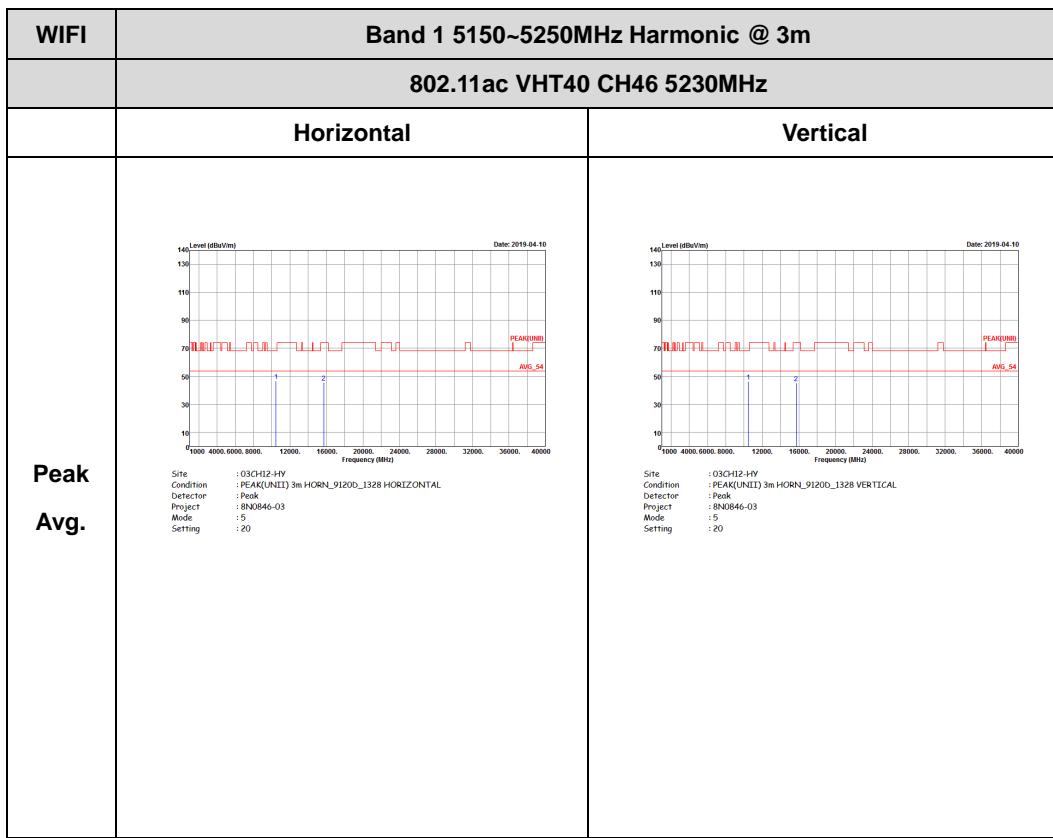




## Band 1 5150~5250MHz

## WIFI 802.11ac VHT40 (Harmonic @ 3m)

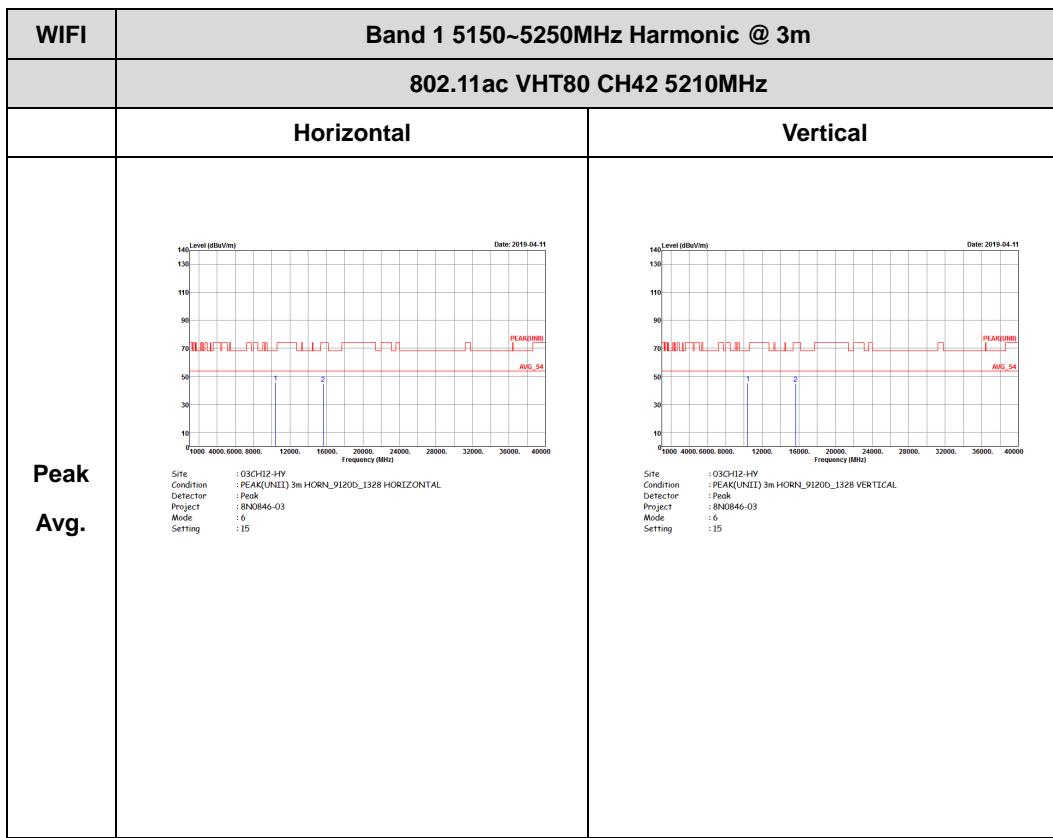






## Band 1 5150~5250MHz

## WIFI 802.11ac VHT80 (Harmonic @ 3m)





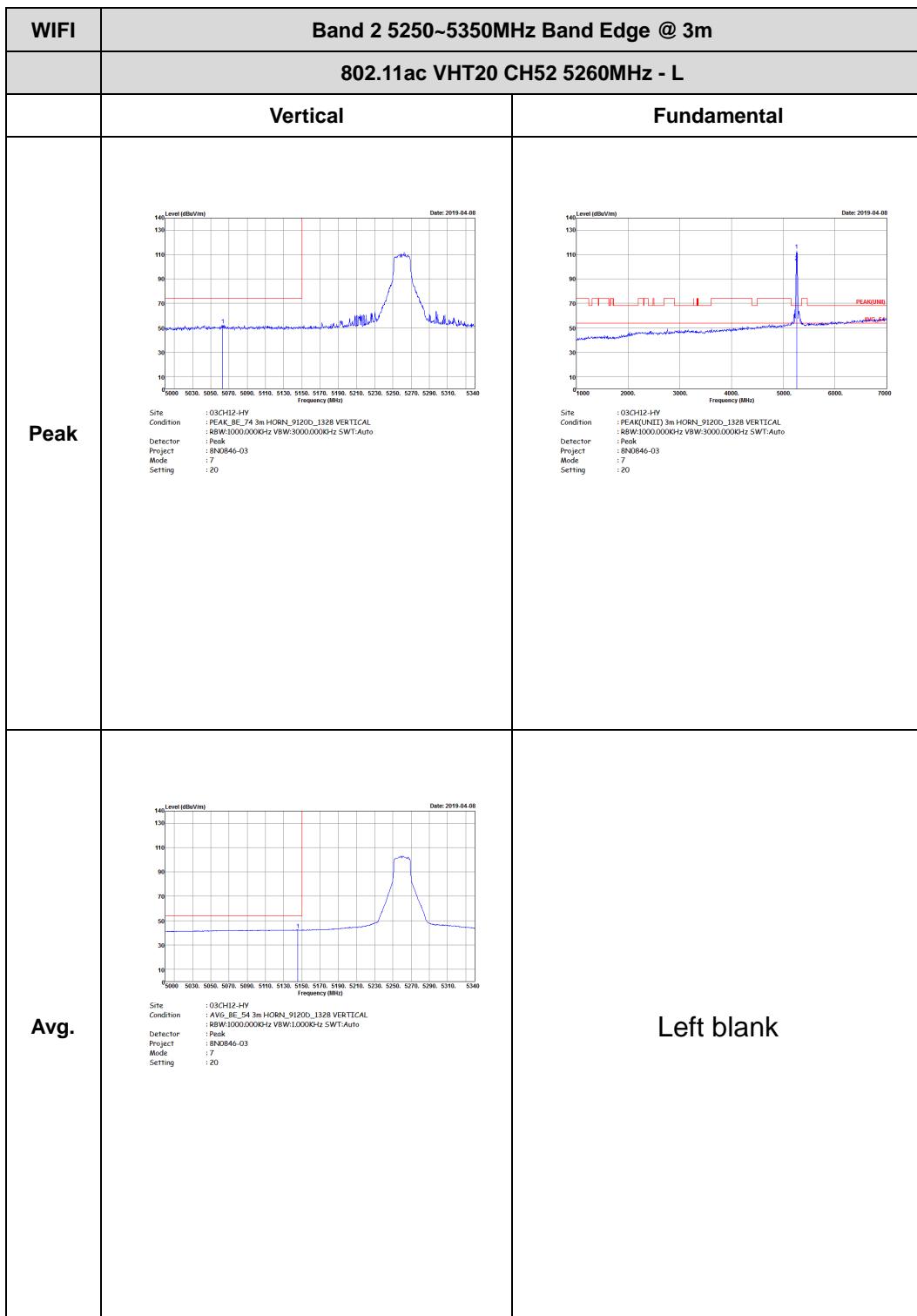
## Band 2 - 5250~5350MHz

## WIFI 802.11ac VHT20 (Band Edge @ 3m)

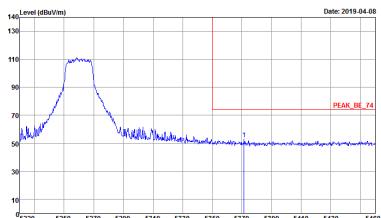
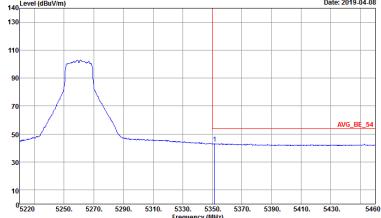
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
	802.11ac VHT20 CH52 5260MHz - L	
	Horizontal	Fundamental
Peak	 Site : 03C112-HY Condition : PEAK_BE_74 3m HORN_91200_1328 HORIZONTAL BW : 80W/1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 8N0846-03 Mode : 7 Setting : 20 Date: 2019-04-08	 Site : 03C112-HY Condition : PEAK(UNID) 3m HORN_91200_1328 HORIZONTAL BW : 80W/1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 8N0846-03 Mode : 7 Setting : 20 Date: 2019-04-08
Avg.	 Site : 03C112-HY Condition : AVG_BE_54 3m HORN_91200_1328 HORIZONTAL BW : 80W/1000.000KHz VBW:10000KHz SWT:Auto Detector : Peak Project : 8N0846-03 Mode : 7 Setting : 20 Date: 2019-04-08	Left blank

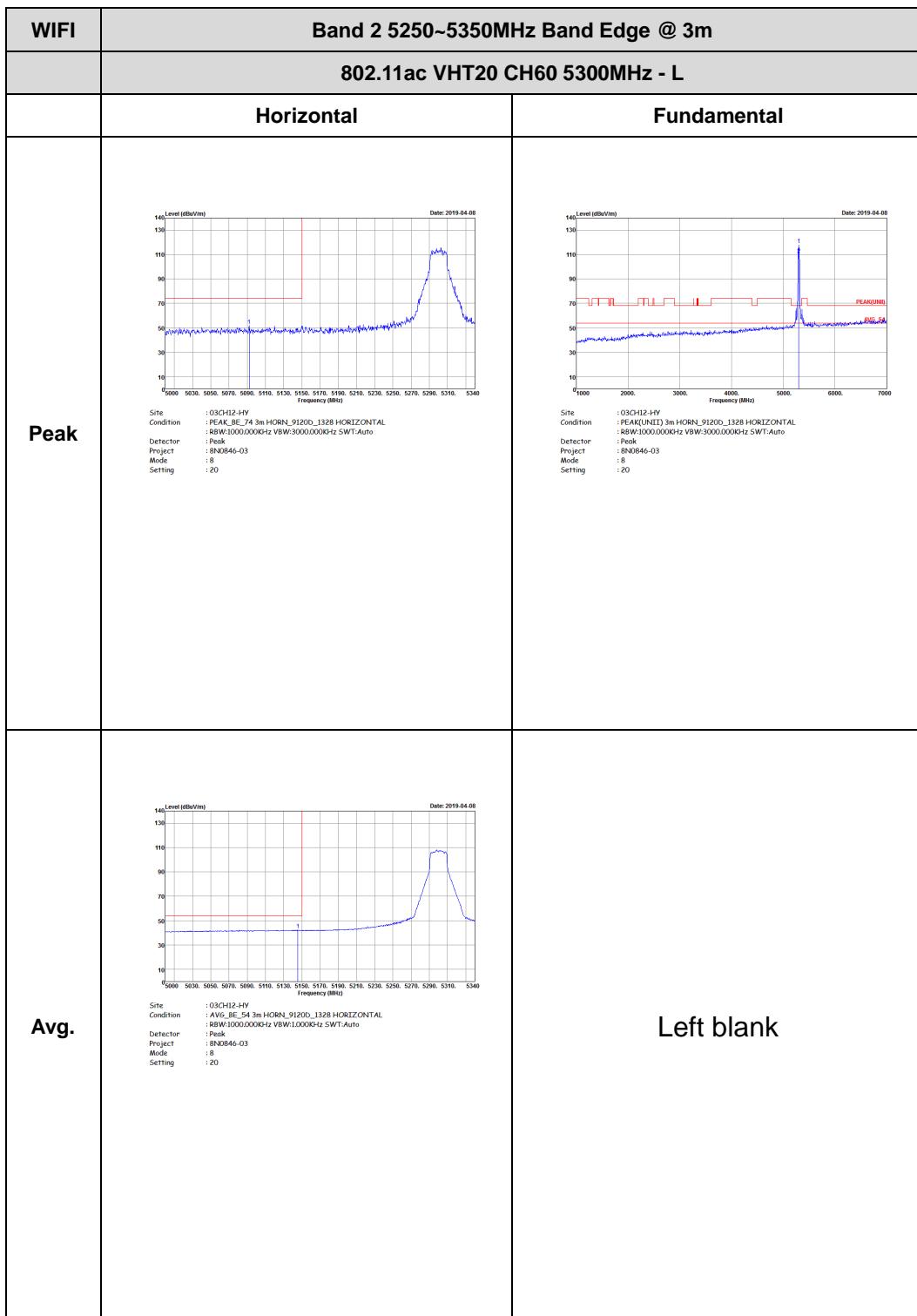


<b>WIFI</b>	<b>Band 2 5250~5350MHz Band Edge @ 3m</b>	
<b>802.11ac VHT20 CH52 5260MHz - R</b>		
<b>Horizontal</b>		<b>Fundamental</b>
<b>Peak</b>	 Site : 03CH12-HV Condition : PEAK_BE_74 3m HORN_9120D_132B HORIZONTAL Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Project : 8N0846-03 Mode : 7 Setting : 20	Left blank
<b>Avg.</b>	 Site : 03CH12-HV Condition : AVG_BE_54 3m HORN_9120D_132B HORIZONTAL Detector : Peak Project : 8N0846-03 Mode : 7 Setting : 20	Left blank

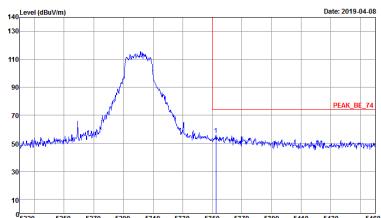
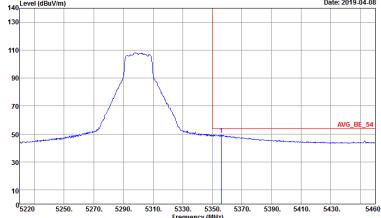


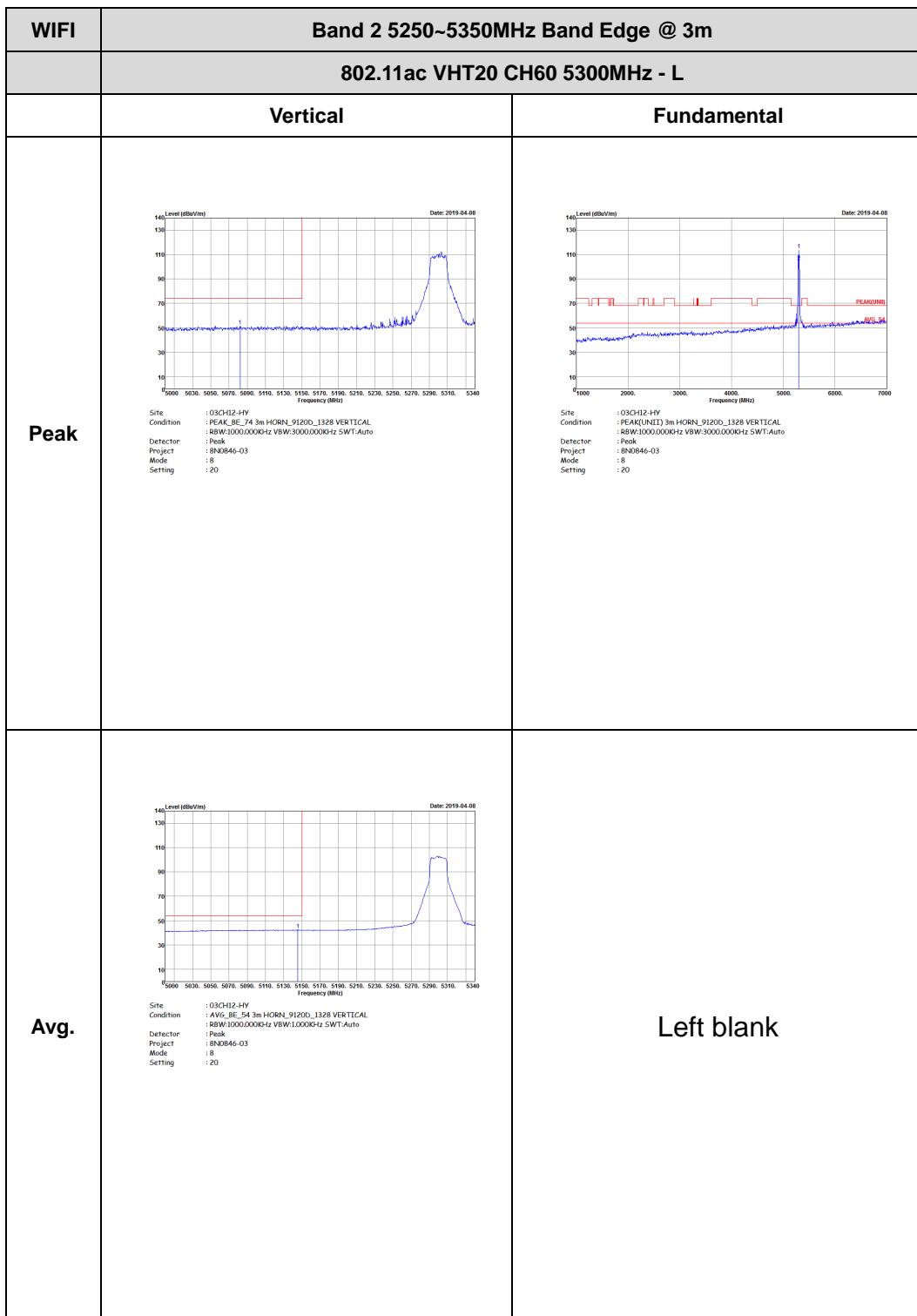


WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
	802.11ac VHT20 CH52 5260MHz - R	
	Vertical	Fundamental
Peak	 <p>Level (dBuV/m) vs Frequency (MHz) from 5220 to 5460. The plot shows a sharp peak labeled 'PEAK_BE_74' at approximately 5260 MHz. The y-axis ranges from 10 to 140 dBuV/m. The x-axis ranges from 5220 to 5460 MHz.</p> <p>Date: 2019-04-08</p> <p>Site : 03CH12-HY Condition : PEAK_BE_74 3m HORN_9120D_1328 VERTICAL Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Project : Peak Mode : 8N0846-03 Setting : 7 : 20</p> <p>Left blank</p>	
Avg.	 <p>Level (dBuV/m) vs Frequency (MHz) from 5220 to 5460. The plot shows a broad peak labeled 'AVG_BE_54' at approximately 5260 MHz. The y-axis ranges from 10 to 140 dBuV/m. The x-axis ranges from 5220 to 5460 MHz.</p> <p>Date: 2019-04-08</p> <p>Site : 03CH12-HY Condition : AVG_BE_54 3m HORN_9120D_1328 VERTICAL Detector : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Project : Peak Mode : 8N0846-03 Setting : 7 : 20</p> <p>Left blank</p>	

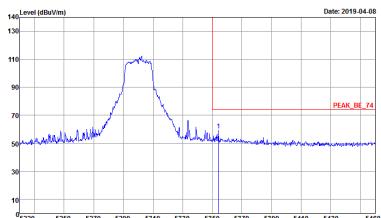
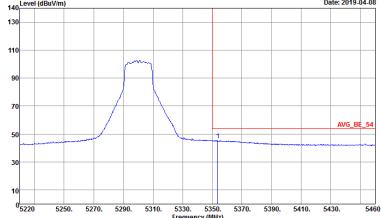


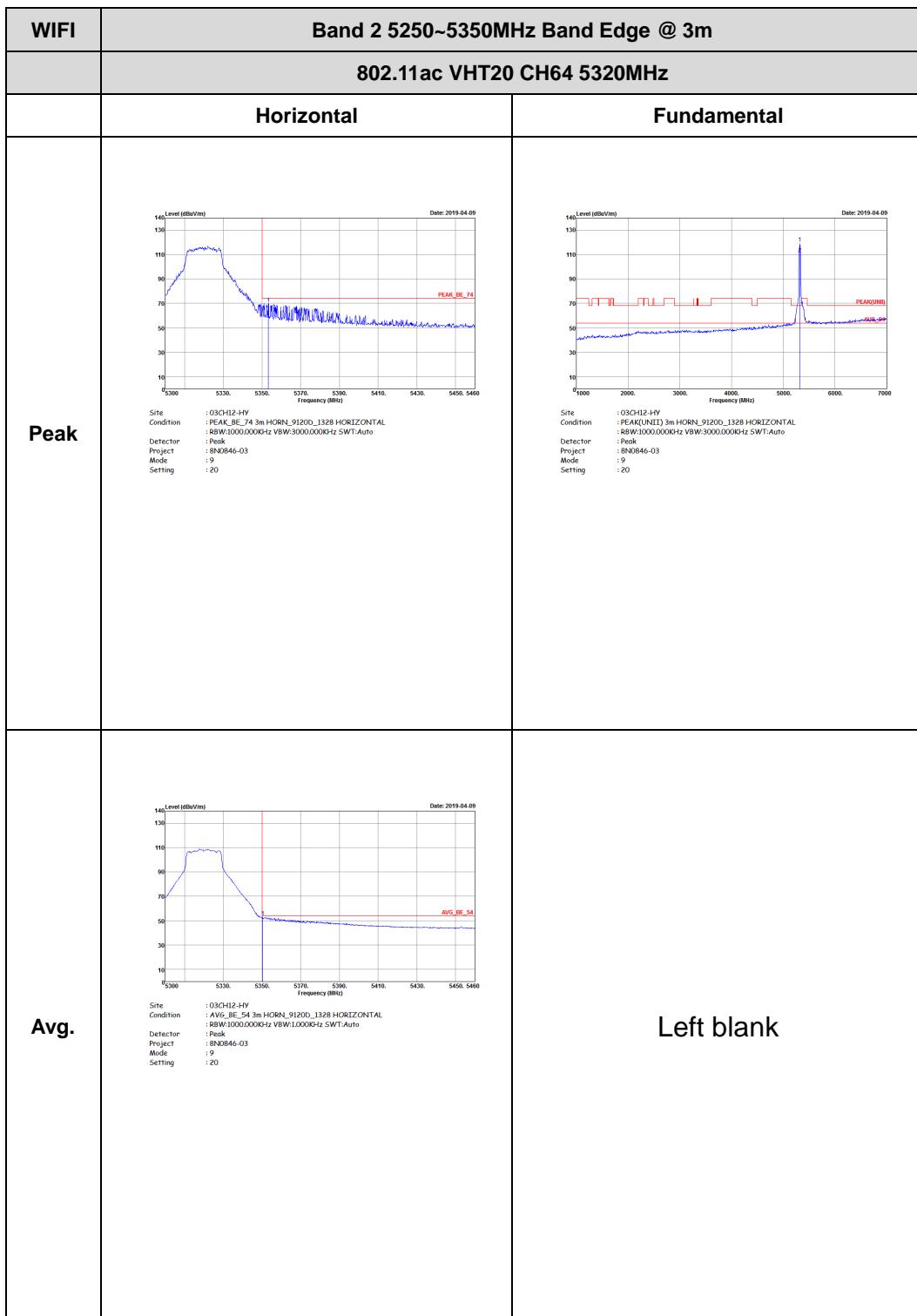


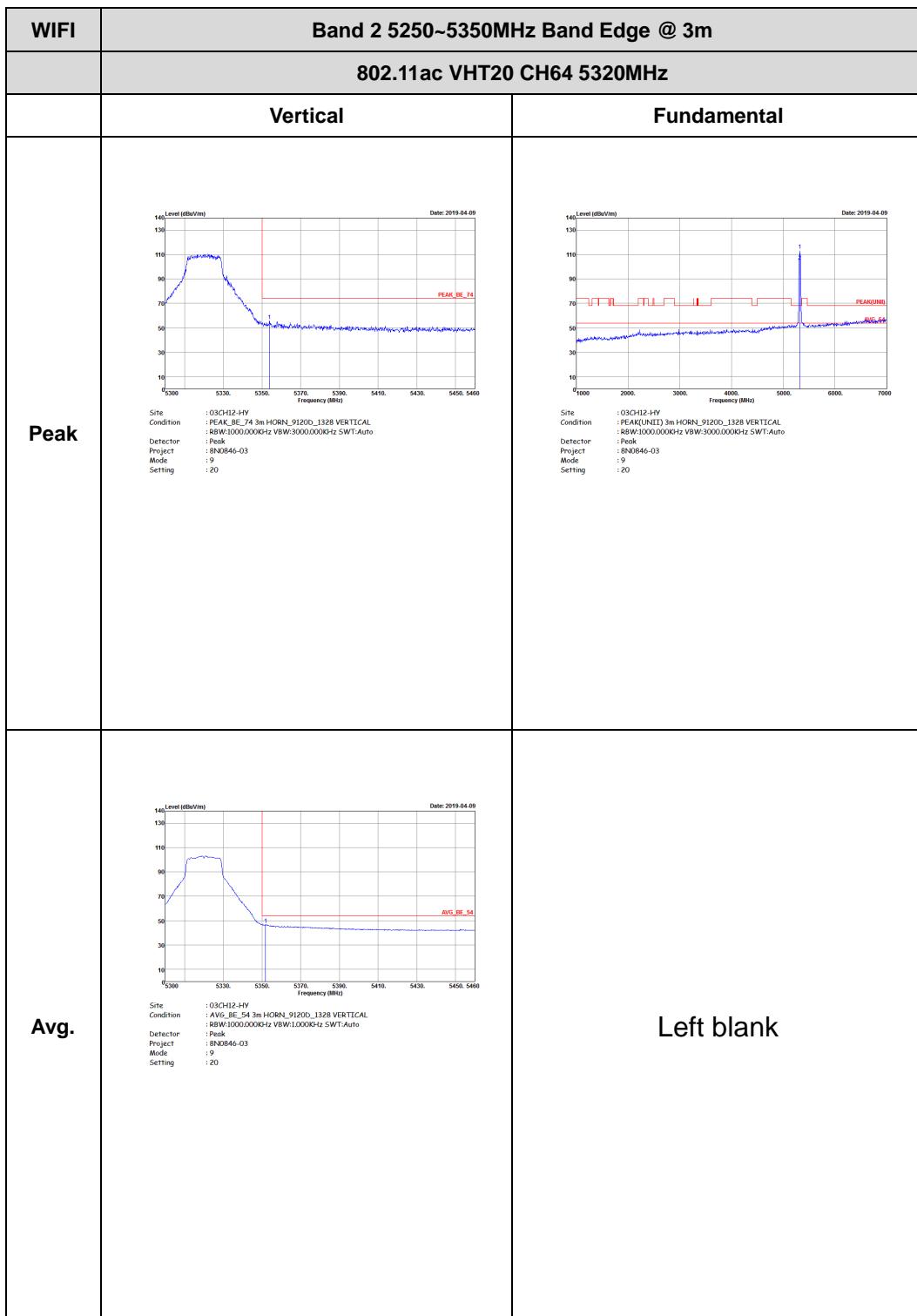
<b>WIFI</b>	<b>Band 2 5250~5350MHz Band Edge @ 3m</b>	
<b>802.11ac VHT20 CH60 5300MHz - R</b>		
<b>Horizontal</b>		<b>Fundamental</b>
<b>Peak</b>	 <p>Level (dBvV/m) vs Frequency (MHz) Date: 2019-04-08 Site : 03AK12-HY Condition : PEAK_BE_74 3m HORN_9120D_132B HORIZONTAL Detector : R8W:1000.000KHz VBW:3000.000KHz SWT:Auto Project : 8N0846-03 Mode : 8 Setting : 20</p>	Left blank
<b>Avg.</b>	 <p>Level (dBvV/m) vs Frequency (MHz) Date: 2019-04-08 Site : 03CH12-HY Condition : AVG_BE_54 3m HORN_9120D_132B HORIZONTAL Detector : R8W:1000.000KHz VBW:1.000KHz SWT:Auto Project : 8N0846-03 Mode : 8 Setting : 20</p>	Left blank





WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
	802.11ac VHT20 CH60 5300MHz - R	
	Vertical	Fundamental
Peak	 <p>Level (dBuV/m) vs Frequency (MHz) from 5220 to 5460. The plot shows a sharp peak labeled 'PEAK_BE_74' at approximately 5290 MHz. The y-axis ranges from 10 to 140 dBuV/m. The x-axis ranges from 5220 to 5460 MHz.</p> <p>Date: 2019-04-08</p> <p>Site : 03CH12-HY Condition : PEAK_BE_74 3m HORN_9120D_132B VERTICAL Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Project : 8N0846-03 Mode : 8 Setting : 20</p>	Left blank
Avg.	 <p>Level (dBuV/m) vs Frequency (MHz) from 5220 to 5460. The plot shows a broad average envelope labeled 'AVG_BE_54' centered around 5290 MHz. The y-axis ranges from 10 to 140 dBuV/m. The x-axis ranges from 5220 to 5460 MHz.</p> <p>Date: 2019-04-08</p> <p>Site : 03CH12-HY Condition : AVG_BE_54 3m HORN_9120D_132B VERTICAL Detector : Peak Project : 8N0846-03 Mode : 8 Setting : 20</p>	Left blank







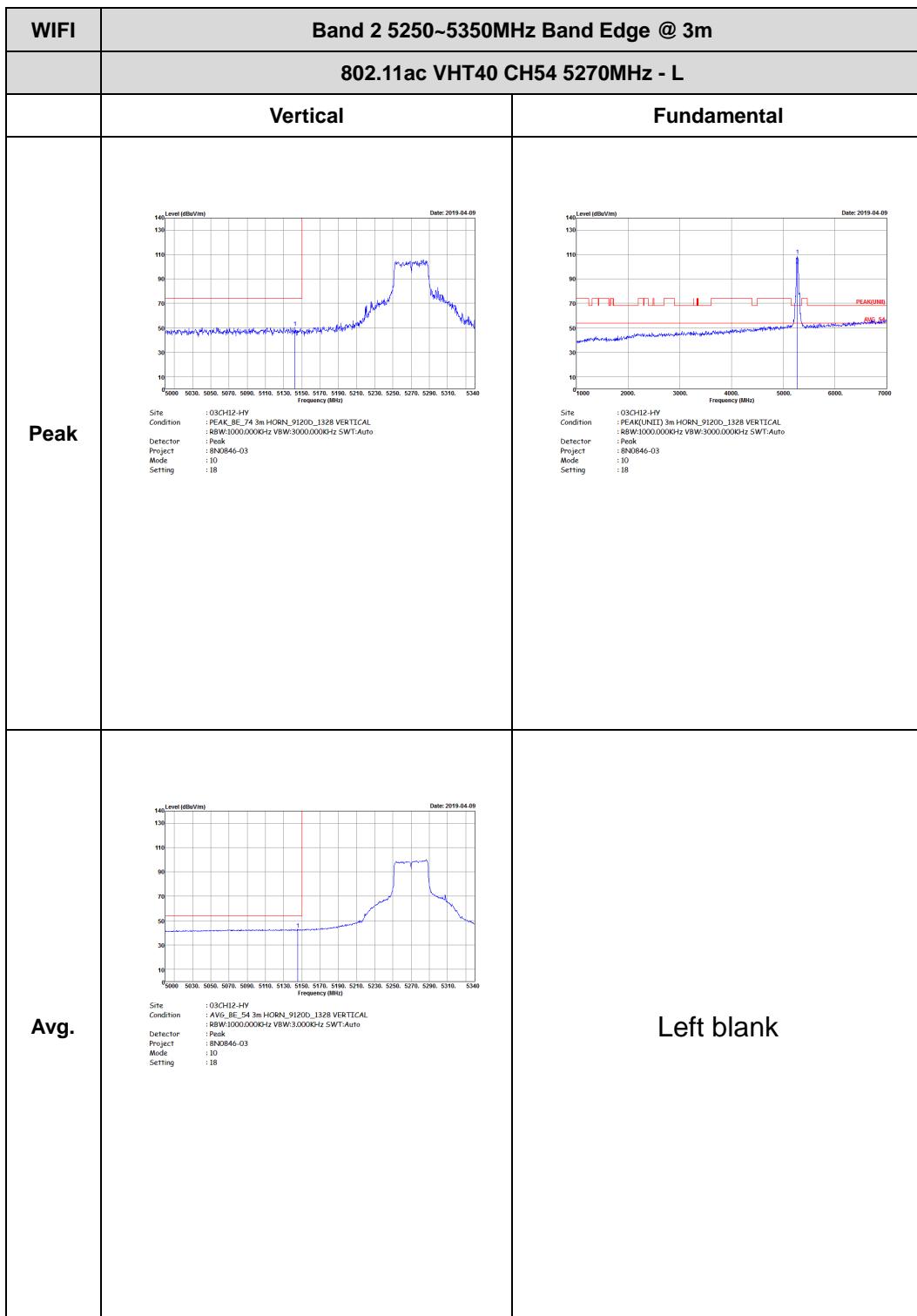
## Band 2 5250~5350MHz

## WIFI 802.11ac VHT40 (Band Edge @ 3m)

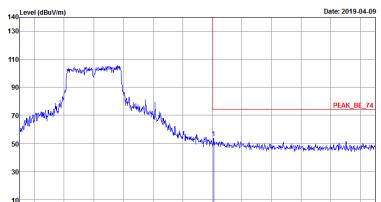
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
	802.11ac VHT40 CH54 5270MHz - L	
	Horizontal	Fundamental
Peak	 Site : 030H12-HV Condition : PEAK_BE_74 3m HORN_9120D_132B HORIZONTAL Detector : P8W1000.000KHz VBW:3000.000KHz SWT:Auto Project : 8N0846-03 Mode : 10 Setting : 18	 Site : 030H12-HV Condition : PEAK(UNIT) 3m HORN_9120D_132B HORIZONTAL Detector : P8W1000.000KHz VBW:3000.000KHz SWT:Auto Project : 8N0846-03 Mode : 10 Setting : 18
Avg.	 Site : 030H12-HV Condition : AVG_BE_54 3m HORN_9120D_132B HORIZONTAL Detector : Peak Project : 8N0846-03 Mode : 10 Setting : 18	Left blank

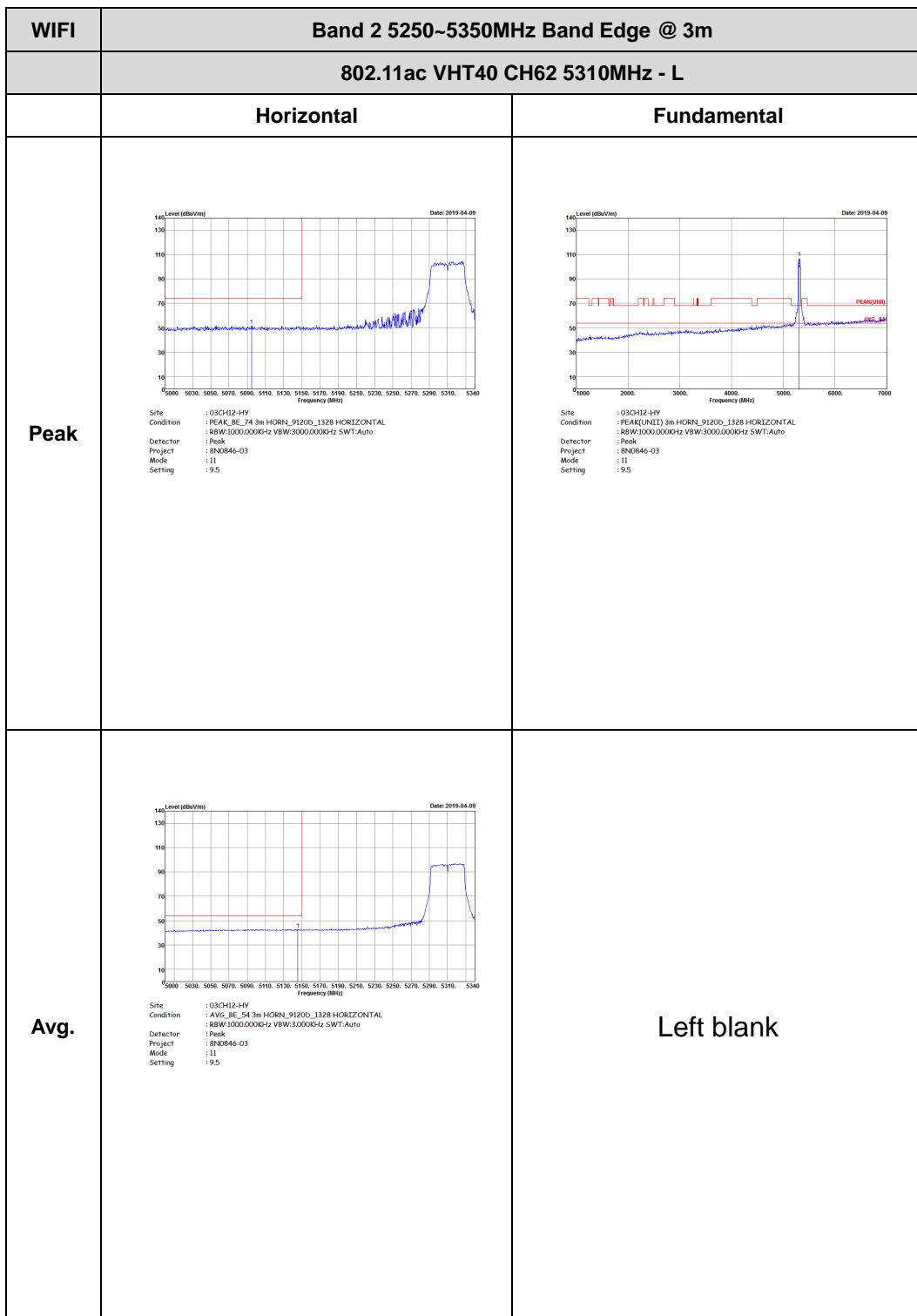


<b>WIFI</b>	<b>Band 2 5250~5350MHz Band Edge @ 3m</b>	
<b>802.11ac VHT40 CH54 5270MHz - R</b>		
<b>Horizontal</b>		<b>Fundamental</b>
<b>Peak</b>	 Site : 03AK12-HV Condition : PEAK_BE_74 3m HORN_9120D_132B HORIZONTAL Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Project : 8N0846-03 Mode : 10 Setting : 18	Left blank
<b>Avg.</b>	 Site : 03CH12-HV Condition : AVG_BE_54 3m HORN_9120D_132B HORIZONTAL Detector : RBW:1000.000KHz VBW:3.000KHz SWT:Auto Project : 8N0846-03 Mode : 10 Setting : 18	Left blank



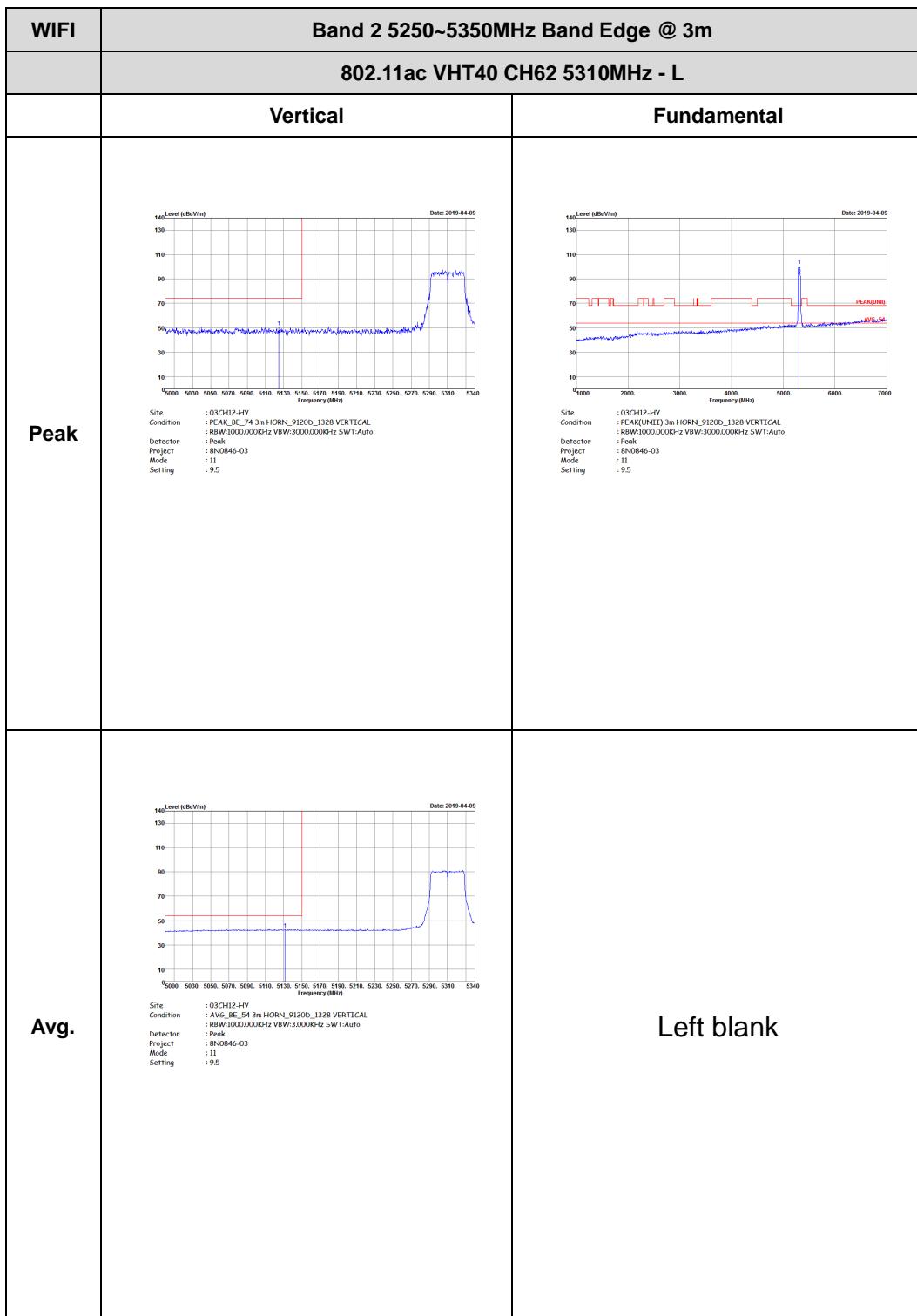


WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
	802.11ac VHT40 CH54 5270MHz - R	
	Vertical	Fundamental
Peak	 <p>Level (dBvV/m) vs Frequency (MHz) from 5220 to 5460. The plot shows a sharp peak labeled 'PEAK_BE_74' at approximately 5270 MHz. The y-axis ranges from 10 to 140 dBvV/m.</p> <p>Date: 2019-04-09</p> <p>Site : 03CH12-HY Condition : PEAK_BE_74 3m HORN_9120D_132B VERTICAL Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Project : 8N0846-03 Mode : IO Setting : 18</p> <td>Left blank</td>	Left blank
Avg.	 <p>Level (dBvV/m) vs Frequency (MHz) from 5220 to 5460. The plot shows a broad average envelope labeled 'AVG_BE_54' centered around 5270 MHz. The y-axis ranges from 10 to 140 dBvV/m.</p> <p>Date: 2019-04-09</p> <p>Site : 03CH12-HY Condition : AVG_BE_54 3m HORN_9120D_132B VERTICAL Detector : RBW:1000.000KHz VBW:3.000KHz SWT:Auto Project : 8N0846-03 Mode : IO Setting : 18</p> <td>Left blank</td>	Left blank





<b>WIFI</b>	<b>Band 2 5250~5350MHz Band Edge @ 3m</b>	
<b>802.11ac VHT40 CH62 5310MHz - R</b>		
<b>Horizontal</b>		<b>Fundamental</b>
<b>Peak</b>	<p>Site : 03AK12-HV Condition : PEAK_BE_74 3m HORN_9120D_132B HORIZONTAL Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Project : Peak Mode : 8N0846-03 Setting : 11 : 9.5</p>	Left blank
<b>Avg.</b>	<p>Site : 03CH12-HV Condition : AVG_BE_54 3m HORN_9120D_132B HORIZONTAL Detector : RBW:1000.000KHz VBW:3.000KHz SWT:Auto Project : Peak Mode : 8N0846-03 Setting : 11 : 9.5</p>	Left blank





<b>WIFI</b>	<b>Band 2 5250~5350MHz Band Edge @ 3m</b>	
<b>802.11ac VHT40 CH62 5310MHz - R</b>		
	<b>Vertical</b>	<b>Fundamental</b>
<b>Peak</b>	 Site : 03CH12-HV Condition : PEAK_BE_74 3m HORN_9120D_132B VERTICAL Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Project : 8N0846-03 Mode : 11 Setting : 9.5	Left blank
<b>Avg.</b>	 Site : 03CH12-HV Condition : AVG_BE_54 3m HORN_9120D_132B VERTICAL Detector : RBW:1000.000KHz VBW:3.000KHz SWT:Auto Project : 8N0846-03 Mode : 11 Setting : 9.5	Left blank

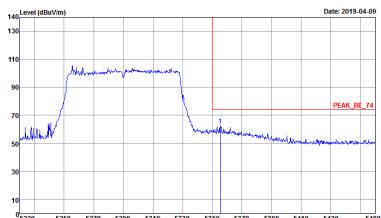
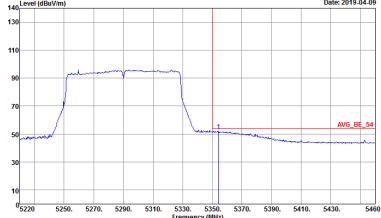


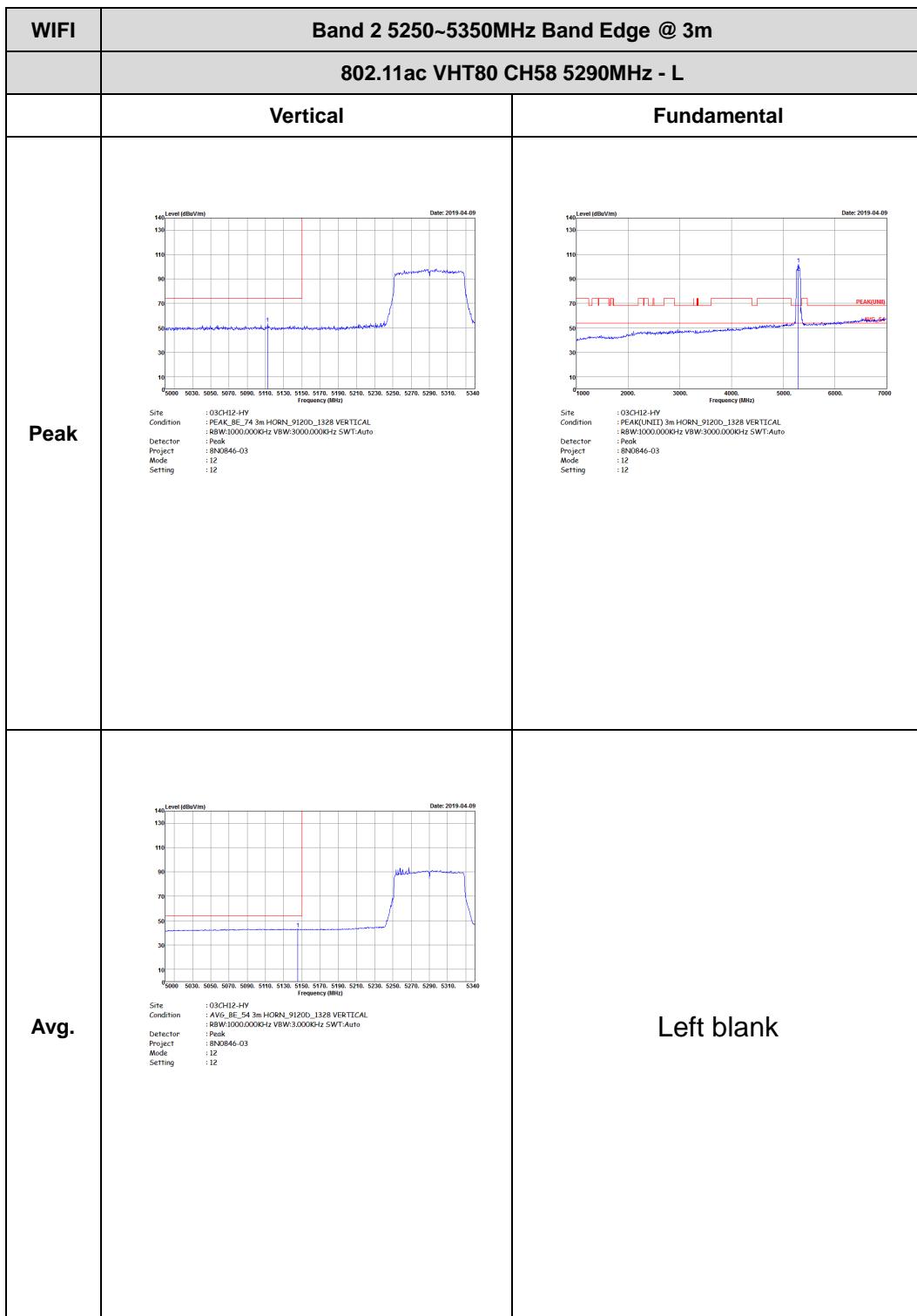
## Band 2 5250~5350MHz

## WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
	802.11ac VHT80 CH58 5290MHz - L	
	Horizontal	Fundamental
Peak	 Site : 030H12-HV Condition : PEAK_BE_74 3m HORN_9120D_132B HORIZONTAL Detector : P8W1000.000KHz VBW:3000.000KHz SWT:Auto Project : 8N0846-03 Mode : 12 Setting : 12	 Site : 030H12-HV Condition : PEAK(UNIT) 3m HORN_9120D_132B HORIZONTAL Detector : P8W1000.000KHz VBW:3000.000KHz SWT:Auto Project : 8N0846-03 Mode : 12 Setting : 12
Avg.	 Site : 030H12-HV Condition : AVG_BE_54 3m HORN_9120D_132B HORIZONTAL Detector : Peak Project : 8N0846-03 Mode : 12 Setting : 12	Left blank



<b>WIFI</b>	<b>Band 2 5250~5350MHz Band Edge @ 3m</b>	
<b>802.11ac VHT80 CH58 5290MHz - R</b>		
<b>Horizontal</b>		<b>Fundamental</b>
<b>Peak</b>	 <p>Site : 03AK12-HV Condition : PEAK_BE_74 3m HORN_9120D_132B HORIZONTAL Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Project : 8N0846-03 Mode : 12 Setting : 12</p>	Left blank
<b>Avg.</b>	 <p>Site : 03CH12-HV Condition : AVG_BE_54 3m HORN_9120D_132B HORIZONTAL Detector : RBW:1000.000KHz VBW:3.000KHz SWT:Auto Project : 8N0846-03 Mode : 12 Setting : 12</p>	Left blank



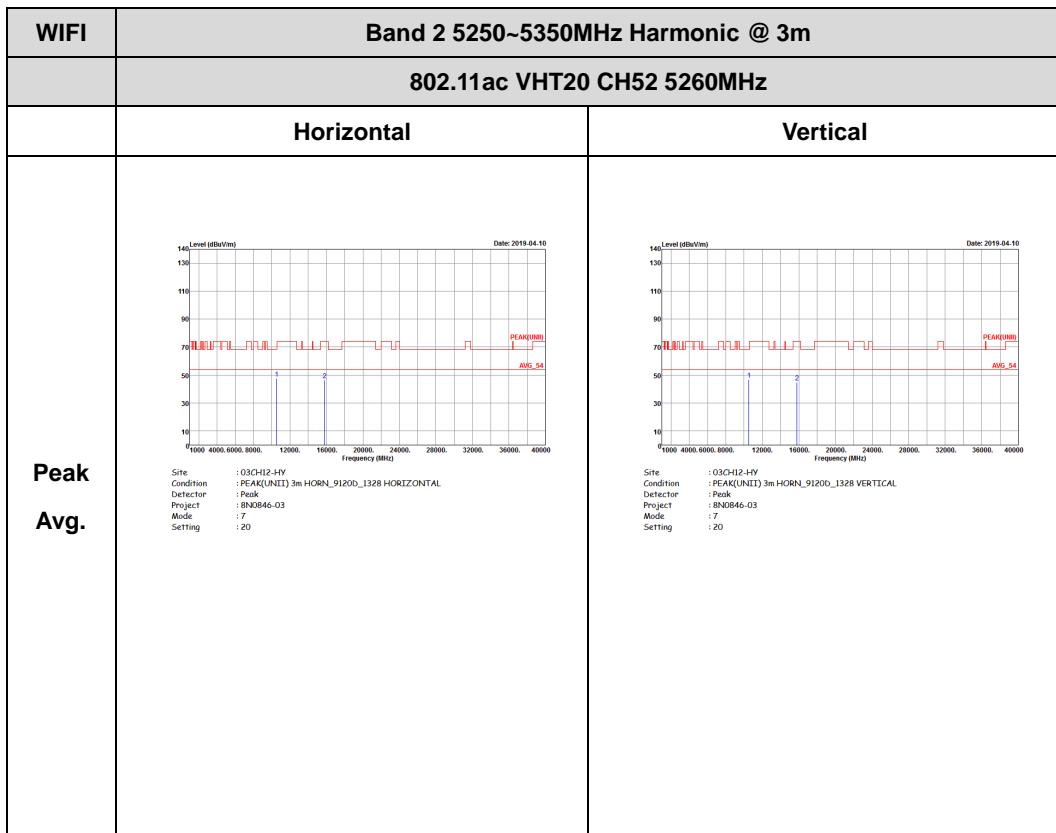


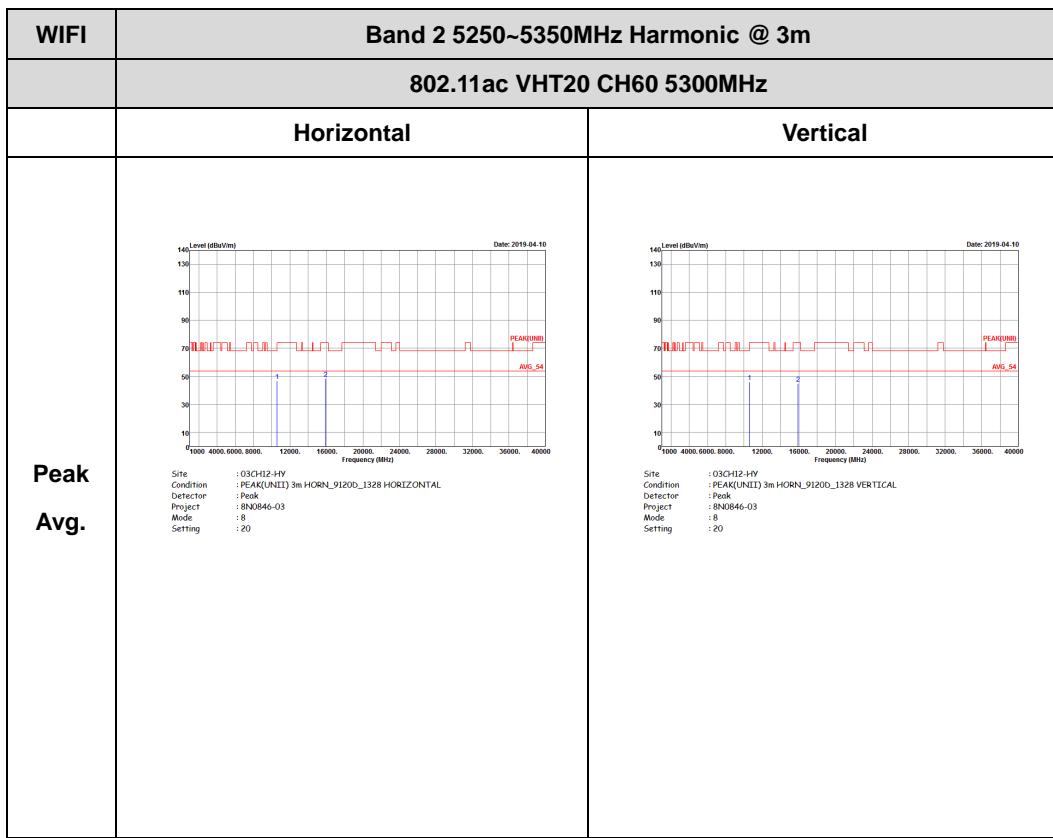
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
	802.11ac VHT80 CH58 5290MHz - R	
	Vertical	Fundamental
Peak	<p>Level (dBuV/m) vs Frequency (MHz) from 5220 to 5460. The plot shows a sharp peak labeled 'PEAK_BE_74' at approximately 5290 MHz. The y-axis ranges from 10 to 140 dBuV/m. The x-axis ranges from 5220 to 5460 MHz. The plot is dated 2019-04-09.</p> <p>Site : 03CH12-HY Condition : PEAK_BE_74 3m HORN_9120D_132B VERTICAL Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Project : Peak Mode : 12 Setting : 12</p>	Left blank
Avg.	<p>Level (dBuV/m) vs Frequency (MHz) from 5220 to 5460. The plot shows a broad average response labeled 'AVG_BE_54' at approximately 5290 MHz. The y-axis ranges from 10 to 140 dBuV/m. The x-axis ranges from 5220 to 5460 MHz. The plot is dated 2019-04-09.</p> <p>Site : 03CH12-HY Condition : AVG_BE_54 3m HORN_9120D_132B VERTICAL Detector : RBW:1000.000KHz VBW:3.000KHz SWT:Auto Project : Peak Mode : 12 Setting : 12</p>	Left blank

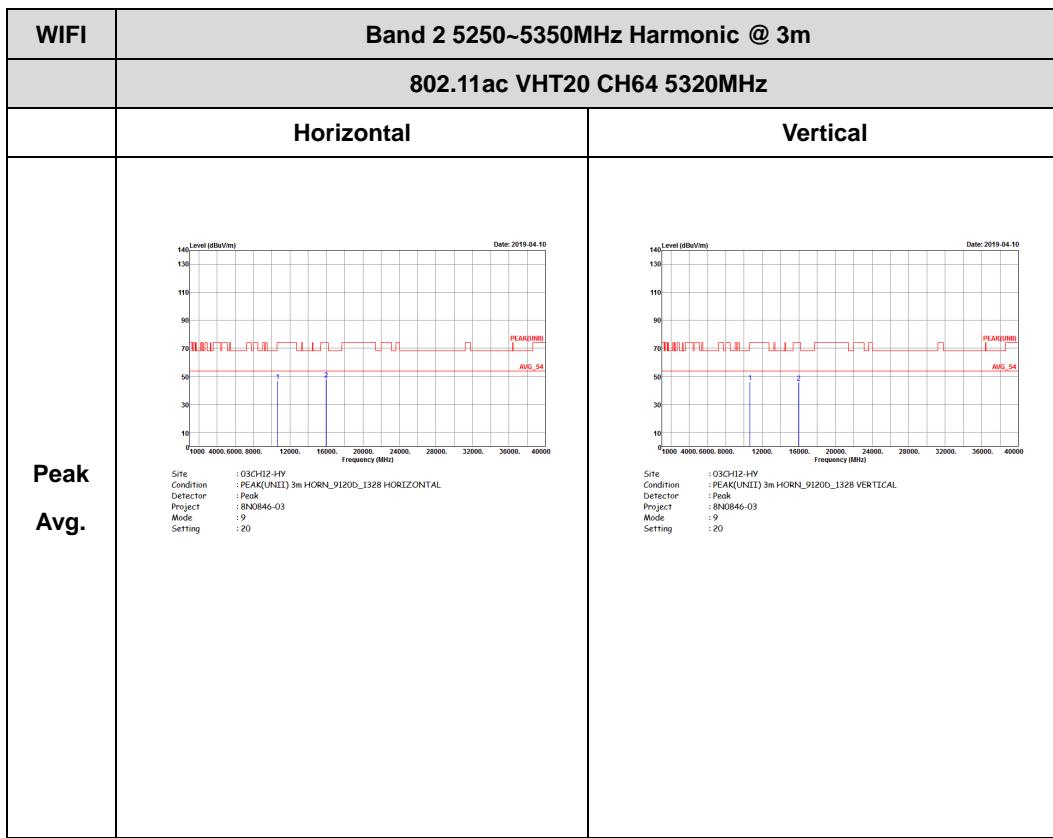


## Band 2 - 5250~5350MHz

## WIFI 802.11ac VHT20 (Harmonic @ 3m)



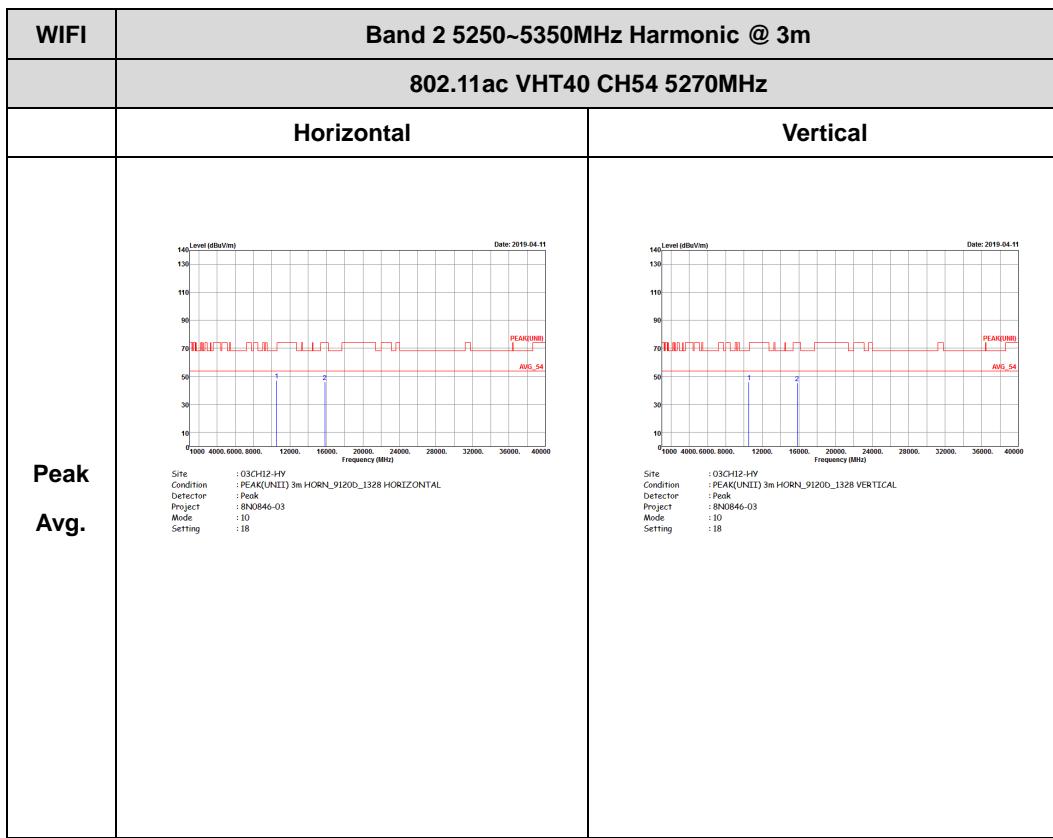


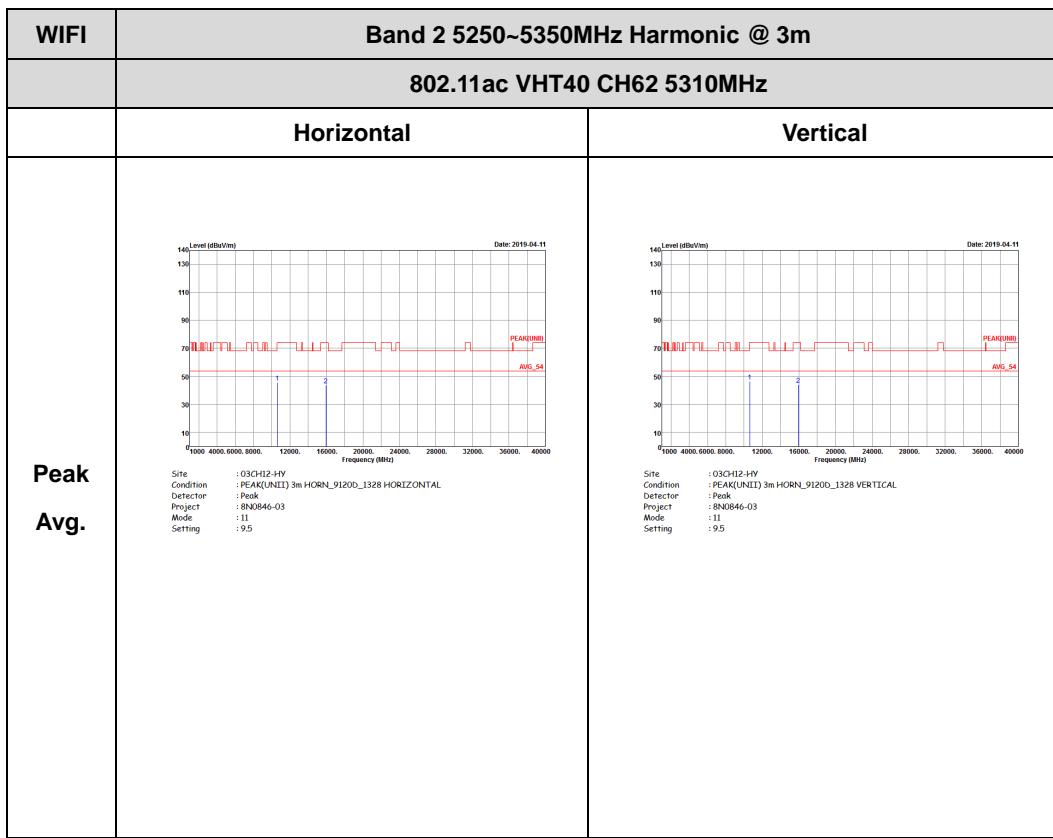




## Band 2 5250~5350MHz

## WIFI 802.11ac VHT40 (Harmonic @ 3m)

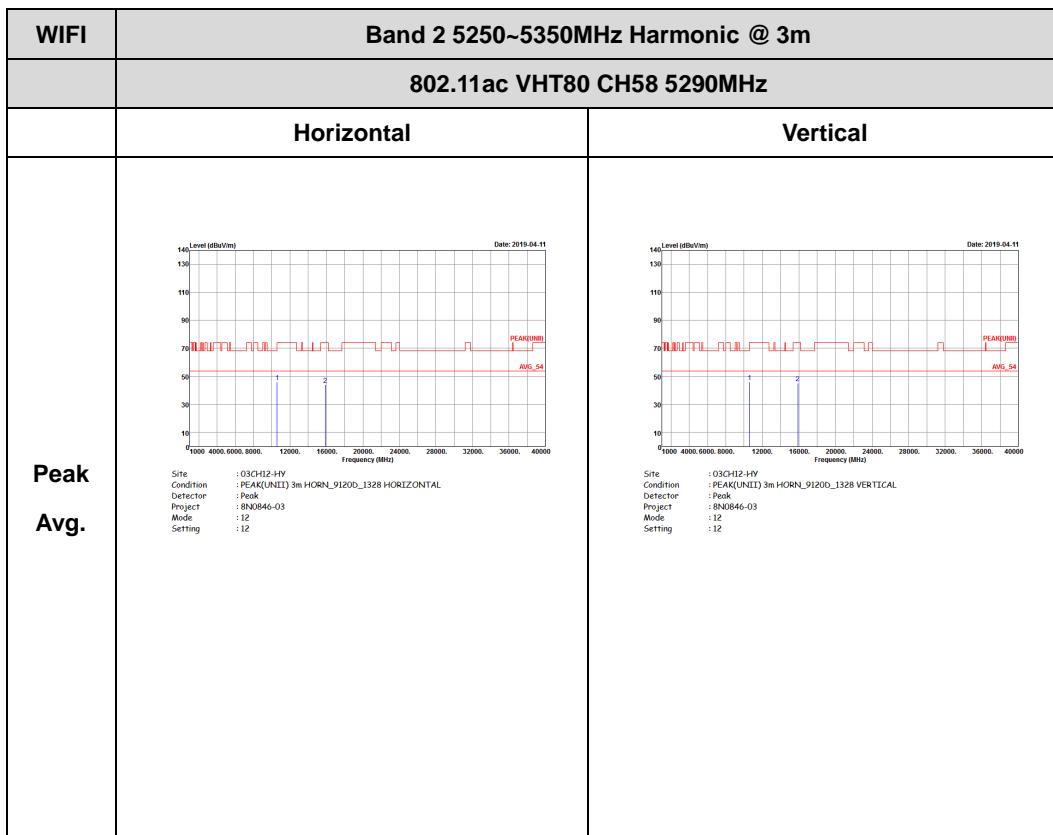






## Band 2 5250~5350MHz

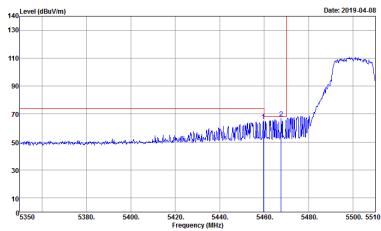
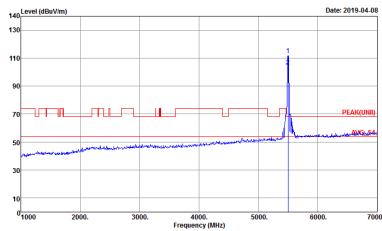
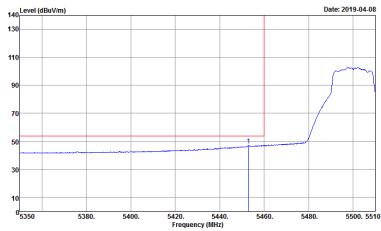
## WIFI 802.11ac VHT80 (Harmonic @ 3m)

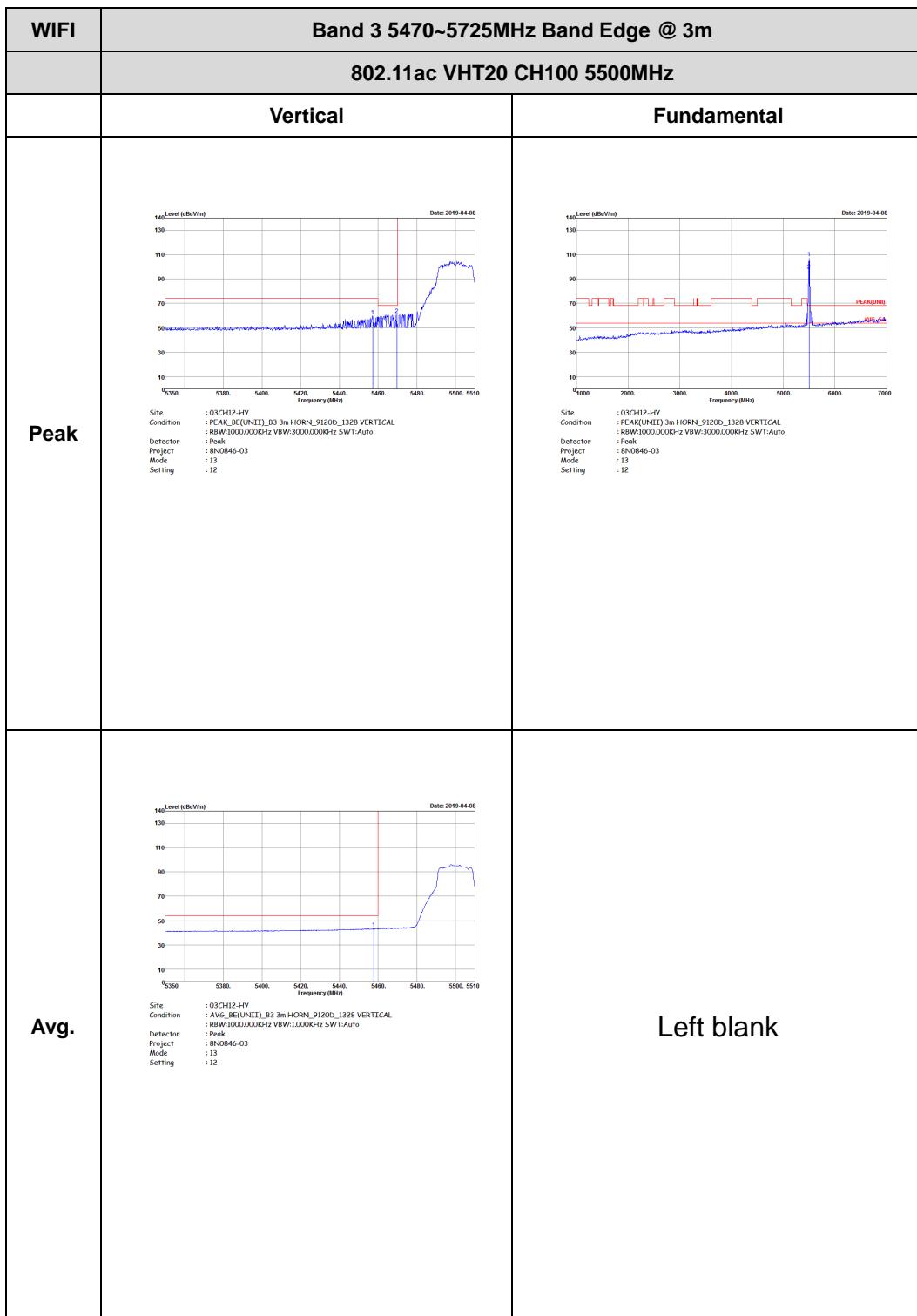


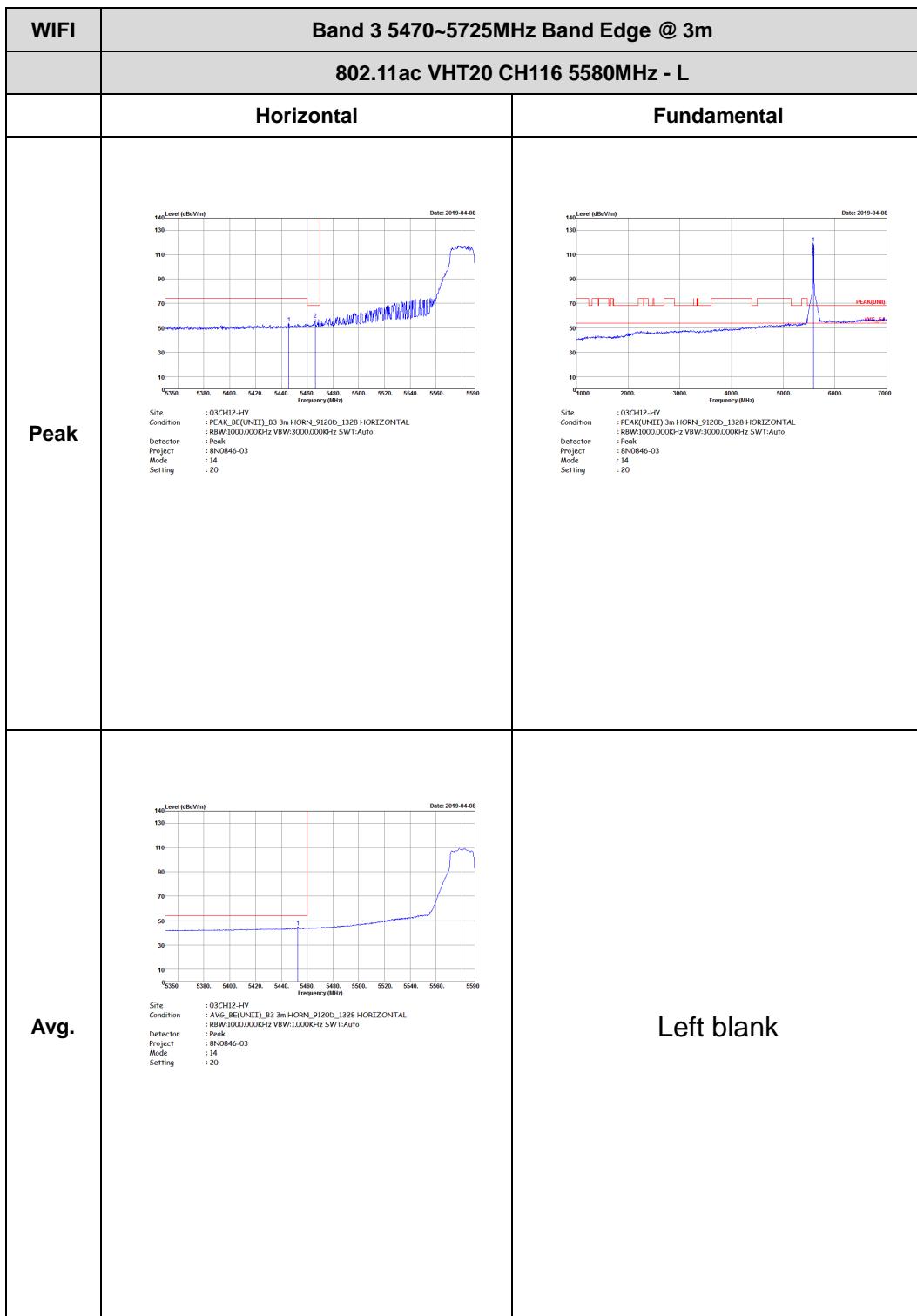


## Band 3 - 5470~5725MHz

## WIFI 802.11ac VHT20 (Band Edge @ 3m)

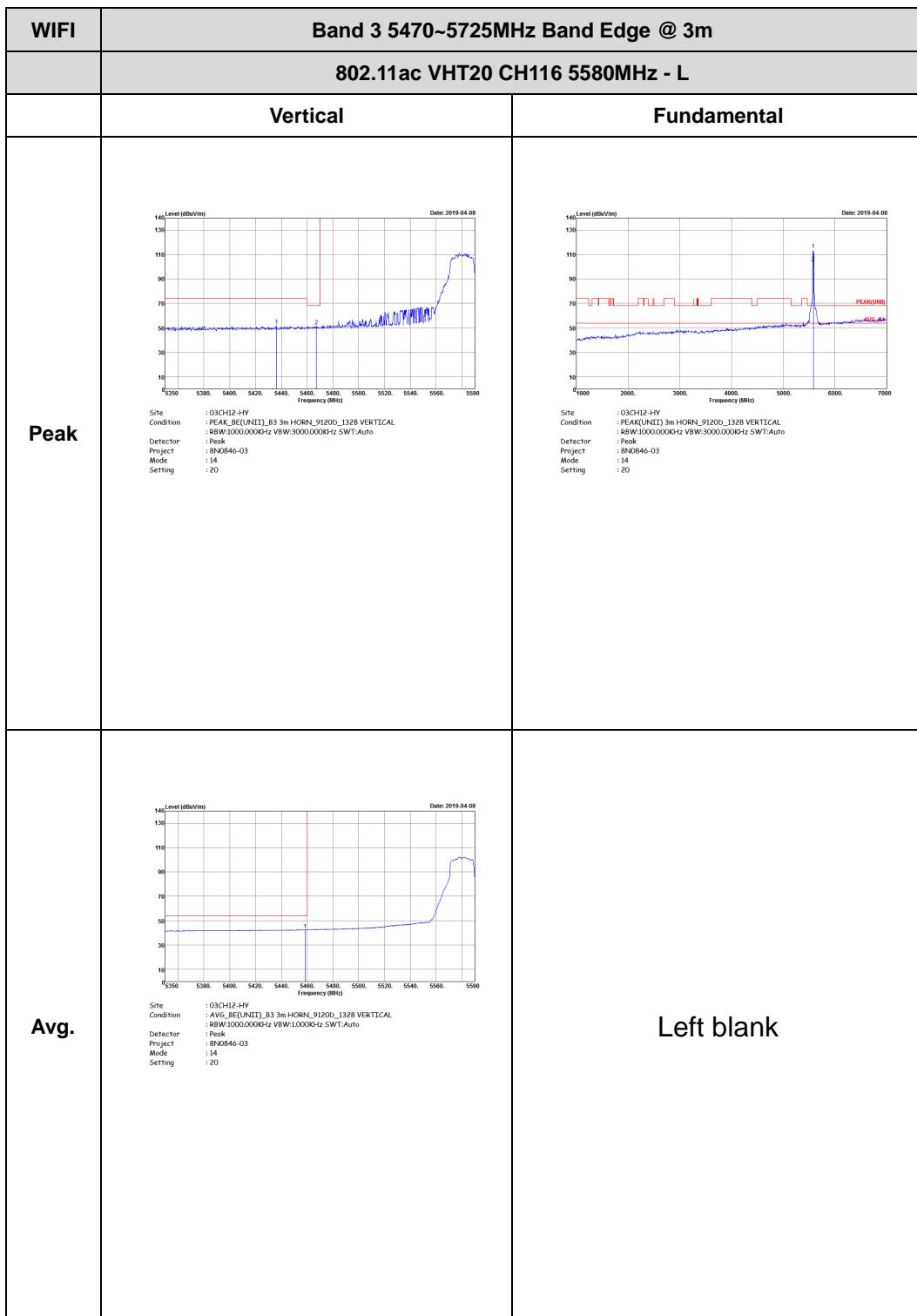
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
	802.11ac VHT20 CH100 5500MHz	
	Horizontal	Fundamental
Peak	 <p>Site : 03GH12-HV Condition : PEAK, BE(UNIT), B3 3m HORN, 9120D, 1328 HORIZONTAL : RBW:1000.0000Hz VBW:3000.0000Hz SWT:Auto Detector : Peak Project : 8N0846-03 Mode : 13 Setting : 12</p>	 <p>Site : 03GH12-HV Condition : PEAK(UNIT) 3m HORN, 9120D, 1328 HORIZONTAL : RBW:1000.0000Hz VBW:3000.0000Hz SWT:Auto Detector : Peak Project : 8N0846-03 Mode : 13 Setting : 12</p>
Avg.	 <p>Site : 03GH12-HV Condition : AVG_BE(UNIT), B3 3m HORN, 9120D, 1328 HORIZONTAL : RBW:1000.0000Hz VBW:1.0000Hz SWT:Auto Detector : Avg Project : 8N0846-03 Mode : 13 Setting : 12</p>	Left blank

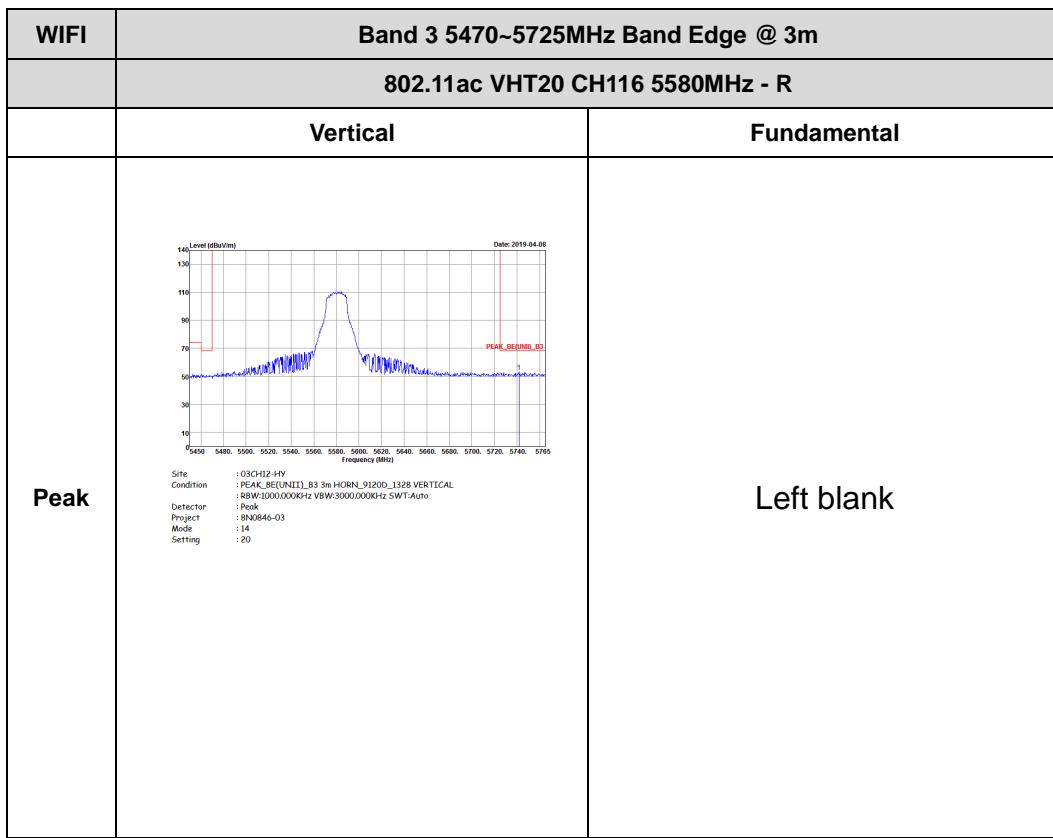


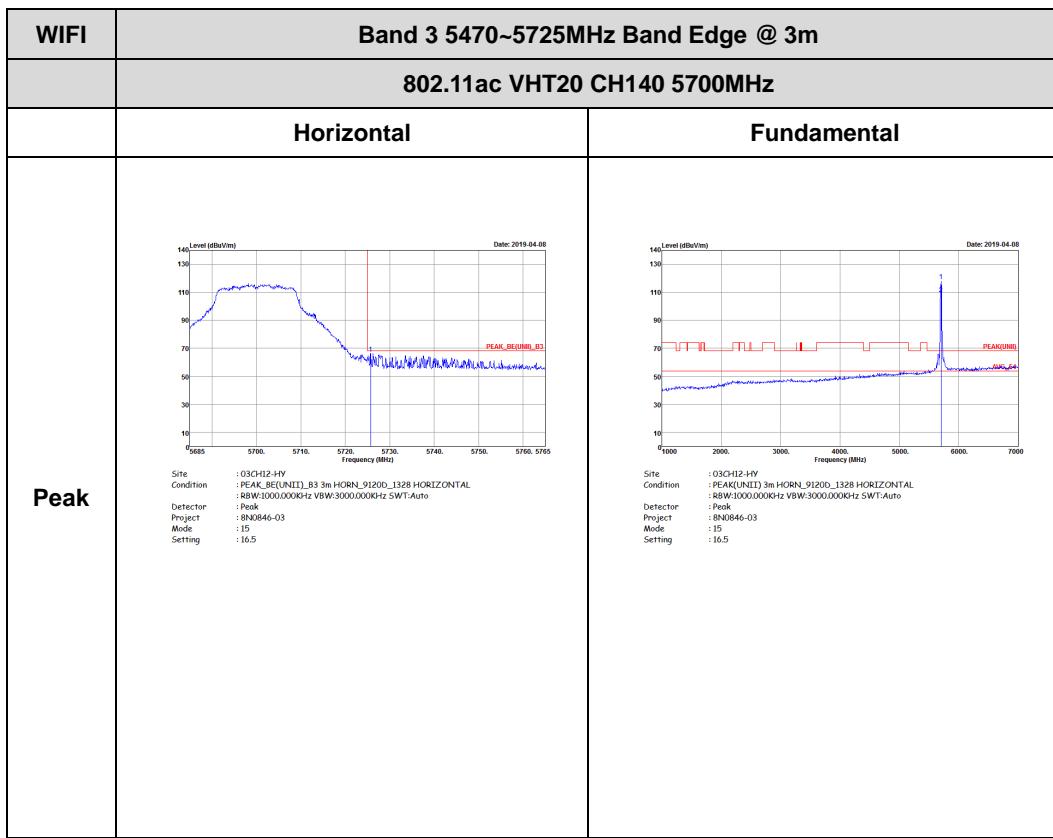


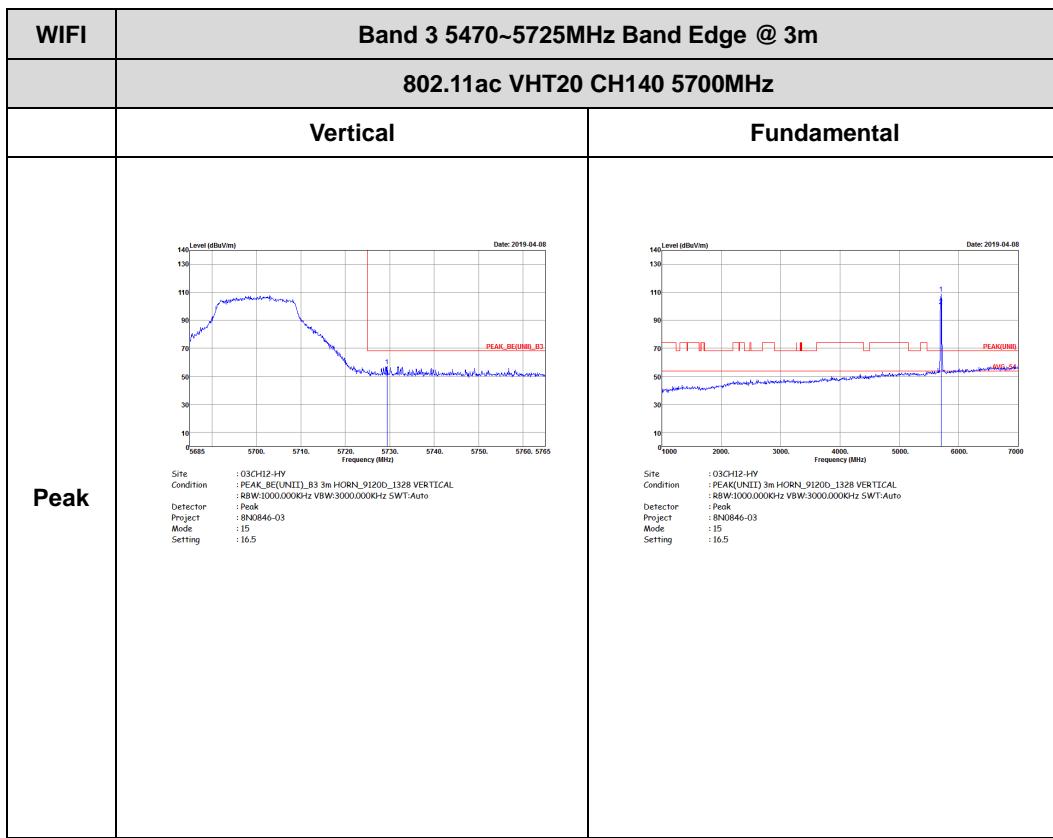


WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
	802.11ac VHT20 CH116 5580MHz - R	
	Horizontal	Fundamental
Peak	<p>The graph displays a single sharp peak at 5580 MHz, which is the center frequency of the measured channel. The peak level is approximately 115 dBmV/m. The x-axis represents Frequency (MHz) from 5450 to 5765, and the y-axis represents Level (dBmV/m) from 10 to 140. A red vertical line marks the peak frequency, and a red horizontal line marks the peak level. The plot is titled "Date: 2019-04-08".</p> <p>Site : 030H2-HV Condition : PEAK_BE(UNIT).R3.3mHORN_912ID_132B_HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : FR8N0846-03 Mode : 16 Setting : 20</p> <p>Left blank</p>	







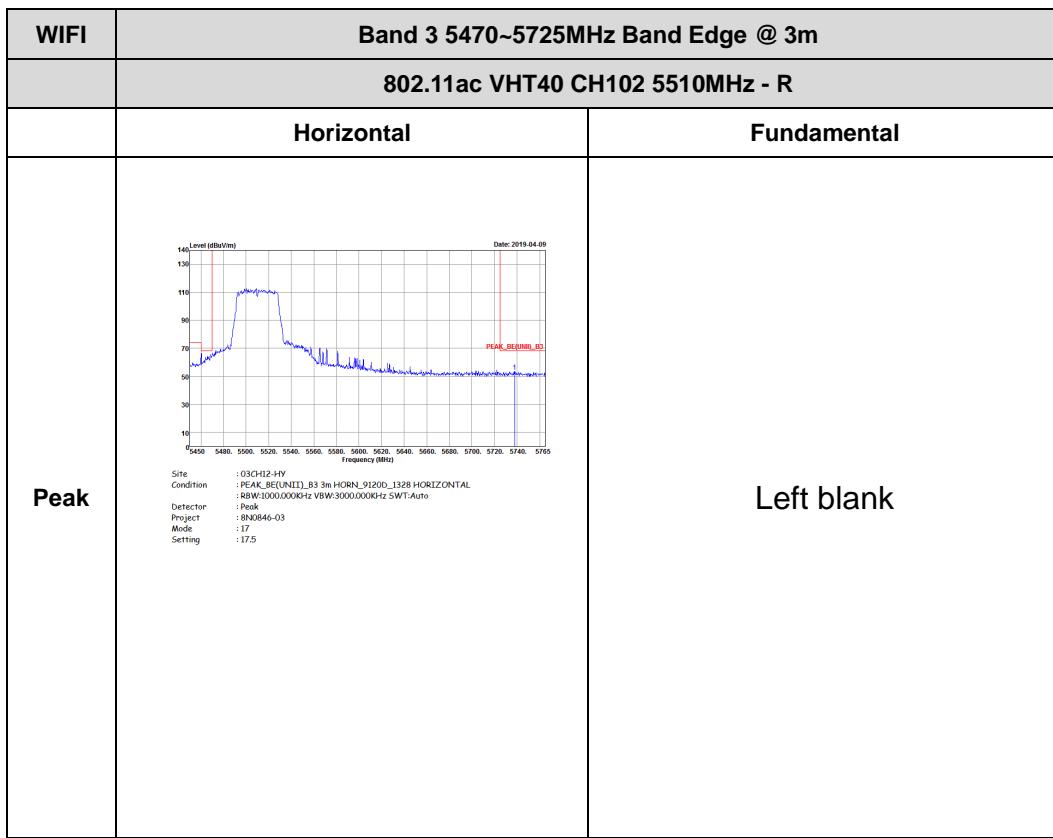


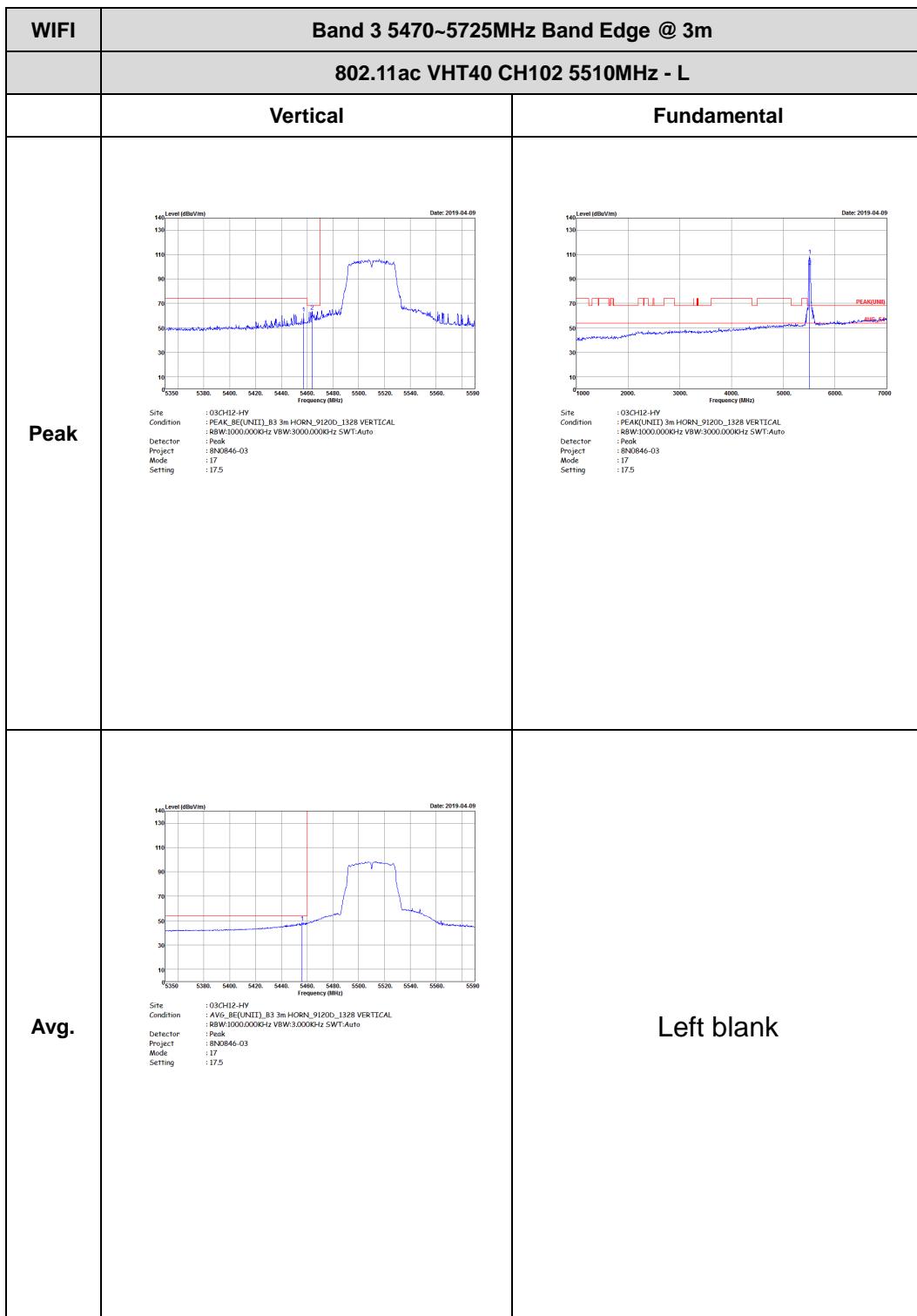


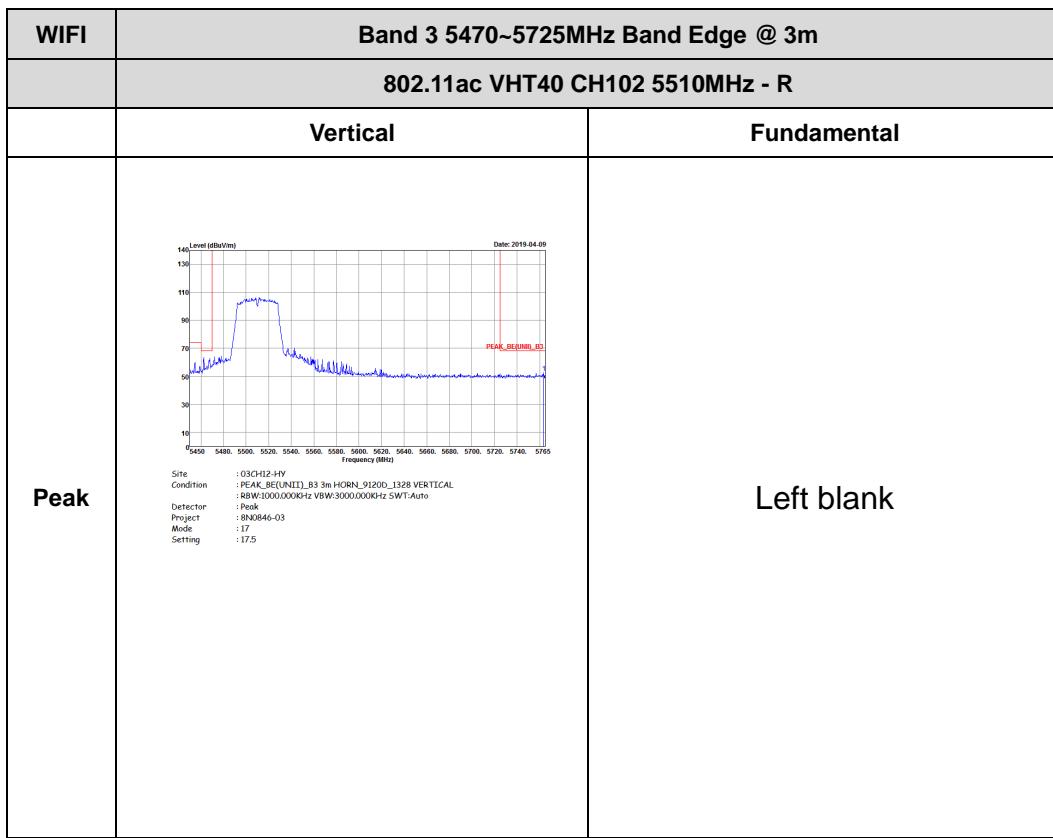
## Band 3 5470~5725MHz

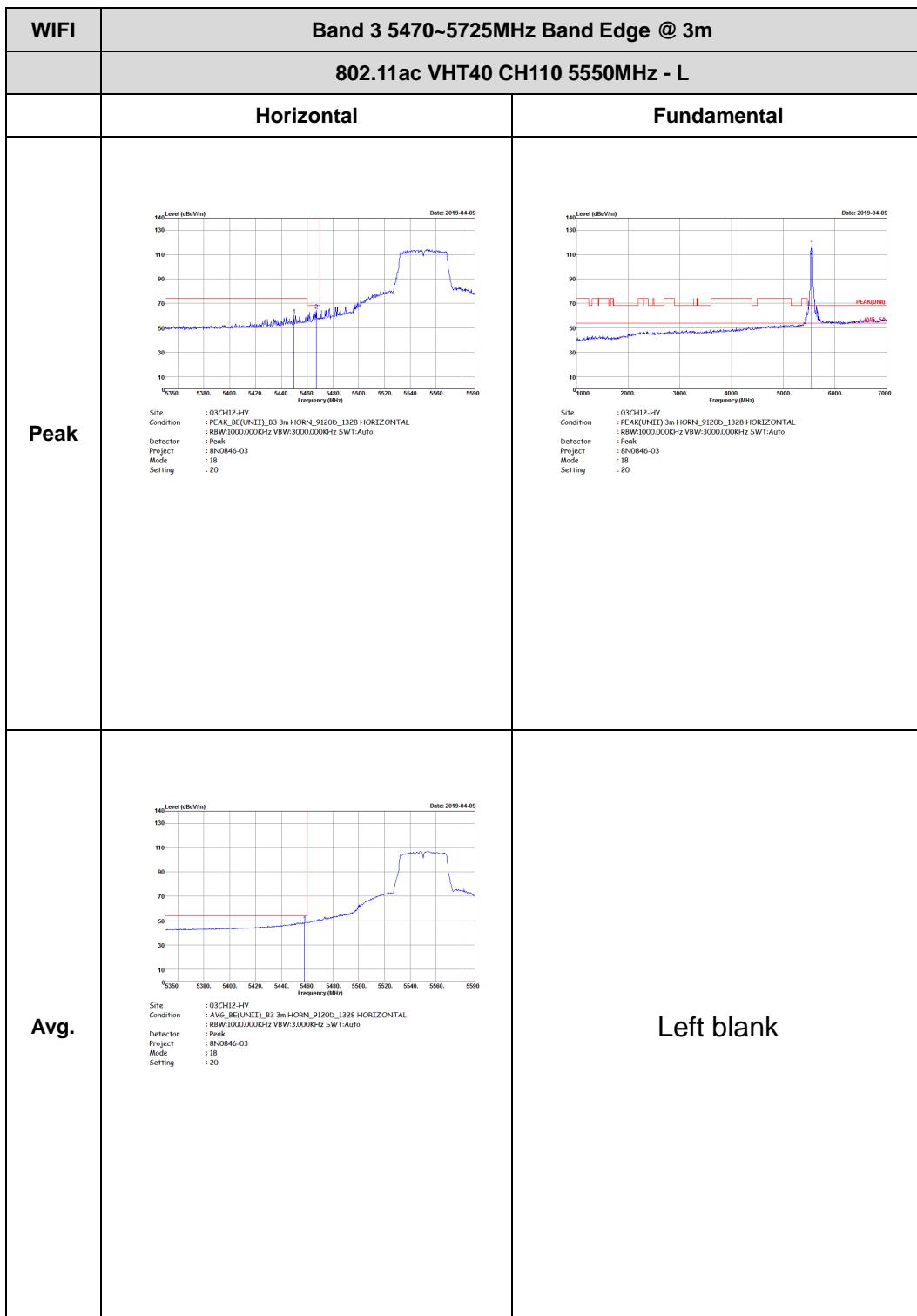
## WIFI 802.11ac VHT40 (Band Edge @ 3m)

WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
	802.11ac VHT40 CH102 5510MHz - L	
	Horizontal	Fundamental
Peak	 Site : 03CH12-HV Condition : PEAK_BE(UNIT)_B3 3m HORN_9120D_1328 HORIZONTAL Detector : 8BW1000.000KHz VBW:3000.000KHz SWT:Auto Project : 8N0846-03 Mode : 17 Setting : 17.5	 Site : 03CH12-HV Condition : PEAK(UNIT) 3m HORN_9120D_1328 HORIZONTAL Detector : 8BW1000.000KHz VBW:3000.000KHz SWT:Auto Project : 8N0846-03 Mode : 17 Setting : 17.5
Avg.	 Site : 03CH12-HV Condition : AVG_BE(UNIT)_B3 3m HORN_9120D_1328 HORIZONTAL Detector : Peak Project : 8N0846-03 Mode : 17 Setting : 17.5	Left blank



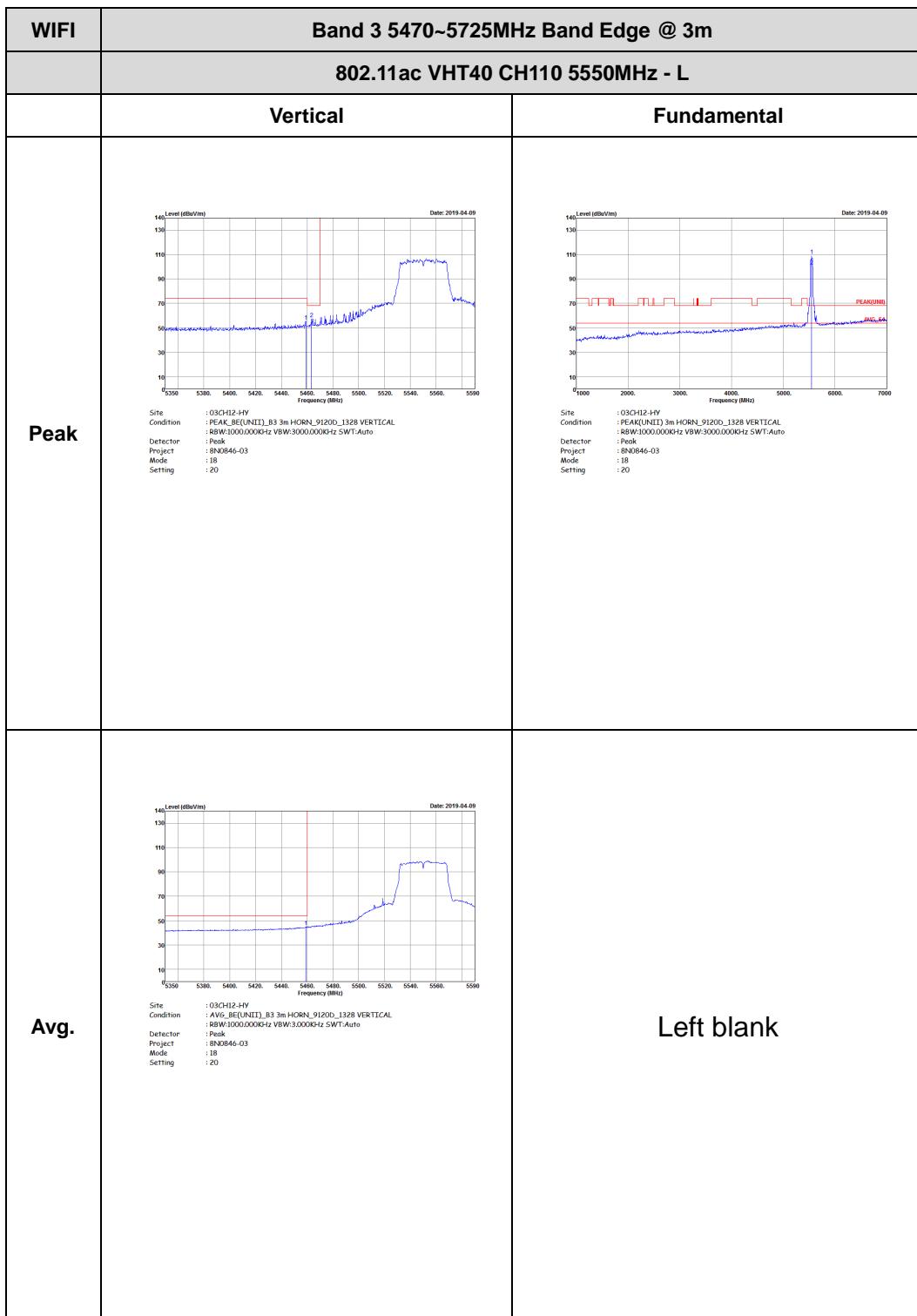






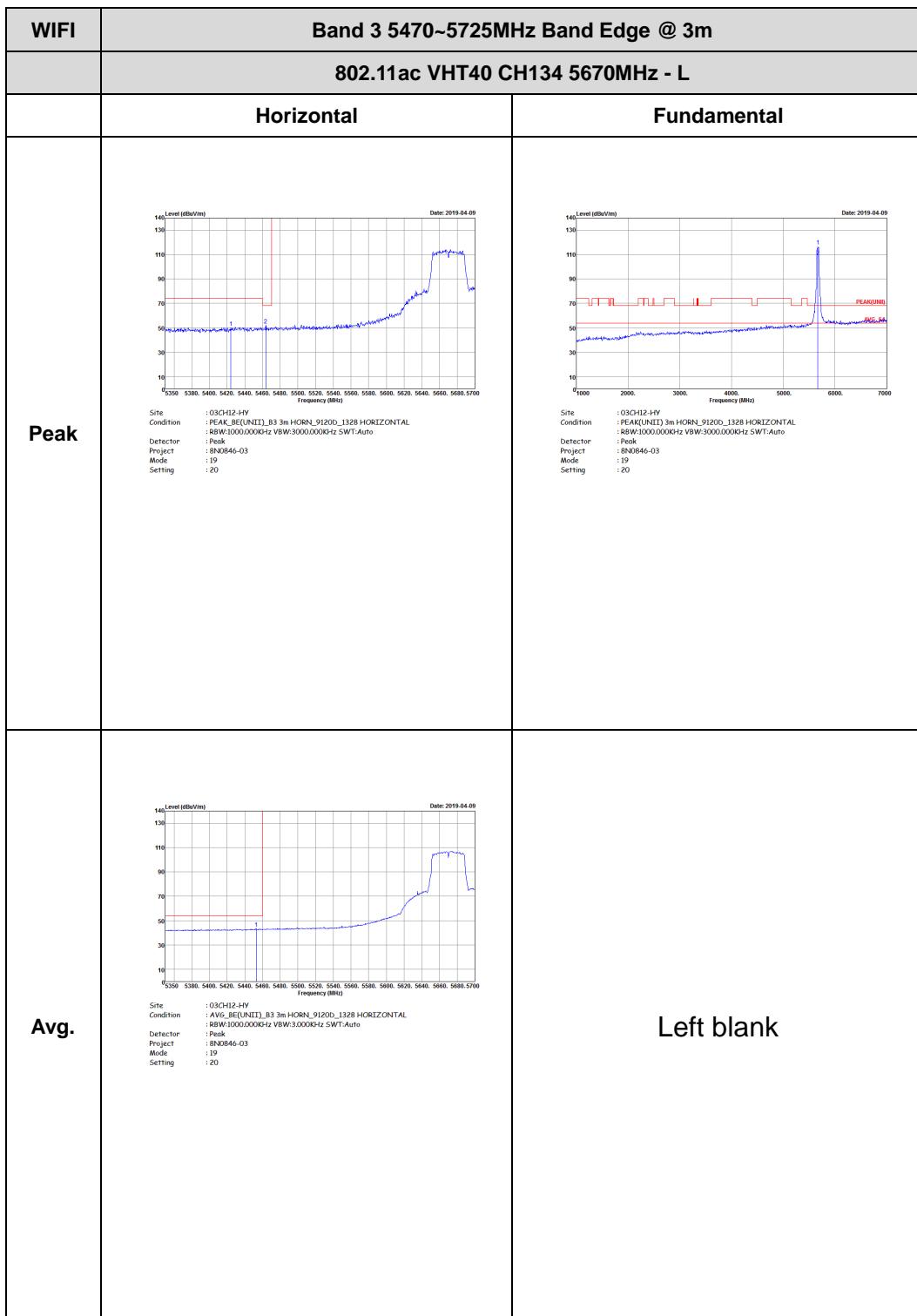


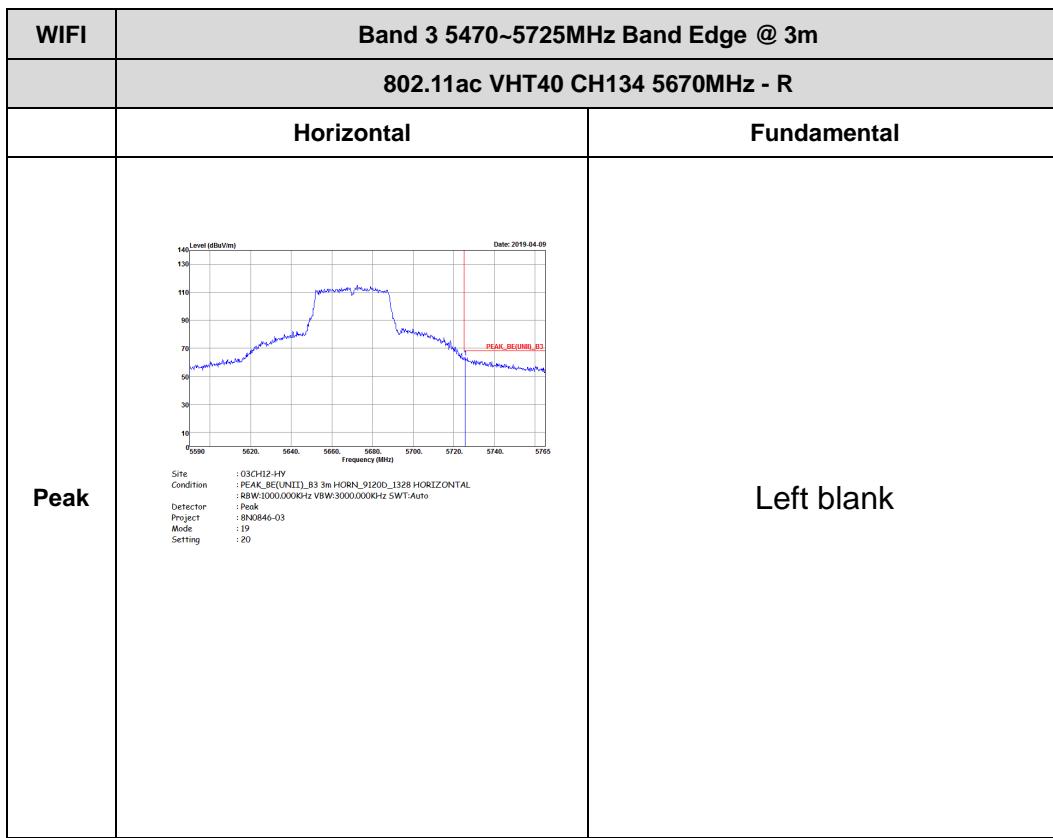
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
	802.11ac VHT40 CH110 5550MHz - R	
	Horizontal	Fundamental
Peak	<p>Date: 2019-04-09</p> <p>Site : 030H2-JW Condition : PEAK_BE(UNIT).R3.3mHORN_912ID_132B HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : FR8N0846-03 Mode : 10 Setting : 20</p>	Left blank

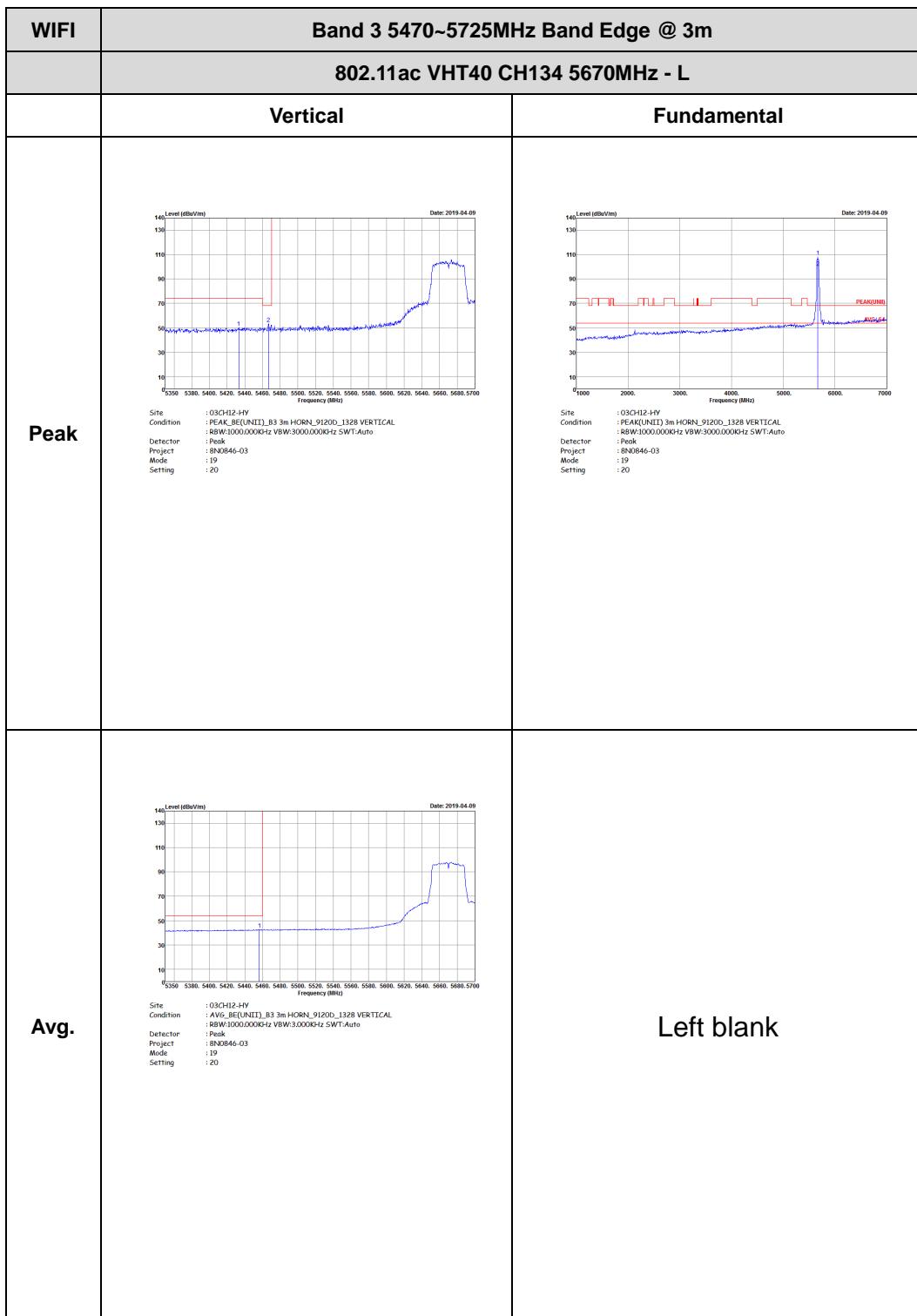


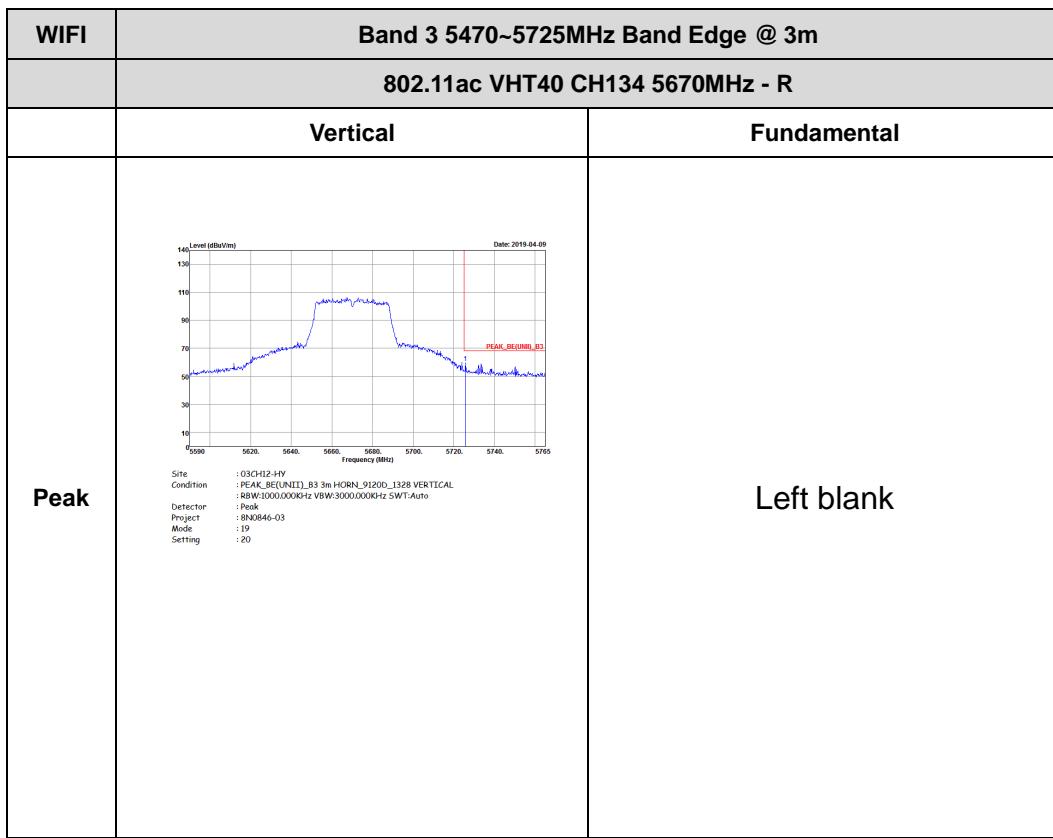


WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
	802.11ac VHT40 CH110 5550MHz - R	
	Vertical	Fundamental
Peak	<p>Site : 030H2-JVY Condition : PEAK_BE(UNIT).R3_3mHORN_912ID_132B VERTICAL Detector : R8W:1000.000KHz VBW:3000.000KHz SWT:Auto Project : Peak Model : FR8N0846-03 Setting : 10 Span : 20</p>	Left blank







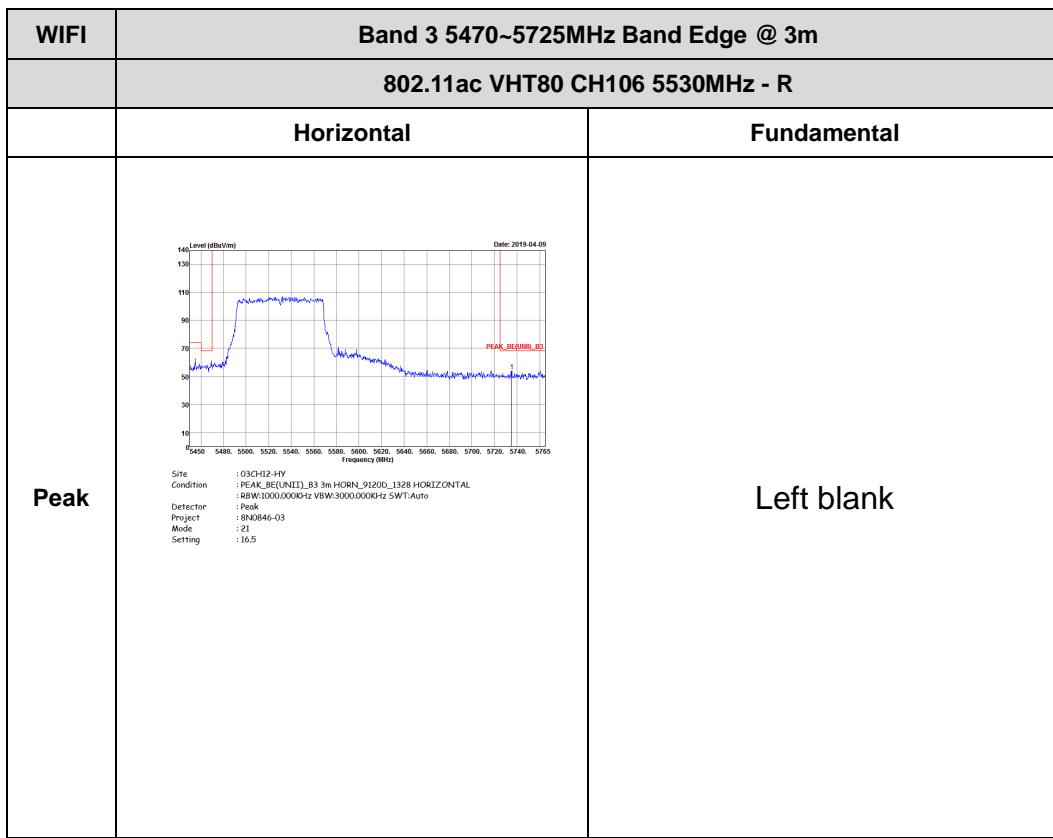


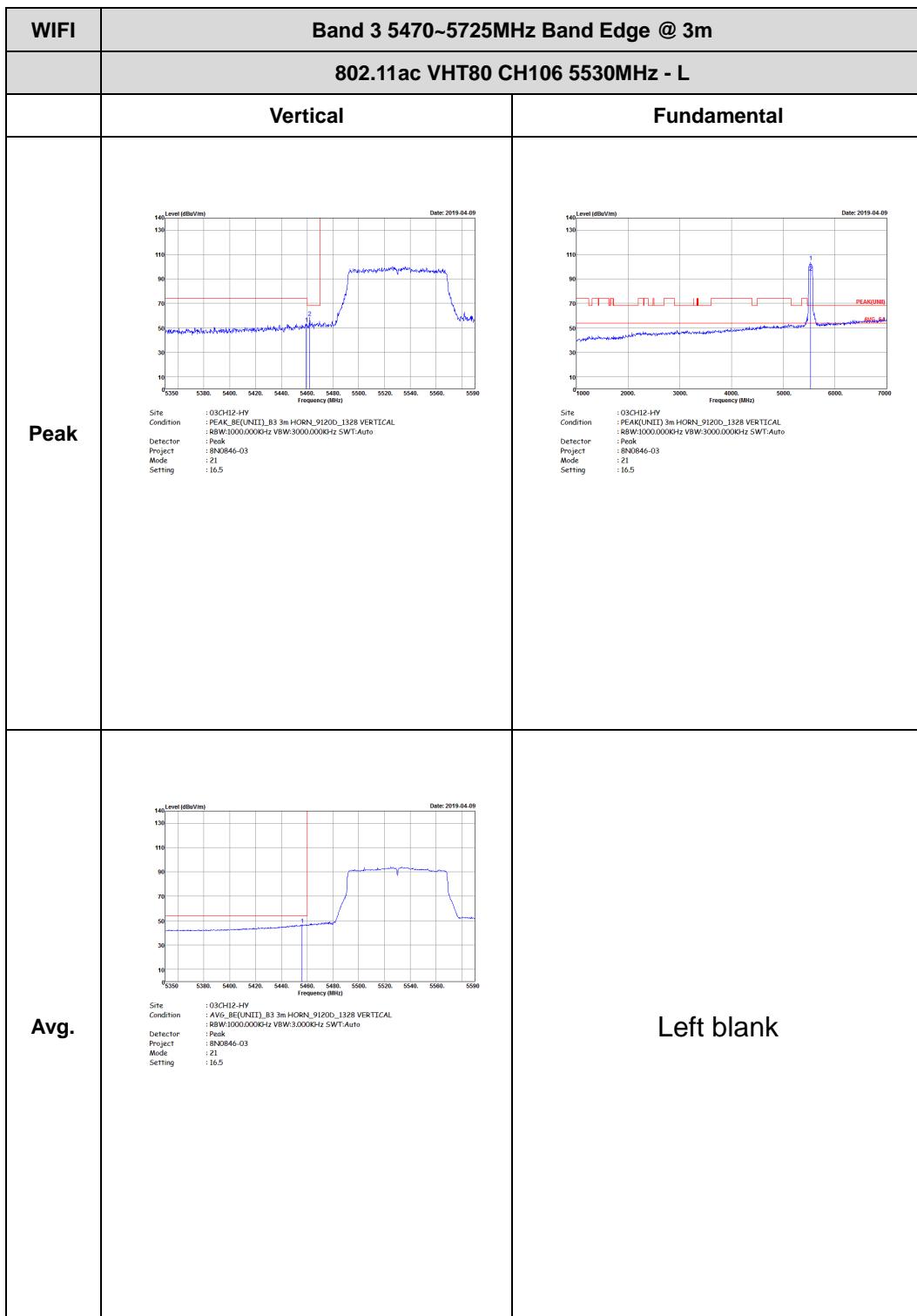


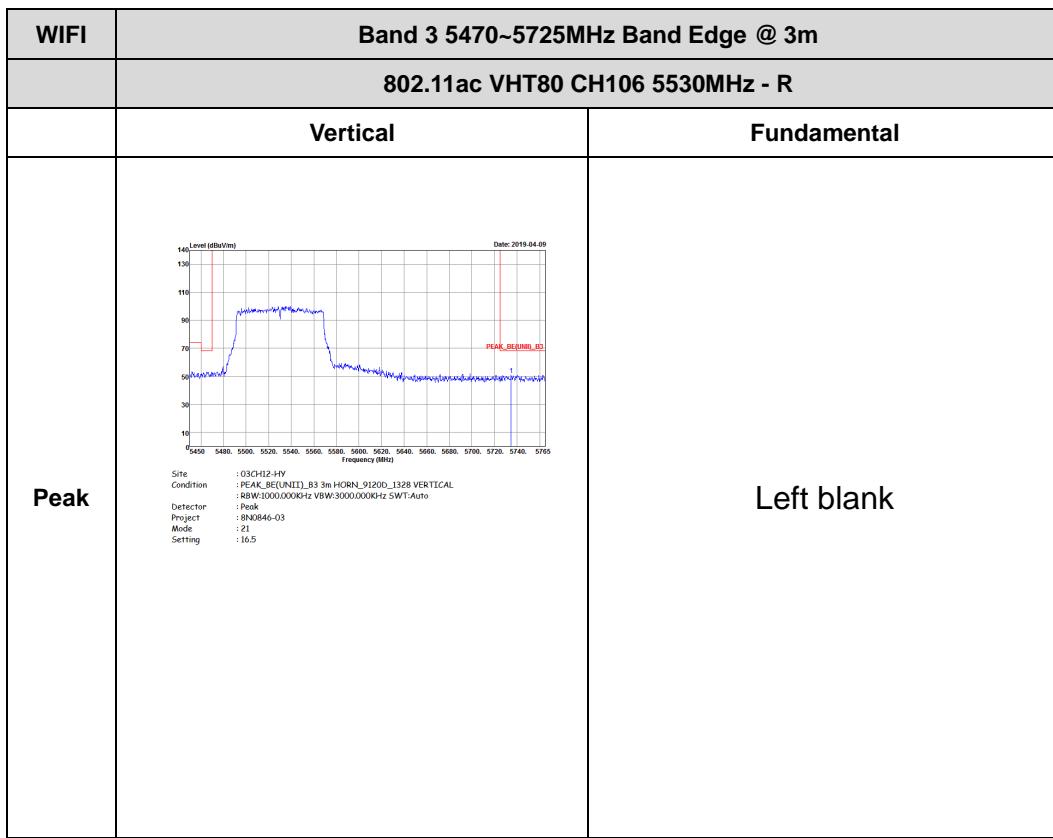
## Band 3 5470~5725MHz

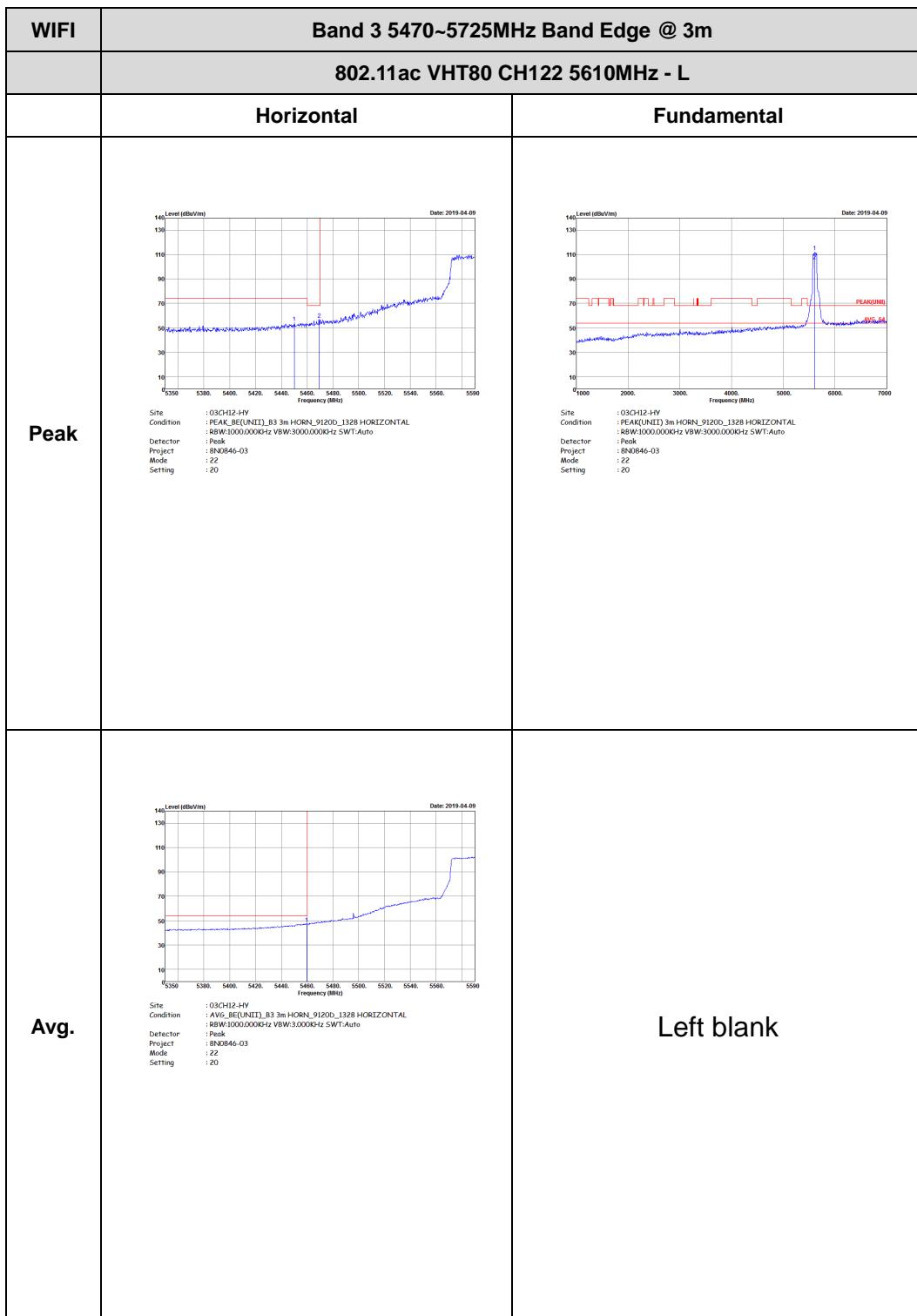
## WIFI 802.11ac VHT80 (Band Edge @ 3m)

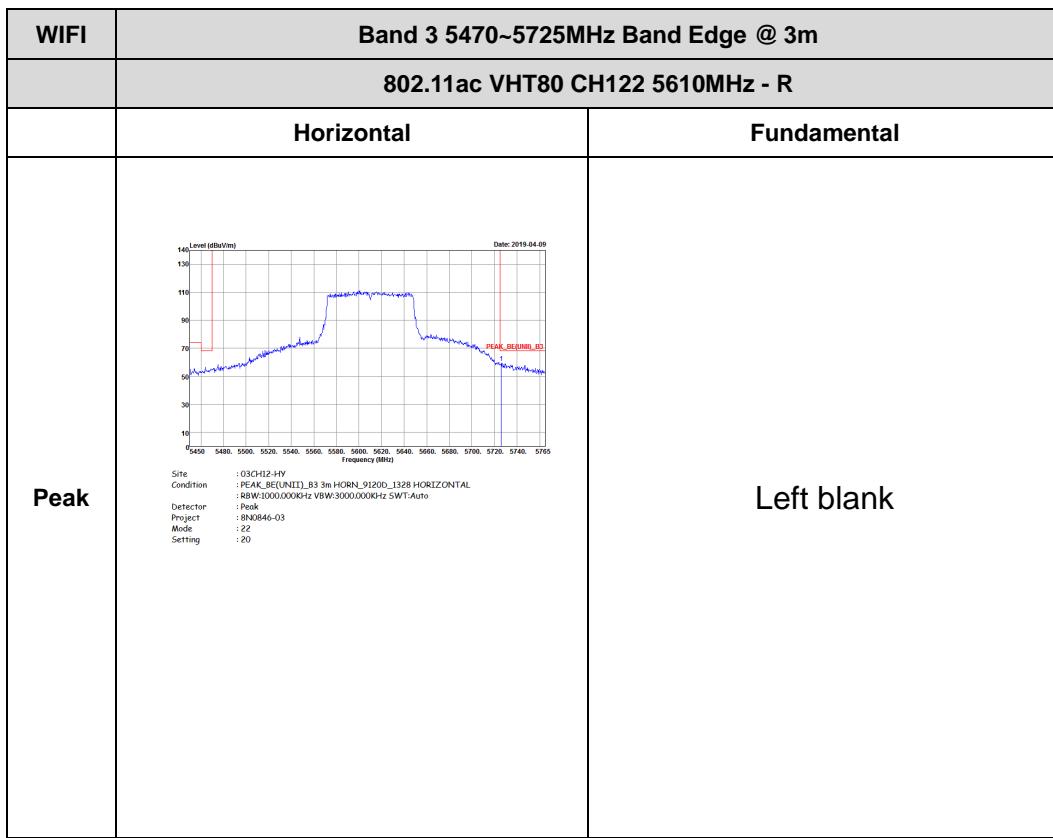
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
	802.11ac VHT80 CH106 5530MHz - L	
	Horizontal	Fundamental
Peak	 Site : 03CH12-HV Condition : PEAK_BE(UNIT)_B3 3m HORN_9120D_1328 HORIZONTAL Detector : R8W1000.000KHz VBW:3000.000KHz SWT:Auto Project : 8N0846-03 Mode : 21 Setting : 16.5	 Site : 03CH12-HV Condition : PEAK(UNIT) 3m HORN_9120D_1328 HORIZONTAL Detector : R8W1000.000KHz VBW:3000.000KHz SWT:Auto Project : 8N0846-03 Mode : 21 Setting : 16.5
Avg.	 Site : 03CH12-HV Condition : AVG_BE(UNIT)_B3 3m HORN_9120D_1328 HORIZONTAL Detector : Peak Project : 8N0846-03 Mode : 21 Setting : 16.5	Left blank

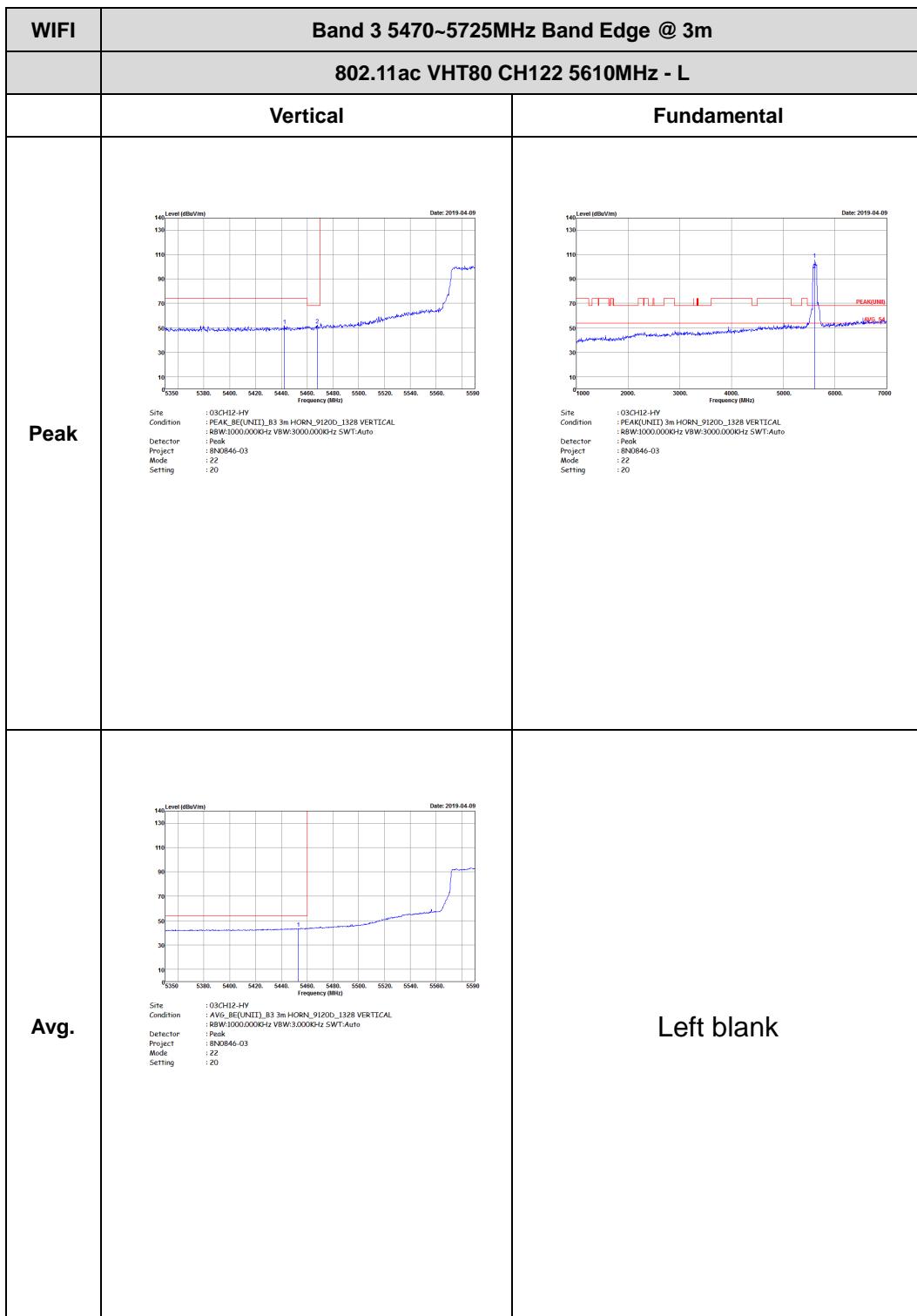


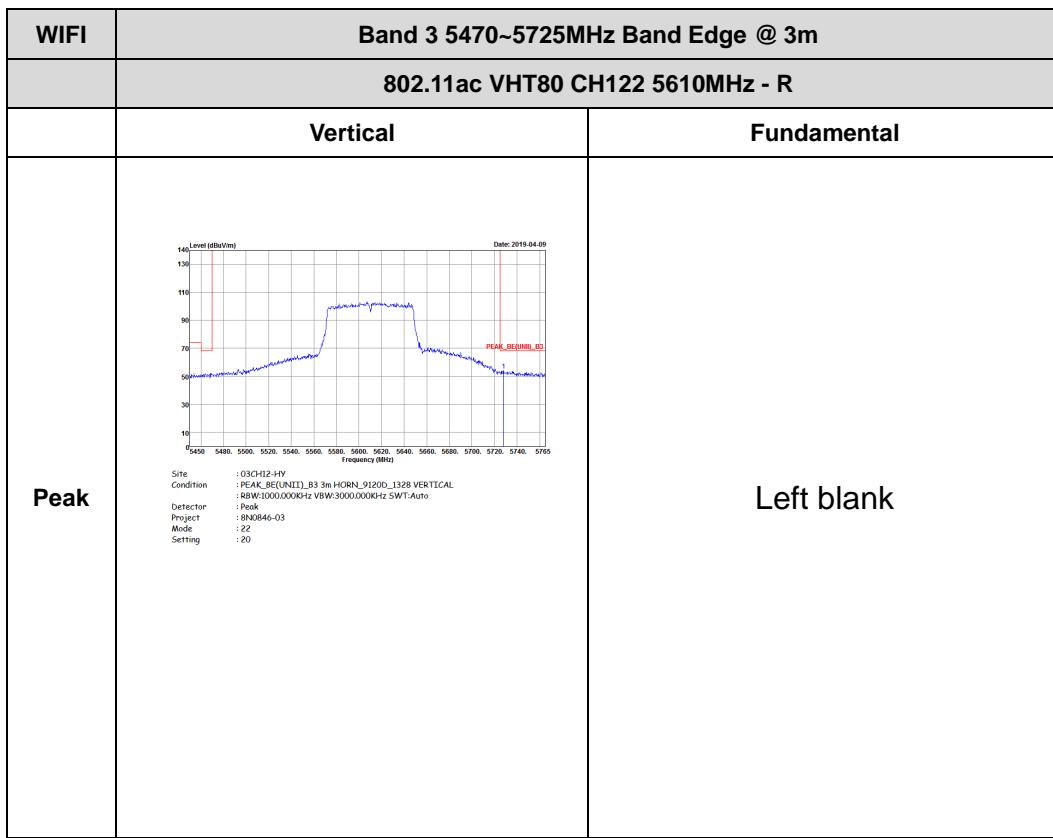








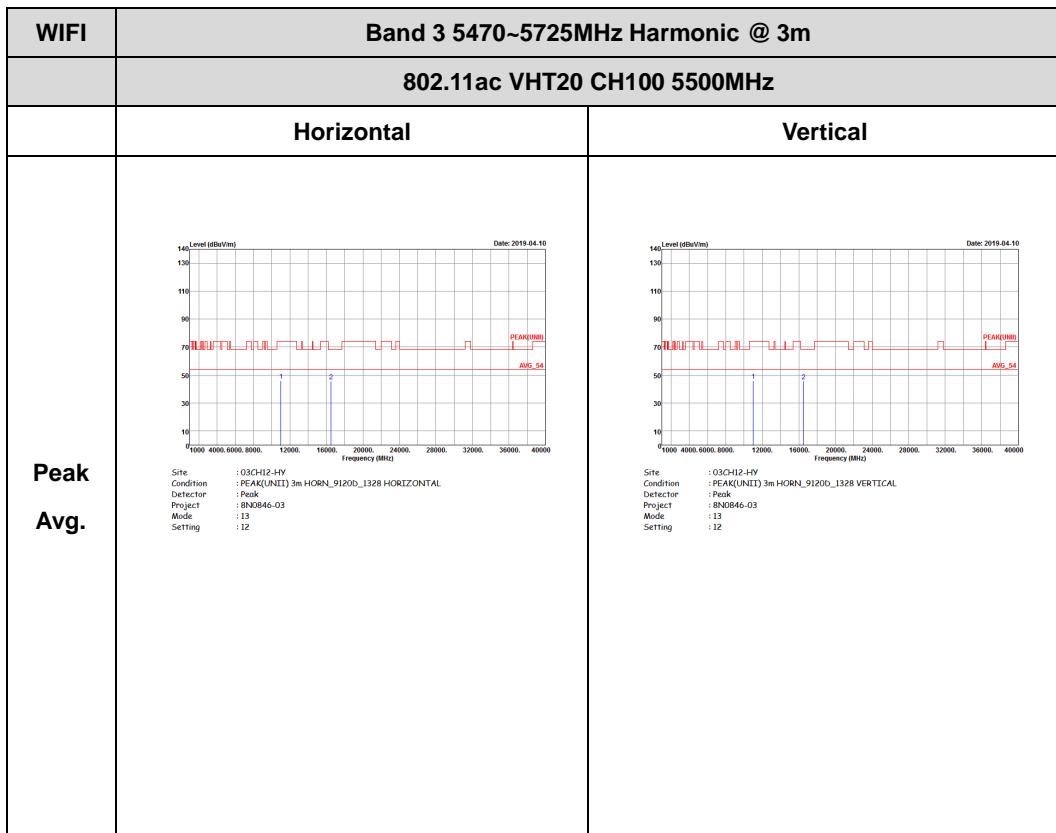


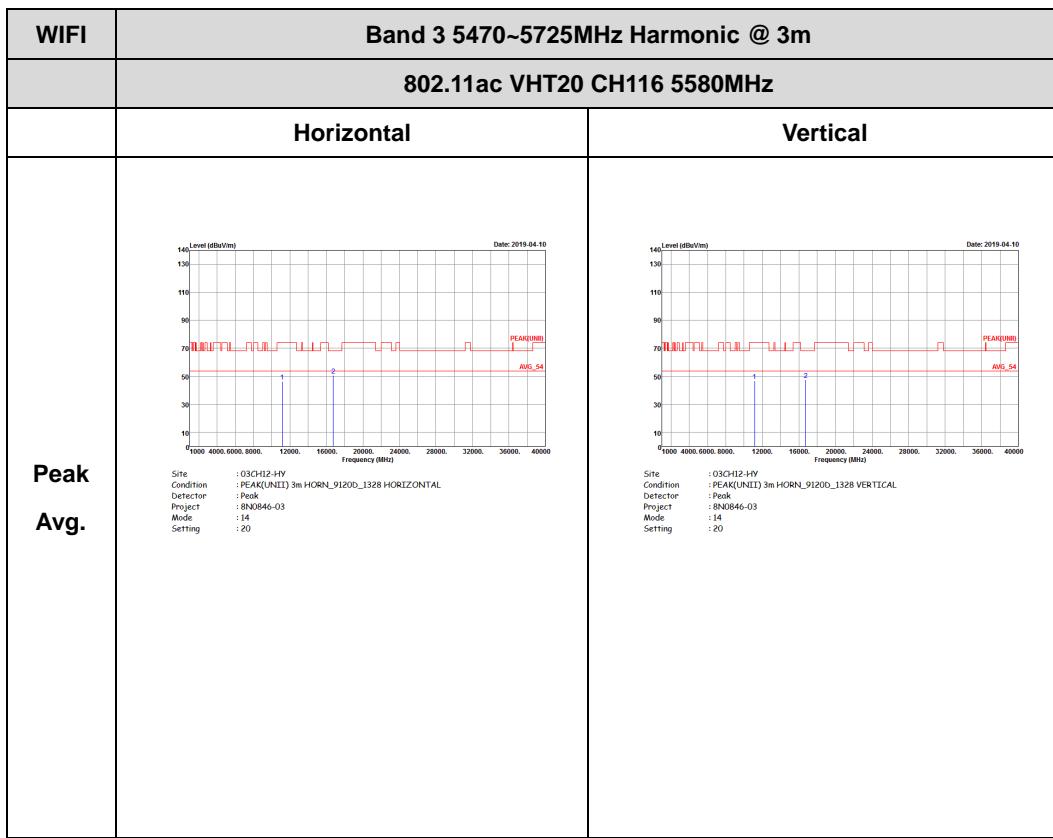


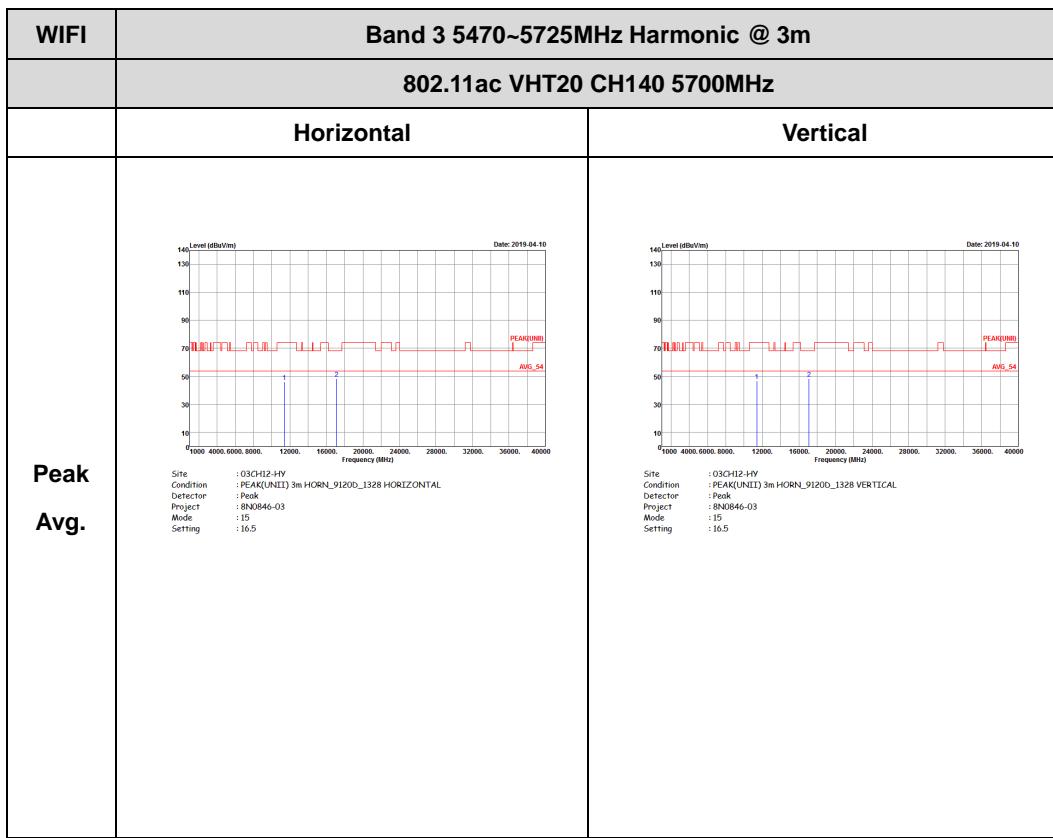


## Band 3 - 5470~5725MHz

## WIFI 802.11ac VHT20 (Harmonic @ 3m)



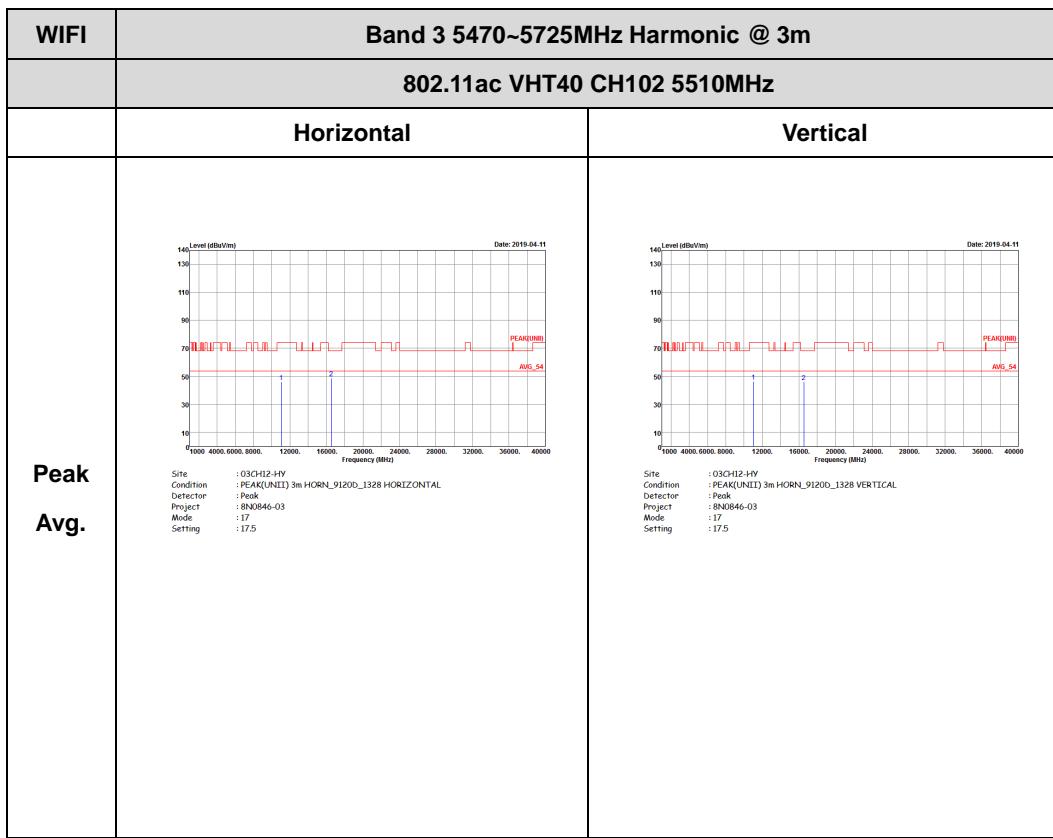


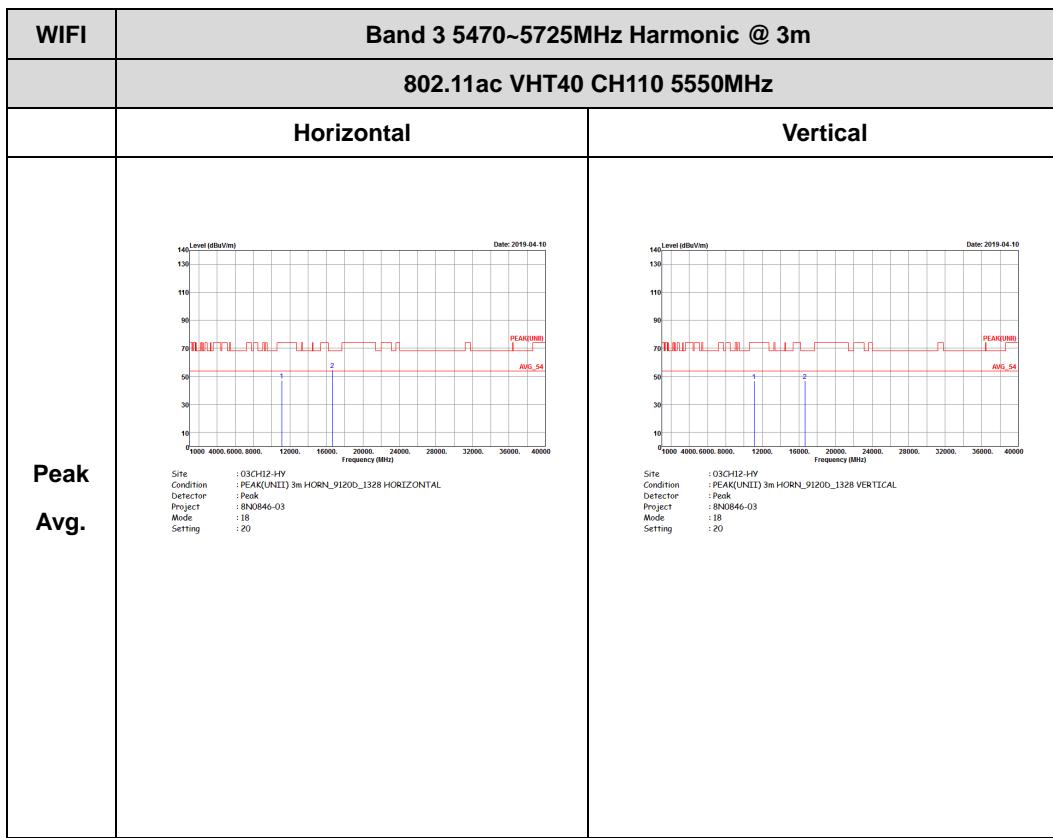


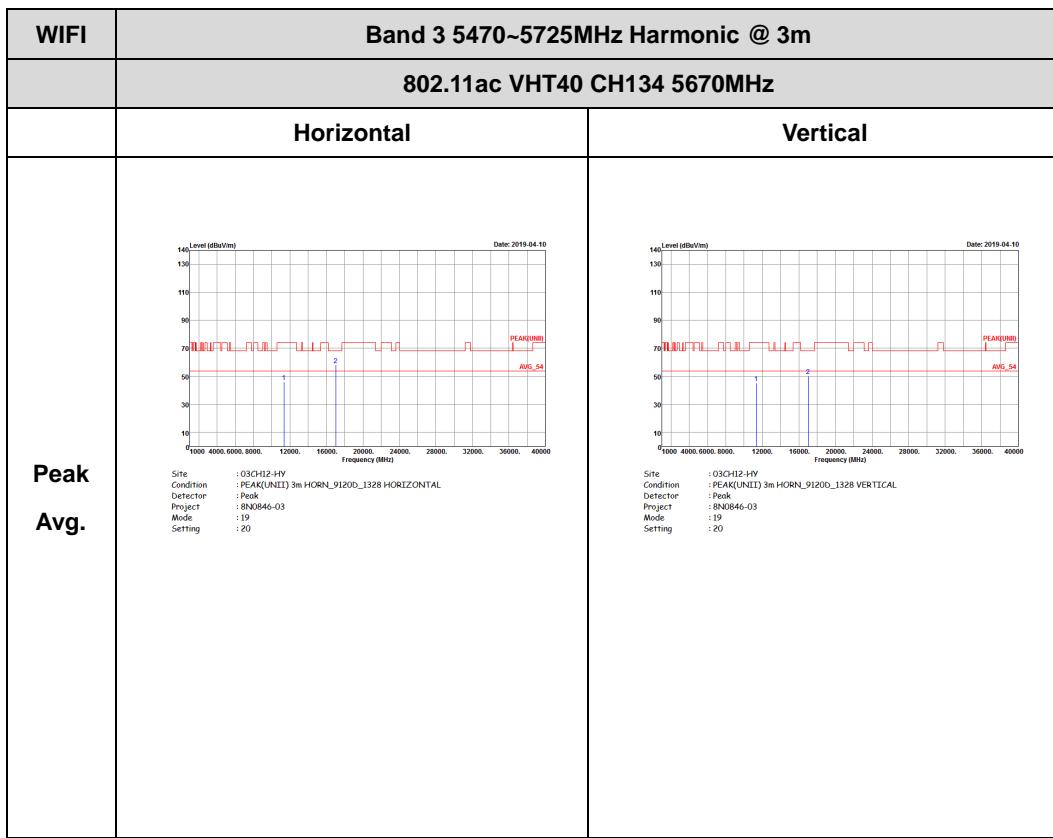


## Band 3 5470~5725MHz

## WIFI 802.11ac VHT40 (Harmonic @ 3m)



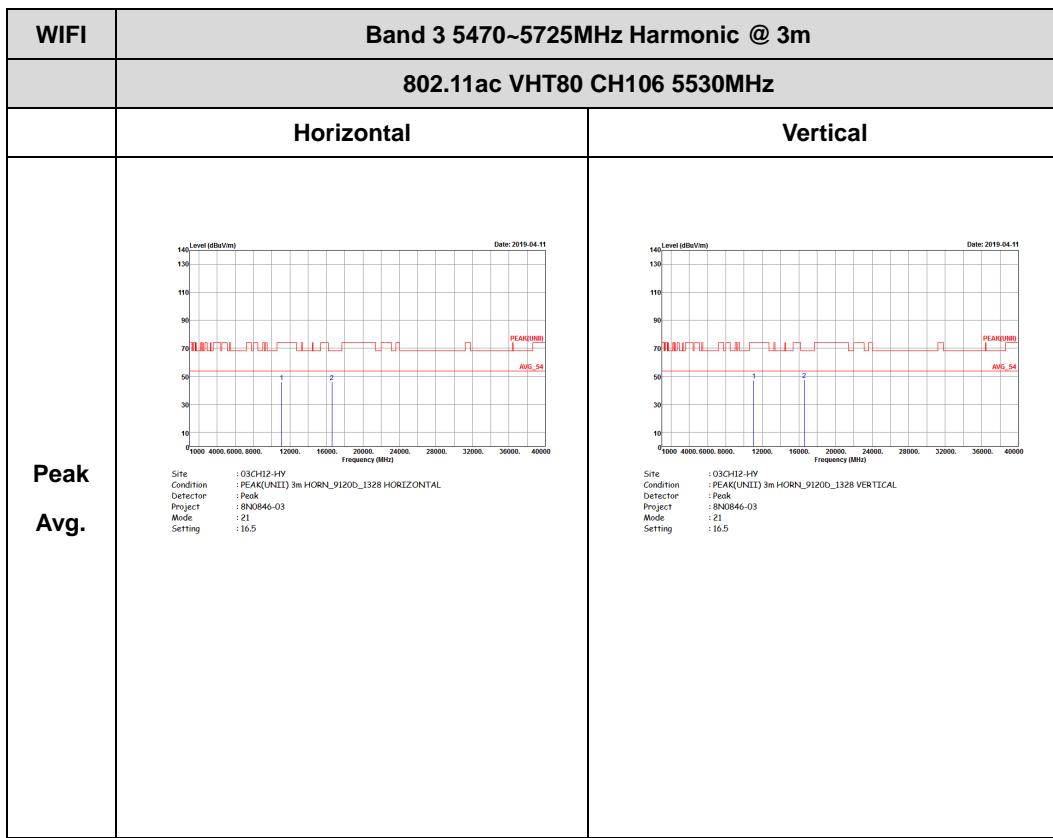


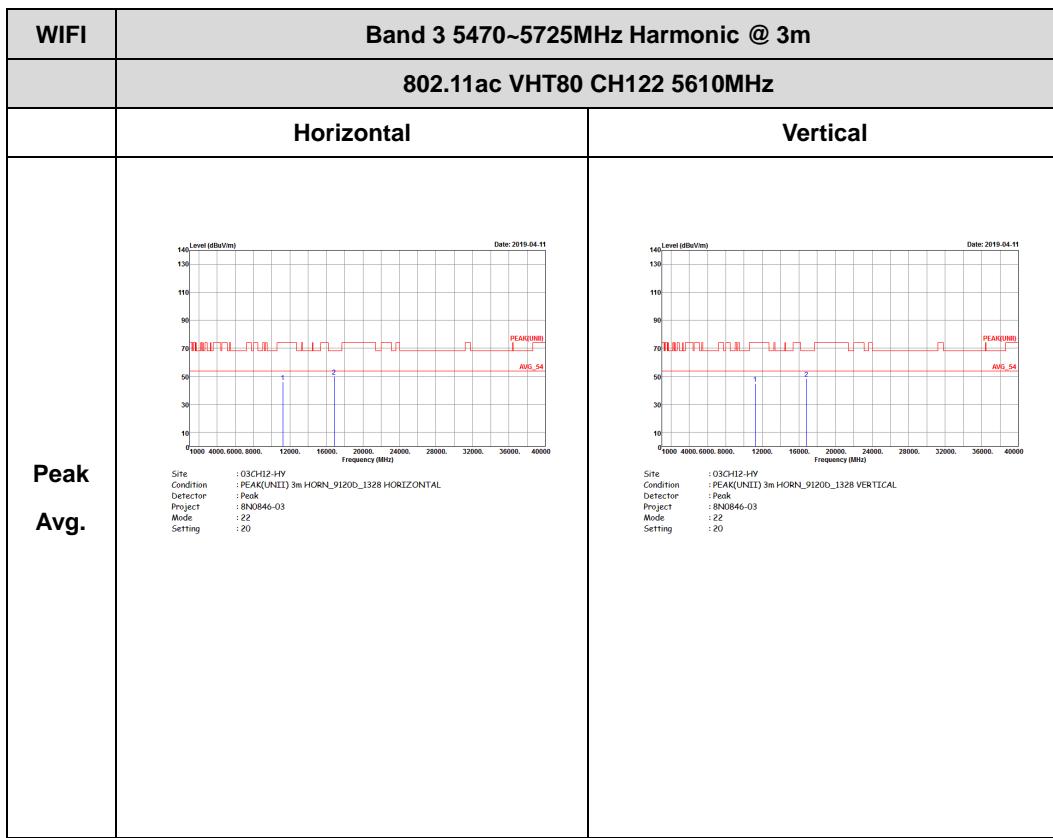




## Band 3 5470~5725MHz

## WIFI 802.11ac VHT80 (Harmonic @ 3m)

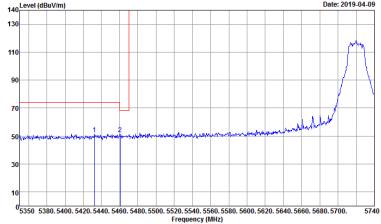
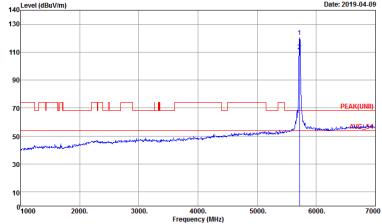
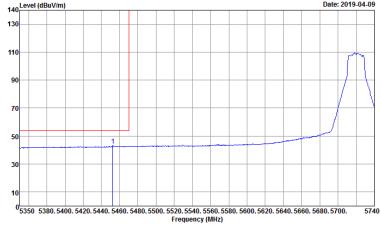






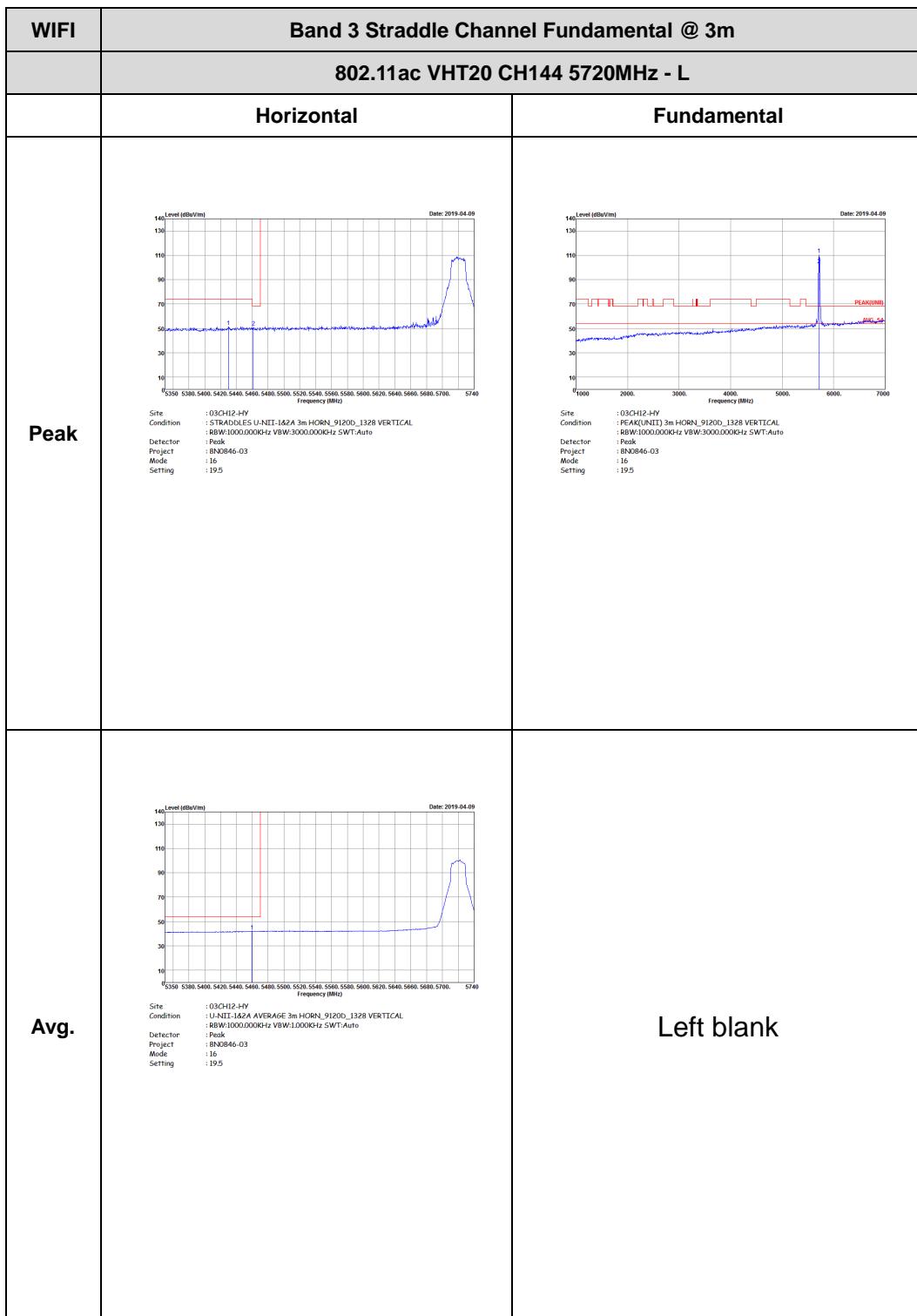
## Band 3 - Straddle Channel

## WIFI 802.11ac VHT20 (Fundamental @ 3m)

WIFI	Band 3 Straddle Channel Fundamental @ 3m	
	802.11ac VHT20 CH144 5720MHz - L	
	Horizontal	Fundamental
Peak	 Site : 03CH12-HY Condition : STRADOLESS U-NIT-JA2 A 3m HORN_9120D_1328 HORIZONTAL Detector : RBW:1000.000Hz VBW:3000.000Hz SWT:Auto Project : BN0846-03 Mode : 16 Setting : 19.5	 Site : 03CH12-HY Condition : PEAKINIT 3m HORN_9120D_1328 HORIZONTAL Detector : RBW:1000.000Hz VBW:3000.000Hz SWT:Auto Project : BN0846-03 Mode : 16 Setting : 19.5
Avg.	 Site : 03CH12-HY Condition : 142A AVERAGE 3m HORN_9120D_1328 HORIZONTAL Detector : RBW:1000.000Hz VBW:1.000Hz SWT:Auto Project : BN0846-03 Mode : 16 Setting : 19.5	Left blank



WIFI	Band 3 Straddle Channel Fundamental @ 3m	
	802.11ac VHT20 CH144 5720MHz - R	
	Horizontal	Fundamental
Peak	<p>The graph displays a spectrum analysis plot with 'Level (dBm/Vm)' on the y-axis (ranging from 10 to 140) and 'Frequency (MHz)' on the x-axis (ranging from 5700 to 5950). A blue line shows the signal level, which peaks around 5720MHz at approximately 115 dBm/Vm. A red vertical line marks the channel center at 5720MHz. A red horizontal bar labeled 'STRADDLES U-NI-18.2A' spans the bandwidth of the channel. The plot is dated '2019-04-09'. Below the graph, a series of parameters are listed:</p> <p>Site : 03CH12-HV Condition : STRADOLESS U-NIT-J&amp;2A 3m HORN, 91200_1328 HORIZONTAL Detector : 8BW1000.000kHz VBW:3000.000kHz SWT:Auto Detector : Peak Project : FR8N0846-03 Mode : 16 Setting : 10.2</p>	Left blank





WIFI	Band 3 Straddle Channel Fundamental @ 3m	
	802.11ac VHT20 CH144 5720MHz - R	
	Horizontal	Fundamental
Peak	<p>Level (dBm/Vm)</p> <p>Date: 2019-04-09</p> <p>Frequency (MHz)</p> <p>Site : 03CH12-HV Condition : STRADDLES U-NI-18.2A 3m HORN, 91200_1328 VERTICAL. Detector : 8BW1000.000kHz VBW:3000.000kHz SWT:Auto Project : Peak Model : FR8N0846-03 Setting : 10.2</p>	Left blank



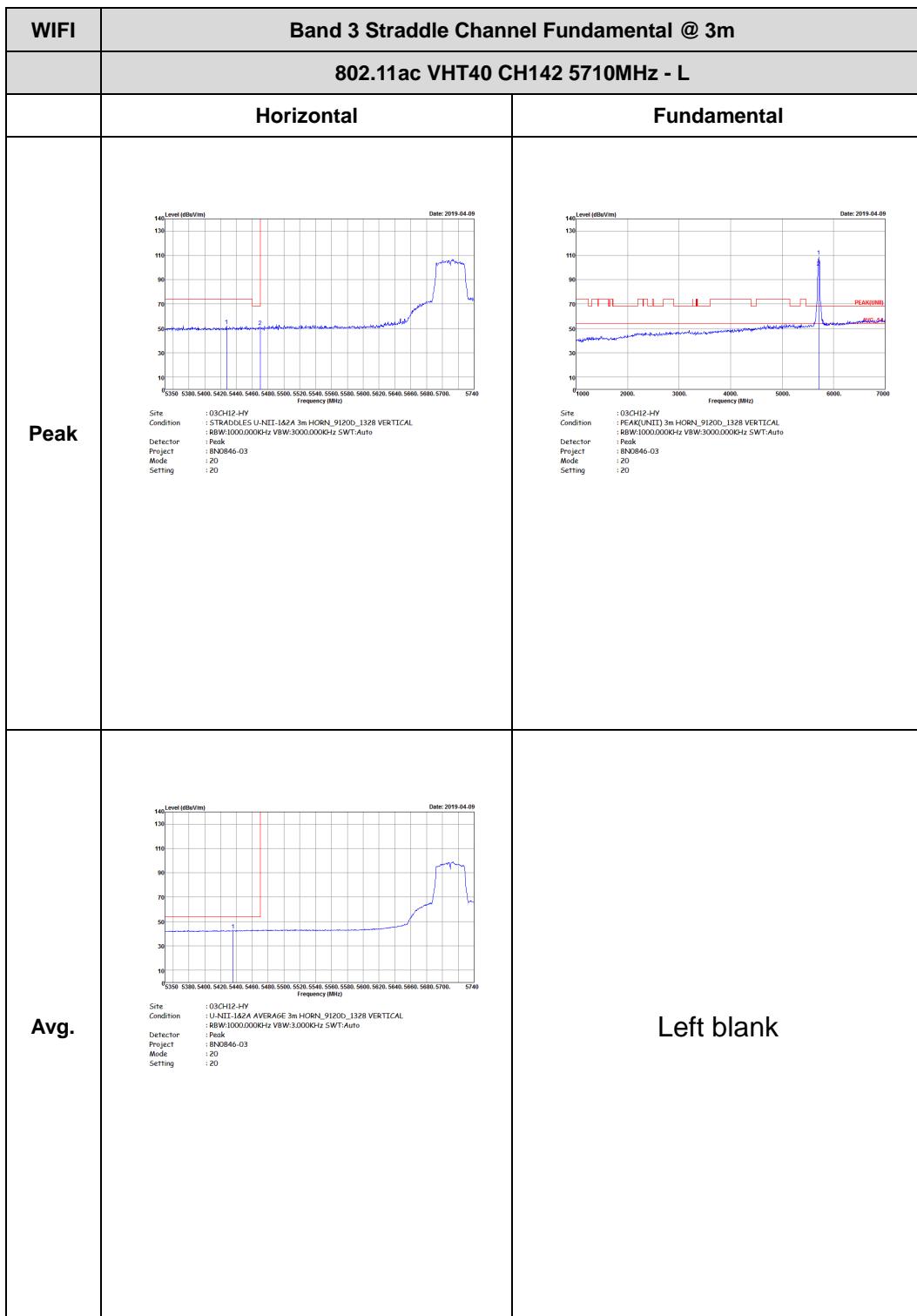
## Band 3 – Straddle Channel

WIFI 802.11ac VHT40 (Fundamental @ 3m)

WIFI	Band 3 Straddle Channel Fundamental @ 3m	
	802.11ac VHT40 CH142 5710MHz - L	
	Horizontal	Fundamental
Peak	 Site : 03CH12-HY Condition : STRADOLESS U-NIT-1A2 A 3m HORN_9120D_1328 HORIZONTAL Detector : RBW1000.000KHz VBW:3000.000KHz SWT:Auto Project : PEAK0846-03 Mode : 20 Setting : 20	 Site : 03CH12-HY Condition : PEAK(UNIT) 3m HORN_9120D_1328 HORIZONTAL Detector : RBW1000.000KHz VBW:3000.000KHz SWT:Auto Project : PEAK0846-03 Mode : 20 Setting : 20
Avg.	 Site : 03CH12-HY Condition : U-NIT-1A2 A AVERAGE 3m HORN_9120D_1328 HORIZONTAL Detector : RBW1000.000KHz VBW:3.000KHz SWT:Auto Project : 8N0846-03 Mode : 20 Setting : 20	Left blank



WIFI	Band 3 Straddle Channel Fundamental @ 3m	
	802.11ac VHT40 CH142 5710MHz - R	
	Horizontal	Fundamental
Peak	<p>Level (dBmV/m)</p> <p>Date: 2019-04-09</p> <p>Frequency (MHz)</p> <p>Site : 03CH12-HV Condition : STRADDLES U-NI-142A 3m HORN, 91200_1328 HORIZONTAL Detector : RBW1000.0000Hz VBW:3000.0000Hz SWT:Auto Project : Peak Model : FR8N0846-03 Setting : 20</p>	Left blank



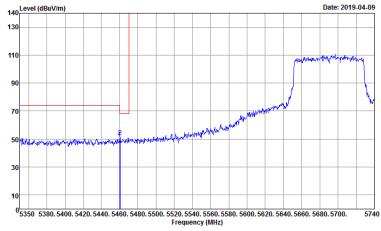
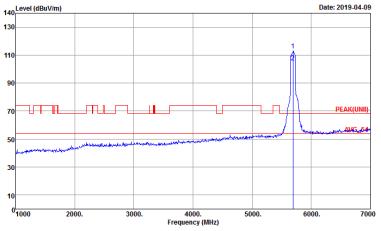
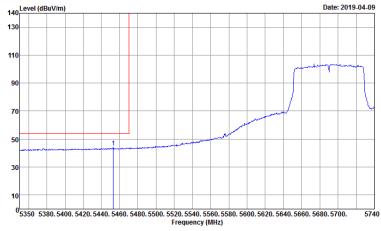


WIFI	Band 3 Straddle Channel Fundamental @ 3m	
	802.11ac VHT40 CH142 5710MHz - R	
	Horizontal	Fundamental
Peak	<p>Level (dBmV/m)</p> <p>Date: 2019-04-09</p> <p>Frequency (MHz)</p> <p>Site : 03CH12-HV Condition : STRADDLES U-NI-142A 3m HORN, 91200_1328 VERTICAL. Detector : 8BW1000.000kHz VBW:3000.000kHz SWT:Auto Project : Peak Model : 8N0846-03 Setting : 20</p>	Left blank



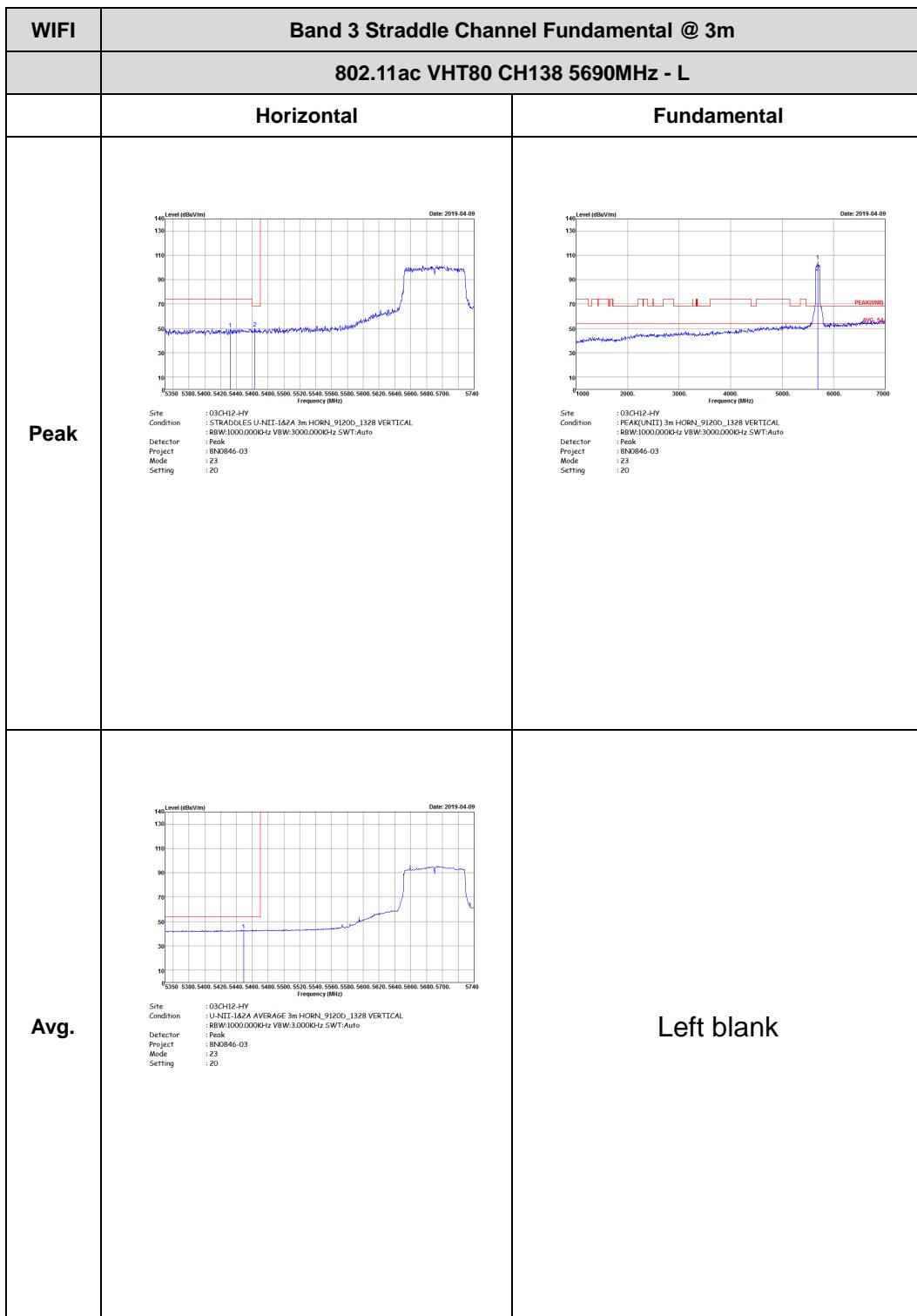
## Band 3 – Straddle Channel

## WIFI 802.11ac VHT80 (Fundamental @ 3m)

WIFI	Band 3 Straddle Channel Fundamental @ 3m	
	802.11ac VHT80 CH138 5690MHz - L	
	Horizontal	Fundamental
Peak	 Site : 03CH12-HY Condition : STRADOLESS U-NIT-JA2 A 3m HORN_9120D_1328 HORIZONTAL Detector : RBW1000.000KHz VBW:3000.000KHz SWT:Auto Project : BNO846-03 Mode : 23 Setting : 20	 Site : 03CH12-HY Condition : PEAK(UNIT) 3m HORN_9120D_1328 HORIZONTAL Detector : Peak Project : BNO846-03 Mode : 23 Setting : 20
Avg.	 Site : 03CH12-HY Condition : U-NIT-JA2 A AVERAGE 3m HORN_9120D_1328 HORIZONTAL Detector : Peak Project : BNO846-03 Mode : 23 Setting : 20	Left blank



WIFI	Band 3 Straddle Channel Fundamental @ 3m	
	802.11ac VHT80 CH138 5690MHz - R	
	Horizontal	Fundamental
Peak	<p>Level (dBmV/m)</p> <p>Date: 2019-04-09</p> <p>Frequency (MHz)</p> <p>Site : 03CH12-HV Condition : STRADDLES U-NI-18.2A 3m HORN, 91200_1328 HORIZONTAL Detector : 8BW1000.000kHz VBW:3000.000kHz SWT:Auto Project : Peak Model : FR8N0846-03 Setting : 20</p>	Left blank



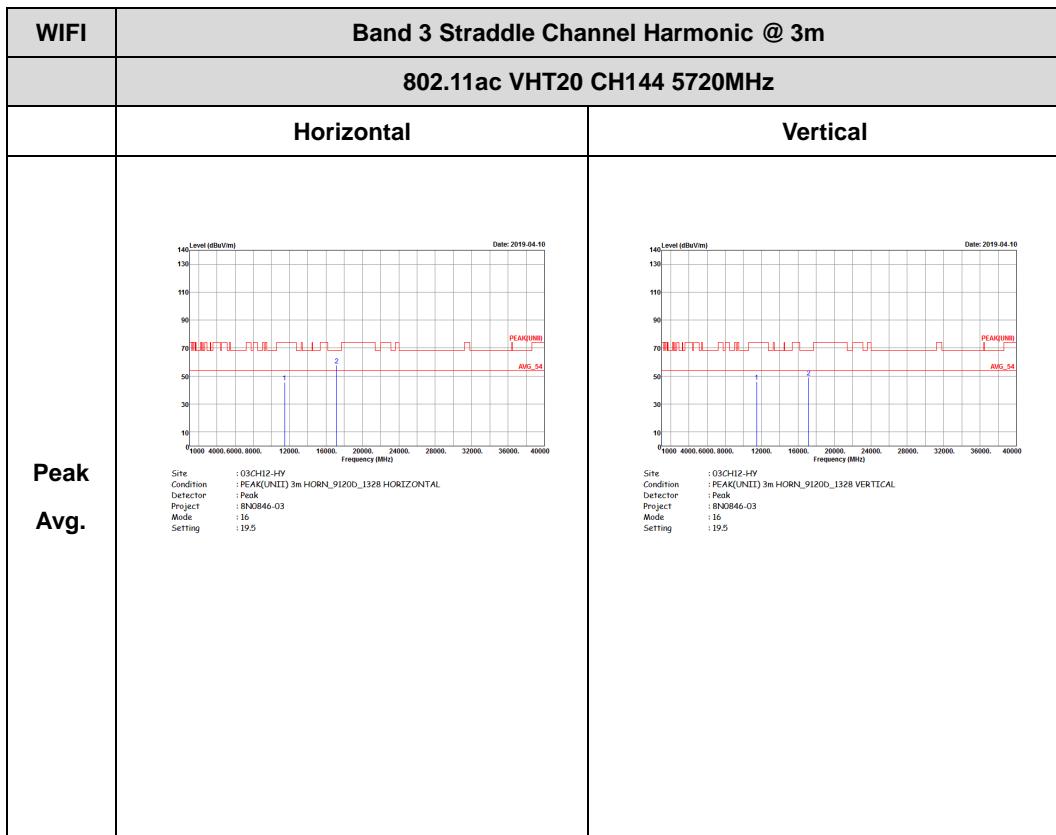


WIFI	Band 3 Straddle Channel Fundamental @ 3m	
	802.11ac VHT80 CH138 5690MHz - R	
	Horizontal	Fundamental
Peak	<p>Level (dBmV/m)</p> <p>Date: 2019-04-09</p> <p>Frequency (MHz)</p> <p>Site : 03CH12-HV Condition : STRADDLES U-NI-18.2A 3m HORN, 91200_1328 VERTICAL. Detector : 8BW1000.000kHz VBW:3000.000kHz SWT:Auto Project : Peak Model : FR8N0846-03 Setting : 20</p>	Left blank



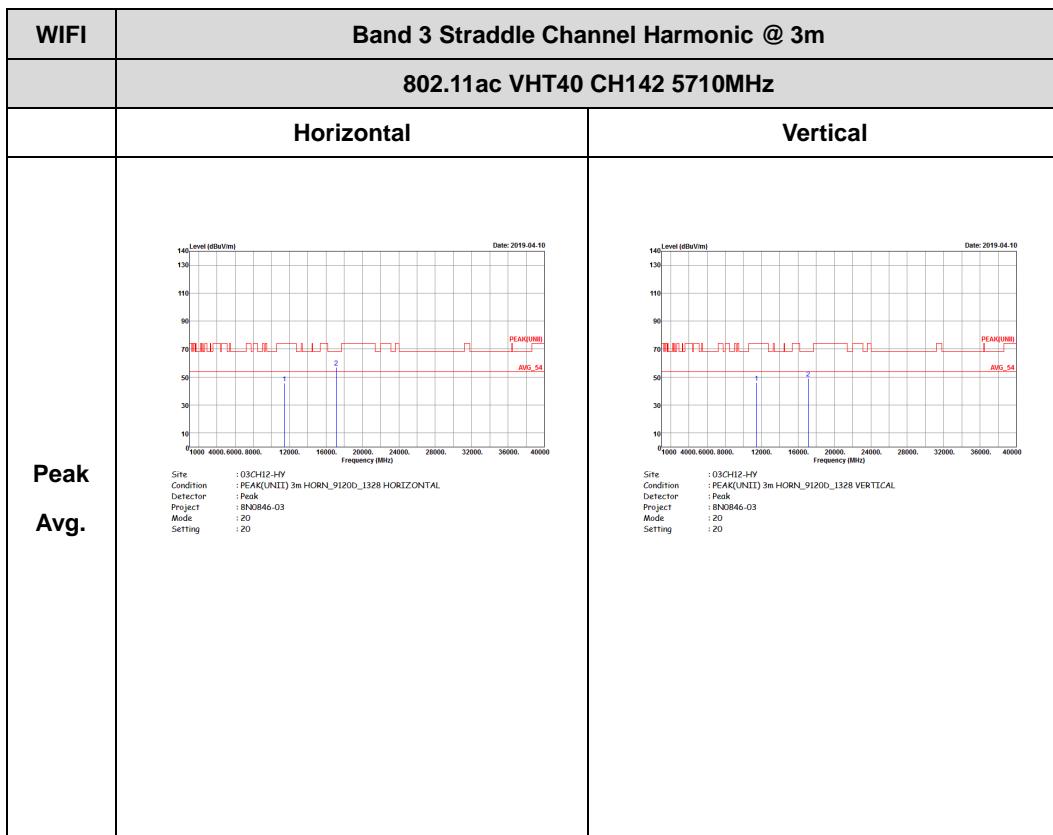
## Band 3 - Straddle Channel

## WIFI 802.11ac VHT20 (Harmonic @ 3m)



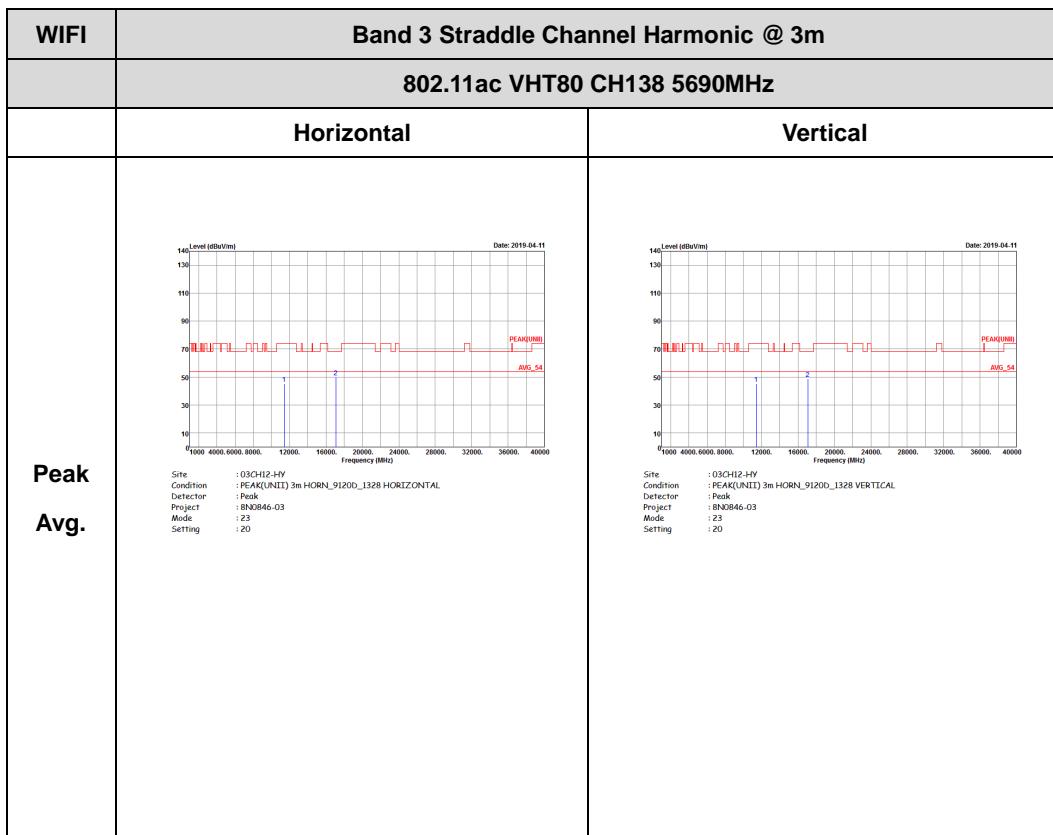


**Band 3 – Straddle Channel**  
**WIFI 802.11ac VHT40 (Harmonic @ 3m)**





**Band 3 – Straddle Channel**  
**WIFI 802.11ac VHT80 (Harmonic @ 3m)**





## Emission below 1GHz

## 5GHz WIFI 802.11ac VHT20 (LF)

