

# TEST REPORT

**Reference No.** ..... : WTF23D07163720W005  
**FCC ID**..... : 2AW4Z-SRADIO  
**Applicant** ..... : Spirit System  
**Address** ..... : K Olsine 28, 73514 Orlova-Lutyne Czech Republic  
**Manufacturer** ..... : Spirit System  
**Address** ..... : K Olsine 28, 73514 Orlova-Lutyne Czech Republic  
**Product Name** ..... : Spirit WAVE  
**Model No.** ..... : Spirit WAVE  
**Standards** ..... : FCC 47CFR Part 15 Section 15.407  
**Date of Receipt sample**..... : 2023-08-30  
**Date of Test**..... : 2023-09-15 to 2024-10-28  
**Date of Issue** ..... : 2024-11-13  
**Test Result** ..... : **Pass**

Remarks:

The results shown in this test report refer only to the sample(s) tested, this test report cannot be reproduced, except in full, without prior written permission of the company.  
The report would be invalid without specific stamp of test institute and the signatures of compiler and approver.

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### 3 Revision History

Test Report No.	Date of Receipt Sample	Date of Test	Date of Issue	Purpose	Comment	Approved
WTF23D07163720W005	2023-08-30	2023-09-15 to 2024-10-28	2024-11-13	Original	-	Valid

## 4 General Information

### 4.1 General Description of E.U.T.

Product:	Spirit WAVE
Model(s):	Spirit WAVE
Model Description:	N/A
Test Sample No.:	1-1/1
Wi-Fi Specification:	5G-802.11a/ n(HT20/40)/ac(VHT20/40/80)
Hardware Version:	1.0
Software Version:	1.0.11

### 4.2 Details of E.U.T.

Operation Frequency:	802.11a/n/ac (VHT20): U-NII-1: 5180-5240MHz, U-NII-2A: 5260-5320MHz(DFS), U-NII-2C: 5500-5700MHz(DFS), U-NII-3: 5745-5825MHz 802.11n/ac (VHT40): U-NII-1: 5190-5230MHz, U-NII-2A: 5270-5310MHz(DFS), U-NII-2C: 5510-5670MHz(DFS), U-NII-3: 5755-5795MHz 802.11ac (VHT80): U-NII-1: 5210MHz, U-NII-2A: 5290MHz(DFS), U-NII-2C: 5530-5610MHz(DFS), U-NII-3: 5775MHz
Max. RF output power:	U-NII-1: 16.9dBm U-NII-2A: 17.3dBm U-NII-2C: 18.2dBm U-NII-3: 17.8dBm
Type of Modulation:	BPSK, QPSK, 16QAM, 64QAM & 256QAM
Antenna installation:	PCB Antenna
Antenna Gain:	2.5dBi
Note:	#: The antenna gain is provided by the applicant, and the applicant should be responsible for its authenticity, WALTEK lab has not verified the authenticity of its information.
Ratings:	Input: DC 5V
Battery:	DC 3.8V, 6900mAh, 26.2Wh

### 4.3 Channel List

U-NII-1 (5.15-5.25GHz)			
channel	Frequency(MHz)	channel	Frequency(MHz)
36	5180	38	5190
40	5200	42	5210
44	5220	46	5230
48	5240		

U-NII-2A (5.25-5.35GHz)			
channel	Frequency(MHz)	channel	Frequency(MHz)
52	5260	54	5270
56	5280	58	5290
60	5300	62	5310
64	5320		

U-NII-2C (5.47-5.725GHz)			
channel	Frequency(MHz)	channel	Frequency(MHz)
100	5500	102	5510
104	5520	106	5530
108	5540	110	5550
112	5560	116	5580
118	5590	120	5600
122	5610	124	5620
126	5630	128	5640
132	5660	134	5670
136	5680	140	5700

U-NII-3 (5.725-5.85GHz)			
channel	Frequency(MHz)	channel	Frequency(MHz)
149	5745	151	5755
153	5765	155	5775
157	5785	159	5795
161	5805	165	5825

In section 15.31(m), regards to the operating frequency range over 10 MHz, the Lowest frequency, the middle frequency, and the highest frequency of channel were selected to perform the test, and the selected channel see below:

For 802.11a/n/ac(VHT20):

channel	Frequency(MHz)	channel	Frequency(MHz)
36	5180	40	5200
48	5240		

channel	Frequency(MHz)	channel	Frequency(MHz)
52	5260	56	5280
64	5320		

channel	Frequency(MHz)	channel	Frequency(MHz)
100	5500	120	5600
140	5700		

channel	Frequency(MHz)	channel	Frequency(MHz)
149	5745	157	5785
165	5825		

For 802.11n/ac(VHT40):

channel	Frequency(MHz)	channel	Frequency(MHz)
38	5190	46	5230

channel	Frequency(MHz)	channel	Frequency(MHz)
54	5270	62	5310

channel	Frequency(MHz)	channel	Frequency(MHz)
102	5510	110	5550
134	5670		

channel	Frequency(MHz)	channel	Frequency(MHz)
151	5755	159	5795

For 802.11ac(VHT80):

channel	Frequency(MHz)	channel	Frequency(MHz)
42	5210		

channel	Frequency(MHz)	channel	Frequency(MHz)
58	5290		

channel	Frequency(MHz)	channel	Frequency(MHz)
106	5530	122	5610

channel	Frequency(MHz)	channel	Frequency(MHz)
155	5775		

#### 4.4 Test Mode Description

During testing, Channel and Power Controlling Software provided by the applicant was used to control the operating channel as well as the maximum output power level. The RF output power selection is for the setting of RF output power expected by the customer and is going to be fixed on the firmware of the final end product.

Transmitting duty cycle is no less 98%.

The software is TermAssist and SecureCRT tool Use together.

Test Items	Mode	Data Rate	TX/RX
Radiated Emissions	802.11a (HT20)	6 Mbps	TX
	802.11n/ac(HT20/40/80)	MCS0	TX
Duty Cycle	802.11a (HT20)	6 Mbps	TX
	802.11n/ac(HT20/40/80)	MCS0	TX
Band Edge	802.11a (HT20)	6 Mbps	TX
	802.11n/ac(HT20/40/80)	MCS0	TX
6dB Bandwidth	802.11a (HT20)	6 Mbps	TX
	802.11n/ac(HT20/40/80)	MCS0	TX
26dB Bandwidth and 99% Occupied Bandwidth	802.11a (HT20)	6 Mbps	TX
	802.11n/ac(HT20/40/80)	MCS0	TX
Conducted Output Power	802.11a (HT20)	6 Mbps	TX
	802.11n/ac(HT20/40/80)	MCS0	TX
Power Spectral Density	802.11a (HT20)	6 Mbps	TX
	802.11n/ac(HT20/40/80)	MCS0	TX
Frequency Stability	Un-modulation	/	TX

#### 4.5 Test Facility

The test facility has a test site registered with the following organizations:

**ISED CAB identifier: CN0013. Test Firm Registration No.: 7760A.**

Waltek Testing Group Co., Ltd. Has been registered and fully described in a report filed with the Industry Canada. The acceptance letter from the Industry Canada is maintained in our files.

Registration number 7760A, October 15, 2016.

**FCC Designation No.: CN1201. Test Firm Registration No.: 523476.**

Waltek Testing Group Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration number 523476, September 10, 2019.



## 5 Equipment Used during Test

### 5.1 Equipments List

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal. Date	Calibration Due Date
<b>Conducted Emissions 1#</b>						
1	EMI Test Receiver	R&S	ESCI	100947	2023-07-27 2024-07-18	2024-07-18 2025-07-17
2	LISN	R&S	ENV216	100115	2023-07-27 2024-07-18	2024-07-18 2025-07-17
3	Cable	Top	TYPE16(3.5M)	-	2023-07-27 2024-07-18	2024-07-18 2025-07-17
<b>3m Semi-anechoic Chamber for Radiation Emissions 1#</b>						
1	Spectrum Analyzer	R&S	FSP30	100091	2023-04-24 2024-04-22	2024-04-23 2025-04-21
2	Amplifier	Agilent	8447D	2944A10178	2023-07-27 2024-07-18	2024-07-18 2025-07-17
3	Tri-log Broadband Antenna	SCHWARZBECK	VULB9163	336	2023-08-07 2024-07-21	2024-07-21 2025-07-20
4	Coaxial Cable	Top	TYPE16(13M)	-	2023-04-24 2024-04-22	2024-04-23 2025-04-21
5	Broad-band Horn Antenna	SCHWARZBECK	BBHA 9120D	667	2023-01-24 2024-01-23	2024-01-23 2025-01-22
6	Broad-band Horn Antenna	SCHWARZBECK	BBHA 9170	335	2023-07-27 2024-07-18	2024-07-18 2025-07-17
7	Broadband Pre-amplifier	COMPLIANCE	PAP-1G18	2004	2023-07-27 2024-07-18	2024-07-18 2025-07-17
8	Coaxial Cable	Top	ZT26-NJ-NJ-8M/FA	-	2023-04-24 2024-04-22	2024-04-23 2025-04-21
9	Microwave Amplifier	SCHWARZBECK	BBV 9721	100472	2023-07-27 2024-07-18	2024-07-18 2025-07-17
10	Coaxial Cable	Top	ZT40-2.92J-2.92J-2.0M	17100919	2023-04-24 2024-04-22	2024-04-23 2025-04-21
<b>3m Semi-anechoic Chamber for Radiation Emissions 2#</b>						
1	Test Receiver	R&S	ESCI	101296	2023-04-24 2024-04-22	2024-04-23 2025-04-21
2	Trilog Broadband Antenna	SCHWARZBECK	VULB9160	9160-3325	2022-11-05 2023-11-04	2023-11-04 2024-11-03
3	Active Loop Antenna	Com-Power	AL-130R	10160007	2024-04-27	2025-04-26
4	Amplifier	ANRITSU	MH648A	M43381	2023-04-24 2024-04-22	2024-04-23 2025-04-21
5	Cable	HUBER+SUHNER	CBL2	525178	2023-04-24 2024-04-22	2024-04-23 2025-04-21

#### Test Software:

Test Item	Software name	Software version
Conduction disturbance Radiated Emission(3m)	EZ-EMC	EZ-EMC(RA-03A1-1)

## 5.2 Description of Support Units

Equipment	Manufacturer	Model No.	Series No.
/	/	/	/

## 5.3 Measurement Uncertainty

Parameter	Uncertainty
Radio Frequency	$\pm 1 \times 10^{-6}$
RF Power	$\pm 1.0$ dB
RF Power Density	$\pm 2.2$ dB
Radiated Spurious Emissions test	$\pm 5.03$ dB (30M~1000MHz)
	$\pm 5.47$ dB (1000M~25000MHz)
Conducted Spurious Emissions test	$\pm 3.64$ dB (AC mains 150KHz~30MHz)

## 6 Test Summary

Test Items	Test Requirement	Result
Conducted Emissions	15.207(a)	PASS
Radiated Emissions	15.407(a) 15.205(a) 15.209(a)	PASS
Duty Cycle	KDB 789033	PASS* <sup>1</sup>
6dB Bandwidth	15.407(a)	PASS* <sup>1</sup>
26 dB Emission Bandwidth & 99% Occupied Bandwidth	15.407(a)	PASS* <sup>1</sup>
Maximum Conducted Output Power	15.407(a)	PASS* <sup>1</sup>
Power Spectral Density	15.407(a)	PASS* <sup>1</sup>
Restricted bands around fundamental frequency	15.407(a)	PASS* <sup>1</sup>
Antenna Requirement	15.203	PASS
Maximum Permissible Exposure (Exposure of Humans to RF Fields)	1.1307(b)(1)	PASS* <sup>1</sup>
Channel Closing Transmission Time and Channel Move Time	15.407(h)(2)(iii)	PASS* <sup>2</sup>
Non-Occupancy Period	15.407(h)(2)(iv)	PASS* <sup>2</sup>
<p>*<sup>1</sup>: The test result refer to the report UL-RPT-RP13337971-1616A V2.0, which FCC ID is 2ABCB-RPIRM0. The date of modular grant is 11/03/2020.</p> <p>*<sup>2</sup>: The test result refer to the report UL-RPT-RP13337971-1616C, which FCC ID is 2ABCB-RPIRM0. The date of modular grant is 11/03/2020.</p>		

## 7 Conducted Emission

Test Requirement: FCC 47CFR Part 15 Section 15.207

Test Method: ANSI C63.10:2013

Test Result: PASS

Frequency Range: 150kHz to 30MHz

Limit:

Frequency (MHz)	Limit (dB $\mu$ V)	
	Quasi-peak	Average
0.15 to 0.5	66 to 56	56 to 46
0.5 to 5	56	46
5 to 30	60	50

### 7.1 E.U.T. Operation

Operating Environment :

Temperature: 25.9 °C

Humidity: 51.6 % RH

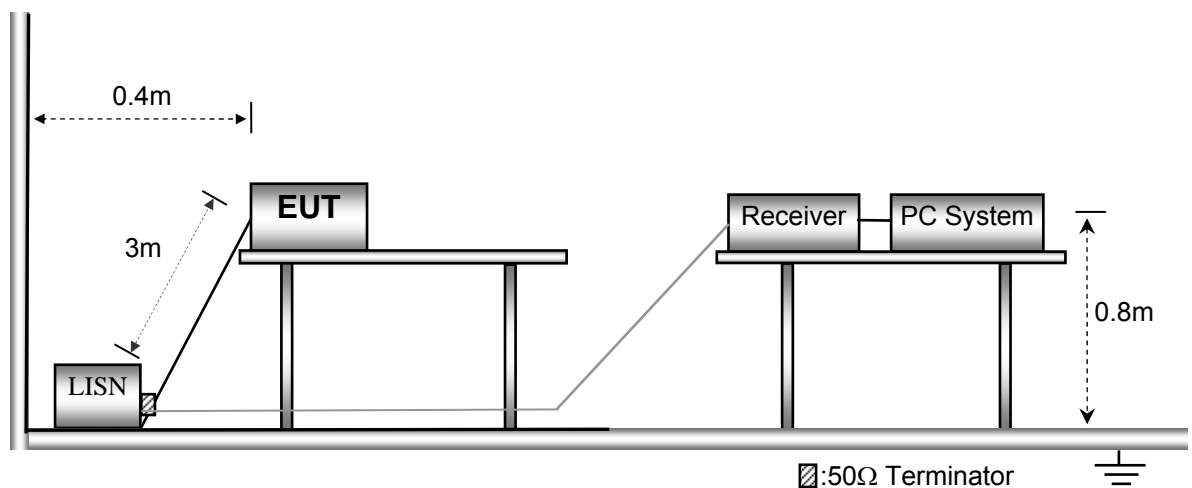
Atmospheric Pressure: 101.3kPa

EUT Operation :

The test was performed in transmitting mode, the test data were shown in the report.

### 7.2 EUT Setup

The conducted emission tests were performed using the setup accordance with the ANSI C63.10:2013.



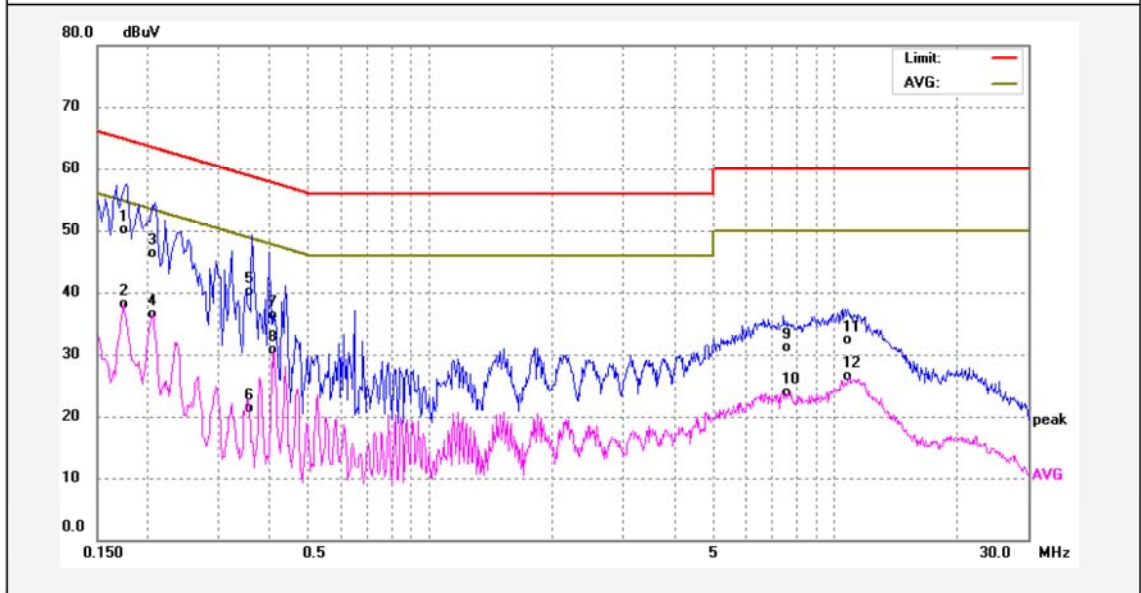
### 7.3 Measurement Description

The maximised peak emissions from the EUT was scanned and measured for both the Live and Neutral Lines. Quasi-peak & average measurements were performed if peak emissions were within 6dB of the average limit line.

### 7.4 Conducted Emission Test Result

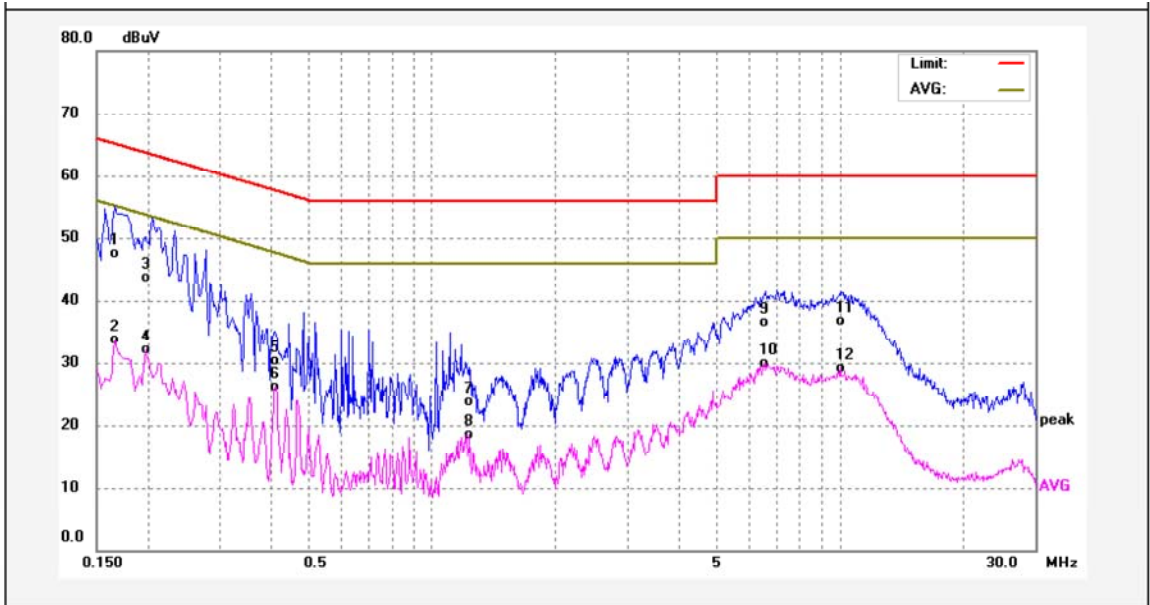
Remark: only the worst data (TX 11n20 mode High channel mode) were reported

Live line:



No.	Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Remark
1	0.1737	39.10	10.92	50.02	64.78	-14.76	QP	
2	0.1737	27.28	10.92	38.20	54.78	-16.58	AVG	
3	0.2058	35.43	10.93	46.36	63.37	-17.01	QP	
4	0.2058	25.56	10.93	36.49	53.37	-16.88	AVG	
5	0.3618	29.04	10.98	40.02	58.69	-18.67	QP	
6	0.3618	10.38	10.98	21.36	48.69	-27.33	AVG	
7	0.4097	25.38	10.98	36.36	57.65	-21.29	QP	
8	0.4097	19.73	10.98	30.71	47.65	-16.94	AVG	
9	7.6737	19.62	11.40	31.02	60.00	-28.98	QP	
10	7.6737	12.58	11.40	23.98	50.00	-26.02	AVG	
11	10.7939	20.80	11.50	32.30	60.00	-27.70	QP	
12	10.7939	14.99	11.50	26.49	50.00	-23.51	AVG	

Neutral line:



No.	Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit dBuV	Margin (dB)	Detector	Remark
1	0.1660	36.53	10.95	47.48	65.15	-17.67	QP	
2	0.1660	22.76	10.95	33.71	55.15	-21.44	AVG	
3	0.1980	32.73	10.96	43.69	63.69	-20.00	QP	
4	0.1980	21.22	10.96	32.18	53.69	-21.51	AVG	
5	0.4138	19.34	10.99	30.33	57.57	-27.24	QP	
6	0.4138	15.18	10.99	26.17	47.57	-21.40	AVG	
7	1.2298	12.71	11.03	23.74	56.00	-32.26	QP	
8	1.2298	7.44	11.03	18.47	46.00	-27.53	AVG	
9	6.5377	25.24	11.34	36.58	60.00	-23.42	QP	
10	6.5377	18.66	11.34	30.00	50.00	-20.00	AVG	
11	9.9977	25.17	11.48	36.65	60.00	-23.35	QP	
12	9.9977	17.72	11.48	29.20	50.00	-20.80	AVG	

## 8 Radiated Emissions

Test Requirement: FCC 47CFR Part 15 Section 15.209 & 15.407

Test Method: ANSI C63.10:2013

Test Result: PASS

Measurement Distance: 3m

Limit:

Frequency (MHz)	Field Strength		Field Strength Limit at 3m Measurement Distance	
	uV/m	Distance (m)	uV/m	dBuV/m
0.009 ~ 0.490	$2400/F(\text{kHz})$	300	$10000 * 2400/F(\text{kHz})$	$20\log^{(2400/F(\text{kHz}))} + 80$
0.490 ~ 1.705	$24000/F(\text{kHz})$	30	$100 * 24000/F(\text{kHz})$	$20\log^{(24000/F(\text{kHz}))} + 40$
1.705 ~ 30	30	30	$100 * 30$	$20\log^{(30)} + 40$
30 ~ 88	100	3	100	$20\log^{(100)}$
88 ~ 216	150	3	150	$20\log^{(150)}$
216 ~ 960	200	3	200	$20\log^{(200)}$
Above 960	500	3	500	$20\log^{(500)}$

### 8.1 EUT Operation

Operating Environment :

Temperature: 25.9 °C

Humidity: 59.6 % RH

Atmospheric Pressure: 101.1kPa

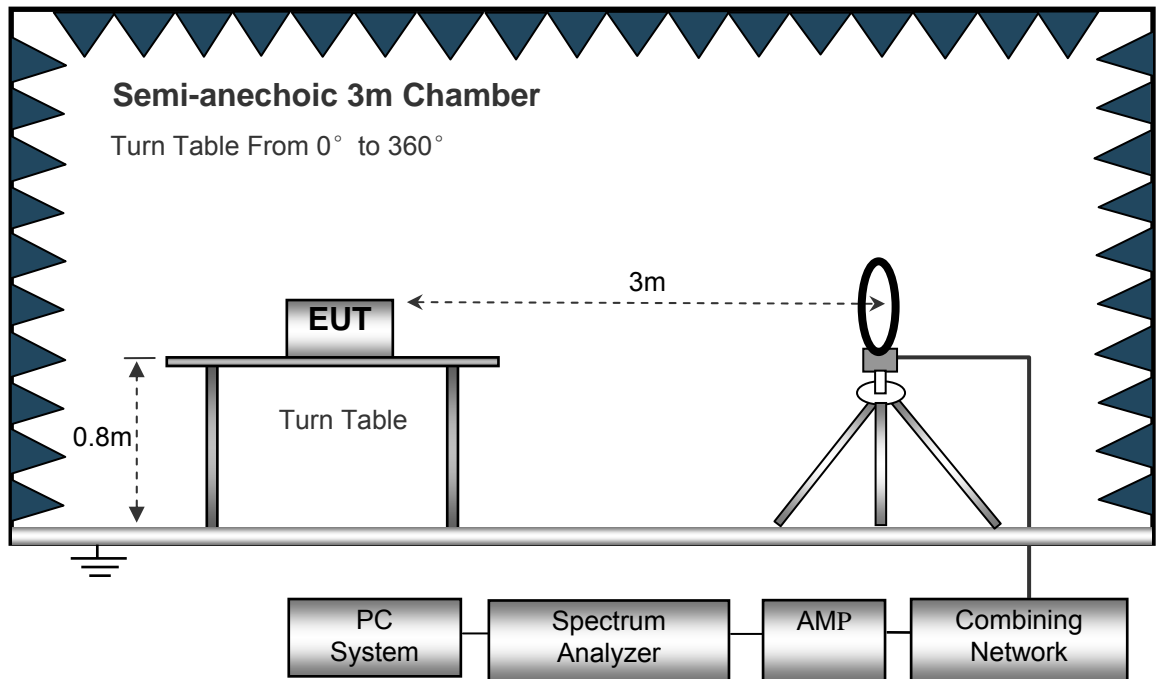
EUT Operation :

The test was performed in transmitting mode, the test data were shown in the report.

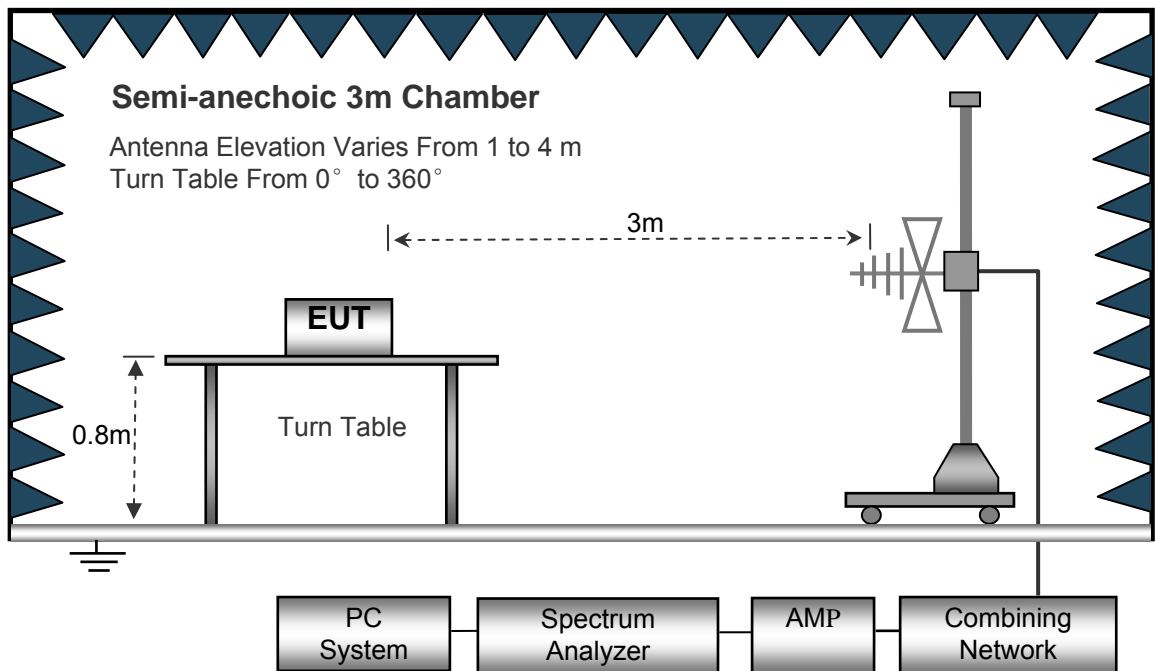
## 8.2 Test Setup

The radiated emission tests were performed in the 3m Semi- Anechoic Chamber test site, using the setup accordance with the ANSI C63.10: 2013.

The test setup for emission measurement below 30MHz.

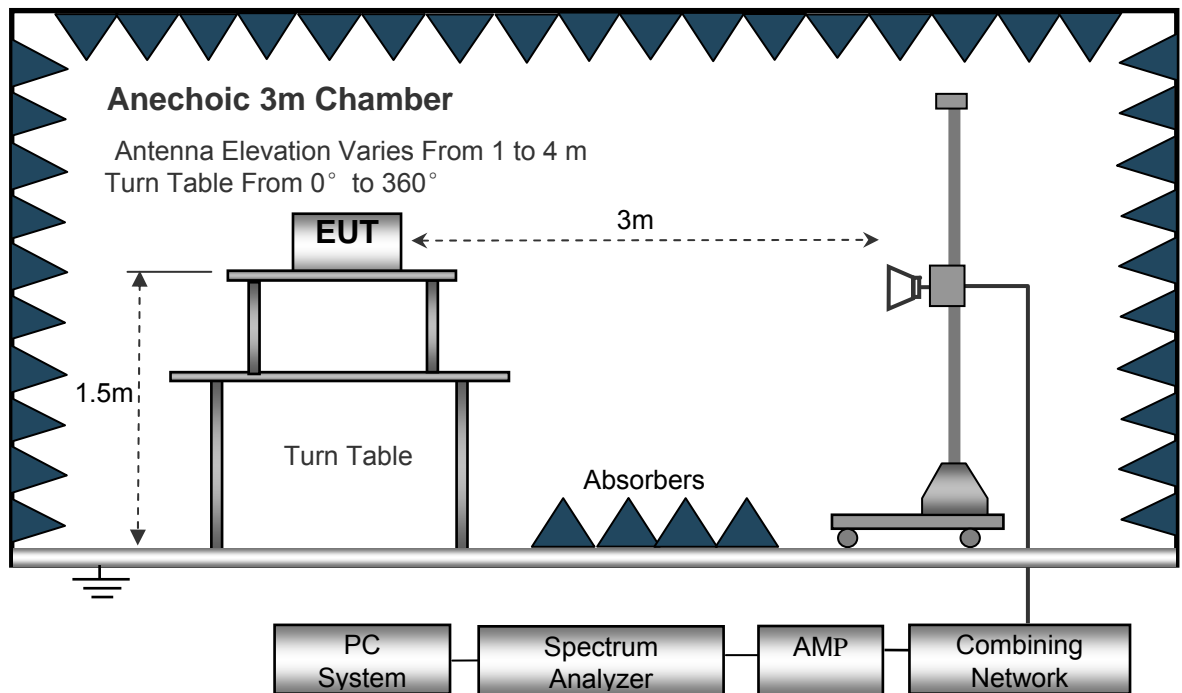


The test setup for emission measurement from 30 MHz to 1 GHz.





The test setup for emission measurement above 1 GHz.



### 8.3 Spectrum Analyzer Setup

Below 30MHz

Sweep Speed ..... Auto  
 IF Bandwidth..... 10kHz  
 Video Bandwidth..... 10kHz  
 Resolution Bandwidth..... 10kHz

30MHz ~ 1GHz

Sweep Speed ..... Auto  
 Detector ..... PK  
 Resolution Bandwidth..... 100kHz  
 Video Bandwidth..... 300kHz

Above 1GHz

Sweep Speed ..... Auto  
 Detector ..... PK  
 Resolution Bandwidth..... 1MHz  
 Video Bandwidth..... 3MHz  
 Detector ..... Ave.  
 Resolution Bandwidth..... 1MHz  
 Video Bandwidth..... 10Hz

## 8.4 Test Procedure

1. The EUT is placed on a turntable, which is 0.8m above ground plane for below 1GHz and 1.5m for above 1GHz.
2. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level.
3. EUT is set 3m away from the receiving antenna, which is moved from 1m to 4m to find out the maximum emissions.
4. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
5. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
6. Repeat above procedures until the measurements for all frequencies are complete.
7. The radiation measurements are performed in X,Y and Z axis positioning(X denotes lying on the table, Y denotes side stand and Z denotes vertical stand),the worst condition was tested putting the eut in X axis,so the worst data were shown as follow.
8. A 2.4GHz high –pass filter is used during radiated emissions above 1GHz measurement.

## 8.5 Corrected Amplitude & Margin Calculation

The Corrected Amplitude is calculated by adding the Antenna Factor and Cable Factor, and subtracting the Amplifier Gain from the Amplitude reading. The basic equation is as follows:

$$\text{Corr. Ampl.} = \text{Indicated Reading} + \text{Antenna Factor} + \text{Cable Factor} - \text{Amplifier Gain}$$

The “Margin” column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of -7dB means the emission is 7dB below the maximum limit for Class B. The equation for margin calculation is as follows:

$$\text{Margin} = \text{Corr. Ampl.} - \text{Limit}$$

## 8.6 Summary of Test Results

### Test Frequency: 9KHz~30MHz

The measurements were more than 20 dB below the limit and not reported.

### Test Frequency : 30MHz ~ 18GHz

Frequency	Receiver Reading	Detector	Turn table Angle	RX Antenna		Corrected Factor	Corrected Amplitude	FCC Part 15.407/209/205	
				Height	Polar			Limit	Margin
(MHz)	(dB $\mu$ V)	(PK/QP/Ave)	Degree	(m)	(H/V)	(dB)	(dB $\mu$ V/m)	(dB $\mu$ V/m)	(dB)
802.11a U-NII-1 Low Channel 5180MHz									
256.58	43.14	QP	301	1.7	H	-11.62	31.52	46.00	-14.48
256.58	47.46	QP	171	1.2	V	-11.62	35.84	46.00	-10.16
4514.34	53.97	PK	26	1.7	H	-2.03	51.94	74.00	-22.06
4514.34	44.11	Ave	26	1.7	H	-2.03	42.08	54.00	-11.92
5134.89	52.81	PK	332	1.1	H	-1.02	51.79	74.00	-22.21
5134.89	45.08	Ave	332	1.1	H	-1.02	44.06	54.00	-9.94
10360.00	42.28	PK	128	1.8	H	5.33	47.61	74.00	-26.39
10360.00	37.32	Ave	128	1.8	H	5.33	42.65	54.00	-11.35
802.11a U-NII-1 Middle channel 5200MHz									
256.58	42.28	QP	76	1.1	H	-11.62	30.66	46.00	-15.34
256.58	48.17	QP	273	1.2	V	-11.62	36.55	46.00	-9.45
4519.13	52.68	PK	262	1.7	H	-1.94	50.74	74.00	-23.26
4519.13	44.49	Ave	262	1.7	H	-1.94	42.55	54.00	-11.45
5141.92	54.73	PK	12	1.1	H	-1.06	53.67	74.00	-20.33
5141.92	44.54	Ave	12	1.1	H	-1.06	43.48	54.00	-10.52
10400.00	42.39	PK	0	1.3	H	5.21	47.60	74.00	-26.40
10400.00	38.33	Ave	0	1.3	H	5.21	43.54	54.00	-10.46

Frequency	Receiver Reading	Detector	Turn table Angle	RX Antenna		Corrected Factor	Corrected Amplitude	FCC Part 15.407/209/205	
				Height	Polar			Limit	Margin
(MHz)	(dB $\mu$ V)	(PK/QP/Ave)	Degree	(m)	(H/V)	(dB)	(dB $\mu$ V/m)	(dB $\mu$ V/m)	(dB)
802.11a U-NII-1 High channel 5240MHz									
256.58	40.99	QP	112	1.3	H	-11.62	29.37	46.00	-16.63
256.58	46.74	QP	265	1.5	V	-11.62	35.12	46.00	-10.88
4501.51	51.25	PK	143	1.5	H	-2.24	49.01	74.00	-24.99
4501.51	45.34	Ave	143	1.5	H	-2.24	43.10	54.00	-10.90
5113.17	54.56	PK	162	1.4	H	-1.09	53.47	74.00	-20.53
5113.17	45.34	Ave	162	1.4	H	-1.09	44.25	54.00	-9.75
10480.00	41.88	PK	215	1.5	H	5.14	47.02	74.00	-26.98
10480.00	37.51	Ave	215	1.5	H	5.14	42.65	54.00	-11.35
802.11a U-NII-2A Low Channel 5260MHz									
256.58	42.63	QP	341	1.3	H	-11.62	31.01	46.00	-14.99
256.58	47.39	QP	53	1.6	V	-11.62	35.77	46.00	-10.23
4533.56	55.21	PK	37	1.4	H	-2.03	53.18	74.00	-20.82
4533.56	41.23	Ave	37	1.4	H	-2.03	39.20	54.00	-14.80
5123.46	52.77	PK	212	1.4	H	-1.02	51.75	74.00	-22.25
5123.46	38.50	Ave	212	1.4	H	-1.02	37.48	54.00	-16.52
10520.00	41.63	PK	155	2.0	H	5.33	46.96	74.00	-27.04
10520.00	33.29	Ave	155	2.0	H	5.33	38.62	54.00	-15.38

Frequency	Receiver Reading	Detector	Turn table Angle	RX Antenna		Corrected Factor	Corrected Amplitude	FCC Part 15.407/209/205	
				Height	Polar			Limit	Margin
(MHz)	(dB $\mu$ V)	(PK/QP/Ave)	Degree	(m)	(H/V)	(dB)	(dB $\mu$ V/m)	(dB $\mu$ V/m)	(dB)
802.11a U-NII-2A middle channel 5280MHz									
256.58	42.01	QP	226	1.1	H	-11.62	30.39	46.00	-15.61
256.58	47.95	QP	14	1.7	V	-11.62	36.33	46.00	-9.67
4503.31	55.44	PK	189	1.4	H	-1.94	53.50	74.00	-20.50
4503.31	40.67	Ave	189	1.4	H	-1.94	38.73	54.00	-15.27
5122.47	51.80	PK	265	1.6	H	-1.06	50.74	74.00	-23.26
5122.47	39.58	Ave	265	1.6	H	-1.06	38.52	54.00	-15.48
10560.00	40.13	PK	301	2.0	H	5.21	45.34	74.00	-28.66
10560.00	33.54	Ave	301	2.0	H	5.21	38.75	54.00	-15.25
802.11a U-NII-2A High channel 5320MHz									
256.58	42.74	QP	250	1.1	H	-11.62	31.12	46.00	-14.88
256.58	49.04	QP	262	1.1	V	-11.62	37.42	46.00	-8.58
4511.96	55.96	PK	116	1.7	H	-2.24	53.72	74.00	-20.28
4511.96	40.01	Ave	116	1.7	H	-2.24	37.77	54.00	-16.23
5114.34	53.13	PK	311	1.2	H	-1.09	52.04	74.00	-21.96
5114.34	41.30	Ave	311	1.2	H	-1.09	40.21	54.00	-13.79
10640.00	41.47	PK	98	1.7	H	5.14	46.61	74.00	-27.39
10640.00	33.40	Ave	98	1.7	H	5.14	38.54	54.00	-15.46

Frequency (MHz)	Receiver Reading (dB $\mu$ V)	Detector (PK/QP/Ave)	Turn table Angle Degree	RX Antenna		Corrected Factor (dB)	Corrected Amplitude (dB $\mu$ V/m)	FCC Part 15.407/209/205	
				Height (m)	Polar (H/V)			Limit (dB $\mu$ V/m)	Margin (dB)
802.11a U-NII-2C Low Channel 5500MHz									
256.58	43.37	QP	3	1.6	H	-11.62	31.75	46.00	-14.25
256.58	48.58	QP	224	1.6	V	-11.62	36.96	46.00	-9.04
4527.72	53.21	PK	239	1.3	H	-2.03	51.18	74.00	-22.82
4527.72	39.77	Ave	239	1.3	H	-2.03	37.74	54.00	-16.26
5116.90	53.96	PK	267	1.7	H	-1.02	52.94	74.00	-21.06
5116.90	38.89	Ave	267	1.7	H	-1.02	37.87	54.00	-16.13
11000.00	41.09	PK	283	1.7	H	5.33	46.42	74.00	-27.58
11000.00	37.11	Ave	283	1.7	H	5.33	42.44	54.00	-11.56
802.11a U-NII-2C Middle channel 5600MHz									
256.58	42.29	QP	341	1.6	H	-11.62	30.67	46.00	-15.33
256.58	48.71	QP	337	1.6	V	-11.62	37.09	46.00	-8.91
4514.31	54.51	PK	284	1.5	H	-1.94	52.57	74.00	-21.43
4514.31	40.57	Ave	284	1.5	H	-1.94	38.63	54.00	-15.37
5114.79	55.38	PK	205	1.4	H	-1.06	54.32	74.00	-19.68
5114.79	38.68	Ave	205	1.4	H	-1.06	37.62	54.00	-16.38
11200.00	40.53	PK	97	1.1	H	5.21	45.74	74.00	-28.26
11200.00	37.90	Ave	97	1.1	H	5.21	43.11	54.00	-10.89

Frequency	Receiver Reading	Detector	Turn table Angle	RX Antenna		Corrected Factor	Corrected Amplitude	FCC Part 15.407/209/205	
				Height	Polar			Limit	Margin
(MHz)	(dB $\mu$ V)	(PK/QP/Ave)	Degree	(m)	(H/V)	(dB)	(dB $\mu$ V/m)	(dB $\mu$ V/m)	(dB)
802.11a U-NII-2C High channel 5700MHz									
256.58	42.18	QP	266	1.6	H	-11.62	30.56	46.00	-15.44
256.58	47.69	QP	46	1.7	V	-11.62	36.07	46.00	-9.93
4535.84	55.03	PK	4	1.2	H	-2.24	52.79	74.00	-21.21
4535.84	39.47	Ave	4	1.2	H	-2.24	37.23	54.00	-16.77
5116.83	54.95	PK	222	1.9	H	-1.09	53.86	74.00	-20.14
5116.83	39.78	Ave	222	1.9	H	-1.09	38.69	54.00	-15.31
11400.00	41.67	PK	210	1.8	H	5.14	46.81	74.00	-27.19
11400.00	36.31	Ave	210	1.8	H	5.14	41.45	54.00	-12.55
802.11a U-NII-3 Low Channel 5745MHz									
256.58	43.57	QP	231	1.3	H	-11.62	31.95	46.00	-14.05
256.58	48.28	QP	156	1.7	V	-11.62	36.66	46.00	-9.34
4503.79	52.55	PK	37	1.5	H	-2.06	50.49	74.00	-23.51
4503.79	44.62	Ave	37	1.5	H	-2.06	42.56	54.00	-11.44
5376.03	42.00	PK	340	1.0	H	5.93	47.93	74.00	-26.07
5376.03	38.67	Ave	340	1.0	H	5.93	44.60	54.00	-9.40
11490.00	45.79	PK	108	1.9	H	-1.25	44.54	74.00	-29.46
11490.00	38.75	Ave	108	1.9	H	-1.25	37.50	54.00	-16.50

Frequency	Receiver Reading	Detector	Turn table Angle	RX Antenna		Corrected Factor	Corrected Amplitude	FCC Part 15.407/209/205	
				Height	Polar			Limit	Margin
(MHz)	(dB $\mu$ V)	(PK/QP/Ave)	Degree	(m)	(H/V)	(dB)	(dB $\mu$ V/m)	(dB $\mu$ V/m)	(dB)
802.11a U-NII-3 middle channel 5785MHz									
256.58	42.54	QP	35	1.8	H	-11.62	30.92	46.00	-15.08
256.58	47.56	QP	309	1.5	V	-11.62	35.94	46.00	-10.06
4511.03	53.01	PK	296	1.8	H	-2.03	50.98	74.00	-23.02
4511.03	45.75	Ave	296	1.8	H	-2.03	43.72	54.00	-10.28
5368.49	40.81	PK	214	1.6	H	5.81	46.62	74.00	-27.38
5368.49	36.77	Ave	214	1.6	H	5.81	42.58	54.00	-11.42
11570.00	45.86	PK	36	1.6	H	-1.22	44.64	74.00	-29.36
11570.00	39.39	Ave	36	1.6	H	-1.22	38.17	54.00	-15.83
802.11a U-NII-3 High channel 5825MHz									
256.58	42.13	QP	104	1.2	H	-11.62	30.51	46.00	-15.49
256.58	47.00	QP	342	1.1	V	-11.62	35.38	46.00	-10.62
4526.00	53.31	PK	305	1.3	H	-1.84	51.47	74.00	-22.53
4526.00	47.04	Ave	305	1.3	H	-1.84	45.20	54.00	-8.80
5383.01	41.63	PK	65	1.6	H	5.84	47.47	74.00	-26.53
5383.01	38.89	Ave	65	1.6	H	5.84	44.73	54.00	-9.27
11650.00	45.83	PK	151	1.6	H	-1.30	44.53	74.00	-29.47
11650.00	37.12	Ave	151	1.6	H	-1.30	35.82	54.00	-18.18



Frequency (MHz)	Receiver Reading (dB $\mu$ V)	Detector (PK/QP/Ave)	Turn table Angle Degree	RX Antenna		Corrected Factor (dB)	Corrected Amplitude (dB $\mu$ V/m)	FCC Part 15.407/209/205	
				Height (m)	Polar (H/V)			Limit (dB $\mu$ V/m)	Margin (dB)
802.11n(HT20) U-NII-1 Low Channel 5180MHz									
256.58	43.43	QP	323	1.8	H	-11.62	31.81	46.00	-14.19
256.58	46.71	QP	223	1.3	V	-11.62	35.09	46.00	-10.91
4520.52	53.70	PK	54	1.4	H	-2.14	51.56	74.00	-22.44
4520.52	47.93	Ave	54	1.4	H	-2.14	45.79	54.00	-8.21
5144.66	45.13	PK	54	1.6	H	-1.06	44.07	74.00	-29.93
5144.66	39.38	Ave	54	1.6	H	-1.06	38.32	54.00	-15.68
10360.00	41.86	PK	49	1.1	H	5.33	47.19	74.00	-26.81
10360.00	36.51	Ave	49	1.1	H	5.33	41.84	54.00	-12.16
802.11n(HT20) U-NII-1 Middle channel 5200MHz									
256.58	43.93	QP	37	1.1	H	-11.62	32.31	46.00	-13.69
256.58	46.52	QP	85	1.5	V	-11.62	34.90	46.00	-11.10
4503.47	53.37	PK	160	1.5	H	-2.12	51.25	74.00	-22.75
4503.47	47.93	Ave	160	1.5	H	-2.12	45.81	54.00	-8.19
5133.82	45.48	PK	302	1.6	H	-1.06	44.42	74.00	-29.58
5133.82	38.79	Ave	302	1.6	H	-1.06	37.73	54.00	-16.27
10400.00	41.83	PK	102	1.2	H	5.21	47.04	74.00	-26.96
10400.00	36.32	Ave	102	1.2	H	5.21	41.53	54.00	-12.47

Frequency	Receiver Reading	Detector	Turn table Angle	RX Antenna		Corrected Factor	Corrected Amplitude	FCC Part 15.407/209/205	
				Height	Polar			Limit	Margin
(MHz)	(dB $\mu$ V)	(PK/QP/Ave)	Degree	(m)	(H/V)	(dB)	(dB $\mu$ V/m)	(dB $\mu$ V/m)	(dB)
802.11n(HT20) U-NII-1 High channel 5240MHz									
256.58	43.40	QP	306	1.5	H	-11.62	31.78	46.00	-14.22
256.58	47.08	QP	300	1.7	V	-11.62	35.46	46.00	-10.54
4513.57	53.27	PK	121	1.1	H	-1.96	51.31	74.00	-22.69
4513.57	46.96	Ave	121	1.1	H	-1.96	45.00	54.00	-9.00
5110.35	46.73	PK	177	1.4	H	-1.06	45.67	74.00	-28.33
5110.35	40.56	Ave	177	1.4	H	-1.06	39.50	54.00	-14.50
10480.00	41.27	PK	0	1.9	H	5.14	46.41	74.00	-27.59
10480.00	37.24	Ave	0	1.9	H	5.14	42.38	54.00	-11.62
802.11n(HT20) U-NII-2A Low Channel 5260MHz									
256.58	45.03	QP	251	1.3	H	-11.62	33.41	46.00	-12.59
256.58	46.27	QP	333	1.9	V	-11.62	34.65	46.00	-11.35
4531.88	38.19	PK	13	1.4	H	-2.03	36.16	74.00	-37.84
4531.88	44.99	Ave	13	1.4	H	-2.03	42.96	54.00	-11.04
5141.00	39.82	PK	1	1.3	H	-1.02	38.80	74.00	-35.20
5141.00	1.02	Ave	1	1.3	H	-1.02	0.00	54.00	-54.00
10520.00	42.04	PK	247	1.4	H	5.33	47.37	74.00	-26.63
10520.00	43.81	Ave	247	1.4	H	5.33	49.14	54.00	-4.86

Frequency	Receiver Reading	Detector	Turn table Angle	RX Antenna		Corrected Factor	Corrected Amplitude	FCC Part 15.407/209/205	
				Height	Polar			Limit	Margin
(MHz)	(dB $\mu$ V)	(PK/QP/Ave)	Degree	(m)	(H/V)	(dB)	(dB $\mu$ V/m)	(dB $\mu$ V/m)	(dB)
802.11n(HT20) U-NII-2A middle channel 5280MHz									
256.58	45.37	QP	47	1.5	H	-11.62	33.75	46.00	-12.25
256.58	44.80	QP	320	1.8	V	-11.62	33.18	46.00	-12.82
4508.22	38.33	PK	158	1.8	H	-1.94	36.39	74.00	-37.61
4508.22	43.75	Ave	158	1.8	H	-1.94	41.81	54.00	-12.19
5137.20	41.16	PK	38	1.6	H	-1.06	40.10	74.00	-33.90
5137.20	2.53	Ave	38	1.6	H	-1.06	1.47	54.00	-52.53
10560.00	43.49	PK	11	1.4	H	5.21	48.70	74.00	-25.30
10560.00	42.48	Ave	11	1.4	H	5.21	47.69	54.00	-6.31
802.11n(HT20) U-NII-2A High channel 5320MHz									
256.58	45.29	QP	38	1.4	H	-11.62	33.67	46.00	-12.33
256.58	43.38	QP	142	2.0	V	-11.62	31.76	46.00	-14.24
4511.03	39.61	PK	300	1.4	H	-2.24	37.37	74.00	-36.63
4511.03	43.79	Ave	300	1.4	H	-2.24	41.55	54.00	-12.45
5117.12	40.94	PK	198	1.1	H	-1.09	39.85	74.00	-34.15
5117.12	3.29	Ave	198	1.1	H	-1.09	2.20	54.00	-51.80
10640.00	42.91	PK	188	2.0	H	5.14	48.05	74.00	-25.95
10640.00	43.22	Ave	188	2.0	H	5.14	48.36	54.00	-5.64

Frequency (MHz)	Receiver Reading (dB $\mu$ V)	Detector (PK/QP/Ave)	Turn table Angle Degree	RX Antenna		Corrected Factor (dB)	Corrected Amplitude (dB $\mu$ V/m)	FCC Part 15.407/209/205	
				Height (m)	Polar (H/V)			Limit (dB $\mu$ V/m)	Margin (dB)
802.11n(HT20) U-NII-2C Low Channel 5500MHz									
256.58	43.37	QP	109	1.7	H	-11.62	31.75	46.00	-14.25
256.58	46.95	QP	23	1.9	V	-11.62	35.33	46.00	-10.67
4530.27	54.24	PK	269	1.2	H	-2.03	52.21	74.00	-21.79
4530.27	44.12	Ave	269	1.2	H	-2.03	42.09	54.00	-11.91
5120.90	53.18	PK	61	1.4	H	-1.02	52.16	74.00	-21.84
5120.90	45.10	Ave	61	1.4	H	-1.02	44.08	54.00	-9.92
11000.00	42.18	PK	195	1.5	H	5.33	47.51	74.00	-26.49
11000.00	37.11	Ave	195	1.5	H	5.33	42.44	54.00	-11.56
802.11n(HT20) U-NII-2C Middle channel 5600MHz									
256.58	42.58	QP	225	1.6	H	-11.62	30.96	46.00	-15.04
256.58	47.59	QP	42	1.9	V	-11.62	35.97	46.00	-10.03
4534.99	54.97	PK	270	2.0	H	-1.94	53.03	74.00	-20.97
4534.99	43.95	Ave	270	2.0	H	-1.94	42.01	54.00	-11.99
5148.68	53.79	PK	195	1.7	H	-1.06	52.73	74.00	-21.27
5148.68	44.17	Ave	195	1.7	H	-1.06	43.11	54.00	-10.89
11200.00	43.23	PK	241	1.7	H	5.21	48.44	74.00	-25.56
11200.00	37.16	Ave	241	1.7	H	5.21	42.37	54.00	-11.63

Frequency	Receiver Reading	Detector	Turn table Angle	RX Antenna		Corrected Factor	Corrected Amplitude	FCC Part 15.407/209/205	
				Height	Polar			Limit	Margin
(MHz)	(dB $\mu$ V)	(PK/QP/Ave)	Degree	(m)	(H/V)	(dB)	(dB $\mu$ V/m)	(dB $\mu$ V/m)	(dB)
802.11n(HT20) U-NII-2C High channel 5700MHz									
256.58	43.94	QP	217	1.1	H	-11.62	32.32	46.00	-13.68
256.58	48.70	QP	58	1.1	V	-11.62	37.08	46.00	-8.92
4527.73	54.57	PK	256	1.8	H	-1.94	52.63	74.00	-21.37
4527.73	42.75	Ave	256	1.8	H	-1.94	40.81	54.00	-13.19
5121.71	53.12	PK	52	1.8	H	-1.06	52.06	74.00	-21.94
5121.71	46.19	Ave	52	1.8	H	-1.06	45.13	54.00	-8.87
11400.00	39.78	PK	314	1.5	H	5.21	44.99	74.00	-29.01
11400.00	35.66	Ave	314	1.5	H	5.21	40.87	54.00	-13.13
802.11n(HT20) U-NII-3 Low Channel 5745MHz									
256.58	46.62	QP	190	1.1	H	-11.62	35.00	46.00	-11.00
256.58	49.77	QP	325	1.7	V	-11.62	38.15	46.00	-7.85
4526.39	44.68	PK	68	1.7	H	-2.06	42.62	74.00	-31.38
4526.39	46.47	Ave	68	1.7	H	-2.06	44.41	54.00	-9.59
5381.93	36.76	PK	213	1.6	H	5.93	42.69	74.00	-31.31
5381.93	38.53	Ave	213	1.6	H	5.93	44.46	54.00	-9.54
11490.00	46.23	PK	98	2.0	H	-1.25	44.98	74.00	-29.02
11490.00	38.43	Ave	98	2.0	H	-1.25	37.18	54.00	-16.82

Frequency	Receiver Reading	Detector	Turn table Angle	RX Antenna		Corrected Factor	Corrected Amplitude	FCC Part 15.407/209/205	
				Height	Polar			Limit	Margin
(MHz)	(dB $\mu$ V)	(PK/QP/Ave)	Degree	(m)	(H/V)	(dB)	(dB $\mu$ V/m)	(dB $\mu$ V/m)	(dB)
802.11n(HT20) U-NII-3 middle channel 5785MHz									
256.58	47.26	QP	301	1.7	H	-11.62	35.64	46.00	-10.36
256.58	45.47	QP	260	1.1	V	-11.62	33.85	46.00	-12.15
4528.70	44.56	PK	209	1.6	H	-2.03	42.53	74.00	-31.47
4528.70	45.96	Ave	209	1.6	H	-2.03	43.93	54.00	-10.07
5357.43	37.37	PK	11	1.3	H	5.81	43.18	74.00	-30.82
5357.43	38.48	Ave	11	1.3	H	5.81	44.29	54.00	-9.71
11570.00	45.95	PK	315	1.4	H	-1.22	44.73	74.00	-29.27
11570.00	38.66	Ave	315	1.4	H	-1.22	37.44	54.00	-16.56
802.11n(HT20) U-NII-3 High channel 5825MHz									
256.58	47.68	QP	77	1.6	H	-11.62	36.06	46.00	-9.94
256.58	44.87	QP	303	1.3	V	-11.62	33.25	46.00	-12.75
4526.09	43.93	PK	16	1.1	H	-1.84	42.09	74.00	-31.91
4526.09	46.68	Ave	16	1.1	H	-1.84	44.84	54.00	-9.16
5380.67	37.24	PK	303	1.2	H	5.84	43.08	74.00	-30.92
5380.67	38.83	Ave	303	1.2	H	5.84	44.67	54.00	-9.33
11650.00	46.76	PK	281	1.2	H	-1.30	45.46	74.00	-28.54
11650.00	38.48	Ave	281	1.2	H	-1.30	37.18	54.00	-16.82

Frequency	Receiver Reading	Detector	Turn table Angle	RX Antenna		Corrected Factor	Corrected Amplitude	FCC Part 15.407/209/205	
				Height	Polar			Limit	Margin
(MHz)	(dB $\mu$ V)	(PK/QP/Ave)	Degree	(m)	(H/V)	(dB)	(dB $\mu$ V/m)	(dB $\mu$ V/m)	(dB)
802.11ac(VHT20) U-NII-1 Low Channel 5180MHz									
256.58	37.45	QP	79	1.6	H	-11.62	25.83	46.00	-20.17
256.58	39.91	QP	204	1.4	V	-11.62	28.29	46.00	-17.71
4515.79	46.82	PK	230	1.5	H	-1.86	44.96	74.00	-29.04
4515.79	39.03	Ave	230	1.5	H	-1.86	37.17	54.00	-16.83
5140.95	45.01	PK	222	1.6	H	-1.06	43.95	74.00	-30.05
5140.95	45.64	Ave	222	1.6	H	-1.06	44.58	54.00	-9.42
10360.00	46.88	PK	125	1.2	H	5.33	52.21	74.00	-21.79
10360.00	38.06	Ave	125	1.2	H	5.33	43.39	54.00	-10.61
802.11ac(VHT20) U-NII-1 Middle channel 5200MHz									
256.58	36.49	QP	99	1.1	H	-11.62	24.87	46.00	-21.13
256.58	39.89	QP	208	2.0	V	-11.62	28.27	46.00	-17.73
4528.66	46.24	PK	242	2.0	H	-1.82	44.42	74.00	-29.58
4528.66	38.78	Ave	242	2.0	H	-1.82	36.96	54.00	-17.04
5113.89	44.12	PK	172	1.9	H	-1.06	43.06	74.00	-30.94
5113.89	46.02	Ave	172	1.9	H	-1.06	44.96	54.00	-9.04
10400.00	41.08	PK	85	1.8	H	5.21	46.29	74.00	-27.71
10400.00	37.54	Ave	85	1.8	H	5.21	42.75	54.00	-11.25

Frequency	Receiver Reading	Detector	Turn table Angle	RX Antenna		Corrected Factor	Corrected Amplitude	FCC Part 15.407/209/205	
				Height	Polar			Limit	Margin
(MHz)	(dB $\mu$ V)	(PK/QP/Ave)	Degree	(m)	(H/V)	(dB)	(dB $\mu$ V/m)	(dB $\mu$ V/m)	(dB)
802.11ac(VHT20) U-NII-1 High channel 5240MHz									
256.58	35.57	QP	42	1.2	H	-11.62	23.95	46.00	-22.05
256.58	39.81	QP	122	1.9	V	-11.62	28.19	46.00	-17.81
4510.47	45.33	PK	16	1.6	H	-1.81	43.52	74.00	-30.48
4510.47	39.67	Ave	16	1.6	H	-1.81	37.86	54.00	-16.14
5143.96	44.74	PK	13	1.5	H	-1.06	43.68	74.00	-30.32
5143.96	46.42	Ave	13	1.5	H	-1.06	45.36	54.00	-8.64
10480.00	40.78	PK	155	1.6	H	5.14	45.92	74.00	-28.08
10480.00	37.48	Ave	155	1.6	H	5.14	42.62	54.00	-11.38
802.11ac(VHT20) U-NII-2A Low Channel 5260MHz									
256.58	44.41	QP	92	1.6	H	-11.62	32.79	46.00	-13.21
256.58	45.54	QP	157	1.9	V	-11.62	33.92	46.00	-12.08
4517.50	40.72	PK	40	1.9	H	-2.03	38.69	74.00	-35.31
4517.50	37.88	Ave	40	1.9	H	-2.03	35.85	54.00	-18.15
5111.06	45.09	PK	180	1.7	H	-1.02	44.07	74.00	-29.93
5111.06	39.97	Ave	180	1.7	H	-1.02	38.95	54.00	-15.05
10520.00	44.06	PK	339	1.1	H	5.33	49.39	74.00	-24.61
10520.00	47.58	Ave	339	1.1	H	5.33	52.91	54.00	-1.09



Frequency	Receiver Reading	Detector	Turn table Angle	RX Antenna		Corrected Factor	Corrected Amplitude	FCC Part 15.407/209/205	
				Height	Polar			Limit	Margin
(MHz)	(dB $\mu$ V)	(PK/QP/Ave)	Degree	(m)	(H/V)	(dB)	(dB $\mu$ V/m)	(dB $\mu$ V/m)	(dB)
802.11ac(VHT20) U-NII-2A middle channel 5280MHz									
256.58	43.84	QP	95	1.4	H	-11.62	32.22	46.00	-13.78
256.58	49.62	QP	125	1.2	V	-11.62	38.00	46.00	-8.00
4515.10	55.69	PK	75	1.3	H	-2.24	53.45	74.00	-20.55
4515.10	43.99	Ave	75	1.3	H	-2.24	41.75	54.00	-12.25
5139.43	52.66	PK	218	1.3	H	-1.09	51.57	74.00	-22.43
5139.43	47.72	Ave	218	1.3	H	-1.09	46.63	54.00	-7.37
10560.00	40.95	PK	206	2.0	H	5.14	46.09	74.00	-27.91
10560.00	36.91	Ave	206	2.0	H	5.14	42.05	54.00	-11.95
802.11ac(VHT20) U-NII-2A High channel 5320MHz									
256.58	41.32	QP	160	1.1	H	-11.62	29.70	46.00	-16.30
256.58	47.81	QP	322	1.3	V	-11.62	36.19	46.00	-9.81
4523.24	54.90	PK	148	1.9	H	-2.24	52.66	74.00	-21.34
4523.24	41.51	Ave	148	1.9	H	-2.24	39.27	54.00	-14.73
5123.49	54.55	PK	206	1.2	H	-1.09	53.46	74.00	-20.54
5123.49	47.90	Ave	206	1.2	H	-1.09	46.81	54.00	-7.19
10640.00	41.76	PK	240	1.9	H	5.14	46.90	74.00	-27.10
10640.00	38.29	Ave	240	1.9	H	5.14	43.43	54.00	-10.57

Frequency (MHz)	Receiver Reading (dB $\mu$ V)	Detector (PK/QP/Ave)	Turn table Angle Degree	RX Antenna		Corrected Factor (dB)	Corrected Amplitude (dB $\mu$ V/m)	FCC Part 15.407/209/205	
				Height (m)	Polar (H/V)			Limit (dB $\mu$ V/m)	Margin (dB)
802.11ac(VHT20) U-NII-2C Low Channel 5500MHz									
256.58	47.41	QP	185	1.8	H	-11.62	35.79	46.00	-10.21
256.58	44.15	QP	95	1.4	V	-11.62	32.53	46.00	-13.47
4503.08	46.70	PK	149	1.7	H	-2.03	44.67	74.00	-29.33
4503.08	44.77	Ave	149	1.7	H	-2.03	42.74	54.00	-11.26
5115.77	48.36	PK	253	1.7	H	-1.02	47.34	74.00	-26.66
5115.77	36.92	Ave	253	1.7	H	-1.02	35.90	54.00	-18.10
11000.00	-0.35	PK	4	1.6	H	5.33	4.98	74.00	-69.02
11000.00	41.51	Ave	4	1.6	H	5.33	46.84	54.00	-7.16
802.11ac(VHT20) U-NII-2C Middle channel 5600MHz									
256.58	46.63	QP	98	1.8	H	-11.62	35.01	46.00	-10.99
256.58	45.47	QP	327	1.9	V	-11.62	33.85	46.00	-12.15
4514.76	45.79	PK	124	2.0	H	-1.94	43.85	74.00	-30.15
4514.76	44.61	Ave	124	2.0	H	-1.94	42.67	54.00	-11.33
5142.65	48.60	PK	204	1.3	H	-1.06	47.54	74.00	-26.46
5142.65	37.09	Ave	204	1.3	H	-1.06	36.03	54.00	-17.97
11200.00	0.33	PK	288	1.9	H	5.21	5.54	74.00	-68.46
11200.00	42.35	Ave	288	1.9	H	5.21	47.56	54.00	-6.44

Frequency	Receiver Reading	Detector	Turn table Angle	RX Antenna		Corrected Factor	Corrected Amplitude	FCC Part 15.407/209/205	
				Height	Polar			Limit	Margin
(MHz)	(dB $\mu$ V)	(PK/QP/Ave)	Degree	(m)	(H/V)	(dB)	(dB $\mu$ V/m)	(dB $\mu$ V/m)	(dB)
802.11ac(VHT20) U-NII-2C High channel 5700MHz									
256.58	46.61	QP	65	1.3	H	-11.62	34.99	46.00	-11.01
256.58	45.78	QP	327	1.6	V	-11.62	34.16	46.00	-11.84
4500.46	44.53	PK	258	1.6	H	-2.24	42.29	74.00	-31.71
4500.46	45.78	Ave	258	1.6	H	-2.24	43.54	54.00	-10.46
5144.14	50.28	PK	352	1.2	H	-1.09	49.19	74.00	-24.81
5144.14	36.84	Ave	352	1.2	H	-1.09	35.75	54.00	-18.25
11400.00	0.50	PK	199	1.7	H	5.14	5.64	74.00	-68.36
11400.00	40.28	Ave	199	1.7	H	5.14	45.42	54.00	-8.58
802.11ac(VHT20) U-NII-3 Low Channel 5745MHz									
256.58	37.86	QP	352	1.6	H	-11.62	26.24	46.00	-19.76
256.58	39.85	QP	345	1.7	V	-11.62	28.23	46.00	-17.77
4500.07	42.41	PK	188	1.9	H	-1.92	40.49	74.00	-33.51
4500.07	33.46	Ave	188	1.9	H	-1.92	31.54	54.00	-22.46
5354.04	39.85	PK	260	1.7	H	5.93	45.78	74.00	-28.22
5354.04	36.12	Ave	260	1.7	H	5.93	42.05	54.00	-11.95
11490.00	46.27	PK	139	1.6	H	-1.03	45.24	74.00	-28.76
11490.00	37.24	Ave	139	1.6	H	-1.03	36.21	54.00	-17.79

Frequency	Receiver Reading	Detector	Turn table Angle	RX Antenna		Corrected Factor	Corrected Amplitude	FCC Part 15.407/209/205	
				Height	Polar			Limit	Margin
(MHz)	(dB $\mu$ V)	(PK/QP/Ave)	Degree	(m)	(H/V)	(dB)	(dB $\mu$ V/m)	(dB $\mu$ V/m)	(dB)
802.11ac(VHT20) U-NII-3 middle channel 5785MHz									
256.58	36.98	QP	45	1.9	H	-11.62	25.36	46.00	-20.64
256.58	39.10	QP	121	1.4	V	-11.62	27.48	46.00	-18.52
4516.92	42.89	PK	147	1.7	H	-1.97	40.92	74.00	-33.08
4516.92	33.55	Ave	147	1.7	H	-1.97	31.58	54.00	-22.42
5369.90	42.08	PK	233	1.7	H	5.81	47.89	74.00	-26.11
5369.90	36.84	Ave	233	1.7	H	5.81	42.65	54.00	-11.35
11570.00	45.50	PK	199	1.5	H	-1.05	44.45	74.00	-29.55
11570.00	37.24	Ave	199	1.5	H	-1.05	36.19	54.00	-17.81
802.11ac(VHT20) U-NII-3 High channel 5825MHz									
256.58	36.38	QP	280	2.0	H	-11.62	24.76	46.00	-21.24
256.58	38.21	QP	162	1.8	V	-11.62	26.59	46.00	-19.41
4518.30	43.00	PK	229	1.1	H	-1.88	41.12	74.00	-32.88
4518.30	33.26	Ave	229	1.1	H	-1.88	31.38	54.00	-22.62
5377.22	41.58	PK	109	1.6	H	5.84	47.42	74.00	-26.58
5377.22	38.44	Ave	109	1.6	H	5.84	44.28	54.00	-9.72
11650.00	45.31	PK	253	1.9	H	-1.06	44.25	74.00	-29.75
11650.00	39.91	Ave	253	1.9	H	-1.06	38.85	54.00	-15.15

Frequency	Receiver Reading	Detector	Turn table Angle	RX Antenna		Corrected Factor	Corrected Amplitude	FCC Part 15.407/209/205	
				Height	Polar			Limit	Margin
(MHz)	(dB $\mu$ V)	(PK/QP/Ave)	Degree	(m)	(H/V)	(dB)	(dB $\mu$ V/m)	(dB $\mu$ V/m)	(dB)
802.11n(HT40) U-NII-1 Low Channel 5190MHz									
256.58	35.15	QP	240	1.7	H	-11.62	23.53	46.00	-22.47
256.58	36.88	QP	101	1.4	V	-11.62	25.26	46.00	-20.74
4527.96	40.71	PK	13	1.5	H	-1.89	38.82	74.00	-35.18
4527.96	31.10	Ave	13	1.5	H	-1.89	29.21	54.00	-24.79
5144.48	47.16	PK	62	2.0	H	-1.06	46.10	74.00	-27.90
5144.48	39.51	Ave	62	2.0	H	-1.06	38.45	54.00	-15.55
10380.00	39.30	PK	145	1.3	H	5.26	44.56	74.00	-29.44
10380.00	35.55	Ave	145	1.3	H	5.26	40.81	54.00	-13.19
802.11n(HT40) U-NII-1 High channel 5230MHz									
256.58	35.12	QP	160	1.4	H	-11.62	23.50	46.00	-22.50
256.58	37.31	QP	125	1.2	V	-11.62	25.69	46.00	-20.31
4512.24	41.18	PK	85	1.5	H	-1.94	39.24	74.00	-34.76
4512.24	31.14	Ave	85	1.5	H	-1.94	29.20	54.00	-24.80
5147.62	47.43	PK	63	1.5	H	-1.06	46.37	74.00	-27.63
5147.62	40.29	Ave	63	1.5	H	-1.06	39.23	54.00	-14.77
10460.00	42.03	PK	321	1.6	H	5.28	47.31	74.00	-26.69
10460.00	37.27	Ave	321	1.6	H	5.28	42.55	54.00	-11.45

Frequency	Receiver Reading	Detector	Turn table Angle	RX Antenna		Corrected Factor	Corrected Amplitude	FCC Part 15.407/209/205	
				Height	Polar			Limit	Margin
(MHz)	(dB $\mu$ V)	(PK/QP/Ave)	Degree	(m)	(H/V)	(dB)	(dB $\mu$ V/m)	(dB $\mu$ V/m)	(dB)
802.11n(HT40) U-NII-2A Low Channel 5270MHz									
256.58	46.70	QP	337	1.7	H	-11.62	35.08	46.00	-10.92
256.58	40.66	QP	325	1.5	V	-11.62	29.04	46.00	-16.96
4507.79	41.75	PK	39	1.0	H	-1.89	39.86	74.00	-34.14
4507.79	37.64	Ave	39	1.0	H	-1.89	35.75	54.00	-18.25
5149.09	46.48	PK	290	1.6	H	-1.06	45.42	74.00	-28.58
5149.09	38.19	Ave	290	1.6	H	-1.06	37.13	54.00	-16.87
10540.00	44.99	PK	140	1.1	H	5.26	50.25	74.00	-23.75
10540.00	39.76	Ave	140	1.1	H	5.26	45.02	54.00	-8.98
802.11n(HT40) U-NII-2A High channel 5310MHz									
256.58	47.52	QP	330	1.1	H	-11.62	35.90	46.00	-10.10
256.58	40.30	QP	289	1.3	V	-11.62	28.68	46.00	-17.32
4507.42	41.20	PK	6	1.7	H	-1.94	39.26	74.00	-34.74
4507.42	37.44	Ave	6	1.7	H	-1.94	35.50	54.00	-18.50
5143.17	47.23	PK	332	1.3	H	-1.06	46.17	74.00	-27.83
5143.17	39.29	Ave	332	1.3	H	-1.06	38.23	54.00	-15.77
10620.00	41.43	PK	138	1.2	H	5.28	46.71	74.00	-27.29
10620.00	38.03	Ave	138	1.2	H	5.28	43.31	54.00	-10.69

Frequency	Receiver Reading	Detector	Turn table Angle	RX Antenna		Corrected Factor	Corrected Amplitude	FCC Part 15.407/209/205	
				Height	Polar			Limit	Margin
(MHz)	(dB $\mu$ V)	(PK/QP/Ave)	Degree	(m)	(H/V)	(dB)	(dB $\mu$ V/m)	(dB $\mu$ V/m)	(dB)
802.11n(HT40) U-NII-2C Low Channel 5510MHz									
256.58	48.04	QP	30	1.9	H	-11.62	36.42	46.00	-9.58
256.58	38.34	QP	56	1.2	V	-11.62	26.72	46.00	-19.28
4513.27	41.07	PK	184	1.6	H	-1.89	39.18	74.00	-34.82
4513.27	38.49	Ave	184	1.6	H	-1.89	36.60	54.00	-17.40
5122.35	46.43	PK	59	1.6	H	-1.06	45.37	74.00	-28.63
5122.35	40.24	Ave	59	1.6	H	-1.06	39.18	54.00	-14.82
11020.00	44.86	PK	218	1.9	H	5.26	50.12	74.00	-23.88
11020.00	36.38	Ave	218	1.9	H	5.26	41.64	54.00	-12.36
802.11n(HT40) U-NII-2C Middle channel 5550MHz									
256.58	48.78	QP	124	1.2	H	-11.62	37.16	46.00	-8.84
256.58	38.66	QP	232	1.7	V	-11.62	27.04	46.00	-18.96
4516.22	41.15	PK	288	1.6	H	-1.94	39.21	74.00	-34.79
4516.22	38.10	Ave	288	1.6	H	-1.94	36.16	54.00	-17.84
5144.30	47.01	PK	92	1.9	H	-1.06	45.95	74.00	-28.05
5144.30	41.57	Ave	92	1.9	H	-1.06	40.51	54.00	-13.49
11100.00	44.58	PK	225	1.2	H	5.28	49.86	74.00	-24.14
11100.00	39.34	Ave	225	1.2	H	5.28	44.62	54.00	-9.38
802.11n(HT40) U-NII-2C High channel 5670MHz									
256.58	45.07	QP	119	2.0	H	-11.62	33.45	46.00	-12.55
256.58	37.52	QP	46	1.3	V	-11.62	25.90	46.00	-20.10
4532.76	42.43	PK	287	1.6	H	-1.94	40.49	74.00	-33.51
4532.76	38.67	Ave	287	1.6	H	-1.94	36.73	54.00	-17.27
5110.83	49.27	PK	145	2.0	H	-1.06	48.21	74.00	-25.79
5110.83	40.89	Ave	145	2.0	H	-1.06	39.83	54.00	-14.17
11340.00	40.32	PK	233	1.3	H	5.28	45.60	74.00	-28.40
11340.00	33.21	Ave	233	1.3	H	5.28	38.49	54.00	-15.51

Frequency (MHz)	Receiver Reading (dB $\mu$ V)	Detector (PK/QP/Ave)	Turn table Angle Degree	RX Antenna		Corrected Factor (dB)	Corrected Amplitude (dB $\mu$ V/m)	FCC Part 15.407/209/205	
				Height (m)	Polar (H/V)			Limit (dB $\mu$ V/m)	Margin (dB)
802.11n(HT40) U-NII-3 Low Channel 5755MHz									
256.58	38.30	QP	264	1.3	H	-11.62	26.68	46.00	-19.32
256.58	43.14	QP	302	1.6	V	-11.62	31.52	46.00	-14.48
4515.43	39.46	PK	59	1.1	H	-1.96	37.50	74.00	-36.50
4515.43	36.50	Ave	59	1.1	H	-1.96	34.54	54.00	-19.46
5366.73	40.72	PK	137	1.6	H	5.88	46.60	74.00	-27.40
5366.73	35.84	Ave	137	1.6	H	5.88	41.72	54.00	-12.28
11510.00	45.76	PK	118	1.4	H	-1.01	44.75	74.00	-29.25
11510.00	37.91	Ave	118	1.4	H	-1.01	36.90	54.00	-17.10
802.11n(HT40) U-NII-3 High Channel 5795MHz									
256.58	37.79	QP	39	1.6	H	-11.62	26.17	46.00	-19.83
256.58	43.33	QP	147	1.1	V	-11.62	31.71	46.00	-14.29
4527.75	39.92	PK	302	1.4	H	-1.92	38.00	74.00	-36.00
4527.75	35.95	Ave	302	1.4	H	-1.92	34.03	54.00	-19.97
5368.70	42.20	PK	120	1.6	H	5.63	47.83	74.00	-26.17
5368.70	38.09	Ave	120	1.6	H	5.63	43.72	54.00	-10.28
11590.00	45.64	PK	148	1.9	H	-1.04	44.60	74.00	-29.40
11590.00	38.92	Ave	148	1.9	H	-1.04	37.88	54.00	-16.12



Frequency	Receiver Reading	Detector	Turn table Angle	RX Antenna		Corrected Factor	Corrected Amplitude	FCC Part 15.407/209/205	
				Height	Polar			Limit	Margin
(MHz)	(dB $\mu$ V)	(PK/QP/Ave)	Degree	(m)	(H/V)	(dB)	(dB $\mu$ V/m)	(dB $\mu$ V/m)	(dB)
802.11ac(VHT40) U-NII-1 Low Channel 5190MHz									
256.58	37.29	QP	259	1.3	H	-11.62	25.67	46.00	-20.33
256.58	41.84	QP	137	1.7	V	-11.62	30.22	46.00	-15.78
4527.73	38.10	PK	221	1.1	H	-1.91	36.19	74.00	-37.81
4527.73	34.55	Ave	221	1.1	H	-1.91	32.64	54.00	-21.36
5144.30	47.25	PK	28	1.3	H	-1.06	46.19	74.00	-27.81
5144.30	40.93	Ave	28	1.3	H	-1.06	39.87	54.00	-14.13
10380.00	40.49	PK	339	1.3	H	5.26	45.75	74.00	-28.25
10380.00	36.03	Ave	339	1.3	H	5.26	41.29	54.00	-12.71
802.11ac(VHT40) U-NII-1 High channel 5230MHz									
256.58	38.01	QP	153	1.5	H	-11.62	26.39	46.00	-19.61
256.58	42.77	QP	309	1.6	V	-11.62	31.15	46.00	-14.85
4536.17	37.59	PK	217	1.8	H	-1.93	35.66	74.00	-38.34
4536.17	35.52	Ave	217	1.8	H	-1.93	33.59	54.00	-20.41
5144.64	46.68	PK	350	1.3	H	-1.06	45.62	74.00	-28.38
5144.64	41.68	Ave	350	1.3	H	-1.06	40.62	54.00	-13.38
10460.00	41.23	PK	338	1.9	H	5.28	46.51	74.00	-27.49
10460.00	37.37	Ave	338	1.9	H	5.28	42.65	54.00	-11.35

Frequency	Receiver Reading	Detector	Turn table Angle	RX Antenna		Corrected Factor	Corrected Amplitude	FCC Part 15.407/209/205	
				Height	Polar			Limit	Margin
(MHz)	(dB $\mu$ V)	(PK/QP/Ave)	Degree	(m)	(H/V)	(dB)	(dB $\mu$ V/m)	(dB $\mu$ V/m)	(dB)
802.11ac(VHT40) U-NII-2A Low Channel 5270MHz									
256.58	45.91	QP	210	1.6	H	-11.62	34.29	46.00	-11.71
256.58	49.24	QP	45	1.4	V	-11.62	37.62	46.00	-8.38
4521.01	53.43	PK	136	1.1	H	-2.24	51.19	74.00	-22.81
4521.01	42.79	Ave	136	1.1	H	-2.24	40.55	54.00	-13.45
5120.51	55.01	PK	16	1.6	H	-1.09	53.92	74.00	-20.08
5120.51	46.06	Ave	16	1.6	H	-1.09	44.97	54.00	-9.03
10540.00	41.79	PK	32	2.0	H	5.14	46.93	74.00	-27.07
10540.00	36.67	Ave	32	2.0	H	5.14	41.81	54.00	-12.19
802.11ac(VHT40) U-NII-2A High channel 5310MHz									
256.58	44.58	QP	347	2.0	H	-11.62	32.96	46.00	-13.04
256.58	48.27	QP	177	1.9	V	-11.62	36.65	46.00	-9.35
4525.88	52.84	PK	162	1.9	H	-1.94	50.90	74.00	-23.10
4525.88	44.28	Ave	162	1.9	H	-1.94	42.34	54.00	-11.66
5122.30	53.62	PK	56	1.3	H	-1.06	52.56	74.00	-21.44
5122.30	44.72	Ave	56	1.3	H	-1.06	43.66	54.00	-10.34
10620.00	41.46	PK	115	1.6	H	5.21	46.67	74.00	-27.33
10620.00	37.53	Ave	115	1.6	H	5.21	42.74	54.00	-11.26

Frequency	Receiver Reading	Detector	Turn table Angle	RX Antenna		Corrected Factor	Corrected Amplitude	FCC Part 15.407/209/205	
				Height	Polar			Limit	Margin
(MHz)	(dB $\mu$ V)	(PK/QP/Ave)	Degree	(m)	(H/V)	(dB)	(dB $\mu$ V/m)	(dB $\mu$ V/m)	(dB)
802.11ac(VHT40) U-NII-2C Low Channel 5510MHz									
256.58	44.07	QP	215	1.3	H	-11.62	32.45	46.00	-13.55
256.58	47.15	QP	349	1.9	V	-11.62	35.53	46.00	-10.47
4518.66	54.72	PK	331	1.6	H	-1.94	52.78	74.00	-21.22
4518.66	43.08	Ave	331	1.6	H	-1.94	41.14	54.00	-12.86
5148.04	53.69	PK	199	1.5	H	-1.06	52.63	74.00	-21.37
5148.04	44.63	Ave	199	1.5	H	-1.06	43.57	54.00	-10.43
11020.00	42.43	PK	348	1.0	H	5.21	47.64	74.00	-26.36
11020.00	37.88	Ave	348	1.0	H	5.21	43.09	54.00	-10.91
802.11ac(VHT40) U-NII-2C Middle channel 5550MHz									
256.58	43.09	QP	297	1.8	H	-11.62	31.47	46.00	-14.53
256.58	47.91	QP	33	1.3	V	-11.62	36.29	46.00	-9.71
4534.89	56.17	PK	176	1.4	H	-2.24	53.93	74.00	-20.07
4534.89	42.06	Ave	176	1.4	H	-2.24	39.82	54.00	-14.18
5110.92	52.92	PK	241	1.9	H	-1.09	51.83	74.00	-22.17
5110.92	44.66	Ave	241	1.9	H	-1.09	43.57	54.00	-10.43
11100.00	40.44	PK	33	1.0	H	5.14	45.58	74.00	-28.42
11100.00	37.78	Ave	33	1.0	H	5.14	42.92	54.00	-11.08
802.11ac(VHT40) U-NII-2C High channel 5670MHz									
256.58	45.30	QP	13	1.7	H	-11.62	33.68	46.00	-12.32
256.58	40.81	QP	194	1.2	V	-11.62	29.19	46.00	-16.81
4500.66	-0.45	PK	186	2.0	H	-1.94	-2.39	74.00	-76.39
4500.66	42.40	Ave	186	2.0	H	-1.94	40.46	54.00	-13.54
5133.87	47.41	PK	325	1.9	H	-1.06	46.35	74.00	-27.65
5133.87	38.53	Ave	325	1.9	H	-1.06	37.47	54.00	-16.53
11340.00	-0.18	PK	23	1.6	H	5.28	5.10	74.00	-68.90
11340.00	39.36	Ave	23	1.6	H	5.28	44.64	54.00	-9.36

Frequency (MHz)	Receiver Reading (dB $\mu$ V)	Detector (PK/QP/Ave)	Turn table Angle Degree	RX Antenna		Corrected Factor (dB)	Corrected Amplitude (dB $\mu$ V/m)	FCC Part 15.407/209/205	
				Height (m)	Polar (H/V)			Limit (dB $\mu$ V/m)	Margin (dB)
802.11ac(VHT40) U-NII-3 Low Channel 5755MHz									
256.58	37.94	QP	235	1.5	H	-11.62	26.32	46.00	-19.68
256.58	44.13	QP	317	1.5	V	-11.62	32.51	46.00	-13.49
4516.13	35.70	PK	332	1.3	H	-1.92	33.78	74.00	-40.22
4516.13	33.33	Ave	332	1.3	H	-1.92	31.41	54.00	-22.59
5389.01	39.32	PK	351	1.6	H	5.88	45.20	74.00	-28.80
5389.01	36.03	Ave	351	1.6	H	5.88	41.91	54.00	-12.09
11510.00	45.89	PK	178	1.6	H	-1.07	44.82	74.00	-29.18
11510.00	37.20	Ave	178	1.6	H	-1.07	36.13	54.00	-17.87
802.11ac(VHT40) U-NII-3 High Channel 5795MHz									
256.58	37.00	QP	169	1.5	H	-11.62	25.38	46.00	-20.62
256.58	44.64	QP	85	1.2	V	-11.62	33.02	46.00	-12.98
4522.74	36.27	PK	28	1.0	H	-1.86	34.41	74.00	-39.59
4522.74	34.32	Ave	28	1.0	H	-1.86	32.46	54.00	-21.54
5383.52	42.74	PK	314	1.7	H	5.63	48.37	74.00	-25.63
5383.52	37.89	Ave	314	1.7	H	5.63	43.52	54.00	-10.48
11590.00	45.24	PK	358	2.0	H	-1.03	44.21	74.00	-29.79
11590.00	37.58	Ave	358	2.0	H	-1.03	36.55	54.00	-17.45

Frequency	Receiver Reading	Detector	Turn table Angle	RX Antenna		Corrected Factor	Corrected Amplitude	FCC Part 15.407/209/205	
				Height	Polar			Limit	Margin
(MHz)	(dB $\mu$ V)	(PK/QP/Ave)	Degree	(m)	(H/V)	(dB)	(dB $\mu$ V/m)	(dB $\mu$ V/m)	(dB)
802.11ac(VHT80) U-NII-1 Low Channel 5210MHz									
256.58	43.73	QP	118	1.5	H	-11.62	32.11	46.00	-13.89
256.58	35.89	QP	359	1.4	V	-11.62	24.27	46.00	-21.73
4512.14	33.61	PK	68	2.0	H	-1.88	31.73	74.00	-42.27
4512.14	41.95	Ave	68	2.0	H	-1.88	40.07	54.00	-13.93
5128.78	39.48	PK	35	1.3	H	-1.06	38.42	74.00	-35.58
5128.78	46.83	Ave	35	1.3	H	-1.06	45.77	54.00	-8.23
10420.00	41.44	PK	340	1.2	H	4.65	46.09	74.00	-27.91
10420.00	38.21	Ave	340	1.2	H	4.65	42.86	54.00	-11.14
802.11ac(VHT80) U-NII-2A Low Channel 5290MHz									
256.58	44.26	QP	36	1.6	H	-11.62	32.64	46.00	-13.36
256.58	46.67	QP	199	1.1	V	-11.62	35.05	46.00	-10.95
4510.95	54.44	PK	258	2.0	H	-1.94	52.50	74.00	-21.50
4510.95	44.92	Ave	258	2.0	H	-1.94	42.98	54.00	-11.02
5142.46	53.83	PK	104	2.0	H	-1.06	52.77	74.00	-21.23
5142.46	45.55	Ave	104	2.0	H	-1.06	44.49	54.00	-9.51
10580.00	42.19	PK	153	1.9	H	5.21	47.40	74.00	-26.60
10580.00	36.82	Ave	153	1.9	H	5.21	42.03	54.00	-11.97

Frequency	Receiver Reading	Detector	Turn table Angle	RX Antenna		Corrected Factor	Corrected Amplitude	FCC Part 15.407/209/205	
				Height	Polar			Limit	Margin
(MHz)	(dB $\mu$ V)	(PK/QP/Ave)	Degree	(m)	(H/V)	(dB)	(dB $\mu$ V/m)	(dB $\mu$ V/m)	(dB)
802.11ac(VHT80) U-NII-2C Low Channel 5530MHz									
256.58	28.22	QP	293	1.5	H	-11.62	16.60	46.00	-29.40
256.58	41.56	QP	168	1.4	V	-11.62	29.94	46.00	-16.06
4522.55	37.80	PK	313	1.8	H	-1.88	35.92	74.00	-38.08
4522.55	48.03	Ave	313	1.8	H	-1.88	46.15	54.00	-7.85
5139.55	43.52	PK	251	1.2	H	-1.06	42.46	74.00	-31.54
5139.55	39.10	Ave	251	1.2	H	-1.06	38.04	54.00	-15.96
11060.00	46.16	PK	228	1.6	H	4.65	50.81	74.00	-23.19
11060.00	39.52	Ave	228	1.6	H	4.65	44.17	54.00	-9.83
802.11ac(VHT80) U-NII-3 Low channel 5775MHz									
256.58	36.99	QP	216	1.6	H	-11.62	25.37	46.00	-20.63
256.58	27.54	QP	229	1.8	V	-11.62	15.92	46.00	-30.08
4525.32	41.82	PK	83	1.3	H	-1.85	39.97	74.00	-34.03
4525.32	42.65	Ave	83	1.3	H	-1.85	40.80	54.00	-13.20
5361.83	40.84	PK	272	1.8	H	4.83	45.67	74.00	-28.33
5361.83	37.88	Ave	272	1.8	H	4.83	42.71	54.00	-11.29
11550.00	45.67	PK	134	1.6	H	-1.14	44.53	74.00	-29.47
11550.00	37.77	Ave	134	1.6	H	-1.14	36.63	54.00	-17.37

**Test Frequency: 12GHz~40GHz**

The measurements were more than 20 dB below the limit and not reported.

## 9 Antenna Requirement

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

This requirement does not apply to carrier current devices or to devices operated under the provisions of §15.211, §15.213, §15.217, §15.219, or §15.221. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with §15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this part are not exceeded.

This device uses of a ProAnt 2.4G + 5G Niche antenna that uses a specified coupling to the intentional radiator. Antenna connectors complied with the requirement.

## 10 RF Exposure

Remark: Please refer to SAR test report: WTF23X07163731W

## 11 Photographs of test setup and EUT.

Note: Please refer to appendix: Appendix-Spirit WAVE-Photos.

=====**End of Report**=====