

# TEST REPORT

## CERTIFICATE OF CONFORMITY

**Standard:** 47 CFR FCC Part 15, Subpart E (Section 15.407)  
**Report No.:** RFBAOZ-WTW-P23070065A  
**FCC ID:** RRK-BW1600A  
**Product:** LTE Data and Voice (ATA) In-Home Gateway  
**Brand:** Brightspeed  
**Model No.:** BW1600A  
**Received Date:** 2023/7/12  
**Test Date:** 2023/7/24 ~ 2023/9/12  
**Issued Date:** 2023/10/12

**Applicant:** Alpha Networks Inc.

**Address:** No.8, Li-shing 7th Rd., Science-based Industrial Park, Hsinchu 300, Taiwan, R.O.C.

**Issued By:** Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch  
Hsin Chu Laboratory

**Lab Address:** E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300, Taiwan

**Test Location:** E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300, Taiwan

**FCC Registration /** 723255 / TW2022

**Designation Number:**

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



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

2023/10/12

Wen Yu / Assistant Manager

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Prepared by : Phoenix Huang / Specialist

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## Release Control Record

Issue No.	Description	Date Issued
RFBAOZ-WTW-P23070065A	Original release.	2023/10/12

## 1 Certificate

**Product:** LTE Data and Voice (ATA) In-Home Gateway

**Brand:** Brightspeed

**Test Model:** BW1600A

**Sample Status:** Engineering sample

**Applicant:** Alpha Networks Inc.

**Test Date:** 2023/7/24 ~ 2023/9/12

**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

KDB 662911 D01 Multiple Transmitter Output 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)(2) 15.407(a)(3)	RF Output Power	Pass	Meet the requirement of limit.
15.407(a)(2) 15.407(a)(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	-	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 -8.55 dB at 0.34531 MHz
15.407(b)(9)	Unwanted Emissions below 1 GHz	Pass	Minimum passing margin is -4.8 dB at 64.88 MHz
15.407(b) (2/10) 15.407(b) (3/10) 15.407(b) (4(i)/10)	Unwanted Emissions above 1 GHz	Pass	Minimum passing margin is -0.1 dB at 5464.57, 16500.00, 17010.00 and 17160.00 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) (±)
AC Power Conducted Emissions	150 kHz ~ 30 MHz	1.9 dB
Unwanted Emissions below 1 GHz	9 kHz ~ 30 MHz	3.1 dB
	30 MHz ~ 1 GHz	5.5 dB
Unwanted Emissions above 1 GHz	1 GHz ~ 18 GHz	5.0 dB
	18 GHz ~ 40 GHz	5.3 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	LTE Data and Voice (ATA) In-Home Gateway
Brand	Brightspeed
Test Model	BW1600A
Status of EUT	Engineering sample
Power Supply Rating	12 Vdc from power adapter or 5 Vdc from USB interface
Modulation Type	64QAM, 16QAM, QPSK, BPSK for OFDM 256QAM for OFDM in 11ac mode 1024QAM for OFDMA in 11ax mode
Modulation Technology	OFDM, OFDMA
Transfer Rate	802.11a: up to 54 Mbps 802.11n: up to 300 Mbps 802.11ac: up to 866.7 Mbps 802.11ax: up to 1201.0 Mbps
Operating Frequency	5.26 GHz ~ 5.32 GHz 5.5 GHz ~ 5.72 GHz
Number of Channel	802.11a, 802.11n (HT20), 802.11ac (VHT20), 802.11ax (HE20): 16 802.11n (HT40), 802.11ac (VHT40), 802.11ax (HE40): 8 802.11ac (VHT80), 802.11ax (HE80): 4
Output Power	<b>CDD Mode:</b> 5.26 GHz ~ 5.32 GHz : 248.049 mW (23.95 dBm) 5.5 GHz ~ 5.72 GHz : 246.937 mW (23.93 dBm) <b>Beamforming Mode:</b> 5.26 GHz ~ 5.32 GHz : 166.045 mW (22.20 dBm) 5.5 GHz ~ 5.72 GHz : 162.892 mW (22.12 dBm)

Note:

- This report is prepared for FCC class II change. The difference compared with the Report No.: RFBAOZ-WTW-P23070065-1 as the following:
  - ◆ Enable U-NII-2A, U-NII-2C and U-NII-4 bands through software change.
- According to above conditions, for U-NII-2A, U-NII-2C bands all of test items need to be performed and all data was verified to meet the requirements.
- The EUT uses following accessories.

AC Adapter 1		
Brand	Model	Specification
MOSO	MS-V2000R120-024Q0-US	AC Input : 100-240V 50/60Hz 0.7A max. DC Output : 12V 2A DC Output Cable : 1.8 m Plug : White mouth with fork plug and groove
RJ14 Cable		
Specification		
Signal Line : 3.7 m		
RJ11 Cable		
Specification		
Signal Line : 3.66 m		
RJ45 Cable 1		
Model		Specification
MT01-C076		Signal Line : 1.8 m
RJ45 Cable 2		
Model		Specification
MT01-C077		Signal Line : 1.8 m

4. The EUT contains certified WWAN module which FCC ID: XMR202008EC25AFXD.

5. The EUT has below radios as following table:

Radios 1	Radios 2
WLAN 2.4GHz + WLAN 5GHz	WWAN(LTE + WCDMA)

6. Simultaneously transmission condition.

Condition	Technology		
1	WWAN	WLAN 2.4GHz	WLAN 5GHz

Note: The emission of the simultaneous operation has been evaluated and no non-compliance was found.

7. 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.

WLAN							
Antenna No.	Brand	Model	Antenna Net Gain (dBi)	Frequency Range (MHz)	Antenna Type	Connector Type	Cable Length (cm)
1	Quectel	Y4AXO00A1FA	3.53	2400~2500	Dipole	ipex(MHF)	5
			4.82	5150~5925			
2	Quectel	Y4AXO00A1EA	1.66	2400~2500	Dipole	ipex(MHF)	13
			4.61	5150~5925			

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

2. The EUT incorporates a MIMO function:

5 GHz Band		
Modulation Mode	TX & RX Configuration	
802.11a	2TX	2RX
802.11n (HT20)	2TX	2RX
802.11n (HT40)	2TX	2RX
802.11ac (VHT20)	2TX	2RX
802.11ac (VHT40)	2TX	2RX
802.11ac (VHT80)	2TX	2RX
802.11ax (HE20)	2TX	2RX
802.11ax (HE40)	2TX	2RX
802.11ax (HE80)	2TX	2RX

Note:

- All of modulation mode support beamforming function except 802.11a modulation mode.
- The EUT support Beamforming and CDD mode, therefore both mode were investigated and the worst case scenario was identified. The worst case data were presented in test report.
- The modulation and bandwidth are similar for 802.11n mode for 20 MHz (40 MHz), 802.11ac mode for 20 MHz (40 MHz, 80 MHz) and 802.11ax mode for 20 MHz (40 MHz, 80 MHz) therefore the manufacturer will control the power for 802.11n/ac mode is same as the 802.11ax mode or more lower than it and investigated worst case to representative mode in test report.



### 3.3 Channel List

#### FOR 5260 ~ 5320 MHz

4 channels are provided for 802.11a, 802.11n (HT20), 802.11ac (VHT20), 802.11ax (HE20):

Channel	Frequency	Channel	Frequency
52	5260 MHz	60	5300 MHz
56	5280 MHz	64	5320 MHz

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

Channel	Frequency	Channel	Frequency
54	5270 MHz	62	5310 MHz

1 channel is provided for 802.11ac (VHT80), 802.11ax (HE80):

Channel	Frequency
58	5290 MHz

#### FOR 5500 ~ 5720 MHz

12 channels are provided for 802.11a, 802.11n (HT20), 802.11ac (VHT20), 802.11ax (HE20):

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), 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), 802.11ax (HE80):

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

### 3.4 Test Mode Applicability and Tested Channel Detail

Pre-Scan:	<ol style="list-style-type: none"> <li>The accessories cable has the following types: RJ11 / RJ14. Pre-scan these types and find the worst case as a representative test condition.</li> <li>The Ethernet cable has two models: MT01-C076 / MT01-C077. Pre-scan these types and find the worst case as a representative test condition.</li> <li>Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).</li> </ol>
Worst Case:	<ol style="list-style-type: none"> <li>For accessories cable worst condition is: RJ14 type</li> <li>For Ethernet cable worst condition is: MT01-C076</li> </ol>

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

Test Item	Mode	Signal Mode	Tested Channel	Modulation	Data Rate Parameter
26 dB Bandwidth	802.11a	CDD	52, 60, 64, 100, 116, 140, 144	BPSK	6Mb/s
	802.11ax (HE20)	CDD	52, 60, 64, 100, 116, 140, 144	BPSK	MCS0
	802.11ax (HE40)	CDD	54, 62, 102, 110, 134, 142	BPSK	MCS0
	802.11ax (HE80)	CDD	58, 106, 122, 138	BPSK	MCS0
RF Output Power	802.11a	CDD	52, 60, 64, 100, 116, 140, 144	BPSK	6Mb/s
	802.11ac (VHT20)	CDD & Beamforming	52, 60, 64, 100, 116, 140, 144	BPSK	MCS0
	802.11ac (VHT40)	CDD & Beamforming	54, 62, 102, 110, 134, 142	BPSK	MCS0
	802.11ac (VHT80)	CDD & Beamforming	58, 106, 122, 138	BPSK	MCS0
	802.11ax (HE20)	CDD & Beamforming	52, 60, 64, 100, 116, 140, 144	BPSK	MCS0
	802.11ax (HE40)	CDD & Beamforming	54, 62, 102, 110, 134, 142	BPSK	MCS0
	802.11ax (HE80)	CDD & Beamforming	58, 106, 122, 138	BPSK	MCS0
Power Spectral Density	802.11a	CDD	52, 60, 64, 100, 116, 140, 144	BPSK	6Mb/s
	802.11ax (HE20)	CDD	52, 60, 64, 100, 116, 140, 144	BPSK	MCS0
	802.11ax (HE40)	CDD	54, 62, 102, 110, 134, 142	BPSK	MCS0
	802.11ax (HE80)	CDD	58, 106, 122, 138	BPSK	MCS0
Occupied Bandwidth	802.11a	CDD	52, 60, 64, 100, 116, 140, 144	BPSK	6Mb/s
	802.11ax (HE20)	CDD	52, 60, 64, 100, 116, 140, 144	BPSK	MCS0
	802.11ax (HE40)	CDD	54, 62, 102, 110, 134, 142	BPSK	MCS0
	802.11ax (HE80)	CDD	58, 106, 122, 138	BPSK	MCS0

Test Item	Mode	Signal Mode	Tested Channel	Modulation	Data Rate Parameter
6 dB Bandwidth	802.11a	CDD	144	BPSK	6Mb/s
	802.11ax (HE20)	CDD	144	BPSK	MCS0
	802.11ax (HE40)	CDD	142	BPSK	MCS0
	802.11ax (HE80)	CDD	138	BPSK	MCS0
Frequency Stability	802.11a	-	52	unmodulated	-
AC Power Conducted Emissions	802.11ax (HE40)	CDD	54	BPSK	MCS0
Unwanted Emissions below 1 GHz	802.11ax (HE40)	CDD	54	BPSK	MCS0
Unwanted Emissions above 1 GHz	802.11a	CDD	52, 60, 64, 100, 116, 140, 144	BPSK	6Mb/s
	802.11ax (HE20)	CDD	52, 60, 64, 100, 116, 140, 144	BPSK	MCS0
	802.11ax (HE40)	CDD	54, 62, 102, 110, 134, 142	BPSK	MCS0
	802.11ax (HE80)	CDD	58, 106, 122, 138	BPSK	MCS0
Note: Partial RU (resource unit) mechanism is not supported.					

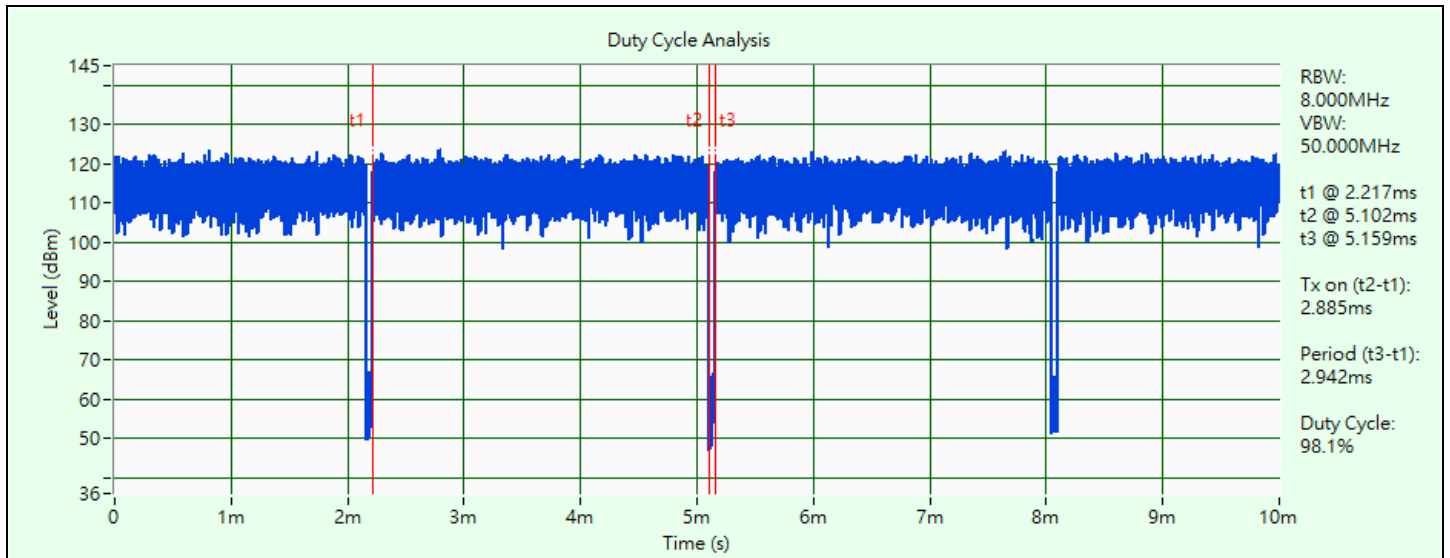
### 3.5 Duty Cycle of Test Signal

**802.11a:** Duty cycle = 2.885 ms / 2.942 ms x 100% = 98.1%

**802.11ax (HE20):** Duty cycle = 4.727 ms / 4.784 ms x 100% = 98.8%

**802.11ax (HE40):** Duty cycle = 4.719 ms / 4.776 ms x 100% = 98.8%

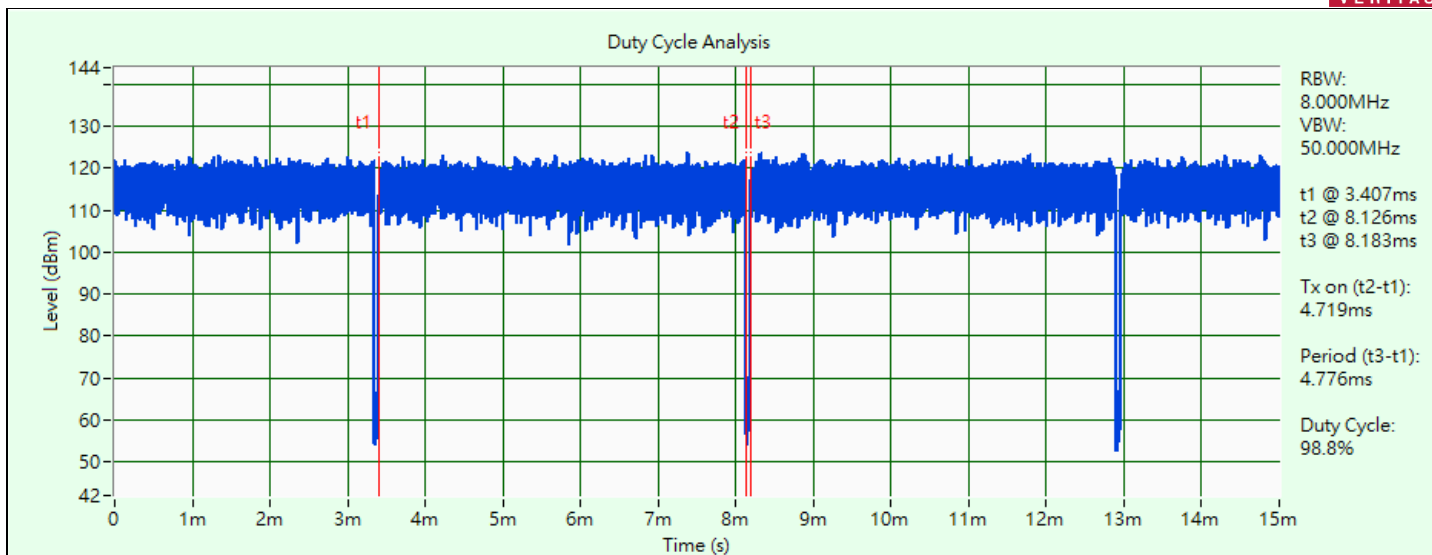
**802.11ax (HE80):** Duty cycle = 4.513 ms / 4.569 ms x 100% = 98.8%



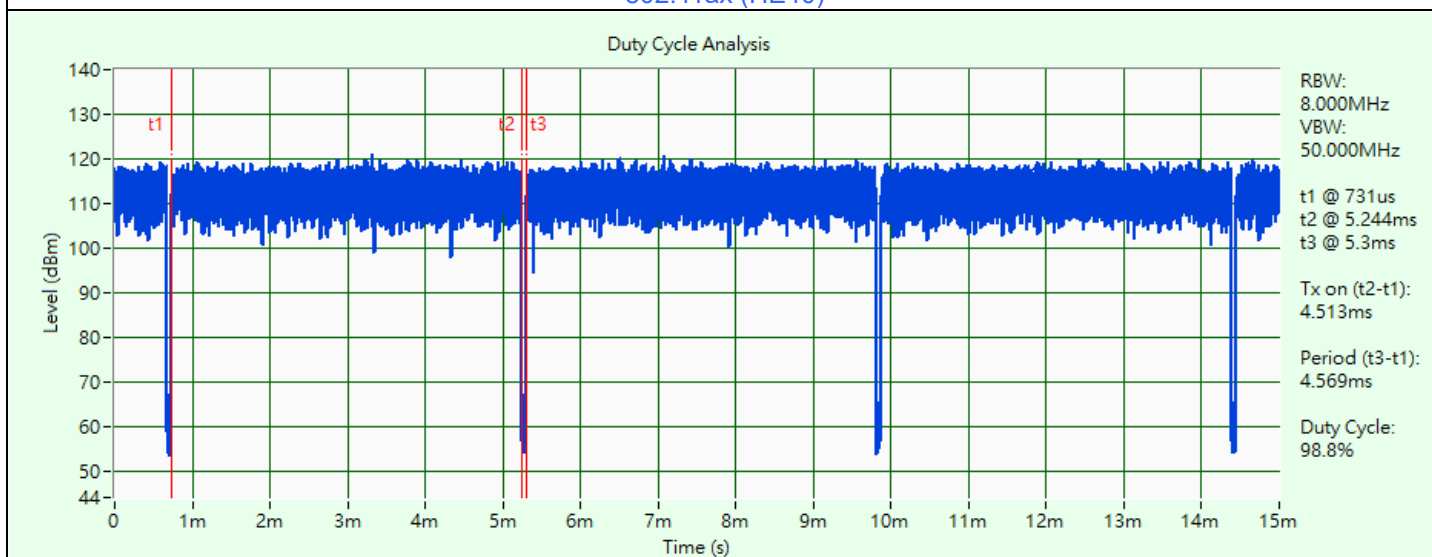
802.11a



802.11ax (HE20)



802.11ax (HE40)

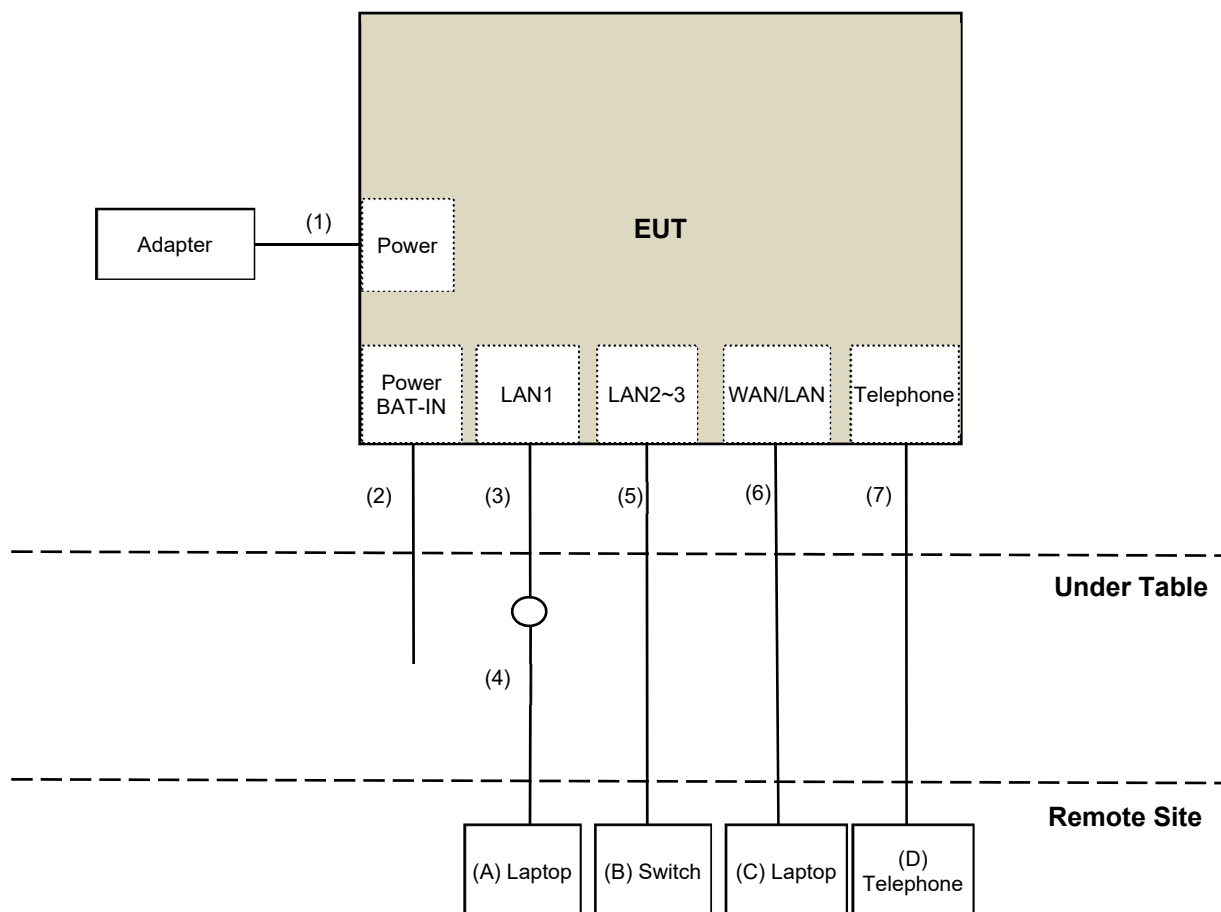


802.11ax (HE80)

### 3.6 Test Program Used and Operation Descriptions

Controlling software (MT7915 QA 0.0.2.17) 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
A	Laptop	Lenovo	20U5S01X00 L14	PF-1ANPYA	N/A	Provided by Lab
B	Switch	D-Link	DGS-1005D	DR8WC92000523	N/A	Provided by Lab
C	Laptop	Lenovo	20U5S01X00 L14	PF-28LKK7	N/A	Provided by Lab
D	Telephone	WONDER	WD-303	7C17KA 04011	N/A	Provided by Lab

ID	Cable Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1	DC Cable	1	1.8	No	0	Supplied by applicant
2	Type C to Type C Cable	1	1	Yes	0	Provided by Lab
3	RJ45 Cable	1	1.8	No	0	Supplied by applicant
4	RJ45 Cable	1	10	No	0	Provided by Lab
5	RJ45 Cable	2	10	No	0	Provided by Lab
6	RJ45 Cable	1	10	No	0	Provided by Lab
7	RJ14 Cable	1	3.7	No	0	Supplied by applicant

## 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
Fixed Attenuator Woken	MDCS18N-10	MDCS18N-10-01	2023/3/27	2024/3/26
MXA Signal Analyzer Keysight	N9020B	MY60112409	2023/2/18	2024/2/17
Software	ADT_RF Test Software V6.6.5.4	N/A	N/A	N/A

Notes:

1. The test was performed in Oven room 2.
2. Tested Date: 2023/8/3

### 4.2 RF Output Power

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Fixed Attenuator Woken	MDCS18N-10	MDCS18N-10-01	2023/3/27	2024/3/26
MXA Signal Analyzer Keysight	N9020B	MY60112409	2023/2/18	2024/2/17
Power Meter Anritsu	ML2495A	1529002	2023/6/17	2024/6/16
Pulse Power Sensor Anritsu	MA2411B	1726434	2023/6/19	2024/6/18
Software	ADT_RF Test Software V6.6.5.4	N/A	N/A	N/A

Notes:

1. The test was performed in Oven room 2.
2. Tested Date: 2023/8/3

### 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 GOOD WILL	6905S	1991551	N/A	N/A
Fixed Attenuator Woken	MDCS18N-10	MDCS18N-10-01	2023/3/27	2024/3/26
MXA Signal Analyzer Keysight	N9020B	MY60112409	2023/2/18	2024/2/17
Software	ADT_RF Test Software V6.6.5.4	N/A	N/A	N/A
Temperature & Humidity Chamber Giant Force	GTH-150-40-SP-AR	MAA0812-008	2022/12/26	2023/12/25
True RMS Clamp Meter FLUKE	325	31130711WS	2023/6/8	2024/6/7

Notes:

1. The test was performed in Oven room 2.
2. Tested Date: 2023/8/3

#### 4.7 AC Power Conducted Emissions

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
50 ohm terminal resistance	N/A	EMC-01	2022/9/27	2023/9/26
EMI Test Receiver R&S	ESCS 30	847124/029	2022/10/14	2023/10/13
Fixed Attenuator STI	STI02-2200-10	005	2023/7/1	2024/6/30
LISN R&S	ESH3-Z5	848773/004	2022/10/18	2023/10/17
RF Coaxial Cable JYBAO	5D-FB	COCCAB-001	2023/7/1	2024/6/30
Software BVADT	BVADT_Cond_V7.3.7.4	N/A	N/A	N/A

Notes:

1. The test was performed in Conduction 1
2. Tested Date: 2023/9/12

#### 4.8 Unwanted Emissions below 1 GHz

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Bi_Log Antenna Schwarzbeck	VULB 9168	9168-406	2022/10/21	2023/10/20
Boresight Antenna Tower & Turn Table Max-Full	MF-7802BS	MF780208530	N/A	N/A
Fixed Attenuator Mini-Circuits	UNAT-5+	PAD-ATT5-03	2022/12/28	2023/12/27
Loop Antenna Electro-Metrics	EM-6879	264	2023/2/21	2024/2/20
MXA Signal Analyzer Keysight	N9020B	MY60112408	2023/3/6	2024/3/5
MXE EMI Receiver Keysight	N9038A	MY59050100	2023/6/13	2024/6/12
Preamplifier EMCI	EMC330N	980701	2023/2/18	2024/2/17
	EMC001340	980142	2023/5/8	2024/5/7
RF Coaxial Cable JYEBAO	5D-FB	LOOPCAB-001	2022/12/19	2023/12/18
		LOOPCAB-002	2022/12/19	2023/12/18
RF Coaxial Cable PEWC	8D	966-4-1	2023/2/18	2024/2/17
		966-4-2	2023/2/18	2024/2/17
		966-4-3	2023/2/18	2024/2/17
Software	ADT_Radiated_V8.7.08	N/A	N/A	N/A

Notes:

1. The test was performed in 966 Chamber No. 4.
2. Tested Date: 2023/9/12

#### 4.9 Unwanted Emissions above 1 GHz

Description & Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Antenna Tower & Turn Table Max-Full	MF-7802	MF780208406	NA	NA
Fix tool for Boresight antenna tower BV	FBA-01	FBA_SIP01	NA	NA
Horn Antenna Schwarzbeck	BBHA 9120D	9120D-406	2022/11/13	2023/11/12
	BBHA 9170	9170-739	2022/11/13	2023/11/12
MXE EMI Receiver Agilent	N9038A	MY50010156	2023/6/13	2024/6/12
Preamplifier EMCI	EMC12630SE	980384	2022/12/28	2023/12/27
	EMC184045SE	980387	2022/12/28	2023/12/27
PXA Signal Analyzer Keysight	N9030B	MY57142938	2023/4/6	2024/4/5
RF Coaxial Cable EMCI	EMC104-SM-SM-1500	180504	2023/3/27	2024/3/26
	EMC104-SM-SM-2000	180601	2023/6/2	2024/6/1
	EMC104-SM-SM-6000	210201	2023/5/8	2024/5/7
	EMC102-KM-KM-1200	160924	2022/12/28	2023/12/27
	EMC-KM-KM-4000	200214	2023/2/20	2024/2/19
Software	ADT_Radiated_V8.7.08	NA	NA	NA

Notes:

1. The test was performed in 966 Chamber No. 3.
2. Tested Date: 2023/7/24 ~ 2023/8/11

## 5 Limits of Test Items

### 5.1 26 dB Bandwidth

The results are for reference only.

### 5.2 RF Output Power

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

\*B is the 26 dB emission bandwidth in megahertz

Per KDB 662911 D01 Multiple Transmitter Output Method of conducted output power measurement on IEEE 802.11 devices,

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

Array Gain = 0 dB (i.e., no array gain) for channel widths  $\geq 40$  MHz for any  $N_{ANT}$ ;

Array Gain =  $5 \log(N_{ANT}/N_{SS})$  dB or 3 dB, whichever is less, for 20-MHz channel widths with  $N_{ANT} \geq 5$ .

For power measurements on all other devices: Array Gain =  $10 \log(N_{ANT}/N_{SS})$  dB.

### 5.3 Power Spectral Density

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)

For transmitters operating in the 5.25-5.35 GHz band:

Applicable To	EIRP Limit	Equivalent Field Strength at 3 m
15.407(b)(2)	PK: -27 (dBm/MHz)	PK: 68.2 (dBμV/m)

For transmitters operating in the 5.47-5.725 GHz band:

Applicable To	EIRP Limit	Equivalent Field Strength at 3 m
15.407(b)(3)	PK: -27 (dBm/MHz)	PK: 68.2 (dBμV/m)

For transmitters operating in the 5.725-5.850 GHz band:

Applicable To	EIRP Limit	Equivalent Field Strength at 3 m
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>

<sup>\*1</sup> beyond 75 MHz or more above of the band edge.

<sup>\*2</sup> below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above.

<sup>\*3</sup> below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above.

<sup>\*4</sup> from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

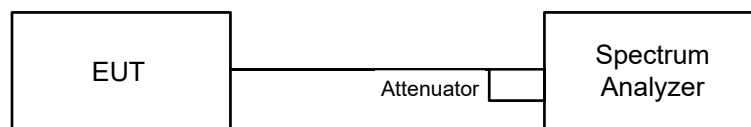
Note: The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength:

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

## 6 Test Arrangements

### 6.1 26 dB Bandwidth

#### 6.1.1 Test Setup

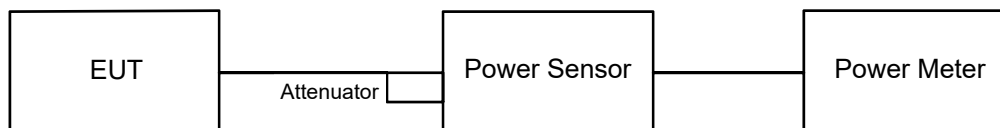


#### 6.1.2 Test Procedure

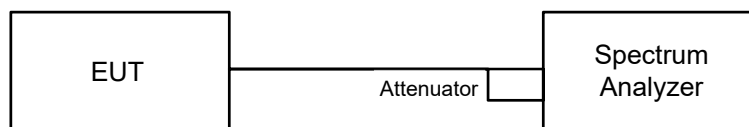
- a. Set RBW = approximately 1% of the emission bandwidth.
- b. Set the VBW > RBW.
- c. Detector = Peak.
- d. Trace mode = max hold.
- e. Measure the maximum width of the emission that is 26 dB down from the peak of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat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

## 6.2 RF Output Power

### 6.2.1 Test Setup



#### For channel straddling:



### 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.

#### For channel straddling:

##### Method SA-1

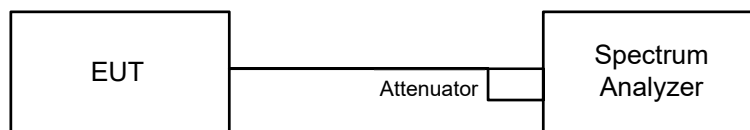
- Set span to encompass the entire emission bandwidth (EBW) of the signal.
- Set RBW = 1 MHz, Set VBW  $\geq$  3 MHz, Detector = RMS
- Sweep points  $\geq$   $[2 \times \text{span} / \text{RBW}]$ . (This gives bin-to-bin spacing  $\leq$  RBW / 2, so that narrowband signals are not lost between frequency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

Note: When measuring straddle channel power, use compute power by integrating the spectrum across the 26 dB EBW or 99% OBW of the signal using the instrument's band power measurement function, with band limits set equal to the EBW or OBW band edges. If the instrument does not have a band power function, then sum the spectrum levels (in power units) at 1 MHz intervals extending across the 26 dB EBW or 99% OBW of the spectrum.



## 6.3 Power Spectral Density

### 6.3.1 Test Setup



### 6.3.2 Test Procedure

#### For specified measurement bandwidth 1 MHz:

##### 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  $\leq$  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.
- Record the max value

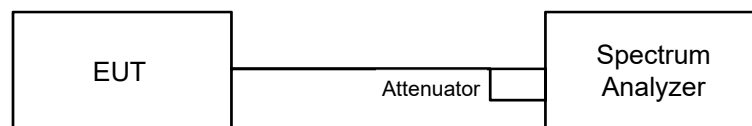
#### For specified measurement bandwidth 500 kHz:

##### Method SA-1

- Set span to encompass the entire emission bandwidth (EBW) of the signal.
- Set RBW = 300 kHz, Set VBW  $\geq$  1 MHz, Detector = RMS
- 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  $\text{BWCF} = 10\log(500 \text{ kHz}/300 \text{ kHz})$
- 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.)
- Sweep time = auto, trigger set to “free run”.
- Trace average at least 100 traces in power averaging mode.
- Record the max value

## 6.4 6 dB Bandwidth

### 6.4.1 Test Setup

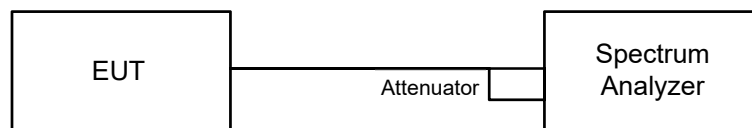


### 6.4.2 Test Procedure

- Set resolution bandwidth (RBW) = 100 kHz.
- Set the video bandwidth (VBW)  $\geq$  3 x 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

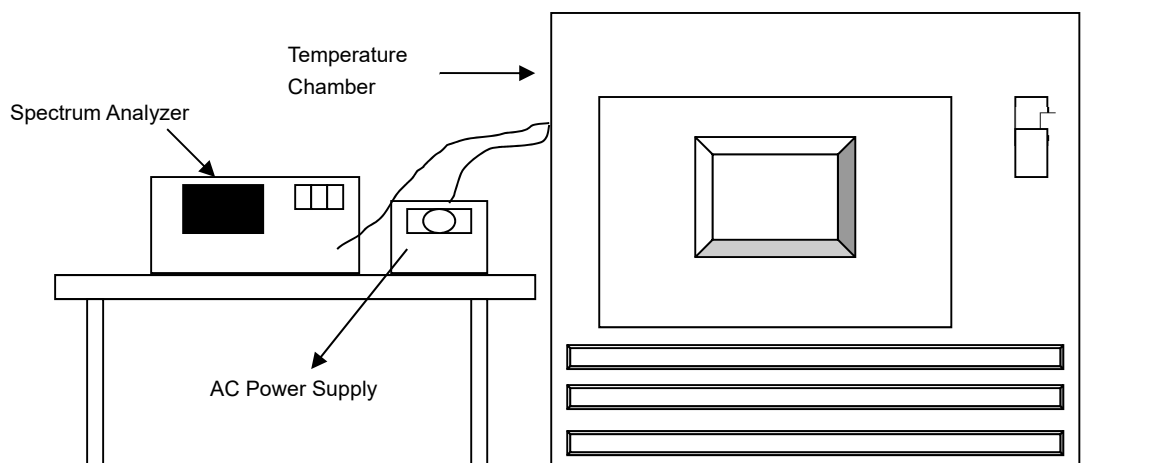


### 6.5.2 Test Procedure

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

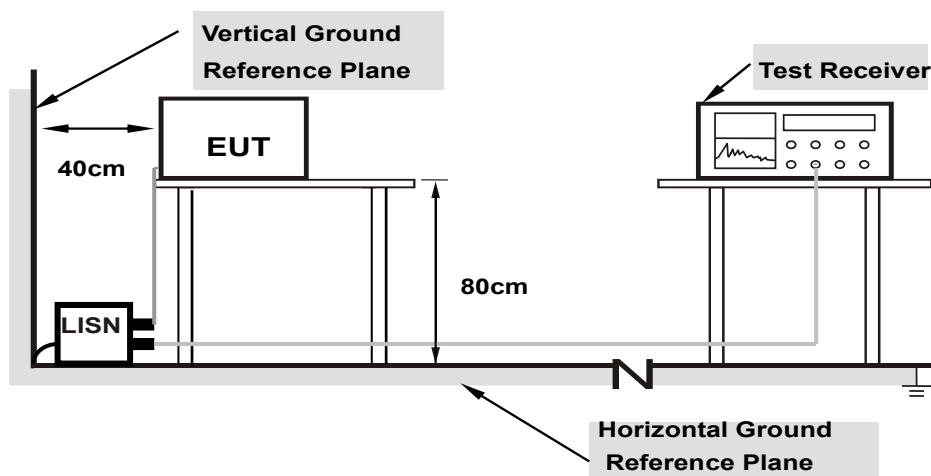


### 6.6.2 Test Procedure

- The EUT was placed inside the environmental test chamber and powered by nominal AC voltage.
- 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

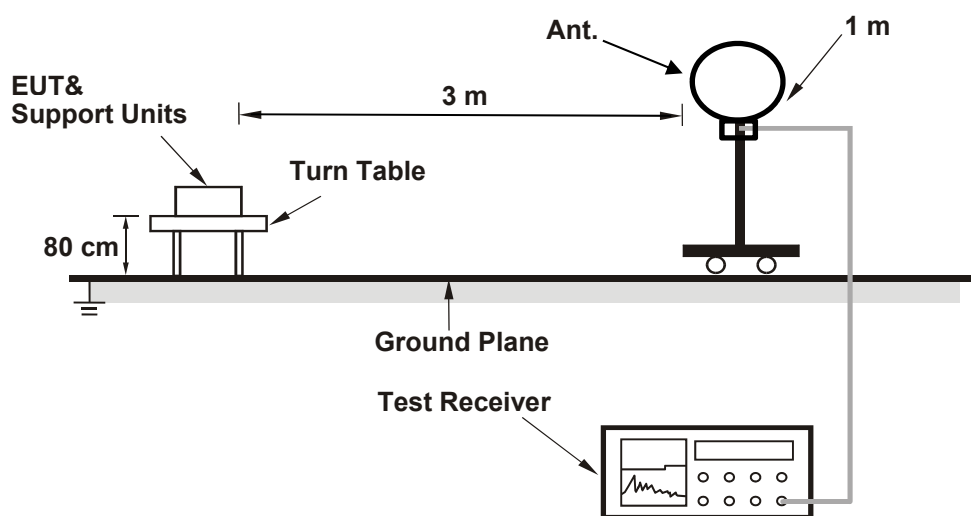
- The EUT was placed on a 0.8 meter to the top of table and placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The 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.

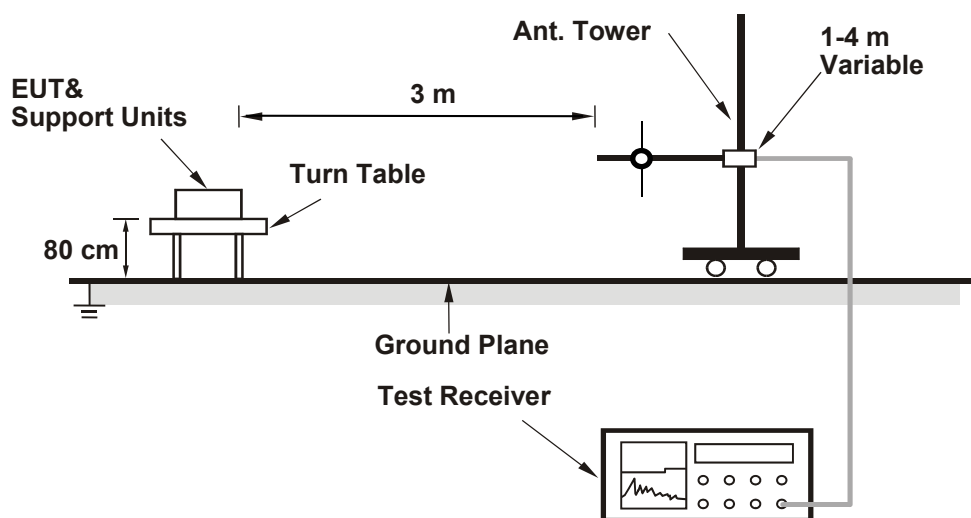
## 6.8 Unwanted Emissions below 1 GHz

### 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

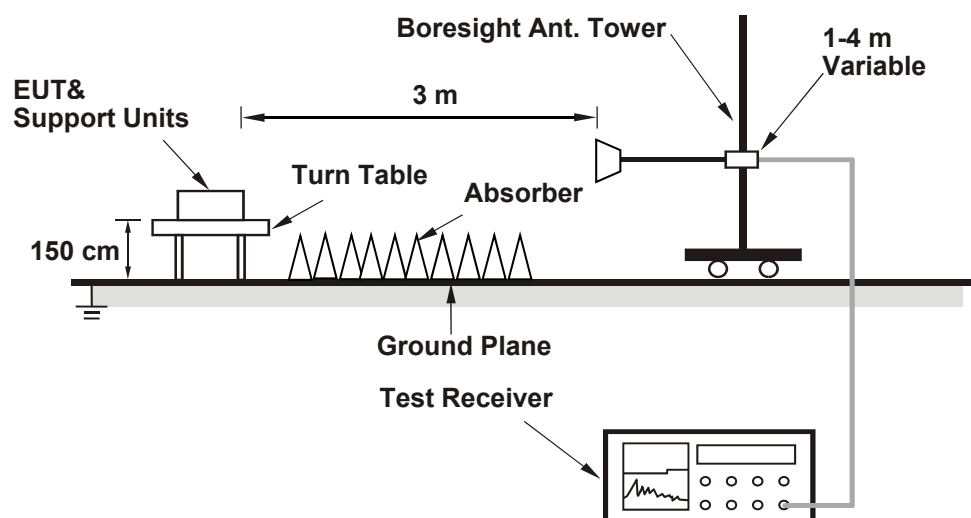
- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the 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(QP) detect function, Average(AV) detect function, Peak(PK) 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), Average detection (AV), Peak detection (PK) at frequency (30MHz to 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 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:	120 Vac, 60 Hz	Environmental Conditions:	25°C, 60% RH	Tested By:	Katina Lu
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#### 802.11a

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	
		Chain 0	Chain 1
52	5260	20.32	20.08
60	5300	20.17	20.89
64	5320	20.07	20.23
100	5500	21.65	20.29
116	5580	23.97	20.43
140	5700	24.30	20.18
144 (U-NII-2C)	5720	17.26	15.09
144 (U-NII-3)	5720	6.21	5.20

Determined Output Power Limit			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Power Limit (dBm)
52	5260	20.08	24.02 > 24
60	5300	20.17	24.04 > 24
64	5320	20.07	24.02 > 24
100	5500	20.29	24.07 > 24
116	5580	20.43	24.1 > 24
140	5700	20.18	24.04 > 24
144 (U-NII-2C)	5720	15.09	22.78 < 24

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

**802.11ax (HE20)**

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	
		Chain 0	Chain 1
52	5260	22.13	22.19
60	5300	21.91	22.31
64	5320	22.33	21.68
100	5500	22.11	23.33
116	5580	24.43	23.29
140	5700	23.13	21.33
144 (U-NII-2C)	5720	16.17	15.89
144 (U-NII-3)	5720	6.35	6.07

Determined Output Power Limit				
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Power Limit (dBm)	
52	5260	22.13	24.44	> 24
60	5300	21.91	24.4	> 24
64	5320	21.68	24.36	> 24
100	5500	22.11	24.44	> 24
116	5580	23.29	24.67	> 24
140	5700	21.33	24.28	> 24
144 (U-NII-2C)	5720	15.89	23.01	< 24

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



**802.11ax (HE40)**

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	
		Chain 0	Chain 1
54	5270	40.11	44.08
62	5310	40.11	40.05
102	5510	41.43	40.00
110	5550	51.88	40.02
134	5670	59.04	40.01
142 (U-NII-2C)	5710	40.63	39.42
142 (U-NII-3)	5710	10.21	5.32

Determined Output Power Limit			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Power Limit (dBm)
54	5270	40.11	27.03 > 24
62	5310	40.05	27.02 > 24
102	5510	40.00	27.02 > 24
110	5550	40.02	27.02 > 24
134	5670	40.01	27.02 > 24
142 (U-NII-2C)	5710	39.42	26.95 > 24

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

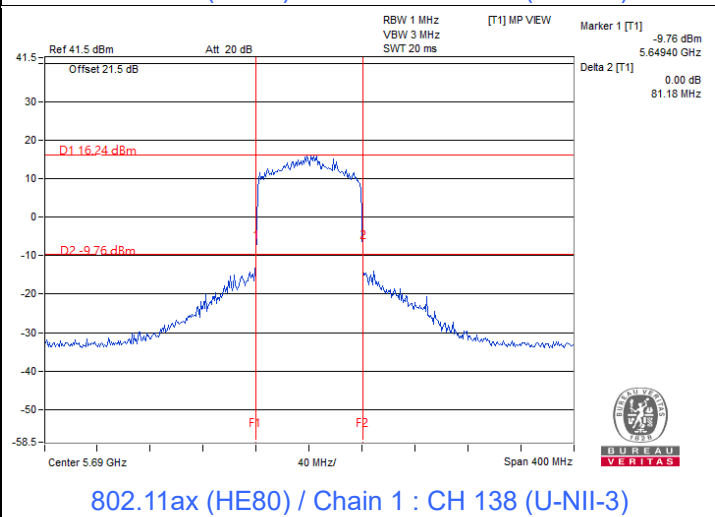
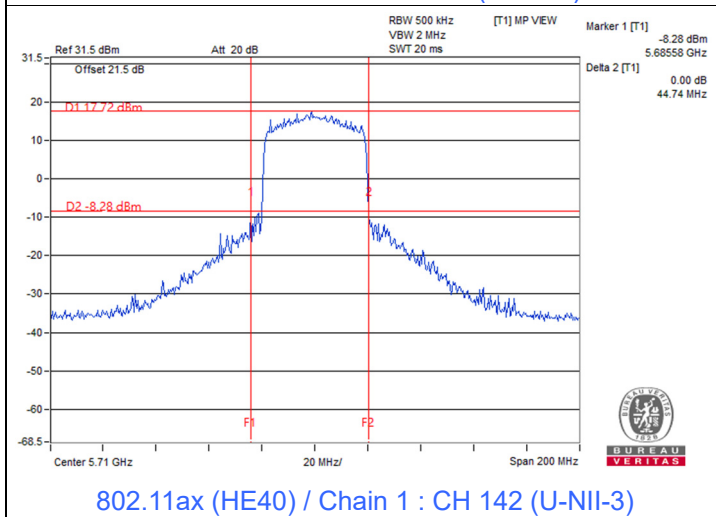
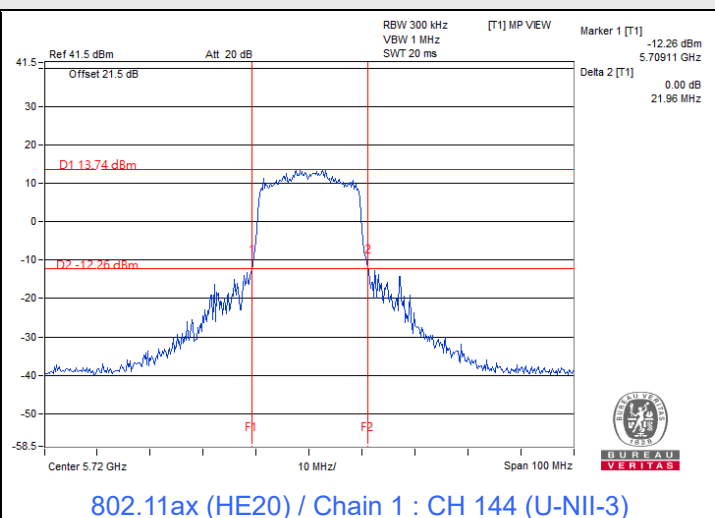
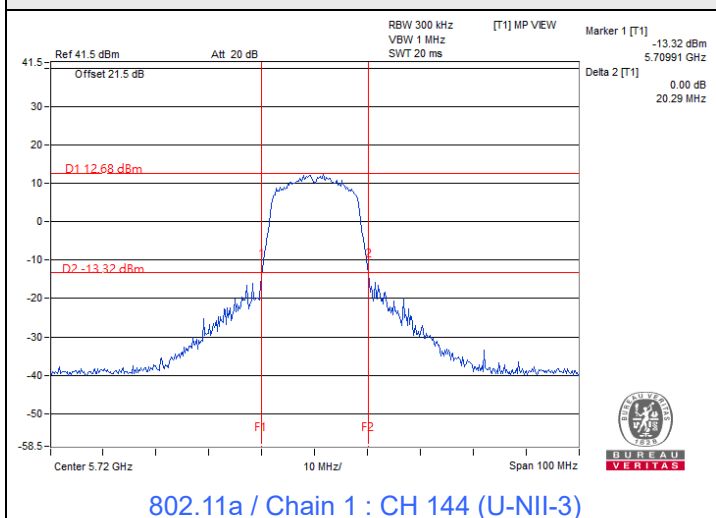
**802.11ax (HE80)**

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	
		Chain 0	Chain 1
58	5290	81.16	81.33
106	5530	81.24	81.24
122	5610	97.33	81.19
138 (U-NII-2C)	5690	79.06	75.60
138 (U-NII-3)	5690	6.32	5.58

Determined Output Power Limit			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Power Limit (dBm)
58	5290	81.16	30.09 > 24
106	5530	81.24	30.09 > 24
122	5610	81.19	30.09 > 24
138 (U-NII-2C)	5690	75.60	29.78 > 24

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

### Spectrum Plot of Minimum Value



**Notes:**

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

## 7.2 RF Output Power

Input Power:	120 Vac, 60 Hz	Environmental Conditions:	25°C, 60% RH	Tested By:	Katina Lu
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### 802.11a CDD

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1				
52	5260	19.07	19.28	165.446	22.19	24	Pass
60	5300	19.06	19.41	167.835	22.25	24	Pass
64	5320	18.67	19.38	160.317	22.05	24	Pass
100	5500	19.37	19.06	167.035	22.23	24	Pass
116	5580	19.25	18.77	159.475	22.03	24	Pass
140	5700	19.43	18.69	161.661	22.09	24	Pass
*144 (U-NII-2C)	5720	18.65	17.58	130.562	21.16	22.78	Pass
*144 (U-NII-3)	5720	10.55	9.52	20.304	13.08	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.
- Directional gain is the maximum gain of antennas.
- For U-NII-2A, the maximum gain is 4.82 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-2C, the maximum gain is 4.82 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-3, the maximum gain is 4.82 dBi < 6 dBi, so the output power limit shall not be reduced.

### 802.11ac (VHT20) CDD

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1				
52	5260	18.98	19.13	160.914	22.07	24	Pass
60	5300	19.14	19.18	164.829	22.17	24	Pass
64	5320	19.03	19.10	161.266	22.08	24	Pass
100	5500	19.20	18.86	160.089	22.04	24	Pass
116	5580	19.23	18.69	157.713	21.98	24	Pass
140	5700	19.57	18.66	164.025	22.15	24	Pass
*144 (U-NII-2C)	5720	18.83	17.28	129.84	21.13	23.01	Pass
*144 (U-NII-3)	5720	12.02	10.51	27.168	14.34	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.
- Directional gain is the maximum gain of antennas.
- For U-NII-2A, the maximum gain is 4.82 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-2C, the maximum gain is 4.82 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-3, the maximum gain is 4.82 dBi < 6 dBi, so the output power limit shall not be reduced.

### 802.11ac (VHT40) CDD

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1				
54	5270	20.64	20.70	233.367	23.68	24	Pass
62	5310	20.32	20.63	223.258	23.49	24	Pass
102	5510	19.26	18.79	160.017	22.04	24	Pass
110	5550	20.85	20.46	232.792	23.67	24	Pass
134	5670	21.04	20.06	228.449	23.59	24	Pass
*142 (U-NII-2C)	5710	21.07	19.60	219.139	23.41	24	Pass
*142 (U-NII-3)	5710	9.50	7.95	15.15	11.80	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.
- Directional gain is the maximum gain of antennas.
- For U-NII-2A, the maximum gain is 4.82 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-2C, the maximum gain is 4.82 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-3, the maximum gain is 4.82 dBi < 6 dBi, so the output power limit shall not be reduced.

### 802.11ac (VHT80) CDD

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1				
58	5290	18.90	19.16	160.039	22.04	24	Pass
106	5530	18.55	17.49	127.719	21.06	24	Pass
122	5610	20.94	20.33	232.06	23.66	24	Pass
*138 (U-NII-2C)	5690	21.05	19.78	222.411	23.47	24	Pass
*138 (U-NII-3)	5690	5.71	4.34	6.44	8.09	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.
- Directional gain is the maximum gain of antennas.
- For U-NII-2A, the maximum gain is 4.82 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-2C, the maximum gain is 4.82 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-3, the maximum gain is 4.82 dBi < 6 dBi, so the output power limit shall not be reduced.

### 802.11ax (HE20) CDD

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1				
52	5260	19.25	19.37	170.636	22.32	24	Pass
60	5300	19.38	19.44	174.598	22.42	24	Pass
64	5320	19.31	19.39	172.206	22.36	24	Pass
100	5500	19.49	19.15	171.144	22.33	24	Pass
116	5580	19.51	18.96	168.035	22.25	24	Pass
140	5700	19.83	18.94	174.504	22.42	24	Pass
*144 (U-NII-2C)	5720	18.83	17.28	129.84	21.13	23.01	Pass
*144 (U-NII-3)	5720	12.02	10.51	27.168	14.34	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.
- Directional gain is the maximum gain of antennas.
- For U-NII-2A, the maximum gain is 4.82 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-2C, the maximum gain is 4.82 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-3, the maximum gain is 4.82 dBi < 6 dBi, so the output power limit shall not be reduced.

### 802.11ax (HE40) CDD

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1				
54	5270	20.91	20.96	248.049	23.95	24	Pass
62	5310	20.56	20.89	236.507	23.74	24	Pass
102	5510	19.53	19.04	169.911	22.30	24	Pass
110	5550	21.13	20.69	246.937	23.93	24	Pass
134	5670	21.29	20.31	241.985	23.84	24	Pass
*142 (U-NII-2C)	5710	21.07	19.60	219.139	23.41	24	Pass
*142 (U-NII-3)	5710	9.50	7.95	15.15	11.80	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.
- Directional gain is the maximum gain of antennas.
- For U-NII-2A, the maximum gain is 4.82 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-2C, the maximum gain is 4.82 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-3, the maximum gain is 4.82 dBi < 6 dBi, so the output power limit shall not be reduced.

### 802.11ax (HE80) CDD

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1				
58	5290	19.06	19.32	166.045	22.20	24	Pass
106	5530	18.81	17.74	135.462	21.32	24	Pass
122	5610	21.21	20.59	246.681	23.92	24	Pass
*138 (U-NII-2C)	5690	21.05	19.78	222.411	23.47	24	Pass
*138 (U-NII-3)	5690	5.71	4.34	6.44	8.09	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.
- Directional gain is the maximum gain of antennas.
- For U-NII-2A, the maximum gain is 4.82 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-2C, the maximum gain is 4.82 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-3, the maximum gain is 4.82 dBi < 6 dBi, so the output power limit shall not be reduced.

### 802.11ac (VHT20) Beamforming

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1				
52	5260	18.56	18.70	145.91	21.64	22.27	Pass
60	5300	18.65	18.72	147.756	21.70	22.27	Pass
64	5320	18.62	18.67	146.399	21.66	22.27	Pass
100	5500	18.75	18.44	144.813	21.61	22.27	Pass
116	5580	18.84	18.27	143.703	21.57	22.27	Pass
140	5700	19.18	18.33	150.871	21.79	22.27	Pass
*144 (U-NII-2C)	5720	18.53	16.98	121.174	20.83	21.28	Pass
*144 (U-NII-3)	5720	11.72	10.21	25.355	14.04	28.27	Pass

**Notes:**

- \* : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-1 and use spectrum analyzer test.
- Directional gain =  $10 \log[(10^{\text{Chain0}/20} + 10^{\text{Chain1}/20})^2 / 2]$
- For U-NII-2A, the directional gain is 7.73 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit-(7.73-6)].
- For U-NII-2C, the directional gain is 7.73 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit-(7.73-6)].
- For U-NII-3, the directional gain is 7.73 dBi > 6 dBi, so the output power limit shall be reduced to  $30-(7.73-6) = 28.27$  dBm.

### 802.11ac (VHT40) Beamforming

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1				
54	5270	18.79	18.84	152.243	21.83	22.27	Pass
62	5310	18.46	18.79	145.829	21.64	22.27	Pass
102	5510	18.87	18.37	145.797	21.64	22.27	Pass
110	5550	19.20	18.53	154.462	21.89	22.27	Pass
134	5670	19.21	18.16	148.832	21.73	22.27	Pass
*142 (U-NII-2C)	5710	19.07	17.60	138.267	21.41	22.27	Pass
*142 (U-NII-3)	5710	7.50	5.95	9.559	9.80	28.27	Pass

**Notes:**

- \* : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-1 and use spectrum analyzer test.
- Directional gain =  $10 \log[(10^{\text{Chain0}/20} + 10^{\text{Chain1}/20})^2 / 2]$
- For U-NII-2A, the directional gain is 7.73 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit-(7.73-6)].
- For U-NII-2C, the directional gain is 7.73 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit-(7.73-6)].
- For U-NII-3, the directional gain is 7.73 dBi > 6 dBi, so the output power limit shall be reduced to  $30-(7.73-6) = 28.27$  dBm.

### 802.11ac (VHT80) Beamforming

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1				
58	5290	18.90	19.16	160.039	22.04	22.27	Pass
106	5530	18.55	17.49	127.719	21.06	22.27	Pass
122	5610	19.17	18.41	151.946	21.82	22.27	Pass
*138 (U-NII-2C)	5690	19.35	18.08	150.368	21.77	22.27	Pass
*138 (U-NII-3)	5690	4.01	2.64	4.354	6.39	28.27	Pass

**Notes:**

- \* : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-1 and use spectrum analyzer test.
- Directional gain =  $10 \log[(10^{\text{Chain0}/20} + 10^{\text{Chain1}/20})^2 / 2]$
- For U-NII-2A, the directional gain is 7.73 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit-(7.73-6)].
- For U-NII-2C, the directional gain is 7.73 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit-(7.73-6)].
- For U-NII-3, the directional gain is 7.73 dBi > 6 dBi, so the output power limit shall be reduced to  $30-(7.73-6) = 28.27$  dBm.

### 802.11ax (HE20) Beamforming

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1				
52	5260	18.80	18.93	154.021	21.88	22.27	Pass
60	5300	18.91	18.97	156.69	21.95	22.27	Pass
64	5320	18.86	18.93	155.076	21.91	22.27	Pass
100	5500	19.01	18.71	153.918	21.87	22.27	Pass
116	5580	19.08	18.51	151.867	21.81	22.27	Pass
140	5700	19.40	18.59	159.373	22.02	22.27	Pass
*144 (U-NII-2C)	5720	18.53	16.98	121.174	20.83	21.28	Pass
*144 (U-NII-3)	5720	11.72	10.21	25.355	14.04	28.27	Pass

**Notes:**

- \* : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-1 and use spectrum analyzer test.
- Directional gain =  $10 \log[(10^{\text{Chain0}/20} + 10^{\text{Chain1}/20})^2 / 2]$
- For U-NII-2A, the directional gain is 7.73 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit-(7.73-6)].
- For U-NII-2C, the directional gain is 7.73 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit-(7.73-6)].
- For U-NII-3, the directional gain is 7.73 dBi > 6 dBi, so the output power limit shall be reduced to  $30-(7.73-6) = 28.27$  dBm.

### 802.11ax (HE40) Beamforming

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1				
54	5270	19.03	19.09	161.08	22.07	22.27	Pass
62	5310	18.72	19.02	154.273	21.88	22.27	Pass
102	5510	19.11	18.61	154.081	21.88	22.27	Pass
110	5550	19.44	18.75	162.892	22.12	22.27	Pass
134	5670	19.46	18.39	157.332	21.97	22.27	Pass
*142 (U-NII-2C)	5710	19.07	17.60	138.267	21.41	22.27	Pass
*142 (U-NII-3)	5710	7.50	5.95	9.559	9.80	28.27	Pass

**Notes:**

- \* : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-1 and use spectrum analyzer test.
- Directional gain =  $10 \log[(10^{\text{Chain0}/20} + 10^{\text{Chain1}/20})^2 / 2]$
- For U-NII-2A, the directional gain is 7.73 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit-(7.73-6)].
- For U-NII-2C, the directional gain is 7.73 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit-(7.73-6)].
- For U-NII-3, the directional gain is 7.73 dBi > 6 dBi, so the output power limit shall be reduced to  $30-(7.73-6) = 28.27$  dBm.





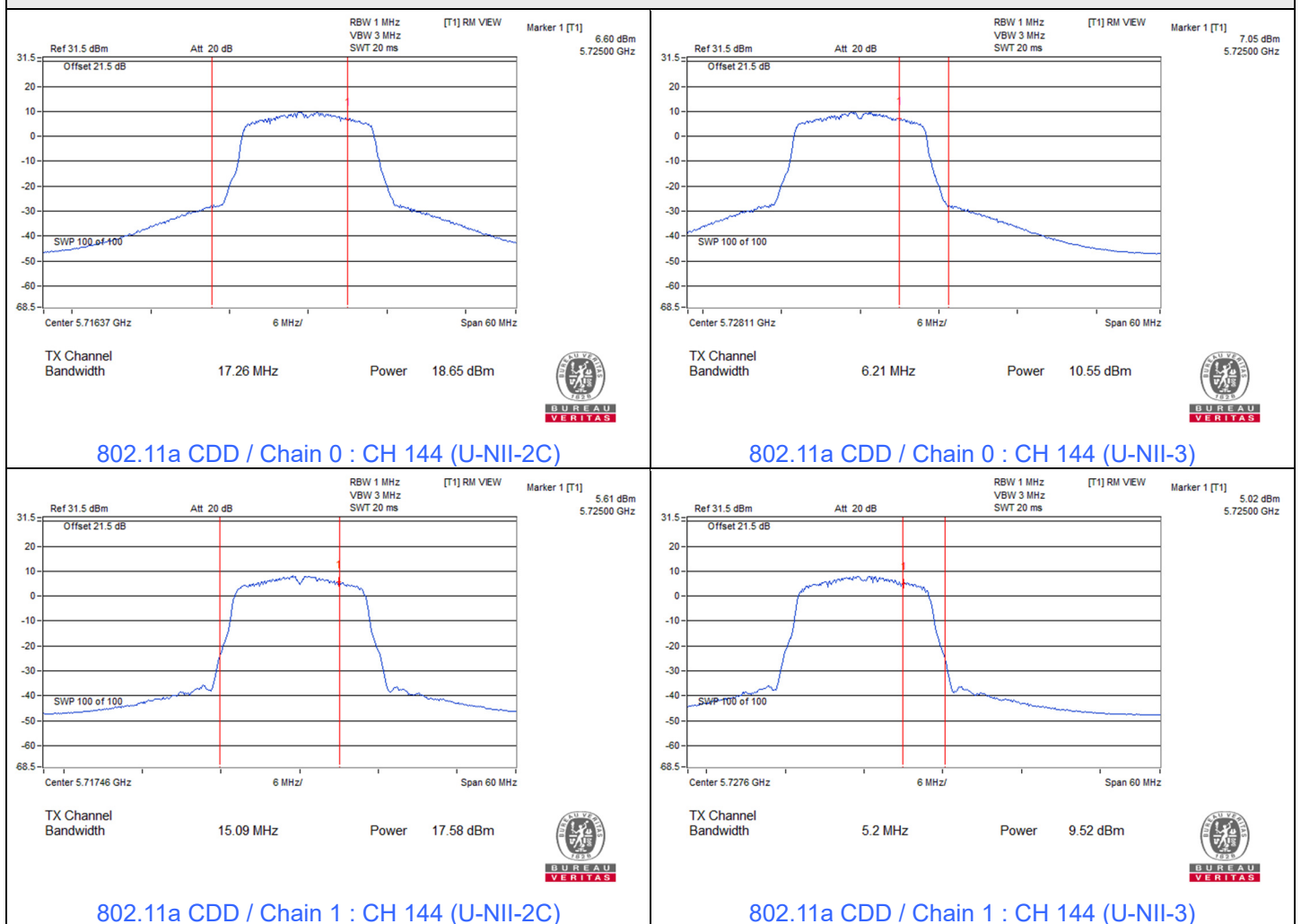
802.11ax (HE80) Beamforming

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1				
58	5290	19.06	19.32	166.045	22.20	22.27	Pass
106	5530	18.81	17.74	135.462	21.32	22.27	Pass
122	5610	19.42	18.67	161.119	22.07	22.27	Pass
*138 (U-NII-2C)	5690	19.35	18.08	150.368	21.77	22.27	Pass
*138 (U-NII-3)	5690	4.01	2.64	4.354	6.39	28.27	Pass

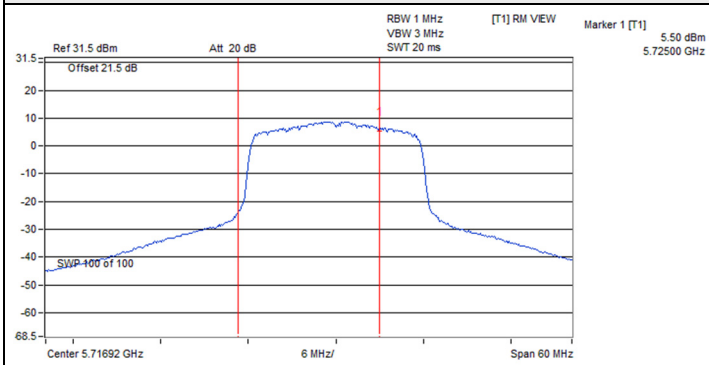
Notes:

- \* : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-1 and use spectrum analyzer test.
- Directional gain =  $10 \log[(10^{\text{Chain0}/20} + 10^{\text{Chain1}/20})^2 / 2]$
- For U-NII-2A, the directional gain is 7.73 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit-(7.73-6)].
- For U-NII-2C, the directional gain is 7.73 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit-(7.73-6)].
- For U-NII-3, the directional gain is 7.73 dBi > 6 dBi, so the output power limit shall be reduced to  $30-(7.73-6) = 28.27$  dBm.

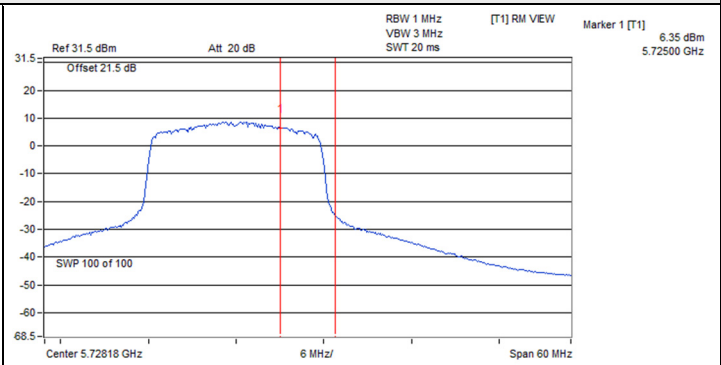
Spectrum Plot for channel straddling



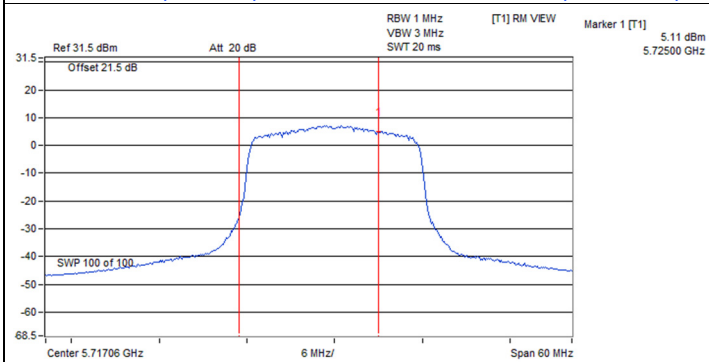
### Spectrum Plot for channel straddling



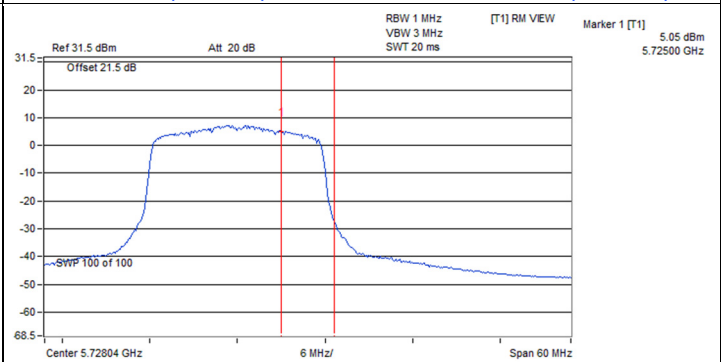
802.11ac (VHT20) CDD / Chain 0 : CH 144 (U-NII-2C)



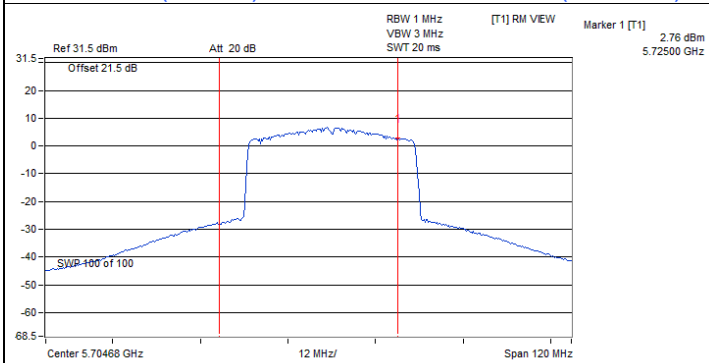
802.11ac (VHT20) CDD / Chain 0 : CH 144 (U-NII-3)



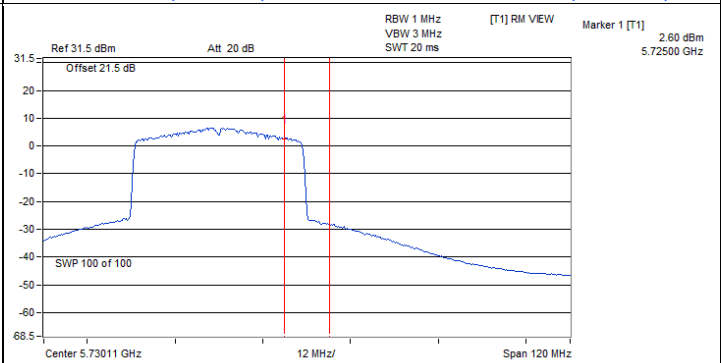
802.11ac (VHT20) CDD / Chain 1 : CH 144 (U-NII-2C)



802.11ac (VHT20) CDD / Chain 1 : CH 144 (U-NII-3)

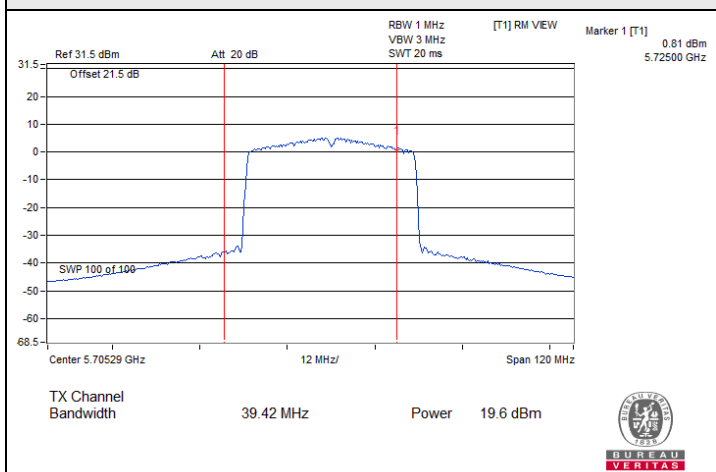


802.11ac (VHT40) CDD / Chain 0 : CH 142 (U-NII-2C)

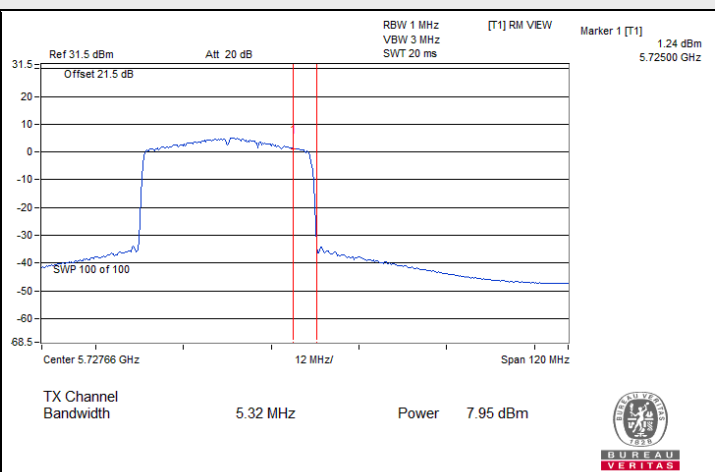


802.11ac (VHT40) CDD / Chain 0 : CH 142 (U-NII-3)

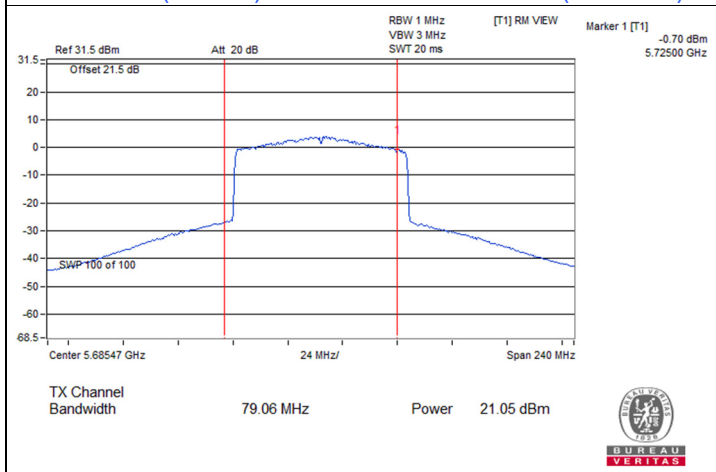
### Spectrum Plot for channel straddling



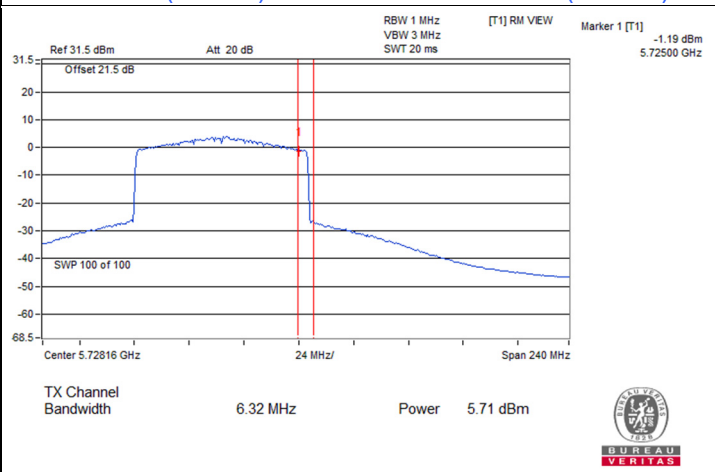
802.11ac (VHT40) CDD / Chain 1 : CH 142 (U-NII-2C)



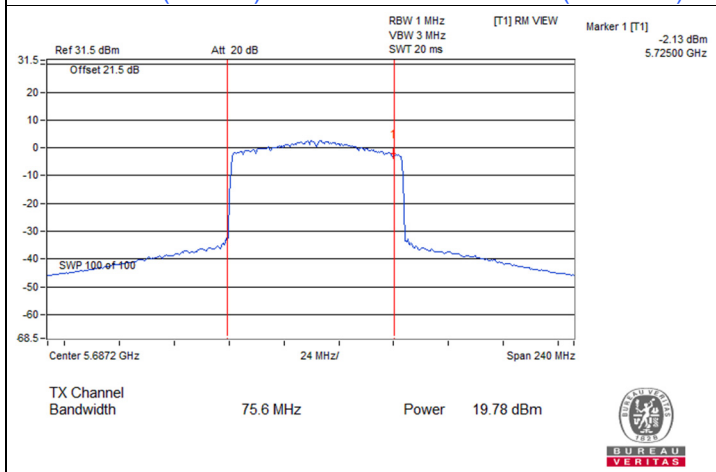
802.11ac (VHT40) CDD / Chain 1 : CH 142 (U-NII-3)



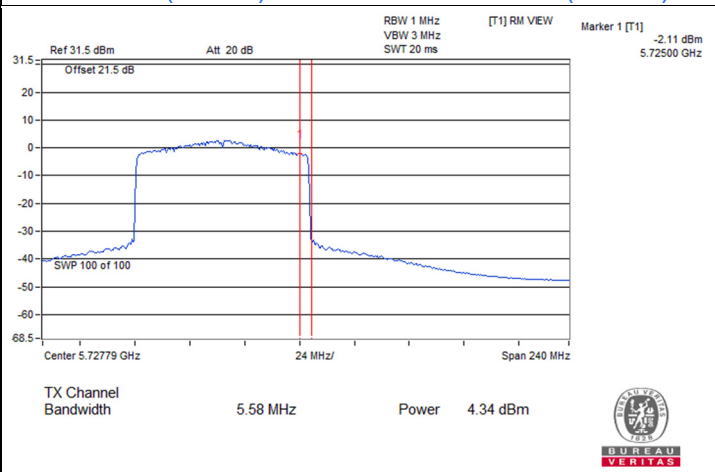
802.11ac (VHT80) CDD / Chain 0 : CH 138 (U-NII-2C)



802.11ac (VHT80) CDD / Chain 0 : CH 138 (U-NII-3)



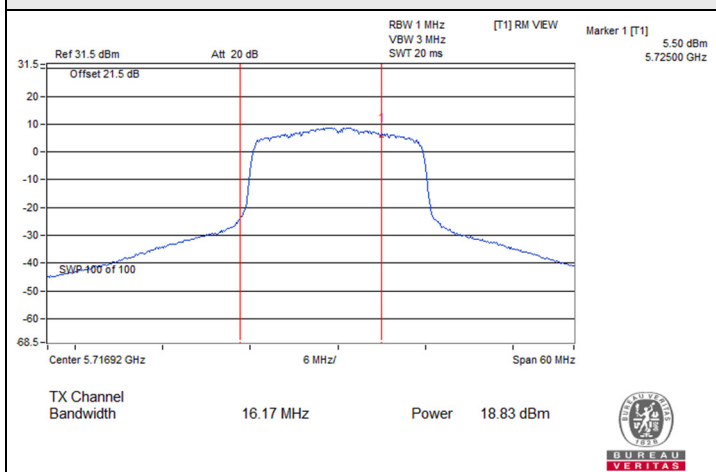
802.11ac (VHT80) CDD / Chain 1 : CH 138 (U-NII-2C)



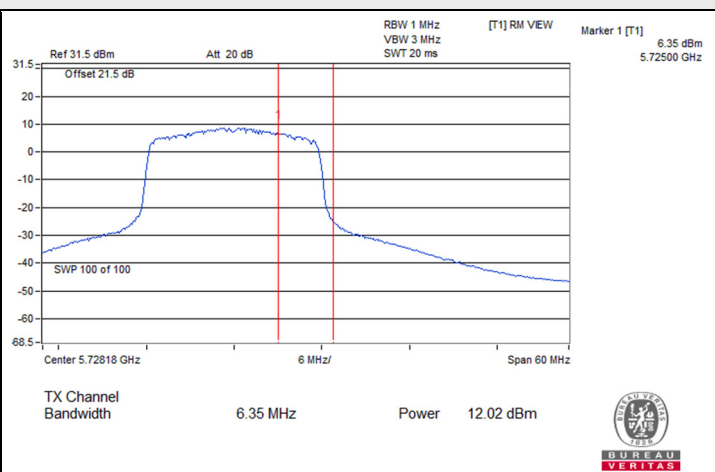
802.11ac (VHT80) CDD / Chain 1 : CH 138 (U-NII-3)



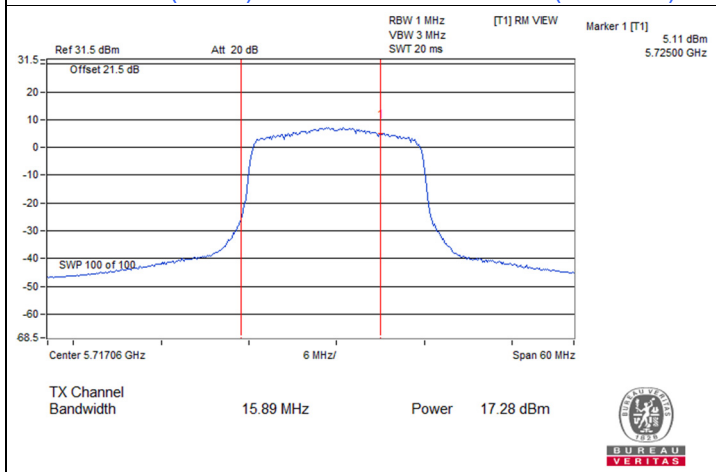
### Spectrum Plot for channel straddling



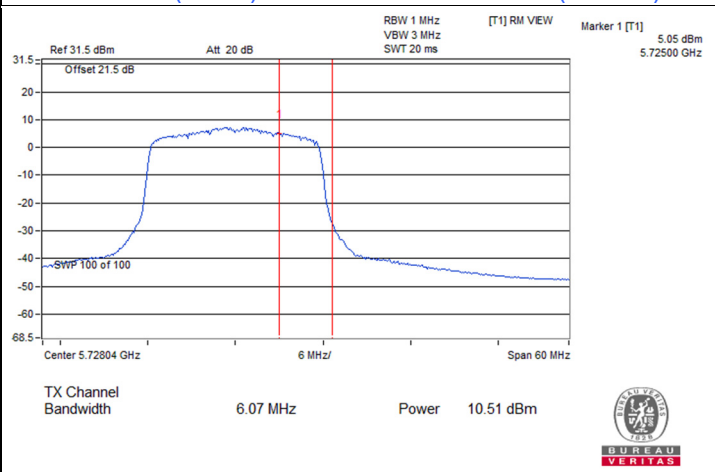
802.11ax (HE20) CDD / Chain 0 : CH 144 (U-NII-2C)



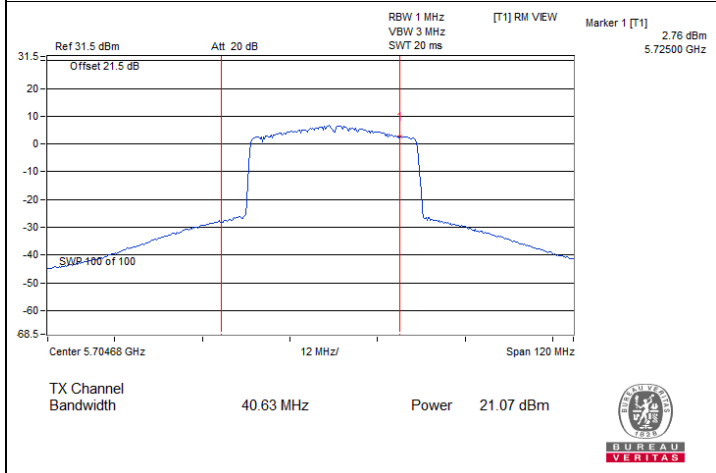
802.11ax (HE20) CDD / Chain 0 : CH 144 (U-NII-3)



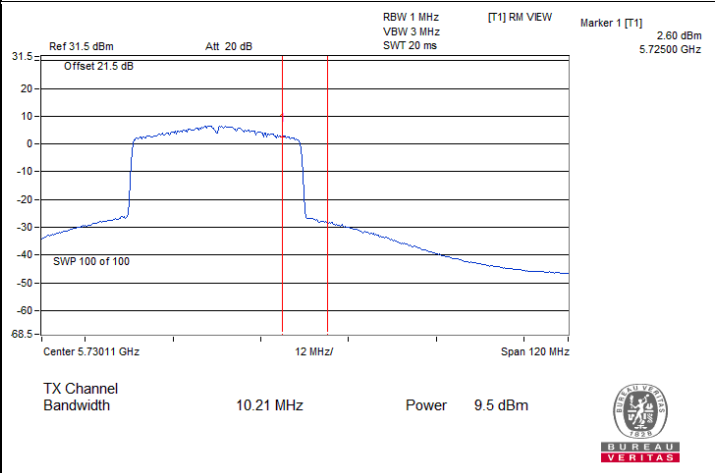
802.11ax (HE20) CDD / Chain 1 : CH 144 (U-NII-2C)



802.11ax (HE20) CDD / Chain 1 : CH 144 (U-NII-3)

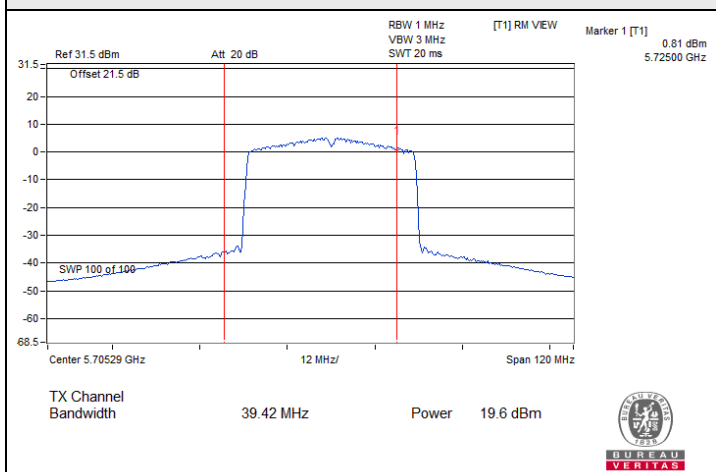


802.11ax (HE40) CDD / Chain 0 : CH 142 (U-NII-2C)

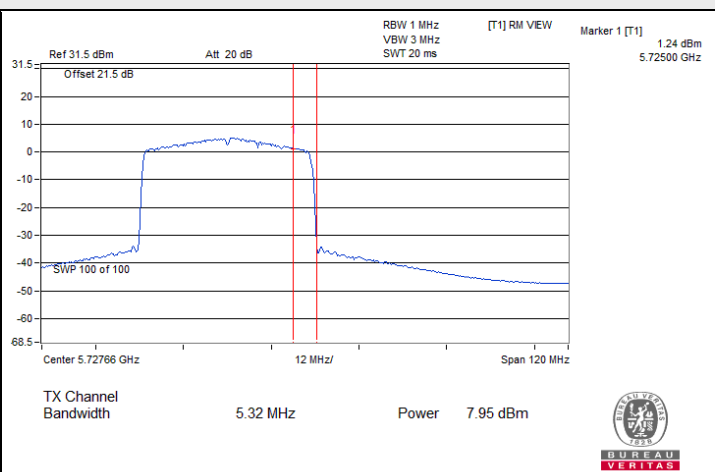


802.11ax (HE40) CDD / Chain 0 : CH 142 (U-NII-3)

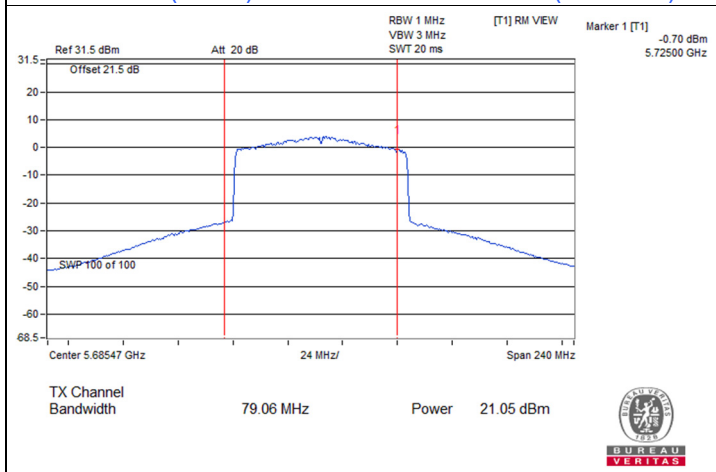
### Spectrum Plot for channel straddling



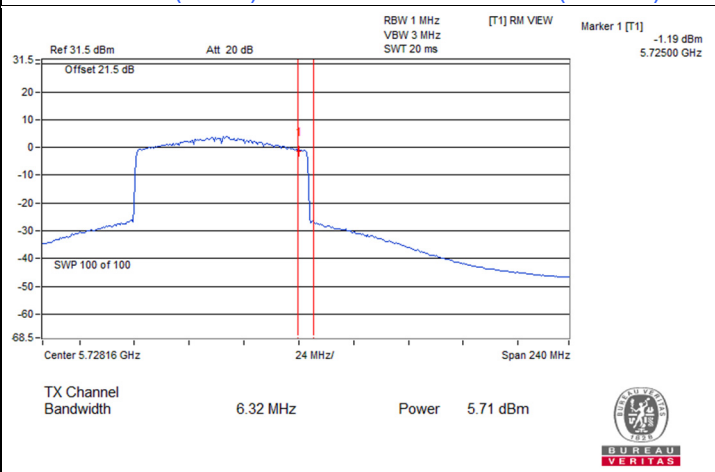
802.11ax (HE40) CDD / Chain 1 : CH 142 (U-NII-2C)



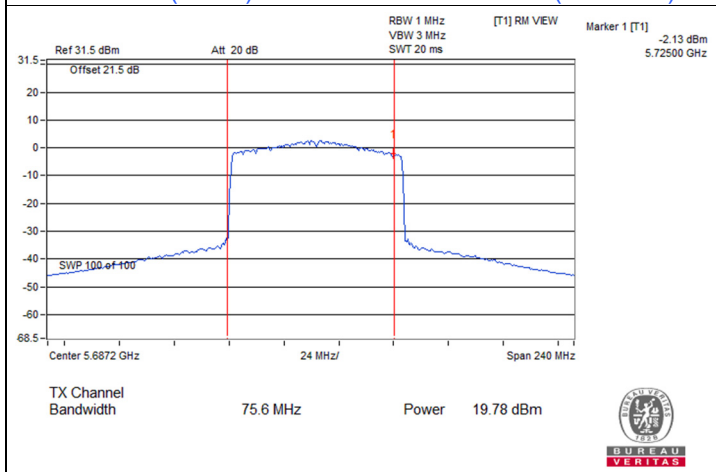
802.11ax (HE40) CDD / Chain 1 : CH 142 (U-NII-3)



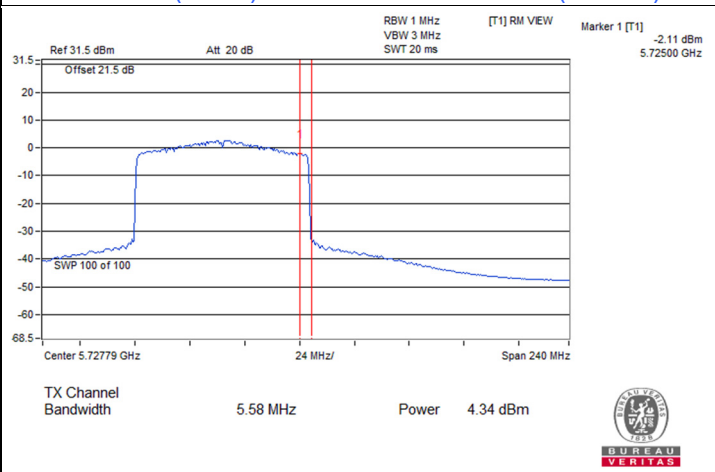
802.11ax (HE80) CDD / Chain 0 : CH 138 (U-NII-2C)



802.11ax (HE80) CDD / Chain 0 : CH 138 (U-NII-3)



802.11ax (HE80) CDD / Chain 1 : CH 138 (U-NII-2C)



802.11ax (HE80) CDD / Chain 1 : CH 138 (U-NII-3)

### 7.3 Power Spectral Density

Input Power:	120 Vac, 60 Hz	Environmental Conditions:	25°C, 60% RH	Tested By:	Katina Lu
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#### 802.11a

Chan.	Chan. Freq. (MHz)	PSD (dBm/MHz)		Total PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Test Result
		Chain 0	Chain 1			
52	5260	6.18	6.26	9.23	9.27	Pass
60	5300	6.12	6.35	9.25	9.27	Pass
64	5320	6.11	6.36	9.25	9.27	Pass
100	5500	6.55	5.37	9.01	9.27	Pass
116	5580	6.13	5.99	9.07	9.27	Pass
140	5700	6.50	5.90	9.22	9.27	Pass
144 (U-NII-2C)	5720	6.36	5.73	9.07	9.27	Pass

#### Notes:

- Method E) 2) a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
- Directional gain =  $10 \log[(10^{\text{Chain0}/20} + 10^{\text{Chain1}/20})^2 / 2]$
- For U-NII-2A, the directional gain is 7.73 dBi > 6 dBi, so the power density limit shall be reduced to  $11-(7.73-6) = 9.27$  dBm/MHz.
- For U-NII-2C, the directional gain is 7.73 dBi > 6 dBi, so the power density limit shall be reduced to  $11-(7.73-6) = 9.27$  dBm/MHz.

#### 802.11ax (HE20)

Chan.	Chan. Freq. (MHz)	PSD (dBm/MHz)		Total PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Test Result
		Chain 0	Chain 1			
52	5260	5.43	6.15	8.82	9.27	Pass
60	5300	6.12	6.17	9.16	9.27	Pass
64	5320	5.84	6.07	8.97	9.27	Pass
100	5500	6.14	5.31	8.76	9.27	Pass
116	5580	5.91	5.66	8.80	9.27	Pass
140	5700	6.38	5.81	9.11	9.27	Pass
144 (U-NII-2C)	5720	6.49	5.99	9.26	9.27	Pass

#### Notes:

- Method E) 2) a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
- Directional gain =  $10 \log[(10^{\text{Chain0}/20} + 10^{\text{Chain1}/20})^2 / 2]$
- For U-NII-2A, the directional gain is 7.73 dBi > 6 dBi, so the power density limit shall be reduced to  $11-(7.73-6) = 9.27$  dBm/MHz.
- For U-NII-2C, the directional gain is 7.73 dBi > 6 dBi, so the power density limit shall be reduced to  $11-(7.73-6) = 9.27$  dBm/MHz.

**802.11ax (HE40)**

Chan.	Chan. Freq. (MHz)	PSD (dBm/MHz)		Total PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Test Result
		Chain 0	Chain 1			
54	5270	5.74	6.13	8.95	9.27	Pass
62	5310	5.51	6.35	8.96	9.27	Pass
102	5510	6.65	4.92	8.88	9.27	Pass
110	5550	6.52	5.74	9.16	9.27	Pass
134	5670	6.51	5.15	8.89	9.27	Pass
142 (U-NII-2C)	5710	6.72	5.32	9.09	9.27	Pass

**Notes:**

- Method E) 2) a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
- Directional gain =  $10 \log[(10^{\text{Chain0}/20} + 10^{\text{Chain1}/20})^2 / 2]$
- For U-NII-2A, the directional gain is 7.73 dBi > 6 dBi, so the power density limit shall be reduced to  $11-(7.73-6) = 9.27$  dBm/MHz.
- For U-NII-2C, the directional gain is 7.73 dBi > 6 dBi, so the power density limit shall be reduced to  $11-(7.73-6) = 9.27$  dBm/MHz.

**802.11ax (HE80)**

Chan.	Chan. Freq. (MHz)	PSD (dBm/MHz)		Total PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Test Result
		Chain 0	Chain 1			
58	5290	1.50	1.82	4.67	9.27	Pass
106	5530	2.57	0.84	4.80	9.27	Pass
122	5610	4.17	3.38	6.80	9.27	Pass
138 (U-NII-2C)	5690	3.96	2.76	6.41	9.27	Pass

**Notes:**

- Method E) 2) a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
- Directional gain =  $10 \log[(10^{\text{Chain0}/20} + 10^{\text{Chain1}/20})^2 / 2]$
- For U-NII-2A, the directional gain is 7.73 dBi > 6 dBi, so the power density limit shall be reduced to  $11-(7.73-6) = 9.27$  dBm/MHz.
- For U-NII-2C, the directional gain is 7.73 dBi > 6 dBi, so the power density limit shall be reduced to  $11-(7.73-6) = 9.27$  dBm/MHz.

### 802.11a

Chan.	Chan. Freq. (MHz)	PSD (dBm/300kHz)		Total PSD (dBm/300kHz)	Total PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)	Test Result
		Chain 0	Chain 1				
144 (U-NII-3)	5720	-4.44	-5.05	-1.72	0.50	28.27	Pass

Notes:

- Method E) 2) b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.
- Directional gain =  $10 \log[(10^{\text{Chain0}/20} + 10^{\text{Chain1}/20})^2 / 2]$
- For U-NII-3, the directional gain is 7.73 dBi > 6 dBi, so the power density limit shall be reduced to  $30 - (7.73 - 6) = 28.27$  dBm/500kHz.

### 802.11ax (HE20)

Chan.	Chan. Freq. (MHz)	PSD (dBm/300kHz)		Total PSD (dBm/300kHz)	Total PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)	Test Result
		Chain 0	Chain 1				
144 (U-NII-3)	5720	-4.72	-5.36	-2.02	0.20	28.27	Pass

Notes:

- Method E) 2) b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.
- Directional gain =  $10 \log[(10^{\text{Chain0}/20} + 10^{\text{Chain1}/20})^2 / 2]$
- For U-NII-3, the directional gain is 7.73 dBi > 6 dBi, so the power density limit shall be reduced to  $30 - (7.73 - 6) = 28.27$  dBm/500kHz.

### 802.11ax (HE40)

Chan.	Chan. Freq. (MHz)	PSD (dBm/300kHz)		Total PSD (dBm/300kHz)	Total PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)	Test Result
		Chain 0	Chain 1				
142 (U-NII-3)	5710	-6.26	-7.72	-3.92	-1.70	28.27	Pass

Notes:

- Method E) 2) b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.
- Directional gain =  $10 \log[(10^{\text{Chain0}/20} + 10^{\text{Chain1}/20})^2 / 2]$
- For U-NII-3, the directional gain is 7.73 dBi > 6 dBi, so the power density limit shall be reduced to  $30 - (7.73 - 6) = 28.27$  dBm/500kHz.



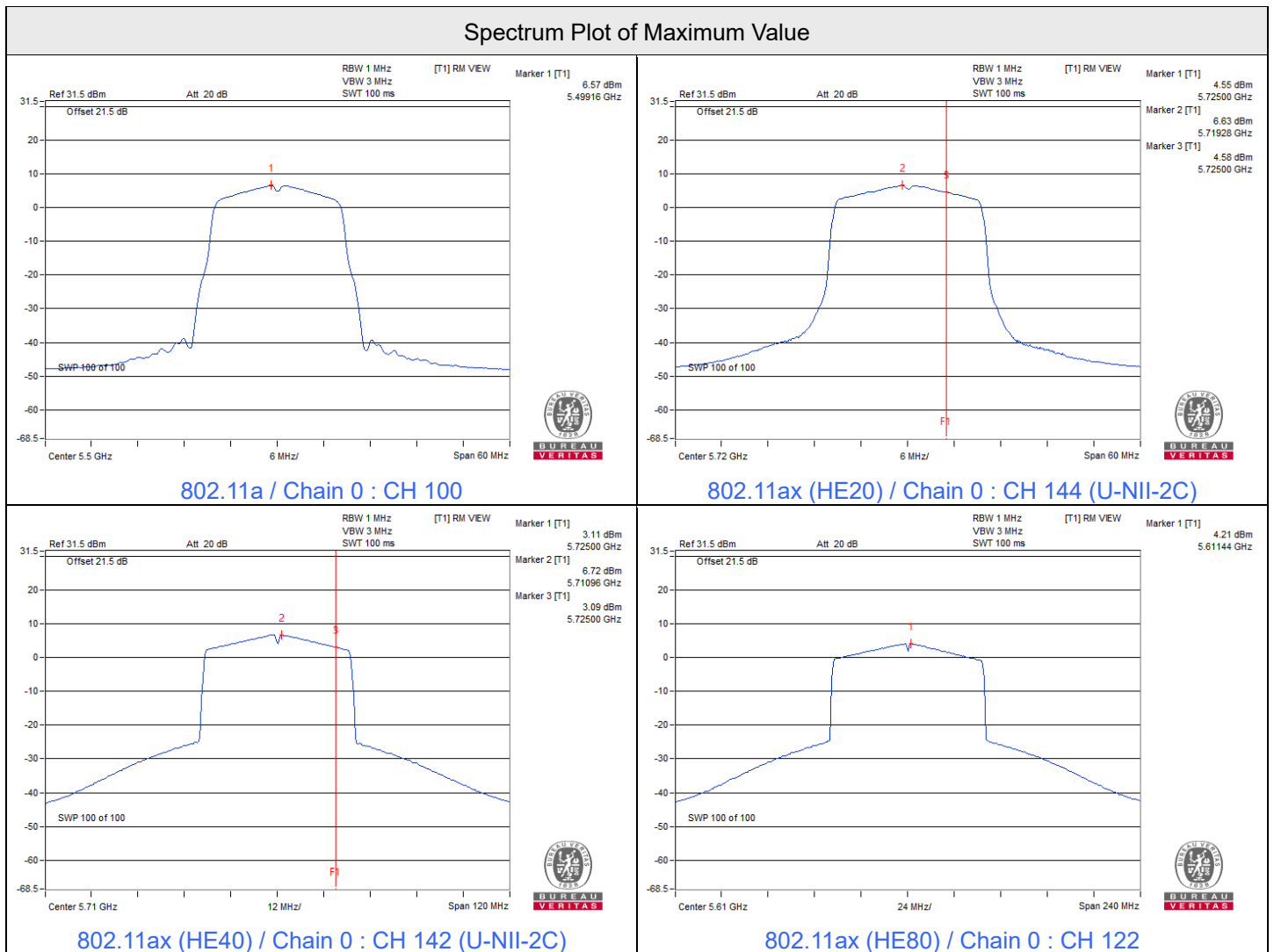


802.11ax (HE80)

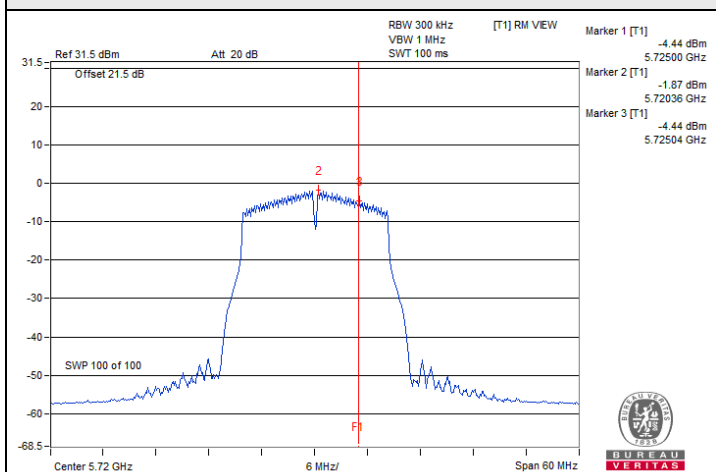
Chan.	Chan. Freq. (MHz)	PSD (dBm/300kHz)		Total PSD (dBm/300kHz)	Total PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)	Test Result
		Chain 0	Chain 1				
138 (U-NII-3)	5690	-9.87	-11.23	-7.49	-5.27	28.27	Pass

Notes:

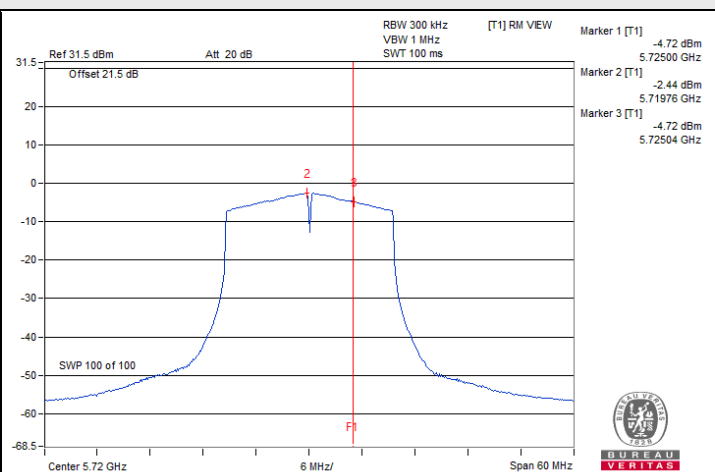
- Method E) 2) b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.
- Directional gain =  $10 \log[(10^{\text{Chain0}/20} + 10^{\text{Chain1}/20})^2 / 2]$
- For U-NII-3, the directional gain is 7.73 dBi > 6 dBi, so the power density limit shall be reduced to  $30 - (7.73 - 6) = 28.27 \text{ dBm/500kHz}$ .



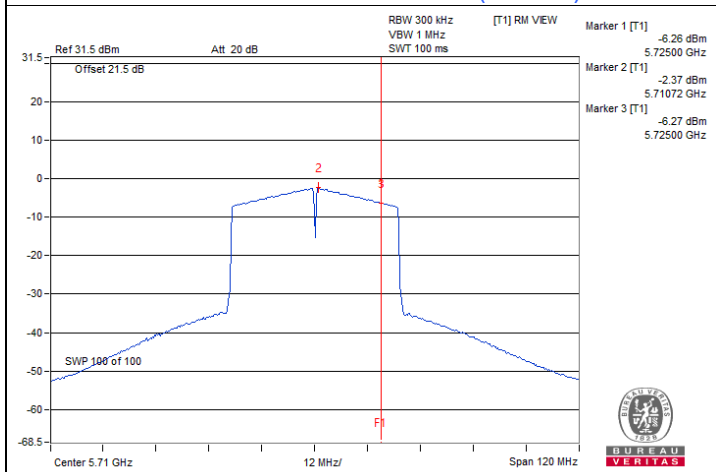
### Spectrum Plot of Maximum Value



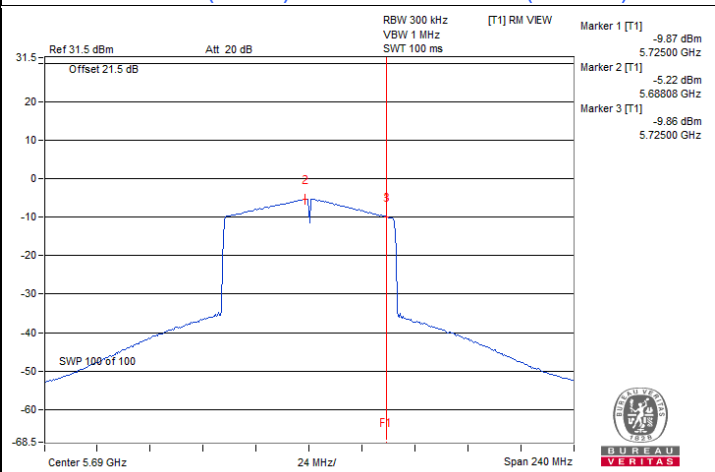
802.11a / Chain 0 : CH 144 (U-NII-3)



802.11ax (HE20) / Chain 0 : CH 144 (U-NII-3)



802.11ax (HE40) / Chain 0 : CH 142 (U-NII-3)



802.11ax (HE80) / Chain 0 : CH 138 (U-NII-3)

#### 7.4 6 dB Bandwidth

Input Power:	120 Vac, 60 Hz	Environmental Conditions:	25°C, 60% RH	Tested By:	Katina Lu
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##### 802.11a

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)		Minimum Limit (MHz)	Test Result
		Chain 0	Chain 1		
144 (U-NII-3)	5720	2.61	2.59	0.5	Pass

##### 802.11ax (HE20)

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)		Minimum Limit (MHz)	Test Result
		Chain 0	Chain 1		
144 (U-NII-3)	5720	4.21	4.06	0.5	Pass

##### 802.11ax (HE40)

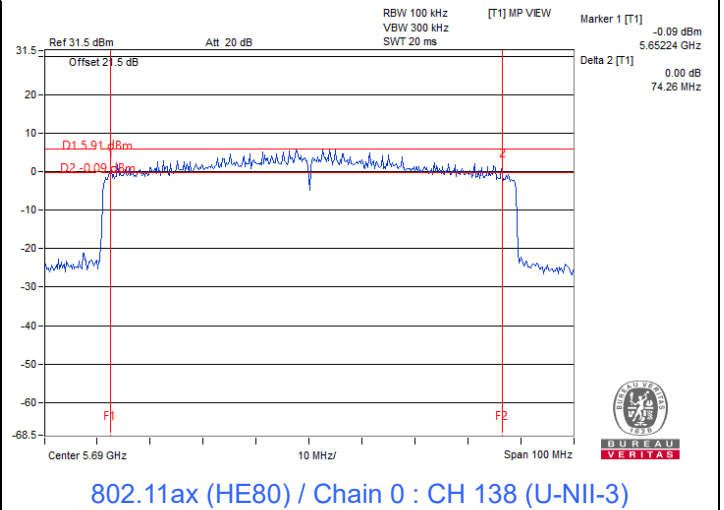
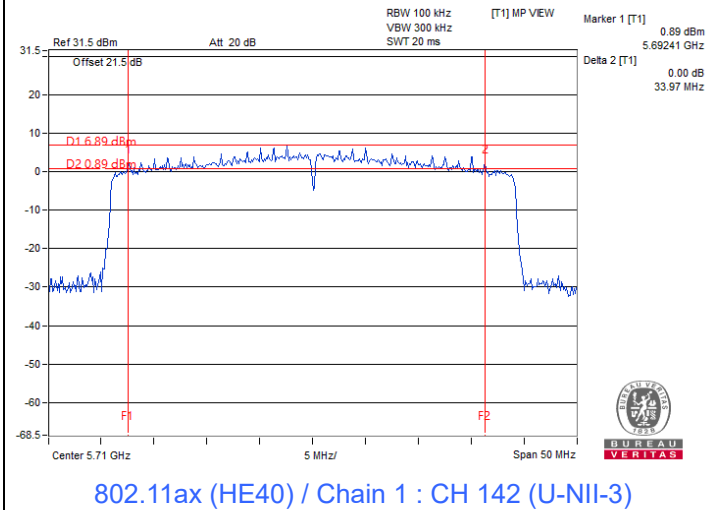
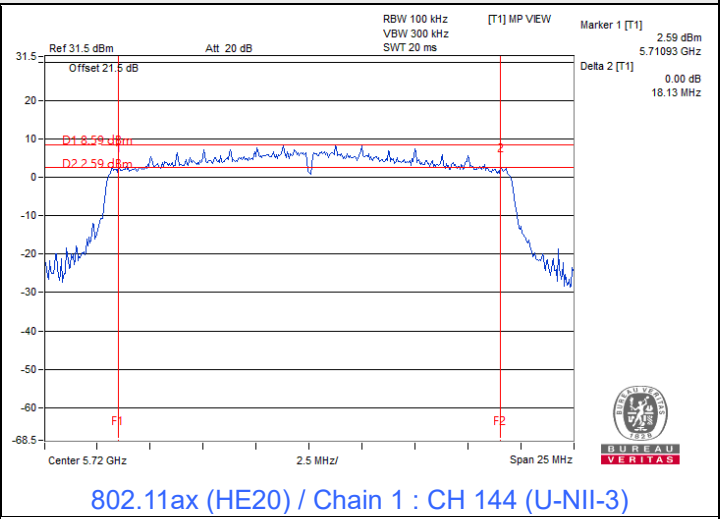
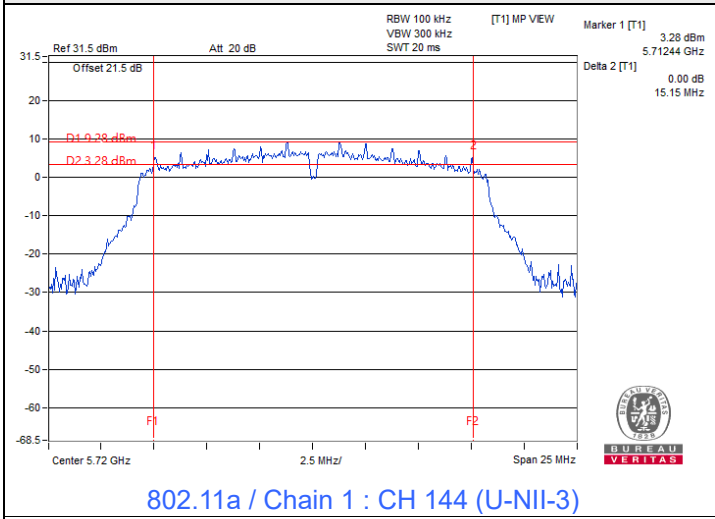
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)		Minimum Limit (MHz)	Test Result
		Chain 0	Chain 1		
142 (U-NII-3)	5710	3.54	1.38	0.5	Pass

##### 802.11ax (HE80)

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)		Minimum Limit (MHz)	Test Result
		Chain 0	Chain 1		
138 (U-NII-3)	5690	1.50	2.66	0.5	Pass



### Spectrum Plot of Minimum Value



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

## 7.5 Occupied Bandwidth

Input Power:	120 Vac, 60 Hz	Environmental Conditions:	25°C, 60% RH	Tested By:	Katina Lu
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### 802.11a

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
52	5260	16.68	16.56
60	5300	16.56	16.68
64	5320	16.68	16.56
100	5500	16.68	16.56
116	5580	16.68	16.56
140	5700	16.68	16.44
144 (U-NII-2C)	5720	13.40	13.28
144 (U-NII-3)	5720	3.28	3.28

### 802.11ax (HE20)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
52	5260	18.96	18.96
60	5300	19.08	18.96
64	5320	19.08	18.96
100	5500	18.96	18.84
116	5580	18.96	19.08
140	5700	18.96	18.84
144 (U-NII-2C)	5720	14.48	14.48
144 (U-NII-3)	5720	4.48	4.48

### 802.11ax (HE40)

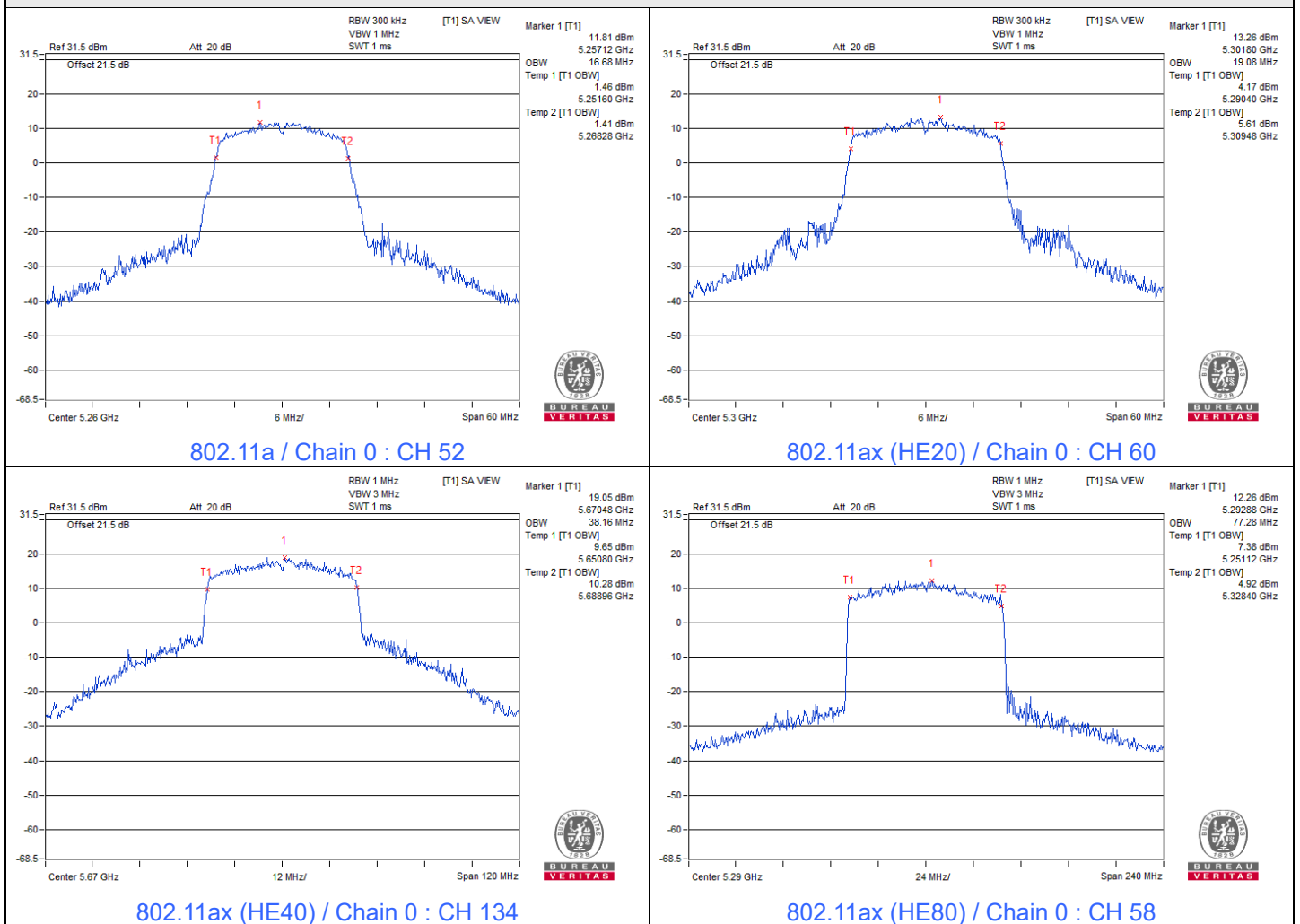
Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
54	5270	37.68	37.92
62	5310	37.68	37.92
102	5510	37.92	37.68
110	5550	37.92	37.68
134	5670	38.16	37.68
142 (U-NII-2C)	5710	33.96	33.96
142 (U-NII-3)	5710	3.96	3.72



802.11ax (HE80)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
58	5290	77.28	76.32
106	5530	76.32	76.80
122	5610	77.28	76.80
138 (U-NII-2C)	5690	73.88	73.40
138 (U-NII-3)	5690	3.40	3.40

Spectrum Plot of Maximum Value



## 7.6 Frequency Stability

Input Power:	120 Vac, 60 Hz	Environmental Conditions:	25°C, 60% RH	Tested By:	Katina Lu
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### 802.11a

Frequency Stability Versus Temperature									
Operating Frequency: 5260 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
40	120	5260.0006	Pass	5259.9994	Pass	5260.0015	Pass	5260.0005	Pass
30	120	5259.9867	Pass	5259.9877	Pass	5259.986	Pass	5259.9859	Pass
20	120	5259.9824	Pass	5259.9799	Pass	5259.9822	Pass	5259.9782	Pass
10	120	5259.9939	Pass	5259.9904	Pass	5259.989	Pass	5259.9894	Pass
0	120	5260.0057	Pass	5260.0055	Pass	5260.0049	Pass	5260.0067	Pass

Frequency Stability Versus Voltage									
Operating Frequency: 5260 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	138	5259.9852	Pass	5259.9842	Pass	5259.9814	Pass	5259.982	Pass
	120	5259.9824	Pass	5259.9799	Pass	5259.9822	Pass	5259.9782	Pass
	102	5259.9778	Pass	5259.9781	Pass	5259.9796	Pass	5259.9766	Pass

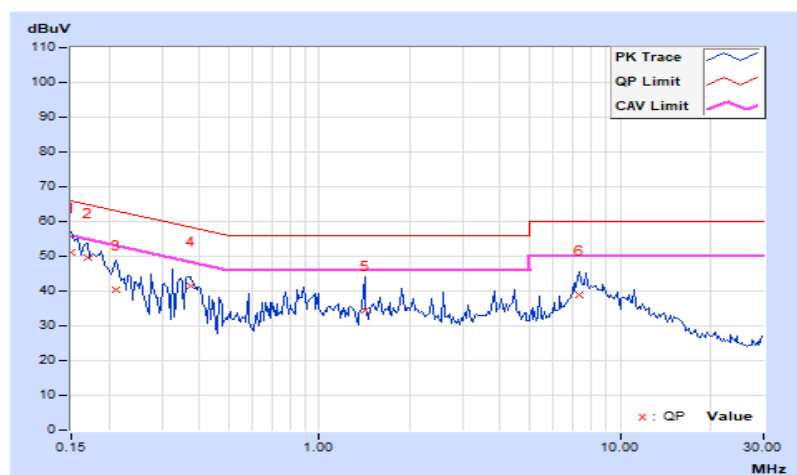
## 7.7 AC Power Conducted Emissions

RF Mode	802.11ax (HE40)	Channel	CH 54 : 5270 MHz
Frequency Range	150 kHz ~ 30 MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 68% RH
Tested By	Sampson Chen		

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	0.15000	9.96	41.27	26.99	51.23	36.95	66.00	56.00	-14.77	-19.05
2	0.16953	9.95	39.62	25.19	49.57	35.14	64.98	54.98	-15.41	-19.84
3	0.21250	9.95	30.35	19.42	40.30	29.37	63.11	53.11	-22.81	-23.74
4	0.37266	9.96	31.40	26.16	41.36	36.12	58.44	48.44	-17.08	-12.32
5	1.42188	10.02	24.40	16.85	34.42	26.87	56.00	46.00	-21.58	-19.13
6	7.32422	10.46	28.56	23.52	39.02	33.98	60.00	50.00	-20.98	-16.02

### 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



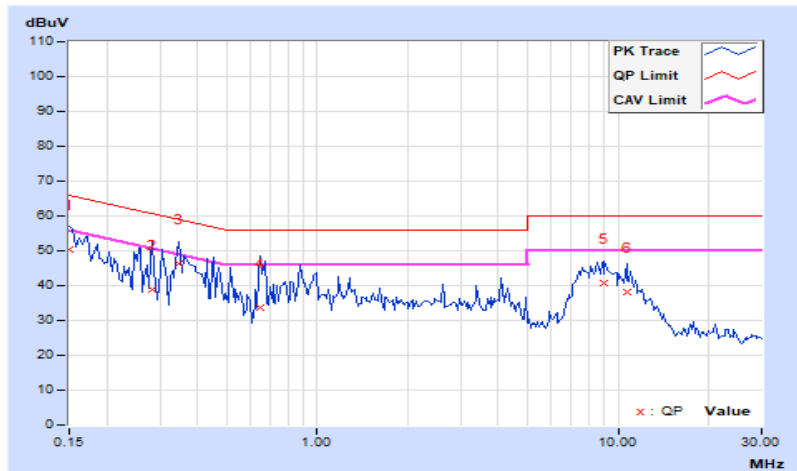


<b>RF Mode</b>	802.11ax (HE40)	<b>Channel</b>	CH 54 : 5270 MHz
<b>Frequency Range</b>	150 kHz ~ 30 MHz	<b>Detector Function &amp; Resolution Bandwidth</b>	Quasi-Peak (QP) / Average (AV), 9 kHz
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	23°C, 68% RH
<b>Tested By</b>	Sampson Chen		

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	10.00	40.48	26.62	50.48	36.62	66.00	56.00	-15.52	-19.38
2	0.28281	10.00	28.86	23.12	38.86	33.12	60.73	50.73	-21.87	-17.61
<b>3</b>	<b>0.34531</b>	<b>10.01</b>	<b>36.40</b>	<b>30.51</b>	<b>46.41</b>	<b>40.52</b>	<b>59.07</b>	<b>49.07</b>	<b>-12.66</b>	<b>-8.55</b>
4	0.65000	10.03	23.51	15.90	33.54	25.93	56.00	46.00	-22.46	-20.07
5	9.01953	10.59	30.20	25.57	40.79	36.16	60.00	50.00	-19.21	-13.84
6	10.67578	10.68	27.56	22.82	38.24	33.50	60.00	50.00	-21.76	-16.50

**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



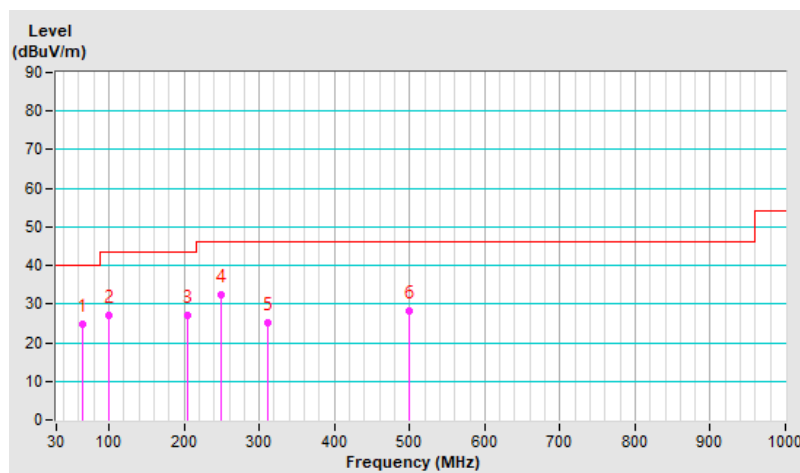
## 7.8 Unwanted Emissions below 1 GHz

<b>RF Mode</b>	802.11ax (HE40)	<b>Channel</b>	CH 54 : 5270 MHz
<b>Frequency Range</b>	30 MHz ~ 1 GHz	<b>Detector Function &amp; Bandwidth</b>	QP: RB=120kHz, DET=Quasi-Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	23°C, 67% RH
<b>Tested By</b>	Sampson Chen		

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	65.07	24.6 QP	40.0	-15.4	1.50 H	100	39.1	-14.5
2	100.23	27.1 QP	43.5	-16.4	2.00 H	351	44.4	-17.3
3	204.78	27.1 QP	43.5	-16.4	2.00 H	165	43.4	-16.3
4	249.93	32.5 QP	46.0	-13.5	2.00 H	80	46.7	-14.2
5	310.82	25.1 QP	46.0	-20.9	2.00 H	246	37.3	-12.2
6	500.17	28.1 QP	46.0	-17.9	1.50 H	341	35.7	-7.6

### 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 of frequency range 30 MHz ~ 1 GHz.
5. The frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.

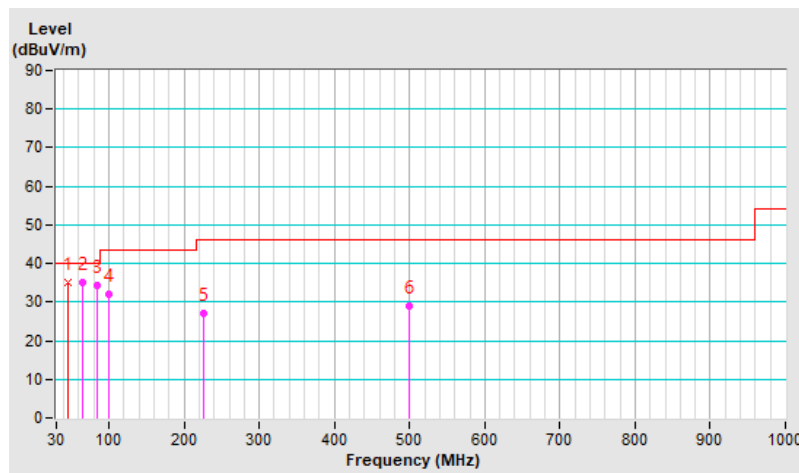


RF Mode	802.11ax (HE40)	Channel	CH 54 : 5270 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	QP: RB=120kHz, DET=Quasi-Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 67% RH
Tested By	Sampson Chen		

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	44.85	34.9 QP	40.0	-5.1	1.50 V	277	48.1	-13.2
2	<b>64.88</b>	<b>35.2 QP</b>	<b>40.0</b>	<b>-4.8</b>	<b>1.50 V</b>	<b>354</b>	<b>49.7</b>	<b>-14.5</b>
3	85.04	34.3 QP	40.0	-5.7	1.00 V	233	53.1	-18.8
4	100.59	32.1 QP	43.5	-11.4	1.00 V	320	49.4	-17.3
5	225.09	27.1 QP	46.0	-18.9	1.50 V	321	43.7	-16.6
6	499.93	28.9 QP	46.0	-17.1	2.00 V	299	36.5	-7.6

**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 of frequency range 30 MHz ~ 1 GHz.
5. The frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.



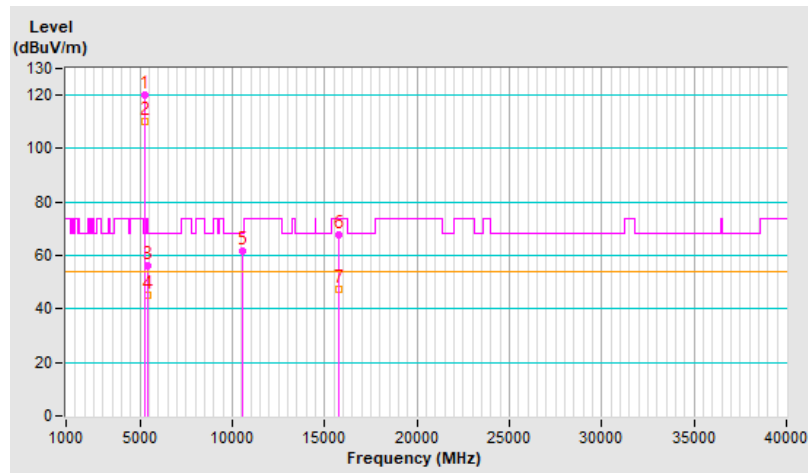
### 7.9 Unwanted Emissions above 1 GHz

<b>RF Mode</b>	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, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	25°C, 75% RH
<b>Tested By</b>	Ryan Du		

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	120.3 PK			1.35 H	36	118.1	2.2
2	*5260.00	109.9 AV			1.35 H	36	107.7	2.2
3	5382.29	56.3 PK	74.0	-17.7	1.35 H	36	53.6	2.7
4	5382.29	45.2 AV	54.0	-8.8	1.35 H	36	42.5	2.7
5	#10520.00	61.9 PK	68.2	-6.3	1.66 H	243	50.3	11.6
6	15780.00	67.9 PK	74.0	-6.1	1.62 H	132	56.8	11.1
7	15780.00	47.5 AV	54.0	-6.5	1.62 H	132	36.4	11.1

**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.



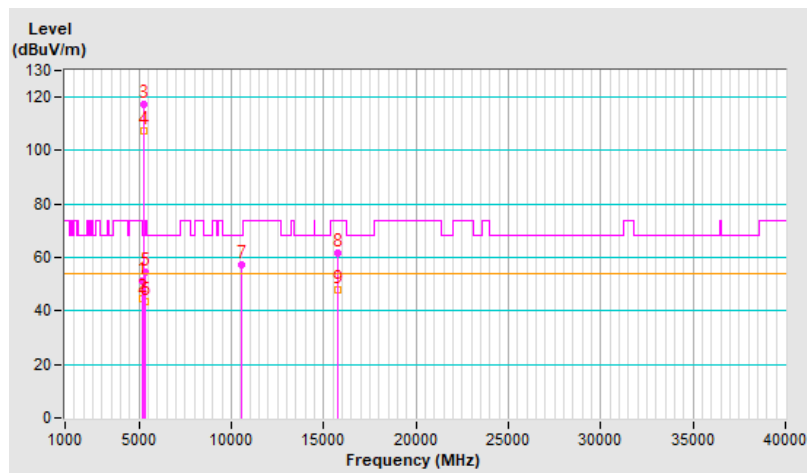
<b>RF Mode</b>	802.11a	<b>Channel</b>	CH 52 : 5260 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	25°C, 75% RH
<b>Tested By</b>	Ryan Du		

**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	51.0 PK	74.0	-23.0	1.70 V	2	48.5	2.5
2	5150.00	44.7 AV	54.0	-9.3	1.70 V	2	42.2	2.5
3	*5260.00	117.2 PK			1.70 V	2	115.0	2.2
4	*5260.00	107.4 AV			1.70 V	2	105.2	2.2
5	5375.16	54.7 PK	74.0	-19.3	1.70 V	2	52.0	2.7
6	5375.16	43.5 AV	54.0	-10.5	1.70 V	2	40.8	2.7
7	#10520.00	57.5 PK	68.2	-10.7	1.59 V	317	45.9	11.6
8	15780.00	61.6 PK	74.0	-12.4	3.96 V	195	50.5	11.1
9	15780.00	47.7 AV	54.0	-6.3	3.96 V	195	36.6	11.1

**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.

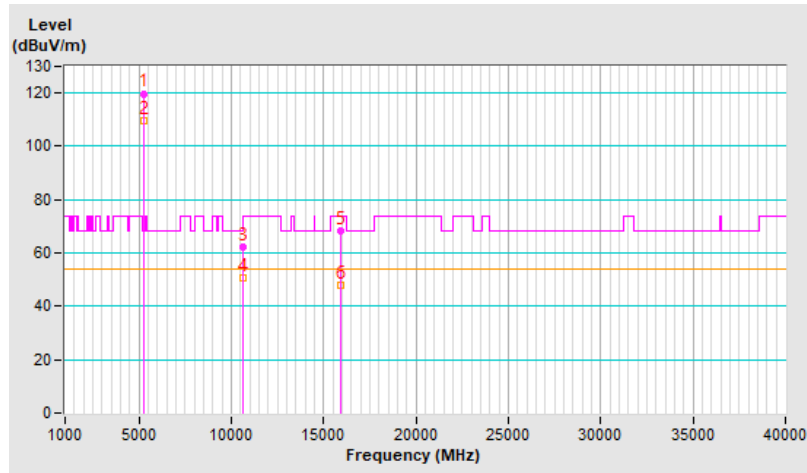


<b>RF Mode</b>	802.11a	<b>Channel</b>	CH 60 : 5300 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	25°C, 75% RH
<b>Tested By</b>	Ryan Du		

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	119.8 PK			1.31 H	50	117.5	2.3
2	*5300.00	109.5 AV			1.31 H	50	107.2	2.3
3	10600.00	62.2 PK	74.0	-11.8	1.68 H	232	50.5	11.7
4	10600.00	50.6 AV	54.0	-3.4	1.68 H	232	38.9	11.7
5	15900.00	68.1 PK	74.0	-5.9	1.61 H	131	56.9	11.2
6	15900.00	47.8 AV	54.0	-6.2	1.61 H	131	36.6	11.2

**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.

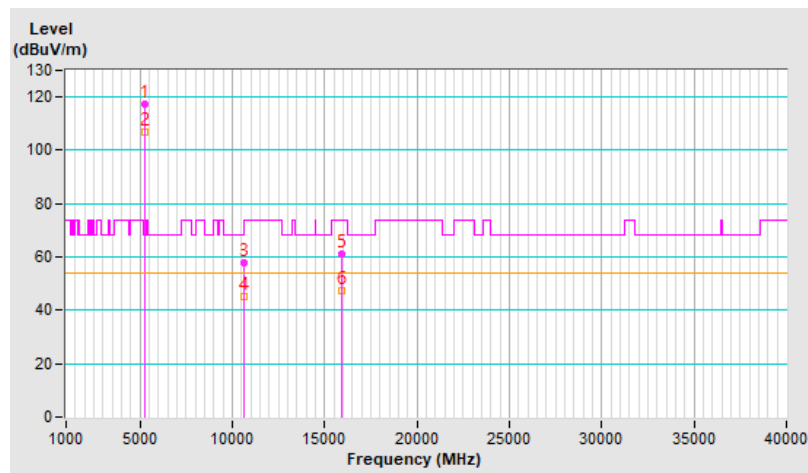


<b>RF Mode</b>	802.11a	<b>Channel</b>	CH 60 : 5300 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	25°C, 75% RH
<b>Tested By</b>	Ryan Du		

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	117.1 PK			1.75 V	11	114.8	2.3
2	*5300.00	107.0 AV			1.75 V	11	104.7	2.3
3	10600.00	57.6 PK	74.0	-16.4	1.64 V	323	45.9	11.7
4	10600.00	45.3 AV	54.0	-8.7	1.64 V	323	33.6	11.7
5	15900.00	61.2 PK	74.0	-12.8	3.93 V	199	50.0	11.2
6	15900.00	47.6 AV	54.0	-6.4	3.93 V	199	36.4	11.2

**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.



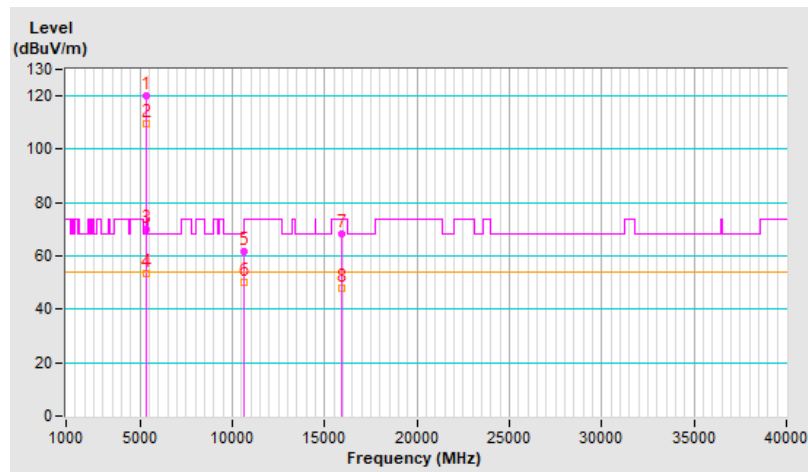
<b>RF Mode</b>	802.11a	<b>Channel</b>	CH 64 : 5320 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	25°C, 75% RH
<b>Tested By</b>	Ryan Du		

**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	119.9 PK			1.32 H	35	117.5	2.4
2	*5320.00	109.5 AV			1.32 H	35	107.1	2.4
3	5350.00	69.7 PK	74.0	-4.3	1.32 H	35	67.2	2.5
4	5350.00	53.3 AV	54.0	-0.7	1.32 H	35	50.8	2.5
5	10640.00	61.9 PK	74.0	-12.1	1.64 H	237	50.2	11.7
6	10640.00	50.1 AV	54.0	-3.9	1.64 H	237	38.4	11.7
7	15960.00	68.1 PK	74.0	-5.9	1.62 H	132	56.9	11.2
8	15960.00	47.7 AV	54.0	-6.3	1.62 H	132	36.5	11.2

**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.



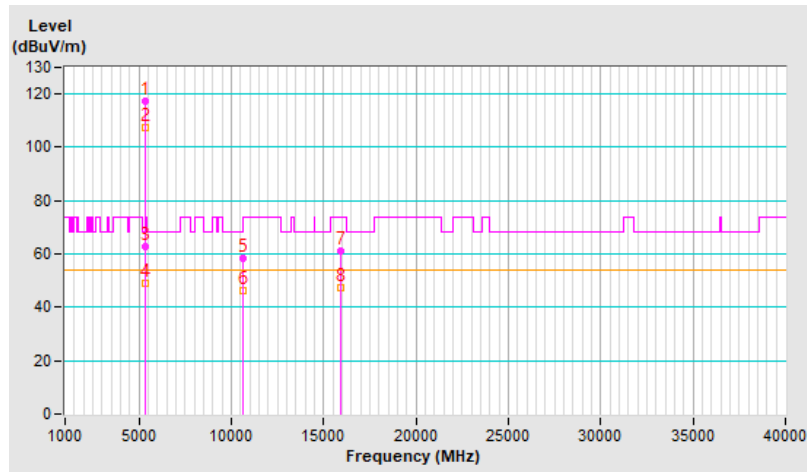


<b>RF Mode</b>	802.11a	<b>Channel</b>	CH 64 : 5320 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	25°C, 75% RH
<b>Tested By</b>	Ryan Du		

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	117.4 PK			1.78 V	4	115.0	2.4
2	*5320.00	107.5 AV			1.78 V	4	105.1	2.4
3	5350.00	62.9 PK	74.0	-11.1	1.78 V	4	60.4	2.5
4	5350.00	49.1 AV	54.0	-4.9	1.78 V	4	46.6	2.5
5	10640.00	58.4 PK	74.0	-15.6	1.64 V	310	46.7	11.7
6	10640.00	46.0 AV	54.0	-8.0	1.64 V	310	34.3	11.7
7	15960.00	61.1 PK	74.0	-12.9	3.95 V	190	49.9	11.2
8	15960.00	47.6 AV	54.0	-6.4	3.95 V	190	36.4	11.2

**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.

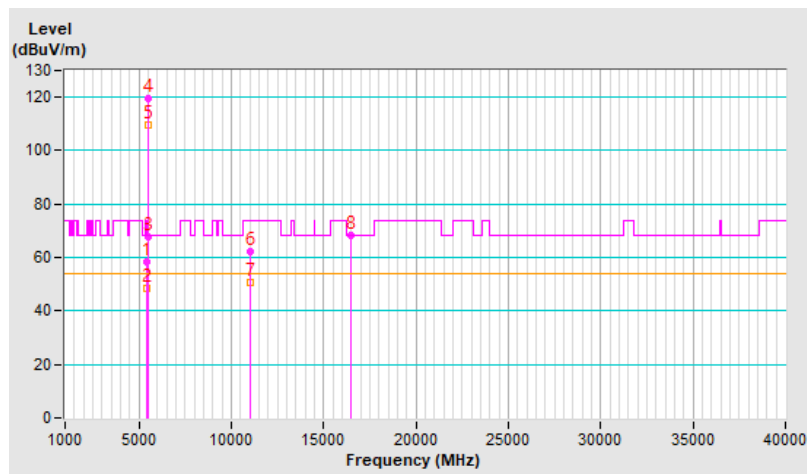


<b>RF Mode</b>	802.11a	<b>Channel</b>	CH 100 : 5500 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	25°C, 75% RH
<b>Tested By</b>	Ryan Du		

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	5420.77	58.5 PK	74.0	-15.5	1.01 H	64	55.7	2.8
2	5420.77	48.5 AV	54.0	-5.5	1.01 H	64	45.7	2.8
3	#5470.00	67.9 PK	68.2	-0.3	1.01 H	64	65.1	2.8
4	*5500.00	119.3 PK			1.01 H	64	116.5	2.8
5	*5500.00	109.4 AV			1.01 H	64	106.6	2.8
6	11000.00	62.1 PK	74.0	-11.9	1.74 H	219	49.1	13.0
7	11000.00	50.7 AV	54.0	-3.3	1.74 H	219	37.7	13.0
8	#16500.00	68.1 PK	68.2	-0.1	1.54 H	131	54.1	14.0

**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.

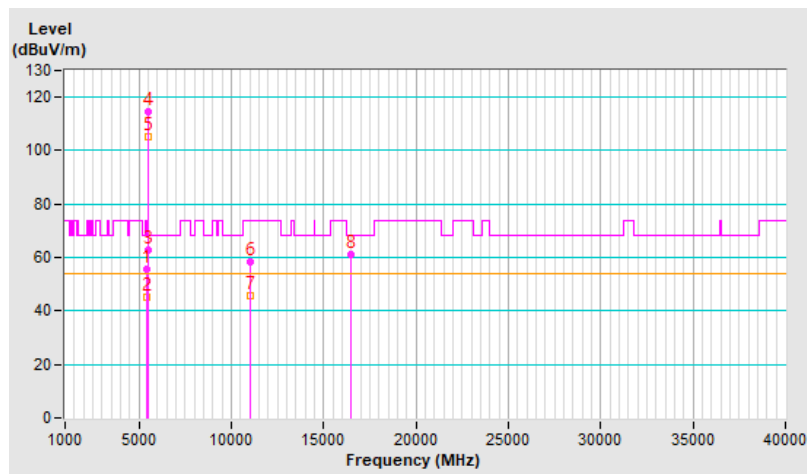


<b>RF Mode</b>	802.11a	<b>Channel</b>	CH 100 : 5500 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	25°C, 75% RH
<b>Tested By</b>	Ryan Du		

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	5418.76	55.8 PK	74.0	-18.2	1.78 V	5	53.0	2.8
2	5418.76	45.1 AV	54.0	-8.9	1.78 V	5	42.3	2.8
3	#5470.00	63.0 PK	68.2	-5.2	1.78 V	5	60.2	2.8
4	*5500.00	114.8 PK			1.78 V	5	112.0	2.8
5	*5500.00	105.4 AV			1.78 V	5	102.6	2.8
6	11000.00	58.2 PK	74.0	-15.8	1.59 V	339	45.2	13.0
7	11000.00	45.7 AV	54.0	-8.3	1.59 V	339	32.7	13.0
8	#16500.00	60.9 PK	68.2	-7.3	3.95 V	201	46.9	14.0

**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.



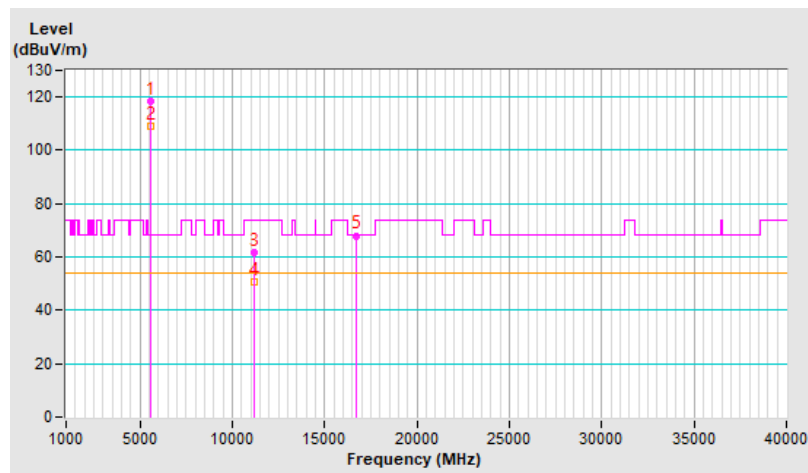
<b>RF Mode</b>	802.11a	<b>Channel</b>	CH 116 : 5580 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	25°C, 75% RH
<b>Tested By</b>	Ryan Du		

**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	118.6 PK			1.00 H	59	115.9	2.7
2	*5580.00	109.0 AV			1.00 H	59	106.3	2.7
3	11160.00	61.9 PK	74.0	-12.1	1.70 H	239	49.7	12.2
4	11160.00	50.5 AV	54.0	-3.5	1.70 H	239	38.3	12.2
5	#16740.00	68.0 PK	68.2	-0.2	1.58 H	133	53.2	14.8

**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.

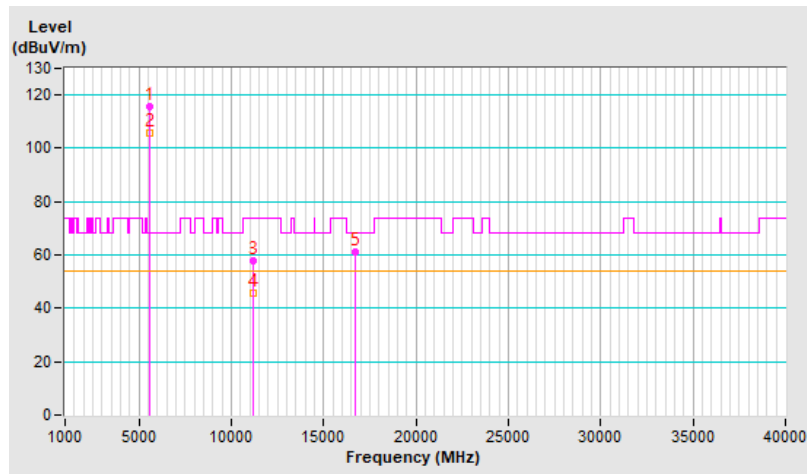


<b>RF Mode</b>	802.11a	<b>Channel</b>	CH 116 : 5580 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	25°C, 75% RH
<b>Tested By</b>	Ryan Du		

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	115.5 PK			1.81 V	16	112.8	2.7
2	*5580.00	105.8 AV			1.81 V	16	103.1	2.7
3	11160.00	58.0 PK	74.0	-16.0	1.53 V	324	45.8	12.2
4	11160.00	45.5 AV	54.0	-8.5	1.53 V	324	33.3	12.2
5	#16740.00	61.0 PK	68.2	-7.2	4.00 V	186	46.2	14.8

**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.



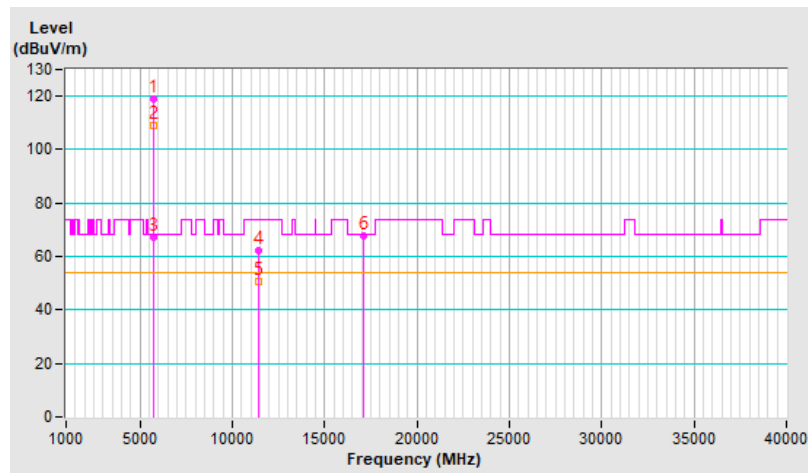
<b>RF Mode</b>	802.11a	<b>Channel</b>	CH 140 : 5700 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	25°C, 75% RH
<b>Tested By</b>	Ryan Du		

**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	119.2 PK			1.03 H	53	116.4	2.8
2	*5700.00	108.8 AV			1.03 H	53	106.0	2.8
3	#5725.00	67.3 PK	68.2	-0.9	1.03 H	53	64.5	2.8
4	11400.00	62.4 PK	74.0	-11.6	1.67 H	221	50.1	12.3
5	11400.00	50.7 AV	54.0	-3.3	1.67 H	221	38.4	12.3
6	#17100.00	67.9 PK	68.2	-0.3	1.48 H	157	51.8	16.1

**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.

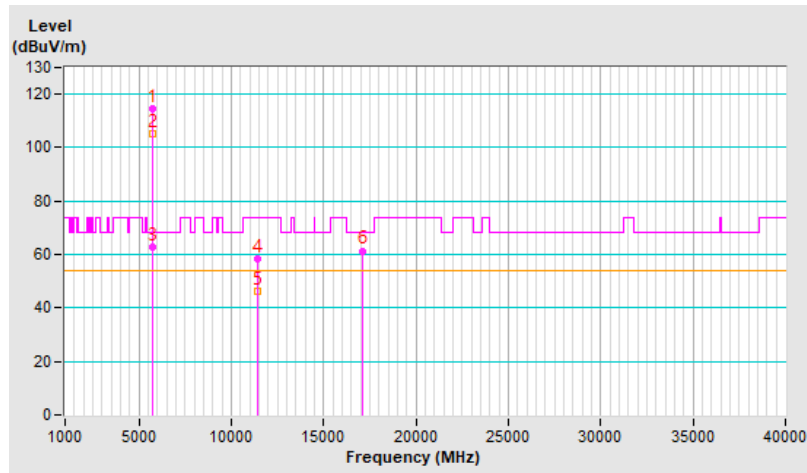


<b>RF Mode</b>	802.11a	<b>Channel</b>	CH 140 : 5700 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	25°C, 75% RH
<b>Tested By</b>	Ryan Du		

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	114.6 PK			1.78 V	10	111.8	2.8
2	*5700.00	105.2 AV			1.78 V	10	102.4	2.8
3	#5725.00	62.6 PK	68.2	-5.6	1.78 V	10	59.8	2.8
4	11400.00	58.4 PK	74.0	-15.6	1.56 V	319	46.1	12.3
5	11400.00	46.0 AV	54.0	-8.0	1.56 V	319	33.7	12.3
6	#17100.00	61.4 PK	68.2	-6.8	3.95 V	204	45.3	16.1

**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.



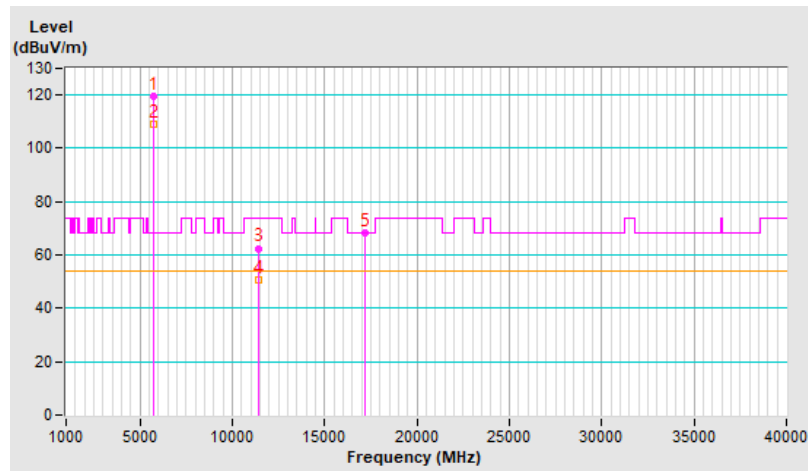
<b>RF Mode</b>	802.11a	<b>Channel</b>	CH 144 : 5720 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	25°C, 75% RH
<b>Tested By</b>	Ryan Du		

**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	*5720.00	119.5 PK			1.05 H	64	116.7	2.8
2	*5720.00	109.2 AV			1.05 H	64	106.4	2.8
3	11440.00	62.5 PK	74.0	-11.5	1.70 H	232	50.1	12.4
4	11440.00	50.9 AV	54.0	-3.1	1.70 H	232	38.5	12.4
5	#17160.00	68.1 PK	68.2	-0.1	1.53 H	157	52.0	16.1

**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.





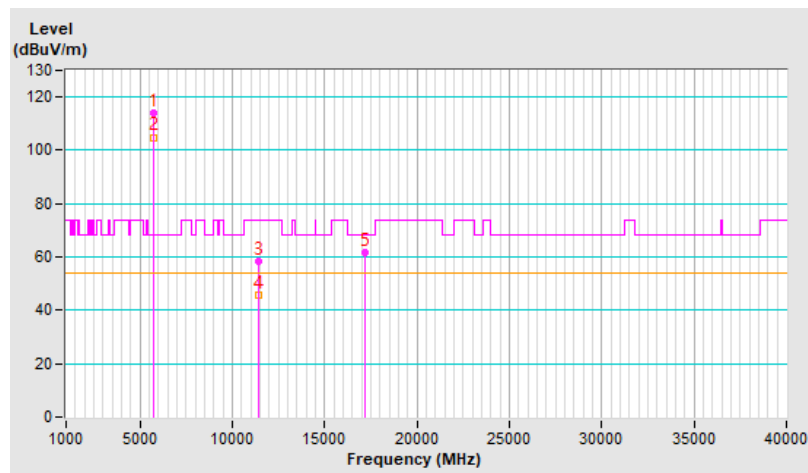
<b>RF Mode</b>	802.11a	<b>Channel</b>	CH 144 : 5720 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	25°C, 75% RH
<b>Tested By</b>	Ryan Du		

**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	*5720.00	114.2 PK			1.84 V	2	111.4	2.8
2	*5720.00	104.9 AV			1.84 V	2	102.1	2.8
3	11440.00	58.2 PK	74.0	-15.8	1.59 V	323	45.8	12.4
4	11440.00	45.7 AV	54.0	-8.3	1.59 V	323	33.3	12.4
5	#17160.00	61.5 PK	68.2	-6.7	4.00 V	201	45.4	16.1

**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.



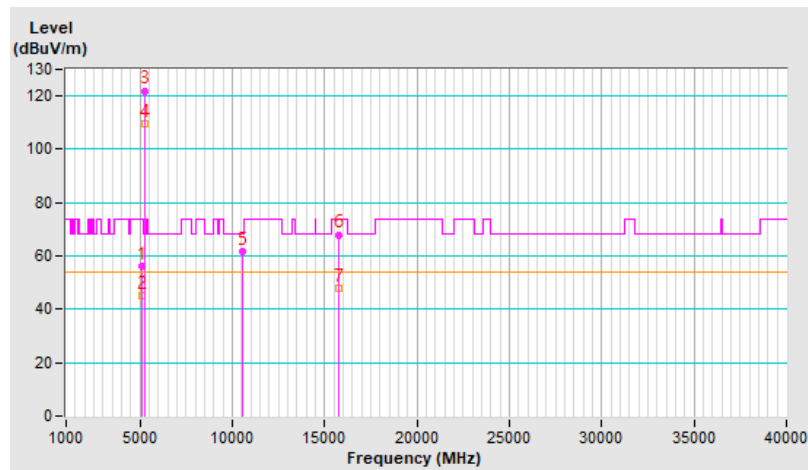
<b>RF Mode</b>	802.11ax (HE20)	<b>Channel</b>	CH 52 : 5260 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	25°C, 75% RH
<b>Tested By</b>	Ryan Du		

**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	5138.81	56.0 PK	74.0	-18.0	1.26 H	38	53.4	2.6
2	5138.81	45.1 AV	54.0	-8.9	1.26 H	38	42.5	2.6
3	*5260.00	122.0 PK			1.26 H	38	119.8	2.2
4	*5260.00	109.6 AV			1.26 H	38	107.4	2.2
5	#10520.00	61.8 PK	68.2	-6.4	1.63 H	217	50.2	11.6
6	15780.00	68.0 PK	74.0	-6.0	1.65 H	115	56.9	11.1
7	15780.00	47.8 AV	54.0	-6.2	1.65 H	115	36.7	11.1

**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.



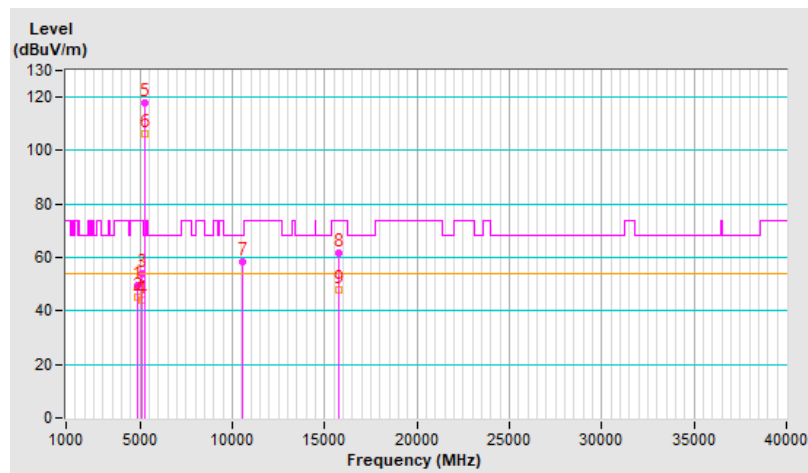
<b>RF Mode</b>	802.11ax (HE20)	<b>Channel</b>	CH 52 : 5260 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	25°C, 75% RH
<b>Tested By</b>	Ryan Du		

**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	4873.97	49.8 PK	74.0	-24.2	1.76 V	4	48.1	1.7
2	4873.97	45.1 AV	54.0	-8.9	1.76 V	4	43.4	1.7
3	5137.42	54.0 PK	74.0	-20.0	1.76 V	4	51.4	2.6
4	5137.42	43.8 AV	54.0	-10.2	1.76 V	4	41.2	2.6
5	*5260.00	117.9 PK			1.76 V	4	115.7	2.2
6	*5260.00	106.5 AV			1.76 V	4	104.3	2.2
7	#10520.00	58.4 PK	68.2	-9.8	1.60 V	314	46.8	11.6
8	15780.00	61.5 PK	74.0	-12.5	3.96 V	183	50.4	11.1
9	15780.00	47.7 AV	54.0	-6.3	3.96 V	183	36.6	11.1

**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.



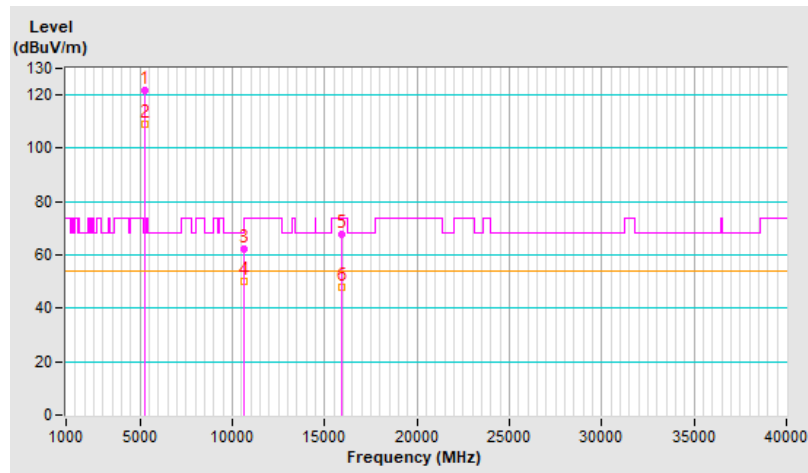
<b>RF Mode</b>	802.11ax (HE20)	<b>Channel</b>	CH 60 : 5300 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	25°C, 75% RH
<b>Tested By</b>	Ryan Du		

**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	121.9 PK			1.27 H	39	119.6	2.3
2	*5300.00	109.2 AV			1.27 H	39	106.9	2.3
3	10600.00	62.1 PK	74.0	-11.9	1.65 H	234	50.4	11.7
4	10600.00	50.3 AV	54.0	-3.7	1.65 H	234	38.6	11.7
5	15900.00	67.9 PK	74.0	-6.1	1.67 H	114	56.7	11.2
6	15900.00	47.9 AV	54.0	-6.1	1.67 H	114	36.7	11.2

**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.

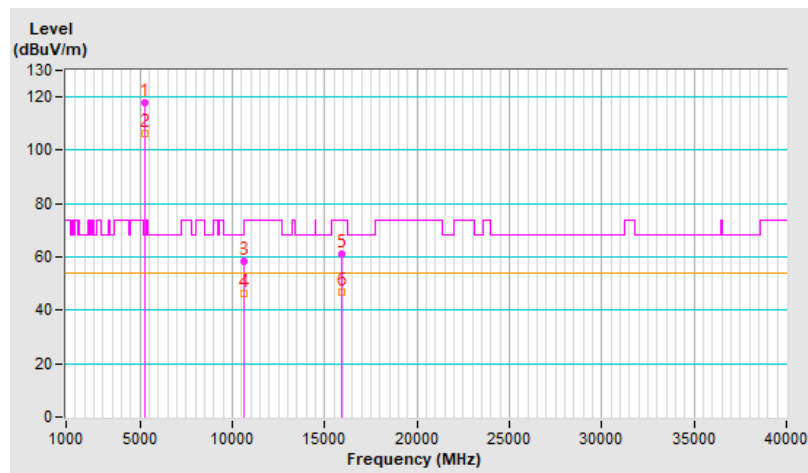


<b>RF Mode</b>	802.11ax (HE20)	<b>Channel</b>	CH 60 : 5300 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	25°C, 75% RH
<b>Tested By</b>	Ryan Du		

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	117.8 PK			1.76 V	9	115.5	2.3
2	*5300.00	106.3 AV			1.76 V	9	104.0	2.3
3	10600.00	58.3 PK	74.0	-15.7	1.54 V	311	46.6	11.7
4	10600.00	46.1 AV	54.0	-7.9	1.54 V	311	34.4	11.7
5	15900.00	61.0 PK	74.0	-13.0	4.00 V	189	49.8	11.2
6	15900.00	47.0 AV	54.0	-7.0	4.00 V	189	35.8	11.2

**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.



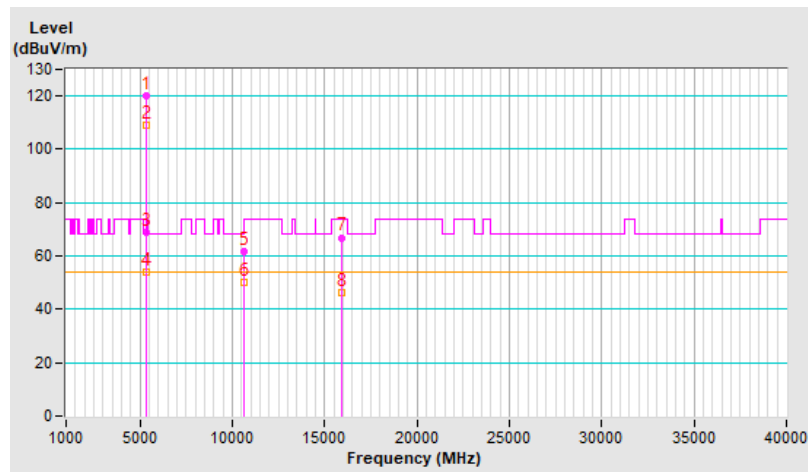
<b>RF Mode</b>	802.11ax (HE20)	<b>Channel</b>	CH 64 : 5320 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	25°C, 75% RH
<b>Tested By</b>	Ryan Du		

**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	120.1 PK			1.43 H	36	117.7	2.4
2	*5320.00	108.9 AV			1.43 H	36	106.5	2.4
3	5350.00	68.8 PK	74.0	-5.2	1.43 H	36	66.3	2.5
4	5350.00	53.8 AV	54.0	-0.2	1.43 H	36	51.3	2.5
5	10640.00	61.9 PK	74.0	-12.1	1.67 H	218	50.2	11.7
6	10640.00	50.2 AV	54.0	-3.8	1.67 H	218	38.5	11.7
7	15960.00	66.9 PK	74.0	-7.1	1.70 H	114	55.7	11.2
8	15960.00	46.2 AV	54.0	-7.8	1.70 H	114	35.0	11.2

**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.

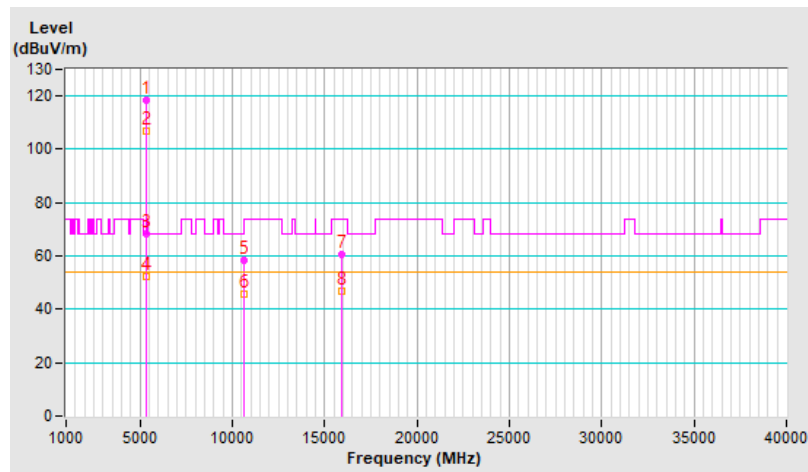


<b>RF Mode</b>	802.11ax (HE20)	<b>Channel</b>	CH 64 : 5320 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	25°C, 75% RH
<b>Tested By</b>	Ryan Du		

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	118.4 PK			1.81 V	7	116.0	2.4
2	*5320.00	106.9 AV			1.81 V	7	104.5	2.4
3	5350.00	68.1 PK	74.0	-5.9	1.81 V	7	65.6	2.5
4	5350.00	52.5 AV	54.0	-1.5	1.81 V	7	50.0	2.5
5	10640.00	58.2 PK	74.0	-15.8	1.61 V	319	46.5	11.7
6	10640.00	45.8 AV	54.0	-8.2	1.61 V	319	34.1	11.7
7	15960.00	60.7 PK	74.0	-13.3	3.96 V	201	49.5	11.2
8	15960.00	47.0 AV	54.0	-7.0	3.96 V	201	35.8	11.2

**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.

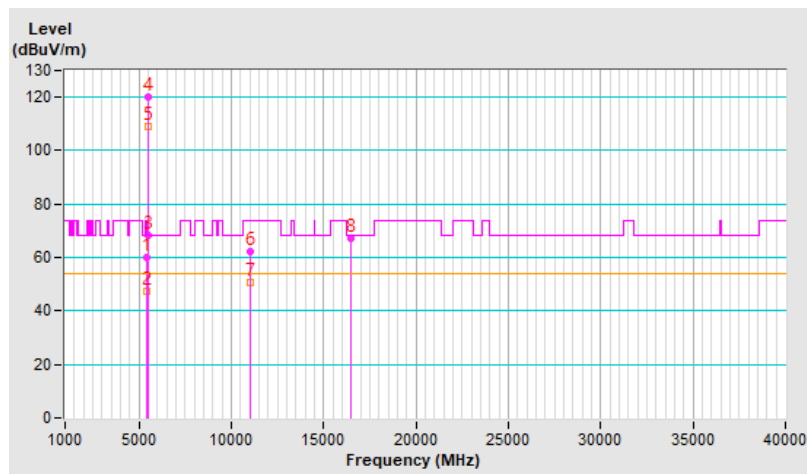


<b>RF Mode</b>	802.11ax (HE20)	<b>Channel</b>	CH 100 : 5500 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	25°C, 75% RH
<b>Tested By</b>	Ryan Du		

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	59.9 PK	74.0	-14.1	1.27 H	67	57.1	2.8
2	5460.00	47.6 AV	54.0	-6.4	1.27 H	67	44.8	2.8
<b>3</b>	<b>#5464.57</b>	<b>68.1 PK</b>	<b>68.2</b>	<b>-0.1</b>	<b>1.27 H</b>	<b>67</b>	<b>65.3</b>	<b>2.8</b>
4	*5500.00	120.0 PK			1.27 H	67	117.2	2.8
5	*5500.00	108.9 AV			1.27 H	67	106.1	2.8
6	11000.00	62.3 PK	74.0	-11.7	1.62 H	247	49.3	13.0
7	11000.00	50.8 AV	54.0	-3.2	1.62 H	247	37.8	13.0
8	#16500.00	67.2 PK	68.2	-1.0	1.62 H	117	53.2	14.0

**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.



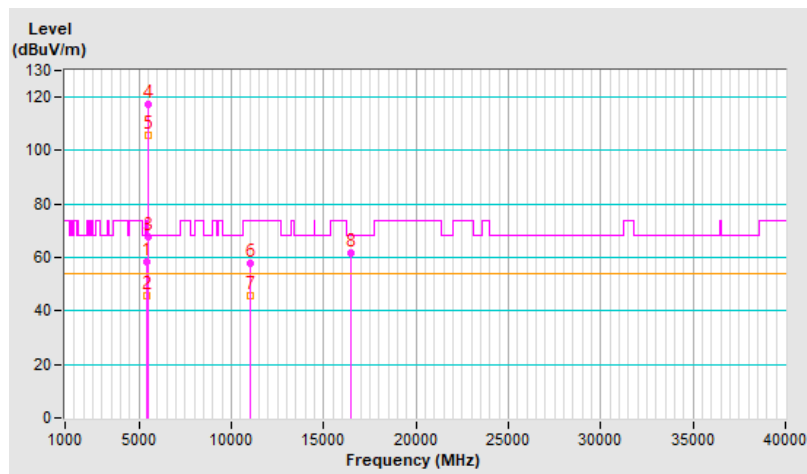


<b>RF Mode</b>	802.11ax (HE20)	<b>Channel</b>	CH 100 : 5500 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	25°C, 75% RH
<b>Tested By</b>	Ryan Du		

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	58.6 PK	74.0	-15.4	1.78 V	6	55.8	2.8
2	5460.00	45.6 AV	54.0	-8.4	1.78 V	6	42.8	2.8
3	#5464.57	67.8 PK	68.2	-0.4	1.78 V	6	65.0	2.8
4	*5500.00	117.2 PK			1.78 V	6	114.4	2.8
5	*5500.00	105.7 AV			1.78 V	6	102.9	2.8
6	11000.00	57.9 PK	74.0	-16.1	1.55 V	330	44.9	13.0
7	11000.00	45.8 AV	54.0	-8.2	1.55 V	330	32.8	13.0
8	#16500.00	61.5 PK	68.2	-6.7	4.00 V	194	47.5	14.0

**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.



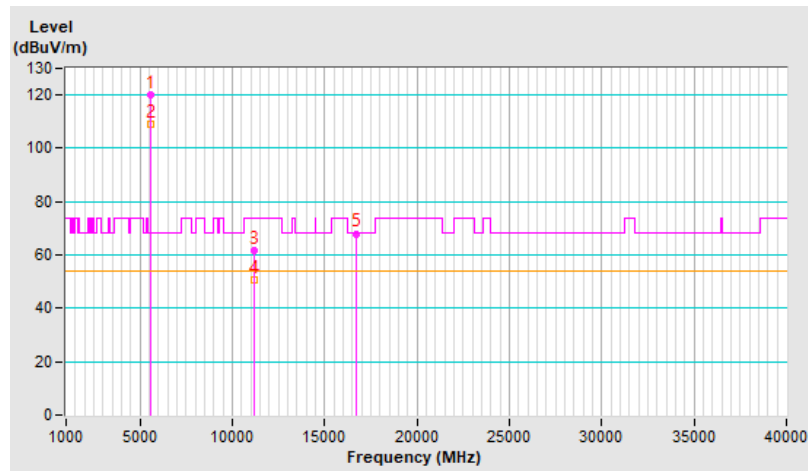
<b>RF Mode</b>	802.11ax (HE20)	<b>Channel</b>	CH 116 : 5580 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	25°C, 75% RH
<b>Tested By</b>	Ryan Du		

**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	120.3 PK			1.30 H	82	117.6	2.7
2	*5580.00	109.1 AV			1.30 H	82	106.4	2.7
3	11160.00	61.9 PK	74.0	-12.1	1.65 H	216	49.7	12.2
4	11160.00	50.5 AV	54.0	-3.5	1.65 H	216	38.3	12.2
5	#16740.00	68.0 PK	68.2	-0.2	1.63 H	132	53.2	14.8

**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.

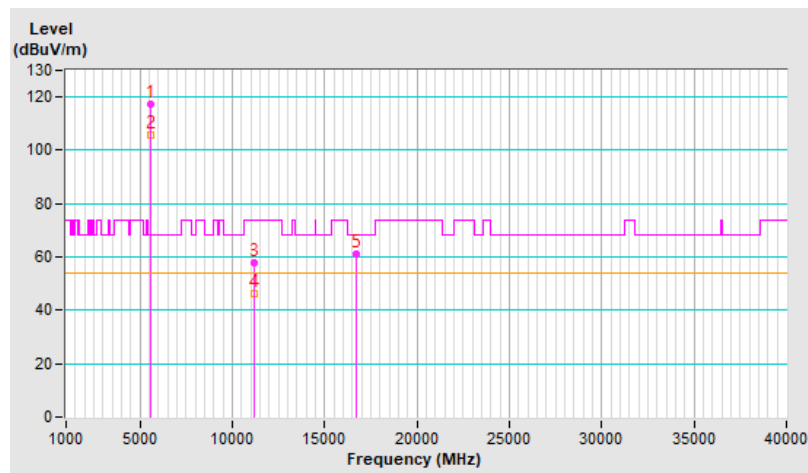


<b>RF Mode</b>	802.11ax (HE20)	<b>Channel</b>	CH 116 : 5580 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	25°C, 75% RH
<b>Tested By</b>	Ryan Du		

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	117.5 PK			1.80 V	18	114.8	2.7
2	*5580.00	105.8 AV			1.80 V	18	103.1	2.7
3	11160.00	58.0 PK	74.0	-16.0	1.60 V	311	45.8	12.2
4	11160.00	46.0 AV	54.0	-8.0	1.60 V	311	33.8	12.2
5	#16740.00	61.2 PK	68.2	-7.0	4.00 V	194	46.4	14.8

**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.

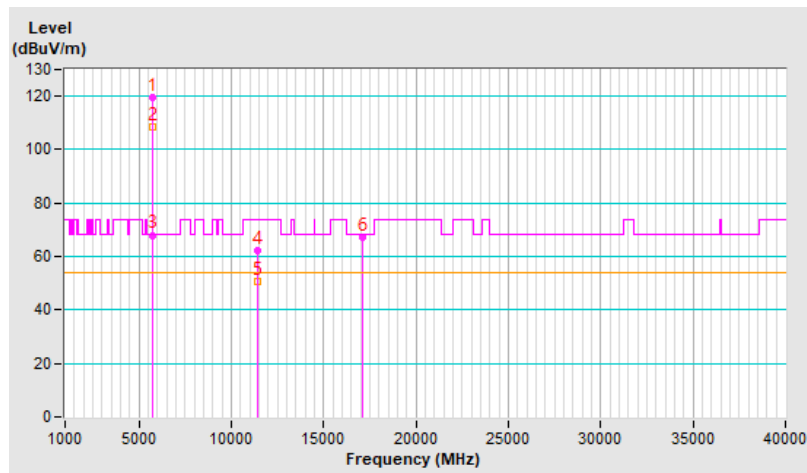


<b>RF Mode</b>	802.11ax (HE20)	<b>Channel</b>	CH 140 : 5700 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	25°C, 75% RH
<b>Tested By</b>	Ryan Du		

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	119.4 PK			1.00 H	54	116.6	2.8
2	*5700.00	108.3 AV			1.00 H	54	105.5	2.8
3	#5725.00	68.0 PK	68.2	-0.2	1.00 H	54	65.2	2.8
4	11400.00	62.1 PK	74.0	-11.9	1.65 H	219	49.8	12.3
5	11400.00	50.7 AV	54.0	-3.3	1.65 H	219	38.4	12.3
6	#17100.00	67.2 PK	68.2	-1.0	1.60 H	140	51.1	16.1

**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.

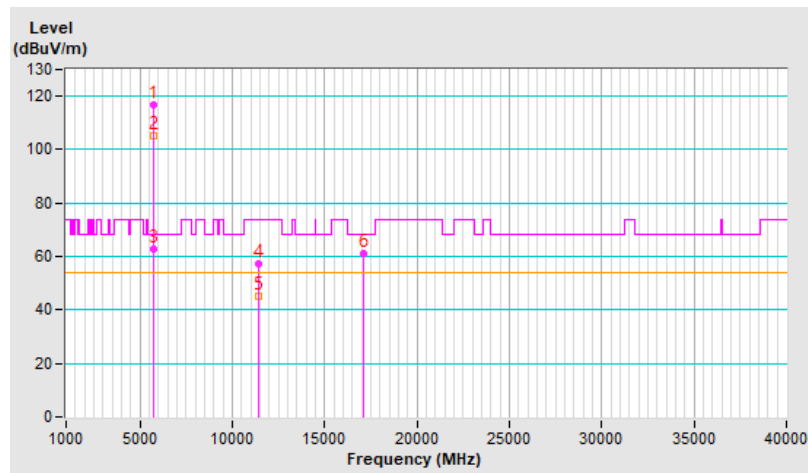


<b>RF Mode</b>	802.11ax (HE20)	<b>Channel</b>	CH 140 : 5700 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	25°C, 75% RH
<b>Tested By</b>	Ryan Du		

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	116.8 PK			1.78 V	1	114.0	2.8
2	*5700.00	105.3 AV			1.78 V	1	102.5	2.8
3	#5725.00	62.8 PK	68.2	-5.4	1.78 V	1	60.0	2.8
4	11400.00	57.5 PK	74.0	-16.5	1.64 V	318	45.2	12.3
5	11400.00	45.3 AV	54.0	-8.7	1.64 V	318	33.0	12.3
6	#17100.00	60.9 PK	68.2	-7.3	3.95 V	197	44.8	16.1

**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.



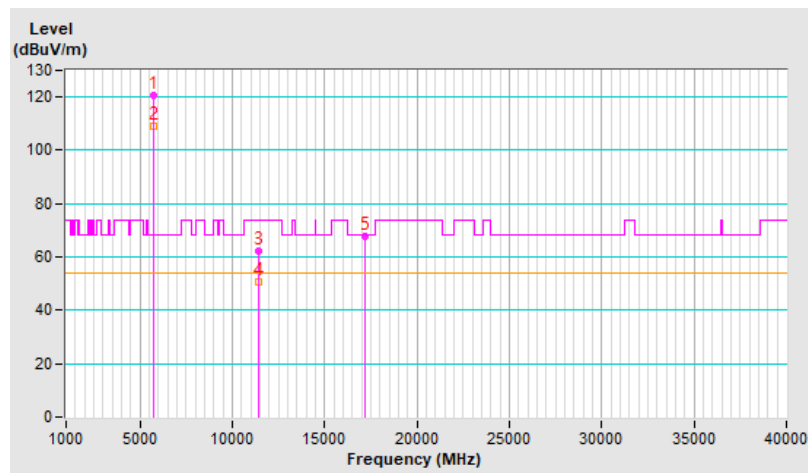
<b>RF Mode</b>	802.11ax (HE20)	<b>Channel</b>	CH 144 : 5720 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	25°C, 75% RH
<b>Tested By</b>	Ryan Du		

**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	*5720.00	120.4 PK			1.24 H	81	117.6	2.8
2	*5720.00	109.2 AV			1.24 H	81	106.4	2.8
3	11440.00	62.3 PK	74.0	-11.7	1.65 H	239	49.9	12.4
4	11440.00	50.9 AV	54.0	-3.1	1.65 H	239	38.5	12.4
5	#17160.00	67.8 PK	68.2	-0.4	1.52 H	158	51.7	16.1

**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.

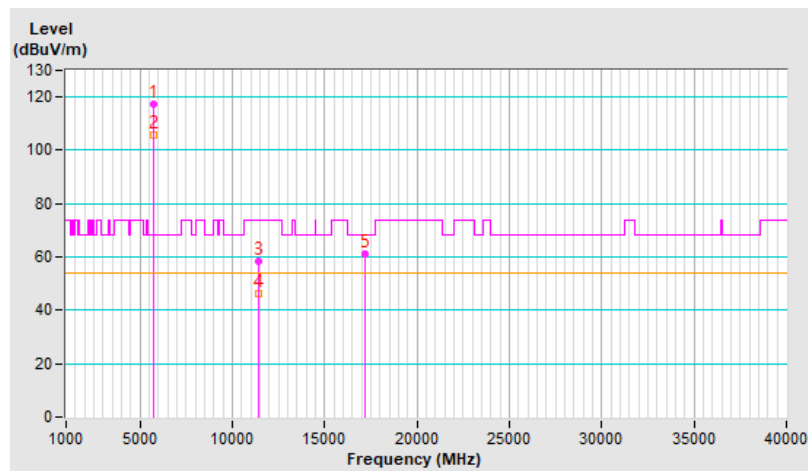


<b>RF Mode</b>	802.11ax (HE20)	<b>Channel</b>	CH 144 : 5720 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	25°C, 75% RH
<b>Tested By</b>	Ryan Du		

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	*5720.00	117.5 PK			1.84 V	9	114.7	2.8
2	*5720.00	105.9 AV			1.84 V	9	103.1	2.8
3	11440.00	58.4 PK	74.0	-15.6	1.62 V	326	46.0	12.4
4	11440.00	46.1 AV	54.0	-7.9	1.62 V	326	33.7	12.4
5	#17160.00	61.0 PK	68.2	-7.2	4.00 V	181	44.9	16.1

**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.

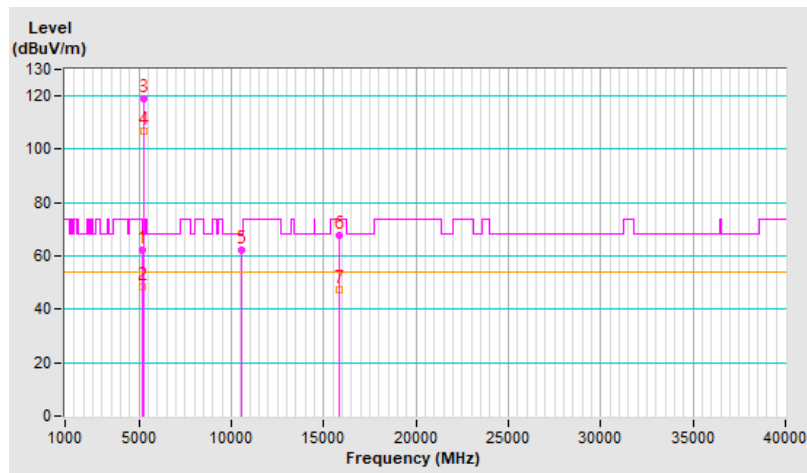


<b>RF Mode</b>	802.11ax (HE40)	<b>Channel</b>	CH 54 : 5270 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	25°C, 75% RH
<b>Tested By</b>	Ryan Du		

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	62.1 PK	74.0	-11.9	1.28 H	36	59.6	2.5
2	5150.00	48.5 AV	54.0	-5.5	1.28 H	36	46.0	2.5
3	*5270.00	119.0 PK			1.28 H	36	116.8	2.2
4	*5270.00	107.0 AV			1.28 H	36	104.8	2.2
5	#10540.00	62.1 PK	68.2	-6.1	1.64 H	225	50.5	11.6
6	15810.00	67.8 PK	74.0	-6.2	1.59 H	120	56.6	11.2
7	15810.00	47.6 AV	54.0	-6.4	1.59 H	120	36.4	11.2

**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.



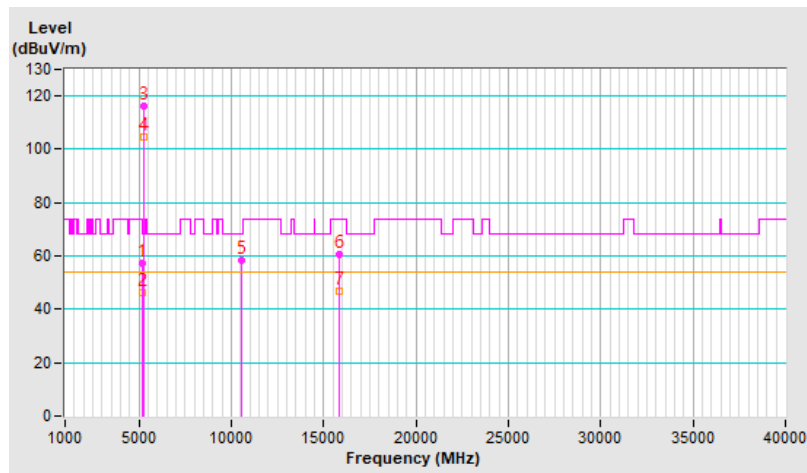


<b>RF Mode</b>	802.11ax (HE40)	<b>Channel</b>	CH 54 : 5270 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	25°C, 75% RH
<b>Tested By</b>	Ryan Du		

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	57.2 PK	74.0	-16.8	1.67 V	332	54.7	2.5
2	5150.00	46.2 AV	54.0	-7.8	1.67 V	332	43.7	2.5
3	*5270.00	116.3 PK			1.67 V	332	114.1	2.2
4	*5270.00	104.6 AV			1.67 V	332	102.4	2.2
5	#10540.00	58.5 PK	68.2	-9.7	1.58 V	331	46.9	11.6
6	15810.00	60.7 PK	74.0	-13.3	4.00 V	201	49.5	11.2
7	15810.00	46.9 AV	54.0	-7.1	4.00 V	201	35.7	11.2

**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.



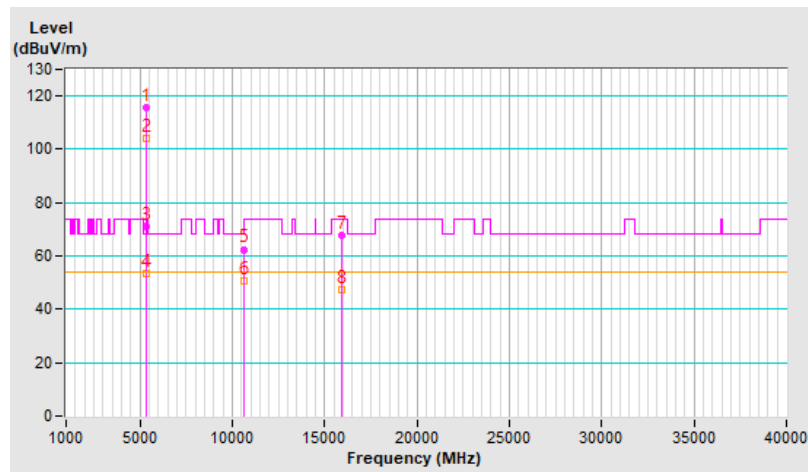
<b>RF Mode</b>	802.11ax (HE40)	<b>Channel</b>	CH 62 : 5310 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	25°C, 75% RH
<b>Tested By</b>	Ryan Du		

**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	115.8 PK			1.34 H	37	113.5	2.3
2	*5310.00	104.0 AV			1.34 H	37	101.7	2.3
3	5350.00	71.0 PK	74.0	-3.0	1.34 H	37	68.5	2.5
4	5350.00	53.6 AV	54.0	-0.4	1.34 H	37	51.1	2.5
5	10620.00	62.5 PK	74.0	-11.5	1.71 H	238	50.8	11.7
6	10620.00	50.9 AV	54.0	-3.1	1.71 H	238	39.2	11.7
7	15930.00	67.6 PK	74.0	-6.4	1.61 H	145	56.4	11.2
8	15930.00	47.3 AV	54.0	-6.7	1.61 H	145	36.1	11.2

**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.

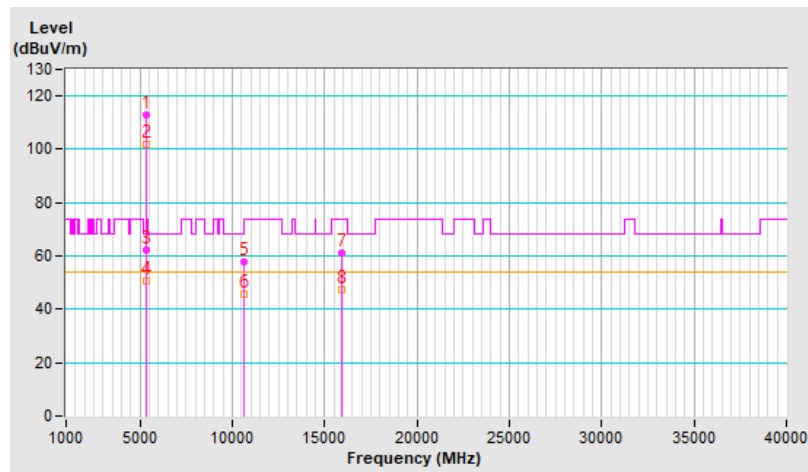


<b>RF Mode</b>	802.11ax (HE40)	<b>Channel</b>	CH 62 : 5310 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	25°C, 75% RH
<b>Tested By</b>	Ryan Du		

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	113.1 PK			1.71 V	345	110.8	2.3
2	*5310.00	101.7 AV			1.71 V	345	99.4	2.3
3	5350.00	62.0 PK	74.0	-12.0	1.71 V	345	59.5	2.5
4	5350.00	50.7 AV	54.0	-3.3	1.71 V	345	48.2	2.5
5	10620.00	57.8 PK	74.0	-16.2	1.54 V	316	46.1	11.7
6	10620.00	45.5 AV	54.0	-8.5	1.54 V	316	33.8	11.7
7	15930.00	61.2 PK	74.0	-12.8	3.97 V	188	50.0	11.2
8	15930.00	47.2 AV	54.0	-6.8	3.97 V	188	36.0	11.2

**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.



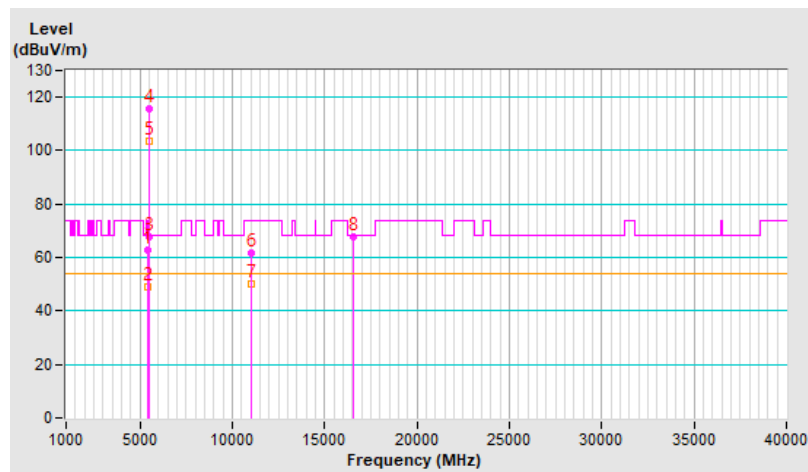
<b>RF Mode</b>	802.11ax (HE40)	<b>Channel</b>	CH 102 : 5510 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	25°C, 75% RH
<b>Tested By</b>	Ryan Du		

**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	62.9 PK	74.0	-11.1	1.26 H	68	60.1	2.8
2	5460.00	48.9 AV	54.0	-5.1	1.26 H	68	46.1	2.8
3	#5467.41	67.9 PK	68.2	-0.3	1.26 H	68	65.1	2.8
4	*5510.00	115.5 PK			1.26 H	68	112.7	2.8
5	*5510.00	103.6 AV			1.26 H	68	100.8	2.8
6	11020.00	61.8 PK	74.0	-12.2	1.63 H	219	48.9	12.9
7	11020.00	50.2 AV	54.0	-3.8	1.63 H	219	37.3	12.9
8	#16530.00	67.7 PK	68.2	-0.5	1.65 H	139	53.7	14.0

**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.

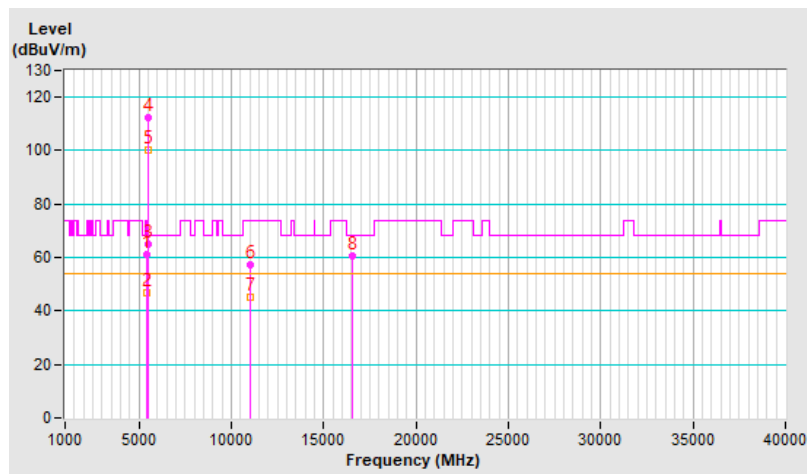


<b>RF Mode</b>	802.11ax (HE40)	<b>Channel</b>	CH 102 : 5510 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	25°C, 75% RH
<b>Tested By</b>	Ryan Du		

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	61.3 PK	74.0	-12.7	1.69 V	337	58.5	2.8
2	5460.00	47.0 AV	54.0	-7.0	1.69 V	337	44.2	2.8
3	#5468.31	65.0 PK	68.2	-3.2	1.69 V	337	62.2	2.8
4	*5510.00	112.1 PK			1.69 V	337	109.3	2.8
5	*5510.00	100.3 AV			1.69 V	337	97.5	2.8
6	11020.00	57.5 PK	74.0	-16.5	1.60 V	341	44.6	12.9
7	11020.00	45.4 AV	54.0	-8.6	1.60 V	341	32.5	12.9
8	#16530.00	60.6 PK	68.2	-7.6	4.00 V	180	46.6	14.0

**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.



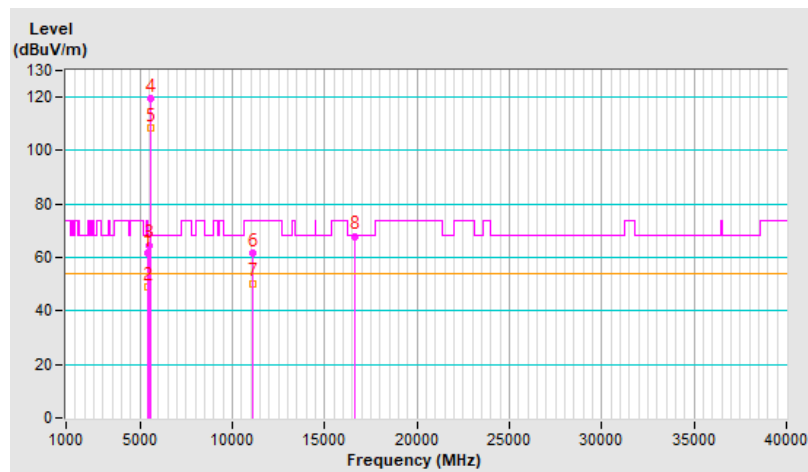
<b>RF Mode</b>	802.11ax (HE40)	<b>Channel</b>	CH 110 : 5550 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	25°C, 75% RH
<b>Tested By</b>	Ryan Du		

**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	61.5 PK	74.0	-12.5	1.03 H	55	58.7	2.8
2	5460.00	49.0 AV	54.0	-5.0	1.03 H	55	46.2	2.8
3	#5470.00	64.7 PK	68.2	-3.5	1.03 H	55	61.9	2.8
4	*5550.00	119.6 PK			1.03 H	55	116.9	2.7
5	*5550.00	108.3 AV			1.03 H	55	105.6	2.7
6	11100.00	61.9 PK	74.0	-12.1	1.74 H	231	49.4	12.5
7	11100.00	50.4 AV	54.0	-3.6	1.74 H	231	37.9	12.5
8	#16650.00	68.0 PK	68.2	-0.2	1.55 H	154	53.5	14.5

**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.
5. " \* " : Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # " : The radiated frequency is out of the restricted band.

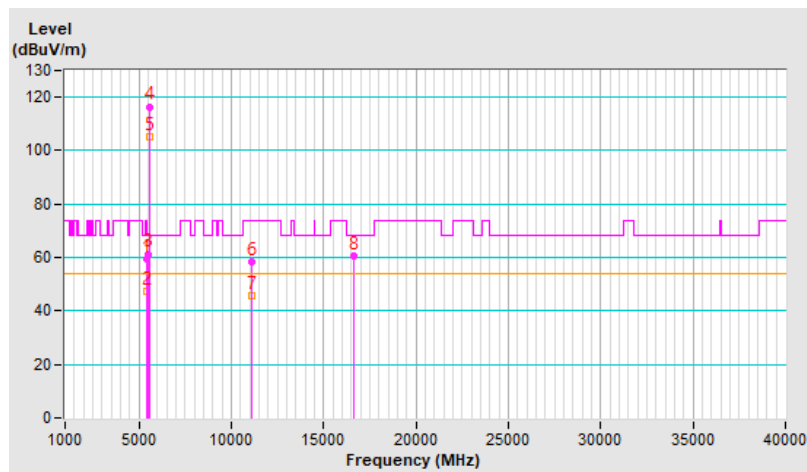


<b>RF Mode</b>	802.11ax (HE40)	<b>Channel</b>	CH 110 : 5550 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	25°C, 75% RH
<b>Tested By</b>	Ryan Du		

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	59.3 PK	74.0	-14.7	1.73 V	317	56.5	2.8
2	5460.00	47.6 AV	54.0	-6.4	1.73 V	317	44.8	2.8
3	#5470.00	61.4 PK	68.2	-6.8	1.73 V	317	58.6	2.8
4	*5550.00	116.5 PK			1.73 V	317	113.8	2.7
5	*5550.00	105.0 AV			1.73 V	317	102.3	2.7
6	11100.00	58.3 PK	74.0	-15.7	1.54 V	312	45.8	12.5
7	11100.00	45.8 AV	54.0	-8.2	1.54 V	312	33.3	12.5
8	#16650.00	60.5 PK	68.2	-7.7	4.00 V	178	46.0	14.5

**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.
5. " \* " : Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # " : The radiated frequency is out of the restricted band.



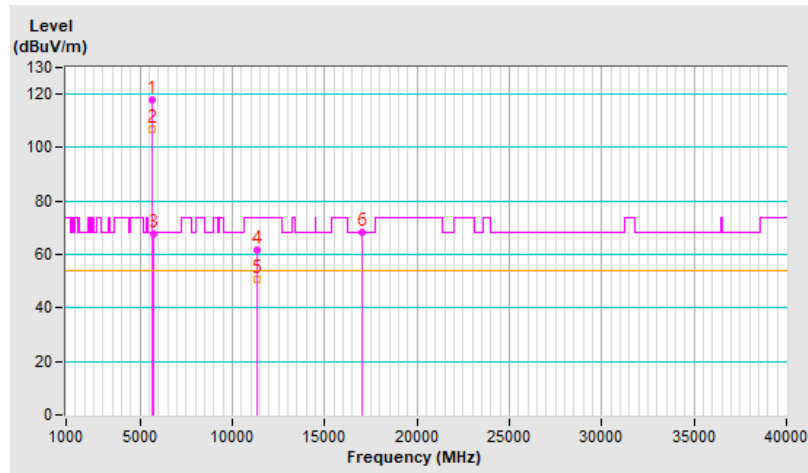
<b>RF Mode</b>	802.11ax (HE40)	<b>Channel</b>	CH 134 : 5670 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	25°C, 75% RH
<b>Tested By</b>	Ryan Du		

**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	118.0 PK			1.03 H	52	115.2	2.8
2	*5670.00	106.8 AV			1.03 H	52	104.0	2.8
3	#5725.00	67.9 PK	68.2	-0.3	1.03 H	52	65.1	2.8
4	11340.00	61.9 PK	74.0	-12.1	1.68 H	217	49.6	12.3
5	11340.00	50.5 AV	54.0	-3.5	1.68 H	217	38.2	12.3
6	#17010.00	68.1 PK	68.2	-0.1	1.65 H	127	51.7	16.4

**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.
6. " # " : The radiated frequency is out of the restricted band.



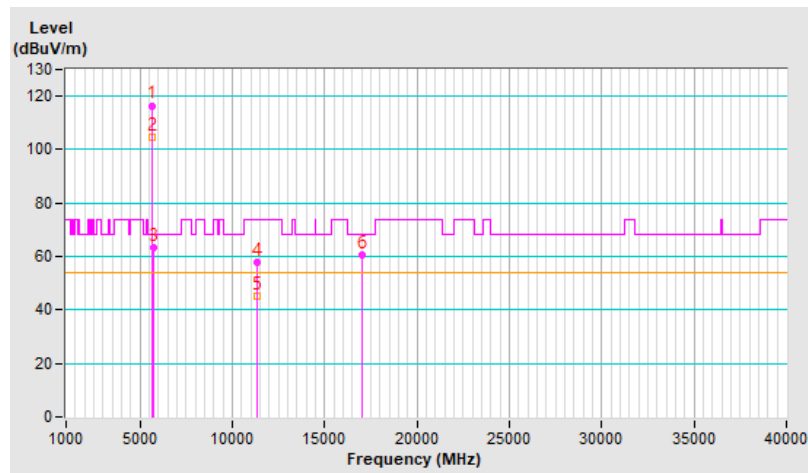


<b>RF Mode</b>	802.11ax (HE40)	<b>Channel</b>	CH 134 : 5670 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	25°C, 75% RH
<b>Tested By</b>	Ryan Du		

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	116.5 PK			1.65 V	317	113.7	2.8
2	*5670.00	104.8 AV			1.65 V	317	102.0	2.8
3	#5725.00	63.3 PK	68.2	-4.9	1.65 V	317	60.5	2.8
4	11340.00	57.6 PK	74.0	-16.4	1.57 V	318	45.3	12.3
5	11340.00	45.3 AV	54.0	-8.7	1.57 V	318	33.0	12.3
6	#17010.00	60.7 PK	68.2	-7.5	4.00 V	202	44.3	16.4

**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.
6. " # " : The radiated frequency is out of the restricted band.



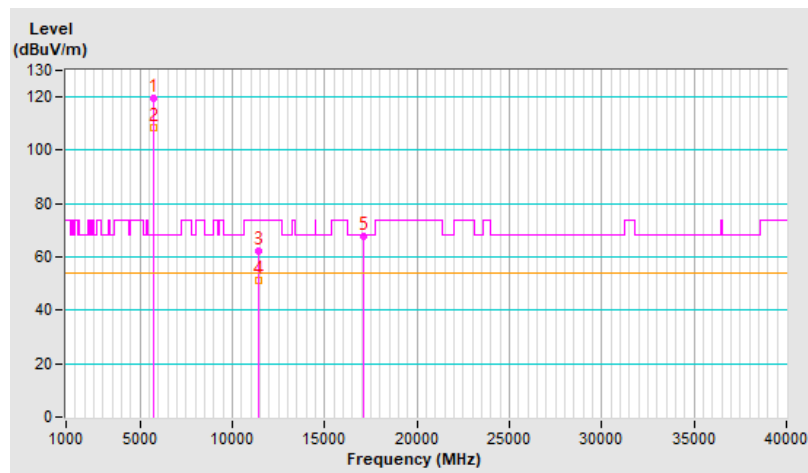
<b>RF Mode</b>	802.11ax (HE40)	<b>Channel</b>	CH 142 : 5710 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	25°C, 75% RH
<b>Tested By</b>	Ryan Du		

**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	*5710.00	119.6 PK			1.04 H	52	116.8	2.8
2	*5710.00	108.4 AV			1.04 H	52	105.6	2.8
3	11420.00	62.4 PK	74.0	-11.6	1.65 H	238	50.0	12.4
4	11420.00	51.0 AV	54.0	-3.0	1.65 H	238	38.6	12.4
5	#17130.00	67.9 PK	68.2	-0.3	1.57 H	155	51.8	16.1

**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.

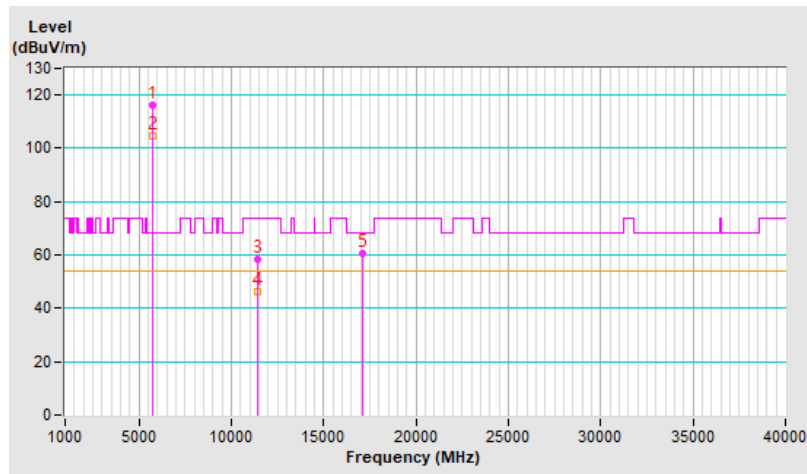


<b>RF Mode</b>	802.11ax (HE40)	<b>Channel</b>	CH 142 : 5710 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	25°C, 75% RH
<b>Tested By</b>	Ryan Du		

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	*5710.00	116.0 PK			1.76 V	321	113.2	2.8
2	*5710.00	104.5 AV			1.76 V	321	101.7	2.8
3	11420.00	58.5 PK	74.0	-15.5	1.58 V	340	46.1	12.4
4	11420.00	46.0 AV	54.0	-8.0	1.58 V	340	33.6	12.4
5	#17130.00	60.8 PK	68.2	-7.4	3.96 V	199	44.7	16.1

**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.



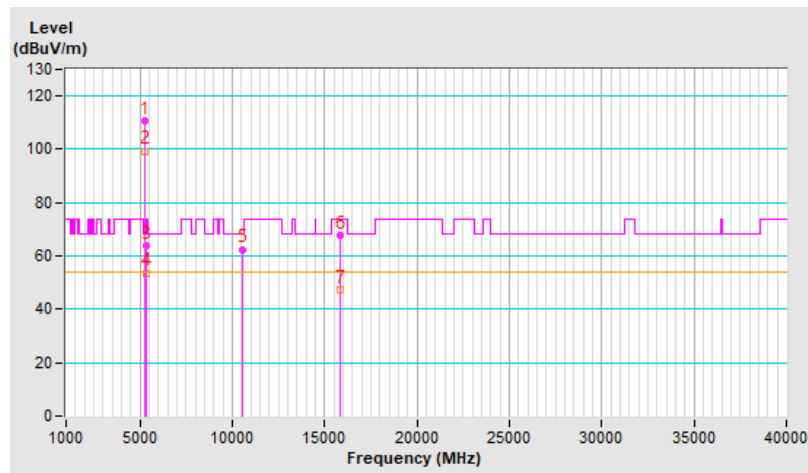
<b>RF Mode</b>	802.11ax (HE80)	<b>Channel</b>	CH 58 : 5290 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	25°C, 75% RH
<b>Tested By</b>	Ryan Du		

**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	110.9 PK			1.76 H	37	108.6	2.3
2	*5290.00	99.4 AV			1.76 H	37	97.1	2.3
3	5351.18	64.0 PK	74.0	-10.0	1.76 H	37	61.5	2.5
4	5351.18	53.7 AV	54.0	-0.3	1.76 H	37	51.2	2.5
5	#10580.00	62.5 PK	68.2	-5.7	1.71 H	231	50.9	11.6
6	15870.00	67.5 PK	74.0	-6.5	1.67 H	116	56.3	11.2
7	15870.00	47.3 AV	54.0	-6.7	1.67 H	116	36.1	11.2

**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.

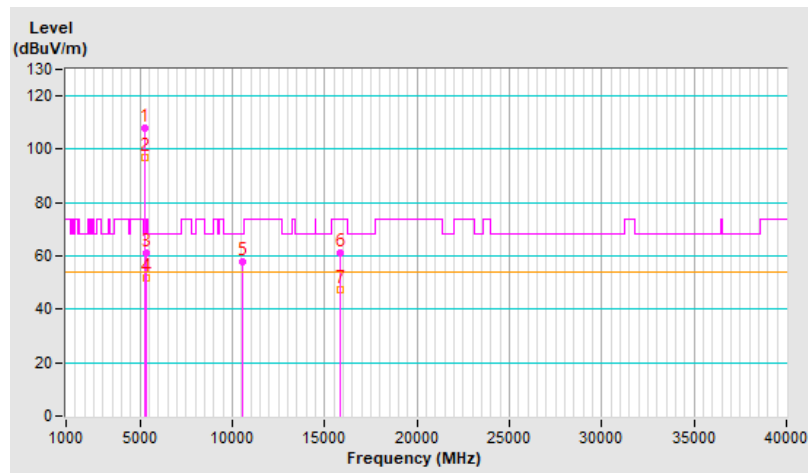


<b>RF Mode</b>	802.11ax (HE80)	<b>Channel</b>	CH 58 : 5290 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	25°C, 75% RH
<b>Tested By</b>	Ryan Du		

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	107.7 PK			1.69 V	334	105.4	2.3
2	*5290.00	96.9 AV			1.69 V	334	94.6	2.3
3	5354.26	61.3 PK	74.0	-12.7	1.69 V	334	58.8	2.5
4	5354.26	51.9 AV	54.0	-2.1	1.69 V	334	49.4	2.5
5	#10580.00	57.6 PK	68.2	-10.6	1.59 V	317	46.0	11.6
6	15870.00	61.3 PK	74.0	-12.7	3.93 V	186	50.1	11.2
7	15870.00	47.2 AV	54.0	-6.8	3.93 V	186	36.0	11.2

**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.

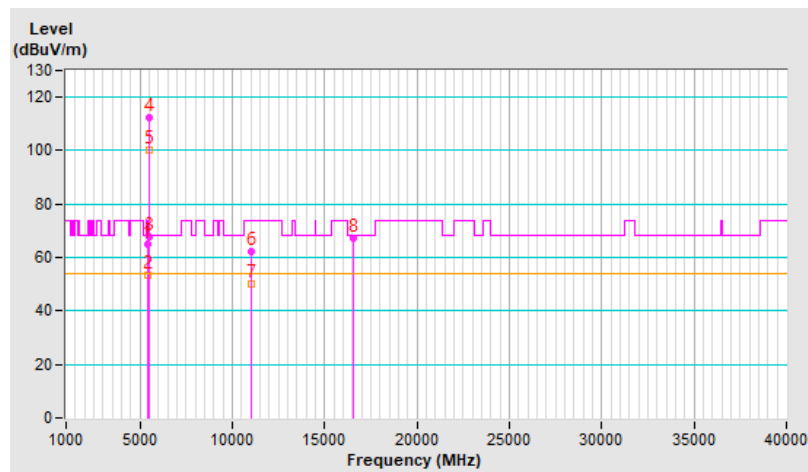


<b>RF Mode</b>	802.11ax (HE80)	<b>Channel</b>	CH 106 : 5530 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	25°C, 75% RH
<b>Tested By</b>	Ryan Du		

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	5453.40	65.0 PK	74.0	-9.0	1.40 H	89	62.2	2.8
2	5453.40	53.3 AV	54.0	-0.7	1.40 H	89	50.5	2.8
3	#5466.46	67.8 PK	68.2	-0.4	1.40 H	89	65.0	2.8
4	*5530.00	112.6 PK			1.40 H	89	109.9	2.7
5	*5530.00	100.3 AV			1.40 H	89	97.6	2.7
6	11060.00	62.0 PK	74.0	-12.0	1.73 H	226	49.4	12.6
7	11060.00	50.2 AV	54.0	-3.8	1.73 H	226	37.6	12.6
8	#16590.00	67.2 PK	68.2	-1.0	1.68 H	146	53.2	14.0

**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.

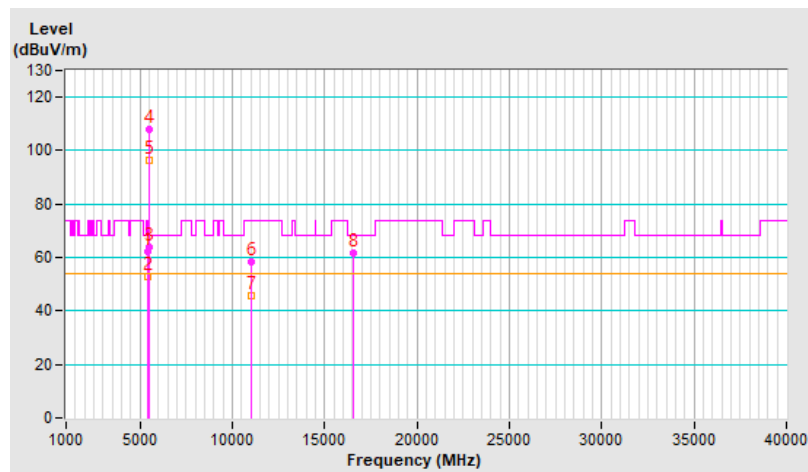


<b>RF Mode</b>	802.11ax (HE80)	<b>Channel</b>	CH 106 : 5530 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	25°C, 75% RH
<b>Tested By</b>	Ryan Du		

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	5454.06	62.3 PK	74.0	-11.7	1.74 V	348	59.5	2.8
2	5454.06	52.8 AV	54.0	-1.2	1.74 V	348	50.0	2.8
3	#5466.69	63.9 PK	68.2	-4.3	1.74 V	348	61.1	2.8
4	*5530.00	108.1 PK			1.74 V	348	105.4	2.7
5	*5530.00	96.6 AV			1.74 V	348	93.9	2.7
6	11060.00	58.3 PK	74.0	-15.7	1.64 V	326	45.7	12.6
7	11060.00	45.9 AV	54.0	-8.1	1.64 V	326	33.3	12.6
8	#16590.00	61.6 PK	68.2	-6.6	4.00 V	195	47.6	14.0

**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.



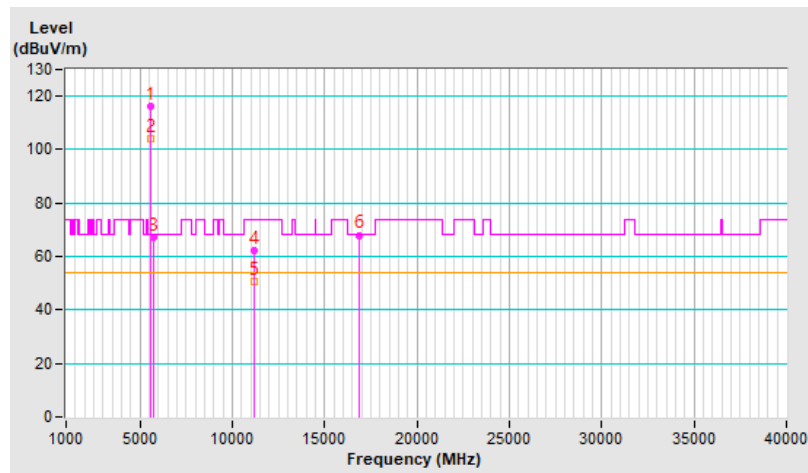
<b>RF Mode</b>	802.11ax (HE80)	<b>Channel</b>	CH 122 : 5610 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	25°C, 75% RH
<b>Tested By</b>	Ryan Du		

**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	116.2 PK			1.33 H	87	113.4	2.8
2	*5610.00	103.9 AV			1.33 H	87	101.1	2.8
3	#5725.00	67.3 PK	68.2	-0.9	1.33 H	87	64.5	2.8
4	11220.00	62.1 PK	74.0	-11.9	1.63 H	229	50.0	12.1
5	11220.00	50.5 AV	54.0	-3.5	1.63 H	229	38.4	12.1
6	#16830.00	68.0 PK	68.2	-0.2	1.67 H	143	53.0	15.0

**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.



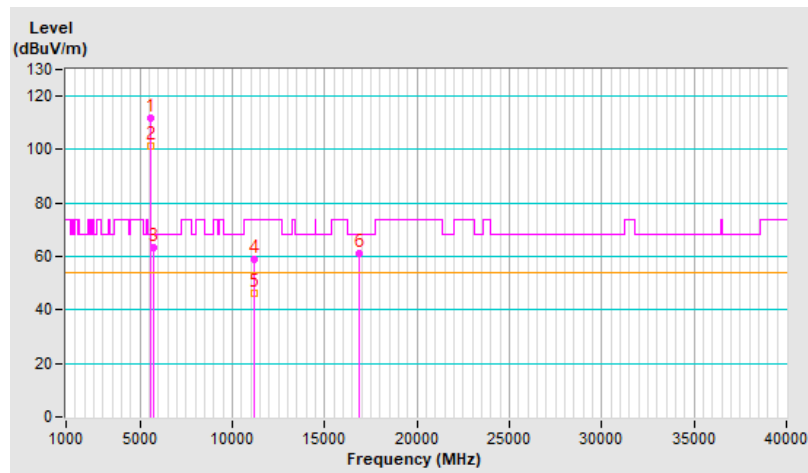


<b>RF Mode</b>	802.11ax (HE80)	<b>Channel</b>	CH 122 : 5610 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	25°C, 75% RH
<b>Tested By</b>	Ryan Du		

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	112.0 PK			1.70 V	337	109.2	2.8
2	*5610.00	101.2 AV			1.70 V	337	98.4	2.8
3	#5725.00	63.1 PK	68.2	-5.1	1.70 V	337	60.3	2.8
4	11220.00	58.7 PK	74.0	-15.3	1.65 V	335	46.6	12.1
5	11220.00	46.2 AV	54.0	-7.8	1.65 V	335	34.1	12.1
6	#16830.00	61.0 PK	68.2	-7.2	4.00 V	205	46.0	15.0

**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.



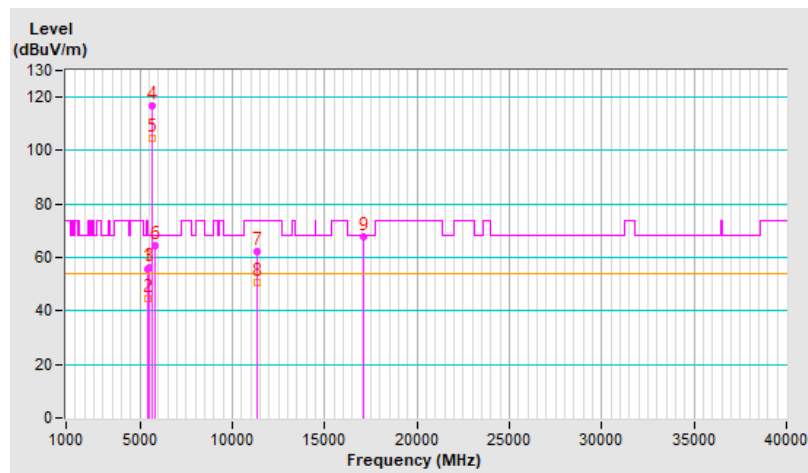
<b>RF Mode</b>	802.11ax (HE80)	<b>Channel</b>	CH 138 : 5690 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	25°C, 75% RH
<b>Tested By</b>	Ryan Du		

**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	55.9 PK	74.0	-18.1	1.90 H	66	53.1	2.8
2	5460.00	44.7 AV	54.0	-9.3	1.90 H	66	41.9	2.8
3	#5470.00	56.2 PK	68.2	-12.0	1.90 H	66	53.4	2.8
4	*5690.00	116.9 PK			1.90 H	66	114.1	2.8
5	*5690.00	104.8 AV			1.90 H	66	102.0	2.8
6	#5850.00	64.2 PK	68.2	-4.0	1.90 H	66	60.8	3.4
7	11380.00	62.1 PK	74.0	-11.9	1.67 H	227	49.7	12.4
8	11380.00	50.7 AV	54.0	-3.3	1.67 H	227	38.3	12.4
9	#17070.00	67.5 PK	68.2	-0.7	1.63 H	118	51.2	16.3

**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.



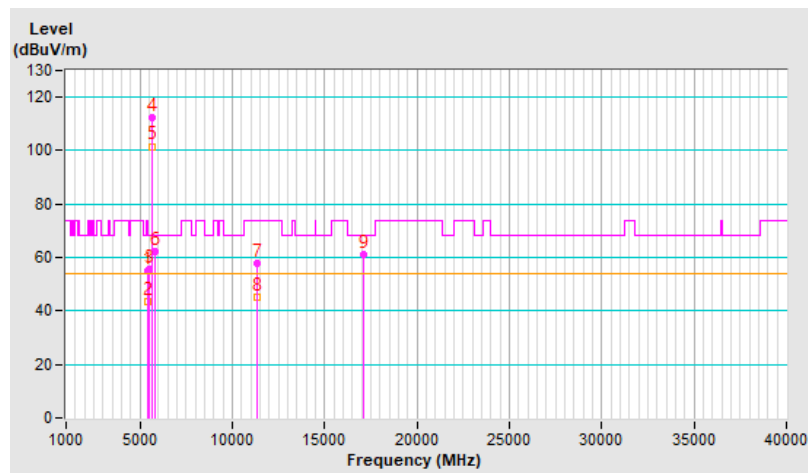
<b>RF Mode</b>	802.11ax (HE80)	<b>Channel</b>	CH 138 : 5690 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	25°C, 75% RH
<b>Tested By</b>	Ryan Du		

**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	55.3 PK	74.0	-18.7	1.73 V	328	52.5	2.8
2	5460.00	43.5 AV	54.0	-10.5	1.73 V	328	40.7	2.8
3	#5470.00	55.7 PK	68.2	-12.5	1.73 V	328	52.9	2.8
4	*5690.00	112.3 PK			1.73 V	328	109.5	2.8
5	*5690.00	101.6 AV			1.73 V	328	98.8	2.8
6	#5850.00	62.3 PK	68.2	-5.9	1.73 V	328	58.9	3.4
7	11380.00	57.7 PK	74.0	-16.3	1.61 V	321	45.3	12.4
8	11380.00	45.4 AV	54.0	-8.6	1.61 V	321	33.0	12.4
9	#17070.00	60.9 PK	68.2	-7.3	4.00 V	191	44.6	16.3

**Remarks:**

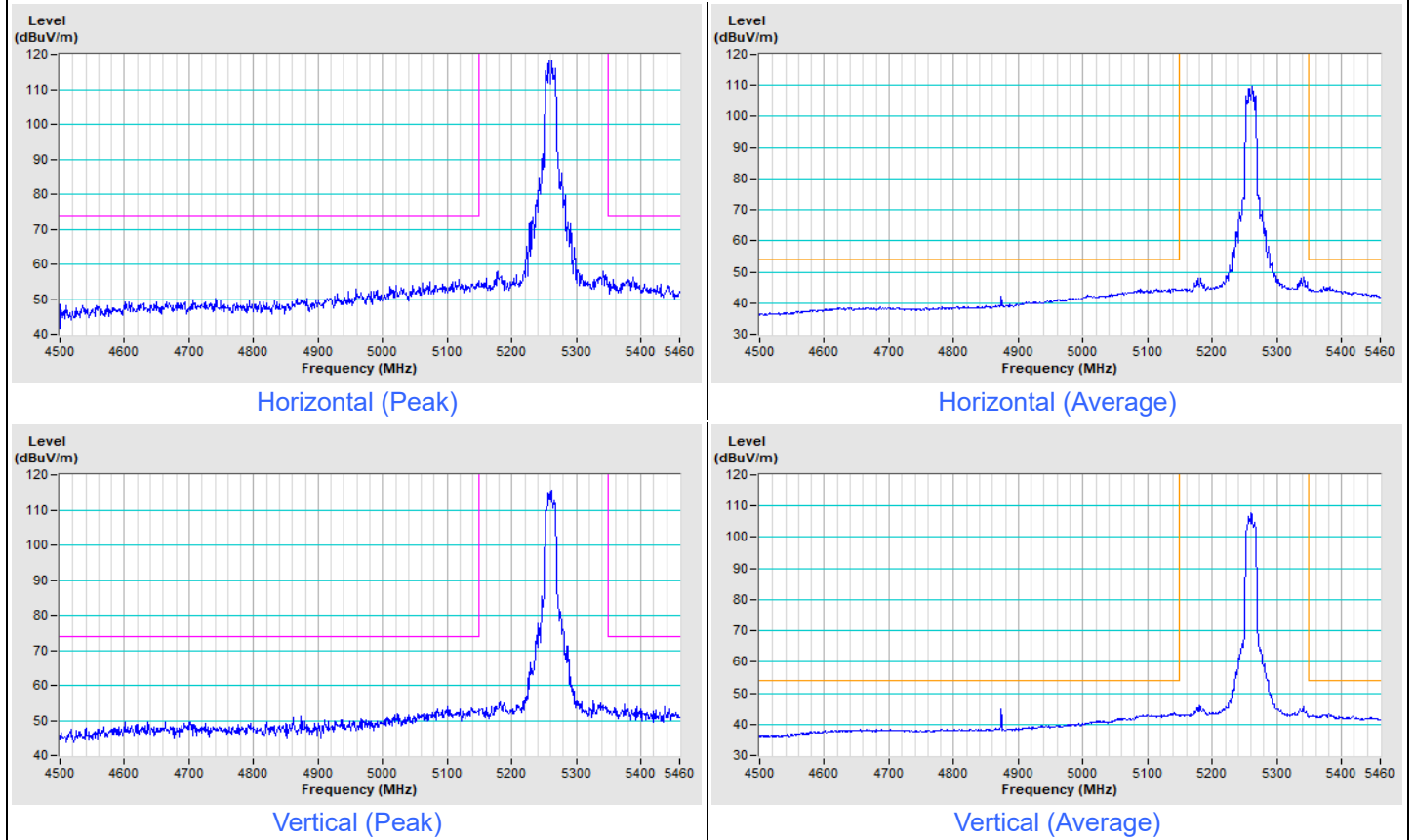
1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " \* ": Fundamental frequency,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



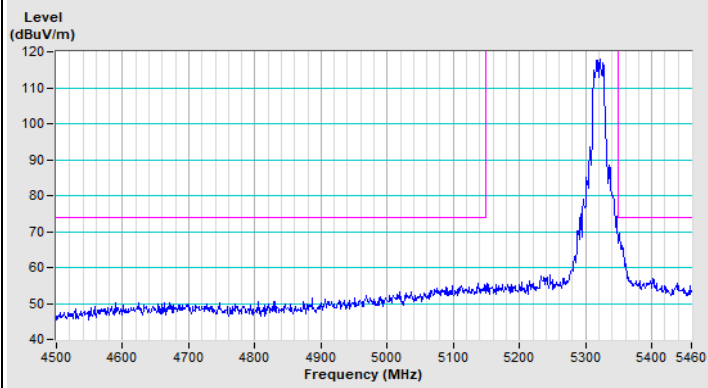
### Plot of Band Edge

Frequency Range	4.5 GHz ~ 5.46 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=3 MHz, DET=RMS
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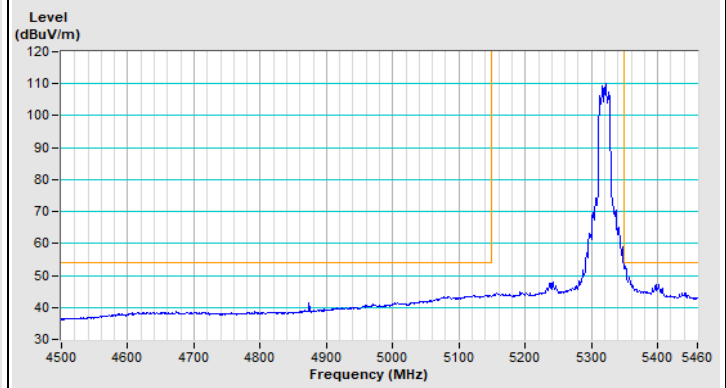
#### 802.11a Channel 52



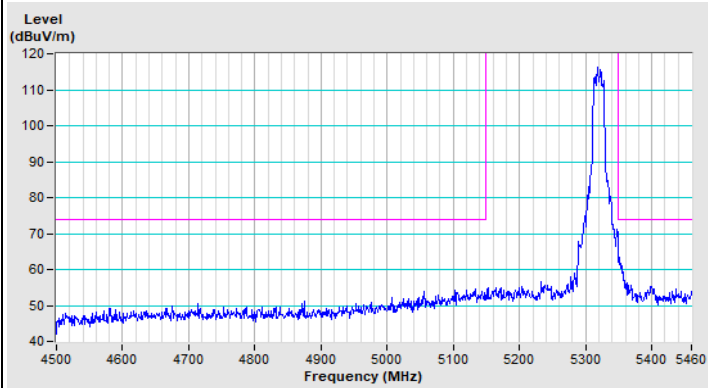
### 802.11a Channel 64



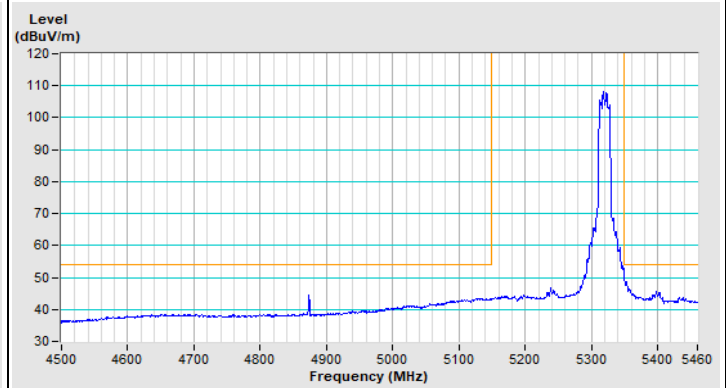
Horizontal (Peak)



Horizontal (Average)



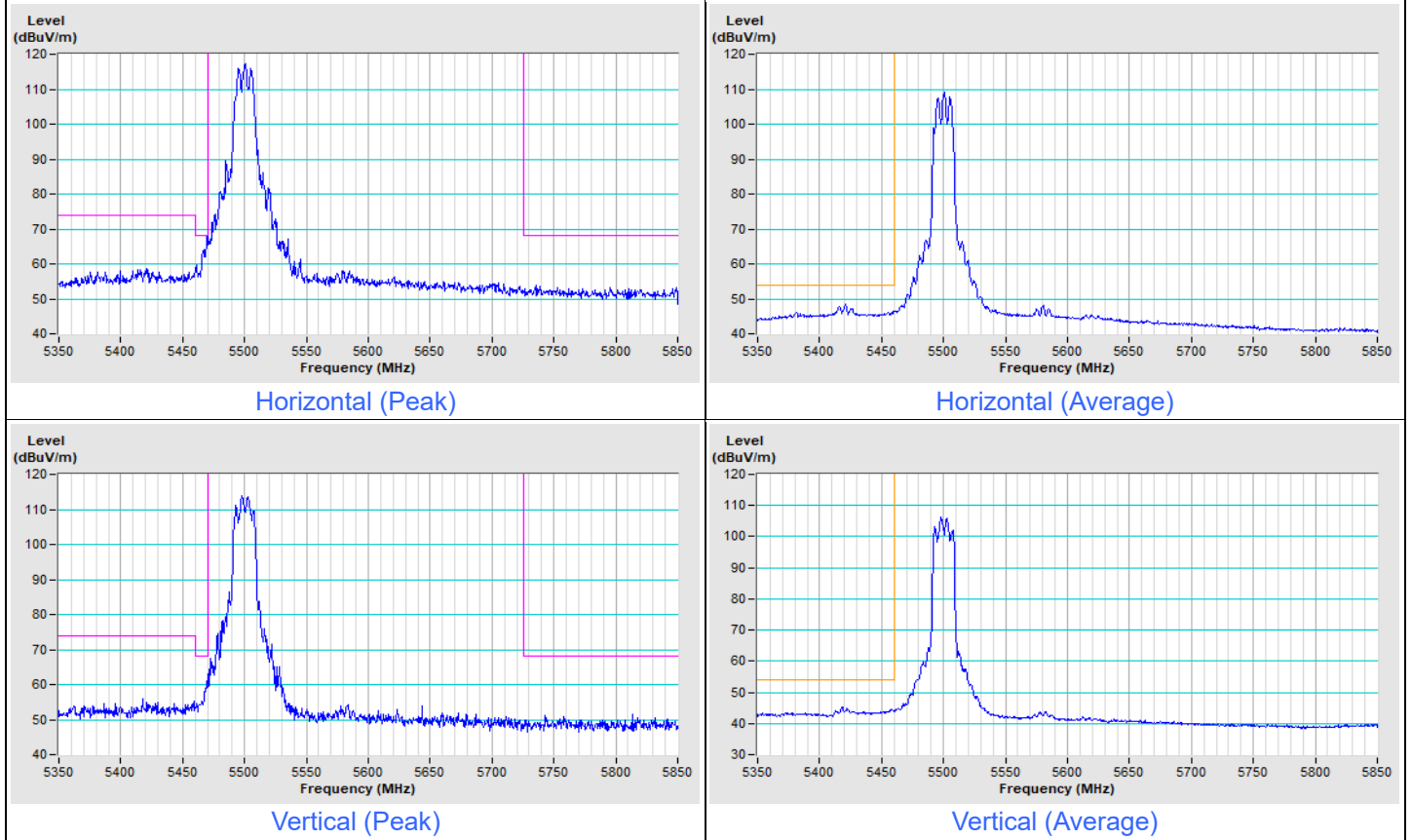
Vertical (Peak)



Vertical (Average)

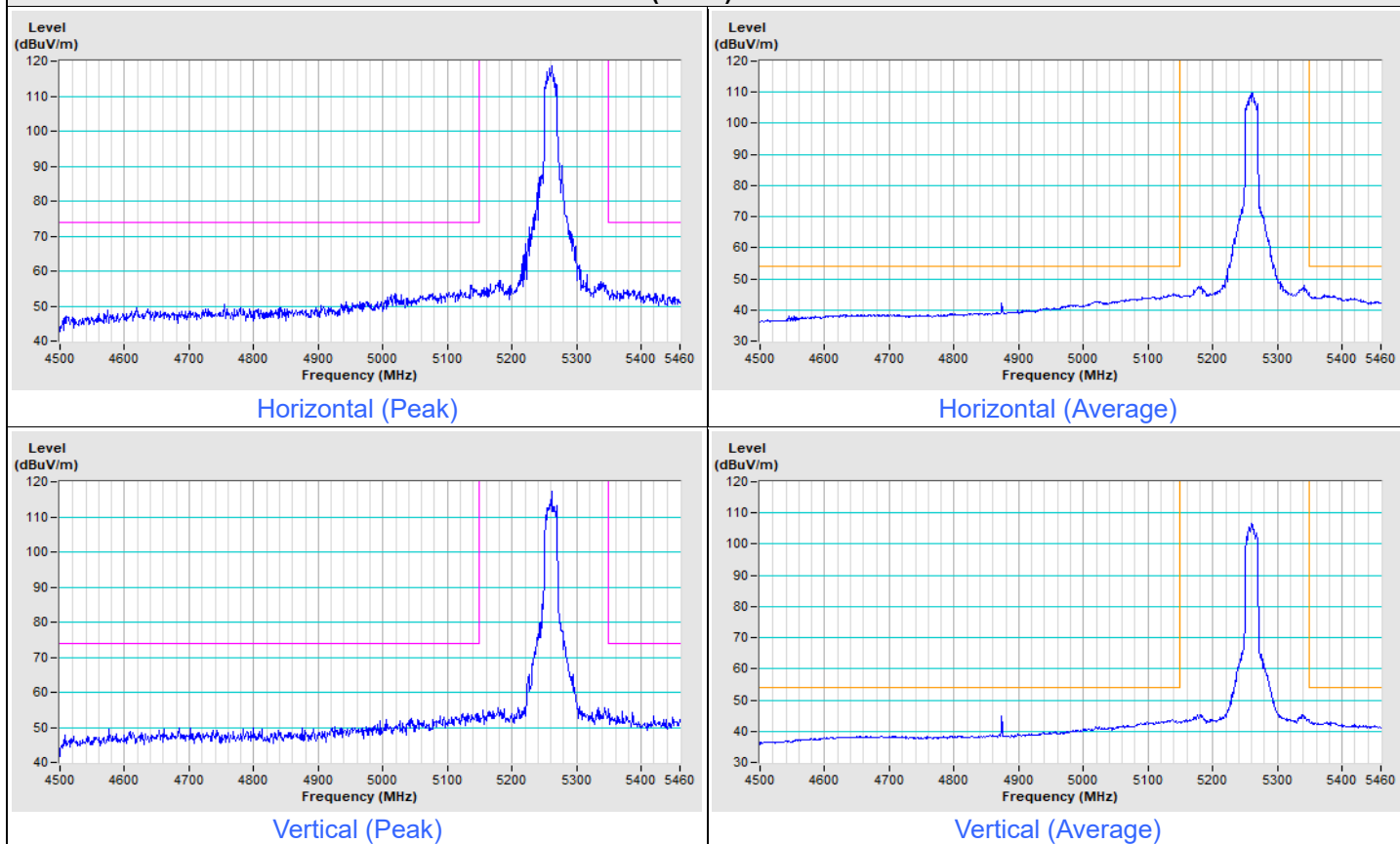
Frequency Range	5.35 GHz ~ 5.85 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=3 MHz, DET=RMS
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**802.11a Channel 100**

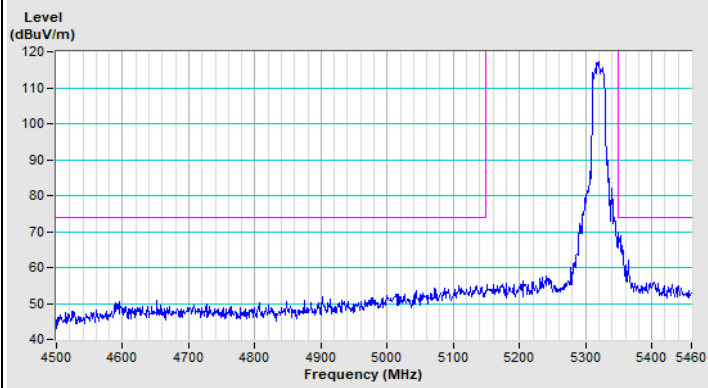


Frequency Range	4.5 GHz ~ 5.46 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=3 MHz, DET=RMS
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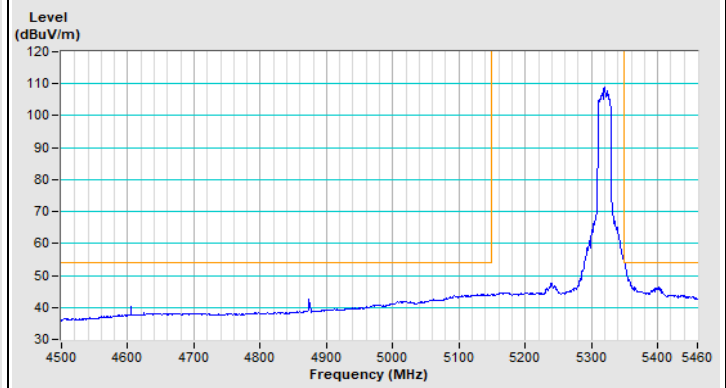
### 802.11ax (HE20) Channel 52



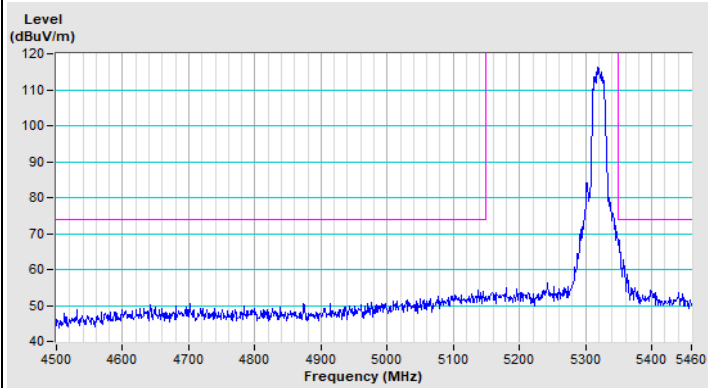
### 802.11ax (HE20) Channel 64



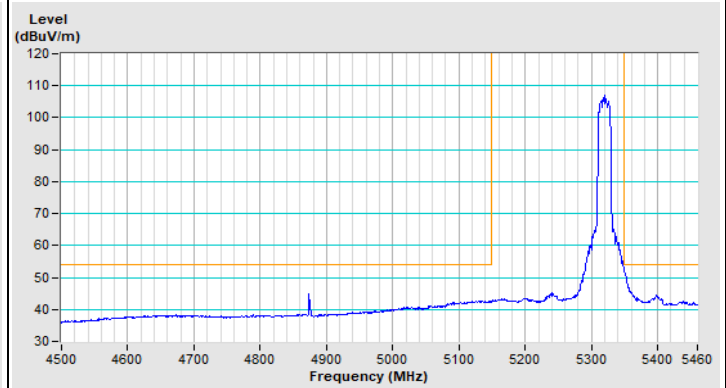
Horizontal (Peak)



Horizontal (Average)



Vertical (Peak)

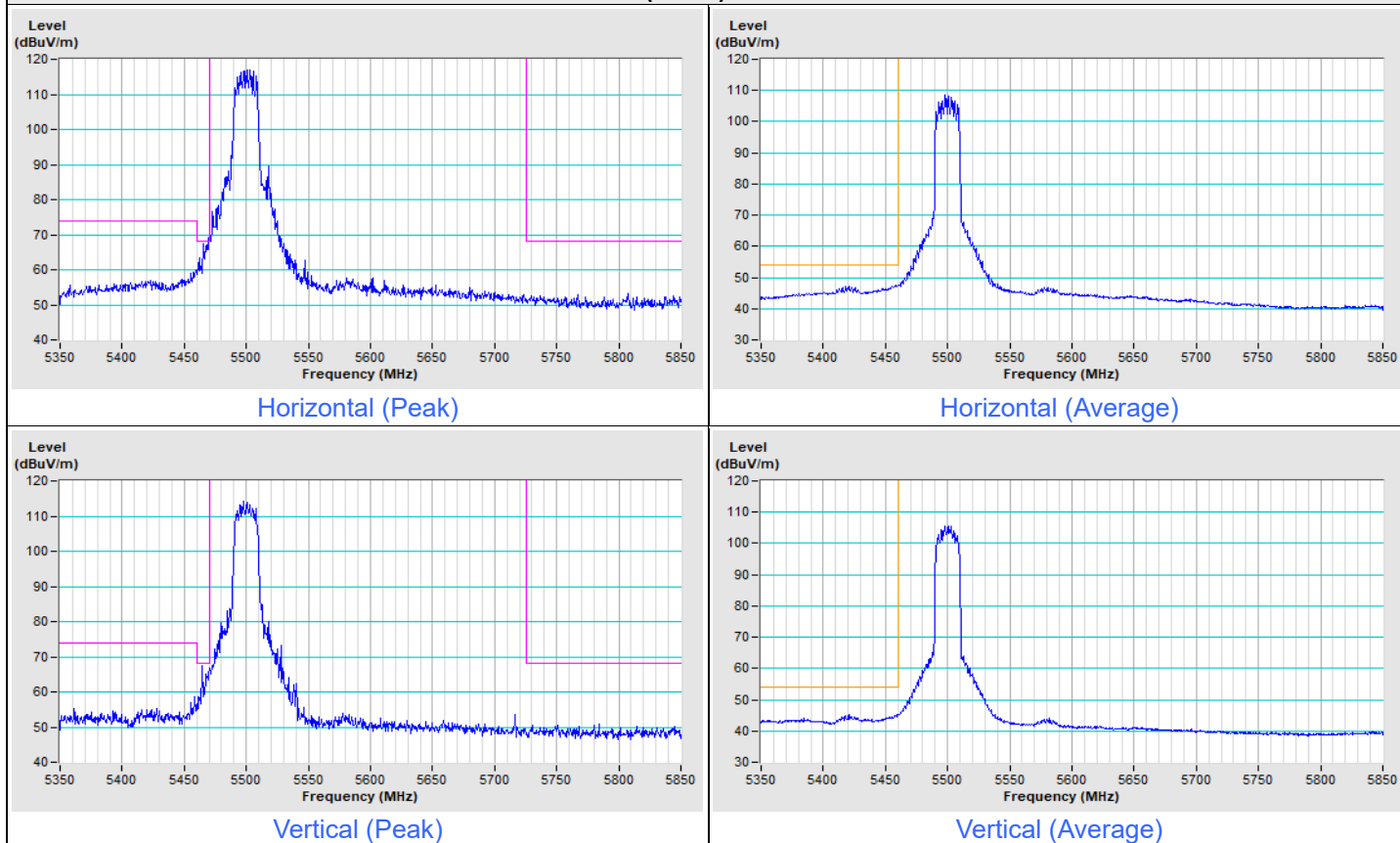


Vertical (Average)



Frequency Range	5.35 GHz ~ 5.85 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=3 MHz, DET=RMS
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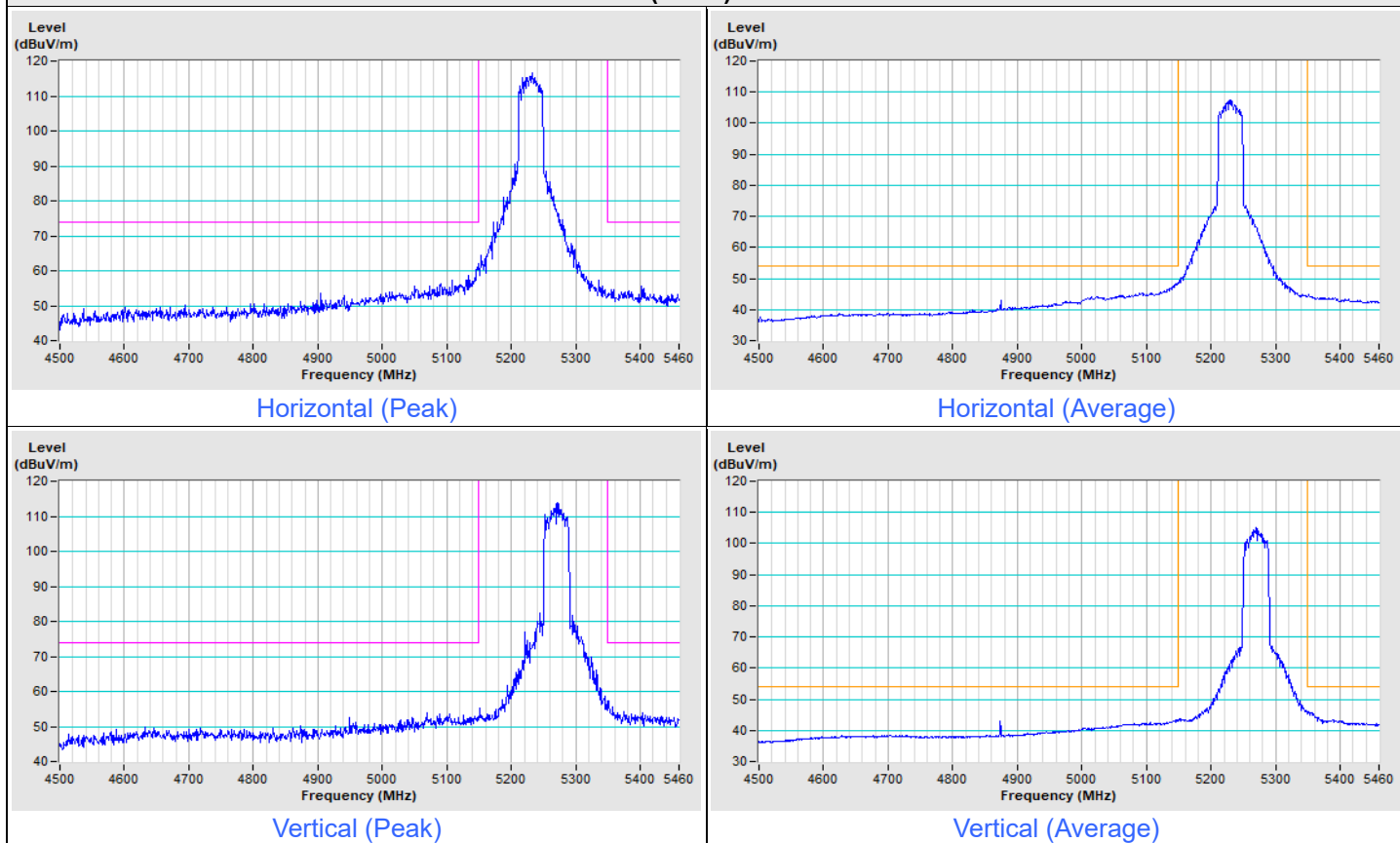
### 802.11ax (HE20) Channel 100



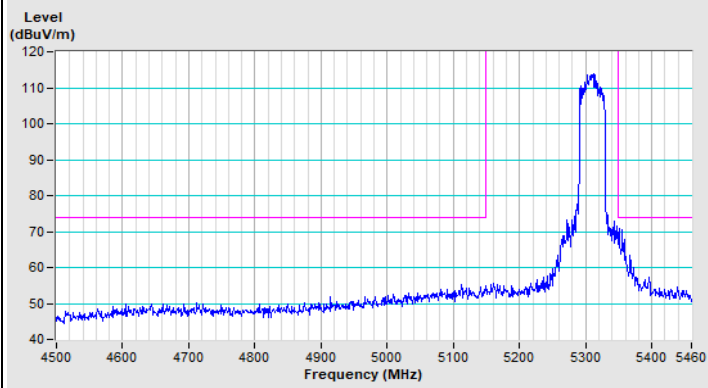


Frequency Range	4.5 GHz ~ 5.46 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=3 MHz, DET=RMS
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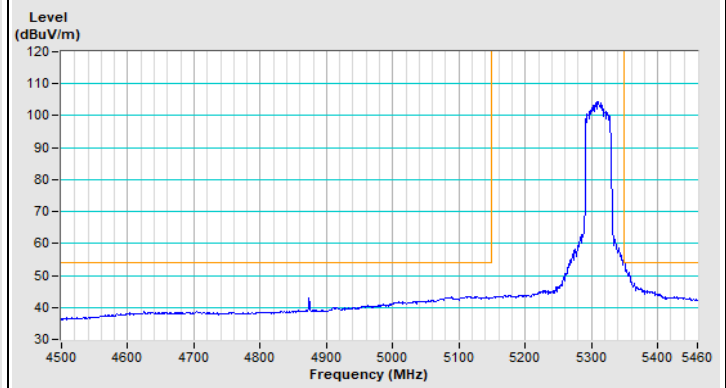
### 802.11ax (HE40) Channel 54



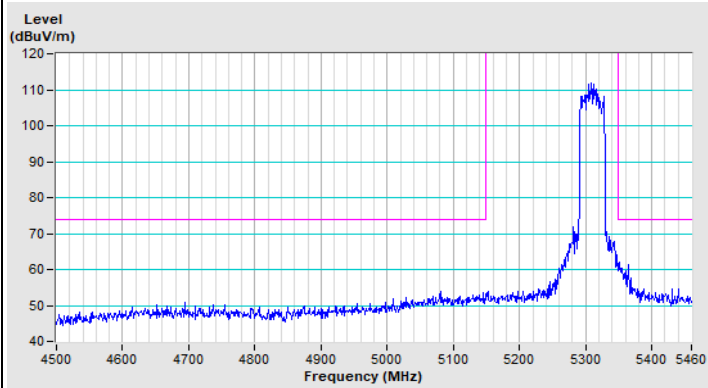
### 802.11ax (HE40) Channel 62



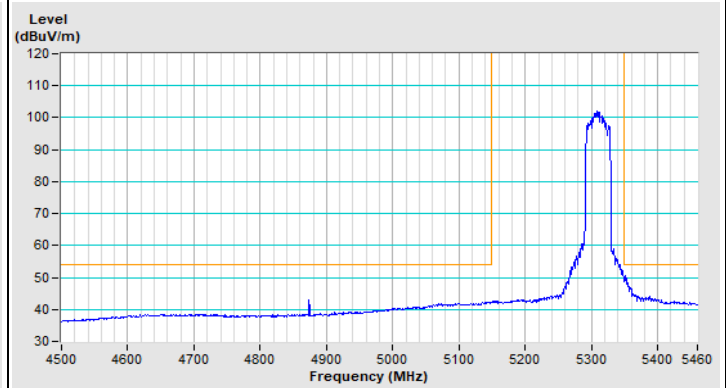
Horizontal (Peak)



Horizontal (Average)



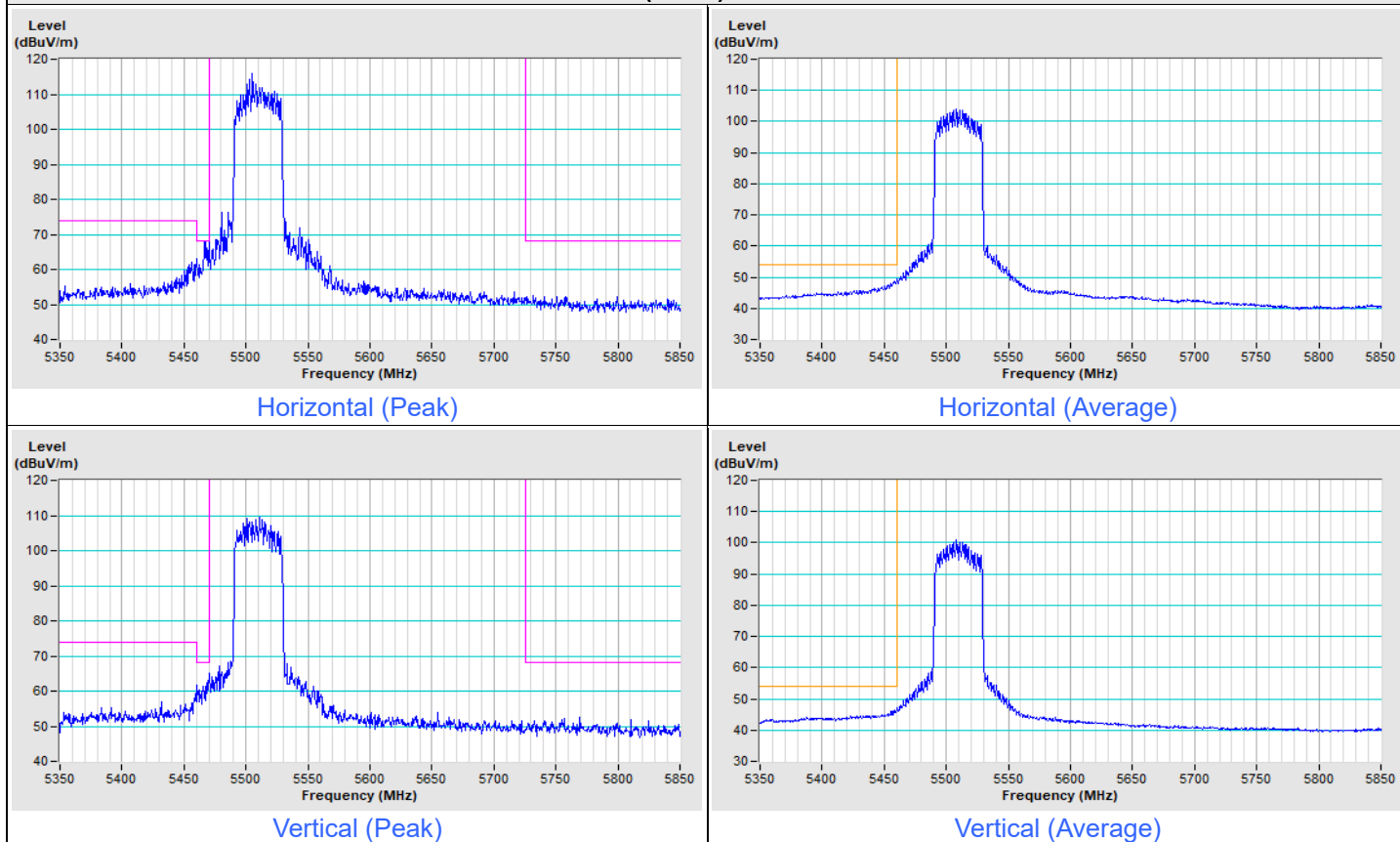
Vertical (Peak)



Vertical (Average)

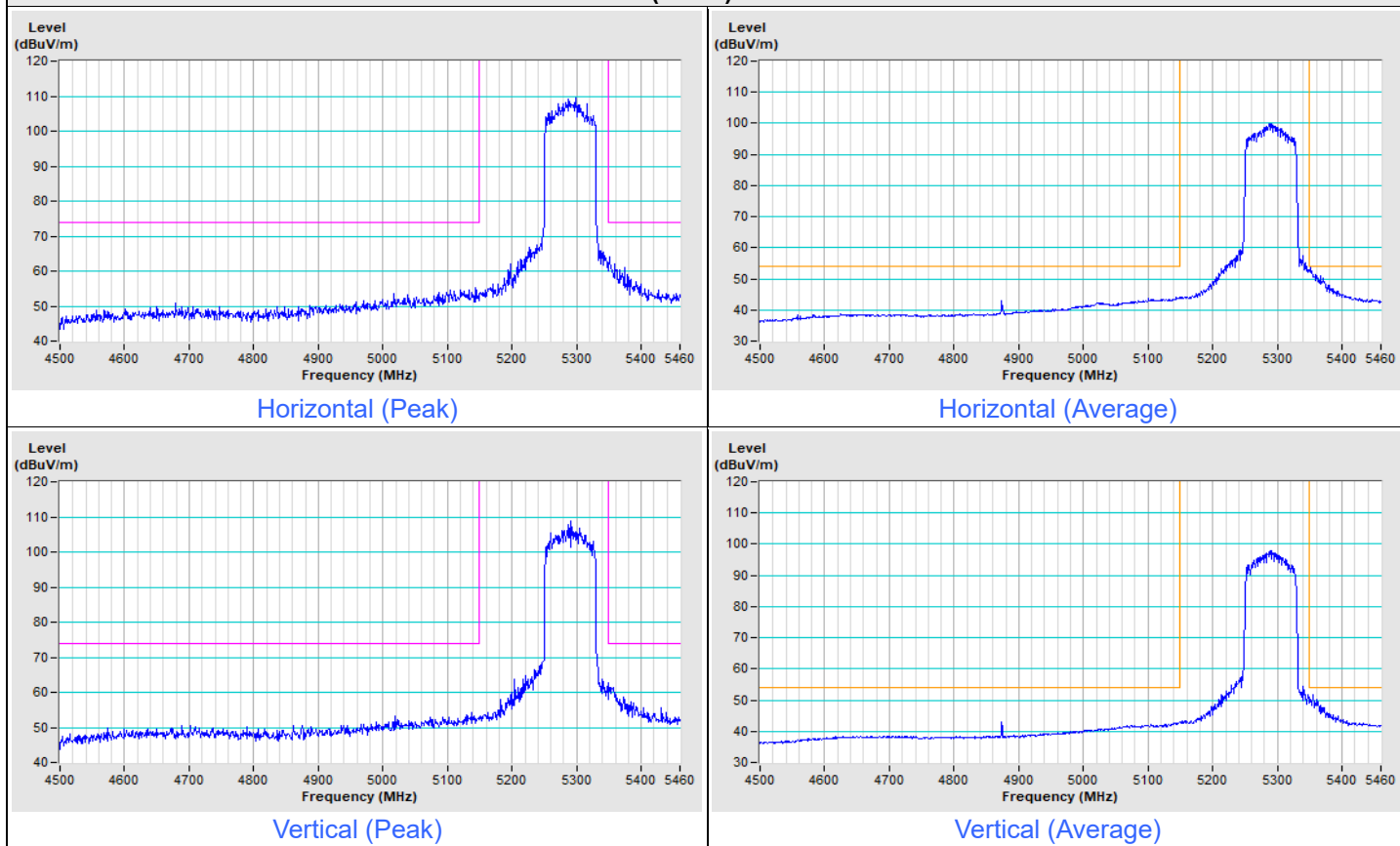
Frequency Range	5.35 GHz ~ 5.85 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=3 MHz, DET=RMS
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### 802.11ax (HE40) Channel 102



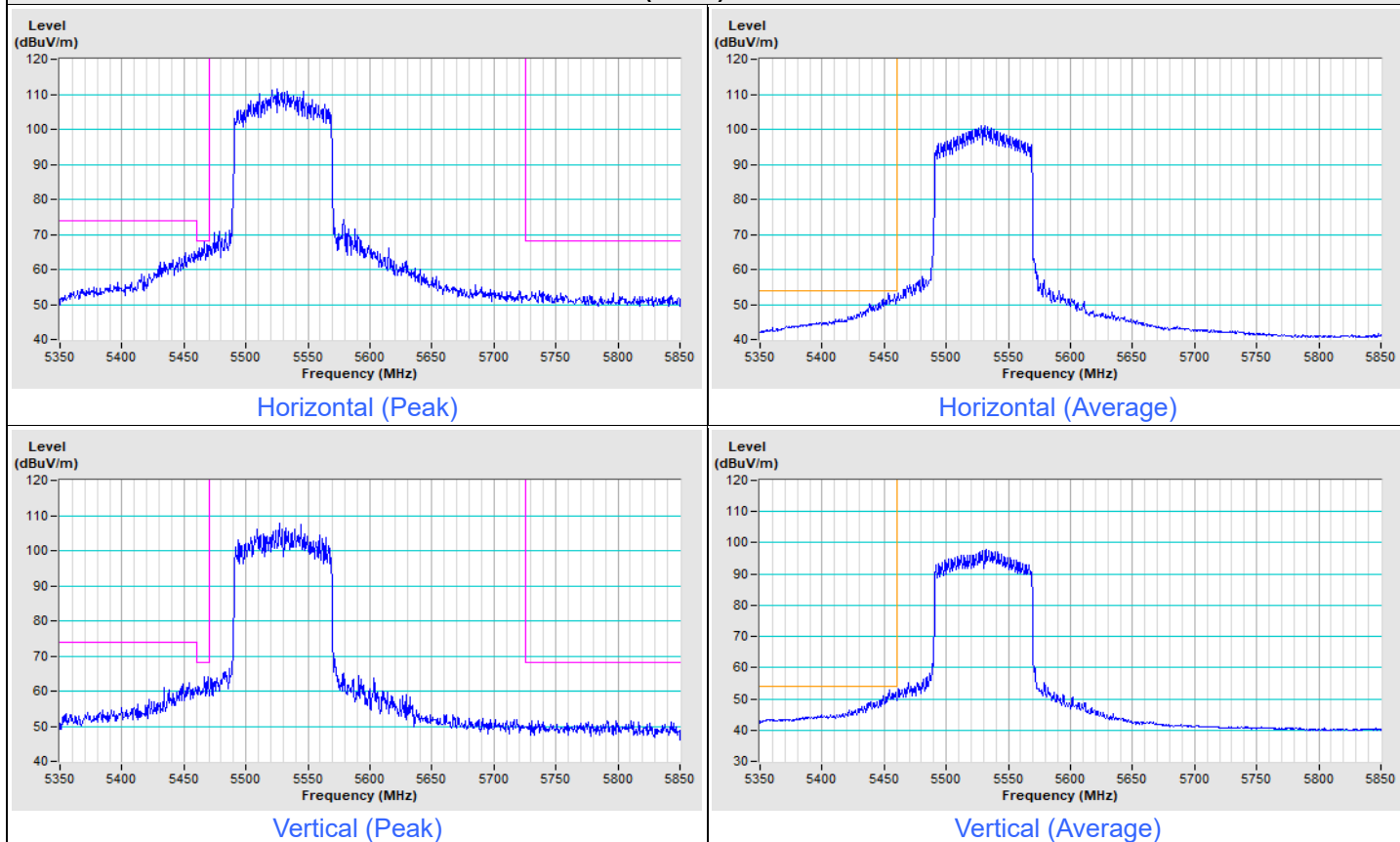
Frequency Range	4.5 GHz ~ 5.46 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=3 MHz, DET=RMS
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**802.11ax (HE80) Channel 58**



Frequency Range	5.35 GHz ~ 5.85 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=3 MHz, DET=RMS
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### 802.11ax (HE80) Channel 106



## 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.

If you have any comments, please feel free to contact us at the following:

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**Web Site:** <http://ee.bureauveritas.com.tw>

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

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