

# TEST REPORT

## CERTIFICATE OF CONFORMITY

**Standard:** 47 CFR FCC Part 15, Subpart E (Section 15.407)

**Report No.:** RFBFPJ-WTW-P22060392-1

**FCC ID:** SWX-UCEVS

**Model No.:** UC-EV-Station

**Received Date:** 2022/3/21

**Test Date:** 2022/7/18 ~ 2022/8/4

**Issued Date:** 2022/9/2

**Applicant:** Ubiquiti Inc.

**Address:** 685 Third Avenue, New York, New York 10017 USA

**Issued By:** Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch  
Lin Kou Laboratories

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**Test Location(1):** No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan

**Test Location(2):** No. 19, Hwa Ya 2nd Rd., Wen Hwa Vil., Kewi Shan Dist., Taoyuan City 33383, Taiwan

**FCC Registration /** Test Location:198487 / TW2021 for Test Location(1)

**Designation Number:** 788550 / TW0003 for Test Location(2)

**Approved by:** \_\_\_\_\_

*Jeremy Lin*

Jeremy Lin / Project Engineer

**Date:** \_\_\_\_\_

2022/9/2

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Prepared by : Gina Liu / Specialist

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## Release Control Record

Issue No.	Description	Date Issued
RFBFPJ-WTW-P22060392-1	Original release.	2022/9/2

## 1 Certificate

**Product:** UniFi Connect EV Station

**Brand:**  or  or 

**Test Model:** UC-EV-Station

**Sample Status:** Engineering sample

**Applicant:** Ubiquiti Inc.

**Test Date:** 2022/7/18 ~ 2022/8/4

**Standard:** 47 CFR FCC Part 15, Subpart E (Section 15.407)

**Measurement** ANSI C63.10-2013

**procedure:** KDB 789033 D02 General UNII Test Procedure New Rules v02r01

The above equipment has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's RF characteristics under the conditions specified in this report.

## 2 Summary of Test Results

47 CFR FCC Part 15, Subpart E (Section 15.407)			
Clause	Test Item	Result	Remark
15.407(a)(2)	26 dB Bandwidth	Pass	For U-NII-2A U-NII-2C Band output power limitation is determined based on 26dBc bandwidth.
15.407(a)(1/2/3)	RF Output Power	Pass	Meet the requirement of limit.
15.407(a)(1/2/3)	Power Spectral Density	Pass	Meet the requirement of limit.
15.407(e)	6 dB Bandwidth	Pass	Meet the requirement of limit. (U-NII-3 Band only)
---	Occupied Bandwidth	Pass	Reference only.
15.407(g)	Frequency Stability	Pass	Meet the requirement of limit.
15.407(b)(9)	AC Power Conducted Emissions	Pass	Minimum passing margin is -1.80 dB at 0.64475 MHz
15.407(b)(9)	Unwanted Emissions below 1 GHz	Pass	Minimum passing margin is -1.4 dB at 115.40 MHz
15.407(b)(1/2/3/4(i)/10)	Unwanted Emissions above 1 GHz	Pass	Minimum passing margin is -0.3 dB at 5350.00 MHz
15.203	Antenna Requirement	Pass	No antenna connector is used.

Note: Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

### 2.1 Measurement Uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

Measurement	Specification	Expanded Uncertainty (k=2) (±)
Occupied Bandwidth	-	±491.896 Hz
AC Power Conducted Emissions	-	2.94 dB
Unwanted Emissions below 1 GHz	9 kHz ~ 30 MHz	3 dB
	30 MHz ~ 1 GHz	2.93 dB
Unwanted Emissions above 1 GHz	1 GHz ~ 18 GHz	1.76 dB
	18 GHz ~ 40 GHz	1.77 dB


The other instruments specified are routine verified to remain within the calibrated levels, no measurement uncertainty is required to be calculated.

### 2.2 Supplementary Information

There is not any deviation from the test standards for the test method, and no modifications required for compliance.

### 3 General Information

#### 3.1 General Description of EUT

Product	UniFi Connect EV Station
Brand	
Test Model	UC-EV-Station
Status of EUT	Engineering sample
Power Supply Rating	200-240 Vac
Modulation Type	64QAM, 16QAM, QPSK, BPSK for OFDM 256QAM for OFDM in 11ac mode
Modulation Technology	OFDM
Transfer Rate	802.11a: 54.0/ 48.0/ 36.0/ 24.0/ 18.0/ 12.0/ 9.0/ 6.0 Mbps 802.11n: up to 150.0 Mbps 802.11ac: up to 433.3 Mbps
Operating Frequency	5180 ~ 5240 MHz, 5260 ~ 5320 MHz 5500 ~ 5720 MHz, 5745 ~ 5825 MHz
Number of Channel	802.11a, 802.11n (HT20), 802.11ac (VHT20): 25 802.11n (HT40), 802.11ac (VHT40): 12 802.11ac (VHT80): 6
Output Power	37.844 mW for 5180 ~ 5240 MHz 39.537 mW for 5260 ~ 5320 MHz 49.091 mW for 5500 ~ 5720 MHz 57.280 mW for 5745 ~ 5825 MHz
EUT Category	Client device

Note: The above EUT information is declared by manufacturer and for more detailed features description, please refers to the manufacturer's specifications or user's manual.

#### 3.2 Antenna Description of EUT

1. The antenna information is listed as below.

Antenna No.	Model name	Gain (dBi)	Antenna Type	Connector Type
		5150-5850 MHz		
1	117-03712	4.2	Dipole	IPEX

\* Detail antenna specification please refer to antenna datasheet and/or antenna measurement report.

2. The EUT incorporates a SISO function:

5 GHz Band		
Modulation Mode	TX & RX Configuration	
802.11a	1TX	1RX
802.11n (HT20)	1TX	1RX
802.11n (HT40)	1TX	1RX
802.11ac (VHT20)	1TX	1RX
802.11ac (VHT40)	1TX	1RX
802.11ac (VHT80)	1TX	1RX

Note: The modulation and bandwidth are similar for 802.11n mode for HT20 / HT40 and 802.11ac mode for VHT20 / VHT40, therefore investigated worst case to representative mode in test report. (Final test mode refer section 3.4)

### 3.3 Channel List

#### FOR 5180 ~ 5320 MHz

8 channels are provided for 802.11a, 802.11n (HT20), 802.11ac (VHT20):

Channel	Frequency	Channel	Frequency
36	5180 MHz	52	5260 MHz
40	5200 MHz	56	5280 MHz
44	5220 MHz	60	5300 MHz
48	5240 MHz	64	5320 MHz

4 channels are provided for 802.11n (HT40), 802.11ac (VHT40):

Channel	Frequency	Channel	Frequency
38	5190 MHz	54	5270 MHz
46	5230 MHz	62	5310 MHz

2 channels are provided for 802.11ac (VHT80):

Channel	Frequency	Channel	Frequency
42	5210 MHz	58	5290 MHz

#### FOR 5500 ~ 5720 MHz

12 channels are provided for 802.11a, 802.11n (HT20), 802.11ac (VHT20):

Channel	Frequency	Channel	Frequency
100	5500 MHz	124	5620 MHz
104	5520 MHz	128	5640 MHz
108	5540 MHz	132	5660 MHz
112	5560 MHz	136	5680 MHz
116	5580 MHz	140	5700 MHz
120	5600 MHz	144	5720 MHz

6 channels are provided for 802.11n (HT40), 802.11ac (VHT40) and 802.11ax (HE40):

Channel	Frequency	Channel	Frequency
102	5510 MHz	126	5630 MHz
110	5550 MHz	134	5670 MHz
118	5590 MHz	142	5710 MHz

3 channels are provided for 802.11ac (VHT80):

Channel	Frequency	Channel	Frequency
106	5530 MHz	138	5690 MHz
122	5610 MHz		



**FOR 5745 ~ 5825 MHz:**

5 channels are provided for 802.11a, 802.11n (HT20), 802.11ac (VHT20):

Channel	Frequency	Channel	Frequency
149	5745 MHz	161	5805 MHz
153	5765 MHz	165	5825 MHz
157	5785 MHz		

2 channels are provided for 802.11n (HT40), 802.11ac (VHT40):

Channel	Frequency	Channel	Frequency
151	5755 MHz	159	5795 MHz

1 channel is provided for 802.11ac (VHT80):

Channel	Frequency
155	5775 MHz

### 3.4 Test Mode Applicability and Tested Channel Detail

Pre-Scan:	EUT can be used in the following ways: X-axis/ Y-axis/ Z-axis. Pre-scan in these ways and find the worst case as a representative test condition.
Worst Case:	1. Worst Condition: Z-axis 2. Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports.

Following channel(s) was (were) selected for the final test as listed below:

Test Item	Mode	Tested Channel	Modulation	Data Rate Parameter
26 dB Bandwidth	802.11a	36, 40, 48, 52, 60, 64, 100, 116, 140, 144, 149, 157, 165	BPSK	6Mb/s
	802.11ac (VHT20)	36, 40, 48, 52, 60, 64, 100, 116, 140, 144, 149, 157, 165	BPSK	MCS0
	802.11ac (VHT40)	38, 46, 54, 62, 102, 110, 134, 142, 151, 159	BPSK	MCS0
	802.11ac (VHT80)	42, 58, 106, 122, 138, 155	BPSK	MCS0
RF Output Power / Power Spectral Density	802.11a	36, 40, 48, 52, 60, 64, 100, 116, 140, 144, 149, 157, 165	BPSK	6Mb/s
	802.11ac (VHT20)	36, 40, 48, 52, 60, 64, 100, 116, 140, 144, 149, 157, 165	BPSK	MCS0
	802.11ac (VHT40)	38, 46, 54, 62, 102, 110, 134, 142, 151, 159	BPSK	MCS0
	802.11ac (VHT80)	42, 58, 106, 122, 138, 155	BPSK	MCS0
6 dB Bandwidth	802.11a	144, 149, 157, 165	BPSK	6Mb/s
	802.11ac (VHT20)	144, 149, 157, 165	BPSK	MCS0
	802.11ac (VHT40)	142, 151, 159	BPSK	MCS0
	802.11ac (VHT80)	138, 155	BPSK	MCS0
Occupied Bandwidth	802.11a	36, 40, 48, 52, 60, 64, 100, 116, 140, 144, 149, 157, 165	BPSK	6Mb/s
	802.11ac (VHT20)	36, 40, 48, 52, 60, 64, 100, 116, 140, 144, 149, 157, 165	BPSK	MCS0
	802.11ac (VHT40)	38, 46, 54, 62, 102, 110, 134, 142, 151, 159	BPSK	MCS0
	802.11ac (VHT80)	42, 58, 106, 122, 138, 155	BPSK	MCS0
Frequency Stability	802.11a	36	un-modulation	-
AC Power Conducted Emissions	802.11a	165	BPSK	6Mb/s
Unwanted Emissions below 1 GHz	802.11a	165	BPSK	6Mb/s

Test Item	Mode	Tested Channel	Modulation	Data Rate Parameter
Unwanted Emissions above 1 GHz	802.11a	36, 40, 48, 52, 60, 64, 100, 116, 140, 144, 149, 157, 165	BPSK	6Mb/s
	802.11ac (VHT20)	36, 40, 48, 52, 60, 64, 100, 116, 140, 144, 149, 157, 165	BPSK	MCS0
	802.11ac (VHT40)	38, 46, 54, 62, 102, 110, 134, 142, 151, 159	BPSK	MCS0
	802.11ac (VHT80)	42, 58, 106, 122, 138, 155	BPSK	MCS0

### 3.5 Duty Cycle of Test Signal

Duty cycle of test signal is  $\geq 98\%$ , duty factor is not required.

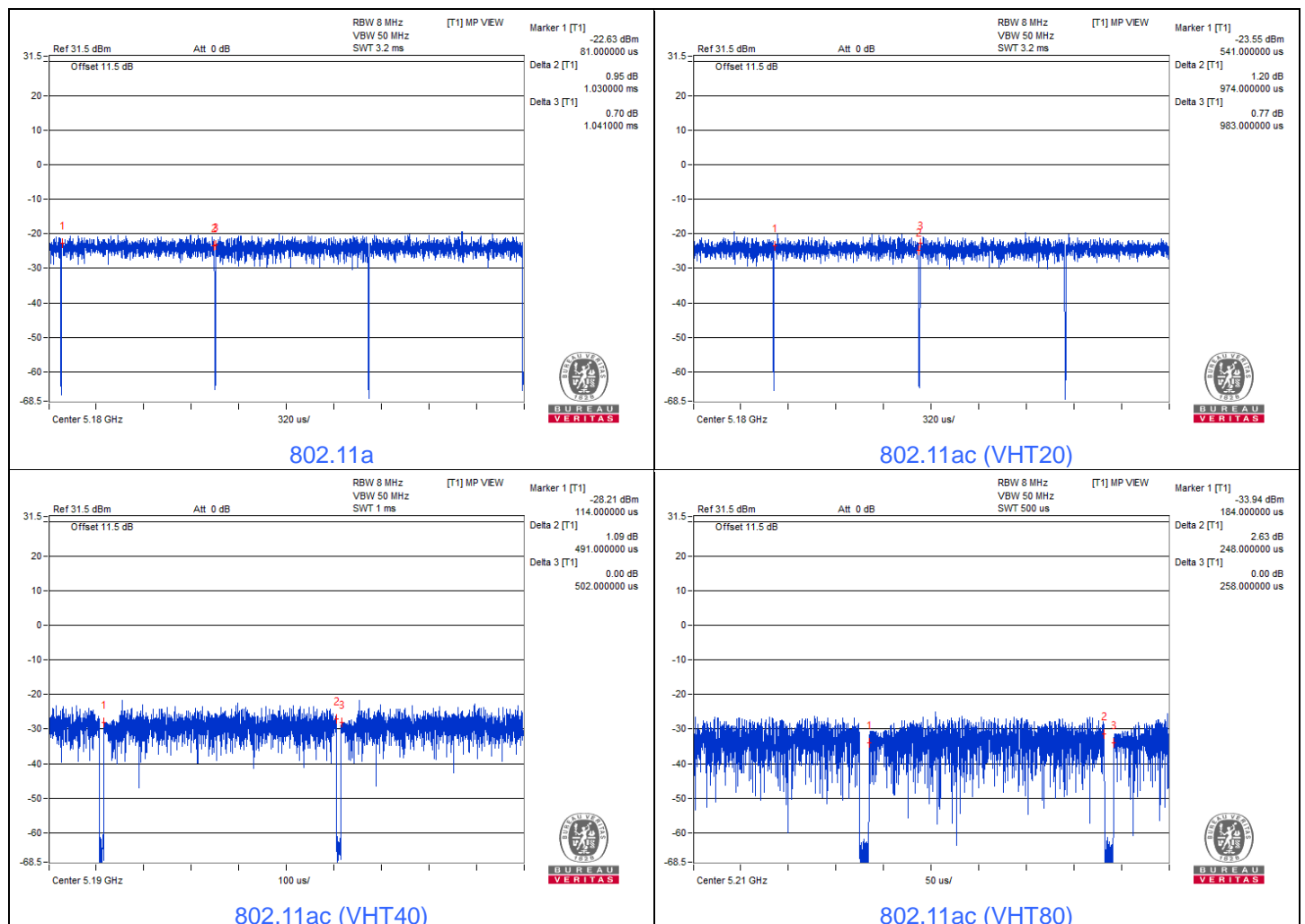
Duty cycle of test signal is  $< 98\%$ , duty factor shall be considered.

**802.11a:** Duty cycle =  $1.03 \text{ ms} / 1.041 \text{ ms} \times 100\% = 98.9\%$

**802.11ac (VHT20):** Duty cycle =  $0.974 \text{ ms} / 0.983 \text{ ms} \times 100\% = 99.1\%$

**802.11ac (VHT40):** Duty cycle =  $0.491 \text{ ms} / 0.502 \text{ ms} \times 100\% = 97.8\%$ , duty factor =  $10 * \log(1/\text{Duty cycle}) = 0.10 \text{ dB}$

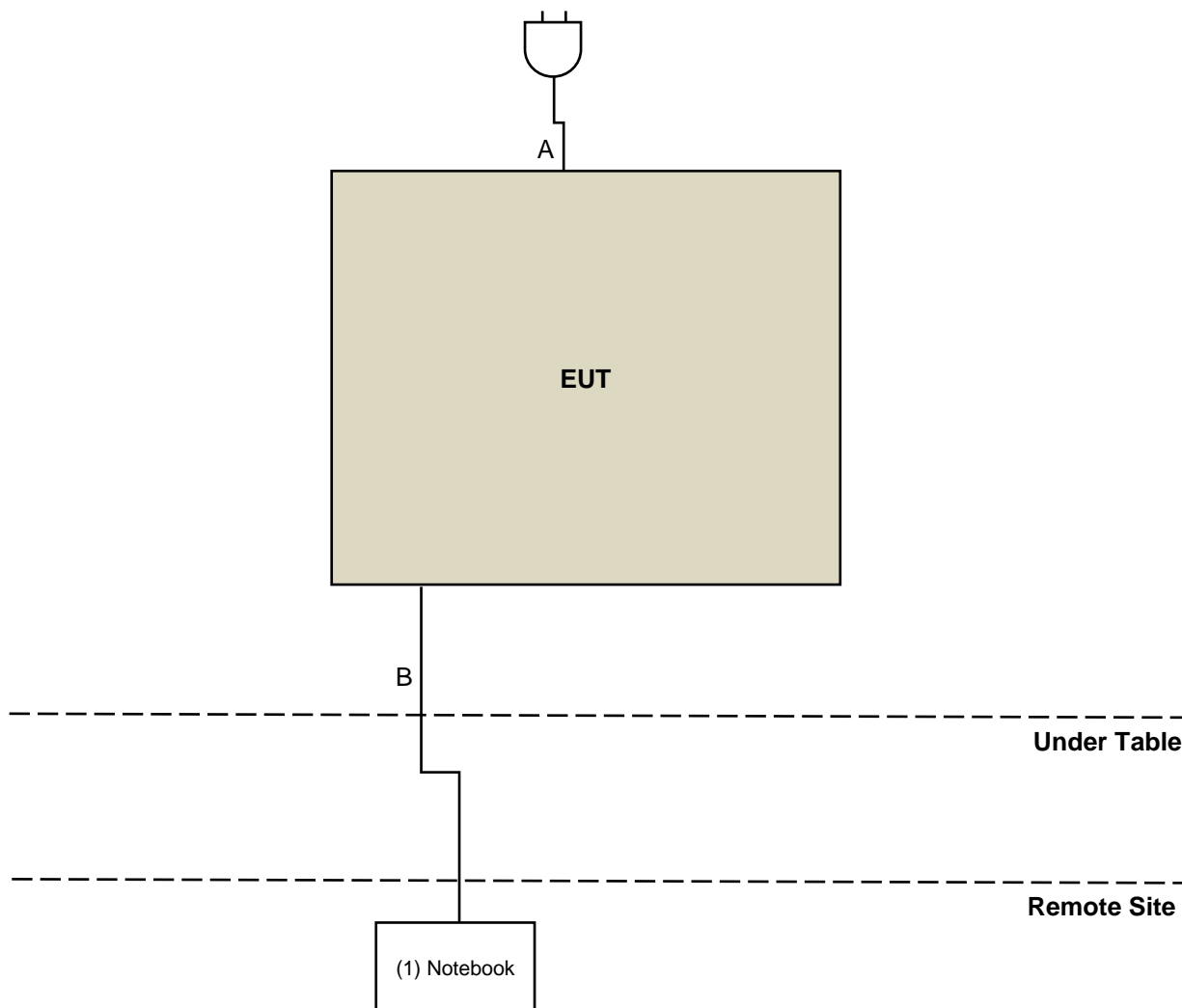
**802.11ac (VHT80):** Duty cycle =  $0.248 \text{ ms} / 0.258 \text{ ms} \times 100\% = 96.1\%$ , duty factor =  $10 * \log(1/\text{Duty cycle}) = 0.17 \text{ dB}$



### 3.6 Test Program Used and Operation Descriptions

Controlling software QRCT V4.0.00195.0 has been activated to set the EUT under transmission condition continuously at specific channel frequency.

### 3.7 Connection Diagram of EUT and Peripheral Devices



### 3.8 Configuration of Peripheral Devices and Cable Connections

ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
1	Notebook	DELL	E5410	1HC2XM1	N/A	Provided by Lab

ID	Cable Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
A	Power Cable	1	1M	NO	N/A	Provided by client
B	LAN	N/A	3M	NO	N/A	Provided by Lab

## 4 Test Instruments

The calibration interval of the all test instruments are 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

### 4.1 26 dB Bandwidth

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Software BV	ADT_RF Test Software V6.6.5.4	N/A	N/A	N/A
Spectrum Analyzer R&S	FSV40	100979	2022/3/25	2023/3/24

Notes:

1. The test was performed in Oven room.
2. Tested Date: 2022/7/20

### 4.2 RF Output Power

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Peak Power Analyzer KEYSIGHT	8990B	MY51000485	2022/1/18	2023/1/17
Power sensor Keysight	U2021XA	MY55380009	2022/3/23	2023/3/22
Software BV	ADT_RF Test Software V6.6.5.4	N/A	N/A	N/A
Spectrum Analyzer R&S	FSV40	100979	2022/3/25	2023/3/24
Wideband Power Sensor(N1923A) KEYSIGHT	N1923A	MY58020002	2022/1/17	2023/1/16

Notes:

1. The test was performed in Oven room.
2. Tested Date: 2022/7/20

### 4.3 Power Spectral Density

Refer to section 4.1 to get information of the instruments.

### 4.4 6 dB Bandwidth

Refer to section 4.1 to get information of the instruments.

### 4.5 Occupied Bandwidth

Refer to section 4.1 to get information of the instruments.

#### 4.6 Frequency Stability

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
AC Power Source ExTech	CFW-105	E000603	N/A	N/A
Digital Multimeter Fluke	87-III	70360742	2022/6/23	2023/6/22
Software BV	ADT_RF Test Software V6.6.5.4	N/A	N/A	N/A
Spectrum Analyzer R&S	FSV40	100979	2022/3/25	2023/3/24
Temperature & Humidity Chamber TERCHY	HRM-120RF	931022	2022/1/3	2023/1/2

Notes:

1. The test was performed in Oven room.
2. Tested Date: 2022/7/20

#### 4.7 AC Power Conducted Emissions

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
50 ohm terminal LYNICS	0900510	E1-011285	2021/10/1	2022/9/30
		E1-011286	2021/10/1	2022/9/30
		E1-011484	2022/6/26	2023/6/25
Attenuator STI	STI02-2200-10	NO.1	2021/9/15	2022/9/14
DC LISN Schwarzbeck	NNLK 8121	8121-808	2022/4/29	2023/4/28
Isolation Transformer Erika Fiedler	D-65396	017	2021/9/9	2022/9/8
LISN R&S	ENV216	101196	2022/5/24	2023/5/23
		101197	2022/7/5	2023/7/4
LISN Schwarzbeck	NNLK 8121	8121-731	2022/5/26	2023/5/25
	NNLK8129	8129229	2022/6/8	2023/6/7
RF Coaxial Cable Commate	5D-FB	Cable-CO10-01	2022/2/9	2023/2/8
Software BVADT	Cond_V7.3.7.4	N/A	N/A	N/A
Test Receiver R&S	ESR3	102414	2021/12/20	2022/12/19

Notes:

1. The test was performed in Linkou Conduction 10.
2. Tested Date: 2022/8/4

#### 4.8 Unwanted Emissions below 1 GHz

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Antenna Tower Max-Full	MFA-515BSN	N/A	N/A	N/A
Bi-log Broadband Antenna Schwarzbeck	VULB9168	9168-1214	2021/10/27	2022/10/26
Loop Antenna EMCI	EM-6879	269	2021/9/16	2022/9/15
MXA Signal Analyzer KEYSIGHT	N9020B	MY60110513	2021/12/24	2022/12/23
MXE EMI Receiver KEYSIGHT	N9038B	MY60180018	2022/2/18	2023/2/17
Pre-amplifier EMCI	EMC001340	980201	2021/9/15	2022/9/14
Pre_Amplifier EMCI	EMC330N	980798	2022/1/17	2023/1/16
RF Coaxial Cable EMCI	5D-NM-BM	140903+140902	2022/1/15	2023/1/14
	EMCCFD400-NM-NM- 500	201248	2022/1/17	2023/1/16
	EMCCFD400-NM-NM- 3000	201249	2022/1/17	2023/1/16
	EMCCFD400-NM-NM- 9000	201251	2022/1/17	2023/1/16
Software BV ADT	ADT_Radiated_ V7.6.15.9.5	N/A	N/A	N/A
Turn Table Max-Full	MFT-201SS	N/A	N/A	N/A
Turn Table Controller Max-Full	MF-7802BS	MF780208676	N/A	N/A

Notes:

1. The test was performed in WM - 966 chamber 9.
2. Tested Date: 2022/7/21

#### 4.9 Unwanted Emissions above 1 GHz

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Antenna Tower Max-Full	MFA-515BSN	N/A	N/A	N/A
Horn Antenna RFSPIN	DRH18-E	210104A18E	2021/11/14	2022/11/13
Horn Antenna Schwarzbeck	BBHA 9170	9170-1048	2021/11/14	2022/11/13
MXA Signal Analyzer KEYSIGHT	N9020B	MY60110513	2021/12/24	2022/12/23
MXE EMI Receiver KEYSIGHT	N9038B	MY60180018	2022/2/18	2023/2/17
Pre_Amplifier EMCI	EMC118A45SE	980809	2021/12/30	2022/12/29
	EMC184045SE	980786	2022/1/17	2023/1/16
RF Coaxial Cable EMCI	EMC101G-KM-KM-2000	201255	2022/1/17	2023/1/16
	EMC101G-KM-KM-3000	201258	2022/1/17	2023/1/16
	EMC101G-KM-KM-5000	201261	2022/1/17	2023/1/16
	EMC104-SM-SM-1000	210103	2022/1/17	2023/1/16
	EMC104-SM-SM-3000	201232	2022/1/17	2023/1/16
	EMC104-SM-SM-9000	201244	2022/1/17	2023/1/16
Software BV ADT	ADT_Radiated_ V7.6.15.9.5	N/A	N/A	N/A
Turn Table Max-Full	MFT-201SS	N/A	N/A	N/A
Turn Table Controller Max-Full	MF-7802BS	MF780208676	N/A	N/A

Notes:

1. The test was performed in WM - 966 chamber 9.
2. Tested Date: 2022/7/18 ~ 2022/7/21



## 5 Limits of Test Items

### 5.1 26 dB Bandwidth

The results are for reference only.

### 5.2 RF Output Power

Operation Band	EUT Category	Limit
U-NII-1	Outdoor Access Point	1 Watt (30 dBm) (Max. e.i.r.p $\leq$ 125mW(21 dBm) at any elevation angle above 30 degrees as measured from the horizon)
	Fixed point-to-point Access Point	1 Watt (30 dBm)
	Indoor Access Point	1 Watt (30 dBm)
	Mobile and Portable client device	250mW (24 dBm)

Operation Band	Limit
U-NII-2A	250mW (24 dBm) or 11 dBm+10 log B*
U-NII-2C	250mW (24 dBm) or 11 dBm+10 log B*
U-NII-3	1 Watt (30 dBm)

\*B is the 26 dB emission bandwidth in megahertz

### 5.3 Power Spectral Density

Operation Band	EUT Category	Limit
U-NII-1	Outdoor Access Point	17 dBm/ MHz
	Fixed point-to-point Access Point	
	Indoor Access Point	
	Mobile and Portable client device	11 dBm/ MHz

Operation Band	Limit
U-NII-2A	11 dBm/ MHz
U-NII-2C	11 dBm/ MHz
U-NII-3	30 dBm/ 500 kHz

### 5.4 6 dB Bandwidth

Within the 5.725-5.850 GHz band, the minimum 6 dB bandwidth of U-NII devices shall be at least 500 kHz.

### 5.5 Occupied Bandwidth

The results are for reference only.

### 5.6 Frequency Stability

The frequency of the carrier signal shall be maintained within band of operation.

## 5.7 AC Power Conducted Emissions

Frequency (MHz)	Conducted Limit (dBuV)	
	Quasi-peak	Average
0.15 - 0.5	66 - 56	56 - 46
0.50 - 5.0	56	46
5.0 - 30.0	60	50

Notes:

1. The lower limit shall apply at the transition frequencies.
2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50 MHz.

## 5.8 Unwanted Emissions below 1 GHz

Radiated emissions which fall in the restricted bands must comply with the radiated emission limits specified as below table.

Frequencies (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

Notes:

1. The lower limit shall apply at the transition frequencies.
2. Emission level (dBuV/m) = 20 log Emission level (uV/m).

## 5.9 Unwanted Emissions above 1 GHz

Radiated emissions which fall in the restricted bands must comply with the radiated emission limits specified as below table.

Frequencies (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
Above 960	500	3

### Notes:

1. The lower limit shall apply at the transition frequencies.
2. Emission level (dBuV/m) = 20 log Emission level (uV/m).
3. For frequencies above 1000 MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20 dB under any condition of modulation.

### Limits of unwanted emission out of the restricted bands

Applicable To		Limit	
789033 D02 General UNII Test Procedure New Rules v02r01		Field Strength at 3 m	
		PK: 74 (dBµV/m)	AV: 54 (dBµV/m)
Frequency Band	Applicable To	EIRP Limit	Equivalent Field Strength at 3 m
5150~5250 MHz	15.407(b)(1)	PK: -27 (dBm/MHz)	PK: 68.2 (dBµV/m)
5250~5350 MHz	15.407(b)(2)		
5470~5725 MHz	15.407(b)(3)		
5725~5850 MHz	15.407(b)(4)(i)	PK: -27 (dBm/MHz) <sup>*1</sup> PK: 10 (dBm/MHz) <sup>*2</sup> PK: 15.6 (dBm/MHz) <sup>*3</sup> PK: 27 (dBm/MHz) <sup>*4</sup>	PK: 68.2 (dBµV/m) <sup>*1</sup> PK: 105.2 (dBµV/m) <sup>*2</sup> PK: 110.8 (dBµV/m) <sup>*3</sup> PK: 122.2 (dBµV/m) <sup>*4</sup>
*1 beyond 75 MHz or more above of the band edge.		*2 below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above.	
*3 below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above.		*4 from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.	

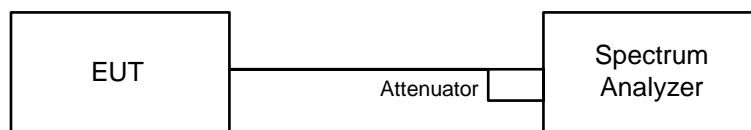
Note: The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength:

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

## 6 Test Arrangements

### 6.1 26 dB Bandwidth

#### 6.1.1 Test Setup

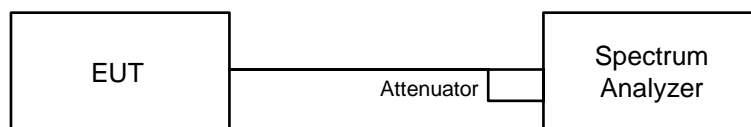
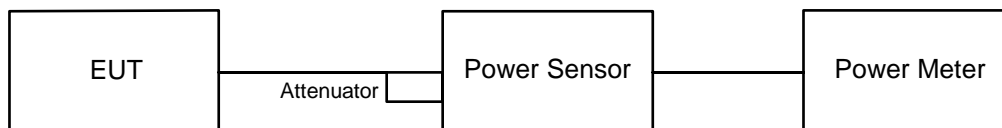


#### 6.1.2 Test Procedure

- a. Set RBW = approximately 1% of the emission bandwidth.
- b. Set the VBW > RBW.
- c. Detector = Peak.
- d. Trace mode = max hold.
- e. Measure the maximum width of the emission that is 26 dB down from the peak of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.

## 6.2 RF Output Power

### 6.2.1 Test Setup



### 6.2.2 Test Procedure

Method PM is used to perform output power measurement, trigger and gating function of wide band power meter is enabled to measure max output power of TX on burst and set the detector to average. Duty factor is not added to measured value.

#### Method SA-1

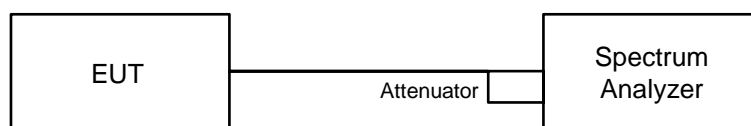
- Set span to encompass the entire emission bandwidth (EBW) of the signal.
- Set RBW = 1 MHz, Set VBW  $\geq$  3 MHz, Detector = RMS
- Sweep points  $\geq [2 \times \text{span} / \text{RBW}]$ . (This gives bin-to-bin spacing  $\leq \text{RBW} / 2$ , so that narrowband signals are not lost between frequency bins.)
- Sweep time = auto, trigger set to “free run”.
- Trace average at least 100 traces in power averaging mode.
- Compute power by integrating the spectrum across the EBW (or, alternatively, the entire 99% occupied bandwidth) of the signal using the instrument’s band power measurement function with band limits set equal to the EBW (or occupied bandwidth) band edges. If the instrument does not have a band power function, sum the spectrum levels (in power units) at 1 MHz intervals extending across the EBW (or, alternatively, the entire 99% occupied bandwidth) of the spectrum.
- Record the max value.

#### Method SA-2A

- Set span to encompass the entire emission bandwidth (EBW) of the signal.
- Set RBW = 1 MHz, Set VBW  $\geq$  3 MHz, Detector = RMS
- Sweep points  $\geq [2 \times \text{span} / \text{RBW}]$ . (This gives bin-to-bin spacing  $\leq \text{RBW} / 2$ , so that narrowband signals are not lost between frequency bins.)
- Manually set sweep time  $\geq 10 \times (\text{number of points in sweep}) \times (\text{total on/off period of the transmitted signal})$ .
- Perform a single sweep.
- Compute power by integrating the spectrum across the EBW (or, alternatively, the entire 99% occupied bandwidth) of the signal using the instrument’s band power measurement function with band limits set equal to the EBW (or occupied bandwidth) band edges. If the instrument does not have a band power function, sum the spectrum levels (in power units) at 1 MHz intervals extending across the EBW (or, alternatively, the entire 99% occupied bandwidth) of the spectrum.
- Record the max value and add  $10 \log (1/\text{duty cycle})$ .

## 6.3 Power Spectral Density

### 6.3.1 Test Setup



### 6.3.2 Test Procedure

#### For specified measurement bandwidth 1 MHz:

##### Method SA-1

- a. Set span to encompass the entire emission bandwidth (EBW) of the signal.
- b. Set RBW = 1 MHz, Set VBW  $\geq$  3 MHz, Detector = RMS
- c. Sweep points  $\geq$   $[2 \times \text{span} / \text{RBW}]$ . (This gives bin-to-bin spacing  $\leq$  RBW / 2, so that narrowband signals are not lost between frequency bins.)
- d. Sweep time = auto, trigger set to “free run”.
- e. Trace average at least 100 traces in power averaging mode.
- f. Record the max value

#### For specified measurement bandwidth 1 MHz:

##### Method SA-2

- a. Set span to encompass the entire emission bandwidth (EBW) of the signal.
- b. Set RBW = 1 MHz, Set VBW  $\geq$  3 MHz, Detector = RMS
- c. Sweep points  $\geq$   $[2 \times \text{span} / \text{RBW}]$ . (This gives bin-to-bin spacing  $\leq$  RBW / 2, so that narrowband signals are not lost between frequency bins.)
- d. Sweep time = auto, trigger set to “free run”.
- e. Trace average at least 100 traces in power averaging mode.
- f. Use the peak search function on the instrument to find the peak of the spectrum and record its value.
- g. Record the max value and add 10 log (1/duty cycle).

#### For specified measurement bandwidth 500 kHz:

##### Method SA-1

- a. Set span to encompass the entire emission bandwidth (EBW) of the signal.
- b. Set RBW = 300 kHz, Set VBW  $\geq$  1 MHz, Detector = RMS
- c. Scale the observed power level to an equivalent value in 500 kHz by adjusting (increasing) the measured power by a bandwidth correction factor (BWCF) where  $\text{BWCF} = 10\log(500 \text{ kHz}/300 \text{ kHz})$
- d. Sweep points  $\geq$   $[2 \times \text{span} / \text{RBW}]$ . (This gives bin-to-bin spacing  $\leq$  RBW / 2, so that narrowband signals are not lost between frequency bins.)
- e. Sweep time = auto, trigger set to “free run”.
- f. Trace average at least 100 traces in power averaging mode.
- g. Record the max value

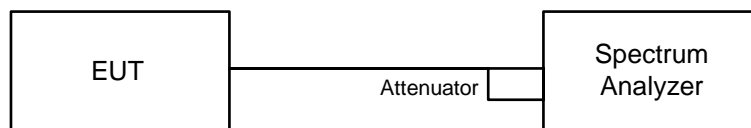
#### For specified measurement bandwidth 500 kHz:

##### Method SA-2

- a. Set span to encompass the entire emission bandwidth (EBW) of the signal.
- b. Set RBW = 300 kHz, Set VBW  $\geq$  1 MHz, Detector = RMS
- c. Scale the observed power level to an equivalent value in 500 kHz by adjusting (increasing) the measured power by a bandwidth correction factor (BWCF) where  $\text{BWCF} = 10\log(500 \text{ kHz}/300 \text{ kHz})$
- d. Sweep points  $\geq$   $[2 \times \text{span} / \text{RBW}]$ . (This gives bin-to-bin spacing  $\leq$  RBW / 2, so that narrowband signals are not lost between frequency bins.)
- e. Sweep time = auto, trigger set to “free run”.
- f. Trace average at least 100 traces in power averaging mode.
- g. Use the peak search function on the instrument to find the peak of the spectrum and record its value.
- h. Record the max value and add 10 log (1/duty cycle).

## 6.4 6 dB Bandwidth

### 6.4.1 Test Setup

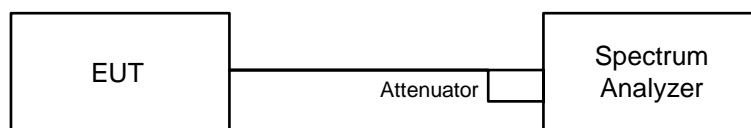


### 6.4.2 Test Procedure

- Set resolution bandwidth (RBW) = 100 kHz.
- Set the video bandwidth (VBW)  $\geq 3 \times$  RBW, Detector = Peak.
- Trace mode = max hold.
- Sweep = auto couple.
- Measure the maximum width of the emission that is constrained by the frequencies associated with the two amplitude points (upper and lower) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

## 6.5 Occupied Bandwidth

### 6.5.1 Test Setup



### 6.5.2 Test Procedure

The transmitter output was connected to the spectrum analyzer through an attenuator. The bandwidth of the fundamental frequency was measured by spectrum analyzer with resolution bandwidth in the range of 1% to 5% of the anticipated emission bandwidth, and a video bandwidth at least 3x the resolution bandwidth and set the detector to Sampling. The width of a frequency band such that, below the lower and above the upper frequency limits, the mean powers emitted are each equal to a specified percentage 0.5% of the total mean power of a given emission.

## 6.6 Frequency Stability

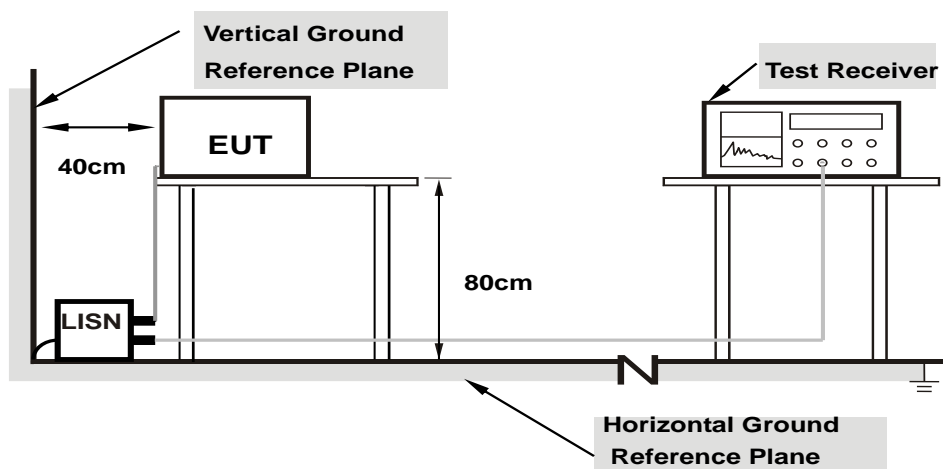
### 6.6.1 Test Setup

### 6.6.2 Test Procedure

- Turn the EUT on and couple its output to a spectrum analyzer.
- Turn the EUT off and set the chamber to the highest temperature specified.
- Allow sufficient time (approximately 30 min) for the temperature of the chamber to stabilize, turn the EUT on and measure the operating frequency after 2, 5, and 10 Minutes.
- Repeat step (d) with the temperature chamber set to the next desired temperature until measurements down to the lowest specified temperature have been completed.
- The test chamber was allowed to stabilize at +20 degree C for a minimum of 30 Minutes. The supply voltage was then adjusted on the EUT from 85% to 115% and the frequency record.

## 6.7 AC Power Conducted Emissions

### 6.7.1 Test Setup



**Note: 1.Support units were connected to second LISN.**

For the actual test configuration, please refer to the attached file (Test Setup Photo).

### 6.7.2 Test Procedure

- The EUT was placed on a 0.8 meter to the top of table and placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50 uH of coupling impedance for the measuring instrument.
- Both lines of the power mains connected to the EUT were checked for maximum conducted interference.
- The frequency range from 150 kHz to 30 MHz was searched. Emission levels under (Limit – 20 dB) was not recorded.

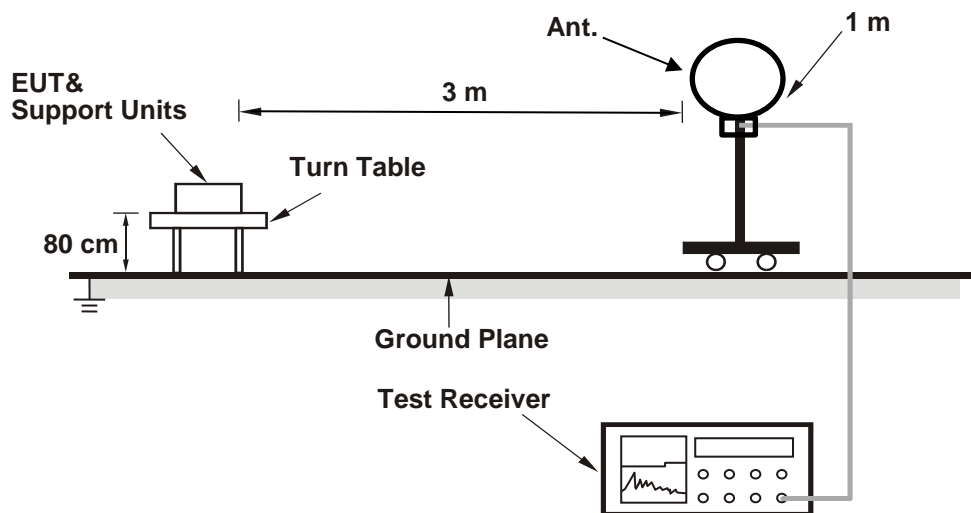
Note: The resolution bandwidth and video bandwidth of test receiver is 9 kHz for quasi-peak detection (QP) and average detection (AV) at frequency 0.15 MHz-30 MHz.



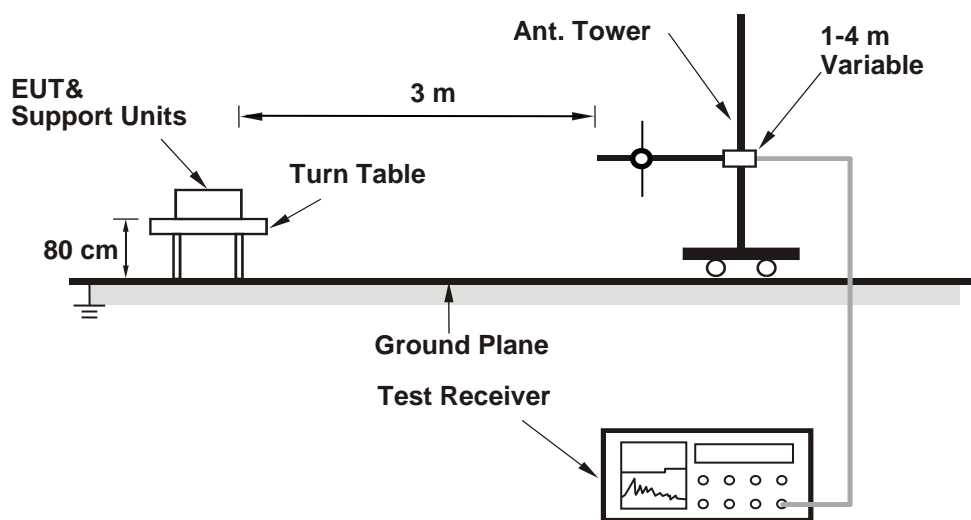
## 6.8 Unwanted Emissions below 1 GHz

### 6.8.1 Test Setup

#### For Radiated emission below 30 MHz



#### For Radiated emission above 30 MHz



For the actual test configuration, please refer to the attached file (Test Setup Photo).

## 6.8.2 Test Procedure

### For Radiated emission below 30 MHz

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. Parallel, perpendicular, and ground-parallel orientations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Quasi-Peak Detect Function and Specified Bandwidth with Maximum Hold Mode, except for the frequency band (9 kHz to 90 kHz and 110 kHz to 490 kHz) set to average detect function and peak detect function.

#### Notes:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 200 Hz at frequency below 150 kHz.
2. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 9 kHz or 10 kHz at frequency (150 kHz to 30 MHz).
3. All modes of operation were investigated and the worst-case emissions are reported.

### For Radiated emission above 30 MHz

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.

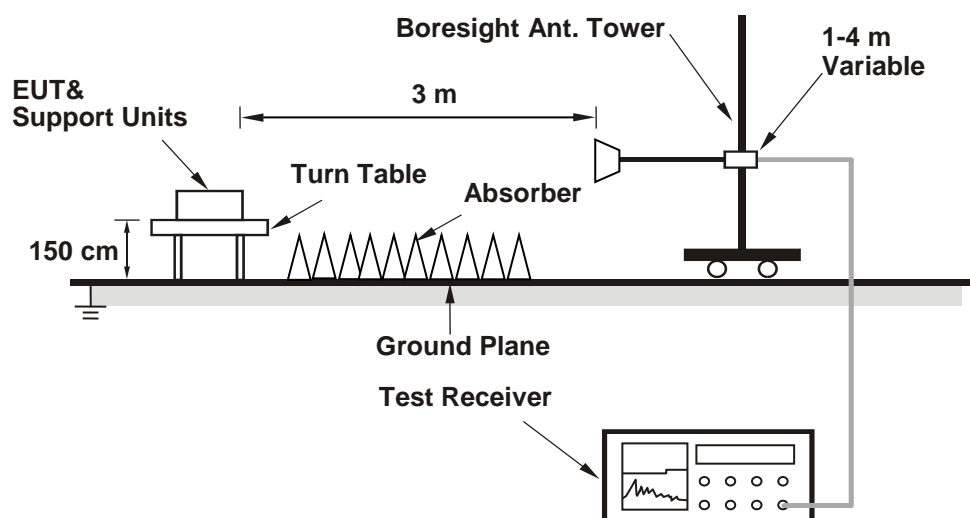
#### Notes:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120 kHz for Quasi-peak detection (QP) at frequency below 1 GHz.
2. All modes of operation were investigated and the worst-case emissions are reported.

## 6.9 Unwanted Emissions above 1 GHz

### 6.9.1 Test Setup

#### For Radiated emission above 1 GHz



For the actual test configuration, please refer to the attached file (Test Setup Photo).

### 6.9.2 Test Procedure

- The EUT was placed on the top of a rotating table 1.5 meters above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
- The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- The test-receiver system was set to peak and average detects function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz. If the peak reading value also meets average limit, measurement with the average detector is unnecessary.

#### Notes:

- The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) and Average detection (AV) at frequency above 1 GHz.
- For fundamental and harmonic signal measurement, the resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is  $\geq 1/T$  (Duty cycle < 98%) or 10 Hz (Duty cycle  $\geq 98\%$ ) for Average detection (AV) at frequency above 1 GHz.
- All modes of operation were investigated and the worst-case emissions are reported.

## 7 Test Results of Test Item

### 7.1 26 dB Bandwidth

Input Power:	220 Vac, 60 Hz	Environmental Conditions:	25°C, 60% RH	Tested By:	Chun Wu
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#### 802.11a

Channel	Frequency (MHz)	26dB Bandwidth (MHz)
52	5260	41.91
60	5300	40.89
64	5320	43.27
100	5500	46.26
116	5580	44.94
140	5700	45.44
144 (U-NII-2C)	5720	26.28

Determined Output Power Limit			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Power Limit (dBm)
52	5260	41.91	27.22 > 24
60	5300	40.89	27.11 > 24
64	5320	43.27	27.36 > 24
100	5500	46.26	27.65 > 24
116	5580	44.94	27.52 > 24
140	5700	45.44	27.57 > 24
144 (U-NII-2C)	5720	26.28	25.19 > 24

Note: For U-NII-2A, U-NII-2C Band output power limitation is determined based on 26dBc bandwidth.

**802.11ac (VHT20)**

Channel	Frequency (MHz)	26dB Bandwidth (MHz)
52	5260	37.89
60	5300	42.83
64	5320	43.91
100	5500	48.07
116	5580	48.06
140	5700	48.39
144 (U-NII-2C)	5720	28.3

Determined Output Power Limit			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Power Limit (dBm)
52	5260	37.89	26.78 > 24
60	5300	42.83	27.31 > 24
64	5320	43.91	27.42 > 24
100	5500	48.07	27.81 > 24
116	5580	48.06	27.81 > 24
140	5700	48.39	27.84 > 24
144 (U-NII-2C)	5720	28.30	25.51 > 24

Note: For U-NII-2A, U-NII-2C Band output power limitation is determined based on 26dBc bandwidth.

**802.11ac (VHT40)**

Channel	Frequency (MHz)	26dB Bandwidth (MHz)
54	5270	69.96
62	5310	58.35
102	5510	56.53
110	5550	80.41
134	5670	83.3
142 (U-NII-2C)	5710	59.62

Determined Output Power Limit			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Power Limit (dBm)
54	5270	69.96	29.44 > 24
62	5310	58.35	28.66 > 24
102	5510	56.53	28.52 > 24
110	5550	80.41	30.05 > 24
134	5670	83.30	30.2 > 24
142 (U-NII-2C)	5710	59.62	28.75 > 24

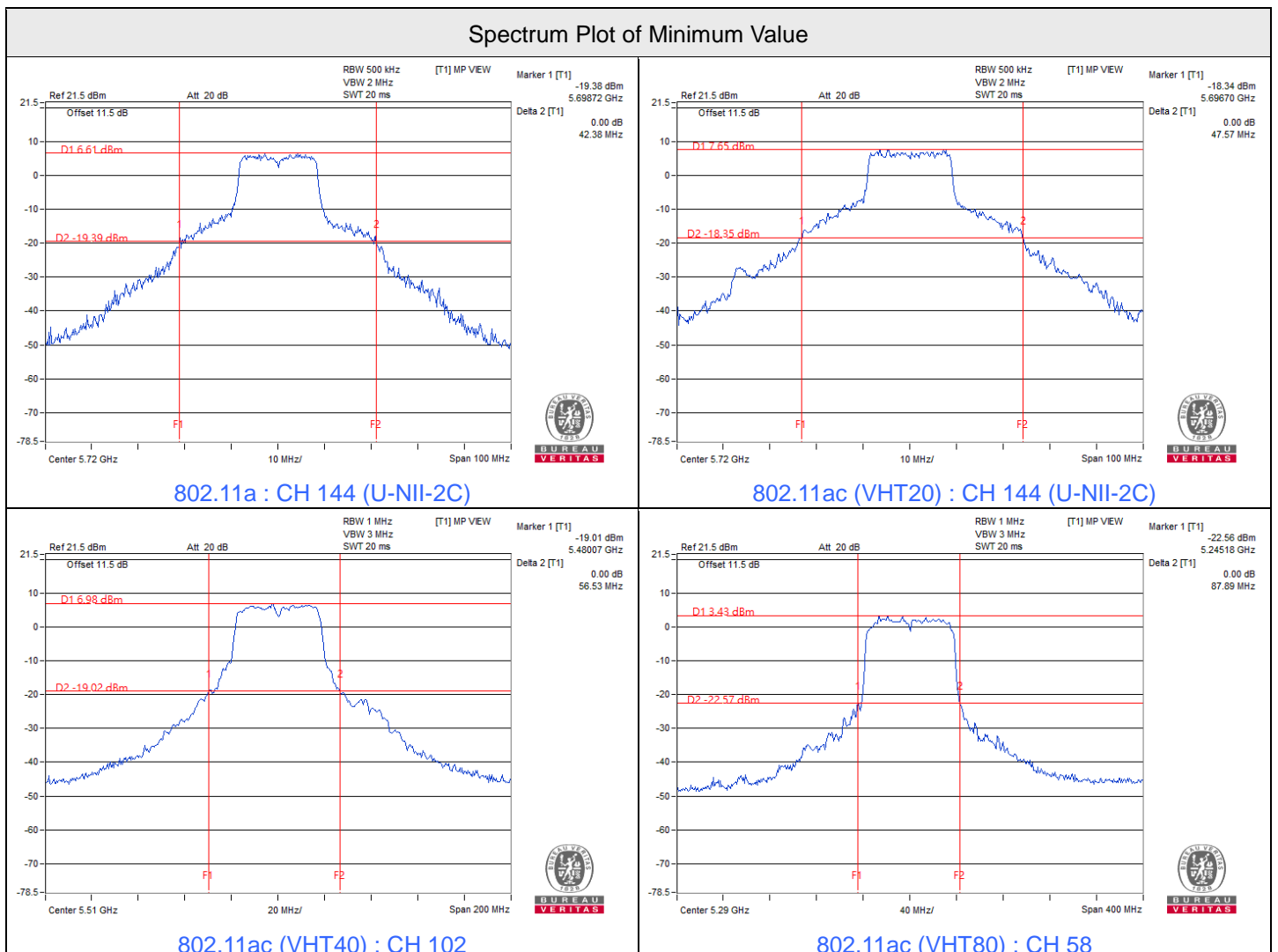
Note: For U-NII-2A, U-NII-2C Band output power limitation is determined based on 26dBc bandwidth.

802.11ac (VHT80)

Channel	Frequency (MHz)	26dB Bandwidth (MHz)
58	5290	87.89
106	5530	93.69
122	5610	167.86
138 (U-NII-2C)	5690	122.36

Determined Output Power Limit			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Power Limit (dBm)
58	5290	87.89	30.43 > 24
106	5530	93.69	30.71 > 24
122	5610	167.86	33.24 > 24
138 (U-NII-2C)	5690	122.36	31.87 > 24

Note: For U-NII-2A, U-NII-2C Band output power limitation is determined based on 26dBc bandwidth.



Notes:

1. For U-NII-2C straddle channel = 5725 MHz - Marker 1

## 7.2 RF Output Power

Input Power:	220 Vac, 60 Hz	Environmental Conditions:	25°C, 60% RH	Tested By:	Chun Wu
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### 802.11a

Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)	Power Limit (dBm)	Test Result
36	5180	37.844	15.78	24	Pass
40	5200	36.058	15.57	24	Pass
48	5240	35.318	15.48	24	Pass
52	5260	38.194	15.82	24	Pass
60	5300	38.994	15.91	24	Pass
64	5320	39.537	15.97	24	Pass
100	5500	38.194	15.82	24	Pass
116	5580	48.641	16.87	24	Pass
140	5700	49.091	16.91	24	Pass
*144 (U-NII-2C)	5720	37.411	15.73	24	Pass
*144 (U-NII-3)	5720	9.908	9.96	30	Pass
149	5745	55.59	17.45	30	Pass
157	5785	56.364	17.51	30	Pass
165	5825	57.28	17.58	30	Pass

#### Notes:

- \* : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-1 and use spectrum analyzer test.
- For U-NII-1, the antenna gain is 4.2 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-2A, the antenna gain is 4.2 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-2C, the antenna gain is 4.2 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-3, the antenna gain is 4.2 dBi < 6 dBi, so the output power limit shall not be reduced.

**802.11ac (VHT20)**

Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)	Power Limit (dBm)	Test Result
36	5180	36.898	15.67	24	Pass
40	5200	36.475	15.62	24	Pass
48	5240	37.584	15.75	24	Pass
52	5260	36.141	15.58	24	Pass
60	5300	36.813	15.66	24	Pass
64	5320	37.239	15.71	24	Pass
100	5500	40.738	16.10	24	Pass
116	5580	43.752	16.41	24	Pass
140	5700	44.875	16.52	24	Pass
*144 (U-NII-2C)	5720	33.189	15.21	24	Pass
*144 (U-NII-3)	5720	9.795	9.91	30	Pass
149	5745	56.364	17.51	30	Pass
157	5785	52	17.16	30	Pass
165	5825	53.827	17.31	30	Pass

**Notes:**

- \* : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-1 and use spectrum analyzer test.
- For U-NII-1, the antenna gain is 4.2 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-2A, the antenna gain is 4.2 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-2C, the antenna gain is 4.2 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-3, the antenna gain is 4.2 dBi < 6 dBi, so the output power limit shall not be reduced.



**802.11ac (VHT40)**

Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)	Power Limit (dBm)	Test Result
38	5190	26.977	14.31	24	Pass
46	5230	33.806	15.29	24	Pass
54	5270	34.754	15.41	24	Pass
62	5310	26.363	14.21	24	Pass
102	5510	19.454	12.89	24	Pass
110	5550	45.394	16.57	24	Pass
134	5670	43.752	16.41	24	Pass
*142 (U-NII-2C)	5710	39.776	16.00	24	Pass
*142 (U-NII-3)	5710	3.316	5.21	30	Pass
151	5755	55.59	17.45	30	Pass
159	5795	54.2	17.34	30	Pass

**Notes:**

- \* : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-2A and use spectrum analyzer test , the duty factor was included in the total power.
- For U-NII-1, the antenna gain is 4.2 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-2A, the antenna gain is 4.2 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-2C, the antenna gain is 4.2 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-3, the antenna gain is 4.2 dBi < 6 dBi, so the output power limit shall not be reduced.

**802.11ac (VHT80)**

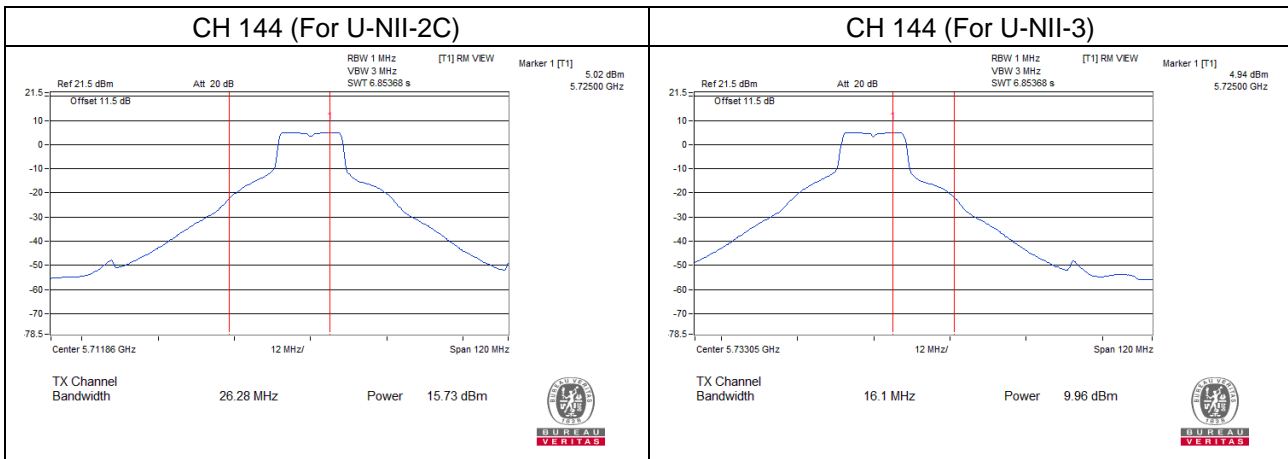
Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)	Power Limit (dBm)	Test Result
42	5210	24.099	13.82	24	Pass
58	5290	14.191	11.52	24	Pass
106	5530	18.707	12.72	24	Pass
122	5610	44.875	16.52	24	Pass
*138 (U-NII-2C)	5690	43.169	16.35	24	Pass
*138 (U-NII-3)	5690	1.128	0.52	30	Pass
155	5775	55.59	17.45	30	Pass

**Notes:**

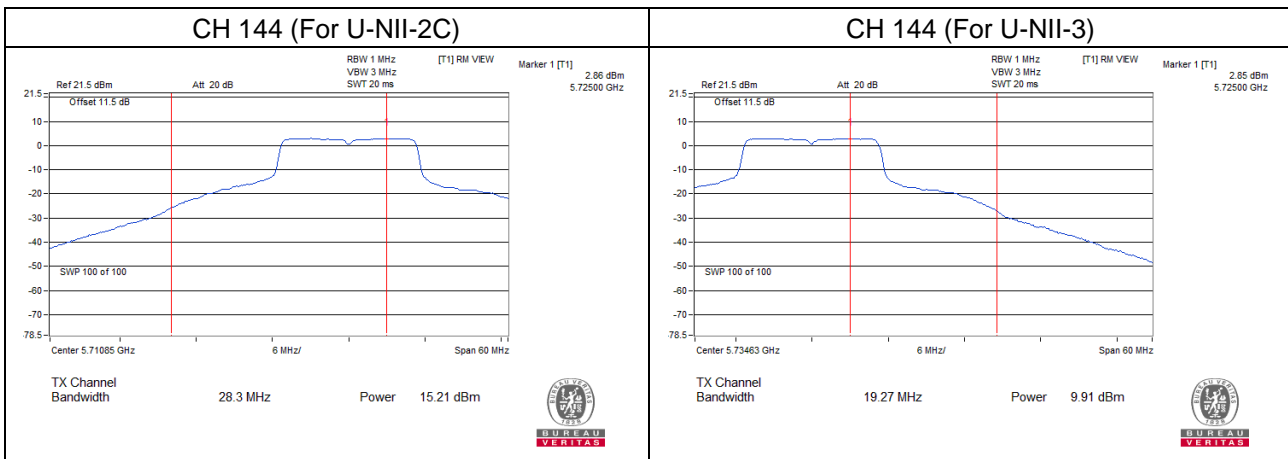
- \* : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-2A and use spectrum analyzer test , the duty factor was included in the total power.
- For U-NII-1, the antenna gain is 4.2 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-2A, the antenna gain is 4.2 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-2C, the antenna gain is 4.2 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-3, the antenna gain is 4.2 dBi < 6 dBi, so the output power limit shall not be reduced.

**Straddle channel power plots:**

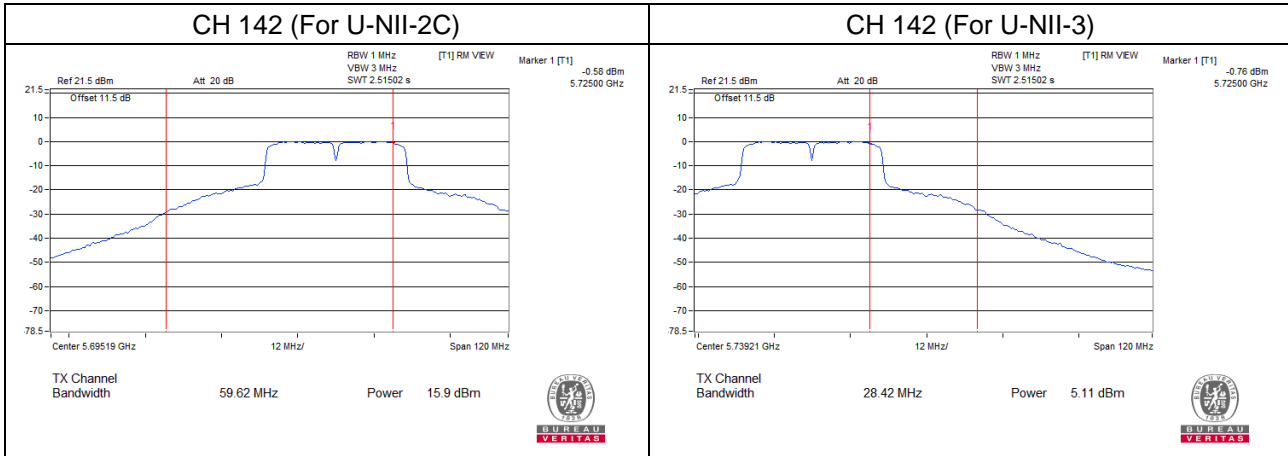
802.11a



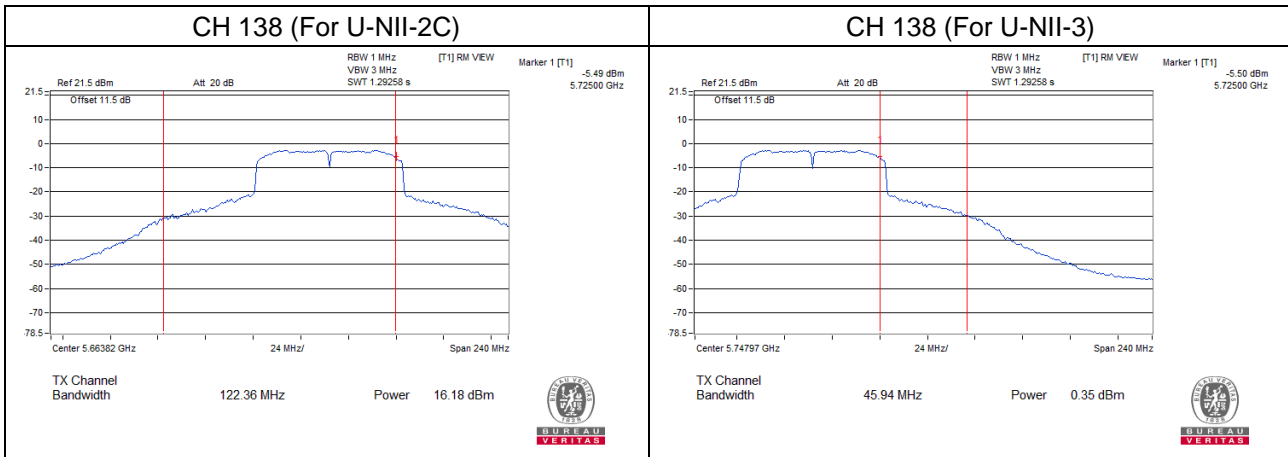
802.11ac (VHT20)



802.11ac (VHT40)



802.11ac (VHT80)



### 7.3 Power Spectral Density

Input Power:	220 Vac, 60 Hz	Environmental Conditions:	25°C, 60% RH	Tested By:	Chun Wu
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#### 802.11a

Chan.	Chan. Freq. (MHz)	PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Test Result
36	5180	2.46	11.00	Pass
40	5200	2.26	11.00	Pass
48	5240	2.12	11.00	Pass
52	5260	2.53	11.00	Pass
60	5300	2.55	11.00	Pass
64	5320	2.60	11.00	Pass
100	5500	2.74	11.00	Pass
116	5580	3.57	11.00	Pass
140	5700	3.44	11.00	Pass
144 (U-NII-2C)	5720	3.52	11.00	Pass

Notes:

1. For U-NII-1, the antenna gain is 4.2 dBi < 6dBi, so the power density limit shall not be reduced.
2. For U-NII-2A, the antenna gain is 4.2 dBi < 6 dBi, so the power density limit shall not be reduced.
3. For U-NII-2C, the antenna gain is 4.2 dBi < 6 dBi, so the power density limit shall not be reduced.

#### 802.11ac (VHT20)

Chan.	Chan. Freq. (MHz)	PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Test Result
36	5180	2.29	11.00	Pass
40	5200	2.14	11.00	Pass
48	5240	2.37	11.00	Pass
52	5260	2.16	11.00	Pass
60	5300	2.24	11.00	Pass
64	5320	2.24	11.00	Pass
100	5500	2.81	11.00	Pass
116	5580	3.30	11.00	Pass
140	5700	3.47	11.00	Pass
144 (U-NII-2C)	5720	3.42	11.00	Pass

Notes:

1. For U-NII-1, the antenna gain is 4.2 dBi < 6dBi, so the power density limit shall not be reduced.
2. For U-NII-2A, the antenna gain is 4.2 dBi < 6 dBi, so the power density limit shall not be reduced.
3. For U-NII-2C, the antenna gain is 4.2 dBi < 6 dBi, so the power density limit shall not be reduced.

### 802.11ac (VHT40)

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/MHz)	Duty Factor (dB)	PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Test Result
38	5190	-1.72	0.10	-1.62	11.00	Pass
46	5230	-0.88	0.10	-0.78	11.00	Pass
54	5270	-0.83	0.10	-0.73	11.00	Pass
62	5310	-1.82	0.10	-1.72	11.00	Pass
102	5510	-3.28	0.10	-3.18	11.00	Pass
110	5550	0.30	0.10	0.40	11.00	Pass
134	5670	0.21	0.10	0.31	11.00	Pass
142 (U-NII-2C)	5710	0.16	0.10	0.26	11.00	Pass

Notes:

1. For U-NII-1, the antenna gain is 4.2 dBi < 6dBi, so the power density limit shall not be reduced.
2. For U-NII-2A, the antenna gain is 4.2 dBi < 6 dBi, so the power density limit shall not be reduced.
3. For U-NII-2C, the antenna gain is 4.2 dBi < 6 dBi, so the power density limit shall not be reduced.

### 802.11ac (VHT80)

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/MHz)	Duty Factor (dB)	PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Test Result
42	5210	-5.47	0.17	-5.30	11.00	Pass
58	5290	-7.53	0.17	-7.36	11.00	Pass
106	5530	-6.18	0.17	-6.01	11.00	Pass
122	5610	-2.88	0.17	-2.71	11.00	Pass
138 (U-NII-2C)	5690	-2.92	0.17	-2.75	11.00	Pass

Notes:

1. For U-NII-1, the antenna gain is 4.2 dBi < 6dBi, so the power density limit shall not be reduced.
2. For U-NII-2A, the antenna gain is 4.2 dBi < 6 dBi, so the power density limit shall not be reduced.
3. For U-NII-2C, the antenna gain is 4.2 dBi < 6 dBi, so the power density limit shall not be reduced.

**802.11a**

Chan.	Chan. Freq. (MHz)	PSD (dBm/300kHz)	PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)	Test Result
144 (U-NII-3)	5720	-4.92	-2.70	30	Pass
149	5745	-4.17	-1.95	30	Pass
157	5785	-4.31	-2.09	30	Pass
165	5825	-4.64	-2.42	30	Pass

Note: For U-NII-3, the antenna gain is 4.2 dBi < 6 dBi, so the power density limit shall not be reduced.

**802.11ac (VHT20)**

Chan.	Chan. Freq. (MHz)	PSD (dBm/300kHz)	PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)	Test Result
144 (U-NII-3)	5720	-3.65	-1.43	30	Pass
149	5745	-4.58	-2.36	30	Pass
157	5785	-4.85	-2.63	30	Pass
165	5825	-5.01	-2.79	30	Pass

Note: For U-NII-3, the antenna gain is 4.2 dBi < 6 dBi, so the power density limit shall not be reduced.

**802.11ac (VHT40)**

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/300kHz)	Duty Factor (dB)	PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)	Test Result
142 (U-NII-3)	5710	-9.93	0.1	-7.61	30	Pass
151	5755	-7.98	0.1	-5.66	30	Pass
159	5795	-7.85	0.1	-5.53	30	Pass

Note: For U-NII-3, the antenna gain is 4.2 dBi < 6 dBi, so the power density limit shall not be reduced.

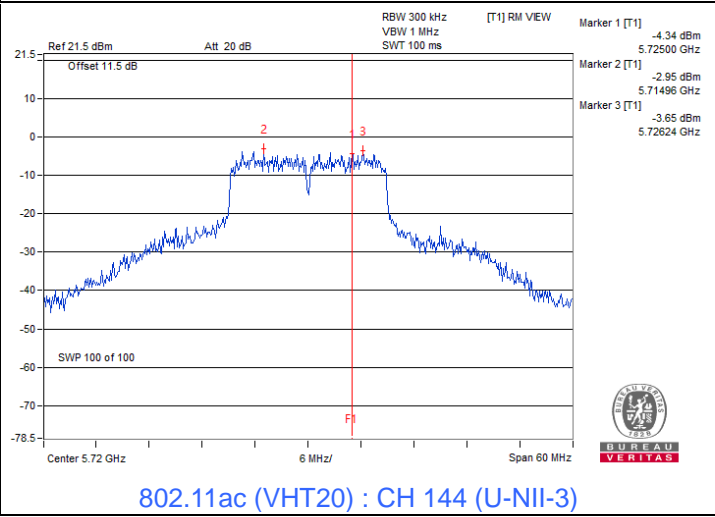
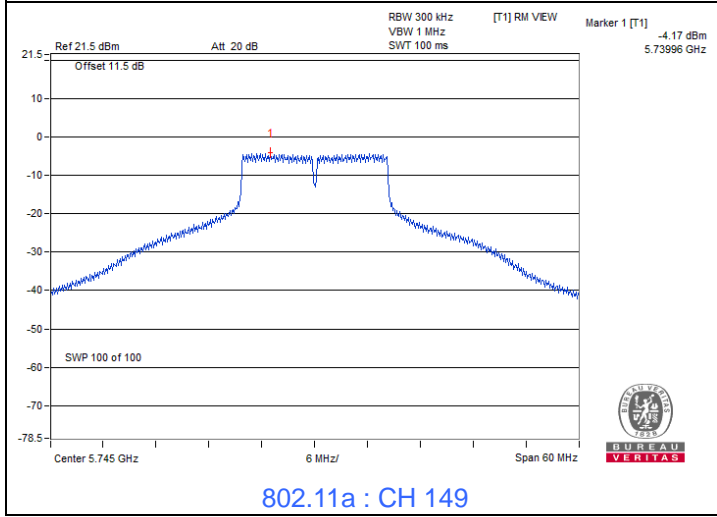
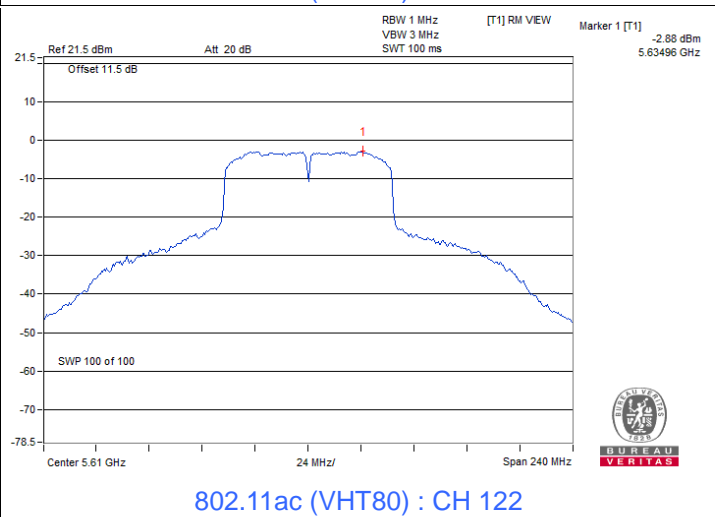
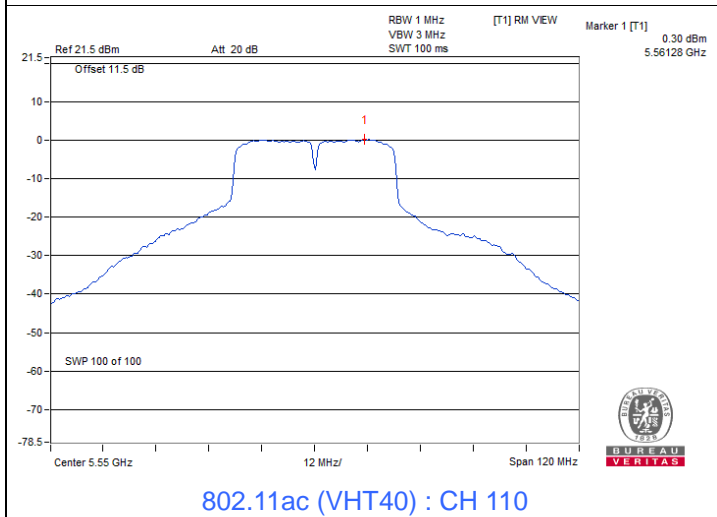
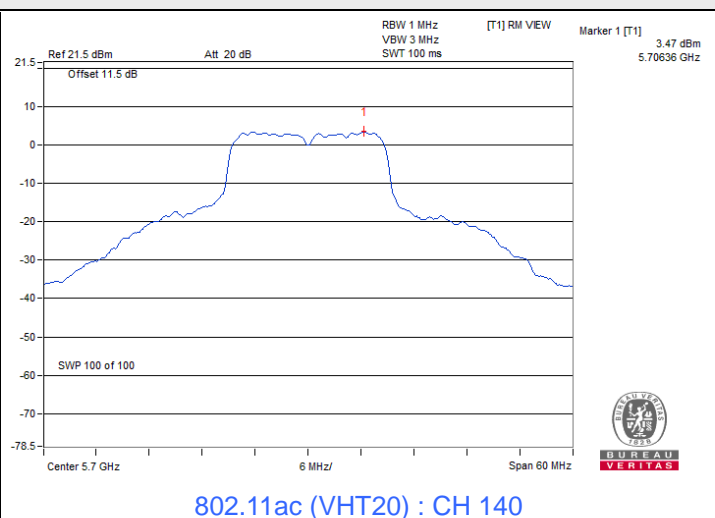
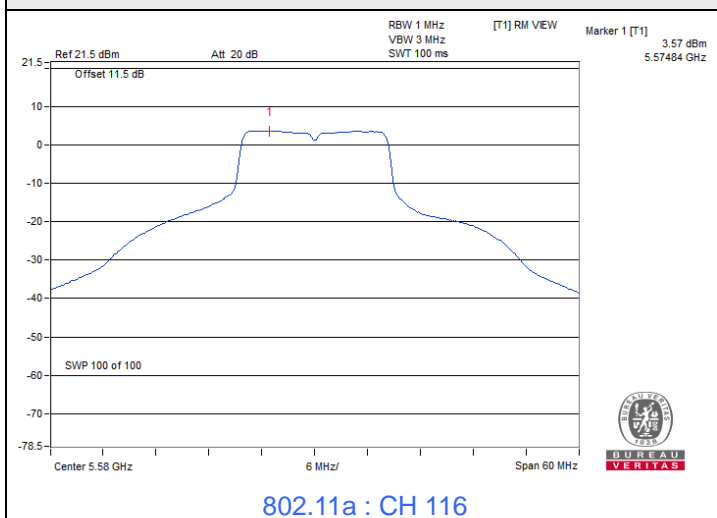
**802.11ac (VHT80)**

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/300kHz)	Duty Factor (dB)	PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)	Test Result
138 (U-NII-3)	5690	-14.86	0.17	-12.47	30	Pass
155	5775	-10.84	0.17	-8.45	30	Pass

Note: For U-NII-3, the antenna gain is 4.2 dBi < 6 dBi, so the power density limit shall not be reduced.

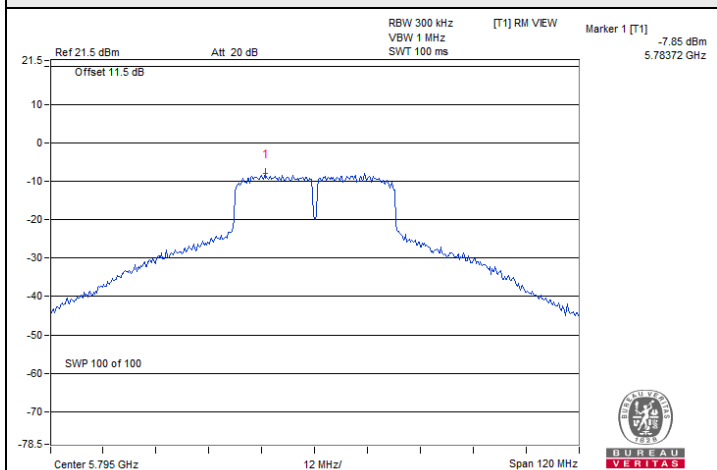


### Spectrum Plot of Maximum Value

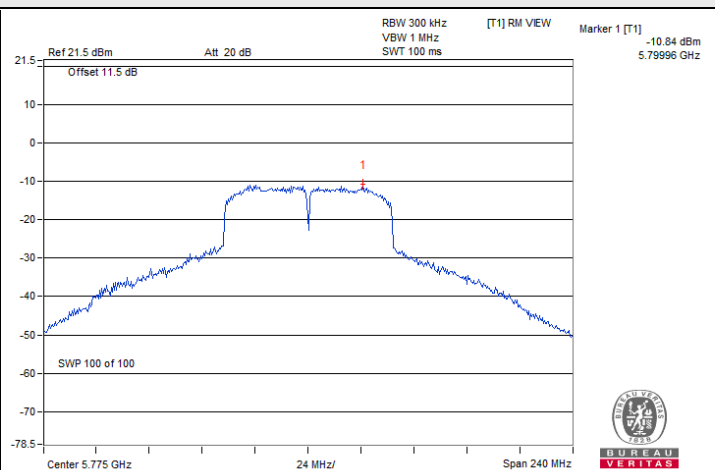




### Spectrum Plot of Maximum Value



802.11ac (VHT40) : CH 159



802.11ac (VHT80) : CH 155



#### 7.4 6 dB Bandwidth

Input Power:	220 Vac, 60 Hz	Environmental Conditions:	25°C, 60% RH	Tested By:	Chun Wu
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##### 802.11a

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)	Test Result
144 (U-NII-3)	5720	3.19	0.5	Pass
149	5745	16.42	0.5	Pass
157	5785	16.44	0.5	Pass
165	5825	16.44	0.5	Pass

##### 802.11ac (VHT20)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)	Test Result
144 (U-NII-3)	5720	3.8	0.5	Pass
149	5745	17.63	0.5	Pass
157	5785	17.63	0.5	Pass
165	5825	17.64	0.5	Pass

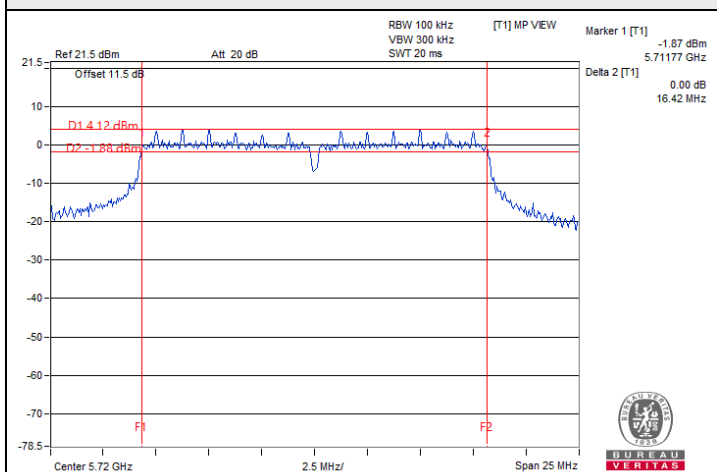
##### 802.11ac (VHT40)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)	Test Result
142 (U-NII-3)	5710	2.66	0.5	Pass
151	5755	35.51	0.5	Pass
159	5795	35.54	0.5	Pass

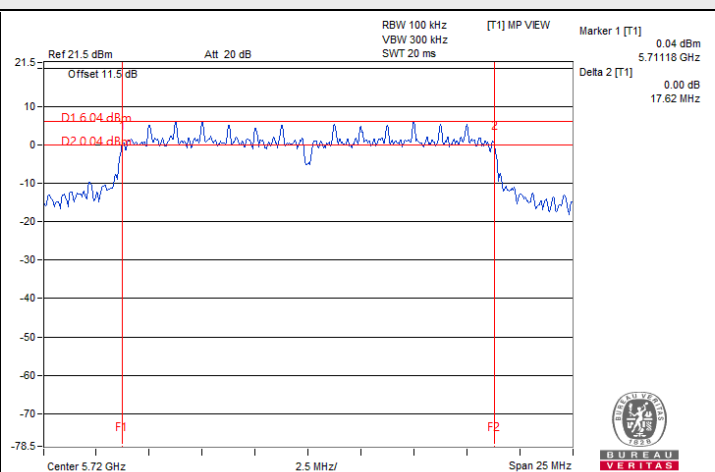
##### 802.11ac (VHT80)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)	Test Result
138 (U-NII-3)	5690	1.41	0.5	Pass
155	5775	71.6	0.5	Pass

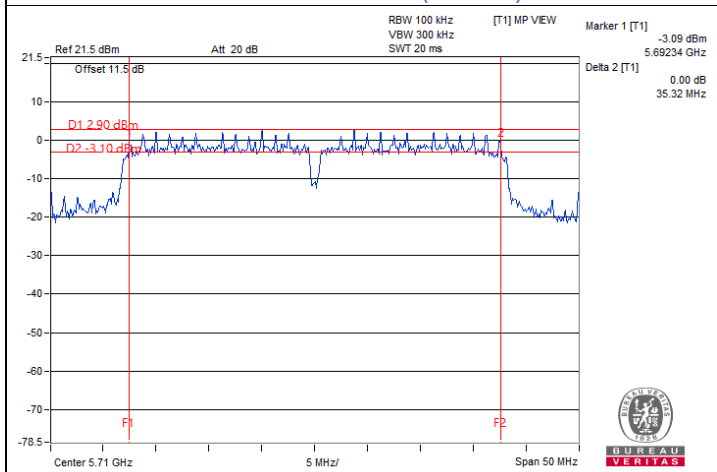
### Spectrum Plot of Minimum Value



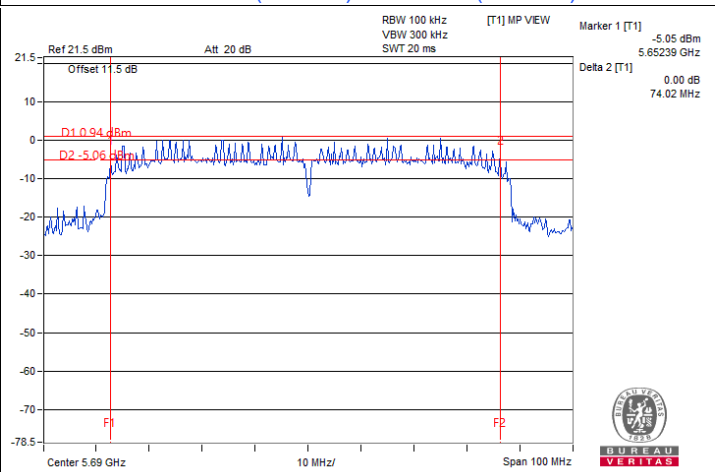
802.11a : CH 144 (U-NII-3)



802.11ac (VHT20) : CH 144 (U-NII-3)



802.11ac (VHT40) : CH 142 (U-NII-3)



802.11ac (VHT80) : CH 138 (U-NII-3)

#### Notes:

1. For U-NII-3 straddle channel = Marker 1 + Delta 2 - 5725 MHz

## 7.5 Occupied Bandwidth

Input Power:	220 Vac, 60 Hz	Environmental Conditions:	25°C, 60% RH	Tested By:	Chun Wu
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### 802.11a

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)
36	5180	17.88
40	5200	17.88
48	5240	17.64
52	5260	18.12
60	5300	18.24
64	5320	18.36
100	5500	21.36
116	5580	21.84
140	5700	22.08
144 (U-NII-2C)	5720	17.84
144 (U-NII-3)	5720	6.76
149	5745	30.72
157	5785	30.48
165	5825	30.12

### 802.11ac (VHT20)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)
36	5180	18.48
40	5200	18.6
48	5240	18.48
52	5260	18.48
60	5300	18.72
64	5320	19.08
100	5500	21.36
116	5580	23.16
140	5700	22.68
144 (U-NII-2C)	5720	19.88
144 (U-NII-3)	5720	10.1
149	5745	32.4
157	5785	32.16
165	5825	31.44

**802.11ac (VHT40)**

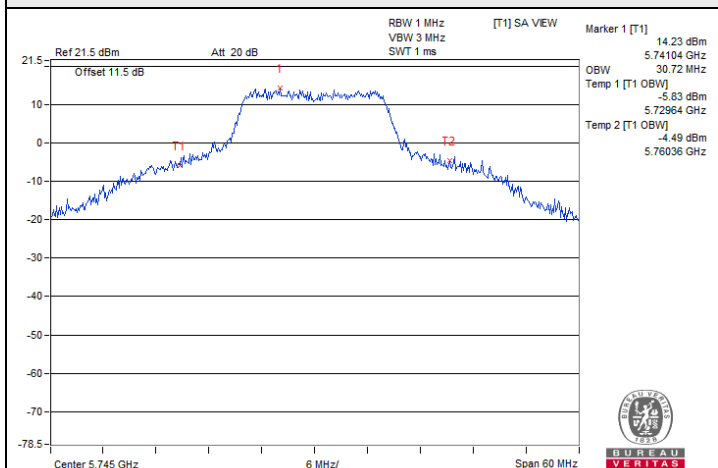
Channel	Frequency (MHz)	Occupied Bandwidth (MHz)
38	5190	37.2
46	5230	37.44
54	5270	37.32
62	5310	37.2
102	5510	37.56
110	5550	44.4
134	5670	48.24
142 (U-NII-2C)	5710	36.36
142 (U-NII-3)	5710	4.68
151	5755	58.08
159	5795	44.76

**802.11ac (VHT80)**

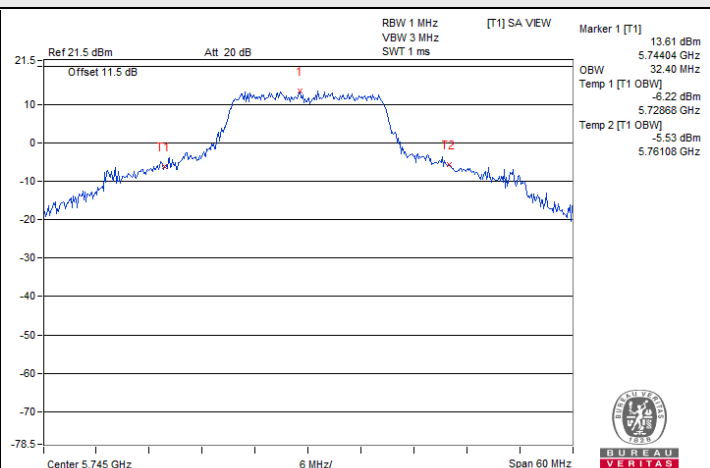
Channel	Frequency (MHz)	Occupied Bandwidth (MHz)
42	5210	75.36
58	5290	74.88
106	5530	75.36
122	5610	76.32
138 (U-NII-2C)	5690	80.12
138 (U-NII-3)	5690	10.12
155	5775	89.28



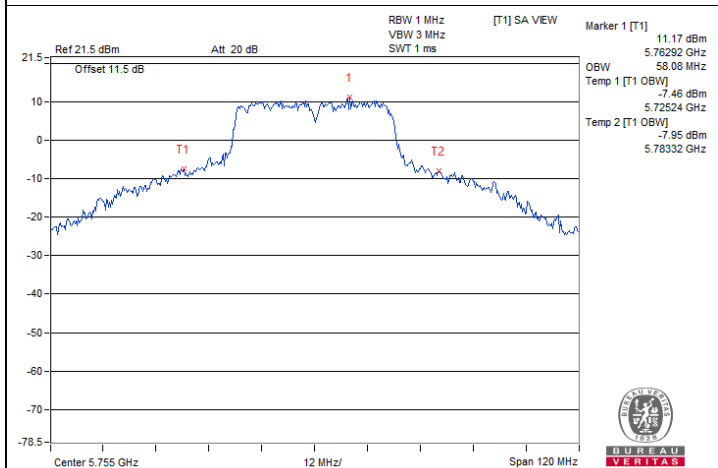
### Spectrum Plot of Maximum Value



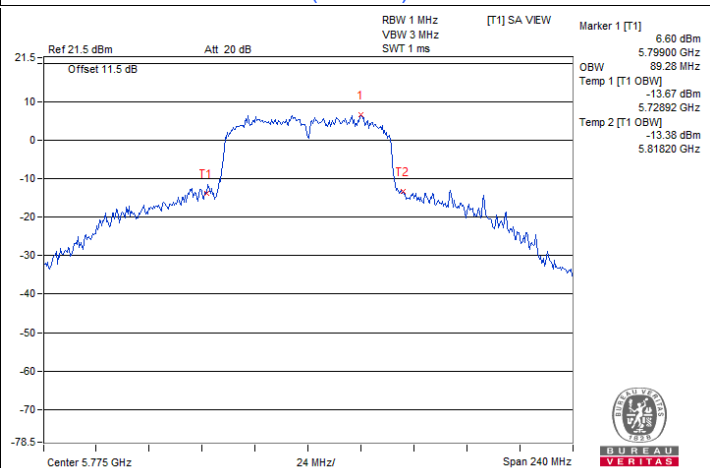
802.11a : CH 149



802.11ac (VHT20) : CH 149



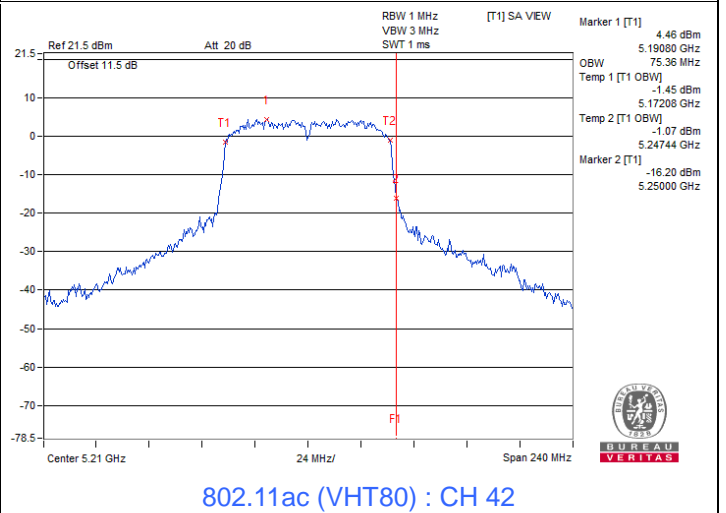
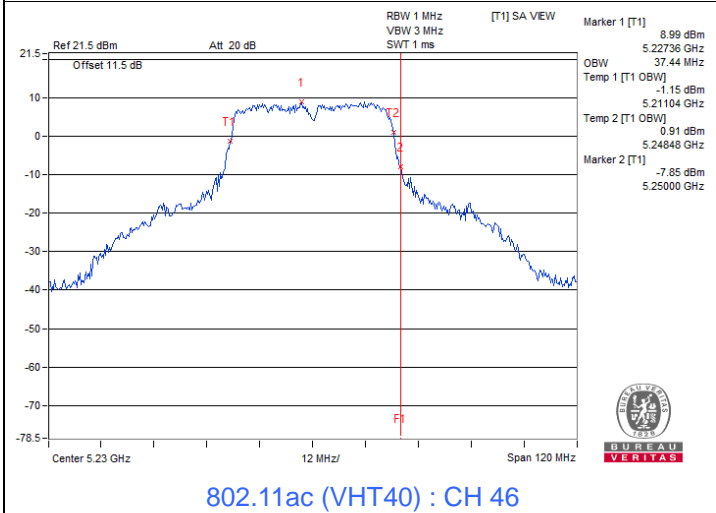
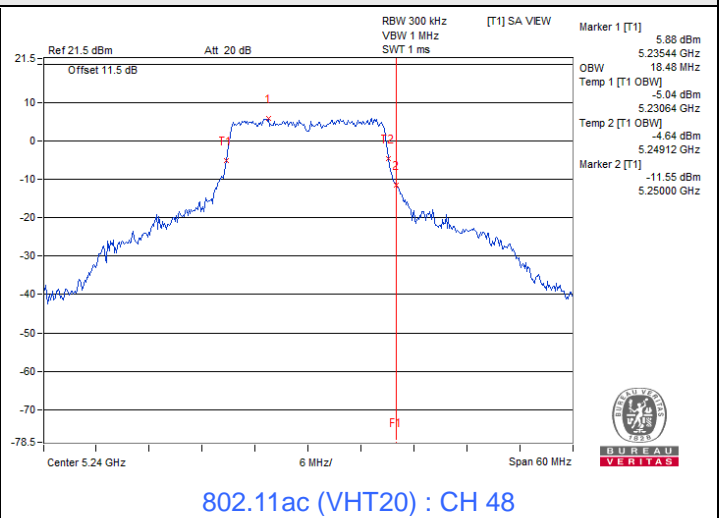
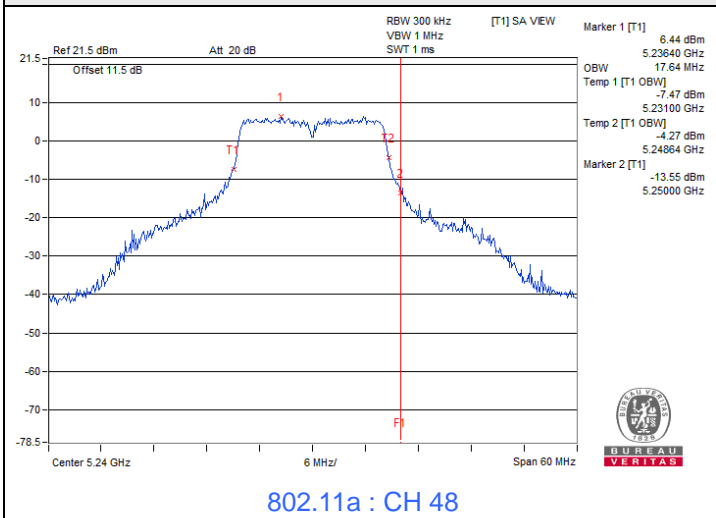
802.11ac (VHT40) : CH 151



802.11ac (VHT80) : CH 155

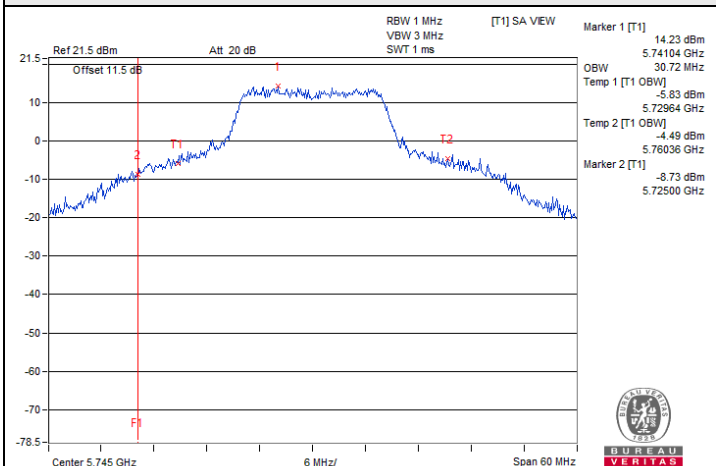


### Spectrum Plot for nearby DFS band

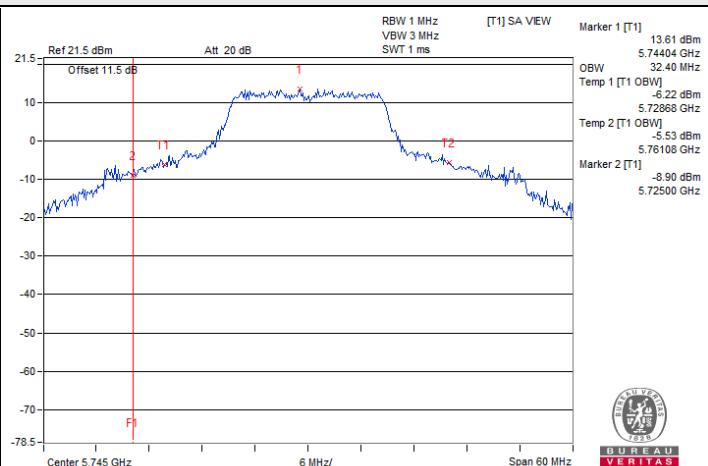




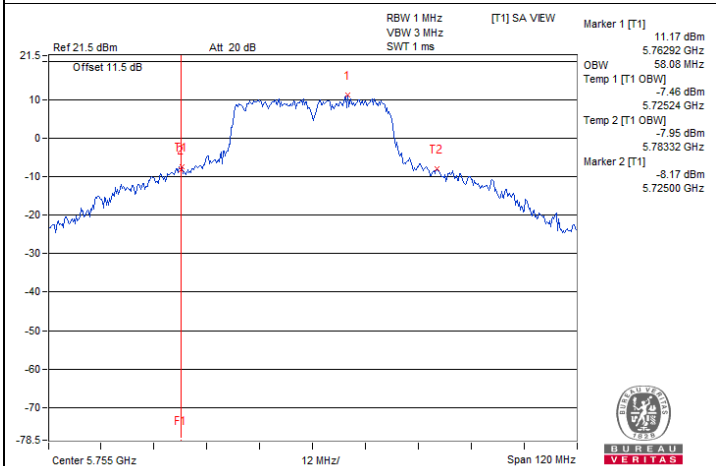
### Spectrum Plot for nearby DFS band



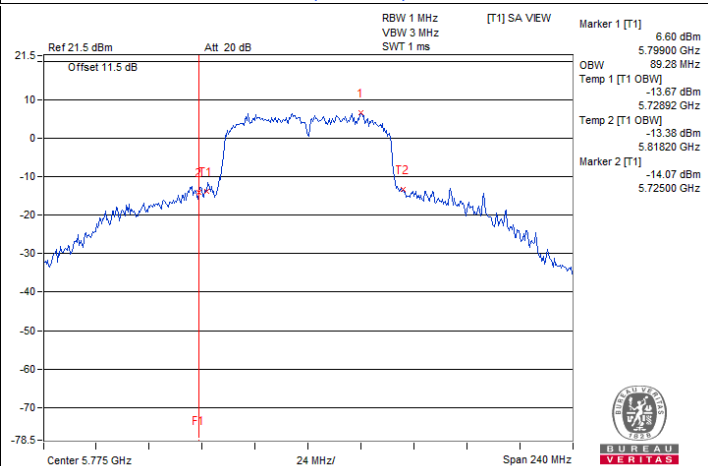
802.11a : CH 149



802.11ac (VHT20) : CH 149



802.11ac (VHT40) : CH 151



802.11ac (VHT80) : CH 155

## 7.6 Frequency Stability

Input Power:	220 Vac, 60 Hz	Environmental Conditions:	25°C, 60% RH	Tested By:	Chun Wu
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### 802.11a

Frequency Stability Versus Temp.									
Operating Frequency: 5180 MHz									
TEMP. (°C)	Power Supply (Vac)	0 Minute		2 Minutes		5 Minutes		10 Minutes	
		Measured Frequency (MHz)	Test Result	Measured Frequency (MHz)	Test Result	Measured Frequency (MHz)	Test Result	Measured Frequency (MHz)	Test Result
50	220	5179.9781	Pass	5179.977	Pass	5179.9739	Pass	5179.9781	Pass
40	220	5180.0112	Pass	5180.0122	Pass	5180.0157	Pass	5180.0156	Pass
30	220	5180.0069	Pass	5180.0096	Pass	5180.0066	Pass	5180.0079	Pass
20	220	5180.0182	Pass	5180.0199	Pass	5180.0185	Pass	5180.0189	Pass
10	220	5179.9833	Pass	5179.9831	Pass	5179.9824	Pass	5179.9791	Pass
0	220	5179.9759	Pass	5179.978	Pass	5179.9753	Pass	5179.9759	Pass
-10	220	5179.9958	Pass	5179.9961	Pass	5179.9976	Pass	5179.9945	Pass
-20	220	5179.9962	Pass	5179.9972	Pass	5179.9967	Pass	5179.9944	Pass
-30	220	5180.0051	Pass	5180.0019	Pass	5180.0038	Pass	5180.0032	Pass
-40	220	5179.9952	Pass	5179.991	Pass	5179.991	Pass	5179.9908	Pass

Frequency Stability Versus Voltage									
Operating Frequency: 5180 MHz									
TEMP. (°C)	Power Supply (Vac)	0 Minute		2 Minutes		5 Minutes		10 Minutes	
		Measured Frequency (MHz)	Test Result	Measured Frequency (MHz)	Test Result	Measured Frequency (MHz)	Test Result	Measured Frequency (MHz)	Test Result
20	253	5180.0146	Pass	5180.0139	Pass	5180.0146	Pass	5180.0125	Pass
	220	5180.0182	Pass	5180.0199	Pass	5180.0185	Pass	5180.0189	Pass
	187	5180.025	Pass	5180.0214	Pass	5180.0218	Pass	5180.0221	Pass



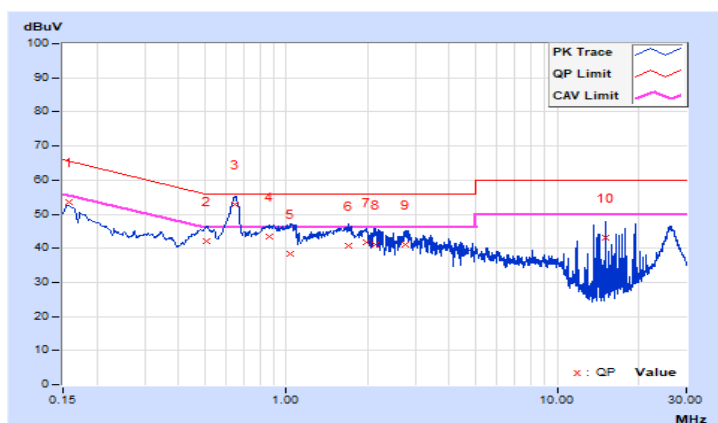
## 7.7 AC Power Conducted Emissions

RF Mode	TX 802.11a	Channel	CH 165 : 5825 MHz
Frequency Range	150 kHz ~ 30 MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	220 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	James Chang		

Phase Of Power : Line (L)										
No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15719	9.61	43.89	31.81	53.50	41.42	65.61	55.61	-12.11	-14.19
2	0.51043	9.63	32.43	23.87	42.06	33.50	56.00	46.00	-13.94	-12.50
<b>3</b>	<b>0.64475</b>	<b>9.64</b>	<b>43.39</b>	<b>34.56</b>	<b>53.03</b>	<b>44.20</b>	<b>56.00</b>	<b>46.00</b>	<b>-2.97</b>	<b>-1.80</b>
4	0.86229	9.65	33.94	25.56	43.59	35.21	56.00	46.00	-12.41	-10.79
5	1.03150	9.66	28.85	15.42	38.51	25.08	56.00	46.00	-17.49	-20.92
6	1.69677	9.68	31.18	22.71	40.86	32.39	56.00	46.00	-15.14	-13.61
7	1.96663	9.69	31.95	24.75	41.64	34.44	56.00	46.00	-14.36	-11.56
8	2.14471	9.69	31.36	23.15	41.05	32.84	56.00	46.00	-14.95	-13.16
9	2.75873	9.71	31.31	23.74	41.02	33.45	56.00	46.00	-14.98	-12.55
10	15.02389	9.89	33.14	11.97	43.03	21.86	60.00	50.00	-16.97	-28.14

### Remarks:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level – Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value

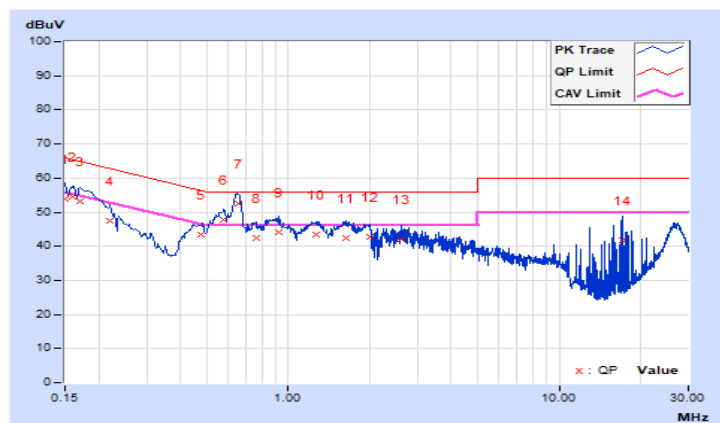


<b>RF Mode</b>	TX 802.11a	<b>Channel</b>	CH 165 : 5825 MHz
<b>Frequency Range</b>	150 kHz ~ 30 MHz	<b>Detector Function &amp; Resolution Bandwidth</b>	Quasi-Peak (QP) / Average (AV), 9 kHz
<b>Input Power</b>	220 Vac, 60 Hz	<b>Environmental Conditions</b>	25°C, 75% RH
<b>Tested By</b>	James Chang		

Phase Of Power : Neutral (N)										
No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15000	9.63	44.22	31.04	53.85	40.67	66.00	56.00	-12.15	-15.33
2	0.15885	9.63	45.08	34.18	54.71	43.81	65.52	55.52	-10.81	-11.71
3	0.16956	9.63	43.49	31.51	53.12	41.14	64.98	54.98	-11.86	-13.84
4	0.22024	9.63	38.00	27.85	47.63	37.48	62.81	52.81	-15.18	-15.33
5	0.47413	9.64	33.94	24.59	43.58	34.23	56.44	46.44	-12.86	-12.21
6	0.57431	9.65	38.11	27.07	47.76	36.72	56.00	46.00	-8.24	-9.28
7	0.65094	9.66	42.95	33.72	52.61	43.38	56.00	46.00	-3.39	-2.62
8	0.76185	9.66	32.90	24.71	42.56	34.37	56.00	46.00	-13.44	-11.63
9	0.92239	9.67	34.41	25.45	44.08	35.12	56.00	46.00	-11.92	-10.88
10	1.26265	9.69	33.85	25.46	43.54	35.15	56.00	46.00	-12.46	-10.85
11	1.64201	9.70	32.79	25.09	42.49	34.79	56.00	46.00	-13.51	-11.21
12	2.01564	9.71	33.21	24.54	42.92	34.25	56.00	46.00	-13.08	-11.75
13	2.62576	9.72	32.34	25.51	42.06	35.23	56.00	46.00	-13.94	-10.77
14	17.21796	9.96	31.79	10.28	41.75	20.24	60.00	50.00	-18.25	-29.76

**Remarks:**

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level – Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value



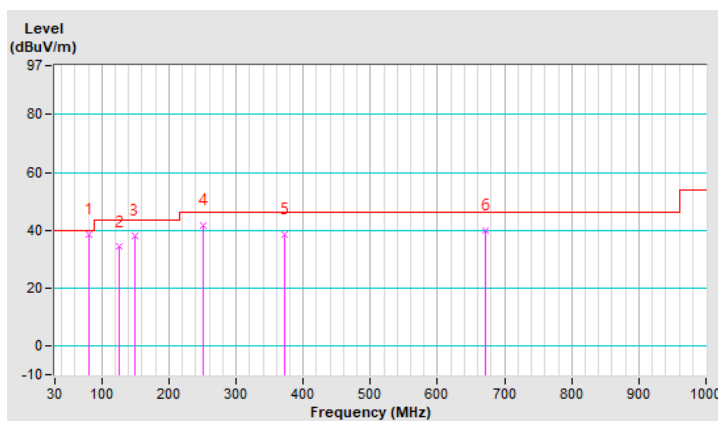
### 7.8 Unwanted Emissions below 1 GHz

<b>RF Mode</b>	TX 802.11a	<b>Channel</b>	CH 165 : 5825 MHz
<b>Frequency Range</b>	9 kHz ~ 1 GHz	<b>Detector Function &amp; Bandwidth</b>	(QP) RB = 120kHz
<b>Input Power</b>	220 Vac, 60 Hz	<b>Environmental Conditions</b>	28°C, 76% RH
<b>Tested By</b>	Randy Wu		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	80.40	38.5 QP	40.0	-1.5	1.01 H	3	56.6	-18.1
2	125.10	34.2 QP	43.5	-9.3	1.01 H	3	49.0	-14.8
3	148.30	38.1 QP	43.5	-5.4	1.01 H	3	51.3	-13.2
4	250.20	41.8 QP	46.0	-4.2	1.01 H	240	56.0	-14.2
5	371.40	38.4 QP	46.0	-7.6	1.01 H	49	49.0	-10.6
6	672.10	40.0 QP	46.0	-6.0	1.01 H	5	44.5	-4.5

**Remarks:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The emission levels were very low against the limit of frequency range 9 kHz ~ 30 MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.

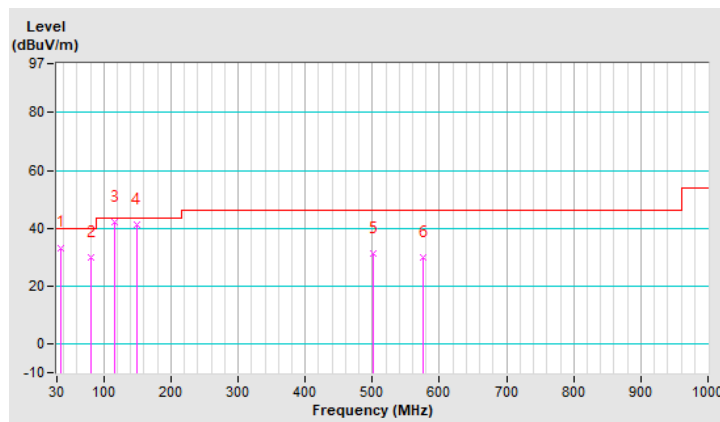


<b>RF Mode</b>	TX 802.11a	<b>Channel</b>	CH 165 : 5825 MHz
<b>Frequency Range</b>	9 kHz ~ 1 GHz	<b>Detector Function &amp; Bandwidth</b>	(QP) RB = 120kHz
<b>Input Power</b>	220 Vac, 60 Hz	<b>Environmental Conditions</b>	28°C, 76% RH
<b>Tested By</b>	Randy Wu		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	36.80	33.3 QP	40.0	-6.7	1.50 V	3	47.2	-13.9
2	80.40	29.8 QP	40.0	-10.2	1.99 V	127	47.9	-18.1
<b>3</b>	<b>115.40</b>	<b>42.1 QP</b>	<b>43.5</b>	<b>-1.4</b>	<b>1.50 V</b>	<b>3</b>	<b>57.9</b>	<b>-15.8</b>
4	148.30	41.3 QP	43.5	-2.2	1.50 V	3	54.5	-13.2
5	500.40	31.4 QP	46.0	-14.6	1.50 V	3	39.3	-7.9
6	576.10	29.9 QP	46.0	-16.1	1.99 V	12	36.1	-6.2

**Remarks:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The emission levels were very low against the limit of frequency range 9 kHz ~ 30 MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.



## 7.9 Unwanted Emissions above 1 GHz

<b>RF Mode</b>	TX 802.11a	<b>Channel</b>	CH 36 : 5180 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
<b>Input Power</b>	220 Vac, 60 Hz	<b>Environmental Conditions</b>	29°C, 74% RH
<b>Tested By</b>	Randy Wu		

### Antenna Polarity & Test Distance : Horizontal at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	60.1 PK	74.0	-13.9	1.86 H	28	57.2	2.9
2	5150.00	48.5 AV	54.0	-5.5	1.86 H	28	45.6	2.9
3	*5180.00	108.2 PK			1.86 H	28	67.8	40.4
4	*5180.00	98.5 AV			1.86 H	28	58.1	40.4
5	#10360.00	61.0 PK	68.2	-7.2	1.76 H	9	53.0	8.0

### Antenna Polarity & Test Distance : Vertical at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	57.9 PK	74.0	-16.1	2.21 V	5	55.0	2.9
2	5150.00	46.3 AV	54.0	-7.7	2.21 V	5	43.4	2.9
3	*5180.00	104.8 PK			2.21 V	5	64.4	40.4
4	*5180.00	94.6 AV			2.21 V	5	54.2	40.4
5	#10360.00	56.4 PK	68.2	-11.8	1.46 V	355	48.4	8.0

#### Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " \* " : Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # " : The radiated frequency is out of the restricted band.



<b>RF Mode</b>	TX 802.11a	<b>Channel</b>	CH 40 : 5200 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
<b>Input Power</b>	220 Vac, 60 Hz	<b>Environmental Conditions</b>	29°C, 74% RH
<b>Tested By</b>	Randy Wu		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5200.00	108.2 PK			1.86 H	28	67.9	40.3
2	*5200.00	98.8 AV			1.86 H	28	58.5	40.3
3	#10400.00	60.6 PK	68.2	-7.6	1.68 H	7	52.7	7.9
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5200.00	103.4 PK			2.15 V	2	63.1	40.3
2	*5200.00	94.7 AV			2.15 V	2	54.4	40.3
3	#10400.00	56.5 PK	68.2	-11.7	1.77 V	355	48.6	7.9

**Remarks:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " \* ": Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # ": The radiated frequency is out of the restricted band.



<b>RF Mode</b>	TX 802.11a	<b>Channel</b>	CH 48 : 5240 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
<b>Input Power</b>	220 Vac, 60 Hz	<b>Environmental Conditions</b>	29°C, 74% RH
<b>Tested By</b>	Randy Wu		

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	57.8 PK	74.0	-16.2	1.74 H	26	54.9	2.9
2	5150.00	45.4 AV	54.0	-8.6	1.74 H	26	42.5	2.9
3	*5240.00	108.1 PK			1.74 H	26	67.9	40.2
4	*5240.00	99.0 AV			1.74 H	26	58.8	40.2
5	#10480.00	60.5 PK	68.2	-7.7	1.46 H	11	52.7	7.8

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	57.5 PK	74.0	-16.5	2.21 V	5	54.6	2.9
2	5150.00	45.5 AV	54.0	-8.5	2.21 V	5	42.6	2.9
3	*5240.00	104.7 PK			2.21 V	5	64.5	40.2
4	*5240.00	95.3 AV			2.21 V	5	55.1	40.2
5	#10480.00	56.5 PK	68.2	-11.7	2.71 V	0	48.7	7.8

**Remarks:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " \* ": Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # ": The radiated frequency is out of the restricted band.



<b>RF Mode</b>	TX 802.11a	<b>Channel</b>	CH 52 : 5260 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
<b>Input Power</b>	220 Vac, 60 Hz	<b>Environmental Conditions</b>	29°C, 74% RH
<b>Tested By</b>	Randy Wu		

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5260.00	107.0 PK			1.84 H	4	66.9	40.1
2	*5260.00	98.5 AV			1.84 H	4	58.4	40.1
3	5350.00	56.8 PK	74.0	-17.2	1.84 H	4	54.4	2.4
4	5350.00	45.3 AV	54.0	-8.7	1.84 H	4	42.9	2.4
5	#10520.00	59.3 PK	68.2	-8.9	1.51 H	10	51.4	7.9

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5260.00	103.9 PK			2.24 V	3	63.8	40.1
2	*5260.00	95.3 AV			2.24 V	3	55.2	40.1
3	5350.00	57.3 PK	74.0	-16.7	2.24 V	3	54.9	2.4
4	5350.00	45.0 AV	54.0	-9.0	2.24 V	3	42.6	2.4
5	#10520.00	56.5 PK	68.2	-11.7	2.41 V	314	48.6	7.9

**Remarks:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " \* " : Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # " : The radiated frequency is out of the restricted band.





<b>RF Mode</b>	TX 802.11a	<b>Channel</b>	CH 60 : 5300 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
<b>Input Power</b>	220 Vac, 60 Hz	<b>Environmental Conditions</b>	29°C, 74% RH
<b>Tested By</b>	Randy Wu		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5300.00	108.1 PK			1.66 H	25	68.2	39.9
2	*5300.00	98.0 AV			1.66 H	25	58.1	39.9
3	10600.00	59.4 PK	74.0	-14.6	1.37 H	30	51.3	8.1
4	10600.00	49.3 AV	54.0	-4.7	1.37 H	30	41.2	8.1

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5300.00	103.7 PK			2.21 V	3	63.8	39.9
2	*5300.00	94.4 AV			2.21 V	3	54.5	39.9
3	10600.00	57.0 PK	74.0	-17.0	1.77 V	330	48.9	8.1
4	10600.00	45.7 AV	54.0	-8.3	1.77 V	330	37.6	8.1

**Remarks:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " \* " : Fundamental frequency, the limit was restricted at the RF Output Power.



<b>RF Mode</b>	TX 802.11a	<b>Channel</b>	CH 64 : 5320 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
<b>Input Power</b>	220 Vac, 60 Hz	<b>Environmental Conditions</b>	29°C, 74% RH
<b>Tested By</b>	Randy Wu		

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5320.00	107.4 PK			1.69 H	25	67.5	39.9
2	*5320.00	97.9 AV			1.69 H	25	58.0	39.9
3	5350.00	60.4 PK	74.0	-13.6	1.69 H	25	58.0	2.4
4	5350.00	47.8 AV	54.0	-6.2	1.69 H	25	45.4	2.4
5	10640.00	60.9 PK	74.0	-13.1	1.48 H	19	53.0	7.9
6	10640.00	50.0 AV	54.0	-4.0	1.48 H	19	42.1	7.9

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5320.00	103.3 PK			2.10 V	5	63.4	39.9
2	*5320.00	94.7 AV			2.10 V	5	54.8	39.9
3	5350.00	59.7 PK	74.0	-14.3	2.10 V	5	57.3	2.4
4	5350.00	47.4 AV	54.0	-6.6	2.10 V	5	45.0	2.4
5	10640.00	57.6 PK	74.0	-16.4	1.48 V	20	49.7	7.9
6	10640.00	45.9 AV	54.0	-8.1	1.48 V	20	38.0	7.9

**Remarks:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " \* ": Fundamental frequency, the limit was restricted at the RF Output Power.



<b>RF Mode</b>	TX 802.11a	<b>Channel</b>	CH 100 : 5500 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
<b>Input Power</b>	220 Vac, 60 Hz	<b>Environmental Conditions</b>	27°C, 79% RH
<b>Tested By</b>	Randy Wu		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	58.0 PK	74.0	-16.0	1.30 H	19	55.7	2.3
2	5460.00	46.8 AV	54.0	-7.2	1.30 H	19	44.5	2.3
3	#5470.00	67.4 PK	68.2	-0.8	1.30 H	19	64.9	2.5
4	*5500.00	104.9 PK			1.30 H	19	64.8	40.1
5	*5500.00	96.1 AV			1.30 H	19	56.0	40.1
6	11000.00	63.5 PK	74.0	-10.5	1.41 H	16	55.6	7.9
7	11000.00	51.8 AV	54.0	-2.2	1.41 H	16	43.9	7.9
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	58.7 PK	74.0	-15.3	2.13 V	47	56.4	2.3
2	5460.00	46.6 AV	54.0	-7.4	2.13 V	47	44.3	2.3
3	#5470.00	63.9 PK	68.2	-4.3	2.13 V	47	61.4	2.5
4	*5500.00	104.4 PK			2.13 V	47	64.3	40.1
5	*5500.00	95.0 AV			2.13 V	47	54.9	40.1
6	11000.00	58.1 PK	74.0	-15.9	2.45 V	322	50.2	7.9
7	11000.00	45.4 AV	54.0	-8.6	2.45 V	322	37.5	7.9

**Remarks:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " \* " : Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # " : The radiated frequency is out of the restricted band.



<b>RF Mode</b>	TX 802.11a	<b>Channel</b>	CH 116 : 5580 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
<b>Input Power</b>	220 Vac, 60 Hz	<b>Environmental Conditions</b>	27°C, 79% RH
<b>Tested By</b>	Randy Wu		

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5580.00	105.0 PK			1.37 H	26	64.4	40.6
2	*5580.00	96.5 AV			1.37 H	26	55.9	40.6
3	11160.00	61.4 PK	74.0	-12.6	1.41 H	12	52.8	8.6
4	11160.00	49.3 AV	54.0	-4.7	1.41 H	12	40.7	8.6

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5580.00	104.9 PK			2.73 V	53	64.3	40.6
2	*5580.00	95.8 AV			2.73 V	53	55.2	40.6
3	11160.00	58.2 PK	74.0	-15.8	2.82 V	19	49.6	8.6
4	11160.00	45.9 AV	54.0	-8.1	2.82 V	19	37.3	8.6

**Remarks:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " \* ": Fundamental frequency, the limit was restricted at the RF Output Power.



<b>RF Mode</b>	TX 802.11a	<b>Channel</b>	CH 140 : 5700 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
<b>Input Power</b>	220 Vac, 60 Hz	<b>Environmental Conditions</b>	27°C, 79% RH
<b>Tested By</b>	Randy Wu		

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5700.00	106.9 PK			1.57 H	352	65.6	41.3
2	*5700.00	97.6 AV			1.57 H	352	56.3	41.3
3	#5725.00	67.5 PK	68.2	-0.7	1.57 H	352	63.7	3.8
4	11400.00	59.7 PK	74.0	-14.3	1.66 H	12	50.8	8.9
5	11400.00	48.7 AV	54.0	-5.3	1.66 H	12	39.8	8.9

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5700.00	105.2 PK			1.00 V	5	63.9	41.3
2	*5700.00	95.7 AV			1.00 V	5	54.4	41.3
3	#5725.00	66.6 PK	68.2	-1.6	1.00 V	5	62.8	3.8
4	11400.00	58.5 PK	74.0	-15.5	3.41 V	15	49.6	8.9
5	11400.00	46.0 AV	54.0	-8.0	3.41 V	15	37.1	8.9

**Remarks:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " \* " : Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # " : The radiated frequency is out of the restricted band.



<b>RF Mode</b>	TX 802.11a	<b>Channel</b>	CH 144 : 5720 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
<b>Input Power</b>	220 Vac, 60 Hz	<b>Environmental Conditions</b>	28°C, 75% RH
<b>Tested By</b>	Randy Wu		

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5470.00	57.0 PK	68.2	-11.2	1.53 H	354	54.7	2.4
2	*5720.00	107.3 PK			1.53 H	354	65.9	41.4
3	*5720.00	97.6 AV			1.53 H	354	56.2	41.4
4	#5925.00	59.1 PK	68.2	-9.1	1.53 H	354	55.2	3.9
5	11440.00	61.3 PK	74.0	-12.7	1.07 H	17	52.4	9.0
6	11440.00	49.7 AV	54.0	-4.4	1.07 H	17	40.7	9.0

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5470.00	56.9 PK	68.2	-11.3	2.65 V	30	54.4	2.5
2	*5720.00	106.4 PK			2.65 V	30	65.0	41.4
3	*5720.00	96.4 AV			2.65 V	30	55.0	41.4
4	#5925.00	58.6 PK	68.2	-9.6	2.65 V	30	54.7	3.9
5	11440.00	58.3 PK	74.0	-15.7	2.78 V	331	49.3	9.0
6	11440.00	46.0 AV	54.0	-8.0	2.78 V	331	37.0	9.0

**Remarks:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " \* " : Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # " : The radiated frequency is out of the restricted band.



<b>RF Mode</b>	TX 802.11a	<b>Channel</b>	CH 149 : 5745 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
<b>Input Power</b>	220 Vac, 60 Hz	<b>Environmental Conditions</b>	28°C, 75% RH
<b>Tested By</b>	Randy Wu		

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5624.40	57.3 PK	68.2	-10.9	1.51 H	355	54.0	3.3
2	*5745.00	109.7 PK			1.51 H	355	68.2	41.5
3	*5745.00	100.4 AV			1.51 H	355	58.9	41.5
4	#5942.80	57.0 PK	68.2	-11.2	1.51 H	355	53.1	3.9
5	11490.00	63.1 PK	74.0	-10.9	1.13 H	18	54.0	9.1
6	11490.00	50.2 AV	54.0	-3.8	1.13 H	18	41.1	9.1

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5646.00	57.5 PK	68.2	-10.7	2.85 V	49	54.1	3.4
2	*5745.00	108.4 PK			2.85 V	49	66.9	41.5
3	*5745.00	98.0 AV			2.85 V	49	56.5	41.5
4	#5966.00	59.1 PK	68.2	-9.1	2.85 V	49	54.9	4.2
5	11490.00	58.5 PK	74.0	-15.5	2.67 V	17	49.4	9.1
6	11490.00	46.6 AV	54.0	-7.4	2.67 V	17	37.5	9.1

**Remarks:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " \* ": Fundamental frequency, the limit was restricted at the RF Output Power.



<b>RF Mode</b>	TX 802.11a	<b>Channel</b>	CH 157 : 5785 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
<b>Input Power</b>	220 Vac, 60 Hz	<b>Environmental Conditions</b>	28°C, 75% RH
<b>Tested By</b>	Randy Wu		

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5644.40	58.0 PK	68.2	-10.2	1.50 H	358	54.6	3.4
2	*5785.00	106.0 PK			1.50 H	358	64.4	41.6
3	*5785.00	96.8 AV			1.50 H	358	55.2	41.6
4	#5984.80	59.0 PK	68.2	-9.2	1.50 H	358	54.6	4.4
5	11570.00	60.6 PK	74.0	-13.4	1.14 H	14	51.4	9.2
6	11570.00	50.1 AV	54.0	-3.9	1.14 H	14	40.9	9.2

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5635.20	57.8 PK	68.2	-10.4	1.50 V	346	54.4	3.4
2	*5785.00	105.2 PK			1.50 V	346	63.6	41.6
3	*5785.00	95.4 AV			1.50 V	346	53.8	41.6
4	#5981.60	57.9 PK	68.2	-10.3	1.50 V	346	53.6	4.3
5	11570.00	59.1 PK	74.0	-14.9	2.48 V	348	49.9	9.2
6	11570.00	46.8 AV	54.0	-7.2	2.48 V	348	37.6	9.2

**Remarks:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " \* ": Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # ": The radiated frequency is out of the restricted band.





<b>RF Mode</b>	TX 802.11a	<b>Channel</b>	CH 165 : 5825 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
<b>Input Power</b>	220 Vac, 60 Hz	<b>Environmental Conditions</b>	28°C, 75% RH
<b>Tested By</b>	Randy Wu		

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5628.40	59.8 PK	68.2	-8.4	1.49 H	336	56.5	3.3
2	*5825.00	106.7 PK			1.49 H	336	65.1	41.6
3	*5825.00	97.3 AV			1.49 H	336	55.7	41.6
4	#5961.60	59.6 PK	68.2	-8.6	1.49 H	336	55.5	4.1
5	11650.00	60.4 PK	74.0	-13.6	1.18 H	3	51.4	9.0
6	11650.00	48.7 AV	54.0	-5.3	1.18 H	3	39.7	9.0

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5606.80	59.1 PK	68.2	-9.1	1.00 V	350	55.9	3.2
2	*5825.00	105.7 PK			1.00 V	350	64.1	41.6
3	*5825.00	96.2 AV			1.00 V	350	54.6	41.6
4	#5929.60	59.1 PK	68.2	-9.1	1.00 V	350	55.1	4.0
5	11650.00	59.2 PK	74.0	-14.8	1.27 V	3	50.2	9.0
6	11650.00	46.8 AV	54.0	-7.2	1.27 V	3	37.8	9.0

**Remarks:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " \* ": Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # ": The radiated frequency is out of the restricted band.

<b>RF Mode</b>	TX 802.11ac (VHT20)	<b>Channel</b>	CH 36 : 5180 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
<b>Input Power</b>	220 Vac, 60 Hz	<b>Environmental Conditions</b>	29°C, 74% RH
<b>Tested By</b>	Randy Wu		

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	60.5 PK	74.0	-13.5	1.81 H	27	57.6	2.9
2	5150.00	48.8 AV	54.0	-5.2	1.81 H	27	45.9	2.9
3	*5180.00	107.6 PK			1.81 H	27	67.2	40.4
4	*5180.00	98.0 AV			1.81 H	27	57.6	40.4
5	#10360.00	60.1 PK	68.2	-8.1	1.67 H	7	52.1	8.0

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	58.2 PK	74.0	-15.8	2.17 V	2	55.3	2.9
2	5150.00	47.0 AV	54.0	-7.0	2.17 V	2	44.1	2.9
3	*5180.00	103.4 PK			2.17 V	2	63.0	40.4
4	*5180.00	94.0 AV			2.17 V	2	53.6	40.4
5	#10360.00	55.1 PK	68.2	-13.1	3.39 V	16	47.1	8.0

**Remarks:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " \* ": Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # ": The radiated frequency is out of the restricted band.



<b>RF Mode</b>	TX 802.11ac (VHT20)	<b>Channel</b>	CH 40 : 5200 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
<b>Input Power</b>	220 Vac, 60 Hz	<b>Environmental Conditions</b>	29°C, 74% RH
<b>Tested By</b>	Randy Wu		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5200.00	107.3 PK			1.85 H	26	67.0	40.3
2	*5200.00	98.3 AV			1.85 H	26	58.0	40.3
3	#10400.00	59.5 PK	68.2	-8.7	1.66 H	355	51.6	7.9
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5200.00	104.1 PK			2.17 V	2	63.8	40.3
2	*5200.00	94.2 AV			2.17 V	2	53.9	40.3
3	#10400.00	56.1 PK	68.2	-12.1	2.66 V	3	48.2	7.9

**Remarks:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " \* ": Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # ": The radiated frequency is out of the restricted band.



<b>RF Mode</b>	TX 802.11ac (VHT20)	<b>Channel</b>	CH 48 : 5240 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
<b>Input Power</b>	220 Vac, 60 Hz	<b>Environmental Conditions</b>	29°C, 74% RH
<b>Tested By</b>	Randy Wu		

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	57.1 PK	74.0	-16.9	1.80 H	24	54.2	2.9
2	5150.00	45.1 AV	54.0	-8.9	1.80 H	24	42.2	2.9
3	*5240.00	106.9 PK			1.80 H	24	66.7	40.2
4	*5240.00	98.0 AV			1.80 H	24	57.8	40.2
5	#10480.00	58.4 PK	68.2	-9.8	1.41 H	35	50.6	7.8

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	57.8 PK	74.0	-16.2	2.18 V	2	54.9	2.9
2	5150.00	45.3 AV	54.0	-8.7	2.18 V	2	42.4	2.9
3	*5240.00	104.1 PK			2.18 V	2	63.9	40.2
4	*5240.00	94.7 AV			2.18 V	2	54.5	40.2
5	#10480.00	55.9 PK	68.2	-12.3	2.39 V	351	48.1	7.8

**Remarks:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " \* ": Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # ": The radiated frequency is out of the restricted band.

<b>RF Mode</b>	TX 802.11ac (VHT20)	<b>Channel</b>	CH 52 : 5260 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
<b>Input Power</b>	220 Vac, 60 Hz	<b>Environmental Conditions</b>	27°C, 79% RH
<b>Tested By</b>	Randy Wu		

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5260.00	107.6 PK			1.55 H	26	67.5	40.1
2	*5260.00	98.9 AV			1.55 H	26	58.8	40.1
3	5350.00	57.3 PK	74.0	-16.7	1.55 H	26	54.9	2.4
4	5350.00	45.7 AV	54.0	-8.3	1.55 H	26	43.3	2.4
5	#10520.00	59.8 PK	68.2	-8.4	1.25 H	21	51.9	7.9

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5260.00	105.0 PK			2.65 V	0	64.9	40.1
2	*5260.00	95.6 AV			2.65 V	0	55.5	40.1
3	5350.00	56.7 PK	74.0	-17.3	2.65 V	0	54.3	2.4
4	5350.00	45.3 AV	54.0	-8.7	2.65 V	0	42.9	2.4
5	#10520.00	57.1 PK	68.2	-11.1	2.47 V	338	49.2	7.9

**Remarks:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " \* " : Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # " : The radiated frequency is out of the restricted band.



<b>RF Mode</b>	TX 802.11ac (VHT20)	<b>Channel</b>	CH 60 : 5300 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
<b>Input Power</b>	220 Vac, 60 Hz	<b>Environmental Conditions</b>	27°C, 79% RH
<b>Tested By</b>	Randy Wu		

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5300.00	107.6 PK			1.42 H	23	67.7	39.9
2	*5300.00	98.3 AV			1.42 H	23	58.4	39.9
3	10600.00	56.9 PK	74.0	-17.1	1.44 H	33	48.8	8.1
4	10600.00	47.7 AV	54.0	-6.3	1.44 H	33	39.6	8.1

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5300.00	104.2 PK			2.66 V	41	64.3	39.9
2	*5300.00	95.5 AV			2.66 V	41	55.6	39.9
3	10600.00	58.2 PK	74.0	-15.8	1.54 V	339	50.1	8.1
4	10600.00	45.5 AV	54.0	-8.5	1.54 V	339	37.4	8.1

**Remarks:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " \* " : Fundamental frequency, the limit was restricted at the RF Output Power.



<b>RF Mode</b>	TX 802.11ac (VHT20)	<b>Channel</b>	CH 64 : 5320 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
<b>Input Power</b>	220 Vac, 60 Hz	<b>Environmental Conditions</b>	27°C, 79% RH
<b>Tested By</b>	Randy Wu		

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5320.00	107.6 PK			1.42 H	22	67.7	39.9
2	*5320.00	97.7 AV			1.42 H	22	57.8	39.9
3	5350.00	61.5 PK	74.0	-12.5	1.42 H	22	59.1	2.4
4	5350.00	48.2 AV	54.0	-5.8	1.42 H	22	45.8	2.4
5	10640.00	60.6 PK	74.0	-13.4	1.63 H	7	52.7	7.9
6	10640.00	49.4 AV	54.0	-4.6	1.63 H	7	41.5	7.9

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5320.00	104.9 PK			2.91 V	43	65.0	39.9
2	*5320.00	96.1 AV			2.91 V	43	56.2	39.9
3	5350.00	60.4 PK	74.0	-13.6	2.91 V	43	58.0	2.4
4	5350.00	46.9 AV	54.0	-7.1	2.91 V	43	44.5	2.4
5	10640.00	57.3 PK	74.0	-16.7	1.48 V	339	49.4	7.9
6	10640.00	46.0 AV	54.0	-8.0	1.48 V	339	38.1	7.9

**Remarks:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " \* ": Fundamental frequency, the limit was restricted at the RF Output Power.



<b>RF Mode</b>	TX 802.11ac (VHT20)	<b>Channel</b>	CH 100 : 5500 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
<b>Input Power</b>	220 Vac, 60 Hz	<b>Environmental Conditions</b>	27°C, 79% RH
<b>Tested By</b>	Randy Wu		

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	59.8 PK	74.0	-14.2	1.45 H	22	57.5	2.3
2	5460.00	48.1 AV	54.0	-5.9	1.45 H	22	45.8	2.3
3	#5470.00	67.7 PK	68.2	-0.5	1.45 H	22	65.2	2.5
4	*5500.00	105.9 PK			1.45 H	22	65.8	40.1
5	*5500.00	96.5 AV			1.45 H	22	56.4	40.1
6	11000.00	60.0 PK	74.0	-14.0	1.32 H	13	52.1	7.9
7	11000.00	52.2 AV	54.0	-1.8	1.32 H	13	44.3	7.9

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	56.6 PK	74.0	-17.4	2.83 V	49	54.3	2.3
2	5460.00	46.5 AV	54.0	-7.5	2.83 V	49	44.2	2.3
3	#5470.00	67.8 PK	68.2	-0.4	2.83 V	49	65.3	2.5
4	*5500.00	104.5 PK			2.83 V	49	64.4	40.1
5	*5500.00	94.8 AV			2.83 V	49	54.7	40.1
6	11000.00	57.5 PK	74.0	-16.5	1.80 V	315	49.6	7.9
7	11000.00	44.1 AV	54.0	-9.9	1.80 V	315	36.2	7.9

**Remarks:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " \* " : Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # " : The radiated frequency is out of the restricted band.





<b>RF Mode</b>	TX 802.11ac (VHT20)	<b>Channel</b>	CH 116 : 5580 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
<b>Input Power</b>	220 Vac, 60 Hz	<b>Environmental Conditions</b>	27°C, 79% RH
<b>Tested By</b>	Randy Wu		

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5580.00	105.3 PK			1.44 H	344	64.7	40.6
2	*5580.00	96.3 AV			1.44 H	344	55.7	40.6
3	11160.00	58.6 PK	74.0	-15.4	1.34 H	1	50.0	8.6
4	11160.00	48.6 AV	54.0	-5.4	1.34 H	1	40.0	8.6

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5580.00	104.3 PK			2.73 V	52	63.7	40.6
2	*5580.00	95.1 AV			2.73 V	52	54.5	40.6
3	11160.00	56.9 PK	74.0	-17.1	2.46 V	17	48.3	8.6
4	11160.00	45.1 AV	54.0	-8.9	2.46 V	17	36.5	8.6

**Remarks:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " \* ": Fundamental frequency, the limit was restricted at the RF Output Power.



<b>RF Mode</b>	TX 802.11ac (VHT20)	<b>Channel</b>	CH 140 : 5700 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
<b>Input Power</b>	220 Vac, 60 Hz	<b>Environmental Conditions</b>	27°C, 79% RH
<b>Tested By</b>	Randy Wu		

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5700.00	105.5 PK			1.81 H	332	64.2	41.3
2	*5700.00	96.5 AV			1.81 H	332	55.2	41.3
3	#5725.00	67.7 PK	68.2	-0.5	1.81 H	332	63.9	3.8
4	11400.00	57.4 PK	74.0	-16.6	1.55 H	10	48.5	8.9
5	11400.00	47.5 AV	54.0	-6.5	1.55 H	10	38.6	8.9

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5700.00	103.0 PK			1.62 V	1	61.7	41.3
2	*5700.00	94.0 AV			1.62 V	1	52.7	41.3
3	#5725.00	65.7 PK	68.2	-2.5	1.62 V	1	61.9	3.8
4	11400.00	57.7 PK	74.0	-16.3	2.75 V	331	48.8	8.9
5	11400.00	45.4 AV	54.0	-8.6	2.75 V	331	36.5	8.9

**Remarks:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " \* ": Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # ": The radiated frequency is out of the restricted band.



<b>RF Mode</b>	TX 802.11ac (VHT20)	<b>Channel</b>	CH 144 : 5720 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
<b>Input Power</b>	220 Vac, 60 Hz	<b>Environmental Conditions</b>	28°C, 75% RH
<b>Tested By</b>	Randy Wu		

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5470.00	58.6 PK	68.2	-9.6	1.34 H	352	56.1	2.5
2	*5720.00	106.5 PK			1.34 H	352	65.1	41.4
3	*5720.00	97.6 AV			1.34 H	352	56.2	41.4
4	#5925.00	60.1 PK	68.2	-8.1	1.34 H	352	56.2	3.9
5	11440.00	60.4 PK	74.0	-13.6	1.35 H	3	51.4	9.0
6	11440.00	49.2 AV	54.0	-4.8	1.35 H	3	40.2	9.0

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5470.00	58.3 PK	68.2	-9.9	2.64 V	32	55.8	2.5
2	*5720.00	105.8 PK			2.64 V	32	64.4	41.4
3	*5720.00	96.4 AV			2.64 V	32	55.0	41.4
4	#5925.00	60.1 PK	68.2	-8.1	2.64 V	32	56.2	3.9
5	11440.00	59.8 PK	74.0	-14.2	2.88 V	355	50.8	9.0
6	11440.00	46.3 AV	54.0	-7.7	2.88 V	355	37.3	9.0

**Remarks:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " \* " : Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # " : The radiated frequency is out of the restricted band.



<b>RF Mode</b>	TX 802.11ac (VHT20)	<b>Channel</b>	CH 149 : 5745 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
<b>Input Power</b>	220 Vac, 60 Hz	<b>Environmental Conditions</b>	28°C, 75% RH
<b>Tested By</b>	Randy Wu		

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5632.40	57.8 PK	68.2	-10.4	1.41 H	355	54.4	3.4
2	*5745.00	108.1 PK			1.41 H	355	66.6	41.5
3	*5745.00	98.3 AV			1.41 H	355	56.8	41.5
4	#5954.80	58.6 PK	68.2	-9.6	1.41 H	355	54.5	4.1
5	11490.00	60.1 PK	74.0	-13.9	1.00 H	357	51.0	9.1
6	11490.00	50.0 AV	54.0	-4.0	1.00 H	357	40.9	9.1

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5622.40	58.1 PK	68.2	-10.1	1.73 V	349	54.8	3.3
2	*5745.00	105.9 PK			1.73 V	349	64.4	41.5
3	*5745.00	96.2 AV			1.73 V	349	54.7	41.5
4	#5980.00	59.0 PK	68.2	-9.2	1.73 V	349	54.8	4.2
5	11490.00	57.3 PK	74.0	-16.7	1.73 V	283	48.2	9.1
6	11490.00	46.3 AV	54.0	-7.7	1.73 V	283	37.2	9.1

**Remarks:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " \* ": Fundamental frequency, the limit was restricted at the RF Output Power.



<b>RF Mode</b>	TX 802.11ac (VHT20)	<b>Channel</b>	CH 157 : 5785 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
<b>Input Power</b>	220 Vac, 60 Hz	<b>Environmental Conditions</b>	28°C, 75% RH
<b>Tested By</b>	Randy Wu		

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5647.60	57.7 PK	68.2	-10.5	1.52 H	357	54.2	3.5
2	*5785.00	106.5 PK			1.52 H	357	64.9	41.6
3	*5785.00	97.0 AV			1.52 H	357	55.4	41.6
4	#5951.60	59.4 PK	68.2	-8.8	1.52 H	357	55.4	4.0
5	11570.00	62.2 PK	74.0	-11.8	1.18 H	15	53.0	9.2
6	11570.00	49.7 AV	54.0	-4.3	1.18 H	15	40.5	9.2

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5608.80	57.9 PK	68.2	-10.3	1.62 V	348	54.7	3.2
2	*5785.00	105.1 PK			1.62 V	348	63.5	41.6
3	*5785.00	95.5 AV			1.62 V	348	53.9	41.6
4	#5947.20	59.1 PK	68.2	-9.1	1.62 V	348	55.1	4.0
5	11570.00	57.4 PK	74.0	-16.6	2.17 V	303	48.2	9.2
6	11570.00	46.2 AV	54.0	-7.8	2.17 V	303	37.0	9.2

**Remarks:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " \* " : Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # " : The radiated frequency is out of the restricted band.



<b>RF Mode</b>	TX 802.11ac (VHT20)	<b>Channel</b>	CH 165 : 5825 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
<b>Input Power</b>	220 Vac, 60 Hz	<b>Environmental Conditions</b>	28°C, 75% RH
<b>Tested By</b>	Randy Wu		

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5649.60	56.6 PK	68.2	-11.6	1.83 H	340	53.1	3.5
2	*5825.00	106.5 PK			1.83 H	340	64.9	41.6
3	*5825.00	96.9 AV			1.83 H	340	55.3	41.6
4	#5948.40	58.4 PK	68.2	-9.8	1.83 H	340	54.4	4.0
5	11650.00	60.9 PK	74.0	-13.1	1.18 H	6	51.9	9.0
6	11650.00	48.7 AV	54.0	-5.3	1.18 H	6	39.7	9.0

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5618.80	57.2 PK	68.2	-11.0	1.01 V	349	53.9	3.3
2	*5825.00	105.3 PK			1.01 V	349	63.7	41.6
3	*5825.00	95.3 AV			1.01 V	349	53.7	41.6
4	#5952.80	59.0 PK	68.2	-9.2	1.01 V	349	55.0	4.0
5	11650.00	58.2 PK	74.0	-15.8	1.42 V	360	49.2	9.0
6	11650.00	46.4 AV	54.0	-7.6	1.42 V	360	37.4	9.0

**Remarks:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " \* ": Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # ": The radiated frequency is out of the restricted band.



<b>RF Mode</b>	TX 802.11ac (VHT40)	<b>Channel</b>	CH 38 : 5190 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
<b>Input Power</b>	220 Vac, 60 Hz	<b>Environmental Conditions</b>	29°C, 74% RH
<b>Tested By</b>	Randy Wu		

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	66.9 PK	74.0	-7.1	1.82 H	25	64.0	2.9
2	5150.00	53.2 AV	54.0	-0.8	1.82 H	25	50.3	2.9
3	*5190.00	105.3 PK			1.82 H	25	65.0	40.3
4	*5190.00	95.0 AV			1.82 H	25	54.7	40.3
5	#10380.00	60.7 PK	68.2	-7.5	1.70 H	8	52.8	7.9

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	63.5 PK	74.0	-10.5	2.18 V	1	60.6	2.9
2	5150.00	50.8 AV	54.0	-3.2	2.18 V	1	47.9	2.9
3	*5190.00	98.9 PK			2.18 V	1	58.6	40.3
4	*5190.00	90.0 AV			2.18 V	1	49.7	40.3
5	#10380.00	54.0 PK	68.2	-14.2	2.63 V	331	46.1	7.9

**Remarks:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " \* " : Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # " : The radiated frequency is out of the restricted band.



<b>RF Mode</b>	TX 802.11ac (VHT40)	<b>Channel</b>	CH 46 : 5230 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
<b>Input Power</b>	220 Vac, 60 Hz	<b>Environmental Conditions</b>	29°C, 74% RH
<b>Tested By</b>	Randy Wu		

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	59.6 PK	74.0	-14.4	1.85 H	29	56.7	2.9
2	5150.00	45.5 AV	54.0	-8.5	1.85 H	29	42.6	2.9
3	*5230.00	104.2 PK			1.85 H	29	64.0	40.2
4	*5230.00	95.2 AV			1.85 H	29	55.0	40.2
5	#10460.00	59.5 PK	68.2	-8.7	1.50 H	9	51.7	7.8

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	57.5 PK	74.0	-16.5	2.19 V	4	54.6	2.9
2	5150.00	45.3 AV	54.0	-8.7	2.19 V	4	42.4	2.9
3	*5230.00	101.8 PK			2.19 V	4	61.6	40.2
4	*5230.00	91.6 AV			2.19 V	4	51.4	40.2
5	#10460.00	56.5 PK	68.2	-11.7	3.47 V	290	48.7	7.8

**Remarks:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " \* " : Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # " : The radiated frequency is out of the restricted band.





<b>RF Mode</b>	TX 802.11ac (VHT40)	<b>Channel</b>	CH 54 : 5270 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
<b>Input Power</b>	220 Vac, 60 Hz	<b>Environmental Conditions</b>	27°C, 79% RH
<b>Tested By</b>	Randy Wu		

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5270.00	103.4 PK			1.51 H	25	63.3	40.1
2	*5270.00	95.3 AV			1.51 H	25	55.2	40.1
3	5350.00	57.9 PK	74.0	-16.1	1.51 H	25	55.5	2.4
4	5350.00	45.5 AV	54.0	-8.5	1.51 H	25	43.1	2.4
5	#10540.00	60.3 PK	68.2	-7.9	1.45 H	21	52.4	7.9
6	#10540.00	48.6 AV	54.0	-5.4	1.45 H	21	40.7	7.9

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5270.00	101.6 PK			1.95 V	359	61.5	40.1
2	*5270.00	91.7 AV			1.95 V	359	51.6	40.1
3	5350.00	56.5 PK	74.0	-17.5	1.95 V	359	54.1	2.4
4	5350.00	45.4 AV	54.0	-8.6	1.95 V	359	43.0	2.4
5	#10540.00	56.8 PK	68.2	-11.4	2.96 V	350	48.9	7.9

**Remarks:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " \* ": Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # ": The radiated frequency is out of the restricted band.



<b>RF Mode</b>	TX 802.11ac (VHT40)	<b>Channel</b>	CH 62 : 5310 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
<b>Input Power</b>	220 Vac, 60 Hz	<b>Environmental Conditions</b>	27°C, 79% RH
<b>Tested By</b>	Randy Wu		

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5310.00	104.3 PK			1.45 H	25	64.4	39.9
2	*5310.00	94.5 AV			1.45 H	25	54.6	39.9
3	5350.00	66.5 PK	74.0	-7.5	1.45 H	25	64.1	2.4
4	<b>5350.00</b>	<b>53.7 AV</b>	<b>54.0</b>	<b>-0.3</b>	<b>1.45 H</b>	<b>25</b>	<b>51.3</b>	<b>2.4</b>
5	10620.00	58.7 PK	74.0	-15.3	1.54 H	37	50.7	8.0
6	10620.00	48.5 AV	54.0	-5.5	1.54 H	37	40.5	8.0

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5310.00	101.4 PK			2.74 V	43	61.5	39.9
2	*5310.00	91.9 AV			2.74 V	43	52.0	39.9
3	5350.00	65.3 PK	74.0	-8.7	2.74 V	43	62.9	2.4
4	5350.00	53.1 AV	54.0	-0.9	2.74 V	43	50.7	2.4
5	10620.00	58.5 PK	74.0	-15.5	2.08 V	338	50.5	8.0
6	10620.00	45.9 AV	54.0	-8.1	2.08 V	338	37.9	8.0

**Remarks:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " \* ": Fundamental frequency, the limit was restricted at the RF Output Power.



<b>RF Mode</b>	TX 802.11ac (VHT40)	<b>Channel</b>	CH 102 : 5510 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
<b>Input Power</b>	220 Vac, 60 Hz	<b>Environmental Conditions</b>	27°C, 79% RH
<b>Tested By</b>	Randy Wu		

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	58.7 PK	74.0	-15.3	1.45 H	20	56.4	2.3
2	5460.00	47.5 AV	54.0	-6.5	1.45 H	20	45.2	2.3
3	#5470.00	67.0 PK	68.2	-1.2	1.45 H	20	64.5	2.5
4	*5510.00	101.7 PK			1.45 H	20	61.5	40.2
5	*5510.00	92.0 AV			1.45 H	20	51.8	40.2
6	11020.00	61.6 PK	74.0	-12.4	1.35 H	2	53.7	7.9
7	11020.00	50.1 AV	54.0	-3.9	1.35 H	2	42.2	7.9

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	58.1 PK	74.0	-15.9	2.81 V	48	55.8	2.3
2	5460.00	47.1 AV	54.0	-6.9	2.81 V	48	44.8	2.3
3	#5470.00	58.2 PK	68.2	-10.0	2.81 V	48	55.7	2.5
4	*5510.00	100.0 PK			2.81 V	48	59.8	40.2
5	*5510.00	89.5 AV			2.81 V	48	49.3	40.2
6	11020.00	57.3 PK	74.0	-16.7	2.75 V	334	49.4	7.9
7	11020.00	44.6 AV	54.0	-9.4	2.75 V	334	36.7	7.9

**Remarks:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " \* " : Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # " : The radiated frequency is out of the restricted band.



<b>RF Mode</b>	TX 802.11ac (VHT40)	<b>Channel</b>	CH 110 : 5550 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
<b>Input Power</b>	220 Vac, 60 Hz	<b>Environmental Conditions</b>	27°C, 79% RH
<b>Tested By</b>	Randy Wu		

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5550.00	103.7 PK			1.44 H	25	63.2	40.5
2	*5550.00	93.7 AV			1.44 H	25	53.2	40.5
3	11100.00	59.8 PK	74.0	-14.2	1.57 H	12	51.4	8.4
4	11100.00	49.5 AV	54.0	-4.5	1.57 H	12	41.1	8.4

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5550.00	102.3 PK			2.90 V	50	61.8	40.5
2	*5550.00	92.4 AV			2.90 V	50	51.9	40.5
3	11100.00	57.6 PK	74.0	-16.4	2.75 V	334	49.2	8.4
4	11100.00	44.8 AV	54.0	-9.2	2.75 V	334	36.4	8.4

**Remarks:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " \* ": Fundamental frequency, the limit was restricted at the RF Output Power.



<b>RF Mode</b>	TX 802.11ac (VHT40)	<b>Channel</b>	CH 134 : 5670 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
<b>Input Power</b>	220 Vac, 60 Hz	<b>Environmental Conditions</b>	27°C, 79% RH
<b>Tested By</b>	Randy Wu		

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5670.00	101.7 PK			1.49 H	347	60.4	41.3
2	*5670.00	92.6 AV			1.49 H	347	51.3	41.3
3	#5725.00	62.1 PK	68.2	-6.1	1.49 H	347	58.3	3.8
4	11340.00	58.9 PK	74.0	-15.1	1.58 H	16	50.0	8.9
5	11340.00	48.1 AV	54.0	-5.9	1.58 H	16	39.2	8.9

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5670.00	100.8 PK			1.57 V	4	59.5	41.3
2	*5670.00	91.3 AV			1.57 V	4	50.0	41.3
3	#5725.00	61.7 PK	68.2	-6.5	1.57 V	4	57.9	3.8
4	11340.00	58.4 PK	74.0	-15.6	2.74 V	328	49.5	8.9
5	11340.00	45.4 AV	54.0	-8.6	2.74 V	328	36.5	8.9

**Remarks:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " \* ": Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # ": The radiated frequency is out of the restricted band.



<b>RF Mode</b>	TX 802.11ac (VHT40)	<b>Channel</b>	CH 142 : 5710 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
<b>Input Power</b>	220 Vac, 60 Hz	<b>Environmental Conditions</b>	28°C, 75% RH
<b>Tested By</b>	Randy Wu		

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5470.00	58.5 PK	68.2	-9.7	1.58 H	355	56.0	2.5
2	*5710.00	104.0 PK			1.58 H	355	62.7	41.3
3	*5710.00	94.1 AV			1.58 H	355	52.8	41.3
4	#5925.00	58.8 PK	68.2	-9.4	1.58 H	355	54.9	3.9
5	11420.00	60.1 PK	74.0	-13.9	1.53 H	1	51.1	9.0
6	11420.00	48.9 AV	54.0	-5.1	1.53 H	1	39.9	9.0

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5470.00	56.6 PK	68.2	-11.6	3.80 V	52	54.1	2.5
2	*5710.00	103.1 PK			3.80 V	52	61.8	41.3
3	*5710.00	92.6 AV			3.80 V	52	51.3	41.3
4	#5925.00	60.3 PK	68.2	-7.9	3.80 V	52	56.4	3.9
5	11420.00	60.1 PK	74.0	-13.9	2.66 V	343	51.1	9.0
6	11420.00	45.9 AV	54.0	-8.1	2.66 V	343	36.9	9.0

**Remarks:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " \* " : Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # " : The radiated frequency is out of the restricted band.



<b>RF Mode</b>	TX 802.11ac (VHT40)	<b>Channel</b>	CH 151 : 5755 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
<b>Input Power</b>	220 Vac, 60 Hz	<b>Environmental Conditions</b>	28°C, 75% RH
<b>Tested By</b>	Randy Wu		

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5640.00	57.2 PK	68.2	-11.0	1.65 H	357	53.8	3.4
2	*5755.00	104.0 PK			1.65 H	357	62.4	41.6
3	*5755.00	95.0 AV			1.65 H	357	53.4	41.6
4	#5966.40	58.7 PK	68.2	-9.5	1.65 H	357	54.5	4.2
5	11510.00	62.4 PK	74.0	-11.6	1.18 H	19	53.3	9.1
6	11510.00	48.4 AV	54.0	-5.6	1.18 H	19	39.3	9.1

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5629.60	57.1 PK	68.2	-11.1	1.66 V	348	53.8	3.3
2	*5755.00	102.6 PK			1.66 V	348	61.0	41.6
3	*5755.00	92.8 AV			1.66 V	348	51.2	41.6
4	#5968.80	57.9 PK	68.2	-10.3	1.66 V	348	53.7	4.2
5	11510.00	56.5 PK	74.0	-17.5	1.21 V	4	47.4	9.1
6	11510.00	45.7 AV	54.0	-8.3	1.21 V	4	36.6	9.1

**Remarks:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " \* ": Fundamental frequency, the limit was restricted at the RF Output Power.



<b>RF Mode</b>	TX 802.11ac (VHT40)	<b>Channel</b>	CH 159 : 5795 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
<b>Input Power</b>	220 Vac, 60 Hz	<b>Environmental Conditions</b>	28°C, 75% RH
<b>Tested By</b>	Randy Wu		

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5610.80	58.9 PK	68.2	-9.3	1.45 H	358	55.7	3.2
2	*5795.00	103.8 PK			1.45 H	358	62.2	41.6
3	*5795.00	95.0 AV			1.45 H	358	53.4	41.6
4	#5958.80	59.7 PK	68.2	-8.5	1.45 H	358	55.6	4.1
5	11590.00	59.0 PK	74.0	-15.0	1.59 H	344	49.9	9.1
6	11590.00	47.6 AV	54.0	-6.4	1.59 H	344	38.5	9.1

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5639.60	58.9 PK	68.2	-9.3	1.09 V	351	55.5	3.4
2	*5795.00	102.9 PK			1.09 V	351	61.3	41.6
3	*5795.00	93.3 AV			1.09 V	351	51.7	41.6
4	#5926.00	58.0 PK	68.2	-10.2	1.09 V	351	54.1	3.9
5	11590.00	58.6 PK	74.0	-15.4	1.02 V	346	49.5	9.1
6	11590.00	46.6 AV	54.0	-7.4	1.02 V	346	37.5	9.1

**Remarks:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " \* " : Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # " : The radiated frequency is out of the restricted band.





<b>RF Mode</b>	TX 802.11ac (VHT80)	<b>Channel</b>	CH 42 : 5210 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
<b>Input Power</b>	220 Vac, 60 Hz	<b>Environmental Conditions</b>	29°C, 74% RH
<b>Tested By</b>	Randy Wu		

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	66.3 PK	74.0	-7.7	1.73 H	24	63.4	2.9
2	5150.00	53.2 AV	54.0	-0.8	1.73 H	24	50.3	2.9
3	*5210.00	102.2 PK			1.73 H	24	61.9	40.3
4	*5210.00	91.5 AV			1.73 H	24	51.2	40.3
5	#10420.00	59.5 PK	68.2	-8.7	1.61 H	9	51.6	7.9

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	63.0 PK	74.0	-11.0	2.24 V	4	60.1	2.9
2	5150.00	51.4 AV	54.0	-2.6	2.24 V	4	48.5	2.9
3	*5210.00	96.3 PK			2.24 V	4	56.0	40.3
4	*5210.00	86.5 AV			2.24 V	4	46.2	40.3
5	#10420.00	56.3 PK	68.2	-11.9	2.42 V	324	48.4	7.9

**Remarks:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " \* " : Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # " : The radiated frequency is out of the restricted band.



<b>RF Mode</b>	TX 802.11ac (VHT80)	<b>Channel</b>	CH 58 : 5290 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
<b>Input Power</b>	220 Vac, 60 Hz	<b>Environmental Conditions</b>	27°C, 79% RH
<b>Tested By</b>	Randy Wu		

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5290.00	99.3 PK			1.37 H	22	59.4	39.9
2	*5290.00	88.9 AV			1.37 H	22	49.0	39.9
3	5350.00	64.1 PK	74.0	-9.9	1.37 H	22	61.7	2.4
4	5350.00	53.2 AV	54.0	-0.8	1.37 H	22	50.8	2.4
5	#10580.00	58.2 PK	68.2	-10.0	1.36 H	37	50.3	7.9

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5290.00	96.2 PK			2.15 V	43	56.3	39.9
2	*5290.00	86.9 AV			2.15 V	43	47.0	39.9
3	5350.00	63.1 PK	74.0	-10.9	2.15 V	43	60.7	2.4
4	5350.00	50.6 AV	54.0	-3.4	2.15 V	43	48.2	2.4
5	#10580.00	57.1 PK	68.2	-11.1	2.84 V	4	49.2	7.9

**Remarks:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " \* " : Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # " : The radiated frequency is out of the restricted band.



<b>RF Mode</b>	TX 802.11ac (VHT80)	<b>Channel</b>	CH 106 : 5530 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
<b>Input Power</b>	220 Vac, 60 Hz	<b>Environmental Conditions</b>	27°C, 79% RH
<b>Tested By</b>	Randy Wu		

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	65.6 PK	74.0	-8.4	1.47 H	22	63.3	2.3
2	5460.00	53.2 AV	54.0	-0.8	1.47 H	22	50.9	2.3
3	#5470.00	66.5 PK	68.2	-1.7	1.47 H	22	64.0	2.5
4	*5530.00	98.1 PK			1.47 H	22	57.8	40.3
5	*5530.00	89.5 AV			1.47 H	22	49.2	40.3
6	11060.00	58.4 PK	74.0	-15.6	1.44 H	10	50.3	8.1
7	11060.00	49.2 AV	54.0	-4.8	1.44 H	10	41.1	8.1

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	64.4 PK	74.0	-9.6	2.81 V	48	62.1	2.3
2	5460.00	52.5 AV	54.0	-1.5	2.81 V	48	50.2	2.3
3	#5470.00	66.0 PK	68.2	-2.2	2.81 V	48	63.5	2.5
4	*5530.00	95.7 PK			2.81 V	48	55.4	40.3
5	*5530.00	87.1 AV			2.81 V	48	46.8	40.3
6	11060.00	56.1 PK	74.0	-17.9	2.74 V	345	48.0	8.1
7	11060.00	44.6 AV	54.0	-9.4	2.74 V	345	36.5	8.1

**Remarks:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " \* " : Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # " : The radiated frequency is out of the restricted band.



<b>RF Mode</b>	TX 802.11ac (VHT80)	<b>Channel</b>	CH 122 : 5610 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
<b>Input Power</b>	220 Vac, 60 Hz	<b>Environmental Conditions</b>	27°C, 79% RH
<b>Tested By</b>	Randy Wu		

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5610.00	100.5 PK			1.90 H	332	59.6	40.9
2	*5610.00	90.1 AV			1.90 H	332	49.2	40.9
3	#5725.00	60.2 PK	68.2	-8.0	1.90 H	332	56.4	3.8
4	11220.00	58.0 PK	74.0	-16.0	2.41 H	23	49.4	8.6
5	11220.00	45.8 AV	54.0	-8.2	2.41 H	23	37.2	8.6

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5610.00	99.9 PK			2.71 V	48	59.0	40.9
2	*5610.00	89.9 AV			2.71 V	48	49.0	40.9
3	#5725.00	59.6 PK	68.2	-8.6	2.71 V	48	55.8	3.8
4	11220.00	56.0 PK	74.0	-18.0	2.47 V	346	47.4	8.6
5	11220.00	45.1 AV	54.0	-8.9	2.47 V	346	36.5	8.6

**Remarks:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " \* ": Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # ": The radiated frequency is out of the restricted band.



<b>RF Mode</b>	TX 802.11ac (VHT80)	<b>Channel</b>	CH 138 : 5690 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
<b>Input Power</b>	220 Vac, 60 Hz	<b>Environmental Conditions</b>	28°C, 75% RH
<b>Tested By</b>	Randy Wu		

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5470.00	57.9 PK	68.2	-10.3	1.55 H	355	55.4	2.5
2	*5690.00	100.0 PK			1.55 H	355	58.7	41.3
3	*5690.00	90.2 AV			1.55 H	355	48.9	41.3
4	#5925.00	59.5 PK	68.2	-8.7	1.55 H	355	55.6	3.9
5	11380.00	58.7 PK	74.0	-15.3	1.47 H	5	49.7	9.0
6	11380.00	48.2 AV	54.0	-5.8	1.47 H	5	39.2	9.0

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5470.00	58.2 PK	68.2	-10.0	2.67 V	32	55.7	2.5
2	*5690.00	99.2 PK			2.67 V	32	57.9	41.3
3	*5690.00	89.1 AV			2.67 V	32	47.8	41.3
4	#5925.00	59.2 PK	68.2	-9.0	2.67 V	32	55.3	3.9
5	11380.00	59.1 PK	74.0	-14.9	2.68 V	19	50.1	9.0
6	11380.00	46.7 AV	54.0	-7.3	2.68 V	19	37.7	9.0

**Remarks:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " \* " : Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # " : The radiated frequency is out of the restricted band.



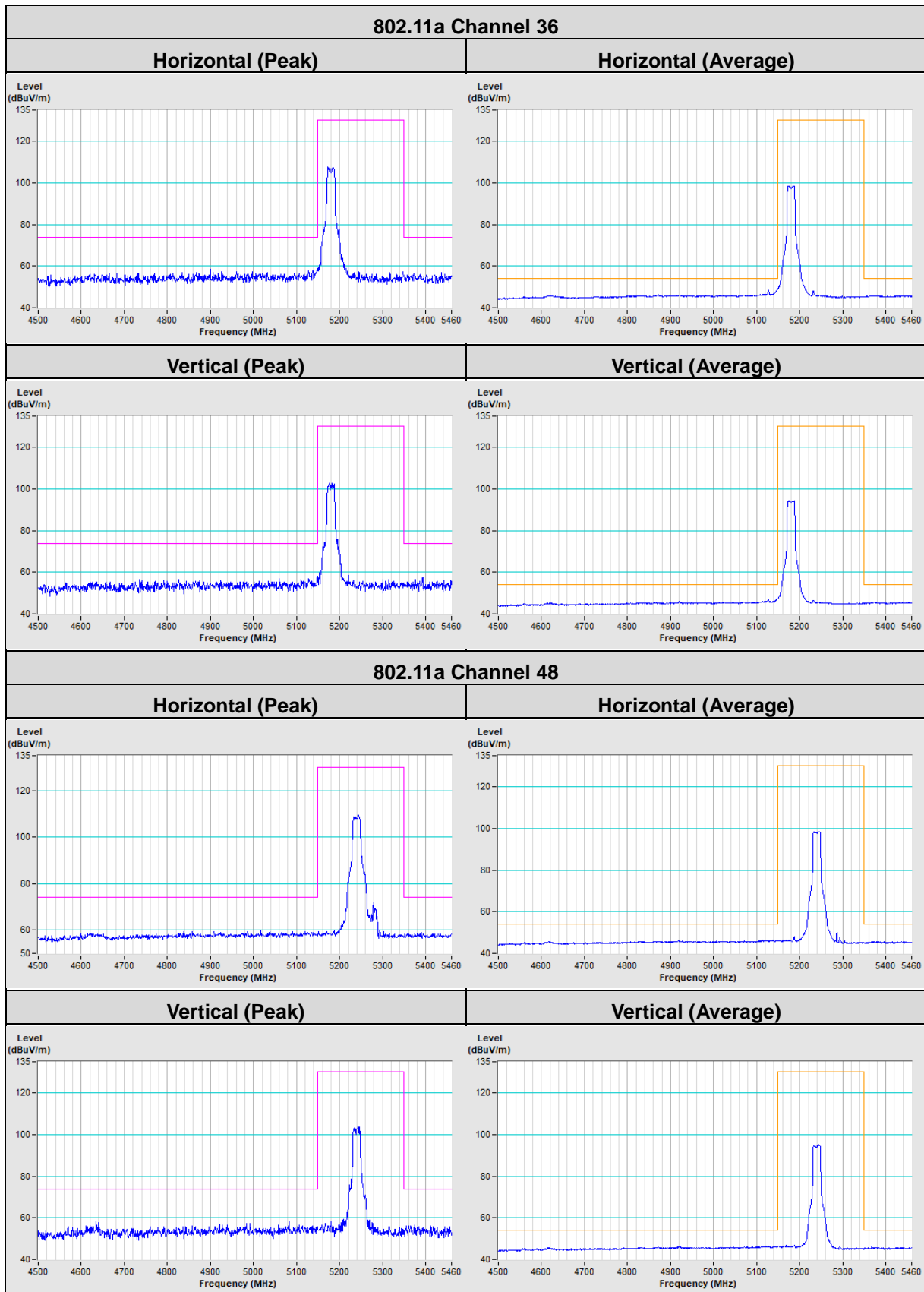
<b>RF Mode</b>	TX 802.11ac (VHT80)	<b>Channel</b>	CH 155 : 5775 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
<b>Input Power</b>	220 Vac, 60 Hz	<b>Environmental Conditions</b>	28°C, 75% RH
<b>Tested By</b>	Randy Wu		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5644.00	58.5 PK	68.2	-9.7	1.66 H	335	55.1	3.4
2	*5775.00	101.9 PK			1.66 H	335	60.4	41.5
3	*5775.00	92.7 AV			1.66 H	335	51.2	41.5
4	#5960.00	58.2 PK	68.2	-10.0	1.66 H	335	54.1	4.1
5	11550.00	59.4 PK	74.0	-14.6	1.11 H	17	50.2	9.2
6	11550.00	47.9 AV	54.0	-6.1	1.11 H	17	38.7	9.2
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5645.60	59.1 PK	68.2	-9.1	1.04 V	350	55.7	3.4
2	*5775.00	100.7 PK			1.04 V	350	59.2	41.5
3	*5775.00	89.8 AV			1.04 V	350	48.3	41.5
4	#5969.20	58.4 PK	68.2	-9.8	1.04 V	350	54.2	4.2
5	11550.00	58.8 PK	74.0	-15.2	1.33 V	342	49.6	9.2
6	11550.00	46.0 AV	54.0	-8.0	1.33 V	342	36.8	9.2

**Remarks:**

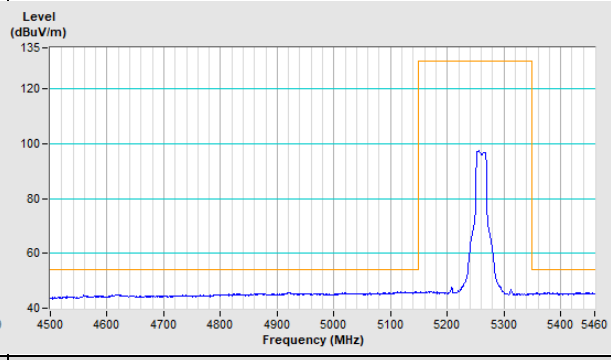
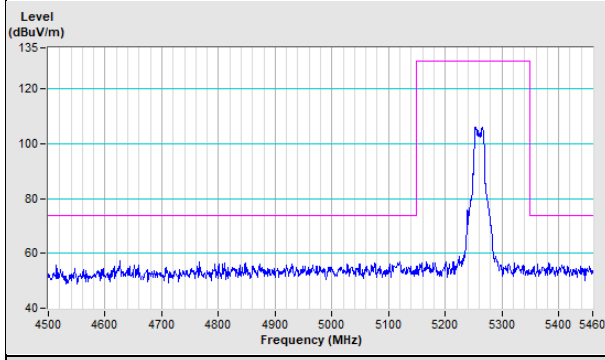
1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " \* ": Fundamental frequency, the limit was restricted at the RF Output Power.

Plot of Band Edge



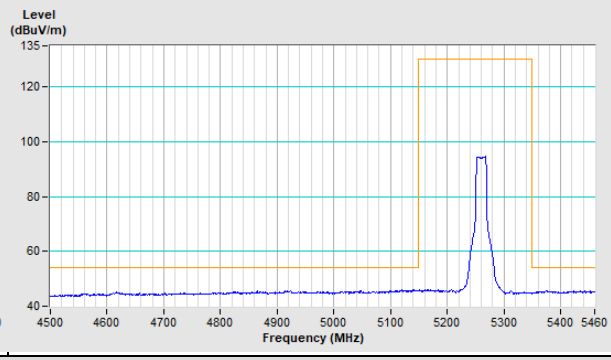
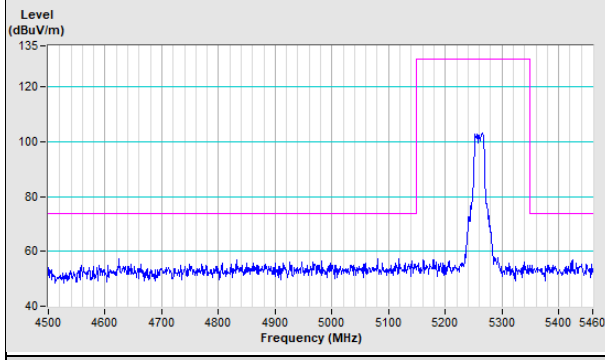
### 802.11a Channel 52

**Horizontal (Peak)** **Horizontal (Average)**



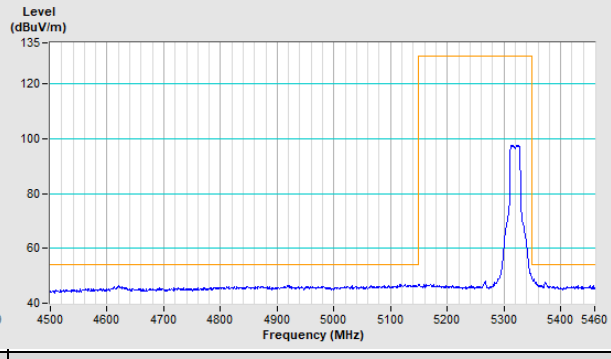
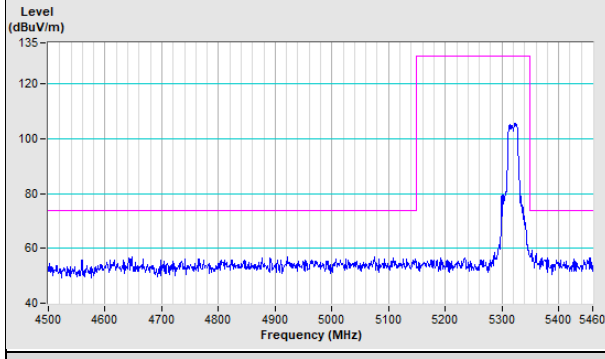
**Vertical (Peak)**

**Vertical (Average)**



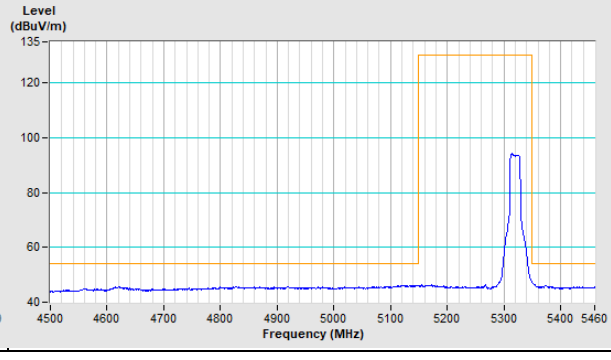
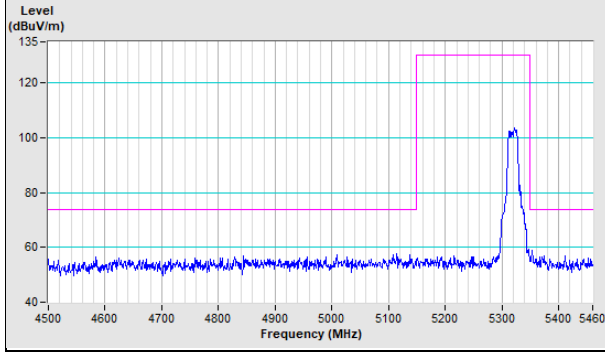
### 802.11a Channel 64

**Horizontal (Peak)** **Horizontal (Average)**



**Vertical (Peak)**

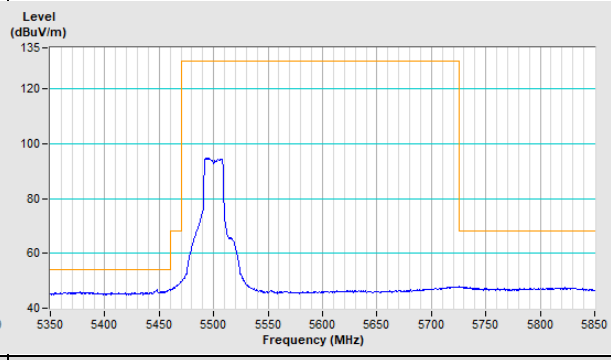
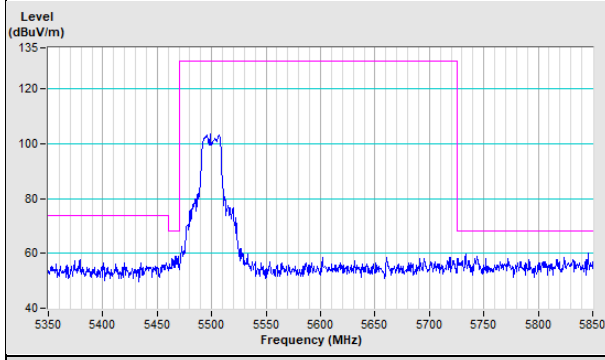
**Vertical (Average)**





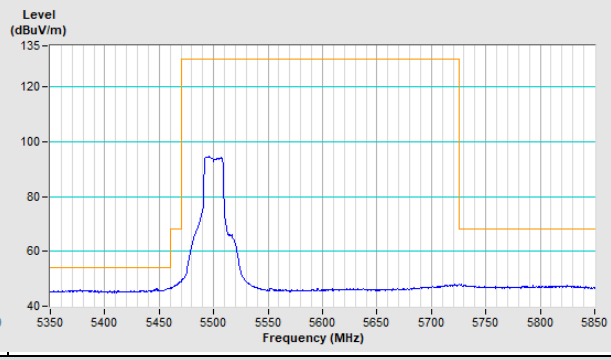
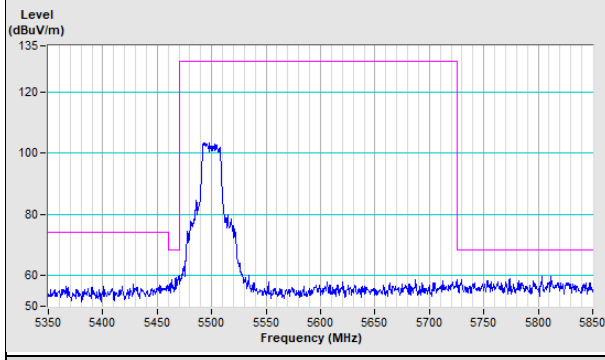
### 802.11a Channel 100

**Horizontal (Peak)** **Horizontal (Average)**



**Vertical (Peak)**

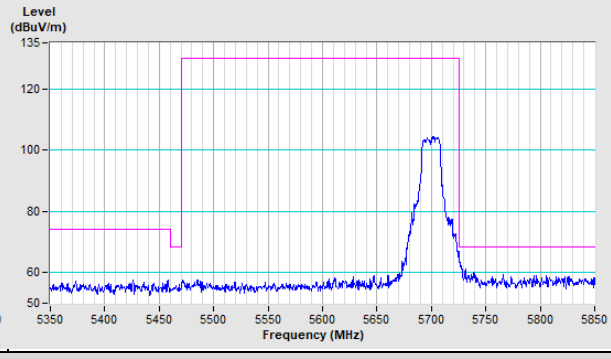
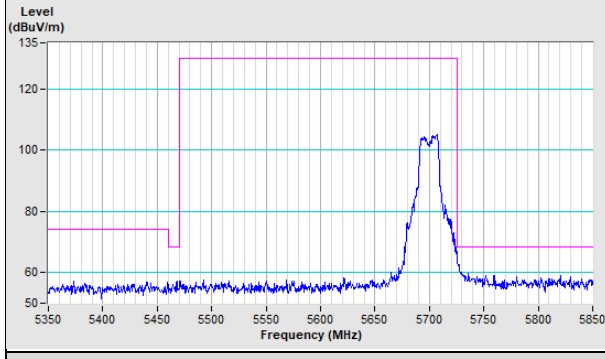
**Vertical (Average)**



### 802.11a Channel 140

**Horizontal (Peak)**

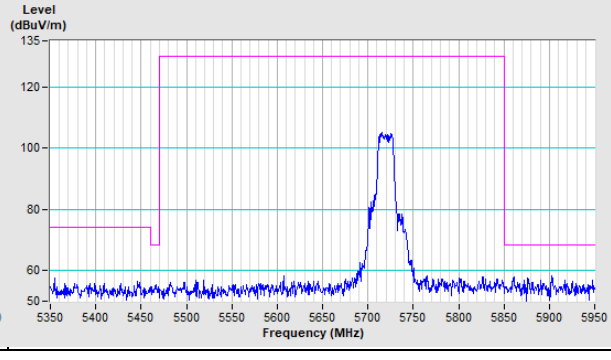
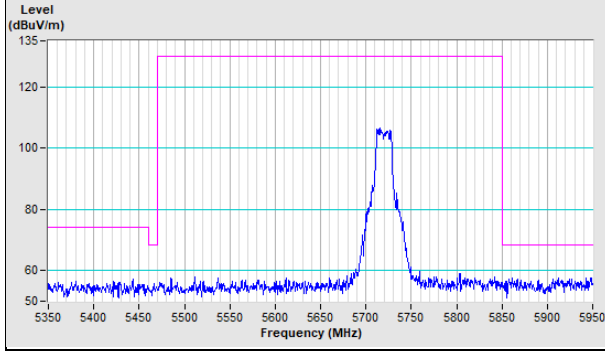
**Vertical (Peak)**

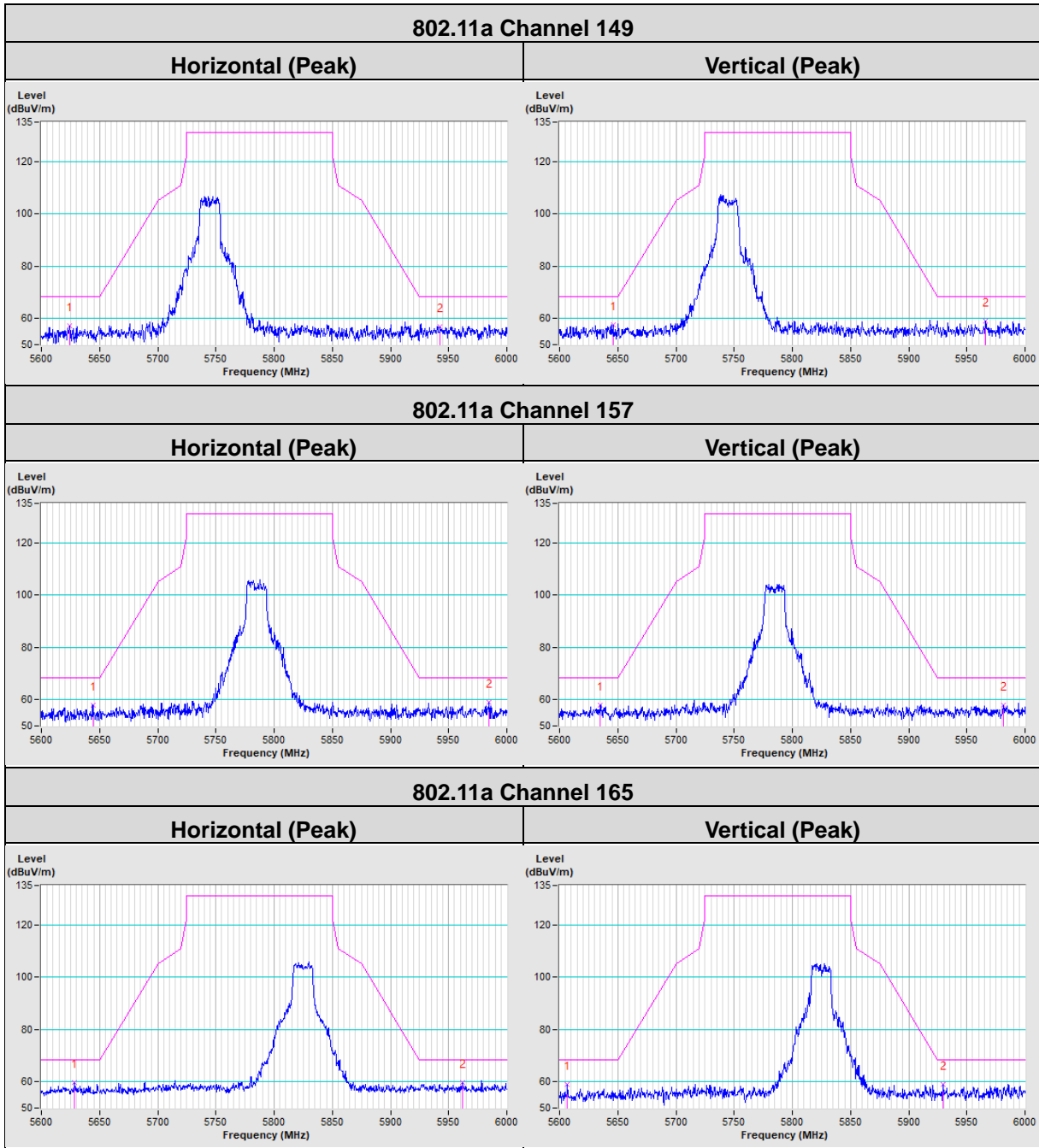


### 802.11a Channel 144

**Horizontal (Peak)**

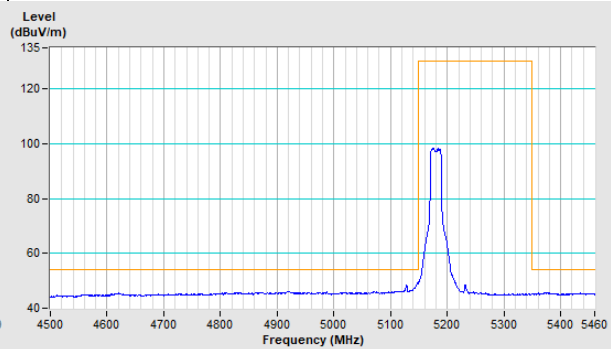
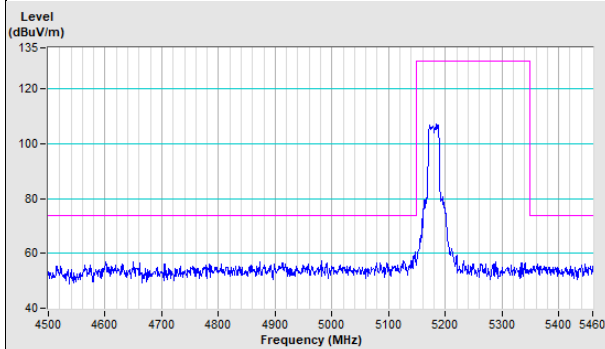
**Vertical (Peak)**





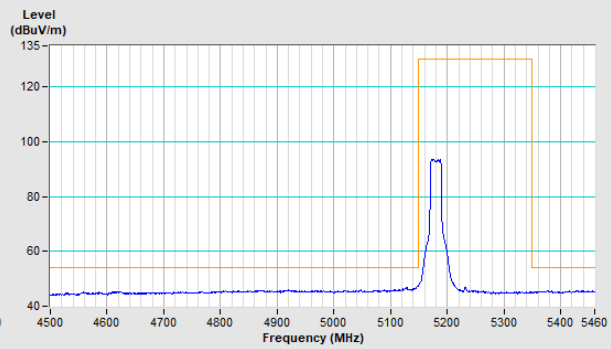
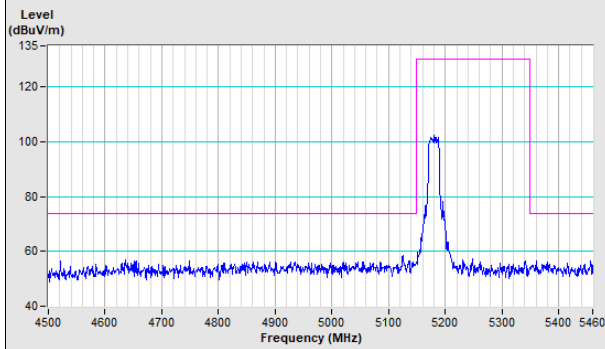
### 802.11ac (VHT20) Channel 36

**Horizontal (Peak)** **Horizontal (Average)**



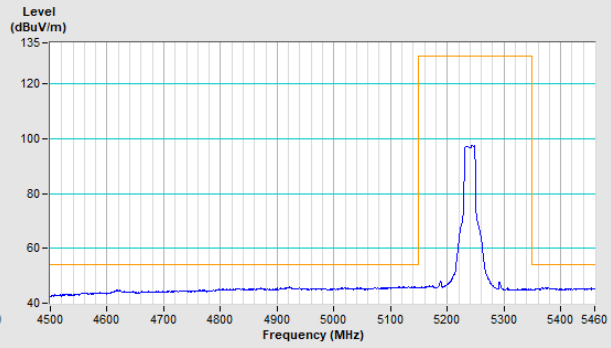
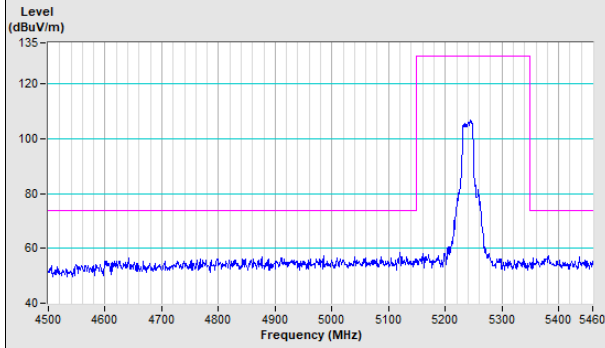
**Vertical (Peak)**

**Vertical (Average)**



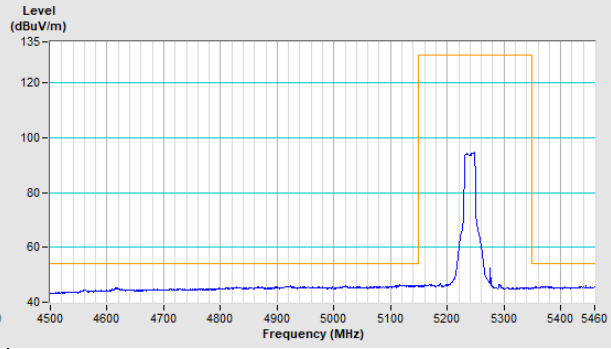
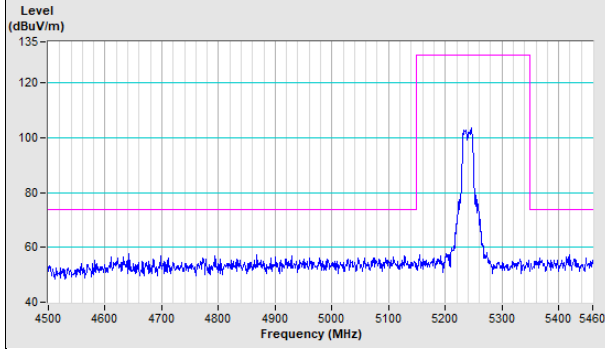
### 802.11ac (VHT20) Channel 48

**Horizontal (Peak)** **Horizontal (Average)**

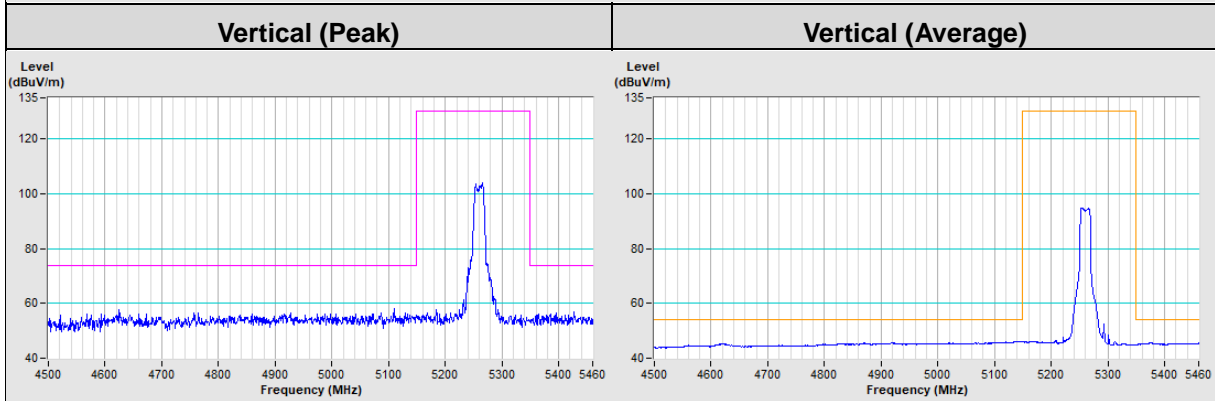
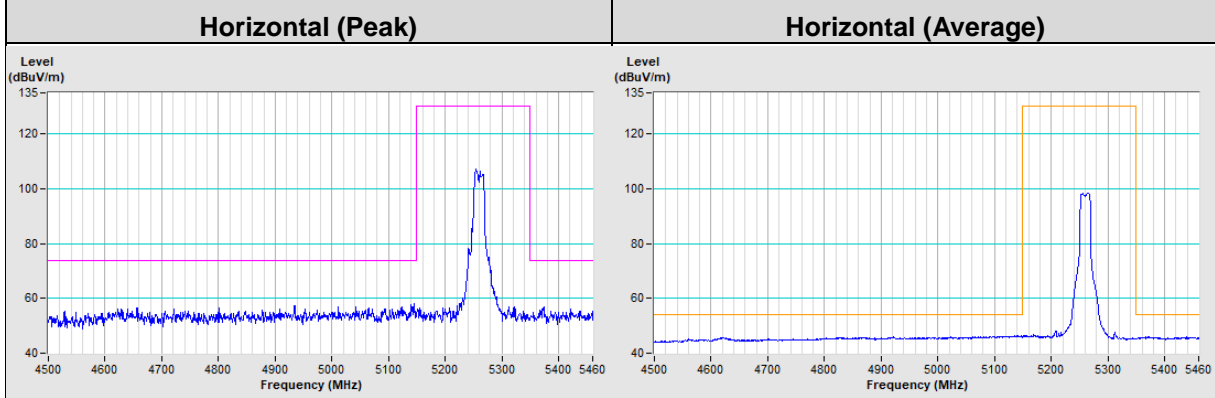


**Vertical (Peak)**

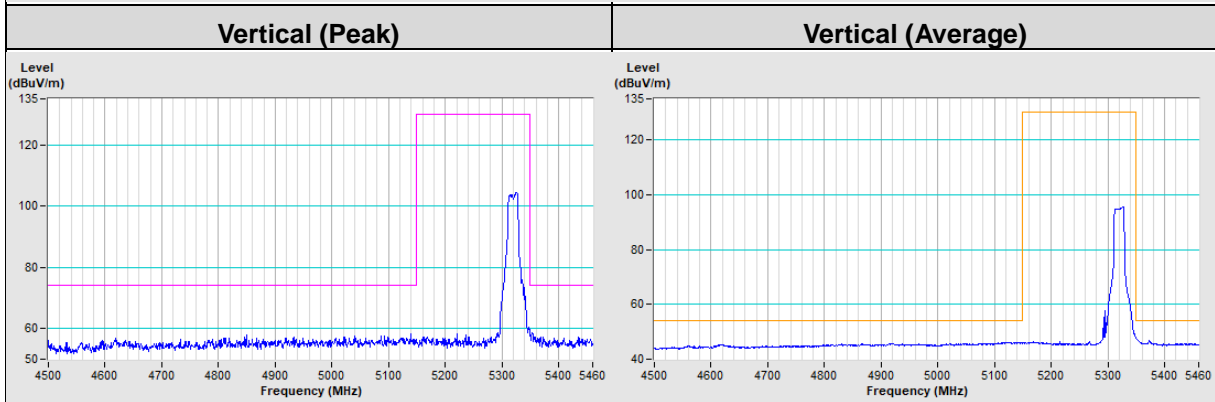
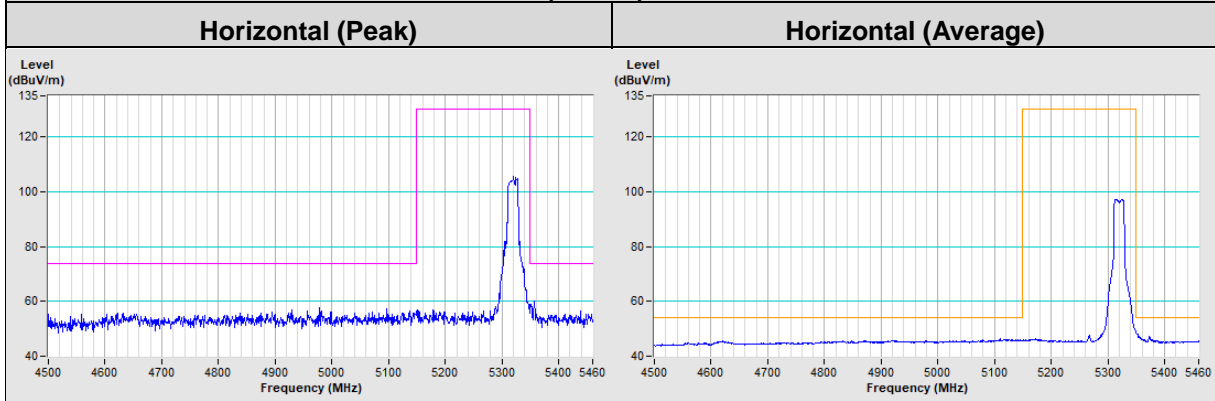
**Vertical (Average)**



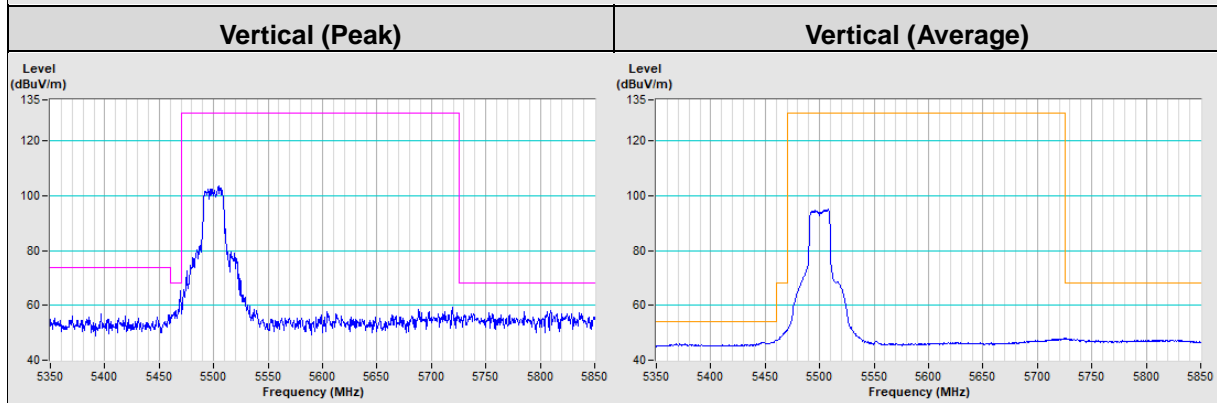
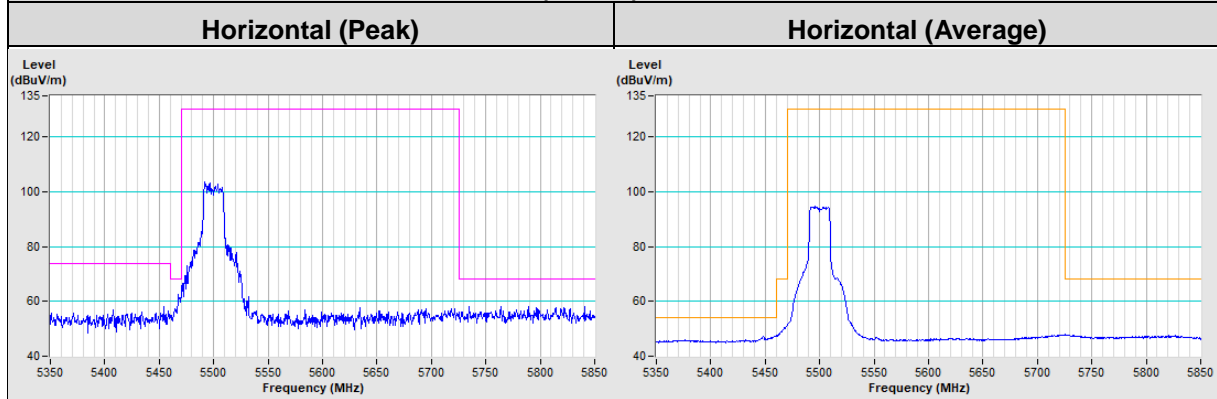
### 802.11ac (VHT20) Channel 52



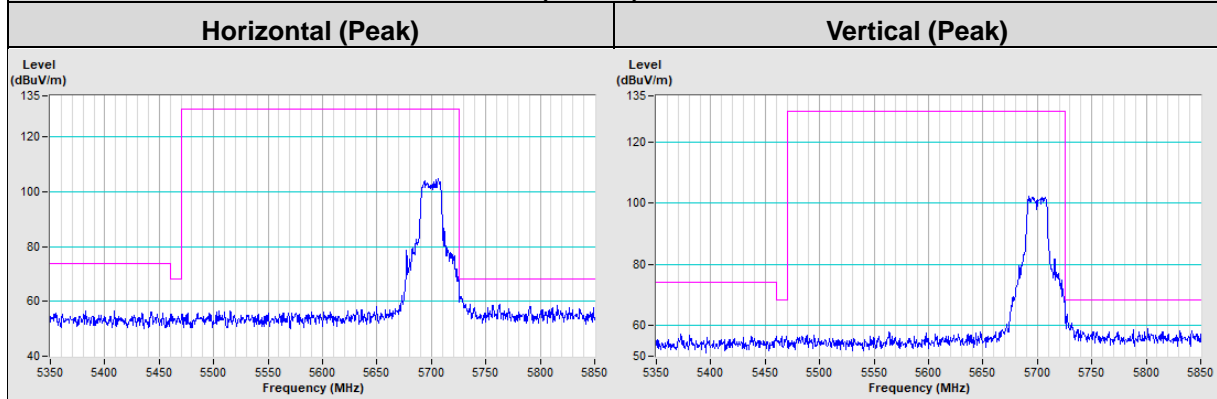
### 802.11ac (VHT20) Channel 64



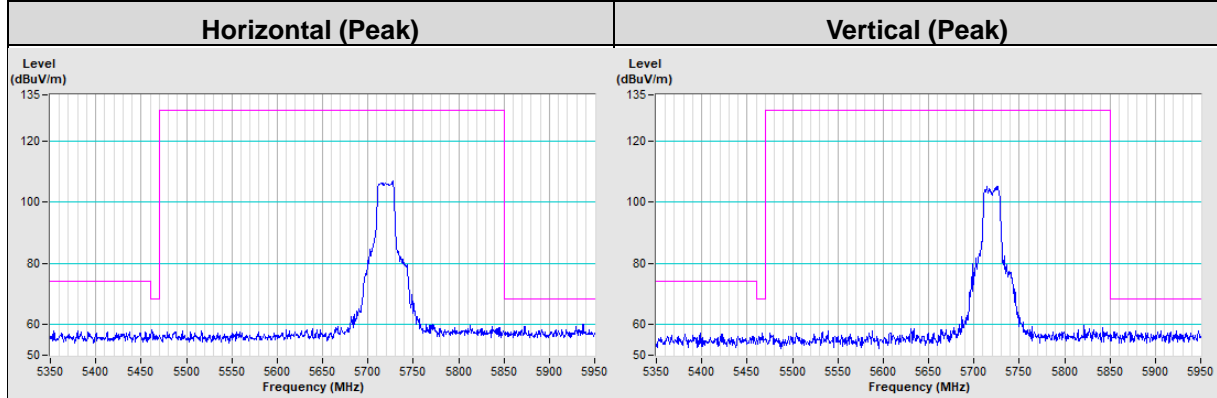
### 802.11ac (VHT20) Channel 100



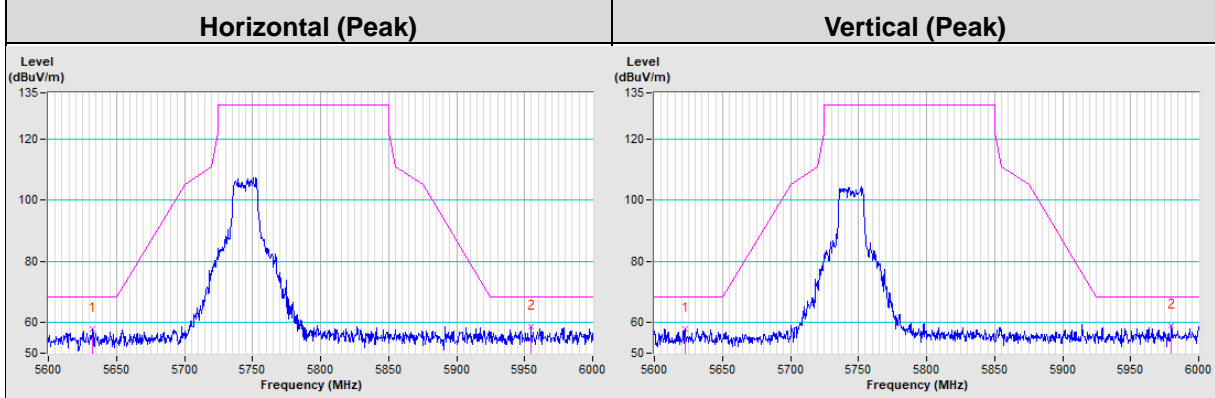
### 802.11ac (VHT20) Channel 140



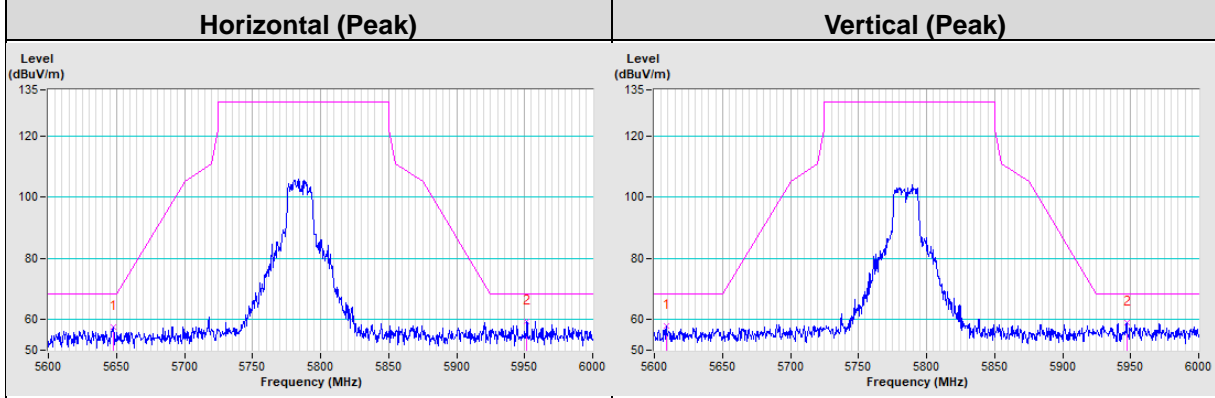
### 802.11ac (VHT20) Channel 144



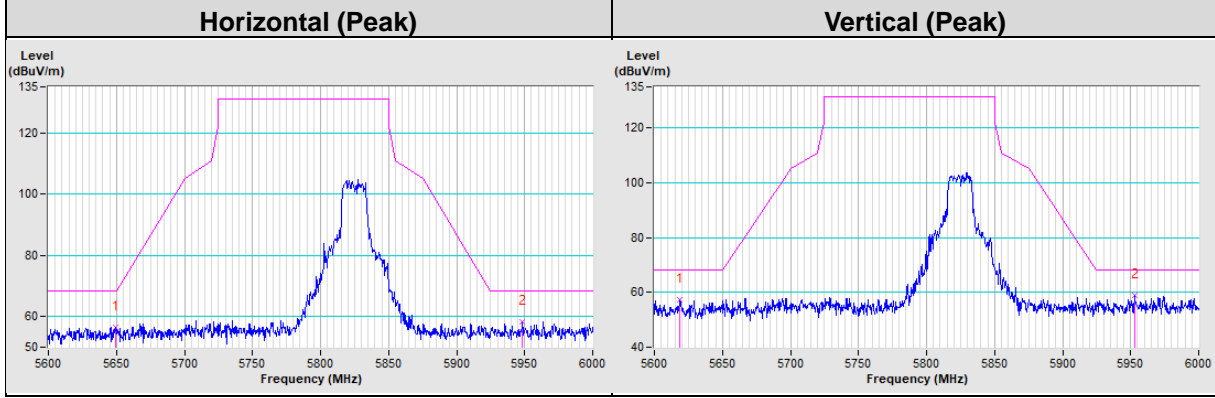
### 802.11ac (VHT20) Channel 149



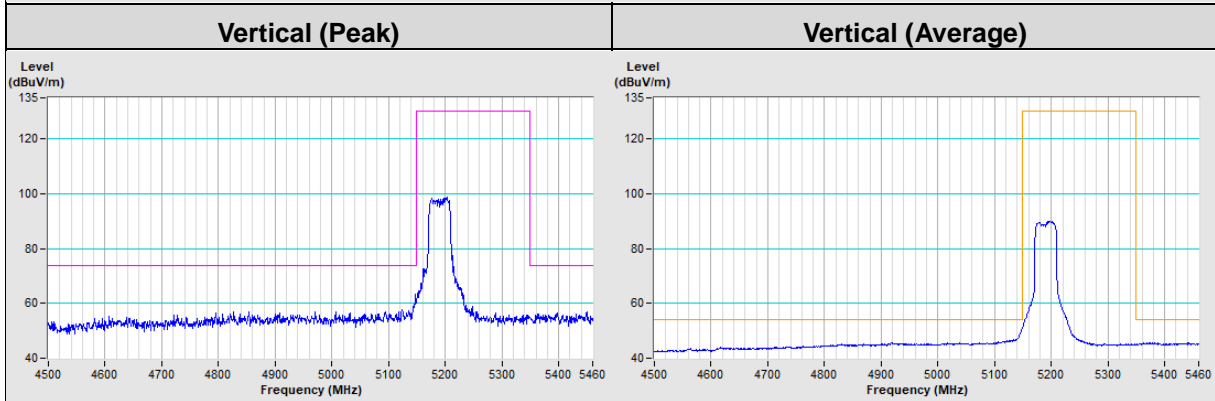
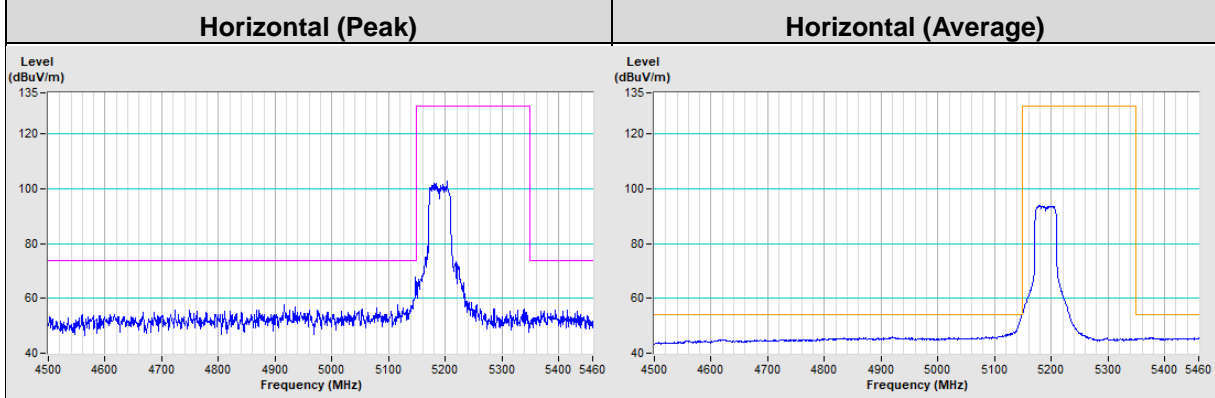
### 802.11ac (VHT20) Channel 157



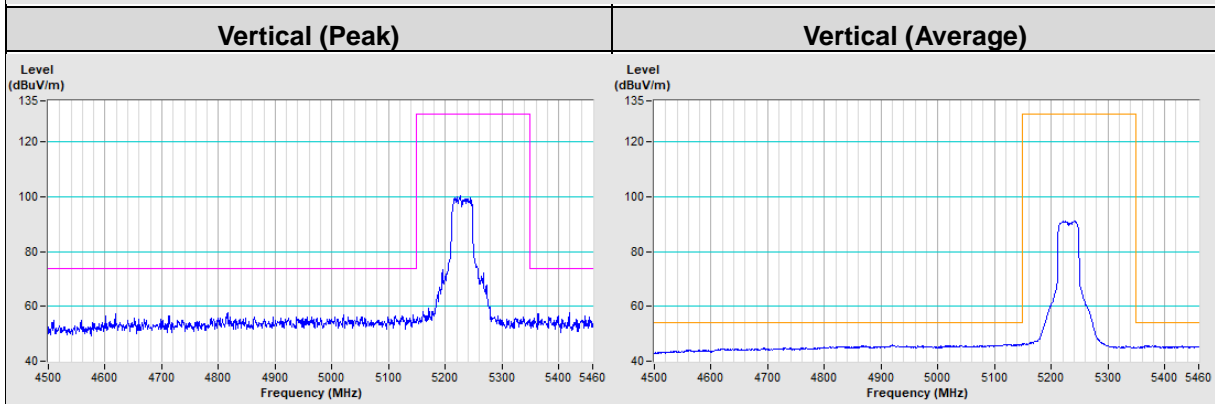
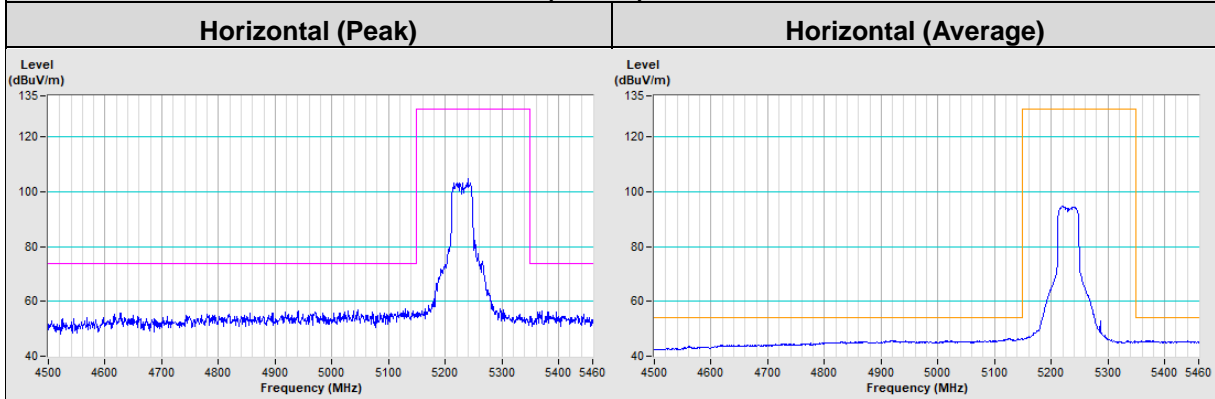
### 802.11ac (VHT20) Channel 165



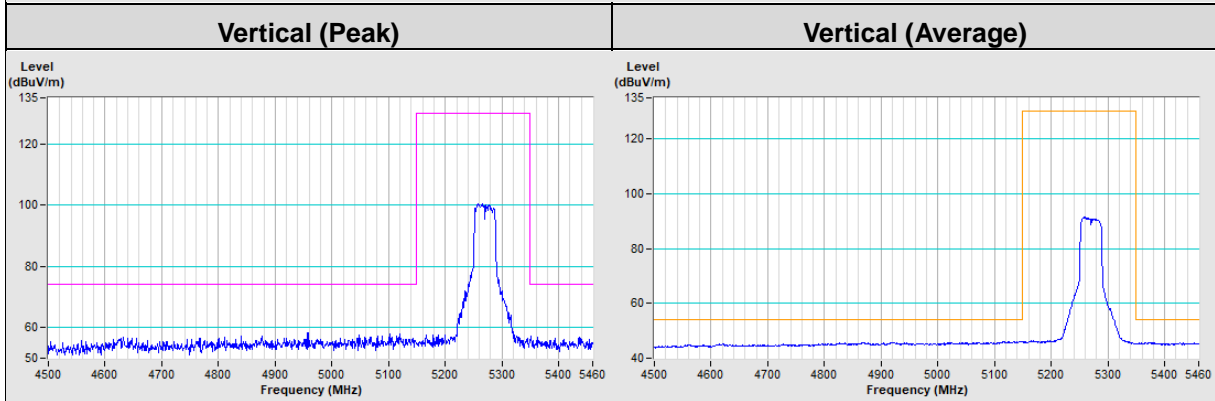
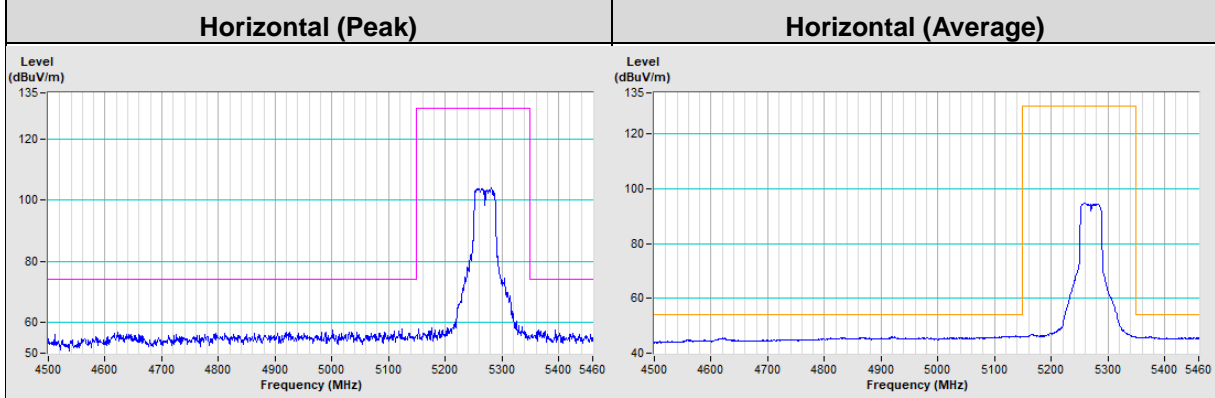
### 802.11ac (VHT40) Channel 38



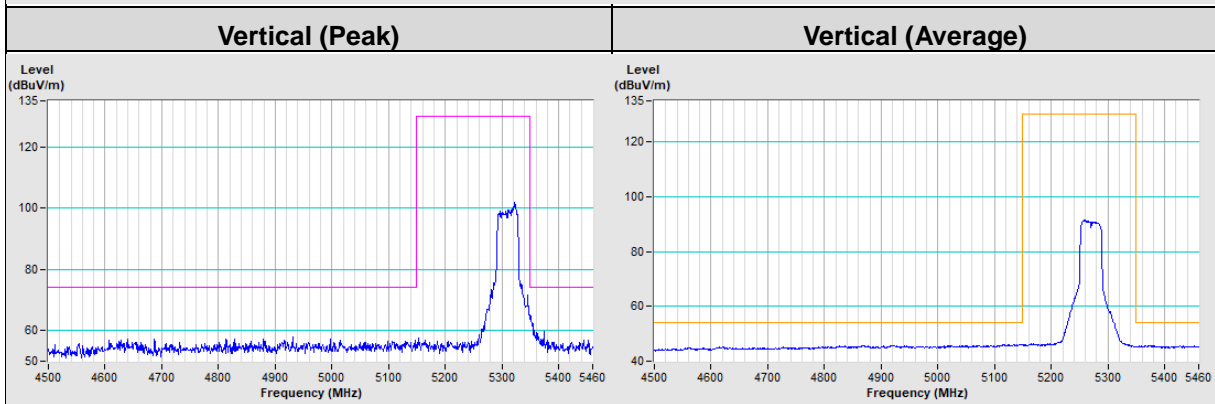
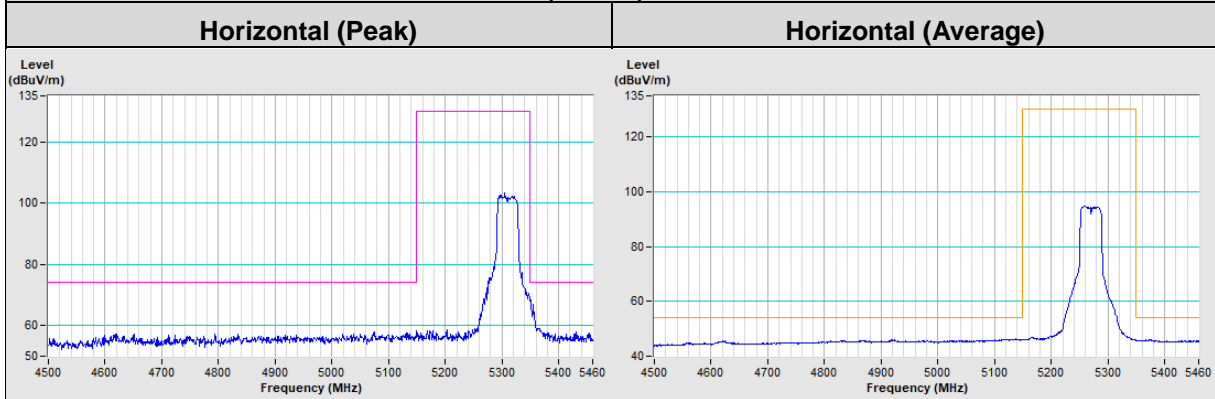
### 802.11ac (VHT40) Channel 46



### 802.11ac (VHT40) Channel 54



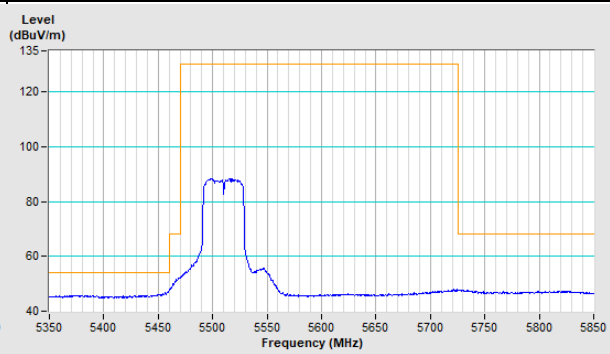
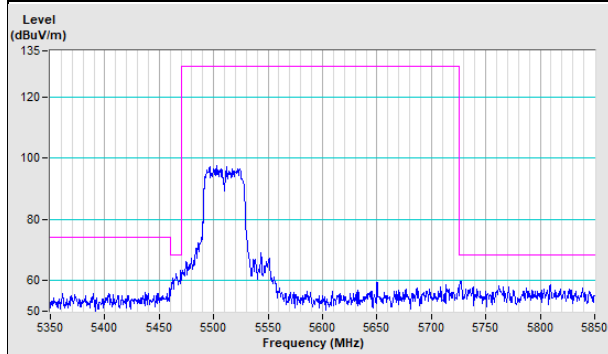
### 802.11ac (VHT40) Channel 62





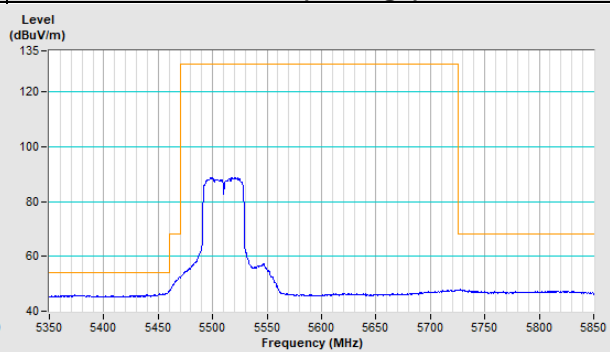
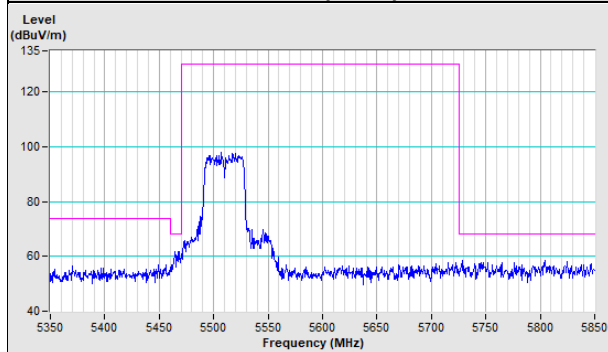
### 802.11ac (VHT40) Channel 102

**Horizontal (Peak)** **Horizontal (Average)**



**Vertical (Peak)**

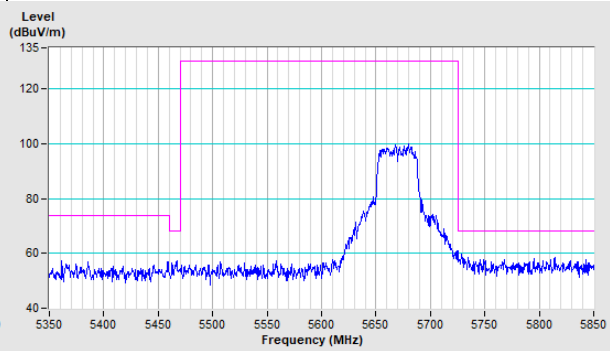
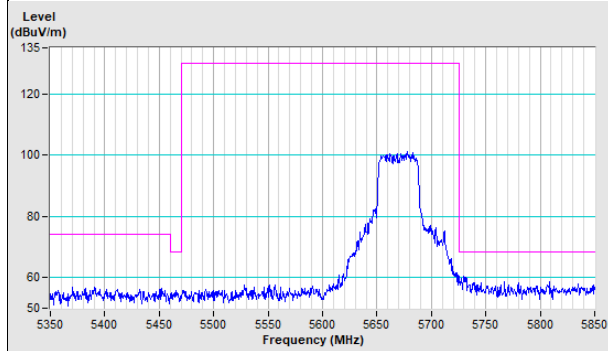
**Vertical (Average)**



### 802.11ac (VHT40) Channel 134

**Horizontal (Peak)**

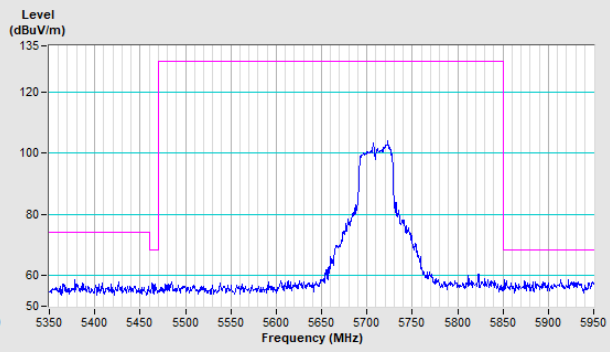
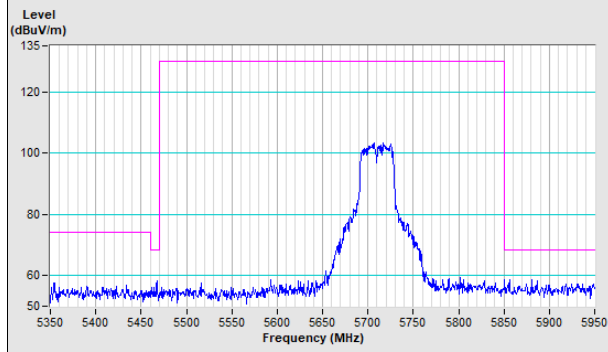
**Vertical (Peak)**



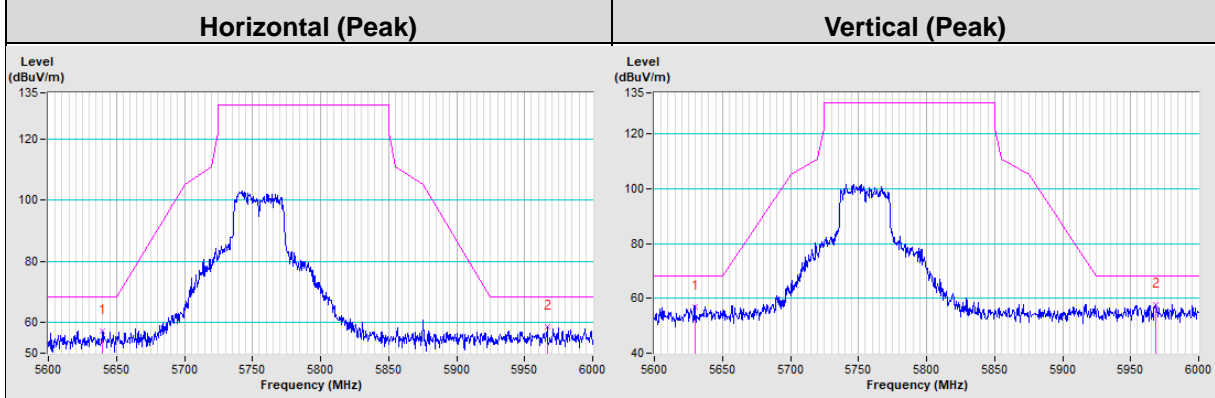
### 802.11ac (VHT40) Channel 142

**Horizontal (Peak)**

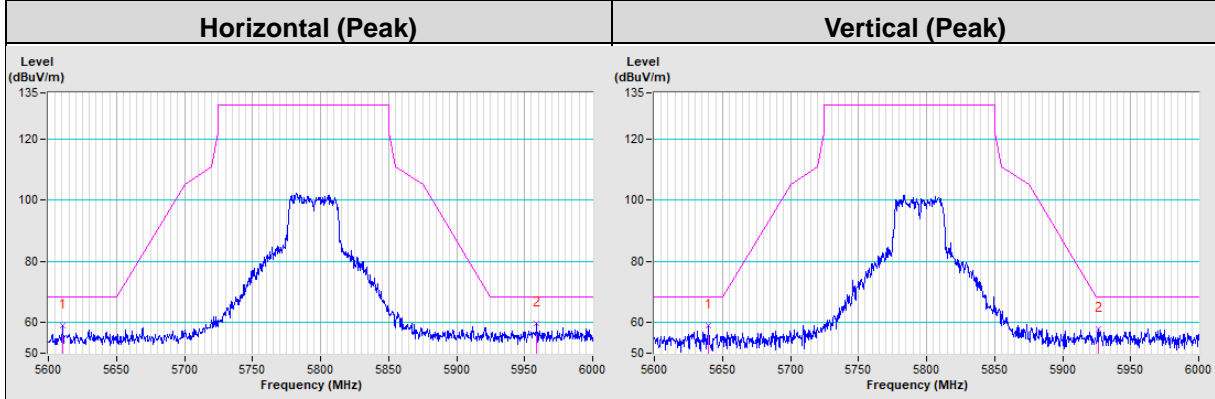
**Vertical (Peak)**



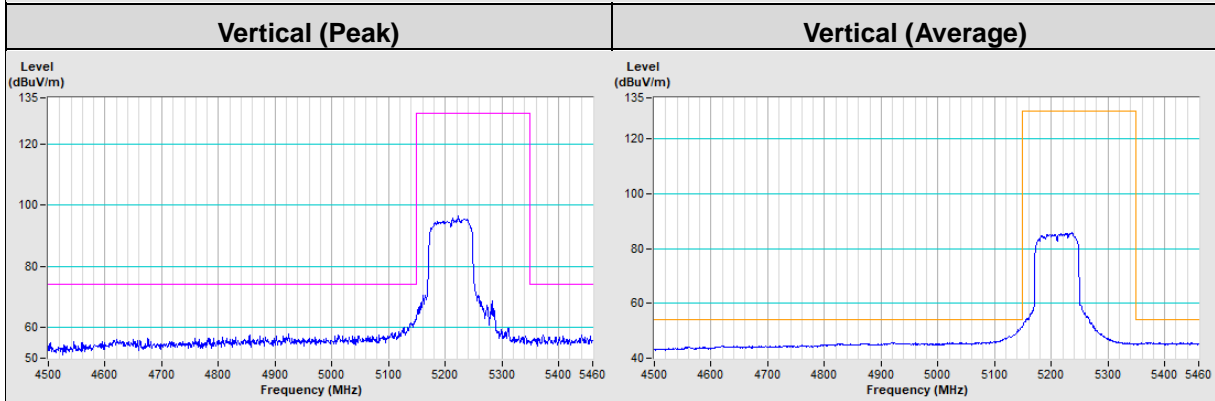
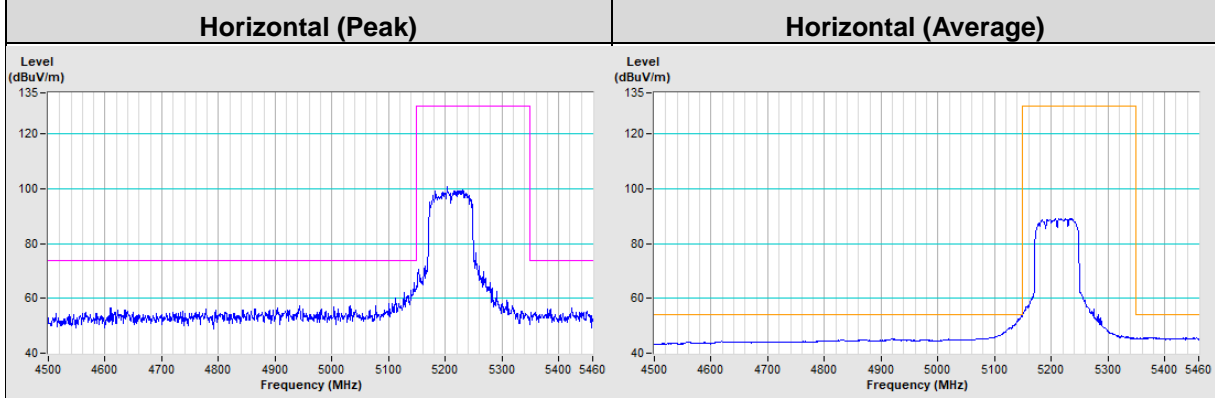
### 802.11ac (VHT40) Channel 151



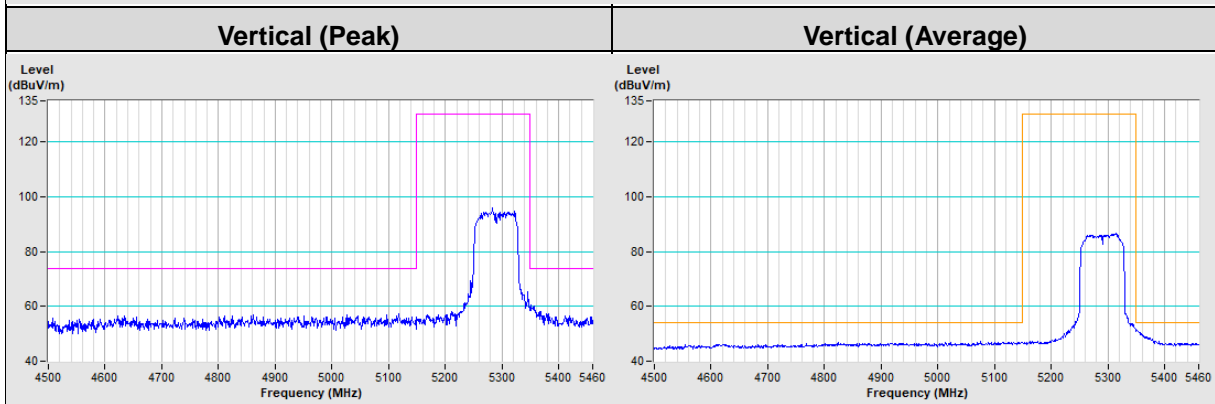
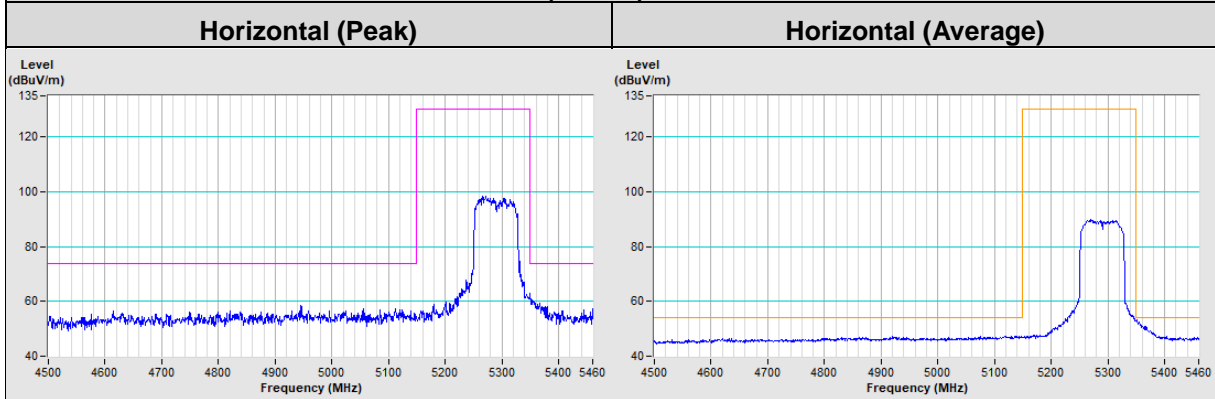
### 802.11ac (VHT40) Channel 159



### 802.11ac (VHT80) Channel 42

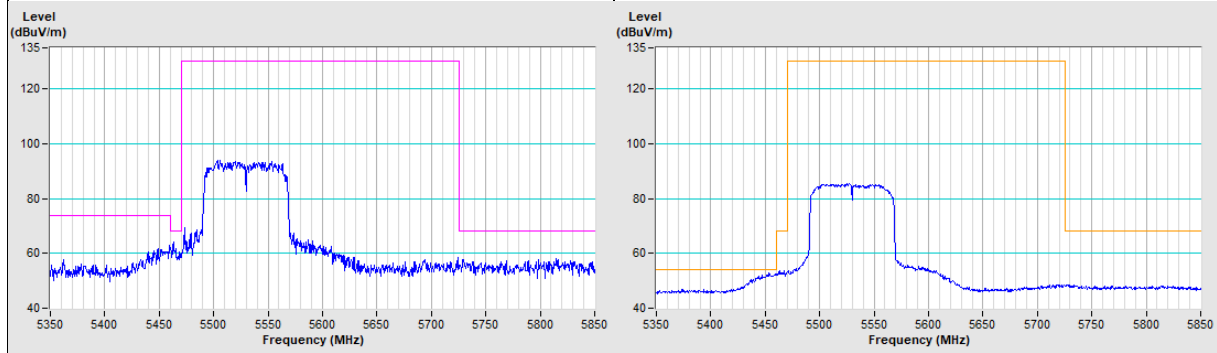


### 802.11ac (VHT80) Channel 58

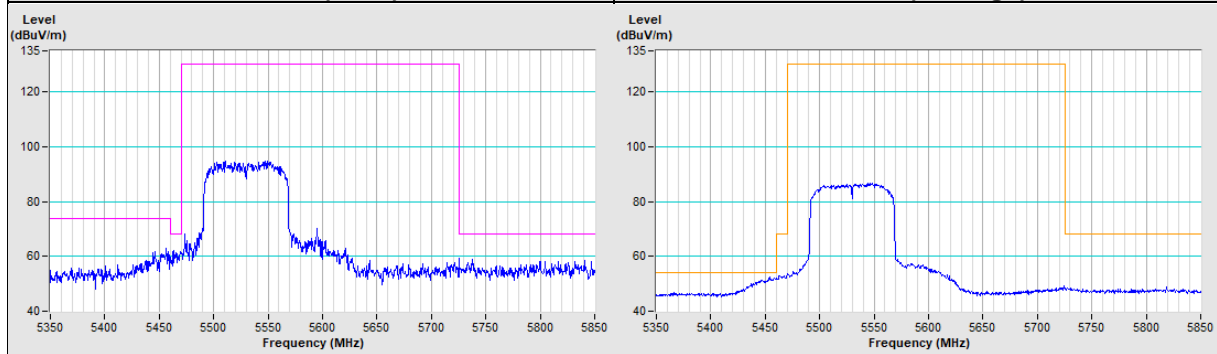


### 802.11ac (VHT80) Channel 106

**Horizontal (Peak)** **Horizontal (Average)**

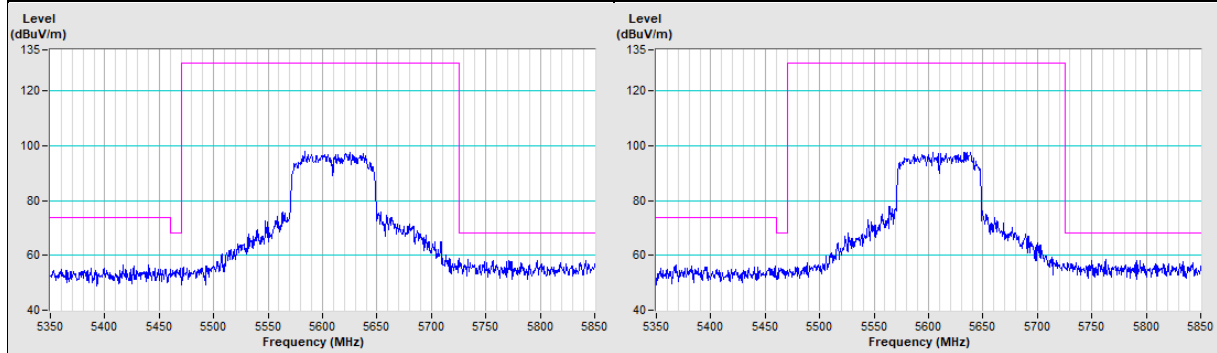


**Vertical (Peak)** **Vertical (Average)**



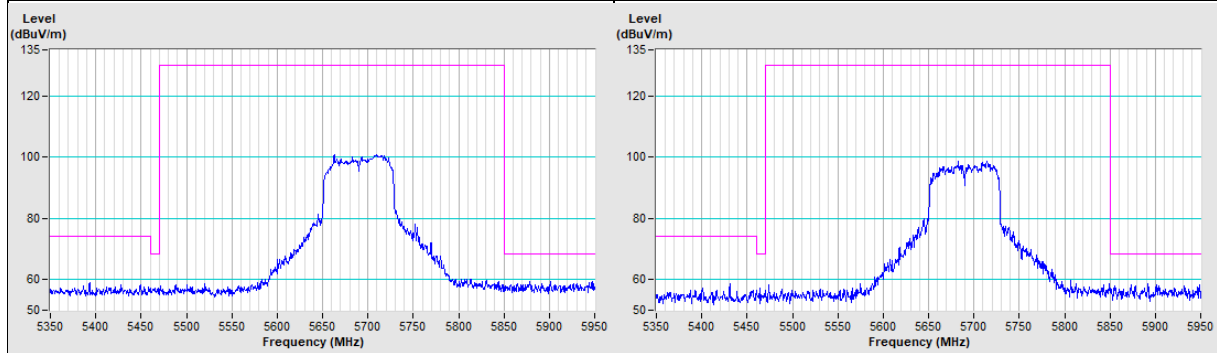
### 802.11ac (VHT80) Channel 122

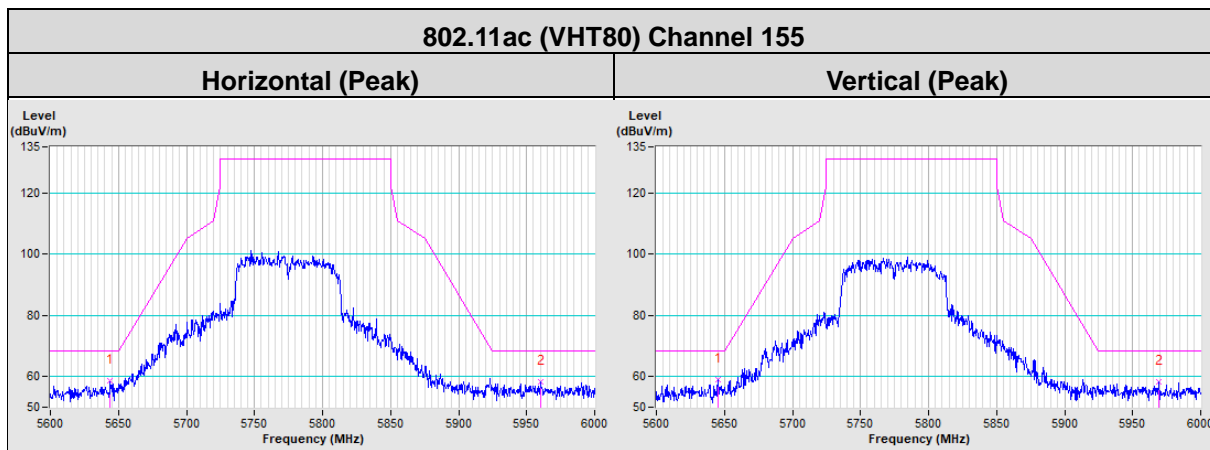
**Horizontal (Peak)** **Vertical (Peak)**



### 802.11ac (VHT80) Channel 138

**Horizontal (Peak)** **Vertical (Peak)**





## 8 Pictures of Test Arrangements

Please refer to the attached file (Test Setup Photo)

## 9 Information of the Testing Laboratories

We, Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch, were founded in 1988 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are FCC recognized accredited test firms and accredited according to ISO/IEC 17025.

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The address and road map of all our labs can be found in our web site also.

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